ÖRUGGED SCIENCE

MILCORTEX 1300 RUGGED EMBEDDED COMPUTER

MILCORTEX 1300 - front

ABOUT

The MILCORTEX 1300 rugged embedded computer is designed to take the heat. With an operating temperature range of -25°C to 70°C (-13°F to 157°F), it can withstand a wide range of harsh industrial or military environments. Most computer failures are a consequence of fans or disk drives breaking down in the field. The MILCORTEX 1300 was specifically designed sealed, fan-less, and completely solid state. With no moving parts, the possibility of mechanical failure is eliminated from the equation.

The MILCORTEX 1300 is a powerful and versatile industrial computer, driven by a 3rd Gen Intel® Quad-Core™ i3|i5|i7 series processor (6M Cache, up to 3.30 GHz) with up to 16GB DDR3L RAM. Ivy Bridge processors have increased power efficiency by as much as 25%, which permits an extremely low thermal design power of 35W and the ability to operate flawlessly in your tough industrial application. Graphics are managed by Intel HD4000 GPU and can support 3 independent displays, and up to 5 total displays with clones. With 8 Serial Ports, 4 USB 3.0 Ports, 2 USB 2.0 ports, isolated DIO, 2 mini-PCIe, JST connector, Trusted Platform Module, and overvoltage protection, there's not much the MILCORTEX 1300 can't handle.

FEATURES

- **8x COM ports (3x RS-232, 5x RS-232/485/422)**
- **Fanless, solid-state design**
- **Powerful 3rd Gen Intel® Quad-Core™ i3|i5|i7 series processors (up to 3.30 GHz)**
- **2x Fiber 100Fx LANs**
- **4x Copper LANs**
- **Up to 16Gb RAM**
- **Exceptional thermal performance**

MILCORTEX 1300 - back

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System

Processor	Gen3 Intel® Quad Core™ i7/i5/i3 Ivy Bridge 6M Cache 3.30 GHz
Chipset	Intel® QM87
BIOS	AMI
SIO	IT8783F
Memory	RAM up to 16 Gb DDR3/L 1066/1333/1600 MHz

I/O Ports

Serial	3x COM RS-232 5x COM RS-232/485/422
USB	4x USB 3.0, 4x USB 2.0 (2 External, 2 Internal)
LED Indicators	Power, SSD, CFast Card
Isolated DIO	N/A
GPIO	16x GPIO (internal)
PS2	N/A

Expansion

SUMIT A, B	N/A
JST Connector	1x internal 6-pin to USB 2.0
Mini PCIe	2x Mini PCIe Socket

Graphics

Graphics Processor	Intel® HD4000
Display Memory	1.7 Gb shared
Video Capture	N/A
Display Interfaces	VGA: 1920 x 1200 max DVI-D: 1920 x 1080 max Display Port 1: 2650 x 1600 max Display Port 2: 1920 x 1200 max LVDS: 1920 x 1200 max

Storage

SATA	2x SATA III - 6Gbps (bottom load) 1x SATA III (Mini PCIe Type, 6Gbps) 1x SATA II - 3Gbps DOM
Storage Expansion	CFast slot, Push In-Out ejector 2x front-access 2.5" SSD/HDD tray

Ethernet

Copper LAN	4x copper LANs
Fiber LAN	2x 100Fx fiber LANs

Power

Input Voltage	6 to 36V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground Mini-DIN 4-pin
Ignition Control	16 mode (internal)
Remote Switch	3-pin Terminal Block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power

Mechanical

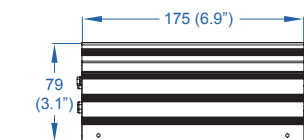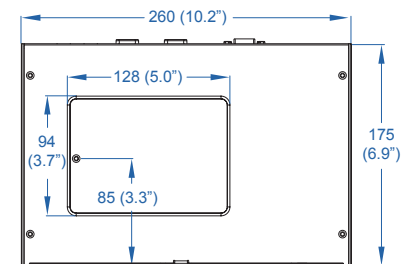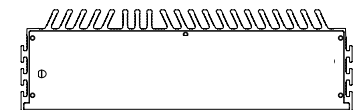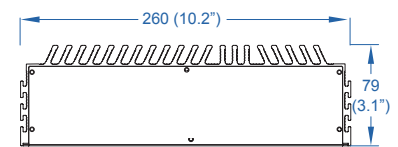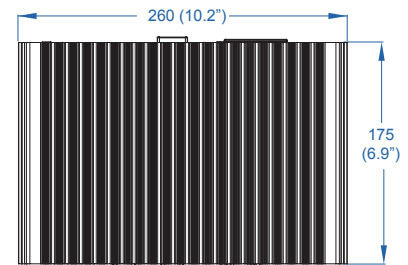|	
Chassis/Mounting	Aluminum housing, Wall mount by bracket, DIN rail mount
Size (W x D x H)	10.2" x 6.9" x 3.1" (260mm x 175mm x 79mm)
Weight	6 lbs. (2.8Kg)

Environmental

Operating Temperature	-13°F to 158°F (-25°C to 70°C) - Wide temp. version available (-40°C to 85°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Humidity	10 to 95%, Non-condensing
Relative Humidity	95% at 70°C
EMC	CE, FCC, RoHS

Additional

Trusted Platform Module	Infineon SLB9635, LPC Interface (optional)
Watchdog Timer	Reset: 1 to 255 sec/min per step
Smart Management	Wake-on-LAN, PXE supported
HW Monitor	Temperature & voltage auto-throttle on CPU overheat
Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	Line-out, Mic-in, Front Audio Header

Designed to Meet

MIL-STD-901D	Shock
MIL-STD-461E	EMI (Electromagnetic Interference)
MIL-STD-167-1A	Vibration
MIL-STD-810G	Temperature/Immersion/Humidity

MILCORTEX 1300 features 1 front-loading 2.5"
SSD bays with convenient thumbscrew fasteners