



DIR-825/AC

**Wireless AC1200 Dual Band Gigabit Router
with 3G/LTE Support and USB Port**

BEFORE YOU BEGIN

Delivery Package

- Router DIR-825/AC
- Power adapter DC 12V/1.5A
- Ethernet cable (CAT 5E)
- “***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).



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

	IP address of wireless router	192.168.0.1
	Username (login)	admin
	Password	admin
Name of wireless network (SSID)	2.4GHz	DIR-825
	5GHz	DIR-825-5G
	Network key (PSK password)	see WPS PIN on the barcode label on the bottom panel of the device




Router DIR-825/AC with default settings cannot connect 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

- A computer with any operating system that supports a web browser.
- A web browser to access the web-based interface of the router:
 - 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.
- A USB modem (when it is necessary to connect to the Internet via mobile operators' networks)¹.

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

¹ Contact your operator to get information on the service coverage and fees.

CONNECTING TO PC

PC with Ethernet Adapter

1. Make sure that your PC is powered off.
2. Connect an Ethernet cable between any of LAN ports located on the back panel of the router and the Ethernet port of your PC.
3. ***To connect via USB modem***: connect your USB modem to the USB port² located on the back panel of the router.



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

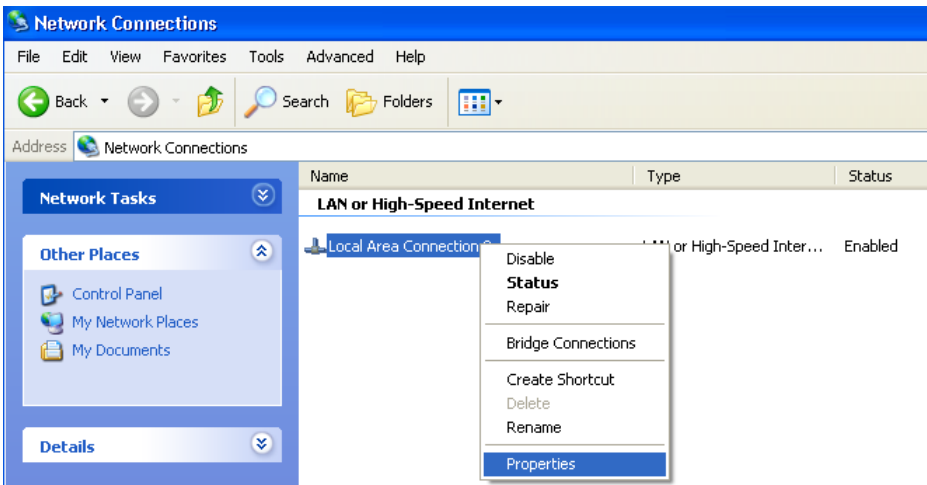
4. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.
5. Turn on the router by pressing the **POWER** button on its back panel.
6. Turn on your PC and wait until your operating system is completely loaded.

Now you should configure your PC to obtain an IP address automatically (as DHCP client).

² It is recommended to use a USB extension cable to connect a USB modem to the router.

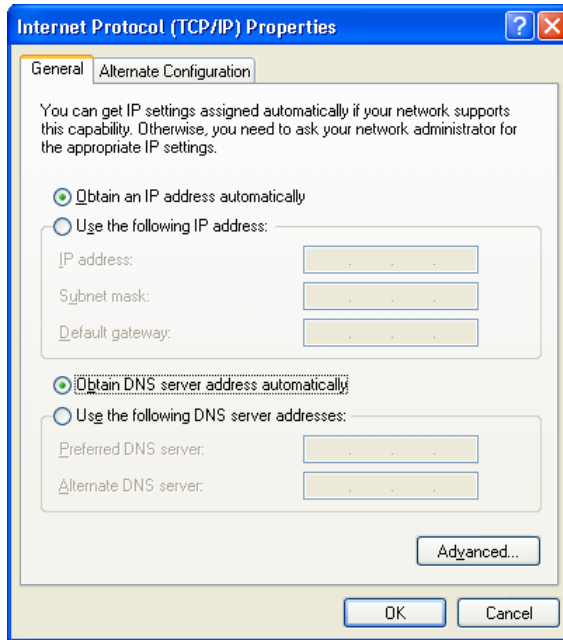
Obtaining IP Address Automatically in OS Windows XP

1. Click the **Start** button and proceed to the **Control Panel > Network and Internet Connections > Network Connections** window.
2. In the **Network Connections** window, right-click the relevant **Local Area Connection** icon and select the **Properties** line in the menu displayed.



3. In the **Local Area Connection Properties** window, on the **General** tab, select the **Internet Protocol (TCP/IP)** line. Click the **Properties** button.

