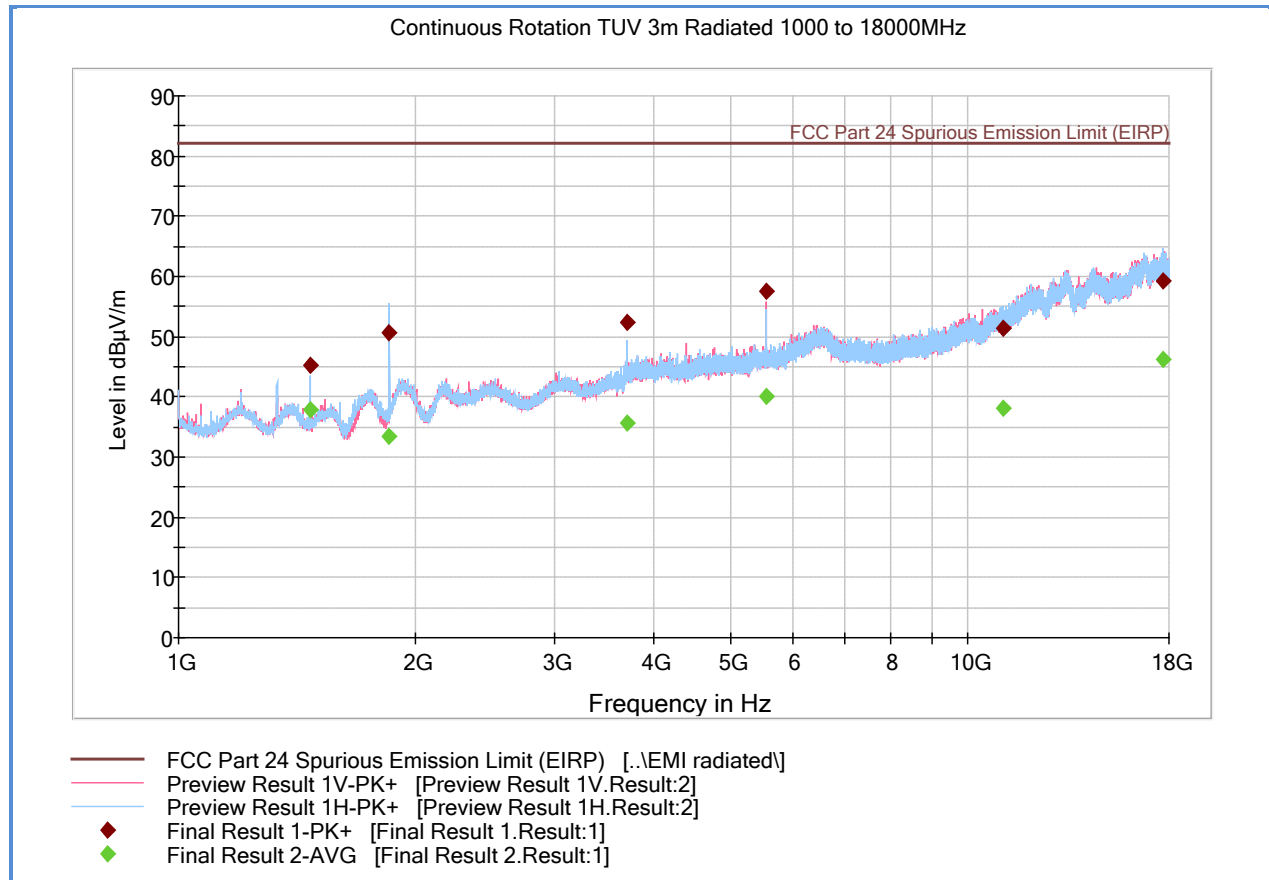


2.7.38 Test Results Above 1GHz_GSM1900 (GPRS)_PCS_Low Channel (512)



Peak/Average Data

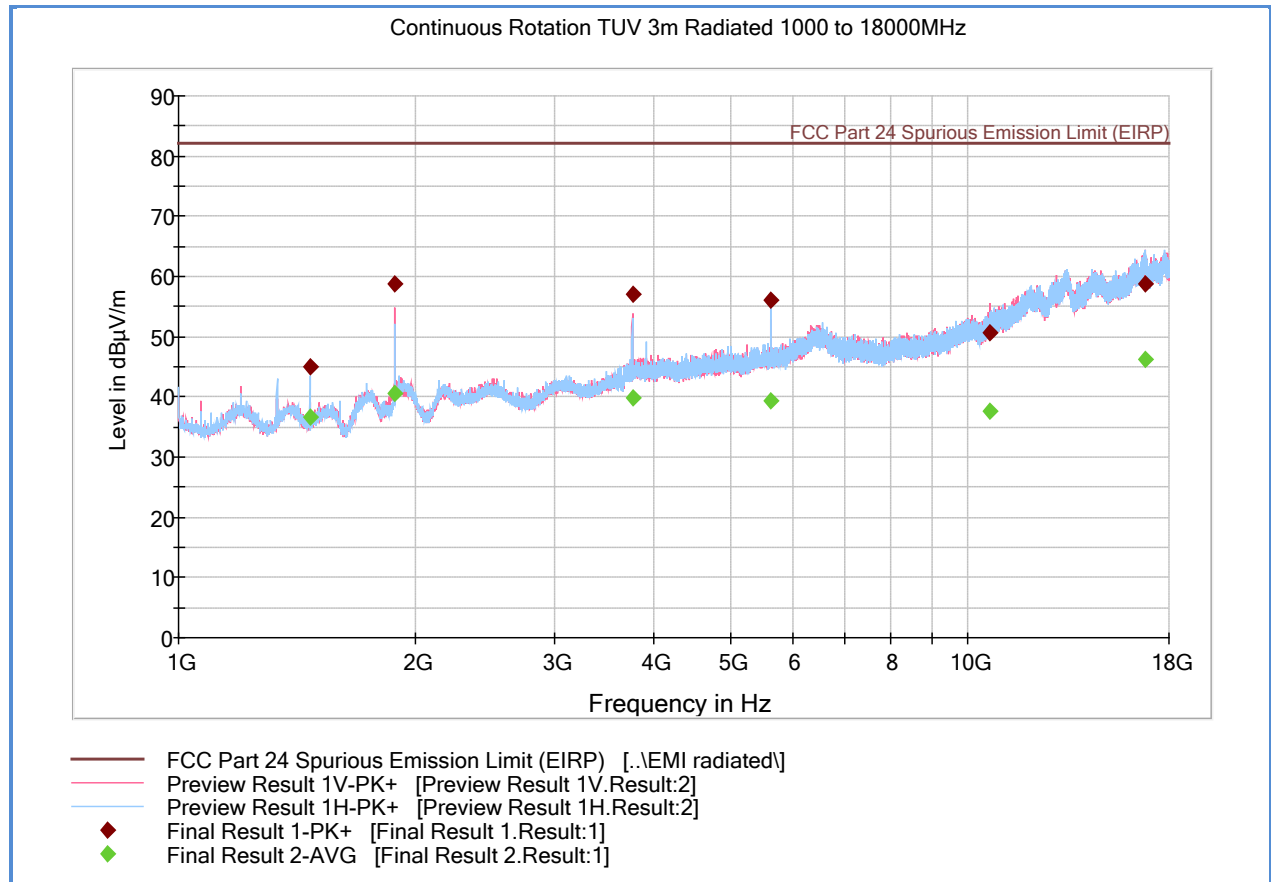
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1466.566667	45.2	37.9	1000.0	1000.000	130.7	H	329.0	-5.2	37.1	44.3	82.2
1850.200000	50.8	33.3	1000.0	1000.000	99.7	H	324.0	-2.2	31.5	48.9	82.2
3700.566667	52.3	35.8	1000.0	1000.000	102.7	H	171.0	4.7	29.9	46.5	82.2
5550.733333	57.5	40.0	1000.0	1000.000	137.7	V	306.0	8.9	24.7	42.2	82.2
11097.633333	51.5	38.2	1000.0	1000.000	101.7	H	16.0	16.5	30.7	44.1	82.2
17727.633333	59.1	46.2	1000.0	1000.000	99.7	H	270.0	25.7	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

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).

2.7.39 Test Results Above 1GHz_GSM1900 (GPRS)_PCS_Mid Channel (661)



Peak/Average Data

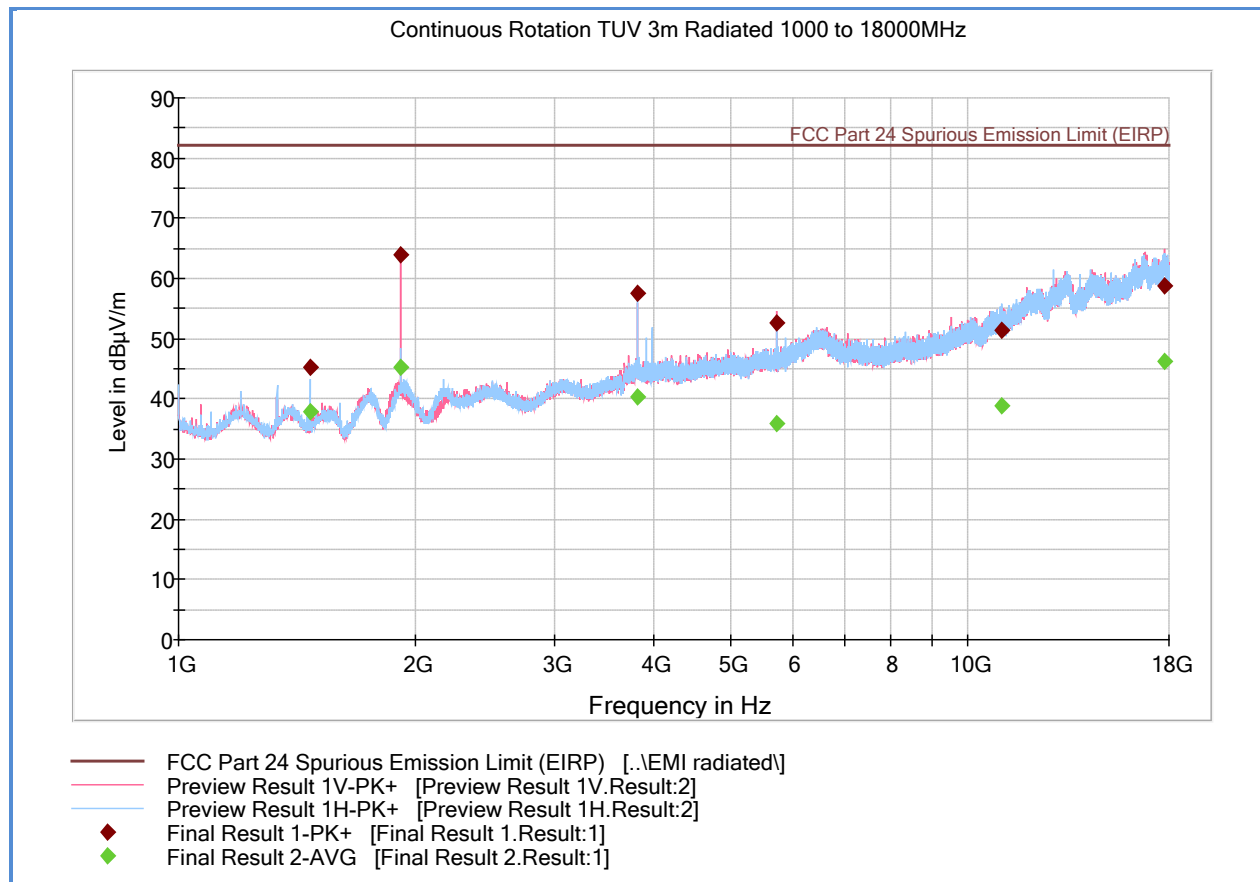
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1466.366667	44.9	36.7	1000.0	1000.000	128.7	H	328.0	-5.2	37.3	45.6	82.2
1879.833333	58.7	40.5	1000.0	1000.000	145.7	V	76.0	-1.8	23.5	41.7	82.2
3760.066667	57.1	39.9	1000.0	1000.000	180.6	V	334.0	5.3	25.1	42.3	82.2
5640.066667	56.1	39.2	1000.0	1000.000	200.5	H	143.0	9.2	26.1	43.0	82.2
10690.96666	50.7	37.6	1000.0	1000.000	169.6	V	30.0	15.9	31.6	44.6	82.2
16818.90000	58.7	46.3	1000.0	1000.000	367.1	H	207.0	25.6	23.5	35.9	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).

2.7.40 Test Results Above 1GHz_GSM1900 (GPRS)_PCS_High Channel (810)



Peak/Average Data

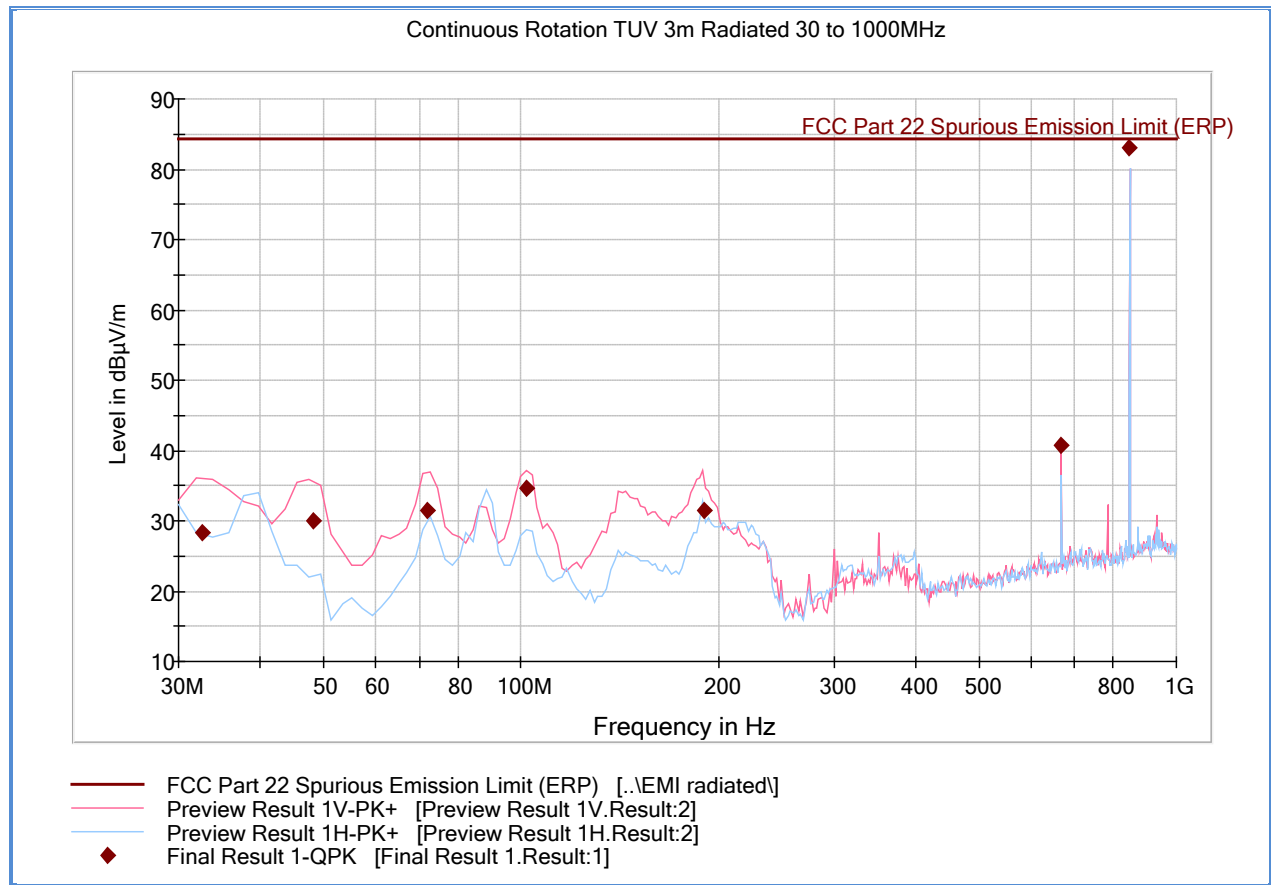
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1466.566667	45.4	38.0	1000.0	1000.000	128.7	H	330.0	-5.2	36.9	44.2	82.2
1909.700000	64.0	45.4	1000.0	1000.000	112.7	V	244.0	-1.5	18.2	36.9	82.2
3819.566667	57.6	40.3	1000.0	1000.000	258.3	H	30.0	6.0	24.7	42.0	82.2
5729.800000	52.6	35.8	1000.0	1000.000	205.5	V	170.0	9.6	29.6	46.4	82.2
11039.833333	51.4	38.9	1000.0	1000.000	391.1	H	130.0	16.9	30.9	43.4	82.2
17740.266666	58.9	46.3	1000.0	1000.000	207.5	V	243.0	25.8	23.3	35.9	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
1909.700000	64.0	-3.3	8.2	-36.2	-31.22	-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).

