



T312G MDU ONU (12 VDSL2, 12 POTS)

T-SERIES ONU
EDA 1500 PORTFOLIO



The T312G Optical Network Unit (ONU) supports the delivery of carrier-class voice, high-speed internet access, and IP television services. The T312G features a high performance design that provides combined triple-play services without contention for bandwidth.

T312G

SINGLE FAMILY UNIT ONT

The T312G integrates seamlessly with the EDA 1500 optical line terminal (OLT) and can be remotely configured and monitored using the EntriView element management system or a command line interface. The ONU interfaces to the EDA 1500 network through a single fiber connection. The T312G small form factor solution is optimized for Fiber-to-the-Curb (FTTC) deployments. The T312G is powered by a centralized power node providing ± 190 VDC.

The hardware is hardened for outdoor deployment, easy to install, and requires minimal maintenance. The enclosure is factory sealed and meets stringent carrier requirements including GR-950 CORE and EMC compliance.

Service Interface

The T312G provides 12 combined voice and data lines. Voice services are delivered using POTS and are transported to the network over IP using H.248 signaling. The T312G supports standard call features and is compatible with existing customer premises equipment.

High-speed internet access and switched digital video services are delivered over VDSL2 lines that support fallback to ADSL operation. The T312G provides the following features for data services:

- Port security to ensure traffic on one line cannot be accessed by another customer interface
- Multiple bridge instances per port to prevent flooding between subscribers
- Upstream rate limiting and prevention of Denial of Service (DoS) attacks
- IGMP snooping and filtering of multicast channels received on GEMMC.

Deployment Options

The T312G ONU is easy to install and can be deployed as a greenfield solution or used to upgrade an existing FTTC deployment.

The T312G is designed to fit inside a CAD 12 pedestal. Upgrade installations allow reuse of most of the existing components thus providing a cost-effective retrofit solution.



TECHNICAL SPECIFICATIONS

T312G

GENERAL FEATURES

GPON Standards Compliance

- G.984.1 GPON: General characteristics
 - G.984.2 GPON: Physical Media Dependent (PMD) layer specification
 - G.984.3 GPON: Transmission convergence layer specification
 - G.984.4 GPON: ONT Management and Control Interface specification (OMCI)
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SERVICES INTERFACES

12 combined POTS/VDSL2/ADSL lines for voice, data, and IPTV services

PHYSICAL INTERFACES

One fiber optic port

Three cables leading from the ONU:

- One connectorized power cable for connection to power cable from LTA
 - One connectorized service cable for connection to service cable from LTA
 - One unterminated cable (two pair) reserved for future use
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POWER REQUIREMENTS

Maximum power consumption: 69W with the following load:

- 3 POTS lines ringing @ 5 REN
- 9 POTS lines off hook @ 150 ohm
- 12 DSL lines with 40/10 Mbps

Actual consumption depends on the services delivered

1 power pair: 6000 feet at 60°C 22AWG

2 power pairs: 12,000 feet at 60°C 22AWG

Line powering option $\pm 190V$ with termination for up to two power pairs

PHYSICAL SPECIFICATIONS

Dimensions

Height: 16.7 inches (42 cm)

Width: 11.4 inches (29 cm)

Depth: 6 inches (15 cm)

Weight: 22 lb (9.95 kg)

COOLING REQUIREMENTS

Conduction/convection cooled, no fans

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature

-40°F to 115°F plus solar loading

(-40°C to 46°C plus solar loading)

Storage Temperature

-40°F to 158°F (-40°C to 70°C)

Relative Humidity

10% to 90%, noncondensing

Altitude

200 feet (61m) below sea level to

13,100 ft (4,000m) above sea level

SAFETY

UL 60950-1 - Second Edition

UL 60950-21 - First Edition

CAN/CSA C22.2 No. 60950-1-07 - Second Edition

CAN/CSA C22.2 No. 60950-21-03 - First Edition

EMI/EMC

47 CFR Part 15 Subpart B, Class B

ICES-003 (Class B)

GR-189 (NEBS Level 3)

TELCORDIA

GR-63 Issue 3, where not superseded by GR-950

GR-487 Issue 2: Sections 3-8, 3-12, 3-22, and 3-35

GR-950 Issue 2

GR-1089 Issue 4 (Class B limits)

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