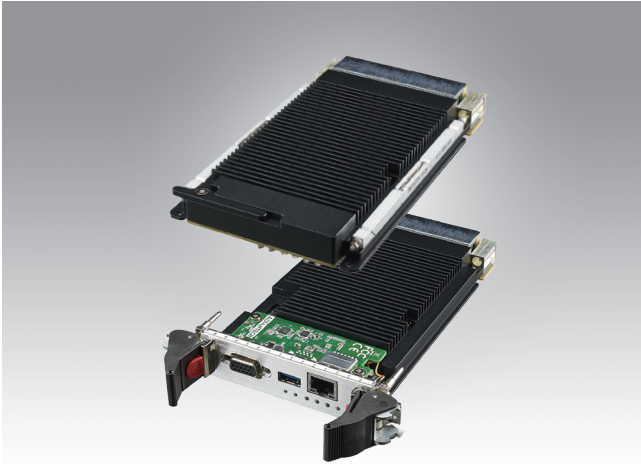


MIC-6330

3U OpenVPX CPU Blade with Intel® Xeon® Processor E3v5 and E3v6 family



Features

- Intel® Xeon® E3v5 and E3v6 Processor family
- Intel® CM236/ CM238 PCH
- Multiple display support
- OpenVPX MOD3-PAY-2F2U-16.2.3-3 profile compliant
- Onboard 16GB DDR4-2133 with ECC support
- Configurable PCIe x8 ports on Data Plane
- Two 1000Base-BX ports on Control Plane
- Optional I/O module for front panel access
- Onboard flash storage device



Introduction

Based on the Intel® Xeon® E3 Lv5 and Lv6 embedded platform, the MIC-6330 builds on the success of Advantech's 6U VPX boards, and is the first 3U VPX product launched by Advantech. Together with the Intel® processor, the MIC-6330 offers intense computational ability in a very compact form factor. The MIC-6330 provides configurable connectivity (up to four ports) of PCI Express via the backplane to the highest performance mainstream peripherals and I/O cards, and vast I/O functions for extended interconnectivity and controllability.

The MIC-6330 meets various computing needs, including vPro™ and workstation capabilities, by using the Intel® CM236/CM238 PCH. The MIC-6330 offers high storage capacity at up to SATA 6Gbps transfer speed. Four USB 2.0 ports and one USB 3.0 port to the backplane fulfill requirements for extra I/O ports or storage, up to 5Gbps data rate. Four GbE ports (two ports configurable as SERDES) support system level IP connectivity, and the UART interfaces (RS-232/422/485 selectable) can be leveraged as an interface to legacy devices and consoles. Like Advantech's 6U VPX products, the MIC-6330 supports multiple displays, and the maximum resolution of the MIC-6330 is 4K, empowered by the Intel® integrated graphics engine. The MIC-6330 also offers a High Definition Audio to the backplane interface for media demands.

With the standard ruggedized convection cooled heatsink or the optional air-cooled heatsink, the MIC-6330 is tailored for harsh environmental applications and adaptable to various chassis designs. The industrial NAND Flash, and the soldered onboard DDR4 ECC memory chips are appropriate for a variety of vehicle applications for the maximum reliability.

The MIC-6330 is sophisticated and suitable for various purposes. An onboard X8D XMC site with PCIe x8 gen.3 connectivity can host high speed offload or I/O mezzanines for project-specific applications. For applications that need the maximum expandability, the XMC interface can be modified to add another DisplayPort and the 2 more UART. The optional front I/O module facilitates the development and qualification process, and also enables the possibility of the front panel access.

