

Broadband Sloper for the 80- meter Band

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Credit Line: <http://www.cqham.ru/ant80.htm>

The antenna works with good SWR at the frequencies 3.500- 4.000- kHz. All antennas, what I made before (there were I.Vs., dipoles and slopers) did not work at such wide band. The antenna has input impedance 75- Ohm. It allows use a chip TV coaxial cable for the feeding of the antenna. The 75- Ohm coaxial as usual is matched well with the 50- Ohm output of the transceiver. **Figure 1** shows the design of the antenna.

It is a slope stub antenna. The antenna may be placed at 30- 60- degree to the horizon.

Antenna has two radials (more radials are better) that are placed at 120- degree to each other. Antenna has input impedance (at terminals "x-x1") close to 300- Ohm. A lambda/4 length of a 150- Ohm coaxial cable does match the input impedance with the feeding coaxial cable. Instead of the cable it is possible use a transformer 1:4. The antenna wire is connected to the ground. So the antenna is low noise at reception and lightning protected. Antenna may be recalculated for other bands.

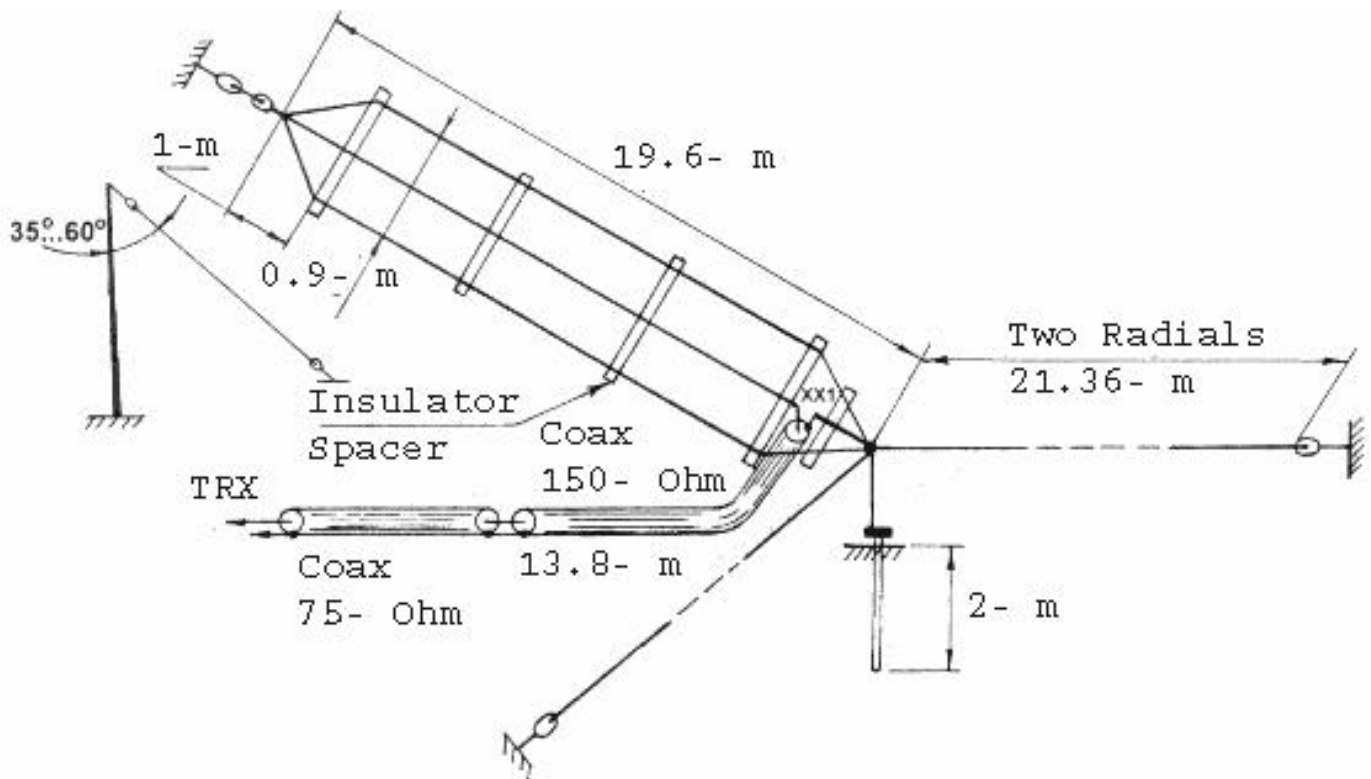


Figure 1 Design of the Broadband Sloper for the 80- meter Band