

## Portable antenna 30-88MHz

Wideband directional portable half-rhombic antenna is designed for receiving and transmitting of radio-signals in frequency range 30MHz up to 88MHz.



Figure 1: Half-rhombic antenna – final product package

### Product description:

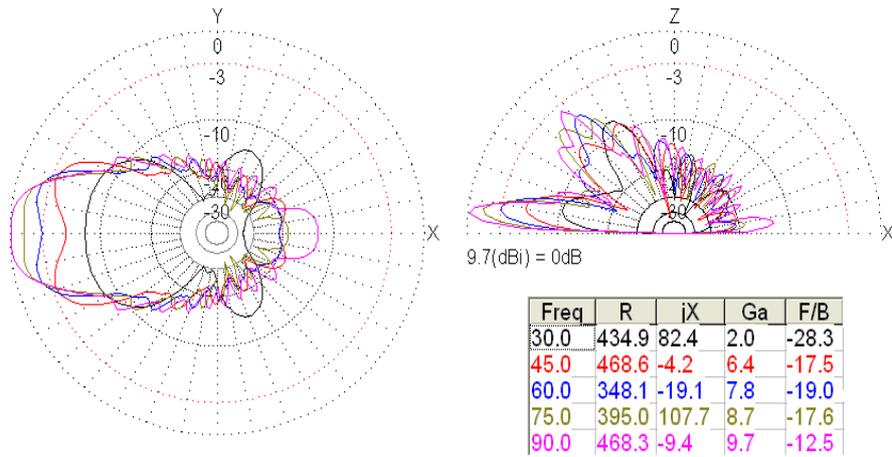
Half-rhombic antenna idea is based on using of a long wire as vibrator, what center point is fixed on the top of the antenna (5..10m). Wire forms inverted V-sign.

On the both ends of the wire special matching blocks are used. Besides antenna-wire connections each matching block has two N-type female connectors marked as TRX and LOAD. Communication device (radio) is connected to TRX with 50ohm cable. Same matching block's port LOAD is connected to one end of a separate coaxial load-cable. The second end of the load-cable is connected to the TRX port of another matching block located on the second end of antenna-wire. Port LOAD of the latter matching block must be left open and it is covered with protective cap. See figure 3 for details.

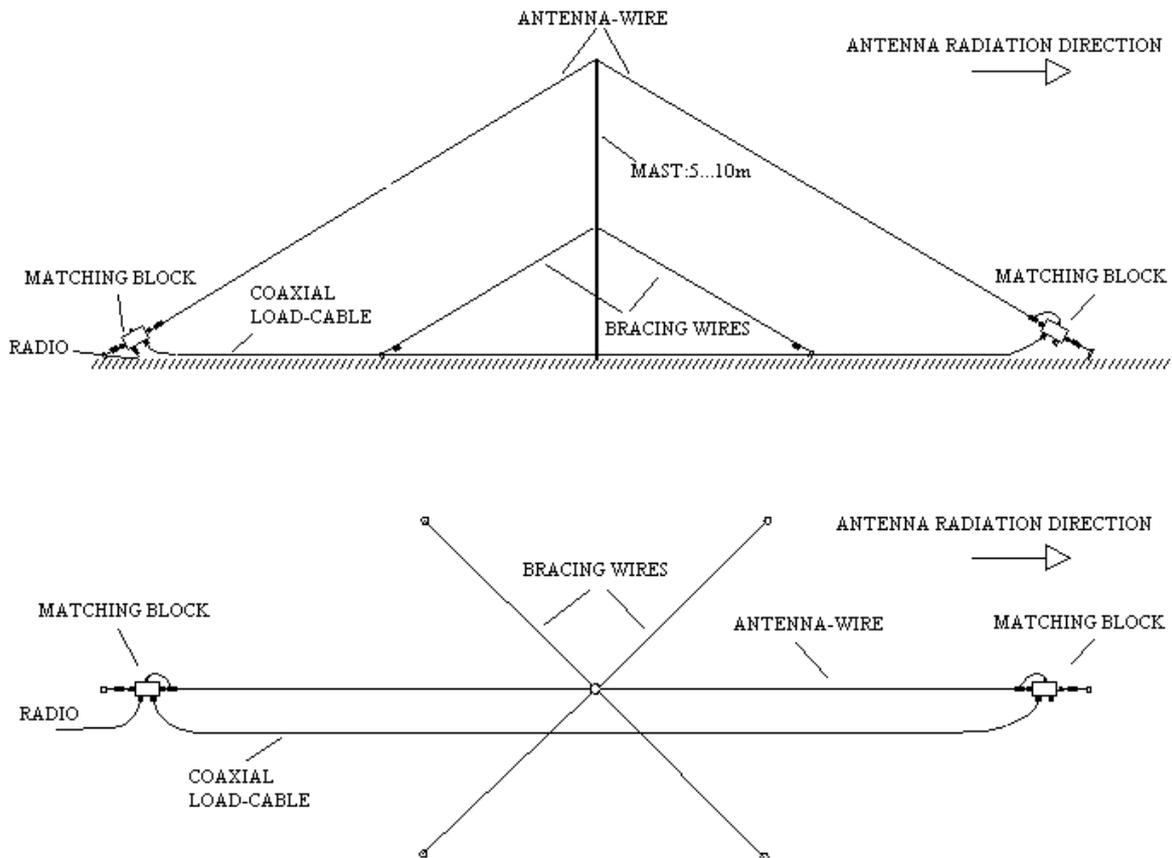
### Technical specifications:

Frequency range	30-88 MHz
Maximum transmitter power	50 W
Gain	See figure 2 on next page
Beam bandwidth	See figure 2 on next page
VSWR	< 2:1
High frequency connector	50ohm N-female
Antenna-wire connection	6mm device terminal
Load cable RG316 length (2xN-female)	33m
Antenna-wire length (diameter 1.5mm)	34m

**Antenna mast is available on request only!**



**Figure 2: Gain on different frequencies: mast height 7m**



**Figure 3: Half-rhombic antenna installation: side and top views**