



## MILTECH™ 1.2T3UVPX - SOSA™ ALIGNED

Military Grade 6 x 100G Ethernet Data Plane + 8 x 25G Ethernet Control Plane + 4 x 100G Uplink F/O Front Panel L2/L3 Switch, 3U VPX Form Factor

One of the most exciting advancements in defense Industry computing implementations over the last decade has been the introduction of the VPX technology due to its modularity, high performance and power management. SOSA™ aligned modules and backplanes are designed to ensure a high level of interoperability between different vendors and product generations.

The MILTECH 1.2T3UVPX is a new Member of Milpower's 3U/6U SOSA™ aligned VPX Series that supports 100G Ethernet Switching technology in a total Bandwidth of 1.2Tb/s and in a 3U form factor. In addition, the 1.2T3UVPX supports advanced secure boot via dedicated FPGA, BIT functionality, zeroization and data declassification. As all other MILTECH VPX series 3U/6U Modules, the 1.2T3UVPX supports Monitoring and Management via IPMI SOSA™ aligned interface Tier I/II/III. The 1.2T3UVPX complies with MIL-STD-461E, MIL-STD-810F/G, when installed in an appropriate chassis.

In order to support sophisticated intelligence, VPX platforms may have to carry and connect a variety of high-speed Ethernet-based devices including computers, sensors, and targeting systems - all in compact platforms that must support high speed connectivity of internal and external devices. The 1.2T3UVPX Advanced Fully Managed Ethernet Switch Module can be served as the main VPX System Ethernet Switch with support in high-speed backplane ports and four 100G F/O uplink ports for external chassis connectivity. The module supports advanced network features, including routing protocols, virtual LANS (VLANS), traffic prioritization (QoS), bandwidth aggregation and more.

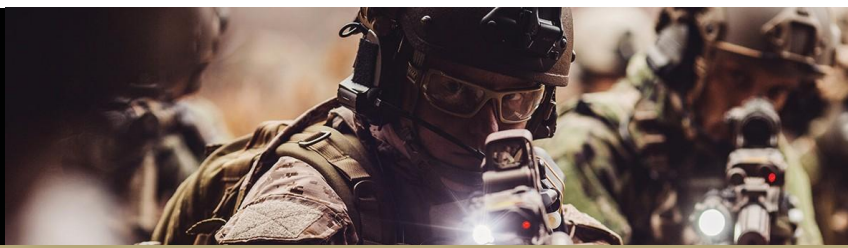
The MILTECH 1.2T3UVPX is instantly compatible with any VPX SOSA™ ALIGNED platform.





