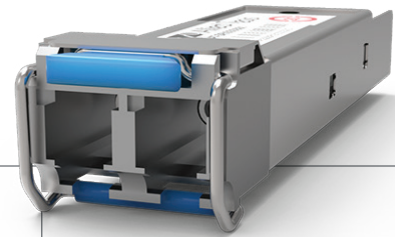


SP Series

Gigabit Small Form-Factor Pluggable Modules



Overview

The Allied Telesis SP Series delivers flexible, full-duplex Ethernet connectivity. These hot-swappable fiber and copper interfaces simply plug into the SFP slot on all SFP-compatible devices. Configuration can be optimized to meet a wide variety of distance and service requirements.

Compatibility

Allied Telesis SP Series Small Form-Factor Pluggables (SFPs) are supported on Allied Telesis devices with SFP uplink connections*.

SP Series SFPs are Multi-Sourcing Agreement (MSA)-compliant, and fully adhere to industry standard networking regulations. This allows the SP Series to be used with other MSA-compliant platforms that support SFP uplink connections.

For Cisco compatibility please refer to the “SFP Compatibility Flyer”.

Options

SP Series SFPs offer short-haul, longhaul and Bi-Directional (BiDi) solutions. This flexibility allows network managers to easily extend network distance and bandwidth.

Using an SFP BiDi transceiver can upgrade transmission capacity on a typical network—without installing new fibers—by utilizing a single fiber for both the send and receive signals.

Multiple temperature ranges

Different network environments call for a variety of temperature ranges. The SP Series is available in standard (0-70° C), industrial (-40 to 85° C), and extended (-40 to 105° C) temperature variants.

*Please see individual product datasheet for SFP's supported by that product.

Key Features

- Fiber and copper solutions
- Compact size
- Flexible architecture
- Plug and play for ease of use
- Self-locking mechanism
- MSA-compliant
- Two year warranty*
- Operating Humidity: 0 to 85% non-condensing (5 to 95% non-condensing for SPBD10/I-13 & -14)

*Warranties may be region-specific. For local warranty periods, please visit alliedtelesis.com/support, or contact your local sales office.

SPECIFICATIONS

Standard Gigabit SFPs

	Fiber Type	Connector Type	Maximum Distance	Wavelength Tx/Rx	DDM*	Transmit		Receive Sensitivity	Power Budget	Overload	Operating Temperature
						Min	Max				
SPTXc	10/100/1000T	RJ45	100 m	-	-	-	-	-	-	-	0°C to 70°C (32°F to 158°F)
SPTX-90	10/100/1000T	RJ45	100 m	-	-	-	-	-	-	-	0°C to 70°C (32°F to 158°F)
SPTX/I	10/100/1000T	RJ45	100 m	-	-	-	-	-	-	-	-40°C to 85°C (-40°F to 185°F)
SPEX	MMF	LC	2 km	1310 nm	-	-9 dBm	-1 dBm	-19 dBm	10 dBm	-3 dBm	0°C to 70°C (32°F to 158°F)
SPEX/E	MMF	LC	2 km	1310 nm	-	-9 dBm	-1 dBm	-21 dBm	12 dBm	-3 dBm	-40°C to 105°C (-40°F to 221°F)
SPSX	MMF	LC	220-550 m	850 nm	-	-9.5 dBm	-3 dBm	-17 dBm	7.5 dBm	-3 dBm	0°C to 70°C (32°F to 158°F)
SPSX-90	MMF	LC	220-550 m	850 nm	-	-8 dBm	-3 dBm	-19 dBm	11 dBm	-3 dBm	0°C to 70°C (32°F to 158°F)
SPSX/I-90	MMF	LC	220-550 m	850 nm	Yes	-9.5 dBm	-4 dBm	-17 dBm	7.5 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)
SPSX/E	MMF	LC	220-550 m	850 nm	-	-9 dBm	-1 dBm	-18 dBm	9 dBm	-3 dBm	-40°C to 105°C (-40°F to 221°F)
SPLX10a	SMF	LC	10 km	1310 nm	Yes	-9 dBm	-3 dBm	-20 dBm	11 dBm	-3 dBm	0°C to 70°C (32°F to 158°F)
SPLX10a/I	SMF	LC	10 km	1310 nm	Yes	-9 dBm	-3 dBm	-19 dBm	10 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)
SPLX10/E	SMF	LC	10 km	1310 nm	-	-9 dBm	-3 dBm	-21 dBm	12 dBm	-3 dBm	-40°C to 105°C (-40°F to 221°F)
SPLX40	SMF	LC	40 km	1310 nm	Yes	-4 dBm	1 dBm	-23 dBm	19 dBm	-1 dBm	0°C to 70°C (32°F to 158°F)
SPLX40/E	SMF	LC	40 km	1310 nm	-	-5 dBm	0 dBm	-23 dBm	18 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)
SPZX120/I	SMF	LC	120 km	1550 nm	Yes	0 dBm	5 dBm	-32 dBm	32 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)

