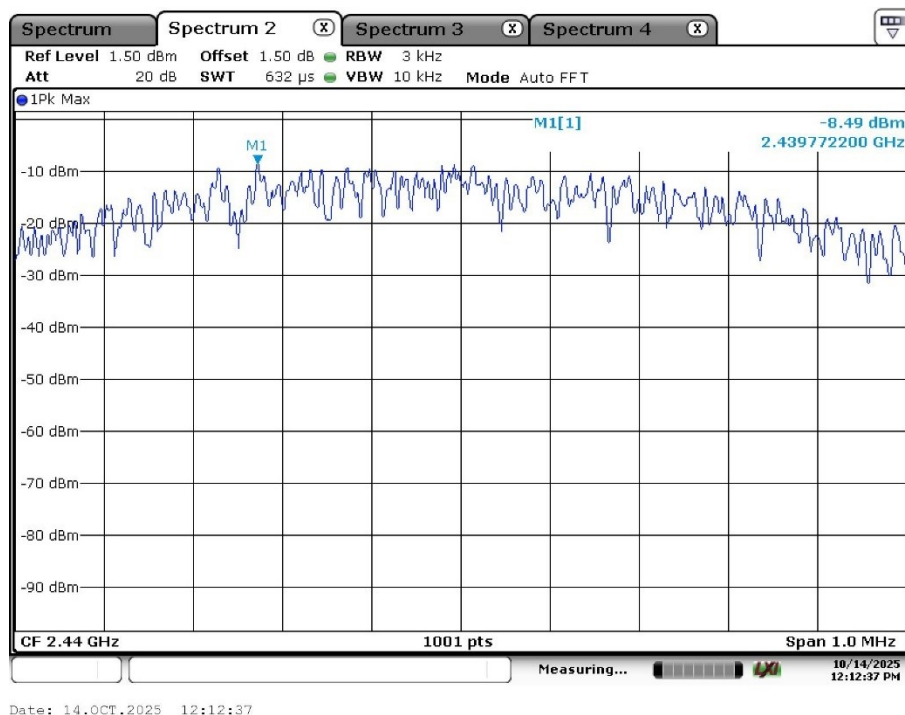
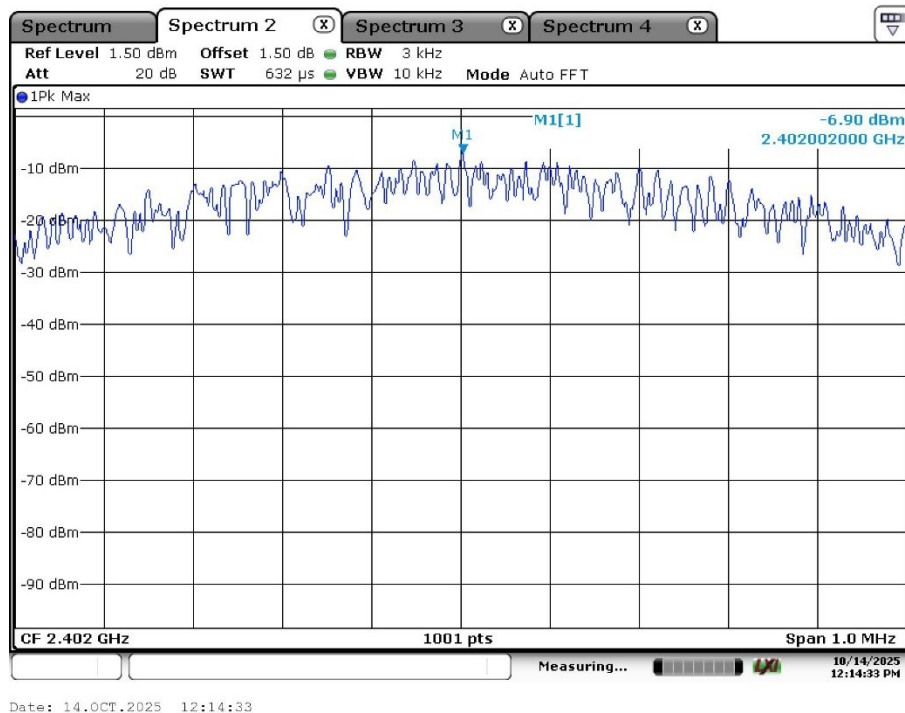
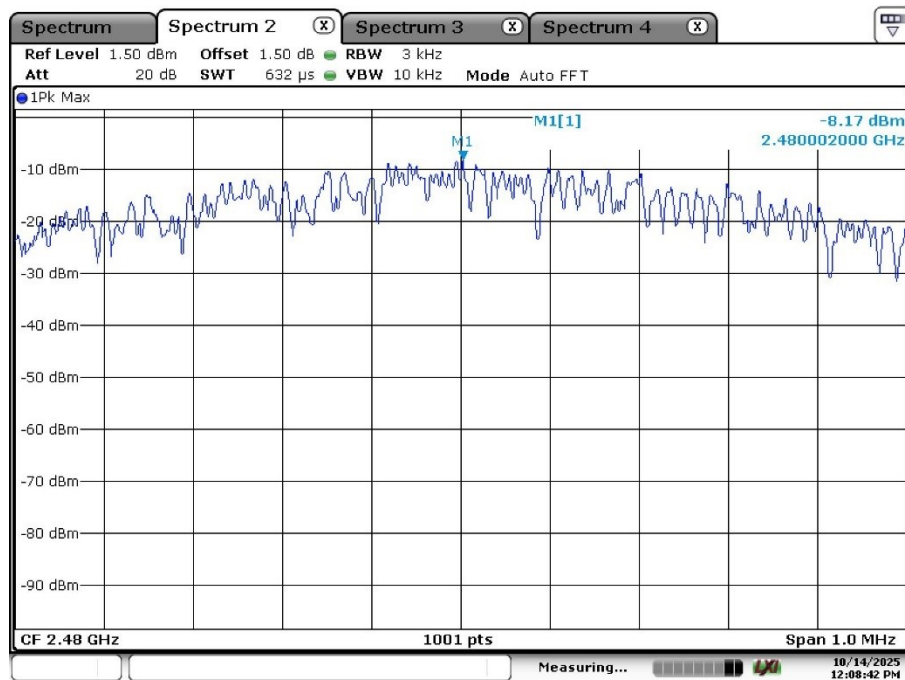


Appendix A: Test Results of Bluetooth LE

APPENDIX A: TEST RESULTS OF BLUETOOTH LE	1
APPENDIX A.1: TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	2
APPENDIX A.2: TEST RESULTS OF 6dB BANDWIDTH	4
APPENDIX A.3: TEST RESULTS OF 99% BANDWIDTH	7
APPENDIX A.4: TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH	10
<i>Band Edge</i>	10
<i>Conducted Spurious Emission</i>	11
APPENDIX A.5: TEST RESULTS OF RADIATED SPURIOUS EMISSIONS	14
30 MHz - 1GHz	14
1GHz - 18GHz	16
APPENDIX A.6: TEST RESULTS OF RADIATED EMISSIONS IN RESTRICTED BANDS	28

