

Appendix A: Test Results of Classic Bluetooth

APPENDIX A: TEST RESULTS OF CLASSIC BLUETOOTH	1
APPENDIX A.1: TEST RESULTS OF 20DB BANDWIDTH	2
Test Result	2
Test Graphs	3
APPENDIX A.2: TEST RESULTS OF 99% BANDWIDTH	6
Test Result	6
Test Graphs	7
APPENDIX A.3: TEST RESULTS OF CARRIER FREQUENCY SEPARATION	10
Test Result	10
Test Graphs	11
APPENDIX A.4: TEST RESULTS OF TIME OF OCCUPANCY	12
Test Result	12
Test Graphs	13
APPENDIX A.5: TEST RESULTS OF NUMBER OF HOPPING FREQUENCY	18
Test Result	18
Test Graphs	19
APPENDIX A.6: TEST RESULTS OF BAND EDGE MEASUREMENTS	20
Test Result	20
Test Graphs	21
APPENDIX A.7: TEST RESULTS OF CONDUCTED SPURIOUS EMISSION	25
Test Result	25
Test Graphs	26
APPENDIX A.8: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	33
30MHz - 1GHz	33
1GHz - 18GHz	35
APPENDIX A.9: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	47

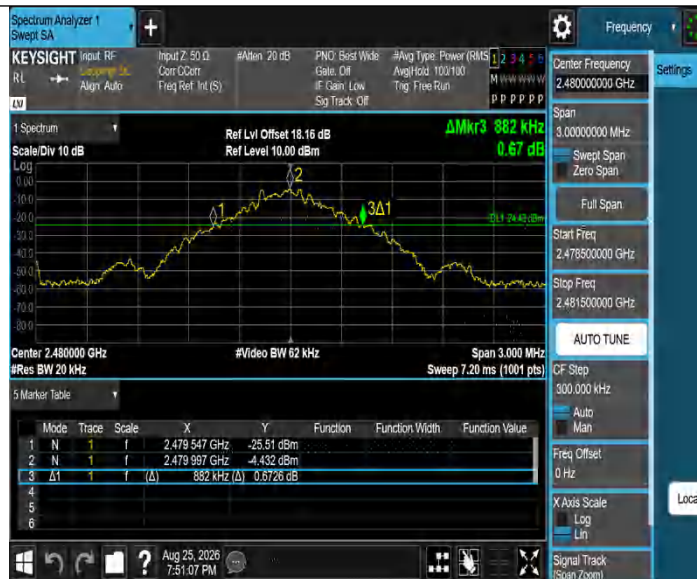
Appendix A.1: Test Results of 20dB Bandwidth

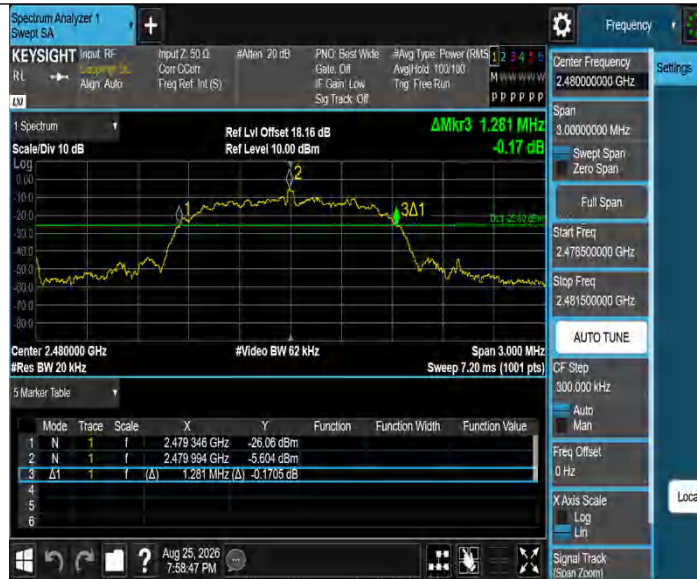
Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.891	2401.538	2402.429	---	PASS
		2441	0.909	2440.538	2441.447	---	PASS
		2480	0.882	2479.547	2480.429	---	PASS
3DH5	Ant1	2402	1.299	2401.343	2402.642	---	PASS
		2441	1.263	2440.349	2441.612	---	PASS
		2480	1.281	2479.346	2480.627	---	PASS

