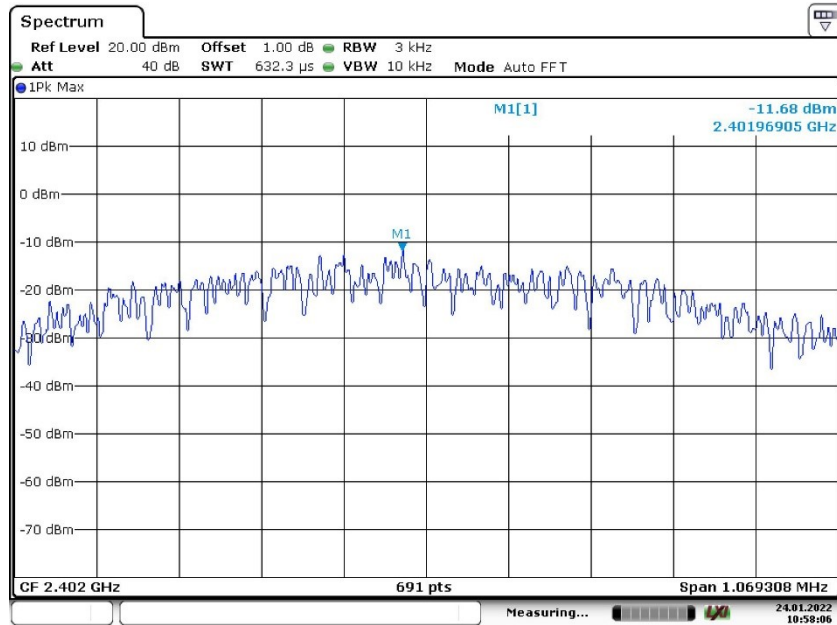


## Appendix C: Test Results of Bluetooth LE

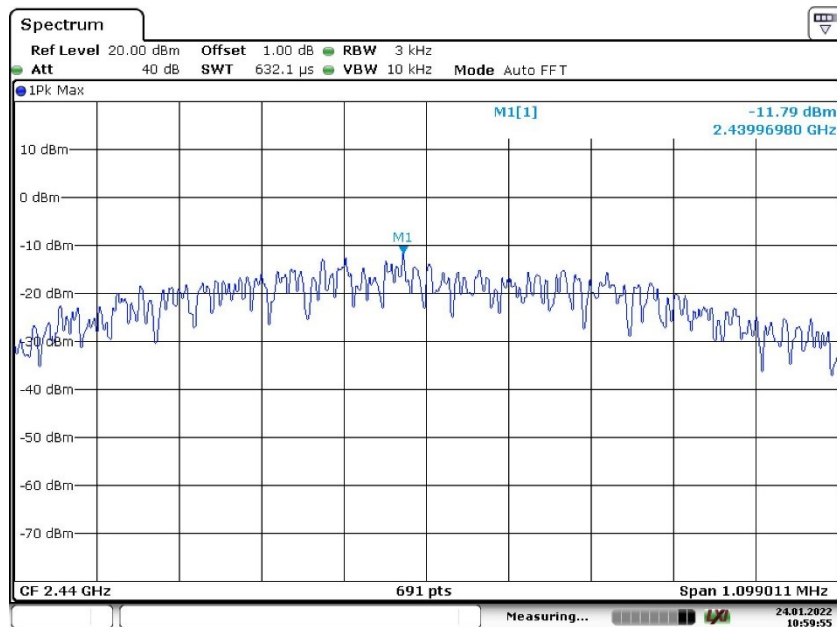
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### Appendix C.1: Test Results of Conducted Power Spectral Density

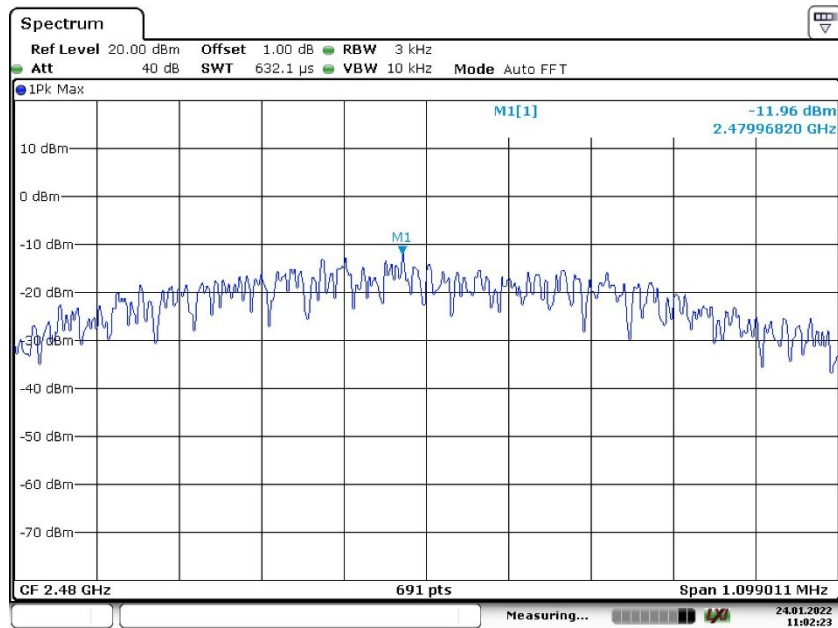
#### GFSK(BLE) Mode, 1Mbps



Date: 24.JAN.2022 10:58:06

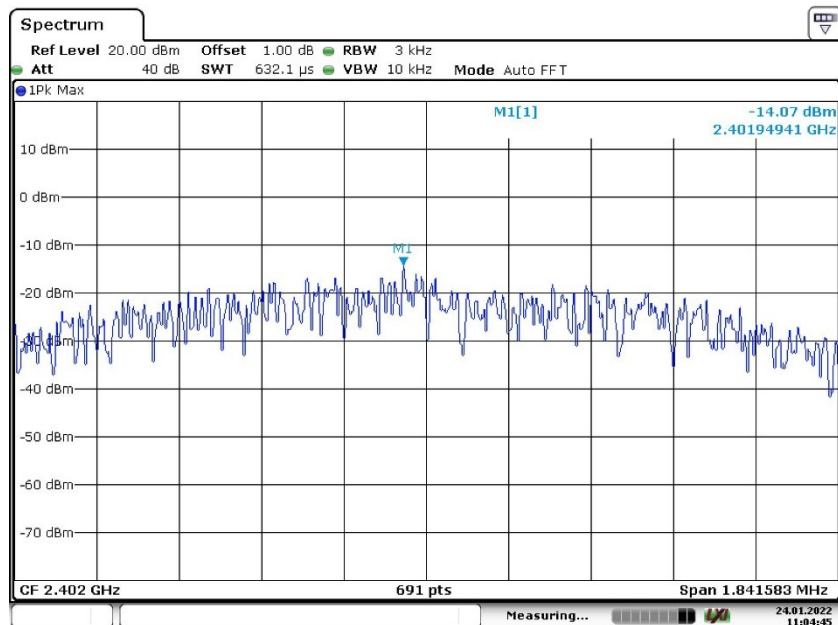


Date: 24.JAN.2022 10:59:55

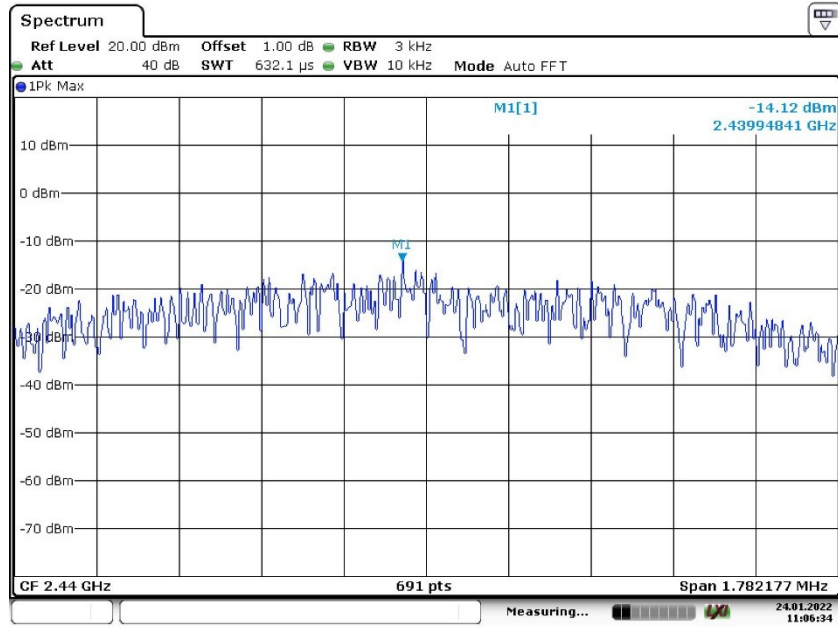


Date: 24.JAN.2022 11:02:23

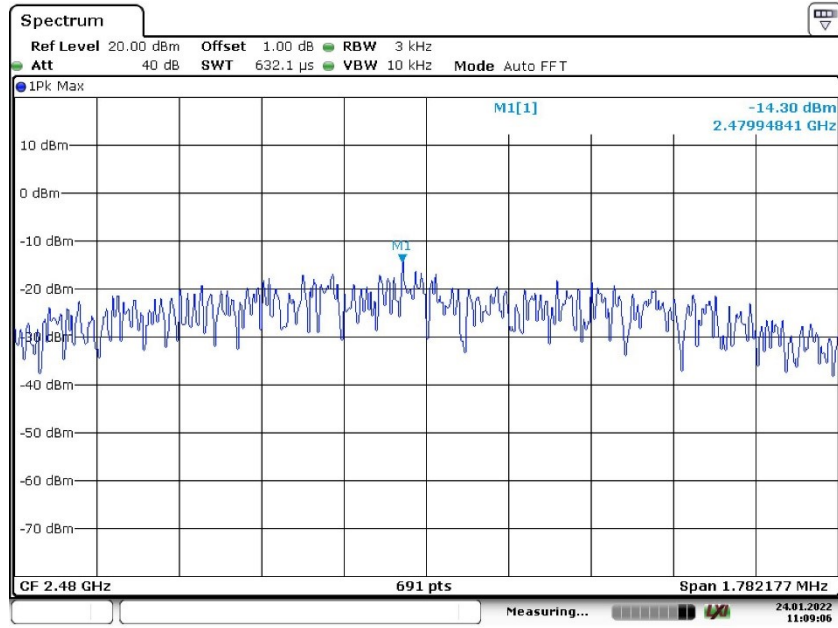
### GFSK(BLE) Mode, 2Mbps



Date: 24.JAN.2022 11:04:45



Date: 24.JAN.2022 11:06:34



Date: 24.JAN.2022 11:09:06

## Appendix C.2: Test Results of 6dB Bandwidth

GFSK(BLE) Mode, 1Mbps

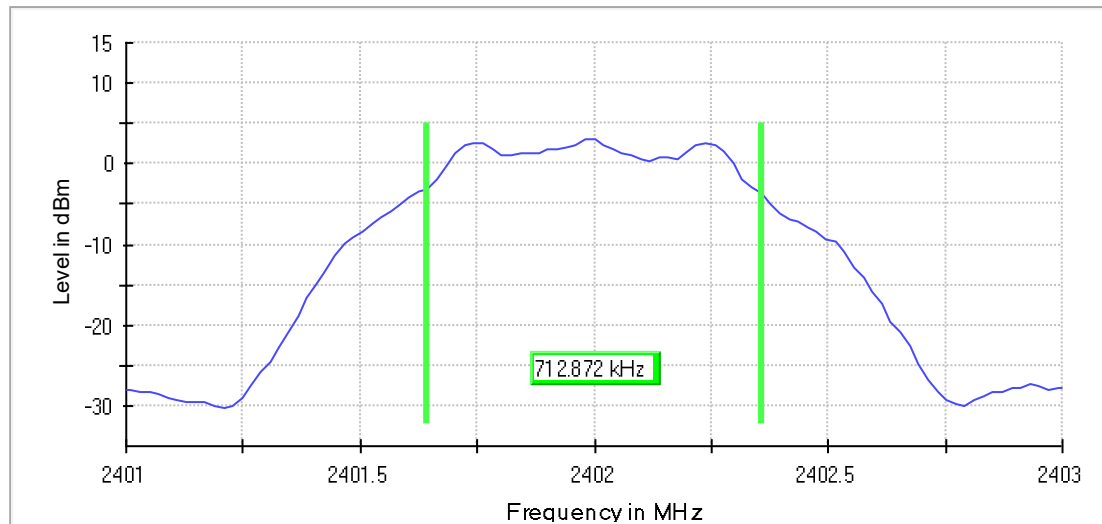
### 6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.712872	0.500000	---	2401.643564	2402.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	3.0	PASS

