

Sugar Mike 0 Delta Tango Kilo



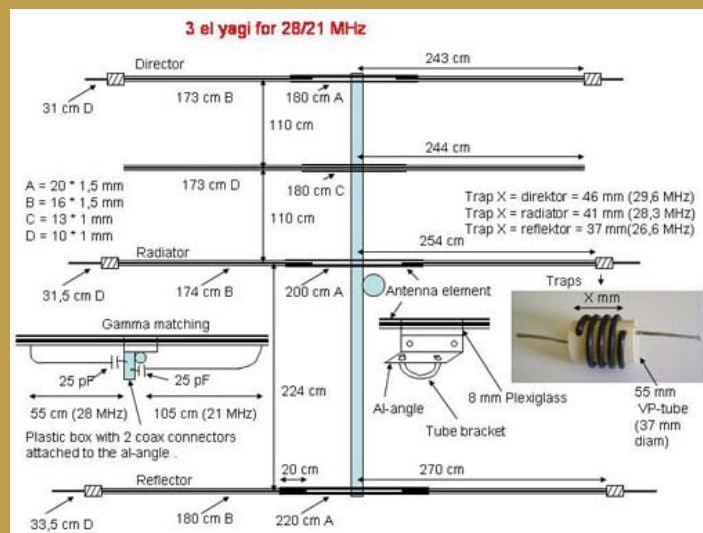
- Welcome
- Daily pic
- Log scraping
- Badly needed
- Antennas
- Nice contacts
- Just for fun



Building antennas has always been of great interest for me and there are many constructions that I have found pleasure in. Here you can see some of them with modest comments.

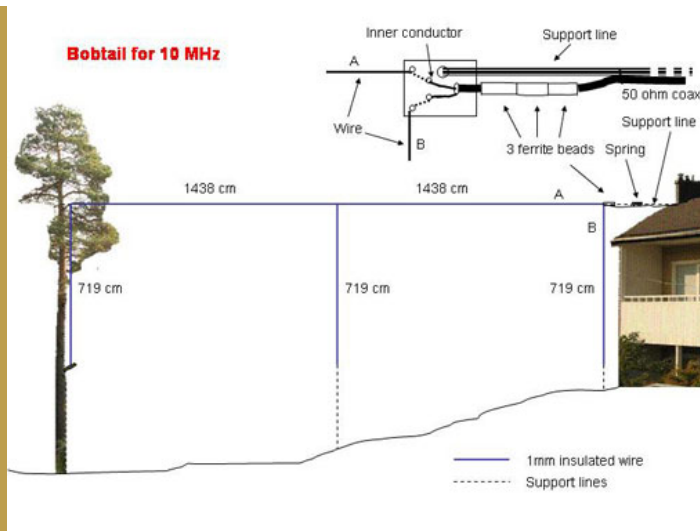
28/21 MHz yagi.

This antenna was built to match the peak of suncycle 22. It works as a 3 element yagi on 21 MHz and as a 4 element on 28 MHz. It uses different matching for each band and SWR is 1:1 on both bands. As capacitors in the Gamma matching I use short pieces of RG8 Coax cable.



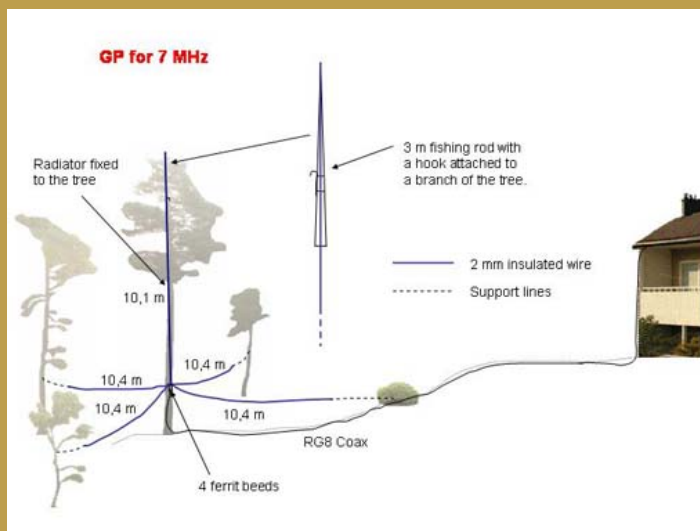
Bobtail for 10 MHz.

