

## Product Highlights

### 2 FXS PORTS

Support of 2 analog phones,  
good quality of voice  
transmission

### USB PORT

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

### IPV6 SUPPORT

All needed functions  
for up-to-date networking



## DVG-N5402SP

### Wireless Router with 3G/CDMA/LTE Support, 2 FXS Ports, and USB Port

#### SIP Telephony

The VoIP router is equipped with two FSX ports which allow connection of analog phones for calls via Internet.

#### 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.

#### Wireless Interface

Using the DVG-N5402SP 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). The router can operate as a base station for connecting wireless devices of the standards 802.11b, 802.11g, and 802.11n (at the rate up to 300Mbps).

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 ports of the router will stay online.

#### Security

The wireless router DVG-N5402SP 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.

#### Configuration and Management

You can configure and manage the settings of the wireless router DVG-N5402SP via the user-friendly web-based interface (the interface is available in several languages).

Hardware	
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>· 10/100BASE-TX WAN port</li> <li>· 4 10/100BASE-TX LAN ports</li> <li>· 2 FXS ports</li> <li>· USB 2.0 port</li> </ul>
<b>LEDs</b>	<ul style="list-style-type: none"> <li>· POWER</li> <li>· WAN</li> <li>· 4 LAN LEDs</li> <li>· WLAN</li> <li>· WPS</li> <li>· USB</li> <li>· 2 FXS LEDs</li> </ul>
<b>Buttons</b>	<ul style="list-style-type: none"> <li>· ON/OFF button to power on/power off</li> <li>· RESET button to restore factory default settings</li> <li>· WPS button to set up secure wireless connection</li> <li>· WLAN button to enable/disable wireless network</li> </ul>
<b>Antenna</b>	<ul style="list-style-type: none"> <li>· Two internal omnidirectional Airgain antennas (5dBi gain)</li> </ul>
<b>MIMO</b>	<ul style="list-style-type: none"> <li>· 2 x 2</li> </ul>
<b>Power connector</b>	<ul style="list-style-type: none"> <li>· Power input connector (DC)</li> </ul>
<b>Mounting</b>	<ul style="list-style-type: none"> <li>· Desktop</li> <li>· Wall</li> </ul>

Software	
<b>General SIP Features</b>	<ul style="list-style-type: none"> <li>· Individual account per port</li> <li>· Invite with Challenge</li> <li>· Register by IP address or domain name of SIP server</li> <li>· Backup proxy support</li> <li>· Support of DHCP option 120</li> <li>· RFC3986 SIP URI format support</li> <li>· Outbound proxy support</li> <li>· STUN client</li> <li>· Session timers (update/re-invite)</li> <li>· Call types: voice/modem/fax</li> <li>· User programmable Dial Plan</li> <li>· Manual peer table (for P2P calls)</li> </ul>
<b>Call Features</b>	<ul style="list-style-type: none"> <li>· Direct IP-to-IP call without SIP proxy</li> <li>· Call hold / retrieve</li> <li>· Call awaiting</li> <li>· Forwarding (unconditional, busy, no answer)</li> <li>· Do Not Disturb</li> <li>· Anonymous call blocking</li> <li>· Speed dialing</li> <li>· Phone book</li> <li>· Hotline</li> <li>· Vertical service codes</li> <li>· CLIR</li> </ul>
<b>Voice Features</b>	<ul style="list-style-type: none"> <li>· Codecs: G.711 a/μ-law, G.729A, G.726, G.723.1 (incoming calls only)</li> <li>· DTMF detection and generation</li> <li>· In-band DTMF, out-of-band DTMF (RFC2833, SIP-INFO)</li> <li>· Comfort Noise Generation (CNG)</li> <li>· Voice Activity Detection (VAD)</li> <li>· Adaptive (Dynamic) Jitter Buffer</li> <li>· Call progress tone generation (FXS)</li> <li>· DTMF/PULSE dial support</li> <li>· Caller ID detection and generation</li> <li>· T.30 FAX bypass to G.711, T.38 Real Time FAX Relay</li> </ul>

