



# RDL®

High Performance Audio Products. Made in America.

## TWISTED PAIR FORMAT-A Model D-SERIES TPSML1A Format-A Single-Pair Sender



- Balanced Microphone or Line-Level XLR Input
- Switch-Selectable Mic or Line Operation on Rear Panel
- Switch-Selectable Mic Gain on Rear Panel
- Switch-Selectable P24 Phantom for Mic Inputs
- Mic High Gain: 60 dB; Mic Low Gain: 46 dB; Line Gain: Unity
- Switch Selects which RJ45 Pair (A, B or C) is Fed
- Signal and Power Pair Pass-Through on RJ45 Jacks
- Remote Powering through Twisted Pair Cable
- Fused Local Power Feeds all Connected Modules
- Local Power Input on Terminal Block
- Blue LED in XLR Indicates Module is Powered
- Daisy-Chain with Single-Pair or Two-Pair Senders
- Studio-Quality Precision Active Balanced Circuitry

**APPLICATION:** The D SERIES-TPSML1A modules feature an XLR microphone or line input. The module provides IEC P24 phantom and accepts input signals from balanced line-level sources or from both dynamic and condenser microphones. The input signal is buffered or amplified using a studio-quality preamplifier optimized for normal operating levels. For microphone sources, the rear-panel GAIN switch is normally set by the installer for MIC LOW gain. If consistently low mic levels are expected, this switch may be set to the MIC HIGH gain position. For line-level sources, the GAIN switch is set to LINE. In either MIC gain position, the PHANTOM voltage is used to set mic phantom ON or OFF. Phantom voltage is not applied when the input is set to LINE.

The pre-amplified input source is routed to one Format-A output cable pair, A, B or C, selected during installation using a rear-panel switch. Two other single-pair senders may be chained with the -TPSML1A, or a single two-pair sender may be connected. If three single-pair senders are connected together, each sender must feed a different pair: A, B or C. The -TPSML1A must be set to feed pair A if it is connected together with an RDL two-pair sender that feeds stereo audio on pairs B and C. The power pair and all three audio pairs are fed through both rear-panel RJ45 jacks.

The D SERIES-TPSML1A may be powered directly from a 24 Vdc power supply using the rear-panel detachable terminal block. Local power connected to the module is also fed to all connected remote modules. The -TPSML1A may be remotely powered through the twisted pair cable from any other Format-A module, signal distributor or RDL power inserter connected to the same twisted pair cable. Module power is indicated by a front-panel LED in the XLR jack.

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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## Installation/Operation

### TWISTED PAIR FORMAT-A Model D-SERIES TPSML1A

### Format-A Single-Pair Senders



Declaration of Conformity available from [rdlnet.com](http://rdlnet.com).  
Sole EMC specifications provided on product package.  
Specifications are subject to change without notice.

