

# PROSCEND®



## Descriptions

The Proscend SHDSL.bis routers comply with ITU-T G.991.2 (2004) standard optimized for small to medium size business environment. The SHDSL.bis interface provides business-class, multi-range from 192kbps to 5.696Mbps (2-wire router) and 384Kbps to 11.392Mbps (4-wire router) symmetric payload rates over existing copper wires.

The Proscend SHDSL.bis routers are integrated high-end Bridging/Routing capabilities with advanced functions of Multi-DMZ, virtual server mapping, and VPN pass-through. Because of rapid growth of network, virtual LAN has become one of the major new areas in internetworking industry. The SHDSL.bis routers support port-based VLAN and IEEE 802.1q VLAN over ATM network.

With always on connection that DSL features, The Proscend 5000B series SHDSL.bis firewall routers provide advanced firewall with Stateful Packet Inspection (SPI) and DoS protection, serving as a powerful firewall to protect from outside intruders of secure connection. The firewall routers also support IP precedence to classify and prioritize types of IP traffic.

The LAN interface of SHDSL.bis 4-port routers supports 10/100 Base-T auto-sensing, auto-negotiation and auto-MDIX switching ports to meet the enterprise need.

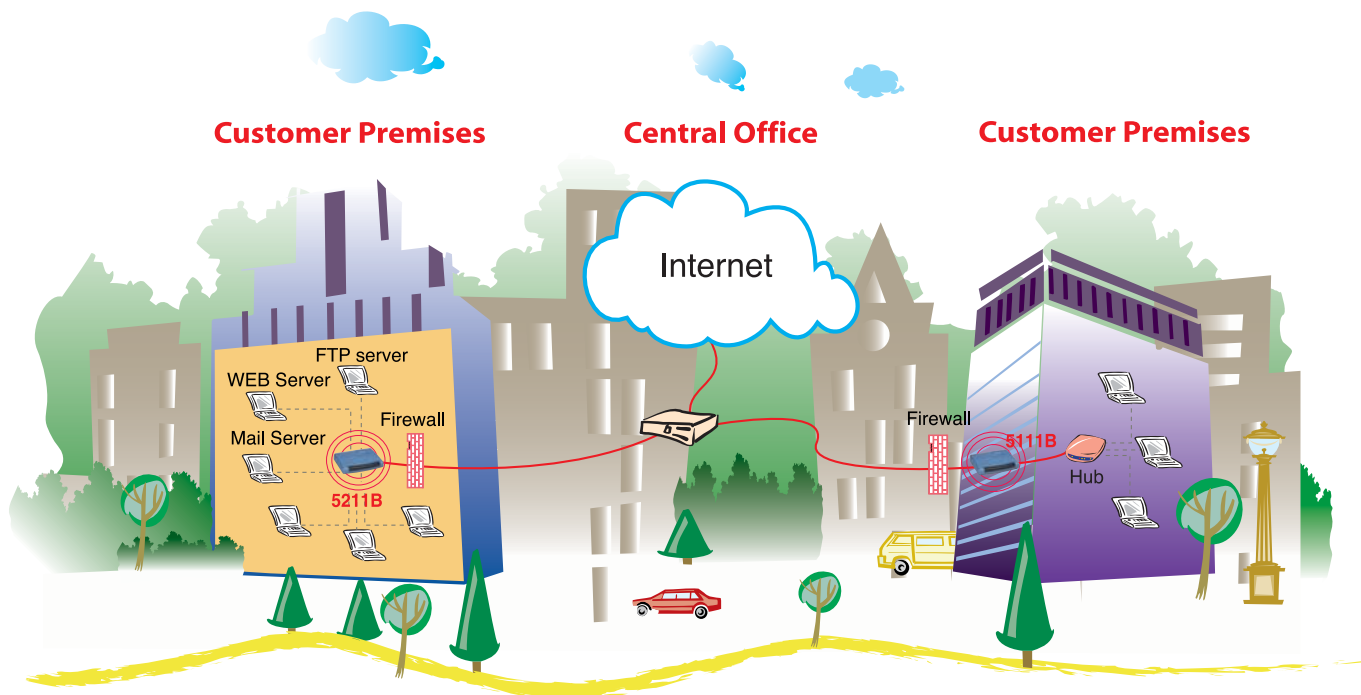
The SHDSL.bis routers help customers to meet their growing data communication needs by the latest broadband technologies. Through the power of SHDSL.bis products, you can access superior manageability and reliability.

