



2024

ANNUAL REPORT



About GCT

GCT Semiconductor is a leading fabless designer and supplier of advanced 5G and 4G LTE semiconductor solutions. GCT's market-proven LTE solutions, commercially available since 2010, have enabled fast and reliable LTE connectivity to numerous commercial devices such as smartphones, tablets, hotspots, CPEs, USB dongles, routers, M2M applications, and more, to the world's top LTE carriers.

GCT's system-on-chip solutions integrate radio frequency, baseband modem and digital signal processing functions into a single die, therefore offering complete solutions with small form factors, low power consumption, high performance, high reliability and cost effectiveness.

Dear Fellow Shareholders,

2024 was a defining year for GCT Semiconductor Holding, Inc. — a year marked by both the transition from private to public company and from 4G technology to our foundation-building 5G ecosystem. After more than two decades of technology development, we completed critical steps toward becoming a commercial force in next-generation wireless connectivity.

From Roadmap to Reality

We entered 2024 with a clear focus: to accelerate the development and readiness of our 5G chipset portfolio as public company, bring our flagship silicon to fabrication, and build the commercial partnerships required to deliver those solutions to customers. I'm proud to report that we delivered on these objectives:

- **5G Chipset Development:** We successfully completed the development of our first 5G chipsets, a major engineering milestone. This achievement positioned us to enter the evaluation and customer certification stages during Q2 2025.
- **Chip Sampling:** In Q2 2025, we began the sampling process of our 5G platform with our lead customers. These engagements are progressing as planned, laying the groundwork for commercial deployment in the second half of 2025.
- **Strengthened Customer Pipeline:** Throughout 2024 and into 2025, we expanded strategic relationships, including collaborations with OEMs, carriers, and infrastructure providers. These relationships form the base of our anticipated product adoption pipeline.
- **Disciplined Investment and Balance Sheet Readiness:** Recognizing the capital intensity of scaling silicon businesses, we strengthened our financial position with an ATM facility and a shelf registration, providing flexibility to support our growth trajectory.

In looking forward, our "2025GCT · Year of 5G" initiative, is designed to fully position GCT as a 5G chipset innovator with commercial traction. It is truly an exciting time to be part of GCT. I want to thank our team for their tenacity, our partners for their belief in our roadmap, and our shareholders for your continued support.

Sincerely,



John Schlaefer
Chief Executive Officer
GCT Semiconductor Holding, Inc.

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

X ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2024

OR

□ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM

Commission File Number 001-41013

GCT Semiconductor Holding, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware

(State or other jurisdiction of incorporation or organization)

2290 North 1st Street, Suite 201

San Jose, California

(Address of principal executive offices)

86-2171699

(I.R.S. Employer Identification No.)

95131

(Zip Code)

Registrant's telephone number, including area code: (408) 434-6040

Not Applicable

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	GCTS	The New York Stock Exchange
Warrants, each whole warrant exercisable for one share of Common Stock for \$11.50 per share	GCTSW	The New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO ☒

Indicate by check mark whether the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

Indicate by check mark whether the Registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). YES ☒ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of large accelerated filer, accelerated filer, smaller reporting company, and emerging growth company in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
Emerging growth company	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to 240.10D-1(b). ☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The aggregate market value of the voting shares held by non-affiliates of the registrant as of June 30, 2024 was approximately \$198.7 million based on the closing price of the registrant's common stock as reported on the New York Stock Exchange on June 28, 2024 (the last business day of the registrant's most recently completed second fiscal quarter). The common stock of the registrant held by each executive officer and director and certain affiliated stockholders who beneficially owned 10% or more of the outstanding common stock of the registrant have been excluded in such calculation as such persons and entities may be deemed to be affiliates of the registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares of Registrant's Common Stock outstanding as of March 20, 2025 was 48,246,480.

DOCUMENTS INCORPORATED BY REFERENCE

None.

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EXPLANATORY NOTE

In this Annual Report on Form 10-K, the terms we, us, our, the Company, and GCT, generally refer to GCT Semiconductor Inc. prior to the Business Combination and GCT Semiconductor Holding, Inc. following the Business Combination unless the context specifically indicates otherwise. Some of the information contained in this section or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. On March 26, 2024 (the Closing Date), Concord Acquisition Corp III (Concord III), a Delaware corporation, consummated a series of transactions that resulted in the combination of Gibraltar Merger Sub Inc., a Delaware corporation and a wholly-owned subsidiary of Concord III (Merger Sub), and GCT Semiconductor, Inc., a Delaware corporation (GCT), pursuant to a Business Combination Agreement, dated November 2, 2023 (the Business Combination Agreement), by and among Concord III, Merger Sub and GCT, as described further below. Pursuant to the terms of the Business Combination Agreement, a business combination between Concord III and GCT was effected through the merger of Merger Sub with and into GCT, with GCT surviving the merger as a wholly-owned subsidiary of Concord III (the Business Combination), following the approval by shareholders of Concord III at the special meeting of the stockholders of Concord III held on February 27, 2024 (the Special Meeting). Following the consummation of the Business Combination, Concord III was renamed GCT Semiconductor Holding, Inc. (the Company).

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K for the fiscal year ended December 31, 2024 (the Annual Report) and certain information incorporated by reference herein and therein may contain forward-looking statements as defined by the Private Securities Litigation Reform Act of 1995. Our forward-looking statements include, but are not limited to, statements regarding our and our management teams expectations, hopes, beliefs, intentions or strategies regarding the future. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words anticipate, believe, continue, could, estimate, expect, intends, may, might, plan, possible, potential, predict, project, should, will, would and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking.

Forward-looking statements are not guarantees of performance. You should not put undue reliance on these statements which speak only as of the date hereof. You should understand that the following important factors, among others, could affect the Company's future results and could cause those results or other outcomes to differ materially from those expressed or implied in the Company's forward-looking statements:

- our ability to develop new 5th generation (5G) products under collaboration agreements with our major partners;
- our financial and business performance, including our financial projections and business metrics;
- macroeconomic conditions, including market conditions, global and economic conditions, labor disputes, inflationary impacts, and disruptions to the global supply chain;
- the imposition of duties and tariffs and other trade barriers and retaliatory countermeasures implemented by the U.S. and other governments;
- changes in our strategy, future operations, financial position, estimated revenues and losses, forecasts, projected costs, prospects and plans;
- increase in supply chain costs, including raw materials, sourcing, transportation and energy;
- our inability to anticipate the future market demands and future needs of our customers;
- the impact of component shortages, suppliers' lack of production capacity, natural disasters or pandemics on our sourcing operations and supply chain;
- our ability to meet the prospective delivery time for our products and fulfill customer orders;
- our future capital requirements and sources and uses of cash;
- our ability to cover our future capital expenditures and to pay down our near-term debt obligations;
- our ability to obtain funding for its operations;
- our ability to access to the capital markets and credit markets;

our anticipated financial performance, including gross margin, and the expectation that our future results of operations will fluctuate on a quarterly basis for the foreseeable future;

our expected capital expenditures, cost of revenue and other future expenses, and the sources of funds to satisfy the liquidity needs of the Company;

the outcome of any legal proceedings that may be instituted against us following completion of the Business Combination and transactions contemplated thereby;

our ability to maintain the listing of our common stock on the NYSE;

the ability to recognize the anticipated benefits of the Business Combination, which may be affected by, among other things, competition, and the ability of us to grow and manage growth profitably;

technology, cybersecurity, and data privacy risks;

intense market competition;

geopolitical conditions, including political instability in the U.S. and abroad, unrest and sanctions, war, conflict, including the ongoing conflicts between Russia and Ukraine, conflicts in the Middle East, and increasing tensions between China and Taiwan;

reputational risks; and

other risks and uncertainties indicated in this Annual Report, including those under *Risk Factors* herein, and other filings that have been made or will be made with the SEC.

These and other factors that could cause actual results to differ from those implied by the forward-looking statements in this Annual Report are more fully described in the *Risk Factors* section. The risks described in *Risk Factors* are not exhaustive. These forward-looking statements reflect beliefs of our management, as well as assumptions made by our management and information currently available to us. These current expectations, forecasts and assumptions involve a number of judgments, risks and uncertainties. New risk factors emerge from time to time, and it is not possible for us to predict all such risk factors, nor can we assess the impact of all such risk factors on our business or the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statements. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the foregoing cautionary statements. We undertake no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

RISK FACTORS SUMMARY

The following is a summary of certain important factors that may make an investment in our company speculative or risky. You should carefully consider the fuller risk factor disclosure set forth in this Annual Report, in addition to the other information herein, including the section of this report titled *Management's Discussion and Analysis of Financial Condition and Results of Operations* and our financial statements and related notes.

Risks Related to Our Business

We may encounter difficulties or challenges in satisfying our obligations under our 5G development agreements and may not be able to meet the anticipated timeline for commencing shipment of 5G chipsets, which may adversely affect our ability to generate revenue.

If the 5th generation (5G) market does not develop or develops more slowly than expected, or if we fail to accurately predict market requirements or market demand for 5G solutions, our financial performance will be adversely affected.

Our products target primarily certain segments in the 5G markets, including fixed wireless access, mobile broadband, and M2M applications, and if these markets do not develop or grow as anticipated, our financial performance will be adversely affected.

We depend on the commercial deployment of 4th generation (4G) long term evolution (LTE) and 5G communications equipment, products and services to grow our business, and our business may be harmed if wireless carriers delay in the adoption of 5G standards, or if they deploy technologies that are not supported by our solutions.

If we are unsuccessful in developing and selling new products or in penetrating new markets, our business and operating results would suffer.

If customers do not design our semiconductor solutions into their product offerings or if our customers' product offerings are not commercially successful, we would have difficulty selling our semiconductor solutions and our business would suffer.

If we are unable to compete effectively, we may not increase or maintain our revenue or market share.

We rely on a small number of customers for a significant percentage of our revenue, and the loss of, or a reduction in, orders from these customers could result in a substantial decline in our revenue.

Our customers may cancel their orders, change production quantities or delay production, and if we fail to forecast demand for our products accurately, we may incur product shortages, delays in product shipments or excess or insufficient product inventory, which could harm our business.

We do not have long-term capacity agreements with our foundries and they may not allocate sufficient capacity to allow us to meet future demands for our products, and there is no guarantee that we will be able to secure capacity agreements in the future.

If our foundry vendors do not achieve satisfactory yields or quality, our reputation, customer relationships and financial performance could be harmed.

Our business may be impacted by political events, war, terrorism, business interruptions and other geopolitical events and uncertainties beyond our control, including the Russian-Ukraine and conflicts in the Middle East.

Risks Related to our Finances

We have a history of losses, and we may not achieve or sustain profitability in the future, on a quarterly or annual basis.

We have significant ongoing capital requirements that could have a material effect on our business and financial condition if we are unable to generate sufficient cash from operations or unable to raise capital on favorable terms.

Our indebtedness could adversely affect our operations, including our ability to perform our obligations and fund working capital.

Risks Relating to Our Intellectual Property

Our failure to protect our intellectual property rights adequately could impair our ability to compete effectively or to defend ourselves from litigation.

The enforcement and protection of our intellectual property may be expensive, could fail to prevent misappropriation or unauthorized use of our intellectual property, could result in the loss of our ability to enforce one or more patents, and could be adversely affected by changes in patent laws, by laws in certain foreign jurisdictions that may not effectively protect our intellectual property and by ineffective enforcement of laws in such jurisdictions.

We rely upon third parties for supporting technology that is integrated into some of our products, and if we are unable to continue to use this technology and future technology, our ability to sell technologically advanced products would be limited.

Risks Related to Ownership of Our Common Stock and Our Corporate Structure

The market price of our Common Stock may be volatile, which could cause the value of your investment to decline.

We do not intend to pay dividends on our Common Stock and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our Common Stock.

Our major shareholder exerts significant influence over our business and affairs.

Future sales of shares of Common Stock may depress our stock price.

PART I

Item 1. Business.

Company Overview

GCT Semiconductor Holding, Inc. (GCT or the Company) was founded in Silicon Valley, California in 1998 as GCT Semiconductor, Inc., and the Company is a fabless semiconductor company that specializes in the design, manufacturing and sale of communication semiconductors, including high-speed wireless communication technologies such as 5G/4.75G/4.5G/4G transceivers (RF) and modems, which are essential for a wide variety of industrial, B2B and consumer applications. We have successfully developed and supplied communication semiconductor chipsets and modules to leading wireless operators worldwide, as well as to original design manufacturers (ODMs) and original equipment manufacturers (OEMs) for portable wireless routers (e.g., Mobile Router/MiFi), indoor and outdoor fixed wireless routers (e.g., Customer Premises Equipment (CPE)), industrial M2M applications and smartphones.

We oversee sales, marketing and accounting operations from our headquarters in San Jose, California. The Company conducts product design, development and customer support through our fully owned subsidiaries, GCT Research Inc. (GCT R) and MTH, Inc. (MTH), both of which are located in South Korea. GCT R serves as our research and development center. In addition, we utilize separate sales offices for local technical support and sales in Taiwan, China, and Japan.

Our current product portfolio includes RF and modem chipsets based on 4th generation (4G) Long Term Evolution (LTE) technology, offering a variety of chipsets differentiated by speed and functionality. These include 4G LTE, 4.5G LTE Advanced (twice the speed of LTE) and 4.75G LTE Advanced-Pro (four times the speed of LTE) chipsets. We also develop and sell cellular Internet of Things (IoT) chipsets for low-speed mobile networks such as eMTC/NB-IOT/Sigfox, and other network protocols.

Notably, we leverage our proprietary knowledge and patents, which have been proven in 4G products to employ up to eight receiving antennas in sub-6GHz wireless bands, extending the receive-coverage and throughput by more than two times compared to the case of using two or four receiving antennas. We also employ up to four transmitting antennas, enhancing the transmission coverage and throughput compared to using only one or two transmission antennas. Several top tier wireless operators have engaged the Company as a result of this unique technology. Building on this competitive advantage, we are currently developing RF and modem chipsets based on 5th generation (5G) new radio (NR), which is at the core of the next-generation mobile communication technology.

5G technology provides speeds up to ten times faster than traditional 4G LTE communication, significantly reduces latency and supports essential capabilities for the Fourth Industrial Revolution, such as high-speed, low-latency, and highly reliable and cost-effective internet connections for technologies like artificial intelligence, autonomous driving and the metaverse. Therefore, 5G communication semiconductors are considered a crucial and indispensable technology for the Fourth Industrial Revolution, particularly for enabling the metaverse, where social, economic and cultural activities take place in virtual environments.

Our 5G chipsets, in particular, leverage the advantages of our proven patented technology which significantly improves performance through the use of multiple antennas for both transmission and reception. This makes them highly suitable for 5G-based ultra-high-speed wireless internet services, such as fixed wireless access (FWA). 5G-based ultra-high-speed wireless internet offers cost-effective, high-speed internet services with a short latency time, enabling a new class of internet services and media offerings delivered over-the-air rather than via physical networks built on fiber, coax or legacy copper technologies. This positions our 5G chipsets as a promising solution for mobile operators to establish a foothold in next-generation services and to compete effectively against cable management services organizations (MSOs) and other network players.

Even as more and more applications are deployed on 5G networks, we nonetheless anticipate continued demand for our existing 4G LTE product lineup (4.75G/4.5G/4G etc.) for the foreseeable future, because 4G products are expected to coexist in the market with 5G products at lower price points for some time in the same way that 3rd generation (3G) products coexisted with 4G products when 4G networks were first deployed. We expect introduction of our 5G products beginning in the first half of 2025. Also, we expect the average sales prices for our 5G chipset to be approximately four times that of our 4G chipset, resulting in a significant increase in revenue and gross margins. We plan to continuously expand our product lineup to support 5G chipsets for future applications such as vehicle-to-everything standard (e.g., C-V2X), 5G-based satellite communication (e.g., Non-Terrestrial Network) and 5G-based IoT standard (e.g., RedCap). Our current chipset products are used in a wide variety of applications, including fixed wireless subscriber terminals (e.g., CPE), mobile wireless routers (e.g., Mobile Router/MiFi), various communication modules and devices, and industrial products.

Evolution of Wireless Technologies

As the demand for mobile communication has evolved from voice-centric to data-centric, technology has continuously evolved. The 1st generation (1G) analog cellular system introduced the concept of the cell to facilitate frequency reuse. Due to the limitations of analog

technology, the rapidly growing demand for mobile phones led to the transition to 2nd generation (2G) digital communication systems. Notable 2G digital mobile phone systems include Global System for Mobile Communication (GSM) using Time Division Multiple Access (TDMA) and Code Division Multiple Access (CDMA). GSM was adopted in Europe, while CDMA was adopted in the United States, Korea, and other regions.

2G had limitations due to the broad mixture of technologies and differences in frequency bands, making international roaming difficult and providing limited multimedia services due to low transmission speeds. The need to unify wireless transmission technologies for international roaming services and more led to the development of 3rd generation (3G) mobile communication, such as IMT-2000, W-CDMA, and CDMA2000. 3G not only provided voice and low-speed data like 2G but also supported multimedia services, including video. Up until the adoption of 3G, there was significant demand for circuit-switched services, but as the internet became widespread, the demand for packet services also grew. This led to technological advancements with 3G, resulting in technologies like Evolution-Data Only (EV-DO) and High Speed Packet Access (HSPA).

Generation	System	Multiple access technology	Peak user data rate
1G	AMPS	FDMA	
2G	IS-95	CDMA	9600bps
	GSM	TDMA	0.104Mbps
3G	W-CDMA	W-CDMA	0.384Mbps
	CDMA2000	CDMA	0.153Mbps
3.5G	EV-DO	CDMA/TDMA	3.072Mbps
	HSPA	W-CDMA	14.4Mbps
4G	LTE	DL: OFDMA UL: SC-FDMA	DL: 100Mbps UL: 50Mbps
	WiMAX	OFDMA	DL: 128Mbps UL: 56Mbps
	LTE-A	DL: OFDMA UL: SC-FDMA	DL: 1Gbps UL: 500Mbps
5G	NR	OFDMA	Up-to 10Gbps

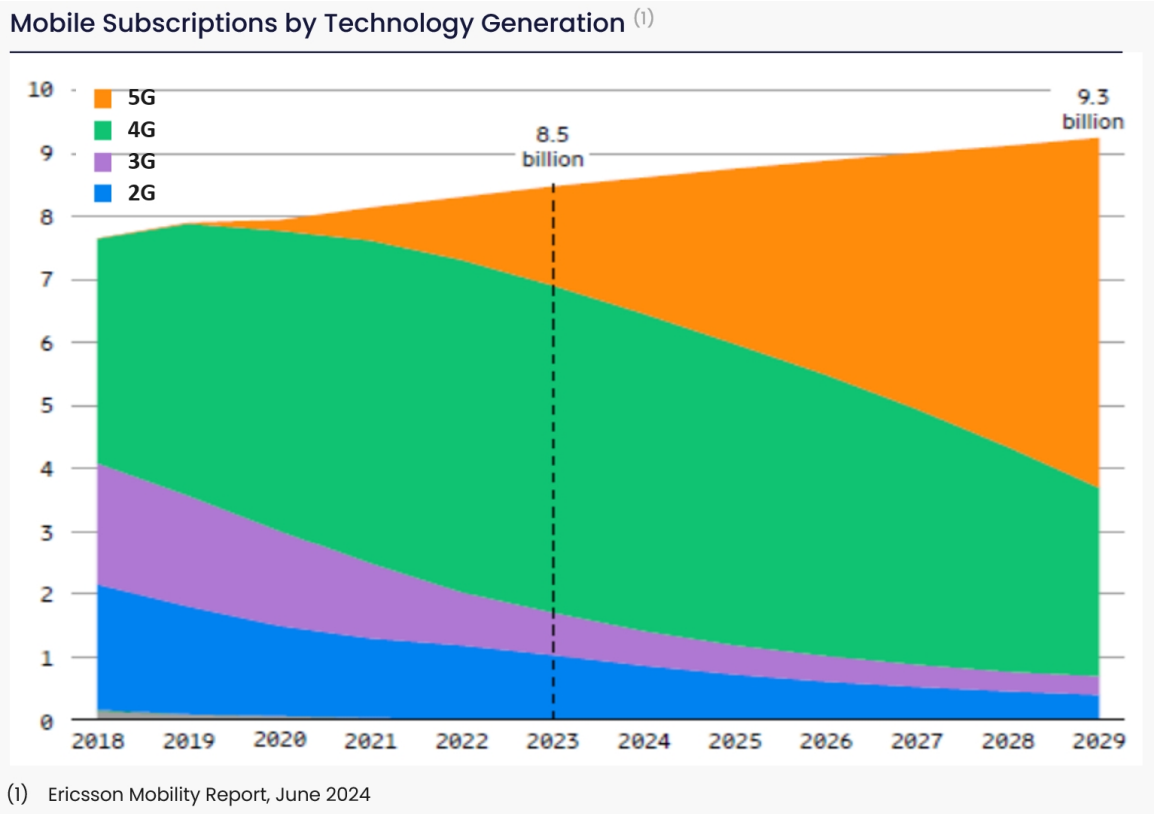
The increased demand for wireless data services after 3G led to the development of 4G technology, known as LTE. While Worldwide Interoperability for Microwave Access (WiMAX) was another 4G technology, the market eventually consolidated around LTE. LTE was defined by the 3rd generation partnership project (3GPP), which established the Rel-8/9 standards. LTE later evolved into LTE-Advanced (LTE-A) and 3Band LTE-A, including standards like Rel-10 and beyond, which introduced technologies like Carrier Aggregation (CA), Coordinated Multi-Point (CoMP), relaying, and Multi-Input Multi-Output (MIMO).

4G Technology	Features	Carrier Bandwidth	Downlink peak throughput
LTE (4G: CAT3)	Technology that is approximately 5 times faster for downloads and about 7 times faster for uploads than traditional WCDMA	10MHz	75Mbps
Wideband LTE (4G: CAT4)	Mobile communication services that are twice as fast as LTE, utilizing a 20MHz wideband LTE frequency	20MHz	150Mbps
Wideband LTE-A (4.5G: CAT6)	Mobile communication services that utilize CA (Carrier Aggregation) technology by combining a 20MHz wideband LTE frequency with a 10MHz LTE frequency	30MHz (20+10MHz)	225Mbps
4x4MIMO LTE-A (4.5G: CAT5)	Mobile communication services that use 4x4 MIMO (Multiple Input Multiple Output) with 4 antennas to double the speed on a 20MHz wideband LTE frequency	20MHz	300Mbps
3Band LTE-A (4.75G: CAT12)	Mobile communication services that utilize CA technology to use a 40MHz LTE frequency.	60MHz (20+20+20MHz)	600Mbps

5G communication evolved from 4G as a communication technology needed for the Hyper-Connected Revolution of the Fourth Industrial Revolution, where various industry technologies converge. The Fourth Industrial Revolution represents the convergence of ICT-based technologies and advanced digital technologies, like artificial intelligence, robotics, virtual reality, augmented reality, 3D printing, biotechnology and quantum computing, among others. This technology convergence creates a new era where people + places + objects + products are interconnected based on artificial intelligence. 5G is an essential communication technology that enables the Fourth Industrial Revolution and related technology convergence by realizing ultra-fast wireless communication (eMBB: enhanced Mobile Broadband), ultra-low latency reliable communication (URLLC: Ultra Reliable Low Latency Communication), and massive machine-type communication for hyper-connected objects (mMTC: massive machine type communication).

5G Technology	Features	Carrier Bandwidth	Downlink peak throughput
Sub-6GHz (FR1) NR	5G that support frequency bands ranging from 400MHz to 6GHz, offering over 4 times faster response processing than LTE and more than twice the frequency bandwidth	100MHz	2.3Gbps
mmWave(FR2) NR	5G that utilize millimeter-wave frequency bands of 24GHz, 28GHz, and 39GHz, providing over 8 times faster response processing than LTE and supporting over 8 times wider frequency bandwidth	800MHz (8 x 100MHz)	6.5Gbps
EN-DC (NSA)	5G that transmit data combining both 4G LTE and 5G NR, aggregating them to increase transmission speed and address initial 5G network coverage issues	4G LTE band + 5G FR1 100MHz or 5G FR2 800MHz	3Gbps (FR1) 7Gbps (FR2)
FR1 NR SA	5G standalone mode mobile communication services in the Sub-6GHz frequency band without 4G LTE	200MHz (100 + 100MHz)	4.6Gbps
FR1+FR2 NR-DC	5G standalone mode dual-connectivity mobile communication services that connect Sub-6GHz frequency band NR and millimeter-wave frequency band NR simultaneously	500MHz (100 + 400MHz)	6Gbps

5G is now growing in all regions around the world. According to the Ericsson Mobility Report published in June 2024, at the end of 2023, 5G subscribers accounted for 59% of the total communication subscribers in North America and 10% in India. During the first quarter of 2024, total 5G subscriptions exceeded 1.7 billion worldwide. Further, it is anticipated that 5G subscriptions will continue to increase, reaching 5.6 billion globally by end of 2029.

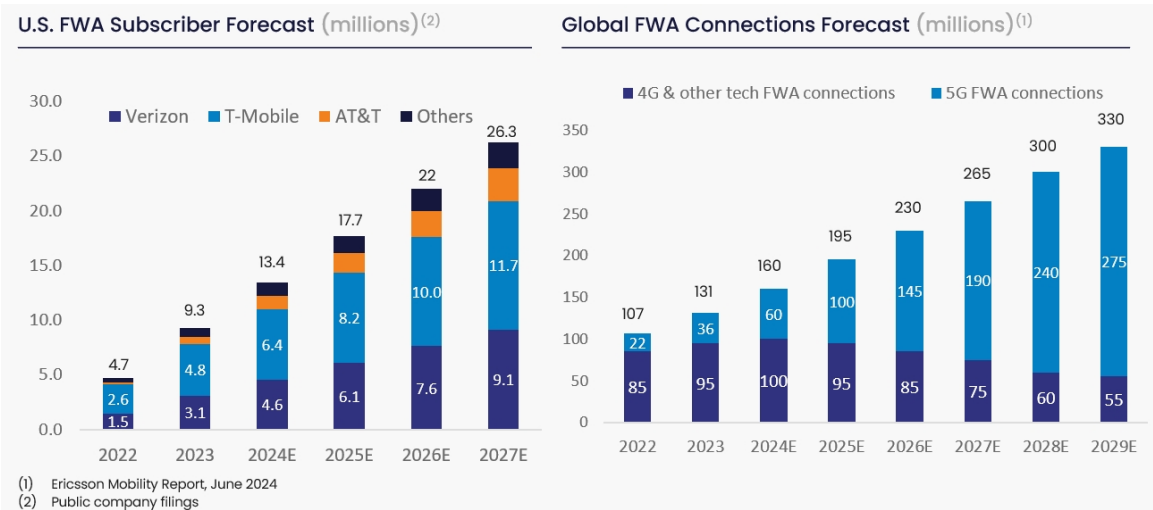


Expanding Fixed Wireless Access

Fixed Wireless Access (FWA) service provides data and voice (VoLTE or VoNR) connectivity by connecting data terminals through indoor or outdoor fixed CPE to mobile communication networks, offering services comparable to traditional wired line networks such as xDSL, cable, or fiber optics. The wireless network connection approach is advantageous for quick installation in areas with existing mobile communication infrastructure, especially in regions where installing conventional wired networks is challenging or economically impractical. However, traditional wireless networks face limitations, such as lower speed when multiple devices are connected simultaneously, and the performance of user devices that vary based on the environment or location of such user devices relative to the base station, diminishing their competitiveness compared to wired line networks.

However, recently introduced FWA technologies, including gigabit-speed 4G LTE Advanced or 5G NR, offer speeds faster than DSL or cable networks, addressing the shortcomings of traditional wireless connections. Especially in frequency bands above 3 GHz, 5G FWA can deliver service with 100 MHz or more of bandwidth, or in the millimeter-wave spectrum above 20 GHz, 5G FWA can utilize 800 MHz or more of bandwidth, achieving performance comparable to optical fiber communications. This makes FWA an attractive alternative technology that can overcome the significant installation costs associated with fiber optics for new installation areas.

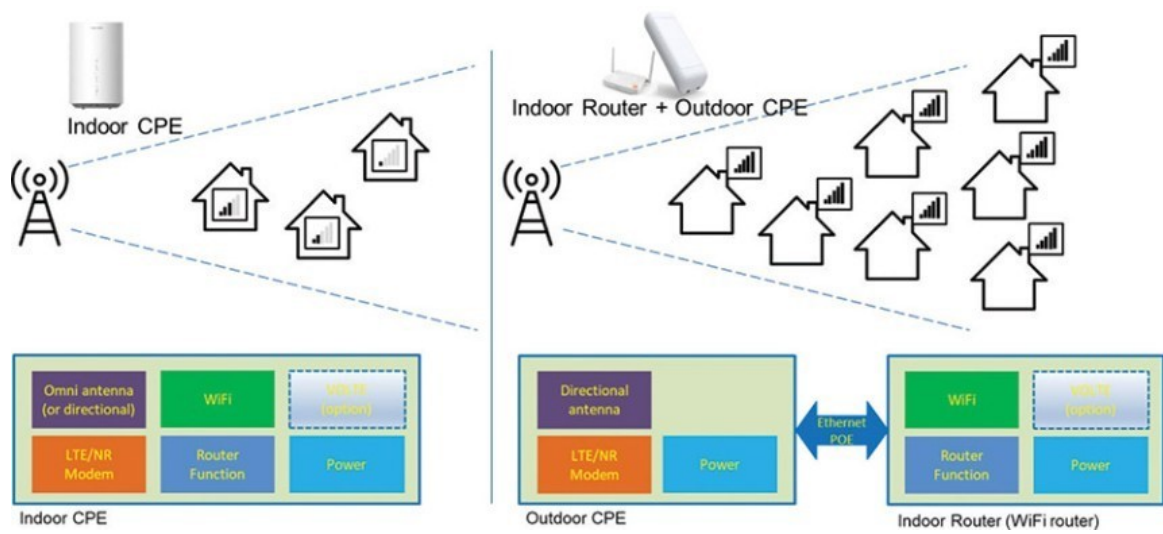
According to the Ericsson Mobility Report, as of the end of 2023, FWA services based on 4G and 5G have already exceeded 130 million subscriptions. FWA services are projected to grow at an annual rate of 17% (2023-2029 CAGR), reaching over 330 million subscriptions by 2029, which is 2.5 times the number of subscriptions at the end of 2023. 5G-based FWA services are expected to grow even faster, surpassing 4G-based FWA subscriptions by 2025 and constituting 85% of the total FWA services by 2029. Particularly in the U.S. market, 5G-based FWA connections grew significantly from 5 million in the 1st quarter of 2023 to almost 9 million 1 year later and are predicted to grow at a rate of 40% annually through 2025.



FWA devices come in two main types: Outdoor CPE (ODU, Outdoor Customer Premises Equipment) with performance-boosting external antennas for improved wireless signal reception in wider areas, and Indoor CPE (IDU, Indoor Customer Premises Equipment), which can be installed in various indoor locations for user convenience. Outdoor CPE has the advantage of higher performance but requires external antenna installation and the installation of separate cables to deliver power and data, resulting in higher installation and device costs. On the other hand, Indoor CPE, while having the disadvantage of impaired wireless reception due to the scattering and attenuation of external radio signals, offers ease of installation without the need for external antennas or additional cabling work, which results in lower installation and device costs.

Notably, with speeds exceeding Gbps and network latency of 1ms or less, 5G communication technology has faster data throughput and reduced delay compared to wired communication options like DSL or cable. Moreover, the deployment of 5G networks for FWA is facilitated by the presence of existing 5G infrastructure developed by mobile network operators for smartphones.

This has prompted numerous prominent mobile service providers to view 5G-based FWA as a new growth driver, in contrast to saturation in the mobile phone market, leading to substantial anticipated subscriber expansion.



Business Development Overview

The Fourth Industrial Revolution is rapidly unfolding worldwide, driven by the increasing adoption of key enabling communication technologies such as 4.5G, 4.75G, and 5G wireless networks. This growth has led to the emergence of a high-speed wireless internet-based 4.5G/4.75G/5G wireless broadband market and related wireless devices and chipsets. We specialize in providing baseband modems, RF chipsets, and protocol software that enable stable communication on 4.5G/4.75G/5G wireless carrier networks. Wireless modems consist of both hardware components, such as RF transceivers and baseband modems, and software responsible for modem operation, protocol processing and system operation. These elements must work together seamlessly to deliver optimal performance and solutions, making this a critical technology for the Fourth Industrial Revolution. However, there are very few companies globally that can commercialize these technologies, given their high complexity and technological barriers. We have continuously focused on wireless communication product development since our establishment, and believe our core technologies and compatibility testing capabilities acquired during the development and sale of our competitive wireless communication chipsets are unique and not easily duplicated by new entrants in the market. Thus, we have secured a strong competitive position by providing competitive and optimized solutions in the mobile communication market where different generations of technology coexist.

We possess essential core technologies for enhancing the wireless data communication capabilities of competitive 4G/4.5G/4.75G/5G chipsets. We commercialized wireless communication chipset technology using four or eight multiple antennas to achieve outstanding performance improvements in speed, coverage expansion, and interference reduction, earning recognition from top global carriers. We introduced the 4x4 MIMO 4.5G chipset technology with four antennas in Japan, followed by commercialization of eight-antenna products in the United States and Europe. RF/modem chipset technology using multiple antennas is particularly vital for FWA services that require stable data communication without interruptions in fixed locations. In countries and regions where it is challenging to install high-speed wired networks, such as optical fiber, due to geographical, technical and economic reasons, wireless broadband FWA using 4G and 5G is an increasingly cost-efficient alternative. This service is rapidly expanding worldwide as a core component of the Fourth Industrial Revolution.

We have commercialized competitive wireless communication chipset products, including 4G/4.5G/4.75G, by actively adapting to the evolution of new wireless standard technologies and developing specialized technologies, such as multi antenna modem chipsets, in close collaboration with major carriers worldwide. In addition, we have taken a proactive role in chipset certification and product validation processes required for stable operation on wireless networks, which allows us to gain further credibility from major carriers.

We have developed and commercialized chipsets for various product categories corresponding to 4G, 4.5G and 4.75G including LTE-based IoT chipsets. In collaboration with a leading worldwide wireless operator (the Operator), we are currently developing competitive and innovative 5G chipsets that support 5G sub-6GHz and mmWave spectrums. We have established a close relationship with the Operator for over 12 years. In 2019, we entered into a Joint Development Agreement (JDA) with the Operator for the design

and development of 5G chipsets for FWA, mobile broadband and modules. Pursuant to the JDA, we agree to perform certain services for and collaborate with such Operator to develop semiconductor chipsets, software and related reference designs, and then supply such items to the Operator and our suppliers. Under the JDA, we are required to perform certain services to achieve specified development milestones, and the Operator is required to pay a one-time payment to us upon achievement of each milestone. The JDA also includes other terms with respect to the supply of chipsets, including most favored status protection for the Operator and our suppliers and certain rebate fees based on worldwide sales of chipsets developed under the JDA. We also agree to grant the Operator various non-exclusive, non-terminable licenses for the use of certain source code and work product developed under the JDA, provided that we retains all worldwide rights, title and interest in and to all intellectual property rights embedded and contained in the chipsets provided to the Operator.

The JDA includes customary representations, warranties and covenants and has an initial term of three (3) years, and thereafter automatically renews for one-year period at each annual anniversary of the effective date of the JDA unless written notice not to renew is provided by the parties 90 days prior to the expiration date. In addition, the Operator may terminate the JDA (i) at any time upon written notice to us; (ii) if our business is materially changed by sale of our business, transfer of control of our outstanding stock, merger or otherwise to a competitor of the Operator; or (iii) immediately upon written notice if there is a material breach of the JDA by us and we fail to cure such breach after 30 days.

As part of this arrangement, we are applying the same multiple antenna reception technology to our 5G chipsets that received recognition from top carriers worldwide for 4G, 4.5G and 4.75G products. We plan to offer three different 5G chipset solutions, taking into account various market demands for performance, functionality, and price ranges, similar to our existing 4G LTE products. Additionally, we differentiate ourselves from the dominant chipset provider in the market by providing customized solutions tailored to the specific needs of wireless carriers.

Our wireless communication chipsets can be used in virtually all wireless broadband data devices driving the Fourth Industrial Revolution, excluding smartphones. These terminal devices that can use our wireless communication chipsets include essential CPE for all wireless broadband FWA services and mobile routers (MiFi) that offer wireless internet connections sharing via WiFi, even while on the move. Our chipsets can also be adopted into devices such as laptops and tablets, card-type modules that provide communication functionality for IoT and industrial applications, wireless monitoring equipment and wireless smart meters. In addition, we plan to expand our product lineup continuously to support 5G chipsets for future applications such as vehicle-to-everything standard (C-V2X), 5G-based satellite communication (Non-Terrestrial Network) and 5G-based IoT standard (RedCap), which can create additional markets with comparable volume to existing broadband markets.

We are one of only a handful of remaining companies worldwide with commercially proven 4G LTE & 5G solutions, leveraging leading-edge multi-antenna modem technology to provide differentiated solutions to wireless operators. High barriers to entry, market pushback against incumbents and political sanctions against certain offshore suppliers have led to few reliable alternatives for 4G/5G modem chipset suppliers. These factors have created a timely opportunity for us to expand rapidly. We plan to maintain collaboration with our existing 4G wireless broadband FWA device manufacturers and partners as they transition to 5G. In the 5G space, we are considered an alternative solution provider with competitive pricing, as other options are limited except for the high-priced products of the top-ranked supplier. In particular, for medium-sized FWA device manufacturers, choosing the leading chipset supplier can create a significant cost burden as it often requires large upfront licensing fees and ongoing royalty payments, after commercialization. Our strategy is to offer the advantage of lower initial licensing costs and no additional licensing fee after commercialization. Moreover, having previously adopted our 4G solution and successfully commercializing it, FWA device manufacturers may find ease and convenience in seamless transition to GCT's 5G solution. In particular, the strong core technologies offered by us, such as the eight-antenna reception technology for improved efficiency and network coverage expansion, are highly recognized and needed by many wireless carriers and FWA device manufacturers. This can serve as significant motivation for wireless carriers and FWA device manufacturers to adopt our 4G/5G chipsets. In 2024, we made announcements regarding development agreements with FWA device manufacturers that will use our 5G chipsets. These announcements included one regarding an agreement with Kyocera and another regarding an agreement with a Tier One Telecommunications Supplier.

Our Competitive Strengths

We believe the following competitive strengths enable us to be a strong 4G and 5G wireless semiconductor provider by effectively addressing the challenges faced by customers:

A strong track record of 4G execution: We were one of the first suppliers of 4G LTE chipsets for commercialization in many devices including smartphone, USB dongles, embedded wireless modem and CPE products. Also, we were the first provider of 4.5G 4x4 MIMO LTE chipsets for commercialization in 2015. This history as a proven supplier provides strong commercial and technology foundations to build upon to secure our position as a leading 5G supplier.

GCT's proprietary multi-antenna technology: We were the first eight-antenna LTE solution provider which is uniquely suited to relieve carriers' looming network overloads arising from rapid FWA adoption. We believe this technology is prized by network operators given that it enables lower infrastructure costs and improved service. We believe we are one of the only suppliers with an eight-antenna solution in entry-level baseband/RF chipsets, positioning us uniquely in the marketplace. Multi-User (MU)-MIMO is a network capacity enhanced solution to support multiple UEs (User Equipment such as CPE) with multiple beams from the base station and is usually implemented with Massive-MIMO architecture. MU-MIMO provides the peak throughput for the whole network while Single-User (SU)-MIMO provides the peak throughput only for a single user. The best way to implement MU-MIMO is to use Massive-MIMO architecture with multiple antenna array at the base station, which can provide high spectrum efficiency through large multiplexing gain as well as antenna array gain. In MU-MIMO, beam control by the base station is not always perfect. As such, the dedicated beam to a specific UE can cause interference to another adjacent UE nearby. This can result in performance degradation unless there is an appropriate interference cancellation technology on the UE side. Our Multi-Antenna Modem provides superior interference cancellation performance on the UE side, even in the harsh MU-MIMO environment with multiple adjacent EUs, by utilizing eight-antenna reception technology implemented in our cost-effective dedicated hardware modem engine.

Longstanding relationships with Tier 1 and Tier 2 network operators worldwide: We enjoy relationships with a global stable of network operators, who in some cases have done business with us for over a decade. These trusted relationships are central to our 5G business plan and our expectations of meaningful deployments in the United States as well as in Europe and Asia. Some of these customers have actively contributed to funding and defining our 5G roadmap in order to obtain strategic access to mission-critical components. In addition to network operators, we have longstanding relationships with ODMs and OEMs who in turn play a critical supply chain function for operators. We believe our proven ability to deliver products to specs and on time positions us favorably as we deploy our 5G portfolio.

Highly differentiated & innovative modem architecture: Unlike traditional DSP-based modem solutions, we employ a scalable modular modem design based on optimized data-flow dedicated hardware engines, which provides scalable products with optimized cost structure without the de-featuring approach that other competitors usually take. Adoption of innovative, scalable 5G modem architecture to expand different product SKUs with minimum design effort and cost allows us to use cheaper wafer process nodes without trading off performance and complexity.

Deep knowledge and expertise on wireless system-level architecture and signal processing: Our engineering team has deep and end-to-end knowledge and expertise on wireless system-level architectures and networks in relation to a broad range of wireless technologies including Wi-Fi, 4G/5G LTE and IoT. This enables us to serve as a trusted advisor and partner to wireless carriers, OEMs and infrastructure vendors to optimize the performance of their 4G/5G devices and networks.

Fully integrated 4G/5G solutions: We provide the industry with highly integrated 4G/5G system-on-chips, or SoCs, integrating not only the baseband modem and RF but also the application CPU for networking function, which is an essential feature of FWA and can save on total solution cost by eliminating an extra network processor or interface ASIC in the platform.

Products

We have developed and commercialized a portfolio of 4G semiconductor solutions to address a variety of applications and market segments from high performance 4.75G (CAT12) solution to low power, low performance 4G IoT (CAT-M1/NB1). We offer baseband modem solutions to encode and decode data based on 4G protocols that serve as the core wireless processing platform for a 4G device; RF transceivers to transmit and receive wireless transmissions; and highly integrated SoC solutions that combine these and other functions into a single die or package. Our SoC solutions integrate the baseband modem and RF transceiver functions, and in some cases, with an applications processor and memory. This advanced level of integration reduces the size, cost, design complexity, and power consumption of the 4G solution. All of our baseband modem SoC products are provided with comprehensive software, including relevant source code, to enable manufacturers to efficiently integrate our solutions into their devices in a wide variety of environments. In addition, we provide customers with design support. This includes reference designs that specify recommended methods for interconnecting our chips to peripheral devices, such as host processors, memory and RF front-end components. Further, we provide customers with a warranty that our solutions are free from defects in materials and workmanship and will operate in material conformance with the provided specifications, entitling the customer to have the defective product repaired or replaced.

In addition to our various 4GLTE solutions that are currently available to our customers, we also have a number of 5G NR solutions in development that are expected to become available during 2025. Our products, including the expected availability of those products currently in the design stage of development, are summarized in the table and future roadmap below.

