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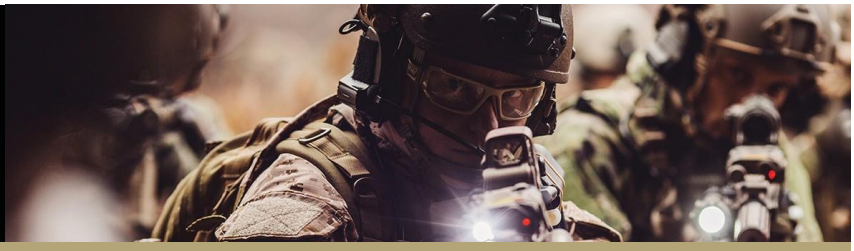

MILTECH™ 9136

Managed Military Grade Embedded Ethernet Switch up to 52 ports

The MILTECH 9136 is specifically designed for complex traffic applications featuring IEEE-1588 Capabilities and Synchronous Ethernet (SyncE), suitable for rugged military mobile tactical platforms, which require network centric interfaces.

With 24 triple-speed (10/100/1000Mbps) ports + 8 Interfaces SGMII + 4 QSGMII interfaces + 4 ports 10G, the MILTECH 9136 features both L2/L3 network switching and static routing capabilities, including virtual LANS (VLANS), traffic prioritization/QoS, IPv4/IPv6 support, and bandwidth aggregation. It supports all the latest networking protocols for redundancy, security, multicast, and management. With the industry's smallest footprint, the MILTECH 9136 measures only 87x87mm to offer performance and a combination of size, weight, and power (SWaP) in the industry, saving valuable real estate for devices that makes mobile platforms highly effective. Its 10GE transmission speeds and 12VDC power make it compatible with network devices and power systems.

Conformally coated and with board-to-board connectors, it can easily be integrated as a module-based network building block in any military-grade communications platform. The MILTECH 9136 board level communication solution will withstand working temperatures of -40°C to +85°C and will comply with MIL-STD-810 & MILSTD461 (when incorporated in a suitable enclosure).

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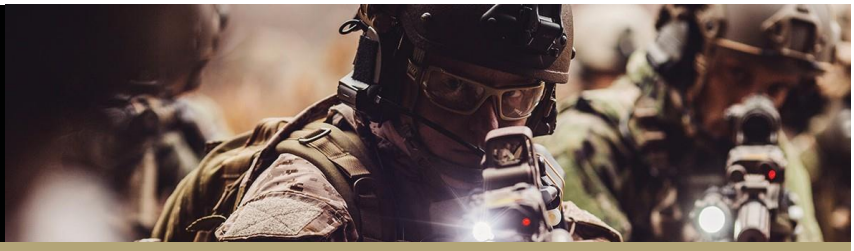

SPECIFICATIONS

ELECTROMAGNETIC:	• MIL-STD-461E Electromagnetic compatibility • CE-102, CS-114, CS-115, CS-116, RE-102, RS-103. When encorporated in a suitable enclouser
SHOCK/VIBRATION/HUMIDITY:	• Energy efficient Ethernet, IEEE 802.3az • Wire-speed hardware-based 32 ports Gigabit and 10 Gigabit Ethernet Switch – L2 & L3 capabilities • L3-Static Routing capabilities • IEEE-1588 Capabilities and Synchronous Ethernet (SyncE) • Multicasting (IGMP Snooping), GARP, GMRP, MLD and GVRP up to 8K groups for both IPv4 and IPv6 • Broadcasting and flooding Control up to 8K Groups • 802.1q Tagged based VLAN up to 4K VLAN groups • Bridge Support for VLAN Q-in-Q • Link Aggregation 802.3ad • WEB, CLI, Telnet , SNMP V2/V3 management • QoS Multi-Layer Classifier: 802.1p, EtherType • VLAN-ID, IPv4/6 DSCP/ToS, and UDP/TCP ports & ranges traffic classification • DSCP remarking for both IPv4 and IPv6 frames • Multiple ACLs per port for optimal usage of Content Aware Policers • Storm controllers for flooded broadcast, multicast and unicast • Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings • Up to 4K egress VLAN tag operations
NETWORKING: Quality of Service	• QoS Multi-Layer Classifier: 802.1p, EtherType, • VLAN-ID, IPv4/6 DSCP/ToS, and UDP/TCP ports & ranges traffic classification. • Per port WFQ and Strict Queuing scheduling • DSCP remarking for both IPv4 and IPv6 frames • Ingress policer and ingress shaper per port with 500Kbps granularity • Egress shaper per port with 500Kbps granularity • Full-duplex flow control (IEEE802.3X) and half-duplex backpressure
Security	• Security via Radius Authentication 802.1x, Port / MAC access control • Port Security • Per port ingress and egress port mirroring • Mirroring per VLAN • Private VLAN support per VLAN (Isolated and Promiscuous ports) • Advanced ACL through hardware based match patterns • Content Aware Policers for generic MAC, ARP, IPv4, IPv6 protocols • Content Aware Policers actions are permit/deny, police, count • Multiple ACLs per port for optimal usage of Content Aware Policers • Storm controllers for flooded broadcast, multicast and unicast
CONNECTORS:	• 2 Board to board connector : TE P/N: 3-1827231-6 • Per port LED indication (Link/Act, Speed) via serial GPIO
STANDARDS:	• MIL-STD-461E | MIL-STD-810F GM | IP67. When encorporated in a suitable enclouser
PERFORMANCE:	• 253.4 Mpps wire speed forwarding rate • 128 Gbps maximum forwarding bandwidth • 8K MAC Address

