

Appendix D-Radiated Spurious Emissions
Test Data:
External Antenna:
FDD LTE Band 12:

Low Channel					
Frequency	Spurious Emission Level			Limit	Over limit
(MHz)	(Deg)	Polaxis	(dBm)	dBm	(dB)
71.5	174.3	Horizontal	-56.4	-13.0	-43.4
463.0	295.2	Horizontal	-55.7	-13.0	-42.7
820.4	209.4	Horizontal	-53.6	-13.0	-40.6
2493.1	282.9	Horizontal	-47.9	-13.0	-34.9
6345.9	89.2	Horizontal	-44.0	-13.0	-31.0
12142.6	232.7	Horizontal	-45.9	-13.0	-32.9
140.6	210.4	Vertical	-56.9	-13.0	-43.9
327.3	272.3	Vertical	-55.8	-13.0	-42.8
753.0	24.3	Vertical	-53.0	-13.0	-40.0
2480.9	141.7	Vertical	-47.6	-13.0	-34.6
6342.3	160.2	Vertical	-44.2	-13.0	-31.2
10374.0	342.4	Vertical	-42.7	-13.0	-29.7

Middle Channel					
Frequency	Spurious Emission Level			Limit	Over limit
(MHz)	(Deg)	Polaxis	(dBm)	dBm	(dB)
102.9	214.7	Horizontal	-58.1	-13.0	-45.1
429.7	223.0	Horizontal	-55.3	-13.0	-42.3
850.6	242.4	Horizontal	-51.6	-13.0	-38.6
2499.6	174.7	Horizontal	-46.4	-13.0	-33.4
6346.3	325.0	Horizontal	-45.2	-13.0	-32.2
10819.7	137.8	Horizontal	-42.5	-13.0	-29.5
195.2	76.3	Vertical	-58.7	-13.0	-45.7
346.8	52.2	Vertical	-54.7	-13.0	-41.7
783.3	116.2	Vertical	-50.9	-13.0	-37.9
2482.2	97.1	Vertical	-49.2	-13.0	-36.2
6338.6	156.0	Vertical	-45.6	-13.0	-32.6
11572.6	183.0	Vertical	-46.2	-13.0	-33.2



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High Channel					
Frequency (MHz)	Spurious Emission Level			Limit dBm	Over limit (dB)
	(Deg)	Polaxis	(dBm)		
158.5	71.7	Horizontal	-57.0	-13.0	-44.0
330.6	301.6	Horizontal	-55.5	-13.0	-42.5
832.1	143.2	Horizontal	-52.4	-13.0	-39.4
2489.1	283.2	Horizontal	-49.0	-13.0	-36.0
6344.3	41.3	Horizontal	-45.8	-13.0	-32.8
11888.3	28.7	Horizontal	-43.7	-13.0	-30.7
199.7	218.4	Vertical	-58.2	-13.0	-45.2
398.8	139.5	Vertical	-54.5	-13.0	-41.5
715.2	283.0	Vertical	-54.6	-13.0	-41.6
2483.8	331.6	Vertical	-46.1	-13.0	-33.1
6343.1	182.4	Vertical	-45.5	-13.0	-32.5
11452.6	55.6	Vertical	-46.2	-13.0	-33.2



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Internal Antenna:
FDD LTE Band 12:

Low Channel					
Frequency	Spurious Emission Level			Limit	Over limit
(MHz)	(Deg)	Polaxis	(dBm)	dBm	(dB)
70.6	173.4	Horizontal	-55.9	-13.0	-42.9
463.4	294.6	Horizontal	-55.8	-13.0	-42.8
819.8	208.7	Horizontal	-53.9	-13.0	-40.9
2493.0	283.4	Horizontal	-48.2	-13.0	-35.2
6345.4	89.3	Horizontal	-44.1	-13.0	-31.1
12141.5	233.2	Horizontal	-46.0	-13.0	-33.0
141.1	209.6	Vertical	-57.5	-13.0	-44.5
326.2	272.3	Vertical	-55.3	-13.0	-42.3
753.4	24.2	Vertical	-52.5	-13.0	-39.5
2480.2	141.3	Vertical	-47.0	-13.0	-34.0
6342.6	161.0	Vertical	-44.1	-13.0	-31.1
10374.2	341.6	Vertical	-43.0	-13.0	-30.0

Middle Channel					
Frequency	Spurious Emission Level			Limit	Over limit
(MHz)	(Deg)	Polaxis	(dBm)	dBm	(dB)
102.6	213.6	Horizontal	-58.8	-13.0	-45.8
428.5	222.3	Horizontal	-55.8	-13.0	-42.8
851.1	242.1	Horizontal	-52.4	-13.0	-39.4
2500.8	175.3	Horizontal	-45.2	-13.0	-32.2
6347.3	325.5	Horizontal	-44.7	-13.0	-31.7
10820.1	137.1	Horizontal	-43.1	-13.0	-30.1
194.7	77.1	Vertical	-59.5	-13.0	-46.5
346.7	51.3	Vertical	-55.1	-13.0	-42.1
784.5	116.5	Vertical	-50.1	-13.0	-37.1
2482.0	98.0	Vertical	-48.6	-13.0	-35.6
6338.0	155.0	Vertical	-46.4	-13.0	-33.4
11571.5	182.4	Vertical	-47.0	-13.0	-34.0



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High Channel					
Frequency (MHz)	Spurious Emission Level			Limit dBm	Over limit (dB)
	(Deg)	Polaxis	(dBm)		
158.4	70.7	Horizontal	-57.2	-13.0	-44.2
330.7	301.8	Horizontal	-56.3	-13.0	-43.3
832.2	143.4	Horizontal	-51.4	-13.0	-38.4
2488.4	282.1	Horizontal	-48.2	-13.0	-35.2
6343.7	41.0	Horizontal	-46.6	-13.0	-33.6
11887.4	28.8	Horizontal	-44.9	-13.0	-31.9
199.3	217.2	Vertical	-58.6	-13.0	-45.6
399.9	140.2	Vertical	-55.2	-13.0	-42.2
715.1	282.2	Vertical	-54.1	-13.0	-41.1
2482.8	331.3	Vertical	-46.2	-13.0	-33.2
6343.5	181.5	Vertical	-45.2	-13.0	-32.2
11452.2	55.2	Vertical	-46.0	-13.0	-33.0

Remark:

There are two models of the EUT. The main difference is that one is a internal antenna, and the other is an external antenna. For External antenna, the test is with 50 ohm impedance.

No emissions were detected within 20dB below the limit for the Downlink direction.

The cabinet radiation was measured with the equipment transmitting a CW signal into a non-radiating 50 Ohm load at maximum output power on a signal frequency.

Measured were performed in the lowest, middle and highest frequency for the Downlink.

The spectrum was searched from 30MHz to 18GHz or 10th Harmonic for downlink.



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