2.7.41 Test Results Below 1GHz_Worst Case Configuration
GSM850 (EGPRS)_Cell_High Channel (251)

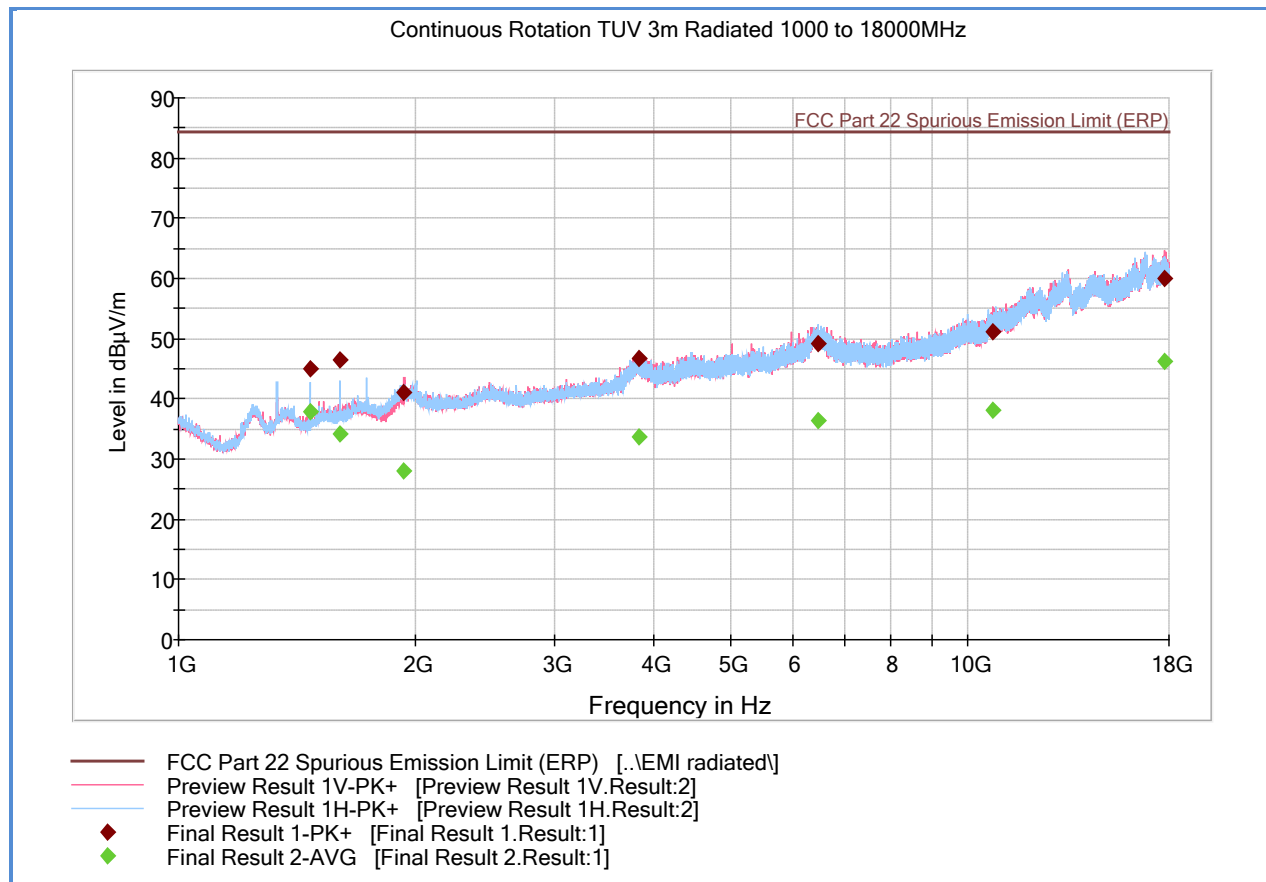


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
32.640000	28.4	1000.0	120.000	100.0	V	183.0	-12.0	56.0	84.4
48.078878	30.1	1000.0	120.000	100.0	V	17.0	-18.3	54.3	84.4
71.965531	31.6	1000.0	120.000	127.0	V	259.0	-21.4	52.8	84.4
101.643848	34.7	1000.0	120.000	100.0	V	286.0	-18.8	49.7	84.4
189.758798	31.5	1000.0	120.000	100.0	V	248.0	-15.3	52.9	84.4
666.675190	40.7	1000.0	120.000	100.0	V	196.0	-2.0	43.7	84.4
848.800641	83.0	1000.0	120.000	340.0	V	356.0	Fundamental		

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

2.7.42 Test Results Above 1GHz_GSM850 (EGPRS)_Cell_Low Channel (128)



Peak/Average Data

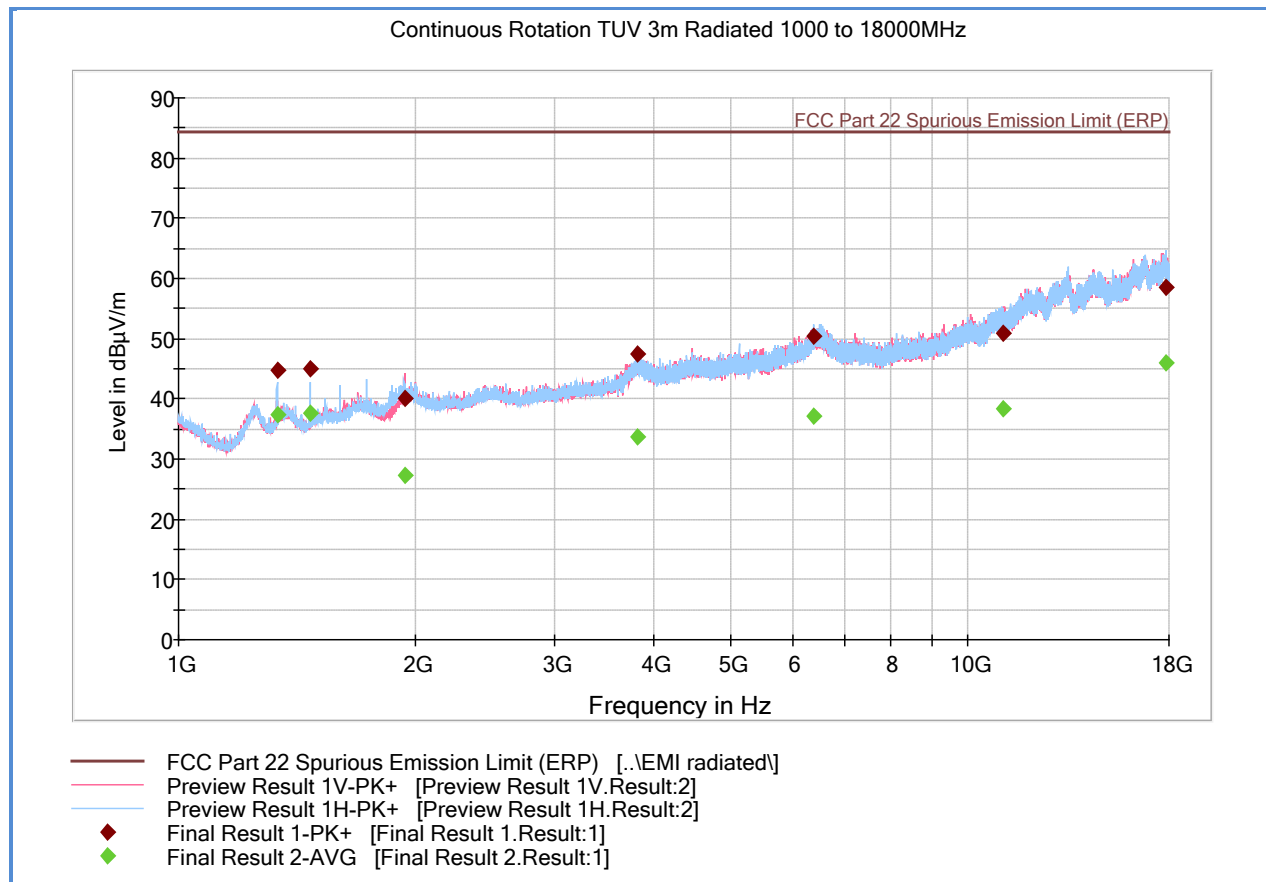
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1466.566667	45.1	37.8	1000.0	1000.000	114.7	H	329.0	-5.2	39.3	46.6	84.4
1599.733333	46.4	34.2	1000.0	1000.000	163.6	H	4.0	-4.9	38.0	50.2	84.4
1932.533333	41.2	28.1	1000.0	1000.000	229.4	V	-16.0	-1.4	43.2	56.3	84.4
3830.866667	46.7	33.8	1000.0	1000.000	345.1	V	247.0	6.1	37.7	50.6	84.4
6454.866667	49.2	36.5	1000.0	1000.000	99.7	H	151.0	12.7	35.2	47.9	84.4
10779.90000	51.2	38.1	1000.0	1000.000	169.6	V	217.0	16.3	33.2	46.3	84.4
17734.23333	60.1	46.3	1000.0	1000.000	367.1	V	233.0	25.7	24.3	38.1	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).

2.7.43 Test Results Above 1GHz_GSM850 (EGPRS)_Cell_Mid Channel (190)



Peak/Average Data

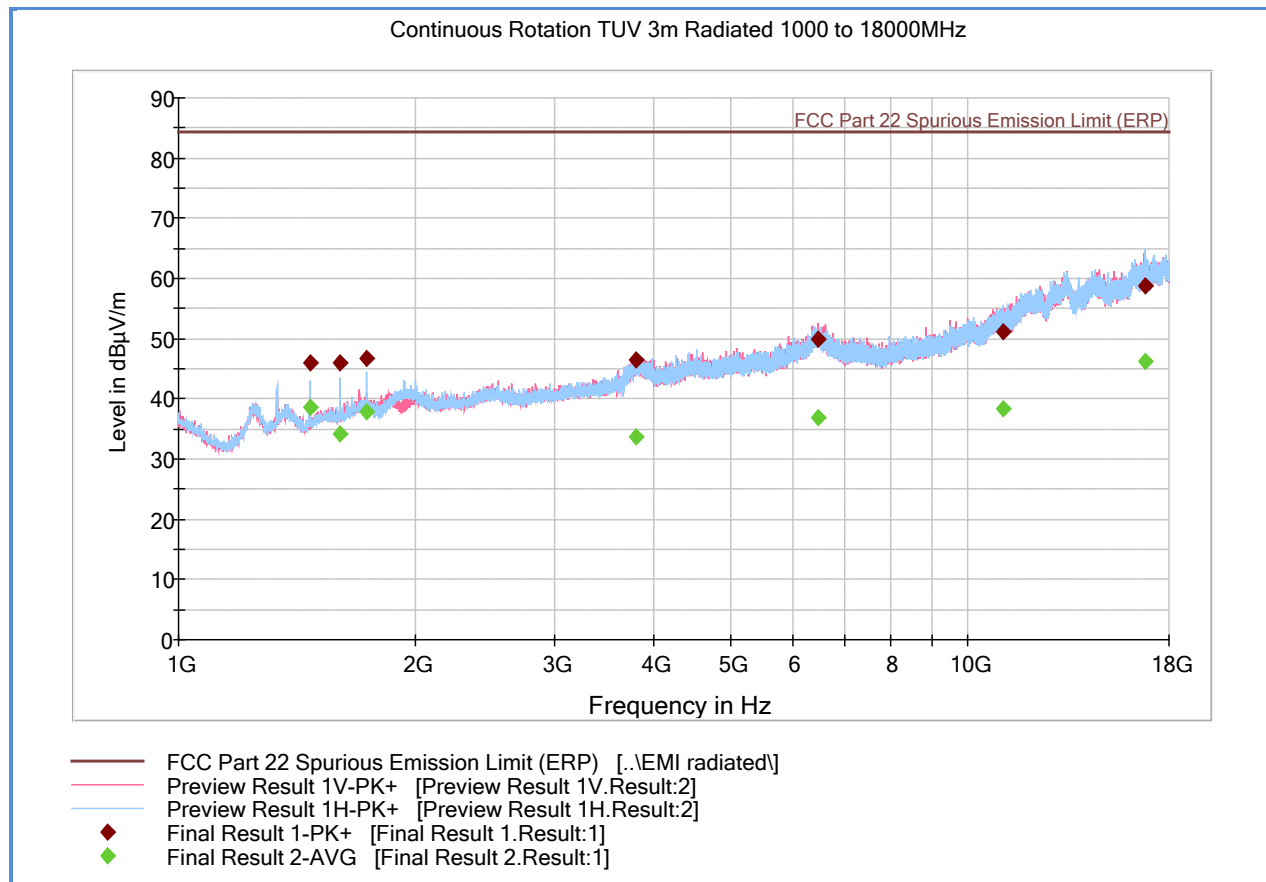
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.400000	44.8	37.4	1000.0	1000.000	136.7	H	319.0	-5.0	39.6	47.0	84.4
1466.733333	44.9	37.6	1000.0	1000.000	128.7	H	330.0	-5.2	39.5	46.8	84.4
1938.033333	40.2	27.3	1000.0	1000.000	280.2	V	-16.0	-1.4	44.2	57.0	84.4
3813.466667	47.6	33.8	1000.0	1000.000	112.7	H	122.0	6.0	36.8	50.6	84.4
6370.833333	50.3	37.0	1000.0	1000.000	300.6	H	325.0	12.6	34.1	47.4	84.4
11082.166666	50.8	38.4	1000.0	1000.000	359.1	V	292.0	16.6	33.5	46.0	84.4
17866.233333	58.4	45.9	1000.0	1000.000	403.6	H	137.0	25.5	25.9	38.5	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

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).

2.7.44 Test Results Above 1GHz_GSM850 (EGPRS)_Cell_High Channel (251)



Peak/Average Data

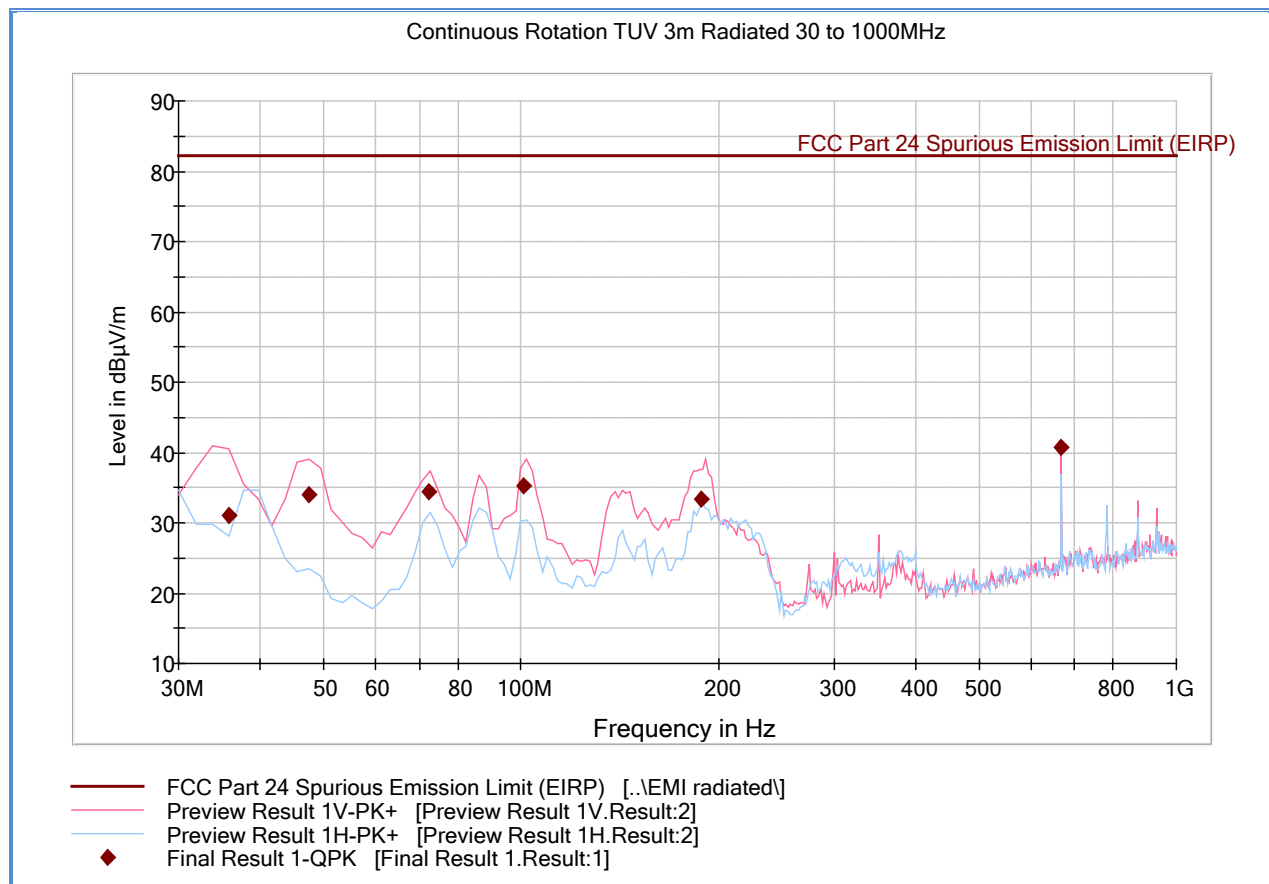
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1466.566667	45.9	38.5	1000.0	1000.000	121.7	H	330.0	-5.2	38.5	45.9	84.4
1599.733333	46.1	34.2	1000.0	1000.000	112.7	H	-15.0	-4.9	38.3	50.2	84.4
1733.466667	46.6	37.8	1000.0	1000.000	120.7	H	358.0	-3.4	37.8	46.6	84.4
3803.433333	46.5	33.7	1000.0	1000.000	187.5	V	119.0	6.0	37.9	50.7	84.4
6461.366667	49.9	36.9	1000.0	1000.000	138.7	V	222.0	12.7	34.5	47.5	84.4
11083.63333	51.1	38.3	1000.0	1000.000	152.6	H	346.0	16.6	33.3	46.1	84.4
16829.10000	58.8	46.2	1000.0	1000.000	99.7	H	281.0	25.4	25.5	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).

