EN235A

EN50155 Certified Railway 1U Rackmount Fanless System

Power Automation Computer

- EN50155 certificates for Railway Applications
- Design for reliability under demanding MIL-STD-810G Thermal, Shock, Vibration, Humidity/EMI/EMC conditions
- 3th Gen Intel® Core™ i7-3610QE processor
- Rugged aluminum chassis design with M12 connectors
- Integrated Smart UPS
- 1 x VGA, 1 x DVI-D, 1 x HDMI, 2 x Gigabit Ethernet, 4 x USB 3.0
- 33.6V to 62.4V DC-in
- Extended Temperature -40 to 70 °C

Specifications

System

CPU	Intel® 3th Gen Core™ i7-3610QE (Frequency 2.3GHz, Turbo Boost Frequency up to 3.3GHz), Quad-Core, 8 Thread Support, 6MB SmartCache. Build-in HD Graphics 4000 for excellent 3D, Turbo Boost Technology 2.0, VPro and Hyper-Threading support.
Memory type	2 x 204-pin SO-DIMM support up to 16 GB dual channel DDR3 1333/1600, Non-ECC
Chipset	Intel® QM77 Chipset providing integrated USB 3.0 and supporting 3th generation Intel® Core™ processor families
Expansion Slot	1 x Full-size miniPCIe

Display

VGA	Resolution up to 2048x1536 @ 75Hz
DVI-D	Resolution up to 1920 x 1200
HDMI	Resolution up to 1920 x 1200

Storage

HDD	4 x 2.5" SSD/HDD Tray HDD – up to SATAIII 6.0Gb/s, 2TB Capacity Solid State Disk (SSD) - up to 512GB Capacity
mSATA	mSATA Rugged Industrial NAND Flash mSATA Storage w/ Rugged -40/+85 °C High Capacity, optional Pre-loaded with Linux or Windows OS. 64 / 128 / 256 / 512GB Innodisk 3MG2-P Series MLC SATA III 6Gb/s Flash SSD, Rated for 520 MB/sec Sequential Read ; 350 MB/sec Write Max.

Ethernet

Ethernet	2 x Intel Gigabit Ethernet LAN Interfaces (10/100/1000Mbps)

Rear I/O

VGA	1 x DB15 connector
DVI-D	1 x 24Pin DVI-I connector
HDMI	1 x 19Pin HDMI connector
USB	2 x USB3.0 standard-A connectors
Audio	3 x 3.5mm Audio Jacks (Line-In/Out, MIC)
Serial Port	1 x DB9 connector (RS232/422/485)

Ethernet	2 x M12 connectors
DC-IN	1 x M12 X-code Male connector

POWER REQUIREMENT

DC-IN	33.6V to 62.4V DC-in
UPS	ENERSYS 0810-0004 Rechargeable Battery, high-rate power density, Cycle life up to 300 cycles, High stable voltage delivery, Safety and Fastest recharge. Max. Power 25W/30mins.

APPLICATIONS, OPERATING SYSTEM

Applications	Commercial and Military Platforms Requiring Compliance to MIL-STD-810G Embedded Computing, Process Control, Intelligent Automation and manufacturing applications where Harsh Temperature, Shock, Vibration, Altitude, Dust and EMI Conditions. Used in all aspects of the military.
Operating System	Microsoft Windows 7 Professional 32/64Bit, Microsoft Windows 8 Professional 32/64Bit, Ubuntu13.04, Ubuntu13.10, Ubuntu14.04, Fedora 20.

PHYSICAL

Dimension (W x D x H)	440 x 360 x 44 mm
Weight	9.05 Kg (19.95 lbs)
Chassis	SECC, Corrosion Resistant
Cooling	Natural Passive Convection/Conduction. No Moving Parts.
Connectors	DC-IN: Amphenol 4-Pin X-code Male M12 Connector (M12S-04PMMS-SF8001) Ethernet: Phoenix 8 PIN M12, X-Code (Housing: 1414020, Internal Bladder: 1413446) VGA: D-SUB 15Pin USB : Standard-A COM: D-SUB 9Pin

ENVIRONMENTAL

MIL-STD-810G Test	Method 507.5, Procedure II (Temperature & Humidity) Method 514.6, Procedure I (Category 20 & 24, Vibration) Method 516.6, Procedure I (Mechanical Shock) Method 501.5, Procedure I (Storage/High Temperature) Method 501.5, Procedure II (Operation/High Temperature) Method 502.5, Procedure I (Storage/Low Temperature) Method 502.5, Procedure II (Operation/Low Temperature) Method 503.5, Procedure I (Temperature shock)
EN50155 Compliance Test	Clause 12.2.1 Visual inspection Clause 12.2.2 Performance test Clause 12.2.9 Insulation test Clause 12.2.11 Vibration, shock and bump test

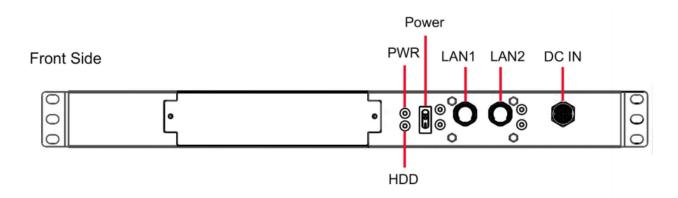|	
Reliability	No Moving Parts; Passive Cooling. Designed & Manufactured using ISO 9001/2000 Certified Quality Program.
EMC	CE and FCC compliance
Green Product	RoHS, WEEE compliance

Ordering Information

EN235A-ET

1U Rackmount Fanless System with 3rd Gen. Intel® Core™

i7-3610QE, 33.6V to 62.4V DC-in, Smart UPS,

Extended Temp. -20~60°C

EN235A-UT

1U Rackmount Fanless System with 3rd Gen. Intel® Core™

i7-3610QE, 33.6V to 62.4V DC-in, Smart UPS,

Extended Temp -40~70°C

Dimensions