Prüfbericht - Produkte
Test Report - Products

TÜVRheinland®

Prüfbericht-Nr.: *Test report no.:*	**CN2286S5 001**	**Auftrags-Nr.:** *Order no.:*	168399960	**Seite 1 von 25** *Page 1 of 25*
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2022-09-23	
Auftraggeber: *Client:*	**Harman International Industries, Inc** 8500 Balboa Blvd, Northridge, California, 91329, United States			
Prüfgegenstand: *Test item:*	CAR MP3 PLAYER			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	JBLCELEBRITY100 (Trademark: JBL)			
Auftrags-Inhalt: *Order content:*	Type test			
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 CFR47 FCC Part 2.1093		RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 March 2019 RSS-102 Issue 5 March 2015	
Wareneingangsdatum: *Date of receipt:*	2022-11-23	Refer to photos document		
Prüfmuster-Nr.: *Test sample No.:*	A003376725			
Prüfzeitraum: *Testing period:*	2022-12-02 – 2022-12-07			
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:*	X Alex Lan Signed by: Alex Lan	**genehmigt von:** *authorized by:*	X Winnie Hou Signed by: Winnie Hou
Datum: *Date:* 2023-02-06		**Ausstellungsdatum:** *Issue date:* 2023-02-07	
Stellung / Position	Assistant Project Manager	**Stellung** / Position	Department Manager

Sonstiges / *Other:* FCC ID: APICELE100

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt
Condition of the test item at delivery: *Test item complete and undamaged:*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specifications(s)		*F(ail) = failed a.m. test specifications(s)*	*N/A = not applicable*	*N/T = not tested*

TÜV Rheinland (Shenzhen) Co., Ltd. 1601 R&D Room, 1602-1604, 17-18F, Building 7 Site C, Vanke Cloud City Phase I, Xingke First Street, Xili Street, Xili Community, Nanshan District, Shenzhen 518052, P.R. China
Mail: service@de.tuv.com · Web: www.tuv.com

Test Summary

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 MAXIMUM CONDUCTED OUTPUT POWER
RESULT: Pass

5.1.3 99% BANDWIDTH
RESULT: Pass

5.1.4 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH
RESULT: Pass

5.1.5 RADIATED SPURIOUS EMISSION
RESULT: Pass

5.1.6 20DB BANDWIDTH
RESULT: Pass

5.1.7 CARRIER FREQUENCY SEPARATION
RESULT: Pass

5.1.8 FREQUENCY STABILITY
RESULT: Pass

5.1.9 NUMBER OF HOPPING FREQUENCY
RESULT: Pass

5.1.10 TIME OF OCCUPANCY
RESULT: Pass

6.1.1 ELECTROMAGNETIC FIELDS
RESULT: Pass

Contents

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				
Description	**Manufacturer**	**Model**	**Serial No.**	**Calibrated until**
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2023-09-27
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	2023-09-27
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	2023-09-27
DC Power Supply	Keysight	E3642A	MY61276100	2023-09-27
Wireless Connectivity Tester	R&S	CMW270	102505	2023-09-27
Power Control Unit	Tonscend	JS0806-4ADC	N/A	2023-09-27
Automation Control Unit	Tonscend	JS0806-2	21C8060396	2023-09-27
Test Software	Tonscend	JS1120-3	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A
Radiated Spurious Emissions				
Description	**Manufacturer**	**Model**	**Serial No.**	**Calibrated 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	2022-09-08
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2024-08-06
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

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 basics 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

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 CAR MP3 Player, which supports Classical Bluetooth and FM technologies.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	CAR MP3 PLAYER
Type Designation	JBLCELEBRITY100
Trademark	JBL
FCC ID	APICELE100
Operating Voltage	DC 11.0-14.4V
Technical Specification of Classical Bluetooth	
Bluetooth Core Version	Bluetooth 5.0
Operating Frequency band	2402 ~ 2480 MHz
Channel Number	79 channels
Channel separation	1MHz
Modulation	GFSK, π/4DQPSK, 8DPSK
Antenna Type	PCB Layout antenna
Antenna Gain	-0.58 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	--	--

3.3 Independent Operation Modes

The basic operation modes are:

A. On
   1. Bluetooth transmitting mode (BDR & EDR mode)
      a) Low Channel
      b) Middle Channel
      c) High Channel

B. On, Transmitting on Hopping channel

C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

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

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 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N or Rating
Laptop	Lenovo	ThinkPad T14	10Q67059
DC Power Supply	KIKUSUI	PAN35-5A	YM002997

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)

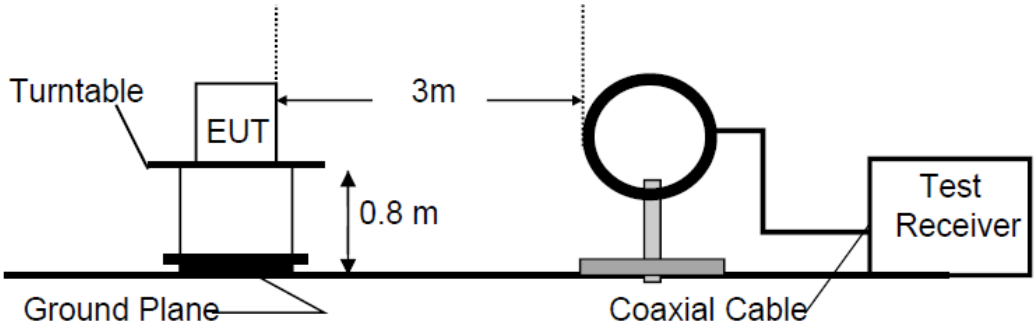


Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

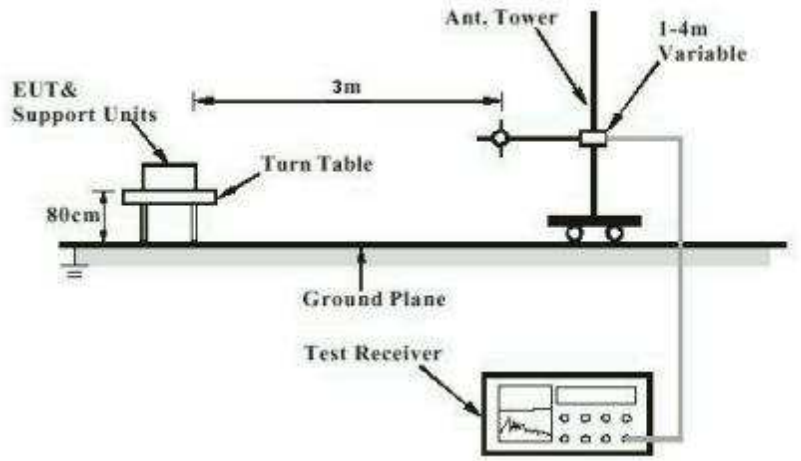


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

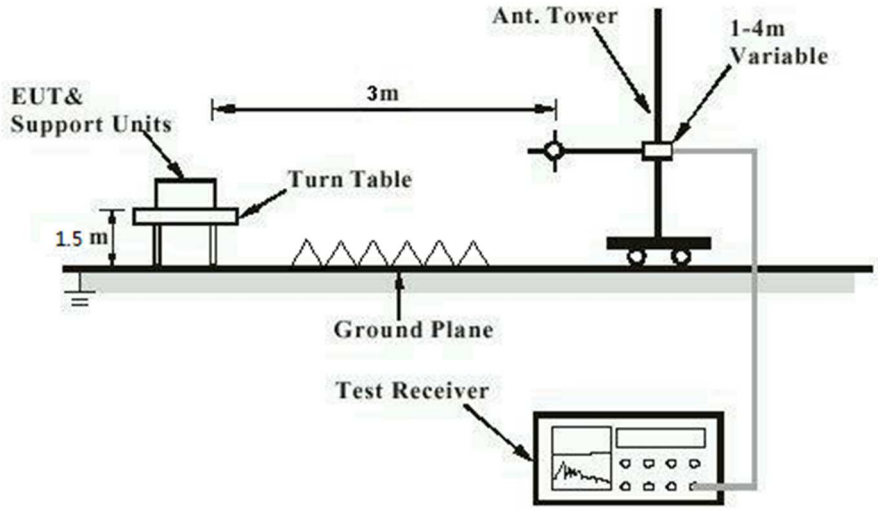
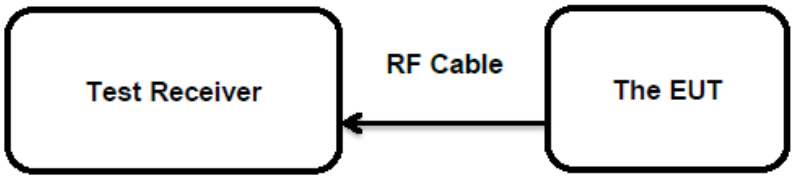


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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 8.3

According to the manufacturer declared, the EUT has one integral antenna, the directional gain of antennas are -0.58dBi, 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 Conducted Output Power

RESULT: **Pass**

Test Specification

Test standard	FCC Part 15.247(b)(1) RSS-247 Clause 5.4(b)
Basic standard	ANSI C63.10: 2013
Limits	FHSS<0.125W(Maximum peak conducted output power) < 4 W (e.i.r.p.)
Kind of test site	Shielded Room

Test Setup

Date of testing	2022-12-02
Input voltage	DC 12V
Operation mode	A.1
Test channel	Low / Middle / High
Ambient temperature	25.6 ℃
Relative humidity	61 %
Atmospheric pressure	101 kPa

Table 5: Test Result of Maximum Conducted Output Power

Test Mode	Channel Frequency (MHz)	Measured Peak Output Power		Limit (W)
		(dBm)	(W)	
BDR	2402	-1.75	0.00067	< 0.125
	2441	-3.20	0.00048	
	2480	-4.06	0.00039	
EDR	2402	1.19	0.00132	< 0.125
	2441	-0.45	0.00090	
	2480	-1.33	0.00074	

Note: The cable loss is taken into account in results and the maximum e.i.r.p. is 0.61dBm less than 4W(36dBm).

5.1.3 99% 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	:	2022-12-02
Input voltage	:	DC 12V
Operation mode	:	A.1
Test channel	:	Low / Middle / High
Ambient temperature	:	25.6 ℃
Relative humidity	:	61 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B & C

Table 6: Test Result of 99% Bandwidth

Test Mode	Channel Frequency (MHz)	Measured 99% Bandwidth (MHz)	Limit
BDR	2402	0.82540	/
	2441	0.82824	
	2480	0.83560	
EDR	2402	1.1861	/
	2441	1.1870	
	2480	1.1922	

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

5.1.4 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);
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-12-02
Input voltage	:	DC 12V
Operation mode	:	A.1, B
Test channel	:	Low / Middle / High
Ambient temperature	:	25.6 ℃
Relative humidity	:	61 %
Atmospheric pressure	:	101 kPa

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

For the measurement records, refer to the appendix B.

5.1.5 Radiated Spurious Emission

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 3.3
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 6 & Table 7
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	2022-12-07
Input voltage	:	DC 12V
Operation mode	:	A.1
Test channel	:	Low / Middle / High
Ambient temperature	:	Refer to test result
Relative humidity	:	Refer to test result
Atmospheric pressure	:	101 kPa

Remark:
During the pretest the EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emissions. After that the EUT was manually handled to find the orientation that has the maximum emission, which is the orientation shown in the test set-up photos.

Testing was carried out within frequency range 9kHz to the tenth harmonics.

For the measurement records, refer to the appendix B

5.1.6 20dB Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)(1) RSS-247 Clause 5.1(a)
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-12-02
Input voltage	:	DC 12V
Operation mode	:	A.1
Test channel	:	Low / Middle / High
Ambient temperature	:	25.6 ℃
Relative humidity	:	61 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

Table 7: Test Result of -20dB Bandwidth

Test Mode	Channel Frequency (MHz)	20dB Bandwidth (kHz)	2/3 of 20dB Bandwidth (kHz)	Limit (MHz)
BDR	2402	891	594.000	/
	2441	930	620.000	
	2480	930	620.000	
EDR	2402	1281	854.000	/
	2441	1290	860.000	
	2480	1296	864.000	

5.1.7 Carrier Frequency Separation

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)(1) RSS-247 Clause 5.1(b)
Basic standard	:	ANSI C63.10: 2013
Limits	:	≥ 25kHz or 2/3 of 20dB bandwidth, whichever is greater
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-12-02
Input voltage	:	DC 12V
Operation mode	:	A.1
Test channel	:	Low / Middle / High
Ambient temperature	:	25.6 ℃
Relative humidity	:	61 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B

Table 8: Test Result of Carrier Frequency Separation

TestMode	Channel	Result[MHz]	Limit[MHz]	Verdict
BDR-DH5	Hop	0.99	≥0.632	PASS
EDR-2DH5	Hop	1.032	≥0.848	PASS

Note:

The limit is maximum 2/3 of the 20 dB bandwidth: 864KHz.

5.1.8 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	:	2022-12-02
Input voltage	:	DC 12V
Operation mode	:	B
Ambient temperature	:	25.6 ℃
Relative humidity	:	61 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

5.1.9 Number of Hopping Frequency

RESULT: **Pass**

Test Specification

Test standard	:	FCC part 15.247(a)(1)(iii) RSS-247 Clause 5.1(d)
Basic standard	:	ANSI C63.10: 2013
Limits	:	≥ 15 non-overlapping channels
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-12-02
Input voltage	:	DC 12V
Operation mode	:	B
Ambient temperature	:	25.6 ℃
Relative humidity	:	61 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B & C.

Table 9: Test Result of Number of Hopping Frequency

Frequency Range	Measured Quantity of Hopping Channel	Limit	Result
2402 to 2480 MHz	79	≥15	Pass

5.1.10 Time of Occupancy

RESULT: **Pass**

Test Specification

Test standard	:	FCC part 15.247(a)(1)(iii) RSS-247 Clause 5.1(d)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 0.4s
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-12-02
Input voltage	:	DC 12V
Operation mode	:	B
Test channel	:	Low / Middle / High
Ambient temperature	:	25.6 ℃
Relative humidity	:	61 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B .

