Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
	Schwarz		124534/wk		
Spectrum Analyzer	Rohde& Schwarz	FSL	10246	2014.02.26	2015.02.25
Spectrum Analyzer	Agilent	E4445A	MY44200685	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
Test Antenna - Horn	Schwarzbeck	UG -596A/U	A0902607	2014.02.26	2015.02.25

2.7.3 Test Result

The EUT was verified under all configurations (RB size and offset) and the worst case radiated power reported for each modulation/channel bandwidth.

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.

The substitution corrections are obtained as described below:

$A_{SUBST} = P_{SUBST\_TX} - P_{SUBST\_RX} - L_{SUBST\_CABLES} + G_{SUBST\_TX\_ANT}$

$A_{TOT} = L_{CABLES} + A_{SUBST}$

Where A_{SUBST} is the final substitution correction including receive antenna gain.

P_{SUBST_TX} is signal generator level,

P_{SUBST_RX} is receiver level,

L_{SUBST_CABLES} is cable losses including TX cable,

$G_{SUBST\_TX\_ANT}$ is substitution antenna gain.

A_{TOT} is total correction factor including cable loss and substitution correction

During the test, the data of A_{TOT} was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of A_{TOT}.

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| Band | Band Width | Channel | Frequency (MHz) | Modulation | RB Configuration | | ERP (dBm) |
					RB Size	RB Offset	
LTE Band 4	20MHz	L 20050	1720	QPSK	1	0	24.61
					1	49	24.13
					1	99	24.72
					50	0	22.89
					50	25	23.78
					50	49	24.32
					100	0	24.09
				16-QAM	1	0	23.87
					1	49	23.78
					1	99	24.68
					50	0	24.52
					50	25	24.14
					50	49	24.12
					100	0	23.46
		M 20175	1732.5	QPSK	1	0	24.81
					1	49	24.92
					1	99	24.94
					50	0	24.04
					50	25	23.12
					50	49	24.76
					100	0	23.49
				16-QAM	1	0	23.34
					1	49	24.42
					1	99	24.69
					50	0	24.41
					50	25	24.17
					50	49	24.56
					100	0	24.41
		H 20300	1745	QPSK	1	0	23.53
					1	49	23.34
					1	99	24.08
					50	0	24.61
					50	25	24.12
					50	49	23.34
					100	0	24.41
				16-QAM	1	0	23.98
					1	49	24.12

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| Band | Band Width | Channel | Frequency (MHz) | Modulation | RB Configuration | | ERP (dBm) |
					RB Size	RB Offset	
					1	99	23.83
					50	0	23.32
					50	25	23.12
					50	49	23.44
					100	0	24.67
		L 20025	1717.5	QPSK	1	0	24.84
					1	37	24,12
					1	74	24.35
					36	0	24.14
					36	18	24.26
					36	35	23.34
					75	0	23.62
				16-QAM	1	0	23.26
					1	37	23.23
					1	74	23.67
					36	0	23.54
					36	18	24.98
					36	35	24.12
					75	0	24.51
	15MHz	M 20175	1732.5	QPSK	1	0	24.78
					1	37	24.21
					1	74	24.64
					36	0	24.89
					36	18	23.76
					36	35	24.23
					75	0	23.62
				16-QAM	1	0	23.94
					1	37	24.78
					1	74	24.31
					36	0	23.98
					36	18	23.65
					36	35	23.34
					75	0	24.35
		H 20325	1747.5	QPSK	1	0	24.41
					1	37	24.76
					1	74	24.81
					36	0	24.34

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Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		ERP (dBm)
					RB Size	RB Offset	
					36	18	24.13
					36	35	23.87
					75	0	23.38
				16-QAM	1	0	24.84
					1	37	23.43
					1	74	24.19
					36	0	23.46
					36	18	24.32
					36	35	23.34
					75	0	23.82
				QPSK	1	0	24.03
					1	24	24.08
					1	49	24.51
					25	0	24.03
					25	12	23.12
					25	24	23.65
		L 20000	1715		50	0	24.85
				16-QAM	1	0	24.64
					1	24	24.01
					1	49	24.38
	10MHz				25	0	24.34
					25	12	24.54
					25	24	24.87
					50	0	23.83
				QPSK	1	0	24.06
					1	24	24.05
					1	49	23.66
					25	0	23.54
					25	12	24.34
					25	24	23.64
		M 20175	1732.5		50	0	24.32
				16-QAM	1	0	24.05
					1	24	24.03
					1	49	24.44
					25	0	23.43
					25	12	23.64
					25	24	24.75

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| Band | Band Width | Channel | Frequency (MHz) | Modulation | RB Configuration | | ERP (dBm) |
					RB Size	RB Offset	
					50	0	23.03
		H 20350	1750	QPSK	1	0	23.84
					1	24	23.67
					1	49	23.96
					25	0	23.34
					25	12	23.78
					25	24	24.54
					50	0	23.05
				16-QAM	1	0	24.88
					1	24	23.65
					1	49	23.21
					25	0	23.34
					25	12	24.85
					25	24	23.43
					50	0	23.69
	5MHz	L 19975	1712.5	QPSK	1	0	24.63
					1	12	24.53
					1	24	24.54
					12	0	24.87
					12	6	23.64
					12	11	24.42
					25	0	23.51
				16-QAM	1	0	23.33
					1	12	24.64
					1	24	24.04
					12	0	23.74
					12	6	23.53
					12	11	23.24
					25	0	23.33
		M 20175	1732.5	QPSK	1	0	24.65
					1	12	24.23
					1	24	24.44
					12	0	24.43
					12	6	24.68
					12	11	24.43
					25	0	23.25
				16-QAM	1	0	23.38

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| Band | Band Width | Channel | Frequency (MHz) | Modulation | RB Configuration | | ERP (dBm) |
					RB Size	RB Offset	
					1	12	23.18
					1	24	23.94
					12	0	23.89
					12	6	24.43
					12	11	23.43
					25	0	23.88
				QPSK	1	0	23.09
					1	12	23.37
					1	24	23.27
					12	0	23.87
					12	6	23.67
					12	11	24.23
		H 20375	1752.5		25	0	23.07
				16-QAM	1	0	24.46
					1	12	24.74
					1	24	24.83
					12	0	24.34
					12	6	23.36
					12	11	23.57
					25	0	23.46
				QPSK	1	0	24.69
					1	7	24.34
					1	14	24.84
					8	0	24.65
					8	4	24.85
					8	7	24.45
		L 19965	1711.5		15	0	23.35
	3MHz			16-QAM	1	0	24.39
					1	7	23.65
					1	14	23.95
					8	0	24.54
					8	4	23.45
					8	7	23.56
					15	0	24.63
		M 20175	1732.5	QPSK	1	0	24.81
					1	7	24.05
					1	14	23.34

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Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		ERP (dBm)
					RB Size	RB Offset	
					8	0	23.54
					8	4	23.76
					8	7	23.54
					15	0	24.88
				16-QAM	1	0	24.06
					1	7	24.43
					1	14	23.21
					8	0	23.23
					8	4	23.76
					8	7	23.65
					15	0	23.35
		H 20385	1753.5	QPSK	1	0	24.66
					1	7	24.78
					1	14	24.64
					8	0	23.43
					8	4	23.56
					8	7	23.74
					15	0	23.09
				16-QAM	1	0	24.81
					1	7	24.65
					1	14	24.45
					8	0	23.89
					8	4	23.21
					8	7	23.78
					15	0	24.66
	1.4MHz	L 19957	1710.7	QPSK	1	0	24.26
					1	2	24.58
					1	5	24.51
					3	0	23.92
					3	1	23.62
					3	2	24.34
					6	0	23.39
				16-QAM	1	0	23.22
					1	2	23.34
					1	5	23.13
					3	0	23.74
					3	1	23.83

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Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		ERP (dBm)
					RB Size	RB Offset	
					3	2	23.76
					6	0	23.55
		M 20175	1732.5	QPSK	1	0	23.88
					1	2	24.98
					1	5	24.11
					3	0	23.34
					3	1	24.45
					3	2	24.85
					6	0	23.16
				16-QAM	1	0	23.98
					1	2	24.09
					1	5	23.55
					3	0	23.77
					3	2	23.34
					3	5	23.48
					6	0	23.51
		H 20393	1754.5	QPSK	1	0	23.85
					1	2	23.48
					1	5	24.77
					3	0	24.38
					3	1	24.74
					3	2	24.98
					6	0	23.53
				16-QAM	1	0	24.32
					1	2	24.68
					1	5	23.93
					3	0	24.38
					3	1	24.73
					3	2	24.98
					6	0	24.85

