

SFP Transceivers



Product Highlights

- Used for wide range of fiber applications
- Optimal performance on EtherWAN switches
- Fast Ethernet, Gigabit Ethernet, and 10-Gigabit Ethernet options available
- Multi-mode and Single-mode fiber modules available
- Hot-pluggable for instant operation
- Enhanced Digital Diagnostic Monitoring available for models marked "DDM" to provide real-time diagnostic information

Hardware Specifications

Regulatory Compliance	+
Compliant with Multi-Sourcing Agreement (MSA) Small Form Factor Pluggable (SFP)	
Eye Safety: Compliant with Class 1 laser safety requirements EN 60825-1	
Environmental: RoHS compliant, lead-free	
EMC: FCC part 15, CENELEC EN 55022	
Power Supply Voltage	+
Single +3.3V	
Operating Temperature	+
Hardened: -40 to 85°C (-40 to 185°F)	
Non-Hardened: 0 to 70°C (32 to 158°F)	
Warranty	+
Go to www.etherwan.com/support/warranty-policy for more details	

Ordering Information

100BASE SFP Series*

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

Models	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
EXFE-R1S4-05H1	100m	Cat. 5 or better	RJ-45	-	-	-	-
EX-0155NSP-MB2L	2Km	62.5/125µm, MM	Duplex LC	1310nm	13dBm	-19 to -14dBm	-32dBm
EX-LM38-A3S-TC-N-B3	2Km	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm RX: 1550nm	18dBm	-10 to 0dBm	-28dBm
EX-LM48-A3S-TC-N-B5	2Km	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm RX: 1310nm	18dBm	-10 to 0dBm	-28dBm
EX-0155TSP-MB5L	15Km	9/125µm, SM	Duplex LC	1310nm	19dBm	-15 to -8dBm	-34dBm
EX-0155TBP-MB5L	20Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TBP-LB5L	20Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TSP-MB6L	40Km	9/125µm, SM	Duplex LC	1310nm	30dBm	-5 to 0dBm	-35dBm

Hardened (Operating Temperature: -40 to 85°C/-40 to 185°F)

Models	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
EX-0155NSP-MB2L-A	2Km	62.5/125µm, MM	Duplex LC	1310nm	13dBm	-19 to -14dBm	-32dBm
EX-LM38-A3S-TI-N-B3	2Km	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm RX: 1550nm	18dBm	-10 to 0dBm	-28dBm
EX-LM48-A3S-TI-N-B5	2Km	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm RX: 1310nm	18dBm	-10 to 0dBm	-28dBm
EX-0155TSP-MB5L-A	15Km	9/125µm, SM	Duplex LC	1310nm	19dBm	-15 to -8dBm	-34dBm
EX-0155TBP-MB5L-A	20Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TBP-LB5L-A	20Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	18dBm	-14 to -8dBm	-32dBm
EX-0155TSP-MB6L-A	40Km	9/125µm, SM	Duplex LC	1310nm	29dBm	-5 to 0dBm	-34dBm
EX-0155TBP-MB6L-A	40Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	26dBm	-8 to -3dBm	-34dBm
EX-0155TBP-KB6L-A	40Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	26dBm	-8 to -3dBm	-34dBm

* More SFP options upon the request.

** Link Budget data is based on pair of the same SFP modules.

Gigabit SFP Series*

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

Models	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
EX-1250NSP-SB1L S	275m 550m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	7.5dBm	-19 to -14dBm	-17dBm
EX-1250TBP-MB1L S	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm RX: 1550nm	7dBm	-10 to -4dBm	-17dBm
EX-1250TBP-LB1L S	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm RX: 1310nm	7dBm	-10 to -4dBm	-17dBm
EX-1250TSP-MB2L S	2Km	62.5/125µm, MM	Duplex LC	1310nm	13.5dBm	-9.5 to -3dBm	-23dBm
EX-1250TSP-MB4L S	10Km	9/125µm, SM	Duplex LC	1310nm	11.5dBm	-9.5 to -3dBm	-21dBm
EX-1250TBP-MB4L S	10Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	12dBm	-9 to -3dBm	-21dBm
EX-1250TBP-KB4L S	10Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	12dBm	-9 to -3dBm	-21dBm
EX-1250TSP-MB5L S	20Km	9/125µm, SM	Duplex LC	1310nm	15dBm	-9 to -3dBm	-24dBm
EX-1250TBP-MB5L S	20Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	15dBm	-8 to -3dBm	-23dBm
EX-1250TBP-KB5L S	20Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	15dBm	-8 to -3dBm	-23dBm
EX-LS38-C3L-TC-N-EB (DDM)	40Km	9/125µm, SM	Duplex LC	1310nm	20dBm	-3 to +2dBm	-23dBm
EX-LS38-C3L-TC-N-CE (DDM)	40Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	20dBm	-3 to +2dBm	-23dBm
EX-LS48-C3L-TC-N-CE (DDM)	40Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	20dBm	-3 to +2dBm	-23dBm
EX-LS38-C3U-TC-N-CE (DDM)	60Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	24dBm	0 to +5dBm	-24dBm
EX-LS48-C3U-TC-N-CE (DDM)	60Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	23dBm	-2 to +4dBm	-25dBm
EX-LS48-C3U-TC-N-EB (DDM)	70Km	9/125µm, SM	Duplex LC	1550nm	23dBm	0 to +5dBm	-23dBm
EX-LS48-C3U-TC-N51-CE (1510nm) (DDM)	80Km	9/125µm, SM	Single LC	TX: 1510nm RX: 1570nm	24dBm	-2 to +3dBm	-26dBm
EX-LS48-C3U-TC-N57-CE (1570nm) (DDM)	80Km	9/125µm, SM	Single LC	TX: 1570nm RX: 1510nm	24dBm	-2 to +3dBm	-26dBm
SFPGIS90C (DDM)	90Km	9/125µm, SM	Duplex LC	1550nm	27dBm	0 to +5dBm	-27dBm

