

# 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

### 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/	1,488,000pps for 1Gbps
filtering rate	148,880pps for 100Mbps
	14,880pps for 10Mbps
Latency	14.3µsec
	(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	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 <a href="http://www.alliedtelesis.com">www.alliedtelesis.com</a>

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

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

Power Consumption

PoE models	70W Max
Non PoE Models	3W 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 3,048m (10k ft)
Relative humidity	5% to 95% (non-condensing)

Physical Characteristics

Dimensions	11.1 cm x 9.6 cm x 3.5 cm
(W x D x H)	(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 60950-1 (TUV mark)
IP30

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, indus-  
trial 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, indus-  
trial 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 tem-  
perature, 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

The following three models can use the below  
power supply:

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