

# AADE Precision Frequency Reference.

Initial calibration against my **Rubidium** frequency standard is better than 0.1 parts per million (1Hz at 10MHz) with long term accuracy of 1 part per million (1Hz at 1MHz)



Switch selectable output frequencies of

- 1 Hz
- 10 Hz
- 100 Hz
- 1 KHz
- 10 KHz
- 100 KHz
- 1 MHz
- 10 MHz

Output is .5V p-p square wave into 50ohms

**NOTE: the frequency reference does NOT include a wall transformer or power supply. You get a chance to use one of your collection of old wall transformers from cordless phones etc.**

**You may find a 9 Volt battery clip which I installed for test and calibration but the unit is not intended to be battery powered.**

Maximum accuracy is obtained by powering it continuously from a wall transformer.



Power can be anything from 6 to 18 VDC or 6 to 12 VAC. Simply cut off the connector from the wall transformer, **observe polarity of DC supplies**, and solder to the power inputs on the reference PCB.

Small holes is provided in the back and on the side to route the wall transformer wires. You may need to enlarge them depending on the size of the wires.



I do not have long term experience with this unit but it uses the same precision oscillator used in my line of frequency counters.

Above is a [DFD4A](#) I built 4 years ago and calibrated against my rubidium frequency standard to read

10,000,000 Hz

It now reads 10,000,003 Hz. 3 Hz drift at 10MHz after 4 years (0.3 parts per million).