

TJ100MC-16 STM-1/4/16 Multi-Service Provisioning Platform

The TJ100MC-16 is a cost-effective and modular STM-16 SDH multiplexer equipment designed to manage and derive services from the optical core to access.

The product supports end-to-end provisioning and management of services across all segments of the optical network. It combines innovative optical networking software with the resilience of SONET/SDH to deliver a flexible solution to today's service providers. The product is well suited in applications where multiple services need to be aggregated and transported across optical backbone network.

The TJ100MC-16 can be configured as a Terminal Multiplexer (TMUX), Add-Drop Multiplexer (ADM), Regenerator or as a Cross-Connect (DXC) in various configurations with E1/DS1, E3/DS3, STM-1e/1o, STM-4 and 10/100/1000 Mbps Ethernet

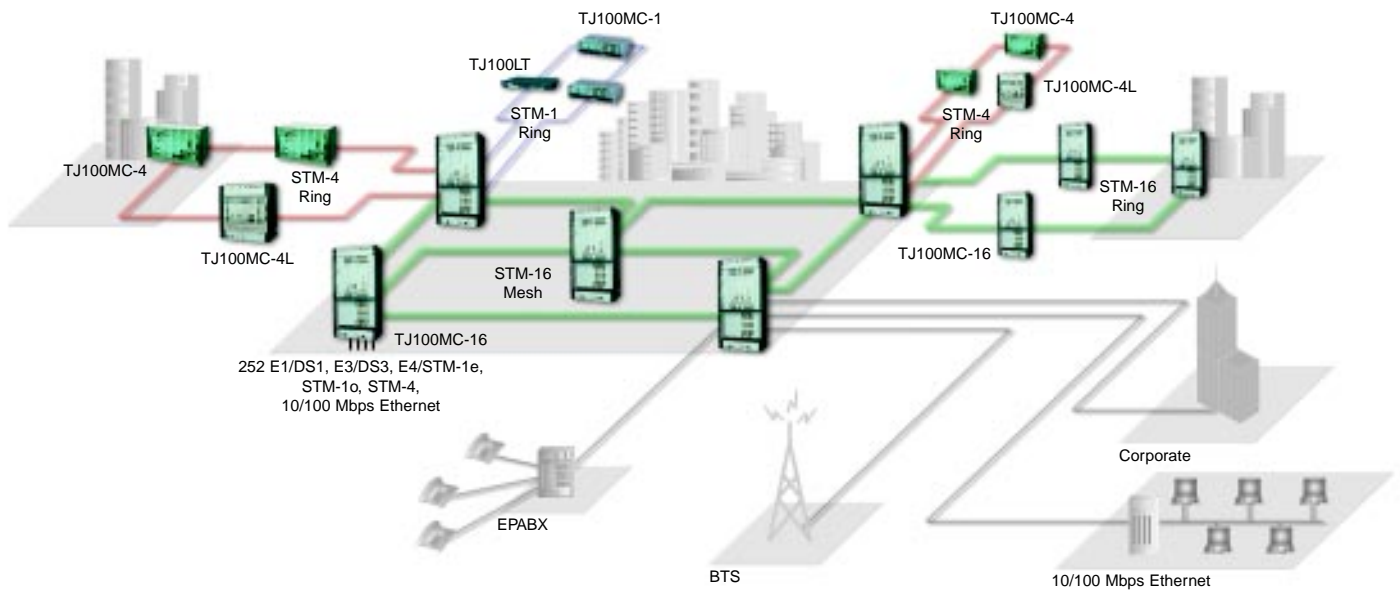
tributary interfaces and trunk interfaces at STM-4/16 rates. The product has built-in non-blocking cross-connect at VC-3, VC-4, and VC-12 granularity equivalent to 128 x 128 STM-1's and supports drop-and-continue functionality.

As transmission networks are being gradually dominated by data traffic, TJ100MC-16 provides 10/100/1000 Base-T interfaces to carry inter-office data traffic from a corporate LAN, traffic from an ISP, DSL or cable networks.



