2.8. Radiated Out of Band Emissions

2.8.1. Requirement

According to FCC section 22.917(a) and section 24.238(a) 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. This calculated to be -13dBm.

The spurious emission with frequency band 1900 according to FCC section 2.1057.

2.8.2. Test Description

See section 2.7.2 of this report.

1. Equipment List：

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
System Simulator	Agilent	E5515C	GB43130131	2014.02.26	2015.02.25
Spectrum Analyzer	Agilent	E7405A	US44210471	2014.02.26	2015.02.25
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2014.02.26	2015.02.25
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2014.02.26	2015.02.25
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2014.02.26	2015.02.25
Substitution Antenna	Schwarzbeck	BBHA 9120C	9120C-384	2014.02.26	2015.02.25
Pre-AMPs	lucix	S10M100L3802	S020180L3203	2014.02.26	2015.02.25
Notch Filter	COM-MW	ZBSF-C836.5-25-X	NA	2014.02.26	2015.02.25
Notch Filter	COM-MW	ZBSF-C1747.5-75-X2	NA	2014.02.26	2015.02.25
Notch Filter	COM-MW	ZBSF-C1880-60-X2	NA	2014.02.26	2015.02.25

Note: when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

2.8.3. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested to verify the out of band emissions.

1. Test Verdict:

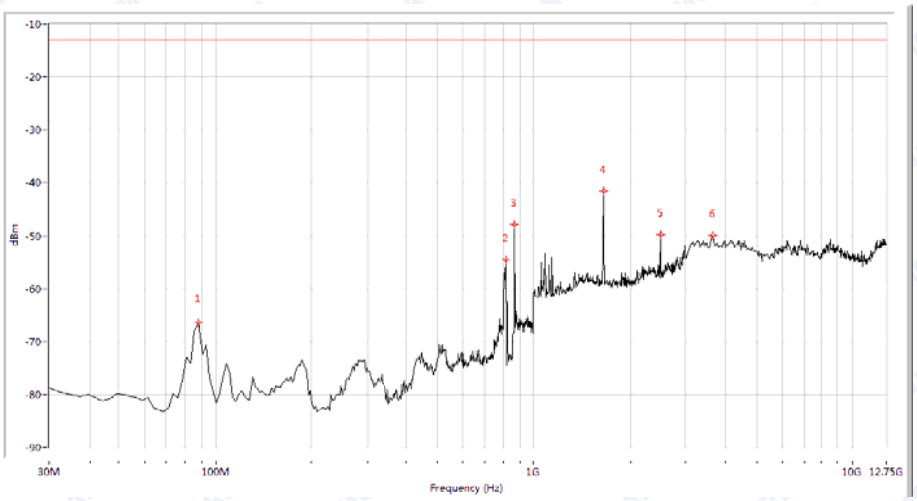
Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Refer to Plot	Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical			
GSM 850MHz	128	824.2	< -25	< -25	Plot A.1/A.2	-13	PASS
	190	836.6	< -25	< -25	Plot A.3/A.4		PASS
	251	848.8	< -25	< -25	Plot A.5/A.6		PASS
GSM 1900MHz	512	1850.2	< -25	< -25	Plot B.1/B.2	-13	PASS
	661	1880.0	< -25	< -25	Plot B.3/B.4		PASS
	810	1909.8	< -25	< -25	Plot B.5/B.6		PASS
EDGE 850MHz	128	824.2	< -25	< -25	Plot C.1/C.2	-13	PASS
	190	836.6	< -25	< -25	Plot C.3/C.4		PASS
	251	848.8	< -25	< -25	Plot C.5/C.6		PASS
EDGE 1900MHz	512	1850.2	< -25	< -25	Plot D.1/D.2	-13	PASS
	661	1880.0	< -25	< -25	Plot D.3/D.4		PASS
	810	1909.8	< -25	< -25	Plot D.5/D.6		PASS
WCDMA 850MHz	4132	826.4	< -25	< -25	Plot E.1/E.2	-13	PASS
	4175	835	< -25	< -25	Plot E.3/E.4		PASS
	4233	846.6	< -25	< -25	Plot E.5/E.6		PASS
WCDMA 1900MHz	9262	1852.4	< -25	< -25	Plot F.1/F.2	-13	PASS
	9400	1880	< -25	< -25	Plot F.3/F.4		PASS
	9538	1907.6	< -25	< -25	Plot F.5/F.6		PASS
HSDPA 850MHz	4132	826.4	< -25	< -25	Plot G.1/G.2	-13	PASS
	4175	835	< -25	< -25	Plot G.3/G.4		PASS
	4233	846.6	< -25	< -25	Plot G.5/G.6		PASS
HSDPA 1900MHz	9262	1852.4	< -25	< -25	Plot H.1/H.2	-13	PASS
	9400	1880	< -25	< -25	Plot H.3/H.4		PASS
	9538	1907.6	< -25	< -25	Plot H.5/H.6		PASS
HSUPA 850MHz	4132	826.4	< -25	< -25	Plot I.1/I.2	-13	PASS
	4175	835	< -25	< -25	Plot I.3/I.4		PASS
	4233	846.6	< -25	< -25	Plot I.5/I.6		PASS
HSUPA 1900MHz	9262	1852.4	< -25	< -25	Plot J.1/J.2	-13	PASS
	9400	1880	< -25	< -25	Plot J.3/J.4		PASS
	9538	1907.6	< -25	< -25	Plot J.5/J.6		PASS
HSPA+ 850MHz	4132	826.4	< -25	< -25	Plot K.1/K.2	-13	PASS
	4175	835	< -25	< -25	Plot K.3/K.4		PASS

Band	Channel	Frequency (MHz)	Measured Max. Spurious Emission (dBm)		Refer to Plot	Limit (dBm)	Verdict
			Test Antenna Horizontal	Test Antenna Vertical			
	4233	846.6	< -25	< -25	Plot K.5/K.6		PASS
HSPA+ 1900MHz	9262	1852.4	< -25	< -25	Plot L.1/L.2	-13	PASS
	9400	1880	< -25	< -25	Plot L.3/L.4		PASS
	9538	1907.6	< -25	< -25	Plot L.5/L.6		PASS

2. Test Plots for the Whole Measurement Frequency Range:

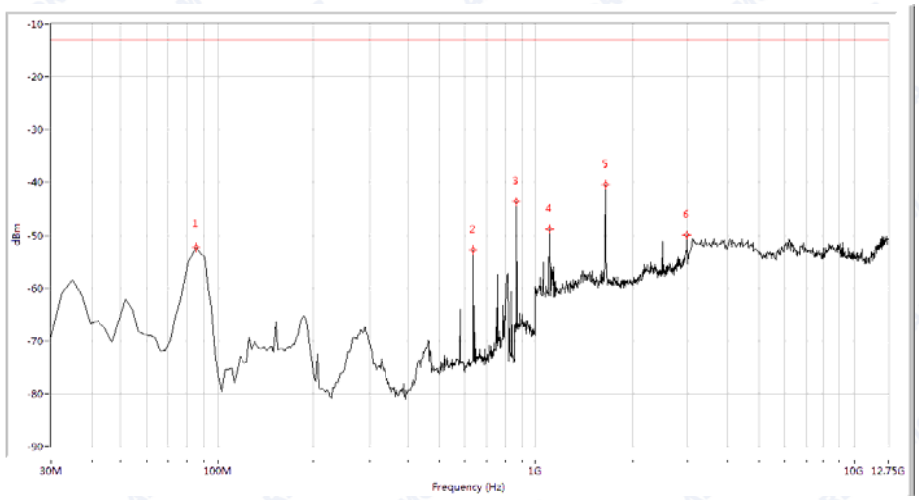
Note1: the power of the EUT transmitting frequency should be ignored.

Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.



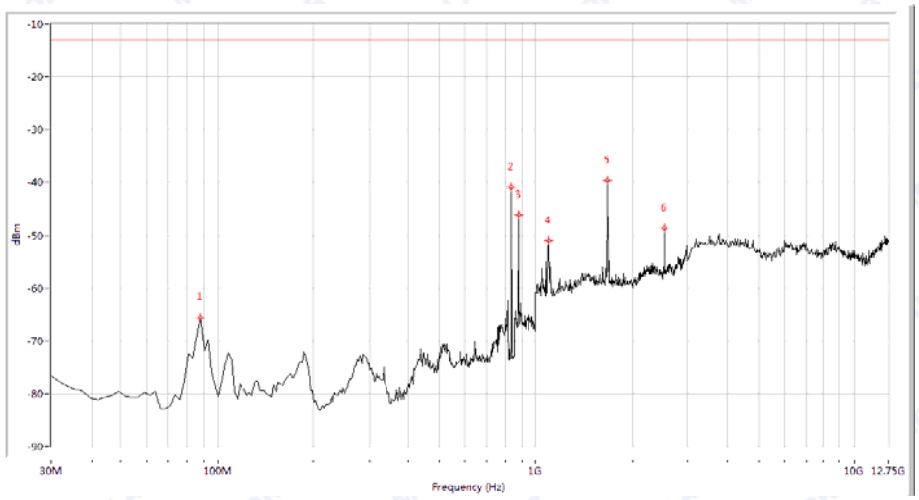
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
88.055	-66.39	-13.0	53.4	84.1	Horizontal	PASS
813.741	-54.56	-13.0	41.6	196.1	Horizontal	N.A
866.958	-47.83	-13.0	34.8	126.5	Horizontal	N.A
1648.379	-41.45	-13.0	28.5	226.6	Horizontal	PASS
2471.322	-49.73	-13.0	36.7	292.9	Horizontal	PASS
3656.484	-49.92	-13.0	36.9	281.0	Horizontal	PASS

(Plot A.1: GSM 850MHz Channel = 128, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
85.636	-52.35	-13.0	39.4	358.3	Vertical	PASS
637.157	-52.73	-13.0	39.7	185.8	Vertical	PASS
866.958	-43.58	-13.0	30.6	216.7	Vertical	N.A
1109.726	-48.83	-13.0	35.8	62.2	Vertical	PASS
1648.379	-40.40	-13.0	27.4	72.2	Vertical	PASS
2995.012	-49.96	-13.0	37.0	-0.0	Vertical	PASS

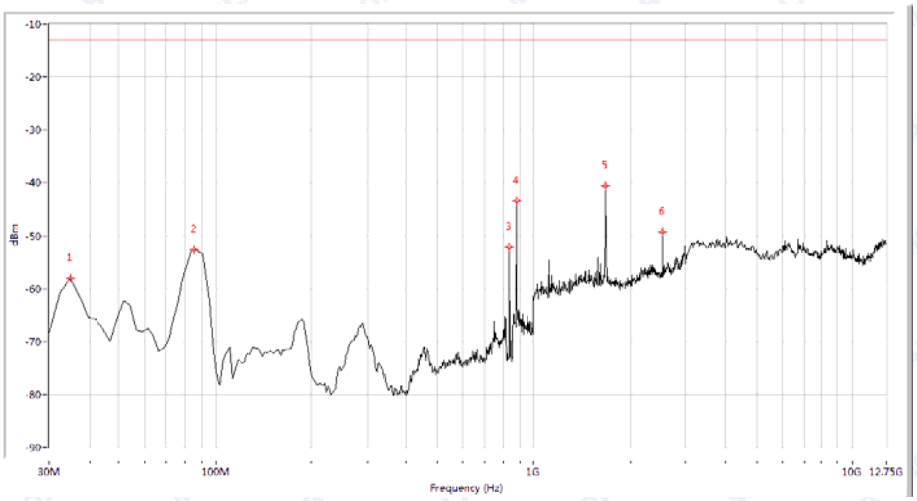
(Plot A.2: GSM 850MHz Channel = 128, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
88.055	-65.60	-13.0	52.6	86.4	Horizontal	PASS
835.511	-40.87	-13.0	27.9	333.1	Horizontal	N.A
879.052	-46.05	-13.0	33.1	128.1	Horizontal	N.A
1104.738	-51.02	-13.0	38.0	119.5	Horizontal	PASS

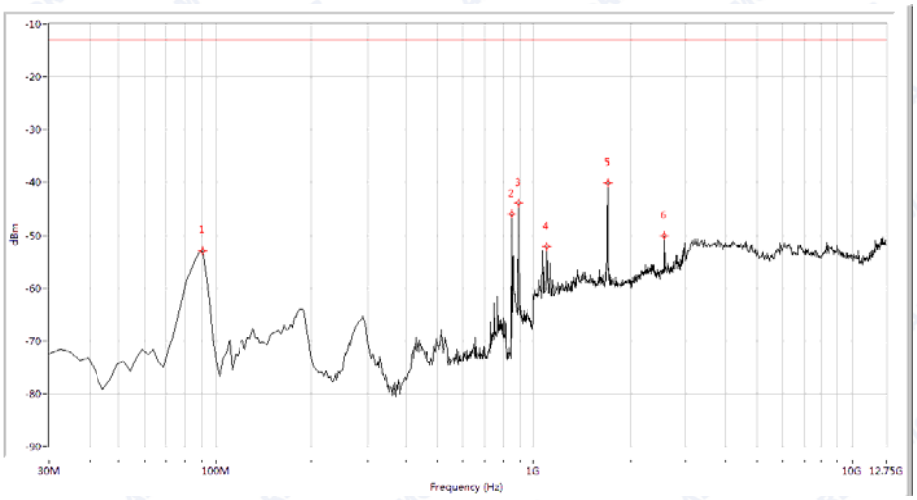
1673.317	-39.55	-13.0	26.6	230.4	Horizontal	PASS
2506.234	-48.68	-13.0	35.7	252.3	Horizontal	PASS

(Plot A.3: GSM 850MHz Channel = 190, Test Antenna Horizontal)



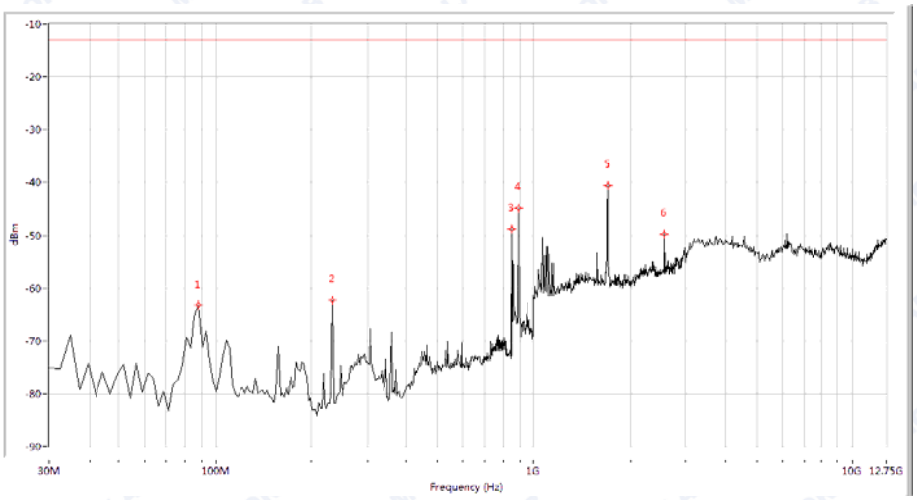
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-57.94	-13.0	44.9	344.3	Vertical	PASS
85.636	-52.61	-13.0	39.6	4.8	Vertical	PASS
835.511	-52.15	-13.0	39.1	-0.0	Vertical	N.A
879.052	-43.40	-13.0	30.4	29.4	Vertical	N.A
1673.317	-40.57	-13.0	27.6	209.9	Vertical	PASS
2506.234	-49.29	-13.0	36.3	256.5	Vertical	PASS

(Plot A.4: GSM 850MHz Channel = 190, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-53.00	-13.0	40.0	71.4	Horizontal	PASS
847.606	-45.92	-13.0	32.9	333.1	Horizontal	N.A
891.147	-43.86	-13.0	30.9	115.0	Horizontal	N.A
1104.738	-52.11	-13.0	39.1	46.6	Horizontal	PASS
1698.254	-40.10	-13.0	27.1	71.2	Horizontal	PASS
2541.147	-50.07	-13.0	37.1	238.9	Horizontal	PASS

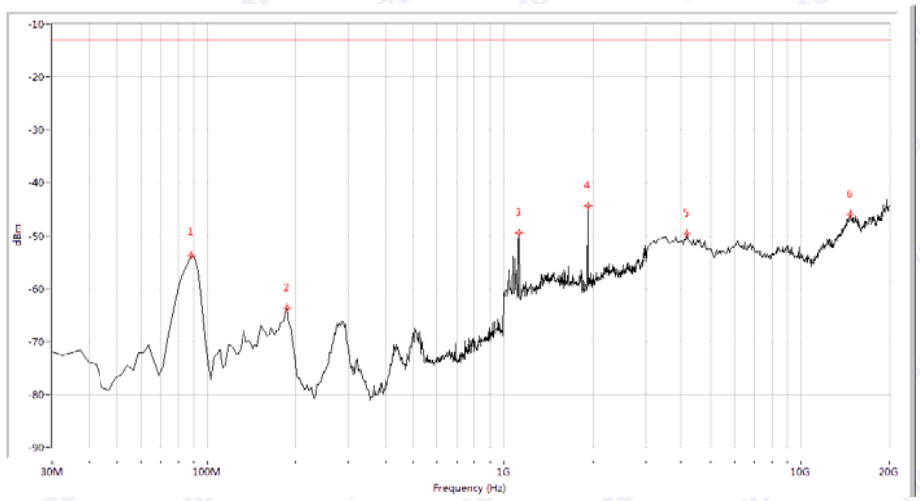
(Plot A.5: GSM 850MHz Channel = 251, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
88.055	-63.28	-13.0	50.3	52.1	Vertical	PASS
233.192	-62.24	-13.0	49.2	213.2	Vertical	PASS
847.606	-48.82	-13.0	35.8	41.7	Vertical	N.A
891.147	-44.90	-13.0	31.9	68.5	Vertical	N.A