It is hard to work DX from 60 degrees north during suncycle minima. The only chance is on lower bands and spaces outside my house could take a Bobtail for 10 MHz. As it is fed in the upper corner it is perfect for 50 ohms matching which gives me perfect SWR. The cornerfeed method results in a different radiation pattern compared to Bobtails fed at the bottom of the middle tail. Cornerfeed Bobtail has a pattern that looks like a cloverleaf meaning that it works well in all directions.



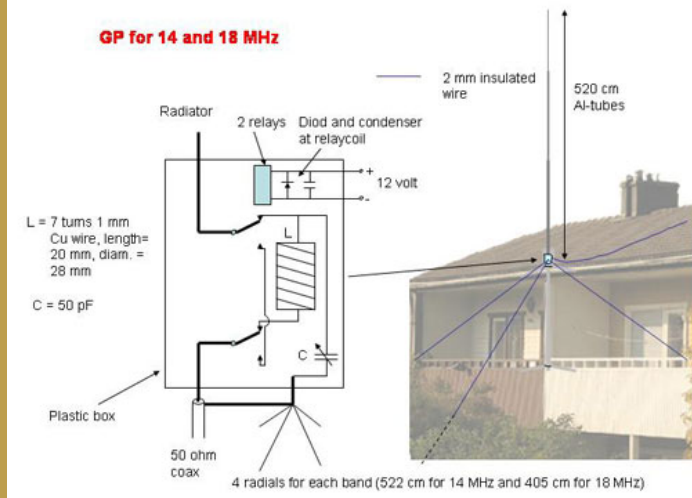
GP for 7 MHz.

I used a loop on 7 MHz and it worked fine except in northern and southern direction. So I decided to put up a GP to cover all directions. The radiator is attached to a tree and at the top it has a fishing rod with a hook to fix it to the tree.



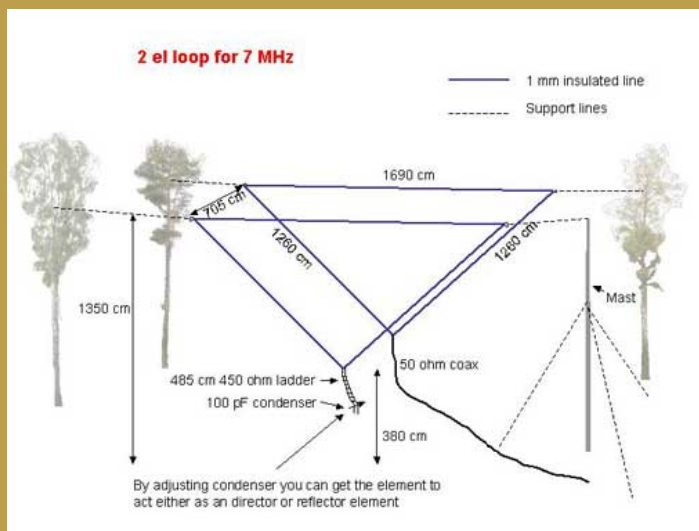
GP for 14 and 18 MHz.

Limited space for antennas made me to make a GP for 14 and 18 MHz. Switching bands is done by controlling 2 relays which are housed in a plastic box placed at the bottom of the radiator. There are 4 radials for each band. SWR is perfect for both bands and for 18 MHz condenser C will do the trick.



Reversible deltaloop for 7 MHz.

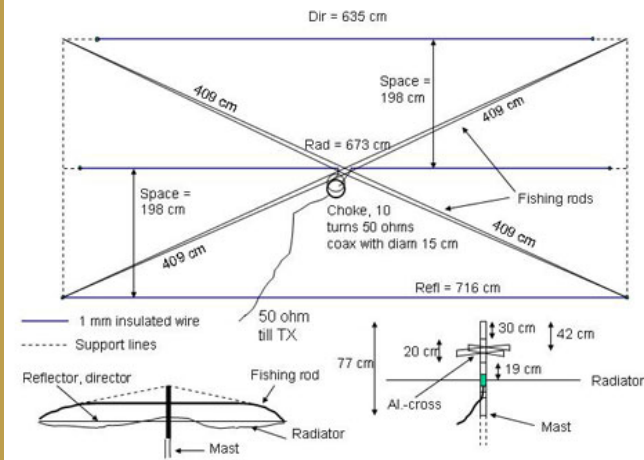
When being active from Gotland Island (IOTA EU-020) I have a lot of space to put up antennas. Pretty high trees are perfect for support points. When YV0D (Aves Island) should be active in July 2004 I constructed a 2 el loop for 7 MHz and put it up in direction to the Caribbean. By adjusting a condenser I could get some gain and there were no problem working them with S9 signals.



