D-Link®

Air Premier AG

Up to 15X Faster

Dualband

Total 802.11 Super AG ATHEROS™

AG 802.11a 802.11g 108Mbps

Wi-Fi CERTIFIED® a b g

DI-784

802.11a/g Tri-Mode Dualband Wireless Router

With Built-in 4-Port Switch

The D-Link AirPremierAG DI-784 wireless router is a four-port, tri-mode, dualband device that provides the most expanded user bandwidth available in a router. Hundreds of wireless clients can connect to this router using any one of its non-overlapping channels to transfer data at speeds up to 15 times faster than 802.11b previous wireless devices.

Dualband Operation
The DI-784 operates seamlessly and simultaneously in both the 2.4GHz and 5GHz frequency spectrums supporting the 802.11b and the newer, faster 802.11a and 802.11g wireless standards. For offices, schools or public hotspots that already use 802.11b devices, the DI-784 is a great way to expand an existing network that enables more users to communicate with one another, access data and the Internet. Now, you can have a router that compliments your existing network and protects the investment you made when you provide the convenience of wireless networking.

Fast Network Data Transfer
The DI-784 offers network data transfer rates of up to 108Mbps Turbo Mode in either the 2.4GHz or 5GHz bands. So, now large data packets can travel from the router to a remote desktop or roaming laptop PC at up to 15 times the throughput of previous 802.11b wireless devices, enabling everyone to work faster and more efficiently or watch a streaming video smoothly.

Network Segmentation
Network administrators can partition the usage of the DI-784 by segmenting users on the wireless network by frequency band. Users who require special networking privilege access to sensitive company data, video conferencing, or connectivity to specific departments may use just the 802.11a channels, while other employees may just use the 802.11b and 802.11g channels. This type of user segmentation optimizes the router's performance and delivers the best network experience to each set of users.

Enhanced Security
The DI-784 is ideal for those who require additional management, firewall, and other network security features such as the 802.1x standard for wireless user authentication and WPA* (Wi-Fi Protected Access) which dynamically encrypts data as it's being sent. And because the DI-784 allows the pass-through of multiple, concurrent IPSec and PPTP VPN sessions, IT managers can deploy the DI-784 to their company's telecommuters and other remote employees who need to access sensitive information from a server or database or to communicate to a colleague confidentially. Filters on the router can be set to restrict access based on the specific MAC addresses of wireless laptop or desktop cards on the network, or restrict the access of IP addresses, specific websites and/or web domain names. All of the router's settings are easily accessible in the operating system independent, Web-based software user interface that also features a step-by-step Setup Wizard to get the DI-784 up and running in just a matter of minutes.

Built-in 4-Port Switch
The DI-784 features an integrated 4-port switch allowing direct Ethernet connection to up to four computers for additional Internet or resource sharing at wire speeds.

Key Features

- 802.11a/g industry standard
- Dual 5GHz and 2.4GHz frequency bands
- Up to 108Mbps real throughput on both frequency bands, 15 times faster than 802.11b throughput
- Wireless LAN security with user-selectable 64/128/152-bit
- WEP data encryption and Wi-Fi Protected Access (WPA)
- Backward compatible with existing 802.11b wireless devices
- Multi-user wireless broadband access

- Advanced firewall security with Stateful Packet Inspection (SPI), security event log
- User level control, domain filtering, URL blocking
- Integrated 4-port Fast Ethernet switch
- Network Timing Protocol (NTP), UPnP support
- Easy-to-use web-based configuration/management
- Setup Wizard for quick installation

DI-784

Technical Specifications

Wireless LAN

Device Ports & Interface
- 10/100BASE-TX WAN port supporting PPPoE for DSL/cable modem connection
- 4 10/100BASE-TX Ethernet switch ports with auto MDI/MDIX
- WLAN supporting 802.11g, 802.11b, 802.11a standards

Wireless LAN Data Rates
(With Automatic Fallback)
54Mbps, 48Mbps, 36Mbps, 24Mbps, 18Mbps, 12Mbps, 11Mbps, 9Mbps, 6Mbps, 5.5Mbps, 2Mbps, 1Mbps

WLAN & Ethernet Media Access Control
CSMA/CA with ACK

RF Frequency Range *
- 2.4GHz to 2.4835GHz
- 5.15GHz to 5.250GHz
- 5.725GHz to 5.850GHz

* Software configurable as allowable frequency will vary from country to country

Operation Channels (802.11b and 802.11g)
- 11 channels (North America)
- 13 channels (General Europe)

