



# MILTECH™ 1.2T3UVPX – SOSA™ ALIGNED

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

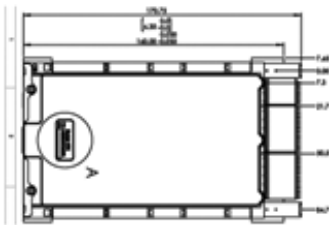
One of the most exciting advancements in defense Industry computing implementations over the last decade has been the introduction of the VPX technology due to its modularity, high performance and power management. SOSA™ aligned modules and backplanes are designed to assure high level of interoperability 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. The 1.2T3UVPX complies with MIL-STD-461E, MIL-STD-810F/G, when installed in an appropriate chassis.

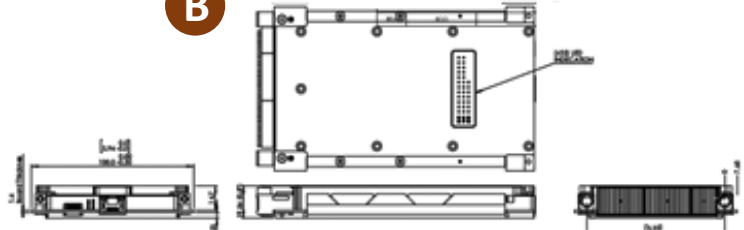
In order to support sophisticated intelligence, VPX platforms may have to carry and connect a variety of high-speed Ethernet-based devices including computers, sensors, and targeting systems - all in compact platforms that must support high speed connectivity of internal and external devices. The 1.2T3UVPX Advanced Fully Managed Ethernet Switch Module can be served as the main VPX System Ethernet Switch with support in high-speed backplane ports and several uplink port options 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.

A



B





## SPECIFICATIONS

ETHERNET PORTS:	<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 (other port configurations supported)</li> <li>• 8 x 10/25G-KR</li> </ul> <p>Front Panel:</p> <ul style="list-style-type: none"> <li>• Up to 4 x 100GKR4 F/O (MM) Data/ Control Plane, MPO connector</li> <li>• 1 x 10GKR F/O (MM) Data/ Control Plane, LC connector</li> <li>• 1 x USB type C for CLI to both data and control plane</li> </ul>
NETWORKING AND MANAGEMENT:	<ul style="list-style-type: none"> <li>• IPMI SOSA™ Aligned per VITA 46.11 tier II</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 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>
STANDARDS:	<ul style="list-style-type: none"> <li>• MIL-STD-461E, MIL-STD-810F/G, when installed in an appropriate chassis</li> </ul>
PERFORMANCE:	<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>
STANDARDS COMPLIANCE:	<ul style="list-style-type: none"> <li>• Fully VITA 65 SOSA™ Aligned</li> <li>• VITA 46.11</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>
POWER:	<ul style="list-style-type: none"> <li>• Voltage Input: 12VDC (Backplane) + 3.3VDC secondary supply per SOSA™ guidelines.</li> <li>• Power Consumption: Typical 90W</li> <li>• Led indications: power, status on front panel and all ports status via backplane control port (LVCMOS/RS232)</li> </ul>



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ELECTROMAGNETIC:	<ul style="list-style-type: none"> <li>MIL-STD-461E Electromagnetic compatibility</li> <li>CE-102, CS-114, CS-115, CS-116, RE-102, RS-103 (when installed in an appropriate chassis)</li> </ul>
ENVIRONMENTAL:	<ul style="list-style-type: none"> <li>MIL-STD-810F/G/GM: -Random vibration (514.5I), Bench Handling (516.6VI), High Temp.(501.5I,II), Low Temp.(502.5I), Humidity (507.5II), Air Pressure (500.5I,II), Blowing Rain (506.5I), Immersion (512.5I), Salt Atmosphere (509.5I), Blowing Dust (510.5I), Loose Cargo Vibration (514.6II), Wind Analysis (when installed in an appropriate chassis)</li> </ul>
PHYSICAL:	<ul style="list-style-type: none"> <li>3U VPX Form Factor, 1" pitch</li> <li>Weight: 520g</li> <li>Two level maintenance (2LM) covers</li> </ul>
COOLING:	<ul style="list-style-type: none"> <li>No Moving Parts, Conduction 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, 10 x 100GKR4 + 8 x 25GKR Conduction Cooled, RS232 Management
1-1.2T3UVPX-001	3U VPX Managed Military Grade Gigabit Ethernet Switch, 10 x 100GKR4 + 8 x 25GKR Conduction Cooled, LVCMOS Management

- 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.**

Note: Specifications are subject to change without prior notice by the manufacturer.