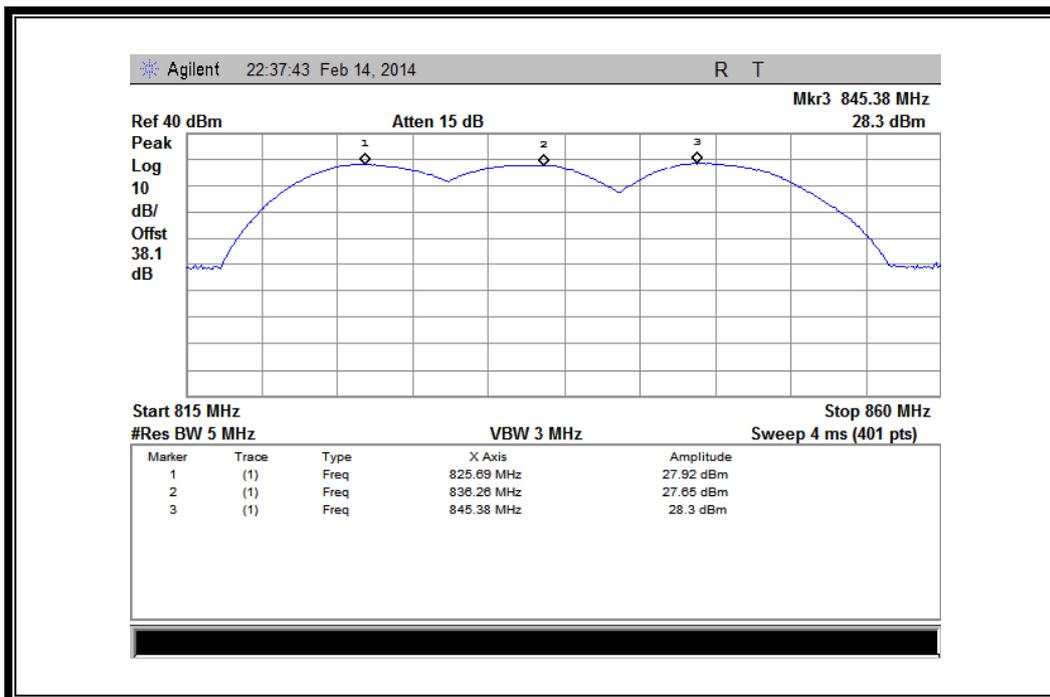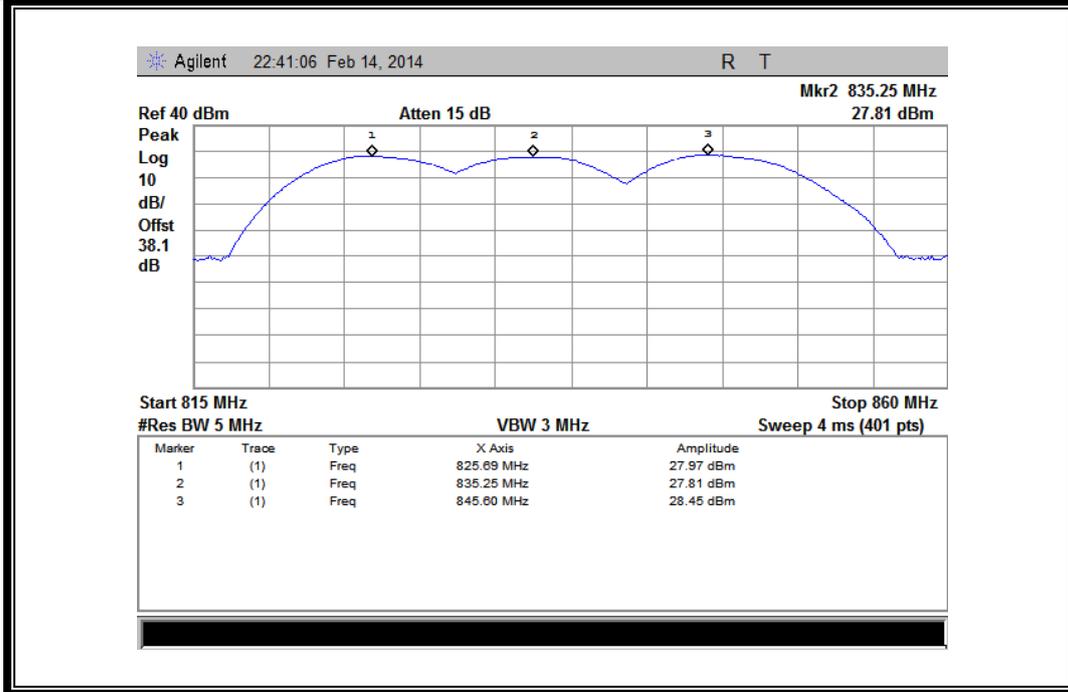(Plot G: WCDMA 850 MHz Channel = 4132, 4175, 4233)

(Plot H: HSDPA 850 MHz Channel = 4132, 4175, 4233)

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 101 of 135

(Plot I: HSUPA 850 MHz Channel = 4132, 4175, 4233)

(Plot J: WCDMA 1900 MHz Channel = 9262, 9400, 9538)

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 102 of 135
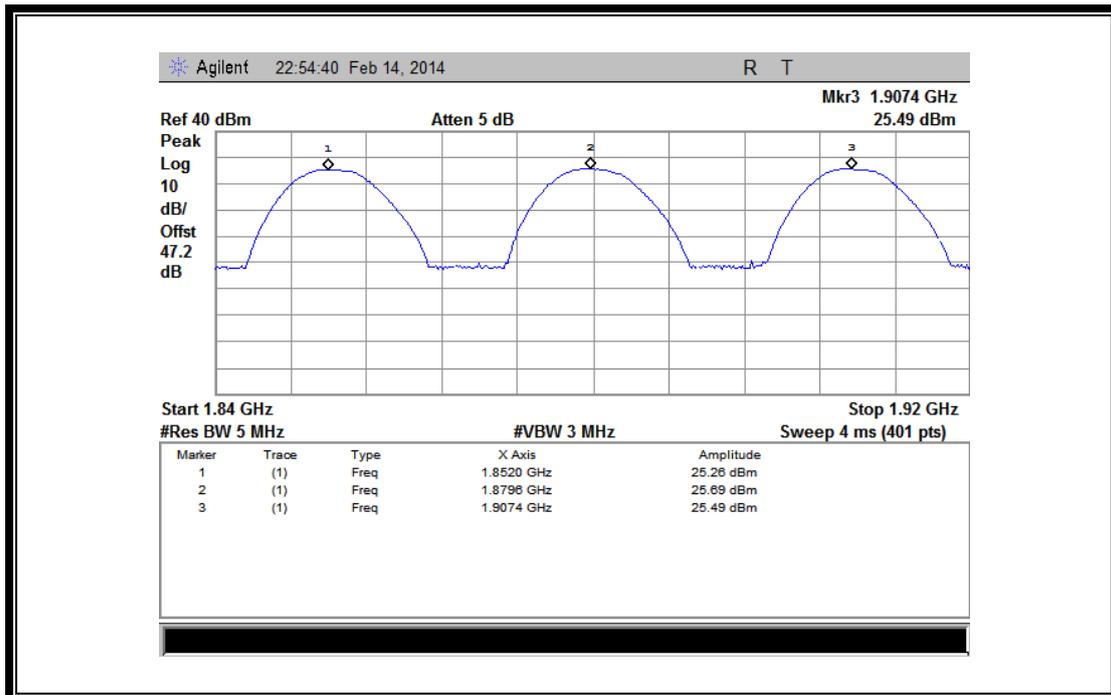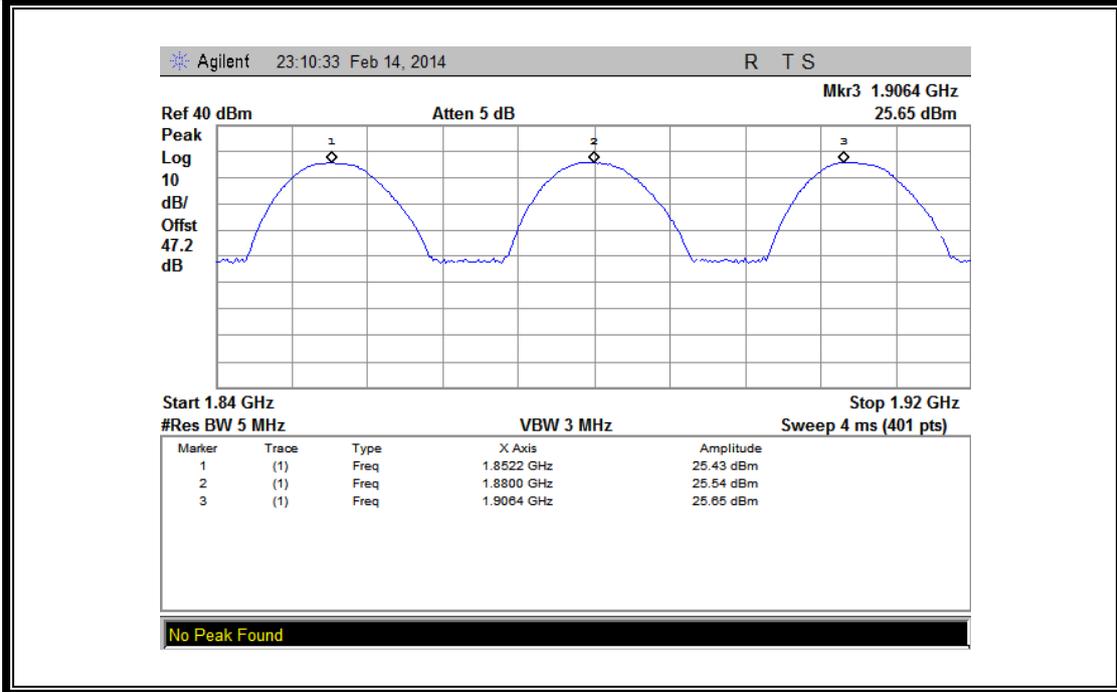
(Plot K: HSDPA1900 MHz Channel = 9262, 9400, 9538)
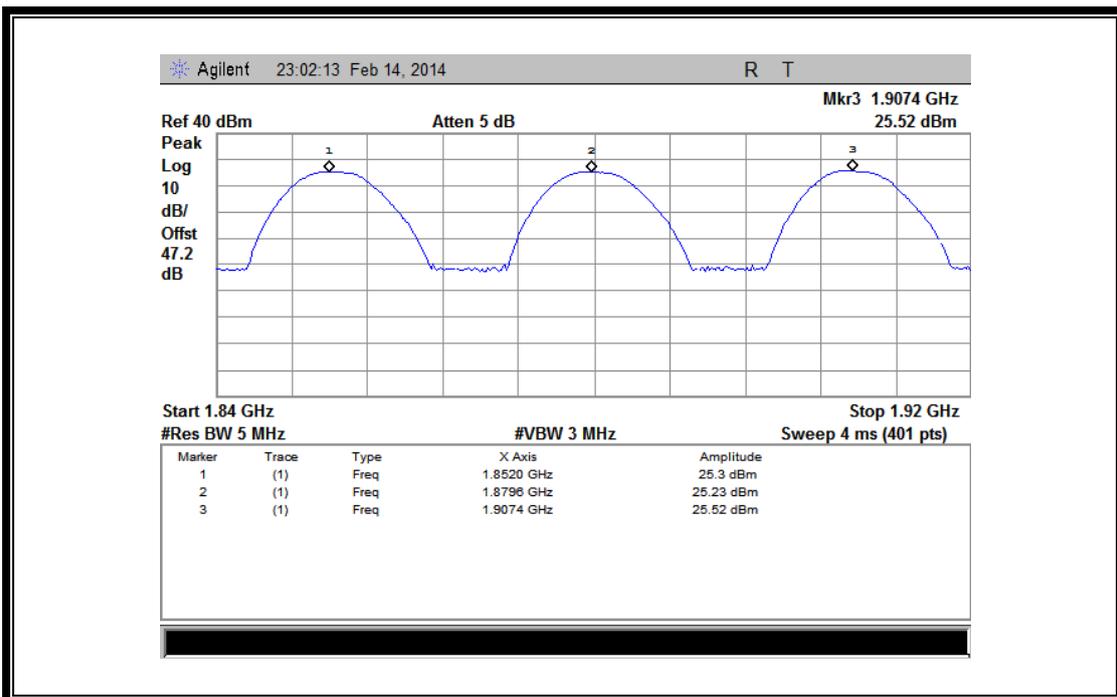
(Plot L: HSUPA1900 MHz Channel = 9262, 9400, 9538)

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.

Equipment List：

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
System Simulator	Agilent	E5515C	GB43130131	2012.05	2014.05
Spectrum Analyzer	Agilent	E7405A	US44210471	2012.05	2014.05
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2012.05	2014.05
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2012.05	2014.05
Test Antenna - Horn	Schwarzbeck	BBHA 9120C	9120C-384	2012.05	2014.05
Substitution Antenna	Schwarzbeck	BBHA 9120C	9120C-384	2012.05	2014.05
Pre-AMPs	lucix	S10M100L3802	S020180L3203	2012.05	2014.05
Notch Filter	COM-MW	ZBSF-C836.5-25-X	NA	2012.05	2014.05
Notch Filter	COM-MW	ZBSF-C1747.5-75-X2	NA	2012.05	2014.05
Notch Filter	COM-MW	ZBSF-C1880-60-X2	NA	2012.05	2014.05

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.
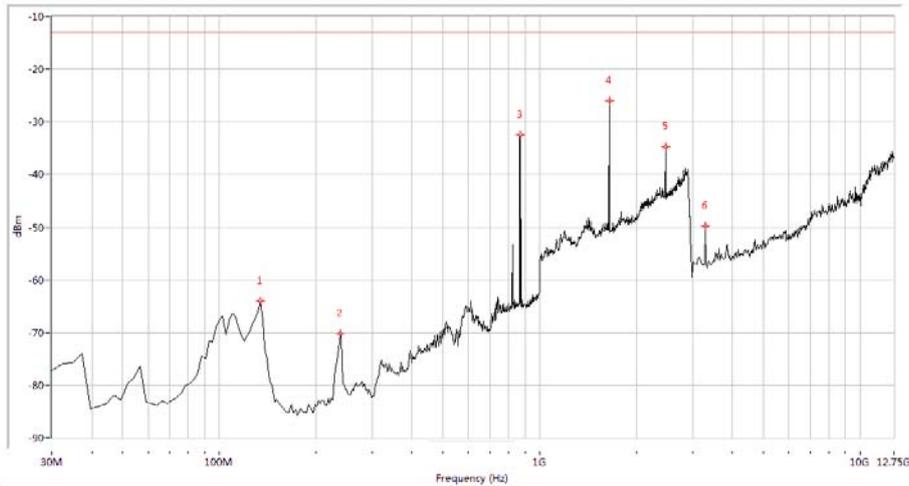
Shenzhen Morlab Communications Technology Co., Ltd
Web site: http://www.morlab.cn/
Email: info_sz@morlab.cn
Phone: +86 (0) 755 36698555
Fax: +86 (0) 755 36698525
Page 104 of 135

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	-23.76	< -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	-24.67	-24.19	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

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.

