E1DT E1/PRI Data Tap

Active Buffered Data tap for E1/PRI monitoring

E1DT E1 Data Tap/Buffer provides a means of monitoring and capturing traffic flowing in both directions of a 2Mbits/s E1/PRI (G.703/G.704) communications link.
The line connections are made through two RJ-45 connectors that are hard-wired in parallel. All line activity is passed-through the Splitter/Buffer. Monitoring and recording equipment can be connected or disconnected without disturbing the line.

Line signals are split and fed into high-impedance buffers that load the line signals by less than 0.1dB. Low-impedance outputs allow the monitoring equipment to be located up to 50m away from the line connection.

The design ensures that there is no interruption of the line signals when the Splitter/Buffer is unpowered.

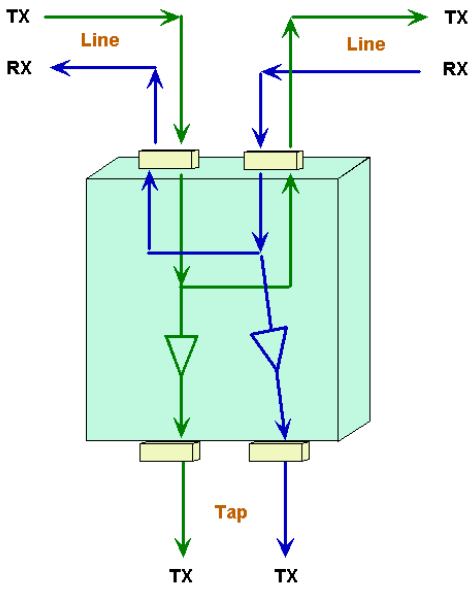
LED indicators are provided for power and signal presence at each monitor output connector.

E1DT operates from +6v to +12V DC power. UK and European AC power adapters are available as options.

Two versions are available as follows:

E1DT-ASSY-0058 provides the monitor outputs on a single RJ-45 connector (pins 1/2 and 4/5) for use with devices that monitor both Tx and RX on the same input connector.

E1DT-ASSY-0059 provides the monitor outputs on two RJ-45 connectors (pins 1 & 2) for use with devices that monitor Tx and RX on two input connectors, including the SomerData E1/PRI Data Capture Card.



E1/PRI Data Recorders

E1/PRI Data Capture Card

somerdata
specialist surveillance and datacomms solutions

Specifications

Line Interface

Signal
ITU G.703, 2,048 kbits/s

Line Code
HDB3

Data Type
Framed or unframed

Signal Amplitude
Operating: ±3.00V (nominal)
Absolute Maximum: -5V (lower limit)
+5V (upper limit)

Line Connection
Two RJ-45 connectors hard-wired in parallel

Optional BNC adapter cable

Line connection supports 120Ω balanced, 75Ω unbalanced or monitor connection
Note that there are no terminating devices in the line interface

Unpowered performance

Crosstalk
Better than -64dB

Residual output
Better than -35dB

Input signal loading
Less than 0.1dB

Power Requirements

Voltage
Operating: +6 Volts DC to +12 Volts DC
Absolute Maximum: -0.25V (lower limit)
+15V (upper limit)

Current
Less than 100mA

Connector
Low voltage 2.1mm (centre positive)

Power-on Indication
LED indicator

AC Adapters
UK and European adapters are available as options

Environmental

Temperature
0°C to 70°C

Relative Humidity
5% to 95% non-condensing

Buffer

Monitor Outputs (Stream A and Stream B)
E1DT-ASSY-0058:
RJ-45 connector (Tx pins 1/2 and Rx pins 4/5)

E1DT-ASSY-0059:
Two RJ-45 connectors (Tx pins 1/2) compatible with SomerData R2D3 E1/PRI Data Capture card

Input Impedance
1500Ω

Monitor Output Impedance
120Ω balanced

Monitor Output Level
Unloaded: 2 x Input Level
Loaded: Unity Gain

Monitor Output Signal Presence Indicators
LED indicator
±1.2V p-p signal detection threshold

Monitor Output Isolation
Transformer coupled
1500V RMS AC breakdown

Insertion Loss
Less than 0.2dB

Output to Input Gain Variation
Less than 0.1dB

Output Balance Error
-70db (typical)

Noise (no signal, loaded input)
Better than -63dB

Crosstalk (standard input)
Better than -47dB

Maximum Input Voltage
±3.5V

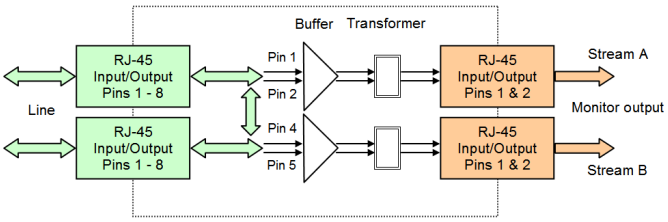
Output Drive Capability
Greater than 50 metres (120Ω load, Cat 5 cable)

Output Drive Attenuation
0.2dB per 10 metres

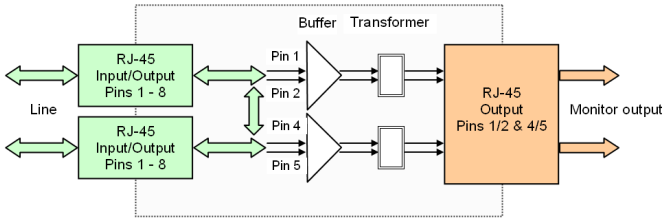
Physical

Dimensions
55mm x 45mm x 25mm (ABS enclosure)

Weight
50gm



E1DT-ASSY-0059 version Block Diagram



E1DT-ASSY-0058 version Block Diagram

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