## Key benefits

- **Standard ITU G.984 GPON**
- **Triple-Play Services - VoIP, IPTV, Internet Access**
- **USB 2.0 port**
- **integrated CATV port, which can be connected to a TV set to provide high-quality CATV service transmission**
- **Wi-Fi 802.11n, up to 300 Mbps**

ONT NTP are the high-performance multi-function user terminals intended for access to advanced telephony services and high speed Internet. In addition, the user terminals of the RG series provide users with extended opportunities to work in a local network.

### PON TECHNOLOGY

GPON technology is one of the most modern and efficient "last mile" solutions, allowing significant savings on cabling infrastructure and providing data rates of up to 2.5 Gb/s in downlink direction and 1.25 Gb/s in the uplink direction. The use of solutions based on the GPON technology in access networks gives the ability to provide the end-user with an access to a set of services on the basis of IP.

### UNIVERSAL DEVICES

A built-in Gigabit 4-Port 10/100/1000 Base-T router allows organizing a high-speed connection of devices in a network.
2 FXS ports allow using the services of IP-telephony. Devices with a built-in triplexer have a RF-output that connects to a TV to view analogue or digital cable TV (provided the service is available from the operator). The USB port can be used to connect USB-devices (USB-flash drive, external HDD) or to connect a printer.

### AVAILABLE SERVICES

- High-speed internet access
- Streaming video/High Definition TV/IPTV, video on demand (VoD), video conferencing
- Cable TV (CaTV)
- IP-telephony
- Online entertainment and educational programs

### APPLICATIONS

Connecting subscribers to broadband services in apartment buildings, residential complexes, campuses and cottage settlements
Building corporate networks at large strategic enterprises, business centres with high security requirements and data rate requirements

Wireless
Subscriber units support connection on standard IEEE 802.11b/g/n on the 2.4GHz and the 2.4/5 GHz (optional) frequency.

### SPECIFICATIONS

| Name | WAN | LAN | POTS | Wi-Fi | RF | USB |
|---|---|---|---|---|---|---|
| NTP-2 | 1xGPON | 2x1G | | | | |
| NTP-2C | 1xGPON | 2x1G | | | 1xRF | |
| NTP-RG-1402G-W | 1xGPON | 4x1G | 2xFXS | ● | | 2xUSB2.0 |
| NTP-RG-1402GC-W | 1xGPON | 4x1G | 2xFXS | ● | 1xRF | 1xUSB2.0 |

# TECHNICAL SPECIFICATIONS NTP-2(C)

## INTERFACES

### GPON

– 1 x GPON port

**NTP-2**

– ITU-T G.984.2 compliance, FSAN Class A+
– SC/APC connector
– 9/125 µm single-mode fiber (SMF)
– Up to 1:64 splitting ratio
– 10km reach
– **Tx**: 1310 nm
  – Data Rate: 1244 Mbps
  – Avarage Launch Power: -2...+3 dBm
  – Spectral Width (RMS): 3 nm
– **Rx**: 1490 nm
  – Data Rate: 2488 Mbps
  – Receiver Sensitivity: -23 dBm with BER better than or equal to $1.0x10^{-10}$
  – Receiver Optical Overload: -3 dBm

**NTP-2C**

– ITU-T G.984.2 compliance, ITU-T G.984.5 Filter, FSAN Class B+, SFF-8472
– SC/APC connector
– 9/125 µm single-mode fiber (SMF)
– Up to 1:64 splitting ratio
– 20km reach
– **Tx**: 1310nm DFB Upstream Burst Mode Transmitter
  – Data Rate: 1244Mb/s
  – Average Launch Power +0,5..+5 dBm
  – Spectral Line Width @ -20 dB 1 nm
– **Rx**: 1490nm APD/TIA Downstream CW Mode Digital Receiver
  – Data Rate: 2488Mb/s
  – Receiver Sensitivity -28 dBm With BER better than or equal to $1.0x10^{-10}$
  – Receiver Optical Overload -4 dBm
– **CaTV Rx**: 1550nm Downstream Linear CATV Video Receiver
  – Optical Input Power: -8..+2 dBm
  – Compound Second Order (CSO): -55 dB
  – Compound Triple Beat (CTB): -55 dB
  – Carrier to Noise Ratio (CNR): 46 dB
  – RF Bandwidth: 47 to 870MHz
  – RF Output: 17dBmV / ch with 4dB positive tilt
  – RF Output Impedance: 75Ω

