

MILTECH™ 9080

Power Distribution Unit with integrated Gigabit Ethernet Switch

The MILTECH 9080 is a comprehensive solution for power distribution and networking capabilities.

Modern platforms contain dozens of network devices that must be interconnected. The MILTECH 9080 is an ideal solution for mobile Ethernet-equipped platforms utilizing both power distribution and IP networking such as:

- Shipboard
- Airborne systems
- Ground mobile applications
- Infantry base camp deployments

With the MILTECH 9080, by combining power and communication interfaces into a single device, it optimizes volume and cost efficiency and supports Ethernet communication to control, configure, and monitor each power channel.

The MILTECH 9080 is a fully managed MIL-STD network switch with 8 individual triple-speed (10/100/1000BaseT) with an option for fiber optics port(1000BaseFX-MM/SM) and an 8-channel power distribution unit of 28V/30A per channel.

MILTECH 9080, comprises gigabit speed switching and power delivery making it instantly compatible with any network device and power systems. Its mechanical packaging enhancements, including ruggedized MIL-STD D38999 circular connectors, are designed for MIL-STD-810H airborne and ground environmental compliance and high reliability. Leveraging best-in-class switching technology, with power delivery and its management.



GENERAL SPECIFICATIONS

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INPUT VOLTAGE:	<ul style="list-style-type: none"> • 16 to 40 VDC steady state
CONNECTORS:	<ul style="list-style-type: none"> • J1 (Power): Threaded Inserts, 1/4-28 UNF 1.5D, Max allowed screw penetration 9.00mm • J2 (Fiber optics): <ul style="list-style-type: none"> ▪ Multimode connector: EB4H8000-3213 or equivalent ▪ Single-mode connector: EB4H8000-3443 or equivalent • J3 (Service): TV07ZRCI15-19SF404, (mating Connector D38999/26ZD19PN) • J4-J11 (ethernet and power): TV07ZRCI17-26SF404, (mating Connector D38999/26ZE26PN)



POWER DISTRIBUTION SPECIFICATIONS

<p>SPECIAL FEATURES :</p>	<ul style="list-style-type: none"> • User defined maximum current per channel – Current Limit Protection • Large capacitance charge capability • 1 input, 8 outputs Power Distribution Unit • Configurable current breaker per Switch – Overload Protection Switch • I²T curve for overload switching delay duration • Configurable turn-on sequence by card wakeup and by discrete input • Ethernet Interface (Static & Dynamic IP configurations) • 5 Discrete inputs (DCI, RAT, WP,SHDN, DM) • 1 Discrete output (Fault, trip error output)
<p>PDU MENAGMENT:</p>	<ul style="list-style-type: none"> • Proprietary API via 10/100 Ethernet using specific contacts on J3 • WEB GUI: <ul style="list-style-type: none"> On/ Off control per port Set current limit per port Device temperature measurement Input and output voltage measurements Per port output current measurement
<p>INPUT POWER:</p>	<ul style="list-style-type: none"> • Input voltage,16 to 40 VDC steady state, compliant with MIL-STD-704A-F, DO-160G, EN2282 • Surges and Spikes, IAW MIL-STD-704F and DO-160G, section 16.0 cat Z, Input clamp at 80V for device and loads • Under Voltage Lockout, Device and outputs turn off when input voltage drops below 5.5 V. Device turns back on when input voltage rises above 6V • Quiescent Current, 80mA maximum at 28V input.
<p>POWER CHANNELING RATING:</p>	<ul style="list-style-type: none"> • Number of Outputs: <ol style="list-style-type: none"> 1, current rating of 30A 2, current rating of 30A 3, current rating of 30A 4, current rating of 30A 5, current rating of 30A 6, current rating of 30A 7, current rating of 30A 8, current rating of 30A
<p>DROP VOLGATE:</p>	<ul style="list-style-type: none"> • 100mV maximum at rated current
<p>OVERLOAD PROTECTION:</p>	<ul style="list-style-type: none"> • Configurable from 2A up to 30A outputs rated current with 5% accuracy using the OVERLOAD register. For calibration below 2A - Please contact the factory for more details.
<p>SHORT LOAD PROTECTION:</p>	<ul style="list-style-type: none"> • Configurable from 10A to 125A with 20% accuracy using CURR_LIMIT parameter. Protection is active, preventing the short from spreading through the system.
<p>PARALLELING OUTPUTS:</p>	<ul style="list-style-type: none"> • Outputs can be paralleled to achieve one common channel with a large current limit
<p>CONTROL & INDICATION:</p>	<ul style="list-style-type: none"> • Ethernet: <ul style="list-style-type: none"> The PDU channels are controlled by 100Base-TX fast ethernet Communication through simple UDP messages Static IP and Dynamic IP are supported • Discrete Inputs: <ul style="list-style-type: none"> DCI – Enables a Macro. RAT – Resets all tripped channels. WP – Write protect for the non-volatile RAM. DM – Dark Mode, front panel LEDs off. • Measurements <ul style="list-style-type: none"> Input and output voltages. Outputs current. Device Temperature