Technology	Product	Type	Function	Expected Availability	Key Features
4G	GDM7243S	CAT1/4	RF+BB	NOW	Integrated DRAM, multi-band RF
4G	GDM7243ST	CA1/4	RF+BB	NOW	Integrated DRAM, 400MHz~3.8GHz
4G	GDM7243SL	CAT1/4	RF+BB	H1 2025	Enhancement features, Multi-mode
4G	GDM7243i	CAT-M1/NB1	RF+BB	NOW	eMTC/NB-IoT
4.5G	GDM7243Q	CAT-5/6/7	RF+BB	NOW	2CA, 4x4MIMO, Integrating DRAM
4.5G	GDM7243QT	CAT-5/6/7	RF+BB	NOW	2CA, 4x4MIMO, 600MHz~3.8GHz RF
4.75G	GDM7243A	CAT-12/15	RF+BB	NOW	4CA, 4x4MIMO, 256QAM
4.75G	GDM7243AU	CAT-12/15	RF+BB	NOW	4CA, 4x4MIMO, 256QAM, 600MHz~6GHz
4.75G	GRF7243AU		RF	NOW	600MHz~6GHz, 4Rx/2Tx
5G	GDM7259X	FR1, FR2, CAT19	BB	H1 2025	8Rx/4Tx, 8CA, 400MHz FR1, 800MHz FR2
5G	GRF7259NR		RF	H1 2025	16Rx/4Tx, 400MHz~7GHz RF
5G	GRF7255IF		RF	H1 2025	2Rx/2Tx, 800MHz BW, 7~9GHz IF
5G	GDM7265X	FR1, FR2, CAT15	BB	H1 2025	8Rx/4Tx, 4CA, 200MHz FR1, 400MHz FR2
5G	GRF7265NR		RF	H1 2025	8Rx/2Tx, 400MHz~7GHz RF
5G	GDM7262X	FR1, FR2, CAT15	BB	H1 2025	8Rx/2Tx, 2CA, 100MHz FR1, V2X/NTN
5G	GDM7235X	Redcap, CAT1	RF+BB	2026	2Rx/2Tx, FR1

Cyclicality and Seasonality

Wireless communication chipsets for FWA devices or industrial IoT modules typically have a relatively long lifespan because they are closely tied to network deployments, which are not easily changed due to significant capital expenditures. However, semiconductor solution sales can be subject to fluctuations over time due to the cyclicality inherent in the semiconductor industry and the supply and demand characteristics specific to this industry. We anticipate that these cyclical conditions will persist. While we have not observed a firmly established pattern of seasonality, business activities in Asia tend to slow down in the first quarter of each year during the Lunar New Year period. This is consistent with potential first quarter softness that other semiconductor suppliers experience in the consumer electronics space as a result of the fourth quarter holiday season (specifically the period from the last week of November to the second week of January). This slowdown could potentially impact our sales and operational results during that the first quarter period.

Regulation

We conduct reviews for all products from the early stages of development to determine whether they qualify as strategic items according to the U.S. Department of Commerce's regulations. We prepare relevant documentation and submit it to the U.S. Department of Commerce for evaluation. The U.S. Department of Commerce reviews the items for Export Administration Regulations (EAR) compliance and ultimately assigns an Export Control Classification Number (ECCN) for the product, which is required for the export and shipment of products during both the manufacturing process and final product delivery. By attaching the relevant ECCN, GCT can ensure smooth movement and transportation without any issues. When an ECCN for a commercial product is classified as a strategic item, it may be subject to stricter export regulations. Therefore, if there is a perceived trend toward easing the classification approval by the U.S. Department of Commerce, we will seek re-evaluation for previously approved products that were classified as strategic items. If possible, we aim to have these products reclassified as non-strategic items to minimize regulatory constraints on export activities.

Wireless devices equipped with our modem chipsets must undergo formal certification through official regulatory bodies, as well as specific testing and field verification by network operators before they can be approved for sale by those operators or approved for use on the operators network. Beyond the standard reliability testing for products, all critical aspects related to the performance and functionality of wireless devices are managed and executed by our modem chipsets and software. Therefore, the completeness of the solution provided by us is considered the most essential factor in the commercialization process. We offer chipset solutions that comply with radio certification regulations in different countries. Furthermore, leading mobile operators often implement their own product certification processes to ensure network security, performance optimization, and efficiency. In some cases, particularly with major operators, they may enforce the use of certified chipsets only in their products, even before product certification. We have collaboratively engaged with major operators in North America and Asia on multiple occasions to facilitate chipset certification. This cooperation has resulted in successful chipset certifications with various operators, including Verizon, AT&T, T-Mobile, US Cellular, KDDI, SoftBank in Japan, and the three major telecom operators in South Korea. We continue to pursue ongoing certification for our evolving chipsets to ensure compliance with regulatory and operator requirements, and to make adoption by ODM and OEMs as carefree as possible.

Competition

We believe that our competitive strengths will enable us to compete favorably in the 4G and 5G markets. Companies in this industry primarily compete on the following elements: functionality, form factor and cost; product performance, as measured by network throughput, signal reach, latency and power consumption; track record of providing high-volume deployments in the industry; and systems knowledge.

Companies offering wireless modem chipset can be categorized into those primarily focused on wireless modem chipsets for smartphones and those, like us, dedicated to wireless modem chipsets for wireless broadband applications including FWA CPE, mobile routers and modules. Qualcomm and HiSilicon, for example, offer wireless modem chipsets for both smartphones and wireless broadband applications. In the mid and low-end 4G wireless broadband market, there are Qualcomm, the Company, MediaTek, HiSilicon and Sequans among others. However, in the high-speed 4G LTE space, such as 4.75G and 5G wireless broadband market, chipsets are primarily offered by Qualcomm, us and MediaTek, while Samsung LSI concentrates only on modem chipsets for smartphones (most notably the Samsung Galaxy line). HiSilicon has encountered difficulties in its modem business due to political sanctions, and companies like Sequans are limited to lower end IoT chipset developments.

We establish high technology barriers by offering highly integrated solutions incorporating RF transceivers, baseband modems, and protocol software. In this field, any issues in either the hardware or software components can impede the progress towards actual commercialization. While some specific components can be sourced through external intellectual property (IP) providers, there are no IP companies that can provide turn-key integrated solutions. Consequently, we believe it is highly unlikely for others to replicate all of these hardware and software components, insulating us from competition by newcomers, startups, and other risk factors. A recent example of the challenges in wireless communication chipsets development, including baseband modem development, can be seen in Apple's experience in this space. In their pursuit of 5G modem development, Apple has acquired the entire modem development division of Intel, emphasizing that independent development alone is not feasible. Even after acquiring Intel's modem development division, Apple still ostensibly faces obstacles in development and still primarily relies on Qualcomm's modem products.

Accordingly, due to the combined impact of high barriers to entry, market pushback against large incumbents with excessive market power or political sanctions against certain offshore suppliers, there are few reliable alternatives for 4G/5G modem chipset suppliers and this has created a timely opportunity for us to expand rapidly. This has also provided us with high scarcity value as one of only a handful of remaining companies worldwide with commercially-proven 4G LTE and soon 5G solutions.

Customers

We maintain close relationships with wireless carriers and with OEMs and ODMs who supply devices to those carriers and their end users. We do not typically sell chipsets directly to wireless carriers. Our sales are conducted on a purchase order basis with OEMs, ODMs, contract manufacturers or system integrators, and distributors who provide certain customer communications, logistics and customer support functions.

Sales and Marketing

Our sales efforts are focused on securing design wins at leading OEMs and ODMs for wireless broadband devices. We work closely with key players across the 4G/5G wireless broadband industry to understand their requirements and enable them to certify and deploy 4G/5G solutions in high volume. Our sales force is organized regionally to provide account management and customer support functions as close to customer physical locations as practical. We have a direct sales force consisting of five individuals serving GCT OEM and ODM customers in the Asia-Pacific region, including Taiwan, China, Korea and Japan, Europe, North America and South America. In China, Taiwan, Japan and Korea, we supplement our direct sales team with local distributors and sales representatives who handle certain customer communications, logistics and customer support functions. The headquarters and regional sales teams maintain close relationships with customers, identify distributors, and are responsible for the distribution of our products. They also provide education and support for products, including maintenance. These teams handle customer orders, issue quotations, and negotiate prices.

When customers intend to use our chips for product development, we ensure that technical support from our in-house experts is readily available to them. To address potential concerns or challenges in the production and sales processes, we connect customers with our internal technical teams to resolve any issues promptly, ensuring that they do not hinder the timely realization of revenue. Additionally, we collect real-time information from customers to facilitate monthly demand forecasts and maximize quarterly sales performance.

Our sales force is complemented by a team of field applications engineers (FAEs) that assists customers in solving technical challenges during the design, manufacturing implementation and certification phases of a customer's product life cycle. This high-touch approach allows us to facilitate the successful certification and acceptance by the wireless carriers of our customers' products, which speeds time-to-market for our customers and reinforces our role as a trusted advisor to our customers.

Our sales cycles typically take 12 months or more to complete and our solutions are generally incorporated into our customers' products at the design stage. Prior to an end customer's selection and purchase of our solutions, our sales force and FAEs provide our end customers with technical assistance in the use of our solutions in their products. Once our solution is designed into a customer's product offering, it becomes more difficult for a competitor to sell their semiconductor solutions to that end customer for that particular product offering given the significant cost, time, effort and risk involved in changing suppliers. In addition, we believe that upon achieving a particular design win with a customer, our ability to achieve other design wins with that same customer increases significantly.

Our marketing strategy is focused on enabling broad adoption of 4G/5G solutions and communicating our technological advantages to the marketplace with a focus on wireless carriers. This includes building awareness of and preference for our technology at wireless carriers who generate demand for 4G/5G-enabled devices. By working to understand carrier services strategies, device roadmaps and technical requirements, we believe we are better positioned to drive our roadmap to meet these needs, to influence carriers' choice of technology suppliers, and to identify manufacturers in the wireless industry who are best prepared to serve the needs of the wireless carrier.

Our marketing team is also responsible for product management, strategic planning, product roadmap creation, OEM, ODM and wireless carrier business development and corporate communications. All of these functions are aimed at strengthening the competitiveness of our solutions in response to evolving industry needs and competitive activities, and at articulating the value proposition of our technology throughout the 4G/5G broadband wireless industry. Our sales and marketing organizations work closely together to ensure that evolving industry requirements are reflected in our product plans, and that customers have early access to our roadmaps and can communicate the value of our technology to the wireless carriers. This end-to-end value chain management approach is designed to preserve and grow our market share in the segments we serve. Based upon successful execution of our sales and marketing strategy, we established a long history of successful commercialization as shown below.

Intellectual Property

We rely on a combination of intellectual property rights, including patents, trade secrets, copyrights and trademarks, and contractual protections, to protect our core technology and intellectual property. As of December 31, 2024, we hold approximately 86 patent rights in relation to 5G/4G and next-generation wireless communication semiconductor technology. Our patent portfolio consists of modem design-related technologies (47 items, 55%), which includes multi-antenna solution for modular modem design and interference cancellation technology, system impairment (such as IQ mismatch) calibration technology, communication system technology and signal processing modem technology, RF transceiver technologies (22 cases, 26%), frequency synthesis technologies (15 cases, 17%), and other wireless related technologies (2 cases, 2%).

Most of the issued patents have been already applied to our commercial products. Among those patents, there are three key aspects: multi-antenna modem solution which provides scalable, module modem core design technology and base line architecture of our 4G and 5G modem; impairment calibration technology to compensate system impairment from direct-conversion RF and analog parts, such as I/Q imbalance and carrier leakage, calibration technology; and RF transceiver architecture and related circuit technology for CMOS direct-conversion RF technology. In addition to our U.S. patents, patents have been issued in multiple countries where production facilities, product markets, and competitors are located. As of December 31, 2024, we hold 33 US patents, 35 Korean patents, 9 Taiwanese patents, 2 Japanese patents, 2 Chinese patents, and 5 patents issued in other countries.

In February 2024, we entered into a Foundry Product Development Agreement and related agreement (the "Alpha Agreements") with Alpha Holdings Co., Ltd. ("Alpha"), pursuant to which Alpha agreed to develop and deliver to us various semiconductor products (produced in the Samsung foundry), including performing certain development activities based on our design data and provide prototypes in the quantity specified by the applicable statement of work. The term of the Alpha Foundry Product Development Agreement is three years from the date of execution and the total development costs that we will pay to Alpha under this Agreement is approximately \$7.6 million. Under the Alpha Agreements, Alpha also granted us a license to use certain third-party intellectual property that will enable us to develop and deliver 5G products set forth in such agreements. Furthermore, also in February 2024, we entered into several license and development agreements with third party vendors (the "Vendor Agreements"), pursuant to which these vendors agreed to supply us a license to use certain intellectual property that will enable us to develop and deliver 5G products under the Alpha Agreements. As disclosed previously, we entered into a research and development agreement (the "Samsung Agreement") with Samsung Electronics Co., Ltd ("Samsung") in July 2020, pursuant to which Samsung agreed to provide us with certain development support, an intellectual property license, and mass production set up support to enable us to develop and produce 5G chip sets for our customers. The development support, technology licensing and other services provided to us under the Alpha Agreements and Vendor Agreements will complete and/or replace the work originally begun under the Samsung Agreement and will allow us to achieve materially identical results with regards to developing and producing 5G chipsets as the Samsung Agreement. Accordingly, the Samsung Agreement has been terminated.

Manufacturing

We employ a fabless semiconductor business model and use third-party foundries and assembly and test vendors to manufacture, assemble and test our semiconductor solutions. Our main foundry vendors are Samsung Foundry, and United Microelectronics Corporation (UMC). From Samsung Foundry, we currently use 28nm mixed-signal and digital Complementary Metal-Oxide-Semiconductor (CMOS) production processes for 4G baseband modem, and 8nm technology for 5G baseband modem products, which are under development. The use of these commercially available standard processes enables us to produce our products more cost-effectively and, by migrating to lower process geometries, we expect to achieve advantages in cost, size and power consumption. Particularly, given the fact that foundry companies, which can provide the leading-edge foundry technology for fabless semiconductor companies to access, are very few and practically limited to TSMC and Samsung Foundry in this market, it is very important for us to establish close relationships with such foundry companies. Currently, the Company and Samsung Foundry enjoy a mutually beneficial foundry relationship providing secure access to leading-edge technology and manufacturing capacity as our 5G business ramps.

From UMC, we currently use 110 RF production process for 4G RF only, and 40nm RF, mixed-signal and digital CMOS production processes for 4G baseband, 4G RF and 5G RF. From TSMC, we currently use 40nm RF, mixed-signal and digital CMOS production processes for 4G RF only.

We use Hana Micron, Stats ChipPAC, and Advanced Semiconductor Engineering, Inc., (ASE) for most of our assembly and testing requirements on a purchase order basis. We conduct extensive simulation, practical application and standardized test bed studies to validate and verify our products.

We closely monitor the production cycle from wafer to finished goods by reviewing electrical parameters, manufacturing processes and test yield data. We also run routine reliability monitoring programs to ensure long term product reliability. This enables us to operate certain test processes on demand to reduce the time-to-market for our products and to help ensure their quality and reliability. The Company and all of our outsourcing partners have implemented and adhered to the quality management system and environmental management system as required by ISO 9001:2015 across the organization. This has enabled the establishment of a robust quality assurance system for production and products, securing trust from our customers. We are also proactively responding to the strengthening of international environmental regulations and meeting market demands.

Human Resources

As of December 31, 2024, we had 121 full-time employees, of whom 96 were located in Korea, 18 were in the United States, three were in Taiwan, two were in China and one was in each of Hong Kong and Japan. These employees include 76 in research and development, 18 in sales and marketing, 21 in general and administration and 6 in operations. Management considers labor relations to be positive. We also contract with independent contractors and consultants.

Facilities

Our principal executive offices are located in San Jose, California, and consist of approximately 5,900 square feet under a lease that expires in October 2026. This facility accommodates our product marketing and finance and administrative activities as well as a small research and development team. We have a 56,500 square-foot facility in Seoul, Korea, which accommodates a research and development center under a lease expiring in December 2025 that renews annually. We have a 100 square-foot facility in Taipei, Taiwan, which houses sales and technical support personnel, under a lease that expires in June 2025. We also have an 850 square-foot facility in Shanghai, China for sales and technical support personnel under a lease that expires in July 2026 and a 1,200 square-foot facility in Shenzhen, China, which accommodates sales and technical support personnel, under a lease that expires in May 2025.

We do not own any real property. We believe that our leased facilities are adequate to meet our current needs and that additional facilities will be available on suitable, commercially reasonable terms to accommodate any future needs.

Legal Proceedings

We are not currently a party to any material legal proceedings. From time to time, we may, however, in the ordinary course of business become involved in legal proceedings. Regardless of outcome, litigation could have a material adverse effect on us due to defense and settlement costs, diversion of management resources, negative publicity, reputational harm and other factors, and there can be no assurances that favorable outcomes will be obtained.

Available Information

We file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, proxy statements, and related amendments, exhibits and other information with the Securities and Exchange Commission, or the SEC. You may access and read our filings without charge through the SEC's website at www.sec.gov or through our website at <https://investors.gctsemi.com/sec-filings>,

as soon as reasonably practicable after such materials are electronically filed with or furnished to the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Information contained on, or accessible through, our website shall not be deemed incorporated into and is not a part of this Annual Report on Form 10-K.

Item 1A. Risk Factors.**Risk Factors**

Investing in our securities involves risks. Before you make a decision to buy our securities, in addition to the risks and uncertainties discussed above under "Cautionary Note Regarding Forward-Looking Statements," you should carefully consider the specific risks set forth herein. If any of these risks actually occur, it may materially harm our business, financial condition, liquidity and results of operations. As a result, the market price of our securities could decline, and you could lose all or part of your investment. Additionally, the risks and uncertainties described in this Annual Report on Form 10-K or in any document incorporated by reference herein or therein are not the only risks and uncertainties that we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may become material and adversely affect our business.

Risks Related to Our Business

We may encounter difficulties or challenges in satisfying our obligations under our 5G development agreements and may not be able to meet the anticipated timeline for commencing shipment of 5G chipsets, which may adversely affect our ability to generate revenue.

We have entered into 5G development and collaboration agreements with certain customers and operators, including a development and collaboration agreement with a Tier 1 wireless communications operator. Under these agreements, we have agreed to design, develop and collaborate with each respective customers to test, qualify and commercialize our chipsets and also to help these customers commercialize products that use our chipsets, and these agreements impose various obligations on us to deliver results and meet certain product development milestones. In the event that we complete the performance of our obligations and are able to commercialize and sell our products, we may receive significant revenues and fees as a result of such agreements, including but are not limited to, milestone payments upon the achievement of specified business and development objectives as well as follow-on sales of our chipsets to ODM/OEM suppliers when products (using our chipset) related to these development agreements begins to ramp. In addition, we have previously announced that we expect to commence volume shipment of 5G chipsets in the first half of 2025, which will enable us to generate significant revenue and improve our financial performance.

However, we may encounter difficulties and challenges in meeting our obligations under these development agreements and our anticipated timeline for product shipments, such as delays in testing and qualifying our products, technical issues in the development and manufacturing products, lack of resources and funding to support the development efforts, the rise of competitive technologies and products that cause the customers or partners to shift focus and attention elsewhere, lack of funding to support development activities and lack of cooperation by the customers or partners. Any of these factors may adversely affect our ability to monetize these agreements and meet our anticipated product development timeline, including delays in volume shipment of 5G products, which in turn will adversely affect our financial results and results of operations.

If the 5th generation (5G) market does not develop or develops more slowly than expected, or if we fail to accurately predict market requirements or market demand for 5G solutions, our financial performance will be adversely affected.

We have invested substantial time and resources in developing products that support the 5G wireless communications markets, and we have entered into various agreements and arrangements with potential customers and wireless operators to develop wireless communications products to serve the growing needs of this market. If we fail to accurately predict market requirements or market demand for 5G, or if our solutions are not successfully developed or adopted by our customers, then our ability to generate revenue will be harmed. In addition, if the 5G networks are deployed to a lesser extent or more slowly than we currently anticipate, or if other competing semiconductor solutions achieve greater market acceptance or operators do not migrate to 5G as expected, we may not realize the expected benefits from this investment, which will have an adverse effect on our business, financial condition and results of operations.

Our products target primarily certain segments in the 5G markets, including fixed wireless access, mobile broadband, and M2M applications, and if these markets do not develop or grow as anticipated, our financial performance will be adversely affected.

Our products focus on certain segments of 5G wireless markets, including fixed wireless access (FWA), mobile broadband and machine-to-machine (M2M) applications, and if these markets do not develop or grow as quickly as expected, or if other products or technologies displace or reduce the demands of such market segments, our business operations and financial conditions will be negatively impacted. For example, our products are applicable to the FWA market, which is an innovative use case that employs 4G and 5G radio spectrum to provide wireless broadband connectivity between multiple locations and fixed points, such as a mobile network cell tower and a wireless device in a subscriber's home. FWA provides wireless coverage where there is no fixed line or a poor fixed line service, including rural areas, where broadband access is limited. However, the FWA market and related demand may be impacted by various factors, including the growth of fixed line services (especially fiber optic lines), the costs and benefits of deploying FWA infrastructure and regulatory requirements for implementing FWA solutions. Each of these factors may adversely affect our ability to

sell products into such market. Similarly, the mobile broadband market can be affected by the demand for mobile devices, such as smartphones, wireless modems, and portable wireless devices, and a slowing demand for these applications may reduce our ability to sell our products. Furthermore, the growth of M2M applications depends on various factors that drive demand, including decisions by businesses, institutions, and regulatory authorities to implement and permit establishment of infrastructures or systems that utilize M2M wireless communications. These and other factors could adversely affect our business operations and financial conditions.

We depend on the commercial deployment of 4th generation (4G) long term evolution (LTE) and 5G communications equipment, products and services to grow our business, and our business may be harmed if wireless carriers delay in the adoption of 5G standards, or if they deploy technologies that are not supported by our solutions.

We depend upon the continued commercial deployment of 4G and 5G wireless communications equipment, products and services based on our technology. Deployment of new networks by wireless carriers requires significant capital expenditures, well in advance of any revenue from such networks. If the rate of deployment of new networks by wireless carriers is slower than we expect, this will reduce the sales of our products and could cause original equipment manufacturers (OEMs) and original design manufacturers (ODMs) to hold excess inventory. This would harm our revenues and financial results. The worldwide commercial deployment and adoption of the narrow band LTE variants, Cat M and Cat NB, are expected to expand further the markets for Internet of Things devices. If deployments of the Cat M or Cat NB standards are delayed or if competing standards for Internet of Things devices become favored by wireless carriers, we may not be able to successfully increase sales of our Cat M and Cat NB products, which would harm our revenues and financial results.

If we are unsuccessful in developing and selling new products or in penetrating new markets, our business and operating results would suffer.

The markets in which we and our customers compete or plan to compete are characterized by rapidly changing technologies and industry standards and technological obsolescence. Our ability to compete successfully depends on our ability to design, develop, market and support new products and enhancements on a timely and cost effective basis. A fundamental shift in technologies in any of our target markets, such as the 5G wireless communications markets, could harm our competitive position within these markets. Our failure to anticipate these shifts, develop new technologies or react to changes in existing technologies could delay our development of new products, which could result in product obsolescence, decreased revenue and loss of design wins.

The development of new technologies and products generally requires substantial investment before they become commercially viable, and we have created a roadmap to build and increase our product offerings. Under this roadmap, we intend to continue making substantial investments to develop new technologies and products, and our development efforts may not be successful, and our new technologies and products may not produce meaningful revenue. For example, we currently invest significant resources to develop 5G semiconductor solutions. We may be required, on a case by case basis, to invest additional resources to develop multiple chip solutions in response to changing market demand. If the semiconductor solutions we develop fail to meet market or customer requirements or do not achieve market acceptance, we may not be able to execute our roadmap successfully. In addition, our products have long sales cycles that involve numerous steps, and during this time we may expend substantial financial resources and management time and effort without any assurance that product sales will result. Our sales cycle typically begins when one of our products have been provided to our end customers for evaluation, and thereafter it can take 12 or more months to achieve successful commercialization. The anticipated long sales cycle for our products makes it difficult to predict the quarter in which sales may occur.

The success of our new products will depend on accurate forecasts of long-term market demand, customer and consumer requirements and future technological developments, as well as a variety of specific implementation factors, including:

- accurate prediction of the size and growth of the 4G and 5G markets;
- accurate prediction of the growth of the Internet of Things markets and the timing of commercial availability of 4G and 5G networks;
- accurate prediction of changes in device manufacturer requirements, technology, industry standards or consumer expectations, demands and preferences;
- timely and efficient completion of product design and transfer to manufacturing, assembly and test, and securing sufficient manufacturing capacity to allow us to continue to timely and efficiently deliver products to our customers;
- market acceptance, adequate consumer demand and commercial production of the products in which our mobile and wireless broadband semiconductor solutions are incorporated;
- the quality, performance and reliability of the product as compared to competing products and technologies;
- effective marketing, sales and service; and
- the ability to obtain licenses to use third-party technology to support the development of our products.

If we fail to introduce new products that meet the demands of our customers or our target markets, or if we fail to penetrate new markets, our revenue will likely decrease over time and our financial condition could suffer.

If customers do not design our semiconductor solutions into their product offerings or if our customers' product offerings are not commercially successful, we would have difficulty selling our semiconductor solutions and our business would suffer.

We sell our semiconductor solutions both directly and indirectly through distributors to OEM/ODM customers. Our OEM/ODM customers incorporate our semiconductor solutions in their products and include our semiconductor solutions in the products they supply to their customers. Our semiconductor solutions are generally incorporated into our customers' products at the design stage. As a result, we rely on OEM/ODM customers to design our semiconductor solutions into the products they sell. Without these design wins, our business would be materially and adversely affected. We often incur significant expenditures on the development of a new semiconductor solution without any guarantees that an OEM/ODM customer will select our semiconductor solution for design into its own product. Once an OEM/ODM customer designs a competitor's semiconductor into its product offering, it becomes significantly more difficult for us to sell our semiconductor solutions to that customer because changing suppliers involves significant cost, time, effort and risk for the customer. Furthermore, even if an OEM/ODM customer designs one of our semiconductor solutions into its product offering, we cannot be assured that its product will be commercially successful and that we will receive any revenue from that customer. If our customers' products incorporating our semiconductor solutions fail to meet the demands of their customers or otherwise fail to achieve market acceptance, our revenue and business may suffer.

In addition, we employ a dual-pronged approach to the market that focuses on both operators and OEM/ODM customers in order to facilitate design wins of our products. Under this approach, we rely on key relationships with wireless operators to help create strong endorsement of our products to OEM/ODM customers. If we are not able to develop and maintain our relationships with wireless operators, our sales of products to OEM/ODM customers would likely be adversely affected. Further, if we are not able to provide wireless operators with access to leading OEMs/ODMs that can deliver our solutions in volume, or if these operators choose not to work with our OEM/ODM customers, it may make it more difficult for us to achieve design wins and cause a delay in the deployment of our products, which may have an adverse effect on our business, financial condition and results of operations.

If we are unable to compete effectively, we may not increase or maintain our revenue or market share.

Competition in the wireless semiconductor business continues to increase at a rapid pace as consumers, businesses and governments realize the market potential of wireless products and services. To remain competitive, companies must have highly trained engineering talent and make significant capital investments over long development cycles. We may not be able to compete successfully against current or potential competitors. If we do not compete successfully, our revenue and market share may decline. We face or expect to face competition from established semiconductor companies such as Altair Semiconductor (a Sony Corporation subsidiary), ASR, HiSilicon Technologies (a Huawei subsidiary), Mediatek, Qualcomm Incorporated, Samsung Electronics Co. Ltd., Unisoc (includes Spreadtrum Communications and RDA) and Sequans Communications S.A.

Many of our competitors have longer operating histories and customer relationships, significant legacy products and technologies, greater resources and brand recognition, more industry influence and a larger customer base than us. This may allow them to respond more quickly than us to new or emerging technologies or changes in customer requirements and to provide backward compatibility in their products as required by some operators. In addition, these competitors may have greater credibility with our existing and potential customers. Moreover, our competitors may have been doing business with customers for a longer period of time and have established relationships, which may provide them with information regarding future trends and requirements that may not be available to us. In addition, some of our larger competitors may be able to provide greater incentives to customers through rebates, marketing funds and similar programs. Some of our competitors may also adopt aggressive or predatory pricing policies to offset what we believe are the performance and cost advantages of our solutions. Our competitors with multiple product lines may bundle their products to offer a broader product portfolio or integrate wireless functionality into other products that we do not sell, which may make it difficult for us to gain or maintain market share.

Our ability to compete will depend on a number of factors, including:

- our ability to anticipate market and technology trends and successfully develop products that meet market needs;
- our success in identifying and penetrating new markets, applications and customers;
- our ability to accurately understand the price points and performance metrics of competing products in the marketplace;
- our products' performance and cost-effectiveness relative to that of competitors' products;
- our ability to develop and maintain relationships with wireless operators, base station suppliers and OEM/ODM customers;
- our ability to expand international operations in a timely and cost-efficient manner;

- our ability to secure sufficient manufacturing capacity and deliver products in large volume on a timely basis at competitive prices;
- our ability to participate in or influence the process for setting wireless industry standards;
- our ability to conform to industry standards on a timely basis, while developing new and proprietary technologies to offer products and features previously not available in the 4G and 5G markets;
- our ability to recruit design and application engineers with expertise in wireless broadband communications technologies and sales and marketing personnel; and
- our ability to obtain third-party licenses for supporting technologies to develop new products.

Our potential competitors may also establish cooperative relationships among themselves or with third parties, acquire companies that provide similar products to ours, or consolidate with other competitors. As a result, new competitors or alliances between our competitors may emerge that could acquire significant market share. In addition, future development efforts by our competitors could render our products obsolete. Any of these factors, alone or in combination with others, could harm our business and result in a loss of market share, an increase in pricing pressure or inability to achieve and sustain profitability.

If we are unable to effectively manage our business through periods of economic or market slow-down and any subsequent future growth, we may not be able to execute our business plan and our operating results could suffer.

Our future operating results depend to a large extent on our ability to successfully manage our business through periods of economic or market slow-down, and periods of subsequent expansion and growth. To manage our growth successfully, we believe we must, among other things, effectively:

- recruit, hire, train and manage additional qualified engineers for our research and development activities, especially in the positions of design engineering, product and test engineering, and applications engineering;
- add additional sales personnel and expand sales offices;
- add additional finance and information systems personnel;
- implement and improve our administrative, financial and operational systems, procedures and controls; and
- enhance our information technology support for enterprise resource planning and design engineering by adapting and expanding our systems and tool capabilities, and properly training new hires as to their use.

Furthermore, to remain competitive and manage future expansion and growth, we must carry out extensive research and development, which requires significant capital investment. New competitors, technological advances in the semiconductor industry or by competitors, our entry into new markets, or other competitive factors may require us to invest significantly greater resources than we anticipate. If we are required to invest significantly greater resources than anticipated without a corresponding increase in revenue, our operating results could decline. Additionally, our periodic research and development expenses may be independent of our level of revenue, which could negatively impact our financial results. Finally, there can be no guarantee that our research and development investments will result in products that create additional revenue.

During periods of economic or market slow-down, we must also effectively manage our expenses to preserve our ability to carry out such research and development. We are likely to incur product and market development costs earlier than some of the anticipated benefits, and the return on these investments, if any, may be lower, may develop more slowly than we expect, or may not materialize at all, which could harm our operating results. For the last several years, we have dedicated a large portion of our operating expenses to our development of 5G products, which we do not expect will result in significant product revenues before the second half of 2025.

If we are unable to manage our business during both periods of economic or market slow-down and periods of growth effectively, we may not be able to take advantage of market opportunities or develop new products, and we may fail to satisfy customer requirements, maintain product quality, execute our business plan or respond to competitive pressures, any of which could harm our operating results.

We rely on a small number of customers for a significant percentage of our revenue, and the loss of, or a reduction in, orders from these customers could result in a substantial decline in our revenue.

We sell our products to OEM/ODM customers either directly or indirectly through distributors. We depend on a small number of customers for a large percentage of our annual revenue. For the year ended December 31, 2024, four customers accounted for 74% of our total revenues and for year ended December 31, 2023, two customers accounted for 38% of our total revenues.

We expect that sales to a limited number of customers will continue to account for a significant percentage of our revenue for the foreseeable future. Additionally, consolidation among OEMs in some of our markets could result in an increased concentration in our

sources of revenue. It is possible that any of our major customers could terminate its purchasing arrangements with us or significantly reduce or delay the amount of our products that it orders, purchase products from our competitors or develop its own products internally. The loss of, or a reduction in, orders from any major customer could cause a decline in revenue and adversely affect our business, financial condition and results of operations.

Our customers may cancel their orders, change production quantities or delay production, and if we fail to forecast demand for our products accurately, we may incur product shortages, delays in product shipments or excess or insufficient product inventory, which could harm our business.

We do not have firm, long-term purchase commitments from our customers. Substantially all of our sales are made on a purchase order basis, and in most cases, our customers are not contractually committed to buy any quantity of products from us beyond firm purchase orders. Additionally, customers may cancel, change or delay purchase orders already in place under certain conditions. Because production lead times often exceed the amount of time required to fulfill orders, we often must manufacture in advance of orders, relying on an imperfect demand forecast to project volumes and product mix. Our ability to accurately forecast demand can be harmed by a number of factors, including inaccurate forecasting by our customers, changes in market conditions, changes in our product order mix and demand for our customers' products. Even after an order is received, our customers may cancel these orders or request a decrease in production quantities if certain lead times are respected. Any such cancellation or decrease subjects us to a number of risks, most notably, that our projected sales will not materialize on schedule or at all, leading to unanticipated revenue shortfalls and excess or obsolete inventory, which we may be unable to sell to other customers. Alternatively, if we are unable to project customer requirements accurately, we may not manufacture enough semiconductor solutions, which could lead to delays in product shipments and lost sales opportunities in the near term, as well as force our customers to identify alternative sources, which could affect our ongoing relationships with these customers. We have in the past had customers significantly increase their requested production quantities with little or no advance notice. If we do not fulfill customer demands in a timely manner, our customers may cancel their orders, and we may be subject to customer claims for cost of replacement. Underestimating or overestimating demand would lead to insufficient, excess or obsolete inventory and could harm our operating results, cash flow and financial condition, as well as our relationships with our customers and our reputation in the marketplace.

We may fail to forecast customer demand for our products accurately, which may result in product shortages, delays in product shipments or excess or insufficient product inventory.

All of our sales are made on a purchase order basis which permit our customers to cancel, change or delay product purchase commitments with little or no notice to us and without penalty. Because production lead times often exceed the amount of time required to fulfill orders, we often must manufacture in advance of orders, relying on a demand forecast to project volumes and product mix. Our ability to accurately forecast demand can be adversely affected by a number of factors, including inaccurate forecasting by our customers, changes in market conditions, adverse changes in our product order mix and demand for our customers' products. Even after an order is received, our customers may cancel or reduce these orders, or require us to reduce the prices of our product. In addition, a customer may delay an order for our products even after it has been placed. These cancellations, reductions, or price changes may subject us to a number of risks, including the following:

- our projected sales will not materialize on schedule or at all;
- unanticipated reduction in revenue and net profit; and
- increase in excess or obsolete inventory which we may be unable to sell to other customers.

Alternatively, if we are unable to project customer requirements accurately, we may not manufacture sufficient semiconductor solutions, which could lead to delays in product shipments and lost sales opportunities in the near term, as well as force our customers to identify alternative sources, which could affect our ongoing relationships with these customers. In the past, we have experienced customers significantly increasing their orders with little or no advance notice. If we do not fulfill customer demands in a timely manner, our customers may cancel their orders, or may decide not to order from us in the future. In addition, we may be subject to customer claims for cost of replacement. Either underestimating or overestimating demand could lead to insufficient, excess or obsolete inventory, which could harm our business, financial condition, results of operations, as well as our customer relationships.

We do not have long-term capacity agreements with our foundries and they may not allocate sufficient capacity to allow us to meet future demands for our products, and there is no guarantee that we will be able to secure capacity agreements in the future.

We currently do not have long-term capacity agreements with our main foundries, UMC and Samsung, primarily because historically we have placed only a limited quantity of orders. Accordingly, our foundries are not obligated to perform services or supply wafers to us for any specific period, in any specific quantities, or at any specific price, except as may be provided in a particular purchase order. Foundry capacity allocated to us has in the past been reduced due to strong demand by other foundry customers. The ability of our foundry vendors to provide us with semiconductor products is limited by available capacity and existing obligations. Because none of our third-party foundries has provided contractual assurances to us that ensure adequate capacity will be available to us to meet future

demand for our products, foundry capacity may not be available when we need it or at reasonable prices. The foundries may allocate capacity to the production of other companies' products while reducing deliveries to us on short or without notice. In particular, our foundries may reallocate capacity to other customers that are larger and better financed than us or that have long-term agreements with our foundry during a period of high demand. In addition, we expect that we may need to secure additional capacity from our foundries in the immediate future to support increasing demand for our products, and there is no guarantee that we will be able to secure this increased capacity to meet our needs.

As we continue to grow our business, we intend to negotiate long-term supply agreements with our main foundries in order to secure capacity commitment. There can be no assurance that we will be able to negotiate these agreements successfully or in a timely fashion, or that any agreements we enter into will provide us with favorable pricing or sufficient capacity to meet our customer demand. Our failure to secure suitable long-term capacity agreements with our foundries may limit our ability to expand our market and may have an adverse effect on our business, financial condition and results of operations.

Any increase in the manufacturing cost of our products could reduce our gross margins and operating profit.

The semiconductor business experiences ongoing competitive pricing pressure from customers and competitors. Accordingly, any increase in the cost of our products, whether by adverse changes in purchase price or adverse manufacturing cost, will reduce our gross margins and operating profit. In general, we do not have long-term supply agreements with our foundry, test, assembly and other vendors other than a framework agreement with UMC. As a result, we typically negotiate pricing on a purchase order basis. Therefore, we may not be able to obtain price reductions or anticipate or prevent future price increases from our suppliers. There is no assurance that our manufacturing suppliers will be able to deliver raw materials, goods and services to us at reasonable prices and the required volume. These and other related factors could impair our ability to meet our customers' needs and have an adverse effect on our operating results.

If our foundry vendors do not achieve satisfactory yields or quality, our reputation, customer relationships and financial performance could be harmed.

The fabrication of chipsets is a complex and technically demanding process. Minor deviations in the manufacturing process can cause substantial decreases in yields, and in some cases, cause production to be suspended. Our foundry vendor could, from time to time, experience manufacturing defects and reduced manufacturing yields. Changes in manufacturing processes or the inadvertent use of defective or contaminated materials by our foundry vendor could result in lower than anticipated manufacturing yields or unacceptable performance. Many of these problems are difficult to detect at an early stage of the manufacturing process and may be time consuming and expensive to correct. Poor yields from our foundry vendor, or defects, integration issues or other performance problems in our products could cause us significant customer relations and business reputation problems, harm our financial results and result in financial or other damages to our customers. Our customers could also seek damages from us for their losses. A product liability claim brought against us, even if unsuccessful, would likely be time consuming and costly to defend.

Our semiconductor solutions are manufactured at a limited number of locations. If we experience manufacturing problems at a particular location, we would be required to transfer manufacturing to a backup location or supplier. Converting or transferring manufacturing from a primary location or supplier to a backup fabrication facility could be expensive and may not be completed for an extended period of time. During such a transition, we would be required to meet customer demand from our then-existing inventory, as well as any partially finished goods that can be modified to the required product specifications. We do not seek to maintain sufficient inventory to address a lengthy transition period because we believe it is not economical to keep more than minimal inventory on hand. As a result, we may not be able to meet customer needs during a transition, which could delay shipments, cause a production delay or stoppage for our customers, result in a decline in our sales and damage our customer relationships. In addition, a significant portion of our sales are to customers that practice just-in-time order management from their suppliers which gives us a very limited amount of time to process and complete these orders. As a result, delays in our production or shipping by the parties to whom we outsource these functions could reduce our sales, damage our customer relationships and our reputation in the marketplace, any of which could harm our business, results of operations and financial condition.

We may experience difficulties in transitioning to new wafer fabrication process technologies or in achieving higher levels of design integration, which may result in reduced manufacturing yields, delays in product deliveries or increased costs.

We currently use standard 110-nanometer, 40-nanometer and 28-nanometer standard RF, mixed-signal and digital CMOS production processes. We are also developing our next generation of products using 8-nanometer process technology. To remain competitive, we expect to continue to transition our semiconductor products to progressively smaller geometries and to achieve higher levels of design integration. These ongoing efforts require us from time to time to modify the manufacturing processes for our products and to redesign some products, which in turn may result in delays in product deliveries. We periodically evaluate the benefits of migrating to new process technologies to reduce cost and improve performance. We may face difficulties, delays and increased expenses as we transition our products to new processes and potentially to new foundries. We depend on our relationships with our existing wafer foundries to transition to new processes successfully. There is no assurance that these foundries will be able to effectively manage the transition or that we will be able to maintain our relationship with them or develop relationships with new foundries. In addition, as new processes

become more prevalent, we expect to continue to integrate greater levels of functionality, as well as end customer and third-party intellectual property, into our products. However, we may not be able to achieve higher levels of design integration or deliver new integrated products on a timely basis. If we or our wafer foundries experience significant delays in transitioning to smaller geometries or fail to efficiently implement transitions and new processes, we could experience reduced manufacturing yields, delays in product deliveries and increased costs, any or all of which could harm our relationships with our customers, and our business, financial condition and operating results.

The complexity of our semiconductor solutions could result in unforeseen delays or expenses from undetected defects, errors or bugs in hardware or software, which could reduce the market acceptance for our new semiconductor solutions.

Highly complex semiconductor solutions, such as ours, frequently contain defects, errors and bugs when they are first introduced or as new versions are released. We have in the past and may in the future experience these defects, errors and bugs. If any of our semiconductor solutions have reliability, quality, or compatibility problems, we may not be able to successfully correct these problems in a timely manner or at all. In addition, if any of our proprietary features contain defects, errors or bugs when first introduced or as new versions are released, we may be unable to correct these problems. Consequently, our reputation may be damaged and customers may be reluctant to buy our semiconductor solutions, which could harm our ability to retain existing customers and attract new customers, as well as our financial results. In addition, these defects, errors or bugs could interrupt or delay sales to our customers. If any of these problems are not found until after we have commenced commercial production of a new semiconductor solution, we may be required to incur additional development costs and product recalls, repairs or replacement costs. These problems may also result in claims against us by our customers or others.

Our business may be impacted by political events, war, terrorism, business interruptions and other geopolitical events and uncertainties beyond our control, including the Russian-Ukraine and conflicts in the Middle East.

War, terrorism, geopolitical uncertainties and other business interruptions could cause damage to, disrupt or cancel sales of our products and services on a global or regional basis, which could have a material adverse effect on our business or vendors with which we do business. Such events could also make it difficult or impossible for us to deliver products and services to our customers, or to advance our product development efforts. In addition, territorial invasions can lead to cybersecurity attacks on technology companies, such as ours, located far outside of the conflict zone. In the event of prolonged business interruptions due to geopolitical events, we could incur significant losses, require substantial recovery time and experience significant expenditures in order to resume our business operations.

We do not and cannot know if the current uncertainties in these geopolitical areas, which are unfolding in real-time, may escalate and result in broad economic and security conditions, which could result in material implications for our business. In addition, our insurance policies typically contain a war exclusion of some description and we do not know how our insurers are likely to respond in the event of a loss alleged to have been caused by geopolitical uncertainties.

Risks Related to our Finances

We have a history of losses, and we may not achieve or sustain profitability in the future, on a quarterly or annual basis.

