

Prüfbericht-Nr.: Test report no.:	CN232KP1 002	Auftrags-Nr.: Order no.:	168412906	Seite 1 von 22 Page 1 of 22
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2023-01-30	
Auftraggeber: Client:	Harman International Industries, Inc 8500 Balboa Blvd, Northridge, California, 91329, United States			
Prüfgegenstand: Test item:	PORTABLE BLUETOOTH SPEAKER			
Bezeichnung / Typ-Nr.: Identification / Type no.:	GO+PLAY 3 (Trademark: harman / kardon)			
Auftrags-Inhalt: Order content:	FCC and IC approval			
Prüfgrundlage: Test specification:	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: Date of sample receipt:	2023-02-15	Please refer to photo documents		
Prüfmuster-Nr.: Test sample no.:	A003415293-001 to 005			
Prüfzeitraum: Testing period:	2023-02-16 – 2023-03-03			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:			genehmigt von: authorized by:	
Datum: Date:	2023-04-28		Ausstellungsdatum: Issue date:	2023-04-28
	Signed by: Alex Lan		Signed by: Lin Lin	
Stellung / Position	Project Manager		Stellung / Position	Review
Sonstiges / Other:	FCC ID: APIHKGPLAY3 IC: 6132A-HKGPLAY3 HVIN: GO+PLAY 3			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged:			
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n) Legend: 1 = very good P(ass) = passed a.m. test specifications(s)	2 = gut 2 = good 2 = satisfactory F(ail) = entspricht nicht o.g. Prüfgrundlage(n) 3 = satisfactory F(ail) = failed a.m. test specifications(s)	3 = befriedigend 4 = ausreichend 4 = sufficient N/A = nicht anwendbar N/A = not applicable	5 = mangelhaft N/T = nicht 5 = poor N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 99%dB BANDWIDTH

RESULT: Pass

5.1.5 6dB BANDWIDTH

RESULT: Pass

5.1.6 FREQUENCY STABILITY

RESULT: Pass

5.1.7 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.8 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.9 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

Appendix B: Test Results.

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, People's Republic of China

FCC Registration No.: 694916

IC Registration No.: 25069 and the CAB identifier is CN0078.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (TS8997)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Signal Analyzer	R&S	FSV 40	101441	2023-08-01
OSP	R&S	OSP 150	101017	2023-11-21
Control PC	DELL	OptiPlex 7050	FTJZ9P2	N/A
Test Software	R&S	WMS32 (V11.00.00)	N/A	N/A
Power Meter	R&S	NRP2	107105	2023-11-21
Wideband Power Sensor	R&S	NRP-Z81	105677	2023-08-01
Shielding Room 8#	Albatross	SR8	APC17151-SR8	2024-06-22
Unwanted Emission Testing (TS9975)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	2023-08-02
Signal Analyzer	R&S	FSV 40	101439	2023-08-01
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	2023-08-01
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2023-08-02
Amplifier	R&S	SCU-18F	180070	2023-08-02
Amplifier	R&S	SCU40A	100475	2023-08-02
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2024-08-06
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	2024-08-06
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2024-08-27
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2023-08-06
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	2024-06-22
Conducted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR3	102428	2023-07-31
Artificial Mains Network	R&S	ENV216	102333	2023-08-01
EMC32 test software	R&S	EMC32 Ver.10.50.00	N/A	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty (k=2)
Occupied Channel Bandwidth	± 2.08 %
RF output power, conducted	± 0.99 dB
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	± 4.17 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, People's Republic of China. is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a portable Bluetooth speaker, which supports Bluetooth dual mode technology.
The Classical Bluetooth and Bluetooth low energy can't transmit at the same time.
For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	PORTABLE BLUETOOTH SPEAKER
Type Designation	GO+PLAY 3
Trademark	harman / kardon
FCC ID	APIHKGPLAY3
IC	6132A-HKGPLAY3
HVIN	GO+PLAY 3
Extreme Temperature Range	-10°C to +45°C
Input Voltage	AC 100 ~ 240V, 50/60Hz or DC 10.8V, 2400mAh via built-in battery (mode ICR18650-2600)
Output Voltage	DC 5V, 2A max (type C interface)
Technical Specification of Classical Bluetooth	
Bluetooth Core Version	Bluetooth 5.2
Operating Frequency band	2402 ~ 2480 MHz
Channel Number	79 channels
Channel separation	1MHz
Modulation	GFSK, $\pi/4$ DQPSK, 8DPSK
Antenna Type	FPC antenna
Antenna Gain	2.3 dBi
Technical Specification of Bluetooth Low Energy	
Bluetooth Core Version	Bluetooth 5.2
Operating Frequency band	2402 ~ 2480 MHz
Channel Number	40 channels
Channel separation	2MHz
Data rate	1Mbps, 2Mbps
Modulation	GFSK
Antenna Type	FPC antenna
Antenna Gain	2.3 dBi

Table 3: RF Channel and Frequency of Classic Bluetooth

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
00	2402.00	20	2422.00	40	2442.00	60	2462.00
01	2403.00	21	2423.00	41	2443.00	61	2463.00
02	2404.00	22	2424.00	42	2444.00	62	2464.00
03	2405.00	23	2425.00	43	2445.00	63	2465.00
04	2406.00	24	2426.00	44	2446.00	64	2466.00
05	2407.00	25	2427.00	45	2447.00	65	2467.00
06	2408.00	26	2428.00	46	2448.00	66	2468.00
07	2409.00	27	2429.00	47	2449.00	67	2469.00
08	2410.00	28	2430.00	48	2450.00	68	2470.00
09	2411.00	29	2431.00	49	2451.00	69	2471.00
10	2412.00	30	2432.00	50	2452.00	70	2472.00
11	2413.00	31	2433.00	51	2453.00	71	2473.00
12	2414.00	32	2434.00	52	2454.00	72	2474.00
13	2415.00	33	2435.00	53	2455.00	73	2475.00
14	2416.00	34	2436.00	54	2456.00	74	2476.00
15	2417.00	35	2437.00	55	2457.00	75	2477.00
16	2418.00	36	2438.00	56	2458.00	76	2478.00
17	2419.00	37	2439.00	57	2459.00	77	2479.00
18	2420.00	38	2440.00	58	2460.00	78	2480.00
19	2421.00	39	2441.00	59	2461.00	--	--

Table 4: RF Channel and Frequency of Bluetooth Low Energy

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
00	2402.00	10	2422.00	20	2442.00	30	2462.00
01	2404.00	11	2424.00	21	2444.00	31	2464.00
02	2406.00	12	2426.00	22	2446.00	32	2466.00
03	2408.00	13	2428.00	23	2448.00	33	2468.00
04	2410.00	14	2430.00	24	2450.00	34	2470.00
05	2412.00	15	2432.00	25	2452.00	35	2472.00
06	2414.00	16	2434.00	26	2454.00	36	2474.00
07	2416.00	17	2436.00	27	2456.00	37	2476.00
08	2418.00	18	2438.00	28	2458.00	38	2478.00
09	2420.00	19	2440.00	29	2460.00	39	2480.00

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth LE transmitting mode
 - 1. Low channel
 - 2. Middle channel
 - 3. High channel
- B. On, Bluetooth connecting mode
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|----------------------------------|------------------|
| - Application Form | - Photo Document |
| - Block Diagram | - Schematics |
| - FCC/IC Label and Location Info | - User Manual |
| - Operation Description | |

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

4.3 Special Accessories and Auxiliary Equipment

Table 5: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N
Laptop	Lenovo	T480	PF-16A6N8

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 30MHz)

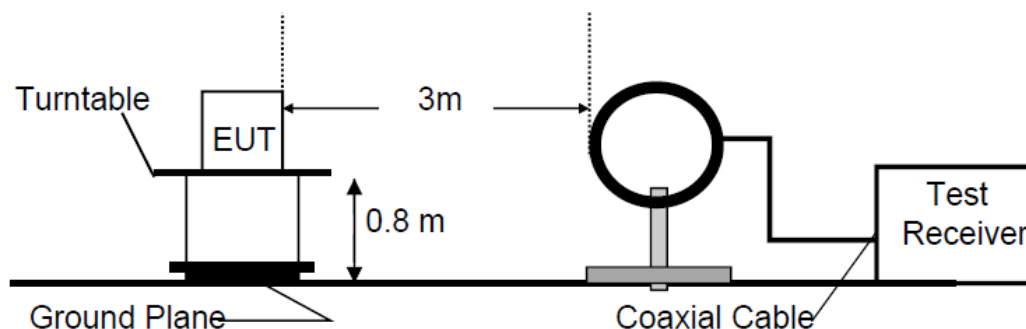


Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

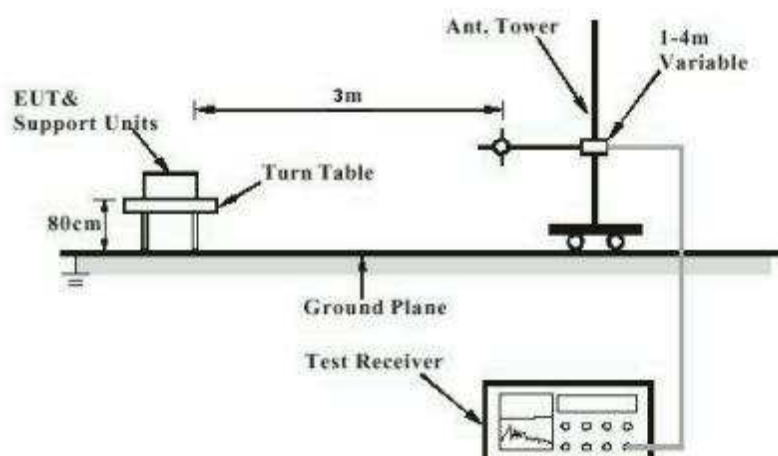


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

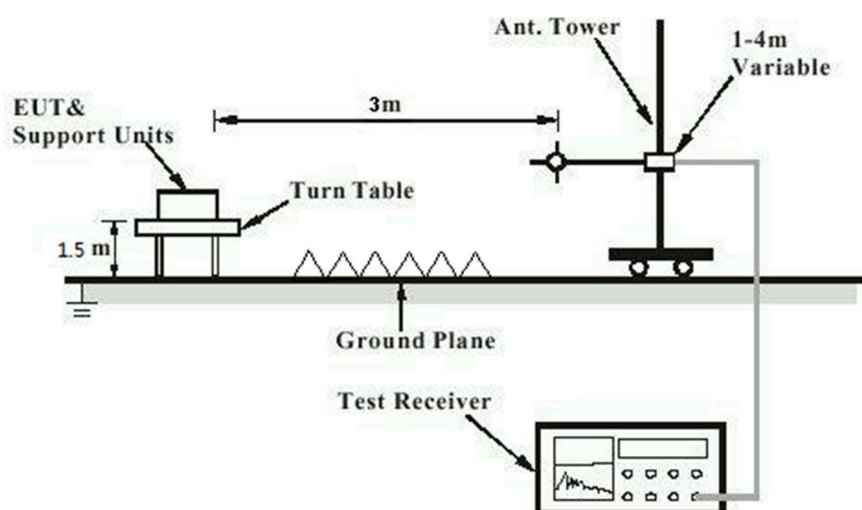


Diagram of Measurement Configuration for Conducted Transmitter Measurement

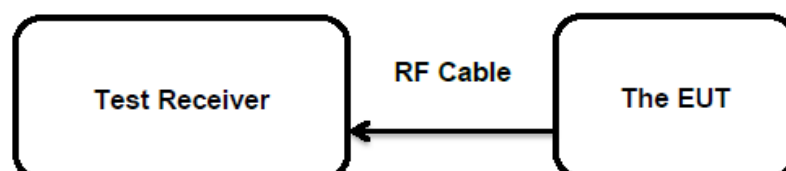
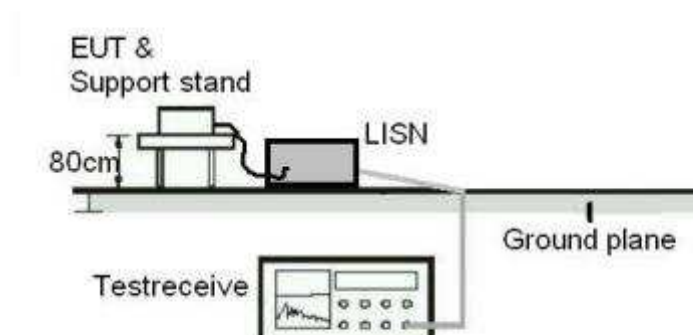


Diagram of Measurement Configuration for Mains Conduction Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard

: FCC Part 15.247(b)(4) and Part 15.203
: RSS-Gen Clause 6.7

Limit

: the use of antennas with directional gains that do not
: exceed 6 dBi

According to the manufacturer declared, the EUT has one integral antenna, the directional gain of antenna is 2.30dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT:
Pass
Test Specification

Test standard	:	FCC Part 15.247(b)(3)
	:	RSS-247 Clause 5.4(d)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 1 Watt (Maximum Conducted Peak Power)
	:	e.i.r.p. <4W
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2023-02-16 to 2023-03-03
Input voltage	:	Battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	22.7 °C
Relative humidity	:	55 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 6: Test Result of Maximum Peak Conducted Output Power

Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
1 Mbps	2402	5.1	0.0032	< 1.0
	2440	5.6	0.0036	
	2480	6.0	0.0040	
2 Mbps	2402	5.0	0.0032	
	2440	5.5	0.0035	
	2480	5.9	0.0039	
Maximum Measured Value		6.0	0.0040	

Note: The cable loss is taken into account in results and the maximum e.i.r.p. is 8.30 dBm less than 4W (36 dBm).

5.1.3 Conducted Power Spectral Density

RESULT:**Pass****Test Specification**

Test standard	:	FCC Part 15.247(e)
	:	RSS-247 Clause 5.2(b)
Basic standard	:	ANSI C63.10: 2013
Limits	:	8 dBm / 3kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2023-02-16 to 2023-03-03
Input voltage	:	Battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	22.7 °C
Relative humidity	:	55 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

Table 7: Test Result of Power Spectral Density

Data Rate	Channel Frequency (MHz)	Power Spectral Density	Limit (dBm/3kHz)
		(dBm/3kHz)	
1 Mbps	2402	-8.17	8
	2440	-7.74	
	2480	-7.19	
2 Mbps	2402	-8.68	8
	2440	-8.28	
	2480	-7.73	

5.1.4 99%dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : RSS-Gen clause 6.7
 Basic standard : ANSI C63.10: 2013
 Kind of test site : Shielded Room

Test Setup

Date of testing : 2023-02-16 to 2023-03-03
 Input voltage : Battery
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 22.7 °C
 Relative humidity : 55 %
 Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 8: Test Result of 99% Bandwidth

Data Rate	Channel Frequency (MHz)	Measured 99% Bandwidth	Limit
		(MHz)	
1 Mbps	2402	1.00	/
	2440	1.00	
	2480	1.00	
2 Mbps	2402	1.93	/
	2440	1.92	
	2480	1.93	

Note: The fundamental emissions stay within the allocated band 2400-2483.5MHz.

5.1.5 6dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(a)(2)
 : RSS-247 Clause 5.2(a)
 Basic standard : ANSI C63.10: 2013
 Kind of test site : Shielded Room

Test Setup

Date of testing : 2023-02-16 to 2023-03-03
 Input voltage : Battery
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 22.7 °C
 Relative humidity : 55 %
 Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Table 9: Test Result of of 6dB Bandwidth

Data Rate	Channel Frequency (MHz)	Measured 6dB Bandwidth	Limit
		(MHz)	
1 Mbps	2402	0.693	>500 kHz
	2440	0.693	
	2480	0.693	
2 Mbps	2402	1.228	>500 kHz
	2440	1.228	
	2480	1.228	

5.1.6 Frequency stability

RESULT:**Pass****Test Specification**

Test standard	: RSS-247 Clause 8.11
Basic standard	: ANSI C63.10: 2013
Limits	: within at least the central 80% of its permitted operating frequency band (2400-2483.5MHz)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2023-02-16 to 2023-03-03
Input voltage	: Battery
Operation mode	: B
Ambient temperature	: 22.7 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

5.1.7 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.247(d) RSS-247 Clause 5.5
Basic standard	: ANSI C63.10: 2013
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2023-02-16 to 2023-03-03
Input voltage	: Battery
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 22.7 °C
Relative humidity	: 55 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix B.

5.1.8 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3 & 5.5
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 4 & Table 5
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	2023-02-16 to 2023-03-03
Input voltage	:	Battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	Refer to test result
Relative humidity	:	Refer to test result
Atmospheric pressure	:	101 kPa

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix B.