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 105 of 135

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
134.015	-63.94	-13.0	50.9	67.0	Horizontal	PASS
238.030	-70.15	-13.0	57.1	26.5	Horizontal	PASS
871.796	-32.56	-13.0	19.6	136.9	Horizontal	PASS
1648.379	-26.03	-13.0	13.0	-0.0	Horizontal	PASS
2471.322	-34.75	-13.0	21.7	203.2	Horizontal	PASS
3291.771	-49.82	-13.0	36.8	354.8	Horizontal	PASS

(Plot A.1:   GSM 850MHz Channel = 128, Test Antenna Horizontal)
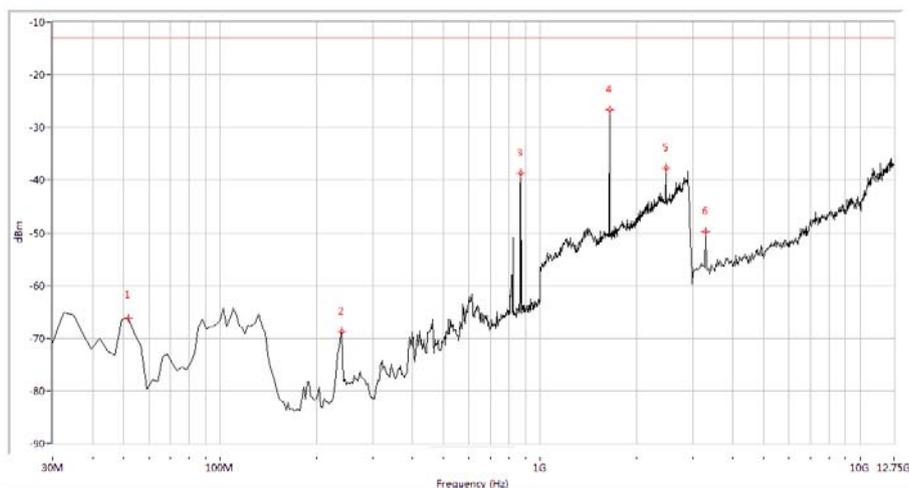
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-66.23	-13.0	53.2	359.6	Vertical	PASS
240.449	-68.76	-13.0	55.8	206.5	Vertical	PASS
871.796	-38.66	-13.0	25.7	212.1	Vertical	PASS
1648.379	-26.58	-13.0	13.6	355.5	Vertical	PASS
2471.322	-37.68	-13.0	24.7	18.8	Vertical	PASS
3291.771	-49.80	-13.0	36.8	241.4	Vertical	PASS

(Plot A.2:   GSM 850MHz Channel = 128, Test Antenna Vertical)
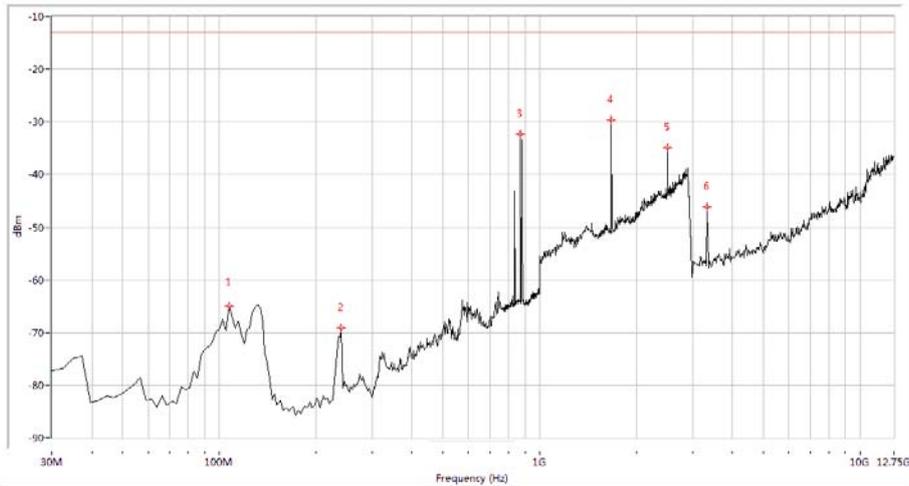
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-65.00	-13.0	52.0	303.0	Horizontal	PASS
240.449	-69.09	-13.0	56.1	161.3	Horizontal	PASS
871.796	-32.40	-13.0	19.4	133.4	Horizontal	PASS
1673.317	-29.59	-13.0	16.6	3.0	Horizontal	PASS
2506.234	-34.79	-13.0	21.8	226.6	Horizontal	PASS
3340.399	-46.09	-13.0	33.1	236.8	Horizontal	PASS

(Plot A.3:   GSM 850MHz Channel = 190, Test Antenna Horizontal)
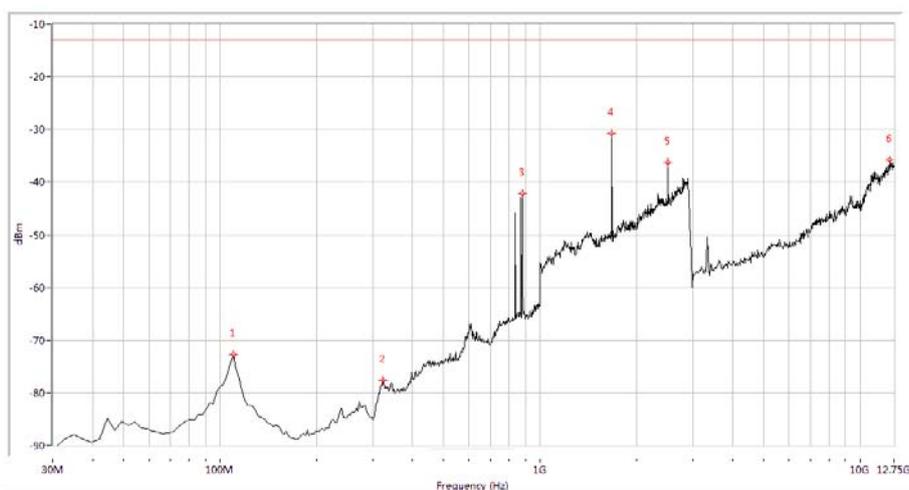
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-72.74	-13.0	59.7	197.8	Vertical	PASS
322.693	-77.68	-13.0	64.7	97.6	Vertical	PASS
879.052	-42.11	-13.0	29.1	224.2	Vertical	PASS
1673.317	-30.69	-13.0	17.7	360.0	Vertical	PASS
2506.234	-36.29	-13.0	23.3	215.4	Vertical	PASS
12385.287	-35.75	-13.0	22.7	52.0	Vertical	PASS

(Plot A.4:   GSM 850MHz Channel = 190, Test Antenna Vertical)
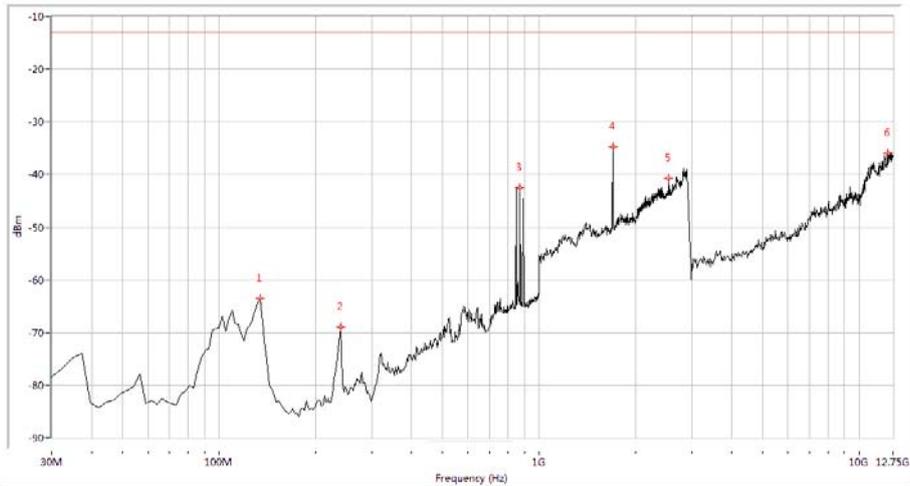
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
134.015	-63.61	-13.0	50.6	63.1	Horizontal	PASS
240.449	-68.96	-13.0	56.0	-0.0	Horizontal	PASS
871.796	-42.43	-13.0	29.4	121.9	Horizontal	PASS
1698.254	-34.67	-13.0	21.7	360.0	Horizontal	PASS
2541.147	-40.80	-13.0	27.8	0.4	Horizontal	PASS
12263.716	-36.05	-13.0	23.0	160.2	Horizontal	PASS

(Plot A.5:   GSM 850MHz Channel = 251, Test Antenna Horizontal)
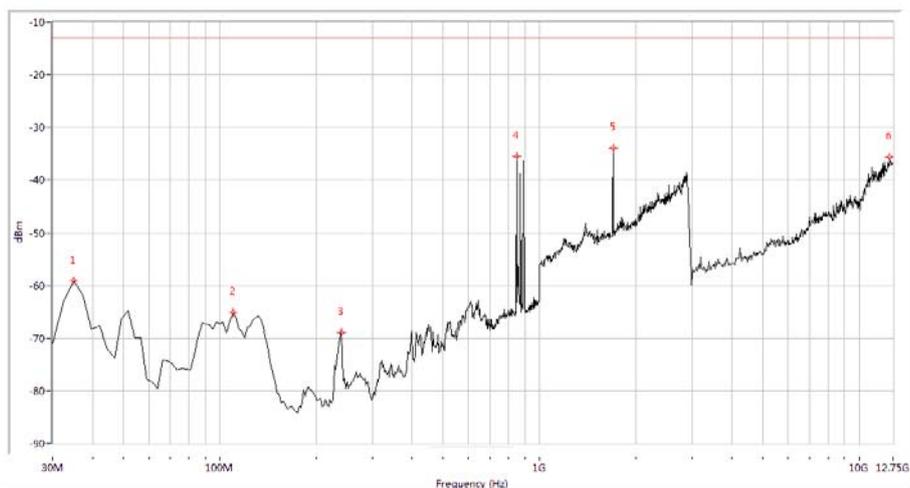
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-59.03	-13.0	46.0	80.8	Vertical	PASS
109.825	-65.06	-13.0	52.1	226.2	Vertical	PASS
240.449	-68.91	-13.0	55.9	360.0	Vertical	PASS
847.606	-35.53	-13.0	22.5	359.2	Vertical	PASS
1698.254	-33.92	-13.0	20.9	117.0	Vertical	PASS
12482.544	-35.62	-13.0	22.6	120.2	Vertical	PASS

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

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 108 of 135
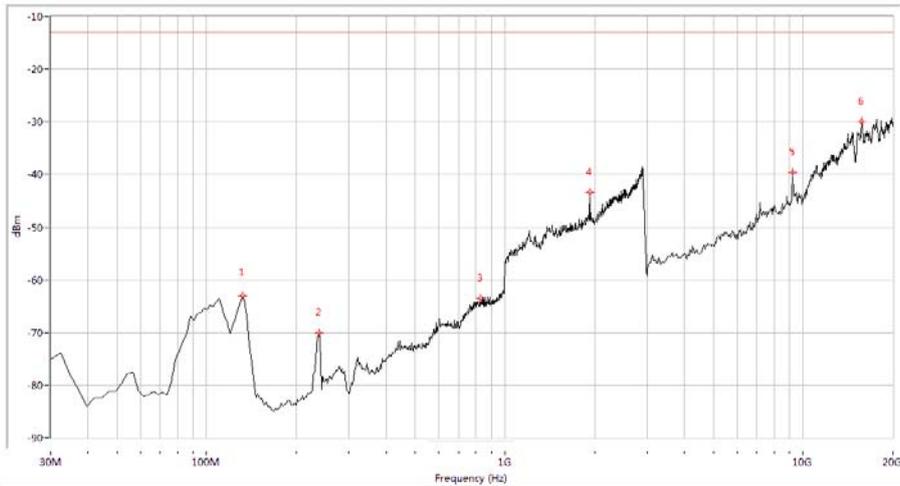
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
131.596	-63.11	-13.0	50.1	86.9	Horizontal	PASS
238.030	-70.05	-13.0	57.0	-0.0	Horizontal	PASS
830.673	-63.56	-13.0	50.6	187.7	Horizontal	PASS
1927.681	-43.41	-13.0	30.4	48.8	Horizontal	PASS
9231.920	-39.63	-13.0	26.6	0.6	Horizontal	PASS
15760.599	-30.01	-13.0	17.0	202.9	Horizontal	PASS

(Plot B.1:   GSM 1900MHz Channel = 512, Test Antenna Horizontal)
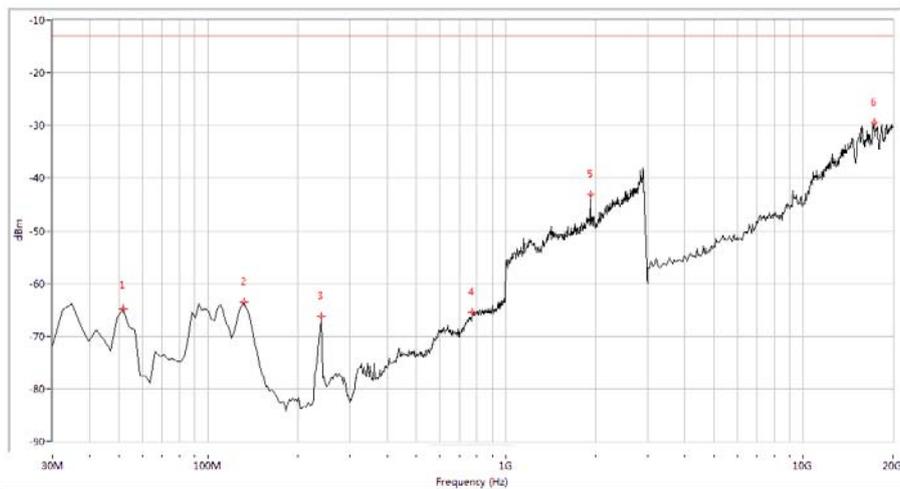
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-64.79	-13.0	51.8	156.3	Vertical	PASS
131.596	-63.47	-13.0	50.5	358.7	Vertical	PASS
240.449	-66.19	-13.0	53.2	156.3	Vertical	PASS
772.618	-65.51	-13.0	52.5	27.6	Vertical	PASS
1927.681	-43.17	-13.0	30.2	233.8	Vertical	PASS
17286.783	-29.55	-13.0	16.5	207.5	Vertical	PASS

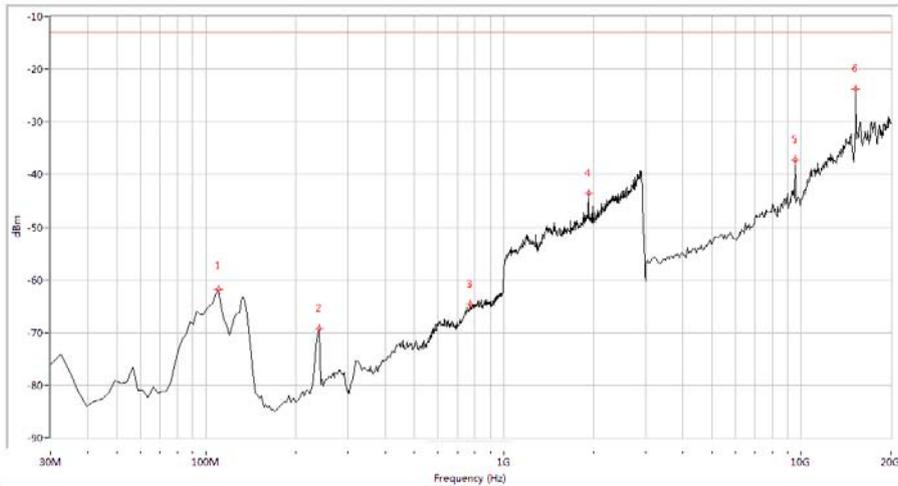(Plot B.2:   GSM 1900MHz Channel = 512, Test Antenna Vertical)
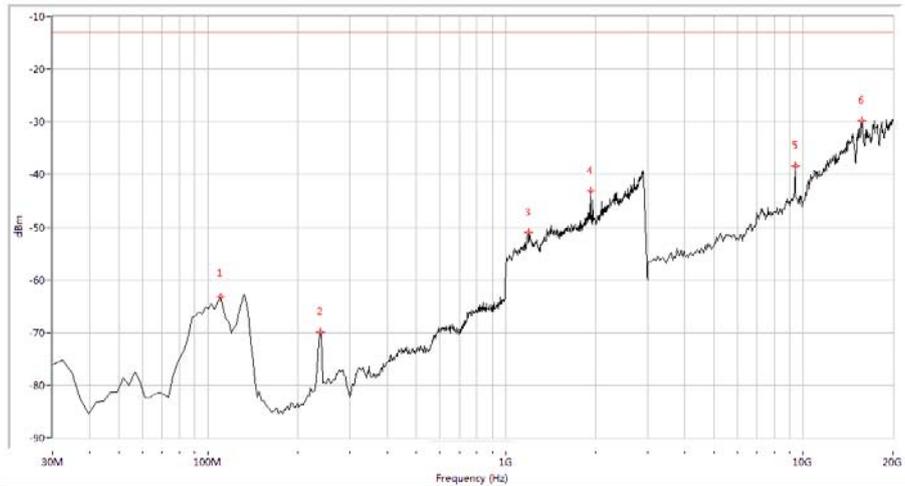
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-63.24	-13.0	50.2	269.5	Horizontal	PASS
238.030	-69.86	-13.0	56.9	-0.0	Horizontal	PASS
1189.526	-51.00	-13.0	38.0	35.0	Horizontal	PASS
1927.681	-43.12	-13.0	30.1	236.3	Horizontal	PASS
9401.496	-38.40	-13.0	25.4	-0.0	Horizontal	PASS
15760.599	-29.83	-13.0	16.8	181.4	Horizontal	PASS