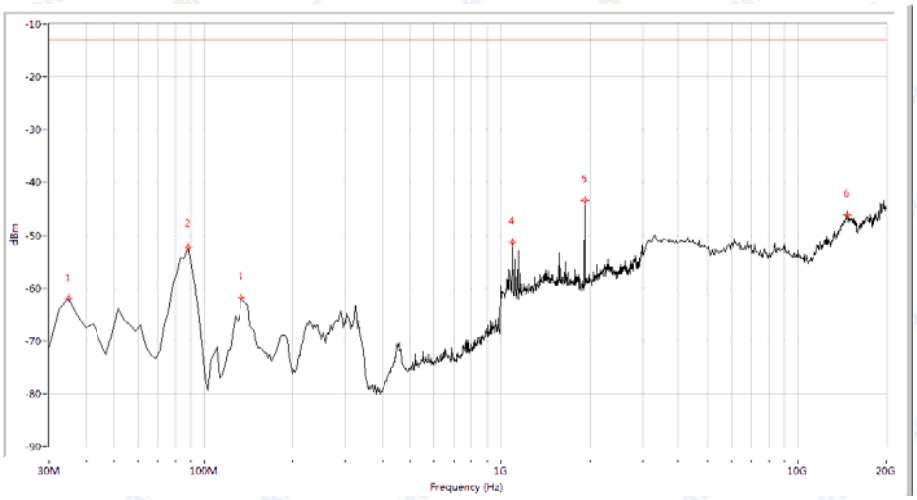
1698.254	-40.56	-13.0	27.6	261.3	Vertical	PASS
2541.147	-49.71	-13.0	36.7	250.5	Vertical	PASS

(Plot A.6: GSM 850MHz Channel = 251, Test Antenna Vertical)



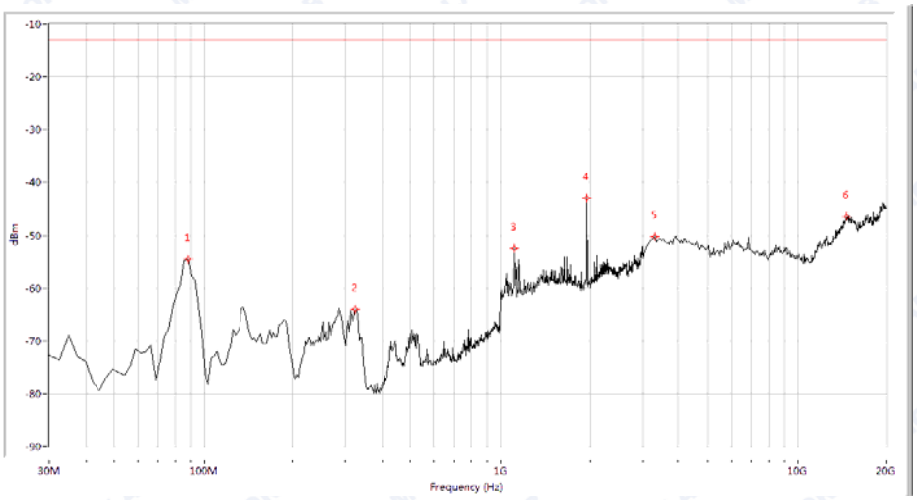
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
88.055	-53.77	-13.0	40.8	84.2	Horizontal	PASS
187.232	-63.74	-13.0	50.7	48.1	Horizontal	PASS
1124.688	-49.39	-13.0	36.4	360.0	Horizontal	PASS
1927.681	-44.39	-13.0	31.4	235.6	Horizontal	N.A
4187.032	-49.66	-13.0	36.7	206.5	Horizontal	PASS
14827.930	-45.96	-13.0	33.0	110.9	Horizontal	PASS

(Plot B.1: GSM 1900MHz Channel = 512, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-62.03	-13.0	49.0	228.9	Vertical	PASS
88.055	-52.28	-13.0	39.3	10.8	Vertical	PASS
134.015	-61.78	-13.0	48.8	21.6	Vertical	PASS
1099.751	-51.39	-13.0	38.4	359.6	Vertical	PASS
1927.681	-43.35	-13.0	30.4	153.4	Vertical	N.A
14827.930	-46.16	-13.0	33.2	-0.0	Vertical	PASS

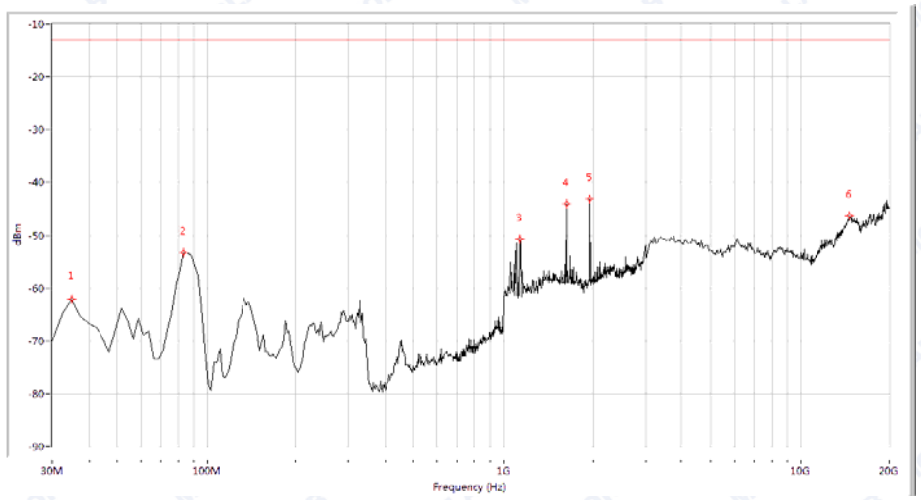
(Plot B.2: GSM 1900MHz Channel = 512, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
88.055	-54.52	-13.0	41.5	106.8	Horizontal	PASS
322.693	-63.97	-13.0	51.0	1.3	Horizontal	PASS
1109.726	-52.44	-13.0	39.4	53.2	Horizontal	PASS
1957.606	-42.94	-13.0	29.9	233.0	Horizontal	N.A

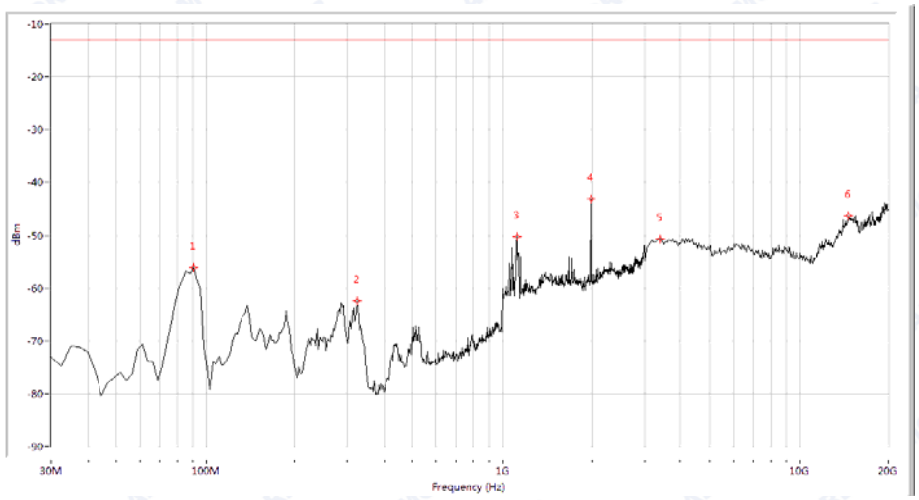
3296.758	-50.18	-13.0	37.2	92.7	Horizontal	PASS
14785.536	-46.39	-13.0	33.4	-0.0	Horizontal	PASS

(Plot B.3: GSM 1900MHz Channel = 661, Test Antenna Horizontal)



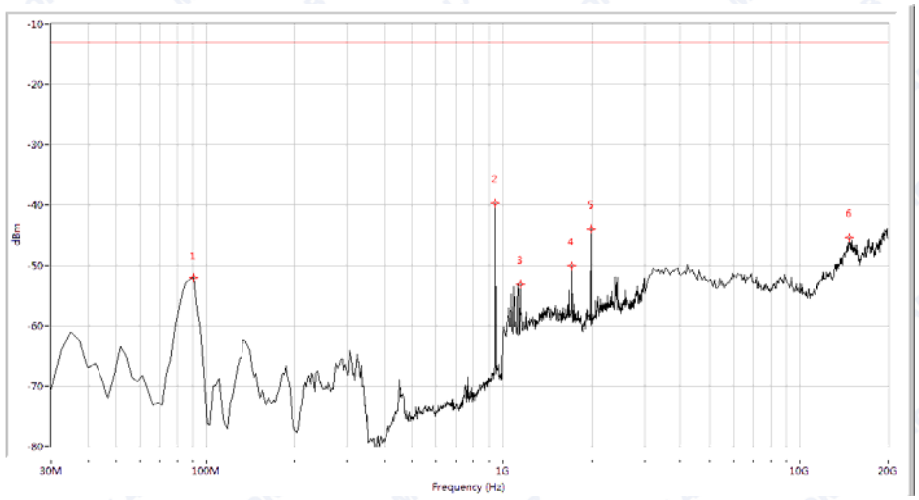
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-62.10	-13.0	49.1	65.5	Vertical	PASS
83.217	-53.26	-13.0	40.3	2.0	Vertical	PASS
1134.663	-50.79	-13.0	37.8	193.9	Vertical	PASS
1638.404	-44.13	-13.0	31.1	43.2	Vertical	PASS
1957.606	-43.16	-13.0	30.2	128.1	Vertical	N.A
14785.536	-46.35	-13.0	33.3	1.4	Vertical	PASS

(Plot B.4: GSM 1900MHz Channel = 661, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-56.09	-13.0	43.1	243.7	Horizontal	PASS
322.693	-62.49	-13.0	49.5	243.7	Horizontal	PASS
1114.713	-50.16	-13.0	37.2	78.9	Horizontal	PASS
1987.531	-43.12	-13.0	30.1	297.4	Horizontal	N.A
3381.546	-50.65	-13.0	37.6	360.0	Horizontal	PASS
14785.536	-46.31	-13.0	33.3	60.3	Horizontal	PASS

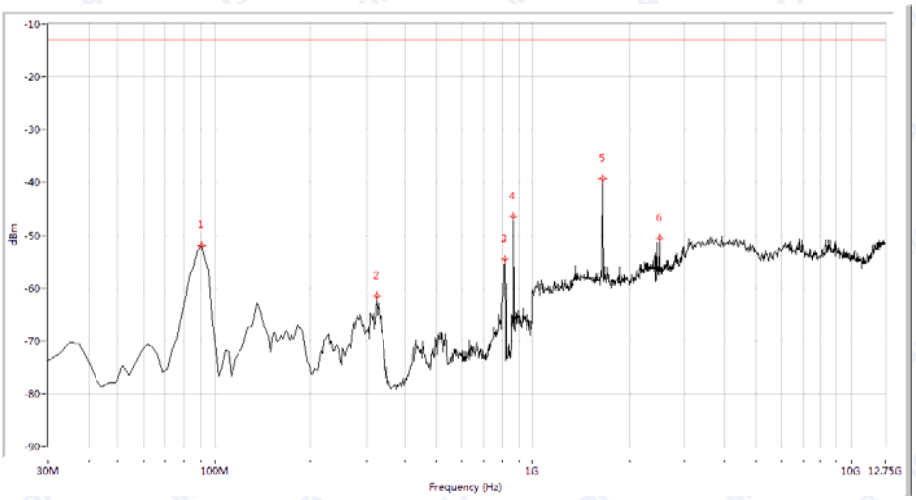
(Plot B.5: GSM 1900MHz Channel = 810, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-51.94	-13.0	38.9	47.3	Vertical	PASS
946.783	-39.69	-13.0	26.7	316.4	Vertical	PASS
1144.638	-53.10	-13.0	40.1	287.7	Vertical	PASS
1718.204	-50.01	-13.0	37.0	52.1	Vertical	PASS

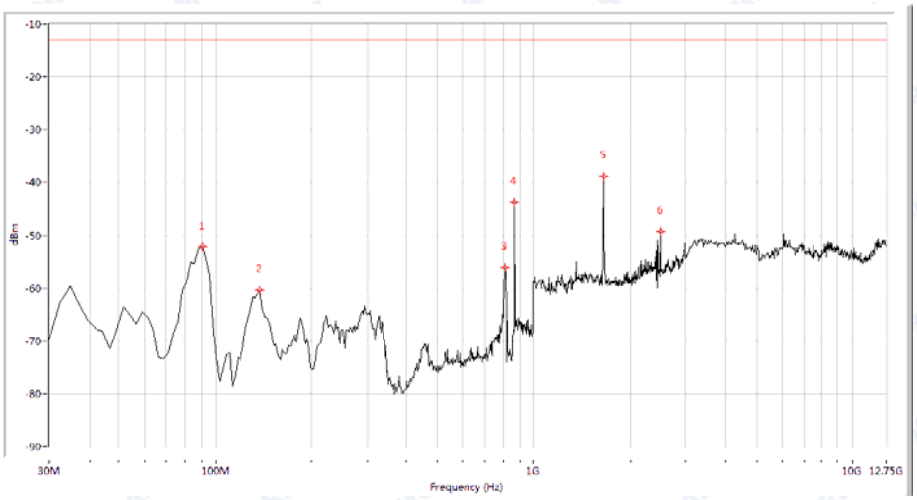
1987.531	-43.97	-13.0	31.0	164.9	Vertical	N.A
14827.930	-45.31	-13.0	32.3	345.0	Vertical	PASS

(PlotB.6: GSM 1900MHz Channel = 810, Test Antenna Vertical)



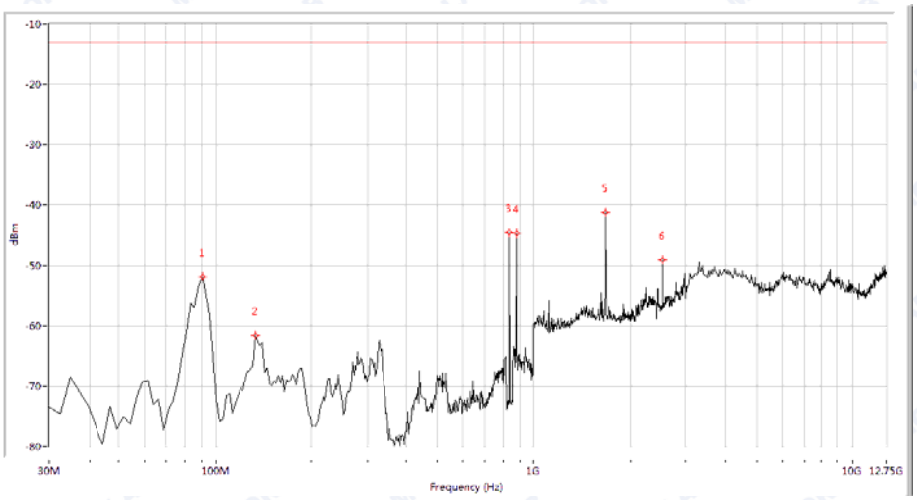
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-52.06	-13.0	39.1	99.0	Horizontal	PASS
322.693	-61.53	-13.0	48.5	135.5	Horizontal	PASS
813.741	-54.56	-13.0	41.6	303.0	Horizontal	N.A
866.958	-46.36	-13.0	33.4	2.6	Horizontal	N.A
1648.379	-39.27	-13.0	26.3	239.0	Horizontal	PASS
2471.322	-50.59	-13.0	37.6	95.4	Horizontal	PASS

(Plot C.1: EGPRS 850MHz Channel = 128, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-52.21	-13.0	39.2	0.7	Vertical	PASS
138.853	-60.31	-13.0	47.3	313.3	Vertical	PASS
811.322	-56.07	-13.0	43.1	205.8	Vertical	N.A
866.958	-43.67	-13.0	30.7	248.2	Vertical	N.A
1648.379	-38.90	-13.0	25.9	198.0	Vertical	PASS
2471.322	-49.30	-13.0	36.3	61.0	Vertical	PASS

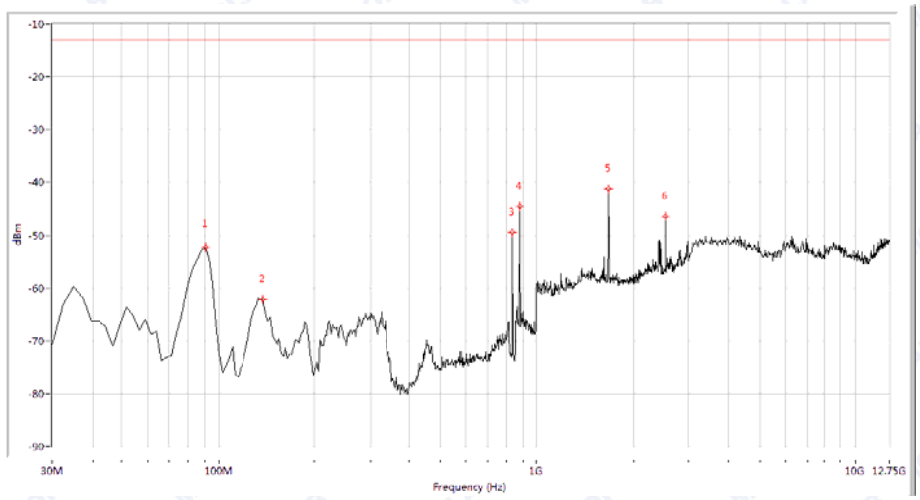
(Plot C.2: EGPRS 850MHz Channel = 128, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-51.87	-13.0	38.9	83.7	Horizontal	PASS
134.015	-61.59	-13.0	48.6	74.1	Horizontal	PASS
835.511	-44.46	-13.0	31.5	53.2	Horizontal	N.A
879.052	-44.63	-13.0	31.6	0.7	Horizontal	N.A

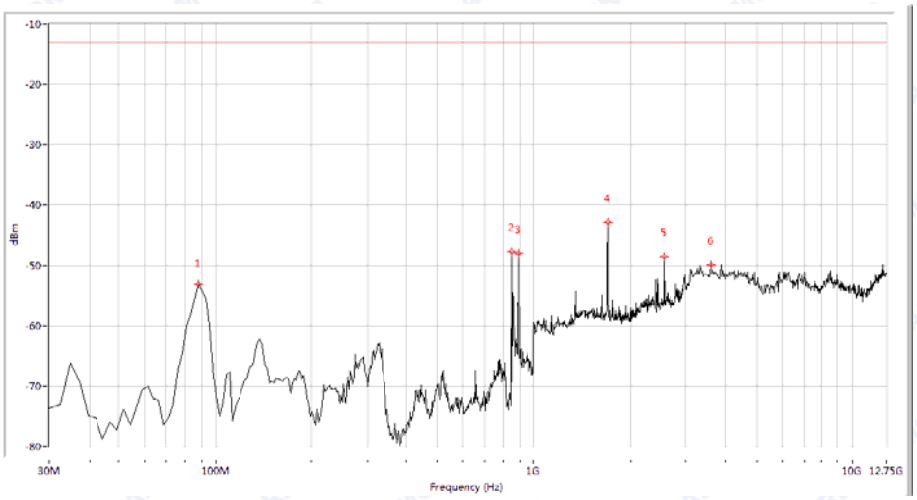
1673.317	-41.18	-13.0	28.2	222.9	Horizontal	PASS
2506.234	-49.03	-13.0	36.0	85.6	Horizontal	PASS

