Small Form Pluggable Transceivers

SFP
100Mbps and Gigabit

SFP+
10 Gigabit

XFP
10 Gigabit

Omnitron Small Form Pluggable (SFP) copper and fiber transceivers are interchangeable, compact media connectors. They enable a single network device to connect to a wide variety of fiber and copper cable types and distances.

SFP transceivers are used to customize iConverter®, FlexPoint®, OmniConverter®, RuggedNet®, miConverter® and most 3rd party products to meet specific networking protocols and media requirements. They support multimode dual fiber, single-mode dual fiber, single-mode single-fiber, Coarse Wave Division Multiplexing (see the CWDM Optical Transceiver Data Sheet) and Unshielded Twisted Pair copper cabling.

SFP transceivers reduce network equipment inventories by eliminating the need to maintain surplus modules of various media types for network repairs or upgrades. They also enable network upgrades and growth by providing interchangeable fiber and copper connectors that can easily adapt to and modify any existing network.

Based on the MSA SFF-8472, INF-8077i and INF-8074i-1 standards, Omnitron optical transceivers support digital diagnostic capabilities, providing enhanced diagnostic information to assist network administrators with network maintenance. When used in iConverter modules managed by SNMP management software, such as NetOutlook®, Omnitron transceivers can collect enhanced, real time transceiver diagnostic information including fiber optic TX and RX power, voltage and transceiver temperature.

By providing compact physical size and the ease of interchangeability, Omnitron transceivers provide a cost-effective and flexible solution for network designs.

- Omnitron SFP Transceivers enable flexible fiber and copper connectivity
- Compatible with iConverter media converter modules, T1/E1 Multiplexers and Network Interface Devices that support SFP transceivers
- Compatible with FlexPoint, OmniConverter, RuggedNet and miConverter media converter modules that support SFP/SFP+ transceivers
- Compliant with IEEE 802.3u 100Mbps Ethernet and 802.3z Gigabit Ethernet specifications
  - MSA SFF-8472 and INF-8074i-1 compliant
- Compliant with IEEE 802.3ae 10Gbps Ethernet specifications
  - MSA SFF-8472 and INF-8077i compliant
- Copper RJ-45 SFP+ Transceivers
  - Compliant with IEEE 802.3bz 2.5/5.0Gbps Multi-Gigabit/Multi-Rate Ethernet specification
  - Models support 10/100/1000Mbps and 1000Mbps
  - Models support 10G/5G/2.5G/1G/100Mbps
  - MAS SFF-8431, SFF-8432 and SFF-8472 compliant
- Compliant with RoHS, WEEE, REACH and UKCA
- Supports Digital Diagnostic capability
- Case Operating Temperature:
  - Commercial (0° C to +70° C) and
  - Industrial (-40° C to +85° C)
- One (1) Year Warranty and free 24/7 Technical Support

Fiber SFP with Digital Diagnostics for 100Mbps Ethernet, SONET OC-3 and SDH STM-1

Model	Fiber Type	Spec. Distance (km)	Wavelength Tx / Rx (nm)	Link Budget (dB)
7006-0t	MM/DF	5	1310 / 1310	11
7007-1t	SM/DF	30	1310 / 1310	17
7007-2t	SM/DF	60	1310 / 1310	30
7007-3t	SM/DF	120	1550 / 1550	30
7014-0t	MM/SF[1]	5	1310 / 1550	13
7015-0t	MM/SF[1]	5	1550 / 1310	13
7014-1t	SM/SF[1]	30	1310 / 1550	18
7015-1t	SM/SF[1]	30	1550 / 1310	18
7014-2t	SM/SF[1]	50	1310 / 1550	26
7015-2t	SM/SF[1]	50	1550 / 1310	26
7014-3t	SM/SF[1]	80	1310 / 1550	34
7015-3t	SM/SF[1]	80	1550 / 1310	34

Copper SFP for Gigabit Ethernet

Model	Description
7299-RJt	1000BASE-T RJ-45 SFP (SERDES), 100 meters
7299-RJ-GIt	10/100/1000BASE-T RJ-45 SFP (SGMII), 100 meters