6 Safety Human Exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT: **Pass**

Test Specification

Test standard	:	CFR47 FCC Part 2.1093
		RSS-102 Issue 5 March 2019
		FCC KDB Publication 447498 v06
Limit	:	CFR47 FCC Part 1.1310

The measured maximum conducted output power of the EUT is 1.19dBm ≈ 1.32 mW, which is below the SAR exclusion threshold level 9. 6mW (SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm), hence the EUT is excluded from SAR evaluation according to FCC KDB publication 447498 D01: Mobile and Portable RF Exposure. Guidance v06.

The measured maximum conducted output power of the EUT is 1.19dBm ≈ 2.29 mW and the measured maximum specified e.i.r.p of the EUT is 0.61dBm ≈ 1.15mW, which is below the SAR exclusion threshold level 4mW, hence the EUT is excluded from SAR evaluation according to RSS-102 Issue 5 section 2.5.1.

7 Photographs of the Test Set-Up

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

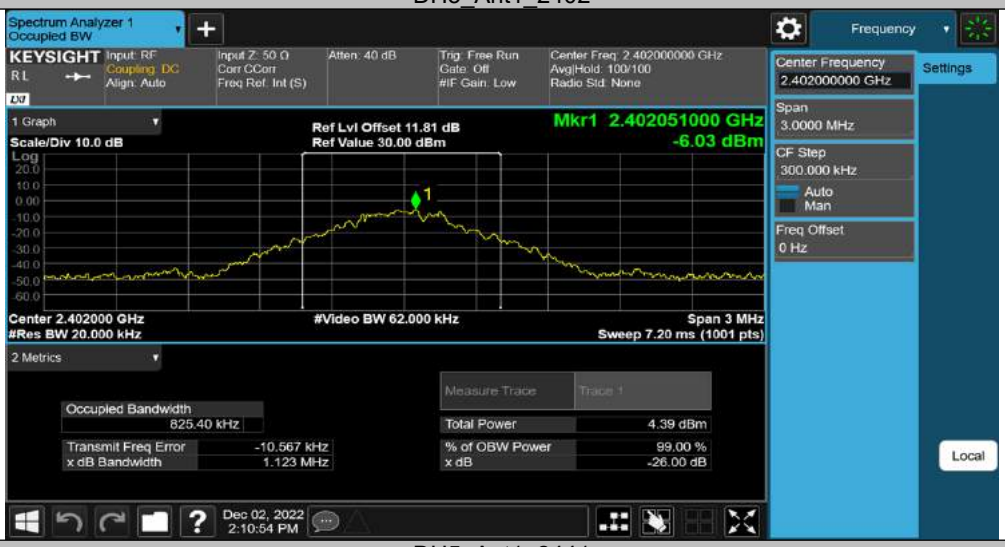
8 List of Tables

Appendix B: Test Results of Left earbud

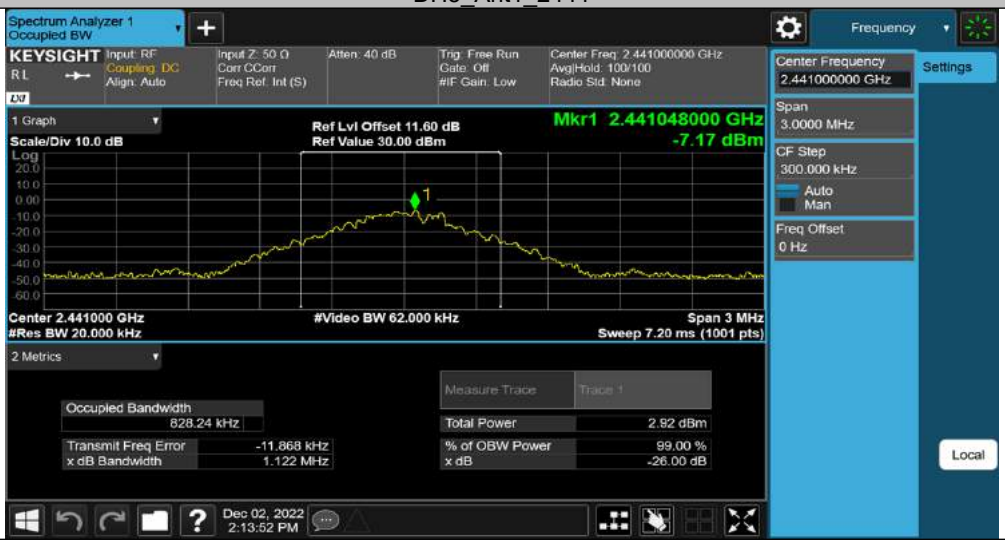
Appendix B.1: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.82540	2401.5767	2402.4021	---	---
		2441	0.82824	2440.5740	2441.4023	---	---
		2480	0.83560	2479.5690	2480.4046	---	---
3DH5	Ant1	2402	1.1861	2401.3899	2402.5760	---	---
		2441	1.1870	2440.3909	2441.5779	---	---
		2480	1.1922	2479.3878	2480.5800	---	---

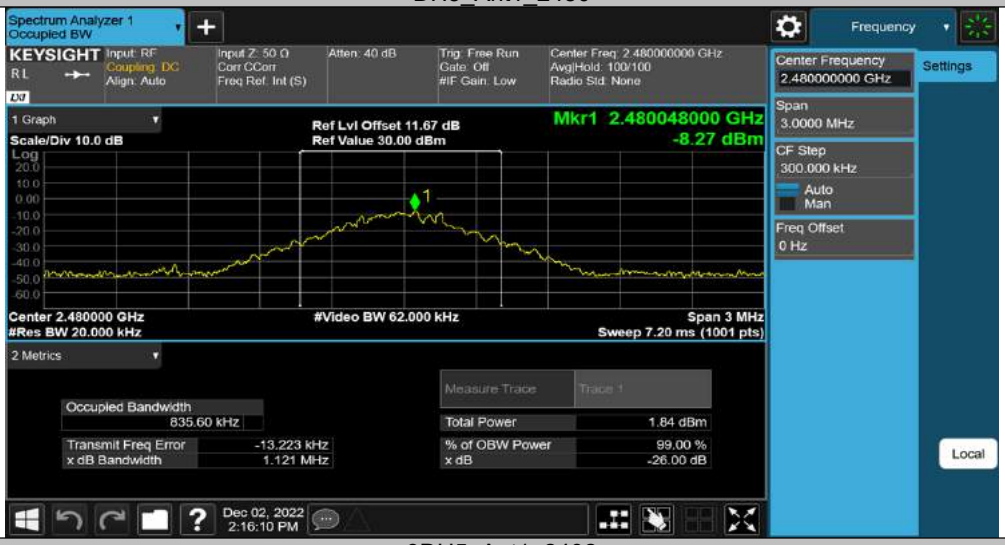
DH5_Ant1_2402



DH5_Ant1_2441

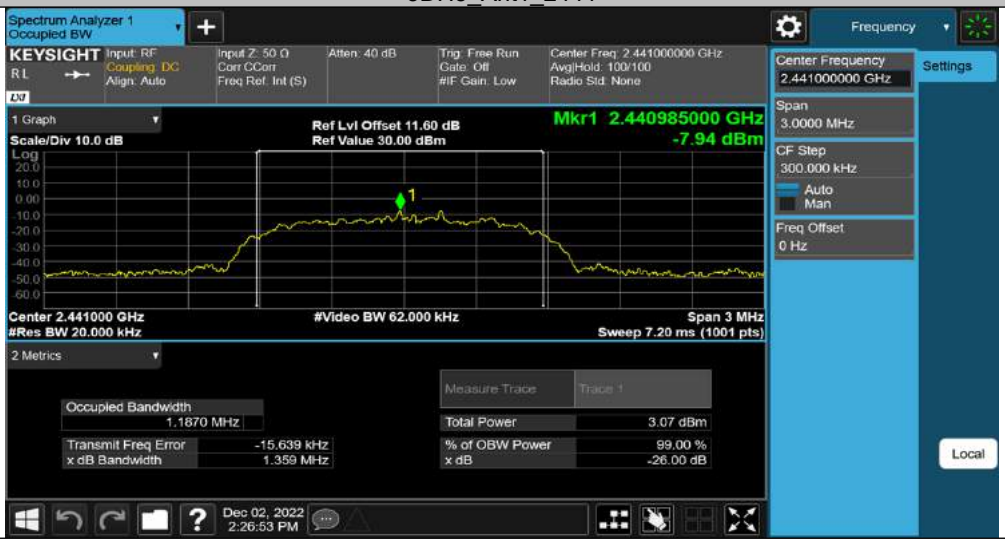


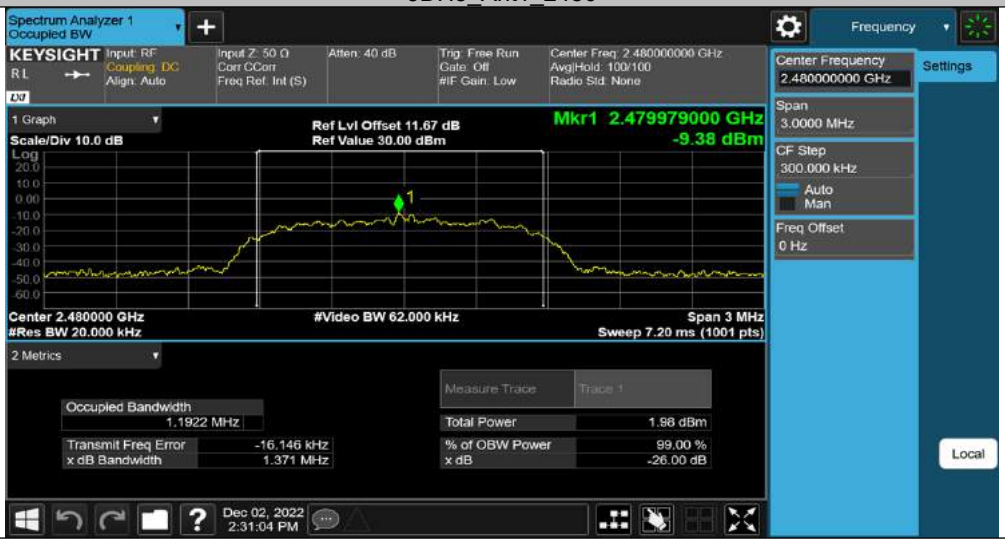
DH5_Ant1_2480



3DH5_Ant1_2402

3DH5_Ant1_2441



3DH5_Ant1_2480


Appendix B.2: Test Results of 20dB Bandwidth

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.891	2401.532	2402.423	---	---
		2441	0.930	2440.532	2441.462	---	---
		2480	0.930	2479.532	2480.462	---	---
3DH5	Ant1	2402	1.281	2401.340	2402.621	---	---
		2441	1.290	2440.340	2441.630	---	---
		2480	1.296	2479.337	2480.633	---	---

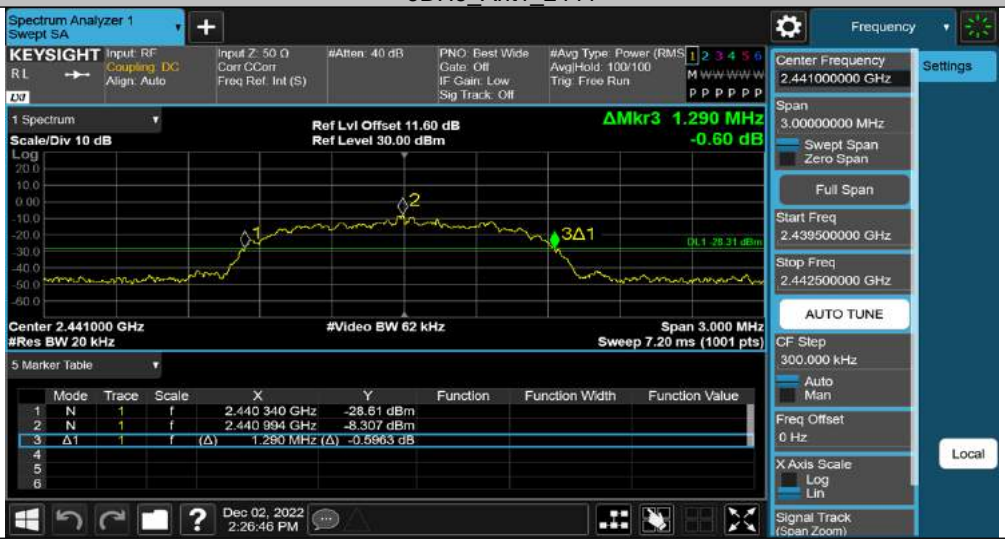
DH5_Ant1_2402

DH5_Ant1_2441

DH5_Ant1_2480

3DH5_Ant1_2402

3DH5_Ant1_2441



3DH5_Ant1_2480

Appendix B.3: 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)
DC 12V	2401.983	17	7.08	10
DC 10.8V	2401.981	19	7.91	
DC 13.2V	2401.986	14	5.83	

Test result of frequency tolerance of temperature variation

Temperature (℃)	Test result (KHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2401.987	13	5.41	10
-20	2401.985	15	6.24	
-10	2401.984	16	6.66	
0	2401.989	13	5.41	
10	2401.991	9	3.75	
20	2401.987	13	5.41	
30	2401.988	12	5.00	
40	2401.984	16	6.66	
50	2401.985	15	6.24	
55	2401.981	19	7.91	

Test Channel (MHz)	2441

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
DC 12V	2440.985	-15	-6.15	10
DC 10.8V	2440.982	-18	-7.37	
DC 13.2V	2440.986	-14	-5.74	

Test result of frequency tolerance of temperature variation

Temperature (℃)	Test result (KHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2440.983	-17	-6.96	10
-20	2440.984	-16	-6.55	
-10	2440.985	-15	-6.15	
0	2440.982	-18	-7.37	
10	2440.989	-11	-4.51	
20	2440.990	-10	-4.10	
30	2440.986	-14	-5.74	
40	2440.987	-13	-5.33	
50	2440.981	-19	-7.78	
55	2440.987	-13	-5.33	

Test Channel (MHz)	2480

Test result of frequency tolerance of voltage variation

Voltage	Test result (MHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
DC 12V	2479.984	-16	-6.45	10
DC 10.8V	2479.985	-15	-6.05	
DC 13.2V	2479.991	-9	-3.63	