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		ERP (dBm)
					RB Size	RB Offset	
LTE Band 17	10MHz	L 23780	709	QPSK	1	0	23.41
					1	24	24.65
					1	49	23.16

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Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		ERP (dBm)
					RB Size	RB Offset	
					25	0	23.56
					25	12	23.65
					25	24	23.64
					50	0	23.46
				16-QAM	1	0	23.32
					1	24	23.78
					1	49	23.64
					25	0	23.76
					25	12	23.34
					25	24	23.54
					50	0	23.16
		M 23790	710	QPSK	1	0	24.84
					1	24	23.38
					1	49	23.95
					25	0	24.59
					25	12	23.64
					25	24	23.57
					50	0	23.33
				16-QAM	1	0	23.16
					1	24	23.95
					1	49	23.53
					25	0	23.56
					25	12	23.48
					25	24	23.55
					50	0	23.33
		H 23800	711	QPSK	1	0	23.84
					1	24	23.29
					1	49	24.16
					25	0	23.84
					25	12	23.57
					25	24	23.67
					50	0	23.35
				16-QAM	1	0	23.14
					1	24	23.47
					1	49	23.71
					25	0	24.54
					25	12	23.45

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		ERP (dBm)
					RB Size	RB Offset	
					25	24	23.64
					50	0	23.14
		L 23755	706.5	QPSK	1	0	24.35
					1	12	23.58
					1	24	23.84
					12	0	23.12
					12	6	23.68
					12	11	23.54
					25	0	23.16
				16-QAM	1	0	23.35
					1	12	23.65
					1	24	23.53
					12	0	23.65
					12	6	23.56
					12	11	23.76
					25	0	23.44
	5MHz	M 23790	710	QPSK	1	0	24.62
					1	12	24.76
					1	24	24.93
					12	0	23.79
					12	6	23.65
					12	11	23.65
					25	0	23.62
				16-QAM	1	0	23.18
					1	12	23.56
					1	24	23.66
					12	0	23.87
					12	6	23.65
					12	11	23.84
					25	0	23.33
		H 23825	713.5	QPSK	1	0	24.52
					1	12	23.93
					1	24	23.63
					12	0	23.01
					12	6	23.65
					12	11	23.55
					25	0	23.24

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Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		ERP (dBm)
					RB Size	RB Offset	
				16-QAM	1	0	23.88
					1	12	23.74
					1	24	23.16
					12	0	23.09
					12	6	23.54
					12	11	23.84
					25	0	22.66

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2.8 Radiated Spurious Emissions

2.8.1 Requirement

According to FCC section 2.1053 and section 27.53(g), 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.

2.8.2 Test Description

See section 2.7.2 of this report.

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. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

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.

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LTE Band 17 5MHz BW, Mid Channel, QPSK
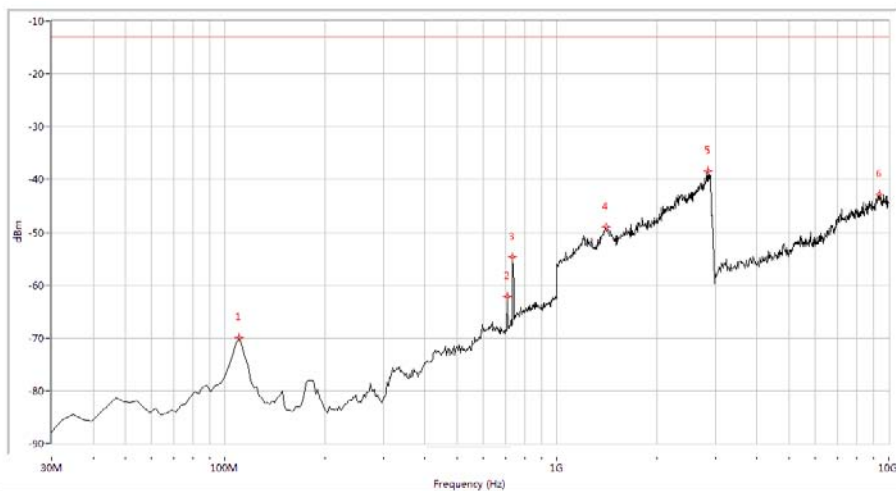
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.95	-13.0	57.0	32.3	Horizontal	PASS
707.307	-62.19	-13.0	49.2	290.8	Horizontal	PASS
736.334	-54.70	-13.0	41.7	191.1	Horizontal	PASS
1403.990	-48.92	-13.0	35.9	234.4	Horizontal	PASS
2850.374	-38.42	-13.0	25.4	262.7	Horizontal	PASS
9389.027	-42.80	-13.0	29.8	263.2	Horizontal	PASS
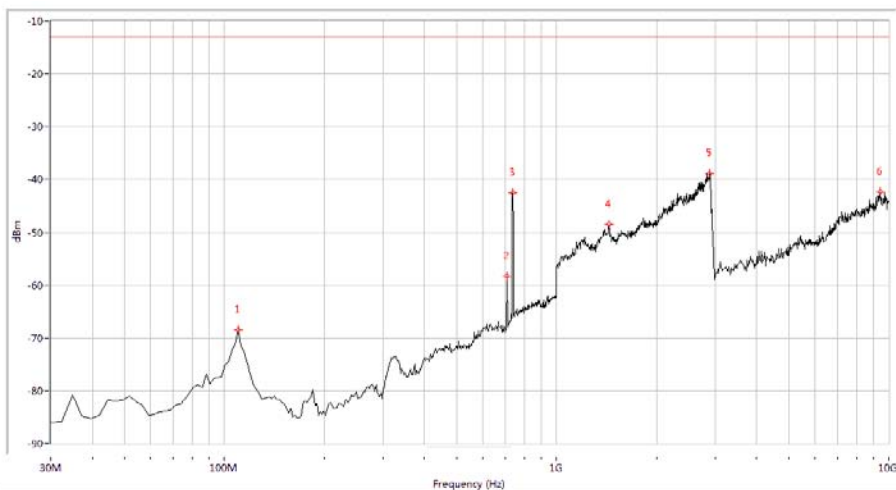
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-68.44	-13.0	55.4	158.5	Vertical	PASS
707.307	-58.25	-13.0	45.2	15.3	Vertical	PASS
738.753	-42.44	-13.0	29.4	31.0	Vertical	PASS
1438.903	-48.56	-13.0	35.6	49.3	Vertical	PASS
2885.287	-38.84	-13.0	25.8	116.3	Vertical	PASS
9441.397	-42.36	-13.0	29.4	359.5	Vertical	PASS

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LTE Band 17 5MHz BW, Mid Channel, 16QAM
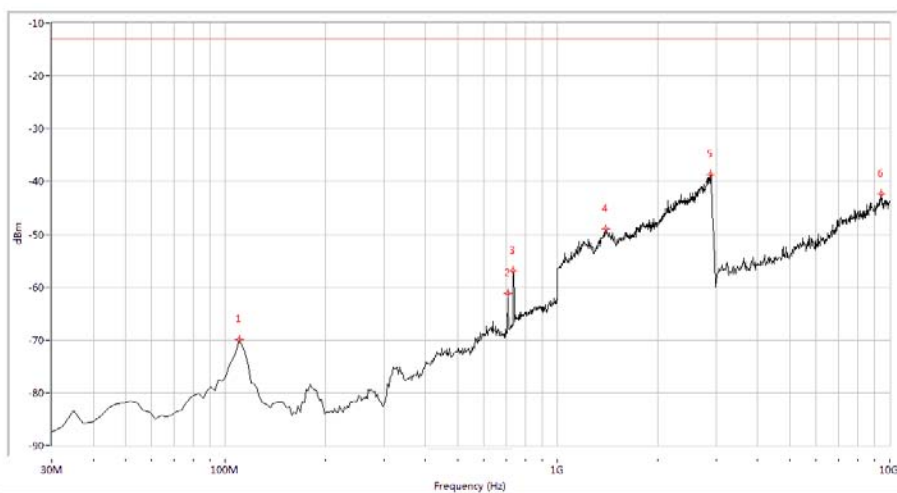
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.88	-13.0	56.9	287.9	Horizontal	PASS
707.307	-61.09	-13.0	48.1	272.7	Horizontal	PASS
736.334	-56.92	-13.0	43.9	53.3	Horizontal	PASS
1399.002	-48.91	-13.0	35.9	168.0	Horizontal	PASS
2895.262	-38.64	-13.0	25.6	46.8	Horizontal	PASS
9423.940	-42.28	-13.0	29.3	1.6	Horizontal	PASS
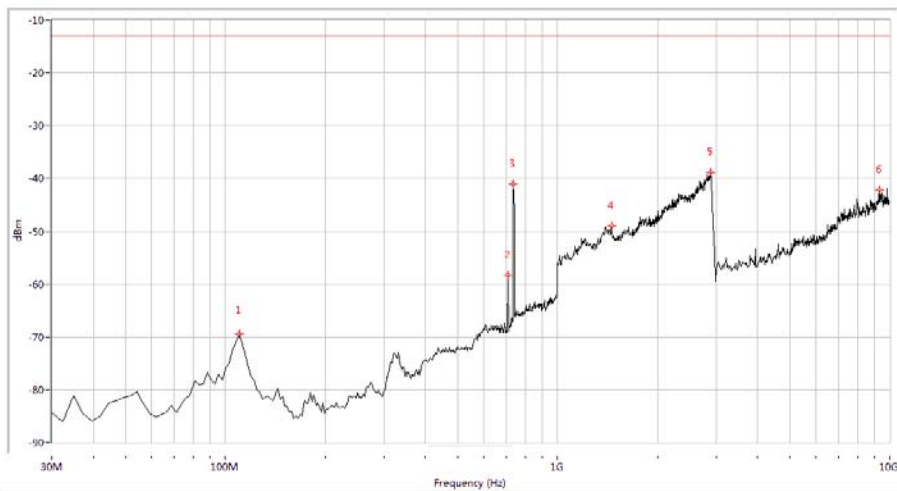
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.37	-13.0	56.4	133.0	Vertical	PASS
707.307	-58.37	-13.0	45.4	285.1	Vertical	PASS
736.334	-41.07	-13.0	28.1	86.9	Vertical	PASS
1453.865	-49.00	-13.0	36.0	225.2	Vertical	PASS
2885.287	-38.81	-13.0	25.8	52.5	Vertical	PASS
9301.746	-42.20	-13.0	29.2	320.9	Vertical	PASS

