



## MILTECH™ 9224

### Compact 24 Port Military Managed Gigabit Ethernet Switch

#### FEATURES

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:

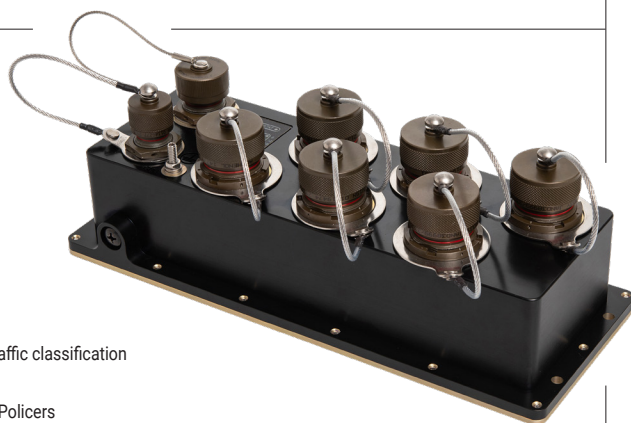
- Vetronics
- Manned and unmanned vehicles
- Aerial environments

The MILTECH 9224 is a MIL-STD, fully managed military grade network switch offering 24 triple-speed (10/100/1000Mbps) connections. 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 MILTECH 9224 offers combination of size, weight, power and cost (SWaP-C). It saves valuable real estate for computers, sensors, targeting systems, and other devices. The MILTECH9224's gigabit speeds and 24VDC power make it instantly compatible with any network device and power systems in these mobile platforms. The MILTECH9224 can be used in battlefield communications C4ISR, video, sensor data acquisition and transmission. Its mechanical packaging enhancements, including two rugged D38999 circular connectors, is designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. Leveraging best-in class switching technology, the MILTECH 9224 serves as a robust commercial off-the-shelf (COTS) solution for rugged LAN connectivity.

#### SPECIFICATIONS

ETHERNET PORTS	<ul style="list-style-type: none"> <li>• 24 x 10/100/1000TX ports managed Ethernet Switch</li> </ul>
NETWORKING	<ul style="list-style-type: none"> <li>• Energy efficient Ethernet, IEEE 802.3az</li> <li>• Wire-speed hardware-based 24 ports</li> <li>• L3-Static Routing capabilities.</li> <li>• IEEE-1588 Capabilities and Synchronous Ethernet (SyncE)</li> <li>• Broadcasting and flooding Control up to 8K Groups</li> <li>• 802.1q Tagged based VLAN up to 4K VLAN groups</li> <li>• Bridge Support for VLAN Q-in-Q</li> <li>• Link Aggregation 802.3ad</li> <li>• WEB, CLI, Telnet , SNMP V2/V3 management</li> <li>• QoS Multi-Layer Classifier: 802.1p, EtherType</li> <li>• VLAN-ID, IPv4/6 DSCP/ToS, and UDP/TCP ports &amp; ranges traffic classification</li> <li>• DSCP remarking for both IPv4 and IPv6 frames</li> <li>• Multiple ACLs per port for optimal usage of Content Aware Policers</li> <li>• Storm controllers for flooded broadcast, multicast and unicast</li> <li>• Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings</li> <li>• Multicasting (IGMP Snooping), GARP, GMRP, MLD and GVRP up to 8K groups for both IPv4 and IPv6</li> <li>• Up to 4K egress VLAN tag operations</li> </ul>





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<b>NETWORKING</b> <b>QUALITY OF SERVICE</b>	<ul style="list-style-type: none"> <li>• QoS Multi-Layer Classifier: 802.1p, EtherType,</li> <li>• VLAN-ID, IPv4/6 DSCP/ToS, and UDP/TCP ports &amp; ranges traffic classification.</li> <li>• Per port WFQ and Strict Queuing scheduling</li> <li>• DSCP remarking for both IPv4 and IPv6 frames</li> <li>• Ingress policer and ingress shaper per port with 500Kbps granularity</li> <li>• Egress shaper per port with 500Kbps granularity</li> <li>• Full-duplex flow control (IEEE802.3X) and half-duplex backpressure</li> </ul>
<b>SECURITY</b>	<ul style="list-style-type: none"> <li>• Security via Radius Authentication 802.1x, Port / MAC access control</li> <li>• Port Security</li> <li>• Per port ingress and egress port mirroring</li> <li>• Mirroring per VLAN</li> <li>• Private VLAN support per VLAN (Isolated and Promiscuous ports)</li> <li>• Advanced ACL through hardware based match patterns</li> <li>• Content Aware Policers for generic MAC, ARP, IPv4, IPv6 protocols</li> <li>• Content Aware Policers actions are permit/deny, police, count</li> <li>• Multiple ACLs per port for optimal usage of Content Aware Policers</li> <li>• Storm controllers for flooded broadcast, multicast and unicast</li> </ul>
<b>STANDARDS</b>	<ul style="list-style-type: none"> <li>• MIL-STD-1275E   MIL-STD-704A   MIL-STD-461F   MIL-STD-810G   IP67</li> </ul>
<b>PERFORMANCE</b>	<ul style="list-style-type: none"> <li>• 253.4 Mpps wire speed forwarding rate</li> <li>• 128 Gbps maximum forwarding bandwidth</li> <li>• 8K MAC Address</li> </ul>
<b>POWER</b>	<ul style="list-style-type: none"> <li>• 24VDC (18Vdc – 32Vdc)</li> <li>• Power Consumption: 33W Typical</li> </ul>
<b>ELECTROMAGNETIC</b>	<ul style="list-style-type: none"> <li>• MIL-STD-461F Electromagnetic compatibility</li> <li>• CS-114, CS-115, CS-116, RE-101, RE-102, RS-101, RS-103, ESD</li> </ul>
<b>SHOCK/VIBRATION/ HUMIDITY</b>	<ul style="list-style-type: none"> <li>• MIL-STD-810G: Humidity (507.5)   Altitude (500.4I,II)   Temp.(501.5I,II)   Drip, Vibration (167-1A) Shocks (516.6I)   Transportation (514.6,4,10)   Salt-fog (509.5)</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 +80°C (-49°F to +176°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>