We began operations in 1998 and have incurred losses on an annual basis since inception. We have incurred and will continue to incur significant operating losses. For the years ended December 31, 2024 and 2023, we had a net loss of \$12.4 million and \$22.5 million, respectively, and used cash in operating activities of \$31.0 million and \$8.8 million, respectively. We had short-term debt in the amount of \$37.6 million and \$72.3 million, including convertible promissory notes and borrowings as of December 31, 2024 and 2023, respectively. As of December 31, 2024 and 2023, we had an accumulated deficit of \$562.0 million and \$549.7 million, respectively and negative working capital of approximately \$43.3 million and \$101.8 million. We expect to incur significant expenses related to the research and development of our products and expansion of our business. Furthermore, the rapidly evolving wireless communications markets in which we sell our products, as well as other factors, make it difficult for us to forecast quarterly and annual revenue accurately. As a result, we could experience cash flow management problems, unexpected fluctuations in our results of operations and other difficulties, any of which would make it difficult for us to meet our debt obligations and achieve and maintain profitability.

Our consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that might be necessary if we are unable to obtain adequate financing in the future. Accordingly, if we do not generate sufficient level of revenue or become profitable, we will be required to seek other sources of funding, such as issuance of equity or debt securities to raise capital. Any such financings may not be accessible on acceptable terms, if at all. The failure to raise additional capital or otherwise obtain funding for our operation will have a material adverse effect on our business, results of operations and financial position. In addition, given our current available cash and the need to secure additional funding, the report of our independent registered accounting firm included in this Form 10-K contains a paragraph expressing substantial doubt as to our ability to continue as a going concern. If we are unable to continue as a going concern, our stockholders may lose some or all of their investment in the Company.

We have significant ongoing capital requirements that could have a material effect on our business and financial condition if we are unable to generate sufficient cash from operations or unable to raise capital on favorable terms.

Our business requires significant capital investment to carry out extensive research and development in order to remain competitive. At the same time, demand for our products is highly variable and there have been downturns. If our cash on hand, net proceeds from financing activities and cash generated from operations are not sufficient to fund our operations and capital requirements, we may be required to limit our growth, or enter into financing arrangements at unfavorable terms, any of which could harm our business and financial condition. We expect capital outlays and operating expenditures to increase over the next several years as we expand our operations and product development activities. We may be unable to raise additional capital on favorable terms, if at all, which would harm our ability to fund our operations and may force us to cease operation. We regularly consider fund raising opportunities and may decide, from time to time, to raise capital based on various factors, including market conditions and our plans of operation. We may experience difficulties in accessing the capital markets due to external factors beyond our control, such as volatility in the equity markets, the trading price and volume of our stock and general economic and market conditions both in the United States and abroad. In addition, we rely substantially on investors, banks, lenders and partners in South Korea to provide loans and fundings to our operations, and our ability to secure such funding may be affected by the economic, banking and capital market conditions and trends in South Korea. While we currently have an equity line of credit (ELOC) that allows us to issue and sell up to \$50 million of shares of common stock, our ability to raise capital under the ELOC has been limited due to the lower trading volume and volatility of trading price of our common stock. Additionally, we anticipate that strategic alliances and partnerships will be an important source of revenue and possible financing for us going forward. If we are unable to develop alliances with or otherwise attract investment from strategic partners, or if strategic partners are not willing to enter into transactions with us on favorable terms, our business and financial condition could be harmed.

Our indebtedness could adversely affect our operations, including our ability to perform our obligations and fund working capital.

As of December 31, 2024, we have outstanding convertible promissory notes and borrowings with a total principal amount of \$42.6 million, of which \$37.6 million is contractually due within 12 months from the reporting date. We may also incur substantial additional indebtedness. Our indebtedness could have important consequences, including the following:

- we may be unsuccessful in refinancing our existing indebtedness on a long-term basis;
- we could have difficulty satisfying our debt obligations, and if we fail to comply with these requirements, an event of default could result;
- we may be required to dedicate a substantial portion of our cash flow from operations to required payments on indebtedness, thereby reducing the cash flow available to fund SGand other product development, working capital, capital expenditures and other general corporate activities;
- in order to manage our debt and cash flows, we may increase our short-term indebtedness and decrease our long-term indebtedness which may not achieve the desired results;
- covenants relating to our indebtedness may limit our ability to obtain additional financing for working capital, capital expenditures and other general corporate activities, which may limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- we may be more vulnerable to general adverse economic and industry conditions;
- we may be placed at a competitive disadvantage compared to our competitors with less debt; and
- we may have difficulty repaying or refinancing our obligations under our senior credit facilities on their respective maturity dates.

If any of these consequences occur, our financial condition, and results of operations could be adversely affected. This, in turn, could negatively affect the market price of our Common Stock, and we may need to undertake alternative financing plans, such as refinancing or restructuring our debt, selling assets, reducing or delaying capital investments or seeking to raise additional capital. We cannot assure that any refinancing would be possible, that any assets could be sold, or, if sold, of the timing of the sales and the amount of proceeds that may be realized from those sales, or that additional financing could be obtained on acceptable terms, if at all. In addition, while we were able to negotiate with our lenders of commercial loans to extend the maturity dates or modify payment schedules, there is no guarantee that we will be successful in negotiating such terms in the future, and failure to do so may result in defaults under the loans, which will have an adverse effect on our financial conditions and results of operations.

Risks Relating to Our Intellectual Property

Our failure to protect our intellectual property rights adequately could impair our ability to compete effectively or to defend ourselves from litigation.

We rely primarily on patent, copyright, trademark and trade secret laws, as well as confidentiality and non-disclosure agreements and other methods, to protect our proprietary technologies and know-how. As of December 31, 2024, we hold 33 US patents, 35 Korean patents, 9 Taiwanese patents, 2 Japanese patents, 2 Chinese patents, and 5 patents issued in other countries. Even if the pending patent applications are granted, the rights granted to us may not be meaningful or provide us with any commercial advantage. For example, these patents could be opposed, contested, circumvented or designed around by our competitors or be declared invalid or unenforceable in judicial or administrative proceedings. The failure of our patents to adequately protect our technology might make it easier for our competitors to offer similar products or technologies. Our foreign patent protection is generally not as comprehensive as our U.S. patent protection and may not protect our intellectual property in some countries where our products are sold or may be sold in the future. Many U.S.-based companies have encountered substantial intellectual property infringement in foreign countries, including countries where we sell products. Even if foreign patents are granted, effective enforcement in foreign countries may not be available.

The legal standards relating to the validity, enforceability and scope of protection of intellectual property rights are uncertain and evolving. There is no assurance that others will not develop or patent similar or superior technologies, products or services, or that our patents, trademarks and other intellectual property will not be challenged, invalidated or circumvented by others.

Unauthorized copying or other misappropriation of our proprietary technologies could enable third parties to benefit from our technologies without paying us for doing so, which could harm our business. Monitoring unauthorized use of our intellectual property is difficult and costly. Although we are not aware of any unauthorized use of our intellectual property in the past, it is possible that unauthorized use of our intellectual property may have occurred or may occur without our knowledge. There is no assurance that the steps we have taken will prevent unauthorized use of our intellectual property. Our failure to effectively protect our intellectual property could reduce the value of our technology in licensing arrangements or in cross-licensing negotiations. We may in the future need to initiate infringement claims or litigation. Litigation, whether we are a plaintiff or a defendant, can be expensive, time-consuming and may divert the efforts of our technical staff and managerial personnel, which could harm our business, whether or not such litigation results in a determination favorable to us. If we are unable to protect our proprietary rights or if third parties independently develop or gain access to our or similar technologies, our business, revenue, reputation and competitive position could be harmed.

The enforcement and protection of our intellectual property may be expensive, could fail to prevent misappropriation or unauthorized use of our intellectual property, could result in the loss of our ability to enforce one or more patents, and could be adversely affected by changes in patent laws, by laws in certain foreign jurisdictions that may not effectively protect our intellectual property and by ineffective enforcement of laws in such jurisdictions.

We rely primarily on patent, trademark, trade secret and similar laws, as well as nondisclosure and confidentiality agreements, international treaties and other methods, to protect our intellectual property and proprietary information. Enforcing our intellectual property against misappropriation, infringement or unauthorized use may be costly, difficult and time consuming. We cannot be certain that the steps we have taken and will take in the future will prevent the misappropriation, infringement or unauthorized use of our products, technologies or intellectual property, particularly in foreign countries where the laws may not protect our rights as fully or as readily as United States laws or where the enforcement of such laws may be lacking or ineffective.

We generally enter into confidentiality agreements with our employees, consultants, strategic partners and any other third party we do business with, where our relationship with such parties may entail disclosure of our confidential information. We also try to control access to and distribution of our technologies, documentation and other proprietary information. Despite these efforts, internal or external parties may attempt to copy, disclose, obtain or use our products or technology without our authorization. Also, former employees may seek employment with our business partners, customers or competitors, and may improperly use our proprietary information for the benefit of or in connection with their new employer.

We may be subject to claims of infringement or misappropriation of third-party intellectual property rights, and any such infringement or other intellectual property claim made against us, whether or not it has merit, could be time-consuming, result in costly litigation, cause product delays, or require us to enter into royalty or licensing agreements.

Our competitors and other third parties hold numerous patents related to technology used in our industry, and may hold or obtain patents, copyrights, trademarks or other intellectual property rights that could prevent, limit, or interfere with our ability to make, use, develop, sell or market our products and services, which could make it more difficult for us to operate our business. From time to time we may be subject to claims of infringement, misappropriation or other violation of patents or other intellectual property rights and related litigation. Regardless of their merit, responding to such claims can be time consuming, can divert management's attention and resources, and may cause us to incur significant expenses in litigation or settlement, and we cannot be certain that we would be successful in defending against any such claims in litigation or other proceedings. If we do not successfully defend or settle an intellectual property

claim, we could be liable for significant monetary damages and could be prohibited from continuing to use certain technology, business methods, content or brands, and from making, selling or incorporating certain components or intellectual property into the products and services we offer. As a result, we could be forced to redesign our products and services, and/or to establish and maintain alternative branding for our products and services. To avoid litigation or being prohibited from marketing or selling the relevant products or services, we could seek a license from the applicable third party, which could require us to pay significant royalties, licensing fees, or other payments, increasing our operating expenses. If a license is not available at all or not available on reasonable terms, we may be required to develop or license a non-violating alternative, either of which could be infeasible or require significant effort and expense. If we cannot license or develop a non-violating alternative, we would be forced to limit or stop sales of our offerings and may be unable to effectively compete. Moreover, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of shares of our common stock (the Common Stock). Any of these results could materially and adversely affect our business, financial condition and results of operations and prospects. Finally, any litigation or claims, whether or not valid, could result in substantial costs, negative publicity and diversion of resources and management attention, any of which could have a material adverse effect on our business, financial condition and results of operations.

Any potential dispute involving our patents or other intellectual property could also include our industry partners and customers, which could trigger any indemnification obligations to them and result in substantial expense to us.

In any potential dispute involving our patents or other intellectual property, our licensees could also become the target of litigation, and certain customers have received notices of written offers from our competitors and others claiming to have patent rights in certain technology and inviting our customers to license this technology. Because we may indemnify our licensees and customers for intellectual property claims made against them for products incorporating our technology, any litigation could trigger technical support and indemnification obligations in some of our license agreements, which could result in substantial payments and expenses by us. In addition to the time and expense required for us to supply support or indemnification to our licensees and customers, any such litigation could severely disrupt or shut down the business of our customers, which in turn could hurt our relations with our customers and cause the sale of our proprietary technologies and products to decrease.

We or our customers may be required to obtain licenses for certain so-called standard essential patents in order to comply with applicable standards, which could require us to pay additional royalties on certain of our products. If we or our customers are unable to obtain such licenses, our business, results of operations, financial condition and prospects would be harmed.

We or our customers may be required to obtain licenses for third-party intellectual property. In particular, we may be required to obtain licenses to certain third-party patents, so-called standard essential patents, that claim features or functions that are incorporated into applicable industry standards and that we are required to provide in order to comply with the standard. If we need to license any third-party intellectual property, standard essential patents or other technology, we could be required to pay royalties on certain of our products. In addition, while the industry standards bodies and antitrust laws in certain countries may require participating companies to license their standard essential patents on fair, reasonable, and nondiscriminatory terms, there can be no assurances that we will be able to obtain such licenses on commercially reasonable terms or at all. Although we have implemented a dedicated standard essential patents licensing-in reference policy, our inability to obtain required third-party intellectual property licenses on commercially reasonable terms or at all could harm our business, results of operations, financial condition or prospects. If our customers are required to obtain such licenses, there can be no assurances that their businesses will not be adversely affected. In addition, if our competitors have significant numbers of essential patents and/or patent license rights, they could be at an advantage in negotiating with our customers or potential customers, which could influence our ability to win new business or could result in downward pressure on our average selling prices.

Our failure to comply with obligations under open source licenses could require us to release our source code to the public or cease distribution of our products, which could harm our business, financial condition and results of operations.

Some of the software used with our products, as well as that of some of our customers, may be derived from so-called open source software that is generally made available to the public by its authors and/or other third parties. This open source software is often made available to us under licenses, such as the GNU General Public License, which impose certain obligations on us in the event we were to make available derivative works of the open source software. These obligations may require us to make source code for the derivative works available to the public, and/or license such derivative works under a particular type of license, rather than the forms of license customarily used to protect our intellectual property. In addition, there is little or no legal precedent for interpreting the terms of certain of these open source licenses, including the determination of which works are subject to the terms of such licenses. While we believe we have complied with our obligations under the various applicable licenses for open source software, in the event the copyright holder of any open source software were to successfully establish in court that we have not complied with the terms of a license for a particular work, we could be required to release the source code of that work to the public and/or stop distribution of that work, which may adversely affect our business, financial condition and results of operations.

We may not be able to obtain additional patents and the legal protection afforded by any additional patents may not adequately cover the full scope of our business or permit us to gain or keep competitive advantage.

Our ability to obtain additional patents is uncertain and the legal protection afforded by these patents may not adequately protect our rights or permit us to gain or keep competitive advantage. In addition, the specific content required of patents and patent applications that are necessary to support and interpret patent claims can be uncertain due to the complex nature of the relevant legal, scientific and factual issues. Changes in either patent laws or interpretations of patent laws in the United States or elsewhere may diminish the value of our intellectual property or narrow the scope of our patent protection. Even if patents are issued regarding our products and processes, our competitors may challenge the validity of those patents.

We may not be able to obtain reimbursements from our customers for costs related to research and development activities.

In connection with product development agreements with certain customers, we received non-recurring engineering (NRE) fees to reimburse costs incurred in the development and design of our products. These arrangements are motivated primarily by the opportunity to engage customers and at the same time, jointly progress our own research and development activities with the associated development compensation. During the years ended December 31, 2024 and 2023, we recognized \$4.4 million and \$5.1 million, respectively, related to these NRE contracts and as a service revenue. Generally, these NRE reimbursements are paid upon the completion of specified milestones in our product development contracts. However, there is no guarantee that we will be able to satisfy these milestones, and failure to do so may delay or prevent us from receiving NRE fees.

We rely upon third parties for supporting technology that is integrated into some of our products, and if we are unable to continue to use this technology and future technology, our ability to sell technologically advanced products would be limited.

We rely upon third parties for supporting technology that is integrated into some of our products. If we are unable to continue to use or license on reasonable terms third-party technologies used in some of our products, we may not be able to secure alternatives on a timely basis and our business could be harmed. Even if we are able to secure an alternative license to replace the loss of an existing technology, our transition to this new technology may require additional time and expenses. Any delay or incurrence of additional costs could have an adverse effect on our business, financial condition and results of operations.

Risks Related to Ownership of Our Common Stock and Our Corporate Structure

The market price of our Common Stock may be volatile, which could cause the value of your investment to decline.

Prior to our Business Combination, our Common Stock was not traded in a public market. We cannot predict the extent to which a trading market will develop or how liquid that market might become. The trading price of our Common Stock can be volatile and subject to wide fluctuations in price in response to various factors, some of which are beyond our control. These factors include:

- changes in financial estimates, including our ability to meet our future revenue and operating profit or loss projections;
- changes in earnings estimates or recommendations by securities analysts;
- fluctuations in our operating results or those of our customers, operators or other semiconductor companies;
- commercial deployment and upgrade of 4G and 5G wireless networks;
- economic developments in the semiconductor or mobile and wireless industries as a whole;
- general economic conditions and slow or negative growth of related markets;
- announcements by us or our customers or competitors of acquisitions, new products, significant contracts or orders, commercial relationships or capital commitments;
- announcements regarding intellectual property litigation involving us or our competitors;
- changes in the financial estimates of our competitors;
- our ability to develop and market new and enhanced products on a timely basis;
- changes in the pricing and costs of manufacturing;
- commencement of or our involvement in litigation;
- any major change in our board of directors (the Board) or management;
- political or social conditions in the markets where we sell our products; and
- changes in governmental regulations.

In addition, the stock market in general, and the market for semiconductor and other technology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. These broad market and industry factors may cause the market price of our Common Stock to decrease, regardless of our actual operating performance. These trading price fluctuations may also make it more difficult for us to use our Common Stock as a means to make acquisitions or to use options to purchase or to attract and retain employees. In addition, in the past, following periods of volatility in the overall market and the market price of a company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources for our business operations.

If securities analysts or industry analysts downgrade our Common Stock, publish negative research or reports, or do not publish reports about our business, our Common Stock price and trading volume could decline.

The trading market for our Common Stock will be influenced by the research and reports that industry or securities analysts publish about us, our business and our market. If one or more analysts adversely change their recommendation regarding our Common Stock or our competitors' stock, our stock price could decline. If one or more analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our Common Stock price or trading volume to decline.

Delaware law, our Charter and Bylaws contain provisions that could delay or discourage takeover attempts that stockholders may consider favorable.

Provisions in the Second Amended and Restated Certificate of Incorporation of the Company (the Charter) and the Amended and Restated Bylaws of the Company (the Bylaws) may have the effect of delaying or preventing a change of control or changes in our management. These provisions include the following:

- the right of our Board to elect a director to fill a vacancy created by the expansion of our Board or due to the resignation or departure of an existing Board member;
- the prohibition of cumulative voting in the election of directors, which would otherwise allow less than a majority of stockholders to elect director candidates;
- the requirement for the advance notice of nominations for election to our Board or for proposing matters that can be acted upon at a stockholders' meeting;
- the ability of our Board to alter our Bylaws without obtaining stockholder approval;
- the ability of our Board to issue, without stockholder approval, up to 10,000,000 shares of preferred stock (Preferred Stock) with terms set by our Board, which rights could be senior to those of our Common Stock;
- the elimination of the rights of stockholders to call a special meeting of stockholders and to take action by written consent in lieu of a meeting; and
- the required approval of at least a majority of the shares entitled to vote at an election of directors to remove directors without cause.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law (DGCL). These provisions may prohibit large stockholders, particularly those owning 15% or more of our outstanding voting stock, from merging or combining with us. These provisions in our Charter, our Bylaws and under Delaware law could discourage potential takeover attempts and could reduce the price that investors might be willing to pay for shares of our Common Stock in the future and could result in our market price being lower than it would without these provisions.

We do not intend to pay dividends on our Common Stock and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our Common Stock.

We do not intend to declare and pay dividends on our capital stock for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Therefore, you are not likely to receive any dividends on your Common Stock for the foreseeable future and the success of an investment in shares of our Common Stock will depend upon any future appreciation in our value. There is no guarantee that shares of our Common Stock will appreciate in value or even maintain the price at which our stockholders have purchased their shares.

Our major shareholder exerts significant influence over our business and affairs.

One of our major shareholders of Anapass, Inc. (Anapass) beneficially owns approximately 18.5% of issued and outstanding our Common Stock. Mr. Kyeongho Lee, Chairman of our Board and co-founder of GCT, is also the chairman of the Board of Anapass. In addition, both Anapass and Mr. Lee are lenders under various loans and notes issued by us. Anapass's significant ownership will, for the foreseeable future, enable it to control and influence our management and affairs, and most matters requiring stockholder approval,

including the election of directors, financing activities, a merger or sale of our assets and other significant corporate transactions. Anapass and Mr. Lee may, at their discretion, elect to exercise these or similar rights at any time. This concentration of ownership could have the effect of delaying or preventing a change in our control or otherwise discouraging a potential acquirer from attempting to obtain control of us. In addition, due to Mr. Lee's controlling position with respect to both Anapass and us, which may result in a potential conflict of interest or appearance of conflict of interest and may adversely affect the rights of a minority of our stockholders.

Future sales of shares of Common Stock may depress our stock price.

Future sales of shares of Common Stock in the public market, including the resale of shares pursuant to the registration statement of which this prospectus forms a part or pursuant to Rule 144, could depress our stock price. See *Sales of a substantial number of shares of Common Stock in the public market pursuant to the registration statement of which this prospectus forms a part could reduce the market price of our Common Stock*. Subject to certain exceptions, the Registration Rights Agreement executed at the time of the Closing provides for certain restrictions on transfer with respect to our securities. Such restrictions began upon Closing and end the earliest of (A) 180 days after the Closing and (B) the first date on which (x) the closing price of Common Stock equals or exceeds \$12.00 per share for any 20 trading days within any 30-trading day period commencing at least 150 days after the Closing or (y) we complete a liquidation, merger, capital stock exchange, reorganization or other similar transaction that results in our stockholders having the right to exchange their shares of Common Stock for cash, securities, or other property.

In connection with the Closing, the Company and certain stockholders of GCT, including its directors, officers, affiliates and holders of more than 5% of outstanding shares of GCT common stock as of the Closing, entered into the Lock-Up Agreement, pursuant to which such stockholders agreed to not effect any sale or other transfer of Common Stock, subject to certain customary exceptions set forth in the Lock-Up Agreement, during the period commencing at the Closing and ending on the earlier of (i) one year following the Closing, (ii) such date as the Company completes a liquidation, merger, share exchange, reorganization or other similar transaction that results in all of the Company's stockholders having the right to exchange their shares of Common Stock for cash, securities or other property or (iii) the date on which the last sale price of Common Stock equals or exceeds \$12.00 per share (as adjusted for share splits, share consolidations, share capitalizations, rights issuances, subdivisions, reorganizations, recapitalizations and the like) for any 20 trading days within any 30 trading day period commencing at least 150 days after the Closing.

However, equityholders not subject to a lock-up and, following the expiration of the applicable lock-up periods, such equityholders referred to above will not be restricted from selling shares of our Common Stock held by them, other than by applicable securities laws, and sales could occur at any time and such sales could depress the stock price.

Risks Relating to Our Industry and Regulatory Environment

The semiconductor and communications industries are cyclical and have historically experienced significant fluctuations with prolonged downturns, which could impact our operating results, financial condition and cash flows.

The semiconductor industry has historically exhibited a pattern of cyclicality, which at various times has included significant downturns in customer demand. Cyclical downturns can result in substantial declines in semiconductor demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices. Such downturns result from a variety of market forces including constant and rapid technological change, quick product obsolescence, price erosion, evolving standards, short product life cycles and wide fluctuations in product supply and demand.

Recently, downturns in the semiconductor industry have been attributed to a variety of factors including the COVID-19 pandemic, ongoing trade disputes between the United States and China, weakness in demand and pricing for semiconductors across applications, and excess inventory. In addition, since the end of 2022, the semiconductor industry has experienced a downturn due to inventory corrections and reduced consumer demands. These downturns have directly impacted our business, suppliers, distributors and end customers.

Because a significant portion of our expenses are fixed in the near term or is incurred in advance of anticipated sales, we may not be able to reduce our expenses rapidly enough to offset any unanticipated shortfall in revenue. If this situation were to occur, it could adversely affect our operating results, cash flow and financial condition. Furthermore, the semiconductor industry has periodically experienced increased demand and production constraints. If this happens in the future, we may not be able to produce sufficient quantities of our products to meet the increased demand. We may also have difficulty in obtaining sufficient wafer, assembly and test resources from our subcontract manufacturers. Any factor adversely affecting the semiconductor industry in general, or the particular segments of the industry that our products target, may adversely affect our ability to generate revenue and could negatively impact our operating results.

The wireless communications industry has, in the past, experienced pronounced downturns, and these cycles may continue in the future. A future decline in global economic conditions could have adverse, wide-ranging effects on demand for our products and for the products of our customers, particularly wireless communications equipment manufacturers or other members of the wireless industry, such as

wireless network operators. Inflation, deflation and economic recessions that adversely affect the global economy and capital markets also adversely affect our customers and end consumers. For example, our customers' ability to purchase or pay for our products and services, obtain financing and upgrade wireless networks could be adversely affected, which may lead to many networking equipment providers slowing their research and development activities, canceling or delaying new product development, reducing their inventories and taking a cautious approach to acquiring our products, which would have a significant negative impact on our business. If this situation were to occur, it could adversely affect our operating results, cash flow and financial condition. In the future, any of these trends may also cause our operating results to fluctuate significantly from year to year, which may increase the volatility of the price of our Common Stock.

The wireless and consumer electronics industry is characterized by short product cycles, significant fluctuations in supply and demand, and rapidly changing technologies, and we may not be able to meet these challenges successfully or consistently.

A substantial portion of our products is incorporated into wireless and consumer electronics industry. The wireless and consumer electronics industry into which we sell our products is characterized by high growth, short product cycles, significant fluctuations in supply and demand, and rapidly changing technologies. In order to remain competitive, wireless and consumer electronics manufacturers must continuously develop new technologies, deliver new products and otherwise adjust their business strategies to meet these challenges. We may not be able to implement the necessary measures timely, or if at all, to mitigate these industry-wide forces. For example, We may not be able to timely reduce our expenses to offset the impact of lower revenue in a cyclical downturn due to a reduction in demand, or it may be difficult for us to quickly shift the direction of our research and development efforts in response to new market requirements. Our failure to do so could have an adverse effect on our financial condition and results of operations.

Changes in current laws or the imposition of new laws regulating the wireless networks and radio frequency emission could impede the sale of our products or otherwise harm our business.

Wireless networks can only operate in the frequency bands, or spectrum, allowed by regulators and in accordance with rules governing how the spectrum can be used. The Federal Communications Commission, or the FCC, in the United States, as well as regulators in foreign countries, have broad jurisdiction over the allocation of frequency bands for wireless networks. We therefore rely on the FCC and international regulators to provide sufficient spectrum and usage rules. For example, countries such as China, Taiwan, Japan, or Korea heavily regulate all aspects of their wireless communication industries and may restrict spectrum allocation or usage. If further restrictions were to be imposed over the frequency range where our semiconductor solutions are designed to operate, We may have difficulty in selling our products in those regions. In addition, our semiconductor solutions operate in the 2 and 3 gigahertz, or GHz, band, which in some countries is also used by government and commercial services such as military and commercial aviation. The FCC and European regulators have traditionally protected government uses of the 2 and 3 GHz bands by setting power limits and indoor and outdoor designation and requiring that wireless local area networking devices not interfere with other users of the band such as government and civilian satellite services. Changes in current laws or regulations or the imposition of new laws and regulations in the United States or elsewhere regarding the allocation and usage of the 2 and 3 GHz band on us, our customers or the industries in which we operate may materially and adversely impact the sale of our products and our business, financial condition and results of operations.

The large amount of capital required to obtain radio frequency licenses, deploy and expand wireless networks and obtain new subscribers could slow the growth of the wireless communications industry and adversely affect our business.

Our growth is dependent upon the increased use of wireless communications services that utilize our technology. In order to provide wireless communications services, wireless operators must obtain rights to use specific radio frequencies. The allocation of frequencies is regulated in the United States and other countries throughout the world, and limited spectrum space is allocated to wireless communications services. Industry growth may be affected by the amount of capital required to obtain licenses to use new frequencies, deploy wireless networks to offer voice and data services, expand wireless networks to grow voice and data services and obtain new subscribers. The significant cost of licenses, wireless networks and subscriber additions may slow the growth of the industry if wireless operators are unable to obtain or service the additional capital necessary to implement or expand 4G/5G wireless networks. Our growth could be adversely affected if this occurs.

We may experience a decrease in market demand due to uncertain economic conditions in the United States and in international markets, which has been further exacerbated by the concerns of terrorism, war and social and political instability.

Economic growth in the United States and international markets has slowed significantly. The uncertainty in the economic environment may contribute to the volatility in the United States stock markets, which has experienced significant fluctuations recently. In addition, terrorist attacks in the United States and turmoil in the Middle East, including the recent war between Israel and Hamas, have increased the uncertainty in the United States economy and may contribute to a decline in economic conditions, both domestically and internationally. Terrorist acts and similar events, or war in general, could contribute further to a slowdown of the market demand for goods and services, including demand for our products. If the economy declines as a result of the recent economic, political and social turmoil, including any potential default or downgrade in the rating of United States debt obligations, or if there are further terrorist attacks in the United States or elsewhere, we may experience decreases in the demand for our products and services, which may harm our operating results.

Rapidly changing standards could make our semiconductor solutions obsolete, which would cause our operating results to suffer.

We design our semiconductor solutions to conform to standards set by industry standard bodies, including the Institute of Electrical and Electronics Engineers, Inc., or IEEE, and the 3rd Generation Partnership Project, or 3GPP. We also depend on industry groups, such as the WiMAX Forum, to certify and maintain certification of our semiconductor solutions. If our customers adopt new or competing industry standards with which our semiconductor solutions are not compatible, or such industry groups fail to adopt standards with which our semiconductor solutions are compatible, our existing semiconductor solutions would become less desirable to our customers and our sales would suffer. The emergence of markets for our products is affected by a variety of factors beyond our control. In particular, our semiconductor solutions are designed to conform to current specific industry standards. Competing standards may emerge that are preferred by our customers, which could also reduce our sales and require us to make significant expenditures to develop new semiconductor solutions. Governments and foreign regulators may adopt standards with which our semiconductor solutions are not compatible, favor alternative technologies or adopt stringent regulations that would impair or make commercially unviable the deployment of our semiconductor solutions. In addition, products that implement existing standards may be challenged as infringing upon third-party intellectual property rights and may become obsolete.

Changes in, and the regulatory implementation of, tariffs or other government trade policies or political conditions could reduce demand for our products, limit our ability to sell our products to certain customers or our ability to comply with applicable laws and regulations.

Changes in government trade policies, including the imposition of tariffs and export restrictions, have limited and could continue to limit our ability to sell or provide our products and other items to certain customers and suppliers, which may materially adversely affect our sales and results of operations.

The U.S. or foreign governments have taken and may continue to take administrative, legislative or regulatory action that could materially interfere with our ability to export, reexport, import and transfer products and other items to certain countries, particularly China. For example, the imposition of tariffs has resulted in higher duties owed on certain products that are imported from China to the United States.

Furthermore, we have experienced and may continue to experience restrictions on our ability to export, reexport, and transfer our products and other items to certain foreign customers and suppliers where exports, reexports, or transfers of products require export licenses or are prohibited by government action. The U.S. government has in the past imposed export restrictions that effectively banned American companies from exporting, reexporting, and transferring products to certain of our customers, and imposed significant restrictions on the ability to obtain export licenses for our products. Such restrictions could have a continuing negative impact on our future revenue and results of operations. In addition, our customers or suppliers affected by U.S. government sanctions or threats of sanctions may respond by developing their own solutions to replace our products or by adopting our foreign competitors' solutions and products. Importantly, governments like China have the ability to impose countermeasures in reaction to increasing U.S. government sanctions and restrictions imposed on their companies which may impact our operations and future revenue as the compliance landscape becomes more challenging.

We cannot predict what further actions may ultimately be taken with respect to tariffs, export restrictions or other trade measures between the U.S. and China or other countries, what products or entities may be subject to such actions, or what actions may be taken by other countries in response. The loss of foreign customers or suppliers or the imposition of restrictions on our ability to sell or transfer products to such customers or suppliers as a result of tariffs, export restrictions or other U.S. regulatory actions could materially adversely affect our sales, business and results of operations.

Legislative or regulatory initiatives related to climate change could have a material adverse effect on our business.

Greenhouse gases may have an adverse effect on global temperatures, weather patterns, and the frequency and severity of extreme weather and natural disasters. Such events could have a negative effect on our business. Concern over climate change may result in new or additional legislative and regulatory requirements to reduce or mitigate the effects of climate change on the environment, which could result in future tax, transportation, and utility increases and could, in turn, have a material adverse effect on our business. There is also increased focus, including by investors, customers, and other stakeholders, on these and other sustainability matters, including the use of plastic, energy, waste, and worker safety. Our reputation could be damaged if we do not, or is perceived we do not, act responsibly with respect to sustainability matters, which could also have a material adverse effect on our business, results of operations, financial position, and cash flows.

Our ability to compete is affected by certain regulatory developments that historically has benefited our products, including regulatory restrictions against distribution of similar products by Chinese companies, and changes in such regulatory requirement may adversely affect our sales.

Our ability to compete and sell our products may be affected by certain regulatory developments that restrict other competitors to sell into the same markets as those served by our products. Specifically, regulatory and government agencies in various jurisdictions,

including the U.S., the EU, South Korea and Japan have implemented rules and regulations that limit Chinese companies from selling and distributing certain products due to concerns that China may gain access to sensitive and advanced technologies for the development and manufacturing of next-generation semiconductor products. Such regulations may include export control regulations, restriction on transfer of intellectual property and other restrictions on commercial activities and strategic transactions by Chinese companies. While we have benefited from such regulations in the past, there is no guarantee that these regulations will continue. If regulatory and government agencies decide to relax or modify these regulations to permit more companies that compete with us to enter into the same market, our business operations and financial performance may be adversely affected.

Our operating results may fluctuate from period to period and difficulty in predicting our quarterly operating results could cause the market price of our Common Stock to decline.

Our revenue and operating results have fluctuated significantly from period to period in the past and will do so in the future. As a result, you should not rely on period-to-period comparisons of our operating results as an indication of our future performance. In future periods, our revenue and results of operations may be below the expectations of analysts and investors, which could cause the market price of our Common Stock to decline.

Factors that may cause our operating results to fluctuate include but are not limited to:

- changes in the size, growth or growth prospects of the 5G markets;
- timing and success of commercial deployments of and upgrades to 4G and the next generation 5G wireless networks;
- our ability to develop and sell new products and penetrate into new markets;
- our ability to successfully design and release new products in a timely manner that meet our customers' needs;
- the timing of customer orders and the delivery of our products;
- the timing of product announcements by competitors or us;
- changes in the competitive dynamics of our market, including new entrants or pricing pressures, and our ability to compete in the 4G LTE and 5G markets;
- changes in the pricing of our products and any discounts or rebates that we offer to customers;
- costs associated with litigation, especially related to intellectual property and securities class actions;
- costs associated with any violation of the U.S. Foreign Corrupt Practices Act, the United Kingdom Bribery Act, or other similar foreign laws;
- reductions in orders and cancellations by our major customers;
- changes in manufacturing costs, including wafer, test and assembly costs;
- the impact of rising inflation and interest rates on consumer demand for electronic products;
- availability of adequate manufacturing capacity for our products; and
- general economic conditions globally and in regions where we operate.

Moreover, sales of our semiconductor solutions fluctuate from period to period due to cyclicalities in the semiconductor industry and the short product life cycles and wide fluctuations in product supply and demand characteristics of this industry. We expect these cyclical conditions to continue. Due to our limited operating history, we have yet to experience an established pattern of seasonality. However, business activities in Asia generally slowdown in the first quarter of each year during the lunar new year period, which could harm our sales and results of operations during the period. Our expense levels are relatively fixed in the short-term and are based, in part, on our future revenue projections. If revenue levels are below our expectations, we may experience declines in margins and profitability or incur a loss from our operations. As a result, our quarterly operating results are difficult to predict, even in the near term, which may result in our revenue and results of operations being below the expectations of analysts and investors, and which could cause the market price of the stock to decline.

Our business depends on international customers, suppliers and operations in Asia, which subjects us to additional risks, including increased complexity and costs of managing international operations and geopolitical instability.

We rely on, and expect to continue to rely on, customers and suppliers located primarily in the Asia-Pacific region. We also have, and will continue to have, research and development facilities in Korea and sales offices in China, Japan, Korea and Taiwan. As a result of our international focus, we are subject to a number of risks, including:

- increased complexity and costs of managing international operations;
- longer and more difficult collection of receivables;
- difficulties in enforcing contracts generally;
- limited protection of our intellectual property and other assets;
- restrictions on our ability to export our technology from the U.S. and other countries;
- compliance with local laws and regulations and unanticipated changes in local laws and regulations, including tax laws and regulations;
- complexities in the accounting and financial management of our operations;
- trade and foreign exchange restrictions and higher tariffs;
- travel restrictions;
- timing and availability of import and export licenses and other governmental approvals, permits and licenses, including export classification requirements;
- foreign currency exchange fluctuations relating to our international operating activities;
- transportation delays and limited local infrastructure and disruptions, such as large scale outages or interruptions of service from utilities or telecommunications providers;
- difficulties in staffing international operations;
- adverse changes in economic and political conditions resulting from political instability, acts of terrorism, armed conflict, social unrest, and other circumstances impacting countries in which our or our customers operate, including as a result of any escalation of the current tensions between Taiwan and China;
- the risk of government financed competition;
- local business and cultural factors that differ from our normal standards and practices;
- differing employment practices and labor issues; and
- regional health issues and natural disasters.

In addition, although we do not conduct any business in North Korea, any future increase in political or military tensions between South Korea and North Korea, or between the U.S. and North Korea, may adversely affect our business, financial condition and results of operations.

Our business operations could be significantly harmed by natural disasters or global epidemics.

We have research and development facilities located in San Jose, California which could suffer significant business disruption due to earthquakes. A significant portion of our products is manufactured by third-party contractors located in the Pacific Rim region, including Taiwan. The risk of an earthquake or tsunami in Taiwan and elsewhere in the Pacific Rim region is significant due to the proximity of major earthquake fault lines to the facilities of our foundry vendors and assembly and test subcontractors. In the event of an earthquake, our customers and suppliers may be affected by rolling blackouts, decreased access to raw materials and limited ability to ship inventory. If these conditions persist, we may experience delay or cancellation of orders from our customers if they are unable to obtain adequate supplies of components needed for the manufacture of their products that incorporate our components. We may also experience shortages of key materials required for the assembly of our own products, which could limit our ability to manufacture and ship these products. In either event, our net sales and results of operations could be adversely affected. We are not currently covered by insurance against business disruption caused by earthquakes.

Our business could be adversely affected by epidemics or outbreaks such as COVID-19, avian flu or H1N1 flu, also known as swine flu. An outbreak of respiratory virus in the human population, or another similar health crisis, could adversely affect the economies and

financial markets of many countries, particularly in Asia. Moreover, any related disruptions to transportation or the free movement of persons could hamper our operations and force us to close our offices temporarily.

The occurrence of any of the foregoing or other natural or man-made disasters could cause damage or disruption to us, our employees, operations, distribution channels, markets and customers, which could result in significant delays in deliveries or substantial shortages of our products and adversely affect our business results of operations, financial condition, or prospects.

Failure to comply with governmental laws and regulations could harm our business.

Our business is subject to regulation by various federal, state, local and foreign governmental agencies, including agencies responsible for monitoring and enforcing employment and labor laws, workplace safety, product safety, environmental laws, consumer protection laws, anti-bribery laws, import/export controls, federal securities laws and tax laws and regulations. In certain jurisdictions, these regulatory requirements are more stringent than in the United States. It is expected that new environmental laws and regulations will impact our products and operations, and although we cannot predict the ultimate impact of any such changes, they may increase our operating and manufacturing costs or result in increased penalties, which could harm our business. Noncompliance with applicable regulations or requirements could subject us to investigations, sanctions, mandatory product recalls, enforcement actions, fines, damages, civil and criminal penalties or injunctions. If any governmental sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, operating results and financial condition could be adversely affected. In addition, we may incur significant costs to respond to or defend against adverse government proceedings, and these actions may divert our management's attention and resources. Enforcement actions and sanctions could harm our business, operating results and financial condition.

The enactment of legislation implementing changes in the U.S. taxation of international business activities or the adoption of other tax reform policies could materially impact our financial position and results of operations.

The U.S. government has made public statements indicating that it has made international tax reform a priority, and key members of the U.S. Congress have conducted hearings and proposed new legislation. Recent changes to U.S. tax laws, including limitations on the ability of taxpayers to claim and utilize foreign tax credits and the deferral of certain tax deductions until earnings outside of the United States are repatriated to the United States, as well as changes to U.S. tax laws that may be enacted in the future, could impact the tax treatment of our foreign earnings. Due to the large and expanding scale of our international business activities, any changes in the U.S. taxation of such activities may increase our worldwide effective tax rate and harm our financial condition, and results of operations.

Risks Related to Being a Public Company

We may experience significant fluctuations in our results of operations, including as a result of seasonality, making it difficult to project future results.

Our operating results may vary significantly and are not necessarily an indication of future performance. These fluctuations may be a result of a variety of factors, some of which are beyond our control, such as general market and industry trends or the operations of our partners and collaborators. Our ability to attract and retain new customers and suppliers, increased competition in the markets in which we operate, our ability to expand our operations in new and existing markets, our ability to maintain an adequate growth rate and effectively manage that growth, our ability to keep pace with technological changes in the industries in which we operate, changes in governmental or other regulations affecting our business, harm to our brand or reputation, and other risks described elsewhere in these risk factors. As such, we may not accurately forecast our operating results. A significant portion of our expenses and investments are fixed, and we may not be able to adjust our spending quickly enough if our revenue is less than expected, resulting in losses that exceed our expectations. If we are unable to achieve sustained profits, our business, financial condition, and results of operations would be negatively impacted.

We may be subject to securities or class action litigation, which is expensive and could divert management attention.

Our share price may be volatile and, in the past, companies that have experienced volatility in the market price of our stock have been subject to securities litigation, including class action litigation. We may be the target of this type of litigation in the future. Litigation of this type could result in substantial costs and diversion of management's attention and resources, which could have a material adverse effect on our business, financial condition, and results of operations. Any adverse determination in litigation or any amounts paid to settle any such actual or threatened litigation could require that we make significant payments and/or could also subject us to significant liabilities.

Our Charter and Bylaws provide for an exclusive forum in the Court of Chancery of the State of Delaware for certain disputes between us and our stockholders, and that the federal district courts of the United States will be the exclusive forum for the resolution of any complaint asserting a cause of action under the Securities Act.

Our Charter provide, that: unless we consents in writing to the selection of an alternative forum, (i) (a) any derivative action or proceeding brought on behalf of us, (b) any action asserting a claim of breach of a fiduciary duty owed by any current or former director, officer,

other employee or stockholder of ours to our or our stockholders, (c) any action asserting a claim against us or our current or directors, officers, employees, or stockholders arising pursuant to any provision of DGCL, the Charter or Bylaws (as either may be amended or restated) or as to which DGCL confers jurisdiction on the Court of Chancery of the State of Delaware or (d) any action asserting a claim against us or our current or former directors, officers, employees, or stockholders governed by the internal affairs doctrine of the law of the State of Delaware shall, to the fullest extent permitted by law, be brought by any stockholder (including a beneficial owner) exclusively in the Court of Chancery of the State of Delaware or, solely if such court does not have subject matter jurisdiction thereof, in the United States District Court for the District of Delaware; and (ii) the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. Nothing in our Charter or Bylaws precludes stockholders that assert claims under the Exchange Act from bringing such claims in federal court to the extent that the Exchange Act confers exclusive federal jurisdiction over such claims, subject to applicable law.

We believe these provisions may benefit us by providing increased consistency in the application of Delaware law and federal securities laws by chancellors and judges, as applicable, particularly experienced in resolving corporate disputes, efficient administration of cases on a more expedited schedule relative to other forums and protection against the burdens of multi-forum litigation. If a court were to find the choice of forum provision that is contained in our Charter or our Bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially adversely affect our business, financial condition, and results of operations. For example, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Accordingly, there is uncertainty as to whether a court would enforce such a forum selection provision as written in connection with claims arising under the Securities Act.

The choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our current or former director, officer, other employee, agent, or stockholder to the Company, which may discourage such claims against us or any of our current or former director, officer, other employee, agent, or stockholder to the Company and result in increased costs for investors to bring a claim.

General Risks Related to the Company

The loss of any of our key personnel could seriously harm our business, and our failure to attract or retain specialized technical, management or sales and marketing talent could impair our ability to grow our business.

We believe our future success will depend in large part upon our ability to attract, retain and motivate highly skilled management, engineering, sales and marketing personnel. The loss of any key employees or the inability to attract, retain or motivate qualified personnel, including engineers and sales and marketing personnel, could delay the development and introduction of and harm our ability to sell our semiconductor solutions. We believe that our future success is dependent on the contributions of our senior management members, some of whom do not have any employment agreements. If any of these individuals were to leave unexpectedly, we could face substantial difficulty in hiring qualified successors and could experience a loss in productivity during the search for any such successor and while any successor is integrated into our business and operations.

Our key technical and engineering personnel represent a significant asset and serve as the source of our technological and product innovations. We plan to recruit design and application engineers with expertise in wireless communications technologies. We may not be successful in attracting, retaining and motivating sufficient numbers of technical and engineering personnel to support our anticipated growth.

In addition, to expand our customer base and increase sales to existing customers, we will need to hire additional qualified sales and marketing personnel. The competition for qualified marketing, sales, technical and engineering personnel in our industry is very intense. If we are unable to hire, train and retain qualified marketing, sales, technical and engineering personnel in a timely manner, our ability to grow our business will be impaired. In addition, if we are unable to retain our existing sales personnel, our ability to maintain or grow our current level of revenue will be adversely affected.

Being a public company will increase our expenses and administrative workload and will expose us to risks relating to evaluation of our internal control over financial reporting required by Section 404 of the Sarbanes-Oxley Act of 2002.

As a public company, we are required to comply with additional laws and regulations, including the Sarbanes-Oxley Act of 2002, the Dodd-Frank Act, and related rules of the SEC and requirements of the NYSE. We were not required to comply with these laws and requirements as a private company. Complying with these laws and regulations requires the time and attention of our Board and management and increases our expenses. Among other things, it requires the following: establishing, evaluating and maintaining a system of internal control over financial reporting in compliance with the requirements of Section 404 of the Sarbanes-Oxley Act and the related rules and regulations of the SEC and the PCAOB; the preparation and distribution of periodic reports in compliance with our obligations under the federal securities laws; the establishment of internal policies, principally those relating to disclosure control and

procedures and corporate governance; instituting a more comprehensive compliance function; and the involvement to a greater degree our outside legal counsel and accountants in the above activities.

We are required to comply with Section 404 in our annual report for the year ending December 31, 2024. If we fail to comply with the requirements of Section 404 in a timely manner, we might be subject to sanctions or investigation by regulatory agencies such as the SEC. In addition, failure to comply with Section 404 or the report by us of a material weakness may cause investors to lose confidence in our consolidated financial statements or the trading price of our Common Stock to decline. If we fail to remediate any material weakness, our consolidated financial statements may be inaccurate, our access to the capital markets may be restricted and the trading price of our Common Stock may decline.

As a public company, we will be required to report, among other things, control deficiencies that constitute a material weakness or changes in internal controls that materially affect, or are reasonably likely to materially affect, internal control over financial reporting. A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles that results in more than a remote likelihood that a misstatement of financial statements that is more than inconsequential will not be prevented or detected. A material weakness is a significant deficiency, or a combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected.

Our business and operations could suffer in the event of security breaches.

Attempts by others to gain unauthorized access to our information technology systems are becoming more sophisticated. These attempts, which might be related to industrial or other espionage, include covertly introducing malware to our computers and networks and impersonating authorized users, among others. Hackers may also develop and deploy viruses, worms and other malicious software programs that attack or otherwise exploit security vulnerabilities in our systems or products. Attacks may create system disruptions, cause shutdowns or result in the corruption of our engineering data, which could result in delays in product development or software updates and harm our business. Additionally, the theft, unauthorized use or publication of our intellectual property and/or confidential business information could harm our competitive position, reduce the value of our investment in research and development and other strategic initiatives or otherwise adversely affect our business. To the extent that any security breach results in inappropriate disclosure of our customers or business partners confidential information, we may incur liability as a result. We could also suffer monetary and other losses, including reputational harm, which costs we may not be able to recover. We seek to detect and investigate all security incidents and to prevent their recurrence, but in some cases, we might be unaware of an incident or its magnitude and effects. While we have identified some incidents involving attempts at unauthorized access, we are not aware of any that have succeeded. While we have not experienced any cybersecurity breaches that materially affected our operations, there is no guarantee that we will not occur in the future. In addition, our customers, partners and suppliers may experience cybersecurity attacks that may indirectly affect our ability to conduct business with them or result in cybersecurity breaches in our network, which may adversely affect our business operations. We expect to continue to devote resources to the security of our information technology systems.

Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

Our cybersecurity risk management process is an integral part of our overall enterprise risk management framework. This process, overseen by our Information Technology (IT) Director, aims to assess, identify, and manage material risks from cybersecurity threats. Our approach is designed to protect the confidentiality, integrity, and availability of our critical information systems and data, including intellectual property and confidential information.

We conduct periodic risk assessments to identify potential internal and external cybersecurity threats. These assessments evaluate the likelihood of the occurrence and potential impact of such threats, as well as the adequacy of our existing policies, procedures, systems, and controls.

The Board oversees our cybersecurity risk management process, and the Audit Committee has the authority and power to provide specific oversight of cybersecurity matters. Our IT Director who has extensive experience in information systems and cybersecurity, leads our cybersecurity strategy, policy, standards, architecture, and processes. The IT Director reports to the Chief Financial Officer (CFO). The CFO provides regular updates to the Board, Audit Committee, and executive management on the status of our cybersecurity posture and any material threats.

Our cybersecurity program employs industry-standard methodologies to manage cybersecurity risks, including secure network infrastructure design, continuous security updates, and automated alerts for suspicious activities. We also conduct regular training for employees at all levels on cybersecurity awareness and the protection of confidential information.

In the event of a cybersecurity incident, our incident response process is designed to detect, respond to, and mitigate the impact. Significant incidents are escalated to a team of business leaders, including our Chief Executive Officer, and Chief Financial Officer, who work with our incident response team to assess and address the situation. The Audit Committee oversees management's response to significant incidents and ensures compliance with disclosure requirements.

To maintain high security standards, we leverage third-party tools and services that adhere to industry best practices, including multi-layer authentication. Despite our efforts, we acknowledge that cybersecurity threats are constantly evolving, and we remain vigilant in our efforts to protect our information systems and data.

As of December 31, 2024, we have not identified any cybersecurity threats that have materially affected our business strategy, results of operations, or financial condition. However, we recognize that future incidents could have a material adverse effect on our business, financial condition, results of operations, cash flows, or reputation.

For further discussion of cybersecurity risks, please refer to the *Risk Factors* section under the heading *General Risks Related to the Company*.

Item 2. Properties.

Our principal executive offices are located in San Jose, California, and consist of approximately 5,900 square feet under a lease that expires in October 2026. This facility accommodates our product marketing and finance and administrative activities as well as a small research and development team. We have a 56,500 square-foot facility in Seoul, Korea, which accommodates a research and development center under a lease expiring in December 2025 that renews annually. We have a 100 square-foot facility in Taipei, Taiwan, which houses sales and technical support personnel, under a lease that expires in June 2025. We also have an 850 square-foot facility in Shanghai, China, for sales and technical support personnel under a lease that expires in July 2026 and a 1,200 square-foot facility in Shenzhen, China, which accommodates sales and technical support personnel, under a lease that expires in May 2025.

We do not own any real property. We believe that our leased facilities are adequate to meet our current needs and that additional facilities will be available on suitable, commercially reasonable terms to accommodate any future needs.

Item 3. Legal Proceedings.

We are not currently a party to any material legal proceedings. From time to time, we may, however, in the ordinary course of business become involved in legal proceedings. Regardless of outcome, litigation could have a material adverse effect on us due to defense and settlement costs, diversion of management resources, negative publicity, reputational harm and other factors, and there can be no assurances that favorable outcomes will be obtained.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our Common Stock and Public Warrants are currently listed on the New York Stock Exchange under the symbols GCTS and GCTSW, respectively.

Holders of Record

On March 20, 2025, there were 123 holders of record of our common stock and 5 holders of record of our warrants. Such numbers do not include beneficial owners holding our securities through nominee names.

Dividends

We have not paid any cash dividends on Common Stock to date. The Board may from time to time consider whether or not to institute a dividend policy. It is our present intention to retain any earnings for use in our business operations and accordingly, we do not anticipate the Board declaring any dividends in the foreseeable future. The payment of cash dividends in the future will be dependent upon our revenues and earnings, if any, capital requirements and general financial condition. The payment of any cash dividends will be within the discretion of our Board.

Securities Authorized for Issuance Under Equity Compensation Plans

The information required by Item 5 of Form 10-K regarding equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Annual Report.

Recent Sales of Unregistered Securities

None.

Issuer Repurchases of Equity Securities

During the quarter ended December 31, 2024, we did not repurchase any equity securities.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This discussion and analysis of our financial condition and results of operations should be read together with the audited consolidated financial statements and related notes included in this Annual Report on Form 10-K. This discussion may contain forward-looking statements including, but not limited to, our expectations or predictions of future financial or business performance or conditions. Forward-looking statements are inherently subject to risks, uncertainties, and assumptions. You should read the sections in this Annual Report titled Risk Factors and Special Note of Forward-Looking Statements for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by these forward-looking statements.

Overview

We are a fabless semiconductor company that specializes in the design, manufacturing and sale of communication semiconductors, including high-speed wireless communication technologies such as 5G/4.75G/4.5G/4G transceivers (RF) and modems, which are essential for a wide variety of industrial, B2B and consumer applications. We have successfully developed and supplied communication semiconductor chipsets and modules to leading wireless operators worldwide, as well as to original design manufacturers (ODMs) and original equipment manufacturers (OEMs) for portable wireless routers (e.g., Mobile Router (MiFi)), indoor and outdoor fixed wireless routers (e.g., customer premise equipment (CPE)), industrial machine-to-machine (M2M) applications and smartphones.

We oversee sales, marketing, and accounting operations from our headquarters in San Jose, California. The Company conducts product design, development, and customer support through our wholly owned subsidiaries located in South Korea, one of which serves as our research and development center. In addition, we utilize separate sales offices for local technical support and sales in Taiwan, China, and Japan.

Our current product portfolio includes RF and modem chipsets based on 4th generation (4G), known as Long Term Evolution (LTE), technology offering a variety of chipsets differentiated by speed and functionality. These include 4G LTE, 4.5G LTE Advanced (twice the speed of LTE), and 4.75G LTE Advanced-Pro (four times the speed of LTE) chipsets. The Company also develops and sells cellular Internet of Things (IoT) chipsets for low-speed mobile networks such as eMTC/NB-IOT/Sigfox, and other network protocols.

Even as more and more applications are deployed on 5G networks, we nonetheless anticipate continued demand for our existing 4G LTE product lineup (4.75G/4.5G/4G, etc.) for the foreseeable future, because 4G products are expected to coexist in the market with 5G products at lower price points for some time in the same way that 3rd generation (3G) products coexisted with 4G products when 4G networks were first deployed. We expect introduction of our 5G products beginning in the first half of 2025. Also, we expect the average sales prices for our 5G chipset to be approximately four times that of our 4G chipset, resulting in a significant increase in revenue and gross margins. We plan to continuously expand our product lineup to support 5G chipsets for future applications such as vehicle-to-everything standard (e.g., C-V2X), 5G-based satellite communication (e.g., Non-Terrestrial Network) and 5G-based IoT standard (e.g., RedCap). Our current chipset products are used in a wide variety of applications, including fixed wireless subscriber terminals (e.g., CPE), mobile wireless routers (e.g., Mobile Router/MiFi), various communication modules and devices, and industrial products.

Since inception, we have financed our operations primarily through cash receipts from customers, the issuance of convertible promissory notes, borrowings, issuance of capital stock, and the exercise of stock options.

Business Combination

On the Closing Date, Concord Acquisition Corp III (Concord III), a Delaware corporation, consummated a series of transactions that resulted in the combination of Gibraltar Merger Sub Inc., a Delaware corporation and a wholly-owned subsidiary of Concord III (Merger Sub), and GCT Semiconductor, Inc. (Legacy GCT), pursuant to a Business Combination Agreement, dated November 2, 2023 (the Business Combination Agreement), by and among Concord III, Merger Sub and Legacy GCT. Pursuant to the terms of the Business Combination Agreement, Merger Sub merged with and into Legacy GCT, with Legacy GCT surviving the merger as a wholly-owned subsidiary of Concord III (the Business Combination). On the Closing Date, Concord III changed its name from Concord III to GCT Semiconductor Holding, Inc.

The Business Combination was accounted for as a reverse recapitalization, with Legacy GCT being the accounting acquirer and Concord III being the acquired company for financial reporting purposes. As a result, Legacy GCT's consolidated financial statements for historical periods will be included in GCT's future periodic reports filed with the SEC.

The Company received \$17.2 million cash proceeds from the Business Combination and private investment from public equity financing (PIPE Financing), net of transaction costs. Total direct and incremental transaction costs of Concord III and Legacy GCT were \$22.0 million and treated as a reduction of the cash proceeds, of which \$8.9 million was deducted from additional paid-in capital for

underwriting, accounting, legal and other fees, and the remaining balance of \$13.1 million was expensed in the period incurred by Concord III.

Key Factors Affecting Our Performance

We believe that our future success and financial performance depend on a number of factors that present significant opportunities for our business but also pose risks and challenges, including those in the section titled *Risk Factors* of this Annual Report.

Commercial Deployment of 4G LTE and 5G Market

Our business depends upon the continued commercial deployment of 4G and 5G wireless communications equipment, products, and services based on GCT's technology. Deployment of new networks by wireless carriers requires significant capital expenditures well in advance of any revenue from such networks. If the rate of deployment of new networks by wireless carriers is slower than our expectation, this will reduce the sales of its products and could cause OEMs and ODMs to hold excess inventory. This would harm our revenues and our financial results. The worldwide commercial deployment and adoption of the narrow band LTE variants, Cat M and Cat NB, are expected to expand further the markets for Internet of Things devices. If deployments of the Cat M or Cat NB standards are delayed or if competing standards for Internet of Things devices become favored by wireless carriers, we may not be able to successfully increase sales of our Cat M and Cat NB products, which would harm our revenues and financial results.

Development of New Products

The markets in which we and our customers compete or plan to compete are characterized by rapidly changing technologies, industry standards, and technological obsolescence. Our ability to compete successfully depends on our ability to design, develop, market, and support new products and enhancements on a timely and cost-effective basis. A fundamental shift in technologies in any of our target markets, such as the 5G wireless communications markets, could harm our competitive position within these markets. Our failure to anticipate these shifts, develop new technologies, or react to changes in existing technologies could delay our development of new products, which could result in product obsolescence, decreased revenue, and loss of design wins.

The success of our new products will depend on accurate forecasts of long-term market demand, customer and consumer requirements, and future technological developments, as well as a variety of specific implementation factors, including:

- accurate prediction of the size and growth of the 4G and 5G markets;
- accurate prediction of the growth of the Internet of Things markets and the timing of commercial availability of 4G and 5G networks;
- accurate prediction of changes in device manufacturer requirements, technology, industry standards or consumer expectations, demands, and preferences;
- timely and efficient completion of product design and transfer to manufacturing, assembly and test, and securing sufficient manufacturing capacity to allow us to continue to timely and efficiently deliver products to our customers;
- market acceptance, adequate consumer demand, and commercial production of the products in which our mobile and wireless broadband semiconductor solutions are incorporated;
- the quality, performance, and reliability of the product as compared to competing products and technologies;
- effective marketing, sales, and service; and
- the ability to obtain licenses to use third-party technology to support the development of our products.

If we fail to introduce new products that meet the demands of our customers or our target markets, or if we fail to penetrate new markets, our revenue will likely decrease over time, and our financial condition could suffer.

Semiconductor and Communications Industry

The semiconductor industry has historically exhibited a pattern of cyclicality, which at various times has included significant downturns in customer demand. Cyclical downturns can result in substantial declines in semiconductor demand, production overcapacity, high inventory levels, and accelerated erosion of average selling prices. Such downturns result from a variety of market forces, including constant and rapid technological change, quick product obsolescence, price erosion, evolving standards, short product life cycles, and wide fluctuations in product supply and demand.

Downturns in the semiconductor industry have been attributed to a variety of factors, including the COVID-19 pandemic, ongoing trade disputes between the United States and China, weakness in demand and pricing for semiconductors across applications, and excess inventory. In addition, from the end of 2022, the semiconductor industry experienced a downturn due to inventory corrections and

reduced consumer demands. These downturns have directly impacted GCT's business, suppliers, distributors, and end customers. More recently the semiconductor industry has normalized however there have been lingering effects that continue to effect certain segments including that for 4G LTE, where channel inventories continue to exist and where demand has been reduced due to expedited customer transition from 4G LTE to 5G.

Because a significant portion of our expenses are fixed in the near term or are incurred in advance of anticipated sales, we may not be able to reduce our expenses rapidly enough to offset any unanticipated shortfall in revenue. If this situation were to occur, it could adversely affect our operating results, cash flow, and financial condition. In addition, the semiconductor industry has periodically experienced increased demand and production constraints. As a fabless semiconductor company, we rely exclusively on third-party foundries, including certain major semiconductor foundries such as UMC, Samsung and TSMC, for the manufacturing and supplies of its wafers and products. We do not have any formal foundry agreements that guarantee a minimum level of manufacturing capacity. In times of significant increasing demand for capacity, these foundries may experience production shortages and may not allocate sufficient manufacturing capacity to us. If this happens, we may not be able to produce sufficient quantities of our products to meet the increased demand. Any disruption in our supply chain can make it more difficult for us to obtain sufficient wafer, assembly, and test resources from our subcontract manufacturers. Any factor adversely affecting the semiconductor industry in general, or the particular segments of the industry that our products target, may adversely affect our ability to generate revenue and impact our operating results.

In addition, a shortage of manufacturing capacity can also impact the product development strategies of our major customers, which may, in turn, affect our business operations. For example, in 2022, the supply shortage caused our largest customer to change its priority on product development from 4G to the next generation of 5G products, which resulted in the reduction of 4G activity and a decline in demand for our products. Our business is expected to increase again with this customer after the launch of our 5G products.

In the past, the wireless communications industry has experienced pronounced downturns, and these cycles may continue in the future. A future decline in global economic conditions could have adverse, wide-ranging effects on demand for our products and for the products of our customers, particularly wireless communications equipment manufacturers or other members of the wireless industry, such as wireless network operators. Inflation, deflation, and economic recessions that adversely affect the global economy and capital markets also adversely affect our customers and our end consumers. For example, our customers' ability to purchase or pay for our products and services, obtain financing, and upgrade wireless networks could be adversely affected, which may lead to many networking equipment providers slowing their research and development activities, canceling, or delaying new product development, reducing their inventories, and taking a cautious approach to acquiring our products, which would have a significant negative impact on our business. If this situation were to occur, it could adversely affect our operating results, cash flow, and financial condition. In the future, any of these trends may also cause our operating results to fluctuate significantly from year to year, which may increase the volatility of our stock price.

Public Company Costs

As a result of the Business Combination, we became the successor to an SEC-registered and NYSE-listed company, which requires us to hire additional personnel and implement procedures and processes to address and comply with public company regulatory requirements and customary practices. We have incurred, and expect to continue to incur, additional expenses as a public company including directors' and officers' liability insurance premiums, director fees, and additional internal and external audit, accounting, legal, and administrative costs.

Key Components of Results of Operations

Net Revenues

The timing of revenue recognition and the amount of revenue recognized in each case depends on various factors, including the specific terms of each arrangement and the nature of the underlying performance obligations. Our net revenues are comprised of product and service revenues.

Product Revenues

Our product sales are generated from the sale of mobile semiconductor products. Product revenues are recognized at a point in time once control has been transferred to a customer, which is generally at the time of shipment.

Service Revenues

Our service revenues are generated from the sale of mobile semiconductor platform solutions aimed at the 4G LTE and 5G industries, development services, technical advice, and maintenance services. Service revenues are generally recognized over time as the customer obtains control of the promised services.

Cost of Net Revenues

Our cost of net revenues consists of product and service costs. The cost of product net revenues consists of direct and indirect costs related to the manufacturing of our products. Direct costs include wafer costs and costs of assembly and testing performed by third-party contract manufacturers. Indirect costs consist of provisions for excess and obsolete inventory, royalties, allocated overhead for employee costs and facility costs, warranty, and the amortization of our production mask sets and certain intangible assets. Shipping and handling costs incurred for inventory purchases related to the units sold and costs of product shipments are also recorded in the cost of net product revenues. Service costs consist of non-recurring engineering costs for service projects.

Operating Expenses

Research and Development Expenses

Our research and development (R&D) expenses consist of costs incurred to develop our products and services. These expenses consist of personnel costs, including salaries, employee benefit costs, and stock-based compensation for employees engaged in R&D activities, software costs, computing costs, hardware and experimental supplies, and expenses for outside engineering consultants. We expense all R&D costs in the periods in which they are incurred.

Sales and Marketing Expenses

Our sales and marketing (S&M) expenses consist of employee-related expenses, including salaries, commissions, employee benefits costs, and stock-based compensation for all marketing, sales, and sales support employees. S&M expenses also include local and centralized advertising costs and the infrastructure required to support our marketing efforts. We expense S&M costs in the periods in which they are incurred.

General and Administrative Expenses

Our general and administrative (G&A) expenses consist of various components not related to R&D or S&M, such as personnel costs, regulatory fees, costs associated with maintaining and filing intellectual property, meals and entertainment expenses, travel expenses, insurance expenses, and other expenditures related to external professional services including legal, engineering, marketing, human resources, audit, and accounting services. Personnel costs include salaries, benefits, and stock-based compensation. As we continue to grow and expand our workforce and operations, and considering the increased costs associated with operating as a public company, we anticipate that our G&A expenses will increase for the foreseeable future.

Gain on Extinguishment of Liability

Gain on extinguishment of liability relates to the release by a vendor due to a contract termination during the period of amounts payable by us for research and development services received in prior years.

Interest Expense

Interest expense primarily consists of interest and amortization of related debt issuance costs related to our borrowings and convertible promissory notes.

Other Income (Expenses)

Other income and expenses are comprised of various items that are not directly related to our operations, including foreign currency gains and losses, changes in fair value of convertible promissory notes, changes in fair value of common stock warrant liabilities, and other miscellaneous income and expenses.

Results of Operations

This section discusses the results of our operations for the periods indicated. The period-to-period comparison of financial results is not necessarily indicative of future results.

Comparison of the Years Ended December 31, 2024 and 2023

The following table sets forth our historical results for the periods indicated and the changes between periods (in thousands):

	Year Ended December 31,			
	2024	2023	\$ change	% change
Net revenues:				
Product	\$ 4,771	\$ 10,968	\$ (6,197)	(57)%
Service	4,357	5,060	(703)	(14)%
Total net revenues	9,128	16,028	(6,900)	(43)%
Cost of net revenues:				
Product	2,523	7,343	(4,820)	(66)%
Service	1,529	1,951	(422)	(22)%
Total cost of net revenues	4,052	9,294	(5,242)	(56)%
Gross profit	5,076	6,734	(1,658)	(25)%
Operating expenses:				
Research and development	17,329	10,712	6,617	62%
Sales and marketing	3,920	3,188	732	23%
General and administrative	10,798	7,392	3,406	46%
Gain on extinguishment of liability	(14,636)		(14,636)	(100)%
Loss on impairment of long-lived assets	787		787	100%
Total operating expenses	18,198	21,292	(3,094)	(15)%
Loss from operations	(13,122)	(14,558)	1,436	(10)%
Interest expense	(3,867)	(6,246)	2,379	(38)%
Gain on foreign currency transactions, net	4,690	266	4,424	1,663%
Change in fair value of common stock warrant liabilities	2,208		2,208	100%
Change in fair value of convertible promissory notes	(1,470)	(1,428)	(42)	3%
Loss from initial recognition of common stock forward liability	(586)		(586)	100%
Other income, net	213	38	175	461%
Loss before provision for income taxes	(11,934)	(21,928)	9,994	(46)%
Provision for income taxes	445	541	(96)	(18)%
Net loss	<u>\$ (12,379)</u>	<u>\$ (22,469)</u>	<u>\$ 10,090</u>	(45)%

Net Revenues

Net revenues decreased by \$6.9 million, or 43%, from \$16.0 million for the year ended December 31, 2023 to \$9.1 million for the year ended December 31, 2024. The decrease was due to a decrease of \$6.2 million in product sales and a decrease of \$0.7 million in service revenue.

Product sales decreased by \$6.2 million, or 57%, from \$11.0 million for the year ended December 31, 2023 to \$4.8 million for the year ended December 31, 2024. This decrease is driven by a reduction of \$5.0 million of LTE product sales and a decrease of \$1.2 million in LTE platform sales. This trend was primarily due to the changing priorities of our largest customers that shifted their focus to the next generation 5G products. Our net revenues are expected to increase with these customers after we launch our 5G products.

Service revenues decreased by \$0.7 million, or 14%, from \$5.1 million for the year ended December 31, 2023 to \$4.4 million for the year ended December 31, 2024. This decrease was due to the timing and scope of our service projects for LTE products.

Cost of Net Revenues

Cost of net revenues decreased by \$5.2 million, or 56%, from \$9.3 million for the year ended December 31, 2023 to \$4.1 million for the year ended December 31, 2024, driven primarily by the reduction in our product sales.

Product costs decreased by \$4.8 million, or 66%, from \$7.3 million for the year ended December 31, 2023 to \$2.5 million for the year ended December 31, 2024. This decrease in product costs was driven primarily by the reduction in direct product costs as we sold fewer units.

Service costs decreased by \$0.4 million, or 22%, from \$2.0 million for the year ended December 31, 2023 to \$1.5 million for the year ended December 31, 2024. This decrease in service costs was driven primarily by the reduction in direct costs as we were engaged in service projects with lower scope.

Our gross margins increased to 56% for the year ended December 31, 2024 compared to 42% for the year ended December 31, 2023 primarily due to changes in the product and revenue offerings mix. Specifically, we increased the share of reference platform sales and generated higher margins from our service offerings during the year ended December 31, 2024.

Research and Development Expenses

Research and development expenses increased by \$6.6 million, or 62% from \$10.7 million for the year ended December 31, 2023 to \$17.3 million for the year ended December 31, 2024, primarily in connection with our development projects. This increase reflects our 5G development program launched during 2024 and was primarily due to a \$4.1 million increase in research and development expenses mainly related to professional services provided by Alpha related to the design of 5G chip products, a \$2.0 million increase in development expenses related to our new 5G chip products, a \$0.5 million increase in stock-based compensation expense due to issuance and vesting of share-based awards, and a \$0.4 million increase in allocated overheads, partially offset by a \$0.2 million decrease in pre-production costs and a \$0.2 million reduction in support and maintenance.

Sales and Marketing Expenses

Sales and marketing expenses increased by \$0.7 million, or 23%, from \$3.2 million for the year ended December 31, 2023 to \$3.9 million for the year ended December 31, 2024. This change was primarily due to a \$0.2 million increase in temporary services, and a \$0.1 million increase in each of personnel related costs, allocations, travel, and stock-based compensation.

General and Administrative Expenses

General and administrative expenses increased by \$3.4 million, or 46%, from \$7.4 million for the year ended December 31, 2023 to \$10.8 million for the year ended December 31, 2024. The change was primarily due to a \$2.0 million increase in stock-based compensation related to the issuance and vesting of share-based awards, a \$0.9 million increase in professional expenses related to the public company operations, a \$0.7 million increase in temporary services, and a \$0.5 million increase in personnel costs, partially offset by a \$0.5 million decrease in allocations and a \$0.4 million decrease in other expenses.

Gain on Extinguishment of Liability

Gain on extinguishment of liability was \$14.6 million for the year ended December 31, 2024 due to the release by a vendor of amounts payable by us for research and development services received in prior years. No similar transactions took place during the year ended December 31, 2023.

Loss on Impairment of Long-Lived Assets

Loss on impairment of intangible assets was \$0.8 million for the year ended December 31, 2024 due to impairment charges for certain long-lived assets that were determined to be not recoverable. No impairment charges were recorded for the year ended December 31, 2023.

Interest Expense

Interest expense decreased by \$2.4 million, or 38%, from \$6.2 million for the year ended December 31, 2023 to \$3.9 million for the year ended December 31, 2024. The decrease of \$2.4 million was primarily due to the conversion of significant amounts of outstanding convertible notes upon the closing of the Business Combination.

Gain on foreign currency transactions, net

Gain on foreign currency transactions increased by \$4.4 million, or 1,663%, from \$0.3 million for the year ended December 31, 2023 to \$4.7 million for the year ended December 31, 2024. This increase of \$4.4 million was largely driven by foreign exchange fluctuations, specifically the appreciation of the US dollar against the Korean Won during the fourth quarter of 2024. Since significant amounts of our debt are denominated in Korean Wons, these trends have resulted in significant realized and unrealized gains during the year ended December 31, 2024.

Change in fair value of common stock warrant liabilities

During the year ended December 31, 2024, we recognized a gain of \$2.2 million from changes in the fair value of common stock warrant liabilities. This gain was primarily driven by the reduction in our common stock price during this period. There were no gains or losses from the warrant liabilities measurement during the year ended December 31, 2023 since the statements of operations during this period are those of Legacy GCT, which did not have liability-classified warrants.

Change in fair value of convertible promissory notes

Loss from changes in fair value of convertible promissory notes was \$1.4 million for the year ended December 31, 2023 and \$1.5 million for the year ended December 31, 2024. These losses in each year were derived from the fair value measurement and related assumptions,

specifically changes in the probability of different settlement scenarios during the year ended December 31, 2023, and remeasurement of the convertible notes prior to their settlement in our common stock during the year ended December 31, 2024.

Loss from initial recognition of common stock forward liability

We recognized a loss from initial recognition of common stock forward liability of \$0.6 million during the year ended December 31, 2024, which represents the initial fair value of the financial instrument issued under the Purchase Agreement with B. Riley. There were no similar transactions during the year ended December 31, 2023.

Liquidity and Capital Resources

Since inception, we have financed our operations primarily through cash receipts from customers, the issuance of convertible promissory notes, borrowings, issuance of capital stock, the exercise of stock options, and more recently, the sale of our common stock pursuant to an equity line of credit as described below (ELOC).

With limited exceptions, we have incurred and expect that we will continue to incur significant operating losses. For the years ended December 31, 2024 and 2023, we had a net loss of \$12.4 million and \$22.5 million, respectively, and used cash in operating activities of \$31.0 million and \$8.8 million, respectively. As of December 31, 2024 and 2023, we had an accumulated deficit of \$562.0 million and \$549.7 million, respectively. Our consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that might be necessary if we are unable to obtain adequate financing in the future.

In March 2024, we received \$17.2 million in cash proceeds from the reverse recapitalization and PIPE Financing, net of transaction costs in connection with the closing of the Business Combination. In April 2024, we entered into the ELOC under a common stock purchase agreement (the Purchase Agreement) and a related registration rights agreement (the Registration Rights Agreement) with B. Riley Principal Capital II, LLC (B. Riley). Pursuant to the Purchase Agreement, we have the right but not the obligation, to sell, from time to time, to B. Riley up to \$50.0 million in aggregate gross purchase price of shares of our common stock in our sole discretion, subject to certain conditions and limitations, during the term of 24 months. Pursuant to the Registration Rights Agreement, we filed a registration statement on Form S-1 to register the resale of shares of common stock to be sold to B. Riley, which became effective on June 6, 2024. Through February 28, 2025, we sold an aggregate of 2,438,037 shares of our common stock for \$9.7 million under the Purchase Agreement and received cash proceeds of \$8.7 million and \$1.0 million was withheld by B. Riley against the outstanding amounts payable.

As of December 31, 2024, we have outstanding convertible promissory notes and borrowings with a total principal amount of \$42.6 million, of which \$37.6 million is contractually due within 12 months from this reporting date. During July, October and November 2024, we were able to renegotiate the timing of payments for some of the obligations that initially were due in the third and the fourth fiscal quarters of 2024, and the first fiscal quarter of 2025. However, our existing debt obligations largely remain due within one year from December 31, 2024.

In November and December 2024, we entered into term loan agreements with Kyeongho Lee, pursuant to which we borrowed \$2.9 million and \$2.1 million, maturing in December 2024 and January 2025, respectively. In December 2024, we entered into a term loan agreement with Anapass, Inc. pursuant to which we borrowed \$3.4 million maturing in December 2025. In January 2025, we entered into a term loan agreement with Kyeongho Lee pursuant to which we borrowed \$4.5 million maturing in February 2025. In March 2025, we entered into a term loan agreement with Anapass, Inc. pursuant to which we borrowed \$3.1 million maturing in March 2026.

During February 2025, we were able to renegotiate the timing of payments for some of the obligations, including loan agreements with i Best Investment Co., Ltd, that initially were due in the first fiscal quarter of 2025. We will need to start generating positive cash flows, renegotiate our existing debt obligations and raise additional capital through debt or equity financing. There can be no assurance that such additional debt or equity financing will be available on terms acceptable to us or at all.

While a portion of the cash proceeds received in connection with the Business Combination was expended to support our 5G activity and fund other operational expenses, we expect that further and significant ongoing operating expenditures will be necessary to successfully implement our business plan and market our products. With the start of manufacturing, shipments and commercialization of our first 5G chipset expected during the first half of 2025, we anticipate significant expenditures in the form of production-related costs, including mask sets, wafers, and design service fees, and most such costs will be incurred prior to the commencement of manufacturing and production. If we do not have sufficient funds to make such payments, or if we cannot extend the terms of our existing commercial loans or to raise additional capital through equity or debt offerings, the payments can be delayed, which may adversely affect our business operations and financial performance. While we believe that we will be able to secure additional capital and funding in the next 12 months to sustain our operations, the report of our independent registered accounting firm included in this Form 10-K contains a paragraph expressing substantial doubt as to our ability to continue as a going concern. For a more detailed description of such risks, please see the section entitled Risk Factors disclosed in this Annual Report on Form 10-K.

We intend to mitigate the risk of any working capital deficit by continuing to seek and execute appropriate actions to secure funding as a publicly traded company, including extension and refinancing of existing loans, executing public or private equity offerings, debt financings, and other means. We have historically been able to raise capital through the issuance and sale of equity and equity-linked instruments, such as redeemable convertible preferred stock, convertible promissory notes, and borrowings, although no assurance can be provided that we would continue to be successful in doing so in the future.

We expect to use such additional liquidity and the cash and cash equivalents available to us after the Closing to finance the following activities:

- Cost of mass production of 5G and other products, including masks, wafers and design house fees;
- Acquisition of IP and tool enhancement to develop next generation of product;
- Hiring of additional personnel in engineering and sales and marketing functions; and
- Improvement of engineering equipment.

While we believe that we have a reasonable basis for our expectation and we will be available to raise additional funds, we cannot provide assurance that we will be able to complete additional financing in a timely manner. In addition, the sale of additional equity securities could result in dilution to our stockholders. The incurrence of indebtedness would result in increased debt service obligations and may include operating and financial covenants that would restrict our operations. We cannot be certain that any financing will be available in the amounts we need or on terms acceptable to us, if at all. Should we enter into definitive collaboration and/or joint venture agreements or engage in business combinations in the future, we may be required to seek additional financing.

Cash flow Comparison for the Years Ended December 31, 2024 and 2023

The following table summarizes our cash flows for the periods indicated (in thousands):

	Year Ended December 31,	
	2024	2023
Net cash used in operating activities	\$ (30,957)	\$ (8,827)
Net cash used in investing activities	(542)	(331)
Net cash provided by financing activities	36,473	8,149
Effect of exchange rate changes on cash and cash equivalents	(3,797)	(131)
Net increase (decrease) in cash and cash equivalents	\$ 1,177	\$ (1,140)

Operating Activities

Cash used in operating activities of \$31.0 million during the year ended December 31, 2024 was primarily attributable to our net loss of \$12.4 million, non-cash adjustments of \$9.7 million, and a net change in our operating assets and liabilities of \$8.8 million. Non-cash adjustments consisted primarily of a \$14.6 million gain from the extinguishment of liability, a \$2.2 million gain from the change in fair value of warrant liabilities, a \$0.4 million decrease in provision for credit loss, partially offset by \$2.7 million in stock-based compensation, a \$1.5 million loss from the change in fair value of convertible promissory notes, \$0.8 million of impairment of certain long-lived assets that were determined to be not recoverable, \$0.7 million in non-cash expense related to the issuance of common stock to an underwriter, \$0.7 million in depreciation and amortization charges, a \$0.6 million in operating lease right-of-use amortization, and a \$0.6 million loss from the initial recognition of the common stock forward liability. The change in our operating assets and liabilities of \$8.8 million primarily resulted from a decrease of \$3.2 million in accrued and other current liabilities primarily due to the payment of costs incurred related to our Business Combination, a decrease of \$2.6 million in accounts payable, an increase of \$1.7 million in contract assets, an increase of \$1.5 million in inventory, a decrease of \$0.6 million in lease liabilities, an increase of \$0.3 million in accounts receivable, an increase of \$0.3 million in other assets and a decrease of \$0.2 million in other liabilities, partially offset by a decrease of \$1.1 million in prepaid expenses and other current assets, an increase of \$0.5 million in net defined benefit liabilities, and an increase of \$0.1 million in income taxes payable.

Cash used in operating activities of \$8.8 million during the year ended December 31, 2023 was primarily attributable to our net loss of \$22.5 million, partially offset by \$4.4 million in non-cash adjustments and \$9.3 million change in our operating assets and liabilities. Non-cash adjustments consisted primarily of a \$1.4 million loss from the change in fair value of convertible promissory notes, \$1.1 million increase in credit loss allowance, \$1.1 million in depreciation and amortization charges, and \$0.7 million in operating lease right-of-use amortization. The change in our operating assets and liabilities of \$9.3 million primarily resulted from an increase of \$11.5 million in our accrued and other current liabilities related to the timing of payments and a decrease of \$2.0 million in inventory, partially offset by an increase of \$2.6 million in contract assets due to unbilled services provided under certain projects and an increase of \$1.6 million in accounts receivable.

Investing Activities

Cash used in investing activities during the years ended December 31, 2024 and 2023 was related solely to the purchases of property and equipment.

Financing Activities

Cash provided by financing activities of \$36.5 million during the year ended December 31, 2024 consisted of \$17.2 million from proceeds received from the reverse recapitalization and PIPE Financing, net of transaction costs, \$16.3 million in proceeds from the issuance of convertible promissory notes, \$11.9 million in proceeds from borrowings, \$8.5 million in proceeds received from issuance of common stock to B. Riley under the Purchase Agreement, and \$2.2 million in proceeds received from issuance of common stock in a private placement, partially offset by \$14.1 million in repayment of our borrowings and \$5.6 million in repayment of convertible promissory notes.

Cash provided by financing activities of \$8.1 million during the year ended December 31, 2023 primarily related to net proceeds from bank borrowings and convertible promissory notes of \$10.1 million. These proceeds were partially offset by the outflows from repayment of our debt instruments, including bank borrowings of \$1.5 million and convertible promissory notes of \$0.5 million.

Commitments and Contractual Obligations

We have material commitments and contractual obligations, including leases, purchase commitments, and research and development agreements. We have various operating leases, under which we lease office equipment and office space. The operating leases have various expiration dates through 2026.

We have certain commitments for outstanding purchase orders related to the manufacture of certain wafers utilized by the Company and other services, and we have entered into a material research and development agreement. See Note 8 to our consolidated financial statements included in this Form 10-K for more information regarding our additional commitments and contractual obligations.

We have certain debt agreements in place related to convertible promissory notes and borrowings. See Note 7, to our consolidated financial statements included in this Form 10-K for more information regarding our debt arrangements.

Critical Accounting Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which are prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of our consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts and related disclosures. We base our estimates on historical experience and various other factors that we believe to be reasonable under the circumstances, which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions due to the inherent uncertainty involved in making those estimates, and any such differences may be material.

Revenue Recognition

Our revenues are generated by the sale of mobile semiconductor solutions consisting of products and platform solutions aimed at the LTE and 5G industries, development services, and technical advice and maintenance services.

The timing of revenue recognition and the amount of revenue recognized in each case depends on various factors, including the specific terms of each arrangement and the nature of the underlying performance obligations. Revenues from sales of our products are recognized upon transfer of control to the customer, which is generally at the time of shipment. Service revenues from development services, technical advice, and maintenance services are generally recognized over time as these performance obligations are satisfied.

We make estimates of potential future returns and sales allowances related to current period product revenue. We analyze historical return rates and changes in customer demand when evaluating the adequacy of returns and sales allowances. Although we believe we have a reasonable basis for our estimates, such estimates may differ from actual returns and sales allowances. These differences may materially impact reported net product revenues and amounts ultimately collected on accounts receivable.

Provision for Credit Losses

Accounts receivable balances are primarily derived from revenues earned from customers located in the United States, China, South Korea, Japan, and Taiwan. We perform ongoing credit evaluations of the financial conditions of our customers and distributors, and generally do not require collateral from our customers. We continuously monitor collections and payments from customers and maintain a provision for credit losses based upon the collectibility of our customer accounts. We review the provision by considering certain factors such as historical experience, industry data, credit quality, age of balances and current economic conditions that may affect a

customer's ability to pay. Uncollectible receivables are written off when all efforts to collect have been exhausted and recoveries are recognized when they are recovered. We cannot guarantee that we will continue to experience the same credit loss rates that we had in the past. A significant change in the liquidity or financial position of any of our significant customers could have a material adverse effect on the collectibility of our accounts receivable and our future operating results. The provision for credit losses was \$1.2 million and \$1.6 million as of December 31, 2024 and December 31, 2023, respectively.

Fair Value of Convertible Promissory Notes

We have made an election to account for our convertible promissory notes under the fair value option, the convertible promissory notes are recorded at their initial fair value on the date of issuance and then are adjusted to fair value upon any modification and at each balance sheet date thereafter. Changes in the estimated fair value of the convertible promissory notes are recognized as non-cash gains or losses in the consolidated statements of operations within other income (expenses), net.

Our convertible promissory notes are valued using a discounted cash flow (DCF) model or binomial lattice model (BLM), and, prior to the Business Combination, were valued using a combination of an option pricing model and Probability-Weighted Expected Return Method (PWERM), which are a Level 3 fair value measurements. Significant assumptions used in the DCF include the remaining term and discount rate. Significant assumptions used in the BLM include volatility, remaining term, risk-free rate, and credit spread. The PWERM is a scenario-based methodology that estimates the fair value based using an analysis of future values for the Company that assumes various outcomes. The value is based on the probability-weighted present value of expected future investment returns considering each of the possible outcomes available. The future value under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability-weighted to arrive at an indication of value. Significant assumptions used in the PWERM include volatility, discount rate, and the probability of a future liquidity event.

Contracts in Own Equity Fair Value of Liability-Classified Warrants

We classify share-settled contracts, including warrants to purchase shares of the Company's common stock, that do not meet the indexation guidance as liabilities. At the end of each reporting period, these liability-classified instruments are remeasured using an option pricing model or BLM. Significant assumptions are used in determining the fair value of our warrants and include volatility and the risk-free rate.

