

Prüfbericht-Nr.: Test report no.:	CN2231OL 001	Auftrags-Nr.: Order no.:	168360082	Seite 1 von 25 Page 1 of 25
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2022-02-22	
Auftraggeber: Client:	SRP Companies 85 Rio Grande Drive Second Floor, Castle Rock, CO 80104, Colorado, United States			
Prüfgegenstand: Test item:	True Wireless Earbuds			
Bezeichnung / Typ-Nr.: Identification / Type no.:	PODZ			
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 CFR47 FCC Part 15: Subpart B Section 15.107 CFR47 FCC Part 15: Subpart B Section 15.109 RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 March 2019 ICES-003 Issue 7 October 2020			
Wareneingangsdatum: Date of sample receipt:	2022-03-02	Please refer to Photo Document		
Prüfmuster-Nr.: Test sample no:	A003201287-022~024 A003185981-002			
Prüfzeitraum: Testing period:	2022-03-10 - 2022-04-02			
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:	Ausstellungsdatum: Issue date:			
Stellung / Position	Assistant Project Manager	Stellung / Position	Reviewer	
Sonstiges / Other:	FCC ID: 2ATF5TS-11			
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 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 specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable 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. 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.				

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 99% BANDWIDTH

RESULT: Pass

5.1.4 20dB BANDWIDTH

RESULT: Pass

5.1.5 CARRIER FREQUENCY SEPARATION

RESULT: Pass

5.1.6 NUMBER OF HOPPING FREQUENCY

RESULT: Pass

5.1.7 TIME OF OCCUPANCY

RESULT: Pass

5.1.8 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.9 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.10 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

5.1.11 RADIATED EMISSIONS

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 of FCC PART 15C & RSS-247

Appendix C: Test Results of FCC 15B & ICES-003

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

FCC Registration No.: 694916

ISED wireless device testing laboratory: 25069

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (SRD-Tonscend)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	2022-09-28
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	2022-09-28
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	2022-09-28
DC power supply	Keysight	E3642A	MY61276100	2022-09-28
Power Control Unit	Tonscend	JS0806-4ADC	N/A	2022-09-28
Automation Control Unit	Tonscend	JS0806-2	21C8060396	2022-09-28
Test Software	Tonscend	JS1120-3	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A
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	2022-08-10
Signal Analyzer	R&S	FSV 40	101439	2022-08-09
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	2022-08-09
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2022-08-09
Amplifier	R&S	SCU-18F	180070	2022-08-09
Amplifier	R&S	SCU40A	100475	2022-08-09
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2022-08-08
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	2022-08-08
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2022-08-08
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2022-09-13
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
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Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR3	102680	2023-02-27
Artificial Mains Network	R&S	ENV216	101445	2023-02-27
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A
Radiated Emission (3m chamber)				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
3m SAC	ETS-Lindgren	SAC3	CT001632-Q1362	2024-04-26
EMI Test Receiver	R&S	ESR7	102111	2022-12-01
Horn Antenna	R&S	HF907	102706	2022-08-07
Preamplifier (1-18GHz)	FIT	SCU-18F	180077	2022-08-13
Trilog-Broadband antenna	SCHWARZBECK	VULB9168	0945	2022-12-12
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.

Table 2: Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-7}$
RF Power (conducted)	± 2.5 dB
Radiated Emission of Transmitter, valid up to 26.5 GHz	± 6 dB
Radiated Emission of Receiver, valid up to 26.5 GHz	± 6 dB
Radiated Emission (3m SAC), 30MHz to 1000MHz	± 4.52 dB
Radiated Emission (3m SAC), above 1000MHz	± 4.37 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 dB
Temperature	± 1 °C
Humidity	± 5 %
Voltage (DC)	± 1 %
Voltage (AC, <10kHz)	± 2 %

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2.6 Location of Original Data

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

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 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 EUTs are True Wireless Earbuds, which consist of a Charging case, a left earbud and a right earbud, left and right earbuds have the same design and both support Bluetooth wireless technology.

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

3.2 Ratings and System Details

Table 3: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	True Wireless Earbuds
Type Designation:	PODZ
FCC ID:	2ATF5TS-11
Operating Voltage (Battery pack of charging base):	Internal battery operated (3.7Vdc, 200mAh) or USB operated (Adapter input voltage 120Vac, 60Hz)
Operating Voltage (Battery pack of earphone):	Internal battery operated (3.7Vdc, 30mAh)
Technical Specification of Bluetooth BR/EDR	
Operating Frequency:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Channel Number:	79 channels
Channel Separation:	1MHz
Antenna Type:	Integral Antenna
Antenna Gain of Bluetooth:	-0.58 dBi

Table 4: RF Channel and Frequency of Bluetooth BR/EDR

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	2402.00	20	2422.00	40	2442.00	60	2462.00
1	2403.00	21	2423.00	41	2443.00	61	2463.00
2	2404.00	22	2424.00	42	2444.00	62	2464.00
3	2405.00	23	2425.00	43	2445.00	63	2465.00
4	2406.00	24	2426.00	44	2446.00	64	2466.00
5	2407.00	25	2427.00	45	2447.00	65	2467.00
6	2408.00	26	2428.00	46	2448.00	66	2468.00
7	2409.00	27	2429.00	47	2449.00	67	2469.00
8	2410.00	28	2430.00	48	2450.00	68	2470.00
9	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		

Test frequencies are lowest channel: 2402 MHz, middle channel: 2441 MHz and highest channel: 2480 MHz for Bluetooth BR/EDR

3.3 Independent Operation Modes

The basic operation modes are:

A. On, Bluetooth transmitting mode (BR & EDR mode)

- 1) Low Channel
- 2) Middle Channel
- 3) High Channel

B. On, Transmitting on Hopping channel

C. On, Play by Bluetooth

D. On, Charging mode

E. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|--------------------|-------------------------|
| - Application Form | - User Manual |
| - Block Diagram | - Rating Label |
| - Schematics | - 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 tests were performed according to the procedures in ANSI C63.10: 2013 & ANSI C63.4: 2014.

According to clause 3.1, all tests were performed on model PODZ in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 5: Auxiliary Equipment Used during Test

Description	Manufacturer	Model	S/N	Rating
Laptop	Lenovo	T480	PF-16A6N8	/
AC/DC Adapter	HUAWEI	HW-050100C01	/	Output: DC 5V, 1A

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 1GHz)

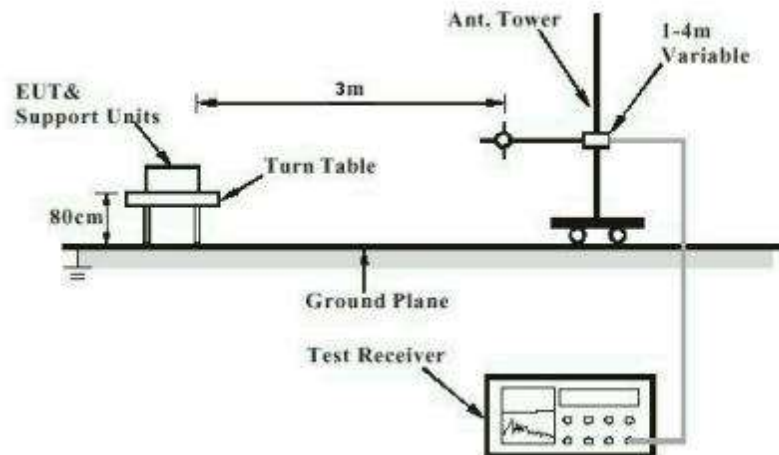


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

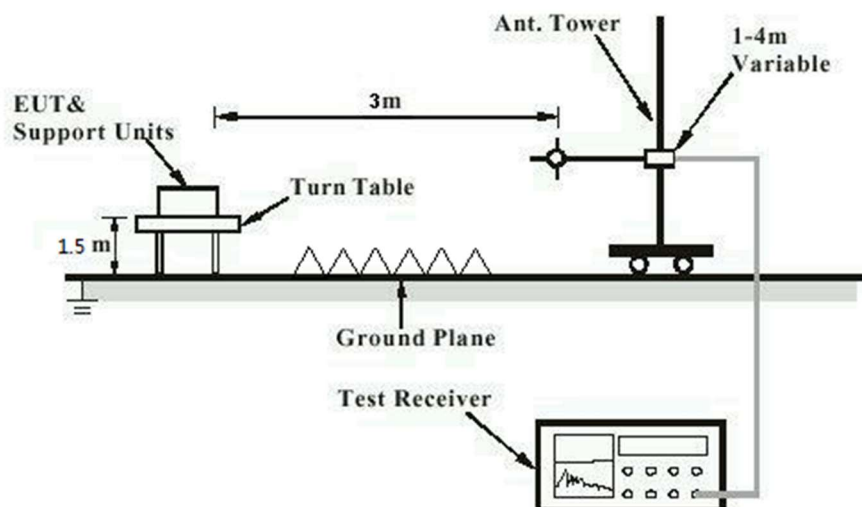


Diagram of Measurement Configuration for Mains Conduction Measurement

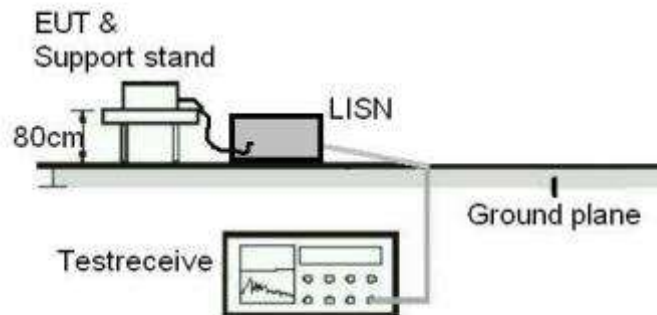
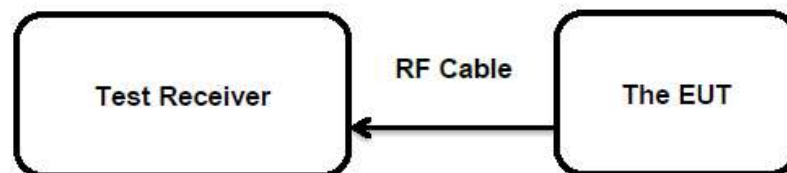


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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 6.8

According to the manufacturer declared, the EUT has an Integral antenna, the directional gain of antenna is -0.58 dBi, 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)(1) RSS-247 Clause 5.4(b)
Basic standard	: ANSI C63.10: 2013
Limits	: FHSS < 0.125 Watts
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2022-04-02
Input voltage	: Internal battery operated
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 25.3 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

Table 6: Test Result of Maximum Peak Conducted Output Power, Bluetooth BR & EDR

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
GFSK (BR)	2402.0	-2.51	0.0006	< 0.125
	2441.0	-2.71	0.0005	
	2480.0	-2.06	0.0006	
Maximum Measured Value		-2.06	0.0006	

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
8DPSK (EDR)	2402.0	-1.45	0.0007	< 0.125
	2441.0	-1.73	0.0007	
	2480.0	-1.11	0.0008	
Maximum Measured Value		-1.11	0.0008	

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G): -0.58 dBi
e.i.r.p.=P_(Peak power)+ G, which is far below the 4 W

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5.1.3 99% Bandwidth

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

Test standard	:	FCC Part 15.247(a) RSS-Gen Clause 6.7
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2022-04-02
Input voltage	:	Internal battery operated
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25.3 °C
Relative humidity	:	50 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

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5.1.4 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	:	2022-04-02
Input voltage	:	Internal battery operated
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25.3 °C
Relative humidity	:	50 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

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5.1.5 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	: $\geq 25\text{kHz}$ or 2/3 of 20dB bandwidth, whichever is greater
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2022-04-02
Input voltage	: Internal battery operated
Operation mode	: B
Test channel	: Low / Middle / High
Ambient temperature	: 25.3 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

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5.1.6 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	: 2022-04-02
Input voltage	: Internal battery operated
Operation mode	: B
Ambient temperature	: 25.3 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

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5.1.7 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	:	2022-04-02
Input voltage	:	Internal battery operated
Operation mode	:	B
Test channel	:	Low / Middle / High
Ambient temperature	:	25.3 °C
Relative humidity	:	50 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

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5.1.8 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	: Refer to test result
Input voltage	: Internal battery operated
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 25.3 °C
Relative humidity	: 50 %
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.

