



TJ1270

Compact STM-1/4/16 MSPP ideal for data capable access networks

Highlights

- Compact STM-1/4/16 Multi Service Provisioning Platform
- Voice & Multipoint Data Services
- Flexible Interfaces & High Port Densities
- 50ms protection on path and ring
- Advanced Ethernet Features
- Extended Temperature Operation

Overview

TJ1270 is an ultra-compact and dense customer premise bandwidth provisioning equipment designed to progressively scale from STM-1 to STM-16 capacity (both SDH & SONET versions) to accommodate surging bandwidth demands in the Access. In addition, it supports line-rate Fast Ethernet and Gigabit Ethernet interfaces with Carrier-Ethernet capabilities.

Ideal Environment

TJ1270 is ideal for access locations with low to medium traffic. It can be used for connectivity of E1, E3 and Ethernet interfaces, Electrical and Optical. It supports reconfigurable optical ports and the same product can be used as part of STM1, STM4 or STM16 rings as the network evolves. These added with Carrier Ethernet capabilities make it suitable to deliver stringent SLA-backed EPL/EVPL/ELAN services, Voice over IP (VoIP) and mobile traffic aggregation in 2G/3G backhaul.

Key Benefits

Compact Flexible Node: TJ1270 is a compact 1U node with E1, STM-1/4/16, 10/100/1000 Mbps (Layer 1 & Layer 2) Ethernet interfaces in the base. It has a traffic

slot where a wide variety of traffic modules can be accommodated. These traffic modules are usable across the product family. Moreover it comes with different cross size options, power supply redundancy & extended temperature operation for additional flexibility.

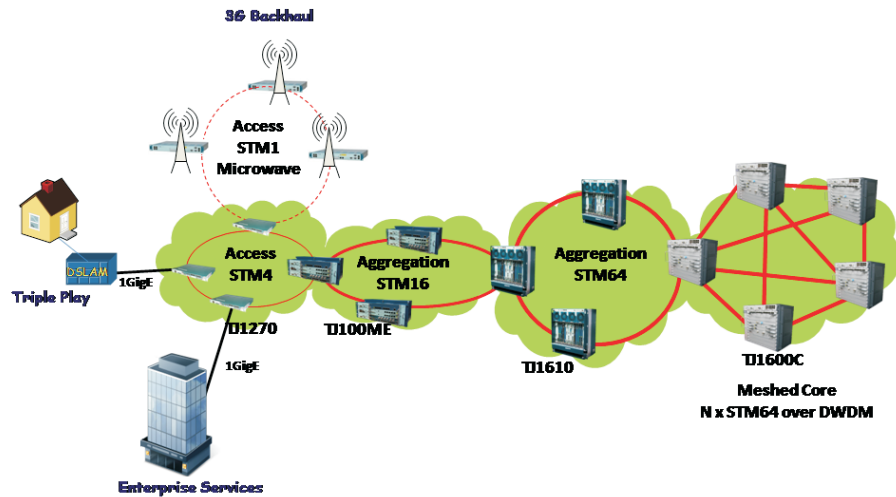
Network Scalability: The control-plane scales to large size networks and the network link speeds can be scaled from 155Mbps to 2.5Gbps. Service interfaces scale from 2 Mbps to 1 Gbps and support TDM and Ethernet traffic.

Service Protection: In addition to SDH protection schemes, TJ1270 also supports new packet-based protection schemes like Ethernet Ring Protection Scheme (ERPS - ITU G.8032) which guarantees sub 50ms protection switching. Spanning Tree Protocol based restoration is also available for mesh topologies.

Quality of Service: Tejas' nodes implement an advanced Quality of Service that allows fine-grained differentiation and shaping of transport tunnels, customer services and sub-services. Services can be completely isolated with Virtual Rings.

Integrated Multi Service Delivery: TJ1270 is part of the Future Proof Transport Solution from Tejas that ensures efficient use of transport bandwidth for provisioning of voice & data services. While supporting SDH/SONET transport of today, its advanced packet switching technology makes it future ready.

Applications



Technical Specifications*

Network Topology

- Linear, Ring, Mesh

Network Element Configurations

- Add-Drop Multiplexer (ADM)
- Terminal Multiplexer (TMUX)
- Regenerator

Aggregate Interfaces

- ½ x STM-1
- ½ x STM-4
- 1/2xSTM-16
- S4.1, L 4.1, L 4.2, S16.1, L16.2 (ITU-T G.957 SFP optics)

Tributary Interfaces

- 21x E1/DS1 on base
- 63xE1/DS1, 3xE3/DS3
- 8 x STM-1o / STM-1e
- 2xSTM-4o

Ethernet Interfaces

- FE and GE L1 on base
- Line-rate GE over SDH
- Carrier Ethernet switching
- MEF EPL/EVPL/ELANservices

Cross-connect

- Non-blocking at VC-12/VC-3/VC-4
- Line-to-Line, Line-to-Tributary, Tributary-to-Line, Tributary-to-Tributary

Network Management

- Element Management System: TejNES supports full FCAPS functionality
- In-band control support using SDH/SONET Overhead Bytes
- E1 management channel with drop facility

- Alarm signaling indicators and External Contacts
- 10/100 Base T (RJ45) Management Interface

Maintenance

- Higher-order and Lower-order POH, SDH level alarms and performance monitoring as per ITU-T Rec. G.826 and G.784
- Software Downloads
- Local and remote loop-back

Timing & Synchronization

- Timing & Synchronization of System as per ITU-T Rec. G.813
- Internal oscillator capable of supplying a G.813 compliant Stratum-3 SEC
- Support of SSM byte
- Internal & External Timing interfaces: Two E1 BITS interfaces (as per ITU-T G.703)

Alarms and User Data Channel

- F1 byte for user data channel
- Four potential-free outputs and seven potential-free inputs

Physical Dimensions

- Dimensions (H x W x D): 44 mm x 445 mm x 250 mm

Environmental

- Operating Temperature: 0°C to 50°C
- Extended Temperature: -20°C to 70°C (to be ordered separately)
- Relative Humidity: 10% to 90%, non condensing

Power Supply

- -48 V DC nominal, -40 V to -58 V pull-in range
- Power consumption - 45W for base configurations and 75W for fully loaded configurations

* Specifications are subject to change without notification

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