

# MILSYNAPSE 20.1” OPERATOR INTERFACE PANEL



## OVERVIEW

The 20.1” MILCORTEX OIP, Operator Interface Panel, by Rugged Science is designed for tough environments, and feature an innovative and cost-effective “box-in-box” design. The OIP is powered by a Rugged Science MILCORTEX Series Embedded Computer, which is internally mounted within the OIP enclosure. This “box-in-box” design keeps price and obsolescence issues in check.

The MILCORTEX Series embedded computer is powered by Intel® Xeon Core i7/ i5/ i3/ Skylake/Kaby Lake processors and a maximum 32GB RAM. They come with 2 Copper LANs standard, and can be configured for 2 Fiber Ethernet LANs (optional).

The aluminum chassis of the 20.1” MILCORTEX OIP doubles as a heat sink to passively disperse heat to the ambient environment. The 20.1” MILCORTEX Operator Interface Panel features a 20.1” LED backlit display with 1920 x 1080 resolution, a 16:9 aspect ratio, and 300 nits standard brightness for a clear and sharp display.

## FEATURES

- Rugged solid state fanless design
- Quad Core Intel® Xeon® or Core™ i7/i5/i3 CPUs (Skylake/Kaby Lake)
- Ideal for automated status board & shipboard thin-client machinery control applications
- 20.1” 5-Wire 1920x1080 Touchscreen Display
- Up to 32 GB RAM
- SSD Expandability
- Optional Fiber LAN
- Military Qualified:  
MIL-STD-901D Shock  
MIL-STD-461F Vibration  
MIL-STD-167-1A EMI

# MILSYNAPSE 20.1” SPECIFICATIONS

## System

<b>Internal Embedded Computer</b>	Rugged Science MILCORTEX 3000 Series
<b>Processor</b>	Quad Core Intel® Xeon® or Core™ i7/i5/i3 CPUs (Skylake/Kaby Lake)
<b>Chipset</b>	Intel® C236
<b>Memory</b>	2x DDR4 2133MHz SO-DIMM, up to 32GB

## I/O Interface

<b>External I/O</b>	Configurable to match embedded computer I/O
<b>In-Line Mouse</b>	Sealed USB in-line pointing device on front bezel
<b>OSD Brightness Control</b>	4-button control and OSD menu

## Ethernet

<b>Fiber LAN</b>	100 Base FX Fiber LAN via ST connector (Fiber Gigabit Ethernet option also available)
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## Graphics & Video

<b>Display Size</b>	20.1" diagonal viewing area
<b>Resolution</b>	1920 x 1080
<b>Aspect Ratio</b>	16:9
<b>Backlight</b>	LED backlit
<b>Brightness</b>	300 nits
<b>Colors</b>	16.7M Colors (24 bit)
<b>Contrast Ratio</b>	5000:1

## Storage

<b>SATA</b>	(2) SATA III (6Gbps)
<b>mSATA</b>	SATA III (Mini PCIe Type, 6Gbps)

## Expansion

<b>SUMIT</b>	SUMIT A&B Connector
<b>Mini PCIe</b>	(2) Mini PCIe

## Power

<b>Input Voltage</b>	120-Vot AC
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## Audio

<b>Codec</b>	Realtek ALC892, 5.1 channel HD audio with 93 dB speaker Line-out, Mic-in, Front audio header
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## Mechanical

<b>Size (W x D x H)</b>	648mm x 180mm x 457mm (25.5" x 7.09" x 18")
<b>Weight</b>	43.3 lbs. (without bracket), 49.1 lbs. (with bracket)
<b>Design</b>	Aluminum chassis/Steel enclosure

## 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>Storage Temperature</b>	0 to 95%

## Designed to Meet

<b>Shock</b>	MIL-STD-901D
<b>EMI</b>	MIL-STD-461G
<b>Vibration</b>	MIL-STD-167-1A
<b>Power</b>	MIL-STD-1399

