

## MILCORTEX 1000 OPERATOR INTERFACE PANELS



### ABOUT

The 19" MilCortex1000 OIP is powered by a Rugged Science MilCortex1000 Embedded Computer, which is internally mounted within the OIP enclosure. This "box-in-a-box" design keeps price and obsolescence issue in check. The internal computer can be configured as any model of embedded computer, with all associated options for each respective model. MilCortex1000 embedded computers are powered by QuadCore 5th Generation Intel Core i3|i5|i7 processors known as Broadwell-H and featuring 14nm lithography. The Operator Interface Panel's external I/O can be user configured to be matched to any I/O option on the internal embedded computer.

The aluminum chassis of the 19" MilCortex OIP doubles as a heat sink to thermally disperse heat to the ambient environment. The 19" MilCortex Operator Interface Panel features a 19" LED-backlit display with 1280x1024 resolution, a 5:4 aspect ratio, and 700 nits standard brightness for a clear and sharp display. A sunlight readable hi-brite display is available as an option. The 19" MilCortex1000 OIP is also available in a high definition 20.1" 1600x1200 and a 24" 1920x1080 model.

### FEATURES

- Powerful 3rd Gen Intel® Quad-Core™ i7 series processors (up to 3.30 GHz)
- 2x 4Gb DDR3 (8gb total) RAM
- 19 and 20.1-inch sunlight readable backlit LED touchscreen displays
- 16x General Purpose I/O, 8x isolated Digital I/O
- Display memory (shared) up to 1.7Gb
- PS/2 keyboard & mouse
- Military shock, vibration, & EMI

# MILCORTEX 1000 OIP SPECIFICATIONS



## System

<b>Internal Embedded Computer</b>	MILCORTEX Rugged Embedded Computer
<b>Processor</b>	3rd Generation Intel® Core™ i7   i5   i3 Ivy Bridge Processors (6M Cache, up to 3.30 GHz)
<b>Chipset</b>	Intel® Mobile QM77
<b>BIOS</b>	AMI
<b>Memory</b>	DDR3 1066   1333   1600 MHz, DDR3L 1066   1333 MHz 16GB Max., 2 204-pin SO-DIMM Sockets

For sales and service:  
Rugged Science  
52 Loveton Circle - Suite 203  
Sparks, MD 21152  
USA

## External I/O

<b>Serial Interface</b>	3 COM RS-232, 1 COM RS-232 / 485 / 422
<b>USB</b>	4 External USB (4 USB 3.0 or 2 USB3.0+2 USB2.0)
<b>Inline Mouse</b>	Sealed USB inline pointing device on front panel bezel
<b>OSD Brightness Control</b>	Four button Screen Brightness Control and OSD Menu
<b>Isolated Digital I/O</b>	8 Digital Input, 8 Digital Output
<b>PS/2 (optional)</b>	PS/2 keyboard & mouse
<b>Touchscreen</b>	5-wire Resistive Touch Screen (Standard) Optional: Capacitive, IR, SAW

## Ethernet

<b>Copper LAN 1</b>	1 Intel® 82579LM Gigabit LAN, Wake on LAN, PXE Support ; Intel® AMT 8.0
<b>Copper LAN 2</b>	1 Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
<b>Fiber LAN 1, 2 (optional)</b>	2 100 Base FX Fiber LAN via commercial ST connector (Fiber Gigabit Ethernet option via SFP Module also available)

## Expansion

<b>Mini-PCIe</b>	1x miniPCIe socket (PCIe +USB+ SIM card socket) 1x miniPCIe socket (PCIe +USB), compatible with mSATA
------------------	--

## Graphics, Video & Audio

<b>Display Size</b>	19" Diagonal Viewing Area
<b>Resolution/Aspect</b>	1280 x 1024 resolution, 4:3 Aspect ratio
<b>Backlight</b>	LED-backlit
<b>Graphics Chipset</b>	Intel® GMA HD 4000
<b>Display Memory</b>	Shared Memory, Up to 1.7GB
<b>Display Interfaces</b>	DB-15 VGA / 1920 x 1200 Max. DVI-D   1920 x 1200 Max.
<b>Display Port 1</b>	2560 x 1600 Max.
<b>Display Port 2</b>	1920 x 1200 Max.
<b>LVDS</b>	Dual Channel 24-bit   1920 x 1200 Max.
<b>Audio</b>	Realtek ALC892, 5.1 Channel HD Audio with 93 dB Speaker Line-out, Mic-in, Front Audio Header

## Power

<b>Power Input</b>	120VAC, 60Hz, Single Phase
<b>Protection</b>	Temperature   Voltages Auto Throttling Control When CPU Overheats

## Storage

<b>SATA</b>	2 SATA III 6Gbps 1 SATA II 3Gbps DOM
<b>Storage Expansion</b>	CFast Slot, Push In   Out Ejector

## Mechanical

<b>Size (W x D x H)</b>	473mm x 457mm x 200mm (18.63" x 18.0" x 7.86")
<b>Weight</b>	43.3 lbs (without bracket)/ 49.1 lbs (with bracket)
<b>Chassis</b>	Aluminum Housing

## Environmental

<b>Operating Temperature</b>	0°C to 50°C (32°F to 122°F)
<b>Storage Temperature</b>	-25°C to 85°C (-13°F to 185°F)

## Additional

<b>Trusted Mobile Platform</b>	Infineon SLB9635, LPC Interface (Optional)
<b>Watchdog Timer</b>	Reset: 1 to 255 sec / min Per Step
<b>HW Monitor</b>	Temperature   Voltages Auto Throttling Control When CPU Overheats

## Designed to Meet

<b>Shock</b>	MIL-S-901D Grade A
<b>EMI</b>	MIL-STD-461F
<b>Vibration</b>	MIL-STD-167-1