

RUGGED IP67 GIGABIT ETHERNET SWITCH

The ET-8xG-MIL-1 is an all-Gigabit (10/100/1000) Ethernet managed switch with military-style D38999 connectors, ultra-rugged case, protected circuitry and advanced software. It is ideal as a Commercial off the Shelf (COTS) solution for battlefield communications, combat vehicles, avionics shipboard or any industrial application requiring the toughest switch.

PRODUCT HIGHLIGHTS

- 8 Gigabit Ethernet ports for 10/100/1000 Mbps links
- IP67 / NEMA 6 rated package totally protects against dust, water, oil, debris and more
- High performance switch rated for MIL-STD-810F, MIL-STD-461E and MIL-STD-1275B
- Military-rated MIL-DTL-38999 Series III connectors protect against vibration, shock, water and more
- Tough corrosion-proof aluminum enclosure
- Truly industrial -40 to +75°C operating range with conductive cooling (no moving parts)

REAL-TIME ETHERNET PERFORMANCE

- Unmanaged or fully managed models available
- Fast wire-speed switching with automatic intelligent routing for no collisions and no delays!
- Each port supports auto-speed/duplex, auto-crossover and auto-polarity
- Managed models support advanced features such as RSTP, SNMP, QoS/CoS, IGMP, VLAN, security and much more

FLEXIBLE MOUNTING OPTIONS

- Direct-mounting saves money eliminating the need for additional enclosures, wiring and fittings
- IP67 (NEMA6) water-tight case enables mounting into a vehicle or an exposed wall in harsh applications
- Side and end mounting slots support multiple mounting fasteners as best for the application

TROUBLE FREE OPERATION

- Direct 10-30 VDC power input with MIL-STD-1275B military-class spike and surge protection
- Over 1,000,000 hours (MTBF) of trouble free service (estimation based on actual return and repair data)

Model Numbers:

- ET-8EG-MIL-1 (unmanaged)
- ET-8MG-MIL-1 (managed)



RUGGED & COMPACT MILITARY CONNECTORS

These switches feature MIL-STD-38999 Series III connectors that are suitable for industrial, military and severe environment applications.

- **Size 23 Contacts** - Tested and proven for high speed signals such as 1000 Mbps Ethernet
- **EMI Shielding and ESD Resistance** - Solid metal to metal coupling provides superior EMI shielding and ESD protection
- **Contact Protection** - Recessed pins in this 100% scoop-proof connector minimize contact damage
- **Moisture Corrosion Resistance** - Shells are cadmium over nickel to withstand a 500 hour salt spray exposure
- **Resistance** - Improved interfacial seal helps prevent electrolytic erosion of contacts
- **Vibration/Shock** - Operates under severe high temperature with vibration, through 200°C
- **Lockwiring Eliminated** - Unique, self-locking, quick coupling connector eliminates lockwiring
- **Quick Coupling** - Completely mates and self-locks in a 360° turn of the coupling nut
- **Compact Size** - Ultra compact size to fit into the tightest applications



ETHERNET PERFORMANCE

- 8 Gigabit Ethernet ports for 10/100/1000 Mbps links
- Store & forward wire-speed non-blocking switching
- Managed or unmanaged model available
- All IEEE802.3 Ethernet protocols supported
- Auto-negotiation for Ethernet speed and duplex
- Auto-crossover for Ethernet MDI/MDIX wiring
- Auto-polarity for Ethernet TD and RD polarity
- Full or half duplex operation (auto or configurable)
- 8192 MAC addresses supported
- 32 Gbps Memory bandwidth
- Ethernet isolation 1500 VRMS 1 minute
- Connector: MIL-STD-38999 series III receptacle with shell/insert style 9-9, 9 socket contacts & N keying

ETHERNET COMPLIANCE

- IEEE 802.3 (Original Ethernet 10Mbps)
- IEEE 802.3u (Fast Ethernet 100Mbps)
- IEEE 802.3z (Gigabit Ethernet 1000Mbps)
- IEEE 802.3x (Full-Duplex with Flow Control)
- And many more

POWER INPUT

- Connector: MIL-STD-38999 Series III receptacle with shell size A, style 98, 3 pin contacts and A keying
- Input voltage range: 10-30 VDC (continuous)
- Input power: 17 W (max. under full load)
- Reverse polarity protection
- Exceeds MIL-STD-1275 for power protection
- Surge protection: 100 volts for 1 second
- Transient protection: 15,000 watts peak
- Spike protection: 5,000 watts (10x for 10 uS) or 250 volts (50x for 100 uS)

ENVIRONMENTAL

- Operating temperature: -40 to +75°C (cold startup at -40°C)
- Storage temperature: -40 to +85 °C
- Humidity (non-condensing) 5 to 95% RH
- Vibration, shock and freefall per MIL-STD-810F and IEC600 68-2-6, -27 and -32
- Vent plug for high altitude operation

PHYSICAL

- Dimensions (L x W x H): 11 x 6 x 2.85" (279 x 152 x 72 mm)
- Weight (including caps): 4.25 lbs (1.9 Kg)
- IP67 dust, oil and water-tight package protection

STANDARDS COMPLIANCE

- FCC part 15 / ICES-003; EN61000-6-4,-2
- MIL-STD-461E for EMC performance
- MIL-STD-810F for environmental performance
- MIL-STD-1275B for power protection

All specifications are subject to change. Consult factory for latest info.

MANAGED MODELS

- USB / RS232 console port via MIL-STD-38999 series III connector w/ shell size A, style 35, 6 contacts & A keying
- Real-Time Ring™ or Rapid Spanning Tree (RSTP) for fast redundant ring or mesh networks
- Priority queuing for real-time performance
- SNMP v1 and V2 for network management
- SNMP v3 for authentication and encryption
- SNMP notifications (traps) for report on event
- IGMP v1 & v2 for IP multicast filtering
- VLAN (port & tag based) for traffic segregation
- Message filtering to stop broadcast/multicast storms
- RMON and port mirroring for diagnostics
- Configuration via secure (https) Web interface, Telnet / SSH (network), terminal (RS232) or SNMP (v1, v2, v3)
- And much more (contact us for latest features list)

RECOMMENDED INTERFACE PLUGS

- Ethernet Plug – Amphenol TV06RW9-9PN
- Power Plug – D38999/26WA98SA
- USB/RS232 Plug – D38999/26WA35PA

ORDERING GUIDE

ET-8EG-MIL-1	8-port unmanaged IP67 switch
ET-8MG-MIL-1	8-port managed IP67 switch
(Note: Receptacle caps are included with the switch.)	
ET-CAT6M-xCG*	Cordset, military-style plug to RJ45, x meters
(Note: Contact Sixnet for other cordset and cable options.)	
ET-MILPWR-C2	Cordset, power plug to leads, 2 meters
ET-MIL232-C2	Cordset, military-style plug to 232/USB, 2m

* See separate datasheet for cable specs

MECHANICAL DRAWING

