



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## TWISTED PAIR FORMAT-A Models D-TPRX3A, DS-TPRX3A, DB-TPRX3A Three Input Format-A Source Selector



- Remote Selection from 3 Sources that Correspond to 3 Format-A Pairs
- Single-Button Selection for Each Source
- LED Indication
- Line-level Balanced Output on Detachable Terminal Block
- Display is Bright During Adjustment
- Display Dims After Adjustment
- Remote Powering through Twisted Pair Cable
- Fused Local Power Feeds all Connected Modules
- Local Power Input on Terminal Block
- Studio-Quality Precision Active Balanced Circuitry
- All-Metal Construction
- Available in Stainless Steel, Black and White

The D SERIES-TPRX3A modules are single pair audio sending modules compatible with RDL Format-A twisted pair products. These modules are designed to be mounted in wall boxes, cabinets or other enclosures that allow users to connect audio sources.

**APPLICATION:** The D-SERIES-TPRX3A is a three-pair audio receiving and switching module compatible with RDL Format-A twisted pair products. Three audio sources are available, corresponding to the three signal pairs A, B and C. The front panel of the -TPRX3A features three pushbuttons, each corresponding to one of three inputs. When a button is pushed, the corresponding audio input is fed to the output and any previously selected source is shut off. Only one source may be selected at a time. If the button for a selected source is pushed again, all inputs are turned off. An LED adjacent to each button shows which source is selected.

When a -TPRX3A is not being used, its display switches to a dim intensity to avoid being a visual distraction. The display returns to a bright intensity when a button is pushed. In the event of power loss, internal non-volatile memory stores the last source selected. When power is restored, the -TPRX3A will return to the source that was active when power was lost.

The D-SERIES-TPRX3A was designed for absolute silent switching of audio signals. It provides a balanced line-level output that may be connected unbalanced.

The -TPRX3A 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 receivers for each cable pair. The possibility of multiple receiver locations adds enormous flexibility in the design of audio monitoring systems using RDL FORMAT-A products.

The -TPRX3A 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 -TPRX3A 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.

The -TPRX3A remote controls are constructed on a steel frame. The electronics are fully protected within the rear enclosure. Use them with RDL wall-mounted accessories as part of a complete audio/video system.



## FORMAT-A TWISTED PAIR

### Models D-TPRX3A, DB-TPRX3A, DS-TPRX3A

## Three Input Format-A Source Selector

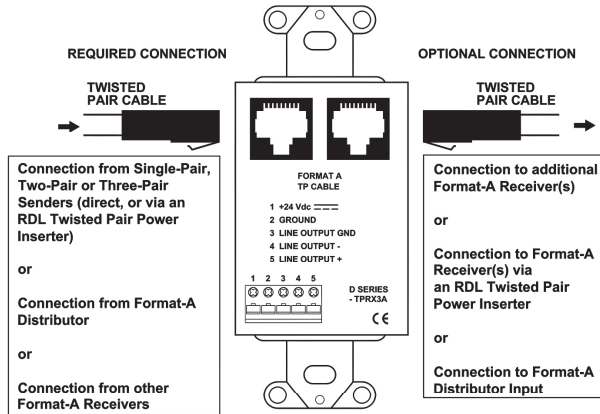
## Installation/Operation



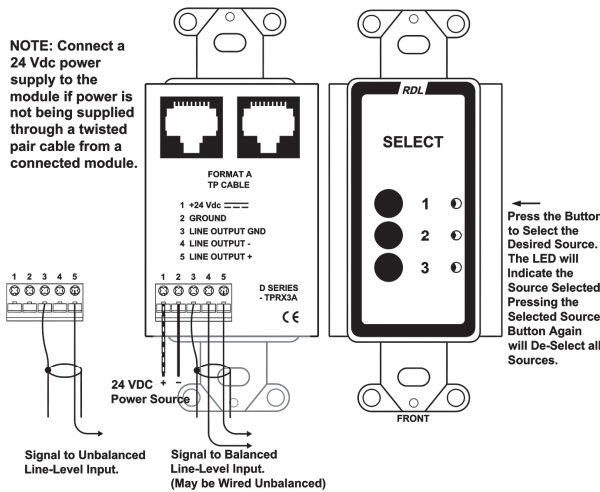
EN55103-1 E1-E5; EN55103-2 E1-E4  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.

