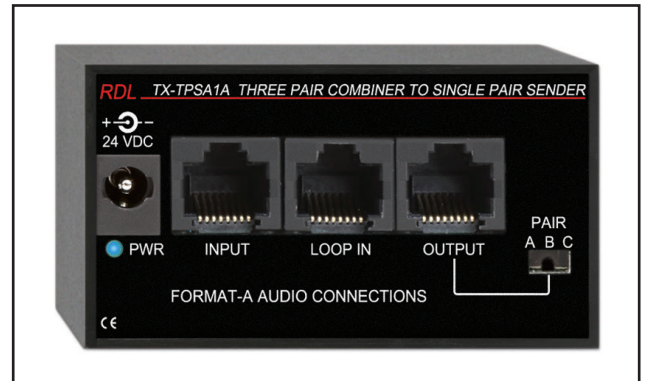# TX™ SERIES
Model TX-TPSA1A
Three Pair Combiner to Single Pair Sender

- Three-Pair Receiver
- Isolated Active Mixing of the Audio Sources on Format-A Pairs A, B and C
- The Summed Output Drives One Pair of the Cable Connected to the OUTPUT Jack
- Selector Switch Sets the RJ45 Output Pair A, B or C that is Driven
- Two Audio Pairs and the Power Pair Pass Through to OUTPUT from LOOP IN Jack
- Local Power Feeds Modules Connected to RJ45 Jacks
- Daisy-Chain with Additional Format-A Senders
- Studio-Quality Precision Active Balanced Circuitry

The TX-TPSA1A is part of the group of versatile TX series products from Radio Design Labs. TX modules feature the superior engineering and components common to RDL products. The durable adhesives provided with the TX-TPSA1A permit permanent or removable mounting. The TX-TPSA1A may be rack or surface mounted with optional TX series accessories.

APPLICATION: The TX-TPSA1A module provides one Format-A input on the front panel. The input RJ45 connector accepts a twisted pair cable coming from one or multiple Format-A senders. This input receives and sums the signals received on the three pairs A, B and C. The summed output is fed to one of the OUTPUT pairs A, B or C selected during installation using the front-panel selector. The two remaining pairs are available for signals to pass through from other Format-A senders connected to the LOOP IN jack. Because this module drives only one pair of the output cable, the RJ45 LOOP IN jack can accept two signals and power from other Mic or Line input Format-A modules. Two single-pair senders can be connected to the LOOP IN jack, or one sender that uses two pairs.

The TX-TPSA1A may be powered from any of the RJ45 jacks, which provides power to the two remaining RJ45 jacks. The module may also be powered from an external 24 Vdc power supply connected to the DC input jack, which provides power to all three RJ45 jacks. Output voltage is protected by an automatically resetting fuse. A blue front-panel LED indicates the presence of valid power.
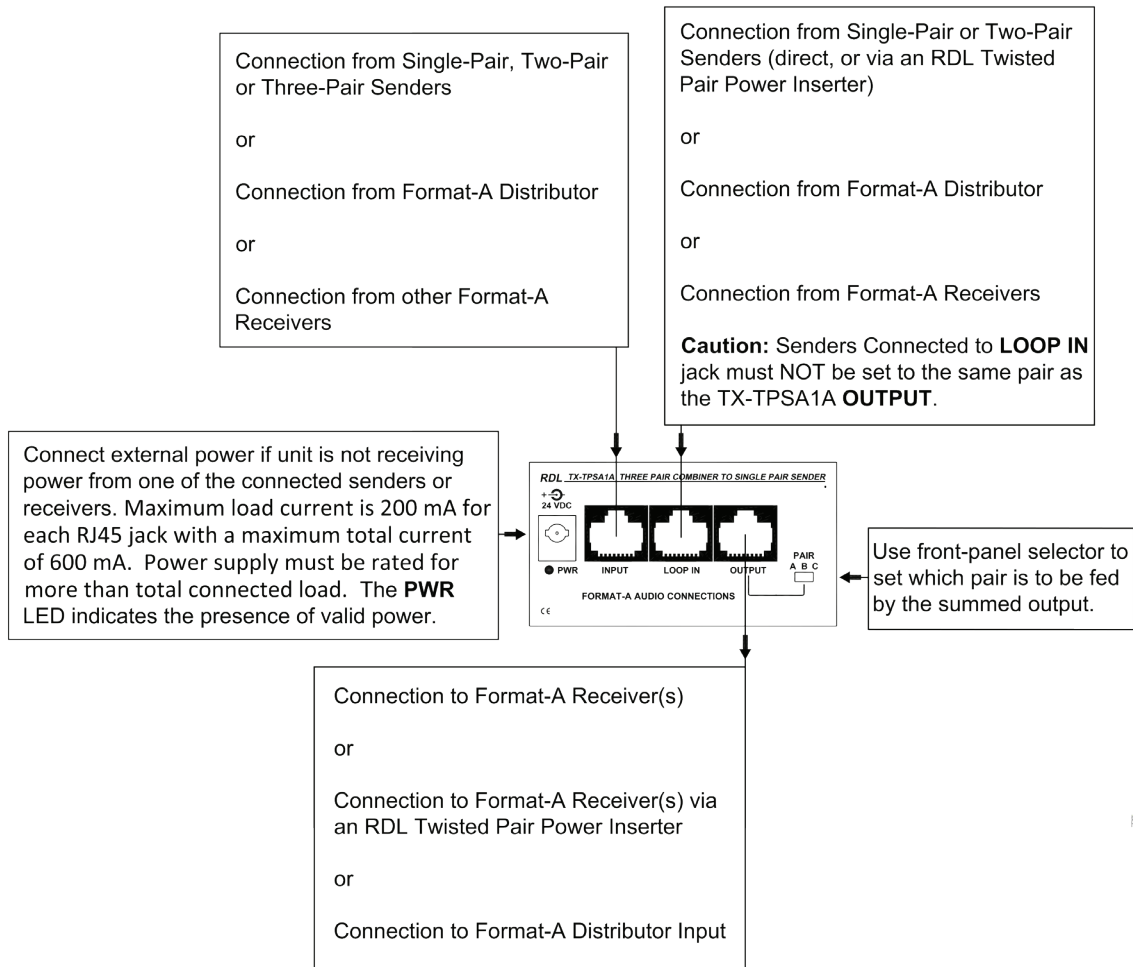
Installation/Operation

