



# 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.



**NIST**  
800-171  
Compliant

**AS9100D**  
CERTIFIED  
ISO 9001

## GENERAL SPECIFICATIONS

GENERAL SPECIFICATIONS:	<ul style="list-style-type: none"> <li>• Managed 8 x switched 10/100 /1000BaseT + 1000BaseFX(MM/SM), optional</li> <li>• 1 input, 8 outputs power distribution, 28V@30A per channel</li> <li>• Complete segregation between the PDU and the Ethernet switch</li> </ul>
INPUT VOLTAGE:	<ul style="list-style-type: none"> <li>• 16 to 40 VDC steady state</li> </ul>
CONNECTORS:	<ul style="list-style-type: none"> <li>• J1 (Power): Threaded Inserts, 1/4-28 UNF 1.5D, Max allowed screw penetration 9.00mm</li> <li>• J2 (Fiber optics): <ul style="list-style-type: none"> <li>▪ Multimode connector: EB4H8000-3213 or equivalent</li> <li>▪ Single-mode connector: EB4H8000-3443 or equivalent</li> </ul> </li> <li>• J3 (Service): TV07ZRCI15-19SF404, (mating Connector D38999/26ZD19PN)</li> <li>• J4-J11 (ethernet and power): TV07ZRCI17-26SF404, (mating Connector D38999/26ZE26PN)</li> </ul>



## POWER DISTRIBUTION SPECIFICATIONS

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



## NETWORKING SPECIFICATIONS

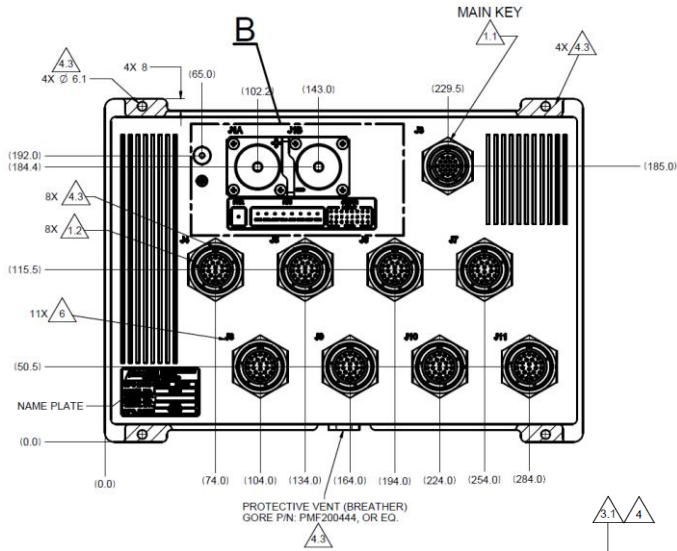
NETWORKING:	<ul style="list-style-type: none"> <li>Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings</li> <li>Security via Radius Authentication 802.1x, Port Security, Port Mirroring</li> <li>Multicasting (IGMP Snooping), GARP, GMRP, and GVRP Broadcasting 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>L3 static routing</li> <li>Link Aggregation 802.3AD.</li> <li>WEB, CLI, Telnet Management.</li> <li>Rmirror</li> <li>Port Protection: 1+1 port protection, 1:1 port protection, 1:N port protection</li> <li>G.8032 ring protection</li> <li>DHCP option 82 relay</li> <li>L2CP tunneling</li> <li>Protocol-based VLAN</li> <li>1588v2 PTP with two-step clock</li> </ul>
PERFORMANCE:	<ul style="list-style-type: none"> <li>26.8 Mpps wire speed forwarding rate</li> <li>20 Gbps maximum forwarding bandwidth</li> <li>8K MAC Address</li> </ul>
STANDARDS COMPLIANCE:	<ul style="list-style-type: none"> <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> </ul>
SWITCH MANAGEMENT:	<ul style="list-style-type: none"> <li>RS232 for CLI/TELNET/SSH via specific contacts on J3</li> <li>WEB GUI/CLI/TELNET/SSH on any LAN connector</li> </ul>
INPUT POWER:	<ul style="list-style-type: none"> <li>The switch is powered by PDU</li> </ul>

## PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

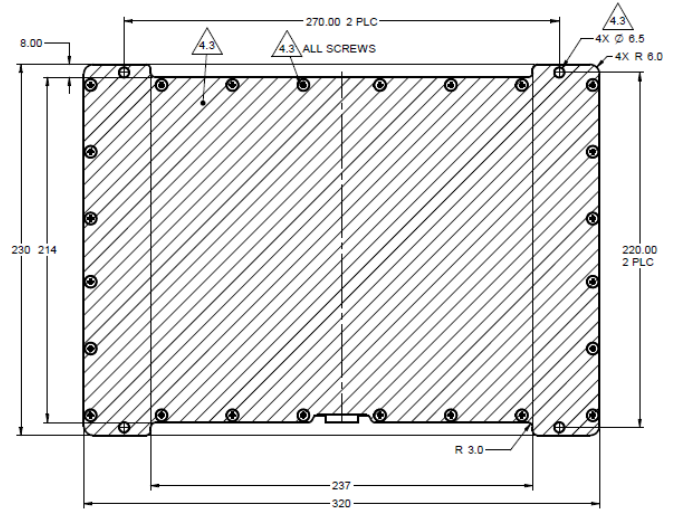
ENVIRONMENTAL:	<ul style="list-style-type: none"> <li>Humidity, DO-160G, section 6.3.2, Category B</li> <li>Salt-fog, MIL-STD-810H - 509.7</li> <li>Altitude, MIL-STD-810H - 500.6 (Procedure I, II)</li> <li>Mechanical Shock, Saw-tooth, 40 g peak, 11 ms.</li> <li>Vibration, MIL-STD-810H - 514.8 (category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



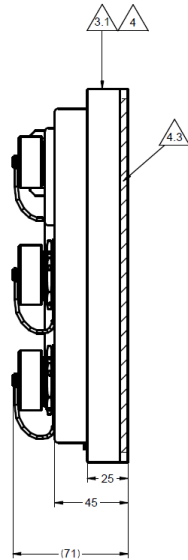
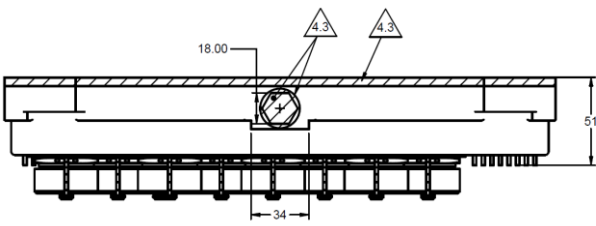
**A**



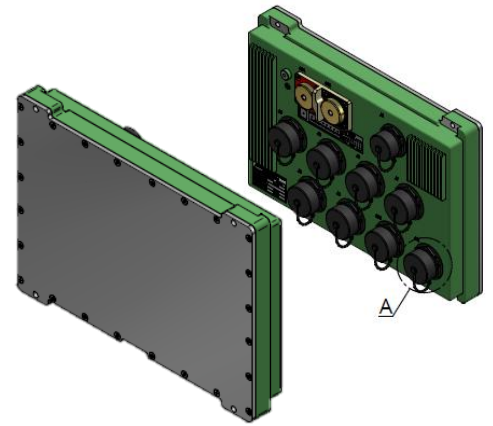
**B**



**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