5099N Series SHDSL.bis NTU

Introduction

Proscend 5099N Series 2-Wire/4-Wire SHDSL.bis NTU is a telecommunication product designed for carriers and SME users. The standalone modems offer a variety of choices for data interfaces to meet different connection needs. With E1 and Serial interfaces, 5099N allows connection to different DTE types.

The SHDSL.bis NTU supports two different connectors for G.703 E1 application that link to TDM service either by balanced 120Ω RJ45 jack or unbalanced 75Ω dual BNCs with bit rates 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 for one pair of copper wires.

Proscend 5099N Series 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 in contrast to conventional G.shdsl devices
- Fast and cost-effective services as voices or TDM leased line services
- Efficient usage of single wire pair on existing copper loop infrastructures
- Auto rate installation maximizes data rate based on loop conditions
- Wetting current sink to protect SHDSL.bis line
- 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

Specifications

WAN Interface
- **Line Rate:** ITU G.991.2 (2004)
- **Coding:** trellis coded pulse amplitude modulation (TC-PAM16 and TC-PAM32)
- **Support:** Annex A, B, F and G
- **Payload rates:**
  - 64kbps to 5.696Mbps (N=1 to 89) for 2-wire model
  - 128Kbps to 11.392Mbps (N=2 to 178) for 4-wire model
- **Connection:** RJ-45 jack (2-wire or 4-wire)
- **Impedance:** 135 ohms

G.703 Interface (as E1)
- **Connection:** RJ-48C for balanced 120Ω E1 cable and BNC for unbalanced 75Ω E1 cable
- **Line Rate:** 2048KHz +/- 50ppm
- **Line coding:** HDB3/AMI
- **Framing :** PCM30 / PCM30C / PCM31 / PCM31C and Unframed
- **Data Rate :** 64Kbps to 2.048Mbps (Nx64Kbps, N=1 to 32)
- **Operation :** Full E1 and Fractional E1

Serial Interface (as V.35/RS-530 or V.36/X.21)
- **Payload rates:** Up to 5.696Mbps (for 2-wire model) or Up to 8.192Mbps (for 4-wire model)
- Support V.35/RS-530 or V.36/X.21

DSL Timing
- Internal
- From E1/T1 Recovery (as E1)
- From DTE (as V.35)

Performance Monitoring
- ES, SES, UAS, LOWS for SHDSL
- ES, SES, UAS for E1
- Alarms and Errors for SHDSL or interface

Loopback Tests (for E1 and V.35 interface only)
- Local Digital Loopback
- Local Loopback
- Remote Line Loopback
- Remote Payload Loopback
- Far-end Line Loopback
- Far-end Payload Loopback
- V.54 Loopback (for V.35 interface)
- Build-in 2047(2^{11}-1) Bit Error Rate Tester

Management
- Configuration with keypads and LCD display
- Console port (RJ45 , RS232C)
- Support firmware upgradeable

Physical / Electrical
- Dimensions (W x H x D): 198 x 460 x 168 mm
- AC Input: 90~240V with 50~60Hz
- DC Input: -36V~-72V
- Power Consumption: 10W Max
- Operation temperature: 0 to 50˚C
- Humidity: Up to 95% (non-condensing)
- External screw for frame grounding WAN Interface

Regulatory
- ISO 9001 Quality Management
- CE Approval & EN60950 Certificate

Ordering Information

Interface \ Model	5099N 2-wire	5099N 4-wire
EI	5099N-AC/2W/E1 5099N-DC/2W/E1 5099N-DA/2W/E1	5099N-AC/4W/E1 5099N-DC/4W/E1 5099N-DA/4W/E1
Serial	5099N-AC/2W/SER	

Description \ Type	Power – Specify power supply type	Line – Specify line interface type	Interface – Specify DTE interface type
5099N Power /Line /Interface	• AC for 90 ~ 240 VAC • DC for –36 ~ –72 VDC • DA for DC + AC	• 2W for 2-wire interface • 4W for 4-wire interface	• E1 interface only • SER for V.35/X.21 interface

* Features and specifications are subject to change without prior notice.

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