Gigabit SFP Series*

Hardened (Operating Temperature: -40 to 85°C/-40 to 185°F)

Models	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPGXT1AM	100m	Cat. 5 or better	RJ-45	-	-	-	-
EX-1250NSP-SB1L-A S	275m 550m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	7.5dBm	-9.5 to -4dBm	-17dBm
EX-1250TBP-MB1L-A S	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1310nm RX: 1550nm	7dBm	-10 to -4dBm	-17dBm
EX-1250TBP-LB1L-A S	550m	62.5/125µm/50/125µm, MM	Single LC	TX: 1550nm RX: 1310nm	7dBm	-10 to -4dBm	-17dBm
EX-LM38-C3S-TI-N-CE (DDM)	550m	62.5/125µm, MM	Single LC	TX: 1310nm RX: 1550nm	8dBm	-10 to +2dBm	-18dBm
EX-LM48-C3S-TI-N-CE (DDM)	550m	62.5/125µm, MM	Single LC	TX: 1550nm RX: 1310nm	10dBm	-8 to 0dBm	-18dBm
EX-1250TSP-MB2L-A S	2Km	62.5/125µm, MM	Duplex LC	1310nm	13.5dBm	-9.5 to -3dBm	-23dBm
EX-1250TSP-MB4L-A S	10Km	9/125µm, SM	Duplex LC	1310nm	11.5dBm	-9.5 to -3dBm	-21dBm
EX-1250TBP-MB4L-A S	10Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	12dBm	-9 to -3dBm	-21dBm
EX-1250TBP-KB4L-A S	10Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	12dBm	-9 to -3dBm	-21dBm
EX-1250TSP-MB5L-A S	20Km	9/125µm, SM	Duplex LC	1310nm	15dBm	-9 to -3dBm	-24dBm
EX-1250TBP-MB5L-A S	20Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	15dBm	-8 to -3dBm	-23dBm
EX-1250TBP-KB5L-A S	20Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	15dBm	-8 to -3dBm	-23dBm
SFPGYS20M (DDM)	20Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	15dBm	-8 to -2dBm	-23dBm
SFPGZS20M (DDM)	20Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	15dBm	-8 to -2dBm	-23dBm
EX-LS38-C3L-TI-N-CE (DDM)	40Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	20dBm	-3 to +2dBm	-23dBm
EX-LS48-C3L-TI-N-CE (DDM)	40Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	20dBm	-3 to +2dBm	-23dBm
EX-LS38-C3U-TI-N-CE (DDM)	60Km	9/125µm, SM	Single LC	TX: 1310nm RX: 1550nm	24dBm	0 to +5dBm	-24dBm
EX-LS48-C3U-TI-N-CE (DDM)	60Km	9/125µm, SM	Single LC	TX: 1550nm RX: 1310nm	23dBm	-2 to +4dBm	-25dBm
EX-LS38-C3L-TI-N-EB (DDM)	40Km	9/125µm, SM	Duplex LC	1310nm	20dBm	-3 to +2dBm	-23dBm
EX-LS48-C3U-TI-N-EB (DDM)	70Km	9/125µm, SM	Duplex LC	1550nm	23dBm	0 to +5dBm	-23dBm

* More SFP options upon the request.

** Link Budget data is based on pair of the same SFP modules.

10GBASE SFP Series*

Non-Hardened (Operating Temperature: 0 to 70°C/32 to 158°F)

Models	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPTIM3AE (DDM)	300m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	2.8dBm	-7.1 to -1dBm	-9.9dBm
SFPTIS10E (DDM)	10Km	9/125µm, SM	Duplex LC	1310nm	8.4dBm	-6 to +0.5dBm	-14.4dBm
SFPTIS20C (DDM)	20Km	9/125µm, SM	Duplex LC	1310nm	9.4dBm	-5 to +1dBm	-14.4dBm
SFPTIS40C (DDM)	40Km	9/125µm, SM	Duplex LC	1310nm	15dBm	-0.5 to +5dBm	-15.5dBm

Hardened (Operating Temperature: -40 to 85°C/-40 to 185°F)

Models	Distance	Cable Type	Connector Type	Wavelength	Link Budget**	Optical Output Power	Sensitivity
SFPTIM3AM (DDM)	300m	62.5/125µm/50/125µm, MM	Duplex LC	850nm	2.8dBm	-7.1 to -1dBm	-9.9dBm
SFPTIS10M (DDM)	10Km	9/125µm, SM	Duplex LC	1310nm	6.4dBm	-8 to +0.5dBm	-14.4dBm
SFPTIS20M (DDM)	20Km	9/125µm, SM	Duplex LC	1310nm	9.4dBm	-5 to +1dBm	-14.4dBm
SFPTIS40M (DDM)	40Km	9/125µm, SM	Duplex LC	1310nm	15dBm	0.5 to +5dBm	-15.5dBm

* More SFP options upon the request.

** Link Budget data is based on pair of the same SFP modules.