

# LMSW-42

## Ruggedized Unmanaged PoE Gigabit Ethernet Switch



NATO supplier code:  
15836  
NATO IST RTG 095  
LEADER

### Description:

The LMSW-42 is a low cost ruggedized field switch with 2 fiber optic ports and 4 RJ-45 ports. High Power PoE ruggedized switch is specifically designed to meet IEEE 802.3af/at standards for powering network devices with up to 30 W output per PoE port. With PoE function, it becomes simplified to install network devices such as IP phones, IP surveillance cameras, wireless access points, and other PoE enabled devices in outdoor or remote areas where are hard-to-reach power source.

The LMSW-42 switch supports 4-port Power-over-Ethernet on ports 1 to 4 and 2-port 1000Base-X optical fiber. The switch is classified as power source equipment (PSE) can be used to power IEEE 802.3af/at standard devices (PD), eliminating the need of additional power cable wiring. Moreover, it built-in power input booster of 24 V DC and 48 V DC for PoE/PoE+ output without external power converters or power supplies, it is able to fit all the common 24/48 V DC and 230 V AC power system together (redundant). This PoE switch supports IEEE 802.3/802.3u/802.3x/802.3ab with 10/100/1000M, full/half-duplex, MDI/MDI-X auto-sensing to provide an economical high-bandwidth solution for your ruggedized Ethernet network.

### Features:

- Robust compact design
- Resistant to harsh environmental conditions and rough handling
- 2x 1000Base-X fiber optic ports
- 4x RJ-45 10/100/1000Base-T(X)
  - full/half-duplex,
  - MDI/MDI-X auto-sensing
  - IEEE802.3at/af PoE Output (30 W/Per Port )
- Maximum PoE Output power budget 120 W (60 W with 230 V power supply)
- Regulated PoE output voltage at 55 V DC
- LED signalization Per unit: Power 1 (Green), Power 2 (Green), Fault (Amber), PoE activity
- Input Power supply Redundant Dual:
  - DC 24/48 V (20 to 57 V DC)
  - AC 230 V (90 to 264 V AC)



### Specifications:

Standard	data PoE	10/100/1000Base-T(X): IEEE 802.3/802.3u/802.3ab/802.3z/802.3x/802.3at IEEE802.3at/af PoE Output (30 W/per port )
Interface		Metallic - mechanical resistant, watertight connectors Optical - HMA-J 50/125 μm or 62.5/125 μm MM optical cable 9/125 μm SM optical cable
Wavelength		MM: 1300 nm, SM: 1310 nm, 1550 nm
Distance		UTP cable 10/100/1000Base-TX: 100 m MM optical cable, full duplex: 2 km, SM optical cable, full duplex: 10, 30, 50 km
Environmental temperature humidity		Fulfils MIL-STD 810E operating -30 °C to +50 °C, storage -50 °C to + 70 °C 10% to 95%
Mechanical		Fulfils MIL-STD 810E, IP 63 protection
Power supply:	DC AC	20 to 57 V 230 V
Dimensions		215 x 215 x 65 mm (W x D x H)

### Functionality:

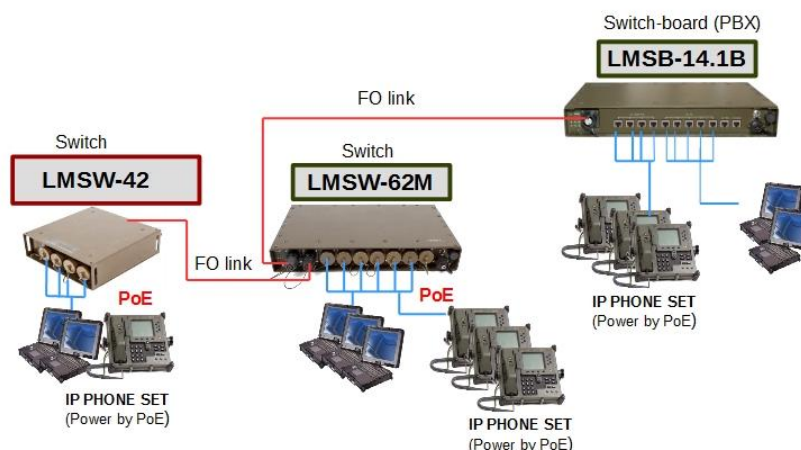
Switch Architecture	Back-plane (Switching Fabric): 12 Gbps	Reserve polarity protection	Present
Data Processing	Store and Forward	Overload current protection	Present
Flow Control	IEEE 802.3x flow control, back pressure flow control	Power Consumption	Max 143.4W @24VDC input (support up to 120W for PoE Output)
Provides broadcast storm protection	Present, Enable / Disable set by DIP sw	PoE Power Output	Maximum PoE Output power budget 120 W (30 W/Per Port)
Jumbo Frame	10K Bytes		
MAC address Table Size	8K		
Packet Buffer Size	1Mbits		
PoE Standard	IEEE 802.3at/af		
PoE RJ-45 pin assignment	RJ-45 port # 1~# 4 support IEEE 802.3at/af End-Span, Alternative A mode		
	Positive (VCC+): RJ-45 pin 1, 2.	MTBF	300 000 hrs
	Negative (VCC-): RJ-45 pin 3, 6.		
	Data (1, 2, 3, 6, 4, 5, 7, 8 )		
Network Connector	4 x RJ-45		
	10/100/1000BaseT(X) auto negotiation speed, Auto MDI/MDI-X function, Full/Half duplex		
	2x1000Base-X Fiber connector: HMA-J		
Network Cable	UTP/STP above Cat. 5e cable		
	EIA/TIA-568 100-Ohm (100 m)		
Fiber Cable	Multimode: 50/125 $\mu$ m, 62.5/125 $\mu$ m Singlmode: 9/125 $\mu$ m		
Protocol	CSMA/CD		

### Ordering code:

<b>LMSW-42M</b>	-	<b>XX</b>	-	<b>XX</b>	-	<b>(AC/DC<sup>4</sup>)</b>
		<b>Fiber optic</b> M5 MM 50/125 $\mu$ m M6 MM 62.5/125 $\mu$ m S3 SM 1310 nm S5 SM 1550 nm		<b>Distance (FO)</b> XX <sup>2</sup> : 2 km (MM) 10: 10 km 30: 30 km 50 <sup>3</sup> : 50 km		<b>Power supply</b> AC: 80-264 V AC DC: 20-57 V DC

- Note: 2) MM fiber – the distance depends on fiber type, up to 2 km.  
SM fiber – longer distance on request  
3) 1550 nm – DFB laser, 50 km distance connectivity  
4) standard power supply: AC/DC, please define – if required different

### LMSW-42M application diagram:



## Standard Accessories:

### Power supply cables:

**DC:** LMC-PSC2-03-DC,  
2-wires shielded cable 3 m, one side – connector 62GB  
**AC:** LMSW08-PSC-02-EU (UK)  
power supply cord, EU (UK) plug – other on request



LMC-PSC2-03-DC



LMSW08-PSC-02-EU

### Optional Accessories:

LMSW08B-LAN-02.....Data cable 2 m RJ45-RJ45  
LMSW08B-LAN-05.....Data cable 5 m RJ45-RJ45  
LMSW08B-LAN-08.....Data cable 8 m RJ45-RJ45  
HMA optical cable



LMSW08B-LAN-08



HMA Optical cable