Multimode SFP Transceivers

10 Gbit, 1 Gbit and Fast Ethernet Fibre Optic Transceivers

- Effective short-range communications
  - Cost-effective installations over 50/125 or 62,5/125 µm fibre cables
  - Realtime monitoring of the SFP using DDM, integrated with WeOS
- Multiple options
  - Fast-, 1-Gigabit- and 10-Gigabit Ethernet variants
  - Choose between 850 and 1310 nm variants
  - Fits Lynx, RedFox, ODW/MCW/SDW/LRW platforms
- Robust and reliable
  - Thoroughly tested to high standards
  - Wide operating temperature range, -40 to +85°C
  - Functionality validated for mission critical applications
- Full WeOS support
  - Transceivers and WeOS developed in symbiosis
  - All functionality available
  - Technical support and knowhow

CE EN 50121-4 Railway Trackside EN 60825-1 Safety of Laser Products cULus lead-free RoHS 2002/95/EC

The Westermo range of multimode SFPs allows for effective installations of fibre in cost sensitive installations. The available models can use fibres with a core of either 50 or 62,5 µm, depending on the required range and fibre availability. Using the DDM functionality, which is fully integrated into WeOS, it is possible to monitor parameters such as temperature, TX/RX power, and voltage, ensuring correct operation.

The multimode SFP range includes options for 100 Mbit/s, 1 Gbit/s and 10 Gbit/s transmissions speeds, ensuring there is an SFP that fits all of the Westermo switches, routers and modems. As is the most commonly used wavelength for multimode fibre communication, Westermo offers 850 and 1310 nm models.

All multimode SFP transceivers are thoroughly tested in accordance with high demands. Each model has gone through rigorous environmental testing, to ensure that it can perform according to specification even in the harshest environments. Furthermore, functionality is validated and pushed to the limit, securing availability and reliability in mission critical applications.

WeOS, the Westermo operating system, is developed according to firm requirements, and support for the full range of transceivers offered is an important part. All features of WeOS are developed and verified to be fully supported on all WeOS devices with any Westermo transceiver installed.

Specifications - Multimode SFP Transceivers

Housing	
Dimensions device (W x H x D)	14 x 13 x 57 mm (0.55 x 0.51 x 2.24 inches)
Dimensions protrosion (W x H x D)	14 x 13 x 9 mm (0.55 x 0.51 x 0.35 inches)

Environmental	
Operating temperature	-40 to +85°C (-40 to +185°F)
Storage and transport temperatures	-40 to +85°C (-40 to +185°F)
Humidity (operating)	5-95% relative humidity

Interface				
Connector type	Duplex LC			
Transceiver type	Multimode			
Model	MLC2-DDM	GMLC550-DDM	GMLC2-DDM	10GMLC.4
Clasp colour	Black			
Transmission speed	100 Mbit/s	1 Gbit/s	1 Gbit/s	10 Gbit/s
Transmit wavelength	1310 nm	850 nm	1310 nm	850 nm
Transmit power (max)	-14 dBm	-4 dBm	-1 dBm	-1 dBm
Transmit power (min)	-20 dBm	-9.5 dBm	-9 dBm	-7.1 dBm
Receive wavelength	1310 nm	850 nm	1310 nm	850 nm
Receiver power/ sensitivity (min)	-31 dBm	-18 dBm	-19 dBm	-9.9 dBm
Receiver power (max)	-14 dBm	0 dBm	-1 dBm	-1 dBm
Power budget	11 dB	8.5 dB	10 dB	2.8 dB
Min attenuation	0 dB	0 dB	0 dB	0 dB
Indicative range	2 km	62.5/125 µm: 275 m 50/125 µm: 550 m	62.5/125 µm: 2 km 50/125 µm: 1 km	OM1: 33 m, OM2: 82 m OM3: 300 m, OM4: 400 m

Diagnostics (DDM)	
Parametre	Accuracy
Temperature	±3°C
Voltage	±3 % or 0.1 VDC
Bias current	±10 %
TX power	±3 dB
RX power	±3 dB

Approvals	
EMC	EN 50121-4/IEC 62236-4, Railway signalling and telecommunications apparatus
Safety	EN/IEC 60825-1, Laser products - part 1: Equipment classification and requirement EN/IEC 60825-2, Laser products - part 2: Safety of optical fibre communication systems EN/IEC/UL 62368-1, Audio/video, information and communication technology equipment

Warranty	
Validity	5 years

Ordering information	
Art. no.	Description
1100-0531	MLC2-DDM
1100-0544	GMLC550-DDM
1100-0547	GMLC2-DDM
1100-0808	10GMLC.4