(Plot B.3:   GSM 1900MHz Channel = 661, Test Antenna Horizontal)
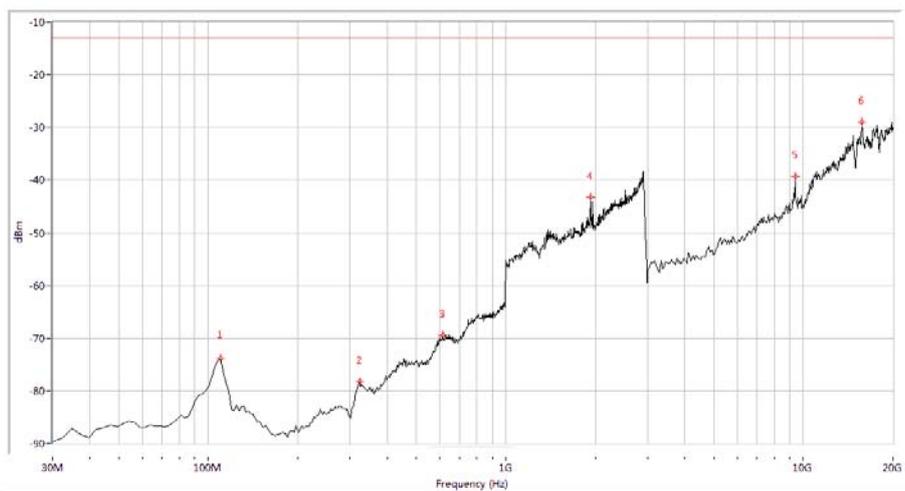
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-73.85	-13.0	60.9	99.7	Vertical	PASS
322.693	-78.21	-13.0	65.2	354.1	Vertical	PASS
615.387	-69.38	-13.0	56.4	213.2	Vertical	PASS
1927.681	-43.22	-13.0	30.2	236.8	Vertical	PASS
9401.496	-39.30	-13.0	26.3	355.0	Vertical	PASS
15760.599	-28.97	-13.0	16.0	360.0	Vertical	PASS

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

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 110 of 135

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-61.81	-13.0	48.8	281.2	Horizontal	PASS
240.449	-69.18	-13.0	56.2	32.1	Horizontal	PASS
770.200	-64.67	-13.0	51.7	138.0	Horizontal	PASS
1927.681	-43.65	-13.0	30.7	53.1	Horizontal	PASS
9528.678	-37.26	-13.0	24.3	3.4	Horizontal	PASS
15251.870	-23.76	-13.0	10.8	341.8	Horizontal	PASS

(Plot B.5:   GSM 1900MHz Channel = 810, Test Antenna Horizontal)
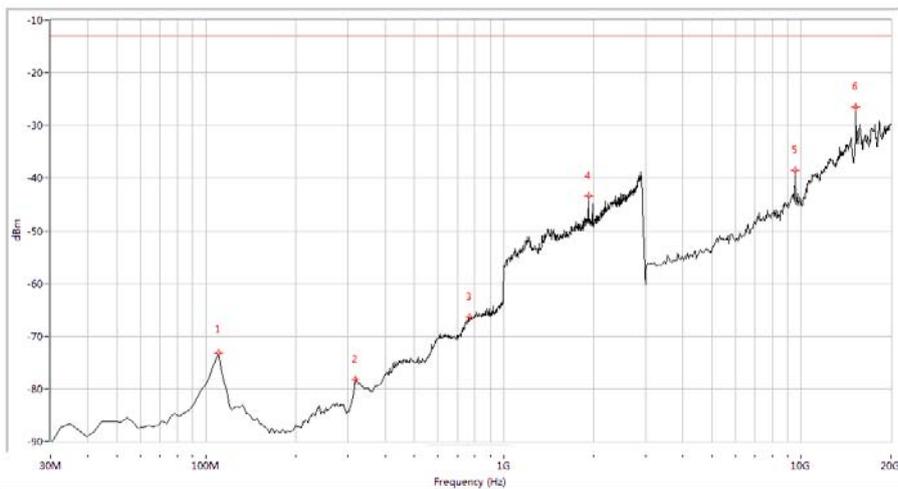
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-73.24	-13.0	60.2	345.8	Vertical	PASS
317.855	-78.30	-13.0	65.3	255.4	Vertical	PASS
765.362	-66.37	-13.0	53.4	201.1	Vertical	PASS
1927.681	-43.45	-13.0	30.4	53.2	Vertical	PASS
9528.678	-38.57	-13.0	25.6	47.1	Vertical	PASS
15251.870	-26.44	-13.0	13.4	150.5	Vertical	PASS

(PlotB.6:   GSM 1900MHz Channel = 810, Test Antenna Vertical)
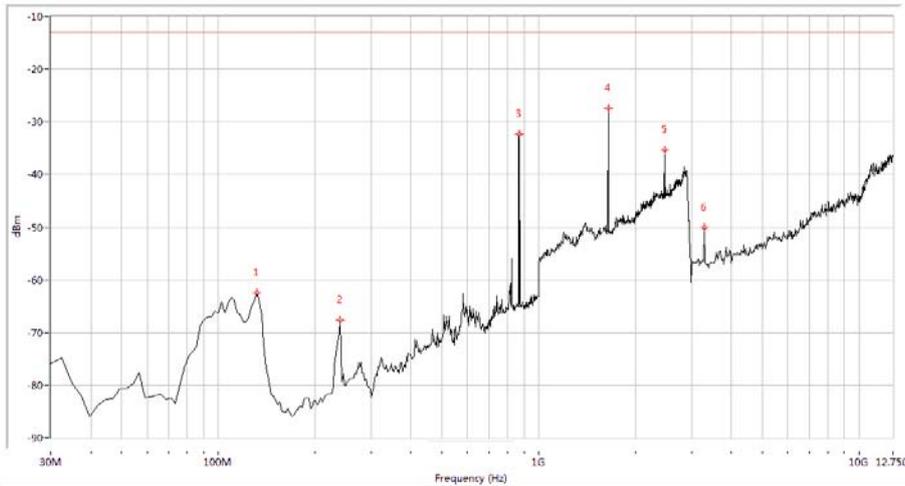
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
131.596	-62.40	-13.0	49.4	67.9	Horizontal	PASS
240.449	-67.65	-13.0	54.7	178.0	Horizontal	PASS
871.796	-32.27	-13.0	19.3	125.6	Horizontal	PASS
1648.379	-27.44	-13.0	14.4	2.9	Horizontal	PASS
2471.322	-35.35	-13.0	22.4	166.4	Horizontal	PASS
3291.771	-50.02	-13.0	37.0	-0.0	Horizontal	PASS

(Plot C.1:   EGPRS 850MHz Channel = 128, Test Antenna Horizontal)
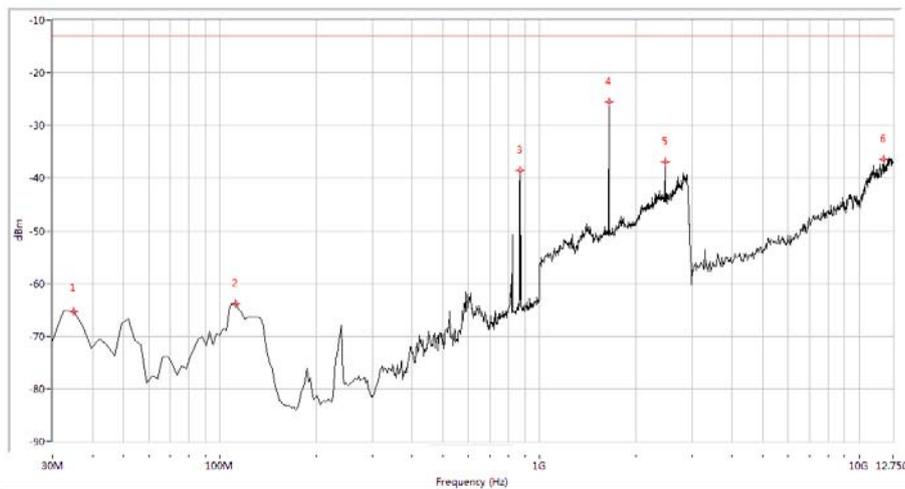
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.27	-13.0	52.3	-0.0	Vertical	PASS
112.244	-63.92	-13.0	50.9	173.5	Vertical	PASS
871.796	-38.56	-13.0	25.6	60.5	Vertical	PASS
1648.379	-25.56	-13.0	12.6	351.1	Vertical	PASS
2471.322	-36.92	-13.0	23.9	218.3	Vertical	PASS
11899.002	-36.42	-13.0	23.4	288.9	Vertical	PASS

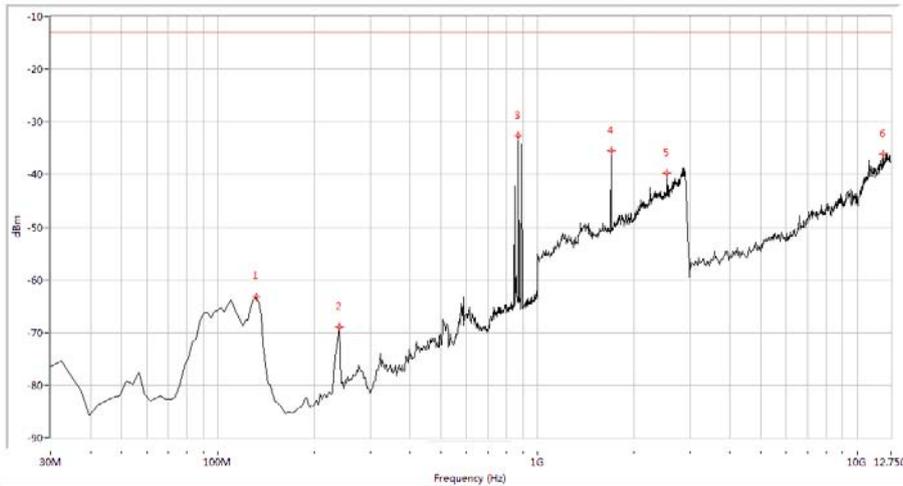(Plot C.2:   EGPRS 850MHz Channel = 128, Test Antenna Vertical)
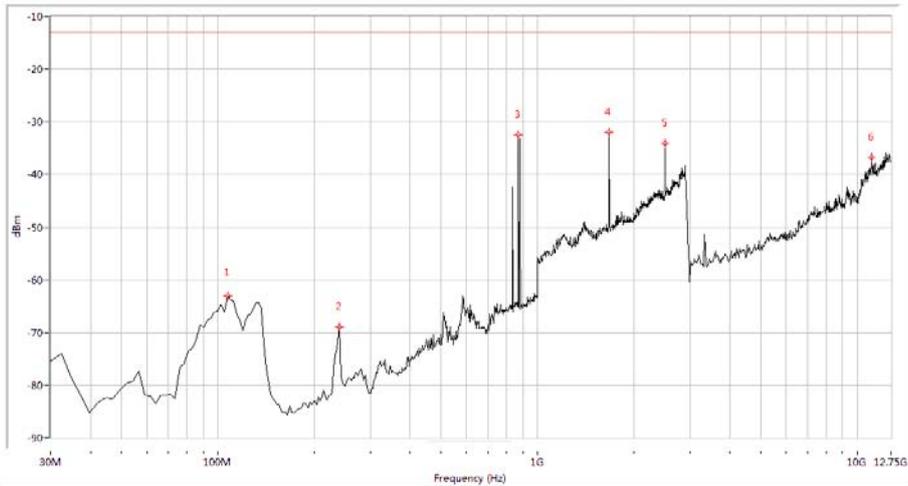
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-63.02	-13.0	50.0	239.3	Horizontal	PASS
240.449	-68.93	-13.0	55.9	151.5	Horizontal	PASS
871.796	-32.51	-13.0	19.5	131.0	Horizontal	PASS
1673.317	-31.99	-13.0	19.0	188.5	Horizontal	PASS
2506.234	-34.02	-13.0	21.0	222.7	Horizontal	PASS
11120.948	-36.79	-13.0	23.8	-0.0	Horizontal	PASS

(Plot C.3:   EGPRS 850MHz Channel = 190, Test Antenna Horizontal)
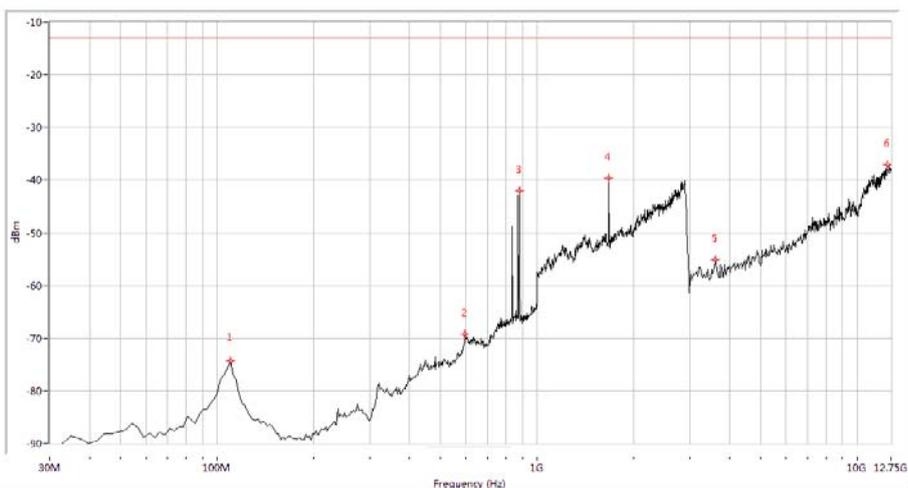
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-74.38	-13.0	61.4	152.0	Vertical	PASS
596.035	-69.17	-13.0	56.2	63.4	Vertical	PASS
879.052	-41.98	-13.0	29.0	62.8	Vertical	PASS
1673.317	-39.63	-13.0	26.6	214.6	Vertical	PASS
3607.855	-55.14	-13.0	42.1	9.5	Vertical	PASS
12433.915	-37.11	-13.0	24.1	57.1	Vertical	PASS

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

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
131.596	-63.22	-13.0	50.2	88.8	Horizontal	PASS
240.449	-68.88	-13.0	55.9	8.2	Horizontal	PASS
871.796	-32.66	-13.0	19.7	134.9	Horizontal	PASS
1698.254	-35.46	-13.0	22.5	40.2	Horizontal	PASS
2541.147	-39.78	-13.0	26.8	180.7	Horizontal	PASS
12044.888	-36.18	-13.0	23.2	72.1	Horizontal	PASS

(Plot C.5:   EGPRS 850MHz Channel = 251, Test Antenna Horizontal)
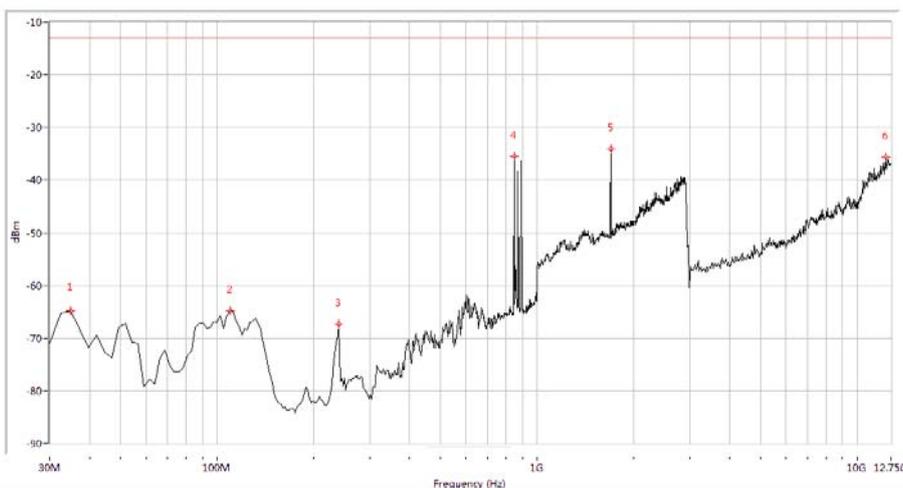
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-64.88	-13.0	51.9	352.7	Vertical	PASS
109.825	-64.75	-13.0	51.8	208.3	Vertical	PASS
240.449	-67.28	-13.0	54.3	256.7	Vertical	PASS
847.606	-35.58	-13.0	22.6	-0.0	Vertical	PASS
1698.254	-34.09	-13.0	21.1	163.5	Vertical	PASS
12263.716	-35.68	-13.0	22.7	-0.0	Vertical	PASS