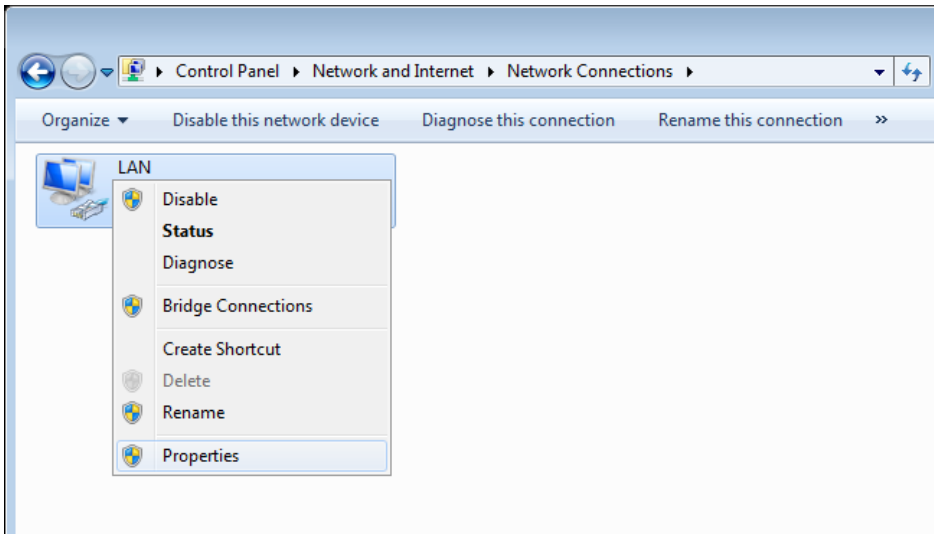
4. Select the **Obtain an IP address automatically** and **Obtain DNS server address automatically** radio buttons. Click the **OK** button.



5. Click the **OK** button in the connection properties window.
Now your computer is configured to obtain an IP address automatically.

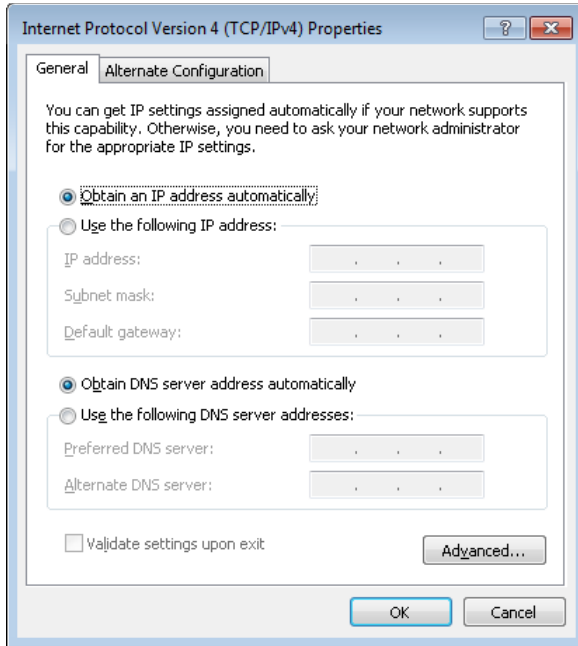
Obtaining IP Address Automatically in OS Windows 7

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. Select the **Obtain an IP address automatically** and **Obtain DNS server address automatically** radio buttons. Click the **OK** button.



7. Click the **OK** button in the connection properties window.
- Now your computer is configured to obtain an IP address automatically.

PC with Wi-Fi Adapter

1. **To connect via USB modem:** connect your USB modem to the USB port³ located on the back panel of the router.



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

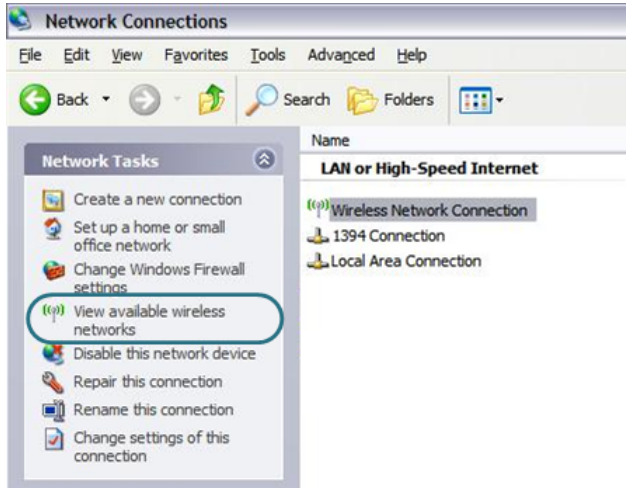
2. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.
3. Turn on the router by pressing the **POWER** button on its back panel.
4. Turn on your PC and wait until your operating system is completely loaded.
5. Turn on your Wi-Fi adapter. 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.

Now you should configure your Wi-Fi adapter.

³ It is recommended to use a USB extension cable to connect a USB modem to the router.

Configuring Wi-Fi Adapter in OS Windows XP

1. Click the **Start** button and proceed to the **Control Panel > Network and Internet Connections > Network Connections** window.
2. Select the icon of the wireless network connection and make sure that your Wi-Fi adapter is on.



