

- 1 GPON port
- 4 LAN Gigabit Ethernet ports
- FXS port for analogue phone connection¹
- USB 2.0 port for USB drive or printer connection
- Dual-band Wi-Fi (802.11a/b/g/n/ac)
- Wi-Fi EasyMesh²
- «Smart Home» controller

NTU series ONT – is a high performance multifunctional subscriber terminal that is designed to access IPTV and OTT services as well as high-speed Internet. Furthermore, NTU-RG series subscriber terminals allow carriers to offer their clients a wide range of services and opportunities to work in a local network.

PON technology

PON technology is one of the most effective last mile solutions 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 IP services.

Universal devices

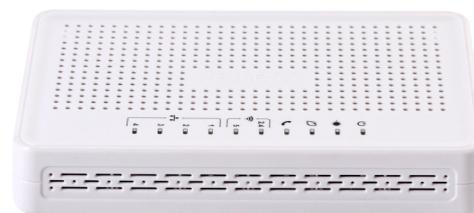
The integrated gigabit router for 4x10/100/1000BASE-T ports ensures high-speed connection of devices in a network. FXS¹ port provides access to IP telephony services. The USB port can be used for USB device connection (USB flash drive, external HDD, printer).

«Smart Home» system controller

The device contains integrated controller for «Smart Home» system. The controller provides interaction with sensors and detectors through the wireless channel.

Provided services

- High-speed access to the Internet
- Stream video/High Definition TV/IP TV, Video on Demand (VoD), video conference
- IP telephony
- Online educational and entertainment programs
- «Smart Home» management



NTU-RG-1421G-WZ/NTU-RG-5421G-WZ



NTU-RG-5440G-WZ

Application

- Providing broadband access services to 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

EasyMesh technology advantages²

- Network intelligence: a self-organizing and self-optimizing network collects information and responds to network conditions for maximum performance
- Efficient load balancing: allows devices to switch to a better connection and avoid interference
- Scalability: allows adding multi-vendor Wi-Fi EasyMesh access points

Wireless connection

NTU-RG subscriber terminals support IEEE 802.11ac standard, that provides data rates up to 1733 Mbps and delivers modern high performance services to subscriber equipment through the wireless network. Two integrated Wi-Fi controllers ensure simultaneous dual band operation in 2.4 and 5 GHz.

¹ For NTU-RG-1421G-WZ/NTU-RG-5421G-WZ

² For NTU-RG-5440G-WZ/NTU-RG-5421G-WZ

ONT NTU interfaces configuration

	WAN	LAN	FXS	Wi-Fi	USB	Интерфейс управления «Умный дом»
NTU-RG-1421G-WZ	1xGPON	4x1G	1	802.11n, 2*2 - 300Mbps- 2.4GHz 802.11ac, 3*3 - 1.3 Gbps - 5GHz	2xUSB2.0	+
NTU-RG-5421G-WZ	1xGPON	4x1G	1	802.11n, 2*2 - 300Mbps- 2.4GHz 802.11ac, 2*2 - 866Mbps - 5GHz	1xUSB2.0	+
NTU-RG-5440G-WZ	1xGPON	4x1G	0	802.11n, 2*2 - 300Mbps- 2.4GHz 802.11ac, 4*4 - 1733Mbps - 5GHz	1xUSB2.0	+

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 media - fiber-optic cable SMF - 9/125, G.652
- Maximum operating distance - 20 km
- Transmitter:
 - 1310 nm DFB Upstream Burt Mode Transmitter
 - Data rate: 1244 Mbps
 - Average Launch Power: +0,5..+5 dBm
 - Spectral Line Width 1 nm (-20 dB)
- Receiver:
 - 1490 nm APD/TIA Downstream CW Mode Digital Receiver
 - Data rate: 2488 Mbps
 - Receiver Sensitivity -28 dBm, BER≤1.0x10⁻¹⁰
 - Receiver Optical Overload: -8 dBm

LAN interface parameters

- 4 ports of Ethernet 10/100/1000 BASE-T (RJ-45)

