



MintBox3 is a high-end fanless SFF Linux desktop

Yokneam, Israel 19-Dec-2019 – Compulab and Linux Mint introduce MintBox3 – the 5th generation of the popular MintBox product line of ready-to-use Linux Mint fanless PCs.

MintBox3 Pro model is powered by an 8-core Intel® Core™ i9-9900K Processor and Nvidia GTX 1660 Ti, both passively cooled using Compulab's Natural Airflow technology. It ships with the latest Linux Mint 19.3 "Tricia" Cinnamon pre-installed.

Compulab provides 5 year warranty on MintBox3. Of each MintBox3 sold, 5% is donated to Linux Mint.

Best-in-class user experience

MintBox3 is a version of Compulab Airtop3 customized to deliver the best possible desktop Linux experience. High-end CPU coupled with a powerful discrete GPU, high memory capacity and fast NVMe SSD ensure quick loading and excellent responsiveness of the user-friendly Cinnamon desktop environment.

The small footprint of MintBox3, silent cooling, aesthetic all-metal industrial design and accessible I/O ports allow for a convenient, distraction-free use.

The high performance of MintBox3 is beneficial for productivity of developers and artists where high computational workloads and graphics intensive tasks are involved.

"Since the start of our partnership in 2012, working with Compulab has been an amazing experience" said **Clement Lefebvre**, Project Leader at Linux Mint. "Each new unit felt really special. The MintBox3 is no different, there's nothing else like it. It isn't just compact, silent, and good looking though, it's the most powerful computer we've ever got our hands on. It's a real pleasure for us to deliver our latest improvements with Linux Mint 19.3 this Christmas, and an amazing feeling to see it running on the MintBox3."

Open and user-friendly industrial design

"Linux users tend to spend a long time in the environment of their desktop and many consider it their most important asset for productivity" said **Irad Stavi**, Chief Product Officer at Compulab. "So we had user experience in mind during the design of MintBox3 and we were doing our best to make a desktop that just fits - small but powerful, quiet, reliable, easy to tinker with, maintenance-free and least distracting. We are delighted that Clement Lefebvre and other Linux Mint core developers chose MintBox3 as their main workstation."

The most unique feature of MintBox3 is its thermal design. MintBox3 can dissipate up to 300W from its 7.5 liter chassis without fans or any moving parts, by natural airflow resulting from the waste heat of the CPU and the GPU. Natural airflow cooling is silent, extremely reliable and requires no periodic cleaning or any other maintenance.

MintBox3 has an unusually rich set of features for a mini desktop - including up to 128 GB RAM, 6 storage devices, up to 7 4K displays, dual LAN, Wi-Fi, 9 USB ports, audio jacks on front and back and serial ports.

The user is welcome to open MintBox3 to add, remove and upgrade RAM, storage, add-on cards and even the graphics card. Opening MintBox3 is tool-free:

- Press the top-bar and the clamshell door opens, revealing the RAM and disk cartridge
- Pull the disk cartridge ejector to expose the NVMe and Wi-Fi adapter.

Installing devices in MintBox3 does not void the 5 year warranty.

MintBox3 ships ready-to-use with Linux Mint 19.3 “Tricia” Cinnamon pre-installed and no bloatware. User can easily install Mate edition, another Linux distribution, Windows 10 or another operating system.

Compulab and the Linux Mint team have spent long time optimizing the MintBox3 derivative of Airtop3 for the best user experience. Among the changes -

- Extensive testing of Linux Mint 19.3 on MintBox3 to ensure full compatibility
- Full Linux Mint branding including embossed and diamond cut Linux Mint logo as part of the housing, Linux Mint boot image and logo of the integrated OLED display
- Qualifying a single thin 330W power supply eliminating the need for dual power supplies
- Tuning BIOS and drivers for optimal acoustic “coil whine” mitigation to ensure quiet user experience
- Reconfiguring audio output to default to front earphones and MIC jacks
- Redesigned packaging for superior shock absorption during transport

Reliability

MintBox3 is based on the industrial-grade PC Airtop3. The motherboard is custom designed using embedded-grade components. The housing is all-aluminium. MintBox3 is passively cooled with no moving parts and requires no maintenance.

MintBox3 ships with a 5 year warranty.

About Compulab partnership with Linux Mint

MintBox3 is the result of a close partnership between Compulab and the Linux Mint team that goes back to 2012. The goal has always been to provide an out-of-the-box user-friendly Linux experience on a small and robust PC. As before, Compulab and the Linux Mint team worked together on product definition of MintBox3.