<b>Software</b>	
<b>WAN connection types</b>	<ul style="list-style-type: none"> <li>· LTE</li> <li>· 3G</li> <li>· PPPoE</li> <li>· IPv6 PPPoE</li> <li>· PPPoE Dual Stack</li> <li>· Static IP / Dynamic IP</li> <li>· Static IPv6 / Dynamic IPv6</li> <li>· PPPoE + Static IP / Dynamic IP</li> <li>· PPTP/L2TP + Static IP</li> <li>· PPTP/L2TP + Dynamic IP</li> </ul>
<b>Network functions</b>	<ul style="list-style-type: none"> <li>· DHCP server/relay</li> <li>· DHCPv6 server (Stateful/Stateless), IPv6 prefix delegation</li> <li>· DNS relay</li> <li>· Support of DNSv6 AAAA records</li> <li>· Dynamic DNS</li> <li>· Static IP routing</li> <li>· Static IPv6 routing</li> <li>· IGMP Proxy</li> <li>· RIP</li> <li>· Support of UPnP IGD</li> <li>· Support of VLAN</li> <li>· WAN ping respond</li> <li>· Support of SIP ALG</li> <li>· Support of RTSP</li> </ul>
<b>Firewall functions</b>	<ul style="list-style-type: none"> <li>· Network Address Translation (NAT)</li> <li>· Stateful Packet Inspection (SPI)</li> <li>· IP filter</li> <li>· IPv6 filter</li> <li>· MAC filter</li> <li>· URL filter</li> <li>· DMZ</li> <li>· Prevention of ARP and DDoS attacks</li> <li>· Virtual servers</li> </ul>
<b>VPN</b>	<ul style="list-style-type: none"> <li>· IPSec/PPTP/L2TP/PPPoE pass-through</li> </ul>
<b>USB interface functions</b>	<ul style="list-style-type: none"> <li>· USB modem Auto connection to available type of supported network (4G/3G/2G)<sup>1</sup> Enabling/disabling PIN code check, changing PIN code<sup>2</sup></li> <li>· USB storage Print server Access to storage via accounts Built-in Samba server Built-in FTP server Built-in DLNA server</li> </ul>
<b>Management</b>	<ul style="list-style-type: none"> <li>· Local and remote access to settings through TELNET/WEB (HTTP)</li> <li>· Multilingual web-based interface for configuration and management</li> <li>· Firmware update via web-based interface</li> <li>· Saving/restoring configuration to/from file</li> <li>· Support of remote logging</li> <li>· Automatic synchronization of system time with NTP server and manual time/date setup</li> <li>· Ping function</li> <li>· Traceroute utility</li> <li>· TR-069 client</li> </ul>

<sup>1</sup> For LTE and GSM USB modems.

<sup>2</sup> For GSM USB modems only.

Wireless Module Parameters	
<b>Standards</b>	<ul style="list-style-type: none"> <li>IEEE 802.11b/g/n</li> </ul>
<b>Frequency range</b>	<ul style="list-style-type: none"> <li>2400 ~ 2483.5MHz</li> </ul>
<b>Wireless connection security</b>	<ul style="list-style-type: none"> <li>WEP</li> <li>WPA/WPA2 (Personal/Enterprise)</li> <li>MAC filter</li> <li>WPS (PBC/PIN)</li> </ul>
<b>Advanced functions</b>	<ul style="list-style-type: none"> <li>WMM (Wi-Fi QoS)</li> <li>Advanced settings</li> </ul>
<b>Wireless connection rate</b>	<ul style="list-style-type: none"> <li>IEEE 802.11b: 1, 2, 5.5, and 11Mbps</li> <li>IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps</li> <li>IEEE 802.11n: from 6.5 to 300Mbps (from MCS0 to MCS15)</li> </ul>
<b>Transmitter output power</b> <i>The maximum value of the transmitter output power depends upon the radio frequency regulations applied in your country</i>	<ul style="list-style-type: none"> <li>Less than 20dBm (100mW)</li> </ul>
<b>Receiver sensitivity</b>	<ul style="list-style-type: none"> <li>802.11b (typical at PER = 8% (1000-byte PDUs) at room temperature 25 °C) -76dBm at 11Mbps</li> <li>802.11g (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) -68dBm at 54Mbps</li> <li>802.11n (typical at PER = 10% (1000-byte PDUs)) HT20 -67dBm at MCS7 HT40 -64dBm at MCS7</li> </ul>
<b>Modulation schemes</b>	<ul style="list-style-type: none"> <li>802.11b: DQPSK, DBPSK, DSSS, CCK</li> <li>802.11g: BPSK, QPSK, 16QAM, 64QAM with OFDM</li> <li>802.11n: BPSK, QPSK, 16QAM, 64QAM with OFDM</li> </ul>