LTE Band 17 10MHz BW, Mid Channel, QPSK
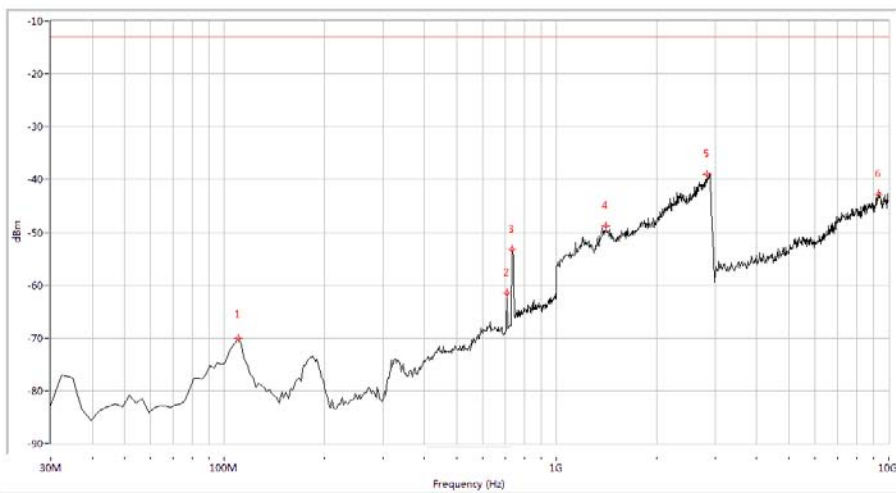
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-70.07	-13.0	57.1	34.1	Horizontal	PASS
707.307	-61.49	-13.0	48.5	62.0	Horizontal	PASS
733.915	-53.21	-13.0	40.2	269.9	Horizontal	PASS
1408.978	-48.89	-13.0	35.9	354.3	Horizontal	PASS
2840.399	-39.03	-13.0	26.0	73.4	Horizontal	PASS
9319.202	-42.80	-13.0	29.8	61.2	Horizontal	PASS

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-70.42	-13.0	57.4	336.2	Vertical	PASS
709.726	-57.96	-13.0	45.0	155.5	Vertical	PASS
738.753	-42.15	-13.0	29.1	288.6	Vertical	PASS
2895.262	-39.06	-13.0	26.1	155.3	Vertical	PASS
7154.613	-46.28	-13.0	33.3	96.8	Vertical	PASS
9359.102	-43.04	-13.0	30.0	147.4	Vertical	PASS

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LTE Band 17 10MHz BW, Mid Channel, 16QAM

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.87	-13.0	56.9	312.4	Horizontal	PASS
709.726	-62.19	-13.0	49.2	120.9	Horizontal	PASS
733.915	-52.61	-13.0	39.6	360.0	Horizontal	PASS
1403.990	-48.79	-13.0	35.8	277.4	Horizontal	PASS
2840.399	-38.45	-13.0	25.5	77.3	Horizontal	PASS
9336.658	-42.50	-13.0	29.5	276.0	Horizontal	PASS
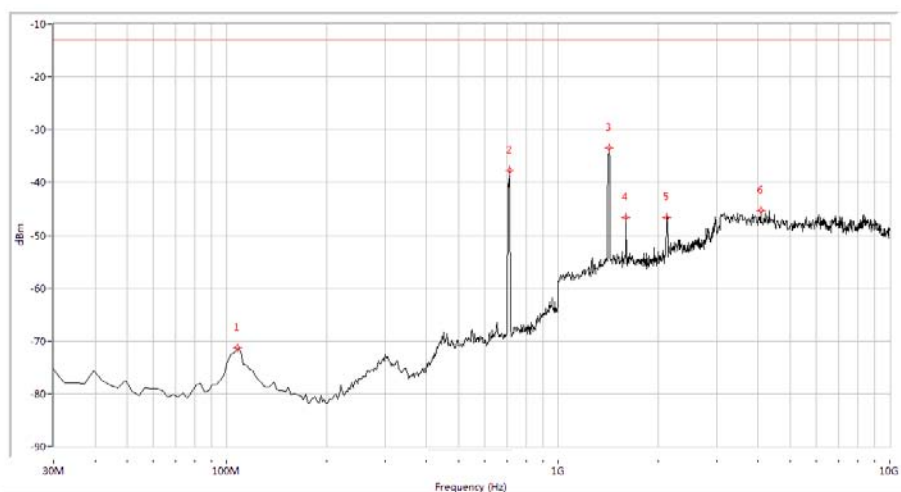
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
107.406	-71.25	-13.0	58.2	57.2	Vertical	PASS
712.145	-37.67	-13.0	24.7	31.5	Vertical	PASS
1418.953	-33.47	-13.0	20.5	355.0	Vertical	PASS
1598.504	-46.54	-13.0	33.5	61.8	Vertical	PASS
2127.182	-46.53	-13.0	33.5	-0.0	Vertical	PASS
4082.294	-45.27	-13.0	32.3	272.8	Vertical	PASS