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5.1.9 Conducted Emission on AC Mains

RESULT:**Pass****Test Specification**

Test standard	: FCC Part 15.207(a) RSS-Gen Clause 8.8
Basic standard	: ANSI C63.10: 2013
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2023-02-16 to 2023-03-03
Input voltage	: AC 120V, 60Hz
Operation mode	: B
Earthing	: Not connected
Ambient temperature	: 25.0 °C
Relative humidity	: 51.2 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

7 List of Tables

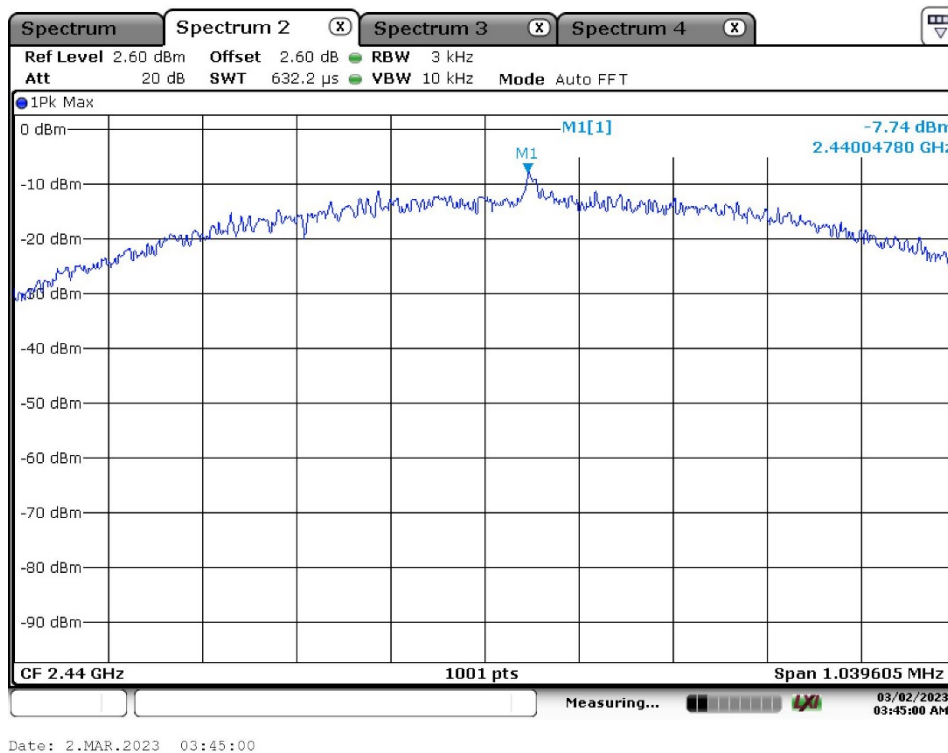
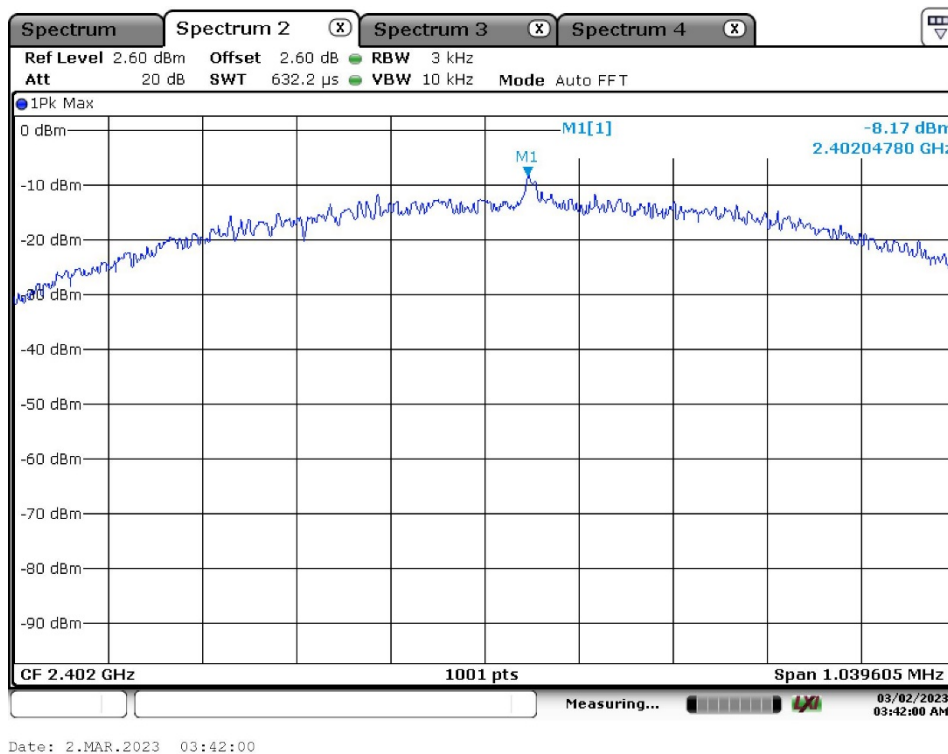
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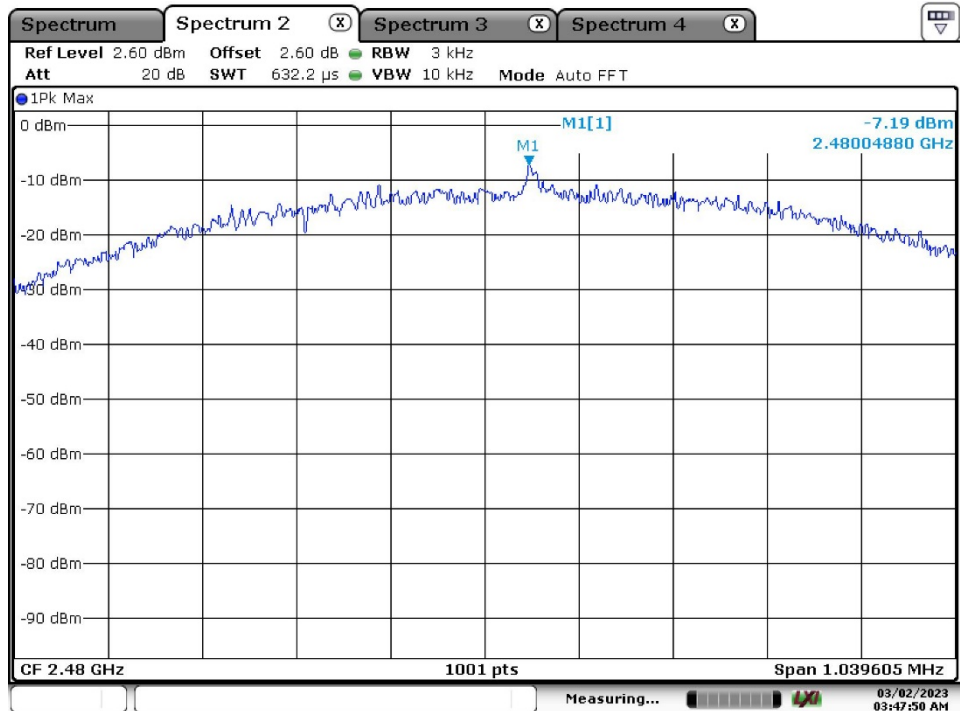
Appendix B: Test Results of Left earbud

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

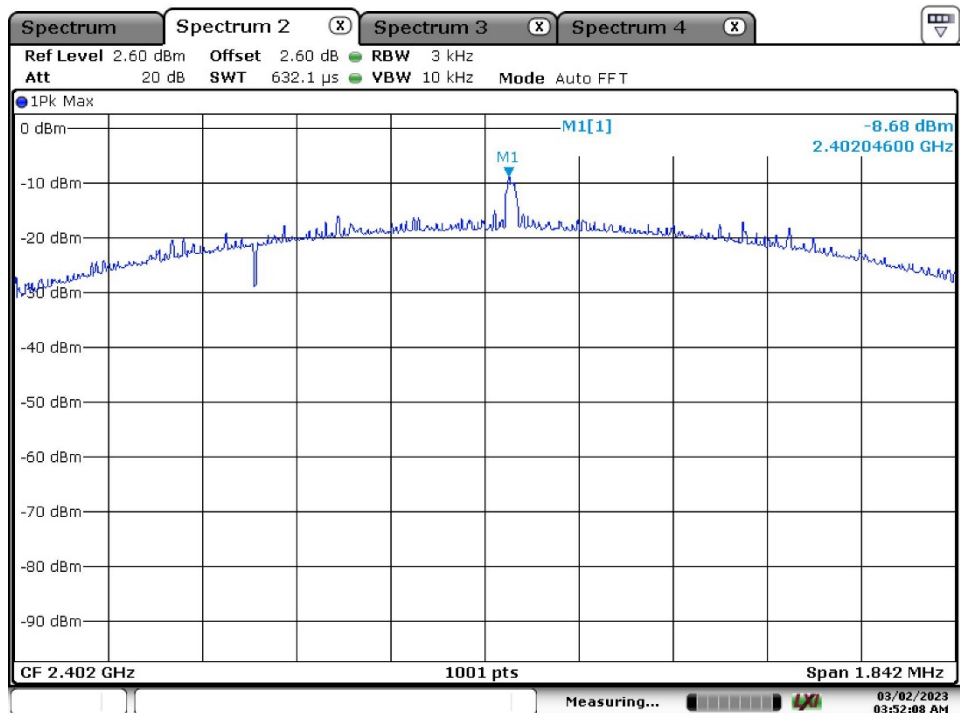
Bluetooth LE Mode, 1Mbps



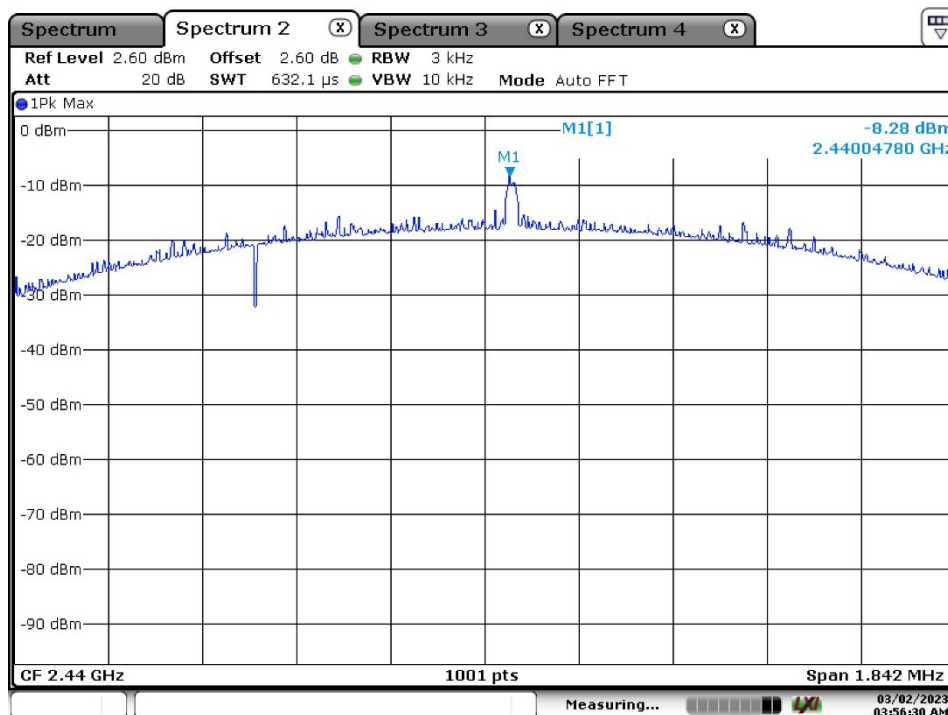


Date: 2.MAR.2023 03:47:50

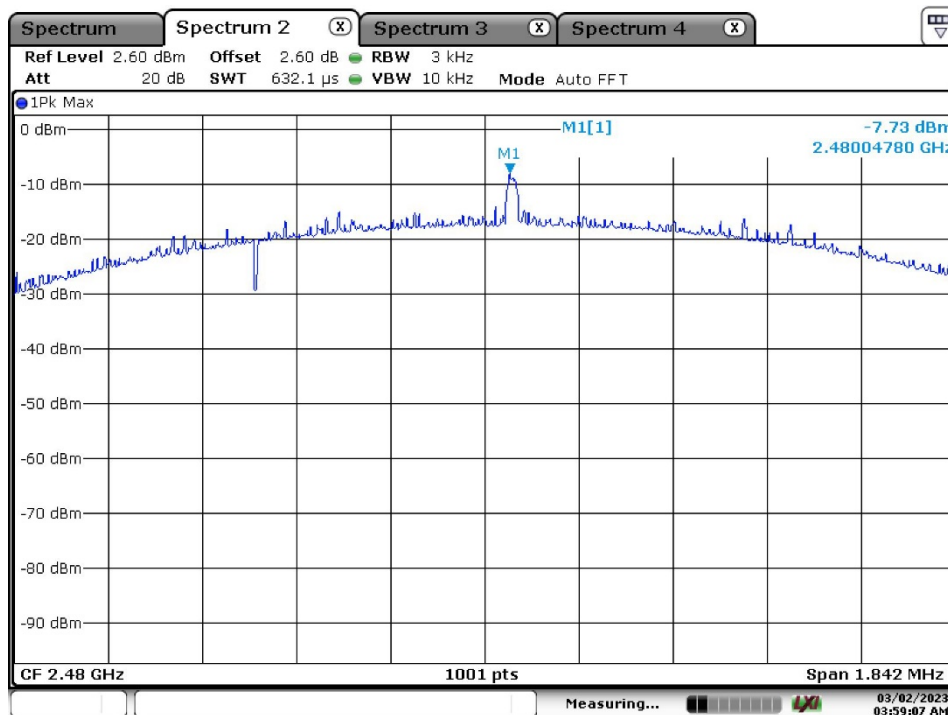
Bluetooth LE Mode, 2Mbps



Date: 2.MAR.2023 03:52:08



Date: 2.MAR.2023 03:56:30



Date: 2.MAR.2023 03:59:07

Appendix B.2: Test Results of 6dB Bandwidth

Bluetooth LE Mode, 1Mbps

6 dB Bandwidth

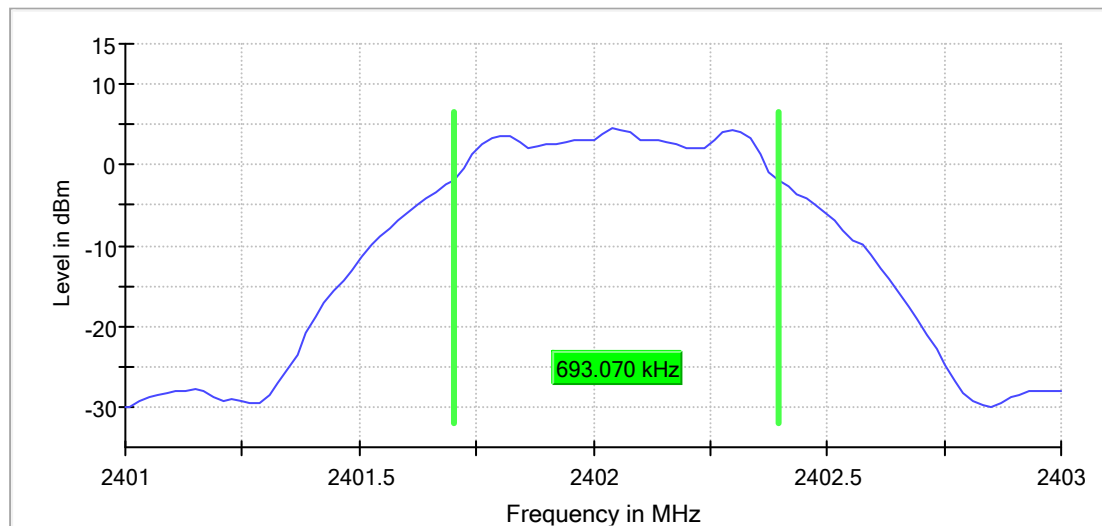
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.693070	0.500000	---	2401.702970	2402.396040

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	4.5	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

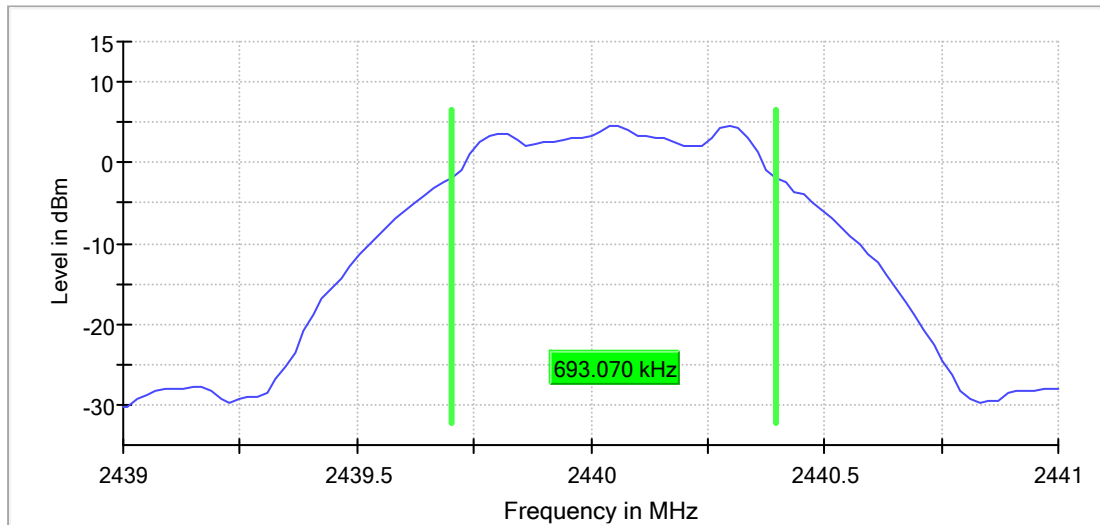
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.693070	0.500000	---	2439.702970	2440.396040

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	4.5	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