6 dB Bandwidth



### 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
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	0.32 dB	0.50 dB

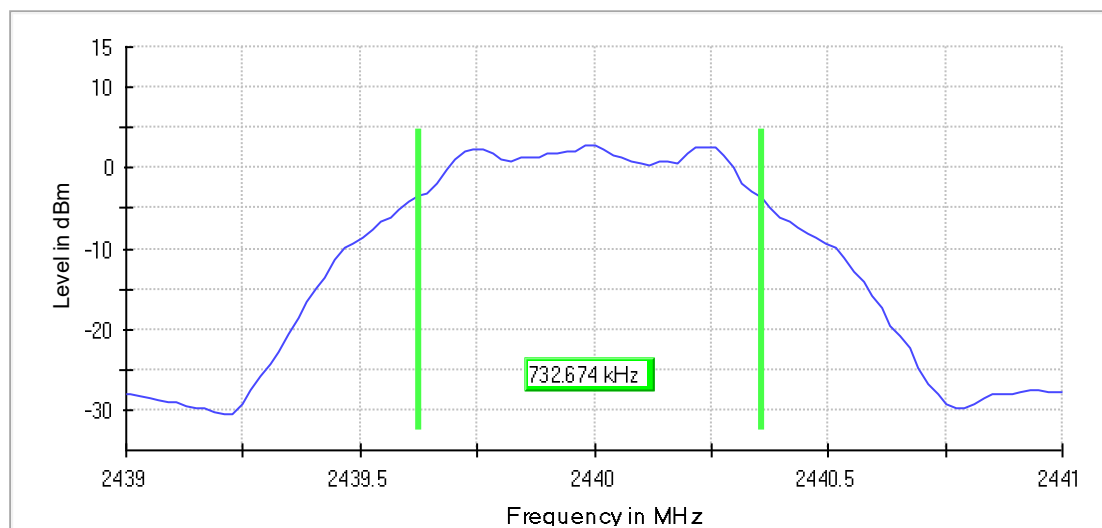
## 6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.732674	0.500000	---	2439.623762	2440.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	2.9	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 $\mu$ s	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	0.08 dB	0.50 dB

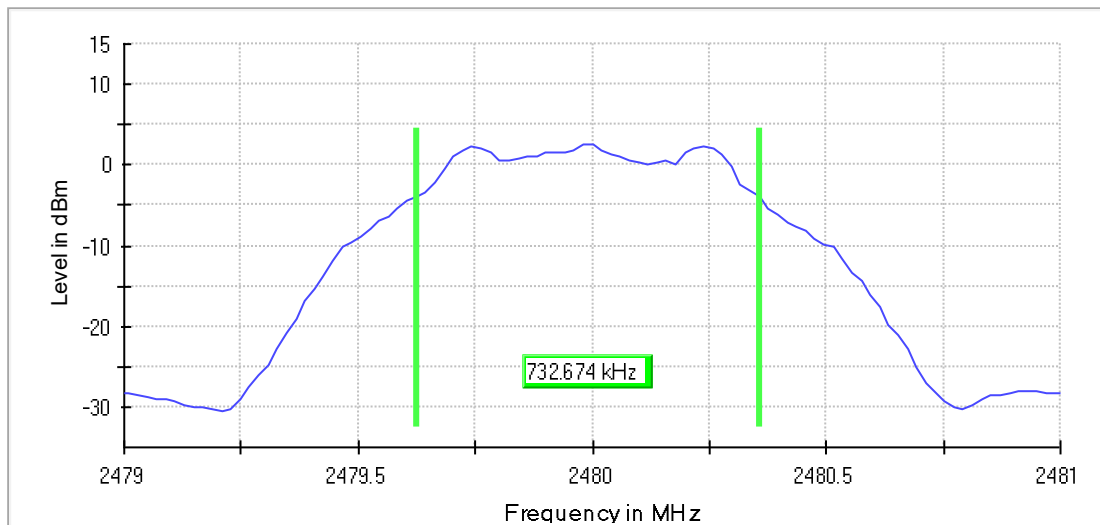
## 6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.732674	0.500000	---	2479.623762	2480.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	2.5	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 $\mu$ s	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	0.08 dB	0.50 dB

### GFSK(BLE) Mode, 2Mbps

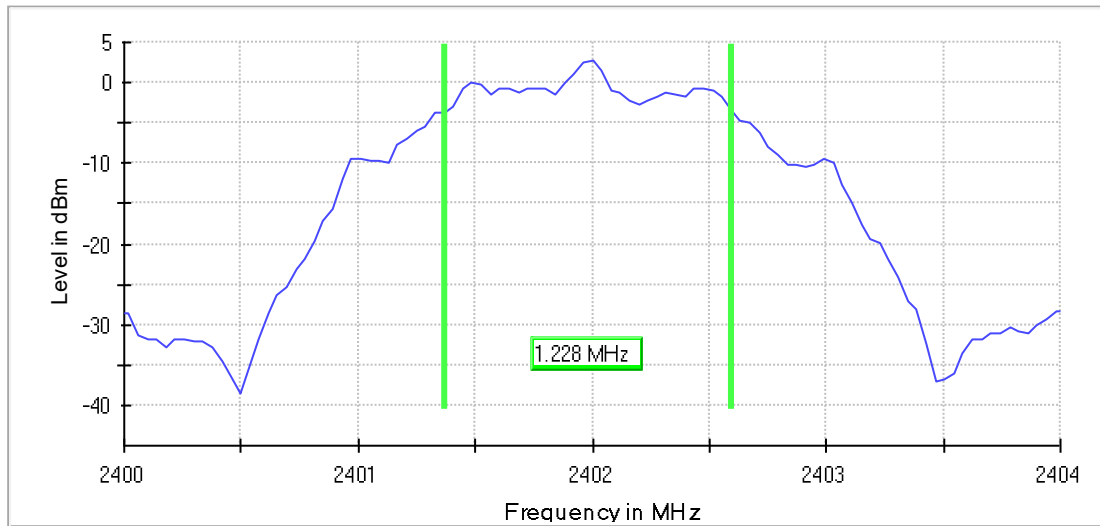
### 6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.227722	0.500000	---	2401.366337	2402.594059

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	2.8	PASS

6 dB Bandwidth



### Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
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	0.07 dB	0.50 dB



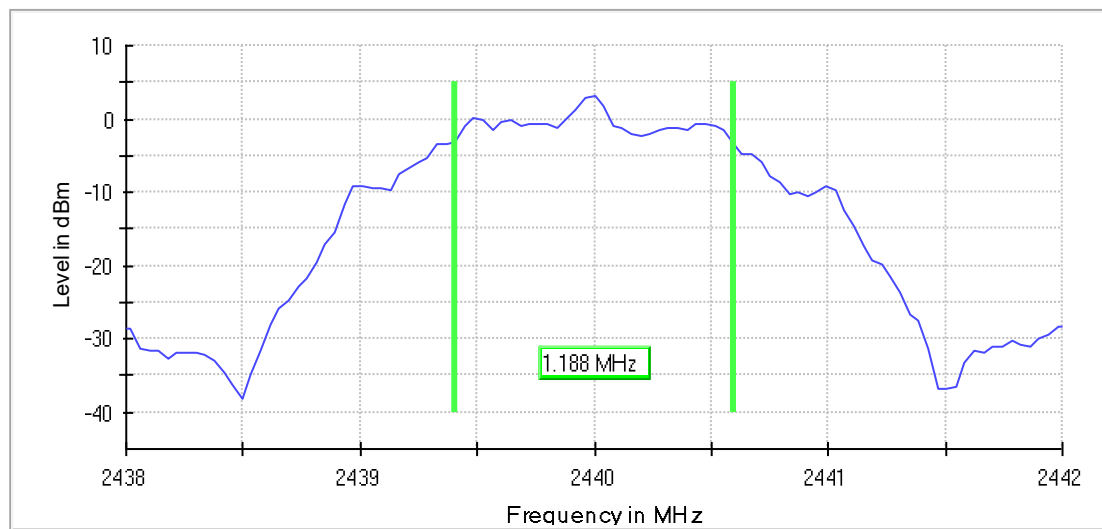
## 6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.188118	0.500000	---	2439.405941	2440.594059

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	3.0	PASS

6 dB Bandwidth



## Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43800 GHz	2.43800 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
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	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.29 dB	0.50 dB

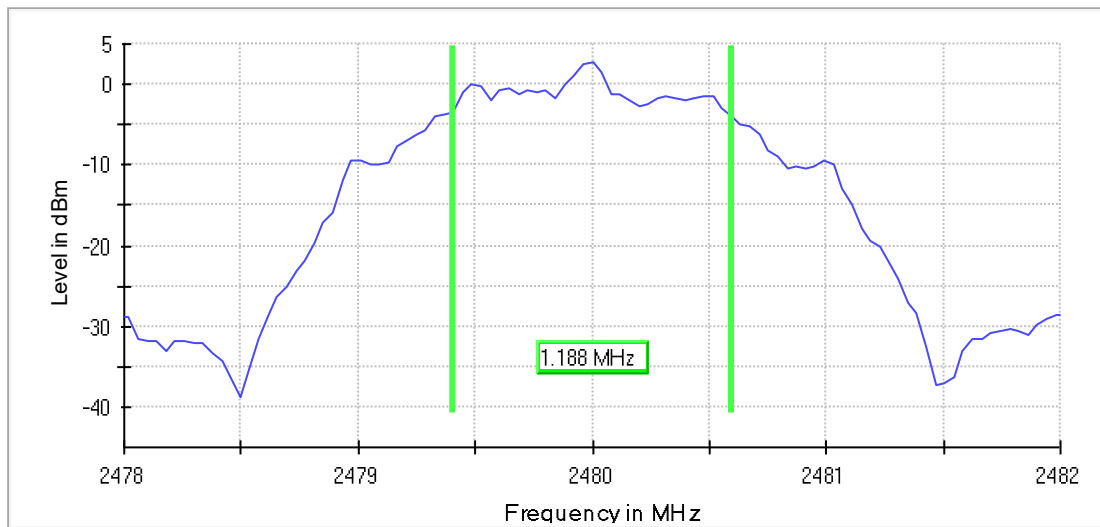
## 6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.188118	0.500000	---	2479.405941	2480.594059

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	2.7	PASS

6 dB Bandwidth



## Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47800 GHz	2.47800 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
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	15 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

