MIC-3329

Quad-Core Intel® Atom™ Processor 3U CompactPCI® Card

Features

- Supports Intel® Atom™ Processor E3845 (4 cores) and E3827 (2 cores)
- Supports up to 4GB DDR3L-1333 soldered ECC memory
- Optional extension module on 8HP and RIO for VGA, LAN, USB, PS/2, Audio, COM ports
- Supports fanless application with optimized heatsink design
- Designed to meet EN50121-4 and EN50155 for railway applications
- PICMG2.0 R3.0, PICMG2.1 R.0 Compliant

Fully Compliant with EN 50121-4   Fully Certified with EN 50155   RoHS COMPLIANT 2002/95/EC   CE FCC c(UL)us

Introduction

The Advantech MIC-3329 is based on Intel® Atom™ technology, previously codenamed Baytrail and is designed to provide balanced performance and power efficiency. The MIC-3329 is a 3U CompactPCI® processor blade designed for dual-core Intel® Atom E3827 and quad-core Intel® Atom E3845 processors, and up to 4GB soldered DDR3L-1066/1333 ECC memory. It is available in single and dual slot form factor, offering a range of I/O functionality by XTM (8HP) & Rear I/O extensions.

Front panel I/O on the single slot (4HP) provides 2 x RJ45 GbE ports (Switchable with RIO 4HP),1 x VGA port (Switchable with RIO 4HP), 1 x USB2.0 port and 1 x USB3.0 port.

Front panel I/O on the second layer (XTM) provides 2 x COM ports (RS232/422/485), 1 x PS/2 KB/MS and 1 x Audio ports.

Three types of storage device are available including an optional onboard 8GB SSD flash on the 4HP version, a Cfast socket on the Rear I/O 4HP version, a Cfast socket and a 2.5" on board SATA drive on the front second layer board.

The MIC-3329 provides an ideal solution for transportation, railway and factory automation applications. Its robust design from a layout and thermals perspective allows it to meet or exceed EN50155 and EN50121-4 using a very low TDP selection of 8W/10W processors.

Its low power consumption and industrial SoC features make the MIC-3329 a perfect fit for all fanless system applications.

Specifications

Processor System	CPU	Intel® Atom™ Processor E3827/E3845
	Max Speed	Up to 2MB L2 Cache, 1.91 GHz
	BIOS	2 x AMI 8 MByte SPI flash
Memory	Technology	Single Channel DDR3L 1333 MHz with ECC
	Max. Capacity	Up to 4GB on board
Compact PCI Interface	J1 Connectors	32bit/33MHz PCI local bus
	J2 Connector	RTM
	Mode	System Master/Drone (Stand alone)
Ethernet	Controller	Intel® WGI210AT SLJXR Gigabit Ethernet Controller
	Interface	PCIe 1.0 x 1, 10/100/1000 Base TX Ethernet
	I/O Connector	2 x RJ45 to 4HP front (Switchable with RIO 4HP)
Graphics	Chipset	Integrated in processor
	I/O Connector	1 x VGA to 4HP front (Switchable with RIO 4HP)
	Resolution	1 x VGA 2560 x 1600, 60Hz
Storage	Mode	SATA-II
	Channels	1 x 2.5" SATA Drive connector on front 8HP (optional to Cfast upon request) 1 x Cfast socket on RIO (switchable with 8GB SSD flash on front 4HP, upon request)
Front I/O	USB	1 x US2.0 type A, 1 x USB3.0 type A
	VGA	1 x VGA (Switchable with RIO)
	LAN	2 x 10/100/1000Mbps on RJ45 (Switchable with RIO)
	Front Panel LEDs	x 1 blue/yellow for Hot Swap/HDD, x 1 green for Power, and x 1 green for Master/Drone mode
	8HP (XTM)	2 x COM port on DB9 (RS232/422/485); 1 x PS/2 KB/MS; 1 x Audio Line-in/Line-out
	Buttons	System reset button

ADVANTECH   **CPCI Boards & Enclosures**

All product specifications are subject to change without notice.   Last updated: 21-Jun-2017

To RTM	USB	2 x US2.0 type A,	
	VGA	1 x VGA (Switchable with front)	
	LAN	2 x 10/100/1000Mbps on RJ45 (Switchable with front)	
	8HP (XTM)	2 x COM port on DB9 (RS232/422/485)	
BIOS	Boot Options	SATA, USB, network (PXE)	
Watchdog Timer	Output	Local reset	
	Interval	Programmable 1s ~ 255s	
Operating System	Compatibility	Windows7,Windows8.1,Linux, CentOS6.6	
Physical	Dimension & Weight	3U/ 4HP&8HP: 100mm x 160 mm	
Environment		Operating	Non-operating
	Temperature	-40 ~ 60° C (-40 ~ 140° F) Fanless	-40 ~ 85° C (-40 ~ 185° F)
	Humidity	95 % @ 40° C, non-condensing	95 % @ 60° C, non-condensing
	Vibration	2Grms (X,Y,Z 1H/axis, w/o HDD)	2G
	Shock	30 G, 11ms, each axis three times	
Regulatory	Conformance	FCC Class A, CE, RoHS EN50121-4, EN50155	
Compliance	Standards	PICMG2.0 R3.0, PICMG2.1 R.0	

Supported CPU Configurations

Intel® CPU Model Number	# Cores	Freq.	Cache	Memory Types	CPU TDP
Intel® Atom™ Processor E3827	2	1.75GHz	1 MB L2 Cache	DDR3L-1333	8W
Intel® Atom™ Processor E3845	4	1.91GHz	2 MB L2 Cache	DDR3L-1333	10W

Ordering Information

System board	Front panel								On board Features		
	LAN(1)	USB2.0	USB3.0	VGA(2)	COM	PS/2	Audio	CPU	Memory	SATA	Slot Width
MIC-3329B1-D1E	2	1	1	1	2	1	1	E3827	4GB	1	2
MIC-3329C1-D1E	2	1	1	1	2	1	1	E3845	4GB	1	2

*Note: (1)(2): 2 x LAN and 1 x VGA are switchable between front and RTM

RIO Board	Rear panel				On board Features	
	LAN(1)	USB2.0	VGA(2)	COM	Cfast Socket	Slot Width
MIC-3329R1-D1E	2	2	1	2	1	2

*Note: (1)(2): 2xLAN and 1xVGA are switchable between front and RTM

Recommended Configurations

CPU board	Rear I/O Board
MIC-3329xx-DxE Series	MIC-3329Rx-DxE Series
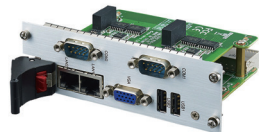
Related Products

Peripheral board	Description
MIC-3955	4-port RS232/422/485 communication card, with RIO support
MIC-3958	3U CPCI 4/2 port RJ45 Gigabit Ethernet Card, with RIO support
MIC-3953-AE	PMC carrier board
MIC-3022	4U enclosure for 3U cards, with RIO support
MIC-3023	3U fanless enclosure for 3U cards,w/o RIO support

Front Board

RIO Board