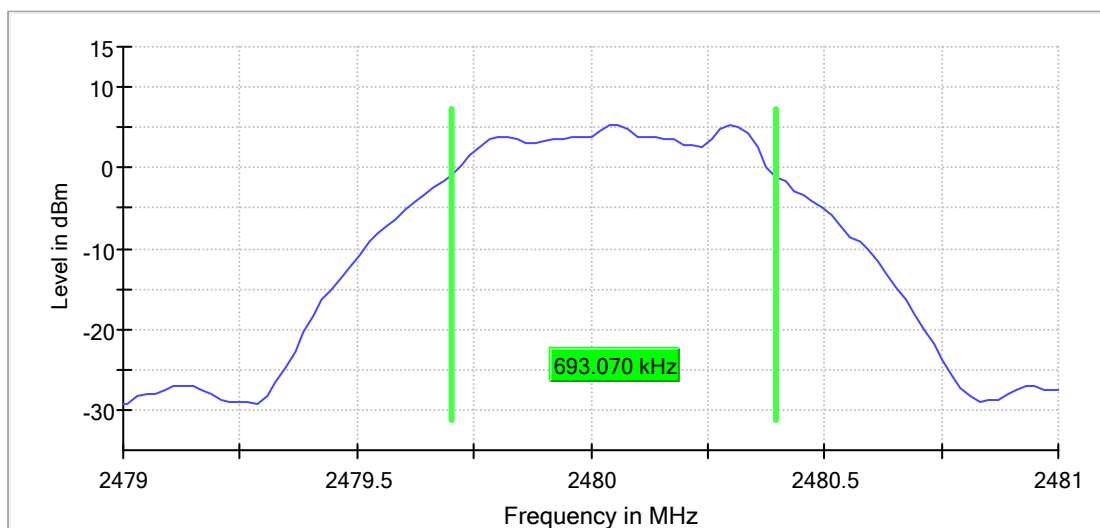
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.693070	0.500000	---	2479.702970	2480.396040

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	5.3	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



Bluetooth LE Mode, 2Mbps

6 dB Bandwidth

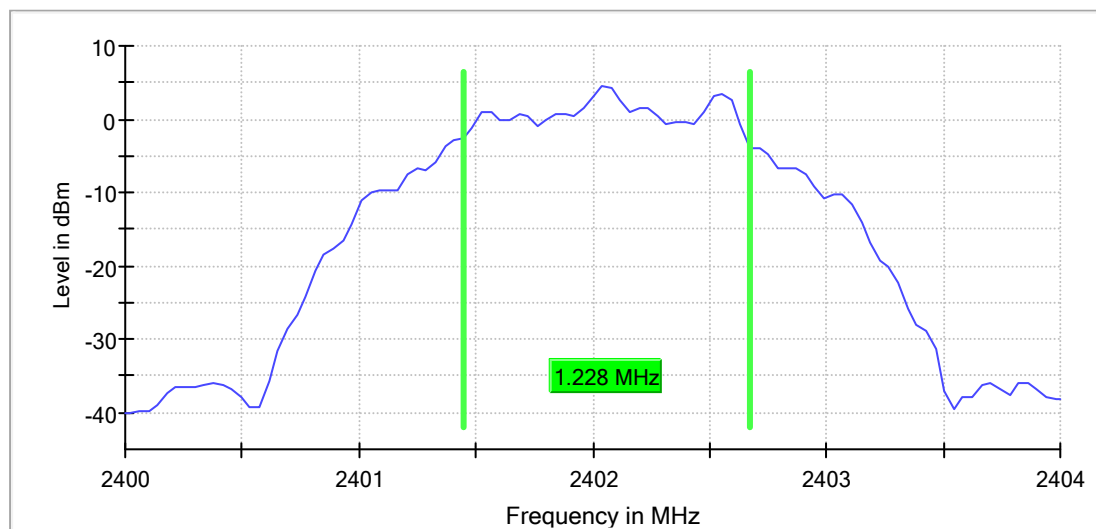
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.227722	0.500000	---	2401.445545	2402.673267

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	4.5	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth

**6 dB Bandwidth**

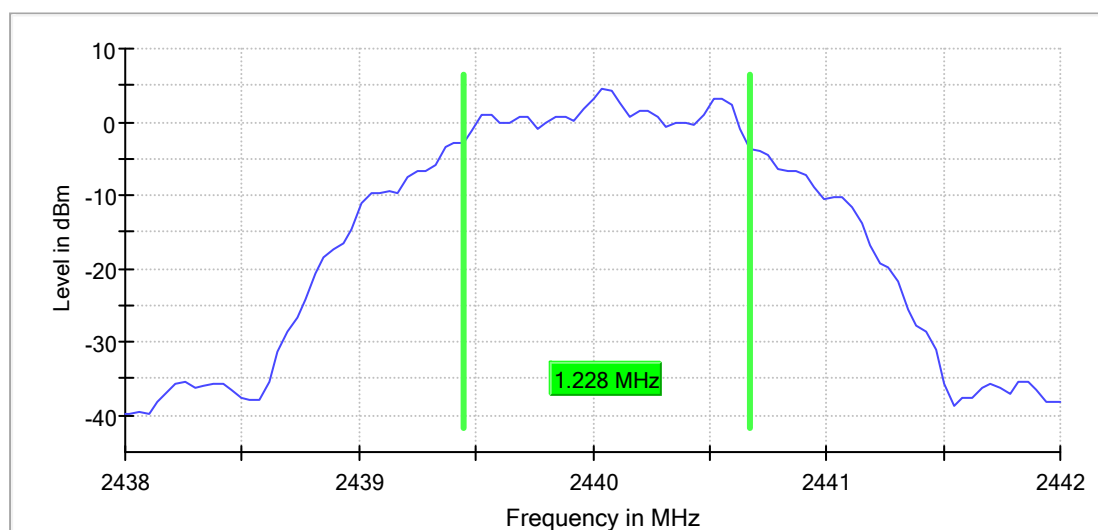
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.227722	0.500000	---	2439.445545	2440.673267

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	4.5	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



6 dB Bandwidth

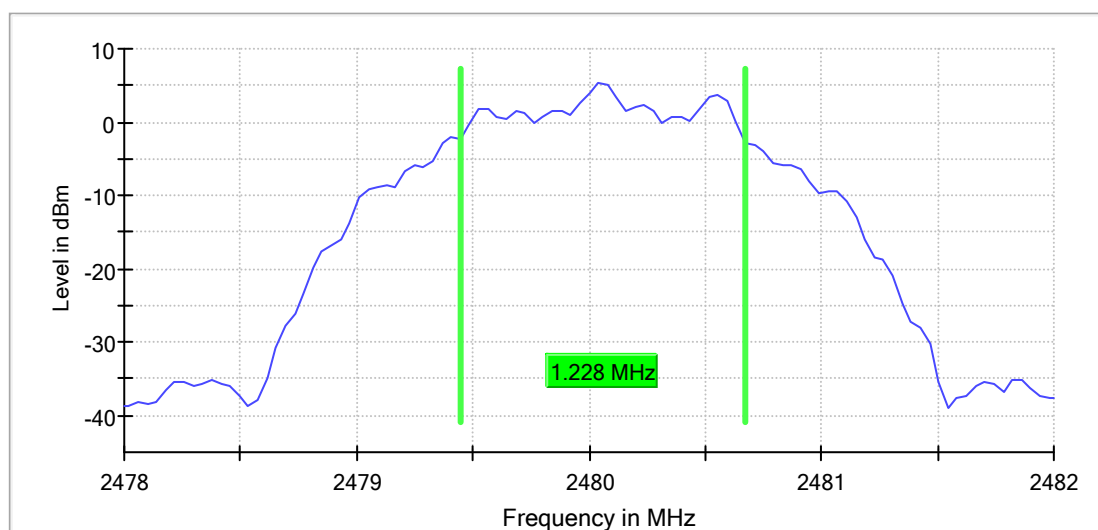
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.227722	0.500000	---	2479.445545	2480.673267

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	5.3	PASS

RBW=100kHz, VBW=300kHz

6 dB Bandwidth



Appendix B.3: Test Results of 99% Bandwidth

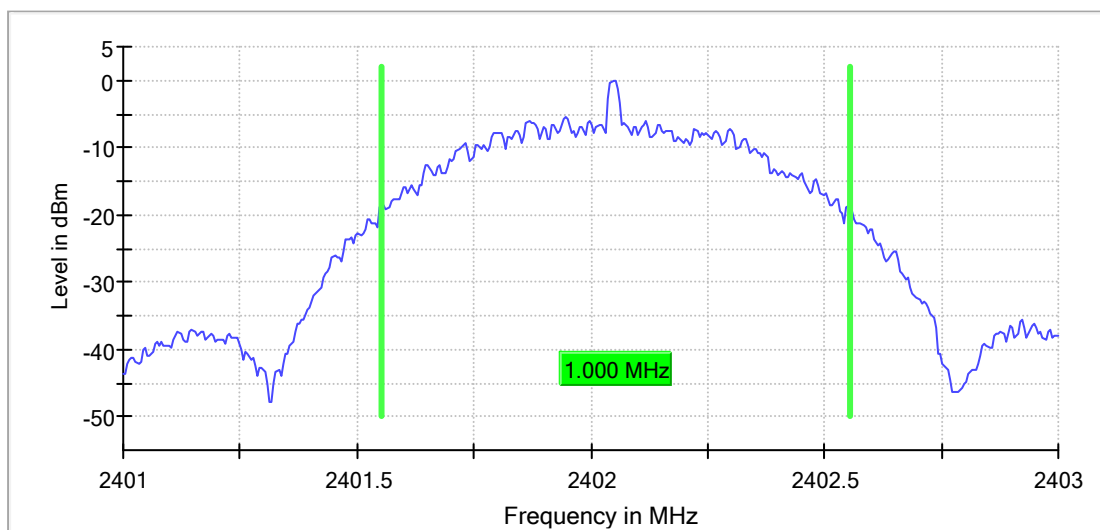
Bluetooth LE Mode, 1Mbps

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	1.000000	---	---	2401.552500	2402.552500	PASS

RBW=10kHz, VBW=30kHz

99 % Bandwidth

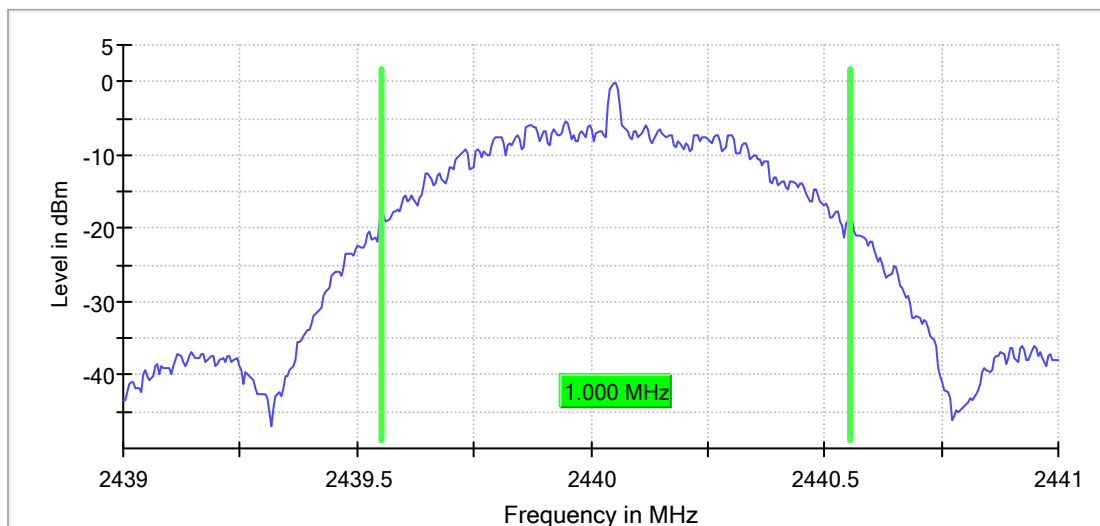


99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.000000	---	---	2439.552500	2440.552500	PASS

RBW=10kHz, VBW=30kHz

99 % Bandwidth

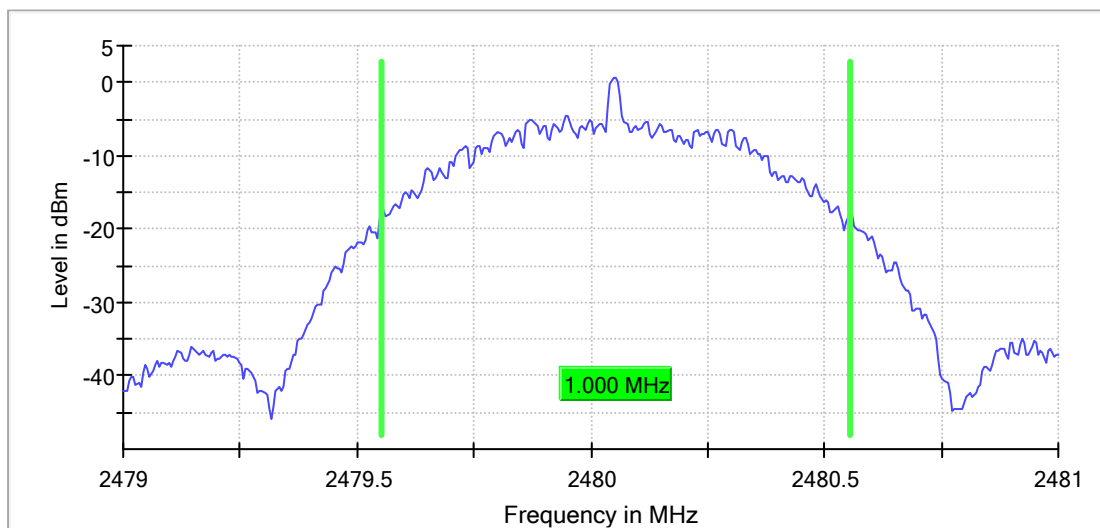


99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2480.000000	1.000000	---	---	2479.552500	2480.552500	PASS

RBW=10kHz, VBW=30kHz

99 % Bandwidth



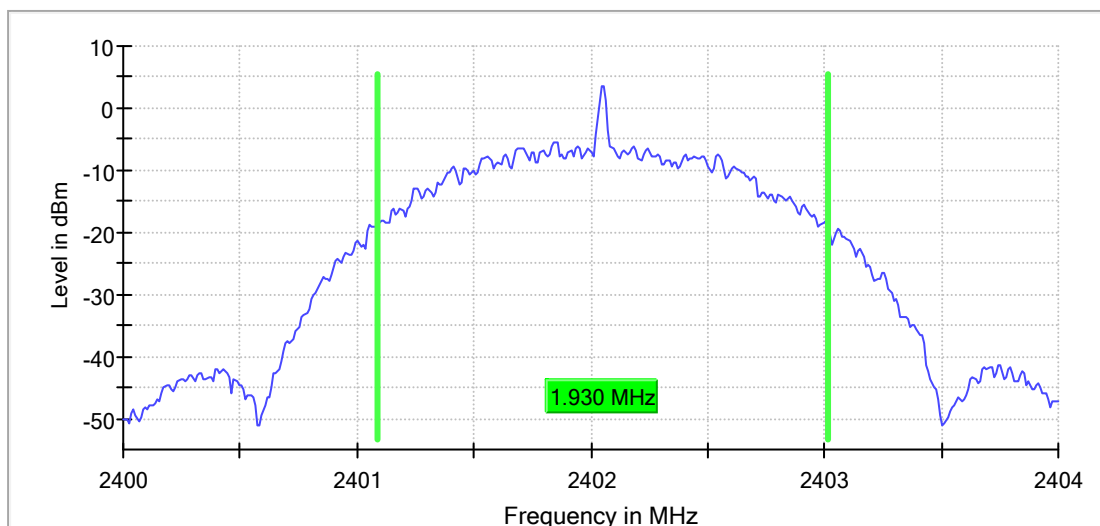
Bluetooth LE Mode, 2Mbps

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	1.930000	---	---	2401.085000	2403.015000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth

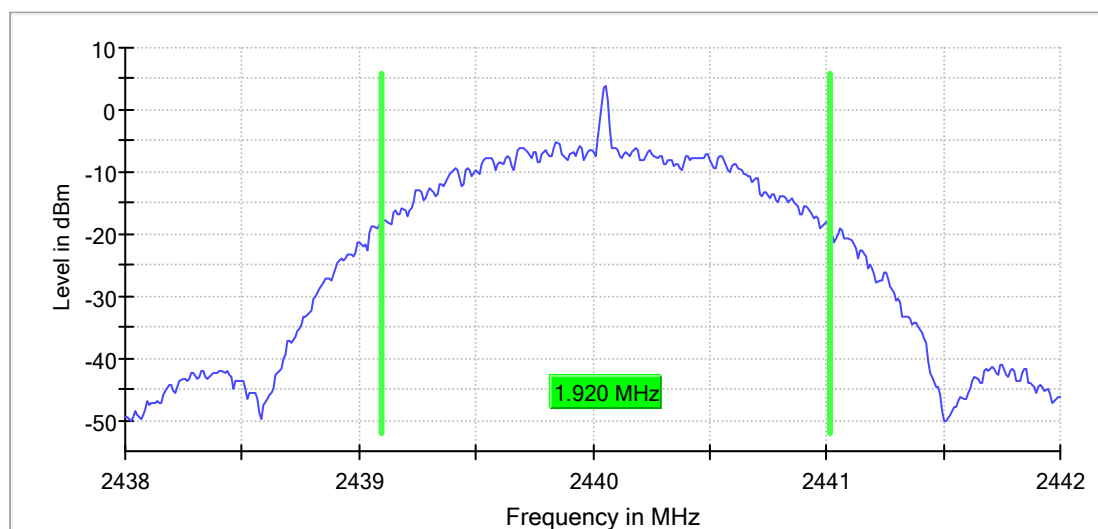


99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.920000	---	---	2439.095000	2441.015000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth

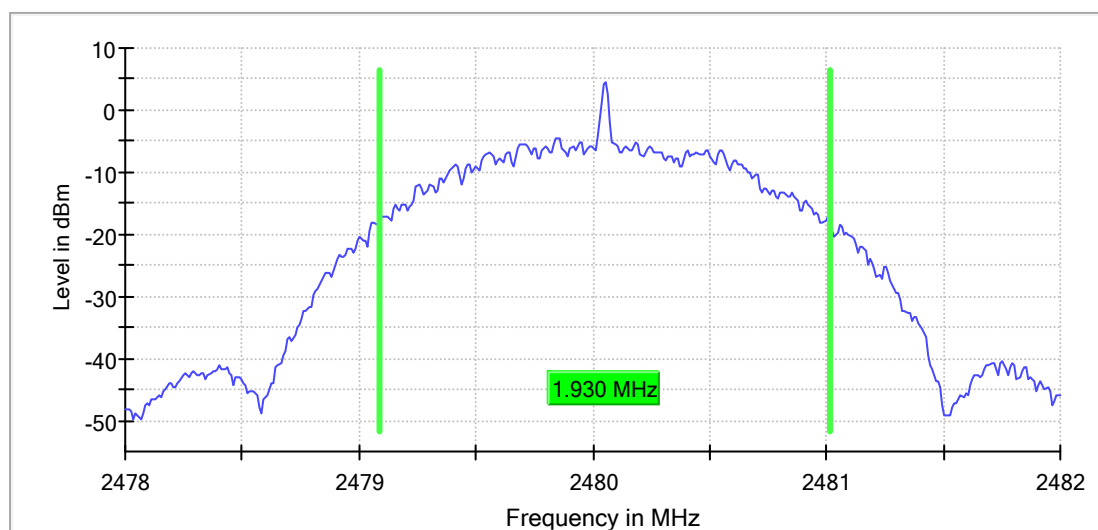


99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2480.000000	1.930000	---	---	2479.085000	2481.015000	PASS

RBW=30kHz, VBW=100kHz

99 % Bandwidth



Appendix B.4: Test Results of Frequency stability

Test Channel (MHz)	2402
-----------------------	------

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
AC 108V	2402.016	-16	-6.66	10
AC 120V	2402.013	-13	-5.41	
AC 132V	2402.012	-12	-5.00	

Test result of frequency tolerance of temperature variation

Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2402.011	-11	-4.58	10
-20	2402.012	-12	-5.00	
-10	2402.014	-14	-5.83	
0	2402.013	-9	-3.75	
10	2402.010	-10	-4.16	
20	2402.009	-9	-3.75	
30	2402.007	-7	-2.91	
40	2402.010	-10	-4.16	
50	2402.011	-11	-4.58	
55	2402.012	-12	-5.00	

Test Channel (MHz)	2440
-----------------------	------

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
DC 3.465V	2440.012	12	4.92	10
DC 3.85V	2440.015	15	6.15	
DC 4.235V	2440.018	18	7.38	

Test result of frequency tolerance of temperature variation

Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2440.013	13	5.33	10
-20	2440.016	16	6.56	
-10	2440.015	15	6.15	
0	2440.019	19	7.79	
10	2440.015	15	6.15	
20	2440.011	11	4.51	
30	2440.019	19	7.79	
40	2440.016	16	6.56	
50	2440.017	17	6.97	
55	2440.018	18	7.38	

Test Channel (MHz)	2480
-----------------------	------

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
AC 108V	2480.018	18	7.26	10
AC 120V	2480.015	15	6.05	
AC 132V	2480.011	11	4.44	

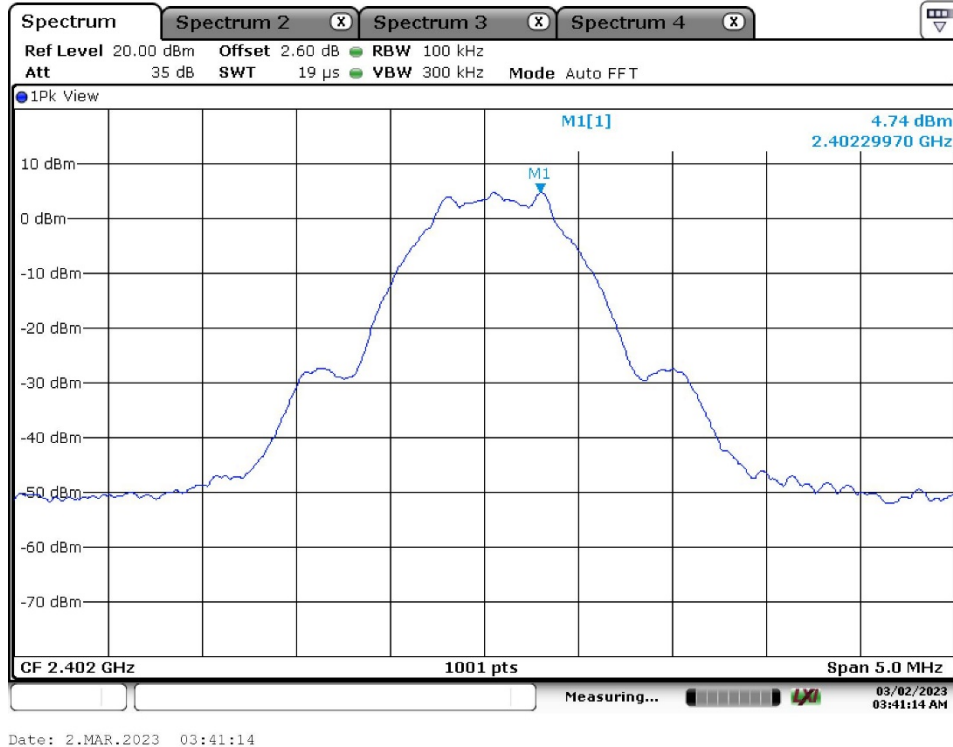
Test result of frequency tolerance of temperature variation

Temperature (°C)	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2480.011	11	4.44	10
-20	2480.015	15	6.05	
-10	2480.011	11	4.44	
0	2480.019	19	7.66	
10	2480.013	13	5.24	
20	2480.015	15	6.05	
30	2480.016	16	6.45	
40	2480.012	12	4.84	
50	2480.013	13	5.24	
55	2480.015	15	6.05	

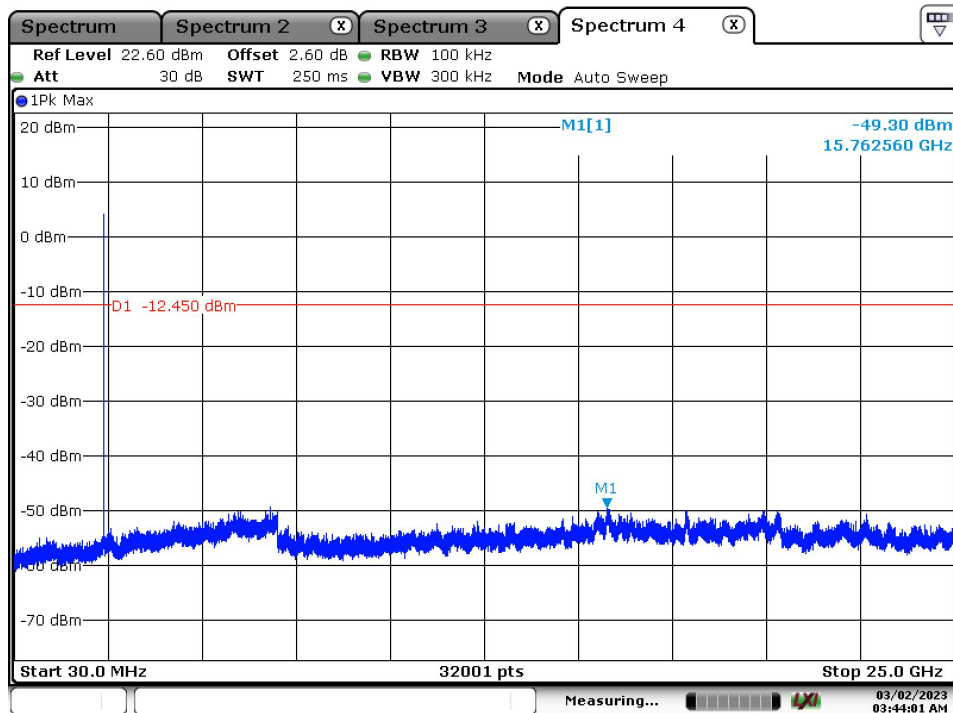
Appendix B.5: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Bluetooth LE Mode, 1Mbps

Low Channel:

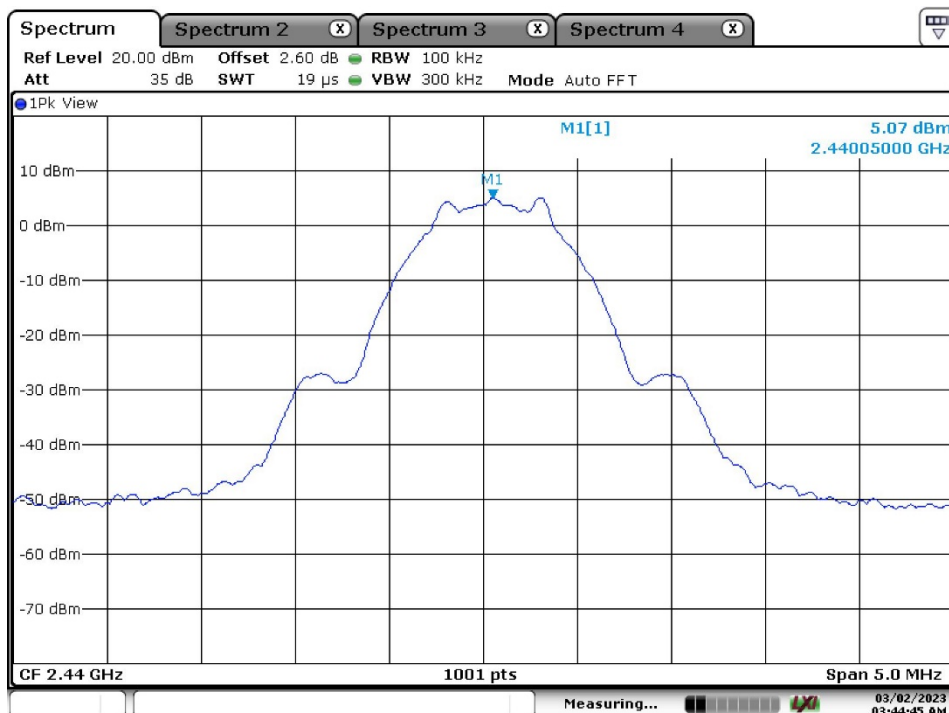


Date: 2.MAR.2023 03:41:14

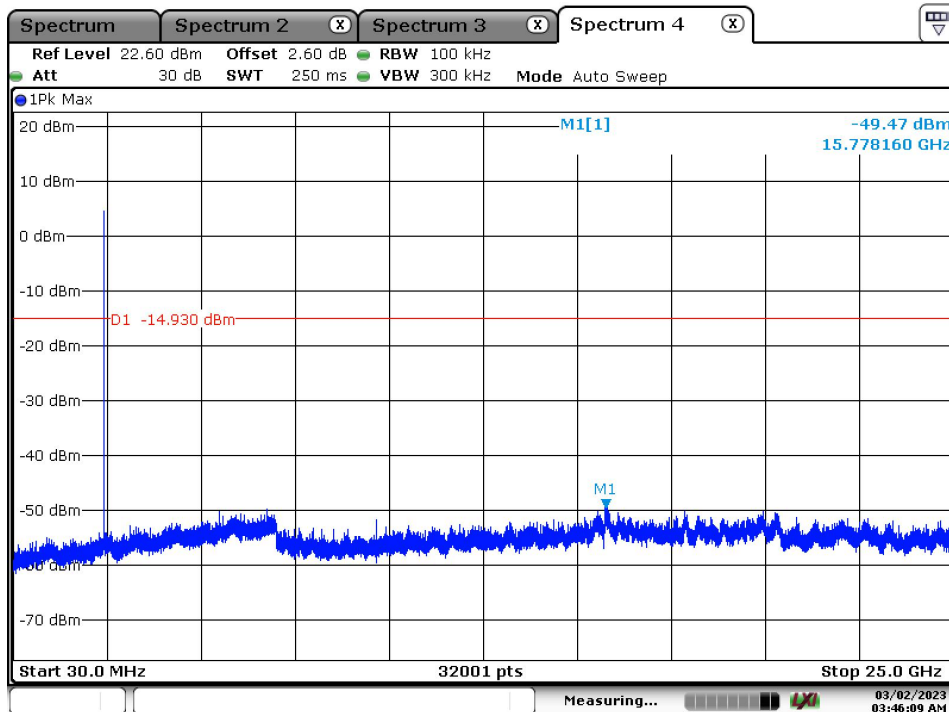


Date: 2.MAR.2023 03:44:01

Middle Channel:

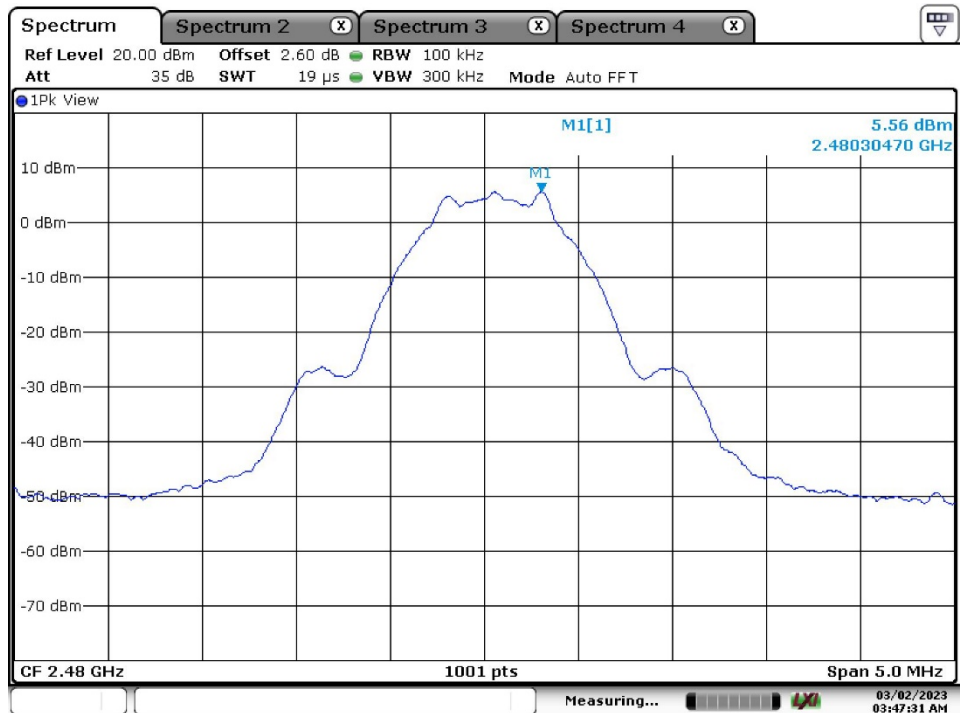


Date: 2.MAR.2023 03:44:45

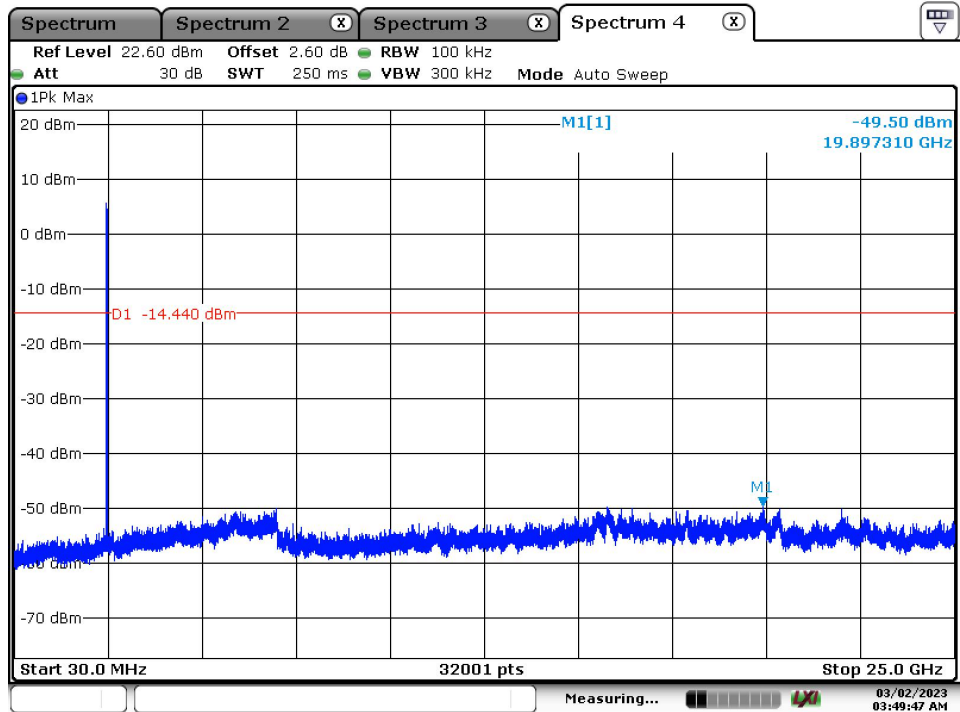


Date: 2.MAR.2023 03:46:09

High Channel:

