

## Product Highlights

### HIGH SPEED

Gigabit Ethernet ports,  
total wireless connection rate up to  
1200Mbps<sup>1</sup>

### EXTREME WI-FI PERFORMANCE

MU-MIMO for best rates,  
2 data streams for increased  
throughput

### IPV6 SUPPORT

All needed functions  
for up-to-date networking

### USB PORT

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



## DIR-825

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

#### USB Port

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

In order to use the multifunction USB port effectively, the router supports simultaneous operation of several USB devices. For example, you can access multimedia content of the connected HDD storage and at the same time share a USB printer.<sup>2</sup>

#### Wireless Interface

Using the DIR-825 device, you are able to quickly create a high-speed wireless network at home or in your office, which lets computers and mobile devices access the Internet virtually anywhere (within the operational range of your wireless network). Simultaneous activity of 2.4GHz band and 5GHz band allows performing a wide range of tasks. The router can operate as a base station for connecting wireless devices of the standards 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac (at the wireless connection rate up to 1167Mbps<sup>1</sup>).

#### Secure Wireless Connection

The router supports multiple functions for the wireless interface: several security standards (WEP, WPA/WPA2/WPA3), MAC address filtering, WPS, WMM.

In addition, the device is equipped with a button for switching the Wi-Fi network off/on. If needed, for example, when you leave home, you can easily switch the router's WLAN by pressing the button, and devices connected to the LAN ports of the router will stay online.

<sup>1</sup> Up to 300Mbps for 2.4GHz and up to 867Mbps for 5GHz.

<sup>2</sup> When using a USB hub with external power supply.

### **Advanced Capabilities of Wireless Network**

The Band Steering technology simplifies connection to the network and optimizes further operation for the wireless clients. You can configure the wireless network with one name for both bands, so the clients automatically choose the preferred band when they are connecting or when the network conditions change.

The EasyMesh function is D-Link implementation of mesh networks designed to quickly connect several<sup>3</sup> devices into one transport network, for example, when it's required to provide high-quality Wi-Fi coverage without dead zones in living units of complicated planning or it's needed to create a large temporary Wi-Fi network for an outdoor event.

Multi-user MIMO technology allows to distribute the router's resources to let multiple wireless clients use the Wi-Fi network efficiently, keeping high rates for HD media streaming, lag-free gaming, and fast transfer of large files.

Transmit Beamforming technology allows to flexibly change the antennas' radiation pattern and to redistribute the signal directly to wireless devices connected to the router.

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

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

### **Security**

The wireless router DIR-825 includes a built-in firewall. The advanced security functions minimize threats of hacker attacks, prevent unwanted intrusions to your network, and block access to unwanted websites for users of your LAN.

The SSH protocol support provides more secure remote configuration and management of the router due to encryption of all transmitted traffic, including passwords.

In addition, the router supports IPsec and allows to create secure VPN tunnels. Support of the IKEv2 protocol allows to provide simplified message exchange and use asymmetric authentication engine upon configuration of an IPsec tunnel.

The router also supports the SkyDNS web content filtering service, which provides more settings and opportunities for safer Internet experience for home users of all ages and for professional activities of corporate users.

Now the schedules are also implemented; they can be applied to the rules and settings of the firewall and used to reboot the router at the specified time or every specified time period, to automatically save the configuration of the router to a connected USB storage, to set rules for limitation of wireless client maximum bandwidth, and to enable/disable the wireless network and the Wi-Fi filter.

The new ad blocking function effectively blocks advertisements which appear during web surfing.

### **Easy configuration and update**

You can configure the settings of the wireless router DIR-825 via the user-friendly web-based interface (the interface is available in two languages – in Russian and in English).

The configuration wizard allows you to quickly switch DIR-825 to one of the following modes: router (for connection to a wired or wireless ISP), access point, repeater, or client, and then configure all needed setting for operation in the selected mode in several simple steps.

Also DIR-825 supports configuration and management via mobile application for Android smartphones.