Appendix A.1: Test Results of Conducted Power Spectral Density





Date: 14.OCT.2025 12:08:42

Appendix A.2: Test Results of 6dB Bandwidth

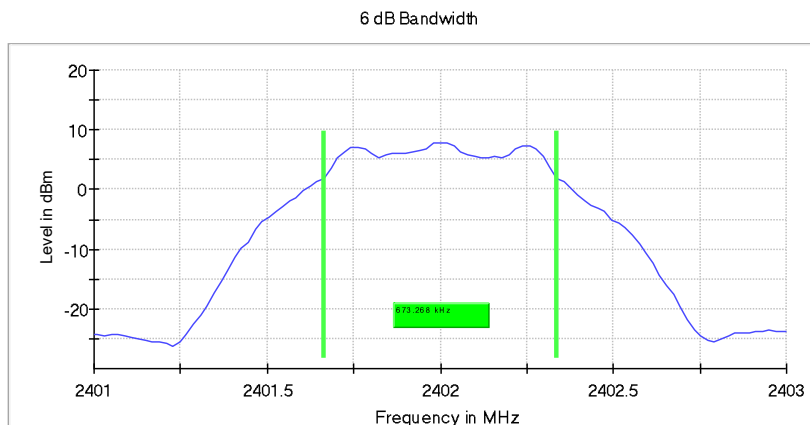
Minimum Emission Bandwidth 6 dB (2402 MHz; 20.000 dBm; 1 MHz)

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.673268	0.500000	---	2401.663366	2402.336634

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	7.9	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweptime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.04 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2440 MHz; 20.000 dBm; 1 MHz)

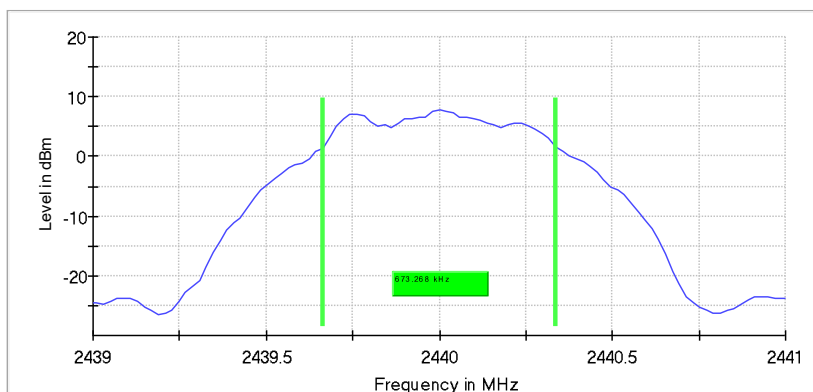
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.673268	0.500000	---	2439.663366	2440.336634

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	7.8	PASS

6 dB Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43900 GHz	2.43900 GHz
Stop Frequency	2.44100 GHz	2.44100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
SweepTime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	9 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.10 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2480 MHz; 20.000 dBm; 1 MHz)

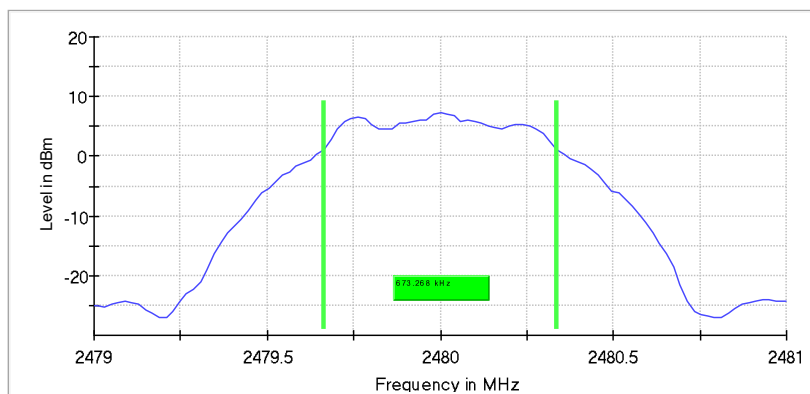
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.673268	0.500000	---	2479.663366	2480.336634

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	7.3	PASS

6 dB Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
SweepTime	18.938 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.14 dB	0.50 dB

Appendix A.3: Test Results of 99% Bandwidth

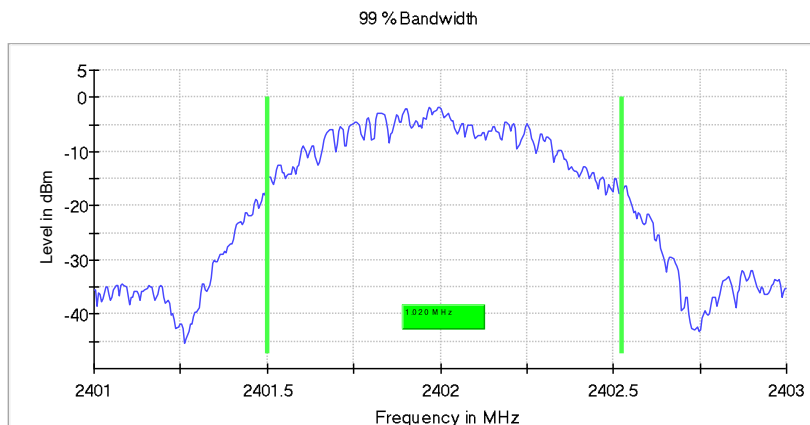
Occupied Channel Bandwidth 99% (2402 MHz; 20.000 dBm; 1 MHz)

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.020000	---	---	2401.502500	2402.522500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweptime	189.648 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.14 dB	0.30 dB

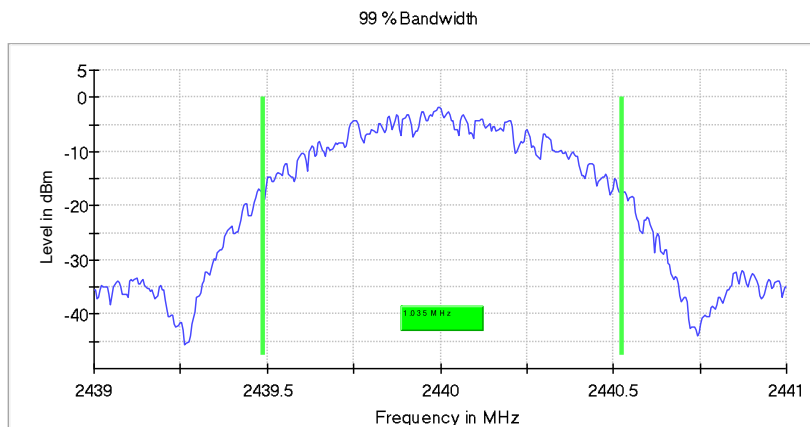
Occupied Channel Bandwidth 99% (2440 MHz; 20.000 dBm; 1 MHz)

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.035000	---	---	2439.487500	2440.522500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2440.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43900 GHz	2.43900 GHz
Stop Frequency	2.44100 GHz	2.44100 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	189.648 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.16 dB	0.30 dB

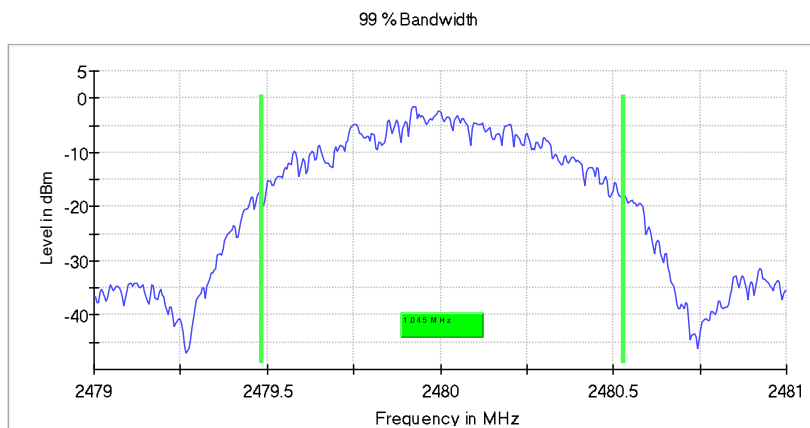
Occupied Channel Bandwidth 99% (2480 MHz; 20.000 dBm; 1 MHz)

