LMC-01.GC
Gigabit Ethernet Mini Media Converter Ruggedized type

Description:

The LMC series introduces the media converter housed in a robust metal box. It provides Expanded Beam connectors for fiber optic cable and copper twisted pairs ports for harsh environmental conditions. The LMC rugged design extends the use of Ethernet in harsh environmental conditions – heavy industry, petrochemical, mines, broadcasting and other field applications. It meets the demands for mobility, easy installation and the mechanical resistance necessary for deployment in the field. The LMC converters give you the freedom to extend your 10/100/1000 Mbps cabling distance by allowing connectivity up to 2 km over MM fiber, up to 50 kilometers if use the SM fiber. LED indicators show the power status of the converter, LAN port and fiber activity.

The basic LMC-01.GC configuration includes the media converter in ruggedized box. The optical and electrical ports converters are terminated at separate connectors, HMA type for FO, rugged RJ-45 for copper LAN interface. Power supply is ensured via 3-pins rugged connector, from data cable PoE – PD powered device or from USB port.

LMC-01.GC-S3-HMA-10-DC

Note: 1) Pass through mode on request

Features:

- Rugged design for use in harsh environments
- Small compact box
- 10/100/1000BASE-T to 1000BASE-X converter
- HMA Expanded Beam FO interface
- Auto-Cross over for MDI/MDIX in TP port
- Auto-Negotiation or Manual mode in TP port
- Support Jumbo Frame 9K Packet
- Store and forward mode[1]
- Support Link Fault Pass Through (LFP) Function
- 10-36 V DC power supply

Specifications:

Standards	IEEE 802.3 10Base-T, 802.3u 100Base-TX, 802.3ab 1000BASE-T 802.3z 1000BASE-X
Protocol	CSMA/CD
Interface	Rugged RJ-45 port using copper twisted pair cable[2]: data transmission Rugged power supply port: power supply HMA connector: 62.5/125 µm or 50/125 µm MM fiber optic cable 9/125 µm SM fiber optic cable
Wavelength	MM: 1310 nm SM: 1310 nm, 1550 nm
Maximum Segment Length	UTP cable (10Base-T, 100Base-TX): 100 m MM fiber optic cable, full duplex: 2 km SM fiber optic cable, full duplex: 10, 30, 50 km
Environmental Temperature Humidity	According to MIL-STD 810E Operating: -30°C to +50°C, Storage -50°C to + 70°C 10% to 95%
Mechanical	According to MIL-STD 810G and ČOS 999902, IP 63 protection
EMC	According to MIL-STD 461E, MIL-STD 461F, EN 55022, EN 61000-6-3
Power Supply[3]	external 10 – 36 V DC; power consumption: <4 W PoE – PD, powered device, IEEE 802.3af USB powered
Dimension	LMC-01.GC: 115 x 65 x 55 mm (box) / 180 x 90 x 55 (including connectors)
Weight	0.8 kg

Note: 2) Copper wires cable, which ensures data connection and power supplying – can be delivered on request
       3) AC/DC power supply adaptor – can be delivered on request, please contact: sales@optokon.com

Optical transceivers parameters

Parameter		Min.	Typ.	Max
Wavelength (nm)	1310	1260	1310	1360
	1550	1480	1550	1580
Extinction Ratio (dB)		10		

Laser	P_{OUT} (dBm)	RX sens. (dBm)	Distance (km)
FP	$\geq$ -15	$\geq$-25	10
FP	$\geq$ -10	$\geq$-25	30
DFB	$\geq$ -8	$\geq$-25	50

Ordering Code:

LMC-01.GC - XX - HMA - XX - XX - (BK[7])

1G converter	**Fiber Type**	**Connector Type[5]**	**Distance Connectivity[4]**	**Power Supply**
	M5: MM 50/125 μm		**XX**: MM	**DC:** 10 – 36 V
	M6: MM 62.5/125 μm		**10**: 10 km	**PD:** PoE powered
	S3: SM 1310 nm		**30**: 30 km	(IEEE 802.3af)
	S5[6]: SM 1550 nm		**50[6]**: 50 km	**USB:** powered from
				USB port

Note: 4) MM fiber – the distance depends on fiber type, up to 2 km, SM fiber – longer distance on request
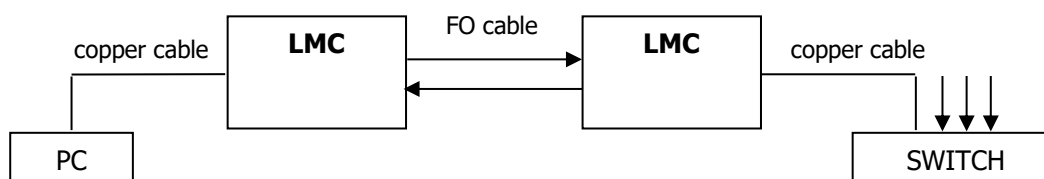5) HMA-J standard, other on request
6) 1550 nm – DFB laser, 50 km distance connectivity
7) Standard green khaki RAL 6014 mat color
please use –BK in P/N code if black color RAL 9005 mat required, application: industry, broadcasting, …

Applications:

Schematic diagram

Typical applications:

- temporary installations
- field networks
- petrochemical and heavy industry
- disaster control

LMC-01.GC USB powered
(IP67 USB rugged connector type:
MUSBR-4593-M0)

Accessories:

- Documentation and User Manual

Options: Cables: data and power supply:

- data cable, LAN-RJ45 (IP67)/RJ-45, 8 m length: LMSW08B-LAN-08
- power supply cable, 3 m length:
  LMCAB-PSC-03-62GB-16J08-33SN-DC, 3 wires shielded DC power supply cable

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

LMSW08B-LAN-08

Tactical cable with HMA-J connectors

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