



## **DVG-5402G/GF**

**Wireless AC1200 Wave 2 MU-MIMO Dual Band Gigabit Router with Fiber WAN Port, 3G/LTE Support, 2 FXS Ports, and USB Port**

## BEFORE YOU BEGIN

### *Delivery Package*

- Router DVG-5402G/GF
- Power adapter DC 12V/1.5A
- Ethernet cable
- RJ-11 telephone cable
- “*Quick Installation Guide*” (brochure).

If any of the items are missing, please contact your reseller.

The “*User Manual*” and “*Quick Installation Guide*” documents are available on D-Link website (see [www.dlink.ru](http://www.dlink.ru)).



**Using a power supply with a different voltage rating than the one included will cause damage and void the warranty for this product.**

## Default Settings

<b>Domain name of device</b>		<code>dlinkrouter.local.</code>
<b>IP address of device</b>		<code>192.168.8.254</code>
<b>Username (login)</b>		<code>admin</code>
<b>Password</b>		<code>admin</code>
<b>Name of wireless network (SSID)</b>	<b>2.4GHz</b>	<code>DVG-5402G</code>
	<b>5GHz</b>	<code>DVG-5402G-5G</code>
<b>Network key (PSK password)</b>		see WPS PIN on the barcode label on the bottom panel of the device

**!** Clients connected to the router with default settings do not have access to the Internet. To get started, please set your own password for access to the web-based interface and change the WLAN name (SSID); then, if needed, configure other settings recommended by your ISP.

## System Requirements and Equipment

- An Android or iPhone mobile device (smartphone or tablet) or a computer with any operating system that supports a web browser.
- A PC web browser to access the web-based interface:
  - Apple Safari 8 and later
  - Google Chrome 48 and later
  - Microsoft Internet Explorer 10 and later
  - Microsoft Edge 20.10240 and later
  - Mozilla Firefox 44 and later
  - Opera 35 and later.
- A NIC (Ethernet or Wi-Fi adapter) to connect to the router.
- An 802.11a, b, g, n, or ac Wi-Fi adapter to create a wireless network.
- An SFP transceiver to connect to a fiber optic line.
- Analog phone.
- A USB modem (when it is necessary to connect to the Internet via mobile operators' networks).<sup>1</sup>

Your USB modem should be equipped with an active SIM card of your operator.

**!** Some operators require subscribers to activate their USB modems prior to using them. Please, refer to connection guidelines provided by your operator when concluding the agreement or placed on its website.

For some models of USB modems, it is required to disable the PIN code check on the SIM card prior to connecting the USB modem to the router.

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<sup>1</sup> Contact your operator to get information on the service coverage and fees.

## CONNECTING TO PC

### *PC with Ethernet Adapter*

1. Connect an Ethernet cable between any of LAN ports located on the back panel of the router and the Ethernet port of your PC.
2. ***To connect the device to a fiber optic line:*** connect your SFP transceiver to the SFP port, then connect the fiber optic cable to the SFP transceiver.
3. ***To connect via USB modem:*** connect your USB modem to the USB port<sup>2</sup> located on the back panel of the router.



In some cases you will need to reboot the router after connection of the USB modem.

4. ***To connect the device to an Ethernet line:*** please connect the router to the ISP's Ethernet line only after setting the WAN port and creating an Internet connection (see the ***Configuring LAN Port as WAN Port to Connect to Ethernet Line*** section, page 40).
5. Connect a phone cable between an FXS port of the router and the phone.
6. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.
7. Turn on the router by pressing the **ON/OFF** button on its back panel.

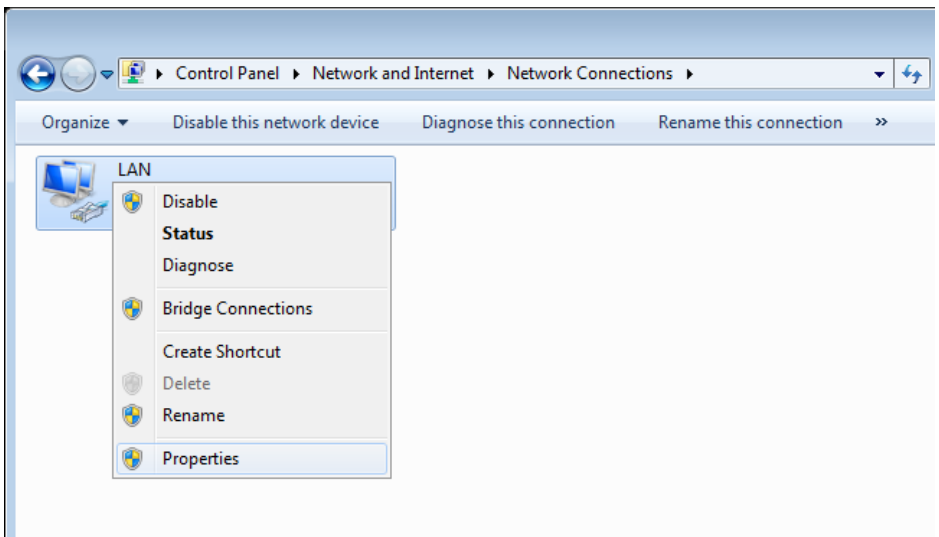
Then make sure that your PC is configured to obtain an IP address automatically (as DHCP client).

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<sup>2</sup> It is recommended to use a USB extension cable to connect a USB modem to the router.

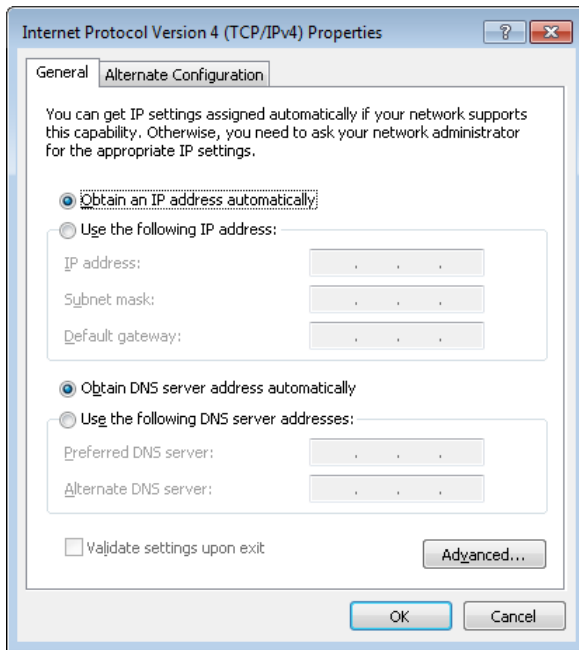
## Obtaining IP Address Automatically (OS Windows 7)

1. Click the **Start** button and proceed to the **Control Panel** window.
2. Select the **Network and Sharing Center** section. (If the Control Panel has the category view (the **Category** value is selected from the **View by** drop-down list in the top right corner of the window), choose the **View network status and tasks** line under the **Network and Internet** section.)
3. In the menu located on the left part of the window, select the **Change adapter settings** line.
4. In the opened window, right-click the relevant **Local Area Connection** icon and select the **Properties** line in the menu displayed.



5. In the **Local Area Connection Properties** window, on the **Networking** tab, select the **Internet Protocol Version 4 (TCP/IPv4)** line. Click the **Properties** button.

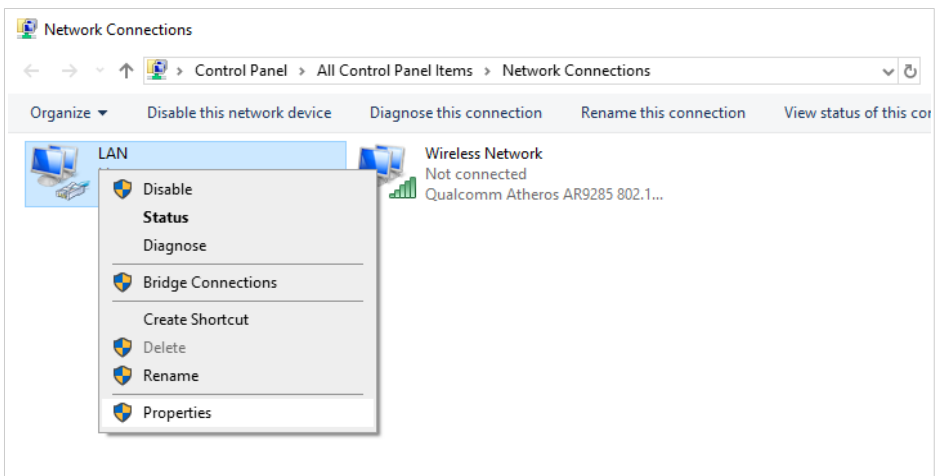
6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.



7. Click the **OK** button in the connection properties window.

## Obtaining IP Address Automatically (OS Windows 10)

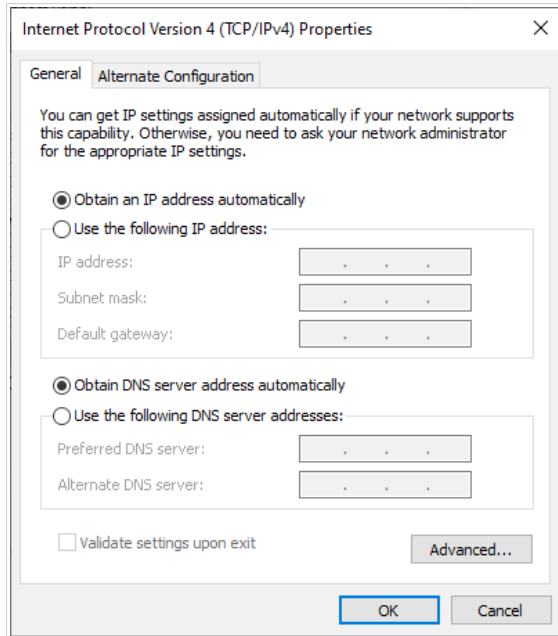
1. Click the **Start** button and proceed to the **Settings** window.
2. Select the **Network & Internet** section.
3. In the **Change your network settings** section, select the **Change adapter options** line.
4. In the opened window, right-click the relevant **Local Area Connection** icon and select the **Properties** line in the menu displayed.