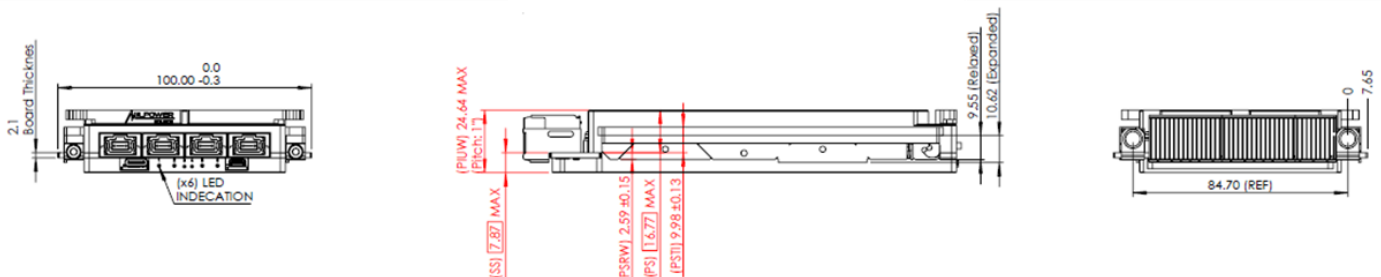
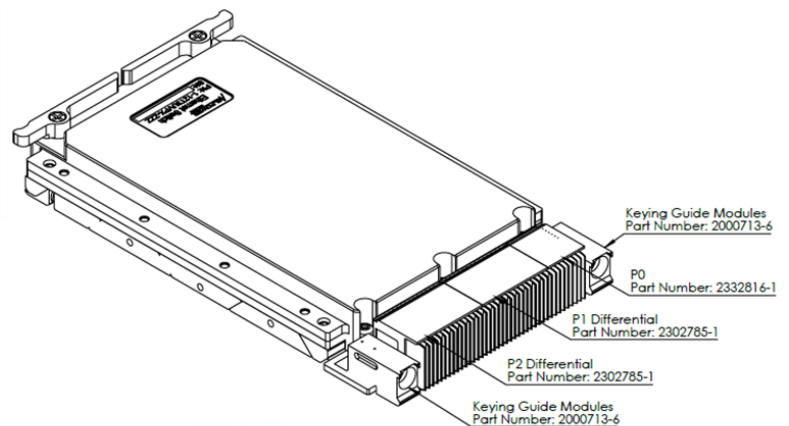
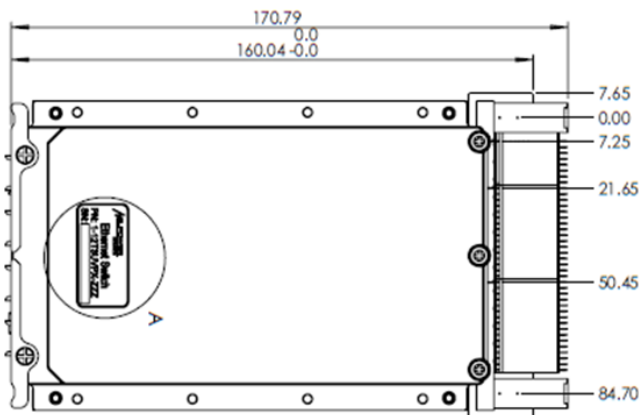
## SPECIFICATIONS