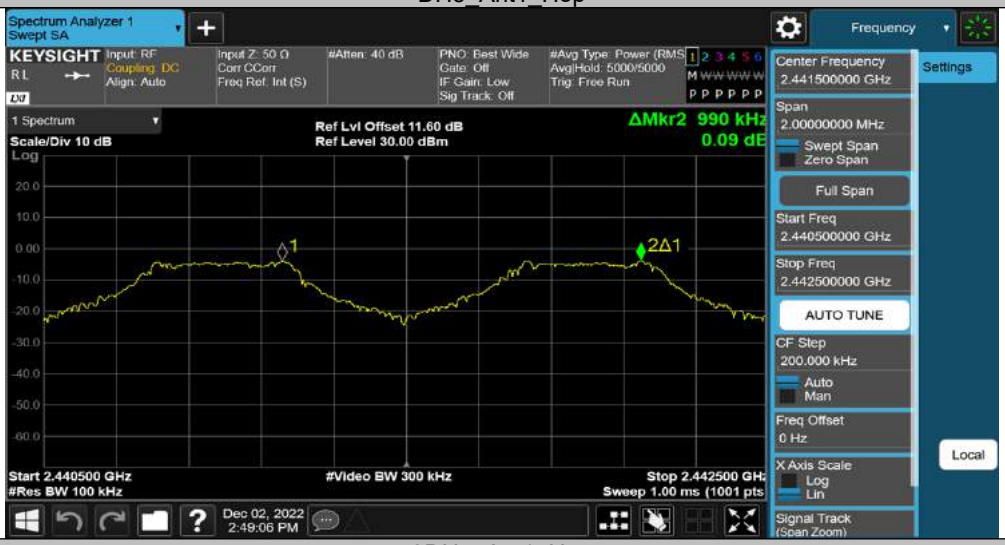
Test result of frequency tolerance of temperature variation

Temperature (℃)	Test result (KHz)	Deviation Frequency (KHz)	Test result (ppm)	Limit (ppm)
-30	2479.981	-19	-7.66	10
-20	2479.985	-15	-6.05	
-10	2479.991	-9	-3.63	
0	2479.990	-10	-4.03	
10	2479.983	-17	-6.85	
20	2479.985	-15	-6.05	
30	2479.986	-14	-5.65	
40	2479.982	-18	-7.26	
50	2479.983	-17	-6.85	
55	2479.985	-15	-6.05	

Appendix B.4: Test Results of Carrier Frequency Separation

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.99	≥0.930	PASS
3DH5	Ant1	Hop	1.032	≥0.864	PASS

DH5_Ant1_Hop

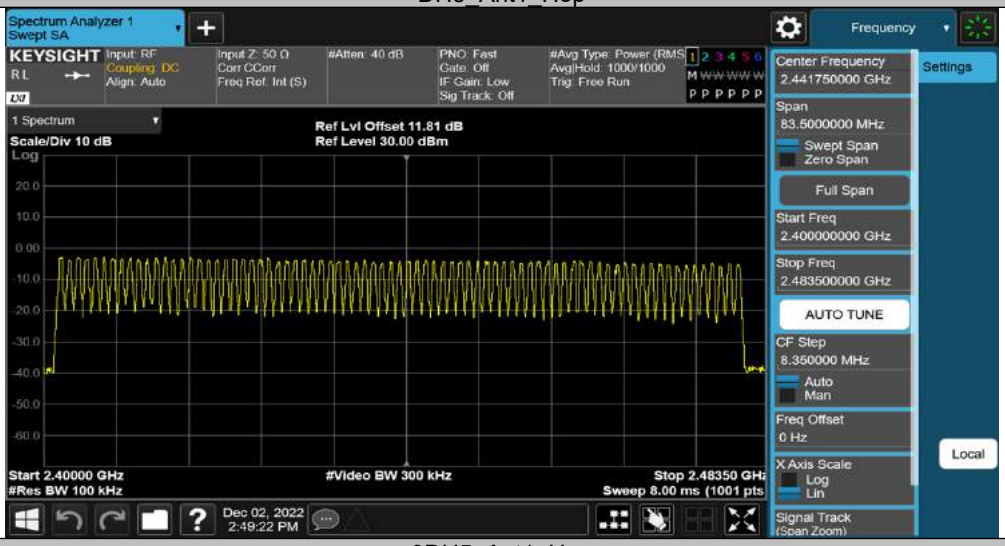


3DH5_Ant1_Hop

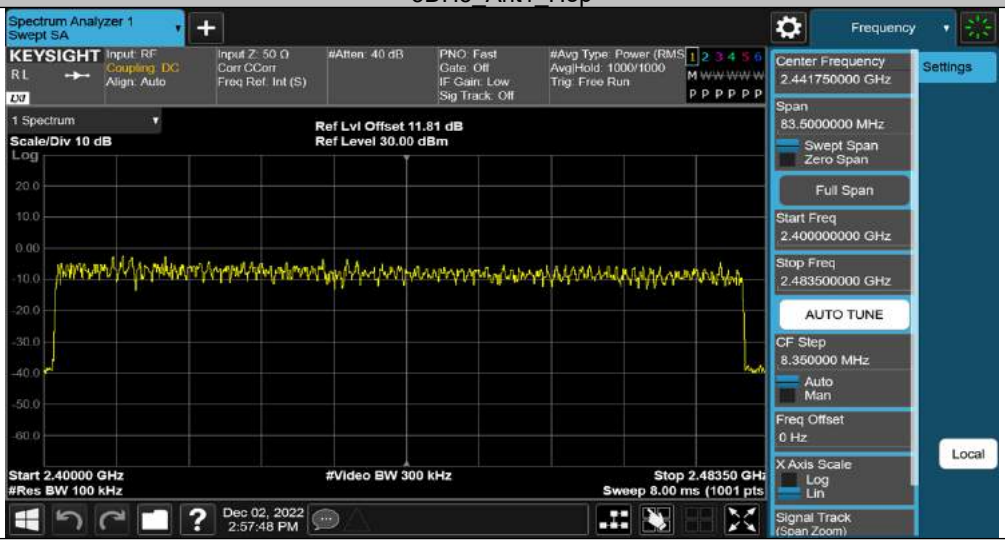
Appendix B.5: Test Results of Number of Hopping Frequencies

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

DH5_Ant1_Hop



3DH5_Ant1_Hop

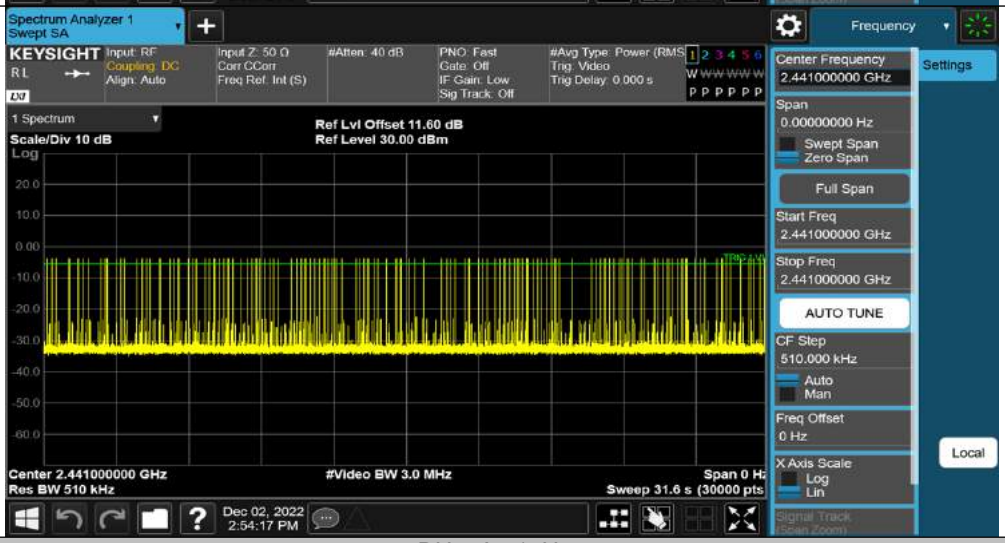


Appendix B.6: Test Results of Time of Occupancy

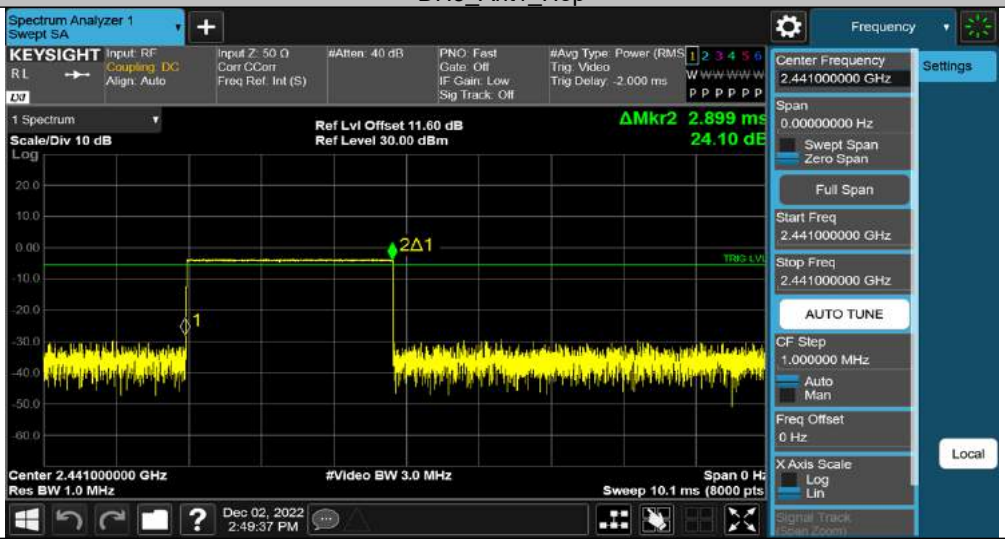
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.396	310	0.123	≤0.4	PASS
DH3	Ant1	Hop	1.650	155	0.256	≤0.4	PASS
DH5	Ant1	Hop	2.899	115	0.333	≤0.4	PASS
3DH1	Ant1	Hop	0.407	313	0.127	≤0.4	PASS
3DH3	Ant1	Hop	1.657	149	0.247	≤0.4	PASS
3DH5	Ant1	Hop	2.906	109	0.317	≤0.4	PASS

