

NTP-RG-1400G-W/GC-W, NTP-RG-1402G-W/GC-W

NTP-RG-140xG-W/GC-W subscriber terminals are designed for connection to high equipment of passive optical networks (GPON) and providing of broadband access services to user.

PON technology

GPON network refers to a type of Passive Optical Networks (PON). It is one of the most effective and advanced “last mile” solution which enables to significantly save on cable infrastructure and to provide downlink transmission rate up to 2.5 Gbps and 1.25 Gbps uplink rate. GPON solutions application on access networks makes it possible to user to get access to new services based on IP protocol along with ordinary telephone services.

Wireless Wi-Fi connection

Two modifications of subscriber terminals with 2.4GHz transceivers or 802.11n standard dual-range 2.4/5GHz transceivers enable to connect devices at rate up to 300 Mbps using less loaded 5GHz frequency range.

Available services

- High-speed access to Internet;
- Streaming video/High Definition TV;
- IP TV;
- IP telephony;
- Video on demand (VoD);
- Video conference;
- Online entertaining and teaching programs



- + 1 GPON port
- + Gigabit router
- 4 10/100/1000Base-T ports
- + 2 FXS ports
(for NTP-RG-1402x)
- + Wi-Fi 802.11n, up to 300Mbps
(2.4GHz or 2.4/5GHz)
- + USB port
- + Max. distance to OLT: 20 km
- + Embedded Triplexer for providing
CaTV service
(for NTP-RG-1402GC/GC-W)

Typical application

- Connection of tenement houses and cottage settlements subscribers to broadband access services;
- Corporate networking in large-scale enterprises and business centers.



Technical characteristics

LAN interface parameters

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

PON interface parameters

- 1 GPON port

Supported standards

- IEEE 802.1d
- IEEE 802.1w
- IEEE 802.1Q
- IEEE 802.1p

- Transmission medium: SMF 9/125, G.652
- Connector type: SC/APC
- Transmitter power: from +0.5 to +5 dB
- Receiver sensitivity: from -28 to -8 dB
- Optical power budget upstream/downstream: 30.5/30 dB
- Min. optical loss upstream/downstream: 11 dB/15 dB
- Wavelength upstream/downstream: 1310/1490 nm
- Spectral width of the laser upstream/downstream: 1nm/1nm
- Transmission speed upstream/downstream: 1.25/2.5 (1.25) Gbps
- Max. transmission distance: 20 km.

CaTV characteristics (for NTP-RG-140xGC-W)

- SMB connector for RF output

Supported standards

- ITU-T G.984.2
- IEC 60825-1
- EEC Directive 2002/95/EC (RoHS)

- Input optical power: from -8 to 2 dB
- Wavelength CaTV: 1550 nm
- Output frequency range: from 47 to 870 MHz
- Output level RF: 18 dBmV/channel.

Configuration

- Web interface, CLI
- Remote control via Telnet, SNMP, SSH
- Management and software updating via TR-069 protocol

IP telephony (for NTP-RG-1402G-W/GC-W)

Supported protocols - SIP

Audio codecs

- G.729, annex A, annex B
- G.711(A/m)
- G.723.1 (5,3 Kbps)
- G.726

Fax transfer

- G.711

Analog subscriber port parameters

- 2 FXS ports
- Loop resistance: up to 2 KOhm
- Dual Tone Multiple Frequency (DTMF)
- Overcurrent and overvoltage protection of line interface
- Caller ID

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subscriber terminals
GPON

Wi-Fi wireless interface parameters

Standards: 802.11 b/g, 802.11n

Frequency range: 2400 ~ 2483,5 MHz, 2400/5000 MHz

Modulation: BPSK, QPSK, 16 QAM, 64 QAM, DBPSK, DQPSK, CCK

Data transmission rate, Mbps:

802.11b(CCK): 1, 2, 5.5, 11

802.11g(OFDM): 6, 9, 12, 18, 24, 36, 48, 54

802.11n (HT20, 800ns GI): 130, 117, 104, 78, 52, 39, 26, 13

802.11n (HT40, 400ns GI): 300, 270, 240, 180, 120, 90, 60

802.11n (HT40, 800ns GI): 270, 243, 216, 162, 108, 81, 54, 27

Maximum output transmitter power:

802.11b (11 Mbps): 16,5 dBm

802.11g (54 Mbps): 12,5 dBm

802.11n (HT20-MCS7): 10,5 dBm

802.11n (HT40-MCS7): 9,5 dBm

Receiver sensitivity:

802.11b (11 Mbps): -86 dBm

802.11g (54 Mbps): -73 dBm

802.11n (HT20-MCS7): -68 dBm

802.11n (HT40-MCS7): -65 dBm

Safety

64/128/152 bit WEP data encryption, WEP, WPA, WPA2

Operating system:

Windows XP 32/64, Windows Vista 32/64, Windows 7 32/64

Features

- Operation in «bridge» or «router» modes
- PPPoE (PAP, SPAP and CHAP authorization) support
- Static address and DHCP (DHCP client on WAN port, DHCP server on LAN port, DHCP-relay)
- Multicast traffic transmission via Wi-Fi
- Domain Name System (DNS)
- Dynamic DNS (DynDNS)
- Universal Plug and Play (UPNP)
- Network Address Translation (NAT)
- Network Time Protocol (NTP)
- TR-069/TR-142
- Quality of Services (QoS)
- IGMP-snooping
- IGMP-proxy

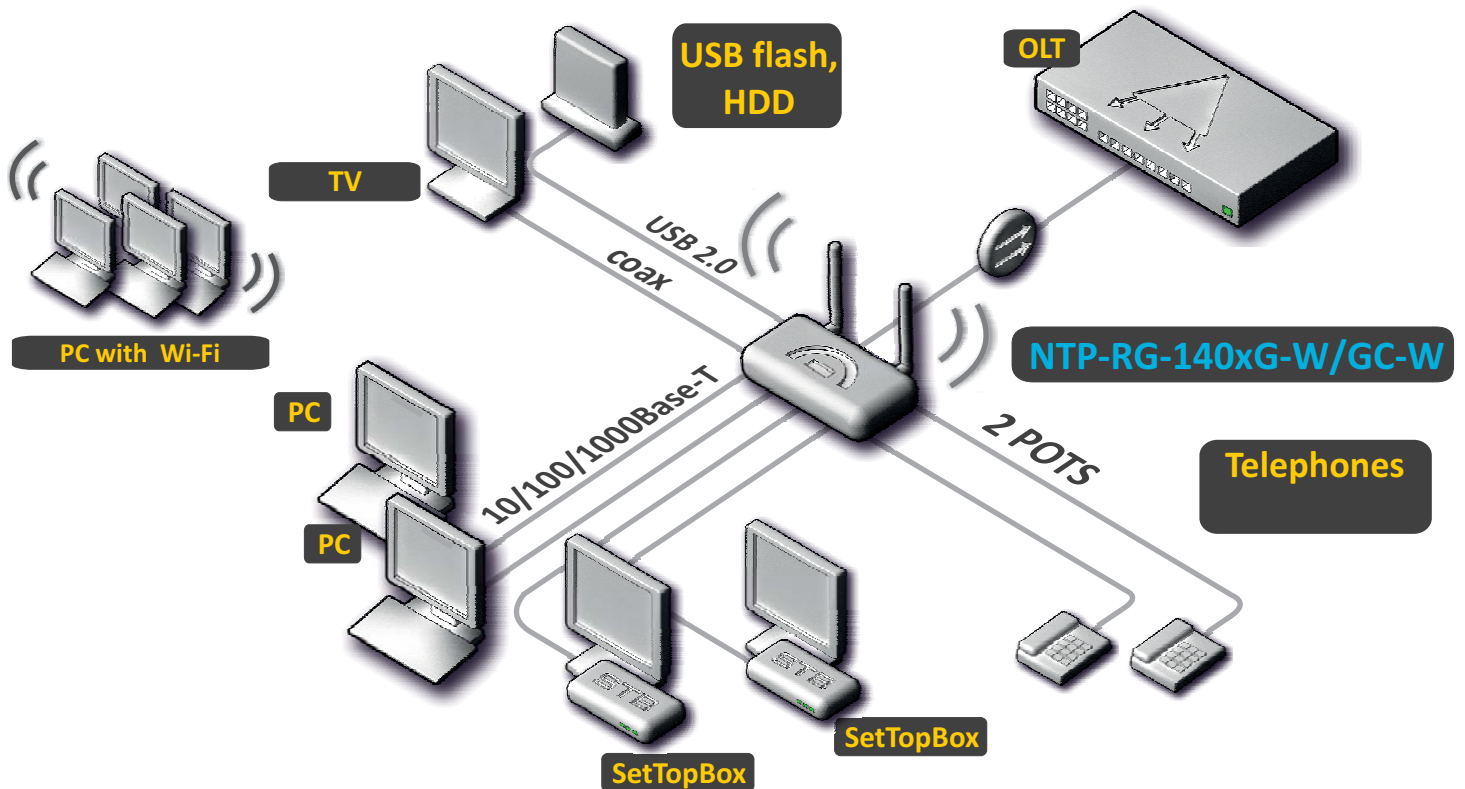
Physical and environmental specifications

