



Firewall/VPN Router



→DFL-100

???????????? ????/????????-???? ? VPN ?? ?????? IPSec , ??????DMZ ? ???????????
3-????????? ??????????????. WAN ?????????????? ????? DSL ??? ?????????? ? ?????.

? ?? ??????? ????/ VPN ?????????????? DFL-100 ?????????????? ??????? ?????? ?????? ? ?????????????? ?????????????? ??? -
??? ????? (VPN) ??? ?????? ?????????????? ?????????? ????????. ?????????? ?????????????? ??????????????, ?????????????? ?????-
????? ?????????? ??????? ?? ?????? ?????? ??? ?????? ? ?????????? ?????? ??? ?????? ?????????? ?????????????? ?????????? ??????
VPN ? ??????? ?? ?????? ??????. ?????????????? ?????? ?????? ?????? ?????????? ?????????? ?????????????? ?????????????? ?????? -
????? ? ?????????????? ?????? ?? ??? ?????? ???????, ??????? ?????? ?????? ?????? ?????? ?????? ?????.

????????????? ??? ?????? ?????? SOHO

DFL-100 - ??????????, ????, ?????????????? ??????,
????????????? ???, ?????????????? ? ?????????? ???, ??????
SOHO. ?????????? ?????? ?????????? ?????? ? ??????-
????? ?????? - ????? ? ????? ?????????? ?????????? ??????-
????? ?? ?????????????? ?????? ?????????????? ??????-
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????????? DMZ ??? ??????? ?????????? ?????????? ? Web,
Mail ??? FTP ??????? ??????? ?????????????? ?? ???-
??????, ?? ??????? ?????????? ??? ?????????? ??? ?????? ?
????????? ? ?? ?????????? ??? ????. ?????????? 3-? ???????
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????????? ?? ??????? ?????????? ?????????? Fast Ethernet.

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? DFL-100 ?????????????? ?????????? SPI (Stateful Packet Inspection). ??? ?????????? ?????? ? ??????? ?????????????? ?????????? ?????? ?????????? IP ?????? ?????? ?????? ?????-??? ? DMZ ??? ? ?????????? IP ??????. ??? ?????????????? IP-????????? ?????????????? ?????????? IP/2 ? ? ??????, ?????????????? ?????????????? IP ?????? ??? ? ??? ?????????? ? ? ? ??????. DFL-100 ?????????????? ?????? ??? «????? ? ???-?????????» (DOS) ?????????? ?????????????? ? ??? ? ? ???-????????? ????:

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- ????????????? ? ???????????? ??? **DSL** ??????
 - **DMZ**????? ??? ?????????????? ?????????? ????????
 - ?????????? 3 -????????? ?????????? **Fast Ethernet**
 - ??????? ?????????? -? ??? ? ?????????? **DHCP**
 - **VPN** ??????? ?? ?????? ?????????? **IPSec**

VPN ?? ?????? IPSec

VPN ??????? ?? ?????? ?????????? IPSec, PPTP ? L2TP ?????-
????? ?????????? ?????????? ?????? ?????? ??? ???? «????-
?? - ??????». ? DFL-100 ?????????? ????????? Auto-Key
Internet Key Exchange (IKE) ? ?????????? ?????????? ??????-
??? DES ? 3DES. DFL-100 ?????????? ????????? c ?????? ??????
????????? VPN, ?????????? ?? ??? ?????????? IPSec, PPTP ?
L2TP.

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????? ???????, ?????????????? ? ????. DFL-100 ??????????????
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????????? web-????????? ?????????? ?????????????? ??????????
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?? ?? ????? ?????????? SNMP ?????? ?????????? ??? ??????
MIB.

- ??????????????????????
 - *Stateful Packet Inspection*
 - ?????????? ???? web-??????????
 - ?????????? MIB ??? SNMP ??????????/???????????
 - ??????? ?? Universal Plug-n-Play (UPnP)

DFL-100

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- 1 10/100M???/ Fast Ethernet ???? ??? ?????????? ? DSL/cable ??????
- 1 10/100M???/ Fast Ethernet DMZ ????
- 3 10/100M???/ Fast Ethernet ????? ?????????? (?? ??????????)
- ????????? LAN)

????????? DMZ & LAN ????

- ?????????? ?????? ? ????????????
- ?????????? MDI/MDIX
- ?????????? ?????? 802.3x Flow Control ? ?????? ?????? ????????
- <????????? ??????> ? ?????? ????????????

??????

- ?????? ??? -????? 2M?
- ?????: 32M? SDRAM

WAN

PPPoE

- ?????????? PPP ??? 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 ??????? I ? II (RFC 2433, 2759)
- Microsoft Point-To-Point Encryption (MPPE) Protocol (RFC 3078)
- ?????????? ?????????? ????????????

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????????? Stateful Packet Inspection

- ??????? IP ???? ???? ????
- ??????? ?????? ? ???
- ?????????? ?????? ?????????????????? ? ????????????
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- ?? ?????? ????????

????????? ???? DoS

- 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

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NAT

- IP Network Address Translation (NAT) (RFC 2663)

Firewall/VPN Router

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

????????? NAT ?????? ????

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

????????? ?????????? ? ?????????? ??????????????

- TCP/IP, UDP, ARP, ICMP, TFTP, Telnet, SNMP, HTTP
- ?????????? ??????????????: ?????????? ? ?????????? ?? ?????????

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- DHCP ?????? ?? ?????????????? ?????????? IP ???????
- ?????? ?????????? ?????? (?????????: 32)

VPN & ?????????? ????

PPTP

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

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- ???-???
- ???-?????

????????? ??????????

- ?????? IPSec (?????????: 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 (RFC 2406)
- 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 HMAC-MD5-96 within ESP and AH (RFC 2403)
- Use HMAC-SHA-1-96 within ESP and AH (RFC 2404)
- ??? ?????????? AH ? ESP

????????? ????????????

- DES & 3DES (? ?????????? ??????????)
- RC4

????????? ??????????? UDP

- ?????????? ?????????? ?????????? NAT ?????????? IPSec ??????
- ?????????? ?????????? IPSec ??? ?????????? UDP

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- Internet Security Association and Key Management Protocol (ISAKMP) (RFC 2408)
- Internet Key Exchange (IKE) (RFC 2409)

????????? ??????????? IKE

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

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- Link/Act (?? ????)
- 100M???/ (?? ????)
- ?????? (?? ????????)

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- ?????????? ??? 5? 2.5A
- ? ??? ?????? ?????? ?????? ??? ?????? ??? ?????? ???

DFL-100

Firewall/VPN Router

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234 (?) x 161(?)x 35 (?) ??

???
360 ????? (???????????????)

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-5° C ~ 50° C

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-25° C~55° C

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10% - 95% ??? ??????????

????????????? EMI

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

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

D-Link

129626, ? ?????, ??????? ???. 14, ??? 6.

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