DEPARTMENT OF HOMELAND SECURITY

U.S. CUSTOMS AND BORDER PROTECTION

NOTICE OF ISSUANCE OF FINAL DETERMINATION CONCERNING CERTAIN NETWORK CABLES AND TRANSCEIVERS

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of final determination.

SUMMARY: This document provides notice that U.S. Customs and Border Protection ("CBP") has issued a final determination concerning the country of origin of certain transceivers imported separately and certain imported network cables containing transceivers. Based upon the facts presented, CBP has concluded in both instances that the country of origin of the merchandise is China for purposes of U.S. Government procurement.

DATE: The final determination was issued on June 14, 2016. A copy of the final determination is attached. Any party-at-interest, as defined in 19 CFR § 177.22(d), may seek judicial review of this final determination within [insert 30 days from date of publication in the Federal Register].

FOR FURTHER INFORMATION CONTACT: Grace A. Kim, Valuation and Special Programs Branch, Regulations and Rulings, Office of International Trade (202) 325-7941.

SUPPLEMENTARY INFORMATION: Notice is hereby given that on June 14, 2016, pursuant to subpart B of Part 177, U.S. Customs and Border Protection Regulations (19 CFR part 177, subpart B), CBP issued a final determination concerning the country of origin of certain network cables and transceivers, which may be offered to the U.S. Government under an undesignated government procurement contract. This final determination, HQ H273091, was issued under procedures set forth at 19 CFR Part 177, subpart B, which implements Title III of

the Trade Agreements Act of 1979, as amended (19 U.S.C. 2511-18). In the final determination, CBP concluded that the processing of the imported merchandise in the U.S. does not result in a substantial transformation. Therefore, the country of origin of the transceivers and of the network cables containing transceivers is China for purposes of U.S. Government procurement.

Section 177.29, CBP Regulations (19 CFR 177.29), provides that a notice of final determination shall be published in the **Federal Register** within 60 days of the date the final determination is issued. Section 177.30, CBP Regulations (19 CFR 177.30), provides that any party-at-interest, as defined in 19 CFR 177.22(d), may seek judicial review of a final determination within 30 days of publication of such determination in the **Federal Register**.

Dated: June 14, 2016

Joanne R. Stump
Acting Executive Director
Regulations and Rulings
Office of International Trade

HQ H273091

June 14, 2016

OT:RR:CTF:VS H273091 GaK

CATEGORY: Origin

Janet C. Wallett
FCI USA LLC.
825 Old Trail Road
Etters, PA 17319

RE: U.S. Government Procurement; Country of origin of copper cables containing transceivers and of the fiber optic transceiver; Substantial Transformation

Dear Ms. Wallett:

This is in response to your letter dated January 6, 2016, requesting a final determination on behalf of FCI USA LLC ("FCI"), pursuant to subpart B of part 177 of the U.S. Customs & Border Protection ("CBP") Regulations (19 C.F.R. Part 177). Under these regulations, which implement Title III of the Trade Agreements Act of 1979 ("TAA"), as amended (19 U.S.C. § 2511 *et seq.*), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice for products offered for sale to the U.S. Government. This final determination concerns the country of origin of FCI's Copper Direct Attach Copper ("DAC") cable - HPL500 ("Cable") and Fiber Optic Transceivers - HPL512 ("Transceivers"). We note that as a U.S. importer, FCI is a party-at-interest within the meaning of 19 C.F.R. § 177.22(d)(1) and is entitled to request this final determination.

FACTS:

Cable

The Cable is a copper 10 gigabit Ethernet cable containing an active or passive Twinax (twinaxial) cable assembly. The Cable is used to connect routers and switches in data centers. Each end of the Cable has a small form-factor pluggable ("SFP+"), which connects directly into a SFP+ housing. SFP+ is a compact, hot-pluggable transceiver used for telecommunication and data communications applications. SFP+ is designed to interface with a network device motherboard switch, router, media converter, or similar device and to connect that device to a fiber optic or copper networking cable. The SFP+ contains an EEPROM chip.

All of the Cable hardware components are of Chinese origin, assembled in China and imported into the U.S. The software development process starts with research, eighty percent in the U.S. and twenty percent in China. Then development of a graphical user interface, development and writing of software specifications and architecture, programming of source code, software build, and testing and validation are conducted in China. FCI states that the Cable is completely non-functional as a network accessory at the time of importation. After importation, FCI's proprietary software is downloaded onto the EEPROM chip.