3 el wire yagi for 21 MHz.

I got a nice pile-up when using 100 W and this antenna pointed to Japan. It is extremely lightweight so erecting it at the top of a 10 m al-mast mast is done by hand.

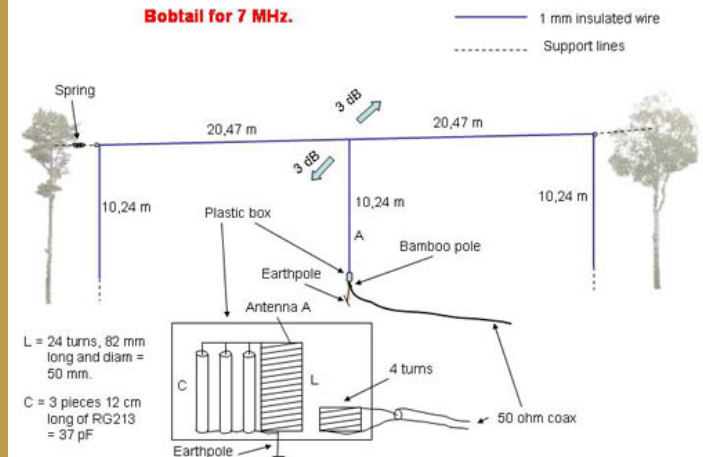
3 el wirebeam for 21.150 MHz



Bobtail for 7 MHz.

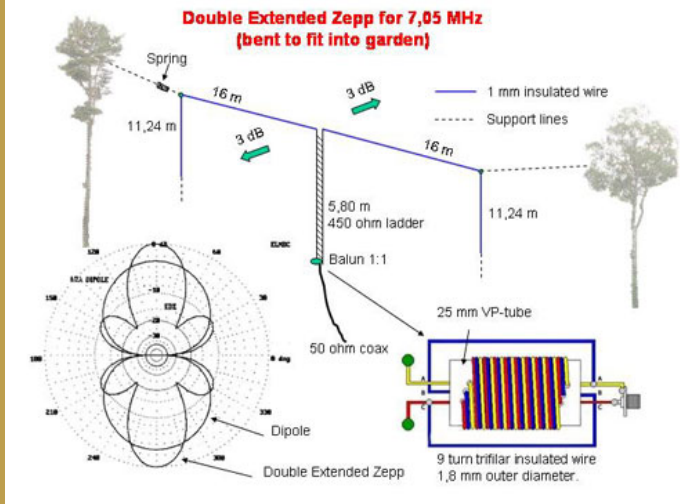
The Bobtail fed at the bottom of the middle tail and the next antenna the Double Extended Zepp behave in a very same manner. The gain and the radiation pattern is comparable but if I have to choose I pick the Double Extended Zepp.

Bobtail for 7 MHz.



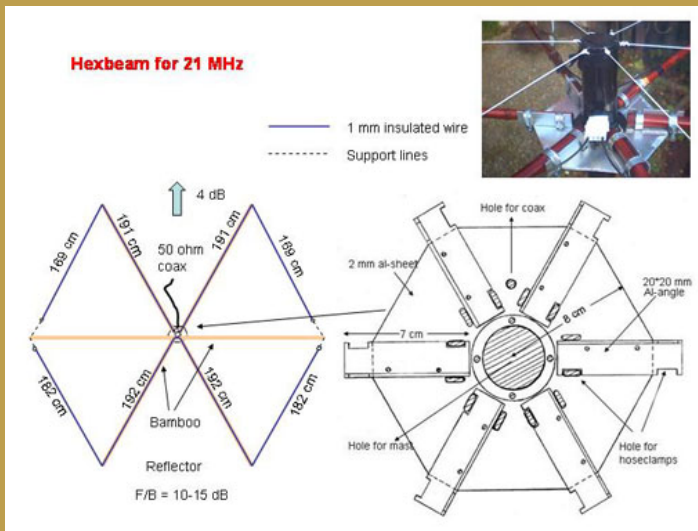
Double Extended Zepp for 7 MHz.

