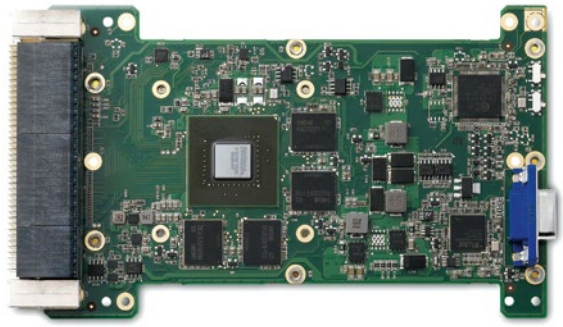
VPX3G10

Rugged 3U VPX GPGPU Blade

Features

- NVIDIA GeForce GT 745M GPU (Kepler refresh)
- 384 CUDA cores for maximum processing power
- Dual channel GDDR5 soldered memory, 2GB
- 16-lanes PCIe Gen3 (x16/x8/x4/x1)
- Four single-link DVI and one VGA to P2 (conduction cooled)



Specifications

Processor & System

GPU

NVIDIA GeForce GT 745M
NVIDIA CUDA Technology(compute capability 3.0), 384 cores
NVIDIA Optimus Technology
NVIDIA PhysX Technology
NVIDIA PureVideo Technology
H.264 video encoding
High-Bandwith Digital Content Protection (HDCP) support
GPU Boost 2.0
OpenGL 4.4
OpenCL 1.2
Microsoft DirectX 11.1

Memory

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

Display

Digital display support up to 1920 x 1200
Max. Analog display support up to 2048 x 1536

VITA Standards

VITA 46.0 VPX Base Standard
VITA 46.4 PCI Express on VPX Fabric Connector
VITA 48.0 Ruggedized Enhanced Design Implementation
Mechanical Base Specification: VITA 65 OpenVPX Architecture Framework for VPX

Module Profile

MOD3-PER-2F-16.3.1-3

Slot Profile

SLT3-PER-2F-14.3.1

Connectivity

PCI Express

1x PCIe x16 Gen3 (x8/x4/x1) to P1

Graphics

One VGA port on front panel (air cooled version)
Four single-link DVI and one VGA to P2 (conduction cooled version)

Operating System

OS

Microsoft Windows 7
Microsoft Windows 8
Red Hat Enterprise Linux
(Please contact ADLINK for other OS support)

Miscellaneous

LED: Power good

Mechanical & Environmental

Form Factor: 3U VPX 0.8”
100mm x 160mm (LxW)

