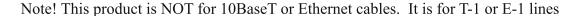


# Data Connect Copper-T and Copper-E Extenders

T-1 and E-1 Repeater for customer owned cable NTERPRISE (specify T-1 or E-1 when ordering)

- -Extend Phone Company Demarcs
- -T-1 or E-1 4-wire repeater
- -Extends T-1 or E-1 lines
- -Up to 5000 feet between units
- -RJ-45 or screw down connectors
- -Simple connection to 4-wire circuits
- -Inexpensive solution to long cable runs
- -120/220 VAC, 12, 24, 48, or 125 VDC available
- -1U high rack mountable, 1, 2, or 3x19" rack
- -20 slot rack chassis option



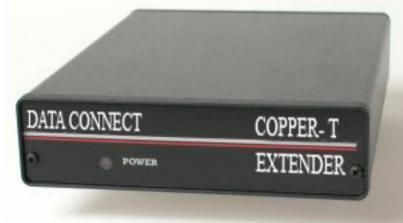
## **Description**

The Data Connect COPPER-T and COPPER-E are 4-wire repeaters for use on customer owned lines or to extend telephone company demarcs. The Extenders are used to extend in-house T-1 and E-1 lines in campus and high-rise environments.

Each pair of T-1/E-1 Extenders may be located up to 5000 feet apart. The Extender circuitry is rated to -36 dB dynamic range at teh T-1 rate of 1.544 Mbps and -43 dB dynamic range at the E-1 rate of 2.048 Mbps. As implemented, the parts are slightly de-rated to provide long life at extended temperature range. Therefore the distances specified in this document are only 5000 feet. Solid copper 22 AWG, two twisted pair is teh preferred cable for connection between the Extenders. Connection to the Extender is made through RJ-45 modular connectors or 4-wire screw down barrier strips. Each Extender comes standard with two screw down barrier strips and one RJ-45 connector. If only RJ-45 connections are desired extra RJ-45 adaptors (part number 9502122) can be ordered.

The DCE COPPER-T and COPPER-E are powered by a small wall-mount transformer. The Extenders are designed for connections between T-1 equipment such as PBXs, T-1/E-1 multiplexers, T-1/E-1 line drivers, CSUs, routers or any other T-1/E-1 equipment requiring long customer owned cable runs. T-extenders and E-extenders can be used to connect this equipment across a campus, between floor of a high-rise office building or between office buildings with underground cable runs. The T-Extender/ E-Extenders are transparent to the type of data sent over the T-1/E-1 link. The Data can be D-4 format, ESF, PRI, G.703, G.704, etc.

The T-Extenders are most often used in pairs to extend a telephone company demarc. For example, if a CSU or DSU is limited ot 655 feet and is connecting to a phone compnay smart jack demarc which is limited to 655 feet, the T-Extenders are used in pairs to extend that distance up to 5000 feet.



## **Specifications**

#### General

T-1 repeater or E-1 repeater Extends T-1 or E-1 bi-polar signals Up to 5000 feet between T-extenders Up to 4000 feet between E-extenders

#### **Indicators**

Power

#### Accessories

RJ45 wiring adaptor p/n 9502122 Customer to demarc RJ45 cable p/n 9500095

Customer to customer RJ45 crossover cable p/n 9500099

Rack shelf, 1 U for 1 to 3 T-1/E-1

#### **Extenders**

20 slot, 4U high 19" rack mount chassis Physical/Electrical

5.5" x 7.5" x 1.5"

100 ohm T-1, 120 ohm E-1 interface 2 lbs including wall transformer

120 VAC external wall transformer supply **DATA CONNECT ENTERPRISE** Optional 220 VAC, 12, 24, 48, 125 VDC

30 ma

Operating Temperature: -40° to +70°C

Operating Humidity: <98% non-

condensing

## **Application**

#### Wire

Two twisted pair solid copper Other types will affect operational distance

#### Connectors

RJ-45 modular 8-conductor connectors

Pin 1= Recieve

Pin 2= Recieve

Pin 4= Transmit

Pin 5= Transmit

4-Wire barrier strip

Pin 1= Recieve

Pin 2= Recieve

Pin 3= Transmit

Pin 4= Transmit

Connect the transmit pair of one extender to the recieve pair of the other extender. Pairs are not polarity sensitive. Units supplied with 2 screw downs. 1 RJ-45.

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