

TJ1400-1: 16-Port CPON

Ultra-Converged Broadband Solutions



DATA SHEET



TJ1400-1 : 16-Port industrial grade CPON OLT

Product Highlights

16-port industrial grade multiPON with fully front access

Residential, Enterprise, Mobile Backhaul and IoT applications

Enhanced QoS and Multicast for Video.

Multi-tenant dwelling with AC / DC Power

Enhanced Business services with protection

Rich Synchronization support – 1588v2, SyncE, ToD, 1PPS

Overview

Ultra Converged Broadband Solutions provide the flexibility, performance and investment return required by today's total cost per subscriber business plans. These solutions are capable of delivering Broadband Access via fiber or wirelessly, Business services via dedicated or shared access, and with integrated reliable transport capabilities, they reduce costs immediately, while providing scalability for the future.

Multilevel Protection and QoS guards customers against fiber cuts, splitter damage, ONT and OLT port failures. Advanced bandwidth management features assure the highest quality of service for delay/jitter sensitive real-time video/voice/data applications.

Carrier-class service creation with a fully managed, end-to-end solution for FTTH/FTTB services with a complete range of end-user ONT devices. These devices come with a diverse set of customer ports such as Fast Ethernet, Gigabit Ethernet, POTS, and WiFi (802.11n/ac) to address multiple deployment scenarios in the access.

Support Comprehensive OAMP Functions such as advanced fault, alarm and performance management tools based on standards such as ITU Y.1731 and IEEE 802.1ag. The tools are complemented by a powerful visual interface for alarm notifications, fault localization and SLA reporting.

Deployment option: TJ1400-1 C16i GPON OLT offers 4x10GE/25GE SFP28 + 2x100GE QSFP28 uplink options, plus AC / DC allows deployments in multi-tenant units, office closets, and remotes.

A Flexible ONT Strategy is based upon standards from the Broadband Forum, including an G.988 OMCI along with TR-069's CPE WAN Management Protocol (CWMP) to provide support functions for auto-configuration, software or firmware image, software module, status, performance and diagnostics. These are combined with TR-156 architecture and service models, to allow for a multitude of service flexible and service specific ONTs in the Tejas TJ2100 family. This extends to multi-vendor interoperability when upgrading older networks.

Scalable Network Architectures are a clear requirement of any broadband service provider to tailor to geographical expansion, uptake increases and growth in consumer bandwidth usage. Our Ultra-Converged Broadband (UCB) solutions provide scaling from the TJ1400-1 through the TJ1400 18-Slot with 1 Tbs of capacity. With five options, the ability to extended networks as revenue opportunities arise, provide increased redundancy as market requirements change, to fit your real-estate constraints and be "Future Ready. Today" are unequalled.

TJ1400-1: 16 port CPON

Flexible and Cost-Effective Broadband Deployment



Technical Specifications

GPON Interface Specifications

SC/APC connector
Line Rate: D/S, U/S – 12.5/11.25 Gbps
Connector: LC/APC
Wavelength: 1577, 1490 nm/1270, 1310 nm
Video: 1550 nm
Standard OMCI Management Function
Distance: 20km depending on split ratio
Class N1 and N2 optics support

Network Uplinks

4x10GE / 25GE SFP+
2x100GE QSFP28

L2 Switching

IEEE 802.1Q
Link Aggregation (802.3ad)
IGMP Snooping v1/v2/v3*
Broadcast/Multicast storm recovery*
Traffic Policing
QoS (DSCP/802.1p)
Open ERPS (ITU G.8032)
MAC learning, MAC limiting
DHCP relay Agent with Option-82*
Pluggable SFP for Ethernet ports

MPLS-TP Provisioning and 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
Up-MEP
Link integrity (LLCF/LLR)

Network Protection & Testing

STP, RSTP (IEEE 802.1D-2004)
Link Aggregation Group (LAG)
Ethernet Ring Protection ITU-T G.8032

Type-B Protection with <1s switching time.
1:1 bidirectional Linear Protection LSP (RFC6378) *
MPLS-TP Ring / Mesh*
Port mirroring and loopback

Standards

ITU-T G.984 (GPON), ITU-T G.988

Management

Unified TejNMS based Network Management

Timing / Synchronization

16 port Configuration:
Stratum 3 Clock, SyncE
ToD, 1pps, and 10MHz*
1588v2 BC/TC with ToD interface*

Power

AC or -48V DC
Maximum Power: 360 Watts
Redundant, Field Replaceable AC or -48V DC

Environmental

Operating Temperature: -40°C to 65 °C
Storage Temperature: -40°C to 70°C
Altitude: 6,000 ft. with max. temperature, 3°C/1000 ft. derating afterwards
Humidity: 5 to 90% non-condensing

Physical Dimensions (H*W*D in mm)

TJ1400-1 C16i : 444 (W) x 240 (D) x 44 (H)

Related Products

TJ2100 ONT Family
TJ1400 7-Slot 2U UCB up to 200G
TJ1400 13-Slot 4U UCB up to 260G
TJ1400 18-Slot 7U UCB up to 1 Tbs
TJ5500 Network Management System

**upcoming release specifications subject to change without notice*



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