### Appendix C.3: Test Results of 99% Bandwidth

GFSK(BLE) Mode, 1Mbps

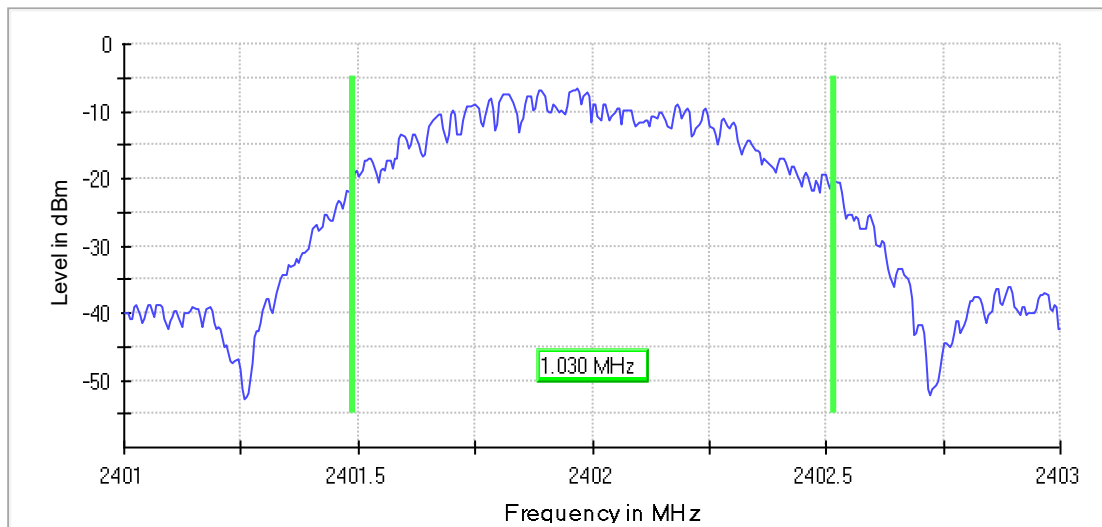
#### 99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.030000	---	---	2401.487500	2402.517500

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

DUT Frequency (MHz)	Result
2402.000000	PASS

99 % Bandwidth



### 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
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	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.22 dB	0.30 dB

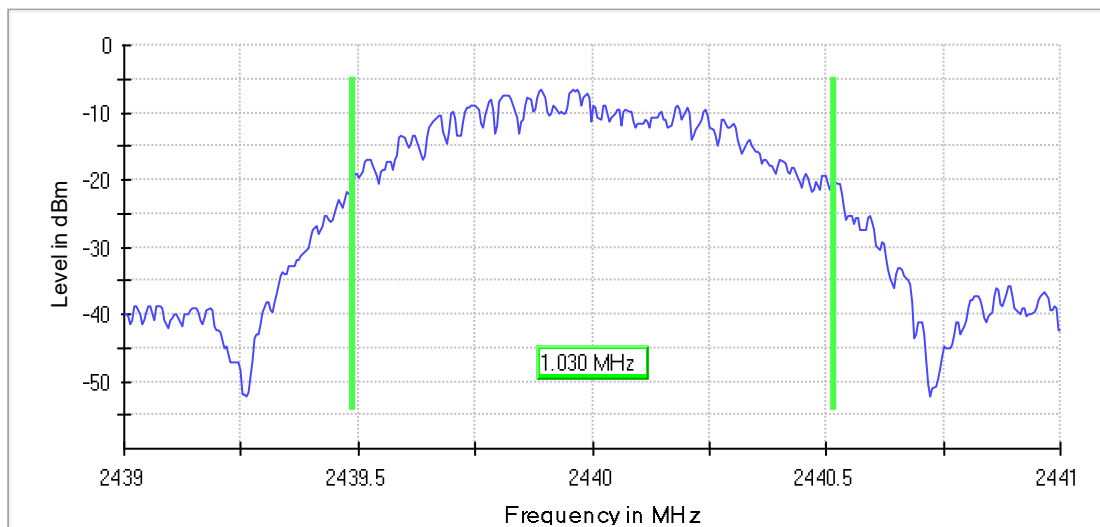
## 99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.030000	---	---	2439.487500	2440.517500

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

DUT Frequency (MHz)	Result
2440.000000	PASS

99 % 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	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	0.22 dB	0.30 dB

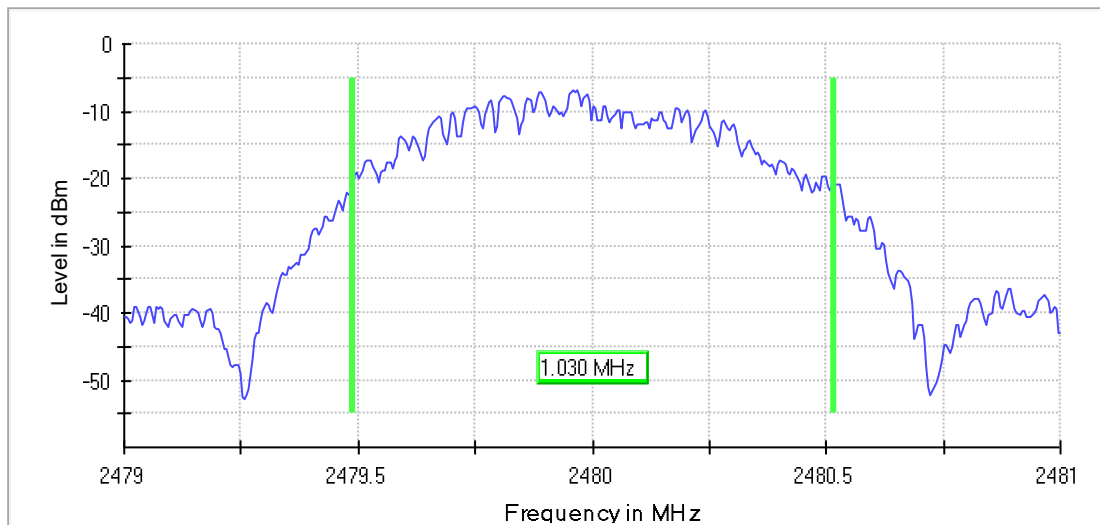
## 99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.030000	---	---	2479.487500	2480.517500

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

DUT Frequency (MHz)	Result
2480.000000	PASS

99 % 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	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

**GFSK(BLE) Mode, 2Mbps**

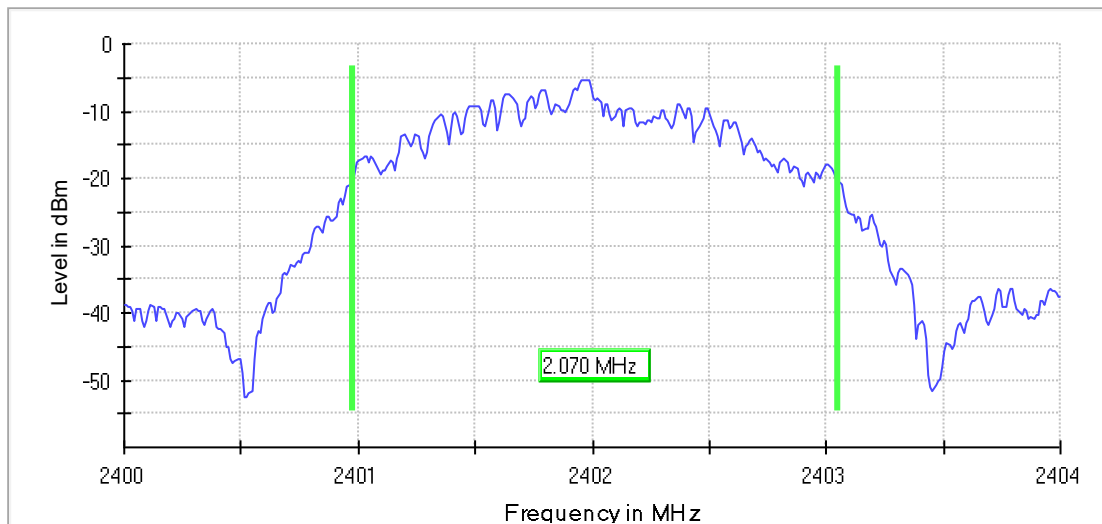
**99 % Bandwidth**

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	2.070000	---	---	2400.975000	2403.045000

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

DUT Frequency (MHz)	Result
2402.000000	PASS

99 % Bandwidth



**Measurement**

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	>= 20.000 kHz
VBW	100.000 kHz	>= 60.000 kHz
SweepPoints	400	~ 400
Sweeptime	94.824 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	8 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.27 dB	0.30 dB

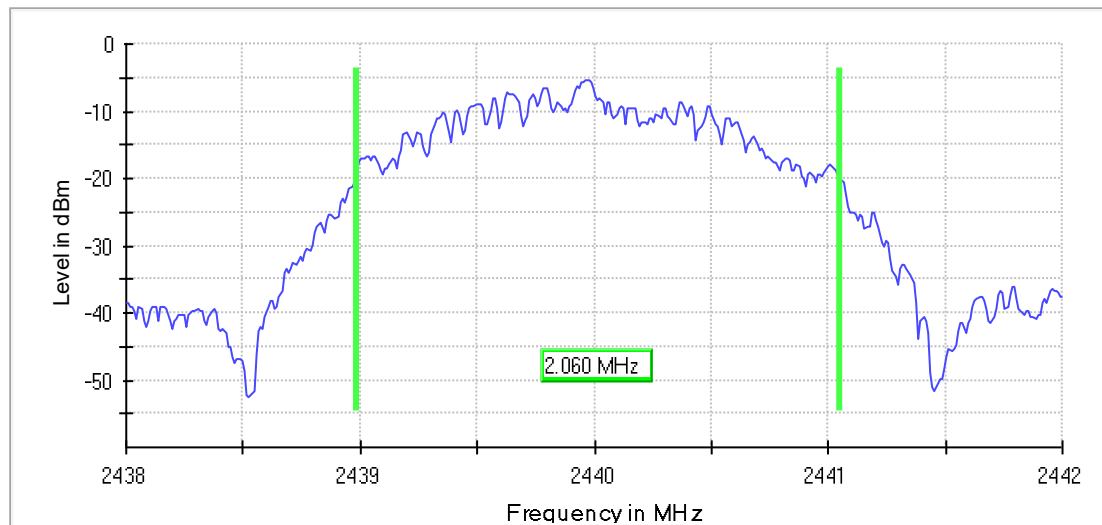
## 99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	2.060000	---	---	2438.985000	2441.045000

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

DUT Frequency (MHz)	Result
2440.000000	PASS

99 % Bandwidth



## Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	>= 20.000 kHz
VBW	100.000 kHz	>= 60.000 kHz
SweepPoints	400	~ 400
SweepTime	94.824 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	8 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.27 dB	0.30 dB

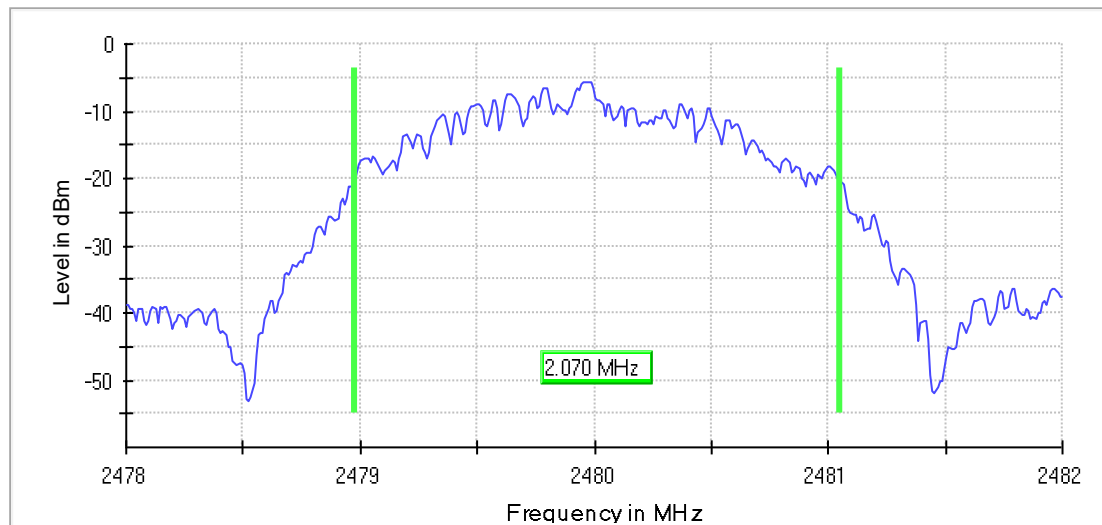
## 99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.070000	---	---	2478.975000	2481.045000