3. Search for available wireless networks.
4. In the opened **Wireless Network Connection** window, select the wireless network **DIR-825** (for operating in the 2.4GHz band) or **DIR-825-5G** (for operating in the 5GHz band) and click the **Connect** button.
5. In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) in the **Network key** and **Confirm network key** fields and click the **Connect** button.

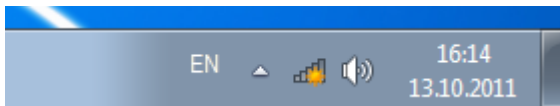
After that the **Wireless Network Connection Status** window appears.



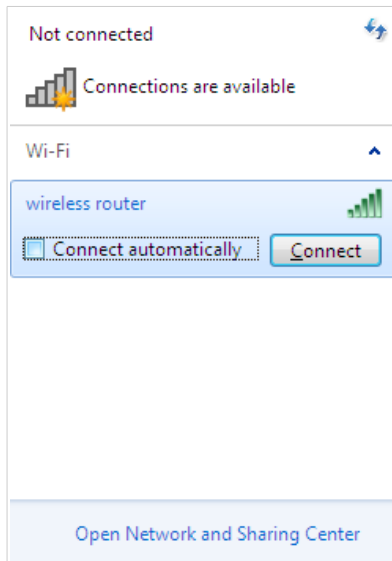
If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.

Configuring Wi-Fi Adapter in 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, select the icon of the wireless network connection and make sure that your Wi-Fi adapter is on.
5. 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.



6. In the opened window, in the list of available wireless networks, wireless network **DIR-825** (for operating in the 2.4GHz band) or **DIR-825-5G** (for operating in the 5GHz band) and click the **Connect** button.



7. 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.
8. 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.

CONFIGURING ROUTER

Connecting to Web-based Interface

Start a web browser. In the address bar of the web browser, enter the IP address of the router (by default, the following IP address is specified: **192.168.0.1**). Press the **Enter** key.



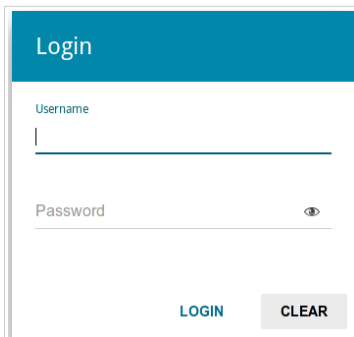
If the error “*The page cannot be displayed*” (or “*Unable to display the page*”/“*Could not connect to remote server*”) occurs upon connecting to the web-based interface of the router, make sure that you have properly connected the router to your computer.

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 18).

Dear Customer! It's the first time the device is turned on. Please configure the device in order to use the Internet access services.
To run the Wizard, click the "Start" button.

START

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.

The image shows a web-based login interface. At the top, there is a blue header bar with the word "Login" in white. Below the header, there are two input fields. The first field is labeled "Username" and has a blue underline. The second field is labeled "Password" and has a blue underline and a small eye icon to its right. At the bottom of the form, there are two buttons: a blue "LOGIN" button and a grey "CLEAR" button.

The web-based interface of the router is bilingual (English/Russian). 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.

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

Summary

Device Information

Model:

DIR-825ACG1

Hardware revision:

G1A

Firmware version:

3.0.2

Build time:

Thu Apr 20 14:46:17 MSK 2017

Vendor:

D-Link Russia

Support:

support@dlink.ru

Summary:

Root filesystem image for DIR-825ACG1

Uptime:

0d 00:02:48

Device mode:

[Router](#)

Enable LEDs:

☒

LAN

LAN IPv4:

192.168.0.1

LAN IPv6:

fd01::1/64

Wireless connections:

-

Wired connections:

1

LAN Ports

LAN1:

Off

☐

LAN2:

Off

☐

LAN3:

1000M-Full

☒

LAN4:

Off

☐

USB Devices

ZEMT INCORPORATED

5 GHz Access Point

Broadcasting:

On

☒

Network name (SSID):

DIR-825-5G-cf2d

Security:

WPA2-PSK

2.4 GHz Access Point

Broadcasting:

On

☒

Network name (SSID):

DIR-825-cf2d

Security:

