D-Link®
Building Networks for People

Product Highlights

HIGH POWER AND SPEED
New dual core (880MHz), Gigabit Ethernet ports, total wireless connection rate up to 1300Mbps[1]

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-853

AC1300 Wave 2 MU-MIMO Wi-Fi 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.[2]

LAN/WAN Conversion, WAN Failover

You can use any Ethernet port of the router as LAN or WAN port. The new-generation firmware supports assigning several WAN ports, for example, in order to configure the primary and backup WAN connection of different ISPs. In addition, you can configure the WAN failover using a 3G/4G modem.

Wireless Interface

Using the DIR-853 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 1300Mbps[1]).

Secure Wireless Connection

The router supports multiple functions for the wireless interface: several security standards (WEP, WPA/WPA2), 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.

1 Up to 400Mbps for 2.4GHz and up to 867Mbps for 5GHz.
2 When using a USB hub with external power supply.

Advanced Capabilities of Wireless Network

The Super MESH[3] function allows to quickly connect multiple D-Link devices supporting Super MESH 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-853 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-853 via the user-friendly web-based interface (the interface is available in several languages).

The configuration wizard allows you to quickly switch DIR-853 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-853 supports configuration and management via mobile application for Android and iPhone 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.

3 Super MESH is not compatible with EasyMESH. Super MESH can be unavailable in some FW versions (for the latest data, please refer to the page of the relevant device).

D-Link®
Building Networks for People

DIR-853

AC1300 Wave 2 MU-MIMO Wi-Fi Gigabit Router with 3G/LTE Support and USB Port

Hardware	
Processor	· MT7621DAT (880MHz, dual core)
RAM	· 128MB, DDR3
Flash	· 128MB, NAND
Interfaces	· 10/100/1000BASE-T WAN port · 4 10/100/1000BASE-T LAN ports · USB 2.0 port
LEDs	· Power · Internet · 4 LAN LEDs · WLAN 2.4G · WLAN 5G · WPS · USB
Buttons	· POWER button to power on/power off · WIFI button to enable/disable wireless network · WPS button to set up wireless connection · RESET button to restore factory default settings
Antenna	· Four external non-detachable antennas (5dBi gain)
MIMO	· 2 x 2, MU-MIMO
Power connector	· Power input connector (DC)

Software	
WAN connection types	· Mobile Internet (via supported USB modem) · PPPoE · IPv6 PPPoE · PPPoE 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 · L2TP Dual Stack · IPIP6 in DSLite mode · 6in4 · 6to4 · 6rd

Software	
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 IGD · Support of VLAN · WAN ping respond · Support of SIP ALG · Support of RTSP · WAN failover · LAN/WAN conversion · Multi-WAN support · Autonegotiation of speed, duplex mode, and flow control / Manual speed and duplex mode setup for each Ethernet port · Built-in UDPXY application · XUPNPD plug-in · Equal load distribution while using several WAN connections (traffic balancing) · Support of VRRP · Port mirroring
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
VPN	· IPsec/PPTP/L2TP/PPPoE pass-through · PPTP/L2TP servers · PPTP/L2TP tunnels · L2TP over IPsec · GRE/EoGRE/EoIP tunnels · IPsec tunnels Transport/Tunnel mode IKEv1/IKEv2 support DES encryption NAT Traversal Support of DPD (Keep-alive for VPN tunnels)
USB interface functions	· 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[4] Sending/receiving/reading/removing SMS messages[4] Support of USSD requests[4] · USB storage File browser Print server Access to storage via accounts Built-in Samba/FTP/DLNA server Built-in Transmission torrent client; uploading/downloading files from/to USB storage

4 For some models of USB modems.

Software	
Management and monitoring	· Local and remote access to settings through SSH/TELNET/WEB (HTTP/HTTPS) · Multilingual web-based interface for configuration and management · Support of D-Link Assistant application for Android and iPhone smartphones · Notification on connection problems and auto redirect to settings · Firmware update via web-based interface · Automatic notification on new firmware version · Saving/restoring configuration to/from file · Support of logging to remote host/connected USB storage · Automatic synchronization of system time with NTP server and manual time/date setup · Ping utility · Traceroute utility · TR-069 client · SNMP agent · Schedules for rules and settings of firewall, automatic reboot, and enabling/disabling wireless network and Wi-Fi filter · Automatic upload of configuration file from ISP's server (Auto Provision)