Transceiver

The Transceiver is referred to as a fiber optic transmitter and receiver, and is used for photoelectric conversion. The transmitter end of the Transceiver takes in and converts the electric signal into light; then the receiver end converts the light signal into an electrical signal. Both the receiver and the transmitter ends have their own circuitry and can handle transmissions in both directions.

A Chinese origin printed circuit board assembly ("PCBA") is imported into the U.S. and German firmware is downloaded in the U.S. The German firmware is "compiled" (process that converts the written program into an executable program) in the U.S. The PCBA is exported to China and built up to a Transceiver with all Chinese origin components. The manufacturing process in China also includes defining and optimizing the values of the PCBA, which is

described as specific values for tuning the amplifiers and drivers for each individual PCBA. The Transceiver is imported into the U.S. In the U.S., FCI downloads the proprietary software that enables the Transceiver to function as intended. The proprietary software downloaded onto the Transceivers is developed in Germany (research, development of a graphical user interface, development and writing of software specifications and architecture, programming of source code, software build, and testing and validation).

ISSUE:

What is the country of origin of the Cable and Transceivers for purposes of U.S. Government procurement?

LAW AND ANALYSIS:

Pursuant to Subpart B of Part 177, 19 C.F.R. § 177.21 et seq., which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511 et seq.), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice for products offered for sale to the U.S. Government.

Under the rule of origin set forth under 19 U.S.C. § 2518(4)(B):

> An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

See also 19 C.F.R. § 177.22(a).

In rendering advisory rulings and final determinations for purposes of U.S. government procurement, CBP applies the provisions of subpart B of part 177 consistent with the Federal Acquisition Regulations. *See* 19 C.F.R. § 177.21. In this regard, CBP recognizes that the Federal Acquisition Regulations restrict the U.S. Government's purchase of products to U.S.-made or designated country end products for acquisitions subject to the TAA. *See* 48 C.F.R. § 25.403(c)(1). The Federal Acquisition Regulations define "U.S.-made end product" as:

> …an article that is mined, produced, or manufactured in the United States or that is substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.

48 C.F.R. § 25.003.

In *Data General v. United States*, 4 Ct. Int'l Trade 182 (1982), the court determined that for purposes of determining eligibility under item 807.00, Tariff Schedules of the United States (predecessor to subheading 9802.00.80, Harmonized Tariff Schedule of the United States), the programming of a foreign PROM (Programmable Read-Only Memory chip) in the United States substantially transformed the PROM into a U.S. article. In programming the imported PROMs, the U.S. engineers systematically caused various distinct electronic interconnections to be formed within each integrated circuit. The programming bestowed upon each circuit its electronic function, that is, its "memory" which could be retrieved. A distinct physical change was effected in the PROM by the opening or closing of the fuses, depending on the method of programming. This physical alteration, not visible to the naked eye, could be discerned by electronic testing of the PROM. The court noted that the programs were designed by a U.S. project engineer with many years of experience in "designing and building hardware." In addition, the court noted that while replicating the program pattern from a "master" PROM may be a quick one-step process, the development of the pattern and the production of the "master" PROM required much time and expertise. The court noted that it was undisputed that programming altered the character of a PROM. The essence of the article, its interconnections or stored memory, was established by programming. The court concluded that altering the non-functioning circuitry comprising a PROM through technological expertise in order to produce a functioning read only memory device, possessing a desired distinctive circuit pattern, was no less a "substantial transformation" than the manual interconnection of transistors, resistors and diodes upon a circuit board creating a similar pattern.

In *Texas Instruments v. United States*, 681 F.2d 778, 782 (CCPA 1982), the court observed that the substantial transformation issue is a "mixed question of technology and customs law."

> In C.S.D. 84-85, 18 Cust. B. & Dec. 1044, CBP stated:
> We are of the opinion that the rationale of the court in the Data General case may be applied in the present case to support the principle that the essence of an integrated circuit memory storage device is established by programming; . . . [W]e are of the opinion that the programming (or reprogramming) of an EPROM results in a new and different article of commerce which would be considered to be a product of the country where the programming or reprogramming takes place.

