

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 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 60W 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 60W
- 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
- 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

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

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

Operational Characteristics

- MAC address table 8k addresses
- Forwarding/filtering rate 1,488,000pps for 1Gbps
148,880pps for 100Mbps
14,880pps for 10Mbps
- Latency 14.3µsec
(64 byte packet, 100Mbps full-duplex)
- Maximum packet size 10,000 bytes

Optical Characteristics

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

Transmit Power

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

Receive Power

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

Power Characteristics

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

Power Consumption

- PoE models 70W Max
- Non PoE models 30W Max

Power over Ethernet

- Operating mode IEEE 802.3at, PoE+, 30W
LTPoE+, 4-pair up tp 60W
- Maximum power 60W

Environmental Specifications

- Operating temperature -40°C to 70°C (-40°F to 158°F)
- Storage temperature -40°C to 85°C (-40°F to 180°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) 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

- UL 62368-1, EN 62368-1
- UL 60950-1 (UL mark)
- CAN/CSA C22.2 No. 60950-1 (cUL mark)
- EN 60

Electrical Approvals and Compliances

- 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

Power Supplies

The following three models can use the below power supplies: AT-IMC200T/SC-980 AT-IMC2000T/SP-980 AT-IMC2000T/SC-980	
AT-DRB15	15W, 24V Output DIN Rail Mount Power Supply DIN rail mount
AT-DRB50	50W, 48V Output DIN Rail Mount Power Supply DIN rail mount

Power Supplies

The following three models can use the below power supplies:

AT-IMC200TP/SC-980
 AT-IMC2000TP/SC-980
 AT-IMC2000TP/SP-980

AT-DRB50*	50W, 48V Output DIN Rail Mount Power Supply DIN rail mount * Product will be limited to <50W
AT-SDR120-48	120W @48Vdc, Industrial AC/DC power supply, DIN rail mount

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	