(Plot C.3: EGPRS 850MHz Channel = 190, Test Antenna Horizontal)



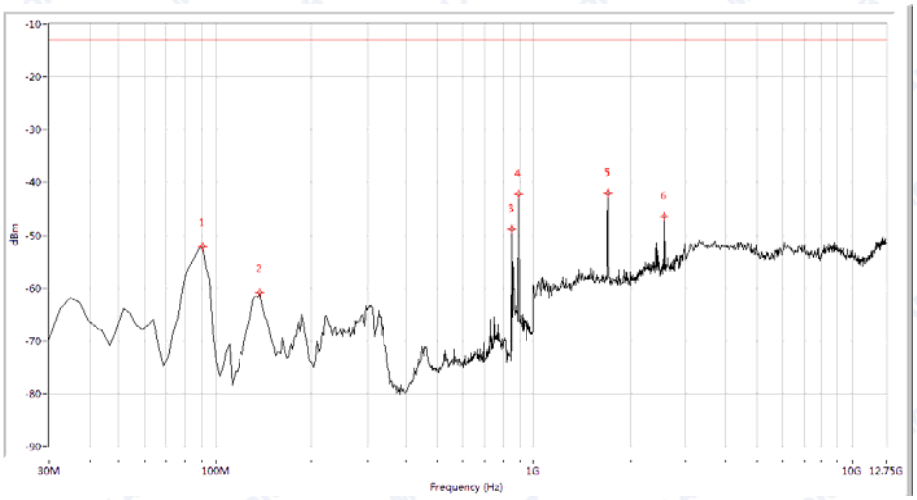
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-52.36	-13.0	39.4	332.8	Vertical	PASS
138.853	-62.06	-13.0	49.1	321.6	Vertical	PASS
835.511	-49.42	-13.0	36.4	257.2	Vertical	N.A
879.052	-44.58	-13.0	31.6	105.7	Vertical	N.A
1673.317	-41.14	-13.0	28.1	215.5	Vertical	PASS
2506.234	-46.40	-13.0	33.4	51.8	Vertical	PASS

(Plot C.4: EGPRS 850MHz Channel = 190, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
88.055	-53.06	-13.0	40.1	109.0	Horizontal	PASS
847.606	-47.71	-13.0	34.7	343.5	Horizontal	N.A
891.147	-48.04	-13.0	35.0	0.8	Horizontal	N.A
1698.254	-42.91	-13.0	29.9	179.8	Horizontal	PASS
2541.147	-48.51	-13.0	35.5	72.6	Horizontal	PASS
3607.855	-49.90	-13.0	36.9	220.7	Horizontal	PASS

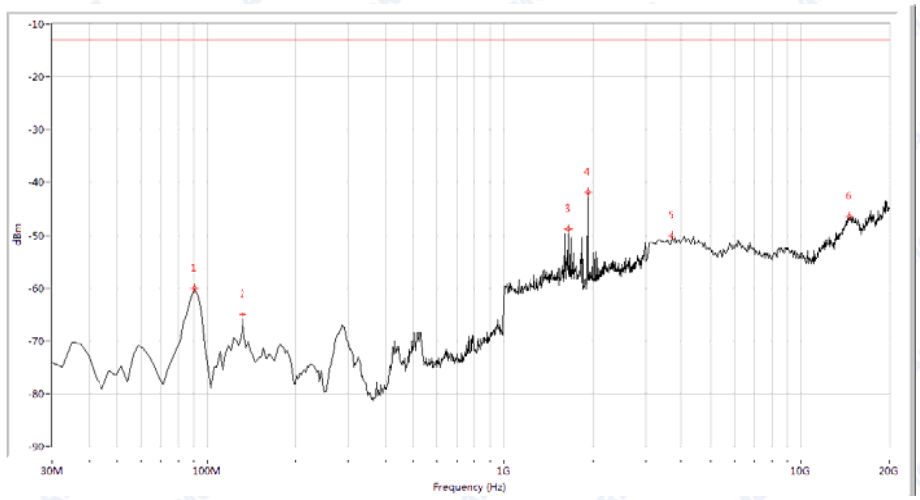
(Plot C.5: EGPRS 850MHz Channel = 251, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-52.06	-13.0	39.1	35.8	Vertical	PASS
138.853	-60.81	-13.0	47.8	333.4	Vertical	PASS
847.606	-48.85	-13.0	35.9	263.9	Vertical	N.A
891.147	-42.09	-13.0	29.1	161.2	Vertical	N.A

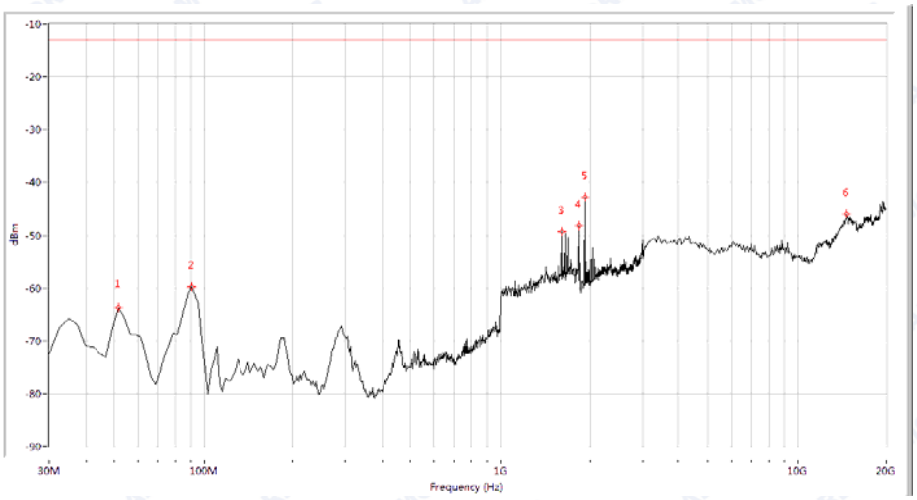
1698.254	-41.92	-13.0	28.9	172.3	Vertical	PASS
2541.147	-46.45	-13.0	33.4	74.4	Vertical	PASS

(Plot C.6: EGPRS 850MHz Channel = 251, Test Antenna Vertical)



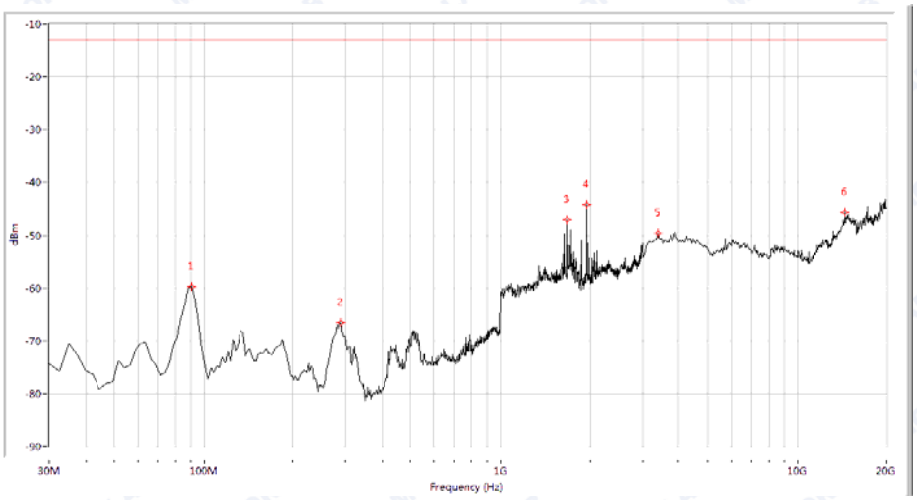
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-59.99	-13.0	47.0	86.8	Horizontal	PASS
131.596	-64.93	-13.0	51.9	208.1	Horizontal	PASS
1658.354	-48.86	-13.0	35.9	134.7	Horizontal	PASS
1927.681	-41.90	-13.0	28.9	236.3	Horizontal	N.A
3678.304	-50.13	-13.0	37.1	100.1	Horizontal	PASS
14700.748	-46.51	-13.0	33.5	50.7	Horizontal	PASS

(Plot D.1: EGPRS 1900MHz Channel = 512, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-63.74	-13.0	50.7	0.8	Vertical	PASS
90.474	-59.79	-13.0	46.8	359.4	Vertical	PASS
1618.454	-49.24	-13.0	36.2	87.9	Vertical	PASS
1837.905	-48.19	-13.0	35.2	73.7	Vertical	PASS
1927.681	-42.73	-13.0	29.7	234.9	Vertical	N.A
14785.536	-45.94	-13.0	32.9	153.4	Vertical	PASS

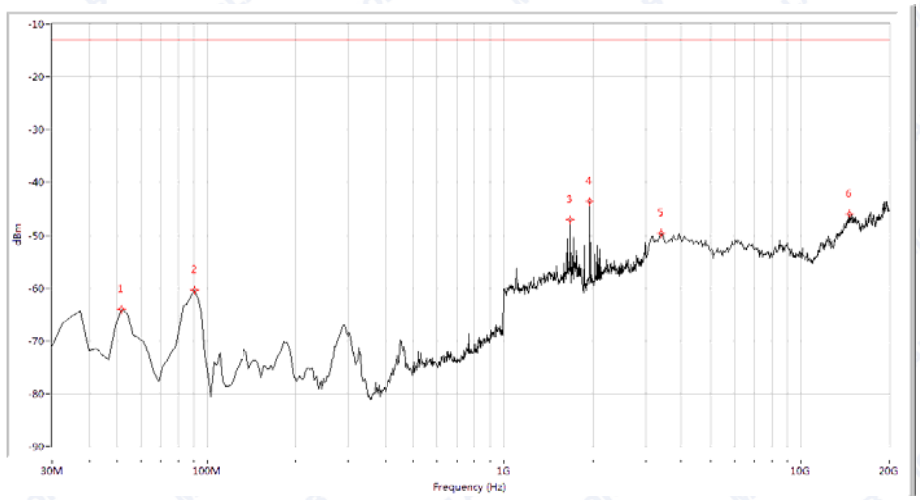
(Plot D.2: EGPRS 1900MHz Channel = 512, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-59.68	-13.0	46.7	77.4	Horizontal	PASS
288.828	-66.58	-13.0	53.6	141.8	Horizontal	PASS
1688.279	-47.08	-13.0	34.1	80.0	Horizontal	PASS
1957.606	-44.17	-13.0	31.2	341.5	Horizontal	N.A

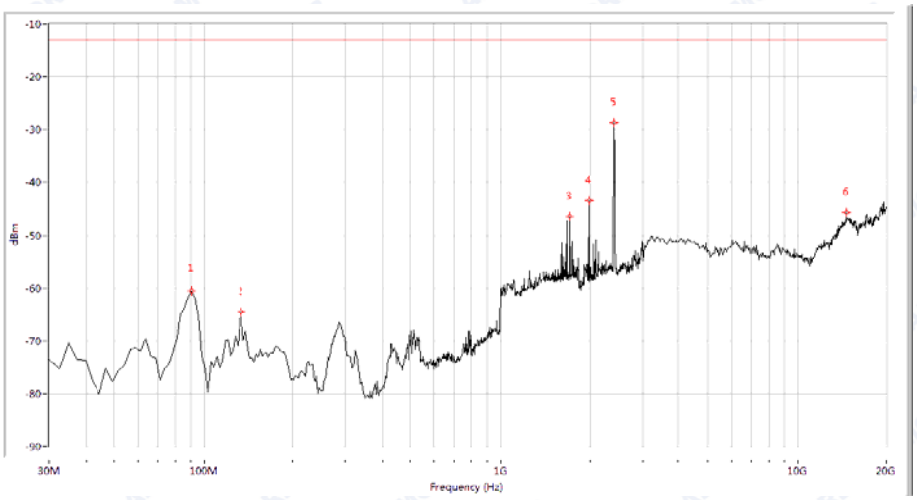
3381.546	-49.58	-13.0	36.6	164.2	Horizontal	PASS
14573.566	-45.57	-13.0	32.6	355.6	Horizontal	PASS

(Plot D.3: EGPRS 1900MHz Channel = 661, Test Antenna Horizontal)



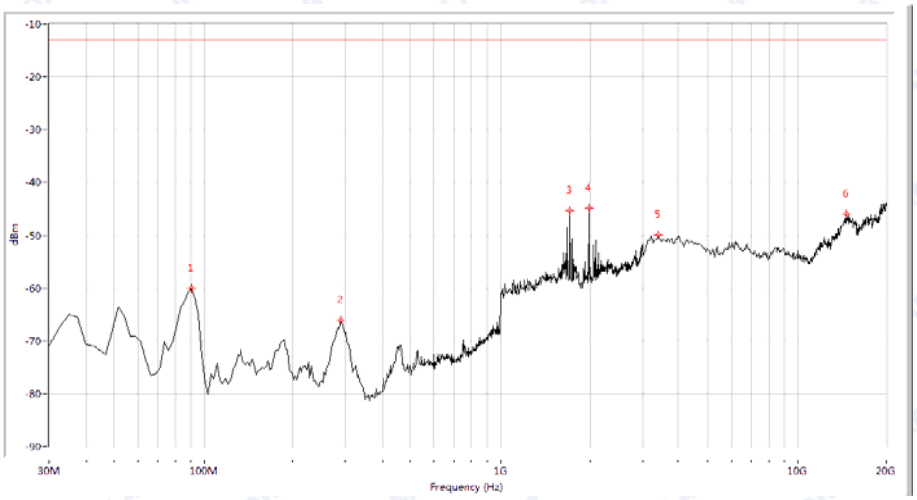
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-63.99	-13.0	51.0	360.0	Vertical	PASS
90.474	-60.41	-13.0	47.4	-0.0	Vertical	PASS
1688.279	-47.01	-13.0	34.0	81.1	Vertical	PASS
1957.606	-43.53	-13.0	30.5	199.8	Vertical	N.A
3381.546	-49.64	-13.0	36.6	67.8	Vertical	PASS
14743.142	-45.99	-13.0	33.0	211.4	Vertical	PASS

(Plot D.4: EGPRS 1900MHz Channel = 661, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-60.46	-13.0	47.5	79.7	Horizontal	PASS
134.015	-64.49	-13.0	51.5	36.5	Horizontal	PASS
1718.204	-46.38	-13.0	33.4	83.0	Horizontal	PASS
1987.531	-43.48	-13.0	30.5	222.2	Horizontal	N.A
2411.471	-28.69	-13.0	15.7	97.5	Horizontal	PASS
14743.142	-45.68	-13.0	32.7	212.2	Horizontal	PASS

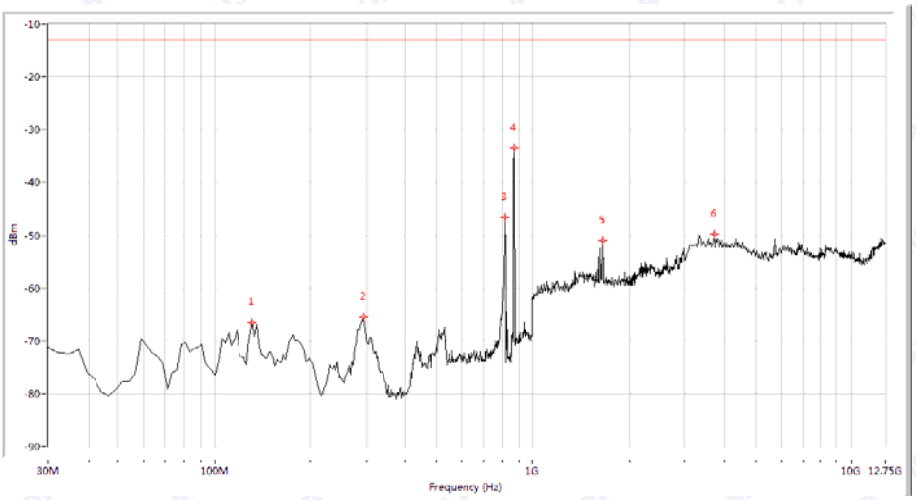
(Plot D.5: EGPRS 1900MHz Channel = 810, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
90.474	-60.05	-13.0	47.0	50.6	Vertical	PASS
288.828	-66.01	-13.0	53.0	175.7	Vertical	PASS
1718.204	-45.37	-13.0	32.4	103.9	Vertical	PASS
1987.531	-44.82	-13.0	31.8	143.7	Vertical	N.A

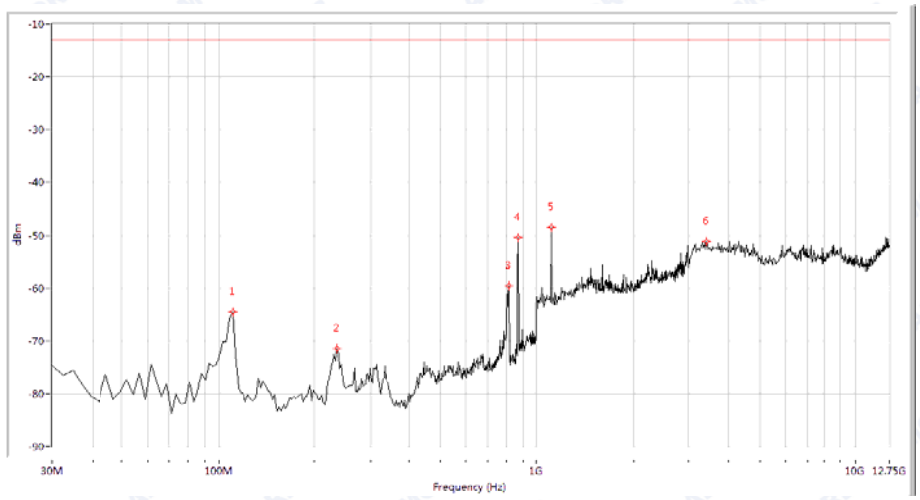
3381.546	-49.91	-13.0	36.9	317.5	Vertical	PASS
14785.536	-45.98	-13.0	33.0	165.6	Vertical	PASS

(Plot D.6: EGPRS 1900MHz Channel = 810, Test Antenna Vertical)



