



## IMC-1000

10/100/1000Base-T to 100/1000Base-SX/LX  
Fiber Converter

## IMC-1000S

10/100/1000Base-T to 100/1000Base-X SFP Slot  
Fiber Converter

IMC-1000(S) is a family of Gigabit Ethernet non-managed media converters that support conversion between electrical 10/100/1000Base-T and optical 100/1000Base-X Ethernet. Simple DIP switch settings allow configuring the UTP port for auto-negotiation or for forced 10/100/1000 speed and half/full duplex as well as for enabling LFPT (Link Fault Pass Through), Ethernet flow control(802.3x) and selecting Switch Mode (store & forward) or Converter Mode (Jumbo frame Pass-through). Housed in rugged DIN rail or wall mountable enclosures, these converters are designed for harsh environments, such as industrial networking and intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications.

### Features

- Redundant dual DC input power 12/24/48VDC (9.6 ~ 60VDC)
- IP30 rugged metal housing and fanless
- Wide operating temperature -20 ~ 75°C (IMC-1000-E, IMC-1000S-E)
- UL60950-1, CE, FCC, Railway traffic EN50121-4 certification
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- Store-and-Forward mode and Pass through mode (set by DIP SW)
- Conversion between 10/100/1000Base-T and 100/1000Base-X Fiber cable interface
- Provides a DIP-Switch to set functions
- Supports LFPT (Link Fault Pass Through)

### Specifications

<b>Standard</b>	IEEE802.3 10Base-T 10Mbit/s Ethernet IEEE802.3u 100Base-TX, 100Base-FX, Fast Ethernet IEEE802.3ab 1000Base-T Gbit/s Ethernet over twisted pair IEEE802.3z 1000Base-X Gbit/s Ethernet over Fiber-Optic IEEE802.3x Flow Control
<b>RJ45 Ports</b>	10/100/1000Base-TX
<b>Fiber Ports</b>	1000Base SX/LX,100Base-FX SC (IMC-1000, IMC-1000-E) SFP Slot (IMC-1000S, IMC-1000S-E)
<b>Data Process Architecture</b>	Store and Forward mode or Pass through mode set by DIP SW
<b>Jumbo Frame</b>	9K bytes
<b>Fiber Parameters</b>	Fiber Cable (Multi-mode): 50/125um, 62.5/125um Fiber Cable (Single-mode): 9/125um Wavelength: 1310nm (Multi-mode/Single-mode) Available distance: (IMC-1000, IMC-1000-E) 500M (Multi-mode SX) 20KM (Single-mode) 40KM (Single-mode) SFP (IMC-1000S, IMC-1000S-E), Distance depend on Fiber Transceiver
<b>Link Fault Pass Through (LFPT)</b>	TX-Fiber: If TX port link down, the media converter will force Fiber port to link down Fiber-TX: If Fiber port link down, the media converter will force TX port to link down
<b>DIP Switch</b>	Off: Alarm For Power Enable On: Alarm For Power Disable Off: Alarm For Port Enable On: Alarm For Port Disable Off: LFPT Disable On: LFPT Enable Off: Switch Mode On: Converter Mode Off: 1000Base-X On: 100Base-FX
<b>Connector</b>	Fiber: SC (Multi-mode, 500M), SC (Single-mode, 20KM, 40KM) (IMC-1000, IMC-1000-E) SFP Slot (IMC-1000S, IMC-1000S-E) RJ-45 Socket: CAT 5e Twisted Pair cable Auto MDI/MDI-X and Auto-Negotiation Function Supports
<b>LED</b>	Per Unit: Power 1 (Green), Power 2 (Green), Fault (Amber) LNK/ACT for Fiber(Green): ON: Connected to network/ OFF: Not connected to network/ BLK: Receive /Transmit Data SFP Fiber speed: Yellow: 1000Base-X Green: 100Base-FX
<b>LED</b>	RJ-45 port: Speed: 10 (OFF), 100 (Green), 1000 (Yellow) LNK/ACT for RJ45(Green): ON: Connected to network/ OFF: Not connected to network/ BLK: Networking is active
<b>Reserve Polarity Protection</b>	Present
<b>Overload Current Protection</b>	Present

