

A Home Mounted Antenna For A Dual Band Hand Held

Using a handheld radio as your primary source of communications can be tricky and frustrating. A handheld radio has low power and very short antennas making it hard to get into a distant repeater. If you connect your handheld to a base antenna or a mobile antenna with a ground plane and good low loss cable you can add gain to your radio and make more distant contacts.

Plan what you are going to do with your Radios and accessories so you do not buy and have to buy again later. If you mount a Dual Band antenna on your home for a handheld and later decide to use a Quad Band Radio in your home then you will have to change out the antenna. Plan ahead.

You can mount an antenna on the eave of your house and it will work well. The higher the antenna the better your range. Elevation matters in VHF/UHF.

Base Station Antenna's – There are excellent Base Station antennas that are not super pricey and work great at home.

There are no Quad Band base antennas available for a base station that I have found. It is possible to diplex antennas together to make a Quad Band Antenna.

- Comet GP-1- Dual Band - \$79.00 - <https://www.dxengineering.com/parts/cma-gp-1>
- Comet GP-6 – Dual Band - \$159.00 - <https://www.dxengineering.com/parts/cma-gp-6>

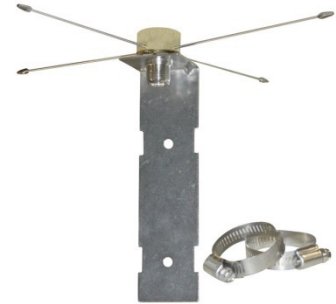


Mobile Antenna use at home – To save some on cost you may choose to use a **mobile antenna** on your house.

- **Jet Stream JTM3B** – Mobile Dual Band for dual band radios. Great inexpensive antenna with good gain. PL-259 Mount - <https://www.gigaparts.com/jetstream-jtm3b.html>
- If you intend to use a quad band mobile for your home then a quad band antenna would be needed.

Ground Plane Kit – Depending on your antenna, for a mobile used at home you will need a ground plane.

- **NMO - TRAM 1465 Land Mobile Base Ground Plane Kit** https://www.amazon.com/TRAM-1465-Mobile-Ground-Plane/dp/B004PGMFGM/ref=pd_day0_200_2?encoding=UTF8&pd_rd_i=B004PGMFGM&pd_rd_r=D5N8HMR1R7VGASK4WHS3&pd_rd_w=DIf6o&pd_rd_wg=3cNUB&psc=1&refRID=D5N8HMR1R7VGASK4WHS3
- **PL-259 - MFJ-1401 Mobile to base ground plane kit** https://www.amazon.com/gp/product/B00AR07ZMY/ref=oh_aui_detailpage_o02_s00?ie=UTF8&psc=1



Cable – RG8X will work fine for short runs of 15ft or less at less than 75watts. If you plan to get your antenna higher requiring more coax use an LMR-400 like cable; LMR-400 is expensive but many Ham Radio stores sell LMR-400 type cable that costs less, like 400MAX (Giga Parts; DX Engineering).

400MAX cable with PL-259 connectors,

- 100 ft <https://www.dxengineering.com/parts/dxe-400maxdx100>
- 75 ft <https://www.dxengineering.com/parts/dxe-400maxdx075>

Do not leave coils of coax rolled up because your wire is longer than you need this will develop an RF choke which you do not want in most cases.

Adapter Cable - To connect your handheld to an externally mounted antenna you will need an adapter to convert from your coax PL-259 to the SMA connector on your radio.

For use with most hand held radios.

<https://www.dxengineering.com/parts/cma-hm-05jsj>



Home Brew Antennas

It is possible to build your own antennas. A little research on Google will yield all kinds of possibilities.