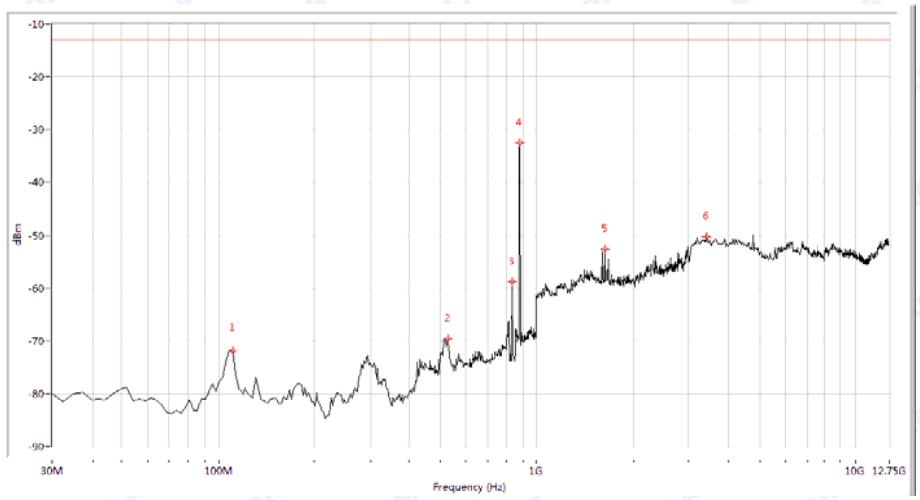
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
131.596	-66.59	-13.0	53.6	281.4	Horizontal	PASS
293.666	-65.50	-13.0	52.5	356.3	Horizontal	PASS
816.160	-46.59	-13.0	33.6	117.7	Horizontal	N.A
869.377	-33.49	-13.0	20.5	-0.0	Horizontal	N.A
1653.367	-51.05	-13.0	38.0	239.5	Horizontal	PASS
3705.112	-49.70	-13.0	36.7	241.8	Horizontal	PASS

(Plot E.1: WCDMA 850MHz Channel = 4132, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.44	-13.0	51.4	59.6	Vertical	PASS
235.611	-71.48	-13.0	58.5	360.0	Vertical	PASS
813.741	-59.62	-13.0	46.6	241.1	Vertical	N.A
871.796	-50.42	-13.0	37.4	187.2	Vertical	N.A
1114.713	-48.52	-13.0	35.5	181.6	Vertical	PASS
3413.342	-51.23	-13.0	38.2	293.7	Vertical	PASS

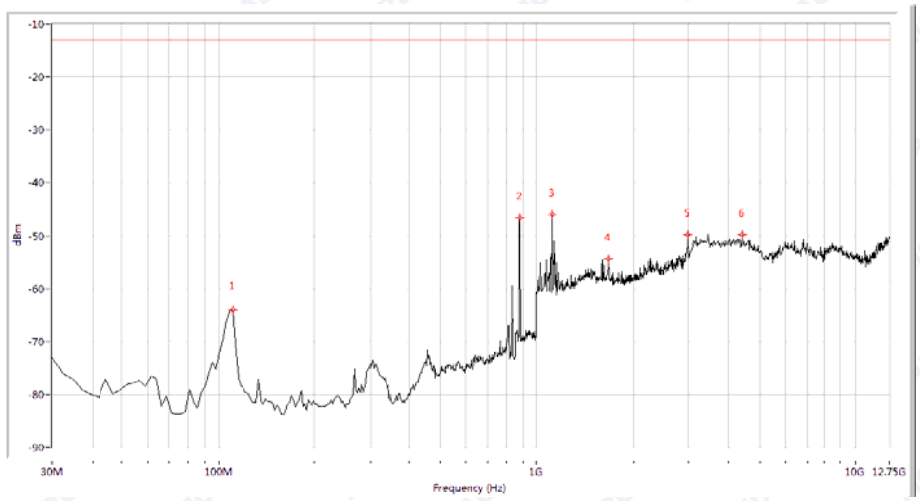
(Plot E.2: WCDMA 850MHz Channel = 4132, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-71.95	-13.0	59.0	88.8	Horizontal	PASS
525.885	-69.49	-13.0	56.5	155.0	Horizontal	PASS
835.511	-58.80	-13.0	45.8	155.0	Horizontal	N.A
879.052	-32.44	-13.0	19.4	301.1	Horizontal	N.A

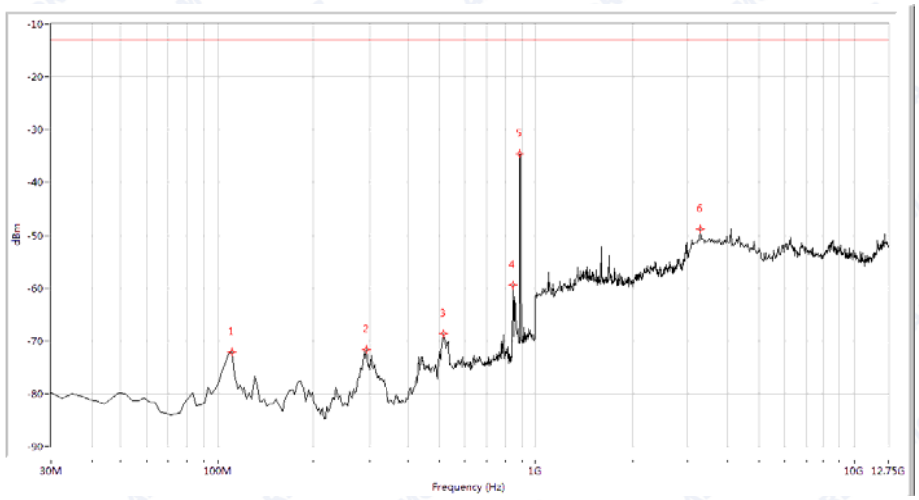
1628.429	-52.55	-13.0	39.6	154.3	Horizontal	PASS
3413.342	-50.28	-13.0	37.3	244.6	Horizontal	PASS

(Plot E.3: WCDMA 850MHz Channel = 4175, Test Antenna Horizontal)



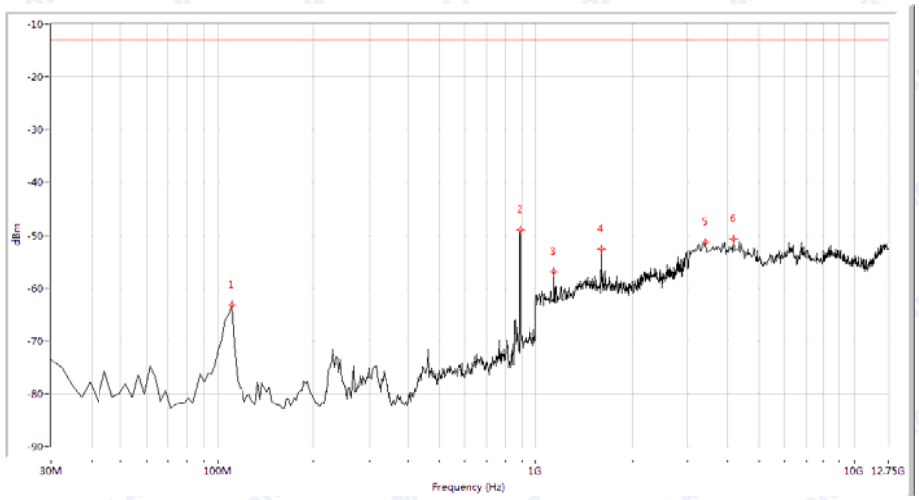
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.09	-13.0	51.1	77.4	Vertical	PASS
879.052	-46.56	-13.0	33.6	17.5	Vertical	N.A
1119.701	-46.02	-13.0	33.0	135.6	Vertical	PASS
1673.317	-54.43	-13.0	41.4	83.7	Vertical	PASS
2995.012	-49.79	-13.0	36.8	48.1	Vertical	PASS
4410.224	-49.78	-13.0	36.8	51.1	Vertical	PASS

(Plot E.4: WCDMA 850MHz Channel = 4175, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-72.03	-13.0	59.0	19.7	Horizontal	PASS
293.666	-71.69	-13.0	58.7	317.5	Horizontal	PASS
513.791	-68.57	-13.0	55.6	105.3	Horizontal	PASS
842.768	-59.49	-13.0	46.5	154.4	Horizontal	N.A
888.728	-34.59	-13.0	21.6	345.3	Horizontal	N.A
3291.771	-48.88	-13.0	35.9	253.2	Horizontal	PASS

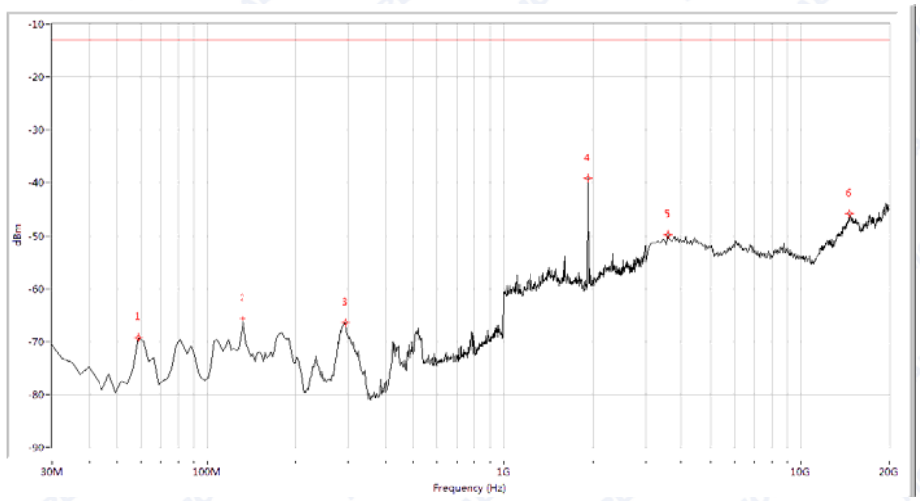
(Plot E.5: WCDMA 850MHz Channel = 4233, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-63.30	-13.0	50.3	157.8	Vertical	PASS
891.147	-49.00	-13.0	36.0	263.5	Vertical	N.A
1144.638	-56.82	-13.0	43.8	45.0	Vertical	PASS
1598.504	-52.67	-13.0	39.7	200.6	Vertical	PASS

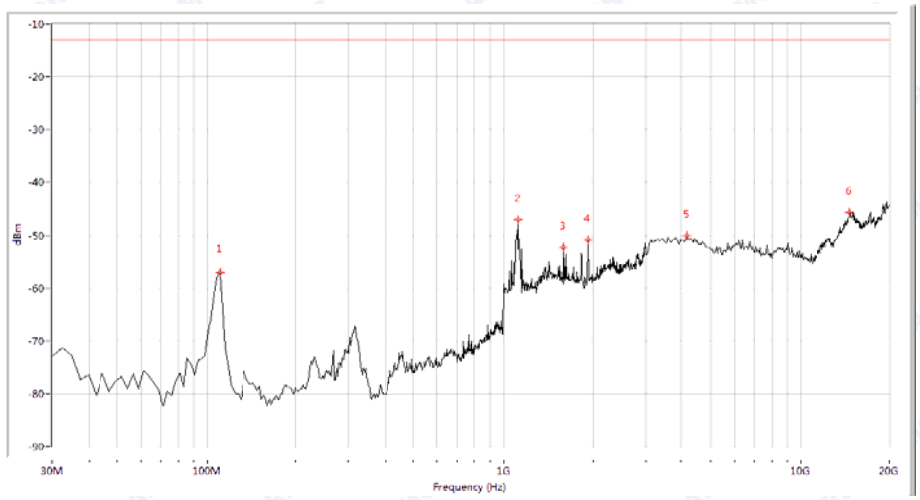
3413.342	-51.35	-13.0	38.4	-0.0	Vertical	PASS
4167.082	-50.77	-13.0	37.8	276.1	Vertical	PASS

(Plot E.6: WCDMA 850MHz Channel = 4233, Test Antenna Vertical)



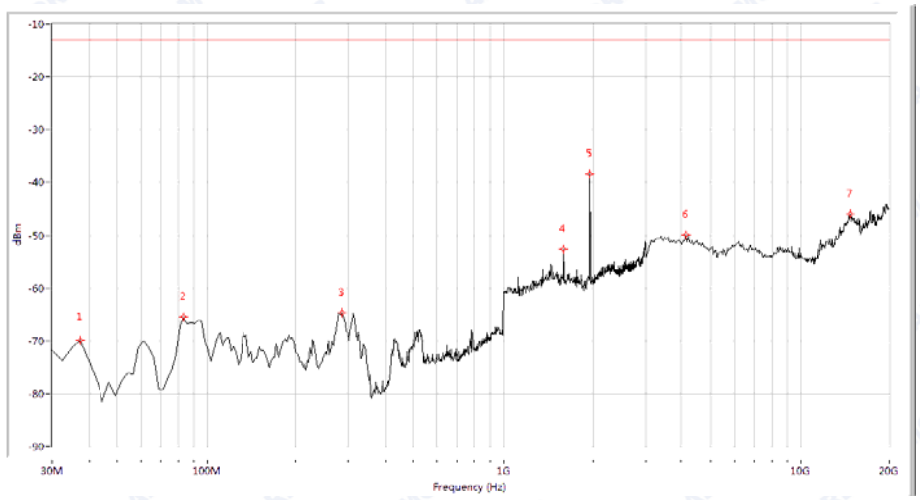
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
59.027	-69.33	-13.0	56.3	219.9	Horizontal	PASS
131.596	-65.64	-13.0	52.6	4.0	Horizontal	PASS
293.666	-66.41	-13.0	53.4	353.4	Horizontal	PASS
1932.668	-39.21	-13.0	26.2	52.7	Horizontal	N.A
3551.122	-49.72	-13.0	36.7	0.6	Horizontal	PASS
14700.748	-45.81	-13.0	32.8	211.2	Horizontal	PASS

(Plot F.1: WCDMA 1900MHz Channel = 9262, Test Antenna Horizontal)



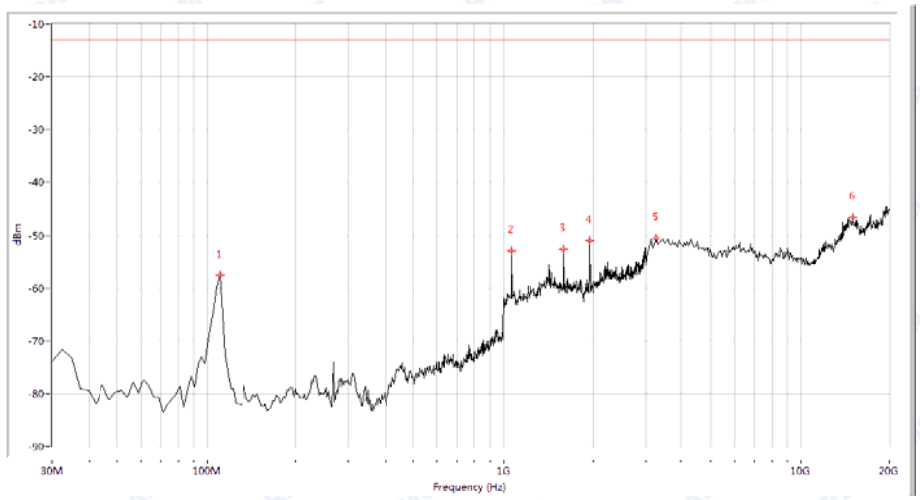
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-57.05	-13.0	44.1	180.4	Vertical	PASS
1114.713	-47.01	-13.0	34.0	360.0	Vertical	PASS
1598.504	-52.27	-13.0	39.3	39.4	Vertical	PASS
1932.668	-50.94	-13.0	37.9	70.3	Vertical	N.A
4187.032	-50.14	-13.0	37.1	143.2	Vertical	PASS
14743.142	-45.64	-13.0	32.6	356.8	Vertical	PASS

(Plot F.2: WCDMA 1900MHz Channel = 9262, Test Antenna Vertical)



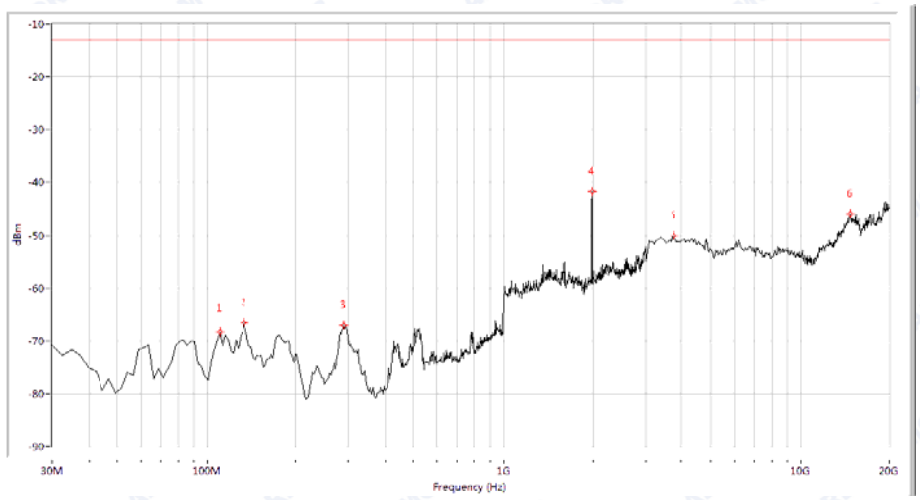
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
37.257	-69.84	-13.0	56.8	96.9	Horizontal	PASS
83.217	-65.48	-13.0	52.5	79.3	Horizontal	PASS
286.409	-64.71	-13.0	51.7	327.4	Horizontal	PASS
1598.504	-52.62	-13.0	39.6	9.7	Horizontal	PASS
1957.606	-38.38	-13.0	25.4	236.1	Horizontal	N.A
4144.638	-49.90	-13.0	36.9	89.8	Horizontal	PASS
14870.324	-45.92	-13.0	32.9	48.7	Horizontal	PASS

(Plot F.3: WCDMA 1900MHz Channel = 9400, Test Antenna Horizontal)