Operation Channels (802.11a)
- 4 Channels: 5.12 to 5.25 GHz for channel 36, 40, 44, 48
- 4 Channels: 5.25 to 5.35 GHz for channel 52, 56, 60, 64
- 4 Channels: 5.725 to 5.825 GHz for channel 149, 153, 157, 161

Dynamic WLAN Channel Selection
Auto-selecting the least utilized channel of operation

WLAN Modulation Technology
Direct Sequence Spread Spectrum (DSSS)

WLAN Modulation Scheme
- Orthogonal Frequency Division Multiplexing (OFDM)
- Complementary Code Keying (CCK)
- BPSK/QPSK/16-QAM/64-QAM

Antennas
1 external dipole 2dBi Gain antenna supporting 2.4GHz and 5GHZ frequency bands (non-detachable)

Operation Range
- Indoors: up to 100 meters *
- Outdoors: up to 300 meters *

* Environmental factors may adversely affect operation range.

Wireless Receiver Sensitivity (802.11a and 802.11g)
(typically @PER <10% packet size 1024 @ 25°C +/- 5°C)
- 54Mbps (OFDM): -73dBm
- 48Mbps (OFDM): -76dBm
- 36Mbps (OFDM): -82dBm
- 24Mbps (OFDM): -85dBm
- 18Mbps (OFDM): -88dBm
- 12Mbps (OFDM): -89dBm
- 9Mbps (OFDM): -90dBm
- 6Mbps (OFDM): -91dBm

Wireless Receive Sensitivity (802.11b)
(typically @PER < 8% packet size 1024 @ 25 $^{\circ}$C +/- 5°C)
- 11Mbps (CCK): -91dBm
- 5.5Mbps (CCK): -92dBm
- 2Mbps (QPSK): -93dBm
- 1Mbps (BPSK): -94dBm

Wireless Transmit Power Output
15 +/- 2dBm (typical)

Wireless LAN Security
- 64/128/152-bit WEP user-selectable
- WPA EAP, WPA PSK

Router, Security & Management

Standards & Protocols
- TCP/IP v4, UDP, ICMP
- Management: HTTP
- DHCP, NAT, DNS
- Routing: RIP v.1, RIP v.2
- Security: PAP, CHAP
- VPN pass through: L2TP, PPTP, IPSec

Network
- Automatic configuration to use DNS, NAT and Web services
- DHCP Server/Client, Static Router, PPPoE, PPTP support
- VPN pass-through support for L2TP, PPTP, IPSec
- UPnP support

NAT/PAT
- Virtual DMZ host (1 entry)
- Virtual Server Mapping (10 entries)
- Shares single IP addresses/ISP account from the cable or DSL on local network

PPPoE Support
- Compatible with most cable and DSL ISP
- PPP connection on demand to save ISP connection fee

Router & Firewall Security
- Password Protect
- MAC Filtering
- SSID broadcast disable
- Access-list control and rules
- Stateful Packet Inspection (SPI)
- Domain Filtering
- URL Filtering
- Packet Filtering
- Ping of Death prevention
- IP spoofing
- Intrusion Detection
- Security event log

Configuration & Management
- Web-based configuration utility
- Status log
- Network Time Protocol (NTP)

Diagnostic LEDs
- Power
- WAN
- LAN (10/100Mbps)
- WLAN (wireless connection): 802.11a, 802.11g

Physical & Environmental

Power Input
- DC 5V, 3.0A
- Through external power adapter

Dimensions
192 mm (L) x 118 mm (W) x 32mm (H) (device only)

Weight
850 grams approximately (device only)

Operating Temperature
0° to 55°C

Storage Temperature
-20° to 65 $^{\circ}$C

Humidity
5% to 95% (non-condensing)

Emission (EMI)
- FCC Part 15 Class B, Sec. 15.247, 15.109
- ETS 300 328, ETS 301 489-1&17, and CE Mark
- EN 60950, EN 55022 Class B, EN 50082-1 1998

5GHz & 2.4GHz Wireless LAN

Ordering Information

DI-784	802.11a/g Wireless Router With Built-in 4-Port Switch

Please specify your order as follows:

BDI-784	For USA (USA packaging)
CDI-784	For Canada
TDI-784	For Taiwan
NDI-784	For China
DI-784/NAU	For Australia
DI-784/ESG	For Singapore
DI-784/ALA	For Latin America (with US standard power adapter)
DI-784/ELA	For Latin America (with EU standard power adapter)
DI-784/EFR	For France and Slovak
DI-784/EEU	For Denmark, Germany, Iceland, Finland, Netherlands, Norway, Sweden, Poland, Slovenia, Luxembourg, South Africa
DI-784/BEU	For UK, Ireland

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