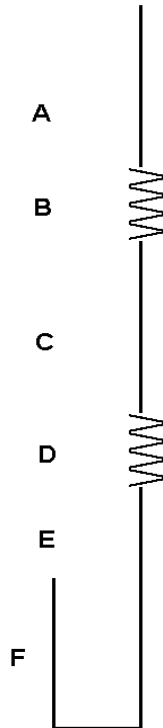


# Super J-Pole Antenna

This antenna was developed by the Independent Repeater Association in Des Moines, Iowa, for use on its many repeaters, nodes, and BBS. We thought some of you may be interested in it. The cost to build this antenna is less than \$2.



|   |          | 52 MHz |                       | 146 MHz |                      | 446 MHz |                      | 915 MHz |                |
|---|----------|--------|-----------------------|---------|----------------------|---------|----------------------|---------|----------------|
| A | 584/F=L  | 11.23  | Ft. 11 ft, 2-3/4 in.  | 4.00    | Ft. 4 ft             | 1.31    | Ft. 1 ft, 3-3/4 in.  | 0.64    | Ft. 7-6/8 in.  |
| B | 369/F=L  | 7.10   | Ft. 7 ft, 1-1/8 in.   | 2.53    | Ft. 2 ft, 6-3/8 in.  | 0.83    | Ft. 9-7/8 in.        | 0.40    | Ft. 4-7/8 in.  |
| C | 721/F=L  | 13.87  | Ft. 13 ft, 10-3/8 in. | 4.94    | Ft. 4 ft, 11-1/4 in. | 1.62    | Ft. 1 ft, 7-3/8 in.  | 0.79    | Ft. 9-1/2 in.  |
| D | 369/F=L  | 7.10   | Ft. 7 ft, 1-1/8 in.   | 2.53    | Ft. 2 ft, 6-3/8 in.  | 0.83    | Ft. 9-7/8 in.        | 0.40    | Ft. 4-7/8 in.  |
| E | 882/F=L  | 16.96  | Ft. 16 ft, 11-1/2 in. | 6.04    | Ft. 6 ft, 1/2 in.    | 1.98    | Ft. 1 ft, 11-3/4 in. | 0.96    | Ft. 11-1/2 in. |
| F | 246/F=L  | 4.73   | Ft. 4 ft, 8-3/4 in.   | 1.68    | Ft. 1 ft, 8-1/8 in.  | 0.55    | Ft. 6-5/8 in.        | 0.27    | Ft. 3-1/4 in.  |
|   | Total Ht | 60.99  | Ft.                   | 21.72   | Ft.                  | 7.12    | Ft.                  | 3.46    | Ft.            |
|   | 61.5/F=L |        | 1 ft, 2-1/8 in.       |         | 5 in.                |         | 1-5/8 in.            |         | 7/8 in.        |

F is frequency in Mhz

L is length in feet

369/F=L is the length of wire in the coil

61.5/F=L will give you the spread on the coil (length of the coil itself)

The antenna elements and coils are made from #12 solid copper wire. I used 450 ohm transmission line for the bottom J section. The coil forms are 3/8" fiberglass rods. I found them at a local farm store. They are electric fence posts, and come in 4' lengths (79cents)

The coax center conductor attaches to the long side of the J, and the shield attaches to the short side ( 1/4 wave matching section ). Adjust tap point up & down to find a match point.

Radials and a bazooka balun may be added to this antenna, but it will work well without them.

I have these antennas side-mounted as is on my tower at home, but they can be put in a tube for top mounting.

73 and good luck

WB0THC Mike Pres I.R.A.