5. In the **Local Area Connection Properties** window, on the **Networking** tab, select the **Internet Protocol Version 4 (TCP/IPv4)** line. Click the **Properties** button.



6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.



7. Click the **Close** button in the connection properties window.

## PC with Wi-Fi Adapter

1. **To connect the device to a fiber optic line:** connect your SFP transceiver to the SFP port, then connect the fiber optic cable to the SFP transceiver.
2. **To connect via USB modem:** connect your USB modem to the USB port<sup>3</sup> located on the back panel of the router.



In some cases you will need to reboot the router after connection of the USB modem.

3. **To connect the device to an Ethernet line:** please connect the router to the ISP's Ethernet line only after setting the WAN port and creating an Internet connection (see the **Configuring LAN Port as WAN Port to Connect to Ethernet Line** section, page 40).
4. Connect a phone cable between an FXS port of the router and the phone.
5. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.
6. Turn on the router by pressing the **ON/OFF** button on its back panel.
7. Make sure that the Wi-Fi adapter of your PC is on. As a rule, modern notebooks with built-in wireless NICs are equipped with a button or switch that turns on/off the wireless adapter (refer to your PC documents). If your PC is equipped with a pluggable wireless NIC, install the software provided with your Wi-Fi adapter.

Then make sure that your Wi-Fi adapter is configured to obtain an IP address automatically (as DHCP client).

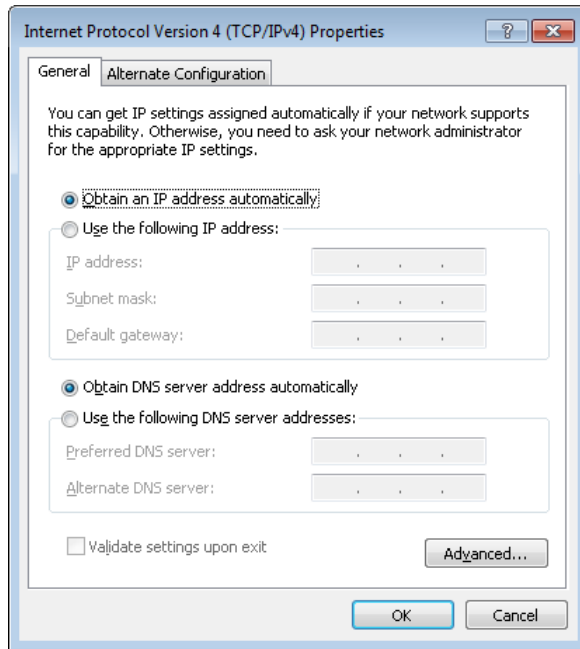
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<sup>3</sup> It is recommended to use a USB extension cable to connect a USB modem to the router.

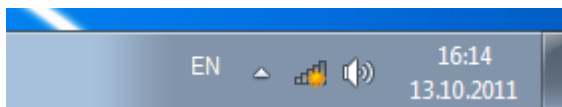
## ***Obtaining IP Address Automatically and Connecting to Wireless Network (OS Windows 7)***

1. Click the **Start** button and proceed to the **Control Panel** window.
2. Select the **Network and Sharing Center** section. (If the Control Panel has the category view (the **Category** value is selected from the **View by** drop-down list in the top right corner of the window), choose the **View network status and tasks** line under the **Network and Internet** section.)
3. In the menu located on the left part of the window, select the **Change adapter settings** line.
4. In the opened window, right-click the relevant **Wireless Network Connection** icon. Make sure that your Wi-Fi adapter is on, then select the **Properties** line in the menu displayed.
5. In the **Wireless Network Connection Properties** window, on the **Networking** tab, select the **Internet Protocol Version 4 (TCP/IPv4)** line. Click the **Properties** button.

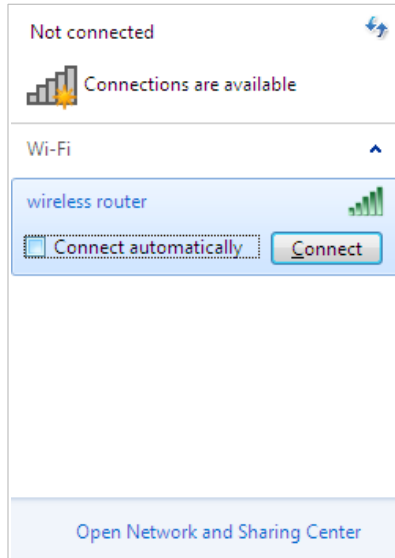
6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.



7. Click the **OK** button in the connection properties window.
8. To open the list of available wireless networks, select the icon of the wireless network connection and click the **Connect To** button or left-click the network icon in the notification area located on the right side of the taskbar.



- In the opened window, in the list of available wireless networks, select the wireless network **DVG-5402G** (for operating in the 2.4GHz band) or **DVG-5402G-5G** (for operating in the 5GHz band) and click the **Connect** button.

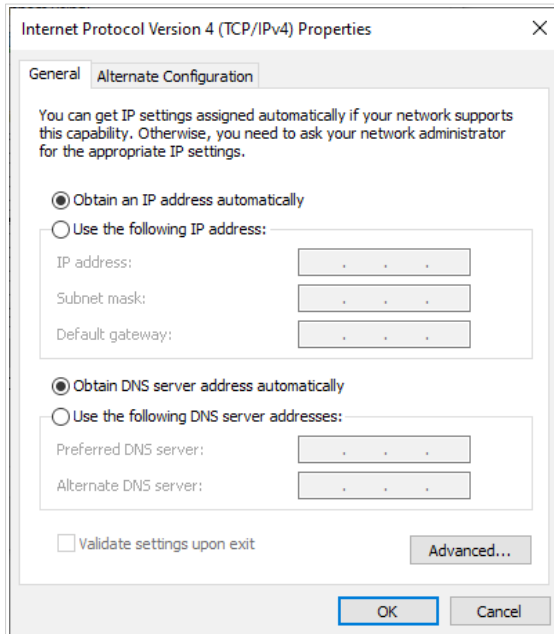


- In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) in the **Security key** field and click the **OK** button.
- Wait for about 20-30 seconds. After the connection is established, the network icon will be displayed as the signal level scale.

**!** If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.

## Obtaining IP Address Automatically and Connecting to Wireless Network (OS Windows 10)

1. Click the **Start** button and proceed to the **Settings** window.
2. Select the **Network & Internet** section.
3. In the **Change your network settings** section, select the **Change adapter options** line.
4. In the opened window, right-click the relevant **Wireless Network Connection** icon. Make sure that your Wi-Fi adapter is on, then select the **Properties** line in the menu displayed.
5. In the **Wireless Network Connection Properties** window, on the **Networking** tab, select the **Internet Protocol Version 4 (TCP/IPv4)** line. Click the **Properties** button.
6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.

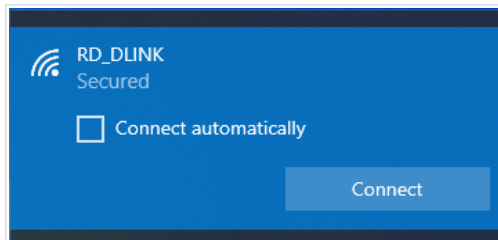


7. Click the **Close** button in the connection properties window.

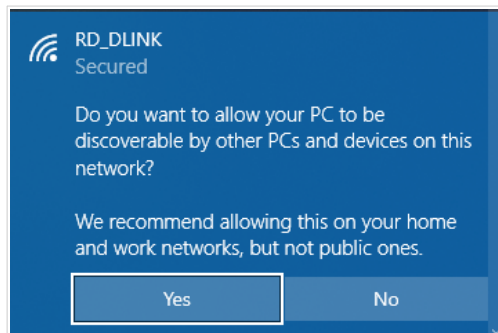
- To open the list of available wireless networks, select the icon of the wireless network connection and click the **Connect To** button or left-click the network icon in the notification area located on the right side of the taskbar.



- In the opened window, in the list of available wireless networks, select the wireless network **DVG-5402G** (for operating in the 2.4GHz band) or **DVG-5402G-5G** (for operating in the 5GHz band) and click the **Connect** button.



- In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) in the **Security key** field and click the **Next** button.
- Allow or forbid your PC to be discoverable by other devices on this network (**Yes / No**).



12. Wait for about 20-30 seconds. After the connection is established, the network icon will be displayed as a dot with curved lines indicating the signal level.



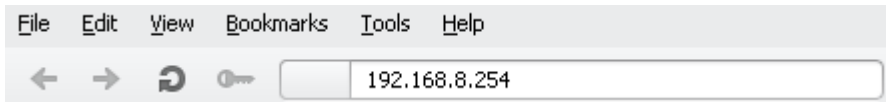
If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.



# CONFIGURING ROUTER

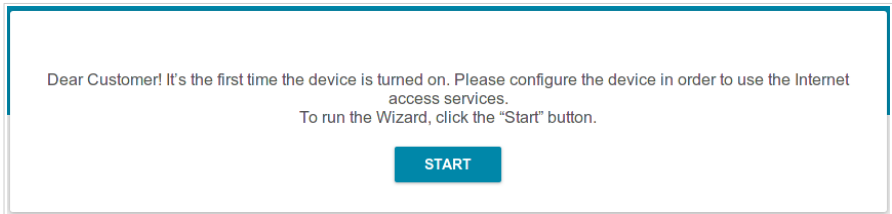
## Connecting to Web-based Interface

Start a web browser. In the address bar of the web browser, enter the domain name of the router (by default, **dlinkrouter.local**) with a dot at the end and press the **Enter** key. Also you can enter the IP address of the device (by default, **192.168.8.254**).