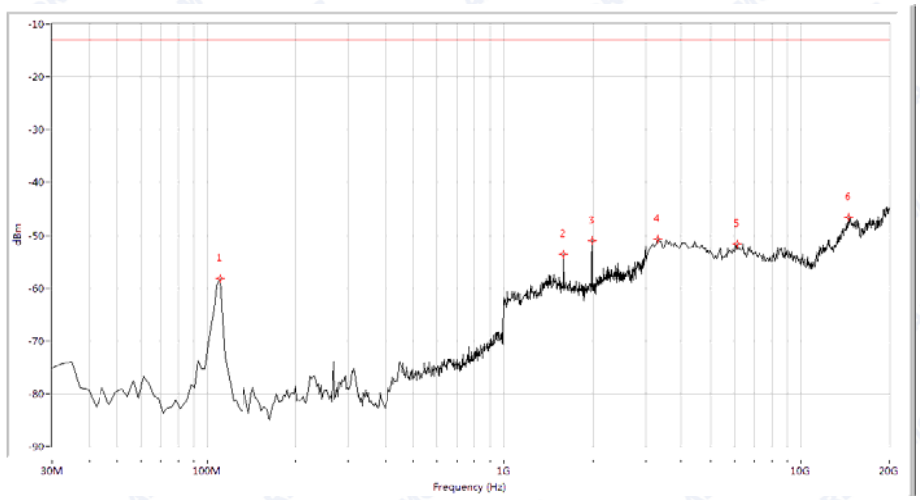
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-57.56	-13.0	44.6	319.5	Vertical	PASS
1064.838	-52.88	-13.0	39.9	285.3	Vertical	PASS
1598.504	-52.53	-13.0	39.5	110.6	Vertical	PASS
1957.606	-51.05	-13.0	38.0	333.9	Vertical	N.A
3254.364	-50.49	-13.0	37.5	160.7	Vertical	PASS
15082.294	-46.62	-13.0	33.6	45.3	Vertical	PASS

(Plot F.4: WCDMA 1900MHz Channel = 9400, Test Antenna Vertical)



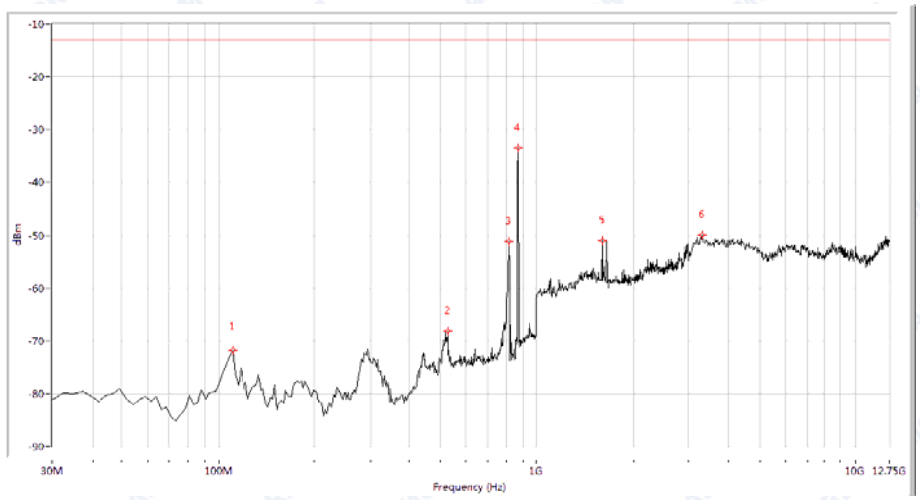
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-68.34	-13.0	55.3	182.5	Horizontal	PASS
134.015	-66.49	-13.0	53.5	286.6	Horizontal	PASS
288.828	-66.99	-13.0	54.0	332.0	Horizontal	PASS
1987.531	-41.72	-13.0	28.7	23.7	Horizontal	N.A
3763.092	-50.15	-13.0	37.1	263.7	Horizontal	PASS
14870.324	-45.92	-13.0	32.9	285.4	Horizontal	PASS

(Plot F.5: WCDMA 1900MHz Channel = 9538, Test Antenna Horizontal)



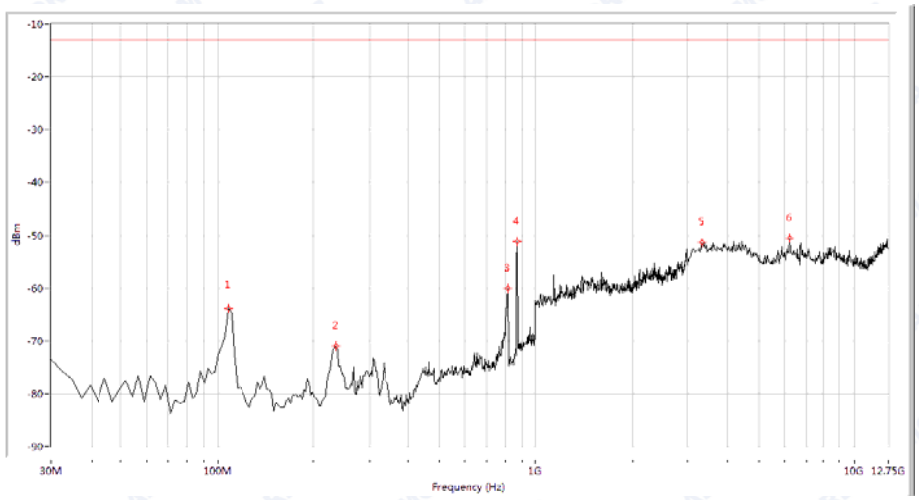
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-58.15	-13.0	45.2	3.4	Vertical	PASS
1598.504	-53.49	-13.0	40.5	359.0	Vertical	PASS
1987.531	-51.04	-13.0	38.0	242.7	Vertical	N.A
3296.758	-50.78	-13.0	37.8	51.4	Vertical	PASS
6137.157	-51.73	-13.0	38.7	281.4	Vertical	PASS
14615.960	-46.61	-13.0	33.6	103.1	Vertical	PASS

(Plot F.6: WCDMA 1900MHz Channel = 9538, Test Antenna Vertical)



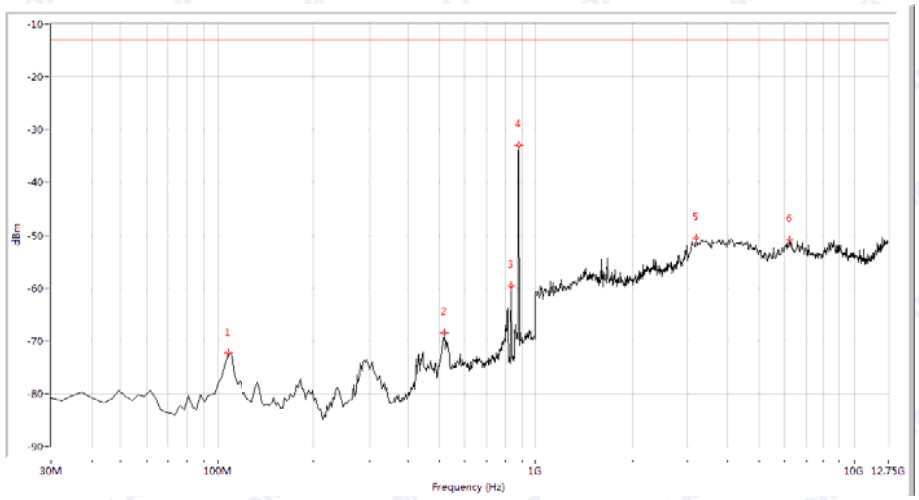
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-71.78	-13.0	58.8	107.7	Horizontal	PASS
525.885	-68.11	-13.0	55.1	243.6	Horizontal	PASS
813.741	-51.24	-13.0	38.2	116.9	Horizontal	N.A
871.796	-33.37	-13.0	20.4	301.0	Horizontal	N.A
1598.504	-51.09	-13.0	38.1	336.7	Horizontal	PASS
3316.085	-49.92	-13.0	36.9	159.5	Horizontal	PASS

(Plot G.1: HSDPA 850MHz Channel = 4132, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-63.89	-13.0	50.9	320.1	Vertical	PASS
235.611	-70.92	-13.0	57.9	67.7	Vertical	PASS
813.741	-60.06	-13.0	47.1	193.9	Vertical	N.A
869.377	-51.12	-13.0	38.1	283.2	Vertical	N.A
3340.399	-51.42	-13.0	38.4	92.3	Vertical	PASS
6209.476	-50.54	-13.0	37.5	360.0	Vertical	PASS

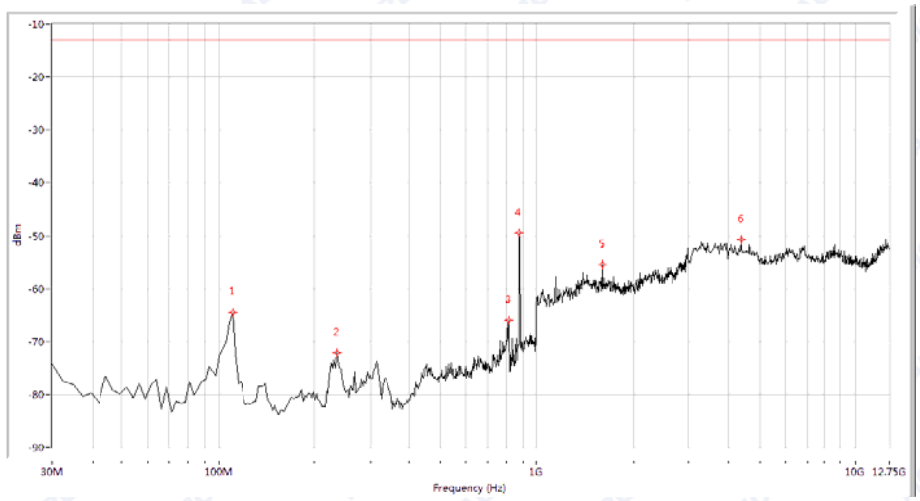
(Plot G.2: HSDPA 850MHz Channel = 4132, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-72.19	-13.0	59.2	270.7	Horizontal	PASS
518.628	-68.53	-13.0	55.5	288.9	Horizontal	PASS
835.511	-59.63	-13.0	46.6	166.3	Horizontal	N.A
879.052	-32.91	-13.0	19.9	337.7	Horizontal	N.A

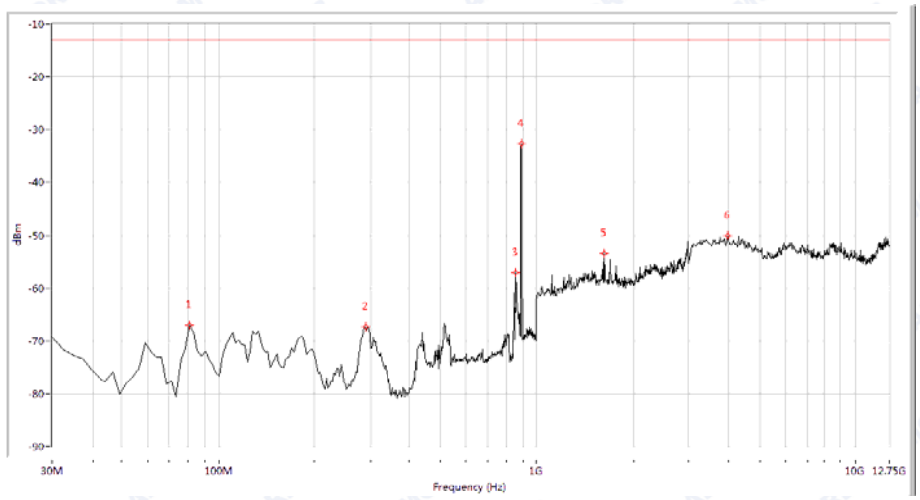
3194.514	-50.60	-13.0	37.6	115.0	Horizontal	PASS
6209.476	-50.91	-13.0	37.9	278.7	Horizontal	PASS

(Plot G.3: HSDPA 850MHz Channel = 4175, Test Antenna Horizontal)



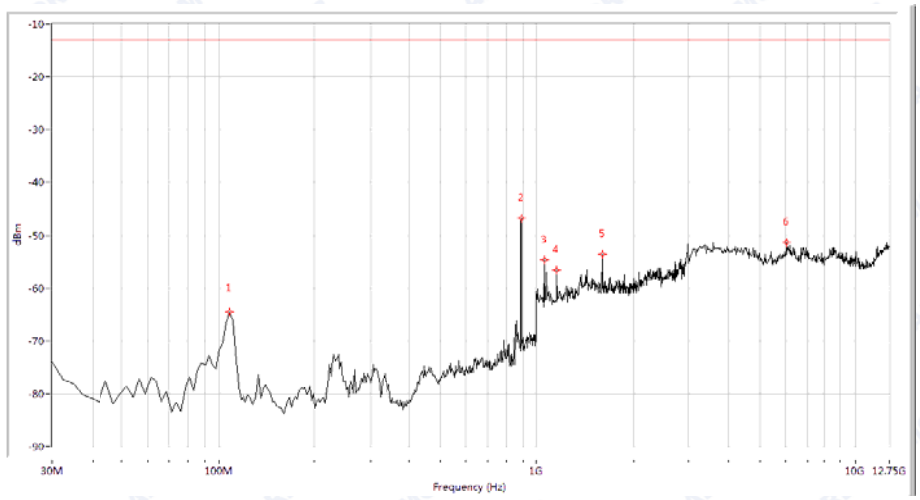
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.44	-13.0	51.4	15.3	Vertical	PASS
235.611	-72.13	-13.0	59.1	236.7	Vertical	PASS
813.741	-65.92	-13.0	52.9	231.8	Vertical	N.A
876.633	-49.45	-13.0	36.5	231.5	Vertical	N.A
1598.504	-55.46	-13.0	42.5	291.0	Vertical	PASS
4361.596	-50.67	-13.0	37.7	23.9	Vertical	PASS

(Plot G.4: HSDPA 850MHz Channel = 4175, Test Antenna Vertical)



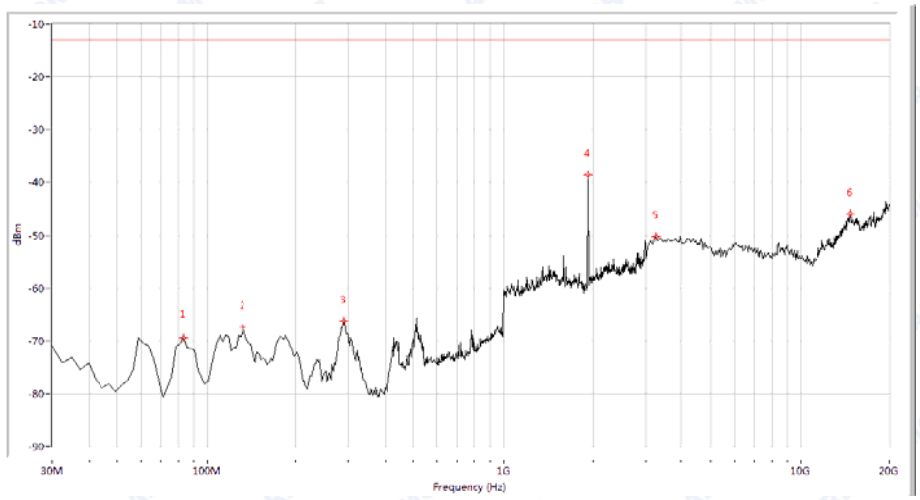
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
80.798	-67.02	-13.0	54.0	93.4	Horizontal	PASS
288.828	-67.36	-13.0	54.4	147.1	Horizontal	PASS
854.863	-57.11	-13.0	44.1	249.7	Horizontal	N.A
891.147	-32.72	-13.0	19.7	0.8	Horizontal	N.A
1623.441	-53.35	-13.0	40.4	16.6	Horizontal	PASS
3972.569	-50.06	-13.0	37.1	143.1	Horizontal	PASS

(Plot G.5: HSDPA 850MHz Channel = 4233, Test Antenna Horizontal)



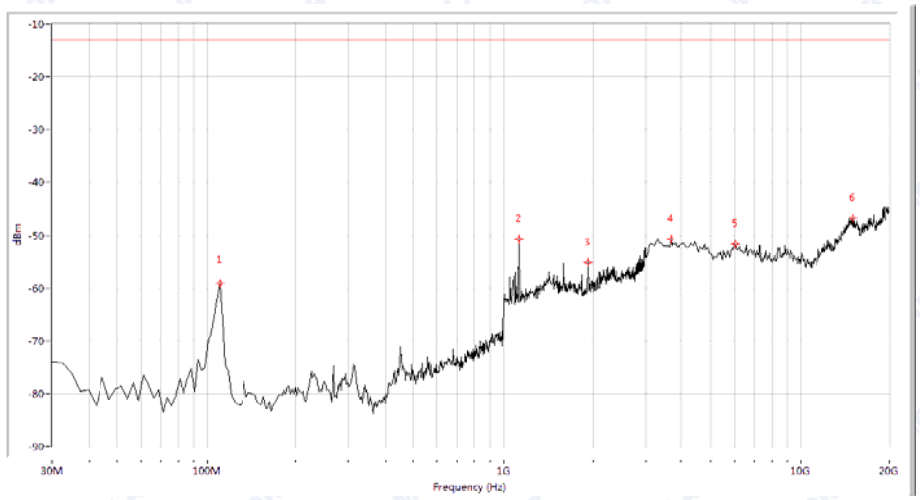
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-64.46	-13.0	51.5	340.2	Vertical	PASS
891.147	-46.77	-13.0	33.8	359.7	Vertical	N.A
1059.850	-54.74	-13.0	41.7	199.1	Vertical	PASS
1159.601	-56.64	-13.0	43.6	125.9	Vertical	PASS
1598.504	-53.58	-13.0	40.6	32.2	Vertical	PASS
6039.277	-51.42	-13.0	38.4	-0.0	Vertical	PASS

(Plot G.6: HSDPA 850MHz Channel = 4233, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
83.217	-69.38	-13.0	56.4	99.3	Horizontal	PASS
131.596	-67.38	-13.0	54.4	182.6	Horizontal	PASS
288.828	-66.31	-13.0	53.3	360.0	Horizontal	PASS
1932.668	-38.44	-13.0	25.4	54.6	Horizontal	N.A
3254.364	-50.26	-13.0	37.3	93.4	Horizontal	PASS
14870.324	-45.93	-13.0	32.9	16.8	Horizontal	PASS

