

RF PRE-AMPLIFIER

The RF Pre-amplifier was originally developed for the increasing the LF and MF sensitivity of the Wellbrook K9AY directional antenna system. Thus meeting the demanding requirements for the MW, Top-band and LW DXer. This amplifier is also available for home construction of the K9AY antenna and other similar applications.

The amplifier is wideband with second and third order intermodulation performance that exceeds most general purpose communications receivers. Therefore, when used in most situations, intermodulation will not degrade reception. However, the user must recognise that the addition of a wideband amplifier may in some cases cause the receiver to generate intermod. If receiver intermod is a problem, then the use of a simple pre-selector either before the pre-amp or the receiver is recommended.

AMPLIFIER FEATURES

- Nominal 17dB gain 50kHz to 10MHz
- 12dB gain up to 30MHz
- 10dB gain down to 20kHz
- Multi-transistor Balance design
- Transformer feedback
- Transformer coupled input
- 50 Ohm input and output
- Input is either Bal or Unbal
- IP2 (output) Typically +90dBm
- IP3 (output) Typically +43dBm
- Power :- 12 volts regulated at 130mA.
- Compact: 40x40x20mm module

Note: IP2/IP3 measured with 0.8MHz and 1.0MHz

RF Pre-amplifier connections.

The amplifier is supplied in a small ABS enclosure with flying leads.

The 2 Green wires are the Balanced RF input.

For an Un-balance input, connect one Green wire to Ground/ Bare wire and the RF input to the other Green wire.

The White wire is the output.

Bare is the RF ground and negative power supply.

Red wire is connected to +12Volt regulated power supply via a 315mA inline fuse.
The power supply should be a linear type.

A Switch Mode power supply is **not** recommended due the possibility of induced noise.

RF Pre-amplifier Mounting

The recommended mounting, is to simply glue the base of the ABS enclosure to either a Plastic or metal surface using a propriety glue. If using a Naphtha or other solvent based glue, ensure that the glue will not damage the amplifier enclosure or the Plastic or metal surface.

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