PAGE NO. 6 of 7. AMENDED April 13, 2000

NAME OF TEST: Scanning Receivers Cellular Band Rejection

SPECIFICATION: FCC: 47 CFR 15.121(b)

TEST EQUIPMENT: As per attached page

GUIDE: 47 CFR 15.121(b): Except as provided in

paragraph (c) of this section, scanning

receivers shall reject any signals from Cellular Radiotelephone Service frequency bands that are

38 dB or higher based upon a 12 dB SINAD

measurement, which is considered the threshold where a signal can be clearly discerned from any

interference that may be present.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR

RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED

UNDER FCC RULES AND FEDERAL LAW.

#### MEASUREMENT PROCEDURE

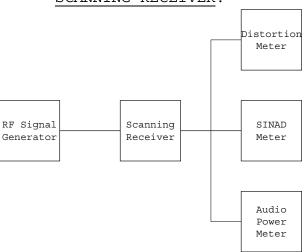
1. Equipment was connected as illustrated in the block diagram.

- 2. A standard signal was applied to the receiver input terminals.
- 3. Receiver output audio output was adjusted for rated output and with distortion no greater than 10%.
- 4. The RF Signal generator was adjusted to produce 12dB SINAD without the audio output power dropping by more than 3dB.
- 5. This was repeated at three frequencies across all bands to establish a reference sensitivity level. The reference sensitivity taken was the lowest, or worst-case sensitivity for all of the bands.
- 6. The output of the signal generator was then adjusted to a level of +60dB above the reference level sensitivity established in step 5 and set to the first of three frequencies in the cellular subscriber transmit band.
- 7. Receiver squelch threshold, the signal level required to open the squelch, should be set to open no greater than +20dB above the reference sensitivity.
- 8. The receiver was then put in the scanning mode and allowed to scan across it's complete receive range.
- 9. If the receiver unsquelched or stopped on any frequency, the displayed frequency was recorded. The signal generator was then adjusted in output level until a 12dB SINAD from the receiver was produced. The signal generator level associated with this response was also noted.
- 10. This procedure was repeated for three frequencies in the cellular base station transmit band.
- 11. The difference in between the signal generator output for any response recorded and the reference sensitivity is the rejection ratio.

# PAGE NO.

# 7 of 7. AMENDED April 13, 2000

## SCANNING RECEIVER:



Reference Level Sensitivity measured in step 5 =

## SUSPECT FREQUENCIES:

110.060	193.335	586.250	894.165	1010.640
113.700	205.245	586.400	938.600	1010.645
120.070	207.750	586.425	938.655	1010.675
160.010	249.600	657.250	966.355	1021.730
170.550	303.200	682.200	988.200	1027.735
181.200	305.100	693.250	988.225	1027.500
181.320	316.300	753.250	988.230	1027.525
192.000	341.100	760.800	993.860	1027.555
193.245	481.000	849.700	998.055	1046.675
193.260	513.250	851.760	1001.300	1077.100
193.275	569.900	860.485	1002.100	1103.300
193.290	585.250	868.885	1010.480	1103.325
193 305				

#### TEST RESULTS:

DISPLAYED	IMAGE	$P_{REF}$	$P_{\mathtt{SPUR}}$	REJECTION
FREQUENCY	FREQUENCY	(dBm)	(dBm)	(dB)
993.860	824.04	-120	-77	43
1002.100	836.40	-120	-76	43
1010.480	848.97	-120	-77	43
1023.860	869.04	-120	-77	43
1032.100	881.40	-120	-78	42
1040.480	893.97	-120	-77	43
	FREQUENCY 993.860 1002.100 1010.480 1023.860 1032.100	FREQUENCY FREQUENCY  993.860 824.04  1002.100 836.40  1010.480 848.97  1023.860 869.04  1032.100 881.40	FREQUENCY FREQUENCY (dBm)  993.860 824.04 -120  1002.100 836.40 -120  1010.480 848.97 -120  1023.860 869.04 -120  1032.100 881.40 -120	FREQUENCY         FREQUENCY         (dBm)         (dBm)           993.860         824.04         -120         -77           1002.100         836.40         -120         -76           1010.480         848.97         -120         -77           1023.860         869.04         -120         -77           1032.100         881.40         -120         -78

ALL OTHER RESPONSES MORE THAN 16 dB ABOVE LIMIT

SUPERVISED BY:

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