MSP163

Rugged Mini Switch

The MSP163 offers Gigabit Switching in the palm of your hand. It can withstand extreme temperatures, and is fully dust and waterproof. The small size and low weight enables it to be soldier-worn, placed in a backpack or strapped to a drone.

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

- 4 port Gigabit switch
- Extremely low power, size and weight
- Rugged ODU connectors

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Connector Interfaces

X2-X4 (front)	3 connectors which each has: • 1x 1000BASE-T
X1 (front)	• 1x 1000BASE-T • 1x Power • 1x RS232 Service

Technical Specification

LAN 1000BASE-T	1000BASE-T standard
Power consumption	5 W
Power input	5-36 VDC
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)
Cooling	Passively cooled
Dimensions	90 x 24 x 60 mm (3.6 x 1 x 2.4 in) (WxHxD)
Mounting	4x M4
Surface treatment chassis	Chromit-Al
Weight	0.2 kg (0.5 lbs)
MTBF	Greater than 25,000 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 65 °C (149 °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 X7
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)
Salt fog	MIL-STD-810H, Method 509.7 5 ± 1% (by weight) Two cycles, 24 h wet + 24h 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 Vehicles	MIL-STD-810H, Method 514.8, Procedure I - General Vibration, Category 20 - Ground vehicles - ground mobile, Tracked vehicles
Vibration - Wheeled Vehicle	MIL-STD-810H, Method 514.8, Procedure I - General Vibration, Category 20 - Ground vehicles - ground mobile, Wheeled vehicles

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 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
EMS radiated RS103	MIL-STD-461F Army 2 MHz - 1 GHz