*Energy Efficient Front Access Model*

# Energy Efficient Industrial Computer Front Access Model (Atom Z530)

Front view

Rear view

## STC-A416(S)E

RoHS

| | | |
|---|---|---|
| Energy Efficient Industrial Computer Front Access Model | Intel Atom Processor Z530 1.6 GHz | Windows Embedded Standard 2009 |
| Boot device CF slot | Main memory 1 GB | Low power consumption DC input voltage: +7 Vdc to + 30 Vdc |
| Analog RGB x 1 | LAN x 1 (1 Gbps), LAN x 1 (100 Mbps), RS-232C × 1, RS-485 × 1, CAN × 1, IEEE1394 × 1 | Small, silent, heat dissipation 48(W) × 110.6(D) × 168.2(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 STC-A416(S)E is suitable for vehicle measurement instrument & industrial automation monitoring.

The STC-A416(S)E, front access design empowered by the Intel Atom processor Z530 (1.6 GHz); supports wide range DC power input from +7 V to +30 V for continuous operation; it can operate with low power consumption of 10.8 W.

## Features

**Single-Side Front Access Design**
- All connectors are gathered in one side
- Suitable to install in narrow and limited space, such as automobile dashboard

**Wide Range DC Power Input**
- Support wide range of DC power input from +6 V to +36 V for maximum rating
- For continuous operation, DC +7 V to +30 V to provide flexible and superior power consumption

**Small Footprint**
- 48 mm(W) x 110.6 mm(D) x 168.2 mm(H)
- Can be installed in the area with limited space

**System Software on ROM**
- Has Enhanced Write Filter
- Can handle unexpected power shutdown

**CAN (Controller Area Network) Connection**
- Has one High-Speed CAN interface port
- Ideal solution for connection and control with field level devices in industrial automation; Ex. Automotive Manufacturing, Medical Equipment

**ECO Power - Low Power Consumption**
- Achieves high computing performance, low heat dissipation and low power consumption

**High Level Anti-Vibration & Anti-Shock**
- Has 5 G Anti-Vibration & 100 G Anti-Shock properties
- Can operate in very harsh environment

**1 GB Main Memory**
- Full 1 GB (up to 2 GB optional) Memory soldered directly on the board
- Works better for anti-vibration and anti-shock conditions

**No Moving Parts**
- Has no moving parts; i.e. cooling fan & hard drive
- Suitable for use in quiet environment
- Less moving parts means less maintenance cost and burden to users

**CF Slot / Boot Device**
- CF (4 GB) as a boot device
- Has one CF Slot as standard

**Long Term Stable Supply**
- Interface supports long term supply and support

**Analog RGB Display Interface**
- Has one Analog RGB display port for connecting to a display monitor

**HD Audio Jacks**
- Has both line-out and microphone jacks as standard

## Specifications

| | | |
|---|---|---|
| Model | | STC-A416(S)E |
| CPU | Processor | Intel Atom Processor Z530 |
| | Frequency | 1.6 GHz |
| Type | | Energy Efficient Industrial Computer Front Access Model |
| CPU Fan | | No |
| Chip Set | | Intel US15W |
| BIOS/Loader | | Phoenix SecureCore BIOS |
| Main Memory | | 1 GB: DDR2-SDRAM DDR2-533 (without memory socket) (Micron) |
| Graphics | Controller | Built into Intel US15W |
| | Video Memory | Shared with main memory |
| | Resolution | 1920 x 1080 (max.)<br>* Maximum resolutions may vary depending on monitor's resolution. |
| OS | | Windows Embedded Standard 2009 |
| Boot Device | | CF 4 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 5<br>The maximum supply current is 1 A per port. Total amount of all ports is 2 A. |
| | LAN | RJ-45 connector x 2<br>LAN1: WG 82574IT controller (Intel), LAN2: RTL8139C+ (Realtek)<br>1000BASE-T, Wake On LAN, Jumbo Frame compatible, Teaming compatible |
| | Audio | Realtek ALC889<br>Line output x 1 (stereo ϕ3.5 mini jack) (impedance: 100 Ω)<br>Microphone input x 1 (stereo ϕ3.5 mini jack) (impedance: 12 kΩ to 16 kΩ) |
| | Display | Analog RGB x 1 (15-pin D-sub connector) |
| | Keyboard | No |
| | Mouse | No |
| | Serial Port | RS-232C:16550 compatible 9-pin D-sub connector x 1<br>RS-485: TIA/EIA-485 15-pin D-sub connector x 1(UART or HDLC selectable) |
| | CAN | CAN 2.0B (active) high-speed CAN:ISO11898-2 compatible 9-pin D-sub connector x 1 |
| | IEEE1394 | 1 port (bus power is not supported) IEEE1394a-2000 |
| Dimensions (W x D x H) | | 48 x 110.6 x 168.2 [mm] |
| Input Voltage | | Input voltage rating: +7 Vdc to +30 Vdc<br>Absolute maximum rating: +6 Vdc to +36 Vdc<br>DC cable included (0.5 m, one-end cable) |
| Allowable Power | | 10.8 W (typ.), 13.0 W (max.) |
| Chassis Cooling Fan | | No |
| Calendar Clock Backup Battery | | Large capacity battery (typical life time: 10 years)<br>BR-1/2AA (Panasonic Corporation) |
| Hardware Monitoring | | CPU temperature/board temperature/power supply voltage |
| Watchdog Timer | | Software programmable (1 to 255 seconds)<br>Time-up notification is software selectable either reset or interruption. |
| Environment Resistance | | Vibration resistance: 5.0 G (max.)<br>- Vibration frequency: 10 Hz to 150 Hz<br>- Displacement amplitude: 0.35 mm (half amplitude)<br>- Acceleration amplitude: 49 m/s^2 (5 G)<br>- Duration: 75 minutes<br>Shock resistance: 100 G (max.)<br>- Duration of activity: 6 ms<br>Noise immunity:<br>Static electricity: in contact: +/-6 kV, in the air: +/-8 kV<br>radiated electromagnetic field: 10 V/m<br>Conduction: 10 V/m<br>FTB: signal: 1 kV, power supply: 2 kV |
| Operating Conditions | | Temperature: 0 degrees C to +50 degrees C<br>Humidity: 10% to 90% (non condensing) |
| Weight | | 1.07 kg |
| MTBF | | 101157 hours |

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