# UST200-83H-FL

Robust and Compact DIN-rail Fanless Embedded System with Intel Atom<sup>®</sup> x5-E3930 Processor for In-Vehicle Gateway Applications



## **Specifications**

|                     | -                                                                                                                                                          |                                                                                                            |  |  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--|--|
| Standard Color      | Sliver                                                                                                                                                     |                                                                                                            |  |  |
| 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) (HDMI optional)                                                          |  |  |
|                     | Ethernet                                                                                                                                                   | 2 x RJ-45 10/100/1000 Mbps Ethernet (Intel® I210-AT)                                                       |  |  |
|                     | 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)                                             |  |  |
| Watchdog Timer      | 255 levels, 1 to 255 sec.                                                                                                                                  |                                                                                                            |  |  |
| Power               | Power Supply                                                                                                                                               | General Use: 1 x Terminal block, 9 to 36 VDC<br>Vehicle: 1 x Terminal block, 12/24 VDC with smart ignition |  |  |
|                     | Power<br>Consumption                                                                                                                                       | 9V, 2.06A/36V, 0.55A                                                                                       |  |  |



## **Specifications**

| 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 100.4 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), E-Mark (E24) certified                                                                      |  |  |
| EMC                       | CE/FCC EN 55032 (Class A), EN 55024, FCC part 15 B (Class A)                                                             |  |  |
|                           | E-Mark ECE-R10                                                                                                           |  |  |
| Vibration Endurance       | 3 Gms with mSATA (5 to 500Hz, X/Y/Z direction; random, operating)<br>MIL-STD-810G, Method 514.6C-VI Category 4 compliant |  |  |
| EOS Support               | Windows® 10 64-bit, Linux                                                                                                |  |  |
| Software Support          | AXView                                                                                                                   |  |  |
| * Please refer the detail | in SocketCAN manual.                                                                                                     |  |  |

\*\* See Ordering infomation.

\*\*\* 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-<br>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-<br>COM-TVDC<br>*By request.      | 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 supported, and Smart Ignition |

\*TDC: terminal block DC-in connector, DC voltage input

#### Optional

| с : .::          | 001262006405 |                                        |
|------------------|--------------|----------------------------------------|
| Communication    | 8812C300GAUE | 3G UC2UGKIT TBOX/ICU (20) (E)          |
| Modules          | 8812C300HA0E | 3G/GPS UC20GKit tBOX/ICO (20) (E)      |
|                  | 886N32310A0E | LTE LE910C4-AP KIT (20)for tBOX (E)    |
|                  | 886N32311A0E | LTE LE910C4-EU KIT (20)for tBOX (E)    |
|                  | 886N32312A0E | LTE LE910C4-NF KIT (20)for tBOX (E)    |
| AC to DC Adapter | 50900001500  | PWS FSP120-AAAN3 (9NA1206647) FSP 120W |

\* 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**



