



Morph and harmonize your network

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## Descriptions

The DT-128 high-speed Network Termination Unit (NTU) utilizes 2B1Q line coding and echo cancellation technique for full duplex at synchronous 2400 bps to 128 Kbps or asynchronous 300 bps to 38.4 Kbps transmission rate over a 2/4-wire unconditioned line. The DT-128 provides an operating range of up to 7.8 KM over a 24 gauge 2/4-wire mode.

The DT-128 also provides diagnostic capabilities including analog loop-back, digital loop-back (Local and Remote), and BER test (with test pattern) for troubleshooting both NTU and the transmission line. For convenience in installation and maintenance, the DT-128 is equipped with remote configuration function. You may use it to get the remote working status and change the operation mode and parameters of a remote site Tainet NTU via D channel.

The front panel LED indicators provide indication of PWR, DTR, DSR, RTS, CTS, TXD, DCD, RXD. ACT (activate) and TST (test mode), to allow on-site users to observe the operation status of the device clearly and easily.

The DT-128N is a rack-mounted type NTU associated with Network Management System supporting Windows-based control and RS-232/ RS-485 interface applications through communication servers.

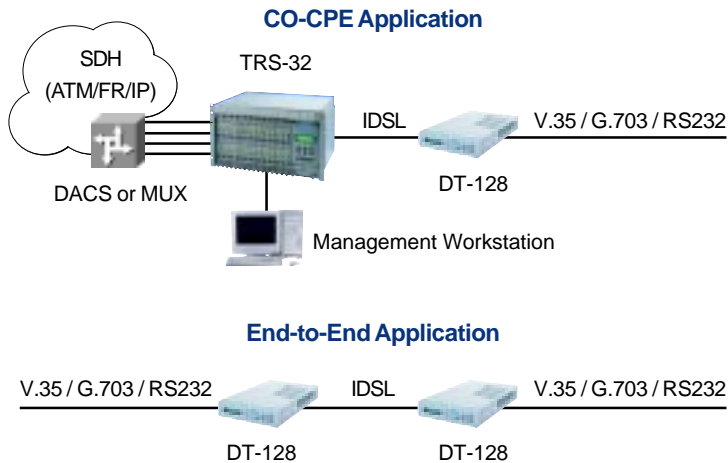
## Features

- User interface with RS-232D/V.28, V.35, EIA-530, X.21, G.703, 64K condirectional and G.703 128K proprietary
- Sync/Async data format
  - Synchronous: 2400 bps to 128 Kbps
  - Asynchronous: 300 bps to 38.4 Kbps
- 2/4-wire full duplex operation using echo cancellation technique
- Line coding: 2B1Q
- Display: 2 x 16 LCD with backlight
- Front panel configuration
- Remote configuration through D channel
- Rack mounted type available
- Network management system support
- Redundant power supply for rack mounted type



# DT-128 High Speed Network Termination Unit

## Application Diagram



## Technical Specifications

### DTE Interface

- RS-232D/V.28 25pin D type, female
- EIA-530 25pin D type, female
- V.35 34pin, female
- X.21 15pin, female
- G.703 64 Kbps codirectional, 128 Kbps proprietary

### Line Interface

- RJ-11

### Line Requirement

- 2wire: one unloaded twisted-pair
- 4wire: two unloaded twisted-pair

### Line Coding

- 2B1Q

### Operation Range (BER<10<sup>-7</sup>)

- 2/4-wire mode
  - Up to 6.0 km over 26 gauge wire
  - Up to 7.8 km over 24 gauge wire

### Data Rate

- Async Speed: 300,600,1200,2400,4800,9600,19200,38400bps
- Sync Speed: 2400,4800,9600,19200,38400,64000,128000bps

### Equalization

- Adaptive EQ

### Diagnostic Capabilities

- Analog loopback
- Digital loopback (Local or Remote)
- Remote Configuration
- BERT: Bit Error Rate Test with Test Pattern and Error Count

### Timing

- LT: Internal or External clock ( $\pm 100$ PPM)
- NT: Loopback clock

### Output Level

- 13 or -3 dBm at 135  $\Omega$

### Power Requirements

- AC Source: 90 ~ 265V, Autorange: 47 ~ 63 Hz
- DC Source: -36 ~ -72V for rack option
- Dual redundant power unit for rack option

### Power Consumption

- Less than 7 Watts (stand alone type)
- Less than 6.5 Watts (rack mount type)
- Less than 10Watts (full shelf equipped)

### Dimensions

- Stand alone: 194 W x 60 H x 316 D mm; 1.5 Kg
- Rack: 480 W x 220 H x 380 D mm; 0.6 Kg per card

### Operating Environment

- Operation temperature: 0 °C ~ 50 °C (indoor)
- Storage temperature: -25 °C ~ 70 °C
- Relative humidity: up to 95% (non-condensing)

## Ordering Info

| Basic Unit                              | Description   |
|---|---|
| DT-128/*                                | 128Kbps Network Termination Unit, AC power  |
| DT-128DC/*                              | 128Kbps Network Termination Unit, DC power  |
| DT-128N/*                               | Rack mount type NTU   |
| Chassis & Accessory                     |   |
| TRS-32                                  | 19" with chassis, up to 16 NTU cards  |
| (a)TB32                                 | TRS32 rear panel module board (option), Terminal block for 2/4-wire lease line connection |
| (b)CA50                                 | 50 pin cable for standard centronic connector   |
| NMC-32                                  | Network Management Controller   |
| PW-132A                                 | AC power supply for rack  |
| PW-132D                                 | DC power supply for rack  |
| Tainet Manager® for Windows             |   |
| Windows-based Network Management System |   |
| (*)Interface option                     |   |
| /R232-1                                 | RS-232D; Female   |
| /R530-1                                 | RS-530; Female  |
| /V35-1C                                 | V.35; Female w/ adaptor cable (V.35-V.24 cable)   |
| /X21-1                                  | X.21; Female w/ adaptor cable   |
| /G703B-1                                | G.703 balance, 64K/128K w/ adaptor cable  |

\* Specifications subject to change without notice.



The Professional Partner

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