



**RDL**<sup>®</sup>  
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## **max RACK-UP<sup>®</sup> SERIES** **TWISTED PAIR FORMAT-C** **Model RU-TPDC** **Four Output Distributor**

- Input Jack Accepts Signals from All FORMAT-C Senders
- Output Jacks Drive All FORMAT-C Receivers
- Four Separate Feeds to Individual Receiver Locations
- Power Bus Jack Provides Expansion to Adjacent Distributors
- Provides Power to Sender and All Connected Receivers
- Dual-LED VU Meters Display the Level of Each Audio Pair
- Blue Power LED Shows the Module is Receiving dc Power
- Rear-Panel LEDs Indicate Correct Output Voltage on RJ45s
- High-Density Rack Mounting Using RACK-UP<sup>®</sup> Accessories



**APPLICATION:** The RU-TPDC is a four output signal and power distributor module compatible with all RDL Format-C twisted pair products. The **INPUT** RJ45 jack accepts a twisted pair cable originating from a FORMAT-C sender.

A rear-panel **GAIN** control is provided to recover any video level loss over the twisted pair input cable. An **EQ** control allows the installer to adjust the sharpness of the picture for high frequency losses in the cable. Adjustment is made while observing the video output on a Format-C receiver plugged into one output of the RU-TPDC. The audio and video signals received at the module input are individually buffered to drive the RJ45 output jacks. The RU-TPDC module terminates the video cable pair, therefore additional receivers may not be connected to the module's twisted pair input.

Two RDL Dual-LED VU meters are provided on the front panel of the RU-TPDC, one for each audio channel.

The RU-TPDC is constructed in the durable MAX RACK-UP chassis which facilitates mounting three distributors in a single rack unit. A wide variety of mounting accessories are available in the RDL RACK-UP series. A power bus jack in each RU-TPDC allows power to enter one module at either side of the rack. The included power jumper cable provides a simple method of interconnecting one distributor module to the next, so multiple modules can be operated from a single power supply.

The RU-TPDC is powered directly from a 24 Vdc power supply using either one of the power jacks or the detachable terminal block. Module power is indicated by a front-panel LED. Local power connected to the module is also fed to all modules connected to the **INPUT** and **OUTPUT** RJ45 jacks. The power feeding each **OUTPUT** jack is separately protected by an automatically resetting fuse. A power LED is associated with each **OUTPUT** jack, facilitating identification of wiring faults.

RDL FORMAT-C provides quality balanced video transmission over long distances, and features superior audio performance that rivals or exceeds shielded wiring. Design simplicity, ease of installation, unsurpassed flexibility, automatically fused power, exceptional hum rejection, low noise, and low distortion provide designers and installers the optimum choice in economical twisted pair products.

# RACK-UP® SERIES

## TWISTED PAIR FORMAT-C

### Model RU-TPDC

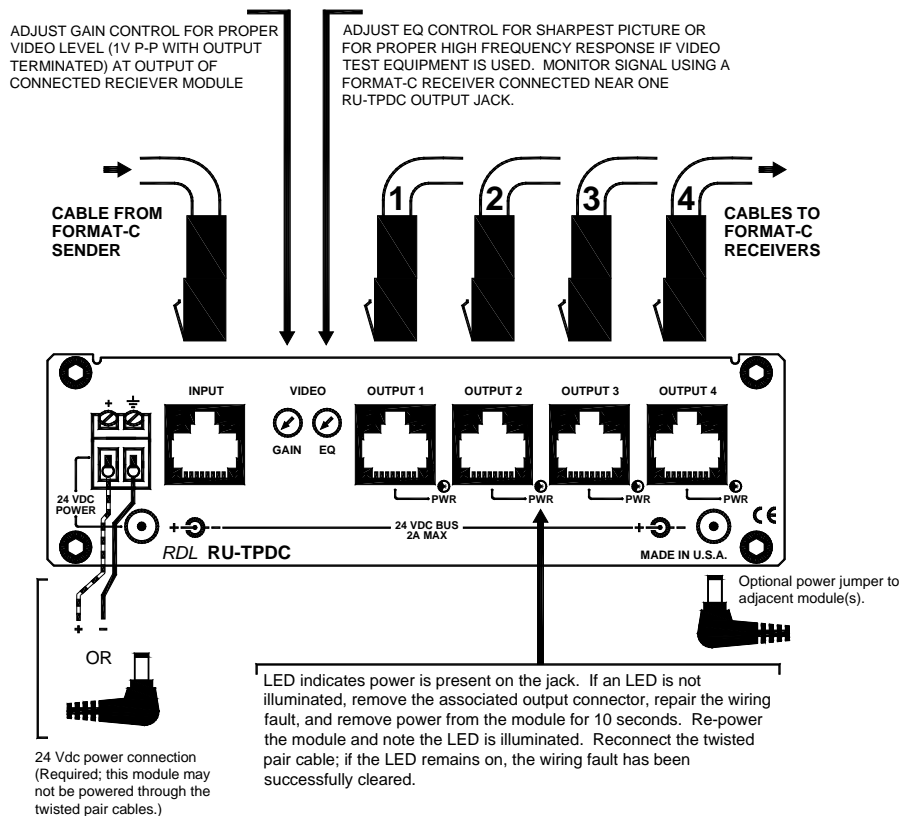
### Four Output Format-C Distributor

## Installation/Operation

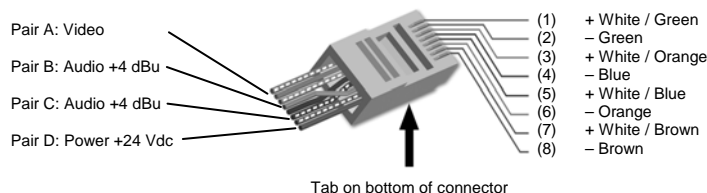


EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.

**Note:** The RU-TPDC provides power to all connected senders and receivers.



## RJ45 Standard wiring



RJ45 conductor colors shown are for 568A standard. The 568B standard may be used if the connectors at both ends of the cable are wired identically.

## TYPICAL PERFORMANCE:

Input: RDL TP Format-C  
Input Connection: RJ45  
Format-C Signal Pairs Used (3): A, B, C  
Outputs (4): RDL TP Format-C  
Output Connection: RJ45  
Video section: NTSC or PAL  
Video Bandwidth: 10 MHz  
Audio section: 10 Hz to 50 kHz (+/- 0.1 dB)  
Frequency Response:

THD+N: < 0.005%  
Noise below +4 dBu: < 90 dB  
Crosstalk: < 90 dB (1 kHz); < 75 dB (20 kHz); Video below noise floor > 18 dB  
CMRR: > 80 dB (50 Hz to 150 Hz)

Indicators (9):  
Power Connections (3):  
Power Requirement:  
Maximum Load Current:  
Dimensions:

Power In (1); Power Out (4); 2 Dual-LED VU Meters (4)  
Power Jack (2); Detachable Terminal Block  
24 Vdc @ 120 mA plus connected loads  
200 mA (each RJ45 output)  
5.8" (15 cm) W; 1.7" (4.3 cm) H; 3.25" (8.25 cm) D

## Radio Design Labs Technical Support Centers

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