FxFIBER-SFP Ethernet Fiber Transceivers

Sixnet Networking Series

red lion ®

►►► Industrial Fast Ethernet Fiber Transceivers

PRODUCT HIGHLIGHTS

- SFP 155 Mbps fiber 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
- Noise immune fiber runs up to 120 km
- Industrial rated for -40 to 85°C operation
- Vibration resistance latching mechanism
- Fully compliant with IEEE 802.3u Fast Ethernet (100Base) standard plus STM-1, OC-3 and SONET/SDH
- Low power consumption
- Laser Class 1 Product – IEC 60825-1 Compliant
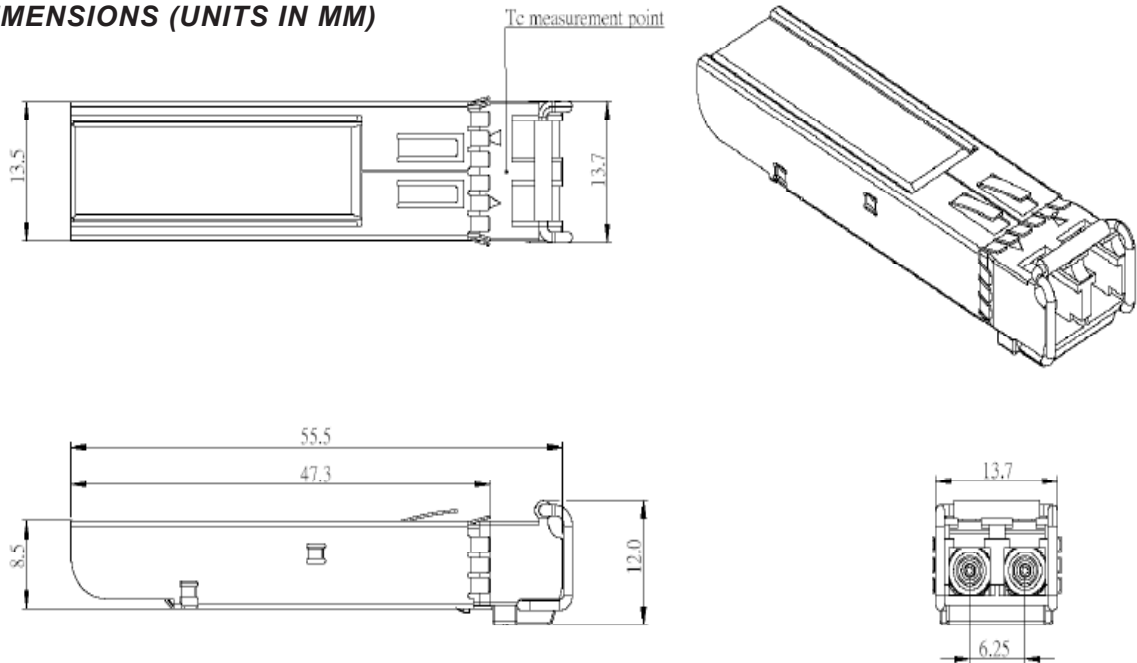- Standard duplex LC receptacle

✓ **RoHS** Compliant
Lead and Hazardous Substance Free

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	-
Total Current (transmiter + receiver)	-	-	300 / 250	mA	For MM fiber / For SM fiber
Maximum Data Rate	-	155	-	Mbit/s	-

MECHANICAL DIMENSIONS (UNITS IN MM)

TRANSMITTER OPTICAL CHARACTERISTICS:

PARAMETER	RATING*	MIN.	TYP.	MAX.	UNIT	NOTE
Output Optical Power From Multimode Fiber	2km	-20	-	-14	dBm	For MM fiber
Output Optical Power From Single Mode Fiber	30km 60km, 100km	-9 -5	- -	-3 0	dBm	For SM fiber
Extinction Ratio	2km 30km, 60km, 100km	10 9	- -	- -	dB	For MM fiber For SM fiber
Output Center Wavelength	2km 30km, 60km 100km	1270 1270 1480	1310 1310 1550	1380 1355 1580	nm	For MM fiber For SM fiber For SM fiber
Spectral Width (FWHM)	2km	-	135	160	nm	For MM fiber
Spectral Width (RMS	30km, 60km 100km	- -	- -	2.5 1.0	nm nm	For SM fiber
Rise/Fall time (20%-80%)	2km	-	-	3.0	ns	For MM fiber
Rise/Fall time (10%-90%)	30km, 60km, 100km	-	-	2.0	ns	For SM fiber
Relative Intensity Noise	2km 30km, 60km, 100km	- -	- -	-120 -120	dB/Hz	For MM fiber For SM fiber
Output Eye	Compliant with ITU-T G.957					For all fiber
Max P out TX-DISABLE Asserted	2km 30km, 60km, 100km	- -	- -	-45 -45	dBm	For MM fiber For SM fiber

RECEIVER OPTICAL CHARACTERISTICS:

PARAMETER	RATING*	MIN.	TYP.	MAX.	UNIT	NOTE
Optical Input Power	-	-3	-	-	dBm	For all fiber
Sensitivity	2km 30km 60km, 100km	- - -	- - -	-32 -34 -35	dBm	Fot MM fiber For SM fiber For SM fiber
Operating Wavelength	For all	1260	-	1610	nm	For all fiber
Optical Return Loss	For all	12	-	-	dB	For all fiber
Loss of Signal - Deasserted	2km 30km 60km, 100km	- - -	- - -	-32 -34 -35	dBm	For all fiber
Loss of Signal - Asserted	For all	-45	-	-	dBm	For all fiber
Loss of Signal - Hysteresis	2km 30km, 60km, 100km	1.0 0.5	- -	- 6	dB	For MM fiber For SM fiber

ORDERING GUIDE

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

Part Number	Availability	Mode	Data Rate (Mbps)	Light Source	TX (dBm) Min.	TX (dBm) Max.	RX (dBm) Sen	Connector Type	Nominal * Max. Distance
FMFIBER-SFP-2K	standard	multimode	155	1310 LED	-20	-14	-32	LC	2km
FSFIBER-SFP-30K	standard	singlemode	155	1310 FP	-9	-3	-34	LC	30km
FSFIBER-SFP-60K	standard	singlemode	155	1310 FP	-5	0	-35	LC	60km
FSFIBER-SFP-100	standard	singlemode	155	1550 DFB	-5	0	-35	LC	100km

All specifications are subject to change. Consult factory for latest info.

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