MGP-800

Embedded GPU Computing Platform

MGP-800 is an embedded GPU computing platform composed of a fanless PC and a GPU expansion box. It features flexible expansion and supports two full-height full-length GPU cards. It adopts Intel W480E chipset, and supports 10/11th-generation Xeon Core processors. It supports expansion to multiple IO ports by means of high-speed connectors, and users can self-define the ports (for example, optional expansion to multiple POE network ports) to meet different application needs. It is mainly used in machine vision, deep learning, AI artificial intelligence and edge computing, vehicle-road coordination, assisted driving and other application fields.

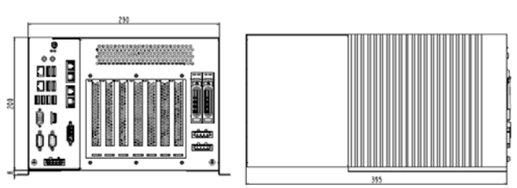
MGP-800-01

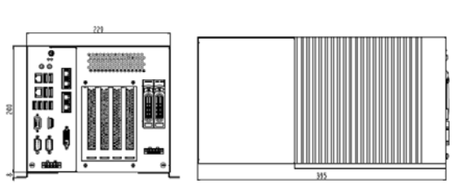
MGP-800-02

Product Features

- Strong AI computing power
- Supports 4G, WIFI communication
- Professional power supply solution
- Super EMC performance

Product Dimensions Drawing





Please refer to the user manual to check detailed specifications and dimension. (Unit: MM)

Product Specifications

Item		Description
System Configuration	Processor	Supports Intel 10/11th-generation Xeon Core series processors whose power consumption is no more than 80W
	Chipset	W480E
	Memory	2 x 260-Pin DDR4 SO-DIMM, supporting up to 64G
I/O Ports	External Ports	2 x RJ45 4 x USB3.2(GEN2), 4 x USB3.2(GEN1) 2 x COM port, RS-232/422/485 adjustable, 4 x built-in RS-232 (optional) 1 group of audio ports (1 x line out, 1 x mic in) VGA, HDMI (built-in optional expansion to 1 x DVI port)
	Internal Ports	1 x 8-channel GPIO 1 x USB2.0 (1 x 5 Pin wafer socket, built-in watchdog expandable via USB cable) 4 SATA3.0 (6Gbps) , supporting RAID 0/1/5/10 1 x TPM port, supporting TPM2.0
Expansion Bus		1 x MiniPCIE port (SATA signal), expandable to either 4G module or MSATA storage 1 x SIM card slot 1 x M.2 Key E (expansion to WIFI module) 1 x 2 x 30Pin high speed connector, self-defined expansion port
CPU Card		MGP-800-01：2 x PCIe x 16 (PCIe x 8 signal) , 2 x PCIe x 4 MGP-800-02：1 x PCIe x 16, 2 x PCIe x 4 Length of expansion card≤331mm Supports mainstream GPU expansion cards on the market, up to three fans GPU card In case of single GPU card expansion, the thickness of the expansion card≤62.96mm In case of dual GPU card expansion, the recommended gap between the two expansion cards≥5mm
Storage		Supports up to 4 x 2.5" SATA 3.0 hard disk Among them: 1 x 2.5" hard disk bay inside the fanless PC; The expansion box supports 2 x 2.5" hard disk pull-out bay (supporting hotswap) The expansion box supports internal 1 x 2.5" hard disk bay (optional) Supports 1 x M-SATA slot (realizing 4G, or storage function; the 4G function and the storage expansion cannot co-exist for use)
Remote Maintenance		Supports AMT function
Power Supply		External AC 220V power adapter for power supply；480W or 1000W power supply optional
Switch/Indicator		1 x power switch, 1 x phoenix terminal；Indicator: power supply and hard disk indicators
Environmen Requirements	Working Temperature	<table><tr><th></th><th>HDD&normal temperature SSD Exclusing GPU card</th><th>WIde-temperature SSD Exclusing GPU card</th><th>WIde-temperature SSD 1×250W power consumptionGPU</th><th>WIde-temperature SSD 1×350W power consumptionGPU</th><th>WIde-temperature SSD 2×250W power consumptionGPU</th></tr><tr><td>35W</td><td rowspan="3">0°C～45°C</td><td>-20°C～ 60°C</td><td>-20°C～60°C</td><td>-20°C～60°C</td><td>-20°C～60°C</td></tr><tr><td>65W</td><td>-20°C～ 50°C</td><td>-20°C～50°C</td><td>-20°C～40°C</td><td>-20°C～40°C</td></tr><tr><td>80W</td><td>-20°C～ 45°C</td><td>-20°C～40°C</td><td>-20°C～40°C</td><td>-20°C～40°C</td></tr></table> 95% @ 40 °C (non-condensing) When a GPU card is carried, it is necessary to comprehensively consider the operating temperature range of GPU graphics cards.
	Storage Temperature	-40°C～85°C；95%@40°C(non-condensing)
Dimensions (W x H x D)		Dimensions of dual GPU expansion complete PC: 290mm(W) x 200mm(H) x 395mm(D) Dimensions of single GPU expansion complete PC: 229mm(W) x 200mm(H) x 395mm(D)
Operating System		WIN10, Server 2019, Cent OS, Linux, Ubantu and other high kernel version LINUX systems.