<b>Power Supply</b>	12/24/48VDC (9.6~60VDC) , Redundant power with polarity reverse protect function and removable terminal block Provide DC Power JACK adapter cable for external Power adapter
<b>Power Consumption</b>	4.2W
<b>Alarm Relay Contact</b>	Relay outputs with current carrying capacity of 1 A @24VDC
<b>Removable Terminal Block</b>	Provide 2 Redundant power, Alarm relay contact
<b>Operating Humidity</b>	5% ~ 95% (Non-condensing)
<b>Operating Temperature</b>	-10 ~ 60°C (IMC-1000, IMC-1000S) -20 ~ 75°C (IMC-1000-E, IMC-1000S-E)
<b>Storage Temperature</b>	-40 ~ 85°C
<b>Housing</b>	Rugged Metal, IP30 Protection and fanless
<b>Dimensions</b>	106 x 38 x 142 mm (D x W x H)
<b>Weight</b>	630g (IMC-1000, IMC-1000-E) 620g (IMC-1000S, IMC-1000S-E)
<b>Installation</b>	DIN Rail or wall mounting
<b>MTBF</b>	563,813Hrs (IMC-1000, IMC-1000-E) 578,980Hrs (IMC-1000S, IMC-1000S-E)
<b>Warranty</b>	5 years
<b>Certification</b>	
<b>EMC</b>	CE
<b>EMI (Electromagnetic Interference)</b>	FCC Part 15 Subpart B Class A, CE EN55022 Class A
<b>Railway Traffic</b>	EN50121-4
<b>Immunity for Heavy Industrial Environment</b>	EN61000-6-2
<b>Emission for Heavy Industrial Environment</b>	EN61000-6-4
<b>EMS</b>	EN61000-4-2 (ESD) Level 3, Criteria B EN61000-4-3 (RS) Level 3, Criteria A EN61000-4-4 (Burst) Level 3, Criteria A EN61000-4-5 (Surge) Level 3, Criteria B EN61000-4-6 (CS) Level 3, Criteria A EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A
<b>Safety</b>	UL60950-1
<b>Shock</b>	IEC 60068-2-27
<b>Freefall</b>	IEC 60068-2-32
<b>Vibration</b>	IEC 60068-2-6

## Application & Topology

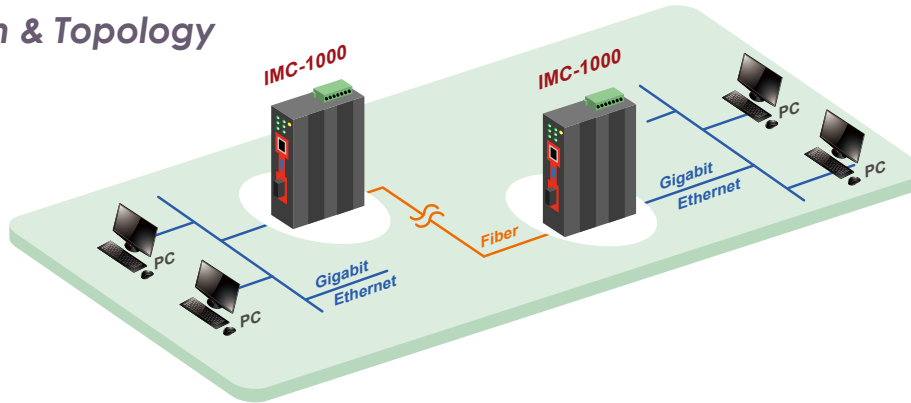
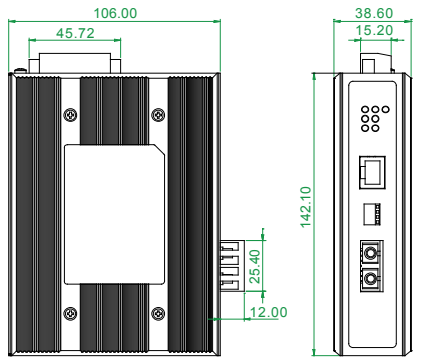


