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

The TJ100MC-4L is a carrier-class, cost-effective and modular bandwidth provisioning 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 SDH to deliver a flexible solution to today's service providers.

The TJ100MC-4L can be configured as a Terminal Multiplexer (TMUX), Add-Drop Multiplexer (ADM), Regenerator, In-Line Amplifier or as a stand-alone Cross-Connect (DXC). A variety of service interfaces such as E1/DS1, E3/DS3, E4, STM-1e/o and 10/100 Mbps Ethernet tributary interfaces and trunk interfaces at STM-1/4 rates are supported. The product features non-blocking cross-connect at VC-3, VC-4, and VC-12 granularity and supports drop-and-continue functionality. A single 11U chassis can provide upto 252E1 drops or a 16x16 STM-1 DXC.

As transmission networks are gradually being dominated by data traffic, TJ100 provides 10/100 Base-T interfaces to efficiently 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. Allows easy upgrade from STM-1 to STM-4 without service disruption.	"Build as you grow". Pay for capability you require today. Provides improved cashflow control with minimum initial capital outlay
Better drop capacity per rack unit	Half depth rack allows two TJ100MC-4Ls 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 or SNCP	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
11 Traffic Slots	252 E1s from single chassis and a variety of other service mixes are possible	

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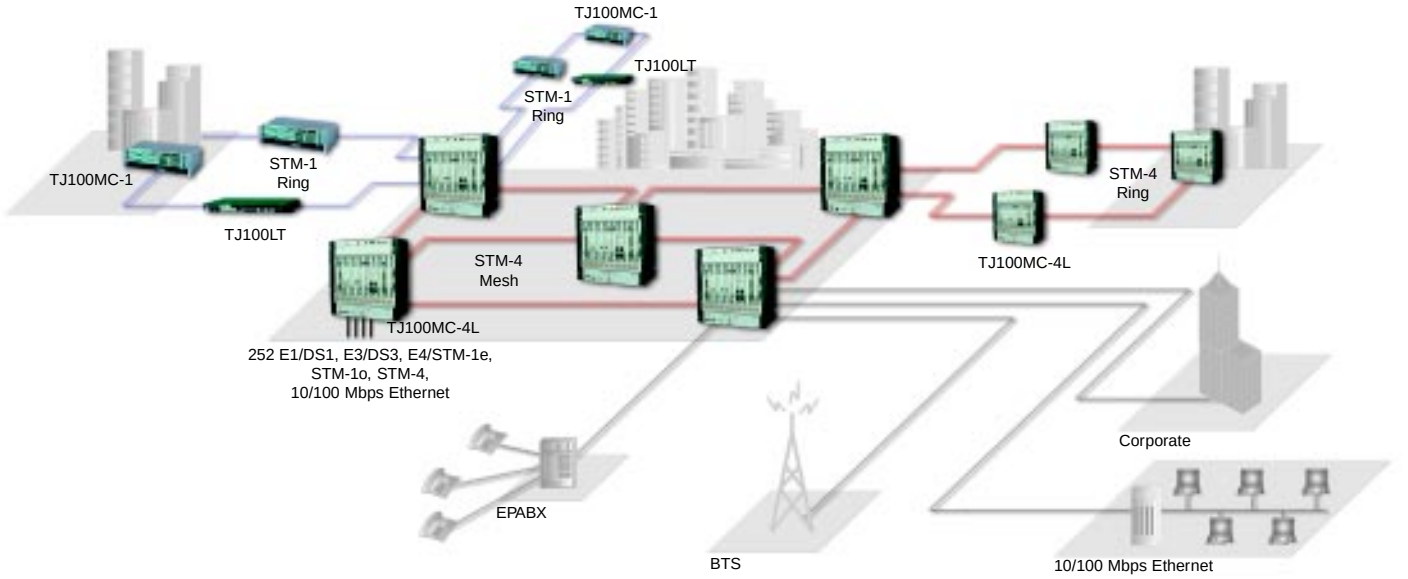
Applications



Technical Specifications*

Network Topology
- Linear, Ring, Mesh

Network Element Configurations
- Digital Cross-Connect (DXC)
- Add-Drop Multiplexer (ADM)
- Terminal Multiplexer (TMUX)
- In-Line Amplifier
- Regenerator

Aggregate Interfaces
- 2 X STM-1/4 1310 or 1550 nm (ITU-T G.957 Compliant)
- S/L 1.1, S/L 1.2, S/L 4.1, S/L/V 4.2

Tributary Interfaces
- E1/DS1, E3/DS3, E4
- STM-1o/STM-1e
- 10/100 Ethernet Interfaces

Modularity
- Modular in design, capable of upgradation to STM-4
- Separate aggregate and tributary cards
- Mix and match tributaries – E1, DS1, E3, DS3, E4, STM-1o/e, 10/100 Ethernet

Cross Connect
- 1008 X 1008 VC-12
- Fully non blocking
- Line-to-line, line-to-tributary, tributary-to-line, tributary-to-tributary

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

Equipment Protection
- Optional Hardware redundancy: Power Supply, Processor, System Control Unit, Timing, Cross-connect and Aggregate Card
- 1:3 E1 tributary protection
- Protection of PDH path with SDH path

Maintenance
- Higher-order and Lower-order POH, SDH level alarms and performance monitoring (as per ITU-T G.826 and ITU-T G.784)
- Local and remote loop back
- Software Downloads and Upgrade/Downgrade

Network Management
- Element Management System: TejNES, supports full FCAPS functionality
- RS-232 port for craft interface
- V.24/V.28 Modem interface for remote management
- In-band control support using SDH Overhead Bytes
- 10/100 Base-T/RJ45 management interface
- E1 management channel support with drop facililty
- Alarm Signaling Indicators and External Contacts

Power Supply
- Power Input: -48V DC nominal, -40V to -60V DC
- Power consumption: less than 200W

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

Order wire support and User data Channel
- E1/E2 bytes used for Express order wire (Omnibus/ Selective calling facilities)
- F1 byte for user data channel

Physical Dimensions
- Dimensions (H X W X D): 489 mm x 482 mm x 300 mm; Can be mounted on a 19" or 23" or 600mm rack
- Weight: 6 Kg (12 Kg fully loaded)

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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