NETWORKING SPECIFICATIONS

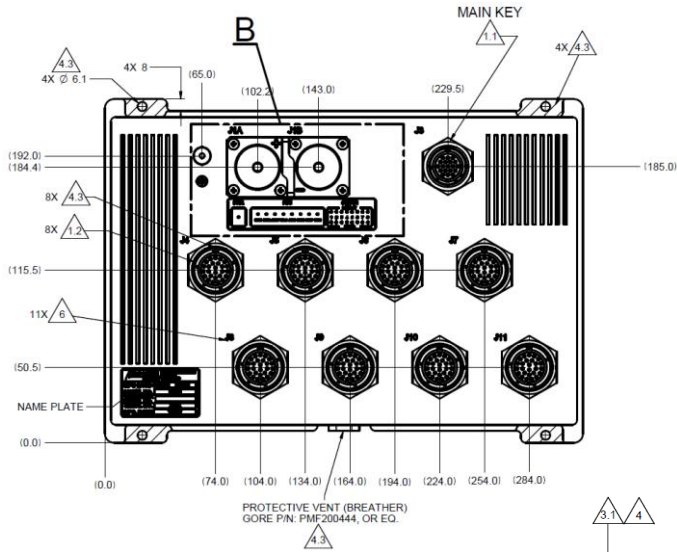
NETWORKING:	<ul style="list-style-type: none"> Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings Security via Radius Authentication 802.1x, Port Security, Port Mirroring Multicasting (IGMP Snooping), GARP, GMRP, and GVRP Broadcasting and flooding Control 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. Rmirror Port Protection: 1+1 port protection, 1:1 port protection, 1:N port protection G.8032 ring protection DHCP option 82 relay L2CP tunneling Protocol-based VLAN 1588v2 PTP with two-step clock
PERFORMANCE:	<ul style="list-style-type: none"> 26.8 Mpps wire speed forwarding rate 20 Gbps maximum forwarding bandwidth 8K MAC Address
STANDARTS COMPLIANCE:	<ul style="list-style-type: none"> 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
SWITCH MANAGEMENT:	<ul style="list-style-type: none"> RS232 for CLI/TELNET/SSH via specific contacts on J3 WEB GUI/CLI/TELNET/SSH on any LAN connector
INPUT POWER:	<ul style="list-style-type: none"> The switch is powered by PDU

PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

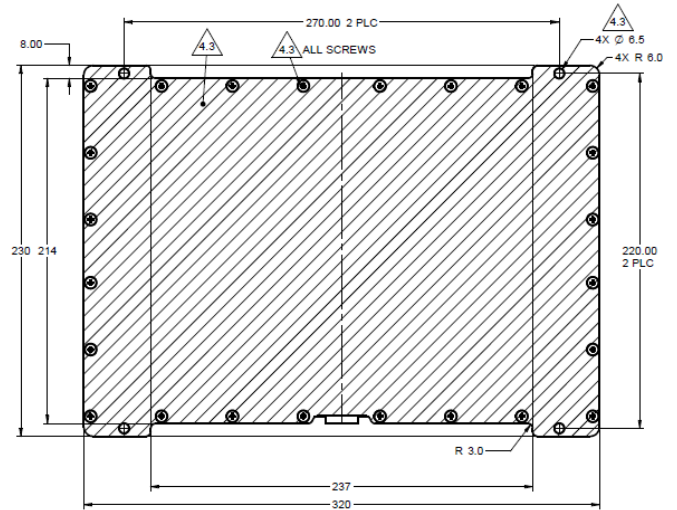
ENVIRONMENTAL:	<ul style="list-style-type: none"> Humidity, DO-160G, section 6.3.2, Category B Salt-fog, MIL-STD-810H - 509.7 Altitude, MIL-STD-810H - 500.6 (Procedure I, II) Mechanical Shock, Saw-tooth, 40 g peak, 11 ms Vibration, MIL-STD-810H - 514.8 (category 7, 24) IP 67 Product can be configured to comply with EU REACH, RoHS regulations—Please contact the factory for more details
ELECTROMAGNETICS:	<ul style="list-style-type: none"> CE-102, CS-114, CS-115, CS-116, RE-102, RS-103
OPERATING TEMP:	<ul style="list-style-type: none"> -45°C to + 85°C (-49°F to +185°F)
STORAGE TEMP:	<ul style="list-style-type: none"> -45°C to + 85°C (-49°F to +185°F)
PHYSICAL:	<ul style="list-style-type: none"> Dimensions: 320mm x 230mm x 51 mm (connectors excluded) Dimensions: 12.6" x 9" x 2" Weight: 4.5Kg, 9.92 lbs



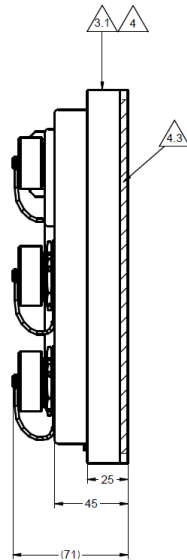
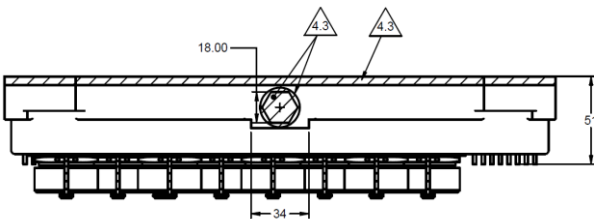
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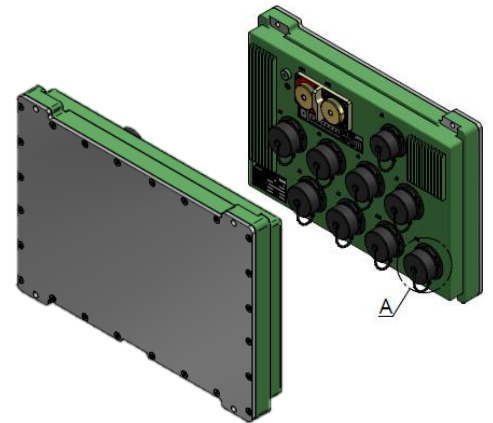
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C



D



ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-9080PDU-000	Managed 8 Port Ethernet Switch With 8 Port PDU
1-9080PDU-001	Managed 8 Port Ethernet Switch With 8 Port PDU, 1G FO Single Mode
1-9080PDU-002	Managed 8 Port Ethernet Switch With 8 Port PDU, 1G FO Multi Mode
2-CBL9080KIT	MILTECH 9080 Cable Set