(Plot C.6:   EGPRS 850MHz Channel = 251, Test Antenna Vertical)
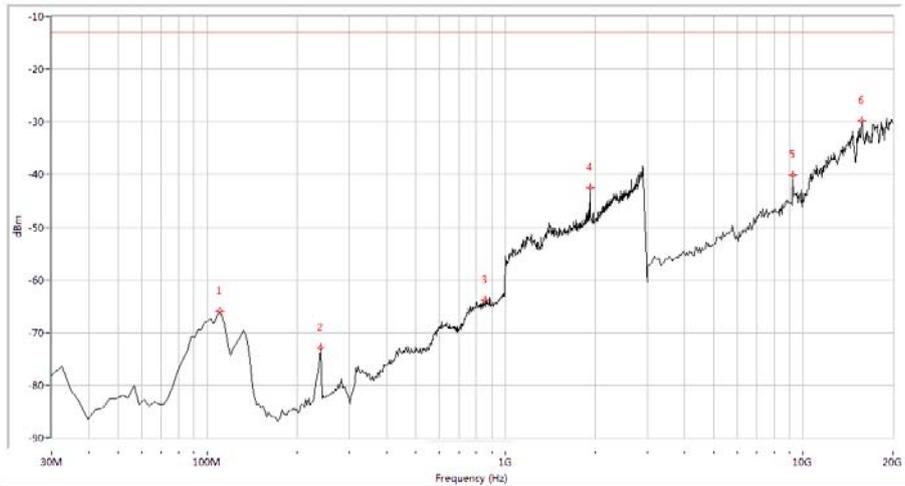
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-65.96	-13.0	53.0	245.9	Horizontal	PASS
240.449	-72.89	-13.0	59.9	26.1	Horizontal	PASS
857.282	-63.86	-13.0	50.9	140.6	Horizontal	PASS
1927.681	-42.52	-13.0	29.5	53.2	Horizontal	PASS
9231.920	-40.16	-13.0	27.2	360.0	Horizontal	PASS
15760.599	-29.74	-13.0	16.7	1.2	Horizontal	PASS

(Plot D.1:   EGPRS 1900MHz Channel = 512, Test Antenna Horizontal)
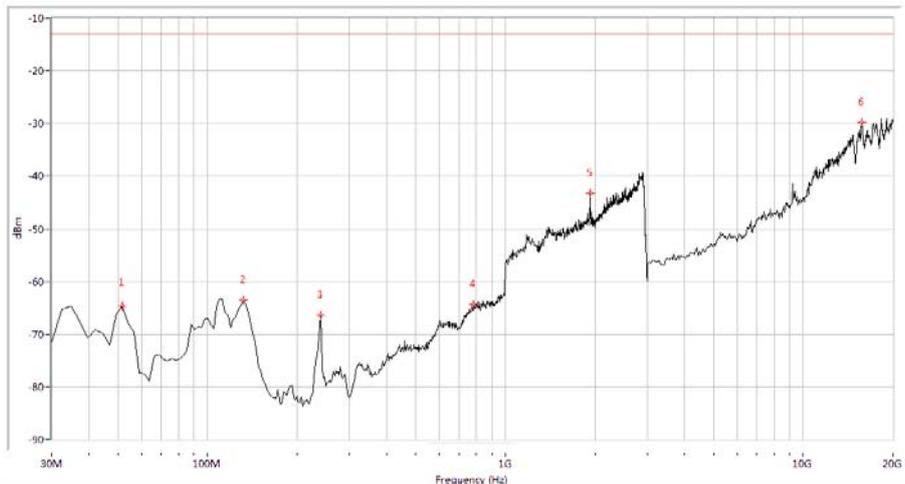
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-64.73	-13.0	51.7	-0.0	Vertical	PASS
131.596	-63.52	-13.0	50.5	143.1	Vertical	PASS
240.449	-66.39	-13.0	53.4	148.3	Vertical	PASS
784.713	-64.39	-13.0	51.4	72.4	Vertical	PASS
1927.681	-43.25	-13.0	30.2	54.3	Vertical	PASS
15760.599	-29.79	-13.0	16.8	328.7	Vertical	PASS

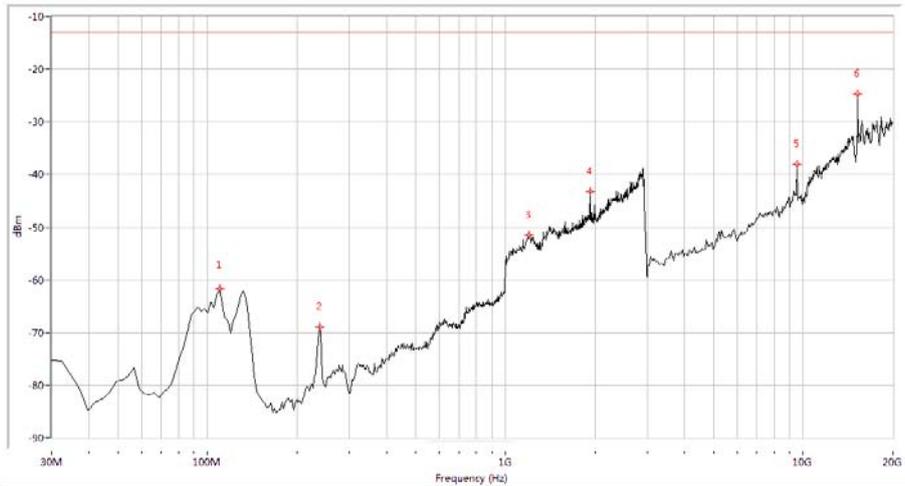(Plot D.2:   EGPRS 1900MHz Channel = 512, Test Antenna Vertical)
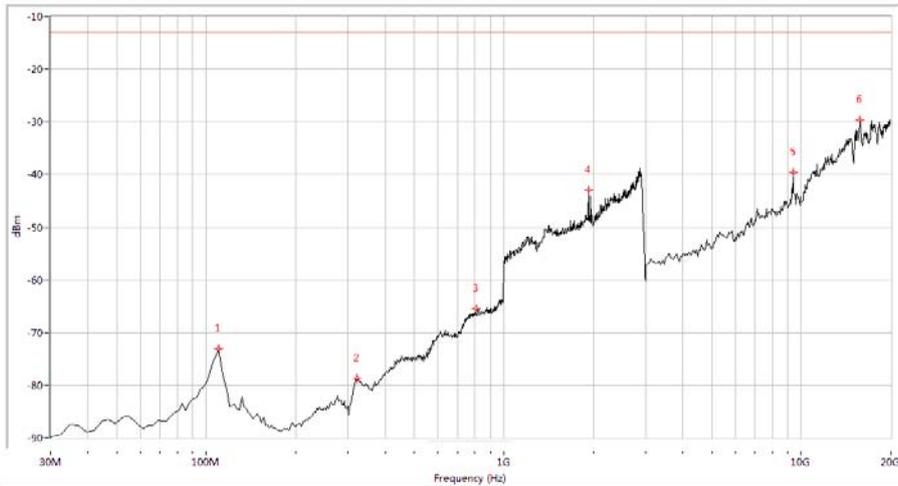
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-73.09	-13.0	60.1	178.7	Horizontal	PASS
320.274	-78.72	-13.0	65.7	215.8	Horizontal	PASS
806.484	-65.49	-13.0	52.5	358.1	Horizontal	PASS
1927.681	-42.93	-13.0	29.9	236.8	Horizontal	PASS
9401.496	-39.56	-13.0	26.6	355.8	Horizontal	PASS
15760.599	-29.64	-13.0	16.6	341.4	Horizontal	PASS

(Plot D.3:   EGPRS 1900MHz Channel = 661, Test Antenna Horizontal)
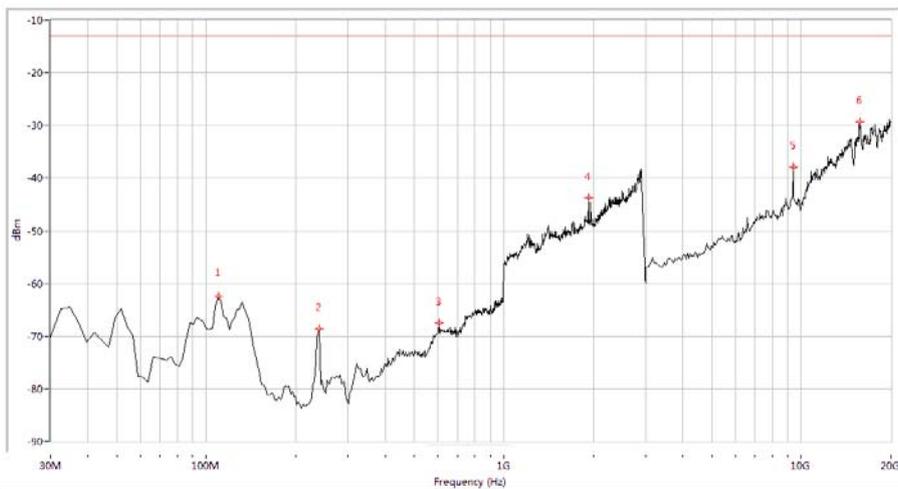
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-62.41	-13.0	49.4	194.4	Vertical	PASS
240.449	-68.54	-13.0	55.5	66.5	Vertical	PASS
605.711	-67.58	-13.0	54.6	232.3	Vertical	PASS
1927.681	-43.82	-13.0	30.8	55.5	Vertical	PASS
9401.496	-37.88	-13.0	24.9	10.3	Vertical	PASS
15760.599	-29.30	-13.0	16.3	180.6	Vertical	PASS

(Plot D.4:   EGPRS 1900MHz Channel = 661, Test Antenna Vertical)
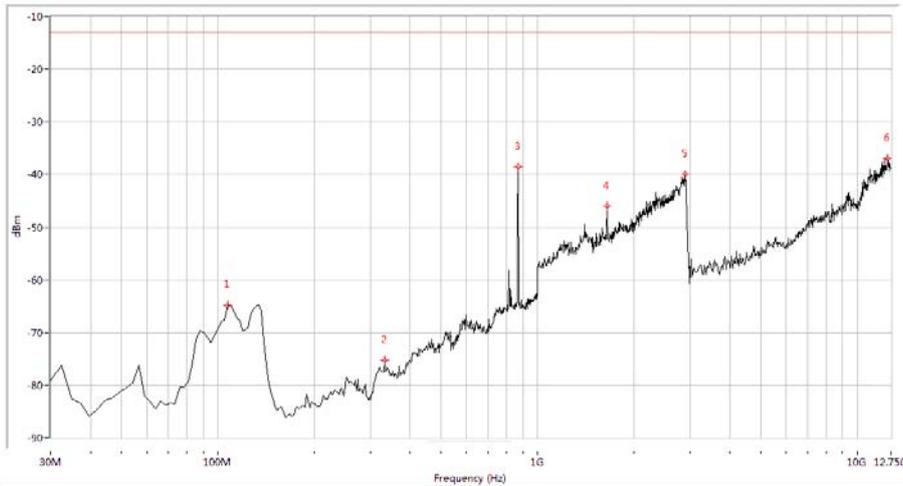
Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 116 of 135

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-61.61	-13.0	48.6	290.4	Horizontal	PASS
238.030	-68.94	-13.0	55.9	25.8	Horizontal	PASS
1204.489	-51.56	-13.0	38.6	46.2	Horizontal	PASS
1927.681	-43.22	-13.0	30.2	49.6	Horizontal	PASS
9528.678	-37.96	-13.0	25.0	0.7	Horizontal	PASS
15251.870	-24.67	-13.0	11.7	351.2	Horizontal	PASS

(Plot D.5:   EGPRS 1900MHz Channel = 810, Test Antenna Horizontal)
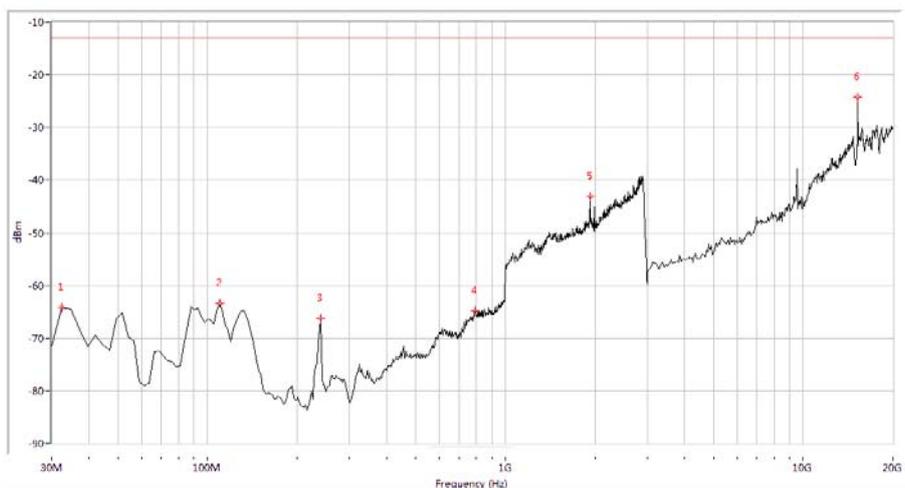
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
32.419	-64.25	-13.0	51.3	360.0	Vertical	PASS
109.825	-63.45	-13.0	50.4	214.7	Vertical	PASS
240.449	-66.30	-13.0	53.3	182.0	Vertical	PASS
791.970	-64.75	-13.0	51.8	117.3	Vertical	PASS
1927.681	-43.17	-13.0	30.2	233.0	Vertical	PASS
15251.870	-24.19	-13.0	11.2	344.8	Vertical	PASS

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

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 117 of 135

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-64.75	-13.0	51.7	125.6	Horizontal	PASS
332.369	-75.19	-13.0	62.2	320.2	Horizontal	PASS
871.796	-38.55	-13.0	25.6	214.7	Horizontal	PASS
1648.379	-45.94	-13.0	32.9	52.8	Horizontal	PASS
2890.274	-39.98	-13.0	27.0	2.0	Horizontal	PASS
12482.544	-36.90	-13.0	23.9	63.9	Horizontal	PASS

(Plot E.1:   WCDMA 850MHz Channel = 4132, Test Antenna Horizontal)
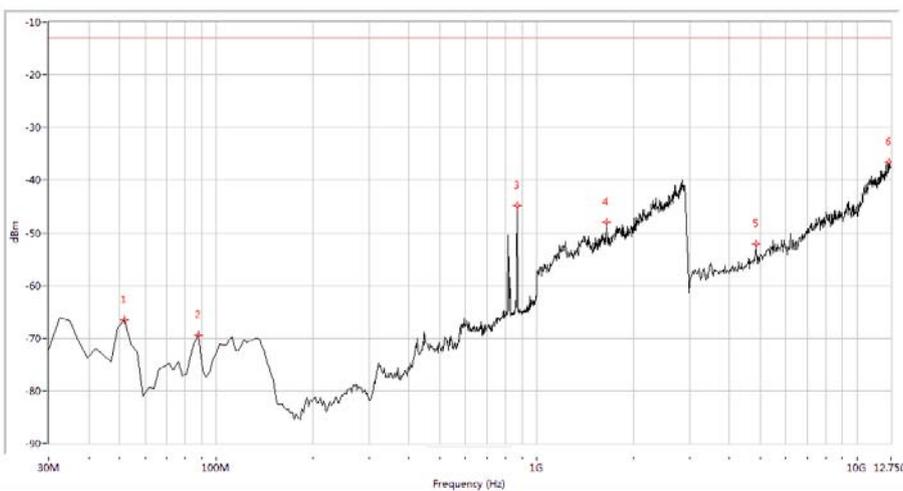
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-66.49	-13.0	53.5	63.4	Vertical	PASS
88.055	-69.47	-13.0	56.5	210.5	Vertical	PASS
871.796	-44.82	-13.0	31.8	96.4	Vertical	PASS
1648.379	-47.95	-13.0	35.0	123.1	Vertical	PASS
4847.880	-52.17	-13.0	39.2	52.3	Vertical	PASS
12628.429	-36.63	-13.0	23.6	323.7	Vertical	PASS

