



2.7 FIELD STRENGTH OF SPURIOUS RADIATION

2.7.1 Specification Reference

Part 22 Subpart H §22.917(a) and Part 24 Subpart E §24.238(a)

2.7.2 Standard Applicable

Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

2.7.3 Equipment Under Test and Modification State

Serial No: SS220414800535 / Test Configuration B

2.7.4 Date of Test/Initial of test personnel who performed the test

June 10 to July 08, 2014 / AC

2.7.5 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.7.6 Environmental Conditions/ Test Location

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	23.8-25.4°C
Relative Humidity	49.3-51.7%
ATM Pressure	99.7-98.7 kPa

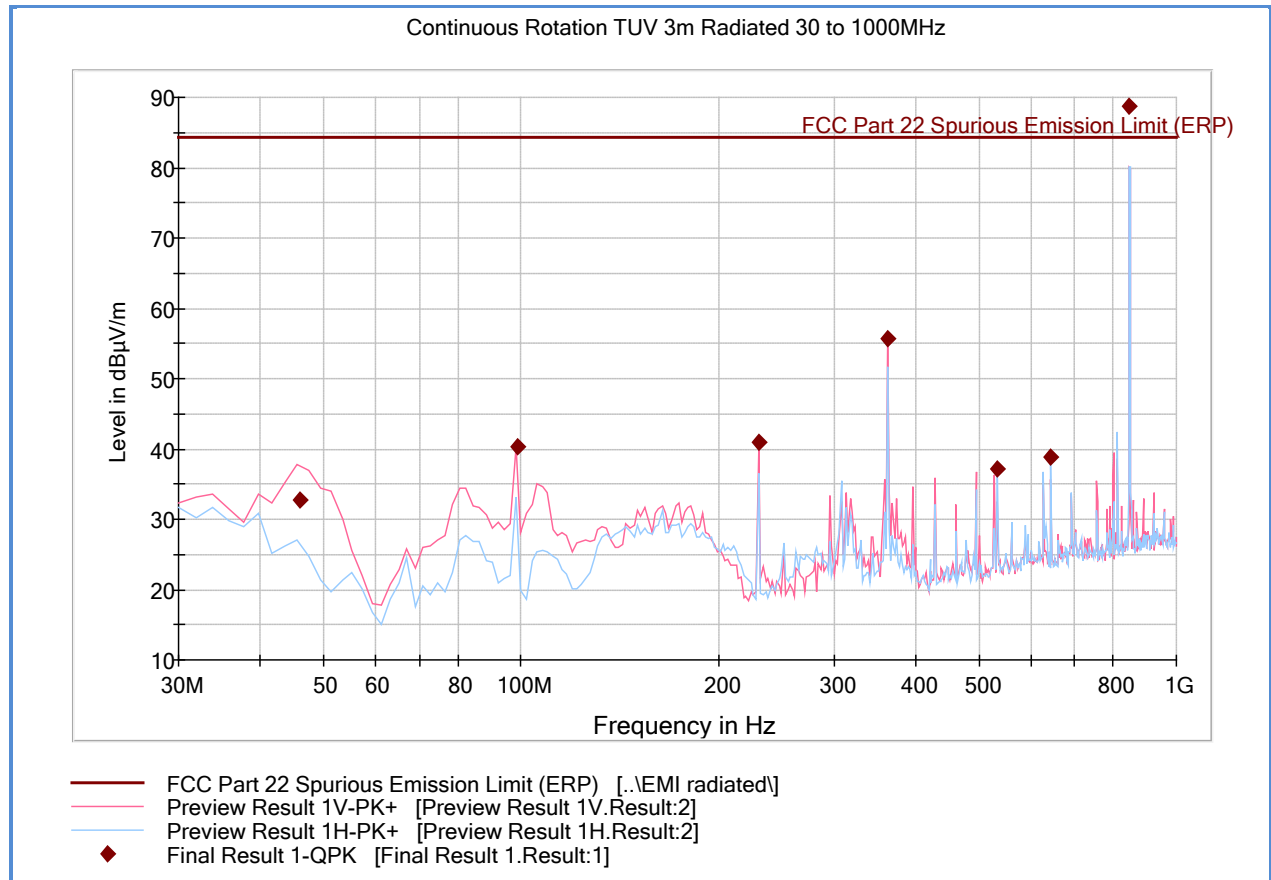
2.7.7 Additional Observations

- This is a radiated test using substitution method as per Unwanted Emissions: Radiated Spurious method of measurement of ANSI/TIA/EIA-603-C 2004, August 17, 2004.
- Only the worst case configuration presented in this test report.
- Measurement was done using EMC32 V8.52 automated software. Reported level is the actual level with all the correction factors factored in. Correction Factor column is for informational purposes only.

2.7.8 Test Results

See attached plots.

2.7.9 Test Results Below 1GHz_Worst Case Configuration_CDMA 2000-1xRTT_Cell BC0_High Channel (777)

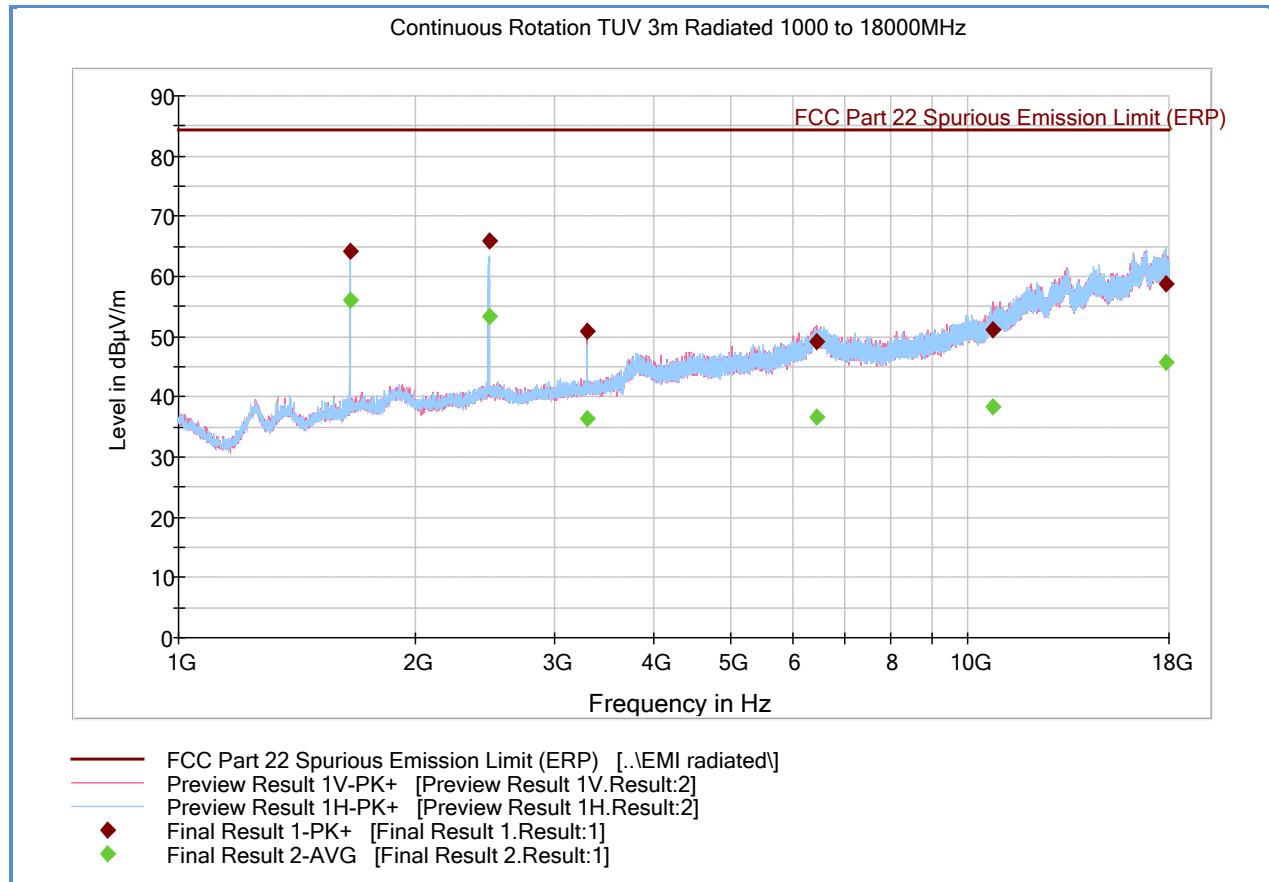


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
46.031102	32.6	1000.0	120.000	116.0	V	341.0	-17.7	51.7	84.4
98.996072	40.3	1000.0	120.000	100.0	V	243.0	-18.9	44.1	84.4
230.980441	40.9	1000.0	120.000	100.0	V	231.0	-13.9	43.4	84.4
363.004810	55.7	1000.0	120.000	100.0	V	197.0	-9.0	28.7	84.4
532.026934	37.1	1000.0	120.000	109.0	H	47.0	-4.9	47.3	84.4
644.028537	38.8	1000.0	120.000	100.0	H	60.0	-2.9	45.6	84.4
848.016754	88.6	1000.0	120.000	150.0	H	155.0	Fundamental		

Test Notes: Only worst case channel presented for spurious emissions below 1GHz.

2.7.10 Test Results Above 1GHz_CDMA 2000-1xRTT_Cell BC0_Low Channel (1013)



Peak/Average Data

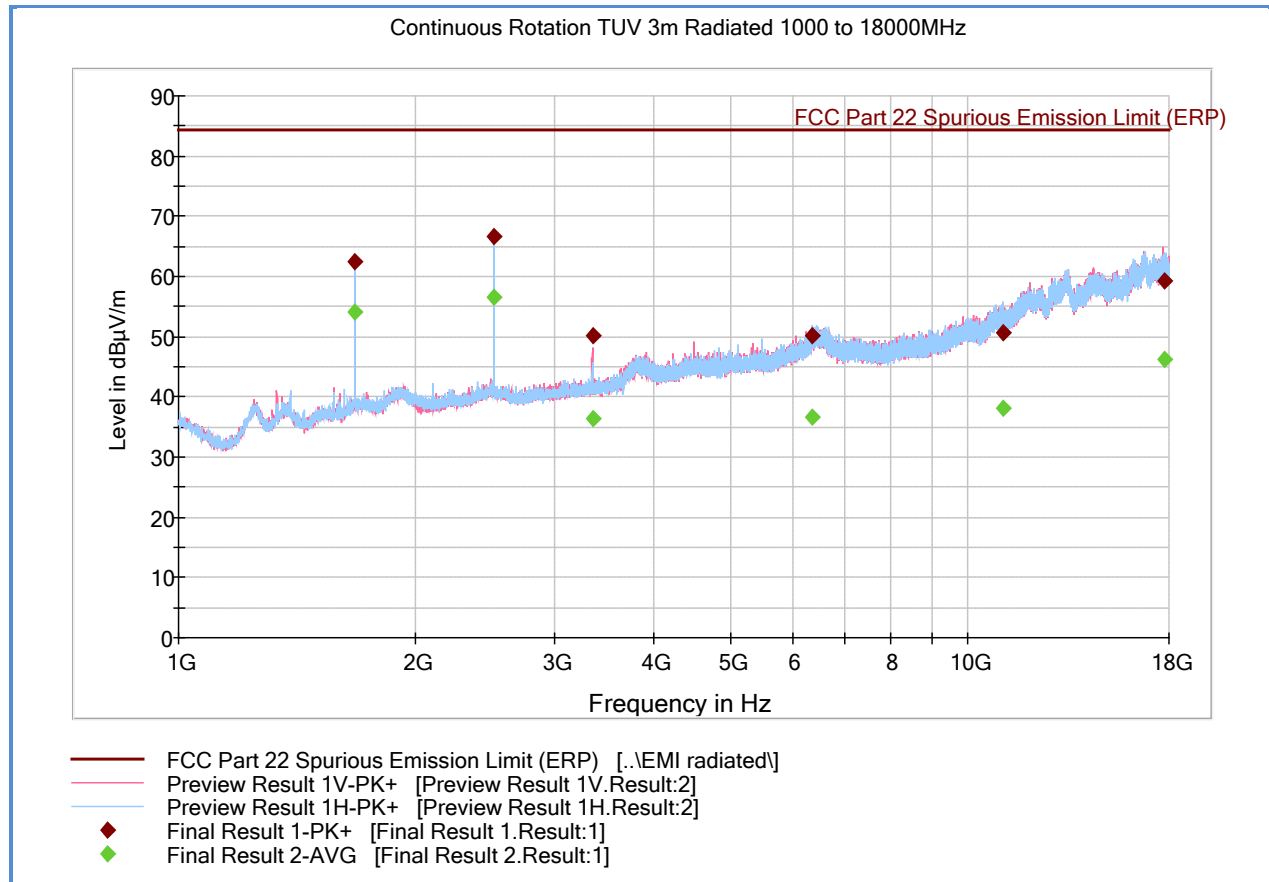
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1648.666667	64.1	56.0	1000.0	1000.000	99.7	H	31.0	-4.3	20.3	28.3	84.4
2472.966667	65.8	53.4	1000.0	1000.000	100.7	H	138.0	0.1	18.6	31.0	84.4
3298.800000	51.0	36.4	1000.0	1000.000	99.7	V	80.0	2.3	33.4	48.0	84.4
6430.600000	49.1	36.5	1000.0	1000.000	248.3	V	222.0	12.6	35.3	47.9	84.4
10774.23333	51.1	38.4	1000.0	1000.000	123.7	V	242.0	16.3	33.3	46.0	84.4
17881.70000	58.9	45.8	1000.0	1000.000	196.5	H	197.0	25.5	25.5	38.6	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
2472.966667	65.8	-3.7	9.5	-35.23	-31.57	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.11 Test Results Above 1GHz_CDMA 2000-1xRTT_Cell BC0_Mid Channel (384)



Peak/Average Data

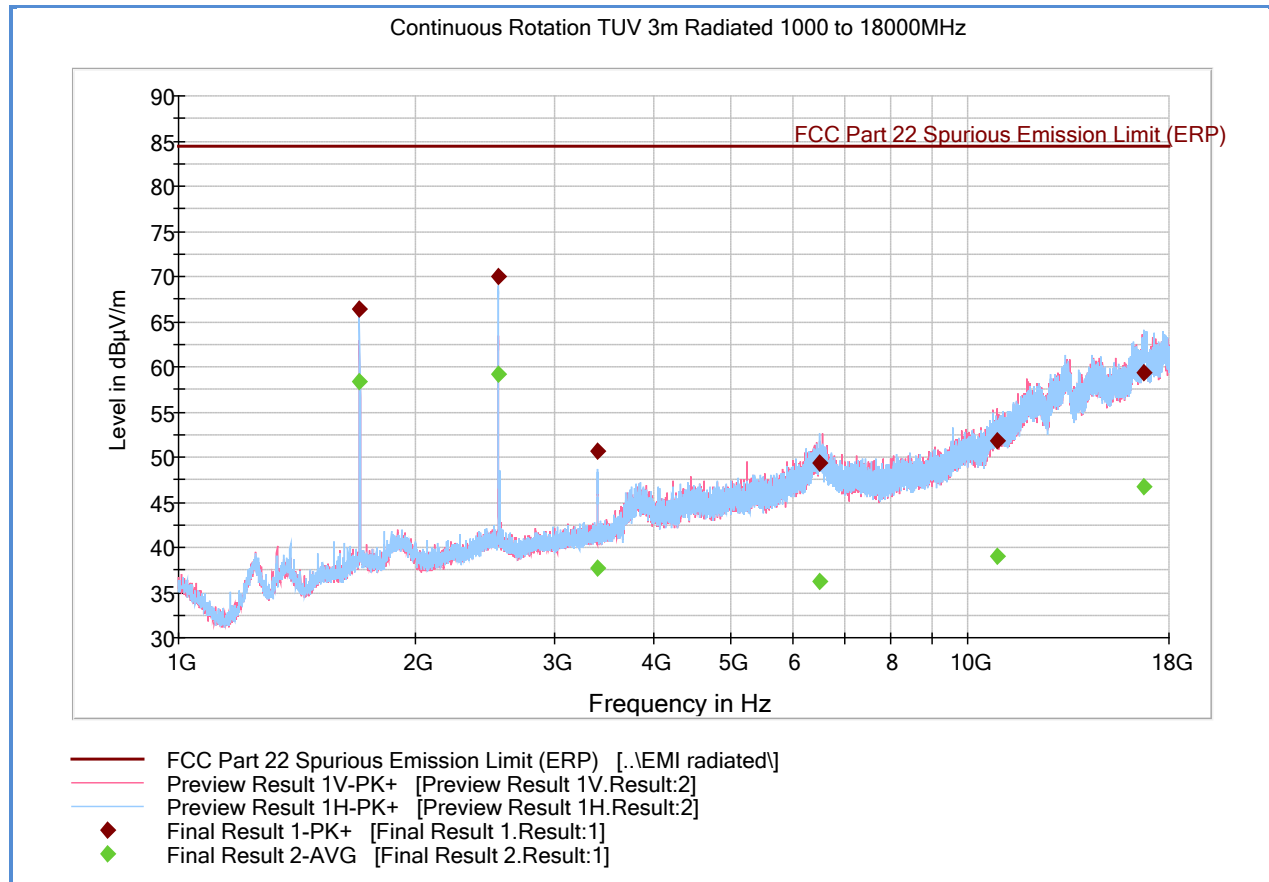
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dB μ V/m)
1673.166667	62.4	54.0	1000.0	1000.000	99.7	H	350.0	-4.0	22.0	30.4	84.4
2509.566667	66.7	56.6	1000.0	1000.000	113.7	H	120.0	0.2	17.7	27.8	84.4
3345.833333	50.0	36.5	1000.0	1000.000	169.6	V	141.0	2.4	34.3	47.9	84.4
6365.033333	50.1	36.7	1000.0	1000.000	100.7	H	356.0	12.6	34.3	47.6	84.4
11100.866666	50.7	38.2	1000.0	1000.000	171.6	H	101.0	16.5	33.7	46.2	84.4
17730.133333	59.2	46.2	1000.0	1000.000	355.1	V	4.0	25.7	25.2	38.2	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dB μ V/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
2509.566667	66.7	-3.8	9.8	-34.52	-30.67	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.12 Test Results Above 1GHz_DMA 2000-1xRTT_Cell BC0_High Channel (777)



