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THOR100

Intel® Broadwell Fanless Rugged System

Intel® i7-5650U Processor on board,
Amphenol type connector, IP65 classify,
9V to 36V DC-in, Wide Temp. -40~70°C

- Intel® Broadwell i7-5650U BGA (2 cores, 3.2GHz)
- 2 x XR-DIMM up to 16GB
- 1 x mPCIe expansion slot
- 1 x 2.5" HDD/ SSD
- Amphenol M12 connector applied
- IP65 classify
- Wide range 9V to 36V DC-in
- Extended operating temperature. -40 to 70°C

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Specifications

Specifications	
Low Power Processor	Intel® Broadwell-U Core™ i7-5650U Processor (4M Cache, up to 3.20 GHz) Turbo Boost Technology 2.0 , VPro and Hyper-Threading support.
Memory	2 x XR-DIMM up to 16GB
Expansion Slot	1 x miniPCIe (with mSATA supported)
Display	
VGA	Resolution up to 1920 x 1080 (with Innodisk EMPV-1201-W1 Display card)
Storage	
HDD/SDD	1 x 2.5" HDD/SSD HDD – up to 2TB Capacity SSD – up to 1TB Capacity
mSATA	Full-size mSATA- up to 512GB Capacity Rugged Industrial NAND Flash mSATA Storage w/ Rugged -40/+85°C High Capacity, optional Pre-loaded with Linux or Windows OS. 8 to 512GB Innodisk mSATA MLC SATA III 6Gb/s Flash SSD, Rated for 400 MB/sec Sequential Read ; 200 MB/sec Write Max. Vibration: 20G @7~2000Hz, Shock: 1500G @ 0.5m, MTBF: 3 million hours. 8 to 512GB Apacer mSATA MLC SATA III 6Gb/s Flash SSD, Rated for 505 MB/sec Sequential Read ; 360 MB/sec Write Max. Vibration: 15G @7~2000Hz, Shock: 50G @ 0.5m.
Ethernet	
Ethernet	1 x Intel I210-IT, 1 x Intel I218-LM Gigabit LAN Interfaces (10/100/1000Mbps)
Front I/O	
Button	Water Resistive Power Button with dual-color LED Backlight
X1 (COM)	12-Pin A-code Female M12 Connector (Amphenol M12A-12PMMS-SF8001)
X2 (VGA)	12-Pin A-code Female M12 Connector (Amphenol M12A-12PMMS-SF8001)
X3 (LAN)	8-Pin A-code Female M12 Connector (Amphenol M12S-04BFFB-SL7001)
X4 (LAN)	8-Pin A-code Female M12 Connector (Amphenol M12S-04BFFB-SL7001)
X5 (USB 2.0 x 2)	8-Pin A-code Female M12 Connector (Amphenol M12S-04BFFB-SL7001)
Rear I/O	
DC-IN	4-Pin S-code Male M12 Connector (Amphenol M12S-04PMMS-SF8001)
Power Requirement	
Power Input	9V to 36V DC-in
Power Type	AT/ATX Mode Select by Jumper

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 Win 7 32/64Bit, Win 8 32/64Bit, Win 8.1 32/64Bit, Win 10 32/64Bit Ubuntu13.04, Ubuntu13.10, Ubuntu14.04, Fedora 20.
Physical	
Dimension (W x D x H)	220 x 380 x 44 mm
Weight	5.5 Kg (12.11 lbs)
Chassis	Aluminum AL6061
Heatsink	Aluminum Alloy, Corrosion Resistant.
Finish	Anodic aluminum oxide (Color)
Cooling	Natural Passive Convection/Conduction. No Moving Parts.
Ingress Protection	IP65
Environmental	
MIL-STD-810G Test	Method 507.5, Procedure II (Temperature & Humidity) Method 516.6 Shock-Procedure V Non-Operating (Mechanical Shock) Method 516.6 Shock-Procedure I Operating (Mechanical Shock) Method 514.6 Vibration Category 24/Non-Operating (Category 20 & 24, Vibration) Method 514.6 Vibration Category 20/Operating (Category 20 & 24, Vibration) 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)
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
Operating Temp.	-40 to 70°C (ambient with air flow)
Storage Temp.	-40 to 85°C
Relative Humidity	5% to 95%, non-condensing.