FXS interface parameters¹

- 1 FXS port
- SIP
- Audiocodecs: G.729 (A), G.711(A/U), G.723.1
- Fax transmission: G.711, T.38
- Loop resistance up to 2 kΩ
- Supported dialing technologies: pulse/frequency (DTMF)
- Caller ID issuing

Wireless module specifications

- Supported standards: 802.11 a/b/g/n/ac
- Frequency range: 2400 ~ 2483.5 MHz, 5150 ~ 5350 MHz, 5650 ~ 5850 MHz
- Support for EasyMesh²
- Simultaneous Dual Band
- CCK, BPSK, QPSK, 16 QAM, 64 QAM, 256 QAM modulation

Operating channels

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

Data rate³

- 802.11b: 1; 2; 5.5 and 11 Mbps
- 802.11g: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps
- 802.11n: 150 Mbps (20 MHz channel), 300 Mbps (40 MHz channel)
- 802.11ac:
 - 1300 Mbps (80 MHz channel) for NTU-RG-1421G-WZ
 - 866 Mbps (80 MHz channel) for NTU-RG-5421G-WZ
 - 1733 Mbps (80 MHz channel) for NTU-RG-5440G-WZ

Maximum output power of the transmitter⁴

NTU-RG-1421G-WZ/NTU-RG-5421G-WZ

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

NTU-RG-5440G-WZ

- 2.4 GHz:
- 802.11b (11 Mbps): 18 dBm
 - 802.11g (54 Mbps): 16 dBm
 - 802.11n (MCS7): 16 dBm
 - 802.11n (MCS0): 18 dBm
- 5 GHz:
- 802.11ac (MCS7): 18 dBm
 - 802.11ac (MCS0): 20 dBm

USB interface

- NTU-RG-1421G-WZ: 2 x USB 2.0
- NTU-RG-5421G-WZ: 1 x USB 2.0
- NTU-RG-5440G-WZ: 1 x USB 2.0

«Smart Home» interface

- Radio interface for «Smart Home» system management

¹ For NTU-RG-1421G-WZ/NTU-RG-5421G-WZ

² For NTU-RG-5440G-WZ/NTU-RG-5421G-WZ

³ 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 constructions and network service data can decrease the real bandwidth. The environment can influence on the network coverage area.

⁴ 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

Physical specifications

- Dimensions:
 - NTU-RG-1421G-WZ/NTU-RG-5421G-WZ - 187x120x32 mm, desktop case, possible to mount on the wall
 - NTU-RG-5440G-WZ - 234x133x34 mm, desktop case, possible to mount on the wall
- Power supply. 12V/2A DC adapter
- Max. power consumption: 18 W
- Operating temperatures from +5 to +40 °C
- Relative humidity up to 80%

Functional specifications

- Support for TR-069
- «Bridge» and «Router» (including virtual ones) operation modes
- Support for PPPoE (auto, PAP, MSCHAP and CHAP authorization)
- Support for IPoE (DHCP-client and static)
- DHCP server on LAN side
- Multicast traffic transmission via Wi-Fi
- DNS (Domain Name System)
- DynDNS (Dynamic DNS)
- UPNP (Universal Plug and Play)
- NAT (Network Address Translation)
- NTP (Network Time Protocol)
- Quality of Service (QoS)
- IGMP Snooping

- IGMP Proxy
- Support for UPNP, SMB, FTP/FTP-alg, Print Server,
- VLAN complying with IEEE 802.1Q

