



DFL-100

Firewall/Internet Gateway with IPSec VPN, DMZ port and built-in 3-port switch. WAN connection is through a DSL or cable modem.

SOHO Firewall/VPN Router With DMZ Port & 3-Port Switch

The DFL-100 firewall/VPN router delivers complete network protection and Virtual Private Network (VPN) services for the small office environment. This device provides an economic, hardware-based solution for dependable protection against content-based threats, along with content filtering, firewall, VPN and intrusion detection. This allows you to effectively detect and defeat Internet attacks, prevent misuse, and improve the quality of key network applications, without degrading the performance of your network.

Designed for SOHO

Your office is connected to the outside world Internet or linked to the corporate network and trusted suppliers through the Intranet, and is vulnerable to attacks. The DFL-100 is a compact and easy-to-install unit that can address the needs of a SOHO network. With the functionality typically found in the more expensive devices, this device combines extensive firewall protection with Internet gateway functions, eliminating for you the need to install a separate firewall behind a remote router. For SOHO application, it also gives you easy configuration/setup, plus SNMP standard management/monitoring.

A DMZ port is provided to allow your web, mail and FTP servers to be directly accessed from the Internet. This alleviates congested server traffic from entering the your internal network, while providing your office LAN with the firewall protection. A built-in 3-port switch allows your workstations to directly connect to the firewall/router, saving you the cost and trouble of installation a separate Fast Ethernet switch.

Firewall

The DFL-100 provides Stateful Packet Inspection (SPI). Virtual IP mapping maps public IP addresses to servers on the internal and DMZ networks for secure public access. IP/MAC binding automatically binds a host IP address with its unique MAC address

to prevent IP spoofing. The DFL-100 detects DoS (Denial of Service) attacks against your network operating systems and applications and alerts you of these attacks by e-mail.

IPSec VPN

Industry-standard IPSec, PPTP and L2TP VPNs provide secure communication between networks and clients. The DFL-100 provides Auto-Key Internet Key Exchange (IKE) and hardware accelerated DES and 3DES encryption. Client pass-through support is provided for IPSec, PPTP and L2TP.

Logging

Logging allows you to monitor your network. The DFL-100 provides extensive logging for filtering activities, session tracking activities, intrusion detection activities and user authentication activities. Logs can be easily searched by keywords, source, destination, time and date.

Setup and Management

Configuration can be done by Telnet. A built-in web-based configurator provides easy system setup and administration. Industry-standard MIBs are also built in for platform-independent SNMP-based management and monitoring.

Key Features

- Connects to DSL/cable modem
- DMZ port for external server connection
- 3 built-in Fast Ethernet switch ports
- Internet gateway functions with DHCP server
- IPSec security with VPN tunnels
- Intruder prevention
- Stateful Packet Inspection
- Web-based configuration setup
- Built-in MIBs for SNMP management/monitoring
- Universal Plug-n-Play (UPnP) enabled

Hardware

Device Ports

- 1 10/100Mbps Fast Ethernet port for DSL/cable modem connection
- 1 10/100Mbps Fast Ethernet DMZ port
- 3 10/100Mbps Fast Ethernet switch ports (for internal LAN connection)

DMZ & LAN Port Support

- Full/half duplex
- Auto MDI/MDIX
- 802.3x Flow Control in full duplex
- Back pressure in half duplex

Memory

- Boot ROM & runtime code: 2MB flash
- Buffer: 32MB SDRAM

WAN

PPPoE

- Method for Transmitting PPP over Ethernet (RFC 2516)
- Point-to-Point Protocol (PPP) (RFC 1661)
- PPP Internet Protocol Control Protocol (IPCP) (RFC 1332)
- PPP Authentication Protocol (RFC 1334)
- PPP Encryption Control Protocol (ECP) (RFC 1968)
- PPP Compression Control Protocol (CCP) (RFC 1962)
- PPP Challenge Handshake Authentication Protocol (CHAP) (RFC 1994)
- Microsoft PPP CHAP Extensions I and II (RFC 2433, 2759)
- Microsoft Point-To-Point Encryption (MPPE) Protocol (RFC 3078)
- Various Encryption Protocols

Firewall

Stateful Packet Inspection

- IP Address and Port Number
- Packet Count and Byte Count
- Sequence and Acknowledgement Number
- Timestamps
- Payload Modification History
- Dynamic Association

