

19"/2® ESW455



19"/2® Switch

The 19"/2® Switch is a powerful managed switch which features ten 1 Gbps ports. An ideal solution for demanding high speed networks, including data, video, and voice services.

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.

Customizable

Are you looking for additional features and functions? MilDef specializes in customized solutions, to include change of connectors, chassis modifications, mounting solutions, etc. Contact your nearest MilDef Sales Office and we will help you tailor a solution to meet your exact requirements.

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

- 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

Connector Interfaces

SERVICE (back)	• 1x RS232 Service
10-32V DC (back)	• 1x Power
CONSOLE (back)	• 1x RS232 Console
X1-X7 (front)	7 connectors which each has:
	• 1x ETH 1000BASE-T
X8-X10 (back)	3 connectors which each has:
	• 1x ETH 1000BASE-T

Technical Specification

LAN 1000BASE-T	1000BASE-T standard
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)
MIL-STD-1275E	Transient disturbances 5.1.3.1 5.1.3.2
Polarity protection	Protected against polarization failure on the power input in the voltage range of normal operation
Power consumption	35 W
Power input	10-32 VDC
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)
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
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IP Class (Solid Particle Protection) IP Class 6X

IP Class (Water)	IP Class X5
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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)
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Low air pressure - Operating	MIL-STD-810G, method 500.5, Procedure II - Operation/Air Carriage 4,572 m (15,000 ft)
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Low temperature - Operating	MIL-STD-810G, method 502.5, Procedure II - Operation -40 °C (-40 °F)
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Low temperature - Storage	MIL-STD-810G, method 502.5, Procedure I - Storage -40 °C (-40 °F)
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Noise level	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
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Salt fog	MIL-STD-810G Method: 509.5 5 % ± 1 % (by weight) Two cycles, 24 h wet + 24 h dry / cycle
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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)
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EMC Specification

EMI conducted CE102	MIL-STD-461F, Method CE102 BASIC CURVE 10 kHz to 10 MHz
EMI radiated RE102	MIL-STD-461F Navy Mobile & Army 2 MHz - 18 GHz
EMS conducted CS101	MIL-STD-461F, Method CS101, conducted susceptibility, power leads. CURVE #1 30 Hz to 150 kHz
EMS conducted CS114	MIL-STD-461F Army, Ground 10 kHz - 200 MHz
EMS conducted CS115	MIL-STD-461F Conducted susceptibility, bulk cable injection, impulse excitation
EMS conducted CS116	MIL-STD-461F 10 kHz - 100 MHz

19"/2[®] ESW455

EMS radiated RS103

MIL-STD-461F
Army
2 MHz - 1 GHz