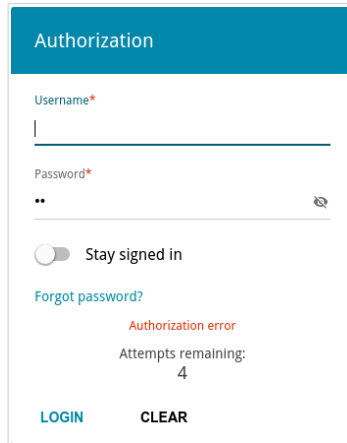


**!** If the error “*The page cannot be displayed*” (or “*Unable to display the page*”/“*Could not connect to remote server*”) occurs upon connecting to the web-based interface of the router, make sure that you have properly connected the router to your computer.

If the device has not been configured previously or the default settings have been restored, after access to the web-based interface the Initial Configuration Wizard opens (see the **Initial Configuration Wizard** section, page 21).



If you configured the device previously, after access to the web-based interface the login page opens. Enter the username (**admin**) in the **Username** field and the password you specified in the **Password** field, then click the **LOGIN** button.



Authorization

Username\*

admin

Password\*

••

Stay signed in

[Forgot password?](#)

Authorization error

Attempts remaining:  
4

LOGIN CLEAR

In order not to log out, move the **Stay signed in** switch to the right. After closing the web browser or rebooting the device, you need to enter the username and the password again.

If you enter a wrong password several times, the web-based interface will be blocked for a while. Please wait for one minute and reenter the password you specified.

The **Summary** page displays general information on the router and its software.

☰ < Home
Summary
✉

### Device Information

Model:	DVG-5402G
Hardware version:	S1
Firmware version:	4.0.5
Build time:	Thu Sep 29 2022 12:21:00 PM MSK
UI version:	1.35.0.d2a6d9e-embedded
Vendor:	D-Link Russia
Serial number:	DVG5402GF1111
Support:	<a href="mailto:support@dlink.ru">support@dlink.ru</a>
Summary:	Root filesystem image for DVG_5402GF_RT9607C
Uptime:	5 days 16 h. 45 min.
Device mode:	<a href="#">Router</a>

### WAN IPv4

Connection type:	Static IPv4
Status:	Connected <span style="color: green;">●</span>
MAC address:	74:DA:DA:00:54:10
IP address:	192.168.161.189

### LAN

LAN IPv4:	192.168.8.254
Wireless connections:	-
Wired connections:	1

### LAN Ports

SFP:	Off <input type="checkbox"/>
LAN4:	1000M-Full <span style="color: green;">●</span>
LAN3:	Off <input type="checkbox"/>
LAN1:	Off <input type="checkbox"/>

### USB Devices

ⓘ No connected devices

### VoIP

#### DHCP option 120 status

DHCP option 120:	Enabled
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ⓘ Option value is not received

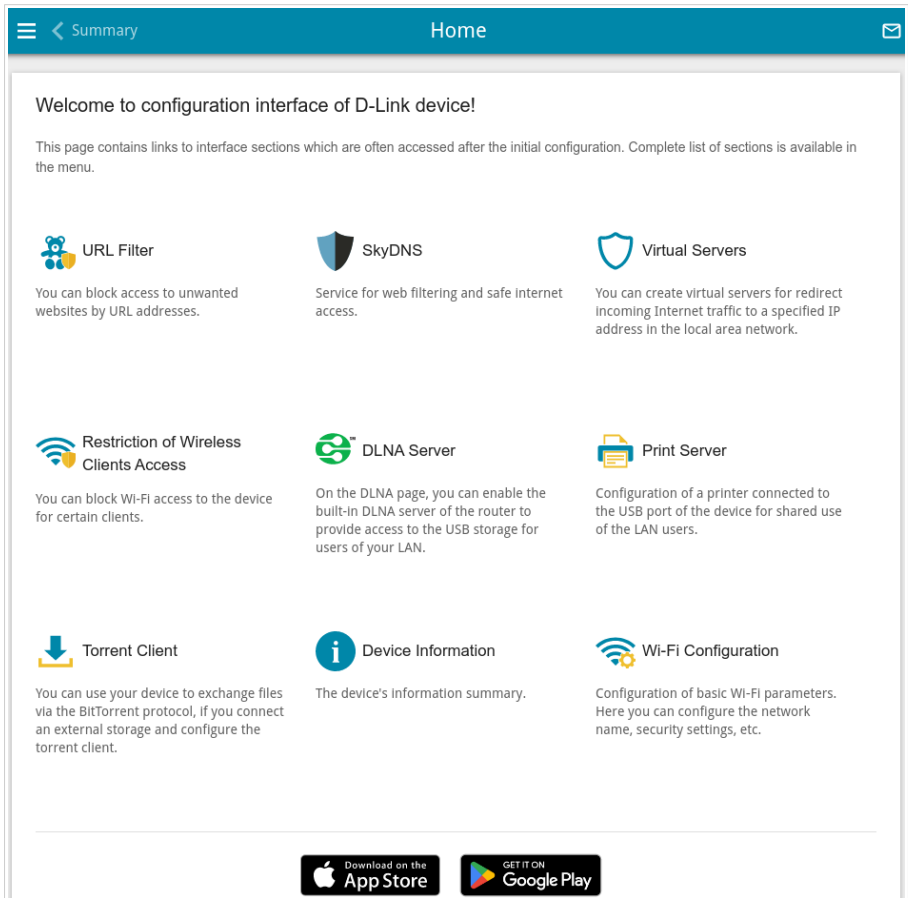
### Wi-Fi 2.4 GHz

Status:	On <span style="color: green;">●</span>
Broadcasting:	On <span style="color: green;">●</span>
Additional networks:	0
Network name (SSID):	DVG-5402G-5410
Security:	WPA2-PSK <span style="color: gray;">🔒</span>

### Wi-Fi 5 GHz

Status:	On <span style="color: green;">●</span>
Broadcasting:	On <span style="color: green;">●</span>
Additional networks:	0
Network name (SSID):	DVG-5402G-5G-5410
Security:	WPA2-PSK <span style="color: gray;">🔒</span>

The **Home** page displays links to the most frequently used pages with device's settings.

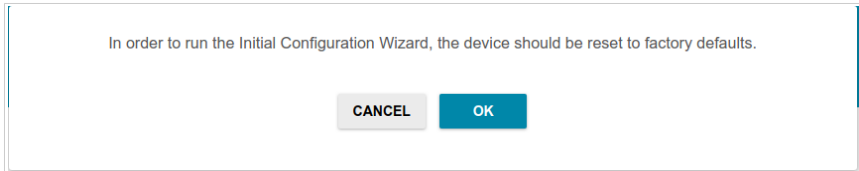


The web-based interface of the router is multilingual. You can select the needed language upon the initial configuration of the web-based interface of the router or in the **System / Configuration** section of the menu.

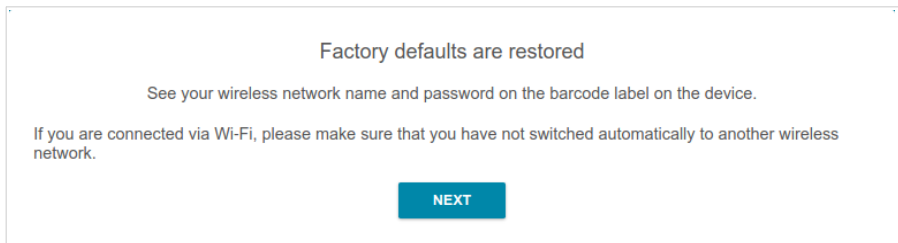
Other settings of the router are available in the menu in the left part of the page. Go to the relevant section and select the needed page or run the wizard in the **Initial Configuration** section.

## Initial Configuration Wizard

In order to start the Initial Configuration Wizard manually, go to the **Initial Configuration** section.

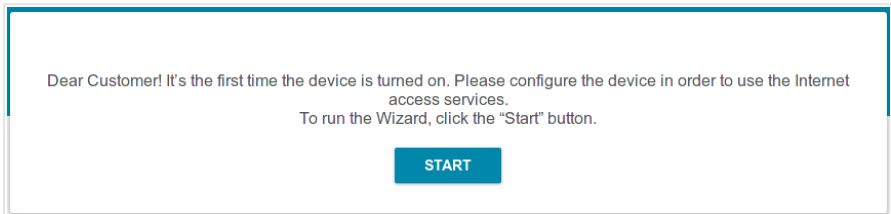


Click the **OK** button and wait until the factory default settings are restored.

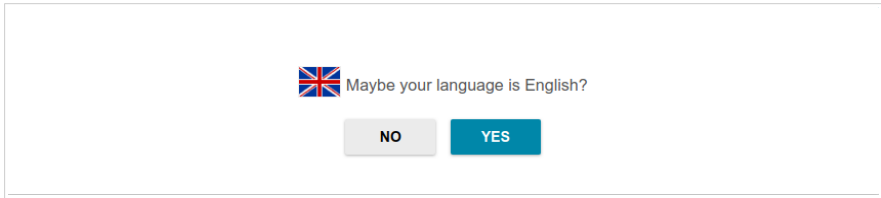


If you perform initial configuration of the router via Wi-Fi connection, please make sure that you are connected to the wireless network of DVG-5402G/GF (see the WLAN name (SSID) in the *Default Settings* section, page 3) and click the **NEXT** button. Then click the **START** button.

If the device has not been configured previously or the default settings have been restored, the Initial Configuration Wizard starts automatically upon access to the web-based interface or upon opening a web site on the Internet.



1. Click **YES** in order to leave the current language of the web-based interface or click **NO** to select another language.



2. On the next page, click the **CONTINUE** button.

## Selecting Operation Mode

Select the needed operation mode and click the **NEXT** button.

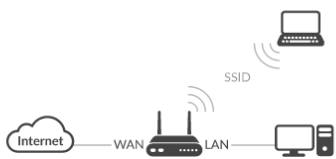
### **Router**

In order to connect your device to a fiber optic line, on the **Device mode** page, from the **Connection method** list, select the **Fiber (SFP)** value. Then from the **Work mode** list, select the **Router** value. In this mode you can configure a WAN connection, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, configure LAN ports to connect an STB or VoIP phone, and set your own password for access to the web-based interface of the device.

