# 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
- Supports COM, CAN, USB, GbE LAN
- Supports SocketCAN
- AMS.AXView intelligent remote monitoring







## **Specifications**

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Standard Color	Sliver	Sliver		
Construction	Extruded aluminum and heavy-duty steel, IP20			
CPU	Intel Atom® x	Intel Atom® x5-E3930 2C @1.3 GHz, TDP: 6.5W		
Chipset	SoC integrated			
System Memory	1 x DDR3L-186	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 10/100/1000 Mbps Ethernet (Intel® i211-AT)		
	USB	2 x USB 2.0		
	DIO	1 x DB9 8-bit programmable DIO		
	Others	2 x Antenna opening 1 x Power button 1 x Remote switch		
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, 9 to 36 VDC (typical 12/24 VDC) with smart ignition	
	Power	9V, 2.06A/36V, 0.55A	
	Consumption		
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 i	n SocketCAN manua	al.	

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

#### 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.

### Dimensions

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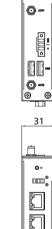
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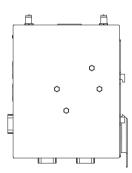
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### **Power Protection**

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