

## Multimode SFP Transceivers

### 10 Gbit, 2.5 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
  - Full WeOS support
- **Multiple options**
  - 100 Mbit /1 Gbit/2.5 Gbit/10 Gbit Ethernet variants
  - Choose between 850 and 1310 nm variants
- **Robust and reliable**
  - Thoroughly tested to high standards
  - Wide operating temperature range, -40 to +85°C
  - Functionality validated for mission critical applications



The Westermo range of multimode SFPs offers cost-effective solutions for fibre installations in mission-critical OT networks. These models can use fibres with a core of either 50 or 62.5 µm, depending on the required range and fibre availability. With fully integrated DDM functionality in WeOS, it's possible to monitor parameters such as temperature, TX/RX power, and voltage, ensuring optimal performance.

The range includes options for 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, and 10 Gbit/s transmission speeds, ensuring compatibility with all Westermo switches, routers, and modems. The Fast Ethernet and 1 Gbit transceivers are compatible with the Lynx, RedFox, and ODW/MCW/SDW/LRW platforms. The 2.5 Gbit transceiver is specifically designed and tested to fit the Lynx 3000 series, while the 10 Gbit SFPs have been optimized and tested for compatibility with the RedFox 7528 series.

To meet the high demands of mission-critical applications, all multimode SFP transceivers undergo thorough environmental testing to ensure they can perform according to specifications even in the harshest environments. Their functionality is validated and pushed to the limit, securing availability and reliability.

WeOS, the Westermo operating system, is developed to meet firm requirements, with full support for the entire range of transceivers offered being an essential aspect. All features of WeOS are extensively tested 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 <sup>a</sup>	-40 to +85°C (-40 to +185°F)
Humidity (operating)	5-95% relative humidity

<sup>a</sup>Case operating temperature

Interface					
Connector type	Duplex LC				
Transceiver type	Multimode				
Model	MLC2-DDM	GMLC550-DDM	GMLC2-DDM	2.5GMLC.5	10GMLC.4
Clasp colour	Black				
Transmission speed	100 Mbit/s	1 Gbit/s	1 Gbit/s	2.5 Gbits/s	10 Gbit/s
Transmit wavelength	1310 nm	850 nm	1310 nm	850 nm	850 nm
Transmit power (max)	-14 dBm	-4 dBm	-1 dBm	-1 dBm	-1 dBm
Transmit power (min)	-20 dBm	-9.5 dBm	-9 dBm	-7.5 dBm	-7.1 dBm
Receive wavelength	1310 nm	850 nm	1310 nm	850 nm	850 nm
Receive power/sensitivity (min)	-31 dBm	-18 dBm	-19 dBm	-13.5 dBm	-9.9 dBm
Receive power (max)	-14 dBm	0 dBm	-1 dBm	0 dBm	-1 dBm
Power budget	11 dBm	8.5 dBm	10 dBm	6 dBm	2.8 dBm
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: 75 m OM2: 160 m OM3: 400 m OM4: 500 m	OM1: 33 m OM2: 82 m OM3: 300 m OM4: 400 m

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

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
1100-0606	2.5GMLC.5
1100-0808	10GMLC.4