Ordering Information

Part No.	Model	Description
0020-066171	MGP-800-01 barebone system	Embedded GPU computing platform/Intel®W480E chipset/2 x Gigabit LAN port/VGA+HDMI/4 x USB3.2(GEN2), 4 x USB3.2(GEN1) /2 x COM, supporting RS-232/422/485 adjustable/1 group of audio ports/2 x PCIe X16 (PCIe x 8 signal) /2 x PCIe X4
0020-066181	MGP-800-02 barebone system	Embedded GPU computing platform/Intel®W480E chipset/2 x Gigabit LAN port/VGA+HDMI/4 x USB3.2(GEN2), 4 x USB3.2(GEN1)/2 x COM, supporting RS-232/422/485 adjustable/1 group of audio ports/1 x PCIe X16/2 x PCIe X4
0010-161251	MGP-800-01	Embedded GPU computing platform/Intel®W480E chipset/i9-11900 eight-core processor/2 x 16G memory/256GSSD/2 x Gigabit LAN port/VGA+HDMI/4 x USB3.2(GEN2), 4 x USB3.2(GEN1)/2 x DB9, supporting RS-232/422/485 adjustable/1 group of audio ports/2 x PCIe X16 (PCIe x 8 signal) /2 x PCIe X4
0010-161261	MGP-800-02	Embedded GPU computing platform/Intel®W480E chipset/i7-11700 eight-core processor/2 x 16G memory/256GSSD/2 x Gigabit LAN port/VGA+HDMI/4 x USB3.2(GEN2), 4 x USB3.2(GEN1)/2 x COM, supporting RS-232/422/485 adjustable/1 group of audio ports/1 x PCIe X16/2 x PCIe X4

Optional Accessories

Part No.	Model	Description
1060-010141	EF-4LAN-004POE	High speed connector expansion card, Intel I225LM chip, 4 x POE Gigabit LAN port card
1060-010851	EF-4LAN-004	High speed connector expansion card, Intel I225LM chip, 4 x Gigabit LAN port card
1060-010861	EF-4LAN-004-2LAN	High speed connector expansion card, Intel I225LM chip, 2 x Gigabit LAN port card
1060-010131	EF-HDD-025ECS	High speed connector expansion card, 1 x M.2 KEY M port, supporting PCIE SSD
1500-008561	1000W power supply assembly optional package	1000W power supply assembly/one end connected to national standard AC power supply cord/the other end connected to 3 groups of power cord to filter board assembly with phoenix terminal
1500-008581	480W power supply assembly optional package	480W power supply assembly/one end connected to two groups of power supply cord with phoenix terminal/the other end connected to national standard AC power supply cord

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