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5.1.9 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 Section 8.9 & 8.10
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2022-03-31 to 2022-04-01
Input voltage	: Internal battery operated
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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5.1.10 Conducted Emission on AC Mains**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.107(a) ICES-003 Issue 7, Clause 3.2.1
Basic standard	: ANSI C63.4:2014
Frequency range	: 0.15 – 30MHz
Classification	: Class B
Limits	: FCC Part 15.107(a) ICES-003 Table 1
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2022-03-11
Input voltage	: USB operated (Adapter input voltage 120Vac, 60Hz)
Operation mode	: D
Earthing	: Not connected
Ambient temperature	: 24.1 °C
Relative humidity	: 49 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix C.

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5.1.11 Radiated Emissions**RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.109(a) ICES-003 Section 3.2.2
Basic standard	: ANSI C63.4:2014
Frequency range	: 30MHz to 5 th harmonic of the highest frequency
Classification	: Class B
Limits	: FCC Part 15.109(a) ICES-003 Table 2 & 4
Kind of test site	: 3m Semi-Anechoic Chamber

Test Setup

Date of testing	: 2022-03-10 to 2022-03-21
Input voltage	: Internal battery operated USB operated (Adapter input voltage 120Vac, 60Hz)
Operation mode	: C, D
Earthing	: Not connected
Ambient temperature	: 25.2 °C
Relative humidity	: 51 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix C.

6 Photographs of the Test Set-Up

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

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Appendix B.1: Test Results of 99% Bandwidth

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.85499	2401.571	2402.426	---	PASS
		2441	0.85425	2440.569	2441.423	---	PASS
		2480	0.84743	2479.571	2480.419	---	PASS
3DH5	Ant1	2402	0.84751	2401.573	2402.420	---	PASS
		2441	1.1968	2440.396	2441.593	---	PASS
		2480	1.1906	2479.400	2480.591	---	PASS

DH5_Ant1_2402



DH5_Ant1_2441



DH5_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	0.885	2401.553	2402.438	---	PASS
		2441	0.894	2440.544	2441.438	---	PASS
		2480	0.882	2479.556	2480.438	---	PASS
3DH5	Ant1	2402	1.263	2401.358	2402.621	---	PASS
		2441	1.281	2440.352	2441.633	---	PASS
		2480	1.263	2479.358	2480.621	---	PASS

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



3DH5 Ant1 2402



3DH5_Ant1_2441



3DH5 Ant1 2480



Appendix B.3: Test Results of Carrier Frequency Separation

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	1.014	≥0.894	PASS
3DH5	Ant1	Hop	1	≥0.854	PASS



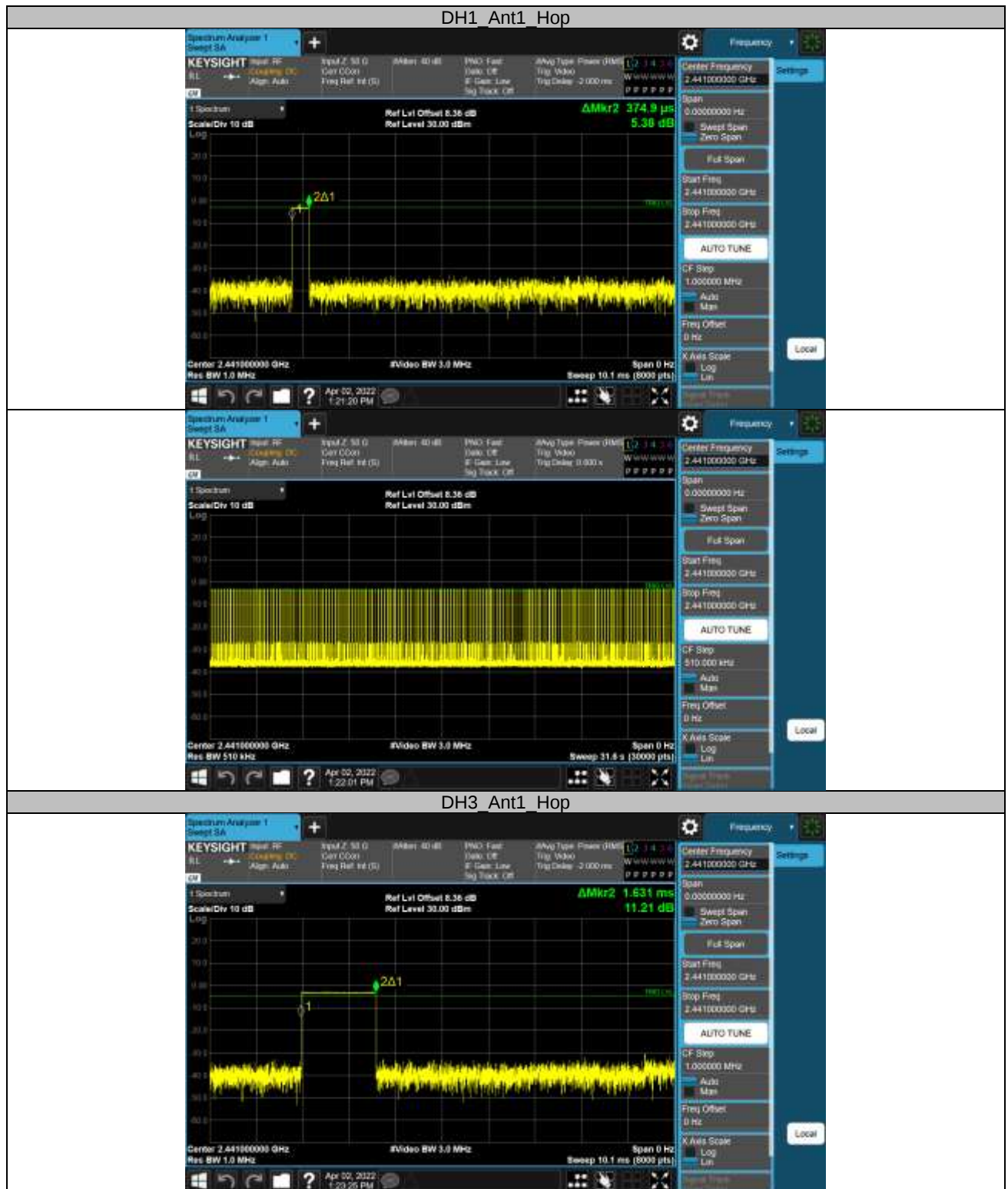
Appendix B.4: Test Results of Number of Hopping Frequency

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



Appendix B.5: Test Results of Time of Occupancy

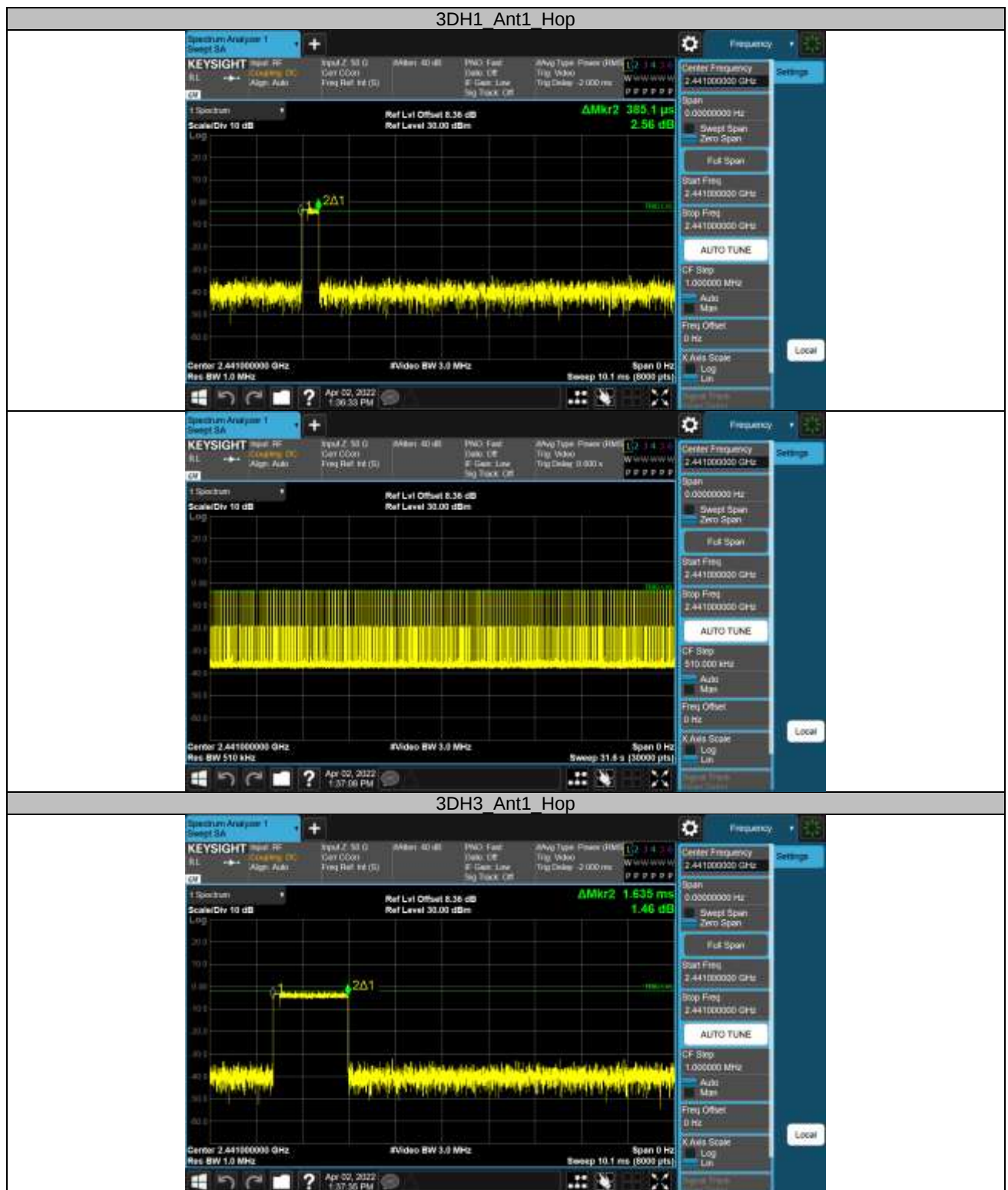
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.37	317	0.119	≤0.4	PASS
DH3	Ant1	Hop	1.63	156	0.255	≤0.4	PASS
DH5	Ant1	Hop	2.88	123	0.354	≤0.4	PASS
3DH1	Ant1	Hop	0.39	318	0.122	≤0.4	PASS
3DH3	Ant1	Hop	1.64	163	0.267	≤0.4	PASS
3DH5	Ant1	Hop	2.89	108	0.312	≤0.4	PASS





