

## MILCORTEX 2100 RUGGED EMBEDDED COMPUTER



MILCORTEX 2100 - front



MILCORTEX 2100 - back

## ABOUT

The MilCortex 2100 features up to 6 Gigabit Ethernet LAN ports, 4 of which are IEEE 802.3at compliant to provide Power-over-Ethernet (PoE+). PoE+ can be a significant advantage in reducing cabling cost for military networks by providing both data and power connections to end PoE+ capable devices such as IP cameras, network IP thermostats, or other network sensors. Additionally, the MilCortex 2100 is powered by the latest Quad Core 5th Generation Intel Broadwell-H Processor inside of the rugged MilCortex 2100 military embedded computer. The new 14nm die has allowed for a 15% gain in productivity over previous generations of processors. High performance computing productivity wrapped in a rugged, thermally efficient chassis make the MilCortex 2100 the ideal computer for military applications. Tested and designed to meet stringent military specifications, including MIL-S-901D, MIL-STD-167-1, and MIL-STD-461F, the MilCortex 2100 delivers cutting-edge performance, smart electrical protection, and trusted rugged reliability all in a single compact package. The MilCortex 2100 was designed to meet a broad range of application requirements and includes the Intel® QM87 chipset, dual channel DDR3L memory at 1600MHz, up to 32GB. Advanced Intel® Iris™ Pro Graphics 6200/ Intel® HD Graphics 5600 supports VGA, DVI-I, dual DisplayPort and eDP display interfaces, up to 3 independent 4K displays..

Like all Rugged Science Military Division Products, the MilCortex 2100 features an embedded CPU and chipset that are on Intel's embedded road map. This translates to guaranteed support for a minimum of 7 years, in many cases much longer with industrially popular chips. Embedded road map chipsets can be a key obsolescence management tool when planning new military computing systems.

## FEATURES

- **4 Gigabit Ethernet Power-over-Ethernet (PoE+) Ports**
- **2 Independent Gigabit Ethernet LAN ports**
- **Quad Core 5th Generation Intel® Core™ i7 Mobile Processor (Broadwell-H)**
- **VGA/ DVI-D/ DisplayPort/ eDP Interface, up to 3 independent 4K displays**
- **3 Mini PCIe Socket for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS**
- **Fanless, -25°C to 70°C Operating Temperature**

# MILCORTEX 2100 SPECIFICATIONS



## System

<b>Processor</b>	Quad Core 5th Generation Intel® Core™ i7-5850EQ/ i7-5700EQ (Broadwell-H)
<b>Chipset</b>	Intel® QM87
<b>BIOS</b>	AMI
<b>SIO</b>	IT8786E
<b>Memory</b>	2 DDR3L 1600MHz SO-DIMM, up to 32GB

## I/O Ports

<b>Serial Interface</b>	4x COM RS-232/ 422/ 485
<b>USB</b>	4x USB 3.0, 3x USB 2.0 (2 External, 1 Internal)
<b>LED Indicators</b>	Power, HDD, PoE
<b>Isolated DIO</b>	16x (8 DI, 8 DO)
<b>GPIO</b>	16x GPIO (internal)
<b>SIM Card</b>	2x SIM Card socket (external)

## Expansion

<b>SUMIT A, B</b>	2x SUMIT slot (optional) 3x Mini PCIe Socket :
<b>Mini PCIe</b>	2x Full-size for PCIe/ USB/ External SIM Card/ mSATA 1x Half-size for PCIe/ USB

## Graphics

<b>Graphics Processor</b>	Intel® Iris™ Pro Graphics 6200 (5850EQ) Intel® HD Graphics 5600 (5700EQ)
<b>Display Interfaces</b>	DB-15 VGA: 1920 x 1200 max DVI-D: 1920 x 1080 max Display Port 1: 4096 x 2304@ 60Hz Display Port 2: 4096 x 2304 @ 60Hz eDP: up to 4096 x 2304 @ 60Hz

## Storage

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

## Ethernet

<b>LAN 1</b>	Intel® I218 Gigabit LAN supports iAMT 9.5
<b>LAN 2</b>	Intel® I210 Gigabit LAN
<b>LAN 3-6 (PoE)</b>	Gigabit IEEE 802.3at (25.5W/48V) PoE+ by Intel® I210

## Power

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

## Mechanical

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

## Environmental

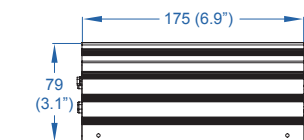
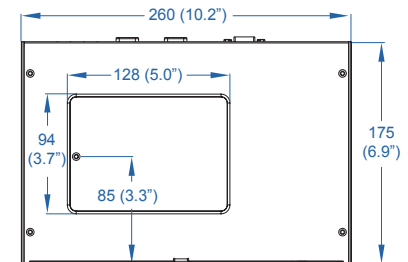
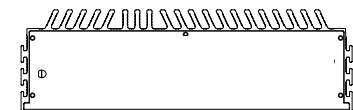
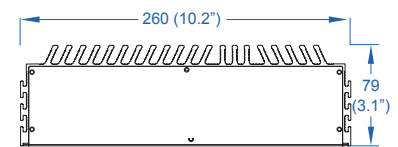
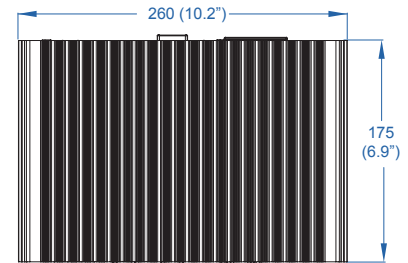
<b>Operating Temperature</b>	-13°F to 158°F (-25°C to 70°C) - Wide temp. version available (-40°C to 85°C)
<b>Storage Temperature</b>	-40°F to 185°F (-40°C to 85°C)
<b>Humidity</b>	10 to 95%, Non-condensing
<b>Relative Humidity</b>	95% at 70°C
<b>EMC</b>	CE, FCC, RoHS

## Additional

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

## Designed to Meet

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



MILCORTEX 2100 features 2 front-loading 2.5" SSD bays with convenient thumbscrew fasteners