

- 1 GPON port
- Gigabit router
- FXS port for analogue phone connection
- USB 2.0 for network drive connection
- RF port for CaTV service provision
- Wi-Fi 802.11a/b/g/n/ac

ONT NTU — high-performance multifunction subscriber terminals that are designed to access modern telephony, IPTV, OTT services as well as high-speed Internet. Furthermore, NTU-RG terminals allow service providers to offer their clients a wide range of services and opportunities for operation in local network.

PON technology

PON technology — one of the most effective “last mile” solution today. The technology helps to reduce costs for cable infrastructure and ensures data rates of 2.5 Gbps downlink and 1.25 Gbps uplink. The use of PON technology in access networks allows providing end users with access to up-to-date IP services.

Multifunction device

An integrated gigabit router for up to 4¹ ports of 10/100/1000BASE-T ensures high-speed connection of the devices in a network. The FXS port provides access to IP telephony services. The USB port can be used for USB device connection (USB flash drive, external HDD, printer).

Provided services

- High-speed access to the Internet
- Stream video/High Definition TV/IPTV, Video on Demand (VoD), video conference
- VoIP
- Online educational and entertainment programmes

Use cases

- Broadband access services provision for subscribers in apartment houses, residential areas, campuses or suburban settlements
- Corporate network construction at large strategic enterprises or in office buildings with high requirements in terms of security and data transfer rates

Wireless connection

NTU-RG-1421GC-Wac and NTU-RG-5421GC-Wac support IEEE 802.11ac standard, that provides data rates of up to 1300 Mbps (up to 866 Mbps for NTU-RG-5421GC-Wac) and deliver modern high performance services to client equipment through the wireless network. Two integrated Wi-Fi controllers ensure simultaneous dual band operation: on 2.4 GHz and 5 GHz.



NTU-1C



NTU-2VC



NTU-52VC



NTU-RG-5421GC-Wac/NTU-RG-1421GC-Wac

¹ NTU-1C has one Gigabit Ethernet port, NTU-2VC/NTU-52VC have one Gigabit Ethernet port and one port of Fast Ethernet.

ONT NTU interface configuration

	WAN	LAN	FXS	RF	Wi-Fi	USB
NTU-1C	1 × GPON	1 × 1G	–	1	–	–
NTU-2VC	1 × GPON	1×100M + 1×1G	1	1	–	–
NTU-52VC	1 × GPON	1×100M + 1×1G	1	1	–	–
NTU-RG-1421GC-Wac	1 × GPON	4 × 1G	1	1	802.11n, 2*2 – 300 Mbps – 2.4 GHz 802.11ac, 3*3 – 1.3 Mbps – 5 GHz	1 × USB 2.0
NTU-RG-5421GC-Wac	1 × GPON	4 × 1G	1	1	802.11n, 2*2 – 300 Mbps – 2.4 GHz 802.11ac, 2*2 – 866 Mbps – 5 GHz	1 × USB 2.0

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 — fiber-optic cable 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 digital receiver, CW Mode
 - Data rate: 2488 Mbps
 - Receiver sensitivity: -28 dBm, BER≤1.0x10⁻¹⁰
 - Receiver optical overload: -4 dBm

CaTV

- CaTV receiver 1550 nm
- Input optical power: -8..+2 dBm
- Carrier-to-noise ratio (CNR): 46 dB
- Bandwidth: from 47 to 870 MHz
- High-frequency output: 17 dBmV for each channel, from 4 dB when antenna is uptilted (positive values of antenna tilt)
- Output radio frequency resistance: 75 Ohm

LAN interfaces

- NTU-1C: 1 port of Ethernet 10/100/1000BASE-T (RJ-45)
- NTU-2VC, NTU-52VC: 1 port of Ethernet 10/100/1000BASE-T and 1 port of Ethernet 10/100BASE-T (RJ-45)
- NTU-RG-1421GC-Wac, NTU-RG-5421GC-Wac: 4 ports of Ethernet 10/100/1000BASE-T (RJ-45)

FXS¹

- 1 FXS port
- Support for SIP
- Audiocodex: G.729 (A), G.711(A/U), G.723.1
- Fax transmission: G.711, T.38
- Line resistance: up to 2 kOhm
- Pulse and DTMF dialing
- Caller ID issuing

