PC Series

PoE+ Media and Rate Converters

Powering remote devices

Allied Telesis PC Series media converters are the ideal solution for powering remote devices such as IP phones, video cameras, wireless access points, etc., which are more than 100m from a Power over Ethernet switch.

The PC2000/SP features an SFP port supporting both 100MB and 1000MB optics and a 10/100/1000T Twisted Pair Port. Allied Telesis offers a wide variety of SFPs featuring multimode, single mode and BiDi optics.

The fixed fiber-optic port on these devices is available in SC (on 100MB and 1000MB devices) and LC (1000MB only). With these devices you can achieve distances up to 2 km (100MB) or 550 m (1000MB). With the SFP model, you can achieve greater distances using a long-range SFP. In addition to transmitting data, the twisted-pair port also injects power down the cable, allowing a remote PoE+ Powered Device to operate without the need of any additional power source. All PoE+ Devices (IEEE802.3at compliant) are supported, as the PC200x PoE+ Series can deliver a full 30W of power to the remote device.

Remote power cycle

The PC Series supports a feature where when the fiber port is dropped the TX PoE+ port will cycle power. It allows a remote administrator to login in a switch and disable the switch port in which the PC Series is attached and will have the remote PoE+ device to lose power. This can be useful when an administrator needs to reset a remote device without actually physical going to the location.

VLAN support

Many backbone switch products support the industry-standard IEEE 802.1Q specification for Virtual LANs (VLANs) that sends extra-long data packets on the network. PC Series switches are fully compatible with these long packets, enabling them to be used in modern networks. Switches not supporting this feature will discard these extra-long packets, making them unsuitable for modern networks.

Small and flexible

The small size and internal power supply of the PC Series allows them to be used almost anywhere. They can in installed on a desktop, or wall mounted.

Smart MissingLink™ (SML)

The Smart MissingLink (SML) feature monitors network connections and provides notification when network segments fail, allowing network managers to quickly identify the source and location of failed segments and minimize downtime.

Key Features

- Convert speed as well as media type
- IEEE 802.3at Power over Ethernet (POE+) compliant
- Supplies up to 30W of PoE+ power
- Support 100 and 1000Mbps fiber SFP modules (PC2000/SP)
- Auto MDI/MDI-X
- Smart Missing Link ((SML)
- Supports jumbo frames, up to 10K bytes
- Support for multi-mode fiber
- 4K MAC address tables
- Store-and-forward switching mode
- Transparent to IEEE 802.1Q packets
- Standalone or wall mountable
- Internal AC power supply
- AC power cord retaining clip
- No Fan/Silent operation
- Available in Trade Agreement Act (TAA) models (-90)

10/100/1000T Twisted Pair Port LEDs

The LEDs for the 10/100/1000T twisted pair port are described below.

LED	COLOR	DESCRIPTION
Left LED	Green	The port has established a link to a network device
	Blinking Green	Activity
	Off	The port has not established a link to a network device
PoE Power	Green	The twisted pair port is connected to a powered device and is providing power to the device
	Off	The twisted pair port is not supplying power to the network device connected to the port
Fault	Red	The PoE port is operational

DIP Switch

FUNCTION	POSITION	DESCRIPTION
SML	On	Smart MissingLink feature enabled
	Off	Smart MissingLink feature disabled
100FD	Off	Auto Negotiate
	On	Forced 100-FD on copper
Remote PoE+ Control	Off	Turned off
	On	PoE power is forced off when fiber link goes down

Fiber Port LEDs

LED	COLOR	DESCRIPTION
LINK	Green	The port has established a link to a network device
	Blinking Green	Activity
	Off	The port has not established a link with a network device

Operational Characteristics

MAC address table 1k addresses

Forwarding/ filtering rate	1,488,000pps for 1Gbps 148,880pps for 100Mbps 14,880pps for 10Mbps
Latency	14.31sec (64 byte packet, 100Mbps full-duplex)
Maximum packet	10,000 bytes size

Optical Characterisitcs

Wavelength	1310nm (PC200) 850nm (PC2000)
Fiber cable	50/125um (OM2) or 62.5/125um (OM1) MMF Up to 2 km (100MB) Up to 550 m (1000MB)
SFP	See specific SFP, SMF datasheet at www.alliedtelesis.com

Transmit Power

PC200	Min -19dBm Max -14 dBm
PC2000	Min -9.5dBm Max -4 dBm

Receive Power

PC200	Min -32dBm Max -3 dBm
PC2000	Min -17dBm Max -3 dBm

Power Characteristics

Input voltage	(auto-ranging)
Internal power supply	100-120V AC/60Hz, 220-240V AC/50Hz
Power consumption	35W

Power over Ethernet

Opertating mode	IEEE 802.3at Mode A
Maximum power	30W

Environmental Specifications

Operating temperature	0°C to 50°C (32°F to 122°F)
Storage temperature	-25°C to 70°C (-13°F to 158°F)
Operating altitude	Up to 3,048 m (10k ft)
Relative humidity	5% to 95% (non-condensing)

Physical Characteristics

Dimensions (W x D x H)	15.5 cm x 14.9 cm x 4 cm (6.1 in x 5.16 in x 1.58 in)
Weight:	0.748 kg (1.65 lb)

Electrical/Mechanical Approvals

FCC Class B
EN55022 Class A
C-Tick

Ordering Information

AT-PC2000/SC-xx
10/100/1000T POE+ to 1000SX/SC

AT-PC2000/SP-xx
10/100/1000T POE+ to SFP (100MB or 1000MB)

AT-PC2000/LC-xx
10/100/1000T POE+ to 1000SX/LC

AT-PC200/SC-xx
10/100T POE+ to 100FX/SC

Where xx = 60 for AC power supply, multi-region (US, UK, AU, EU)
90 for AC power supply, US power cord, TAA*
960 for AC power supply, multi-region (US, UK, AU, EU), TAA*

Accessories

Small Form Pluggables (SFPs)

AT-SPSX
Multi-mode Fiber, GbE SFP

AT-SPL X10
Single-mode Fiber, 10 km, GbE SFP

AT-SPL X40
Single-mode Fiber, 40 km, GbE SFP

AT-SPBD10-xx
10 km BiDi GbE SMF SFP

AT-SPTX
10/100/1000T SFP (works at gig speed only on PC2000/SP)

AT-SPFX/2
Multi-mode Fiber, 2 km, 100FX, SFP

AT-SPFX/15
Single-mode Fiber, 15 km, 100FX, SFP

AT-SPFX/40
Single-mode Fiber, 40 km, 100FX, SFP

AT-SPBD20-xx/I
20 km BiDi GbE SMF SFP, I-Temp

* Trade Agreement Act (TAA)

617-000627 RevE