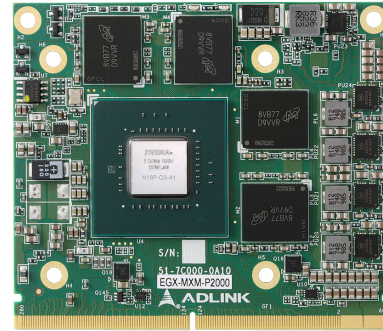# EGX-MXM-P2000

Mobile PCI Express Module with NVIDIA® Quadro® Embedded P2000

Features

- MXM 3.1 Type A form factor (82 x 70 mm)
- 768 NVIDIA® CUDA® cores
- 2.3 TFLOPS SP peak performance
- 4GB GDDR5 memory
- 96GB/s maximum memory bandwidth
- Support up to 4 FHD displays, 58W TDP
- 5-year availability

Introduction

The EGX-MXM-P2000 features advanced NVIDIA Quadro GPU with NVIDIA Pascal™ Architecture technology in MXM 3.1 Type A form factor. The EGX-MXM-P2000 has 768 NVIDIA CUDA cores and a peak single-precision floating-point performance of 2.3 TFLOPS. The EGX-MXM-P2000 has 4GB of GDDR5 memory and supports NVIDIA GPUDirect™ RDMA which helps increase data throughput by up to 80% and consequently system responsiveness by up to 60%*. Additionally, 4 FHD display outputs and an extended operating temperature range of -40°C to 85°C are supported. The embedded graphics product is suitable for mission-critical harsh-environment edge computing applications with size, weight, and power (SWaP) and network connectivity constraints.
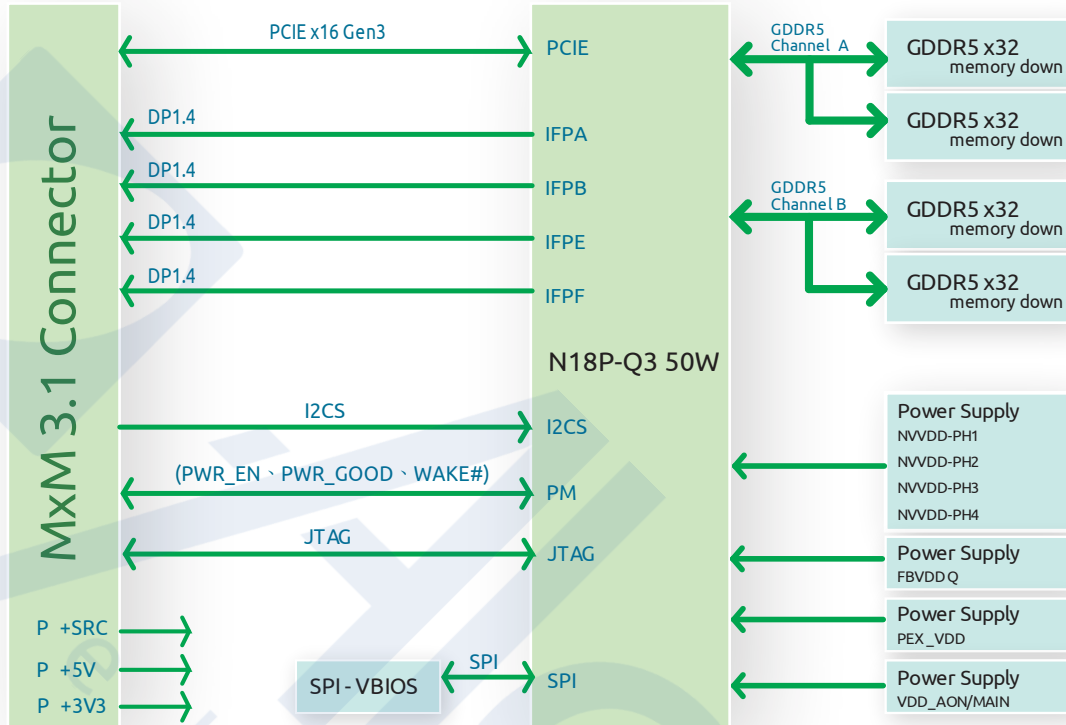
Ordering Information