Peak/Average Data

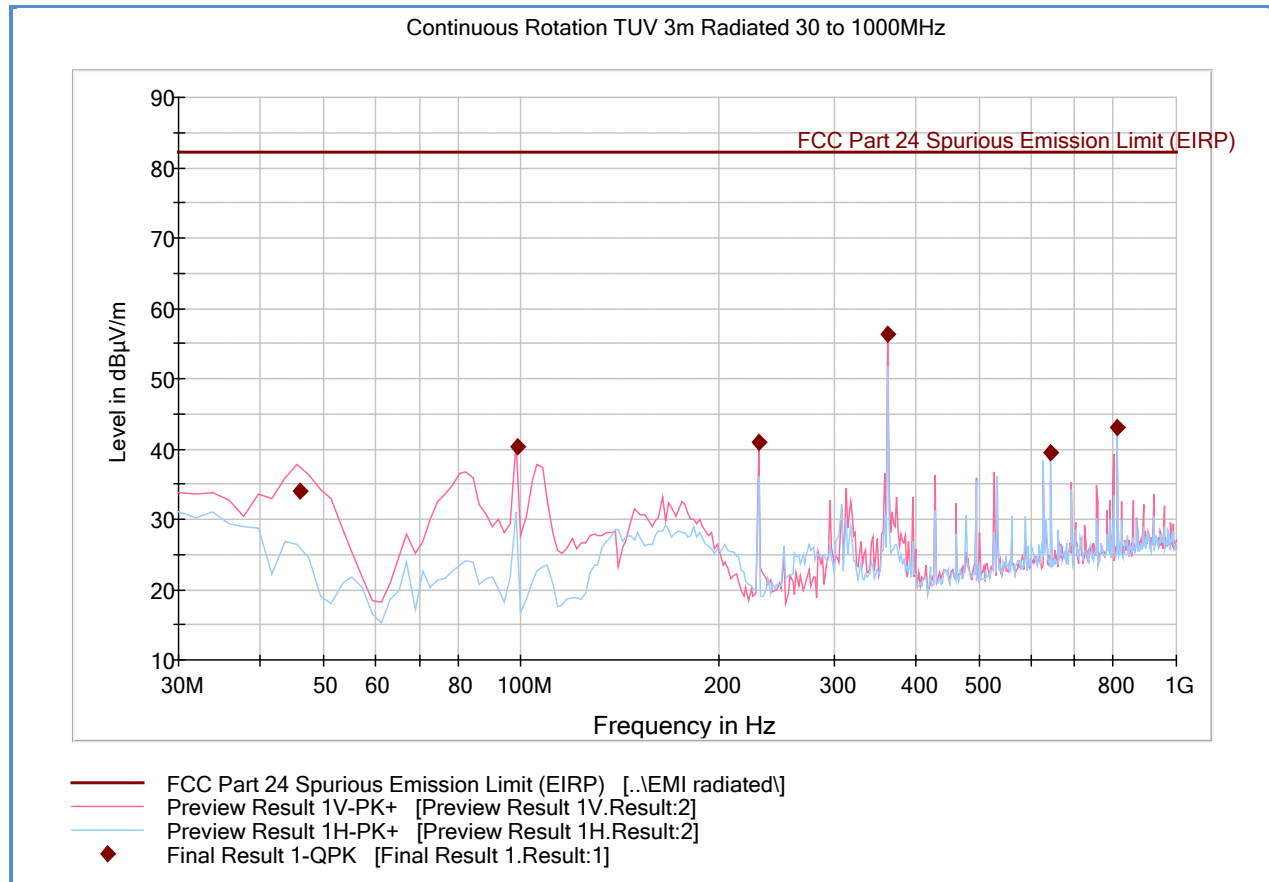
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1696.800000	66.4	58.4	1000.0	1000.000	99.7	H	42.0	-3.7	17.9	26.0	84.4
2543.800000	69.9	59.1	1000.0	1000.000	101.7	H	154.0	0.1	14.4	25.3	84.4
3393.233333	50.6	37.7	1000.0	1000.000	100.7	H	97.0	2.5	33.8	46.7	84.4
6494.600000	49.3	36.3	1000.0	1000.000	311.2	H	318.0	12.7	35.1	48.1	84.4
10886.26666	51.8	39.1	1000.0	1000.000	300.6	V	50.0	16.7	32.6	45.3	84.4
16699.13333	59.3	46.7	1000.0	1000.000	390.1	H	3.0	25.8	25.0	37.7	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
1696.800000	66.4	-3.2	9.1	-34.77	-30.97	-13	Complies
2543.800000	69.9	-3.8	9.8	-34.32	-30.47	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.13 Test Results Below 1GHz_Worst Case Configuration_CDMA 2000-1xRTT_PCS BC1_High Channel (1175)

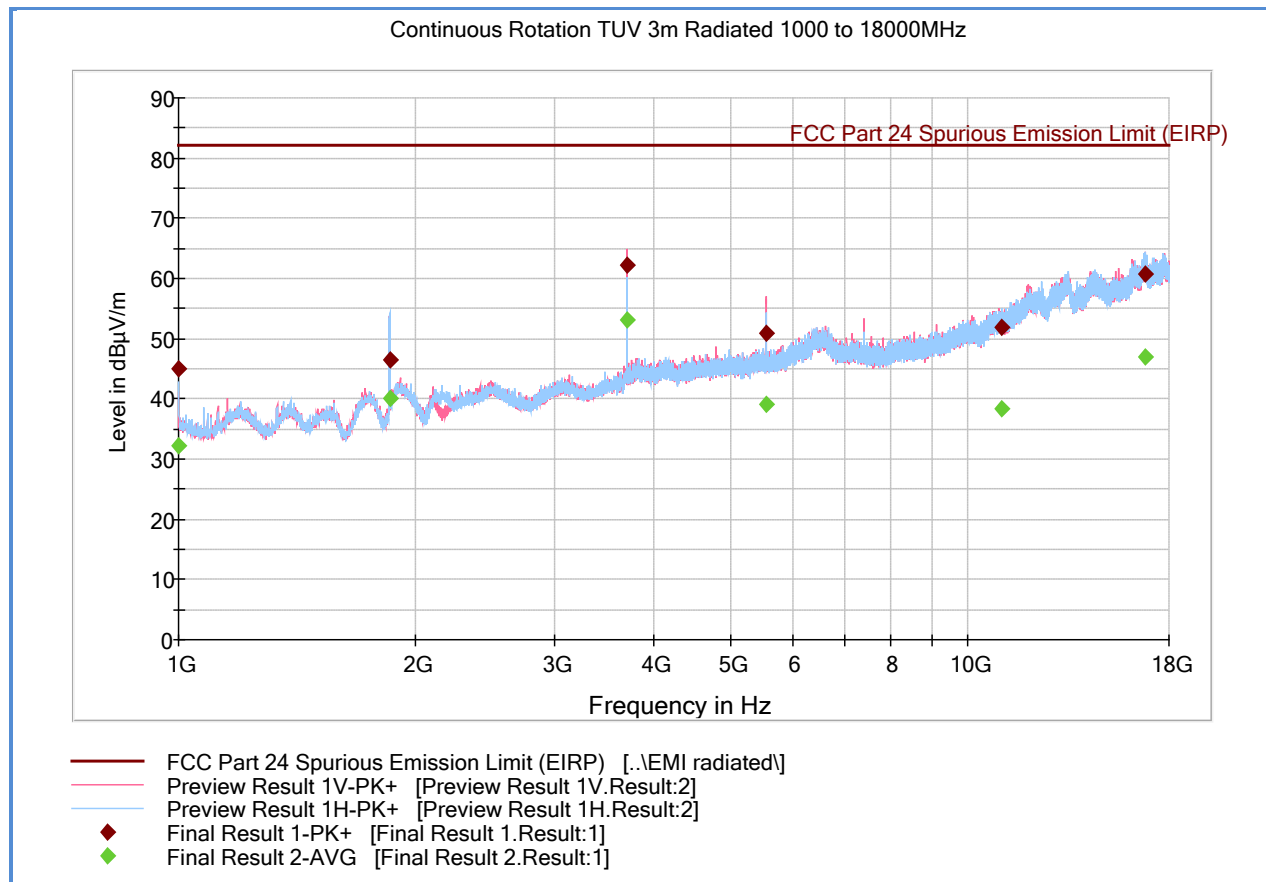


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
45.911102	34.1	1000.0	120.000	100.0	V	199.0	-17.6	48.1	82.2
98.996072	40.4	1000.0	120.000	109.0	V	213.0	-18.9	41.9	82.2
230.980441	41.0	1000.0	120.000	100.0	V	237.0	-13.9	41.2	82.2
363.004810	56.3	1000.0	120.000	100.0	V	198.0	-9.0	26.0	82.2
644.028537	39.4	1000.0	120.000	100.0	H	63.0	-2.9	42.9	82.2
812.026774	43.1	1000.0	120.000	100.0	H	81.0	0.2	39.1	82.2

Test Notes: Only worst case channel presented for spurious emissions below 1GHz.

2.7.14 Test Results Above 1GHz_CDMA 2000-1xRTT_PCS BC1_Low Channel (25)



Peak/Average Data

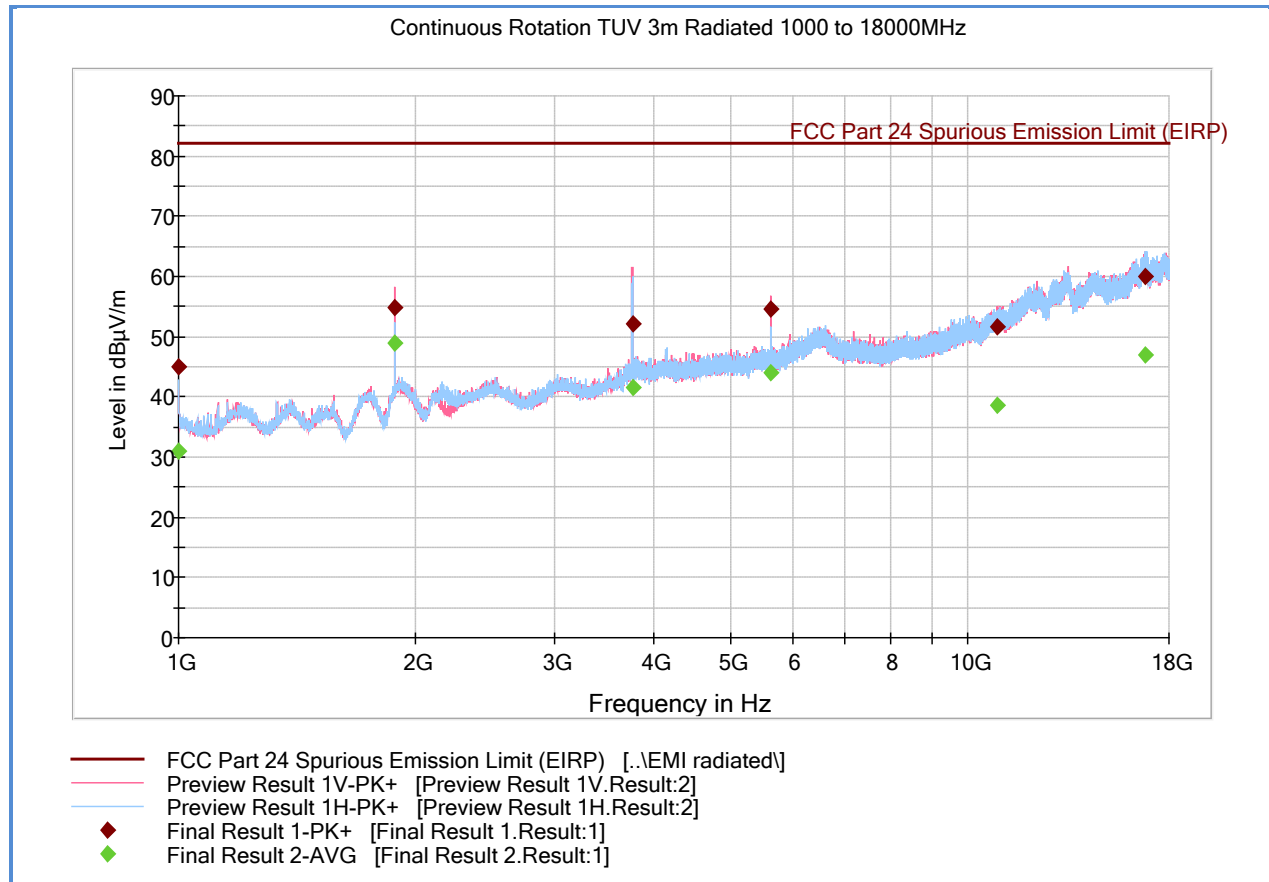
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.000000	45.1	32.1	1000.0	1000.000	268.3	H	37.0	-7.0	37.2	50.1	82.2
1851.333333	46.6	40.0	1000.0	1000.000	200.5	H	318.0	-2.2	35.7	42.2	82.2
3701.700000	62.1	53.1	1000.0	1000.000	99.7	V	295.0	4.7	20.1	29.2	82.2
5554.100000	50.9	39.1	1000.0	1000.000	137.7	V	294.0	8.9	31.3	43.1	82.2
11064.566666	51.8	38.5	1000.0	1000.000	122.7	H	231.0	16.7	30.5	43.8	82.2
16772.000000	60.6	46.9	1000.0	1000.000	236.4	V	355.0	25.9	21.6	35.3	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.15 Test Results Above 1GHz_CDMA 2000-1xRTT_PCS BC1_Mid Channel (600)