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.045000	--	--	2479.482500	2480.527500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS



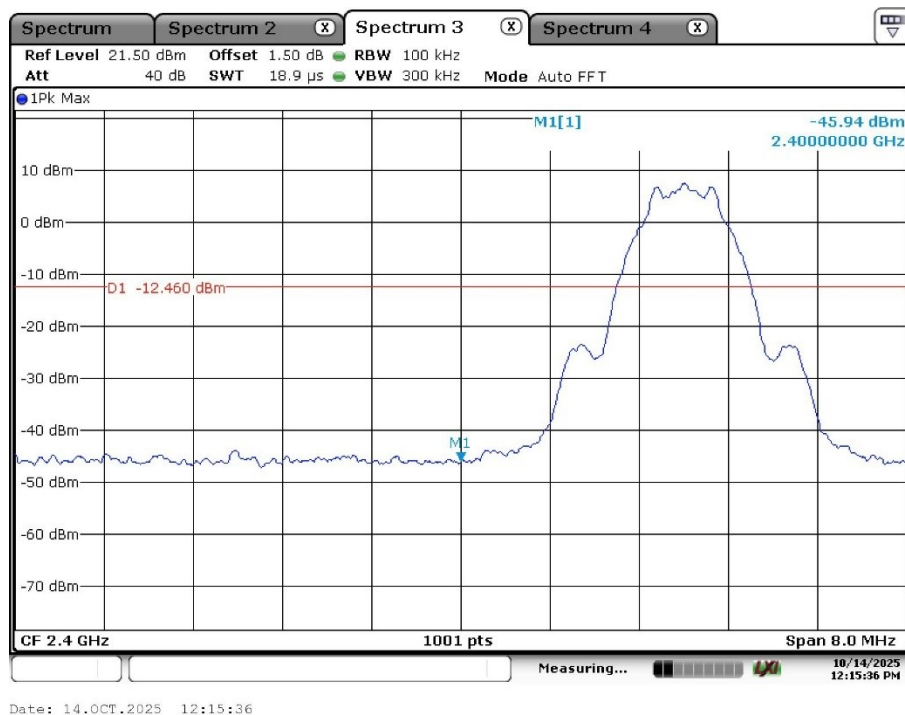
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
SweepTime	189.648 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.11 dB	0.30 dB

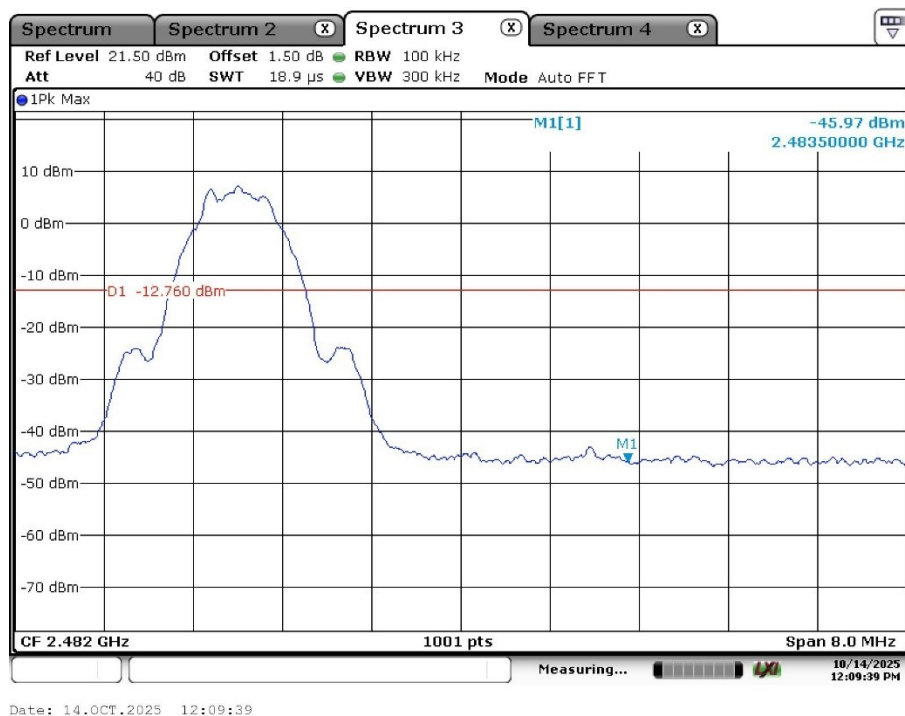
Appendix A.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Band Edge

Low Channel:

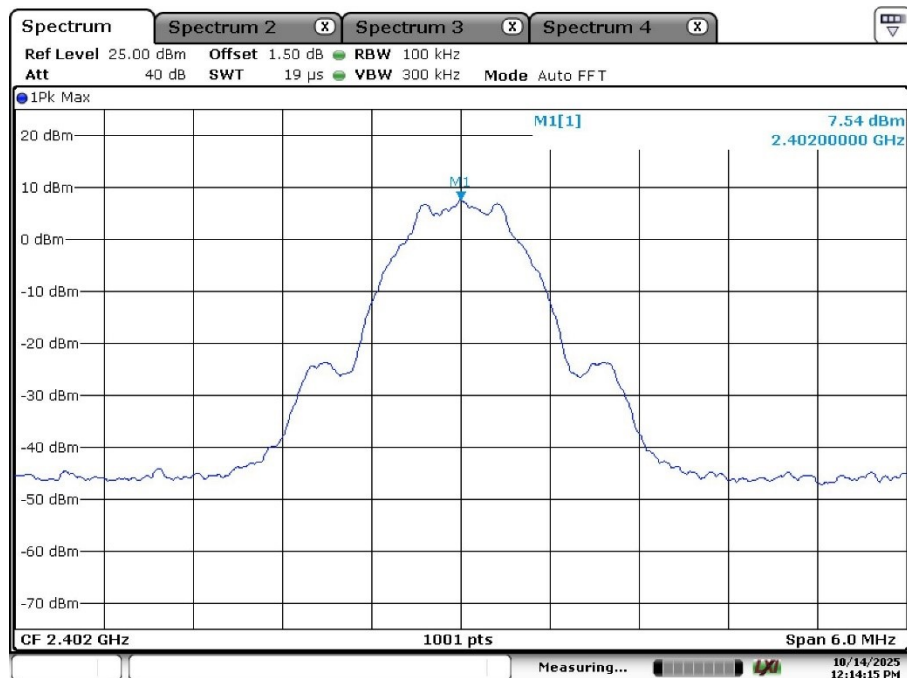


High Channel:

