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Product Highlights

VOIP GATEWAY
**2 FXS ports,
1 PSTN (lifeline) port**

HIGH SPEED
**Gigabit SFP port,
Gigabit Ethernet ports,
total wireless connection rate
up to 1200Mbps**

IPV6 SUPPORT
**All needed functions
for up-to-date networking**

USB PORT
**Support of USB modem for
Internet connection via 4G/3G/2G
network, USB storage, and printer**

DVG-N5402G/ACF

Wireless AC1200 Dual Band Gigabit Router with Fiber WAN Port, 3G/LTE Support, 2 FXS Ports, 1 PSTN (lifeline) Port, and USB Port

Voice

The VoIP router is equipped with two FXS ports which allow connection of analog phones for calls via Internet and one PSTN (lifeline) port used to connect to the local exchange network.

USB Port

The router is equipped with a USB port for connecting a USB modem, which can be used to establish connection to the Internet. In addition, to the USB port of the router you can connect a USB storage device, which will be used as a network drive, or a printer.

Ethernet WAN

Any Ethernet port of the device can be configured to connect to a private Ethernet line.

Wireless Interface

Using the DVG-N5402G/ACF device, you are able to quickly create a high-speed wireless network at home or in your office, which lets computers and mobile devices access the Internet virtually anywhere (within the operational range of your wireless network). Simultaneous activity of 2.4GHz band and 5GHz band allows performing a wide range of tasks. The router can operate as a base station for connecting wireless devices of the standards 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac (at the wireless connection rate up to 1167Mbps[1]).

Secure Wireless Connection

The router supports multiple functions for the wireless interface: several security standards (WEP, WPA/WPA2), MAC address filtering, WPS, WMM.
In addition, the device is equipped with a button for switching the Wi-Fi network off/on. If needed, for example, when you leave home, you can easily switch the router's WLAN by pressing the button, and devices connected to the LAN ports of the router will stay online.

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1   Up to 300Mbps for 2.4GHz and up to 867Mbps for 5GHz.

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Advanced Capabilities of Wireless Network

Smart adjustment of Wi-Fi clients is useful for networks based on several D-Link access points or routers – when the smart adjustment function is configured on each of them, a client always connects to the access point (router) with the highest signal level.

Support of guest Wi-Fi network allows you to create a separate wireless network with individual security settings and maximum rate limitation. Devices connected to the guest network will be able to access the Internet, but will be isolated from the devices and resources of the router's LAN.

Security

The wireless router DVG-N5402G/ACF includes a built-in firewall. The advanced security functions minimize threats of hacker attacks, prevent unwanted intrusions to your network, and block access to unwanted websites for users of your LAN.

In addition, the router supports IPsec and allows to create secure VPN tunnels.

Built-in Yandex.DNS service protects against malicious and fraudulent web sites and helps to block access to adult content on children's devices.

Easy Configuration and Update

You can configure the settings of the wireless router DVG-N5402G/ACF via the user-friendly web-based interface (the interface is available in two languages – in Russian and in English).

The configuration wizard allows you to quickly switch DVG-N5402G/ACF to one of the following modes: router (for connection to a wired or wireless ISP), access point, repeater, or client, and then configure all needed setting for operation in the selected mode in several simple steps.

Also DVG-N5402G/ACF supports configuration and management via mobile application for Android and iPhone smartphones.

You can simply update the firmware: the router itself finds approved firmware on D-Link update server and notifies when ready to install it.

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Hardware

Processor	· RTL9607P (600MHz)
RAM	· 128MB, DDR3 SDRAM
Flash	· 16MB, SPI
Interfaces	· 1000BASE-X SFP WAN port · 4 10/100/1000BASE-T LAN ports · 2 RJ-11 FXS ports · 1 RJ-11 PSTN (lifeline) port · USB 2.0 port
LEDs	· POWER · 2.4GHz · 5GHz · SFP · 4 LAN LEDs · USB · LINE · 2 PHONE LEDs · WPS
Buttons	· ON/OFF button to power on/power off · RESET button to restore factory default settings · WPS button to set up wireless connection and enable/disable wireless network
Antenna	· Two external non-detachable antennas (5dBi gain for 2.4GHz and 5GHz)
MIMO	· 2 x 2
Power connector	· Power input connector (DC)

Software

WAN connection types	· LTE · 3G · PPPoE · IPv6 PPPoE · PPPoE Dual Stack · Static IPv4 / Dynamic IPv4 · Static IPv6 / Dynamic IPv6 · PPPoE + Static IP / Dynamic IP · PPTP/L2TP · PPTP/L2TP + Static IP · PPTP/L2TP + Dynamic IP
Network functions	· Support of IEEE 802.1X for Internet connection · DHCP server/relay · Advanced configuration of built-in DHCP server · Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation · Automatic obtainment of LAN IP address (for access point/repeater/client modes) · DNS relay · Dynamic DNS · Static IP routing · Static IPv6 routing · IGMP Proxy · RIP · Support of UPnP IGD · Support of VLAN · WAN ping respond · Support of SIP ALG · Support of RTSP · WAN reservation · Autonegotiation of speed, duplex mode, and flow control/Manual speed and duplex mode setup for each Ethernet port

