

MILTECH™ 20G3UVPX

Military Grade 20 Port Gigabit Ethernet Switch 3U VPX Form Factor

One of the most exciting advancement in technology over the last decade has been unmanned vehicles including:

- Unmanned aerial vehicles (UAVs) or Drones
- Land autonomous vehicles (UGVs)
- Robots
- Other unmanned support vehicles

These vehicles must be agile, compact and highly intelligent. In order to support this sophisticated intelligence, these platforms may have to carry and connect a variety of Ethernet-based devices including computers, sensors, and targeting systems - all in compact platforms that must

operate in extreme environmental conditions.

The MILTECH20G3UVPX is cost-effective, 3U VPX Ethernet switching solution. This VPX switch is ideal for integrating into system level solutions being developed with size, weight, power and cost (SWaP-C) at top of mind .

Advanced network features, including switching protocols, virtual LANS (VLANs), traffic prioritization (QoS), and bandwidth aggregation are standard.

The MILTECH20G3UVPX is instantly compatible with any VPX platform.

SPECIFICATIONS

ETHERNET PORTS	• Managed 20/24 x switched 10/100 /1000 ports: • 12 x 10/100/1000 BaseT • 8 x SGMII/1000Base-KX • Out-of-band management port, RS-232 via backplane and front-panel USB type-C. • Front-panel option A: 4 X 1G Fiber Optic via MT connector (for 24G3UVPX) • Frontpanel option B: 1 X 10/100 Base-T via Nicomatic connector (for 20G3UVPX)
NETWORKING	• Quick boot time with enhanced Built-in-Test (PBIT, IBIT, CBIT) • Secure Boot via FPGA. • IPMI SIOSA™ Aligned • 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. • IEEE-1588 Capabilities and Synchronous Ethernet (SyncE) • 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. • L3 static routing • Link Aggregation 802.3AD. • WEB, CLI, Telnet Management.
STANDARDS	• MIL-STD-461E, MIL-STD-810F/G, when installed in an appropriate chassis

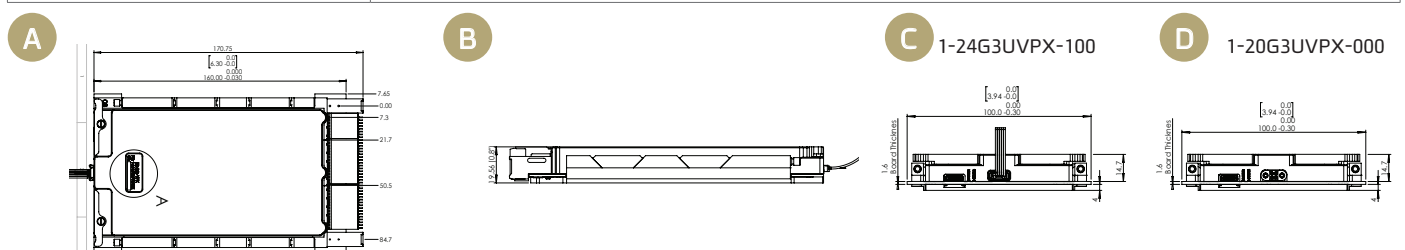


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PERFORMANCE	76.8 Mpps wire speed forwarding rate 56 Gbps maximum forwarding bandwidth 8K MAC Address
STANDARDS COMPLIANCE	- Fully VITA 46/VITA 48/VITA 65/Open VPX compliant. - Complies with OpenVPX module profile: MOD3-SWH-8U12T-16.4.11-1. - IEEE 802.1x 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
POWER	- Voltage Input: 5VDC or 12VDC - Power Consumption: Typical 12W, Maximum 15W - Led indication: power, status.
ELECTROMAGNETIC	- MIL-STD-461E Electromagnetic compatibility - CE-102, CS-114, CS-115, CS-116, RE-102, RS-103 (when installed in an appropriate chassis)
ENVIRONMENTAL	- MILSTD-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)
PHYSICAL	3U VPX Form Factor, 0.8 or 0.85 pitch. Weight: 450 g. - Two level maintenance (2LM) covers.
INSTALLATION	VPX 3U Card Size Format
COOLING	No Moving Parts. Passive Cooling.
OPERATING TEMP	-45°C to +71°C (-49°F to +160°F) Cold Start-Up
STORAGE TEMP	-45°C to +85°C (-49°F to +185°F)



ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-20G3UVPX-000	3U VPX Managed Military Grade Gigabit Ethernet Switch, 12 x 10/100/1000TX + 8 x SGMII/Conduction Cooled
1-24G3UVPX-100	3U VPX Enhanced Managed Ethernet Switch, 12 x 10/100/1000TX + 8 x SGMII + 4 x 1G Multimode Fiber Conduction Cooled