



Single Circuit Protocol Converters

Standalone NRZ/CDI/Fiber Converter Supports Cryptos, Routers

- Circuit Extension
- Converts NRZ-CDI-Fiber
- Rates to 16.384Mbps
- Legacy Support
- Crypto Support
- Unique Tactical Interfaces
- UG-1837 Connector
- Choice of TFOCA or TFOCA-II connectors
- Crypto Power Source
- Front Panel Display for Configuration
- JTC3A 9109C FOM Interoperability

Overview

DNE's Single Circuit Protocol Converters perform NRZ to CDI, CDI to Fiber and NRZ to Fiber conversion at over 150 data rates ranging from 16kbps to 16.384Mbps. DNE's CV line has expanded to incorporate a wider variety of user needs.

Fiber-optic cables are now an accepted medium for improving data transmission reliability, increasing drive distance, and enabling the support of new Tri-Band satellite and microwave systems. Higher transmission rates permit networks to adequately address new video applications and the rising volume of electronic messaging.

DNE's new CV-HTU-16M addresses issues such as longer drive distances from comm centers to transmission sites, increased bandwidth, higher speeds and readily mobile systems.

The new CV-HTU-16M supports both multimode and single mode fiber, as well as JTC3A 9109C FOM connectivity. In addition, the new CV-HTU-16M unit provides BERT, BIST, and alarm diagnostics for simplified installation and maintenance.

DNE's CV-HTU-16M features a convenient front-panel interface for easy configuration, a UG-1837 tactical connector for interfacing with CX-11230 cabling, and a crypto power supply.

Users also have a choice between a TFOCA or a TFOCA-II interface. Also included are push-pin balanced connectors. Primary lightning protection is included on the copper-wire connections.

Part of DNE's expanded CV product line, these converters are compatible with DNE's Multi-Channel Protocol Converter modules, and earlier CV-2048 and CV-8448 at rates and fiber types (where applicable) supported by both units.

CV-HTU-16M

CDI Interfaces Balanced Unbalanced Optical	Four connectors, Quick-Connect Push Pin One UG-1837 connector for use with CX-11230 cable TFOCA 50µm or TFOCA-II 9/62.5 µm
NRZ Interface	The Balanced RS-422 NRZ interface for all CV models is a female DB-25 connector. The CV NRZ interface supports Tx Data In, Tx Clock In, Tx Clock Out (Demand), Rx Data Out and Rx Clock Out using standard EIA-530 pin-out definitions. Data Carrier Detect is also supported, indicating a loss of Rx CDI. A conversion adapter is available from DNE to mate to the unique DNE AN/FCC-100 Multiplexer NRZ pin-outs.
Lightning Protection	Primary lightning protection is offered on the CDI copper inputs and outputs offering a level of indirect protection against lightning strikes up to 6000V, 3000A.
Data Mark Sense	Data Mark Sense is user-selectable to be either positive or negative upon configuration.
DC Crypto Power Source	1.3 A @ 48 VDC, via a Molex style, 3-pin connector.
Data Rates (kbps) Balanced Unbalanced Optical	16, 32, 56, 64, 72, 96, 112, 128, 144, 192, 224, 256, 288, 320, 384, 448, 512, 576, 640, 768, 960, 1024, 1152, 1344, 1536, 1544, 1920, 2048. 72, 96, 112, 128, 144, 192, 224, 256, 288, 320, 384, 448, 512, 576, 640, 768, 960, 1024, 1152, 1344, 1536, 1544, 1920, 2048, 2304, 2560, 2816, 3072, 3088, 3200, 3584, 3968, 4096, 4608. 72, 96, 112, 128, 144, 192, 224, 256, 288, 320, 384, 448, 512, 576, 640, 768, 960, 1024, 1152, 1344, 1536, 1544, 1920, 2048, 2304, 2560, 2816, 3072, 3088, 3200, 3584, 3968, 4096, 4608, 4800, 5120, 5632, 6144, 6312, 6656, 7168, 7680, 8064, 8192, 8448, greater than 8448 at 64K increments to 16,384
Drive Distances Balanced Unbalanced Optical	Up to 4 km at 64kbps; up to 2 km at 384 kbps; up to 1 km at 1544 kbps; up to 0.8 km at 2048 kbps Up to 3.2 km at 448 kbps; up to 2.4 km at 768 kbps; up to 1 km at 1544 kbps; up to .4 km at 4608 kbps Optical distance testing was done with an optical wave length of 1310 nm and receiver sensitivities of -34 dBm at 10 ⁻⁶ BER at 25° C Singlemode: -12.0 dBm represents a useful link length of 20 to 30 km Multimode: -17.0 dBm represents a useful link length of 2 to 4 km
Compatibility	Compatible with DNE's earlier CV-2048 models at rates from 16 kbps to 2048 kbps and DNE CV Multi-Channel Protocol Converters and CV-8448 standalone units (all models) at rates and fiber types (where applicable) supported by both units.
Environmental	0° C to 50° C Operating, -20° C to 65° C storage, Up to 95% Humidity (non-condensing), Operating altitudes of up to 15,000 ft (4600m), storage altitudes up to 40,000 ft (12,200m)
Power	100-240 VAC, 47-63 Hz, 15 Watts Typical for all units; 55 Watts Fully loaded with Crypto Power
Menu Selection	Front Panel or ASCII Terminal via DB-9M connector on rear of unit
Dimensions	8.2" W x 2.50" H x 22.5" D Weight: 9 pounds and up depending on model chosen and TFOCA option type



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