

Tellabs  
 One Tellabs Center  
 1415 West Diehl Road  
 Naperville, IL 60563 U.S.A.  
 Tel: +1.630.378.8800  
 Fax: +1.630.852.7346  
 www.tellabs.com

## Tellabs® 8110 Network Terminating Unit CTE-S

### Overview

Tellabs 8110 network terminating unit CTE-S uses ITU IP based Router technology. Tellabs 8110 CTE-S has a maximum symmetrical data rate of 4,544 kbps and it has AC, DC, and remote power feed options.

Tellabs 8110 CTE-S is connected to the Tellabs® 8100 managed access system with the SCO modules of the OMH unit, which can be used in Tellabs® 8140 midi node, Tellabs® 8150 basic node, Tellabs® 8160 accelerator node A111 or Tellabs® 8170 cluster node.

Tellabs 8110 CTE-S is configured and monitored with Tellabs® 8100 network manager, the network management system. It does not require any configuration at the installation site. However, a handheld VT100 terminal can be connected into Tellabs 8110 CTE-S to obtain the monitoring and status information.



### Features and Benefits

#### Applications

Tellabs 8110 CTE-S high-speed router is primarily designed for managed serial data access with fast and easy installation.

#### Unit Construction

Tellabs 8110 CTE-S is housed in a compact plastic case suitable for tabletop use. LEDs on the front indicate the powering, line, and DTE status. The V.35, G.703, X.21 and V.36 DTE interfaces are integrated as well as the RS-232 interface suitable for VT100 terminal.

### Specifications

#### Line Interface Features

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

Signal encoding and impedance	TC-PAM, 135 ohms.
Transmit level (dBm)	14.5 dBm.
Line bit rates	2320 kbps
Transmit level (dBm)	13.5 dBm.
Line bit rates	592, 1168 kbps
Connection	1-pair (2-wire). 2-pair (4-wire).
Estimated maximum cable** length	4.8 km @ 2,320 kbps line rate. 6.2 km @ 1,168 kbps line rate. 6.6 km @ 592 kbps line rate.  **0.4 mm cable, no noise
Line monitoring	Carrier detection, signal level indication, CRC monitoring on line, noise margin. End-to-end CRC with 8 kbps external channel.

Other features	power off indication (“dying gasp”)
Operating modes	<b>1-pair mode</b> (1 x 2,320 kbps, 1 x 1,168 kbps, 1 x 592 kbps) <b>2-pair mode</b> (2 x 2,320 kbps, 2 x 1,168 kbps, 2 x 592 kbps, data split between the pairs)
Connector type	RJ-45

### DTE Interface

One integrated DTE interface is included in Tellabs 8110 CTE-S.

<b>V.35 DTE Interface</b>	
DTE interface bit rates	$n \times 64$ 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, 114, 115, 140, 141, 142
Transmit timing	115nw, 113/115 meso

### G.703 DTE Interface

DTE interface bit rate	2,048 kbps
Connector types	Selectable with Tellabs 8100 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

### X.21 DTE Interface

DTE interface bit rates	$n \times 64$ 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

### V.36 DTE Interface

DTE interface bit rates	$n \times 64$ kbps (64-4,544 kbps), Tellabs 8100 system mode.
Connector type	37-pin D-connector, ISO 4902
Circuit levels	Data, clock and control signals: V.11 Test signals: V.28
Interface circuits	102, 103, 104, 105, 106, 107, 108, 109, 113, 114, 115, 140, 141, 142
Transmit timing	115nw, 113/115 meso

### 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)

195 mm x 180 mm x 45 mm, Weight 560 g

### Power Supply

Tellabs 8110 CTE-S V.35/X.21/V.36: 100-240 VAC

Tellabs 8110 CTE-S G.703: -48 V DC, 55-110 V remote power or AC with adapter

**Power Consumption** <7 W

### Standards

Performance	G.991.2 (2001)
Safety	EN60950 (2000) and EN60950-1 (2001)
EMC	EN300 386:2000

### Environmental Conditions

<b>Storage</b>	ETS 300 019-1-1:1992 Class 1.1	
	Temperature	-5° C to +45° C
<b>Transportation</b>	ETS 300 019-1-2:1992 Class 2.3	
	Temperature	-40° C to +70° C
<b>Operating conditions</b>	ETS 300 019-1-7:1992 Class 7.2	
	<b>Normal conditions:</b> - Temperature: - Relative humidity:	-5° C to +45° C 5% to 95%

### Versions

Unit	Power Supply	DTE Interface
Tellabs 8110 CTE-S V.35	100-240 VAC	V.35 (ISO 2593 34-pin female)
Tellabs 8110 CTE-S G.703	DC or remote power feed, AC with adapter	E1: 75 ohms E1: 120 ohms
Tellabs 8110 CTE-S X.21	100-240 VAC	X.21
Tellabs 8110 CTE-S V.36	100-240 VAC	V.36 (ISO 4902, 37-pin D-connector)

### Ordering and Availability

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



**One Tellabs Center** 1415 West Diehl Road,  
Naperville, IL 60563 U.S.A.  
+1.630.378.8800, Fax +1.630.852.7346

The following trademarks and service marks are owned by Tellabs Operations, Inc., or its affiliates in the United States and/or in other countries: TELLABS®, TELLABS and T symbol®, and T symbol®.  
\*All other company or product names may be trademarks of their respective companies  
© 2002 Tellabs. All rights reserved.