



## **DIR-825**

# AC1200 Wave 2 MU-MIMO Wi-Fi EasyMesh **Gigabit Router with 3G/LTE Support and USB Port**

# **BEFORE YOU BEGIN**

## **Delivery Package**

- Router DIR-825
- Power adapter DC 12V/1.5A
- Ethernet 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 <u>www.dlink.ru</u>).

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

#### **Default Settings**

| Domain name of             | device | dlinkrouter.local.   |
|----------------------------|--------|--|
| IP address of              | device | 192.168.0.1  |
| Username (log              |        | admin  |
| Password                   |        | admin  |
| Name of wireless network   | 2.4GHz | DIR-825  |
| (SSID)                     | 5GHz   | DIR-825-5G   |
| Network key (PSK password) |        | see WPS PIN on the barcode<br>label on the bottom panel of<br>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 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.
- 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.

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

# CONNECTING TO PC OR MOBILE DEVICE

## Connecting to Mobile Device with D-Link Assistant Application

- 1. 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.
- 2. Make sure that the Wi-Fi connection on your mobile device is on. To switch it on, go to the mobile device settings.
- In the list of available wireless networks on your mobile device, select the wireless network DIR-825 (for operating in the 2.4GHz band) or DIR-825-5G (for operating in the 5GHz band).
- 4. In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) as the password and connect to the wireless network of DIR-825.
- 5. Launch D-Link Assistant application on your mobile device. The application is available for Android smartphones in Google Play.



D-Link Assistant for Android

- 6. Make sure that the application correctly identified the router to which you connect.
- 7. In the application interface, select the **Advanced Settings** menu option to go through the Initial Configuration Wizard or finish the Wizard earlier and go the configuration menu.

As 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.

If you changed the administrator password via the web-based interface, when DIR-825 is accessed with the application the next time, click the **ENTER LOGIN/PASSWORD** button. Enter the username (admin) and the password you specified.

## PC with Ethernet Adapter

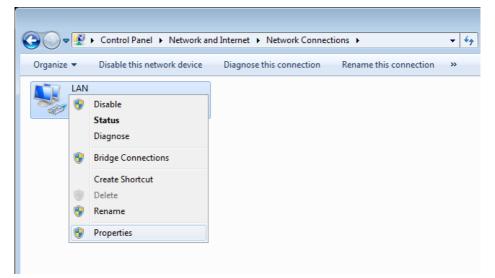
- 1. Connect an Ethernet cable between any of LAN ports located on the back panel of the router and the Ethernet port of your PC.
- 2. *To connect via USB modem*: connect your USB modem to the USB port<sup>2</sup> located on the back panel of the router.
- In some cases you will need to reboot the router after connection of the USB modem.
- 3. 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.

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

<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.



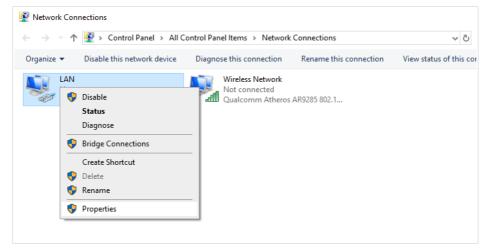
 In the Local Area Connection Properties window, on the Networking tab, select the Internet Protocol Version 4 (TCP/IPv4) line. Click the Properties button. 6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.

| Internet P | rotocol Version 4 (TCP/IPv4)  | Properties | ;  |                | ? 💌    |
|------------|---|------------|----|----------------|--------|
| General    | Alternate Configuration   |            |    |                |        |
| this cap   | You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. |            |    |                |        |
| • <u>0</u> | otain an IP address automatical   | χ.         |    |                |        |
| - O Us     | e the following IP address:   |            |    |                |        |
| IP ac      | ddress:   |            |    |                |        |
| Subr       | iet mask:   |            |    |                |        |
| Defa       | ult gateway:  |            |    |                |        |
| () ()      | otain DNS server address autor  | atically   |    |                |        |
| - O Us     | e the following DNS server add  | resses:    |    |                |        |
| Prefe      | erred DNS server:   |            |    |                |        |
| Alter      | nate DNS server:  |            |    |                |        |
| □v         | alidate settings upon exit  |            |    | Ad <u>v</u> ar | nced   |
|            |   |            | OK |                | Cancel |

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.

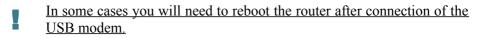
6. Make sure that the **Obtain an IP address automatically** and **Obtain DNS server address automatically** choices of the radio buttons are selected. Click the **OK** button.

| Internet Protocol Version 4 ( | TCP/IPv4) Properties   | ×      |
|-------------------------------|--|--------|
| General Alternate Configura   | tion   |        |
|                               | ned automatically if your network sup<br>ou need to ask your network administ<br>gs. |        |
| Obtain an IP address a        | utomatically   |        |
| Use the following IP ad       | dress:   |        |
| IP address:                   |  |        |
| Subnet mask:                  |  |        |
| Default gateway:              |  |        |
| Obtain DNS server add         | ress automatically   |        |
| Use the following DNS         | server addresses:  |        |
| Preferred DNS server:         |  |        |
| Alternate DNS server:         |  |        |
| Validate settings upon        | exit Advance   | ced    |
|                               | ОК   | Cancel |

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

## PC with Wi-Fi Adapter

1. *To connect via USB modem*: connect your USB modem to the USB port<sup>3</sup> located on the back panel of the router.