2.7.45 Test Results Below 1GHz_Worst Case Configuration GSM1900 (EGPRS)_PCS_High Channel (810)

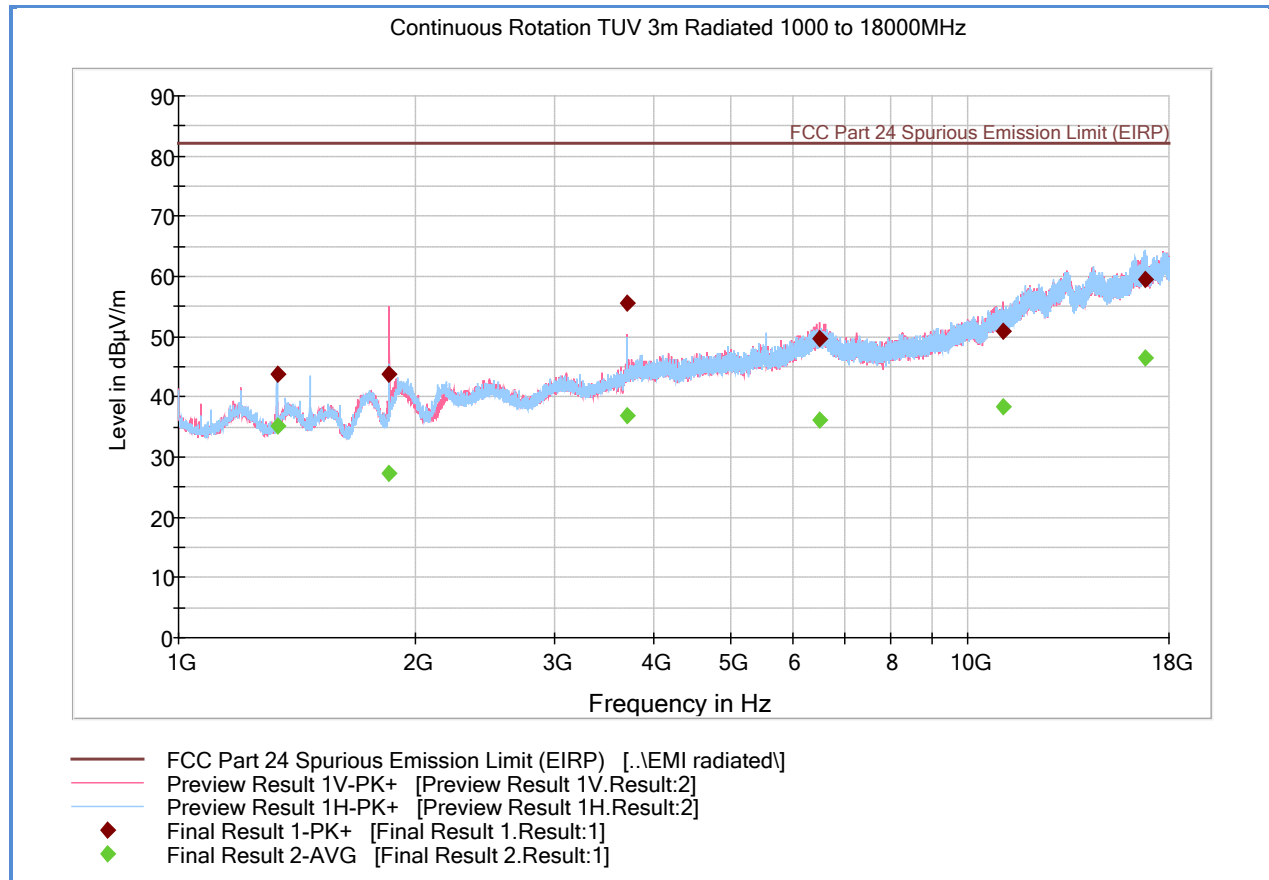


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
35.847776	31.1	1000.0	120.000	100.0	V	208.0	-13.7	51.1	82.2
47.534990	34.0	1000.0	120.000	100.0	V	230.0	-18.2	48.2	82.2
72.285531	34.4	1000.0	120.000	100.0	V	317.0	-21.4	47.8	82.2
101.043848	35.3	1000.0	120.000	100.0	V	255.0	-18.8	46.9	82.2
188.702685	33.3	1000.0	120.000	100.0	V	245.0	-15.3	48.9	82.2
666.675190	40.8	1000.0	120.000	100.0	V	324.0	-2.0	41.4	82.2

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

2.7.46 Test Results Above 1GHz_GSM1900 (EGPRS)_PCS_Low Channel (512)



Peak/Average Data

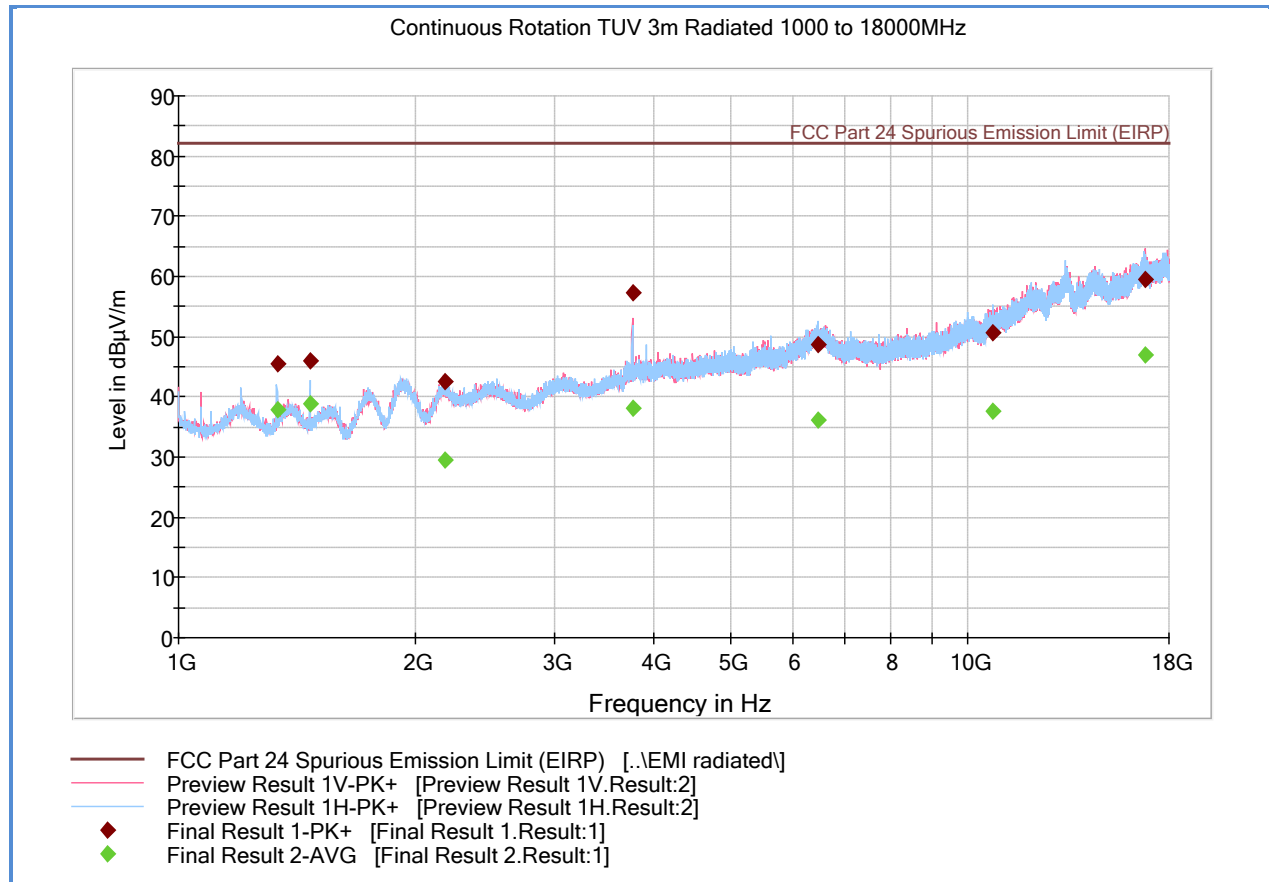
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.000000	43.8	35.2	1000.0	1000.000	102.7	H	320.0	-5.0	38.5	47.1	82.2
1850.200000	43.9	27.2	1000.0	1000.000	219.4	V	126.0	-2.2	38.3	55.0	82.2
3700.366667	55.7	36.8	1000.0	1000.000	99.7	V	221.0	4.7	26.6	45.4	82.2
6481.166667	49.6	36.2	1000.0	1000.000	378.1	V	39.0	12.7	32.7	46.0	82.2
11079.866666	51.0	38.3	1000.0	1000.000	121.7	V	281.0	16.6	31.2	43.9	82.2
16814.366666	59.5	46.4	1000.0	1000.000	300.2	H	13.0	25.6	22.7	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

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.47 Test Results Above 1GHz_GSM1900 (EGPRS)_PCS_Mid Channel (661)



Peak/Average Data

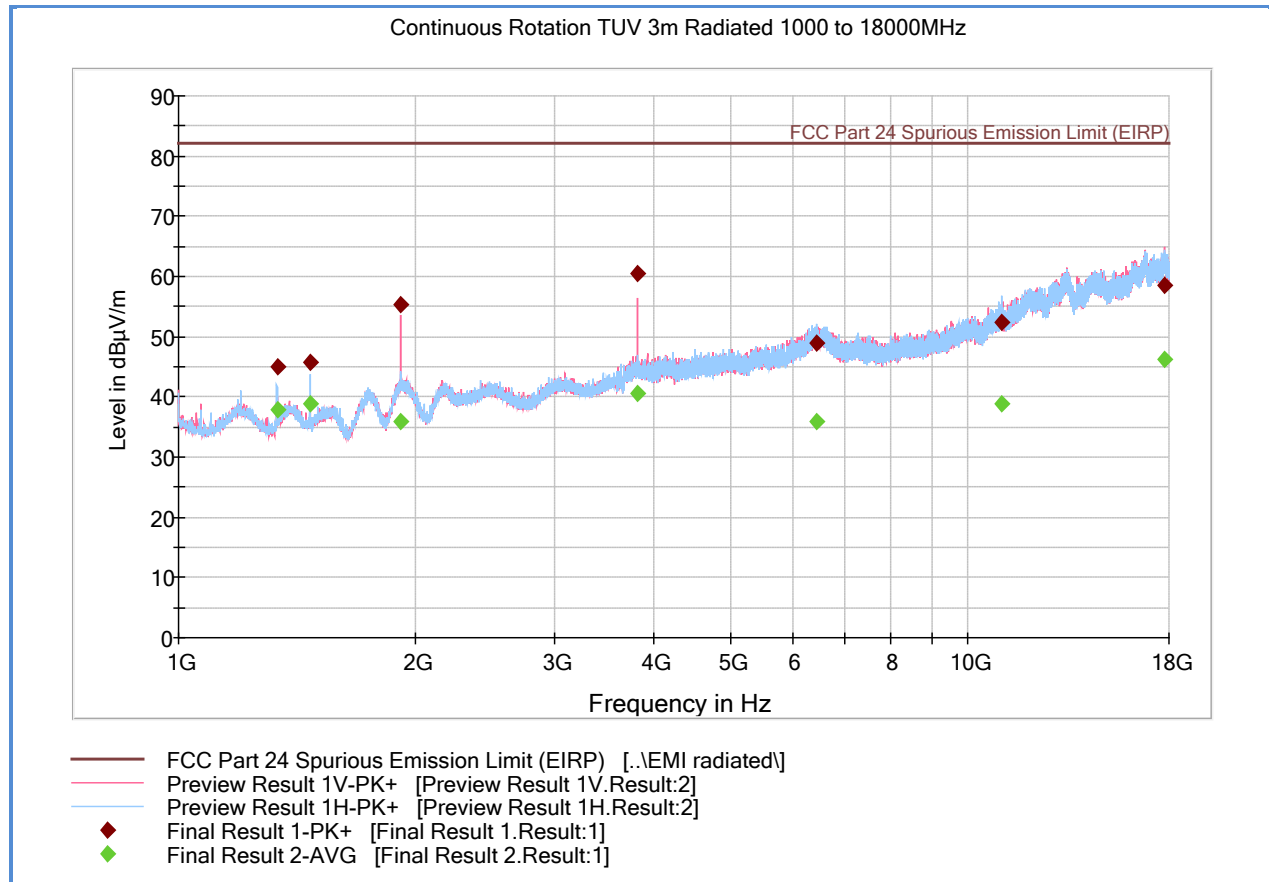
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.400000	45.4	38.0	1000.0	1000.000	136.7	H	313.0	-5.0	36.8	44.3	82.2
1466.566667	46.0	38.9	1000.0	1000.000	120.7	H	326.0	-5.2	36.3	43.3	82.2
2172.000000	42.5	29.6	1000.0	1000.000	403.6	V	56.0	-1.0	39.8	52.6	82.2
3760.066667	57.3	38.1	1000.0	1000.000	355.1	V	-14.0	5.3	24.9	44.2	82.2
6457.533333	48.6	36.1	1000.0	1000.000	246.3	H	65.0	12.7	33.6	46.2	82.2
10757.23333	50.7	37.7	1000.0	1000.000	99.7	H	90.0	16.2	31.6	44.5	82.2
16792.80000	59.4	47.0	1000.0	1000.000	403.6	V	186.0	25.9	22.8	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

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.48 Test Results Above 1GHz_GSM1900 (EGPRS)_PCS_High Channel (810)



