

Energy Efficient Industrial Computer CF Model (Atom Z530, Z510)

RoHS



Front view



Rear view

STC-A316(S)E
STC-A311(S)E

Energy Efficient Industrial Computer CF Model	Intel Atom Processor Z530 1.6 GHz Intel Atom Processor Z510 1.1 GHz	Windows Embedded Standard 2009
Boot devices SSD 4 GB CF slot	Main memory 1 GB	Low power consumption DC input voltage: +7 Vdc to +27 Vdc
Analog RGB x 1	LAN x 1 (1 Gbps), Serial port x 2, Audio capability	Small, silent, heat dissipation 167 (W) x 109 (D) x 29 (H) [mm]

Applications

- Production Line Operating Information Display
- Inspection, Test Results Information Collection System
- Airports Flight Status and Flight Information Display
- Train/Bus Stations Gate Control System
- Road/Air Noise Measurement System
- Temperature/Voltage Status Monitoring

Overview

The embedded computers are empowered by the Intel Atom Z530 or Z510 processor, and feature two serial ports, a Gigabit LAN port and four USB 2.0 ports.

The computers offer CF Slot, one analog RGB port, making it perfect for an existing legacy display connections. The tiny yet powerful computers are perfect for industrial application that requires continuous 24/7 operation.

Features

- [Intel Atom Z530 \(1.6 GHz\), Intel Atom Z510 \(1.1 GHz\)](#)
 - Achieves low power consumption and small foot print
- [CF Slot](#)
 - Storage or boot drive
- [Analog RGB Displays](#)
 - Analog RGB interface
- [Small Footprint](#)
 - Post card size, ultra thin: 167 mm x 109 mm (6.6" x 4.3"), only 29 mm thick (1.1")
 - Ideal to install in narrow, limited and constraint space such as automobile dashboard
- [Rugged Design](#)
 - 5 G anti-vibration, 100 G anti-shock protection
 - Can operate in very harsh environment
- [Wide Range DC Power Input](#)
 - DC + 6.5 V to 36 V for maximum rating, DC +7 V to +27V for continuous operation
- [Low Power Consumption](#)
 - Low heat dissipation
 - SSD directly soldered on the board reduces power consumption
 - Low power consumption; Max 10.0 W
- [Memory](#)
 - Full 1GB memory
 - System memory soldered directly on the board for better anti-shock/anti-vibration
- [Operating System](#)
 - Windows Embedded Standard 2009
- [No Moving Parts](#)
 - Makes for a quiet operation
 - Low maintenance means lower maintenance costs

Specifications

Model		STC-A316(S)E	STC-A311(S)E
CPU	Processor	Intel Atom Processor Z530	Intel Atom Processor Z510
	Frequency	1.6 GHz	1.1 GHz
Type		Energy Efficient Industrial Computer CF Model	
Chip Set		Intel US15W	
BIOS/Loader		Phoenix SecureCore BIOS	
Main Memory		1 GB: DDR2-SDRAM DDR2-533 (without memory socket) (Micron)	1 GB: DDR2-SDRAM DDR2-400 (without memory socket) (Micron)
Graphics	Controller	Built into Intel US15W	
	Video Memory	Shared with main memory	
	Resolution	Depends on the operating system	1920 x 1080 (max.) * Maximum resolutions may vary depending on monitor's resolution.
OS		Windows Embedded Standard 2009	
Boot Device		SSD 4 GB	
Auxiliary Device		CF slot (CF card not included)	
Data Space of Boot Drive		1.5 GB	
Switch		Power switch	
LED		Power indicator LED x 1, disk access LED x 1	
Interfaces	USB	USB Rev.2.0 Series A connector x 4, miniAB connector x 1 The maximum supply current is 1 A per port. Total amount of all ports is 2 A.	
	LAN	RJ-45 connector x 1 WG 82574IT controller (Intel) 1000BASE-T, Wake On LAN, Jumbo Frame compatible, Teaming compatible	
	Audio	Realtek ALC889 Line output x 1 (stereo ϕ 3.5 mini jack) (impedance: 100 Ω) Microphone input x 1 (stereo ϕ 3.5 mini jack) (impedance: 12 k Ω to 16 k Ω (min.))	
	Display	Analog RGB x 1 15-pin D-sub connector	
	Keyboard	PS/2 compatible 6-pin round DIN connector x 1	
	Mouse	Sharing a connector with keyboard (Prepare an optional splitter cable.)	
	Serial Port	16550 compatible 9-pin D-sub connector x 2	
	External Input/output	4-pin connector x 1 port: power on/off x 1 channel, normally-open relay contact RAS output x 1 channel	
Dimensions (W x D x H)		167 x 109 x 29 [mm]	
Input Voltage		Input voltage rating: +7 Vdc to +27 Vdc Absolute maximum rating: +6.5 Vdc to +36 Vdc DC cable included (0.5 m, one-end cable)	
Allowable Power		7 W (min.), 10.0 W (max.)	
Chassis Cooling Fan		No	
Calendar Clock Backup Battery		Large capacity battery (typical life time: 10 years) BR-1/2AA (Panasonic Corporation)	
Hardware Monitoring		CPU temperature/board temperature/power supply voltage	
Watchdog Timer		Software programmable (1 to 255 seconds) Time-up notification is software selectable either reset or interruption.	
Environment 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: 100 G (max.) - Duration of activity: 6 ms 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	
Operating Conditions		Temperature: 0 degrees C to +50 degrees C Humidity: 10% to 90% (non condensing)	
Weight		700 g	695 g
MTBF		116628 hours	

AC Power Type



The DC jack of the computer can be replaced to an AC jack.

Part No.: STC-A316A(S), STC-311A(S)E.

The input voltage of each model differs as follows;

AC Jack Type	DC Jack Type
STC-A316A(S)E, STC-A311A(S)E	STC-A316(S), STC-311(S)E
Typical: +12 Vdc	Typical : +7 Vdc to +27 Vdc Maximum : +6.5 Vdc to +36 Vdc

Board Type



The Board Type is also available.
It is easier to integrate to your device.

Part No: SBC-A316(S)E, SBC-A311(S)E



Interface Amita Solutions, Inc.

Phone: (+1) 408-879-2387

Fax: (+1) 408-879-6205

E-mail: sales@amitasol.com

Website: <http://www.interface-amita.com>

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