

# MX1-10FEP-D Series

Rugged embedded PC for GPU computing with Intel® Core™ / Xeon® 9th/ 8th Gen CPUs

## Features

- Intel® Core™ / Xeon® 9th/8th Gen. CPU
- Up to 64GB DDR4 2,666MHz RAM
- Intel® C246 chipset
- Supports optional Edge AI Engine Hailo-8™
- Operating temperature: -40 ° ~ 70 °C



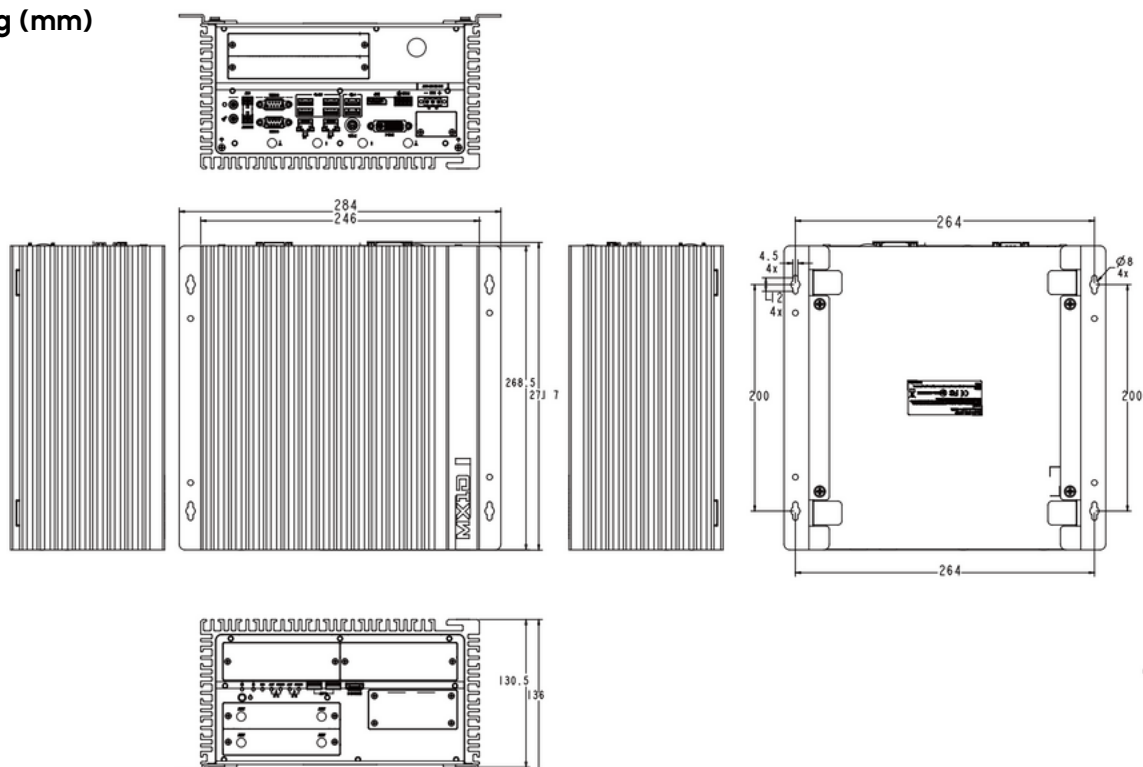
## MX1-10FEP-D Series – Fanless sturdy design

The fanless embedded GPU computing platforms of the MX1-10FEP-D series are based on Intel® Xeon® or Core™ processors of the ninth or eighth generation and are optimized for applications in industrial automation and machine control. The MX1-10FEP-D combines high-performance computing, scalable functions and versatile interfaces as well as industrial-grade reliability on a fanless platform and offers reliable long-term operation for performance-critical applications in industrial automation, visualization and computationally intensive processes. The Embedded PC series consists of a classically robust design. The Embedded PCs support DDR4 memory via dual SODIMM slots, both non-ECC and ECC.

## High performance for industrial requirements

The embedded systems combine outstanding performance with extensive connectivity and are easy to use. The robust housing allows the use under difficult conditions. With the use of a LGA1151 socket, optionally with Intel® Xeon® Coffee Lake or Core™ i3, i5, i7 or even i9 processor of the current generation, the embedded computer focuses on high performance with minimal power consumption. Together with unique image and video processing and efficient remote monitoring, the MX1-10FEP-D meets the requirements for use in critical applications with the highest demands on reliability. Proven applications in industrial environments include machine vision, motion sensors and system monitoring.

