

Vehicle Mounted Industrial Computer Core i7 (Haswell) Model



Front view



Rear view

RoHS

SEC-E017E

Applications

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

Overview

The Vehicle Mounted Industrial Computer Core i7 (Haswell) model, combining dual core and Hyper Thread Technology, can simultaneously operate four threads in parallel. This feature expands fast data processing and hybrid OS applications. The Turbo Boost Technology maximizes capability of the processor power by adjusting the operating frequency depending on operating temperature and processing data load.

Features

- [Intel Core i7 4650U \(Haswell\) \(1.70 GHz\)](#)
Features high-speed processing and applicable to hybrid OS.
- [4K ultra high-resolutions](#)
The display resolutions are 4K (3840x2160), the highest resolutions ever.
- [CAN interface port](#)
Provides high speed CAN interface; an ideal solutions to connect and control field-level devices.
- [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 wide range DC power input from +6 Vdc to +40 Vdc (maximum rating)/ from +7 Vdc to +37 Vdc (continuous operation).
- [Embedded design](#)
Can be fixed on a wall, on a bottom surface, and attached by wiring. Complying with VESA standard, the product can be fixed to the back side of a display.
- [No moving parts](#)
Without any moving parts such as a cooling fan and hard drive, the product is suitable for use in quiet environment such as hospitals and classrooms. Fanless and hard drive-less design reduce costs and burden of maintenance.
- [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

Type		SEC-E017E	SEC-E217E
CPU	Processor	Intel Core i7 4650U 1.70GHz	
	CPU Fan	No	
Chip Set		Intel Lynx Point-LP PCH	
Main Memory		4 GB (DDR3L)	
BIOS/Loader		Phoenix SecureCore Technology 3.0	
Calendar Clock Backup Battery		Large capacity battery (typical life time: 10 years), BR-1/2AA (Panasonic Corporation)	
OS		Windows Embedded Standard 7 (32 bits/64 bits) Windows 7 Professional for Embedded Systems (32 bits/64 bits) Interface Linux System 7 (L7) (32 bits/64 bits) Interface Linux System 7 (K7)(32bit/64bit)	
Storage	Boot Device	CFast 16 GB	
	Auxiliary Device	CFast (CFast card not included)	SSD 8GB
Graphics	Controller	Built into processor	
	Resolution	3840×2160, 2560×1600, 2560×1440, 2560×1080, 2048×1536, 2048×1152, 1920×1440, 1920×1200, 1920×1080, 1856×1392, 1792×1344, 1680×1050, 1600×900, 1440×900, 1400×1050, 1366×768, 1360×768, 1280×1024, 1280×960, 1280×800, 1280×768, 1280×720, 1280×600, 1152×864, 1024×768, 800×600, 640×480 * Resolutions may vary depending on OS ore graphic driver.	
Interfaces	Display	DVI-D × 1, DisplayPort v1.2 × 1	
	LAN	2 port (RJ-45 connector)	
	USB	2 ports (USB Rev.2.0 Series A connector), 4 ports (USB Rev.3.0 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, CAN termination resistor setting 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, CPU temperature, or power supply voltage.	
Chassis Cooling FAN		No	
Power Supply	Input Voltage	Typical : +7 Vdc to +37 Vdc (Continuous operation) Maximum : +6 Vdc to +40 Vdc, DC cable included (0.5 m, one end cable)	
	Power Consumption	T.B.D	
	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		T.B.D	
Operating Temperature		Temperature: 0 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.) - Vibration frequency: 10 Hz to 150 Hz - Displacement amplitude: 0.35 mm (half amplitude) - Acceleration amplitude: 49 m/s ² (5 G) - Duration: 75 minutes	
Shock Resistance		Shock resistance: 100 G (max.) - Duration of activity: 6 ms (not operating)	

Configuration Selections

System configurations are selectable depending on your requirement.

Model	Vehicle Mounted Industrial Computer Core i7 4650U (Haswell) Model
CPU	Core i7 4650U 1.70GHz
Memory	<input type="checkbox"/> 4 GB <input type="checkbox"/> 8 GB
Display	<input checked="" type="checkbox"/> DisplayPort, DVI-D (Fixed)
Boot Device	<input type="checkbox"/> CFast (4 GB) <input type="checkbox"/> CFast (16 GB) <input type="checkbox"/> CFast (32 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"/> CFAST (32 GB) <input type="checkbox"/> SSD (8 GB)
OS	<input type="checkbox"/> Interface Linux System 7 (K7) (32 bit) <input type="checkbox"/> Interface Linux System 7 (K7) (64 bit) <input type="checkbox"/> Interface Linux System 7 (L7) (32 bit) <input type="checkbox"/> Interface Linux System 7 (L7) (64 bit) <input type="checkbox"/> Windows Embedded Standard 7 (32 bit) <input type="checkbox"/> Windows Embedded Standard 7 (64 bit) <input type="checkbox"/> Windows 7 Professional (32 bit) <input type="checkbox"/> Windows 7 Professional (64 bit)



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