Operating Temperature

-40°C to +85°C (at wedge-lock)
Storage Temperature: -50°C to +100°C

RH Humidity

95% non-condensing

Shock

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

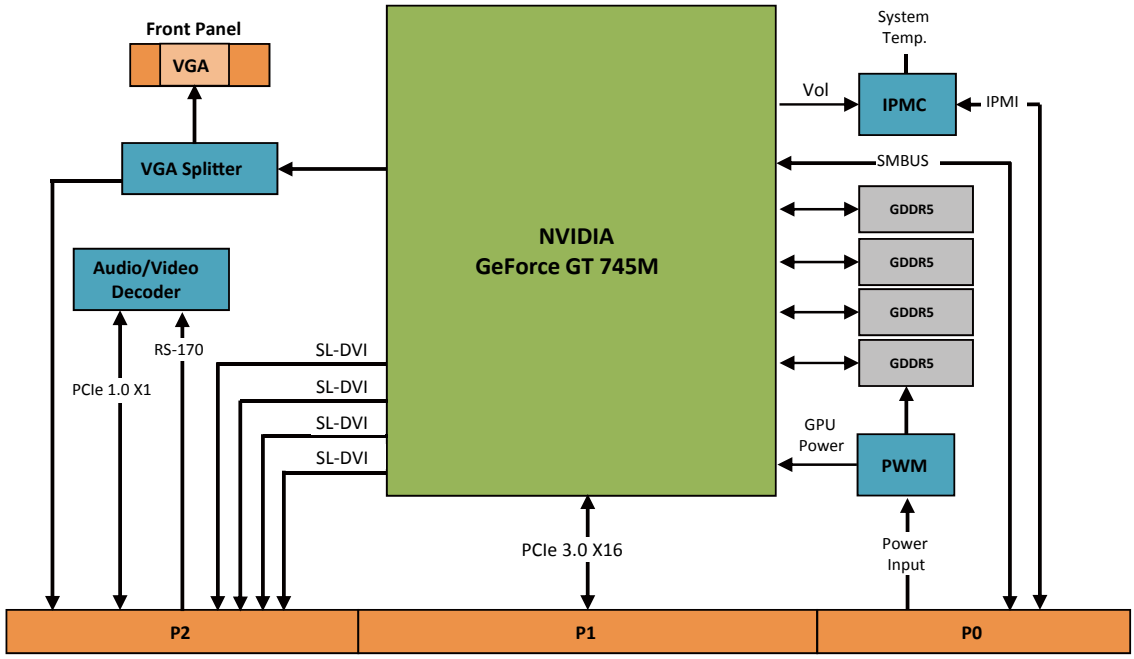
Vibration

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: +5V

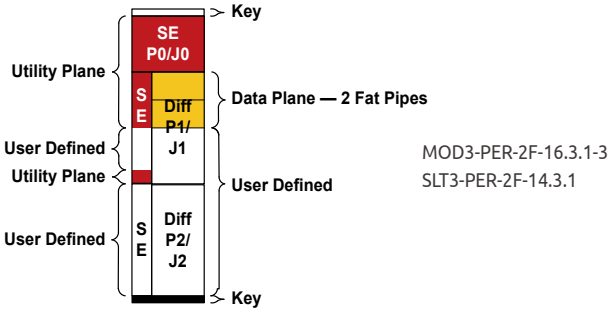
Safety & EMI

Certification: CE/ FCC Class A

Block Diagram of VPX3G10

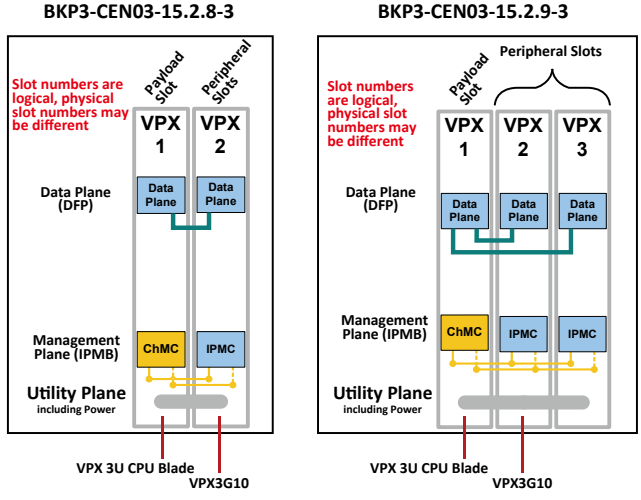


OpenVPX Compliant Profiles



MOD3-PER-2F-16.3.1-3
SLT3-PER-2F-14.3.1

Applications



Ordering Information

GPGPU Board

- **VPX3G10-R**
  3U VPX NVIDIA GT745M GPU card, conduction cooled
- **VPX3G10-A**
  3U VPX NVIDIA GT745M GPU card, air cooled
- **tBP-VPX3000**
  3-slot testbed for VPX-3000; SLT1-2: VITA65 SLT3-PAY-2F2U-14.2.3, BKP3-DIS02-15.2.8-1 SLT3 I/O: 2 x COM-RJ-45, 1 x GbE-RJ-45, 1 x DVI-I, 2 x USB, 2 x SATA 6G, 2 x PCIex4, Line-in/out Jacks
- **3U Test Frame**
  3U VPX test frame with tBP-VPX3000 backplane for users to validate VPX3000 functionality

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