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

DUT Frequency (MHz)	Result
2480.000000	PASS

99 % Bandwidth



## Measurement

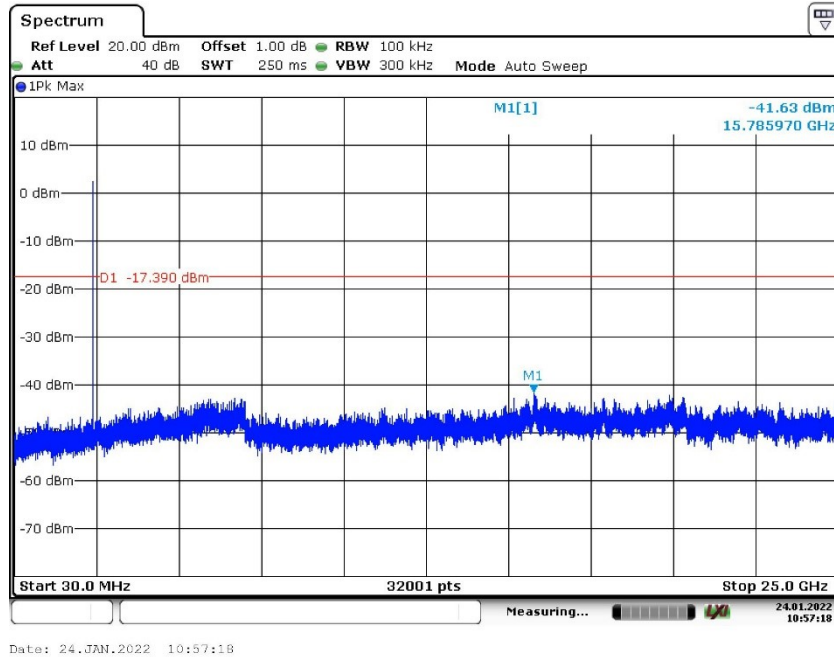
Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	>= 20.000 kHz
VBW	100.000 kHz	>= 60.000 kHz
SweepPoints	400	~ 400
SweepTime	94.824 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 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	8 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.27 dB	0.30 dB



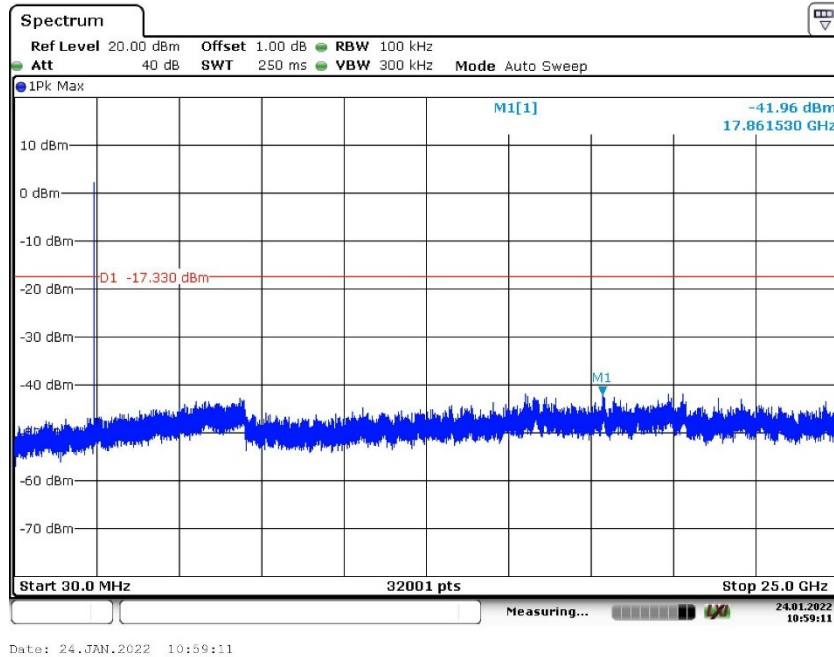
### Appendix C.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

