

LMSW-80MD

Ruggedized Gigabit Ethernet Layer 2 Managed PoE Switch

8x 10/100/1000Base-T, RJ-45 with PoE+

Description:

The LMSW-80MD is a ruggedized field switch, which has been developed according to the requirements for optical networks in harsh environmental conditions. It is designed for operation in military tactical networks, for installation in heavy industry enterprise, oil refineries and mining plants, or for rescue actions during natural disasters. The switch combines all advantages: excellent data network performance and rugged design.

The Gigabit Ethernet LMSW-80MD switch includes 8x RJ-45 LAN ports. The switch supports a variety of management functions, including STP/RSTP/MSTP and ITU-T G.8032 Ring < 50 ms recovery time, advanced PoE management functions, layer 2 Ethernet IGMP, VLAN, QoS, Security, IPv6, bandwidth control, port mirroring, cable diagnostic and Green Ethernet.

The switch is able to fit all the common 12/24 V DC and 230 V AC power systems simultaneously (redundant power supply). The switch operates in wide operating temperature range -40 to +70 °C. The switch can operate as stand alone device or in addition the 19" brackets allow switch installation into 19" rack.

Features:

- Robust compact design resistant to harsh environmental conditions and rough handling
- 8x 10/100/1000Base-T:
RJ-45 interface with support of IEEE802.3af/at PoE output (30 W per Port, up to 180 W)
- Built-in power booster design up to 55 V DC for PoE/PoE+ output
- Redundant dual input AC/DC power supply available



LMSW-80MD

Functionality:

- Advanced PoE Management, PoE PD auto detection and auto reset, PoE configuration for power planning, weekly scheduling
- Support IEEE802.3az EEE (Energy Efficient Ethernet) Management to optimize the power consumption
- STP, RSTP, MSTP, ITU-T G.8032 Ethernet Protection Ring (EPR) for cabling redundant
- Provides 5 ring instances that each can support u-Ring, u-Chain or Sub-Ring type for flexible uses. Supports up to 5 rings in one device.
- QoS, Traffic classification QoS, CoS, Bandwidth control for Ingress and Egress, Strom Control, DiffServ
- IEEE802.1q VLAN, port base VLAN, Mac base VLAN, IP subnet base VLAN, Protocol base VLAN, VLAN translation, MVR
- Dynamic IEEE 802.3ad LACP Link Aggregation, Static Link Aggregation
- IGMP/MLD snooping V1/V2/V3, IGMP Filtering / Throttling, IGMP query, IGMP proxy reporting, MLD snooping
- Security: Port based and MAC based IEEE802.1X, RADIUS, ACL, TACACS+, HTTP/HTTPS, SSL/SSH v2
- CLI, Web base management, SNMP v1/v2c/v3, Telnet server for management
- Software upgrade via TFTP and HTTP, redundant firmware to avoid in case of upgrade failure
- DHCP client/Relay/Snooping/Snooping option 82/Relay option 82
- RMON, MIB II, Port mirroring, Event syslog, DNS, NTP/SNTP, IEEE802.1ab LLDP
- Support IPV6 Telnet server /ICMP v6, SNMP, HTTP, SSH/SSL, NTP/SNTP, TFTP, QoS, ACL
- Cable diagnostics, measuring cable OK or broken point distance



LMSW-80MD – 19" brackets installed



LMSW-80MD rear view

Specifications:

Standards:		Switch Architecture	Backplane (Switching Fabric): 22 Gbps
IEEE 802.3	10Base-T, 10 Mbps Ethernet	Data Processing	Store and Forward
IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet	Flow Control	IEEE 802.3x for full duplex mode Back pressure for half duplex mode
IEEE 802.3ab	1000Base-T Gbps Ethernet over twisted pair	PoE standard	IEEE802.3af, IEEE802.3at
IEEE 802.1d	STP (Spanning Tree Protocol)	PoE RJ-45 pin Assignment	8x RJ-45 port support IEEE 802.3af/at End-Span, Alternative A mode
IEEE 802.1w	RSTP (Rapid Spanning Tree Protocol)		Positive (VCC+): RJ-45 pin 1, 2 Negative (VCC-): RJ-45 pin 3, 6 Data: 1,2,3,4,5,6,7,8
IEEE 802.1s	MSTP (Multiple Spanning Tree Protocol)	Network Connector	8x RJ-45 10/100/1000BaseT(X) auto negotiation speed, Auto MDI/MDI-X, Full/Half duplex
ITU-T G.8032/ Y.1344	EPR (Ethernet Protection Ring)	Console Network Cable	UTP/STP above Cat. 5e cable EIA/TIA-568 100 Ohm (100 m)
IEEE 802.1Q	Virtual LANs (VLAN)	Protocol	CSMA/CD
IEEE 802.1X	Port based Network Access Control, Authentication	Reverse polarity protection	
IEEE 802.3ad	Link aggregation for parallel links with LACP (Link Aggregation Control Protocol)	LED signaling	
IEEE 802.3x	Flow control for Full Duplex		
IEEE 802.3af	PoE (Power over Ethernet)		
IEEE 802.3at	PoE+ (Power over Ethernet enhancements)		
IEEE 802.1ad	Stacked VLANs, Q-in-Q		
IEEE 802.1p	LAN Layer 2 QoS/CoS Protocol for Traffic Prioritization		
IEEE 802.1ab	Link Layer Discovery Protocol (LLDP)		
IEEE 802.3az	EEE (Energy Efficient Ethernet)		

Mechanical & environmental parameters:		Electromagnetic compatibility tests
Interface	RJ-45 port: ruggedized, watertight connectors	EMC – Electromagnetic compatibility: MIL-STD 461E: 1999, methods RE102, CE102 MIL-STD 461F methods CS101, CS114, CS115, CS116, RS103
Distance	UTP cable (10Base-T, 100Base-TX, 1000Base-T): 100 m	
Environmental temperature	Fulfils MIL-STD 810G Operating: -40 °C to +70 °C Storage: -40 °C to +85 °C	Safety tests LVD – Low Voltage Directive: EN 60950-1 ed.2:2006
Mechanical	Fulfils MIL-STD 810G, IP 65 protection	
Power supply: DC ¹ AC	10.5-36 / 20-57 V DC 176-242 V AC	
Dimensions	430 x 275 x 65 mm (W x D x H)	
Weight	4.5 kg	

Ordering code:

LMSW-80MD

DC¹

Power supply

AC: 176-242 V AC

DC: 10.5-36 V DC; **DC5:** 20-57 V DC

Note: 1) standard power supply: DC: 10.5-36 V, please define – if required different

Standard accessories:

- Power cable AC/DC
- Console cable
- Brackets for installation into 19" rack
- Manual

Options:

- Military-Grade UTP cables (IP67) 2, 5, 8 m
LMSW08B-LAN-xx, xx – length m



LMCAB-PSC-03-62GB-16J08-33SN-DC



LMSW08B-LAN-08