19inch2 Switch ESW451

Switch in a 19inch2 form factor

The 19"/2 fiber switch packs high-performance Vitesse based switch into a frame.

Built to take a beating

The Switch is proven to withstand the harshest conditions over the long haul. It features aluminium casing, rugged MIL connectors for easy integration and will operate down to -40 C.

Guaranteed performance

Our products always come with a lifetime support to ensure your equipment maintains peak performance for many missions to come. We also serve units and stock spare parts for 5 years end-of-life.

Features

- 10GBASE-LR, SM 1310nm
- 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)
- 10-32 VDC

ESW451 Issue 03, 2020-04-14.
MilDef reserves the right to update the information at any time without notice.

19inch2 Switch ESW451

Connector Interfaces

X5 (front)	• 1x RS232
SERVICE (back)	• 1x RS232 Service
X2-X4 (front)	3 connectors which each has: • 2x ETH 1000BASE-T
X1 DC IN (front)	• 1x Power
X6-X7 (back)	2 connectors which each has: • 1x ETH 10GBASE-LR
X8-X10 (back)	3 connectors which each has: • 2x ETH 1000BASE-T

Other Interfaces

8x LAN Indicator (back)

6x LAN Indicator (front)

1x Status Indicator (front)

Technical Specification

LAN	1000BASE-T standard
LAN 10GBASE-LR	10GBASE-LR, SM 1310nm
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)
Polarity protection	Protected against polarization failure on the power input in the voltage range of normal operation.
Power consumption	35W
Power input	10-32 VDC
Coating and color	Dupont (RAL1013)
Earth point	M6 12mm
Surface treatment chassis	Chromit-Al
Weight	3 kg (6,7 lbs)
MTBF	Greater than 25000 h

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 40g 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-hour 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 75.2kPa, corresponding to 2,438m (8.000 ft) 17kPa, corresponding to 12192m (40.000 ft)
Low air pressure - Operating	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4572m (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 40dB SPL A-weighting @ 1m (3,3 ft) distance
Salt fog	MIL-STD-810G Method: 509.5 5% +- 1% (by weight) Two cycles, 24h wet + 24h 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)
Transit drop, in shipping package	MIL-STD-810G, method 516.6, Procedure IV - Transit Drop. Table 516.6-VI, Transit drop test, < 45.4 kg (100 lbs), < 91 cm (36 inch), Manpacked or man-portable

EMC Specification

EMI conducted CE102	MIL-STD-461F, Method CE102 BASIC CURVE 10kHz to 10MHz
EMI radiated RE102	MIL-STD-461F 2MHz – 18Ghz Navy Mobile & Army
EMS conducted CS101	MIL-STD-461F, Method CS101, conducted suceptibility, power leads CURVE #1 30Hz to 150kHz

MilDef reserves the right to update the information at any time without notice.

EMS conducted CS114	MIL-STD-461F 10kHz - 200MHz Army, Ground
EMS conducted CS115	MIL-STD-461F Conducted susceptibility, bulk cable injection, impulse excitation
EMS conducted CS116	MIL-STD-461F 10 kHz to 100 MHz
EMS radiated RS103	MIL-STD-461F 2MHz to 1GHz Army
ESD	EN61000-4-2:2009 Level 3 EN50024:1998 Performance criteria B + A1:2001 + A2:2003

MilDef reserves the right to update the information at any time without notice.