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 MU-MIMO Wi-Fi Gigabit Router with 3G/LTE Support and USB Port 3.0

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.

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.

Advanced Capabilities of Wireless Network
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. 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.

---

1   Up to 400Mbps for 2.4GHz and up to 867Mbps for 5GHz.

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.

In addition, the router supports IPsec and allows to create secure VPN tunnels.

Built-in Yandex.DNS service protects against malicious and fraudulent web sites and helps to block access to adult content on children's devices.

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

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 two languages – in Russian and in English).

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 D-Link Click'n'Connect 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.

Hardware

Processor	· MT7621A (880MHz, dual core)
RAM	· 128MB, DDR3
Flash	· 16MB, SPI
Interfaces	· 10/100/1000BASE-T WAN port · 4 10/100/1000BASE-T LAN ports · USB 3.0 port
LEDs	· POWER · INTERNET · WPS · WLAN 2.4G · WLAN 5G · 4 LAN LEDs · 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	· LTE · 3G · PPPoE · IPv6 PPPoE · PPPoE Dual Stack · Static IP / Dynamic IP · 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	· Support of IEEE 802.1X for Internet connection · DHCP server/relay · 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 IP routing · Static IPv6 routing · IGMP Proxy · RIP · Support of UPnP IGD · Support of VLAN · WAN ping respond · Support of SIP ALG · Support of RTSP · WAN reservation · Built-in UDPXY application · XUPNPD plug-in
Firewall functions	· Network Address Translation (NAT) · Stateful Packet Inspection (SPI) · IP filter · IPv6 filter · MAC filter · URL filter · DMZ · Prevention of ARP and DDoS attacks · Virtual servers · Built-in Yandex.DNS web content filtering service · Built-in SafeDNS web content filtering service
VPN	· IPsec/PPTP/L2TP/PPPoE pass-through · IPsec tunnels

Software	

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[2]
	· 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

Management	· Local and remote access to settings through TELNET/WEB (HTTP/HTTPS) · Bilingual web-based interface for configuration and management (Russian/English) · Support of Click'n'Connect application for Android 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

Wireless Module Parameters	
Standards	· IEEE 802.11a/n/ac · IEEE 802.11b/g/n
Frequency range	· 2400 ~ 2483.5MHz · 5150 ~ 5350MHz · 5650 ~ 5725MHz
Wireless connection security	· WEP · WPA/WPA2 (Personal/Enterprise) · MAC filter · WPS (PBC/PIN)
Advanced functions	· 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 · Periodic scan of channels, automatic switch to least loaded channel · Support of 802.11ac (5GHz) and 802.11n (2.4GHz) TX Beamforming
Wireless connection rate[3]	· 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 MSC9)

---

2   For GSM USB modems and some models of LTE USB modems.
3   Maximum wireless signal rate is derived from IEEE standard 802.11ac and 802.11n specifications. 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)
	    15dBm at 6, 9, 12, 18, 24, 36, 48, 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
	    15dBm at MCS0~7
	    5GHz
	    15dBm at MCS0~7
	
	· 802.11ac (typical at room temperature 25 °C)
	    15dBm at MCS0~9

Receiver sensitivity	· 802.11a
	    -96dBm at 6Mbps
	    -94dBm at 9Mbps
	    -92dBm at 12Mbps
	    -90dBm at 18Mbps
	    -88dBm at 24Mbps
	    -84dBm at 36Mbps
	    -80dBm at 48Mbps
	    -78dBm at 54Mbps
	
	· 802.11b
	    -94dBm at 1Mbps
	    -92dBm at 2Mbps
	    -90dBm at 5.5Mbps
	    -87dBm at 11Mbps
	
	· 802.11g
	    -92dBm at 6Mbps
	    -90dBm at 9Mbps
	    -88dBm at 12Mbps
	    -86dBm at 18Mbps
	    -84dBm at 24Mbps
	    -80dBm at 36Mbps
	    -77dBm at 48Mbps
	    -74dBm at 54Mbps
	
	· 802.11n
	    2.4GHz
	    -89dBm at MCS0
	    -86dBm at MCS1
	    -84dBm at MCS2
	    -81dBm at MCS3
	    -78dBm at MCS4
	    -74dBm at MCS5
	    -72dBm at MCS6
	    -70dBm at MCS7
	    5GHz
	    -92dBm at MCS0
	    -89dBm at MCS1
	    -86dBm at MCS2
	    -84dBm at MCS3
	    -80dBm at MCS4
	    -76dBm at MCS5
	    -75dBm at MCS6
	    -73dBm at MCS7

Wireless Module Parameters

	· 802.11ac -90dBm at MCS0 -87dBm at MCS1 -84dBm at MCS2 -81dBm at MCS3 -78dBm at MCS4 -73dBm at MCS5 -72dBm at MCS6 -70dBm at MCS7 -67dBm at MCS8 -65dBm 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)	· 213 x 140 x 33 mm (8.39 x 5.51 x 1.3 in)
Weight	· 350 g (0.77 lb)

Operating Environment

Power	· Output: 12V DC, 1.5A
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/1.5A
· Ethernet cable (CAT 5E)
· "Quick Installation Guide" (brochure)

Supported USB modems[4]	
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) · Prolink PHS600 · Prolink PHS901 · ZTE MF112 · ZTE MF192 · ZTE MF626 · ZTE MF627 · ZTE MF652 · ZTE MF667 · ZTE MF668 · ZTE MF752
LTE	· Huawei E3131 · Huawei E3272 · Huawei E3351 · Huawei E3372 · Huawei E367 · Huawei E392 · Megafon M100-1 · Megafon M100-2 · Megafon M100-3 · Megafon M100-4 · Megafon M150-1 · Megafon M150-2 · Quanta 1K6E (Beeline 1K6E) · MTS 824F · MTS 827F · Yota LU-150 · Yota WLTUBA-107 · ZTE MF823 · ZTE MF827
Smartphones in USB tethering mode	· Some models of Android smartphones

---

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