

Mini Ethernet Switch - Concept 3211



MilDef offers our customers complete realization of any product idea or concept within rugged electronics. Based on our long experience of designing and customizing products, our engineering team is ready to attack any technical problem thrown at them. A MilDef concept enables the possible implementation of customer specific requirements. Realization may involve NRE cost. This featured product is currently at a concept stage, contact us to further discuss your requirements.

Rugged mini switch

The rugged mini switch offers gigabit ethernet in an ultra compact form factor, making it an ideal solution where low power, size and weight are key.

Featuring a milled aluminum chassis and rugged connectors, it is made to withstand ingress from water and sand, as well as harsh conditions such as extreme temperatures and vibration.

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
- Low power, size and weight
- Rugged connectors

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Connector Interfaces

ETH2-ETH4 (front)	3 connectors which each has: <ul style="list-style-type: none"> 1x 1000BASE-T
ETH1 PWR (front)	<ul style="list-style-type: none"> 1x 1000BASE-T 1x DC IN

Other Interfaces

4x ETH indicator (front)

Technical Specification

Power consumption	5 W
Power input	5 VDC
Chassis material	Aluminum
Coating and color	Dupont AE0305-6603120 (RAL6031)
Dimensions	106 x 25 x 660 mm (4.2 x 1 x 2.4 in) (WxHxD)
Earth point	M6 12 mm
Mounting	4x M4
Surface treatment chassis	Chromit-Al
Weight	0.2 kg (0.5 lbs)
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 71 °C (160 °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