winyuan

16E1/T1 over Ethernet Multiplexer

16E1 TDM over IP

Spot-light:

Extra high capacity 16 x E1 G.703 TDM over IP | **E1 over IP** | E1 to Ethernet converter | up to 16 E1 lines, with pure PRI/SS7 and GSM/CDMA related signaling supported.

Description:

As a cost effective solution for the traditional telecom services migrate to the IP packet networking technology, EthMux V16 adopts the innovative TDM over IP technology, with IP circuit emulation that supports transportation of 8~16 E1s and 5 GE electrical ports and 1 GE optical port. The uplink ports and user data ports are IEEE 802.3 compliant, 10/100/1000M auto-sensed Ethernet ports.

State-of-the-art design provides the highest availability with the accurate timing signal and data bit stream reconstruction. Predefined system parameter profiles that according to different application requirement; ultimately simplify the installation process and saving the maintenance cost.

EthMux V16 are able to work together with other members in TDM over IP family such as **EthMux V8, EthMux V804, EthMux V801, EthMux V802** etc. to run legacy E1 services. Telecom and Enterprise users can save a lot of access and equipment costs and generates new revenue by offering different types of services over their packet-switched infrastructure. It is also suitable for connecting to the wireless equipment to achieve fast deployment of E1/T1 services. One particular application is to build E1/T1 links with low cost Wireless LAN bridges, replacing much more costly microwave radios. Operators can use H0FL-EthMux to provide legacy TDM services over wired or wireless Ethernet/IP network.

Line Status

Port	Service No.	Alarm	Loopback	Alarm Mask
1	e1t1 chnl 01	LOS	Rx->Tx	☐
2	e1t1 chnl 02	LOS	None	☐
3	e1t1 chnl 03	LOS	Tx->Rx	☐
4	e1t1 chnl 04	LOS	None	☐
5	e1t1 chnl 05	LOS	None	☐
6	e1t1 chnl 06	LOS	None	☐
7	e1t1 chnl 07	LOS	None	☐
8	e1t1 chnl 08	LOS	None	☐
9	e1t1 chnl 09	LOS	None	☐
10	e1t1 chnl 10	LOS	None	☐
11	e1t1 chnl 11	LOS	None	☐
12	e1t1 chnl 12	LOS	None	☐
13	e1t1 chnl 13	LOS	None	☐
14	e1t1 chnl 14	LOS	None	☐
15	e1t1 chnl 15	LOS	None	☐
16	e1t1 chnl 16	LOS	None	☐

Submit

Features:

- Provide 16 channels of E1/T1 over 1 Ethernet.

- Provide 5 GE electrical ports and 1 GE optical port, 6 GE ports serve as network uplinks or users ports, Anyone of 5 GE electrical ports may act as NM port

- Support Ethernet spanning tree protocol which enable normal work and protection in ring and mesh topology, protection resume in short time

- User-friendly Web server supported for easy setup and maintenance, alarm log provided

- Support WEB Server and SNMP network management

- Ethernet built-in layer 2 switch, support VLAN, comply with IEEE 802.3Q and 802.3ad, support 802.1P.

- Provide two pluggable E1 cards, each card supports 8 E1/T1s

- Point to point and point to multipoint application

- Stable E1 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

- Support Ethernet encapsulation and UDP/IP protocol encapsulation.

- Support VLAN settings for E1/T1 service and in band VLAN management.

- Enough jitter buffer to resist packet delay variation (PDV)

- Local Ethernet port throughput limiting, assuring E1/T1 QoS

- 120Ω（100Ω）E1/T1 port, RJ-45 connector, support 75Ω unbalanced port through outside converting cable.

- Support cascade concatenate for more than 16 E1 ports

- Software and hardware online upgrade

- Power supply redundancy

- POE power supply supported by power module with 220V AC input and 55V DC output.

