

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

Specifications

Ethernet

Data rate: 10/100Base-Tx, Half/full duplex
Connector: RJ45

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

TDM interface

Framing: Unframed, D4, ESF, PCM30, PCM31
Bit rate: 1.544Mbps/ 2.048Mbps
Line Code: B8ZS / AMI/ HDB3
Line Impedance: 100/75/120 ohms
Pulse amplitude: Nominal 3.0 ±20%,
Zero amplitude: ±0.15V
Receive level: short haul -15dB, long haul -43dB
Connector: RJ48C

Indications Standards

System, TDM, Uplink, LAN
ITU-T G.703, G.704, G.706, G.732 and G.823
IEEE802.3, 802.3u

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°C ~ 50°C (Operating), -10°C ~ 70°C (Storage)

Humidity

10 ~ 90% non-condensing

Certification

CE, FCC, RoHS

MTBF

57,000 hrs



Ordering Information

Model Name	Description
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

IPM - 1SE -
Example: IPM - 1SE - AC