



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

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

- Input Jack Accepts Signals from All FORMAT-A Senders
- Output Jacks Drive All FORMAT-A Receivers
- Four Receivers may be Driven From Each Distributor
- LOOP OUT Jack Can Feed Additional Distributor
- Power Bus Provides Expansion to Adjacent Distributors
- Powers All Connected Senders and Receivers
- Dual-LED VU Meters Display the Level on Each 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-TPDA is a four output signal and power distributor module compatible with RDL Format-A twisted pair products. The **INPUT** RJ45 jack accepts a twisted pair cable originating from one or multiple FORMAT-A senders. The **LOOP OUT** connector permits the input signal to daisy-chain to additional distributor modules. The RU-TPDA input circuits bridge the cable pairs, allowing up to 10 distributors to be connected together to produce 40 distributed outputs. Further expansion is possible by using one distributor output to drive up to an additional 10 distributors. Three RDL Dual-LED VU meters are provided on the front panel of the RU-TPDA. One meter monitors the audio level on each of the three FORMAT-A audio pairs.

The RU-TPDA 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 in each RU-TPDA 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-TPDA is powered directly from a 24 Vdc power supply using either one of the power jacks or the detachable terminal block. 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. Module power is indicated by a front-panel LED.

RDL FORMAT-A features superior audio performance that rivals or exceeds shielded wiring. Design simplicity, ease of installation, unsurpassed flexibility, automatic fused power, exceptional hum rejection, low noise, and low distortion provide designers and installers the optimum choice in economical twisted pair products.

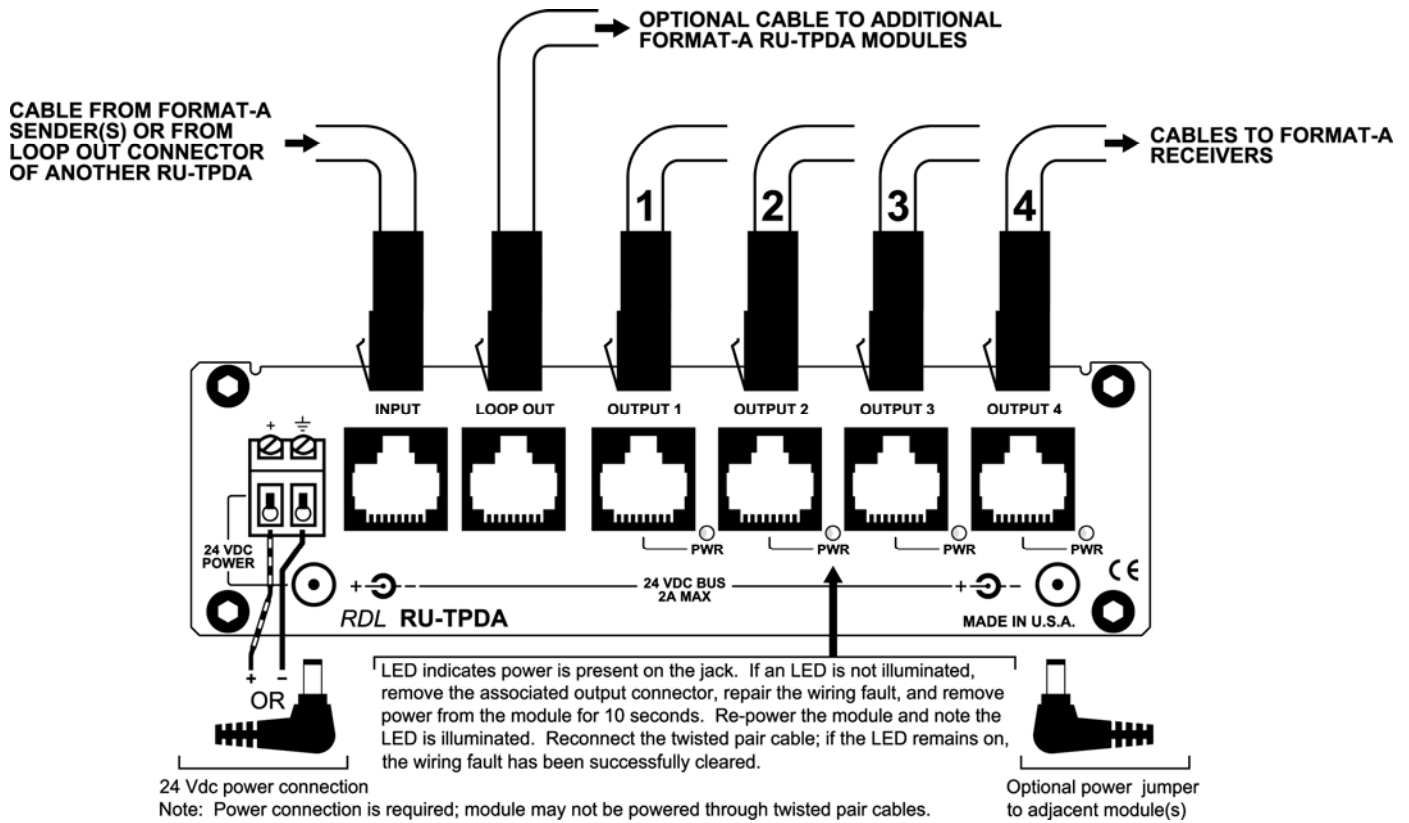
**max RACK-UP® SERIES**  
**TWISTED PAIR FORMAT-A**  
**Model RU-TPDA**  
**Four Output Format-A Distributor**

**Installation/Operation**

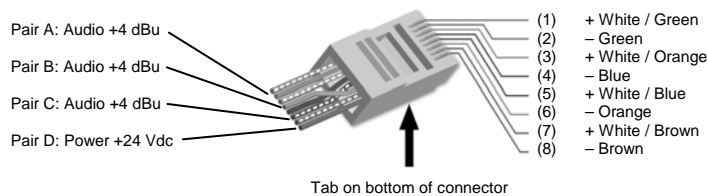


EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.

**Note:** The RU-TPDA 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-A              | Noise below +4 dBu:    | < 90 dB   |
| Input Connection:               | RJ45                         | Crosstalk:             | < 90 dB (1 kHz); < 75 dB (20 Hz to 20 kHz)            |
| Format-A Signal Pairs Used (3): | A, B, C                      | Headroom above +4 dBu: | > 18 dB   |
| Format-A Output:                | RJ45 LOOP OUT                | CMRR:                  | > 80 dB (50 Hz to 150 Hz)                             |
| Outputs (4):                    | RDL TP Format-A              | Indicators (11):       | Power In (1); Power Out (4); 3 Dual-LED VU Meters (6) |
| Output Connection:              | RJ45                         | Power Connections (3): | Power Jack (2); Detachable Terminal Block             |
| Frequency Response:             | 10 Hz to 50 kHz (+/- 0.1 dB) | Power Requirement:     | 24 Vdc @ 120 mA plus connected loads                  |
| THD+N:                          | < 0.005%                     | Maximum Load Current:  | 200 mA (each RJ45 output)                             |
|                                 |                              | Dimensions:            | 5.8" (15 cm) W; 1.7" (4.3 cm) H; 3.25" (8.25 cm) D    |