

# IMC Series

## Industrial Media Converters

### AT-IMC100T/SCMM

2-port Fast Ethernet Industrial Media Converter, 10/100TX to 100FX (SC) 2 km, MMF

### AT-IMC100T/SCSM

2-port Fast Ethernet Industrial Media Converter, 10/100TX to 100FX (SC) 30 km, SMF

### AT-IMC1000T/SFP

2-port Gigabit Ethernet Industrial Media Converter, 10/100/1000T to 1000X SFP

### AT-IMC1000TP/SFP

2-port Gigabit Ethernet Industrial Media Converter, 10/100/1000T PoE+ to 100/1000X SFP



## Extended Networks

The Allied Telesis Industrial Media Converter (IMC) Series is designed to extend the distance of a network by converting data between twisted pair cabling and multi-mode or single-mode fiber-optic cabling. The IMC100 features a 100FX fixed SC fiber port, while the IMC1000 features an SFP port for maximum flexibility.

## VLAN Support

Many new backbone switch products now support the industry-standard IEEE 802.1Q specification for Virtual LANs (VLANs) that send extra-long data packets on the network. IMC 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 dual external power supply inputs of the IMC Series allows them to be used almost anywhere in harsh environmental conditions. Additionally, they can be mounted both on DIN rail (EN50022) or by wall-mount, allowing users to deploy any mix of network conversions required.

## Key Features

- ▶ UTP to fiber media converter
- ▶ RJ-45 port support auto MDI/MDI-X function
- ▶ Built-in Link Loss Forwarding (LLF) and Link Fault Pass-Through (LFP) technology
- ▶ RoHS compliant
- ▶ Jumbo frame: 9Kbytes (AT-IMC1000T/SFP)
- ▶ Jumbo frame: 10Kbytes (AT-IMC1000TP/SFP)
- ▶ Store-and-Forward switch architecture
- ▶ Support wide operating temperature (-40°C~75°C)
- ▶ Wide-range redundant power design
- ▶ Power polarity reverse protect
- ▶ Overload current resettable fuse present
- ▶ IP-30 protection
- ▶ DIN rail (EN50022) and wall-mount design
- ▶ Provides EFT protection 3000 vDC for power line
- ▶ Supports 6000 vDC Ethernet ESD protection



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| MODEL           | PORT TYPE                           | CONNECTOR | DISTANCE | WAVELENGTH |
|-----------------|-------------------------------------|-----------|----------|------------|
| AT-IMC100T/SCMM | Multi-mode (62.5/125 µm, 50/125 µm) | SC        | 2 km     | 1310 nm    |
| AT-IMC100T/SCSM | Single-mode (9/125 µm)              | SC        | 30 km    | 1310 nm    |

## Specifications

### Connector

#### AT-IMC100T

Fiber: Duplex SC  
RJ-45: CAT-5 (10/100TX) twisted pair cable

Auto MDI/MDI-X  
Auto-negotiation

#### AT-IMC1000T

Fiber: 1 x SFP slot, supports only 1000Mbps  
RJ-45: CAT-5 or over (10/100/1000T)

Auto MDI/MDI-X  
Auto-negotiation

#### AT-IMC1000TP

Fiber: 1 x SFP slot, supports 100/1000Mbps dual-mode  
RJ-45: 10/100/1000T

Auto MDI/MDI-X  
Supports PoE PSE

### Status LEDs

#### AT-IMC100T

Power 1 Active/Inactive  
Power 2 Active/Inactive  
Fault Fault/Functional  
FDX/COL (fiber) Full-duplex/Half-duplex/Collision  
LINK/ACT (fiber) Connected/Not connected/Active

100M (RJ-45) 100M/10M  
LINK/ACT (RJ-45) Connected/Not connected/Active

#### AT-IMC1000T

Power 1 Active/Inactive  
Power 2 Active/Inactive  
Fault Fault/Functional  
LINK/ACT (fiber) Connected/Not connected/Active

