



# MILTECH™ 948

Compact, Portable Military Managed Gigabit Ethernet Switch

## PRODUCT DESCRIPTION

Driven by rapid advancement and lower costs, Ethernet is becoming the standard for IP-based components in a wide range of military and commercial applications, including:

- Battle management systems (BMSs)
- Infantry base camp deployment
- Airborne systems
- Mobile equipment fielded in harsh environments

Modern platforms contain dozens of network devices that must be interconnected. The MILTECH 948 is an ideal solution for mobile Ethernet-equipped platforms utilizing both copper and fiber connections. With the best combination of size, weight, power and cost (SWaP-C) in the industry, it saves valuable real estate for computers, sensors, targeting systems, and other devices that make mobile platforms highly effective.

The MILTECH948 is a MIL-STD, fully managed military grade network switch offering the flexibility of 8 triple-speed (10/100/1000Mbps) ports and the option of two fiber port operating at either 100Mbps or 1Gbps. The fiber ports support

multimode and singlemode fiber and single fiber wave division multiplexing (WDM) in a variety of connector options. It can be remotely managed to optimize communications and prioritize critical information traffic. Advanced network features, never before found in a package of this size, include switching protocols, virtual LANS (VLANS), traffic prioritization (QoS), and bandwidth aggregation are standard.

The MILTECH948's gigabit speeds and 24VDC power make it instantly compatible with any network device and power systems.

Its mechanical packaging enhancements, including a single ruggedized D38999 circular connector for the Ethernet ports and a single TFOCA-III connector for both fiber ports, is designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. Leveraging best-in-class switching technology, the MILTECH 948 serves as a robust commercial off-the-shelf (COTS) solution for rugged LAN connectivity.

## SPECIFICATIONS

<b>ETHERNET PORTS:</b>	<ul style="list-style-type: none"> <li>• Managed 8 x switched 10/100 /1000 ports, with an option for up to 2 x Fiber ports 100Base-FX or 1000Base-FX</li> </ul>
<b>NETWORKING:</b>	<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> </ul>
<b>CONNECTORS:</b>	<ul style="list-style-type: none"> <li>• Power Connector Type: MIL-D-38999/24WB35PN</li> <li>• LAN Connector Type: MIL-D-38999/24WF35PN</li> <li>• Fiber Connectors Type: F54H8000-6A13 (TFOCA-II)</li> <li>• LED Indication Per Port (Speed, Link/Activity)</li> </ul>



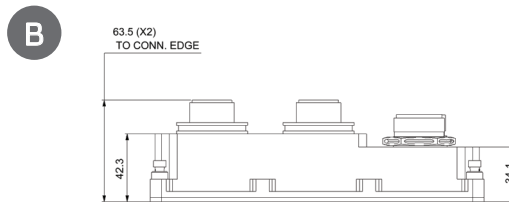
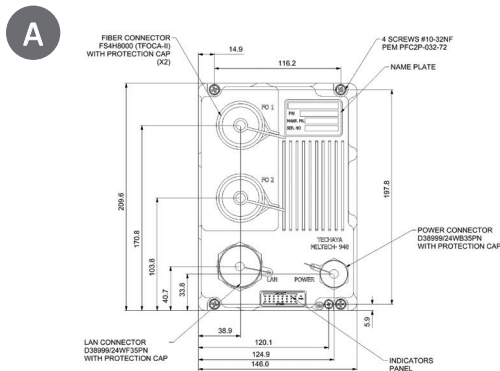


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## SPECIFICATIONS

<b>CHASSIS:</b>	<ul style="list-style-type: none"> <li>Machined rugged aluminum</li> <li>Conductively cooled w/custom internal heat-sinks</li> <li>Ingress protection against sand, dust and moisture</li> <li>Anodize Coating, MIL-A-8625, Type II, Class 2</li> </ul>
<b>STANDARDS:</b>	<ul style="list-style-type: none"> <li>IP67, MIL-STD-1275, MIL-STD-704</li> </ul>
<b>PERFORMANCE:</b>	<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>
<b>STANDARDS COMPLIANCE:</b>	<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> <li>IEEE 802.1X</li> </ul>
<b>POWER:</b>	<ul style="list-style-type: none"> <li>MIL-STD-1275B Surge and Spike protection</li> <li>Voltage Input: 24Vdc Nominal (18-32V)</li> <li>Power Consumption: 7W Typical</li> <li>Chassis grounding</li> </ul>
<b>ELECTROMAGNETIC:</b>	<ul style="list-style-type: none"> <li>MIL-STD-461E Electromagnetic compatibility</li> <li>RE-02, RS-03</li> </ul>
<b>SHOCK/VIBRATION/HUMIDITY:</b>	<ul style="list-style-type: none"> <li>MIL-STD-810F   501.4I   501.4II   502.4I   502.4II   507.4   500.4II   514   516I   516VI   514.5   512.4</li> </ul>
<b>PHYSICAL:</b>	<ul style="list-style-type: none"> <li>Dimensions: 209mm(L) x 146mm(W) x 63mm(H), including connectors</li> <li>Dimensions: 8.25"(L) x 5.74"(W) x 2.48"(H), including connectors</li> <li>Weight: 1.1kg</li> </ul>
<b>INSTALLATION:</b>	<ul style="list-style-type: none"> <li>Four #10-32 Captive screws PAMPFC2P-32-72 for mounting to any flat surface</li> </ul>
<b>COOLING:</b>	<ul style="list-style-type: none"> <li>No Moving Parts. Passive Cooling</li> </ul>
<b>OPERATING TEMP:</b>	<ul style="list-style-type: none"> <li>-45°C to +85°C (-49°F to +185°F) Cold Start-Up</li> </ul>
<b>STORAGE TEMP:</b>	<ul style="list-style-type: none"> <li>-45°C to +85°C (-49°F to +185°F)</li> </ul>





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## ORDERING INFORMATION

### MILTECH948 - A - B - C

A Fiber port #1 type /speed		B Fiber port #2 type /speed		C Special/customized version	
0	None	0	None	0	None
1	Multimode fiber 100Mbps	1	Multimode fiber 100Mbps	1	Single fiber connector for both ports
2	Multimode fiber 1000 Mbps	2	Multimode fiber 1000 Mbps	2	Without captive screws
3	Singlemode fiber 100 Mbps distance 30 Km	3	Singlemode fiber 100 Mbps distance 30 Km		
4	Singlemode fiber 1000 Mbps distance 30 Km	4	Singlemode fiber 1000 Mbps distance 30 Km		
5	WDMA TX 1310nm/RX1550nm 100Mbps distance 20Km	5	WDMA TX 1310nm/RX1550nm 100Mbps distance 20Km		
6	WDMA TX 1310nm/RX1550nm 1000Mbps distance 20Km	6	WDMA TX 1310nm/RX1550nm 1000Mbps distance 20Km		
7	WDMB TX 1550nm/RX1310nm 100Mbps distance 20Km	7	WDMB TX 1550nm/RX1310nm 100Mbps distance 20Km		
8	WDMB TX 1550nm/RX1310nm 1000Mbps distance 20Km	8	WDMB TX 1550nm/RX1310nm 1000Mbps distance 20Km		

## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-948-XXX	• Managed 8 x switched 10/100 /1000 ports + up to 2 x Fiber ports (See above tables for F/O connector options)
2-CBL908MPPW	• Power harness 1 x D38999 connector to open wires & DB9 connector 3 meter length
2-CBL908MPLAN	• LAN harness for 8 LAN ports, 1 x D38999 connector to 8xRJ45 connectors, 3 meters length