



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## max **RACK-UP**<sup>®</sup> SERIES **TWISTED PAIR FORMAT-A** **Model RU-TPS4A** **Four Output Sender / Distributor**

- Balanced or Unbalanced Line-Level Inputs
- Front-Panel Trimmer Adjusts Level for Each Pair
- Dual-LED VU Meters Display the Level of Each Pair
- Output Jacks Drive All FORMAT-A Receivers
- Drive Up to Four Receivers From Each Distributor
- All Connected Receivers Powered from Distributor
- Blue Power LED Shows the Module is Receiving dc Power
- Rear-Panel LEDs Indicate Correct Output Voltage on RJ45s
- Power Bus Provides Expansion to Adjacent Distributors
- High-Density Rack Mounting Using RACK-UP Accessories



**APPLICATION:** The RU-TPS4A is a four output audio sender, signal and power distributor module compatible with RDL Format-A twisted pair products. Three line-level sources may be connected to the module using the +4 dBu balanced detachable terminal block. Studio-quality buffer amplifiers feed the three pairs of the four rear-panel RJ45 **OUTPUT** jacks at the correct operating level.

Three RDL Dual-LED VU meters are provided on the front panel of the RU-TPS4A. One meter monitors the audio level on each of the three FORMAT-A audio pairs. A **GAIN** trimmer adjacent to each meter allows front-panel adjustment of each audio input for optimum operating level.

The RU-TPS4A is constructed in the durable MAX RACK-UP chassis which facilitates mounting three distributors in a single rack unit. Installations requiring more than four distributed outputs are easily accommodated by mounting one or more RU-TPDA Distributors adjacent to the RU-TPS4A. A wide variety of mounting accessories are available in the RDL RACK-UP series. A power bus in each RU-TPS4A allows power to enter one module at either side of the rack. The included power jumper cable provides a simple method of interconnecting the RU-TPS4A to an adjacent distributor module, so multiple modules can be operated from a single power supply.

The RU-TPS4A 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 **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.

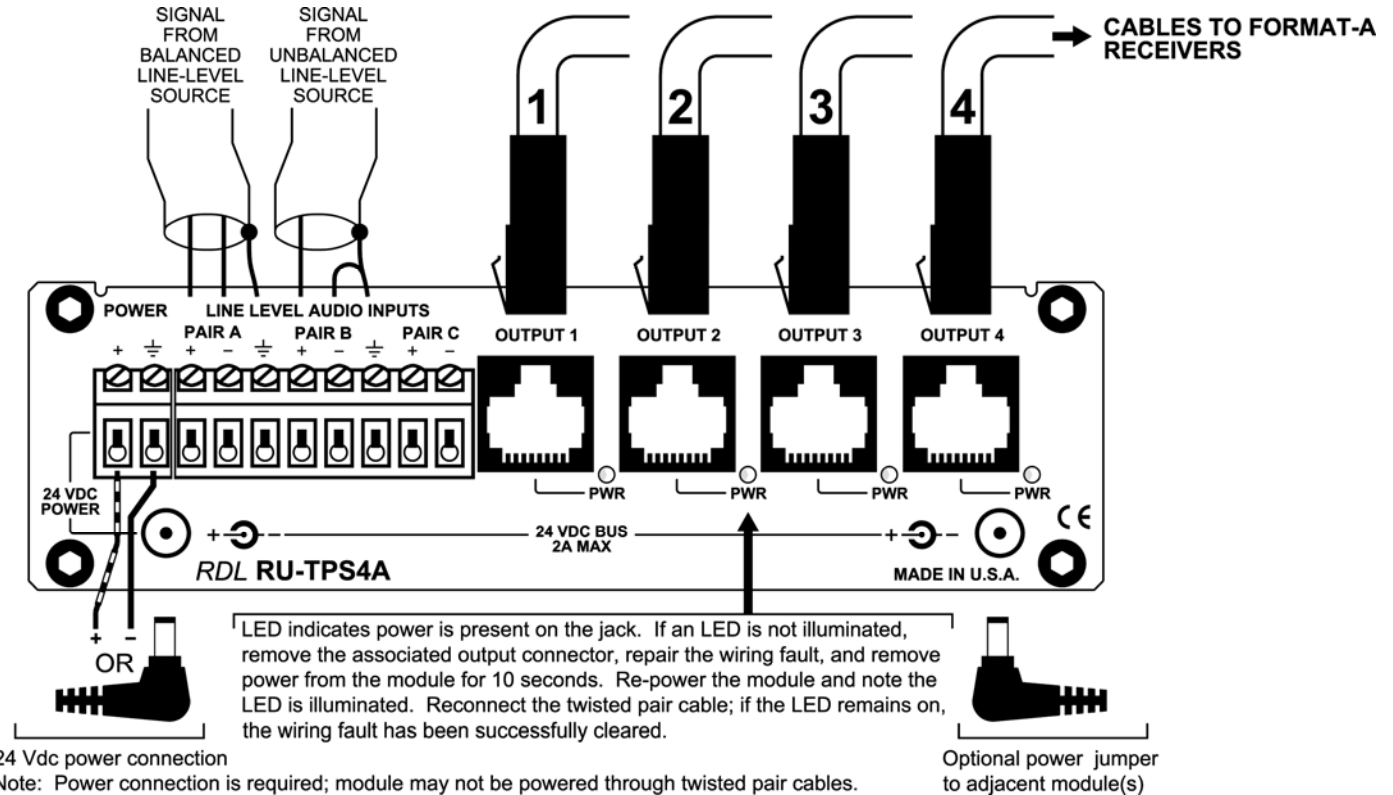
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## Installation/Operation

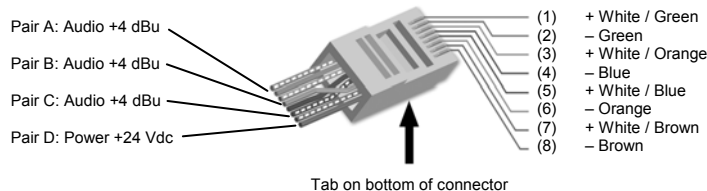


EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.

**Notes:** The RU-TPS4A provides power to all connected receivers. Each input may be connected balanced or unbalanced.



### 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:

Inputs (3): 20 kΩ balanced Detachable Terminal Block A, B, C  
Input Connection: Format-A Signal Pairs Used (3):  
Gain: -4 dB to +18 dB Adjustable, multi-turn front-panel trimmer  
Outputs (4): RDL TP Format-A  
Output Connection: RJ45  
Frequency Response: 10 Hz to 50 kHz (+/- 0.1 dB)  
THD+N: < 0.005%

Noise below +4 dBu: < 90 dB  
Crosstalk: < 90 dB (1 kHz); < 75 dB (20 Hz to 20 kHz)  
Headroom above +4 dBu: > 18 dB  
CMRR: > 80 dB (50 Hz to 150 Hz)  
Indicators (11): Power In (1); Power Out (4); 3 Dual-LED VU Meters (6)  
Power Connections (3): Power Jack (2); Detachable Terminal Block  
Power Requirement: 24 Vdc @ 120 mA plus connected loads  
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