

Long-Term Supply Industrial PC

ATOM Model



Applications

- Best solution to replace PC with PCI bus
- Long term supply and service make easy transition
- More than 500 different PCI interface modules can be used
- Suitable for applications such as measurements, control, inspection, data logger and others
- Digital I/O, Analog I/O, Communication, Counter, Motion Image Detector, GP-IB are just a few example of modules that can be used

Overview

The ATOM Model, empowered by the Intel N450 1.66 GHz or the Intel D525 1.8 GHz, features low power consumption and high cost performance.

Features

- Rich Interface Connections
 - Analog RGB
 - USB Rev. 2.0 compatible
 - LAN (1Gbps) x 2
 - PS/2
 - RS-232C
 - Audio (Line output / microphone input)
- Wide Selections
 - PCI expansion slot is selectable from 4, 7 and 13-slot for PCI full and short sizes
- Boot Devices
 - HDD 320GB
 - CFAST
 - CF
- Long-Term Supply
 - New Platform will be supplied till 2020.
- Operating System
 - Windows Embedded Standard 2009
 - Windows XP Professional (until Dec 2016)
- Quiet Operation
 - No cooling fan for CPU

Specifications

CPU	Processor	Intel Atom Processor N450 1.66 GHz, Intel Atom Processor D525 1.80 GHz
	CPU Fan	No
Chip Set		GMCH CPU, ICH Intel NH82801HBM(ICH8-M)
Main Memory		1 GB
BIOS/Loader		Phoenix SecureCore BIOS
Calendar Clock		BR-1/2AA (Panasonic Corporation) (typical life time: 10 years)
OS		Windows Embedded Standard 2009 Windows XP Professional (until Dec 2016)
Storage	Boot Device	SATA HDD or CF (Select either one.)
Graphic	Controller	Built into CPU
	Resolution	[Atom N450] 1400×1050, 1280×1024, 1280×960, 1280×768, 1280×720, 1280×600, 1024×768, 800×600, 640×480 [Atom D525] 2048×1536, 1920×1200, 1920×1080, 1600×1200, 1680×1050, 1400×1050, 1280×1024, 1280×768, 1024×768, 800×600 * Maximum resolutions may vary depending on the operating system or graphic driver.
Interfaces	Display	1 port (15 pin D-sub connector): analog RGB
	Audio	Realtek, HD audio codec Line output x 1 (Φ3.5 stereo mini jack), Microphone input x 1 (Φ3.5 stereo mini jack) Line output: full scale output level 1.2 Vrms (typ.) Microphone input: full scale input level 1.6 Vrms (typ.)
	PS/2	1 port (6-pin round DIN connector)
	LAN	2 ports (RJ-45 connector), 1000BASE-T×2 (Intel WG82574IT), Wake On LAN
	USB	5 ports (USB Rev.2.0 Series A connector)
	RS-232C	1 port (9-pin D-sub connector) 16550 compatible, transfer rate: 115.2 kbps (max.)
	External Input/Output	-
	Switch	Power switch x 1, reset switch x 1
	RAS	Watch Dog Timer
Hardware Monitor		CPU temperature, board temperature, power supply voltage
Expansion Slot	Slot Count	4, 7, 13 slots (1, 2, 3 slots can be customized)
	Bus Requirement	PCI Local Bus Specification Rev2.1 (+5 V)
	Interrupt level	INTA through INTD
	Bus Clock	33 MHz
	Module Size	174.63 (D) x 122 (H) [mm]
Power Capacity	4 slots: 50 W 7 slots: 210 W	
Chassis Fan		Yes
Input Voltage		4 slots: 100 Vac (50 Hz/60 Hz) 7, 13 slots: 100 Vac to 240 Vac (50Hz/60Hz)
Power Consumption		[4 slots] Atom N450 : 20.1W [7 slots] Atom N450 : 24.7W Atom D525 : 21.6W Atom D525 : 26.2W
Dimensions (W x D x H [mm])		[Short size] [Full size] 4 slots: 151(W) x 235(D) x 155(H) 4 slots: 151(W) x 350(D) x 155(H) 7 slots: 304(W) x 285(D) x 160(H) 7 slots: 314(W) x 370(D) x 149(H) 13 slots: 430(W) x 285(D) x 160(H) 13 slots: 431(W) x 370(D) x 149(H)
Operating Conditions		Temperature: 0 degrees C to 50 degrees C (AC adapter: 0 degrees C to 40 degrees C, HDD: 5 degrees C to 50 degrees C Humidity: 20 % to 90 % (non condensing)
Environment Resistance		Vibration resistance: 1.0 G (max.) - Vibration frequency: 10 Hz to 150 Hz - Displacement amplitude 0.15 mm (half amplitude) - Acceleration amplitude 9.8 m/s ² (1 G) - Duration 75 minutes Shock resistance: 15 G (max.) - Duration of activity: 11 ms (not operating) Noise immunity: - Static electricity: in contact: +/-6 kV, in the air: +/-8 kV - Radiated electromagnetic field: 10 V/m - Conduction: 10 V/m - FTB: signal: 1 kV, power supply: 2 kV



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