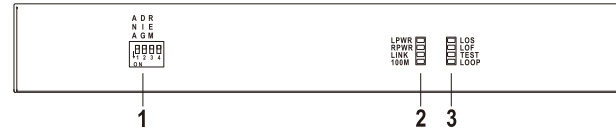


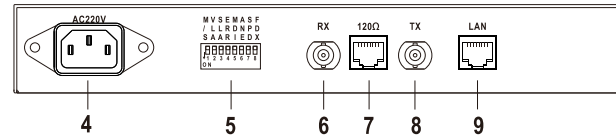
Desktop Ethernet / E1 protocol converter Quick Installation Guide

【Panel Design】

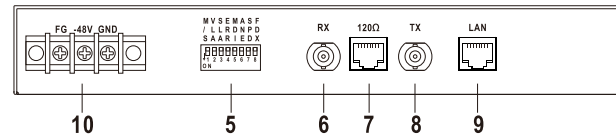
➤ Front view



➤ Rear View



Model I, Model III

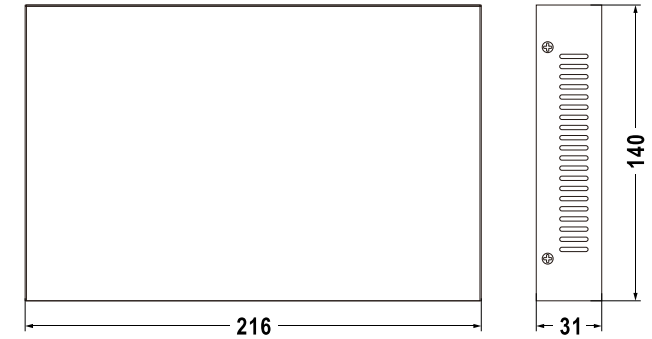


Model II

1. DIP switch
2. Power supply indicator, Ethernet port LINK indicator and 100M indicator
3. E1 interface indicators: LOS, LOF, TEST, LOOP
4. 220VAC terminal block for power input
5. 8 bits DIP switch
6. Unbalanced input interface of E1-75Ω WAN (RX)
7. Balanced input and output interface of E1-120Ω WAN
8. Unbalanced output interface of E1-75Ω WAN (TX)
9. 10/100M Ethernet port (LAN)
10. -48VDC power input terminal

【Mounting Dimension】

Unit: mm



Notice before mounting:

- Don't place or install the device in area near water or moist, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before power on, first confirm the supported power supply specification to avoid over-voltage damaging the device.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.



Notice before power on:

- Power ON operation: First insert the power supply terminal block into the device power supply interface, then plug the power supply plug contact and power on.
- Power OFF operation: First, remove the power plug, then remove the wiring section of terminal block. Please pay attention to the above operation sequence.

【Package Checklist】

Please check the integrity of package and accessories while first using the product.

1. Protocol converter
2. Power line (AC product only)
3. Quick Installation Guide

If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

【Product Overview】

The product is a 1 Ethernet to 1 E1 protocol converter. Models are as follows:

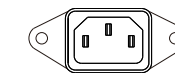
Model I. 1 10/100M copper port +1 E1 interface +1 220VAC power supply

Model II. 1 10/100M copper port +1 E1 interface +1 -48VDC power supply

Model III. 1 10/100M copper port +1 E1 interface +1 100~220VAC/DC power supply

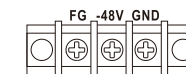
【Power Supply Connection】

➤ 220 VAC power input



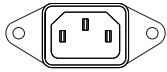
Model I supports 1 AC power input and adopts 3-pin AC socket. Power input: 220VAC.

➤ -48VDC power input



Model II supports 1 DC power input and adopts 3-pin terminal blocks. The pin definitions of power supply are as the left figure. Power input: -48VDC.

➤ 110~220VAC/DC power input



Model III supports 1 DC power input and adopt 3-pin AC socket. Power input range: 110~220VAC/DC.