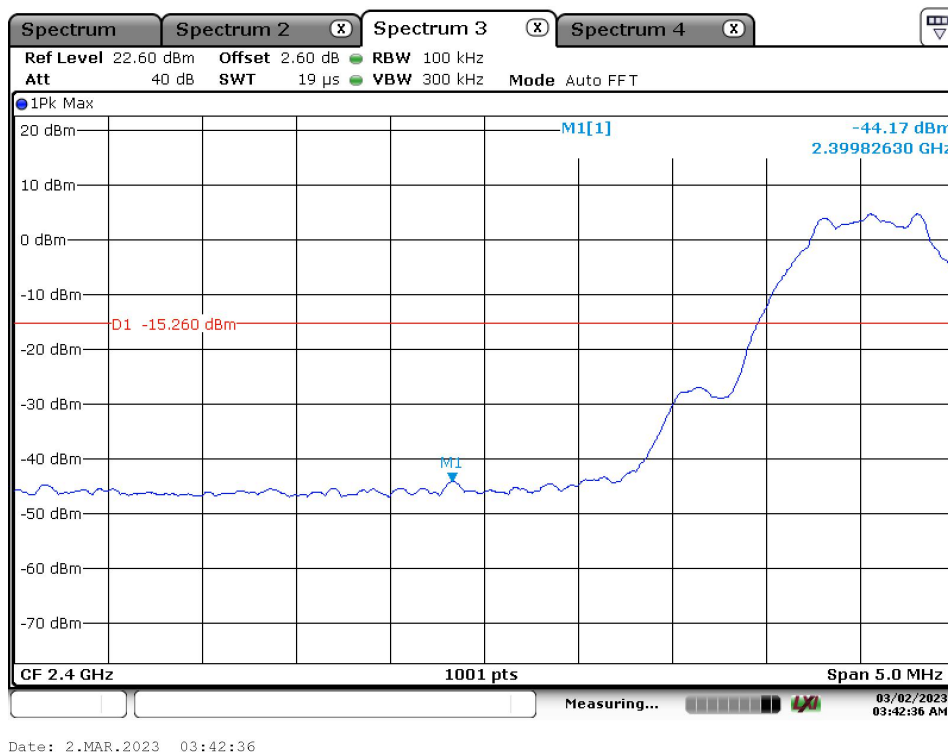


Date: 2.MAR.2023 03:47:31

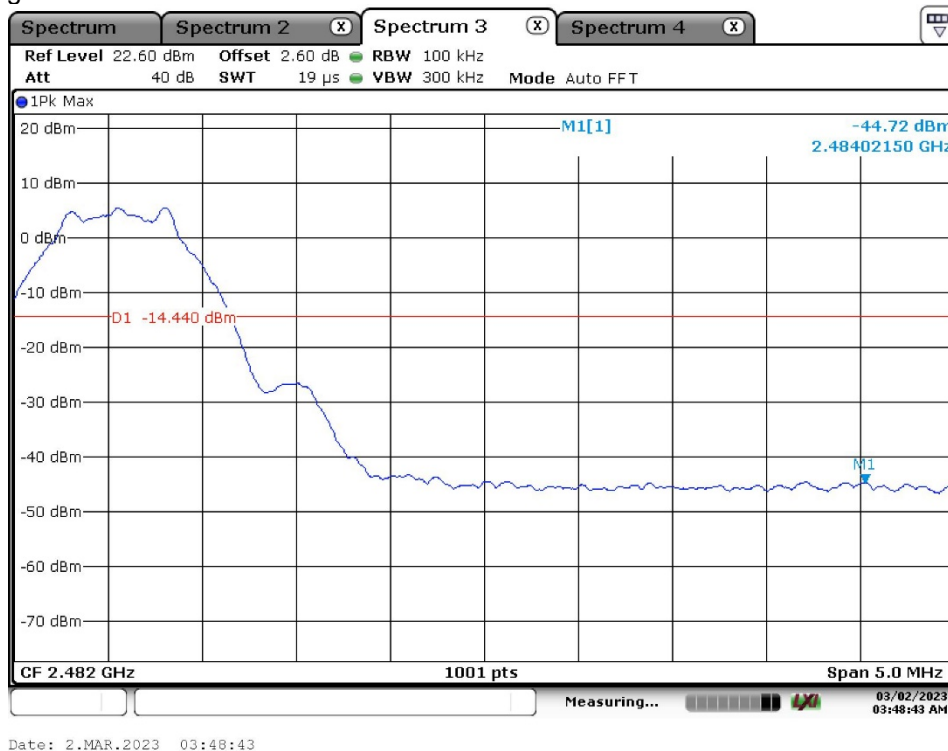


Date: 2.MAR.2023 03:49:47

Band Edge, Low Channel:

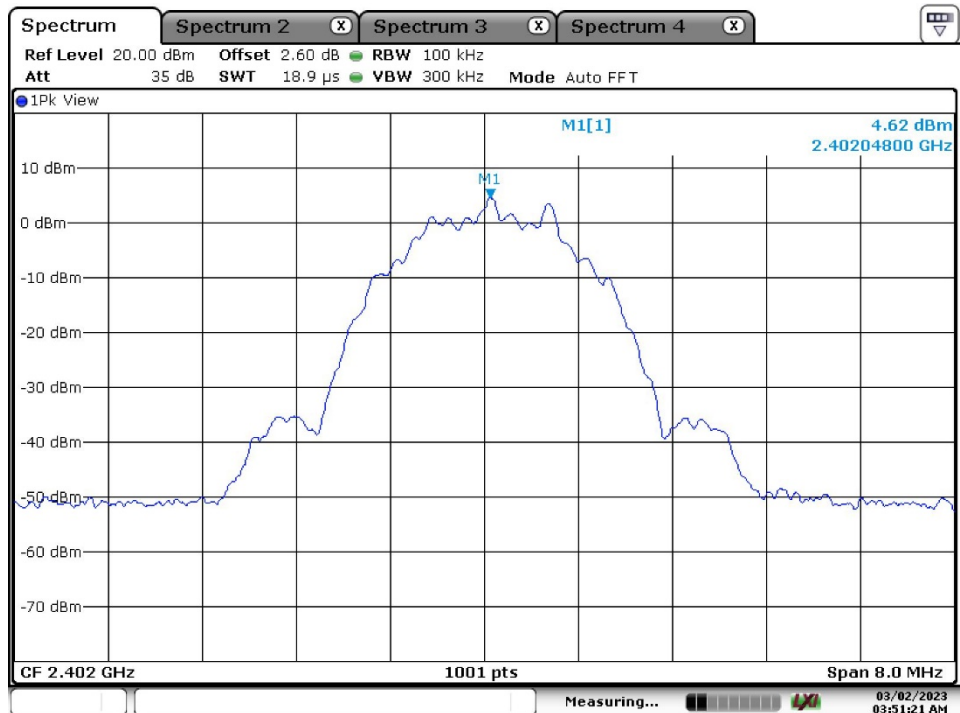


Band Edge, High Channel:

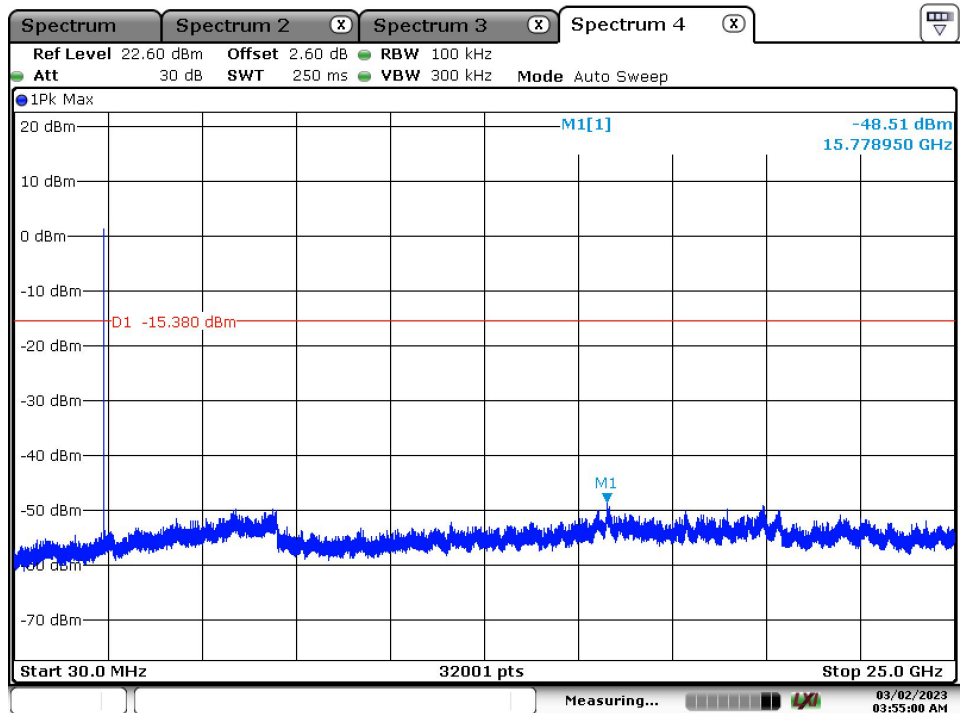


Bluetooth LE Mode, 2Mbps

Low Channel:

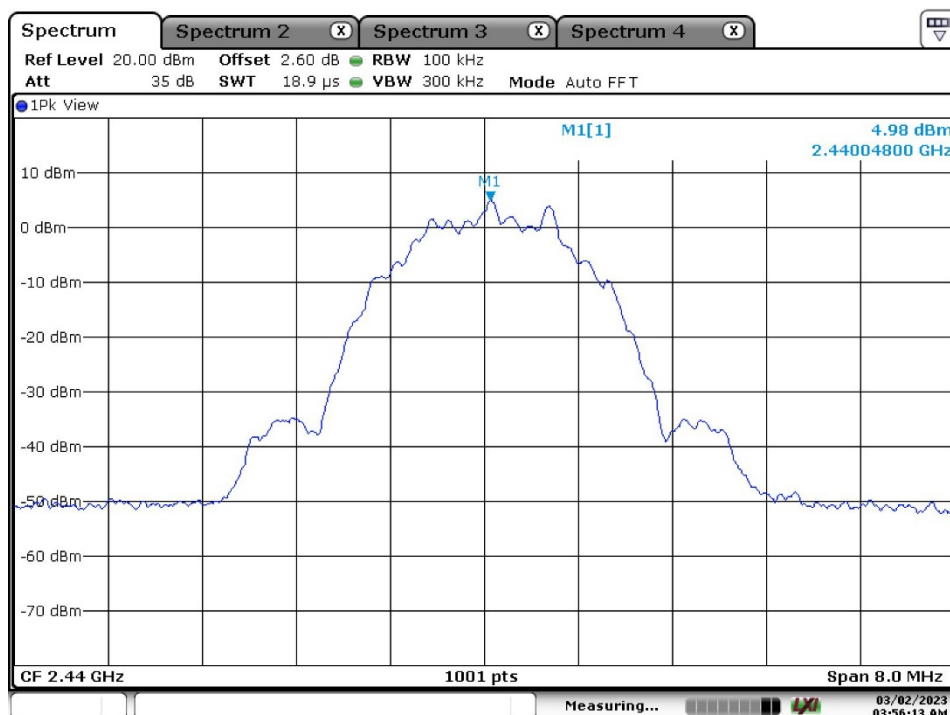


Date: 2.MAR.2023 03:51:21

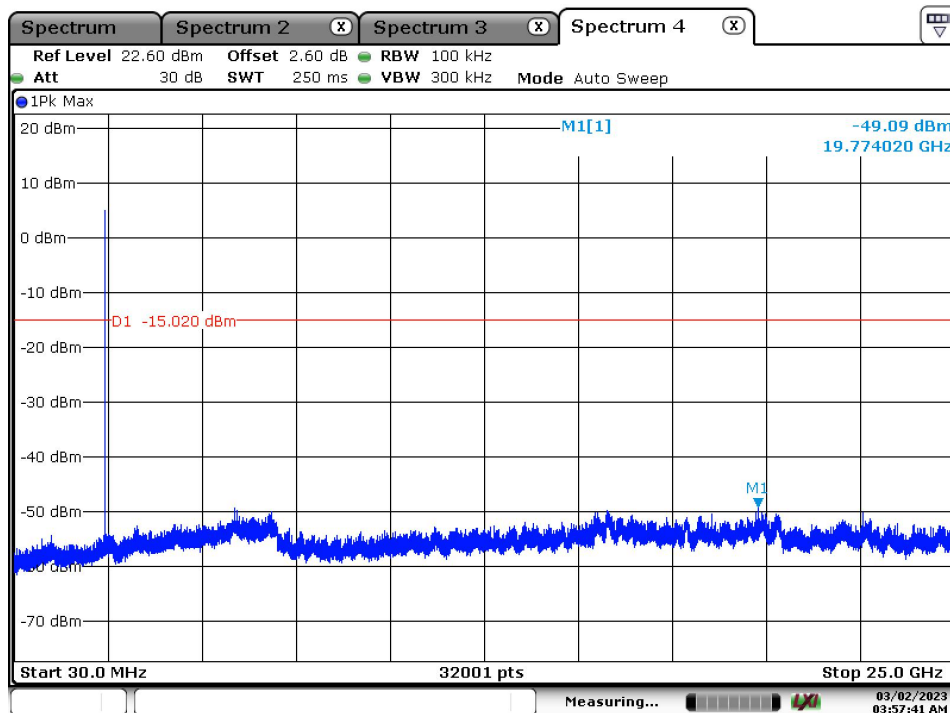


Date: 2.MAR.2023 03:55:00

Middle Channel:

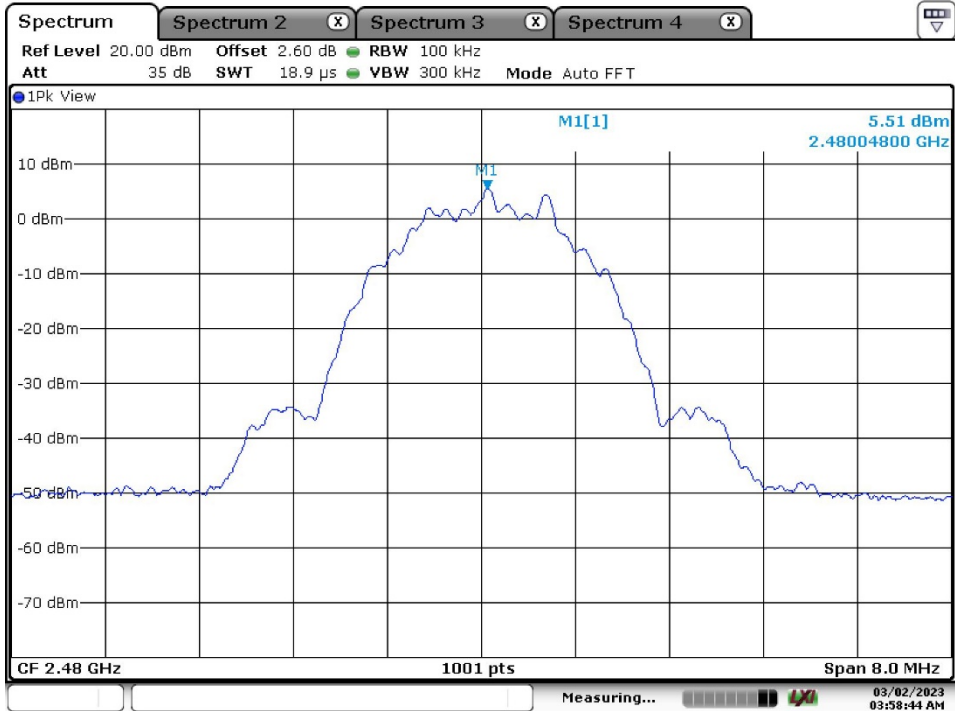


Date: 2.MAR.2023 03:56:13

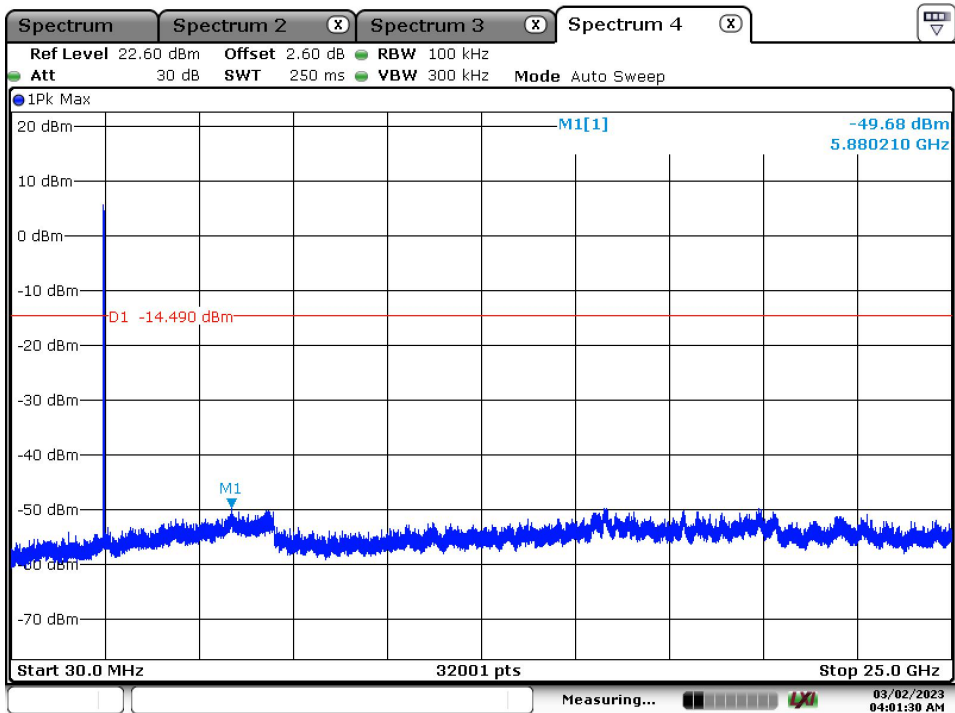


Date: 2.MAR.2023 03:57:41

High Channel:

