EPC-S202

Intel Atom E3900 series Embedded SBC
Fanless Slim System

Features

- Intel® Atom™ E3900 series
- Onboard 4GB LPDDR4-2400MT/s, 32GB eMMC
- Independent display by HDMI
- Semi-Industry Fanless slim systen, Din Rail or Wall mount design
- Support HDMI x 1 , GbE x 2 USB 3.0 x 2, COM x 2, DIO x 2
- Flexible expansion M.2 E key, F/S miniPCIe
- 12V power input, default is 12V phoenix 2 pin connector
- Advantech WISE-PaaS/DeviceOn support

Software APIs: GPIO, Watch Dog Timer, Backlight On/Off, Brightness

Utilities: Hardware Monitor, System Info, System Throttling, Thermal Protection, Data Security

Windows 10 | DeviceOn | iManager

Specifications

Platform	Processor	Atom E3950	Atom E3930
	Max. Frequency	2.0 GHz	1.80 GHz
	Base Frequency	1.60 GHz	1.30 GHz
	Core/Tread	4/4	2/2
	LLC	2 MB	2 MB
	CPU TDP	12W	6W
	Chipset	Intel Atom SoC processor integrated	
	BIOS	AMI EFI 64 Mbit	
Memory	Technology	LPDDR4-2400MT/s	
	Max. Capacity	8GB (default 4GB)	8GB (default 4GB)
	Channel/Socket	Dual Channel/ Onboard LPDDR4	
Graphics	Controller	Intel® Atom SoC integrated	
	Burst Frequency	650 MHz	550 MHz
	Graphics Memory	2 GB	2 GB
	3D/HW Acceleration	DX12, OGL4.4, OCL2.0 HW Encode: H.265/HEVC, H.264, MPEG2 HW Decode: H.264	
Display I/F	HDMI	HDMI 1.4b: up to 3840 x 2160 at 30Hz	
Ethernet	Controller	Intel® i210	
	Speed	10/100/1000 Mbps	
Front I/O Openings	Ethernet	2 x RJ-45	
	HDMI	1	
	USB3.0	2	
	COM Port	1	
	LED	1	
Side I/O Openings	COM	1 (RS232/422/485)	
	Digital I/O	2 (8-bit general purpose input/ output)	
Miscellaneous	LED Indicators	Power	
	Control Power	Switch	
Storage	eMMC	32GB (up to 64GB, support by request)	
Expansion	M.2	1 x E-Key for M.2 2230 module (PCIe x1, USB2.0)	
	mPCIe/mSATA	1 x Full-size miniPCIe slot (Option to mSATA, support by request)	
	MI/O Extension	N/A	
Power	Power type	Vin: 12V ± 10%	
	Power Input voltage	AT	
	Connector type	2 Pin Phoenix DC Plug in	
Environment	Operating Temperature	-20 ~ 60 °C w/ 0.7m/s airflow	
	Storage Temperature	-40 ~ 85 °C (-40~185 °F)	
	Relative Humidity	40 °C @ 95%, Non-Condensing	
	Vibration During Operation	3 Grms, IEC 60068-2-64, random vibration, 5 ~ 500 Hz, 1 hr/axis	
	Shock During Operation	30G, IEC60068-2-27, half sine, 11m duration	
Physical Characteristics	Mounting	Desk/Wall mounting, Din rail mounting	
	Dimensions (W x H x D)	139 x100 x 44mm	
	Weight	0.6kg	
Regulation	EMC	CE/FCC Class B (*No RED certification), BSMI, CCC(TBD)	
	Safety	CB, UL, BSMI, CCC(TBD)	