Wireless module parameters

NTU-RG-1421GC-Wac, NTU-RG-5421GC-Wac

- Standards 802.11a/b/g/n/ac
- Frequency range 2400 ~ 2483.5 MHz, 5150 ~ 5350 MHz, 5650 ~ 5850 MHz
- Simultaneous Dual Band
- CCK, BPSK, QPSK, 16 QAM, 64 QAM, 256 QAM modulations

Operating channels

- 802.11b/g/n: 1-13
- 802.11a/n/ac: 36-64, 132-165

Wireless data rate²

- 802.11b: 1, 2, 5.5 and 11 Mbps
- 802.11g: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps
- 802.11n: 300 Mbps (channel 20 MHz), 450 Mbps (40 MHz)
- 802.11ac:
 - 1300 Mbps (80 MHz) for NTU-RG-1421GC-Wac
 - 866 Mbps (80 MHz) for NTU-RG-5421GC-Wac

Maximum transmitter output³

- 802.11b (11 Mbps): 17 dBm
- 802.11g (54 Mbps): 15 dBm
- 802.11n (MCS7): 15 dBm
- 802.11ac (MCS0): 19 dBm

¹ NTU-1C is not supplied with FXS port.

² The maximum wireless data rate is defined according to IEEE 802.11n/ac standard. The real bandwidth can be different. Conditions of the network, environment, the amount of traffic, building materials and network service data can decrease the real bandwidth and influence the network coverage range.

³ The number of channels and the value of the maximum output power will vary according to the rules of radio frequency regulation in your country.

Features and capabilities

USB interface

NTU-RG-1421GC-Wac, NTU-RG-5421GC-Wac

- 1 port of USB 2.0 — for USB devices connection

Physical specifications and ambient parameters

- NTU-1C, NTU-2VC, NTU-52VC:
 dimensions (W × H × D) — 160 × 40 × 124 mm, desktop case
- NTU-RG-1421GC-Wac, NTU-RG-5421GC-Wac:
 dimensions (W × H × D) — 220 × 50 × 120 mm, desktop case
- Power supply through external power adapter 12 V/2 A
- Maximum power consumption:
 - 5 W (NTU-1C)
 - 6 W (NTU-2VC)
 - 10 W (NTU-52VC)
 - 15 W (NTU-RG-1421GC-Wac, NTU-RG-5421GC-Wac)
- Operating temperature range: from +5 to +40 °C
- Operating relative humidity: up to 80 %

Functional features

- Support for TR-069
- Bridge and router (including virtual) mode operation
- PPPoE (auto, PAP-, MSCHAP- and CHAP-authorization)
- Support for IPoE (DHCP-client and static)

- DHCP server in LAN
- Multicast transmission via Wi-Fi
- DNS (Domain Name System)
- DynDNS (Dynamic DNS)
- UPNP (Universal Plug and Play)
- NAT (Network Address Translation)
- NTP (Network Time Protocol)
- Support for QoS mechanisms
- IGMP Snooping
- GMP Proxy
- UPNP, SMB, FTP-alg, Print Server
- VLAN according to IEEE 802.1Q