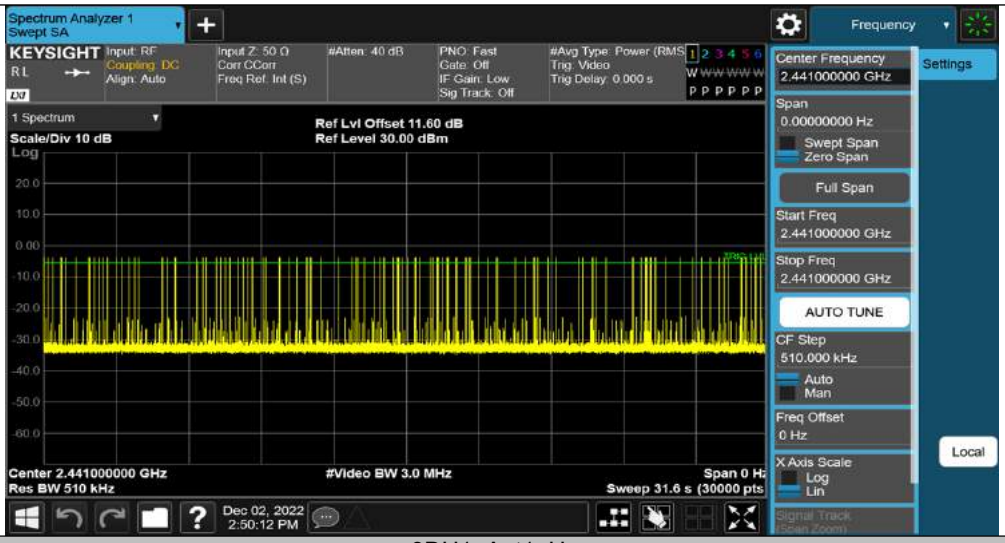
DH1_Ant1_Hop

DH3_Ant1_Hop

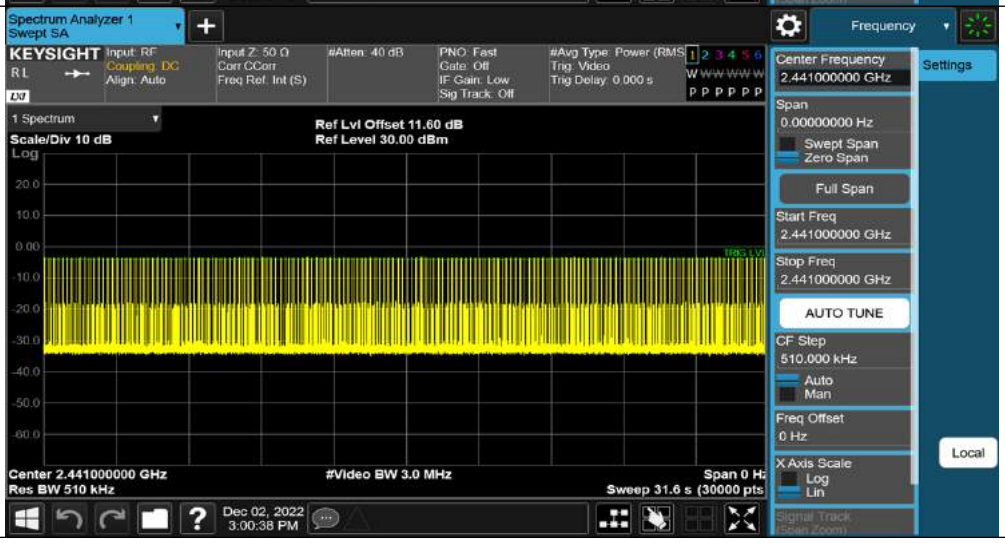


DH5_Ant1_Hop

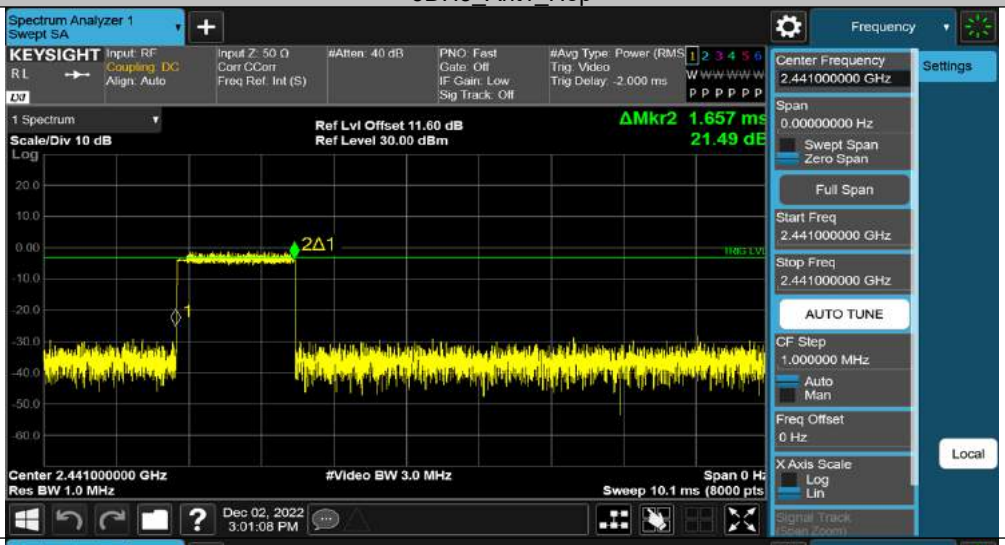


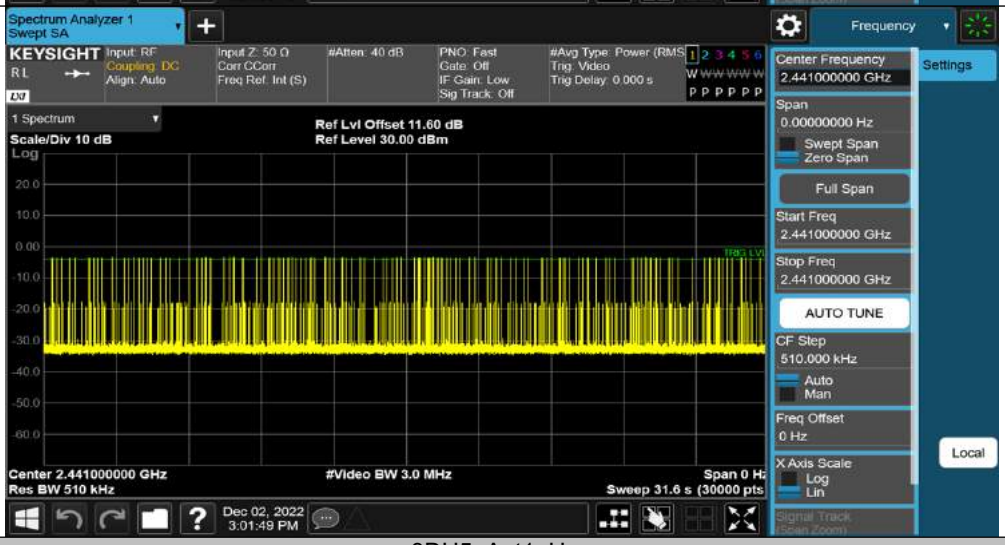


3DH1_Ant1_Hop

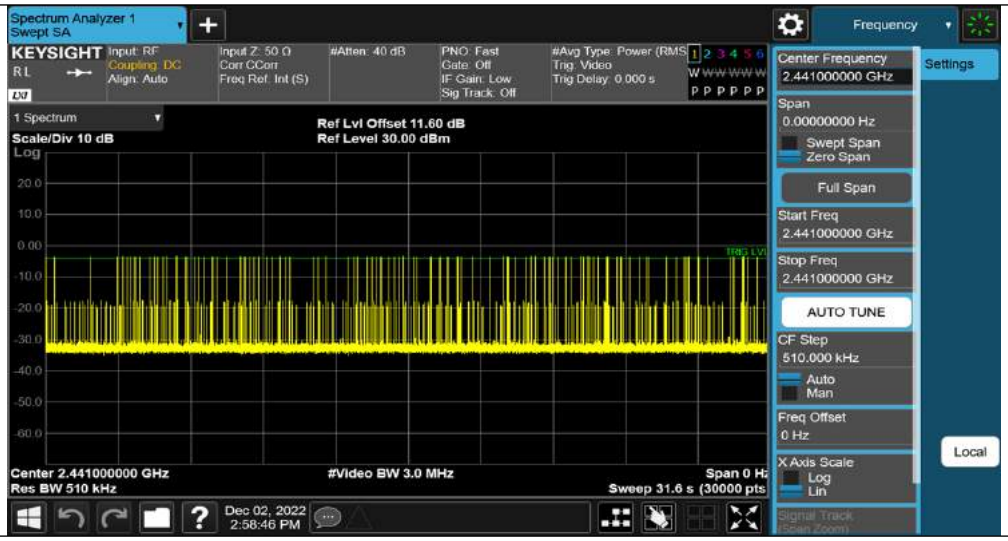


3DH3_Ant1_Hop





3DH5_Ant1_Hop


Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
#Atten: 40 dB
PNO: Fast
Gate: Off
IF Gain: Low
Sig Track: Off
#Avg Type: Power (RMS)
Trig: Video
Trig Delay: 0.000 s
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 11.60 dB
Ref Level 30.00 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 2.441000000 GHz
Res BW 510 kHz
#Video BW 3.0 MHz
Span 0 Hz
Sweep 31.6 s (30000 pts)
Dec 02, 2022
2:58:46 PM
Frequency
Center Frequency
2.441000000 GHz
Span
0.00000000 Hz
Swept Span
Zero Span
Full Span
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
AUTO TUNE
CF Step
510.000 kHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
Settings
Local

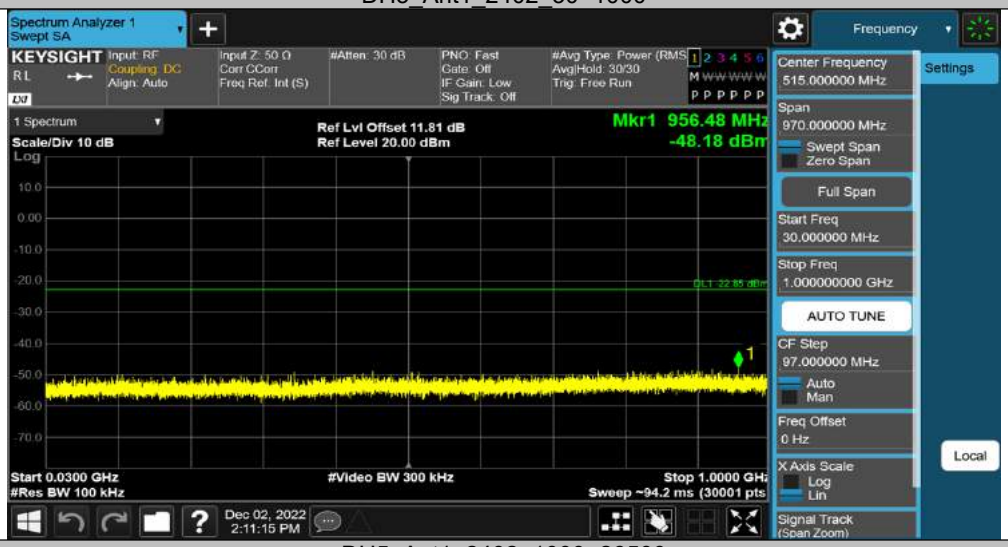
Appendix B.7: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Conducted Spurious Emission

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-2.85	-2.85	---	PASS
			30~1000	-2.85	-48.18	≤-22.85	PASS
			1000~26500	-2.85	-38.68	≤-22.85	PASS
		2441	Reference	-3.95	-3.95	---	PASS
			30~1000	-3.95	-48.65	≤-23.95	PASS
			1000~26500	-3.95	-39.47	≤-23.95	PASS
		2480	Reference	-5.02	-5.02	---	PASS
			30~1000	-5.02	-47.89	≤-25.02	PASS
			1000~26500	-5.02	-39.1	≤-25.02	PASS
3DH5	Ant1	2402	Reference	-3.99	-3.99	---	PASS
			30~1000	-3.99	-47.85	≤-23.99	PASS
			1000~26500	-3.99	-38.9	≤-23.99	PASS
		2441	Reference	-6.09	-6.09	---	PASS
			Reference	-7.27	-7.27	---	PASS
			30~1000	-7.27	-48.06	≤-27.27	PASS
		2480	1000~26500	-7.27	-38.54	≤-27.27	PASS
			Reference	-2.85	-2.85	---	PASS
			30~1000	-2.85	-48.18	≤-22.85	PASS