- **EGX-MXM-P2000**
  NVIDIA Quadro Embedded P2000, MXM 3.1 type A, 82 x 70mm, PCIe x16 Gen3
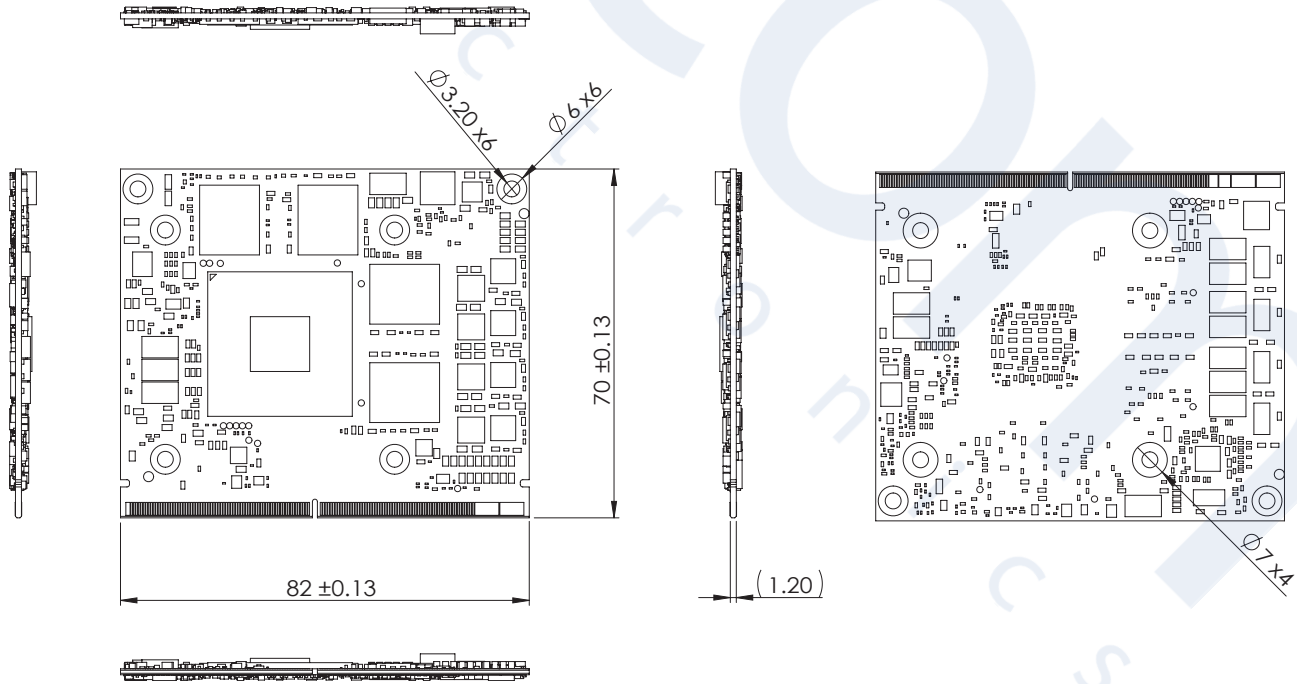
Specifications

	EGX-MXM-P2000
Graphic Core	
Graphic Architecture	NVIDIA Pascal GP107
GPU	Quadro P2000
Display Outputs	4x DisplayPort 1.4 digital video outputs Support for High Dynamic Range (HDR) video 4K at 120Hz or 5K at 60Hz with 10-bit color depth
Signal Interface	MXM 3.1, PCI Express Gen3 x16 supports
GPGPU Computing	
CUDA Supports	768 CUDA cores, 2.3 TFLOPS SP Peak CUDA Toolkit 8.0, CUDA Compute version 6.1 OpenCL™ 1.2, DirectX® 12, OpenGL 4.5, Vulcan 1.0
Memory	GDDR5 4GB memory, Memory width: 128-bit, bandwidth: 96 GB/s
Mechanicals	
Dimensions	82 (W) x 70 (D) x 4.8 (H) mm
Locking Mechanism	Standard MXM 3.1 Type A
Environmental	
Operating Temp.	Standard: 0˚C to 55˚C, ETT: -40˚C to 85˚C
Storage Temp.	-40˚C to 85˚C
SW supports	
OS Support	Windows 7/10 & Linux Drivers, 64bit

* The software and workloads used in performance tests were optimized for performance on ADLINK platforms. Performance tests are measured using specific computer systems, components, software, operations and functions. Any changes to these factors may cause the results to vary. Contact ADLINK for more complete information about performance and benchmark results.

Block Diagram

MxM 3.1 Connector

PCIE x16 Gen3 — PCIE
DP1.4 — IFPA
DP1.4 — IFPB
DP1.4 — IFPE
DP1.4 — IFPF

N18P-Q3 50W

I2CS — I2CS
(PWR_EN、PWR_GOOD、WAKE#) — PM
JTAG — JTAG

P +SRC
P +5V
P +3V3

SPI - VBIOS — SPI — SPI

GDDR5 Channel A — GDDR5 x32 memory down / GDDR5 x32 memory down
GDDR5 Channel B — GDDR5 x32 memory down / GDDR5 x32 memory down

Power Supply
NVVDD-PH1
NVVDD-PH2
NVVDD-PH3
NVVDD-PH4

Power Supply
FBVDDQ

Power Supply
PEX_VDD

Power Supply
VDD_AON/MAIN

Mechanical Drawing

Ø3.20 x6   Ø6 x6

70 ±0.13

82 ±0.13

(1.20)

Ø7 x4

ADLINK
Leading EDGE COMPUTING