DH5_Ant1_Hop







3DH5 Ant1 Hop

Appendix B.6: 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	-3.25	-3.25	---	PASS
			30~1000	-3.25	-56.05	≤-23.25	PASS
			1000~26500	-3.25	-48.66	≤-23.25	PASS
		2441	Reference	-3.55	-3.55	---	PASS
			30~1000	-3.55	-54.26	≤-23.55	PASS
			1000~26500	-3.55	-47.87	≤-23.55	PASS
		2480	Reference	-2.82	-2.82	---	PASS
			30~1000	-2.82	-59.75	≤-22.82	PASS
			1000~26500	-2.82	-46.19	≤-22.82	PASS
3DH5	Ant1	2402	Reference	-6.25	-6.25	---	PASS
			30~1000	-6.25	-60.53	≤-26.25	PASS
			1000~26500	-6.25	-52.25	≤-26.25	PASS
		2441	Reference	-6.63	-6.63	---	PASS
			30~1000	-6.63	-56.91	≤-26.63	PASS
			1000~26500	-6.63	-50.37	≤-26.63	PASS
		2480	Reference	-5.37	-5.37	---	PASS
			30~1000	-5.37	-58.14	≤-25.37	PASS
			1000~26500	-5.37	-49.02	≤-25.37	PASS

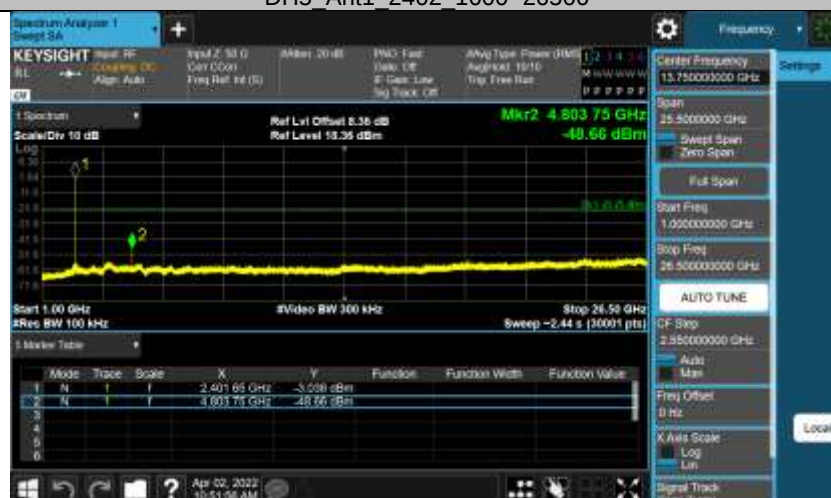
DH5_Ant1_2402_0-Reference



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



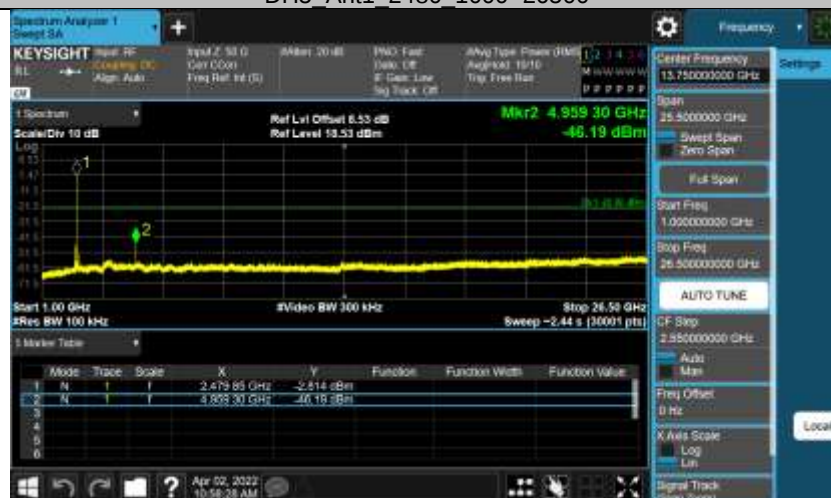
DH5_Ant1_2480_0-Reference



DH5_Ant1_2480_30-1000



DH5_Ant1_2480_1000-26500



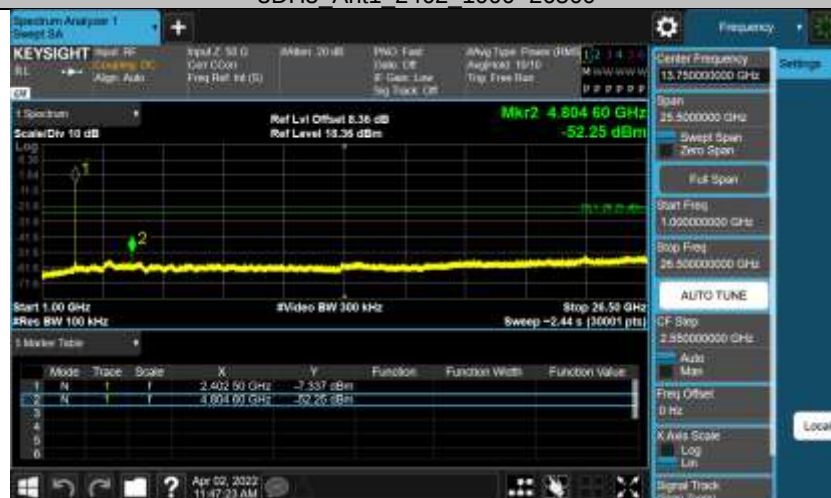
3DH5 Ant1 2402 0-Reference



3DH5 Ant1 2402 30-1000



3DH5 Ant1 2402 1000-26500



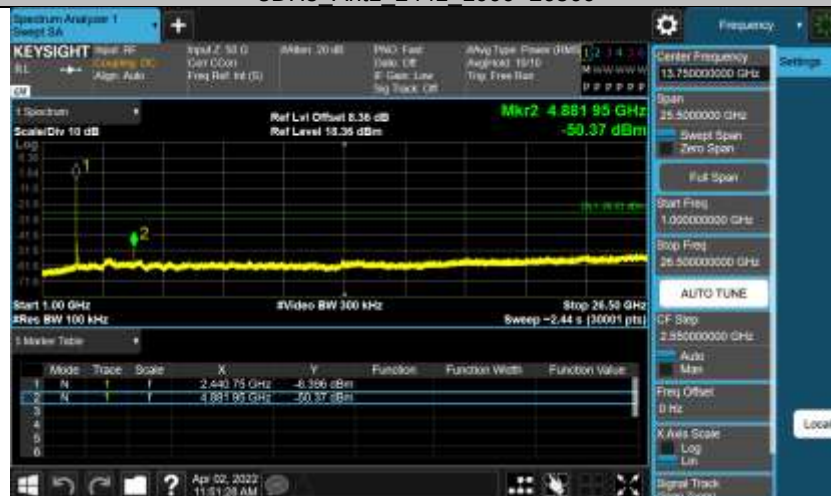
3DH5_Ant1_2441_0-Reference



3DH5_Ant1_2441_30-1000



3DH5_Ant1_2441_1000-26500



3DH5 Ant1 2480 0-Reference



3DH5 Ant1 2480 30-1000



3DH5 Ant1 2480 1000-26500



Band Edge

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.58	-37.51	≤-22.58	PASS
		High	2480	-2.18	-41.73	≤-22.18	PASS
		Low	Hop 2402	-3.50	-50.45	≤-23.5	PASS
		High	Hop 2480	-2.89	-49.87	≤-22.89	PASS
3DH5	Ant1	Low	2402	-2.59	-38.67	≤-22.59	PASS
		High	2480	-2.23	-46.15	≤-22.23	PASS
		Low	Hop 2402	-3.93	-50.3	≤-23.93	PASS
		High	Hop 2480	-3.97	-49.68	≤-23.97	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



Note: 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.

