



## Wireless AC750 Multi-Function Router

### DUAL BAND

Simultaneous operation in 5GHz band and 2.4GHz band, 802.11a/b/g/n/ac compatible

### HIGH SPEED

Total wireless connection rate up to 750Mbps

### SECURITY

Multiple firewall functions, several security standards for wireless connection

### Wireless Interface

Using the DIR-806A device, you are able to quickly create a high-speed wireless network for computers and mobile devices at home or in your office. The router operates in 2.4GHz band, 5GHz band, or both bands simultaneously. DIR-806A can operate as an access point for connecting wireless devices of the standards 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac draft (at the rate up to 733Mbps\*).

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

### Router Mode

You are able to connect DIR-806A switched to the router mode to a cable or DSL modem or to a private Ethernet line and use a high-speed Internet connection to successfully fulfill a wide range of professional tasks.

### Access Point Mode

You are able to use DIR-806A switched to the access point mode to create a wireless network or to connect to a wired router.

### “Client” Function

The “client” function in the router mode allows using DIR-806A as a WISP repeater, in the access point mode as a wireless client and a wireless repeater.

### 4-port Switch

The built-in 4-port switch enables you to connect Ethernet-enabled computers, game consoles, and other devices to your network.

### Security

The wireless router DIR-806A includes a built-in firewall. The advanced security functions minimize threats of hacker attacks and prevent unwanted intrusions to your network.

### Easy configuration and update

You can configure the settings of the wireless router DIR-806A via the user-friendly web-based interface (the interface is available in several languages).

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

\* Up to 300Mbps for 2.4GHz and up to 433Mbps for 5GHz.

# DIR-806A

## Specifications

## Wireless AC750 Multi-Function Router

### Hardware

#### WAN Interface

- 1 10/100BASE-TX Ethernet port for cable or DSL modem or private Ethernet line

#### LAN Interface

- 4 10/100BASE-TX Ethernet ports

#### WLAN Interface

- 2.4GHz
  - IEEE 802.11b/g/n
- 5GHz
  - IEEE 802.11a/n
  - IEEE 802.11ac draft

#### USB Interface

- Micro-USB 2.0 type A port for power supply

#### Frequency Range

- 802.11a
  - 5150 ~ 5250MHz
- 802.11b
  - 2400 ~ 2483.5MHz
- 802.11g
  - 2400 ~ 2483.5MHz
- 802.11n
  - 2.4GHz: 2400 ~ 2483.5MHz
  - 5GHz: 5150 ~ 5250MHz
- 802.11ac draft
  - 5150 ~ 5250MHz

#### Data Rate

- 802.11a
  - 54, 48, 36, 24, 18, 12, 9, and 6Mbps
- 802.11b
  - 11, 5.5, 2, and 1Mbps
- 802.11g
  - 54, 48, 36, 24, 18, 12, 9, and 6Mbps
- 802.11n
  - 2.4GHz: MCS0 ~ MCS15 (up to 300Mbps)
  - 5GHz: MCS0 ~ MCS7 (up to 150Mbps)
- 802.11ac draft
  - NSS1-MCS0 ~ NSS1-MCS9 (up to 433Mbps)

#### 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 draft: BPSK, QPSK, 16QAM, 64QAM, 256QAM with OFDM

### 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)
  - -84dBm at 1, 2Mbps
  - -82dBm at 5.5Mbps
  - -79dBm 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))
  - 2.4GHz, HT20
  - -91dBm at MCS0
  - -88dBm at MCS1
  - -86dBm at MCS2
  - -83dBm at MCS3
  - -79dBm at MCS4
  - -75dBm at MCS5
  - -74dBm at MCS6
  - -73dBm at MCS7
  - -88dBm at MCS8
  - -85dBm at MCS9
  - -83dBm at MCS10
  - -80dBm at MCS11
  - -76dBm at MCS12
  - -72dBm at MCS13
  - -71dBm at MCS14
  - -70dBm at MCS15

