

E1DT E1/PRI Splitter/Buffer

Active Buffered Data tap for E1/PRI monitoring



E1DT E1 Splitter/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.

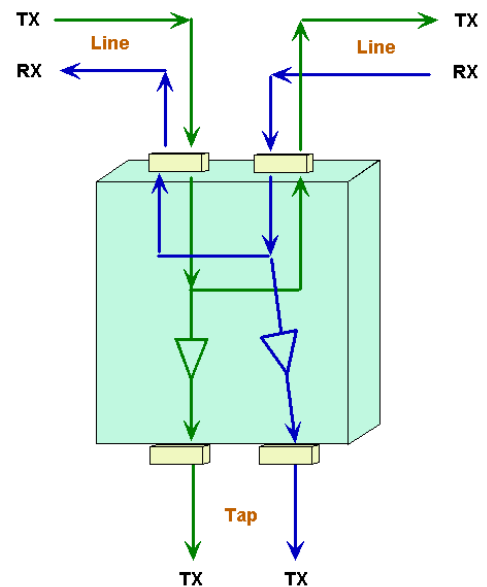
LED indicators are provided for power and signal presence at each monitor output connector.

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

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

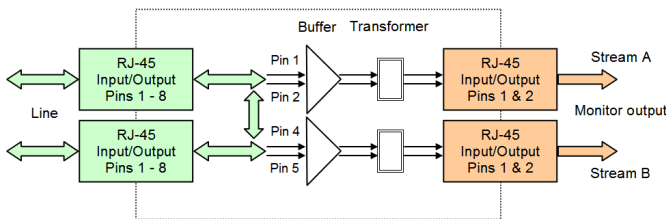
Physical

Dimensions

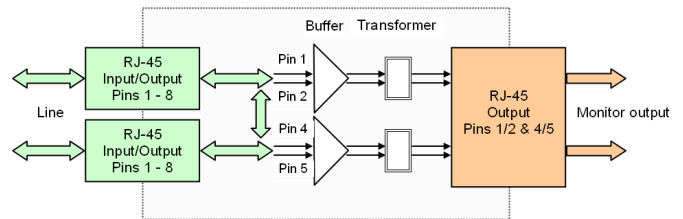
55mm x 45mm x 25mm (ABS enclosure)

Weight

50gm



E1DT-ASSY-0059 version Block Diagram



E1DT-ASSY-0058 version Block Diagram