5% of the price of MintBox3 is donated to the Linux Mint team for continuing making Linux Mint better.

MintBox3 Models

MintBox3 Pro is the high-end model with Core i9-9900K 8 core CPU, GeForce GTX 1660 Ti 6 GB graphics, 32 GB RAM and 1 TB Samsung NVMe SSD.

MintBox3 Basic is the entry model with Core i5-9500 6 core CPU, 16 GB RAM and 256 GB Samsung NVMe SSD.

An additional mid-range model of MintBox3 is currently under development.

Specifications

Features

CPU

Pro: 8-core Intel® Core™ i9-9900K Processor | Basic: 6-core Intel® Core™ i5-9500 Processor

Chipset

Intel® C246 Chipset

Memory

Pro: 2x 16 GB Dual channel DDR4-2666 | Basic: 1x 16 GB DDR4-2666

Graphics & display

Integrated Intel UHD Graphics 630 – 2x DisplayPort 1.2 (4K @ 60 Hz) + HDMI 1.4 (4K @ 24 Hz)

Pro: GeForce GTX 1660 Ti 6 GB GDDR6 – 3x DisplayPort 1.4 (4K @ 120 Hz) + HDMI 2.0b (4K @ 60 Hz) | Basic: no discrete graphics

Note: MintBox3 Pro can operate 7 displays (integrated + discrete graphics) simultaneously

Storage

Pro: 1 TB Samsung NVMe SSD | Basic: 256 GB Samsung NVMe SSD

LAN

2x Gbit Ethernet (Intel i219 + Intel i210)

Wireless

WiFi 802.11ac + BT 4.2 (M.2 key E)

2x SMA antennas

USB

6x USB 3.1 gen 1 type-A (rear panel)

2x USB 3.1 gen 2 (type-C + type-A) + 1x USB 3.1 gen 1 type-A (front panel)

Audio

Back:

Optical S/PDIF output (Toslink)

HDMI audio

Line-out

Mic-in

Front:

Line-out

Mic-in

Serial

3x RS232 ports full UART

Extension cards

Pro: No available PCIe x16 | Basic: 1x PCIe x16 Gen 3 PEG1x M.2 E-key (normally used for WiFi adapter)

1x M.2 B-key (normally used for 4G modem)

Mini PCIe socket

MicroSD

Extra features

Natural airflow (NAF) cooling

Fanless natural convection cooling with no moving parts.

Redundant power

2x DC inputs with load sharing and automatic failover

Trusted platform module 2.0

Discrete TPM

I3M (integrated interactive information monitor)

An integrated OLED display with navigation keypad for displaying real time power consumption, temperatures and system information

Digital power & reset management using FPGA

Provides precise power-sequencing timing and system voltage monitoring

Clamshell opening | tool-free service

Case opens by pressing the top-bar. RAM modules and HDD-cartridge require no tools for installation

System diagnostics LEDs

Discrete LED indicators of RAM detection, BIOS post HDMI and DisplayPort detection for quick field diagnostics in case of booting issues

Configurable auto-on

System can be configured to boot automatically when power is resumed, stay off or resume last state

BIOS & OS

BIOS

AMI Aptio V

Operating systems

Linux Mint 19.3 "Tricia" Cinnamon edition pre-installed

Compatible with other Linux variants and with Windows 10

Compatible with other hypervisors and operating systems (e.g. ESXi, FreeBSD)

Operating conditions

Input voltage range

19V – 24V

Power consumption

8W – 300W

Operating temperature range

0°C – 45°C

Relative humidity

5% – 95% non-condensing

Mechanical specifications

Housing

All aluminum case, passive cooling

Tool-free clamshell opening with Kensington lock

Dimensions

10 cm (w) x 30 cm (h) x 25.5 cm (d) – 4" (w) x 12" (h) x 10" (d)

Weight

Pro: 8 kg | Basic: 7 kg

Price and availability

MintBox3 Pro is available for ordering from Compulab for \$2499

To order MintBox3 Pro please visit <https://fit-iot.com/web/product/mintbox3-pro/>

MintBox3 Basic is available for ordering from Compulab for \$1399

To order MintBox3 Basic please visit <https://fit-iot.com/web/product/mintbox3-basic/>

First shipments are scheduled for mid January 2020.

Availability through Amazon is expected in Q2'20.

For more information

www.fit-iot.com/web/products/mintbox3

Media kit: www.fit-iot.com/web/products/mintbox3/mintbox3-gallery

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