

MIC-3326

3U CompactPCI Intel® Atom™ N455 Low Power Processor Blade

NEW



Features

- Dual Core Intel® Atom™ single core N455 processor
- Intel® I/O Controller Hub 8-Mobile (ICH8M)
- 2 GB DDR3 onboard 667 MT/s
- Optimized CompactFlash socket on single board computer (4HP)
- CFast or 2.5" SATA SSD on 8HP
- Two 10/100/1000Mbps ports, two USB ports, 1 VGA port on front panel
- 2 fiber ports, 2 RJ45 ports, or 4 RJ45 ports on 8HP second layer
- Conduction cooled
- PICMG2.0, R3.0, PICMG2.1, R2.0 compliant



Introduction

Advantech's MIC-3326 is a 3U CompactPCI single core processor blade based on the Intel® Atom™ N455+ICH8M two-chip platform. It provides the low power and cost-effective performance, and with easier validation. The MIC-3326 fully utilizes the I/O features of the Intel® chipsets, including an integrated memory controller (IMC), integrated graphics processing unit (GPU) and integrated I/O (IIO) such as DMI. The low power requirements of the Intel® Atom™ processor makes operation in elevated temperature ranges possible. Breakthrough memory design puts up to 2GB SDRAM on board, while keeping the speed at DDR3 800MT/s. The direct-soldered CPU and memory provide less weight and higher shock/vibration resistance than socket devices. With such benefits, the MIC-3326 can be used in mission-critical applications such as energy, transportation, traffic control, test and measurement (T&M) as well as critical data acquisition & control applications.

MIC-3326 uses the Intel ICH8M as the PCH, which provides extensive I/O support. The Integrated Gigabit Ethernet Controller can operate at multiple speeds (10/100/1000 Mb/s) and in either full duplex or half duplex mode. A flexible 8HP extension module design provides the MIC-3326 with great flexibility and additional I/O connectivity to the customer. For more connectivity details, please contact an Advantech representative.

Specifications

Processor System	CPU	Intel Atom N455 Single Core 1.66 GHz	
	Max. Speed	1.66GHz	
	Chipset	Intel ICH8M @ Pine View-D Platform	
	BIOS	SPI 2-MByte BIOS	
	DMI	100 MHz reference clock	
CompactPCI Interface	J1 Connector	32-bit PCI local bus (33MHz)	
	J2 Connector	RTM area	
Memory	Technology	DDR3-667 SDRAM	
	Max. Capacity	2 GB	
	On board/socket	On board	
Graphics	Chipset	Integrated in Intel Atom N455	
	Resolution	Intel Atom N455 Single Core up to 1400 x 1050 (SXGA)	
Ethernet (4HP)	Controller	2 x i82583V	
	Interface	10/100/1000 Mbps	
	I/O Connector	RJ-45 x 1 (front panel), RJ-45 x 1 (RTM)	
	Controller	ICH8M(MAC) + 82567(PHY)	
	Interface	10/100/1000 Mbps	
Ethernet (8HP)	I/O Connector	RJ-45 x 1 (front panel)	
	Controller	2 x IC plus + 2 x i82583V	
	Interface	100 Mbps fiber or 10/100/1000BASE-T	
	I/O Connector	SFP x 2 or RJ-45 x 2	
	Controller	2 x i82583V	
Storage	Interface	10/100/1000 Mbps	
	I/O Connector	RJ-45 x 4 (8HP front panel)	
	IDE	1 x CompactFlash Socket Type II, on 4HP	
	SATA		1 x Internal CFast connector on 8HP 2SFP version
			1 x SATA Board for SATA 2.5" SSD on 8HP 4RJ45 version

Specifications (Cont.)

Front I/O	VGA	DB15 Port	
	Ethernet	2 x 10/100/1000 Mbps RJ-45 connector	
	USB 2.0	2 x Type A ports	
	8HP-option A	2 x RJ-45, 2 x SFP	
	8HP-option B	4 x RJ-45	
RIO (J2 interface)	SATA 2	SATA-II (internal)	
	VGA	1 port	
	COM	2 ports (internal)	
	USB 2.0	2 ports	
	LAN LEDs	2	
Watchdog Timer	Supervision	0 ~ 255s, 1s step, generate reset signal	
Operating System	Compatibility	Microsoft Windows XP Professional, Windows 7, Windows XPE, Redhat6.1, Debian4.0, VxWorks6.9	
Power Requirement	Configuration	8HP, w/o RIO	
	Consumption	16.7W (8HP with peripherals)	
Physical	PCB Dimensions	4HP, 160.00 x 100.00 mm (6.30" x 3.95") (W x H)	
	Weight	0.4kg including XTM	
Environment		Operating	Non-operating
	Temperature	-25 ~ 55° C (-13 ~ 131° F)	- 40 ~ 85° C (-40 ~ 185° F)
	Humidity	5 to 95% @ 40° C (non condensing)	95% @ 60° C (non-condensing)
	Shock	10 G, 11ms, each face three times	30 G, 11ms, each face three times
	Vibration	1.06Grms (5 ~ 100 Hz)	Sine 2 Grms, 30mins each axis(5 ~ 500 Hz)
Regulatory	Conformance	FCC, Class A, CE, RoHS	
Compliance	Standard	PICMG 2.0 Rev. 3.0 compatible; PICMG 2.1 R2.0 CompactPCI Hot Swap Specification	

Ordering Information

Model Number	Configuration
MIC-3326N-D1E	MIC-3326 with N455 CPU, 2G RAM, 4 RJ45, 2 SFP, CFast dual slot
MIC-3326N-D2E	MIC-3326 with N455 CPU, 2G RAM, 6 RJ45, 2.5" SSD dual slot

Recommended Configurations

CPU Board	Enclosure	Rear I/O Board
MIC-3326	MIC-3022AE, MIC-3022CE	-

If you need other chassis or RIO, please contact your Advantech sales representative.

Related Products

Model Number	Configuration
MIC-3611/3-AE	4-port RS-232/422/485
MIC-3716/3-A	3U 250ks/s, 16-bit, 16-ch multifunction Card
MIC-3756/3-A	64-ch Isolated DI/O Card
MIC-3680/3-A	2-port CAN Card
MIC-3953-AE	MIC-3953 3U PMC carrier board
MIC-3665-AE	CompactPCI PMC with dual copper (RJ-45) Gigabit Ethernet interfaces