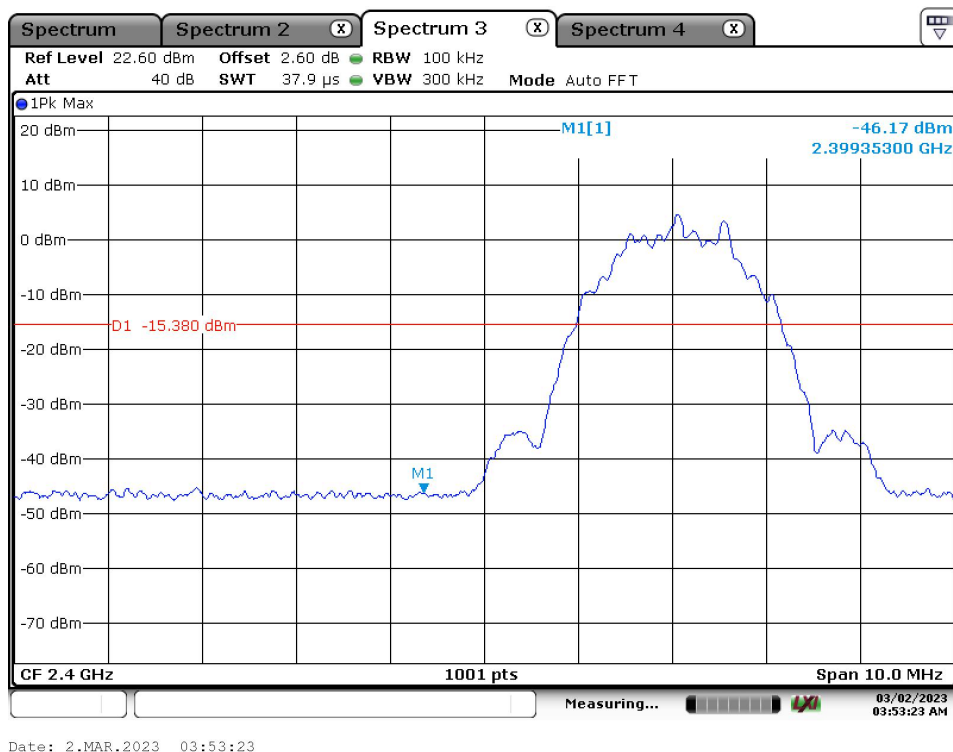


Date: 2.MAR.2023 03:58:44

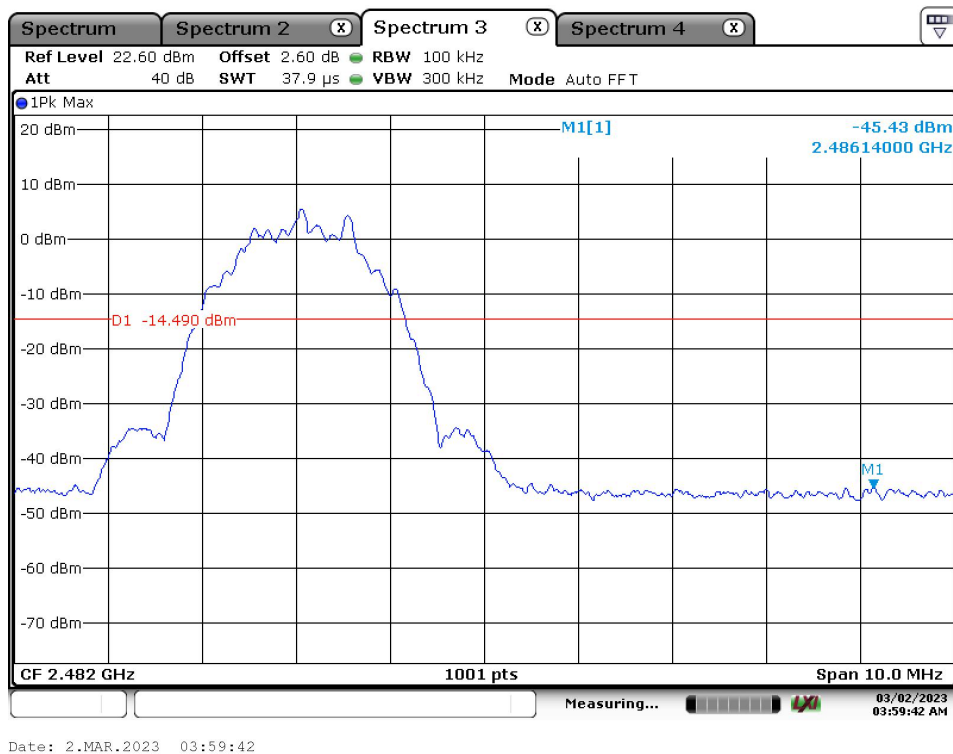


Date: 2.MAR.2023 04:01:30

Band Edge, Low Channel:



Band Edge, High Channel:



Appendix B.6: Test Results of Radiated Spurious Emissions

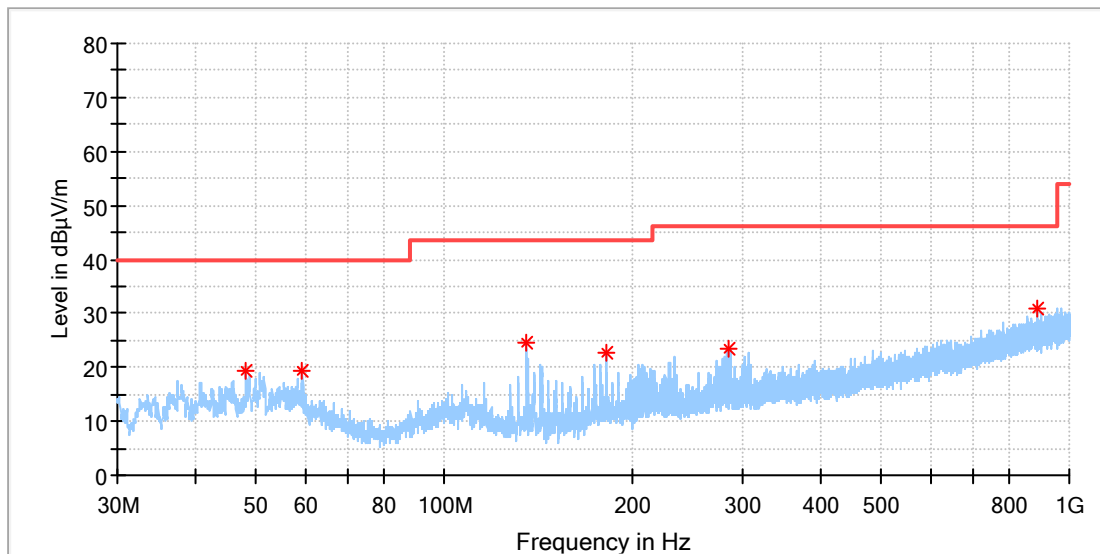
Note:

- 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:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

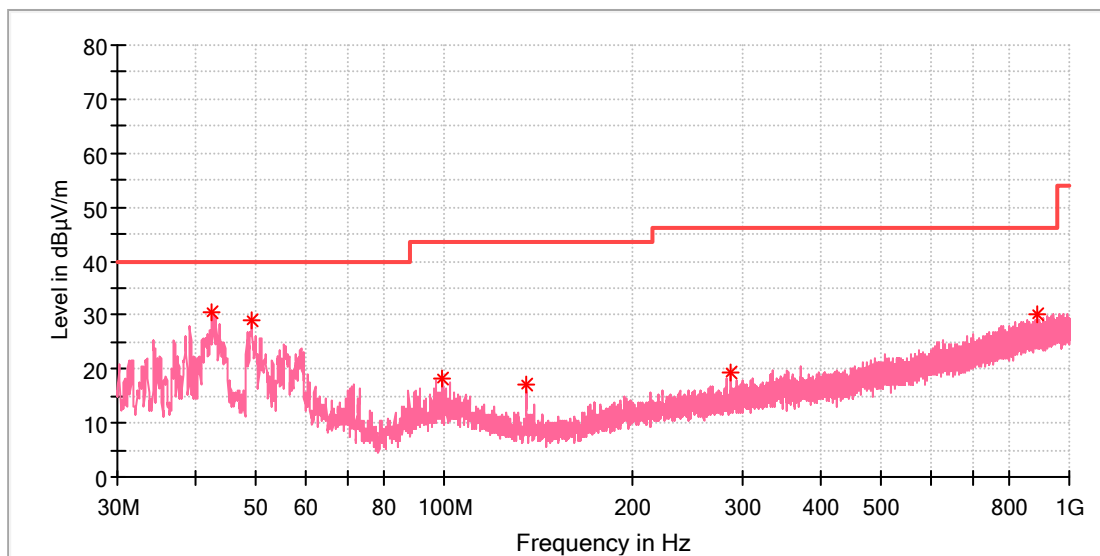


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.187500	19.35	40.00	20.65	100.0	H	355.0	-18.4
59.294000	19.28	40.00	20.72	100.0	H	203.0	-18.9
135.099500	24.54	43.50	18.96	100.0	H	328.0	-22.1
182.193000	22.61	43.50	20.89	100.0	H	148.0	-20.4
285.643500	23.61	46.00	22.39	100.0	H	42.0	-16.6
888.644000	30.70	46.00	15.30	100.0	H	102.0	-5.1

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

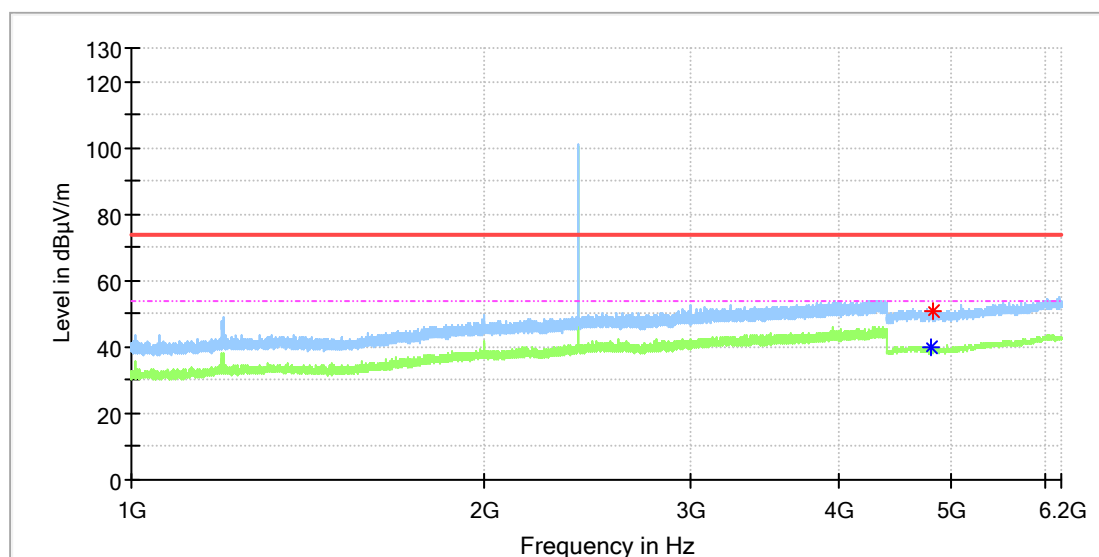
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
42.561500	30.53	40.00	9.47	100.0	V	0.0	-19.4
49.157500	29.19	40.00	10.81	100.0	V	116.0	-18.3
99.500500	18.37	43.50	25.13	100.0	V	160.0	-19.1
135.633000	17.29	43.50	26.21	100.0	V	244.0	-22.1
288.068500	19.43	46.00	26.57	100.0	V	355.0	-16.6
885.443000	30.23	46.00	15.77	100.0	V	218.0	-5.1

1GHz - 18GHz

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

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

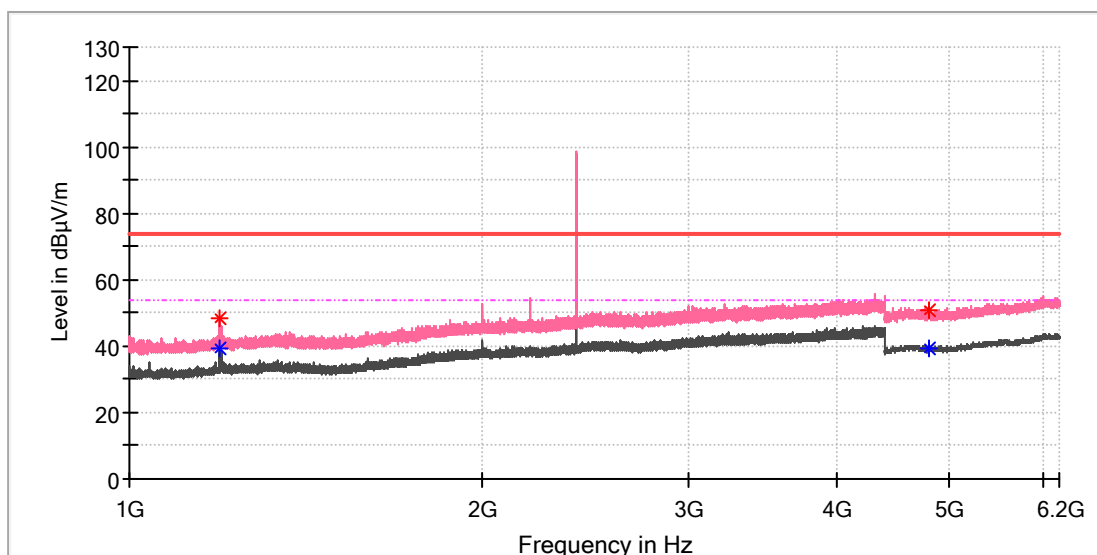


Critical Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4802.500000	---	39.83	54.00	14.17	100.0	H	190.0	11.8
4816.500000	50.61	---	74.00	23.39	100.0	H	144.0	11.8

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

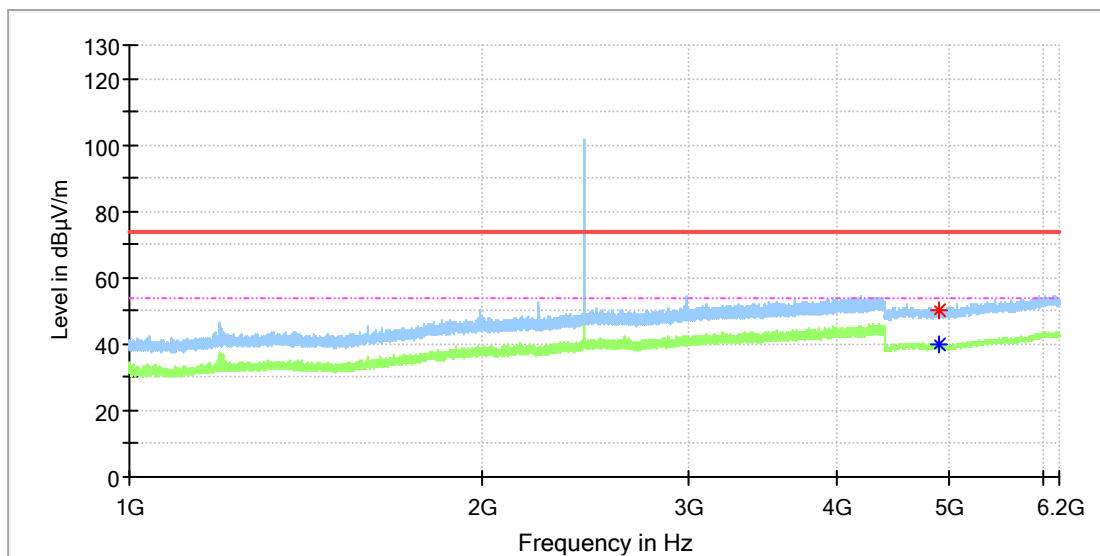


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1194.820000	---	39.40	54.00	14.60	100.0	V	305.0	1.1
1194.820000	48.43	---	74.00	25.57	100.0	V	305.0	1.1
4810.000000	---	39.53	54.00	14.47	100.0	V	96.0	11.8
4811.000000	50.94	---	74.00	23.06	100.0	V	3.0	11.8

