



MILTECH™ 2T6UVPX - SOSA™ ALIGNED

Military Grade 2T BW Switch, 30 x 100G/40G/25G ports Data Plane Switch + 15 Ports 10G Control Plane Switch, Managed L2/L3, 6U VPX Form Factor

In the past decade, technological progress has witnessed remarkable advancements with the introduction of many high performance VPX platforms for a variety of airborne and vehicular applications. The growing demand for higher bandwidth and tighter synchronization led to a requirements of high bandwidth advanced Networking Modules.

The SOSA™ aligned MILTECH 2T6UVPX Ethernet Switch Module, is a fully managed 6U VITA 65 compliant module supporting dual enclave Data and Control plane Switches with a total BW of 2Tb, offering multiple high-speed backplane and front panel ports. The module supports also advanced secure boot via dedicated FPGA, BIT functionality, zeroization and data declassification. In line with the SOSA technical standard, module monitoring and management is supported via IPMI Tier III.

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

In order to support sophisticated intelligence, these 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 communicate with each other. The 2T6UVPX TSN Switch supports varies time synchronization, quality of service (QoS), traffic shaping/prioritizing protocols, advanced routing protocols, Virtual LANs (VLANs) and other advanced features.



SPECIFICATIONS

DSW/CSW PORTS

SOSA™ Aligned Slot Profile: SLT6-SWH-14F16U1U1U15U1J-10.8.1-n

Front Panel Ports:

- 1 x 100G F/O (MM) Data Plane Switch Port, MPO connector
- 1 x 10G F/O (MM) Control Plane Switch Port, LC connector
- 1 x 1G Copper Data Plane Switch Port (OOB), HARTING P/N 09451812560
- 1 x 10G Copper Control Plane Switch Port, HARTING P/N 09451812560
- 1 x USB type C for both data and control plane Switches CLI

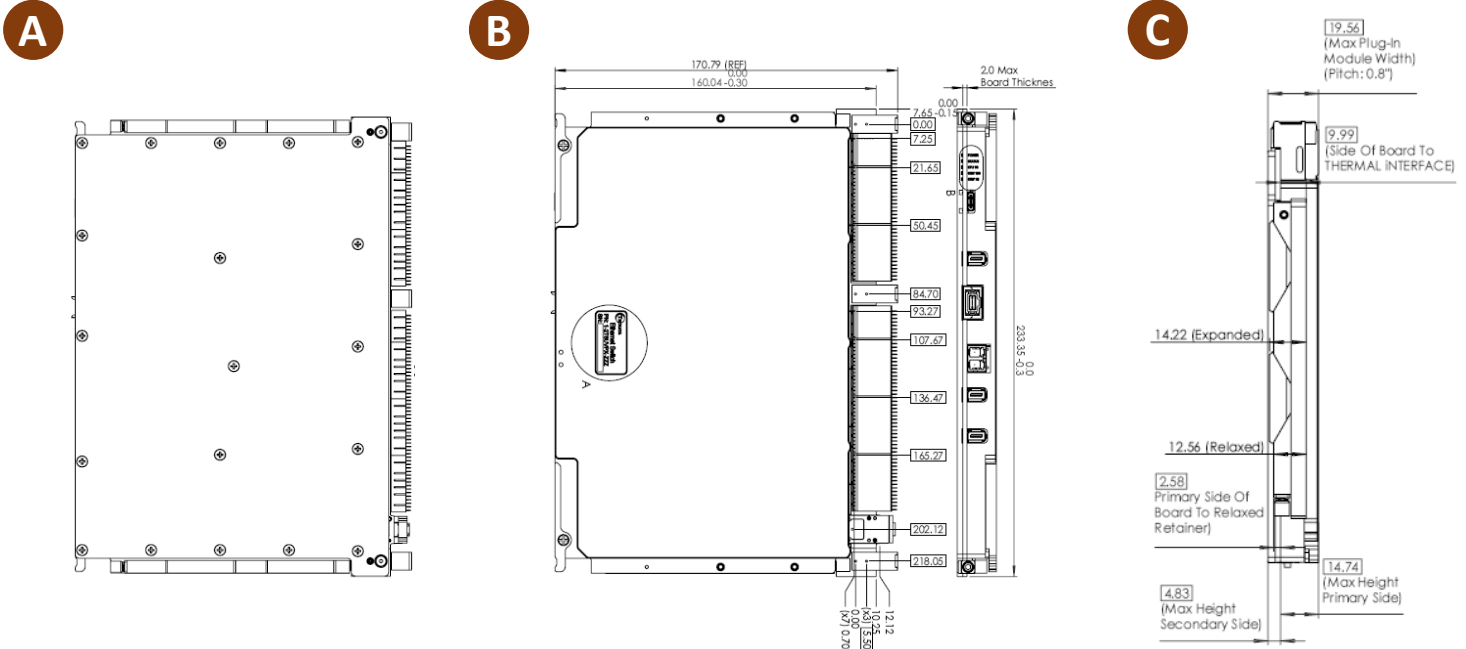
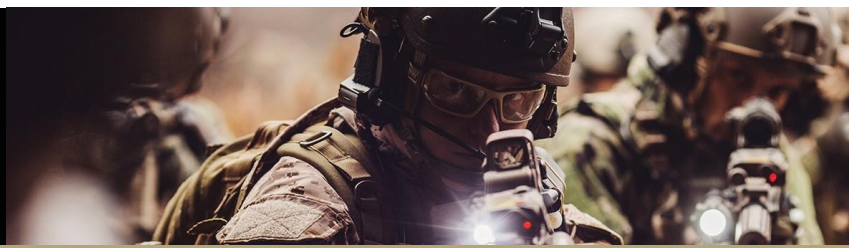
Backplane Ports:

