Pa0nhc improved version of Pa0rdt "Miniwhip" active wideband receiving antenna.

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Properties :

- Fully **class A** circuitry, **clean reception without IMD.**

- Output IP3 (7 en 8 MHz) +35 dBm, IP2 (1MHz) +45 dBm (! !) measured by pa3fwm (TU Twente).

- Improved circuitry for T1
- Only 0.6dB insertion loss, for abt. 6 dB higher sensitivity.
- PCBs with enlarged SMD solder pads for easier heating and solder flow.
- Biggest strong signal handling, *max output 2Vrms (!)*.
- Frequency range 30 kHz - 30MHz (extendable down).
- All commonly available parts, only two SMD components.
- The cleanest reception possible if well installed.
- Really wideband with R/C coupling to the receiver, *no transformer.*
- Extra chokes and coupling capacitors for widened low frequency range.

For which signals is the Miniwhip useable ?

The Miniwhip is a vertically positioned antenna. The following properties are valid for **all vertical antennas** :

- Good results for the reception of VLF / LF / LW / MW / SW short distance *ground wave communication*.
- Good results for the reception of *SW signals at distances over 300km (DX)*.

The Miniwhip is (like all vertical antennas) **NOT suitable for NVIS**, that is for the reception of signals between 3.5MHz and 7.2 MHz and distances UNDER 300km ..

Listen DX at :

The broad band webSDR at the university Twente (50kHz to 30MHz)
[http://websdr.ewi.utwente.nl:8901/] They use a "Miniwhip".

Highly recommended to read :

Theory **[http://www.pa3fwm.nl/technotes/tn07.html]** about the practice **[http://www.pa3fwm.nl/technotes/tn09d.html]** of the Miniwhip antenna (written by **pa3FWM**).

REM:

You need a clean external (linear, NON-switchable) power supply : 12V to 14V, min. 120mA .