【E1 Port Connection】



The device provides 1 E1 port, interface type is BNC or RJ45, interface impedance is 75Ω unbalanced (BNC) and 120Ω balanced (RJ45). 120Ω RJ45 pins are defined as follows:

Pin No.	Pin Definition
1	TX+(E1 TXD+)
2	TX-(E1 TXD-)
4	RX+(E1 RXD+)
5	RX-(E1 RXD-)
3, 6-8	NC

【DIP switch】

The device provides 2 groups of DIP switches to debug function, clock and Ethernet mode, etc. The functions are defined as follows.

The settings of 4-PIN DIP switch on front panel are as follows:

DIP	Definition	Function Description
1	ANA	For E1 Interface local loop to check whether local device and its connected circuit are correct or not.
2	DIG	For 10/100BASE-T Local loop to check the opposite device and optical circuit.
3	REM	Invalidate for unframing.
4	PAT	Reserved. Under the test mode, the device will sent the testing data real time and detecting if there is any loop on the network.



Note:

- When the test LED on, the normal communication will be terminated.
- The LOOP LED will on if there is any loopback on the network:

- ANA on: local LOOP on.
- DIG on: remote LOOP on.
- REM on: local LOOP on.

The settings of 8-PIN on the back panel are as follows:

DIP	Definition	Function Description
1	M/S	Clock set: OFF: master (internal clock), ON: slave
2	VLA	Reserved
3	SLA	Command remote to follow the local setting: OFF: enable, ON: disable
4	ERR	Link fault pass through to Ethernet (optional) OFF: enable, ON: disable
5	MDX	OFF:AUTO-MDIX, ON:MDI
6	ANE	OFF: Auto-negotiation, ON: forcing mode
7	SPD	OFF:100M, ON:10M
8	FDX	OFF: full duplex, ON: half duplex

【Indicator】

The device provides LED indicators to monitor its operating status, which has simplified the overall troubleshooting process. The function of each LED is described in the table below:

LED	Description
LPWR	Active Green, signifying the local device is power on.
RPWR	Active Green, signifying the remote device is power on.
LINK	Active Green, signifying a valid 10/100BaseT connection.
100M	Active Green, signifying the rate is 100M.
LOS	Active Red, signifying E1 signal Lost.
LOF	Active Red, signifying E1 Frame lost.
TEST	Active Red, signifying the device is on test status.

LED	Description
LOOP	Active Red, signifying there is loop on the network.



Note:

- LOS on & RPWR off: the remote device is power off.
- LOS on & RPWR on: E1 line is cut off.
- LOS off & RPWR on: normal.



Notice:

There may be some mistakes when all indicating lights winks, (except for the PWR light);

- Both of the device are on the status of line clock;
- Both of the device are on the status of master clock while the rate setting is different;
- The test key connecting is incorrect which cause into the dead cycle.

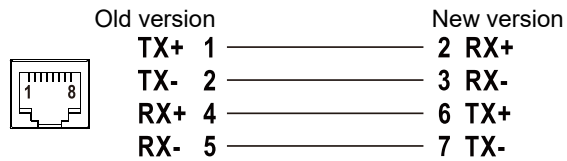
【Specification】

Panel	
Ethernet port	1 10/100M, full duplex/half duplex configurable Ethernet RJ45
E1 Interface	1 E1, BNC or RJ45, 75Ω unbalanced (BNC) and 120Ω balance (RJ45)
Indicator	Power supply indicator, Ethernet connection/rate indicator, E1 alarm/test/loopback indicator
Power Supply	
Power input	Model I: 220VAC, adopting AC power outlet; Model II: -48VDC, adopting 3-pin terminal blocks; Model III: 110~220VAC/DC, adopting AC power outlet

Power Consumption	
Full-load	≤5W
Working Environment	
Working temperature	-10~60°C
Storage temperature	-40~85°C
Working humidity	5%~95% (no condensation)

【Frequently Asked Questions】

1. When transmitting data between old version device and new version one via E1 balance, the RJ45 connection method is as follows.



2. When transmitting data via E1 BNC, the E1 BNC connection method is as follows.