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LTE Band 4 1.4MHz BW, Mid Channel, QPSK
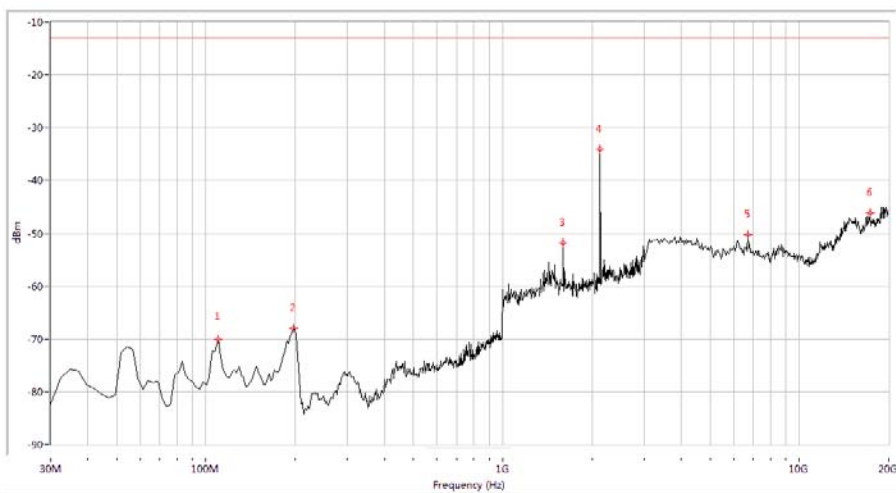
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.98	-13.0	57.0	63.8	Horizontal	PASS
196.908	-68.00	-13.0	55.0	46.7	Horizontal	PASS
1598.504	-51.80	-13.0	38.8	360.0	Horizontal	PASS
2132.170	-34.09	-13.0	21.1	232.9	Horizontal	PASS
6730.673	-50.21	-13.0	37.2	93.5	Horizontal	PASS
17286.783	-46.05	-13.0	33.0	-0.0	Horizontal	PASS
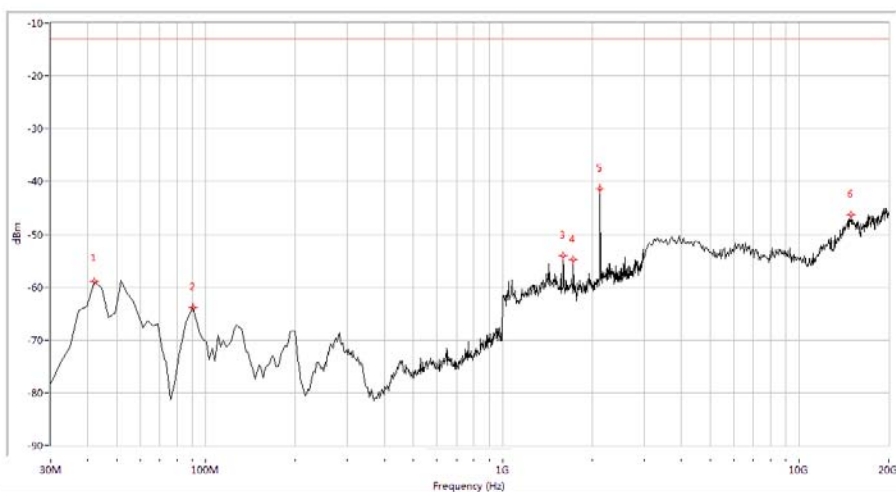
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-58.91	-13.0	45.9	132.2	Vertical	PASS
90.474	-63.79	-13.0	50.8	267.6	Vertical	PASS
1598.504	-54.01	-13.0	41.0	51.8	Vertical	PASS
1733.167	-54.86	-13.0	41.9	306.2	Vertical	PASS
2132.170	-41.30	-13.0	28.3	98.4	Vertical	PASS
14955.112	-46.23	-13.0	33.2	275.9	Vertical	PASS

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LTE Band 4 1.4MHz BW, Mid Channel, 16QAM
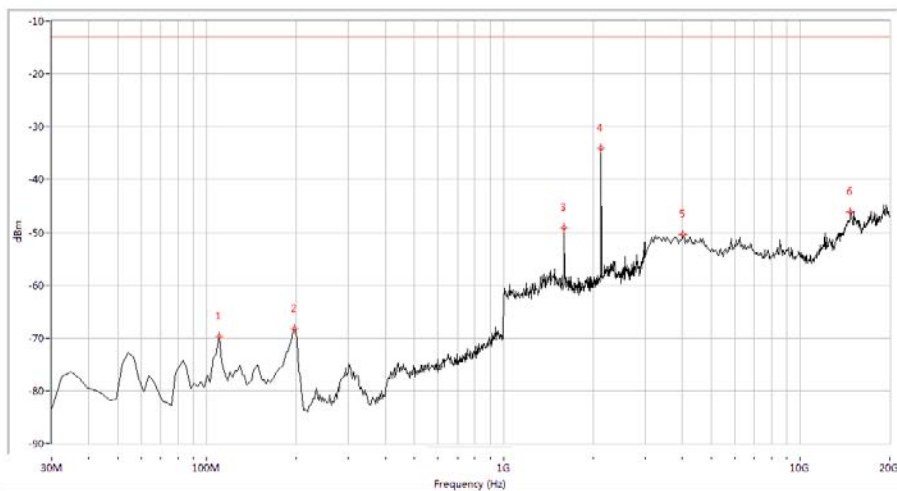
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.80	-13.0	56.8	31.3	Horizontal	PASS
196.908	-68.27	-13.0	55.3	3.4	Horizontal	PASS
1598.504	-49.05	-13.0	36.1	360.0	Horizontal	PASS
2132.170	-34.16	-13.0	21.2	266.6	Horizontal	PASS
4017.456	-50.46	-13.0	37.5	360.0	Horizontal	PASS
14785.536	-46.19	-13.0	33.2	39.1	Horizontal	PASS
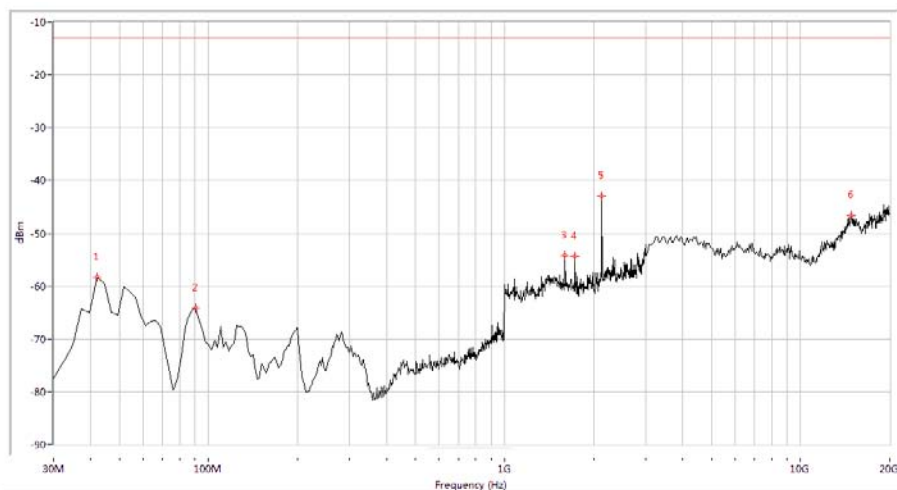
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-58.33	-13.0	45.3	196.1	Vertical	PASS
90.474	-64.15	-13.0	51.1	18.3	Vertical	PASS
1598.504	-54.22	-13.0	41.2	108.5	Vertical	PASS
1733.167	-54.40	-13.0	41.4	112.2	Vertical	PASS
2132.170	-43.01	-13.0	30.0	360.0	Vertical	PASS
14827.930	-46.55	-13.0	33.5	360.0	Vertical	PASS

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LTE Band 4 3MHz BW, Mid Channel, QPSK
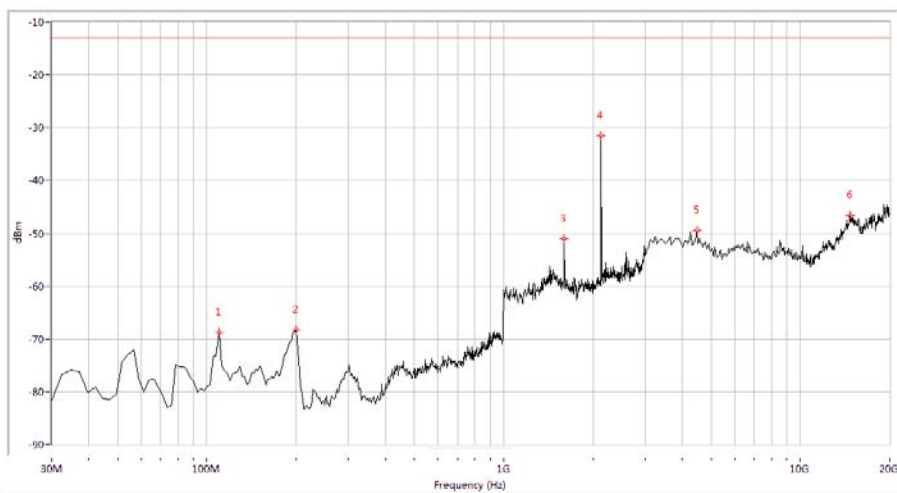
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-68.81	-13.0	55.8	86.4	Horizontal	PASS
199.327	-68.32	-13.0	55.3	129.5	Horizontal	PASS
1598.504	-51.05	-13.0	38.0	181.8	Horizontal	PASS
2127.182	-31.55	-13.0	18.6	0.1	Horizontal	PASS
4483.791	-49.41	-13.0	36.4	128.4	Horizontal	PASS
14700.748	-46.63	-13.0	33.6	-0.0	Horizontal	PASS
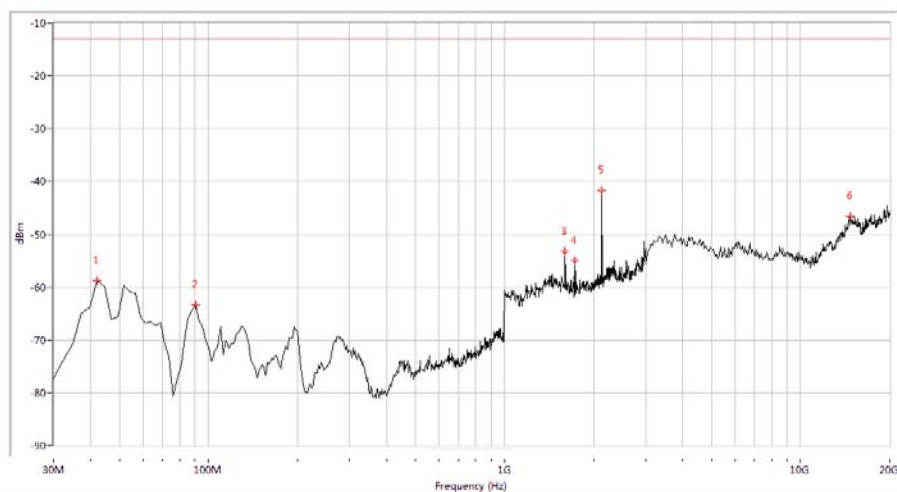
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-58.76	-13.0	45.8	186.7	Vertical	PASS
90.474	-63.31	-13.0	50.3	80.7	Vertical	PASS
1598.504	-53.25	-13.0	40.3	259.2	Vertical	PASS
1733.167	-55.01	-13.0	42.0	266.2	Vertical	PASS
2132.170	-41.67	-13.0	28.7	-0.0	Vertical	PASS
14785.536	-46.58	-13.0	33.6	268.6	Vertical	PASS

