

ARS-2110TX

EN50155 Intel® Atom™ E3845 Fanless Box PC



Features

- Intel® Atom™ Processor E3845
- Dual Independent Display: VGA and LVDS
- M12 connector for Ethernet and USB interfaces
- MiniPCIe Expansions, Wi-Fi, LTE, GSM-R and GPS
- RAID 0/1 Support (Expansion Slots)
- EN50155 Certified:
 - Power Input Range Covers 24V/48V/72V/110V (±40%)
 - TX Temperature Level: -40° C ~ 70° C (85° C for 10 minutes) with EN45545 Compliant
- EN50121 EMC Standards
- IEC61373 Body Mount Class B
- IP50 Rating

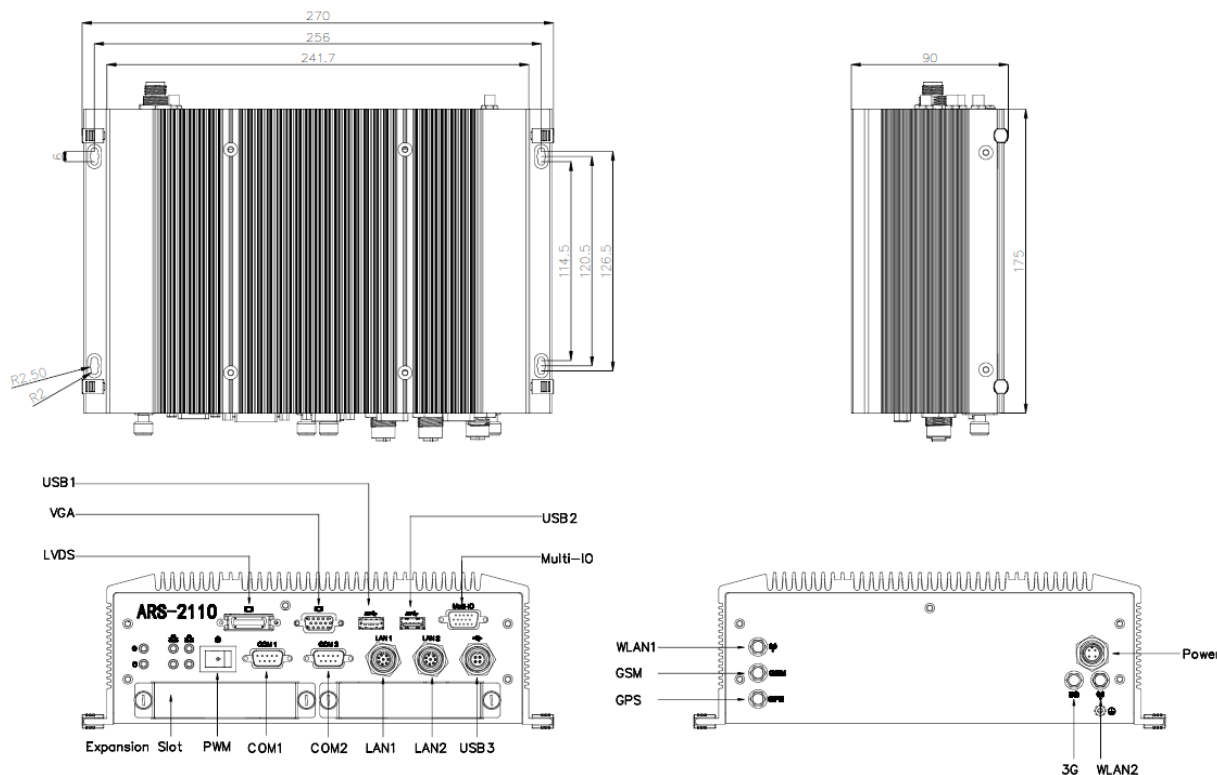
Specification

Computing System	CPU	Intel® Atom™ E3845
	Max. Speed	Quad Core 1.91GHz
	L3 Cache	2 MB
	System Chipset	Intel® Valleyview-D/I SoC Integrated
	BIOS	AMI EFI 64Mbit
	Memory	Technology: DDR3L 1333MHz 204-pin SODIMM (up to 4GB)
Storage	Internal	mSATA Socket x 1
Graphics	Chipset	Intel® HD Graphics
	Graphic Engine	DirectX11.X, OpenGL 3.2/4.X
	Video Resolutions	VGA up to 2560 x 1600 @ 60Hz / LVDS up to 1920 x 1200
	Dual Display	VGA+LVDS
Ethernet	LAN1/ LAN2	10/100/1000 Mbps Intel I210 Ethernet Controller (M12 Connector)
Expansion Function	GPS	50 Channels with -160 dBm Sensitivity, A-GPS and Galileo Capable (Optional)
	Wi-Fi	Atheros AR9382 802.11 a/b/g/n (Optional) *
	WWAN	Sierra AirPrime MC7304 LTE Module (Optional) *
	GSM-R / GPRS-R	Quad-band, GPRS Multi-slot Class 10, GSM Pahse2/Phase2+ (Optional)
	G-Sensor	Digital Accelerometer Ultra Low Power, 10-bit Resolution
	Gyroscope	Turn Rate Sensor for Dead Reckoning (SPEED+ and FWD+ Signals on DB15 Connector, Integrated in GPS Module)
Audio	Interface	Realtek ALC888S, High Definition Audio, Line-out, Mic-in, Line-in
I/O Interface	Serial Port	RS-232/422/485 Ports with Auto Flow Control x 2
	USB Interface	USB 3.0 x 1 (Type A x 1), USB 2.0 x 2 (Type A x 1, M12 x 1)
Expansion I/O	Optional Module	CAN Bus, Isolated Serial Port, Isolated Digital I/Os, Expansion Module for 2 x 2.5" SSD driver bay
Software	Microsoft	Windows 7, Windows 7 Embedded
	Linux	2.6.xx
	API	Advantech SUSIAccess
Power	Connector	M12 with 4 Poles