DH5_Ant1_2402_0~Reference

DH5_Ant1_2402_30~1000



DH5_Ant1_2402_1000~26500

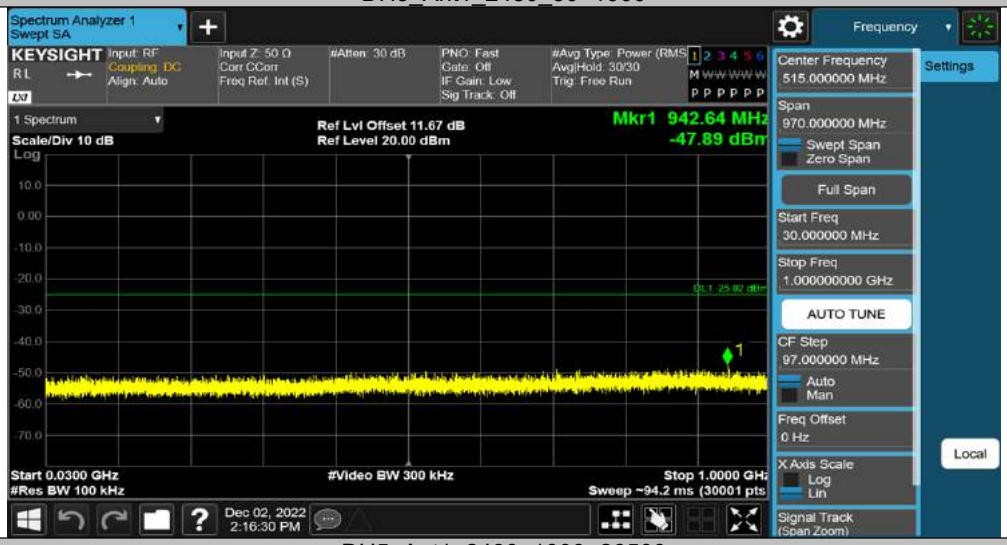
DH5_Ant1_2441_0~Reference

DH5_Ant1_2441_30~1000

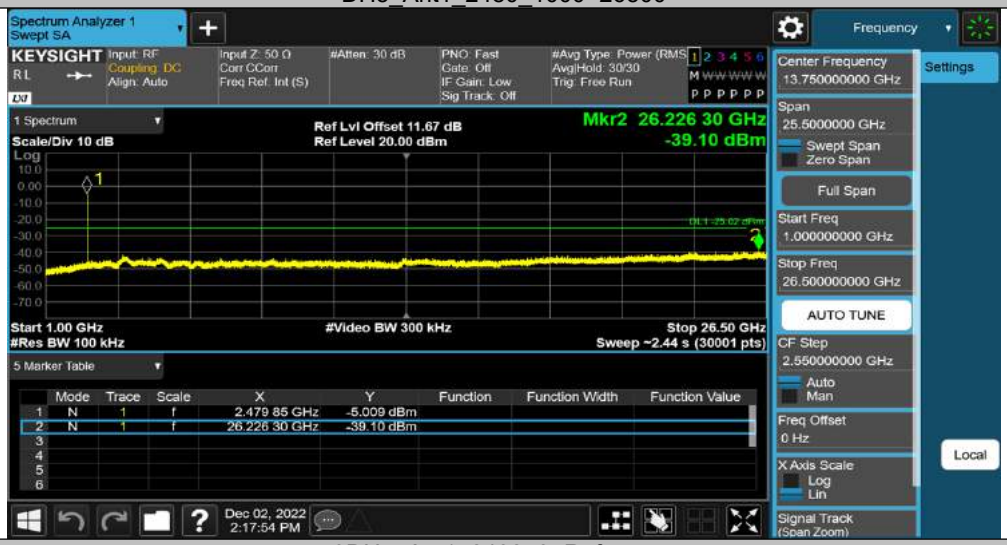
DH5_Ant1_2441_1000~26500

DH5_Ant1_2480_0~Reference

DH5_Ant1_2480_30~1000

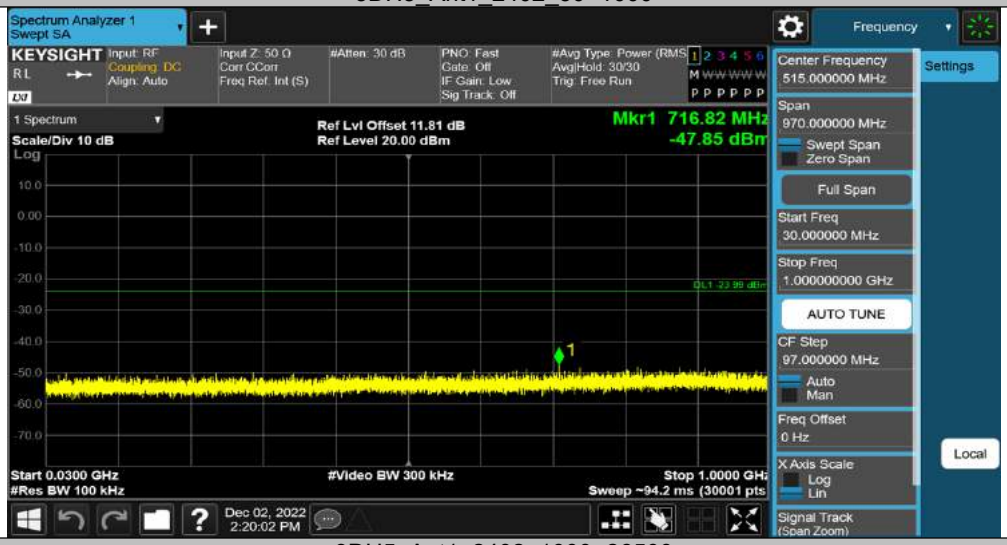


DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

3DH5_Ant1_2402_30~1000

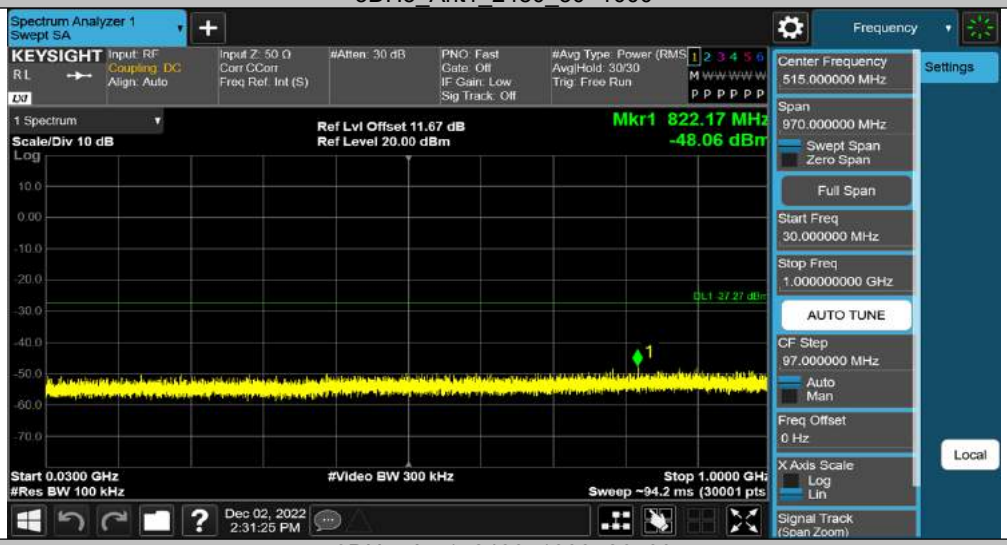


3DH5_Ant1_2402_1000~26500

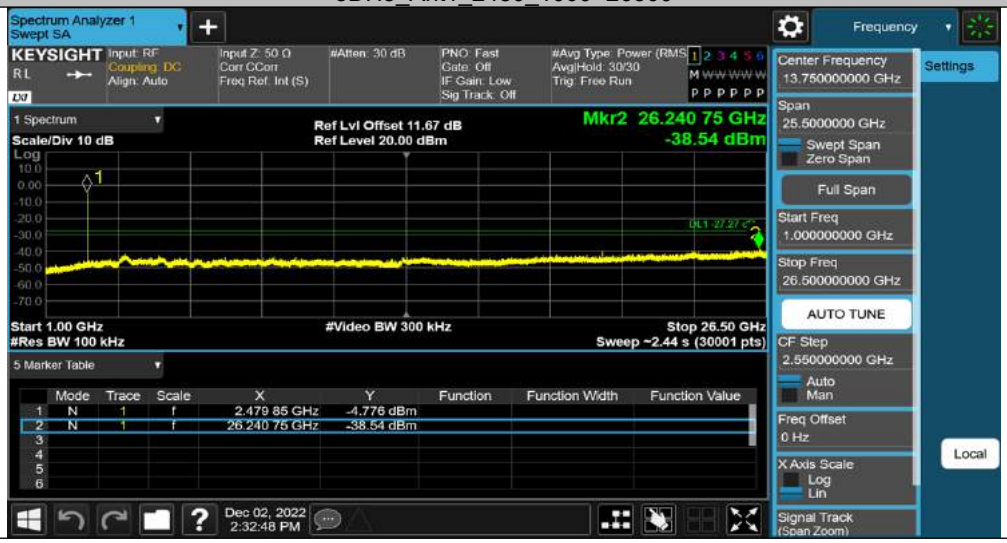
3DH5_Ant1_2441_0~Reference

3DH5_Ant1_2480_0~Reference

3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



Band Edge

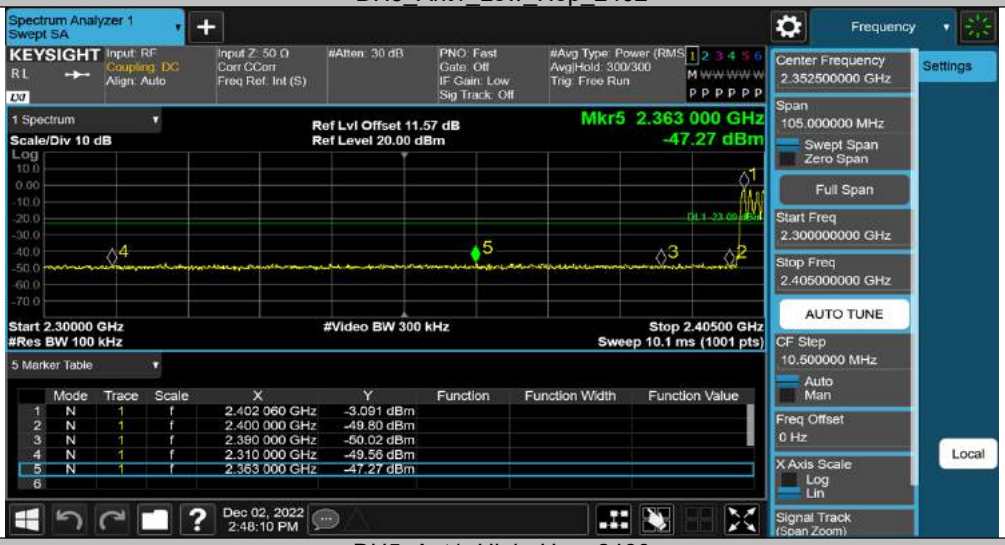
Option 1:

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.35	-46.54	≤-22.35	PASS
		High	2480	-4.86	-47.13	≤-24.86	PASS
		Low	Hop_2402	-3.09	-47.27	≤-23.09	PASS
		High	Hop_2480	-5.05	-47.35	≤-25.05	PASS
3DH5	Ant1	Low	2402	-2.55	-46.72	≤-22.55	PASS
		High	2480	-4.77	-45.82	≤-24.77	PASS
		Low	Hop_2402	-4.91	-47.2	≤-24.91	PASS
		High	Hop_2480	-6.76	-46.49	≤-26.76	PASS

DH5_Ant1_Low_2402

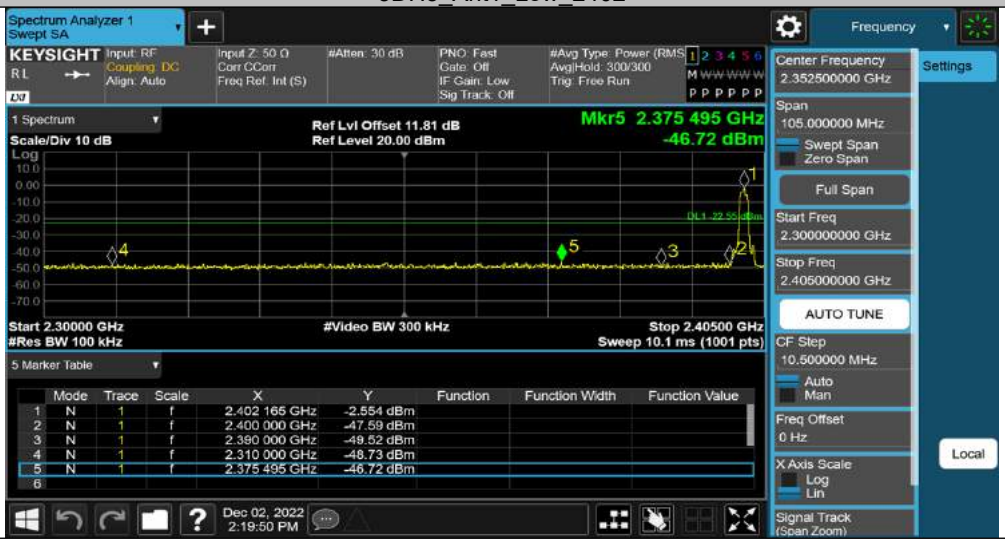
DH5_Ant1_High_2480

DH5_Ant1_Low_Hop_2402



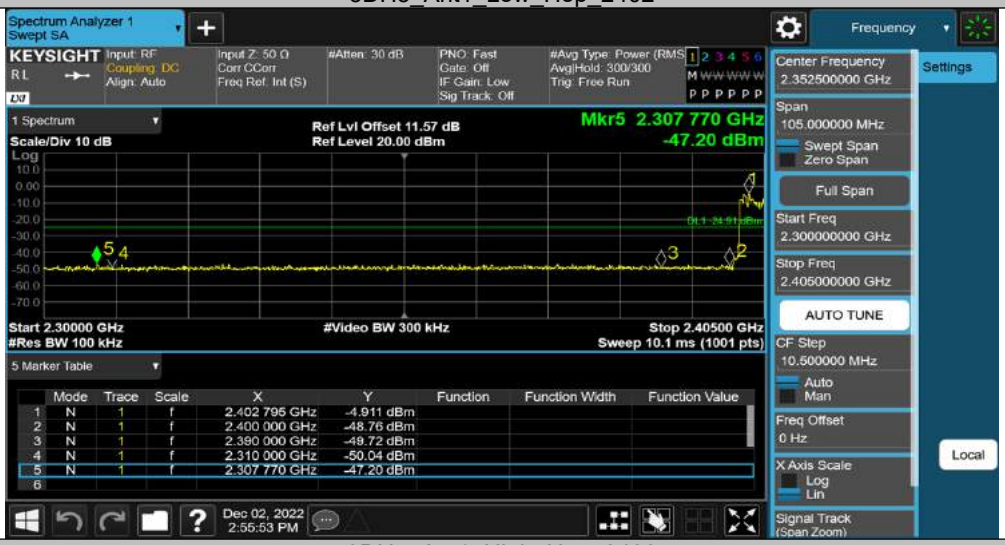
DH5_Ant1_High_Hop_2480

3DH5_Ant1_Low_2402

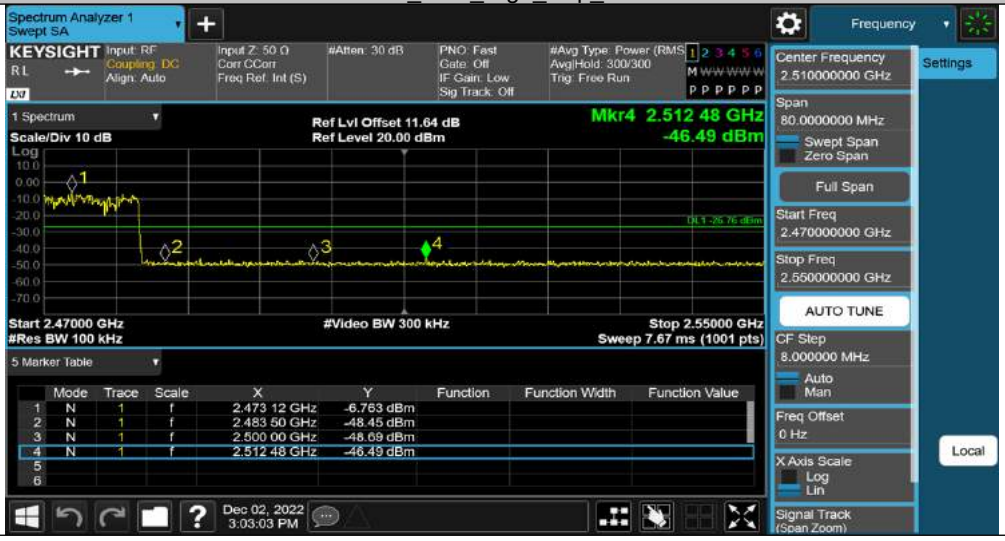


3DH5_Ant1_High_2480

3DH5_Ant1_Low_Hop_2402



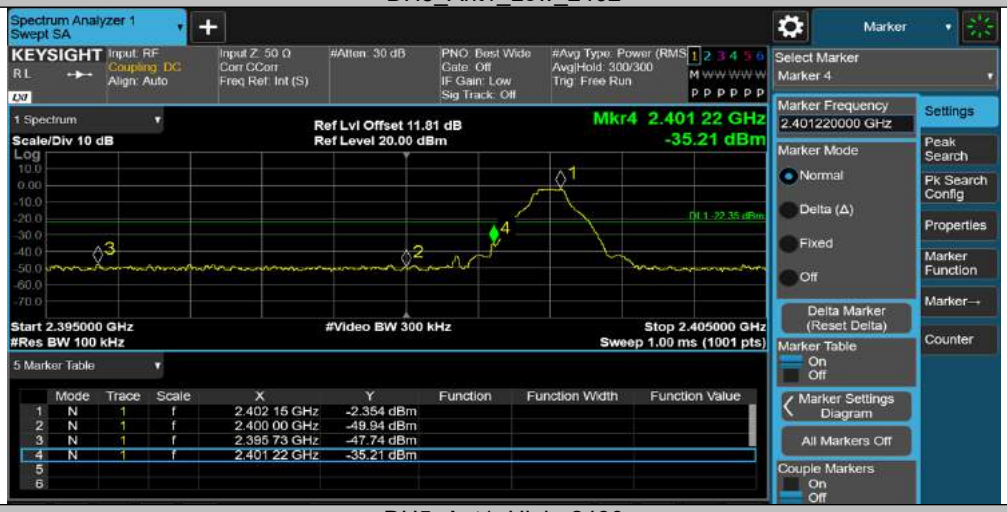
3DH5_Ant1_High_Hop_2480



Option 2:

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.35	-35.21	≤-22.35	PASS
		High	2480	-5.03	-43.08	≤-25.03	PASS
		Low	Hop_2402	-3.09	-47.27	≤-23.09	PASS
		High	Hop_2480	-5.92	-44.19	≤-25.92	PASS
3DH5	Ant1	Low	2402	-2.42	-38.89	≤-22.42	PASS
		High	2480	-5.50	-43.79	≤-25.50	PASS
		Low	Hop_2402	-4.02	-40.88	≤-24.02	PASS
		High	Hop_2480	-5.34	-46.97	≤-25.34	PASS