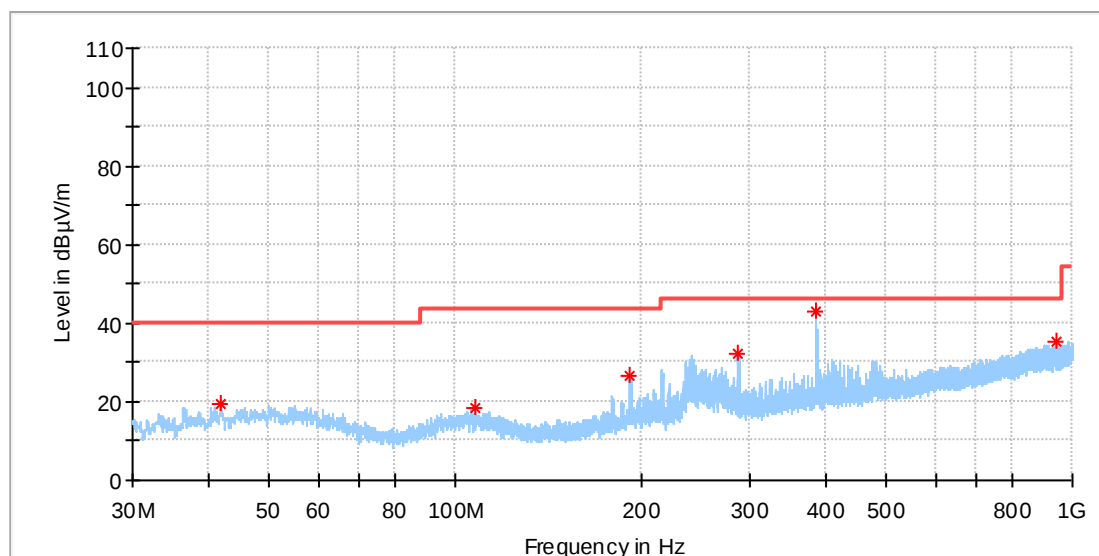
Appendix B.7: Test Results of Radiated Spurious Emissions

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

30MHz - 1GHz

EUT Information

EUT Name:	True Wireless Earbuds
Model:	PODZ
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168360082/A003201287-024
Test Voltage:	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

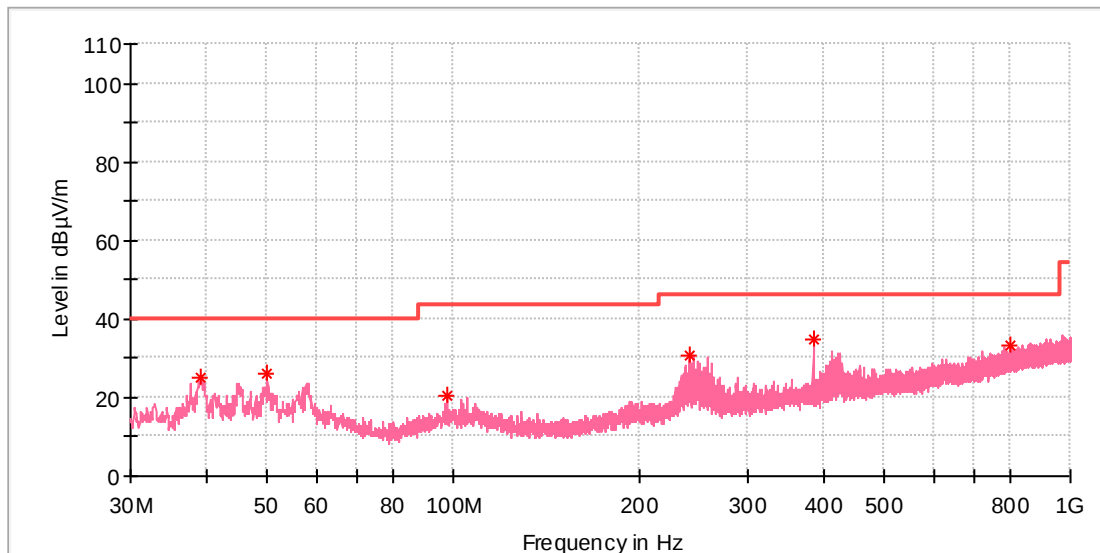
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
41.640000	19.42	40.00	20.58	100.0	H	77.0	-19.7
107.697000	18.49	43.50	25.01	100.0	H	138.0	-18.9
191.844500	26.68	43.50	16.82	100.0	H	178.0	-19.4
287.680500	32.24	46.00	13.76	100.0	H	25.0	-16.6
383.516500	42.86	46.00	3.14	100.0	H	25.0	-14.1
942.964000	35.38	46.00	10.62	100.0	H	206.0	-4.5

Final Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Low channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

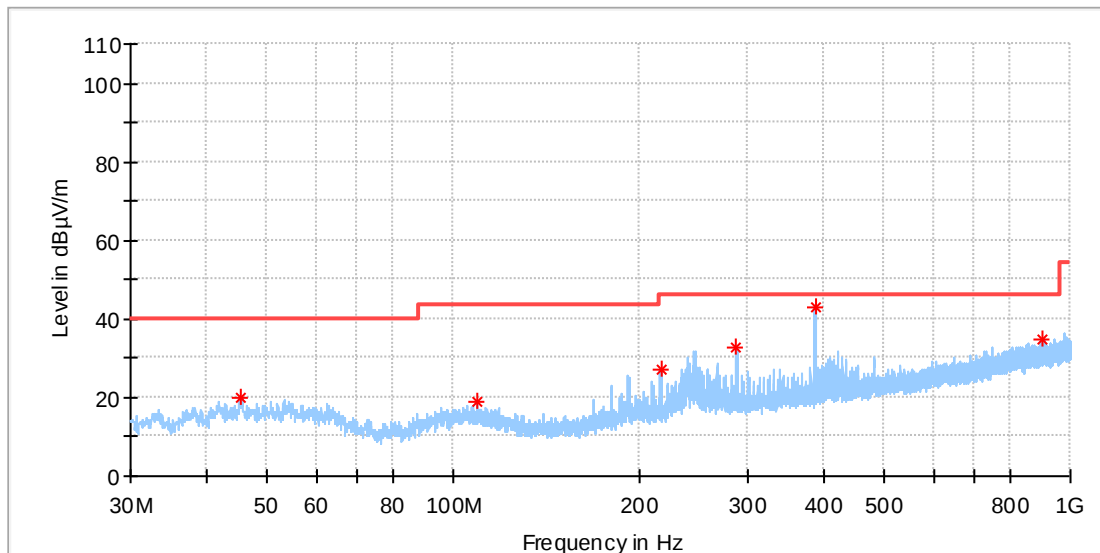
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
38.972500	25.30	40.00	14.70	100.0	V	248.0	-20.5
49.933500	25.85	40.00	14.15	100.0	V	289.0	-18.3
97.948500	20.41	43.50	23.09	100.0	V	340.0	-19.3
242.381500	30.87	46.00	15.13	100.0	V	340.0	-17.7
382.692000	34.76	46.00	11.24	100.0	V	59.0	-14.2
800.762000	33.13	46.00	12.87	100.0	V	141.0	-6.4

Final_Result

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

EUT Information

EUT Name:	True Wireless Earbuds
Model:	PODZ
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168360082/A003201287-024
Test Voltage:	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

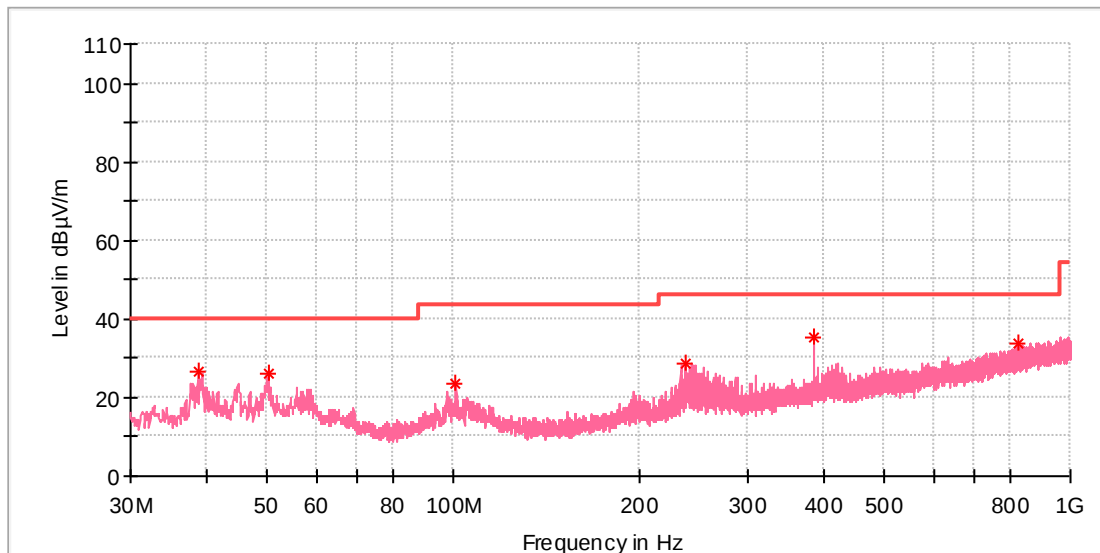
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.132000	20.20	40.00	19.80	100.0	H	44.0	-18.8
109.297500	18.84	43.50	24.66	100.0	H	266.0	-19.0
216.919000	27.34	46.00	18.66	100.0	H	1.0	-18.7
287.874500	32.67	46.00	13.33	100.0	H	21.0	-16.6
385.650500	42.89	46.00	3.11	100.0	H	44.0	-14.1
900.526500	34.81	46.00	11.19	100.0	H	166.0	-5.0

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_High channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
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)
38.633000	26.46	40.00	13.54	100.0	V	0.0	-20.6
50.273000	26.05	40.00	13.95	100.0	V	199.0	-18.3
101.052500	23.67	43.50	19.83	100.0	V	32.0	-18.9
238.016500	28.79	46.00	17.21	100.0	V	32.0	-17.8
383.419500	35.08	46.00	10.92	100.0	V	65.0	-14.1
826.273000	33.95	46.00	12.05	100.0	V	151.0	-5.9

Final_Result

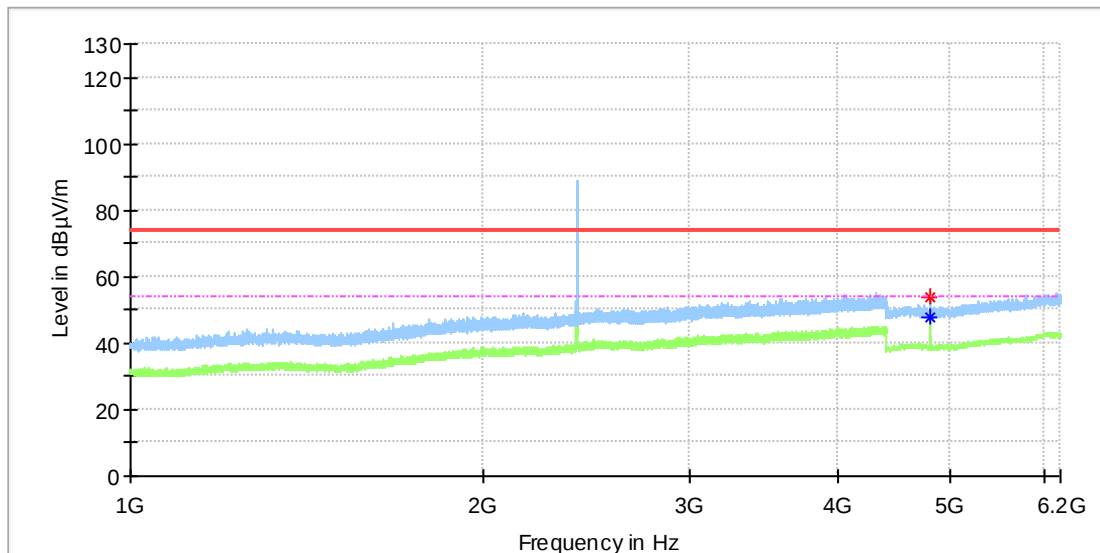
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---		---	---