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

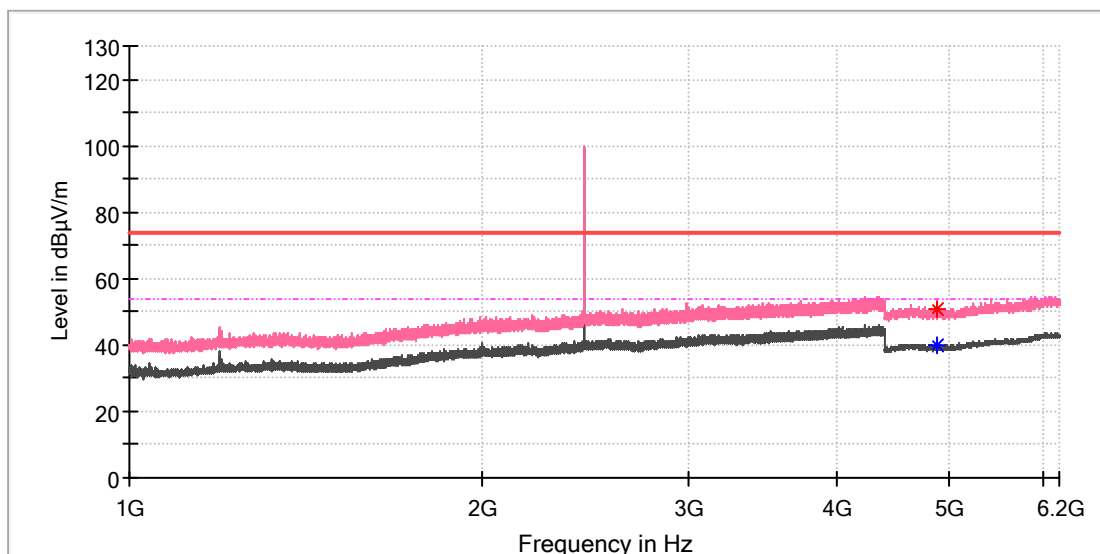


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4889.500000	50.41	---	74.00	23.59	100.0	H	1.0	11.8
4897.000000	---	40.00	54.00	14.00	100.0	H	21.0	11.8

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

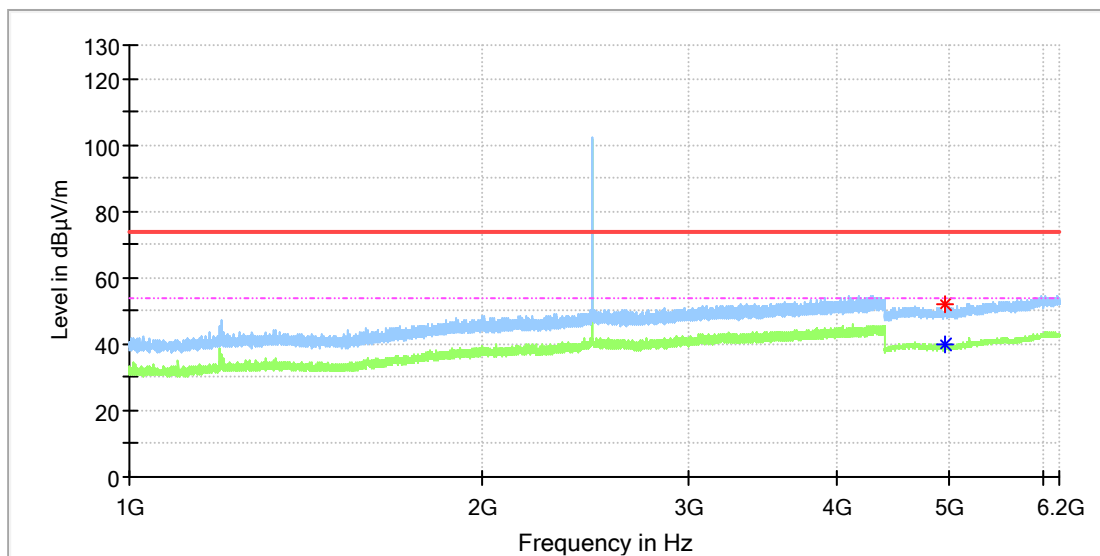


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4870.000000	---	39.80	54.00	14.20	100.0	V	73.0	11.8
4884.500000	50.61	---	74.00	23.39	100.0	V	39.0	11.8

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

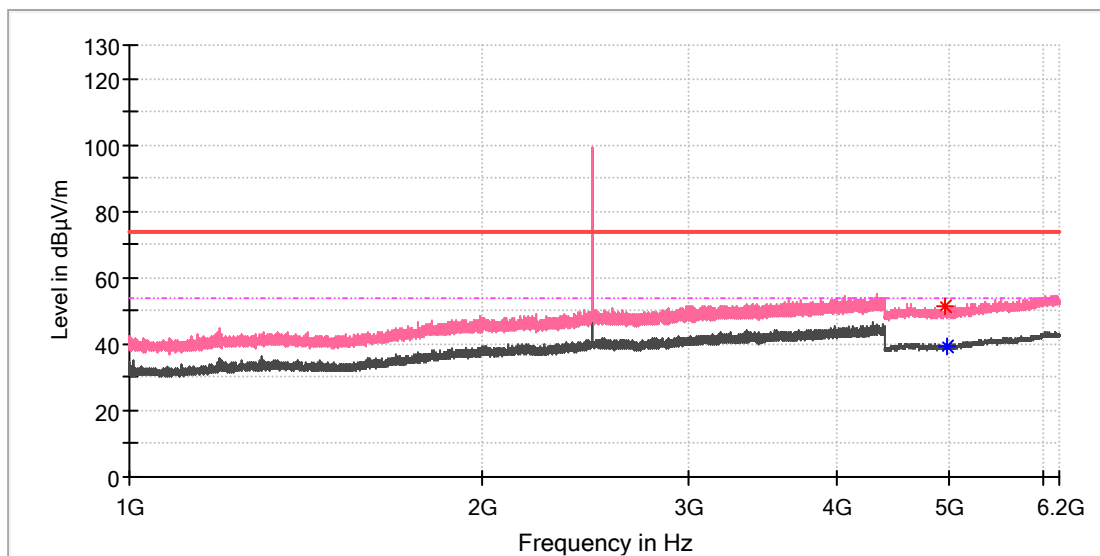


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4955.000000	---	40.09	54.00	13.91	100.0	H	32.0	11.8
4955.500000	51.83	---	74.00	22.17	100.0	H	239.0	11.8

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

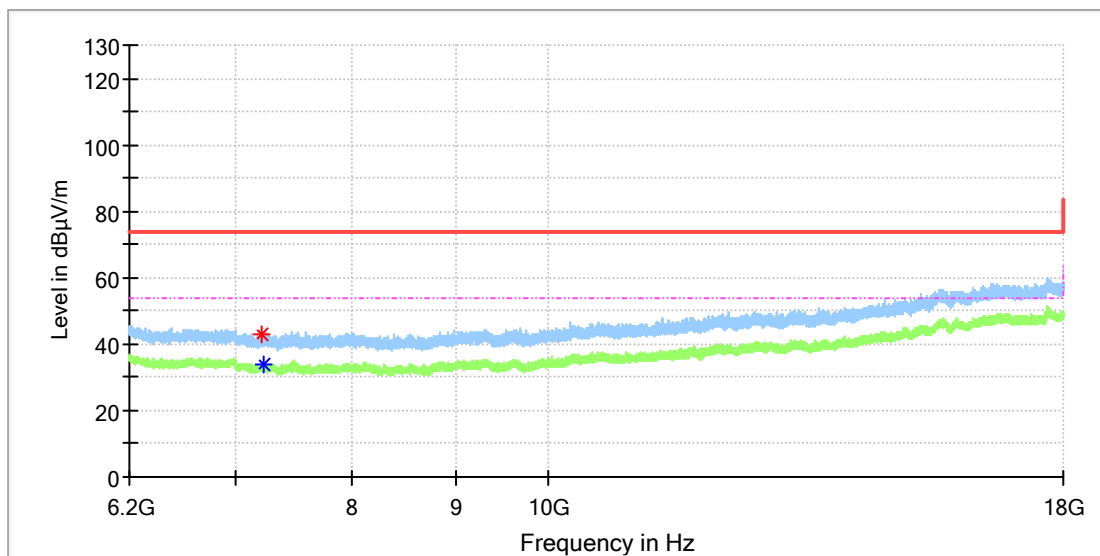


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4952.000000	51.28	---	74.00	22.72	100.0	V	31.0	11.8
4966.000000	---	39.45	54.00	14.55	100.0	V	218.0	11.8

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

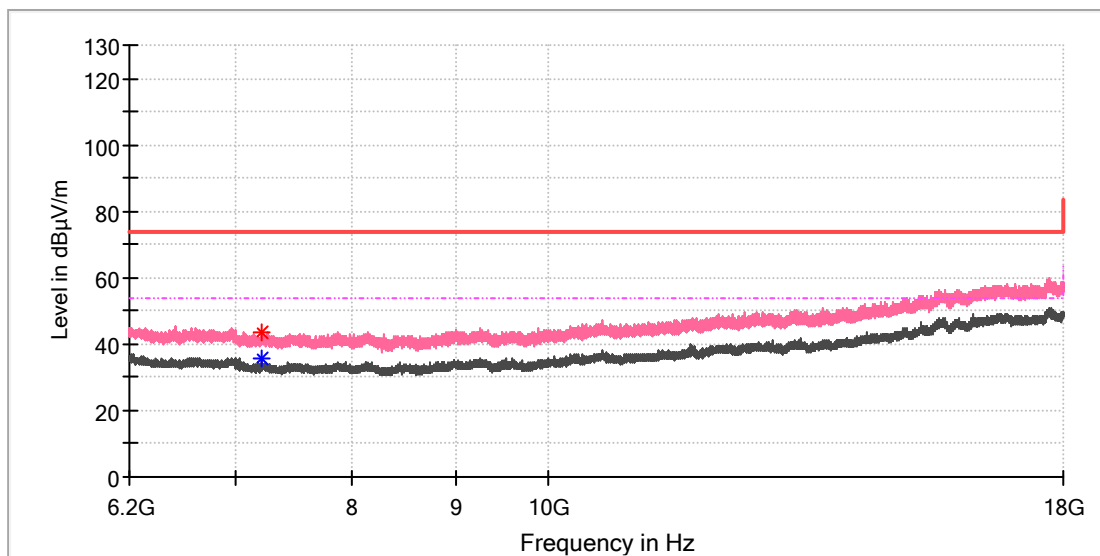


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7212.341667	43.10	---	74.00	30.90	100.0	H	94.0	8.7
7228.566667	---	34.14	54.00	19.86	100.0	H	0.0	8.6

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

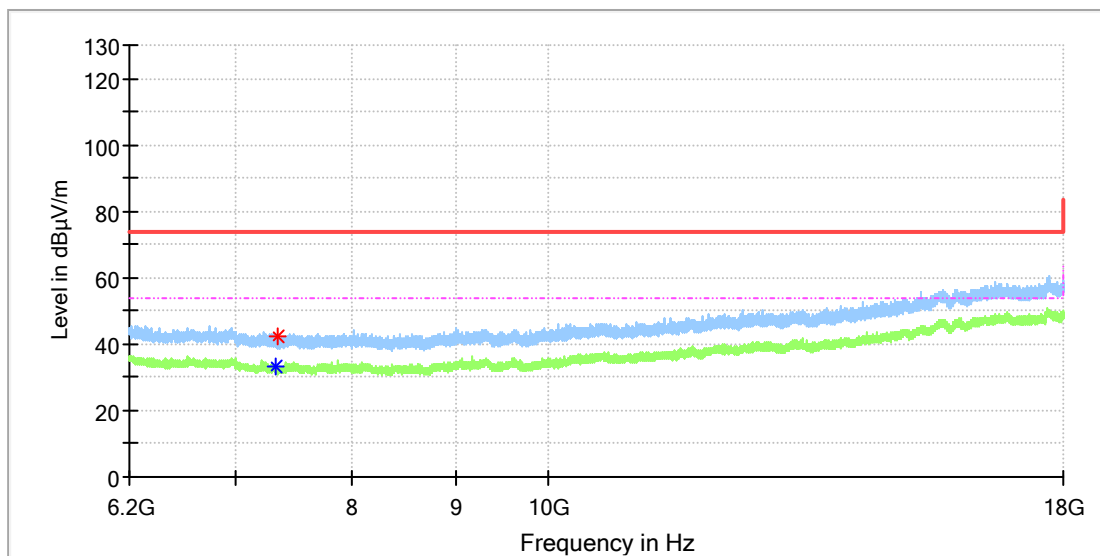


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.950000	---	35.74	54.00	18.26	100.0	V	248.0	8.8
7206.441667	43.32	---	74.00	30.68	100.0	V	50.0	8.8

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

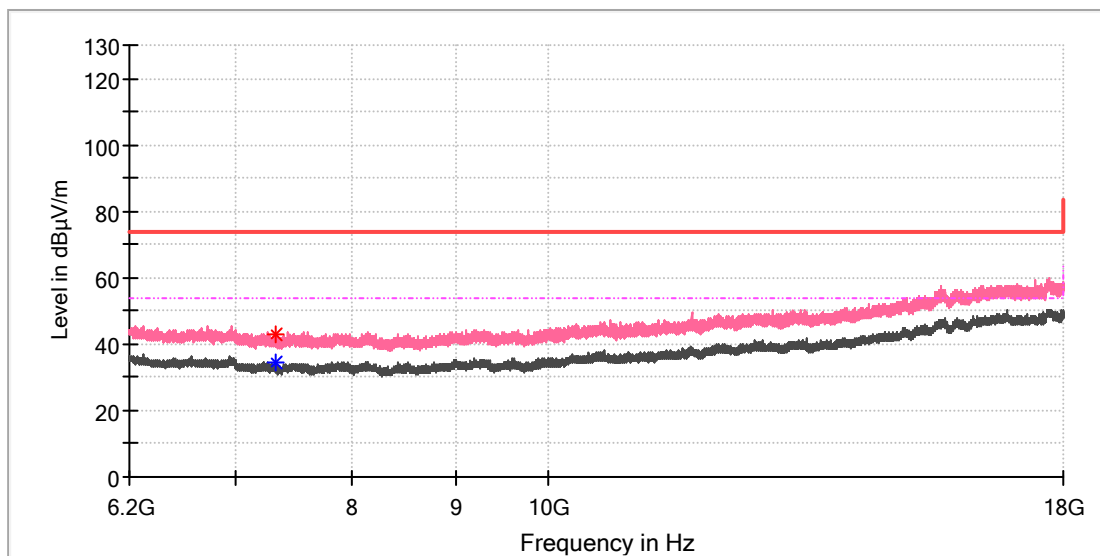


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7330.833333	---	33.37	54.00	20.63	100.0	H	324.0	8.1
7336.241667	42.40	---	74.00	31.60	100.0	H	22.0	8.1

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Mid channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

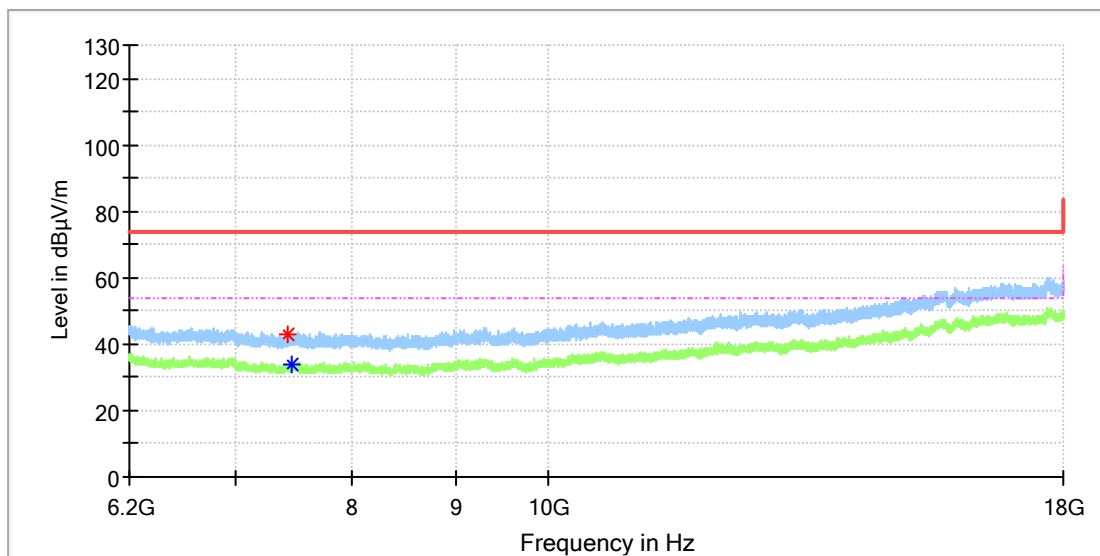


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.525000	42.88	---	74.00	31.12	100.0	V	54.0	8.2
7319.525000	---	34.72	54.00	19.28	100.0	V	54.0	8.2