Device mode

Connection method  
Fiber (SFP) ▼

Work mode  
Router ▼



Internet — WAN — Router — LAN — Laptop/PC

SSID

< BACK    NEXT >

In order to connect your device to the network of a 3G or LTE operator, on the **Device mode** page, from the **Connection method** list, select the **Mobile Internet** value. In this mode you can configure a 3G/LTE WAN connection, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, and set your own password for access to the web-based interface of the device.



In order to connect your device to a wireless ISP (WISP), on the **Device mode** page, from the **Connection method** list, select the **Wi-Fi** value. Then from the **Work mode** list select the **WISP Repeater** value. In this mode you can connect your device to another access point, configure a WAN connection, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, and set your own password for access to the web-based interface of the device.



## ***Access Point or Repeater***

In order to connect your device to a wired router for adding a wireless network to the existing local network, on the **Device mode** page, from the **Connection method** list, select the **Fiber (SFP)** value. Then from the **Work mode** list select the **Access point** value. In this mode you can change the LAN IP address, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, and set your own password for access to the web-based interface of the device.

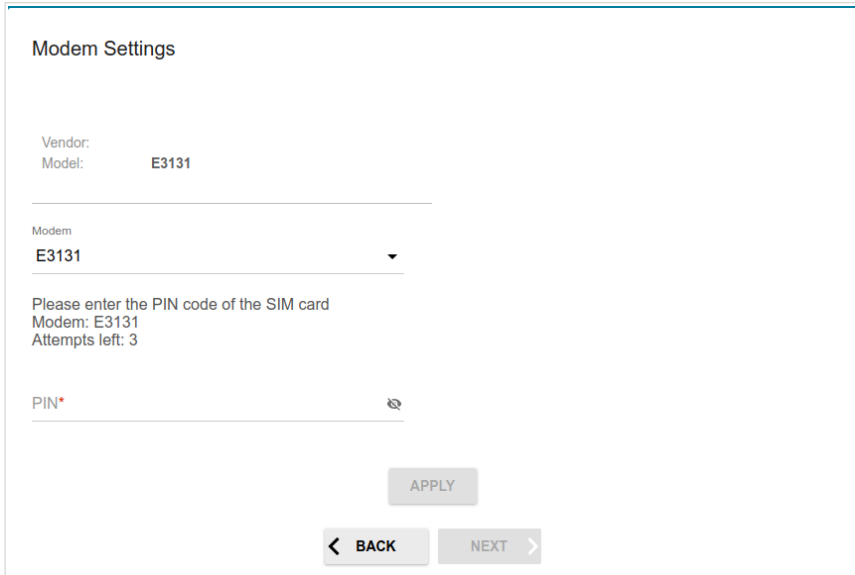
In order to connect your device to a wireless router for extending the range of the existing wireless network, on the **Device mode** page, from the **Connection method** list, select the **Wi-Fi** value. Then from the **Work mode** list select the **Repeater** value. In this mode you can change the LAN IP address, connect your device to another access point, set your own settings for the wireless network in the 2.4GHz and 5GHz bands, and set your own password for access to the web-based interface of the device.

In order to let wired PCs connected to your device access the network of a wireless router, on the **Device mode** page, from the **Connection method** list, select the **Wi-Fi** value. Then from the **Work mode** list select the **Client** value. In this mode you can change the LAN IP address, connect your device to another access point, and set your own password for access to the web-based interface of the device.

## Creating 3G/LTE WAN Connection

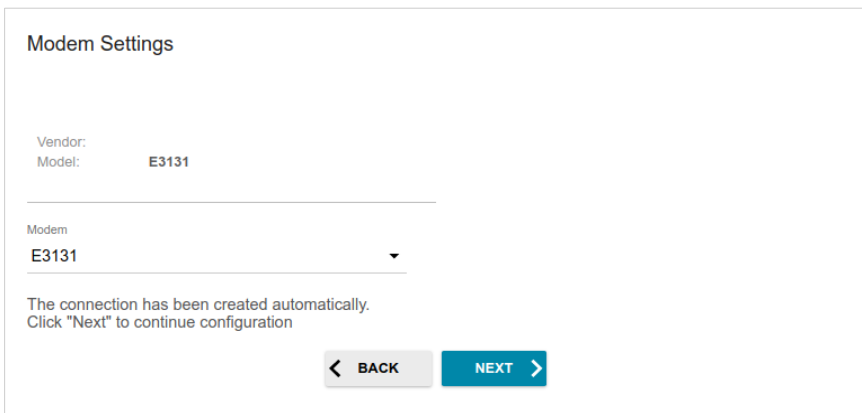
This configuration step is available for the **Mobile Internet** mode.

1. If the PIN code check is enabled for the SIM card inserted into your USB modem, enter the PIN code in the **PIN** field and click the **APPLY** button.



The screenshot shows the 'Modem Settings' interface. At the top, it displays 'Vendor:' and 'Model: E3131'. Below this is a 'Modem' dropdown menu set to 'E3131'. A message reads: 'Please enter the PIN code of the SIM card Modem: E3131 Attempts left: 3'. There is a text input field for the 'PIN\*' with a small eye icon to its right. At the bottom, there are three buttons: 'APPLY', '< BACK', and 'NEXT >'. The 'APPLY' button is highlighted.

2. Please wait while the router automatically creates a WAN connection for your mobile operator.



The screenshot shows the 'Modem Settings' interface. It displays 'Vendor:' and 'Model: E3131'. The 'Modem' dropdown menu is still set to 'E3131'. A message reads: 'The connection has been created automatically. Click "Next" to continue configuration'. At the bottom, there are three buttons: '< BACK', 'NEXT >', and a partially visible 'APPLY' button. The 'NEXT >' button is highlighted in blue.

3. Click the **NEXT** button.

If the router failed to create a WAN connection automatically, click the **CONFIGURE MANUALLY** button. On the **Modem Settings** page, configure all needed settings and click the **NEXT** button.

## Changing LAN IPv4 Address

This configuration step is available for the **Access point**, **Repeater**, and **Client** modes.

1. Select the **Automatic obtainment of IPv4 address** to let DVG-5402G/GF automatically obtain the LAN IPv4 address.
2. In the **Hostname** field, you should specify a domain name of the router using which you can access the web-based interface after finishing the Wizard. Enter a new domain name of the router ending with **.local** or leave the value suggested by the router.




In order to access the web-based interface using the domain name, in the address bar of the web browser, enter the name of the router with a dot at the end.

If you want to manually assign the LAN IPv4 address for DVG-5402G/GF, do not select the **Automatic obtainment of IPv4 address** checkbox and fill in the **IP address**, **Subnet mask**, **DNS IP address**, **Hostname** fields and, if needed, the **Gateway IP address** field. Make sure that the assigned address does not coincide with the LAN IPv4 address of the router to which your device connects.

### LAN

Automatic obtainment of IPv4 address

 *Automatic obtainment of IPv4 address sufficiently protects against use of the same addresses in one LAN. In order to avoid IPv4 address conflicts, static IPv4 addresses of LAN devices should not coincide with addresses from the address range assigned by an upper-level router (or a local DHCP server).*


IP address\*  
192.168.8.254

Subnet mask\*  
255.255.255.0

Gateway IP address

DNS IP address\*  
8.8.8.8

Hostname\*  
dlinkap799b.local


 *Specify a domain name ending with .local. In order to access the web-based interface using the domain name, enter this name with a dot and slash at the end in the address bar of the web browser (for example, dlinkap12ab.local.)*


3. Click the **NEXT** button.

## Wi-Fi Client

This configuration step is available for the **WISP Repeater**, **Repeater**, and **Client** modes.

1. On the **Wi-Fi Client** page, click the **WIRELESS NETWORKS** button and select the network to which you want to connect in the opened window. When you select a network, the **Network name (SSID)** and **BSSID** fields are filled in automatically.

If you cannot find the needed network in the list, click the **UPDATE LIST** icon (  ).

2. If a password is needed to connect to the selected network, fill in the relevant field. Click the **Show** icon (  ) to display the entered password.

Wi-Fi Client

Frequency band  
2.4 GHz ⚠ Attention! Upon connection to networks with WEP or TKIP encryption, basic settings of Wi-Fi networks will be changed: the standards 802.11b and g will be used in the 2.4GHz band and the standard 802.11a will be used in the 5GHz band.

Network name (SSID)\*  
RD\_DLINK

BSSID  
74:DA:DA:0A:8F:C9

Network authentication  
WPA2-PSK

Password PSK\* 👁

🔒 Password should be between 8 and 63 ASCII characters

Encryption type\*  
AES

**WIRELESS NETWORKS**

< BACK
NEXT >

If you connect to a hidden network, select the band where the hidden network operates from the **Frequency band** list and enter the network name in the **Network name (SSID)** field. Then select a needed value from the **Network authentication** list and then, if needed, enter the password in the relevant field.

3. Click the **NEXT** button.

## Configuring Wired WAN Connection

This configuration step is available for the **Router** and **WISP Repeater** modes.



You should configure your WAN connection in accordance with data provided by your Internet service provider (ISP). Make sure that you have obtained all necessary information prior to configuring your connection. Otherwise contact your ISP.

1. On the **Internet connection type** page, click the **SCAN** button (available for the **Router** mode only) to automatically specify the connection type used by your ISP or manually select the needed value from the **Connection type** list.

**Static IPv4:** Fill in the following fields: **IP address**, **Subnet mask**, **Gateway IP address**, and **DNS IP address**.

IP address*	<input type="text"/>
Subnet mask*	<input type="text"/>
Gateway IP address*	<input type="text"/>
DNS IP address*	<input type="text"/>

**Static IPv6:** Fill in the following fields: **IP address**, **Prefix**, **Gateway IP address**, and **DNS IP address**.