GFSK(BLE) Mode, 1Mbps

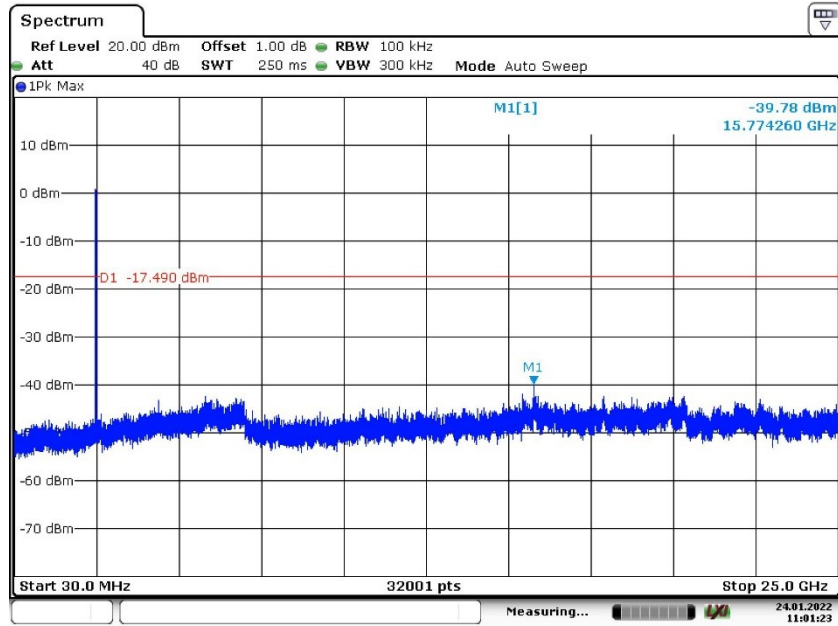
Low Channel



Middle Channel

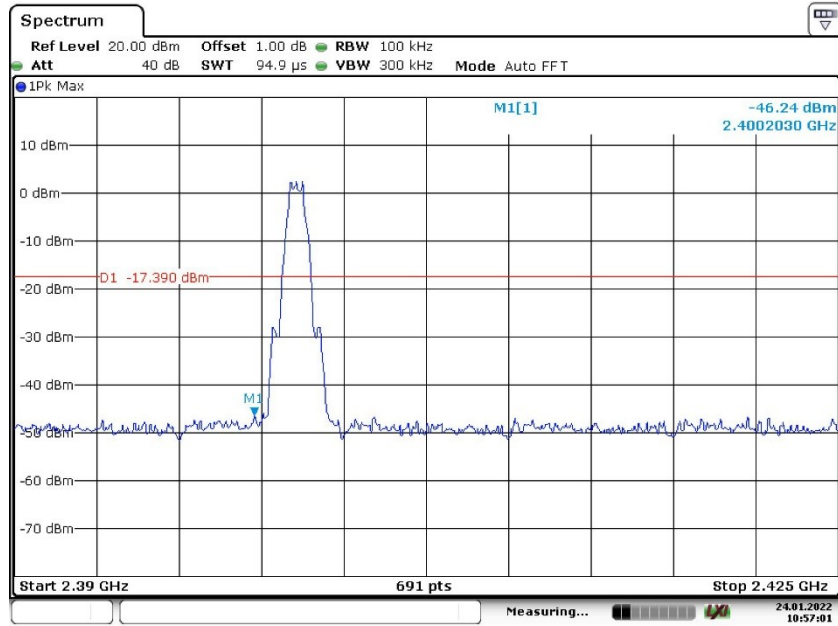


High Channel



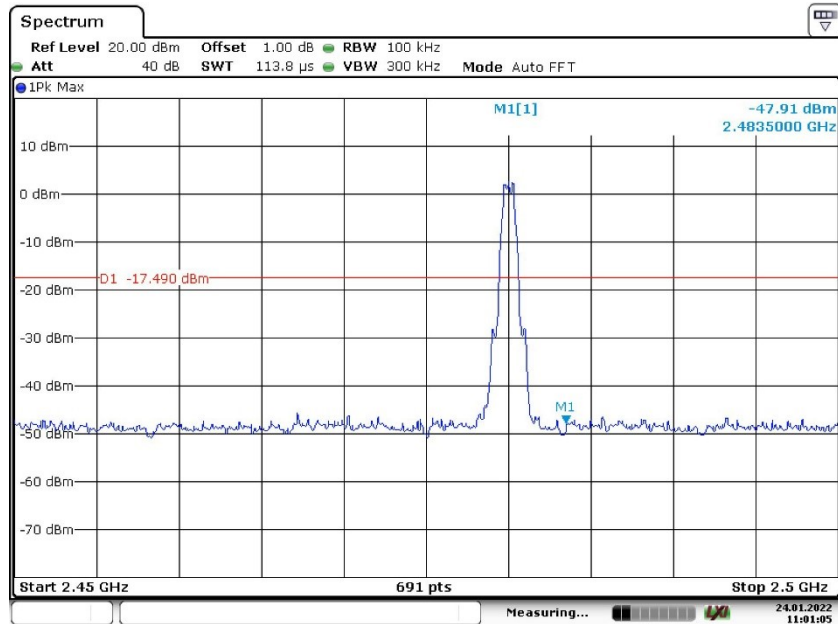
Date: 24.JAN.2022 11:01:23

Band Edge, Low Channel



Date: 24.JAN.2022 10:57:01

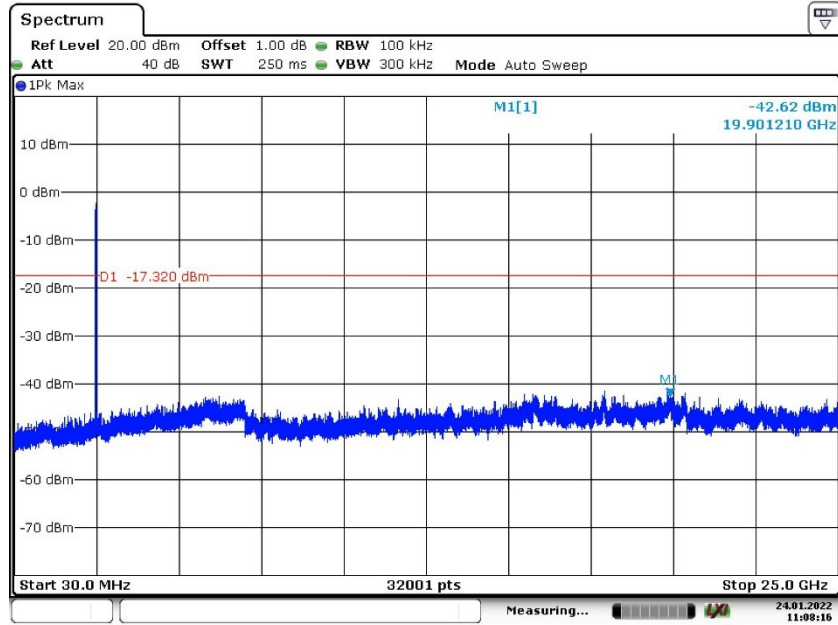
Band Edge, High Channel



Date: 24.JAN.2022 11:01:05

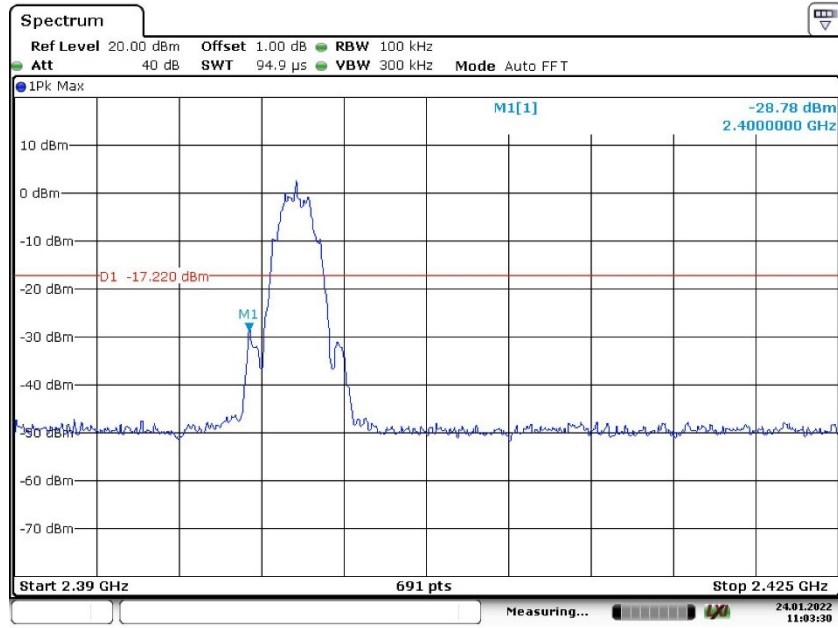


High Channel



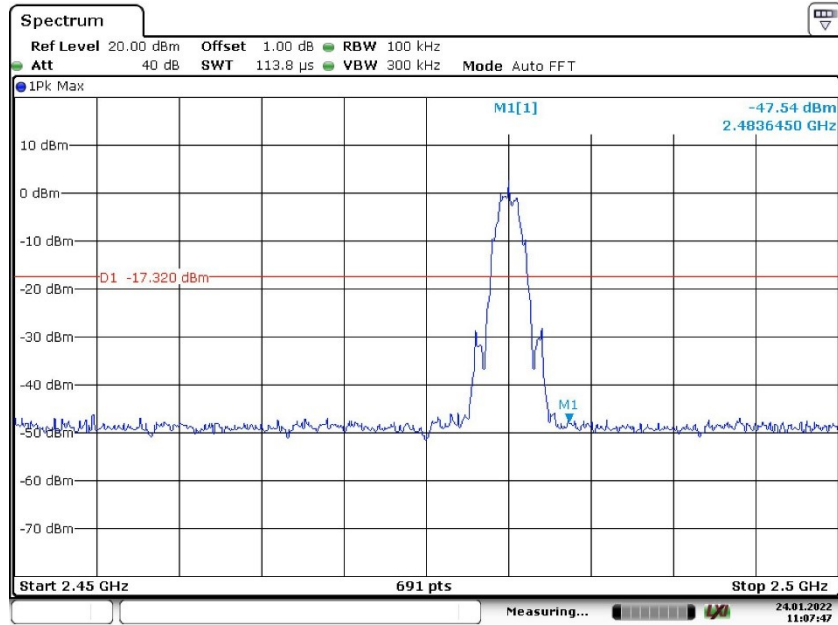
Date: 24.JAN.2022 11:08:16

Band Edge, Low Channel



Date: 24.JAN.2022 11:03:31

Band Edge, High Channel

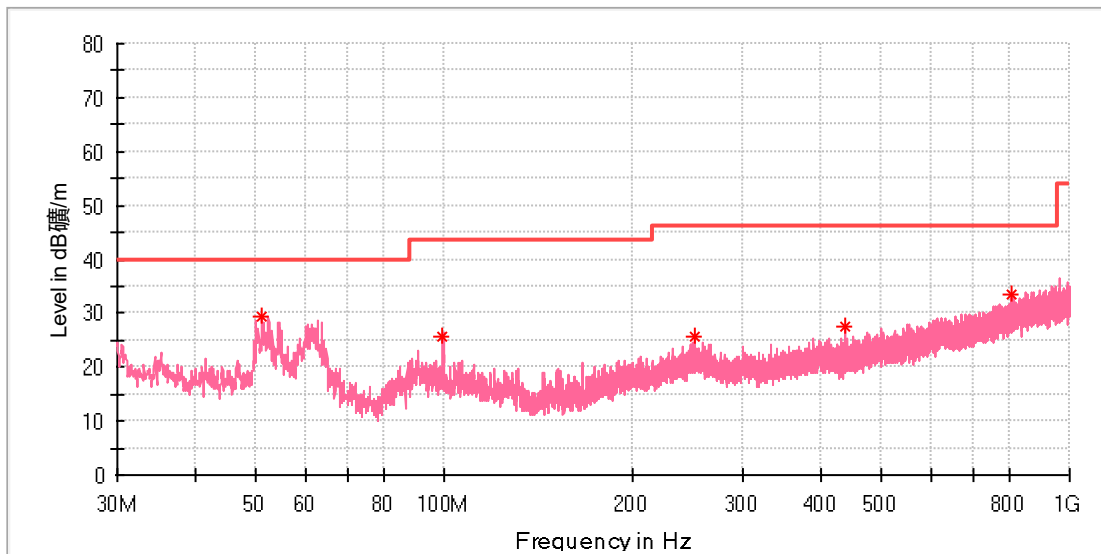


Date: 24.JAN.2022 11:07:47



### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
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)
51.146000	29.50	40.00	10.50	100.0	V	341.0	-18.3
99.549000	25.55	43.50	17.95	100.0	V	130.0	-19.1
251.887500	25.73	46.00	20.27	100.0	V	222.0	-17.3
437.497000	27.36	46.00	18.64	100.0	V	247.0	-13.2
808.376500	33.39	46.00	12.61	100.0	V	215.0	-6.2

### Final\_Result

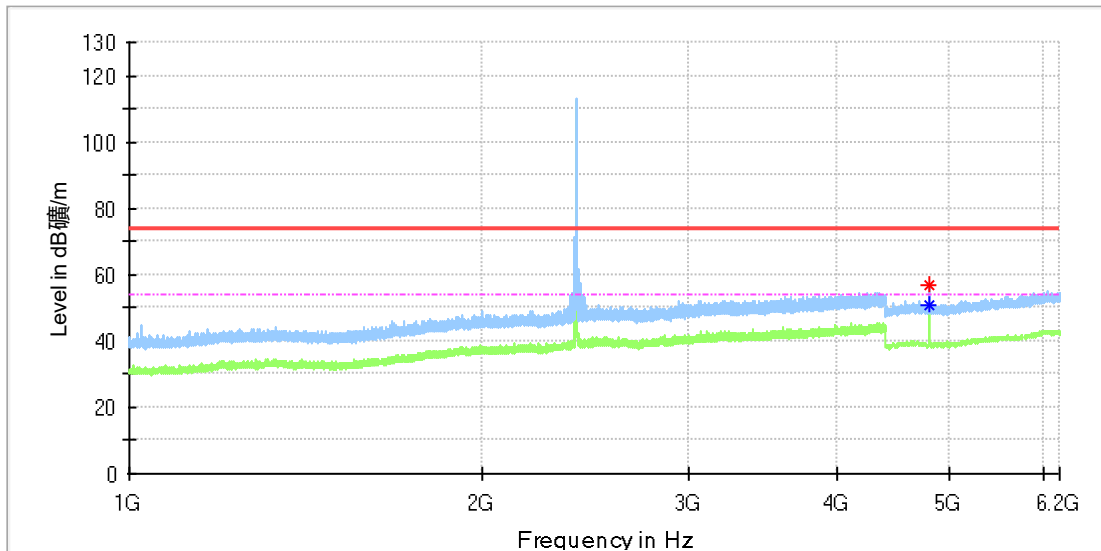
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---



1GHz-18GHz  
 Note: The highest waveform in the figure is Bluetooth Fundamental.

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



### Critical\_Freqs

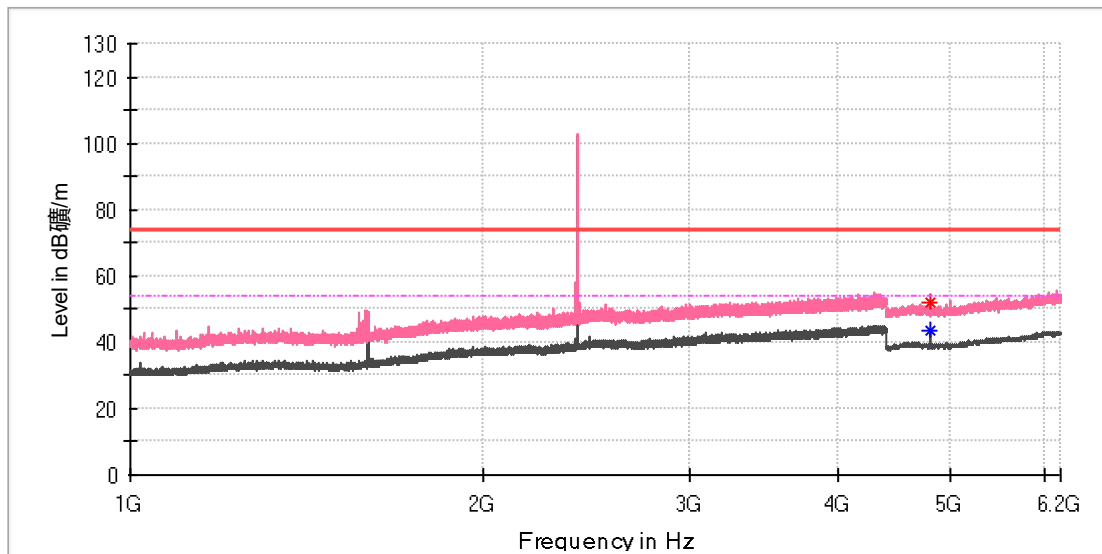
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	---	50.56	54.00	3.44	100.0	H	152.0	11.8
4804.500000	56.70	---	74.00	17.30	100.0	H	345.0	11.8

### Final\_Result

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

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



### Critical\_Freqs

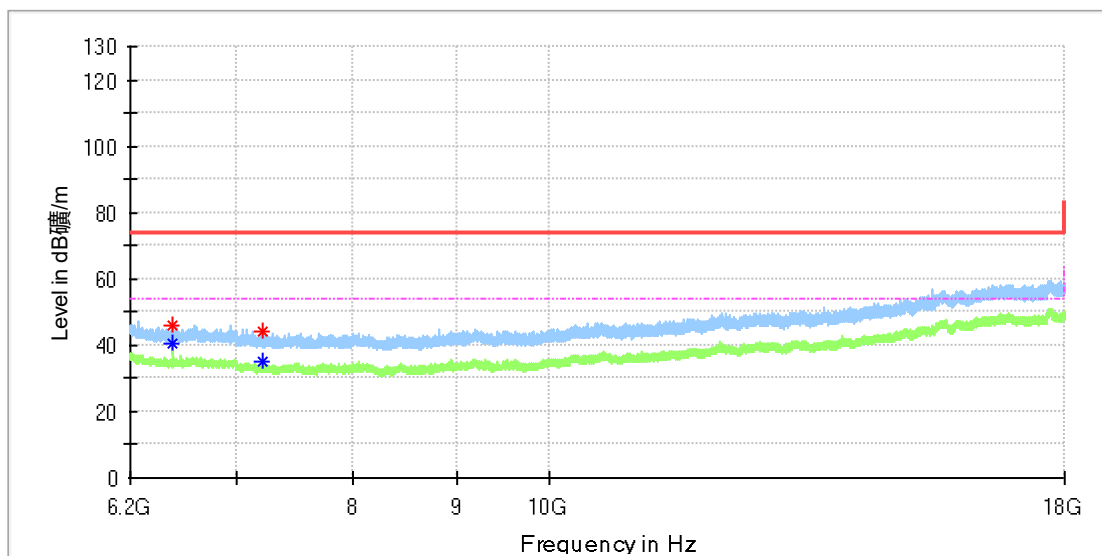
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	52.13	---	74.00	21.87	100.0	V	63.0	11.8
4804.000000	---	43.73	54.00	10.27	100.0	V	132.0	11.8