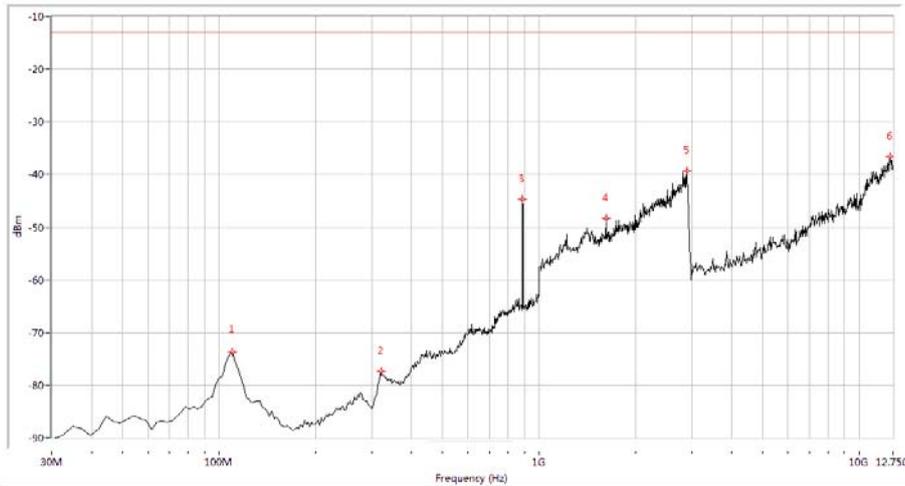(Plot E.2:   WCDMA 850MHz Channel = 4132, Test Antenna Vertical)
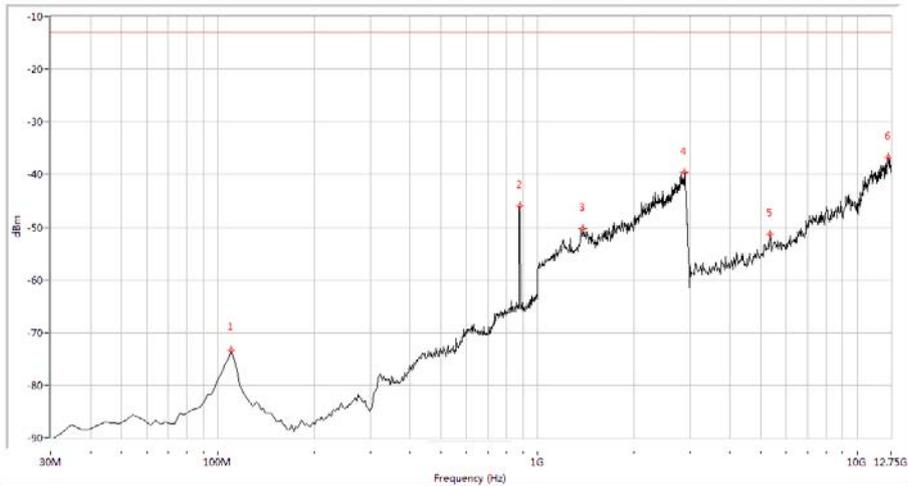
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-73.36	-13.0	60.4	74.3	Horizontal	PASS
879.052	-45.95	-13.0	33.0	152.6	Horizontal	PASS
1389.027	-50.21	-13.0	37.2	96.0	Horizontal	PASS
2885.287	-39.64	-13.0	26.6	214.2	Horizontal	PASS
5334.165	-51.38	-13.0	38.4	32.5	Horizontal	PASS
12555.486	-36.82	-13.0	23.8	0.0	Horizontal	PASS

(Plot E.3:   WCDMA 850MHz Channel = 4175, Test Antenna Horizontal)
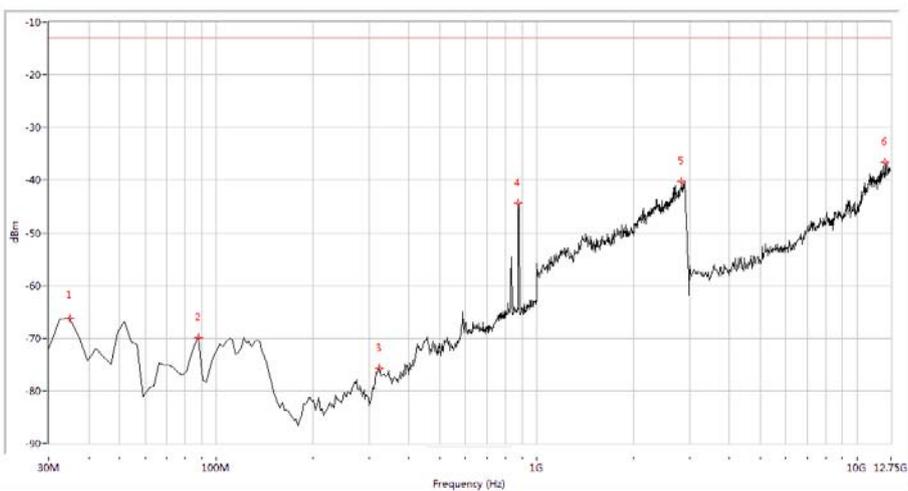
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-66.22	-13.0	53.2	0.0	Vertical	PASS
88.055	-69.90	-13.0	56.9	85.1	Vertical	PASS
322.693	-75.78	-13.0	62.8	162.3	Vertical	PASS
876.633	-44.34	-13.0	31.3	241.5	Vertical	PASS
2830.424	-40.25	-13.0	27.3	36.0	Vertical	PASS
12239.401	-36.60	-13.0	23.6	8.6	Vertical	PASS

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

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-73.64	-13.0	60.6	15.2	Horizontal	PASS
320.274	-77.38	-13.0	64.4	63.4	Horizontal	PASS
888.728	-44.72	-13.0	31.7	98.1	Horizontal	PASS
1618.454	-48.37	-13.0	35.4	124.6	Horizontal	PASS
2900.249	-39.34	-13.0	26.3	241.0	Horizontal	PASS
12555.486	-36.55	-13.0	23.6	323.7	Horizontal	PASS

(Plot E.5:   WCDMA 850MHz Channel = 4233, Test Antenna Horizontal)
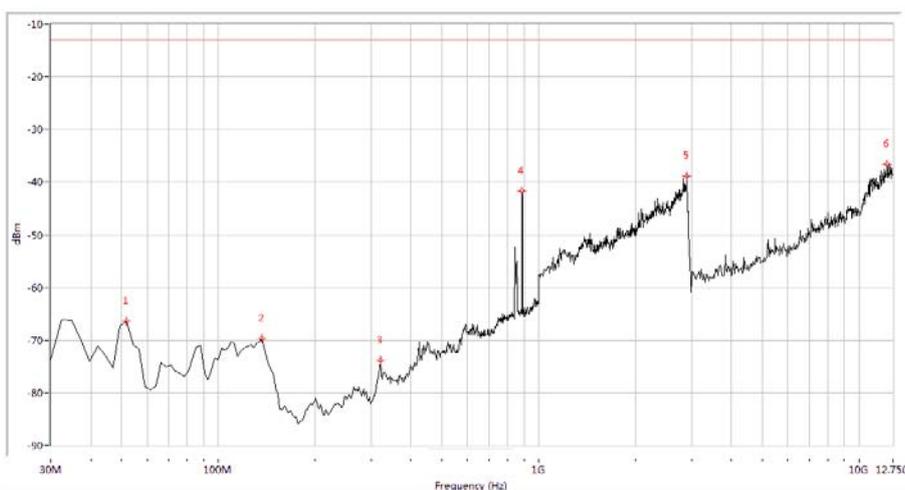
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-66.46	-13.0	53.5	152.0	Vertical	PASS
136.434	-69.67	-13.0	56.7	326.9	Vertical	PASS
320.274	-73.90	-13.0	60.9	74.8	Vertical	PASS
888.728	-41.74	-13.0	28.7	32.2	Vertical	PASS
2895.262	-38.81	-13.0	25.8	54.6	Vertical	PASS
12239.401	-36.57	-13.0	23.6	120.3	Vertical	PASS

(Plot E.6:   WCDMA 850MHz Channel = 4233, Test Antenna Vertical)
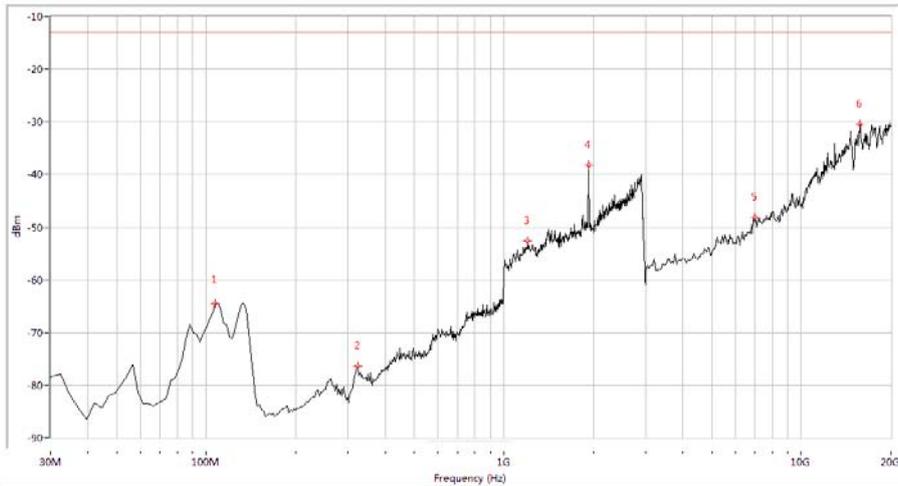
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-64.52	-13.0	51.5	63.1	Horizontal	PASS
322.693	-76.41	-13.0	63.4	152.2	Horizontal	PASS
1204.489	-52.69	-13.0	39.7	241.0	Horizontal	PASS
1927.681	-38.26	-13.0	25.3	302.7	Horizontal	PASS
6985.037	-48.16	-13.0	35.2	48.6	Horizontal	PASS
15760.599	-30.40	-13.0	17.4	120.4	Horizontal	PASS

(Plot F.1: WCDMA 1900MHz Channel = 9262, Test Antenna Horizontal)
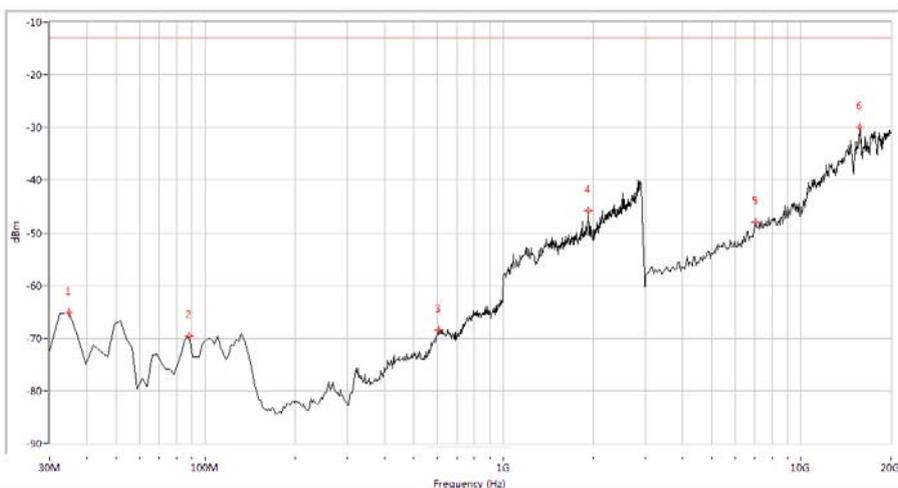
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.11	-13.0	52.1	3.6	Vertical	PASS
88.055	-69.50	-13.0	56.5	32.2	Vertical	PASS
605.711	-68.52	-13.0	55.5	151.4	Vertical	PASS
1927.681	-45.78	-13.0	32.8	85.7	Vertical	PASS
7027.431	-48.04	-13.0	35.0	162.5	Vertical	PASS
15760.599	-29.93	-13.0	16.9	2.4	Vertical	PASS

(Plot F.2: WCDMA 1900MHz Channel = 9262, Test Antenna Vertical)
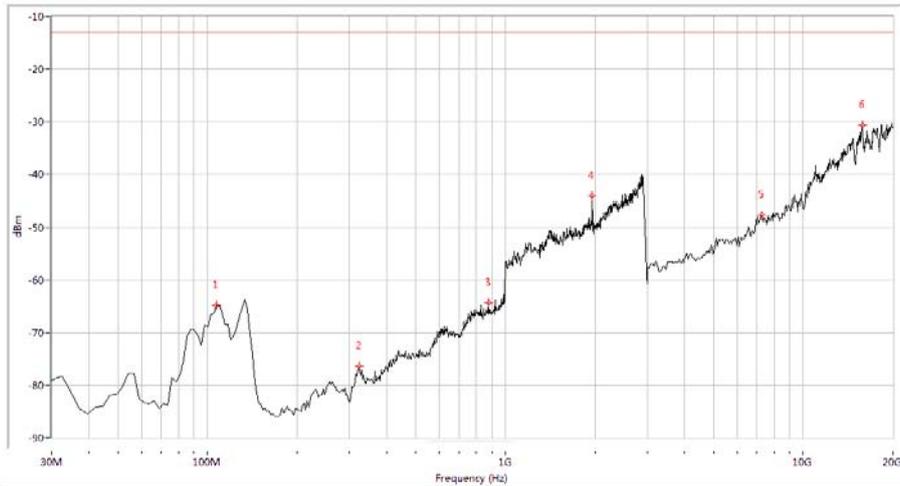
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-64.77	-13.0	51.8	165.3	Horizontal	PASS
322.693	-76.30	-13.0	63.3	42.9	Horizontal	PASS
876.633	-64.36	-13.0	51.4	174.1	Horizontal	PASS
1957.606	-44.11	-13.0	31.1	61.0	Horizontal	PASS
7239.401	-47.73	-13.0	34.7	5.2	Horizontal	PASS
15802.993	-30.61	-13.0	17.6	47.8	Horizontal	PASS

(Plot F.3:　WCDMA 1900MHz Channel = 9400, Test Antenna Horizontal)
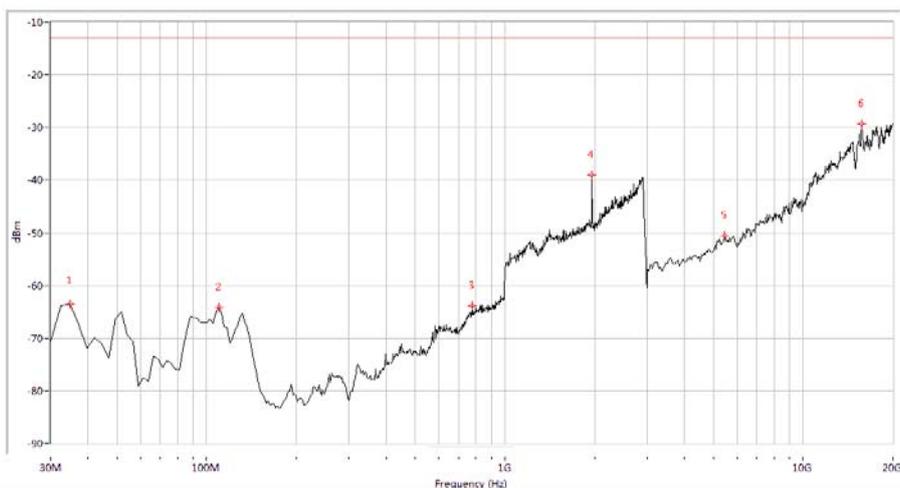
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-63.49	-13.0	50.5	360.0	Vertical	PASS
109.825	-64.19	-13.0	51.2	156.2	Vertical	PASS
777.456	-63.80	-13.0	50.8	171.8	Vertical	PASS
1957.606	-39.00	-13.0	26.0	161.6	Vertical	PASS
5458.853	-50.58	-13.0	37.6	109.1	Vertical	PASS
15718.204	-29.27	-13.0	16.3	360.0	Vertical	PASS

(Plot F.4:　WCDMA 1900MHz Channel = 9400, Test Antenna Vertical)
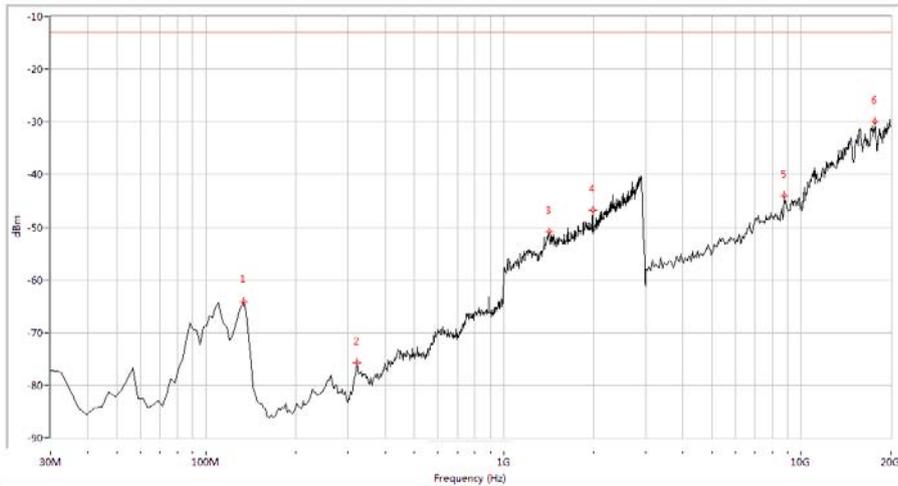
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
134.015	-64.14	-13.0	51.1	152.6	Horizontal	PASS
320.274	-75.79	-13.0	62.8	74.1	Horizontal	PASS
1418.953	-50.92	-13.0	37.9	142.0	Horizontal	PASS
1987.531	-46.78	-13.0	33.8	74.8	Horizontal	PASS
8765.586	-44.07	-13.0	31.1	5.4	Horizontal	PASS
17668.329	-29.98	-13.0	17.0	20.1	Horizontal	PASS

