

# 8. Appendix H: Radiated Spurious Emission & Spurious in Restricted Band

### Note:

- 1. We tested all modes & antennas, the data presented below is the worst case.
- 2. The simultaneous transmission has been considered

3. The whole testing range is from "9 KHz to 26.5 GHz (10th harmonics)" is divided into 5 parts according to the test site settings, which are:

- (Part 1): Test range of "9 KHz to 30 MHz", RBW =9 kHz, VBW = 30 kHz
- (Part 2): Test range of "30 GHz to 1 GHz", RBW = 100 kHz, VBW = 300 kHz.
- (Part 3): Test range of "1 GHz to 3 GHz". RBW = 1 MHz, VBW = 3 MHz.
- (Part 4): Test range of "3 GHz to 18 GHz", RBW = 1 MHz, VBW = 3 MHz.
- (Part 5): Test range of "18 GHz to 26.5 GHz". RBW = 1 MHz, VBW = 3 MHz.

### 8.1. Test Results

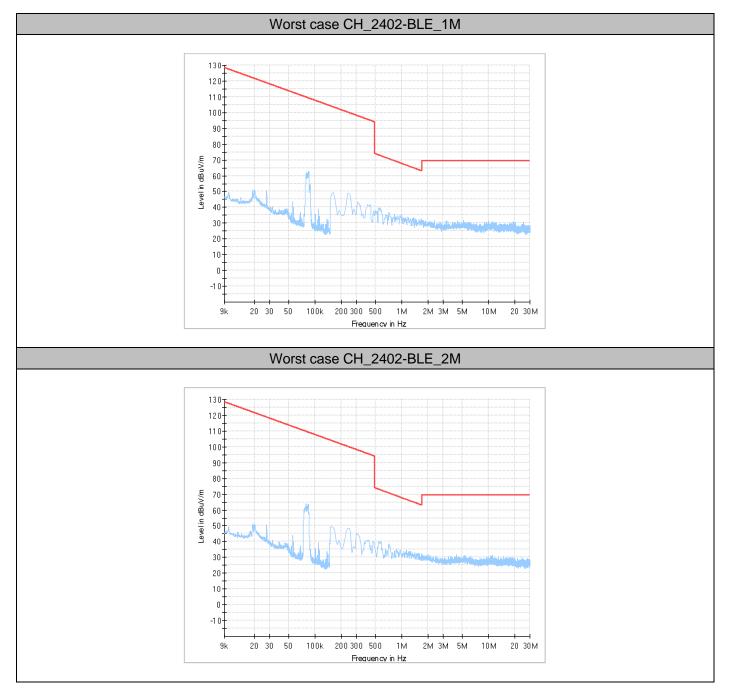
#### 8.1.1. BLE

Test Mode	Antenna	Test Channel	Spurious Emissions Result	Spurious Emissions Limit	Verdict
TM1_BLE_1M	Ant1	2402	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	2480	(see Test Graphs)	(see Test Graphs)	PASS
TM2 BLE 2M	Ant1	2402	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	2480	(see Test Graphs)	(see Test Graphs)	PASS

# 8.2. Test Graphs

# 8.2.1. Part 1: Testing Range of "9 kHz to 30MHz"

Note 1: The test results and plot for testing range of "9 kHz to 30MHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

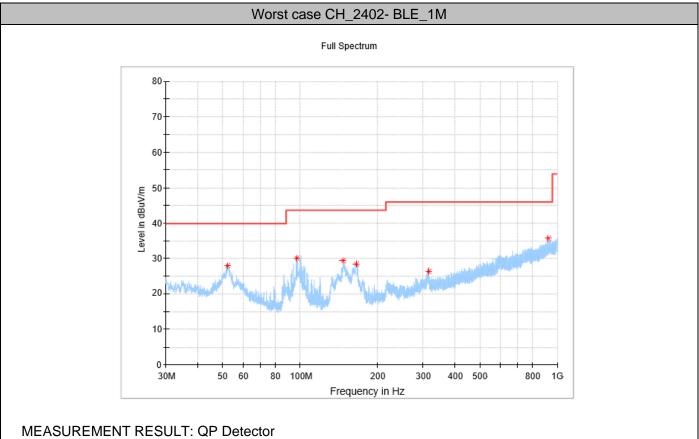


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# 8.2.2. Part 2: Testing Range of "30 MHz to 1 GHz"

Note 1: The test results and plot for testing range of "30 MHz to 1 GHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