WPA2-PSK

Yandex

Yandex.DNS

☐ Enable

Safe

1 device

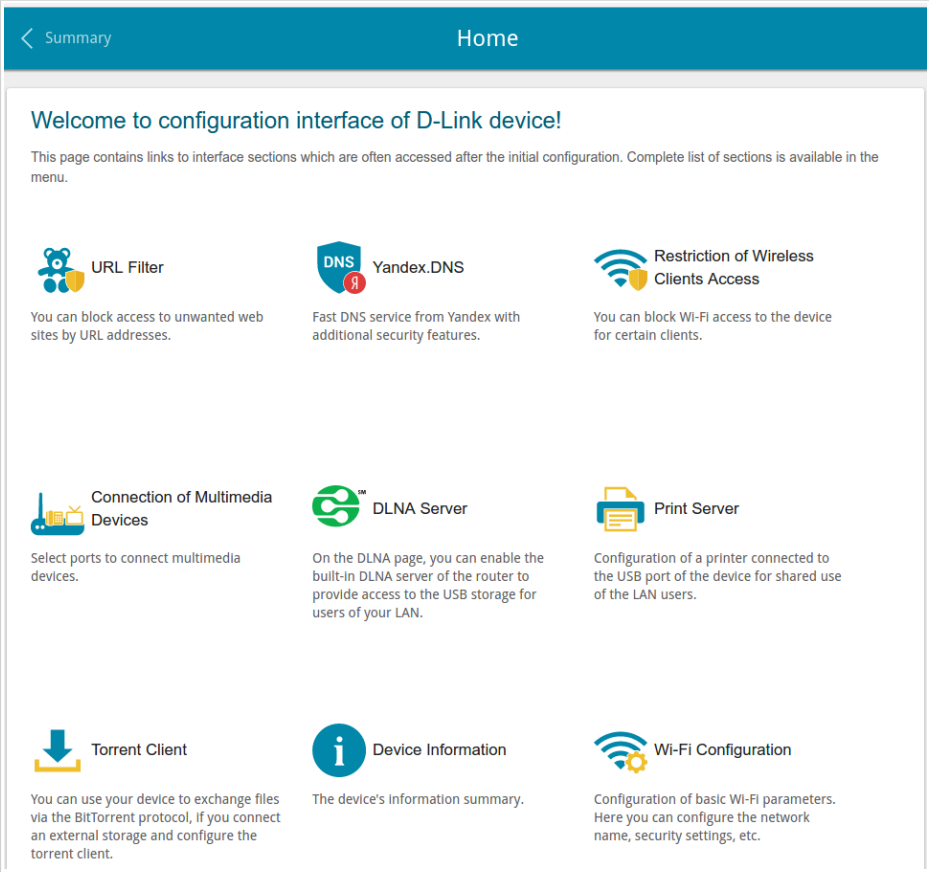
Child

0 devices

Protection off

0 devices

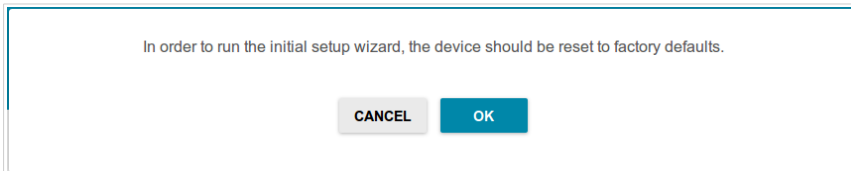
The **Home** page displays links to the most frequently used pages with device's settings.



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.

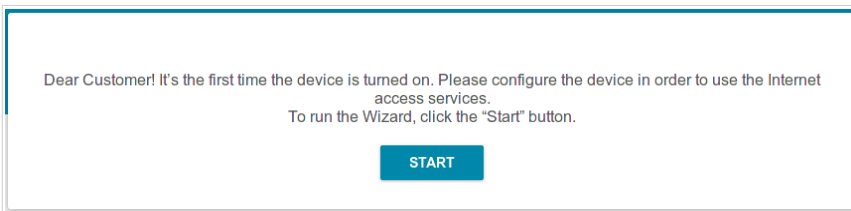
Initial Configuration Wizard

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

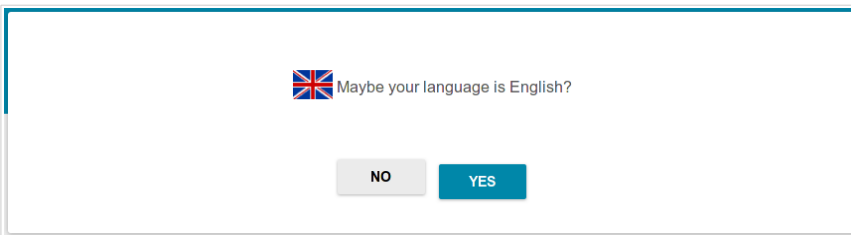


Click the **OK** button and wait until the factory default settings are restored. Then click the **START** button.

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.



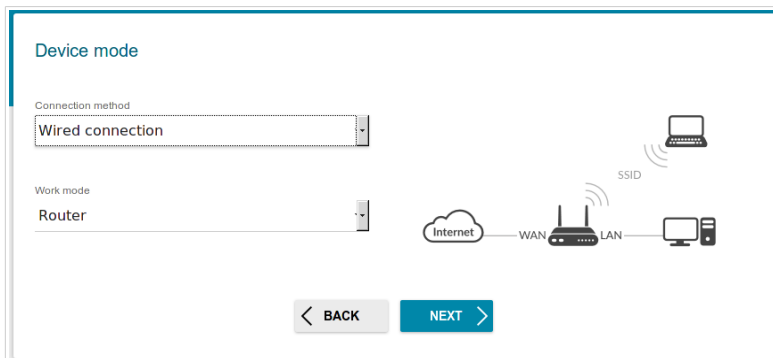
1. Click **YES** in order to leave the current language of the web-based interface or click **NO** to select the other language.