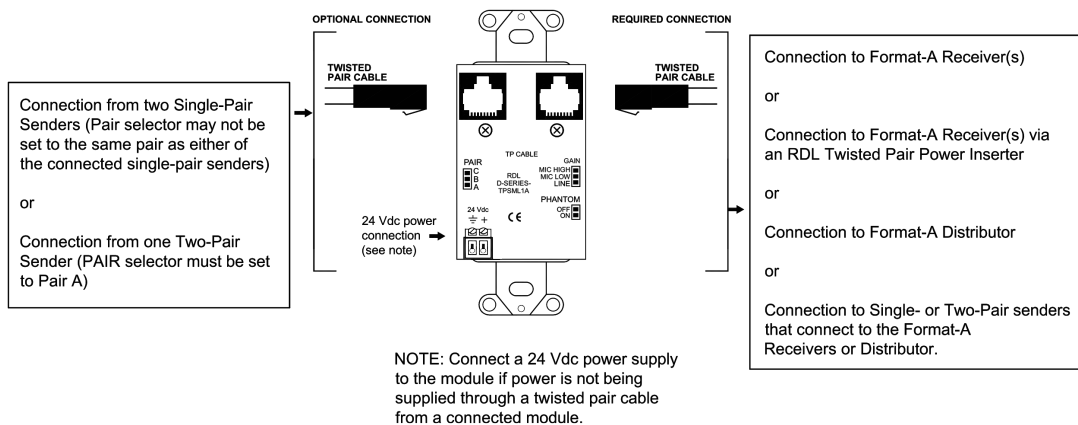
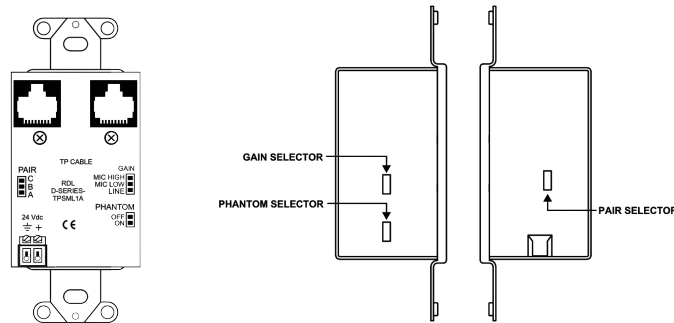
- STEP 1:** Set the MIC gain switch to MIC LOW (normal gain) unless consistently low mic level signals are expected. Set the MIC gain switch to MIC HIGH if low levels are always expected. Note: If both normal and low-level mic signals are expected, the gain should be set to MIC LOW to avoid clipping when high levels are connected.
- STEP 2:** Set the PAIR selector so the module is driving the desired pair A, B or C of the Format-A cable. If the module is connected together with one or two other single-pair senders, each sender must be set to a different pair. If connected together with a two-pair sender, the switch must be set to pair A
- 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(s) and fasten the module in its mounting box.

Safety Instructions/Consignes de sécurité/  
Instrucciones de seguridad/Sicherheitshinweise:



EU Importer:  
Importateur de l'UE:  
Importador de la UE:  
EU-Importeur:

RDL Europe B.V.  
Joan Muyskenweg 124  
1114 AN Amsterdam



### TYPICAL PERFORMANCE

Input Connection: XLR  
Mic Input Level: -42 to -64 dBu Bal.; Max: -35 dBu (MIC HIGH Gain), -21 dBu (MIC LOW Gain)  
Line Input Level: +4 dBu Balanced; Max: +24 dBu  
Phantom Power: IEC P24  
Format-A Signal Pair Used: Switch-selectable A, B, or C  
Gain: 46 dB (MIC LOW), 60 dB (MIC HIGH), Unity (LINE), Switch-selectable on rear panel  
Format-A Input: RJ45  
Output: RDL TP Format-A  
Output Connection: RJ45  
Frequency Response: 20 Hz to 20 kHz (+/- 0.25 dB)  
THD+N: < 0.1% (20 Hz to 20 kHz)  
Noise below +4 dBu: < -80 dB (MIC LOW Gain), < -70 dB (MIC HIGH Gain), < -90 dB (LINE Gain)  
Headroom above +4 dBu: > 18 dB

CMRR (50 to 150 Hz):

Indicator:  
Power Connections (2):  
Power Requirement:  
Maximum Load Current:  
Dimensions:

Mounting Box Min. Depth:  
Package Type:  
Tariff code:  
WEEE weight:  
Shipping Weight:  
Package Dimensions:

> 65 dB (MIC HIGH Gain), > 70 dB (MIC LOW Gain), > 60 dB (LINE Gain)  
Power In  
Detachable terminal block; RJ45  
24 Vdc @ 35 mA plus connected loads  
135 mA  
1.73" (4.39 cm) W;  
4.11" (10.45 cm) H;  
1.89" (4.8 cm) D  
2.4"  
Cardboard Box  
8543.70.9860  
0.28 lbs.  
0.44 lbs.  
1.9 X 3.5 X 4.75 in.