



High Capacity: 64Gbps 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 for PDH and SONET/SDH

Packet Transport: Using the next generation in Packet Transport Network (PTN) technology, the TJ1400P is a 1U packet aggregation solution designed for edge and access applications in the network. With a full PTN feature set enabling end-to-end pseudo-wire and Ethernet multipoint services the TJ1400P has the advanced features for tomorrow's mobile backhaul, enterprise, business, data center, cloud and infrastructure services.

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 TJ1400P provides MPLS-TP based 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 root cause analysis during failures.

Circuit Emulation: As more services move from TDM to Ethernet, a few TDM circuits are expected to remain in the network for specific customer services and support of legacy infrastructure. Circuit Emulation reduces the cost and simplifies the management of these services using an all Packet Transport Network. The TJ1400P supports E1/DS1 SAToP and STM-1/OC-3 CEP for carrying this traffic with the reliability and performance of legacy TDM networks.

Packet Synchronization: The TJ1400P supports SyncE and 1588v2 for distribution of synchronization information over pure packet networks.

Advanced Ethernet Features: The TJ1400P 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 ERPS (Ethernet Ring Protection Switching) provides 50ms protected packet 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 TJ1400P supports BFD based Fault OAM and ping/traceroute at tunnel/pseudowire level. It also supports MPLS-TP based performance OAM for MPLS-TP based 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 TJ1400P 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.

TJ1400P

Tejas Networks Packet Transport Network

Ethernet Switch Capacity

64Gbps bidirectional

Interfaces to Ethernet Switch

10 Gig E – up to 4 SFP+

1 GigE – up to 12 SFP

10/100/1000bT – up to 20

E1/DS1 up to 16

STM1/OC-3 up to 4

STM4/OC-12 up to 2

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

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

Om demand LM/DM at VLAN level

Y.1731/802.1ag based CFM OAM

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)

Port mirroring and loopback

Synchronization

SyncE, DCR, ACR

1588v2 BC/TC with ToD interface*

Circuit Emulation

DS1/E1 MEF8

OC-3/STM-1 RFC4842*, MEF8*

OC-12/STM-4 RFC4842*, MEF8*

Power Supply (optional redundancy)

-36V to -60V DC, PSU Redundancy

230V AC, 50Hz*

120V AC, 60Hz*

90 Watts

Environmental

Operating Temperature: -40°C to 65°C.

Relative Humidity: 10% to 90%, non condensing

CE, ROHS Compliant

ETSI/EN 300386

EN 55022 Class A

FCC Part 15 Class A

Dimensions (W x H x D)

445 mm x 44 mm x 295 mm

ETSI and 23" rack mount options

Related Products

TJ1400 7-Slot 2U PTN

TJ1400 18-Slot 7U PTN

TJ1600C 6-Slot 4U PTN and DWDM Transport

TJ1600C 11-Slot 9U PTN and DWDM Transport

TJ5000 Network Management System

**upcoming release
specifications subject to change without notice*

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