

TJ2100N-12B2 GPON ONT

High performance enterprise and residential GPON ONT



DATA SHEET



Product Highlights

- **Standard ITU G.984 compliant GPON ONTs**
- **Enterprise and Residential applications**
- **Compact size**
- **Rogue ONU Detection**
- **Hardware Dying Gasp**

Key Features and Benefits

Overview:

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

Tejas has as a full GPON solution that includes both TJ1400 OLT (Optical Line Terminal) and TJ2100N ONT (Optical Network Terminal) platforms. TJ2100N-12B2 is a versatile ONT product supporting 1x10/100/1000Mbps Ethernet interface.

TJ2100N-12B2 is compliant to ITU-T G.984, G.988 standards.

Mechanical and Environmental : Table top and wall mount enclosure suitable for indoor environments. Supports temperature range of 0°C to +40°C.

Technical Specifications

GPON Interface Specifications

- SC/UPC connector
- Transmission: ITU-T G.984
- Optical module: Class B+
- Optical transmit power 0.5 to +5dBm
- Receiver sensitivity of -28dBm.
- Upstream and Downstream FEC

Ethernet

- Meets 802.3 specifications
- 1x10/100/1000Mbps
- RJ-45 connector
- Half-duplex & full-duplex operation
- 10/100/1000Mbps auto-negotiation
- MDI/MDIX auto detection

Layer 2 capabilities

Ethernet frame filtering based on port, Source/Destination IP and MAC Addresses | IEEE 802.3as | IEEE 802.1d bridging Ingress/egress IEEE 802.1p tagging, replacement, and stripping | IEEE 802.1ad Double tagging | Traffic class forwarding to GEM Port and TCONT | QoS based on 802.1p and 802.1q | 802.1p marking based on DSCP

GPON Features:

Data rates of 2488Mbps downstream and 1244Mbps upstream. | Ranging and activation process support | HW Dying gasp | Wavelength: 1490 nm/1310 nm | Distance: 20km between closest and farthest ONT from OLT, as per GPON standards.

Downstream

Downstream AES-128 encryption and key exchange process | Downstream FEC, RS(255,239) | Dedicated independent TX queues for PLOAM and CPU packets

Upstream

Upstream FEC, RS(255,239) | Normal queues for PLOAM and CPU packets | Performance monitoring, faults and alarm, including BER rate monitor.

Power saving: As per ITU-T 984.3 (01/2014) of ONU power management aspects | Supports Ethernet packets of up to 2KB (Jumbo packets).

Power

12 VDC ,.5A +/- 5% Round barrel-type connector for power input

Mechanical and Environmental :

Table Top and wall mount enclosure design
 Dimensions: L82mm*W82mm*H25mm
 Operating Temperature: 0 °C to 45 °C
 Altitude: 4,000m operations :
 Humidity: 10 to 90% RH non-condensing

OAM:

Management: G.988 (OMCI), CLI, Telnet Alarm: Alarm report and suppression (ARC) | LED: LED indicators | Firmware: Firmware upgrade

Ordering Information:

Model	Configuration
TJ2100N-12B2	1x 10/100/1000Mbps

specifications subject to change without notice



Software-Enabled
 Transformation

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