





# Multifunction Wireless Router Supporting WiMAX, 3G GSM/CDMA with Built-in 8-port Switch

#### 802.11N

High connection rate (up to 300Mbps) and superior wireless range

#### **USB PORT**

Support of USB modem for Internet connection via 3G or WiMAX network, USB storage, and printer

#### **SECURITY**

Multiple firewall functions, several security standards for wireless connection

#### Wireless Interface

Using the DIR-632 device, you are able to quickly create a wireless network at home or in your office, which lets your relatives or employees connect to your wireless network virtually anywhere (within the operational range of your wireless network). The router can operate as a base station for connecting wireless devices of the standards 802.11b, 802.11g, and 802.11n (at the rate up to 300Mbps).

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

#### Security

The multifunction wireless router DIR-632 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.

#### **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.

#### 8-port Switch

The built-in 8-port switch enables you to connect Ethernet-enabled computers, game consoles, and other devices to your network.

# Configuration and Management

You can configure and manage the settings of the multifunction wireless router DIR-632 via the user-friendly web-based interface (the interface is available in several languages).

# **Specifications**

#### Hardware

#### **WAN Interface:**

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

#### **LAN Interface:**

8 10/100BASE-TX Ethernet ports.

#### **WLAN Interface:**

IEEE 802.11b/g/n.

#### **USB Interface:**

USB 2.0 type A port for USB modem, storage, or printer.

#### **Frequency Range:**

- 802.11b: 2400 ~ 2497MHz ISM band
- 802.11g: 2400 ~ 2497MHz ISM band
- 802.11n: 2400 ~ 2483.5MHz ISM band.

#### **Data Rate:**

- 802.11b:
  - o 11, 5.5, 2, and 1Mbps
- 802.11g:
  - o 54, 48, 36, 24, 18, 12, 9, and 6Mbps
- 802.11n:
  - ∘ 6.5~300Mbps.

#### **Transmitter Output Power:**

- 802.11b:
  - typical 18dBm +/-1.5 dB at 11, 5.5, 2, and 1Mbps at 25 °C
- 802.11g:
  - typical 17dBm +/-1.5dB at 6~18Mbps at 25 °C
  - typical 16dBm +/-1.5dB at 24~36Mbps at 25
  - typical 14dBm  $\pm$ -1.5dB at 48 $\pm$ 54Mbps at 25 °C
- 802.11n:
  - typical 16dBm +/-1.5dB at MCS 0~4, 8~10 at 25 °C
  - typical 14.5dBm +/-1.5dB at MCS 5, 13 at 25
  - typical 12.5dBm +/-1.5dB at MCS 6, 14 at 25
  - typical 8.5dBm +/-1.5dB at MCS 7, 15 at 25

#### **EIRP (Effective Isotropic Radiated Power):**

- 802.11b:
  - o 18dBm (typical)
- 802.11g:
  - o 16dBm (typical)
- 802.11n:
  - 16dBm for MCS 7 (typical)
  - 8.5dBm for MCS 15 (typical).

#### **Receiver Sensitivity:**

- 802.11b (typical at PER = 8%):
  - −83dBm at 11Mbps
  - −89dBm at 2Mbps
- 802.11g (typical at PER = 10% (1000-byte PDUs)):
  - -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)):
  - HT20:
  - -82dBm at BPSK, coding rate 1/2 (MCS-0)
  - ∘ −79dBm at QPSK, coding rate 1/2 (MCS-1)
  - -77dBm at QPSK, coding rate 3/4 (MCS-2)
  - -74dBm at 16-QAM, coding rate 1/2 (MCS-3)
  - -70dBm at 16-QAM, coding rate 3/4 (MCS-4)
  - ∘ −66dBm at 64-QAM, coding rate 2/3 (MCS-5) ○ -65dBm at 64-QAM, coding rate 3/4 (MCS-6)

  - -64dBm at 64-QAM, coding rate 5/6 (MCS-7)
  - HT40:
  - -79dBm at BPSK, coding rate 1/2 (MCS-8)
  - -76dBm at QPSK, coding rate 1/2 (MCS-9)
  - -74dBm at QPSK, coding rate 3/4 (MCS-10)
  - -71dBm at 16-QAM, coding rate 1/2 (MCS-
  - -67dBm at 16-QAM, coding rate 3/4 (MCS-12)
  - -63dBm at 64-QAM, coding rate 2/3 (MCS-
  - -62dBm at 64-QAM, coding rate 3/4 (MCS-
  - -61dBm at 64-QAM, coding rate 5/6 (MCS-15).

### DIR-632

# **Specifications**

#### Software

#### **Network Functions:**

- WAN connection types:
  - o 3G
  - o PPPoE
  - o Static IP
  - o Dynamic IP
  - o PPTP/L2TP
  - PPTP/L2TP + Static IP
  - PPTP/L2TP + Dynamic IP
- Support of IEEE 802.1X for Internet connection
- DHCP server and client
- 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
- WAN ping respond.

#### **USB Modem\*:**

- Auto connection to available type of supported network (3G/2G)
- Enabling/disabling PIN code check, changing PIN code.

#### **USB Storage:**

- Built-in FTP server
- Print server
- Access to storage via accounts
- Access control (for ext2/3 file systems).

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#### **Wireless Connection:**

- Supported security settings:
  - o WEP
  - WPA/WPA2 Personal
- MAC filter
- PIN and PBC methods of WPS
- WMM (Wi-Fi QoS)
- Advanced settings.

#### **Firewall Functions:**

- Network Address Translation (NAT)
- Stateful Packet Inspection (SPI)
- IP filters
- URL filter
- MAC 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
- Saving/restoring configuration to/from file
- Support of remote logging
- Automatic synchronization of system time with NTP server
- Traceroute utility.

<sup>\*</sup> The listed functions are available for GSM USB modems only.

# **Specifications**

#### **Supported USB Modems\*\*:**

- GSM modems:
  - o Huawei E1550
  - Huawei E160G
  - Huawei E169G
  - Huawei E171
  - Huawei E220
  - o ZTE MF112
  - o ZTE MF192
  - o ZTE MF626
  - o ZTE MF627
  - o ZTE MF652
  - o ZTE MF668
  - o ZTE MF752.
- CDMA modems:
  - o Airplus MCD-650
  - o Airplus MCD-800
  - AnyDATA ADU-300A
  - o AnyDATA ADU-310A
  - Axesstel MV110
  - Ubiquam UM-400
  - WeTelecom WM-D200.
- WiMAX modem:
  - Samsung SWC-U200 (firmware version u200 rev1-2.7.40-CI14).

#### Physical and Environmental

#### LEDs:

- Power
- Internet
- WLAN
- USB
- 8 LAN LEDs
- WPS.

#### Power:

- External power adapter DC 5V/2.5A
- Reset to Factory Defaults button.

#### **Operating Temperature:**

• from 0 to 40  $^{\circ}$ C (from 32 to 104  $^{\circ}$ F).

#### **Storage Temperature:**

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

#### **Operating Humidity:**

• from 10% to 90% non-condensing.

#### **Storage Humidity:**

• from 5% to 95% non-condensing.

# **Ordering Information**

## **DIR-632**

Multifunction Wireless Router Supporting WiMAX, 3G GSM/CDMA with Built-in 8-port Switch



Web: <a href="http://www.dlink.com/corporate/worldwideoffices/">http://www.dlink.com/corporate/worldwideoffices/</a>

<sup>\*\*</sup> The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.