

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

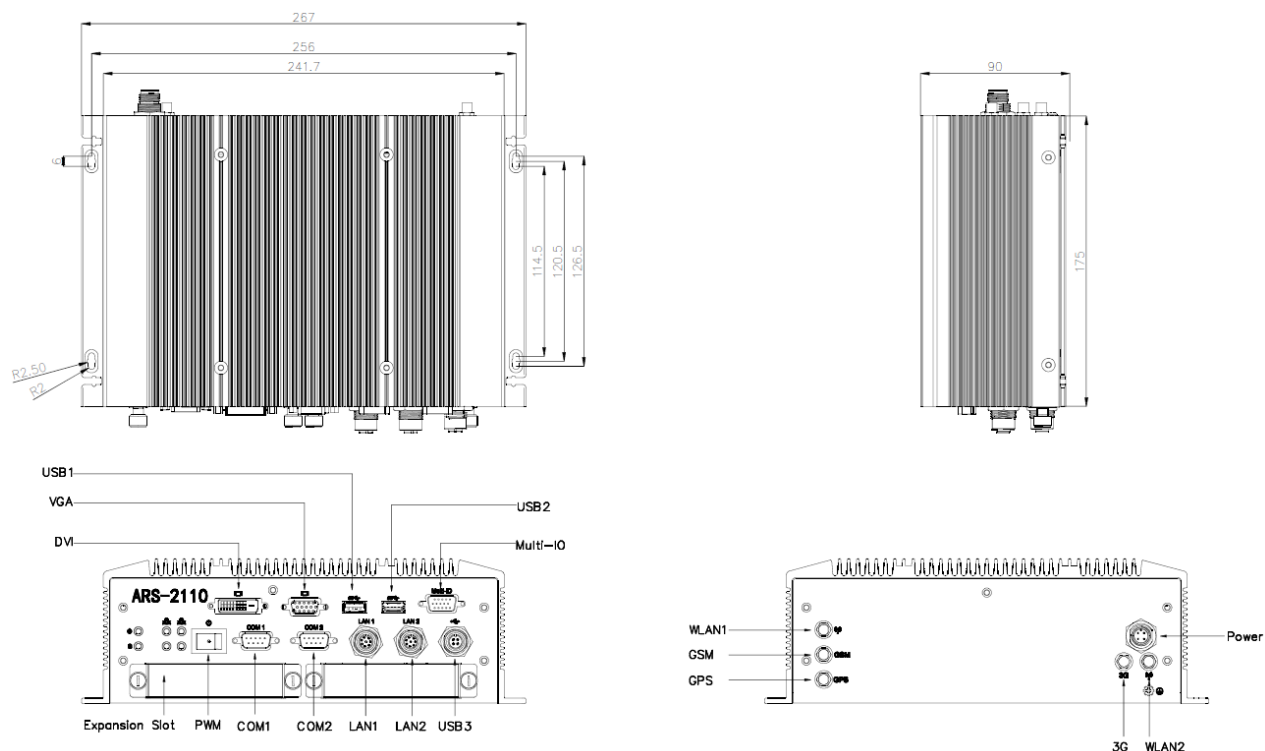
Specifications

| | | |
|--------------------------|------------------------|--|
| 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 |
| | 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