Accordingly, the programming of a device that confers its identity as well as defines its use generally constitutes substantial transformation. *See also* Headquarters Ruling Letter ("HQ") 558868, dated February 23, 1995 (programming of SecureID Card substantially transformed the card because it gave the card its character and use as part of a security system and the programming was a permanent change that could not be undone); HQ 735027, dated September 7, 1993 (programming blank media (EEPROM) with instructions that allowed it to perform certain functions that prevented piracy of software constituted substantial transformation); and, HQ 733085, dated July 13, 1990; *but see* HQ 732870, dated March 19, 1990 (formatting a blank diskette did not constitute substantial transformation because it did not add value, did not involve complex or highly technical operations and did not create a new or different product); and, HQ 734518, dated June 28, 1993, (motherboards were not substantially transformed by the implanting of the central processing unit on the board because, whereas in *Data General* use was

being assigned to the PROM, the use of the motherboard had already been determined when the importer imported it).

The hardware components of the Cable are all Chinese origin and assembled in China. While eighty percent of the research conducted to develop the proprietary software is done in the U.S. and twenty percent is done in China, all other development processes are conducted in China. CBP has held that the country of origin of a software was determined by the country where the object code was created, software executable files were made, source code was programmed, and testing and validation were conducted. *See* HQ H243606, dated December 4, 2013. Therefore, since the entire development and writing of software specifications, programming of source code, and software build occur in China, the country of origin of FCI's proprietary software is China.

CBP has considered several cases dealing with country of origin of electronic products that are manufactured abroad and imported into the U.S. for software download. In HQ H034843, dated May 5, 2009, CBP held that USB flash drives were products of Israel because, though the assembly process began in China, the software and firmware were developed in Israel, and the installation and customization of the firmware and software that took place in Israel made the USB flash drives functional, permitted them to execute their security features, and increased their value. In HQ H175415, dated October 4, 2011, CBP held that Ethernet switches were products of the U.S. because, though the hardware components were fully assembled into Ethernet switches in China, they were programmed with U.S.-origin operating software enabling them to interact and route within the network, and to monitor, secure, and access control of the network.

In HQ H241177, dated December 3, 2013, Ethernet switches were assembled to completion in Malaysia and then shipped to Singapore, where U.S.-origin software was downloaded onto the switches. CBP found that software downloading did not amount to programming, which involved writing, testing and implementing code necessary to make the computer function a certain way. *See also* HQ H240199, dated March 10, 2015 (notebook computer was not substantially transformed when the computer was assembled in Country A, imported into Country F, and Country D-origin BIOS was downloaded). CBP concluded in HQ H241177, that the software downloading performed in Singapore did not amount to programming and that the country of origin was Malaysia, where the last substantial transformation occurred.

In this case, the Cable is fully assembled in China and imported into the U.S., and in its imported condition, it is completely non-functional. The Chinese proprietary software enables the Cable to function as intended. Without the proprietary software, the Cable cannot function as a network device in any capacity. However, downloading does not amount to programming. *See* HQ H241177, *supra*. Here, the software is developed in China and the download occurs in the U.S. Given these facts, we find that the country where the last substantial transformation occurs is China, that is, where the major assembly processes are performed and the software was developed. The country of origin of the Cable for purposes of U.S. Government procurement is China.

The manufacturing process for the Transceivers is similar to the Cable. The Transceiver is fully assembled in China and imported into the U.S., and in its imported condition, it is completely non-functional. The German software is downloaded and enables the Transceiver to function as intended. As stated above, and in accordance with HQ H241177, downloading does not amount to programming and the Transceiver is not substantially transformed in the U.S. Given these facts, we find that the country where the last substantial transformation occurs is China, where the major assembly processes are performed. The country of origin of the Transceiver for purposes of U.S. Government procurement is China.

HOLDING:

Based on the facts in this case, we find that the last substantial transformation of the Cable and Transceiver occurs in China. As such, the Cable and Transceiver will be considered products of China for purposes of U.S. Government procurement.

Notice of this final determination will be given in the Federal Register, as required by 19 C.F.R. § 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 C.F.R. § 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 C.F.R. § 177.30, any party-at-interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the Court of International Trade.

Sincerely,

Joanne R. Stump
Acting Executive Director
Regulations and Rulings
Office of International Trade

[FR Doc. 2016-15692 Filed: 6/30/2016 8:45 am; Publication Date: 7/1/2016]