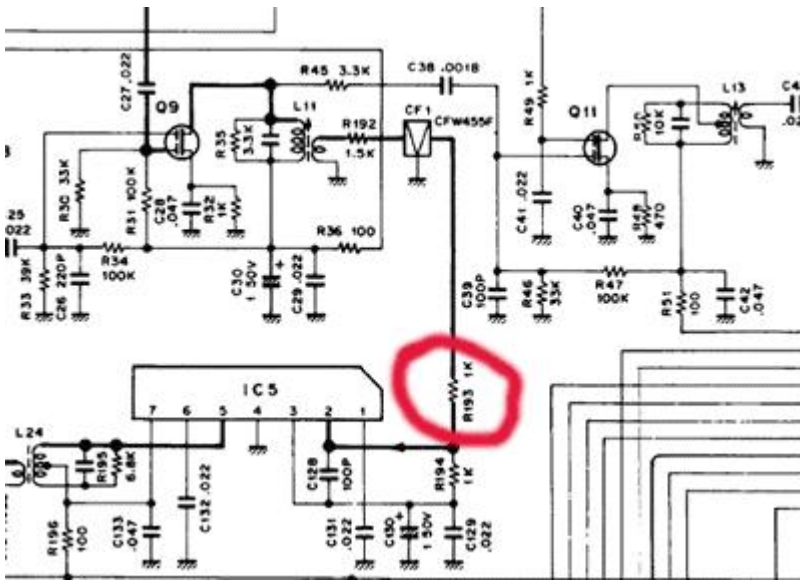


Kenwood R5000 receiver & DRM (Digital Radio Mondiale)

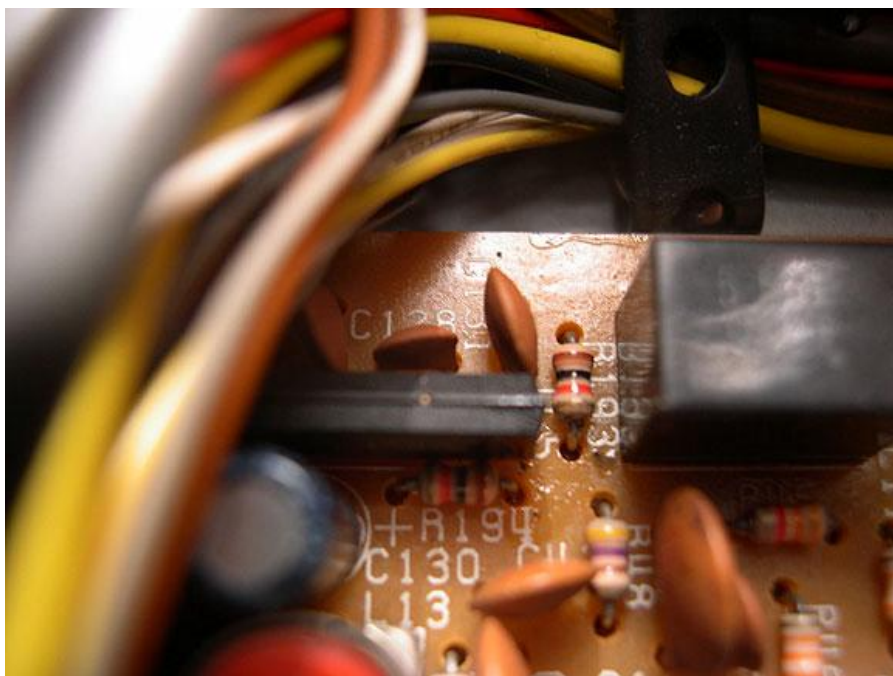
By Andrea Borgnino IW0HK a.borgnino@gmail.com www.mediasuk.org/iw0hk

Disclaimer: modifying your receiver void warranty. Proceed at your own risk !!

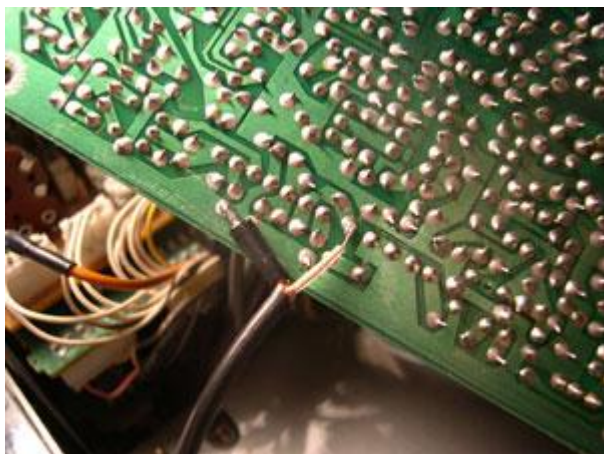
I have modified a Kenwood R5000 shortwave receiver with a DRM mixer (455/12 khz) which was obtained from Sat Service Schneider in Germany. The mixer is connected to beetwen R193 and the 455 khz filter CF1 in IF UNIT. The 'hot' connection from R193 can be done directly on the resistor or under the IF Unit board as you can look in my photo. The DRM reception can done in USB/LSB/CW and also in AM/FM mode. During the first test i have receiver signal with 25 snr more from DW and Vatican Radio on medium wave.