- 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. 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).

<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.
- In the Wireless Network Connection Properties window, on the Networking tab, select the Internet Protocol Version 4 (TCP/IPv4) line. Click the Properties button.

 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.

| Internet Protocol Version 4 (TCP/IPv4)  | ) Properties      |
|---|-------------------|
| General Alternate Configuration<br>You can get IP settings assigned auto<br>this capability. Otherwise, you need to<br>for the appropriate IP settings. |                   |
| Obtain an IP address automatica   | lly               |
| Use the following IP address: —   |                   |
| IP address:   | · · · · · ·       |
| Sybnet mask:  |                   |
| Default gateway:  |                   |
| Obtain DNS server address autor   | matically         |
| OUSe the following DNS server add   | dresses:          |
| Preferred DNS server:   | · · · · ·         |
| <u>A</u> lternate DNS server:   | · · ·             |
| Vaļidate settings upon exit   | Ad <u>v</u> anced |
|   | OK Cancel         |

- 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 DIR-825 (for operating in the 2.4GHz band) or DIR-825-5G (for operating in the 5GHz band) and click the Connect button.

| Not connected                                 | <del>*,</del> |
|---|---------------|
| Connections are available                     |               |
| Wi-Fi   | ^             |
| wireless router Connect automatically Connect | ect           |
| Open Network and Sharing Cen                  | ter           |

- 10. 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.
- 11. 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.
- 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.

| Internet Protocol Version 4 (TCP/IPv4   | ) Properties    | $\times$ |
|---|-----------------|----------|
| General Alternate Configuration   |                 |          |
| You can get IP settings assigned auto<br>this capability. Otherwise, you need<br>for the appropriate IP settings. |                 |          |
| Obtain an IP address automatica   | ally            |          |
| O Use the following IP address:   |                 |          |
| IP address:   | · · · · · · · · |          |
| Subnet mask:  | · · · · · · ·   |          |
| Default gateway:  |                 |          |
| Obtain DNS server address auto  | matically       |          |
| Use the following DNS server ad   | dresses:        |          |
| Preferred DNS server:   |                 |          |
| Alternate DNS server:   |                 |          |
| Validate settings upon exit   | Advanced        |          |
|   | OK Cancel       |          |

7. Click the **Close** 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 DIR-825 (for operating in the 2.4GHz band) or DIR-825-5G (for operating in the 5GHz band) and click the Connect button.

| ſ.                    | RD_DLINK<br>Secured |         |
|-----------------------|---------------------|---------|
| Connect automatically |                     |         |
|                       |                     | Connect |
|                       |                     |         |

- 10. 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.
- 11. 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**

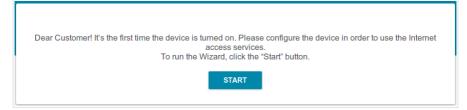
### Connecting to Web-based Interface

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, **192.168.0.1**).



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 23).



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.

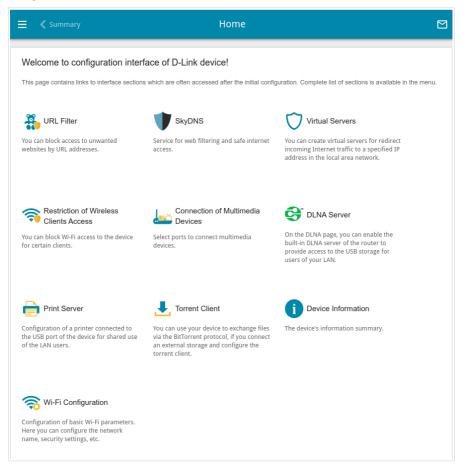
| Authori     | zation                   |   |
|-------------|--------------------------|---|
| Username*   |                          |   |
|             |                          |   |
| Password*   |                          |   |
| ••          |                          | Ø |
| Sta         | ay signed in             |   |
| Forgot pass | word?                    |   |
|             | Authorization error      |   |
|             | Attempts remaining:<br>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                              | Sui  | mmary                 |                  |
|---------------------------------------|--|-----------------------|------------------|
| Device Information                    |  | WAN IPv4              |                  |
| Model:                                | DIR-825  | Connection type:      | Dynamic IPv      |
| Hardware version:                     | R5   | Status:               | Connected        |
| Firmware version:                     | 4.0.3  | MAC address           | C0:43:34:19:12:2 |
| Build time:                           | Fri Feb 2 2024 5:28:11 PM MSK                  | IP address:           | 192.168.155.13   |
| UI version:                           | 1.45.0.b4aab52-embedded                        |                       |                  |
| Vendor:                               | D-Link Russia                                  |                       |                  |
| Serial number:                        | 1234567890123                                  | LAN                   |                  |
| Support:                              | support@dlink.ru                               | LAN IPv4:             | 192,168.0        |
| Summary:                              | Root filesystem image for<br>DIR_825R5_RT8197G | Wireless connections: | 152.100.0        |
| Jptime:                               | 2 h. 9 min.                                    | Wired connections:    |                  |
| Device mode:                          | Router   |                       |                  |
| Enable LEDs:                          | •  | LAN Ports             |                  |
| Ni-Fi 2.4 GHz                         |  | LAN4:                 | Off              |
| itatus:                               | On 🕒   | LAN3:                 | 1000M-Full 🖙     |
| Broadcasting:                         | On •   | LAN2:                 | Off              |
| dditional networks:                   | 0  | LAN1:                 | Off              |
| Vetwork name (SSID):                  | DIR-825-1222                                   |                       |                  |
| Security:                             | WPA2-PSK                                       | USB Devices           |                  |
|                                       |  | No connected devices  |                  |
| Wi-Fi 5 GHz                           |  |                       |                  |
| itatus:                               | On 🌑   |                       |                  |
|                                       | On 🔵   |                       |                  |
| roadcasting:                          |  |                       |                  |
| Broadcasting:<br>Additional networks: | 0  |                       |                  |
|                                       | 0<br>DIR-825-5G-1222                           |                       |                  |

