ARS-2110TX

Intel®Atom™E3845 Fanless Railway Box

Features

- Intel®Bay Trail-I Atom™ Processor E3845
- Dual Independent Display: VGA and LVDS
- M12 connector for Ethernet and USB interfaces
- MiniPCIe Expansions, WiFi, LTE, GSM-R and GPS
- RAID 0/1 Support (Only When 2 SSD Modules Are Adapted)
- EN50155 Compliant:
- Power Input Range Covers 24V/48V/72V/110V and Conformal Coating Protection
  TX Temperature Level:-40° C ~ 70° C (85° C for 10 minutes) with EN45545 Compliant
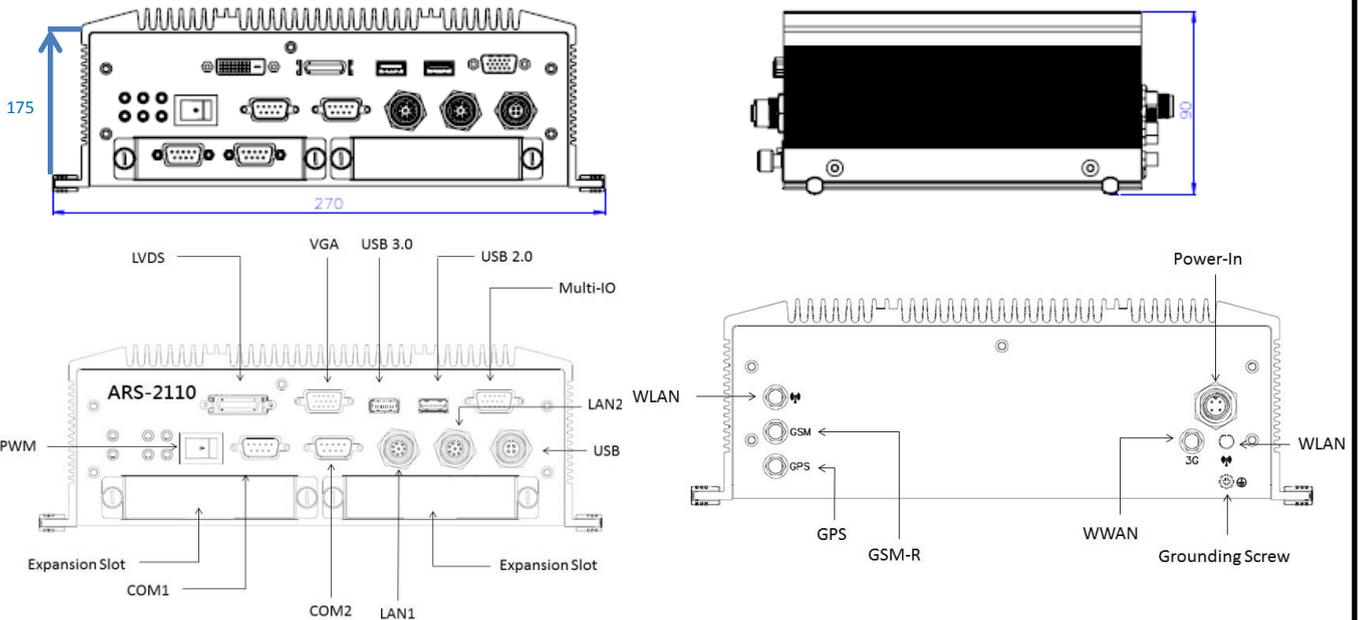- EN50121 EMC Standards
- IEC61373 Body Mount Class B

Specification

Processor 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
	Max. Capacity	4GB
	Socket	204-pin SO-DIMM × 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	10/100/1000 Mbps Intel I210 Ethernet Controller (M12 Connector)
	LAN2	10/100/1000 Mbps Intel I210 Ethernet Controller (M12 Connector)
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 (M12 x 1)
Other	Watchdog Timer	255 Levels Timer Interval (Setup by Software)
Storage	mSATA	mSATA Socket x 1
Expansion Function	GPS	50 Channels with –160 dBm Sensitivity, A-GPS and Galileo Capable (Optional)
	WiFi	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, 13-bit Resolution
	Gyroscope	Turn Rate Sensor for Dead Reckoning (SPEED+ and FWD+ Signals on DB15 Connector, Integrated in GPS Module)
Expansion I/O	Optional Module	CAN Bus, Isolated Serial Port, Isolated Digital I/Os, Expansion Module for 2 × 2.5" SSD driver bay
Software support	Microsoft	Windows 7, Windows 7 Embedded
	Linux	2.6.xx
	API	Advantech SUSi Access
Power Request	Power Type	M12 with 4 Poles
	Power Input Voltage	24Vdc , 48Vdc, 72Vdc, and 110Vdc (Optional)
Mechanical	Construction	Aluminum Housing
	Dimensions(W × H × D)	270 mm × 90 mm × 175 mm
	Weight	5Kg
Environment	Operating Temperature	EN50155 TX : -40°C ~ 70°C (85°C for 10 Minutes)
	Storage Temperature	-40 ~ 85°C
	Relative Humidity	95% 40°C (Non-Condensing)
Certificate	Vibration/Shock	MIL-STD-810F, EN50155
	Railway Related	EN50155, EN50121, IEC61373
	EMC	CE/FCC Class A
	Safely Certifications	UL

✱ If customer intends not to integrate the WiFi or 4G module, the mini PCIe slot is able to be adapted with other module which is with mini PCIe interface.

Dimensions

Unit: mm

Ordering Information

Voltages	Part Number	Processor	VGA	DVI	Dual LAN	Dual COM	Dual USB	Audio	GSM-R	3G	Wi-Fi	GPS
24V	ARS-2110TX-10A1E	Intel®E3845	v	v	v	v	v	v	v	v	v	v
	ARS-2111TX-10A1E	Intel®E3845	v	v	v	v	v	v		v	v	v
	ARS-2112TX-10A1E	Intel®E3845	v	v	v	v	v	v				
48V	ARS-2110TX-20A1E	Intel®E3845	v	v	v	v	v	v	v	v	v	v
	ARS-2111TX-20A1E	Intel®E3845	v	v	v	v	v	v		v	v	v
	ARS-2112TX-20A1E	Intel®E3845	v	v	v	v	v	v				
72V	ARS-2110TX-30A1E	Intel®E3845	v	v	v	v	v	v	v	v	v	v
	ARS-2111TX-30A1E	Intel®E3845	v	v	v	v	v	v		v	v	v
	ARS-2112TX-30A1E	Intel®E3845	v	v	v	v	v	v				
110V	ARS-2110TX-40A1E	Intel®E3845	v	v	v	v	v	v	v	v	v	v
	ARS-2111TX-40A1E	Intel®E3845	v	v	v	v	v	v		v	v	v
	ARS-2112T3-40A1E	Intel®E3845	v	v	v	v	v	v				

Optional Modules

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

Design & Manufacturing Services

This product is designed for customers who are looking for a standard I/O module to extend function to sell as an optional item. We could even provide detailed technical information of the module for our customers design. In addition, we can assist our customers to customize your desired I/O module.

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