IP address*	<input type="text"/>
Prefix*	<input type="text"/>
Gateway IP address*	<input type="text"/>
DNS IP address*	<input type="text"/>

**PPPoE, IPv6 PPPoE, PPPoE Dual Stack, PPPoE + Dynamic IP (PPPoE Dual Access):** Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon (👁) to display the entered password. If authorization is not required, select the **Without authorization** checkbox.

Without authorization

Username\*

---

Password\* 👁

---

**PPPoE + Static IP (PPPoE Dual Access):** Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon (👁) to display the entered password. If authorization is not required, select the **Without authorization** checkbox. Also fill in the following fields: **IP address**, **Subnet mask**, **Gateway IP address**, and **DNS IP address**.

Without authorization

Username\*

---

Password\* 👁

---

IP address\*

---

Subnet mask\*

---

Gateway IP address\*

---

DNS IP address\*

---



**PPTP + Dynamic IP or L2TP + Dynamic IP:** Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon (🔍) to display the entered password. If authorization is not required, select the **Without authorization** checkbox. In the **VPN server address** field, enter the IP or URL address of the PPTP or L2TP authentication server.

Without authorization

Username\*

---

Password\* 🔍

---

VPN server address\*

---

**PPTP + Static IP or L2TP + Static IP:** Enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** field). Click the **Show** icon (🔍) to display the entered password. If authorization is not required, select the **Without authorization** checkbox. In the **VPN server address** field, enter the IP or URL address of the PPTP or L2TP authentication server. Also fill in the following fields: **IP address**, **Subnet mask**, **Gateway IP address**, and **DNS IP address**.

Without authorization

Username\*

---

Password\* 🔍

---

VPN server address\*

---

IP address\*

---

Subnet mask\*

---

Gateway IP address\*


---

DNS IP address\*

---


2. If a particular MAC address was registered by your ISP upon concluding the agreement, from the **MAC address assignment method** drop-down list (available for the **Router** mode only), select the **Manual** value and enter this address in the **MAC address** field. Choose the **Clone MAC address of your device** value to place the MAC address of your network interface card in the field, or leave the **Default MAC address** value to place the router's WAN interface MAC address in the field.
3. If the Internet access is provided via a VLAN channel, select the **Use VLAN** checkbox and fill in the **VLAN ID** field (available for the **Router** mode only).

MAC address assignment method


Default MAC address 

---


MAC address

10:62:eb:2c:c8:3a 

---

 In some ISP's networks, it is required to register a certain MAC address in order to get access to the Internet.

Use VLAN

 Select the checkbox if the Internet access is provided via a VLAN channel.

VLAN ID\*

---

4. Click the **NEXT** button.

## Configuring Wireless Network

This configuration step is available for the **Mobile Internet**, **Router**, **Access point**, **WISP Repeater**, and **Repeater** modes.

1. On the **Wireless Network 2.4 GHz** page, in the **Network name** field, specify your own name for the wireless network in the 2.4GHz band or leave the value suggested by the router.
2. In the **Password** field, specify your own password for access to the wireless network or leave the value suggested by the router (WPS PIN of the device, see the barcode label).
3. If the router is used as a Wi-Fi client, you can specify the same parameters of the wireless network as specified for the network to which you are connecting. To do this, click the **USE** button (available for the **WISP Repeater** and **Repeater** modes only).
4. You can restore the parameters of the wireless network specified before resetting to factory defaults. To do this, click the **RESTORE** button.

### Wireless Network 2.4 GHz

Enable

Broadcast wireless network 2.4 GHz

*ⓘ Disabling broadcast does not influence the ability to connect to another Wi-Fi network as a client.*


Network name\*

my wi-fi

*ⓘ The number of characters should not exceed 32*

Open network

Password\*

..... 

*ⓘ Password should be between 8 and 63 ASCII characters*

**USE** *Use the same parameters as on the root access point.*

**RESTORE** *You can restore network name and security that was set before applying factory settings.*

5. If you want to create an additional wireless network isolated from your LAN in the 2.4GHz band, select the **Enable guest network** checkbox (available for the **Mobile Internet**, **Router**, and **WISP Repeater** modes only).

Enable guest network

*Guest Wi-Fi network allows connection to your device and getting access to the Internet. Upon that computers connected to this wireless network will be isolated from the resources of your main local area network. This helps to secure your LAN while you provide access to the Internet for temporary users.*

Network name\*

my wi-fi\_Guest

*The number of characters should not exceed 32*

Open network

Max associated clients\*

0

Enable shaping

Shaping (Mbit/s)\*

0

6. In the **Network name** field, specify your own name for the guest wireless network or leave the value suggested by the router.
7. If you want to create a password for access to the guest wireless network, deselect the **Open network** checkbox and fill in the **Password** field.
8. If you want to limit the bandwidth of the guest wireless network, select the **Enable shaping** checkbox and fill in the **Shaping** field.
9. Click the **NEXT** button.
10. On the **Wireless Network 5 GHz** page, specify needed settings for the wireless network in the 5GHz band and click the **NEXT** button.

## Configuring LAN Ports for IPTV/VoIP

This configuration step is available for the **Router** mode.

1. On the **IPTV** page, select the **Is an STB connected to the device** checkbox.

**IPTV**

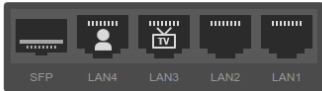
Is an STB connected to the device?

*ⓘ If your ISP provides IPTV service, you can connect an STB directly to the router without additional equipment*

Use VLAN ID

**VLAN ID\***

*ⓘ Information about the VLAN ID can be found in the contract.*



2. Select a free LAN port for connecting your set-top box.
3. If the IPTV service is provided via a VLAN channel, select the **Use VLAN ID** checkbox and fill in the **VLAN ID** field.
4. Click the **NEXT** button.

5. On the **VoIP** page, select the **Is an IP phone connected to the device** checkbox.

VoIP

Is an IP phone connected to the device?

*ⓘ If your ISP provides VoIP service, you can connect an IP phone directly to the router without additional equipment*

Use VLAN ID

VLAN ID\*

*ⓘ Information about the VLAN ID can be found in the contract.*

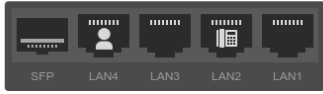


Diagram showing the router's front panel ports: SFP, LAN4, LAN3, LAN2, and LAN1. The LAN ports are represented by RJ45 jacks, and the SFP port is a separate slot.

6. Select a free LAN port for connecting your IP phone.
7. If the VoIP service is provided via a VLAN channel, select the **Use VLAN ID** checkbox and fill in the **VLAN ID** field.
8. Click the **NEXT** button.

## Changing Web-based Interface Password

On this page you should change the default administrator password. To do this, enter a new password in the **User's interface password** and **Password confirmation** fields. You may set any password except **admin**. Use digits, Latin letters (uppercase and/or lowercase), and other characters available in the US keyboard layout.<sup>4</sup>



Remember or write down the new password for the administrator account. In case of losing the new password, you can access the settings of the router only after restoring the factory default settings via the hardware **RESET** button. This procedure wipes out all settings that you have configured for your router.

Click the **NEXT** button.

On the next page, check all the settings you have just specified.

Also you can save a text file with parameters set by the Wizard to your PC. To do this, click the **SAVE CONFIGURATION FILE** button and follow the dialog box appeared.

To finish the Wizard, click the **APPLY** button. The router will apply settings, reboot, if needed, and check the Internet connection if the Wizard has configured a WAN connection.

<sup>4</sup> 0-9, A-Z, a-z, space, !"#%&'()\*+,-./:;<=>?@[\\]^\_`{|}~.

## ***Configuring LAN Port as WAN Port to Connect to Ethernet Line***

To configure a LAN port to be used as the WAN port, you should specify the relevant parameters of the router:

1. Go to the **Connections Setup / WAN** page and remove the WAN connection assigned to the **SFP** port.
2. Go to the **Advanced / WAN Remapping** page and select a LAN port which will be used as the WAN port. Then click the **APPLY** button.
3. Go to the **Connections Setup / WAN** page again and create a WAN connection with the interface corresponding to the selected LAN port.



## Configuring Local Area Network

1. Go to the **Connections Setup / LAN** page.
2. If needed, change the IPv4 address of the router's LAN interface and the mask of the local subnet. To do this, click the **IPv4** tab and specify needed values in the **IP address** and **Mask** fields in the **Local IP Address** section.

### Local IP Address

IP address\*

192.168.8.254

---

Mask\*

255.255.255.0

---

Hostname


dlinkrouter.local

---

① Specify a domain name ending with .local. In order to access the web-based interface using the domain name, enter this name with a dot and slash at the end in the address bar of the web browser (for example, dlinkrouter.local.)

3. If needed, add a static IPv6 address of the router's LAN interface. To do this, click the **IPv6** tab. In the **Local IPv6 Address** section, click the **ADD** button. In the line displayed, enter an IPv6 address and then a slash followed by a decimal value of the prefix length.

### Local IPv6 Address

For example: fd00::1/64 

---

① Enter IPv6 address, slash (/), and a decimal value equal to the size in bits of the prefix.

**ADD**

---

Hostname

dlinkrouter.local

---

① Specify a domain name ending with .local. In order to access the web-based interface using the domain name, enter this name with a dot and slash at the end in the address bar of the web browser (for example, dlinkrouter.local.)

- IPv4 address assignment.** By default, the built-in DHCP server of the router assigns IPv4 addresses to the devices of the LAN. If you want to manually assign IPv4 addresses, disable the DHCP server (click the **IPv4** tab and select the **Disable** value from the **Mode of IPv4 address assignment** drop-down list in the **Dynamic IP Addresses** section).

### Dynamic IP Addresses

Mode of IPv4 address assignment  
DHCP

Start IP\*  
192.168.8.100

End IP\*  
192.168.8.199

[SELECT ADDRESS RANGE](#)

Lease time (in minutes)\*  
1440

DNS relay

① Assigns the LAN IP address of the device as the DNS server for connected clients.

