MSPP

EZWELL

Overview

MSPP is a high-density aggregation device which provides a highly cost-effective and simple solution based on STM-1/STM-4/STM-16 network to transport multiple E1, V.35 and Ethernet over existing SDH networks. Installed at the customer site or directly on STM-1 access rings, MSPP leverages the SDH infrastructure for internet access and LAN connectivity, while providing continued support for E1/V.35 services. MSPP has internal cross connect capabilities that enable it to support a wide range of applications. When deployed in a ring application, the MSPP provides a complete path protection mechanism that prevents any service failure, even if a fiber link is damaged or disconnected.

Reduce Cost Increase Revenue

Multiservice modules in one box, save space and the expense of implementation. MSPP integrates Ethernet featured packet switch network which is built on directly over legacy SDH network without extra expenditure.

Multiservice Providing

MSPP connects LAN traffic with increments of 2 Mbps over existing SDH networks.

In addition to Ethernet service, MSPP continues to integrate traditional E1 and V.35 interfaces for PSTN and DDN networks.

Safe and Sound Protection

Protection is very important for the high aggregated device. Our MSPP provide full protection: SNCP for E1 and V.35 path, MSP for Ring application, APS for optical link protection in point to point application.

Moreover, The Ethernet adopts GFP/LCAS/VCAT mechanism by bounding amounts of VC12 in separate STM-1 links, thus when one link is down, the mechanism can dynamically adjust the bandwidth by deleting the fault VC12 without terminating service.

High Capacity and Modular Design

Aggregation: 2*STM-1 or 2*STM-4 or 2*STM-16

Tributaries: 8*STM-1 or 8*STM-4 or 96*E1 or 4*E3/DS3 or 16*FE or 4*GE or 28*V.35

Main Features

- State-of-the-art multi-service platform supporting STM-1/STM-4/STM-16 aggregation
- High-density design with 1U height
- Huge cross-connection matrix capacity:
  - ✓ STM-1 Uplink: 20*20 VC4 (high order cross-connection) or 1260*1260 VC12 (full cross-connection)
  - ✓ STM-4 Uplink: 32*32 VC4 (high order cross-connection) or 1260*1260 VC12 (full cross-connection)
  - ✓ STM-16 Uplink: 96*96 VC4 (high order cross-connection) or 2016*2016 VC12 (full cross-connection)
- Reliable protection – APS; SNCP; MS-SPRING; MSP protection
- Rich topologies – star, ring, linear, mesh and so on
- Easy Management – friendly GUI management; divided into several module: warning, log, performance, configuration, database backup and recovery, etc., support online upgrading
- Various services- E1, V.35, Fast Ethernet (electrical or optical), Giga Ethernet; STM-1 and STM-4 tributaries;
- Flexible: configured to a certain number of aggregation and tributary with varying link capacities, all modular cards are hot-swappable and plug-and-play
- Ethernet: EoS or EoPDH
- Implement seamless connection with MAN; easy to maintenance, save investment
- Power redundancy

STM-1 Interface
- STM-1 optical signal as per ITU-T G.957, G.958
- Data rate: 155.52 Mbps
- Line code: 1B1H
- Optical fiber: single mode, multimode
- Dual strand or single strand bi-directional
- Interface: S-1.1, S1.2, L-1.1, L-1.2
- Connector: FC or SC

SMT-4 Interface
- Data Rate: 622.08Mbps
- Refer to SFP module specification.

STM-16 Interface
- Data Rate: 2488.32Mbps
- Refer to SFP module specification.

E1 Interface
- Standard: ITU-T G.703
- Framing: unframed
- Line rate: 2048kbps ± 50ppm
- Line Code: HDB3
- Line Impedance: 75ohm or 120ohm optional
- Electrical Characteristic: comply with ITU-T G.703
- Jitter Performance: comply with ITU-TG.823
- Connector: RJ45 (Each RJ45 supports 2*E1)

V.35 Interface
- Interface protocol: compliant with ITU-T V.35
- Interface rate: framed N×64Kbit/s (N=1~31), unframed 2048Kbit/s
- Work mode: DCE or DTE optional
- Connector: DB25 female

10/100Base-Tx Interface
- Interface: 4×10/100Base-TX
- Interface protocol: compliant with
- IEEE802.3u, IEEE802.3x, IEEE802.3p
- Data rate: 10/100Mbps auto-negotiation or force mode
- Work mode: full duplex, half duplex
- Connector: RJ-45, CAT5/6 UTP
- Interface line sequence: MDI/MDI-X auto-sense