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

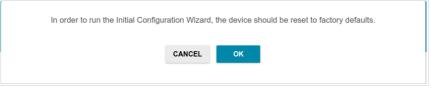


The web-based interface of the router is bilingual (English/Russian). You can select the needed language upon the initial configuration of the web-based interface of the router or in the **System / Configuration** section of the menu.

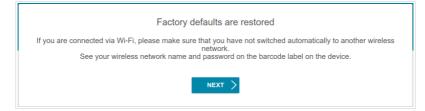
Other settings of the router are available in the menu in the left part of the page. Go to the relevant section and select the needed page or run the wizard in the **Initial Configuration** section.

## 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 DIR-825 (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.

| De | ar Customer! It's the first time the device is turned on. Please configure the device in order to use the Internet<br>access services.<br>To run the Wizard, click the "Start" button. |
|----|--|
|    | START  |

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**

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

#### Router

In order to connect your device to a wired ISP, on the **Device mode** page, from the **Connection method** list, select the **Autonomous** 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 |        |                    |
| Autonomous        | •      |                    |
| Work mode         |        |                    |
| Router            | •      | SSID               |
|                   |        | (Internet) WAN LAN |
|                   | 🗙 ВАСК | 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 **Autonomous** value. Then from the **Work mode** 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.

| Device mode       |               |  |
|-------------------|---------------|--|
| Connection method |               |  |
| Autonomous        |               |  |
| Work mode         |               |  |
| Mobile Internet   | ▼ SSID        |  |
|                   |               |  |
|                   | < BACK NEXT > |  |

In order to connect your device to a wireless ISP (WISP), on the **Device** mode page, from the **Connection method** list, select the **Autonomous** 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 webbased 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 **Autonomous** 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.

| Device mode       |        |        |
|-------------------|--------|--------|
| Connection method |        |        |
| Autonomous        | •      |        |
| Vork mode         |        |        |
| Access point      | -      | SSID   |
|                   |        |        |
|                   |        |        |
|                   |        |        |
|                   |        |        |
|                   | < ВАСК | NEXT > |
|                   | BACK   | NEAT   |

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 **Autonomous** 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 **Autonomous** 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.

## Mesh Network Main Device (Controller)

In order to configure DIR-825 as a main device of your mesh network, from the **Connection method** list, select the **EasyMesh** value. Then from the **Device role** list, select the **Controller** value. From the **Backhaul** list, select the band where your mesh network operates. Also you can connect devices into the mesh network using an Ethernet cable by connecting it to LAN ports of the main and subordinate device or two subordinate devices.

The EasyMesh function cannot operate in both bands simultaneously.

Select one of the bands (2.4GHz or 5GHz) for all devices of the configured network.

You can connect Agent devices with factory defaults to the main mesh network device via the hardware **WPS** button. To do this, on the main device, in the **Backhaul** drop-down list, select the **Ethernet or 5 GHz** option and complete the configuration of the main device via the Wizard. Then press the hardware WPS button on both devices, hold it for 2 seconds, and release. Wait for about 4 minutes for the subordinate device to receive all mesh network settings and web-based interface password from the main device.

In order to connect your main device to a wired ISP, 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.

| Connection method  |               |
|--|---------------|
| EasyMesh   | •             |
| Device role  |               |
| Controller   | •             |
| Work mode  |               |
| Router   | •             |
| Backhaul   |               |
| Ethernet or 5 GHz  | ▼             |
| ① The backhaul band should be the same for the Co<br>device and all Agent devices  | ntroller      |
| The EasyMesh function is designed to connect dev<br>one network. The connection can be wired or wireless   |               |
| The Controller device in the mesh network is equiv<br>a router in a usual network. One network can contain<br>one Controller device. If you already have such a devi<br>your network, configure the present device to act as A | only<br>ce in |
| M When Agent devices with factory defaults connect<br>mesh network via the hardware button, they obtain the<br>wireless settings and the administrator's password of<br>Controller.  |               |

In order to connect your main device to the network of a 3G or LTE operator, from the **Work mode** 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.

| Connection method   |                                      |          |            |                               |
|---|--------------------------------------|----------|------------|-------------------------------|
| EasyMesh  | •                                    |          |            |                               |
| Device role   |                                      |          |            |                               |
| Controller  | •                                    |          |            |                               |
| Work mode   |                                      |          |            |                               |
| Mobile Internet   | •                                    |          |            |                               |
| Backhaul  |                                      |          |            |                               |
| Ethernet or 5 GHz   | •                                    |          |            | ssid                          |
| (i) The backhaul band should be the san<br>device and all Agent devices   | ne for the Controller                | Internet | 3G/LTE ((( | )) Mesh SSID ((r<br>LAN (Mesh |
| The EasyMesh function is designed to<br>one network. The connection can be wire   |                                      |          |            |                               |
| The Controller device in the mesh netw<br>a router in a usual network. One network<br>one Controller device. If you already have<br>your network, configure the present devic | can contain only<br>such a device in |          |            |                               |
| Men Agent devices with factory def<br>mesh network via the hardware button, th<br>wireless settings and the administrator's p<br>Controller.                                  | ey obtain the                        |          |            |                               |

In order to connect your main device to a wireless ISP (WISP), 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.