Test Graphs





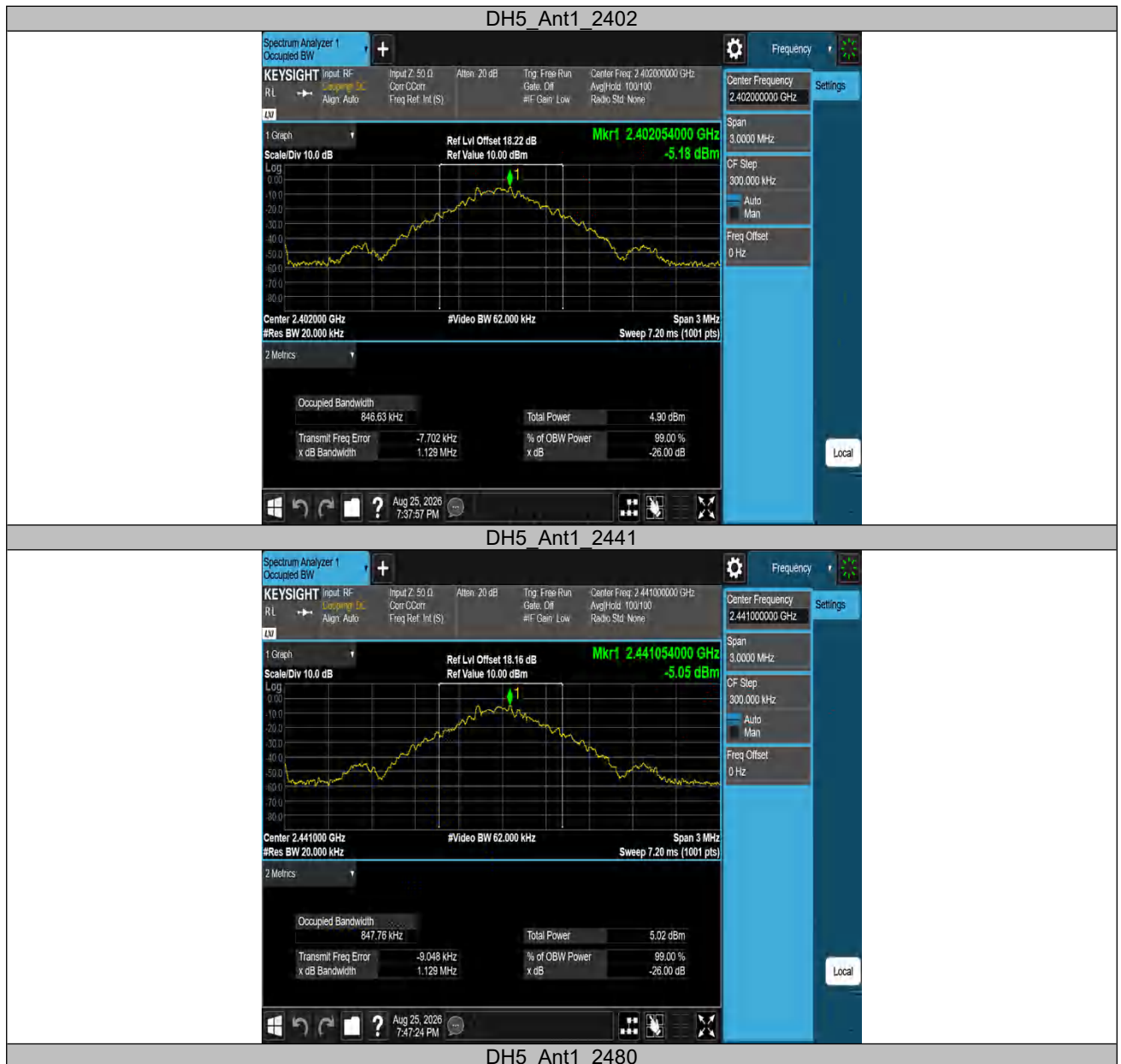


Appendix A.2: Test Results of 99% Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.84663	2401.5690	2402.4156	---	PASS
		2441	0.84776	2440.5671	2441.4148	---	PASS
		2480	0.85118	2479.5665	2480.4176	---	PASS
3DH5	Ant1	2402	1.1858	2401.3958	2402.5816	---	PASS
		2441	1.1834	2440.3992	2441.5826	---	PASS
		2480	1.1866	2479.3957	2480.5823	---	PASS

Test Graphs





3DH5 Ant1_2402



3DH5 Ant1_2441



3DH5 Ant1_2480



Appendix A.3: Test Results of Carrier Frequency Separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.15	≥ 0.909	PASS
3DH5	Ant1	Hop	1.024	≥ 0.866	PASS