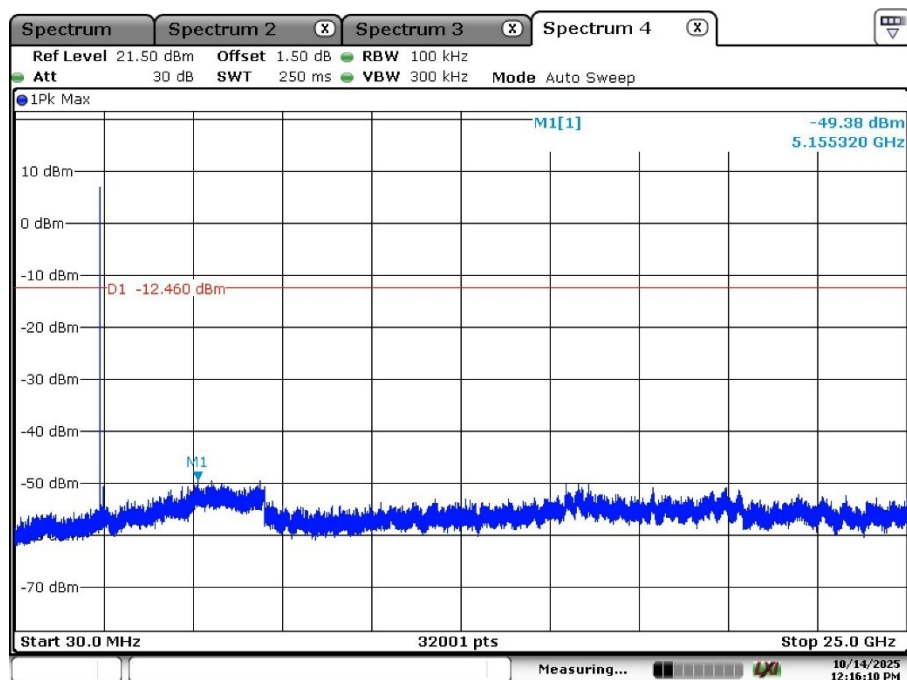


Conducted Spurious Emission

Low Channel:

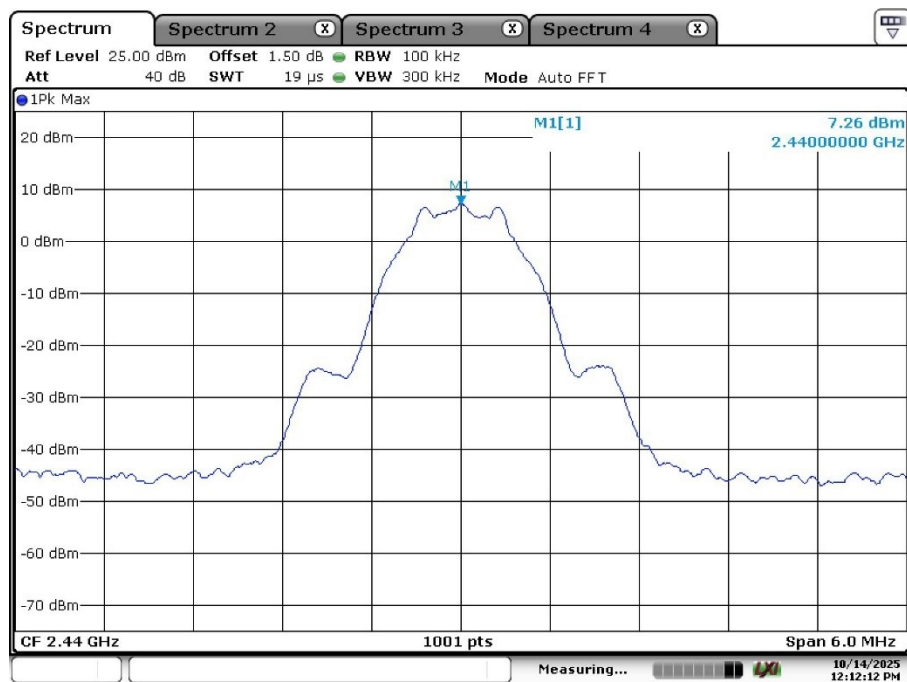


Date: 14.OCT.2025 12:14:15

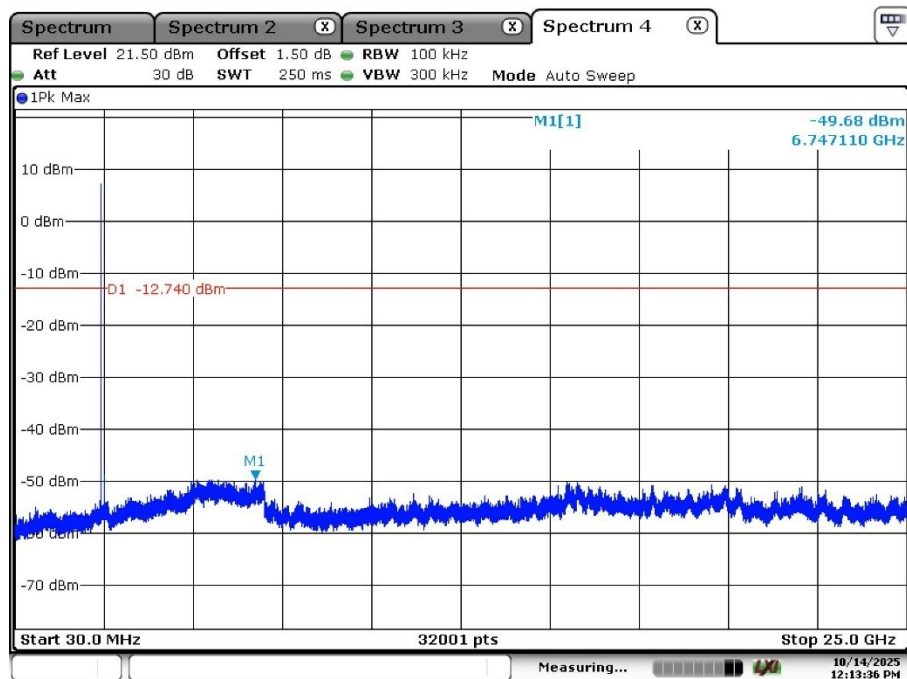


Date: 14.OCT.2025 12:16:10

Middle Channel:

