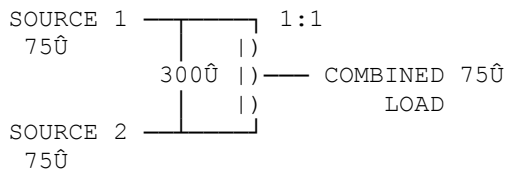


Subject: Coupler for 2 Tx into 1 ant

From: G8MNY@GB7CIP.#32.GBR.EU
 To : TECH@WW

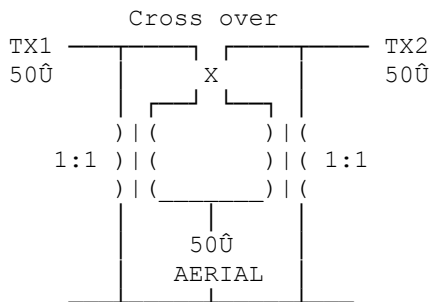
Hi & thanks for reading. I am looking for a design for coupling 2 low power VHF Tx (1W band1 for 2 SAB mono links) close in frequency into 1 aerial. There are no Rx involved at the Tx sites so absolute nulling is not required, but the problem is that each Tx must not see any significant power from the other Tx as PA mixing will occur giving normal mix products.

I computer modelled the normal low loss RF TV combiner & I was disgusted at the results.



Although this nulled OK as signals from SOURCE 1 were cancelled at SOURCE 2 the impedance seen by source 1 was 150Ω & the O/P was 6dB down on the SOURCE 1 port level, although this would be less in practice as the level will jump up with less load.

So I have come up with a theoretical 2 ferrite transformer design, that may be practical. And with suitable trimmer Cs I expect I can get a good mix product null on a spectrum analyser.



There are coax designs that may be better, I wait for replies on designs.

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP
 /EX