1GHz - 18GHz

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

EUT Information

EUT Name:	True Wireless Earbuds
Model:	PODZ
Test Mode:	BR_DH5_Low channel
Order No/Sample No:	168360082/A003201287-024
Test Voltage:	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

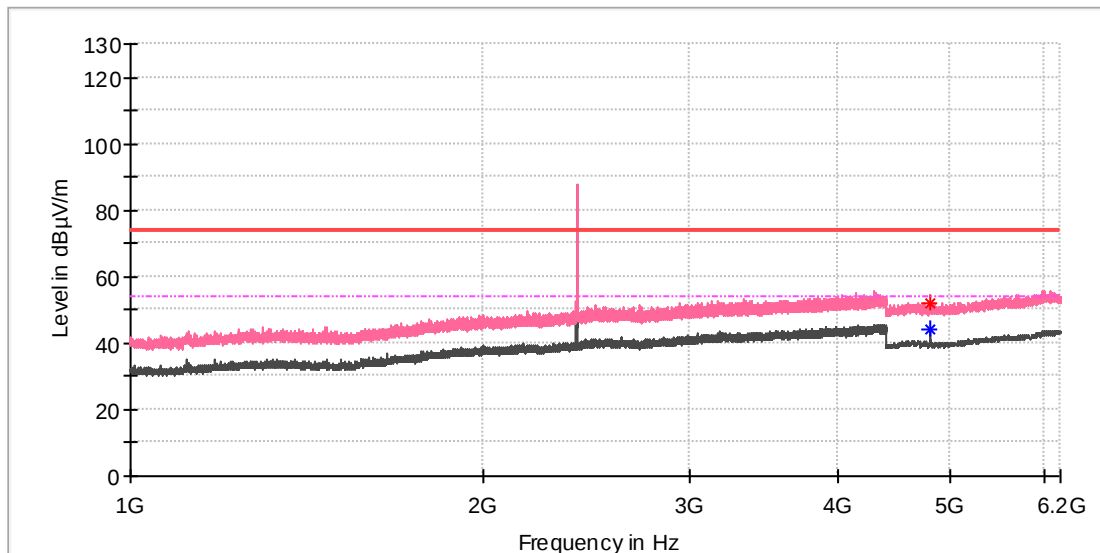
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4803.500000	53.76	---	74.00	20.24	100.0	H	128.0	11.8
4804.000000	---	47.79	54.00	6.21	100.0	H	122.0	11.8

Final Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Low channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

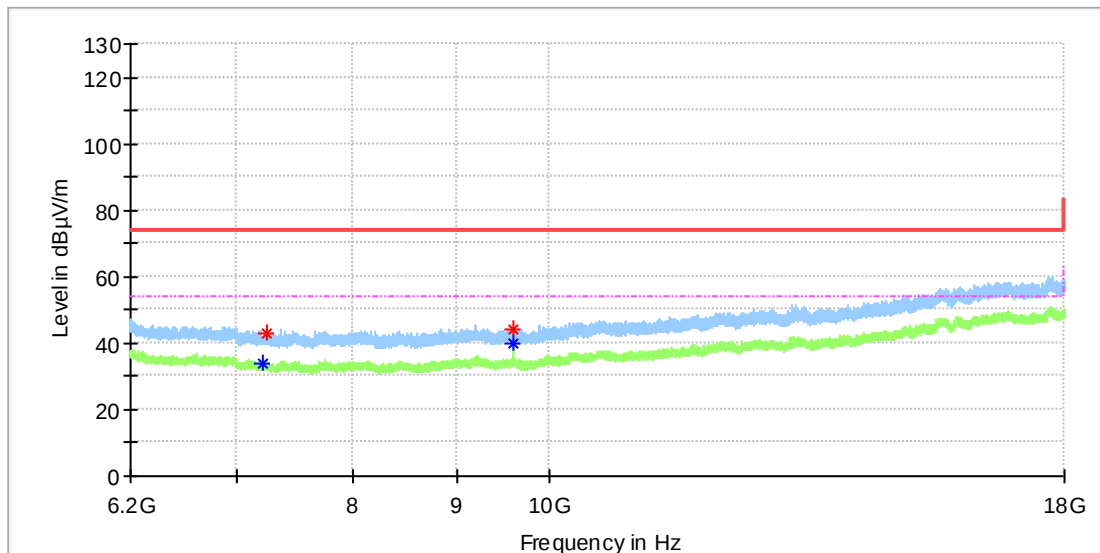
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4801.000000	---	43.90	54.00	10.10	100.0	V	32.0	11.8
4804.000000	52.03	---	74.00	21.97	100.0	V	89.0	11.8

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Low channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

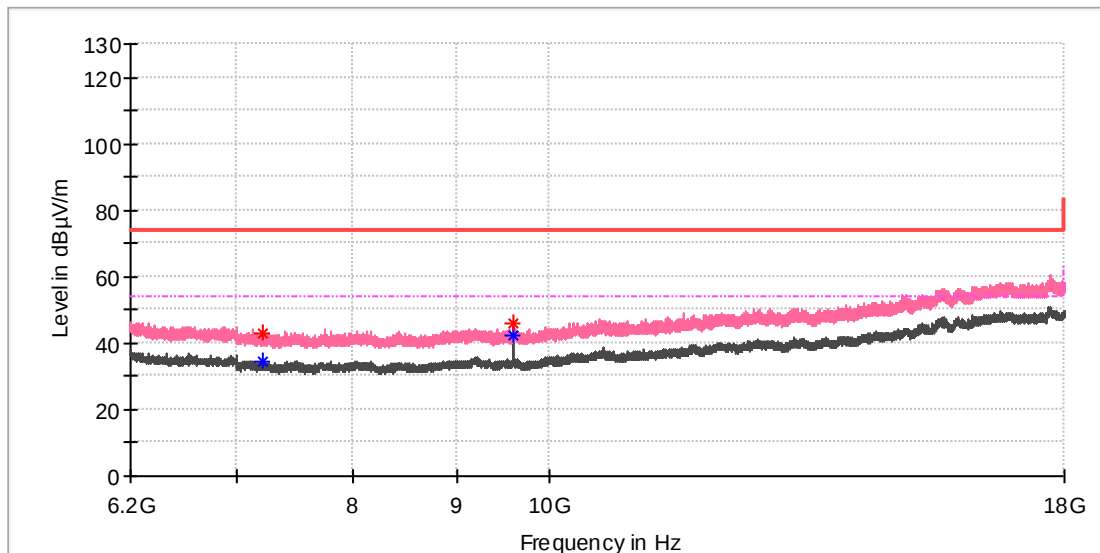
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7203.983333	---	33.91	54.00	20.09	100.0	H	112.0	8.8
7237.908333	42.74	---	74.00	31.26	100.0	H	222.0	8.6
9601.841667	44.21	---	74.00	29.79	100.0	H	334.0	10.4
9601.841667	---	39.86	54.00	14.14	100.0	H	334.0	10.4

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Low channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

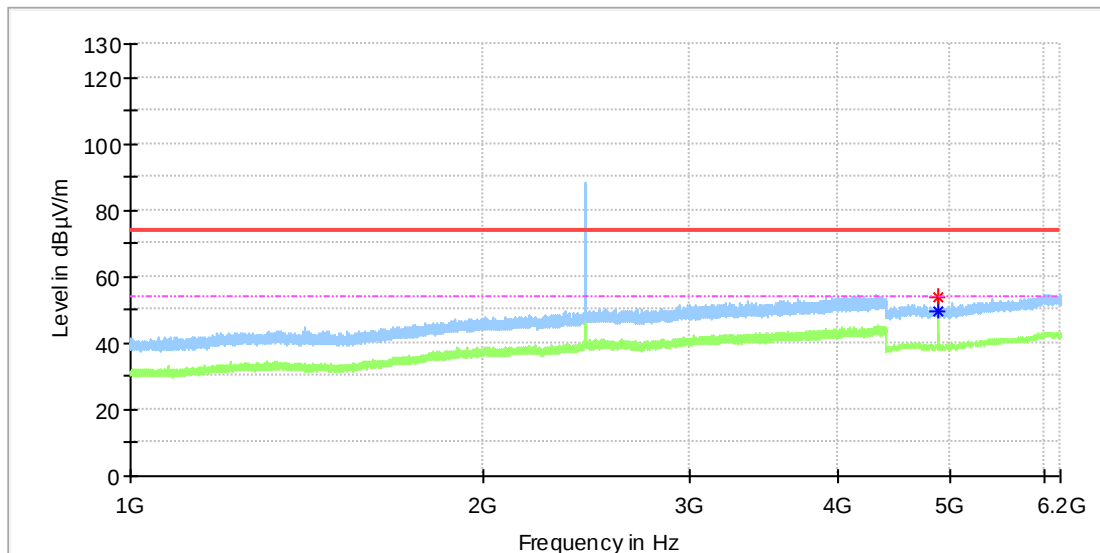
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7203.000000	42.83	---	74.00	31.17	100.0	V	342.0	8.8
7203.000000	---	34.28	54.00	19.72	100.0	V	342.0	8.8
9601.841667	45.85	---	74.00	28.15	100.0	V	1.0	10.4
9601.841667	---	42.15	54.00	11.85	100.0	V	1.0	10.4

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Mid channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

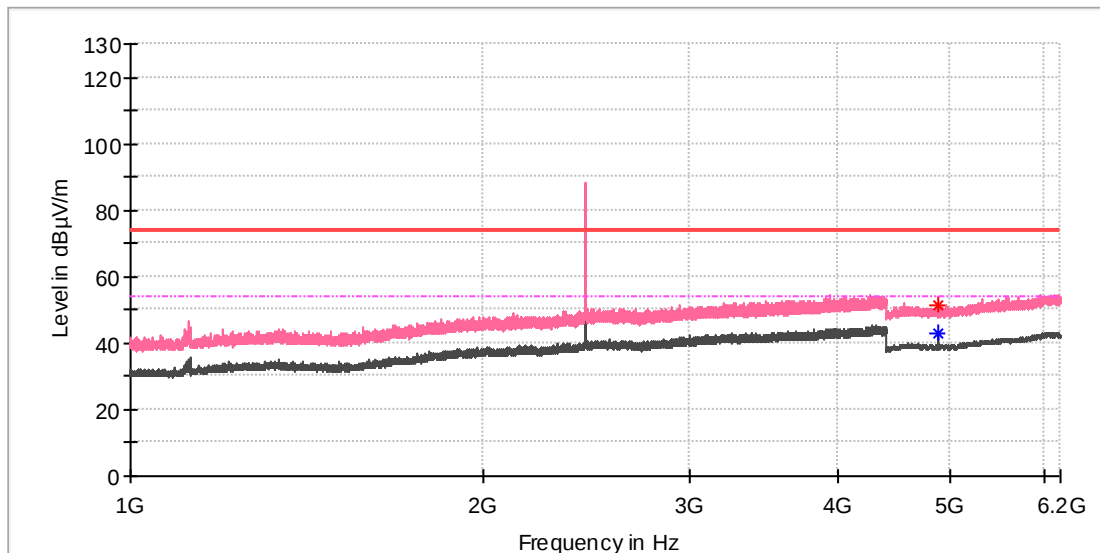
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4882.000000	---	49.76	54.00	4.24	100.0	H	109.0	11.8
4882.500000	54.11	---	74.00	19.89	100.0	H	109.0	11.8

