IMC 200/2000 Series

Industrial PoE+ Media and Rate Converters

Powering remote devices

Allied Telesis 200/2000 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 60W 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 200/2000 Series supports the Remote Power Cycle feature. When the fiber port is dropped, the TX PoE+ port cycles power. This allows a remote administrator to log in to a switch and disable the switch port to which the IMC is attached, which causes 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 200/2000 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 60W 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
- 4K 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	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 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

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

Receive Sensitivity

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

Power Characteristics

Input voltage	-48V DC

Power over Ethernet

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

Environmental Specifications

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

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)

Electrical/Mechanical Approvals

FCC Class A
EN55032
ICES
VCCI
EN55024
EN61000-3-2
EN61000-3-3

Ordering Information

AT-IMC200T/SC-980
10/100TX to 100FX (SC), 2 km, MMF, industrial temperature

AT-IMC200TP/SC-980
10/100TX to 100FX (SC), 2 km, MMF, industrial temperature

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

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

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

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

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-SPFX/40
40 km, 100FX SFP, LC, SMF, 1310 nm

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

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