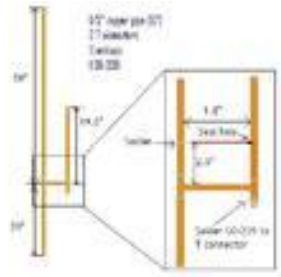


2 METER J-POLE ANTENNA



This is perhaps the cheapest gain antenna for 2 meters that can be built. Total cost for this antenna is under \$10 (excluding coax) and it can be built in about an hour. Using what is called "Plumber's Delight" construction I soldered all joints using a propane torch, lead-free/non acid core solder, and some soldering flux. While there are several iterations of the J-Pole that can be built, I liked this one because it does not require the builder to directly solder the coax to the copper pipe. Instead, a SO-239 is soldered to the T connector and a short piece of wire (I used insulated #12 stranded copper) is soldered to the center conductor to feed the driven element. My version of this antenna is mounted on my chimney and works very well, providing 2:1 or better SWR on the entire 2 meter band. It is incredibly strong and I have experienced no problems with wind or other weather.



I recently purchased a house and decided to build another J-Pole for use as the 2 Meter antenna for my new station. My old one is still mounted on my parent's house and in good shape after several years of exposure to the elements. My old design's performance was fairly good, but for this new build I decided to tweak the dimensions somewhat (with the help of my MFJ-259B Antenna Analyzer) to get the SWR as low as possible across the whole 2 Meter band. By adjusting the feed point and lengthening the driven element I was able to get the following results:

<u>Frequency</u>	<u>SWR</u>
144MHz	1.8
145MHz	1.6
146MHz	1.4
147MHz	1.3
148MHz	1.5

I really like the design of this antenna due to its simple and cheap construction, ideal feedpoint placement for low stress on the coax, and the fact that the whole antenna can be easily grounded since at DC it is essentially a short circuit.

Source: <http://www.highonsolder.com/blog/2007/6/12/2-meter-j-pole-antenna.html>