Normally the whole antenna is horizontal but I bent down the ends of the antenna to fit between the two trees and it worked nicely.



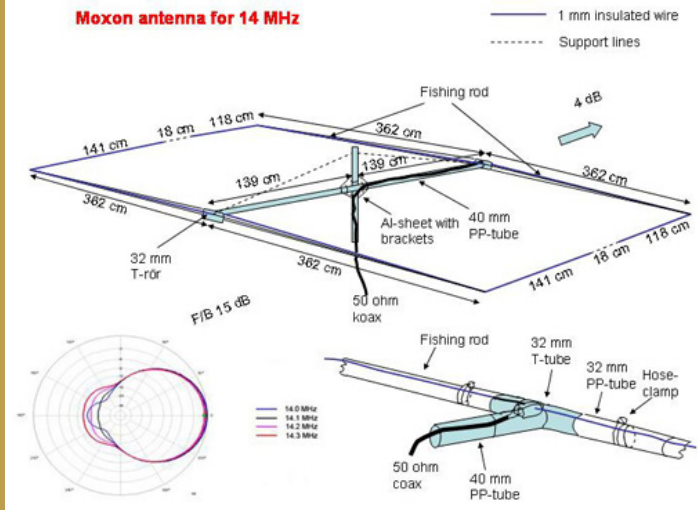
Hexbeam for 21 MHz.

In a contact with a KL7-station I first heard about the Hexbeam antenna. He said it looks like an umbrella turned downwards without cloth and can withstand strong winds. I got curious about the antenna and constructed one for 21 MHz. It worked at the first try and was a very lightweight beam antenna.



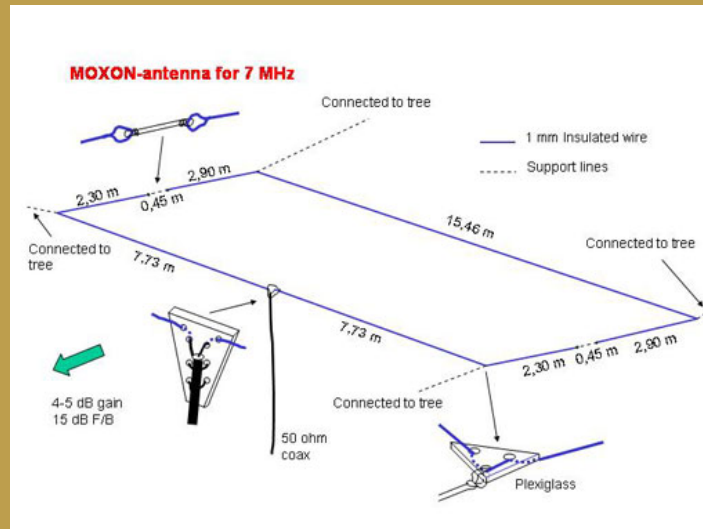
Moxon antenna for 14 MHz.

This antenna is a very kind one and often works at the first try. I have tried several types (vertical and horizontal) on different bands and all have worked nicely.



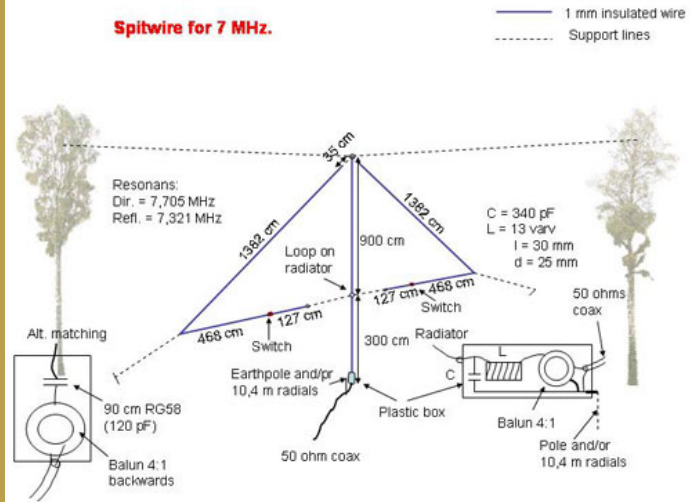
Moxon antenna for 7 MHz.