- 2.4GHz, HT40
- -88dBm at MCS0
- -85dBm at MCS1
- -83dBm at MCS2
- -80dBm at MCS3
- -76dBm at MCS4
- -72dBm at MCS5
- -71dBm at MCS6
- -70dBm at MCS7
- -85dBm at MCS8
- -82dBm at MCS9
- -80dBm at MCS10
- -77dBm at MCS11
- -73dBm at MCS12
- -69dBm at MCS13
- -68dBm at MCS14
- -67dBm at MCS15
- 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 draft (typical at PER = 10% (1000-byte PDUs))
  - 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

- 5GHz, 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

### 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)
  - 17dBm (+/-1.5dB) at 6, 9, 12, 18Mbps
  - 16dBm (+/-1.5dB) at 24Mbps
  - 15dBm (+/-1.5dB) at 36, 48Mbps
  - 14dBm (+/-1.5dB) at 54Mbps
- 802.11b (typical at room temperature 25 °C)
  - 17dBm (+/-1.5dB) at 1, 2, 5.5Mbps
- 802.11g (typical at room temperature 25 °C)
  - 17dBm (+/-1.5dB) at 6, 9, 12, 18, 24Mbps
  - 16dBm (+/-1.5dB) at 36Mbps
  - 15dBm (+/-1.5dB) at 48Mbps
  - 15dBm (+/-1.5dB) at 54Mbps
- 802.11n (typical at room temperature 25 °C)
  - 2.4GHz, HT20
  - 18dBm (+/-1.5dB) at MCS0-3, 8-11
  - 17dBm (+/-1.5dB) at MCS4, 12
  - 16dBm (+/-1.5dB) at MCS5-6, 13-14
  - 15dBm (+/-1.5dB) at MCS7, 15
  - 2.4GHz, HT40
  - 18dBm (+/-1.5dB) at MCS0-3, 8-11
  - 17dBm (+/-1.5dB) at MCS4, 12
  - 16dBm (+/-1.5dB) at MCS5-6, 13-14
  - 15dBm (+/-1.5dB) at MCS7, 15
  - 5GHz, HT20
  - 17dBm (+/-1.5dB) at MCS0-3
  - 16dBm (+/-1.5dB) at MCS4-6
  - 15dBm (+/-1.5dB) at MCS7
  - 5GHz, HT40
  - 17dBm (+/-1.5dB) at MCS0-3
  - 16dBm (+/-1.5dB) at MCS4-6
  - 15dBm (+/-1.5dB) at MCS7
- 802.11ac draft (typical at room temperature 25 °C)
  - HT20
  - 17dBm (+/-1.5dB) at MCS0-3
  - 16dBm (+/-1.5dB) at MCS4-6
  - 15dBm (+/-1.5dB) at MCS7

# DIR-806A

## Specifications

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- HT40
- 17dBm (+/-1.5dB) at MCS0-3
- 16dBm (+/-1.5dB) at MCS4-6
- 15dBm (+/-1.5dB) at MCS7
- VHT80
- 17dBm (+/-1.5dB) at MCS0-1
- 16dBm (+/-1.5dB) at MCS2-6
- 15dBm (+/-1.5dB) at MCS7
- 14dBm (+/-1.5dB) at MCS8
- 13dBm (+/-1.5dB) at MCS9

### Software

#### Operation Modes

- Router mode
- Access point mode

#### Network Functions

- WAN connection types:
  - PPPoE
  - Static IP
  - Dynamic IP
  - PPTP/L2TP + Static IP
  - PPTP/L2TP + Dynamic IP
- DHCP server/client/relay
- DNS relay
- VPN pass-through (PPTP/L2TP)
- Dynamic DNS
- Static IP routing
- Remote management
- Network statistics for each interface
- IGMP Proxy
- RIP
- UPnP
- Support of VLAN
- Flow control
- TR-069 client
- WAN ping respond
- Support of SIP
- Support of RTSP

#### Wireless Connection

- Supported security settings:
  - WEP
  - WPA/WPA2 Personal
  - WPA/WPA2 Enterprise
- MAC filter
- Managing connected stations
- PIN and PBC methods of WPS
- WMM (Wi-Fi QoS)
- Advanced settings
- “Client” function (router mode)
  - WISP repeater
- “Client” function (access point mode)
  - Wireless network client
  - Wireless network repeater

