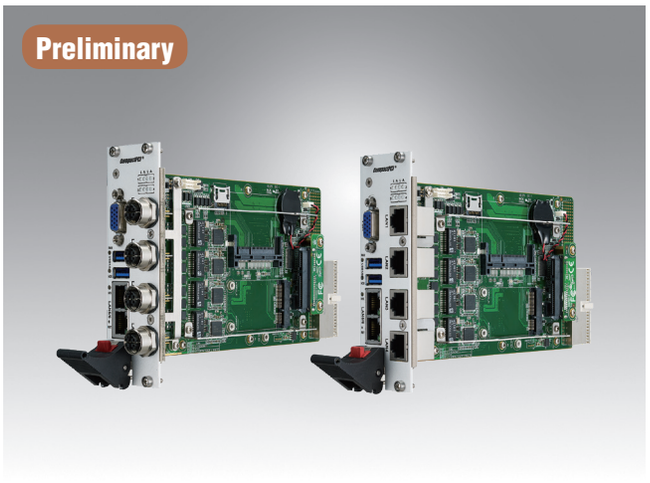
MIC-3332

3U CompactPCI PlusIO Intel® 6th Gen. Quad- Core™ Processor Blade



Features

- Intel® latest 6th Gen 14nm Xeon®/Core™ processor with CM236 PCH
- Up to 16GB DDR4-2133 soldered memory with ECC or Non-ECC
- Multi-option storage as 2.5" SATA, Cfast, Mirco SD, etc
- 2 RJ45 GbE LAN, 2 USB3.0, 1VGA on front 4HP panel
- 4 M12 X-Coding or 4 RJ45 GbE LAN on 8HP XTM-2 front panel
- Design to meet EN50121-4 & EN50155 for railway application
- PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.3 Compliant

Fully Compliant with EN 50121-4 | Fully Certified with EN 50155 | CE FCC | RoHS COMPLIANT 2002/95/EC

Introduction

Advantech MIC-3332 Series, using Intel® latest 14nm technology (code name: Skylake) to provide significant performance and power efficiency.

MIC-3332 series,as a 3U CompactPCI® processor blade, is featured with a 4 cores/8 threads Core™ i7 Processors i7-6822EQ, i7-6820EQ, Xeon® Processor E3 v5 Family as E3-1505M v5 and E3-1505L v5, mating with Intel® CM236 platform Chipset Hub to support single channel up to 8GB or 16GB soldered DDR4@2133MHz memory. The graphics is embedded in processor to offer up to three independent displays per request. It is available in single and dual slots width form factors, to offer various I/O connectivity by XTM (8HP) ,Rear IO extensions and PlusIO.

Front panel I/O on the single slot (4HP) provides 2xRJ45 GbE ports,1xVGA port and 2xUSB3.0 port. Front panel I/O on the second layer (XTM-2) provides 4xGbE port by M12 X-coding or RJ45 connectors, there are various types of storage as on board 2.5" SATA connector, Cfast socket. Additional 1x Micro-SD slot is as extension options based on user request.

MIC-3332 provides an ideal solution for railway rolling stock, high-performance computing and military application. With its optimized design on EMC & thermal, it is available to meet or exceed EN50155 and EN50121-4.

Specifications

Processor System	CPU	Intel® E3-1505LV5,4C/8T,2.0GHz, ECC, TDP 25W Intel® E3-1505MV5,4C/8T,2.8GHz, ECC , TDP 45W Intel® Core i7-6822EQ,4C/8T, 2.0GHz,w/o ECC, TDP 25W Intel® Core i7-6820EQ,4C/8T,2.8GHz,w/o ECC, TDP 45W
	BIOS	Dual AMI 16 MB SPI flash
Memory	Technology	Single Channel DDR4@2133 MHz with ECC or Non-ECC
	Max. Capacity	Up to 8GB or 16GB soldered on board memory
Compact PCI Interface	J1 Connectors	32bit/33MHz PCI local bus
	J2 Connector	RTM
	Mode	System Master/Drone
Graphics	Chipset	Integrated in processor
	Resolution	1920 x 1200 @ 60Hz
Ethernet	Controller	Intel® WGI210 Gigabit Ethernet Controller
	Interface	PCIe 1.0x1, 10/100/1000 Base T Ethernet
	I/O Connector	2 x RJ45 GbE LAN port to 4HP front panel 4 x RJ45 or 4 x M12 GbE LAN port to 8HP front panel 2 x RJ45 to RIO (more ethernet to RIO per request)
Storage	Mode	SATAIII
	On board Connector	1 Channel to XTM on board 2.5" SATA connector 1 Channel to XTM on board Cfast socket 3 Channels to RTM
	Mode	USB2.0
	On board Connector	1 x Micro SD socket
Front I/O	USB	2 x USB3.0 TypeA
	VGA	1 x VGA
	LAN	4HP with 2 x 10/100/1000Mbps on RJ45, 8HP with 4 x 10/100/1000Mbps on M12 X-coding or RJ45
	Front Panel LEDs	x1 blue/Orange for Hot Swap/HDD, x1 green for Power/Master/Drone mode
	Buttons	System reset button
Plus IO or RTM interface (4HP J2)	USB	4 x USB2.0
	SATAIII	2 x SATAIII (1 x SATAIII option)
	LAN	2 x10/100/1000BASE-T Ethernet
	PCIe	4 x PCIex1 Gen2 (1 x eDP option)

Last updated: 20-Nov-2019

Specifications (Cont.)

