

MILCORTEX 1000 RUGGED EMBEDDED COMPUTER



MILCORTEX 1000 - front

ABOUT

The MILCORTEX 1000 Rugged Embedded Computers 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 Cortex Rugged Embedded Computer was specifically designed fanless, sealed, and completely solid state. With no moving parts, the possibility of mechanical failure is eliminated from the equation.

The MILCORTEX 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. And with up to 6 Gigabit Ethernet ports, 2 Fiber 100Fx ports, 4 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 aren't many applications that the MILCORTEX cannot handle.

FEATURES

- Fanless, solid-state design
- Powerful 3rd Gen Intel® Quad-Core™ i3|i5|i7 series processors (up to 3.30 GHz)
- Front-loading and internal SSDs
- Up to 16Gb RAM
- Up to 6x GbE copper LANs
- 2x Fiber 100Fx LANs (optional)
- 4 serial/4 USB ports
- Video capture available
- Exceptional thermal performance



MILCORTEX 1000 - back

MILCORTEX 1000 SPECIFICATIONS



System

Processor	Gen3 Intel® Quad Core™ i7/i5/i3 Ivy Bridge 6M Cache 3.30 GHz
Chipset	Intel® QM77
BIOS	AMI
SIO	IT8783F
Memory	DDR3 1066/1333/1600 MHz, DDR3L 1066/1333 MHz Max. 16GB 2x 204-pin SO-DIMM Sockets

I/O Ports

Serial	3x COM RS-232 1x COM RS-232/485/422
USB	4x USB 3.0, 4x USB 2.0 (2 External, 2 Internal)
LED Indicators	Power, HDD, CFast Card
GPIO	16x GPIO (internal)

Expansion

JST Connector	1x internal 6-pin to USB 2.0
Mini PCIe	1 miniPCIe Socket: PCIe + USB + SIM Card Socket 1 miniPCIe Socket: PCIe + USB

Graphics

Graphics Processor	Intel® HD4000
Display Memory	1.7 Gb shared
Display Interfaces	DB-15 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	2 SATA III 6Gbps 1 SATA II 3Gbps - Support Horizontal Type SATA DOM
mSATA	2 SATA II 3Gbps
Storage Expansion	CFast slot, Push In-Out ejector

Ethernet

LAN 1	Intel® 82579LM Gigabit LAN, Wake on LAN, PXE Support
LAN 2-4	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN 5-6 (optional)	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
Fiber SPF (optional)	2x 1000Base SFP Ports Based On Intel® I350 Chipset

Power

Input Voltage	6 to 36V, DC-in
Power Interface	1x 3-pin Terminal Block : V+, V-, Frame Ground Mini-DIN 4-pin
Power Adapter	AC to DC +24V / 5A 120W Max. (Optional)
Surge Protection	On-board LT4356 for Power Input High Voltage Surge Protection

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
HW Monitor	Temperature & voltage auto-throttle on CPU overheat

Designed to Meet

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