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LTE Band 4 3MHz BW, Mid Channel, 16QAM
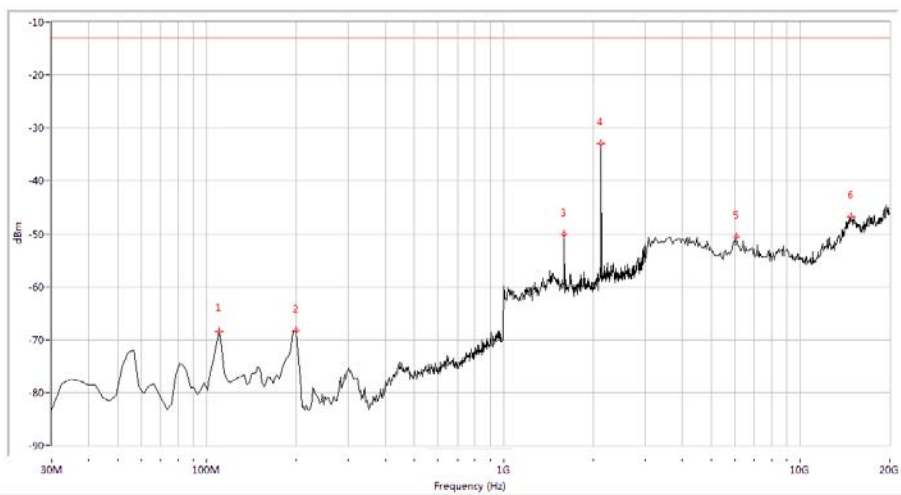
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-68.39	-13.0	55.4	360.0	Horizontal	PASS
199.327	-68.33	-13.0	55.3	201.1	Horizontal	PASS
1598.504	-50.06	-13.0	37.1	-0.0	Horizontal	PASS
2132.170	-32.95	-13.0	19.9	171.2	Horizontal	PASS
6094.763	-50.50	-13.0	37.5	277.7	Horizontal	PASS
14827.930	-46.81	-13.0	33.8	-0.0	Horizontal	PASS
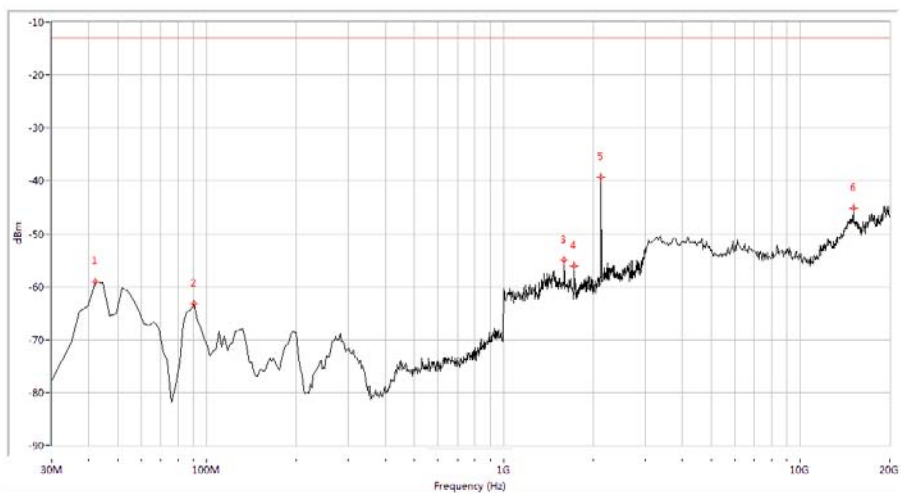
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-59.18	-13.0	46.2	57.1	Vertical	PASS
90.474	-63.30	-13.0	50.3	307.1	Vertical	PASS
1598.504	-54.97	-13.0	42.0	97.1	Vertical	PASS
1733.167	-56.10	-13.0	43.1	59.2	Vertical	PASS
2132.170	-39.25	-13.0	26.3	133.3	Vertical	PASS
15082.294	-45.18	-13.0	32.2	43.3	Vertical	PASS

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LTE Band 4 5MHz BW, Mid Channel, QPSK
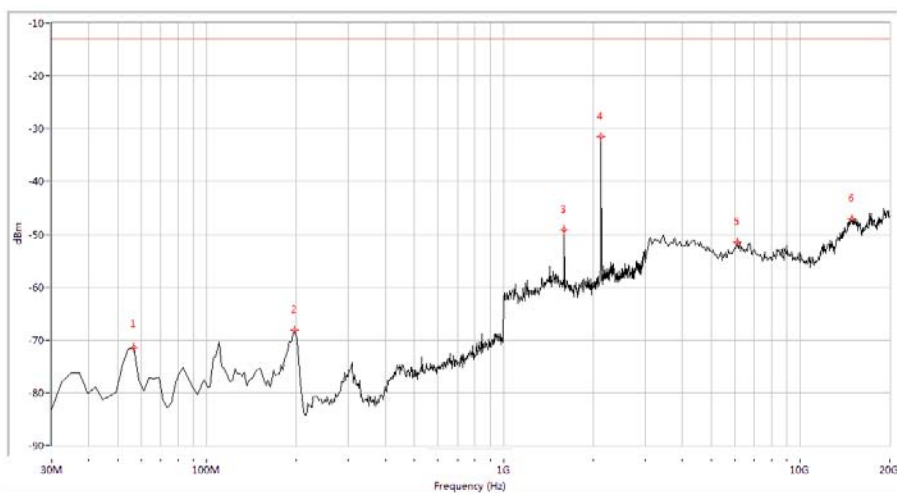
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
56.608	-71.46	-13.0	58.5	56.2	Horizontal	PASS
196.908	-68.15	-13.0	55.1	199.4	Horizontal	PASS
1598.504	-49.20	-13.0	36.2	335.7	Horizontal	PASS
2127.182	-31.53	-13.0	18.5	263.5	Horizontal	PASS
6137.157	-51.47	-13.0	38.5	166.6	Horizontal	PASS
14912.718	-47.09	-13.0	34.1	74.8	Horizontal	PASS
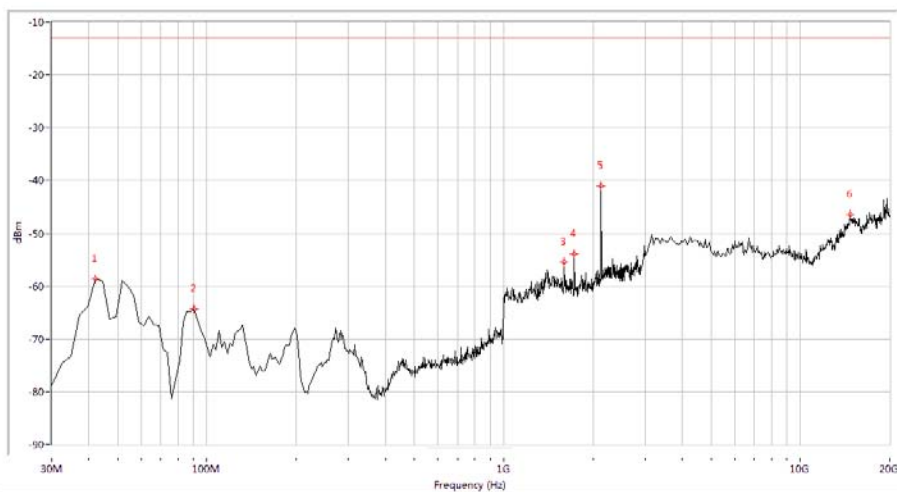
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-58.71	-13.0	45.7	312.6	Vertical	PASS
90.474	-64.41	-13.0	51.4	21.3	Vertical	PASS
1598.504	-55.47	-13.0	42.5	229.9	Vertical	PASS
1733.167	-53.93	-13.0	40.9	87.5	Vertical	PASS
2132.170	-41.09	-13.0	28.1	19.6	Vertical	PASS
14743.142	-46.47	-13.0	33.5	-0.0	Vertical	PASS

