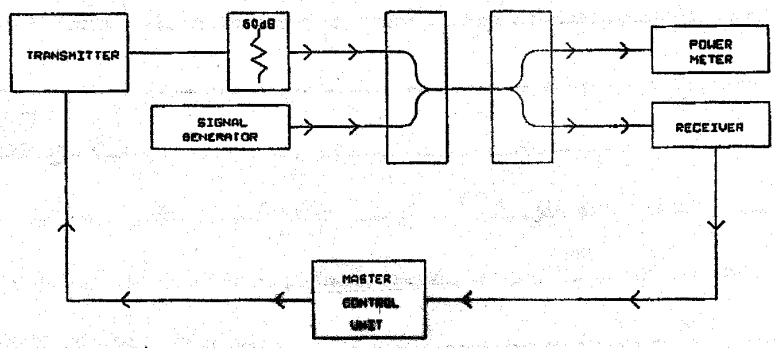
Exhibit 12: Operational Description (Processing Gain Measurements)

Description: The processing gain was measured using the CW jamming margin method outlined in section 15.247(e). Figure 1 shows the test setup. A bit error rate of 1E-6 was used which corresponds to a signal to noise ratio of 10.6 dB for the modulation used in the system. The systems losses were assumed to be 2dB. The minimum Jammer to Signal ratio was measured to be 1dB.

Results: Processing Gain = (S/N)o + J/S ratio + System Losses
Processing Gain = 10.6dB + 1dB + 2dB
Processing Gain = 13.6dB



Signal Gen. Frequency (MHz)	BER	(S/N)o (dB)	Lsys (dB)	Signal Gen. Power (dBm)	Tx Power (dBm)	Jammer to Signal Ratio (dB)	Processing Gain
2434.5	1E-6	10.6	2	-72	-73	1	13.6

The above frequency was found to be the frequency that the minimum processing gain occurred. The signal generator was then set at this power level and stepped across the bandpass of the radio. At each frequency the BER was observed to insure that there was no increase in the amount of errors received.

The modulation used in the radio is DBPSK.