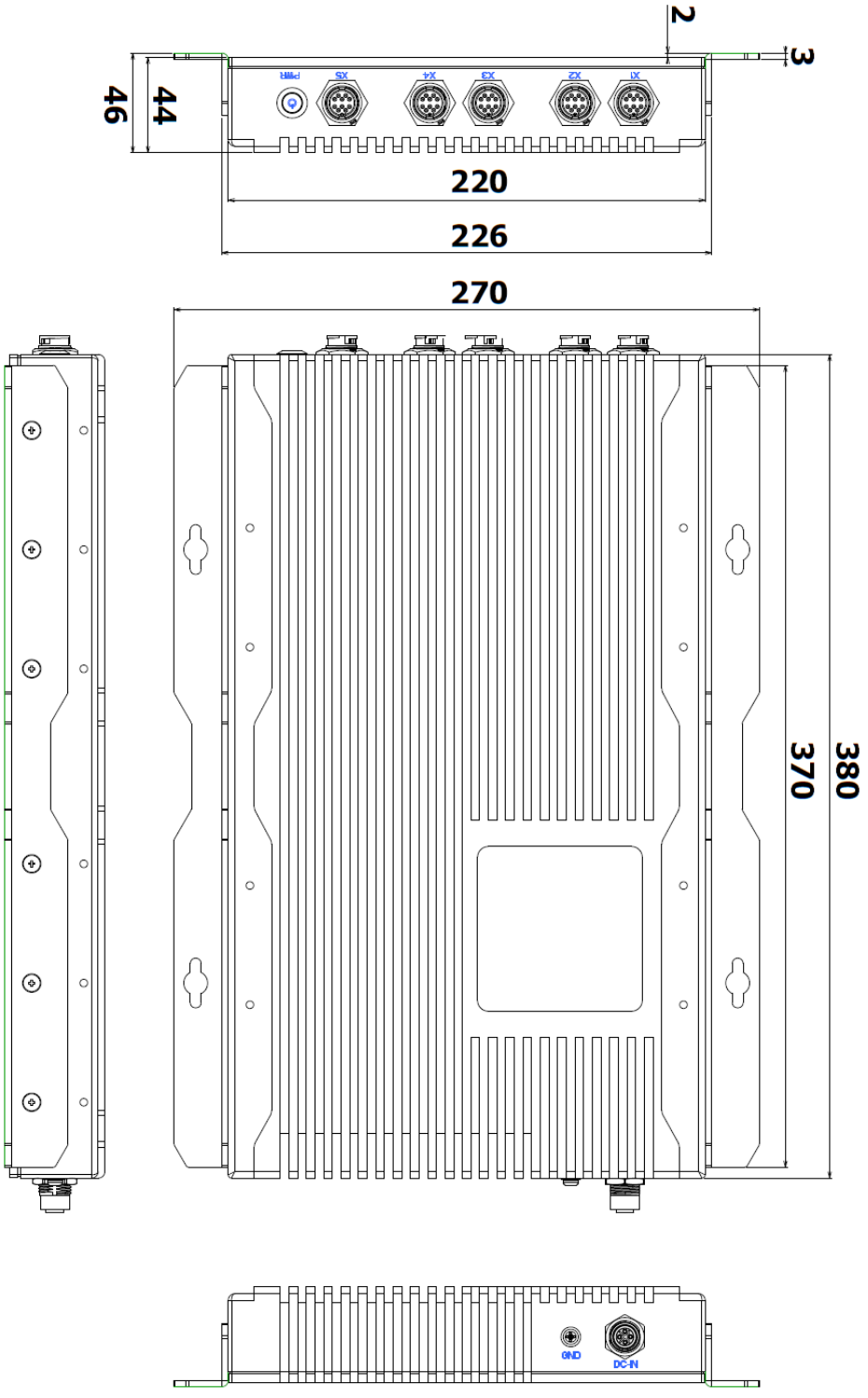
Ordering Information

THOR100

IP65 MIL-STD-810G Rugged Computer with Intel® i7-5650U, 9V to 36V DC-in, Extended Temp -40 to 70°C

THOR100 is driven by Intel 5th generation Broadwell i7-5650U processor soldering onboard which is an extremely compact Core I-based fanless rugged system. Broadwell processor supports outstanding CPU and graphics performance, providing dual cores 3.2GHz clock speed while consuming low power consumption 15W.

Drawing



Unit: mm