	Power Input Voltage	24Vdc, 48Vdc, 72Vdc, and 110Vdc (±40%)(Optional)
Physical Characteristics	Construction	Aluminum Housing
	Dimensions(W x H x D)	270 x 90 x 175 mm
	Weight	5Kg
Environment	Operating Temperature	EN50155 TX : -40 ~ 70°C (85°C for 10 Minutes)
	Storage Temperature	-40 ~ 85°C
	Relative Humidity	95% @ 40°C (Non-Condensing)
Certifications	Vibration/Shock	MIL-STD-810F, EN50155
	Railway Related	EN50155, EN50121, IEC61373
	EMC	CE/FCC Class A
	Safety Certification	UL
Other	Watchdog Timer	255 Levels Timer Interval (Setup by Software)

* Any module with mini PCI interface can be integrated if either default Wi-Fi or WWAN function is not necessary.

Dimensions

Unit: mm



Ordering Information

Voltages	Part Number	Processor	DDR3L 4G	mSATA 32G	VGA	LVDS	Dual LAN	Dual COM	Dual USB	Audio	GSM-R	3G	Wi-Fi	GPS
24V	ARS-2110TX-10A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ARS-2111TX-10A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	ARS-2112TX-10A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓				
48V	ARS-2110TX-20A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ARS-2111TX-20A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	ARS-2112TX-20A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓				
72V	ARS-2110TX-30A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ARS-2111TX-30A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	ARS-2112TX-30A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓				
110V	ARS-2110TX-40A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	ARS-2111TX-40A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	ARS-2112TX-40A1E	Intel® E3845	✓	✓	✓	✓	✓	✓	✓	✓				

Optional Modules

Part Number	Product Description
AIO-SSD110-00A1E	Single SSD carrier with DIO for ARS-2510/ARS-2110
AIO-COM210-00A1E	Dual COM ports with isolation for ARS-2510/ARS-2110
AIO-CAN210-00A1E	Dual CAN ports with Isolation for ARS-2510/ARS-2110

Advantech provides customization services for expansion modules with desired I/O.

- For sales inquiries or further information, please contact us at Rail@Advantech.com.tw