

# RJSMLAC-8EMG-CAPS - Enhanced managed military Ethernet switch, RJFTV connectors - 8 Gigabit ports

**Military ethernet switch for harsh environment - Fully MIL-STD compliant**

## Description

Amphenol's RJSMLAC-8EMG-CAPS is a MIL-STD Fully managed Military-grade network switch offering 8 triple speed (10/100/1000) ports. Ethernet connectors are RJFTV, using RJField patented system that allows easy and quick assembly of any standard RJ45 cordset without any tool.



Developed for military and harsh environment applications, the RJSMLAC-8EMG-CAPS features mechanical packaging enhancements designed for MIL-STD-810F maritime and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling, and interface through sealed MIL-DTL-38999 circular connectors.

Leveraging best-in-class switching technology, the RJSMLAC-8EMG-CAPS serves as a robust solution for providing local area network (LAN) connectivity to IP-enabled computing and net-centric devices. Compact in size, the RJSMLAC-8EMG-CAPS is particularly useful for expanding port density in space-constrained maritime and ground vehicle environments.

## Main features

### ETHERNET PORTS

- Managed 8 x switched 10/100/1000 ports on RJFTV connectors

### NETWORKING

- 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.
- Link aggregation 802.3AD.
- WEB, CLI, Telnet management.
- L3 static routing\*
- Rmirror\*
- Port Protection: 1+1 port protection, 1:1 port protection, 1:N port protection\*
- G.8032 ring protection\*
- DHCP option 82 relay\*
- L2CP tunnelling\*
- Protocol-based VLAN\*
- 1588v2 PTP with two-step clock\*

### CONNECTORS

- Power connector type: MIL-DTL-38999/24WA98PA
- LAN connector type: RJFTV (coupling mechanism from MIL-DTL-38999)
- LED indication per port (speed, link/activity)

### CHASSIS

- Low profile rugged aluminium extrusion
- Conductively cooled w/custom internal heat-sinks
- Ingress protection against sand, dust and moisture
- Polyurethane Paint, Per MIL-C-83286 type II, matt texture, color:
  - Green FS24084

### STANDARDS

- MIL-STD-1275, MIL-STD-704A, MIL-STD-461E/F
- MIL-STD-810F GM, IP67/68

### VOLTAGE OPERATION

- 24VDC (18VDC-32VDC)
- VAC models: 90-265VAC/47-65Hz

(\*) Available on Enhanced units only

### MILITARY RUGGED SWITCH

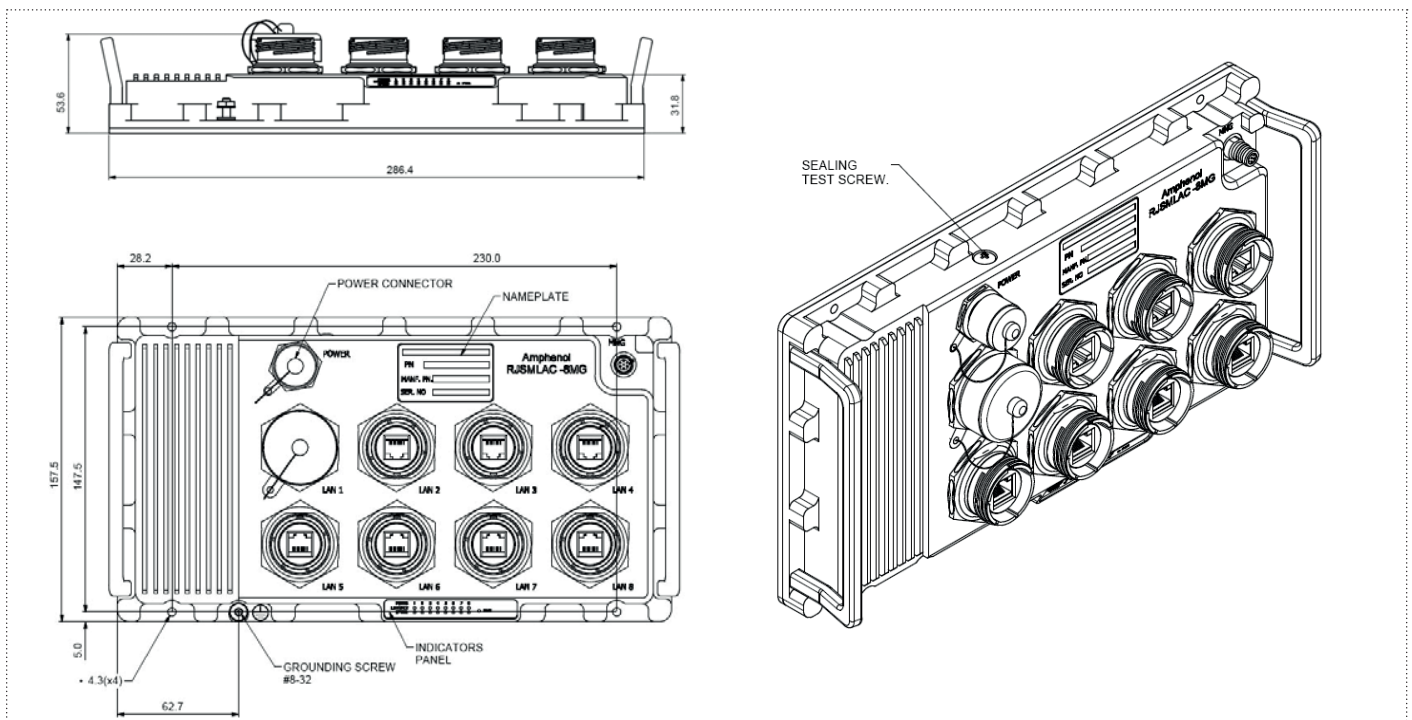
MIL-STD-1275  
MIL-STD-704A  
MIL-STD-461E/F  
MIL-STD-810F/GM  
IP68  
MIL-F-18870-E  
MIL-STD-167-1A  
MIL-S-9010