### Final\_Result

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

### EUT Information

EUT Name: Wi-Fi Module  
 Model: WF-M63B-USD1  
 Test Mode: BLE 1M\_Low channel  
 Order No/Sample No: 168350093/A003194326-001  
 Test Voltage: DC 5V From USB  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



### Critical Freqs

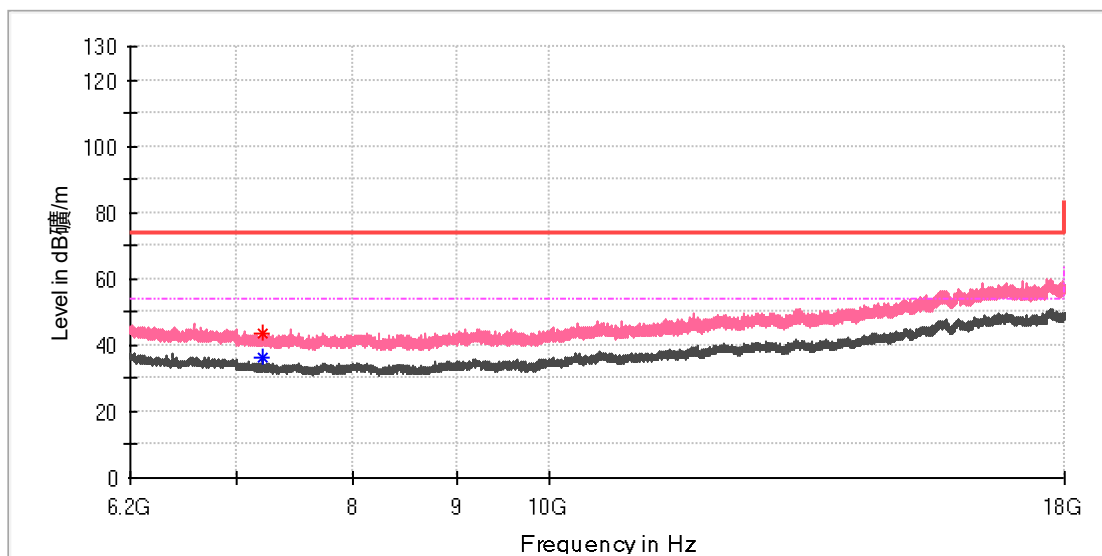
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
6511.225000	45.82	---	74.00	28.18	100.0	H	165.0	8.8
6511.716667	---	40.25	54.00	13.75	100.0	H	92.0	8.8
7204.966667	---	34.86	54.00	19.14	100.0	H	79.0	8.8
7205.458333	44.03	---	74.00	29.97	100.0	H	237.0	8.8

### Final Result

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

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



### Critical Freqs

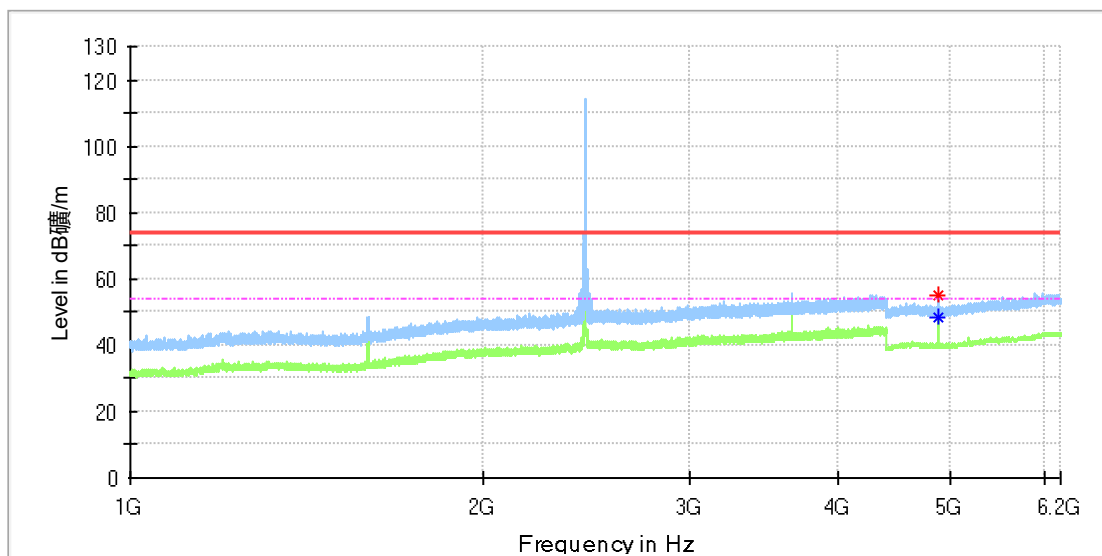
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.966667	43.79	---	74.00	30.21	100.0	V	204.0	8.8
7205.950000	---	36.54	54.00	17.46	100.0	V	204.0	8.8

### Final Result

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

### EUT Information

EUT Name: Wi-Fi Module  
 Model: WF-M63B-USD1  
 Test Mode: BLE 1M\_Mid channel  
 Order No/Sample No: 168350093/A003194326-001  
 Test Voltage: DC 5V From USB  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



### Critical Freqs

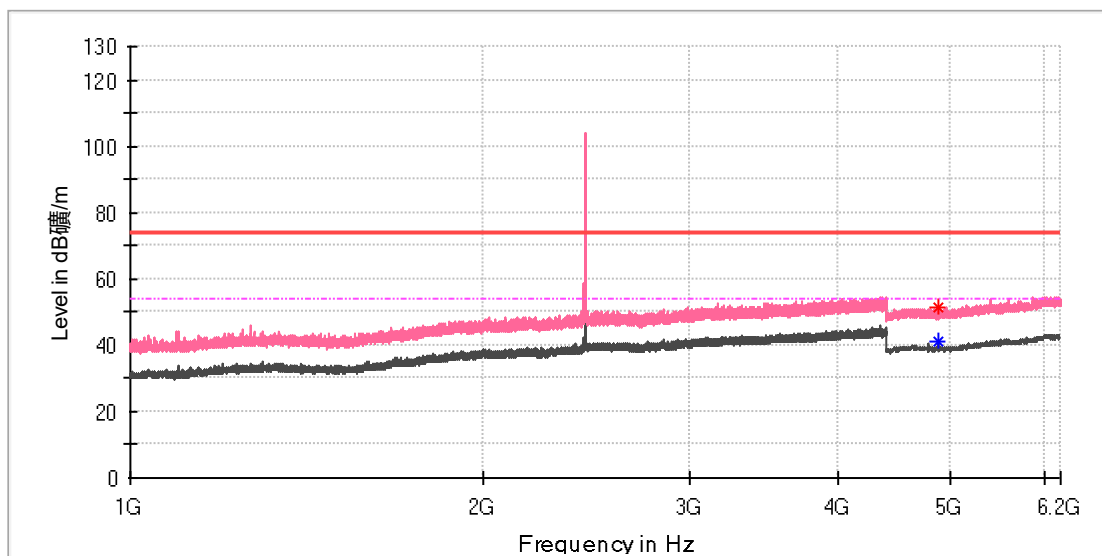
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4880.000000	---	48.62	54.00	5.38	100.0	H	154.0	11.8
4880.500000	54.94	---	74.00	19.06	100.0	H	154.0	11.8

### Final Result

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

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



### Critical Freqs

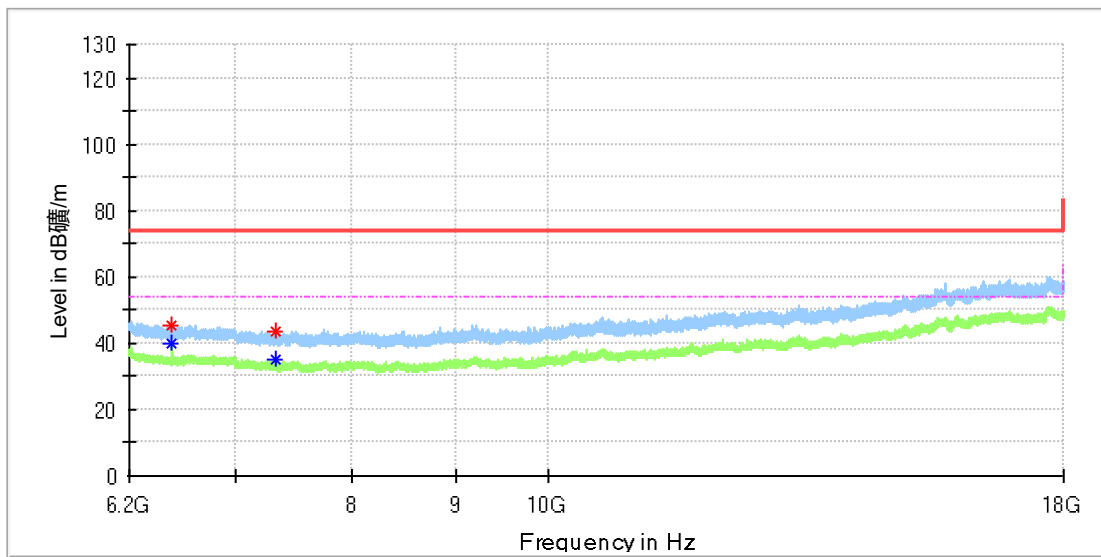
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4879.000000	51.23	---	74.00	22.77	100.0	V	68.0	11.8
4879.500000	---	41.10	54.00	12.90	100.0	V	113.0	11.8

### Final Result

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

### EUT Information

EUT Name: Wi-Fi Module  
 Model: WF-M63B-USD1  
 Test Mode: BLE 1M\_Mid channel  
 Order No/Sample No: 168350093/A003194326-001  
 Test Voltage: DC 5V From USB  
 Remark: Temp 23 Humi:58%  
 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)
6511.716667	---	39.62	54.00	14.38	100.0	H	162.0	8.8
6512.208333	45.10	---	74.00	28.90	100.0	H	162.0	8.8
7320.016667	43.72	---	74.00	30.28	100.0	H	0.0	8.2
7320.016667	---	34.87	54.00	19.13	100.0	H	0.0	8.2

### Final Result

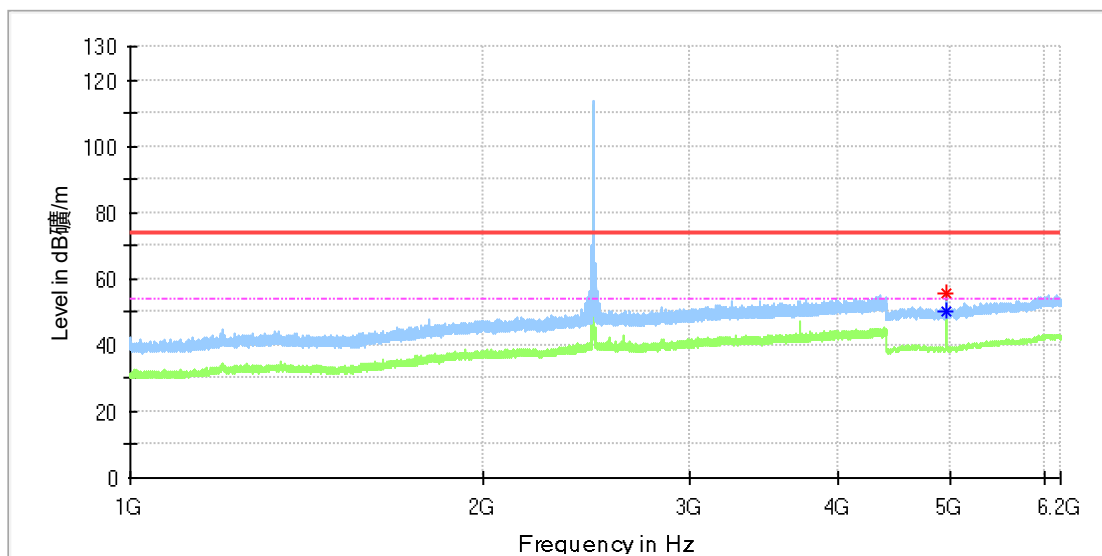
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---