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LTE Band 4 5MHz BW, Mid Channel, 16QAM
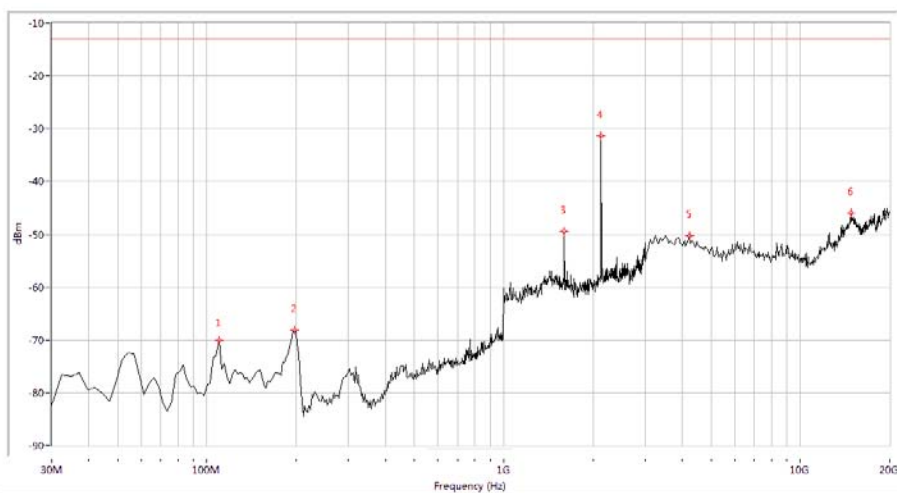
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-70.11	-13.0	57.1	174.4	Horizontal	PASS
196.908	-68.12	-13.0	55.1	94.1	Horizontal	PASS
1598.504	-49.45	-13.0	36.4	275.9	Horizontal	PASS
2132.170	-31.35	-13.0	18.4	354.1	Horizontal	PASS
4229.426	-50.29	-13.0	37.3	33.2	Horizontal	PASS
14870.324	-45.95	-13.0	32.9	81.1	Horizontal	PASS
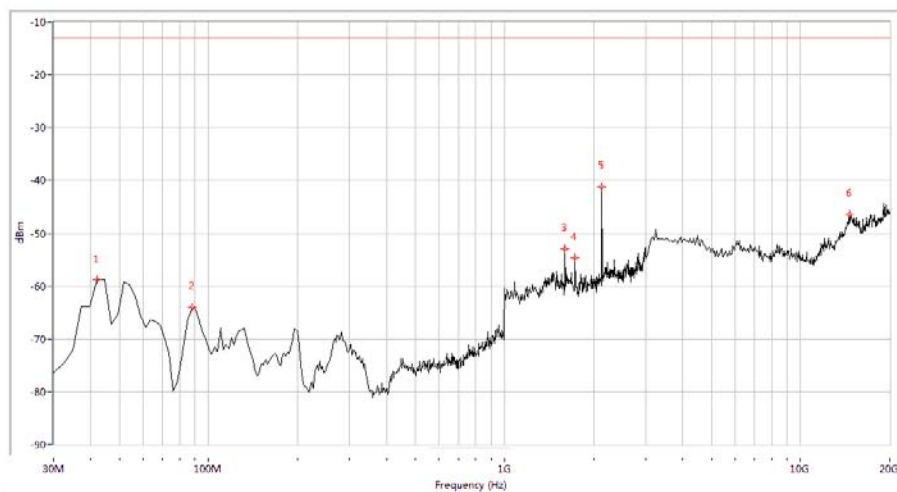
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-58.80	-13.0	45.8	346.6	Vertical	PASS
88.055	-64.09	-13.0	51.1	262.6	Vertical	PASS
1598.504	-52.96	-13.0	40.0	343.2	Vertical	PASS
1733.167	-54.67	-13.0	41.7	360.0	Vertical	PASS
2132.170	-41.18	-13.0	28.2	131.4	Vertical	PASS
14615.960	-46.50	-13.0	33.5	131.4	Vertical	PASS

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LTE Band 4 10MHz BW, Mid Channel, QPSK
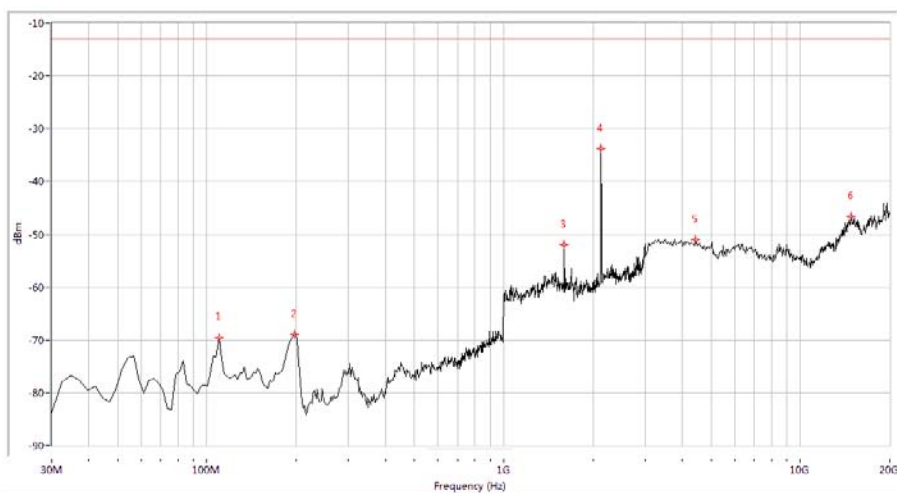
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.63	-13.0	56.6	105.7	Horizontal	PASS
196.908	-68.96	-13.0	56.0	350.1	Horizontal	PASS
1598.504	-52.05	-13.0	39.0	330.9	Horizontal	PASS
2132.170	-33.80	-13.0	20.8	47.1	Horizontal	PASS
4441.397	-51.01	-13.0	38.0	330.3	Horizontal	PASS
14870.324	-46.65	-13.0	33.6	91.9	Horizontal	PASS
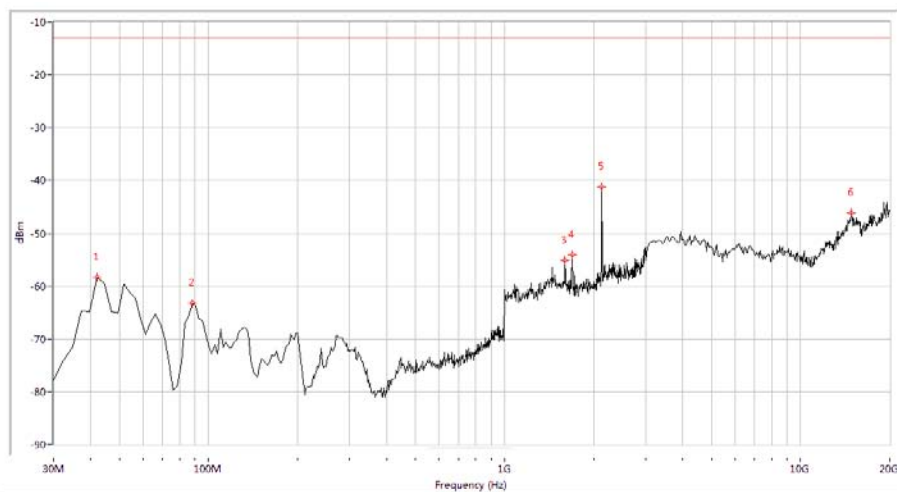
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-58.34	-13.0	45.3	197.1	Vertical	PASS
88.055	-63.22	-13.0	50.2	208.3	Vertical	PASS
1598.504	-55.16	-13.0	42.2	230.8	Vertical	PASS
1693.267	-54.12	-13.0	41.1	316.0	Vertical	PASS
2132.170	-41.16	-13.0	28.2	32.1	Vertical	PASS
14870.324	-46.05	-13.0	33.0	135.8	Vertical	PASS

