

Radiated Spurious Emission

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (Horizontal and Vertical), the worst emission was found in position and the worst case and worst Antenna was recorded.

	Main Antenna
WCDMA	X axis, Vertical polarization
LTE	Y axis, Vertical polarization

Main Antenna

WCDMA Band II CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3760.00	-59.43	2.60	12.50	Vertical	-49.53	-13.00	36.53	88
3	5643.00	-38.87	3.30	12.50	Vertical	-29.67	-13.00	16.67	53
4	7520.00	-56.07	4.20	12.20	Vertical	-48.07	-13.00	35.07	35
5	9400.00	-54.38	4.30	11.10	Vertical	-47.58	-13.00	34.58	15
6	11280.00	-51.17	5.90	11.90	Vertical	-45.17	-13.00	32.17	56
7	13160.00	-53.43	5.70	14.00	Vertical	-45.13	-13.00	32.13	244
8	15040.00	-53.23	5.80	13.10	Vertical	-45.93	-13.00	32.93	66
9	16920.00	-51.84	6.10	14.60	Vertical	-43.34	-13.00	30.34	98
10	18800.00	--	--	--	--	--	--	--	--

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

WCDMA Band IV CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3467.00	-62.65	2.70	12.70	Vertical	-52.65	-13.00	39.65	74
3	5198.00	-51.66	3.20	12.50	Vertical	-42.36	-13.00	29.36	27
4	6930.40	-67.81	4.20	11.80	Vertical	-60.21	-13.00	47.21	154
5	8663.00	-63.99	4.40	12.50	Vertical	-55.89	-13.00	42.89	35
6	10395.60	-59.90	4.70	11.30	Vertical	-53.30	-13.00	40.30	33
7	12128.20	-62.05	5.20	13.80	Vertical	-53.45	-13.00	40.45	68
8	13860.80	-57.21	5.70	11.30	Vertical	-51.61	-13.00	38.61	37
9	15593.40	-65.79	6.10	16.80	Vertical	-55.09	-13.00	42.09	35
10	17326.00	-60.09	6.10	14.20	Vertical	-51.99	-13.00	38.99	74

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

WCDMA Band V CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1671.20	-63.96	1.70	8.70	Vertical	-59.11	-13.00	46.11	38
3	2510.40	-47.77	2.30	12.00	Vertical	-40.22	-13.00	27.22	58
4	3346.40	-67.70	2.70	12.70	Vertical	-59.85	-13.00	46.85	38
5	4183.00	-60.75	3.00	12.50	Vertical	-53.40	-13.00	40.40	27
6	5019.60	-62.24	3.40	12.50	Vertical	-55.29	-13.00	42.29	33
7	5856.20	-60.83	3.40	12.80	Vertical	-53.58	-13.00	40.58	124
8	6692.80	-56.88	4.10	11.50	Vertical	-51.63	-13.00	38.63	74
9	7529.40	-53.48	4.20	12.20	Vertical	-47.63	-13.00	34.63	56
10	8366.00	-54.92	4.30	12.50	Vertical	-48.87	-13.00	35.87	88