5. **IPv6 address assignment.** By default, the devices of the LAN automatically assign IPv6 addresses to themselves (the **Stateless** value is selected from the **Mode of IPv6 address assignment** drop-down list in the **Dynamic IP Addresses** section on the **IPv6** tab). If the devices of the LAN do not support IPv6 address autoconfiguration, use the built-in DHCPv6 server of the router (select the **Stateful** value from the **Mode of IPv6 address assignment** drop-down list) or an external DHCP server (select the **Relay** value from the **Mode of IPv6 address assignment** drop-down list). If you want to manually assign IPv6 addresses to devices of the LAN, select the **Disable** value from the **Mode of IPv6 address assignment** drop-down list.

Dynamic IP Addresses

Mode of IPv6 address assignment  
Stateful

---

Start IP\*  
::2

---


End IP\*  
::64

---

[SELECT ADDRESS RANGE](#)


Lease time (in minutes)\*  
1440

---

 Lease time will be chosen by ISP based on the delegated prefix life time.

The default route for LAN clients

DNS relay

 Assigns the LAN IP address of the device as the DNS server for connected clients.

6. After specifying the needed parameters on the **Connections Setup / LAN** page, click the **APPLY** button.

## Configuring VoIP via SIP

1. Connect the phone to the **PHONE1** or **PHONE2** port of the router using an RJ-11 cable.
2. Go to the **VoIP / Home** page.
3. In the **Profile List** section, select the **Voice profile** line.

Profile list		
<input type="checkbox"/>	Name	DHCP option 120
<input type="checkbox"/>	Voice profile	Enabled
		Status
		Disabled

4. In the opened window, move the **Enable** switch to the right.

Profile
✕

Enable

Enable DHCP option 120

Name\*

Voice profile

SAVE

5. If your provider does not require automatic obtainment of the SIP proxy server address, move the **Enable DHCP option 120** switch to the left.
6. Click the **SAVE** button and then click the **APPLY** button.
7. Go to your profile basic settings page (**VoIP / Voice profile / Basic Settings** for the default profile).
8. In the **SIP Proxy** section, in the **Address** field, specify an IP or URL address of the VoIP registration server provided by your ISP.

SIP Proxy

Address\*

Port\*

5060

9. If your provider requires users to specify a SIP domain, in the **SIP Domain** section, fill in the **SIP domain name** field and, if needed, move the **Use domain to register** switch to the right (contact your ISP to clarify if the setting is required).



SIP Domain

Use domain to register

SIP domain name

10. Click the **APPLY** button.

11. In the **List of SIP Lines** section, click the **ADD** button (  ).

List of SIP Lines  

SIP ID / Number	Username	Ports	Status

12. On the opened page, in the **General** section, move the **Enable** switch to the right.


**General**

Enable

Port  
Not selected ▼

SIP ID / Number\*

Username

Password 

PIN code to dial

Enable Display name

Display name

13. From the **Port** drop-down list, select the **phone 1** or **phone 2** value (the values correspond to the **PHONE1** and **PHONE2** ports).
14. In the **SIP ID / Number** field, specify the phone number provided by your ISP for making calls.
15. Enter the username in the **Username** field (as a rule, the username and the phone number are the same) and fill in the **Password** field (contact your ISP to clarify if the setting is required).



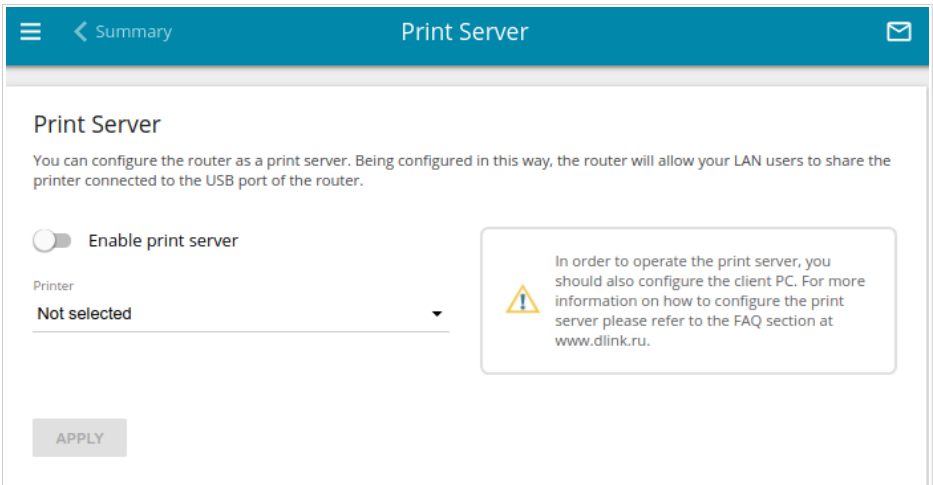
Simultaneous operation of no more than two lines is possible.

16. If needed, fill in other fields on the **VoIP / Voice profile / Basic Settings** page in accordance with data provided by the ISP.
17. Click the **APPLY** button.

After completing configuration, you can check the registration status of the line on the **Summary** page.

## Configuring Network Printer

1. Make sure that a driver for your printer which will be used as a network printer is installed on your PC.<sup>5</sup>
2. To connect the printer to the router, power off both devices. Connect the printer to the USB port of the router, power on the printer, then power on the router.
3. Then access the web-based interface and go to the **Print Server** page.
4. Move the **Enable print server** switch to the right, from the **Printer** drop-down list, select the printer connected to the USB port of the router, and click the **APPLY** button.

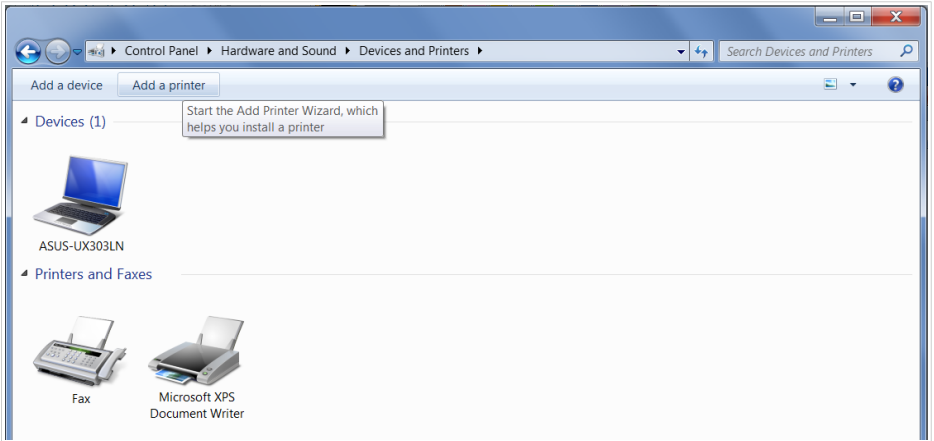


5. Click the **Start** button and go to the **Control Panel** window.
6. Select the **Hardware and Sound** section. (If the Control Panel has the category view (the **Category** value is selected from the **View by** drop-down list in the top right corner of the window), choose the **View devices and printers** line.)



- 5 Some home printers can work incorrectly as network printers. Contact the technical support of your printer's manufacturer to clarify if your printer supports this function.

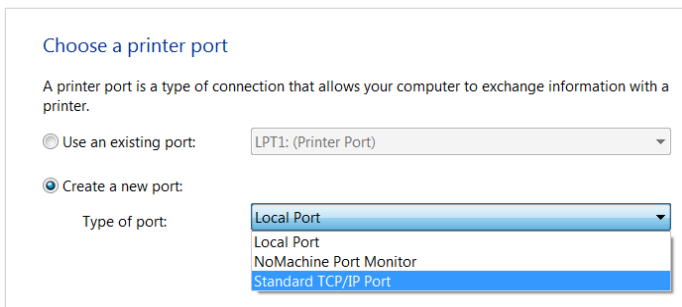
7. In the opened window, click the **Add a printer** button.



8. Select the **Add a local printer** value and click the **Next** button.



9. Select the **Create a new port** choice of the radio button and then select the **Standard TCP/IP Port** value from the **Type of port** drop-down list. Click the **Next** button.





10. Enter the IP address of the router in the **Hostname or IP address** field (by default, **192.168.8.254**). Deselect the **Query the printer and automatically select the driver to use** checkbox and, if needed, change the name of the port in the **Port name** field. Click the **Next** button.

Type a printer hostname or IP address

Device type:

Hostname or IP address:

Port name:

Query the printer and automatically select the driver to use

11. Wait for about 20-30 seconds. In the opened **Additional port information required** window, select the **Custom** choice of the radio button, click the **Settings** button, and make sure that the **RAW** choice of the radio button is selected in the **Protocol** section and the **9100** value is specified in the **Raw Settings** section. Click the **OK** button.

Additional port information required

The device is not found on the network. Be sure that:

1. The device is turned on.
2. The network is connected.
3. The device is properly configured.
4. The address on the previous page is correct.

If you think the address is not correct, click Back to return to the previous page. Then correct the address and perform another search on the network. If you are sure the address is correct, select the device type below.

Device Type

Standard

Custom

Configure Standard TCP/IP Port Monitor

Port Settings

Port Name:

Printer Name or IP Address:

Protocol

Raw  LPR

Raw Settings

Port Number:

12. Then in the **Additional port information required** window, select the **Standard** choice of the radio button and click the **Next** button.

13. Select your printer and click the **Next** button.

**Install the printer driver**

Choose your printer from the list. Click Windows Update to see more models.  
To install the driver from an installation CD, click Have Disk.

Manufacturer	Printers
Brother	Brother DCP-116C
Canon	Brother DCP-117C
Epson	Brother DCP-128C
Fuji Xerox	Brother DCP-129C
Generic	Brother DCP-130C

This driver is digitally signed. [Tell me why driver signing is important](#)

14. Select the **Use the driver that is currently installed** choice of the radio button and click the **Next** button.

**Which version of the driver do you want to use?**

Windows detected that a driver is already installed for this printer.