Physical Parameters	
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>182 x 119 x 39 mm (7.2 x 4.7 x 1.5 in)</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>280 g (0.6 lb)</li> </ul>

Operating Environment	
<b>Power</b>	<ul style="list-style-type: none"> <li>Output: 12V DC, 1.25A</li> </ul>
<b>Temperature</b>	<ul style="list-style-type: none"> <li>Operating: from 0 to 40 °C</li> <li>Storage: from -20 to 70 °C</li> </ul>
<b>Humidity</b>	<ul style="list-style-type: none"> <li>Operating: from 10% to 90% (non-condensing)</li> <li>Storage: from 5% to 95% (non-condensing)</li> </ul>

Delivery Package	
<ul style="list-style-type: none"> <li>Router DVG-N5402SP</li> <li>Power adapter DC 12V/1.25A</li> <li>Ethernet cable (CAT 5E)</li> <li>RJ-11 telephone cable</li> <li>"Quick Installation Guide" (brochure)</li> </ul>	

Supported USB modems <sup>3</sup>	
<b>GSM</b>	<ul style="list-style-type: none"> <li>· Alcatel X500</li> <li>· D-Link DWM-152C1</li> <li>· D-Link DWM-156A6</li> <li>· D-Link DWM-156A7</li> <li>· D-Link DWM-156C1</li> <li>· D-Link DWM-157B1</li> <li>· D-Link DWM-157B1 (Velcom)</li> <li>· D-Link DWM-158D1</li> <li>· Huawei E150</li> <li>· Huawei E1550</li> <li>· Huawei E156G</li> <li>· Huawei E160G</li> <li>· Huawei E169G</li> <li>· Huawei E171</li> <li>· Huawei E173 (Megafon)</li> <li>· Huawei E220</li> <li>· Huawei E352 (Megafon)</li> <li>· Huawei E367 (3G mode)</li> <li>· Huawei E392 (3G mode)</li> <li>· ZTE MF112</li> <li>· ZTE MF192</li> <li>· ZTE MF626</li> <li>· ZTE MF627</li> <li>· ZTE MF652</li> <li>· ZTE MF667</li> <li>· ZTE MF668</li> <li>· ZTE MF752</li> </ul>
<b>CDMA</b>	<ul style="list-style-type: none"> <li>· Airplus MCD-650</li> <li>· Airplus MCD-800</li> <li>· AnyDATA ADU-300A</li> <li>· AnyDATA ADU-500A</li> <li>· AnyDATA ADU-510A</li> <li>· Huawei EC306</li> <li>· ZTE AC5710</li> <li>· ZTE AC5730</li> </ul>
<b>LTE</b>	<ul style="list-style-type: none"> <li>· Huawei E3272</li> <li>· Huawei E367</li> <li>· Huawei E392</li> <li>· Megafon M100-1</li> <li>· Megafon M100-3</li> <li>· Megafon M100-4</li> <li>· Megafon M150-1</li> <li>· MTS 824F</li> <li>· Yota LU-150</li> <li>· Yota WLTUBA-107</li> <li>· ZTE MF823</li> <li>· ZTE MF827</li> </ul>

*Specifications are subject to change without notice.  
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<sup>3</sup> The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.