

## 4 E1 TDM over IP | 4E1 over Ethernet Multiplexer

### Overview

The 4E1 over ethernet multiplexer can support E1 or T1. The uplink have two 10/100M ethernet port. The 4E1 over IP device can managed by WEB management,easily used by customer



### Technical Specifications

#### Feature

- ✧ User-friendly Web server supported for easy setup and maintenance
- ✧ Point to point and point to multipoint supported
- ✧ Four E1/T1 Ports supported, E1 or T1 easy selected by Web Manager
- ✧ Uplink ports 1+1 backup supported
- ✧ Stable E1/T1 clock recovery, low jitter and wander
- ✧ Low processing delay for E1/T1 channels, high bandwidth usage efficiency
- ✧ Resist to packet loss, with PCM frame synchronization protection
- ✧ User definable encapsulation packet size for different application
- ✧ Enough jitter buffer to resist packet delay variation (PDV)
- ✧ Local Ethernet port throughput limiting, assuring E1/T1 QoS
- ✧ Local and remote E1/T1 LOS and AIS and packet loss indication for trouble-shooting and maintenance.
- ✧ Support IETF RFC4553 SAToP protocol, Ethernet encapsulation support IP/UDP
- ✧ E1 clock supports 3 mode: local clock, adaptive and loopback
- ✧ Ethernet built-in layer 2 switch, support VLAN(port based, 802.1Q based and QinQ based), QoS(port based,802.1P based,MAC based and TOS based).
- ✧ Ethernet support IEEE 802.3x, RSTP (802.1w), LLDP, CDP, Ethernet ring protection, OAM and MAC address automatic learning
- ✧ Support POE (maximum power: 60W) (optional);

#### 10/100BaseT Interface

|                      |                                 |
|----------------------|---------------------------------|
| Number of Interfaces | 2 Uplink Ports (1+1 for uplink) |
| Interface Types      | 10/100BaseT                     |
| Standards Compliance | IEEE 802.3                      |
| Connectors           | RJ45 (10/100 BaseT Electrical)  |

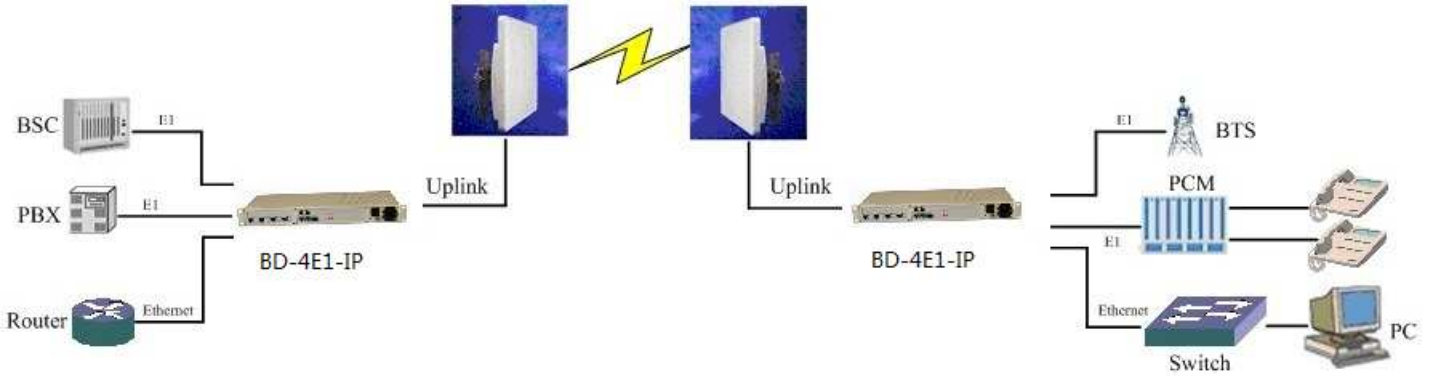
#### E1/T1 Interface

|                      |                         |
|----------------------|-------------------------|
| Number of Interfaces | 4 port                  |
| Line Rate            | E1 (2.048Mbps ± 50 bps) |
| Line Code            | HDB3                    |
| Electrical           | ITU-T G.703             |