Recent Accounting Pronouncements

See Note 2 to our consolidated financial statements included herein for more information about recent accounting pronouncements, the timing of their adoption, and our assessment, to the extent we have made one yet, of their potential impact on our financial condition and results of operations.

JOBS Act Accounting and Smaller Reporting Company Elections

We are an emerging growth company, as defined in the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until those standards apply to private companies.

We have elected to use this extended transition period for complying with certain new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our consolidated financial statements may or may not be comparable to companies that comply with new or revised accounting pronouncements as of public companies' effective dates.

We are also a smaller reporting company, as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company.

We have elected to take advantage of certain of the scaled disclosures available to smaller reporting companies, and will be able to take advantage of these scaled disclosures for so long as the market value of our voting and non-voting common stock held by non-affiliates is less than \$250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than \$100.0 million during the most recently completed fiscal year and the market value of our voting and non-voting common stock held by non-affiliates is less than \$700.0 million measured on the last business day of our second fiscal quarter.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are a smaller reporting company as defined in Rule 12b-2 of the Exchange Act and are not required to provide the information otherwise required under this Item 7A.

Item 8. Financial Statements and Supplementary Data.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
of GCT Semiconductor Holding, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of GCT Semiconductor Holding, Inc. (a Delaware corporation) and its subsidiaries (the Company) as of December 31, 2024 and 2023, and the related consolidated statements of operations, comprehensive loss, stockholders' deficit, and cash flows for each of the two years in the period ended December 31, 2024, and the related notes (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America.

Substantial Doubt about the Company's Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company's recurring losses from operations, available cash and cash used in operations raise substantial doubt about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ BPM LLP

We have served as the Company's auditor since 2024.

San Jose, California
March 25, 2025

GCT SEMICONDUCTOR HOLDING, INC.
Consolidated Balance Sheets
(in thousands, except per share amounts)

	December 31, 2024	December 31, 2023
Assets		
Current assets:		
Cash and cash equivalents	\$ 1,435	\$ 258
Accounts receivable, net	5,740	4,920
Inventory	2,977	1,486
Contract assets	5,107	3,439
Prepaid expenses and other current assets	2,332	2,906
Total current assets	17,591	13,009
Property and equipment, net	869	772
Operating lease right-of-use assets	849	1,521
Intangibles, net	65	245
Other assets	523	881
Total assets	<u>\$ 19,897</u>	<u>\$ 16,428</u>
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable	\$ 1,031	\$ 17,814
Contract liabilities	48	48
Accrued and other current liabilities	21,205	23,956
Common stock forward liability	315	
Borrowings	37,626	44,509
Convertible promissory notes, current		27,794
Operating lease liabilities, current	697	680
Total current liabilities	60,922	114,801
Convertible promissory notes, net of current	4,947	6,239
Net defined benefit liabilities	7,055	7,689
Long-term operating lease liabilities	177	850
Income taxes payable	2,076	2,178
Warrant liabilities	3,750	
Other liabilities	285	108
Total liabilities	79,212	131,865
Commitments and contingencies (Note 8)		
Stockholders' deficit:		
Preferred stock, par value \$0.0001 per share; 40,000 and 82,352 shares authorized as of December 31, 2024 and December 31, 2023, respectively; no shares issued and outstanding as of December 31, 2024 and December 31, 2023		
Common stock, par value \$0.0001 per share; 400,000 and 200,000 shares authorized as of December 31, 2024 and December 31, 2023, respectively; 47,987 and 24,166 shares issued and outstanding as of December 31, 2024 and December 31, 2023, respectively ⁽¹⁾	5	3
Additional paid-in capital ⁽¹⁾	501,195	435,752
Accumulated other comprehensive income (loss)	1,518	(1,538)
Accumulated deficit	(562,033)	(549,654)
Total stockholders' deficit	(59,315)	(115,437)
Total liabilities and stockholders' deficit	<u>\$ 19,897</u>	<u>\$ 16,428</u>

⁽¹⁾ Amounts as of December 31, 2023 differ from those in prior year consolidated financial statements as they were retrospectively adjusted as a result of the accounting for the Business Combination (as defined in the Notes to the Consolidated Financial Statements.)

The accompanying notes are an integral part of these consolidated financial statements.

GCT SEMICONDUCTOR HOLDING, INC.
Consolidated Statements of Operations
(in thousands, except per share amounts)

	2024	Year Ended December 31,	2023
Net revenues:			
Product	\$	4,771	\$ 10,968
Service		4,357	5,060
Total net revenues		9,128	16,028
Cost of net revenues:			
Product		2,523	7,343
Service		1,529	1,951
Total cost of net revenues		4,052	9,294
Gross profit		5,076	6,734
Operating expenses:			
Research and development		17,329	10,712
Sales and marketing		3,920	3,188
General and administrative		10,798	7,392
Gain on extinguishment of liability		(14,636)	
Loss on impairment of long-lived assets		787	
Total operating expenses		18,198	21,292
Loss from operations		(13,122)	(14,558)
Interest expense		(3,867)	(6,246)
Gain on foreign currency transactions, net		4,690	266
Change in fair value of common stock warrant liabilities		2,208	
Change in fair value of convertible promissory notes		(1,470)	(1,428)
Loss from initial recognition of common stock forward liability		(586)	
Other income, net		213	38
Loss before provision for income taxes		(11,934)	(21,928)
Provision for income taxes		445	541
Net loss	\$	(12,379)	\$ (22,469)
Net loss per common share ⁽¹⁾ :			
Basic and diluted	\$	(0.30)	\$ (0.94)
Weighted average common shares outstanding ⁽¹⁾ :			
Basic and diluted		40,630	23,991

⁽¹⁾ Amounts for the year ended December 31, 2023 and before that date differ from those in prior year consolidated financial statements as they were retrospectively adjusted as a result of the accounting for the Business Combination (as defined in the Notes to the Consolidated Financial Statements).

The accompanying notes are an integral part of these consolidated financial statements.

GCT SEMICONDUCTOR HOLDING, INC.
Consolidated Statements of Comprehensive Loss
(in thousands)

	Year Ended December 31,	
	2024	2023
Comprehensive loss, net of taxes:		
Net loss	\$ (12,379)	\$ (22,469)
Foreign currency translation adjustment	3,056	324
Comprehensive loss	<u>\$ (9,323)</u>	<u>\$ (22,145)</u>

The accompanying notes are an integral part of these consolidated financial statements.

GCT SEMICONDUCTOR HOLDING, INC.
Consolidated Statements of Stockholders' Deficit
(in thousands)

	Common Stock		Additional	Accumulated	Accumulated	Total
	Shares	Amount	Paid-In	Other Comprehensive	Deficit	Stockholders
			Capital	Income		Deficit
Balance as of December 31, 2022	127,761	\$ 128	\$ 433,990	\$ (1,862)	\$ (527,185)	\$ (94,929)
Effect of reverse recapitalization	(103,900)	(126)	126			
Balance as of December 31, 2022 ⁽¹⁾	23,861	2	434,116	(1,862)	(527,185)	(94,929)
Issuance of common stock upon exercise of stock options	210	1	22			23
Issuance of common stock from conversion of promissory notes and accrued interest	15		72			72
Issuance of common stock from warrant exercise	80		1,499			1,499
Stock-based compensation			43			43
Foreign currency translation adjustment				324		324
Net loss					(22,469)	(22,469)
Balance as of December 31, 2023 ⁽¹⁾	24,166	\$ 3	\$ 435,752	\$ (1,538)	\$ (549,654)	\$ (115,437)
	Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders Deficit
Balance as of December 31, 2023	129,396	\$ 129	\$ 435,626	\$ (1,538)	\$ (549,654)	\$ (115,437)
Effect of reverse recapitalization	(105,230)	(126)	126			
Balance as of December 31, 2023 ⁽¹⁾	24,166	3	435,752	(1,538)	(549,654)	(115,437)
Reverse recapitalization transaction, net of transaction costs and acquired liabilities	21,667	2	50,031			50,033
Issuance of common stock under common stock purchase agreement	2,364		9,790			9,790
Issuance of commitment shares in connection with common stock purchase agreement	57					
Issuance of common stock to underwriter	110		667			667
Issuance of common stock and common stock warrants in a private placement	742		2,240			2,240
Issuance of common stock upon exercise of stock options	133		15			15
Release of vested restricted stock units	98					
Forfeiture of unvested sponsor earnout shares	(1,350)					
Stock-based compensation			2,700			2,700
Foreign currency translation adjustment				3,056		3,056
Net loss					(12,379)	(12,379)
Balance as of December 31, 2024	47,987	\$ 5	\$ 501,195	\$ 1,518	\$ (562,033)	\$ (59,315)

⁽¹⁾ Amounts as of December 31, 2023 and before that date differ from those in prior year consolidated financial statements as they were retrospectively adjusted as a result of the accounting for the Business Combination (as defined in the Notes to the Consolidated Financial Statements).

The accompanying notes are an integral part of these consolidated financial statements.

GCT SEMICONDUCTOR HOLDING, INC.
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,	
	2024	2023
Operating activities:		
Net loss	\$ (12,379)	\$ (22,469)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	691	1,062
Loss on impairment of long-lived assets	787	
Amortization of right-of-use assets	634	728
Stock-based compensation	2,700	43
Issuance of common stock to underwriter	667	
Change in provision for credit losses	(431)	1,095
Change in fair value of convertible promissory notes	1,470	1,428
Change in fair value of warrant liabilities	(2,208)	
Loss from initial recognition of common stock forward liability	586	
Gain on extinguishment of liability	(14,636)	
Changes in operating assets and liabilities:		
Accounts receivable	(339)	(1,562)
Inventory	(1,491)	1,994
Contract assets	(1,668)	(2,553)
Prepaid expenses and other current assets	1,064	(233)
Other assets	(327)	112
Accounts payable	(2,563)	296
Contract liabilities		(603)
Accrued and other current liabilities	(3,232)	11,471
Net defined benefit liabilities	480	784
Income tax payable	91	255
Lease liabilities	(620)	(707)
Other liabilities	(233)	32
Net cash used in operating activities	(30,957)	(8,827)
Investing activities:		
Purchases of property and equipment	(542)	(331)
Net cash used in investing activities	(542)	(331)
Financing activities:		
Proceeds from reverse recapitalization and PIPE Financing, net of transaction costs	17,238	
Proceeds from issuance of convertible promissory notes	16,290	2,000
Proceeds from borrowings	11,860	8,147
Proceeds from issuance of common stock under common stock purchase agreement	8,532	
Proceeds from issuance of common stock and common stock warrants in a private placement	2,240	
Proceeds from exercise of stock options	15	23
Repayments of borrowings	(14,065)	(1,504)
Repayments of convertible promissory notes	(5,637)	(500)
Payments of finance lease liabilities		(17)
Net cash provided by financing activities	36,473	8,149
Effect of exchange rate changes on cash and cash equivalents	(3,797)	(131)
Net increase (decrease) in cash and cash equivalents	1,177	(1,140)
Cash and cash equivalents at beginning of period	258	1,398
Cash and cash equivalents at end of period	<u>\$ 1,435</u>	<u>\$ 258</u>
Supplemental disclosure of cash flow information:		
Cash paid for interest	\$ 5,151	\$ 2,259
Cash paid for income taxes	\$ 269	\$ 116
Cash paid for operating leases	\$ 744	\$ 766
Non-cash financing activities:		
Issuance of common stock from conversion of convertible promissory notes	\$ 41,209	\$ 72
Issuance of common stock from cashless warrant exercise	\$	\$ 1,499
Settlement of common stock forward liability in equity	\$ 271	\$
Proceeds from issuance of common stock withheld for outstanding payables	\$ 975	\$
Operating lease right-of-use assets obtained in exchange for operating lease liabilities	\$ 54	\$ 1,476

The accompanying notes are an integral part of these consolidated financial statements.

GCT SEMICONDUCTOR HOLDING, INC.**Notes to Consolidated Financial Statements****1. Organization and Liquidity*****Description of Business***

GCT Semiconductor Holding, Inc. (formerly known as Concord Acquisition Corp III) and its wholly owned subsidiaries (collectively GCT or the Company) is headquartered in San Jose, California, with international offices in South Korea, China, Taiwan, and Japan. The Company is a fabless semiconductor company that specializes in the design, manufacturing, and sale of communication semiconductors, including high-speed wireless communication technologies such as 5G/4.75G/4.5G/4G transceivers and modems, which are essential for a wide variety of industrial, B2B and consumer applications.

On March 26, 2024 (the Closing Date or Closing), Concord Acquisition Corp III (Concord III), a Delaware corporation, consummated a series of transactions that resulted in the combination of Gibraltar Merger Sub Inc., a Delaware corporation and a wholly-owned subsidiary of Concord III (Merger Sub), and GCT Semiconductor, Inc. (Legacy GCT), pursuant to a Business Combination Agreement, dated November 2, 2023 (as amended, the Business Combination Agreement), by and among Concord III, Merger Sub and Legacy GCT. Pursuant to the terms of the Business Combination Agreement, Merger Sub merged with and into Legacy GCT, with Legacy GCT surviving the merger as a wholly-owned subsidiary of Concord III (the Business Combination). On the Closing Date, Concord III changed its name from Concord III to GCT Semiconductor Holding, Inc.

The Business Combination was accounted for as a reverse recapitalization with Legacy GCT being the accounting acquirer and Concord III identified as the acquired company for accounting purposes. Accordingly, all historical financial information presented in the consolidated financial statements represent the accounts of Legacy GCT. Subsequent to the Business Combination, the shares and net loss per common share information prior to the Closing have been retroactively restated as shares reflecting the exchange ratio established in the Closing of approximately 0.1868.

Prior to the Business Combination, Concord III's public shares and public redeemable warrants were listed on the New York Stock Exchange (NYSE) under the symbols CNDB.U, CNDB, and CNDB.WS, respectively. On March 27, 2024, the Company's common stock and public warrants began trading on the NYSE under the symbols GCTS and GCTSW, respectively. In connection with the Closing, Concord III's Class A common stock and Class B common stock were recapitalized into a single class of common stock. See Note 3 for additional information.

Liquidity

The accompanying consolidated financial statements have been prepared assuming the Company will continue as a going concern, which contemplates the realization of assets and liabilities and commitments in the normal course of business. Through December 31, 2024, the Company has incurred operating losses and negative cash flows from operating activities and had an accumulated deficit of \$562.0 million as of December 31, 2024. The Company's existing sources of liquidity as of December 31, 2024 include cash and cash equivalents of \$1.4 million. The Company has historically funded operations primarily with issuances of capital stock and the incurrence of debt. The Company is dependent on additional fundraising in order to sustain its ongoing operations.

In March 2024, the Company received \$17.2 million in cash proceeds from the reverse recapitalization and PIPE Financing (as defined in Note 3), net of transaction costs. In April 2024, the Company executed a common stock purchase agreement (Purchase Agreement) with B. Riley Principal Capital II, LLC (B. Riley). Pursuant to the Purchase Agreement, the Company has the right, but not the obligation, to sell, from time to time, B. Riley up to \$50.0 million worth of shares of the Company's common stock at its request, at any time prior to June 2026, subject to compliance with the required conditions and limitations. Through December 31, 2024, the Company utilized \$9.7 million of the contractual commitment amount under the Purchase Agreement.

To fund its operations over the longer term, the Company will need to start generating positive cash flows, renegotiate its existing debt obligations, and raise additional capital through debt or equity financing. Management's plans include seeking additional financing, such as issuances of equity and issuances of debt and/or convertible debt instruments. Sales of additional equity securities, convertible debt, and/or warrants by the Company could result in the dilution of the interests of existing stockholders. The Company will require significant additional financing to meet its planned capital needs and is pursuing opportunities to obtain additional financing through equity and/or debt alternatives. There can be no assurance that such additional debt or equity financing will be available on terms acceptable to the Company or at all. These factors raise substantial doubt about the Company's ability to continue as a going concern for the twelve months from the date of this report. The accompanying consolidated financial statements do not include any adjustments that might be necessary if the Company is unable to continue as a going concern.

GCT SEMICONDUCTOR HOLDING, INC.**Notes to Consolidated Financial Statements****2. Summary of Significant Accounting Policies and Basis of Presentation*****Basis of Presentation***

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP).

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of GCT and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. Certain amounts reported in the audited consolidated financial statements for the year ended December 31, 2023 have been reclassified to conform to the current year's presentation.

Use of Estimates

The preparation of the accompanying consolidated financial statements in conformity with U.S. GAAP requires management to make judgments, estimates, and assumptions about future events. These estimates and the underlying assumptions affect the amounts of assets and liabilities reported, disclosures about contingent assets and liabilities, and reported amounts of revenues and expenses. These judgments, estimates, and assumptions are used for but not limited to revenue recognition, provision for credit losses, deferred income taxes and related valuation allowances, inventory obsolescence, recoverability of long-lived assets, certain accrued expenses, stock-based compensation, determination of the fair value of the Company's financial instruments, including convertible promissory notes, common stock of Legacy GCT prior to the reverse recapitalization, warrant liabilities, stock options, and common stock forward liability. The Company bases its estimates and judgments on historical experience and on various other assumptions that it believes are reasonable under the circumstances. Actual results could differ from these estimates, and these differences may be material.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturity of three months or less to be cash equivalents. The Company deposits its cash primarily in checking and money market accounts with high quality financial institutions.

Fair Value of Financial Instruments

The carrying amount of certain financial instruments held by the Company, such as cash equivalents, accounts receivable, contract assets and liabilities, accounts payable, and accrued and other current liabilities, approximate fair value due to their short maturities. The carrying amounts of the Company's bank borrowings and lease liabilities approximate their fair values due to the market interest rates that these obligations bear and interest rates available to the Company.

Fair value is defined as the exchange price that would be received for an asset or an exit price paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

Level 1	Unadjusted quoted prices in active markets for identical assets or liabilities.
Level 2	Inputs other than quoted prices included within Level 1 that are observable, unadjusted quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities.
Level 3	Unobservable inputs that are supported by little or no market activity for the related assets or liabilities.

A financial instrument's categorization within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement. The Company's Level 3 financial instruments consist of a common stock forward liability, convertible promissory notes, and warrant liabilities.

Risk and Uncertainties

The Company is subject to certain risks and uncertainties and believes changes in any of the following areas could have a material adverse effect on the Company's future financial position or results of operations or cash flows: 5G and other new product development, including market receptivity, the ability to satisfy obligations under development agreements with major partners, litigation or claims against the Company based on intellectual property, patent, product regulation or other factors, competition from other products, general economic conditions, the ability to attract and retain qualified employees and ultimately to sustain profitable operations.

GCT SEMICONDUCTOR HOLDING, INC.

Notes to Consolidated Financial Statements

The semiconductor industry is characterized by rapid technological change, competition, competitive pricing pressures, and cyclical market patterns. The Company's financial results are affected by a wide variety of factors, such as general economic conditions specific to the semiconductor industry and the Company's particular market, the timely implementation of new 5G and other new products, new manufacturing process technologies, and the ability to safeguard patents and intellectual property in a rapidly evolving market. In addition, the semiconductor market has historically been cyclical and subject to significant economic downturns. As a result, the Company may experience significant period-to-period fluctuations in consolidated operating results due to the abovementioned factors.

The Company's revenue may be impacted by its ability to obtain adequate wafer supplies from foundries and back-end production capacity from the Company's test and assembly subcontractors. The foundries with which the Company currently has arrangements may not be willing or able to satisfy all of the Company's manufacturing requirements on a timely basis or at favorable prices. The Company is also subject to the risks of service disruptions, raw material shortages and price increases by its foundries. Such disruptions, shortages and price increases could harm the Company's consolidated operating results.

Provision for Credit Losses

The provision for credit losses is based on the Company's assessment of the collectibility of its customer accounts. The Company reviews the provision for credit losses by considering certain factors such as historical experience, industry data, credit quality, age of balances, and current economic conditions that may affect a customer's ability to pay. Uncollectible receivables are written off when all efforts to collect have been exhausted and recoveries are recognized when they are recovered. The Company determined that provisions for credit losses of approximately \$1.2 million and \$1.6 million were necessary as of December 31, 2024 and 2023, respectively.

Inventory

Inventory is stated at the lower of cost or net realizable value. Cost is determined by actual cost on a first-in, first-out basis. The Company's inventory is concentrated in high technology parts and components that may be specialized in nature or subject to rapid technological obsolescence. The Company considers the following characteristics, in addition to the specialized nature and potential technological obsolescence of the Company's inventory, including age of inventory on hand and that the inventory may be returned from distributors, historical sales levels, estimated future demand within the next six months, inventory commitments or potential product revisions, in evaluating net realizable value. During each of the years ended December 31, 2024 and 2023, the Company recognized a downward adjustment related to the carrying value of the inventory of \$0.4 million, included in cost of net revenues. Once inventory has been written down below cost, it is not subsequently written up.

Property and Equipment, Net

Property and equipment are recorded at cost less accumulated depreciation and amortization. Depreciation is recognized on a straight-line basis over the estimated useful lives of the assets, generally three to seven years. Leasehold improvements are amortized over the shorter of the remaining lease term or the estimated useful life of the assets. Maintenance and repairs that do not extend the life or improve an asset are expensed in the period incurred.

Leases

The Company's lease portfolio includes leases for our corporate headquarters, office spaces, and warehouses. The Company determines if an arrangement is a lease at the inception of the contract. Right-of-use assets and lease liabilities are recognized based on the present value of lease payments over the lease term at the lease commencement date. The present value of lease payments is determined by using the interest rate implicit in the lease, if that rate is readily determinable; otherwise, the Company uses an incremental borrowing rate based on the information available at lease commencement date in determining the present value of lease payments. Right-of-use assets are adjusted for lease incentive amounts expected to be received. On the lease commencement date, the Company estimates and includes in lease payments any lease incentive amounts based on future events when (1) the events are within its control and (2) the event triggering the right to receive the incentive is deemed reasonably certain to occur. If the lease incentive received is greater or less than the amount recognized at lease commencement, the Company recognizes the difference as an adjustment to right-of-use asset and lease liability, as applicable. The Company does not have leases with residual value guarantees or similar covenants. Certain lease arrangements may include options to extend or terminate the lease. The Company includes these provisions in the right-of-use asset and lease liabilities only when it is reasonably certain that the Company will exercise that option.

Right-of-use assets and lease liabilities are remeasured upon certain modifications to leases using the present value of remaining lease payments and estimated incremental borrowing rate upon lease modification. Operating lease cost is recognized on a straight-line basis over the lease term, and includes amounts related to short-term leases. The Company recognizes variable lease payments as operating expenses in the period in which the obligation for those payments is incurred. Variable lease payments primarily include common area

GCT SEMICONDUCTOR HOLDING, INC.**Notes to Consolidated Financial Statements**

maintenance, utilities, real estate taxes, insurance, and other operating costs that are passed on from the lessor in proportion to the space we lease.

The Company has elected not to recognize right-of-use assets and lease liabilities only for short-term leases of transportation equipment that have a lease term of 12 months or less. For leases of office equipment, the Company has elected the practical expedient to account for the lease and non-lease maintenance components as a single lease component.

Impairment of Long-Lived Assets

The Company has long-lived assets such as tangible property and equipment, right-of-use assets, and identified intangible assets consisting of acquired patents and core technology. When events or changes in circumstances occur that could indicate the carrying value of long-lived assets may not be recoverable, the Company assesses recoverability by determining whether the undiscounted cash flows estimated to be generated by those assets are less than the carrying amounts of those assets. If the undiscounted cash flow is less, an impairment charge is recognized for the excess of the carrying amounts of these assets over the fair values. Fair values are determined by discounted future cash flows, appraisals or other methods.

During the year ended December 31, 2024, the Company recognized an impairment charge of \$0.8 million related to certain balances classified as other assets, which has been presented as a separate line item within the consolidated statement of operations. No impairment charges were recorded for the year ended December 31, 2023.

Revenue Recognition

The Company's revenues are generated by the sale of 4G mobile semiconductor solutions consisting of product and platform solutions aimed at the 4GLTE and WiMax industries, development services and technical advice and maintenance services. To determine when revenues are recognized, the Company performs the following five steps: (1) identify the contract(s) with a customer, (2) identify the performance obligation in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when or as the Company satisfies a performance obligation.

The revenues from product sales are identified and determined pursuant to purchase orders. The Company considers a performance obligation satisfied once it has transferred control of a good or product to a customer, meaning the customer has the ability to direct the use and obtain the benefit of the product, which is generally at the time of shipment.

Service revenues are identified and determined based on each service agreement and recognized over time or at a point in time depending on the evaluation of when the customer obtains control of the promised goods or services, which is generally as services are rendered. For contracts that include multiple performance obligations, the Company allocates revenue to each performance obligation based on estimates of the relative stand-alone selling price that the Company would charge the customer for each promised product or service.

All product revenue presented in the consolidated statements of operations is recognized at a point in time, and all service revenue is recognized over time.

Contract Assets and Liabilities

Contract assets primarily represent revenue earnings over time for which the Company does not have an unconditional right to payment based on the terms of the contracts, which generally are not yet billable. The Company does not have impairment losses associated with customer contract asset balances during the years ended December 31, 2024 and 2023.

Contract liabilities consist of fees invoiced to or paid by the Company's customer for which the associated performance obligations have not been satisfied and revenue has not been recognized based on the Company's revenue recognition criteria described above. Contract assets and liabilities are reported in a net position on an individual contract basis at the end of each reporting period. Contract assets are classified as current in the consolidated balance sheets when the Company expects to complete the related performance obligations and invoice the customers within one year of the balance sheet date, and as long-term when the Company expects to complete the related performance obligations and invoice the customers more than one year out from the balance sheet date. Contract liabilities are classified as current in the consolidated balance sheets when the revenue recognition associated with the related customer payments and invoicing is expected to occur within one year of the balance sheet date and as long-term when the revenue recognition associated with the related customer payments and invoicing is expected in more than once year from the balance sheet date.

GCT SEMICONDUCTOR HOLDING, INC.

Notes to Consolidated Financial Statements

Product Warranty

The Company provides customers with warranty claims for certain products, generally lasting 12 months from the time of sale, and warranty-related services are not considered a separate performance obligation. The Company makes estimates of product warranty expense using historical experience rates and any specifically identified failures and accrues estimated warranty expense at the time revenue is recognized as a cost of net revenues. The Company estimates the costs of warranty obligations based on historical experience of known product failure rates and anticipated rates of warranty claims, use of materials to repair or replace defective products, and service delivery costs incurred in correcting the product issues. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise. During the years ended December 31, 2024 and 2023, the product warranty reserve activity and balances were not material.

Concentration of Credit Risk

The Company's financial instruments subject to credit risk concentration consist of cash and cash equivalents and accounts receivable. The Company maintains its cash and cash equivalents primarily with one financial institution located in the United States and another located in South Korea, where amounts deposited may exceed Federal Deposit Insurance Corporation or Korea Deposit Insurance Corporation limits. The Company's accounts receivable balances are primarily derived from revenues recognized from customers located in the United States, China, South Korea, Japan, and Taiwan. The Company performs ongoing credit evaluations of the financial condition of its customers and distributors and generally does not require collateral.

The Company's net revenues and accounts receivable are concentrated among a few significant customers, which could expose the Company to financial risk in the event of adverse developments. The following represents the concentration of the Company's gross accounts receivable among key customers to the extent their share exceeds 10%:

Customer	December 31, 2024	December 31, 2023
Customer B	13%	27%
Customer D	%	10%
Customer F	22%	19%
Customer H	13%	14%
Customer K	27%	%

The following table includes customers that individually accounted for more than 10% of the Company's net revenues in the periods indicated:

Customer	2024	Year Ended December 31, 2023
Customer B	%	19%
Customer F	16%	*%
Customer G	%	19%
Customer K	22%	%
Customer L	10%	*%
Customer M	25%	%

*Less than 10%.

Management closely monitors the creditworthiness and performance of these key customers and has established credit limits and terms to mitigate potential credit risks. The Company also continues diversifying its customer base and exploring opportunities to reduce its reliance on a few major customers.

Cost of Net Revenues

Cost of net revenues consists of direct and indirect costs related to the manufacture of the Company's products. Direct costs include wafer costs and costs relating to assembly and testing performed by third-party contract manufacturers. Indirect costs consist of provisions for excess and obsolete inventory, royalties, allocated overhead for employee costs and facility costs, warranty and the amortization of the Company's production mask sets and certain intangible assets. Shipping and handling costs incurred for inventory purchases and product shipments are recorded in cost of net revenues in the consolidated statements of operations.

GCT SEMICONDUCTOR HOLDING, INC.**Notes to Consolidated Financial Statements*****Stock-Based Compensation***

Compensation costs related to stock option grants are based on the fair value of the options on the date of grant, net of estimated forfeitures. The Company determines the grant date fair value of the options using the Black-Scholes option-pricing model and the associated stock-based compensation expense is generally recognized on a straight-line basis over the period in which an employee is required to provide service in exchange for the options, which generally equals the vesting period.

Compensation costs related to the restricted stock units (RSUs) grants are based on the common stock price on the date of grant, net of estimated forfeitures. The RSUs that are based on the fixed monetary amount are initially classified as a liability and reclassified to equity when the number of shares to be issued becomes determinable and other equity classification criteria are met. The RSUs that are based on the fixed number of shares generally meet equity classification criteria on their grant dates. The associated stock-based compensation expense is recognized on a straight-line basis over the vesting period, which is generally between one and four years.

Net Loss Per Common Share

Basic net loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. All participating securities are excluded from basic weighted average shares outstanding. In computing diluted net loss, undistributed earnings are re-allocated to reflect the potential impact of dilutive securities. Diluted net loss per share is computed by dividing net loss by diluted weighted average shares outstanding, including potentially dilutive securities, unless anti-dilutive. As all potentially dilutive securities are anti-dilutive as of December 31, 2024 and 2023, diluted net loss per common share is the same as basic net loss per common share for each period.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Deferred tax expense or benefit is the result of changes in the deferred tax assets and liabilities. Valuation allowances are established when necessary to reduce deferred tax assets where, based upon the available evidence, management concludes that it is more-likely-than-not that the deferred tax assets will not be realized.

The Company records a liability for the uncertain tax positions taken or expected to be taken on the Company's tax return when it is more-likely-than-not that the tax position might be challenged despite the Company's belief that the tax return positions are fully supportable, and additional taxes will be due as a result. To the extent that the assessment of such tax positions changes, for example, based on the outcome of a tax audit, the change in estimate is recorded in the period in which the determination is made. The provision for income taxes includes the impact of provisions for uncertain tax positions. Interest and penalties related to unrecognized tax benefits are included within the provision for income taxes.

Foreign Currency

Financial statements of foreign subsidiaries that use the local currency as their functional currency are translated into U.S. dollars at the end-of-period exchange rates or at historical exchange rates for purposes of consolidation. Revenues and expenses are translated using average exchange rates during the reporting period. Translation adjustments are included in accumulated other comprehensive income (loss) within stockholders' deficit. For the year ended December 31, 2024, the Company recognized realized foreign currency exchange gains of \$1.3 million and unrealized foreign currency exchange gains of \$3.4 million. For the year ended December 31, 2023, the Company recognized realized foreign currency exchange gains of \$0.3 million and an immaterial amount of unrealized foreign currency exchange gains.

Convertible Promissory Notes

The Company has elected the fair value option to account for its outstanding convertible promissory notes, with changes in estimated fair value presented separately under the corresponding caption in the consolidated statements of operations. Through December 31, 2024, there were no changes in the instrument-specific credit risk that are required to be presented as a component of other comprehensive loss.

GCT SEMICONDUCTOR HOLDING, INC.**Notes to Consolidated Financial Statements*****Other Comprehensive Income (Loss)***

Other comprehensive income (loss) include all changes within equity that are not the result of transactions with stockholders. Accumulated other comprehensive income (loss) includes foreign currency translation adjustments arising from the consolidation of the Company's foreign subsidiaries.

Common Stock Warrants

Common stock warrants are classified as liabilities if they do not meet equity classification requirements based on their settlement mechanism upon a change of control and similar transactions. The corresponding liability is remeasured at fair value while the common stock warrants remain outstanding, with changes in fair value presented separately in the consolidated statements of operations. Common stock warrants that meet equity classification requirements are credited to stockholders' deficit on their issuance dates and are not subsequently remeasured.

Certain Equity Contracts

The Company's promises to potentially issue additional shares in the future based on certain market conditions, including the Legacy GCT Earnout Shares and the Sponsor Earnout Shares, are discussed in Note 3. These financial instruments were determined to be equity classified and credited to the stockholders' deficit upon consummation of the Business Combination.

Segment Information

The Company's chief operating decision-maker is its Chief Executive Officer. The chief operating decision-maker manages operations, allocates resources, and evaluates financial performance on a consolidated company-wide basis. Using a top-down approach, the chief operating decision-maker utilizes total consolidated metrics, which are communicated to various managers. The Company operates in one reporting segment, providing fabless semiconductor products to customers.

Emerging Growth Company Status

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards using private company timelines. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it (i) is no longer an emerging growth company or (ii) affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. As a result, these consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

Recent Accounting Pronouncements Adopted

In August 2020, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2020-06, *Debt Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* (ASU 2020-06). ASU 2020-06 reduces the number of accounting models for convertible instruments and allows more contracts to qualify for equity classification. The Company adopted this guidance effective January 1, 2024 and noted no material impact on the Company's consolidated financial statements.

In October 2021, the FASB issued ASU 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* (ASU 2021-08), which provides an exception to fair value measurement for contract assets and contract liabilities related to revenue contracts acquired in a business combination. ASU 2021-08 requires an acquirer to recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606. At the acquisition date, an acquirer should account for the related revenue contracts in accordance with Topic 606 as if it had originated the contracts. The Company adopted this guidance effective January 1, 2024 and noted no material impact on the Company's consolidated financial statements.

In June 2022, the FASB issued ASU 2022-03, *Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions* (ASU 2022-03). ASU 2022-03 clarifies that a contractual restriction on the sale of an equity security should not be considered in measuring the fair value of the equity security and cannot be recognized as a separate unit of account. ASU 2022-03 also requires the investor to disclose the fair value of equity securities subject to contractual sale restrictions, the nature and remaining duration of the restrictions, and the circumstances that could cause a lapse in the restrictions. ASU 2022-03 is effective for annual and interim periods beginning after December 15, 2024, with early adoption permitted. The Company retrospectively adopted this guidance effective July 1, 2024 and noted no material impact on the Company's consolidated financial statements.

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In November 2023, the FASB issued ASU 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* (ASU 2023-07), which expands annual and interim disclosure requirements for reportable segments, primarily through enhanced disclosures about significant segment expenses. ASU 2023-07 is effective for annual periods beginning after December 15, 2023 and for interim periods beginning after December 15, 2024, with early adoption permitted. The Company retrospectively adopted ASU 2023-07 effective on December 31, 2024. The adoption of this new guidance did not have a material impact on the disclosures since the Company operates as a single reportable and operating segment, and the significant expense information is reviewed by the chief operating decision-maker in aggregate and at the consolidated level.

Recent Accounting Pronouncements Not Yet Adopted

In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures* (ASU 2023-09), which requires companies to disclose, on an annual basis, specific categories in the effective tax rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. In addition, companies are required to disclose additional information about income taxes paid. ASU 2023-09 is effective for annual periods beginning after December 15, 2024, with early adoption permitted. The standard is required to be adopted on a prospective basis; however, retrospective application is permitted. The Company is currently evaluating the effect of the adoption of ASU 2023-09 on its consolidated financial statements.

In November 2024, the FASB issued ASU 2024-03, *Income Statement - Reporting Comprehensive Income (Topic 220): Disaggregation of Income Statement Expenses* (ASU 2024-03), which requires public entities to provide disaggregated disclosures of certain expense captions presented on the face of the income statement into specific categories within the notes to the consolidated financial statements. ASU 2024-03 is effective for the Company's annual periods beginning after December 15, 2026, and interim periods within fiscal years beginning after December 15, 2027, with early adoption permitted. The ASU may be applied either on a prospective or retrospective basis. The Company is currently evaluating the impact of adoption of ASU 2024-03 on its consolidated financial statements and related disclosures.

3. Reverse Recapitalization

In connection with the Business Combination described in Note 1, Concord III completed the acquisition of Legacy GCT and acquired 100% of Legacy GCT's common stock. Legacy GCT received net proceeds of \$17.1 million from the PIPE Financing (as defined below). Concord III incurred total direct transaction costs of \$13.1 million, which were expensed by Concord III, and of which \$0.9 million related to the PIPE Financing. Legacy GCT incurred transaction costs of \$8.9 million, consisting of legal, accounting, and other professional fees, which were recorded as additional paid-in capital. Each share of Legacy GCT capital stock received a deemed value of \$10.00 per share after giving effect to the applicable exchange ratio of 0.1868. Upon Closing of the Business Combination, the following occurred:

Each share of Legacy GCT common stock issued and outstanding prior to the Closing was cancelled and converted into the right to receive a number of shares of the Company common stock at the exchange ratio of 0.1868.

Each outstanding instrument of Legacy GCT stock options, RSUs, and warrant shares were converted into equivalent Company stock options, RSUs, and warrant shares with the same terms and conditions and at the exchange ratio of 0.1868.

Certain GCT convertible promissory notes, including the CVT Financing (see Note 7), were automatically converted into the right to receive a number of shares of the Company common stock at the conversion price of \$6.67 per share (see Note 7).

Immediately after the Closing, the Company's outstanding common stock included the following components (in thousands):

	Shares
Common stock of Concord III outstanding prior to the Business Combination	3,941
Less: redemption of Concord III's common stock	(3,766)
Sponsor earnout common stock outstanding prior to the Business Combination	8,625
Common stock of Concord III issued and outstanding	8,800
Common stock issued in PIPE Financing	4,530
Legacy GCT common stock	32,503
Total common stock issued and outstanding	45,833

The Business Combination was accounted for as a reverse recapitalization under U.S. GAAP because Legacy GCT was determined to be the accounting acquirer, and Concord III was identified as the accounting acquiree for financial reporting purposes. Accordingly, the consolidated financial statements of the Company represent a continuation of the consolidated financial statements of Legacy GCT.

GCT SEMICONDUCTOR HOLDING, INC.**Notes to Consolidated Financial Statements**

with the Business Combination treated as the equivalent of Legacy GCT issuing its common stock for the net assets of Concord III, accompanied by a recapitalization, and the net assets of Concord III were recorded at historical cost, with no goodwill or other intangible assets recorded. The results of operations prior to the Business Combination are those of Legacy GCT.

Legacy GCT was determined to be the accounting acquirer based the following facts and circumstances:

- Legacy GCT stockholders comprised a relative majority of the voting power of GCT;
- Legacy GCT stockholders had the ability to nominate a majority of the members of the board of directors of GCT;
- Legacy GCT's operations prior to the Business Combination comprised the only ongoing operations of GCT;
- Legacy GCT's senior management comprised the senior management of GCT;
- GCT substantially assumed the Legacy GCT name;
- Legacy GCT's headquarters became GCT's headquarters; and
- Concord III did not meet the definition of a business.

PIPE Financing

Concurrent with the execution of the Business Combination Agreement, certain investors entered into agreements and committed to purchase in a private placement an aggregate of 4,529,967 shares of the Company's common stock (the PIPE Shares) at a purchase price of \$6.67 per share for an aggregate purchase price of \$30.2 million (the PIPE Financing) upon the Business Combination Closing. The PIPE Financing was consummated immediately prior to the Closing and resulted in net proceeds of \$17.1 million to the Company.

Private Placement Warrants and Public Warrants

In November 2021, Concord III issued warrants to purchase shares of Concord III's common stock that were assumed by the Company at the Closing of the Business Combination on the same terms and conditions: (i) 9,400,000 warrant shares that were issued in a private placement and held by the sponsor and another company (the Private Placement Warrants) and (ii) 17,250,000 warrant shares that were issued in connection with the initial public offering of Concord III (the Public Warrants).

The Private Placement Warrants were reallocated at the Closing of the Business Combination as follows: (i) 4,492,650 warrants were vested and retained by the sponsor parties, (ii) 2,087,350 warrants were reallocated from the sponsor parties to certain recipients at Legacy GCT's discretion to incentivize investment, and (iii) 2,820,000 were forfeited by the sponsor parties.

Subsequent to the Closing, the outstanding Private Placement Warrants and Public Warrants remained liability-classified as the applicable provisions precluding classification in equity did not change as a result of the Business Combination. Refer to Note 10 for information about the warrants outstanding as of December 31, 2024.

Legacy GCT Earnout Shares

At the Closing of the Business Combination, former Legacy GCT stockholders and other investors of Legacy GCT have the right to receive up to 20,000,000 shares of Company common stock (Legacy GCT Earnout Shares). The Legacy GCT Earnout Shares may vest between May 2024 and March 2029 if the volume-weighted average price (VWAP) of the Company's common stock for any 20 trading days within 30 consecutive trading day periods exceeds the following amounts per share (VWAP Threshold): (i) one-third of the shares based on the \$12.50 per share VWAP Threshold, (ii) one-third of the shares based on the \$15.00 per share VWAP Threshold, and (iii) one-third of the shares based on the \$17.50 per share VWAP Threshold.

In the event of a future transaction that results in a change in control in which shares of the Company common stock are converted into the right to receive cash or other consideration having a value equal to or in excess of a triggering event, then the Legacy GCT Earnout Shares subject to the applicable triggering event that have not been previously issued will be issued to the Legacy GCT stockholders effective as of immediately prior to the consummation of such transaction. In the event of a transaction that results in a change in control in which shares of Company common stock are converted into the right to receive cash or other consideration having a value less than a triggering event, then the Legacy GCT Earnout Shares subject to the applicable triggering event that have not been previously issued will be forfeited.

The Legacy GCT Earnout Shares were recognized at a fair value of approximately \$108.8 million upon the Closing and classified within the stockholders' deficit as they are indexed solely to the Company's common stock and are otherwise not precluded from equity.

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classification based on their settlement provisions. Under the reverse recapitalization method of accounting, the fair value of the Legacy GCT Earnout Shares was treated as a deemed dividend and, in the absence of retained earnings, credited to additional paid-in capital without any impact on the stockholders' deficit balances.

Sponsor Earnout Shares

Concurrently with entering into the Business Combination Agreement, the sponsor parties and the Company entered into that certain sponsor support agreement, as amended, modified, or supplemented (the Sponsor Support Agreement). Pursuant to the terms of the Sponsor Support Agreement, the sponsor parties have the right to receive up to 1,920,375 shares of the Company's common stock (Sponsor Earnout Shares). The Sponsor Earnout Shares are legally outstanding and remain unvested through December 31, 2024. The Sponsor Earnout Shares may vest between September 2024 and March 2029 if the VWAP of the Company's common stock for any 20 trading days within 30 consecutive trading day periods exceeds the following VWAP Thresholds: (i) one-third of the shares based on the \$12.50 per share VWAP Threshold, (ii) one-third of the shares based on the \$15.00 per share VWAP Threshold, and (iii) one-third of the shares based on the \$17.50 per share VWAP Threshold.

The Sponsor Earnout Shares were recognized at a fair value of approximately \$10.4 million upon the Closing and classified within the stockholders' deficit as they are indexed solely to the Company's common stock and are otherwise not precluded from equity classification based on their settlement provisions. Under the reverse recapitalization method of accounting, the fair value of the Sponsor Earnout Shares was treated as a deemed dividend and, in the absence of retained earnings, credited to additional paid-in capital without any impact on the stockholders' deficit balances.

