

IMC 200/2000 Series

Industrial PoE+ Media and Rate Converters



Powering remote devices

Allied Telesis IMC200/2000 Series Industrial Media Converters (IMCs) are ideal for powering remote devices, such as IP phones, video cameras and wireless Access Points (APs), which are more than 100m from a Power over Ethernet (PoE) switch. Each IMC can provide up to 70W of PoE.

The 2000T/SP and the 2000TP/SP each feature a 10/100/1000T twisted-pair port, and an SFP port which supports and auto detects 100X and 1000X optics. No switch configuration is needed. Allied Telesis offers a wide variety of SFPs featuring multimode, single mode and BiDi optics.

Models with a fixed fiber-optic port are available with SC or LC connectors. With these, you can achieve distances up to 2 km (100Mps) or 550 m (1000Mps). 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 any additional power source. All PoE+ devices (IEEE802.3at compliant) are supported. All PoE+ devices support 802.3at, PoE+, LTPoE++ and 4-pair. The PC200x PoE+ Series can deliver up to 70W of power to the remote device.

Remote Power Cycle

The IMC200/2000 Series supports the Remote Power Cycle feature. This allows a remote administrator to log in to the host switch device and disable the switch port to which the IMC is attached, causing the PoE+ device to lose power. This allows administrators to reset remote devices without physically going to the location.

Jumbo frame support

Many backbone switch products support the industry-standard IEEE 802.1Q specification for Virtual LANs (VLANs) which sends extra-long data packets on the network. The IMC200/2000 Series are fully compatible with these long packets, enabling them to be used in modern networks.

Smart MissingLink™ (SML)

The SML feature monitors network connections and provides a notification when a link fails, allowing administrators to quickly identify the source and location of failed links, and thus minimize downtime.

Key Features

- ▶ Converts speed as well as media type
- ▶ Supports 802.3at, PoE+, 30W and LTPoE++, 4-pair up to 70W
- ▶ Supplies up to 70W of PoE power
- ▶ Supports 100 and 1000Mbps fiber SFP modules (IMC2000/SP)
- ▶ Auto MDI/MDI-X
- ▶ Smart Missing Link (SML)
- ▶ Remote Power Cycle
- ▶ Supports up to 10K jumbo frames
- ▶ Supports multi-mode fiber
- ▶ 8K MAC address table
- ▶ Store-and-forward switching mode
- ▶ Transparent to IEEE 802.1Q packets
- ▶ Standalone or DIN rail mount
- ▶ Fanless for silent operation

10/100/1000T Twisted-Pair Port LEDs

| 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 |
| | Off | The twisted-pair port is not supplying power to the network device |

DIP Switch

| FUNCTION | POSITION | DESCRIPTION |
|---------------------|----------|---|
| SML | On | Smart MissingLink feature is enabled |
| | Off | Smart MissingLink feature is 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 | 8K 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 Characteristics

| | |
|-------------|--|
| Wavelength | 1310 nm IMC200 (SC) 850 nm IMC2000 (SC) |
| Fiber cable | IMC2000 (SC) Up to 2 km (100Base-FX) on OM1/OM2 Up to 275 m (1000Base-SX) OM1 Up to 550 m (1000Base-SX) OM2 |
| SFP | See specific SFP, SMF datasheet at www.alliedtelesis.com |

Transmit Power

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|--------------|----------------------------|
| IMC200 (SC) | Min -19 dBm Max -14 dBm |
| IMC2000 (SC) | Min -9.5 dBm Max -4 dBm |

Receive Sensitivity

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|--------------|---------------------------|
| IMC200 (SC) | Min -32 dBm Max -3 dBm |
| IMC2000 (SC) | Min -17 dBm Max -3 dBm |

Power Characteristics

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|---------|----------|
| PoE | 48-57VDC |
| PoE+ | 51-57VDC |
| Non-PoE | 12-48VDC |

Power over Ethernet

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|----------------|--|
| Operating mode | IEEE 802.3at, PoE+, 30W LTPoE++, 4-pair up to 70W |
| Maximum power | 70W |

Environmental Specifications

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|-----------------------|--------------------------------|
| Operating temperature | -40°C to 75°C (-40°F to 167°F) |
| Storage temperature | -40°C to 85°C (-40°F to 180°F) |
| Operating altitude | Up to 3,048m (10k ft) |
| Relative humidity | 5% to 95% (non-condensing) |

Physical Characteristics

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|------------------------|---|
| Dimensions (W x D x H) | 11.1 cm x 9.6 cm x 3.5 cm (4.4 in x 3.8 in x 1.4 in) |
| Weight | 0.748 kg (1.65 lb) |

Safety

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|--------------------------------------|
| UL 62368-1, EN 62368-1 |
| UL 60950-1 (UL mark) |
| CAN/CSA C22.2 No. 60950-1 (cUL mark) |
| EN 60950-1 (TUV mark) |
| IP30 |

Electrical Approvals and Compliances

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|-----------------------------|
| EMI/Emission & Stability |
| FCC Class A |
| EN55024 (immunity standard) |
| EN55032 Class A |
| EN55035 |
| VCCI Class A |
| RoHS |

Ordering Information

AT-IMC200T/SC-980
10/100/1000T to 100FX (SC), 2 km, MMF, industrial temperature, TAA compliant

AT-IMC200TP/SC-980
10/100/1000T PoE+ to 100FX (SC), 2 km, MMF, industrial temperature, TAA compliant

AT-IMC2000T/SC-980
10/100/1000T to 1000SX/SC, 550 m MMF, industrial temperature, TAA compliant

AT-IMC2000TP/SC-980
10/100/1000T PoE+ to 1000SX/SC, 550 m MMF, industrial temperature, TAA compliant

AT-IMC2000T/SP-980
10/100/1000T to 100/1000X SFP, industrial temperature, TAA compliant

AT-IMC2000TP/SP-980
10/100/1000T PoE+ to 100/1000X SFP, industrial temperature, TAA compliant

Supported SFP Modules

IMC2000T/SP & IMC2000TP/SP

AT-SPTX/I
100 m, 10/100/1000T SFP, RJ-45, I-Temp

AT-SPSX/I
550 m, 1000SX SFP, LC, MMF, 850 nm, I-Temp

AT-SPSX/E
550 m, 1000SX SFP, LC, MMF, 850 nm, Ext. Temp

AT-SPEX/E
2 km, 1000EX SFP, LC, MMF, 1310 nm, Ext. Temp

AT-SPLX10/I
10 km, 1000LX SFP, LC, SMF, 1310 nm, I-Temp

AT-SPLX10/E
10 km, 1000LX SFP, LC, SMF, 1310 nm, Ext. Temp

AT-SPLX40/E
40 km, 1000LX SFP, LC, SMF, 1310 nm, Ext. Temp

AT-SPBD10
10 km, 1G BiDi SFP, LC, SMF

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

AT-SPBD40-xx/I
40 km BiDi GbE SMF SFP, I-Temp

All Allied Telesis standard temp SFP's