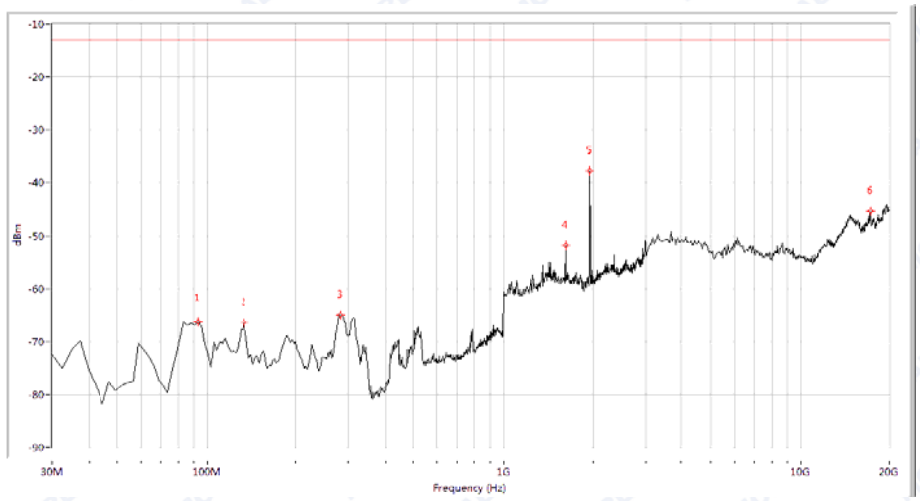
(Plot H.1: HSDPA 1900 MHz Channel = 9262, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-59.16	-13.0	46.2	250.5	Vertical	PASS
1124.688	-50.76	-13.0	37.8	313.4	Vertical	PASS
1932.668	-55.17	-13.0	42.2	37.5	Vertical	N.A
3635.910	-50.72	-13.0	37.7	202.8	Vertical	PASS

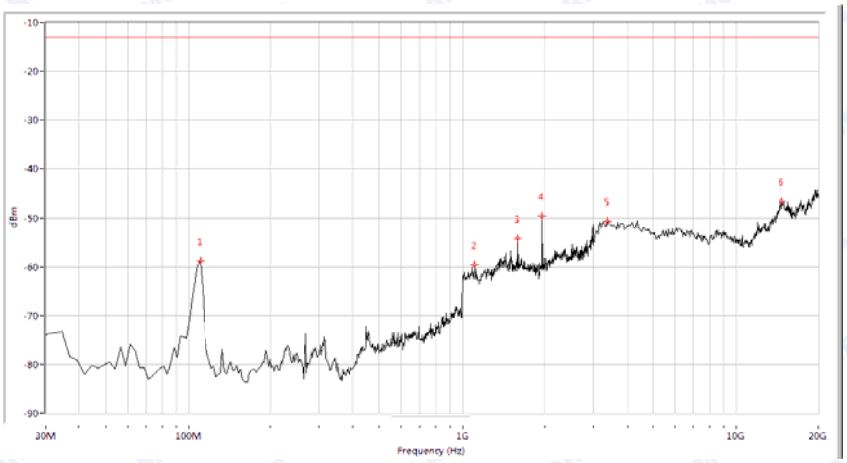
6052.369	-51.66	-13.0	38.7	77.8	Vertical	PASS
15082.294	-46.82	-13.0	33.8	42.5	Vertical	PASS

(Plot H.2: HSDPA 1900 MHz Channel = 9262, Test Antenna Vertical)



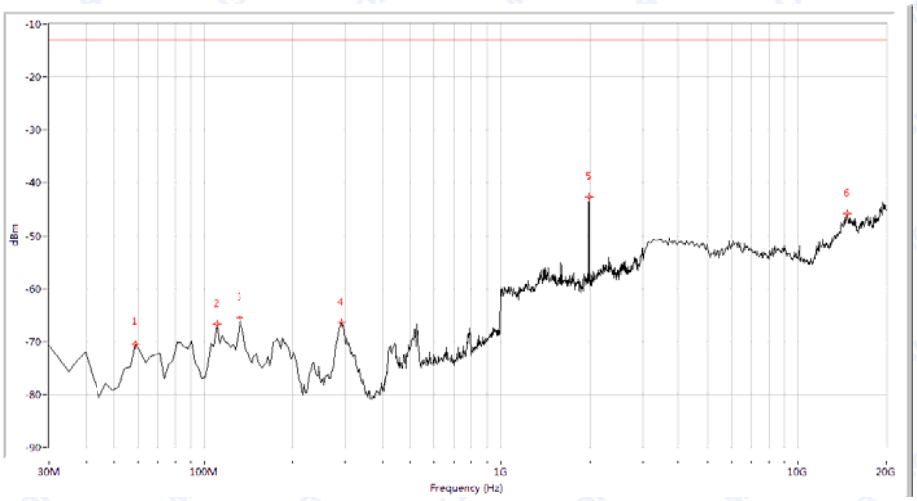
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
92.893	-66.30	-13.0	53.3	79.5	Horizontal	PASS
134.015	-66.36	-13.0	53.4	316.0	Horizontal	PASS
281.571	-64.95	-13.0	51.9	174.9	Horizontal	PASS
1628.429	-51.82	-13.0	38.8	139.5	Horizontal	PASS
1957.606	-37.74	-13.0	24.7	64.2	Horizontal	N.A
17286.783	-45.30	-13.0	32.3	174.4	Horizontal	PASS

(PlotH.3:HSDPA 1900 MHz Channel = 9400, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-58.84	-13.0	45.8	179.4	Vertical	PASS
1104.738	-59.51	-13.0	46.5	219.3	Vertical	PASS
1598.504	-54.14	-13.0	41.1	47.1	Vertical	PASS
1957.606	-49.65	-13.0	36.6	336.5	Vertical	N.A
3381.546	-50.74	-13.0	37.7	176.3	Vertical	PASS
14785.536	-46.59	-13.0	33.6	50.3	Vertical	PASS

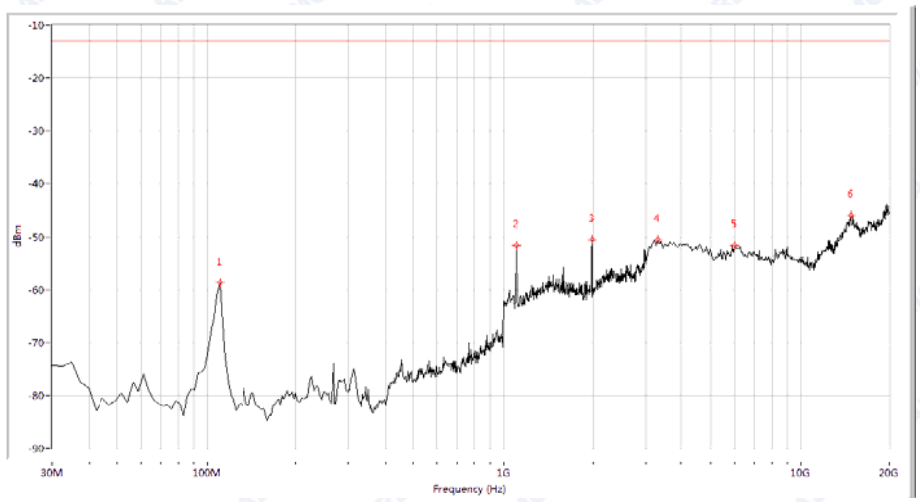
(Plot H.4: HSDPA 1900 MHz Channel = 9400, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
59.027	-70.46	-13.0	57.5	36.3	Horizontal	PASS
109.825	-66.68	-13.0	53.7	102.4	Horizontal	PASS
131.596	-65.45	-13.0	52.5	204.9	Horizontal	PASS
291.247	-66.42	-13.0	53.4	326.9	Horizontal	PASS
1987.531	-42.61	-13.0	29.6	26.5	Horizontal	N.A

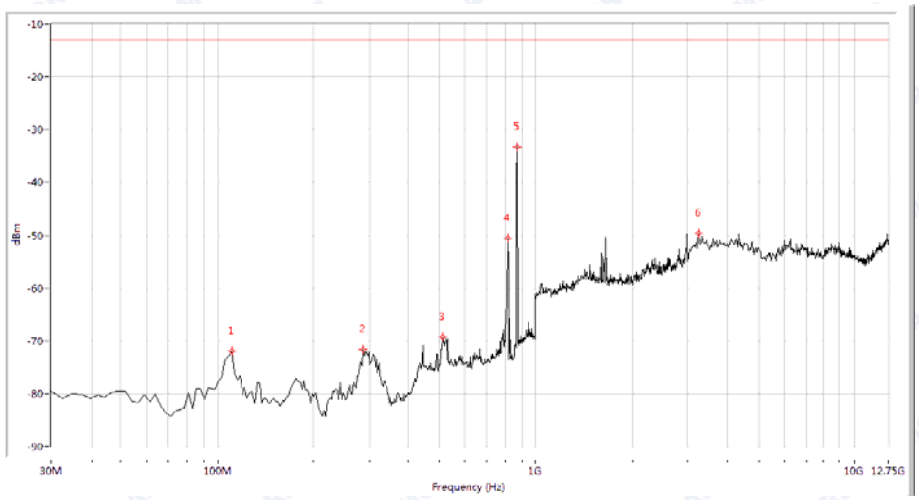
14827.930	-45.85	-13.0	32.9	8.5	Horizontal	PASS

(Plot H.5: HSDPA 1900 MHz Channel = 9538, Test Antenna Horizontal)



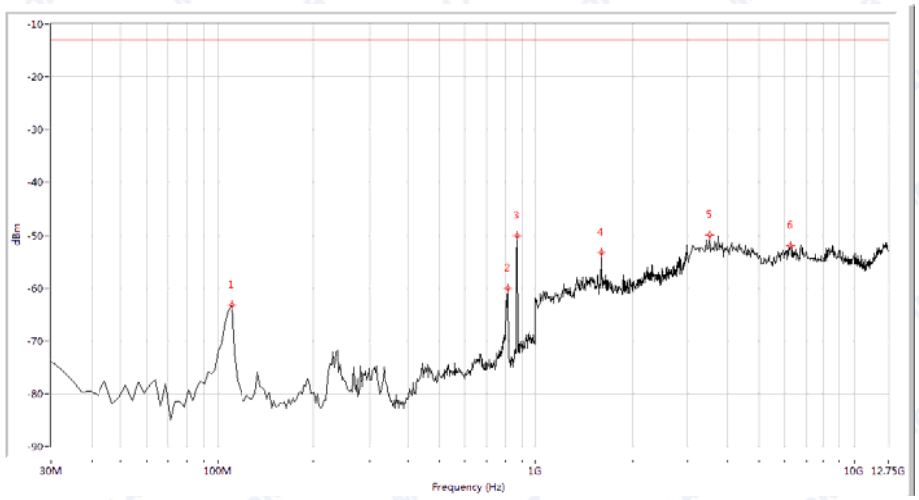
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-58.59	-13.0	45.6	18.6	Vertical	PASS
1104.738	-51.63	-13.0	38.6	166.8	Vertical	PASS
1987.531	-50.59	-13.0	37.6	1.3	Vertical	N.A
3296.758	-50.54	-13.0	37.5	83.4	Vertical	PASS
6009.975	-51.69	-13.0	38.7	97.9	Vertical	PASS
14912.718	-46.02	-13.0	33.0	56.2	Vertical	PASS

(Plot H.6: HSDPA 1900 MHz Channel = 9538, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-71.90	-13.0	58.9	358.3	Horizontal	PASS
286.409	-71.56	-13.0	58.6	322.8	Horizontal	PASS
511.372	-69.18	-13.0	56.2	8.9	Horizontal	PASS
816.160	-50.61	-13.0	37.6	107.1	Horizontal	N.A
869.377	-33.34	-13.0	20.3	295.9	Horizontal	N.A
3243.142	-49.55	-13.0	36.6	64.8	Horizontal	PASS

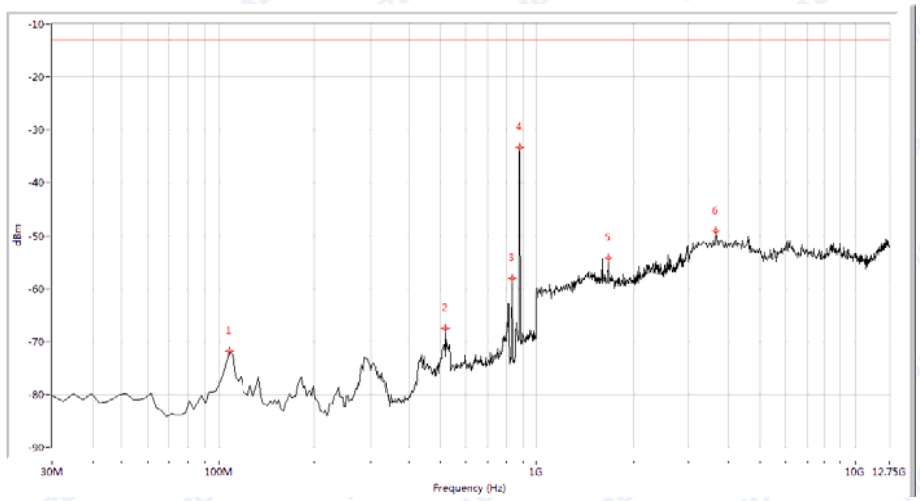
(Plot I.1: HSUPA 850MHz Channel = 4132, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-63.21	-13.0	50.2	281.0	Vertical	PASS
813.741	-60.10	-13.0	47.1	-0.0	Vertical	N.A
869.377	-50.11	-13.0	37.1	9.6	Vertical	N.A
1598.504	-53.32	-13.0	40.3	191.7	Vertical	PASS

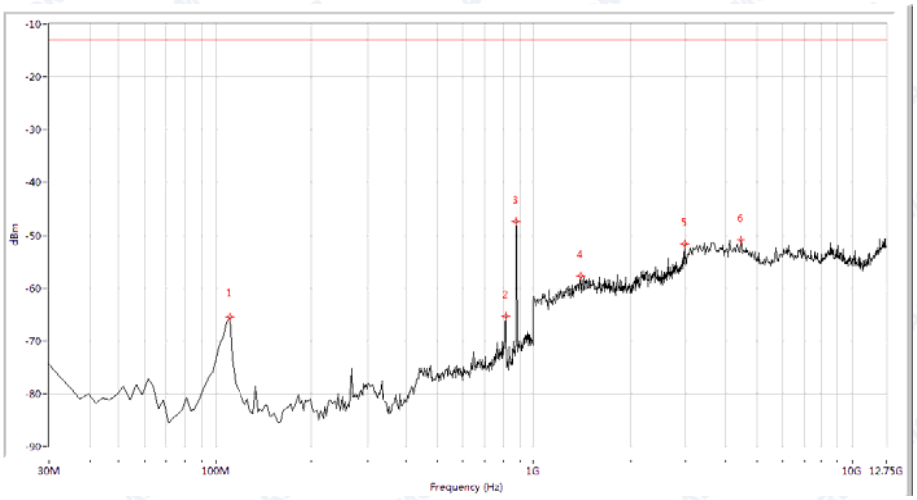
3510.599	-49.96	-13.0	37.0	161.1	Vertical	PASS
6258.105	-52.05	-13.0	39.1	289.5	Vertical	PASS

(Plot I.2: HSUPA 850 MHz Channel = 4132, Test Antenna Vertical)



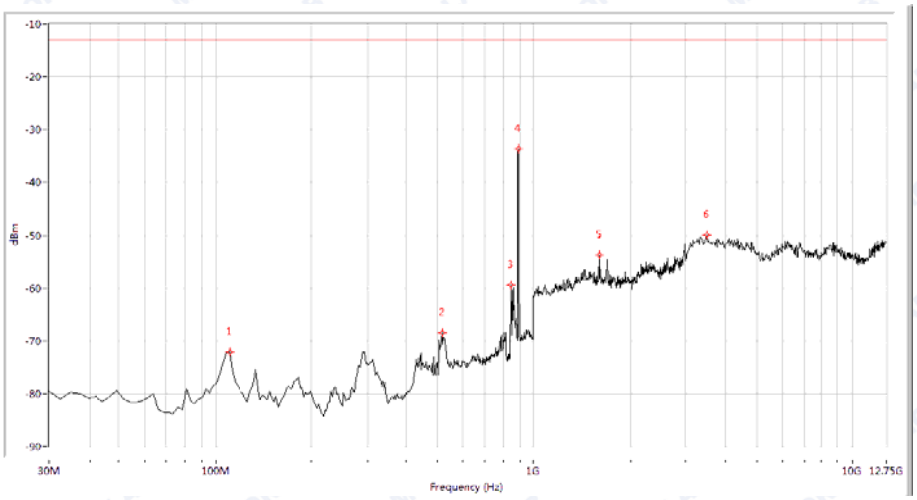
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-71.80	-13.0	58.8	8.8	Horizontal	PASS
518.628	-67.52	-13.0	54.5	107.0	Horizontal	PASS
835.511	-57.97	-13.0	45.0	158.5	Horizontal	N.A
879.052	-33.25	-13.0	20.2	145.8	Horizontal	N.A
1668.329	-54.19	-13.0	41.2	269.0	Horizontal	PASS
3656.484	-49.13	-13.0	36.1	148.4	Horizontal	PASS

(Plot I.3: HSUPA 850MHz Channel = 4175, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-65.49	-13.0	52.5	156.8	Vertical	PASS
813.741	-65.29	-13.0	52.3	360.0	Vertical	N.A
876.633	-47.42	-13.0	34.4	125.9	Vertical	N.A
1399.002	-57.72	-13.0	44.7	312.6	Vertical	PASS
2980.050	-51.68	-13.0	38.7	39.1	Vertical	PASS
4458.853	-50.91	-13.0	37.9	157.1	Vertical	PASS

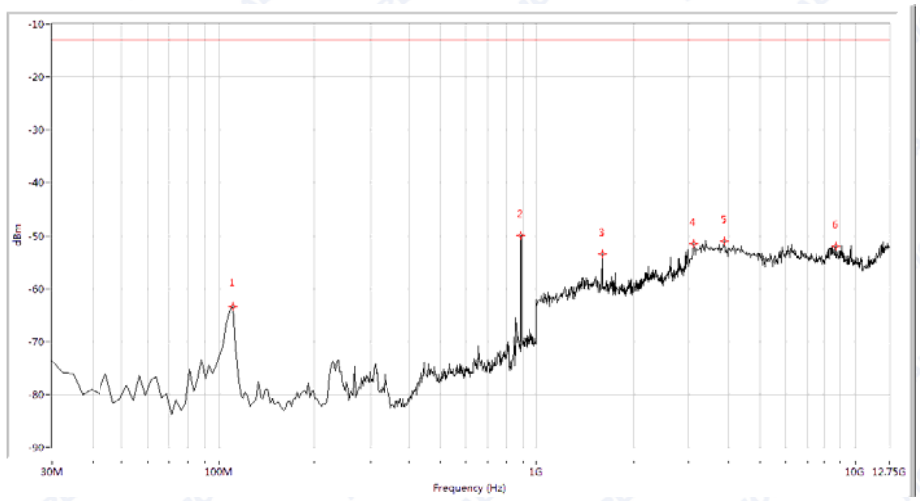
(Plot I.4: HSUPA 850MHz Channel = 4175, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-72.07	-13.0	59.1	242.1	Horizontal	PASS
516.209	-68.39	-13.0	55.4	268.4	Horizontal	PASS
845.187	-59.48	-13.0	46.5	168.0	Horizontal	N.A
891.147	-33.53	-13.0	20.5	301.8	Horizontal	N.A

