HF Antennas
Especially stealth models for those in an HOA

By Dave Land
KD5FX
Dipole

1/4 Wavelength

Insulator

Center Conductor

Shield

RG-58 or RG-8 Coaxial Cable

To your transceiver

Stranded Copper Wire
Dipole

Easy and cheap to build, can be made with small gauge wire
For stealth applications (suggest 18ga black wire from Frys)
Single band antenna when fed by coax
Works good for multi-bands when fed by open wire line and using a tuner

How to build one can be found at:
http://www.aa5tb.com/dipole.html
And many other places
Multi Band Dipoles
Multi Band Dipoles
Multiband Dipole

No neighbors behind the house
Random Length Multiband

- Insulator
- Stranded Copper Wire Any Length
- 450-Ω Ladder Line
- Coaxial Cable
- Antenna Tuner
- To Radio
Verticals

Coaxial Cable

Center Conductor

Shield

Ground Level

Radials (Buried just below Ground)
Flag Pole Verticals
Flag Pole Verticals

- 15.5 to 28 ft high
- 20 meters and above or 80 meters and above
- Radials required
- Tuner required
- Remote tuner at the base is best
Lots of other Verticals

S9v JR, only 18 ft and $50
Requires radials

MFJ1622 Apartment antenna
Remote Tuners
Many antennas work best with one of these, many models available

• SGC SG-231
• Some require 12 VDC, others are powered over the coax
• MFJ-926B
Rain Gutter

- Should be a new gutter
- May require sections to be bonded together
- The longer the better
- Gutter & Downspouts can't be grounded
- Ground and radials required
- Remote tuner required
Inverted L Wire Antenna

- Remote tuner required
- Should not be a resonant length
- 70 or 140 ft recommended

Coax to rig

Run wire up to eve and isolate under eve of the house

Mount near ground level

Ground & radials
Fencetenna

Wire along top of fence 70 ft (non-resonant length)

1:1 Current Balun

Wire along bottom of fence 70 ft

Low loss Coax to Tuner inside
Fencetenna
G5RV

Need to be mounted high enough that the ladder line is vertical for best operation. Not a good multi-band antenna.
W5GI Mystery Antenna

All band dipole type antenna
http://www.w5gi.com/mysteryantenna.htm
Mobile Antennas in the back yard
Mobile Antennas in the back yard
Buddipole Antennas
Hamstick dipoles

Isolate one for each band
Could be any band
Must be in pairs
Best to tune-up on a vehicle
Could be mounted in attic
Or in back yard out of sight

80 mtr pair

40 mtr pair

Coax to station
Hamstick dipoles
Isotron

80 & 40 mtr models are very narrow band

20 mtr works well

Omni-directional

Very small & Can be disguised as TV antenna
Magnetic Loops

This version is 3.5 ft on each side.
Can be tuned from 20 to 10 meters (one band at a time).
Larger versions will work on 80 or 40 mtrs.

How-to website:
http://standpipe.com/w2bri/build.htm
MFJ Loops

MFJ1780 14-30 MHz Loop

MFJ1786 10-30 MHz Loop

Several other models available
No radial verticals

Diamond BB7V, 22 ft, 250 W, 2 to 30 MHz

Comet CHA-250 23ft 5in, 250 W, 3.5-57 MHz

Read the reviews on eham.com
No radial verticals
Actually a Vertical Dipole

Both cover 20 to 10 mtrs

http://www.n6bt.com/n6bt-Bravo5-1.htm
http://www.kd5fx.com/FXportable/fx_portable_antenna.htm
If you have trees….

- Hang a dipole or end fed L or random length wire between trees
  - Use small gauge wire (18 ga black wire is ideal)
  - Higher is better
  - Slingshot or bow and arrow to get wire up in the tree
Attic antennas

- Many types of antenna can be mounted in the attic IF you don’t have Radiant Barrier (Tech Shield).
- Need lots of room, keep them away from metal objects like heaters and ducts.
- Wire antennas can be run near the peak of the roof inside the attic, bent in odd shapes to match the space available.
Ventenna for VHF/UHF
Great Antenna Reference Website

- Reviews of various antennas (and other ham equipment) at www.eham.com
The Ideal Setup
W1AW