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Mid channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

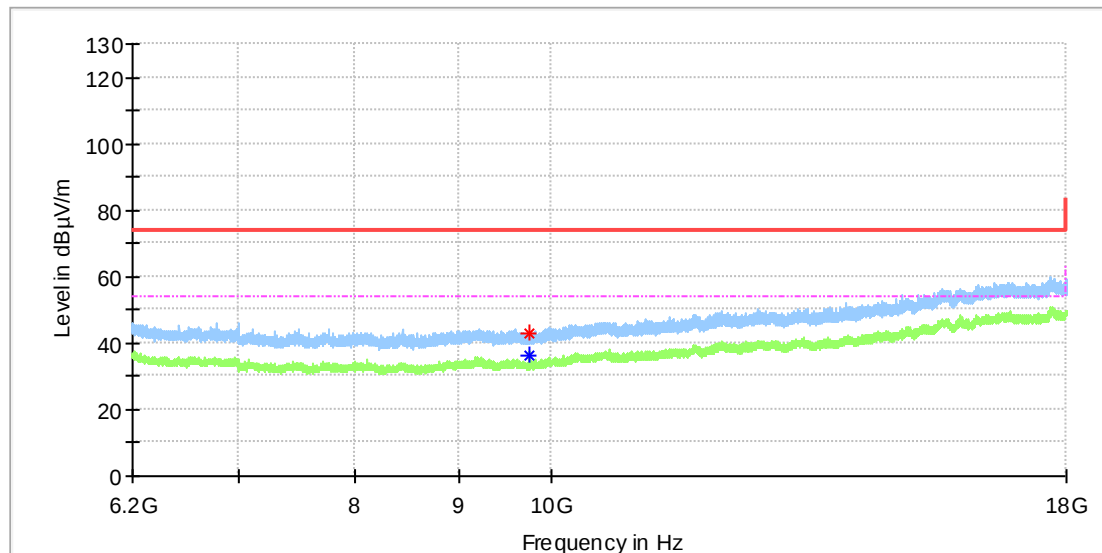
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4879.000000	51.33	---	74.00	22.67	100.0	V	282.0	11.8
4879.000000	---	42.82	54.00	11.18	100.0	V	282.0	11.8

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Mid channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

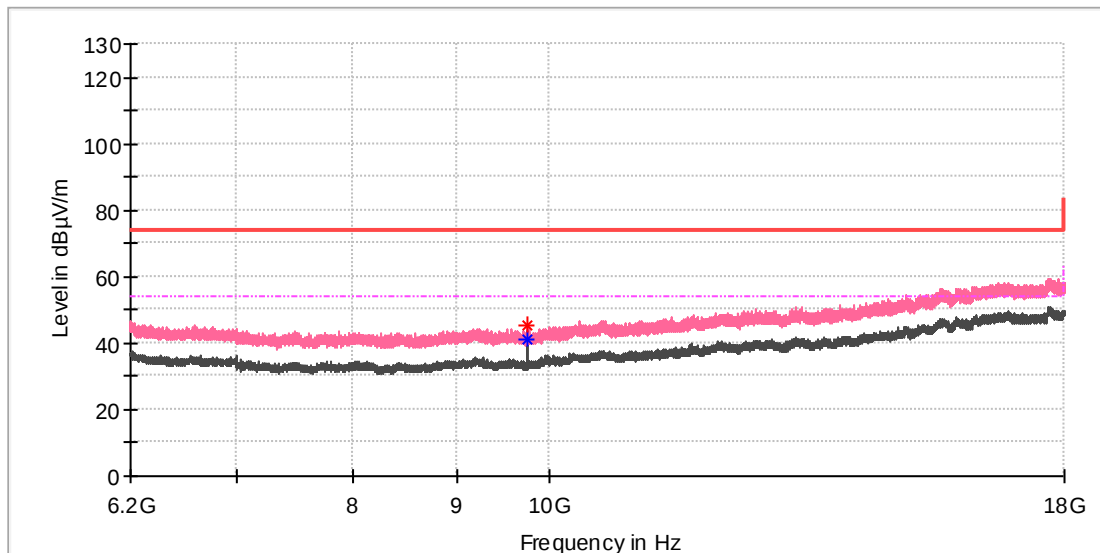
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
9757.208333	43.09	---	74.00	30.91	100.0	H	0.0	10.4
9758.191667	---	36.20	54.00	17.80	100.0	H	42.0	10.4

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Mid channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

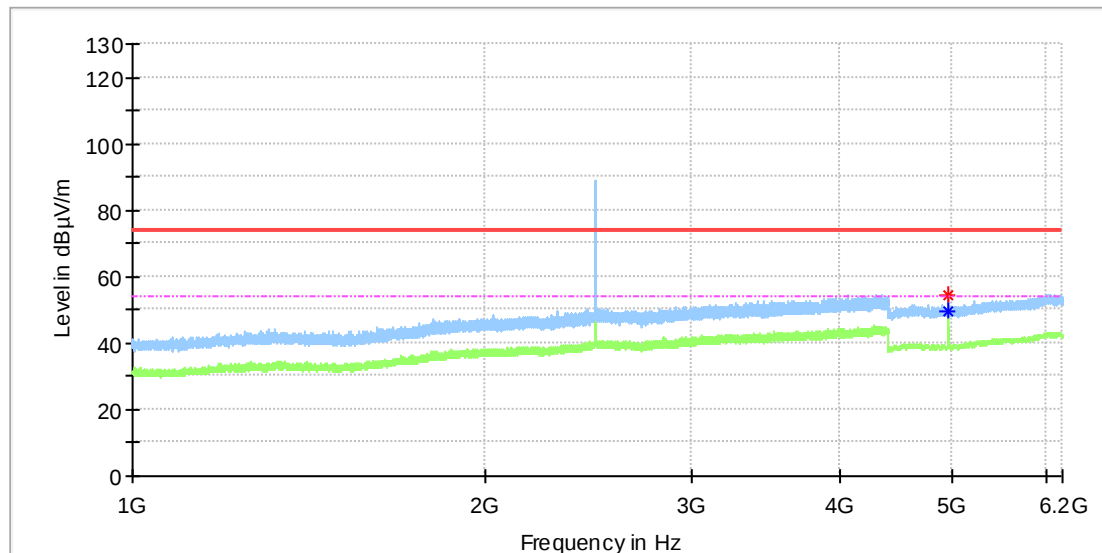
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
9757.700000	---	41.24	54.00	12.76	100.0	V	0.0	10.4
9758.191667	45.60	---	74.00	28.40	100.0	V	0.0	10.4

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_High channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

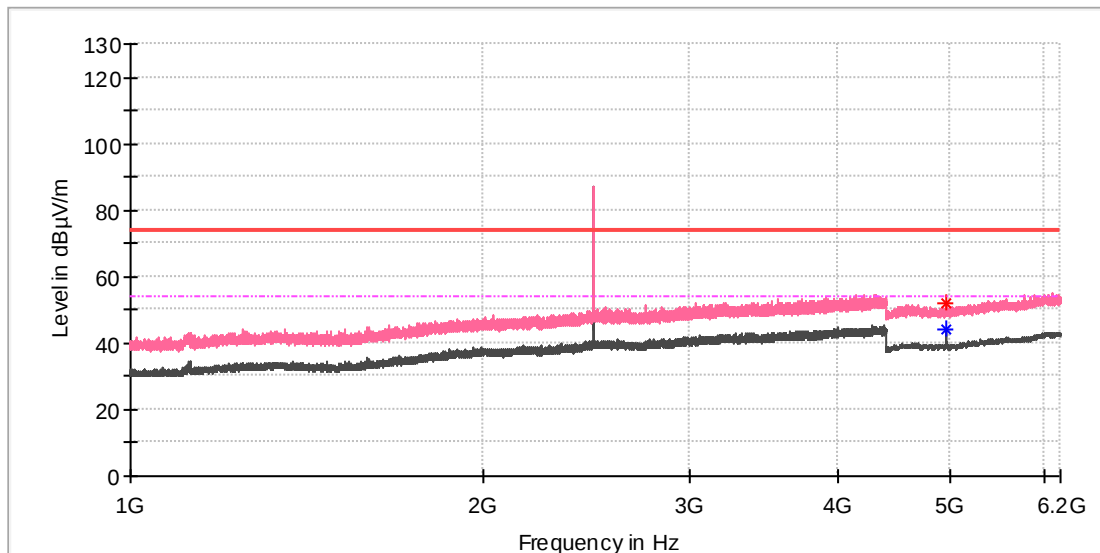
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	---	49.81	54.00	4.19	100.0	H	90.0	11.8
4960.500000	54.31	---	74.00	19.69	100.0	H	111.0	11.8

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_High channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

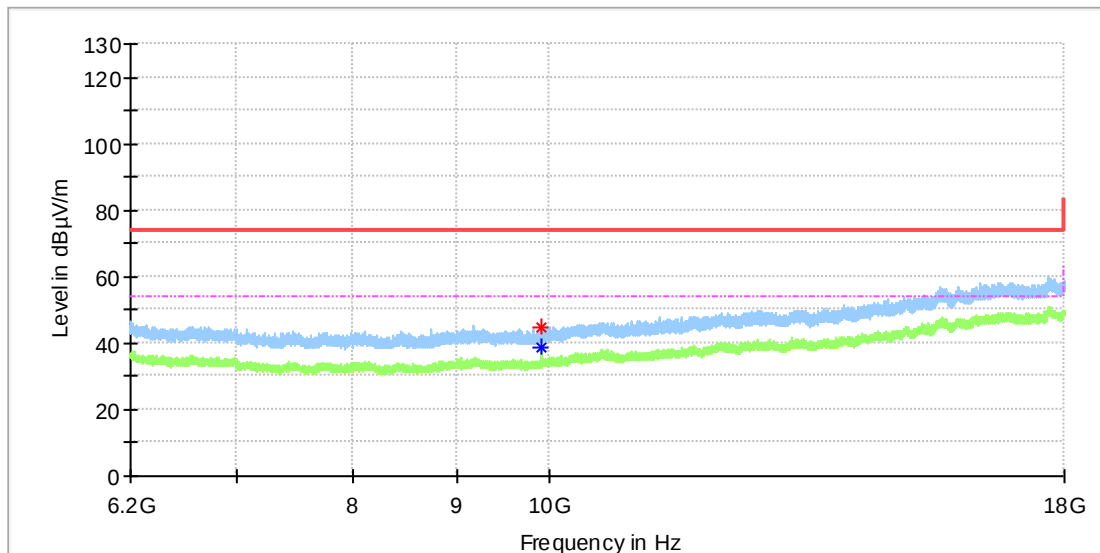
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4957.000000	52.11	---	74.00	21.89	100.0	V	314.0	11.8
4957.000000	---	43.85	54.00	10.15	100.0	V	314.0	11.8

