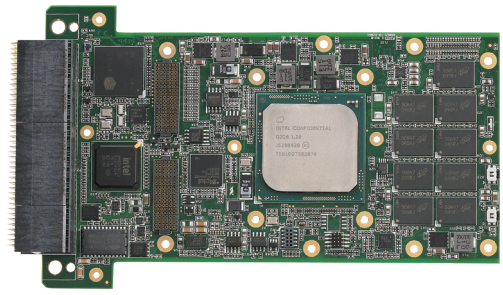
VPX3010 Series

Rugged 3U VPX Intel® Xeon® Processor D-1500 Processor Blade

Features

- Intel® Xeon® Processor D-1500 SoC up to 12 cores (formerly "Broadwell-DE")
- DDR4-2133 soldered ECC SDRAM up to 32GB
- Dual 10G-KR, up to three 1G Ethernet ports
- Up to PCIe x16 Gen3 interface supporting non-transparent bridge
- One XMC expansion slot, PCIe x8 Gen3 with Rear I/O to P2



Specifications

- **Processor & System**

CPU

Intel® Xeon® D-1559 12-core, 45W TDP
Intel® Xeon® D-1539 8-core, 35W TDP
Intel® Pentium® D1519 4-core, 25W TDP

RAM

Dual channel DDR4-2133 ECC soldered SDRAM, up to 32GB

BIOS

AMI EFI on 64Mbit SPI flash

VITA Specifications

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 System Management on VPX
VITA 48.0 Ruggedized Enhanced Design Implementation Mechanical Base Specification
VITA 65 OpenVPX Architecture Framework for VPX

Module Profile

MOD3-PAY-2F2T-16.2.5-3

Slot Profile

SLT3-PAY-2F2T-14.2.5

- **Connectivity**

XMC

PCIe x8 Gen3 with Rear IO to P2 X8d+X12d

Ethernet

Dual 10G-KR to P2
Two 1000BASE-T to P1 (or one 1000BASE-T and two 1000BASE-BX by BOM option)

Graphics

SMI750 on PCIe x1
One VGA to P2

USB

One USB 3.0 to P1 and one to P2
One USB 2.0 to P1

Serial Port

One RS-232 to P1
One RS-232/422 to P1

PCI Express

PCIe x8 Gen3, configurable to 1 x8 or 2 x4 to P1, supports DMA and non-transparent bridge for peer-to-peer communication
PCIe x8 Gen3 to P2 (combined with PCIe x8 Gen3 to P1 for PCIe x16 Gen3, no XMC BOM option)
PCIe x1 Gen3 to P1 (no XMC BOM option)

- **Storage**

SBC

Soldered SLC NAND flash up to 64GB SATA 6Gb/s

RTM

One SATA 6Gb/s to P1
One SATA 6Gb/s to P2 (no XMC BOM option)

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Specifications

- **Security Mechanism**

  TPM
  Atmel TPM version 1,2

  IPMC
  Smart Fusion A2F200 with VPX code base

  BIOS
  Dual BIOS mechanism

- **Operating System**

  OS
  Red Hat Enterprise Linux 6.5
  Wind River VxWorks 7.0
  Microsoft Windows 7 32/64-bit
  Microsoft Windows 7 Embedded (Please contact ADLINK for other OS support)

- **Miscellaneous**

  LEDs
  Blade status LEDs on front and rear

  Watchdog Timer
  System reset or NMI with programmable interval

  GPIO
  Eight 5V tolerance GPIO to P1 and P2

  Reset Button
  Reset button on front panel

- **Miscellaneous**

  Form Factor
  Conduction cooled: 3U VPX 0.8 in.
  Air cooled: 3U VPX 0.85 and 1 in.

  Operating Temp.
  Conduction cooled version: -40°C to +75°C at wedge locks (+85°C optional)
  Air cooled version: -40°C to +75°C

