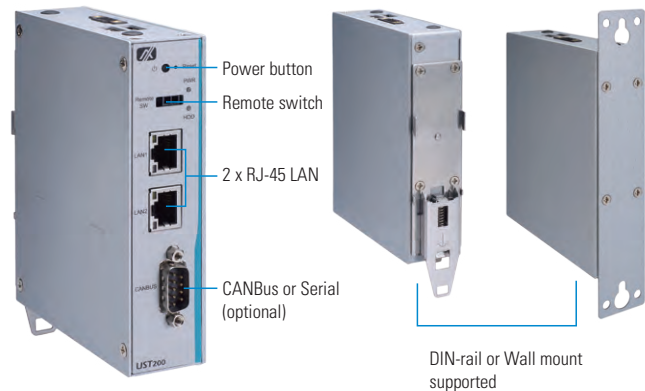


# UST200-83H-FL

Robust and Compact DIN-rail Fanless Embedded System with Intel® Atom® x5-E3930 Processor for In-vehicle Gateway Application

## Features

- CE, FCC certified; ISO 7637-2 compliant
- Intel® Atom® x5-E3930 processor
- Extreme cost-effective with fanless and cableless design
- Wide operating temperature range from -40°C to +70°C
- Supports 12 & 24 VDC typical in-vehicle power input
- Smart Ignition for power on/off schedule, vehicle battery protection and different power mode
- 1 COM or CAN, 2 USB, 2 GbE LAN
- 8-bit programmable DIO for IoT gateway applications
- Supports SocketCAN
- AMS.AXView intelligent remote monitoring



## Specifications

|                   |  |  |
|-------------------|--|--|
| Standard Color    | Silver                                       |  |
| Construction      | Extruded aluminum and heavy-duty steel, IP20 |  |
| CPU               | Intel® Atom® x5-E3930 2C @1.3 GHz, TDP: 6.5W |  |
| Chipset           | SoC integrated                               |  |
| System Memory     | 1 x DDR3L-1866 SO-DIMM, up to 8GB            |  |
| BIOS              | AMI  |  |
| TPM               | TPM 2.0                                      |  |
| System I/O Outlet | Serial                                       | 1 x DB9 Serial console or RS-232/422/485   |
|                   | CANBus                                       | 1 x DB9 CANBus 2.0 A/B, supports SocketCAN*  |
|                   | Display                                      | 1 x VGA (up to 1920 x 1200 @60Hz)  |
|                   | Ethernet                                     | 2 x RJ-45 isolated* 10/100/1000 Mbps Ethernet (Intel® i211-AT)<br>*Isolation voltage: 1.5 kV   |
|                   | USB  | 2 x USB 2.0  |
|                   | DIO  | 1 x DB9 8-bit programmable DIO   |
|                   | Others                                       | 2 x Antenna opening<br>1 x Power button<br>1 x Remote switch   |
|                   | Extension Interface                          | 1 x Full-size Rev. 1.2 PCI Express Mini Card slot:<br>• USB/PCIe with SIM socket<br>1 x Half-size Rev. 1.2 PCI Express Mini Card slot:<br>• mSATA/USB/PCIe |
| Storage           | mSATA  | 1 x Half-sized mSATA (occupied 1 x PCI Express Mini Card slot)   |
|                   | eMMC   | Optional***  |
| Watchdog Timer    | 255 levels, 1 to 255 sec.                    |  |

|                       |  |   |
|-----------------------|--|---|
| Power                 | Power Supply   | 1 x Terminal block, 12 or 24 VDC with Smart Ignition  |
|                       | Power Consumption  | 12 VDC, 1.39A; 24 VDC, 0.72A                          |
| System Indicator      | 1 x LED indicator for SATA drive activity<br>1 x LED indicator for power |   |
| Operating Temperature | -40°C to +70°C (-40°F to +158°F) with W.T. peripheral****                |   |
| Humidity              | 0% to 95%, non-condensing  |   |
| Dimensions            | 31 mm (1.22") (W) x 100 mm (3.93") (D) x 125 mm (4.92") (H)              |   |
| Mounting              | Wall mount, DIN-rail   |   |
| Weight (net/gross)    | 0.3 kg (0.67 lb)/0.45 kg (0.99 lb)                                       |   |
| Certifications        | CE (Class A), FCC (Class A) certified; ISO 7637-2 compliant              |   |
| EMC                   | CE/FCC   | EN 55032 (Class A), EN 55024, FCC part 15 B (Class A) |
| Vibration Endurance   | 3 Gms with mSATA (5 to 500Hz, X/Y/Z direction; random, operating)        |   |
|                       | MIL-STD-810G, Method 514.6C-VI Category 4 compliant                      |   |
| EOS Support           | Windows® 10 64-bit, Ubuntu 18.04   |   |
| Software Support      | AMS.AXView   |   |



\* Please refer the detail in SocketCAN manual.

\*\* See Ordering information.

\*\*\* Please contact Axiomtek for the details of mounting and pre-installed software.

\*\*\*\* Wide Temperature. All W.T. supported products have to be sorted by Axiomtek.

## Ordering Information

| Standard  |  |
|---|--|
| UST200-83H-FL-E3930-CAN-TVDC<br>(P/N: E274200100) | Fanless embedded system with Intel® Atom® x5-E3930 processor, 1 CAN, 2 LAN, 2 USB and 1 DIO, operating temperature from -40 to 70°C, TPM 2.0 supported, and Smart Ignition  |
| UST200-83H-FL-E3930-COM-TVDC                      | Fanless embedded system with Intel® Atom® x5-E3930 processor, 1 COM, 2 LAN, 2 USB and 1 DIO, operating temperature from -40 to 70°C, TPM 2.0 reserved, and Smart Ignition   |

| Optional              |   |
|-----------------------|---|
| Communication Modules | 8812C300GA0E 3G UC20GKit tBOX/ICO (20) (E)                        |
|                       | 8812C300HA0E 3G/GPS UC20GKit tBOX/ICO (20) (E)                    |
|                       | 8812C1200A0E AP12356 Wi-Fi kit for tBOX/ICO (E)                   |
|                       | 8812C1201A0E AP12356 WT Wi-Fi kit for tBOX/ICO (E)                |
|                       | 8816N8108A0E LTE MC7430 (EU) kit for tBOX (E)                     |
|                       | 8816N8104A0E LTE MC7455 (US) kit for tBOX810 (E)                  |
|                       | 8812C3008A0E LTE SIM7100C (TW) with extent antenna for ICO300 (E) |
|                       | 8812C300IA0E LTE SIM7100JC kit for ICO (20) JPN SFP (E)           |
|                       | 8812C300EA0E LTE SIMCOM SIM7100C (TW) for ICO300 SFP (E)          |
|                       | 8812C300DA0E LTE SIMCOM SIM7100E (EU) for ICO300 SFP (E)          |
| AC to DC Adapter      | 50956A24040E Adapter 12V36W FSP036-RHBN3 with wire type           |

\* Specifications and certifications may vary based on different requirements.

## Power Protection

OCP (over current protection)  
 OVP (over voltage protection)  
 UVP (under voltage protection)  
 RPP (reverse polarity protection)  
 ISO 7637-2 pulse 1, 2a, 2b, 3a, 3b, 4(vehicle version)  
 Setting for in-vehicle battery protection: system will be automatically turned down at low voltage level  
 Setting for ignition control: system will activate a counter while in-vehicle battery at low voltage, ACC-on delay and shut down delay

## Dimensions