**STEP 1:** Connect 24 Vdc to the power input terminals 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.

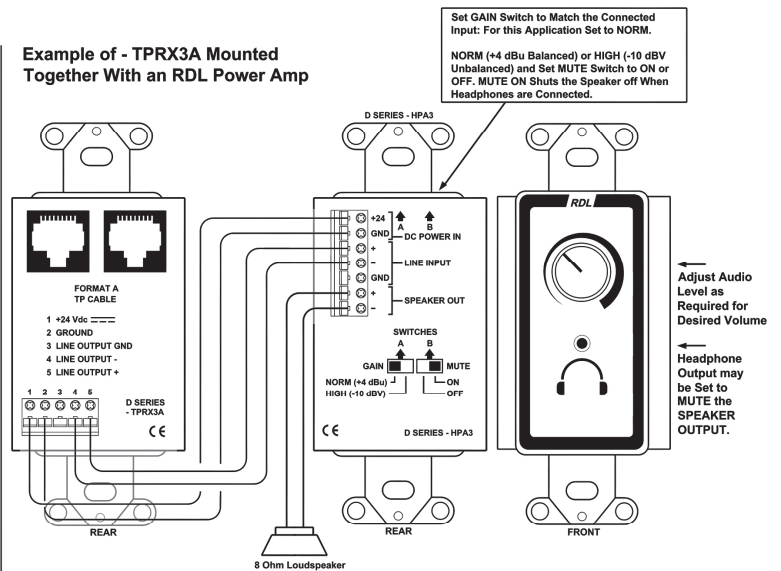
**STEP 2:** Connect the twisted pair cable(s) and fasten the module in its mounting box.



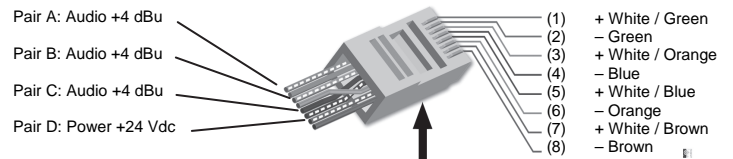
**NOTE:** Connect a 24 Vdc power supply to the module if power is not being supplied through a twisted pair cable from a connected module.



### Example of - TPRX3A Mounted Together With an RDL Power Amp



### RJ45 Standard wiring



Tab on bottom of connector

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

## TYPICAL PERFORMANCE

Input: RDL FORMAT-A  
Input Connection: RJ45  
Format-A Signal Pairs Used (3): A, B, C  
Front-Panel Switches: Momentary pushbuttons (3, 1 per input)  
Front-Panel Indicators (3): Selected channel  
Output: 150 Ω balanced  
Output Connection: Detachable terminal block  
Output Level: +4 dBu Line level, nominal  
Format-A Output: RJ45 (loop-through)  
Frequency Response: 10 Hz to 20 kHz (± 0.5 dB)

THD+N: < 0.005% (1 kHz); < 0.05% (20 Hz to 20 kHz)  
Noise below +4 dBu: < -85 dB  
Off Attenuation: < 90 dB (1 kHz); < 70 dB (20 Hz to 20 kHz)  
Headroom above +4 dBu: > 18 dB  
CMRR: > 80 dB (50 Hz to 150 Hz)  
Power Connections (2): Detachable terminal block; RJ45  
Ambient Operating Environment: 0° C to 55° C  
Power Requirement: 24 Vdc @ 45 mA plus connected loads  
Dimensions: 1.6" (4.06 cm) W; 4.11" (10.45 cm) H; 1.89" (4.8 cm) D