Peak/Average Data

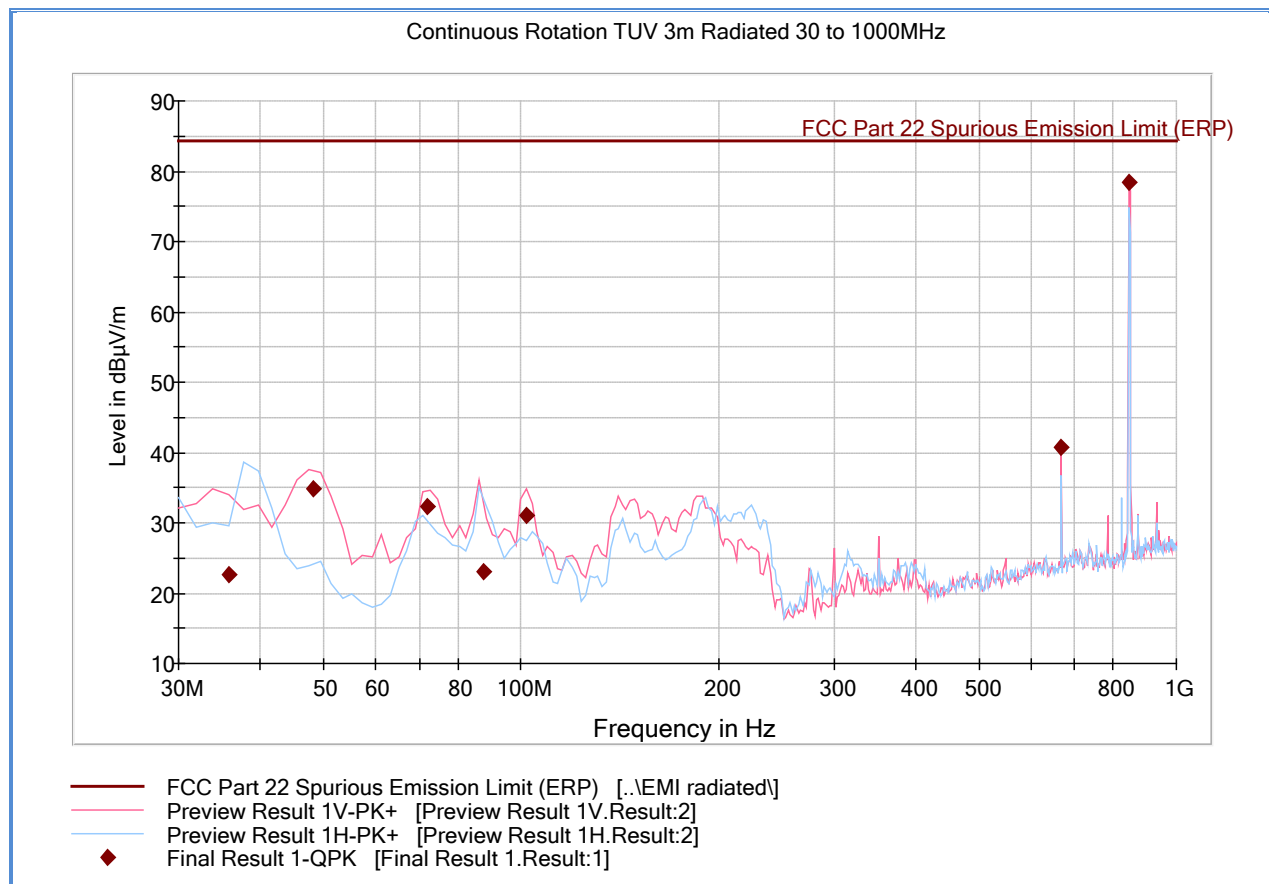
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.433333	45.1	38.0	1000.0	1000.000	121.7	H	310.0	-5.0	37.2	44.2	82.2
1466.566667	45.8	38.8	1000.0	1000.000	136.7	H	320.0	-5.2	36.5	43.4	82.2
1909.700000	55.3	35.9	1000.0	1000.000	208.5	V	214.0	-1.5	27.0	46.4	82.2
3819.566667	60.5	40.7	1000.0	1000.000	300.2	V	-9.0	6.0	21.8	41.6	82.2
6448.333333	48.9	35.9	1000.0	1000.000	265.3	H	283.0	12.7	33.3	46.4	82.2
11033.766666	52.4	38.9	1000.0	1000.000	154.6	H	158.0	16.9	29.8	43.3	82.2
17746.700000	58.5	46.1	1000.0	1000.000	370.1	V	176.0	25.8	23.7	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 2GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.49 Test Results Below 1GHz_Worst Case Configuration
WCDMA_Cell Band 5_High Channel (4233)

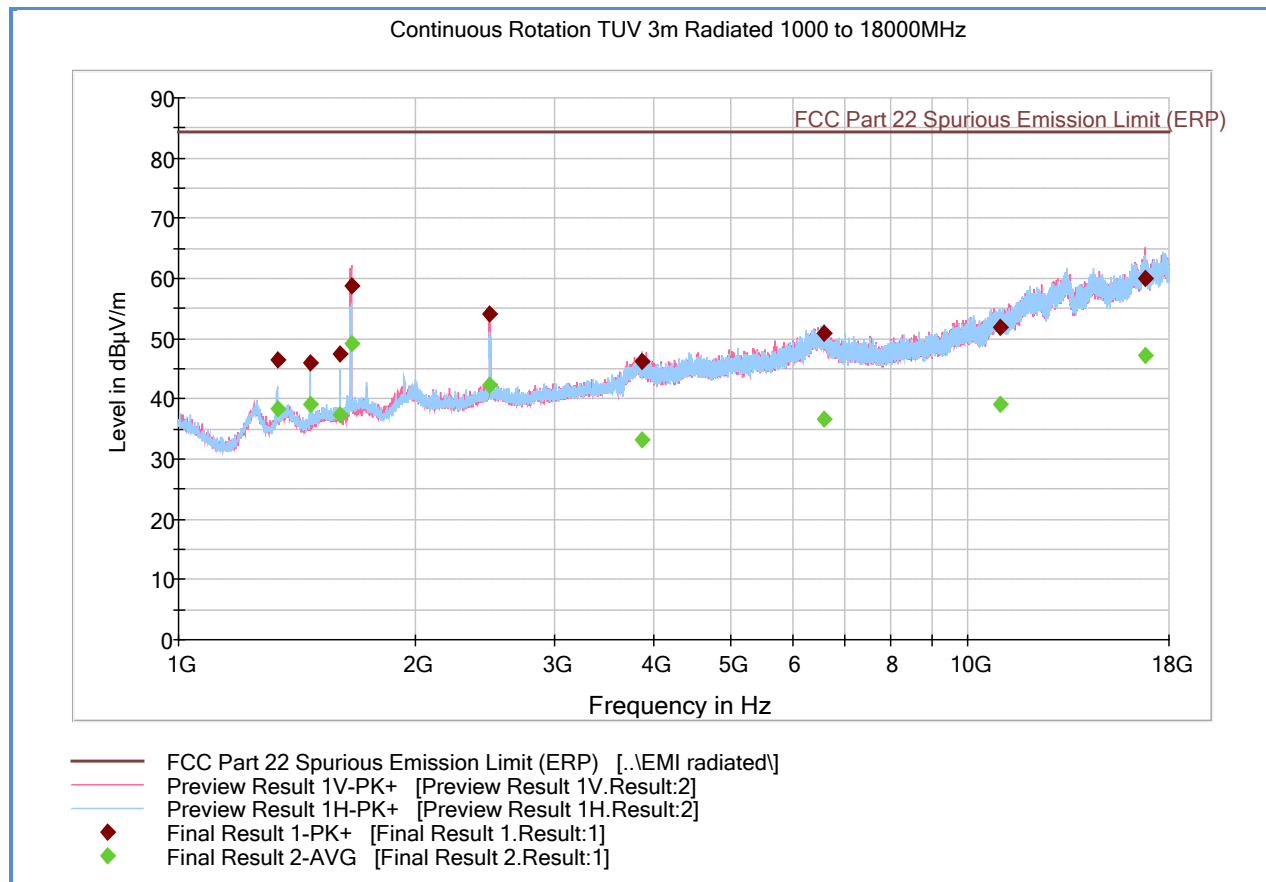


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
35.855551	22.6	1000.0	120.000	365.0	H	15.0	-13.7	61.8	84.4
48.254990	34.9	1000.0	120.000	100.0	V	22.0	-18.3	49.5	84.4
71.965531	32.4	1000.0	120.000	100.0	V	151.0	-21.4	52.0	84.4
87.812745	23.1	1000.0	120.000	200.0	V	344.0	-20.3	61.3	84.4
102.123848	31.1	1000.0	120.000	100.0	V	271.0	-18.9	53.3	84.4
666.675190	40.7	1000.0	120.000	100.0	V	323.0	-2.0	43.7	84.4
847.896754	78.3	1000.0	120.000	110.0	V	173.0	Fundamental		

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

2.7.50 Test Results Above 1GHz_WCDMA_Cell Band 5_Low Channel (4132)



Peak/Average Data

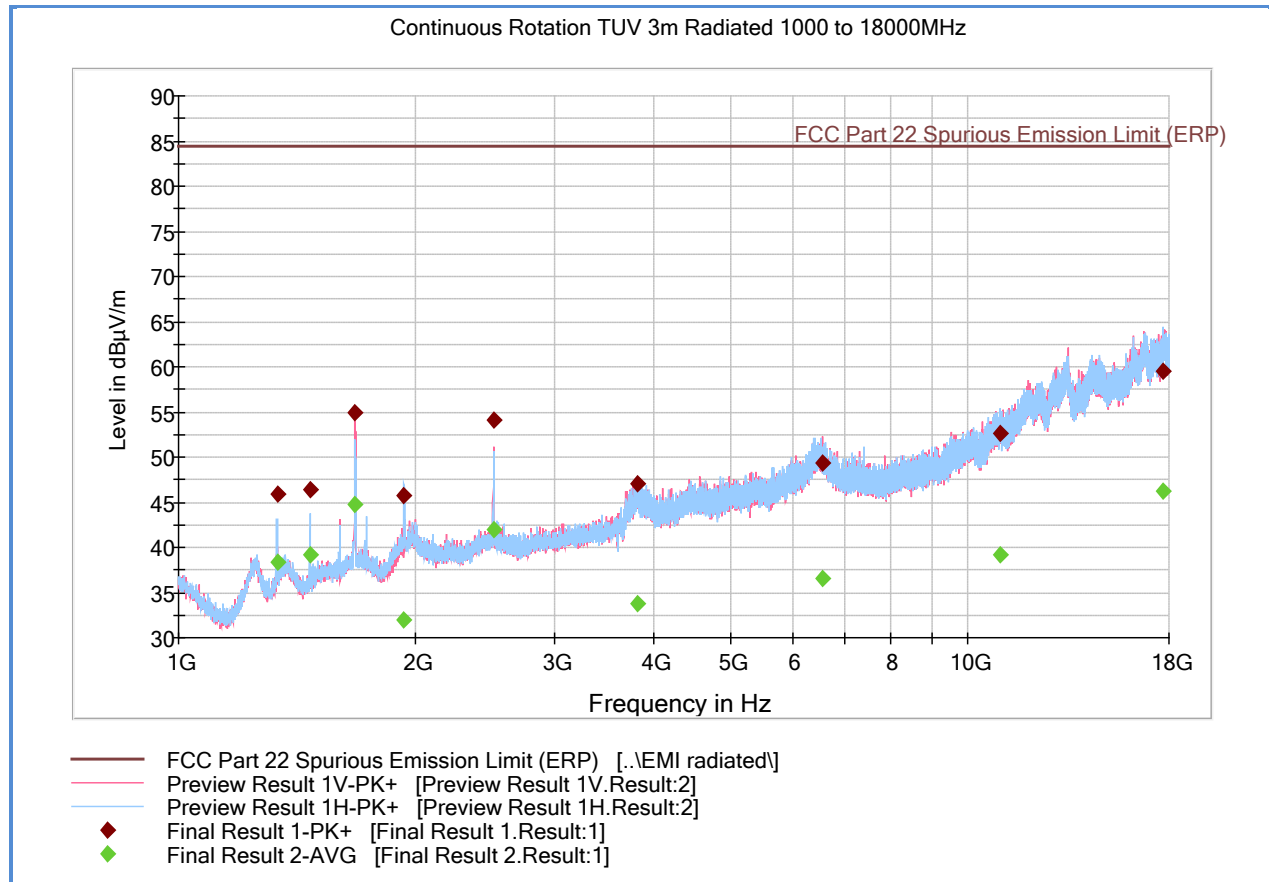
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.400000	46.5	38.4	1000.0	1000.000	143.7	H	316.0	-5.0	37.9	46.0	84.4
1466.566667	46.1	39.0	1000.0	1000.000	120.7	H	319.0	-5.2	38.3	45.4	84.4
1599.933333	47.5	37.3	1000.0	1000.000	120.7	H	358.0	-4.9	36.8	47.1	84.4
1654.700000	58.7	49.1	1000.0	1000.000	200.5	V	202.0	-4.3	25.7	35.2	84.4
2476.366667	54.1	42.4	1000.0	1000.000	103.7	V	284.0	0.1	30.3	42.0	84.4
3867.133333	46.2	33.3	1000.0	1000.000	344.1	H	278.0	6.0	38.1	51.1	84.4
6578.133333	50.9	36.7	1000.0	1000.000	227.4	H	23.0	12.8	33.5	47.6	84.4
11023.000000	51.8	39.2	1000.0	1000.000	321.1	H	310.0	16.9	32.6	45.2	84.4
16778.866666	60.1	47.1	1000.0	1000.000	403.6	V	-3.0	25.9	24.3	37.2	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).

2.7.51 Test Results Above 1GHz_WCDMA_Cell Band 5_Mid Channel (4183)



Peak/Average Data

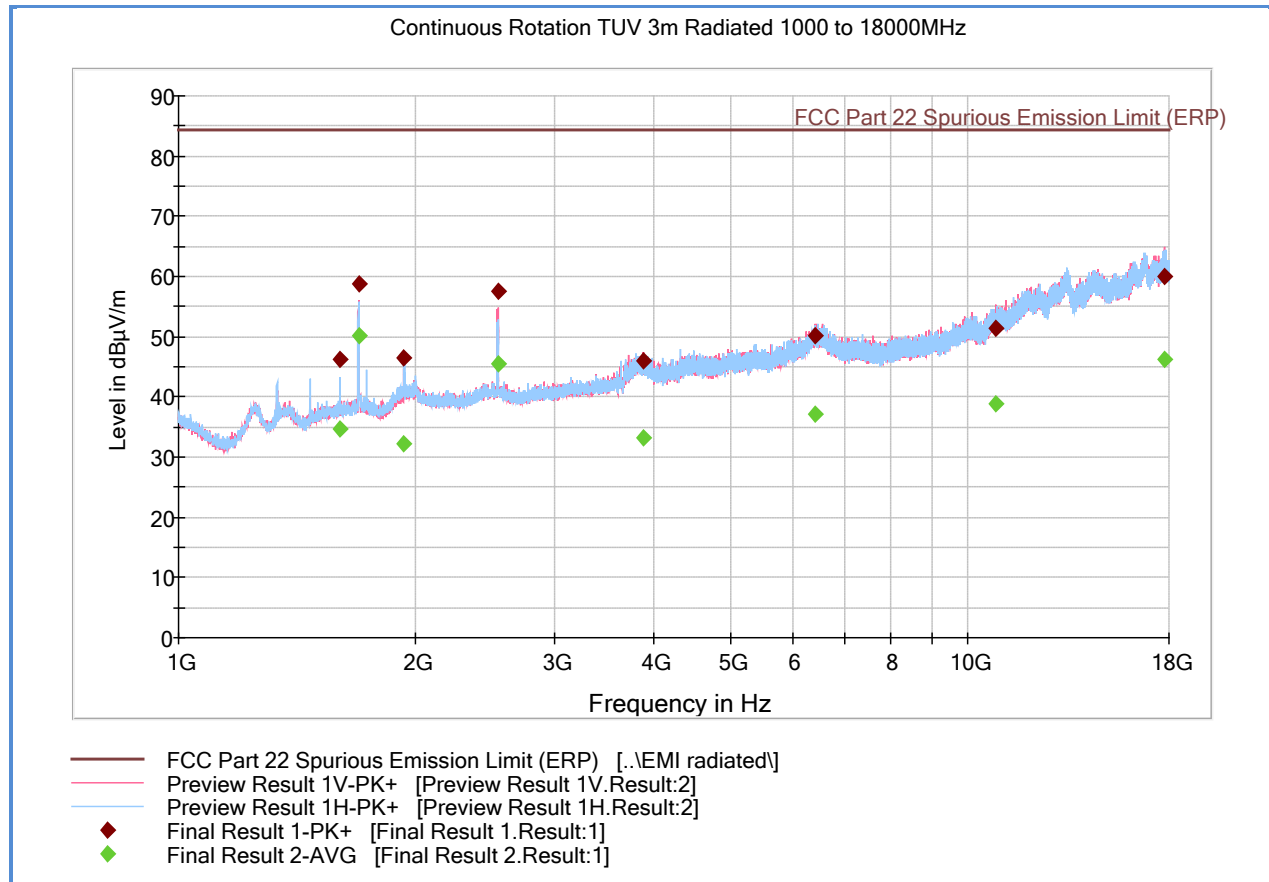
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.433333	45.9	38.3	1000.0	1000.000	128.7	H	319.0	-5.0	38.4	46.1	84.4
1466.766667	46.4	39.2	1000.0	1000.000	128.7	H	328.0	-5.2	38.0	45.2	84.4
1671.133333	54.9	44.8	1000.0	1000.000	103.7	V	163.0	-4.1	29.5	39.6	84.4
1932.133333	45.8	31.9	1000.0	1000.000	103.7	H	280.0	-1.4	38.6	52.5	84.4
2506.966667	54.2	41.9	1000.0	1000.000	120.7	V	145.0	0.2	30.2	42.5	84.4
3810.666667	47.0	33.8	1000.0	1000.000	136.7	H	39.0	6.0	37.4	50.6	84.4
6538.833333	49.3	36.5	1000.0	1000.000	146.7	V	90.0	12.8	35.1	47.9	84.4
10978.866666	52.6	39.3	1000.0	1000.000	403.6	H	215.0	17.0	31.8	45.1	84.4
17718.800000	59.5	46.2	1000.0	1000.000	367.1	H	116.0	25.6	24.9	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).