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

LTE Band 2 CH-Middle

Band width	Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
1.4MHz	2	3759.00	-60.07	2.60	12.50	Vertical	-50.17	-13.00	37.17	254
	3	5638.88	-41.98	3.30	12.50	Vertical	-32.78	-13.00	19.78	146
	4	7520.00	-54.96	4.20	12.20	Vertical	-46.96	-13.00	33.96	31
	5	9400.00	-53.74	4.30	11.10	Vertical	-46.94	-13.00	33.94	241
	6	11280.00	-50.69	5.90	11.90	Vertical	-44.69	-13.00	31.69	212
	7	13160.00	-55.49	5.70	14.00	Vertical	-47.19	-13.00	34.19	265
	8	15040.00	-53.52	5.80	13.10	Vertical	-46.22	-13.00	33.22	282
	9	16920.00	-53.23	6.10	14.60	Vertical	-44.73	-13.00	31.73	65
	10	18800.00	--	--	--	--	--	--	--	--
5MHz	2	3755.63	-62.05	2.60	12.50	Vertical	-52.15	-13.00	39.15	45
	3	5633.63	-48.56	3.30	12.50	Vertical	-39.36	-13.00	26.36	0
	4	7510.00	-55.12	4.20	12.20	Vertical	-47.12	-13.00	34.12	52
	5	9387.50	-52.54	4.30	11.10	Vertical	-45.74	-13.00	32.74	33
	6	11265.00	-51.19	5.90	11.90	Vertical	-45.19	-13.00	32.19	65
	7	13142.00	-53.81	5.70	14.00	Vertical	-45.51	-13.00	32.51	265
	8	15020.00	-52.05	5.80	13.10	Vertical	-44.75	-13.00	31.75	147
	9	16897.50	-51.72	6.10	14.60	Vertical	-43.22	-13.00	30.22	212
	10	18800.00	--	--	--	--	--	--	--	--
20MHz	2	3742.13	-55.57	2.60	12.50	Vertical	-45.67	-13.00	32.67	303
	3	5613.38	-32.95	3.30	12.50	Vertical	-23.75	-13.00	10.75	21
	4	7484.63	-55.17	4.20	12.20	Vertical	-47.17	-13.00	34.17	65
	5	9355.33	-51.09	4.30	11.10	Vertical	-44.29	-13.00	31.29	108
	6	11226.39	-51.83	5.90	11.90	Vertical	-45.83	-13.00	32.83	0
	7	13097.46	-51.74	5.70	14.00	Vertical	-43.44	-13.00	30.44	325
	8	14968.52	-50.66	5.80	13.10	Vertical	-43.36	-13.00	30.36	145
	9	16938.59	-52.65	6.10	14.60	Vertical	-44.15	-13.00	31.15	212
	10	18800.00	--	--	--	--	--	--	--	--

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

LTE Band 4 CH-Middle

Band width	Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
1.4MHz	2	3464.25	-73.01	2.70	12.70	Vertical	-63.01	-13.00	50.01	252
	3	5197.50	-51.47	3.20	12.50	Vertical	-42.17	-13.00	29.17	102
	4	6930.00	-66.55	4.20	11.80	Vertical	-58.95	-13.00	45.95	33
	5	8662.50	-63.74	4.40	12.50	Vertical	-55.64	-13.00	42.64	214
	6	10395.00	-60.47	4.70	11.30	Vertical	-53.87	-13.00	40.87	105
	7	12127.50	-60.89	5.20	13.80	Vertical	-52.29	-13.00	39.29	15
	8	13860.00	-56.00	5.70	11.30	Vertical	-50.40	-13.00	37.40	315
	9	15592.50	-64.51	6.10	16.80	Vertical	-53.81	-13.00	40.81	325
	10	17325.00	-60.80	6.10	14.20	Vertical	-52.70	-13.00	39.70	247
5MHz	2	3460.50	-72.50	2.70	12.70	Vertical	-62.50	-13.00	49.50	315
	3	5191.50	-48.57	3.20	12.50	Vertical	-39.27	-13.00	26.27	125
	4	6930.00	-66.48	4.20	11.80	Vertical	-58.88	-13.00	45.88	320
	5	8662.50	-63.52	4.40	12.50	Vertical	-55.42	-13.00	42.42	201
	6	10380.00	-58.56	4.70	11.30	Vertical	-51.96	-13.00	38.96	45
	7	12110.00	-61.60	5.20	13.80	Vertical	-53.00	-13.00	40.00	0
	8	13840.00	-55.31	5.70	11.30	Vertical	-49.71	-13.00	36.71	315
	9	15570.00	-55.91	6.10	16.80	Vertical	-45.21	-13.00	32.21	125
	10	17300.00	-60.20	6.10	14.20	Vertical	-52.10	-13.00	39.10	321
20MHz	2	3447.75	-69.06	2.70	12.70	Vertical	-59.06	-13.00	46.06	247
	3	5170.88	-42.51	3.20	12.50	Vertical	-33.21	-13.00	20.21	202
	4	6930.00	-67.56	4.20	11.80	Vertical	-59.96	-13.00	46.96	108
	5	8662.50	-63.24	4.40	12.50	Vertical	-55.14	-13.00	42.14	25
	6	10395.00	-59.20	4.70	11.30	Vertical	-52.60	-13.00	39.60	65
	7	12127.50	-61.49	5.20	13.80	Vertical	-52.89	-13.00	39.89	158
	8	13860.00	-55.26	5.70	11.30	Vertical	-49.66	-13.00	36.66	60
	9	15592.50	-65.04	6.10	16.80	Vertical	-54.34	-13.00	41.34	0
	10	17325.00	-59.64	6.10	14.20	Vertical	-51.54	-13.00	38.54	91

