



COMPANY NAME: TOPAZ3, L.L.C..
EUT: SM-3450 MOBILE RADIO
CLIENT REFERENCE NUMBER: QRTL00-316
WORK ORDER NUMBER: 2000301
FCC ID: 07KSM3450U2

4 FCC Rules and Regulations Part 2 §2.1053 (a): Field strength of spurious radiation

4.1 Test Procedure

ANSI/TIA/EIA-603-1992, section 2.2.12

The transmitter is terminated with a 50 Ω load and is modulated with a 2,500 Hz sine wave at an input level 16 dB greater than that required to produce 50% of the rated system deviation at 1000 Hz.

Refer to section "Radiated Measurement" in this report for further information.

4.2 Test Data

4.2.1 CFR 47 PART 90.210 REQUIREMENTS

The worst-case emissions test data are shown. The magnitude of emissions attenuated more than 20 dB below the FCC limit need not be recorded.

4.2.2 RADIATED EMISSIONS (CHANNEL 3 AT 470.025 MHz) SUBSTITUTION METHOD

40 W 12.5 kHz						
Frequency	S/G level (dBm)	Cable Loss*	Difference in gain (ref. To 1/2 wave dipole)	Emission level (dBm)	Limit (dBm) Mask B	Margin
940.05	-25.33	-0.5	-1.0	-24.8	-20	-4.8
1410.075	-19.7	-0.6	4.8	-25.1	-20	-5.1
1880.1	-28.3	-1.4	4.3	-34.0	-20	-14
2350.125	-31.8	-0.9	5.8	-38.5	-20	-18.5
2820.15	-32.7	-0.8	6.7	-40.2	-20	-20.2
3290.175	-34.3	-0.2	7	-41.5	-20	-21.5
3760.2	-35.1	-0.5	7.1	-42.7	-20	-22.7
4230.225	-35.3	-0.8	7.6	-43.7	-20	-23.7
4700.25	-44	-2.0	8.2	-54.2	-20	-34.2

*This insertion loss corresponds to the cable connecting the RF Signal Generator to the 1/2 wave dipole antenna.



COMPANY NAME: TOPAZ3, L.L.C..
EUT: SM-3450 MOBILE RADIO
CLIENT REFERENCE NUMBER: QRTL00-316
WORK ORDER NUMBER: 2000301
FCC ID: 07KSM3450U2

4.2.3 RADIATED EMISSIONS (CHANNEL 6 AT 470.025MHz) SUBSTITUTION METHOD

10W 12.5kHz						
Radiated Emissions (Channel 6 at 470.025MHz)						
Substitution Method						
Frequency	ERP S/G level (dBm)	Cable Loss*	Difference in gain (ref. to 1/2 wave dipole)	Emission level (dBm)	Limit (dBm) Mask D	Margin
940.05	-22.19	-0.5	-1.0	-21.7	-20	-1.6
1410.075	-19.4	-0.6	4.8	-24.8	-20	-4.8
1880.1	-35.5	-1.4	4.3	-38.4	-20	-18.4
2350.125	-32.7	-0.9	5.8	-39.4	-20	-19.4
2820.15	-32.3	-0.8	6.7	-39.8	-20	-19.8
3290.175	-32.5	-0.2	7	-39.7	-20	-19.7
3760.2	-32.2	-0.5	7.1	-39.8	-20	-19.8
4230.225	-35.8	-0.8	7.6	-44.2	-20	-24.2
4700.25	-44.5	-2.0	8.2	-54.7	-20	-34.7

*This insertion loss corresponds to the cable connecting the RF Signal Generator to the ½ wave dipole antenna.

4.3 Test Equipment

Antenna: CHASE CBL6112 s/n 2099
 Amplifier: HP8449Bs/n 3008A00505
 Spectrum analyzer: HP8564E s/n 3943A01719

RF Signal Generator HP8648Cs/n 3537A01741
 Synthesized Sweeper HP83752A s/n 3610A00846