D-Link®

xDSL

—— DSL-504

High-speed Access for an Entire Network

The DSL-504 ADSL remote router connects a LAN to an ADSL line through a 10/100 BASE-TX Ethernet interface and offers connectivity far superior to that of traditional analog modems or ISDN lines. Capable of data rates measured in megabits per second, the DSL-504 brings interactive video, high-speed Internet access and remote networking within easy reach of SOHO users.

Up to 8Mbps Speed

The ADSL interface features G.dmt modulation for speeds of up to 8 Mbps downstream and 640 Kbps upstream. G.lite is also supported, allowing up to 1.5 Mbps downstream and 512 Kbps upstream. G.lite is sufficient for most Internet applications today, and has the advantage of not requiring the installation of a splitter at the subscriber end. The ADSL interface auto-senses the connection type and auto-negotiates the best modulation scheme, G.dmt or G.lite using the G.hs (handshake) protocol.

Uses Existing Telephone Line

The ADSL modem operates over the existing telephone wire and does not require new transmission media such as fiber-optic cabling. ADSL makes possible high-speed multimedia services, Internet access, video conferencing and remote networking for all connected computers.

No More Busy Signals

ADSL service, once installed, is always on. There is no need to dial the ISP or corporate LAN at the other end.

Maximum Utilization of Resources

Regular telephone service uses only a tiny portion of the actual capacity of a conventional telephone line, while ADSL uses the remaining bandwidth for high-speed data transfer. This is accomplished by setting different frequency channels for different functions, so that voice communication occurs at thelower end of the frequency spectrum, while data transmission takes place at higher frequencies.

IP Routing and VPN*

The router supports IP packet routing over the WAN, in addition to transparent bridging. IP routing gives you the configuration capability to separate subnets and limit broadcast domains to improve traffic conditions over the WAN and increase security. Virtual Private Networking (VPN) secures communications over the Internet making it comparable to the security offered on private networks and leased lines.

NAT and DHCP Support

The router provides cost-saving Internet functions like NAT and DHCP. Network Address Translator (NAT) allows multiple LAN users to share a single ISP account. DHCP automatically assigns IP addresses to LAN users each time a computer is turned on.

4 Built-in Switched Ports

The router comes with 4 built-in 10/100Mbps switched ports, each providing a dedicated LAN connection. PC's and other network devices can be connected directly to the ADSL Router for convenient, centralized management.

Key Features

- *1 ADSL port, 4 10/100Mbps Fast Ethernet switched ports*
- *High performance 8Mbps high-speed G.dmt and G.lite support*
- *Auto-handshake for different ADSL flavors*
- *Bridged Ethernet over ATM, Classical IP over ATM, PPP over ATM*
- *Embedded PPP over Ethernet*
- *Precise ATM traffic shaping*

- *VPN for data protection over Internet**
- *IP routing/filtering*
- *Routing protocol supports RIP-1, RIP-2, Static Routing*
- *NAT, DHCP client/server support*
- *PAP/CHAP authentication, administrative passwords through Telnet*
- *Built-in MIBs for SNMP management*
- *Web-based GUI for easy installation and setup*

* VPN is an optional feature.

DSL-504
Technical Specifications

WAN

Standards
- ANSI T1.413 issue 2 (full rate DMT over analog POTS)
- ITU G.992.1 (G.dmt)
- ITU G.992.2 (G.lite)
- ITU G.994.1 (G.hs)

Data Rates
- G.dmt, downstream: up to 8 Mbps
- G.dmt, upstream: up to 640 Kbps
- G.lite, downstream: up to 1.5 Mbps
- G.lite, upstream: up to 512 Kbps

Security
- PAP, CHAP
- Simple firewall
- Administrative passwords through Telnet and SNMP

Protocols
- Bridged Ethernet over ATM (RFC 1483)
- Classical IP over ATM (RFC 1577)
- PPP over ATM protocol (RFC 2364)
- PPP over Ethernet (RFC 2516)

Signaling
- ATM signaling: UNI 3.0, 3.1, 4.0
- Precise ATM traffic shaping
- OAM F4F5

Routing
- IP Routing
- DHCP/NAT
- IP filtering
- TCP/IP with RIP-1 and RIP-2, Static Routing
- ICMP (RFC 791)
- UDP (RFC 792)
- ARP (RFC 826)

LAN

Standards
- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.3 NWay auto-negotiation