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

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<sup>3</sup> Up to 6 devices.

Hardware	
Processor	<ul style="list-style-type: none"> <li>RTL8197FH-VG (1GHz)</li> </ul>
RAM	<ul style="list-style-type: none"> <li>128MB, DDR2, built in processor</li> </ul>
Flash	<ul style="list-style-type: none"> <li>128MB, SPI NAND</li> </ul>
Interfaces	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Power</li> <li>Internet</li> <li>WLAN 2.4G</li> <li>WLAN 5G</li> </ul>
Buttons	<ul style="list-style-type: none"> <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	<ul style="list-style-type: none"> <li>Four external non-detachable antennas (5dBi gain)</li> </ul>
MIMO	<ul style="list-style-type: none"> <li>2 x 2, MU-MIMO</li> </ul>
Power connector	<ul style="list-style-type: none"> <li>Power input connector (DC)</li> </ul>
Mounting	<ul style="list-style-type: none"> <li>Desktop</li> <li>Wall</li> </ul>

Software	
WAN connection types	<ul style="list-style-type: none"> <li>Mobile Internet (via supported USB modem)</li> <li>PPPoE</li> <li>IPv6 PPPoE</li> <li>PPPoE Dual Stack</li> <li>Static IPv4 / Dynamic IPv4</li> <li>Static IPv6 / Dynamic IPv6</li> <li>PPPoE + Static IP (PPPoE Dual Access)</li> <li>PPPoE + Dynamic IP (PPPoE Dual Access)</li> <li>PPTP/L2TP + Static IP</li> <li>PPTP/L2TP + Dynamic IP</li> </ul>
Network functions	<ul style="list-style-type: none"> <li>DHCP server/relay</li> <li>Advanced configuration of built-in DHCP server</li> <li>Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation</li> <li>Automatic obtainment of LAN IP address (for access point/repeater/client modes)</li> <li>DNS relay</li> <li>Dynamic DNS</li> <li>Static IPv4/IPv6 routing</li> <li>IGMP/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 control / Manual speed and duplex mode setup for each Ethernet port</li> <li>Built-in UDPXY application</li> <li>XUPNPD plug-in</li> <li>Wake-on-LAN support</li> </ul>
Firewall functions	<ul style="list-style-type: none"> <li>Network Address Translation (NAT)</li> <li>Stateful Packet Inspection (SPI)</li> <li>IPv4/IPv6 filter</li> <li>MAC filter</li> <li>URL filter</li> <li>Ad blocking function</li> <li>DMZ</li> <li>Virtual servers</li> <li>Built-in SkyDNS web content filtering service</li> </ul>

<b>Software</b>	
<b>VPN</b>	<ul style="list-style-type: none"> <li>· IPsec/PPTP/L2TP/PPPoE pass-through</li> <li>· PPTP/L2TP tunnels</li> <li>· L2TP over IPsec client</li> <li>· IPsec tunnels Transport/Tunnel mode IKEv1/IKEv2 support DES encryption NAT Traversal Support of DPD (Keep-alive for VPN tunnels)</li> </ul>
<b>USB interface functions</b>	<ul style="list-style-type: none"> <li>· USB modem Auto connection to available type of supported network (4G/3G/2G) Auto configuration of connection upon plugging in USB modem Enabling/disabling PIN code check, changing PIN code<sup>4</sup> Sending/receiving/reading/removing SMS messages<sup>4</sup> Support of USSD requests<sup>4</sup></li> <li>· USB storage File browser Print server Access to storage via accounts Built-in Samba server Built-in FTP server supporting TLS Built-in DLNA server Built-in Transmission torrent client; uploading/downloading files from/to USB storage</li> </ul>
<b>Management and monitoring</b>	<ul style="list-style-type: none"> <li>· Local and remote access to settings through SSH/TELNET/WEB (HTTP/HTTPS)</li> <li>· 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>· Saving/restoring configuration to/from file</li> <li>· Support of logging to remote host/connected USB storage</li> <li>· Automatic synchronization of system time with NTP server and manual time/date setup</li> <li>· Ping utility</li> <li>· Traceroute utility</li> <li>· TR-069 client</li> <li>· Schedules for rules and settings of firewall, automatic reboot and saving a configuration backup to a connected USB storage, limitation of wireless client maximum bandwidth, and enabling/disabling wireless network and Wi-Fi filter</li> <li>· Automatic upload of configuration file from ISP's server (Auto Provision)</li> <li>· Configuration of action for hardware buttons</li> </ul>

