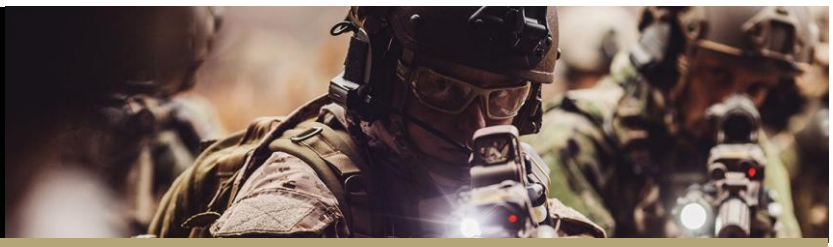
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# MILTECH™ 919

## Military Grade Gigabit Ethernet Switch On Board (GSoB)

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 MILTECH919 is cost-effective, ultra-compact board level Ethernet switching solution that is the most compact solution available on the market today. This board-level switch is ideal for integrating in to system level solutions being developed with size, weight, power and cost (SWaP-C) at top of mind .

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. An evaluation board is available for the MILTECH919, allowing full testing and validation of the MILTECH919.

The MILTECH919's gigabit speeds and 24VDC power make it instantly compatible with any network device and power systems.

NON ITAR

AS9100D CERTIFIED ISO 9001

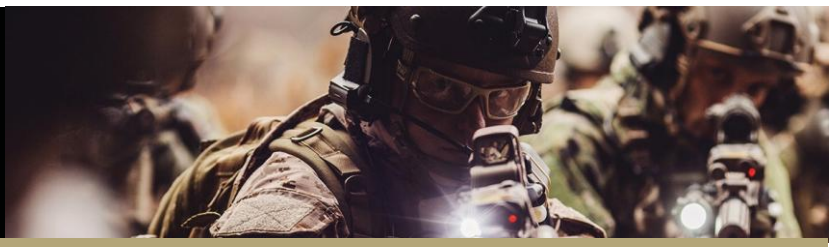


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## SPECIFICATIONS

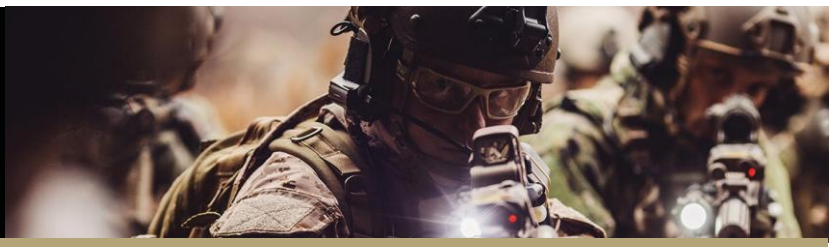
| | |
|---|---|
| ETHERNET PORTS: | • 8 x 10/100/1000Base-T ports<br>• 1 X 100/1000 fiber port |
| NETWORKING: | • Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings<br>• Security via Radius Authentication 802.1x, Port Security, Port Mirroring<br>• Multicasting (IGMP Snooping), GARP, GMRP, and GVRP Broadcasting and flooding Control up to 8K Groups.<br>• 802.1q Tagged based VLAN up to 4K VLAN groups.<br>• QoS Multi-Layer Classifier, 802.1p, ToS/DSCP traffic classification. WFQ, Strict Queuing.<br>• Bridge support for Q-in-Q.<br>• L3 static routing<br>• Link Aggregation 802.3AD.<br>• WEB, CLI, Telnet Management.<br>• Rmirror<br>• Port Protection: 1+1 port protection, 1:1 port protection, 1:N port protection<br>• G.8032 ring protection<br>• DHCP option 82 relay<br>• L2CP tunneling<br>• Protocol-based VLAN<br>• 1588v2 PTP with two-step clock |
| CONNECTORS: | 1 x Samtec board to board connector to represent:<br>• Power input<br>• LAN ports<br>• Fiber ports<br>• Management RS-232<br>• MT module connector: 1 x SAMTEC ERM8-050-02.0-L-DV-TR<br>• LED Indication Per Port (Link/Activity) |
| STANDARDS COMPLIANCE: | • IEEE 802.1x MAC based Authentication<br>• IEEE 802.1Q Vlan Tagging<br>• IEEE 802.1P QoS<br>• IEEE 802.1S Multiple STP<br>• IEEE 802.1W Rapid STP<br>• IEEE 802.1AD Link Aggregation<br>• IEEE 802.1X |
| POWER: | • Voltage Input: 6-36VDC<br>• Power Consumption: 8W Max |
| ELECTROMAGNETIC/ ENVIRONMENTAL: | Designed to Meet:<br>• MIL-STD-461E Electromagnetic compatibility<br>• MILSTD-810F/G/GM: Random vibration (514.5I), Bench Handling (516.6VI), 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. |
| PHYSICAL | • Dimensions: 107mm (L) x 48(W) x 19(H)<br>• Dimensions: 4.21”(L) x 1.89”(W) x 0.75”(H)<br>• Weight: 52g |
| INSTALLATION | • 6 x mounting holes for board to board mounting |
| COOLING | • No Moving Parts. Passive Cooling. |
| OPERATING TEMP | • -40ºC to +85ºC (-40ºF to +185ºF). Cold Start-Up |
| STORAGE TEMP | • -40ºC to +85ºC (-40ºF to +185ºF) |