2.7.52 Test Results Above 1GHz_WCDMA_Cell Band 5_High Channel (4233)



Peak/Average Data

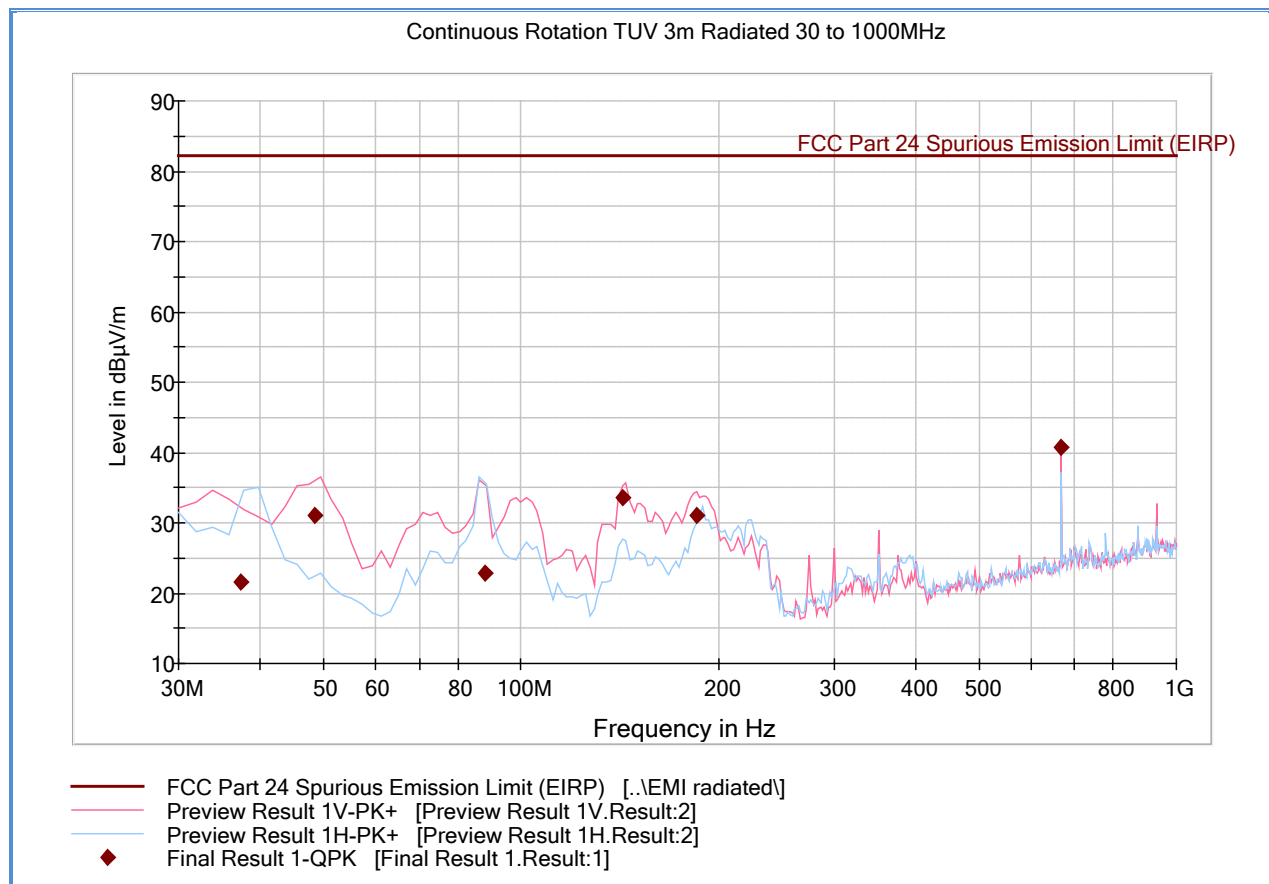
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1600.133333	46.3	34.8	1000.0	1000.000	128.7	H	0.0	-4.9	38.1	49.6	84.4
1694.933333	58.8	50.2	1000.0	1000.000	189.5	V	212.0	-3.7	25.5	34.2	84.4
1932.366667	46.4	32.2	1000.0	1000.000	102.7	H	221.0	-1.4	38.0	52.2	84.4
2542.666667	57.5	45.6	1000.0	1000.000	115.7	V	133.0	0.1	26.9	38.8	84.4
3875.866667	46.1	33.3	1000.0	1000.000	259.3	V	19.0	6.0	38.3	51.1	84.4
6401.133333	50.2	37.2	1000.0	1000.000	180.6	V	299.0	12.7	34.2	47.2	84.4
10864.93333	51.5	38.9	1000.0	1000.000	138.7	V	209.0	16.6	32.9	45.5	84.4
17776.00000	60.1	46.3	1000.0	1000.000	258.3	V	238.0	25.8	24.3	38.1	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).

2.7.53 Test Results Below 1GHz_Worst Case Configuration
WCDMA_PCS Band 2_High Channel (9538)

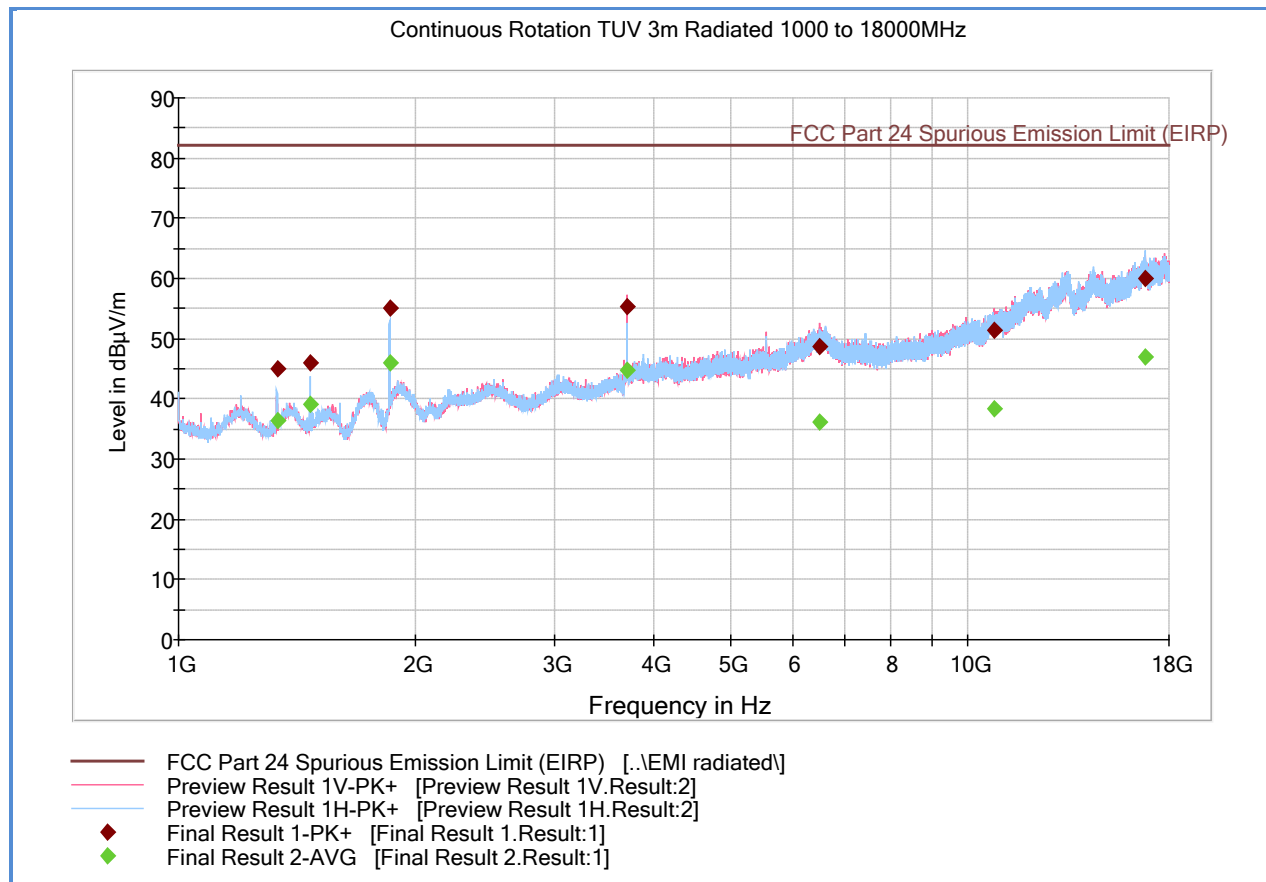


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
37.319439	21.5	1000.0	120.000	350.0	H	-15.0	-14.4	60.7	82.2
48.318878	31.1	1000.0	120.000	100.0	V	172.0	-18.4	51.1	82.2
87.972745	22.9	1000.0	120.000	200.0	H	-12.0	-20.3	59.4	82.2
142.889379	33.6	1000.0	120.000	100.0	V	133.0	-18.7	48.7	82.2
185.031022	31.1	1000.0	120.000	100.0	V	218.0	-15.9	51.1	82.2
666.675190	40.8	1000.0	120.000	100.0	V	197.0	-2.0	41.5	82.2

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

2.7.54 Test Results Above 1GHz_WCDMA_PCS Band 2_Low Channel (9262)



Peak/Average Data

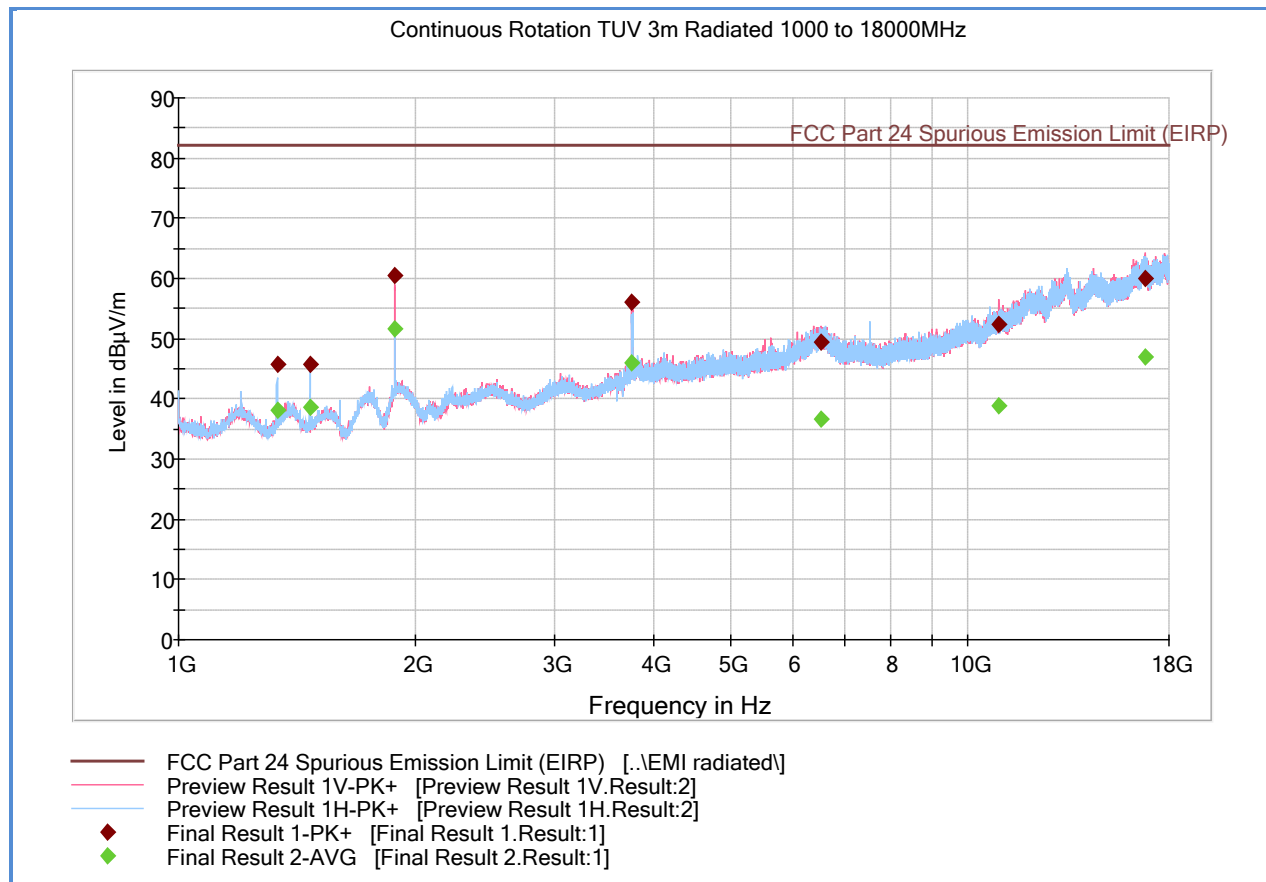
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.033333	45.0	36.4	1000.0	1000.000	136.7	H	319.0	-5.0	37.2	45.8	82.2
1466.566667	46.1	39.2	1000.0	1000.000	128.7	H	329.0	-5.2	36.1	43.0	82.2
1851.333333	55.0	45.9	1000.0	1000.000	256.3	H	221.0	-2.2	27.2	36.3	82.2
3702.833333	55.2	44.6	1000.0	1000.000	161.6	V	206.0	4.7	27.0	37.6	82.2
6486.833333	48.8	36.1	1000.0	1000.000	103.7	V	-2.0	12.7	33.5	46.1	82.2
10817.30000	51.3	38.4	1000.0	1000.000	99.7	V	79.0	16.5	30.9	43.9	82.2
16799.36666	60.0	47.0	1000.0	1000.000	403.6	H	158.0	25.9	22.2	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

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.55 Test Results Above 1GHz_WCDMA_PCS Band 2_Mid Channel (9400)