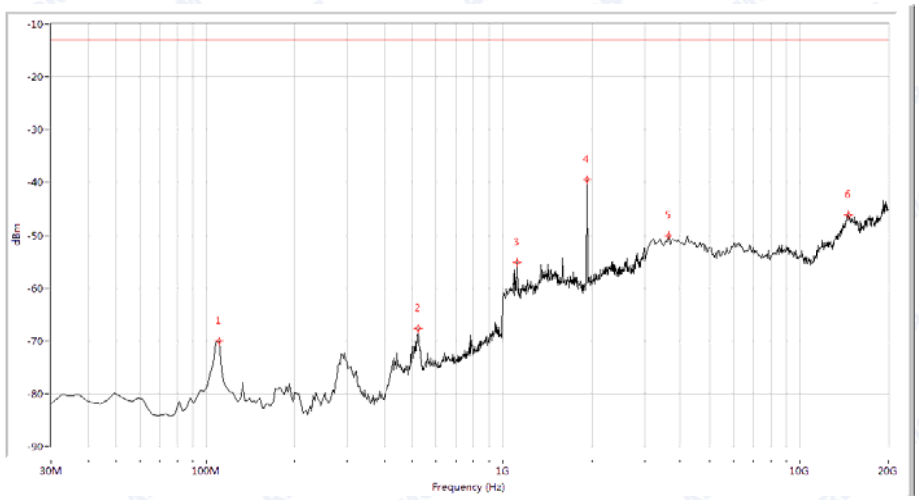
1598.504	-53.68	-13.0	40.7	287.1	Horizontal	PASS
3486.284	-49.99	-13.0	37.0	306.7	Horizontal	PASS

(Plot I.5: HSUPA 850MHz Channel = 4233, Test Antenna Horizontal)



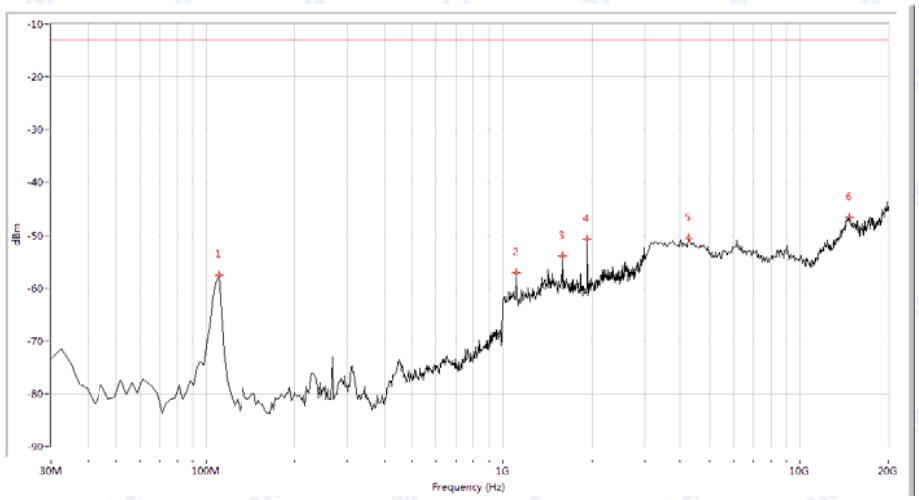
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-63.36	-13.0	50.4	124.6	Vertical	PASS
888.728	-49.87	-13.0	36.9	211.0	Vertical	N.A
1598.504	-53.35	-13.0	40.4	205.8	Vertical	PASS
3121.571	-51.44	-13.0	38.4	125.9	Vertical	PASS
3875.312	-51.01	-13.0	38.0	360.0	Vertical	PASS
8689.526	-51.96	-13.0	39.0	329.0	Vertical	PASS

(Plot I.6: HSUPA 850MHz Channel = 4233, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-70.05	-13.0	57.1	296.4	Horizontal	PASS
523.466	-67.59	-13.0	54.6	228.7	Horizontal	PASS
1114.713	-55.09	-13.0	42.1	359.6	Horizontal	PASS
1932.668	-39.50	-13.0	26.5	52.8	Horizontal	N.A
3593.516	-50.11	-13.0	37.1	119.1	Horizontal	PASS
14785.536	-46.17	-13.0	33.2	272.8	Horizontal	PASS

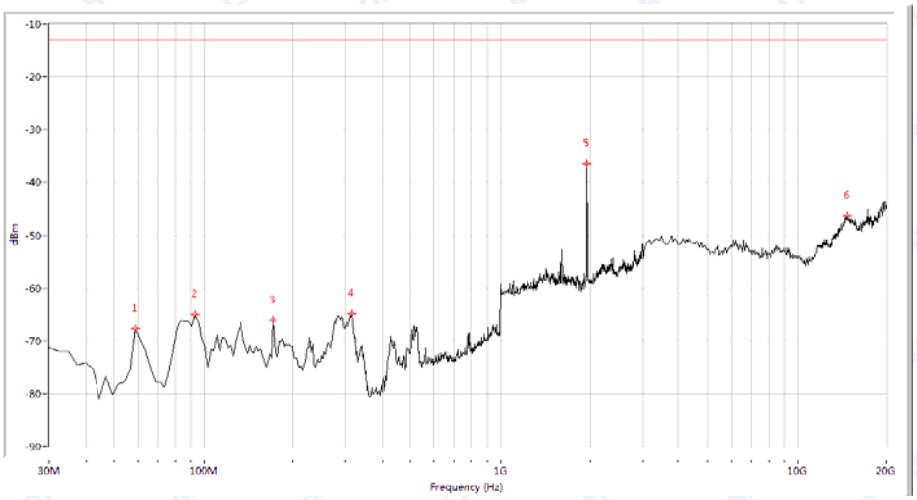
(Plot J.1: HSUPA 1900 MHz Channel = 9262, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-57.58	-13.0	44.6	360.0	Vertical	PASS
1109.726	-57.08	-13.0	44.1	244.5	Vertical	PASS
1598.504	-53.82	-13.0	40.8	30.8	Vertical	PASS
1932.668	-50.70	-13.0	37.7	33.4	Vertical	N.A

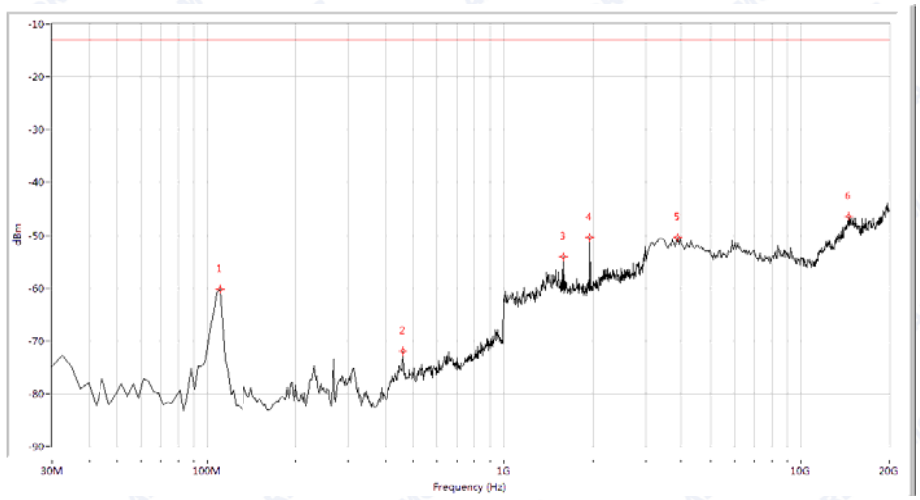
4271.820	-50.55	-13.0	37.5	99.4	Vertical	PASS
14827.930	-46.53	-13.0	33.5	315.6	Vertical	PASS

(Plot J.2: HSUPA 1900 MHz Channel = 9262, Test Antenna Vertical)



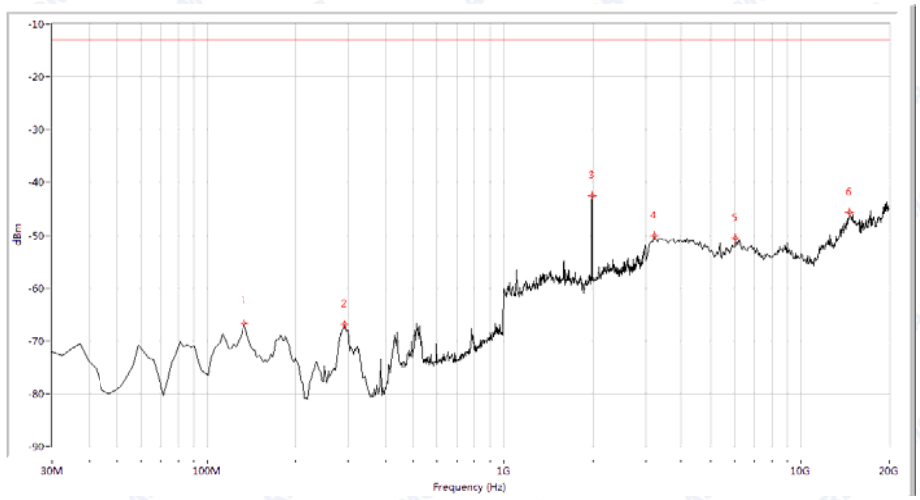
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
59.027	-67.60	-13.0	54.6	346.2	Horizontal	PASS
92.893	-65.02	-13.0	52.0	115.4	Horizontal	PASS
172.718	-66.13	-13.0	53.1	105.5	Horizontal	PASS
315.436	-64.76	-13.0	51.8	333.9	Horizontal	PASS
1957.606	-36.41	-13.0	23.4	62.9	Horizontal	N.A
14827.930	-46.24	-13.0	33.2	-0.0	Horizontal	PASS

(Plot J.3: HSUPA 1900 MHz Channel = 9400, Test Antenna Horizontal)



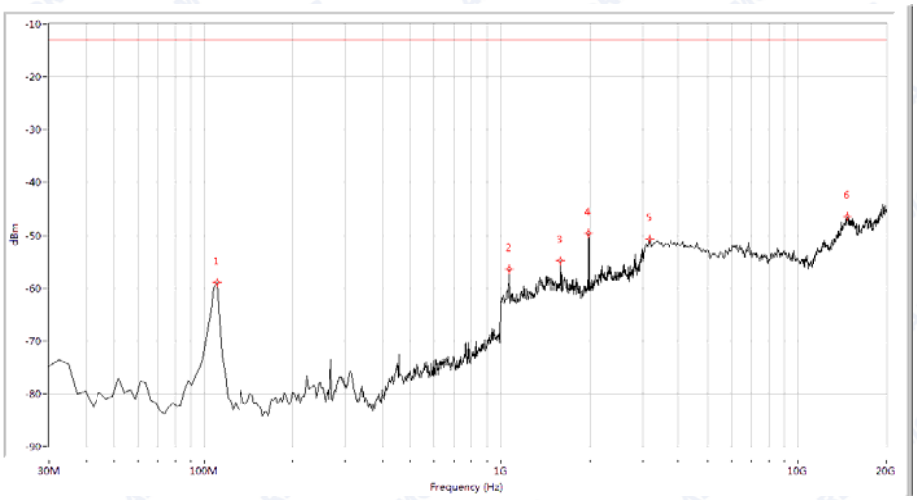
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-60.14	-13.0	47.1	150.5	Vertical	PASS
462.993	-71.91	-13.0	58.9	25.8	Vertical	PASS
1598.504	-53.99	-13.0	41.0	102.2	Vertical	PASS
1957.606	-50.40	-13.0	37.4	80.8	Vertical	N.A
3890.274	-50.41	-13.0	37.4	151.5	Vertical	PASS
14615.960	-46.44	-13.0	33.4	299.4	Vertical	PASS

(Plot J.4: HSUPA 1900 MHz Channel = 9400, Test Antenna Vertical)



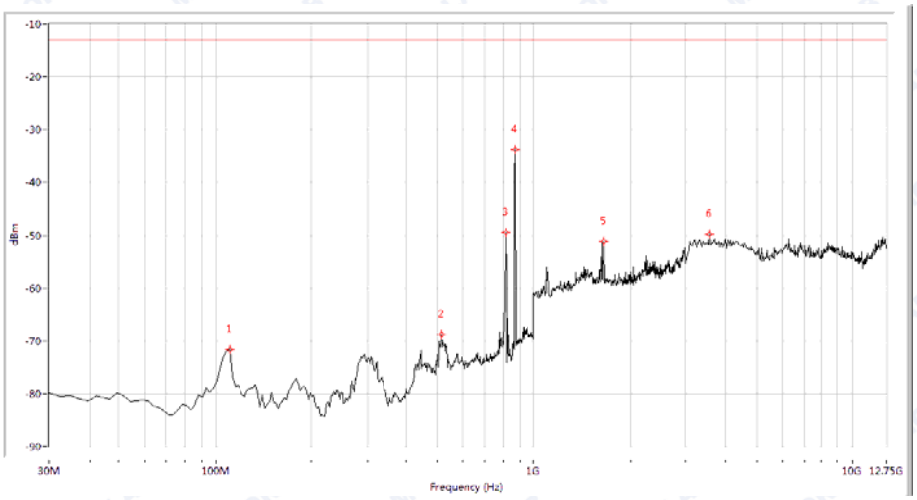
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
134.015	-66.76	-13.0	53.8	138.6	Horizontal	PASS
291.247	-66.82	-13.0	53.8	323.0	Horizontal	PASS
1987.531	-42.48	-13.0	29.5	23.3	Horizontal	N.A
3211.970	-50.01	-13.0	37.0	281.3	Horizontal	PASS
6052.369	-50.53	-13.0	37.5	67.3	Horizontal	PASS
14743.142	-45.59	-13.0	32.6	281.3	Horizontal	PASS

(Plot J.5: HSUPA 1900 MHz Channel = 9538, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-59.02	-13.0	46.0	15.7	Vertical	PASS
1069.825	-56.42	-13.0	43.4	10.1	Vertical	PASS
1598.504	-54.85	-13.0	41.8	336.8	Vertical	PASS
1982.544	-49.60	-13.0	36.6	336.8	Vertical	N.A
3169.576	-50.77	-13.0	37.8	230.4	Vertical	PASS
14827.930	-46.36	-13.0	33.4	238.5	Vertical	PASS

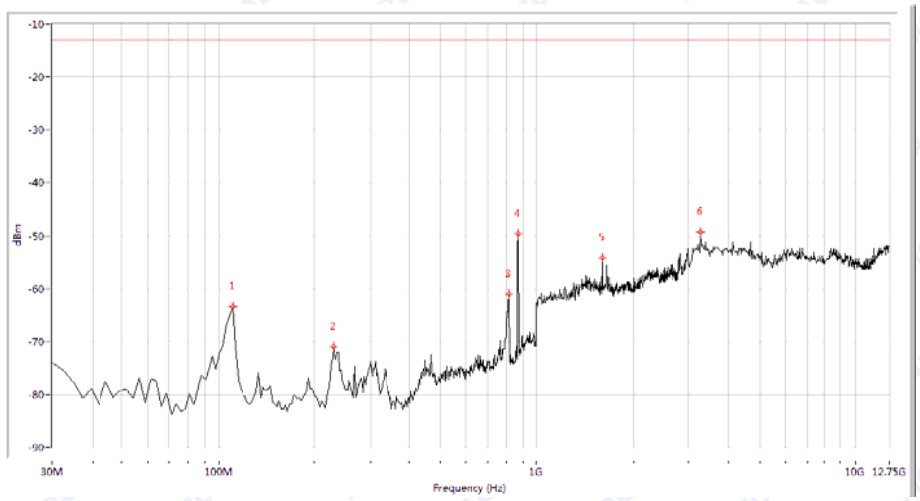
(Plot J.6: HSUPA 1900 MHz Channel = 9538, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-71.63	-13.0	58.6	278.6	Horizontal	PASS
513.791	-68.74	-13.0	55.7	0.7	Horizontal	PASS
816.160	-49.44	-13.0	36.4	99.6	Horizontal	N.A
869.377	-33.73	-13.0	20.7	125.8	Horizontal	N.A

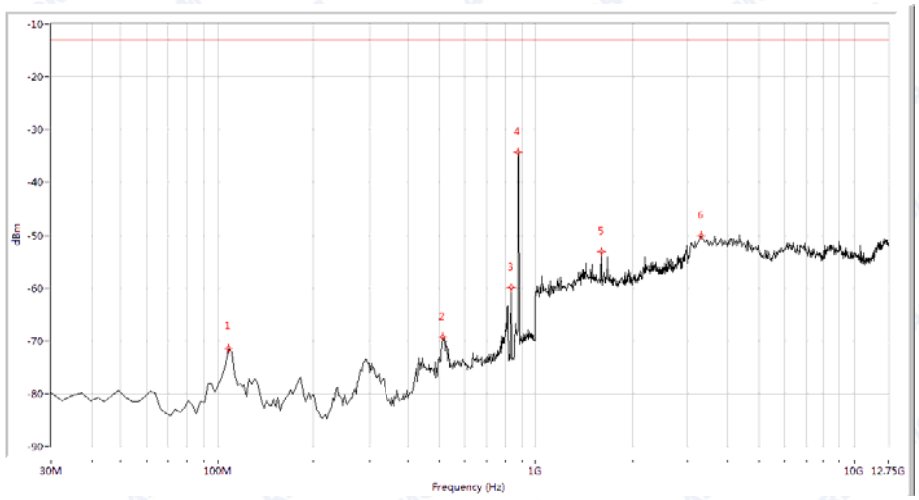
1648.379	-51.15	-13.0	38.1	306.1	Horizontal	PASS
3559.227	-49.81	-13.0	36.8	237.9	Horizontal	PASS

(Plot K.1: HSPA+ 850MHz Channel = 4132, Test Antenna Horizontal)