Fiber SFP+ with Digital Diagnostics for 10G Ethernet

Model	Fiber Type	Spec. Distance (km)	Wavelength Tx / Rx (nm)	Link Budget (dB)
7406-0t	MM/DF	0.30[1]	850 / 850	3.8
7406-6t	MM/DF	0.22	1310 / 1310	2.0
7407-1t	SM/DF	10	1310 / 1310	7.4
7407-2t	SM/DF	40	1550 / 1550	14
7407-3t	SM/DF	80	1550 / 1550	23
7410-0t	SM/SF[1]	10	1270 / 1330	9
7411-0t	SM/SF[1]	10	1330 / 1270	9
7410-1t	SM/SF[1]	20	1270 / 1330	14
7411-1t	SM/SF[1]	20	1330 / 1270	14
7410-2t	SM/SF[1]	40	1270 / 1330	17
7411-2t	SM/SF[1]	40	1330 / 1270	17

Copper SFP+ for Multi-Gigabit/Multi-Rate Ethernet

Model	Description
7899MG-RJXC	10G/5G/2.5G/1G/100Mbps Copper SFP+, 100 meters on Cat 6a/7 Ethernet cable or better, Commercial case operating temperature (0 to 70°C)
7899MG-RJXZ	10G/5G/2.5G/1G/100Mbps Copper SFP+, 100 meters on Cat 6a/7 Ethernet cable or better, Industrial case operating temperature (-40 to 85°C)

Fiber SFP+ with Digital Diagnostics for Gigabit Ethernet, 1G Fiber Channel, SONET OC-12 and SDH STM-4

Model	Fiber Type	Spec. Distance (km)	Wavelength Tx / Rx (nm)	Link Budget (dB)
7206-0t	MM/DF	0.22 / 0.55[2]	850 / 850	7.5
7206-6t	MM/DF	2	1310 / 1310	10
7207-1t	SM/DF	10	1310 / 1310	11.5
7207-2t	SM/DF	34	1310 / 1310	19
7207-3t	SM/DF	80	1550 / 1550	20
7207-4t	SM/DF	110	1550 / 1550	24
7207-5t	SM/DF	140	1550 / 1550	32
7207-6t	SM/DF	160	1550 / 1550	34
7214-0t	MM/SF[1]	0.55	1310 / 1550	9
7215-0t	MM/SF[1]	0.55	1550 / 1310	9
7214-1t	SM/SF[1]	20	1310 / 1550	12
7215-1t	SM/SF[1]	20	1550 / 1310	12
7214-2t	SM/SF[1]	40	1310 / 1550	20
7215-2t	SM/SF[1]	40	1550 / 1310	20
7214-3t	SM/SF[1]	60	1310 / 1550	24
7215-3t	SM/SF[1]	60	1550 / 1310	23
7216-1t	SM/SF[1]	20	1310 / 1490	12
7217-1t	SM/SF[1]	20	1490 / 1310	12
7216-2t	SM/SF[1]	40	1310 / 1490	17
7217-2t	SM/SF[1]	40	1490 / 1310	17
7218-4t	SM/SF[1]	80	1510 / 1570	22
7219-4t	SM/SF[1]	80	1570 / 1510	22

Fiber XFP with Digital Diagnostics for 10G Ethernet, 10G Fibre Channel, SONET OC-192 and SDH STM-64

Model	Fiber Type	Spec. Distance (km)	Wavelength Tx / Rx (nm)	Link Budget (dB)
7426-0t	MM/DF	0.30[3]	850 / 850	3.8
7427-1t	SM/DF	10	1310 / 1310	7.4
7427-2t	SM/DF	40	1550 / 1550	14
7427-3t	SM/DF	80	1550 / 1550	23
7430-0t	SM/SF[1]	10	1270 / 1330	9
7431-0t	SM/SF[1]	10	1330 / 1270	9
7430-1t	SM/SF[1]	20	1270 / 1330	14
7431-1t	SM/SF[1]	20	1330 / 1270	14
7430-2t	SM/SF[1]	40	1270 / 1330	17
7431-2t	SM/SF[1]	40	1330 / 1270	17

Legend

t = case operating temperature

<leave blank> = (0 to 70°C)

Z = (-40 to 85°C) - Not available on all models. Contact Omnitron to verify.

[1] Tx wavelength on one end has to match the Rx wavelength on the other.

[2] 62.5/125µm (OM1) multimode fiber up to 220m. 50/125µm (OM2) multimode fiber up to 550m.

[1] Distance obtained with OM3 multimode cable

MM = Multimode, SM = Single-mode, DF = Dual Fiber, SF = Single-fiber

For optical parameters, visit:
omnitron-systems.com/products/omnitron-optical-transceivers/