Peak/Average Data

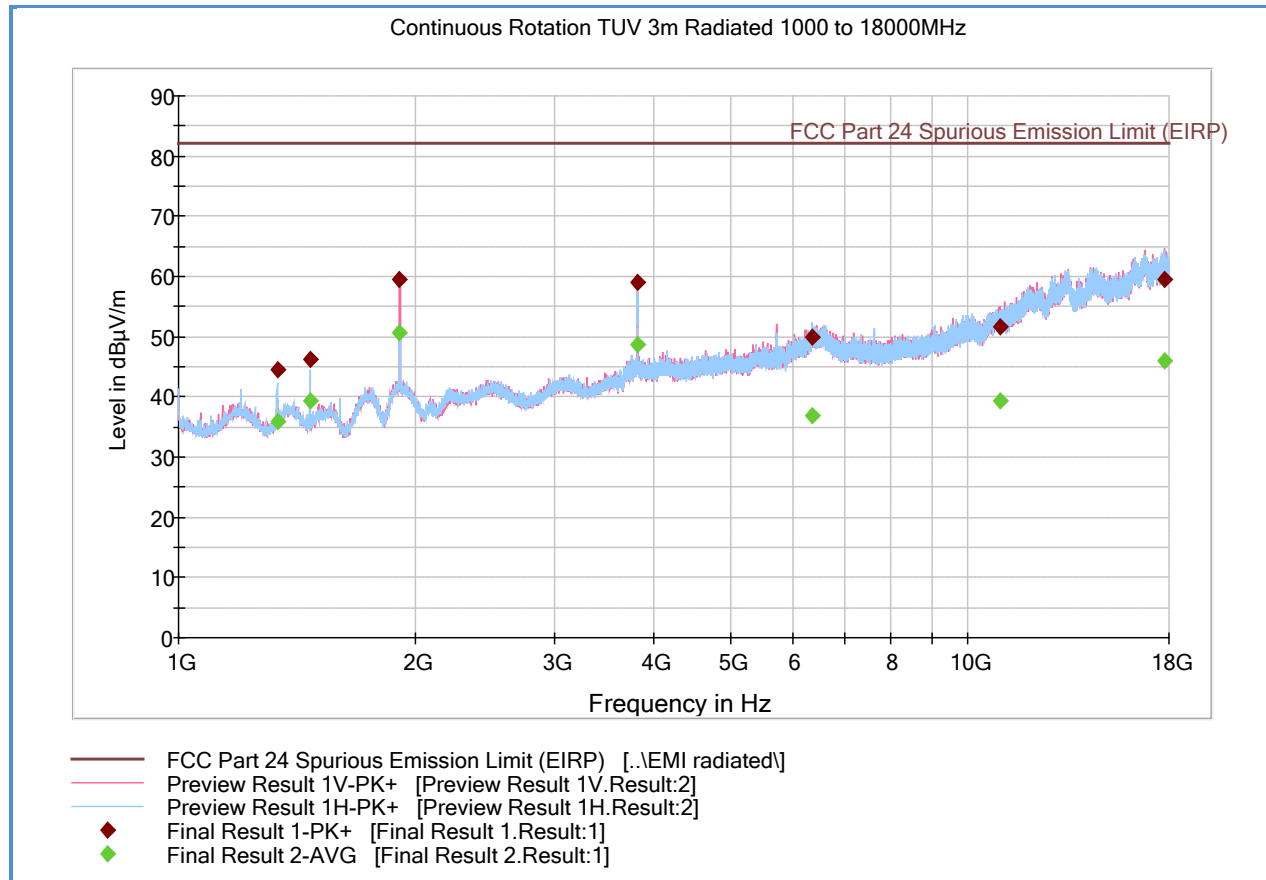
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.433333	45.8	38.1	1000.0	1000.000	128.7	H	316.0	-5.0	36.5	44.2	82.2
1466.566667	45.7	38.5	1000.0	1000.000	144.7	H	319.0	-5.2	36.5	43.7	82.2
1879.100000	60.4	51.7	1000.0	1000.000	99.7	V	209.0	-1.8	21.8	30.5	82.2
3758.166667	56.0	45.9	1000.0	1000.000	120.7	V	163.0	5.3	26.2	36.3	82.2
6532.333333	49.5	36.7	1000.0	1000.000	202.3	V	323.0	12.8	32.7	45.6	82.2
10973.73333	52.4	38.8	1000.0	1000.000	154.6	V	136.0	17.0	29.8	43.4	82.2
16787.53333	60.1	47.0	1000.0	1000.000	202.3	V	225.0	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

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.56 Test Results Above 1GHz_WCDMA_PCS Band 2_High Channel (9538)



Peak/Average Data

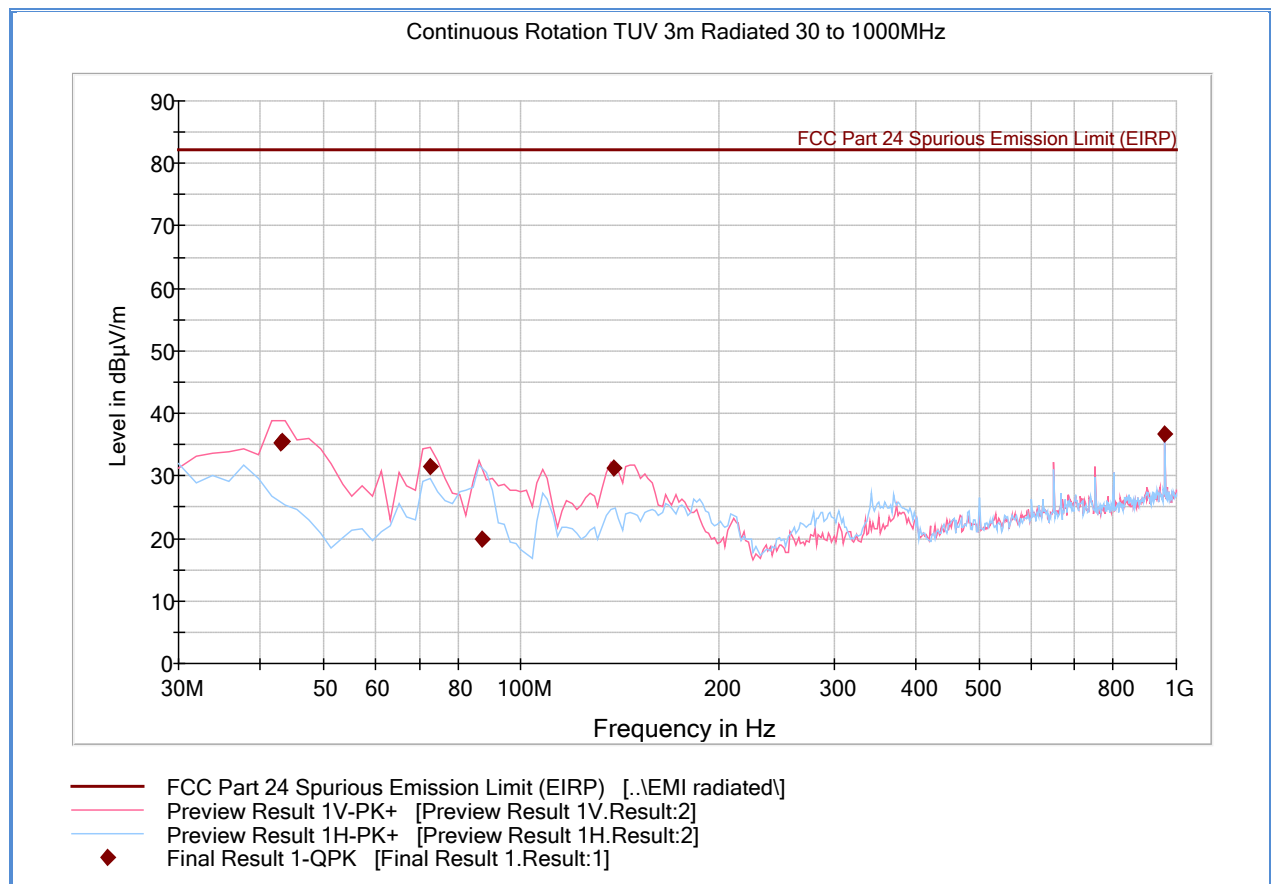
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1333.000000	44.5	35.9	1000.0	1000.000	136.7	H	319.0	-5.0	37.7	46.3	82.2
1466.566667	46.2	39.4	1000.0	1000.000	128.7	H	329.0	-5.2	36.1	42.9	82.2
1906.500000	59.4	50.6	1000.0	1000.000	113.7	V	246.0	-1.5	22.8	31.6	82.2
3817.100000	59.1	48.8	1000.0	1000.000	228.4	H	143.0	6.0	23.1	33.5	82.2
6365.000000	49.9	36.8	1000.0	1000.000	403.6	H	323.0	12.6	32.3	45.4	82.2
11000.500000	51.7	39.2	1000.0	1000.000	146.7	V	213.0	17.1	30.5	43.0	82.2
17751.800000	59.4	46.1	1000.0	1000.000	103.7	V	2.0	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 2GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.57 Test Results Below 1GHz_Worst Case Configuration
LTE Band 2_QPSK_1.4MHz BW_Mid Channel (18900)

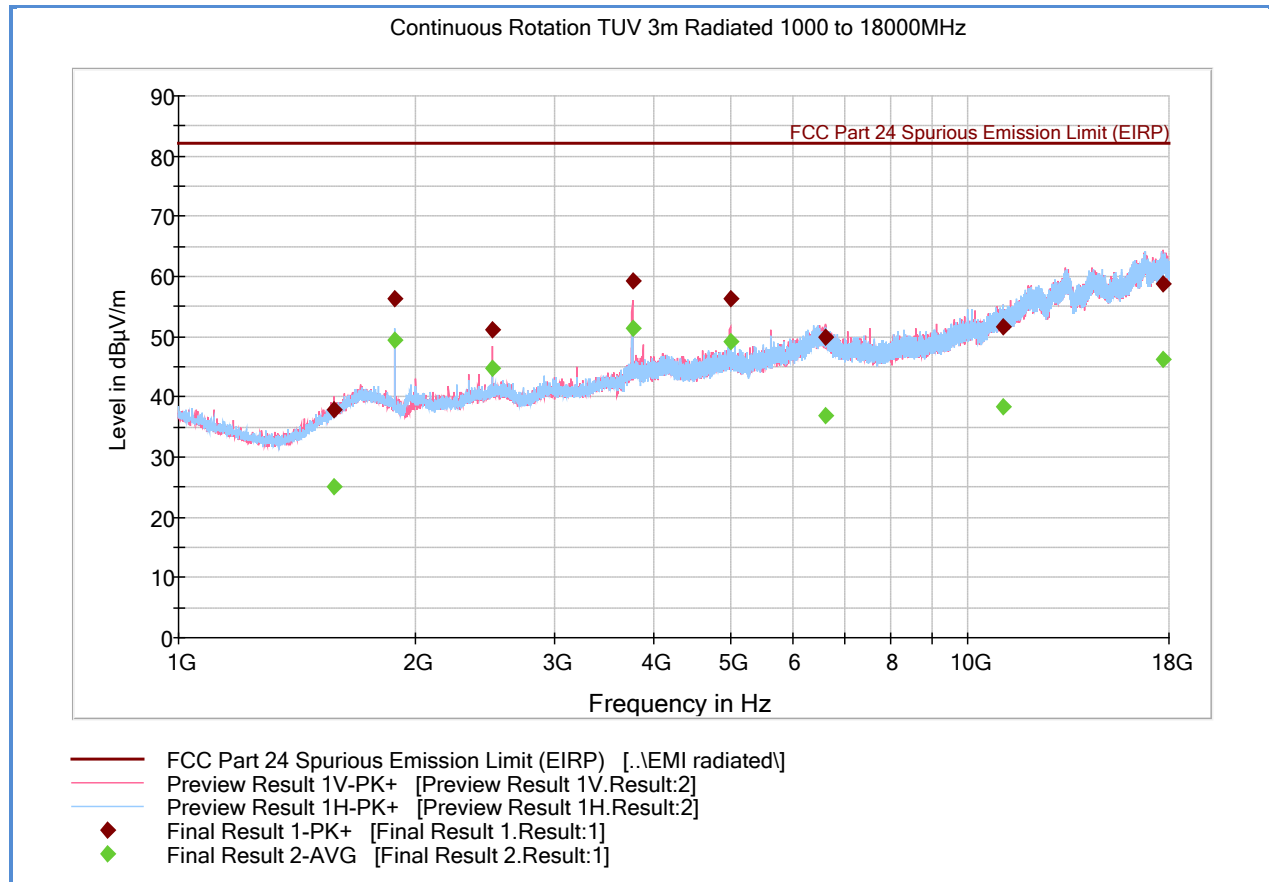


Quasi Peak Data

Frequency (MHz)	QuasiPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
43.063327	35.2	1000.0	120.000	100.0	V	141.0	-16.9	49.2	84.4
43.087214	35.5	1000.0	120.000	100.0	V	190.0	-16.9	49.0	84.4
72.645531	31.4	1000.0	120.000	100.0	V	102.0	-21.4	53.0	84.4
87.092745	19.8	1000.0	120.000	200.0	V	355.0	-20.4	64.6	84.4
138.473828	31.3	1000.0	120.000	109.0	V	151.0	-19.2	53.1	84.4
960.082244	36.8	1000.0	120.000	100.0	V	98.0	2.4	47.6	84.4

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

2.7.58 Test Results Above 1GHz_LTE Band 2_QPSK_1.4MHz BW_Low Channel (18607)



Peak/Average Data

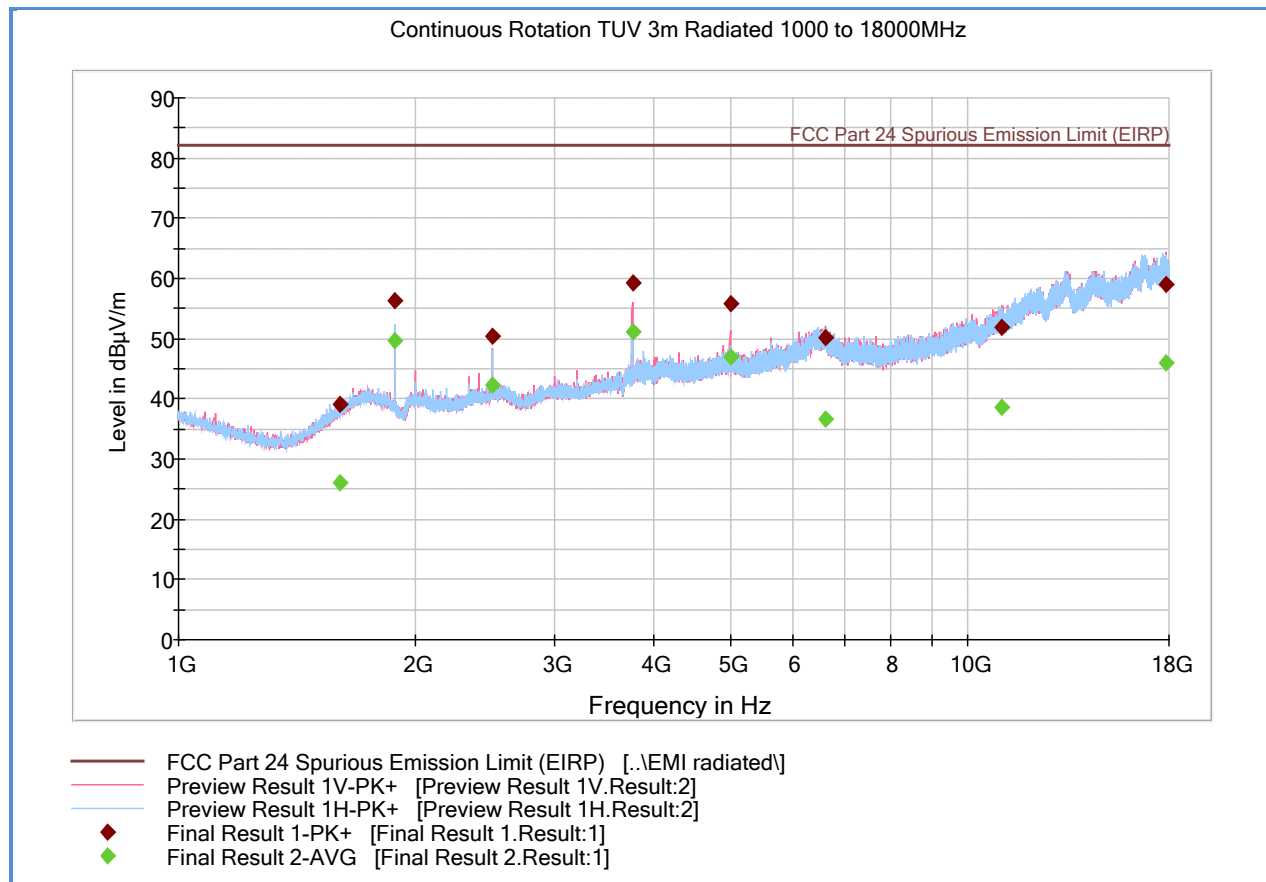
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1573.700000	37.8	25.2	1000.0	1000.000	200.5	V	232.0	-5.0	44.4	57.0	82.2
1879.833333	56.2	49.5	1000.0	1000.000	115.7	H	164.0	-1.8	26.0	32.7	82.2
2500.166667	51.2	44.8	1000.0	1000.000	113.7	V	346.0	0.2	31.1	37.4	82.2
3759.866667	59.4	51.4	1000.0	1000.000	102.7	V	88.0	5.3	22.9	30.9	82.2
4999.900000	56.3	49.3	1000.0	1000.000	136.7	V	338.0	7.6	26.0	32.9	82.2
6596.033333	49.8	36.8	1000.0	1000.000	249.3	V	351.0	12.8	32.4	45.4	82.2
11097.10000	51.6	38.3	1000.0	1000.000	404.4	V	177.0	16.5	30.6	43.9	82.2
17705.86666	58.8	46.2	1000.0	1000.000	323.2	V	338.0	25.6	23.4	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 2GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.59 Test Results Above 1GHz_LTE Band 2_QPSK_1.4MHz BW_Mid Channel (18900)



