



MODEL7212

10/100M Ethernet to FE1 Bridge User Manual

Introduction:

MODEL7212 bridge provides easy conversion from ITU-T G.703 E1 channel to Ethernet interface. Can used widely in connecting between WAN and LAN, monitoring, etc. The Ethernet interface is 10/100Mbps auto negotiation and can be full/half duplex. The E1 is transparent and in full rate, which can support the E1 unframed mode, including fractional E1 per request. A pair of MODEL7212 offer a cost effective solution for using existing E1 leased lines for transparent Ethernet service. Local management of the MODEL7212 Converter is provided via DIP switches. Front panel LEDs monitor the G.703 link, Ethernet LAN and serial ports for status and Loss of Sync. MODEL7212 compact G.703 Access Converter provides E1/2.048 Mbps Network Termination as well as serial or Ethernet LAN interface conversion in a standalone or rack mount package. MODEL7212 terminates the G.703 Telco interface and converts the data for transmission to a user-oriented 10/100BaseT(X) interface.

Packing List:

MODEL7212 is shipped with following items.

1. MODEL7212 × 1
2. 220V power line × 1
3. User manual × 1

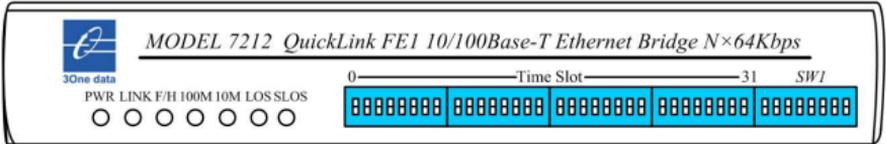
Features:

1. Using E1 line transparent transfer Ethernet data
2. Support $N \times 64\text{Kbps}$ ($N=1 \sim 32$) rate
3. Support local clock and line clock
4. Support pretend random coding loop test
5. E1(G.703)interface support 120ohm(RJ-45)and 75ohm(BNC double coaxial)

6. Ethernet MAC address percolate function
7. Support VLAN over length data bag
8. Ethernet port support 10M/100M full-duplex/half-duplex

Description on Installation and Panels:

1.The product front panel sketch map:



indicator define:

PWR Power indicator. Brightness if electrify.

LINK Ethernet connection constitute.

F/H Ethernet Full/half duplex indicator, bright as full duplex.

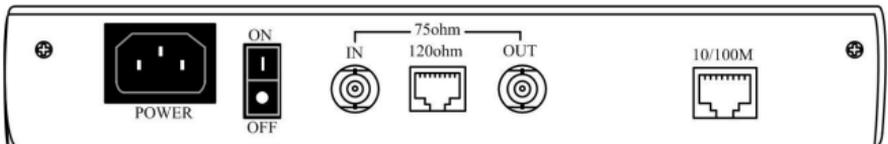
100M Ethernet port 100M indication.

10M Ethernet port 10M indication.

LOS E1 line cut alarm indicator light

SLOS E1 line frame misstep indicator.

2.The product back panel sketch map:



POWER -48VDC/220VAC input choice

ON/OFF power switch

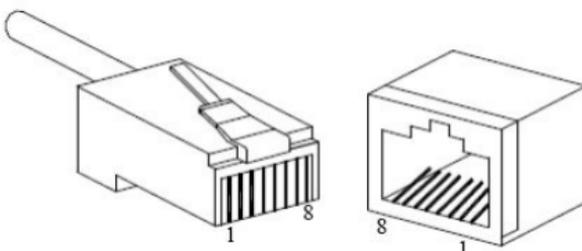
Rx/75 ohm E1-75Ω input

Tx/75 ohm E1-75Ω output

10/100M Ethernet interface(input and output)

Definition of balanced Twisted Pair(120 ohm) wire sequence for E1 and Ethernet interface:

1. Ethernet RJ-45 interface define



NO.	Function define	I/O
1	TX+ (send data +)	output
2	TX- (send data -)	output
3	RX+(receive data +)	input
4	NC(null)	
5	NC(null)	
6	RX-(receive data -)	input
7、8	NC(null)	

2. E1 interface 120 Ω /RJ-45 define

NO.	Function define	I/O
1	NC(null)	
2	RX+(receive data +)	input
3	RX-(receive data -)	input
4	GND(ground)	
5	GND(ground)	
6	TX+(send data +)	output
7	TX-(send data -)	output
8	NC(null)	

DIP switch setup (Function setup switch SW1):

There have a range of DIP switch in the 7212 panel, Time Slot is used to choose E1 time slot, SW1 is used to function setup.

1. Clock choice

NO.1 NO.2

ON OFF inside clock (from Model 7212 panel)

OFF OFF comeback clock (from E1 interface)

2. Ethernet mode choice

NO.3 NO.4 NO.5 Ethernet mode

OFF OFF OFF 10/100M、full/half duplex
auto-negotiation

OFF ON OFF 10/100M auto-negotiation
half duplex

OFF	OFF	ON	10M、 full/half duplex auto-negotiation
OFF	ON	ON	10M、 half duplex
ON	OFF	OFF	100M、 full duplex
ON	ON	OFF	100M、 half duplex
ON	OFF	ON	10M、 full duplex
ON	ON	ON	10M、 half duplex

3. Impedance setup

NO.6	NO.7	NO.8	
ON	ON	ON	75ohm
OFF	OFF	OFF	120ohm

4. E1 time slot choice

Time Slot has 32 switch from left to right, delegate 0-31 time slot.if one switch is ON, it means choice this time slot. All 32 time slots are OFF, it means non-frame format. If the zero time slot is ON, adopt PCM30, OFF, adopt PCM31.

Specifications:

E1 interface

Standard: Comply with ITU-T G.703

Output tingle displace: accord ITU-TG.735 advice

Input tingle limit: accord ITU-TG.823 advice

Output tingle: accord ITU-T G.823 advice

Frame format: framed

Interface rate: $N \times 64\text{Kbps}$ ($N=1 \sim 32$) rate

CRC checkout: no

Port coding: HDB3

Port transmission: 2KM

Port protection: 1500V electromagnetism isolate

Port connector: 120 Ohm(RJ-45) and 75 ohm(BNC double coaxial)

Ethernet port

Interface Types: 10/100BaseT, full/half duplex

Standards Compliance: IEEE 802.3

Bit Rate: 10/100BaseT limited to Max 2.048 Mbps

Connectors: RJ45 (10/100 Base-T Electrical)

Line code: Manchester Encoding

Internal and recover clock

Environment, Power and Dimension

Working temperature: -25 to 70°C

Storage temperature: -40 to 85°C

Humidity: Relative humidity 5% to 95%

Input power: 220VAC or -48VDC

Consumption: 2W

Power protection: From high voltage/short circuit

L×W×H: 227.4mm×146.3mm×42.7mm

Shell: Plastic

Weight: 260g

Warranty: 5 years

Certifications:



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