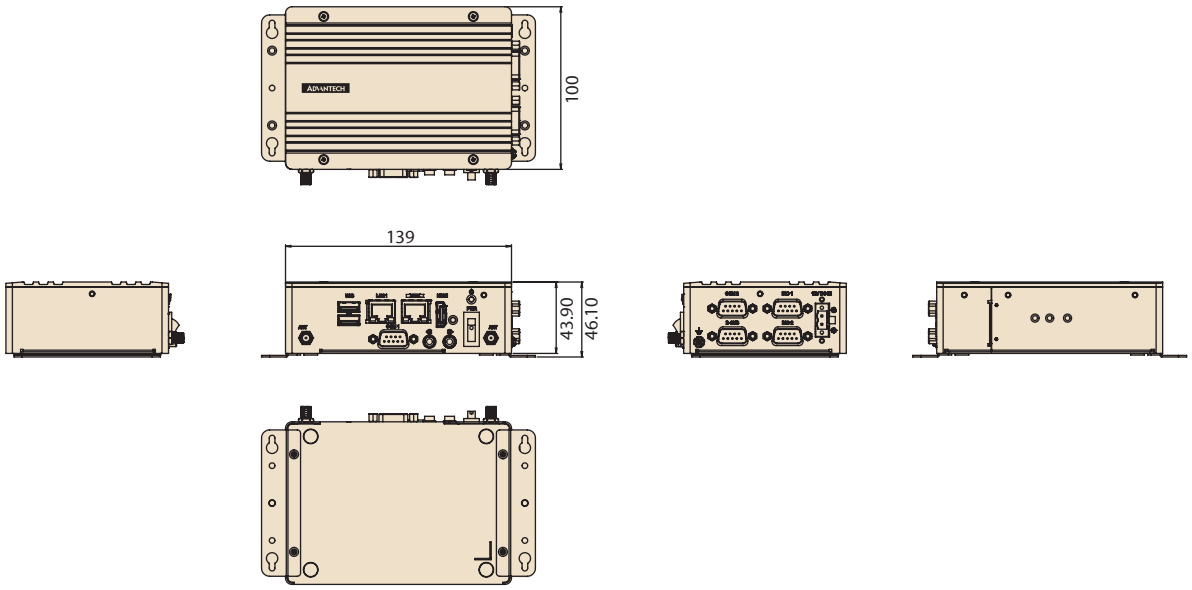
*Note: Support by request

All product specifications are subject to change without notice.

Last updated: 15-Jan-2021

Dimensions

Unit: mm



Ordering Information

Part Number	CPU	Memory	Storage	HDMI	GbE	USB 3.0	RS-232/422/485	Power Input	Operating Temp
EPC-S202E-S8A1	Atom E3930 1.80 GHz	On-board 4GB LPDDR4	On-board 32G eMMC	1	2	2	2	12V	-20 ~ 60 °C
EPC-S202E-U0A1	Atom E3950 2.00 GHz	On-board 4GB LPDDR4	On-board 32G eMMC	1	2	2	2	12V	-20 ~ 60 °C

*Default BIOS supports 64 bits OS installation, BIOS for 32 bits OS installation is supported by project.

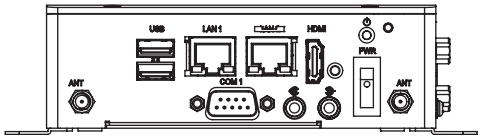
Packing List

Part No.	Description	Quantity
	1 x EPC-S202 Unit	1

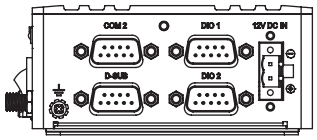
Optional Accessories

Part No.	Description
96PSA-A60W12P2-3	DC power 12V/5A 60W, 0 ~ 40 °C, w/ Phoneix Jack type
1702002600-01	Power cable 3-pin 183 cm, USA type
1700018704	Power cable 3-pin 180 cm, UK type
1702002605	Power cable 3-pin 183 cm, Europe type
1700000237-01	Power cable 3-pin 183 cm, PSE type
ESBC-0BRK-WM02	Wall mount kit
ESBC-0BRK-DR01	DIN Rail kit
EWM-W195M201E	WiFi/BT module: 802.11 a/b/g/n/ac, Atheros QCA6174A-5, 2T2R, with BT4.2 (-40 ~ 85 °C/-40 ~ 185 °F)
1750008717-01	External Antenna, Dipole Ant. D.B 2.4/5G WIFI 3dBi
1750008799-01	Cable Ant.SMA/F-R-BH MFH4/113 L:170 mm (6.69 in)

Front View



Side View



Embedded OS/API

Embedded OS/API	Part No.	Description
WIN10	20706WX9VS0088	64-bit (UEFI mode only)
Software API		SUSI 4.0/iManager 3.0
Software API		WISE-PaaS/DeviceOn