DH5_Ant1_Low_2402

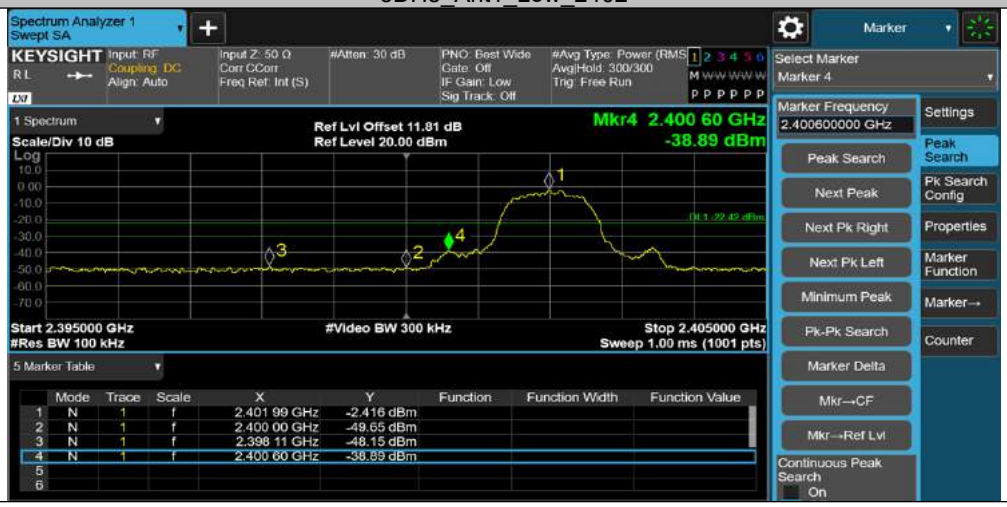


DH5_Ant1_High_2480

DH5_Ant1_Low_Hop_2402

DH5_Ant1_High_Hop_2480

3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480

3DH5_Ant1_Low_Hop_2402

3DH5_Ant1_High_Hop_2480

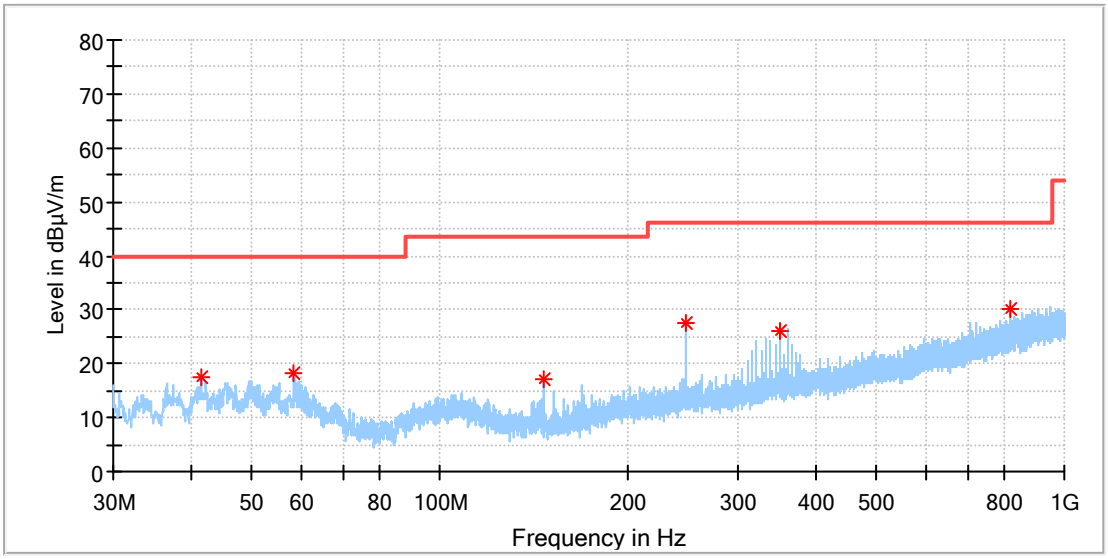
Appendix B.8: Test Results of Radiated Spurious Emissions

Note: 1. 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. 2. This testing was carried out on different modulations, but only the worst case was presented in this report.

30MHz - 1GHz

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

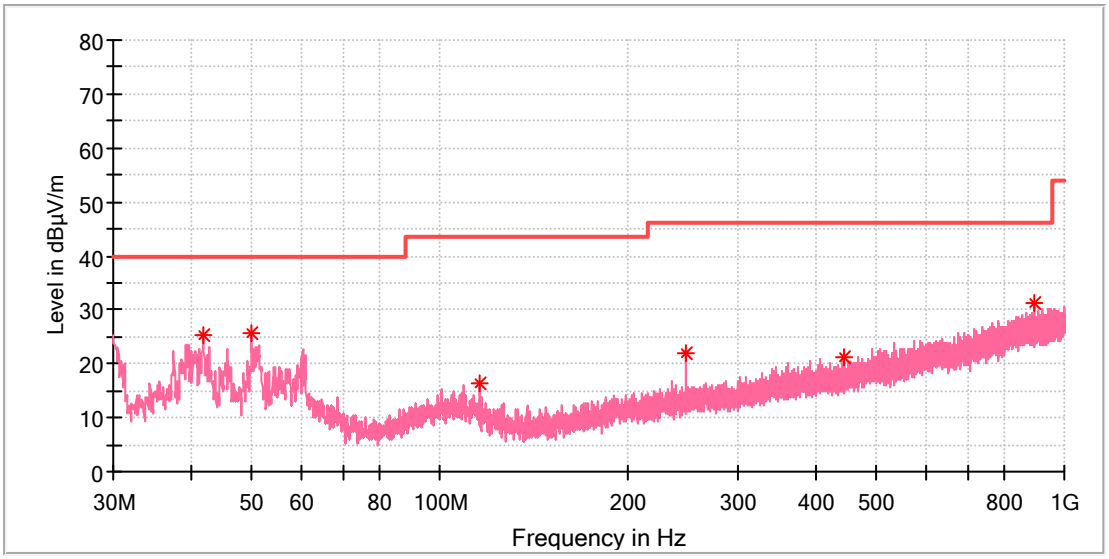


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
41.446000	17.63	40.00	22.37	100.0	H	311.0	-19.7
58.469500	18.06	40.00	21.94	100.0	H	9.0	-18.8
146.739500	17.28	43.50	26.22	100.0	H	68.0	-22.2
248.347000	27.52	46.00	18.48	100.0	H	311.0	-17.4
350.003000	26.13	46.00	19.87	100.0	H	96.0	-14.8
821.326000	30.15	46.00	15.85	100.0	H	0.0	-6.0

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

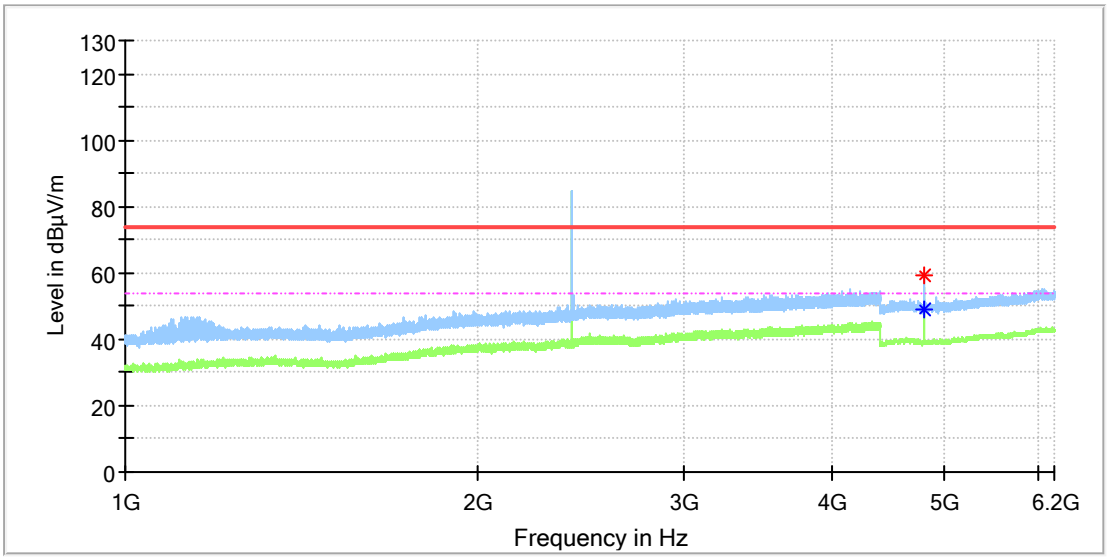
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
41.834000	25.40	40.00	14.60	100.0	V	171.0	-19.6
49.982000	25.70	40.00	14.30	100.0	V	136.0	-18.3
115.602500	16.36	43.50	27.14	100.0	V	5.0	-19.9
248.395500	22.07	46.00	23.93	100.0	V	333.0	-17.4
442.347000	21.31	46.00	24.69	100.0	V	87.0	-13.1
896.792000	31.17	46.00	14.83	100.0	V	206.0	-5.0

1GHz - 6.2GHz

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

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

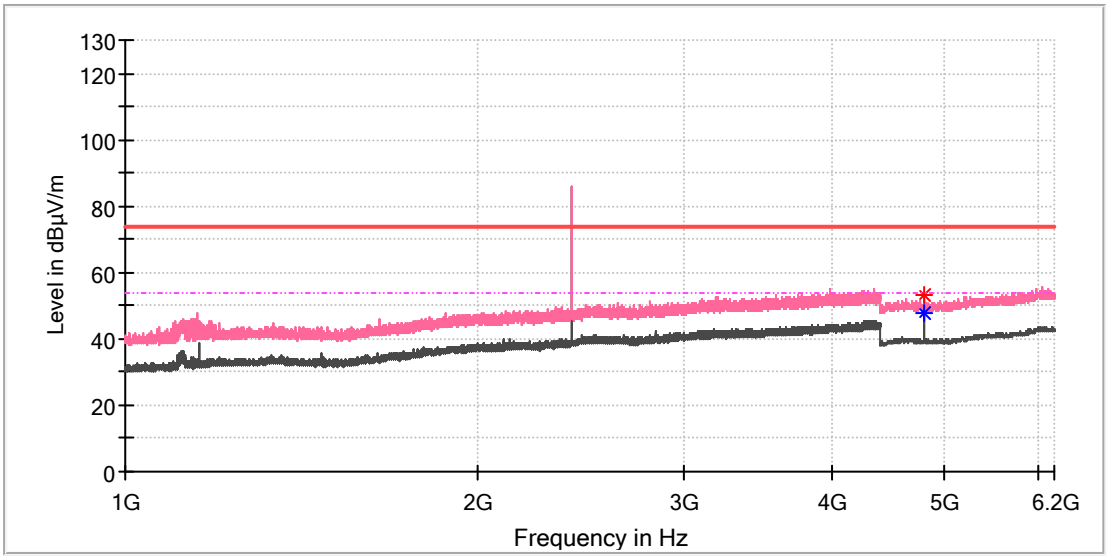


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.000000	---	48.87	54.00	5.13	100.0	H	175.0	11.8
4803.500000	59.37	---	74.00	14.63	100.0	H	175.0	11.8

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

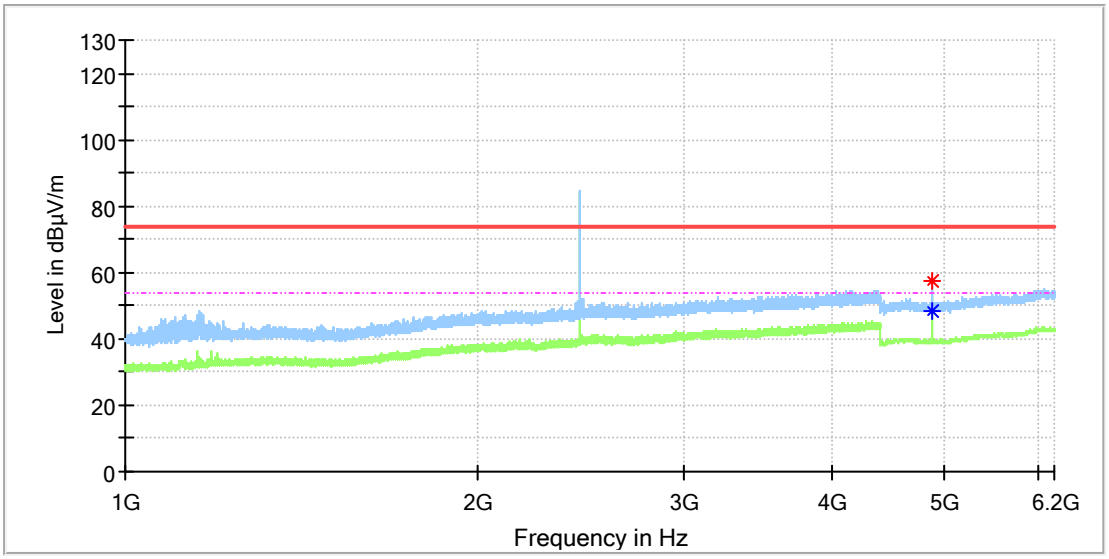


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	53.29	---	74.00	20.72	100.0	V	221.0	11.8
4804.000000	---	47.50	54.00	6.50	100.0	V	150.0	11.8