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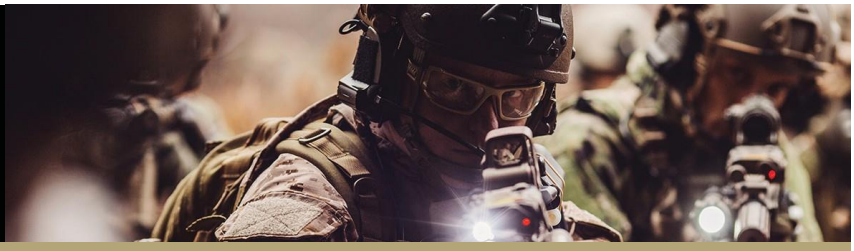

SPECIFICATIONS

POWER:	• 12VDC (4Vdc – 18Vdc) • Power Consumption: 15W Typical
ETHERNET PORTS:	• MIL-STD-461E Electromagnetic compatibility • CE-102, CS-114, CS-115, CS-116, RE-102, RS-103 When incorporated in a suitable enclosure
NETWORKING:	• MIL-STD-810F; 501.4I | 501.4II | 502.4I | 502.4II | 507.4 | 500.4II | 514 | 516I | 516VI | 514.5 | 512.4 When incorporated in a suitable enclosure
SHOCK/VIBRATION/HUMIDITY:	• MIL-STD-810F; 501.4I | 501.4II | 502.4I | 502.4II | 507.4 | 500.4II | 514 | 516I | 516VI | 514.5 | 512.4 When incorporated in a suitable enclosure
PHYSICAL:	• Dimensions: 87mm (L) x 87mm (W) • Dimensions: 3.42” (L) x 3.42”(W) • Weight: 250g • Mounting Holes: 8 x NC 6-32
COOLING::	• No Moving Parts. Passive Cooling.
OPERATING TEMP:	• -45ºC to +85ºC (-49ºF to +185ºF) Cold Start-Up

* Currently not supported – software upgrade option.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
1-9136-000	Board Level Ethernet Managed Switch, 24 x 1G Copper ports + 8 x 1G SGMII interfaces + 4 QSGMII interfaces + 4 x 10G F/O ports, including support for 1588 protocol
1-9136-002	Board Level Ethernet Managed Switch, 24 x 1G Copper ports + 8 x 1G SGMII interfaces + 4 QSGMII interfaces + 4 x 10G F/O ports, not including support for 1588 protocol
1-9136-005	Board Level Ethernet Managed Switch, 24 x 1G Copper ports + 8 x 1G SGMII interfaces + 4 QSGMII interfaces + 4 x 10G F/O ports, not including support for 1588 protocol Including Cooling base plate for MILTECH9136
1-9136EV-000	Evaluation board for MILTECH9136 - 52 ports with 1588 protocol
1-9136EV-001	Evaluation board for MILTECH9136 - 36 ports W/O 1588 protocol
1-9136EV-002	Evaluation board for MILTECH9136 - 52 ports W/O 1588 protocol
1-9136EV-003	Evaluation board for MILTECH9136 - 36 ports with 1588 protocol
1-CP-9136-000	Cooling base plate for MILTECH9136

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