Vehicle Mounted Industrial Computer Atom E3845 (Bay Trail) Model

Front view

Rear view

RoHS

ETC-F019E

Applications

- Driver seat display terminal (construction vehicles such as cranes and forklifts)
- Surveillance camera display terminal (outside use)
- 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 Atom E3845 (Bay Trail) model features high-performance processing with its quad-core 1.91 GHz CPU. It runs over wide temperature range from -30 degrees C to +80 degrees C at starting, or -30 degrees C to +70 degrees C for continuous operation. CAN interface is included vehicle mounted applications.

Features

Intel Atom E3845 (Bay Trail) quad core (1.91 GHz)
Features high-performance and wide operating temperature range.

CAN interface port
Provides high speed CAN interface; an ideal solution 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 +0 Vdc to +40 Vdc (maximum rating)/ from +7 Vdc to +37 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.

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		ETC-F019E	ETC-F119E	ETC-F219E
CPU	Processor	Intel Atom Processor E3845 (BayTrail) 1.91 GHz		
	CPU Fan	No		
Chip Set		Built into processor		
Main Memory		4 GB (DDR3L)		
BIOS/Loader		Phoenix SecureCore Techology 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 (32 bits/64 bits) + i99-BASIC (L7B)		
Storage	Boot Device	CFast 16 GB		
	Auxiliary Device	CFast (CFast card not indluded)	HDD 100GB (Extended temperature)	SSD 8GB
Graphics	Controller	Built into processor		
	Resolution	2560×1600, 2560×1440, 2560×1080, 1920×1440, 1920×1200, 1920×1080, 1680×1050, 600×1200, 1440×900, 1280×1024, 1280×800, 1280×720, 1182×864, 1024×768, 800×600, 640×450		
Interfaces	Display	DisplayPort v1.1a×1		
	Audio	Realtek ALC898 Line output: stereo x 1 (stereo Φ3.5 mini jack), Microphone input x 1 (stereo Φ3.5 mini jack)		
	LAN	2 port (RJ-45 connector)		
	USB	4 ports (USB Rev.2.0 Series A connector), 1 port (USB Rev.3.0 Series A connector)		
	RS-232C	2 ports (9-pin D-sub connector), 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 : +0 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: -30 degrees C to +70 degrees C (ETC-F119: -15 degrees C to +60 degrees C) Humidity: 10 % to 90 % (non-condensing)		
Storage Temperature/ Humidity		Temperature: -40 degrees C to +85 degrees C Humidity: 20 % 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.) (ETC-F119E: 1 G (max.)) - Vibration frequency: 10 Hz to 150 Hz - Displacement amplitude: 0.35 mm (half amplitude) (ETC-F119E: 0.075mm (half amplitude)) - Acceleration amplitude: 49 m/s^2 (5 G) (ETC-E117E: 9.8 m/s^2 (1 G)) - Duration: 75 minutes		
Shock Resistance		Shock resistance: 100 G (max.) (ETC-F119E: 50 G (max.)) - Duration of activity: 6 ms (not operating)		

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