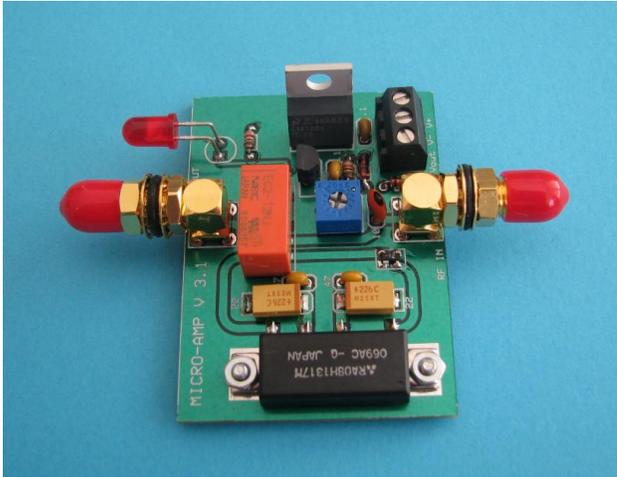


MANUAL

MICRO-AMP Version 3.1

The Micro-Amp Version 3.1 is a VHF amplifier designed for the Ham radio 2 meter band. Unlike past generations of the Micro-AMP, this design is intended for use with transceivers or transmitters. The amplifier features a



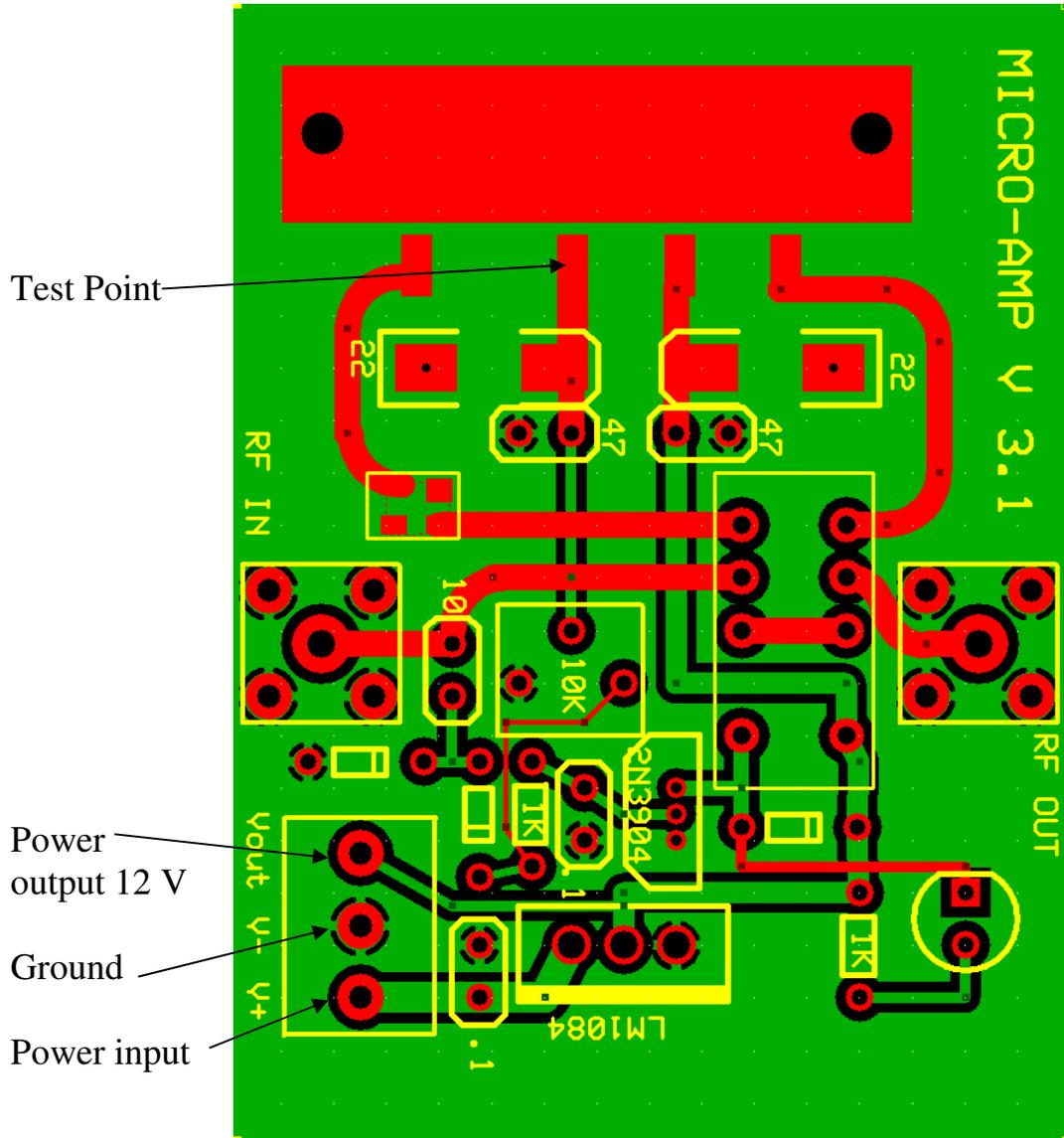
relay-based Transmit/Receive (T/R) switch that will pass received signals from the antenna to the input port. In fact, if no DC power supply is provided to the amplifier, the amplifier will pass signals bi-directionally with minimal signal losses. This provides a simple mechanism for switching between high and low power operation.

The amplifier will operate reliably with an RF input of between 300 to 500 milliwatts. Do not exceed 500 milliwatts input power.

This design uses an RF sensed T/R switch, in which a small amount of RF power is sampled from the input, converted to DC, and used to switch the amplifiers T/R relay and to provide a bias to the amplifier RF module. In operation, the trimmer potentiometer, used to adjust the bias to the RF amplifier module, should be set to allow more than 3 volts to appear on the gate to the amplifier module (Test point shown in illustration, below)

The amplifier is shipped assembled and set for maximum power output using a drive level of 500 milliwatts. Lower drive levels may require trimmer pot adjustment to obtain sufficient gate voltage.

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Amplifier Module Schematic