### Ethernet

– 2 x Ethernet 10/100/1000 Base-T ports (RJ-45)

## PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

– Dimensions (WxHxD) - 151x107x40 mm
– Horizontal stand
– Power supply - 12V DC
– Power Dissipation - up to 12W
– Operating temperature: +5° to +40°C
– Relative humidity operating: to 80% (noncondensing)

## STANDARD COMPLIANCE

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

## FEATURES AND BENEFITS

– TR-069
– PPPoE (auto, PAP, MSCHAP and CHAP)
– IPoE (DHCP-client and static)
– DHCP Server
– Ethernet bridging/switching per IEEE802.1d/802.1q
– DNS (Domain Name System)
– DynDNS (Dynamic DNS)
– UPNP (Universal Plug and Play)
– NAT (Network Address Translation)
– NTP (Network Time Protocol)
– QoS with support for IEEE 802.1p + DSCP VLANs
– IGMP v2 Snooping
– IGMP Proxy
– 802.1Q VLAN tagging
– Traffic Shaping
– Advanced Encryption Standard (AES)
– Forward Error Correction (FEC)

## MANAGMENT

– OMCI
– Web UI
– CLI
– TR-069
– Update software: HTTP, TFTP

# TECHNICAL SPECIFICATIONS NTP-RG-1402G-W

## INTERFACES

### GPON

– 1 x GPON port
– ITU-T G.984.2 compliance, FSAN Class A+
– SC/APC connector
– 9/125 µm single-mode fiber (SMF)
– Up to 1:64 splitting ratio
– 10km reach

– **Tx**: 1310 nm
  – Data Rate: 1244 Mbps
  – Avarage Launch Power: -2...+3 dBm
  – Spectral Width (RMS): 3 nm
– **Rx**: 1490 nm
  – Data Rate: 2488 Mbps
  – Receiver Sensitivity: -23 dBm with BER better than or equal to $1.0x10^{-10}$
  – Receiver Optical Overload: -3 dBm

### Ethernet

– 4 x Ethernet 10/100/1000 Base-T ports (RJ-45)

### POTS

– 2 x FXS ports

### Wireless Support

– Standard compliance - 802.11 b/g/n
– Security: 64/128/152-bit WEP Encryption, WEP, WPA, WPA2
– Frequency range 2400 ~ 2497 MHZ
– PSK/CCK, DBPSK, DQPSK, OFDM Modulation

**Data Rate, Mbps**

– 802.11b: 1, 2, 5.5 ,11, 6, 9, 12 , 18, 24, 36, 48, 54
– 802.11g (20 MHz BW): 130, 117, 104, 78, 52, 39, 26, 13
– 802.11n (40 MHz BW): 270, 243, 216, 162, 108, 81, 54, 27

**Transmit Output Power**

– 802.11b: 17dBm +/-1.5dBm
– 802.11g: 15dBm +/-1.5dBm
– 802.11gn: 14,75dBm +/-1.5dBm

### USB

– 2 x USB 2.0 Type A connector

## PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

– Dimensions (WxHxD) - 187x120x32 mm
– Horizontal stand
– Power supply - 12V DC
– Power Dissipation - up to 16W
– Operating temperature: +5° to +40°C
– Relative humidity operating: to 80% (noncondensing)

## STANDARD COMPLIANCE

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

## FEATURES AND BENEFITS

– TR-069
– PPPoE (auto, PAP, MSCHAP and CHAP)
– IPoE (DHCP-client and static)
– DHCP Server
– Ethernet bridging/switching per IEEE802.1d/802.1q
– DNS (Domain Name System)
– DynDNS (Dynamic DNS)
– UPNP (Universal Plug and Play)
– NAT (Network Address Translation)
– NTP (Network Time Protocol)
– QoS with support for IEEE 802.1p + DSCP VLANs
– IGMP v2 Snooping
– IGMP Proxy
– 802.1Q VLAN tagging
– Traffic Shaping
– Advanced Encryption Standard (AES)
– Forward Error Correction (FEC)

### Voice Support

– SIP (RFC 3261)
– Codec: G.729 (A), G.711(A/U), G.723.1
– G.711 and T.38 FAX
– DTMF dialing
– Caller ID