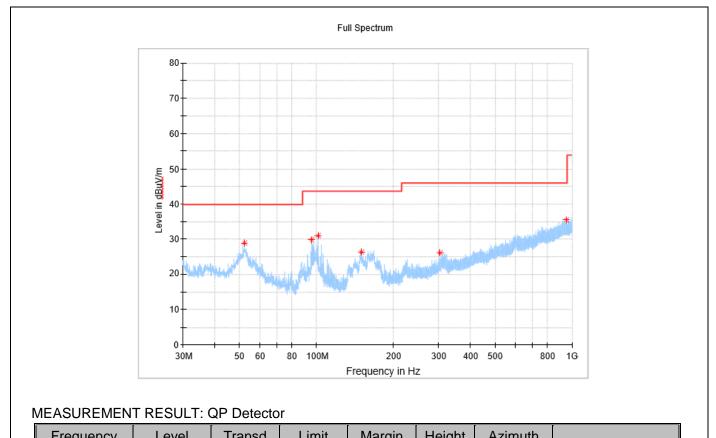




Frequency	Level	Transd	Limit	Margin	Height	Azimuth	Polarisation	
MHz	dBµV/m	dB	dBµV/m	dB	cm	deg	FUIAIISALIUII	
52.164500	28.07	20.5	40.00	11.93	100.0	270.0	V	
97.172500	30.17	18.3	43.50	13.33	100.0	44.0	V	
147.176000	29.34	14.8	43.50	14.16	100.0	218.0	V	
164.539000	28.49	15.6	43.50	15.01	100.0	218.0	V	
316.732000	26.36	20.8	46.00	19.64	100.0	268.0	Н	
920.751000	35.71	31.0	46.00	10.29	100.0	261.0	V	

## Worst case CH\_2402- BLE\_2M





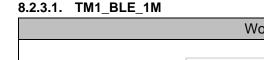
Frequency	Level	Transd	Limit	Margin	Height	Azimuth	Polarisation	
MHz	dBµV/m	dB	dBµV/m	dB	cm	deg		
52.067500	28.85	20.5	40.00	11.15	100.0	288.0	V	
95.378000	29.83	18.0	43.50	13.67	100.0	57.0	V	
101.392000	30.94	18.6	43.50	12.56	100.0	120.0	V	
149.455500	26.24	14.8	43.50	17.26	100.0	130.0	V	
305.189000	26.19	20.6	46.00	19.81	100.0	286.0	Н	
952.033500	35.35	30.9	46.00	10.65	100.0	166.0	Н	

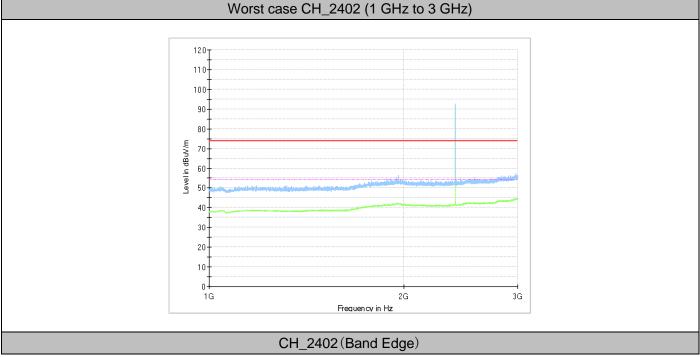
# 8.2.3. Part 3: Testing Range of "1 GHz to 3 GHz"

Note 1: The testing range of "1 GHz to 3 GHz" is for checking radiated emissions located in restricted bands near the EUT operating bands. The test results and plot for testing range of "1 GHz to 3 GHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