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

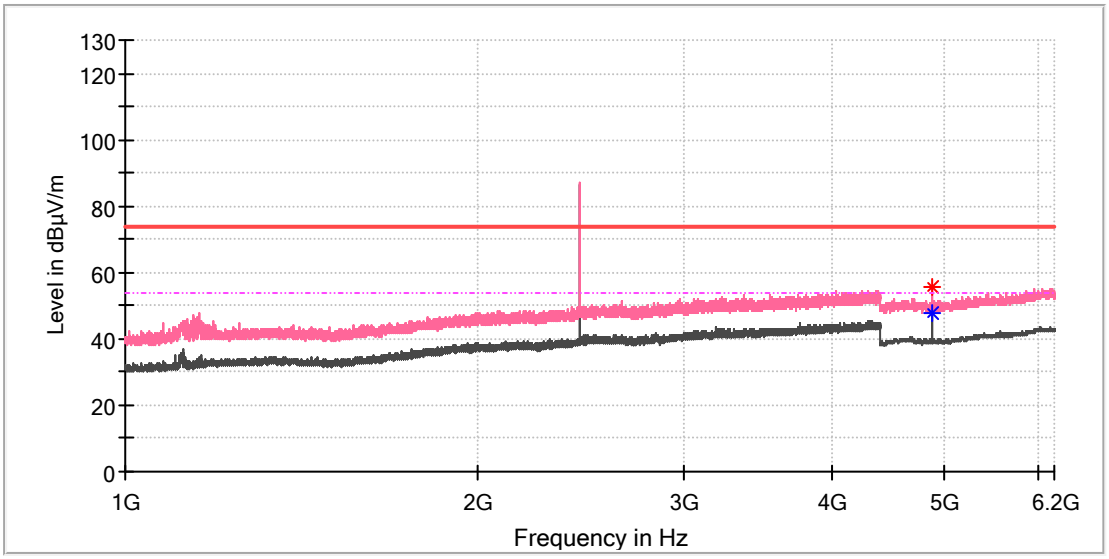


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4881.000000	---	48.34	54.00	5.66	100.0	H	18.0	11.8
4882.000000	57.48	---	74.00	16.52	100.0	H	18.0	11.8

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

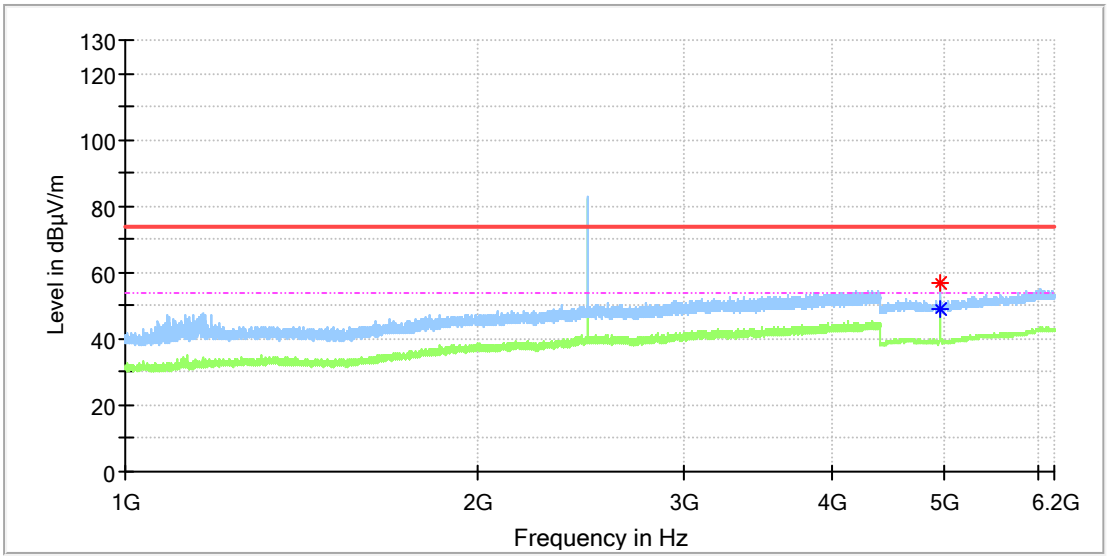


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4882.000000	55.47	---	74.00	18.53	100.0	V	140.0	11.8
4882.500000	---	47.77	54.00	6.23	100.0	V	140.0	11.8

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

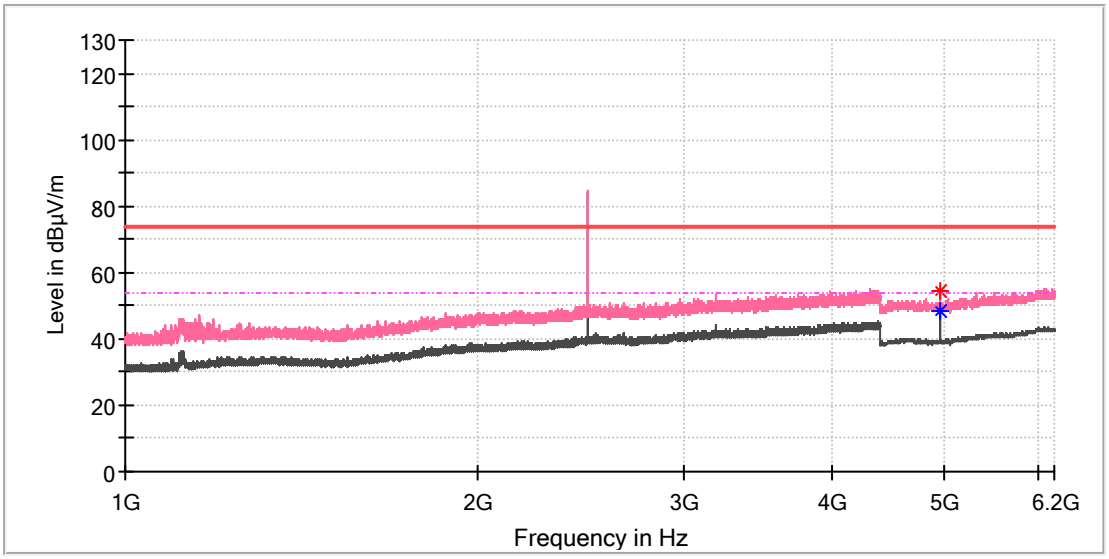


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500000	56.82	---	74.00	17.18	100.0	H	12.0	11.8
4960.500000	---	48.81	54.00	5.19	100.0	H	19.0	11.8

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



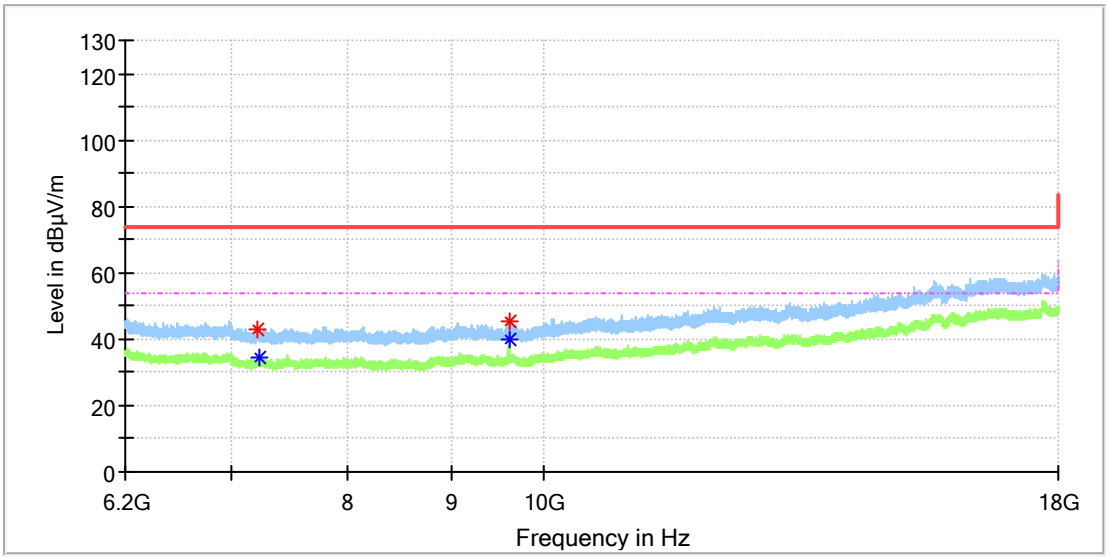
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500000	---	48.43	54.00	5.57	100.0	V	141.0	11.8
4960.000000	54.44	---	74.00	19.56	100.0	V	141.0	11.8

6.2GHz - 18GHz
Note: The highest waveform in the figure is Bluetooth harmonic.

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

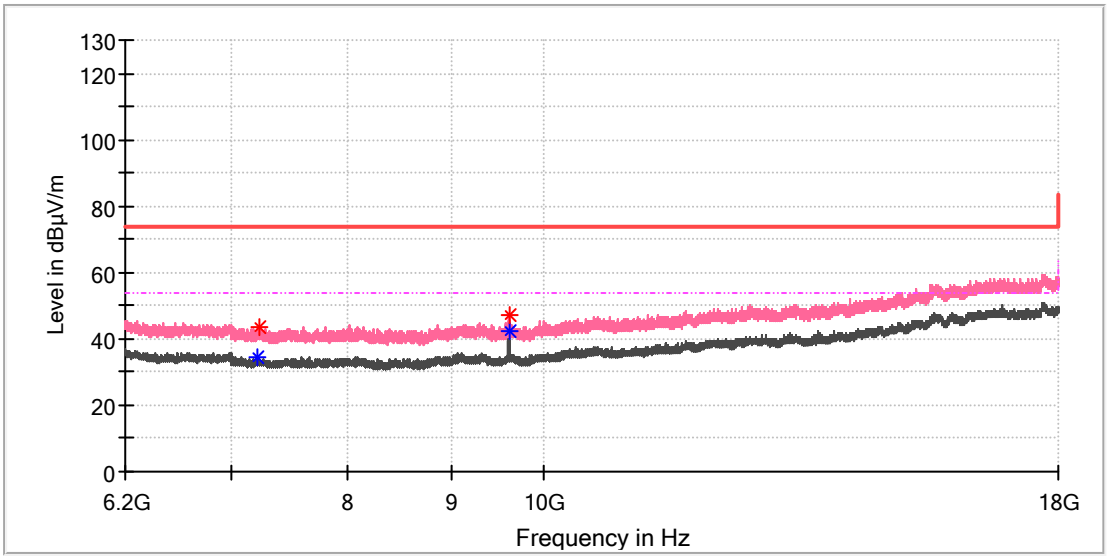


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7207.425000	43.01	---	74.00	30.99	100.0	H	278.0	8.8
7226.600000	---	34.17	54.00	19.83	100.0	H	6.0	8.7
9607.741667	45.55	---	74.00	28.45	100.0	H	200.0	10.4
9607.741667	---	39.78	54.00	14.22	100.0	H	200.0	10.4

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

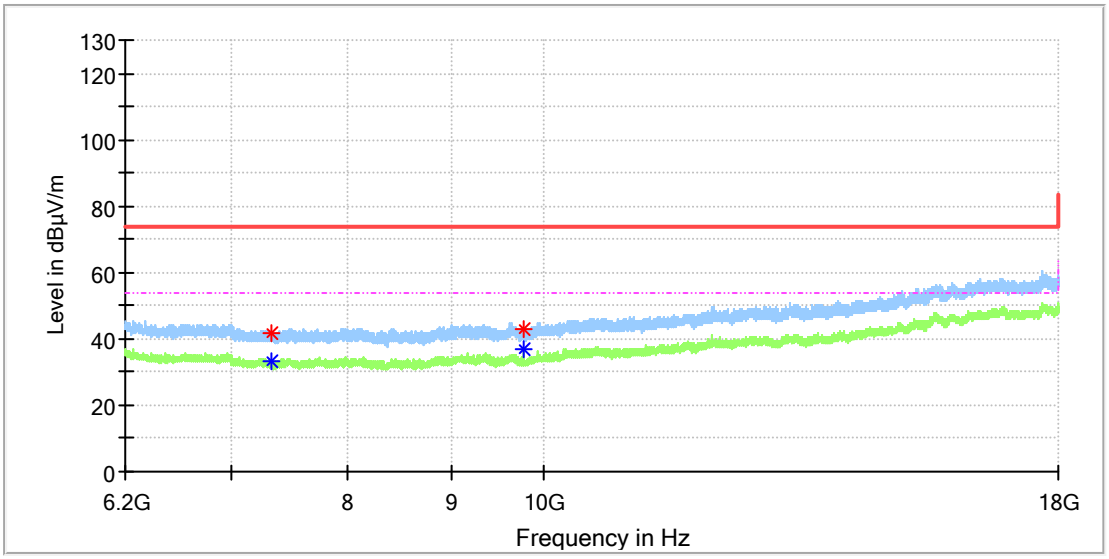


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7205.458333	---	34.46	54.00	19.54	100.0	V	134.0	8.8
7223.158333	43.65	---	74.00	30.35	100.0	V	145.0	8.7
9607.741667	46.98	---	74.00	27.02	100.0	V	183.0	10.4
9607.741667	---	42.55	54.00	11.45	100.0	V	183.0	10.4

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

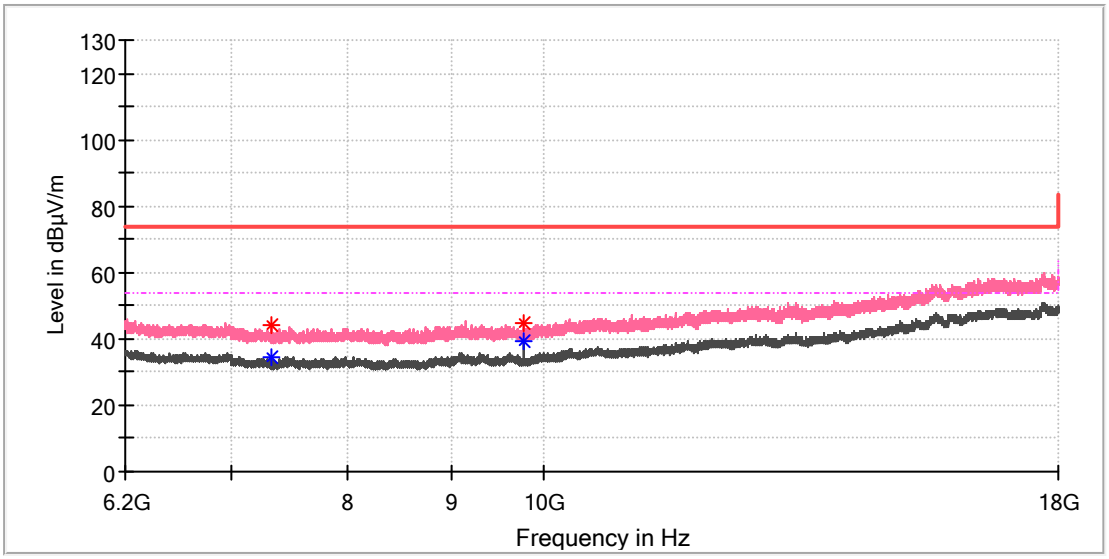


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.475000	---	33.47	54.00	20.53	100.0	H	206.0	8.2
7322.966667	42.02	---	74.00	31.98	100.0	H	0.0	8.2
9764.091667	---	36.78	54.00	17.22	100.0	H	84.0	10.4
9764.583333	43.19	---	74.00	30.81	100.0	H	84.0	10.4

