

# 19"/2<sup>®</sup> ESW2242



## Rugged switch

The 19"/2<sup>®</sup> ESW2242 is a powerful managed switch which features eight 1 Gbps ports in M12 connectors. An ideal solution for demanding high speed networks, including data, video, and voice services. It supports both layer 2 and layer 3 functionality and can be implemented anywhere high speed LAN and WAN connectivity may be required.

### Small form factor

The MilDef 19"/2<sup>®</sup> form factor is optimized for reduced size, weight, and power (SWaP) to meet industry and military requirements without sacrificing reliability, ruggedness or performance.

### Flexible mounting

The 19"/2<sup>®</sup> standard enables flexible mounting options for a wide array of integration scenarios. The unit can be mounted in a standard 19" rack, half racks, or directly on to a surface and at any angle.

### Guaranteed performance

MilDef products are designed for the long lifecycles of military programs and come with a lifetime support

program to ensure your equipment maintains peak performance for many missions to come.

We also guarantee the availability of spare parts for an additional 5 years after product end-of-life.

### Features

- Based on the Cisco ESS 3300
- Layer 2 switching
- SNMP
- RADIUS
- Management via SNMP, Command Line (Telnet, SSH) and Web
- Tagged VLAN (IEEE 802.1q, IEEE 802.3ac)
- STP (Spanning Tree Protocol, IEEE 802.1d)
- LACP (Link Aggregation Control Protocol, IEEE 802.1ax)
- IGMP snooping
- MAC ACL (Access Control List)
- 12-36 VDC
- Passively cooled

Connector Interfaces	
X10 (front)	• 1x Serial Console
X2-X9 (front)	8 connectors which each has: <ul style="list-style-type: none"> <li>• 1x 1000BASE-T</li> </ul>
SERVICE (back)	• 1x RS232 Service
X1 DC IN (front)	• 1x Power
Other Interfaces	
1x System button (front)	
Technical Specification	
Blanking	Enable/disable all externally visible indicators from emitting light via the "blanking command"
Design	Based on the Cisco ESS 3300
LAN 1000BASE-T	1000BASE-T standard
Switch features	Management via SNMP, Command Line (Telnet, SSH) and Web IEEE 802.1, 802.3 standard VLAN IDs 256 IGMP Groups 1K ACL (PACL, VACL) EtherChannel IPv6 SNMP VTP v2, v3 802.1x multidomain authentication MIB SNMP v3 IGMP v1, v2, v3
Switch functionality	Tagged VLAN (IEEE 802.1q, IEEE 802.3ac) STP (Spanning Tree Protocol, IEEE 802.1d) LACP (Link Aggregation Control Protocol, IEEE 802.1ax) IGMP snooping MAC ACL (Access Control List)
Electronics ground to chassis	Isolated
MIL-STD-1275D	5.3.2.2 5.3.2.3 5.3.2.4
Polarity protection	Protected against polarization failure on the power input in the voltage range of normal operation
Power consumption	Max 20 W
Power input	12-36 VDC
Power to chassis	Isolated
Power to electronics ground	Isolated
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)

Cooling	Passively cooled
Depth	166.2 mm (6.6 in)
Dimensions width and height	220 x 43.4 mm (8.66 x 1.71 in) (WxH)
Earth point	M6 12 mm
Surface treatment chassis	Chromit-Al
Weight	3 kg (6.7 lbs)
MTBF	Greater than 25,000 h
CE	Compliant

Environmental Specification	
Functional shock - Operating	MIL-STD-810G, Method 516.6, Procedure I - Functional Shock. Table 516.6-II, Terminal peak sawtooth pulse, Ground equipment 40 g 11 ms
High temperature - Operating	MIL-STD-810G, Method 501.5, Procedure II - Operation 55 °C (131 °F)
High temperature - Storage	MIL-STD-810G, Method 501.5, Procedure I - Storage 71 °C (160 °F)
Humidity	MIL-STD-810G, Method 507.5, Procedure II - Aggravated 95 ± 4 % RH Ten 24 h cycles
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X5
Low air pressure - Rapid decompression	MIL-STD-810G, Method 500.5, Procedure III - Rapid decompression 75.2 kPa, corresponding to 2,438 m (8,000 ft) 17 kPa, corresponding to 12,192 m (40,000 ft)
Low air pressure - Operating	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4,572 m (15,000 ft)
Low temperature - Operating	MIL-STD-810G, method 502.5, Procedure II - Operation -40 °C (-40 °F)
Low temperature - Storage	MIL-STD-810G, method 502.5, Procedure I - Storage -40 °C (-40 °F)
Noise level	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
Salt fog	MIL-STD-810G Method: 509.5 5 % ± 1 % (by weight) Two cycles, 24 h wet + 24 h dry / cycle

**Temperature shock - Operating** MIL-STD 810G, method 503.5 procedures I - C, - Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) -40 °C (-40 °F)

**Vibration - Helicopter** MIL-STD-810G, Method 514.6, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter

**Vibration - Loose cargo** MIL-STD-810G, Method 514.6, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo

**Vibration - Tracked vehicles** MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, tracked vehicles

**Vibration - Wheeled vehicles** MIL-STD-810G, Method: 514.6 , Procedure 1 - General Vibration, Category 20 - Ground vehicles - ground mobile, wheeled vehicles

**EMC Specification**

**EMI conducted CE102** MIL-STD-461F, Method CE102, Conducted emissions, power leads BASIC CURVE 10 kHz - 10 MHz

**EMI radiated RE102** MIL-STD-461F, Method RE102, Radiated emissions, electric field Navy Mobile & Army 2 MHz - 18 GHz

**EMS conducted CS101** MIL-STD-461F, Method CS101, Conducted susceptibility, power leads CURVE #1 30 Hz - 150 kHz

**EMS conducted CS114** MIL-STD-461F, Method CS114, Conducted bulk susceptibility Army, Ground 10 kHz - 200 MHz

**EMS conducted CS115** MIL-STD-461F, Method CS115, Conducted susceptibility, bulk cable injection, impulse excitation

**EMS conducted CS116** MIL-STD-461F, Method CS116, Conducted susceptibility, damped sinusoidal transients, cables and power leads 10 kHz - 100 MHz

**EMS radiated RS103** MIL-STD-461F, Method RS103, Radiated susceptibility, electric field Army 2 MHz - 1 GHz