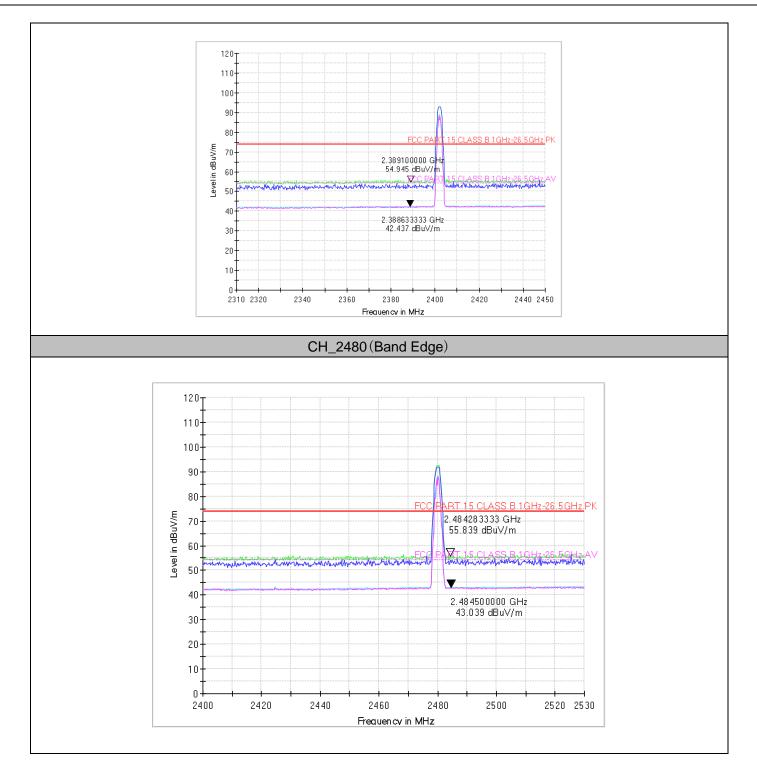
Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBµV/m) and Average Limit (54 dBµV/m).

Note 3: The peak spike exceeds the limit line is EUT's operating frequency.