## MANAGMENT

– TR-142:
  – OMCI
  – TR-069
– Terminal for Command Line Interface (CLI)
– Web GUI based Management
– Update Software: OMCI, TR-069, HTTP, TFTP

# TECHNICAL SPECIFICATIONS NTP-RG-1402GC-W

## INTERFACES

### GPON

– 1 x GPON port
– ITU-T G.984.2, ITU-T G.984.5 Filter, FSAN Class B+, SFF-8472
– SC/APC connector
– 9/125 µm single-mode fiber (SMF)
– Up to 1:64 splitting ratio
– 20km reach

– **Tx**: 1310 nm DFB Upstream Burst Mode Transmitter
  – Data Rate: 1244 Mbps
  – Avarage Launch Power: +0,5..+5 dBm
  – Spectral Line Width @ -20 dB 1 nm
– **Rx**: 1490 nm APD/TIA Downstream CW Mode Digital Receiver
  – Data Rate: 2488 Mbps
  – Receiver Sensitivity: -28 dBm With BER better than or equal to $1.0x10^{-10}$
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– **CaTV Rx**: 1550nm Downstream Linear CATV Video Receiver
  – Optical Input Power: -8..+2 dBm
  – Compound Second Order (CSO): -55 dB
  – Compound Triple Beat (CTB): -55 dB
  – Carrier to Noise Ratio (CNR): 46 dB
  – RF Bandwidth: 47 to 870MHz
  – RF Output: 17dBmV / ch with 4dB positive tilt
  – RF Output Impedance: 75Ω

### Ethernet

– 4 x Ethernet 10/100/1000 Base-T ports (RJ-45)

### POTS

– 2 FXS ports

### Wireless Support

– Standart compliance - 802.11 b/g/n
– Security: 64/128/152-bit WEP Encryption, WEP, WPA, WPA2
– Frequency range 2400 ~ 2497 MHZ
– PSK/CCK, DBPSK, DQPSK, OFDM Modulation

**Data Rate, Mbps**

– 802.11b: 1, 2, 5.5 ,11, 6, 9, 12 , 18, 24, 36, 48, 54
– 802.11g (20 MHz BW): 130, 117, 104, 78, 52, 39, 26, 13
– 802.11n (40 MHz BW): 270, 243, 216, 162, 108, 81, 54, 27

**Transmit Output Power**

– 802.11b: 17dBm +/-1.5dBm
– 802.11g: 15dBm +/-1.5dBm
– 802.11gn: 14,75dBm +/-1.5dBm

### USB

– USB 2.0 Type A connector

## PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

– Dimensions (WxHxD) - 218x120x49 mm
– Horizontal stand
– Power supply - 12V DC
– Power Dissipation - up to 24W
– Operating temperature: $+5^{0}$ to $+40^{0}$C
– Relative humidity operating: to 80% (noncondensing)

