

- High performance
- 4 FXS ports
- 4 LAN (1GE) ports
- WAN with support for SFP transceivers
- 1 USB port for external storage device connection
- TR-069
- Wi-Fi 802.11 b/g/n
- Wi-Fi 802.11 a/n/ac



RG-1504GF-Wac is a high performance VoIP gateway with a built-in router. The device supports various services: VoIP, IPTV, high-speed Internet, dual-band Wi-Fi that can operate simultaneously in 2.4 GHz and 5 GHz.

Solution for business

Wide functional opportunities and stable operation at high loads provides RG-1504GF-Wac operating as a universal office terminal without additional equipment.

Built-in gigabit router with 4 ports of 10/100/1000BASE-T allows to organize high-speed connection of the devices in the network. Support for advanced VoIP standards provides reliable operation in the mode of interaction with free IP PBX solutions.

High quality of voice signal

RG-1504GF-Wac transmits voice, facsimile data and modems via IP network. Subscribers are provided with an up-to-date set of supplementary services: call transfer, call hold, three-way conference, call pickup, Caller ID, call forwarding, hot line, etc. QoS methods are used for high-quality voice transfer.

Redundancy

When the connection with the main SSW is lost, the system can be automatically switched to a redundant SIP server and controls availability of the main server. When the connection with both IP telephony servers is lost, the local connection between gateway subscribers is still available.

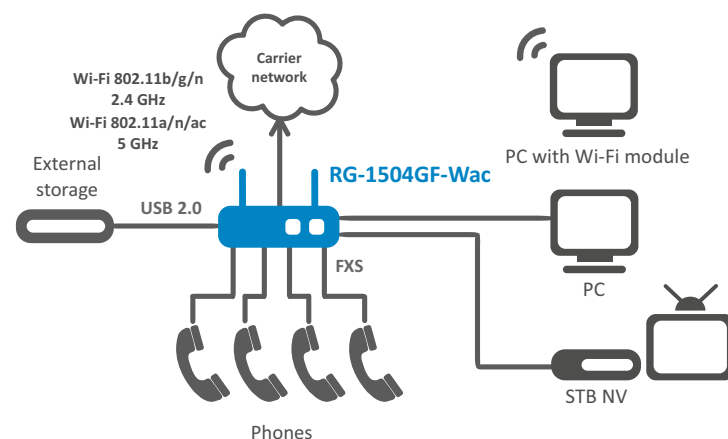
Up-to-date Wi-Fi features

Due to support for 802.11ac standards, RG-1504GF-Wac provides 866 Mbps data rates and allows to deliver up-to-date high-speed services to subscriber equipment via wireless network. Two built-in Wi-Fi controllers allows simultaneous operation in 2.4 GHz and 5 GHz frequency ranges.

Interface configuration

| Name | WAN | LAN | FXS | USB | Wi-Fi |
|---------------|-------|------|-----|----------|-------|
| RG-1504GF-Wac | 1xSFP | 4x1G | 4 | 1xUSB2.0 | ● |

Application diagram



Features and capabilities

Interfaces

- 4 FXS ports
- 1 port of WAN 100/1000Base-X
- 4 port of LAN 10/100/1000Base-T
- 1 port of USB 2.0
- Wi-Fi IEEE 802.11b/g/n (2.4 GHz), Wi-Fi IEEE 802.11a/n/ac (5 GHz)

VoIP protocols

- SIP

Voice codecs

- G.711 (a-law, μ -law)
- G.723.1
- G.729a
- G.726
- G.722
- iLBC
- GSM
- AMR
- OPUS

Voice standards

- VAD (voice activity detector)
- CNG (comfort noise generation)
- AEC (echo cancellation, G.168 recommendations)

DTMF

- Detection and generation of DTMF signals
- Transmission via INBAND, RFC 2833, SIP INFO

Supplementary services

- Call Hold
- Call Transfer
- Call Waiting
- Call Forwarding on Busy (CFB)
- Call forwarding on No Answer (CFNA)
- Call Forwarding Unconditional (CFU)
- Caller ID
- Calling Line Identification Restriction (CLIR)
- Hotline/Warmline
- Call Group
- 3-Way Conference
- Call Pickup

VoIP

- Supply services management via a phone
- Operation without a SIP server
- Support for anonymous calls
- Support for adaptive jitter buffer
- Configuration application without reboot

Quality of Service (QoS)

- DSCP and 802.1p assignment for SIP and RTP packets
- Packets distribution due to queues according to priorities of 802.1p or Diffserv

Fax transmission

- T.38 UDP Real-Time Fax
- G.711 (a-law, μ -law) pass-through

Network features

- Operation in router and bridge mode
- Various protocols for carrier network connection (Static, DHCP, PPPoE)
- Static routing
- IGMP
- DHCP and DNS servers on LAN side
- Port forwarding
- Firewall
- Filtering by MAC address
- Filtering by URL
- Multiservice model: independent configuration for each service (Internet, VoIP, IPTV, STB, Management and others)
- VLAN support
- UPnP (Universal Plug and Play)
- IPv6 support

Supported specifications

- RFC 3261 SIP 2.0
- RFC 3262 SIP PRACK
- RFC 4566 Session Description Protocol (SDP)
- RFC 3263 Locating SIP servers for DNS lookup SRV and A records
- RFC 3264 SDP Offer/Answer Model
- RFC 3311 SIP Update
- RFC 3515 SIP REFER
- RFC 3891 SIP Replaces Header
- RFC 3892 SIP Referred-By Mechanism
- RFC 4028 SIP Session Timer
- RFC 2976 SIP INFO Method
- RFC 2833 RTP Payload for DTMF Digits
- RFC 3108 Attributes ecan and silenceSupp in SDP
- RFC 4579 SIP. Call Control - Conferencing for User Agents
- RFC 3361 DHCP Option 120
- RFC 3550 RTP A Transport Protocol for Real-Time Applications

Management

- WEB
- Telnet
- SSH
- TR-069 (Eltex.ACS server is recommended to operate with)

Diagnostics

- Device state monitoring via Web interface
- Debugging information is displayed in Syslog

USB port

- USB drive connection with FAT/FAT32/EXT2/EXT3/NTFS file systems – file transferring on a network is realized via FTP

Features and capabilities

Wireless interface

- Support for 802.11 a/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

Operation channels

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

Wireless connection data rate¹

- 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 (20 MHz)
- 802.11ac: – 866 Mbps (80 MHz)

Maximum output power of the transmitter:

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

Specifications

- RAM 512 MB
- Flash 128 MB
- OS Linux 4.1.52

Physical specifications

- Power supply: 220V/12V, 3A power adapter
- Operating temperature: 0 °C to +40 °C
- Relative humidity: up to 80%
- Dimensions (W x H x D): 218x49x116 mm, desktop case
- Weight: 0.34 kg

¹The 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 range.

Ordering information

| Name | Description | Image |
|---------------|---|---|
| RG-1504GF-Wac | VoIP gateway with built-in router RG-1504GF-Wac: 4xFXS, 1xWAN (SFP), 4xLAN, 1xUSB, Wi-Fi 802.11b/g/n/ac |  |

Related software

| | | |
|--------------|--|--|
| ACS-CPE-256 | ACS-CPE-256 option of Eltex.ACS system for Eltex CPE autoconfiguration: 256 subscriber devices | |
| 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 | |

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