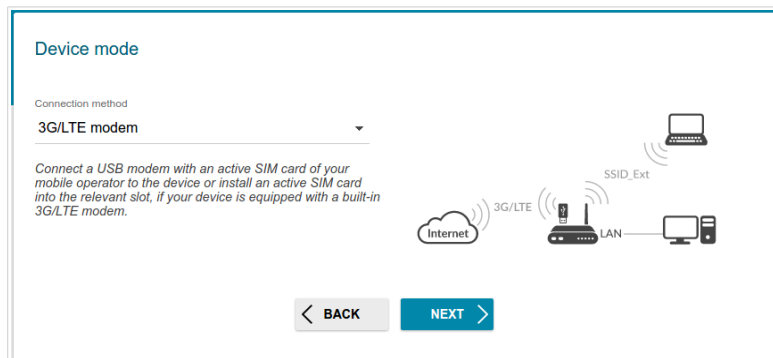
2. On the next page, click the **CONTINUE** button.

Selecting Operation Mode

In order to connect your device to a wired ISP, on the **Device mode** page, from the **Connection method** list, select the **Wired connection** 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, 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.



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 **3G/LTE modem** value. In this mode you can configure a 3G/LTE WAN connection, set your own settings for the wireless network, 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, 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.

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 **Wired connection** 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 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, and set your own password for access to the web-based interface of the device.

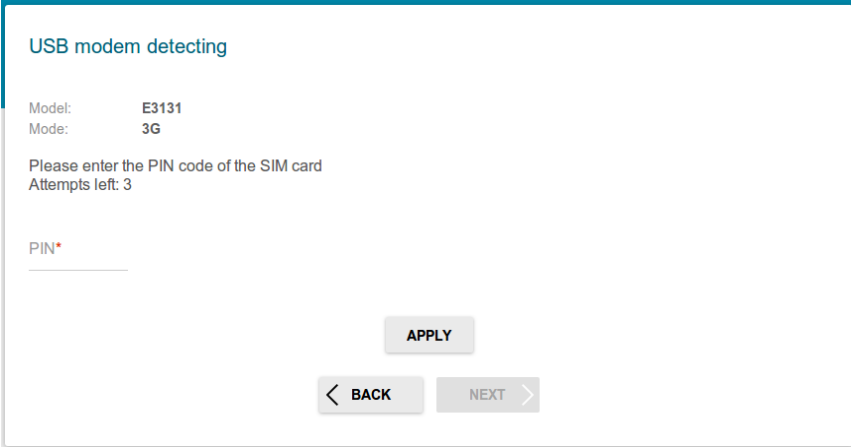
In order to let wired PCs connected to your device access the network of a wireless router, on the **Device mode** page, from the **Connection method** list, select the **Wi-Fi** value. Then from the **Work mode** list select the **Client** value. In this mode you can change the LAN IP address, connect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

When the operation mode is selected, click the **NEXT** button.

Creating 3G/LTE WAN Connection

This configuration step is available for the **3G/LTE modem** 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.



USB modem detecting

Model: E3131
Mode: 3G

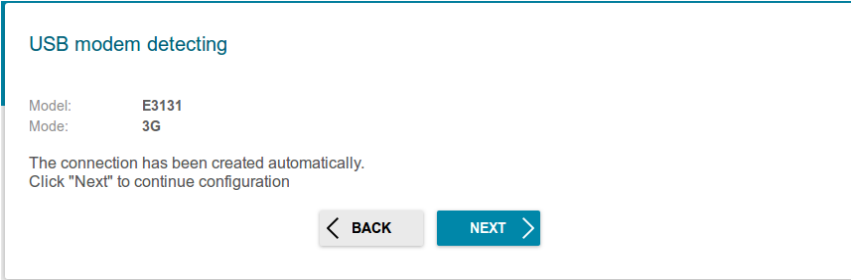
Please enter the PIN code of the SIM card
Attempts left: 3

PIN*

APPLY

< BACK NEXT >

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



USB modem detecting

Model: E3131
Mode: 3G

The connection has been created automatically.
Click "Next" to continue configuration

< BACK NEXT >

3. Click the **NEXT** button.


If the router failed to create a WAN connection automatically, click the **CONFIGURE MANUALLY** button. On the **Internet connection type** 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. If the LAN IPv4 address of DIR-825/AC coincides with the LAN IPv4 address of the router to which it connects, then set another LAN IPv4 address of DIR-825/AC in the **IP address** field.

