

AI Accelerator& GPU Preliminary

MXM Module MX500B-QA



Features

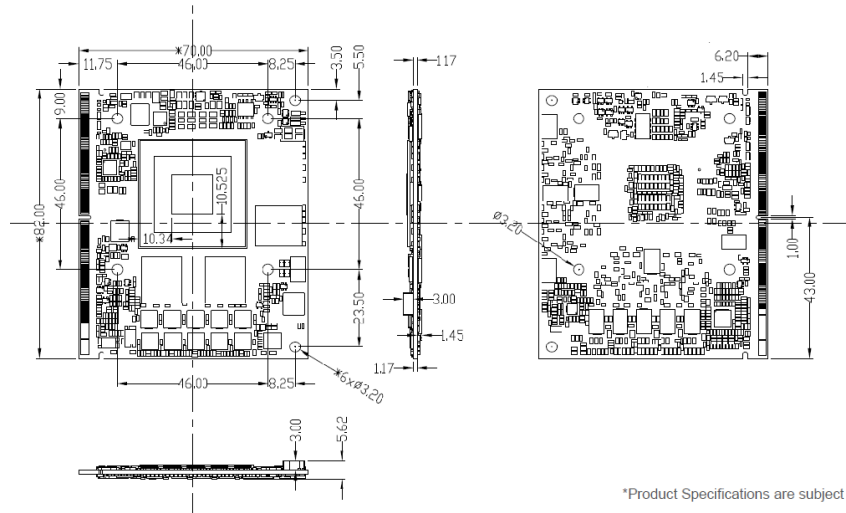
- NVIDIA RTX PRO 500 Blackwell Generation Embedded GPU based on NVIDIA Blackwell architecture
- 1792 CUDA cores, 14 RT cores and 56 Tensor cores, 6GB GDDR7 memory
- PCIe Gen 4 x16 interface
- 9.19 TFLOPS peak FP32 performance

Specifications

Model Number	MX500B-QA	
GPU Engine Specs	NVIDIA RTX PRO 500 Blackwell Embedded GPU Architecture: NVIDIA Blackwell CUDA Cores: 1792 Tensor Cores: 56 RT Cores: 14 Floating Point Performance: 6.42 TFLOPS Core Clock (MHz): Base= 1350 / Boost= 1792	NVIDIA RTX PRO 500 Blackwell Embedded GPU Architecture: NVIDIA Blackwell CUDA Cores: 1792 Tensor Cores: 56 RT Cores: 14 Floating Point Performance: 9.19 TFLOPS Core Clock (MHz): Base= 2160 / Boost= 2565
Memory Specs	Size: 6GB GDDR7 Speed: 24 Gbps Interface Width: 96-bit Bandwidth (GB/sec): 288	
Feature Support	PCI Express 4.0 x4 DirectX: 12 Ultimate Open GL 4.6 Vulkan 1.2	
Display	Resolution: 7680x4320 ¹ Maximum resolution 8K@240Hz (7690x4320) Max: 3x DisplayPort 2.1a (DSC1.2a)	
Power Consumption	Total Graphics Power (TGP): 35 W	Total Graphics Power (TGP): 60 W
Form Factor	MXM Graphics Module Version 3.1, Type A	
Dimensions (WxD)	82.0 x 70.0 mm (3.22" x2.75")	
Net Weight	0.037 kg (0.082 lb) TBD	
Temperature	Standard: Operating Temp. :0 to + 55°C (32°F ~131°F) / Extended Operating Temp. : -40 to + 85°C (-40°F ~185°F)/ Storage Temperature: -40 to + 85°C (- 40°F ~ 185°F)	
Humidity	40°C @ 95%, Non-condensing	
OS Support	Windows 11 IoT Enterprise LTSC 64-bit / Linux 64-bit	
Certification	CE/FCC/UKCA	

1. Up to 4k 12-bit HDR at 240Hz with DP1.4a+DSC. Up to 8k 12-bit HDR at 60Hz with DP 1.4a+DSC or HDMI2.0+DSC. With dual DP1.4a+DSC, up to 8K HDR at 120Hz. HDCP 1.2/1.4. (eDP, LVDS, VGA, USB-C display output are not supported)

System & Mounting Dimensions



Ordering Information

Model name	Description
MX500B-QAA-A1	MXM-A, NVIDIA RTX PRO 500 BLACKWELL, Gen4.0 x4, 6GB GDDR7, 3xDP, 60W, 0°C to +55°C
MX500B-QAA-A2 (TBD)	MXM-A, NVIDIA RTX PRO 500 BLACKWELL, Gen4.0 x4, 6GB GDDR7, 3xDP, 35W, 0°C to +55°C

Accessory (Optional)

Part No.	Description
92-6MXM4H-1002	PCIE Carrier Board, MXM3.1, Gen4.0 x16, 4x HDMI, 0°C to +55°C
TBD	MXM-A Cooler, TWO BALL, 12V 4PIN