

# Industrial Managed PoE Media Converter



# 12

## IMC-1000MS-PH12

1x GbE RJ45 to 100/1000Base-X SFP with PoE PSE (30W, 12/24/48VDC)

- » 12/24/48VDC (9.6~57VDC) Redundant Dual Power input
- » Regulate PoE Output Voltage (52VDC) to Stabilize PoE Device, and Guarantee Delivery PoE Power Distance to 100m
- » SNMP, Web Based and In-Band Management, Remote Loop-Back Test
- » Supports LFPT (Link Fault Pass Through) and FEF (Far End Fault)
- » EN50121-4, EN61000-6-2, EN61000-6-4, CE and FCC Certified



Industrial managed media converter with 1 Gigabit UTP port and 1 100/1000Mbps SFP slot for copper and fiber interface conversion, Not only it supports the PoE+ standard IEEE802.3af/at to inject up to 30 watts of power into PoE devices, but it also supports 12Vdc boost. IMC-1000MS-PH12 converter is designed for harsh environments, such as IP surveillance, industrial networking, intelligent transportation systems (ITS) and is also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications.

### Features

- Conversion between 10/100/1000Base-T and 100/1000Base-X fiber cable interface
- Provides IEEE 802.3at PoE output (30W)
- IP30 rugged metal housing and fanless
- Supports Jumbo frame 9K bytes packet
- Ingress/Egress bandwidth control with 64K granularity
- PoE configuration and monitor
- Supports EMS Management

### Specifications

<b>Standard</b>	IEEE 802.3	10Base-T 10Mbit/s Ethernet
	IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet
	IEEE 802.3ab	1000Base-T Gbit/s Ethernet over twisted pair
	IEEE 802.3z	1000Base-X Gbit/s Ethernet over Fiber-Optic
	IEEE 802.3x	Flow Control and Back pressure
	IEEE 802.3at	PoE+ (Power over Ethernet enhancement)
	IEEE 802.3af	PoE (Power over Ethernet)
	IEEE 802.1q	Tag VLAN
	<b>Fiber Ports</b>	SFP slot for 100Base-X or 1000Base-X, 100M/1000M speed set by Web
<b>RJ45 Ports</b>	10/100/1000Base-T Auto MDI/MDI-X and Auto negotiation Function Supports UTP CAT.5e Twisted Pair cable	
<b>Push Button</b>	Reset, Load default setting	
<b>Data Process Architecture</b>	Pass through mode	
<b>Jumbo Frame</b>	9K bytes	
<b>LFPT (Link Fault Pass Through)</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>Far-End Fault (FEF)</b>	Work with LFPT to prevents data loss	

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12

<b>Connector and Pin Assignment</b>	SFP Slot				
	RJ-45 Socket: Cat 5e (10/100/1000Mbps) Twisted Pair cable				
	Auto MDI/MDI-X and Auto negotiation Function				
<b>Connector and Pin Assignment</b>	RJ-45 Port support IEEE 802.3at/af End-Span, Alternative A mode				
	PoE (V+): RJ-45 pin 1, 2				
	PoE (V-): RJ-45 pin 3, 6 Data (1,2,3,6,4,5,7,8)				
<b>LED</b>	Per Unit: Power 1 (Green), Power 2 (Green), Fault (Amber)				
	Fiber LNK/ACT (Green): ON : Connected to network, OFF: Not connected to network, BLK : Receive /Transmit data				
	Fiber Speed: Yellow : 1000Base-X, Green : 100Base-X				
	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				
	PoE : On (Green) Flash : PoE Fault (Over-load or short), ON : PoE normal working, OFF : PoE No power output				
<b>Reverse Polarity Protection</b>	Supported for Power Input				
<b>Overload Current Protection</b>	Supported				
<b>Alarm Relay Contact</b>	Relay outputs with current carrying capacity of 1A @24VDC				
<b>Removable Terminal Block</b>	Provides 2 redundant power, alarm relay contact, 6 Pin				
<b>Operating Humidity</b>	5% ~ 95% (Non-condensing )				
<b>Operating Temperature</b>	-20 ~ 75°C				
<b>Storage Temperature</b>	-40 ~ 85°C				
<b>Housing</b>	Rugged Metal, IP30 Protection and fanless				
<b>Dimensions</b>	106 x 62.5 x 135mm (D x W x H)				
<b>Weight</b>	650g				
<b>Installation</b>	DIN Rail mounting or wall mounting (Optional)				
<b>Power Supply</b>	12/24/48VDC (9.6~57VDC), Redundant power with polarity reverse protect function and removable terminal block				
	Built-in very high efficiency booster(97~99%) to rise up 52VDC for PoE output				
	Regulated PoE output voltage (52VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100meter				
<b>PoE Power Budget</b>	30W				
<b>Power Consumption</b>	<b>Power consumption &amp; Boost efficiency</b>				
	<b>Input Voltage</b>	<b>Total Power Consumption</b>	<b>Device Power Consumption</b>	<b>PoE Budget</b>	<b>Boost Efficiency</b>
	12VDC	34.2W	3.9W	30W	99.0%
	24VDC	34.7W	4.4W	30W	99.0%
48VDC	35.4W	4.7W	30W	97.7%	
<b>MTBF</b>	864,121 Hours (MIL-HDBK-217)				
<b>Warranty</b>	5 years				
<b>Certification</b>					
<b>EMC</b>	CE				
<b>EMI</b>	FCC Part 15 Subpart B Class A, CE				
<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 (Electromagnetic Susceptibility) Protection Level</b>	EN61000-4-2 (ESD) Level 3, Criteria B				
	EN61000-4-3 (RS) Level 3, Criteria A				
	EN61000-4-4 (EFT) Level 3, Criteria A				
	EN61000-4-5 (Surge) Level 3, Criteria B				
	EN61000-4-6 (CS) Level 3, Criteria A				
	EN61000-4-8 (PFMF) Field strength 300A/m Criteria A				
<b>Shock</b>	IEC 60068-2-27				
<b>Freefall</b>	IEC 60068-2-32				
<b>Vibration</b>	IEC 60068-2-6				

