Specifications

Processor & System

CPU
- Quad-core Intel® Core™-i7-3612QE 2.1GHz, 6MB LLC cache, TDP=35w
- Dual-core Intel® Core™-i7-3555LE 2.5GHz, 4MB LLC cache, TDP=25w

Chipset
- Mobile Intel® QM77 Express Chipset

Memory
- Dual channel DDR3-1333 soldered ECC SDRAM, up to 8GB

BIOS
- AMI EFI on 64Mbit SPI

VITA standards
- VITA 46.0 VPX Base Standard
- VITA 46.4 PCI Express on VPX Fabric Connector
- VITA 46.6 Gigabit Ethernet Control Plane on VPX
- VITA 46.9 PMC/XMC/Ethernet Signal Mapping to 3U/6U VPX
- VITA 46.10 Rear transition module on VPX
- VITA 46.11 draft System Management on VPX
- VITA 48.0 Ruggedized Enhanced Design Implementation

Mechanical & Environmental

Form Factor
- 3U VPX 100mm x 160mm x 20.3mm

Operating Temperature
- -40°C to 75°C for Intel® Core™-i7-3612QE CPU
- -40°C to 85°C for Intel® Core™-i7-3555LE CPU

Vibration
- 5Hz-2KHz, 12Gms, random, each axis, operating

Shock
- Sawtooth 40G, 11ms, each axis, operating

Altitude
- 60,000 feet, operating

Power Consumption
- 3612QE/M8G 41.7W
- VS1 (12) 1.9A, VS2 (3.3): 0.8A, VS3 (5V): 3.2A

Weight
- 515g

EMI/EMC
- CE, FCC Class A

Connectivity

XMC
- PCIe x8 Gen2 with RIO to P2-X8d+X12d

Ethernet
- P1-UTP 1/2 100BASE-TX (GeDes)
- P1-TIP 1/2 10/100/1000BASE-T

Graphics
- Single channel DVI+RGB to P2

USB
- One USB v3.0 and one USB v2.0 to P1

Serial Port
- One RS-232 RTS#,CTS#, SIN, SOUT and one RS-422 to P2

Audio
- Intel® HDA Line-in, Line-out to P2

PCI Express
- 2x PCIe x2.0 to x4 to P1, configurable to 1x8 or 1x4+4x1

Storage

SBC
- Soldered 16GB SATA-2 boot flash
- Two SATA 6Gb/s ports to P1 and one SATA 3Gb/s port to P2

Operating System

OS
- Red Hat Enterprise Linux 6.2
- Wind River VxWorks 6.9
- Microsoft Windows 7 32/64bit
- Microsoft Windows 7 Embedded

Miscellaneous

GPIO
- Four PCH controlled GPIO to P1/P2

HW monitor
- CPU temperature and Power rails

Watchdog Timer
- System reset or NMI with programmable interval

LED
- Power LED (green)

Reset Button
- Board reset button on front panel

Features

- Quad-core 35w or dual-core 25w Intel® 3rd Generation Core™-i7 processor with QM77 Express chipset
- DDR3-1333 soldered ECC SDRAM
- Two PCIe x4 Gen DP 1/2 with NTB
- Two 1000BASE-BX UTP 1/2 and one 10/100/1000BASE-T TP1
- One XMC.3 PCIe x8 Gen2 with Rear I/O

Ordering Information

Model Number | Description/Configuration
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VPX3000/3612/M8/ S16-S1 | Quad-core i7-3612QE 35 with 8GB DDR3 ECC and 16GB SATA SSD soldered, card edge operating temp. -40°C to 75°C
VPX-R300 | RTM for VPX3000 with DVI-I, USB2.0, USB3.0, 1000BASE-T on front panel; and Line-in, Line-out, RS-232, RS-422, 2x SATA 3.0, GPIO pin headers, XMC port onboard
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-RJ45, 1 x GbE-RJ45, 1 x DVI-I, 2 x USB, 2 x SATA 6G, 2 x PCIe4x, Line-in/out Jacks

Connection

XPCC x8 Gen2 with RIO to P2 X8d+X12d
P1-UTP 1/2 100BASE-TX (GeDes)
P1-TIP 1/2 10/100/1000BASE-T
Single channel DVI+RGB to P2
One USB v3.0 and one USB v2.0 to P1
One RS-232 RTS#,CTS#, SIN, SOUT and one RS-422 to P2
Intel® HDA Line-in, Line-out to P2
2x PCIe x2.0 to x4 to P1, configurable to 1x8 or 1x4+4x1
Supports DMA and Non Transparent Bridge for peer to peer communication
Soldered 16GB SATA-2 boot flash
Two SATA 6Gb/s ports to P1 and one SATA 3Gb/s port to P2
Red Hat Enterprise Linux 6.2
Wind River VxWorks 6.9
Microsoft Windows 7 32/64bit
Microsoft Windows 7 Embedded
(Please contact ADLINK for other OS support)
Four PCH controlled GPIO to P1/P2
CPU temperature and Power rails
System reset or NMI with programmable interval
Power LED (green)
Board reset button on front panel