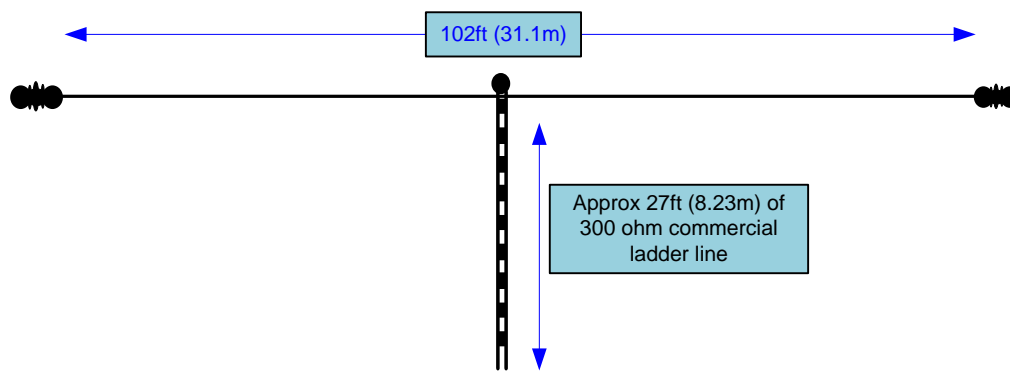


G8OFZ Multi-Band Antenna for 80-10M

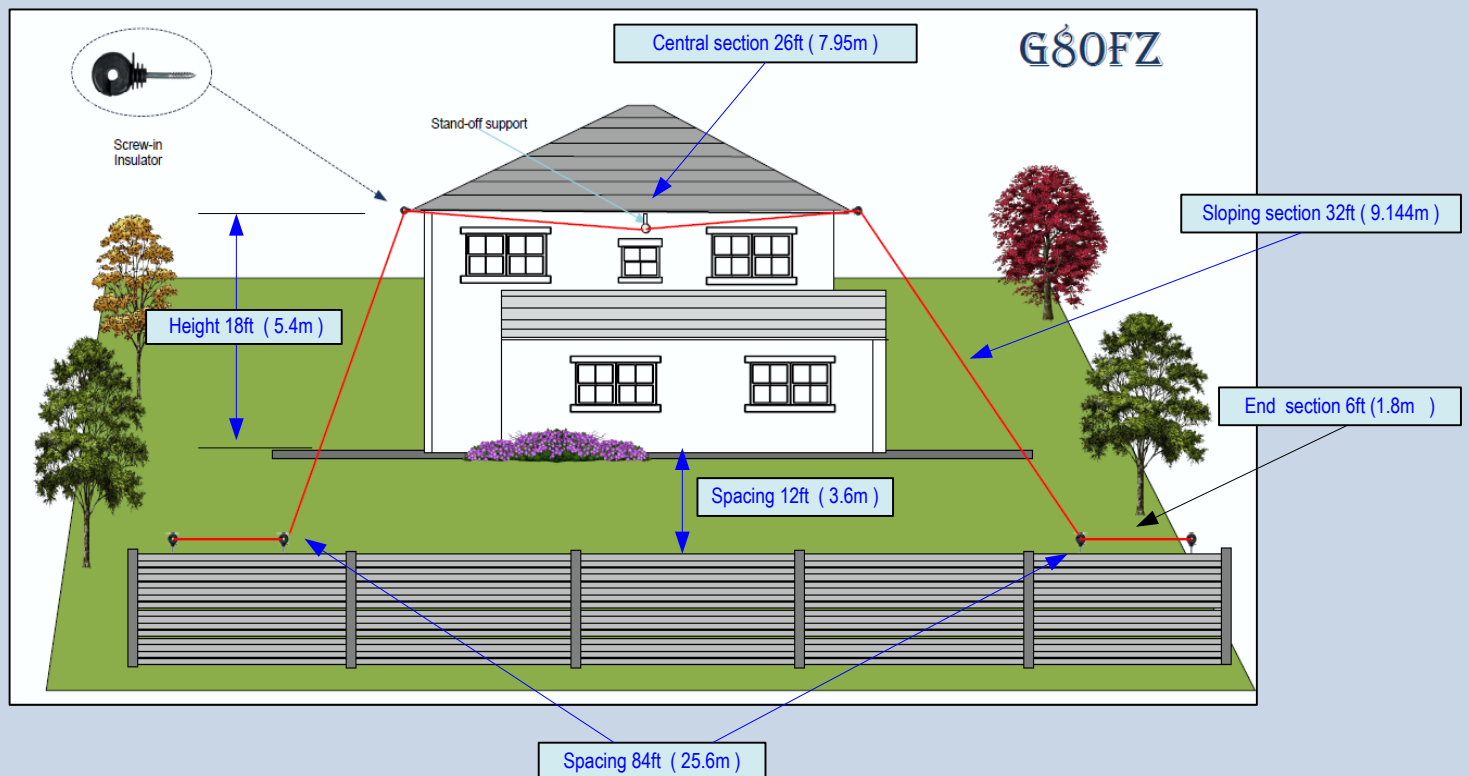
<http://www.rsars.org.uk/ELIBRARY/docsants.htm>



DOUBLET 80-10M Used by G8OFZ



To Balanced Z-match



The diagram shows how the antenna is supported. A plastic conduit stand-off support is used at the centre of the antenna. This protrudes by 3 ft beyond the guttering of the house. The antenna is connected to a S.E.M balanced tuner called a "Trans-Z-match using approximately 26 feet (8.23m) of 300 ohm plastic coated twin feeder (VF 0.82 that is routed through the loft and then down into the shack.