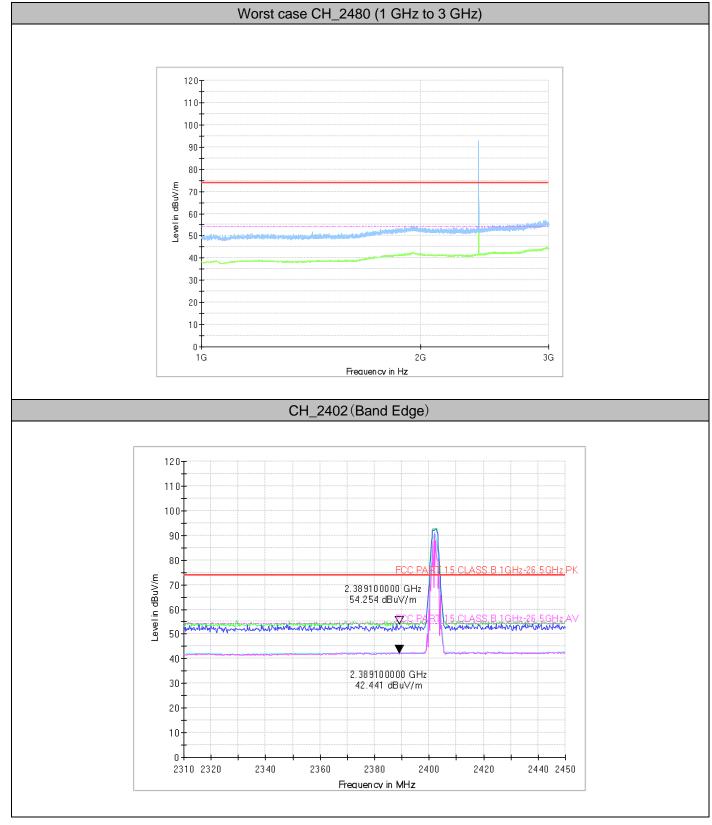








#### 8.2.3.2. TM2\_BLE\_2M

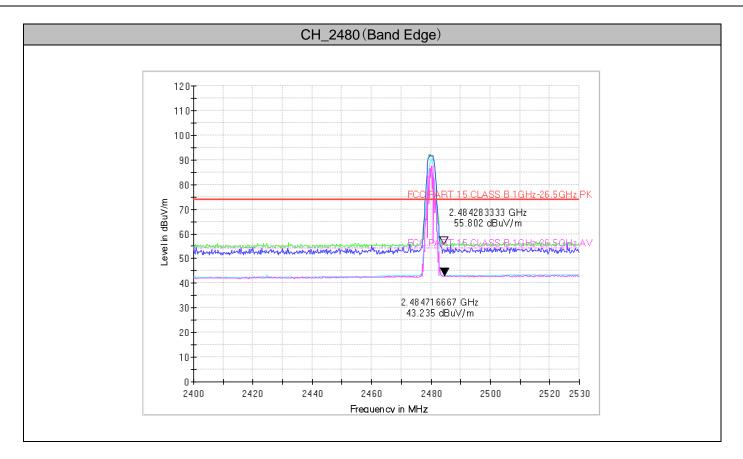


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### RF Report for MGA-LX3

Public

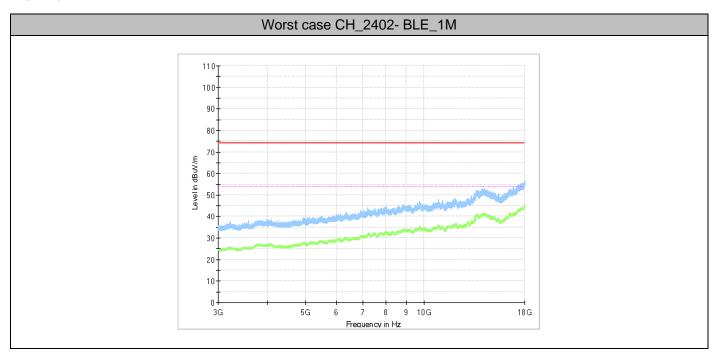


## 8.2.4. Part 4: Testing Range of "3 GHz to 18 GHz"

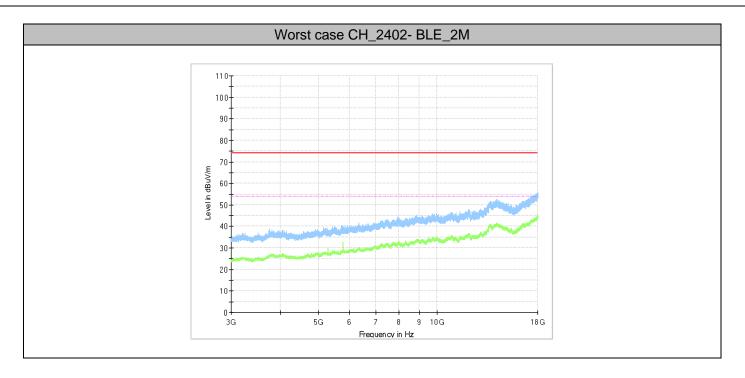
Note 1: The test results and plot for testing range of "3 GHz to 18 GHz" showed as below is the worst case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of "3 GHz to 18 GHz" is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.

Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).





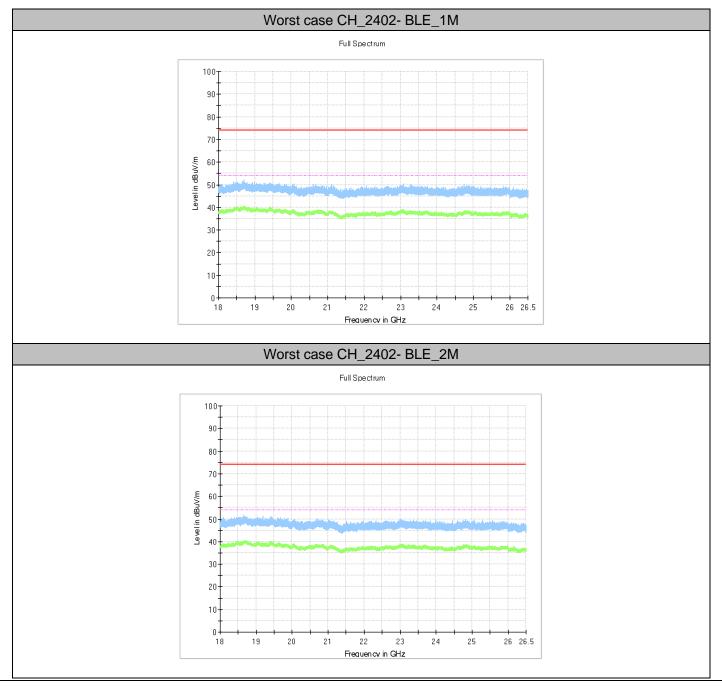


### 8.2.5. Part 5: Testing Range of "18 GHz to 26.5 GHz"

Note 1: The test results and plot for testing range of "18 GHz to 26.5 GHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of "18 GHz to 26.5 GHz" is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.

Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).