(Plot F.5:   WCDMA 1900MHz Channel = 9538, Test Antenna Horizontal)
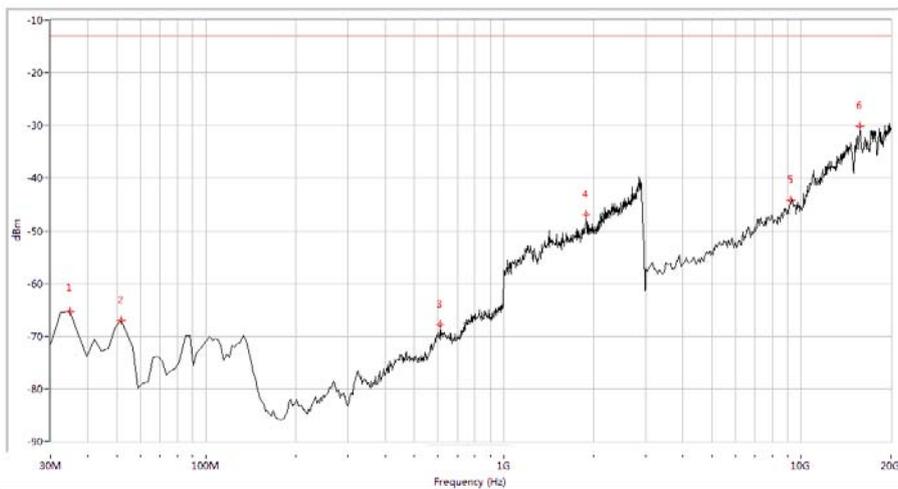
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.26	-13.0	52.3	152.6	Vertical	PASS
51.771	-66.97	-13.0	54.0	321.2	Vertical	PASS
612.968	-67.79	-13.0	54.8	141.8	Vertical	PASS
1897.756	-46.97	-13.0	34.0	165.4	Vertical	PASS
9231.920	-44.15	-13.0	31.2	20.1	Vertical	PASS
15760.599	-30.16	-13.0	17.2	68.7	Vertical	PASS

(Plot F.6:   WCDMA 1900MHz Channel = 9538, Test Antenna Vertical)
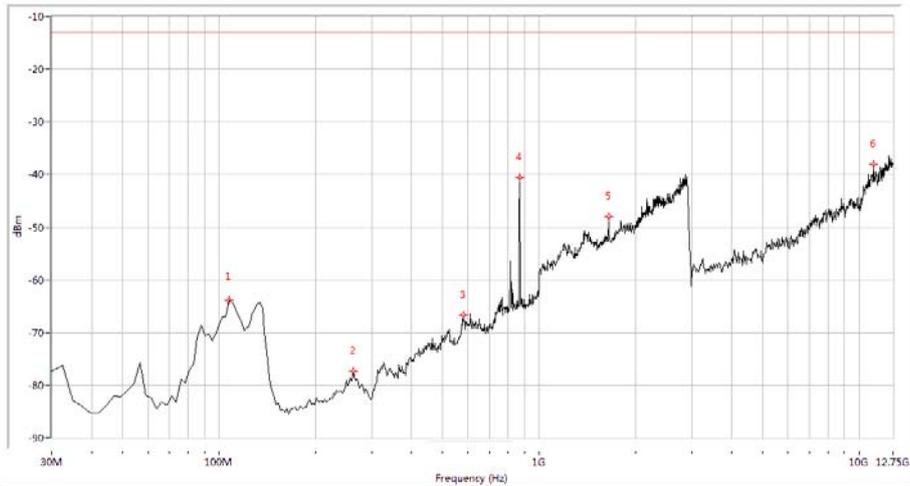
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-63.94	-13.0	50.9	152.2	Horizontal	PASS
262.219	-77.25	-13.0	64.3	41.6	Horizontal	PASS
579.102	-66.66	-13.0	53.7	98.7	Horizontal	PASS
871.796	-40.58	-13.0	27.6	232.0	Horizontal	PASS
1648.379	-48.09	-13.0	35.1	121.4	Horizontal	PASS
11120.948	-38.01	-13.0	25.0	62.3	Horizontal	PASS

(Plot G.1:   HSDPA 850MHz Channel = 4132, Test Antenna Horizontal)
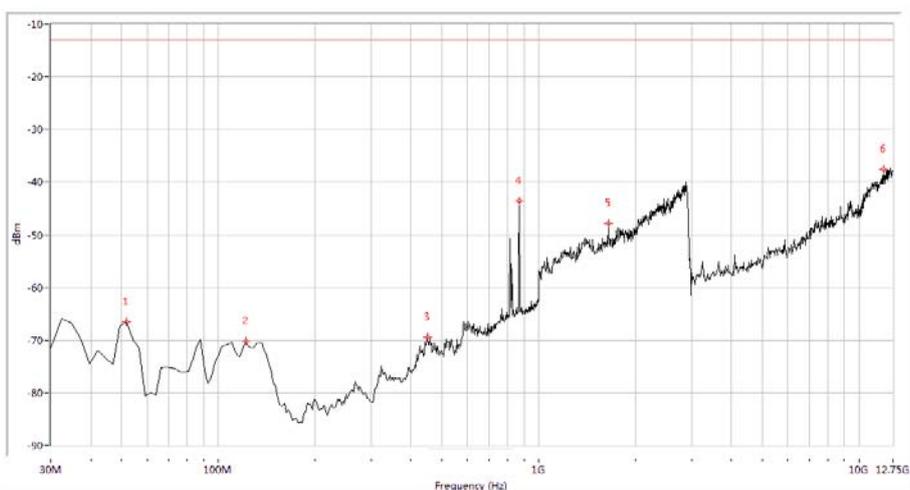
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-66.57	-13.0	53.6	62.3	Vertical	PASS
121.920	-70.27	-13.0	57.3	154.8	Vertical	PASS
450.898	-69.34	-13.0	56.3	233.1	Vertical	PASS
871.796	-43.65	-13.0	30.7	20.0	Vertical	PASS
1648.379	-47.94	-13.0	34.9	9.4	Vertical	PASS
11923.317	-37.57	-13.0	24.6	320.7	Vertical	PASS

(Plot G.2:   HSDPA 850MHz Channel = 4132, Test Antenna Vertical)
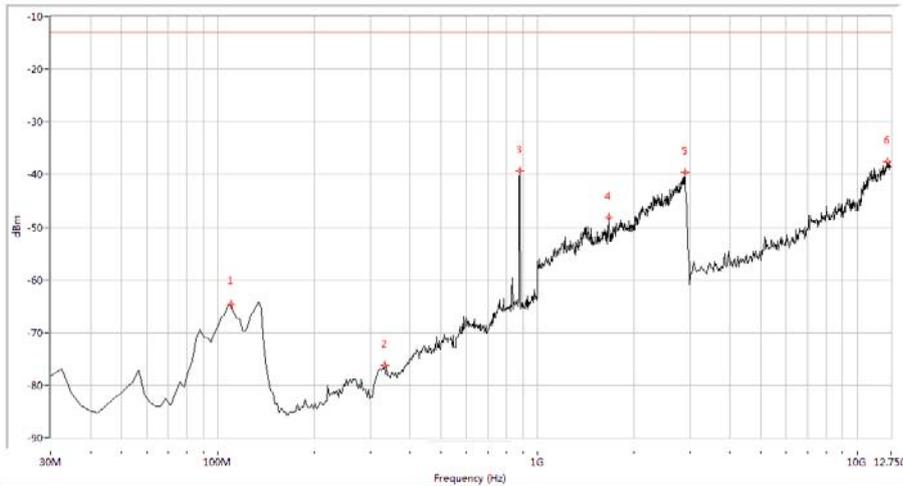
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.72	-13.0	51.7	25.1	Horizontal	PASS
332.369	-76.26	-13.0	63.3	63.5	Horizontal	PASS
879.052	-39.32	-13.0	26.3	126.7	Horizontal	PASS
1673.317	-48.24	-13.0	35.2	321.8	Horizontal	PASS
2890.274	-39.69	-13.0	26.7	141.0	Horizontal	PASS
12458.229	-37.49	-13.0	24.5	46.4	Horizontal	PASS

(Plot G.3:   HSDPA 850MHz Channel = 4175, Test Antenna Horizontal)
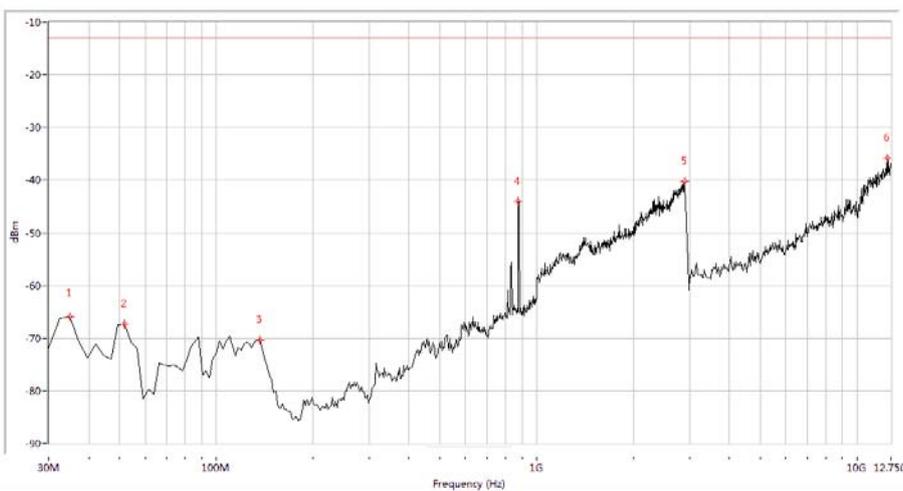
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.99	-13.0	53.0	154.2	Vertical	PASS
51.771	-67.41	-13.0	54.4	263.1	Vertical	PASS
136.434	-70.39	-13.0	57.4	96.4	Vertical	PASS
876.633	-44.06	-13.0	31.1	165.0	Vertical	PASS
2890.274	-40.33	-13.0	27.3	74.8	Vertical	PASS
12458.229	-35.86	-13.0	22.9	11.3	Vertical	PASS

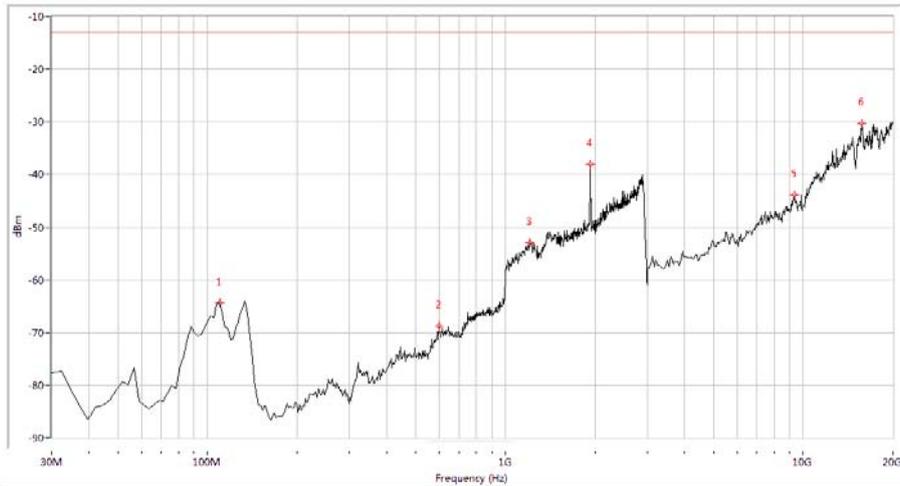(Plot G.4:   HSDPA 850MHz Channel = 4175, Test Antenna Vertical)
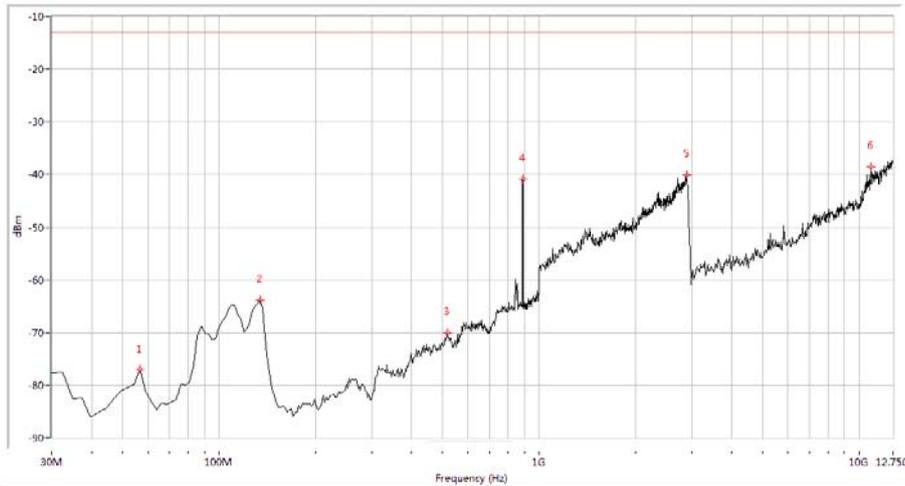
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
56.608	-77.02	-13.0	64.0	63.2	Horizontal	PASS
134.015	-63.86	-13.0	50.9	125.3	Horizontal	PASS
516.209	-70.10	-13.0	57.1	320.4	Horizontal	PASS
891.147	-40.91	-13.0	27.9	141.7	Horizontal	PASS
2900.249	-40.10	-13.0	27.1	58.9	Horizontal	PASS
10902.120	-38.56	-13.0	25.6	2.6	Horizontal	PASS

(Plot G.5:   HSDPA 850MHz Channel = 4233, Test Antenna Horizontal)
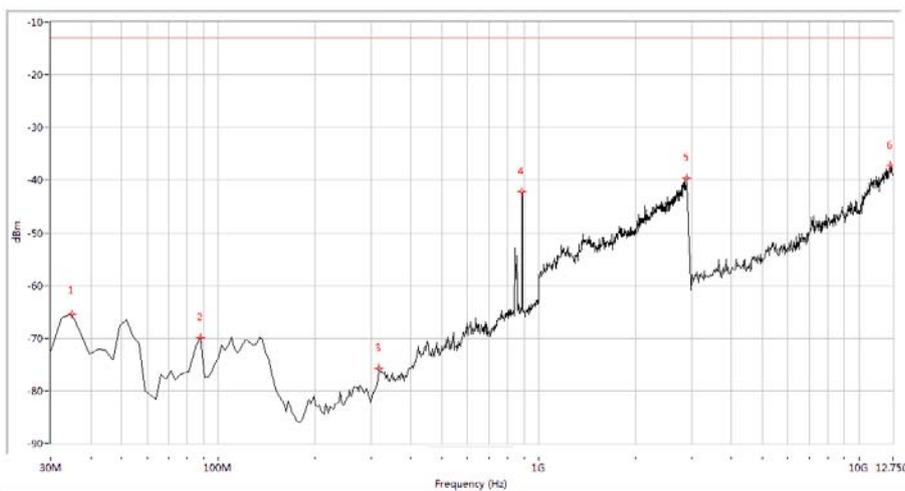
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.52	-13.0	52.5	15.2	Vertical	PASS
88.055	-69.82	-13.0	56.8	30.6	Vertical	PASS
317.855	-75.80	-13.0	62.8	41.8	Vertical	PASS
888.728	-42.15	-13.0	29.2	152.6	Vertical	PASS
2895.262	-39.68	-13.0	26.7	214.9	Vertical	PASS
12555.486	-37.26	-13.0	24.3	20.3	Vertical	PASS

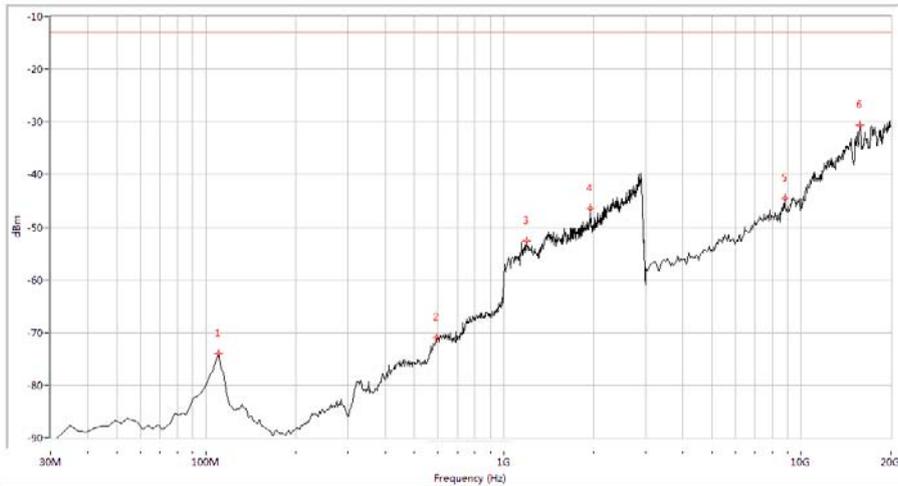(Plot G.6:   HSDPA 850MHz Channel = 4233, Test Antenna Vertical)

