

Fig 11 : Circuit diagram of combiner for two frequencies in 2m band.

- 3 x SMA flanged bush
- 1 x tinplate housing, 37mm x 55mm x 30mm
- 1 x printed circuit board DJ8ES 059

3.2. Combiner assembly instructions

The combiner assembly is constructed on a 34mm x 54mm epoxy printed circuit board, copper-coated on both sides (Fig. 12). It fits into a commercially available 37mm x 55.5mm x 30mm tinplate housing.

The printed circuit board is assembled from the foil side only, 0.8mm holes are first drilled for the transformer, TR1. Apart from the connection to earth, these

holes are countersunk on the earth surface using a 3mm drill. The connection to earth is soldered on both sides.

Before the assembly in accordance with the assembly drawing in Fig. 13, the printed circuit board is inserted into the tinplate housing with the SMA sockets already fitted. The earth surfaces should be soldered to the housing rim on both sides.

Anyone who cannot afford the cost of special 50Ω resistors can use 100Ω resistors in parallel (piggyback). For reasons of symmetry, these resistors should be measured as precisely as possible in advance!

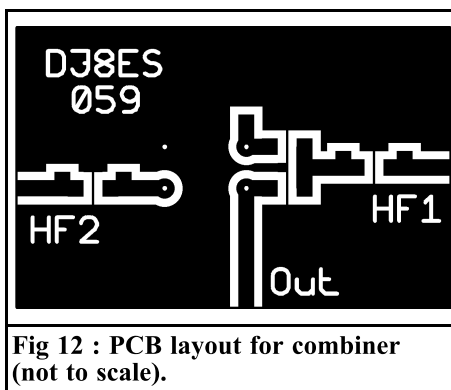


Fig 12 : PCB layout for combiner (not to scale).

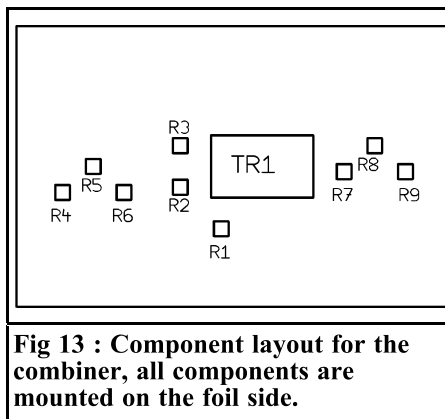


Fig 13 : Component layout for the combiner, all components are mounted on the foil side.