

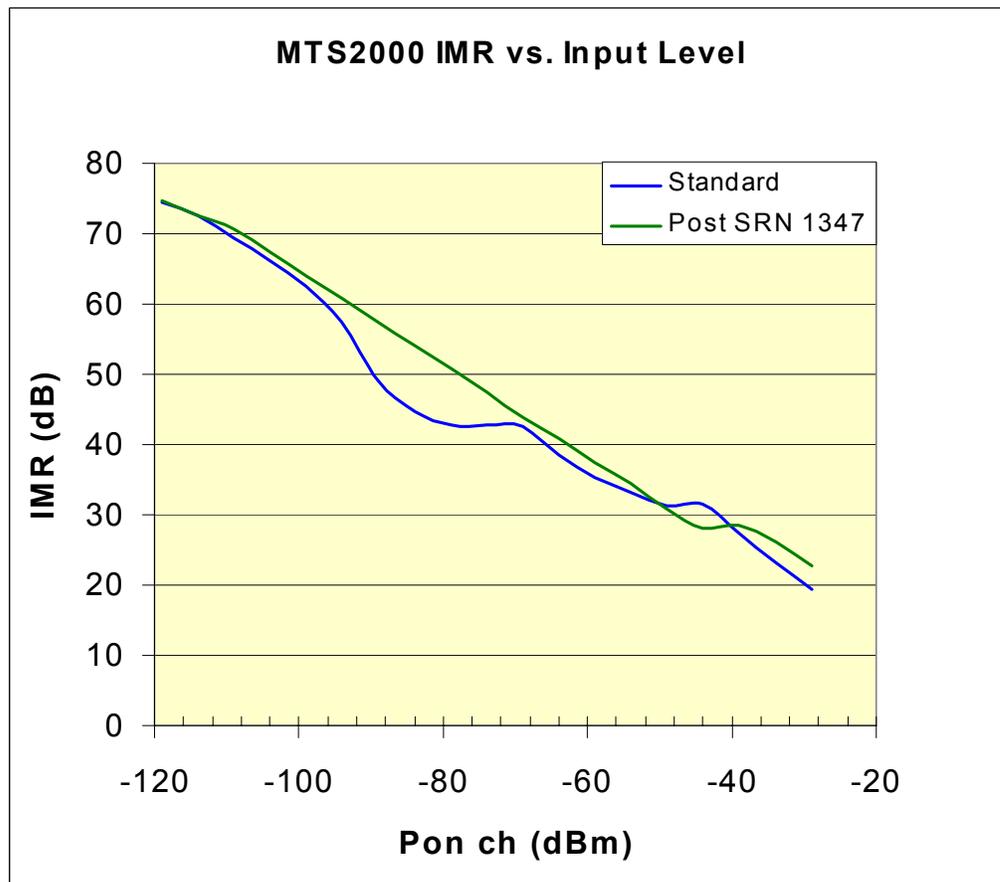
MTS2000 Portable Transceiver Intermodulation Performance

Figure 1 represents the two tone (2A – B) intermodulation rejection ratio¹ performance of the receiver section a Motorola, MTS2000 portable radio. The Standard curve represents the performance of a MTS2000 receiver before the modifications described in SRN1347. The post SRN 1347 curve represents the IM performance of the MTS2000 receiver after the modifications described in SRN1347 have been implemented.

The graph shows that the modifications results in an improvement in the IM performance for on channel signal levels in the range of approximately –100 dBm to –80 dBm. The modification eliminates an 8 -10 dB degradation in the IM performance of the receiver that is typically exhibited in the standard design.

These data represent the before and after performance of a typical MT2000 receiver. The population of standard design receivers will have some variation in the amount of IM degradation. All post modification units exhibit a linear IMR response similar to the data in Figure 1.

Figure 1, MTS2000 Transceiver Intermodulation Performance



¹ Intermodulation Rejection Ratio (IMRR) method is per the method described in TIA-603. For on channel signal levels more than 3 dB above measured sensitivity, the reference criterion is 12 dB SINAD. For example, an on channel signal level of -100 dBm the two interfering signal sources were simultaneously increased until the measured SINAD was 12 dB. The IMRR is computed by finding the difference between the on channel signal level and the interfering signal level in dB.