



Gx Fibre - SFP Optical Transceivers

Industrial Gigabit Ethernet fibre transceivers

- SFP 1.25Gbps fibre transceivers with LC style connectors
- Pluggable for quick and easy installation - saves you time
- Industry standard Small Form Factor (MSA compliant) - saves you space
- Multimode and singlemode models available
- Industrial rated for -40 to 85°C operation
- Vibration resistance latching mechanism
- Fully compliant with IEEE 802.3z Gigabit Ethernet standards

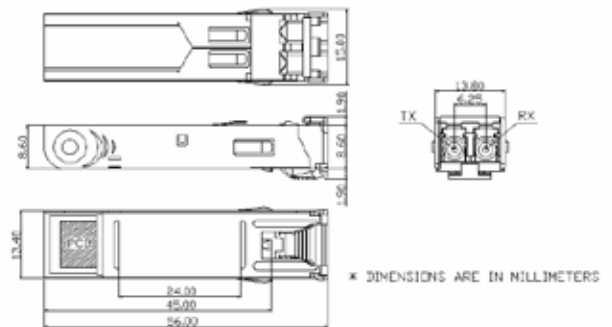


OVERVIEW

The MTL-SFP range of optical transceivers offer maximum flexibility to operators of Gigabit Ethernet networking equipment. The pluggable architecture allows the module to be installed into any suitable MTL Gigabit switch SFP port at any time – even with the host equipment operating and online. This facilitates rapid configuration of the equipment to precisely the user’s needs – reducing inventory costs and network downtime.

The MTL-SFP can be installed in or removed from any MSA-compliant Pluggable Small Form Factor port regardless of whether the host equipment is operating or not. The module is simply inserted, electrical-interface first, under finger-pressure. Controlled hot-plugging is ensured by a 3-stage pin sequence at the electrical interface. As the module is inserted, first contact is made by the housing ground shield, discharging any potentially component-damaging static electricity. Ground pins engage next and are followed by Tx and Rx power supplies. Finally, signal lines are connected.

MECHANICAL



RECOMMENDED OPERATING CONDITIONS

PARAMETER	MIN.	TYP.	MAX	UNIT	NOTE
Operating Temperature	-40	-	85	°C	-
Storage Temperature	-40	-	85	°C	-
Humidity	5	-	95	%	non-condensing
Power Supply Voltage	3.1	3.3	3.5	V	-
Supply Current	-	-	85	mA	-
Maximum Data Rate	-	1250	-	Mbit/s	-

SPECIFICATION

TRANSMITTER OPTICAL CHARACTERISTICS:						
PARAMETER	RATING¹	MIN.	TYP.	MAX.	UNIT	NOTE
Output Optical Power from multimode fibre	550m, 2km ²	-9	-	-3	dBm	For MM fibre
Output Optical Power from single mode fibre	10km 30km 50km 80km	-9 -4 -4 0	- - - -	-3 2 2 5	dBm	For SM fibre
Extinction Ratio		9	-	-	dB	For MM fibre
Output Center Wavelength	550m 2km ² 10km,30km 50km, 80km	830 1270 1280 1500	850 1310 1310 1550	860 1355 1355 1580	nm	For MM fibre For SM fibre For SM fibre For SM fibre
Spectral Width (RMS)	550m 2km 10km	- - -	- - -	0.85 4 4	nm	For MM fibre For MM fibre For SM fibre
Spectral Width (-20dB)	30km, 50km, 80km	-	-	1	nm	For SM fibre
Side Mode Suppression Ratio	30km, 50km, 80km	30	-	-	dB	For SM fibre
Rise/Fall time (10%-90%)	-	-	-	260	ps	-
Relative Intensity Noise	-	-	-	-117	dB/Hz	-
Total Jitter	-	-	-	227	ps	-
Output Eye	Compliant with IEEE802.3z					
RECEIVER OPTICAL CHARACTERISTICS:						
Optical Input Power	550m 2km 10km, 30km, 50km, 80km	-	-	0 -3 -3	dBm	For MM fibre For MM fibre For SM fibre
Sensitivity	550m 2km 10km 30km, 50km, 80km	- - - -	- - - -	-18 -20 -20 -23	dBm	For MM fibre For SM fibre For SM fibre For SM fibre
Operating Wavelength	550m 2km 10km, 30km, 50km, 80km	770 1260 1260	- - -	860 1610 1610	nm	For MM fibre For MM fibre For SM fibre
Loss of Signal - Asserted	550m 2km 10km 30km,50km, 80km	-32 -35 -35 -35	- - - -	- - - -	dBm	For MM fibre For MM fibre For SM fibre For SM fibre
Loss of Signal - Deasserted	550m 2km 10km 30km,50km, 80km	-45	-	-18 -20 -20 -23	dBm	For MM fibre For MM fibre For SM fibre For SM fibre

ORDERING INFORMATION

Part Number	Description	Availability	Mode	Data Rate (Gbps)	Light Source	TX (dBm) Min.	TX (dBm) Max.	RX (dBm) Sen	Connector Type	Nominal Max. Distance¹
AXGE-5854-0513	SFP-GSX	standard	multimode	1.25	850 VCSEL	-9	-3	-18	LC	550m
AXGE-1354-0521	SFP-GSX2	special order	see note 2	1.25	1310 FP	-9	-3	-20	LC	2km ²
AXGE-1354-0533	SFP-GLX	standard	singlemode	1.25	1310 FP	-9	-3	-20	LC	10km
AXGE-3354-0593	SFP-GLHX	special order	singlemode	1.25	1550 DFB	-4	2	-23	LC	30km
AXGE-3554-05D3	SFP-GXD	special order	singlemode	1.25	1550 DFB	-4	2	-23	LC	50km
AXGE-3554-05C3	SFP-GZX	special order	singlemode	1.25	1550 DFB	0	5	-23	LC	80km

* Note 1: The distance rating is for reference only. For more accurate distance estimations the power budget method should be used.

* Note 2: The 2km transmission distance corresponds to using the special GMFIBER-SFP-2K transceiver with multimode fibre cable. This transceiver offsets the transmitted light (so no mode conditioning patch cord is required) and is specifically for use with multimode fibre cable. It is recommended that this transceiver be used on both ends of the cable for best performance. Do not use this transceiver with singlemode fibre cable.

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.



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