

IMC100/1000 Series

Industrial Media Converters

Allied Telesis industrial media converters are the perfect fit for industrial networks. They are designed to extend the distance of the network by converting data between twisted pair cabling and multi-mode or single-mode fiber-optic cabling.



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 (IMC1000T/SFP)
- ▶ Jumbo frame: 10Kbytes (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

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

Specifications

Connector

IMC100T

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

Auto MDI/MDI-X
Auto-negotiation

IMC1000T

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

Auto MDI/MDI-X
Auto-negotiation

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

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)
LINK/ACT (RJ-45)

IMC1000T

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

1000M (RJ-45)
LINK/ACT (RJ-45)

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

IMC100T

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

IMC1000T

1	Enable/disable power alarm
2	Link Loss Forwarding

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 and 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