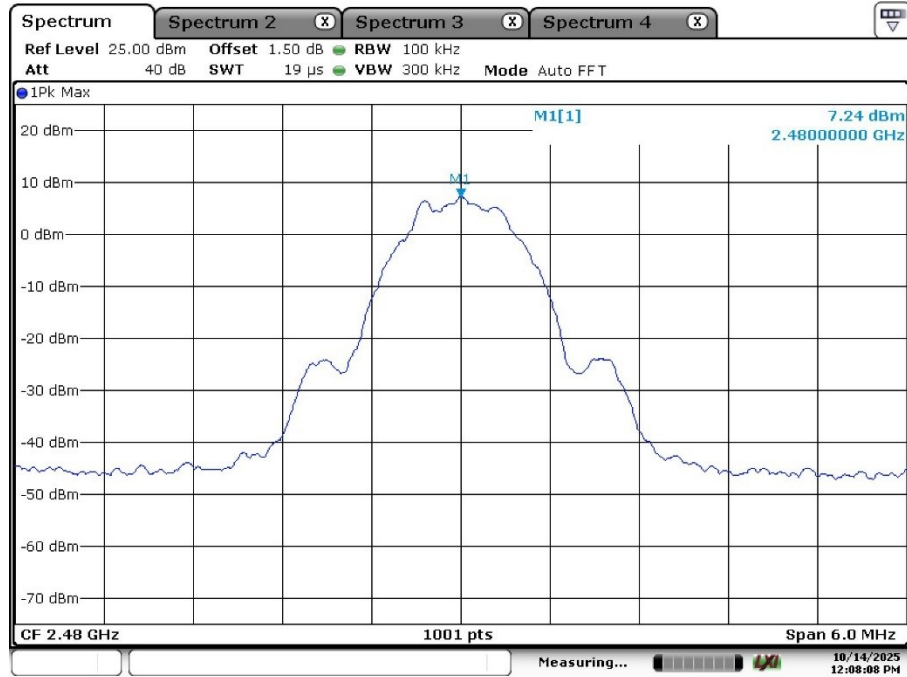


Date: 14.OCT.2025 12:12:12

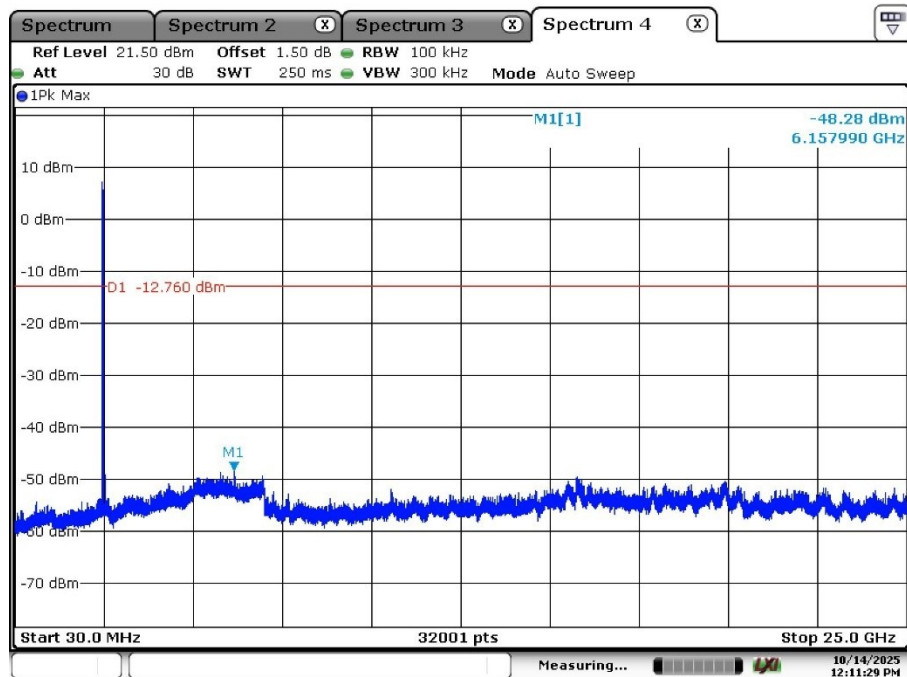


Date: 14.OCT.2025 12:13:36

High Channel:



Date: 14.OCT.2025 12:08:08



Date: 14.OCT.2025 12:11:29

Appendix A.5: Test Results of Radiated Spurious Emissions

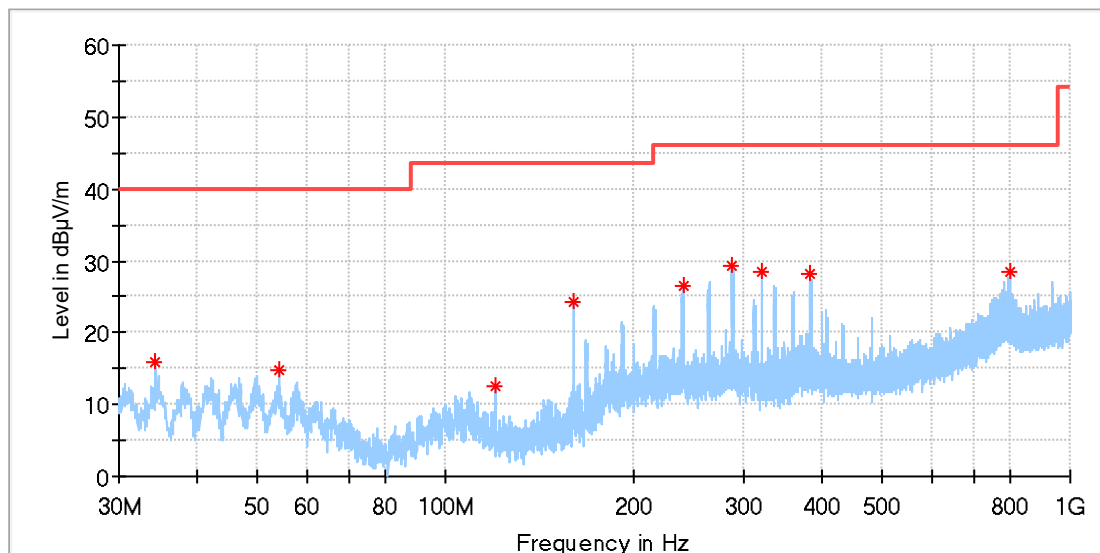
Note:

- 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.

30 MHz - 1GHz

EUT Information

EUT Name:	WIFI+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

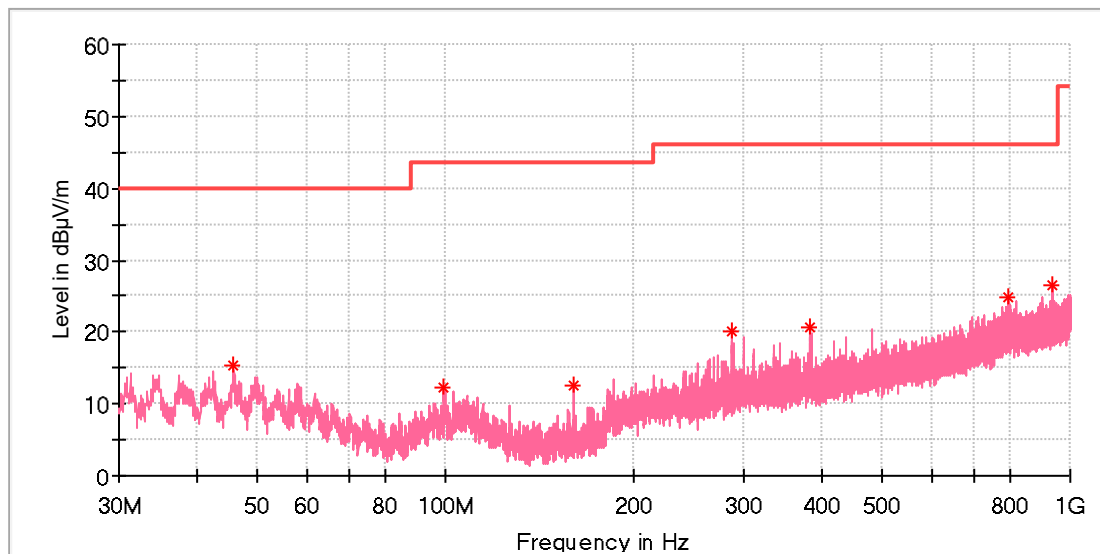
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
34.327692	15.85	40.00	24.15	100.0	H	319.0	-22.2
54.250000	14.82	40.00	25.18	100.0	H	357.0	-18.5
119.986154	12.63	43.50	30.87	100.0	H	0.0	-20.9
160.017308	24.38	43.50	19.12	100.0	H	4.0	-21.8
239.818462	26.41	46.00	19.59	100.0	H	144.0	-17.7
287.982692	29.20	46.00	16.80	100.0	H	0.0	-16.6
320.030000	28.34	46.00	17.66	100.0	H	168.0	-15.7
383.266539	28.28	46.00	17.72	100.0	H	21.0	-14.2
800.030769	28.44	46.00	17.56	100.0	H	120.0	-6.2