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

LTE Band 5 CH-Middle

Band width	Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
1.4MHz	2	1673.00	-55.97	1.70	8.70	Vertical	-51.12	-13.00	38.12	313
	3	2509.50	-36.14	2.30	12.00	Vertical	-28.59	-13.00	15.59	212
	4	3346.00	-66.44	2.70	12.70	Vertical	-58.59	-13.00	45.59	233
	5	4182.50	-50.36	3.00	12.50	Vertical	-43.01	-13.00	30.01	126
	6	5019.00	-62.33	3.40	12.50	Vertical	-55.38	-13.00	42.38	45
	7	5855.50	-58.56	3.40	12.80	Vertical	-51.31	-13.00	38.31	315
	8	6692.00	-55.84	4.10	11.50	Vertical	-50.59	-13.00	37.59	0
	9	7528.50	-52.75	4.20	12.20	Vertical	-46.90	-13.00	33.90	25
	10	8365.00	-53.73	4.30	12.50	Vertical	-47.68	-13.00	34.68	313
5MHz	2	1668.60	-56.02	1.70	8.70	Vertical	-51.17	-13.00	38.17	315
	3	2503.30	-35.42	2.30	12.00	Vertical	-27.87	-13.00	14.87	125
	4	3337.50	-66.90	2.70	12.70	Vertical	-59.05	-13.00	46.05	315
	5	4171.88	-54.83	3.00	12.50	Vertical	-47.48	-13.00	34.48	305
	6	5006.25	-61.01	3.40	12.50	Vertical	-54.06	-13.00	41.06	202
	7	5840.63	-60.04	3.40	12.80	Vertical	-52.79	-13.00	39.79	352
	8	6675.00	-54.96	4.10	11.50	Vertical	-49.71	-13.00	36.71	58
	9	7509.38	-52.05	4.20	12.20	Vertical	-46.20	-13.00	33.20	123
	10	8343.75	-54.35	4.30	12.50	Vertical	-48.30	-13.00	35.30	23
10MHz	2	1664.40	-61.85	1.70	8.70	Vertical	-57.00	-13.00	44.00	212
	3	2496.60	-39.25	2.30	12.00	Vertical	-31.70	-13.00	18.70	31
	4	3326.00	-68.62	2.70	12.70	Vertical	-60.77	-13.00	47.77	36
	5	4157.50	-55.42	3.00	12.50	Vertical	-48.07	-13.00	35.07	42
	6	4989.00	-63.29	3.40	12.50	Vertical	-56.34	-13.00	43.34	90
	7	5820.50	-61.71	3.40	12.80	Vertical	-54.46	-13.00	41.46	185
	8	6652.00	-55.10	4.10	11.50	Vertical	-49.85	-13.00	36.85	165
	9	7483.50	-52.59	4.20	12.20	Vertical	-46.74	-13.00	33.74	102
	10	8315.00	-53.86	4.30	12.50	Vertical	-47.81	-13.00	34.81	32

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Vertical position.

