

Vehicle Mounted Industrial Computer Atom Z520PT Model



ETC-A913E



RoHS

Applications

- Digital signage contents distribution control (inside trains & buses)
- Vibration measurements (inside trains & buses)
- Destination display control (inside trains & buses)
- Satellite broadcast van communication control
- Driver seat display terminal (construction vehicles ex. cranes, forklifts, outside-use vehicles)
- Surveillance camera display terminal (outside use)

Overview

The Vehicle Mounted Atom Z520PT Front Access Model runs in the wide temperature range from -30 degrees C through +70 degrees C. Main interface connectors are gathered on one side. The design is suitable to connect interface cables in a narrow space such as an automotive dashboard. The product supports a wide range DC power input from +7 Vdc to +27 Vdc.

Features

- Intel Atom Z520PT (1.33 GHz)
Achieves low power consumption and wide temperature range.
- CAN interface port
Provides an ideal solution to connect and control field-level devices in industrial automation such as automotive manufacturing.
- CF slot
Includes a CF slot to boot up the operating system. (Prepare a CF card.)
- No moving parts and SSD directly soldered on the board
Improves anti-vibration and anti-shock protection. Achieves low maintenance and silent design without a fan or hard drive.
- Front access interface connectors
Achieves flexible mounting.
- Wide range DC power input
Supports wide range DC power input from +6 Vdc to +36 Vdc (maximum rating) / from +7 Vdc to +27 Vdc (continuous operation). The ETC-H913E supports from +10 Vdc to +40 Vdc (maximum rating) / from +12 Vdc to +37 Vdc (continuous operation) for vehicle applications.
- 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.
- Windows Embedded Standard 2009 included
Boots the operating system in about 10 seconds with write filter and Hibernate Once Resume Many when HORM function is enabled. (BIOS boot excluded)

Specifications

Model		Front Access Model	
Type		ETC-H913E, ETC-A913E	
CPU	Processor	Intel Atom Processor Z520PT 1.33 GHz	
	CPU Fan	No	
Chip Set		Intel US15WPT	
Main Memory		1 GB	
BIOS/Loader		Phoenix SecureCore BIOS	
Calendar Clock Backup Battery		Large capacity battery (typical life time: 10 years), BR-1/2AA (Panasonic Corporation)	
OS	Supported OS	Windows Embedded Standard 2009 (32bit) Interface Linux System (32bit)	
	Operation Confirmed OS	Android, MeeGo, INtime, RedHawk	
Storage	Boot Device	SSD 4GB	
	Auxiliary Device 1	CFast slot x 1 (empty)	
	Auxiliary Device 2	SD card slot x 1	
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	Analog RGB×1, 15 pin D-sub connector	
	Audio	Line output: stereo x 1 (stereo Φ3.5 mini jack), Microphone input x 1 (stereo Φ3.5 mini jack) HD Audio codecs Line output: full scale output level 1.2 Vrms (typ.), Mic 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 ports (RJ-45 connector) Intel WG82574IT controller 1000BASE-T, Wake On LAN compatible	
	USB	3 ports (Series A) USB 2Rev.2.0 compatible	
	RS-232C	2 ports (9-pin D-sub connector) 16550 compatible, transfer rate: 115.2 kbps (max.)	
	RS-485	1 port (15-pin D-sub), TIA/EIA-485, transfer rate: 8 bps to 2 Mbps	
	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	[ETC-A913E] Typical : +7 Vdc to +27 Vdc (Continuous operation) Maximum : +6 Vdc to +36 Vdc [ETC-H913E] Typical : +12 Vdc to +37 Vdc (Continuous operation) Maximum : +10 Vdc to +40 Vdc DC cable included (0.5 m, one end cable)	
	Power Consumption	[ETC-A913E] +12 Vdc: 13.6 W (typ.)/+24 Vdc: 15.2 W (typ.) [ETC-A913E] TBD	
	Power Supply for External Device	CF card slot: 3.3 V 500 mA, 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)		211.2 × 151.6 × 48 [mm]	
Mounting Orientation		Upright, horizontal	
Weight		1.5 kg	

Operating Temperature	Temperature: -30 degrees C to +80 degrees C(at starting), -30 degrees C to +70 degrees C (continuous operation) Humidity: 10 % to 90 % (non-condensing)
Storage Temperature/ Humidity	Temperature: -40 degrees C to 85 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 FTB: signal: 1 kV, power supply: 2 kV
Vibration Resistance	Vibration resistance: 1 G (max.) - Vibration frequency: 5 Hz to 500 Hz - Displacement amplitude: 0.075 mm (half amplitude) - Acceleration amplitude: 9.8 m/s ² (5 G) - Duration: 75 minutes
Shock Resistance	Shock resistance: 100 G (max.) - Duration of activity: 6 ms (not operating)



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