The R193 resiston on the r5000 scheme. (IF UNIT)



The R193 resistor near the CF1 Filter and IC5



The "hot" connection make under the if-Unit.



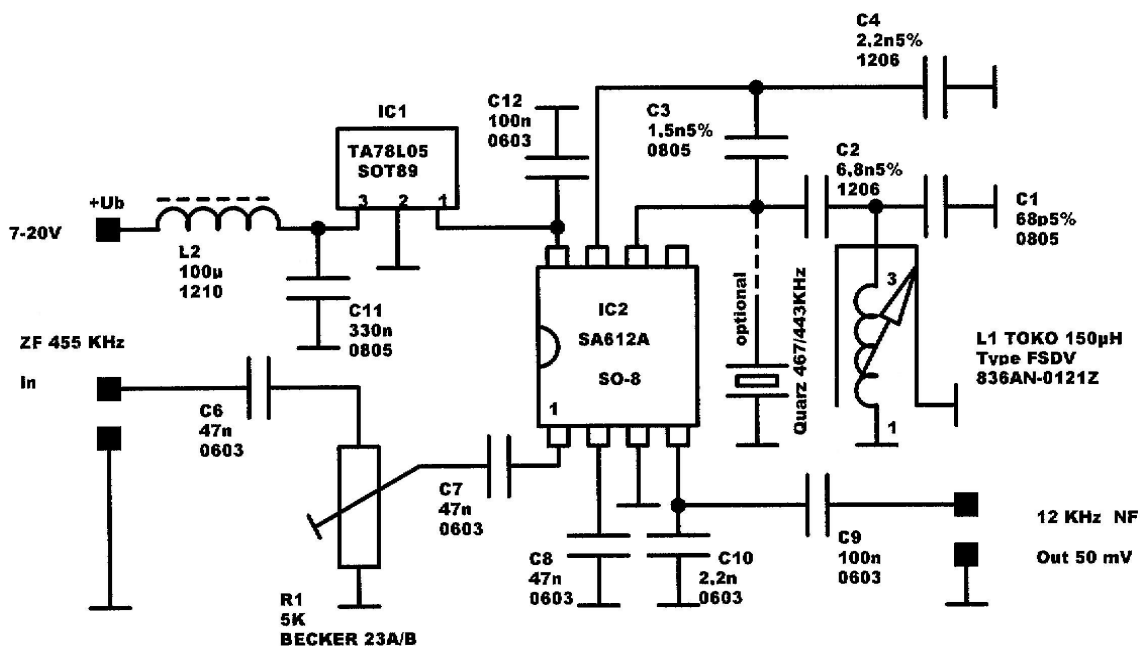
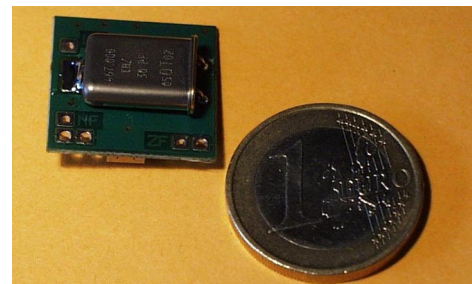
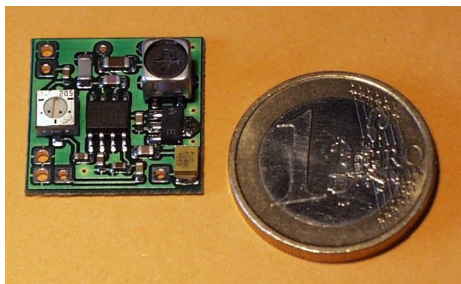
Listening DW-Drm on 3995 khz with my kenwood R5000 after the modification (the 455/12 khz mixer is on the black box with red led near the Ft 817).

Good reception !

Andrea IW0HK

DRM – Miniature Mixer Unit with crystal option

Universal downmixer unit from 455 KHz or 10,7 MHz to 12 KHz (input of a PC-soundcard), designed for modification of existing AM- broadcast receivers to be able of DRM- receiving by use of the Softwareradio from Fraunhofer Institut für Integrierte Schaltungen and other decodersoftware. Dimensions of the board 20x20x6,5mm ; oscillatorfrequency eligible 467KHz; 443KHz or 10,712 MHz. Power supply 7 to 20V. Current consumption < 6 mA . Optional crystal 467oder 443 KHz instead of LC; then 8,5mm high. At 10,712 MHz only crystal operation. Recommended value of output signal voltage: 25 to 50 mV r.m.s, not more than 100 mV r.m.s (DRM- Signal), mixer gain adjustable. Input Impedance 2 to 4,5 KOhms depended on adjusted mixer gain.



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