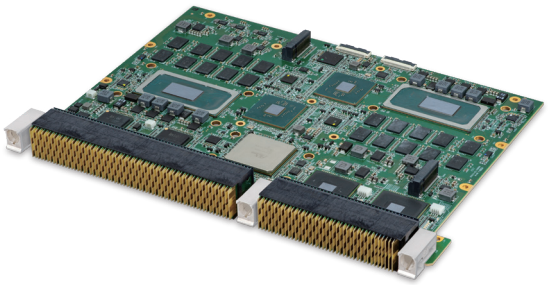
ADLINK
LEADING EDGE COMPUTING

6U VPX Dual Nodes Blade with Intel® Xeon® W-11865MRE

VPX6200

Datasheet



VPX VPX REDI OpenVPX CONDUCTION COOLED

Features

- Dual nodes, redundancy architecture
- Intel® Xeon® W-11865MRE processor (formerly Tiger Lake-H) per node
- Dual channel 32GB DDR4-3200 soldered with ECC per node
- M.2 2242 slot per node (upgradeable to 1TB by option)
- VITA 46/48/65 compliant for quick deployment
- Supports Windows 10 IoT Enterprise LTSC 21H2 and Linux (kernel 5.13 and higher)

Specifications

Processor & System	Architecture	Dual nodes, redundancy architecture
	CPU	Intel® Xeon® W-11865MRE per node (formerly Tiger Lake-H) TDP 45W
	Chipset	Intel® RM590E chipset per node
	Memory	Dual channel 32GB DDR4-3200 soldered with ECC per node
	BIOS	AMI® UEFI BIOS, Dual BIOS per node 32MB SPI flash memory per node
	VITA Standards	VITA 46/48/65 compliant
	Module Profile	MOD6-PAY-4F2T-12.2.2
	Slot Profile	SLT6-PAY-4F2T-10.2.2
Connectivity	Data Plane	2x 10GBase-KX4 to P1 per node
	Control Plane	1x 1000Base-T to P4 per node
	User Defined	1x 1000Base-KX to P4 per node 1x 1000Base-T + 1x 1000Base-BX (BOM option: 1000Base-KX) to P5 for node A 1x 1000Base-T + 1x 1000Base-BX (BOM option: 1000Base-KX) to P6 for node B 3x PCIe Gen3 x8 to P2, P3, P4, P5 1x PCIe Gen3 x2 to P3 for node A 1x PCIe Gen3 x2 to P4 for node B

