

IMC-1000WS-PB

Web Managed 1x GbE RJ45 to 100/1000Base SFP with IEEE802.3bt PoE PSE (90W)



- SNMP, Web based, OAM, Remote Loop-Back test
- Supports LFPT (Link Fault Pass Through)
- Support IEEE802.3af/at/bt type 4 PoE upto 90W

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CTC's web smart gigabit Ethernet media converter, the IMC-1000WS-PB, is a 10/100/1000Base-T to 100/1000Base-X converter which not only offers dual-speed fixed fiber transceiver or SFP cage module options for the optical interface, but also injects IEEE802.3af/at/bt PoE++ power through the electrical RJ-45 port. Housed in rugged DIN rail or wall mountable enclosures, IMC-1000WS-PB media 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
- Redundant 48VDC power input
- IP30 rugged metal housing and fanless
- Supports Jumbo frame 16K bytes packet
- DHCP, Auto Provision, STNP, VLAN, QoS, Dual firmware image
- PoE PD auto check and auto Reset, Weekly schedule

Specifications

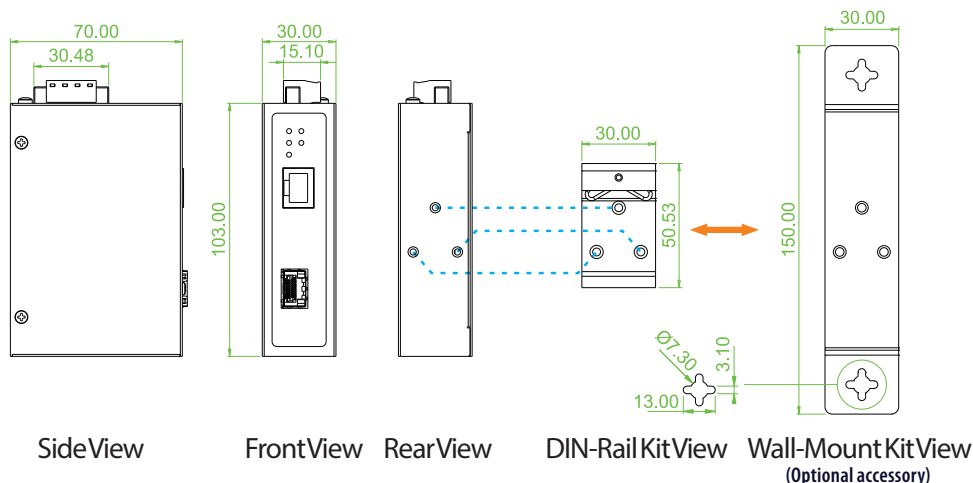
Standard	IEEE 802.3 10Base-T 10Mbit/s Ethernet IEEE 802.3u 100Base-TX, 100Base-FX, Fast Ethernet IEEE 802.3ab 1000Base-T Gbit/s Ethernet over twisted pair IEEE 802.3z 1000Base-X Gbit/s Ethernet over Fiber-Optic IEEE 802.3x Flow Control and Back pressure IEEE802.3bt PoE++ IEEE 802.3at PoE+ (Power over Ethernet enhancement) IEEE 802.3af PoE (Power over Ethernet) IEEE 802.1q Tag VLAN
Fiber Ports	SFP slot for 100Base-X or 1000Base-X, 100M/1000M speed set by Web
RJ45 Ports	10/100/1000Base-T Auto MDI/MDI-X and Auto-Negotiation Function Supports UTP CAT.5e Twisted Pair cable Reset, Load default setting
Push Button	
Data Process Architecture	Pass Through or Store and Forward mode
Jumbo Frame	16K bytes
Fiber Parameters	Fiber Cable (Multi-mode): 50/125um,62.5/125um Fiber Cable (Single-mode): 9/125um SFP, Distance depending on plugged-in Fiber Transceiver
LFPT (Link Fault Pass Through)	Fiber-TX: If Fiber port link down, the media converter will force TX port to link down
Connector and Pin Assignment	SFP Slot RJ-45 Socket: Cat 5e (10/100/1000Mbps) Twisted Pair cable Auto MDI/MDI-X and Auto-Negotiation Function Support
Connector and Pin Assignment	RJ-45 Port support IEEE802.3af/at/bt End-Span, Alternative A mode PoE (V+): RJ-45 pin 1, 2, 4, 5 PoE (V-): RJ-45 pin 3, 6, 7, 8 Data (1, 2, 3, 6, 4, 5, 7, 8)
LED	Per Unit: Power 1 (Green), Power 2 (Green) Fiber LNK/ACT (Green): ON : Connected to network, OFF: Not connected to network, BLK : Receive /Transmit Data Fiber Speed: Amber: 1000Base-X, Green : 100Base-X RJ-45 port: Speed: 10 /100 (Green), 1000 (Amber) LNK/ACT for RJ45(Green): 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								
Removable Terminal Block	Provide for 2 Redundant power, 4 Pin								
Operating Humidity	5%~95% (Non-condensing)								
Operating Temperature	-20°C ~ 70°C								
Storage Temperature	-40°C ~ 85°C								
Housing	Rugged Metal, IP30 Protection and fanless								
Dimensions	70 x 30 x 103 mm (D X W X H)								
Weight	245g								
Installation	DIN Rail mounting, or wall mounting (Optional)								
Power Supply	48VDC (44~57VDC), Redundant power with polarity reverse protect function and removable terminal block Below recommend is for difference PoE application: 55~57VDC VDC for 90W (4 Pairs) 52~57VDC for 60W (4 Pairs) 52~57VDC for 30W (2 Pairs) 44~57VDC for 15.4W (2 Pairs)								
PoE Power budget	90W								
Power Consumption	<table border="1"> <thead> <tr> <th>Input Voltage</th> <th>Total Power Consumption</th> <th>Device Power Consumption</th> <th>PoE Budget</th> </tr> </thead> <tbody> <tr> <td>55VDC</td> <td>98.5W</td> <td>5.0W</td> <td>90W</td> </tr> </tbody> </table>	Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget	55VDC	98.5W	5.0W	90W
Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget						
55VDC	98.5W	5.0W	90W						
MTBF	1,178,420 Hours MIL-HDBK-217								
Warranty	5 years								
Certifications									
EMC	CE (EN55032, EN55035)								
EMI	FCC Part 15 Subpart B Class A, CE								
EMS (Electromagnetic Susceptibility) Protection Level	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								
Shock	IEC 60068-2-27								
Freefall	IEC 60068-2-31								
Vibration	IEC 60068-2-6								

