

EN50155 EN50155A

EN50155 CERTIFIED RAILWAY 1 U RACKMOUNT FANLESS SYSTEM, WITH 3RD GEN. INTEL® CORE™ PROCESSOR, SMART-UPS

1 U 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™ I7-3517UE PROCESSOR
- RUGGED ALUMINUM CHASSIS DESIGN WITH M12 CONNECTORS
- INTEGRATED SMART UPS
- 1 X VGA, 2 X GIGABIT ETHERNET, 2 X USB 3.0
- 33.6V TO 62.4V DC-IN
- EXTENDED TEMPERATURE -40 TO 70 °C

SPECIFICATIONS

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High Performance Processor	Intel® 3th Gen Core™ i7-3517UE (Frequency 1.7GHz, Turbo Boost Frequency up to 2.8GHz), Dual-Core, 4 Thread Support, 4MB SmartCache. Build-in HD Graphics 4000 for excellent 3D , Turbo Boost Technology 2.0 , VPro and Hyper-Threading support.
Memory	1 x 204-pin SO-DIMM support up to 8 GB dual channel DDR3 1333/1600, Non-ECC
Chipset	Intel® HM76 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 1920 x 1080, 60Hz
STORAGE	
HDD	2 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/+85C 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. 62 / 128 / 256GB Apacer mSATA H1-M Series MLC SATA III 6Gb/s Flash SSD, Rated for 430 MB/sec Sequential Read ; 170 MB/sec Write Max. Vibration: 15G @7~2000Hz, Shock: 50G @ 0.5m.
ETHERNET	
Ethernet	2 x Intel Gigabit Ethernet LAN Interfaces (10/100/1000Mbps)
I/O INTERFACE	
VGA	1 x DB15 connector
USB	2 x USB3.0 standard-A connectors
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	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 360 x 44 mm
Weight	7.90 Kg (17.4 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

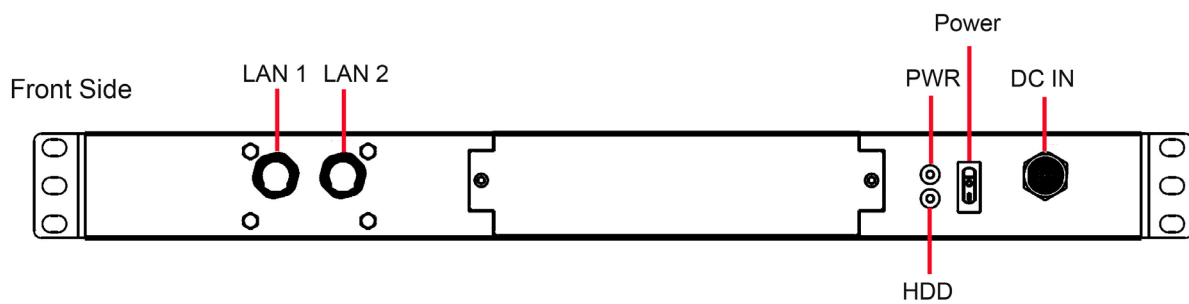
MIL-STD-810G Test	Method 507.5, Procedure II (Temperature & Humidity) Method 514.6, Procedure I (Category 20 & 24, Vibration) Method 516.6, Procedure I (Mechanical Shock) Method 501.5, Procedure I (Storage/High Temperature) Method 501.5, Procedure II (Operation/High Temperature) Method 502.5, Procedure 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
EN236A

EN50155 1U FANLESS RACKMOUNT WITH INTEL® CORE I7-3517UE, 33.6V TO 62.4V DC-IN, EXTENDED TEMP -40 TO 70°C

EN236A is 19" 1U RACK-MOUNT FANLESS RUGGED SYSTEM, SUITABLE FOR APPLICATION SUCH AS RAILWAY, HIGH-END AUTOMATION ETC. POWERED BY INTEL® IVY BRIDGE I7 CPU AND HM76 CHIPSET, THE BGA TYPE CPU I7-3517UE WITH DUAL CORES PERFORMANCE HAS ONLY 17W POWER CONSUMPTION.

APPEARANCE



Back Side

