

Description

The THAT 1240 Series Demo Board is a self-contained circuit board that simplifies the evaluation of the THAT1240, THAT1243, and THAT1246. Completely assembled and tested, this system comes with XLR connectors for signal input and output, and a 3 pin header for power.

J1 is a Female XLR connector that accepts a balanced (or unbalanced) input signal, while P1, a male XLR connector, is connected for an unbalanced output. An external $\pm 15V$ power supply should be connected via header P2 (labeled CN1 on some older revisions of the PCB fabrication).

C1 - C3 shunt unwanted RFI currents to chassis ground. The "T" arrangement of these components minimizes CMRR

degradation at higher frequencies resulting from any mismatch between C1 And C2; (the shunt paths for each input share C3, and C3's contribution to the effective shunt impedance of each side dominates that of C1 and C2). The addition of inductors or ferrite beads in the locations of R2 and R3 can further improve RFI rejection.

Please note that using actual resistors in these locations may seriously degrade the CMRR of these ICs. This is also true of the SSM2141/2143 and the INA134/137. If the effects of an unbalanced source impedance present a problem in a specific application, consider using ICs with bootstrapped common mode input impedances such as the THAT1200, THAT1203, and THAT1206.

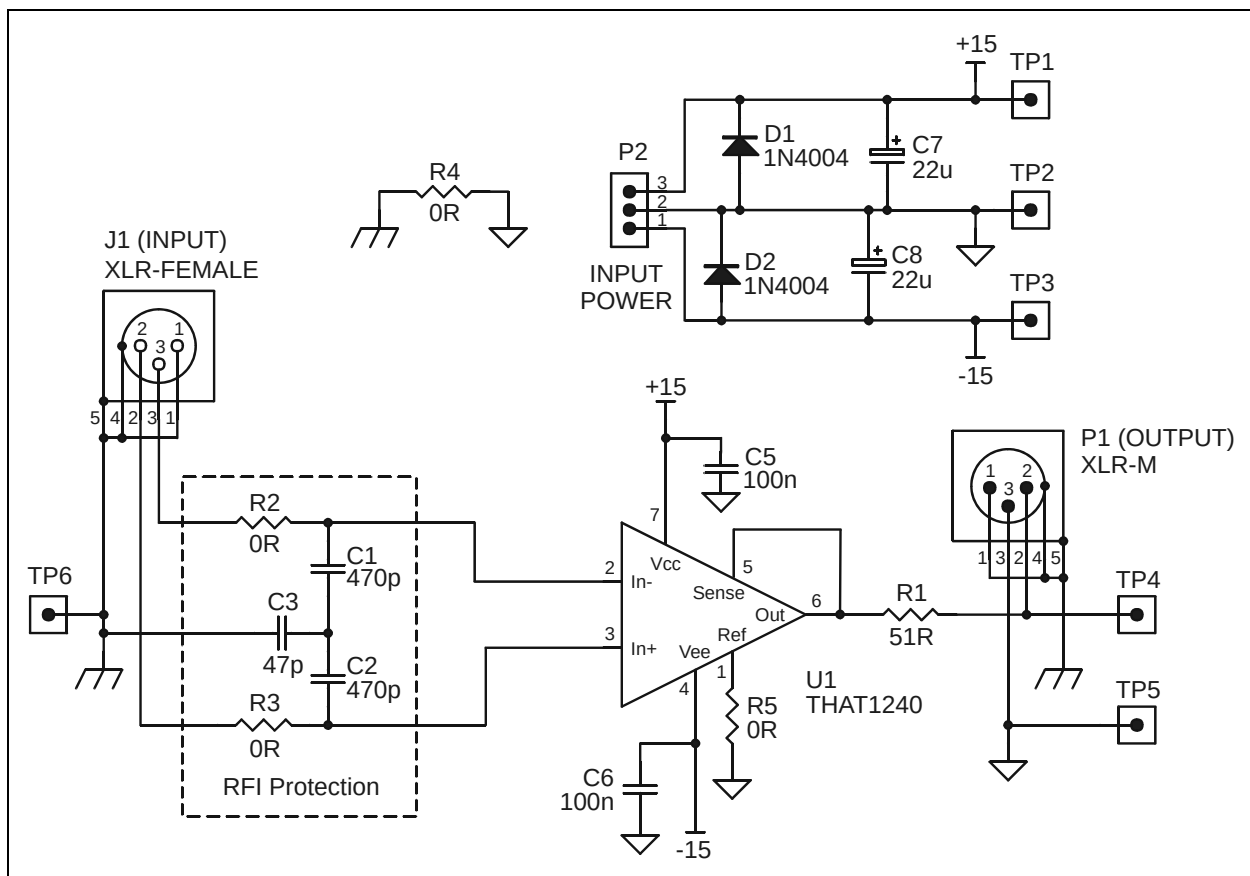


Figure 1. THAT 1240 Demonstration System Schematic

This demonstration system can be used to evaluate either the THAT1240, THAT1243, or the THAT1246, the only difference being that the net gain from J1 to P1 will be zero dB, -3 dB, or -6 dB respectively.

