MGP-800

Embedded GPU Computing Platform

MGP-800 is an embedded GPU computing platform. It consists of fanless PC + GPU expansion box; flexible expansion, supporting 2 HHL GPU cards, using Intel W480E chipsets, supporting the 10/11th generation Xeon Core processor; abundant IO ports can be expanded through high-speed connectors, and users can customize the port (such as optional expansion of multiple POE ports) to meet different application requirements. It is mainly used in machine vision, deep learning, AI and edge computing, vehicle-infrastructure cooperation, driving assistance and other application fields.

Product Features

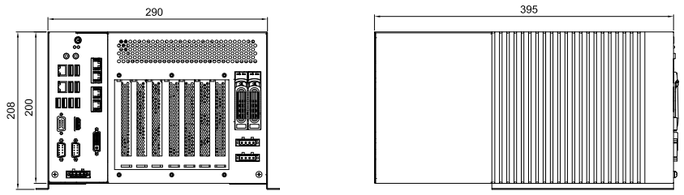
Meets the application needs of machine vision, deep learning, AI and edge computing, vehicle-infrastructure cooperation and driving assistance

Multi-source data integration, supporting 4G and WIFI communication

Professional power supply scheme

Expandable to 2x HHL GPU card, with strong AI computing capability

Product Dimensions Drawing



(Please refer to the user manual to check detailed specifications and dimensions) (unit: MM)

Product Specifications

Item		Description					
System Configuration	Processor	Supports the 10/11th-generation Xeon/Core series processors					
		Processors with power consumption not exceeding 80W					
	Chipset	Intel® W480E					
	Memory	2 × 260-Pin DDR4 SO-DIMM, supporting up to 64G					
I/O Port	External Ports on the PC	2 × RJ45					
		4 × USB3.2(GEN2), 4×USB3.2(GEN1)					
		2 × serial port, RS-232/422/485 (adjustable), 4 × built-in RS-232 (optional)					
		1 group of audio ports (1×line out, 1×mic in)					
		VGA, HDMI (1x DVI port is optional for the expansion of the built-in version)					
	Internal Ports on the Motherboard	1x 8-channel GPIO					
		1 x USB2.0 (1×5 Pin wafer socket, with the built-in softdog expandable through USB cable)					
		4 x 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 4G module or MSATA storage					
		1 x SIM card slot					
		1 x M.2 Key E (expanded WIFI module)					
		1 x 2×30Pin high-speed connector, custom expansion port					
GPU Expansion Card		MGP-800-01: 2 x PCIe×16 (PCIe×8 signals), 2 x PCIe×4					
		MGP-800-02：1个PCIe×16、2个 PCIe×4					
		Length of expansion card ≤331mm					
		Supports mainstream GPU expansion cards on the market, up to three fan GPU cards					
		When a single GPU card is used for expansion, the thickness of the expansion card is ≤62.96mm					
		When dual GPU cards are used for expansion, it is recommended that the gap between two expansion cards be ≥5mm					
Storage		Supports up to 4 x 2.5-inch SATA 3.0 hard disk					
		1 x 2.5-inch hard disk bay, built in the fanless complete PC					
		Expansion box: supports 2 x 2.5-inch hard disk pull-out bay (supporting hot swap)					
		Expansion box: supports 1 x internal 2.5-inch hard disk bay (optional)					
		Supports 1x M-SATA slot (for either 4G or storage function. The 4G function and storage expansion cannot be used simultaneously)					
Remote Maintenance		Supports AMT function					
Power Supply		External AC 220V power adapter					
		480W or 1000W power supply (optional)					
Switch Indicator		1x power switch, 1x phoenix terminal					
		Indicator: Power hard disk indicator					
Environmental Requirements	Working Temperature	GPU / CPU	HDD & normal-temperature SSD	Wide temperature SSD	Wide temperature SSD	Wide temperature SSD	Wide temperature SSD
			Without GPU card	Without GPU card	1×250W Power consumption	1×350W Power consumption	2×250W Power consumption
		35W	0°C～45°C	-20°C～60°C	-20°C～60°C	-20°C～60°C	-20°C～60°C
		65W		-20°C～50°C	-20°C～50°C	-20°C～40°C	-20°C～40°C
		80W		-20°C～45°C	-20°C～40°C	-20°C～40°C	-20°C～40°C
		95% @ 40°C (non-condensing state)					
		When a GPU card is onboard, the working temperature range of the GPU graphics card shall be comprehensively considered.					
	Storage Temperature	-40°C ~ 85°C; 95% @ 40°C (non-condensing state)					
Product Dimensions		Dimensions of dual GPU expanded complete PC: 290mm (width) × 200mm (height) × 395mm (depth)					
		Dimensions of single GPU expanded complete PC: 229mm (width) × 200mm (height) × 395mm (depth)					
Operating System		LINUX systems with high kernel versions such as WIN10, Server 2019, CentOS, Linux and Ubuntu					

Ordering Information

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

Optional Accessories

Part No.	Model	Description
1060-010141	EF-4LAN-004POE	High-speed connector expansion card, Intel 1225LM chip, POE function, 4-port Gigabit Ethernet card
1060-010851	EF-4LAN-004	High-speed connector expansion card, Intel 1225LM chip, 4-port Gigabit Ethernet card
1060-010861	EF-4LAN-004-2LAN	High-speed connector expansion card, Intel 1225LM chip, 2-port Gigabit Ethernet card
1060-010131	EF-HDD-025ECS	High-speed connector expansion card, 1 M.2KEYM port, supporting PCIE SSD
1500-008561	Optional kit of 1000W power supply components	1000W power supply assembly/one end is connected to national standard AC power lines, and the other end is connected to 3 groups of power lines to filter board assembly with phoenix terminal
1500-008581	Optional kit of 480W power supply components	480W power supply assembly/ one end is connected to 2 sets of power lines with phoenix terminals, and the other end is connected to national standard AC power lines