

# Model TSM-50-1008

## Multi-function PCM Multiplexer



### Introduction

**TSM-50-1008** as the next innovative digital multiplexer, that can provide more flexibility and reliability to fit for different network and market demands. It combines traditional PCM feature, digital cross connection, fiber multiplexing or the Voice over IP technology all together seamlessly, just a simple click on the management program as customer wish.

The **TSM-50-1008** supports 3 types of networking mode: Optical uplink, E1 uplink or IP uplink are user definable. Total 4 x E1 ports are provided and by default as downlink in transparent connection mode. By management software, those ports can be defined as individual uplink just a point click, such capability increase the system flexibility tremendously as networking equipment with point to multipoint application.

**TSM-50-1008** also provides 4 x 10/100Mb Ethernet switching ports, supports learning bridge and IEEE 802.1q port based VLAN.

The Ethernet switching port supports Nx64K configure when make connection to the uplink port. Various type of voice and data interface cards are support for different applications, all voice and data interface cards are equipped with second level surge protector for enhancement of the reliability.

### Feature

- 3 uplink modes are configurable for different networking demand
- Multi-services with voice / data, E1 and IP over optical link;
- Guaranty 100Mbps bandwidth for Ethernet transport over the fiber uplink;
- Provides 4 x E1 and 4 x 10/100BT Ethernet switching ports;
- Supports 30 x data/voice channels with additional 2 spare voice/data ports;
- RS232 data module is orderable;
- Voice modules include FXS, FXO, Hotline, 4WE&M, Magnet and Carrier;
- Second level surge protector are equipped on voice and data cards;
- Hot swappable 1+1 optic link protection;
- Support E3 and E6 line quality alarm on fiber link
- 2.048Mb/s interface adopts high accuracy digital PLL circuit for clock recover;
- In-band management channel for remote control and system management;
- PTNMS supports configure backup, firmware / software onsite upgrade
- Audible and visible alarm indication for local or remote unit;
- Alarm relay is provided for external alarm facility connection
- The power supply can be AC220V or DC-48V or AC220V + DC-48V.

### Specifications

1. **E1 Interface**  
Bit rate: 2048Kbps  $\pm$ 50ppm  
Code type: HDB3 code, G.703 standard  
Input impedance: 75 $\Omega$  (default), 120 $\Omega$  (optional)  
Frame structure: G.704, G.706  
Compression law: G.711  
Level:  $\pm$ 2.37V  $\pm$ 10%
2. **Optical interface**  
Bit rate: 150Mbps  $\pm$  50ppm  
Output optical power:  $\geq$ -15dBm  
Receiving sensitivity:  $\leq$ -35dBm  
Optical wavelength: 1310nm/1550nm  
Optical interface connector: SFP/LC
3. **ETH interface (10/100M)**  
Interface rate: 10/100Mbps, auto  
Standard: IEEE 802.3, IEEE 802.1Q (VLAN)  
Connector: RJ45
4. **Mechanical Dimension**  
Dimension: 440mm (W) x 250 mm (D) x 44mm (H)  
Net weight: 3.3Kg
5. **Power Supply**  
Input voltage: -48Vdc and/or 220Vac  
Voltage range: -36Vdc ~ -74Vdc, 165Vac~265Vac  
Power consumption: <10W
6. **Operation Environment**  
Working temperature: -10 $^{\circ}$ C ~ 50 $^{\circ}$ C  
Working humidity:  $\leq$ 90 % (non condensed)

### Application

