D-Link®
Building Networks for People

DIR-841

AC1200 MU-MIMO Wi-Fi Gigabit Router with Fast Ethernet LAN Ports

Wireless Interface
Using the DIR-841 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[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 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-841 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.

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1   Up to 300Mbps for 2.4GHz and up to 867Mbps for 5GHz.

Easy configuration and update

You can configure the settings of the wireless router DIR-841 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-841 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-841 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.

Hardware	
Processor	· RTL8197H (1GHz)
RAM	· 64MB, DDR2, built in processor
Flash	· 8MB, SPI
Interfaces	· 10/100/1000BASE-T WAN port · 4 10/100BASE-TX LAN ports
LEDs	· Power · Internet · 4 LAN LEDs · WLAN 2.4G · WLAN 5G · WPS
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	· 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
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 · MLD Proxy · RIP · Support of UPnP IGD · Support of VLAN · WAN ping respond · Support of SIP ALG · Support of RTSP · WAN reservation · Autonegotiation of speed, duplex mode, and flow control/Manual speed and duplex mode setup for each Ethernet port · Setup of maximum TX rate for each port of the router · Built-in UDPXY application
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
VPN	· IPsec/PPTP/L2TP/PPPoE pass-through · IPsec tunnels

Software	
Management	· Local and remote access to settings through TELNET/WEB (HTTP/HTTPS) · Bilingual web-based interface for configuration and management (Russian/English) · Support of 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 · 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 · Rate limitation for wireless network/separate MAC addresses · Periodic scan of channels, automatic switch to least loaded channel · Support of 802.11ac (5GHz) and 802.11n (2.4GHz) TX Beamforming · Autonegotiation of channel bandwidth in accordance with environment conditions (20/40 Coexistence)
Wireless connection rate	· 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): from 6.5 to 300Mbps (MCS0–MCS15) · 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)

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 MCS0~7 　2.4GHz, HT40 　15dBm at MCS0~7 　5GHz, HT20 　14dBm at MCS0~4 　13dBm at MCS5 　12.5dBm at MCS6 　12dBm at MCS7 　5GHz, HT40 　14dBm at MCS0~2 　13dBm at MCS3~4 　12.5dBm at MCS5~6 　12dBm at MCS7 ·　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
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

Wireless Module Parameters

· 802.11n (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C)
2.4GHz, HT20
-82dBm at MCS0
-79dBm at MCS1
-77dBm at MCS2
-74dBm at MCS3
-70dBm at MCS4
-66dBm at MCS5
-65dBm at MCS6
-64dBm at MCS7
2.4GHz, HT40
-79dBm at MCS0
-76dBm at MCS1
-74dBm at MCS2
-71dBm at MCS3
-67dBm at MCS4
-63dBm at MCS5
-62dBm at MCS6
-61dBm at MCS7
5GHz, HT20
-82dBm at MCS0
-79dBm at MCS1
-77dBm at MCS2
-74dBm at MCS3
-70dBm at MCS4
-66dBm at MCS5
-65dBm at MCS6
-64dBm at MCS7
5GHz, HT40
-79dBm at MCS0
-76dBm at MCS1
-74dBm at MCS2
-71dBm at MCS3
-67dBm at MCS4
-63dBm at MCS5
-62dBm at MCS6
-61dBm at MCS7

· 802.11ac (typical at PER = 10% (1000-byte PDUs) at room temperature 25 °C)
HT20
-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
HT40
-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
HT80
-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

Wireless Module Parameters	
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 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 33 mm (8.07 x 5.35 x 1.3 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-841   · Power adapter DC 12V/1A   · Ethernet cable   · "Quick Installation Guide" (brochure)

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