To ease prototyping of specific applications, spare circuit board area is perforated

with plated through holes. This makes this board particularly useful for experimentation.

With a THAT 1240 Series Demo Board and standard audio cables, an engineer can begin evaluating the performance of the 1240 Series of line receivers in seconds, and start trying out new circuit ideas in minutes.

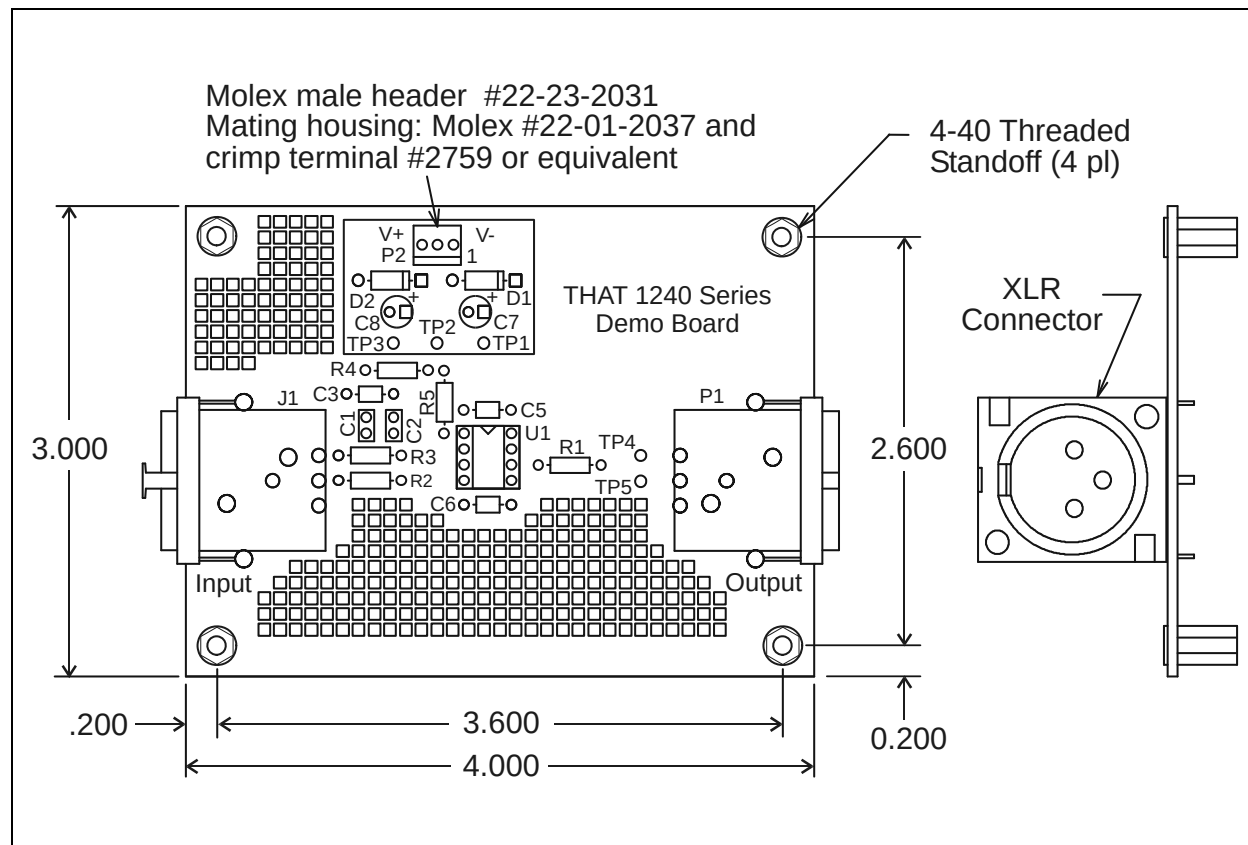


Figure 2. THAT1240 Demonstration System Outline Drawing