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_High channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

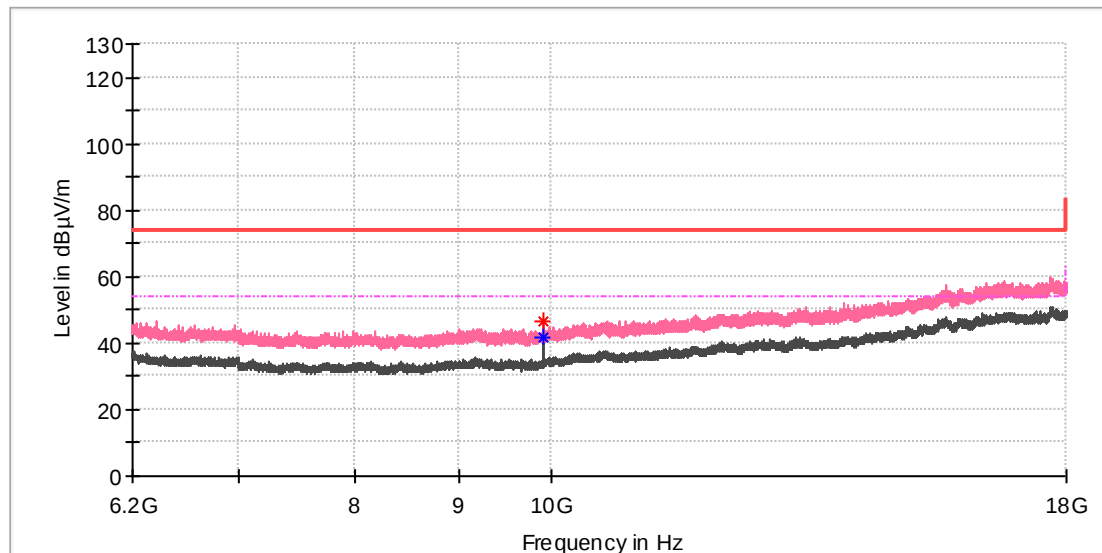
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
9913.558333	44.95	---	74.00	29.05	100.0	H	337.0	10.8
9914.050000	---	38.74	54.00	15.26	100.0	H	312.0	10.8

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_High channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
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)
9914.050000	46.61	---	74.00	27.39	100.0	V	0.0	10.8
9914.050000	---	41.95	54.00	12.05	100.0	V	0.0	10.8

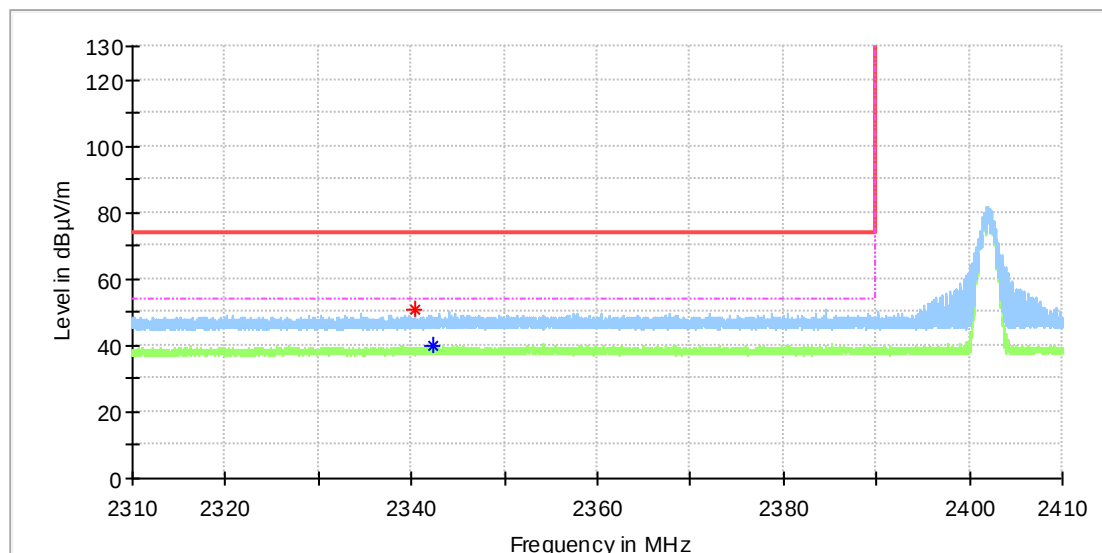
Final_Result

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

Appendix B.8: Test Results of Radiated Emissions in Restricted Bands

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Low channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

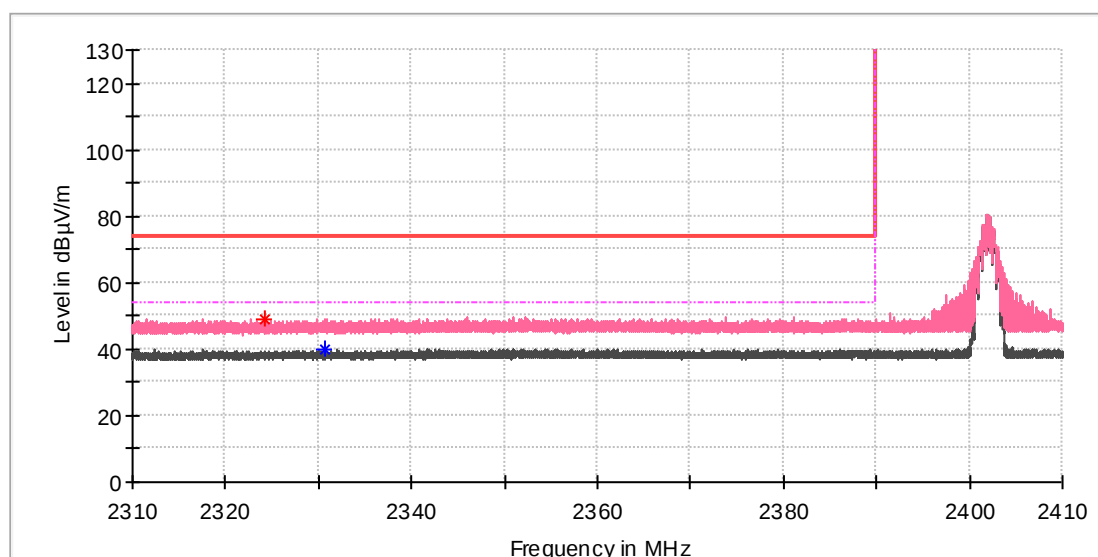
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2340.360000	50.81	---	74.00	23.19	100.0	H	87.0	6.8
2342.430000	---	39.95	54.00	14.05	100.0	H	189.0	6.8

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_Low channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
Remark: Temp 22 Humi:55%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

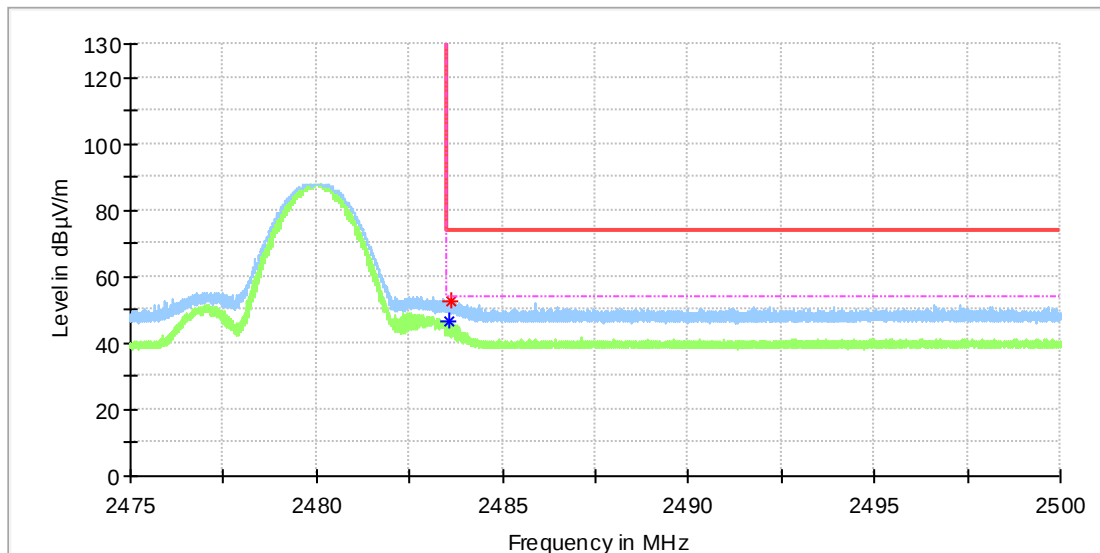
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2324.260000	49.09	---	74.00	24.91	100.0	V	157.0	6.6
2330.685000	---	39.69	54.00	14.31	100.0	V	243.0	6.7

Final_Result

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

EUT Information

EUT Name:	True Wireless Earbuds
Model:	PODZ
Test Mode:	BR_DH5_High channel
Order No/Sample No:	168360082/A003201287-024
Test Voltage:	Battery
Remark:	Temp 22 Humi:55%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