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

<b>Wireless Module Parameters</b>	
<b>Advanced functions</b>	<ul style="list-style-type: none"> <li>· 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>
<b>Wireless connection rate</b>	<ul style="list-style-type: none"> <li>· IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54Mbps</li> <li>· IEEE 802.11b: 1, 2, 5.5, and 11Mbps</li> <li>· IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps</li> <li>· IEEE 802.11n (2.4GHz/5GHz): from 6.5 to 300Mbps (MCS0–MCS15)</li> <li>· IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MCS9)</li> </ul>
<b>Transmitter output power</b>  <i>The maximum value of the transmitter output power depends upon the radio frequency regulations applied in your country</i>	<ul style="list-style-type: none"> <li>· Less than 20dBm (100mW)</li> </ul>
<b>Receiver sensitivity</b>	<ul style="list-style-type: none"> <li>· 802.11a (typical at PER &lt; 10% (1000-byte PDUs) at room temperature 25 °C) <ul style="list-style-type: none"> <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> </li> <li>· 802.11b (typical at PER = 8% (1000-byte PDUs) at room temperature 25 °C) <ul style="list-style-type: none"> <li>-90dBm at 1Mbps</li> <li>-92dBm at 2Mbps</li> <li>-93dBm at 5.5Mbps</li> <li>-96dBm at 11Mbps</li> </ul> </li> <li>· 802.11g (typical at PER &lt; 10% (1000-byte PDUs) at room temperature 25 °C) <ul style="list-style-type: none"> <li>-94dBm at 6Mbps</li> <li>-92dBm at 9Mbps</li> <li>-90dBm at 12Mbps</li> <li>-89dBm at 18Mbps</li> <li>-87dBm at 24Mbps</li> <li>-84dBm at 36Mbps</li> <li>-80dBm at 48Mbps</li> <li>-77dBm at 54Mbps</li> </ul> </li> <li>· 802.11n (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) <ul style="list-style-type: none"> <li>2.4GHz, HT20</li> <li>-95dBm at MCS0/8</li> <li>-91dBm at MCS1/9</li> <li>-88dBm at MCS2/10</li> <li>-86dBm at MCS3/11</li> <li>-82dBm at MCS4/12</li> <li>-79dBm at MCS5/13</li> <li>-77dBm at MCS6/14</li> <li>-75dBm at MCS7/15</li> </ul> </li> </ul>

