

## 2/4-Wire G.SHDSL.bis TDM Multi-Interface (E1/T1, V.35, LAN) NTU SHDTU03b-31T



The CTC SHDTU03b family of G.SHDSL.bis TDM based modem is a telecom product for carriers or SME users. In one device, the SHDTU03b-31T offers three DTE I/Fs (E1/T1, V.35, and Ethernet), which can work simultaneously to share DSL bandwidth. The user-configurable interfaces provide flexible application for various service connections. The modem supports two different connectors for G.703 E1/T1 applications (balanced 120 Ohm E1 or 100 Ohm T1 RJ45, unbalanced 75 Ohm dual BNCs) at bit rates from 64kbps to 2.048Mbps. The V.35 interface provides high-speed TDM services by way of a DB25 I/F and adapter cable. The factory selected RS-530 interface will electrically support RS-530, X.21 and RS-449 with appropriate adapter cable. The data rate of DB25 I/F may be up to 5.7Mbps within one pair copper wires or 11.4Mbps within two pairs copper wires. The modem provides 10/100Mbps auto-negotiated Fast Ethernet via an RJ45 LAN connector, which offers customer premise high-speed LAN over TDM services. The SHDTU03b-31T can be configured and managed via LCD, or menu-driven VT100 compatible asynchronous terminal Interface, either locally or remotely.

### Features

- Multi-Interface (E1/T1, V35, Ethernet) G.SHDSL.bis modem
- Supports fractional E1/T1 Nx64 V.35, X.21, RS-530, RS-449 and Ethernet over SHDSL, all at the same time
- Standard ITU G.991.2 (2004) supports improved reach, speed and interoperability compared to conventional G.SHDSL
- Fast and cost-effective services of voice, TDM and data on a single or two wire pair of existing copper loop infrastructure
- Local management interface with console menu
- Remote line loopback
- E1/T1 performance monitoring and alarm buffer
- G.SHDSL.bis Line performance monitoring (data rate and SNR)
- Raw and per time interval statistics

### 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** 192Kbps to 5.696Mbps (N=3 to 89) for 2-wire model. 384Kbps to 11.392Mbps (N=6 to 172) for 4-wire model
- Connection** RJ-45 jack (2-wire or 4-wire)
- Impedance** 135 ohms

#### E1/T1 Interface

- Connection** RJ-45 for balanced 120Ω E1, 100Ω T1 cable and BNC for unbalanced 75Ω E1 cable
- Line Rate** E1: 2048KHz +/- 50ppm , T1: 1.544Mbps
- Framing** PCM30/PCM30C/PCM31/PCM31C and Unframed E1/T1
- Data Rate** 64Kbps to 2.048Mbps ( Nx64Kbps , N=1 to 32)
- Operation** Full E1/T1 and Fractional E1
- Payload rates** Up to 5.696Mbps(for 2-wire model) or Up to 11.4Mbps (for 4-wire model)
- Support** V.35 or RS-530/V.36/X.21

#### LAN Interface

- 10/100Mbps RJ45 Interface
- Half/Full Duplex, Auto-sensing, Auto-Crossover
- Up to 1024 MAC address learning
- Standard HDLC WAN encapsulation

**Indications** Power, Alarm, Test, SYNC, Error, LBK, E1, Data, Eth

#### DSL Timing

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

**Performance Monitoring** ES, SES, UAS, LOWS, Alarms and Errors

**Loopback Tests** E1/T1 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 pattern BER tester

#### Management

- Configuration with keypads and LCD display
- Console port (RJ-45 , RS-232)
- Supports firmware upgrade

**Power Input** AC Input: 100~240VAC, DC Input: -36 ~ 72VDC

**Power Consumption** < 10W

**Dimensions** 168 x 195 x 48 mm (D x W x H)

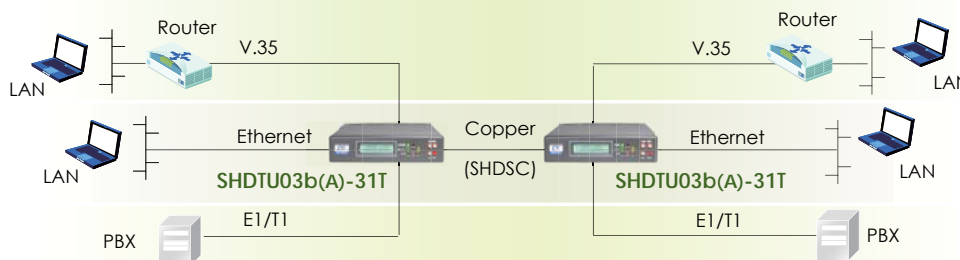
**Weight** 0.85kg

**Temperature** 0 ~ 50°C (Operating), -10 ~ 70°C (Storage)

**Humidity** 10 ~ 90% non-condensing

**Certification** CE, FCC, RoHS

**MTBF** 70,000 hrs



### Ordering Information

Model Name	Description
SHDTU03b-31T-AD	2-wire T1 (E1)/V.35/LAN multi-interface NTU with AC+DC Power
SHDTU03bA-31T-AD	4-wire T1 (E1)/V.35/LAN multi-interface NTU with AC+DC Power

Note: SHDTU03b-31T: 2-wire (5.7Mbps) G.SHDSL.bis TDM Multi-Interface Modem  
SHDTU03bA-31T: 4-wire (11.4Mbps) G.SHDSL.bis TDM Multi-Interface Modem

SHDTU03b - □□□ - □□  
Example: SHDTU03b - 31T - AD

SHDTU03bA - □□□ - □□  
Example: SHDTU03bA - 31T - AD