

# 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 be installed on a desktop, or wall mounted.

### Smart MissingLink™ (SML)

The Smart MissingLink (SML) feature monitors network connections and provides network 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<br>148,880pps for 100Mbps<br>14,880pps for 10Mbps |
| Latency                    | 14.31sec<br>(64 byte packet, 100Mbps full-duplex)                        |
| Maximum packet             | 10,000 bytes size  |

#### Optical Characteristics

|             |   |
|-------------|---|
| Wavelength  | 1310nm (PC200)<br>850nm (PC2000)  |
| Fiber cable | 50/125um (OM2) or<br>62.5/125um (OM1) MMF<br>Up to 2 km (100MB)<br>Up to 550 m (1000MB)             |
| SFP         | See specific SFP, SMF datasheet at <a href="http://www.alliedtelesis.com">www.alliedtelesis.com</a> |

#### Transmit Power

|        |                           |
|--------|---------------------------|
| PC200  | Min -19dBm<br>Max -14 dBm |
| PC2000 | Min -9.5dBm<br>Max -4 dBm |

#### Receive Power

|       |                          |
|-------|--------------------------|
| PC200 | Min -32dBm<br>Max -3 dBm |
|-------|--------------------------|

|        |                          |
|--------|--------------------------|
| PC2000 | Min -17dBm<br>Max -3 dBm |
|--------|--------------------------|

#### Power Characteristics

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

#### Power over Ethernet

|                  |                     |
|------------------|---------------------|
| Operatating 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<br>(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, FED

#### 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