Tellabs® 8100 Managed Access System
Tellabs® 8110 Network Terminating Unit (CTU-S)

High-speed modem designed for managed serial data access.

Overview

The Tellabs® 8110 Network Terminating Unit (CTU-S) is a Network Terminating Unit (NTU) that uses ETSI HDSL-based technology. The high-speed modem has a maximum symmetrical data rate of 4,544 Kbps and it has AC, DC and remote power feed options. The Tellabs 8110 NTU (CTU-S) is connected to the Tellabs® 8100 Managed Access System with the HDSL modules of the OMH-A and the QMH units, which can be used in the Tellabs® 8140 Midi Node, Tellabs® 8150 Basic Node, Tellabs® 8184 Access Switch and Tellabs® 8188 Access Switch.

The Tellabs 8110 NTU (CTU-S) is configured and monitored with the Tellabs® 8000 Intelligent Network Manager. The modem does not require any on-site configuration. However, a handheld VT100 terminal can be connected into the Tellabs 8110 NTU (CTU-S) to obtain the monitoring and status information.

Features and Benefits

Applications

The Tellabs 8110 NTU (CTU-S) high-speed modem is primarily designed for managed serial data access with fast and easy installation. With a G.704 interface it is also suitable for connecting mobile base stations or PBXs to the rest of the transmission network.

Unit Construction

The Tellabs 8110 NTU (CTU-S) is housed in a compact plastic case suitable for tabletop use. LEDs on the front indicate the powering, line, and DTE status. The X.21, V.35 or G.703 DTE interface is integrated as well as the RS-232 interface suitable for VT100 terminal.

End-to-end Network Management

The Tellabs 8110 NTU (CTU-S) is housed in a compact plastic case With the Tellabs 8000 Intelligent Network Manager tools, remote configurations, semi-automated service provisioning, testing, service level fault reporting and performance reporting are enabled. This gives significant savings in operational expenses and shortens the response times throughout the network and service lifecycle.

Tellabs® 8110 Network Terminating Unit

Specifications

Line Interface Features

When the line and DTE are connected, the Tellabs 8110 NTU (CTU-S) will automatically create a connection to the Tellabs 8100 system.

Signal Encoding and Impedance
- 2B1Q, 135 ohms

Transmit Level (dBm)
- 13.5 dBm

Line Bit Rates (Kbps)
- 592, 1,168 and 2,320 Kbps

Connection
- 1-pair (2-wire)
- 2-pair (4-wire)

Estimated Maximum Cable Length*
- 5.1 km @ 2,320 Kbps line rate
- 7.0 km @ 1,168 Kbps line rate
- 7.6 km @ 592 Kbps line rate
- * 0.5 mm/40 nF/km, no noise

Line Monitoring
- Carrier detection, signal level indication, CRC monitoring online, noise margin. Endto-end CRC with 8 Kbps external channel

Other Features
- 1+1 Protection (Backup) of the copper line, power off indication ("dying gasp")

Operating Modes
- 1-pair mode
- (1 x 2,320 Kbps, 1 x 1,168 Kbps, 1 x 592 Kbps)
- 2-pair mode
- (2 x 2,320 Kbps, 2 x 1,168 Kbps, 2 x 592 Kbps, data split between the pairs)
- 1+1 backup mode
- (2 x 2,320 Kbps, 2 x 1,168 Kbps,2 x 592 Kbps, one line redundant with the other)

Connector Type
- RJ-45

DTE Interface

One integrated DTE interface is included in Tellabs 8110 NTU (CTU-S)

G.703 DTE Interface

DTE interface bit rate
- 2,048 Kbps

Connector Types
- Selectable with Tellabs 8000 manager:
- SMB coaxial 75 ohms
- 9-pin female D-connector 120 ohms

Signal Coding
- HDB3

Transmit Timing
- Co-directional

Output Pulse Amplitude
- 2.37 V @ 75 ohms and 3.0 V @ 120 ohms

V.35 DTE Interface

DTE Interface Bit Rates
- n x 64 Kbps (64-4,544 Kbps), Tellabs 8100 system mode

Connector Type
- 34-pin female connector, ISO 2593

Circuit Levels
- Data and clock signals: V.35
- Control signals: V.28

Interface Circuits
- 102, 103, 104, 105, 106, 107, 108, 109, 113, 115, 140, 141, 142

Transmit Timing
- 113, 115, 113/115 meso

X.21 DTE Interface

DTE Interface Bit Rates
- n x 64 Kbps (64-4,544 Kbps), Tellabs 8100 system mode

Connector Type
- 15-pin D-connector, ISO 4903

Circuit Levels
- X.27

Interface Circuits
- T, C, R, I, G, S, X

Transmit Timing
- S, X

Test Interface

Terminal Rates
- 9600 bps

Connector Type
- 6-pin RJ-connector

Circuit Levels
- V.28 (RS-232)

Interface Circuits
- 102. 103, 104

Transmit Timing
- Asynchronous

Dimensions (width x depth x height)
- 95 mm x 180 mm x 45 mm
- Weight 560 g

Power Supply
- Tellabs 8110 NTU (CTU-S) V.35/X.21:
- 100-240 VAC
- Tellabs 8110 NTU (CTU-S) G.703: –
- 48 V DC, 55-110 V remote power or AC with adapter

Power Consumption
- <5 W

Standards

Performance
- ETS TS 101 135 (2000)

Safety
- EN60950:1992 (A1:1993, A2:1993, A3 1995, A4 1997, A11:1997)

EMC
- EN300 386:2000

Environmental Conditions

Storage
- ETS 300 019-1-1:1992 Class 1.1
  – Temperature: -5° C to +45° C

Transportation
- ETS 300 019-1-2:1992 Class 2.3
  – Temperature: -40° C to +70° C

Operating Conditions
- ETS 300 019-1-7:1992 Class 7.2
  Normal conditions:
  Temperature: -5° C to +45° C
  Relative humidity: 5% to 95%

Versions

Unit
- Tellabs 8110 NTU (CTU-S) V.35
- Power Supply: 100-240 VAC
- DTE Interface: V.35
- (ISO 2593 34-pin female)

Unit
- Tellabs 8110 NTU (CTU-S) X.21
- Power Supply: 100-240 VAC
- DTE Interface : X.21

Unit
- Tellabs 8110 NTU (CTU-S) G.703
- Power Supply: DC or remote power feed
- AC with adapter
- DTE Interface
- E1: 75 ohms
- E1: 120 ohms

Ordering and Availability

This product is currently available. Contact your local Tellabs sales representative or regional office for more information.