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Software	
Firewall functions	· Network Address Translation (NAT) · Stateful Packet Inspection (SPI) · IPv4 filter · IPv6 filter · MAC filter · URL filter · DMZ · Prevention of ARP and DDoS attacks · Virtual servers · Built-in Yandex.DNS web content filtering service
VPN	· IPSec/PPTP/L2TP/PPPoE pass-through · IPSec tunnels
USB interface functions	· USB modem Auto connection to available type of supported network (4G/3G/2G) Auto configuration of connection upon plugging in USB modem Enabling/disabling PIN code check, changing PIN code[2] · USB storage File browser Print server Access to storage via accounts Built-in Samba server Built-in FTP server Built-in DLNA server Built-in Transmission torrent client; uploading/downloading files from/to USB storage
Management	· Local and remote access to settings through TELNET/WEB (HTTP/HTTPS) · Bilingual web-based interface for configuration and management (Russian/English) · Support of D-Link Assistant application for Android and iPhone smartphones · Notification on connection problems and auto redirect to settings · Firmware update via web-based interface · Automatic notification on new firmware version · Saving/restoring configuration to/from file · Support of logging to remote host/connected USB storage · Automatic synchronization of system time with NTP server and manual time/date setup · Ping utility · Traceroute utility · TR-069 client · SNMP agent

2   For some models of USB modems.

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Wireless Module Parameters

Standards	· IEEE 802.11a/n/ac · IEEE 802.11b/g/n
Frequency range	· 2400 ~ 2483.5MHz · 5150 ~ 5350MHz · 5650 ~ 5850MHz
Wireless connection security	· WEP · WPA/WPA2 (Personal/Enterprise) · MAC filter · WPS (PBC/PIN)
Advanced functions	· Support of client mode · WMM (Wi-Fi QoS) · Information on connected Wi-Fi clients · Advanced settings · Smart adjustment of Wi-Fi clients · Guest Wi-Fi / support of MBSSID · Limitation of wireless network rate · Periodic scan of channels, automatic switch to least loaded channel · Autonegotiation of channel bandwidth in accordance with environment conditions (20/40 Coexistence)
Wireless connection rate	· IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11b: 1, 2, 5.5, and 11Mbps · IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11n (2.4GHz/5GHz): from 6.5 to 300Mbps (from MCS0 to MCS15) · IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MSC9)
Transmitter output power *The maximum value of the transmitter output power depends upon the radio frequency regulations applied in your country*	· 802.11a (typical at room temperature 25 °C) 15dBm at 6, 54Mbps · 802.11b (typical at room temperature 25 °C) 14dBm at 1, 2, 5.5, 11Mbps · 802.11g (typical at room temperature 25 °C) 14dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps · 802.11n (typical at room temperature 25 °C) 2.4GHz, HT20 13dBm at MCS0~15 2.4GHz, HT40 12dBm at MCS0~15 5GHz, HT20/HT40 15dBm at MCS0 15dBm at MCS7 · 802.11ac (typical at room temperature 25 °C) VHT20/VHT40/VHT80 15dBm at MCS0 15dBm at MCS9
Receiver sensitivity	· 802.11a (typical at PER < 10% at room temperature 25 °C) -87dBm at 6Mbps -86dBm at 9Mbps -84dBm at 12Mbps -82dBm at 18Mbps -79dBm at 24Mbps -76dBm at 36Mbps -71dBm at 48Mbps -70dBm at 54Mbps · 802.11b (typical at PER = 10% at room temperature 25 °C) -84dBm at 1, 2Mbps -82dBm at 5.5Mbps -79dBm at 11Mbps

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Wireless Module Parameters

	· 802.11g (typical at PER = 10% at room temperature 25 °C) -82dBm at 6Mbps -81dBm at 9Mbps -79dBm at 12Mbps -77dBm at 18Mbps -74dBm at 24Mbps -70dBm at 36Mbps -66dBm at 48Mbps -65dBm at 54Mbps · 802.11n (typical at PER < 10% at room temperature 25 °C) 2.4GHz, HT20 -82dBm at MCS0/8 -79dBm at MCS1/9 -77dBm at MCS2/10 -74dBm at MCS3/11 -70dBm at MCS4/12 -66dBm at MCS5/13 -65dBm at MCS6/14 -64dBm at MCS7/15 2.4GHz, HT40 -79dBm at MCS0/8 -76dBm at MCS1/9 -74dBm at MCS2/10 -71dBm at MCS3/11 -67dBm at MCS4/12 -63dBm at MCS5/13 -62dBm at MCS6/14 -61dBm at MCS7/15 5GHz, HT20 -86dBm at MCS0/8 -83dBm at MCS1/9 -81dBm at MCS2/10 -77dBm at MCS3/11 -75dBm at MCS4/12 -70dBm at MCS5/13 -69dBm at MCS6/14 -68dBm at MCS7/15 5GHz, HT40 -83dBm at MCS0/8 -80dBm at MCS1/9 -78dBm at MCS2/10 -75dBm at MCS3/11 -72dBm at MCS4/12 -67dBm at MCS5/13 -66dBm at MCS6/14 -65dBm at MCS7/15 · 802.11ac (typical at PER < 10% at room temperature 25 °C) HT20 -61dBm at MCS8 -59dBm at MCS9 HT40 -58dBm at MCS8 -56dBm at MCS9 HT80 -80dBm at MCS0 -77dBm at MCS1 -75dBm at MCS2 -71dBm at MCS3 -69dBm at MCS4 -64dBm at MCS5 -62dBm at MCS6 -61dBm at MCS7 -56dBm at MCS8 -53dBm at MCS9
Modulation schemes	· 802.11a: BPSK, QPSK, 16QAM, 64QAM with OFDM · 802.11b: DQPSK, DBPSK, CCK · 802.11g: BPSK, QPSK, 16QAM, 64QAM with OFDM · 802.11n: BPSK, QPSK, 16QAM, 64QAM with OFDM · 802.11ac: BPSK, QPSK, 16QAM, 64QAM, up to 256QAM with OFDM

