

### **Product Highlights**

### **HIGH SPEED**

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



## **DIR-830M**

## AC1200 Wave 2 MU-MIMO Wi-Fi EasyMesh Gigabit Router

### Wireless Interface

Using the DIR-830M 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 1167Mbps¹).

### **Secure Wireless Connection**

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

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

The EasyMesh function is D-Link implementation of mesh networks designed to quickly connect several<sup>2</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.

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.

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

<sup>2</sup> Up to 6 devices.



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### Security

The wireless router DIR-830M 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 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-830M 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-830M 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-830M 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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Hardware	
Processor	· RTL8197FH-VG (1GHz)
RAM	· 128MB, DDR2
Flash	· 16 MB, SPI
Interfaces	<ul> <li>10/100/1000BASE-T WAN port</li> <li>3 10/100/1000BASE-T LAN ports</li> </ul>
LEDs	· Status
Buttons	PWR button to power on/power off RESET/WPS button to restore factory default settings, connect mesh network devices, and set up wireless connection
Antenna	· Four external non-detachable antennas (5dBi gain)
MIMO	· 2 x 2, MU-MIMO
Power connector	· Power input connector (DC)

Software	
WAN connection types	PPPoE PPoE PPoE PPoE Dual Stack Static IPv4 / Dynamic IPv4 Static IPv6 / Dynamic IPv6 PPPoE + Static IP (PPPoE Dual Access) PPPoE + Dynamic IP (PPPoE Dual Access) PPTP/L2TP + Static IP PPTP/L2TP + Dynamic IP
Network functions	DHCP server/relay Advanced configuration of built-in DHCP server Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation Automatic obtainment of LAN IP address (for access point/repeater/client modes) DNS relay Dynamic DNS Static IPv4/IPv6 routing IGMP/MLD Proxy RIP Support of UPnP Support of VLAN WAN ping respond Support of SIP ALG Support of RTSP WAN failover Autonegotiation of speed, duplex mode, and flow control / Manual speed and duplex mode setup for each Ethernet port
Firewall functions	Network Address Translation (NAT) Stateful Packet Inspection (SPI) IPv4/IPv6 filter MAC filter URL filter Ad blocking function DMZ Virtual servers Built-in SkyDNS web content filtering service



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Software	
VPN	<ul> <li>IPsec/PPTP/L2TP/PPPoE pass-through</li> <li>PPTP/L2TP tunnels</li> <li>L2TP over IPsec</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>
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>Saving/restoring configuration to/from file</li> <li>Support of logging to remote host</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, 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>

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 802.11w</li> </ul>
Frequency range  The frequency range depends upon the radio frequency regulations applied in your 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>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> </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 (MCS0–MCS15)</li> <li>IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MCS9)</li> </ul>



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Wireless Module Parameters	
Transmitter output power  The maximum value of the transmitter output power depends upon the radio frequency regulations applied in your country	802.11n (typical at room temperature 25 °C)     2.4GHz/5GHz     15dBm      802.11ac (typical at room temperature 25 °C)     15dBm
Receiver sensitivity	802.11a (typical at PER < 10% (1000-byte PDUs) at room temperature 25 °C)  -94dBm at 6Mbps  -92dBm at 9Mbps  -91dBm at 12Mbps  -89dBm at 18Mbps  -86dBm at 24Mbps  -82dBm at 36Mbps  -78dBm at 48Mbps  -77dBm at 54Mbps
	<ul> <li>802.11b (typical at PER = 8% (1000-byte PDUs) at room temperature 25 °C)</li> <li>-97dBm at 1Mbps</li> <li>-93dBm at 2Mbps</li> <li>-93dBm at 5.5Mbps</li> <li>-89dBm at 11Mbps</li> </ul>
	<ul> <li>802.11g (typical at PER &lt; 10% (1000-byte PDUs) at room temperature 25 °C)</li> <li>-95dBm at 6Mbps</li> <li>-92dBm at 9Mbps</li> <li>-92dBm at 12Mbps</li> <li>-89dBm at 18Mbps</li> <li>-86dBm at 24Mbps</li> <li>-83dBm at 36Mbps</li> <li>-78dBm at 48Mbps</li> <li>-78dBm at 54Mbps</li> <li>-78dBm at 54Mbps</li> </ul>
	. 802.11n (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) 2.4GHz, HT20 -94dBm at MCS0/8 -91dBm at MCS2/10 -86dBm at MCS3/11 -82dBm at MCS4/12 -78dBm at MCS5/13 -76dBm at MCS5/13 -76dBm at MCS7/15 2.4GHz, HT40 -90dBm at MCS2/10 -82dBm at MCS2/10 -82dBm at MCS3/11 -79dBm at MCS3/11 -79dBm at MCS3/11 -79dBm at MCS5/13 -73dBm at MCS5/13 -73dBm at MCS5/13 -73dBm at MCS5/14 -72dBm at MCS5/15 5GHz, HT20 -93dBm at MCS0/8 -91dBm at MCS3/11 -82dBm at MCS3/11 -82dBm at MCS3/11 -82dBm at MCS5/13 -75dBm at MCS6/14 -74dBm at MCS5/13 -75dBm at MCS0/8 -87dBm at MCS0/8 -87dBm at MCS3/11 -82dBm at MCS3/11 -9dBm at MCS3/11 -79dBm at MCS3/11 -79dBm at MCS3/11 -79dBm at MCS3/11 -79dBm at MCS3/11



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802.11ac (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C)     VHT20     -94dBm at MCS0     -90dBm at MCS1     -88dBm at MCS2
-85dBm at MCS3 -82dBm at MCS4 -78dBm at MCS5 -76dBm at MCS6 -74dBm at MCS7 -70dBm at MCS8 VHT40 -91dBm at MCS0 -88dBm at MCS1 -86dBm at MCS2 -83dBm at MCS2 -83dBm at MCS3 -79dBm at MCS4 -74dBm at MCS5 -73dBm at MCS6 -71dBm at MCS6 -71dBm at MCS6 -71dBm at MCS8 -64dBm at MCS9 VHT80 -87dBm at MCS9 VHT80 -87dBm at MCS1 -81dBm at MCS1 -81dBm at MCS1 -81dBm at MCS2 -79dBm at MCS3 -75dBm at MCS4 -71dBm at MCS7 -64dBm at MCS6 -67dBm at MCS7 -64dBm at MCS9

Physical Parameters	
Dimensions (L x W x H)	· 188 x 120 x 30 mm (7.4 x 4.72 x 1.18 in)
Weight	· 226 g (0.49 lb)

Operating Environment	
Power	· Output: 12V DC, 1A
Temperature	<ul> <li>Operating: from 0 to 40 °C</li> <li>Storage: from -10 to 70 °C</li> </ul>
Humidity	<ul><li>Operating: from 10% to 90% (non-condensing)</li><li>Storage: from 10% to 90% (non-condensing)</li></ul>

### **Delivery Package**

- · Router DIR-830M
- Power adapter DC 12V/1A
- · Ethernet cable
- · "Quick Installation Guide" (brochure)

