998.00 EUR
incl. 19% VAT, plus shipping

- Intel Coffee Lake C246 !
- 2x Gigabit LAN !
- 2x PCIe Slot !
- Modular !

Support: I/O-Ports | Datasheet | Quick Start | CardOptions | Manual | Drawing

MiTAC MX1-10FEP-D is the next generation embedded system with Intel® Coffee Lake C246 workstation chipset which can support Xeon and Core-i LGA1151 socket type processor. The powerful processor, OCP/OVP power protection, and expandable I/O design provide the solution for every complicated task and most types of application.

MiTAC's MX1-10FEP-D embedded system is the next generation embedded system with Intel Coffee Lake C246 workstation chipset which can support Xeon and Core-i LGA1151 socket type processor. The excellent performance, powerful processor, OCP/OVP power protection, and expandable design provide the solution for every complicated task and most types of application. The MX1-10FEP-D's 8.5 liter chassis design and Xpandable module design give it the possibility to implement the complicated tasks and

for every workspace and environment. Flexibilities also mean a rich array of I/O ports (including 2 x Ethernet RJ45, 8 x USB, 1 x HDMI, 1 x DVI-I, 1 x DisplayPort, 2 x COM, PCIe X16 + X1 slots, 3-pin Terminal Block Power Input, and 3 x Expansion doors) to add a variety of peripherals. Storage expandability is supported for 3 x high-density hard drives in 2.5” HDD bracket design. The reserved space for dual PCIe slots can be used for 1 x GFX Card installation. Two mPCIe (shared with mSATA) slots provide the support of SSD and wireless interfaces which allow effortless connection to Wi-Fi and Bluetooth networks, and 4Gconnectivity. DIO/COM/LAN/PoE/Power Ignitoin expansion modules extend the capability and possibility to be used in more applications.

The MX1-D is now NVIDIA GPUCloud (NGC) ready for customers to deploy edge AI applications. MX1-D has undergone additional security and remote system management tests, which are fundamental requirements for edge deployments. MX1-D is an ideal system for running the DGX™, providing ease of deployment.

Versatile Xpansion Modules
The versatile Xpansion Module design, offers various I/O functionalities through its lower clever cost effective modulation, providing all functions within one system. Up to 12 LAN, 10 PoE, 10 COM, 16 DIO, Power ignition Xpansion module for vehicle application.

MS-48CDN-DT10 (4x RS232/422/485, 8-bit Isolated DIDO (4x DI, 4x DO))
MS-04LAN-R10 (4x Intel i210-IT Giga LAN, RJ45 Port)
MS-04LAN-M10 (4x Intel i210-IT Giga LAN, M12 Port)
MS-04POE-R10 (4x PoE+, Intel i210-IT Giga LAN, RJ45 Port)
MS-04POE-M10 (4x PoE+, Intel i210-IT Giga LAN, M12 Port)
ME-02POE-R10 (2x PoE+, Intel i210-IT Giga LAN, RJ45 Port)
MS-01IGN-S10 (Vehicle Power Ignition Card, 12V/24V and Power ON/OFF Timing Selectable)
MP-116RCN-P10 (PCIe Riser Card with 1 PCIe 3.0 X16 + 1 PCIe 3.0 X1 Slots (Default))
MP-088RCN-P10 (PCIe Riser Card with 2 PCIe3.0 X8 Slots (Optional))

Edge AI Accelerator
4x Intel® Movidius™ Myriad™ X for Edge AI
MX1-10FEP-D with AI modules powered by Intel® Movidius™ Myriad™ X creates the possibility to be implemented in more Edge AI solutions, for example, traffic flow monitoring and real-time decision, manufacturing yield rate improvement via AI algorithm, remote healthcare service, and efficient transportation.

Maximum AI Cores:
Up to 4x Movidius Myriad X
Support Intel OpenVINO Toolkit
Supported Framework:
TensorFlow, Caffe, MXNET

Supports High Resolution Triple Display
Supports triple independent displays (DP + HDMI + DVI). The HDMI & DisplayPort up to 4K high resolution. The enhanced visual quality responses the demand of being high precise. (Display Port 1.2 (4K@60Hz), HDMI 1.4 (4K@30Hz), DVI-I (FHD@60Hz))

Born for Matching High Efficiency GFX & AI Cards
Maximum GFX Card Dimensions : 145 x 221 x 43 mm
AI / Graphic Card Support List
NVIDIA Quadro P400 (30W)
NVIDIA Quadro P620 (40W)
NVIDIA Quadro P1000 (47W)
NVIDIA Quadro P2200 (75W)
NVIDIA Tesla T4/P4 (75W)
Aetina GTX1050 N1050-J9FX, 2GB (75W)
Leadtek WinFast GTX1030, 4GB (30W)
Leadtek WinFast GTX1650, 4GB (75W)
Leadtek WinFast GTX1660 HURRICANE, 6GB (120W)
Leadtek WinFast GTX1660 SUPER HURRICANE, 6GB (125W)

Leadtek WinFast GTX1660 Ti HURRICANE, 6GB (120W)
(120W GFX Card need to add 2nd AC/DC 12V Adaptor)

Dual PCIe Gen3 Slot for Versatile Expansion
Venting holes design for graphic card thermal air out
PCIe Holder Design (Rugged PCIe holder design for harsh shock & vibration environment)
Dual PCIe Configurations (PCIe 3.0 X16 + PCIe 3.0 X1 Slot as default, 2 x PCIe 3.0 X8 slot as option)

Smart and Simple Integrated Fan Solutions
For High-end GFX Cards
Optional 2 x internal system fan with ventilation air inlet door for high-end GFX cards
For NVIDIA P4/T4 Edge AI Inference
Optional 2 x internal system fan with ventilation air inlet door and smart air duct design for NVIDIA P4/T4 edge AI inference
Easy connect & insert external system fan for the application in extremely harsh environment

Advanced Power Protection
Wide Power Range 9V~48V

Protection
Reverse Power Input Protection
Over Voltage Protection: 58V
Over Current Protection: 15A
ESD Protection: +/-15kV (air), +/-8kV (contact)
Surge Protection: 3kW

-40~70°C Wide Temperature
MX1-10FEP is designed in patented aluminum enclosure not only for atheistic appearance but also for fan-less application in extreme temperature condition from -40 °C to 70 °C.

