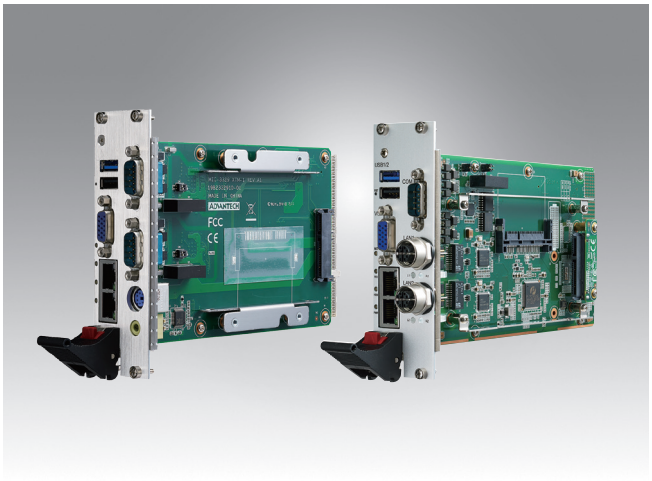
MIC-3329

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



Features

- Supports Intel® Atom™ Processor E3826/E3827/E3845
- 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

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 E3826/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 or 2 x M12 GbE ports, 1 x COM ports (RS232/422/485).

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 7W/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 E3826/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 1066/1333 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® WGI210 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); 2 x M12 Coded to 8HP front
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	Option 1: 1 x SATA connector and 1x Cfast connector on 8HP Option 2: 1 x SATA connector on 8HP and 1 x Cfast socket on RTM (Switchable with NAND flash, 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)	Option 1: 2 x DB9 COM; 1 x PS/2; 1 x Audio Line in/out Option 2: 1 x DB9 COM; 2 x M12 X-coded GbE
	Buttons	System reset button

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 E3826	2	1.46GHz	1 MB L2 Cache	DDR3L-1066	7W
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

	Front/Rear Panel									On Board Features	
	4HP					8HP XTM					
	RJ45 LAN(1)	USB2.0	USB3.0	VGA (2)	CPU	M12 LAN	COM	Audio	PS/2	SATA Conn.	Cfast Socket
P/N List	**Front Board**										
MIC-3329A1-D2E	2	1	1	1	E3826	2	1	NA	NA	1	1
MIC-3329C1-D2E	2	1	1	1	E3845	2	1	NA	NA	1	1
MIC-3329B1-D1E	2	1	1	1	E3827	NA	2	1	1	1	NA
MIC-3329C1-D1E	2	1	1	1	E3845	NA	2	1	1	1	NA
P/N List	**RIO Board**										
MIC-3329R1-D1E	2	2	NA	1		NA	2	NA	NA	NA	1

Notes:
*(1)(2) are switchable between front and rear boards.*On board NAND flash is requested by customer.

Related Products

Peripheral board	Description
MIC-3955	4 or 8-port RS232/422/485 communication card, with RIO support
MIC-3958	3U CPCI 4/2 port RJ45 or M12 X-Xcode Gigabit Ethernet Card, with RIO support
MIC-3022	3U or 4U enclosure for 3U cards, with RIO support

Front Board

RIO Board