

# Universal HF Preamp

It is mainly used to improve the front-end receiving performance of receiving devices such as TV sticks, SDR and Magnetic loop etc.. The internal imported low-noise MMIC parallel/push-pull combination structure has a large input dynamic range and flat gain characteristics in the nominal frequency range.

The amplifier has a bypass device. When the amplifier is not connected to the power supply, the input and output ports are in a through state.

**This Preamp is not used for transmitting!**

Bandwidth (-3dB): 20kHz~50MHz (reduced gain up to 110MHz)

Gain: 23.5dB

Noise figure:  $\leq 3$ dB

OIP3: 43dBm

Input/Output Impedance: 50 $\Omega$

Power supply: DC13.8V (12 - 18V)

Current: ~400mA (13.8V)

RF connector: BNC

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**[Application 1]** For HF reception of TV sticks

1 meter whip antenna - **Pre amplifier** - upconverter - bandpass filter - TV stick

**[Application 2]** For 160M/80M/40M low-band small loop antenna

Shielded small loop antenna - 16:1 balun - **Pre amplifier** - radio

(This scheme can effectively deal with near-field interference)

**[Application 3]** For low band beverage antenna

Beverage antenna - **Pre amplifier** - attenuator (optional) - radio

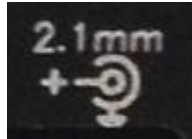
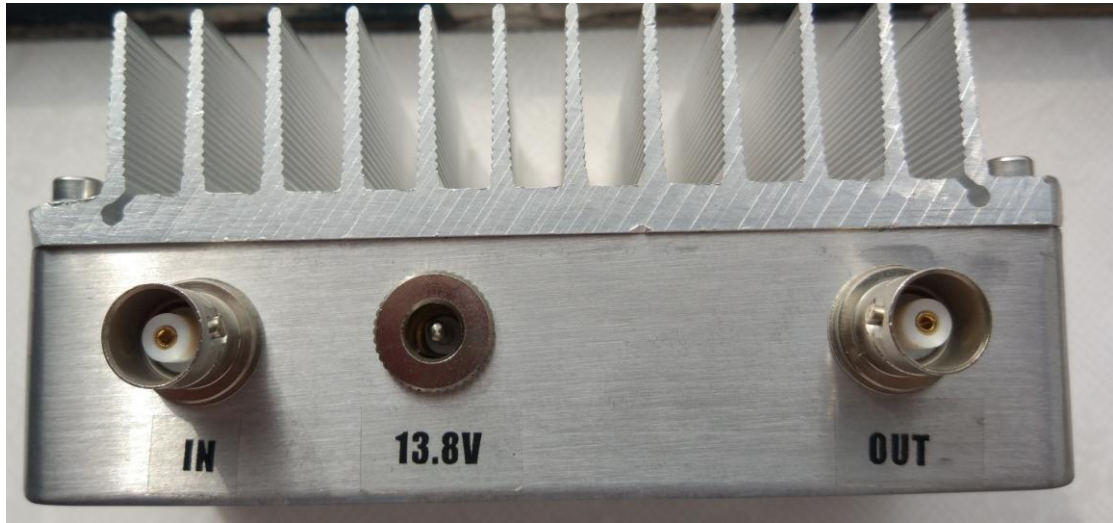
**[Application 4]** Used for home made QRPP radio final stage power amplification ( $\approx 1$ W output)

Homemade QRPP Radio - **Pre Amplifier** - Low Pass Filter - Antenna

## Improvement:

1, A radio quiet linear power supply may be used.

2, Use front-end Low Pass Filter or Band Pass Filter may help the performance.



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