#### Mesh Network Subordinate Device (Agent)

In order to configure DIR-825 as a subordinate device of your mesh network, from the **Connection method** list, select the **EasyMesh** value. Then from the **Device role** list, select the **Agent** value. From the **Backhaul** list, select the band where your main device (in the Controller role) operates. Also you can connect devices into a mesh network using an Ethernet cable by connecting it to LAN ports of the main and subordinate device or two subordinate devices.

Then a subordinate device is configured in the access point mode. In this mode you can change the LAN IP address and set your own password for access to the web-based interface of the device.

| Device mode  |   |
|--|---|
| Connection method EasyMesh   |   |
| Device role Agent  | 1   |
| Backhaul<br>Ethernet or 5 GHz -  |   |
| The backhaul band should be the same for the Controller device and all Agent devices   |   |
| The EasyMesh function is designed to connect devices in<br>one network. The connection can be wired or wireless.   | 2   |
| When the settings are applied, simultaneously click the<br>"Connect" button in the EasyMesh section (or the hardware<br>WPS button) on the Agent device and on the Controller<br>device (or on two Agent devices) in order to transfer data<br>from one device to another. | (((()))) Mesh SSID (((()))) SSID<br>(Mesh) LAN (())) LAN (()) |
| If needed, disconnect the Agent device from the Controller<br>device (or another Agent device) and move it to its permanent<br>worksite.   |   |
| < BACK   | NEXT >  |

### **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.

| Modem S                                  | ettings           |              |     |          |  |  |  |
|--|-------------------|--------------|-----|----------|--|--|--|
| Vendor:                                  |                   |              |     |          |  |  |  |
| Model:                                   | E3131             |              |     |          |  |  |  |
| Modem                                    |                   |              |     |          |  |  |  |
|  |                   |              |     |          |  |  |  |
|  | r the PIN code of | of the SIM c | ard | <b>~</b> |  |  |  |
| Please ente<br>Modem: E3                 | 131               | of the SIM c | ard | •        |  |  |  |
| Please ente<br>Modem: E3<br>Attempts lef | 131               | of the SIM c | ard | •<br>لو  |  |  |  |
|  | 131               | of the SIM c | ard |          |  |  |  |
| Please ente<br>Modem: E3<br>Attempts lef | 131               | of the SIM c | ard | Q        |  |  |  |

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

| Modem S           | ettings                                       |               |        |  |
|-------------------|---|---------------|--------|--|
| Vendor:<br>Model: | E3131   |               |        |  |
| Modem             |   |               |        |  |
| E3131             |   | •             |        |  |
|                   | tion has been create<br>to continue configura |               |        |  |
| CIICK NEXL        | to continue contigui                          | <b>C BACK</b> | NEXT ) |  |

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 DIR-825 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 DIR-825, 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 |   |
|                                      | rotects against use of the same addresses in one LAN. In order to<br>N devises should not coincide with addresses from the address rang<br>ar). |
| P address*                           |   |
| 92.168.0.1                           |   |
| iubnet mask*                         |   |
| 255.255.255.0                        |   |
|                                      |   |
| Sateway IP address                   |   |
|                                      |   |
| DNS IP address*                      |   |
| 3.8.8.8                              |   |
|                                      |   |
|                                      |   |
| lostname*                            |   |

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



2. If a password is needed to connect to the selected network, fill in the relevant field. Click the **Show** icon ( **No**) to display the entered password.

| Frequency band       |   |
|----------------------|---|
| 2.4 GHz              | <ul> <li>Attention! Upon connection to networks with WEP or TKIP<br/>encryption, basic settings of Wi-Fi networks will be changed:</li> </ul> |
| √etwork name (SSID)* | the standards 802.11b and g will be used in the 2.4 GHz band<br>and the standard 802.11a will be used in the 5 GHz band.                      |
| RD_DLINK             | Network authentication  |
| BSSID                | WPA2-PSK  |
| 78:32:1b:48:91:aa    |   |
|                      | Password PSK*   |
|                      | Encryption type*  |
|                      | AES -   |
|                      |   |
| WIRELESS NETWORKS    |   |

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.

| P address*          |
|---------------------|
| Subnet mask*        |
| Gateway IP address* |
| DNS IP address*     |

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

| IP address*         |  |  |
|---------------------|--|--|
| Prefix*             |  |  |
| Gateway IP address* |  |  |
| DNS IP address*     |  |  |

**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.

**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*             | Ø |  |
| 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 ( $\bigotimes$ ) to display the entered password. If authorization is not required, select the **Without authorization** checkbox. In the **VPN server address** field, enter the IP address or full domain name of the PPTP or L2TP authentication server.