LAN

 To avoid conflict of IP addresses, please change the LAN IP address of your router.

IP address*

192.168.0.1

Netmask*

255.255.255.0

< BACK NEXT >

2. 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, in the **Wireless Networks** section, select the network to which you want to connect. 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** button.
- 2. If a password is needed to connect to the selected network, fill in the relevant field.

Wi-Fi client

Connecting to network

Select network from list

Network name (SSID)

BSSID

Wireless Networks

Update list

Network name (SSID)	BSSID	Channel	Security settings	Signal level	Frequency
DIR_822C1A	e4:6f:13:3c:4e:60	9	[WPA2-PSK] [AES]	<div></div> 100%	2.4GHz
DIR-825-Gyumri.2	02:03:04:05:05:07	1	[WPA2-PSK] [AES]	<div></div> 100%	2.4GHz

If you connect to a hidden network, from the **Connecting to network** list select the **Connect to hidden network** value. Enter the network name to 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, from the **Connection type** list, select the connection type used by your ISP and fill in the fields displayed on the page.

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

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

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


IP address*	<input type="text"/>
Gateway 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**, **Netmask**, **Gateway IP address**, and **DNS IP address**.

☐ Without authorization

Username*


Password* 

IP address*

Netmask*


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**, **Netmask**, **Gateway IP address**, and **DNS IP address**.

☐ Without authorization

Username*

Password* 

VPN server address*

IP address*

Netmask*

Gateway IP address*

DNS IP address*

2. If your ISP uses MAC address binding, select the **Clone MAC address of your device** checkbox.
3. If the Internet access is provided via a VLAN channel, select the **Use VLAN** checkbox and fill in the **VLAN ID** field.

☐ Clone MAC address of your device
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 **3G/LTE modem**, **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. 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*

mywifi_154

☐ Open network

Password*

06951351

RESTORE

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

- 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 **3G/LTE modem**, **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*

☒ Open network

Max associated clients*

0

☒ Enable shaping

Shaping (Kbit/s)*

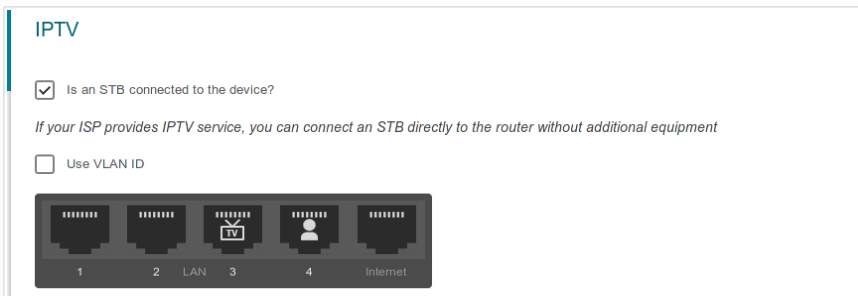
0

- In the **Network name** field, specify your own name for the guest wireless network or leave the value suggested by the router.
- 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.
- If you want to limit the bandwidth of the guest wireless network, select the **Enable shaping** checkbox and fill in the **Shaping** field.
- Click the **NEXT** button.
- On the **Wireless Network 5 GHz** page, specify needed settings for the wireless network in the 5GHz band and click the **NEXT** button.

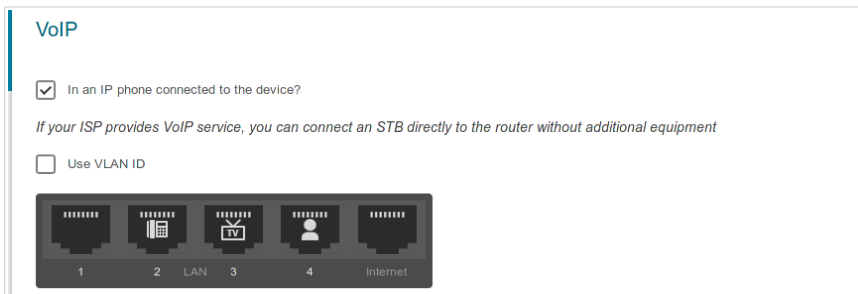
Configuring LAN Ports for IPTV/VoIP

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

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



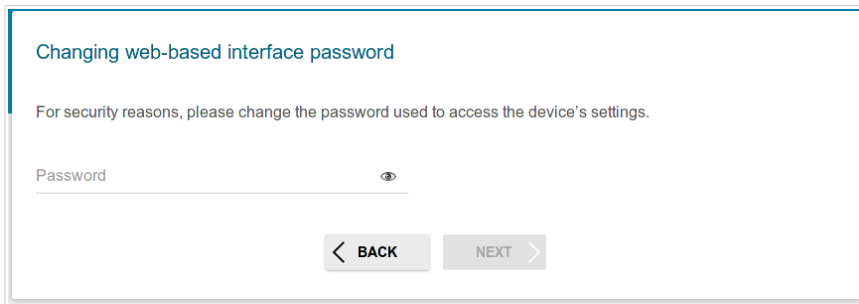
2. Select a free LAN port for connecting your set-top box.
3. If the IPTV service is provided via a VLAN channel, select the **Use VLAN ID** checkbox and fill in the **VLAN ID** field.
4. Click the **NEXT** button.
5. On the **VoIP** page, select the **In an IP phone connected to the device** checkbox.