Final_Result

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

EUT Information

EUT Name: WIFI+BT Module
Model: WL3UR1510
Test Mode: BLE 1M_Mid channel
Order No/Sample No: 168577015/A004102549-003
Test Voltage: DC 5V From USB
Remark: Temp 23 Humi:56%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

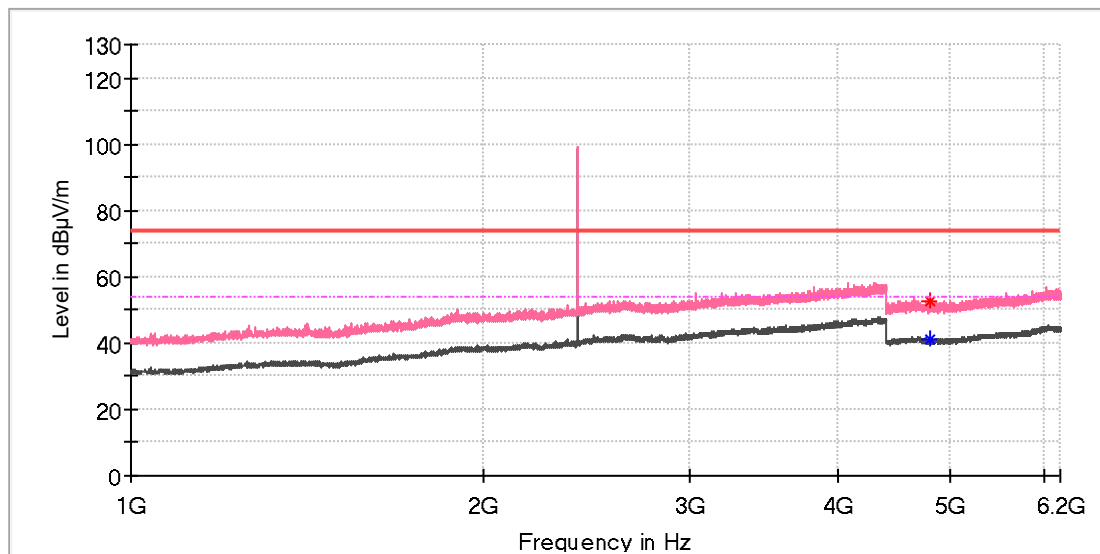
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.743846	15.28	40.00	24.72	100.0	V	99.0	-18.8
99.504231	12.35	43.50	31.15	100.0	V	353.0	-19.2
160.017308	12.52	43.50	30.98	100.0	V	90.0	-21.8
287.646923	20.07	46.00	25.93	100.0	V	130.0	-16.6
383.453077	20.55	46.00	25.45	100.0	V	64.0	-14.2
796.001539	24.75	46.00	21.25	100.0	V	90.0	-6.3
937.546923	26.64	46.00	19.36	100.0	V	114.0	-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:	WIFI+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
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)
4807.500000	---	41.34	54.00	12.66	150.0	V	305.0	13.3
4809.000000	52.61	---	74.00	21.39	150.0	V	141.0	13.3

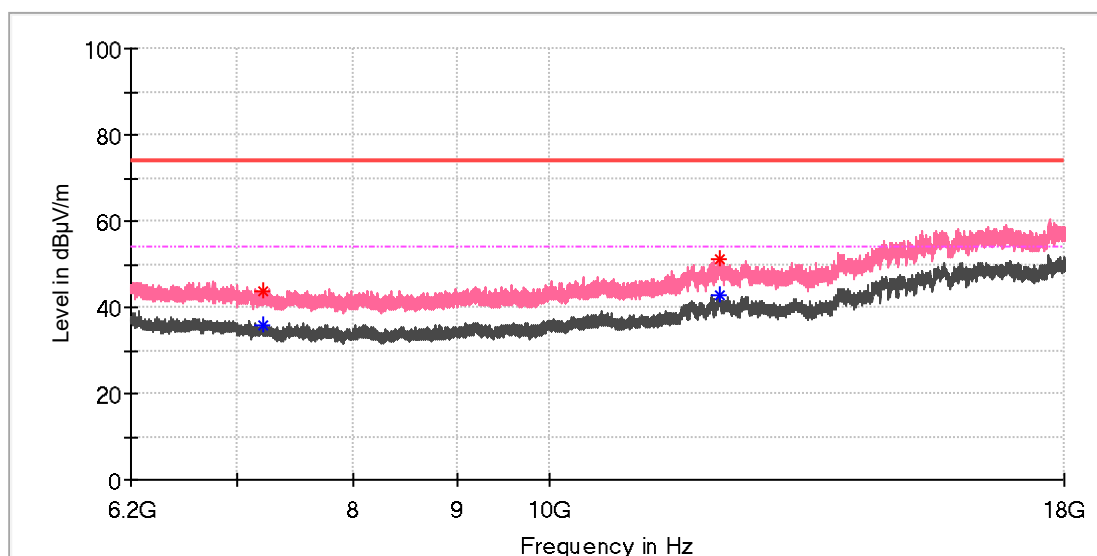
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.5-93.6	93.5-93.6	93.5-93.6	93.5-93.6	93.5-93.6	93.5-93.6		93.5-93.6	

[illegible]

EUT Information

EUT Name:	WIFI+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

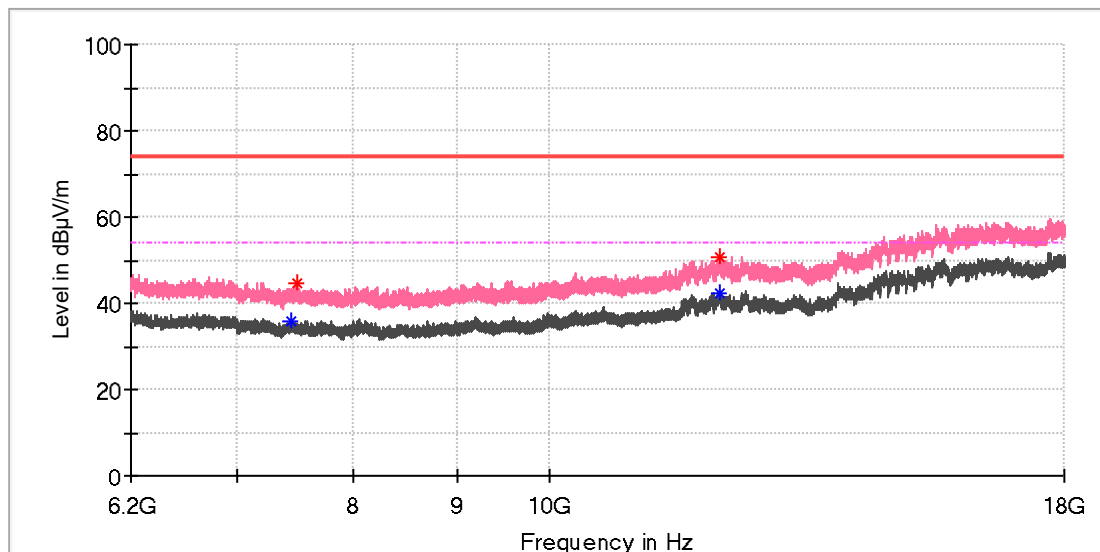
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7210.375000	43.93	---	74.00	30.07	150.0	V	171.0	8.7
7210.375000	---	36.02	54.00	17.98	150.0	V	171.0	8.7
12138.350000	50.93	---	74.00	23.07	150.0	V	70.0	16.4
12153.591667	---	42.89	54.00	11.11	150.0	V	149.0	16.5