| Without authorization |   |
|-----------------------|---|
| Username*             |   |
| Password*             | ø |
| 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 ( $\bigotimes$ ) to display the entered password. If authorization is not required, select the **Without authorization** checkbox. In the **VPN server address** field, enter the IP address or full domain name 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*             | Ø |
|                       |   |
|                       |   |
| 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).

| -   |   |           |
|---|---|-----------|
| Default MAC address   | •   |           |
| MAC address   |   |           |
| 10:62:eb:2c:c8:3a   |   |           |
| _   | red to register a certain MAC address in order to get access to the | Internet. |
| <ul> <li>Use VLAN</li> <li>Select the checkbox if the Internet</li> </ul> | access is provided via a VLAN channel.                              |           |

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 G   | Hz  |  |
|--|---|--|
| Enable     Broadcast wireless network 2.4     Disabling broadcast does not Network name* | GHz<br>influence the ability to connect to another Wi-Fi network as a client. |  |
| my wi-fi   |   |  |
| Password*  | Ø   |  |
| <ol> <li>Password should be between</li> </ol>   | 8 and 63 ASCII characters   |  |
| USE Use the same par   | rameters as on the root access point.   |  |
| RESTORE You can restore n  | etwork 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).

| C Enable guest network  |  |
|-------------------------|--|
| •                       | vice and getting access to the Internet. Upon that computers connected<br>irces of your main local area network. This helps to secure your LAN<br>/ users. |
| Network name*           |  |
| my wi-fi_Guest          |  |
| Open network            |  |
| Max associated clients* |  |
| 0                       |  |
| C 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  |
| LANA LANZ LANI WAN   |
| < BACK NEXT >  |

- 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.



- 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>

| or security reasons, please chang                    | ge the password used to | o access the de | vice's setting | S. |  |
|--|-------------------------|-----------------|----------------|----|--|
| Jser's interface password*                           | ø                       |                 |                |    |  |
| <ol> <li>Password should be between 1 and</li> </ol> | nd 31 ASCII characters  |                 |                |    |  |
| -  |                         |                 |                |    |  |
| Password confirmation*                               | Ø                       |                 |                |    |  |
|  |                         |                 |                |    |  |

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 0-9,</sup> 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 **Mask** fields in the **Local IP Address** section.

| Local IP Ad      | 1055 |                                   |  |
|------------------|------|-----------------------------------|--|
| 192.168.0.1      |      |                                   |  |
| Mask*            |      |                                   |  |
| 255.255.255.0    |      |                                   |  |
| Hostname         |      |                                   |  |
| dlinkrouter.loc  | al   |                                   |  |
| () Specify a dom |      | ng with .local.<br>Ising the doma |  |

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.



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 of IPv4 address assignment drop-down list in the Dynamic IP Addresses section).

| Mode of IPv  | 4 address assignment   |
|--------------|--|
| DHCP         |  |
| Start IP*    |  |
| 192.168.0    | ).100  |
| End IP*      |  |
| 192.168.0    | ).199  |
| SELECT A     | DDRESS RANGE   |
| Lease time ( | in minutes)*   |
| 1440         |  |
| <b>—</b> DI  | NS relay   |
|              | the LAN IP address of the device as the DNS server for connected |

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).

| Mode of IPv6 add          | Iress assignment   |
|---------------------------|--|
| Stateful                  |  |
| Start IP*                 |  |
| ::2                       |  |
| End IP*                   |  |
| ::64                      |  |
|                           |  |
| Lease time (in mi<br>1440 |  |
| 1440                      | ll be chosen by ISP based on the delegated prefix life time.                                 |
| 1440                      |  |
| 1440                      | II be chosen by ISP based on the delegated prefix life time.<br>efault route for LAN clients |

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

# **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.

| = < LAN  | N Print Server                                 |  |   |  |
|--|--|--|---|--|
| Print Server<br>You can configure the router as a print s<br>the USB port of the router. | erver. Being configured in this way, the route | er will allow your LAN users to share the printer connected t  | 0 |  |
| Carable print server Printer Not selected  |  | In order to operate the print server, you should also<br>configure the client PC. For more information on how to<br>configure the print server please refer to the FAQ<br>section at www.dlink.ru. |   |  |
| Status of print server:  | Not connected                                  |  |   |  |
| APPLY  |  |  |   |  |

- 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.)



<sup>5</sup> 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.

| C - 🐼 - C        | ontrol Panel + Hardware and Sound + Devices and Printers +         | - 4 Search Devices and Printers 🔎 |
|------------------|--|-----------------------------------|
| Add a device     | Add a printer  | ■ - 0                             |
| ▲ Devices (1) —  | Start the Add Printer Wizard, which<br>helps you install a printer |                                   |
| ASUS-UX303LN     |  |                                   |
| Printers and Fac | Microsoft XPS<br>Document Writer                                   |                                   |

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

| Wh       | nat type of printer do you want to install?   |
|----------|---|
| •        | Add a local printer<br>Use this option only if you don't have a USB printer. (Windows automatically installs USB<br>printers when you plug them in.)                  |
| <b>→</b> | Add a network, wireless or Bluetooth printer<br>Make sure that your computer is connected to the network, or that your Bluetooth or<br>wireless printer is turned on. |