Security functions

- Rate limiting per ports
- FEC coding

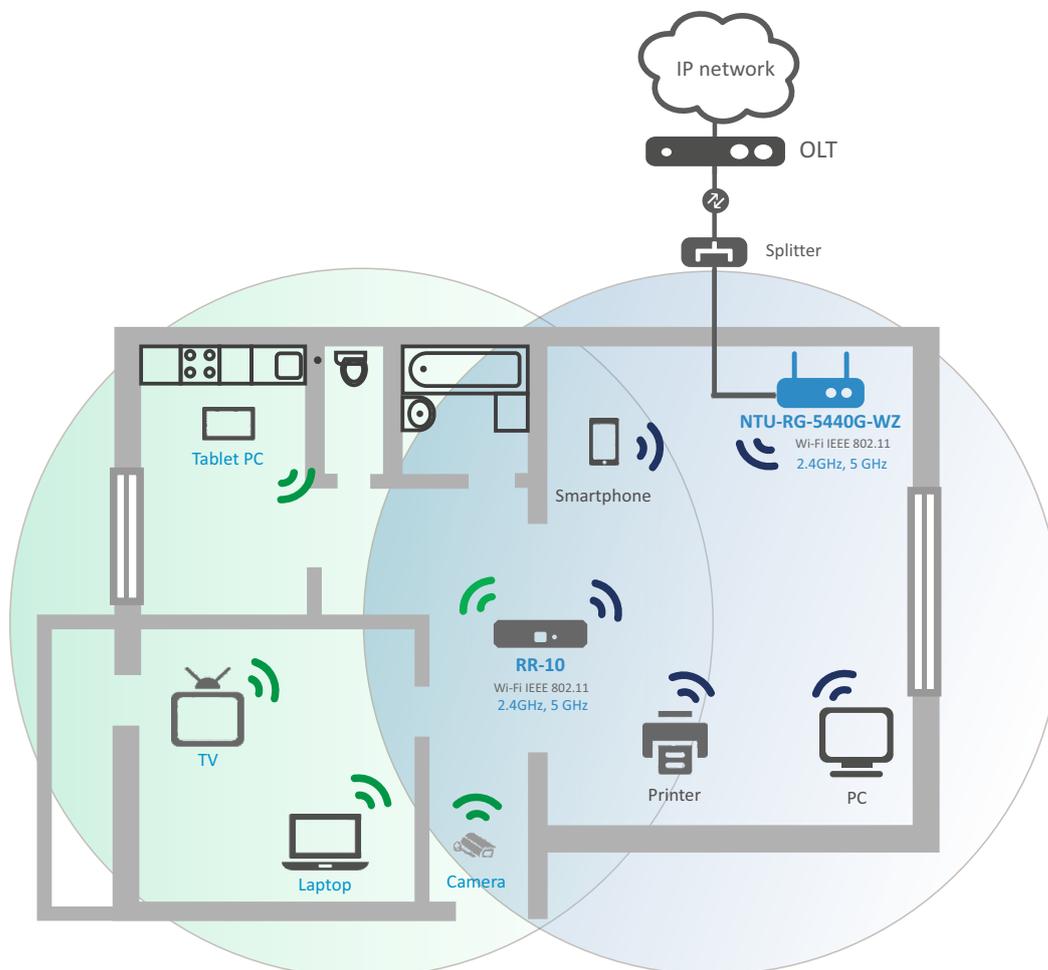
Configuration and monitoring

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

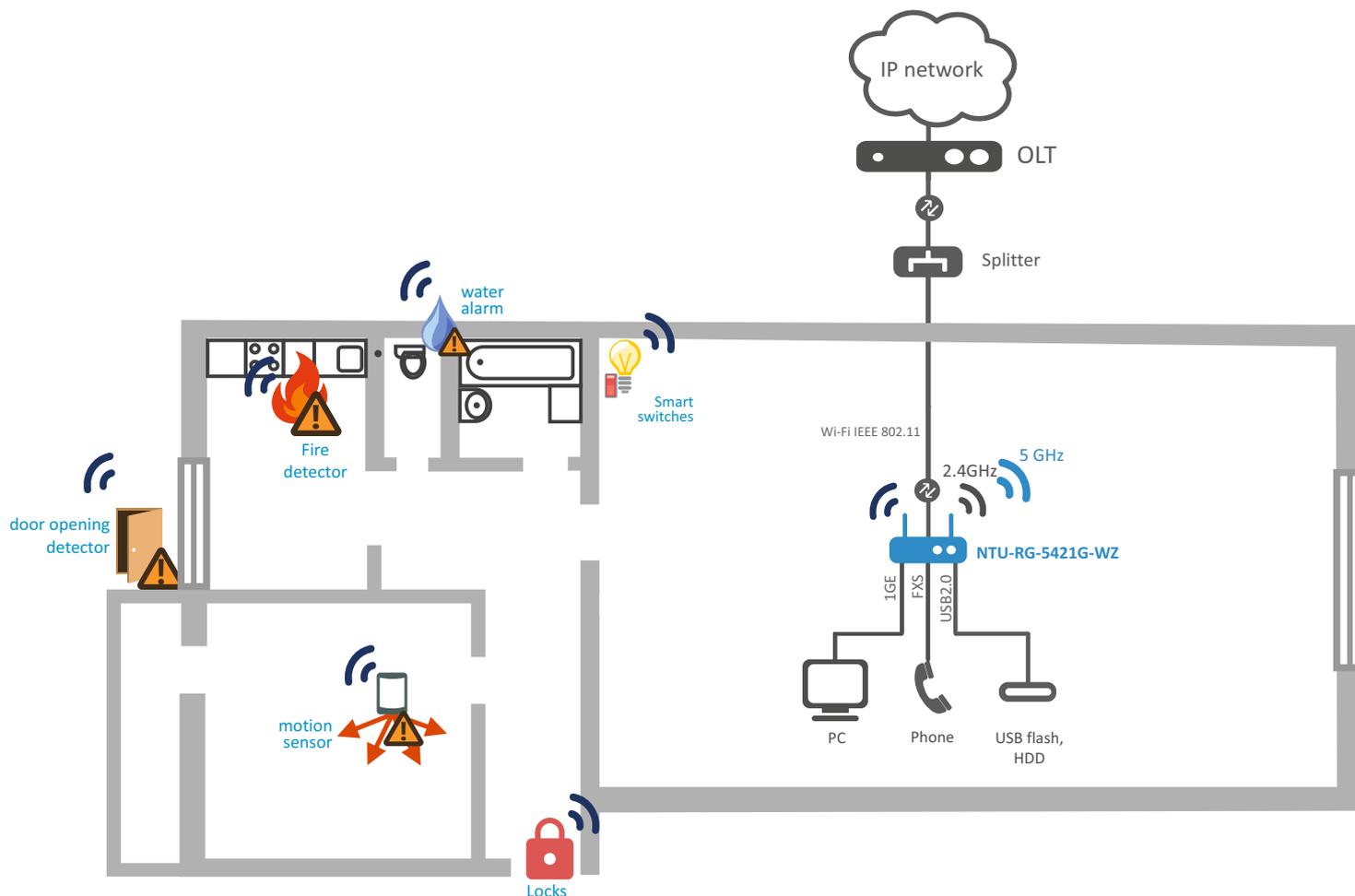
Supported standards

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

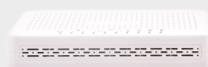
EasyMesh technology use case for NTU-RG-5421G-WZ/NTU-RG-5440G-WZ



«Smart Home» technology use case for NTU-RG-1421G-WZ/NTU-RG-5421G-WZ/NTU-RG-5440G-WZ



Ordering information

Name	Description	Image
NTU-RG-1421G-WZ	ONT NTU-RG-1421G-WZ, 4 ports of LAN 10/100/1000Base-T, 2xUSB, 1xFXS, Wi-Fi (802.11n, 2*2 - 300Mbps - 2.4GHz + 802.11ac, 3*3 - 1.3Gbps - 5GHz)	
NTU-RG-5421G-WZ	ONT NTU-RG-5421G-WZ, 4 ports of LAN 10/100/1000Base-T, 1xUSB, 1xFXS, Wi-Fi (802.11n, 2*2 - 300Mbps - 2.4GHz + 802.11ac, 2*2 - 866Mbps - 5GHz)	
NTU-RG-5440G-WZ	ONT NTU-RG-5440G-WZ, 4 ports of LAN 10/100/1000Base-T, 1xUSB, Wi-Fi (802.11n, 2*2 - 300Mbps - 2.4GHz + 802.11ac, 4*4 - 1733Mbps - 5GHz)	

Related Software

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

Contact us

+7 (383) 274 10 01
+7 (383) 274 48 48

 eltex@eltex-co.ru

 www.eltex-co.com

About Eltex

Eltex is a leading Russian developer and manufacturer of telecommunication equipment with 25 years of history. Integrity of solutions and seamless integration capability into Customer infrastructure is a priority area of company development.