Peak/Average Data

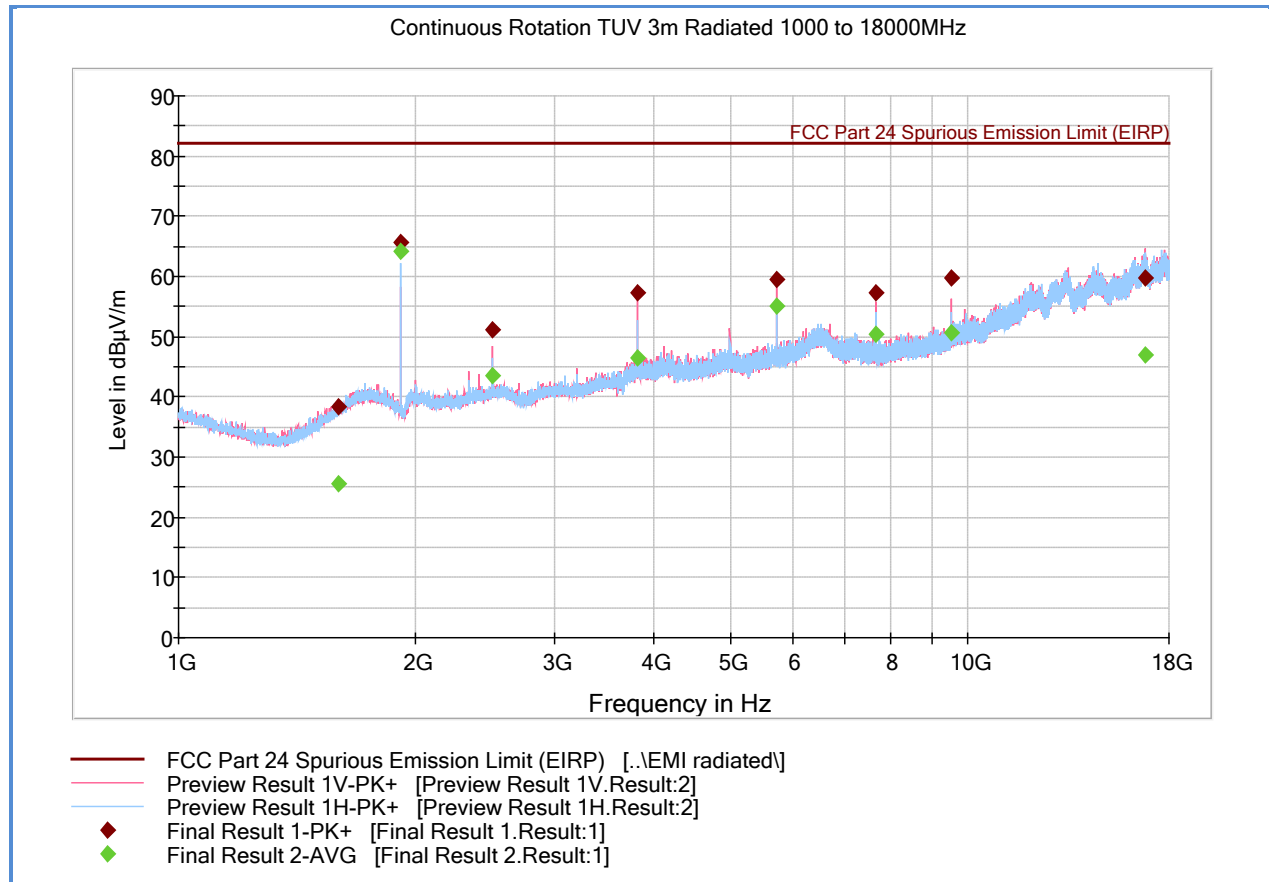
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Peak Margin (dB)	Average Margin (dB)	Limit (dBμV/m)
1602.800000	39.0	26.1	1000.0	1000.000	404.4	H	276.0	-4.9	43.2	56.2	82.2
1879.866667	56.3	49.6	1000.0	1000.000	114.7	H	163.0	-1.8	25.9	32.6	82.2
2499.766667	50.4	42.4	1000.0	1000.000	99.7	V	349.0	0.2	31.9	39.8	82.2
3759.866667	59.1	51.0	1000.0	1000.000	103.7	V	87.0	5.3	23.1	31.2	82.2
4999.900000	55.7	47.1	1000.0	1000.000	161.6	V	337.0	7.6	26.5	35.1	82.2
6616.066667	50.1	36.6	1000.0	1000.000	153.7	V	18.0	12.7	32.1	45.6	82.2
11066.066666	52.0	38.6	1000.0	1000.000	187.5	V	294.0	16.7	30.2	43.7	82.2
17809.23333	58.9	46.1	1000.0	1000.000	120.7	V	54.0	25.8	23.3	36.2	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

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2GHz notch filter. Substitution data not required since margin is >20dB compared to the -13dBm limit (converted to field strength @ 3 meters).

2.7.60 Test Results Above 1GHz_LTE Band 2_QPSK_1.4MHz BW_High Channel (19193)



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)
1592.733333	38.3	25.7	1000.0	1000.000	144.7	V	202.0	-4.9	43.9	56.5	82.2
1909.700000	65.6	64.1	1000.0	1000.000	114.7	H	162.0	-1.5	16.6	18.1	82.2
2500.166667	51.1	43.6	1000.0	1000.000	112.7	V	350.0	0.2	31.2	38.6	82.2
3818.966667	57.2	46.4	1000.0	1000.000	99.7	V	269.0	6.0	25.0	35.8	82.2
5729.200000	59.5	55.0	1000.0	1000.000	145.7	V	282.0	9.6	22.8	27.2	82.2
7638.866667	57.3	50.4	1000.0	1000.000	199.5	V	292.0	10.6	25.0	31.9	82.2
9548.933333	59.8	50.8	1000.0	1000.000	162.6	V	197.0	13.5	22.4	31.5	82.2
16798.23333	59.8	47.0	1000.0	1000.000	219.4	V	183.0	25.9	22.5	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
1909.700000	65.6	-3.3	8.2	-34.61	-29.62	-13	Complies

Test Notes: Only worst case modulation/bandwidth presented for spurious emissions above 1GHz. Measurement was performed with a 1800MHz to 2GHz notch filter. Substitution data required when margin is <20dB compared to the -13dBm limit (converted to field strength @ 3 meters).



2.8 FREQUENCY STABILITY

2.8.1 Specification Reference

Part 22 Subpart H §22.355 and Part 24 Subpart E §24.235

2.8.2 Standard Applicable

(§22.355) Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C–1 of this section.

Table C–1—Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency range (MHz)	Mobile ≤ 3 watts (ppm)
821 to 896	2.5

(§24.235) The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

2.8.3 Equipment Under Test and Modification State

Serial No: SS220414800535 / Test Configuration A

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

June 23 and 24, 2014 / AC

2.8.5 Test Equipment Used

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

2.8.6 Environmental Conditions/ Test Location

Test performed at TÜV SÜD America Inc. Rancho Bernardo facility

Ambient Temperature	25.4°C
Relative Humidity	51.7%
ATM Pressure	98.7 kPa

2.8.7 Additional Observations

- This is a conducted test. The spectrum was searched from 30MHz to the 10th harmonic (25GHz).
- Measurement was done using the Spectrum Analyzer's Complementary Cumulative Distribution Function (CCDF) measurement profile. The built-in function is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth (crest factor or peak-to-average ratio)



2.8.8 Test Results

See attached Tables.



CDMA 2000 – 1xRTT Cell Band (BC0) High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Deviation Limit (Hz)
100	3.8	-30	848.31	7.48	2120.775
100		-20		-8.37	2120.775
100		-10		-6.23	2120.775
100		0		5.30	2120.775
100		+10		-6.21	2120.775
100		+20		2.17	2120.775
100		+30		-2.26	2120.775
100		+40		-2.92	2120.775
100		+50		-6.05	2120.775
115	4.37	+20		1.61	2120.775
85	3.23	+20		2.03	2120.775

CDMA 2000 – 1xRTT PCS Band (BC1) High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Operating within the 1850-1910 Band <1.25MHZ
100	3.8	-30	1908.75	-11.11	Complies
100		-20		-9.64	Complies
100		-10		-10.07	Complies
100		0		-9.69	Complies
100		+10		-8.73	Complies
100		+20		-4.81	Complies
100		+30		-4.62	Complies
100		+40		-5.41	Complies
100		+50		-8.33	Complies
115	4.37	+20		-4.47	Complies
85	3.23	+20		-4.52	Complies



CDMA 2000 – 1xEV-DO Release 0 Cell Band (BC0) High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Deviation Limit (Hz)
100	3.8	-30	848.31	-2.90	2120.775
100		-20		3.83	2120.775
100		-10		3.07	2120.775
100		0		2.87	2120.775
100		+10		3.51	2120.775
100		+20		-3.70	2120.775
100		+30		-4.88	2120.775
100		+40		-8.50	2120.775
100		+50		-6.22	2120.775
115	4.37	+20		-3.33	2120.775
85	3.23	+20		-3.69	2120.775

CDMA 2000 – 1xEV-DO Release 0 PCS Band (BC1) High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Operating within the 1850-1910 Band <1.25MHz
100	3.8	-30	1908.75	3.91	Complies
100		-20		7.80	Complies
100		-10		6.66	Complies
100		0		-2.91	Complies
100		+10		-4.60	Complies
100		+20		-10.30	Complies
100		+30		-13.35	Complies
100		+40		-14.18	Complies
100		+50		-8.06	Complies
115	4.37	+20		-11.15	Complies
85	3.23	+20		-10.14	Complies



CDMA 2000 – 1xEV-DO Release A Cell Band (BC0) Low Channel					
<i>Voltage (%)</i>	<i>Power (VDC)</i>	<i>Temp (°C)</i>	<i>Frequency (MHz)</i>	<i>Frequency Deviation (Hz)</i>	<i>Deviation Limit (Hz)</i>
100	3.8	-30	824.7	-3.74	2120.775
100		-20		2.29	2120.775
100		-10		-2.26	2120.775
100		0		-2.52	2120.775
100		+10		-2.40	2120.775
100		+20		-2.24	2120.775
100		+30		-3.45	2120.775
100		+40		3.00	2120.775
100		+50		-2.73	2120.775
115	4.37	+20		2.59	2120.775
85	3.23	+20		2.63	2120.775

CDMA 2000 – 1xEV-DO Release A PCS Band (BC1) High Channel					
<i>Voltage (%)</i>	<i>Power (VDC)</i>	<i>Temp (°C)</i>	<i>Frequency (MHz)</i>	<i>Frequency Deviation (Hz)</i>	<i>Operating within the 1850-1910 Band <1.25MHZ</i>
100	3.8	-30	1908.75	6.34	Complies
100		-20		8.67	Complies
100		-10		6.69	Complies
100		0		4.36	Complies
100		+10		-4.14	Complies
100		+20		-9.45	Complies
100		+30		-12.01	Complies
100		+40		-13.39	Complies
100		+50		-11.74	Complies
115	4.37	+20		-10.33	Complies
85	3.23	+20		-9.52	Complies



GSM850 / GSM1900 (GPRS) Cell Band Low Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Deviation Limit (Hz)
100	3.8	-30	824.2	29.40	2120.775
100		-20		26.24	2120.775
100		-10		25.70	2120.775
100		0		26.41	2120.775
100		+10		26.89	2120.775
100		+20		22.47	2120.775
100		+30		22.35	2120.775
100		+40		18.85	2120.775
100		+50		27.80	2120.775
115	4.37	+20		20.31	2120.775
85	3.23	+20		19.65	2120.775

GSM850 / GSM1900 (GPRS) PCS Band High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Operating within the 1850-1910 Band <1.25MHz
100	3.8	-30	1909.8	68.41	Complies
100		-20		66.95	Complies
100		-10		65.68	Complies
100		0		65.89	Complies
100		+10		62.80	Complies
100		+20		94.94	Complies
100		+30		118.67	Complies
100		+40		56.38	Complies
100		+50		59.13	Complies
115	4.37	+20		102.95	Complies
85	3.23	+20		101.39	Complies



GSM850 / GSM1900 (EGPRS) Cell Band High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Deviation Limit (Hz)
100	3.8	-30	848.8	49.31	2120.775
100		-20		46.39	2120.775
100		-10		50.30	2120.775
100		0		50.81	2120.775
100		+10		52.45	2120.775
100		+20		48.34	2120.775
100		+30		48.09	2120.775
100		+40		48.04	2120.775
100		+50		50.97	2120.775
115	4.37	+20		41.21	2120.775
85	3.23	+20		46.86	2120.775

GSM850 / GSM1900 (EGPRS) PCS Band High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Operating within the 1850-1910 Band <1.25MHZ
100	3.8	-30	1909.8	90.21	Complies
100		-20		89.09	Complies
100		-10		90.65	Complies
100		0		96.28	Complies
100		+10		93.64	Complies
100		+20		92.41	Complies
100		+30		88.29	Complies
100		+40		84.89	Complies
100		+50		103.14	Complies
115	4.37	+20		87.84	Complies
85	3.23	+20		85.01	Complies



WCDMA (3GPP Release Version 99) Cell Band 5 High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Deviation Limit (Hz)
100	3.8	-30	846.6	5.00	2120.775
100		-20		5.03	2120.775
100		-10		4.46	2120.775
100		0		3.65	2120.775
100		+10		-4.93	2120.775
100		+20		-5.22	2120.775
100		+30		-6.71	2120.775
100		+40		-6.13	2120.775
100		+50		-6.92	2120.775
115	4.37	+20		-4.68	2120.775
85	3.23	+20		-4.95	2120.775

WCDMA (3GPP Release Version 99) PCS Band 2 High Channel					
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (MHz)	Frequency Deviation (Hz)	Operating within the 1850-1910 Band <1.25MHZ
100	3.8	-30	1907.6	10.81	Complies
100		-20		12.16	Complies
100		-10		10.59	Complies
100		0		9.42	Complies
100		+10		-8.58	Complies
100		+20		-8.15	Complies
100		+30		-13.59	Complies
100		+40		-11.37	Complies
100		+50		-12.48	Complies
115	4.37	+20		-9.14	Complies
85	3.23	+20		-7.68	Complies



LTE Band 2 – QPSK 1.4MHz – Low Channel 18607 – RB 3/1					
<i>Voltage (%)</i>	<i>Power (VDC)</i>	<i>Temp (°C)</i>	<i>Frequency (MHz)</i>	<i>Frequency Deviation (Hz)</i>	<i>Operating within the 1850-1910 Band <1.25MHz</i>
100	3.8	-30	1850.7	18.81	Complies
100		-20		16.28	Complies
100		-10		13.20	Complies
100		0		16.81	Complies
100		+10		15.03	Complies
100		+20		16.77	Complies
100		+30		15.99	Complies
100		+40		19.05	Complies
100		+50		16.04	Complies
115	4.37	+20		13.48	Complies
85	3.23	+20		12.50	Complies

LTE Band 2 – 16QAM 1.4MHz – High Channel 19193 – RB 1/5					
<i>Voltage (%)</i>	<i>Power (VDC)</i>	<i>Temp (°C)</i>	<i>Frequency (MHz)</i>	<i>Frequency Deviation (Hz)</i>	<i>Operating within the 1850-1910 Band <1.25MHz</i>
100	3.8	-30	1909.3	12.77	Complies
100		-20		-10.67	Complies
100		-10		13.43	Complies
100		0		13.82	Complies
100		+10		-13.42	Complies
100		+20		12.69	Complies
100		+30		-18.74	Complies
100		+40		13.46	Complies
100		+50		12.98	Complies
115	4.37	+20		13.63	Complies
85	3.23	+20		14.43	Complies



SECTION 3

TEST EQUIPMENT USED



3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

ID Number (SDGE/SDRB)	Test Equipment	Type	Serial Number	Manufacturer	Cal Date	Cal Due Date
Conducted Port Setup						
7582	Signal/Spectrum Analyzer	FSW26	101614	Rhode & Schwarz	11/19/13	11/19/14
7569	Series Power Meter	N1911A P-	MY45100625	Agilent	04/22/14	04/22/15
7570	50MHz-18GHz Wideband Power Sensor	N1921A	MY45240588	Agilent	04/09/14	04/09/15
7934 (Novatel)	Wireless Communication Tester	8960 Series 10	GB46110922	Agilent	04/25/13	04/25/15
Radiated Test Setup						
1051	Double-ridged waveguide horn antenna	3115	9408-4329	EMCO	02/28/14	02/28/16
1150	Horn antenna	3160-09	012054-004	ETS	04/26/13	04/26/15
1040	EMI Test Receiver	ESIB40	100292	Rhode & Schwarz	07/31/13	07/31/14
1002	Bilog Antenna	3142C	00058717	ETS-Lindgren	01/30/14	01/30/16
1016	Pre-amplifier	PAM-0202	187	PAM	10/08/13	10/08/14
1049	EMI Test Receiver	ESU	100133	Rhode & Schwarz	03/17/14	03/17/15
7575	Double-ridged waveguide horn antenna	3117	00155511	EMCO	04/08/14	04/08/15
8628	Pre-amplifier	QLJ 01182835-JO	8986002	QuinStar Technologies Inc.	04/03/14	04/03/15
Miscellaneous						
	Test Software	EMC32	V8.53	Rhode & Schwarz	N/A	
1072	DC Power Supply	E3610A	KR51311519	Hewlett Packard	Verified by 6452	
6452	Multimeter	3478A	2911A52177	Hewlett Packard	08/02/13	08/02/14
7562	Wideband Radio Communication Tester	CMW 500	1201.0002k50/103829	Rhode & Schwarz	10/09/13	10/09/15
7579	Temperature Chamber	115	151617	TestQuity	07/16/13	07/16/14
7560	Barometer/Temperature /Humidity Transmitter	iBTHX-W	1240476	Omega	01/30/14	01/30/15