Software Specifications

Management	Support Web management	Diagnostic & Monitor	Supports Link Fault Pass-Through (LFPT) Function	
	Support IPv4/6 DHCP, Auto Provision		Remote loop back test	
	Support OAM, Remote Loop-Back test		PoE Status	
	Support SNMP, QoS,		PoE	PoE Weekly schedule
	Firmware upgrade by TFTP or Web			PoE PD auto checking and auto reset when PD fail.
Configuration	Dual firmware image	PoE Configuration		
	Supports 802.1Q tag VLAN	Diagnostic PoE status		
	IP configuration, password setting, converter configuration			
	port configuration			
	VLAN group configuration, alarm configuration			
	PoE Configuration			
	Download/Upload setting parameter			

Dimensions



Ordering Information

Model Name	Managed	RJ45 UTP	Fiber	PoE Port		Power Input	Certification		Operating Temperature
		10/100/1000 Base-T	Dual Speed 100/1000Base-X	IEEE802.3af/at/bt (PSE)	Power Budget	Redundant	CE	FCC	
IMC-1000WS-PBE	V	1	1 SFP	1	90W	48VDC	V	V	-20~70°C

■ Related Product

IRC200-CH20	Industrial Converter Chassis, 20 Module slot
IRC200-2000MS	Industrial Managed 10/100/1000Base-T RJ45 to 100/1000Base-X SFP Media Converter for IRC200 Chassis
IMC-1001MS	Managed 10/100/1000Base-T RJ45 to 100/1000Base-X SFP Media Converter
IMC-1001CS	10/100/1000Base-T RJ45 to 100/1000Base-X SFP Media Converter

■ Package List

- IMC-1000WS-PB device
- Terminal block
- Din Rail bracket with screws
- Protective caps for SFP ports

Optional Accessories

■ Wall Mount Kit

IND-WMK03	Wall Mount kit for Industrial product, (Compact 150 x 30mm)
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■ 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

NDR-120-48	Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 120W, -20 ~ +70°C (For IMC-1000WS-PB)
NDR-240-48	Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 240W, -20 ~ +70°C (For more reserve)