 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.

| Choose a printer por                       | t  |
|--|--|
| A printer port is a type of co<br>printer. | onnection that allows your computer to exchange information with a |
| Ouse an existing port:                     | LPT1: (Printer Port)   |
| Oreate a new port:                         |  |
| Type of port:                              | Local Port -   |
|  | Local Port   |
|  | NoMachine Port Monitor   |
|  | Standard TCP/IP Port   |

10. Enter the IP address of the router in the **Hostname or IP address** field (by default, **192.168.0.1**). 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 hostna    | ame or IP address                    |
|--------------------------|--------------------------------------|
| Device type:             | TCP/IP Device                        |
| Hostname or IP address:  | 192.168.0.1                          |
| Port name:               | 192.168.0.1                          |
| Query the printer and au | tomatically 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.

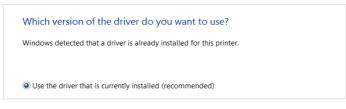
|   | Configure Standard TCP/IP Port Mo | nitor 📃     |
|---|-----------------------------------|-------------|
| he device is not found on the network. Be sure that:  | Port Settings                     |             |
| . The device is turned on.  |                                   |             |
| . The network is connected.<br>. The device is properly configured.   | Port Name:                        | 192.168.0.1 |
| . The address on the previous page is correct.  | Printer Name or IP Address:       | 192.168.0.1 |
| you think the address is not correct, click Back to return to the previous page. Then   | Protocol                          |             |
| orrect the address and perform another search on the network. If you are sure the address<br>correct, select the device type below. | <ul> <li>Raw</li> </ul>           | C LPR       |
| Device Type   | Raw Settings                      |             |
| Standard Generic Network Card   | Port Number: 9100                 | )           |
| Custom     Settings   |                                   |             |

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.

| Choc                                    | Choose your printer from the list. Click Windows Update to see more models. |   |              |        |  |
|---|---|---|--------------|--------|--|
| To in                                   | To install the driver from an installation CD, click Have Disk.             |   |              |        |  |
|   |   |   |              |        |  |
| Manufacture                             | r   |   | Printers     |        |  |
| Brother                                 |   | Ξ | Brother DC   | P-116C |  |
| Canon                                   |   |   | Brother DC   | P-117C |  |
|   |   |   | Brother DC   | P-128C |  |
| Epson                                   |   |   |              |        |  |
| 1 C C C C C C C C C C C C C C C C C C C |   |   | 🔄 Brother DC | P-129C |  |
| Epson<br>Fuji Xerox<br>Generic          |   | - | Brother DC   |        |  |

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



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

| Type a printe | rname      |  |
|---------------|------------|--|
| Printer name: | My Printer |  |
|               |            |  |

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



17. 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**<sup>\*</sup>

| Hardware        |   |
|-----------------|---|
| Processor       | · RTL8197FH-VG (1GHz)   |
| RAM             | 128MB, DDR2, built in processor   |
| Flash           | · 128MB, SPI NAND   |
| Interfaces      | <ul> <li>10/100/1000BASE-T WAN port</li> <li>4 10/100/1000BASE-T LAN ports</li> <li>USB 2.0 port</li> </ul>   |
| LEDs            | <ul> <li>Power</li> <li>Internet</li> <li>WLAN 2.4G</li> <li>WLAN 5G</li> </ul>   |
| Buttons         | <ul> <li>RESET button to restore factory default settings</li> <li>WPS button to connect mesh network devices, set up wireless connection, and enable/disable wireless network</li> </ul> |
| Antenna         | • Four external non-detachable antennas (5dBi gain)   |
| МІМО            | · 2 x 2, MU-MIMO  |
| Power connector | Power input connector (DC)  |

| Software             |  |  |  |
|----------------------|--|--|--|
| WAN connection types | <ul> <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</li> <li>PPTP/L2TP + Static IP</li> <li>PPTP/L2TP + Dynamic IP</li> </ul> |  |  |

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

| Software           | Software  |  |
|--------------------|---|--|
| Network functions  | <ul> <li>DHCP server/relay</li> <li>Advanced configuration of built-in DHCP server</li> <li>Stateful/Stateless mode for IPv6 address assignment,<br/>IPv6 prefix delegation</li> <li>Automatic obtainment of LAN IP address (for access<br/>point/repeater/client modes)</li> <li>DNS relay</li> <li>Dynamic DNS</li> <li>Static IPv4/IPv6 routing</li> <li>IGMP/MLD 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>Autonegotiation of speed, duplex mode, and flow<br/>control / Manual speed and duplex mode setup for each<br/>Ethernet port</li> <li>Built-in UDPXY application</li> <li>XUPNPD plug-in</li> <li>Wake-on-LAN support</li> </ul> |  |
| Firewall functions | <ul> <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>  |  |
| VPN                | <ul> <li>IPsec/PPTP/L2TP/PPPoE pass-through</li> <li>PPTP/L2TP tunnels</li> <li>L2TP over IPsec client</li> <li>IPsec tunnels</li> <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>  |  |

| Software                  |  |
|---------------------------|--|
| USB interface functions   | <ul> <li>USB modem         <ul> <li>USB modem</li> <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> <li>USB storage</li> <li>File browser</li> <li>Print server</li> <li>Access to storage via accounts</li> <li>Built-in Samba server</li> <li>Built-in FTP server supporting TLS</li> <li>Built-in DLNA server</li> <li>Built-in Transmission torrent client; uploading/downloading files from/to USB storage</li> </ul> </li> </ul>   |
| Management and monitoring | <ul> <li>Local and remote access to settings through SSH/TELNET/WEB (HTTP/HTTPS)</li> <li>Bilingual web-based interface for configuration and management (Russian/English)</li> <li>Support of D-Link Assistant application for Android 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>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> </ul> |

