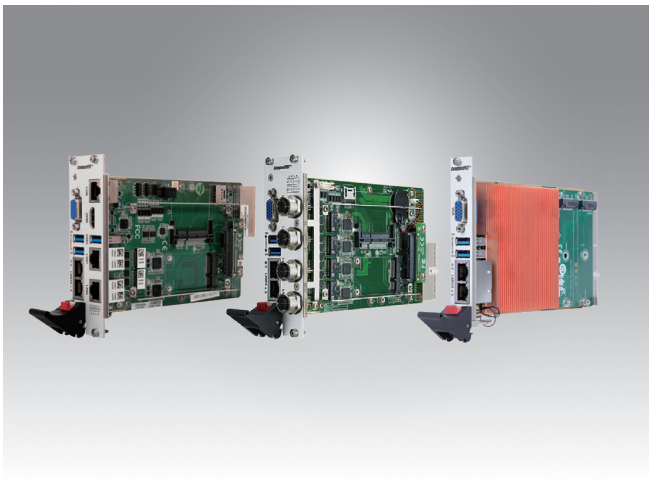
MIC-3332

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



Features

- Intel® 6th Gen 14nm Xeon®/Core™ processor with CM236 PCH
- 8G or 16GB DDR4-2133 soldered memory with ECC or Non-ECC
- Multi-option storage as 2.5" SATA, 2280 M.2, Cfast, Mirco SD, etc
- 2 RJ45 GbE LAN, 2 USB3.0, 1VGA on front 4HP panel
- 1 RJ45 COM, 1 HDMI, 1 USB3.0, 2 M12 X-Coding or 2 RJ45 GbE LAN on 8HP XTM-1 front 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 R2.0 Compliant

Introduction

Advantech MIC-3332 Series, using Intel® 14nm technology 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 16GB soldered DDR4@2133MHz memory. The graphics controller is Integrated in processor to offer up to three independent displays based on customer requests. It is available in single and dual slots width form factors, to offer various I/O connectivity by XTM (8HP), Rear IO extensions.

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 8HP XTM layer have multiple options: 8HP XTM-1 Board provides 1x RJ45 COM port, 1x HDMI display port, 1x USB 3.0 port, 2 x GbE LAN ports by M12 X-coding or RJ45 connectors; 8HP XTM-2 Board provides 4x GbE LAN ports by M12 X-coding or RJ45 connectors. There are various types of storages on 8HP XTM Board: 1x 2.5"SATA connector, 1xCFast socket on XTM-1 & XTM-2 Board; Additional 1 x Micro-SD socket is on 8HP XTM-2 Board; 2x 2280 M.2 style connectors are on XTM-3 Board.

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	AMI Aptio UEFI BIOS
Memory	Technology	Single Channel DDR4@2133 MHz with ECC or Non-ECC
	Max. Capacity	Up to 16GB soldered on board memory
Compact PCI Interface	J1 Connectors	32bit PCI local bus
	J2 Connector	RTM
	Mode	System Master/Drone
Graphics	Chipset	Integrated in processor
	Resolution	VGA: 1920 x 1200 @ 60Hz; HDMI: 3840 x 2160 @ 30HZ
Ethernet	Controller	Intel® WGI210IT Gigabit Ethernet Controller
	Interface	PCIe 1.0 Gen2 x1, 10/100/1000 Base T Ethernet
	I/O Connector	2 x RJ45 GbE LAN port to 4HP front panel 2 x RJ45 or 2 x M12 GbE LAN ports to 8HP XTM-1 front panel 4 x RJ45 or 4 x M12 GbE LAN ports to 8HP XTM-2 front panel
Storage	Mode	SATAIII
	On board Connector	1 x on board 2.5" SATA connector & 1 x Cfast socket on XTM-1 & XTM-2 board 2 x on board 2280 M.2 connectors on XTM-3 board 2 x SATA available for RTM
	Mode	USB2.0
	On board Connector	1 x Micro SD socket on 8HP XTM-2 board

All product specifications are subject to change without notice.

Last updated: 29-Nov-2022

Specifications (Cont.)