### EUT Information

EUT Name: Wi-Fi Module  
 Model: WF-M63B-USD1  
 Test Mode: BLE 1M\_High channel  
 Order No/Sample No: 168350093/A003194326-001  
 Test Voltage: DC 5V From USB  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



### Critical Freqs

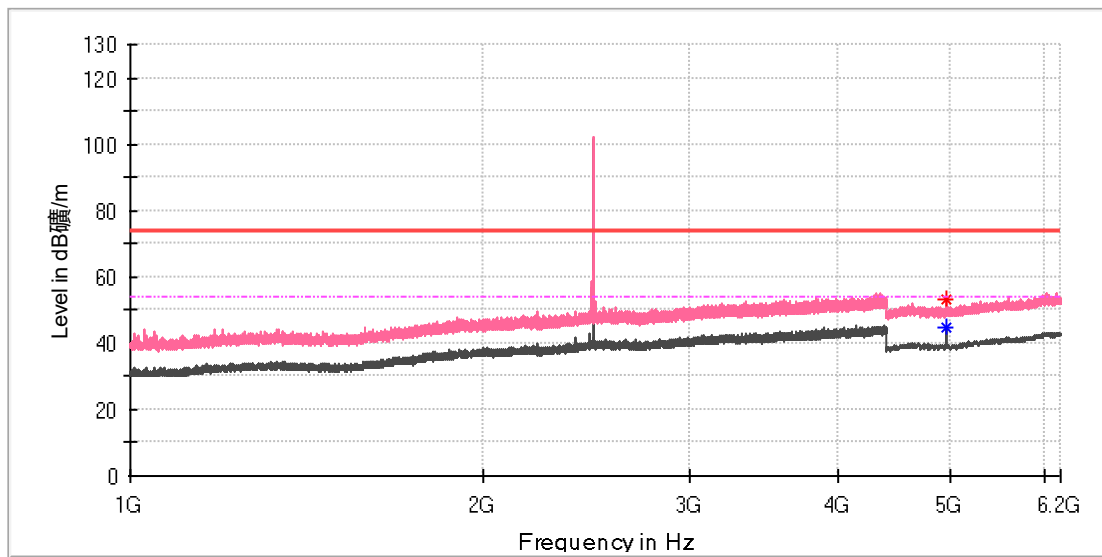
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	---	50.03	54.00	3.97	100.0	H	135.0	11.8
4960.500000	55.86	---	74.00	18.14	100.0	H	128.0	11.8

### Final Result

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

### EUT Information

EUT Name: Wi-Fi Module  
 Model: WF-M63B-USD1  
 Test Mode: BLE 1M\_High channel  
 Order No/Sample No: 168350093/A003194326-001  
 Test Voltage: DC 5V From USB  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



### Critical Freqs

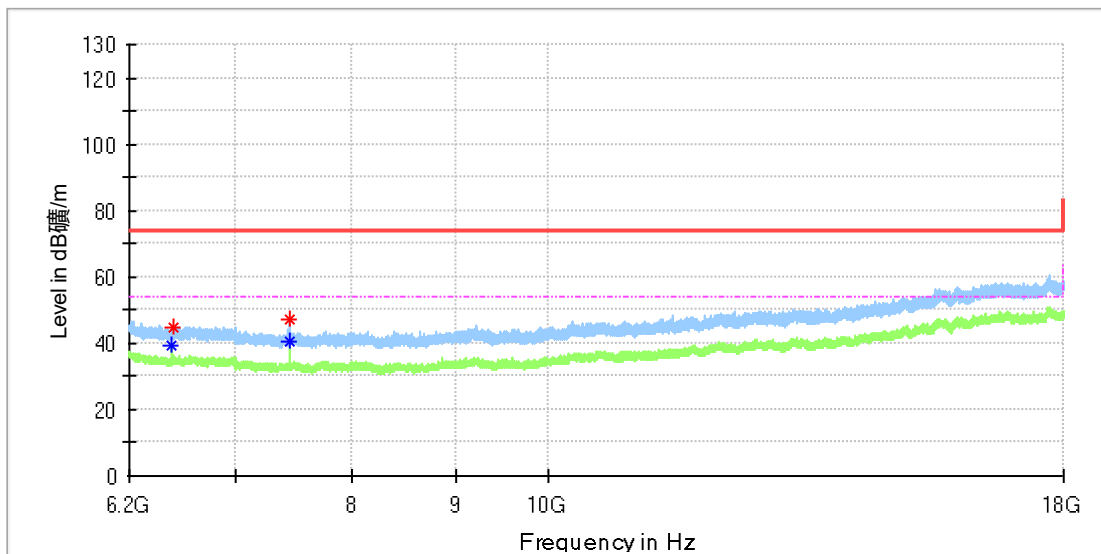
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	53.36	---	74.00	20.64	100.0	V	28.0	11.8
4960.000000	---	44.54	54.00	9.46	100.0	V	28.0	11.8

### Final Result

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

### EUT Information

EUT Name: Wi-Fi Module  
 Model: WF-M63B-USD1  
 Test Mode: BLE 1M\_High channel  
 Order No/Sample No: 168350093/A003194326-001  
 Test Voltage:: DC 5V From USB  
 Remark: Temp 23 Humi:58%  
 Test Standard: FCC 15.247  
 Tested By: Kei Zhang  
 Reviewed By: Terry Yin



### Critical Freqs

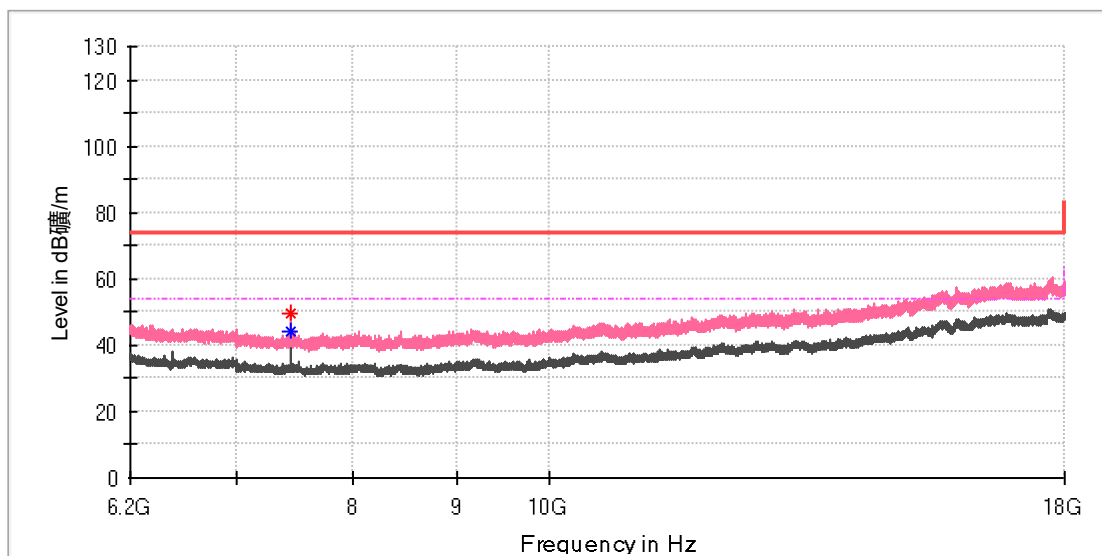
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
6511.716667	---	39.33	54.00	14.67	100.0	H	169.0	8.8
6517.125000	44.72	---	74.00	29.28	100.0	H	356.0	8.8
7440.475000	47.40	---	74.00	26.60	100.0	H	266.0	8.4
7440.475000	---	40.80	54.00	13.20	100.0	H	266.0	8.4

### Final Result

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

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
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)
7439.000000	---	44.12	54.00	9.88	100.0	V	187.0	8.4
7439.491667	49.43	---	74.00	24.57	100.0	V	187.0	8.4

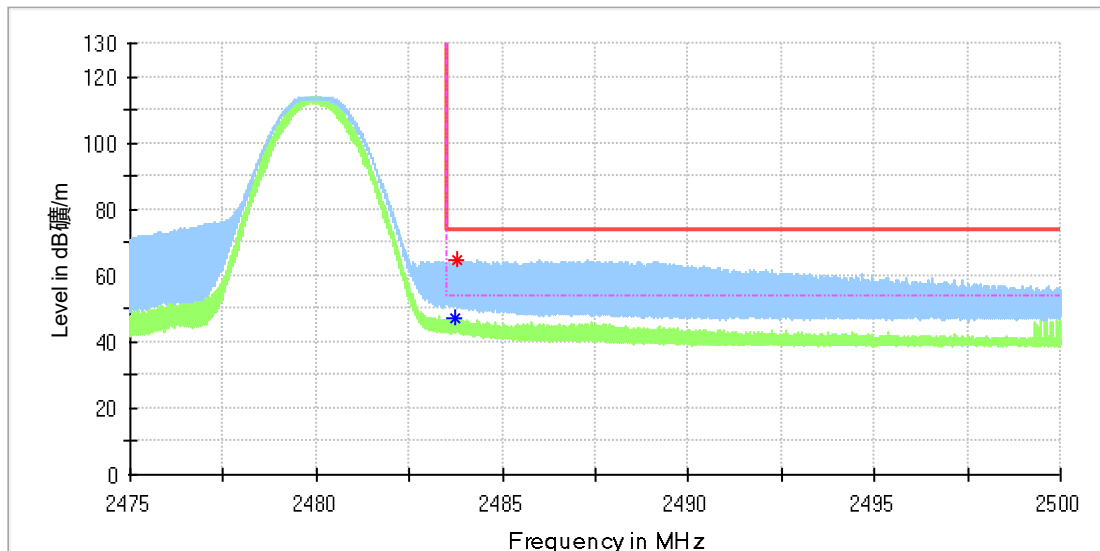
### Final Result

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

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

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



### Critical\_Freqs

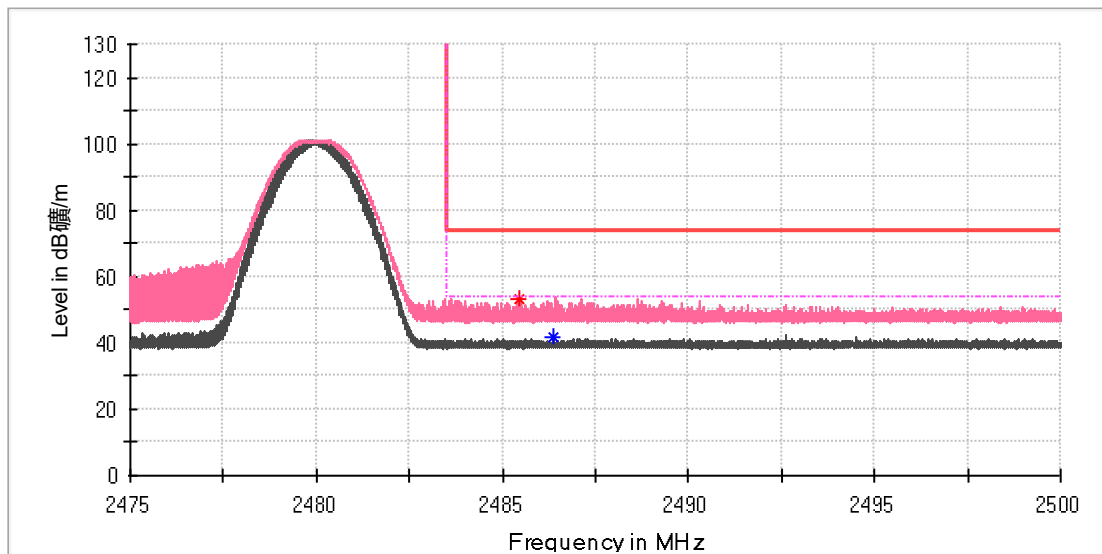
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.735000	---	47.26	54.00	6.74	100.0	H	72.0	7.4
2483.765000	64.66	---	74.00	9.34	100.0	H	30.0	7.4

