



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## max TX™ SERIES TWISTED PAIR Model TX-TPS6A Format-A Passive Single-Pair Sender

- Single +4 dBu Low-Impedance Balanced Audio Input
- Input on Detachable Terminal Block
- Switch Selects which RJ45 Pair (A, B or C) is Fed
- Signal and Power Pair Pass-Through from LOOP IN Jack
- Passive Circuitry Does Not Require Power
- Galvanic Isolation through a Studio-Quality Transformer
- Daisy-Chain with Single-Pair or Two-Pair Format-A Senders



The TX-TPS6A is a single-pair audio sending module compatible with RDL Format-A twisted pair products. It is built in the versatile Max-TX series enclosure. The durable adhesives provided with the TX-TPS6A permit permanent or removable mounting. The TX-TPS6A may be rack or surface mounted with optional TX™ series accessories.

**APPLICATION:** The TX-TPS6A is a single-pair audio sending module compatible with RDL Format-A twisted pair products. One low-impedance +4 dBu balanced line-level audio source connects to the module using the detachable terminal block. A studio-quality transformer provides isolation between the audio source and the RJ45 OUTPUT.

The TX-TPS6A is a single-pair sender, feeding the input signal to the cable pair set on the front-panel switch during installation. This module drives only one cable pair, therefore a LOOP IN RJ45 jack is provided to accept signals and power from other mic-level or line-level Format-A senders. Two other single-pair senders may be chained to the LOOP IN jack, or a single two-pair sender may be connected. If three single-pair senders are connected together, each sender must feed a different pair: A, B or C. The TX-TPS6A must be set to feed pair A if it is connected together with an RDL two-pair sender that feeds stereo audio on pairs B and C.

The TX-TPS6A is a passive module that does not require power to operate. If power is present on a cable connected to either the LOOP IN or OUTPUT jack, that power is passed through to the modules connected to the other jack.

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 TX™ SERIES TWISTED PAIR**  
**Model TX-TPS6A**  
**Format-A Passive Single-Pair Sender**

**Installation/Operation**

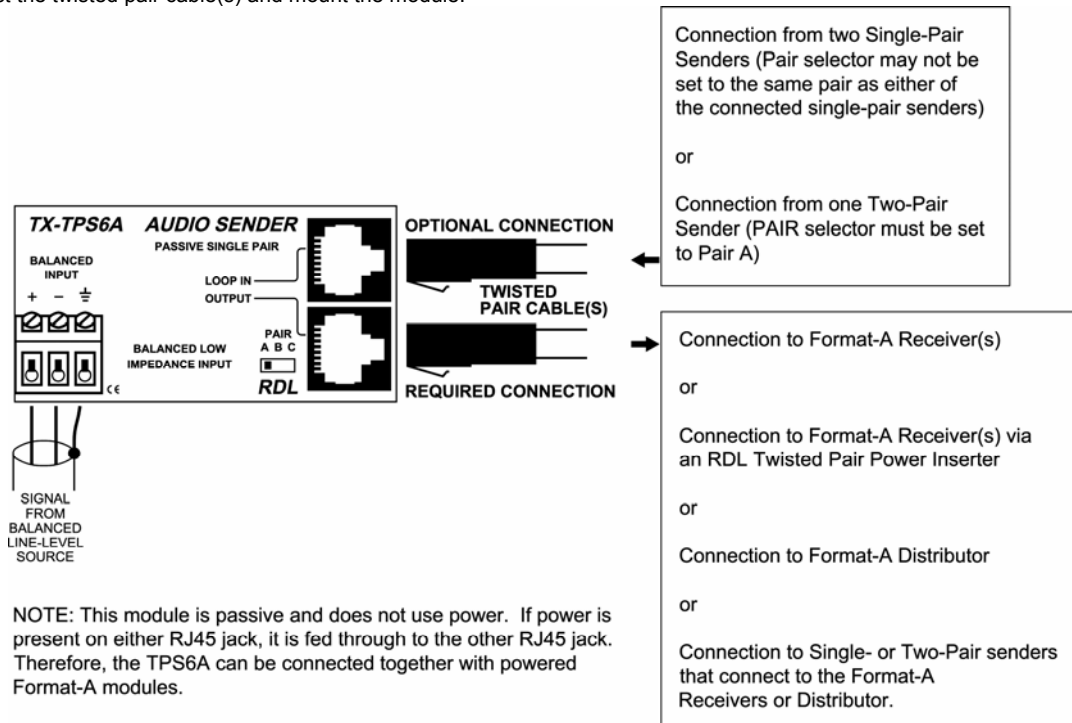


EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.

**STEP 1:** Set the PAIR selector so the module is driving the desired pair A, B or C of the Format-A cable. If the module is connected together with one or two other single-pair senders, each sender must be set to a different pair. If connected together with a two-pair sender, the switch must be set to pair A.

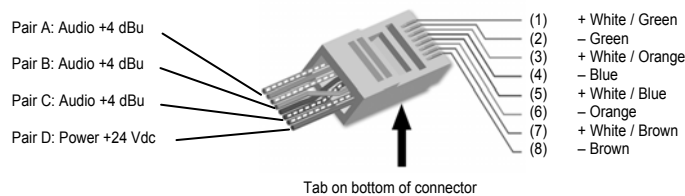
**STEP 2:** Connect a low-impedance balanced audio source to the input (+4 dBu balanced terminal block).

**STEP 3:** Connect the twisted pair cable(s) and mount the module.



**NOTE:** This module is passive and does not use power. If power is present on either RJ45 jack, it is fed through to the other RJ45 jack. Therefore, the TPS6A can be connected together with powered Format-A modules.

**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: Low-impedance Balanced; Recommended source impedance < 150 Ω  
Input Connection: Detachable Terminal Block (Balanced)  
Input Level: +4 dBu balanced; +22 dBu Max  
Format-A Signal Pair Used: Switch-selectable A, B, or C  
Format-A Input: RJ45 LOOP IN  
Output: RDL TP Format-A  
Output Connection: RJ45

Frequency Response: 20 Hz to 20 kHz (+/- 0.1 dB)  
THD+N: < 0.035% (50 Hz to 20 kHz, +4 dBu); < 0.1% (20 Hz to 20 kHz, +4 dBu)  
Headroom above +4 dBu: > 18 dB  
CMRR: > 85 dB (50 Hz to 150 Hz)  
Power Requirement: Passive  
Dimensions: 3.0" (7.6 cm) W; 1.6" (4.08 cm) H; 2.09" (5.3 cm) D