RIO (4HP)	USB	2 x USB2.0 TypeA	
	VGA	1 x VGA	
	LAN	2 x 10/100/1000Mbps on RJ45	
	Others	2 x SATA2.0 interface to M.2 B key Connector (22*42mm)	
Watchdog Timer	Output	Local reset & interrupt	
	Interval	Programmable 1s ~ 255s	
Operating System	Compatibility	Windows10, windows7, Ubuntu 18.04, Centos7.5	
Power Requirement	Configuration	CPU TDP 25W/45W, 8HP	
	Consumption	30W/50W	
Physical	Dimensions (W x D)	3U/ 4HP&8HP: 100 x 160 mm (front board)	
Environment		Operating	Non-operating
	Temperature	0 ~ 55 °C (32 ~ 122 °F)	-40 ~ 85 °C (-40 ~ 185 °F)
	Humidity	95 % @ 40 °C, non-condensing	95 % @ 60 °C, non-condensing
	Vibration	2 Grms (with SSD or Cfast)	2Grms
	Shock	10 G, 11ms, each axis three times	
Regulatory Compliance	Conformance	FCC Class A, CE, RoHS,	
	Standards	PICMG2.0 R3.0, PICMG2.1 R.0, PICMG2.30 PlusIO Compliance	

Supported CPU Configurations

Intel® CPU Model Number	# Cores	Freq.	Smart Cache	Memory Types	CPU TDP
Intel® Core™ i7-6822EQ	4	2.0GHz	8 MB	DDR4-2133, Non-ECC	25W
Intel® Core™ i7-6820EQ	4	2.8GHz	8 MB	DDR4-2133, Non-ECC	45W
Intel® Xeon® E3-1505M v5	4	2.8GHz	8 MB	DDR4-2133, ECC	45W
Intel® Xeon® E3-1505L v5	4	2.0GHz	8 MB	DDR4-2133, ECC	25W

Ordering Information

Single board	Front Panel					Main On board Features						
	4HP			XTM		4HP		XTM			Others	
	LAN (RJ45)	USB3.0	VGA	LAN (M12)	LAN (RJ45)	CPU	Memory[1]	SATA Conn.	Cfast Socket	Micro-SD Socket	Slot Width	PlusIO
MIC-3332C1-D1E	2	2	1	-	4	i7-6822EQ	8GB	1	1	1	2	No
MIC-3332C3-D1E	2	2	1	4	-	i7-6822EQ	8GB	1	1	1	2	Yes
MIC-3332D1-D1E	2	2	1	4	-	i7-6820EQ	16GB	1	1	1	2	No

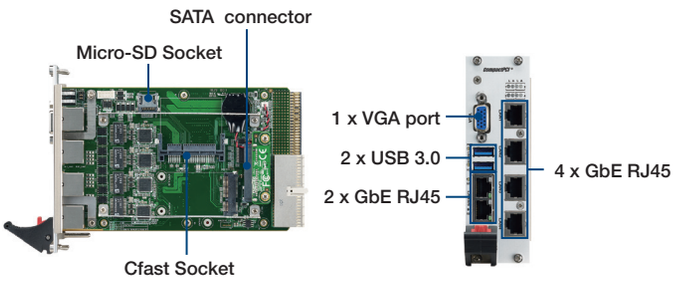
Notes: 1. Intel® Xeon® E3-1505L v5 and E3-1505M v5 with ECC support per request

Related Products

Peripheral board	Description
MIC-3955	3U CPCI 4 or 8-port RS232/422/485 communication card, with RIO support
MIC-3958	3U CPCI 4/2 port RJ45 or M12 X-code Gigabit Ethernet Card, with RIO support
MIC-3022	3U or 4U enclosure for 3U cards, with RIO support
MIC-3954	3U CPCI-S SSD carrier card/miniPCIe card
MIC-3332 RIO Board	3U CPCI MIC-3332 RIO Board with 2 x USB2.0, 1 x VGA, 2 x RJ45 IO ports

Storage/IO

MIC-3332C series with 4 RJ45



MIC-3332D series with 4 M12