Editors Note :- The antenna appears to be a derivative of the Doublet and the Classic G5RV

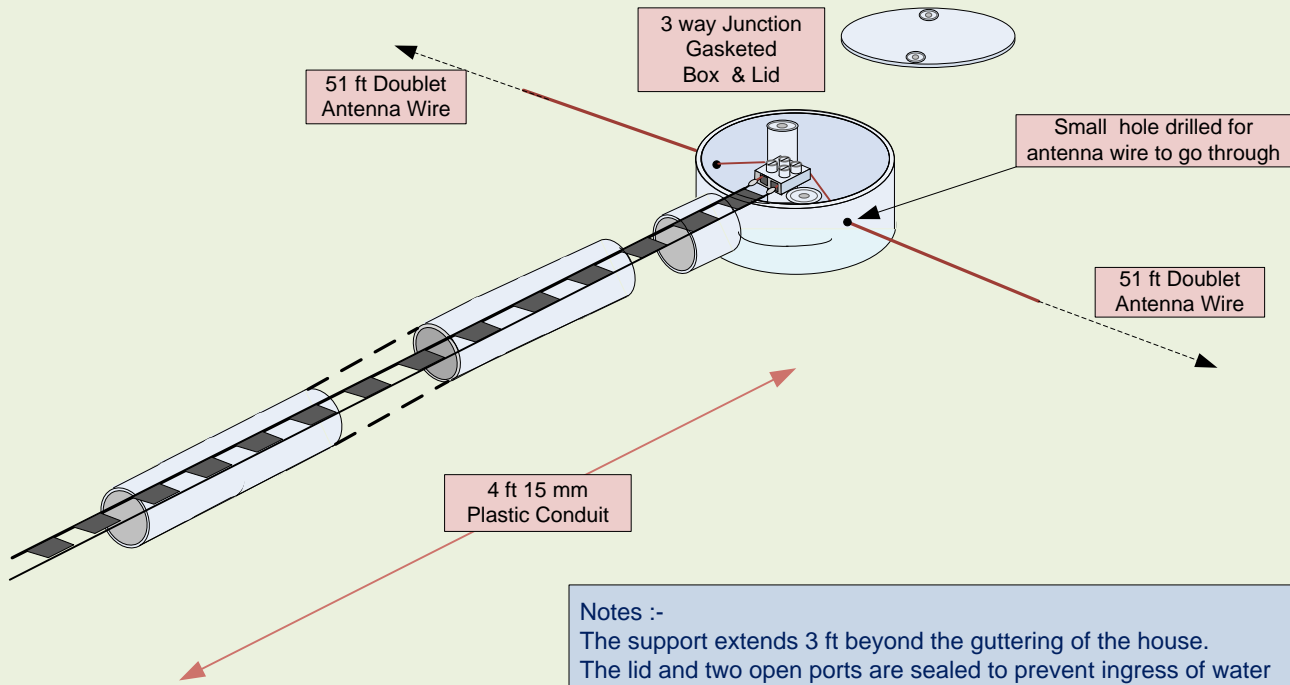
G8OFZ Multi-Band Antenna for 80-10M

<http://www.rsars.org.uk/ELIBRARY/docsants.htm>



G8OFZ INSTALLATION

G8OFZ Doublet Central Support



Novel Use of Electric Fence Insulators used on Farms



The Insulators used by on this project are screw-in electric fence types, available form Horse Tack Shops and certain DIY stores

The wire used for the doublet is un-insulated hard drawn cadmium-copper wire with a diameter of 1.2mm. The conduit terminal box used has a waterproof seal. Two 1mm holes at the appropriate points on the circumference of the box, forced the end of one leg through each hole. Inside the box, the wires are secured in a small electrical "choc block" connector - both screws tightened down- for strain relief.

The 300 ohm ribbon is soldered to the protruding wire ends. Lid with rubber gasket screwed on - after a smear of petroleum jelly. Weatherproofing completed by a small blob of silicon grease round the wires where they pass through the (tight) 1mm holes in the box. (conduit and terminal box from "Wickes DIY Supplies")

The function of the 4' plastic conduit is two-fold. Firstly, to keep the centre of the antenna from running parallel to the eaves of the house where there is a continuous 1" wide strip of perforated zinc let into the boards for loft ventilation. Secondly, to keep the 300 Ohm (white) ribbon which I used protected from weather and UV degradation.

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[G8OFZ's results using the VK5JST Aerial Analyser built from a kit.](#)

As requested, frequencies and SWR.

3.50MHz = 2.38:1, 3.56MHz = 2.69:1, 3.60MHz = 3.14:1, 3.70MHz = 5.39:1, 3.74MHz = 6.66:1

5.30MHz = >10:1

7.00MHz = 2.45:1, 7.10MHz = 2.69:1, 7.20MHz = 3.25:1

10.10MHz = >10:1

14.00MHz = 8.12:1, 14.1MHz = >10:1, 14.20MHz = >10:1, 14.30MHz = >10:1

18.10 MHz = 4.53:1, (18.630MHz out of band = 2.24:1)

21.00MHz = >10:1 right up to 21.450MHz = >10:1

24.95 MHz = >10 28.00MHz = >10, 28.50MHz = >10, 29.00MHz = 9.0, 29.5MHz = 5.29

A 1:1 SWR across all bands can be achieved using a "Z" match between the transmitter and the shack end of the 300 ohm feeder $V_f=0.82$.