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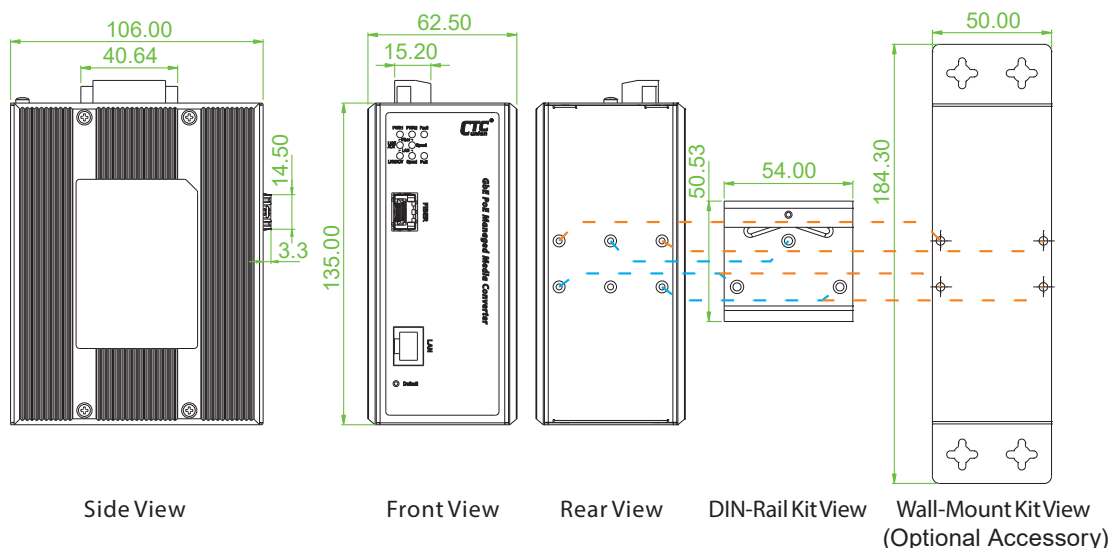
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## Software Specifications

### SNMP or Web Mode

<b>Management</b>	Ingress/Egress bandwidth control with 64K granularity Web management, Firmware upgrade via Web Supports SNMP, MIB for management Supports 802.1Q tag VLAN, 16 Tag VLAN group, MIB counters display
<b>Configuration</b>	IP Configuration, Password Setting, Converter Configuration, Port Configuration, VLAN Group Configuration, Alarm Configuration and PoE Configuration
<b>Diagnostic &amp; Monitor</b>	Supports Link Fault Pass-Through (LFPT) Function, Broadcast/Multicast/Unicast Storm Filter, SNMP Alarm Trap for Power Loss and Port Link Up/Down, and PoE Status
<b>In-Band Remote mode</b>	
<b>Management</b>	Supports in-band management from FRM220 Chassis With FRM220-1000MS card Ingress/Egress bandwidth control with 64K granularity
<b>Configuration</b>	IP Configuration, Converter Configuration, Port Configuration, MIB Counter, VLAN Group Configuration, Alarm Configuration and PoE Configuration
<b>Diagnostic &amp; Monitor</b>	Remote loop back test Supports Link Fault Pass-Through (LFPT) Function Broadcast/Multicast/Unicast storm filter PoE Status

## Dimensions



## Ordering Information

Model Name	Managed	RJ45		SFP		PoE		Power Input		Certification			Operating Temperature
		10/100/1000 Base-T(X)	1	Dual Speed 100/1000Base-X	1	IEEE802.3af/at (PSE)	Power Budget	Redundant	12/24/48VDC	EN50121-4	EN61000-6-2 EN61000-6-4	CE FCC	
IMC-1000MS-PHE12	V	1	1	1	30W	12/24/48VDC	V	V	V	-20~75°C			

## Optional Accessories

### ■ Wall Mount Kit

IND-WMK02 Wall Mount kit for Industrial product, 184 x 50mm

### ■ Industrial SFP Transceiver

The ISFP series of industrial grade SFP modules have been fully tested with all CTC Union industrial grade Ethernet switches for guaranteed compatibility and performance. Best performance can be guaranteed, even in mission-critical applications. (Please see CTC Union's Industrial SFP datasheets for more items and detailed information.)

ISFP-M7000-85-D(E)	Industrial SFP GbE 1000Base-SX, M/M, 500 meter, wave length 850nm, 7.5dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-S7020-31-D(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-T7T00-00-(E)	Industrial SFP 10/100/1000Base-T UTP 100meter, -10~70°C (-40~85°C)
ISFP-M5002-31-D(E)	Industrial SFP 155M 100Base-FX, MM, 2km, wave length 1310nm, 12dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-S5030-31-D(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, DDMI, -10~70°C (-40~85°C)

### ■ Industrial Power Supply

MDR-40-48 Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ 70°C