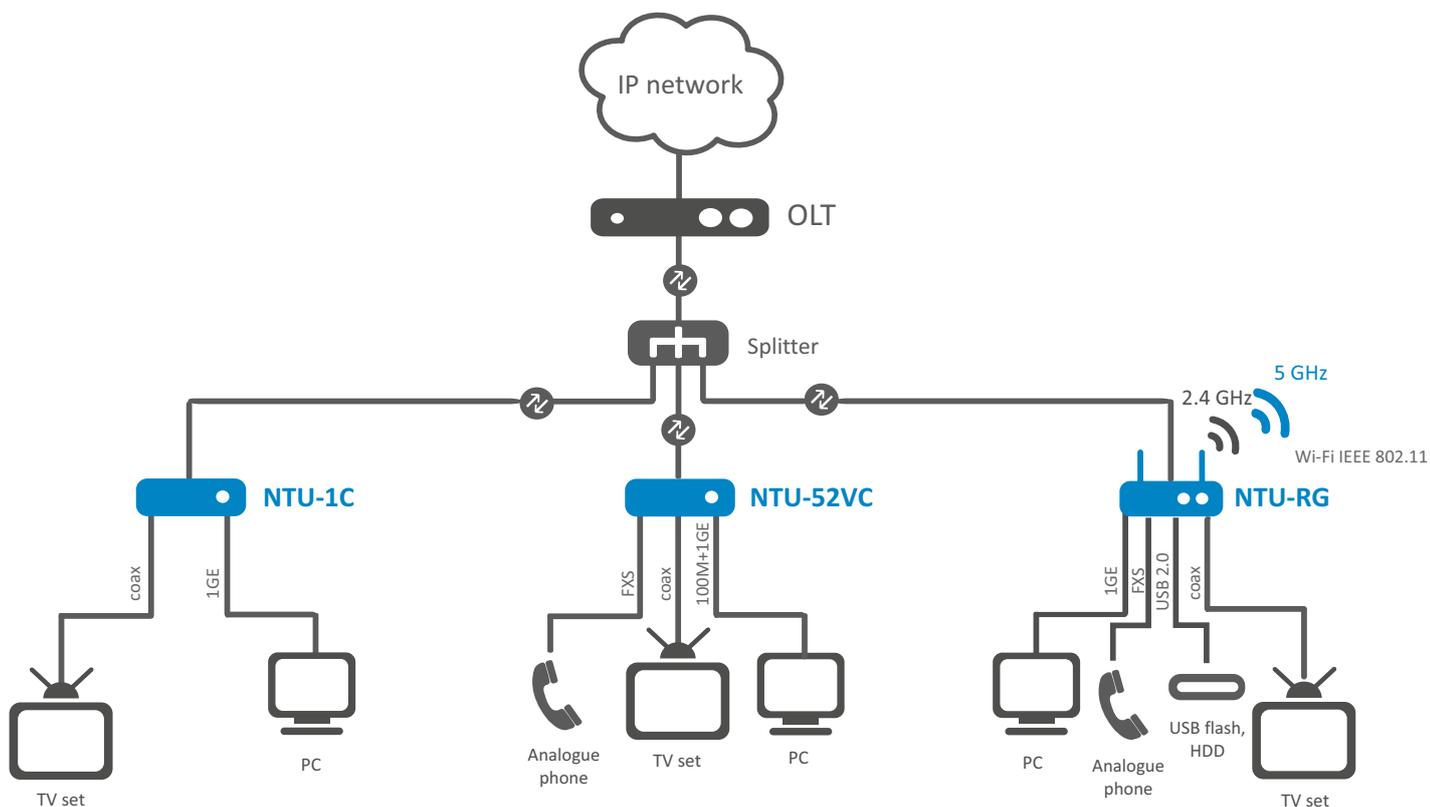
Security features

- Data rate limiting on ports
- FEC coding

Configuration and monitoring

- According to TR-142:
 - Remote management via OMCI
 - Remote management via TR-069
 - Local management via WEB/CLI
 - Firmware update via OMCI, TR-069, HTTP, TFTP

Use case



Ordering information

Name	Description
NTU-1C	ONT NTU-1C, 1 port LAN 10/100/1000BASE-T, 1 × GPON, 1 × RF
NTU-2VC	ONT NTU-2VC, 1 port LAN 10/100/1000BASE-T, 1 port LAN 10/100BASE-T, 1 × GPON, 1 × FXS, 1 × RF
NTU-52VC	ONT NTU-52VC, 1 port LAN 10/100/1000BASE-T, 1 port LAN 10/100BASE-T, 1 × GPON, 1 × FXS, 1 × RF
NTU-RG-1421GC-Wac	ONT NTU-RG-1421GC-Wac, 4 ports LAN 10/100/1000BASE-T, 1 × GPON, 1 × USB, 1 × FXS, 1 × RF, Wi-Fi (802.11n, 2*2 – 300 Mbps – 2.4 GHz + 802.11ac, 3*3 – 1.3 Gbps – 5 GHz)
NTU-RG-5421GC-Wac	ONT NTU-RG-5421GC-Wac, 4 ports LAN 10/100/1000BASE-T, 1 × GPON, 1 × USB, 1 × FXS, 1 × RF, Wi-Fi (802.11n, 2*2 – 300 Mbps – 2.4 GHz + 802.11ac, 2*2 – 866 Mbps – 5 GHz)

Related software

ACS-CPE-512	ACS-CPE-512 option of Eltex.ACS for Eltex CPE autoconfiguration: 512 subscriber devices
ACS-CPE-1024	ACS-CPE-1024 option of Eltex.ACS for Eltex CPE autoconfiguration: 1024 subscriber devices

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ELTEX Enterprise is a leading Russian developer and manufacturer of communications equipment with 30 years of history. Complete solutions and their seamless integrability into Customer's infrastructure are the priority growth areas of the company.