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. You may set any password except **admin**. Use digits, Latin letters (uppercase and/or lowercase), and other characters available in the US keyboard layout.⁴



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.

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

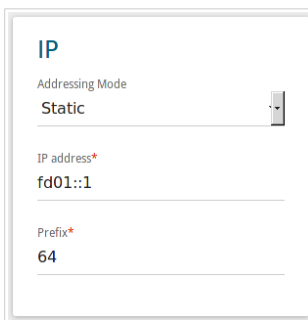
Configuring Local Area Network

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 **Subnet mask** fields in the **IP** section.



The screenshot shows the 'IPv4' tab selected at the top. Below it, the 'IP' section contains three input fields: 'IP address*' with the value '192.168.0.1', 'Subnet mask*' with the value '255.255.255.0', and 'Device domain name' with the value 'dlinkrouter.local'.

3. If needed, specify your own IPv6 address of the router's LAN interface. To do this, click the **IPv6** tab and select the **Static** value from the **Addressing Mode** drop-down list in the **IP** section. Then specify the needed value in the **IP address** field.



The screenshot shows the 'IPv6' tab selected at the top. Below it, the 'IP' section contains three input fields: 'Addressing Mode' with a dropdown menu showing 'Static', 'IP address*' with the value 'fd01::1', and 'Prefix*' with the value '64'.

4. **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** drop-down list in the **DHCP** section).

DHCP

Mode
Server

Start IP*
192.168.0.2

End IP*
192.168.0.100

Lease time (min)*
1440

☒ DNS relay

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

DHCP

Mode
Server

Autoconfiguration mode
Stateless

Lease time (min)*
5

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

SPECIFICATIONS*

Hardware	
Processor	<ul style="list-style-type: none"> · RTL8197DN (660MHz)
RAM	<ul style="list-style-type: none"> · 64MB, DDR2
Flash	<ul style="list-style-type: none"> · 8MB, SPI
Interfaces	<ul style="list-style-type: none"> · 10/100/1000BASE-T WAN port · 4 10/100/1000BASE-T LAN ports · USB 2.0 port
LEDs	<ul style="list-style-type: none"> · POWER · INTERNET · WPS · 2.4G WLAN · 5G WLAN · 4 LAN LEDs · USB
Buttons	<ul style="list-style-type: none"> · POWER button to power on/power off · RESET button to restore factory default settings · WPS button to set up secure wireless connection · WIFI button to enable/disable wireless network
Antenna	<ul style="list-style-type: none"> · Four external non-detachable antennas (5dBi gain)
MIMO	<ul style="list-style-type: none"> · 2 x 2
Power connector	<ul style="list-style-type: none"> · Power input connector (DC)

* The device features are subject to change without notice. For the latest versions of the firmware and relevant documentation, visit www.dlink.ru.

Software	
WAN connection types	<ul style="list-style-type: none"> • LTE • 3G • PPPoE • IPv6 PPPoE • PPPoE Dual Stack • Static IP / Dynamic IP • Static IPv6 / Dynamic IPv6 • PPPoE + Static IP • PPPoE + Dynamic IP • PPTP/L2TP • PPTP/L2TP + Static IP • PPTP/L2TP + Dynamic IP
Network functions	<ul style="list-style-type: none"> • Support of IEEE 802.1X for Internet connection • DHCP server/relay • DHCPv6 server (Stateful/Stateless), IPv6 prefix delegation • DNS relay • Support of DNSv6 AAAA records • 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 • Setup of maximum TX rate for each port of the router • Built-in UDPXY application • Built-in XUPNPD application • Segmentation of traffic between LAN ports
Firewall functions	<ul style="list-style-type: none"> • Network Address Translation (NAT) • Stateful Packet Inspection (SPI) • IP 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	<ul style="list-style-type: none"> • IPSec/PPTP/L2TP/PPPoE pass-through • IPSec tunnels

Software	
USB interface functions	<ul style="list-style-type: none">· 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 code⁵· 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	<ul style="list-style-type: none">· Local and remote access to settings through TELNET/WEB (HTTP/HTTPS)· Bilingual web-based interface for configuration and management (Russian/English)· 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 remote logging· Automatic synchronization of system time with NTP server and manual time/date setup· Ping function· Traceroute utility· TR-069 client

Wireless Module Parameters	
Standards	<ul style="list-style-type: none">· IEEE 802.11a/n/ac· IEEE 802.11b/g/n
Frequency range	<ul style="list-style-type: none">· 2400 ~ 2483.5MHz· 5150 ~ 5350MHz· 5650 ~ 5725MHz
Wireless security connection	<ul style="list-style-type: none">· WEP· WPA/WPA2 (Personal/Enterprise)· MAC filter· WPS (PBC/PIN)

⁵ For GSM USB modems and some models of LTE USB modems.

