# 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 | |

**72**

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|---|---|
| **LED** | Fiber Port:<br>LNK/ACT: 100 (Green), 1000 (Amber) ON: Connected to network / OFF: Not connected to network / BLK: Networking is active |
| | RJ-45 port:<br>LNK/ACT: 10/100 (Green), 1000 (Amber) ON: Connected to network / OFF: Not connected to network / BLK: Networking is active |
| | PoE Status(Green):<br>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 |

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| **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) |
| **Warranty** | 5 years |

## Certification

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|---|---|
| **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 |

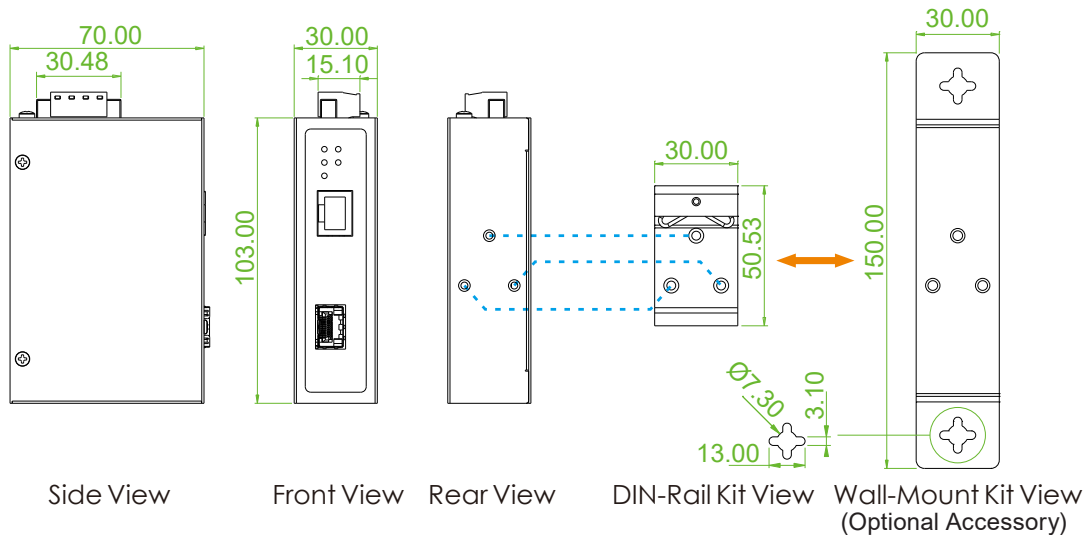## Software Specifications

### SNMP or Web Mode

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|---|---|
| **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 |

# Industrial Managed PoE Media Converter

CTC union®

## In-Band Remote mode

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|---|---|
| **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 |

## 12

## Dimensions



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

## Ordering Information

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

## Optional Accessories

### ■ Wall Mount Kit

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|---|---|
| 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.)

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|---|---|
| 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

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|---|---|
| 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 |