This Moxon antenna was more quiet than the Double Extended Zepp and the Bobtail and had some more gain. The silence is due to the F/B effect. This is a very nice antenna but needs some trees or towers.



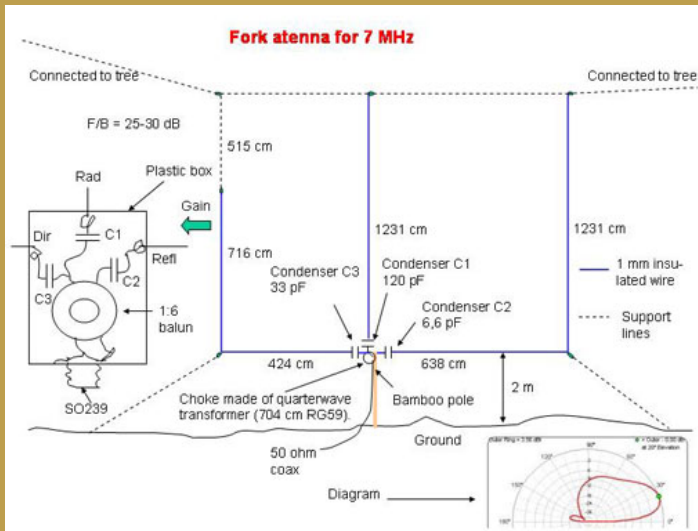
Spitwire for 7 MHz.

Talking about silent antennas this one will count. The antenna is based upon a construction by W1FV and K1VR called "the Spitfire" using the mast as radiator. As I use wire for the radiator I think Spitwire is more adequate. It uses switches to enable the antenna to change direction. The gain is about 4 dB and the F/B is about 20-25 dB, very excellent.



Fork antenna for 7 MHz.

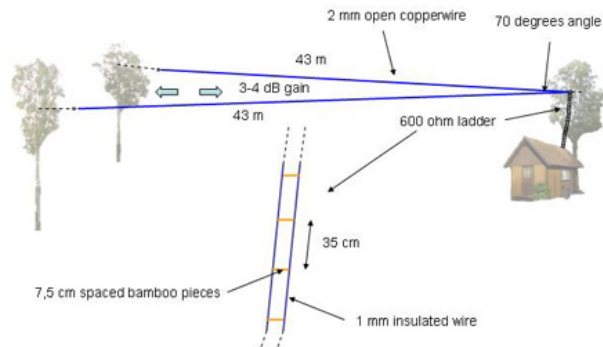
Even a more silent antenna is the Fork antenna. it has a F/B value about 25-30 dB and a gain about 3-4 dB. With a matchingbox containing 1:6 balun och condensers you can obtain a SWR 1:1.



Veebeam antenna.

This antenna is working nicely on all bands using an antenna tuner between the 600 ohm ladder and the transceiver. Some gain is also obtained.

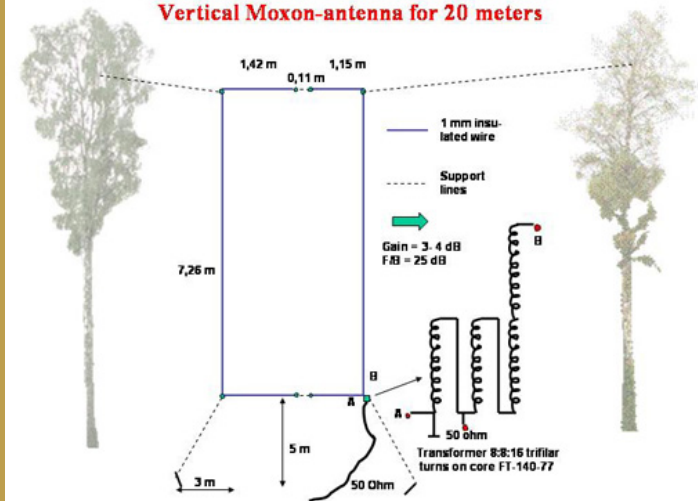
Veebeam antenna



Vertical Moxon antenna for 14 MHz.