Peak/Average Data

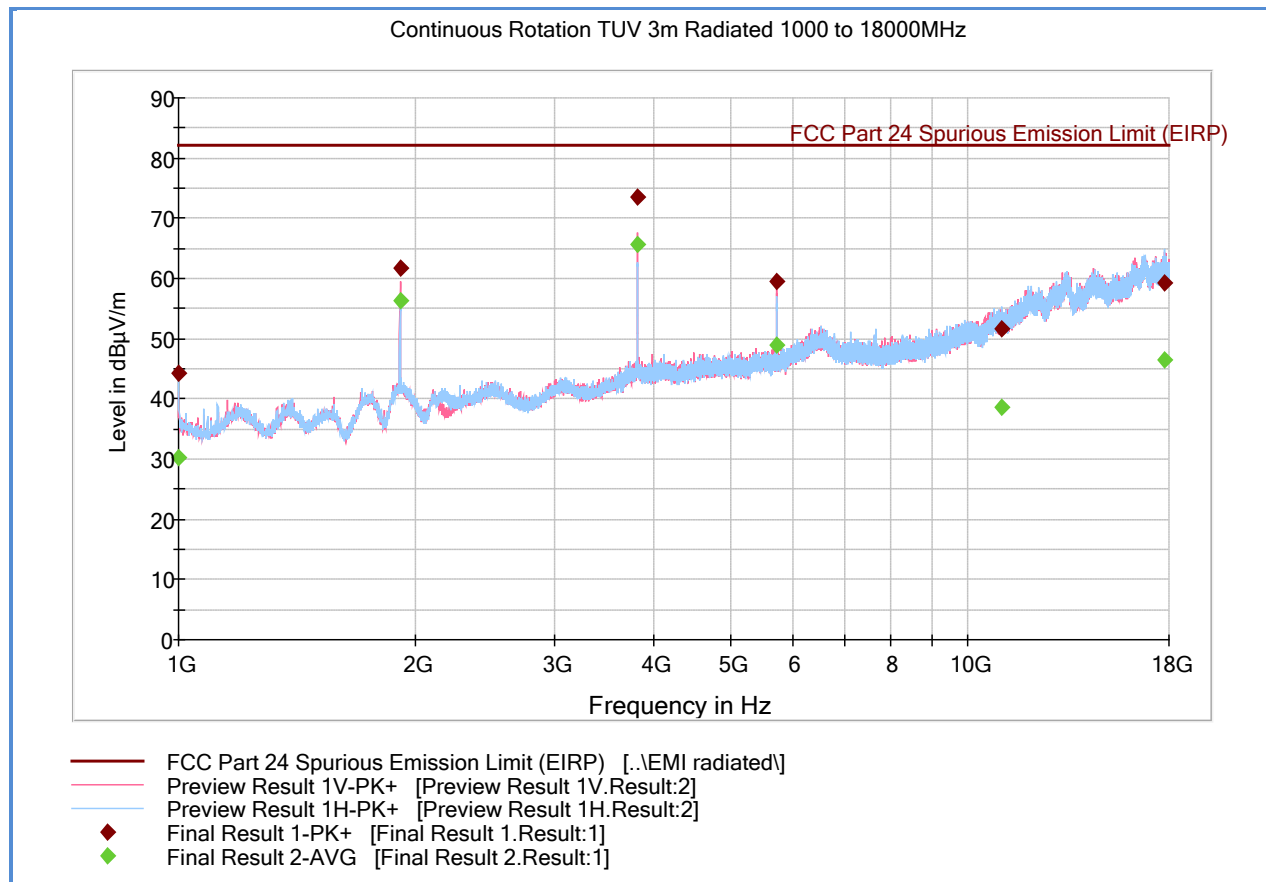
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.400000	45.0	31.0	1000.0	1000.000	257.3	H	352.0	-7.0	37.2	51.3	82.2
1879.866667	54.7	48.9	1000.0	1000.000	247.3	V	2.0	-1.8	27.5	33.4	82.2
3759.900000	52.2	41.6	1000.0	1000.000	113.7	V	166.0	5.3	30.0	40.7	82.2
5639.733333	54.7	43.9	1000.0	1000.000	120.7	V	300.0	9.2	27.5	38.3	82.2
10909.43333	51.6	38.6	1000.0	1000.000	217.4	V	110.0	16.8	30.7	43.6	82.2
16795.10000	60.1	46.9	1000.0	1000.000	407.1	H	318.0	25.9	22.1	35.3	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.16 Test Results Above 1GHz_CDMA 2000-1xRTT_PCS BC1_High Channel (1175)



Peak/Average Data

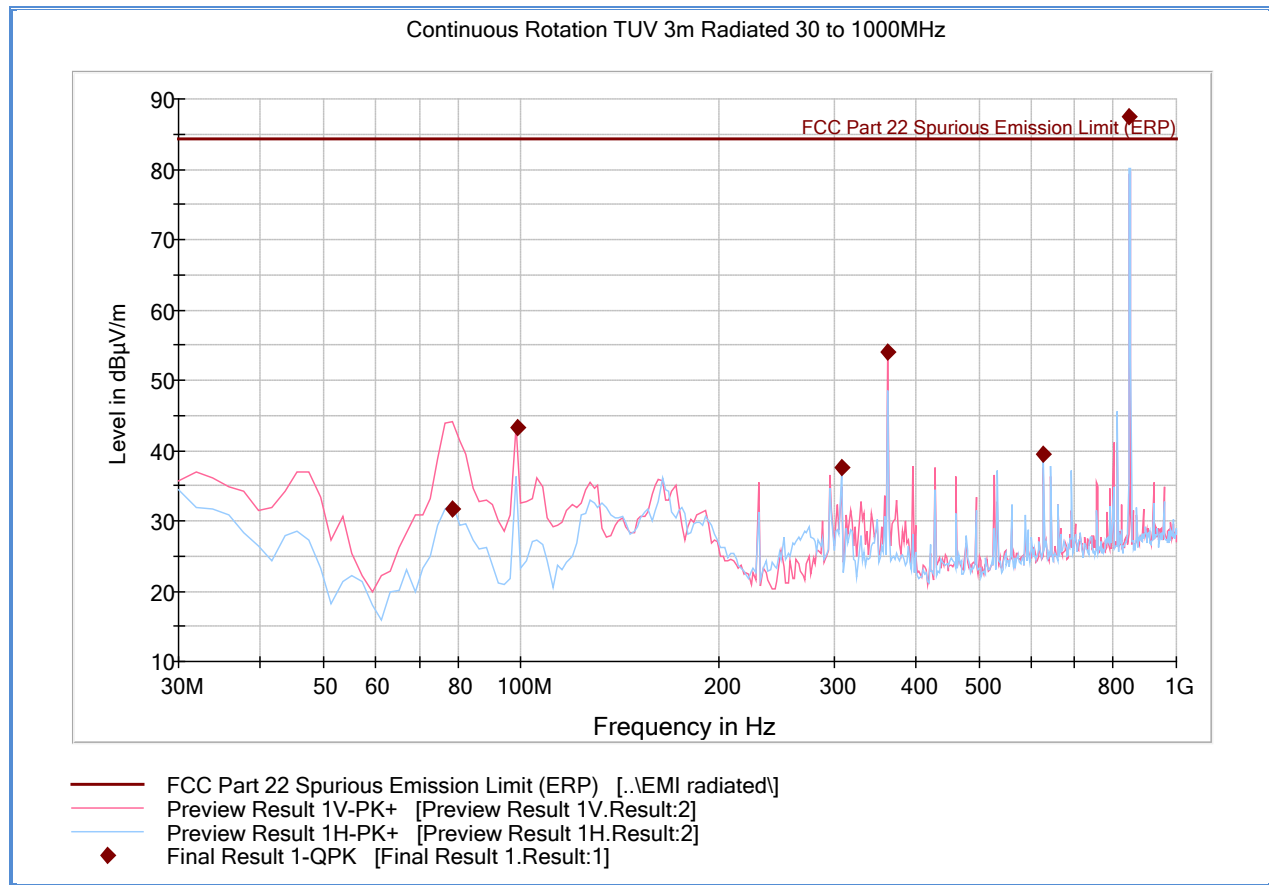
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.400000	44.3	30.3	1000.0	1000.000	268.3	H	20.0	-7.0	37.9	51.9	82.2
1908.766667	61.8	56.3	1000.0	1000.000	164.6	V	169.0	-1.5	20.5	26.0	82.2
3817.833333	73.5	65.6	1000.0	1000.000	99.7	V	83.0	6.0	8.7	16.6	82.2
5726.533333	59.6	48.9	1000.0	1000.000	103.7	V	28.0	9.6	22.6	33.3	82.2
11045.10000	51.6	38.7	1000.0	1000.000	101.7	H	31.0	16.8	30.7	43.5	82.2
17773.46666	59.2	46.5	1000.0	1000.000	226.4	H	51.0	25.8	23.1	35.8	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
3817.833333	73.5	-3.8	9.1	-27.12	-21.72	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.17 Test Results Below 1GHz_Worst Case Configuration
CDMA 2000-1xEV-DO_Release 0_Cell BC0_High Channel (777)

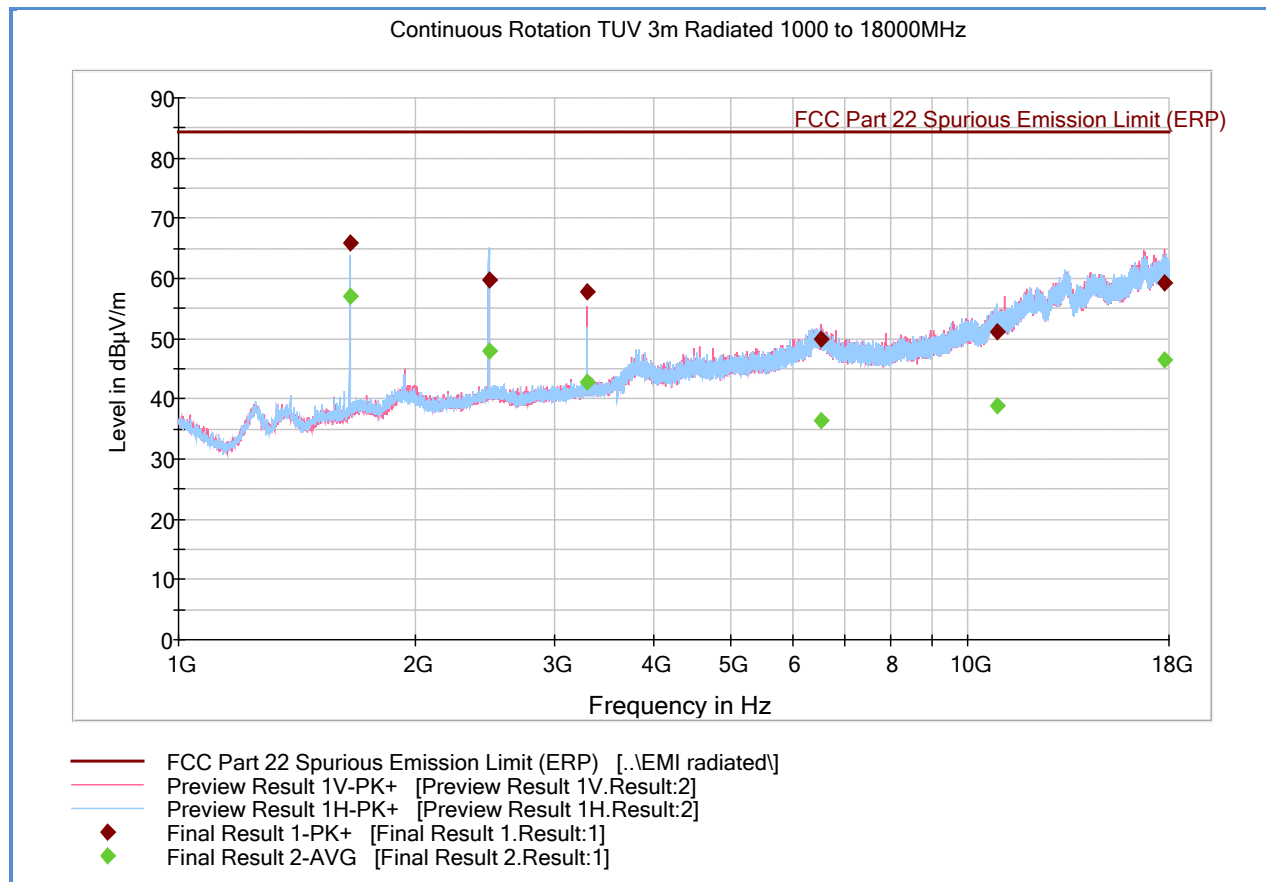


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
78.397194	31.6	1000.0	120.000	100.0	V	11.0	-21.1	52.8	84.4
98.996072	43.3	1000.0	120.000	100.0	V	195.0	-18.9	41.0	84.4
308.015952	37.5	1000.0	120.000	133.0	H	121.0	-10.9	46.8	84.4
363.004810	53.9	1000.0	120.000	100.0	V	148.0	-9.0	30.5	84.4
626.973547	39.4	1000.0	120.000	105.0	H	145.0	-2.4	45.0	84.4
848.640641	87.6	1000.0	120.000	100.0	H	-3.0	0.7	-3.2	84.4

Test Notes: Only worst case channel presented for spurious emissions below 1GHz.

2.7.18 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release 0_Cell BC0_Low Channel (1013)



Peak/Average Data

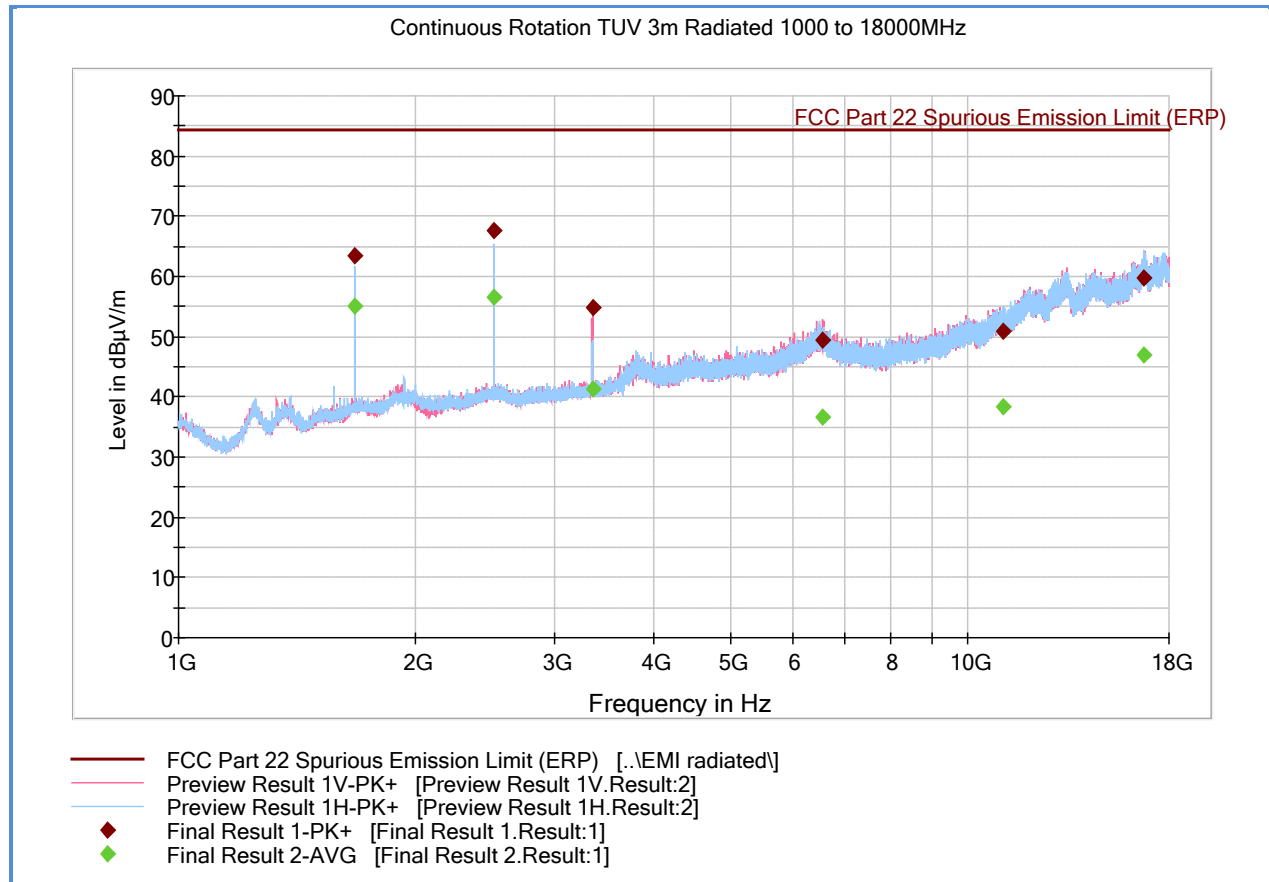
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1648.666667	65.8	57.2	1000.0	1000.000	99.7	H	36.0	-4.3	18.6	57.2	84.4
2472.966667	59.8	47.9	1000.0	1000.000	114.7	H	179.0	0.1	24.6	47.9	84.4
3299.000000	57.9	42.9	1000.0	1000.000	99.7	V	278.0	2.3	26.5	42.9	84.4
6533.933333	49.9	36.3	1000.0	1000.000	177.6	V	170.0	12.8	34.5	36.3	84.4
10886.26666	51.2	38.9	1000.0	1000.000	112.7	H	0.0	16.7	33.2	38.9	84.4
17765.93333	59.4	46.5	1000.0	1000.000	163.6	V	241.0	25.8	25.0	46.5	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
1648.666667	65.8	-3.1	9.1	-35.4	-31.57	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.19 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release 0_Cell BC0_Mid Channel (384)