1000M (RJ-45) 1000M / 10/100M  
LINK/ACT (RJ-45) Connected/Not connected/Active

#### AT-IMC1000TP

Power Off/On  
PoE power Off/On  
Fault Fault/Functional  
Giga (RJ-45) Connected/Not connected  
LINK/ACT (RJ-45) Connected/Not connected/Active

LINK/ACT (SFP) Connected/Not connected/Active

### DIP Switch

#### AT-IMC100T

1 Port/power alarm  
2 Link Loss Forwarding  
3 Half/full mode  
4 Media/switching mode

#### AT-IMC1000T

1 Enable/disable power alarm  
2 Link Loss Forwarding

#### AT-IMC1000TP

100M / 1000M

### Link Loss Forward

TX to fiber If TX port link down, the media converter will force fiber port to link down  
Fiber to TX If fiber port link down, the media converter will force TX port to link down

### Standards and Compliance

IEEE802.3 10T  
IEEE802.3u 100TX/100FX  
IEEE802.3x Flow control and back pressure

### IMC1000T/SFP & IMC1000TP/SFP

IEEE 802.3ab 1000T  
IEEE 802.3z 1000SX/LX standards  
IEEE 802.3at PoE Plus

### Power Characteristics

External power supply 12~48 vDC  
Power consumption 3.36 Watts  
External power supply 12~48 vDC (IMC1000T/SFP)  
Power consumption 5.28 Watts  
External power supply 48 vDC (IMC1000TP/SFP)  
Power consumption 32.73 Watts

### Environmental Specifications

Operating temperature -40°C to 75°C (-40°F to 167°F)  
Operating humidity 5% to 95% relative humidity (non-condensing -)  
Storage temperature -40°C to 85°C (-40°F to 185°F)  
Altitude 0 m to 2000 m (operational)

### Physical Specifications

Dimensions 3 cm x 9.5 cm x 14 cm  
(W x D x H) 1.18 in x 3.74 in x 5.51 in  
Weight 0.7 kg (1.45 lbs)  
Case material Metal, IP-30

### Physical Specifications - IMC1000TP/SFP

Dimensions 3.6 cm x 9.5 cm x 10.8 cm  
(W x D x H) 1.41 in x 3.74 in x 4.25 in  
Weight 0.5 kg (1.1 lbs)  
Case material Metal, IP-30

### Installation

DIN rail (EN50022) or wall-mount

### Electrical and Mechanical Approvals

EMI FCC Class A  
CE EN61000-3-2  
CE EN61000-3-3  
CE EN61000-4-2 (ESD)  
CE EN61000-4-3 (RS)  
CE EN61000-4-4 (EFT)  
CE EN61000-4-5 (Surge)  
CE EN61000-4-6 (CS)  
CE EN61000-4-8  
EN61000-4-11  
EN61000-4-12  
CE EN61000-6-2  
CE EN61000-6-4  
C-TICK  
Safety UL60950  
UL 508  
cUL  
CE EN60950-1 (LVD)  
Class I, Division 2, Groups A, B, C,  
Hazardous Locations  
Stability IEC60068-2-32 (Free fall)  
IEC60068-2-27 (Shock)  
IEC60068-2-6 (Vibration)

### Ordering Information

#### AT-IMC100T/SCMM-80

10/100TX to 100FX (SC), 2 km, MMF, industrial temperature

#### AT-IMC100T/SCSM-80

10/100TX to 100FX (SC), 30 km, SMF, industrial temperature

#### AT-IMC1000T/SFP-80

10/100/1000T to 1000X SFP, industrial temperature

#### AT-IMC1000TP/SFP-80

10/100/1000T PoE+ to 100/1000X SFP, industrial temperature

### Supported SFP Modules

#### IMC1000T/SFP & IMC1000TP/SFP

AT-SPSX  
AT-SPLX10  
AT-SPSX/I  
AT-SPLX10/I  
AT-SPBD10-13  
AT-SPBD10-14