- Power supply via adapter: 220V/(5..24)V
- Power consumption: not more than 17 Watt
- Temperature range at a workplace: from +5 to +40 degrees centigrade
- Relative humidity: up to 80%
- Overall dimensions: 218 x 120 x 49 mm, desktop installation



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subscriber terminals
GPON

Application diagram











Multi-purpose devices

Subscriber terminals provide hard-wire connection to up to 4 personal computers or IPTV set-top-box (STB) via embedded gigabit router with 4 10/100/1000 Base-T ports. 2 FXS ports enable to connect to analog telephone sets and use IP telephony services. To watch analog or digital television TV set is connected to RF-output of devices with embedded triplexer (in case the service is provided by operator). USB port is used to connect to USB devices (Flash card, internal HDD) or printer. The embedded Wi-Fi transceivers (802.11n) enable to connect to wireless devices at rate up to 300 Mbps.



NTP-RG-1400G-W/GC-W
NTP-RG-1402G-W/GC-W
subscriber terminals
GPON

Information for order

| Description | Picture | Part number |
|--|--|------------------|
| NTP-RG-1400G-W, 1 PON(SC) port, 4 ports 10/100/1000 Base-T, USB, (IEEE 802.11n, 300 Mbps, 2T2R, 2.4 GHz) |  | NTP-RG-1400G-W |
| NTP-RG-1400G-W2, 1 PON(SC) port, 4 ports 10/100/1000 Base-T, USB, (IEEE 802.11n, 300 Mbps, 2T2R, 2.4/5.0 GHz) |  | NTP-RG-1400G-W2 |
| NTP-RG-1402G-W, 1 PON(SC) port, 4 ports 10/100/1000 Base-T, USB, 2 FXS, (IEEE 802.11n, 300 Mbps, 2T2R, 2.4 GHz) |  | NTP-RG-1402G-W |
| NTP-RG-1402G-W2, 1 PON(SC) port, 4 ports 10/100/1000 Base-T, USB, 2 FXS, (IEEE 802.11n, 300 Mbps, 2T2R, 2.4/5.0 GHz) |  | NTP-RG-1402G-W2 |
| NTP-RG-1400GC-W, 1 PON(SC) port, 4 ports 10/100/1000 Base-T, USB, Triplex, (IEEE 802.11n, 300 Mbps, 2T2R, 2.4 GHz) |  | NTP-RG-1400GC-W |
| NTP-RG-1400GC-W2, 1 PON(SC) port, 4 ports 10/100/1000 Base-T, USB, Triplex, (IEEE 802.11n, 300 Mbps, 2T2R, 2.4/5.0 GHz) |  | NTP-RG-1400GC-W2 |
| NTP-RG-1402GC-W, 1 PON(SC) port, 4 ports 10/100/1000 Base-T, USB, 2 FXS, Triplex, (IEEE 802.11n, 300 Mbps, 2T2R, 2.4 GHz) |  | NTP-RG-1402GC-W |
| NTP-RG-1402GC-W2, 1 PON(SC) port, 4 ports 10/100/1000 Base-T, USB, 2 FXS, Triplex, (IEEE 802.11n, 300 Mbps, 2T2R, 2.4/5.0 GHz) |  | NTP-RG-1402GC-W2 |

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