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 126 of 135

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.31	-13.0	51.3	63.2	Horizontal	PASS
598.454	-68.76	-13.0	55.8	123.5	Horizontal	PASS
1209.476	-52.95	-13.0	40.0	74.6	Horizontal	PASS
1932.668	-38.08	-13.0	25.1	181.4	Horizontal	PASS
9359.102	-43.96	-13.0	31.0	30.1	Horizontal	PASS
15718.204	-30.35	-13.0	17.4	241.7	Horizontal	PASS

(Plot H.1:   HSDPA 1900 MHz Channel = 9262, Test Antenna Horizontal)
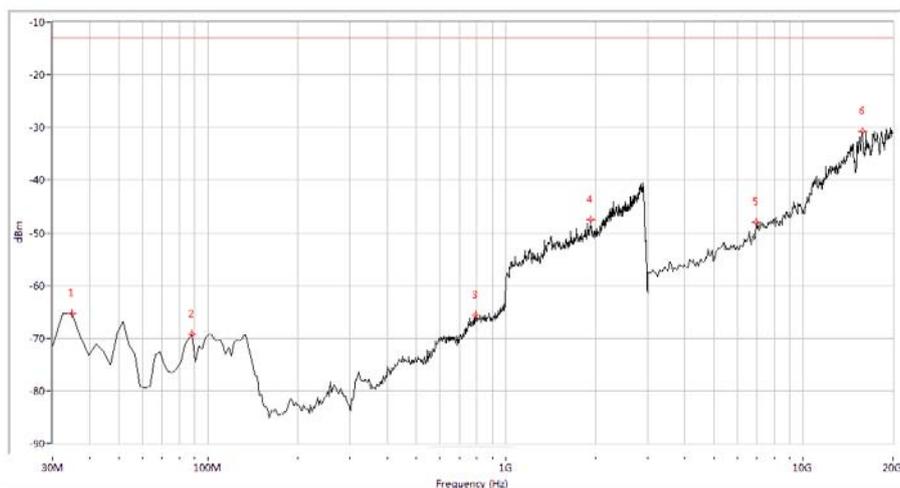
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.30	-13.0	52.3	36.2	Vertical	PASS
88.055	-69.24	-13.0	56.2	151.9	Vertical	PASS
794.389	-65.61	-13.0	52.6	52.4	Vertical	PASS
1932.668	-47.60	-13.0	34.6	232.5	Vertical	PASS
6942.643	-48.09	-13.0	35.1	146.7	Vertical	PASS
15802.993	-30.77	-13.0	17.8	65.1	Vertical	PASS

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

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 127 of 135

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-74.06	-13.0	61.1	162.3	Horizontal	PASS
593.616	-70.96	-13.0	58.0	5.4	Horizontal	PASS
1189.526	-52.58	-13.0	39.6	32.0	Horizontal	PASS
1957.606	-46.37	-13.0	33.4	2.5	Horizontal	PASS
8807.980	-44.53	-13.0	31.5	161.9	Horizontal	PASS
15760.599	-30.57	-13.0	17.6	4.6	Horizontal	PASS

(PlotH.3:HSDPA 1900 MHz Channel = 9400, Test Antenna Horizontal)
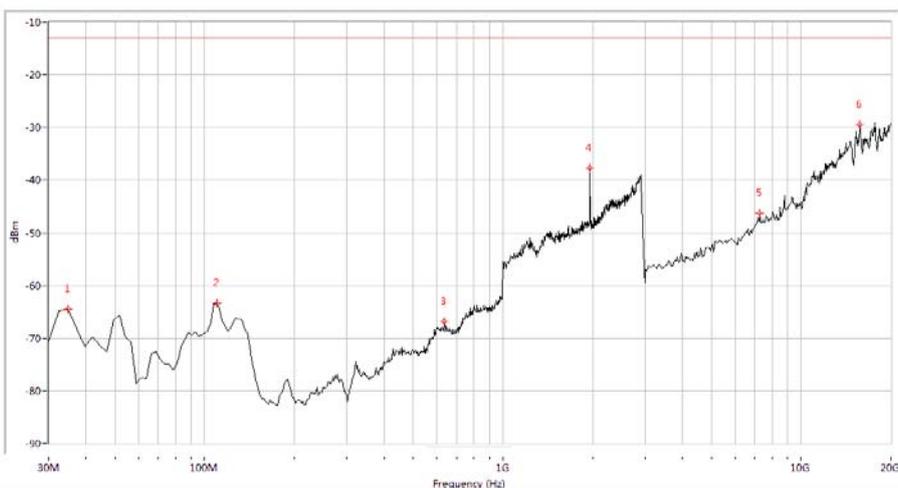
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-64.46	-13.0	51.5	105.1	Vertical	PASS
109.825	-63.42	-13.0	50.4	199.2	Vertical	PASS
637.157	-66.83	-13.0	53.8	216.3	Vertical	PASS
1957.606	-37.75	-13.0	24.8	235.9	Vertical	PASS
7281.796	-46.26	-13.0	33.3	191.1	Vertical	PASS
15760.599	-29.56	-13.0	16.6	-0.0	Vertical	PASS

(Plot H.4:   HSDPA 1900 MHz Channel = 9400, Test Antenna Vertical)
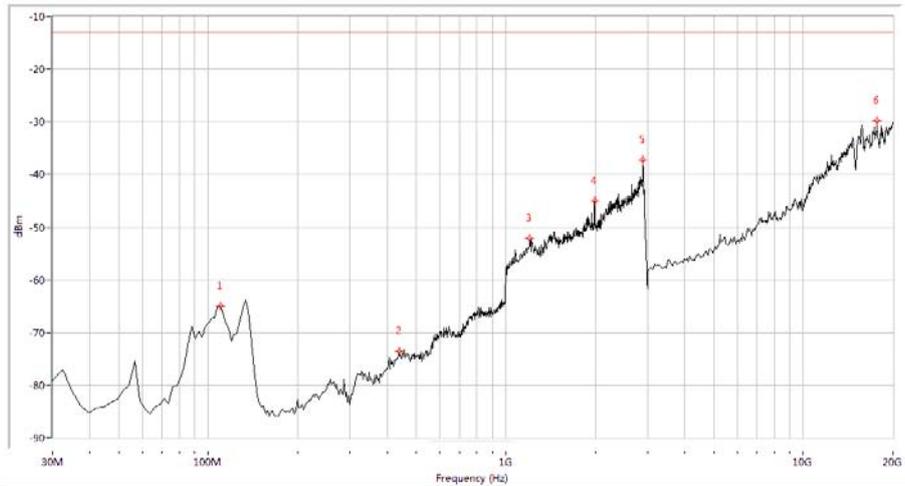
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-65.03	-13.0	52.0	15.6	Horizontal	PASS
438.803	-73.58	-13.0	60.6	32.1	Horizontal	PASS
1204.489	-52.18	-13.0	39.2	152.3	Horizontal	PASS
1987.531	-45.05	-13.0	32.1	24.7	Horizontal	PASS
2895.262	-37.25	-13.0	24.3	152.0	Horizontal	PASS
17668.329	-29.87	-13.0	16.9	96.7	Horizontal	PASS

(Plot H.5:   HSDPA 1900 MHz Channel = 9538, Test Antenna Horizontal)
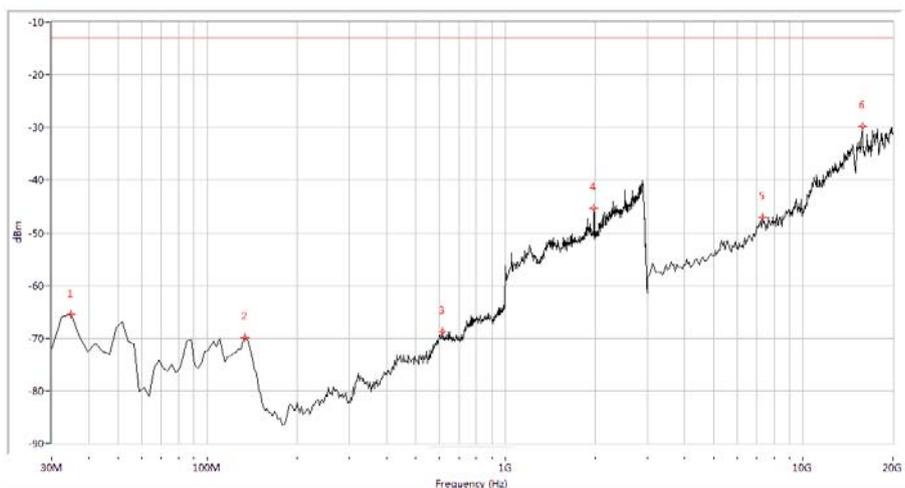
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.49	-13.0	52.5	36.9	Vertical	PASS
134.015	-69.82	-13.0	56.8	152.6	Vertical	PASS
615.387	-68.83	-13.0	55.8	147.1	Vertical	PASS
1982.544	-45.31	-13.0	32.3	20.5	Vertical	PASS
7324.190	-47.03	-13.0	34.0	1.8	Vertical	PASS
15802.993	-29.80	-13.0	16.8	115.8	Vertical	PASS

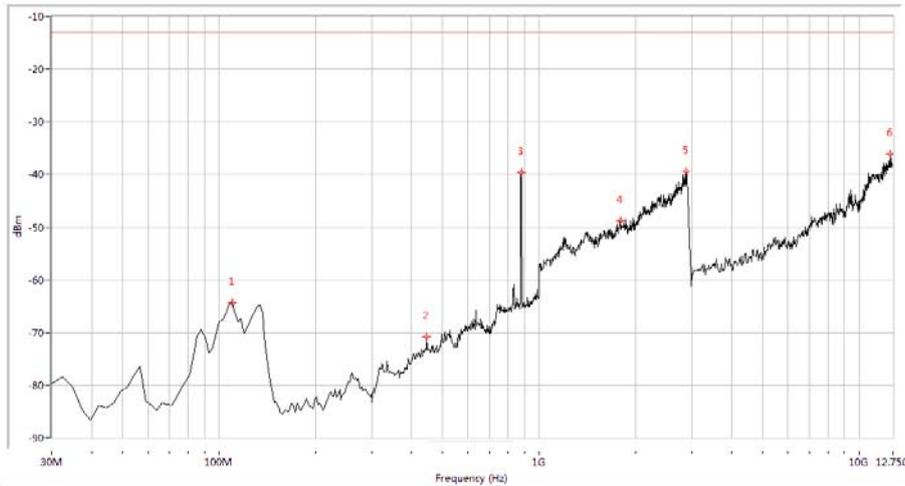(Plot H.6:   HSDPA 1900 MHz Channel = 9538, Test Antenna Vertical)
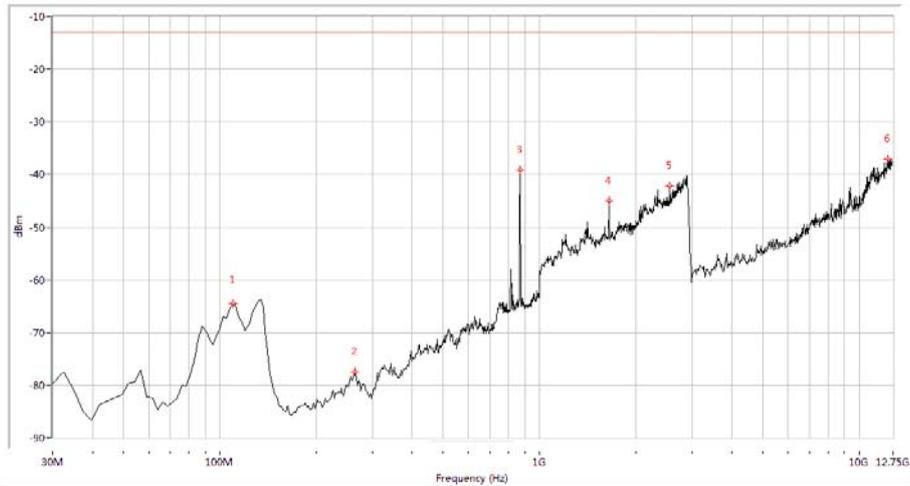
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.52	-13.0	51.5	12.6	Horizontal	PASS
264.638	-77.51	-13.0	64.5	232.1	Horizontal	PASS
869.377	-39.13	-13.0	26.1	151.4	Horizontal	PASS
1648.379	-45.09	-13.0	32.1	85.9	Horizontal	PASS
2556.110	-42.14	-13.0	29.1	26.4	Horizontal	PASS
12288.030	-37.05	-13.0	24.1	0.0	Horizontal	PASS

(Plot I.1:   HSUPA 850 MHz Channel = 4132, Test Antenna Horizontal)
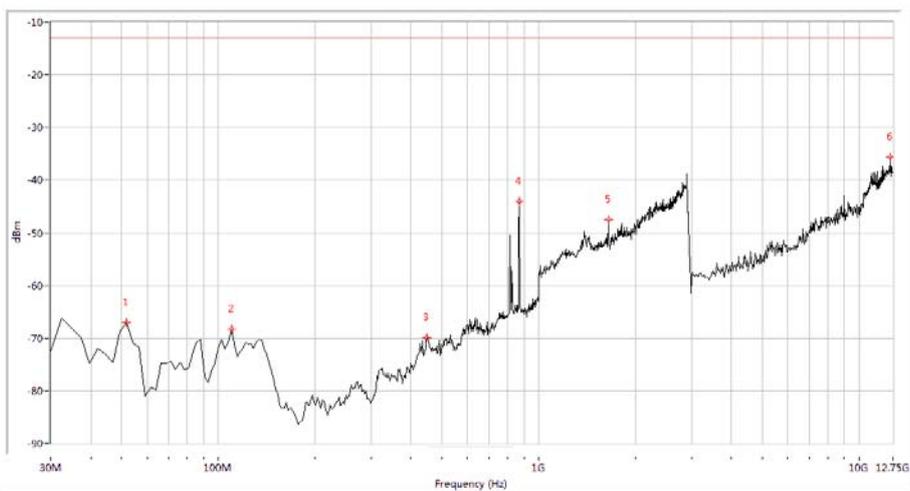
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-67.00	-13.0	54.0	63.2	Vertical	PASS
109.825	-68.28	-13.0	55.3	162.1	Vertical	PASS
448.479	-69.83	-13.0	56.8	44.5	Vertical	PASS
869.377	-44.00	-13.0	31.0	232.8	Vertical	PASS
1648.379	-47.55	-13.0	34.6	96.7	Vertical	PASS
12555.486	-35.67	-13.0	22.7	151.0	Vertical	PASS

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

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 130 of 135

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.29	-13.0	51.3	151.2	Horizontal	PASS
446.060	-70.83	-13.0	57.8	32.6	Horizontal	PASS
879.052	-39.56	-13.0	26.6	78.4	Horizontal	PASS
1802.993	-48.78	-13.0	35.8	269.4	Horizontal	PASS
2880.299	-39.52	-13.0	26.5	41.3	Horizontal	PASS
12555.486	-36.20	-13.0	23.2	325.0	Horizontal	PASS

(Plot I.3:   HSUPA 850MHz Channel = 4175, Test Antenna Horizontal)
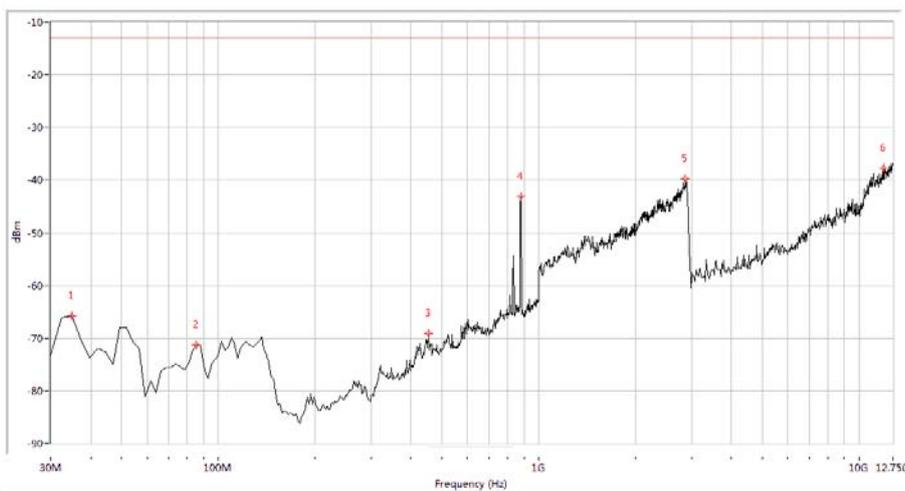
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.73	-13.0	52.7	162.1	Vertical	PASS
85.636	-71.28	-13.0	58.3	74.6	Vertical	PASS
453.317	-69.05	-13.0	56.0	98.1	Vertical	PASS
879.052	-43.18	-13.0	30.2	242.3	Vertical	PASS
2865.337	-39.79	-13.0	26.8	320.8	Vertical	PASS
11899.002	-37.79	-13.0	24.8	41.7	Vertical	PASS