Test Graphs



Appendix A.4: Test Results of Time of Occupancy

Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.375	317	0.119	≤0.4	PASS
DH3	Ant1	Hop	1.631	167	0.272	≤0.4	PASS
DH5	Ant1	Hop	2.879	124	0.357	≤0.4	PASS
3DH1	Ant1	Hop	0.386	317	0.122	≤0.4	PASS
3DH3	Ant1	Hop	1.635	154	0.252	≤0.4	PASS
3DH5	Ant1	Hop	2.886	110	0.317	≤0.4	PASS

Test Graphs



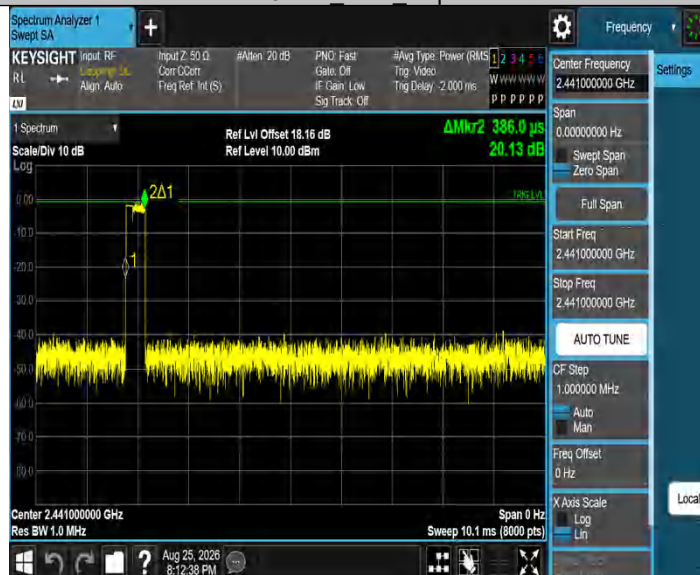


DH5_Ant1_Hop





3DH1 Ant1 Hop



3DH3 Ant1 Hop



3DH5_Ant1_Hop





Appendix A.5: Test Results of Number of Hopping Frequency

Test Result

