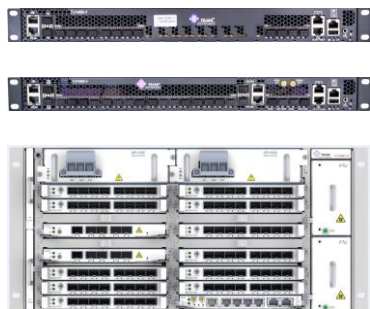


TJ1400 OLT Solutions

Versatile GPON/XGS-PON Solutions for Fiber Access



DATA SHEET



Product Highlights

GPON, XGS-PON and Combo-PON support

Residential, Enterprise, Mobile Backhaul and IoT applications

Compact family of state of the art OLTs with

common service cards to build modular 1U/2U/5U/7U OLT solutions

Enhanced **QoS and Multicast** for Video

Multilevel xPON failure protection for premium services

Key Features and Benefits

Tejas offers a series of advanced GPON and XGS-PON OLT and ONT elements designed for next-generation Optical Access networks deployed in FTTH (Fiber-to-the-Home) and FTTB (Fiber-to-the-Building) formats. It addresses the rapidly growing service provider need for flexible, high-capacity fixed-line broadband solutions to support emerging video applications (e.g., IPTV, Mobile Backhaul, MTU, VOD) in residential deployments, aggregation of backhaul traffic from LTE cell sites, enterprise VPN Services and SD-WAN networks based on NFV paradigm.

Tejas has a full GPON/XGS-PON solution that includes both TJ1400 OLT (Optical Line Terminal) and TJ2100N ONT (Optical Network Terminal) platforms. TJ1400 offers one of the densest OLT realizations in the market today in a 1U/2U/5U/7U form factors with a myriad of transport protocol options : Ethernet, OTN and C/DWDM.

Tejas GPON products are fully compliant to ITU-T G.984, G.9807 and G.988 set of standards. Upcoming releases will support higher speed next-generation PON standards such as NG-PON2/TWDM PON standards through simple upgrades or by replacing the line cards.

Combo PON Functionality: Tejas Combo PON cards can simultaneously support both GPON and XGS-PON from the same Optical Distribution Network. It provides quick and cost-effective 10G PON deployment in both greenfield and brownfield networks.

Flexible, Scalable Backhaul: Tejas OLT offers a range of SNI interface cards (2x10G/5x10G/8x10G) to allow the

FTTx provider to choose the most cost-effective backhauling option for his GPON traffic. Besides supporting traditional technology like Ethernet, upcoming interfaces like OTN are also supported to future-proof the network.

Comprehensive OAMP Functions: Tejas OLT product supports advanced fault, alarm and performance management tools based on standards such as ITU-T Y.1731 and IEEE 802.1ag. The tools are complemented by a powerful visual interface for alarm notifications, fault localization and SLA reporting developed using modern web technologies.

Multilevel Protection and QoS: Tejas GPON solution supports multi-level protection for fiber cuts, splitter damage, ONT and OLT port failures. It has advanced bandwidth management features to assure the highest quality of service to delay/jitter sensitive real-time video/voice/data applications.

Versatile ONT portfolio: Tejas GPON/XGS-PON is available as 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 Wi-Fi (802.11n/ac) to address multiple deployment scenarios in the access. Tejas provides compact, ruggedized, portable enclosure for remote installation of TJ2100N ONTs in rural and industrial areas. Enclosure houses splitter for additional ONTs, charge control unit for solar/AC/battery monitoring and control with up to four hours of backup.

Technical Specifications

PON Interface Specifications

Transmission: ITU-T G.984(GPON), ITU-T G.9807 (XGS-PON),
Line Rate: D/S, U/S – 2.5/1.2 Gbps or 10 Gbps symmetric
Connector: SC/UPC

Network Uplinks

Gigabit Ethernet
10 Gigabit Ethernet
100 Gigabit Ethernet

L2 Switching

IEEE 802.1Q, IEEE 802.1ad
STP, RSTP (IEEE 802.1D-2004)
IGMP Snooping, IGMP Proxy
IGMP v1/v2/v3
Broadcast/Multicast storm recovery
Traffic Policing
QoS (DSCP/802.1p)
ERPS (ITU G.8032)
MAC learning, MAC limiting
DHCP relay agent with Option 82
Multicast VLAN Registration function
Pluggable SFP/XFP for Ethernet ports
MPLS-TP

OLT Variants

TJ1400-1 : Fixed 1U OLT with 8xGPON+ 2x10G + 4x1G uplink ports
TJ1400-1 : Fixed 1U OLT with 16xGPON+ 4x10G uplink ports
TJ1400-7 : Fully redundant, modular 2U OLT with up to 40xGPON+10x10G uplink ports
TJ1400-13: Fully redundant, modular 5U OLT with up to 80xGPON+16x10G uplink ports
TJ1400-18 : Fully Redundant, modular 7U OLT with up to 2 x100G + 20 x10G +128xGPON with 1G/10G/100G uplink ports

OLT Service Card on TJ1400

8 port GPON Card
16 port GPON Card
4 port GPON/XG-PON/XGS-PON Card
8 port GPON/XG-PON/XGS-PON Card
8 port Combo-PON Card
1:128 split ratio
1+1 Power, Fabric and Control card Redundancy
Unified TejNMS based Network Management

Selected ONT Variants

TJ2100N-10: SFP ONT
TJ2100N-11G: 4GE TJ2100N-12: 1GE + 1FE+ 1 POTS + 1 USB
TJ2100N-12V: 4GE + Wi-Fi (802.11n)
TJ2100N-12W: 1GE + 1FE + 1 POTS + Wi-Fi (802.11n)
TJ2100N-14B: 2GE + 1 POTS + Dual Band Wi-Fi (802.11n, 802.11ac)
TJ2100N-14E: 4GE + 2 POTS + Dual Band Wi-Fi (802.11n, 802.11ac)
TJ2100N-14OR: 4 GE + 2 POTS fits in Corning Housing
TJ2100N-20PS : 8 GE + 2 POTS + 2 USB industrial ONT
TJ2100N-20PS4 : 4 GE + 2 POTS industrial ONT
TJ2100N-30ET : 1 10GE + 5 GE + 2 POTS +1 USB + Dual Band Wi-Fi (802.11n, 802.11ac)
TJ2100N-30GT : 1 10GE + 4 GE

Node Management

Configurable management VLAN
WEB based (HTTPS)
Telnet
SNMP v1/v2c
10/100BaseT Management Interface

Synchronization

NTP v1/v2/v3
Clock recovery : ACR, DCR and internal re-timed clock Support
TOD, SyncE

Power & Thermal

AC: 160-270V, DC: -40 to -60 Volts-
Forced Cooling
TJ1400-1: 8 Port : 70W (Maximum)
TJ1400-1: 16 Port : 110W (Maximum)
TJ1400-7 : 600W (Maximum)
TJ1400-13 : 863W (Maximum)
TJ1400-18 : 2500W (Maximum)

Physical Dimensions (H*W*D)

TJ1400-1 : 44*414*300 mm
TJ1400-7 : 88*433*204 mm
TJ1400-13 : 222*483*250 mm
TJ1400-18 : 311*444*237 mm

Environmental

Operating Temperature: 0 °C to 50 °C (65°C as orderable)
Altitude: 15,000 ft operations
Humidity: 5 to 90% non-condensing

Advanced Security

L2 classification based on: Source MAC,
Destination MAC, EtherType, 802.1p priority



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