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

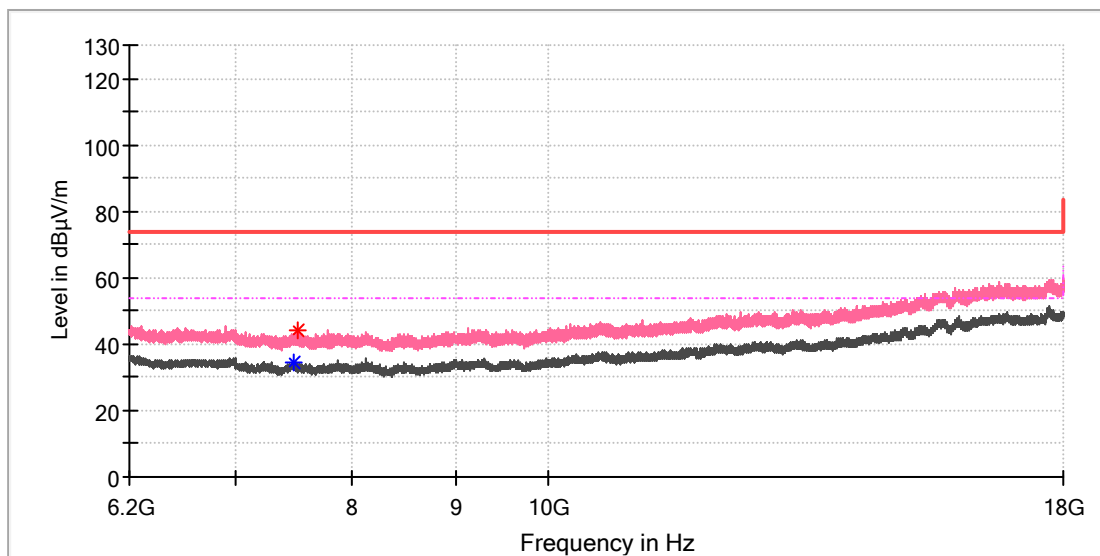


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7425.725000	43.18	---	74.00	30.82	100.0	H	132.0	8.4
7465.058333	---	34.04	54.00	19.96	100.0	H	252.0	8.6

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



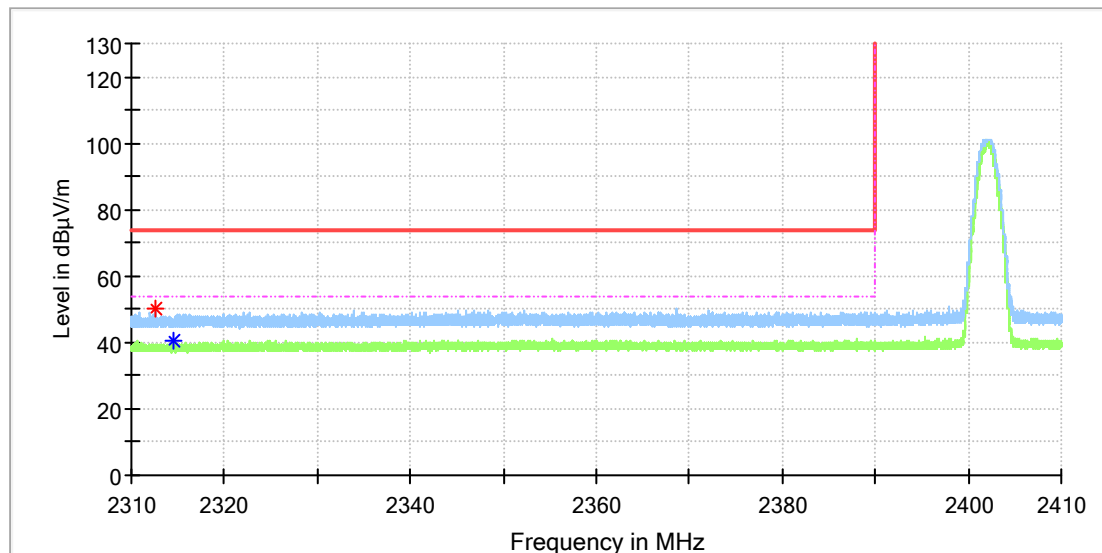
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7472.433333	---	34.54	54.00	19.46	100.0	V	121.0	8.6
7504.883333	44.21	---	74.00	29.79	100.0	V	47.0	8.7

Appendix B.7: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

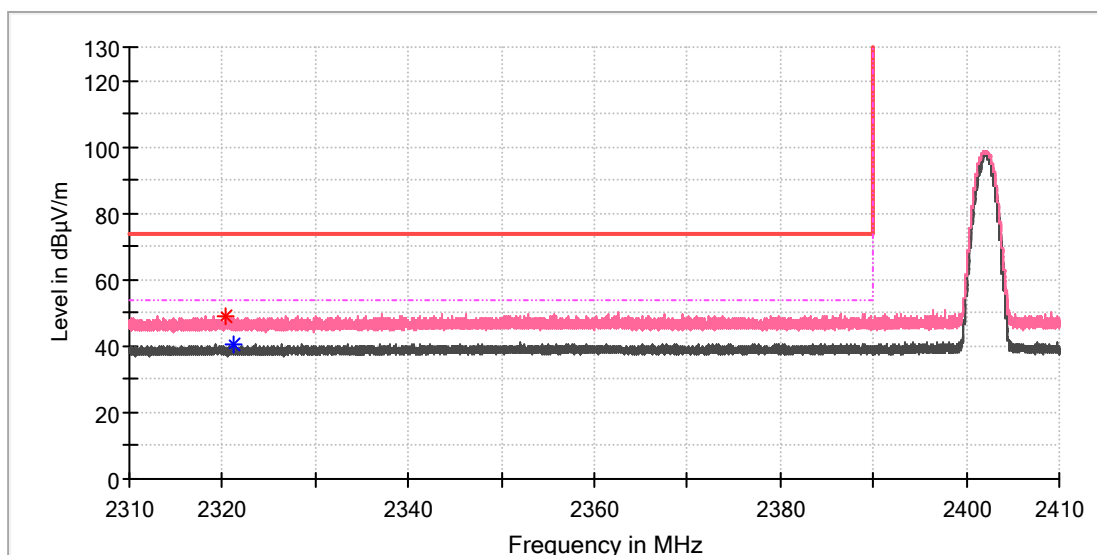


Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2312.505000	49.90	---	74.00	24.10	100.0	H	0.0	6.5
2314.590000	---	40.26	54.00	13.74	100.0	H	8.0	6.5

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_Low channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

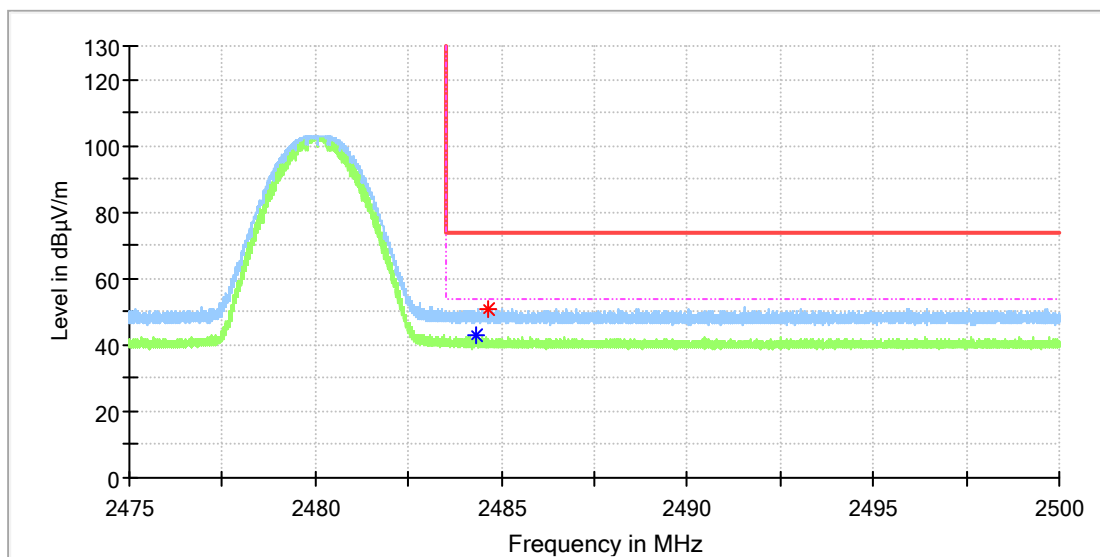


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2320.240000	49.13	---	74.00	24.87	100.0	V	263.0	6.6
2321.115000	---	40.50	54.00	13.50	100.0	V	356.0	6.6

EUT Information

EUT Name: Portable Bluetooth Speaker
Model: GO+PLAY 3
Test Mode: BLE 1M_High channel
Order No./Sample No: 168412906/A003415293-001
Test Voltage:: AC 120V, 60Hz
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin

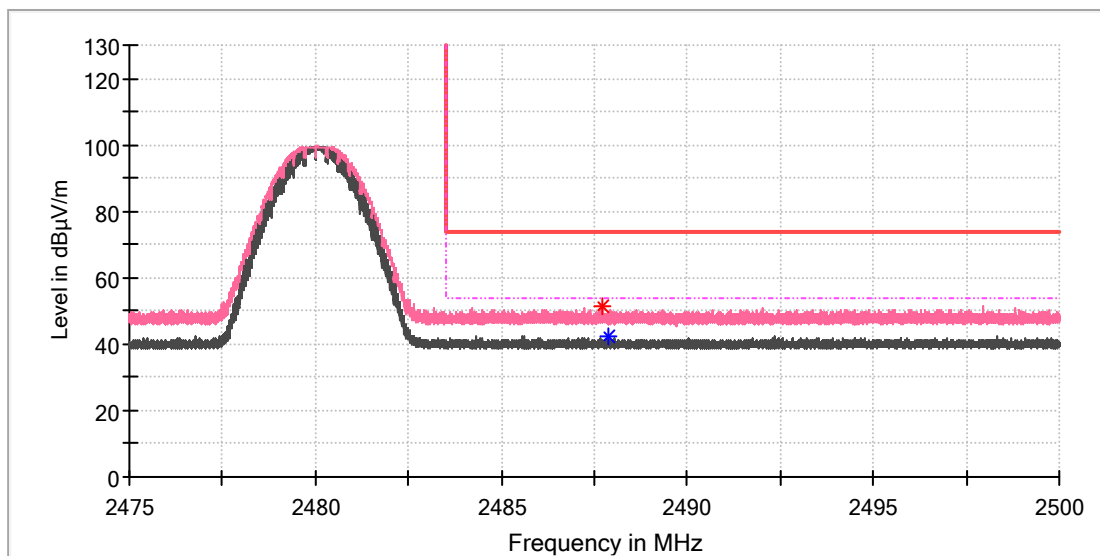


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.320000	---	42.71	54.00	11.29	100.0	H	50.0	7.4
2484.621250	51.02	---	74.00	22.98	100.0	H	201.0	7.4

EUT Information

EUT Name:	Portable Bluetooth Speaker
Model:	GO+PLAY 3
Test Mode:	BLE 1M_High channel
Order No/Sample No:	168412906/A003415293-001
Test Voltage::	AC 120V, 60Hz
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



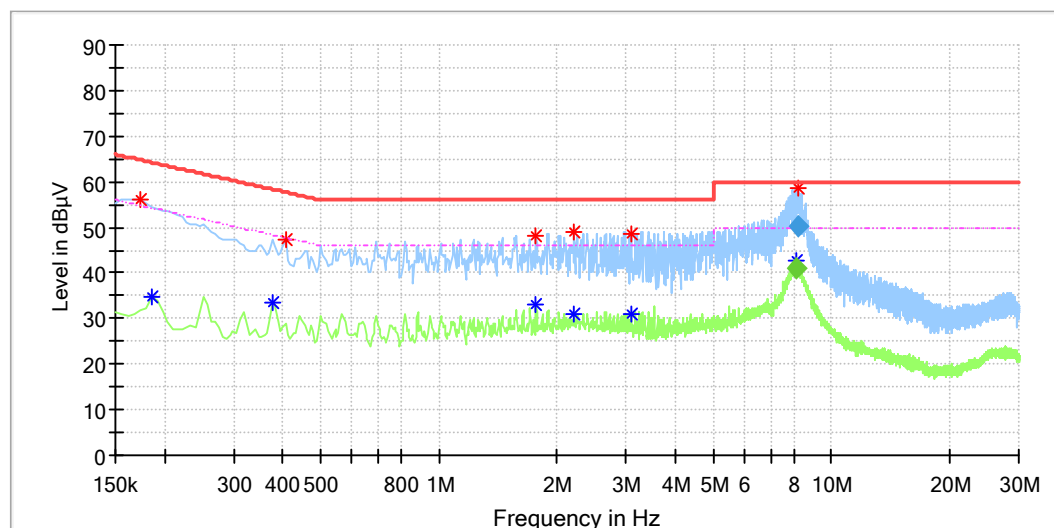
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2487.703750	51.36	---	74.00	22.64	100.0	V	0.0	7.4
2487.886250	---	42.52	54.00	11.48	100.0	V	60.0	7.4

Appendix B.8: Test Results of Conducted Emissions

EUT Information

EUT Name:	Portable Bluetooth Speaker
Order Number:	168412906 220
Model:	GO + PLAY 3
Test Mode:	AC input + USB-C output + BT playing
Test Voltage:	AC 120V/60Hz
Test Standard:	FCC Part 15B
Test By./Review By:	Charlie Zha/Gary Chen
Tem./Hum./Pressure:	23.2°C/50.6%/101kPa
Remark:	SR2



Critical Freqs

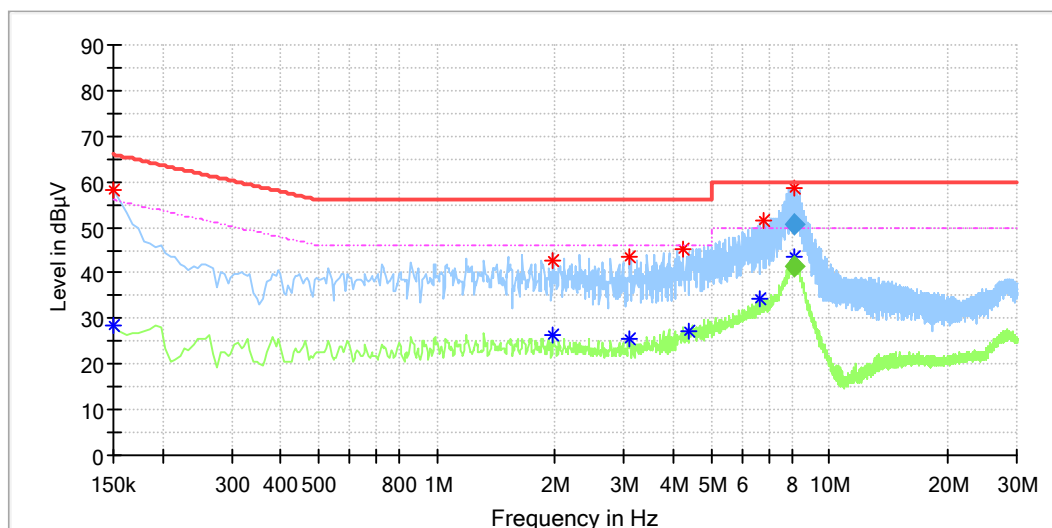
Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.173880	56.09	---	64.77	8.68	L1	9.9
0.185820	---	34.59	54.22	19.64	L1	9.9
0.376860	---	33.38	48.35	14.97	L1	9.9
0.406710	47.23	---	57.72	10.48	L1	9.9
1.767870	48.13	---	56.00	7.87	L1	10.1
1.767870	---	33.17	46.00	12.83	L1	10.1
2.209650	---	31.02	46.00	14.98	L1	10.2
2.209650	48.90	---	56.00	7.10	L1	10.2
3.099180	48.75	---	56.00	7.25	L1	10.2
3.099180	---	31.12	46.00	14.88	L1	10.2

Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
8.130420	---	41.17	50.00	8.83	1000.0	9.000	L1	10.3
8.237880	50.09	---	60.00	9.91	1000.0	9.000	L1	10.3

EUT Information

EUT Name: Portable Bluetooth Speaker
 Order Number: 168412906 220
 Model: GO + PLAY 3
 Test Mode: AC input + USB-C output + BT playing
 Test Voltage: AC 120V/60Hz
 Test Standard: FCC Part 15B
 Test By./Review By: Charlie Zha/Gary Chen
 Tem./Hum./Pressure: 23.2°C/50.6%/101kPa
 Remark: SR2



Critical Freqs

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.150000	---	28.39	56.00	27.61	N	9.8
0.150000	58.15	---	66.00	7.85	N	9.8
1.976820	42.64	---	56.00	13.36	N	9.8
1.982790	---	26.35	46.00	19.65	N	9.8
3.105150	---	25.64	46.00	20.36	N	9.9
3.105150	43.65	---	56.00	12.35	N	9.9
4.233480	45.41	---	56.00	10.59	N	9.9
4.358850	---	27.15	46.00	18.85	N	9.9
6.675210	---	34.20	50.00	15.80	N	10.0
6.806550	51.44	---	60.00	8.56	N	10.0

Final Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
8.163210	---	41.25	50.00	8.75	1000.0	9.000	N	10.0
8.171210	50.74	---	60.00	9.26	1000.0	9.000	N	10.0