# RJSMLAC-8EMG-CAPS - Enhanced managed military Ethernet switch, RJ45 connectors - 8 Gigabit ports

## Product specifications

<b>Voltage operation</b>	<ul style="list-style-type: none"> <li>Standard model: 24VDC (18VDC ~ 32VDC)</li> <li>VAC model: 90-265 VAC / 47-65 Hz powered</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 802.3AD Link aggregation</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>Exceed MIL-STD-1275B surge and spike protection</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>CE102, CS114, CS115, CS116, RE102, RS103</li> <li>MIL-STD-461F</li> <li>RE101, RS101</li> </ul>
<b>Environmental</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> <li>IP67/68</li> <li>MIL-F-18870-E, Temperature shock test 72 hours @ -55°C, Storage</li> <li>MIL-STD-167-1A Low frequencies Vibrations</li> <li>MIL-S-901D Lightweight shocks</li> </ul>
<b>Physical</b>	<ul style="list-style-type: none"> <li>Dimensions: 287mm(L) x 147(W) x 50(H), including connectors &amp; hardware</li> <li>Weight: 1.8 kg</li> </ul>
<b>Installation</b>	<ul style="list-style-type: none"> <li>Set of four 4.5 mounting holes on bottom for mounting to any flat surface.</li> <li>Carrying handles</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>-35°C to +75°C (-31°F to +167°F) / -35°C 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>

## Overall dimension



Dimensional line drawing - All measurements are in millimeters

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## How to order

1.	2.	3.	4.	5.
Series	Electronics type	Protective caps	Protection of connectors	Voltage input
RJSMLAC	8EMG	CAPS	-	-

### 1. Series

<b>RJSMLAC</b>	Rugged Managed Ethernet Switch
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### 2. Electronics type

<b>8MG</b>	MIL-STD Rugged Managed Ethernet switch with 8 ports 10/100/1000TX
<b>8EMG</b>	MIL-STD Rugged Managed Ethernet switch with 8 ports 10/100/1000TX with Enhanced features

### 3. Protective caps

<b>CAPS</b>	Metallic caps attached to each connector
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### 4. Protection of connectors

-	All connectors and caps are plated with Olive drab Cadmium
<b>ZN</b>	All connectors and caps are plated with Black Zinc Nickel ✓
<b>NI</b>	All connectors and caps are plated with Nickel ✓

### 5. Voltage input

-	Unit powered with 18-32 VDC
<b>VAC</b>	Unit powered with 90-265 VAC / 47-65 Hz

Part number	Description
<b>Ethernet switches Part number</b>	
<b>RJSMLAC-8MG-CBL-PWR-2M-B4</b>	Power cordset for RJSMLAC-8MG-CAPS, 1 side with TV06RW0998SA, 1 side with 4mm plugs for power supply, cable 2m long (DC voltage option)
<b>RJSMLAC-8MG-CBL-PWR-2M-EU</b>	Power cordset for RJSMLAC-8MG-CAPS-VAC, 1 side with TV06RW0998SA, 1 side with European outlet plug, cable 2m long (AC voltage option)
<b>RJSMLAC-8MG-CBL-PWR-2M-US</b>	Power cordset for RJSMLAC-8MG-CAPS-VAC, 1 side with TV06RW0998SA, 1 side with North American outlet plug, cable 2m long (AC voltage option)
<b>RJSMLAC-8MG-CBL-ETH-RJ45-2M</b>	LAN cordset for RJSMLAC-8MG-CAPS, valid for LAN 1 to 8, 1 side with RJFTV6MG plug, 1 side with RJ45 civilian, cable RJFSFTP5E cat 5E, 2m long (valid for all options)
<b>RJSMLAC-8MG-CBL-MNG-1M</b>	Management cable for RJSMLAC-8MG-CAPS, 1 side with SCE2B-L1K-0607-PN plug, 1 side with DB9, 1m long (valid for all options)
<b>Complete set Part number</b>	
<b>KIT RJSMLAC-8EMG-CAPS with cables</b>	Set including 1x RJSMLAC-8EMG-CAPS + 1x RJSMLAC-8MG-CBL-PWR-2M-B4 + 4x RJSMLAC-8MG-CBL-ETH-RJ45-2M + 1x RJSMLAC-8MG-CBL-MNG-1M

For specific cable harnesses, please consult us.

✓ : RoHS compliant