## STANDARD COMPLIANCE

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

## FEATURES AND BENEFITS

– TR-069
– PPPoE (auto, PAP, MSCHAP and CHAP)
– IPoE (DHCP-client and static)
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– Ethernet bridging/switching per IEEE802.1d/802.1q
– DNS (Domain Name System)
– DynDNS (Dynamic DNS)
– UPNP (Universal Plug and Play)
– NAT (Network Address Translation)
– NTP (Network Time Protocol)
– QoS with support for IEEE 802.1p + DSCP VLANs
– IGMP v2 Snooping
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– 802.1Q VLAN tagging
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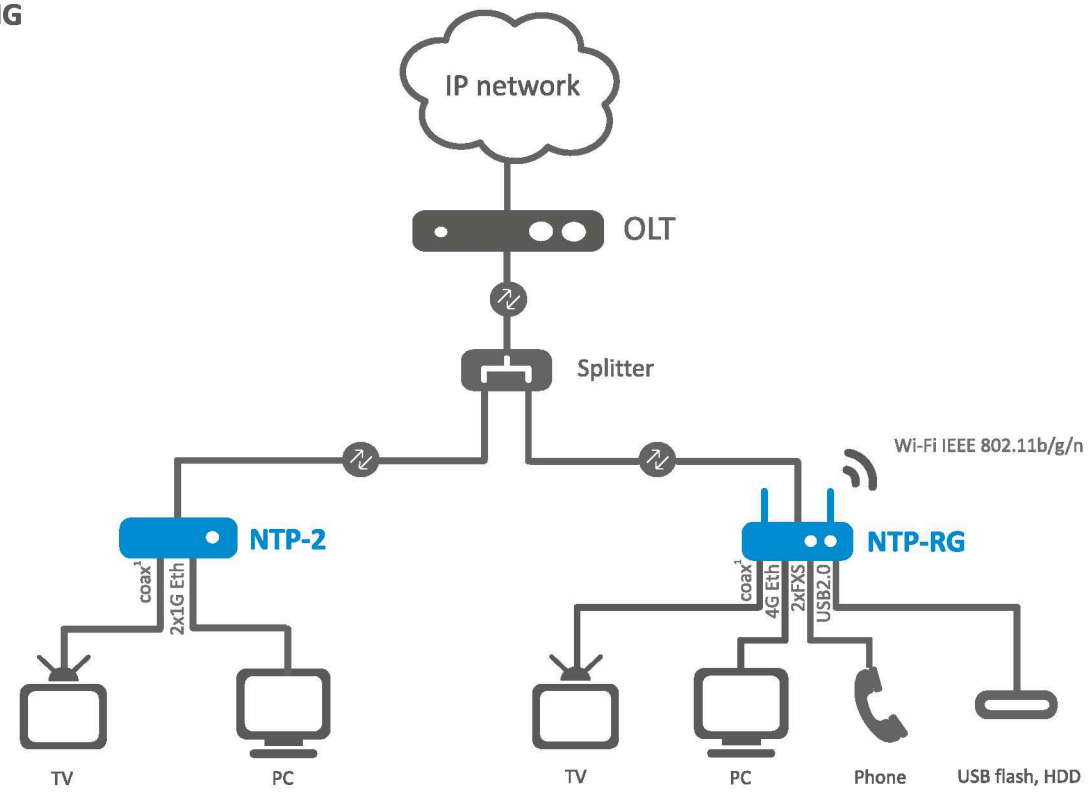
### Voice Support

– SIP (RFC 3261)
– Codec: G.729 (A), G.711(A/U), G.723.1
– G.711 and T.38 FAX
– DTMF dialing
– Caller ID

## MANAGMENT

– TR-142:
  – OMCI
  – TR-069
– Terminal for Command Line Interface (CLI)
– Web GUI based Management
– Update Software: OMCI, TR-069, HTTP, TFTP

## SCHEME OF USING




[1] For NTP-2C, NTP-RG-1402GC-W models

## ORDERING INFORMATION

| Name | Description | Picture |
|---|---|---|
| NTP-2 | ONT NTP-2: 1 x GPON port, 2 x LAN 10/100/1000 Base-T ports | |
| NTP-2C | ONT NTP-2C: 1 x GPON port, 2 x LAN 10/100/1000 Base-T ports, 1 x RF-port | |
| NTP-RG-1402G-W | ONT NTP-RG-1402G-W: 1 x GPON port, 4 x LAN 10/100/1000 Base-T ports, 2 x USB2.0 ports, 2 x POTS, Wi-Fi (802.11n, 300 Mbps, 2,4 GHz, 2 internal antennas) | |
| NTP-RG-1402GC-W | ONT NTP-RG-1402G-W: 1 x GPON port, 4 x LAN 10/100/1000 Base-T ports, 2 x USB2.0 ports, 2 x POTS, Wi-Fi (802.11n, 300 Mbps, 2,4 GHz, 2 internal antennas), 1 x RF-port | |
| | **Software** | |
| ACS-CPE-512 | Eltex.ACS system option ACS-CPE-512 for managment and autoconfiguration Eltex CPE: 512 CPE | |
| ACS-CPE-1024 | Eltex.ACS system option ACS-CPE-1024 for managment and autoconfiguration Eltex CPE: 1024 CPE | |

**About Eltex**

For more than twenty years major Russian company Eltex Enterprise, Ltd been designing and manufacturing a wide range of telecommunications and networking equipment: GPON devices, Ethernet-switches, Service Routers, Wireless, VoIP-gateways, Softswitch & IMS, Set-top Boxes and much more.

**Contact us**

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

eltex@eltex.nsk.ru

www.eltex.nsk.ru