

# Proscend® 5000B Series SHDSL.bis NTU

## DESCRIPTIONS

The **Proscend 5000B** series SHDSL.bis NTU is a telecommunication product for carriers or SME users. In one device, it offers three DTE interfaces (E1, V.35, and Ethernet), which can work simultaneously to share the DSL bandwidth. This user-configurable interface during the installation provides a flexible design for various connections.

The SHDSL.bis NTU supports two different connectors on G.703 E1 application, which provide the connection to TDM services (either balanced 120Ω RJ45 jack or unbalanced 75Ω dual BNCs) by the bit rate from 64kbps to 2.048Mbps.

As a V.35 interface application, it links to high-speed TDM services by a DB25 interface, which can work as V.35/RS-530 or V.36/X.21 (factory setting) connection. The data rate of DB25 interface is up to 5.696Mbps within one pair copper wires and 8.192Mbps within two pairs copper wires. The SHDSL.bis NTU provides the 10/100Mbps auto-detected Fast Ethernet by a RJ45 connector, which offers customer premise from LAN to high-speed TDM services.

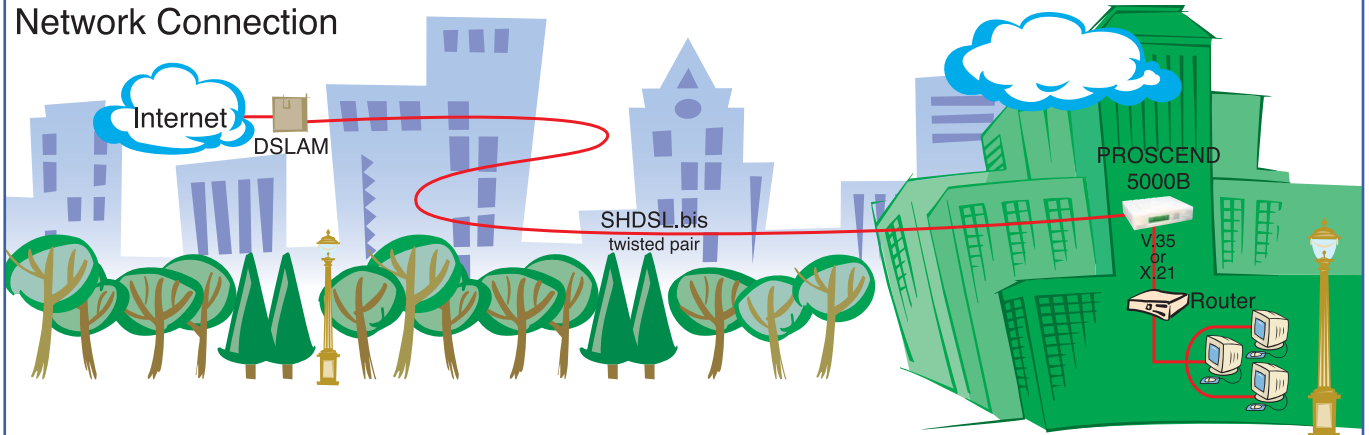
The SHDSL.bis NTU can be configured and managed via EOC, or menu-driven VT100 compatible Asynchronous Terminal Interface, either locally or remotely. The SHDSL.bis NTU provides the capability that identifies the maximum line rate supported by the copper loop. This powerful automatic configuration capability makes installation and service provisioning simple and painless. Furthermore it provides flexible manually setting of the maximum NTU speed at different levels for different customer-tailored service offerings.

## FEATURES

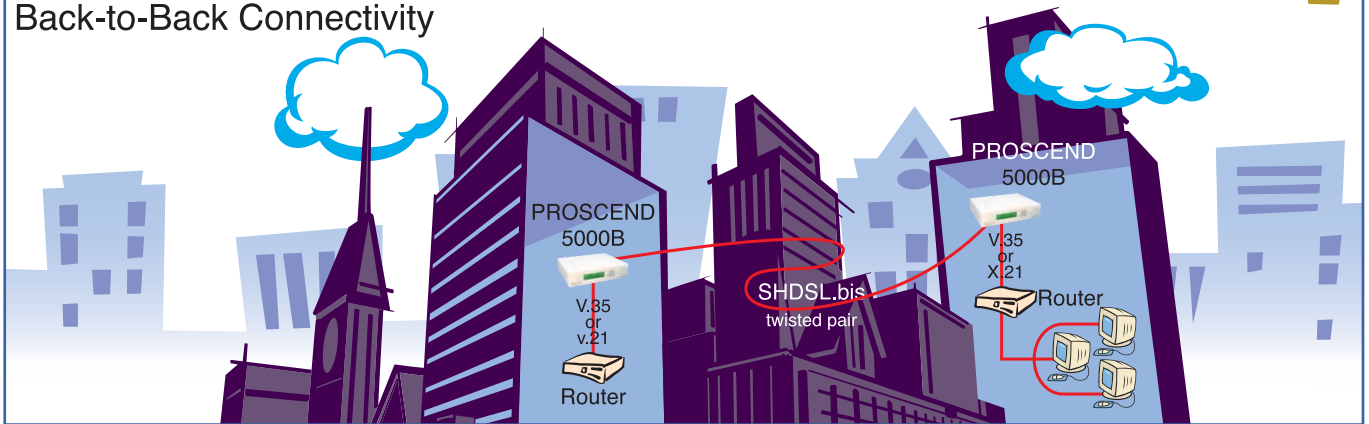
- *Standard ITU G.991.2 (2004) supports improvement on reach, speed and interoperability contrast to conventional G.shdsl devices*
- *Fast and cost-effective services as voices or TDM leased line services or LAN*
- *Efficient usage of single wire pair on existing copper loop infrastructures*
- *Support all DTE interfaces working simultaneously on back to back connection*
- *Auto rate installation maximizes data rate based on loop conditions*
- *Wetting current sink to protect SHDSL.bis line (optional)*
- *Local management interface with LCD display*
- *Remote line loopback*
- *SHDSL.bis Line performance monitoring (data rate and SNR)*
- *Raw and per time interval statistics*
- *Bandwidth guaranteed transmission equipment*