Peak/Average Data

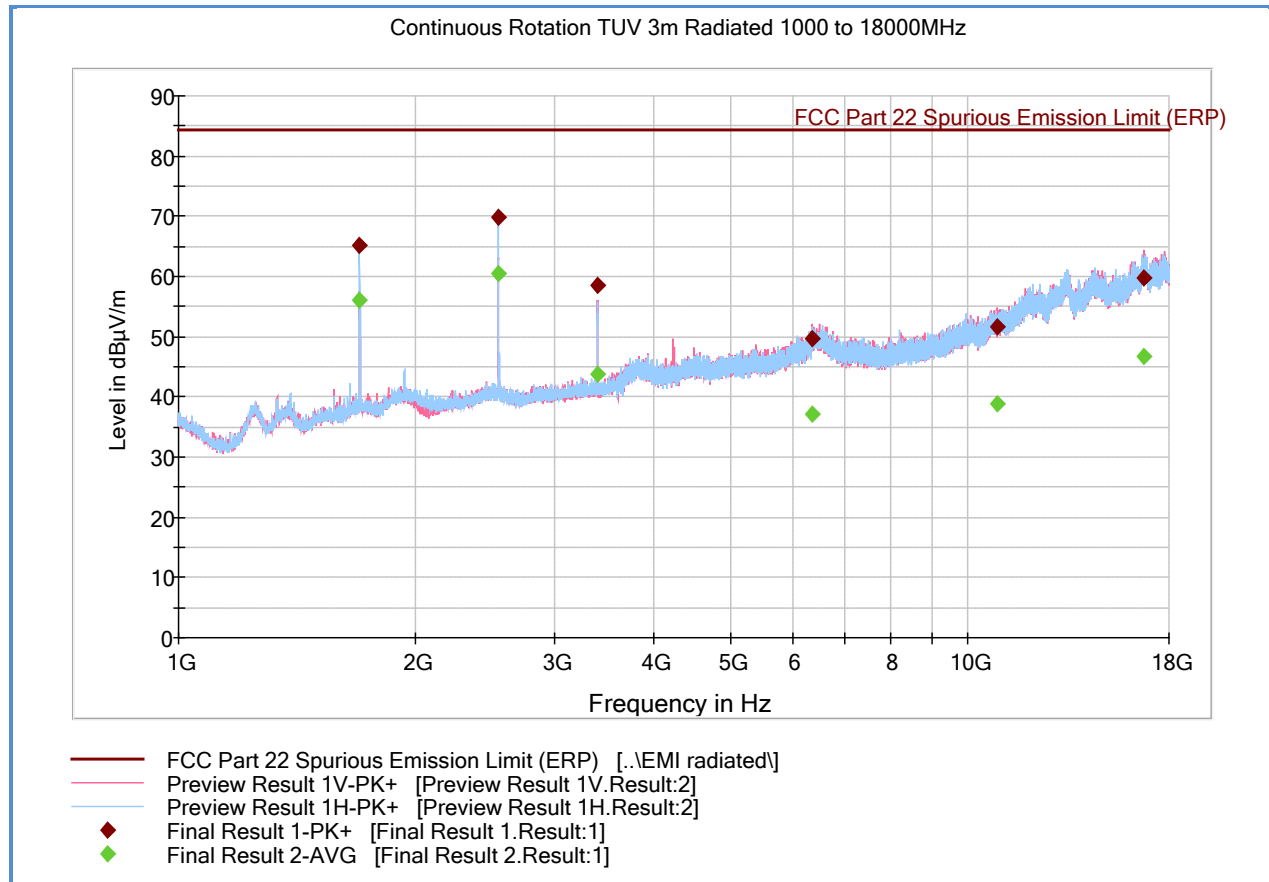
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1672.866667	63.4	55.1	1000.0	1000.000	99.7	H	35.0	-4.0	21.0	29.3	84.4
2508.666667	67.5	56.7	1000.0	1000.000	103.7	H	176.0	0.2	16.9	27.7	84.4
3346.200000	54.9	41.3	1000.0	1000.000	113.7	V	86.0	2.4	29.5	43.1	84.4
6539.400000	49.3	36.6	1000.0	1000.000	202.3	V	326.0	12.8	35.1	47.8	84.4
11092.16666	50.8	38.3	1000.0	1000.000	257.3	H	-1.0	16.6	33.6	46.1	84.4
16760.13333	59.7	47.0	1000.0	1000.000	145.7	H	61.0	25.9	24.7	37.4	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
2508.666667	67.5	-3.8	9.8	-33.72	-29.87	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.20 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release 0_Cell BC0_High Channel (777)



Peak/Average Data

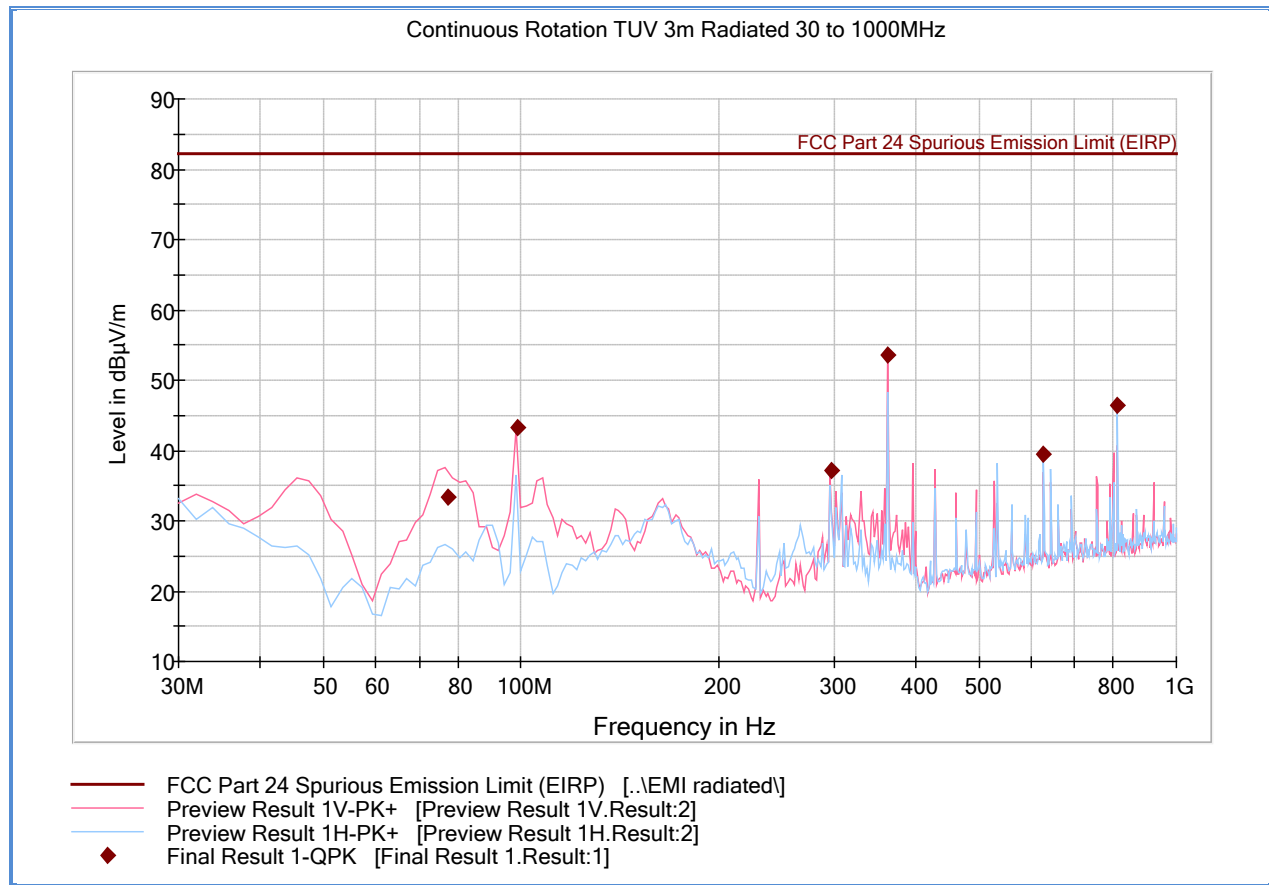
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBµV/m)
1696.666667	65.1	56.1	1000.0	1000.000	101.7	H	32.0	-3.7	19.3	28.3	84.4
2545.266667	69.8	60.4	1000.0	1000.000	102.7	H	179.0	0.0	14.6	24.0	84.4
3392.100000	58.6	43.9	1000.0	1000.000	113.7	V	87.0	2.5	25.8	40.5	84.4
6354.833333	49.7	37.0	1000.0	1000.000	161.6	V	257.0	12.5	34.7	47.3	84.4
10922.16666	51.7	38.8	1000.0	1000.000	120.7	V	185.0	16.8	32.6	45.5	84.4
16703.70000	59.6	46.7	1000.0	1000.000	201.3	V	221.0	25.8	24.7	37.7	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBµV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
1696.666667	65.1	-3.2	9.1	-36.0	-32.27	-13	Complies
2545.266667	69.8	-3.8	9.8	-31.42	-27.57	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.21 Test Results Below 1GHz_Worst Case Configuration
CDMA 2000-1xEV-DO_Release 0_PCS BC1_High Channel (1175)

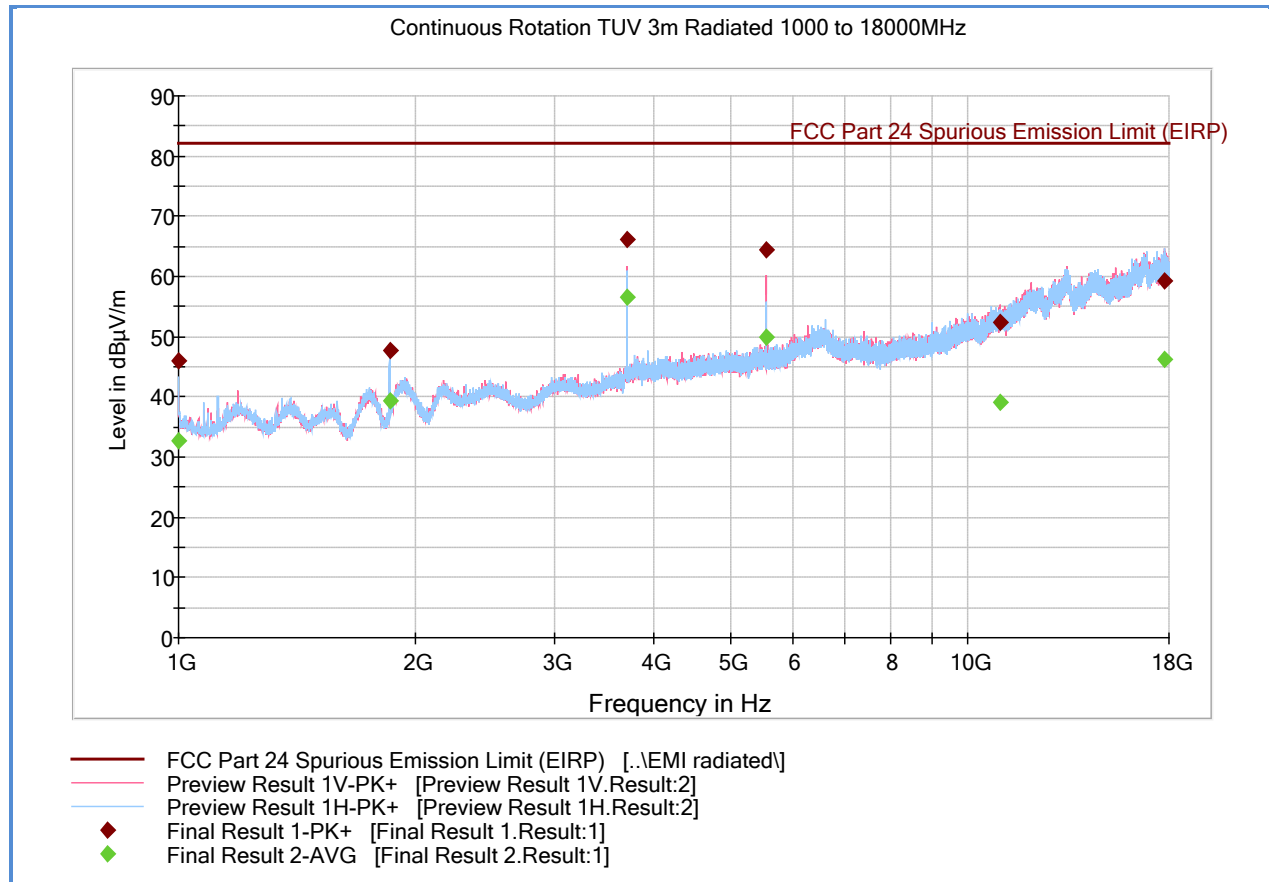


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
77.173307	33.4	1000.0	120.000	110.0	V	334.0	-21.2	48.9	82.2
98.996072	43.3	1000.0	120.000	100.0	V	180.0	-18.9	38.9	82.2
296.992625	37.2	1000.0	120.000	100.0	V	68.0	-11.6	45.0	82.2
363.004810	53.6	1000.0	120.000	100.0	V	140.0	-9.0	28.6	82.2
626.973547	39.4	1000.0	120.000	105.0	H	146.0	-2.4	42.8	82.2
812.026774	46.4	1000.0	120.000	100.0	H	83.0	0.2	35.8	82.2

Test Notes: Only worst case channel presented for spurious emissions below 1GHz.

2.7.22 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release 0_PCS BC1_Low Channel (25)



Peak/Average Data

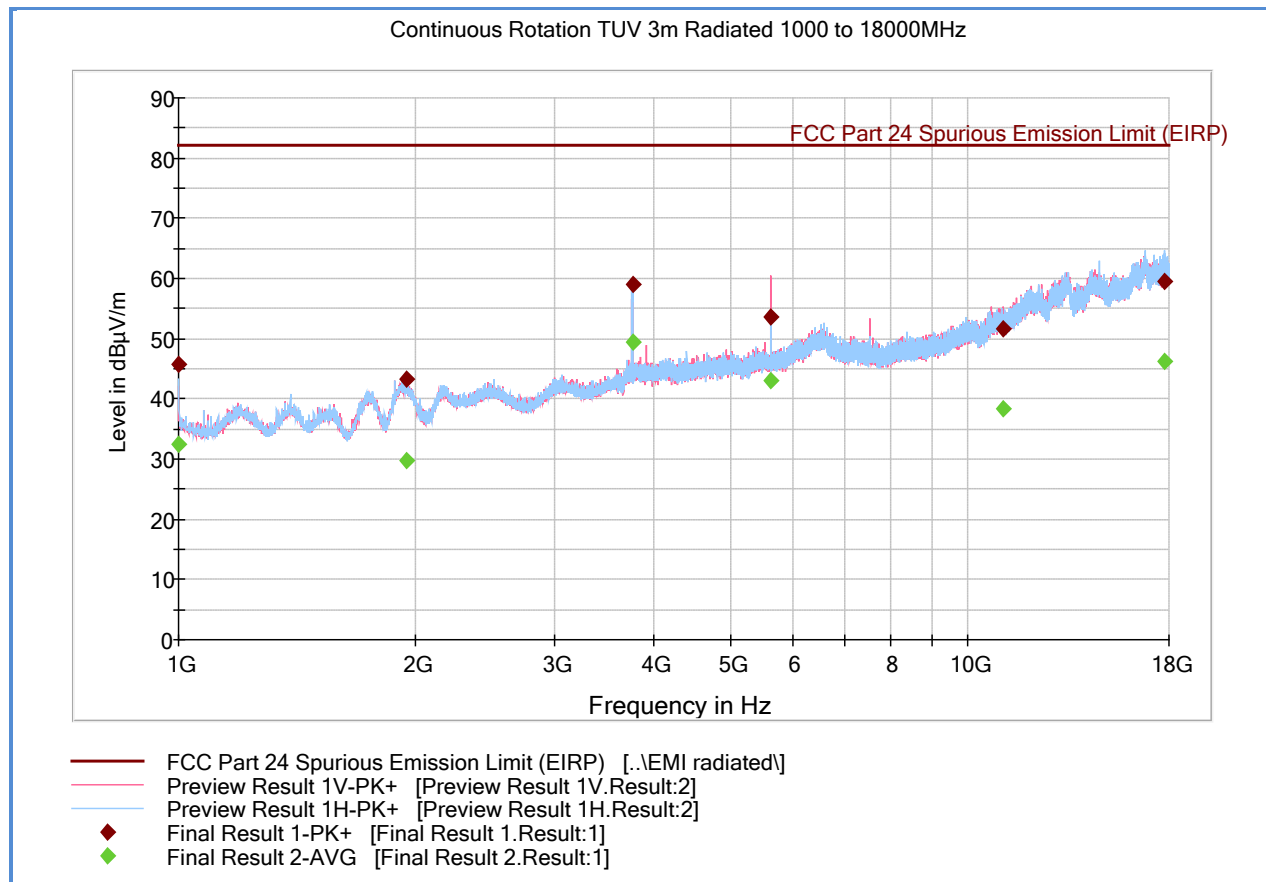
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.000000	45.9	32.7	1000.0	1000.000	268.3	H	300.0	-7.0	36.3	49.5	82.2
1850.933333	47.7	39.3	1000.0	1000.000	200.5	H	316.0	-2.2	34.5	42.9	82.2
3702.666667	66.1	56.5	1000.0	1000.000	99.7	V	273.0	4.7	16.2	25.8	82.2
5553.966667	64.5	49.9	1000.0	1000.000	105.7	V	10.0	8.9	17.7	32.4	82.2
11006.00000	52.4	39.1	1000.0	1000.000	160.6	V	321.0	17.0	29.8	43.1	82.2
17751.83333	59.2	46.2	1000.0	1000.000	136.7	V	-1.0	25.8	23.0	36.1	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
3702.666667	66.1	-3.8	9.6	-34.9	-29.12	-13	Complies
5553.966667	64.5	-5.7	10.95	-35.98	-30.72	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.23 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release 0_PCS BC1_Mid Channel (600)