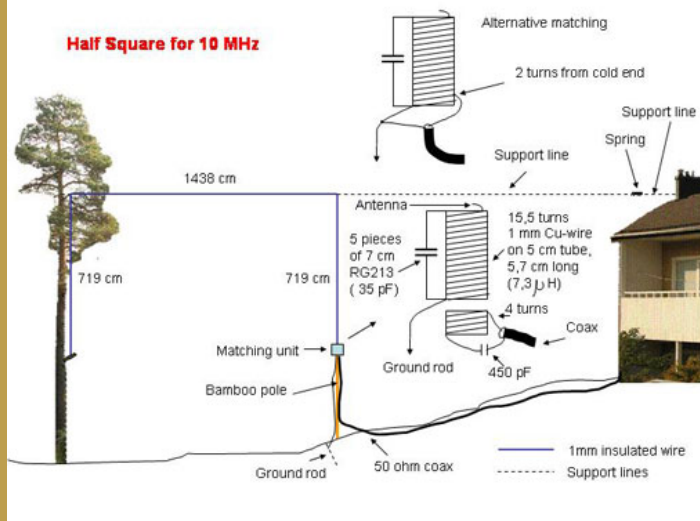
Moxon antennas are friendly for home builders. They always play nice and are easy to build. I have tried a vertical Moxon fed in the lower part of the radiator and it has worked out nicely when fed via a transformer. It is great to notice how stations in the back of the antenna is decreasing in strength. For best result put a choke balun (1:1) between the transformer and the coax cable.

Vertical Moxon-antenna for 20 meters



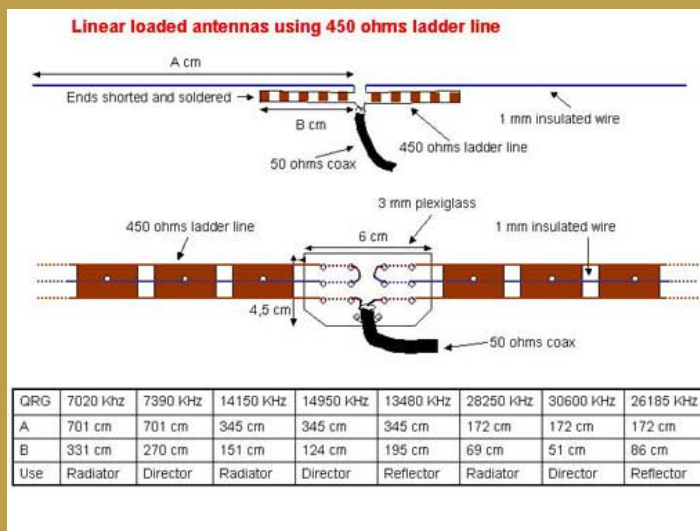
Halfsquare antenna for 10 MHz.

Due to QRM into my neighbours HI-FI speakers using the Bobtail described above I replaced it with a Halfsquare antenna placed 15 meters out of houses. Using a link with capacitor in serie the SWR is perfect zero. It works fine even to the south but best directions are west/east. The horizontal part of the antenna is hanging in south/north direction.



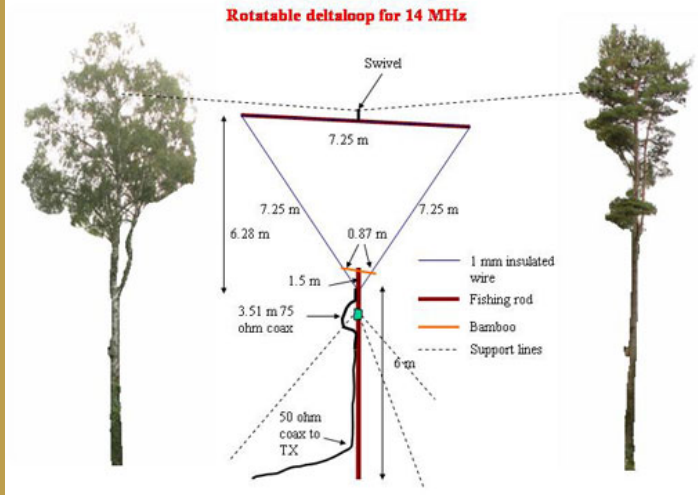
Linear loaded antennas.