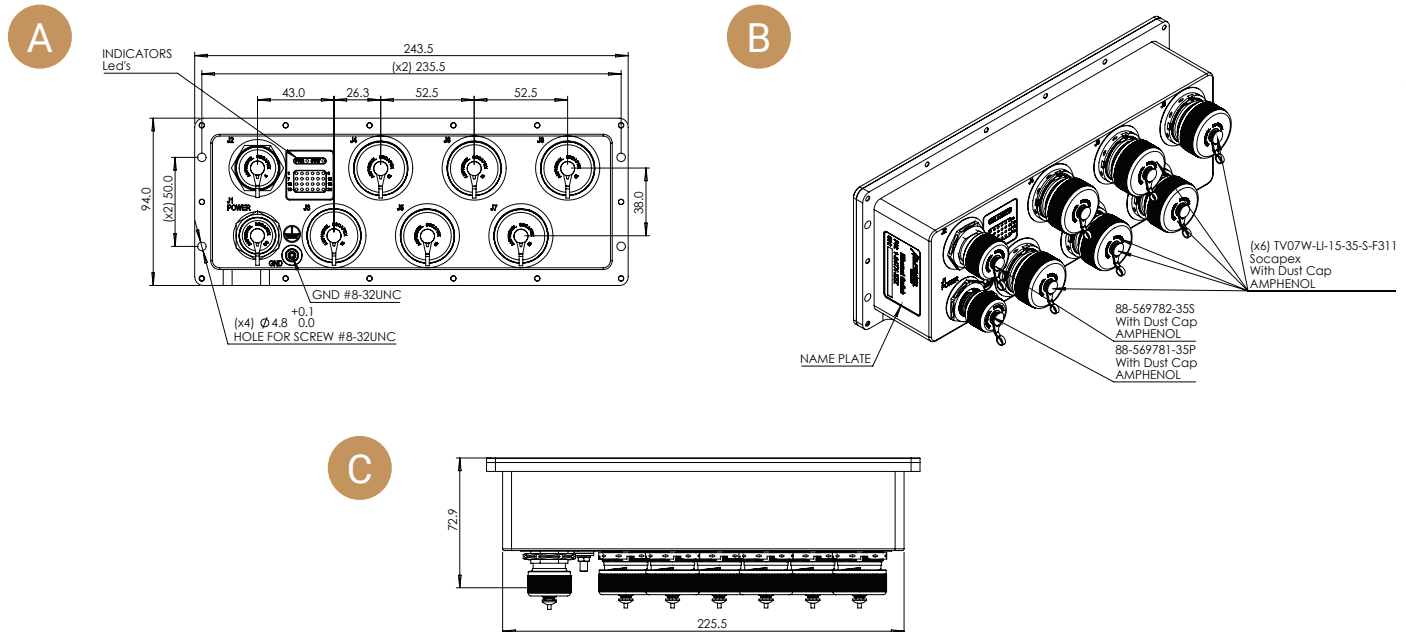


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### SPECIFICATIONS

CONNECTORS	<ul style="list-style-type: none"> <li>1 x Power Connector Type: MIL-D-38999: 88-569781-35P</li> <li>6 x LAN Connector Type: MIL-D-38999: TV07W-LI-15-35-S-F311</li> <li>1 x Management Connector Type: MIL-D-38999: 88-569782-35S</li> </ul>
PHYSICAL	<ul style="list-style-type: none"> <li>Dimensions: 243.5mm (L) x 72.9mm (W) x 94mm (H)</li> <li>Dimensions: 9.6" (L) x 2.87" (W) x 3.7" (H)</li> <li>Weight: 1.3Kg</li> </ul>



### ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-9224-000	24 x 10/100/1000TX Ports Managed Ethernet Switch