In July 2024, the number of Sponsor Earnout Shares subject to the market-based vesting condition was reduced to 570,796 shares of the Company's common stock, as the sponsor parties did not meet the required performance condition for the entire grant. The remaining 1,349,579 shares previously included in the outstanding common stock were forfeited. No adjustments to the stockholders' deficit were required upon the forfeiture of the share-based awards that contained market conditions.

4. Disaggregation of Revenue

All product revenue presented in the consolidated statements of operations is recognized at a point in time, and all service revenue is recognized over time. Net revenues are categorized by customer location as follows (in thousands):

		Year Ended December 31,	
	2024	2023	2023
United States	\$	4,167	\$ 5,056
South Korea		3,500	4,260
Germany		944	1,422
China		322	4,745
Taiwan		195	543
Other			2
Total	\$	9,128	\$ 16,028

Contract Assets and Liabilities

Net revenues recognized during the years ended December 31, 2024 and 2023 for the amounts included in the contract liabilities balance at the beginning of the respective annual periods are less than \$0.1 million and \$0.7 million, respectively. The balances related to contract fulfillment were immaterial as of December 31, 2024 and 2023.

5. Fair Value of Measurements

Recurring Fair Value Measurements

The following financial instruments are measured at fair value on a recurring basis (in thousands):

	December 31, 2024			
	Level 1	Level 2	Level 3	Total
Liabilities:				
Convertible promissory notes	\$	\$	\$ 4,947	\$ 4,947
Warrant liabilities			3,750	3,750
Common stock forward liability			315	315

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	December 31, 2023			
	Level 1	Level 2	Level 3	Total
Liabilities:				
Convertible promissory notes	\$	\$	\$ 34,033	\$ 34,033

Valuation techniques and the inputs

The table below presents valuation techniques and inputs used in the fair value measurement categorized within Level 3 of the fair value hierarchy (in thousands):

	Valuation techniques	Inputs	December 31, 2024	December 31, 2023
Convertible promissory notes, current	Probability-Weighted Expected Return Method (PWERM)	Scenario of becoming a public company and merger and acquisition (M&A)	\$	\$ 27,794
Common stock forward liability	Discounted Cash Flow (DCF)	Various utilization scenarios, risk-free rate, remaining term	315	
Convertible promissory notes, net of current	Binomial Lattice Model (BLM)	Stock price, volatility, remaining term, risk-free rate, credit spread	4,947	
Convertible promissory notes, net of current	PWERM	Scenario of becoming a public company and merger and acquisition (M&A)		6,239
Warrant liabilities	Black Scholes Merton Model (BSM) or BLM	Exercise price, term to expiration, volatility, risk-free rate	3,750	

As of December 31, 2024, the key inputs for the common stock forward valuation using the DCF model were as follows: a remaining term of 1.4 years and future risk-free rate estimates ranging from 4.16% to 4.40% for this period.

As of December 31, 2024, the key inputs for the convertible promissory notes, net of current, using the BLM were as follows: stock price of \$2.33, implied volatility of 53.10%, remaining term of 1.2 years, risk-free rate of 4.17%, and credit spread of 5.20%.

As of December 31, 2024, the key inputs for the private placement warrants using the BSM were as follows: exercise price of \$11.50 per share, term to expiration of 4.2 years, implied volatility of 53.10%, and a risk-free rate of 4.29%. As of December 31, 2024, the key inputs for the public warrants using the BLM were as follows: exercise price of \$11.50 per share and term to expiration of 4.2 years. As of December 31, 2024, the key inputs for the other warrant liabilities using the BSM were as follows: an exercise price of \$10.00 per share, or \$18.75 per share, term to expiration ranging from 1.2 years to 1.8 years, volatility ranging from 48.10% to 49.70%, and a risk-free rate ranging from 4.13% to 4.19%.

As of December 31, 2023, the PWERM was used as Legacy GCT was a private company. After the Closing, and as of December 31, 2024, the valuation techniques used reflect that the Business Combination was consummated.

The following table sets forth a summary of the changes in the fair value of the convertible promissory notes (in thousands):

As of December 31, 2023	\$	34,033
Conversion		(41,209)
Borrowing		16,290
Repayment		(5,637)
Change in fair value		1,470
As of December 31, 2024	\$	4,947

The following table sets forth a summary of the changes in the fair value of the warrant liabilities (in thousands):

As of December 31, 2023	\$	
Fair value of warrants assumed at Closing		5,958
Change in fair value		(2,208)
As of December 31, 2024	\$	3,750

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The following table sets forth a summary of the changes in the fair value of the common stock forward liability (in thousands):

As of March 31, 2024	\$	
Loss from initial recognition		586
Settlement in equity		(271)
As of December 31, 2024	\$	315

6. Balance Sheet Components

Inventory

Inventories consist of the following (in thousands):

	December 31, 2024	December 31, 2023
Raw materials	\$ 1,005	\$ 448
Work-in-process	224	601
Finished goods	1,748	437
Total inventory	\$ 2,977	\$ 1,486

Prepaid expenses and other current assets

Prepaid expenses and other current assets consist of the following (in thousands):

	December 31, 2024	December 31, 2023
Prepaid insurance and other expenses	\$ 1,192	\$ 433
Prepaid research and development	472	
Lease deposit	389	434
Prepaid inventory	209	279
Other receivables and current assets	70	117
Deferred transaction costs		1,643
Total prepaid expenses and other current assets	\$ 2,332	\$ 2,906

Property and equipment, net

Property and equipment, net consists of the following (in thousands):

	December 31, 2024	December 31, 2023
Production equipment	\$ 13,774	\$ 14,887
IT equipment	1,249	1,127
Furniture and fixtures	717	784
Leasehold improvements	272	293
Other property and equipment	8	
Total property and equipment	16,020	17,091
Less: accumulated depreciation and amortization	(15,151)	(16,319)
Total property and equipment, net	\$ 869	\$ 772

For the years ended December 31, 2024 and 2023, depreciation expense related to the Company's property and equipment was \$0.5 million and \$0.6 million, respectively.

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Intangibles, net

For the years ended December 31, 2024 and 2023, amortization expense related to the Company's intangible assets was \$0.2 million and \$0.4 million, respectively.

Leases

The Company also has several noncancellable operating leases, primarily for office equipment and office space that expire over the next two years. The Company's leases generally do not include termination options for either party to the lease or restrictive financial or other covenants.

Payments due under the lease contracts include fixed payments plus, for many of the Company's leases, variable payments. For office space leases, variable payments include payments for the Company's proportionate share of the building's property taxes, insurance, and common area maintenance. For office equipment leases for which the Company has elected not to separate lease and non-lease components, maintenance services are provided by the lessor at a fixed cost and are included in the fixed lease payments for the single, combined lease component. The Company also elected to discount its office equipment lease liabilities using a risk-free rate.

Operating lease expense was \$0.8 million for each of the years ended December 31, 2024 and 2023.

Other information related to operating leases was as follows:

	December 31, 2024	December 31, 2023
Weighted average remaining lease term	1.36 years	2.25 years
Weighted average discount rate	4.25%	4.66%

Maturities of operating lease liabilities under noncancellable leases are as follows (in thousands):

	Amount
2025	\$ 717
2026	183
Total undiscounted lease payments	900
Less: imputed interest	(26)
Total operating lease liabilities	<u>\$ 874</u>

Accrued and other current liabilities

Accrued and other current liabilities consist of the following (in thousands):

	December 31, 2024	December 31, 2023
Payroll and related expenses	\$ 8,193	\$ 9,880
Accrued payables	7,881	6,319
Other taxes payable	3,533	158
Current portion of interest payable	762	6,915
Other	836	684
Total accrued and other current liabilities	<u>\$ 21,205</u>	<u>\$ 23,956</u>

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Contract Assets

The following represents the activity related to contract assets (in thousands):

		2024	Year Ended December 31,	2023	
Beginning of period	\$		3,439	\$	886
Service revenue invoiced			(2,640)		(1,854)
Unbilled service revenue recognized			4,308		4,407
End of period	\$		5,107	\$	3,439

7. Debt

The Company's outstanding debt was as follows (in thousands):

	December 31, 2024		December 31, 2023	
	Outstanding Principal	Fair Value	Outstanding Principal	Fair Value
Convertible promissory notes:				
Historical convertible promissory notes	\$	\$	\$ 35,347	\$ 34,033
2024 convertible promissory note	5,000	4,947		
Total convertible promissory notes	5,000	4,947	35,347	34,033
Borrowings:				
KEB Hana Bank	6,122	6,122	6,980	6,980
IBK Industrial Bank	6,259	6,259	7,135	7,135
Note payable (one individual investor)			1,000	1,000
Mujin Electronics Co., Ltd.	3,401	3,401		
M-Venture Investment, Inc.			7,756	7,756
Anapass, Inc., related party	12,245	12,245	10,082	10,082
i Best Investment Co., Ltd	4,082	4,082	10,082	10,082
Kyeongho Lee, related party	5,517	5,517	1,474	1,474
Total debt	\$ 42,626	42,573	\$ 79,856	78,542
Less: current portion		(37,626)		(72,303)
Debt, net of current portion		\$ 4,947		\$ 6,239

Expected future minimum principal payments under the Company's total debt is as follows as of December 31, 2024 (in thousands):

Years	Convertible Notes Payable	Borrowings	Total
2025	\$	\$ 37,626	\$ 37,626
2026	5,000		5,000
Total debt	\$ 5,000	\$ 37,626	\$ 42,626

Convertible Promissory Notes

Historical Convertible Promissory Notes

Between 2017 and 2022, the Company issued convertible promissory notes to various investors with maturity dates ranging from October 2020 to April 2025. The annual interest rates varied between 4.0% and 7.0%. In November 2023, the Company entered into an amendment with certain convertible promissory noteholders to modify the conversion terms such that these notes were automatically convertible upon a special purpose acquisition company (SPAC) transaction. In March 2024, upon the Closing of the Business Combination, an aggregate principal and interest amount of \$32.1 million converted into 4,258,223 shares of common stock at a conversion price of \$10.00. In April 2024, the Company repaid one of the convertible promissory notes that was issued in 2021 with a principal amount of \$0.6 million. In August and September 2024, the Company repaid one of the convertible promissory notes that was issued in 2017 with a principal amount of \$1.0 million. In November and December 2024, the Company repaid in full the outstanding

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convertible promissory note that was issued in 2017 with a principal amount of \$4.0 million. As of December 31, 2024, none of the historical notes remained outstanding.

2023 and 2024 Convertible Promissory Notes

In November 2023, February 2024 and March 2024, the Company issued convertible promissory notes to certain investors (the CVT Investors), pursuant to which the CVT Investors agreed to lend to the Company an aggregate principal amount of \$13.3 million. These notes had maturity dates ranging from November 2026 to March 2027, bore an interest rate of 5.0%, and were automatically convertible upon IPO or SPAC transaction. In March 2024, upon the Closing of the Business Combination, an aggregate principal and interest amount of \$13.4 million converted into 2,004,535 shares of common stock at a conversion price of \$6.67. As of December 31, 2024, none of the notes issued to CVT Investors remain outstanding.

In February 2024, the Company issued a convertible promissory note to a strategic investor for a principal amount of \$5.0 million, which matures in February 2026 and bears an interest rate of 5.0% per annum. On or after the earlier of (i) six months from the issuance date of the convertible promissory note and (ii) the Closing of the Business Combination, the noteholder may demand that the Company convert all principal and interest due under the convertible promissory note into shares of Company's common stock, at a conversion price of \$10.00 per share. This note includes customary representations, warranties, and events of default, as well as a covenant relating to the performance of obligations by the Company related to the Company's 5G activity. As of December 31, 2024, the remaining principal and interest amount of \$5.2 million was outstanding.

Borrowings Pursuant to Term Loan and Security Agreements

The amounts in Korean Won (KRW) presented below were converted into US dollars based on the applicable historical exchange rates.

KEB Hana Bank

In July 2016, the Company entered into an unsecured term loan agreement with KEB Hana Bank, pursuant to which it borrowed 9.0 billion in KRW (\$6.7 million), bearing a variable interest rate (initial annual interest rate of 2.6% and interest ranging between 3.5–4.9% as of December 31, 2024), paid monthly, and maturing in July 2017. The terms of such unsecured term loan agreement have been extended annually for additional one-year terms since 2017, and the maturity date was July 2024. In April 2024, the Company executed an amendment to extend the maturity date to April 2025 for the principal amount of KRW 1.0 billion (\$0.7 million) with an interest rate of 3.5%. In July 2024, the Company executed an amendment to extend the maturity date to July 2025 for the principal amount of KRW 8.0 billion (\$6.0 million) with an interest rate of 4.9%. Anapass, Inc., a related party, provided certificates of deposit as collateral to KEB Hana Bank to secure the Company's obligations under this loan (see Note 8).

IBK Industrial Bank

In January 2017, the Company entered into a term loan agreement with IBK Industrial Bank, pursuant to which the Company borrowed KRW 9.2 billion (\$6.8 million). The term loan has a maturity date in November 2025 and bears an annual interest rate of 4.1%.

Note Payable (One Individual Investor)

In June 2021, the Company entered into a note payable agreement with an individual investor, pursuant to which the Company borrowed \$1.0 million. The note had a maturity date of June 2024 and bears an annual interest rate of 4.0%. In April 2022, the Company entered into an amendment with this one individual investor to remove the conversion right from the note payable. In June 2024, the Company executed an amendment with the individual investor to extend the maturity date from June 2024 to August 2024. In August 2024, the Company repaid this note.

M-Venture Investment, Inc.

In October 2021, the Company entered into a term loan and security agreement with M-Venture Investment, Inc. pursuant to which the Company borrowed KRW 5.0 billion (\$3.7 million) and repaid KRW 0.6 billion (\$0.4 million) and KRW 0.4 billion (\$0.3 million) in 2021 and 2022, respectively, such that KRW 4.0 billion (\$3.0 million) remained outstanding. The term loan bears an annual interest rate of 6.5%. In April 2024, the Company executed an amendment with M-Venture Investment, Inc., pursuant to which the Company repaid KRW 2.0 billion (\$1.5 million) in April 2024. In May 2024, the Company repaid the term loan in full.

In April 2022, the Company entered into a term loan and security agreement with M-Venture Investment, Inc., pursuant to which the Company borrowed amounts in two draws of KRW 1.0 billion (\$0.7 million) and KRW 5.0 billion (\$3.7 million), respectively. The term loan had a maturity date in April 2024, and each respective draw bears an annual interest rate of 6.5% and 8.7%. In April 2024, the

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Company executed an amendment with M-Venture Investment, Inc., pursuant to which the maturity date for both draws were amended. The maturity date for the principal amount of KRW 1.0 billion (\$0.7 million) was extended from April 2024 to June 2024. The maturity date for the principal amount of KRW 5.0 billion (\$3.7 million) was extended from April 2024 to July 2024. In July 2024, the Company partially repaid the loan of KRW 1.0 billion (\$0.7 million) and transferred the remaining balance (M-Venture Loan) as further discussed below.

Mujin Electronics Co., Ltd.

In July 2024, the Company executed an agreement with M-Venture Investment, Inc. and Mujin Electronics Co., Ltd., in which Mujin Electronics Co., Ltd. fully assumed the remaining M-Venture Loan with the same principal amount of KRW 5.0 billion (\$3.7 million). The maturity date of the assumed loan was January 2025, with an interest rate of 6.8%. In October 2024, the Company executed an amendment to extend the maturity date to June 2025.

Anapass, Inc., Related Party

In July 2016, the Company entered into a loan agreement with Anapass, Inc. pursuant to which the Company borrowed KRW 6.0 billion (\$4.5 million) in a term loan. Interest-only payments are due monthly at 5.5% per annum and the principal amount of the term loan is due on the maturity date of July 2024. In July 2024, the Company and Anapass, Inc. amended the loan agreement to extend the maturity date from July 2024 to July 2025. The loan is collateralized by the Company's assets as described under the Assets Pledged as Collateral (see Note 8).

In May and September 2022, the Company entered into two term loan agreements with Anapass, Inc., pursuant to which the Company borrowed KRW 3.0 billion (\$2.2 million) and KRW 4.0 billion (\$3.0 million). The term loans had respective maturity dates in May 2024 and September 2024, and both bear an annual interest rate of 5.5%. In May 2024, the Company executed an amendment with Anapass, Inc., to extend the maturity date from May 2024 to May 2025 for the term loan entered in May 2022. In September 2024, the Company executed an amendment with Anapass, Inc., to extend the maturity date from September 2024 to September 2025 for the term loan entered in September 2022.

In December 2024, the Company entered into a term loan agreement with Anapass, Inc. pursuant to which the Company borrowed KRW 5.0 billion (\$3.4 million). The term loan has a maturity date in December 2025 and bears an annual interest rate of 6.5%. In March 2025, the Company entered into a term loan agreement with Anapass, Inc. pursuant to which the Company borrowed KRW 4.5 billion (\$3.1 million) with an annual interest rate of 6.5%. The term loan has a maturity date in March 2026 and remains outstanding as of the issuance date of these consolidated financial statements (see Note 17).

i Best Investment Co., Ltd

Between 2022 and 2023, the Company entered into multiple term loans and security agreements with i Best Investment Co., Ltd pursuant to which it borrowed principal amounts in six draws with an aggregate principal balance of KRW 14.0 billion (\$10.3 million). All of the term loans had a maturity date in June 2024 and bear an annual interest rate of 6.5%. In June 2024, the Company executed an amendment with the i Best Investment Co., Ltd to extend the maturity date from June 2024 to August 2024 for its first draw, fifth draw and sixth draw. In December 2023, the Company made a \$0.8 million repayment of the outstanding principal and interest on its second draw. In March 2024, the Company repaid \$2.3 million of the outstanding principal and interest amount of its fourth draw. In June 2024, the Company repaid in full of the term loans with a principal amount of \$1.4 million outstanding on its third draw. In July 2024, the Company executed an amendment with i Best Investment Co., Ltd. to extend the maturity date from August 2024 to February 2025 for its first draw, fifth draw and sixth draw. In October 2024, the Company executed an amendment with i Best Investment Co., Ltd. to extend the maturity date from February 2025 to May 2025 for its sixth draw. In February 2025, the Company executed an amendment with i Best Investment Co., Ltd. to extend the maturity date from February 2025 to May 2025 for its first draw and fifth draw (see Note 17).

Kyeongho Lee, Related Party

Between 2017 and 2021, the Company entered into multiple promissory note and term loan agreements with Kyeongho Lee pursuant to which the Company borrowed (a) KRW 500.0 million (\$0.4 million), and KRW 500.0 million (\$0.4 million) in promissory notes, and (b) KRW 1.0 billion (\$0.7 million) and KRW 110.0 million (\$0.1 million) in term loans. The promissory notes have a maturity date in November 2024 and bear an annual interest rate varying from 7.5% and 9.0%. In March 2024, the Company repaid to Kyeongho Lee the term loan of KRW 1.0 billion (\$0.7 million). The outstanding term loan had a maturity date in May 2024 and bears no interest. In May 2024, the Company executed an amendment with Kyeongho Lee to extend the maturity date from May 2024 to November 2024 for its term loan. In November 2024, the Company executed two amendments with Kyeongho Lee to extend the maturity dates of two promissory notes from November 2024 to November 2025, and the maturity date of the term loan from November 2024 to May 2025.

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In November 2024, the Company entered into a term loan agreement with Kyeongho Lee pursuant to which the Company borrowed KRW 4.0 billion (\$2.9 million) at an annual interest rate of 12%. The term loan had a maturity date in December 2024 and remains outstanding as of the issuance date of these consolidated financial statements. In December 2024, the Company entered into two term loan agreements with Kyeongho Lee pursuant to which the Company borrowed KRW 1.0 billion (\$0.7 million) and KRW 2.0 billion (\$1.4 million). The term loans have maturity dates in January 2025, bear an annual interest rate of 12%, and remain outstanding as of the issuance date of these consolidated financial statements. In January 2025, the Company entered into a term loan agreement with Kyeongho Lee pursuant to which the Company borrowed KRW 6.5 billion (\$4.5 million) with a maturity date in February 2025 and an annual interest rate of 12%, which remains outstanding as of the issuance date of these consolidated financial statements (see Note 17). The Company incurs a penalty of 3% of principal per month on loans that are past maturity date, calculated daily until principal and accrued interest has been paid.

8. Commitments and Contingencies

Litigation

The Company is subject to various claims arising in the ordinary course of business. Although no assurance can be given, the Company believes that it is not a party to any litigation of which the outcome, if determined adversely, would individually, or in the aggregate, be reasonably expected to have a material adverse effect on the business, consolidated operating results, cash flows or financial position of the Company as of December 31, 2024.

Third parties have from time to time claimed, and others may claim in the future, that the Company has infringed their past, current or future intellectual property rights. These claims, whether meritorious or not, could be time-consuming, result in costly litigation, require expensive changes in the Company's methods of doing business or could require the Company to enter into costly royalty or licensing agreements, if available. As a result, these claims could harm the Company's business, consolidated operating results, cash flows, and financial position.

Purchase Commitments

The Company has certain commitments for outstanding purchase orders related to the manufacture of certain wafers utilized by the Company and other services that, once the wafers are placed into production, are noncancellable. Otherwise, these production agreements are cancellable at any time with the Company required to pay all costs incurred through the cancellation date. However, the Company does not have a history of cancelling these agreements once production has started. As of December 31, 2024, the Company had outstanding noncancellable purchase commitments for these production agreements of \$0.2 million.

Samsung Agreement Liability Release

In July 2020, the Company entered into a research and development agreement with Samsung Electronics Co., Ltd. (Samsung). According to the agreement, the Company would design 5G chip products and Samsung would provide development and intellectual property support, mass production set up support including mask sets for manufacturing and engineering sample chip supply to the Company for a specific product. The total fee amount for the research and development (R&D) services pursuant to the agreement was \$21.1 million. The Company bore the risk of R&D failure and was obligated to pay the \$21.1 million total fee based on milestones defined in the agreement, of which \$11.7 million was due based on development milestones and \$9.4 million of additional NRE (non-recurring engineering) was to be paid within a maximum of 4 years after the planned product first shipment date. The Company recognized R&D expenses based on an estimate of the percentage completion of services provided by Samsung during the respective financial reporting period. In the first quarter of 2024, Samsung agreed to unconditionally release the Company from payment for work Samsung had completed to date because it had not met certain of the development milestones and due to a change in Samsung's business strategy. As a result, the Company recognized a gain of \$14.6 million upon such unconditional release of its liability to Samsung. During the first quarter of 2024, the parties mutually agreed that the agreement had expired and there were no remaining obligations of either party under the agreement.

Alpha Foundry Product Development Agreement

In February 2024, the Company and Alpha Holdings Co., Ltd. (Alpha) entered into a foundry product development agreement related to 5G chip development for a total fee of \$7.6 million. The Company bears the risk of R&D failure and is obligated to pay the fee based on milestones defined in the agreement. The Company recognizes R&D expenses based on an estimate of the percentage completion of services provided by Alpha during the respective financial reporting period. For the year ended December 31, 2024, the Company recorded \$6.7 million in R&D expenses related to services provided by Alpha. As of December 31, 2024, the outstanding short-term purchase obligations to Alpha were \$0.9 million. The aggregate unpaid amount related to this agreement was \$4.0 million as of December 31, 2024.

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Assets Pledged as Collateral

The Company has provided collateral to Anapass, Inc., a related party (see Note 14), for borrowings from KEB Hana Bank, IBK Industrial Bank and Anapass, Inc. in the amount of \$6.1 million, \$6.3 million and \$12.2 million, respectively, as of December 31, 2024, and \$7.0 million, \$7.1 million and \$10.1 million, respectively, as of December 31, 2023 (see Note 7).

The following table includes a summary of the carrying amounts related to collateral provided to Anapass, Inc. (in thousands):

	December 31, 2024	December 31, 2023
Cash and cash equivalents	\$ 654	\$ 254
Accounts receivable	5,927	4,920
Inventory	2,977	1,486
Property and equipment	446	352
Intangible and other assets	165	199

9. Common Stock

B. Riley Purchase Agreement

Pursuant to the Purchase Agreement, the Company has the right, but not the obligation, to sell to B. Riley, from time to time, up to \$50.0 million worth of shares of its common stock (Commitment Amount), subject to certain limitations and conditions at the Company's sole discretion. The price per share payable by B. Riley on each trading day represents an amount equal to 98% of the VWAP of the Company's common stock for the applicable pricing period. The Purchase Agreement requires settlement in registered shares. In May 2024, the Company filed a registration statement on Form S-1 with the SEC to register the resale of shares issued to B. Riley, which became effective on June 6, 2024 (Registration Statement). The Company may sell shares of its common stock to B. Riley through June 2026 up to the Commitment Amount so long that it remains in compliance with the terms of the Purchase Agreement.

The Purchase Agreement was determined to be an equity-linked contract that contains a purchased put option on the Company's common stock and variable share forward. These freestanding instruments are precluded from equity classification since the Purchase Agreement requires shareholder approval for the issuance of shares in excess of the applicable ownership limitation caps, which is not an input in a fixed-for-fixed option or forward on equity shares.

As of April 2024, the Company determined that the fair value of the put option was nominal due to the short settlement period of one day or less, and the Company recognized a liability of \$0.6 million related to the freestanding common stock forward contract. The fair value of the common stock forward liability represents the probability-adjusted present value of the discount to be granted to B. Riley with respect to the sales of its common stock under the Purchase Agreement compared to the VWAP of the company's common stock for the applicable pricing period.

In connection with the Purchase Agreement, the Company issued 56,818 shares of its common stock (Commitment Shares), which included a make-whole provision requiring the Company to reimburse B. Riley in cash if the fair value of these shares is less than \$0.25 million. The Company recognized this amount as a liability which remained outstanding as of December 31, 2024 since the Commitment Shares remained unsold by B. Riley.

During the year ended December 31, 2024, the Company sold an aggregate of 2,364,053 shares of common stock for \$9.5 million, of which \$1.0 million was withheld by B. Riley against the outstanding amounts payable, and \$8.5 million was received by the Company in cash.

Issuance of Common Stock to Underwriter

In April 2024, the Company authorized the issuance of 110,000 shares of its common stock to an underwriter previously involved in activities leading to the Business Combination, contingent on the Registration Statement's effectiveness. The Company determined that its obligation to issue the underwriter shares met the criteria for equity classifications, and the underlying shares of common stock were issued in June 2024. Based on the timing of approval, the Company recognized \$0.7 million in charges to equity and included this amount in general and administrative expenses for the year ended December 31, 2024.

Private Placement

In September 2024, the Company executed a securities purchase agreement with Anapass, Inc. and issued 741,603 shares of common stock (Anapass Shares) and 148,320 equity-classified common stock warrants (Anapass Warrants) in exchange for \$2.2 million in

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cash (Private Placement). The Company allocated the proceeds based on the relative fair value of the securities issued, including \$2.0 million to the Anapass Shares and \$0.2 million to the Anapass Warrants. The Anapass Warrants are immediately exercisable at \$3.02 per share and will expire after five years from the issuance date. Anapass, Inc. remains subject to a lock-up and market stand-off agreement for any shares and share-based instruments issued to it by the Company through March 2025.

Common Stock Reserved for Issuance

Upon the Closing of the Business Combination in March 2024, the Company increased its total number of authorized shares to 440,000,000 shares, consisting of 400,000,000 shares of common stock and 40,000,000 shares of preferred stock. The Company has reserved shares of common stock for issuance as follows (in thousands):

	December 31, 2024	December 31, 2023
Common stock warrants	26,273	2,894
Legacy GCT Earnout Shares	20,000	
Shares available for future grant from 2024 plan	3,062	
RSUs outstanding	1,214	392
Convertible promissory notes	500	1,835
Options issued and outstanding	535	668
Shares available for future grant from 2024 ESPP	600	
Shares available for future grant from 2011 plan		113
Total	52,184	5,902

10. Common Stock Warrants

The following table represents a summary of warrants to purchase shares of the Company's common stock that are outstanding (in thousands, except for exercise price):

Issue Date	December 31, 2024	Exercise Price	Expiration
February 2023 - June 2023	2,115	\$10.00 - \$18.75	February 2026 - June 2026
July 2023	80	\$10.00	July 2026
October 2023	100	\$10.00	October 2026
Private and public warrants	23,830	\$11.50	March 2029
September 2024	148	\$3.02	September 2029
Total	26,273		

11. Stock-Based Compensation

2011 Incentive Compensation Plan

Legacy GCT's 2011 Incentive Compensation Plan (the "2011 Plan") permitted the grant of options, stock awards, and RSUs. In connection with the Closing of the Business Combination, the 2011 Plan was terminated, and the remaining unallocated shares reserved under the 2011 Plan were cancelled. In March 2024, each award of Legacy GCT stock options and RSUs were converted into equivalent Company stock options and RSUs with the same terms and conditions under the plan described below.

2024 Employee Stock Purchase Plan

In December 2023, the Company's board of directors adopted the 2024 Employee Stock Purchase Plan, which was subsequently approved by the Company's stockholders in February 2024 (the "2024 ESPP"), under which eligible employees may be provided with the opportunity to periodically purchase shares of the Company's common stock at a discount through their accumulated periodic payroll deductions. As of December 31, 2024, the Company had 600,000 shares authorized for issuance under the 2024 ESPP, and no offering periods started.

2024 Incentive Compensation Plan

In March 2024, the Company adopted the 2024 Omnibus Incentive Compensation Plan (the "2024 Plan"), under which 3,983,334 shares of common stock were initially reserved for issuance. The 2024 Plan permits the grant of stock options, stock appreciation rights, stock awards, RSUs, dividend equivalent rights, cash awards, and other awards to employees and non-employees, including members of the board of directors, consultants, or advisors.

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Stock options outstanding under the 2024 Plan were as follows (in thousands, except per share amounts and years):

	Number of Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)	Aggregate Intrinsic Value
Balance as of December 31, 2023	3,579	\$ 0.02	5.5	\$ 4,045
Reverse recapitalization	(2,911)	0.09		
Balance as of December 31, 2023 ⁽¹⁾	668	0.11	5.5	4,045
Exercised	(133)	0.11		
Balance as of December 31, 2024	535	\$ 0.11	4.4	\$ 1,189
Vested and expected to vest as of December 31, 2024	535	\$ 0.11	4.4	\$ 1,189
Exercisable as of December 31, 2024	526	\$ 0.11	4.4	\$ 1,169

⁽¹⁾ Amounts as of December 31, 2023 differ from those in prior year consolidated financial statements as they were retrospectively adjusted as a result of the accounting for the Business Combination (see Note 3).

No options were granted or cancelled during the year ended December 31, 2024. As of December 31, 2024, unrecognized compensation cost related to stock options was nominal. The aggregate intrinsic value of the options exercised during the year ended December 31, 2024 was \$0.4 million.

Founder Awards to Board of Directors

In 2021, an aggregate of 90,000 shares of common stock were transferred to three members of Concord III's board of directors (Founder Shares). The Founder Shares contained double-trigger vesting, which required continuous service and a liquidity event for any shares to vest. As the required conditions were met upon the Closing, the Company recognized \$0.9 million of stock-based compensation upon the Closing in March 2024.

Restricted Stock Units

In December 2023, various employees and directors of Legacy GCT were granted 392,000 RSUs that contain both a performance condition based upon a liquidity event and a service vesting condition such that (subject to the liquidity event condition being satisfied) the RSUs vest in four equal annual installments from the grant date (2023 RSUs). The liquidity condition was met upon the Closing.

In June 2024, the Company granted to the members of its board of directors certain share-based awards with a fixed monetary amount of \$0.7 million equally allocated among six grantees (2024 RSUs). The number of shares issuable to each grantee under the 2024 RSUs is calculated by dividing one-fourth of the allocated fixed monetary amount by the closing price of the Company's common stock at the end of each fiscal quarter between April 1, 2024 and March 31, 2025. The RSUs will vest on March 31, 2025, subject to the grantees' continuous service to the Company and will be settled in common stock on various dates in 2026 and 2027. The 2024 RSUs are initially classified as a liability and reclassified to equity up to the monetary amount for which the number of shares to be issued becomes determinable. Through December 31, 2024, this determination was made for 151,728 shares based on the closing price of the Company's common stock as of each fiscal quarter-end after the grant date.

In August 2024, the Company granted various employees 140,000 RSUs that vest in four equal annual installments subject to continuous service.

In December 2024, the Company granted various employees 629,500 RSUs, of which 329,500 RSUs vest in four equal installments subject to continuous service, and 300,000 RSUs vest quarterly between April 2025 and ending February 2026.

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RSUs outstanding under the 2024 Plan were as follows (in thousands, except per share amounts):

	Number of RSUs Outstanding		Weighted Average Grant Date Fair Value
Balance as of December 31, 2023	2,100	\$	1.15
Reverse recapitalization	(1,708)		5.01
Balances as of December 31, 2023 ⁽¹⁾	392	\$	6.16
Granted	921		2.77
Vested	(98)		6.16
Cancelled	(1)		6.16
Balance as of December 31, 2024	1,214	\$	3.59

⁽¹⁾Amounts as of December 31, 2023 differ from those in prior year consolidated financial statements as they were retrospectively adjusted as a result of the accounting for the Business Combination (see Note 3).

During the years ended December 31, 2024 and 2023, the Company recognized \$1.8 million and less than \$0.1 million of stock-based compensation related to the outstanding RSUs. As of December 31, 2024, there was \$3.2 million of unrecognized compensation cost related to RSUs, which is expected to be recognized over a weighted average period of 2.5 years. Any unvested RSUs are forfeited upon separation from the Company. Forfeitures are accounted for as they occur.

Stock-Based Compensation

The following table summarizes stock-based compensation included in the Company's consolidated statements of operations (in thousands):

	2024	Year Ended December 31,	2023
Cost of revenues		44	
Research and development		543	18
Sales and marketing		147	9
General and administrative		1,966	16
Total	\$	2,700	\$ 43

12. Income Taxes

Determining the provision for income taxes, income taxes payable, and deferred tax assets and liabilities involves judgment. The Company calculates and provides for income taxes in each of the tax jurisdictions in which it operates, which involves estimating current tax exposures as well as making judgments regarding the recoverability of deferred tax assets in each jurisdiction. The estimates used could differ from actual results, and this may have a significant impact on financial position, operating results and cash flows in future periods.

The domestic and foreign components of loss before provision for income taxes were as follows (in thousands):

	2024	Year Ended December 31,	2023
Domestic	\$	(15,452)	\$ (19,910)
Foreign		3,518	(2,018)
Loss before provision for income taxes	\$	(11,934)	\$ (21,928)

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The provision for income taxes consisted of the following (in thousands):

	2024	Year Ended December 31,	2023
Current			
Federal	\$	151	\$ 215
State		3	1
Foreign		291	325
Total provision for income taxes	\$	445	\$ 541

For the years ended December 31, 2024 and 2023 the Company's provision for income taxes did not include any amounts related to deferred income tax.

The reconciliation of federal statutory income tax to the Company's provision for income taxes is as follows (in thousands):

	2024	Year Ended December 31,	2023
Expected benefit at statutory federal rate	\$	(2,662)	\$ (4,941)
State tax, net of federal benefit		321	72
Research and development credits		(345)	
Global Intangible Low Tax Income (GILTI) inclusion		(235)	
Unrecognized tax benefits		25	276
Stock-based compensation		(604)	8
Interest expense		239	333
Remeasurements of net defined benefit liabilities			5
Exchange rate difference		1,192	287
Change in tax rate		(1,565)	(242)
True-up deferred taxes		2,369	1,382
Change in valuation allowance		1,587	3,182
Other		123	179
Total provision for income taxes	\$	445	\$ 541

For the years ended December 31, 2024 and 2023, the Company's provision for income taxes differed from the federal statutory tax rate due primarily to the full valuation allowance for federal and state purposes, true-up deferred taxes, research and development credits, and exchange rate differences.

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Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities as of December 31, 2024 and 2023, are as follows (in thousands):

	2024	Year Ended December 31,	2023
Deferred tax assets			
Net operating loss carryforwards	\$	76,556	\$ 79,078
Capitalized costs		8,826	5,409
Accruals and reserves		4,235	4,610
Inventory reserves		391	267
Stock compensation		109	382
Loss on unrealized currency translation		182	166
Research and development credits		2,793	2,490
Financial guarantee liabilities		6,031	5,410
Lease liability		94	197
Provision for credit losses		297	368
Gross deferred tax assets		99,514	98,377
Valuation allowance		(99,200)	(97,628)
Net deferred tax assets		314	749
Deferred tax liabilities			
Revaluation of convertible promissory notes		(133)	(448)
Contract assets		(1)	(3)
Right-of-use assets		(180)	(298)
Gross deferred tax liabilities		(314)	(749)
Net deferred income tax	\$		\$

Management regularly assesses the ability to realize deferred tax assets recorded based upon the weight of available evidence, including such factors as recent earnings history and expected future taxable income on a jurisdiction-by-jurisdiction basis. In the event that the Company changes its determination as to the amount of realizable deferred tax assets, the Company will adjust its valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made. The Company's management believes that, based on a number of factors, it is more likely than not, that all or some portion of the deferred tax assets will not be realized; and accordingly, for the year ended December 31, 2024 and 2023, the Company has provided a valuation allowance against the Company's U.S. net deferred tax assets. The valuation allowance increased by \$1.5 million and \$3.2 million for the years ended December 31, 2024 and 2023, respectively.

The Company had net operating loss carryforwards (NOL) for federal, state and foreign income tax purposes of approximately \$323.0 million, \$55.4 million and \$23.2 million, respectively, as of December 31, 2024. State NOL will begin to expire in 2028, \$197.5 million of the Company's federal NOLs will begin to expire in 2025, and \$125.5 million of the Company's federal NOL will last indefinitely (limited to 80% of taxable income in a given year).

As of December 31, 2024, the Company had federal and state research credit carryforwards of approximately \$2.7 million and \$2.5 million, respectively. The federal research credit carryforwards will begin to expire in 2025 while the California research credits carryforward have an indefinite life.

The Internal Revenue Code of 1986, as amended, imposes restrictions on the utilization of net operating losses in the event of an ownership change of a corporation. Accordingly, a company's ability to use net operating losses may be limited as prescribed under Internal Revenue Code Section 382 (IRC Section 382). Events which may cause limitations in the amount of the net operating losses that the Company may use in any one year include, but are not limited to, a cumulative ownership change of more than 50% over a three-year period. Utilization of the federal and state net operating losses may be subject to substantial annual limitation due to the ownership change limitations provided by the IRC Section 382 and similar state provisions. The Company may, in the future, experience one or more additional Section 382 ownership changes. If so, the Company may not be able to utilize some of its carryforwards or other tax attributes, even if the Company achieves profitability in the jurisdiction of the carryforwards or other tax attributes. The Company has not completed a study to assess whether a change of ownership has occurred, or whether there have been multiple ownership changes since its formation, due to the significant cost and complexity associated with such a study. Any limitation may

GCT SEMICONDUCTOR HOLDING, INC.

Notes to Consolidated Financial Statements

result in expiration of a portion of the NOL carryforwards before utilization. Further, until a study is completed by the Company and any limitation is known, no amounts are being presented as an uncertain tax position.

A reconciliation of the unrecognized tax benefits as of December 31, 2024 and 2023 is as follows (in thousands):

		Year Ended December 31,	
	2024	2023	
Beginning gross unrecognized tax benefits	\$ 3,083	\$ 3,203	
Additions for tax position taken in a prior year			
Additions for tax provision taken in the current year	775	319	
Adjustments for tax positions for changes in currency translation	52	95	
Adjustments for tax positions taken in the prior year	1,023	1,051	
Reductions for tax positions taken in the prior year due to statutes lapsing	(1,570)	(1,585)	
Ending gross unrecognized tax benefits	3,363	3,083	
Unrecognized tax benefits offset by deferred tax assets and/or valuation allowance	(1,641)	(1,419)	
Net unrecognized tax benefits	<u>\$ 1,722</u>	<u>\$ 1,664</u>	

As of December 31, 2024 the Company had unrecognized tax benefits of \$3.4 million, which does not include any reserved interest or penalties. Of this amount \$1.7 million would currently affect the Company's effective tax rate if recognized due to the Company's deferred tax assets being fully offset by a valuation allowance. The Company estimates that there will be no material changes in its uncertain tax positions existing as of December 31, 2024 in the next twelve months.

The Company files income tax returns in the U.S. federal jurisdiction, California and in many foreign jurisdictions. The Company's tax years for 2021 and forward are subject to examination by the U.S. tax authorities. The Company's tax years for 2020 and forward are subject to examination by various state tax authorities. However, due to the fact that the Company had loss and credits carried forward in some jurisdictions, certain items attributable to technically closed years are still subject to adjustment by the relevant taxing authority through an adjustment to tax attributes carried forward to open years. The Company files U.S. and foreign income tax returns with varying statutes of limitations. Due to the Company's net carryover of unused operating losses, all years remain subject to future examination by tax authorities.

As of December 31, 2024, the Company asserts to indefinitely reinvest undistributed earnings to ensure sufficient working capital and further expansion of existing operations outside the U.S. As of December 31, 2024 and 2023, the Company's foreign subsidiaries operated at a cumulative deficit for U.S. earnings and profit purposes. In the event the Company is required to repatriate funds from outside of the U.S., such repatriation would be subject to local laws, customs, and tax consequences. Determination of the amount of unrecognized deferred tax liability related to these earnings is not practicable.

13. Employee Benefit Plans

The Company sponsors a 401(k) defined contribution plan covering all U.S. employees. Contributions made by the Company are determined annually by the board of directors. Employer contributions under this plan amounted to \$0.1 million for each of the years ended December 31, 2024 and 2023.

Under Korean law, the Company is required to make severance payments to Korean employees leaving their employment. The Company's severance pay liability to its Korean employees, which is a function of the employee's salary, years of employment, and severance factor, is reflected in the accompanying consolidated balance sheets as the net defined benefit liabilities on an accrual basis. The net liability for severance payments was as follows (in thousands):

	December 31, 2024	December 31, 2023
Liability for severance payments, gross	\$ 7,304	\$ 7,997
Plan assets	(249)	(308)
Liability for severance payments, net	<u>\$ 7,055</u>	<u>\$ 7,689</u>

GCT SEMICONDUCTOR HOLDING, INC.

Notes to Consolidated Financial Statements

14. Related Party Transactions

A summary of balances and transactions with the related parties who are stockholders of the Company were as follows (in thousands):

	December 31, 2024		December 31, 2023	
	Anapass	Kyeongho Lee	Anapass	Kyeongho Lee
Borrowings	\$ 12,245	\$ 5,517	\$ 10,082	\$ 1,474
Other current liabilities	14	86	212	182

For each of the years ended December 31, 2024 and 2023, the Company recorded \$0.5 million of interest expense with Anapass, Inc. in the consolidated statements of operations. Interest expense related to the Company's arrangements with Kyeongho Lee was \$0.1 million for each of the years ended December 31, 2024 and 2023.

15. Segments and Information

The Company operates in one reportable segment. The Company's chief operating decision maker is its Chief Executive Officer. When evaluating the Company's financial performance and making strategic decisions, the chief operating decision maker utilizes consolidated revenue, operating expenses, and other income and expenses and does not regularly review this information except as presented in the consolidated financial statements. Long-lived assets by geographic region were as follows (in thousands):

	December 31, 2024	December 31, 2023
South Korea	\$ 877	\$ 1,363
United States	841	930
Total	\$ 1,718	\$ 2,293

16. Net Loss Per Share

The following outstanding potentially dilutive common stock equivalents were excluded from the computation of diluted net loss per share for the periods indicated because including them would have been antidilutive (in thousands):

	2024	December 31, 2023
Common stock warrants	26,273	2,894
Legacy GCT Earnout Shares	20,000	
Sponsor Earnout Shares	571	
Convertible promissory notes	500	1,835
Options issued and outstanding	535	668
RSUs outstanding	1,214	392
Total	49,093	5,789

17. Subsequent Events

Kyeongho Lee, Related Party

In January 2025, the Company entered into a term loan agreement with Kyeongho Lee pursuant to which the Company borrowed KRW 6.5 billion (\$4.5 million) with an annual interest rate of 12%. The term loan had a maturity date in February 2025 and remains outstanding as of the issuance date of these consolidated financial statements. The Company incurs a penalty of 3% of principal per month calculated daily until principal and accrued interest has been paid.

i Best Investment Co., Ltd

In February 2025, the Company executed an amendment with i Best Investment Co., Ltd. to extend the maturity date from February 2025 to May 2025 for its first draw and fifth draw.

