



# MILTECH™ 309

Military Grade Ethernet Switch On Board (ESoB)

## PRODUCT DESCRIPTION

One of the most exciting advancement in technology over the last decade has been unmanned vehicles including:

- Unmanned aerial vehicles (UAVs) or Drones
- Land autonomous vehicles (UGVs)
- Robots
- Other unmanned support vehicles

These vehicles must be agile, compact and highly intelligent. In order to support this sophisticated intelligence, these platforms may have to carry and connect a variety of Ethernet-based devices including computers, sensors, and targeting systems - all in compact platforms that must operate in extreme environmental conditions.

The MILTECH309 is a rugged, cost-effective, ultra-compact board-level Ethernet switching solution that is the smallest solution available on the market today. Equipped with 8 Fast Ethernet 10/100 ports, this board-level switch is ideal for integrating in to system level solutions through board-to-board connectors.

The MILTECH 309 consumes only 2W of power and uses 5VDC, which can be supplied through a USB connection. Its ruggedized design feature mechanical packaging enhancements designed for MILSTD-461E, MILSTD-810F/G/GM and IP68 compliance when installed in an appropriate enclosure.

## FEATURES

<b>ETHERNET PORTS:</b>	<ul style="list-style-type: none"> <li>• 8 x switched 10/100 (Fast Ethernet) ports</li> </ul>
<b>NETWORKING:</b>	<ul style="list-style-type: none"> <li>• Full wire-speed forwarding rate</li> <li>• Store-and-forward mechanism</li> <li>• Auto MDI-II, MDI-X</li> <li>• Auto-Negotiation Protocol</li> <li>• Address Look-Up</li> </ul>
<b>CONNECTORS:</b>	<ul style="list-style-type: none"> <li>• Power + LAN Connector: Samtec board to board connector: ERM8-010-02.0-L-DV-K-TR</li> </ul>
<b>STANDARDS:</b>	<ul style="list-style-type: none"> <li>• MILSTD-461E, MILSTD-810F/G/GM, IP68 when installed in an appropriate chassis</li> </ul>
<b>VOLTAGE OPERATION:</b>	<ul style="list-style-type: none"> <li>• 5VDC, 0.5A</li> </ul>



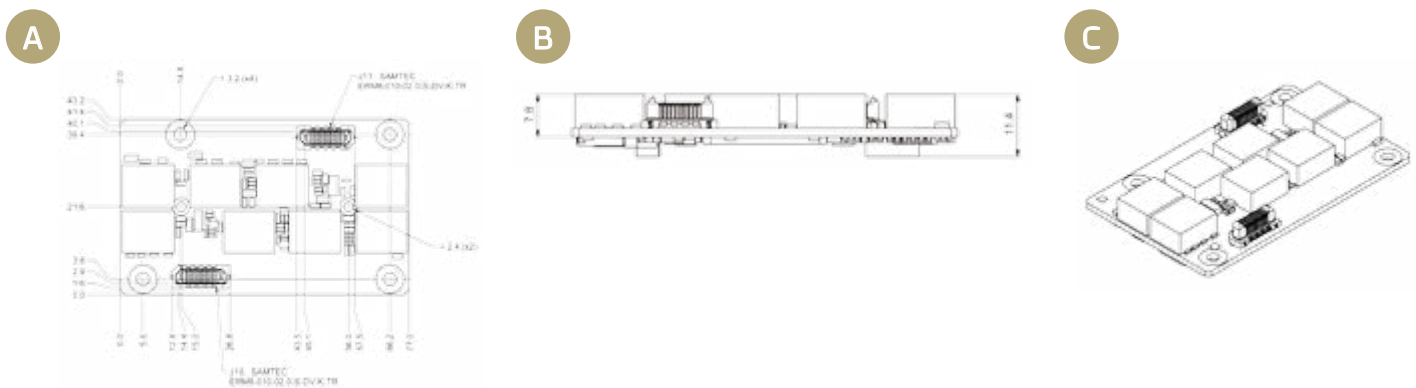


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## SPECIFICATIONS

<b>PERFORMANCE:</b>	<ul style="list-style-type: none"> <li>128K Byte of SRAM for Frame Buffering</li> <li>2.0Gbps High-Performance Memory Bandwidth</li> <li>LED indication (Speed, Link/Activity) per port - Optional</li> <li>Wire-Speed Reception and Transmission</li> <li>Integrated Address Look-Up Engine</li> <li>Automatic Address Learning</li> </ul>
<b>STANDARDS COMPLIANCE:</b>	<ul style="list-style-type: none"> <li>IEEE 802.3 10 Mbps 10BASE-T (Ethernet)</li> <li>IEEE 802.3u 100BASE-TX 100 Mbps (Fast Ethernet)</li> <li>IEEE 802.3x Flow Control</li> </ul>
<b>POWER:</b>	<ul style="list-style-type: none"> <li>Voltage Input: 5Vdc Nominal - Optional USB Sourcing</li> <li>Power Consumption: 2W Typical</li> <li>Chassis grounding</li> </ul>
<b>ELECTROMAGNETIC:</b>	<ul style="list-style-type: none"> <li>MIL-STD-461E Electromagnetic compatibility</li> <li>CE-102   CS-114   CS-115   CS-116   RE-102   RS-103</li> </ul>
<b>ENVIRONMENTAL:</b>	<ul style="list-style-type: none"> <li>MILSTD-810F/G/GM</li> <li>Random vibration (514.5)   Bench Handling (516.6V)   High Temp.(501.5I,II)   Low Temp.(502.5I)   Humidity (507.5II)   Air Pressure (500.5I,II)   Blowing Rain (506.5I)   Immersion (512.5I)   Salt Atmosphere (509.5I)   Blowing Dust (510.5I)   Loose Cargo Vibration (514.6II)   Wind Analysis</li> <li>IP68</li> </ul>
<b>PHYSICAL:</b>	<ul style="list-style-type: none"> <li>Dimensions: 71mm (L) x 43.18mm(W) x 11.4mm(H)</li> <li>Dimensions: 2.79"(L) x 1.70"(W) x 0.43mm(H)</li> <li>Weight: 40g</li> </ul>
<b>INSTALLATION:</b>	<ul style="list-style-type: none"> <li>6 x mounting holes for board to board mounting</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>



## ORDERING INFORMATION

PART NUMBER	DESCRIPTION
MILTECH309	<ul style="list-style-type: none"> <li>MILTECH309, MIL-STD military, 8 x 10/100TX, ESoB</li> </ul>