



# LOOP-E™1510 FE1 CSU/DSU SERIES STAND ALONE

## Description

Loop Telecom's Loop-E1510 FE1 CSU/DSU product series provide an economic solution to E1 network access cost, when only a partial of 31 DS0 channels is needed. Clear channel (32 DS0 channels) is also available. This product series support HDB3 (High Density Bipolar 3) coding and provide continuous error checking, and in-service diagnostics. Customer equipment interface include serial DTE. With DTE port operating from 64 Kbps to 2048 Kbps, Loop-E1510 FE1 CSU/DSU allows users to interconnect LANs and WANs, CAD and CAM, video conference, mainframe hosts, and others.

Loop-E1510 also supports framed/unframed E1-to-Ethernet Bridge, and provides an economic solution to E1 network access. The E1-to-Ethernet Bridge supports fractional or clear channel E1 WAN port with HDB3 (High Density Bipolar 3) coding and continuous error checking, and single 10/100 Ethernet LAN port with bridging function.

Loop-E1510 FE1 CSU/DSU series support local control and diagnostics. This allows users to execute in-service diagnostics and fault isolation. Ten LEDs on the front panel provide both line side and DTE side status indicators.



## FEATURES

- DSU functionality integrated with a CSU in a compact package.
- DTE interface: V.35, X.21, and Bridge
- Connection to LAN/WAN, CAD/CAM, or Hosts to E1 Network Services.
- Support VLAN frames and extended frame size of 1532 bytes without CRC for Bridge interface.

**CERTIFIED  
ISO-9001**

## Ordering Information

To specify options, choose from list below

Model	Description
Loop-E1510-S-DTE-ww-pp	Base Unit
<b>Accessories</b>	
<b>User's Manual</b>	
Loop-E1510-S-UM	User's Manual (paper, hard copy-optional). A CD version of the manual is already included as standard equipment.
<b>Tray</b>	
81.TRAY19.000	19" Tray (One tray for two base units)
<b>Power Cord</b>	
Loop-ACC-PC-USA	AC power cord for Taiwan/USA
Loop-ACC-PC-EU	AC power cord for Europe
Loop-ACC-PC-UK	AC power cord for the UK
Loop-ACC-PC-AUS	AC power cord for Australia
Loop-ACC-PC-CH	AC power cord for China

Where

DTE =	11 for V.35 DTE interface with M34 connector 44 for X.21 DTE interface <b>BRF for E1 Framed interface with Bridge interface</b> <b>BRU for E1 Unframed interface with Bridge interface</b>
ww =	75 for 75 ohm BNC E1 interface 120 for 120 ohm Twisted Pair RJ48C E1 interface
pp =	AC for 100-240, 50/ 60 Hz Vac ( <b>For AC choose an appropriate power cord</b> ) SD24 for single DC supply (24 Vdc) SD48 for single DC supply (48 Vdc)

Example:

Loop-E1510-S-11-75-AC=  
V.35 DTE interface with M34 connector, 75 ohm BNC.  
Power is AC.

## **LOOP-E1510 FE1 CSU/DSU SERIES PRODUCT SPECIFICATION (Stand Alone)**

### **Network Line Interface (E1 Interface)**

Line Rate	2.048 Mbps $\pm$ 50 ppm	Framing	ITU G.704
Line Code	HDB3	Connector	BNC/RJ48C (specify on order)
Input Signal	ITU G.703	Output Signal	ITU G.703
Jitter	ITU G.823	Electrical	75 $\Omega$ Coax/120 $\Omega$ twisted pair

### **DTE Interface (V.35, X.21)**

Data Port	Single DTE
Data Rate	n * 64 Kbps ( n = 1 - 32)
Connector	M34 for V.35 interface, DB15 for X.21 interface

### **Clear Channel (Unframed)**

Data Rate	2048 Kbps (32 * 64Kbps)
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### **Bridge Interface**

Data Port	Single Ethernet
Physical Interface	802.3 10BaseT, 802.3u 100BaseTX
Connector	RJ45

### **Diagnostics Test**

Loopbacks	Line Loopback and DTE Loopback
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- Bridge function
- Auto-negotiation
- VLAN frames and extended frame size of 1532 bytes without CRC for Bridge interface are supported

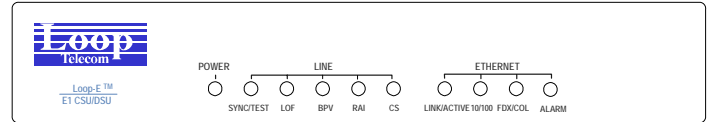
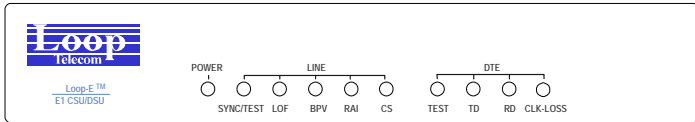
**Distance**

The distances E1 signal can reach depend on the wire gauge and environmental factors such as temperature and external interference. Typical measured distances of Loop-E1510 are shown in table below:

Wire Gauge	Diameter (mm)	Distance (Km)
19	0.9	2.3
22	0.6	1.7
24	0.5	1.4
26	0.4	1.0

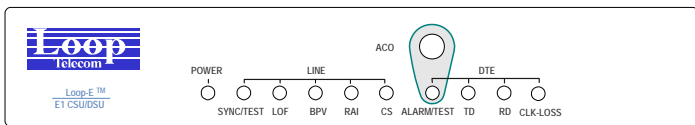
**Front Panel**

Multi-color LED indicators



**E1510 with V.35 Interface**

**E1510 with Bridge Interface**



**E1510 with X.21 Interface**

**Physical/Electrical**

**Dimensions** 210 x 41.5 x 140 mm (WxHxD)  
**Power** 100-240Vac, 24Vdc, 48Vdc  
**Temperature** 0 -50°C  
**Humidity** 0-95% RH (NON-CONDENSING)  
**Mounting** Desk-top stackable

**Compliance**

**ETSI** ETS 300420, ETS 300419  
**ITU** G.703, G.704, G.706, G.732, G.736, G.823  
**EMI/EMC** EN50081-1, EN55022 Class A, EN55024  
**Safety** EN60950: 2000



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