

MILSYNAPSE 1100 RUGGED EMBEDDED COMPUTER



ABOUT

Powered by Quad Core 3rd Gen Intel® Core™ i7 Processor (6M Cache, up to 3.30 GHz), MILSYNAPSE 1100 integrates 2 GbE LAN, 4 GigE PoE+ ports, and one PCIe x16 expandable slot. With maximum dual channel 8GB memory, DVI-D/HDMI and VGA triple display, two 2.5" SATA 6Gp/s HDD/ SSD, one SATA 3Gp/s SSD/ HDD supports SATA DOM, one of 2 Mini PCIe supports SIM card for WiFi, 3G/GPRS, and still keep outstanding thermal design for -25°C to +70°C industrial operating temperature range. MILSYNAPSE 1100 provides 2 fully integrated Gigabit Ethernet interfaces for either 1000 Mb/s or 10/100 Mb/s operation rates by each and jumbo frames up to 9018 bytes.

Enabling accurate time synchronization, wake-up function, and boot up through the extensible firmware interface (PXE), MILSYNAPSE 1100 integrates fully power management function to optimize voltage efficiency. Empowering 4 GigE IEEE 802.3at PoE+ ports, MILSYNAPSE 1100 is the ideal option for GigE cameras required efficient power supply and distances connection. Improving network traffic load-balancing by optimized parallel and pipelined architectures, the 2 gigabit Ethernet controllers of MILSYNAPSE 1100 enables to smooth the network traffic loading for most demanding occasions.

FEATURES

- Intel® Quad-Core Atom™ E3845 Processor
- 4x GbE LAN ports
- Rugged, -25°C to 70°C operating temperature
- Fanless and compact form factor
- Supports DC-IN, 9 ~ 28V
- 6x COM (2 RS-232 and 4 RS-232/422/485) with Auto Flow Control
- 3G/4G, GPS/GPRS, WiFi support
- 2x Isolated RS-232/422/485
- Dual Display: VGA and 2 HDMI



System

Processor	3rd Generation Intel® Quad Core™ E3845 Ivy Bridge Processors (6M Cache, up to 3.30 GHz)
Chipset	Intel® QM77
BIOS	AMI
SIO	IT8783F
Memory	DDR3 1066 1333 1600 MHz, DDR3L 1066 1333 MHz Max. 8GB 2x 204-pin SO-DIMM Sockets

I/O Interface

Serial	3x COM RS-232, 1x COM RS-232 / 485 / 422
USB	4x 4 USB 3.0, 2x USB 2.0, 2x Internal USB 2.0
Isolated DIO	8x DI, 8x DO, 5 - 24V input
LED	Power/Suspend, HDD and CFast, and WDT LEDs
GPIO	16x GPIO

Expansion

PCIe	AC to DC 60W (optional) 1x miniPCIe Socket (PCIe +USB+ SIM Card Socket), Optional with mSATA
Mini PCIe	1x miniPCIe Socket (PCIe +USB), Optional with mSATA
JST Connector	1x Internal 6-pin (2x Internal USB 2.0)

Storage

SATA HDD	2x SATA III 6Gbps 1x SATA II 3Gbps - Support Horizontal Type SATA DOM
mSATA	2x SATA II 3Gbps (Optional)
Storage Expansion	CFast Slot, External Hot-Swap, Push In/Out Ejector

Ethernet

LAN1	Intel® 82579LM Gigabit LAN, Wake on LAN, PXE Support
LAN2	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support
LAN3-6	Gigabit IEEE 802.3at (25.5W/48V) PoE Ports by Intel® with Power On/Off Control

Power

Power Input	1 Mini DIN One 3-pin Terminal Block for DC-IN : V+, V-, Frame Ground ATX: 2-Pin Remote Power On/Off Switch
Input Voltage	DC-IN 6 ~ 36V
Power Adapter	AC to DC +24V / 5A 120W Max. (Optional)
Protection	On-board LT4356 for Power Input High Voltage Surge Protection

Graphics

Chipset	Intel® GMA HD 4000
Display Memory	Up to 1.7Gb, shared DB-15 VGA: 1920 x 1200 max. DVI-D: 1920 x 1200 max. Display Port 1: 2560 x 1600 max. Display Port 2: 1920 x 1200 max. LVDS / Dual Channel 24-bit: 1920 x 1200 max.
Interface	

Audio

Audio Codec	Realtek® ALC892, 5.1 Channel HD Audio
Audio Interface	Line-In, Line-Out, Mic-In, Front Audio Header

Mechanical

Size (W x D x H)	260mm x 215mm x 79mm (10.2" x 8.5" x 3.1")
Weight	1.4 lbs. (3.1Kg)
Chassis	Aluminum
Mounting	Wallmount by mounting bracket

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

Designed to Meet

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