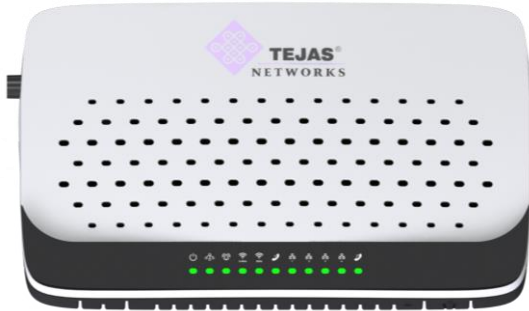


TJ2100N-14BT GPON ONT

High performance enterprise and residential GPON ONT



DATA SHEET



Product Highlights

- **Standard ITU G.984 compliant GPON ONT**
- **Enterprise, Residential, POTS and IoT applications**
- **Dual band, Dual mode, Dual radio, High performance Wi-Fi interface**
- **Enhanced QoS, and Multicast for Video**
- **Redundant WAN support via 3G/4G/4.5G USB Dongle**

Key Features and Benefits

Overview:

Tejas offers a series of advanced GPON 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 needs for flexible, high-capacity fixed-line broadband solutions to support emerging high bandwidth video applications (e.g., IPTV, Mobile backhaul, MTU, VOD) in 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-14B is a versatile ONT product supporting Dual 10/100/1000 Mbps Ethernet interface, Dual band, Dual radio Wi-Fi and POTS interfaces. TJ2100N-14B is compliant to ITU-T G.984, G.988 and TR-069 set of standards.

Product highlights:

Plug-and-play (PNP): Configuration using standard OMCI and TR-069 protocols for provisioning IPTV, VOD, IoT, Internet, VoIP, WiFi etc services.

Ethernet interfaces: Has 2 Ethernet interfaces to cater to use cases such of IPTV, Internet etc.

POTS: The ONT has one POTS interface for voice services to public switched telephone network (PSTN).

Wi-Fi: Dual band, Dual concurrent WiFi, complied to 802.11a/b/g/n/ac standards to support enhanced WiFi coverage for home applications.

Mechanical and Environmental: Table top and wall mount enclosure suitable for indoor environments (up to 45°C)

Technical Specifications

GPON Interface Specifications

SC/APC connector
Transmission: ITU-T G.984 |
Optical module: Class B+
Optical transmit power +0.5 to +5dBm
Receiver sensitivity of -28dBm.

Ethernet

Meets 802.3 specifications
2x10/100/1000Mbps
RJ-45 connector

POTS: 1*FXS ports with RJ11 connector.

USB : 1 * USB 2.0

Voice Features

Signaling: SIP (IMS)
Locale selection based on country profile
Codecs: G.711 a-law, G.711 u-law, G.729
Media and signaling are separated
Fax: Transparent FAX, T.38 fax relay
DTMF: Inband, RFC2833, SIP Info
V.18 support
Voice Activity Detection: Supported
SIP Transport : UDP & TCP

Wireless Features

Standards: 802.11 a/b/g/n/ac with channel bandwidth:
20/40/80MHz (ac) | Frequency of operation: 2.4GHz & 5GHz |
SSIDs per radio: 4 | AP isolation : Supported
Max clients: 32 per radio| Mac restrict mode: Supported
Mac filter based probe response: Supported | No of TX/RX
chains: 2 for 2.4GHz; 2 for 5GHz ; Band steering | WMM
support | Preamble: Configurable between short/long |
Configurable Beacon interval

Security

Open, 802.1x for WiFi/LAN, WPA2-PSK

Layer 2 capabilities

Ethernet frame filtering based on port, Source/Destination IP
and MAC Addresses | IEEE 802.3as | Supports maximum MTU
size of 2000 Bytes | 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 | Multicast : IGMP v2, v3, IGMP snooping

Layer 3/4 hardware NAT/NAPT

Port Forwarding | Port/VLAN bridging | IPV4/IPV6 flow
routing for policy rate | IPOE/DHCP/PPPoE WAN hardware
forward

GPON Features

Data rates of 2488Mbps downstream and 1244Mbps
upstream. | 32 TCONT and 128 GEM port IDs | 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 |
Dedicated independent TX queues for PLOAM and CPU
packets

Upstream

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

OAM

Management: G.988 (OMCI), TR-069, CLI, Telnet | Alarm: Alarm
report and suppression (ARC) | LED: LED indicators. Firmware:
Firmware upgrade, active and alternative firmware images

Power

12V DC ,1.5A +/- 5% , Round barrel-type connector with
110-240VAC, 50/60Hz input

Mechanical and Environmental

Table Top and wall mount enclosure design | Dimensions:
186x106x36 mm (LxDxH) | Operating Temperature: 0 °C to 45
°C | Altitude: 4,000m operations | Humidity: 5 to 93% RH non-
condensing

Regulatory Compliances

RoHS (6/6)

Ordering Information

Power plug availability: Type-A (USA), Type-C (EU), Type-G
(UK), Type-C (India)

Model	Configuration
TJ2100N-14BT	GPON ONT with 2x1GE RJ45, 1xPOTS, 1xUSB, 2x2 WiFi 2.4GHz 802.11 b/g/n, 2x2 WiFi 5GHz 802.11ac

specifications subject to change without notice



Software-Enabled Transformation

Plot No. 25, J.P. Software Park,
Electronic City Phase-1
Hosur Road, Bengaluru,
Karnataka 560100, India
www.tejasnetworks.com
+91 8041794600

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