# PROSCEND® 5000B Series SHDSL.bis NTU

## Network Connection



## Back-to-Back Connectivity



## SPECIFICATIONS

### Network Interface

- Line Rate: SHDSL.bis per ITU G.991.2(2004)
- Coding: TC-PAM16, TC-PAM 32
- Support: Annex A, B, F, G
- Payload rates:
  - up to 5.696Mbps (N x 64kbps N=3 to 89) within one pair
  - up to 11.398Mbps (N x 128kbps, N=3 to 89) within two pairs
- Connection: RJ-45 jack
- Protection: ITU-T K.20/K.21

### G.703 Interface (as E1)

- Line Rate: 2048KHZ +/- 50 ppm
- Line Code: HDB3/AMI
- Framing: PCM30/30C/31/31C and Unframed
- Date Rate: 64 Kbps to 2.048 Mbps (Nx64Kbps, N=1 to 32)
- Operation: Full E1 or Fractional E1
- Impedance: RJ-45 for balanced 120Ω  
BNC for unbalanced 75Ω

### DTE Interface (as V.35)

- Payload rates:
  - up to 5.696Mbps (N x 64kbps N=3 to 89) / one pair
  - up to 8.192Mbps (N x 128kbps, N=3 to 64) / two pairs
- Support: V.35/RS-530 or V.36/X.21 (need factory setting)

### LAN Interface (as Ethernet)

- Single Ethernet Interface (IEEE 802.3/802.3u 10/100-T)
- 10/100 Mbps half/full duplex, Auto-Sensing, Auto-Crossover
- Up to 1024 MAC address learning, filtering bridge
- IEEE 802.1D STP BPDU forwarding
- IEEE 802.1P QoS and 802.1Q VLAN transparency

### Jitter and Wander

- Meets G.823 and G.824 jitter and wander requirements

### DSL Timing

- Network
- Internal
- From E1 Recovery (as E1)
- From DTE (as V.35)

### Wetting Current (Option)

- Maximum 20 mA for DSL loops

### Performance Monitoring

- ES, SES, UAS, Alarms, Errors for SHDSL.bis or E1 (as E1 application)

### Loop back Tests

- Local Loop back
- Digital Loop back (as E1 and V.35 only)
- Remote Loop back

- Far-end Loop back (as E1 and V.35 only)
- V.54 Loop back (as V.35 only)
- Build-in 2<sup>-1</sup> bit tester (as E1 and V.35 only)

### Management

- Configuration with keypad and LCD display
- Console port (RJ45, RS232)
- Support firmware upgradeable

### Physical/Electrical

- Dimensions: 19.5 x 4.8 x 16.8 cm

### Environmental Conditions

- Input: 90~240VAC with 50~60Hz or -48VDC
- Power Consumption 10W Max
- Operating temperature -5 to +60°C
- Humidity: 5% to 95% (non-condensing)
- External Screw for frame grounding
- Surge immunity: L1:L2 1KV  
L1/L2:PE 2KV
- Lighting: 4KV

## MODEL INFORMATION

### One-pair SHDSL.bis models:

Model No.	5000B	5010B	5020B	5030B	5030B-EV	5030B-EL	5030B-LV
E1 Interface	√			√	√	√	
V.35 Interface		√		√	√		√
LAN Interface			√	√		√	√

### Two-pair SHDSL.bis models:

Model No.	5001B	5011B	5021B	5031B	5031B-EV	5031B-EL	5031B-LV
E1 Interface	√			√	√	√	
V.35 Interface		√		√	√		√
LAN Interface			√	√		√	√



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