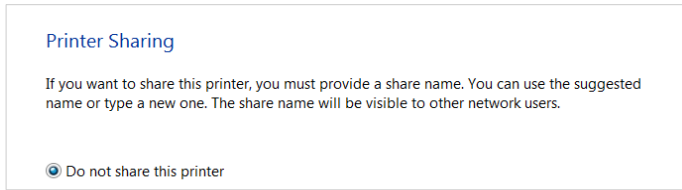
Use the driver that is currently installed (recommended)

15. Enter a name of the printer (you can specify any name) in the **Printer name** field and click the **Next** button.

**Type a printer name**

Printer name:

- In the **Printer Sharing** window, select the **Do not share this printer** choice of the radio button and click the **Next** button.



- If you need to print a test page, click the **Print a test page** button. To finish the printer installation, click the **Finish** button.

## SPECIFICATIONS\*

Hardware	
<b>Processor</b>	<ul style="list-style-type: none"> <li>· RTL9607C (900MHz)</li> </ul>
<b>RAM</b>	<ul style="list-style-type: none"> <li>· 256MB, DDR3, built in processor</li> </ul>
<b>Flash</b>	<ul style="list-style-type: none"> <li>· 128MB, SPI NAND</li> </ul>
<b>Interfaces</b>	<ul style="list-style-type: none"> <li>· 1000BASE-X SFP WAN port</li> <li>· 4 10/100/1000BASE-T LAN ports</li> <li>· 2 RJ-11 FXS ports</li> <li>· USB 2.0 port</li> </ul>
<b>LEDs</b>	<ul style="list-style-type: none"> <li>· Power</li> <li>· SFP</li> <li>· Internet</li> <li>· LAN 1-4</li> <li>· WLAN 2.4G/5G</li> <li>· WPS</li> <li>· USB</li> <li>· FXS 1-2</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>· WLAN button to enable/disable wireless network</li> <li>· WPS button to set up wireless connection</li> </ul>
<b>Antenna</b>	<ul style="list-style-type: none"> <li>· Four external non-detachable antennas (5dBi gain)</li> </ul>
<b>MIMO</b>	<ul style="list-style-type: none"> <li>· 2 x 2, MU-MIMO</li> </ul>
<b>Power connector</b>	<ul style="list-style-type: none"> <li>· Power input connector (DC)</li> </ul>

\* The device features are subject to change without notice. For the latest versions of the firmware and relevant documentation, visit [www.dlink.ru](http://www.dlink.ru).

<b>Software</b>	
<b>WAN connection types</b>	<ul style="list-style-type: none"> <li>· Mobile Internet (via supported USB modem)</li> <li>· PPPoE</li> <li>· IPv6 PPPoE</li> <li>· PPPoE Dual Stack</li> <li>· Static IPv4 / Dynamic IPv4</li> <li>· Static IPv6 / Dynamic IPv6</li> <li>· PPPoE + Static IP (PPPoE Dual Access)</li> <li>· PPPoE + Dynamic IP (PPPoE Dual Access)</li> <li>· PPTP/L2TP + Static IP</li> <li>· PPTP/L2TP + Dynamic IP</li> <li>· L2TP Dual Stack</li> <li>· IPIP6 in DSLite mode</li> <li>· 6in4</li> <li>· 6to4</li> <li>· 6rd</li> </ul>
<b>Network functions</b>	<ul style="list-style-type: none"> <li>· DHCP server/relay</li> <li>· Advanced configuration of built-in DHCP server</li> <li>· Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation</li> <li>· Automatic obtainment of LAN IP address (for access point/repeater/client modes)</li> <li>· DNS relay</li> <li>· Dynamic DNS</li> <li>· Static IPv4/IPv6 routing</li> <li>· IGMP Proxy</li> <li>· RIP</li> <li>· Support of UPnP</li> <li>· Support of VLAN</li> <li>· WAN ping respond</li> <li>· Support of SIP ALG</li> <li>· Support of RTSP</li> <li>· WAN failover</li> <li>· LAN/WAN conversion</li> <li>· Autonegotiation of speed, duplex mode, and flow control / Manual speed and duplex mode setup for each Ethernet port</li> <li>· Built-in UDPXY application</li> <li>· XUPNPD plug-in</li> <li>· Equal load distribution while using several WAN connections (traffic balancing)</li> <li>· Port mirroring</li> </ul>

<b>Software</b>	
<b>Firewall functions</b>	<ul style="list-style-type: none"> <li>· Network Address Translation (NAT)</li> <li>· Stateful Packet Inspection (SPI)</li> <li>· IPv4/IPv6 filter</li> <li>· MAC filter</li> <li>· URL filter</li> <li>· Ad blocking function</li> <li>· DMZ</li> <li>· Virtual servers</li> <li>· Built-in SkyDNS web content filtering service</li> </ul>
<b>VPN</b>	<ul style="list-style-type: none"> <li>· IPsec/PPTP/L2TP/PPPoE pass-through</li> <li>· PPTP/L2TP servers</li> <li>· PPTP/L2TP tunnels</li> <li>· L2TP over IPsec client</li> <li>· GRE/EoGRE/EoIP/IPIP tunnels</li> <li>· IPsec tunnels               <ul style="list-style-type: none"> <li>Transport/Tunnel mode</li> <li>IKEv1/IKEv2 support</li> <li>DES encryption</li> <li>NAT Traversal</li> <li>Support of DPD (Keep-alive for VPN tunnels)</li> </ul> </li> </ul>
<b>USB interface functions</b>	<ul style="list-style-type: none"> <li>· USB modem               <ul style="list-style-type: none"> <li>Auto connection to available type of supported network (4G/3G/2G)</li> <li>Auto configuration of connection upon plugging in USB modem</li> <li>Enabling/disabling PIN code check, changing PIN code<sup>6</sup></li> <li>Sending/receiving/reading/removing SMS messages<sup>6</sup></li> <li>Support of USSD requests<sup>6</sup></li> </ul> </li> <li>· USB storage               <ul style="list-style-type: none"> <li>File browser</li> <li>Print server</li> <li>Access to storage via accounts</li> <li>Built-in Samba/FTP/DLNA server</li> <li>Built-in Transmission torrent client;</li> <li>uploading/downloading files from/to USB storage</li> </ul> </li> </ul>

<sup>6</sup> For some models of USB modems.

Software	
<b>Management and monitoring</b>	<ul style="list-style-type: none"> <li>• Local and remote access to settings through SSH/TELNET/WEB (HTTP/HTTPS)</li> <li>• Multilingual web-based interface for configuration and management</li> <li>• Support of D-Link Assistant application for Android and iPhone smartphones</li> <li>• Notification on connection problems and auto redirect to settings</li> <li>• Firmware update via web-based interface</li> <li>• Automatic notification on new firmware version</li> <li>• Saving/restoring configuration to/from file</li> <li>• Support of logging to remote host/connected USB storage</li> <li>• Automatic synchronization of system time with NTP server and manual time/date setup</li> <li>• Ping utility</li> <li>• Traceroute utility</li> <li>• TR-069 client</li> <li>• Schedules for rules and settings of firewall, automatic reboot and saving a configuration backup to a connected USB storage, limitation of wireless client maximum bandwidth, and enabling/disabling wireless network and Wi-Fi filter</li> <li>• Automatic upload of configuration file from ISP's server (Auto Provision)</li> <li>• Configuration of action for hardware buttons</li> </ul>

Wireless Module Parameters	
<b>Standards</b>	<ul style="list-style-type: none"> <li>• IEEE 802.11ac Wave 2</li> <li>• IEEE 802.11a/b/g/n</li> <li>• IEEE 802.11w</li> </ul>
<b>Frequency range</b>  <i>The frequency range depends upon the radio frequency regulations applied in your country</i>	<ul style="list-style-type: none"> <li>• 2400 ~ 2483.5MHz</li> <li>• 5150 ~ 5350MHz</li> <li>• 5650 ~ 5850MHz</li> </ul>
<b>Wireless connection security</b>	<ul style="list-style-type: none"> <li>• WEP</li> <li>• WPA/WPA2 (Personal/Enterprise)</li> <li>• WPA3 (Personal)</li> <li>• MAC filter</li> <li>• WPS (PBC/PIN)</li> </ul>

<b>Wireless Module Parameters</b>	
<b>Advanced functions</b>	<ul style="list-style-type: none"> <li>• Support of client mode</li> <li>• WMM (Wi-Fi QoS)</li> <li>• Information on connected Wi-Fi clients</li> <li>• Advanced settings</li> <li>• Guest Wi-Fi / support of MBSSID</li> <li>• Rate limitation for wireless network/separate MAC addresses</li> <li>• Periodic scan of channels, automatic switch to least loaded channel</li> <li>• Support of 2.4GHz/5GHz TX Beamforming</li> <li>• Autonegotiation of channel bandwidth in accordance with environment conditions (20/40 Coexistence)</li> <li>• Support of STBC</li> <li>• CoovaChilli authentication portal</li> </ul>
<b>Wireless connection rate</b>	<ul style="list-style-type: none"> <li>• IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54Mbps</li> <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 (2.4GHz/5GHz): from 6.5 to 300Mbps (from MCS0 to MCS15)</li> <li>• IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MCS9)</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>• 802.11a (typical at room temperature 25 °C) 15dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps</li> <li>• 802.11b (typical at room temperature 25 °C) 15dBm at 1, 2, 5.5, 11Mbps</li> <li>• 802.11g (typical at room temperature 25 °C) 15dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps</li> <li>• 802.11n (typical at room temperature 25 °C) 2.4GHz, HT20/HT40 15dBm at MCS0/8~7/15 5GHz, HT20/HT40 15dBm at MCS0/8~7/15</li> <li>• 802.11ac (typical at room temperature 25 °C) VHT20/VHT40/VHT80 15dBm at MCS0~9</li> </ul>
<b>Receiver sensitivity</b>	<ul style="list-style-type: none"> <li>• 802.11a (typical at PER &lt; 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</li> </ul>