Anapass, Inc., Related Party

In March 2025, the Company entered into a term loan agreement with Anapass, Inc. pursuant to which the Company borrowed KRW 4.5 billion (\$3.1 million) with an annual interest rate of 6.5%. The term loan has a maturity date in March 2026 and remains outstanding as of the issuance date of these consolidated financial statements.

GCT SEMICONDUCTOR HOLDING, INC.

Notes to Consolidated Financial Statements

Purchase Agreement

From January 1, 2025 through March 20, 2025, the Company sold 73,984 shares of its common stock to B. Riley under the Purchase Agreement for gross proceeds of \$0.2 million that were received by the Company in cash.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.***Management's Report on Internal Control over Financial Reporting***

Our management, including our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) and Rule 15d-15(f) under the Exchange Act. Our internal control system is designed to provide reasonable assurance to our management and board of directors regarding the preparation and fair presentation of published financial statements. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Our management has assessed the effectiveness of our internal control over financial reporting December 31, 2024. In making this assessment, management applied its judgment in evaluating the cost benefit relationship of possible controls and procedures. Based on this assessment, our management has concluded that as of December 31, 2024, our internal control over financial reporting was effective.

Attestation Report of Registered Public Accounting Firm

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting due to an exemption established by the JOBS Act for emerging growth companies.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended December 31, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitation on the Effectiveness of Internal Controls and Procedures

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. Other Information.

(a) On March 21, 2025, GCT Research, Inc. (Borrower), a wholly owned subsidiary of GCT Semiconductor Holding, Inc. (the Company) entered into a Loan Agreement (the March Loan Agreement) with Anapass, Inc., (the Lender). The March Loan Agreement provides for a term loan facility of an aggregate principal amount of up to ₩4.5 billion South Korean Won (or USD \$3.1 million) (the March Loan). The March Loan will bear interest of 6.5% per annum and mature on March 21, 2026.

(b) No officer, as defined in Rule 16a-1(f), or director adopted and/or terminated a Rule 10b5-1 trading arrangement or a non-Rule 10b5-1 trading arrangement, as defined in Item 408 of Regulation S-K, during the fourth fiscal quarter of 2024.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Executive Officers and Directors

The following table sets forth, as of March 25, 2025, our executive officers and directors. Our executive officers and directors are responsible for overseeing the management of our business.

Name	Age	Position
John Schlaefter	61	President, Chief Executive Officer and Class III Director
Edmond Cheng	63	Chief Financial Officer
Dr. Jeongmin Kim	54	Vice President of Engineering and Chief Technology Officer
Alex Sum	77	Sr. Vice President of Sales and Marketing
Dr. Kyeongho Lee	55	Chairman and Class III Director
Robert Barker	79	Class II Director
Dr. Kukjin Chun	70	Class I Director
Hyunsoo Shin	70	Class II Director
Jeff Tuder	51	Class III Director
Nelson C. Chan	63	Class I Director

Executive Officers

John Schlaefter is our Chief Executive Officer and President and a member of our Board and, prior to the Business Combination had served as a Chief Executive Officer of GCT since December 2012, as Chief Operating Officer from 2006 to 2012 and as a member of the board of directors. Mr. Schlaefter also previously served as a Product Line Director at National Semiconductor Corporation from 2001 to 2006. From 1994 to 2000, Mr. Schlaefter held a variety of marketing and business development positions at National Semiconductor Corporation. Prior to joining National Semiconductor Corporation, Mr. Schlaefter was a Program Manager at Watkins Johnson Company from 1987 to 1993. Mr. Schlaefter holds a B.S. and an M.S. in Electrical Engineering from Stanford University, and an MBA with an Emphasis in Finance and General Management from the University of California at Berkeley. We believe that Mr. Schlaefter is qualified to serve on our Board based on his substantial business, leadership, and management experience in the semiconductor sector.

Edmond Cheng is our Chief Financial Officer. Prior to joining us as our Chief Financial Officer in March 2024, Mr. Cheng was the CFO for Cenntro Inc., a leading commercial EV company that focuses on offering zero-emission electric vehicles. He joined the company in 2021 and was instrumental in leading the company's IPO process. Mr. Cheng currently serves on the board of GCB AutoX which seeks to be the leader in the automotive aftermarket based in Mexico. Before joining Cenntro, he was the CFO at Mithera Capital, a PE/VC firm based in the Pacific Northwest, where he brought extensive financial management experience with expertise in corporate development, cross-border mergers & acquisitions, corporate controllerships, internal controls, treasury and corporate governance. Prior, Mr. Cheng served as CFO of other publicly listed companies including TCL Electronics Holdings, UTStarcom Inc., and Zoomlion Heavy Industry Science & Technology Co. Ltd., as well as private equity-owned portfolio companies from Temasek Holdings, Hony Capital/Goldman Sachs, and Blackstone Group/HNA Group. Mr. Cheng holds an MBA from Columbia University, London School of Business, and Hong Kong University. He also received a Master of Accounting and Bachelor of Business Administration from the University of Hawaii at Manoa.

Jeongmin Kim, Ph.D is our Chief Technology Officer and Vice President of Engineering and, prior to the Business Combination had served as GCT's Chief Technology Officer since 2013, and Vice President of Engineering since July 2003. Prior to 2003, Dr. Kim served as GCT's Director of Engineering. Prior to joining GCT, Dr. Kim was involved in many industrial research projects relating to telecommunications technologies, including working as an independent design engineer in the development of an MPEG2 video decoder for HDTV with Daewoo Electronics, a home electronics company, from 1997 to 1998; a high performance H.263 video codec application-specific integrated circuit (ASIC) with Korea Telecom, an integrated wired/wireless telecommunication service provider, from 1995 to 1997; and a high performance microcontroller for Samsung Electronics from 1993 to 1995. Dr. Kim holds a B.S. and M.S. in Electrical Engineering from Seoul National University and a Ph.D. in the high performance CPU architecture, also from Seoul National University.

Alex Sum is our Sr. Vice President of Sales and Marketing and, prior to the Business Combination had served as Vice President of Sales and Marketing at GCT since 2013. From 2002 to 2013, Mr. Sum has served as GCT's Vice President of Marketing and Business Development. From March 1992 to May 2002, Mr. Sum was Product Marketing Manager at Philips Semiconductor, the predecessor company of NXP Semiconductors, N.V., a semiconductor manufacturing company. From March 1983 to January 1992, Mr. Sum was Product/Test Engineering Supervisor at Supertex Inc., a technology company producing high voltage analog and mixed signal semiconductor components. From September 1977 to March 1983, Mr. Sum was Product / Test Engineering Supervisor at Fairchild

Semiconductor International, Inc., a mixed signal, memory and discrete semiconductor company. From April 1975 to September 1977, Mr. Sum was Test/Wafer fab processing Engineering at Siliconix, the predecessor company of Vishay Intertechnology, Inc., a mixed signal, analog semiconductor company. Mr. Sum holds a B.S. in Electrical Engineering from San Jose State University.

Directors

Kyeongho Lee, Ph.D. is the Chairman of our Board and is a co-founder of the Company and, prior to the Business Combination had served as a Chairman of GCT's board of directors since 2000. Since 2002, Dr. Lee has served as a member of the board of directors of Anapass, a Korean Stock Exchange (KOSDAQ) listed fabless semiconductor company that supplies advanced panel controller solutions. From 1995 to 1998, Dr. Lee served as a member of the technical staff at Silicon Image Inc., a provider of advanced, interoperable connectivity solutions for high-definition displays. As a member of Silicon Image's engineering division, Dr. Lee created and patented the technology for the Panellink flat panel display, which was adopted as the worldwide standards known as DVI and HDMI. Dr. Lee holds 17 U.S. patents on RF direct conversion and other RF design techniques, which laid the foundation for the development of GCT's proprietary CMOS RF and single-chip technology. Dr. Lee holds a B.S., M.S. and Ph.D. in Electrical Engineering from Seoul National University, where he was granted the Distinguished Dissertation award for his Ph.D. thesis on CMOS RF technology. We believe that Dr. Lee is qualified to serve on our Board based on his substantial business, leadership, and management experience in the semiconductor sector and his knowledge and experience with the Company's business operations.

Robert Barker has been a member of our Board since March 2024 and, prior to the Business Combination had served as a member of GCT's board of directors since April 2011, and served as Chairman of the Audit Committee since 2013. Mr. Barker is currently VP of Finance and CFO of AIStorm, Inc. since 2018. Mr. Barker is currently the Corporate Secretary of Linear Dimensions Semiconductor, Inc. since 2016. Both companies are privately held. From October 1999 to January 2010, Mr. Barker was Vice President of Corporate Business Development at Micrel, Incorporated (Micrel), a semiconductor company focused on developing analog power integrated circuits. Mr. Barker was Vice President of Human Resources at Micrel from February 2008 to January 2010. From October 2008 to January 2009, Mr. Barker served as Interim Vice President of Finance and Chief Financial Officer of Micrel. Mr. Barker also served as Micrel's Secretary from May 2000 to May 2001 and was reappointed as Secretary in February of 2009. From April 1994 to September 1999, Mr. Barker was Vice President of Finance and Chief Financial Officer of Micrel. Prior to that, Mr. Barker was Vice President of Finance and Secretary of Waferscale Integration, Inc., a fabless semiconductor manufacturer focused on non-volatile memory products. Mr. Barker also held various accounting and financial positions at Monolithic Memories and Lockheed Missiles and Space Co. Mr. Barker holds a B.S. in Electric Engineering and an M.B.A. from the University of California at Los Angeles. We believe that Mr. Barker is qualified to serve on our Board based on his extensive experience and skills in corporate finance, public company accounting, and SEC reporting and financial management matters.

Kukjin Chun, Ph.D has been a member of our Board since March 2024 and, prior to the Business Combination had served as a member of GCT's board since 2022. Dr. Chun offers extensive expertise in electrical and electronics engineering, serving as Professor of Electrical and Computer Engineering at Seoul National University from 1989 to 2020, and Assistant Professor in the Electrical Engineering Department at WSU from 1986 to 1989. Since 1989, he held several positions at Seoul National University such as Head of the department of EECS and Director of the Microsystem Technology Center. Dr. Chun is a member of the National Academy of Engineering of Korea and a Fellow at the Institute of Physics in the United Kingdom as well as a Fellow at the Institute of Electrical and Electronics Engineers (IEEE). He has served in various positions with IEEE such as Vice-President, Member of Geographical Activity; Member of the board of directors; and Member on several committees such as Audit, Sections Congress Organizing and MGA Award. Among numerous awards, Dr. Chun has earned the Order of Science and Technology Merit of Korea. Dr. Chun holds a B.S. in Electrical Engineering from Seoul National University, as well as a M.S. and Ph.D. in Electrical Engineering from the University of Michigan. We believe Dr. Chun is qualified to serve on our Board based on his extensive electrical and electronics engineering experience and his scientific knowledge of semiconductor design and manufacturing.

Hyunsoo Hans Shin has been a member of our Board since March 2024 and, prior to the Business Combination had served as a member of GCT's board since 2022. He offers extensive expertise in business development and management, having served as Advisor to CJ Corporation from Oct 2022 to Oct 2024. Prior, Mr. Shin was the CEO of CJ America, supporting and guiding all the CJ affiliates in North and South America since 2020. From 2016 to 2019, Mr. Shin was the Executive Vice President, Head of Global Food Business at CJ Cheil-Jedang, where he was responsible for all profits and losses of the processed food business outside Korea. From 2013 to 2015, he served as CEO for CJ Foods in Los Angeles. Mr. Shin served as President of Kellogg Asia from 2002 to 2009 after having served as President of Nong Shim Kellogg from 1999 to 2002. From 1991 to 1998, he worked for Pepsi-Cola International as President (1995-1998) and Marketing Director (1992-1995) of Pepsi-Cola Korea. From 1984 to 1989, he held various positions at Hyundai Electronics America such as National Sales Manager, Marketing Director and Semiconductor Foundry & Assembly Sales Manager. Mr. Shin holds a M.S. in Management from Sloan School of Management of the Massachusetts Institute of Technology (MIT), and a B.S. in Economics from Seoul National University. We believe Mr. Shin is qualified to serve on our Board based on his extensive international business development and management experience.

Jeff Tudor has been a member of our Board since March 2024 and, prior to the Business Combination, had served as a board member of Concord III. Mr. Tudor is currently an Operating Partner of Atlas, having joined in September 2020. Mr. Tudor has also been the Chief Executive Officer of Concord I and Concord II. Previously, Mr. Tudor founded Tremson Capital Management, LLC (Tremson) to invest in undervalued public equities and to make private equity and credit investments in partnership with a number of family offices. Prior to founding Tremson, Mr. Tudor held various investment positions at JHL Capital Group, a \$3 billion multi-strategy hedge fund, KSA Capital Management, a deep value long/short equity fund, and CapitalSource Finance, where he was a Managing Director and Head of its Special Opportunity credit investment business. Mr. Tudor began his career as a private equity professional at Fortress Investment Group, where he underwrote and managed private equity investments for Fortress various investment vehicles; Nassau Capital, LLC, which managed the private assets of Princeton University's Endowment; and ABS Capital Partners, a private equity firm affiliated with Alex. Brown & Sons. Mr. Tudor is currently a member of the board of directors of Inseego Corporation (NASDAQ: INSG) and serves as a board advisor to various private companies. He previously served on the board of directors of Unico American (NASDAQ: UNAM). Mr. Tudor received a B.A. in English Literature from Yale College. Mr. Tudor also serves as Chief Executive Officer of Concord II. We believe Mr. Tudor is qualified to serve on our Board based on his extensive experience in corporate governance, financing and management of public companies, as well as his skills and expertise in strategic and investment transactions.

Nelson C. Chan has been a member of our Board since March 2024. Mr. Chan has been the Chair of the Synpatics Incorporated (Synpatics) board since October 2018 and a director of the Synpatics since February 2007. From December 2006 until August 2008, Mr. Chan served as the Chief Executive Officer of Magellan Corporation, a leader in the consumer, survey, GIS, and OEM GPS navigation and positioning markets. From 1992 through 2006, Mr. Chan served in various senior management positions with SanDisk Corporation, a global leader in flash memory cards, including as Executive Vice President and General Manager, Consumer Business. From 1983 to 1992, Mr. Chan held marketing and engineering positions at Chips and Technologies, Signetics, and Delco Electronics. Mr. Chan is a member of the board of directors, the Audit Committee, and the Nominating and Governance Committee of Deckers Outdoor Corporation, a NYSE-listed company, which is a footwear, apparel and accessories designer and distributor, and a member of the board of directors, the Audit Committee, and the Nominating and Governance Committee of Twist Bioscience, a Nasdaq-listed company, which manufactures synthetic DNA. Mr. Chan also currently serves on the boards of directors of several private companies. Previously, Mr. Chan was Chair of the board of directors, Chair of the Compensation Committee, member of the Audit Committee and member of the Nominating and Corporate Governance Committee of Adesto Technologies, a Nasdaq-listed company, from 2010 to June 2020, prior to its acquisition by Dialog Semiconductor plc, a member of the board of directors, Chair of the Compensation Committee and member of the Nominating and Corporate Governance committee of Socket Mobile, a Nasdaq-listed company, from 2016 to 2019, a member of the board of directors of Silicon Laboratories, Inc., a Nasdaq-listed company, from 2007 to 2010, a member of the board of directors, Chair of the Audit Committee and member of the Compensation Committee of Affymetrix, from 2010 to 2016, prior to its acquisition by Thermo Fisher, and a member of the board of directors and Chair of the board of directors from June 2013 to September 2016 of Outerwall, a Nasdaq-listed company, prior to its acquisition by Apollo Global Management, a private equity firm. Mr. Chan holds a Bachelor of Science degree in Electrical and Computer Engineering from the University of California at Santa Barbara and a Master's degree in Business Administration from Santa Clara University. We believe that Mr. Chan is qualified to serve on our Board based on his corporate finance experience and his previous experience on boards of directors of public traded companies in the technology industry, as well as his knowledge and skills in corporate governance and strategic transactions.

Family Relationships

There are no family relationships among any of the individuals who serve as our directors or executive officers.

Classified Board of Directors

In accordance with our Charter, our Board is divided into three classes with only one class of directors being elected at each annual meeting of our stockholders and each director is serving a three-year term. The following table sets forth in detail.

Director	Class	Expiration of Term of Director
Dr. Kukjin Chun	Class I	2025
Nelson C. Chan	Class I	2025
Robert Barker	Class II	2026
Hyunsoo Shin	Class II	2026
John Schlaefer	Class III	2027
Jeff Tudor	Class III	2027
Dr. Kyeongho Lee	Class III	2027

Family Relationships

None of our directors or executive officers has a family relationship as defined in Item 401 of Regulation S-K.

Independence of the Board

As required under NYSE listing standards, a majority of the members of a listed company's Board must qualify as independent, as affirmatively determined by the Board. The Board consults with the Company's counsel to ensure that the Board's determinations are consistent with relevant securities and other laws and regulations regarding the definition of independence, including those set forth in pertinent listing standards of Nasdaq, as in effect from time to time.

Consistent with these considerations, after review of all relevant identified transactions or relationships between each director, or any of his or her family members, and the Company, its senior management and its independent auditors, the Board has affirmatively determined that the following directors, representing a majority of the members of the Board, are independent directors within the meaning of the applicable NYSE listing standards: Dr. Kyeongho Lee, Robert Barker, Dr. Kukjin Chun, Hyunsoo Shin, Jeff Tuder, and Nelson C. Chan. In making this determination, the Board found that none of these directors had a material or other disqualifying relationship with the Company. In the determination of Dr. Lee's independence, the Board considered his relationship with a major stockholder of the Company and certain loan transactions between Dr. Lee and one of our subsidiaries. As Mr. Schlaefter serves as our Chief Executive Officer, he is not independent. Additionally, the Board determined that all members of the audit, compensation, and nominating and corporate governance committees of the Board are independent.

Arrangements between Officers and Directors

Except as set forth herein, to our knowledge, there is no arrangement or understanding between any of our officers or directors and any other person pursuant to which the officer or director was selected to serve as an officer or director.

Board Committees

Our Board directs the management of our business and affairs and conducts its business through meetings of the Board and its standing committees. As of the date hereof, the Board has established an Audit Committee, a Compensation Committee and a Nominating and Corporate Governance Committee. In addition, from time to time, special committees may be established under the direction of the board of directors when necessary to address specific issues. Current copies of our committee charters are available on our website at <https://investors.gctsemi.com/documents-and-charters> as required by applicable SEC and NYSE rules. The information on or available through such website is not deemed incorporated in this Annual Report on Form 10-K and does not form part of this Annual Report on Form 10-K.

Audit Committee

Our audit committee is responsible for, among other things:

- retaining, overseeing and evaluating the independence and performance of our registered public accounting firm;
- reviewing and discussing with our registered public accounting firm their annual audit, including the timing and scope of audit activities;
- pre-approving audit services;
- overseeing the financial reporting process and discussing with management and our independent registered public accounting firm the quarterly and annual financial statements that we file with the SEC;
- reviewing the adequacy and effectiveness of our accounting and internal controls over financial reporting, disclosure controls and policies and procedures;
- reviewing and discussing guidelines and policies governing the process by which our senior management assesses and manages our exposure to risk;
- reviewing, and if appropriate, approving or ratifying any related party transactions and other significant conflicts of interest;
- establishing procedures for the receipt, retention and treatment of complaints received by us and the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters;
- reviewing our program to monitor compliance with our code of ethics (Code of Ethics); and
- overseeing significant deficiencies and material weaknesses in the design or operation of our internal controls over financial reporting.

Our audit committee consists of Robert Barker, Hyunsoo Shin, and Dr. Kukjin Chun, with Robert Barker serving as chair. Rule 10A-3 of the Exchange Act and the NYSE rules require that our audit committee must be composed entirely of independent members. Our Board has determined that each Robert Barker, Hyunsoo Shin and Dr. Kukjin Chun satisfy the definition of independent director for purposes of serving on the audit committee under Rule 10A-3 of the Exchange Act and NYSE rules. Each member of our audit

committee satisfies the financial literacy requirements of the NYSE listing standards. In addition, our Board determined that Robert Barker qualifies as an audit committee financial expert, as such term is defined in Item 407(d)(5) of Regulation S-K. Our Board has adopted a written charter for the audit committee, which is available on our corporate website. The information on our website is deemed not to be incorporated in this prospectus or to be part of this prospectus.

Relevant Education and Experience

Each proposed member of the Audit Committee has adequate education and experience that is relevant to their performance as an Audit Committee member and, in particular, the requisite education and experience that have provided the member with:

- a) an understanding of the accounting principles used by the Company to prepare its financial statements and the ability to assess the general application of those principles in connection with estimates, accruals and reserves;
- b) experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the Company's financial statements or experience actively supervising individuals engaged in such activities; and
- c) an understanding of internal controls and procedures for financial reporting.

For a summary of the experience and education of the Audit Committee members see *Executive Officers and Directors*.

Audit Committee Oversight

At no time since the commencement of the Company's financial year was a recommendation of the Audit Committee to nominate or compensate an external auditor not adopted by the Board.

Compensation Committee

Our compensation committee is responsible for, among other things:

- evaluating, determining, and approving the compensation of our executive officers;
- evaluating annually, and recommending to our Board, the compensation of our non-employee directors;
- reviewing and approving our executive compensation plans and recommending that our Board amend these plans, or adopt new plans, if deemed appropriate;
- administering our general compensation and employee benefit plans, including incentive compensation and equity-based plans, and recommending that our Board amend these plans if deemed appropriate;
- reviewing and approving any employment agreements, severance or termination arrangements and any other compensatory contracts to be made with any of our executive officers; and
- reviewing at least annually the goals and objectives relevant to the compensation of our Chief Executive Officer and other executive officers and amending, or recommending that our Board amend, these goals and objectives if deemed appropriate.

Our compensation committee may, in its sole discretion, retain or obtain the advice of a compensation consultant, legal counsel or other adviser and will be directly responsible for the appointment, compensation and oversight of the work of any such adviser. However, before engaging or receiving advice from a compensation consultant, external legal counsel or any other adviser, the compensation committee will consider the independence of each such adviser, including the factors required by the NYSE and the SEC.

Our compensation committee consists of Dr. Kyeongho Lee, Robert Barker and Jeff Tudor, with Dr. Lee serving as chair. Our Board adopted a written charter for the compensation committee, which is available on our corporate website. The information on our website is deemed not to be incorporated in this prospectus or to be part of this prospectus.

Compensation Committee Interlocks and Insider Participation

None of our executive officers currently serve, and in the past year have not served, as a member of the Board or compensation committee (or other committee performing equivalent functions) of any entity that has one or more executive officers serving on our Board or compensation committee.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee is responsible for, among other things:

- identifying, screening and recommending to our Board director candidates for election (or re-election);
- overseeing the policies and procedures with respect to the consideration of director candidates recommended by stockholders;
- reviewing and recommending to our Board for approval, as appropriate, disclosures concerning our policies and procedures for identifying and screening Board nominee candidates, the criteria used to evaluate Board membership and director independence as well as any policies regarding Board diversity;
- reviewing independence qualifications of directors under the applicable NYSE rules;
- developing and coordinating with management on appropriate director orientation programs; and
- reviewing our stockholder engagement plan, if any, and overseeing relations with stockholders.

Our nominating and corporate governance committee consists of Robert Barker, Dr. Kyeongho Lee and Nelson C. Chan, with Mr. Barker serving as chair. Our Board has adopted a written charter for the nominating and corporate governance committee, which is available on our corporate website. The information on our website is deemed not to be incorporated in this prospectus or to be part of this prospectus.

Limitation on Liability and Indemnification of Directors and Officers

Our Charter limits the liability for directors to the fullest extent permitted under the Delaware General Corporation Law (DGCL). The DGCL provides that directors of a corporation will not be personally liable for monetary damages for a breach of their fiduciary duties as directors, except for liability:

- for any transaction from which the director derives an improper personal benefit;
- for any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- for any unlawful payment of dividends or redemption of shares; or
- for any breach of a director's duty of loyalty to the corporation or our stockholders.

If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of the directors will be further eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Delaware law and our Bylaws provide that we will, in certain situations, indemnify our directors and officers and may indemnify other employees and agents, to the fullest extent permitted by law. Any indemnified person is also entitled, subject to certain limitations, to advancement, direct payment, or reimbursement of reasonable expenses (including attorneys' fees and disbursements) in advance of the final disposition of the proceeding.

We maintain a directors' and officers' insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers. We believe these provisions in our Charter and Bylaws are necessary to attract and retain qualified persons as directors and officers.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, or control persons, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Board Leadership Structure

We believe that separating the roles of Chief Executive Officer and Chair of the Board provides the optimal level of oversight by the Board of our business operations. Our Board does not anticipate implementing a policy requiring the positions of the Chairman of the Board and Chief Executive Officer to be separate or held by the same individual. Any further determination to create such a policy is expected to be based on circumstances existing from time to time, based on criteria that are in our best interests and the best interests of our stockholders, including the composition, skills and experience of our Board and our members, specific challenges faced by us or the industry in which we operate, and governance efficiency. We elected Dr. Kyeongho Lee as Chairman of the Board because Dr. Lee's strategic vision for the business and his in-depth knowledge of our operations as the founder of the Company makes him well qualified to serve as Chairman of the Board.

Risk Oversight

Our Board will administer the risk oversight function directly through our Board as a whole, as well as through our committees, where applicable, monitoring and assessing strategic risk exposure, enterprise risk, and governance risks. The audit committee will be responsible for considering and discussing our major financial risk exposures and the steps our management has taken to monitor and control these exposures. Our compensation committee will be responsible for reviewing and assessing the risks associated with the compensation arrangements of executive management, including the lack of alignment between the incentives of management and the interests of stockholders. Our nominating and corporate governance committee responsible for reviewing and assessing the risks associated with corporate governance and Board management. The allocation of risk oversight responsibility may change, from time to time, based on the evolving needs of the Company.

Code of Business Code and Ethics Conduct

We have adopted a Code of Ethics applicable to our directors, officers and employees in accordance with applicable federal securities laws. We have filed a copy of our Code of Ethics, our Audit Committee Charter, our Compensation Committee Charter and our Nominating and Corporate Governance Committee Charter as exhibits to our registration statement for our initial public offering. You may review these documents by accessing our public filings at the SEC's web site at www.sec.gov.

Our Board has also adopted Corporate Governance Guidelines in accordance with the corporate governance rules of the NYSE that serve as a flexible framework within which our Board and our committees operate. Copies of our Corporate Governance Guidelines, our Code of Ethics, our Audit Committee Charter, our Compensation Committee Charter and our Nominating and Corporate Governance Committee Charter are available on our corporate website at <https://investors.gctsemi.com/documents-and-charters>. The information contained on or accessible through our corporate website or any other website that we may maintain is not incorporated by reference into this Annual Report on Form 10-K.

Compensation of Executive Officers and Directors of Company

Our compensation committee is responsible for developing our compensation philosophy, structuring our compensation and benefits programs, and determining appropriate payments and awards to our named executive officers (as defined below) and directors. Our compensation committee has the authority to engage a compensation consultant to provide advice on executive and director compensation matters, including providing a recommendation on the compensation level of each executive officer and director of the Company.

Section 16(a) Beneficial Ownership Reporting Compliance

Based solely upon a review of copies of such forms filed on Forms 3, 4 and 5, and amendments thereto furnished to us, we believe that as of the date of this Report, our executive officers, directors and greater than 10 percent beneficial owners have complied on a timely basis with all Section 16(a) filing requirements with the exception of the following:

Based solely on our review of the copies of such forms received by us, or written representations from certain reporting persons, the Company believes that during fiscal year ended December 31, 2024 the filing requirements applicable to its officers, directors and greater than 10% percent beneficial owners were complied with, except for the following: (i) Robert Barker filed two late Forms 4 to report two transactions; (ii) Dr. Kukjin Chun filed two late Forms 4 to report two transactions; (iii) Hyunsoo Shin filed two late Forms 4 to report two transactions; (iv) Dr. Kyeongho Lee filed two late Forms 4 to report two transactions; (v) Jeff Tudor filed two late Forms 4 to report two transactions; and (vi) Nelson C. Chan filed two late Forms 4 to report two transactions.

Clawback Policy

Our Board adopted a clawback policy (the "Clawback Policy"), providing for the recovery of certain incentive-based compensation from current and former executive officers of the Company in the event the Company is required to restate any of its financial statements filed with the SEC under the Exchange Act in order to correct an error that is material to the previously-issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period. A copy of the Clawback Policy has been filed herewith, as exhibit 97.1.

Insider Trading Policies

We have adopted an insider trading policy governing the purchase, sale, and other dispositions of our securities by directors, senior management, and employees. A copy of the Insider Trading Policy has been filed herewith, as exhibit 19.1.

Item 11. Executive Compensation.**Overview**

This section discusses the material components of the executive compensation program for our executive officers who are named below. As an emerging growth company, we have opted to comply with the executive compensation disclosure rules applicable to smaller reporting companies as such term is defined in the rules promulgated under the Securities Act, which require compensation disclosure for our principal executive officer and our two other most highly compensated executive officers.

In 2024, our chief executive officer and our two other most highly compensated executive officers, referred to collectively as the named executive officers (or NEOs) were as follows:

John Schlaefel, Chief Executive Officer

Edmond Cheng, Chief Financial Officer

Alex Sum, Sr. VP of Sales and Marketing

Summary Compensation Table

The following table sets out the compensation paid or payable to the NEOs during the last two fiscal years:

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)	Non-Equity Deferred Compensation Earnings (\$)	Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
John Schlaefel	2024	\$380,500						\$12,683 ⁽¹⁾	\$393,183
Chief Executive Officer	2023	\$373,333		\$78,873 ⁽²⁾				\$8,155 ⁽³⁾	\$460,361
Edmond Cheng ⁽⁴⁾	2024	\$224,712 ⁽⁵⁾	\$25,000 ⁽⁶⁾	\$262,960 ⁽⁷⁾				\$8,063 ⁽⁸⁾	\$520,735
Chief Financial Officer	2023								
Alex Sum	2024	\$303,100						\$9,043 ⁽⁹⁾	\$312,143
Sr. VP of Sales and Marketing	2023	\$296,517		\$32,901 ⁽¹⁰⁾				\$5,272 ⁽¹¹⁾	\$334,690

⁽¹⁾ Amount reflects 401(k) plan matching benefit of \$10,703 and group term life insurance premium of \$1,980.

⁽²⁾ Amount reflects the grant date fair value of restricted stock units calculated in accordance with FASB ASC Topic 718. On December 11, 2023, Mr. Schlaefel received an award of 12,804 restricted stock units under the Company's 2011 Incentive Compensation Plan. The fair value of the restricted stock units is based on the fair market value of the Company's Common Stock on the date of grant, which was \$6.16. The restricted stock units vest in equal annual installments over a four (4) year period measured from December 11, 2023, subject to the terms of the award agreement.

⁽³⁾ Amount reflects 401(k) plan matching benefit of \$6,750 and group term life insurance premium of \$1,405.

⁽⁴⁾ Mr. Cheng commenced employment with the Company on March 18, 2024.

⁽⁵⁾ Mr. Cheng's 2024 salary reflects the amount he earned in 2024 beginning on his hire date on March 18, 2024.

⁽⁶⁾ Amount reflects a sign-on bonus paid to Mr. Cheng in May 2024.

⁽⁷⁾ Amount reflects the grant date fair value of restricted stock units calculated in accordance with FASB ASC Topic 718. On August 21, 2024, Mr. Cheng received an award of 76,000 restricted stock units under the Company's 2024 Omnibus Incentive Compensation Plan. The fair value of the restricted stock units is based on the market price of the Company's Common Stock on the date of grant, which was \$3.46. The restricted stock units vest in equal annual installments over a four (4) year period measured from March 18, 2024, subject to the terms of the award agreement.

⁽⁸⁾ Amount reflects 401(k) plan matching benefit of \$6,413 and group term life insurance premium of \$1,650.

⁽⁹⁾ Amount reflects 401(k) plan matching benefit of \$8,796 and group term life insurance premium of \$247.

⁽¹⁰⁾ Amount reflects the grant date fair value of restricted stock units calculated in accordance with FASB ASC Topic 718. On December 11, 2023, Mr. Sum received an award of 5,341 restricted stock units under the Company's 2011 Incentive Compensation Plan. The fair value of the restricted stock units is based on the fair market value of the Company's Common Stock on the date of grant, which was \$6.16. The restricted stock units vest in equal annual installments over a four (4) year period measured from December 11, 2023, subject to the terms of the award agreement.

⁽¹¹⁾ Amount reflects 401(k) plan matching benefit of \$5,272.

Narrative to the Summary Compensation Table

Our compensation program for our NEOs is comprised of base salary, annual cash bonuses and periodic equity awards, however, we did not award annual bonuses to our NEOs in 2023 or 2024. Historically, the equity awards granted to the NEOs has consisted of stock options, however, Mr. Schlaefter and Mr. Sum were each granted a restricted stock unit award on December 11, 2023 and Mr. Cheng (who joined the company in March 2024) was granted a restricted stock unit award on August 21, 2024. For a description of the outstanding stock options and restricted stock unit awards granted to the NEOs, please see the *Outstanding Equity Awards at 2024 Fiscal Year-End* table below.

The NEOs are eligible to participate in our perquisites and benefits on the same basis as our employees, including health and welfare benefits and a 401(k) program.

Employment Agreement

Edmond Cheng Employment Agreement

In connection with Mr. Cheng's appointment as Chief Financial Officer, the Company and Mr. Cheng entered into an employment agreement effective as of March 18, 2024 (the Cheng Employment Agreement). The Cheng Employment Agreement has no fixed term and is terminable at will. Mr. Cheng is entitled under the Cheng Employment Agreement to an annual base salary of \$285,000 and will be eligible to earn a bonus annually with a targeted incentive rate of 25% of base salary (however, he did not receive an annual bonus in 2024). Mr. Cheng is also entitled to participate in the benefit plans generally available to our employees, such as group health care coverage and 401(k) plan participation. As provided under the Cheng Employment Agreement, Mr. Cheng received a one-time sign-on bonus of \$25,000 and received an initial grant of 76,000 restricted stock units that vest in equal annual installments over a (4) four-year period of service measured from the vesting commencement date. In connection with Mr. Cheng's employment, Mr. Cheng entered into a Proprietary Information & Invention Assignment Agreement with the Company.

Amended and Restated 2011 Incentive Compensation Plan

The GCT Amended and Restated 2011 Incentive Compensation Plan (the 2011 Incentive Compensation Plan) was adopted by GCT's board of directors and approved by its stockholders on May 5, 2011. The 2011 Incentive Compensation Plan was terminated following the Closing, and we will not grant any further awards under such plan. However, 668,348 outstanding stock options and 392,135 outstanding restricted stock units granted under the 2011 Incentive Compensation Plan were assumed and continued in connection with the Business Combination.

The maximum aggregate number of shares of the Company's Common Stock that were authorized for issuance under the 2011 Incentive Compensation Plan was 16,747,041 shares, subject to adjustment as provided therein.

Our compensation committee of the Board administers the 2011 Incentive Compensation Plan and has the authority, among other matters, to construe and interpret the terms of the 2011 Incentive Compensation Plan and awards granted thereunder.

GCT 2024 Incentive Compensation Plan

In December 2023, our Board adopted the GCT 2024 Omnibus Incentive Compensation Plan, which was subsequently approved by our stockholders in February 2024 (the 2024 Incentive Compensation Plan) under which we may grant cash and equity incentive awards to eligible service providers in order to attract, motivate and retain the talent for which we compete, which is essential to our long-term success. The maximum aggregate number of shares of the Company's Common Stock that are authorized for issuance under the 2024 Incentive Compensation Plan is 3,983,334 shares, subject to adjustment as provided therein. The 2024 Incentive Compensation Plan became effective on March 26, 2024, the Closing.

GCT 2024 Employee Stock Purchase Plan

In December 2023, our Board adopted 2024 Employee Stock Purchase Plan, which was subsequently approved by our stockholders in February 2024 (the 2024 Employee Stock Purchase Plan), under which eligible employees will be provided with the opportunity to periodically purchase shares of the Company's Common Stock at a discount through their accumulated periodic payroll deductions. The maximum aggregate number of shares of the Company's Common Stock that are authorized for issuance under the 2024 Employee Stock Purchase Plan is 600,000 shares, subject to adjustment as provided therein. As of the date of this Annual Report, the 2024 Employee Stock Purchase Plan has not been implemented.

The 2024 Employee Stock Purchase Plan is intended to qualify as an employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986, as amended (Section 423) for one or more specified offerings under the 2024 Employee Stock Purchase Plan. The 2024 Employee Stock Purchase Plan also authorizes us to establish offerings under the 2024 Employee Stock Purchase Plan that are not designed to comply with the requirements of Section 423 but that are intended to comply with local law.

Outstanding Equity Awards at 2024 Fiscal Year-End

The following table sets forth information concerning outstanding equity awards for each of the NEOs and directors as of the end of the fiscal year ended December 31, 2024.

Name	Option Awards				Stock Awards	
	Number of securities underlying unexercised stock options (#) exercisable	Number of securities underlying unexercised stock options (#) unexercisable	Stock option exercise price (\$)	Stock option expiration date	Number of shares of units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$) ⁽¹⁾
John Schlaefer	35,669 ⁽²⁾		\$0.11/share	02/23/2025	9,603 ⁽³⁾	\$ 22,375
Chief Executive Officer	28,191 ⁽⁴⁾		\$0.11/share	03/14/2028		
	21,533 ⁽⁵⁾		\$0.11/share	04/19/2029		
	50,425 ⁽⁶⁾		\$0.11/share	06/08/2030		
Edmond Cheng					76,000 ⁽⁷⁾	\$ 177,080
Chief Financial Officer						
Alex Sum	13,259 ⁽²⁾		\$0.11/share	02/23/2025	4,005 ⁽³⁾	\$ 9,332
Sr. VP of Sales	13,820 ⁽⁴⁾		\$0.11/share	03/14/2028		
and Marketing	13,540 ⁽⁵⁾		\$0.11/share	04/19/2029		
	9,338 ⁽⁶⁾		\$0.11/share	06/08/2030		

⁽¹⁾Represents the aggregate market value of the shares subject to the award calculated using the closing price of the Company's Common Stock on December 31, 2024, which was \$2.33.

⁽²⁾The option was granted on February 23, 2015 and vests with respect to twenty-five percent (25%) of the option upon completion of one (1) year of service measured from the vesting commencement date, and for the balance of the option in a series of thirty-six (36) successive equal monthly installments upon completion of each additional month of service over the thirty-six (36) month period measured from the first anniversary of the vesting commencement date.

⁽³⁾The restricted stock units were granted on December 11, 2023 and vest in equal annual installments over a four (4) year period measured from December 11, 2023, subject to the terms of the award agreement.

⁽⁴⁾The option was granted on March 18, 2018 and vests with respect to twenty-five percent (25%) of the option upon completion of one (1) year of service measured from the vesting commencement date, and for the balance of the option in a series of thirty-six (36) successive equal monthly installments upon completion of each additional month of service over the thirty-six (36) month period measured from the first anniversary of the vesting commencement date.

⁽⁵⁾The option was granted on April 19, 2019 and vests with respect to twenty-five percent (25%) of the option upon completion of one (1) year of service measured from the vesting commencement date, and for the balance of the option in a series of thirty-six (36) successive equal monthly installments upon completion of each additional month of service over the thirty-six (36) month period measured from the first anniversary of the vesting commencement date.

⁽⁶⁾The option was granted on June 8, 2020 and vests with respect to twenty-five percent (25%) of the option upon completion of one (1) year of service measured from the vesting commencement date, and for the balance of the option in a series of thirty-six (36) successive equal monthly installments upon completion of each additional month of service over the thirty-six (36) month period measured from the first anniversary of the vesting commencement date.

⁽⁷⁾The restricted stock units were granted on August 21, 2024 and vest in equal annual installments over a four (4) year period measured from March 18, 2024, subject to the terms of the award agreement.

Termination or Change in Control Agreements

Below is a description of the potential payments and benefits that would be provided to the NEOs upon termination of their employment or a change of control under the 2011 and 2024 Incentive Compensation Plans and the retention plan.

2011 and 2024 Incentive Compensation Plans

The awards granted under the 2011 Incentive Compensation Plan and 2024 Incentive Compensation Plan may be assumed, substituted or continued in connection with a change of control. If not assumed, substituted or continued, then the awards will vest in full and become payable at the time of the change of control. Additionally, the NEOs are eligible to participate in the Retention Plan, which provides accelerated vesting of outstanding equity awards upon certain terminations of employment (see Retention Plan below).

Retention Plan

We have adopted an executive retention plan, pursuant to which each of our NEOs is entitled to receive severance payments and benefits upon an involuntary termination of the NEO's employment. Should the NEO's employment be involuntarily terminated by the Company without cause or by the NEO for good reason at any time other than during the 12 months following a change in control of the Company, the NEO will be entitled to receive (i) continued base salary for a period of 6 months, (ii) continued health care coverage for the NEO

and the NEO's eligible dependents for a period of 6 months, and (iii) accelerated vesting of 50% of the unvested shares subject to any outstanding equity awards. In the event that such involuntary termination occurs within 12 months following a change in control of the Company, then the NEO will be entitled to receive (i) continued base salary for a period of 12 months, (ii) continued health care coverage for the NEO and the NEO's eligible dependents for a period of 12 months, and (iii) full accelerated vesting of outstanding equity awards.

If any payment or benefit in connection with a change in control or the subsequent termination of an NEO's employment would be subject to an excise tax under Section 280G of the Internal Revenue Code, then such payment of benefit will be reduced to the extent necessary to maximize the NEO's net after tax benefits.

As a condition to the severance payments and benefits, each named executive officer must deliver a general release of all claims against us and our affiliates.

Director Compensation

The following table sets forth the compensation awarded to, earned by or paid to Messrs. Robert Barker, Dr. Kukjin Chun, Hyunsoo Shin, Dr. Kyeongho Lee, Jeff Tudor and Nelson C. Chan for services as our non-employee directors during 2024. There was no director compensation policy in place beyond the compensation and awards set forth in the following table.

Name	Fees Earned or Paid in Cash (\$) ⁽¹⁾	Stock Awards (\$) ⁽²⁾	Total (\$)
Robert Barker	\$ 60,000 ⁽³⁾	\$ 82,500	\$ 142,500
Dr. Kukjin Chun	\$ 46,875 ⁽⁴⁾	\$ 82,500	\$ 129,375
Hyunsoo Shin	\$ 46,875 ⁽⁵⁾	\$ 82,500	\$ 129,375
Dr. Kyeongho Lee	\$ 41,250 ⁽⁶⁾	\$ 82,500	\$ 123,750
Jeff Tudor	\$ 39,375 ⁽⁷⁾	\$ 82,500	\$ 121,875
Nelson C. Chan	\$ 39,375 ⁽⁸⁾	\$ 82,500	\$ 121,875

⁽¹⁾ Amounts reflect the director fees earned for 2024, for the period prior to the Business Combination (i.e., January 1, 2024 through March 31, 2024) and for the period after the Business Combination (i.e., April 1, 2024 through December 31, 2024), as described in more detail in the footnotes below.