100Base-Fx Interface
- Interface: 100Base-FX
- Interface protocol: : compliant with IEEE802.3u
- Line rate: 100Mbit/s
- Optical fiber: single mode
- Connector: FC/SC10/100/1000Base-Tx

10/100/1000Base-Tx Interface
- Interface: 10/100/1000BASE-T
- Interface protocol: compliant with IEEE 802.3u, IEEE 802.3ab, IEEE 802.1q, IEEE 802.3x
- Data rate: 10/100/1000Mbps speed mode selectable (auto-negotiation or force mode)
- Duplex mode: full duplex or half duplex
- Interface line sequence: MDI/MDI-X auto-sense
- Connector: RJ-45

1000Base-Fx Interface
- Interface: 1000Base-FX
- Interface Protocol: comply with IEEE-802.3, IEEE-802.3z
- Data rate: 1000Mbps auto-negotiation, full-duplex
- Connector: SC/FC

Management Interface
Console Interface
- Interface: RS-232 serial port
- Baud rate: 115200bps
- Connector: RJ-45

General
- Power Supply: AC 220VAC; DC -48VDC (Redundancy)
- Power Consumption ≤ 100W
- Dimension (W×D×H): 440x240x136 mm
- Working Environment
  Temperature: 0°C~50°C·
  Humidity: Up to 90% non-condensing

ORDERING INFORMATION

CHASSIS

MSPP-CHAS	19", 1U，with 2 Power Slots,1 Network Management Slot, 1 Aggregation Service Slots, 4 Tributary Service Slots

POWER MODULAR CARD

MSPP-AC1	110V AC; Support 1+1 Redundancy
MSPP-AC2	220V AC; Support 1+1 Redundancy
MSPP-DC	-48V DC; Support 1+1 Redundancy

MANAGEMENT MODULAR CARD

MSPP-NM	2*RJ45 Management Ethernet Ports, Support Online Upgrading

AGGREGATION MODULAR CARD

AG-STM1	2*STM-1 SC Interface	AG-STM4S	**2*STM-16 SFP Interface**
AG-STM1S	2*STM-4 SFP Interface	AG-STM16S	2*Electrical STM-1 Interface

TRIBUTARY MODULAR CARD

TR-STM1/TR-STM1S	2*STM-1 SC/SFP Interface	TR-2FEAG	2*10/100Base-Tx; EoS, Ratio: 8:2; GFP/LCAS/ VCAT
TR-STM1E	2*STM-1 Electrical	TR-GEAG	1*10/100/1000Base-Tx; EoS, Ratio 8:1
TR-2STM1/2FE	2*STM-1 +2*10/100Base-Tx	TR-GXAG	1*Combo GE (1*10/100/1000Base-Tx and 1*SFP); EOS, Ratio 8:1
TR-2STM1/2FEA	2*STM-1+2*10/100Base-Tx (isolated ports)		
TR-STMFE	1*STM-1 SFP +1*10/100Base-Tx	TR-2FEAGP	2*10/100Base-Tx; EoPDH or EoE; Ratio 8:2
TR-STM4	2*STM-4	TR-GEAGP	1*10/100/1000Base-Tx; EoPDH or EoE; Ratio 8:1
TR-24EB	24*E1; 120ohm; Occupy 2 slots RJ45 (2*E1 for each RJ45)	TR-DS0	Full 64E1 DS0 Cross connection, Matrix: 2048*2048
TR-24EU	24*E1; 75ohm; Occupy 2 slots; RJ45 (2*E1/RJ45); Should order Cable separately	TR-V35	2*V35; DTE/DCE; Should order BH4.851.103 DCE Cable separately
TR-12EU	12*E1; 75ohm; RJ45 (2*E1/RJ45) Should order Cable separately	TR-DS0	Full 64E1 DS0 Cross connection. Matrix: 2048*2048
TR-12EB	12*E1; 120ohm; RJ45 (2*E1/RJ45)	TR-E3	1*E3; CC4 Interface Type
TR-4FE	4*10/100Base-Tx; EoS, GFP/LCAS/VCAT	TR-OW	1*OW+1*External Clock Input&Output +1*RS232 Asynchronous Interface
TR-4FX	4*100Base-Fx; SFP; EoS, GFP/LCAS/VCAT		