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LTE Band 4 10MHz BW, Mid Channel, 16QAM
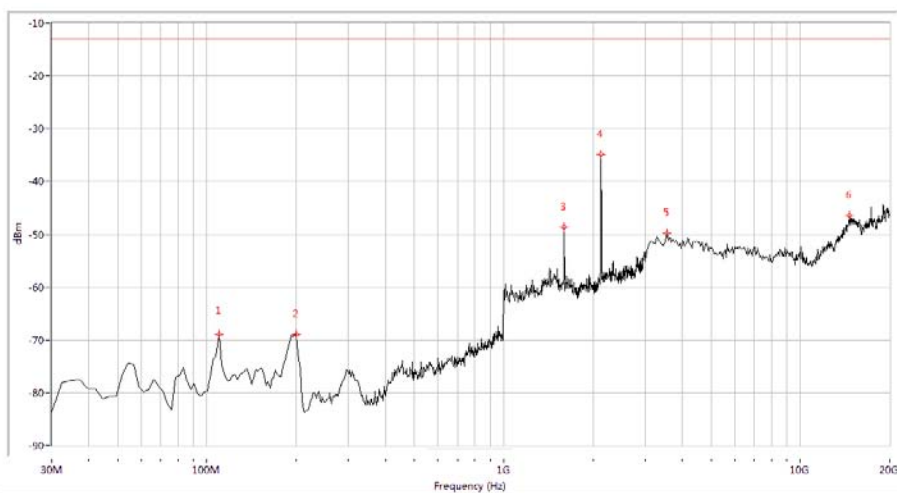
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-68.94	-13.0	55.9	57.2	Horizontal	PASS
199.327	-68.93	-13.0	55.9	190.4	Horizontal	PASS
1598.504	-48.62	-13.0	35.6	0.4	Horizontal	PASS
2132.170	-34.84	-13.0	21.8	110.5	Horizontal	PASS
3551.122	-49.73	-13.0	36.7	99.2	Horizontal	PASS
14615.960	-46.46	-13.0	33.5	333.9	Horizontal	PASS
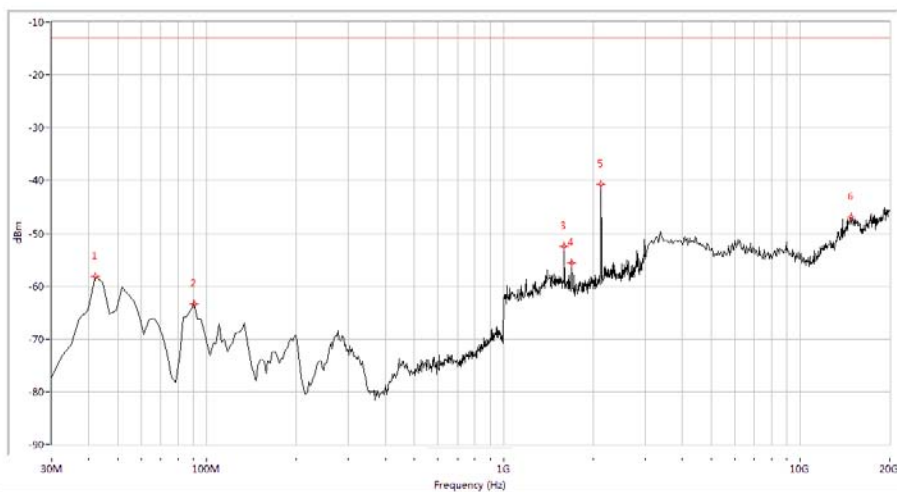
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-58.15	-13.0	45.1	-0.0	Vertical	PASS
90.474	-63.33	-13.0	50.3	262.8	Vertical	PASS
1598.504	-52.48	-13.0	39.5	108.6	Vertical	PASS
1698.254	-55.55	-13.0	42.5	184.9	Vertical	PASS
2132.170	-40.71	-13.0	27.7	83.1	Vertical	PASS
14827.930	-46.92	-13.0	33.9	310.4	Vertical	PASS

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LTE Band 4 15MHz BW, Mid Channel, QPSK
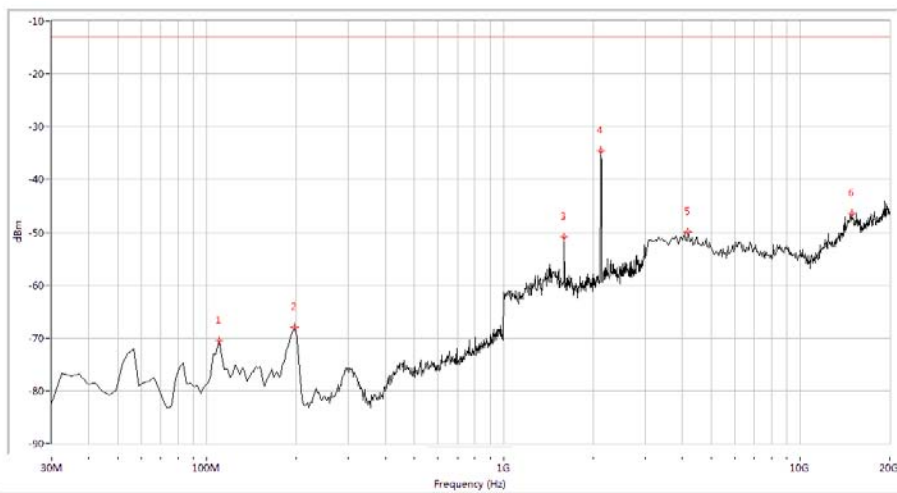
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-70.51	-13.0	57.5	210.7	Horizontal	PASS
196.908	-67.95	-13.0	55.0	-0.0	Horizontal	PASS
1598.504	-50.86	-13.0	37.9	253.4	Horizontal	PASS
2132.170	-34.58	-13.0	21.6	350.1	Horizontal	PASS
4187.032	-49.90	-13.0	36.9	142.3	Horizontal	PASS
14912.718	-46.48	-13.0	33.5	142.3	Horizontal	PASS
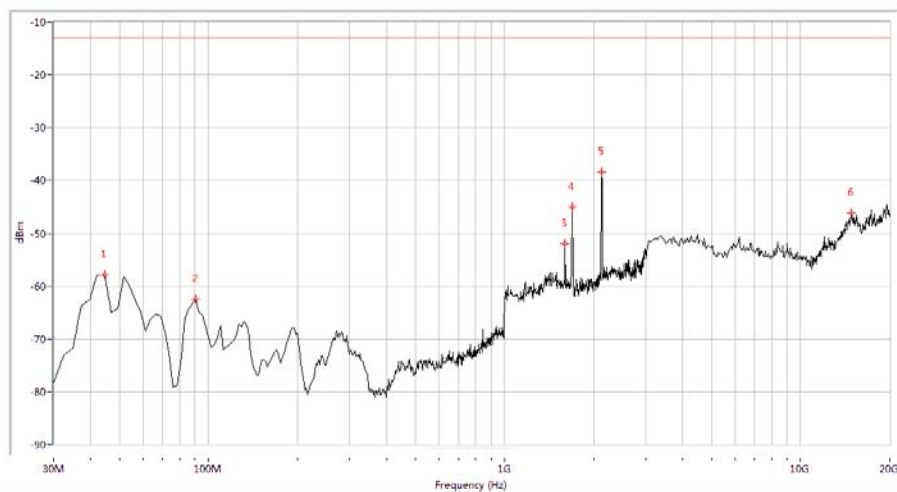
| Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
44.514	-57.77	-13.0	44.8	152.2	Vertical	PASS
90.474	-62.51	-13.0	49.5	274.5	Vertical	PASS
1598.504	-51.96	-13.0	39.0	97.6	Vertical	PASS
1698.254	-45.06	-13.0	32.1	21.0	Vertical	PASS
2132.170	-38.31	-13.0	25.3	130.3	Vertical	PASS
14870.324	-46.07	-13.0	33.1	360.0	Vertical	PASS