**Wireless Module Parameters**

	<p>2.4GHz, HT40 -92dBm at MCS0/8 -89dBm at MCS1/9 -86dBm at MCS2/10 -83dBm at MCS3/11 -80dBm at MCS4/12 -77dBm at MCS5/13 -74dBm at MCS6/14 -72dBm at MCS7/15</p> <p>5GHz, HT20 -95dBm at MCS0/8 -93dBm at MCS1/9 -90dBm at MCS2/10 -87dBm at MCS3/11 -83dBm at MCS4/12 -79dBm at MCS5/13 -77dBm at MCS6/14 -75dBm at MCS7/15</p> <p>5GHz, HT40 -92dBm at MCS0/8 -89dBm at MCS1/9 -86dBm at MCS2/10 -83dBm at MCS3/11 -80dBm at MCS4/12 -76dBm at MCS5/13 -74dBm at MCS6/14 -72dBm at MCS7/15</p> <ul style="list-style-type: none"> <li>· 802.11ac (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C)</li> </ul> <p>VHT20 -95dBm at MCS0 -92dBm at MCS1 -90dBm at MCS2 -86dBm at MCS3 -83dBm at MCS4 -79dBm at MCS5 -77dBm at MCS6 -75dBm at MCS7 -71dBm at MCS8</p> <p>VHT40 -92dBm at MCS0 -89dBm at MCS1 -87dBm at MCS2 -84dBm at MCS3 -80dBm at MCS4 -76dBm at MCS5 -74dBm at MCS6 -72dBm at MCS7 -68dBm at MCS8 -66dBm at MCS9</p> <p>VHT80 -89dBm at MCS0 -86dBm at MCS1 -83dBm at MCS2 -80dBm at MCS3 -77dBm at MCS4 -73dBm at MCS5 -71dBm at MCS6 -69dBm at MCS7 -66dBm at MCS8 -64dBm at MCS9</p>
<b>Modulation schemes</b>	<ul style="list-style-type: none"> <li>· 802.11a: BPSK, QPSK, 16QAM, 64QAM with OFDM</li> <li>· 802.11b: DQPSK, DBPSK, DSSS, CCK</li> <li>· 802.11g: BPSK, QPSK, 16QAM, 64QAM with OFDM</li> <li>· 802.11n: BPSK, QPSK, 16QAM, 64QAM with OFDM</li> <li>· 802.11ac: BPSK, QPSK, 16QAM, 64QAM, up to 256QAM with OFDM</li> </ul>

**Physical Parameters**

<b>Dimensions (L x W x H)</b>	· 177 x 139 x 50 mm (6.97 x 5.47 x 1.97 in)
<b>Weight</b>	· 292 g (0.64 lb)

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

Delivery Package
<ul style="list-style-type: none"> <li>Router DIR-825</li> <li>Power adapter DC 12V/1.5A</li> <li>Ethernet cable</li> <li>"Quick Installation Guide" (brochure)</li> </ul>

Supported USB modems <sup>5</sup>	
GSM	<ul style="list-style-type: none"> <li>Alcatel X500</li> <li>D-Link DWM-152C1</li> <li>D-Link DWM-156A6</li> <li>D-Link DWM-156A7</li> <li>D-Link DWM 156A8</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 E1550</li> <li>Huawei E156G</li> <li>Huawei E160G</li> <li>Huawei E169G</li> <li>Huawei E171</li> <li>Huawei E173 (Megafon)</li> <li>Huawei E220</li> <li>Huawei E3131 (MTS 420S)</li> <li>Huawei E352 (Megafon)</li> <li>Huawei E3531</li> <li>Prolink PHS600</li> <li>Prolink PHS901</li> <li>ZTE MF112</li> <li>ZTE MF192</li> <li>ZTE MF626</li> <li>ZTE MF627</li> <li>ZTE MF652</li> <li>ZTE MF667</li> <li>ZTE MF668</li> <li>ZTE MF752</li> </ul>

<sup>5</sup> The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.

<b>Supported USB modems</b>	
<b>LTE</b>	<ul style="list-style-type: none"> <li>· Alcatel IK40V</li> <li>· 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 E3372s</li> <li>· Huawei E3372h-153</li> <li>· Huawei E3372h-320</li> <li>· Huawei E367</li> <li>· Huawei E392</li> <li>· Megafon M100-1</li> <li>· Megafon M100-2</li> <li>· Megafon M100-3</li> <li>· Megafon M100-4</li> <li>· Megafon M150-1</li> <li>· Megafon M150-2</li> <li>· Megafon M150-3</li> <li>· 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 MF823</li> <li>· ZTE MF823D</li> <li>· ZTE MF827</li> <li>· ZTE MF833T</li> <li>· ZTE MF833V</li> </ul>
<b>Smartphones in USB tethering mode</b>	<ul style="list-style-type: none"> <li>· Some models of Android smartphones</li> </ul>