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Mid channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

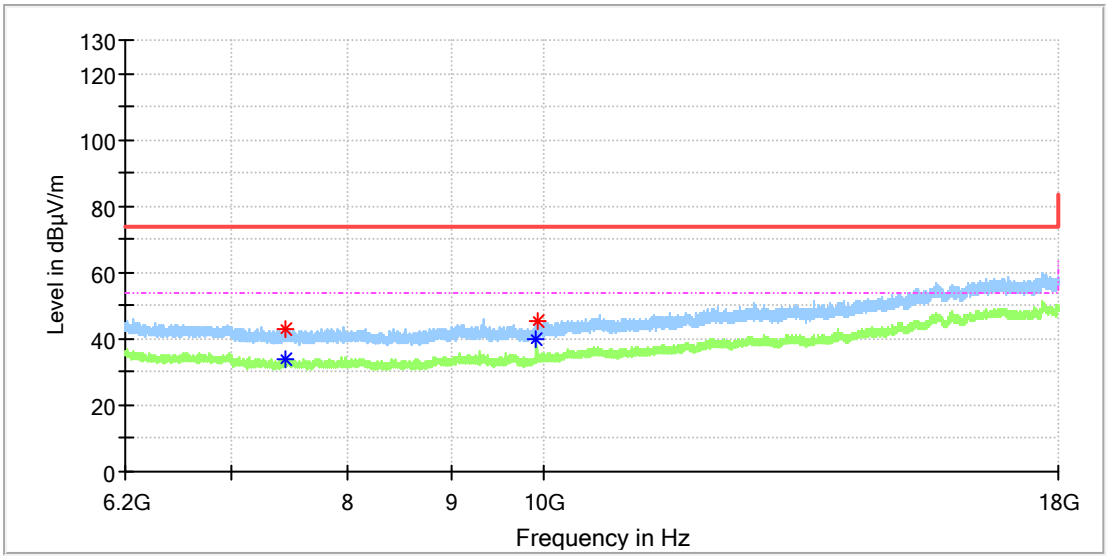


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7322.475000	---	34.73	54.00	19.27	100.0	V	8.0	8.2
7322.966667	43.87	---	74.00	30.13	100.0	V	68.0	8.2
9763.600000	45.01	---	74.00	28.99	100.0	V	32.0	10.4
9764.091667	---	39.57	54.00	14.43	100.0	V	32.0	10.4

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

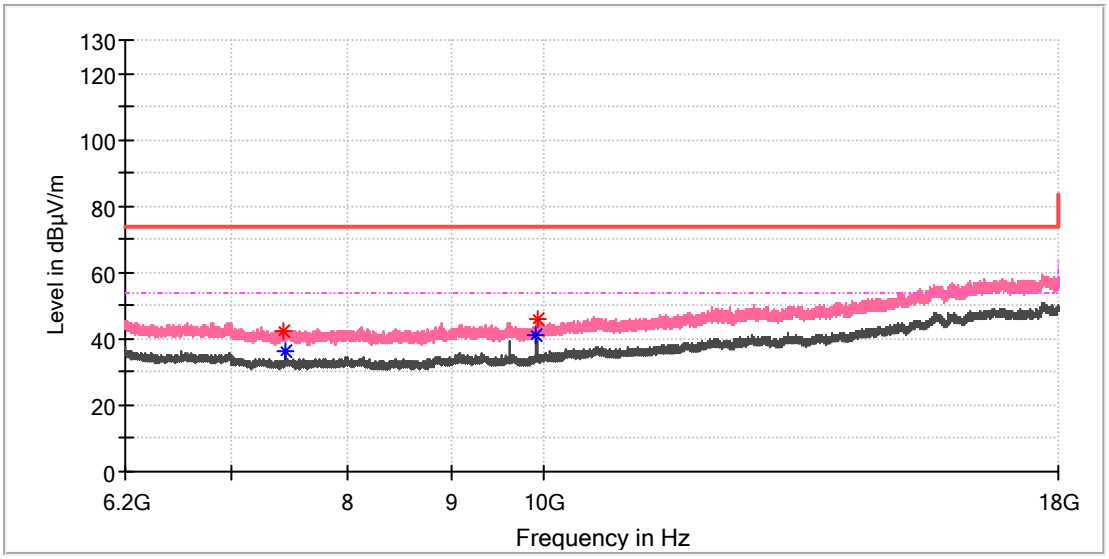


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7453.258333	43.13	---	74.00	30.87	100.0	H	22.0	8.5
7453.258333	---	33.91	54.00	20.09	100.0	H	22.0	8.5
9919.950000	---	40.01	54.00	13.99	100.0	H	83.0	10.8
9920.441667	45.28	---	74.00	28.72	100.0	H	95.0	10.8

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



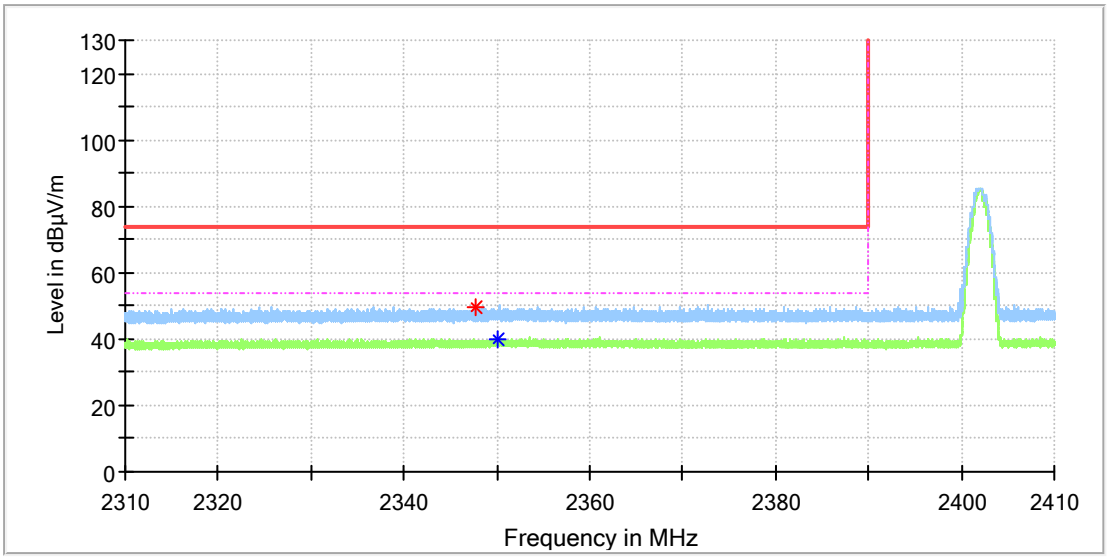
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7436.050000	42.37	---	74.00	31.63	100.0	V	350.0	8.4
7439.983333	---	36.17	54.00	17.83	100.0	V	137.0	8.4
9919.950000	---	41.10	54.00	12.90	100.0	V	280.0	10.8
9920.441667	45.99	---	74.00	28.01	100.0	V	85.0	10.8

Appendix B.9: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

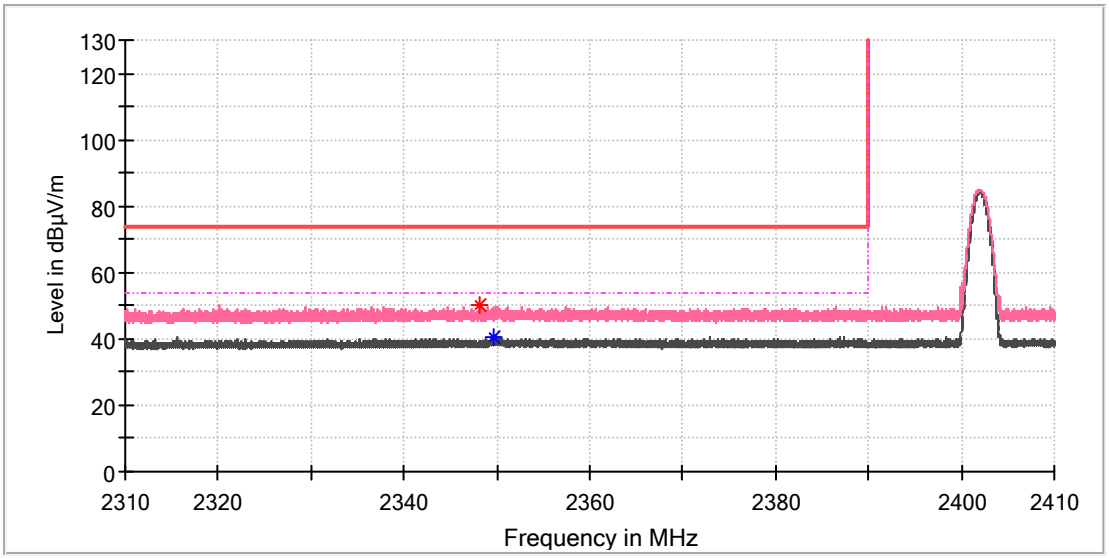


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2347.630000	49.74	---	74.00	24.26	100.0	H	213.0	6.9
2350.150000	---	40.13	54.00	13.87	100.0	H	359.0	6.9

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

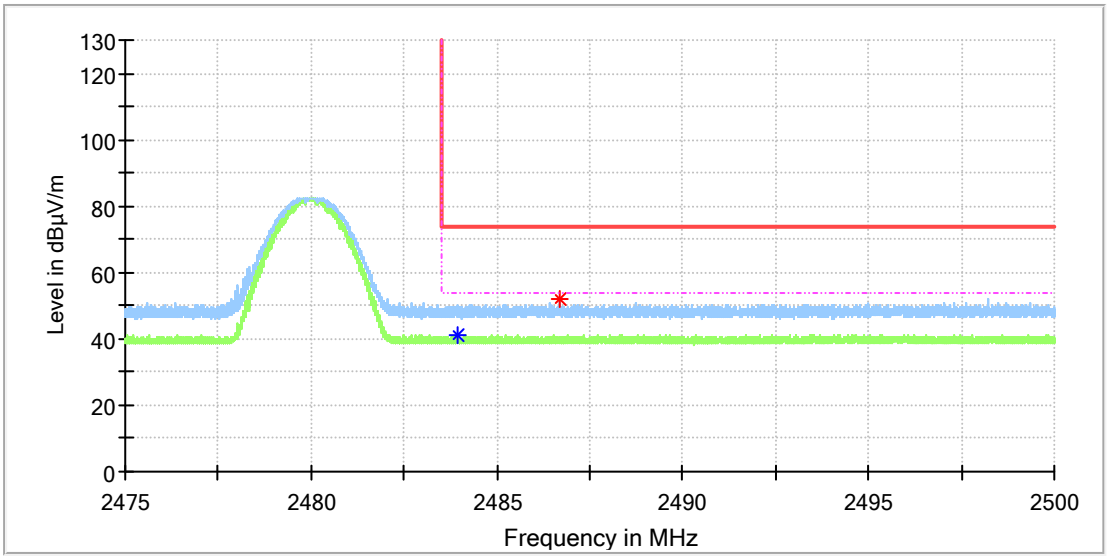


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2348.125000	50.14	---	74.00	23.86	100.0	V	18.0	6.9
2349.755000	---	40.75	54.00	13.25	100.0	V	168.0	6.9

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin

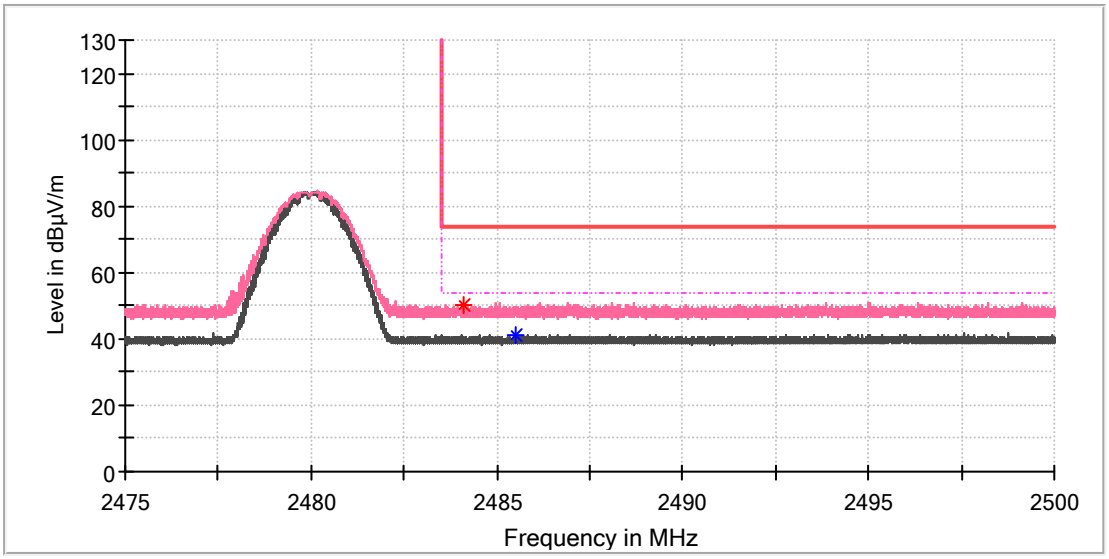


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.942500	---	41.15	54.00	12.85	100.0	H	311.0	7.4
2486.695000	51.97	---	74.00	22.03	100.0	H	88.0	7.4

EUT Information

EUT Name:	CAR MP3 PLAYER
Model:	JBLCELEBRITY100
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168399960/A003376725-001
Test Voltage::	DC 12V From DC Source
Remark:	Temp 23 Humi:53%
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)
2484.106250	50.19	---	74.00	23.81	100.0	V	155.0	7.4
2485.517500	---	41.13	54.00	12.87	100.0	V	188.0	7.4