

- 1 GPON port
- 1 LAN port (10/100/1000BASE-T)
- Remote management via OMCI



ONT NTU-1 — subscriber terminals (ONT) dedicated to connect users to data network through GPON technology.

Use cases

- connecting users in apartment buildings, residential areas, student campuses and facilities to broadband services;
- constructing corporate networks for strategic industrial facilities and business centres with high safety and data rate requirements.

GPON technology

GPON network belongs to one of the varieties of passive optical networks (PON). This is one of the most modern and effective solutions for "last mile", which allows significant savings on cable infrastructure and provides data transmission rates of up to 2.5 Gbps downlink and 1.25 Gbps uplink. The use of GPON-based solutions in access networks makes it possible to provide end users with new IP services.

Features and capabilities

PON interface parameters

- 1 GPON port
- Compliance with ITU-T G.984.2, ITU-T G.984.5 Filter, FSAN Class B+, SFF-8472
- Connector type — SC/APC
- Transmission medium — single-mode optical fiber (SMF)
 - 9/125, G.652
- Maximum operating distance — 20 km
- Transmitter: 1310 nm DFB laser, burst mode
 - Data rate: 1244 Mbps
 - Average output power: +0.5..+5 dBm
 - Spectral line width: 1 nm (-20 dB)
- Receiver: 1490 nm APD/TIA Downstream digital receiver, CW Mode
 - Data rate: 2488 Mbps
 - Receiver sensitivity: -28 dBm, $BER \leq 1.0 \times 10^{-10}$
 - Receiver optical overload: -4 dBm

LAN interface

- 1 port of Ethernet 10/100/1000BASE-T (RJ-45)

Functional features

- Support for QoS mechanisms
- VLAN in compliance with IEEE 802.1Q

Standards supported

- ITU-T G.984.x — GPON
- ITU-T G.988 OMCI specification
- IEEE 802.1D
- IEEE 802.1Q
- IEEE 802.1P

Configuring and monitoring

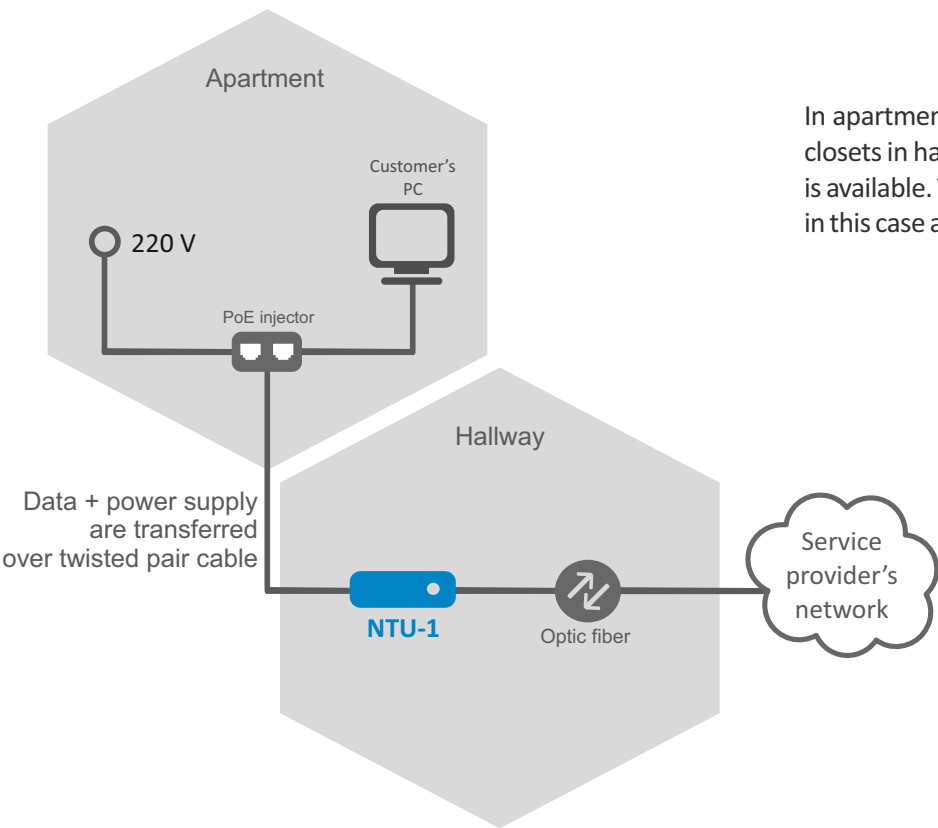
- According to TR-142:
 - Remote management via OMCI
 - Firmware update: OMCI, HTTP

Physical specifications and environmental parameters

- Dimensions (WxHxD) — 112 × 32 × 100 mm, desktop case
- Power supply:
 - Through DC power adapter 12 V / 2 A;
 - Remote power supply via Ethernet cable (UTP CAT-5E) for up to 40 meters*
- Maximum power consumption — 5 W
- Operating temperature range — from +5 to +40 °C
- Operating humidity — up to 80 %
- Weight — 0.25 kg

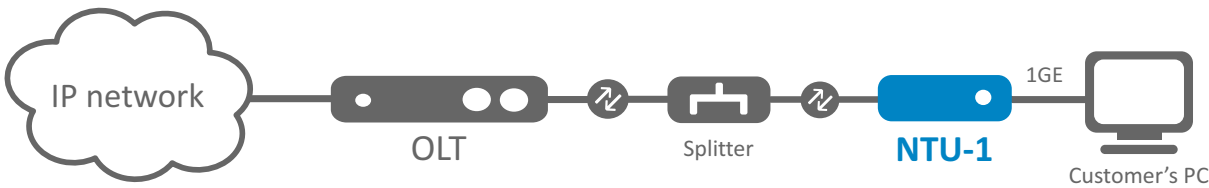
* When using GRT-130100A, SSM-1330-1000A PoE injectors

Use case with PoE injector



In apartment buildings, NTU-1 might be installed in IDF closets in hallways or IDF rooms, where optic fiber cable is available. Twisted pair cable is routed to an apartment in this case and connected to 12 V PoE injector.

Connection diagram



Ordering information

Name	Description
NTU-1	ONT NTU-1, 1 PON port, 1 port of LAN 10/100/1000BASE-T

Contact us

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