Wireless Module Parameters	
Standards	· IEEE 802.11ac Wave 2 · IEEE 802.11a/b/g/n · IEEE 802.11k
Frequency range *The frequency range depends upon the radio frequency regulations applied in your country*	· 2400 ~ 2483.5MHz · 5150 ~ 5350MHz · 5650 ~ 5850MHz
Wireless connection security	· WEP · WPA/WPA2 (Personal/Enterprise) · MAC filter · WPS (PBC/PIN)
Advanced functions	· Super Mesh function · Support of client mode · WMM (Wi-Fi QoS) · Information on connected Wi-Fi clients · Advanced settings · Smart adjustment of Wi-Fi clients · Guest Wi-Fi / support of MBSSID · Limitation of wireless network rate · Periodic scan of channels, automatic switch to least loaded channel · Support of 2.4GHz/5GHz TX Beamforming · Autonegotiation of channel bandwidth in accordance with environment conditions (20/40 Coexistence) · Support of STBC · CoovaChilli authentication portal
Wireless connection rate[5]	· IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11b: 1, 2, 5.5, and 11Mbps · IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps · IEEE 802.11n (2.4GHz): 6.5–300Mbps (MCS0–MCS15) to 400Mbps (QAM256) · IEEE 802.11n (5GHz): from 6.5 to 300Mbps (from MCS0 to MCS15) · IEEE 802.11ac (5GHz): from 6.5 to 867Mbps (from MCS0 to MCS9)

5 Maximum wireless signal rate is derived from IEEE standard 802.11ac and 802.11n specifications. In order to get the rate of 400Mbps in the 2.4GHz band, a Wi-Fi client should support MIMO 2x2 and QAM256 modulation scheme. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.

Wireless Module Parameters	
Transmitter output power *The maximum value of the transmitter output power depends upon the radio frequency regulations applied in your country*	· 802.11a (typical at room temperature 25 °C) 14dBm at 6, 9, 12, 18, 24Mbps 13dBm at 36Mbps 12.5dBm at 48Mbps 12dBm at 54Mbps · 802.11b (typical at room temperature 25 °C) 15dBm at 1, 2, 5.5, 11Mbps · 802.11g (typical at room temperature 25 °C) 15dBm at 6, 9, 12, 18, 24, 36, 48, 54Mbps · 802.11n (typical at room temperature 25 °C) 2.4GHz, HT20 15dBm at MCS0/8~7/15 2.4GHz, HT40 15dBm at MCS0/8~7/15 5GHz, HT20 14dBm at MCS0/8~4/12 13dBm at MCS5/13 12.5dBm at MCS6/14 12dBm at MCS7/15 5GHz, HT40 14dBm at MCS0/8~2/10 13dBm at MCS3/11~4/12 12.5dBm at MCS5/13~6/14 12dBm at MCS7/15 · 802.11ac (typical at room temperature 25 °C) VHT20 14dBm at MCS0~4 13dBm at MCS5 12dBm at MCS6 11dBm at MCS7/8 VHT40 14dBm at MCS0~2 13dBm at MCS3~4 12dBm at MCS5~6 11dBm at MCS7/8/9 VHT80 14dBm at MCS0~4 13dBm at MCS5~6 12dBm at MCS7 11dBm at MCS8/9

Wireless Module Parameters	
Receiver sensitivity	· 802.11a (typical at PER < 10% (1000-byte PDUs) at room temperature 25 °C) -82dBm at 6Mbps -81dBm at 9Mbps -79dBm at 12Mbps -77dBm at 18Mbps -74dBm at 24Mbps -70dBm at 36Mbps -66dBm at 48Mbps -65dBm at 54Mbps · 802.11b (typical at PER = 8% (1000-byte PDUs) at room temperature 25 °C) -80dBm at 1Mbps -80dBm at 2Mbps -76dBm at 5.5Mbps -76dBm at 11Mbps · 802.11g (typical at PER < 10% (1000-byte PDUs) at room temperature 25 °C) -82dBm at 6Mbps -81dBm at 9Mbps -79dBm at 12Mbps -77dBm at 18Mbps -74dBm at 24Mbps -70dBm at 36Mbps -66dBm at 48Mbps -65dBm at 54Mbps · 802.11n (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) 2.4GHz, HT20 -82dBm at MCS0/8 -79dBm at MCS1/9 -77dBm at MCS2/10 -74dBm at MCS3/11 -70dBm at MCS4/12 -66dBm at MCS5/13 -65dBm at MCS6/14 -64dBm at MCS7/15 2.4GHz, HT40 -79dBm at MCS0/8 -76dBm at MCS1/9 -74dBm at MCS2/10 -71dBm at MCS3/11 -67dBm at MCS4/12 -63dBm at MCS5/13 -62dBm at MCS6/14 -61dBm at MCS7/15 5GHz, HT20 -82dBm at MCS0/8 -79dBm at MCS1/9 -77dBm at MCS2/10 -74dBm at MCS3/11 -70dBm at MCS4/12 -66dBm at MCS5/13 -65dBm at MCS6/14 -64dBm at MCS7/15 5GHz, HT40 -79dBm at MCS0/8 -76dBm at MCS1/9 -74dBm at MCS2/10 -71dBm at MCS3/11 -67dBm at MCS4/12 -63dBm at MCS5/13 -62dBm at MCS6/14 -61dBm at MCS7/15