TestMode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



Appendix A.6: Test Results of Band Edge Measurements

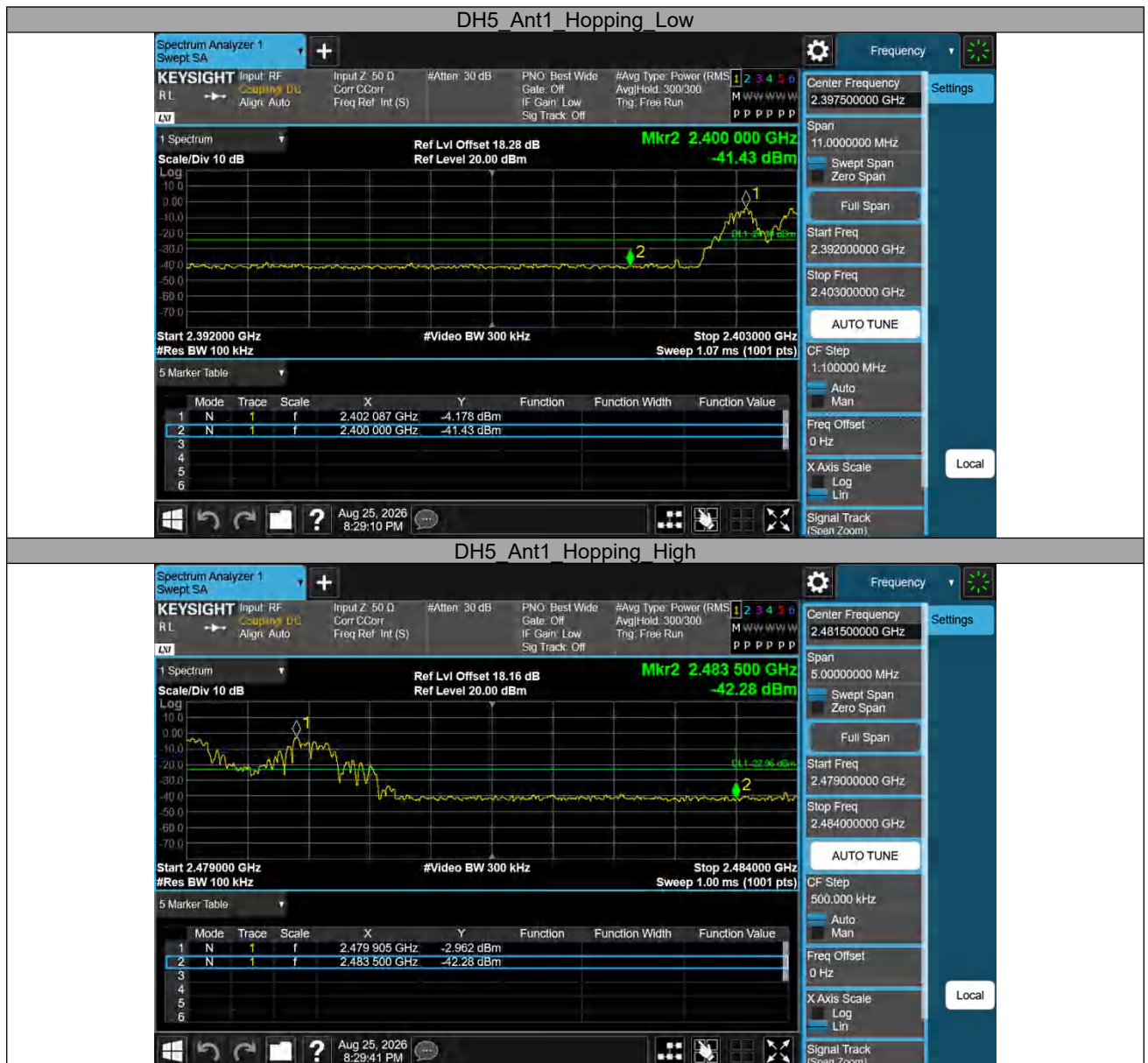
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.39	-41.11	≤-22.39	PASS
		High	2480	-2.18	-40.39	≤-22.18	PASS
3DH5	Ant1	Low	2402	-2.43	-41.32	≤-22.43	PASS
		High	2480	-2.16	-42.23	≤-22.16	PASS
DH5	Ant1	Hopping	2402	-4.18	-41.43	≤-24.18	PASS
		Hopping	2480	-2.96	-42.28	≤-22.96	PASS
3DH5	Ant1	Hopping	2402	-2.43	-41.32	≤-22.43	PASS
		Hopping	2480	-5.07	-41.76	≤-25.07	PASS