Wireless Module Parameters

Advanced functions	<ul style="list-style-type: none">• 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
Wireless connection rate	<ul style="list-style-type: none">• 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 <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">• 802.11a (typical at room temperature 25 °C) 15dBm at 6, 9, 12, 18, 24, 36, 48Mbps 14dBm at 54Mbps• 802.11b (typical at room temperature 25 °C) 15dBm at 1, 2, 5.5, 11Mbps• 802.11g (typical at room temperature 25 °C) 15dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps• 802.11n (typical at room temperature 25 °C) 2.4GHz, HT20 15dBm at MCS0/1/2/3/4/5/6/8/9/10/11/12/13/14 14dBm at MCS7/15 2.4GHz, HT40 15dBm at MCS0/1/2/3/4/5/6/8/9/10/11/12/13/14 14dBm at MCS7/15 5GHz, HT20 15dBm at MCS0/1/2/3/4/5/8/9/10/11/12/13 14dBm at MCS6/14 13dBm at MCS7/15 5GHz, HT40 15dBm at MCS0/1/2/3/4/5/8/9/10/11/12/13 14dBm at MCS6/14 13dBm at MCS7/15

Wireless Module Parameters

	<ul style="list-style-type: none">· 802.11ac (typical at room temperature 25 °C) VHT20 15dBm at MCS0/1/2/3/4/5 14dBm at MCS6 13dBm at MCS7 VHT40 15dBm at MCS0/1/2/3/4/5 14dBm at MCS6 13dBm at MCS7 VHT80 15dBm at MCS0/1/2/3 14dBm at MCS4/5 13dBm at MCS6 12dBm at MCS7 11dBm at MCS8/9
Receiver sensitivity	<ul style="list-style-type: none">· 802.11a (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) -85dBm at 6Mbps -84dBm at 9Mbps -82dBm at 12Mbps -80dBm at 18Mbps -77dBm at 24Mbps -73dBm at 36Mbps -69dBm at 48Mbps -68dBm at 54Mbps· 802.11b (typical at PER = 8% (1000-byte PDUs) at room temperature 25 °C) -83dBm at 1Mbps -80dBm at 2Mbps -79dBm at 5.5Mbps -76dBm at 11Mbps· 802.11g (typical at PER = 10% (1000-byte PDUs) 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

Wireless Module Parameters

- 802.11n (typical at PER = 10% (1000-byte PDUs))
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
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
- 802.11ac (typical at PER = 10% (1000-byte PDUs))
HT20
-82dBm at MCS0
-79dBm at MCS1
-77dBm at MCS2
-74dBm at MCS3
-70dBm at MCS4
-66dBm at MCS5
-65dBm at MCS6
-64dBm at MCS7
-59dBm at MCS8
-57dBm at MCS9
HT40
-79dBm at MCS0
-76dBm at MCS1
-74dBm at MCS2
-71dBm at MCS3
-67dBm at MCS4
-63dBm at MCS5
-62dBm at MCS6
-61dBm at MCS7
-56dBm at MCS8
-54dBm at MCS9

Wireless Module Parameters

	HT80 -76dBm at MCS0 -73dBm at MCS1 -71dBm at MCS2 -68dBm at MCS3 -64dBm at MCS4 -60dBm at MCS5 -59dBm at MCS6 -58dBm at MCS7 -53dBm at MCS8 -51dBm at MCS9
Modulation schemes	<ul style="list-style-type: none">· 802.11a: BPSK, QPSK, 16QAM, 64QAM with OFDM· 802.11b: DQPSK, DBPSK, DSSS, CCK· 802.11g: BPSK, QPSK, 16QAM, 64QAM with OFDM· 802.11n: BPSK, QPSK, 16QAM, 64QAM with OFDM· 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM with OFDM

Physical Parameters

Dimensions (L x W x H)	<ul style="list-style-type: none">· 200 x 132 x 50 mm (7.9 x 5.2 x 2 in)
Weight	<ul style="list-style-type: none">· 360 g (0.8 lb)

Operating Environment

Power	<ul style="list-style-type: none">· Output: 12V DC, 1.5A
Temperature	<ul style="list-style-type: none">· Operating: from 0 to 40 °C· Storage: from -20 to 65 °C
Humidity	<ul style="list-style-type: none">· Operating: from 10% to 90% (non-condensing)· Storage: from 5% to 95% (non-condensing)

Supported USB modems⁶

GSM

- Alcatel X500
- D-Link DWM-152C1
- D-Link DWM-156A6
- D-Link DWM-156A7
- 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

⁶ The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.

Supported USB modems

LTE

- 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

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/corporate/worldwideoffices/>