|                                  |  |
|----------------------------------|--|
| Jitter                           | G.823  |
| Impedance                        | E1 (75ohm/120 Ohms),T1(100OHM)   |
| Connectors                       | BNC(75ohm) or RJ45(120ohm)   |
| <b>Mechanical Specifications</b> |  |
| Rack Mounting                    | Standard 19-inch DIN rack  |
| Dimension                        | 19inch 1 U: 440mm(L)*230mm(D)*44mm(H)  |
| <b>Management</b>                |  |
| Web managed built-in             |  |
| <b>Power Supply</b>              |  |
| Input AC/DC voltage              | -48V DC ( nominal ) / AC also available  |
| Range of input                   | -36V to -72V DC /90V~260VAC  |
| Temperature                      | 0 centi degree to 55 centi degree  |
| Humidity                         | 95% RH (non-condensing)  |
| Cooling                          | Convection Cooling   |
| <b>Order information</b>         |  |
| BD-4E1-IP/AC                     | 4E1 TDM over IP, two 10/100M uplink ethernet(1+1),two downlink data ports,web management,power AC220V      |
| BD-4E1-IP/DC                     | 4E1 TDM over IP, two uplink ethernet ports(1+1),two downlink data ports,web management,power DC48V         |
| BD-4E1-IP/AC+AC                  | 4E1 TDM over IP, two uplink ethernet ports(1+1),two downlink data ports,web management,double power AC220V |
| BD-4E1-IP/DC+DC                  | 4 E1 TDM over IP, two uplink ethernet ports(1+1),two downlink data ports,web management,double power DC48V |
| BD-4E1-IP/AC+DC                  | 4E1 TDM over IP, two uplink ethernet ports(1+1),two downlink data ports,web management,double power AC+DC  |

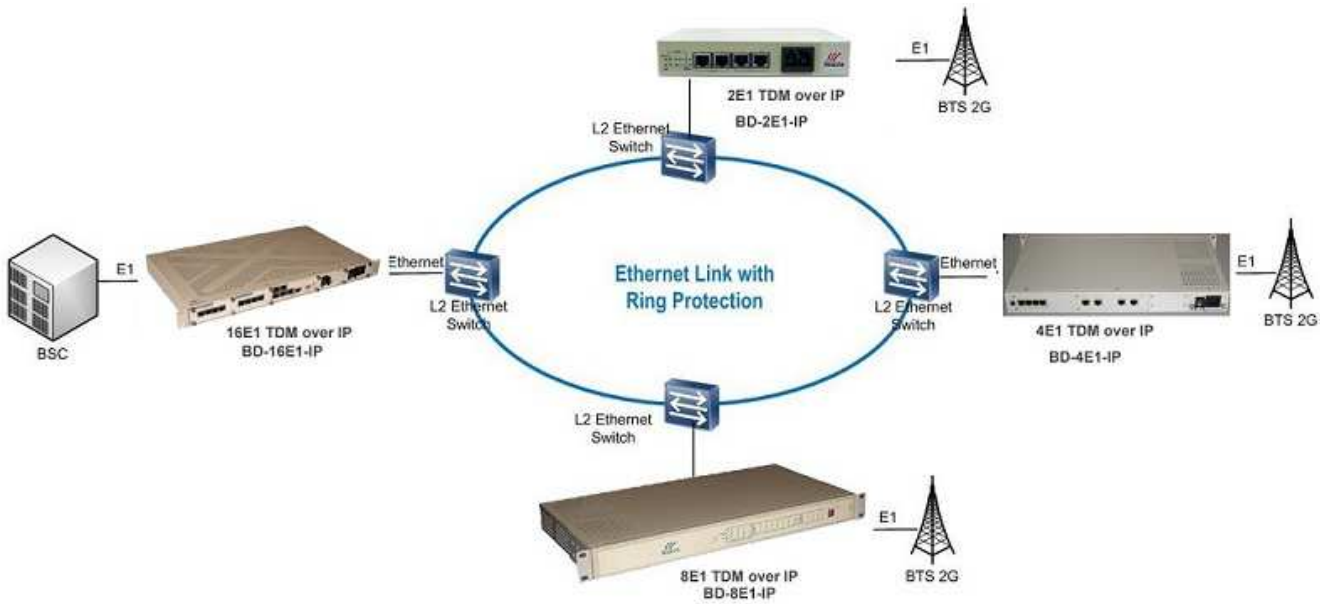
**Application1: Point to Point Application**

two units E1 TDM over IP work with voice device (PBX,PCM) and ethernet device (switch or router),transmitting voice and ethernet data over ethernet network.



**Application2: Point to multipoint Application**

16units E1 TDM over IP work with **16E1 TDM over IP** or E1/4E1/8E1 TDM over IP work with 16E1 TDM over IP.



**Interoperability Table with Wireless Bridges**

| LOGO   | Manufacturer     | Place  | Model   |
|--|------------------|--------|---|
|   | MOTOROLA         | USA    | CANOPY 5700BH,<br>5700BH20, BH45, Gemini<br>series, Spectra series etc. |
|   | Alvarion         | Israel | BREEZENET DS.11,<br>28B,LBetc   |
|   | Proxim           | USA    | Tsunami™ series,<br>QuickBridge20etc                                    |
|   | Wi-Comm United   | Canada | Ultima 3 series<br>Libra 5800 series                                    |
|  | Infinet Wireless | Russia | RWR 5000mini  |
| Note: More wireless bridges are supported  |                  |        |   |