

# Embedded MXM Modules based on NVIDIA Ampere Architecture

Mobile PCI Express Modules with NVIDIA Embedded GPUs

Preliminary



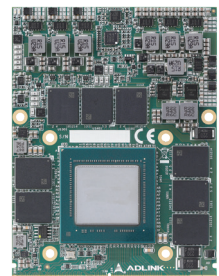
• EGX-MXM-A500



• EGX-MXM-A1000



• EGX-MXM-A2000



• EGX-MXM-A4500



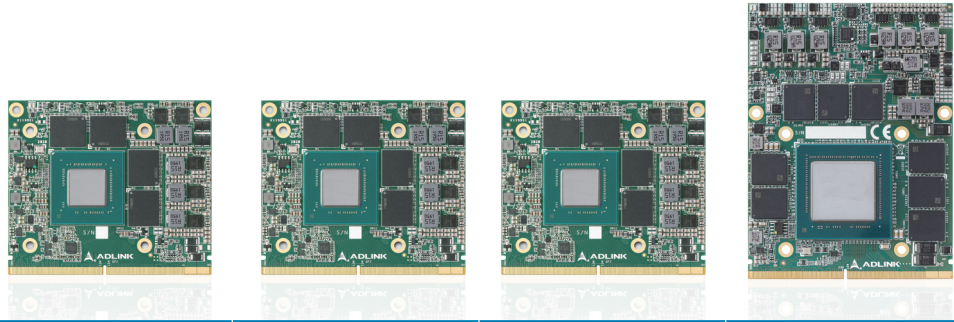
## Features

- NVIDIA embedded graphics based on Ampere architecture
- Standard MXM 3.1 Type A/B form factor
- PCIe Gen 4 up to x16 interface
- Up to 5120 CUDA® cores, 40 RT Cores, and 160 Tensor Cores
- Up to 17.8 TFLOPS peak FP32 performance
- Up to 16GB GDDR6 memory, 256-bit
- Up to 384GB/s maximal memory bandwidth
- Support up to 4 DP 1.4a displays, 115W TGP
- 5-year availability

## Ordering Information

EGX-MXM-A500	Embedded NVIDIA® RTX™ A500, MXM 3.1 type A, 82 x 70mm, PCIe Gen4 x4
EGX-MXM-A1000	Embedded NVIDIA® RTX™ A1000, MXM 3.1 type A, 82 x 70mm, PCIe Gen4 x8
EGX-MXM-A2000	Embedded NVIDIA® RTX™ A2000, MXM 3.1 type A, 82 x 70mm, PCIe Gen4 x8
EGX-MXM-A4500	Embedded NVIDIA® RTX™ A4500, MXM 3.1 type B, 82 x 105mm, PCIe Gen4 x16

## Specifications



Model Name	EMX-MXM-A500	EGX-MXM-A1000	EGX-MXM-A2000	EGX-MXM-A4500
<b>Graphic Core</b>				
GPU	NVIDIA RTX™ A500 GA107-950 GPU	NVIDIA RTX™ A1000 GA107-950 GPU	NVIDIA RTX™ A2000 GA107-980 GPU	NVIDIA RTX™ A4500 GA104-955 GPU
Memory	2/4GB GDDR6 memory, 64-bit, Bandwidth: 96GB/s	4GB GDDR6 memory, 128-bit, Bandwidth: 192 GB/s	4GB/8GB GDDR6 memory, 128-bit, Bandwidth: 192 GB/s	8GB/16GB GDDR6 memory, 256-bit, Bandwidth: 384 GB/s
<b>GPGPU Computing</b>				
CUDA Cores	2048 CUDA Cores		2560 CUDA cores	5888 CUDA cores
	TBU	7.4 TFLOPS Peak FP32 performance	9.3 TFLOPS peak FP32 performance	17.8 TFLOPS peak FP32 performance
Tensor Cores	64 Tensor Cores		80 Tensor Cores	160 Tensor Cores
RT Cores	16 Tensor Cores		20 Tensor Cores	40 Tensor Cores
Compute API	CUDA Toolkit 8.0 and above, CUDA Compute version 8 and above, OpenCL™ 1.2			
Graphics API	DirectX® 12, OpenGL 4.6			
<b>Display</b>				
Display Outputs	N/A	4x DisplayPort 1.4a, HDMI 2.1 4K at 120Hz or 8K at 60Hz with 10-bit color depth		
Interface	MXM 3.1, PCIe 4.0 x4 support	MXM 3.1, PCIe 4.0 x8 support		MXM 3.1, PCIe 4.0 x16 support
<b>Mechanicals</b>				
Dimensions	82 (W) x 70 (D) x 4.8 (H) mm			82 (W) x 105 (D) x 4.8 (H) mm
Form Factor	Standard MXM 3.1 Type A			Standard MXM 3.1 Type B
<b>Environmental</b>				
Operating Temperature	Standard: 0°C to 55°C ETT: -20°C to 70°C (TBD)			
Storage Temperature	-40°C to 85°C			
Module Power Consumption	20W-35W TGP	35W or 60W TGP		80W or 115W TGP
<b>SW Support</b>				
OS Support	Windows 11, 10 & Linux Drivers, 64-bit			