EN235A

EN50155 Certified Railway 1U Rackmount Fanless System, with 3rd Gen. Intel® Core™ Processor, Smart-UPS

1U Rackmount Fanless System with 3rd Gen. Intel® Core™ Processor, EN50155 Certified, 33.6V to 62.4V DC-in, Smart UPS, Extended Temp. -40~70°C

- 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

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SPECIFICATIONS

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High Performance Processor	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	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)
I/O INTERFACE	
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
Serial Port	1 x DB9 connector (RS232/422/485)
Ethernet	2 x M12 connectors
Audio	3 x 3.5mm Audio Jacks (Line-In/Out, MIC)
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	Railway surveillance, Passenger information system, Driver Machine interface, Train management and applications where Harsh Temperature, Shock, Vibration, Altitude, Dust, Damp and EMI Conditions.
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 460 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 Audio: 3.5mm phone Jack

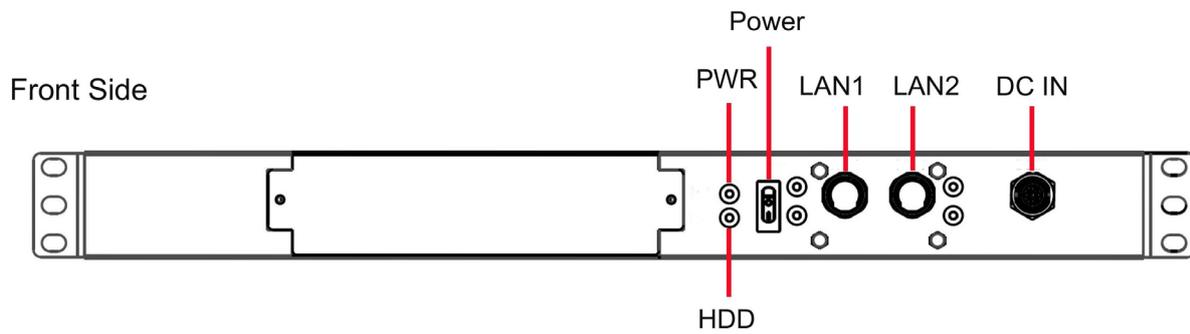| ENVIRONMENTAL	
MIL-STD-810G Test	Method 507.5, Procedure II (Temperature & Humidity) Method 514.6, Procedure I (Category 20 & 24, Vibration) Method 516.6, Procedure I (Mechanical Shock) Method 501.5, Procedure I (Storage/High Temperature) Method 501.5, Procedure II (Operation/High Temperature) Method 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

EN235A is 19" 1U Rack-mount Fanless rugged System, suitable for application such as railway, high-end automation etc. Powered by Intel® Ivy Bridge i7-3610QE CPU and QM77 chipset, quad cores CPU can have high performance 2.3GHz–3.3 GHz.

Appearance

Front Side

Power

PWR   LAN1   LAN2   DC IN

HDD

Back Side

2x2.5'' HDD/SSD Tray   Ground Screw