Flow Control
- IEEE 802.3x Flow Control (full duplex)
- Back Pressure (half duplex)

Transparent Bridging
- IEEE 802.1d

Internet Support
- Dynamic Host Configuration Protocol (DHCP) server, client
- Network Address Translation (NAT)

IP Muticast
- IGMP (Internet Group Membership Protocol) Proxy
- Multicast Forwarding

Virtual Private Networking (VPN) (Optional)
- Layer 2 Tunneling Protocol (L2TP)
- Point-to-Point Tunneling Protocol (PPTP)

LED Indicators
- Power
- Status
- ADSL: Link, Act
- Per Ethernet port: Link/Act, 100/10M

Management
- Standard/MIB
- SNMP standard
- MIB-II (RFC 1213) for IP
- Web-based management

Administration
- Telnet support
- SNMP support

User Authentication
- PPP Authentication Protocol (RFC 1334)
- Challenge Handshake Authentication Protocol with PPP (RFC 1994)
- Statistic Monitoring:
- Ethernet, ATM and ADSL statistics

Firmware Upgrade, Configuration Backup/Restore
TFTP supported

Console Port
DB-9 RS-232 DCE x 1

Physical & Environmental

Power Input
Through external AC power adapter (provided)

Power Consumption
10 watts (max.)

Operating Temperature
$0° \sim 40°C (32° \sim 104°F)$

Storage Temperature
$-25° \sim 55°C (-13° \sim 131°F)$

Humidity
$5\% \sim 95\%$ non-condensing

Dimensions
223.3 x 131.7 x 35mm (8.79 x 5.19 x 1.38 inches)

Weight
455 grams (1 lb)

Emissions (EMI)
- FCC Class B
- CE Class B
- C-Tick
- BSMI Class B

Safety
- UL
- TUV

ACN 052 202 838

Ordering Information

ADSL Router

DSL-504   RJ-11 ADSL port, 4 RJ-45 10/100Mbps switched ports, IP routing, transparent Bridging

Please specify one of the following after the model number:
/US   for USA and Canada
/EU   for EC countries and Singapore
/F   for Finland
/DE   for Germany
/UK   for United Kingdom
/B   for Belgium
/H   for Holland
/S   for Sweden
/D   for Denmark
/I   for Italy
/R   for Austria
/AU   for Australia
/SG   for Singapore

D-Link

	TEL	FAX
U.S.A.	TEL: 1-949-788-0805	FAX: 1-949-753-7033
Canada	TEL: 1-905-829-5033	FAX: 1-905-829-5095
Europe	TEL: 44-20-8731-5555	FAX: 44-20-8235-5511
U.K.	TEL: 44-20-8731-5555	FAX: 44-20-8235-5511
Germany	TEL: 49-61- 96779900	FAX: 49-61-967799300
France	TEL: 33-1-30.23.86.88	FAX: 33-1-30.23.86.89
Italy	TEL: 39-02-2900-0676	FAX: 39-02-2900-1723
Iberia	TEL: 34-93-4965751	FAX: 34-93-4965701
Sweden	TEL: 46-(0)8-564-61900	FAX: 46-(0)8-564-61901
Norway	TEL: 47-22-991890	FAX: 47-22-207039
Denmark	TEL: 45-43-96.90.40	FAX: 45-43-42.43.47
Finland	TEL: 358-9-622-91660	FAX: 358-9-622-91661
Singapore	TEL: 65-774-6233	FAX: 65-774-6322
Australia	TEL: 61-2-9417-7100	FAX: 61-2-9417-1077
Japan	TEL: 81-3-5434-9678	FAX: 81-3-5434-9868
China	TEL: 86-10-88097777	FAX: 86-10-88096789
India	TEL: 91-22-652-6696	FAX: 91-22-652-8914
Middle East	TEL: 202-2456176	FAX: 202-2456192
South America	TEL: 56-2-232-3185	FAX: 56-2-232-0923
South Africa	TEL: 27(0)126652165	FAX: 27(0)126652186
Russia	TEL: 7-095-737-3389	FAX: 7-095-737-3390
Taiwan	TEL: 886-2-2910-2626	FAX: 886-2-2910-1515
D-Link Corp.	TEL: 886-2-2916-1600	FAX: 886-2-2914-6299

RECYCLABLE
Rev. 01 (Apr. 2001)
Printed in Taiwan