Phone	
General SIP Features	· Individual account per port · Invite with Challenge · Register by IP address or domain name of SIP server · Backup proxy support · Support of DHCP option 120 · RFC3986 SIP URI format support · Outbound proxy support · STUN client · NAT public IP address · NAT keep-alive · Session timer (re-invite/update) · Call types: voice/modem/fax · User programmable Dial Plan · Manual peer table (for P2P calls) · Handling numbers in E.164 format
Call Features	· Direct IP-to-IP call without SIP proxy (P2P) · Lifeline (PSTN-backup) · PSTN call by prefix · Call hold/retrieve · Call awaiting · Forwarding (unconditional, busy, no answer) · Do Not Disturb · Anonymous call blocking · Speed/abbreviated dialing · PIN code before dialing · Hotline · Vertical service codes · CLIR · Intercom (internal calls without SIP server) · Filtering SIP packets by IP address/domain name (white/black list) · Logging and recording calls · Sending text messages to VoIP gateways/IP phones
Voice Features	· Codecs: G.711 a/µ-law, G.729A, G.726, G.722, G.723.1, GSMFR, ILBC, SPEEX · DTMF detection and generation · In-band DTMF, out-of-band DTMF (RFC2833, SIP-INFO) · Comfort Noise Generation (CNG) · Voice Activity Detection (VAD) · Dynamic Jitter Buffer · Echo Cancellation (LEC/NLP) · Call progress tone generation (FXS) · DTMF/PULSE dial support · Caller ID detection and generation · T.30 FAX bypass to G.711, T.38 Real Time FAX Relay, V.152 · Adjustable Flash Time · Advanced call transfer · Volume control (speaker/microphone)

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Physical Parameters	
Dimensions (L x W x H)	· 227 x 159 x 38 mm (8.93 x 6.26 x 1.5 in)
Weight	· 160 g (0.35 lb)

Operating Environment	
Power	· Output: 12V DC, 2A
Temperature	· Operating: from 0 to 40 °C · Storage: from -20 to 65 °C
Humidity	· Operating: from 10% to 90% (non-condensing) · Storage: from 5% to 95% (non-condensing)

Delivery Package
· Router DVG-N5402G/ACF · Power adapter DC 12V/2A · Ethernet cable (CAT 5E) · Two RJ-11 telephone cables · "Quick Installation Guide" (brochure)

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Supported USB modems[3]	
GSM	· Alcatel X500 · D-Link DWM-152C1 · D-Link DWM-156A6 · D-Link DWM-156A7 · D-Link DWM 156A8 · D-Link DWM-156C1 · D-Link DWM-157B1 · D-Link DWM-157B1 (Velcom) · D-Link DWM-158D1 · D-Link DWR-710 · Huawei E150 · Huawei E1550 · Huawei E156G · Huawei E160G · Huawei E169G · Huawei E171 · Huawei E173 (Megafon) · Huawei E220 · Huawei E3131 (MTS 420S) · Huawei E352 (Megafon) · Prolink PHS600 · Prolink PHS901 · ZTE MF112 · ZTE MF192 · ZTE MF626 · ZTE MF627 · ZTE MF652 · ZTE MF667 · ZTE MF668 · ZTE MF752
LTE	· Alcatel IK40V · D-Link DWM-222 · Huawei E3131 · Huawei E3272 · Huawei E3351 · Huawei E3372 · Huawei E367 · Huawei E392 · Megafon M100-1 · Megafon M100-2 · Megafon M100-3 · Megafon M100-4 · Megafon M150-1 · Megafon M150-2 · Quanta 1K6E (Beeline 1K6E) · MTS 824F · MTS 827F · Yota LU-150 · Yota WLTUBA-107 · ZTE MF823 · ZTE MF827
Smartphones in USB tethering mode	· Some models of Android smartphones

3   The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.