

DIR-651



Wireless N 300 Gigabit Router

802.11N

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

GIGABIT ETHERNET

High rate for wired connection (up to 1Gbps)

SECURITY

Multiple firewall functions, several security standards for wireless connection

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-651 includes a built-in firewall. The advanced security functions minimize threats of hacker attacks and prevent unwanted intrusions to your network.

Configuration and Management

You can configure and manage the settings of the wireless router DIR-651 via the user-friendly web-based interface (the interface is available in several languages).

Wireless Interface

Using the DIR-651 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, WMM.

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Specifications

Hardware

WAN Interface:

• 1 10/100/1000BASE-TX Ethernet port for cable or DSL modem or private Ethernet line.

LAN Interface:

• 4 10/100/1000BASE-TX Ethernet ports.

WLAN Interface:

- IEEE 802.11n (up to 300Mbps)
- IEEE 802.11b/g.

Frequency Range:

- 802.11b:
 - ∘ 2400 ~ 2497MHz ISM band
- 802.11g:
 - \circ 2400 \sim 2497MHz ISM band
- 802.11n:
 - \circ 2400 ~ 2483.5MHz ISM band.

Wireless Connection 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:
 - o Typical 16dBm (+/-1.5dB) at 1~11Mbps at room temperature 25 °C
- 802.11g
 - Typical 14dBm (+/-1.5dB) at 6~54Mbps at room temperature 25 °C
- 802 11n
 - Typical 13dBm (+/-1.5dB) at MCS-0 ~ MCS-7 at room temperature 25 °C.

EIRP (Effective Isotropic Radiated Power):

- 802.11b:
 - o 17dBm
- 802.11g:
 - o 17dBm
- 802.11n:
 - o 13dBm.

Receiver Sensitivity:

- 802.11b (typical at PER = 8% (1000-byte PDUs)):
 - -82dBm for 11Mbps
 - -85dBm for 5.5Mbps
 - $\circ\quad$ -87dBm for 2Mbps
 - -87dBm for 1Mbps

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- 802.11g (typical at PER = 10% (1000-byte PDUs)):
 - o -82dBm at 6Mbps
 - -81dBm at 9Mbps
 - -79dBm at 12Mbps
 - o -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):
 - 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)
 - -82dBm at BPSK, coding rate 1/2 (MCS-8)
 - -79dBm at QPSK, coding rate 1/2 (MCS-9)
 - -77dBm at QPSK, coding rate 3/4 (MCS-10)
 - −74dBm at 16-QAM, coding rate 1/2 (MCS-11)
 - −70dBm at 16-QAM, coding rate 3/4 (MCS-12)
 - -66dBm at 64-QAM, coding rate 2/3 (MCS-13)
 - -65dBm at 64-QAM, coding rate 3/4 (MCS-14)
 - -64dBm at 64-QAM, coding rate 5/6 (MCS-15)

Specifications

- HT40:
- -79dBm at BPSK, coding rate 1/2 (MCS-0)
- -76dBm at QPSK, coding rate 1/2 (MCS-1)
- -74dBm at QPSK, coding rate 3/4 (MCS-2)
- -74dBm at 16-QAM, coding rate 1/2 (MCS-3)
- -67dBm at 16-QAM, coding rate 3/4 (MCS-4)
- −63dBm at 64-QAM, coding rate 2/3 (MCS-5)
- -62dBm at 64-QAM, coding rate 3/4 (MCS-6)
- -61dBm at 64-QAM, coding rate 5/6 (MCS-7)
- -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)
- -74dBm at 16-QAM, coding rate 1/2 (MCS-11)
- -67dBm at 16-QAM, coding rate 3/4 (MCS-12)
- -63dBm at 64-QAM, coding rate 2/3 (MCS-13)
- -62dBm at 64-QAM, coding rate 3/4 (MCS-14)
- -61dBm at 64-QAM, coding rate 5/6 (MCS-15).

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Software

Network Functions:

- WAN connection types:
 - o PPPoE
 - Static IP
 - o Dynamic IP
 - PPTP/L2TP + Static IP
 - PPTP/L2TP + Dynamic IP
- 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
- WAN ping respond.

Wireless Connection:

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

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Specifications

Firewall Functions:

- Network Address Translation (NAT)
- Stateful Packet Inspection (SPI)
- IP filters
- 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
- Ping function
- Traceroute utility.

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Physical and Environmental

LEDs:

- Power
- WLAN
- Internet
- WPS
- 4 LAN LEDs.

Power:

- External power adapter DC 5V/2.5A
- Reset to Factory Defaults button
- WPS 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-651

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Web:

http://www.dlink.com/corporate/worldwideoffices/