

XMC-G745

XMC Module with NVIDIA GeForce GT 745M GPU

Features

- NVIDIA GeForce GT 745M GPU (Kepler refresh)
- 384 CUDA cores for maximum processing power
- 2GB dual channel GDDR5 soldered memory
- XMC site PCIe x8 Gen3 on P15
- Four DVI-D and one VGA with 3 independent displays (VGA supported on conduction cooled version only)



Specifications

Processor & System

GPU

NVIDIA GeForce GT 745M
 NVIDIA CUDA Technology (compute capability 3.0), 384 cores
 NVIDIA H.264 video encoding
 NVIDIA PureVideo hardware decoding
 High-Bandwidth Digital Content Protection (HDCP) support
 Supports OpenGL 4.4, OpenCL 1.2, DirectX 11.1

Memory

Dual channel GDDR5 SDRAM with ECC, 2GB
 128-bit memory interface

Display

Digital display resolution up to 1920 x 1200
 Analog display resolution up to 2048 x 1536
 Three independent displays supported

VITA Specifications

VITA 42.0 XMC: Switched Mezzanine Card Base Specification
 VITA 42.3 XMC: XMC PCI Express Protocol Layer
 VITA 46.9 VPX: PMC/XMC Rear I/O Fabric Signal Mapping on 3U and 6U VPX Modules

Connectivity

XMC Site

PCIe x8 Gen3 on P15

XMC I/O

Four single-link DVI-D and one VGA on P16
 (conduction cooled version only)

Front Panel

Four single-link DVI to front panel extra space via VHDCI connector (air cooled version only)

Operating System

OS

Microsoft Windows 7
 Microsoft Windows 8.1
 Red Hat Enterprise Linux
 (Please contact ADLINK for other OS support)

Mechanical & Environmental

Form Factor

Standard XMC Form Factor
 143.75 x 74mm (conduction cooled version)
 149 x 74mm (air cooled version)

Operating Temperature

-40°C to +85°C (conduction cooled version, with GPU throttling)
 0°C to +55°C (air cooled version)

Rel. Humidity

95% non-condensing

Shock

Sawtooth 40G, 11ms, each axis, operating (conduction cooled version)
 20g peak, 11ms (air cooled version)

Vibration

15Hz-2KHz, 12Grms, random, each axis, operating (conduction cooled version)

Random

0.002g²/Hz from 10 to 2000Hz; Sine: 2G, 5 to 500Hz (air cooled version)

Power

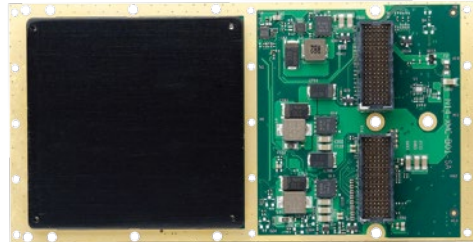
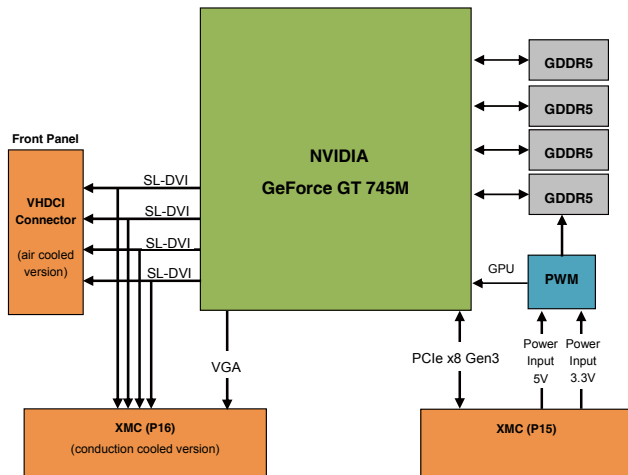
Power input 5V, 3.3V

Safety & EMI

Certifications

CE/ FCC Class A

Block Diagram



XMC-G745-R2 (conduction cooled)

Ordering Information

XMC GPU Module

- **XMC-G745-R2**
XMC NVIDIA GT 745M GPU Module, conduction cooled
- **XMC-G745-A1**
XMC NVIDIA GT 745M GPU Module, air cooled