MMF = Multi Mode Fiber, SMF = Single Mode Fiber

*Digital Diagnostics Monitoring

BiDi SFPs

	Fiber Type	Connector Type	Maximum Distance	Wavelength Tx/Rx	DDM*	Transmit		Receive Sensitivity	Power Budget	Overload	Operating Temperature
						Min	Max				
SPBD10/I-13	SMF	LC	10 km	1310 /1490 nm-	Yes	-9 dBm	-3 dBm	-21 dBm	11 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)
SPBD10/I-14	SMF	LC	10 km	1490/1310 nm-	Yes	-9 dBm	-3 dBm	-21 dBm	11 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)
SPBD20-13/I	SMF	SC	20 km	1310 /1490 nm-	-	-9 dBm	-3 dBm	-23 dBm	14 dBm	-3 dBm	-40°C to 95°C (-40°F to 203°F)
SPBD20-14/I	SMF	SC	20 km	1490/1310 nm-	-	-9 dBm	-3 dBm	-23 dBm	14 dBm	-3 dBm	-40°C to 95°C (-40°F to 203°F)
SPBD20LC/I-13	SMF	LC	20 km	1310 /1490 nm-	Yes	-5 dBm	0 dBm	-20 dBm	15 dBm	0 dBm	-40°C to 95°C (-40°F to 203°F)
SPBD20LC/I-14	SMF	LC	20 km	1490/1310 nm-	Yes	-5 dBm	0 dBm	-20 dBm	15 dBm	0 dBm	-40°C to 95°C (-40°F to 203°F)
SPBD20-14-EXT	SMF	SC	20 km	1490/1310 nm	Yes	2 dBm	7 dBm	-29 dBm	31 dBm	-1 dBm	-40°C to 85°C (-40°F to 185°F)
SPBD20EPON-13/I	SMF	SC	20 km	1310 /1490 nm-	Yes	-9 dBm	-1 dBm	-2 dBm	1 dBm	-1 dBm	-30°C to 85°C (-22°F to 185°F)
SPBD20DUAL-14	SMF	LC	20 km	1490/1310 nm-	Yes	-8 dBm	-3 dBm	-23 dBm	15 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)
SPBD40DUAL-14	SMF	LC	40 km	1490/1310 nm	Yes	-3 dBm	2 dBm	-23 dBm	20 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)
SPBD40-13/I	SMF	LC	40 km	1310 /1490 nm-	Yes	-3 dBm	2 dBm	-23 dBm	20 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)
SPBD40-14/I	SMF	LC	40 km	1490/1310 nm-	Yes	-3 dBm	2 dBm	-23 dBm	20 dBm	-3 dBm	-40°C to 85°C (-40°F to 185°F)

SMF = Single Mode Fiber

*Digital Diagnostics Monitoring

ORDERING INFORMATION

AT-SPTXc	10/100/1000T SFP, RJ-45 (100 m)
AT-SPTX-90	10/100/1000T SFP, RJ-45 (100 m), TAA**
AT-SPTX/I	10/100/1000T SFP, RJ-45 (100 m), I-Temp
AT-SPEX	1000EX SFP, LC, MMF, 1310 nm, TAA**
AT-SPEX/E	1000EX SFP, LC, MMF, Ext. Temp, TAA**
AT-SPSX	1000SX SFP, LC, MMF, 850 nm
AT-SPSX-90	1000SX SFP, LC, MMF, 850 nm, I-Temp, TAA**
AT-SPSX/E	1000SX SFP, LC, MMF, Ext. Temp, TAA**
AT-SPLX10	1000LX SFP, LC, SMF, 1310 nm (10 km)
AT-SPLX10a	1000LX SFP, LC, SMF, 1310nm (10km), TAA**
AT-SPLX10a/I	1000LX SFP, LC, SMF, 1310 nm, (10 km), I-Temp
AT-SPLX10/E	1000LX SFP, LC, SMF, (10 km), Ext. Temp, TAA**
AT-SPLX40	1000LX SFP, LC, SMF, 1310 nm, (40 km)
AT-SPLX40/E	1000LX SFP, LC, SMF, (40 km) Ext. Temp
AT-SPZX120/I	1000LX SFP, LC, SMF (120km), I-Temp

AT-SPBD10/I-13	10 km, 1G, SMF, BiDi, LC, I-Temp, TAA** (1310Tx/1490Rx)
AT-SPBD10/I-14	10 km, 1G, SMF, BiDi, LC, I-Temp, TAA** (1490Tx/1310Rx)
AT-SPBD20-13/I	20 km, 1G, SMF, BiDi, SC (1310Tx/1490Rx)
AT-SPBD20-14/I	20 km, 1G, SMF, BiDi, SC (1490Tx/1310Rx)
AT-SPBD20LC/I-13	20 km, 1G, SMF, BiDi, LC, TAA** (1310Tx/1490Rx)
AT-SPBD20LC/I-14	20 km, 1G, SMF, BiDi, LC, TAA** (1310Tx/1490Rx)
AT-SPBD20-14-EXT	20 km, 1G, SMF, BiDi, SC (1310Tx/1490Rx)
AT-SPBD20EPON-13/I	1000LX GbE Bi-Di (1310 nm Tx, 1490 nm Rx) fiber up to 10 km
AT-SPBD20DUAL-14	AT-SPBD20DUAL-14 20 km, 2x1G, CSFP, SMF, BiDi, LC (1490Tx/1310Rx)
AT-SPBD40DUAL-14	40 km, 2x1G, CSFP, SMF, BiDi, LC (1490Tx/1310Rx)
AT-SPBD40-13/I	40 km, 1G, SMF, BiDi, LC, TAA** (1310Tx/1490Rx)
AT-SPBD40-14/I	40 km, 1 G, SMF, BiDi, LC, TAA** (1490Tx/1310Rx)

** Trade Act Agreement compliant (TAA)