# 5200B & 5100B Series G.SHDSL.bis Routers

## Features

- \* Easy configuration and management with password control for various application environments
- \* Efficient IP routing and transparent learning bridge to support Internet broadband services
- \* Virtual LANs (VLANs) offer significant benefit in terms of efficient use of bandwidth, flexibility, performance and security
- \* VPN pass-through for safeguarded connections
- \* Built-in advanced SPI firewall (Firewall Router)
- \* Four 10/100M Base-T Auto-sensing, Auto-negotiation and Auto-MDIX switching port for flexible local area network connectivity (4-port Router)
- \* DMZ host/Multi-DMZ/Multi-NAT enables multiple workstations on the LAN to access the Internet for saving the cost of IP address
- \* Fully ATM protocol stack implementation over SHDSL.bis
- \* PPPoA and PPPoE support user authentication with PAP/CHAP/MS-CHAP
- \* IP precedence to partition the traffic into multiple classes of service (Firewall Router)
- \* SNMP management with SNMPv1/SNMPv2 agent and MIB II
- \* Getting enhancements and new features via Internet software upgrade





## Specification

## 5200B & 5100B Series G.shdsl.bis Routers

### Routing

- Support IP/TCP/UDP/ARP/ICMP/IGMP
- Static routing and RIPv1/RIPv2 (RFC1058/2453)
- IP multicast and IGMP proxy (RFC1112/2236)
- Network address translation (NAT/PAT) (RFC1631)
- NAT ALGs for ICQ/NetMeeting/MSN/Yahoo Messenger
- DNS relay and caching (RFC1034/1035)
- DHCP server, client and relay (RFC2131/2132)
- IP precedence (RFC 791) (Firewall router)

### Bridging

- Up to 1024 MAC address learning bridge
- IEEE 802.1q VLAN, IEEE 802.1D STP
- Port-based VLAN (4-port Router)

### Security

- DMZ host/Multi-DMZ/Multi-NAT function
- Virtual server mapping (RFC1631)
- VPN pass-through for PPTP/L2TP/IPSec tunneling
- Natural NAT firewall
- Advanced Stateful packet inspection (SPI) firewall (Firewall Router)
- Application level gateway for URL and keyword blocking (Firewall Router)
- User access control: deny certain access of PCs to Internet (Firewall Router)

### Management

- Web-based GUI for quick setup, configuration and management

- Menu-driven and CLI for local console and Telnet access
- Password protected management and access control list for administration
- SNMPv1/v2 (RFC1157/1901/1905) agent and MIB II (RFC1213/1493)
- Software upgrade via web-browser/TFTP

### ATM

- Up to 8 PVCs
- OAM F4/F5 loopback
- AAL5

### ATM QoS

- UBR (Unspecified bit rate)
- CBR (Constant bit rate)
- VBR-rt (Variable bit rate real-time)
- VBR-nrt (Variable bit rate non-real-time)

### AAL5 Encapsulation

- VC multiplexing and SNAP/LLC
- Ethernet over ATM (RFC 2684/1483)
- PPP over ATM (RFC 2364)
- Classical IP over ATM (RFC 1577)

### PPP

- PPP over Ethernet (RFC 2516)
- PPP over ATM (RFC 2364)
- Support PAP/CHAP/MS-CHAP client

### WAN Interface

- SHDSL.bis: ITU-T G.991.2 (2004) Annex A/B/F/G supported
- Encoding scheme: TC-PAM 16/ TC-PAM 32
- Data Rate: N x 64kbps (N= 3 ~ 89, 89 as default) (2-wire Router)

Data Rate: N x 128kbps (N= 3 ~ 89, 89 as default) (4-wire Router)

- Impedance: 135 ohms

### LAN Interface

- 4-port switching hub (4-port Router)
- 10/100 Base-T auto-sensing and negotiation
- Auto-MDIX

### Hardware Interface

- WAN: RJ-45 x 1
- LAN: RJ-45 x 1 (1-port Router) or RJ-45 x 4 (4-port Router)
- Console Port: RS232 female
- Reset Button: Load factory default
- Power Switch (Option)

### Indicators

- General: PWR
- WAN: LNK, ACT
- LAN: 10M/ACT, 100M/ACT (1-port Router)
- LAN: 1, 2, 3, 4 (4-port Router)
- SHDSL.bis: ALM

### Physical / Electrical

- Dimensions: 18.7 x 3.3 x 14.5cm (WxHxD)
- Power: 100~240VAC (via power adapter)
- Power Consumption: 9 watts Max
- Temperature: 0~45°C
- Humidity: 0%~95%RH (non-condensing)

### Memory

- 2MB Flash Memory, 8MB SDRAM

## Ordering Information

Model No.	5110B	5111B	5210B	5211B	5220B	5221B
WAN	2-wire	2-wire	2-wire	2-wire	4-wire	4-wire
LAN	1	1	4	4	4	4
Auto-MDIX	√	√	√	√	√	√
Port-based VLAN	X	√	√	√	√	√
802.1q VLAN	X	1 LAN / 8 WANs	4 LANs / 1 WAN	4 LANs / 8 WANs	4 LANs / 1 WANs	4 LANs / 8 WANs
Firewall	X	√	X	√	X	√
IP Precedence	X	√	X	√	X	√
Maximum Data Rate	5.696M	5.696M	5.696M	5.696M	11.392M	11.392M
Minimum Data Rate	192K	192K	192K	192K	384K	384K

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