

ARS-2110

EN50155 Intel®Atom™ E3845 Fanless Railway Box PC



Features

- Intel®Atom™ Processor E3845
- Dual Independent Display: VGA and DVI
- M12 connector for Ethernet and USB Interfaces
- MiniPCIe Expansions, Wi-Fi, LTE, GSM-R and GPS
- RAID 0/1 Support (Only when 2x SSD modules are adopted)
- EN50155 Compliant:
 - Power Input Range Covers 24V/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
- PCB Conformal Coating Protection

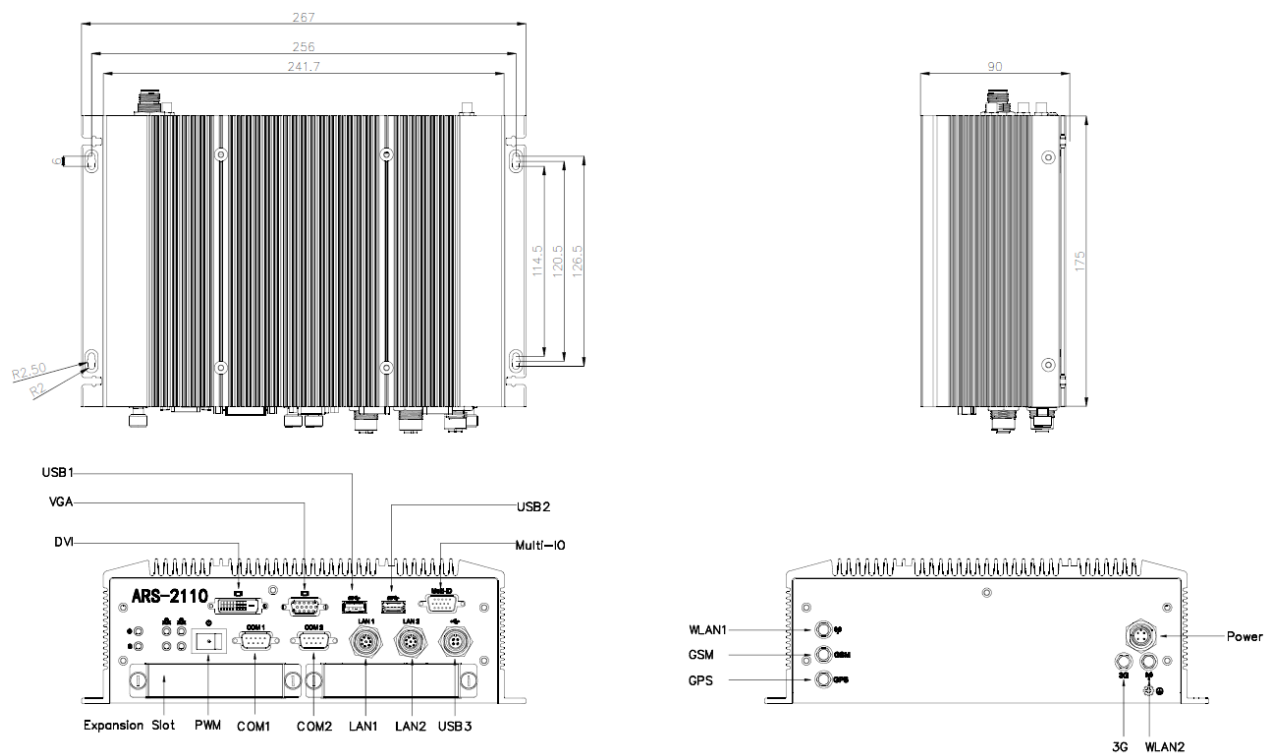
Specifications

Computing System	CPU	Intel®Atom™ E3845
	Max Speed	Quad Core 1.91GHz
	L3 Cache	2 MB
	BIOS	AMI EFI 64Mbit
	Memory	DDR3L 1333MHz 204-pin SODIMM (up to 4GB)
Storage	Internal	1x mSATA socket
Graphics	Chipset	Intel®HD Graphics
	Graphic Engine	DirectX11, OpenGL 3.2/4.X
	Video Resolutions	VGA up to 2560 x 1600 @ 60Hz / DVI up to 1920 x 1080
	Dual Display	VGA+DVI
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)
Audio	Codec	Realtek ALC888S, High Definition Audio
	Interface	Line-out, Mic-in, Line-in
I/O Interface	Serial Port	2 x RS-232/422/485 Ports with auto flow control
	USB Interface	1 x USB 3.0 ports (Type-A), 2 x USB 2.0 (1x M12, 1x Type-A)
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, 72Vdc, 110 Vdc (±40%, selectable)
Other	Watchdog Timer	255 Levels Timer Interval (Setup by software)
Environment	Operating Temperature	EN50155 TX : -40°C ~ 70°C (85°C for 10 Minutes)
	Storage Temperature	-40°C ~ 85°C
	Relative Humidity	95% @40°C (Non-Condensing)
	Vibration/Shock	MIL-STD-810G, EN 50155
Physical Characteristics	Construction	Aluminum Housing
	Dimensions (W x H x D)	267x 87.5x 175 mm/10.5x 3.5x 6.9 in
	Weight	4.25 ± 0.5 kg
Certifications	Railway Related	EN 50155, EN 50121, IEC 61373, EN 45545
	EMC. Safely	CE/FCC Class A. UL

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

Dimensions

Unit: mm



Ordering Information

Voltage	Part Number	Processor	DDR3L 4G	mSATA 32G	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	v	v
	ARS-2111TX-10A1E	Intel® E3845	v	v	v	v	v	v	v	v		v	v	v
	ARS-2112TX-10A1E	Intel® E3845	v	v	v	v	v	v	v	v				
72V	ARS-2110TX-30A1E	Intel® E3845	v	v	v	v	v	v	v	v	v	v	v	v
	ARS-2111TX-30A1E	Intel® E3845	v	v	v	v	v	v	v	v		v	v	v
	ARS-2112TX-30A1E	Intel® E3845	v	v	v	v	v	v	v	v				
110V	ARS-2110TX-40A1E	Intel® E3845	v	v	v	v	v	v	v	v	v	v	v	v
	ARS-2111TX-40A1E	Intel® E3845	v	v	v	v	v	v	v	v		v	v	v
	ARS-2112TX-40A1E	Intel® E3845	v	v	v	v	v	v	v	v				

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

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