- 14 x 40G-KR4\100G-KR4, Data Plane Switch Ports, including auto port split feature
- 16 x 10G-KR4\25G-KR4, Data Plane Switch Ports
- 15 x 10G-KR, Control Plane Switch Ports
- LVCMOS/RS232 Management per slot profile
- Optional: Data Plane backplane 100G F/O port, per VITA 66.4



SPECIFICATIONS

<p>NETWORKING:</p>	<ul style="list-style-type: none"> • Quick boot time with enhanced Built-in-Test (PBIT, IBIT, CBIT) • Secure Boot via FPGA • IPMI SOSA™ Aligned per VITA 46.11 tier III • Spanning Tree (802.1d), RSTP (802.1w) and Multiple Spanning Tree (802.1S) for fast recovery rings • Security via Radius Authentication 802.1x, Port Security, Port Mirroring • Built-in-Zeroization for data declassification • Multicasting (IGMP Snooping), GARP, GMRP, and GVRP Broadcasting and flooding Control up to 8K Groups • 802.1q Tagged based VLAN up to 4K VLAN groups • QoS Multi-Layer Classifier, 802.1p, ToS/DSCP traffic classification. WFQ, Strict Queuing • Bridge support for Q-in-Q • Full L3: VRRP, OSPF V3, PIM, RIP V1/V2, ECMP • Link Aggregation 802.3ADQoS Multi-Layer Classifier, 802.1p, ToS/DSCP traffic classification. WFQ, Strict Queuing • Bridge support for Q-in-Q • Full L3: VRRP, OSPF V3, PIM, RIP V1/V2, ECMP • Link Aggregation 802.3AD • WEB, CLI, Telnet Management
<p>TSN:</p>	<ul style="list-style-type: none"> • IEEE 802.1AS – gPTP • IEEE 802.1Qbu - enhancements to the forwarding frame preemption • IEEE 802.3br - allows the transmission of express traffic • IEEE 802.1Qci - Forwarding and Queuing Enhancements • IEEE 802.1Qbv - enhancements for scheduled traffic • IEEE 802.1Qch - synchronized cyclic enqueueing and queue draining procedures
<p>EMC/Environmental:</p>	<ul style="list-style-type: none"> • MIL-STD-461E, MIL-STD-810F/G, when installed in an appropriate chassis
<p>STANDARD COMPLIANCE:</p>	<ul style="list-style-type: none"> • Fully VITA 65 SOSA™ Aligned • VITA 66.5 Aligned – 100G fiber module on backplane J6B (optional) • VITA 46.11 Tier III • IEEE 802.1x MAC based Authentication • IEEE 802.1Q VLAN Tagging • IEEE 802.1P QoS • IEEE 802.1S Multiple STP • IEEE 802.1W Rapid STP • IEEE 802.1AD Link Aggregation • IEEE 802.1X
<p>POWER:</p>	<ul style="list-style-type: none"> • Voltage Input: 12VDC (Backplane) + 3.3VDC secondary supply per SOSA™ guidelines • Power Consumption: Typical 160W • Front Panel LED indications: Power and Status (BIT)
<p>PHYSICAL:</p>	<ul style="list-style-type: none"> • 6U VPX Form Factor, 1” pitch. Weight: 750g • Two level maintenance (2LM) covers
<p>COOLING:</p>	<ul style="list-style-type: none"> • No Moving Parts. Passive Cooling.
<p>OPERATING TEMP:</p>	<ul style="list-style-type: none"> • -40°C to +85°C (-40°F to +185°F) Cold Start-Up
<p>STORAGE TEMP:</p>	<ul style="list-style-type: none"> • -40°C to +85°C (-40°F to +185°F)



Standard Models List (for other options – consult factory)

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-2T6UVPX -000	6U VPX 2T BW, Managed Military Grade Dual Enclave Ethernet Switch, 30 x 100G/25G Data Plane ports + 15 x 10G Control Plane ports, Conduction Cooled, RS232 management
1-2T6UVPX -001	6U VPX 2T BW, Managed Military Grade Dual Enclave Ethernet Switch, 30 x 100G/25G Data Plane ports + 15 x 10G Control Plane ports, Conduction Cooled, LVCMOS management
1-2T6UVPX -010	6U VPX 2T BW, Managed Military Grade Dual Enclave Ethernet Switch, 30 x 100G/25G Data Plane ports + 15 x 10G Control Plane ports, Conduction Cooled, inc VITA 66.4 100G F/O, RS232 management
1-2T6UVPX -011	6U VPX 2T BW, Managed Military Grade Dual Enclave Ethernet Switch, 30 x 100G/25G Data Plane ports + 15 x 10G Control Plane ports, Conduction Cooled, inc VITA 66.4 100G F/O, 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.