

# DATA-CONNECT

The Right Connection!

## COPPER-T-2/4

2 / 4 - Wire G.SHDSL.bis TDM

Multi - Interface (E1 / T1, V.35, LAN) NTU



The COPPER-T-2/4 can extend a T1 Demark over 2 wires or 4 wires via G.SHDSL bis. The T1+E1 uses balanced 120ohm and 100ohm via T1 RJ45. The E1 unbalanced 75ohm uses dual BNC's. The serial port V.35 interface uses a DB25 connector with a DB25 and V.35 adapter cable. DB25 is RS530, X.21 and RS449. The serial data rate is up to 5.7 mbps over 2 wires and up to 11.4mbps over 4 wires. Ethernet 10/100 auto negotiated via the RJ45 LAN connector. The range of interfaces enables fast and cost-effective services on voice, TDM and Data on a single or two wire pair of existing copper loop infrastructure.

The COPPER-T-2/4 can be configured and managed with the LCD on the front of the unit or menu driven by a VT100 asynchronous terminal interface 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
- Remote Line Loopback
- Far-end Line Loopback
- V.35 Loopback (for V.35 interface)
- Local Loopback
- Remote Payload Loopback
- Far-end Payload Loopback
- 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)

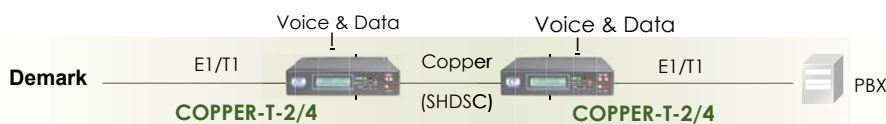
**Weight** 0.85kg

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

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

**Certification** CE, FCC, RoHS

**MTBF** 70,000 hrs



### Ordering Information

#### Model Name

**COPPER-T-2/4**

**COPPER-T-2/4-2PK**

#### Description

2/4-wire T1 Demark Extension with AC+DC Power

2/4-wire T1 Demark Extension with AC+DC Power, 2 PACK