

Singlemode SFP Transceivers

1 Gbit Fibre Optic Transceivers



- **Short and Long range fibre optic communication**

- Short and long range installations on 9/125 μm fibre cables
- Real time monitoring of the SFP using DDM, integrated with WeOS

- **High bandwidth with 1 Gbit**

- Utilize high bandwidth fibre connectivity
- Suitable for use with the Lynx, RedFox, MCW/SDW platforms
- Available in 10, 30, 50, 80 and 110 km variants

- **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 know-how



EN 50121-4
Railway Trainside

EN 60825-1
Safety of Laser Products



Westermo's 1Gbit Singlemode SFPs are suitable for short and long range applications requiring high bandwidth. The available models can use Singlemode fibre cables with a core of 9 μm . 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.

As industrial networks transmit more data, 1Gbit fibre links can be used to link data-intensive sites across long distances. Setting up high bandwidth network backbones over long distances is now possible. The SFPs are tested with the WeOS platform and are offered in multiple different variants, with indicative ranges from 10 to 110 km.

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 - Singlemode 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 protosion (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	Singlemode				
Model	GSLC10-DDM	GSLC30-DDM	GSLC50-DDM	GSLC80-DDM	GSLC110-DDM
Clasp colour	Blue				
Transmission speed	1 Gbit/s				
Transmit wavelength	1310 nm	1310 nm	1550 nm	1550 nm	1550 nm
Transmit power (max)	-3 dBm	+3 dBm	+1 dBm	+5 dBm	+5 dBm
Transmit power (min)	-9 dBm	-4 dBm	-4 dBm	0 dBm	0 dBm
Receive wavelength	1310 nm	1310 nm	1550 nm	1550 nm	1550 nm
Receiver power/sensitivity (min)	-21 dBm	-24 dBm	-24 dBm	-24 dBm	-30 dBm
Receiver power (max)	-3 dBm	-1 dBm	-1 dBm	-1 dBm	-9 dBm
Power budget	12 dBm	20 dBm	20 dBm	24 dBm	30 dBm
Min attenuation	0 dB	4 dB	2 dB	6 dB	14 dB
Indicative range	10 km	30 km	50 km	80 km	110 km

Diagnostics (DDM)	
Parametre	Accuracy
Temperature	±3°C
Voltage	± 0.1 VDC
Bias current	± 10% or 5 mA
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
1100-0525	GSLC30-DDM
1100-0541	GSLC10-DDM
1100-0542	GSLC50-DDM
1100-0543	GSLC80-DDM
1100-0571	GSLC110-DDM