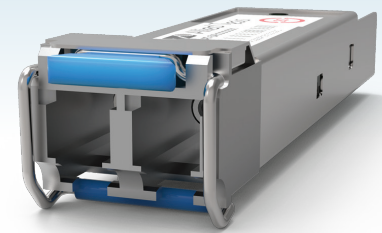


# SP Series

## Gigabit Small Form-Factor Pluggable Modules

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”.

\*Please see individual product datasheet for SFPs supported by that product.

### Options

SP Series SFPs offer short-haul, long-haul 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.

## 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

\* Warranties may be region-specific. For local warranty periods, please visit [alliedtelesis.com/support](http://alliedtelesis.com/support), or contact your local sales office.

## Specifications

### Standard Gigabit SFPs

MODEL	FIBER TYPE	CONNECTOR TYPE	MAXIMUM DISTANCE	WAVELENGTH Tx/Rx (nm)	DDM*	TRANSMIT (dBm)		RECEIVE SENSITIVITY (dBm)	Power Budget (dB)	OVERLOAD (dBm)	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	-	-9	-1	-19	10	-3	0°C to 70°C (32°F to 158°F)
SPEX/E	MMF	LC	2km	1310	-	-9	-1	-21	12	-3	-40°C to 105°C (-40°F to 221°F)
SPSX	MMF	LC	220-550 m	850	-	-9.5	-3	-17	7.5	-3	0°C to 70°C (32°F to 158°F)
SPSX-90	MMF	LC	220-550 m	850	-	-8	-3	-19	11	-3	0°C to 70°C (32°F to 158°F)
SPSX/I	MMF	LC	220-550 m	850	Yes	-9.5	-4	-17	7.5	-3	-40°C to 85°C (-40°F to 185°F)
SPSX/E	MMF	LC	220-550 m	850	-	-9	-1	-18	9	-3	-40°C to 105°C (-40°F to 221°F)
SPLX10	SMF	LC	10 km	1310	-	-9	-3	-20	11	-3	0°C to 70°C (32°F to 158°F)
SPLX10a	SMF	LC	10 km	1310	Yes	-9	-3	-20	11	-3	0°C to 70°C (32°F to 158°F)
SPLX10/I	SMF	LC	10 km	1310	Yes	-9	-3	-19	10	-3	-40°C to 85°C (-40°F to 185°F)
SPLX10/E	SMF	LC	10km	1310	-	-9	-3	-21	12	-3	-40°C to 105°C (-40°F to 221°F)
SPLX40	SMF	LC	40 km	1310	Yes	-4	1	-23	19	-1	0°C to 70°C (32°F to 158°F)
SPLX40/E	SMF	LC	40km	1310	-	-5	0	-23	18	-3	-40°C to 105°C (-40°F to 221°F)

MMF = Multi Mode Fiber, SMF = Single Mode Fibe

\*Digital Diagnostics Monitoring

# SP Series | Gigabit Small Form-Factor Pluggable Modules

## BiDi SFPs

MODEL	FIBER TYPE	CONNECTOR TYPE	MAXIMUM DISTANCE	WAVELENGTH Tx/Rx (nm)	DDM*	TRANSMIT (dBm)		RECEIVE SENSITIVITY (dBm)	Power Budget (dB)	OVERLOAD (dBm)	OPERATING TEMPERATURE
						MIN	MAX				
SPZX120/I	SMF	LC	120 km	1550	Yes	0	5	-32	32	-3	-40°C to 85°C (-40°F to 185°F)
SPBD10-13	SMF	LC	10km	1310 /1490	-	-9	-3	-20	11	-3	-40°C to 85°C (-40°F to 185°F)
SPBD10-14	SMF	LC	10km	1490/1310	-	-9	-3	-20	11	-3	-40°C to 85°C (-40°F to 185°F)
SPBD20-13/I	SMF	SC	20km	1310 /1490	-	-9	-3	-23	14	-3	-40°C to 95°C (-40°F to 203°F)
SPBD20-14/I	SMF	SC	20km	1490/1310	-	-9	-3	-23	14	-3	-40°C to 95°C (-40°F to 203°F)
SPBD20LC/I-13	SMF	LC	20km	1310/1490	Yes	-5	0	-20	15	0	-40°C to 95°C (-40°F to 203°F)
SPBD20LC/I-14	SMF	LC	20km	1490/1310	Yes	-5	0	-20	15	0	-40°C to 95°C (-40°F to 203°F)
SPBD20-14-EXT	SMF	SC	20km	1490/1310	Yes	2	7	-29	31	-1	-40°C to 85°C (-40°F to 185°F)
SPBD20EPON-13/I	SMF	SC	20km	1310/1490	Yes	-9	-1	-2	1	-1	-30°C to 85°C (-22°F to 185°F)
SPBD20DUAL-14	SMF	LC	20km	1490/1310	Yes	-8	-3	-23	15	-3	-40°C to 85°C (-40°F to 185°F)
SPBD40DUAL-14	SMF	LC	40km	1490/1310	Yes	-3	2	-23	20	-3	-40°C to 85°C (-40°F to 185°F)
SPBD40-13/I	SMF	LC	40km	1310/1490	Yes	-3	2	-23	20	-3	-40°C to 85°C (-40°F to 185°F)
SPBD40-14/I	SMF	LC	40km	1490/1310	Yes	-3	2	-23	20	-3	-40°C to 85°C (-40°F to 185°F)

SMF = Single Mode Fibre

\*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, TAA\*\*

### AT-SPSX/I

1000SX SFP, LC, MMF, 850 nm, I-Temp

### 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-SPLX10/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-SPBD10-13

10 km, 1G, SMF, BiDi, LC (1310Tx/1490Rx)

### AT-SPBD10-14

10 km, 1G, SMF, BiDi, LC (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\*\* (1490Tx/1310Rx)

### AT-SPBD20-14-EXT

20 km, 1G, SMF, BiDi, SC (1310Tx/1490Rx)

### AT-SPBD20EPON-13/I

20 km, 1G, EPON, SMF, BiDi, LC (1310Tx, 1490Rx)

### 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)

\*\*TAA = Trade Act Agreement Compliant