Industrial Managed PoE Media Converter

IMC-1001MS-PH

1x GbE RJ45 to 1x 100/1000Base-X SFP with PoE PSE (30W)

◆ *Supports LFPT (Link Fault Pass Through)*
◆ *SNMP, Web Based and In-Band Management,*
◆ *EN50121-4, EN61000-6-2, EN61000-6-4, CE and FCC Certified*

Industrial managed PoE media converter with 1 Gigabit UTP port and 1 100/1000Mbps SFP slot for copper and fiber interface conversion, Supports PoE+ standard IEEE802.3af/at and can inject up to 30 watts of power into PoE equipment to meet the requirements for extended transmission distance, fanless design, high MTBF, supports wide operating temperature, and redundant 48VDC power input, it is suitable for heavy-duty applications in harsh environments such as industrial factory automation and data centers, intelligent transportation systems, military and utility market applications where environmental conditions exceed commercial product specifications.

Features

- Conversion between 100/1000Base-T and 100/1000Base-X Fiber
- Supports Dual Rate (100/1000) SFP for selectable Fast or Gigabit speed on fiber
- Redundant dual DC power input 48VDC
- IP30 rugged metal housing and fanless
- Wide operating temperature -20~75°C
- Supports Digital Diagnostic Monitor Interface (DDMI) for SFP
- Supports EMS Management

Specifications

Standard	IEEE 802.3	10Base-T 10Mbit/s Ethernet
	IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet
	IEEE 802.3ab	1000Base-TX 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
Fiber Ports	100Base-X or 1000Base-X set by Web supports Auto Laser Shutdown (ALS), Supports DDMI for SFP diagnostic	
RJ45 Ports	10/100/1000Base-T Auto MDI/MDI-X and Auto negotiation Function, Supports UTP CAT.5e Twisted Pair Cable	
	Supports 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)	
CPU Watch Dog	Supported	
Jumbo Frame	9K bytes	
Link Fault Pass Through (LFPT)	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	

LED	Fiber Port: LNK/ACT: 100 (Green), 1000 (Amber) ON: Connected to network / OFF: Not connected to network / BLK: Networking is active
	RJ-45 port: LNK/ACT: 10/100 (Green), 1000 (Amber) ON: Connected to network / OFF: Not connected to network / BLK: Networking is active
	PoE Status(Green): ON: PoE normal working / OFF : PoE No Power output
Reverse Polarity Protection	Supported for power Input
Overload Current Protection	Supported
Power Supply	48VDC (44~57VDC), Redundant power with polarity reverse protect function and removable terminal block
PoE Power Budget	30W

Power Consumption	Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget
	48VDC	33.4W	3.2W	30W

Removable Terminal Block	Provides 2 redundant power, 4 Pin
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperature	-20 ~ 75°C
Storage Temperature	-40 ~ 85°C
Housing	Rugged Metal, IP30 Protection and fanless
Dimensions	70 x 30 x 103mm (D x W x H)
Weight	230g
Installation	DIN Rail mounting or wall mounting (Optional)
MTBF	1,153,428 Hours (MIL-HDBK-217)

Certification

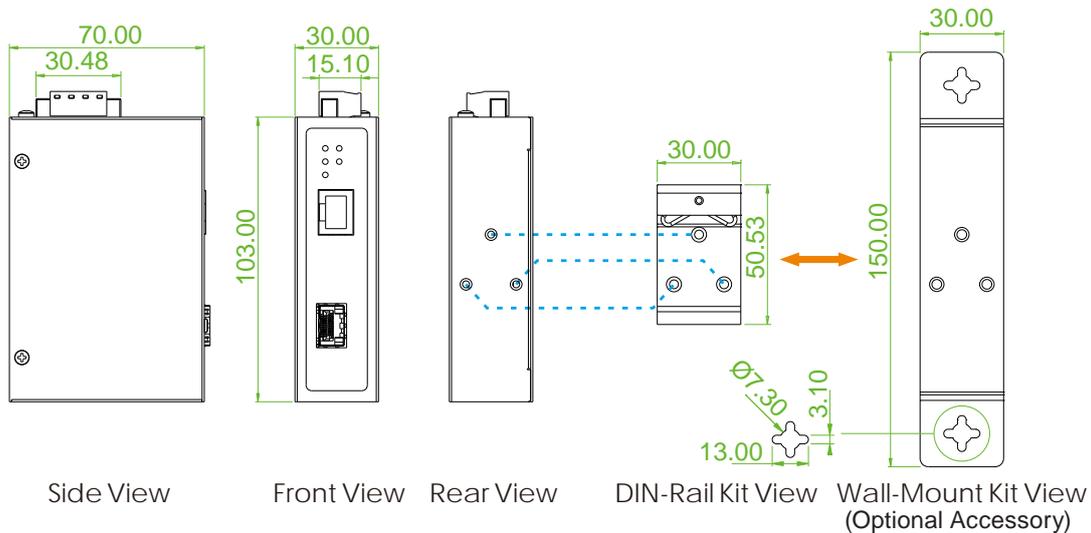| EMI	CE
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE
Railway Traffic	EN50121-4
Immunity for Heavy Industrial Environment	EN61000-6-2
Emission for Heavy Industrial Environment	EN61000-6-4
EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria 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
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Software Specifications

SNMP or Web Mode

Management	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
Configuration	IP Configuration, Password Setting, Converter Configuration, Port Configuration, MIB Counter, SNMP Configuration, VLAN Group Configuration
Diagnostic & Monitor	Supports Link Fault Pass-Through (LFPT) Function, Broadcast/Multicast/Unicast Storm Filter, SNMP Alarm Trap for Power Loss and Port Link Up/Down

In-Band Remote mode

Management	Supports in-band management from FRM220 Chassis with FRM220-2000MS card
	Egress bandwidth control with 64K granularity
Configuration	IP Configuration, Converter Configuration, Port Configuration, MIB Counter, VLAN Group Configuration, Alarm Configuration
Diagnostic & Monitor	Supports Link Fault Pass Through (LFPT) Function, Broadcast/Multicast/Unicast Storm Filter

Dimensions

Side View   Front View   Rear View   DIN-Rail Kit View   Wall-Mount Kit View
(Optional Accessory)

Ordering Information

Model Name	Managed	RJ45 10/100/1000 Base-T(X)	SFP Dual Speed 100/1000Base-X	Power Input Redundant	Certification EN50121-4	EN61000-6-2 EN61000-6-4	CE FCC	Operating Temperature
IMC-1001MS-PH	V	1	1	48VDC	V	V	V	-20~75°C

Optional Accessories

■ Wall Mount Kit

IND-WMK01	Wall Mount kit for Industrial product, 184 x 30mm

■ 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-20-24	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ 70°C
MDR-40-48	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ 70°C