Specifications

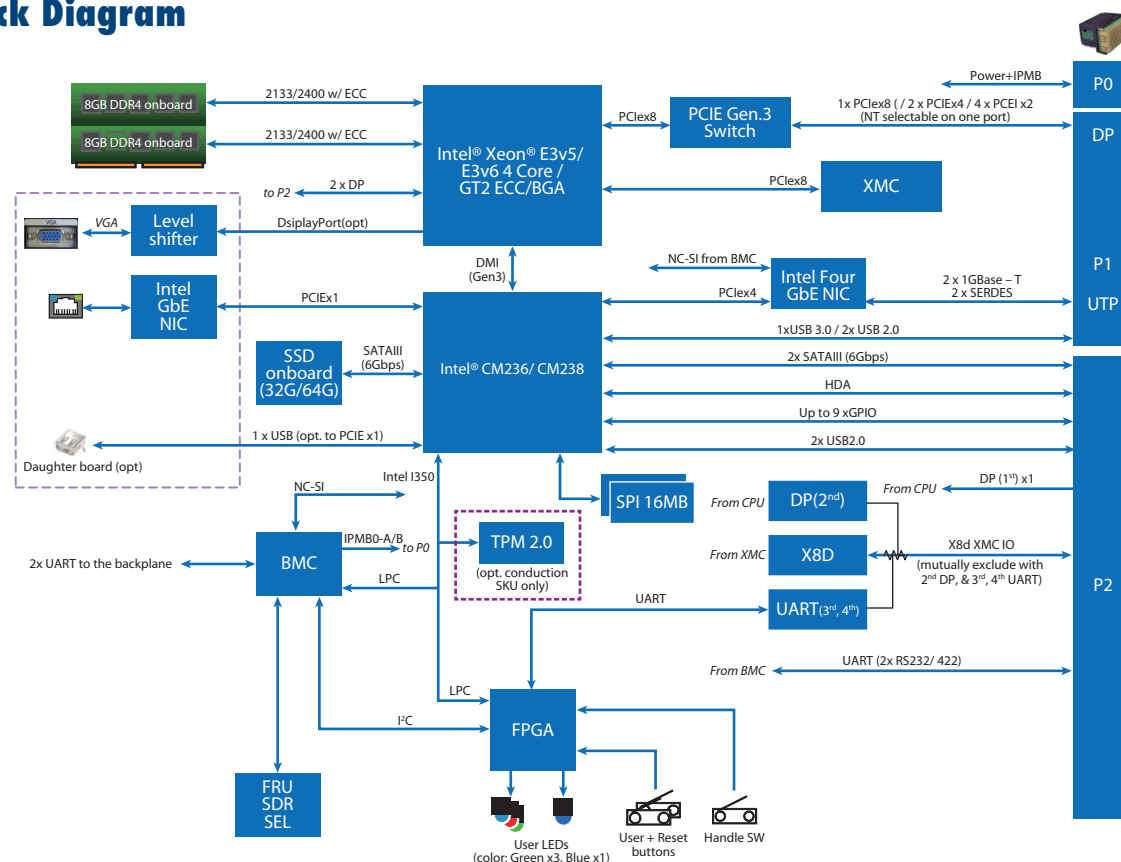
Processor System	CPU	Intel® E3-1505L v5/ v6
	Max. Speed	2.8 GHz
	Chipset	Intel® CM236/ CM238
	BIOS	Redundant AMI UEFI based 16MByte SPI flash
Memory	Technology	Dual bank DDR4 2133MHz w/ ECC/ 2400MHz w/ ECC (E3v6 family only)
	Capacity	16GB
VPX Interface	P1	1x PCIe x8 (NT Capable, configurable to 2 x PCIe x 4 or 4x PCIe x 2 from Gen.3 switch); 1 x USB 3.0; 2 x USB 2.0
	P2	2x 10/100/1000Base-T; 2x 1000Base-BX
	Option 1	2x SATA-III; DPx1; 2x USB 2.0; 2x UART (mode selectable via FPGA setting); 1 x HDA
	Option 2	2nd DisplayPort, 3rd, 4th UART
Graphics	Controller	X8D
Ethernet	Controller	Intel® HD Graphics P530/ P630
	Controller	Intel® i350-AM4 Quad Port Gigabit Ethernet Controller to backplane Intel® i210AT Single Port Gigabit Ethernet Controller to front panel
Front panel I/O module	Ethernet	1 x RJ-45 10/100/1000BASE-T
	USB	1x USB 2.0/3.0
	Display	VGA
Operating System	Compatibility	Linux (with the kernel 3.10 or above); Windows10, Windows 7*
Storage	Onboard Flash	64 GB SATA
Security	Trusted Platform Module	2.0
Power Requirement	Consumption	45W total power envelope with 25W CPU
Physical Characteristics	Dimensions	160.00 x 100.00 mm (6.3" x 3.95") (W x D), 5HP (H)
	Weight	0.54 kg without peripherals

Specifications (Cont.)

Environment (POR)		Operating	Non-operating
	Temperature	-40 ~ 70 °C (convection cooled)	-55 ~ 105 °C
		-40 ~ 85 °C (card edge, conduction cooled)	
	Humidity	95%@40°C, non-condensing	95%@60°C, non-condensing
	Operation Shock	VITA 47, QS2	
	Vibration	VITA 47, V3	
Compliance	Altitude	50,00ft above sea level	60,000ft, -40°C above sea level
	VPX	OpenVPX (VITA 65), REDI (VITA 46.2)	
	Safety	FCC class A, CE, RoHS	
	EMC	FCC47 CFR Part15, Class A, CE Mark (EN55022/EN55024/EN300386)	

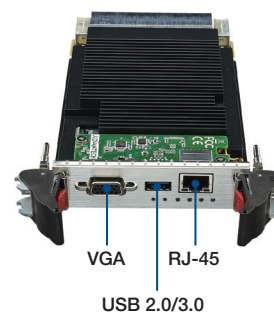
*Will need to patch the proper driver

Block Diagram



Ordering Information

Model number	Configuration
MIC-6330-A1A4E	MIC-6330 with Intel® E3-1505Lv5, 64GB onboard flash, front I/O module
MIC-6330-A1C4E	MIC-6330 with Intel® E3-1505Lv5, 64GB onboard flash
MIC-6330-A2C4E (preliminary)	MIC-6330 with Intel® E3-1505Lv5, 64GB onboard flash, TPM and XMC site
MIC-6330-B1C4E (preliminary)	MIC-6330 with Intel® E3-1505Lv6, 64GB onboard flash and TPM



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