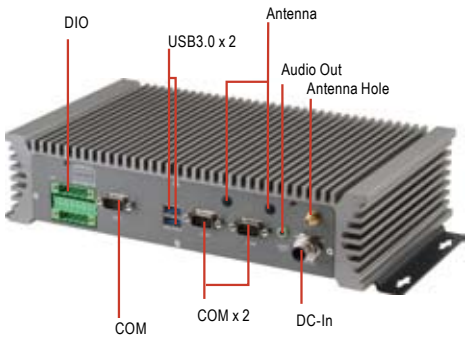
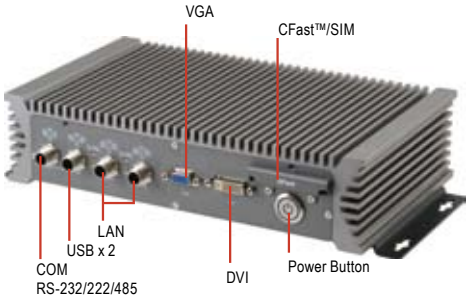
AEV-6356

Railway Box PC With Onboard Intel® Core™ i7/ Celeron® M Processor

Front View



Rear View



Specifications

System	
Processor	Intel® Core™ i7-3517UE up to 2.8GHz, Intel® Celeron® 827E ,1.4 GHz
Chipset	Intel® QM77
System Memory	DDR3 SODIMM x 1, Max.8GB
Display Interface	DB-15 x 1 for VGA
	DVI-I x 1
Storage Device	CFast™ x 1, SATA 3 x 2 (Support RAID 0,1)
Front I/O connector	USB 2.0 x 2 (M12), RS-232/422/485 x 1 (M12), Giga LAN x 2 (M12), VGA x 1 (DB-15), DVI-I x 1, Power button, CFast slot x 1, SIM slot x 1
Rear I/O connector	Digital Input x 6, Digital Output x 2, USB 3.0 x 2 (Type A), RS-232 x 2 (DB-9), RS-232/422/485 x 1 (DB-9, Isolation), Line-out x 1, Mic x 1, Power input (18~75VDC) (M12)
Digital Input	Digital Input x 6 Digital Output x 2 USB 3.0 x 2 (Type A) RS-232 x 2 (DB-9) RS-232/422/485 x 1 (DB-9, Isolation) Line-out x 1 Power input (18~75VDC) (M12)
Digital Output	Output Channels: 2, sink type Output Current: Max. 200 mA per channel On-state Voltage: 24 VDC nominal, open collector to 30 VDC Connector Type: 10-pin screw terminal block (6 DI points, 2 DO points, DI Source, GND) Isolation: 3 KV optical isolation
Serial Interface	RS-485: isolation 3000VDC (Rear I/O)
Expansion Slot	PCIe Mini card x 2 (WiFi / 3G / GPS) (Option)
Indicator	System LED x 1
OS Support	WinCE 6.0, Window® XP Embedded, Window® XP, Window® 7, Window® Embedded Standard 7, Linux Fedora
Mechanical	
Mounting	Wall / Din-rail
Dimension	—
Gross Weight	—
Net Weight	—
Power Supply	
DC Input	DC 18~75V (M12) Over-voltage protection Low-voltage protection Short circuit protection

Features

- **Intel® Core™ i7-3517UE or Celeron® 847E Onboard**
- **EN50155 Certification**
- **Well-protection:**
  Isolation RS-232/422/485 x 1/ Power (OVP/ LVP/ SCP)
- **Easy-to-control:**
  Isolation Digital Input x 6 + Digital Output x 2
  Wireless Solution: WiFi/ 3G/ GPS
  Rugged M12 Connector for LAN/ Serial/ USB/ Power

