

Vehicle Mounted Industrial Computer Atom N2800 Model



Front view



Rear view

RoHS

SEC-D019E

Applications

- Surveillance camera display terminal
- Digital signage contents output controls (inside trains & buses)
- Vibration test/measurements (inside trains & buses)
- Destination display control (inside trains & buses)
- Satellite broadcast van communication control

Overview

The Vehicle Mounted Industrial Computer Atom N2800 model features energy-efficient high-performance processing with its dual core CPU. It boasts rich interfaces using the Intel NM10 PCH chipset. CAN interface is included for vehicle mounted applications.

Features

- **Intel Atom N2800 Dual Core (1.86 GHz)**
Features high-speed and low power consumption of 12.8 W.
- **CAN interface port**
Provides an ideal solution to connect and control field-level devices in industrial automation such as automotive manufacturing.
- **Isolated general purpose digital input/output pins**
Connect easily to warning devices such as revolving warning lights and buzzers.
- **Wide range DC power input**
Supports a wide range DC power input from +6 Vdc to +36 Vdc (maximum rating)/ from +7 Vdc to +27 Vdc (continuous operation).
- **Embedded design**
Can be mounted on a wall, on a bottom surface, and attached by wiring. Complying with VESA standard, the product can be mounted to the back side of a display.
- **Low maintenance**
Due to its fanless design and 10-year maintenance-free battery used for calendar clock, no worries about the lifetime of the fan or battery.
- **Quick boot**
Boots the operating system in about 10 seconds with write filter and Hibernate Once Resume Many when HORM function is enabled. (BIOS boot excluded)
- **Wake On LAN**
Can turn on the system from another computer on the same local area network.

Specifications

Model	Standard Model			
Type	SEC-D019E	SEC-D119E	SEC-D219E	
CPU	Processor	Intel Atom Processor N2800 1.86 GHz		
	CPU Fan	No		
Chip Set	Intel NM10 Chipset			
Main Memory	2 GB (DDR3)			
BIOS/Loader	Phoenix SecureCore BIOS			
Calendar Clock Backup Battery	Large capacity battery (typical life time: 10 years) BR-1/2AA (Panasonic Corporation)			
OS	Windows 7 for Embedded Systems (32 bits), Windows Embedded Standard 7 (32bits), Interface Linux System 6 (32bits)			
Storage	Boot Device	CFast 16 GB		
	Auxiliary Device	CFast (Prepare a CFast card.)	HDD 500GB SSD 8GB	
Graphics	Controller	Built into CPU		
	Resolution	1920×1080(RB), 1600×1200, 1600×900, 1400×1050, 1280×1024, 1280×960, 1280×768, 1280×720, 1152×864, 1024×768, 800×600, 640×480 * Resolutions may vary depending on OS or graphic driver.		
Interfaces	Display	DVI-I × 1		
	Audio	Line output: stereo x 1 (stereo Φ3.5 mini jack), Microphone input x 1 (stereo Φ3.5 mini jack) HDAudio codecs 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 mini DIN connector) *Mouse and keyboard can share a connector using an optional splitter cable.		
	LAN	2 port (RJ-45 connector), Intel WG82574IT controller, 1000BASE-T, Wake On LAN compatible, Jumbo Frames compatible		
	USB	5 ports (USB Rev.2.0 Series A connector)		
	RS-232C	2 ports (9-pin D-sub connector) 16550 compatible, transfer rate: 115.2 kbps (max.)		
	RS-485	-		
	CAN	1 port (9-pin D-sub connector), high-speed CAN, transfer rate: 60 kbps to 1 Mbps		
	External Input/output	4-pin connector (e-CON)(power on/off x 1, RAS output x 1)		
	Digital Input/output	16-pin flat cable connector Isolated digital input x 4 (with interrupt function), Normally-open relay contact output x 4		
	Switch	Power switch		
	RAS	Watchdog Timer	Software programmable (1 to 255 seconds) Time-up notification is software selectable either reset or interruption	
		Hardware Monitoring	Board temperature/CPU temperature/ power supply voltage	
RAS Output		Output method: normally-open relay contact output x1, output conditions are software selectable from watchdog timer, board temperature, or power supply voltage.		
Chassis Cooling FAN	No			
Power Supply	Input Voltage	Typical : +7 Vdc to +27 Vdc (Continuous operation) Maximum : +6 Vdc to +36 Vdc, DC cable included (0.5 m, one end cable)		
	Power Consumption	12.8 W (typ.)		
	Power Supply for External Device	USB I/F: 5 V Maximum supply current: 1A per port *Total amount of all ports:1A		
Security Slot	Yes			
Dimensions (W x D x H)	210 × 150 × 29 [mm] (A5 paper size)			
Mounting Orientation	Upright, horizontal			
Weight	1.09 kg			
Operating Temperature	Temperature: 0 degrees C to +50 degrees C (SEC-D119E: +5 degrees C to +50 degrees C) Humidity: 10 % to 90 % (non-condensing)			
Storage Temperature/ Humidity	Temperature: -20 degrees C to 70 degrees C Humidity: 10 % to 90 % (non-condensing)			
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			
Vibration Resistance	Vibration resistance: 5.0 G (max.) (SEC-D119E: 1 G (max.)) - Vibration frequency: 10 Hz to 150 Hz - Displacement amplitude: 0.35 mm (half amplitude) (SEC-D119E: 0.075mm (half amplitude)) - Acceleration amplitude: 49 m/s ² (5 G) (SEC-D119E: 9.8 m/s ² (1 G)) - Duration: 75 minutes			
Shock Resistance	Shock resistance: 100 G (max.) (SEC-D119E: 50 G (max.)) - Duration of activity: 6 ms (not operating)			

Configuration Selections

System configurations are selectable depending on your requirement.

Model	Vehicle Mounted Industrial Computer Atom N2800 Model
CPU	Intel Atom N2800 1.86 GHz
Memory	<input type="checkbox"/> 1 GB <input type="checkbox"/> 2 GB
Display	<input checked="" type="checkbox"/> DVI-D (Fixed)
Boot Device	<input type="checkbox"/> CFast (4 GB) <input type="checkbox"/> CFast (8 GB) <input type="checkbox"/> CFast (16 GB)
Auxiliary Device	<input type="checkbox"/> None (CFast slot) <input type="checkbox"/> CFast (4 GB) <input type="checkbox"/> CFast (8 GB) <input type="checkbox"/> CFast (16 GB) <input type="checkbox"/> HDD (500 GB) <input type="checkbox"/> HDD (1 TB) <input type="checkbox"/> SSD (8 GB)
OS	<input type="checkbox"/> Interface Linux System 6 (L6) (32 bit) <input type="checkbox"/> Windows Embedded Standard 7 (32 bit) <input type="checkbox"/> Windows 7 Professional (32 bit) <input type="checkbox"/> Windows Embedded Standard 2009 (32 bit) <input type="checkbox"/> Windows XP Professional (32 bit)



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