# MODEL7211

## 10/100M Ethernet to E1 Bridge User Manual

3One data

## Introduction:

MODEL7211 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 MODEL7211 offer a cost effective solution for using existing E1 leased lines for transparent Ethernet service. Local management of the MODEL7211 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. MODEL7211 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. MODEL7211 terminates the G.703 Telco interface and converts the data for transmission to a user-oriented 10/100BaseT(x) interface.

## Packing List:

MODEL7211 is shipped with following items.
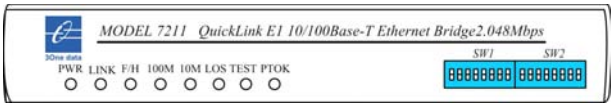
1. MODEL7211 × 1
2. 220V power line × 1
3. User manual × 1

## Features:

1. Using E1 line transparent transfer Ethernet data
2. Support local clock and line clock
3. Support pretend random coding loop test
4. E1(G.703)interface support 120ohm(RJ-45)and 75ohm （BNC double coaxial）
5. Ethernet MAC address percolate function
6. Support VLAN over length data bag

7. Ethernet port support 10M/100M full-duplex/half-duplex

# Description on Installation and Panels:

## 1.The product front panel sketch map:



### LED Indicator define:

**PWR** Power indicator. Brightness if electrify.

**LINK** Ethernet connection constitute.

**_F/H** Ethernet Fall/half duplex indicator, bright as full duplex.
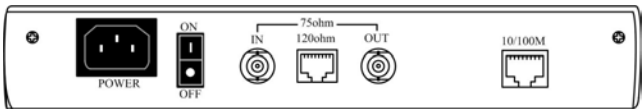
**100M** Ethernet port 100M indication.

**10M** Ethernet port 10M indication.

**LOS** E1line cut alarm indicator light

**TEST** 7211 test state indication.

**PTOK** Fake random test succeed indication.

## 2.The product back panel sketch map:



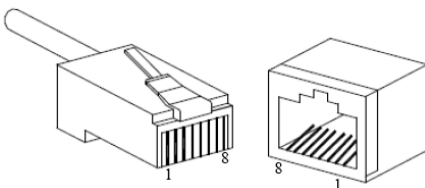**POWER** -48VDC/220VAC input choice

**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 120Ω/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:

### 1. Function setup switch SW1

#### Impedance setup

| NO.1 | NO.2 | NO.3 |
|---|---|---|
| ON | ON | ON: 75 ohm |
| OFF | OFF | OFF: 120 ohm |

#### Ethernet working mode setup

| NO.4 | NO.5 | NO.6 | Ethernet mode |
|---|---|---|---|
| OFF | OFF | OFF | 10M/100M, Fall/half duplex |
| OFF | OFF | ON | 10M/100M half duplex |
| OFF | ON | OFF | Fall/half duplex 10M |
| OFF | ON | ON | 10M, half duplex |
| ON | OFF | OFF | 100M, full duplex |
| ON | OFF | ON | 100M, half duplex |
| ON | ON | OFF | 10M, full duplex |
| ON | ON | ON | 10M, half duplex |

#### Timepiece setup

NO.7　NO.8

ON　OFF : Inside timepiece (adopt timepiece from 7211 panel)

OFF　OFF : Resume timepiece (adopt timepiece from E1 port)

## 2. Function switch setup SW2

NO.1　ANA local simulation loop setup switch

NO.2　DIG local numeric loop setup switch

NO.3　Reserve

NO.4　PATT fake random test switch

SW2 switch is used, TEST indicator light is bright. Fake random test succeed, PTOK indicator light is bright.

## 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: unframed

Interface rate: 2.048Mbps

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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