MECHANICAL	THERMAL DESIGN	Fanless w/o Venting Holes / Options with 2 x Internal 40x40x20 System Fan (Supporting NVIDIA GTX1650/GTX1660 Graphic Cards); Options with 2 x Internal 40x40x28 System Fan and Fan Duct (Supporting NVIDIA Tesla T4/P4 GPU Cards)
	MOUNTING	Wallmount
	DIMENSIONS (W X D X H)	10.6” x 9.7” x 5.0” (268 x 246 x 128 mm)
	WEIGHT	7,7 kg

SYSTEM	CPU	9th & 8th Gen Intel® Coffee Lake Xeon LGA1151 Socket Processor, 6-core TDP Max. 80W / 9th & 8th Gen Intel® Coffee Lake LGA1151 Socket Processor, Core i7/i5/i3 6-core TDP Max. 65W, Core i9 8-core TDP Max 35W / *Please see the CPU Options in Docs / Manuals
	CHIPSET	Intel® C246
	SYSTEM MEMORY	Max. 32GB (Xeon: ECC / Non-ECC; Core-i: Non-ECC) / DDR4 2666MHz / 2 x 260-pin SO-DIMM
	GRAPHICS	Intel® HD Graphics
	DISPLAY INTERFACE	DisplayPort 1.2 / DVI-I / HDMI 1.4
	STORAGE SLOT	3 x 2.5 HDD / SSD (1 w/ Removable HDD Bay, 2 w/ Internal HDD Bracket) / 2 x mSATA
	ETHERNET	Intel® I219-LM Giga LAN + I210-IT Giga LAN
	AUDIO	Realtek® ALC662
	I/O CHIPSET	Nuvoton NCT6116D
	EXPANSION SLOT	Storage: M.2 2280 / 2260 / 2242 M key (PCIe, SATA) / Storage/LTE/Wireless: 2 x mPCIe Full / Half size (USB / PCIe / SATA), w/ SIM Card Holder / Wireless: M.2 2230 E key (PCIe, USB) / PCIe Slot: PCIe 3.0 X16, PCIe 3.0 X1 (Option: 2 x PCIe 3.0 X8)
	INTERNAL SPEAKER	1 x Buzzer
	INDICATOR	DIO LED / LAN1 & 2 ACT / SPEED / Power LED / HDD LED
	FRONT I/O	1 x HDMI 1.4 / 2 x USB 3.0 / 2 x SIM Card Slot w/ Cover / 1 x 2.5" SATAIII HDD / SSD Bay
	REAR I/O	1 x DisplayPort 1.2 / 1 x DVI-I / 2 x RJ-45 / 4 x USB 3.1 Gen 2 (10 Gbps) / 2 x USB 2.0 / 2 x RS232 / 422 / 485 (Support Power 5V / 12V) / 1 x Mic-in / 1 x Line-out / 1 x 2-pin Terminal Block Remote Power Reset / 1 x 3-pin Terminal Block Power Input / 1 x 4-pin Terminal Block External Fan Connector / 1 x 2-pin Terminal Block Remote Power on / off / 4 x SMA Antenna (Optional for WiFi/LTE function)
POWER REQUIREMENT	POWER INPUT	9~48V Wide Range DC Input w/ Terminal Block Connectivity
	POWER ADAPTER	Optional

ENVIRONMENTAL	OPERATING TEMPERATURE	35W TDP Processor: -40°C to 70°C / 51~65W TDP Processor: -40°C to 50°C / 71~80W TDP Processor: -40°C to 40°C / *Please consult with your sales contact window about the Operating Temperature of GPU Card Configurations / with 0.7m/s Air Flow and Wide Temperature Memory/Storage
	OPERATING HUMIDITY	10% ~ 90% R/H (Non-condensing)
	STORAGE	-40 ~ 85°C (-40 ~185°F) / 10% ~ 95% @85°C non-condensing
	VIRBRATION AND SHOCK RESISTANCE	Operating: 5Hz~500Hz / 5Grms / 3Axis (w/ SSD, according to IEC60068-2-64) Operating: 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
	CERTIFICATION	CE / FCC Class A / Compliant with EN50155 & EN50121 / E-mark
OS	OS SUPPORT	Windows® 10 64-bit / Linux (support by request)
PACKING LIST	PACKAGE	1 x Driver CD / 1 x Quick Installation Guide / 1 x Embedded System / 1 x CPU Cooler (passive) / 1 x Wall Mount Brackets (2PCS in 1 set) / 1 x 3 pin Terminal Block Power Connector / 1 x 4 pin Terminal Block Male Connector / 2 x 2 pin Terminal Block Male Connector / 1 x DVI to VGA converter / 1 x 30 cm SATA & SATA PWR Y Cable (3rd SSD/HDD needs optional SATA Y cable)