LTE Band 7 CH-Middle

Band width	Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
5MHz	2	5065.80	-64.51	3.40	12.50	Vertical	-55.41	-25.00	30.41	254
	3	7578.00	-34.38	4.40	12.20	Vertical	-26.58	-25.00	1.58	302
	4	10130.63	-53.79	4.70	11.30	Vertical	-47.19	-25.00	22.19	102
	5	12675.00	-51.21	5.40	13.20	Vertical	-43.41	-25.00	18.41	212
	6	15210.00	-52.48	6.10	13.10	Vertical	-45.48	-25.00	20.48	54
	7	17745.00	-51.35	6.10	14.20	Vertical	-43.25	-25.00	18.25	0
	8	20280.00	--	--	--	--	--	--	--	--
	9	22815.00	--	--	--	--	--	--	--	--
	10	25350.00	--	--	--	--	--	--	--	--
20MHz	2	5052.20	-58.84	3.40	12.50	Vertical	-49.74	-25.00	24.74	303
	3	7578.30	-46.73	4.40	12.20	Vertical	-38.93	-25.00	13.93	221
	4	10104.40	-53.36	4.70	11.30	Vertical	-46.76	-25.00	21.76	46
	5	12630.50	-51.79	5.40	13.20	Vertical	-43.99	-25.00	18.99	315
	6	15156.60	-53.40	6.10	13.10	Vertical	-46.40	-25.00	21.40	256
	7	17745.00	-50.85	6.10	14.20	Vertical	-42.75	-25.00	17.75	121
	8	20208.80	--	--	--	--	--	--	--	--
	9	22734.90	--	--	--	--	--	--	--	--
	10	25261.00	--	--	--	--	--	--	--	--
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.										
2. The worst emission was found in the antenna is Vertical position.										

LTE Band 38 CH-Middle

Band width	Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
5MHz	2	5185.00	-59.98	3.20	12.50	Vertical	-50.68	-25.00	25.68	85
	3	7777.50	-53.92	4.40	12.30	Vertical	-46.02	-25.00	21.02	102
	4	10370.00	-51.59	4.70	11.80	Vertical	-44.49	-25.00	19.49	313
	5	12962.50	-51.89	5.40	14.00	Vertical	-43.29	-25.00	18.29	219
	6	15555.00	-57.12	6.10	16.80	Vertical	-46.42	-25.00	21.42	25
	7	18147.50	--	--	--	--	--	--	--	--
	8	20740.00	--	--	--	--	--	--	--	--
	9	23332.50	--	--	--	--	--	--	--	--
	10	25925.00	--	--	--	--	--	--	--	--
20MHz	2	5170.00	-60.95	3.20	12.50	Vertical	-51.65	-25.00	26.65	123
	3	7755.00	-38.25	4.40	12.30	Vertical	-30.35	-25.00	5.35	32
	4	10340.00	-51.29	4.70	11.80	Vertical	-44.19	-25.00	19.19	0
	5	12925.00	-52.32	5.40	14.00	Vertical	-43.72	-25.00	18.72	54
	6	15510.00	-56.99	6.10	16.80	Vertical	-46.29	-25.00	21.29	89
	7	18095.00	--	--	--	--	--	--	--	--
	8	20680.00	--	--	--	--	--	--	--	--
	9	23265.00	--	--	--	--	--	--	--	--
	10	25850.00	--	--	--	--	--	--	--	--
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.										

LTE Band 41 CH-Middle

Band width	Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	Result Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
5MHz	2	5181.00	-55.05	3.20	12.50	Vertical	-45.75	-25.00	20.75	45
	3	7771.50	-44.04	4.40	12.30	Vertical	-36.14	-25.00	11.14	102
	4	10362.00	-51.09	4.70	11.80	Vertical	-43.99	-25.00	18.99	312
	5	13952.50	-51.99	5.40	14.00	Vertical	-43.39	-25.00	18.39	153
	6	15543.00	-56.96	6.10	16.80	Vertical	-46.26	-25.00	21.26	251
	7	18133.50	--	--	--	--	--	--	--	--
	8	20653.20	--	--	--	--	--	--	--	--
	9	23234.85	--	--	--	--	--	--	--	--
	10	25816.50	--	--	--	--	--	--	--	--
20MHz	2	5166.00	-60.85	3.20	12.50	Vertical	-51.55	-25.00	26.55	0
	3	7749.00	-37.72	4.40	12.30	Vertical	-29.82	-25.00	4.82	95
	4	10332.00	-51.26	4.70	11.80	Vertical	-44.16	-25.00	19.16	254
	5	12915.00	-51.60	5.40	14.00	Vertical	-43.00	-25.00	18.00	154
	6	15498.00	-58.19	6.10	16.80	Vertical	-47.49	-25.00	22.49	21
	7	18023.60	--	--	--	--	--	--	--	--
	8	20598.40	--	--	--	--	--	--	--	--
	9	23173.20	--	--	--	--	--	--	--	--
	10	25748.00	--	--	--	--	--	--	--	--
Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Vertical position.										