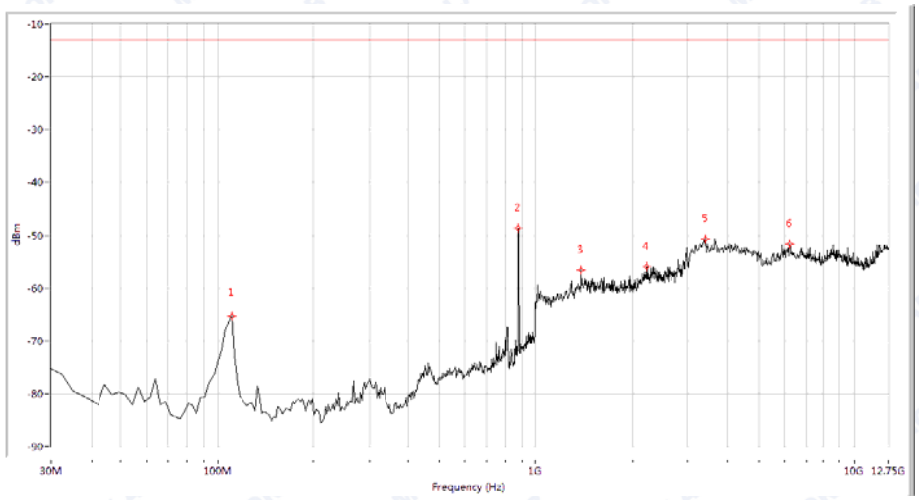
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-63.34	-13.0	50.3	9.5	Vertical	PASS
230.773	-71.02	-13.0	58.0	35.5	Vertical	PASS
813.741	-61.02	-13.0	48.0	24.7	Vertical	N.A
871.796	-49.54	-13.0	36.5	244.2	Vertical	N.A
1598.504	-54.17	-13.0	41.2	312.3	Vertical	PASS
3267.456	-49.21	-13.0	36.2	167.6	Vertical	PASS

(Plot K.2: HSPA+ 850 MHz Channel = 4132, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-71.43	-13.0	58.4	169.5	Horizontal	PASS
511.372	-69.24	-13.0	56.2	359.3	Horizontal	PASS
835.511	-59.89	-13.0	46.9	173.8	Horizontal	N.A
876.633	-34.25	-13.0	21.3	307.3	Horizontal	N.A
1598.504	-53.16	-13.0	40.2	231.8	Horizontal	PASS
3316.085	-50.08	-13.0	37.1	254.5	Horizontal	PASS

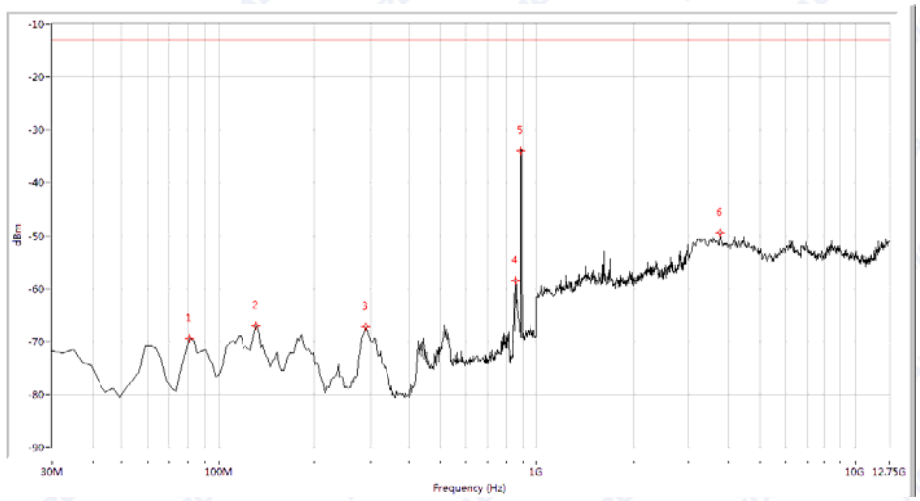
(Plot K.3: HSPA+ 850MHz Channel = 4175, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-65.32	-13.0	52.3	188.7	Vertical	PASS
876.633	-48.64	-13.0	35.6	214.7	Vertical	N.A
1389.027	-56.54	-13.0	43.5	109.8	Vertical	PASS
2206.983	-56.00	-13.0	43.0	-0.0	Vertical	PASS

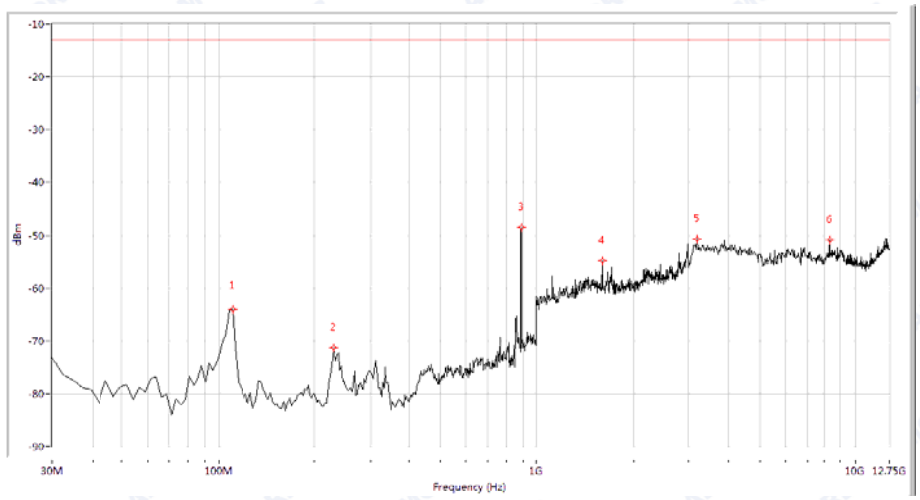
3413.342	-50.76	-13.0	37.8	286.6	Vertical	PASS
6209.476	-51.72	-13.0	38.7	0.6	Vertical	PASS

(Plot K.4: HSPA+ 850MHz Channel = 4175, Test Antenna Vertical)



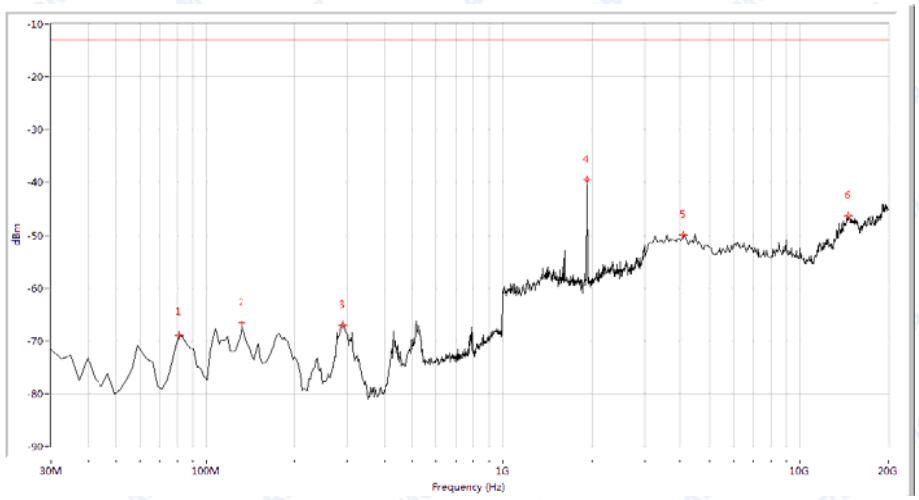
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
80.798	-69.38	-13.0	56.4	102.4	Horizontal	PASS
131.596	-66.96	-13.0	54.0	128.4	Horizontal	PASS
288.828	-67.22	-13.0	54.2	145.7	Horizontal	PASS
854.863	-58.44	-13.0	45.4	158.9	Horizontal	N.A
888.728	-33.92	-13.0	20.9	297.0	Horizontal	N.A
3753.741	-49.42	-13.0	36.4	49.6	Horizontal	PASS

(Plot K.5: HSPA+ 850MHz Channel = 4233, Test Antenna Horizontal)



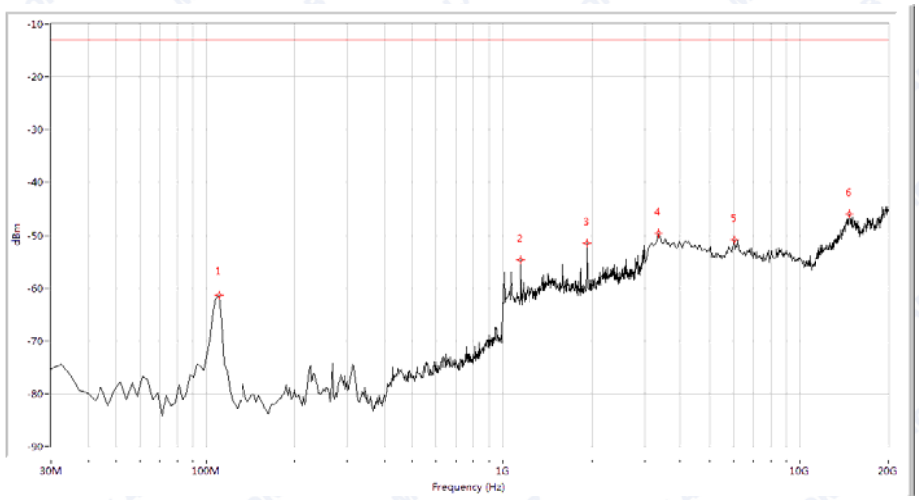
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.08	-13.0	51.1	48.1	Vertical	PASS
230.773	-71.37	-13.0	58.4	162.3	Vertical	PASS
891.147	-48.49	-13.0	35.5	187.9	Vertical	N.A
1598.504	-54.90	-13.0	41.9	-0.0	Vertical	PASS
3194.514	-50.66	-13.0	37.7	1.0	Vertical	PASS
8349.127	-50.90	-13.0	37.9	242.6	Vertical	PASS

(Plot K.6: HSPA+ 850MHz Channel = 4233, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
80.798	-68.86	-13.0	55.9	91.3	Horizontal	PASS
131.596	-66.60	-13.0	53.6	349.9	Horizontal	PASS
288.828	-67.08	-13.0	54.1	0.1	Horizontal	PASS
1932.668	-39.47	-13.0	26.5	128.6	Horizontal	N.A
4102.244	-49.97	-13.0	37.0	124.8	Horizontal	PASS
14743.142	-46.24	-13.0	33.2	328.3	Horizontal	PASS

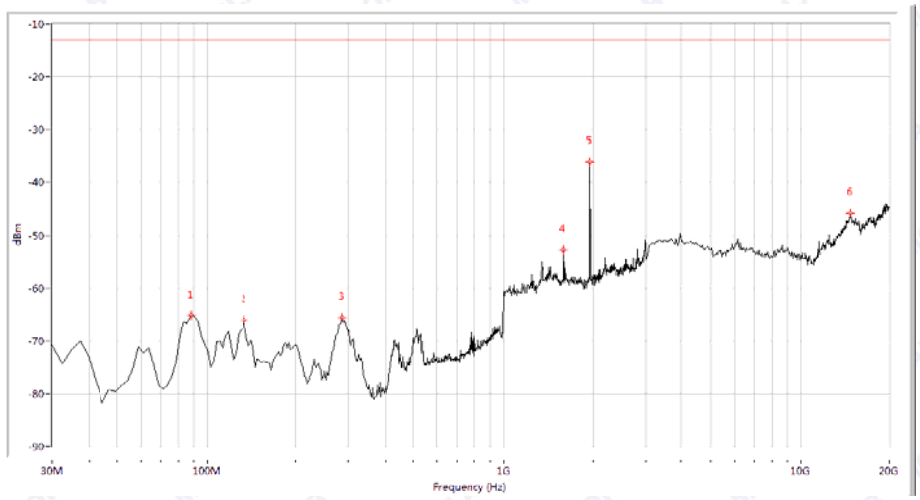
(Plot L.1: HSPA+ 1900 MHz Channel = 9262, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-61.27	-13.0	48.3	73.0	Vertical	PASS
1149.626	-54.61	-13.0	41.6	341.6	Vertical	PASS
1932.668	-51.44	-13.0	38.4	31.7	Vertical	N.A
3339.152	-49.56	-13.0	36.6	243.0	Vertical	PASS

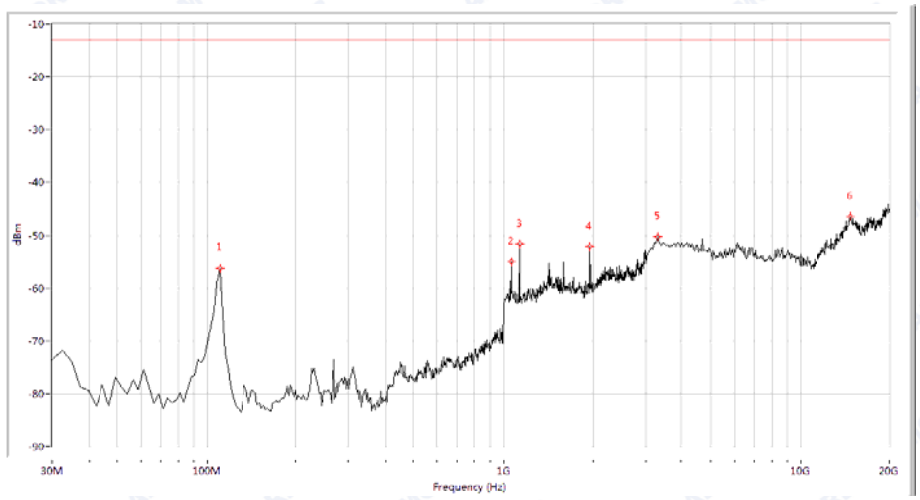
6052.369	-50.90	-13.0	37.9	324.2	Vertical	PASS
14870.324	-46.01	-13.0	33.0	41.6	Vertical	PASS

(Plot L.2: HSPA+ 1900 MHz Channel = 9262, Test Antenna Vertical)



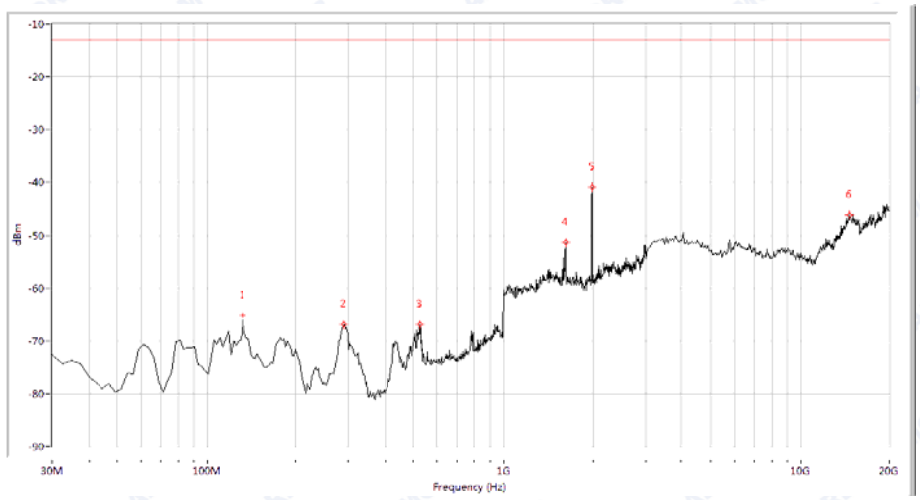
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
88.055	-65.12	-13.0	52.1	82.9	Horizontal	PASS
134.015	-66.13	-13.0	53.1	218.8	Horizontal	PASS
286.409	-65.67	-13.0	52.7	157.7	Horizontal	PASS
1598.504	-52.75	-13.0	39.7	295.0	Horizontal	N.A
1957.606	-36.15	-13.0	23.2	58.0	Horizontal	PASS
14870.324	-45.80	-13.0	32.8	142.2	Horizontal	PASS

(Plot L.3: HSPA+ 1900 MHz Channel = 9400, Test Antenna Horizontal)



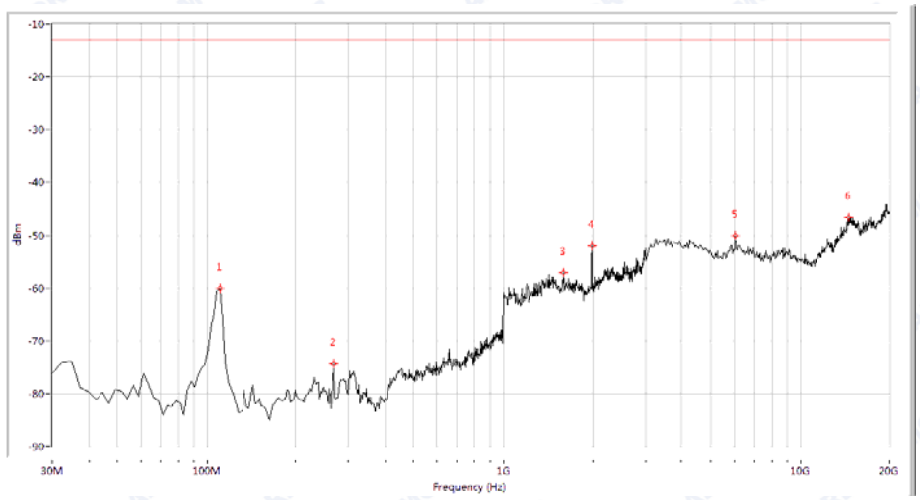
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-56.22	-13.0	43.2	24.2	Vertical	PASS
1059.850	-55.07	-13.0	42.1	352.9	Vertical	PASS
1129.676	-51.59	-13.0	38.6	20.9	Vertical	PASS
1957.606	-52.16	-13.0	39.2	128.8	Vertical	N.A
3296.758	-50.20	-13.0	37.2	291.0	Vertical	PASS
14827.930	-46.49	-13.0	33.5	360.0	Vertical	PASS

(Plot L.4: HSPA+ 1900 MHz Channel = 9400, Test Antenna Vertical)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
131.596	-65.19	-13.0	52.2	78.0	Horizontal	PASS
288.828	-66.80	-13.0	53.8	130.4	Horizontal	PASS
525.885	-66.90	-13.0	53.9	189.1	Horizontal	PASS
1628.429	-51.35	-13.0	38.4	25.2	Horizontal	PASS
1987.531	-40.91	-13.0	27.9	159.9	Horizontal	N.A
14785.536	-46.11	-13.0	33.1	53.6	Horizontal	PASS

(Plot L.5: HSPA+ 1900 MHz Channel = 9538, Test Antenna Horizontal)



Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-60.11	-13.0	47.1	24.2	Vertical	PASS
267.057	-74.39	-13.0	61.4	317.3	Vertical	PASS
1598.504	-57.06	-13.0	44.1	53.6	Vertical	PASS
1987.531	-52.01	-13.0	39.0	247.9	Vertical	N.A
6052.369	-50.02	-13.0	37.0	265.7	Vertical	PASS
14615.960	-46.65	-13.0	33.6	35.7	Vertical	PASS

(Plot L.6: HSPA+ 1900 MHz Channel = 9538, Test Antenna Vertical)

***** END OF REPORT *****