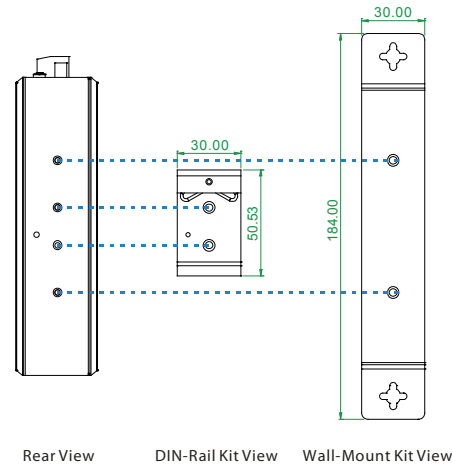
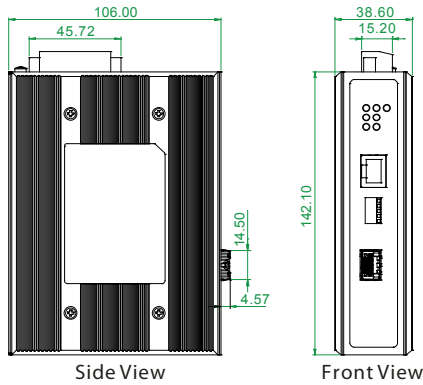
Figure : IMC-1000 Media Converter Transmission

## Dimensions

IMC-1000(E)



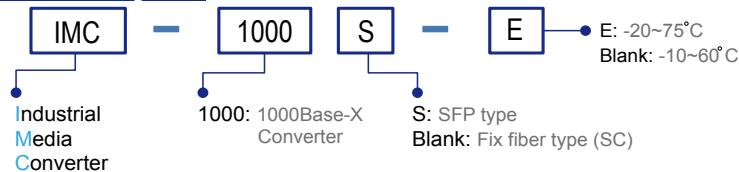
IMC-1000S(E)



## Ordering Information

Model Name	UTP		Fiber		Certification				Operating Temperature	
	10/100/1000 Base-T		Dual Speed 100/1000Base-X		Safety UL60950-1	Railway EN50121-4	EN61000-6-2 EN61000-6-4	CE		FCC
IMC-1000	1		1 SC		V	V	V	V	V	-10~60°C
IMC-1000-E	1		1 SC		V	V	V	V	V	-20~75°C
IMC-1000S	1		1 SFP		V	V	V	V	V	-10~60°C
IMC-1000S-E	1		1 SFP		V	V	V	V	V	-20~75°C

### Model Naming Rule

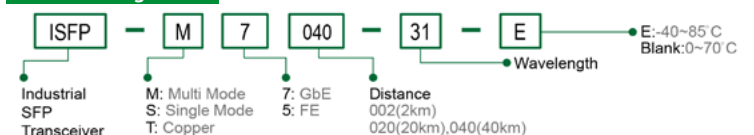


Connector Type	Connectivity Distance
SC	001:500M (M/M) 002 : 2km (M/M) 020:20km (S/M) 040:40km (S/M)
(IMC-1000 & IMC-1000-E only)	020A: WDM 20km A type (TX:1310nm) 020B: WDM 20km B type (TX: 1550nm)type

### Accessories

DR-4524	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 48W, -10 ~ +50°C
MDR-40-24	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 40W, -20 ~ +70°C
SFP Transceiver	Compatible, Reliable, 5-year Warranty

### SFP Naming Rule



Example: IMC - 1000 - E - SC002