

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 |
| SFPMXT1AC | 100m | Cat. 5 or better | RJ-45 | - | - | - | - |

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.