### Final\_Result

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

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



### Critical Freqs

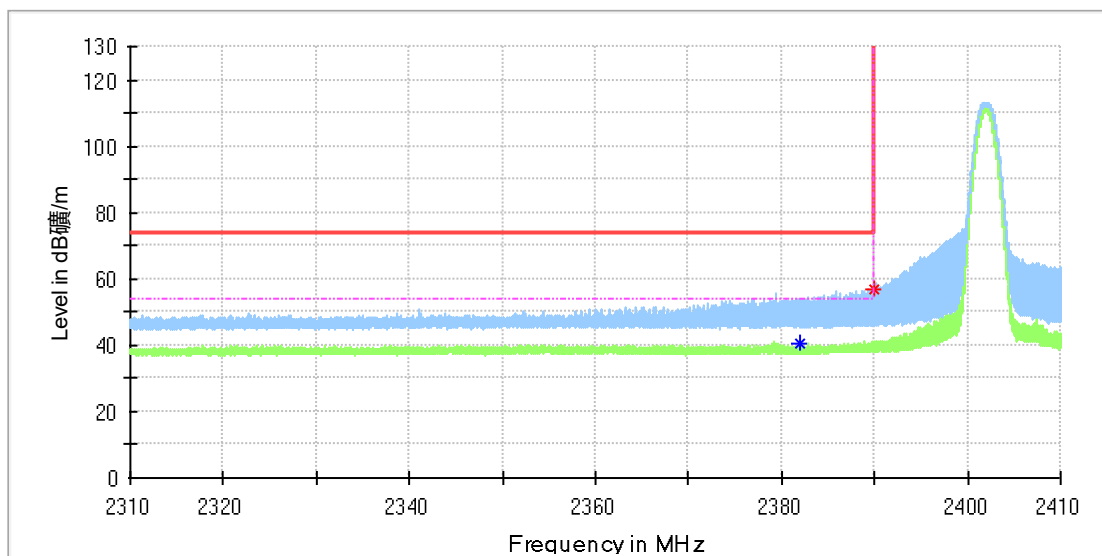
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2485.428750	53.34	---	74.00	20.66	100.0	V	76.0	7.4
2486.363750	---	41.91	54.00	12.09	100.0	V	88.0	7.4

### Final Result

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

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



### Critical Freqs

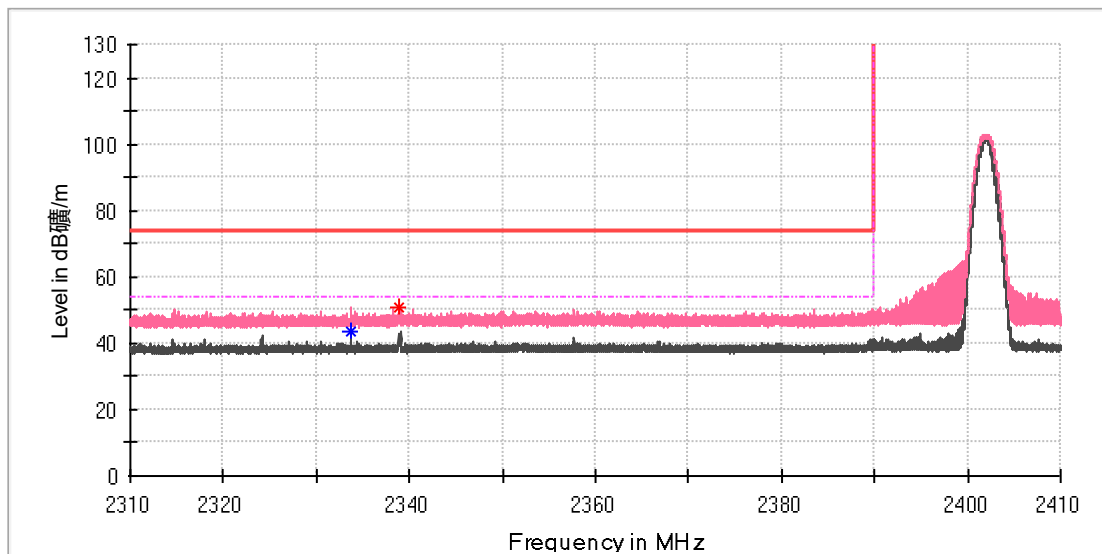
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2382.040000	---	40.26	54.00	13.74	100.0	H	0.0	7.0
2389.965000	56.87	---	74.00	17.13	100.0	H	74.0	7.0

### Final Result

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

### EUT Information

EUT Name:	Wi-Fi Module
Model:	WF-M63B-USD1
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168350093/A003194326-001
Test Voltage::	DC 5V From USB
Remark:	Temp 23 Humi:58%
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)
2333.730000	---	43.66	54.00	10.34	100.0	V	102.0	6.7
2338.885000	50.99	---	74.00	23.01	100.0	V	79.0	6.8

### Final Result

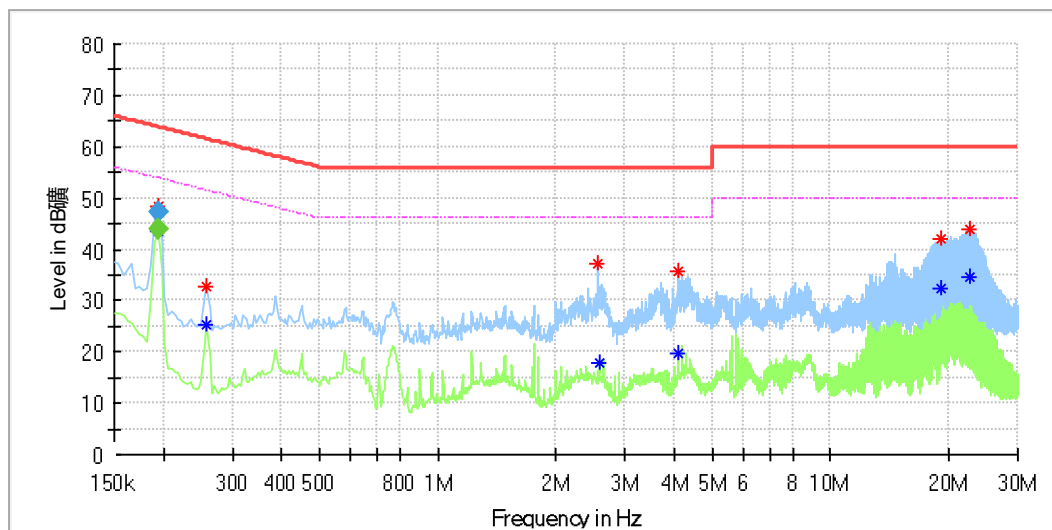
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---



## Appendix C.7: Test Results of AC Conducted Emissions

### EUT Information

EUT Name: WiFi Module  
 Order No: 168350093 20  
 Model: WF-M63B-USD1  
 Test mode: Simultaneous operating for Wi-Fi and Bluetooth  
 Test Voltage: 5V DC, from PC port  
 Test By: Steve Lan  
 Review By: Gary Chen  
 Remark: SR2



### Critical Freqs

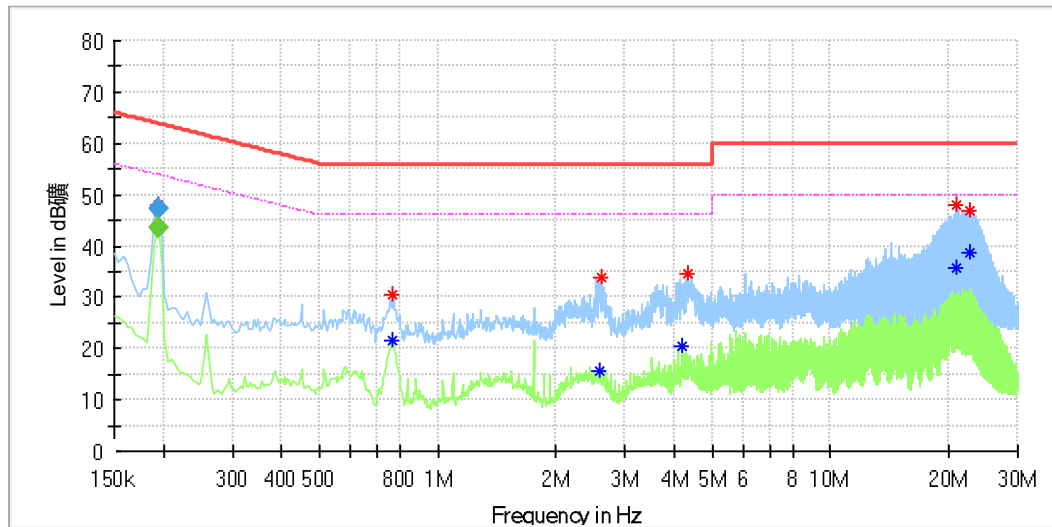
Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.193500	48.24	---	63.86	15.62	L1	9.9
0.193500	---	43.56	53.86	10.30	L1	9.9
0.258000	---	25.21	51.50	26.29	L1	9.9
0.258000	32.90	---	61.50	28.60	L1	9.9
2.562000	37.06	---	56.00	18.94	L1	10.2
2.574000	---	18.03	46.00	27.97	L1	10.2
4.094000	---	19.59	46.00	26.41	L1	10.2
4.110000	35.87	---	56.00	20.13	L1	10.2
19.046000	---	32.32	50.00	17.68	L1	10.4
19.046000	42.08	---	60.00	17.92	L1	10.4
22.714000	43.91	---	60.00	16.09	L1	10.4
22.714000	---	34.72	50.00	15.28	L1	10.4

### Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.193500	---	43.73	53.89	10.15	1000.0	9.000	L1	9.9
0.193500	47.24	---	63.89	16.64	1000.0	9.000	L1	9.9

## EUT Information

EUT Name: WiFi Module  
 Order No: 168350093 20  
 Model: WF-M63B-USD1  
 Test mode: Simultaneous operating for Wi-Fi and Bluetooth  
 Test Voltage: 5V DC, from PC port  
 Test By: Steve Lan  
 Review By: Gary Chen  
 Remark: SR2



## Critical Freqs

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.193500	---	43.98	53.86	9.88	N	9.8
0.193500	48.14	---	63.86	15.73	N	9.8
0.770000	---	21.41	46.00	24.59	N	9.8
0.770000	30.63	---	56.00	25.37	N	9.8
2.574000	---	15.79	46.00	30.21	N	9.9
2.598000	34.01	---	56.00	21.99	N	9.9
4.202000	---	20.63	46.00	25.37	N	9.9
4.338000	34.75	---	56.00	21.25	N	9.9
21.010000	47.91	---	60.00	12.09	N	10.3
21.010000	---	35.63	50.00	14.37	N	10.3
22.642000	---	38.55	50.00	11.45	N	10.3
22.642000	46.94	---	60.00	13.06	N	10.3

## Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.193500	---	43.62	53.89	10.27	1000.0	9.000	N	9.8
0.193500	47.12	---	63.89	16.76	1000.0	9.000	N	9.8