Logging

- Filtering activities: rejected internal and external connection request logging
- Session tracking activities: session creation and termination information logging
- Intrusion detection activities: outside attack logging
- User authentication activities: user authenticating with firewall logging

DoS Blocked Attack Types

- SYN Flooding
- TCP Hijacking
- LAND Attack
- WinNuke / OOBNuke
- Christmas Tree
- SYN/FIN (Jackal)
- SYN/FIN (zero-sized DNS zone payload)
- BackOffice (UDP 31337)
- NetBus
- Smurf
- Tear Drop
- ICMP Flooding
- Trojan Horse

Router

NAT

- IP Network Address Translation (NAT) (RFC 2663)
- Traditional IP Network Translation (Traditional NAT) (RFC 3022)
- Protocol Complications with IP Network Address Translation (RFC 3027)

NAT Application Level Gateway

- H.323 Protocol Suite
- File Transfer Protocol (FTP)
- Session Description Protocol (SDP)
- Real-Time Transport Protocol (RTP)
- Internet Relay Chat (IRC)
- Multiple Gaming Protocol

Network & Routing Protocols

- TCP/IP, UDP, ARP, ICMP, TFTP, Telnet, SNMP, HTTP
- Routing Protocol: Static and Default Routing

Server

- DHCP server for automatic IP assignment
- Virtual server mapping (maximum: 32)

VPN & Data Encryption

PPTP

- Point-to-Point Tunneling Protocol (RFC 2637)
- Layer Two Tunneling Protocol (RFC 2661)

Connection Modes

- Site to site
- Site to client

Number of Tunnels

IPSec tunnels (maximum: 80)

IPSec

- Security Architecture for the Internet Protocol (RFC 2401)
- IP Security Document Roadmap (RFC 2411)
- IP Authentication Header (RFC 2402)
- IP Encapsulating Security Payload (RFC2406)
- IP Payload Compression Protocol (RFC 2393)
- Internet IP Security Domain of Interpretation for ISAKMP (RFC 2407)
- HMAC: Keyed-Hashing for Message Authentication (RFC 2104)
- Use of HMAC-MD5-96 within ESP and AH (RFC 2403)
- Use of HMAC-SHA-1-96 within ESP and AH (RFC 2404)
- All AH and ESP Transforms

Encryption Algorithms

- DES & 3DES (with hardware accelerator aid)
- RC4

UDP Encapsulation

- Allows firewalls and NAT gateway to handle IPSec traffic
- Follows IPSec standards for UDP encapsulation

Advanced Key Management

- Internet Security Association and Key Management Protocol (ISAKMP) (RFC2408)
- Internet Key Exchange (IKE) (RFC 2409)

Supported IKE Mechanisms

- Pre-shared Key
- Default 768 bits MODP Group
- Default 1024 bits MODP Group

Physical & Environmental

Diagnostic LEDs

- Link/Act (per port)
- 100Mbps (per port)
- Power (per device)

Power Input

- DC 5V 2.5A
- Through external AC power adapter

Dimensions

234 (W) x 161 (D) x 35 (H) mm

Weight

360 grams (approx.)

Operating Temperature

-5°C ~ 50°C

Storage Temperature

-25°C ~ 55°C

Operating Humidity

10% - 95% non-condensing

DFL-100

Technical Specifications

Firewall/VPN Router

EMI Certification

- FCC Class B
- CE Class B
- C-Tick Class B
- BSMI Class B

Safety

- UL
- CSA
- TUV/GS
- T-mark



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CSA60950
UL 60950
IEC 60950
EN 60950



ACN 052 202 838

Ordering Information

Broadband Firewall/Internet Gateway With VPN Security

DFL-100	1 RJ-45 10BASE-T/100BASE-TX port (for DSL/cable modem connection)
	1 RJ-45 10BASE-T/100BASE-TX port (for DMZ network)
	3 RJ-45 10BASE-T/100BASE-TX switch ports (for internal network)

Please specify one of the following after the model number:

/U	Includes no AC power adapter
/A	Includes a US standard AC power adapter
/E	Includes an EU standard AC power adapter
/B	Includes a UK standard AC power adapter
/N	Includes an Australia standard AC power adapter
/CN	Includes a China standard AC power adapter

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