Peak/Average Data

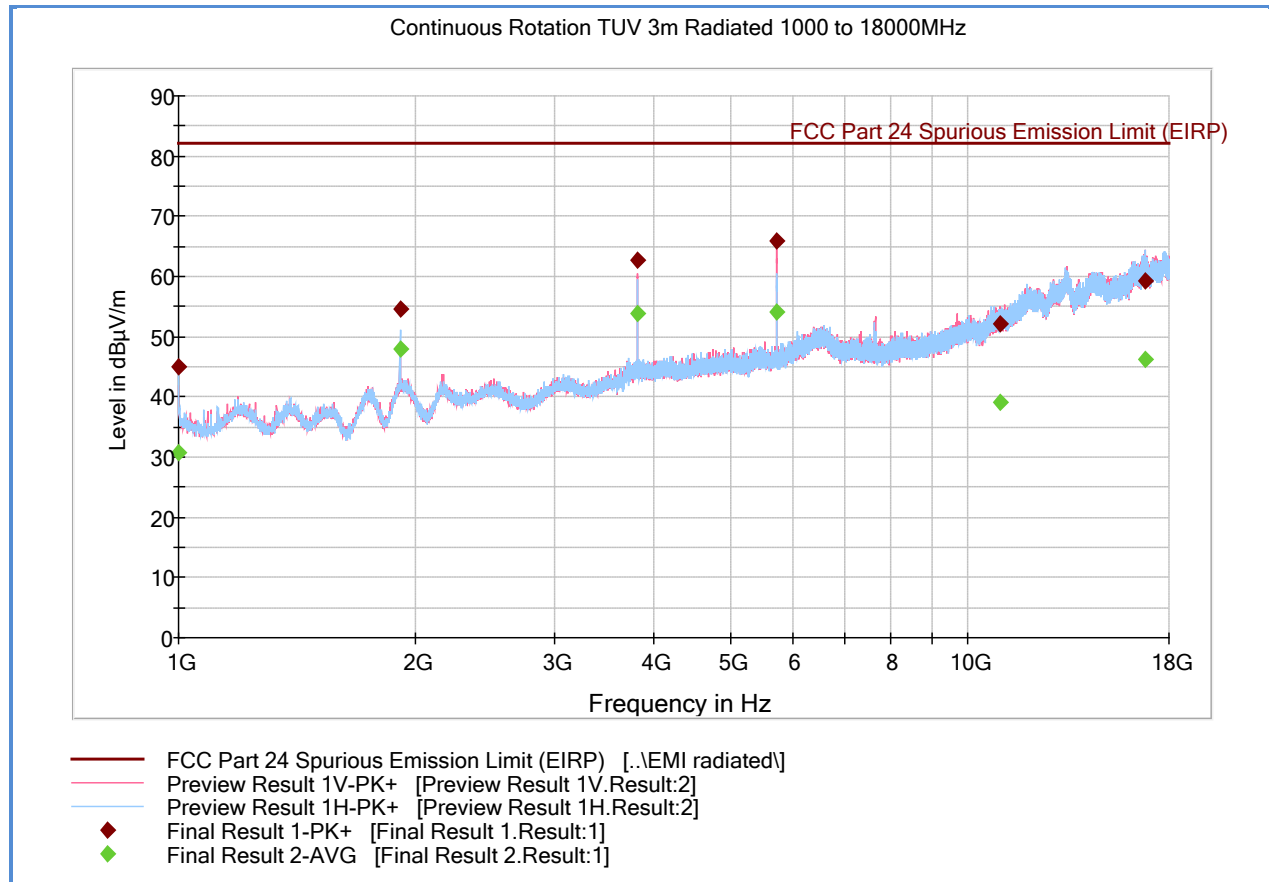
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.000000	45.7	32.5	1000.0	1000.000	269.3	H	41.0	-7.0	36.5	49.7	82.2
1944.433333	43.3	29.8	1000.0	1000.000	202.3	H	299.0	-1.3	38.9	52.5	82.2
3760.633333	59.1	49.3	1000.0	1000.000	122.7	H	234.0	5.4	23.1	32.9	82.2
5639.533333	53.7	43.0	1000.0	1000.000	121.7	V	34.0	9.2	28.5	39.3	82.2
11079.13333	51.8	38.3	1000.0	1000.000	302.2	V	357.0	16.6	30.5	43.9	82.2
17761.56666	59.4	46.1	1000.0	1000.000	99.7	H	190.0	25.8	22.8	36.1	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.24 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release 0_PCS BC1_High Channel (1175)



Peak/Average Data

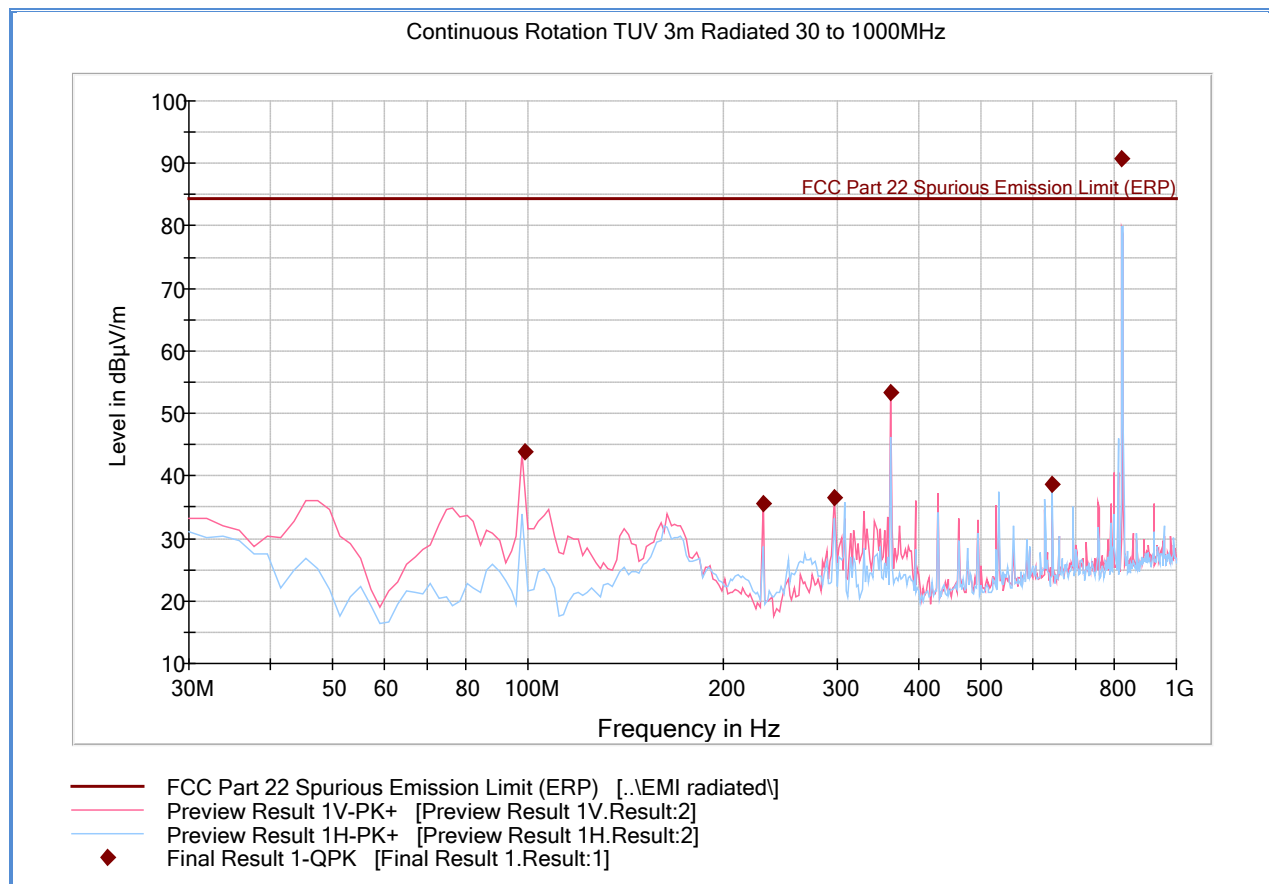
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.400000	44.9	30.8	1000.0	1000.000	279.3	H	125.0	-7.0	37.3	51.4	82.2
1908.966667	54.7	47.9	1000.0	1000.000	112.7	H	208.0	-1.5	27.6	34.3	82.2
3816.866667	62.1	53.9	1000.0	1000.000	391.1	V	187.0	6.0	20.1	28.3	82.2
5726.200000	65.9	54.1	1000.0	1000.000	99.7	V	48.0	9.6	16.3	28.1	82.2
11012.43333	52.2	39.1	1000.0	1000.000	255.3	V	-9.0	17.0	30.0	43.2	82.2
16825.83333	59.2	46.1	1000.0	1000.000	302.2	V	13.0	25.5	23.1	36.1	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
5726.200000	65.9	-6.1	11.51	-34.7	-29.32	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.25 Test Results Below 1GHz_Worst Case Configuration
CDMA 2000-1xEV-DO_Release A_Cell BC0_Low Channel (1013)

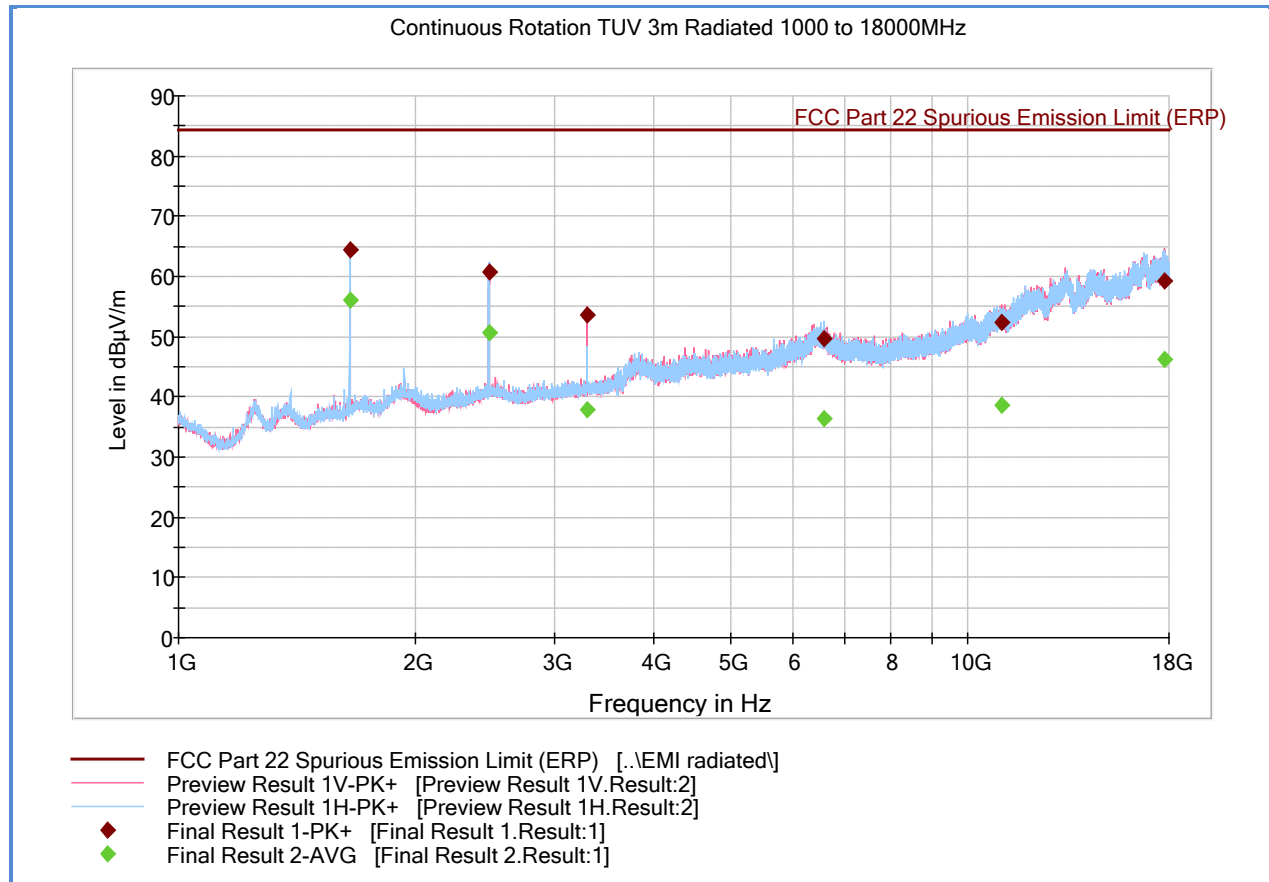


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
98.996072	43.9	1000.0	120.000	100.0	V	189.0	-18.9	40.5	84.4
230.980441	35.6	1000.0	120.000	100.0	V	-2.0	-13.9	48.8	84.4
296.992625	36.5	1000.0	120.000	100.0	V	63.0	-11.6	47.9	84.4
363.004810	53.4	1000.0	120.000	100.0	V	144.0	-9.0	31.0	84.4
644.028537	38.6	1000.0	120.000	105.0	H	56.0	-2.9	45.8	84.4
824.393988	90.7	1000.0	120.000	100.0	H	333.0	Fundamental		

Test Notes: Only worst case channel presented for spurious emissions below 1GHz.