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LTE Band 4 15MHz BW, Mid Channel, 16QAM
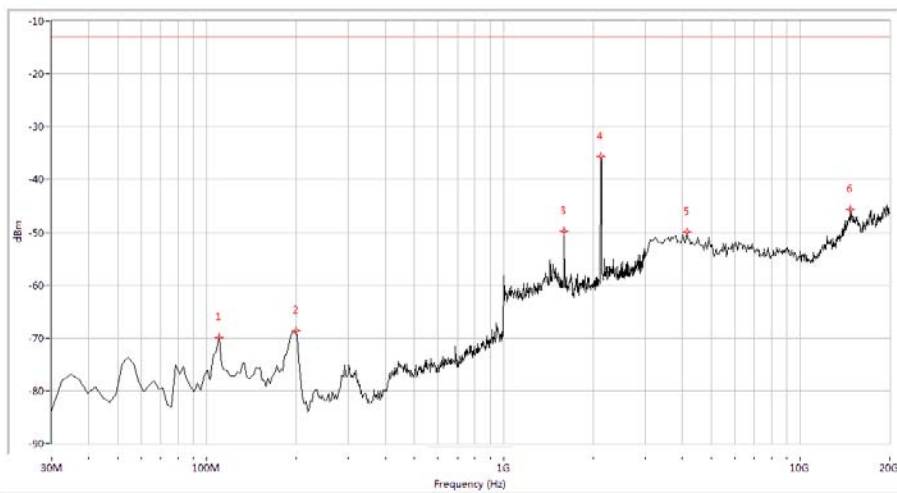
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.92	-13.0	56.9	158.7	Horizontal	PASS
199.327	-68.68	-13.0	55.7	47.2	Horizontal	PASS
1598.504	-49.84	-13.0	36.8	0.4	Horizontal	PASS
2132.170	-35.69	-13.0	22.7	250.6	Horizontal	PASS
4144.638	-49.85	-13.0	36.8	260.6	Horizontal	PASS
14785.536	-45.57	-13.0	32.6	105.6	Horizontal	PASS
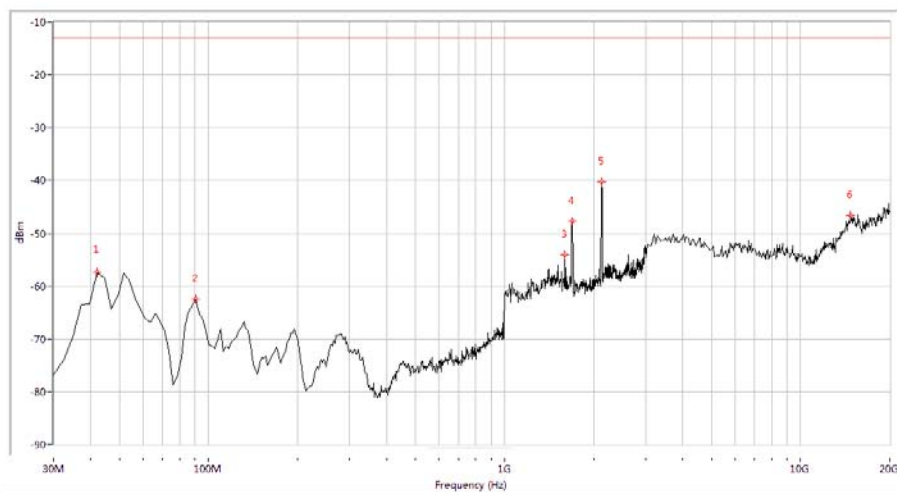
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
42.095	-57.37	-13.0	44.4	82.4	Vertical	PASS
90.474	-62.46	-13.0	49.5	173.9	Vertical	PASS
1598.504	-53.99	-13.0	41.0	232.0	Vertical	PASS
1698.254	-47.74	-13.0	34.7	333.2	Vertical	PASS
2127.182	-40.19	-13.0	27.2	16.2	Vertical	PASS
14743.142	-46.56	-13.0	33.6	172.9	Vertical	PASS

LTE Band 4 20MHz BW, Mid Channel, QPSK
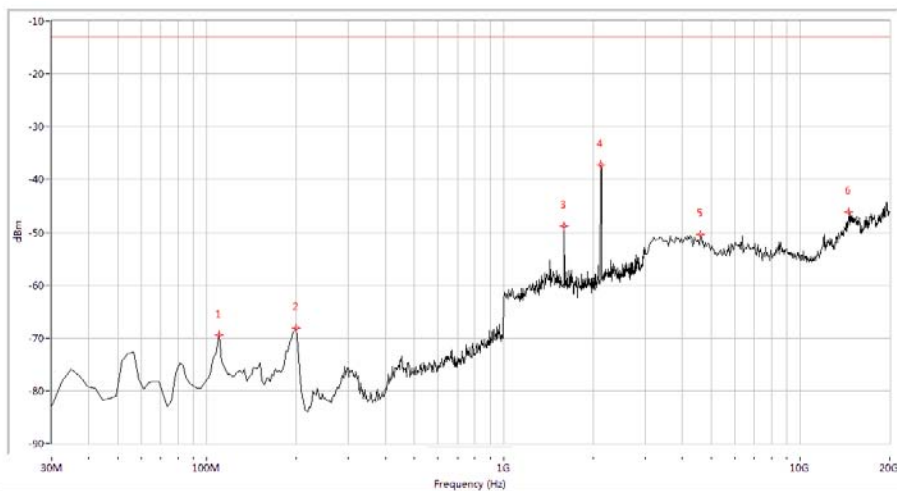
Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.35	-13.0	56.4	78.0	Horizontal	PASS
199.327	-68.13	-13.0	55.1	245.0	Horizontal	PASS
1598.504	-48.82	-13.0	35.8	0.3	Horizontal	PASS
2127.182	-37.25	-13.0	24.2	-0.0	Horizontal	PASS
4610.973	-50.43	-13.0	37.4	276.6	Horizontal	PASS
14573.566	-46.08	-13.0	33.1	130.0	Horizontal	PASS

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-57.01	-13.0	44.0	269.2	Vertical	PASS
90.474	-62.82	-13.0	49.8	248.0	Vertical	PASS
271.895	-67.82	-13.0	54.8	131.7	Vertical	PASS
1698.254	-43.12	-13.0	30.1	4.9	Vertical	PASS
2132.170	-40.71	-13.0	27.7	196.2	Vertical	PASS
14827.930	-46.23	-13.0	33.2	116.2	Vertical	PASS

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LTE Band 4 20MHz BW, Mid Channel, 16QAM

Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
109.825	-69.58	-13.0	56.6	60.3	Horizontal	PASS
199.327	-68.77	-13.0	55.8	27.9	Horizontal	PASS
1598.504	-50.02	-13.0	37.0	-0.0	Horizontal	PASS
2132.170	-36.48	-13.0	23.5	145.7	Horizontal	PASS
6306.733	-50.90	-13.0	37.9	9.1	Horizontal	PASS
14785.536	-45.95	-13.0	33.0	360.0	Horizontal	PASS
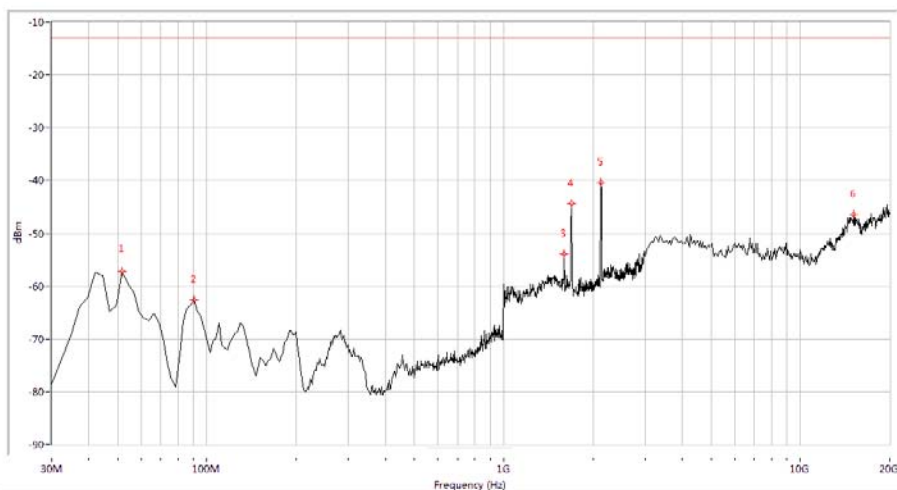
| Fre. (MHz)	Peak	Limit(PK)	Margin	Degree	Antenna	Verdict
51.771	-57.19	-13.0	44.2	1.9	Vertical	PASS
90.474	-62.64	-13.0	49.6	47.6	Vertical	PASS
1598.504	-53.91	-13.0	40.9	108.8	Vertical	PASS
1693.267	-44.34	-13.0	31.3	291.8	Vertical	PASS
2132.170	-40.39	-13.0	27.4	301.2	Vertical	PASS
15167.082	-46.43	-13.0	33.4	244.7	Vertical	PASS

** END OF REPORT **

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