  Storage Temp.
  -50°C to +100°C

  Relative Humidity
  95% non-condensing

  Altitude
  60,000 feet, operating

  Power Consumption
  52.84 W

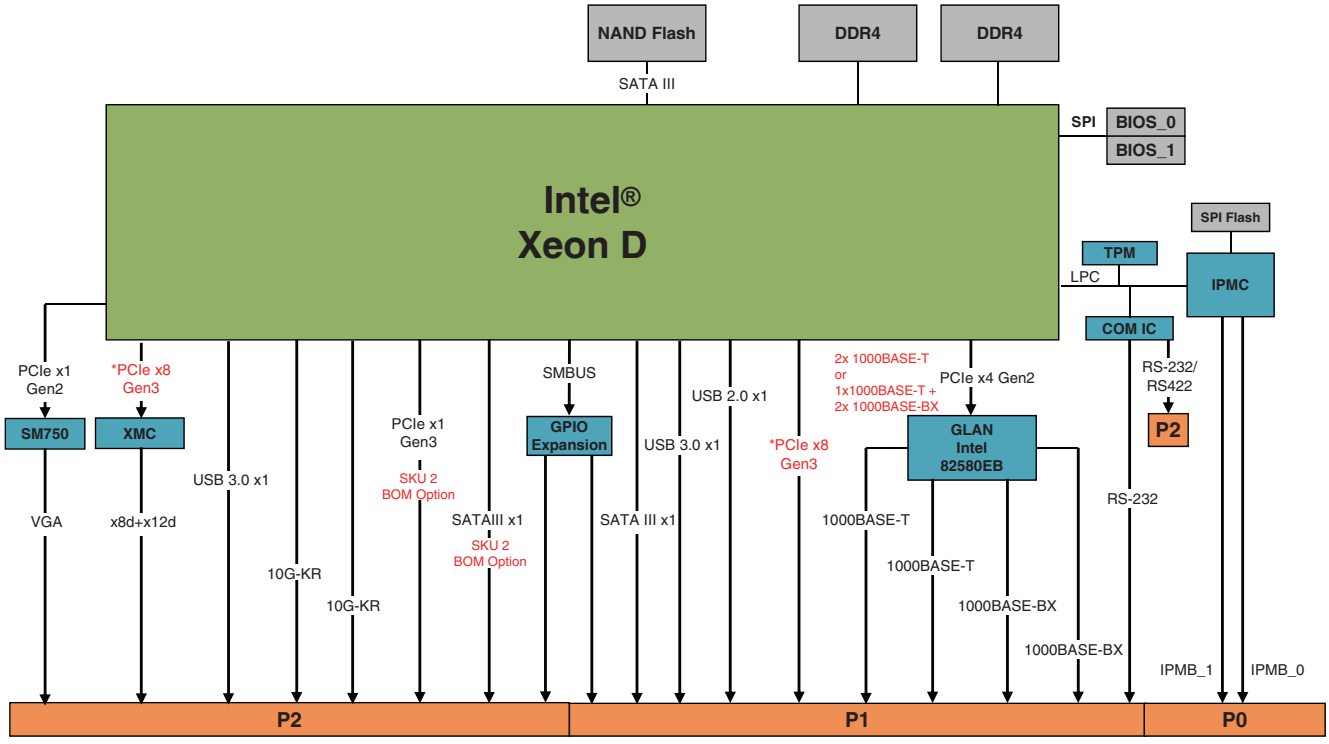
  Weight
  Conduction cooled: 535.25g
  Air cooled: 491.15g

  Thermal Dissipation
  Convection and conduction

- **Safety & EMI**

  Certifications
  CE, FCC Class A

VPX3010 Block Diagram



* Combined with PCIe x8 Gen3 to P1 and PCIe x8 to PCIe x16 Gen3, No XMC BOM option
* The data transfer rate will be limited by device specification

3U VPX Test Frame

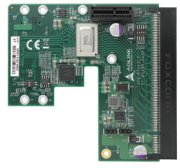
Product Type	9-slot Test Frame
Form Factor	VPX 3U
Dimensions	142.6mm (H) x 209.9mm (W) x 276.28mm (D)
Blade Support	Conduction cooled VPX 3U blades
Backplane Support	3-slot
RTM Support	Yes
Cooling	Passive fins
Power	User define



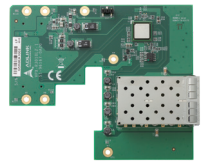
3U VPX Test Frame



VPX-R3010



VPX-R3010L2



VPX-R3010L2-1

VPX3010 Series

Ordering Information

Processor Blades

- **VPX3010/1559/M16/S32/XMC-R1**
  3U VPX processor board with Intel® Xeon® D-1559, DDR4 16GB, SLC 32GB, dual 10G-KR, dual GbE Base-T, VGA, 2x USB 3.0, XMC slot with coating & ETT -40°C to +75°C, conduction cooled
- **VPX3010/1559/M16/S32/P16-R1**
  3U VPX processor board with Intel® Xeon® D-1559, DDR4 16GB, SLC 32GB, PCIe x16, dual 10G-KR, 1GbE Base-T and GbE Base-BX, VGA, 2x USB 3.0, with coating & ETT -40°C to +75°C, conduction cooled
- **VPX3010/1539/M16/S32/P16-R1**
  3U VPX Processor Board with Intel® Xeon® D-1539, DDR4 16GB, 32GB, PCIe x16, dual 10G-KR,1GbE Base-T and GbE Base-BX, VGA, 2x USB 3.0, with coating & ETT -40°C to +75°C, conduction cooled
- **VPX3010/1559/M32/S64/XMC-R1**
  3U VPX processor board with Intel® Xeon® D-1559, DDR4 32GB, SLC 64GB, dual 10G-KR, dual GbE Base-T, VGA, 2x USB 3.0, XMC slot with coating & ETT -40°C to +75°C, conduction cooled

Rear Transition Modules

- **VPX-R3010**
  RTM for VPX3010 with GbE, SATA, USB 3.0/2.0, RS-232, GPIO, XMC, 0.8” front panel
- **VPX-R3010L2**
  RTM for VPX-R3010 with PCIe x16 slot, PCIe x1 slot
- **VPX-R3010L2-1**
  RTM for VPX-R3010 with 10G SFP+ connector

Accessories

- **VPX-TF3090**
  3U VPX conduction cooled test frame with tBP-VPX3000

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