⁽²⁾ Represents the grant date value of the restricted stock unit award granted to each non-employee director on June 27, 2024. The number of shares subject to, and issuable under the award upon vesting, is determined on the last day of each quarter during the period April 1, 2024 through March 31, 2025, by dividing \$27,500 by the fair market value per share of the Company's Common Stock as of the last day of the applicable quarter, rounded down the nearest whole share. See Equity Awards below for additional detail regarding the awards. The fair market value was \$5.21 on June 28, 2024 (representing 5,278 shares), \$3.35 on September 30, 2024 (representing 8,208 shares) and \$2.33 on December 31, 2024 (representing 11,802 shares); the last quarterly determination date will be March 31, 2025. The restricted stock unit awards vest on March 31, 2025, subject to the non-employee director's continued service through such date.

⁽³⁾ Mr. Robert Barker received \$7,500 regular board retainer fees for the 1st fiscal quarter of 2024. Mr. Barker also received \$30,000 regular board retainer fees, \$3,750 Compensation Committee member fees, \$11,250 Audit Committee chairman fees, and \$7,500 Nominating & Corporate Governance Committee chairman fees collectively for the 2nd, 3rd, and 4th fiscal quarters of 2024.

⁽⁴⁾ Dr. Kukjin Chun received \$7,500 regular board retainer fees for the 1st fiscal quarter of 2024. Dr. Chun also received \$33,750 regular board retainer fees, \$5,625 Audit Committee member fees collectively for the 2nd, 3rd, and 4th fiscal quarters of 2024.

⁽⁵⁾ Mr. Hyunsoo Shin received \$7,500 regular board retainer fees for the 1st fiscal quarter of 2024. Mr. Shin also received \$33,750 regular board retainer fees and \$5,625 Audit Committee member fees collectively for the 2nd, 3rd, and 4th fiscal quarters of 2024.

⁽⁶⁾ Dr. Kyeongho Lee received \$30,000 regular board retainer fees, \$7,500 Compensation Committee chairman fees, and \$3,750 Nominating & Corporate Governance committee member fees in fiscal 2024 (for the 2nd, 3rd, and 4th fiscal quarters of 2024).

⁽⁷⁾ Mr. Jeff Tudor received \$35,625 regular board retainer fees, and \$3,750 Compensation Committee member fees in fiscal 2024 (for the 2nd, 3rd, and 4th fiscal quarters of 2024).

⁽⁸⁾ Mr. Nelson C. Chan received \$35,625 regular board retainer fees, and \$3,750 Nominating & Corporate Governance member fees in fiscal 2024 (for the 2nd, 3rd, and 4th fiscal quarters of 2024).

Cash Retainer and Fees:

Each non-employee director receives an annual retainer in the following amounts:

Name	Fees (\$)
Robert Barker	\$ 40,000
Dr. Kukjin Chun	\$ 45,000
Hyunsoo Shin	\$ 45,000
Dr. Kyeongho Lee	\$ 40,000
Jeff Tudor	\$ 47,500
Nelson C. Chan	\$ 47,500

In addition to an annual cash retainer, our non-employee directors receive the additional compensation described below, as applicable. All cash retainers are paid in quarterly installments based on each director's service on the board or a committee during such quarter.

Audit Committee Chairperson	\$	15,000
Compensation Committee Chairperson	\$	10,000
Nominating and Corporate Governance Committee Chairperson	\$	10,000
Audit Committee Member	\$	7,500
Compensation Committee Member	\$	5,000
Nominating and Corporate Governance Committee Member	\$	5,000

Equity Awards:

RSU Awards:

On June 27, 2024, each non-employee director was granted an award of restricted stock units under the 2024 Incentive Compensation Plan covering \$110,000 worth of shares of the Company's Common Stock, subject to the following terms:

The number of shares of the Company's Common Stock issuable under the award is determined on a quarterly basis on the last day of each calendar quarter during the period April 1, 2024 through March 31, 2025 by dividing \$27,500 by the fair market value per share of the Company's Common Stock on such date, rounded down to the nearest whole share. The total number of shares subject to the award will be the aggregate of the number of shares determined for each such quarter.

The award vests on March 31, 2025, subject to the non-employee director's continued service through such date.

Shares that vest under the award are issued as soon as practicable following the vesting date, subject to any deferral election as described below.

Each non-employee director was allowed to make a deferral election, until the earliest to occur of a Distribution Event or a calendar year specified by the director (but no earlier than 2026), with respect to the number of restricted stock units determined on any of the quarterly determination dates ending on or after September 30, 2024 (i.e., the non-employee directors were not permitted to make a deferral election for the restricted stock units determined for the quarter ending June 30, 2024). A Distribution Event means a separation from service from the Company, a change in control event involving the Company, death or becoming disabled. Messrs. Robert Barker and Jeff Tudor elected to defer the issuance of shares until the earliest Distribution Event; Dr. Kyeongho Lee elected to defer the issuance of shares until the earliest to occur of (i) a Distribution Event or (ii) 2027.

Maximum Director Compensation:

Under the terms of the 2024 Incentive Compensation Plan, the maximum aggregate value of awards granted to any non-employee director under the plan in any calendar year, taken together with any cash retainer paid to such non-employee director in respect of such calendar year, may not exceed \$500,000 in total value.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The following table sets forth certain information regarding beneficial ownership of shares of our Common Stock as of March 15, 2025 by (i) each person known to beneficially own more than 5% of our outstanding common stock, (ii) each of our directors, (iii) each of our named executive officers and (iv) all of our directors and named executive officers as a group. Except as otherwise indicated, the persons named in the table below have sole voting and investment power with respect to all shares beneficially owned, subject to community property laws, where applicable.

Subject to the paragraph above, the percentage ownership of issued shares is based on 48,233,113 shares of Common Stock issued and outstanding as of March 15, 2025.

Unless otherwise noted, the business address of each of the following entities or individuals is 2290 North 1st Street, Suite 201 San Jose, CA 95131.

Name and Address of Beneficial Owner	Shares of Common Stock	% of Total Voting Power ⁽¹⁵⁾
Directors and Named Executive Officers		
John Schlaefel ⁽¹⁾	217,719	*%
Edmond Cheng ⁽²⁾	19,000	*%
Dr. Jeongmin Kim ⁽³⁾	300,749	*%
Alex Sum ⁽⁴⁾	141,436	*%
Dr. Kyeongho Lee ⁽⁵⁾	1,700,614	3.5%
Robert Barker ⁽⁶⁾	22,086	*%
Dr. Kukjin Chun ⁽⁷⁾	47,464	*%
Hyunsoo Shin ⁽⁸⁾	85,921	*%
Jeff Tuder ⁽⁹⁾	5,278	*%
Nelson C. Chan ⁽¹⁰⁾	39,994	*%
All Directors and Officers as a group (10 persons)	2,580,261	5.3%
Greater than Five Percent Holders:		
Anapass, Inc. ⁽¹¹⁾	9,103,136	18.5%
Concord Sponsor Group III LLC ⁽¹²⁾	7,681,913	14.7%
M-Venture Investment, Inc. & affiliates ⁽¹³⁾	4,021,293	8.3%
TD Securities (USA) LLC ⁽¹⁴⁾	3,691,100	7.1%

* Represents beneficial ownership of less than 1%

⁽¹⁾Includes 100,149 shares of Common Stock issuable upon exercise of stock options within 60 days of March 15, 2025.

⁽²⁾Includes 19,000 shares of Common Stock issuable upon vesting of restricted stock units within 60 days of March 15, 2025.

⁽³⁾Includes 82,359 shares of Common Stock issuable upon exercise of stock options within 60 days of March 15, 2025.

⁽⁴⁾Includes 36,698 shares of Common Stock issuable upon exercise of stock options within 60 days of March 15, 2025.

⁽⁵⁾Includes 4,150 shares of Common Stock held by Dr. Lee's spouse and 5,278 shares of Common Stock issuable upon vesting of restricted stock units within 60 days of March 15, 2025. The percentage ownership was calculated based upon 49,033,113 shares of the Issuer's common Stock, which consists of (i) 48,233,113 issued and outstanding shares of the Company's Common Stock as of March 15, 2025 and (ii) 800,000 Private Placement Warrants that were allocated at GCT's discretion to Kyeongho Lee to incentivize investment to the Company Insider Recipients.

⁽⁶⁾Includes 2,800 shares of Common Stock issuable upon exercise of stock options and 5,278 shares of Common Stock issuable upon vesting of restricted stock units within 60 days of March 15, 2025.

⁽⁷⁾Includes 6,536 shares of Common Stock issuable upon exercise of stock options, 25,288 shares of Common Stock issuable upon vesting of restricted stock units within 60 days of March 15, 2025, and 14,706 shares of Common Stock issuable upon vesting of restricted stock units under the award, which is determined on March 31, 2025 by dividing \$27,500 by the fair market value per share of Common Stock on such date and for the purposes of this table, was determined to be \$1.87 on March 15, 2025, rounded down to the nearest whole share.

⁽⁸⁾Includes 6,536 shares of Common Stock issuable upon exercise of stock options, 25,288 shares of Common Stock issuable upon vesting of restricted stock units within 60 days of March 15, 2025, and 14,706 shares of Common Stock issuable upon vesting of restricted stock units under the award, which is determined on March 31, 2025 by dividing \$27,500 by the fair market value per share of Common Stock on such date and for the purposes of this table, was determined to be \$1.87 on March 15, 2025, rounded down to the nearest whole share.

⁽⁹⁾Includes 5,278 shares of Common Stock issuable upon vesting of restricted stock units within 60 days of March 15, 2025.

⁽¹⁰⁾Includes 25,288 shares of Common Stock issuable upon vesting of restricted stock units within 60 days of March 15, 2025, and 14,706 shares of Common Stock issuable upon vesting of restricted stock units under the award, which is determined on March 31, 2025 by dividing \$27,500 by the fair market value per share of Common Stock on such date and for the purposes of this table, was determined to be \$1.87 on March 15, 2025, rounded down to the nearest whole share.

⁽¹¹⁾The principal business address for Anapass, Inc. is 7F, Dream-Mark Bldg 61, Digtal-ro 31-gil, Guro-gu, Seoul, 08375, Republic of Korea. The percentage ownership was calculated based upon 49,318,783 shares of the Issuer's Common Stock, which consists of (i) 48,233,113 issued and outstanding shares of the Company's Common Stock as of March 15, 2025, (ii) 937,350 Private Placement Warrants that were allocated at GCT's discretion to Anapass, Inc. to incentivize investment to the Company Insider Recipients, and (iii) 148,320 Private Placement Warrants pursuant to a Securities Purchase Agreement, dated as of September 26, 2024 by and between the Company and Anapass, Inc.

⁽¹²⁾Concord Sponsor Group III LLC, the Sponsor of Concord III, is the record holder of the shares of the Concord III, which converted into Common Stock at Closing. The principal business address of the Sponsor is 477 Madison Ave., 22nd Floor, New York, NY, 10022. The percentage ownership was calculated based upon 52,181,199 shares of the Issuer's Common Stock, which consists of (i) 48,233,113 issued and outstanding shares of the Company's Common Stock as of March 15, 2025 and (ii) 3,948,086 Private Placement Warrants that were purchased in November 2021 at the IPO of the Company.

⁽¹³⁾The principal business address for M-Venture Investment, Inc. is 6F, Cheongrung Building 14, Teheran-ro 82-gil, Gangnam-gu, Seoul, 06178, Republic of Korea. The percentage ownership was calculated based upon 48,233,113 shares of the Issuer's Common Stock, which issued and outstanding as of March 15, 2025. Aggregate amount beneficially owned by all reporting entities are 4,021,293 shares which consists of (i) 2,153,680 shares held by M-Venture Investment, Inc., (ii) 1,284,654 shares held by M-Material.Parts.Equipment Platform Investment I, L.P., (iii) 327,370 shares held by Global Growth Investment, L.P. (iv) 143,396 shares held by M-China Fund I, (v) 54,158 shares held by Asia Pacific Venture Invest L.P., (vi) 40,424 shares held by N-Venture Investment Partnership I, and (vii) 17,611 shares held by Asia Pacific Venture Invest II L.P.

⁽¹⁴⁾This information is based solely on information reported on a Schedule 13G filed with the SEC on February 14, 2025 on behalf of TD Securities (USA) LLC (TDS), a Delaware limited liability company. The principal business address for TDS is One Vanderbilt Avenue, New York, New

York, 10017. The percentage ownership was calculated based upon 51,924,213 shares of the Issuer's Common Stock, which consists of (i) 48,233,113 issued and outstanding shares of the Company's Common Stock as of March 15, 2025 and (ii) 3,691,100 Public Warrants that were previously owned by Cowen and Company, LLC (Cowen), a Delaware limited liability company. TDS is successor in interest to Cowen by merger effective as of December 9, 2024.

(15) Based on 48,233,113 Common Stock outstanding

Securities Authorized for Issuance Under Equity Compensation Plans

The following table summarizes information about our equity compensation plans as of December 31, 2024.

Plan Category	Number of securities to be issued upon exercise of outstanding options, and rights (a)	Weighted average exercise price of outstanding options, and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holder ⁽¹⁾	1,748,580 ⁽²⁾	\$0.11/share	3,662,106 ⁽³⁾
Equity compensation plans not approved by security holder			
Total	1,748,580	\$0.11/share	3,662,106

⁽¹⁾ Consists of the 2011 Incentive Compensation Plan, the 2024 Incentive Compensation Plan, and the 2024 Employee Stock Purchase Plan, which as of the date of this Annual Report, has not been implemented.

⁽²⁾ Consists of 535,044 shares of outstanding stock options granted under the 2011 Incentive Compensation Plan, 292,308 restricted stock units awarded under the 2011 Incentive Compensation Plan, and 921,228 restricted stock units awarded under the 2024 Incentive Compensation Plan.

⁽³⁾ Consists of 3,062,106 shares remaining under the 2024 Incentive Compensation Plan and 600,000 shares remaining under the 2024 Employee Stock Purchase Plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Other than the compensation arrangements for the Company's directors and executive officers, which are described in the section titled Executive Compensation, below is a description of transactions since January 1, 2022 to which the Company was a party, in which:

the amounts involved exceeded or will exceed \$120,000; and

any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest.

Concord III Transactions and Agreements

Unless the context otherwise requires, all references in this section to we, us, or our refer to Concord III.

On March 1, 2021, the Sponsor, a Delaware limited liability company, purchased an aggregate of 7,187,500 shares of Concord III Class B common stock (the Founder Shares) for a capital contribution of \$25,000. The number of Founder Shares issued was determined based on the expectation that the Founder Shares would represent 20% of the outstanding shares of Concord III upon completion of the IPO. On March 25, 2021, the Sponsor sold 1,437,500 Founder Shares to CA2 and 25,000 to each of our independent directors, in each case at the original price per share. On May 6, 2021, CA2 sold 956,439 shares back to the Sponsor at the original purchase price, resulting in the Sponsor holding 6,631,439 Founder Shares and CA2 holding 481,061 Founder Shares. In November 2021, we effected a stock dividend of 1,437,500 shares with respect to the Concord III Class B, resulting in the Sponsors and our three independent directors holding an aggregate of 8,625,000 Founder Shares (8,624,999 of which were converted to shares of Concord III Class A in connection with the Second Extension). The Sponsor currently holds 7,957,727 Founder Shares, CA2 currently holds 577,273 Founder Shares and each of our three independent directors currently holds 30,000 Founder Shares. The Sponsors purchased an aggregate of 9,400,000 Private Placement Warrants at a price of \$1.00 per Warrant, for an aggregate purchase price of \$9,400,000. There will be no redemption rights or liquidating distributions from a trust account (the Trust Account) with respect to the Founder Shares or Private Placement Warrants, which will expire worthless if we do not consummate a business combination before November 8, 2024. As such, the Sponsors' interest in this transaction is valued at \$9,400,000. Among the Private Placement Warrants, 8,260,606 Warrants were purchased by the Sponsor and/or its designees and 1,139,394 Warrants were purchased by CA2 and/or its designees. In addition, the Sponsors lent to us an aggregate of \$6,900,000 of loans to our Sponsors (the Sponsor Loans) as of the closing date of the IPO at no interest. The proceeds of the Sponsor Loans were added to the Trust Account and will be used to fund the redemption of the Public Shares (subject to the requirements of applicable law). Of the total amount of the Sponsor Loans, \$6,063,636 was provided by the Sponsor, and \$836,364 was provided by CA2. The Sponsor Loans shall be repaid or converted into Sponsor Loan Warrants at a conversion price of \$1.00 per Warrant, at the Sponsors' discretion. The Sponsor Loan Warrants are identical to the Private Placement Warrants sold to the Sponsors concurrently with the closing of the IPO. The Sponsor Loans were extended in order to ensure that the amount in the Trust Account is \$10.20 per public share. In connection with the execution of the Business Combination Agreement, the Sponsors entered into the Sponsor Support Agreement, pursuant to which each of the Sponsor and CA2 each agreed to

forgive all amounts outstanding under the Sponsor Loans. Therefore, no Sponsor Loan Warrants were issued in connection with the Closing.

Concord III entered into an Administrative Services Agreement pursuant to which it paid an affiliate of the Sponsor a total of \$20,000 per month for office space, administrative and support services. In connection with the Closing, Concord III ceased paying these monthly fees. Accordingly, an affiliate of the Sponsor was paid a total of 578,000 for office space, administrative and support services and will be entitled to be reimbursed for any out-of-pocket expenses. As of March 31, 2024, GCT had no outstanding balance due to the affiliate of the Sponsor related to the administrative service fee.

The Sponsor and Concord III's officers and directors or any of their respective affiliates were reimbursed for any out-of-pocket expenses incurred in connection with activities on our behalf such as identifying potential target businesses and performing due diligence on suitable business combinations. Concord III's audit committee will review on a quarterly basis all material payments that were made by us to the Sponsor, officers, directors or our or any of their respective affiliates and will determine which expenses and the amount of expenses that will be reimbursed. There is no cap or ceiling on the reimbursement of out-of-pocket expenses incurred by such persons in connection with activities on our behalf. As of December 31, 2023 and March 31, 2024, the Company had an outstanding balance due to the affiliate of the Sponsor of \$100,920 and \$0, respectively, and no balance outstanding as of the Closing Date.

Prior to the commencement of the offering, the Sponsor agreed to loan Concord III's up to \$200,000 to be used for a portion of the expenses of the IPO. At the time of the IPO, Concord III's had borrowed \$175,000 under such promissory note. The loan is non-interest bearing, unsecured and became due at the closing of the IPO. The loan has been repaid upon completion of the IPO out of the \$600,000 of offering proceeds that has been allocated for the payment of offering expenses (other than underwriting commissions) not held in the Trust Account.

On May 3, 2022, the Sponsor agreed to loan Concord III up to \$350,000 to be used to pay operating expenses. This loan was non-interest bearing, unsecured, was not convertible into Warrants or any other securities, and was due at the Closing. At December 31, 2023, there was \$35,000 related to the loan outstanding which was fully paid back on the Closing Date.

Following the Closing, members of Concord III's management team who remained with us, if any, were paid consulting, management or other fees from the combined company with any and all amounts being fully disclosed to Concord III's stockholders, to the extent then known, in the tender offer or proxy solicitation materials, as applicable, furnished to our stockholders. It is unlikely the amount of such compensation will be known following the Closing, as applicable, as it will be up to the directors of the Company to determine executive officer and director compensation.

In connection with the IPO, we entered into a letter agreement with the Sponsor, CA2, and our officers and directors pursuant to which (x) they have agreed to waive: (1) their redemption rights with respect to any Founder Shares, the private placement shares and public shares, and shares underlying the Sponsor Loan Warrants held by them, as applicable, in connection with the Closing; (2) their redemption rights with respect to any Founder Shares, the private placement shares and public shares, and shares underlying the Sponsor Loan Warrants held by them in connection with Concord III's amended and restated certificate of incorporation (A) to modify the substance or timing of our obligation to allow redemptions in connection with the Closing or (B) with respect to any other provision relating to stockholders' rights or pre-initial business combination activity; and (3) their rights to liquidating distributions from the Trust Account with respect to any Founder Shares and private placement shares they hold if we fail to complete our initial business combination by August 8, 2024 (although they will be entitled to liquidating distributions from the Trust Account with respect to any public shares they hold if we fail to complete our initial business combination within the prescribed time frame), and (y) the Founder Shares are subject to certain transfer restrictions.

In connection with the IPO, we have entered into a registration rights agreement with respect to the Founder Shares, Private Placement Warrants, Sponsor Loan Warrants and Concord III Warrants that may be issued upon conversion of working capital loans and Sponsor Loans and the shares (and any shares of issuable upon the exercise of the Private Placement Warrants or Warrants issued upon conversion of working capital loans or Sponsor Loans).

In April 2023, the Sponsor entered into non-redemption agreements with certain holders of Concord III Class A common stock in exchange for them agreeing not to redeem their shares of Concord III Class A common stock in connection with the First Extension. The non-redemption agreements provide for the transfer and assignment of economic interest of an aggregate of 999,665 Founder Shares held by the Sponsor. Pursuant to the non-redemption agreements, the Sponsor has agreed to transfer such Founder Shares to the investors upon closing of an initial business combination.

In November 2023, Concord III and the Sponsor entered into non-redemption agreements with certain holders of Concord III Class A common stock in exchange for them agreeing not to redeem their shares of Concord III Class A common stock in connection with the Second Extension. In exchange for the foregoing commitments not to redeem such shares, Concord III agreed to allocate to such

investors an aggregate of 781,961 shares of Concord III Class A common stock, and the Sponsor agreed to surrender and forfeit to Concord III for no consideration an equal number of Founder Shares, upon closing of an initial business combination.

Other than the foregoing, no compensation or fees of any kind will be paid to the Sponsor, members of Concord III's management team or their respective affiliates, for services rendered prior to or in connection with the consummation of the Business Combination. Additionally, Mr. Tudor joined the Company's Board upon consummation of the Business Combination and will be compensated in line with Board's compensation policies.

Sponsor Support Agreement

Concurrently with the execution and delivery of the Business Combination Agreement, Concord III entered into the Sponsor Support Agreement with GCT, the Sponsor and CA2. Pursuant to the Sponsor Support Agreement, the Sponsor and CA2 have, among other things, agreed to vote all of their shares of Concord III's common stock in favor of the approval of the Business Combination, including the Merger, not to redeem any of their shares of Concord III's common stock and to waive their anti-dilution protections with respect to their Founder Shares.

Lock-up Agreements

On March 26, 2024, and in connection with the Closing, the Company and certain stockholders of GCT, including its directors, officers, affiliates and holders of more than 5% of outstanding shares of GCT common stock as of the Closing, entered into the Lock-Up Agreement, pursuant to which such stockholders agreed to not effect any sale or other transfer of Common Stock, subject to certain customary exceptions set forth in the Lock-Up Agreement, during the period commencing at the Closing and ending on the earlier of (i) one year following the Closing, (ii) such date as the Company completes a liquidation, merger, share exchange, reorganization or other similar transaction that results in all of the Company's stockholders having the right to exchange their shares of Common Stock for cash, securities or other property or (iii) the date on which the last sale price of Common Stock equals or exceeds \$12.00 per share (as adjusted for share splits, share consolidations, share capitalizations, rights issuances, subdivisions, reorganizations, recapitalizations and the like) for any 20 trading days within any 30 trading day period commencing at least 150 days after the Closing.

Subscription Agreements

Concurrently with the execution of the Business Combination Agreement, the PIPE Investors entered into subscription agreements (the PIPE Subscription Agreements) pursuant to which the PIPE Investors had committed to purchase in a private placement an aggregate of 4,529,967 shares of the PIPE Shares at a purchase price of \$6.67 per share and the PIPE Financing of an aggregate purchase price of approximately \$30.2 million. The purchase of the PIPE Shares was conditioned upon, among other things, the consummation of the Business Combination and was consummated immediately prior to the Closing. At the Closing, the PIPE Shares issued pursuant to the PIPE Subscription Agreements were not registered under the Securities Act, and were issued in reliance on the availability of an exemption from such registration.

Side Letter to Sponsor Support Agreement

Concurrently with the consummation of the transactions contemplated by the Business Combination Agreement, the Sponsors, Concord III, and GCT entered into a letter agreement pursuant to the Sponsor Support Agreement (the Side Letter to Sponsor Support Agreement). Pursuant to the Side Letter to Sponsor Support Agreement, the parties thereto, among other things, confirmed their understanding of the calculations and timing for determination of the Sponsor Earnout Ratio (as defined in the Sponsor Support Agreement), the number of Sponsor Earnout Shares (as defined in the Sponsor Support Agreement), and the number of Sponsor Unretained Earnout Shares (as defined in the Sponsor Support Agreement).

Sponsor Incentive Allocation

On the Closing Date, and pursuant to the Sponsor Support Agreement, the Sponsors assigned 2,087,350 Private Placement Warrants and 1,399,107 shares of Common Stock to the Affiliated Stockholders.

GCT Semiconductor, Inc. Transactions and Agreements

Convertible Note

In May 2019, GCT issued a convertible promissory note in the aggregate principal amount of up to \$450 thousand to Dr. Kyeongho Lee, GCT's founder and Chairman of the Board. The convertible promissory note has a three-year term with an interest rate of 4% per annum and a conversion price of \$3.50 per share. The convertible promissory note and accrued interest of \$55 thousand were converted into 144,183 shares of GCT common stock on April 28, 2022 upon GCT's submission of the initial public offering eligibility review application to KOSDAQ.

Term Loan and Security Agreement

In July of 2016, Anapass loaned to GCT Research, Inc., a subsidiary of GCT (GCT Research), 6,000.0 million South Korean won (₩), or \$4.1 million based on the currency exchange rate on December 31, 2024, pursuant to a secured term note bearing 5.5% annual interest, paid monthly, and maturing on July 25, 2017. Dr. Lee serves as the chairman of the board of Anapass, which is currently a beneficial owner of approximately 18.6% of the issued and outstanding shares of GCT common stock. In addition, Anapass and GCT executed that certain Intellectual Property and Asset Security Agreement (the Security Agreement), dated as of July 18, 2016, pursuant to which GCT granted a security interest in substantially all of GCT's assets to secure the loan. The Security Agreement was amended in January 2017 to secure a loan in the principal amount of ₩9,200.0 million (or \$6.3 million) by the Industrial Bank of Korea (IBK) to GCT Research. In addition, on May 10, 2022, GCT executed Amendment No. 2 to the Security Agreement to secure an additional loan in the amount of ₩3,000.0 million (or \$2.0 million) from Anapass to GCT Research. In September 2022, GCT executed Amendment No. 3 to the Security Agreement to secure a loan in the amount of ₩4,000.0 million (or \$2.7 million) from Anapass to GCT Research. In December 2024, GCT executed Amendment No. 4 to the Security Agreement to secure a loan in the amount of ₩5,000.0 million (or \$3.4 million) from Anapass to GCT Research. In March 2025, GCT executed Amendment No. 5 to the Security Agreement to secure a loan in the amount of ₩4,500.0 million (or \$3.1 million) from Anapass to GCT Research. The terms of the secured termnote have been extended annually for additional one-year terms since 2017, and the current maturity date is March 21, 2026.

In July of 2016, KEB Hana Bank loaned ₩9,000.0 million (or \$6.1 million) to GCT Research pursuant to an unsecured term loan agreement bearing a variable interest rate (2.562% initial annual interest rate), paid monthly, and maturing on July 18, 2017. The terms of such unsecured term loan agreement have been extended annually for additional one-year terms since 2017, and the current maturity date is July 12, 2025 with annual interest rate of 4.86%. Anapass provided certificates of deposit as collateral to KEB Hana Bank to secure GCT Research's obligations under this loan.

In January of 2017, IBK loaned ₩9,200.0 million (\$6.3 million) to GCT Research pursuant to an unsecured term loan agreement bearing a variable interest rate (2.11% initial annual interest rate), paid monthly and maturing on January 10, 2018. The terms of the unsecured term loan agreement have been extended annually for additional one-year terms from 2018 to 2023 and extended for ten-months in January 2023, and the current maturity date is November 20, 2025 with an annual interest rate of 4.07%. Anapass provided certificates of deposit as collateral to IBK to secure the loan.

On May 19, 2017, Dr. Lee loaned ₩500.0 million (or \$0.3 million) to GCT Research pursuant to an unsecured termnote bearing an 8.5% annual interest rate, paid monthly, and maturing on November 19, 2017. The terms of the unsecured termnote have been extended annually for additional one-year terms since 2017, and the current maturity date is November 19, 2025 with an annual interest rate of 9.0%.

On May 24, 2017, Dr. Lee loaned ₩700.0 million (or \$0.5 million) to GCT Research pursuant to an unsecured termnote bearing 8.5% annual interest, paid monthly, with a monthly redemption of ₩10.0 million (or \$0.008 million) and maturity date of November 24, 2017. The terms of the unsecured termnote have been extended annually for additional one-year terms since 2017, and the latest maturity date was November 24, 2023 with an annual interest rate of 6.8%. The unsecured termnote was paid off in full on March 19, 2023.

On May 30, 2017, Dr. Lee loaned ₩500.0 million (or \$0.3 million) to GCT Research pursuant to an unsecured termnote bearing 8.5% annual interest, paid monthly, and maturing on November 30, 2017. The terms of the unsecured termnote have been extended annually for additional one-year terms since 2017, and the current maturity date is November 30, 2025 with an annual interest rate of 7.5%.

On May 27, 2020, Dr. Lee loaned ₩400.0 million (or \$0.3 million) to GCT Research pursuant to an unsecured and non-interest bearing term loan agreement maturing on November 27, 2020. GCT Research redeemed ₩200.0 million (or \$0.14 million) under such term loan in July 2020. The terms of the unsecured term loan agreement were extended for six months in November 2020, and further extended annually for additional one-year terms since May 2021 pursuant to that certain Amendment No. 2, dated as of May 27, 2021; Amendment No. 4, dated as of May 27, 2022, and Amendment No. 5, dated as of May 27, 2023. Pursuant to that certain Amendment No. 3, dated as of November 30, 2021, ₩90.0 million (or \$0.06 million) were forgiven by Dr. Kyeongho Lee. The current outstanding balance under the loan is ₩110.0 million (or \$0.07 million translated using the exchange rate as of December 31, 2024) and currently has a maturity of May 27, 2025.

On December 2, 2021, Dr. Lee loaned ₩1,000.0 million (or \$0.8 million) to GCT Research pursuant to an unsecured term loan agreement bearing 7.5% annual interest, paid monthly, and maturing on December 2, 2022. The loan agreement was subsequently extended to a maturity date of December 2, 2024. The loan was fully paid off on March 15, 2024.

On November 11, 2024, Dr. Lee loaned ₩4,000.0 million (or \$2.9 million) to GCT Research pursuant to an unsecured term loan agreement bearing 12.0% annual interest, paid monthly, and maturing on December 31, 2024. As of the date of this Annual Report, ₩61.6 million of interest has been paid pursuant to the loan agreement. The current outstanding balance under the loan is ₩4,000.0 million (or \$2.7 million translated using the exchange rate as of December 31, 2024).

On December 11, 2024, Dr. Lee loaned ₩1,000.0 million (or \$0.7 million) to GCT Research pursuant to an unsecured term loan agreement bearing 12.0% annual interest, paid monthly, and maturing on January 11, 2025. As of the date of this Annual Report, ₩6.0 million (or \$0.004 million) of interest has been paid pursuant to the loan agreement. The current outstanding balance under the loan is ₩1,000.0 million (or \$0.7 million translated using the exchange rate as of December 31, 2024).

On December 17, 2024, Dr. Lee loaned ₩2,000.0 million (or \$1.4 million) to GCT Research pursuant to an unsecured term loan agreement bearing 12.0% annual interest, paid monthly, and maturing on January 17, 2025. As of the date of this Annual Report, ₩9.8 million (or \$0.006 million) of interest has been paid pursuant to the loan agreement. The current outstanding balance under the loan is ₩2,000.0 million (or \$1.4 million translated using the exchange rate as of December 31, 2024).

On January 24, 2025, Dr. Lee loaned ₩6,500.0 million (or \$4.5 million) to GCT Research pursuant to an unsecured term loan agreement bearing 12.0% annual interest, paid monthly, and maturing on February 24, 2025. As of the date of this Annual Report, ₩8.8 million (or \$0.006 million) of interest has been paid pursuant to the loan agreement. The current outstanding balance under the loan is ₩6,500.0 million (or \$4.5 million translated using the exchange rate as of January 24, 2025).

Registration Rights Agreement

In connection with the Closing, the Company, certain stockholders of GCT, the Sponsor and certain stockholders of Concord III entered into the Registration Rights Agreement, pursuant to which we agreed to register for resale certain shares of our Common Stock and other equity securities that are held by the parties thereto from time to time.

Indemnification Agreements

In connection with the Business Combination, on the Closing Date, we entered into indemnification agreements with each of our directors and executive officers. Each indemnification agreement provides for indemnification and advancement by us of certain expenses and costs relating to claims, suits, or proceedings arising from service to us or, at our request, service to other entities to the fullest extent permitted by applicable law.

Related Person Transaction Policy

We have not adopted a related person transaction policy that sets forth our procedures for the identification, review, consideration, and approval or ratification of related person transactions. However, the Company complies with NYSE rules on the review and approval of related party transactions.

Item 14. Principal Accounting Fees and Services.

The following table sets forth the aggregate fees billed by BPM LLP as described below:

	2024	
Audit fees *	\$	574,129
Audit-related fees		
Tax fees		
All other fees		
Total	\$	574,129

* Audit fees presented in the table above are for the period from April through December 2024. BPM LLP became the Company's Independent registered public accounting firm on April 4, 2024, after the closing of the Business Combination on March 26, 2024.

Pre-Approval Policies and Procedures

The Audit Committee mandate requires that the Audit Committee pre-approve any retainer of the auditor of the Company to perform any non-audit services to the Company that it deems advisable in accordance with applicable legal and regulatory requirements and policies and procedures of the Board. The Audit Committee is permitted to delegate pre-approval authority to one of its members; however, the decision of any member of the Audit Committee to whom such authority has been delegated must be presented to the full Audit Committee at its next scheduled meeting.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

1.Financial Statements

Information in this response to this Item is included in Part II, Item 8 of this Annual Report on Form 10-K.

2.Financial Statement Schedules

All schedules are omitted because the required information is shown in the financial statements or notes thereto.

3.Exhibits

The exhibits required by Item 601 of Regulation S-K and Item 15(b) of this Annual Report on Form 10-K are listed in the Exhibit Index immediately preceding the signature page. The exhibits listed in the Exhibit Index are incorporated by reference herein.

Item 16. Form 10-K Summary

None.

Exhibit Index

Exhibit Number	Description
2.1	<u>Business Combination Agreement, dated as of November 2, 2023, by and among the Registrant, Merger Sub and GCT Semiconductor, Inc. (incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on November 8, 2023).</u>
3.1	<u>Second Amended and Restated Certificate of Incorporation of GCT Semiconductor Holding, Inc., dated as of March 26, 2024 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2024).</u>
3.2	<u>Amended and Restated Bylaws of GCT Semiconductor Holding, Inc., dated as of March 26, 2024 (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2024).</u>
4.1	<u>Specimen Common Stock Certificate of GCT Semiconductor Holding, Inc. (incorporated by reference to Exhibit 4.2 to Concord III's Form S-1/A filed with the SEC on May 7, 2021).</u>
4.2	<u>Specimen Warrant Certificate of GCT Semiconductor Holding, Inc. (incorporated by reference to Exhibit 4.4 to Concord III's Form S-1/A filed with the SEC on May 7, 2021).</u>
4.3	<u>Warrant Agreement, dated November 3, 2021, by and between the Registrant and Continental Stock Transfer & Trust Company (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on November 9, 2021).</u>
4.4	<u>Warrant to Purchase Common Stock of GCT Semiconductor Holding, Inc., issued September 26, 2024. (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on September 26, 2024).</u>
10.1	<u>Registration Rights Agreement by and among GCT Semiconductor Holding, Inc., and certain security holders of GCT Semiconductor Holding, Inc., dated as of March 26, 2024 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2024).</u>
10.2	<u>Form of Lock up Agreement (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2024).</u>
10.3#	<u>2024 Omnibus Incentive Compensation Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2024).</u>
10.4#	<u>GCT 2024 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2024).</u>
10.5	<u>Form of Indemnification Agreement (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2024).</u>
10.6	<u>Form of PIPE Subscription Agreement (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed with the SEC on November 8, 2023).</u>
10.7	<u>Sponsor Support Agreement, dated as of November 2, 2023, by and among Concord Acquisition Corp III, GCT Semiconductor, Inc., Concord Sponsor Group III LLC and CA2 Co-Investment LLC (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K, filed with the SEC on November 8, 2023).</u>
10.8	<u>Stockholder Support Agreement, dated as of November 2, 2023, by and among Concord Acquisition Corp III and certain stockholders of GCT Semiconductor, Inc. (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K, filed with the SEC on November 8, 2023).</u>
10.9	<u>General Services Agreement, dated as of December 20, 2019, by and between Verizon Sourcing LLC and GCT Semiconductor, Inc. (incorporated by reference to Exhibit 10.19 to the Registrant's Registration Statement on Form S-4/A, filed with the SEC on January 31, 2024).</u>
10.10	<u>Statement of Work, dated as of December 22, 2020, by and between Verizon Sourcing LLC and GCT Semiconductor, Inc. (incorporated by reference to Exhibit 10.20 to the Registrant's Registration Statement on Form S-4/A, filed with the SEC on January 31, 2024).</u>

Exhibit Number	Description
10.11	<u>Letter Agreement, dated as of November 3, 2021, among the Registrant, the Sponsor, CA2 Co-Investment LLC and each of the executive officers, directors and initial stockholders of the Registrant (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on November 9, 2021).</u>
10.12	<u>Investment Management Agreement, dated as of November 3, 2021, Trust Agreement between Continental Stock Transfer & Trust Company and the Registrant (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the SEC on November 9, 2021).</u>
10.13	<u>Registration Rights Agreement, dated as of November 3, 2021, between the Registrant, the Sponsor and certain securityholders (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed with the SEC on November 9, 2021).</u>
10.14	<u>Private Placement Warrants Subscription Agreement, dated November 3, 2021, by and between the Registrant and the Sponsor (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed with the SEC on November 9, 2021).</u>
10.15	<u>Private Placement Warrants Subscription Agreement, dated November 3, 2021, by and between the Registrant and CA2 Co-Investment LLC (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed with the SEC on November 9, 2021).</u>
10.16	<u>Form of Indemnity Agreement (incorporated by reference to Exhibit 10.8 to the Registrant's Current Report on Form S-1/A filed with the SEC on May 7, 2021).</u>
10.17	<u>Form of Non-Redemption Agreement and Assignment of Economic Interest (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 7, 2023).</u>
10.18	<u>Form of Non-Redemption Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the SEC on October 30, 2023).</u>
10.19	<u>Common Stock Purchase Agreement, dated April 23, 2024 by and between GCT Semiconductor Holding, Inc. and B. Riley Principal Capital II, LLC (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on April 24, 2024).</u>
10.20	<u>Registration Rights Agreement, dated April 23, 2024 by and between GCT Semiconductor Holding, Inc. and B. Riley Principal Capital II, LLC (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed with the SEC on April 24, 2024).</u>
10.21	<u>Foundry Product Development Agreement, dated February 26, 2024, by and between GCT Semiconductor, Inc. and Alpha Holdings Co., Ltd. (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on May 14, 2024).</u>
10.22	<u>Employment Agreement, dated March 8, 2024, by and between GCT Semiconductor, Inc. and Edmond Cheng, Chief Financial Officer of the Registrant (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on May 14, 2024).</u>
10.23	<u>Letter Agreement to Sponsor Support Agreement, dated March 26, 2024, by and among GCT Semiconductor, Inc., Concord Acquisition Corp III, GCT Semiconductor, Inc., Concord Sponsor Group III LLC and CA2 Co-Investment LLC (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on May 14, 2024).</u>
10.24	<u>Convertible Promissory Note, dated February 26, 2024, by and between GCT Semiconductor, Inc. and Gogo Business Aviation LLC, a Delaware limited liability company (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on May 14, 2024).</u>
10.25	<u>Amendment No 1 to Common Stock Purchase Agreement, dated May 21, 2024, by and between GCT Semiconductor Holding, Inc. and B. Riley Principal Capital II, LLC (incorporated by reference to Exhibit 10.25 to the Registrant's Registration Statement on Form S-1 filed with the SEC on May 22, 2024).</u>
10.26*	<u>Loan Agreement, dated November 11, 2024, by and between Dr. Kyeongho Lee and GCT Research, Inc.</u>
10.27*	<u>Loan Agreement, dated January 24, 2025, by and between Dr. Kyeongho Lee and GCT Research, Inc.</u>
10.28*	<u>Amendment No. 1 to Loan Agreement, dated January 24, 2025, by and between Dr. Kyeongho Lee and GCT Research, Inc.</u>

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Exhibit Number	Description
10.29	<u>GCT Semiconductor Holding, Inc. Amended and Restated Executive Retention Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on August 26, 2024).</u>
10.30*	<u>Loan Agreement, dated March 21, 2025, by and between Anapass Inc. and GCT Research, Inc.</u>
16.1	<u>Letter from Marcum LLP to the SEC, dated April 8, 2024 (incorporated by reference to Exhibit 16.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on April 8, 2024)</u>
19.1*	<u>Insider trading policies and procedures</u>
21.1	<u>List of Subsidiaries (incorporated by reference to Exhibit 21.1 to the Registrant's Current Report on Form 8-K filed with the SEC on April 1, 2024).</u>
23.1*	<u>Consent of BPM LLP, independent registered public accounting firm</u>
31.1*	<u>Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
31.2*	<u>Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
32.1*	<u>Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
32.2*	<u>Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
97.1*	<u>Policy Relating to Recovery of Erroneously Awarded Compensation</u>
101.INS	Inline XBRL Instance Document the instance document does not appear in the Interactive Data File as its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema With Embedded Linkbase Documents
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith.

Indicates management contract or compensatory plan or arrangement.

Certain of the exhibits and schedules to this Exhibit have been omitted in accordance with Regulation S-K Item 601(a)(5). The Registrant agrees to furnish a copy of all omitted exhibits and schedules to the SEC upon its request.

Portions of this exhibit are redacted in accordance with Regulation S-K Item 601(b)(10)(iv).

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

GCT Semiconductor Holding, Inc.

Date: March 25, 2025

By: /s/ John Schlaefer
Name: John Schlaefer
Title: Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Kyeongho Lee Kyeongho Lee	Chairman of the Board	March 25, 2025
/s/ John Schlaefer John Schlaefer	Chief Executive Officer (Principal Executive Officer)	March 25, 2025
/s/ Edmond Cheng Edmond Cheng	Chief Financial Officer (Principal Financial and Accounting Officer)	March 25, 2025
/s/ Robert Barker Robert Barker	Director	March 25, 2025
/s/ Kukjin Chun Kukjin Chun	Director	March 25, 2025
/s/Hyunsoo Shin Hyunsoo Shin	Director	March 25, 2025
/s/ Jeff Tudor Jeff Tudor	Director	March 25, 2025
/s/Nelson C. Chan Nelson C. Chan	Director	March 25, 2025



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