**Wireless Module Parameters**

	<ul style="list-style-type: none"> <li>· 802.11b (typical at PER = 8% at room temperature 25 °C)                             <ul style="list-style-type: none"> <li>-82dBm at 1Mbps</li> <li>-80dBm at 2Mbps</li> <li>-78dBm at 5.5Mbps</li> <li>-76dBm at 11Mbps</li> </ul> </li>   <li>· 802.11g (typical at PER &lt; 10% at room temperature 25 °C)                             <ul style="list-style-type: none"> <li>-82dBm at 6Mbps</li> <li>-81dBm at 9Mbps</li> <li>-79dBm at 12Mbps</li> <li>-77dBm at 18Mbps</li> <li>-74dBm at 24Mbps</li> <li>-70dBm at 36Mbps</li> <li>-66dBm at 48Mbps</li> <li>-65dBm at 54Mbps</li> </ul> </li>   <li>· 802.11n (typical at PER = 10% at room temperature 25 °C)                             <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>2.4GHz/5GHz, HT20</li> <li>-82dBm at MCS0/8</li> <li>-79dBm at MCS1/9</li> <li>-77dBm at MCS2/10</li> <li>-74dBm at MCS3/11</li> <li>-70dBm at MCS4/12</li> <li>-66dBm at MCS5/13</li> <li>-65dBm at MCS6/14</li> <li>-64dBm at MCS7/15</li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>2.4GHz/5GHz, HT40</li> <li>-79dBm at MCS0/8</li> <li>-76dBm at MCS1/9</li> <li>-74dBm at MCS2/10</li> <li>-71dBm at MCS3/11</li> <li>-67dBm at MCS4/12</li> <li>-63dBm at MCS5/13</li> <li>-62dBm at MCS6/14</li> <li>-61dBm at MCS7/15</li> </ul> </td> </tr> </table> </li> </ul>	<ul style="list-style-type: none"> <li>2.4GHz/5GHz, HT20</li> <li>-82dBm at MCS0/8</li> <li>-79dBm at MCS1/9</li> <li>-77dBm at MCS2/10</li> <li>-74dBm at MCS3/11</li> <li>-70dBm at MCS4/12</li> <li>-66dBm at MCS5/13</li> <li>-65dBm at MCS6/14</li> <li>-64dBm at MCS7/15</li> </ul>	<ul style="list-style-type: none"> <li>2.4GHz/5GHz, HT40</li> <li>-79dBm at MCS0/8</li> <li>-76dBm at MCS1/9</li> <li>-74dBm at MCS2/10</li> <li>-71dBm at MCS3/11</li> <li>-67dBm at MCS4/12</li> <li>-63dBm at MCS5/13</li> <li>-62dBm at MCS6/14</li> <li>-61dBm at MCS7/15</li> </ul>
<ul style="list-style-type: none"> <li>2.4GHz/5GHz, HT20</li> <li>-82dBm at MCS0/8</li> <li>-79dBm at MCS1/9</li> <li>-77dBm at MCS2/10</li> <li>-74dBm at MCS3/11</li> <li>-70dBm at MCS4/12</li> <li>-66dBm at MCS5/13</li> <li>-65dBm at MCS6/14</li> <li>-64dBm at MCS7/15</li> </ul>	<ul style="list-style-type: none"> <li>2.4GHz/5GHz, HT40</li> <li>-79dBm at MCS0/8</li> <li>-76dBm at MCS1/9</li> <li>-74dBm at MCS2/10</li> <li>-71dBm at MCS3/11</li> <li>-67dBm at MCS4/12</li> <li>-63dBm at MCS5/13</li> <li>-62dBm at MCS6/14</li> <li>-61dBm at MCS7/15</li> </ul>		

## Wireless Module Parameters

	<ul style="list-style-type: none"> <li>· 802.11ac (typical at PER = 10% at room temperature 25 °C)</li> <li>VHT20</li> <li>-82dBm at MCS0</li> <li>-79dBm at MCS1</li> <li>-77dBm at MCS2</li> <li>-74dBm at MCS3</li> <li>-70dBm at MCS4</li> <li>-66dBm at MCS5</li> <li>-65dBm at MCS6</li> <li>-64dBm at MCS7</li> <li>-56dBm at MCS8</li> <li>VHT40</li> <li>-79dBm at MCS0</li> <li>-76dBm at MCS1</li> <li>-74dBm at MCS2</li> <li>-71dBm at MCS3</li> <li>-67dBm at MCS4</li> <li>-63dBm at MCS5</li> <li>-62dBm at MCS6</li> <li>-61dBm at MCS7</li> <li>-56dBm at MCS8</li> <li>-54dBm at MCS9</li> <li>VHT80</li> <li>-76dBm at MCS0</li> <li>-73dBm at MCS1</li> <li>-71dBm at MCS2</li> <li>-68dBm at MCS3</li> <li>-64dBm at MCS4</li> <li>-60dBm at MCS5</li> <li>-59dBm at MCS6</li> <li>-58dBm at MCS7</li> <li>-53dBm at MCS8</li> <li>-51dBm at MCS9</li> </ul>
<b>Modulation schemes</b>	<ul style="list-style-type: none"> <li>· 802.11a: BPSK, QPSK, 16QAM, 64QAM with OFDM</li> <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> <li>· 802.11ac: BPSK, QPSK, 16QAM, 64QAM, up to 256QAM with OFDM</li> </ul>

<b>Phone</b>	
<b>General SIP Features</b>	<ul style="list-style-type: none"> <li>· Support of several SIP profiles</li> <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>· NAT public IP address</li> <li>· NAT keep-alive</li> <li>· Session timer (re-invite/update)</li> <li>· Call types: voice/modem/fax</li> <li>· User programmable Dial Plan</li> <li>· Manual peer table (for P2P calls)</li> <li>· Handling numbers in E.164 format</li> </ul>
<b>Call Features</b>	<ul style="list-style-type: none"> <li>· Direct IP-to-IP call without SIP proxy (P2P)</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/abbreviated dialing</li> <li>· PIN code before dialing</li> <li>· Hotline</li> <li>· Vertical service codes</li> <li>· CLIR</li> <li>· Intercom (internal calls without SIP server)</li> <li>· Filtering SIP packets by IP address/domain name (white/black list)</li> <li>· Alarm clock</li> <li>· Logging calls</li> <li>· Sending text messages to VoIP gateways/IP phones</li> </ul>

Phone	
<b>Voice Features</b>	<ul style="list-style-type: none"> <li>· Codecs: G.711 a/μ-law, G.729A, G.726, G.722, G.723.1</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>· Dynamic Jitter Buffer</li> <li>· Echo Cancellation (LEC/NLP)</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, V.152</li> <li>· Adjustable Flash Time</li> <li>· Advanced call transfer, three-party calls</li> <li>· Volume control (speaker/microphone)</li> </ul>

Physical Parameters	
<b>Dimensions (L x W x H)</b>	· 206 x 123 x 32 mm (8.1 x 4.8 x 1.3 in)
<b>Weight</b>	· 330 g (0.73 lb)

Operating Environment	
<b>Power</b>	· Output: 12V DC, 1.5A
<b>Temperature</b>	<ul style="list-style-type: none"> <li>· Operating: from 0 to 40 °C</li> <li>· Storage: from -20 to 65 °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>

## Supported USB modems<sup>7</sup>

### 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)
- Huawei E3531
- Prolink PHS600
- Prolink PHS901
- ZTE MF112
- ZTE MF192
- ZTE MF626
- ZTE MF627
- ZTE MF652
- ZTE MF667
- ZTE MF668
- ZTE MF752

<sup>7</sup> The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.

<b>Supported USB modems</b>	
<b>LTE</b>	<ul style="list-style-type: none"> <li>· Alcatel IK40V</li> <li>· D-Link DWM-222</li> <li>· Huawei E3131</li> <li>· Huawei E3272</li> <li>· Huawei E3351</li> <li>· Huawei E3372s</li> <li>· Huawei E3372h-153</li> <li>· Huawei E3372h-320</li> <li>· Huawei E367</li> <li>· Huawei E392</li> <li>· Megafon M100-1</li> <li>· Megafon M100-2</li> <li>· Megafon M100-3</li> <li>· Megafon M100-4</li> <li>· Megafon M150-1</li> <li>· Megafon M150-2</li> <li>· Megafon M150-3</li> <li>· Quanta 1K6E (Beeline 1K6E)</li> <li>· MTS 824F</li> <li>· MTS 827F</li> <li>· Yota LU-150</li> <li>· Yota WLTUBA-107</li> <li>· ZTE MF823</li> <li>· ZTE MF823D</li> <li>· ZTE MF827</li> <li>· ZTE MF833T</li> <li>· ZTE MF833V</li> </ul>
<b>Smartphones in USB tethering mode</b>	<ul style="list-style-type: none"> <li>· Some models of Android smartphones</li> </ul>

## SAFETY RULES AND CONDITIONS

Please carefully read this section before installation and connection of the device. Make sure that the power adapter and cables are not damaged. The device should be used only as intended in accordance with the documents.

The device is intended for use in dry, clean, dust-free, and well ventilated areas with normal humidity away from strong heat sources. Do not use the device outdoors or in the areas with high humidity. Do not place foreign objects on the device. Do not obstruct the ventilation openings of the device. The environmental temperature near the device and the temperature inside the device's cover should be within the range from 0 °C to +40 °C.

Only use the power adapter supplied with the device. Do not plug in the adapter, if its case or cable are damaged. Plug the adapter only into working electrical outlets with parameters indicated on the adapter.

Do not open the cover of the device! Unplug the device before dusting and cleaning. Use a damp cloth to clean the device. Do not use liquid/aerosol cleaners or magnetic/static cleaning devices. Prevent moisture getting into the device or the power adapter.

The service life of the device is 2 years.

## TECHNICAL SUPPORT

You can find software updates and user documentation on our website.

D-Link provides its customers with free support within the product's warranty period.

Customers can contact the technical support group by phone or by e-mail/Internet.

**FOR TELEPHONE NUMBERS AND ADDRESSES OF D-LINK  
OFFICES WORLDWIDE VISIT**

<http://www.dlink.com>