TX™ SERIES
Model TX-TPSA1A
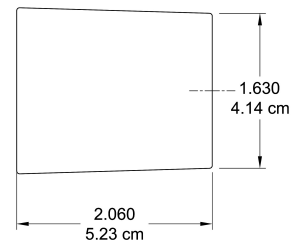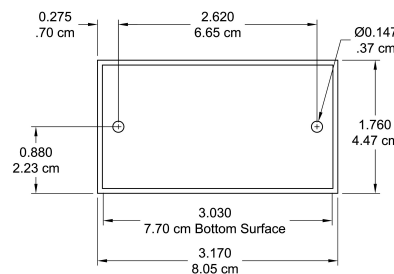# Three Pair Combiner to Single Pair Sender

CE
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.

Connection from Single-Pair, Two-Pair
or Three-Pair Senders

or

Connection from Format-A Distributor

or

Connection from other Format-A
Receivers

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

or

Connection from Format-A Distributor

or

Connection from Format-A Receivers

Caution: Senders Connected to **LOOP IN**
jack must NOT be set to the same pair as
the TX-TPSA1A **OUTPUT**.

Connect external power if unit is not receiving
power from one of the connected senders or
receivers. Maximum load current is 200 mA for
each RJ45 jack with a maximum total current
of 600 mA. Power supply must be rated for
more than total connected load. The **PWR**
LED indicates the presence of valid power.

RDL TX-TPSA1A THREE PAIR COMBINER TO SINGLE PAIR SENDER
+⊙−
24 VDC

● PWR   INPUT   LOOP IN   OUTPUT

PAIR
A B C

FORMAT-A AUDIO CONNECTIONS

Use front-panel selector to
set which pair is to be fed
by the summed output.

Connection to Format-A Receiver(s)

or

Connection to Format-A Receiver(s) via
an RDL Twisted Pair Power Inserter

or

Connection to Format-A Distributor Input

TYPICAL PERFORMANCE

Inputs (2):	RDL TP Format-A (active summing); RDL TP Format-A (LOOP IN)
Input Connections:	RJ45
Format-A Signal Pairs Used (3):	A, B, C
Output:	RDL TP Format-A
Output Connection:	RJ45
Output Selector:	Pair A, B or C
Frequency Response:	10 Hz to 50 kHz ($\pm$ 0.1 dB)
THD+N:	< 0.005%
Noise below +4 dBu:	< 90 dB
Headroom:	> 18 dB (above +4 dBu)
CMRR:	> 80 dB (50 Hz to 150 Hz)
Indicator:	Power In
Power Connections (4):	Power Jack; RJ45 (3)
Ambient Operating Environment:	0° C to 55° C
Power Requirement:	24 Vdc @ 65 mA plus connected loads
Dimensions:	3.17" (8.05 cm) W; 1.76" (4.47 cm) H; 2.06" (5.23 cm) D

0.275
.70 cm

2.620
6.65 cm

Ø0.147
.37 cm

0.880
2.23 cm

1.760
4.47 cm

3.030
7.70 cm Bottom Surface

3.170
8.05 cm

1.630
4.14 cm

2.060
5.23 cm

891-7140

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