

DSMS Military-Grade Optical Switch



DSMS is a highly ruggedized military-grade outdoor optical switch, designed for harsh environments. It has two 1G/10G ports, operating in multimode or singlemode terminated with waterproof HMA connectors; and four 10/100/1000 RJ-45 ports terminated with waterproof RJ-45 copper connectors.

Features

- Produced under MIL-DTL-83526/20/2 in accordance with NATO standards
- Robust ruggedized construction of 1.5 mm stainless steel bent and welded sheet metal with stainless-steel fasteners
- 100-240V AC input power (other power supply options are available on request)
- Protection IP67
- Baked-on, powder-coated surface finish (RAL6070, can be selected in RAL scale)
- Shielded waterproof connectors (fiber optics, UTP, power supply)
- Dual device mode for operating as two separate switches
- Built-in surge protector with front panel signaling
- Supports speeds of 10M, 100M, 1G and 10G bps
- Rack- mounted or stand-alone enclosure
- Airline pressure relief valve
- Two-pole EMC filter
- Uplink redundancy
- Fan-less design

Applications

- Fiber optic distance extension for field networks
- Layer 2 Ethernet switching for forwarding frames to any port based on their MAC address
- Supports directed switch mode to send multicast traffic (such as video) only to the appropriate uplink port, preventing it from flooding other network ports
- Supports daisy chain configurations and redundant uplinks for critical applications that require protection; and sub 50ms restoration in the event of an uplink failure

Specifications

| Standard Compliances | | IEEE 802.3 |
|--|--|--|
| Regulatory Compliances | Safety | UL 62368-1, UL 60950-1 |
| | | IEC 62368-1, IEC 60950-1 |
| | | EN 62368-1, EN 60950-1 |
| | | CAN/CSA C22.2 No. 62368-1-14, CAN/CSA C22.2 No. 60950-1 |
| | | CE Mark |
| | EMC | EN 55032/24 CE Emissions/Immunity |
| | | IEC 61000-6-4 Industrial Emissions |
| | | IEC 61000-6-2 Industrial Immunity |
| | EMI | CISPR 32 |
| | | FCC 47 Part 15 Subpart B Class A |
| | EMS | IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV |
| | | IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m (on UTP cabling) and 20 V/m (on STP cabling) |
| | | IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV |
| | | IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV |
| IEC 61000-4-6 CS: Signal: 10V | | |
| IEC 61000-4-8 (Magnetic Field), 30A/m | | |
| IEC 61000-4-11 (General Immunity in Industrial environments) | | |
| IP Rating | IP67 Protection | |
| Environmental | REACH, RoHS and WEEE | |
| Frame Size | Up to 10,240 bytes | |
| Port Types | Copper | 10/100/1000BASE-T (RJ-45) Waterproof |
| | Fiber Optic | Expanded beam HMA connectors |
| | | 10G-SR, MM, 850 nm, 300 m 10G-LR, SM, 1310 nm, 10 km |
| Cable Types | Copper | EIA/TIA 568A/B, Cat 5 UTP and higher |
| | Fiber Optic | Singlemode: 9/125 µm, multimode 62,5/125 µm, multimode 50/125 µm |
| AC Power Requirements | 100-240V AC | |
| | 3 Pin Terminal Waterproof | |
| Dimensions (W x D x H) | 480 x 440 x 67 mm (19" 1, 5U Rack Mount) | |
| Weight | 9 kg | |
| Operating Temperature | -40 to 75°C | |
| Humidity | 5% to 95% (non-condensing) | |
| Altitude | -100 m to 4,000 m (operational) | |
| MTBF (hrs.) | 304000 | |
| Warranty | 5-year product warranty | |

ORDERING CODES

DSMS: Military-Grade Optical Switch

| DS | MS | - | ✓ | - | ✓ | ✓ | - | ✓ | |
|---------|----|---|----|----|----|----|---|----|--|
| | | | | | | | | | Enclosure |
| | | | R | | | | | | 19" Rack mount |
| | | | S | | | | | | Stand alone |
| | | | | | | | | | Uplink Fiber Type |
| | | | M1 | 85 | | | | | Multimode 62.5/125 µm OM1, 850 nm |
| | | | M1 | 13 | | | | | Multimode 62.5/125 µm OM1, 1300 nm |
| | | | M2 | 85 | | | | | Multimode 50/125 µm OM2, 850 nm |
| | | | M2 | 13 | | | | | Multimode 50/125 µm OM2, 1300 nm |
| | | | S1 | 31 | | | | | Singlemode 09/125 µm OS2, 1310 nm |
| | | | | | | | | | Uplink Connectors |
| | | | | | H2 | | | | Expanded Beam HMA, 2 channels |
| | | | | | CS | | | | Customer Specified |
| Example | | | | | | | | | |
| DS | MS | - | R | - | S1 | 31 | - | H2 | INTELDAT military-grade optical switch, rack mount, single-mode OS2, 1310 nm uplink fiber, 2-channel HMA connector |