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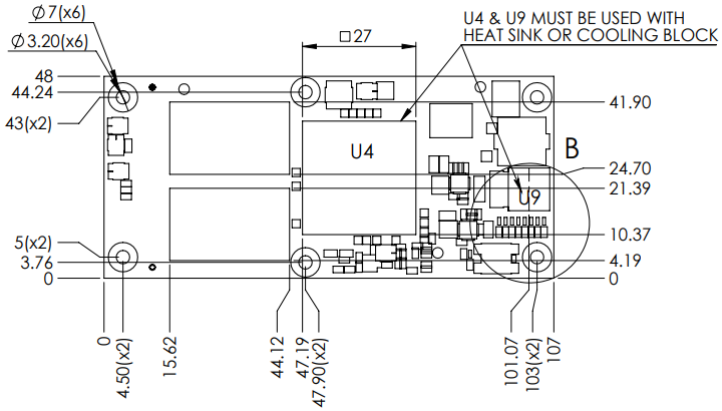
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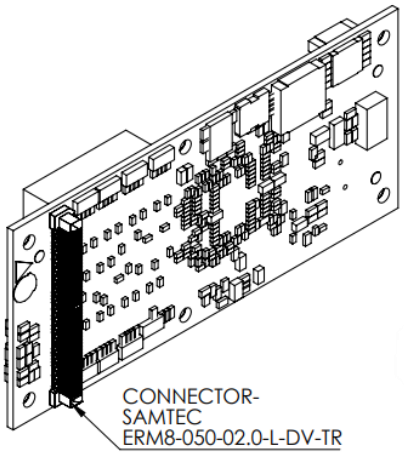
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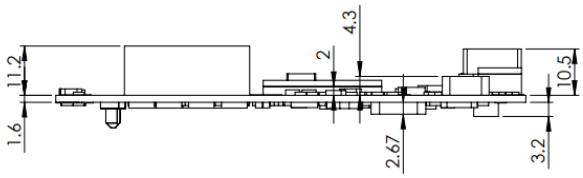
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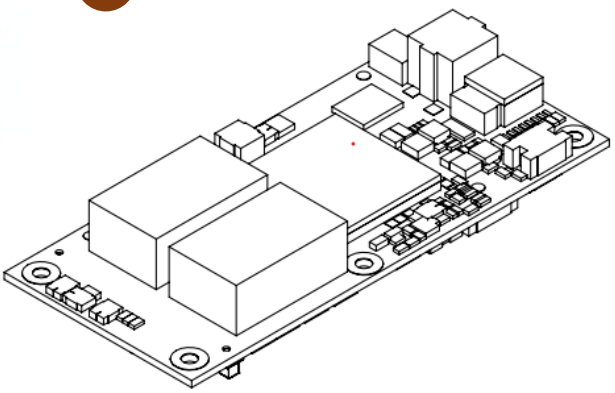

B




C




C



## ORDERING INFORMATION

| PART NUMBER | DESCRIPTION |
|---|---|
| 1-919-001 | Managed Military Grade Gigabit Ethernet Switch, 8 x 10/100/1000TX + 1 X 100/1000FX On Board With cooling plate – Not recommended for new design |
| 1-CP919-000 | Cooling Plate Kit for MILTECH-919– Not recommended for new design |
| 1-919-100 | Enhanced Managed Military Grade Gigabit Ethernet Switch, 8 x 10/100/1000TX + 1 X 100/1000FX |
| 1-919-200 | Enhanced Managed Military Grade Gigabit Ethernet Switch, 8 x 10/100/1000TX + 1 X 100/1000FX,On Board, Sealed Magnetics. |
| 1-919EV-000 | Evaluation carrier board for MILTECH919 – provides 8 X RJ45 ports +1 X SFP slot and a power connector. |
| 1-919N-000 | Managed Military Grade Gigabit Ethernet Switch, 8 x 10/100/1000TX + 1 X 100/1000FX, 3.3V Supply |
| 1-CP919-001 | Cooling Plate Kit for MILTECH-919 With threads. |

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