Final_Result

[illegible]

EUT Information

EUT Name:	WIFI+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

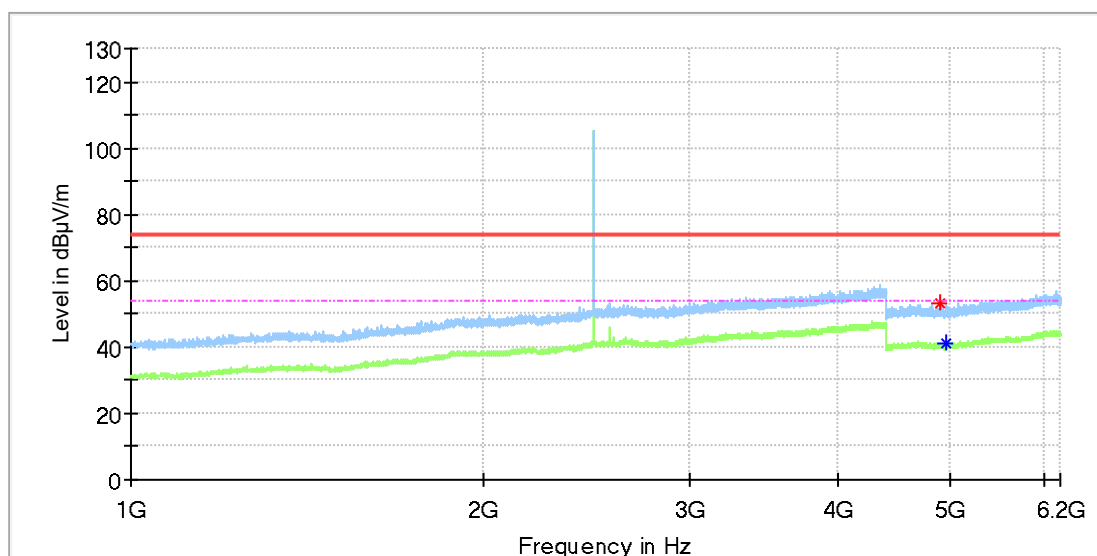
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7442.441667	---	35.65	54.00	18.35	150.0	V	42.0	8.4
7503.408333	44.63	---	74.00	29.37	150.0	V	168.0	8.7
12138.350000	50.68	---	74.00	23.32	150.0	V	133.0	16.4
12153.591667	---	42.48	54.00	11.52	150.0	V	85.0	16.5

Final_Result

[illegible]

EUT Information

EUT Name:	WiFi+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
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)
4904.000000	53.05	---	74.00	20.95	150.0	H	331.0	13.3
4960.500000	---	41.17	54.00	12.83	150.0	H	272.0	13.3

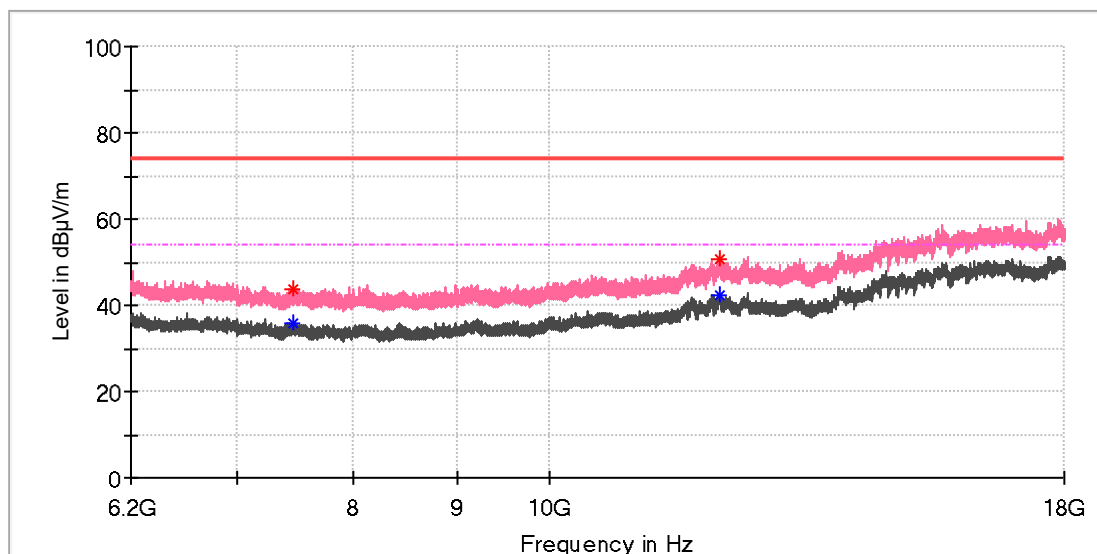
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.5-93.7	93.5-93.7	93.5-93.7	93.5-93.7	93.5-93.7	93.5-93.7		93.5-93.7	

[illegible]

EUT Information

EUT Name:	WIFI+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
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)
7468.991667	43.79	---	74.00	30.21	150.0	V	145.0	8.6
7469.975000	---	35.95	54.00	18.05	150.0	V	3.0	8.6
12144.250000	---	42.26	54.00	11.74	150.0	V	99.0	16.6
12145.725000	50.50	---	74.00	23.50	150.0	V	203.0	16.6

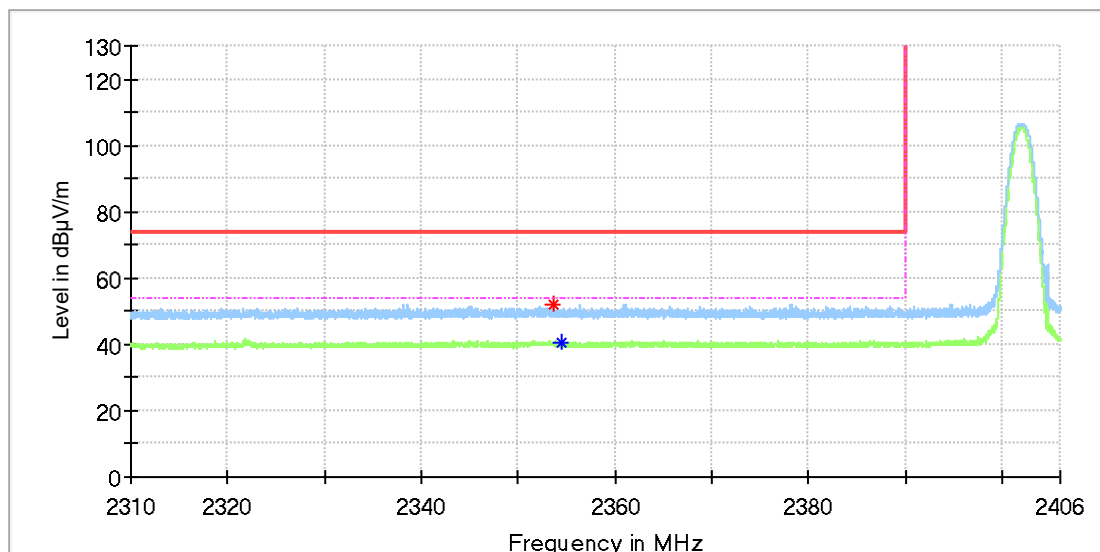
Final_Result

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

Appendix A.6: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	WIFI+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