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

| Wireless Module Parameters   |   |
|--|---|
| Standards  | <ul> <li>IEEE 802.11ac Wave 2</li> <li>IEEE 802.11a/b/g/n</li> <li>IEEE 802.11k/v</li> <li>IEEE 802.11k/v</li> </ul>  |
| Frequency range<br>The frequency range depends<br>upon the radio frequency<br>regulations applied in your<br>country | <ul> <li>2400 ~ 2483.5MHz</li> <li>5150 ~ 5350MHz</li> <li>5650 ~ 5850MHz</li> </ul>  |
| Wireless connection security   | <ul> <li>WEP</li> <li>WPA/WPA2 (Personal/Enterprise)</li> <li>WPA3 (Personal)</li> <li>MAC filter</li> <li>WPS (PBC/PIN)</li> </ul>   |
| Advanced functions   | <ul> <li>EasyMesh function</li> <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>Smart adjustment of Wi-Fi clients</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 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> <li>Support of Band Steering</li> </ul> |
| Wireless connection rate   | <ul> <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<br/>(MCS0–MCS15)</li> <li>IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from<br/>MCS0 to MCS9)</li> </ul>  |

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| Wireless Module Parameters   |   |
|--|---|
| Transmitter output power   | <ul> <li>802.11a (typical at room temperature 25 °C)</li> <li>15dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps</li> </ul>  |
| The maximum value of the<br>transmitter output power<br>depends upon the radio<br>frequency regulations applied in<br>your country | <ul> <li>802.11b (typical at room temperature 25 °C)</li> <li>15dBm at 1, 2, 5.5, 11Mbps</li> </ul>   |
|  | <ul> <li>802.11g (typical at room temperature 25 °C)</li> <li>15dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps</li> </ul>  |
|  | <ul> <li>802.11n (typical at room temperature 25 °C)<br/>2.4GHz, HT20<br/>15dBm at MCS0/8~7/15<br/>2.4GHz, HT40<br/>15dBm at MCS0/8~7/15<br/>5GHz, HT20<br/>15dBm at MCS0/8~7/15<br/>5GHz, HT40<br/>15dBm at MCS0/8~7/15</li> <li>802.11ac (typical at room temperature 25 °C)<br/>VHT20<br/>15dBm at MCS0~8<br/>VHT40<br/>15dBm at MCS0~9<br/>VHT80<br/>15dBm at MCS0~9</li> </ul> |
| Receiver sensitivity   | <ul> <li>802.11a (typical at PER &lt; 10% (1000-byte PDUs) at room temperature 25 °C)</li> <li>-95dBm at 6Mbps</li> <li>-93dBm at 9Mbps</li> <li>-92dBm at 12Mbps</li> <li>-90dBm at 18Mbps</li> <li>-87dBm at 24Mbps</li> <li>-84dBm at 36Mbps</li> <li>-80dBm at 48Mbps</li> <li>-78dBm at 54Mbps</li> </ul>  |
|  | <ul> <li>802.11b (typical at PER = 8% (1000-byte PDUs) at room<br/>temperature 25 °C)</li> <li>-90dBm at 1Mbps</li> <li>-92dBm at 2Mbps</li> <li>-93dBm at 5.5Mbps</li> <li>-96dBm at 11Mbps</li> </ul>   |

| Wireless Module Parameters |   |
|----------------------------|---|
|                            | 802.11g (typical at PER < 10% (1000-byte PDUs) at<br>room temperature 25 °C)<br>-94dBm at 6Mbps<br>-92dBm at 9Mbps<br>-90dBm at 12Mbps<br>-89dBm at 18Mbps<br>-87dBm at 24Mbps<br>-84dBm at 36Mbps<br>-80dBm at 48Mbps<br>-77dBm at 54Mbps  |
|                            | 802.11n (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C)         2.4GHz, HT20         -95dBm at MCS0/8         -91dBm at MCS1/9         -88dBm at MCS2/10         -86dBm at MCS3/11         -82dBm at MCS4/12         -79dBm at MCS5/13         -77dBm at MCS5/13         -77dBm at MCS5/14         -75dBm at MCS1/9         -86dBm at MCS1/9         -86dBm at MCS2/10         -83dBm at MCS1/9         -86dBm at MCS2/10         -83dBm at MCS3/11         -80dBm at MCS2/10         -83dBm at MCS3/11         -80dBm at MCS5/13         -77dBm at MCS5/13         -77dBm at MCS5/13         -74dBm at MCS1/9         -95dBm at MCS1/9         -90dBm at MCS2/10         -87dBm at MCS4/12         -79dBm at MCS5/13         -77dBm at MCS5/13         -77dBm at MCS5/13         -77dBm at MCS5/14         -75dBm at MCS6/14         -75dBm at MCS0/8         -89dBm at MCS1/9         -80dBm at MCS1/9         -80dBm at MCS2/10         -83dBm at MCS1/9         -86dBm at MCS2/10         -83dBm at MCS3/11         -80dBm at MCS3/11 <td< th=""></td<> |

