



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## max TX™ SERIES TWISTED PAIR Model TX-TPR3A Format-A Three-Pair Receiver

- Three -10 dBV Unbalanced or +4 dBu Balanced Outputs
- Phono Jack and Detachable Terminal Block Outputs
- Audio Outputs for All Three Pairs (A, B and C)
- Utilizes All Three Format-A Pairs
- Powered Locally or Remotely through RJ45 Jack
- Local Power Feeds all Modules Connected to INPUT
- Wiring Fault Protection by Automatic Resetting Fuse
- Local Power Input on Terminal Block or dc Power Jack
- Blue LED Indicates Module is Powered
- Studio-Quality Precision Active Balanced Circuitry



The TX-TPR3A is a three-pair audio receiving 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-TPR3A permit permanent or removable mounting. The TX-TPR3A may be rack or surface mounted with optional TX™ series accessories.

**APPLICATION:** The TX-TPR3A is a three-pair audio receiving module compatible with RDL Format-A twisted pair products. Three outputs are provided corresponding to the three signal pairs A, B and C. The audio signal received on each pair of the RJ45 INPUT jack feeds the corresponding -10 dBV unbalanced RCA phono jack output and the +4 dBu balanced detachable terminal block output. A studio-quality buffer amplifier feeds the outputs at the correct operating level.

The TX-TPR3A features bridging inputs, allowing it to be connected to the LOOP OUT jack of other receivers. The bridging input circuits used in all FORMAT-A twisted pair receivers allow connection of up to 10 receiver outputs for each cable pair. The possibility of multiple receiver locations adds enormous flexibility in the design of audio routing systems using RDL FORMAT-A products. The TX-TPR3A may be powered directly from a 24 Vdc power supply using either the power jack or the detachable terminal block. Local power connected to the module is also fed to all modules connected to the INPUT RJ45 jack.

The TX-TPR3A may be remotely powered through the twisted pair cable from any other module, signal distributor or RDL power inserter connected to the same twisted pair cable. 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 TX™ SERIES TWISTED PAIR**  
**Model TX-TPR3A**  
**Format-A Three-Pair Receiver**

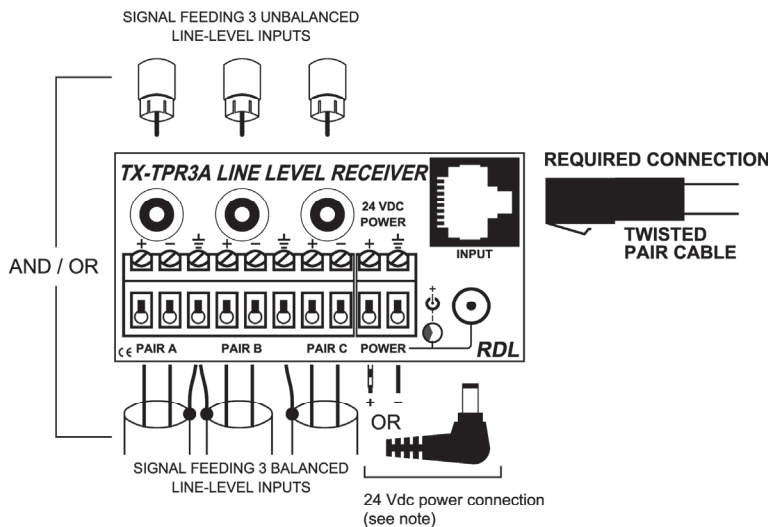
**Installation/Operation**



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:** Connect 24 Vdc to the **POWER** input (terminals or jack) if this module is not being powered through the twisted pair cable from another module, or if this module is located an excessive distance from the next powered module on the cable. Note: The front-panel power LED will be illuminated if this module is powered. If this module is powering other modules through the cable and if there is a wiring short, the short must be cleared then power must be turned off to this module for 10 seconds to reset the internal protection circuit.
- STEP 2:** Connect the **UNBAL OUT** jacks to -10 dBV equipment inputs, and/or connect the **BAL OUT** terminals to +4 dBu equipment inputs.
- STEP 3:** Connect the **INPUT** twisted pair cable coming from Format-A senders or distributors and mount the module.

NOTE: All six audio outputs may be used simultaneously. Each Format-A pair A, B and C provides two associated outputs: one balanced, one unbalanced.



Connection from Single-Pair, Two-Pair or Three-Pair Senders (direct, or via an RDL Twisted Pair Power Inserter)

or

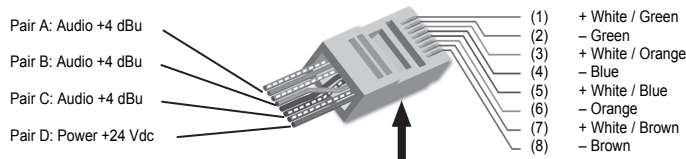
Connection from Format-A Distributor

or

Connection from other Format-A Receivers

NOTE: Connect a 24 Vdc power supply to the module if power is not being supplied through a twisted pair cable from a connected module.

**RJ45 Standard wiring**



Tab on bottom of connector

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  
Input Connection: RJ45  
Format-A Signal Pairs Used (3): A, B, C  
Outputs (6): 150 Ω Balanced (3); 1 kΩ Unbalanced (3)  
Output Connection: Detachable Terminal Block (Bal); RCA (Unbal)  
Output Level: +4 dBu Bal., +22 dBu Max; -10 dBV Unbal.  
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)  
Indicator: Power In  
Power Connections (3): Power Jack; Detachable Terminal Block; RJ45  
Power Requirement: 24 Vdc @ 65 mA plus connected loads  
Maximum Load Current: 135 mA  
Dimensions: 3.0" (7.6 cm) W; 1.6" (4.08 cm) H; 2.09" (5.3 cm) D

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