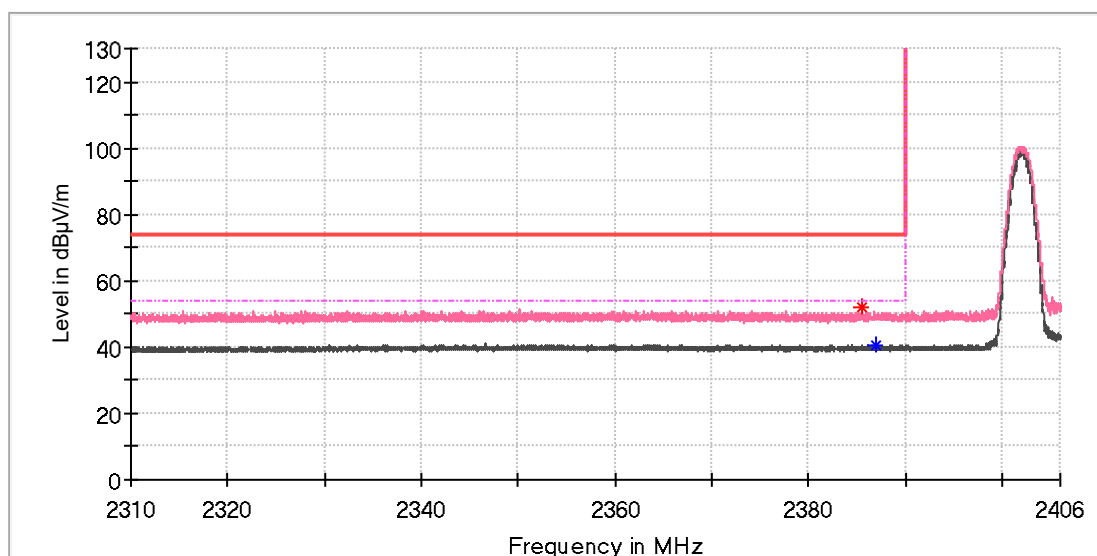
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2353.595294	52.23	---	74.00	21.77	150.0	H	257.0	8.5
2354.484706	---	40.80	54.00	13.20	150.0	H	81.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.5-93.6	93.5-93.6	93.5-93.6	93.5-93.6	93.5-93.6	93.5-93.6		93.5-93.6	93.5-93.6

EUT Information

EUT Name:	WIFI+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

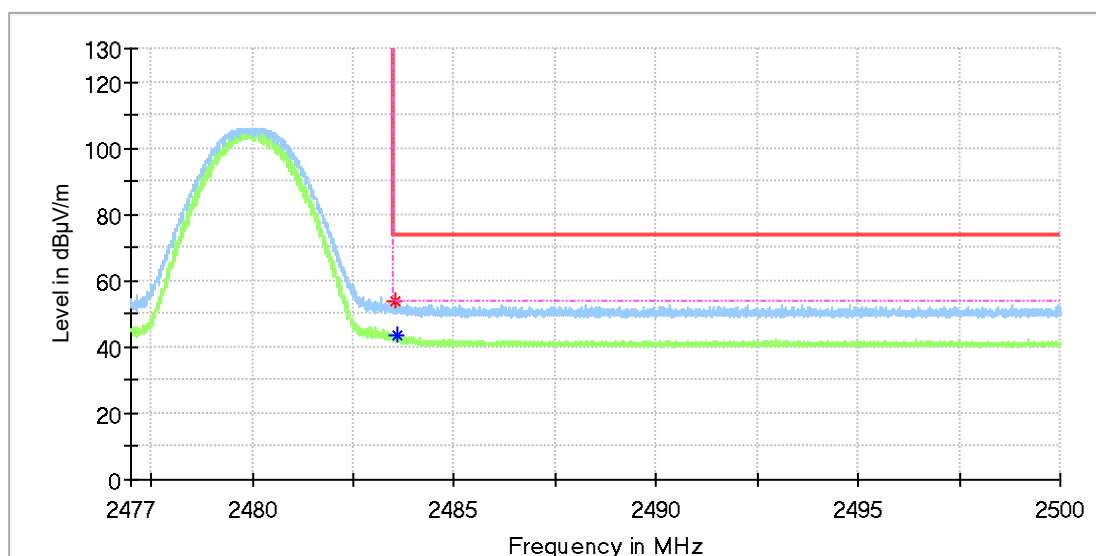
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2385.458824	51.76	---	74.00	22.24	150.0	V	65.0	8.5
2387.025882	---	40.61	54.00	13.39	150.0	V	113.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.750000	93.750000	93.750000	93.750000	93.750000	93.750000		93.750000	93.750000

EUT Information

EUT Name:	WiFi+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

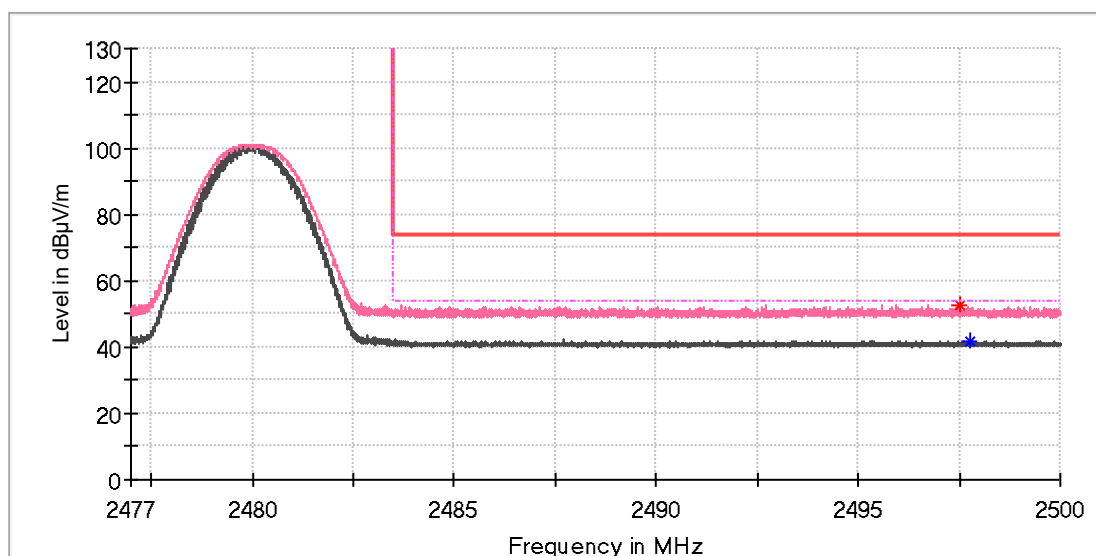
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.527941	54.02	---	74.00	19.98	150.0	H	228.0	9.0
2483.592206	---	43.44	54.00	10.56	150.0	H	255.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.5-93.7	93.5-93.7	93.5-93.7	93.5-93.7	93.5-93.7	93.5-93.7		93.5-93.7	

EUT Information

EUT Name:	WIFI+BT Module
Model:	WL3UR1510
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168577015/A004102549-003
Test Voltage:	DC 5V From USB
Remark:	Temp 23 Humi:56%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
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)
2497.500441	52.82	---	74.00	21.18	150.0	V	188.0	9.0
2497.750735	---	41.67	54.00	12.33	150.0	V	63.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.750000	93.750000	93.750000	93.750000	93.750000	93.750000		93.750000	93.750000