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Specifications

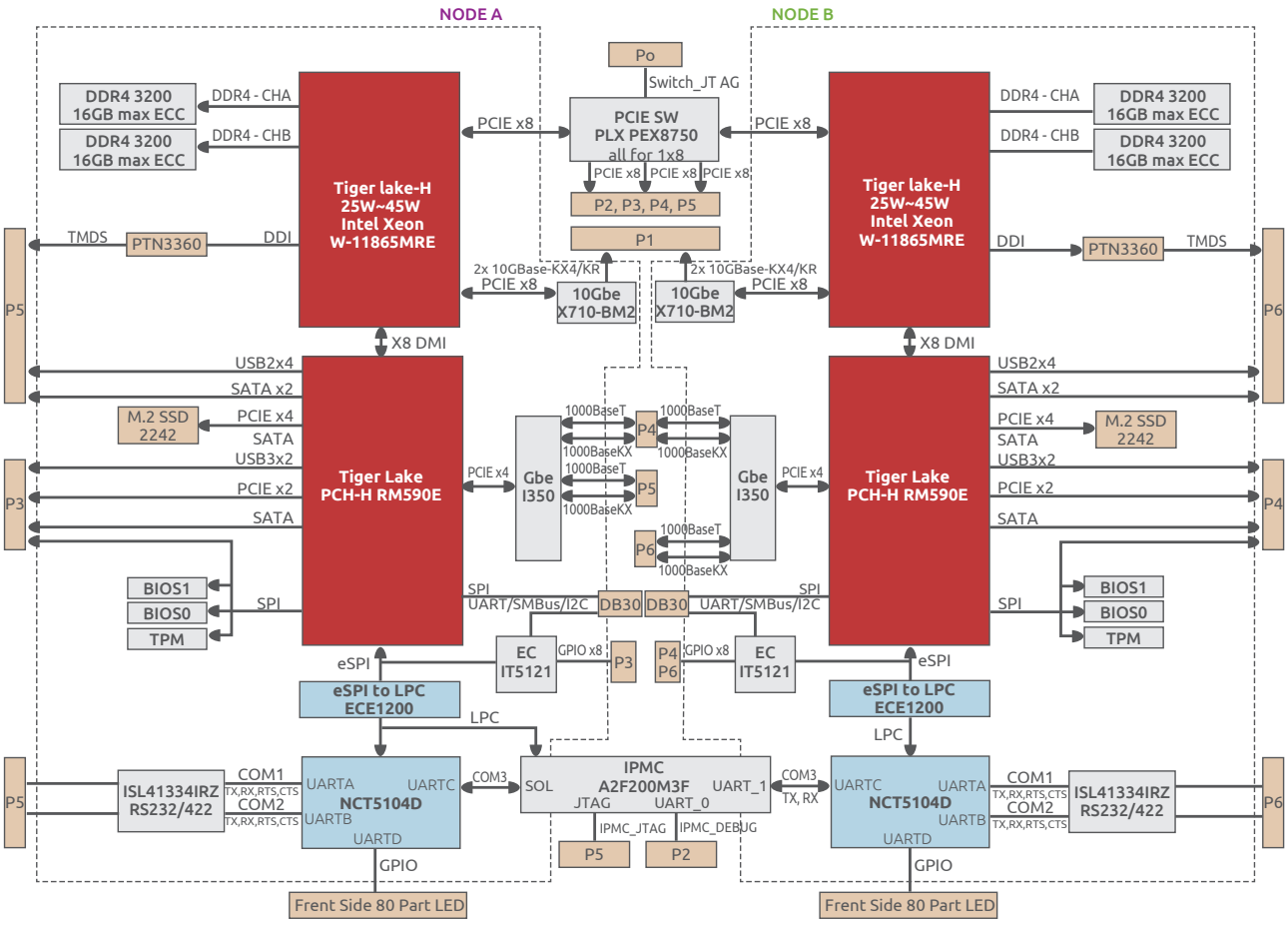
Connectivity	Video	1x HDMI 1.4 to P5 for node A (HDMI is NOT hot-pluggable in BIOS mode) 1x HDMI 1.4 to P6 for node B (HDMI is NOT hot-pluggable in BIOS mode)
	USB	2x USB 3.2 Gen 1 to P3 for node A 2x USB 3.2 Gen 1 to P4 for node B 4x USB2.0 to P5 for node A 4x USB2.0 to P6 for node B Supports USB 3.0 power (supply 0.9A) with overcurrent protection Supports USB 2.0 power (supply 0.5A) with overcurrent protection
	Serial Port	2x RS-232/422 to P5 for node A (COM1, COM2) 2x RS-232/422 to P6 for node B (COM1, COM2) Max. data rate for RS-232/422 is 115200bps RS-232/422 mode configuration via BIOS
	GPIO	8x GPIO to P3 for node A 8x GPIO to P4, P6 for node B 3.3V singling GPIO pins routed to RTM (3.3V with level trigger)
Storage	SATA	1x SATA 6Gb/s to P3 + 2x SATA 6Gb/s to P5 for node A 1x SATA 6Gb/s to P4 + 2x SATA 6Gb/s to P6 for node B
	M.2	1x M.2 M key 2242 slot per node Supports interface: PCIe3.0 x4 and SATA3.0 Supports module height: S1, S2, D1, D2 (D2 is default)
Security	TPM	Discrete TPM 2.0 chip Supports Intel Secure Boot (UEFI)
	BIOS	Dual BIOS support
Power Requirement	Power Input	12V (VS1/VS2) 5V (VS3) 3.3V_AUX only
	Power Consumption	Max. 100W
Operating System	Windows	Windows 10 IoT Enterprise LTSC 21H2
	Linux	Linux (kernel 5.13 and higher)
Miscellaneous	Watchdog Timer	System reset and NMI, with programmable interval, 0-6553 seconds via IPMC
	Hardware Monitor	Monitors CPU temperature, system temperature, Vcore and DC voltages
	IPMC	SmartFusion SoC provides IPMI software functions Firmware updateable (via JTAG pin header of VPX6200-RL1)
	Serial Over LAN	SOL port via IPMC (COM3) for node A
	Management Port	Management port via UART (COM3) for node B
	DB30 Port	2x DB30 ports in the front panel for each node in order to flash BIOS and EC even if the system is unbootable
	Heater	Built-in heater enhances low operating temperature capability
	LEDs	Status LED on front panel
	Reset Button	Reset button on front panel
Mechanical	Form Factor	6U VPX, conduction-cooled construction, 0.85” pitch (VITA 48.2)
	Thermal Dissipation	Conduction-cooling by wedge lock
	M.2 Storage Cover	Aluminum covers with heatsink design per node for M.2 storage installation

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Specifications

Environmental	Operating Temp.	-40°C to +85°C at wedge locks (VITA47.0, ECC4-CC4)
	Storage Temp	-55°C to +105°C
	Vibration	Random: 12Grms, 5Hz to 2000Hz (VITA47.0, ECC4-V3) Sinusoidal: 5g, 20Hz to 2000Hz
	Shock	40g, 11 ms (VITA47.0, ECC4-OS2)
	Relative Humidity	95% non-condensing
	Altitude	40,000 ft. (operating)
	MTBF	105,594 hours (without SSD) *according to MIL HDBK 217F Notice 2
	EMC	CE (EN555032 / EN55035) ; FCC Part 15B Class A

Block Diagram

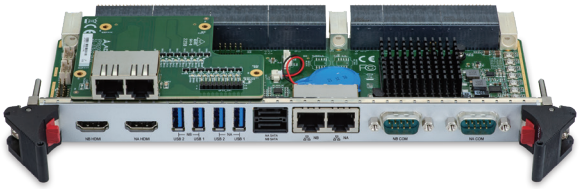


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Ordering Information

Processor Blades	
VPX6200/W11865MRE/M32/STD	6U VPX dual nodes blade with Intel® Xeon® W-11865MRE, 32GB DDR4-3200 w/ECC per node, conformal coating, ETT(-40°C to +85°C), conduction-cooled

Rear Transition Modules	
VPX6200-RL1	VPX6200 RTM L1 board, ETT(-40°C to +85°C), air-cooled



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