Features	Advantages	Benefits
Multi-slot chassis system	Flexibility, modularity and scalability in configurations.	"Build as you grow". Pay for capability you require today. Provides improved cashflow with minimum initial capital outlay
Compact size	Half depth rack allows two TJ100MC-16s to be placed back to back on standard rack	Better utilization of available rack space
Integrated multi-service delivery	Provision both voice and data services from the same platform. Efficient use of transport bandwidth by supporting per-port rate adaptive Ethernet services	Future-proof architecture protecting investment
Redundant cards with hot insertion capability	Guaranteed availability and superior network resilience	Carrier-class redundancy and high network uptime with minimum loss of revenue
Point to point, linear, ring and mesh topologies	Diverse topology support to cater to all customer network scenarios	Flexible and cost-effective network solutions
Multi-level protection schemes MSP, SNCP or MS-SPRing	Advanced protection schemes enable you to cater to differing customer protection requirements	Creation of differentiated services to enhance the portfolio of service offerings
Advanced networking software with support for open standards such as GMPLS and OSPF	Enables automatic topology discovery, shared mesh restoration and Point-and-Click Provisioning (PNCP). User friendly GUI based Network Element Software for local and remote provisioning	Reduction in operational costs and increase in efficiency through lower provisioning time and operator intervention
Integrated optical amplifier	Extended link lengths of the order of 175 kms can be realized	Minimize regenerator sites and attendant real estate, construction and OAMP costs

Applications



Technical Specifications*

Network Topology

- Linear, Ring, Mesh

Network Element Configurations

- Digital Cross-Connect (DXC)
- Add-Drop Multiplexer (ADM)
- Terminal Multiplexer (TMUX)
- Regenerator

Aggregate Interfaces

- **STM-16:** S16.1, L16.1, L16.2, L16.2+, DWDM
- **STM-4:** S4.1, L4.1, L4.2
- **STM-1:** S1.1, L1.1, L1.2

Electrical Interfaces

- Support of PDH interfaces: E1/DS1, E3/DS3, E4
- SDH Interfaces: STM-1e
- Data Interfaces: 10/100/1000 Ethernet Interfaces

Cross Connect

- Up to 128 x 128 STM-1 equivalent
- Fully non blocking at VC-12, VC-3 and VC-4 granularity
- Line-to-line, line-to-tributary, tributary-to-line, tributary-to-tributary

Network Protection

- SNCP, 1+1 MSP (as per ITU-T Rec. G.841)
- MS-SPRing
- VC-12, VC-3 level path protection

Optional Hardware redundancy

- PFU (Power Filter Unit)
- Timing, control and cross-connect redundancy

Maintenance

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

Operations Interface

- TejNES (Tejas Network Element Software) supports full FCAPS functionality via web browser interface
- SNMP interface for NMS
- RS-232 port for craft interface
- V.24 Modem interface for remote management
- In-band control (IBC) supported using SDH Overhead
- 10/100/1000 Base-Tx (RJ45) management interface

- F1 byte for user data channel

- E1/E2 bytes used for Express order wire

Power Supply

- Power Input: -48V DC nominal, -40V to 60V DC
- Power consumption: less than 900W

Timing & Synchronization

- Timing & Synchronization of System (as per ITU-T G. 813)
- Internal oscillator capable of supplying a ITU-T G.813 compliant Stratum-3 SEC
- SSM Support on S1 byte
- External Timing interfaces: Two E1 BITS interfaces (G.703)
- Accepts/provides 2 Mbps/2 MHz clock references

Physical Dimensions

- **21U Chassis:** 930 mm x 435 mm x 290 mm
- **14U Chassis:** 620 mm x 435 mm x 290 mm
- Can be mounted on a 19" or 23" or 600 mm rack

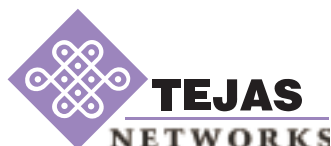
Environmental

- Operating Temperature: 0° to 50° C
- Relative Humidity: 10% to 90%, non-condensing

* Technical specifications subject to change without notification.

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