3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:

3.2.1 Radiated Emission Measurements (Below 1GHz)

Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.45	0.26	0.07
2	Cables	Rectangular	0.50	0.29	0.08
3	Preamp	Rectangular	0.50	0.29	0.08
4	Antenna	Rectangular	0.75	0.43	0.19
5	Site	Rectangular	3.89	2.25	5.04
6	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					2.41
Coverage Factor (k):					2
Expanded Uncertainty:					4.82

3.2.2 Radiated Emission Measurements (Above 1GHz)

Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.57	0.33	0.11
2	Cables	Rectangular	0.70	0.40	0.16
3	Preamp	Rectangular	0.50	0.29	0.08
4	Antenna	Rectangular	0.37	0.21	0.05
5	Site	Rectangular	3.89	2.25	5.04
6	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					2.40
Coverage Factor (k):					2
Expanded Uncertainty:					4.81

3.2.3 Conducted Antenna Port Measurement

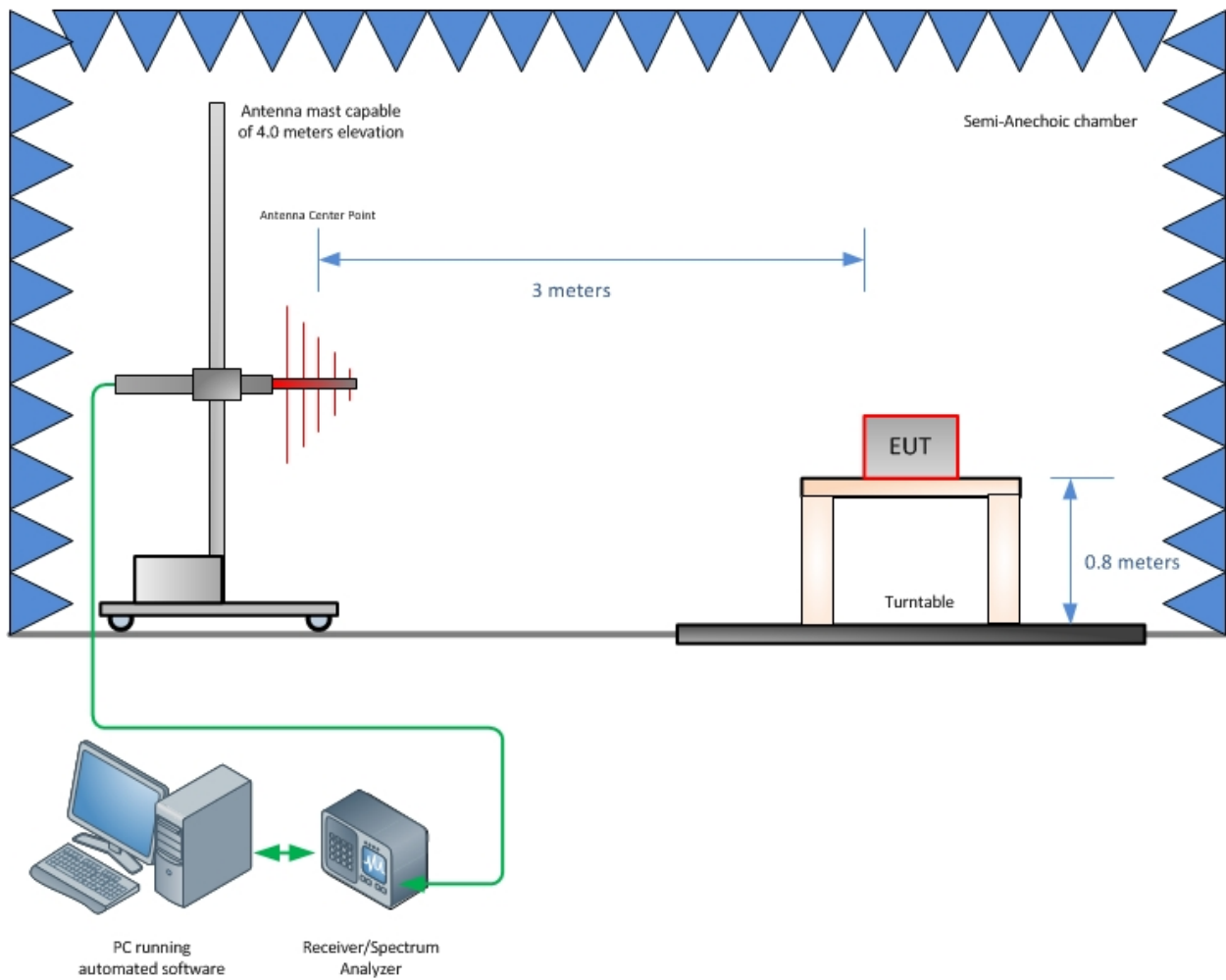
Contribution		Probability Distribution Type	Probability Distribution x_i	Standard Uncertainty $u(x_i)$	$[u(x_i)]^2$
1	Receiver/Spectrum Analyzer	Rectangular	0.57	0.33	0.11
2	Cables	Rectangular	0.50	0.29	0.08
3	EUT Setup	Rectangular	1.00	0.58	0.33
Combined Uncertainty (u_c):					0.72
Coverage Factor (k):					2
Expanded Uncertainty:					1.45



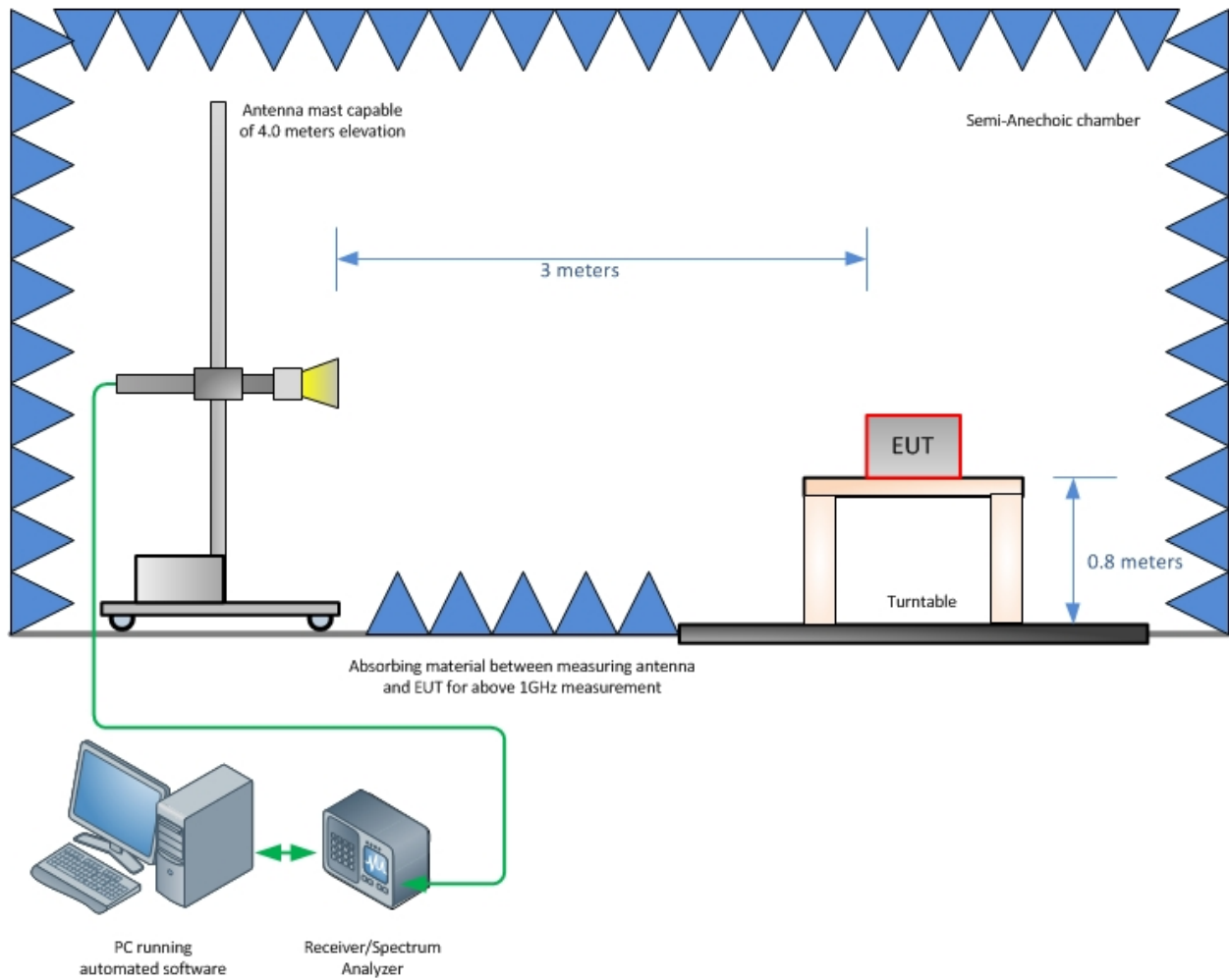
SECTION 4

DIAGRAM OF TEST SETUP

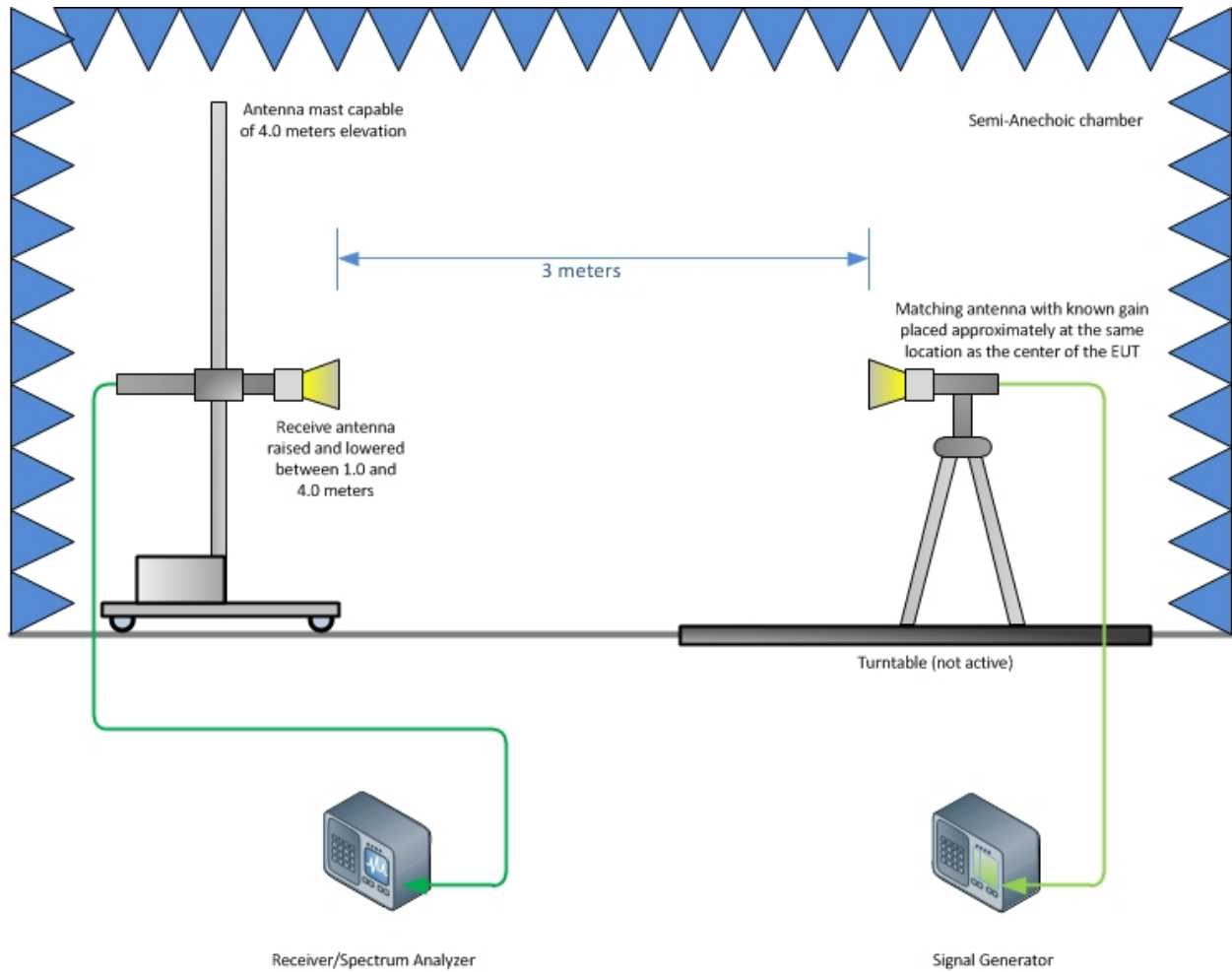
4.1 TEST SETUP DIAGRAM



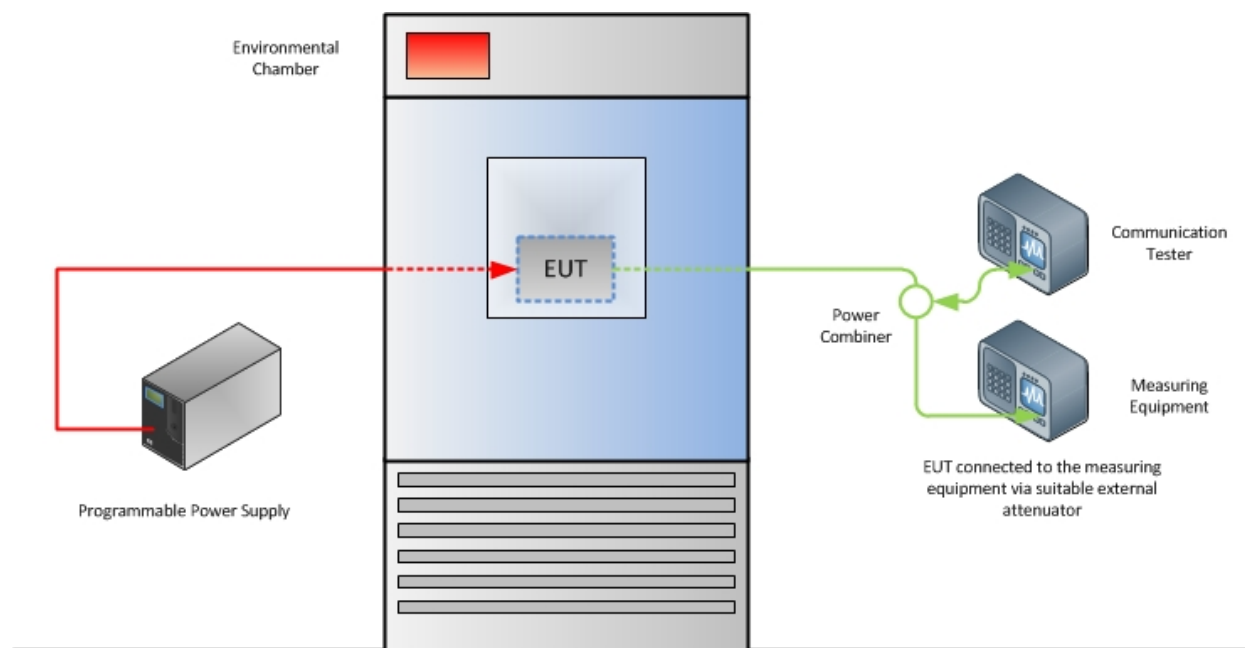
Radiated Emission Test Setup (Below 1GHz)



Radiated Emission Test Setup (Above 1GHz)



Substitution Test Method (Above 1GHz)



Frequency Stability Test Configuration



SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



5.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

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