

VCR Triplexer to TV Input

By G8MNY

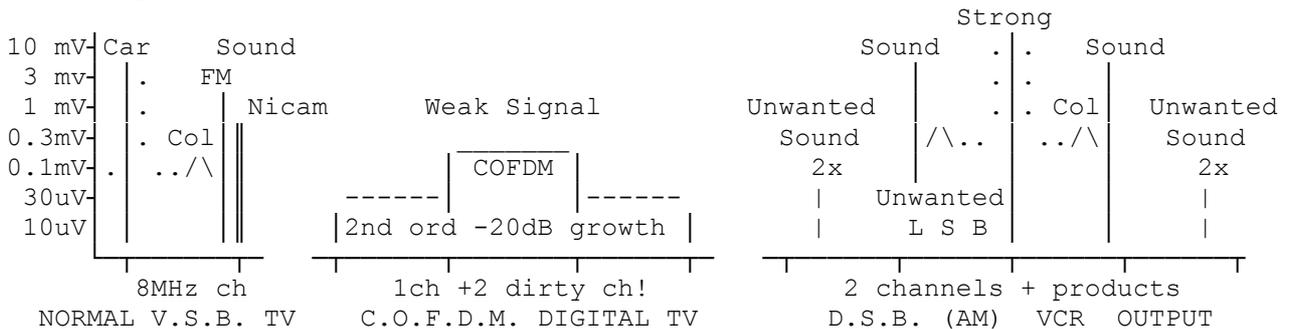
(Corrected Mar 06)

(8 Bit ASCII Graphics use code page 437 or 850)

LA6EAH asked for a circuit to feed 3 RF signals from VCR to a TV..

With the systems options below if there is an external aerial, then 2 clear RF channels are needed per modulator, as they are normal AM not VSB. Also check on digital TV signals as these often appear as just high noise on your VCR channel!

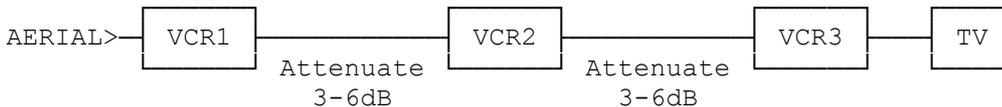
If you can check on a spectrum analyser, you will clearly see how good or poor the setup is...



It is easy to put the wide VCR O/P over a wanted channel, or have a digital channel under the chosen VCR channel seen as noise on the VCR output.

Also amplifying a digital signal before the Rx often leads to corruption of the digital signal, as amplifiers have to be VERY LINEAR to handle the weak digital signals in the presence of stronger analogue signals.

OPTION 1 The normal way

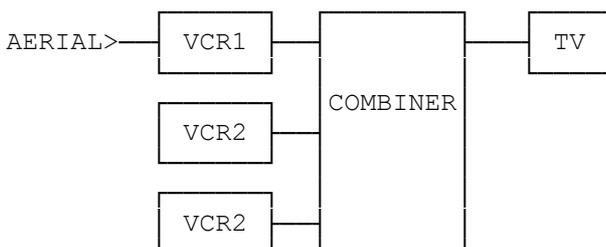


Because most VCRs have 3-6dB RF gain in their aerial isolating amplifiers, attenuators are often needed, so that the following VCRs are not overloaded with the sometimes stronger modulator outputs. Some older VCRs have local-distant switches to help improve their sensitivity & through linearity.

The attenuators can just be made up of the thin lossy leads you normally get with the VCRs!

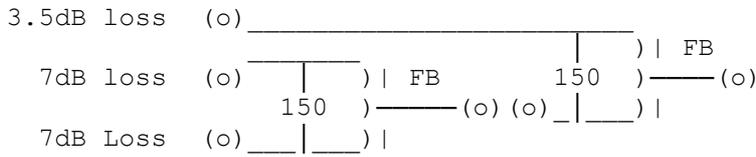
There are no losses in this system just RF amplifier problems.

OPTION 2 The abnormal way

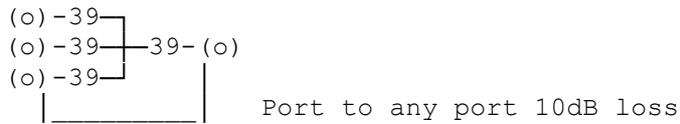


The combiner can be any of several types:-

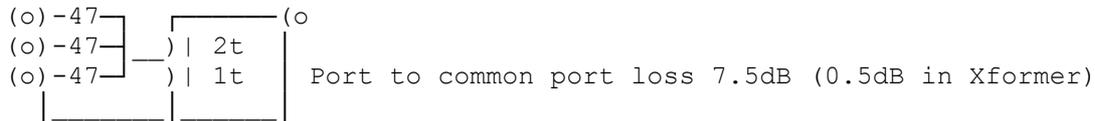
using 2 x low loss (3.5dB ea) standard splitters, although matching is dubious!



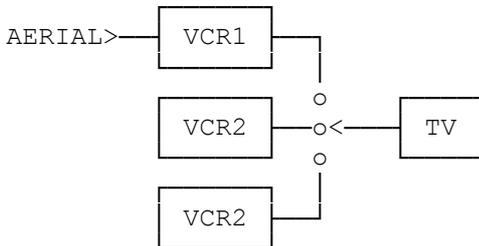
or a dedicated 3 way resistive splitter eg 4x 39Ω in a star network properly matched to 75Ω.



or slightly less loss with a dedicated matching ferrite bead transformer.



OPTION 3 The switch way



Good switches at UHF are rare! Most have 1-2dB insertion loss & only 20dB isolation.

Why Don't U send an interesting bul?

73 de John G8MNY @ GB7CIP