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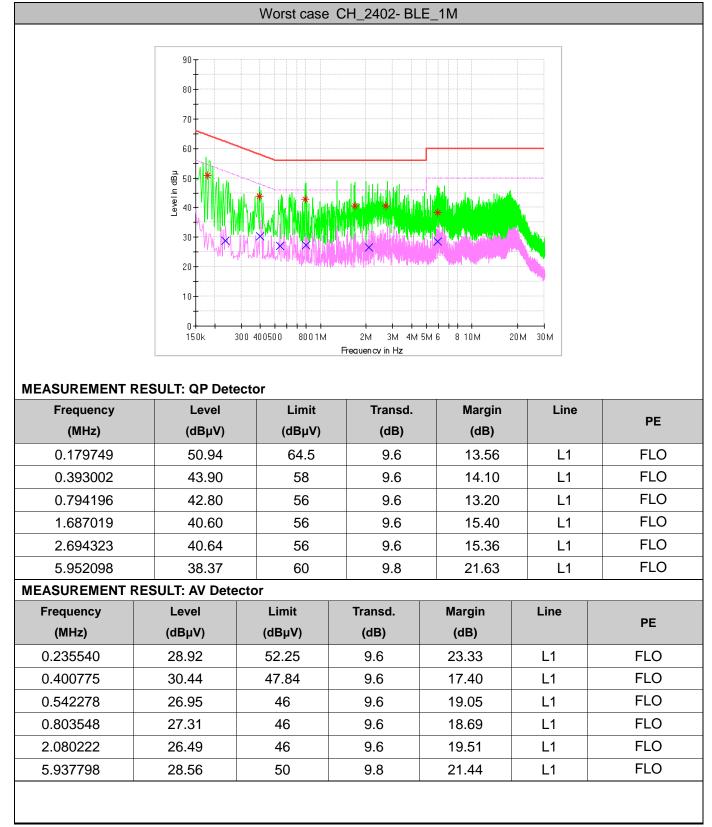
# 9. Appendix I: Conducted Emission at Power Port

Note 1: The test results and plot for testing range of "150 kHz to 30 MHz" showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel. Note 2: RBW =9 kHz; VBW = 30 kHz

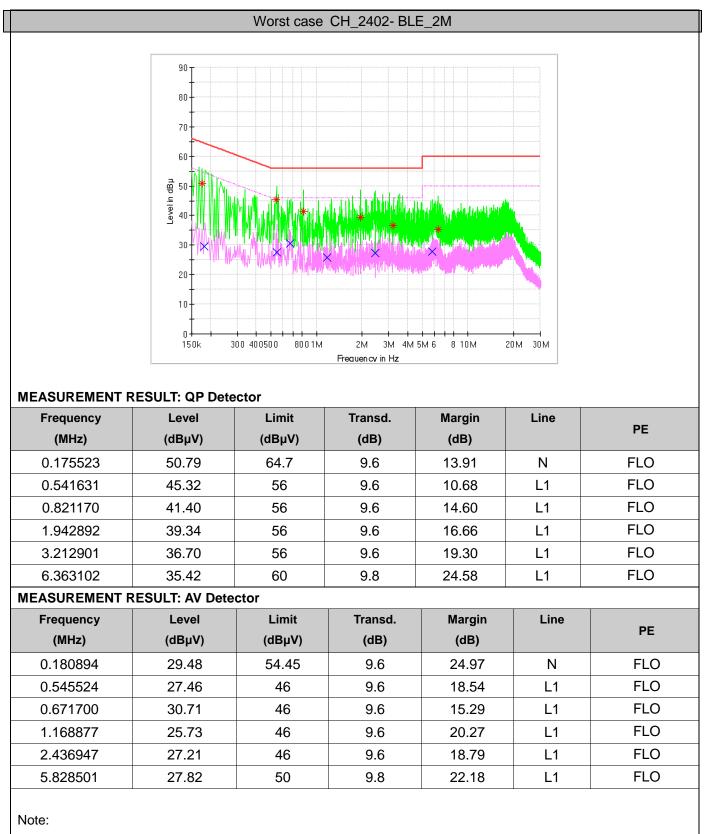
### 9.1. Test Results

Test Mode	Antenna Port	Test Channel	Maximum Emissions	Limit	Verdict
TM1_BLE_1M	Ant1	2402	(see Test Graphs)	(see Test Graphs)	PASS
TM1_BLE_2M	Ant1	2402	(see Test Graphs)	(see Test Graphs)	PASS

### 9.2. Test Graphs



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1, Level =Reading level by receiver + Transd (correcton factor + cable loss)



The reading level is calculated by software which is not shown in the sheet. 2, Margin=Limit - Level