Test Graphs







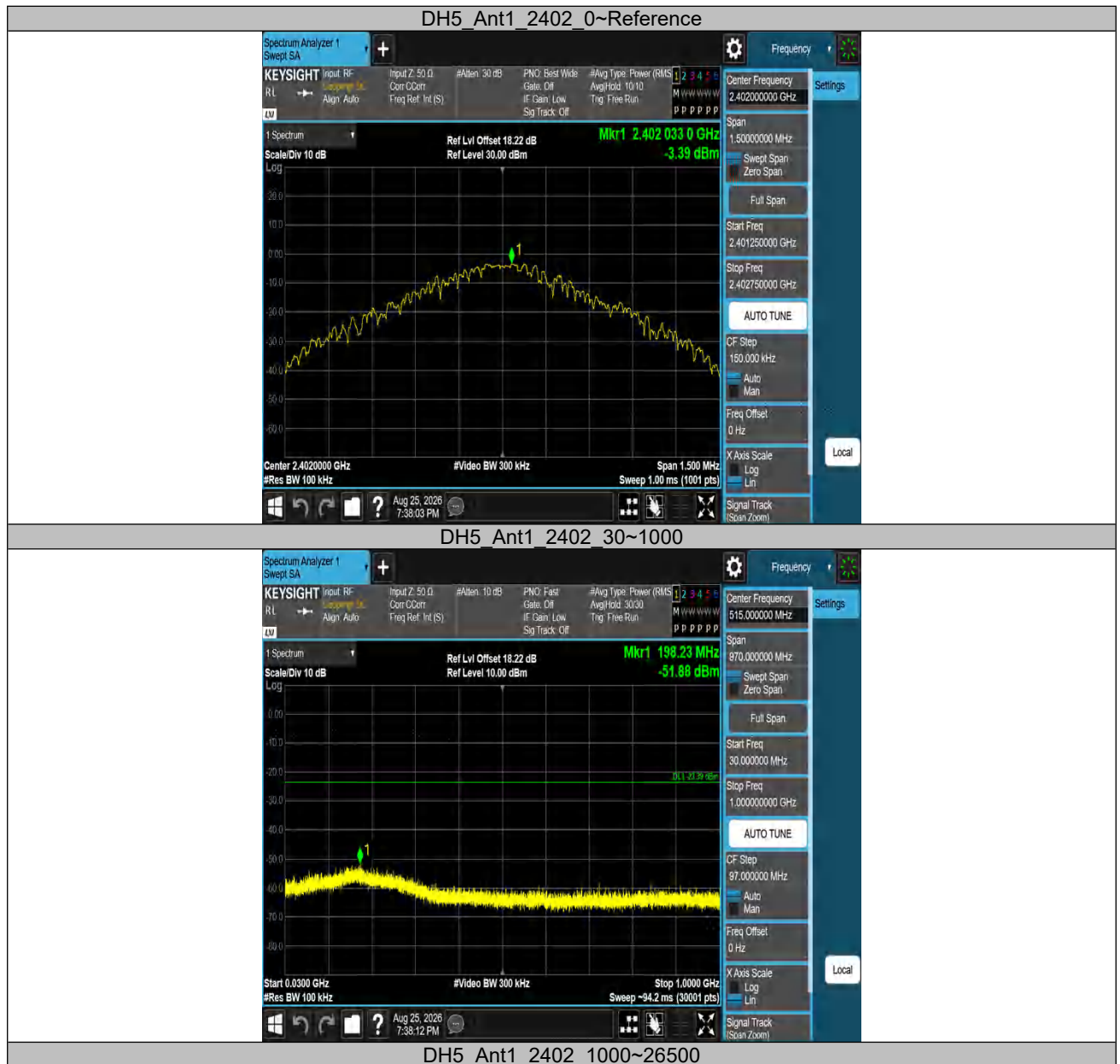


Appendix A.7: Test Results of Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-3.39	-3.39	---	PASS
			30~1000	-3.39	-51.89	≤-23.39	PASS
			1000~26500	-3.39	-52.9	≤-23.39	PASS
		2441	Reference	-2.98	-2.98	---	PASS
			30~1000	-2.98	-51.28	≤-22.98	PASS
			1000~26500	-2.98	-51.82	≤-22.98	PASS
		2480	Reference	-2.87	-2.87	---	PASS
			30~1000	-2.87	-51.52	≤-22.87	PASS
			1000~26500	-2.87	-51.63	≤-22.87	PASS
3DH5	Ant1	2402	Reference	-6.20	-6.20	---	PASS
			30~1000	-6.20	-51.47	≤-26.2	PASS
			1000~26500	-6.20	-51.94	≤-26.2	PASS
		2441	Reference	-5.80	-5.80	---	PASS
			30~1000	-5.80	-52.14	≤-25.8	PASS
			1000~26500	-5.80	-53.04	≤-25.8	PASS
		2480	Reference	-2.38	-2.38	---	PASS
			30~1000	-2.38	-52.09	≤-22.38	PASS
			1000~26500	-2.38	-50.53	≤-22.38	PASS

Test Graphs





DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



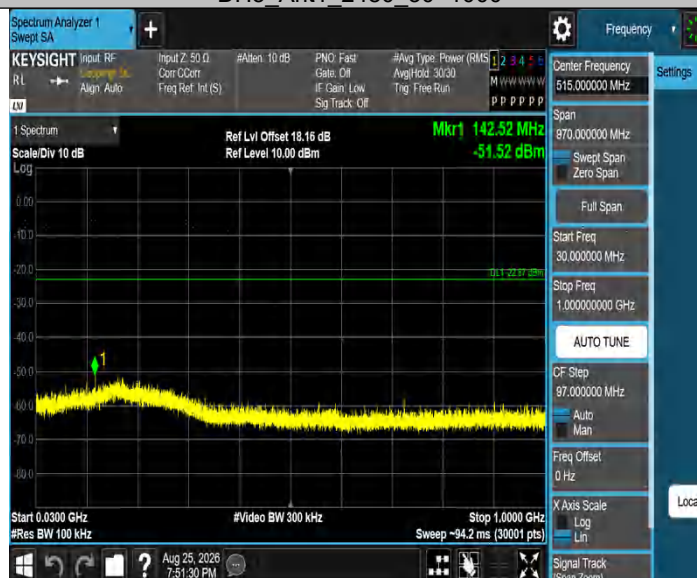
DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference



DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

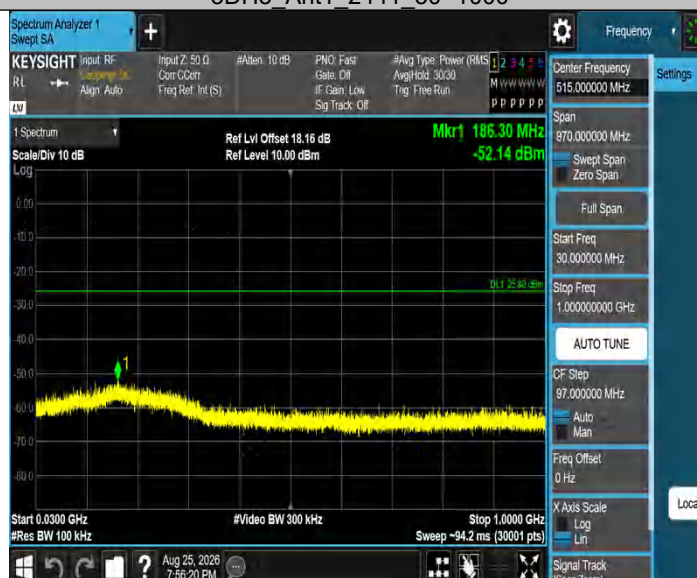




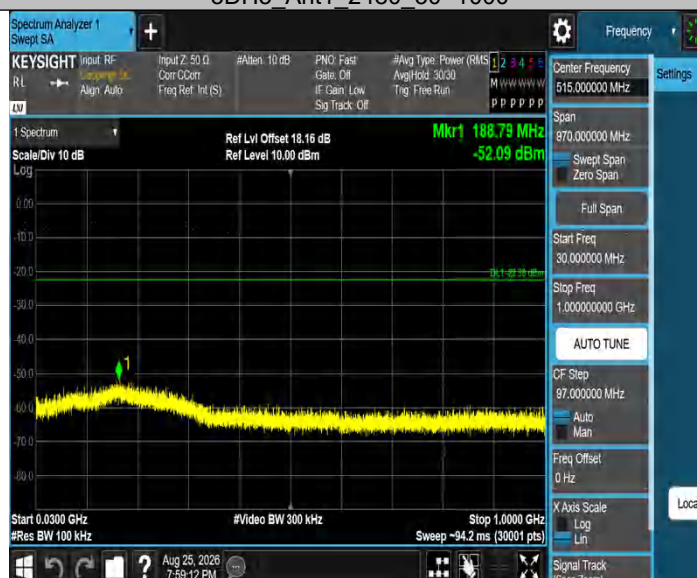
3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500





Appendix A.8: Test Results of Radiated Spurious Emissions

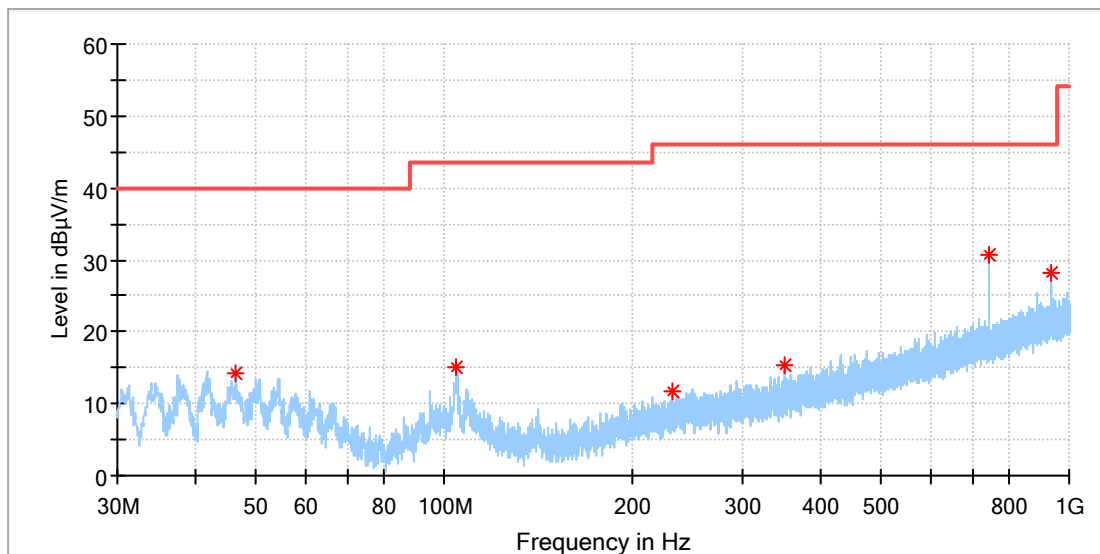
Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30MHz - 1GHz