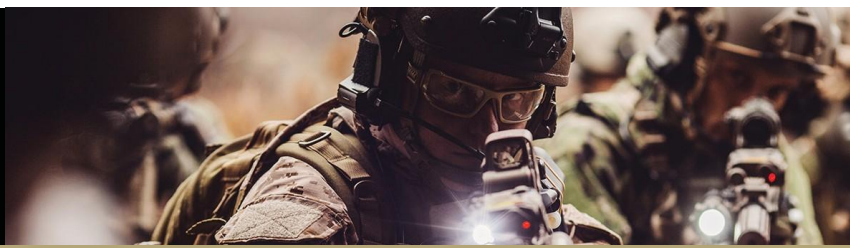
<p>MODULE PORTS:</p>	<p>Backplane:</p> <ul style="list-style-type: none"> <li>• Slot Profile (per SOSA™): SLT3-SWH-6F8U-14.4.15</li> <li>• 6 x 100G-KR4 ports including auto split feature (other port configurations supported)</li> <li>• 8 x 10/25G-KR ports (other port configurations supported)</li> <li>• 1 x 1000BT out of band management port (active when Front panel interface not attached)</li> <li>• 1 x LVCMOS/RS232 Switch serial console (see ordering info)</li> </ul> <p>Front Panel:</p> <ul style="list-style-type: none"> <li>• 4 x 100G F/O (MM) ports including auto split feature, MPO connectors</li> <li>• 1 x 1000BT out of band management port, uHDMI connector (RJ45 adapter provided)</li> <li>• 1 x USB type C for CLI to both the Data/Control Ethernet Switch and FPGA</li> </ul>
<p>NETWORKING AND MANAGEMENT:</p>	<ul style="list-style-type: none"> <li>• IPMI SOSA™ Aligned per VITA IPMI 46.11 tier I/II/III</li> <li>• Out-of-band management via backplane LVCMOS/RS232 or front-panel USB type-C</li> <li>• Out-of-band management via 1000BT backplane and port</li> <li>• Quick boot time with enhanced Built-in-Test (PBIT, IBIT, CBIT)</li> <li>• Secure Boot via FPGA</li> <li>• Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings</li> <li>• Security via Radius Authentication 802.1x, Port Security, Port Mirroring</li> <li>• Built-in-Zeroization for data declassification.</li> <li>• Multicasting (IGMP Snooping), GARP, GMRP, and GVRP Broadcasting and flooding Control up to 8K Groups</li> <li>• 802.1q Tagged based VLAN up to 4K VLAN groups.</li> <li>• QoS Multi-Layer Classifier, 802.1p, ToS/ DSCP traffic classification. WFQ, Strict Queuing</li> <li>• Bridge support for Q-in-Q</li> <li>• Full L3: VRRP, OSPF V3, PIM, RIP V1/V2, ECMP</li> <li>• Link Aggregation 802.3AD</li> <li>• WEB, CLI, Telnet Management</li> </ul>
<p>PERFORMANCE:</p>	<ul style="list-style-type: none"> <li>• 1.2Tb/s Total Switching Bandwidth</li> <li>• Non-blocking, wire speed forwarding rate</li> <li>• Data Plane backplane ports: 6 x 100G-KR4 (other port configurations supported)</li> <li>• Control Plane backplane ports: 8 x 10/25G-KR</li> <li>• Front Panel ports: Up to 4 x 40G/100G optical modules</li> </ul>
<p>STANDARDS COMPLIANCE:</p>	<ul style="list-style-type: none"> <li>• Fully VITA 65 SOSA™ Aligned</li> <li>• VITA IPMI 46.11, Tier I/II/III</li> <li>• IEEE 802.1x MAC based Authentication</li> <li>• IEEE 802.1Q Vlan Tagging</li> <li>• IEEE 802.1P QoS</li> <li>• IEEE 802.1S Multiple STP</li> <li>• IEEE 802.1W Rapid STP</li> <li>• IEEE 802.1AD Link Aggregation</li> <li>• IEEE 802.1X</li> </ul>
<p>POWER:</p>	<ul style="list-style-type: none"> <li>• Input Voltages: 12VDC + 3.3VDC AUX backplane supply per SOSA™ guidelines</li> <li>• Power Consumption: Typical 90W</li> <li>• Led indications: power, status on front panel and optionally all ports status via backplane control port (LVCMOS/RS232)</li> </ul>



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EMC/ENVIRONMENTAL:	<ul style="list-style-type: none"> <li>MIL-STD-461E, MIL-STD-810F/G, when installed in an appropriate chassis</li> </ul>
INSTALLATION:	<ul style="list-style-type: none"> <li>Four 4.5mm mounting holes on bottom for mounting to any flat surface.</li> </ul>
COOLING:	<ul style="list-style-type: none"> <li>No Moving Parts. Passive Cooling.</li> </ul>
OPERATING TEMP:	<ul style="list-style-type: none"> <li>-40°C to +85°C (-40°F to +185°F) Cold Start-Up</li> </ul>
STORAGE TEMP:	<ul style="list-style-type: none"> <li>-40°C to +85°C (-40°F to +185°F)</li> </ul>





## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-1.2T3UVPX-000	3U VPX Managed Military Grade Gigabit Ethernet Switch, 6 x 100GKR4 + 8 x 25GKR, 4 x 100G Fiber (MM/MPO), Conduction Cooled, RS232 Management
1-1.2T3UVPX-001	3U VPX Managed Military Grade Gigabit Ethernet Switch, 6 x 100GKR4 + 8 x 25GKR, 4 x 100G Fiber (MM/MPO), Conduction Cooled, LVCMOS Management

Note: RJ45 adapter board and interface cable to the module front panel is provided with the module kit.

- Additional standard configurations available.  
**Contact factory for more details.**
- All of our products can be configured to comply with EU REACH, ROHS regulations.  
**Contact factory for more details.**