2.7.26 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release A_Cell BC0_Low Channel (1013)



Peak/Average Data

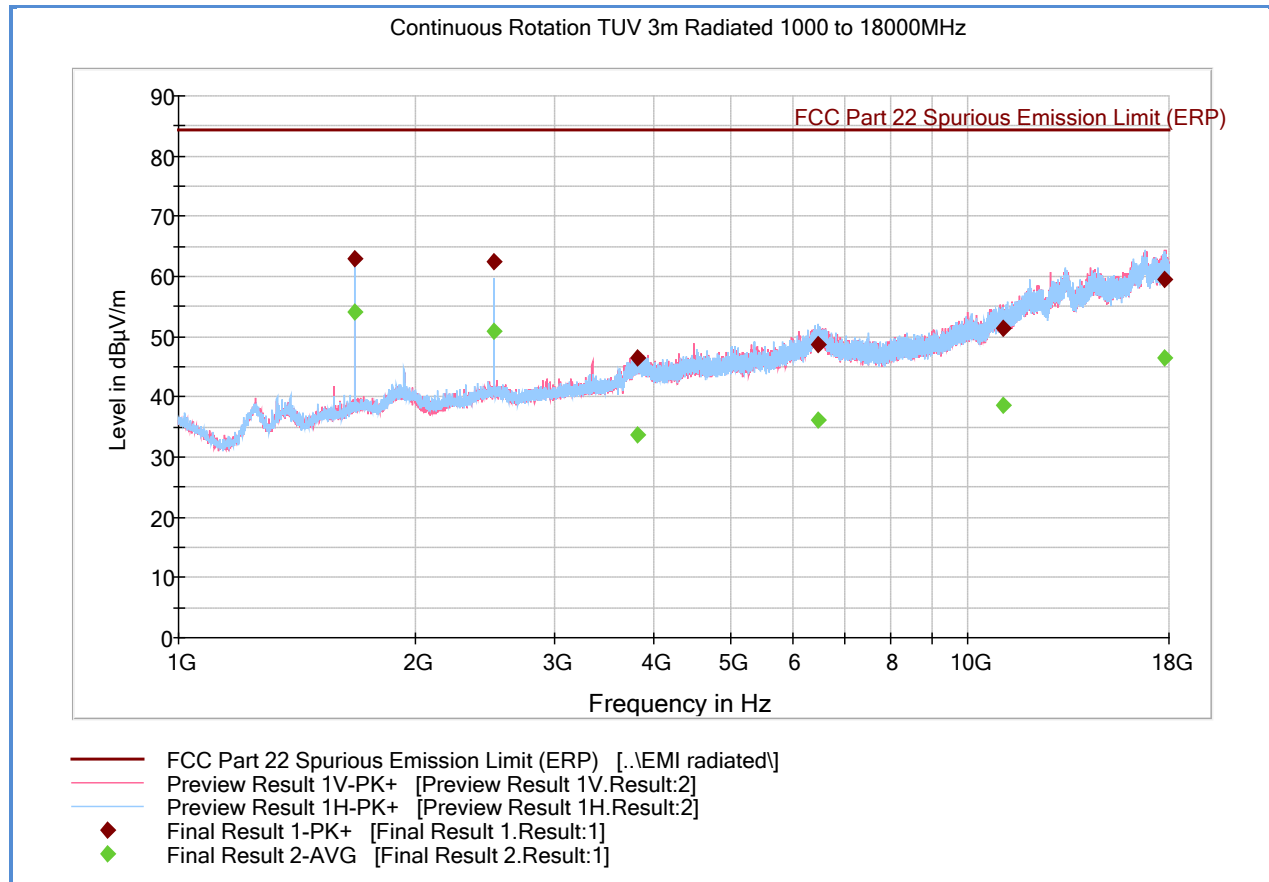
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1649.600000	64.4	56.1	1000.0	1000.000	99.7	H	37.0	-4.3	20.0	28.3	84.4
2473.866667	60.6	50.6	1000.0	1000.000	100.7	H	179.0	0.1	23.7	33.8	84.4
3298.200000	53.5	37.8	1000.0	1000.000	99.7	V	278.0	2.3	30.9	46.6	84.4
6587.166667	49.8	36.3	1000.0	1000.000	333.1	H	301.0	12.8	34.6	48.1	84.4
11056.433333	52.3	38.7	1000.0	1000.000	186.5	V	209.0	16.8	32.1	45.7	84.4
17733.466666	59.3	46.2	1000.0	1000.000	169.6	V	34.0	25.7	25.1	38.2	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.27 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release A_Cell BC0_Mid Channel (384)



Peak/Average Data

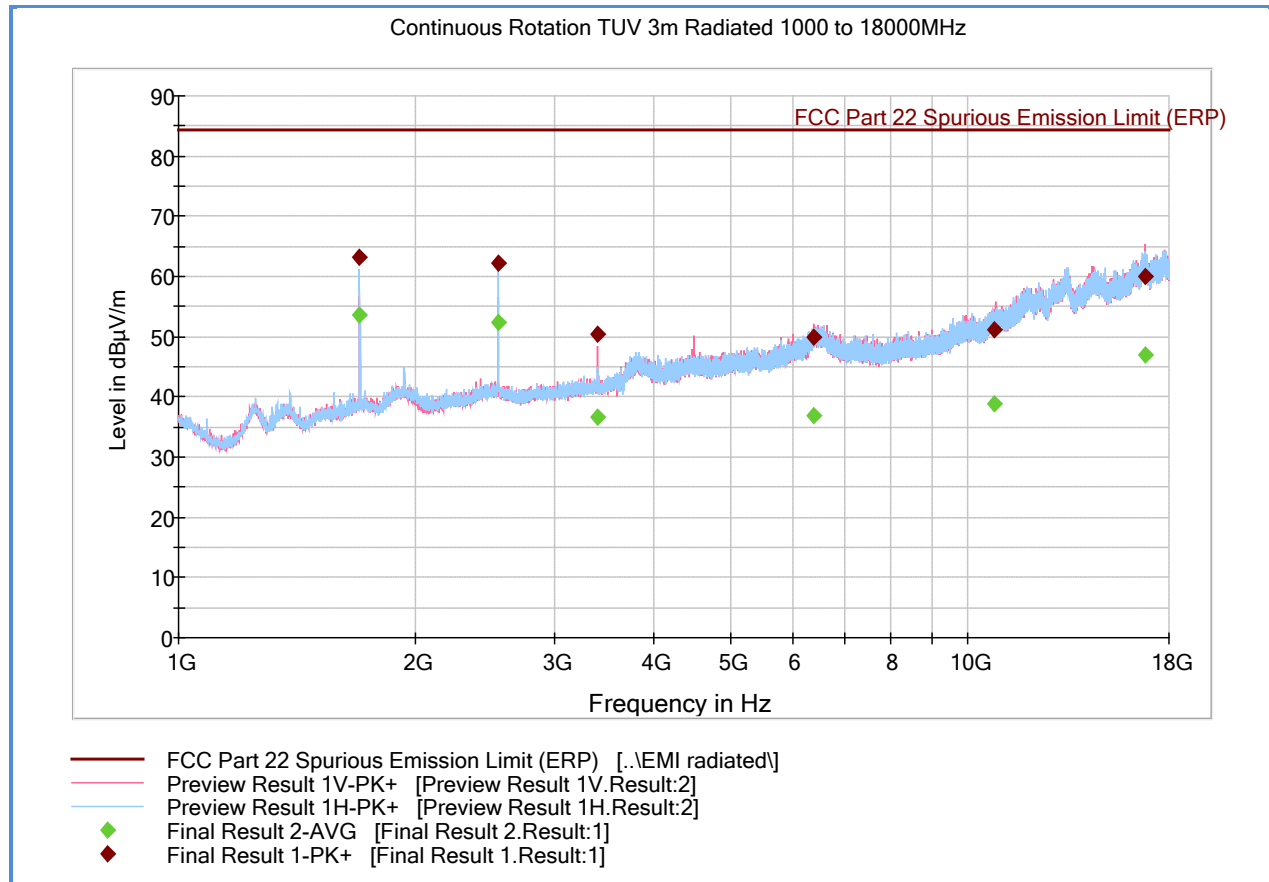
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1673.033333	63.0	54.1	1000.0	1000.000	99.7	H	40.0	-4.0	21.4	30.3	84.4
2509.266667	62.4	51.0	1000.0	1000.000	100.7	H	178.0	0.2	22.0	33.4	84.4
3812.333333	46.6	33.8	1000.0	1000.000	407.1	H	-16.0	6.0	37.8	50.6	84.4
6468.566667	48.6	36.2	1000.0	1000.000	155.6	H	13.0	12.7	35.8	48.2	84.4
11073.43333	51.4	38.5	1000.0	1000.000	380.0	V	109.0	16.7	33.0	45.9	84.4
17764.70000	59.4	46.6	1000.0	1000.000	406.7	V	325.0	25.8	25.0	37.8	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.28 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release A_Cell BC0_High Channel (777)



Peak/Average Data

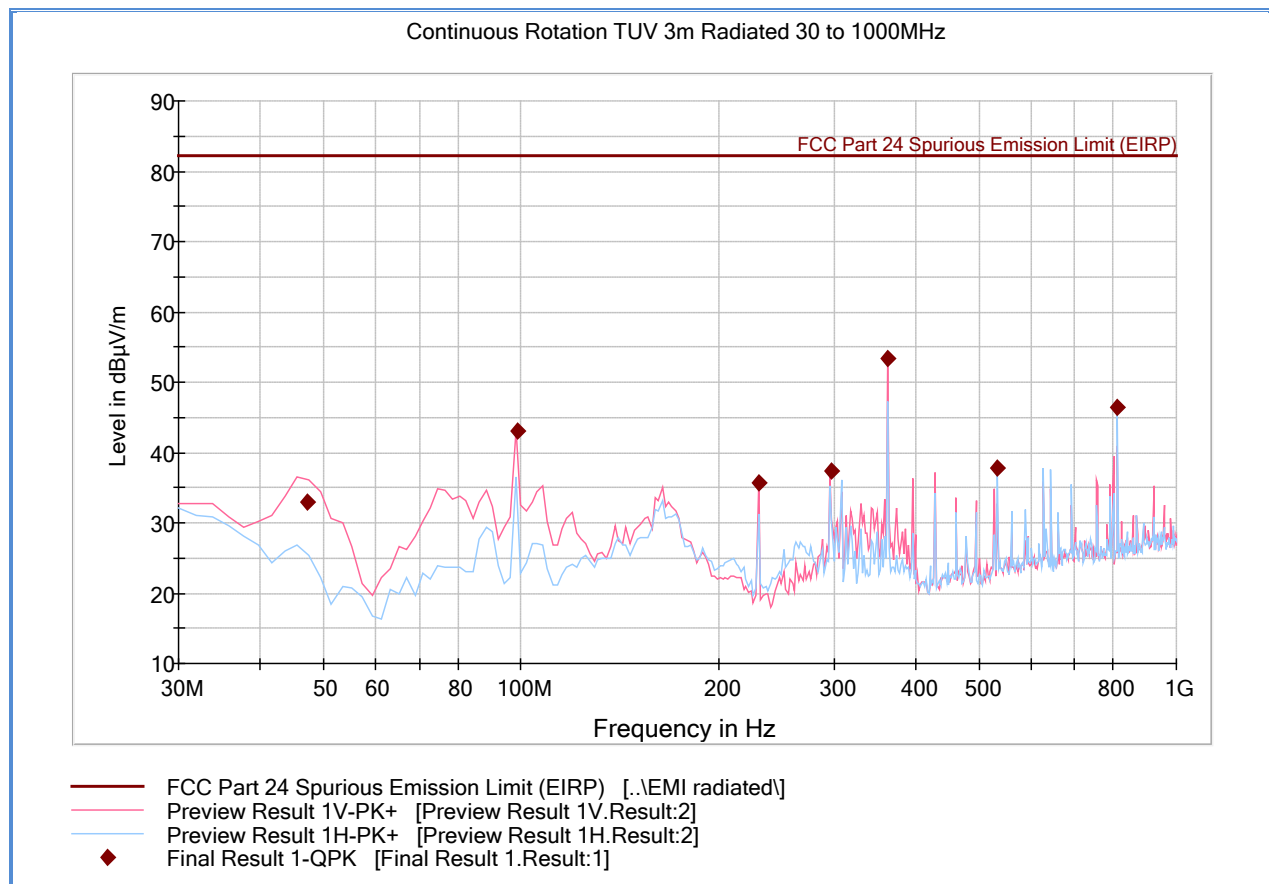
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1696.666667	63.3	53.6	1000.0	1000.000	99.7	H	25.0	-3.7	21.1	30.8	84.4
2544.733333	62.2	52.5	1000.0	1000.000	100.7	H	157.0	0.0	22.2	31.9	84.4
3392.900000	50.5	36.5	1000.0	1000.000	112.7	V	86.0	2.5	33.9	47.9	84.4
6370.533333	49.9	37.0	1000.0	1000.000	267.3	V	212.0	12.6	34.5	47.4	84.4
10834.30000	51.2	38.8	1000.0	1000.000	99.7	V	182.0	16.5	33.1	45.6	84.4
16787.70000	59.9	47.1	1000.0	1000.000	180.6	V	16.0	25.9	24.4	37.3	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.29 Test Results Below 1GHz_Worst Case Configuration
CDMA 2000-1xEV-DO_Release A_PCS BC1_Mid Channel (600)

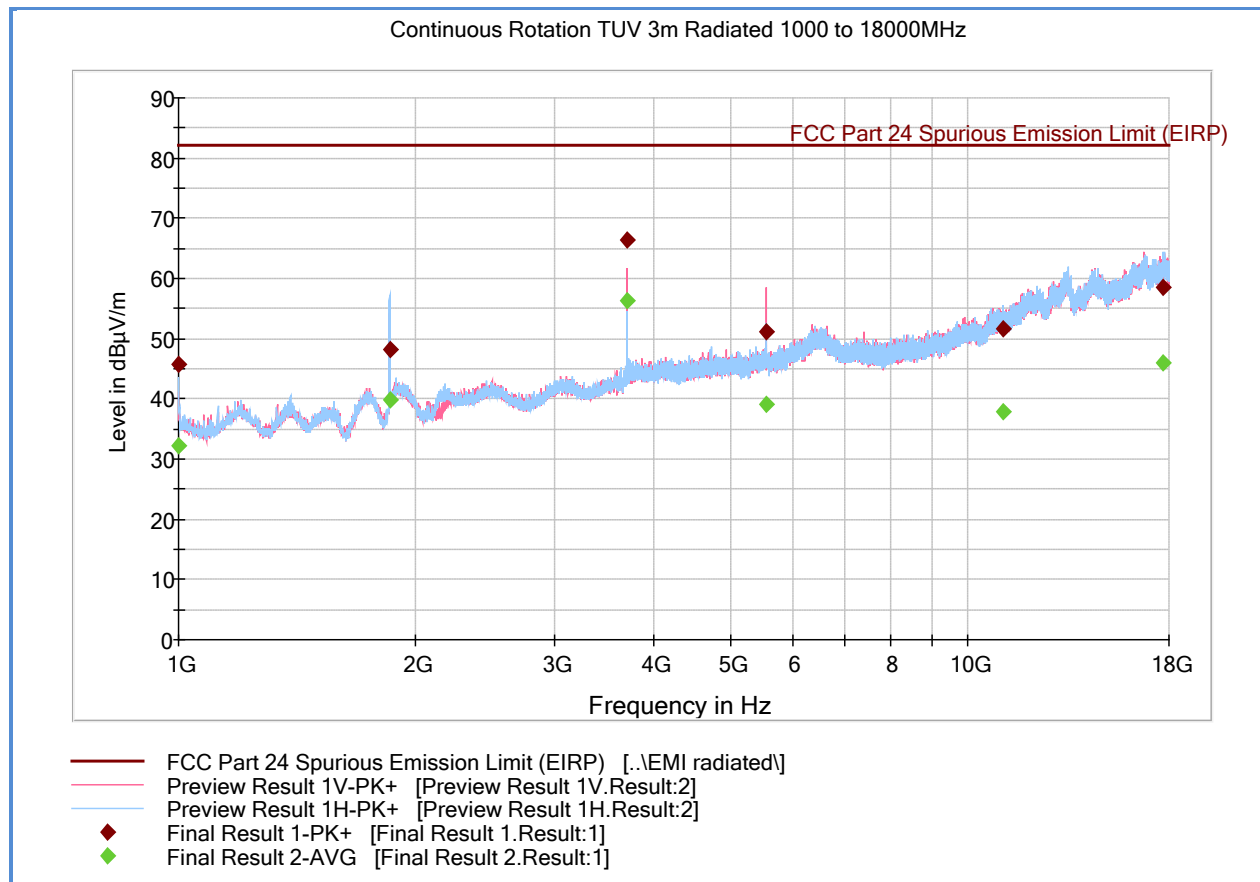


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
47.231102	33.0	1000.0	120.000	100.0	V	282.0	-18.1	49.3	82.2
98.996072	43.1	1000.0	120.000	109.0	V	170.0	-18.9	39.1	82.2
230.980441	35.7	1000.0	120.000	100.0	V	9.0	-13.9	46.5	82.2
296.992625	37.3	1000.0	120.000	100.0	V	75.0	-11.6	44.9	82.2
363.004810	53.4	1000.0	120.000	100.0	V	142.0	-9.0	28.9	82.2
532.026934	37.8	1000.0	120.000	100.0	H	40.0	-4.9	44.4	82.2
812.026774	46.5	1000.0	120.000	100.0	H	76.0	0.2	35.7	82.2

Test Notes: Only worst case channel presented for spurious emissions below 1GHz.

