

19"/2[®] ESW2261



Rugged fiber switch

The ESW2261 offers a high-end ruggedized Cisco fiber switch, with a 10G copper uplink and 1G fiber downlinks all in a 1U half rack form factor.

Small form factor

The MilDef 19"/2[®] 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[®] 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.

Military-relevant rugged design

MilDef products are designed to operate in extreme environmental conditions and challenging electromagnetic operational scenarios. Operationally proven, MilDef products are actively employed in military operations in over 60 countries.

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
- 1000BASE-SX standard with MM 850nm
- Management via SNMP, Command Line (Telnet, SSH) and Web
- 10-36 VDC
- Passively cooled

Connector Interfaces

SERVICE (back)	• 1x RS232 Service
X1 DC IN (front)	• 1x Power
X2-X5 (front)	4 connectors which each has: <ul style="list-style-type: none"> • 2x 1000BASE-SX
X6 (front)	• 1x 1000BASE-T
X7 (front)	• 1x Serial Console

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
IP Multicast (Network Advantage only)	PIM sparse mode (PIM-SM), PIM dense mode (PIM-DM) and PIM Sparse dense mode
IP routing protocols (Network Advantage only)	OSPF (v4 and v6), RIP (V1 and V2), ISIS (v4 and v6), EIGRP (v4 and v6)
LAN 1000BASE-SX	1000BASE-SX standard with MM 850nm
LAN 10GBASE-T	10GBASE-T standard
Layer 2 IPv6	IPv6 host support, HTTP over IPv6, SNMP over IPv6
Management	Web UI, MIB, SmartPort, SNMP, syslog, DHCP server, SPAN session (1), Full Flexible Netflow (FnF)
Multicast	IGMPv1, v2, v3 snooping, IGMP filtering, IGMP querier
Quality of service	Ingress policing, rate limit, egress queuing/shaping, autoQoS
Security	Port security, 802.1x, DHCP snooping, dynamic ARP inspection, IP source guard. Storm control - unicast, multicast, broadcast, SSH, SNMPv3, TACACS+, RADIUS, BPDU guard, MACsec-128, MACsec-256 (Network Advantage only)

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, VAACL) EtherChannel IPv6 SNMP VTP v2, v3 802.1x multidomain authentication MIB SNMP v3 IGMP v1, v2, v3 NTP, PTP* *not on Te1/1 and Te1/2 ports
Switching	IEEE 802.1, 802.3 standard, NTP, UDLD, CDP, LLDP, unicast MAC filter, VTPv2, VTPv3, EtherChannel, RSTP, etc
Virtualization (Network Advantage only)	VRF-lite
Electronics ground to chassis	Isolated
MIL-STD-1275E	Transient disturbances 5.1.3.1 5.1.3.2
Polarity protection	Protected against incorrect polarity connection on the power input within the normal operating voltage range
Power consumption	Idle 29 W Typical 31 W
Power input	10-36 VDC
Power to chassis	Isolated
Power to electronics ground	Isolated
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)
Cooling	Passively cooled
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
Unit depth	317 mm (12.5 in)
Weight	3.4 kg (7.5 lbs)
MTBF	121,987 h
CE	Compliant

Environmental Specification

Functional shock - Operating	MIL-STD-810H, Method 516.8, Procedure I - Functional shock. Table 516.8-IV, Terminal peak sawtooth pulse, Ground materiel 40 g 11 ms
High temperature - Operating	MIL-STD-810H, Method 501.7, Procedure II - Operation 60 °C (140 °F)
High temperature - Storage	MIL-STD-810H, Method 501.7, Procedure I - Storage 71 °C (160 °F)
Humidity	MIL-STD-810H, Method 507.6, Procedure II - Aggravated 95 ± 4% RH Ten 24-hour cycles
IP Class (Solid Particle Protection)	IP Class 6X
IP Class (Water)	IP Class X5
Low air pressure - Rapid decompression	MIL-STD-810H, Method 500.6, Procedure III - Rapid decompression 2,438 m (8,000 ft) 12,192 m (40,000 ft)
Low air pressure - Operating	MIL-STD-810H, Method 500.6, Procedure II - Operation/air carriage 4,572 m (15,000 ft)
Low temperature - Operating	MIL-STD-810H, Method 502.7, Procedure II - Operation -40 °C (-40 °F)
Low temperature - Storage	MIL-STD-810H, Method 502.7, 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-810H, Method 509.7 5 ± 1% (by weight) Two cycles, 24 h wet + 24 h dry / cycle
Temperature shock - Operating	MIL-STD 810H, Method 503.7, Procedure I-C, - Multi-cycle shocks from constant extreme temperature 55 °C (131 °F) -40 °C (-40 °F)
Vibration - Helicopter	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter
Vibration - Loose cargo	MIL-STD-810H, Method 514.8, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo

Vibration - Tracked vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Tracked vehicle
Vibration - Wheeled vehicle	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Wheeled vehicle

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