



## MILTECH™ 800G3UVPX - SOSA™ ALIGNED

Military Grade 6 x 40G/100G Ethernet Data Plane + 8 x 10G/25G Ethernet Control Plane Switch L2/L3 3U VPX Form Factor

In the past decade, technological progress has witnessed remarkable advancements. As a fully-managed 3U VPX Ethernet Switch, the MILTECH 800G3UVPX stands at the forefront of innovation, providing extremely high switching bandwidth and advanced networking protocols.

The growing demand for higher bandwidth and tighter synchronization led to a requirements of extremely high-data rate ports and high-capacity Networking Modules with support in advanced Time Sensitive Networking (TSN) protocols.

The module comprises of two separated Data Plane and Control Plane Ethernet Switches, with an aggregate BW of 800Gb for the module backplane interfaces (600G for the data plane and up to 200G for the control plane). Additional 40G Data Plane F/O and 10G Control Plane F/O ports are supported via the module front panel.

The module cutting-edge technology includes FPGA based advanced features such as secure boot, BIT functionality, zeroization, and data declassification. Its monitoring and management are seamlessly executed through the backplane IPMI SOSA™-aligned interface, CLI and WEB GUI.

Advanced network features, including routing protocols, virtual LANS (VLANS), traffic prioritization (QoS), bandwidth aggregation, PTP, TSN, and more.

The MILTECH 800G3UVPX offers instant compatibility with any VPX SOSA™-aligned platform, showcasing its versatility and seamless integration capabilities within sophisticated systems.

The module was designed for harsh environment, designed to meet MIL-STD-461E, MIL-STD-810F/G, when installed in an appropriate chassis.





## SPECIFICATIONS

<p><b>ETHERNET AND MANAGEMENT PORTS:</b></p>	<p>Slot Profiles (per SOSA™):</p> <ul style="list-style-type: none"> <li>• SLT3-SWH-6F1U7U - 14.4.14 (1-800G3UVPX-000/1-800G3UVPX-001)</li> <li>• SLT3-SWH-6F8U - 14.4.15 (1-800G3UVPX-010/1-800G3UVPX-011)</li> </ul> <p>Backplane Ports:</p> <ul style="list-style-type: none"> <li>• 6 x 40G/100G-KR4 Data Plane Switch ports, including auto port split feature</li> <li>• 7 or 8 x 10G/25G-KR Control Plane Switch ports</li> <li>• IPMI A/B (Tier I, II and III) and LVCMOS/RS232 Data and Control Switches CLI ports</li> </ul> <p>Front Panel Ports:</p> <ul style="list-style-type: none"> <li>• 1 X 40G Fiber (MM) Data Plane, MPO connector</li> <li>• 1 X 10G Fiber (MM) Control Plane, LC connector</li> <li>• 1 X 1G Copper Control plane, HARTING P/N 09451812560</li> <li>• USB type C for CLI to Control &amp; Data Planes</li> </ul>
<p><b>NETWORKING:</b></p>	<ul style="list-style-type: none"> <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>• 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><b>TSN:</b></p>	<ul style="list-style-type: none"> <li>• IEEE 802.1AS – gPTP</li> <li>• IEEE 802.1Qbu - enhancements to the forwarding frame preemption</li> <li>• IEEE 802.3br - allows the transmission of express traffic</li> <li>• IEEE 802.1Qci - Forwarding and Queuing Enhancements</li> <li>• IEEE 802.1Qbv - enhancements for scheduled traffic</li> <li>• IEEE 802.1Qch - synchronized cyclic enqueueing and queue draining procedures</li> <li>• IEEE-STD-1588v2, sub-nanosecond-accurate for one-step and two-step timestamping</li> </ul>
<p><b>STANDARD COMPLIANCE:</b></p>	<ul style="list-style-type: none"> <li>• Fully VITA 65 and SOSA™ Aligned</li> <li>• IPMI SOSA™ Aligned per VITA 46.11 tier II and tier 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 802.1AD Link Aggregation</li> <li>• IEEE 802.1X</li> </ul>
<p><b>POWER:</b></p>	<ul style="list-style-type: none"> <li>• Voltage Input: 12VDC (Backplane) + 3.3VDC secondary supply per SOSA™ guidelines</li> <li>• Power Consumption: Typical 85W</li> <li>• Led indications: Power and Status</li> </ul>
<p><b>EMC/ENVIRONMENTAL</b></p>	<ul style="list-style-type: none"> <li>• MIL-STD-461E, MIL-STD-810F/G, when installed in an appropriate chassis</li> </ul>
<p><b>PHYSICAL:</b></p>	<ul style="list-style-type: none"> <li>• 3U VPX Form Factor, 1" pitch. Weight: 375g</li> <li>• Two level maintenance (2LM) covers</li> </ul>
<p><b>COOLING:</b></p>	<ul style="list-style-type: none"> <li>• No Moving Parts, Conduction Cooling</li> </ul>
<p><b>OPERATING TEMP:</b></p>	<ul style="list-style-type: none"> <li>• -40°C to +85°C (-40°F to +185°F) Cold Start-Up</li> </ul>
<p><b>STORAGE TEMP:</b></p>	<ul style="list-style-type: none"> <li>• -40°C to +85°C (-40°F to +185°F)</li> </ul>

