



RDL[®]
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

max TX™ SERIES TWISTED PAIR Model TX-TPS3C Format-C Three-Pair Sender

- Video and Stereo Audio Over Single Twisted Pair Cable
- Two -10 dBV Unbalanced or +4 dBu Balanced Audio Inputs
- NTSC or PAL Video
- Phono Jack and Detachable Terminal Block Audio Inputs
- Utilizes All Three Format-C Pairs
- Powered Locally or Remotely through the RJ45 Jack
- Local Power Feeds all Modules Connected to OUTPUT
- Wiring Fault Protection by Automatically Resetting Fuse
- Local Power Input on Terminal Block or dc Power Jack
- Blue LED Indicates Module is Powered
- Active Balanced Transmission Over Twisted Pairs
- Video Feeds Pair A; L (Left) Feeds Pair B; R (Right) Feeds Pair C



The TX-TPS3C is a three-pair audio/video sending module compatible with RDL Format-C twisted pair products. It is built in the versatile Max-TX series enclosure. The durable adhesives provided with the TX-TPS3C permit permanent or removable mounting. The TX-TPS3C may be rack or surface mounted with optional TX™ series accessories.

APPLICATION: The TX-TPS3C modules feature a BNC NTSC or PAL video input and two RCA phono jack inputs, one for the left channel audio source and one for the right channel audio source. The unbalanced audio inputs are designed to receive standard -10 dBV consumer level signals. Balanced +4 dBu audio inputs are provided through a detachable terminal block. The buffered video source is routed to pair A. The buffered left and right line-level inputs are routed to cable pairs B and C. This module drives all three FORMAT-C cable pairs, so it is not equipped to receive inputs from other sender modules. The TX-TPS3C may be powered directly from a 24 Vdc power supply using the front-panel detachable terminal block. Local power connected to the module is also fed to all connected remote modules. The TX-TPS3C 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-C provides quality balanced video transmission over long distances, and features superior audio performance that rivals or exceeds shielded wiring. Design simplicity, ease of installation, unsurpassed flexibility, automatically 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-TPS3C

Format-A Three-Pair Sender

Installation/Operation



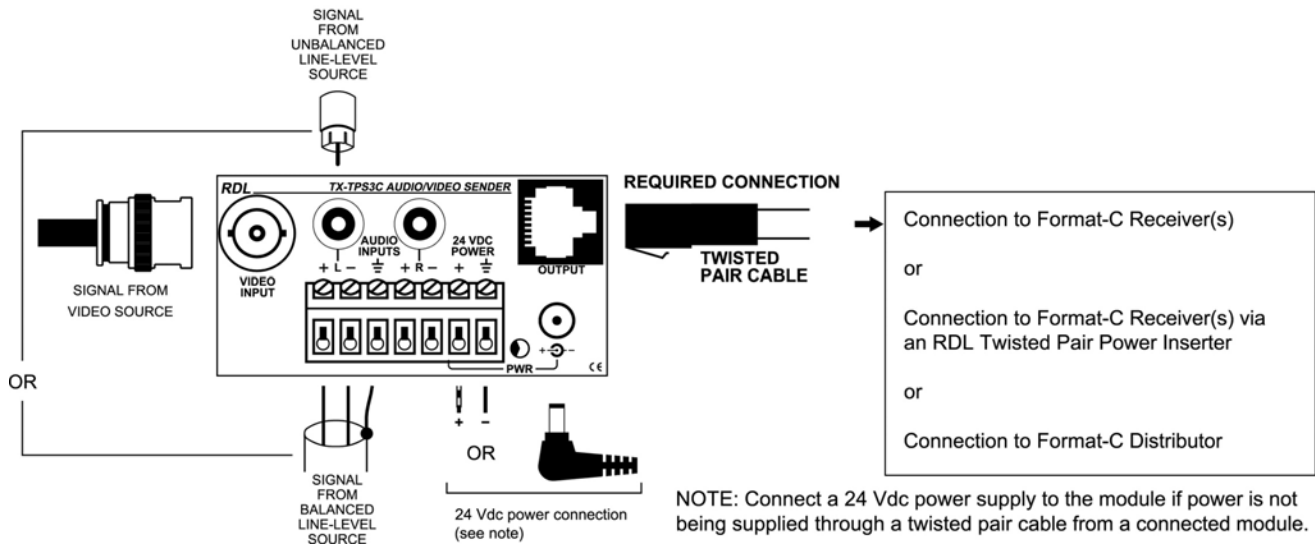
EN55103-1 E1-E5; EN55103-2 E1-E4
 Typical Performance reflects product at publication time
 exclusive of EMC data, if any, supplied with product.
 Specifications are subject to change without notice.

STEP 1: Connect audio sources to the L (left) and R (right) inputs (+4 dBu balanced terminal block, or -10 dBV input jack).

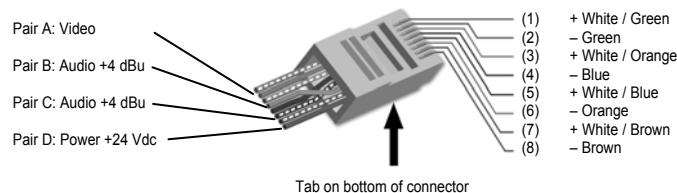
STEP 2: Connect a video source to the BNC jack.

STEP 3: 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. 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 4: Connect the twisted pair cable and mount the module.



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

Inputs (5): Video: 75 Ω; Audio (left and right): 10 kΩ unbal. and 10kΩ balanced
 Input Connection: Video: BNC; Audio: RCA Phono (unbal); detachable terminal block (bal)
 Input Level: Video: 1V p-p; Audio: -10 dBV unbalanced or +4 dBu balanced
 FORMAT-C Pairs: A (Video); B (Audio Left); C (Audio Right)
 Gain: Video: Unity; Unbal Line: 12 dB; Bal Line: Unity
 Output: RDL TP FORMAT-C
 Output Connection: RJ45
 Video Section
 Video Format: NTSC or PAL
 Video Bandwidth: 10 MHz

Audio Section

Frequency Response: 20 Hz to 50 kHz (+/- 0.5 dB)
 THD+N: < 0.05% (20 Hz to 50 kHz); < 0.005% (1 kHz)
 Noise below +4 dBu: < -95 dB
 Crosstalk: Line to Line: < 90 dB (1 kHz); < 75 dB (20 Hz to 20 kHz);
 Line to Video, Video to Line: Below noise floor
 Headroom above +4 dBu: > 18 dB
 Indicator: Power In
 Power Connections (2): Detachable terminal block; RJ45
 Power Requirement: 24 Vdc @ 65 mA plus connected loads
 Maximum Load Current: 135mA at RJ45 Jack
 Dimensions: 3.0" (7.6 cm) W; 1.6" (4.08 cm) H; 2.09" (5.3 cm) D

Radio Design Labs Technical Support Centers

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