

## TDM over IP



### **Product Brief**

TDMoIP is mainly used to transmit voice signal over IP network. It has 1-4 E1 interface, 2 local Ethernet port and 1 uplink Ethernet port. TDMoIP-4 can connect TDM device and user's Ethernet seamlessly and reliably on the standard low cost wireless or lineate Ethernet/IP configuration, without affecting the voice quantity. Being transparent to the TDM signal, this model assures connecting to physical E1 interface of any device seamlessly, such as PBX, mobile base station, SS7 signaling device and voice mail system. It can be used in the communication system based on E1, such as LAN, WAN, MAN and wireless network.

Providing emulation E1 channel through Ethernet, the difficulty is rebuilding timing information of E1 code stream effectively at the exit of network. The special disadvantages of Ethernet itself, such as random packet delay, without effective timing transmit mechanism, transmission error or collision that brings on packet lose, must be conquered. Our company resolves the difficulties above faultlessly through availing ourselves of technical advantage and adapting advanced clock disposal technology. TDMoIP-4 encapsulates the date of E1 code stream to the packet and transmits it to the remote device through Ethernet. This model has two method of encapsulation for optional: Ethernet encapsulation simplicity and UDP/IP protocol encapsulation. The former is suit for the connection of the same Ethernet subnet, because it has high encapsulation efficient especially suited to the occasion of bandwidth intensity, such as interconnection based on the wireless network bridge. But it can't span router. The latter is suit for the inner net connection of IP net, with the advantage of making use of router or 3-layer switch. But the disadvantage is that the addition IP header needs extra bandwidth. When adapting 128B encapsulation, each E1 channel will take up 500kbps more than Ethernet encapsulation simplicity, with lower transmission efficiency. User can select different encapsulation type based on practical usage occasions.

### **Features:**

- ✓ Transmit framing, non-framing and complex-framing E1 N\*64K signal Transparently, confirming to ITU-G.703.
- ✓ High transmit efficiency, low transmit delay.
- ✓ Provide 1-4 E1 channels and 2 10/100Base-TX downlink ports with universal RJ45 Ethernet

ANDA Telecom Pvt. Ltd.

Registered office : E-36, Amar Colony, Lajpat Nagar-IV, New Delhi - 110024, INDIA

Phone : +91 11 41323629, +91 93 502 57173

E-mail : [Info@andatelecomindia.com](mailto:Info@andatelecomindia.com)

URL : [www.andatelecomindia.com](http://www.andatelecomindia.com)

interface, 10M/100M auto-adapt.

- ✓ The length of Ethernet packet can be set, supporting long packet.
- ✓ User can select IP protocol encapsulation or simplicity Ethernet type.
- ✓ Support VLAN setting.
- ✓ Point to point or point to multi-points connections, satisfying different applications.
- ✓ High efficiency transmission, up to 90% bandwidth utility ratio.
- ✓ Support two type interfaces-75Ω and 120Ω-unneed setting.
- ✓ 10/100M Ethernet, full/half duplex auto-adapt, support auto-MDIX.
- ✓ When selecting network adaptation clock, it can resume the original clock accurately through TDM clock resumption mechanism, stable clock, little jitter and small excursion, conforming to ITU-T clock jitter and excursion standard.

## Technical Specs

### (1) E1 interface

- ✓ Standard: conform to G.703 standard
- ✓ Code rate: 2.048Mbit/s±50ppm
- ✓ Code type: HDB3
- ✓ Impedence: 75Ω unbalance / 120Ω balance
- ✓ Connector: BNC unbalance / RJ45 balance
- ✓ Jitter tolerance: conform to G.742 and G.823

### (2) 10/100Base-T port

- ✓ Rate: 10/100M, full/half duplex auto-adapt
- ✓ Protocol: support IEEE 802.3, IEEE 802.1Q( VLAN)
- ✓ MAC address table: 1024 MAC addresses
- ✓ Physical connector RJ45, support AUTO-MDIX

## 1.4 Working condition

- ✓ Voltage: AC180V ~ 240V, DC -48V, DC +24V
- ✓ Power Consumption: ≤5W
- ✓ Working temperature: 0°C~50°C
- ✓ Storage temperature: -40°C~+70°C
- ✓ Relative humidity: 95%

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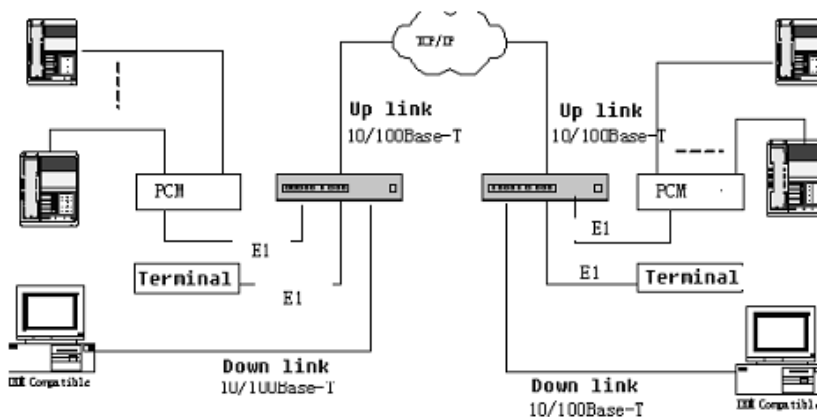
- ✓ No causticity and solvent, dust free and no strong magnetic interference.

**1.5 Dimensions**

- ✓ 210mm×140mm×30mm

**Applications:**

**Used in TCP/IP Network on Ethernet**



**Combine with wireless bridge to substitute microwave transmission**

