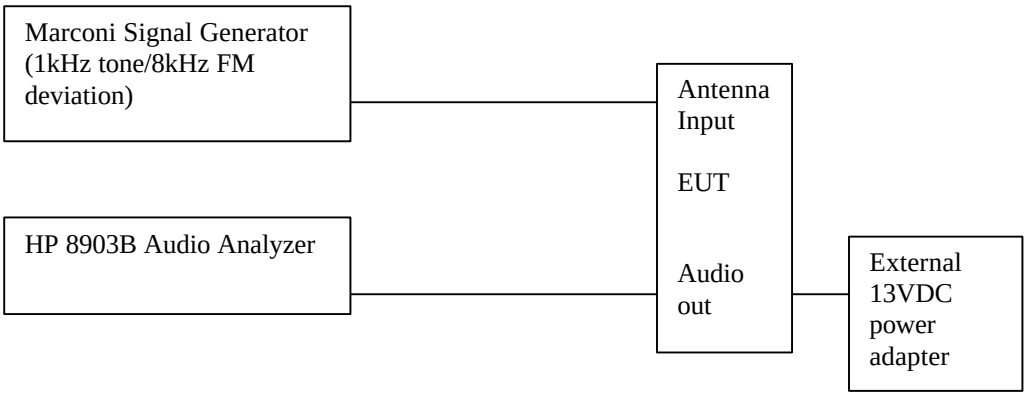
4.1 38dB REJECTION TEST

A signal generator was connected to the receiver under test, and the output of the receiver was connected to an audio analyzer.

A FM signal was applied to the receiver antenna input with a 1kHz tone modulated at 8 kHz deviation, and adjusted with the audio analyzer to produce a 12 dB SINAD. This was done across the receiver bands to determine a reference level. The reference level used was that with the highest sensitivity in all of the bands.

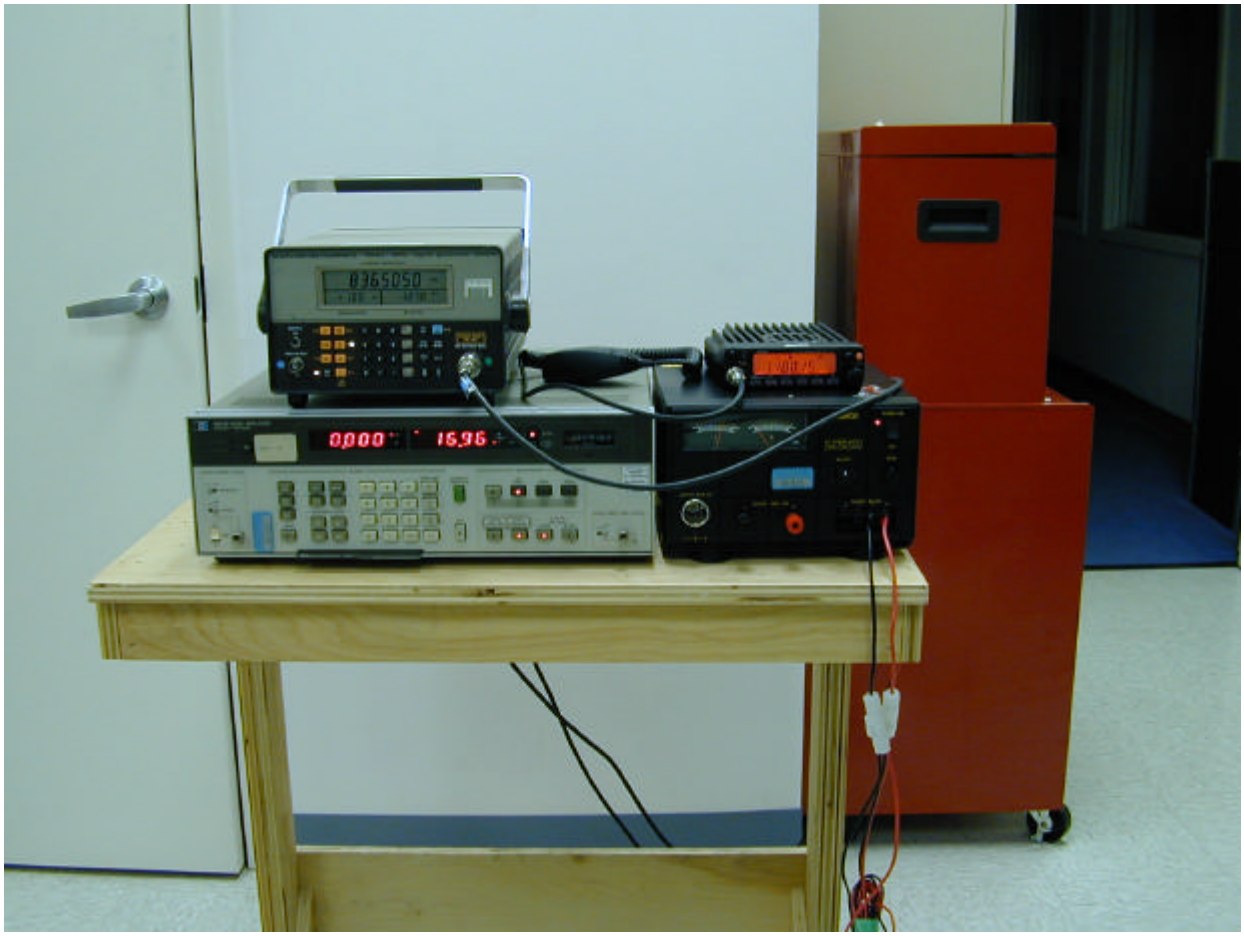
The output of the signal generator was then adjusted to a level 40 dB above the reference level established and set to a low, medium and high frequency in both the mobile and base cellular bands. (mobile = 824.04 MHz through 848.97 MHz, base = 869.04 MHz through 893. 97 MHz). The squelch of the receiver was then set to a minimum threshold level and scanning began from the lowest to the highest channel. Whenever the receiver stopped and "unsquelched" that frequency was noted as a response. After all the frequencies of responses were noted, the signal generator was set to measure the sensitivity at each of these response frequencies. This measurement was the reference sensitivity for the particular received frequency measured. The audio analyzer measurement was used to measure the 12 dB SINAD and that is the spurious value. The difference between the reference sensitivity and the spurious value is the rejection ratio and must be at least 38 dB.
Frequencies used on the Signal Generator were 824.04, 836.505, 848.97 MHz for the Mobile and 869.04, 881.505, 893.97 MHz for the Base.



Frequencies used on the Signal Generator were 824.04, 836.505, 848.97 MHz for the Mobile and 869.04, 881.505, 893.97 MHz for the Base.

The DR-135T unit reference level used was –75.2 dBm from the signal generator, this was determined from the highest sensitivity from 136 MHz at –115.2 dBm measurement of 12dB SINAD. The DR-135T unit reference level used was –79.7 dBm from the signal generator, this was determined from the highest sensitivity from 118 MHz at –119.7 dBm measurement of 12 dB SINAD. The DJ-135T unit was scanned from 118-135.995 and from 136-173.995 MHz for all six channels (manufacturers spec.)

Conclusion:
The device is compliant with the 38 dB rejection test.
Signals which were noted as responses were checked with the signal generator off and if they still existed as a response were determined as ambient signals and removed from the response list. Only ambient signals un-squelched the receiver; therefore, no signals were available for 38 dB rejection test requirements.



38 dB rejection setup