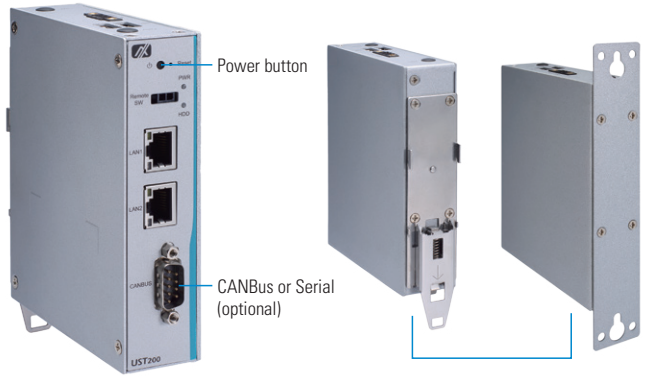
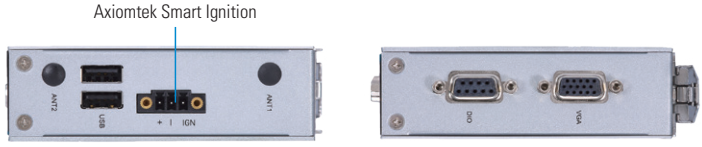
UST200-83H-FL

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
- Axiomtek Smart Ignition (ASI) onboard
- 1 COM or CAN, 2 USB, 2 GbE LAN
- 8-bit programmable DIO for IoT gateway applications
- Supports SocketCAN
- AMS.AXView intelligent remote monitoring





▲ Top view ▲ Bottom view

Fanless | Ext. Temp | Compliant ISO 7637-2 | AMS.AXView | ASI | SocketCAN*

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)
	Ethernet	2 x RJ-45 isolated* 10/100/1000 Mbps Ethernet (Intel® i211-AT) *Isolation voltage: 1.5 kV
	USB	2 x USB 2.0
	DIO	1 x DB9 8-bit programmable DIO
	Others	2 x Antenna opening 1 x Power button
Extension Interface	1 x Full-size Rev. 1.2 PCI Express Mini Card slot: • USB/PCIe with SIM socket 1 x Half-size Rev. 1.2 PCI Express Mini Card slot: • 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 Axiomtek Smart Ignition
	Power Consumption	12 VDC, 1.39A; 24 VDC, 0.72A
System Indicator	1 x LED indicator for SATA drive activity 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 infomation.
*** Please contact Axiomtek for detail.
**** Wide Temperature. All W.T. supported products have to be sorted by Axiomtek.

Ordering Information

Standard	
UST200-83H-FL-E3930-CAN-TVDC (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 reserved, and Axiomtek 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 Axiomtek 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