2.7.30 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release A_PCS BC1_Low Channel (25)



Peak/Average Data

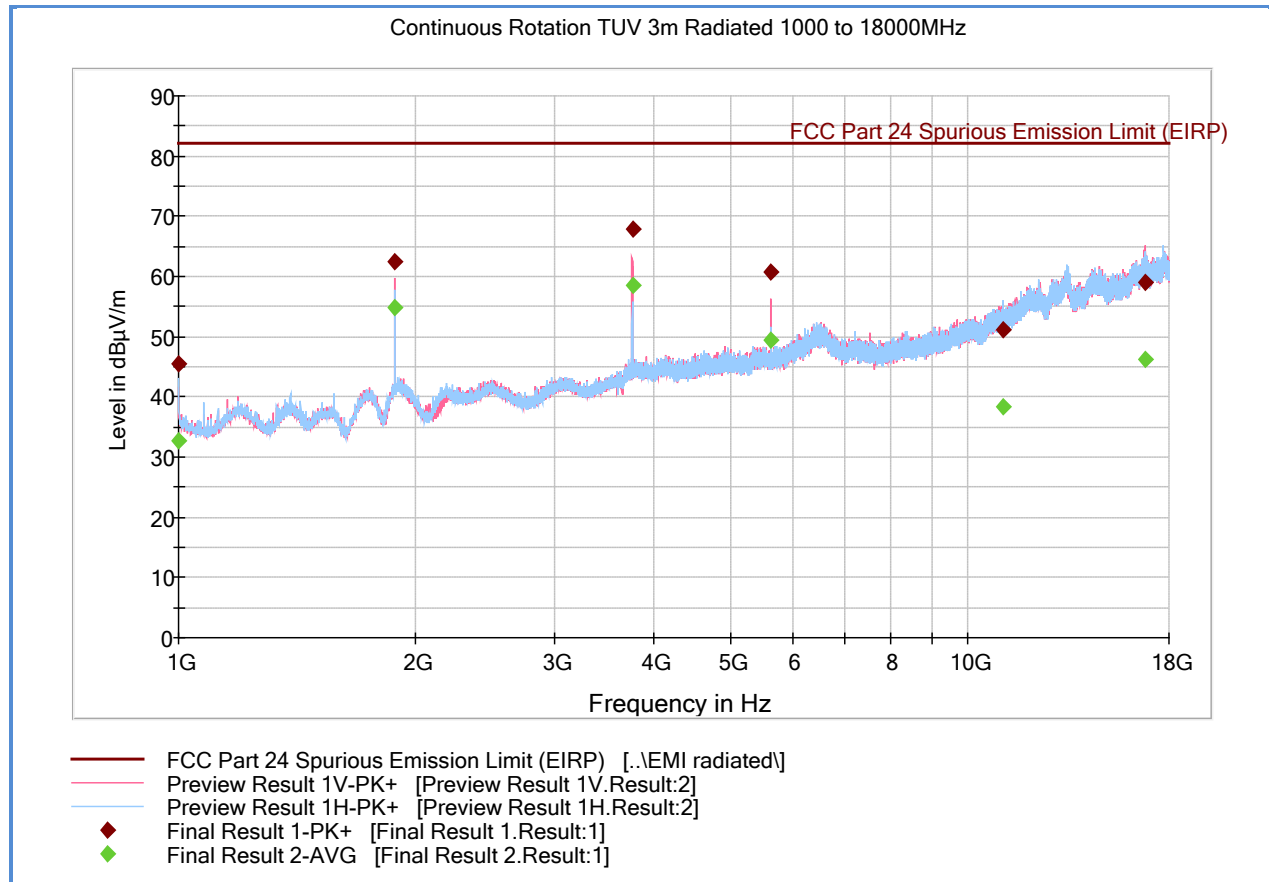
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.000000	45.8	32.3	1000.0	1000.000	301.2	H	0.0	-7.0	36.5	49.9	82.2
1850.933333	48.3	40.0	1000.0	1000.000	198.5	H	316.0	-2.2	33.9	42.3	82.2
3701.866667	66.4	56.2	1000.0	1000.000	99.7	V	87.0	4.7	15.9	26.0	82.2
5553.400000	51.2	39.2	1000.0	1000.000	137.7	V	291.0	8.9	31.0	43.0	82.2
11113.30000	51.5	38.0	1000.0	1000.000	187.5	H	88.0	16.5	30.7	44.2	82.2
17706.86666	58.5	45.9	1000.0	1000.000	186.5	H	279.0	25.6	23.8	36.3	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
3701.866667	66.4	-3.8	9.6	-34.66	-28.82	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.31 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release A_PCS BC1_Mid Channel (600)



Peak/Average Data

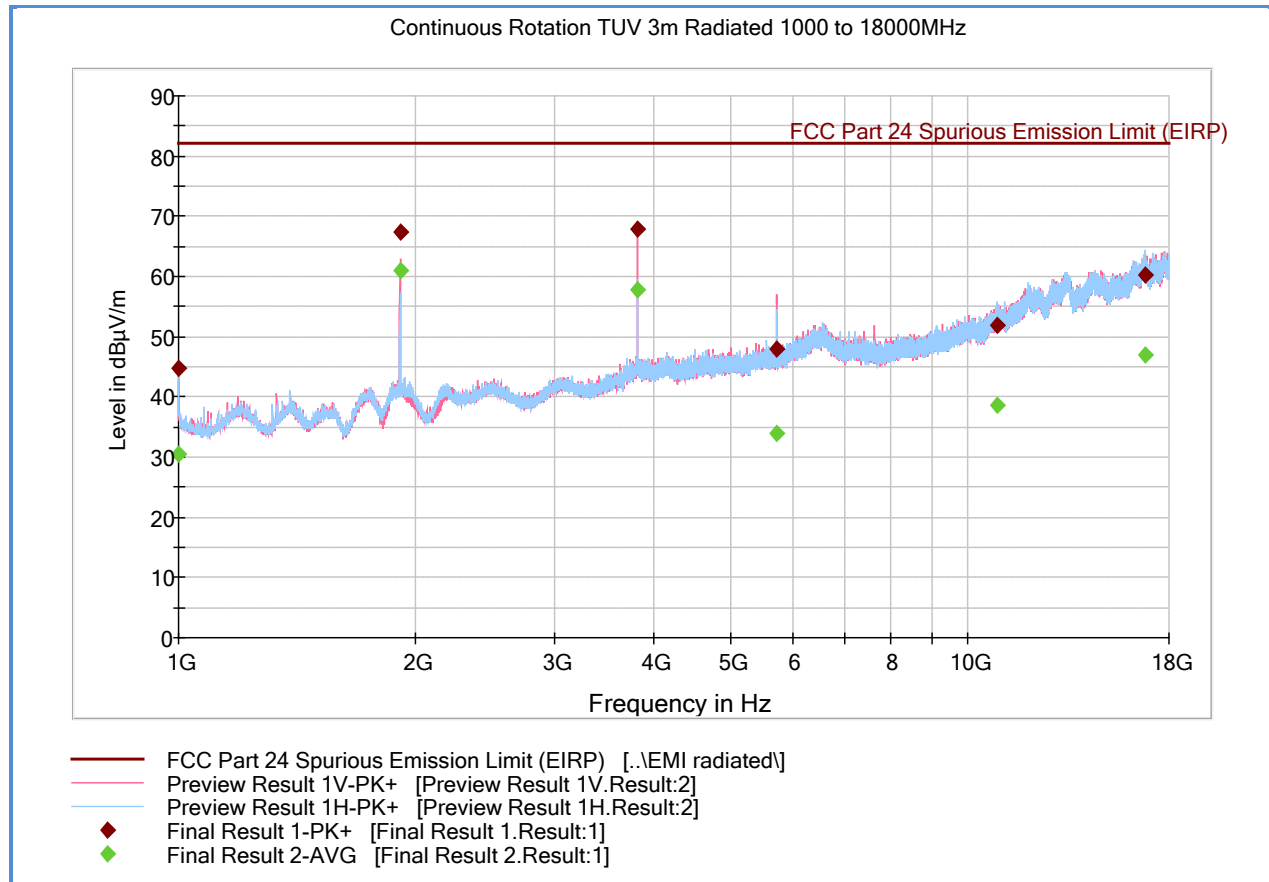
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.000000	45.6	32.7	1000.0	1000.000	299.2	H	118.0	-7.0	36.6	49.5	82.2
1880.233333	62.4	54.9	1000.0	1000.000	217.4	V	129.0	-1.8	19.8	27.3	82.2
3759.900000	67.9	58.5	1000.0	1000.000	99.7	V	86.0	5.3	14.4	23.7	82.2
5639.833333	60.8	49.5	1000.0	1000.000	103.7	V	304.0	9.2	21.4	32.8	82.2
11072.50000	51.2	38.4	1000.0	1000.000	404.3	H	17.0	16.7	31.0	43.8	82.2
16832.10000	59.1	46.2	1000.0	1000.000	406.7	V	281.0	25.4	23.2	36.0	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
1880.233333	62.4	-3.3	8.37	-37.9	-32.8	-13	Complies
3759.900000	67.9	-3.8	9.6	-33.16	-27.32	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.32 Test Results Above 1GHz_CDMA 2000-1xEV-DO_Release A_PCS BC1_High Channel (1175)



Peak/Average Data

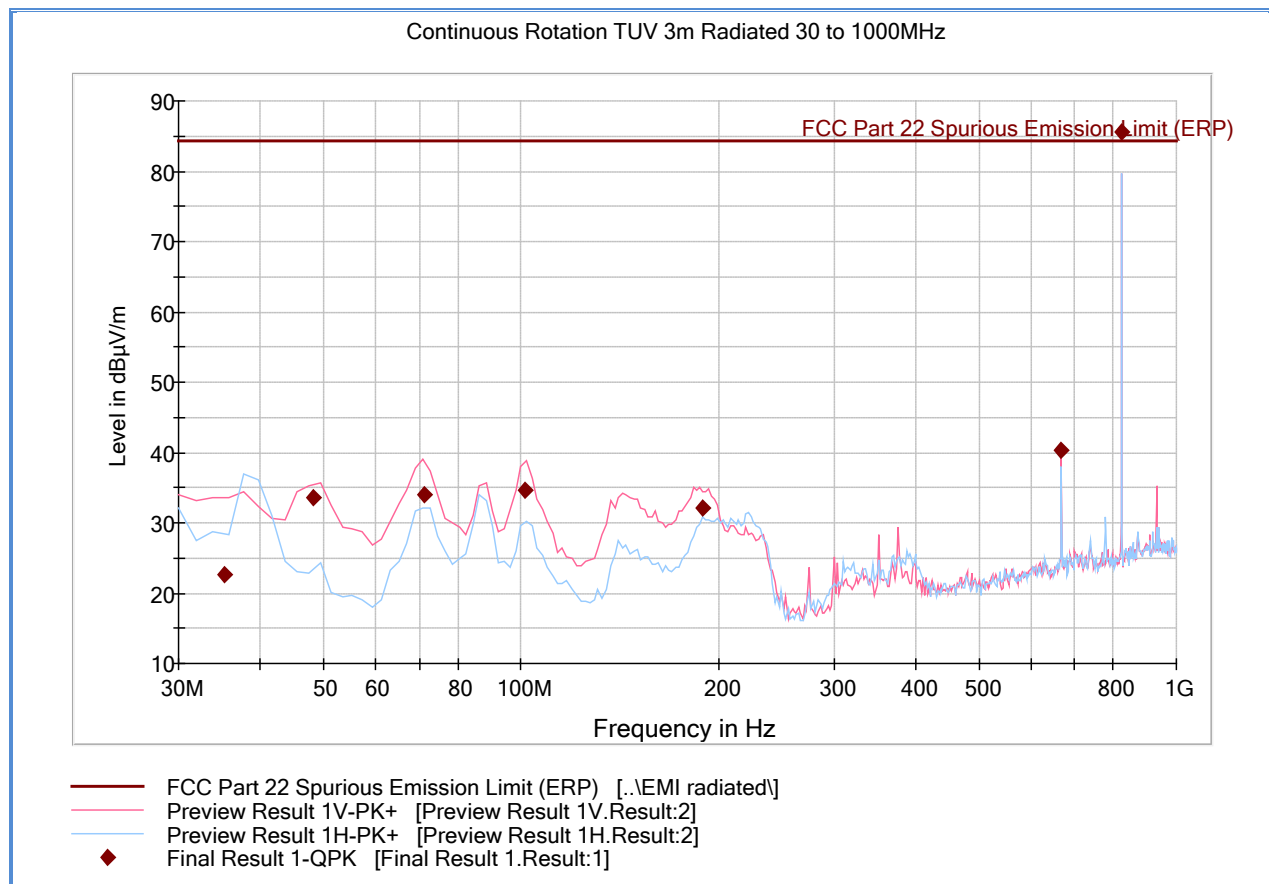
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1000.500000	44.8	30.4	1000.0	1000.000	268.3	H	132.0	-7.0	37.5	51.9	82.2
1908.566667	67.5	60.9	1000.0	1000.000	164.6	V	168.0	-1.5	14.8	21.3	82.2
3818.066667	67.9	57.8	1000.0	1000.000	120.7	V	86.0	6.0	14.3	24.4	82.2
5726.366667	48.1	34.0	1000.0	1000.000	120.7	V	16.0	9.6	34.2	48.2	82.2
10900.033333	51.8	38.5	1000.0	1000.000	162.6	H	96.0	16.8	30.5	43.7	82.2
16772.000000	60.1	47.0	1000.0	1000.000	380.0	H	224.0	25.9	22.1	35.2	82.2

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance
1908.566667	67.5	-3.3	8.2	-32.7	-27.72	-13	Complies
3818.066667	67.9	-3.8	9.19	-32.72	-27.32	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2000MHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.33 Test Results Below 1GHz_Worst Case Configuration GSM850 (GPRS)_Cell_Low Channel (128)

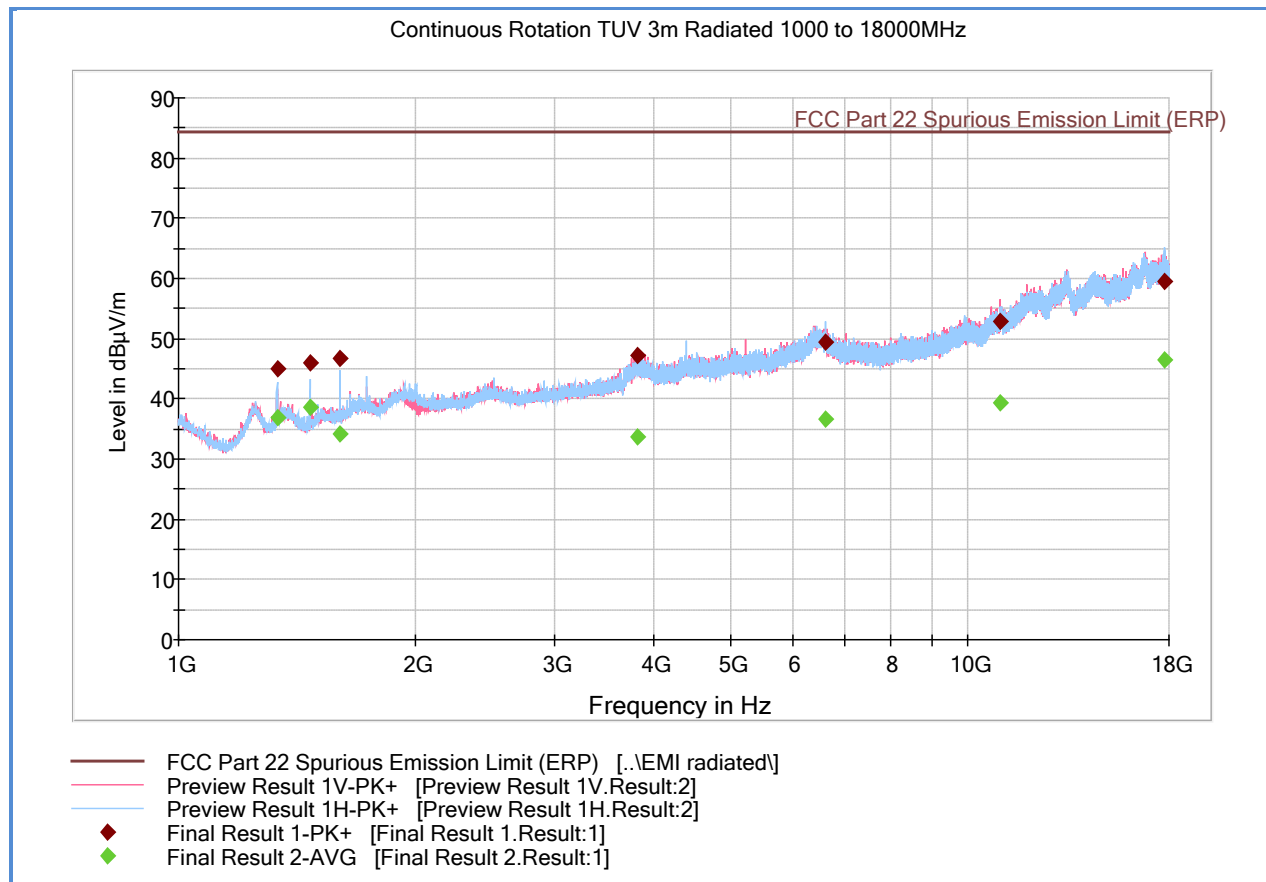


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
35.215551	22.6	1000.0	120.000	400.0	H	15.0	-13.4	61.8	84.4
48.238878	33.6	1000.0	120.000	100.0	V	62.0	-18.3	50.8	84.4
71.021643	34.0	1000.0	120.000	109.0	V	252.0	-21.5	50.4	84.4
101.603848	34.7	1000.0	120.000	100.0	V	282.0	-18.8	49.7	84.4
189.422685	32.0	1000.0	120.000	100.0	V	229.0	-15.3	52.3	84.4
666.675190	40.4	1000.0	120.000	100.0	V	193.0	-2.0	44.0	84.4
824.130100	85.6	1000.0	120.000	196.0	H	74.0	Fundamental		

Test Notes: Only worst case channel presented for spurious emissions below 1GHz.