EUT Information

EUT Name:	Epic night light speaker
Model:	EP0201
Test Mode:	BR DH5_Mid channel
Order No/Sample No:	27247340/A004357006-002
Test Voltage:	Battery
Remark:	Temp 21.8°C Humi:49%
Test Standard:	FCC 15.247
Tested By:	Hancock Hu
Reviewed By:	Terry Yin



Critical_Freqs

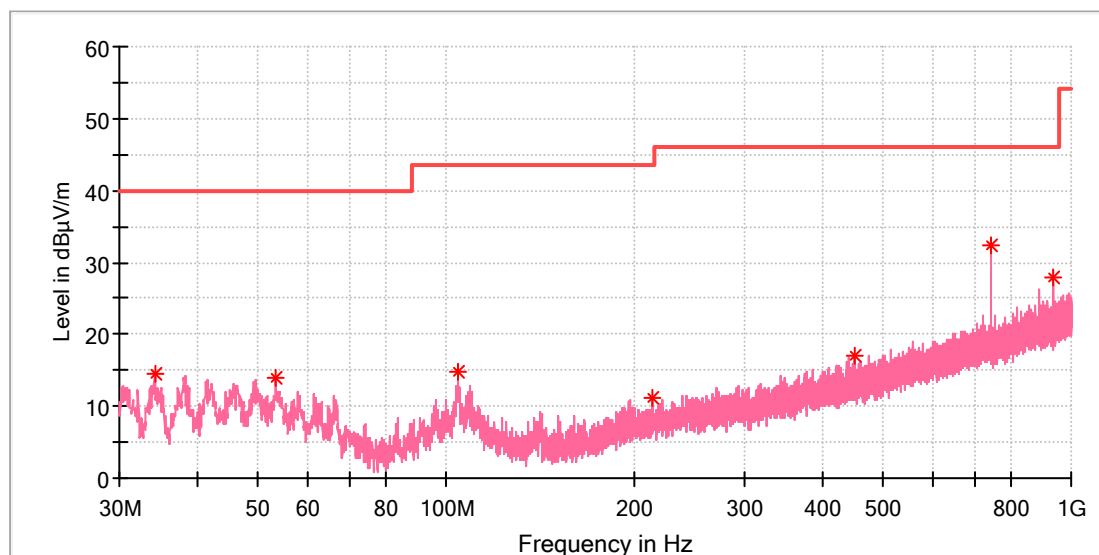
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.490000	14.36	40.00	25.64	100.0	H	51.0	-18.7
104.528333	15.02	43.50	28.48	100.0	H	346.0	-18.9
231.760000	11.63	46.00	34.37	100.0	H	89.0	-18.1
349.938333	15.27	46.00	30.73	100.0	H	222.0	-14.9
742.465000	30.82	46.00	15.18	100.0	H	19.0	-7.2
938.405000	28.09	46.00	17.91	100.0	H	19.0	-4.4

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: Epic night light speaker
Model: EP0201
Test Mode: BR DH5_Mid channel
Order No/Sample No: 27247340/A004357006-002
Test Voltage: Battery
Remark: Temp 21.8°C Humi:49%
Test Standard: FCC 15.247
Tested By: Hancock Hu
Reviewed By: Terry Yin



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.149444	14.51	40.00	25.49	100.0	V	78.0	-22.3
53.333889	13.97	40.00	26.03	100.0	V	39.0	-18.5
104.636111	14.83	43.50	28.67	100.0	V	165.0	-18.9
214.138333	11.14	43.50	32.36	100.0	V	189.0	-18.8
449.093889	16.99	46.00	29.01	100.0	V	78.0	-12.8
742.465000	32.25	46.00	13.75	100.0	V	156.0	-7.2
936.950000	27.99	46.00	18.01	100.0	V	303.0	-4.4

