

(From Martin Johnson, May 2003)

I have had good DRM results with a Lowe HF225 receiver, using the ready-made downconverter (mixer) from Sat-Service Schneider:

See:

"DRM specials" page

<http://home.t-online.de/home/sat-se...sat/DRM/DRM.htm>

"Universal DRM-miniature mixer unit"

<http://home.t-online.de/home/sat-se.../Mixerflyer.pdf>

The HF225 has a 455 kHz IF, so by using the mixer with the 467 kHz crystal option, we get the wanted signal centred on 12 kHz, exactly what the DRMRX.ORG software needs to have as input to the soundcard. With the crystal, the cost is about 50 Euro.

The module was fitted to the HF225 circuit board near the rear panel (see picture attachment). The IF Output was routed to a new 3.5mm stereo jack socket, using an empty socket in the rear panel labelled "FM SQUELCH LEVEL" (because I did not have the FM demod option in my HF225).

Power for the downconverter board was taken from the +8 Volts present at pin 3 of the "DETECTOR OPTION" connectors.

The 455 kHz IF input to the downconverter was taken from resistor R40. This is halfway through the chain of switchable IF bandwidth filters, so in DRM mode it is possible to press FILTER SELECT and choose between displayed bandwidths of 7 kHz or 10 kHz. In fact, R40 comes \*before\* the 10 kHz filter, so the bandwidth is plenty wide enough for DRM. I sometimes listen with the 7 kHz filter selected (if there is a strong signal nearby) although this reduces the SNR for DRM because the DRM signal is wider than that.

If you have a receiver with 455 kHz IF like the Lowe, then this downconverter board is to be recommended. The power supply needed is 7 to 20 volts, so that's not difficult to find in many receivers. But you will need to make sure your receiver has a good wide IF bandwidth.

