

TJ1400 7-Slot

Tejas Networks Packet Transport Network



High Capacity: 360 Gbps Packet Switch

MPLS-TP: Traffic Engineered Pseudowires

Carrier Ethernet : VLAN and Q-in-Q

50ms Protection: ERPS and 1:1

Packet Synchronization: SyncE, 1588v2

Circuit Emulation with trib protection

Packet Transport: Using the next generation in Packet Transport Network (PTN) technology, the TJ1400 7-Slot is a 2U solution designed for access and aggregation applications in the network. With a full PTN feature set the TJ1400 7-Slot has the advanced features for tomorrow's mobile backhaul, enterprise, business, data center, cloud and infrastructure services.

High Reliability, Modular Architecture: The TJ1400 7-Slot increases network reliability by providing optional redundant switch fabrics and the ability to support protected UNIs and NNIs across interface cards. This modularity significantly increases availability allowing the network to meet stringent SLAs. Modular interfaces also decrease meantime to repair by requiring only the affected module to be replaced, not the entire unit.

MPLS-TP: MPLS label based connection oriented Ethernet allows networks to easily scale from a few subscribers to millions of subscribers and a few services to thousands of services. The TJ1400 7-Slot provides MPLS-TP based pseudowires for engineered traffic flows on trunks, optimizing the network by providing the right amount of packet traffic control. The cost benefits of stat-muxing are combined with traffic engineering to lower CAPEX. OPEX reductions come through faster provisioning, robust protection and quicker outage analysis.

Circuit Emulation: The TJ1400 7-Slot supports high-capacity E1, E3 SAToP and STM-n CEP for carrying TDM traffic with the reliability and performance of legacy TDM networks.

Advanced Ethernet Features: The TJ1400 7-Slot provides best in class packet switching to create networks with the highest performance. Ingress rate limiting ensures that every packet entering the network is within the SLA bounds preventing any one customer/service from congesting/choking the network. Each packet is classified so that the appropriate network policies (like prioritization and scheduling) can be applied. Eight CoS queues and scheduling algorithms ensure that there are sufficient options available to manage the data traffic efficiently. Standard G.8032 provides 50ms protected rings for greater resiliency. Multiple ringlets and multiple ring topologies are supported.

Ethernet OAM: allows real-time monitoring of end-to-end circuits, connections or trunks, enabling quick detection and isolation of faults to a particular subnet, trunk, link or node. The TJ1400 7-Slot supports BFD based Fault OAM and ping/traceroute at tunnel/pseudowire level. It also supports MPLS-TP based performance OAM for PW services. For .1q/.1ad based MEF services, Y.1731/802.1ag based CFM OAM (Port level down MEP) and Y.1731 PM counters are supported.

Flexible Network Architectures: The TJ1400 7-Slot has a flexible architecture that allows it to build the network best suited for all services. Linear for rapid deployment. Hub and spoke for cost effective aggregation. Ring and ringlet for high utilization and resiliency. Meshed for low latency and flexible protection. This is achieved with a unique combination of functionality including the ability for every optical port to be an UNI or an NNI.

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Switching Fabric

6G/60G/100G/200G/360G Packet Switch

ODU Switching (ODU0/1/2/Flex*)

Interfaces to Ethernet Switch

100 GigE*

FE, GigE , 10 GigE

63xE1/DS1, 12xE3/DS3 CEM

8xSTM-1/4/16/64 CEM

MPLS-TP

MPLS-TP Connection Oriented Ethernet

VPWS, VPLS, H-VPLS

ELAN, EVLAN, EVPL, EPL,

E-TREE*

IGMP v1/v2/v3*

Ethernet Switching

VLAN, QinQ based services

VLAN Translation / Swap

Ingress Rate Limiting at 64kbps granularity

Programmable Committed / Peak Information Rates

Programmable Committed / Peak Burst sizes

Egress rate shaping on all ports

8 classes of service as per IEEE 802.1p

2 Rate, 3 color marking

Port + Vlan ingress metering with DSCP and .1P

HQoS*

Every Ethernet port UNI/NNI

Ethernet/MPLS-TP OAM

MPLS-TP OAM RFC5860

BFD based Fault OAM

LSP Ping and Traceroute (RFC6426)

PW Ping

On demand LM/DM at Tunnel/PW level

On demand LM/DM at VLAN level

Y.1731/802.1ag based CFM OAM

**upcoming release*

specifications subject to change without notice

5057 Keller Springs Road

Addison, TX 75001

USA

RFC 2544

Port mirroring and loopback

Link integrity (LLCF/LLR)

SNMPv3*

Network Protection & Security

Ethernet Ring Protection ITU-T G.8032

1:1 bidirectional Linear Protection LSP (RFC6378)

MPLS-TP Mesh

Link Aggregation Group (LAG)

Synchronization

SyncE , DCR, ACR

1588v2 BC/TC with ToD interface*

Circuit Emulation

E1 SAToP RFC4553, MEF8

E3 RFC4553* , MEF 8*

STM-1 CEP RFC4842* , MEF8*

STM-4 CEP RFC4842* , MEF8*

STM-16 CEP RFC4842* , MEF8*

Power Supply (optional redundancy)

-36V to -60V DC

230V AC, 50Hz*

Environmental

Operating Temperature: 0°C to 50°C.

Extended Operating Temperature : -40°C to 65°C.

Relative Humidity: 10% to 90%, non condensing

CE, ROHS 6/6 Compliant

ETSI/EN 300386

EN 55022

IEC/EN 60950, 61000

ETSI EN 300

Dimensions (W x H x D)

444 mm x 88 mm x 235 mm (Base Chassis)

444 mm x 220 mm x 235 mm (with Expansion)

19" and 23" rack mount options



Software Enabled Transformation

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