2.7.34 Test Results Above 1GHz_GSM850 (GPRS)_Cell_Low Channel (128)



Peak/Average Data

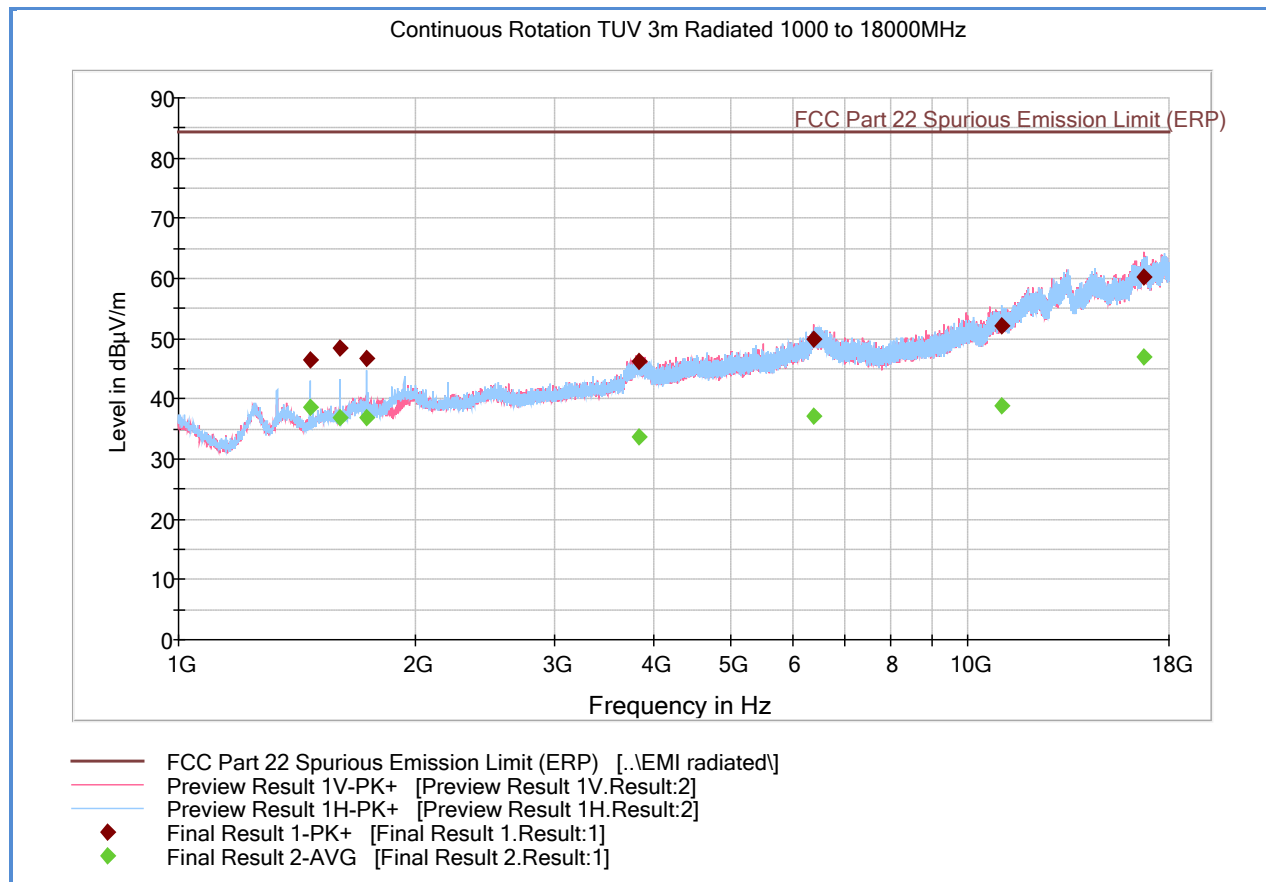
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.400000	45.0	36.9	1000.0	1000.000	151.7	H	318.0	-5.0	39.3	47.5	84.4
1466.566667	46.1	38.7	1000.0	1000.000	128.7	H	325.0	-5.2	38.3	45.7	84.4
1599.733333	46.8	34.2	1000.0	1000.000	151.7	H	346.0	-4.9	37.6	50.2	84.4
3811.100000	47.2	33.8	1000.0	1000.000	403.6	V	4.0	6.0	37.2	50.6	84.4
6603.000000	49.5	36.7	1000.0	1000.000	351.2	H	41.0	12.8	34.9	47.7	84.4
10998.83333	52.8	39.4	1000.0	1000.000	403.6	V	33.0	17.1	31.6	45.0	84.4
17781.26666	59.6	46.5	1000.0	1000.000	177.6	H	94.0	25.8	24.8	37.8	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.35 Test Results Above 1GHz_GSM850 (GPRS)_Cell_Mid Channel (190)



Peak/Average Data

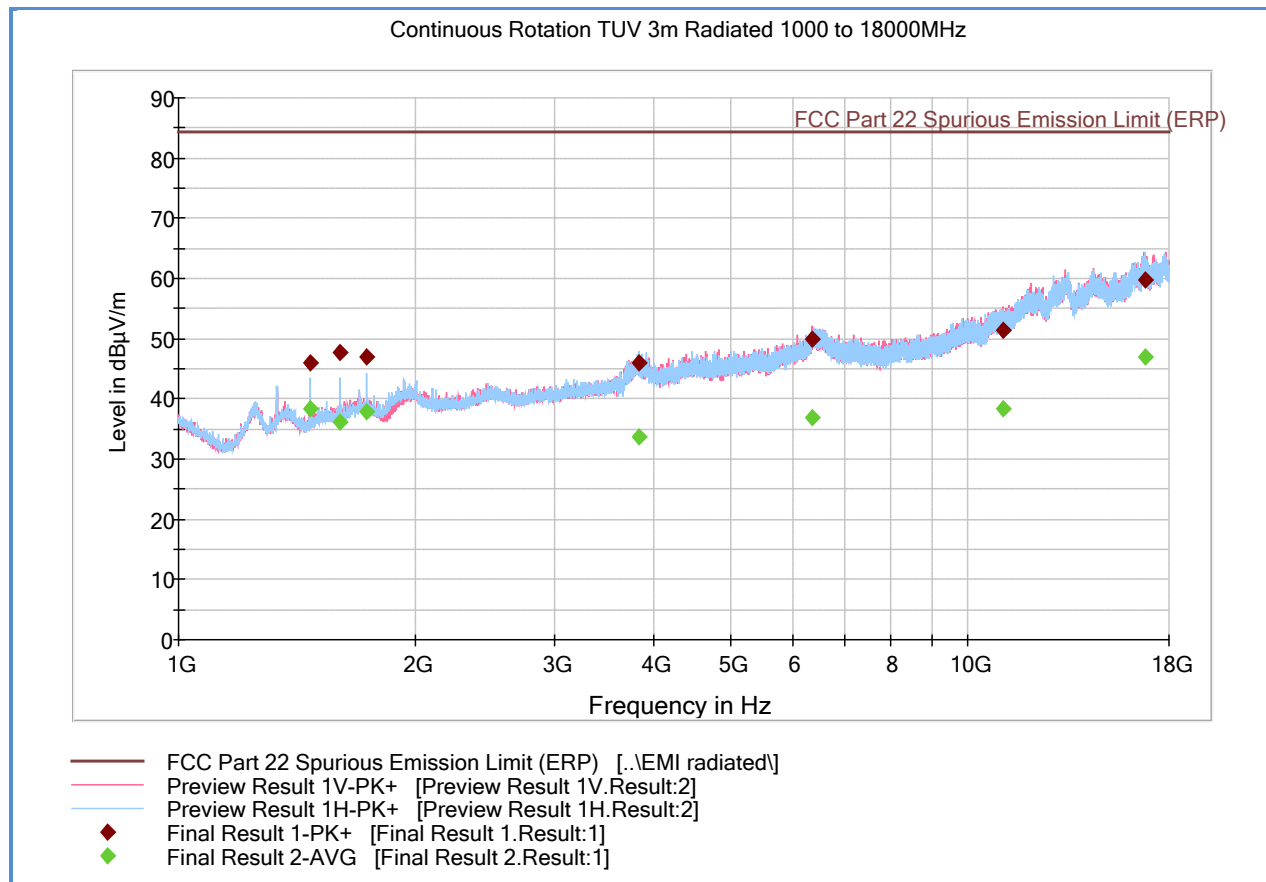
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1466.566667	46.4	38.7	1000.0	1000.000	120.7	H	322.0	-5.2	38.0	45.7	84.4
1599.933333	48.4	36.9	1000.0	1000.000	128.7	H	358.0	-4.9	35.9	47.5	84.4
1733.066667	46.7	37.0	1000.0	1000.000	112.7	H	-4.0	-3.4	37.7	47.4	84.4
3825.633333	46.3	33.8	1000.0	1000.000	403.6	H	304.0	6.0	38.1	50.6	84.4
6378.600000	49.9	37.1	1000.0	1000.000	202.3	V	-2.0	12.6	34.5	47.3	84.4
11038.466666	52.2	38.9	1000.0	1000.000	403.6	H	250.0	16.9	32.2	45.4	84.4
16752.000000	60.3	47.0	1000.0	1000.000	403.6	V	96.0	25.9	24.1	37.4	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.36 Test Results Above 1GHz_GSM850 (GPRS)_Cell_High Channel (251)



Peak/Average Data

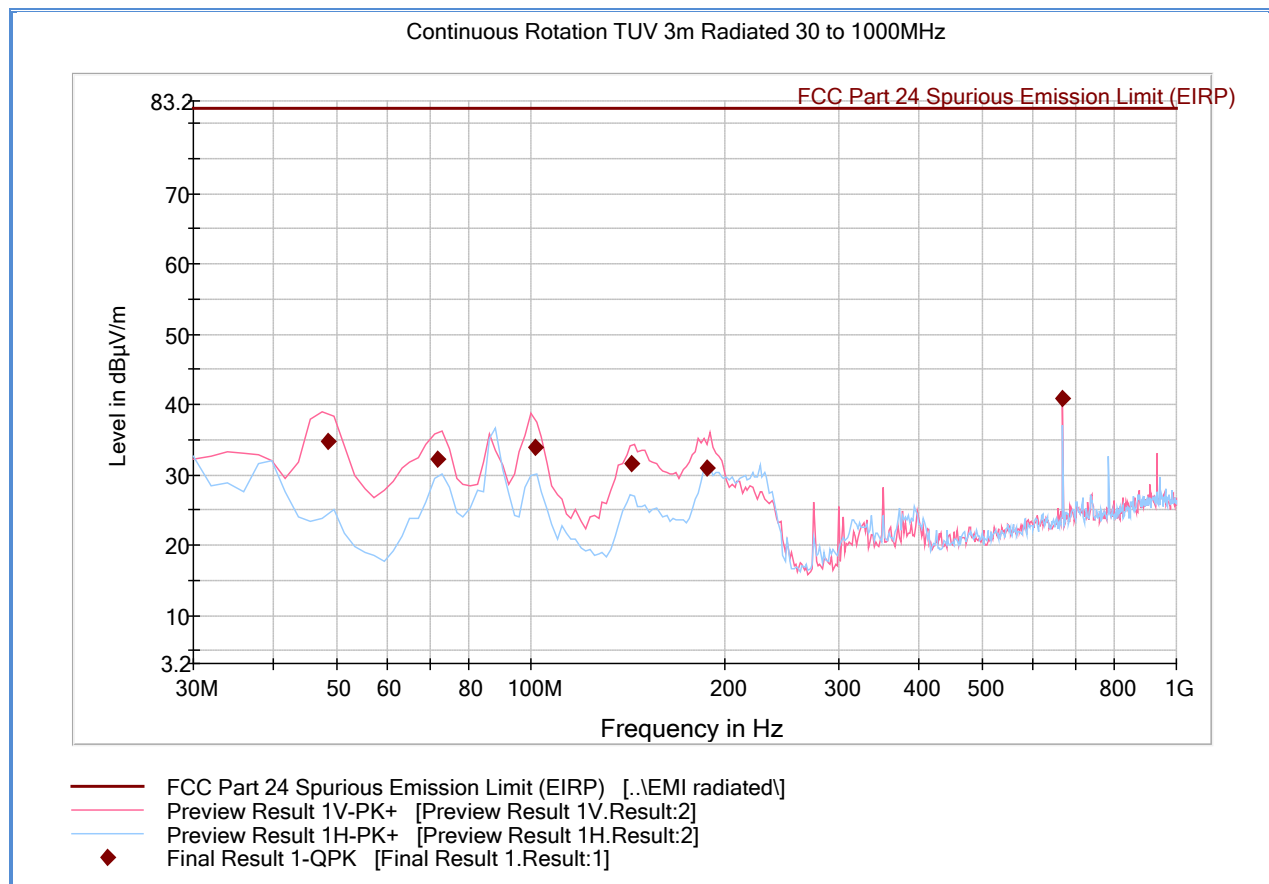
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1466.566667	45.9	38.4	1000.0	1000.000	121.7	H	329.0	-5.2	38.5	45.9	84.4
1599.900000	47.6	36.2	1000.0	1000.000	145.7	H	0.0	-4.9	36.8	48.2	84.4
1733.466667	47.0	37.8	1000.0	1000.000	102.7	H	-3.0	-3.4	37.4	46.6	84.4
3837.300000	45.9	33.6	1000.0	1000.000	146.7	H	323.0	6.1	38.4	50.8	84.4
6353.166667	49.9	36.9	1000.0	1000.000	102.7	V	143.0	12.5	34.4	47.5	84.4
11085.366666	51.3	38.3	1000.0	1000.000	199.5	V	290.0	16.6	33.1	46.0	84.4
16767.133333	59.7	47.1	1000.0	1000.000	403.6	H	230.0	25.9	24.7	37.3	84.4

Substitution Data

Frequency (MHz)	Field Strength @ 3 meters (dBμV/m)	Cable Loss (dB)	Substitution Antenna Gain (dBi)	Signal Generator Level (dBm)	Substitution Data SGL+AG-CL (dBm)	Limit (dBm)	Compliance

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 800MHz to 1GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.37 Test Results Below 1GHz_Worst Case Configuration
GSM1900 (GPRS)_PCS_High Channel (810)



Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
48.614990	34.8	1000.0	120.000	100.0	V	206.0	-18.5	47.4	82.2
71.805531	32.3	1000.0	120.000	100.0	V	294.0	-21.4	50.0	82.2
101.539960	33.9	1000.0	120.000	100.0	V	262.0	-18.8	48.4	82.2
143.289379	31.7	1000.0	120.000	100.0	V	134.0	-18.6	50.6	82.2
187.798798	30.9	1000.0	120.000	100.0	V	264.0	-15.4	51.3	82.2
666.675190	40.9	1000.0	120.000	100.0	V	325.0	-2.0	41.4	82.2

Test Notes: Only worst case channel presented for spurious emissions below 1GHz.