#### Firewall Functions

- Network Address Translation (NAT)
- Stateful Packet Inspection (SPI)
- IP filters
- MAC filter
- URL filter
- DMZ
- Prevention of ARP and DDoS attacks
- Virtual servers

#### Configuration and Management

- Multilingual web-based interface for configuration and management
- Access via TELNET
- Firmware update via web-based interface
- Automatic notification on new firmware version
- Saving/restoring configuration to/from file
- Support of remote logging
- Automatic synchronization of system time with NTP server and manual time/date setup
- Ping function
- Traceroute utility

#### Physical and Environmental

##### LEDs

- Operating mode
- WLAN
- Internet
- 4 LAN LEDs

##### Power

- External power adapter DC 12V/1.2A
- Reset to Factory Defaults button

##### Operating Temperature

- From 0 to 40 °C (from 32 to 104 °F)

##### Storage Temperature

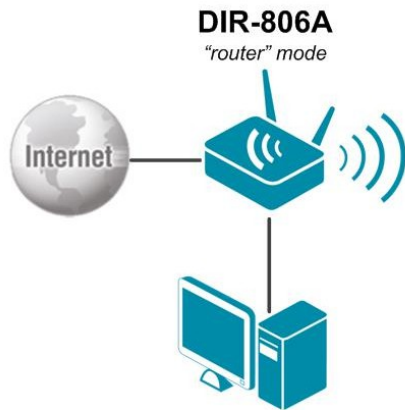
- From -20 to 65 °C (from -4 to 149 °F)

# DIR-806A

## Operation Modes

### Wireless AC750 Multi-Function Router

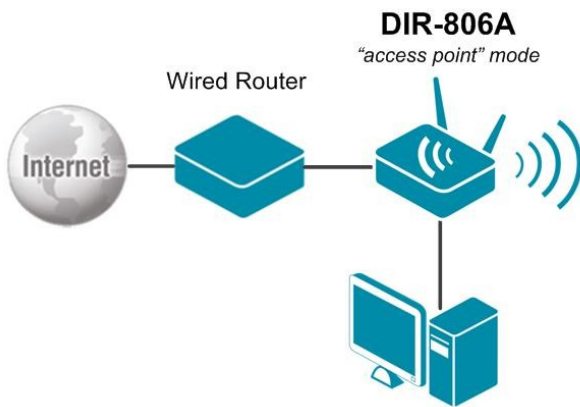
#### Router



The DIR-806A device in the “router” mode is connected to a private Ethernet line or to a cable or DSL modem. Computers connect to DIR-806A via wireless or wired connection.

It is necessary to specify the same encryption parameters and the channel of the wireless network for DIR-806A and computers with Wi-Fi adapters. In addition, it is necessary to configure a WAN connection for DIR-806A.

#### Access Point



The DIR-806A device in the “access point” mode is connected to the wired router.

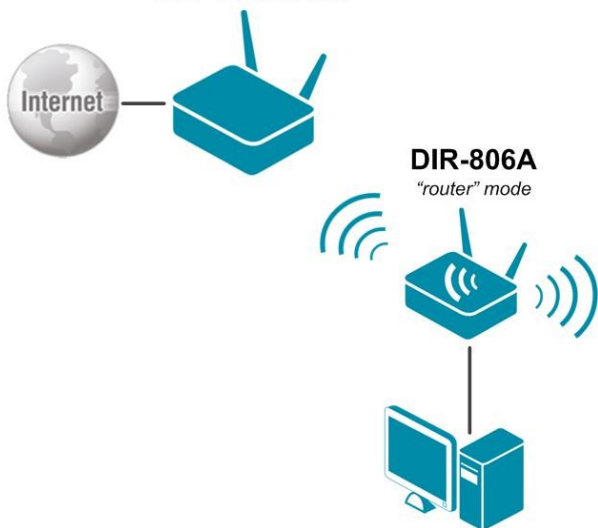
Computers connect to DIR-806A via wireless or wired connection.

It is necessary to specify the same encryption parameters and the channel of the wireless network for DIR-806A and computers with Wi-Fi adapters.

#### Client

#### WISP Repeater

WISP Access Point



The DIR-806A device in the “client” mode is connected to a WISP access point via wireless connection. Computers connect to DIR-806A via wireless or wired connection.