Specifications:

Capacity

It supports 8 or 16 E1 ports, 5 GE electrical ports and 1 GE optical port. 1

E1 interface

Comply with ITU-T G.703 recommendation

Eight E1 Ports Supported.E1 port impedance E1-120Ω for twisted pair cables or 75Ω for coax (The RJ45 E1-120Ω are default for ports)

End-to-end delay (minimum delay setting) $\leq$ 10ms

Output frequency offset (adaptive timing, stabilized) $\leq$ 5 ppm

Output jitter (adaptive timing) $\leq$ 0.1UI

T1 interface

Frame format: Unframed, SF (D4), ESF

Bit rate: 1.544Mbps

Line Code: B8ZS / AMI

Line impedance: 100 ohms

Receiving level: 0 to -36dB

Pulse amplitude: Nominal 3.0V $\pm$20%

Zero amplitude: $\pm$0.1V

Transmit frequency tracking : Internal timing $\pm$30 ppm

Loopback timing $\pm$50 ppm,

External timing $\pm$100 ppm

Jitter Performance: According to ITU-T G.824

10/100/1000Base-Tx port

Comply with IEEE 802.3, 802.1

10M/100M/1000M Adaptive

Half/Full Duplex Adaptive

Support 802.1Q MAC

Uplink ports 1+1 backup supported

Ethernet built-in layer 2 switch function. Support 802.1Q VLAN, 802.1ad Q in Q, 802.1p

Power

AC: 100V~260V/50Hz (fuse: 1A)

DC: -36V ~ -72V (optional) or dual power supply

Power Consumption: $\leq$9W

Operating condition

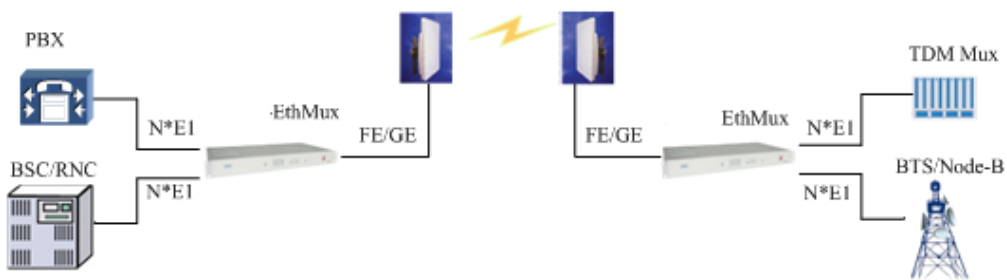Temperature: (0～45) ℃
Humidity: ≤90％ (non-condensing)

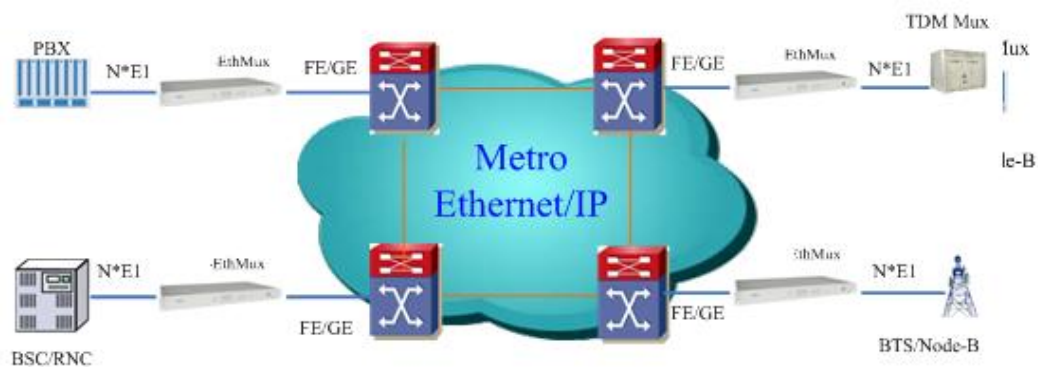**Dimensions** Width ×Height ×Depth： 440 ×44 ×260 mm

Weight   ≤ 3.5 kg

Ordering Information:

EthMux V16	16E1 over Ethernet (TDM Over IP) multiplexer/converter, 5 GE electrical ports and 1 GE optical port, 16 E1s, 75/120 ohm, AC/DC power supply options

Application:

Point to Point Application

Point to Multipoint Application