

MILAXON 2100 RUGGED EMBEDDED COMPUTER



MILAXON 2100 - front



MILAXON 2100 - back

ABOUT

The MilAxon 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. The MilAxon Slim Profile Rugged Military Computer is powered by the 5th Generation Broadwell-U Dual Core processor from Intel. The excellent thermal efficiency of Intel's 14nm Broadwell lithography allows the MilCortex to provide profuse computing power in a slim profile chassis. The MilAxon 2100 can independently support 3 LCD displays (5 if two displays are cloned) with 4k resolution each. This makes the slim and compact MilAxon 2100 ideal for multiple monitor consoles where space is at a premium and heat is a concern. The MilAxon 2100 has a fanless operating temperature from -25°C to 70°C. Why fanless? Because fans fail, which leads to further cascading failures in the system. Rugged Science focuses on fanless, solid state designs to ensure premium operation for critical systems in challenging environments. Internally, the MilAxon 2100 rugged computer features 2 mini-PCIe sockets, which allow for easy adaptation for mobile applications that require 3G/4G/LTE/WiFi/GPRS/UMTS support.

Like all Rugged Science Military Division Products, the MilAxon 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

- 6 GbE LAN ports with 4 Power-over-Ethernet (PoE) Ports
- 5th Generation Intel® SoC (Broadwell-U)
- Supports 4K Resolution, up to 3 independent displays
- Fanless, -25°C to 70°C Operating Temperature
- 2 Front-access SSD/ HDD Tray
- 2 Mini PCIe support 3G/ 4G/ LTE/ WiFi/ GPRS/ UMT
- 16 Isolated DIO: 8 DI / 8 DO

MILAXON 2100 SPECIFICATIONS



System

| | |
|------------------|---|
| Processor | 5th Generation Intel® Core™ i7/ i5/ i3 U-Series Processor (Broadwell-U) |
| BIOS | AMI |
| SIO | IT8786E |
| Memory | 2 DDR3L 1333/1600 MHz SO-DIMMs, up to 16GB |

I/O Ports

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

Expansion

| | |
|------------------|---|
| Mini PCIe | 2 Mini PCIe Socket : 1 supports PCIe/ USB/ External SIM 1 supports PCIe/ USB/ External SIM/ mSATA |
|------------------|---|

Graphics

| | |
|----------------------------|---|
| Graphics Controller | Intel® HD Graphics 6000 |
| Display Interfaces | DVI-D: Up to 1920 x 1080 @ 60Hz Display Port 1: 3840 x 2160 @ 60Hz Display Port 2: 3840 x 2160 @ 60Hz |

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

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

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) | 10.1" x 5.6" x 1.9" (257mm x 141mm x 48mm) |
| Weight | 4.6 lbs. (2.1Kg) |

Environmental

| | |
|------------------------------|---------------------------------|
| Operating Temperature | -13°F to 158°F (-25°C to 70°C) |
| Storage Temperature | -40°F to 185°F (-40°C to 85°C) |
| Humidity | 5 to 95%, Non-condensing |
| Relative Humidity | 95% at 70°C |
| EMC | CE, FCC, EN 50155, EN 50121-3-2 |

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 | 1x Line-out, Mic-in |

Designed to Meet

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

