



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

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## TWISTED PAIR FORMAT-A Models D-TPS8A, DS-TPS8A, DB-TPS8A Format-A Mini-Jack Input



- Unbalanced -10 dBV Mini Jack Audio Input
- Rear-panel RJ45 Input for Connecting Additional -TPS8A Senders
- Left (L) Input Feeds Pair B; Right (R) Feeds Pair C
- Signal and Power Pair Pass-Through on RJ45 Jacks
- Remote Powering through Twisted Pair Cable
- Daisy-Chain with Single-Pair Sender
- Studio-Quality Precision Active Balanced Circuitry
- Decora® Design with All Steel Panel and Rear Enclosure

The D SERIES-TPS8A is part of the group of versatile wall-mounted products from Radio Design Labs. The standard mounting case can be directly fastened in North American electrical boxes or in RDL International wall boxes.

**APPLICATION:** The D SERIES-TPS8A modules are two-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. The D- and DS- models mount in RDL WB-1U and WB-2U wall boxes, or in standard U.S. electrical boxes. The D-TPS8A features a white front-panel laminate with gray lettering that matches RDL Decora®-style remote controls. The DS-TPS8A is constructed of stainless steel to coordinate with RDL Decora-style stainless steel remote controls in commercial/industrial installations. The DB-TPS8A features a black front-panel laminate.

The -TPS8A modules feature one stereo Mini jack input on the front panel. The input is designed to receive standard -10 dBV consumer level signals from sources such as a computer or personal media player. The input signals are amplified using studio-quality preamplifiers optimized for normal operating levels. The buffered left and right inputs are routed to output cable pairs B and C. These modules drive only two cable pairs, therefore they accept a signal and power from one mic-level or line-level Format-A single-pair sender. One single-pair sender may be chained with the -TPS8A. A single-pair sender must be set to feed pair A if it is connected together with the -TPS8A.

The -TPS8A modules have a Format-A input on the rear panel. This RJ45 input receives left and right signals from preceding senders and sums them together with the local Mini jack input. This allows multiple -TPS8A modules to be connected in series with all the Mini jack inputs remaining active.

The -TPS8A is remotely powered through the twisted pair cable from any other module, signal distributor or RDL power inserter connected to the same twisted pair cable. There are no illuminated indicators that could be distracting in dark locations, such as a hotel room.

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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**D- SERIES**

**Models D-TPS8A, DS-TPS8A, DB-TPS8A**  
**Format-A Mini-Jack Input**

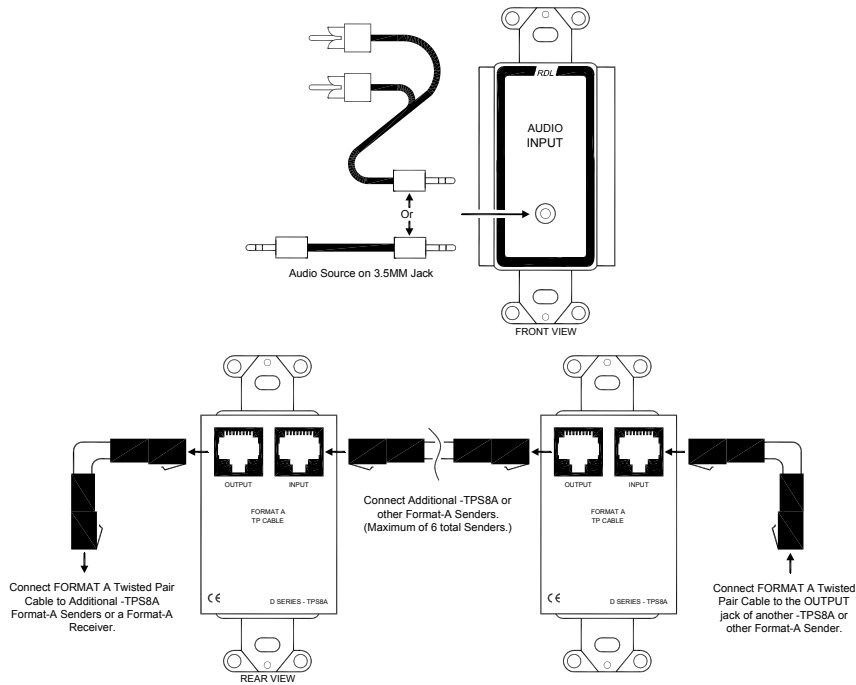
Mounting

The D SERIES-TPS8A should be mounted in an RDL WB-1U wall box or equivalent. The ambient operating environment must not exceed 40 degrees C.

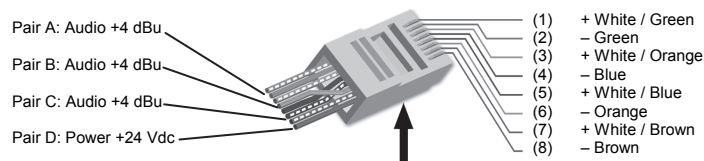
**Installation/Operation**



EN55103-1 E1-E5; EN55103-2 E1-E4; EN60065  
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice. This product is Professional Apparatus.



**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**

Inputs (2): 10 kΩ Unbalanced, stereo; Format-A  
 Input Connection: Mini jack (front panel); RJ45 (rear panel)  
 Input Level: -10 dBV; +10 dBV Maximum  
 Format-A Signal Pairs Used (2): B (Left); C (Right)  
 Gain: 12 dB  
 Output: RDL TP Format-A  
 Output Connection: RJ45  
 Frequency Response: 20 Hz to 50 kHz (+/- 0.5 dB)  
 THD+N: < 0.1% (20 Hz to 50 kHz); < 0.01% (1 kHz)  
 Noise below +4 dBu: < -85 dB; < -75 dB with up to 10 -TPS8A modules connected  
 Crosstalk: < 85 dB (1 kHz); < 75 dB (20 Hz to 20 kHz)  
 Headroom above +4 dBu: > 20 dB  
 Power Connection: RJ45  
 Power Requirement: 24 Vdc @ 30 mA  
 Dimensions: 1.33" (3.37 cm) D; 1.72" (4.37 cm) W; 4.11" (10.44 cm) H  
 Ambient Operating Environment: 0° C to 55° C

**Radio Design Labs Technical Support Centers**

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