IMC-1000S-PB

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

- Supports LFPT (Link Fault Pass Through)
- Support Store & Forward, or Pass through mode

IMC-1000S-PB is a 10/100/1000Base-T to 100/1000Base-X GbE media 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-1000S-PB 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

- Provides IEEE 802.3af/at/bt Type 4 PoE output (Up to 90W)
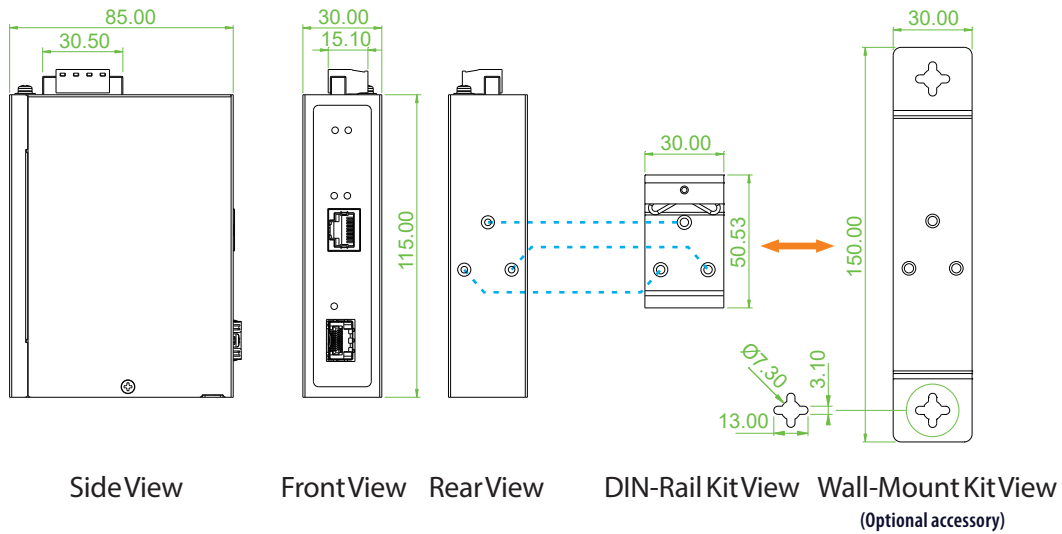- Supports DIP SW for setting LFPT, Store & Forward or Pass through mode, and SFP speed

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)
Fiber Ports	SFP slot for 100Base-X or 1000Base-X, 100M/1000M speed set by DIP SW
RJ45 Ports	10/100/1000Base-T Auto MDI/MDI-X and Auto-Negotiation Function Supports UTP CAT.5e Twisted Pair cable
Data Process Architecture	Store and Forward
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 Tranceiver
LFPT (Link Fault Pass Through)	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

DIP SW	SW1 LFTP
	    Off : LFPT Disable
	    On: LFPT Enable
	SW2 Data process Architecture
	    Off : Store and Forward Switch mode
	    On : Pass through mode
	SW3 Fiber Speed
	    Off: 1000BaseX
	    On: 100Base X
	SW4 Reserve

Connector and Pin Assignment	SFP slot support 100/1000M SFP transceiver
	RJ-45 Socket: Cat 5e (10/100/1000Mbps) Twisted Pair cable
	Auto MDI/MDI-X and Auto-Negotiation Function
	Support IEEE 802.3at/af 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: 1000 Link/Act (Amber) 100 Link/Act (Green) Blk: Networking is active
	RJ-45 port: Speed: LNK/Act 1000 (Amber) LNK/Act 10/100 (Green)
	PoE Status (Green): ON : PoE normal working, Blink : PoE inative
Reverse Polarity Protection	Supported for Power Input
Overload Current Protection	Supported
Removable Terminal Block	Provides 2 redundant power PWR1 and PWR2, 4 Pin
Operating Humidity	5%~95% (Non-condensing)
Operating Temperature	-20℃ ~ 70℃
Storage Temperature	-40℃ ~ 85℃
Housing	Rugged Metal, IP30 Protection and fanless
Dimensions	80 x 30 x 115mm (D x W x H)
Weight	340g
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

Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget
54 VDC	94.5W	3.8W	90W

MTBF	1,432,119 Hours MIL-HDBK-217
Warranty	5 years

Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.   www.ctcu.com / sales@ctcu.com

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Certifications	
EMC	CE (EN55035, EN55032)
EMI	FCC Part 15 Subpart B Class A, CE

Shock	IEC 60068-2-27
Freefall	IEC 60068-2-31
Vibration	IEC 60068-2-6

Dimensions

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

Ordering Information

Model Name	RJ45 UTP	Fiber	PoE Port		Power Input	Certification		Operating Temperature
	10/100/1000 Base-T	Dual Speed 100/1000Base-X	IEEE803.3af/at/bt	Power Budget	Redundant	CE	FCC	
IMC-1000S-PB-E	1	1 SFP	1	90W	48VDC	V	V	-20~70℃

■ Package List
- IMC-1000S-PB device
- Din Rail bracket with screws
- Terminal block
- Protective caps for SFP ports

Optional Accessories

■ Wall Mount Kit

IND-WMK03	Wall Mount kit for Industrial product (Compact, 150 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℃ (-40~85℃)
ISFP-S7020-31-D(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, DDMI, -10~70℃ (-40~85℃)
ISFP-T7T00-00-(E)	Industrial SFP 10/100/1000Base-T UTP 100meter, -10~70℃ (-40~85℃)
ISFP-M5002-31-D(E)	Industrial SFP 155M 100Base-FX, MM, 2km, wave length 1310nm, 12dB, LC, DDMI, -10~70℃ (-40~85℃)
ISFP-S5030-31-D(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, DDMI, -10~70℃ (-40~85℃)

■ Industrial Power Supply

NDR-120-48	Industrial Power, Input 90 ~ 264VAC/127 ~ 370VDC, Output 48VDC, 120W, -20 ~ +70℃