Final Result

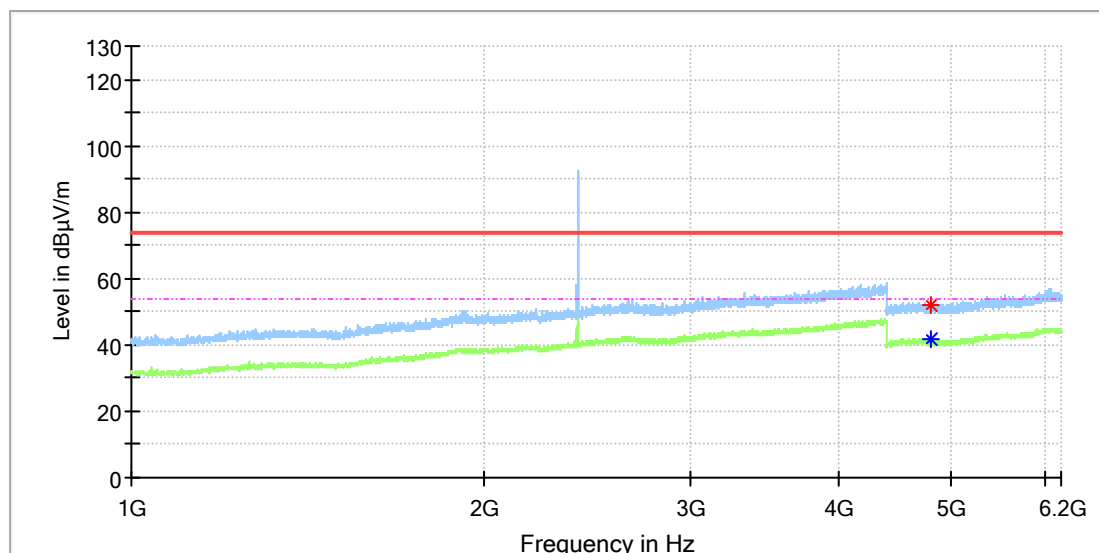
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

1GHz - 18GHz

Note: The highest waveform in the figure is Bluetooth Fundamental.

EUT Information

EUT Name:	Epic night light speaker
Model:	EP0201
Test Mode:	BR DH5_Low channel
Order No/Sample No:	27247340/A004357006-002
Test Voltage:	Battery
Remark:	Temp 21.8°C Humi:49%
Test Standard:	FCC 15.247
Tested By:	Hancock Hu
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4801.000000	51.82	---	74.00	22.18	150.0	H	119.0	13.3
4801.000000	---	41.76	54.00	12.24	150.0	H	119.0	13.3

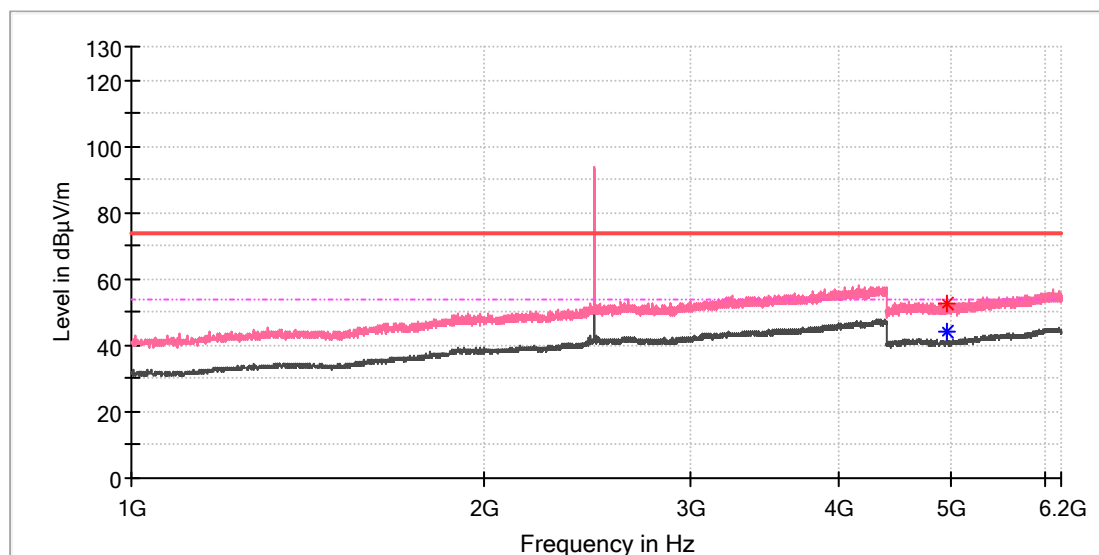
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

EUT Information

EUT Name:	Epic night light speaker
Model:	EP0201
Test Mode:	BR DH5_High channel
Order No/Sample No:	27247340/A004357006-002
Test Voltage:	Battery
Remark:	Temp 21.8°C Humi:49%
Test Standard:	FCC 15.247
Tested By:	Hancock Hu
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4952.500000	52.85	---	74.00	21.15	150.0	V	66.0	13.3
4957.000000	---	44.15	54.00	9.85	150.0	V	42.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0