D-Link
Building Networks for People

DIR-853

AC1300 Wave 2 MU-MIMO Wi-Fi Gigabit Router with 3G/LTE Support and USB Port

Wireless Module Parameters

	· 802.11ac (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C) VHT20 -82dBm at MCS0 -79dBm at MCS1 -77dBm at MCS2 -74dBm at MCS3 -70dBm at MCS4 -66dBm at MCS5 -65dBm at MCS6 -64dBm at MCS7 -56dBm at MCS8 VHT40 -79dBm at MCS0 -76dBm at MCS1 -74dBm at MCS2 -71dBm at MCS3 -67dBm at MCS4 -63dBm at MCS5 -62dBm at MCS6 -61dBm at MCS7 -56dBm at MCS8 -54dBm at MCS9 VHT80 -76dBm at MCS0 -73dBm at MCS1 -71dBm at MCS2 -68dBm at MCS3 -64dBm at MCS4 -60dBm at MCS5 -59dBm at MCS6 -58dBm at MCS7 -53dBm at MCS8 -51dBm at MCS9
Modulation schemes	· 802.11a: BPSK, QPSK, 16QAM, 64QAM with OFDM · 802.11b: DQPSK, DBPSK, DSSS, CCK · 802.11g: BPSK, QPSK, 16QAM, 64QAM with OFDM · 802.11n: BPSK, QPSK, 16QAM, 64QAM, 256QAM with OFDM · 802.11ac: BPSK, QPSK, 16QAM, 64QAM, up to 256QAM with OFDM

Physical Parameters

Dimensions (L x W x H)	· 205 x 136 x 44 mm (8.07 x 5.35 x 1.73 in)

Operating Environment

Power	· Output: 12V DC, 1A
Temperature	· Operating: from 0 to 40 °C · Storage: from -20 to 65 °C
Humidity	· Operating: from 10% to 90% (non-condensing) · Storage: from 5% to 95% (non-condensing)

Delivery Package

- Router DIR-853
- Power adapter DC 12V/1A
- Ethernet cable
- “Quick Installation Guide” (brochure)

Supported USB modems[6]	
GSM	· Alcatel X500 · D-Link DWM-152C1 · D-Link DWM-156A6 · D-Link DWM-156A7 · D-Link DWM 156A8 · D-Link DWM-156C1 · D-Link DWM-157B1 · D-Link DWM-157B1 (Velcom) · D-Link DWM-158D1 · D-Link DWR-710 · Huawei E150 · Huawei E1550 · Huawei E156G · Huawei E160G · Huawei E169G · Huawei E171 · Huawei E173 (Megafon) · Huawei E220 · Huawei E3131 (MTS 420S) · Huawei E352 (Megafon) · Huawei E3531 · Prolink PHS600 · Prolink PHS901 · ZTE MF112 · ZTE MF192 · ZTE MF626 · ZTE MF627 · ZTE MF652 · ZTE MF667 · ZTE MF668 · ZTE MF752

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

Supported USB modems	
LTE	· Alcatel IK40V · Brovi E3372-325 · D-Link DWM-222 · Huawei E3131 · Huawei E3272 · Huawei E3351 · Huawei E3372s · Huawei E3372h-153 · Huawei E3372h-320 · Huawei E367 · Huawei E392 · Megafon M100-1 · Megafon M100-2 · Megafon M100-3 · Megafon M100-4 · Megafon M150-1 · Megafon M150-2 · Megafon M150-3 · Megafon M150-4 · Quanta 1K6E (Beeline 1K6E) · MTS 824F · MTS 827F · Yota LU-150 · Yota WLTUBA-107 · ZTE MF823 · ZTE MF827 · ZTE MF823D · ZTE MF833T · ZTE MF833V
Smartphones in USB tethering mode	· Some models of Android smartphones