(Plot I.4:   HSUPA 850MHz Channel = 4175, Test Antenna Vertical)
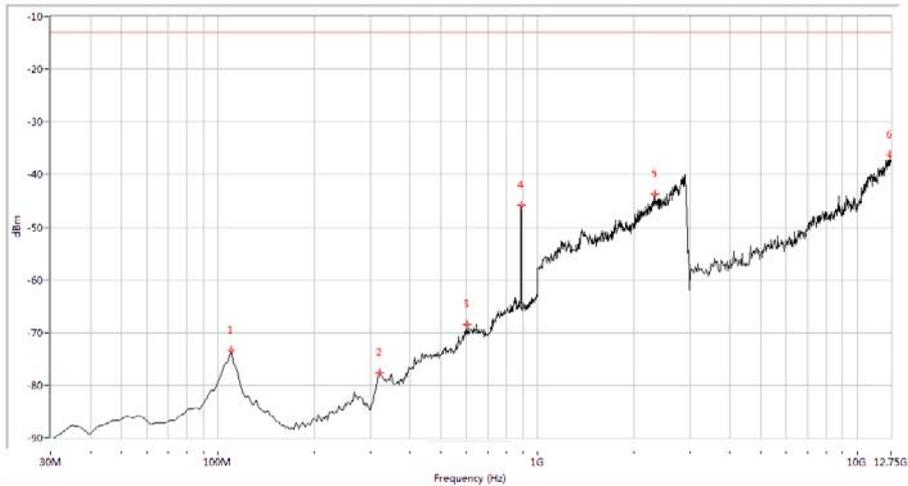
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-73.30	-13.0	60.3	63.4	Horizontal	PASS
320.274	-77.68	-13.0	64.7	123.2	Horizontal	PASS
600.873	-68.45	-13.0	55.4	338.7	Horizontal	PASS
891.147	-45.84	-13.0	32.8	156.9	Horizontal	PASS
2331.671	-43.79	-13.0	30.8	41.0	Horizontal	PASS
12677.057	-36.27	-13.0	23.3	85.8	Horizontal	PASS

(Plot I.5:   HSUPA 850MHz Channel = 4233, Test Antenna Horizontal)
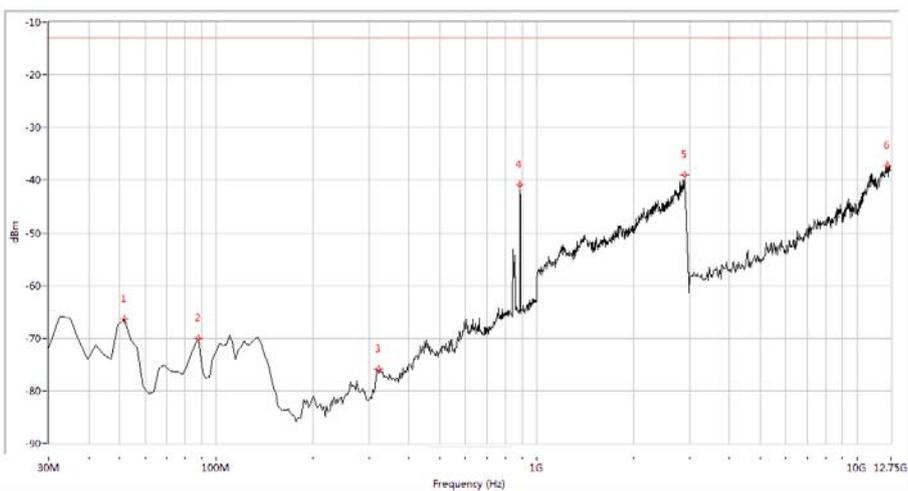
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-66.41	-13.0	53.4	152.6	Vertical	PASS
88.055	-70.03	-13.0	57.0	203.1	Vertical	PASS
320.274	-75.94	-13.0	62.9	52.6	Vertical	PASS
888.728	-40.94	-13.0	27.9	71.8	Vertical	PASS
2890.274	-38.97	-13.0	26.0	200.9	Vertical	PASS
12409.601	-37.30	-13.0	24.3	30.5	Vertical	PASS

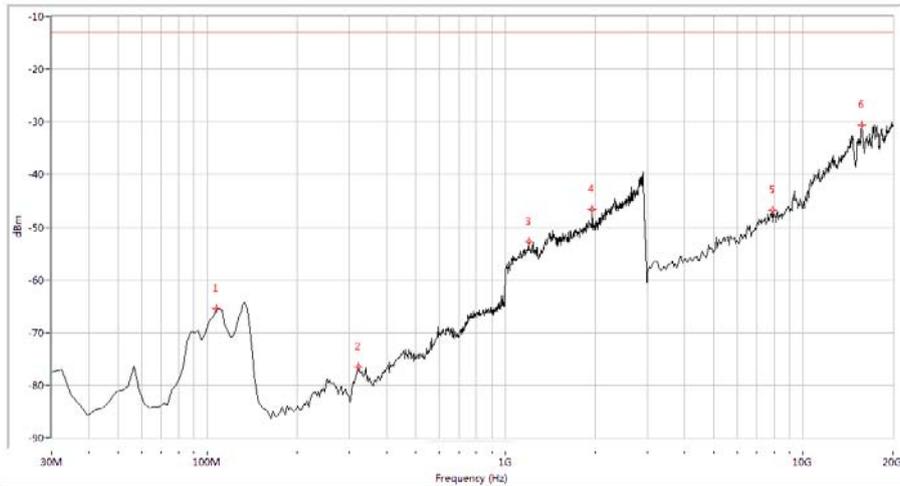(Plot I.6:   HSUPA 850MHz Channel = 4233, Test Antenna Vertical)
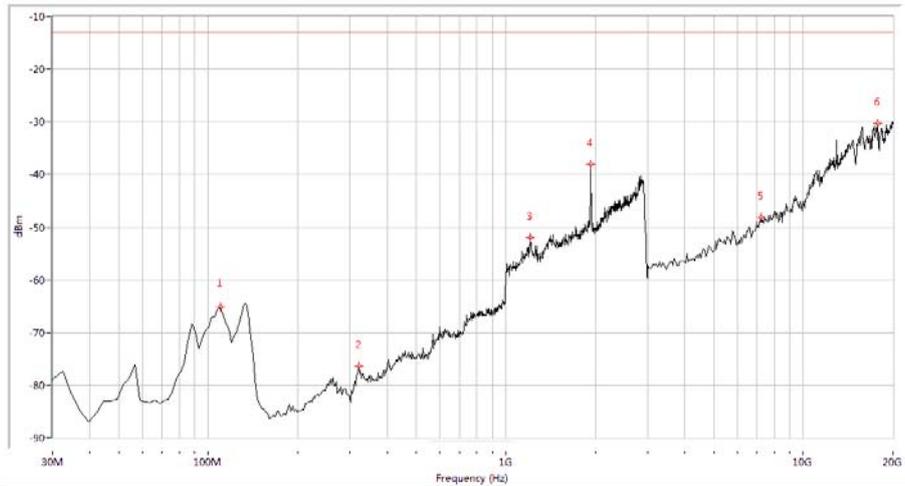
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-65.06	-13.0	52.1	141.9	Horizontal	PASS
320.274	-76.31	-13.0	63.3	42.6	Horizontal	PASS
1209.476	-52.02	-13.0	39.0	320.7	Horizontal	PASS
1932.668	-38.10	-13.0	25.1	151.5	Horizontal	PASS
7197.007	-48.18	-13.0	35.2	161.0	Horizontal	PASS
17795.511	-30.28	-13.0	17.3	63.3	Horizontal	PASS

(Plot J.1: HSUPA 1900 MHz Channel = 9262, Test Antenna Horizontal)
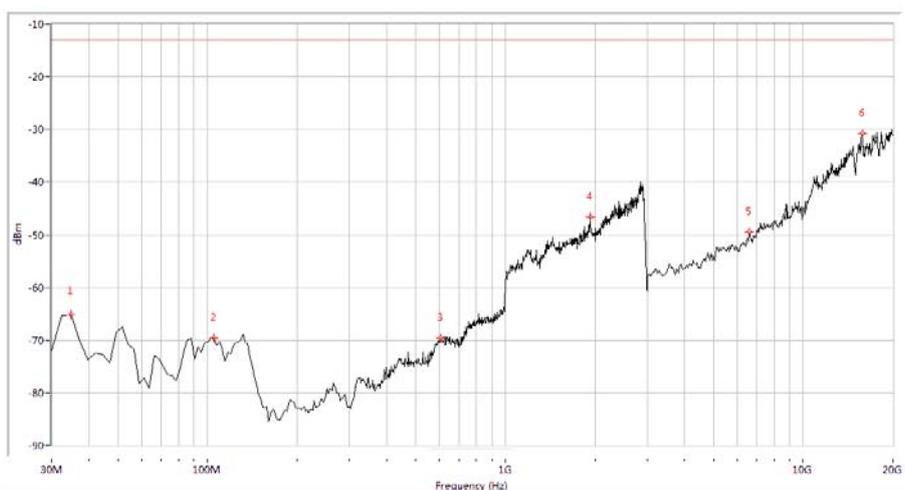
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.05	-13.0	52.1	151.0	Vertical	PASS
104.988	-69.55	-13.0	56.5	242.3	Vertical	PASS
608.130	-69.49	-13.0	56.5	32.2	Vertical	PASS
1927.681	-46.52	-13.0	33.5	165.4	Vertical	PASS
6603.491	-49.50	-13.0	36.5	51.8	Vertical	PASS
15802.993	-30.76	-13.0	17.8	6.0	Vertical	PASS

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

Shenzhen Morlab Communications Technology Co., Ltd
Web site: http://www.morlab.cn/
Email: info_sz@morlab.cn
Phone: +86 (0) 755 36698555
Fax: +86 (0) 755 36698525
Page 133 of 135

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-65.41	-13.0	52.4	162.3	Horizontal	PASS
320.274	-76.49	-13.0	63.5	32.0	Horizontal	PASS
1199.501	-52.82	-13.0	39.8	145.9	Horizontal	PASS
1957.606	-46.61	-13.0	33.6	61.7	Horizontal	PASS
7917.706	-46.79	-13.0	33.8	4.8	Horizontal	PASS
15718.204	-30.63	-13.0	17.6	165.3	Horizontal	PASS

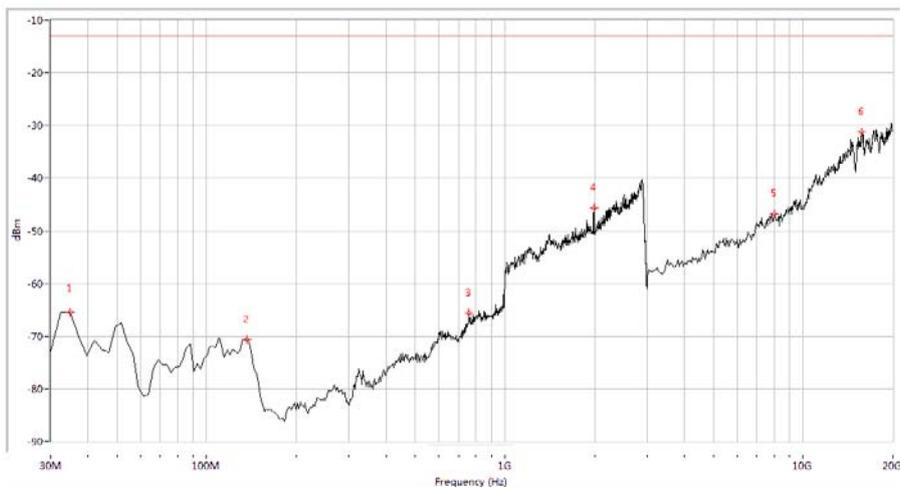(Plot J.3:   HSUPA 1900 MHz Channel = 9400, Test Antenna Horizontal)
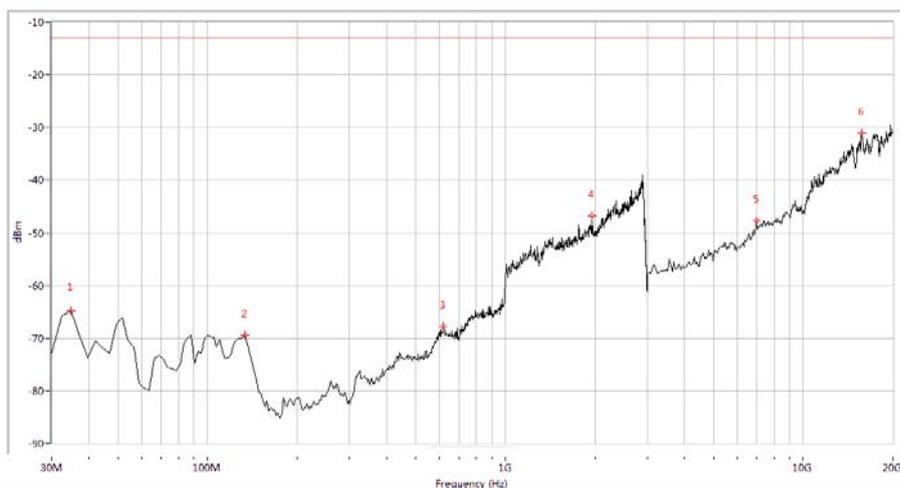
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-64.87	-13.0	51.9	162.3	Vertical	PASS
134.015	-69.45	-13.0	56.4	230.2	Vertical	PASS
620.224	-67.76	-13.0	54.8	151.7	Vertical	PASS
1957.606	-46.74	-13.0	33.7	54.9	Vertical	PASS
6985.037	-47.75	-13.0	34.7	5.7	Vertical	PASS
15718.204	-31.09	-13.0	18.1	15.9	Vertical	PASS

(Plot J.4:   HSUPA 1900 MHz Channel = 9400, Test Antenna Vertical)
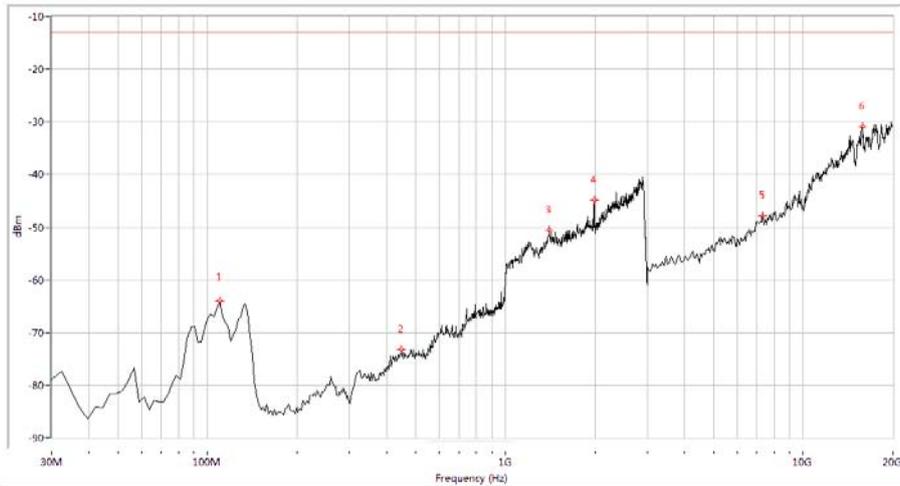
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-64.05	-13.0	51.0	18.6	Horizontal	PASS
448.479	-73.28	-13.0	60.3	162.3	Horizontal	PASS
1403.990	-50.62	-13.0	37.6	41.7	Horizontal	PASS
1987.531	-44.80	-13.0	31.8	161.5	Horizontal	PASS
7324.190	-47.78	-13.0	34.8	165.0	Horizontal	PASS
15802.993	-30.98	-13.0	18.0	144.6	Horizontal	PASS

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

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
34.838	-65.37	-13.0	52.4	2.3	Vertical	PASS
136.434	-70.67	-13.0	57.7	153.8	Vertical	PASS
758.105	-65.68	-13.0	52.7	14.0	Vertical	PASS
1987.531	-45.70	-13.0	32.7	48.9	Vertical	PASS
8002.494	-46.83	-13.0	33.8	320.6	Vertical	PASS
15718.204	-31.25	-13.0	18.3	201.7	Vertical	PASS

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

** END OF REPORT **

Shenzhen Morlab Communications Technology Co., Ltd

Web site: http://www.morlab.cn/

Email: info_sz@morlab.cn

Phone: +86 (0) 755 36698555

Fax: +86 (0) 755 36698525

Page 135 of 135