| Wireless Module Parameters |   |
|----------------------------|---|
|                            | <ul> <li>802.11ac (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) VHT20</li> <li>95dBm at MCS0</li> <li>92dBm at MCS1</li> <li>90dBm at MCS2</li> <li>86dBm at MCS3</li> <li>83dBm at MCS4</li> <li>79dBm at MCS5</li> <li>77dBm at MCS6</li> <li>75dBm at MCS7</li> <li>71dBm at MCS0</li> <li>89dBm at MCS1</li> <li>87dBm at MCS1</li> <li>87dBm at MCS2</li> <li>84dBm at MCS3</li> <li>80dBm at MCS4</li> <li>76dBm at MCS5</li> <li>74dBm at MCS5</li> <li>74dBm at MCS6</li> <li>72dBm at MCS6</li> <li>72dBm at MCS1</li> <li>80dBm at MCS1</li> <li>80dBm at MCS4</li> <li>76dBm at MCS2</li> <li>84dBm at MCS3</li> <li>80dBm at MCS4</li> <li>76dBm at MCS5</li> <li>74dBm at MCS6</li> <li>72dBm at MCS7</li> <li>68dBm at MCS9</li> <li>VHT80</li> <li>89dBm at MCS1</li> <li>83dBm at MCS1</li> <li>83dBm at MCS1</li> <li>83dBm at MCS3</li> <li>77dBm at MCS5</li> <li>77dBm at MCS5</li> <li>77dBm at MCS5</li> <li>77dBm at MCS7</li> <li>66dBm at MCS3</li> <li>77dBm at MCS5</li> <li>71dBm at MCS5</li> <li>74dBm at MCS5</li> <li>64dBm at MCS9</li> </ul> |
| Modulation schemes         | <ul> <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>   |

| Physical Parameters    |   |
|------------------------|---|
| Dimensions (L x W x H) | · 177 x 139 x 50 mm (6.97 x 5.47 x 1.97 in) |
| Weight                 | · 292 g (0.64 lb)                           |

| Operating Environment |   |
|-----------------------|---|
| Power                 | · Output: 12V DC, 1.5A  |
| Temperature           | <ul> <li>Operating: from 0 to 40 °C</li> <li>Storage: from -20 to 65 °C</li> </ul>                                |
| Humidity              | <ul> <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                               | <ul> <li>Alcatel X500</li> <li>D-Link DWM-152C1</li> <li>D-Link DWM-156A6</li> <li>D-Link DWM-156A7</li> <li>D-Link DWM-156C1</li> <li>D-Link DWM-157B1</li> <li>D-Link DWM-157B1 (Velcom)</li> <li>D-Link DWM-158D1</li> <li>D-Link DWR-710</li> <li>Huawei E150</li> <li>Huawei E156G</li> <li>Huawei E16GG</li> <li>Huawei E173 (Megafon)</li> <li>Huawei E3311 (MTS 420S)</li> <li>Huawei E352 (Megafon)</li> <li>Huawei E3531</li> <li>Prolink PHS901</li> <li>ZTE MF12</li> <li>ZTE MF626</li> <li>ZTE MF667</li> <li>ZTE MF668</li> <li>ZTE MF752</li> </ul> |

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

| Supported USB modems                 |  |
|--------------------------------------|--|
| LTE                                  | <ul> <li>Alcatel IK40V</li> <li>Brovi E3372-325</li> <li>D-Link DWM-222</li> <li>D-Link DWR-910 (revision D1)</li> <li>Huawei E3131</li> <li>Huawei E3272</li> <li>Huawei E3351</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 M150-1</li> <li>Megafon M150-4</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 MF823D</li> <li>ZTE MF823T</li> <li>ZTE MF833T</li> <li>ZTE MF833T</li> <li>ZTE MF833T</li> </ul> |
| Smartphones in USB<br>tethering mode | Some models of Android smartphones   |

# TERMSANDCONDITIONSFORINSTALLATION, SAFE OPERATION, STORAGE,TRANSPORTATION, AND DISPOSAL

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 (reception/transmission of data in computer networks); installation should be performed in accordance with the documents available on the official website.

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. The electrical outlet must be installed near the equipment and must be easily accessible.

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 device may be stored and transported only in the original packaging at the temperature and humidity indicated in the specifications. No restrictions apply to sales. Please contact an authorized distributor to dispose of the equipment upon the end of its operation.

The service life of the device is 2 years.

The warranty period starts on the date of purchase from an authorized distributor within Russia or the CIS countries and extends for one year.

Irrespective of the date of purchase, the warranty period cannot exceed 2 years from the date of manufacture, which is determined by  $6^{\text{th}}$  (year) and  $7^{\text{th}}$  (month) digit in the serial number printed on the device label.

Year: F = 2015, G = 2016, H = 2017, I = 2018, J = 2019, 0 = 2020, I = 2021, 2 = 2022, 3 = 2023, 4 = 2024.

Month: I - January, 2 - February, ..., 9 - September, A - October, B - November, C - December.

If a fault is detected, please contact D-Link service center or technical support group.

# **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