



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

3 FCC Rules and Regulations Part 2 §2.1051: Spurious Emissions at Antenna Terminals

3.1 Test Procedure

ANSI/TIA/EIA-603-1992, Section 2.2.13

The transmitter is terminated with a 50 Ω load and interfaced with a spectrum analyzer.

The transmitter 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.

3.2 Test Data

Frequency range of measurement per Part 2.1057: 9kHz to 10 x Fc

Limits: Mask B (dBm): $P(\text{dBm}) - (43 + 10 \times \text{LOG } P(\text{W}))$

Mask D (dBm): $P(\text{dBm}) - (50 + 10 \times \text{LOG } P(\text{W}))$

The following channel (in MHz) were investigated: 440.025, 455.025, 470.025

The worst case (unwanted emissions) channels are shown. The magnitude of emissions attenuated more than 20 dB below the FCC limit need not be recorded. Channel 1-6 Conducted Spurious Measurements (b/c 12239):

3.2.1 CHANNEL 1 (440.025 MHz) 12.5K CH SP; 40 W

Frequency (MHz)	level (dBm)	limit (dB)	margin
397.80	-42.8	-20.0	-22.8
429.48	-32.6	-20.0	-12.6
433.35	-33.9	-20.0	-13.9
435.60	-36.2	-20.0	-16.2
437.64	-26.1	-20.0	-6.1
442.41	-27.9	-20.0	-7.9
444.73	-36.0	-20.0	-16.0
446.98	-34.1	-20.0	-14.1
518.60	-47.9	-20.0	-27.9
817.30	-48.7	-20.0	-28.7
880.05	-33.8	-20.0	-13.8
1320.00	-52.1	-20.0	-32.1
1760.00	-56.7	-20.0	-36.7
2200.00	-58.2	-20.0	-38.2
2640.00	-61.0	-20.0	-41.0



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3.2.2 CHANNEL 2 455.025 MHz; 12.5k CH SP; 40 W

Frequency (MHz)	level (dBm)	limit (dB)	margin
327.3	-44.1	-20.0	-24.1
378.30	-45.2	-20.0	-25.2
413.50	-43.0	-20.0	-23.0
444.33	-31.7	-20.0	-11.7
533.50	-45.1	-20.0	-25.1
910.05	-37.0	-20.0	-17.0
1365.07	-49.9	-20.0	-29.9
1820.09	-47.4	-20.0	-27.4
2275.13	-57.7	-20.0	-37.7
2730.10	-66.9	-20.0	-46.9

3.2.3 CHANNEL 3 470.025 MHz; 12.5k CH SP; 40 W

Frequency (MHz)	level (dBm)	limit (dB)	margin
128.50	-43.4	-20.0	-23.4
342.30	-43.6	-20.0	-23.6
393.30	-42.6	-20.0	-22.6
427.00	-41.4	-20.0	-21.4
459.33	-32.4	-20.0	-12.4
547.00	-42.2	-20.0	-22.2
940.05	-31.7	-20.0	-11.7
1410.07	-40.1	-20.0	-20.1
1880.10	-53.7	-20.0	-33.7
2350.13	-58.8	-20.0	-38.8

3.2.4 CHANNEL 4 440.025 MHz; 12.5k CH SP; 10 W

Frequency (MHz)	level (dBm)	limit (dB)	margin
397.80	-47.3	-20.0	-27.3
429.33	-39.7	-20.0	-19.7
880.05	-33.4	-20.0	-13.4
1320.08	-40.8	-20.0	-20.8
1760.10	-50.9	-20.0	-30.9
2200.13	-59.9	-20.0	-39.9
2640.15	-60.9	-20.0	-40.9



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3.2.5 CHANNEL 5 455.025 MHz; 12.5k CH SP; 10 W

Frequency (MHz)	level (dBm)	limit (dB)	margin
76.98	-38.4	-20.0	-18.4
85.40	-46.3	-20.0	-26.3
128.50	-45.7	-20.0	-25.7
327.30	-47.6	-20.0	-27.6
378.30	-45.3	-20.0	-25.3
413.50	-47.1	-20.0	-27.1
444.33	-39.1	-20.0	-19.1
533.50	-51.1	-20.0	-31.1
910.05	-40.3	-20.0	-20.3
1365.08	-48.2	-20.0	-28.2
1820.10	-56.9	-20.0	-36.9
2275.13	-62.5	-20.0	-42.5
2730.15	-62.2	-20.0	-42.2

3.2.6 CHANNEL 6 470.025 MHz; 12.5k CH SP; 10 W

Frequency (MHz)	level (dBm)	limit (dB)	margin
73.52	-46.5	-20.0	-26.5
76.98	-31.5	-20.0	-11.5
80.94	-43.3	-20.0	-23.3
103.00	-42.8	-20.0	-22.8
128.50	-44.3	-20.0	-24.3
393.30	-38.8	-20.0	-18.8
427.00	-47.0	-20.0	-27.0
459.33	-38.7	-20.0	-18.7
523.00	-51.7	-20.0	-31.7
940.05	-35.1	-20.0	-15.1
1410.08	-32.9	-20.0	-12.9
1880.01	-40.9	-20.0	-20.9
2350.01	-43.4	-20.0	-23.4
2820.14	-47.3	-20.0	-27.3

3.3 Test Equipment

Audio generator:
Synthesized Level Generator HP3336Bs/n 2127A00559
Audio Signal Analyzer Tektronix ASG 100 s/n B032374

Spectrum analyzer:
HP8564E s/n 3943A01719
HP8546A s/n 3525A00159