It is necessary to configure the same channel of the wireless connection for DIR-806A and the WISP access point. Other parameters of the wireless network of DIR-806A do not depend upon the settings of the WISP access point. In addition, it is necessary to configure a WAN connection for DIR-806A.



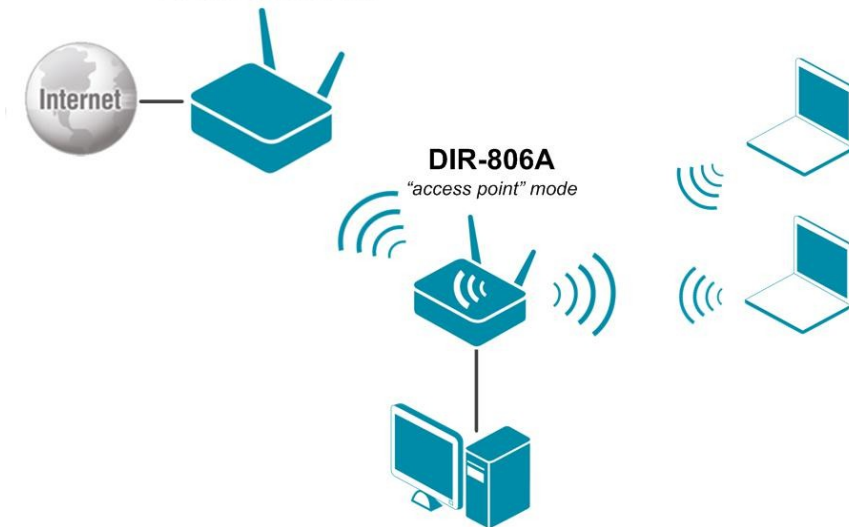
# DIR-806A

## Operation Modes

### Wireless AC750 Multi-Function Router

#### Wireless Network Client

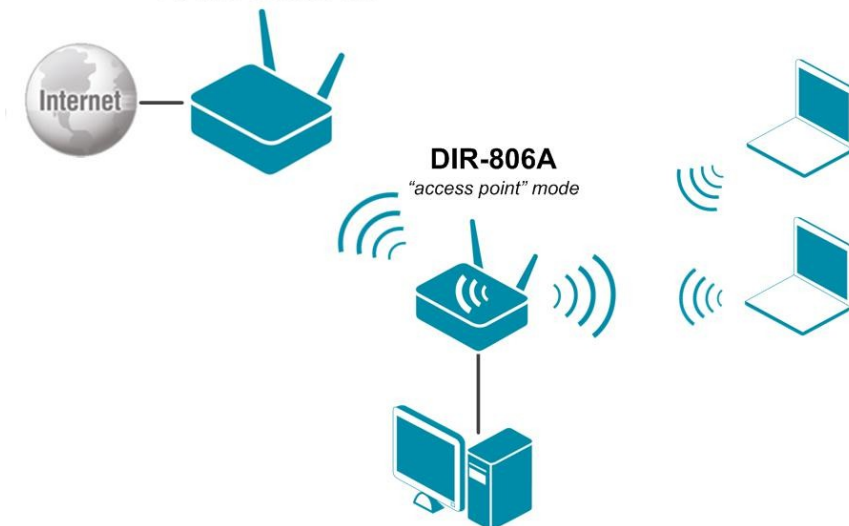
Wireless Access Point



The DIR-806A device in the "access point" mode is connected to an access point via wireless connection. Computers connect to DIR-806A via wireless or wired connection. It is necessary to configure the same channel of the wireless connection for DIR-806A and the remote access point. Other parameters of the wireless network of DIR-806A do not depend upon the settings of the remote access point.

#### Wireless Network Repeater

Wireless Access Point



The DIR-806A device in the "access point" mode is connected to an access point via wireless connection. Computers connect to DIR-806A via wireless or wired connection. It is necessary to configure the same parameters of the wireless connection (the name of the wireless network, encryption parameters, and the channel) for DIR-806A and the remote access point.

#### Ordering Information

**DIR-806A**

Wireless AC750 Multi-Function Router

**D-Link**<sup>®</sup>

Web: <http://www.dlink.com/corporate/worldwideoffices/>