# MVP-6100-MXM Series

Embedded GPU / AI Workstation with Intel® Xeon® or Core™ Core™ 9th Gen. CPUs

## Features

- Intel® Xeon® or Core™ 9th Gen. CPU
- DDR4 2,133 SDRAM SODIMM, up to 32GB
- Intel<sup>®</sup> C246 chipset
- NVIDIA® Quadro® Embedded P series
- 2x 2.5" SATA drive bays and M.2 2280 socket





#### MVP-6100-MXM Series: High processing power and rugged design

The MVP-6100-MXM series fanless embedded computing platforms, which include the 9th generation Intel® Core™ processor, are optimized for edge computing applications. The MVP-6100-MXM series combines high-performance computing, scalable function and I / O improvements and reliability in industrial quality on a compact fanless platform and offers reliable long-term operation for performance-critical applications in industrial automation, logistics, transport and the smart city sector. The Embedded PC series consists of a classically robust design. The GPU workstation supports DDR4 memory and thus also more computing and graphics performance with an NVIDIA® Quadro® Embedded MXM module.

#### High performance for industrial applications

The embedded systems combine outstanding performance with extensive connectivity while being easy to use. The robust housing enables use under difficult conditions. With the use of a processor Intel<sup>®</sup> Core™ i3, i5 or i7 of the ninth generation or a Celeron LGA processor the high performance with minimum power consumption is in the foreground with the embedded computer. Together with unique image and video processing and efficient remote monitoring, the MVP-6100-MXM series meets the requirements for use in critical applications with the highest standards of reliability. Proven areas of application in the industrial environment can be found, among other things, in machine vision, motion sensors and system monitoring.

## Flexible connectivity options and extremely resistant

In each version, the MVP-6100-MXM series offers two independently functioning DisplayPorts, including VGA and DVI-D connection, and is therefore also ideally suited for digital signage scenarios, for example. Up to 32GB DDR4 RAM and optionally two SATA III HDD or SSD hard drives can be installed. Temperature fluctuations from 0 to +50° C as well as shocks and vibrations the industrial computers withstand without any problems. The series can be operated with power supplies in a voltage range of 12-24V and thus offers flexibility for various application scenarios. Three USB 3.1 ports and three USB 2.0 ports on the front and three COM ports also offer plenty of connection options for additional devices.

Optional accessories	
Factory Installed 2.5" SSD/HDD/M.2 Storage	
Optional 2x 2.5" SATA Kit	Includes cables and bracket
Wireless Mini PCIe/M.2 Module	Wi-Fi/ BT/ 3G/ 4G LTE/ LoRa wireless kit (w/ antenna)
AC/DC Adapter	220W (P/N: 31-62149-0000) 280W (P/N: 31-62162-1010-A0)

GPU Options				
Model	GPU	Power	CUDA <sup>®</sup> Cores	Graphics Memory
EGX-MXM-P1000	NVIDIA® Quadro® Embedded P1000	47W	512	GDDR5 4GB
EGX-MXM-P2000	NVIDIA® Quadro® Embedded P2000	58W	768	GDDR5 4GB

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Specifications	MVP-610X-MXM	MVP-610A-MXM	MVP-6101-MXM	MVP-6102-MXM	MVP-6103-MXM			
SYSTEM								
CPU	Intel <sup>®</sup> Xeon <sup>®</sup> E-2278GE, 80W 8-cores up to 4.7GHz	Intel <sup>®</sup> Core™ i7-9700E, 65W 8-cores up to 4.4GHz	Intel <sup>e</sup> Core™ i7-9700E, 35W 8-cores up to 3.8GHz	Intel <sup>®</sup> Core™ i5-9500TE, 35W 6-cores up to 3.6GHz	Intel <sup>®</sup> Core™ i3-9100TE, 35W 4-cores up to 3.2GHz			
Chipset		Intel <sup>e</sup> C246						
RAM	4GB DDR4 non-ECC 2.400 MHz, dual SODIMMs, up to 32GB (Optional: 8, 16, 32GB ECC, only for Intel® Xeon®/Core™ i3)							
Storage	2x 2.5" SATA III for HDD/SSD (supports RAID 0/1/5/10) 1x CFast socket (type II)							
AMT	Supports Intel® AMT / vPro							
TPM	TPM 2.0							
Expansion	1x Mini PCle full size (USB 2.0, PCle) 1x M.2 socket 2, key B+M or B, 2280/3042 (USB3.1 + SATA III + PCle x2) Up to 2x PCle x4 and 1x PCl slot available 2x USIM slots							
Operating System	Windows 10 IoT Enterprise CBB/LTSB 64-bit Linux Ubuntu 18.04 LTS							
INTERFACE								
Ethernet	3x Intel <sup>e</sup> GbE: 1x i219 + 2x i225							
USB	2x USB 3.1 Gen2 ports 1x USB 3.1 Gen1 ports 3 x USB 2.0 ports 1x USB 2.0 Port (internal)							
сом	COM 1/2: 2x RS-232/422/485 COM 3: 1x RS-232							
Video	lx DVI-D / VGA 2x Display Port Extra 4x DisplayPorts 1.4 powered by MXM P1000/P2000							
Audio	1x Mic-in and 1x Line-out							
ENVIRONMENTAL								
Cooling	Fanless System/MXM: Active fan cooling							
Power Supply	DC input: 12 ~ 24V AC input: 220W or 280W AC/DC adapter (optional)							
Operating Temperature	Standard with airflow 0.6 Standard with airflow 0.6   m/s: 0° ~ 40°C m/s: 0° ~ 50°C   Extended with airflow 0.6 Extended with airflow 0.6   m/s + ind. storage: -20° ~ and storage: -20° ~   40°C 50°C							
Storage Temperature	-40° ~ 85°C							
Vibration / Shock Resistance	Vibration: Operating: 2 Grms, random, 5-500 Hz, 3 axes (w/ 2.5" SSD/CFast) Operating: 0.5 Grms, random, 5-500 Hz, 3 axes (w/ HDD) Shock: Operating: 50 G, half sine 11ms duration (w/ 2.5" SSD)							
Humidity			~95% @ 40°C (non-condensing	)				
Dimensions	MVP-6120-MXM: 165 (W) x 240 (D) x 210 (H) mm MVP-6140-MXM: 206 (W) x 240 (D) x 210 (H) mm							
Weight	MVP-6120-MXM: 6.0 kg MVP-6140-MXM: 6.4 kg							
Mounting	Wallmount							
Certifications	EMC: EN61000-6-4/-2, CE, FCC Class A ESD: Contact 4kV, Air 8kV Safety: UL/cUL, CB							