## Drawing (mm)



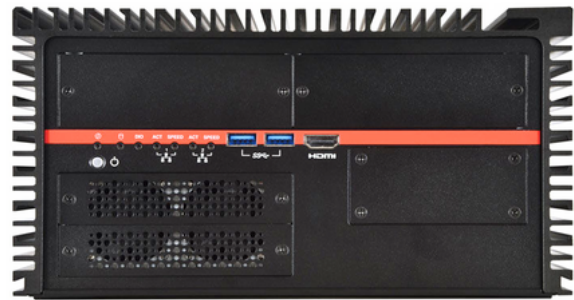
# MX1-10FEP-D Series

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Specifications	Product: MX1-10FEP-D Series
<b>SYSTEM</b>	
CPU	Intel® Xeon® 9th/8th Gen, LGA1151 Socket, 6-Core TDP Max. 80W Intel® Core™ i7/i5/i3 9th/8th Gen, 6-Core TDP Max. 65W, LGA1151 Socket Processor, Intel® Core™ i9 8-Core TDP Max. 35W
Chipset	Intel® C246
Graphics	Intel® HD Graphics
RAM	Up to 64GB DDR4 2.666MHz, 2 x 260-pin SO-DIMM, (Xeon®, ECC; Core™: Non-ECC)
Storage	3 x 2.5" HDD / SSD (1x removable HDD, 2x internal HDDs) 2x mSATA
TPM	Nuvoton NPCT750AAAYX TPM2.0
Expansion	Memory: M.2 2242 / 2260 / 2280 M key (PCIe X4 / SATA) Storage/LTE/Wireless: 2 x Mini PCIe Full / Half size (USB / PCIe / SATA), w/ SIM Card Wireless: M.2 2230 E key (PCIe / USB)PCIe 3.0 X16, PCIe 3.0 X1 (Optional: 2 x PCIe 3.0 X8) Optional Edge AI Engine: Hailo-8™ M.2 2242 M Key (Model: M2M-01HAI-MX1)
Operating System	Windows® 10 64-bit Linux (support by request)
<b>INTERFACE</b>	
Ethernet	2x RJ-45 (Intel® I219-LM Giga LAN + I210-IT Giga LAN)
USB	4x USB 3.1 Gen 2 (10 Gbps) 2x USB 3.0 2 x USB 2.0 ports 1x USB 2.0 port (internal)
COM	2x RS232/422/485 (supports 5V / 12V)
Video	1x HDMI 1.4 1x DisplayPort 1.2 1x DVI-I
Audio	1x Mic-in and 1 x Line-out
Power	1x 3-Pin Terminal Block power input 1x 4-Pin Terminal Block external fan connector
Other	1x PS/2 4x SMA antenna (optional for WiFi/LTE feature) 2x SIM card slots with cover
<b>ENVIRONMENTAL</b>	
Cooling	Fanless without ventilation holes Options with 2 x internal 40x40x20 system fan (Support for NVIDIA GTX1650/GTX1660 Graphics Cards) Options with 2 x internal 40x40x28 system fan and fan duct (Support for NVIDIA Tesla T4/P4 GPU Cards)
Power Supply	Power Input: 9 ~ 48V Wide Range DC Input with Terminal Block Connector Optional Power Supply
Remote Control & LED	1x 2-Pin Terminal Block Remote Power Reset 1x 2-Pin Terminal Block Remote Power On / Off Power Button / LAN1 & 2 ACT / SPEED / Power LED / HDD LED
Operating Temperature	With 35W TDP CPU: -40° ~ 70°C With 51~65W TDP CPU: -40° ~ 50°C With 71~80W TDP CPU: -40° ~ 40°C
Storage Temperature	-40 ~ 85°C
Vibration/Shock Resistance	Vibration: Operating: 5Hz~500Hz / 5Grms / 3Axis (w/ SSD, according to IEC60068-2-64) Shock: Operating: 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
Humidity	10 ~ 90%, non-condensing
Dimensions	268 (W) x 246 (D) x 128 (H) mm
Weight	7.7kg
Mounting	Wallmount
Certifications	Safety: LVD, EN60950-1 / EN62368-1 EMC: CE/FCC

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	MX1-10FEP-D-C246-FL	MX1-10FEP-D-C246-FL-AC300	MX1-10FEP-D-C246-IF-AC300	MX1-10FEP-D-C246-IEF-AC300
PCIe Slots	x16 + x1			
Fan	Fanless	Fanless	2x internal system fan	2x internal system fanx external system fan
Power	9 ~ 48V Wide Range DC Input w/ Terminal Block Connectivity			
AC Adapter	-	300W AC to DC Adapter	300W AC to DC Adapter	300W AC to DC Adapter