Front I/O	USB	2 x USB3.0 on 4HP; 1x USB 3.0 on 8HP XTM-1 board	
	VGA	1 x VGA	
	HDMI	1 x HDMI on 8HP XTM-1 board	
	COM	1 x RJ45 COM port default setting is RS232, RS422/485 could be set by the switch on 8HP XTM-1 board	
	LAN	2 x RJ45 GbE LAN ports to 4HP 2 x RJ45 or 2 x M12 GbE LAN ports to 8HP XTM-1 4 x RJ45 or 4 x M12 GbE LAN ports to 8HP XTM-2	
	Front Panel LEDs	1x blue/Orange for Hot Swap/HDD, 1x green for Power/Master/Drone mode	
	Buttons	System reset button	
RTM interface (4HP J2)	USB	4 x USB2.0	
	SATA II	2 x SATA II	
	LAN	2 x10/100/1000BASE-T Ethernet	
	PCIe	2 x PCIe x 1 Gen 1; 1 x eDP(co-lay with 2 xPCIe x1)	
Watchdog Timer	Output	Local reset & interrupt	
	Interval	Programmable 1s ~ 255s 1s step, generate reset signal	
Operating System	Compatibility	Windows10, Windows7, Ubuntu 18.04, Centos7.5, Vxworks 7.0	
Physical	Dimensions (W x D)	4HP or 8HP, 160.00 x 100.00 mm (6.30" x 3.95")	
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 and Cfast)	2Grms
	Shock	10 G, 11ms, each axis three times	
Regulatory	Conformance	FCC Class A, CE, RoHS,	
Compliance	Standards	PICMG2.0 R3.0, PICMG2.1 R2.0 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			8HP XTM					4HP		XTM (Conn./Socket/Pin head)					Others
	LAN (RJ45)	USB 3.0	VGA	LAN (M12)	LAN (RJ45)	COM	HDMI	USB 3.0	CPU	Memory[1]	SATA Conn.	Cfast Socket	M.2 Conn.	Micro-SD Socket	COM -Pin head[2]	Slot Width
MIC-3332C1-D1E	2	2	1	-	4	-	-	-	i7-6822EQ	8GB	1	1	-	1	1	2
MIC-3332D1-D1E	2	2	1	4	-	-	-	-	i7-6820EQ	16GB	1	1	-	1	1	2
MIC-3332C4-D2E	2	2	1	-	2	1	1	1	i7-6822EQ	8GB	1	1	-	-	1	2
MIC-3332C5-D2E	2	2	1	2	-	1	1	1	i7-6822EQ	16GB	1	1	-	-	1	2
MIC-3332C1-S1E	2	2	1	-	-	-	-	-	i7-6822EQ	8GB	-	-	2	-	1	1

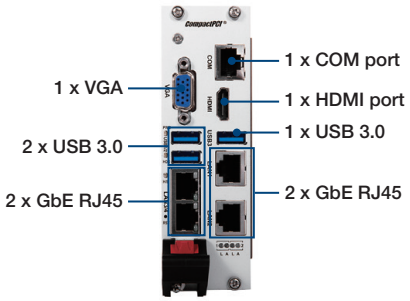
Notes: 1. Intel® Xeon® E3-1505L v5 and E3-1505M v5 with ECC support per request
2. COM pin head default setting is RS232, RS422/485 could be set by the switch on 8HP XTM-1 board

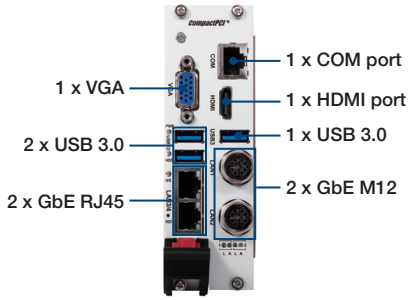
Related Products

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-3332 RIO Board	3U CPCI MIC-3332 RIO Board with 2 x USB2.0, 1 x VGA, 2 x RJ45 IO ports
MIC-3022	4U enclosure for 3U cards, with RIO and FAN support
MIC-3023	3U enclosure for 3U cards, with RIO and FAN support

Storage/IO

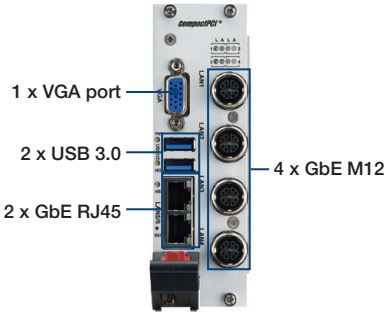
MIC-3332 8HP height with XTM-1 board IO functions





MIC-3332 8HP height with XTM-2 board IO functions



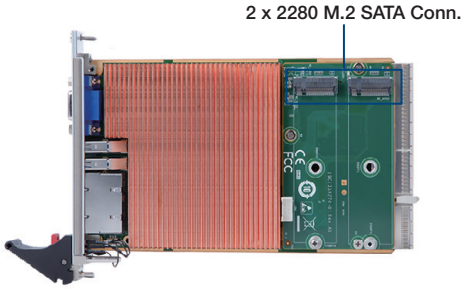


MIC-3332 4HP height with XTM-3 board IO functions



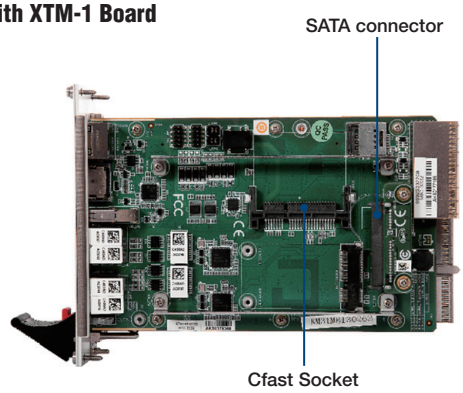
MIC-3332 series Storage functions

4HP with XTM-3 Board



MIC-3332 series Storage functions

8HP with XTM-1 Board



8HP with XTM-2 Board