When space is limited one has to design and build shortened antenna. One way to do this is to use the linear loaded concept. By using 450 ohms ladder lines as stubs the construction is a piece of a cake. I have used a griddip meter to adjust the lengths of the stubs to obtain the demanded frequency. Below you can find dimensions for antennas for 7, 14 and 28 MHz. All antennas are 70 % of normal lengths.



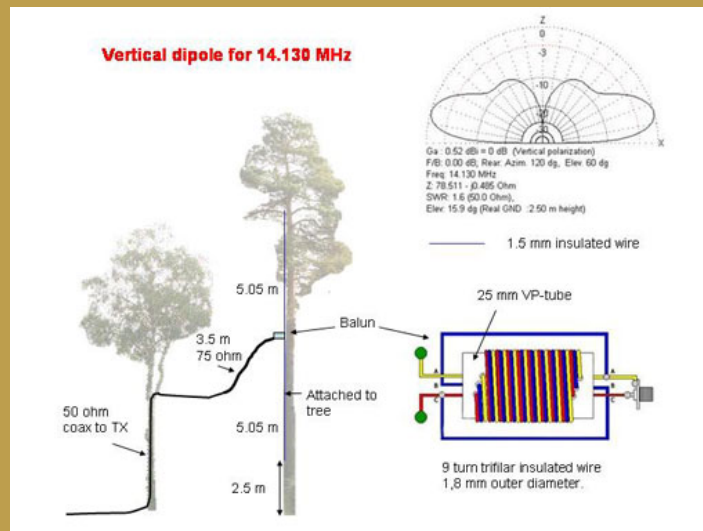
Rotatable loop for 14 MHz.

This simple antenna is working extremely well. Compared to a Double Extended Zepp at same height and same direction it has more gain and less noise. So it is a very attractive antenna for portable use on both receiving and transmitting side.



Vertical dipole for 14 MHz.

Tired of noise from your house? Well, one way to get rid of it is to move your antenna into the wood. One of the real simple antenna to build and to erect is a vertical dipole. If you use a tree as a tower it is really a piece of a cake. A quarter wave electrical length of 75 ohm (3.5 m) is used to match 50 ohm coax to the balun and antenna. The antenna has low gain but also very low elevation angle, 16 degrees, which is good for long distance QSO's.

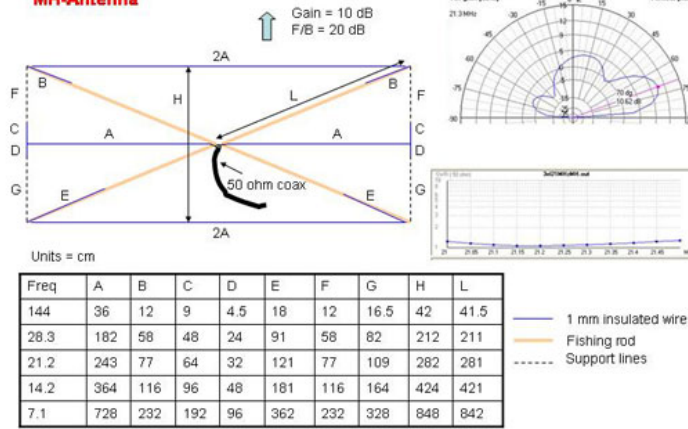


Mini Horse (MH)-antenna.

- kicks like a grown-up horse
- broad as a highway

Ever looked for an antenna which has good gain, nice F/B, 50 ohms matching, excellent bandwidth, small turning radius and great mechanical stability? This antenna is for you! If you need a nec-file to play with just send me a mail.

MH-Antenna



Compact Moxon antenna for 7 MHz.

This antenna only needs 2 trees or masts to be hung up in the air. It works nice with about 5 dB gain and 13 dB F/B hanging 12 meters above ground. More gain and better F/B if you can put it higher.

7 MHz Compact Moxon

