

# Single E1/T1/J1 over Ethernet (IP) IPM-1SE



The IPM-1SE is a 1U half 19" stand-alone or rack mountable pseudo wire (PW) device that transmits a real-time bit stream of TDM data (Time Division Multiplexing) over a packet switched network (IP network). Unlike other traffic types that can be carried over pseudo wires (e.g. ATM, frame relay, and Ethernet), TDM is a real-time bit stream, which traditionally carries voice-grade telephony channels. One critical issue in implementing TDM over IP is clock recovery. In native TDM networks the physical layer carries highly accurate timing information along with the TDM data, but when emulating TDM over Packet Switched Networks this synchronization is absent. The IPM-1SE is able to accurately regenerate the timing signals to the exacting standards and conformance with ITU-T. As core networks continue their conversion from traditional switched technology to IP based networks, the IPM-1SE provides a solution to continue using legacy TDM equipment, such as PABX, while the core migrates to IP based networks.

### Features

- Supports synchronous TDM based and Ethernet service over IP network
- Devices can be cascaded to increase the number of interfaces
- Point to point application for E1/T1/J1 over IP
- Provides accurate E1/T1/J1 clock recovery
- Supports f/w upgrade
- Console terminal CLI, Telnet and MIB-2 SNMP support

Ethernet	Data rate: 10/100Base-Tx, Half/full duplex Connector: RJ45
TDM interface	Framing: framed/unframed traffic (ITU-T G.704) Bit rate: 2.048Mbps Line Code: HDB3 Line Impedance: 75 ohm(BNC) / 120 ohm(RJ-45) Pulse amplitude: Nominal 2.37V ±10% for 75ohm, Nominal 3.00V ±10% for 120ohm Zero amplitude: ±0.1V Receive level: short haul -15dB, long haul -43dB Connector: RJ45 for 120 ohms, BNC for 75 ohms
Indications	System, TDM, Uplink, LAN
Standards	ITU-T G.703, G.704, G.706, G.732 and G.823 IEEE802.3, 802.3u, 802.1p and 802.1q
Power Input	AC: 100~240VAC      DC: -18 ~72VDC
Power Consumption	15W
Dimensions	235 x 195 x 45mm (D x W x H)
Weight	1.6kg
Temperature	0~50°C (Operating) , -10~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, RoHS
MTBF	57,000 hrs (25°C)



### Ordering Information

- IPM-1SE-AC : E1/T1 IP MUX with 100 ~ 240 VAC
- IPM-1SE-DC+24 : E1/T1 IP MUX with 24VDC
- IPM-1SE-DC : E1/T1 IP MUX with 48VDC