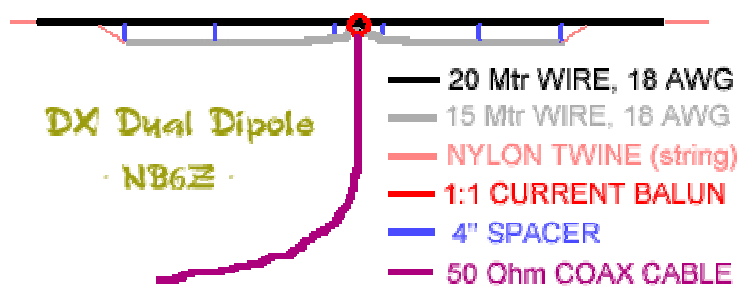


I just built one of these for 80 and 17 and it seems so far to work fine. Why 80 and 17? I've got a beam for 40, 20, 15 and 10 and 17 meters is often good for DX.

Dave – W5GT



The antenna diagram you see before you is nothing more than two dipoles fed from the same coaxial line. I call it a "DX Dual Dipole" because it is cut for two very useful DXing ham bands. There is no harmonic relationship between 20 and 15 meters, and so they

"play" well together when sharing the same transmission line. The wire length cutting chart for HF ham band dipoles is found in any antenna handbook. (The half wave dipole cutting formula is: Length in feet = 468 divided by the Frequency in Mhz.) Both dipoles are cut per the chart (or formula) to the low end of each band, leaving a little extra wire length for SWR tuning. Construct the dual dipole using the techniques described for the [NB6Zep Antenna](#) and make the wire spacers from plastic coat hangers as described there. (I used pieces of 1/2" PVC pipe - Dave). Follow the instructions in the handbooks to make a 1:1 current type balun device using a small toroid core. (The smaller T130 red HF material cores work fine for several hundred watts.) The use of a balun is not strictly necessary for the dual dipole (I didn't use one - Dave), but it is strongly advised if you are going to add a parasitic element (reflector) as described later. If your feed point is not supported, as was the case for me, you will want to use a strong stranded wire (#20 thru #12 AWG) and light weight coax.

Here is a **HOT TIP** for light weight and portable operation. Use short runs of RG-174 coax for low power operation at HF frequencies. I tested 30 feet of this very small coax at 50 watts before beginning construction and found no objectionable loss or leakage at 14 Mhz. (Do not use this coax at power levels greater than 100 watts or with antennas that require a tuner!) Another advantage with RG-174 is you can make a current balun (coax choke) simply by wrapping 10 turns of the coax around a T150 toroid core at the end of the cable where you attach it to the wires. I have been using this cable successfully for several years...

To tune the antenna, each dipole must be trimmed separately by cutting small equal length pieces from each end until a low SWR (below 1.5 to 1) is achieved for the low end of the band. (You may tune them to the desired frequency if you do not intend to add a parasitic element later.) This can be done with the antenna at six feet off the ground, but expect the SWR to change slightly when you bring the antenna to full elevation. (Always listen for a clear frequency before testing SWR. SWR tuning is not needed for receive only operation.) There will be interaction between the two dipoles, so alternate between dipoles until you find the right match. (Note: Yes you can add additional half wave elements for other HF bands to this configuration. Adjusting multiple elements for a low SWR becomes problematic and will take some patience.)