DDR2 · 1000 Giga LAN · USB 2.0 · CE FC

Environment Test

System	
Operation Temperature	-40°C to 70°C
Humidity	Conforms to EN 50155/EN50125-1, Test method EN 60068-2-30 (variant 1): Yearly average at 75 % HR, 30 days at 95 % HR, Occasionally at 100 % HR Tropicalisation and mist constraints
Altitude	<2500meters
Salt Mist	Conforms to EN50155
Insulation Resistance	Conforms to EN50155
Voltage withstand	-Conforms to EN50155, -Power supply voltage range conforms to Italian standard ST306158 0,6<U/Un<1,5 -Power supply variation conforms to Italian SCMT 0,6<U/Un<1,67 during 0,1sec -Power supply voltage switching (EN 50155 § 3.1.3) Class C1: 100 ms (0.6 Un during 100 ms of the battery at Un)
Mechanical Earth Continuity	Conforms to Standard STM-E-001 Acceptance criteria = R<100 mΩ Every metallic part accessible to the user must be connected to the mechanical earth (NF F 60100)
Pollution	Compliant with : EN60721-3-5 standard
EMC	Compliant with EN50121 standard
ESD	Conforms to EN 50155
Expansion Slot	PCIe Mini Card x 2
Radiated Electromagnetic Fields	Radiated immunity Test method EN 61000-4-3: The frequency range for the tests shall be done until 2.4 GHz, and an attenuation of 20 V/m.
Immunity To Fast Transients Bursts	Conforms to Standard reference : EN 50155 (§ 10.2.7) / EN 50121-3-2 Fast transient burst immunity, Test method EN 61000-4-4, ± 2,6 kV- repetition frequency: 5 kHz, ports referenced to the battery: direct injection, other signals: capacitive coupling.
Surges Immunity	Standard reference : EN 50155 (§ 10.2.6.2) / EN 50121-3-2 Surge immunity, Test method EN 50155 (§ 10.2.6.2), Waveform A:±1.8 kV (5-50µs, 5ohm) on the battery reference ports, Waveform B: ± 8.4 kV (0,05 µs -0,1 µs, 100 ohm) on the battery reference ports.
Conducted Disturbances Induced By Radio-Frequency Fields	Test method EN 61000-4-6, 150kHz-80MHz 1kHz, 80%AM, 10 Vrms
Emission Measurement	Conducted emissions Standard reference : EN 50155 (§ 10.2.8.2) / EN 50121-3-2 Radiated emission, Test method EN 55011, Class A, 30MHz-230MHz 40dBµV, 230MHz-2.4GHz 47dBµV.
Protection Against Electrical Hazards	PD2 environment as defined in EN50124 Over-Voltage degree (OV2)Rationale : It is not acceptable to always export the constraints on rolling stock as other signalling suppliers propose a solution into a box.
Fire And Smoke	conforms to NF F 16101 for cables and NF F 16102 for equipment
Shocks And Vibrations	Test method EN 61373 (random vibration), Operating test (duration > 10 min), Frequency range = 5-150 Hz, 0,7 m/s2 (longitudinal & transversal axis), 1 m/s2
	Test method EN 61373 (random vibration), Frequency range = 5-150 Hz, Test with equipment powered down for 5 hr, 5,5 m/s2 (longitudinal & transversal axis).
	Test method EN 61373 (random vibration), 50 m/s2 for 30 ms (longitudinal & transversal axis), 30 m/s2 for 30 ms (vertical axis), 3 shocks x 2 directions x 3 axes = 18 shocks

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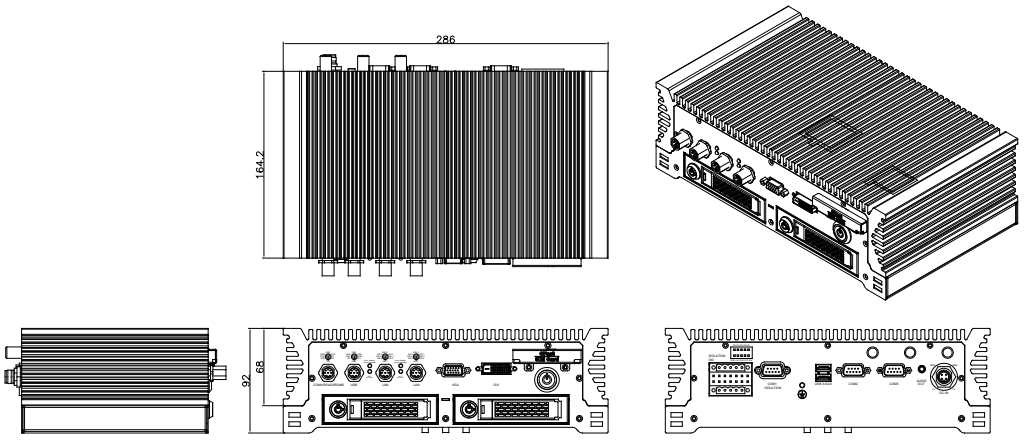
Dimension

Unit: mm



Ordering Information

- **AEV-6356-A1**
  Railway Boxer PC with Intel® Core™ i7-3517UE On Board
- **AEV-6356-A2**
  Railway Boxer PC with Intel® Celeron® 847E On Board

Optional Accessories

- **TBD**