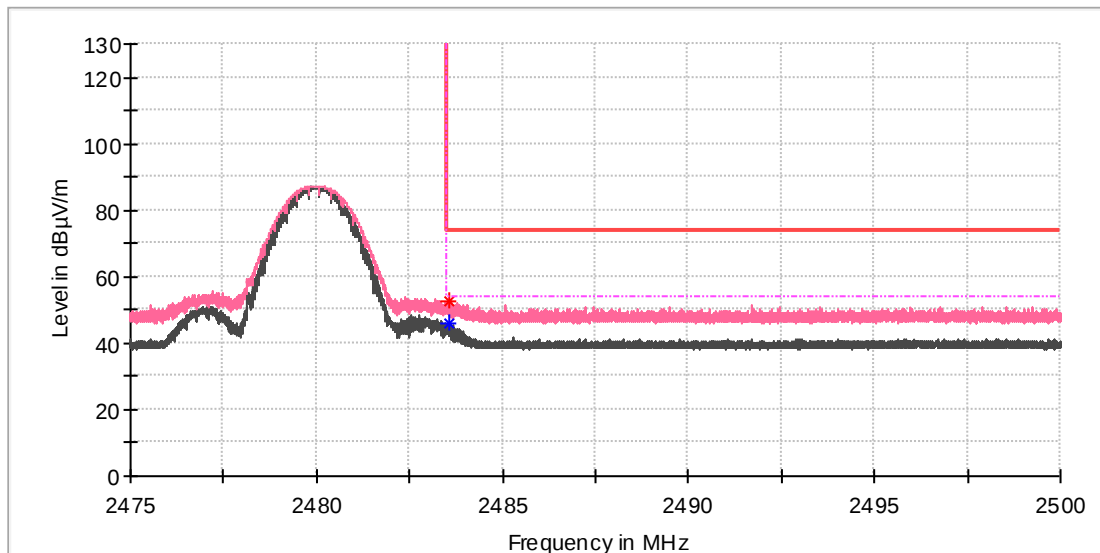
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.560000	---	46.57	54.00	7.43	100.0	H	278.0	7.4
2483.631250	52.84	---	74.00	21.16	100.0	H	278.0	7.4

Final_Result

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

EUT Information

EUT Name: True Wireless Earbuds
Model: PODZ
Test Mode: BR_DH5_High channel
Order No/Sample No: 168360082/A003201287-024
Test Voltage: Battery
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)
2483.542500	52.39	---	74.00	21.61	100.0	V	262.0	7.4
2483.566250	---	45.98	54.00	8.02	100.0	V	275.0	7.4

Final_Result

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

Appendix C: Test Results of FCC 15B & ICES-003

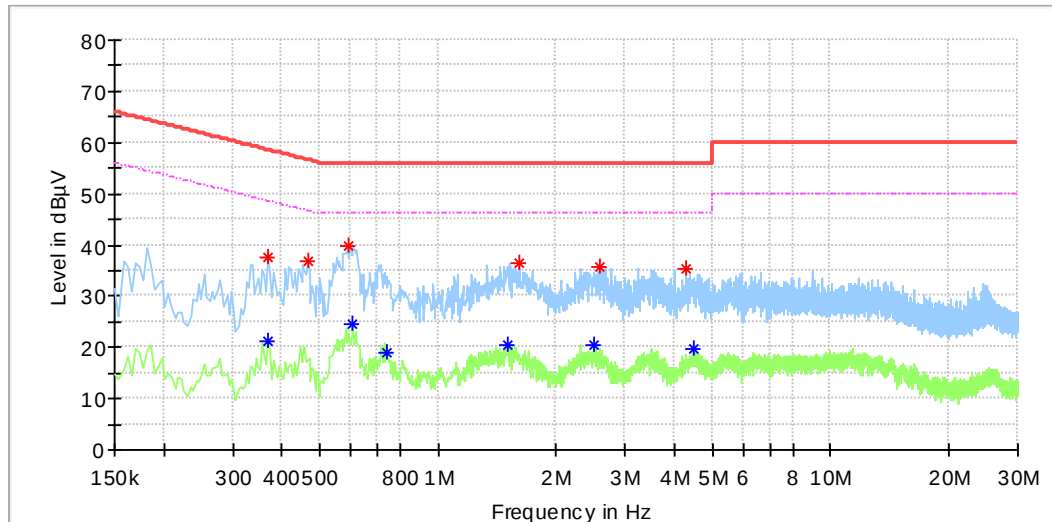
APPENDIX C: TEST RESULTS OF FCC 15B & ICES-003	1
APPENDIX C.1: TEST PLOTS OF CONDUCTED EMISSION ON AC MAINS	2
<i>Charging mode</i>	<i>2</i>
APPENDIX C.2: TEST PLOTS OF RADIATED EMISSION, BELOW 1GHz	4
<i>Play by Bluetooth.....</i>	<i>4</i>
<i>Charging mode</i>	<i>6</i>
APPENDIX C.3: TEST PLOTS OF RADIATED EMISSION, ABOVE 1GHz	8
<i>Play by Bluetooth.....</i>	<i>8</i>
<i>Charging mode</i>	<i>10</i>

Appendix C.1: Test Plots of Conducted Emission on AC Mains

Charging mode

EUT Information

EUT Name: True Wireless Earbuds
Order No: 168360082 370
Model: PODZ
Test mode: Charging
Test Voltage: AC 120V, 60Hz
Test By: Charlie Zha
Review By: Gary Chen
Remark: SR2

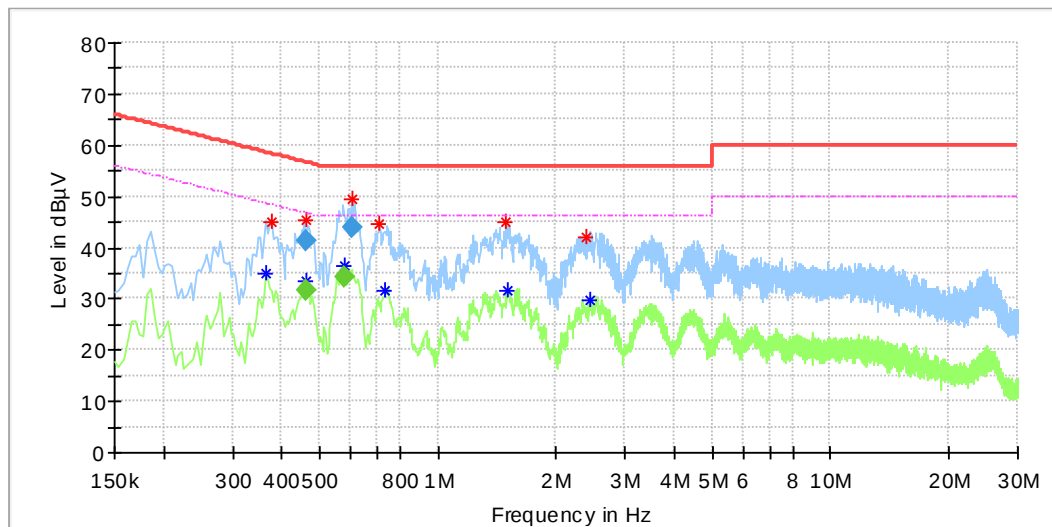


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.370000	37.43	---	58.50	21.07	L1	9.9
0.370000	---	21.26	48.50	27.24	L1	9.9
0.466000	36.80	---	56.59	19.79	L1	10.0
0.590000	39.98	---	56.00	16.02	L1	10.0
0.606000	---	24.39	46.00	21.61	L1	10.0
0.742000	---	19.14	46.00	26.86	L1	10.0
1.498000	---	20.42	46.00	25.58	L1	10.1
1.614000	36.33	---	56.00	19.67	L1	10.1
2.486000	---	20.56	46.00	25.44	L1	10.2
2.582000	35.70	---	56.00	20.30	L1	10.2
4.294000	35.37	---	56.00	20.63	L1	10.2
4.498000	---	19.75	46.00	26.25	L1	10.2

EUT Information

EUT Name: True Wireless Earbuds
Order No: 168360082 370
Model: PODZ
Test mode: Charging
Test Voltage: AC 120V, 60Hz
Test By: Charlie Zha
Review By: Gary Chen
Remark: SR2



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.366000	---	34.98	48.59	13.61	N	9.8
0.378000	45.17	---	58.32	13.15	N	9.8
0.462500	45.27	---	56.73	11.45	N	9.8
0.462500	---	33.33	46.73	13.40	N	9.8
0.577500	---	36.62	46.00	9.38	N	9.8
0.605500	49.56	---	56.00	6.44	N	9.8
0.710000	44.82	---	56.00	11.18	N	9.8
0.734000	---	31.52	46.00	14.48	N	9.8
1.490000	45.03	---	56.00	10.97	N	9.8
1.502000	---	31.77	46.00	14.23	N	9.8
2.394000	42.07	---	56.00	13.93	N	9.9
2.430000	---	29.70	46.00	16.30	N	9.9

Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.462500	---	31.64	46.65	15.00	1000.0	9.000	N	9.8
0.462500	41.38	---	56.65	15.27	1000.0	9.000	N	9.8
0.577500	---	34.14	46.00	11.86	1000.0	9.000	N	9.8
0.605500	43.96	---	56.00	12.04	1000.0	9.000	N	9.8

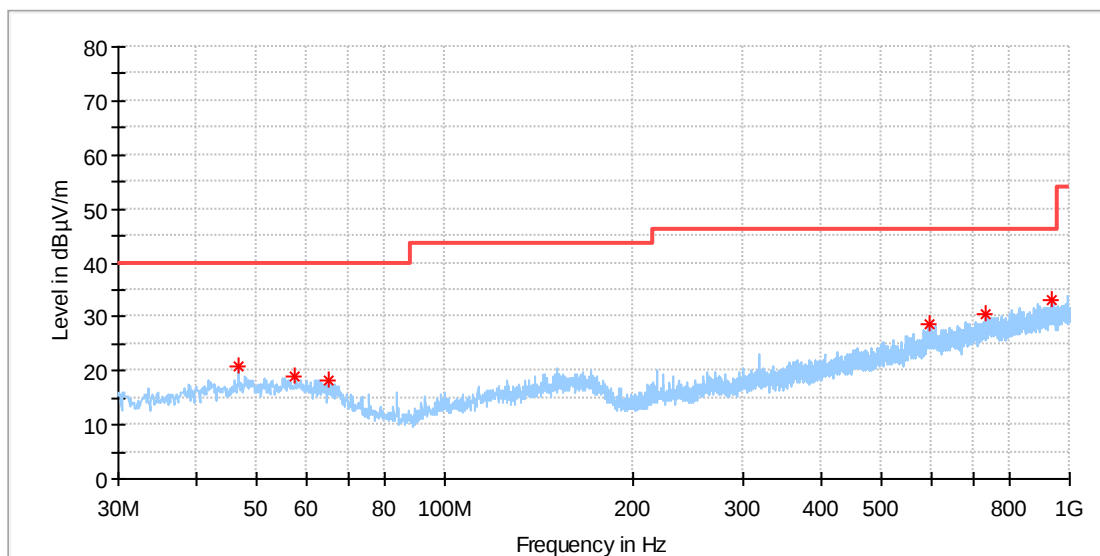
Appendix C.2: Test Plots of Radiated Emission, Below 1GHz

Note: The following illustration shows the limit that meet the FCC requirements, and these measured value also comply with IC requirements.

Play by Bluetooth

EUT Information

EUT Name:	True Wireless Earbuds
Order No:	168360082 370
Model:	PODZ
Test mode:	Play by Bluetooth
Test Voltage:	Battery
Test By:	Charlie Zha
Review By:	Gary Chen
Remark:	3m Chamber

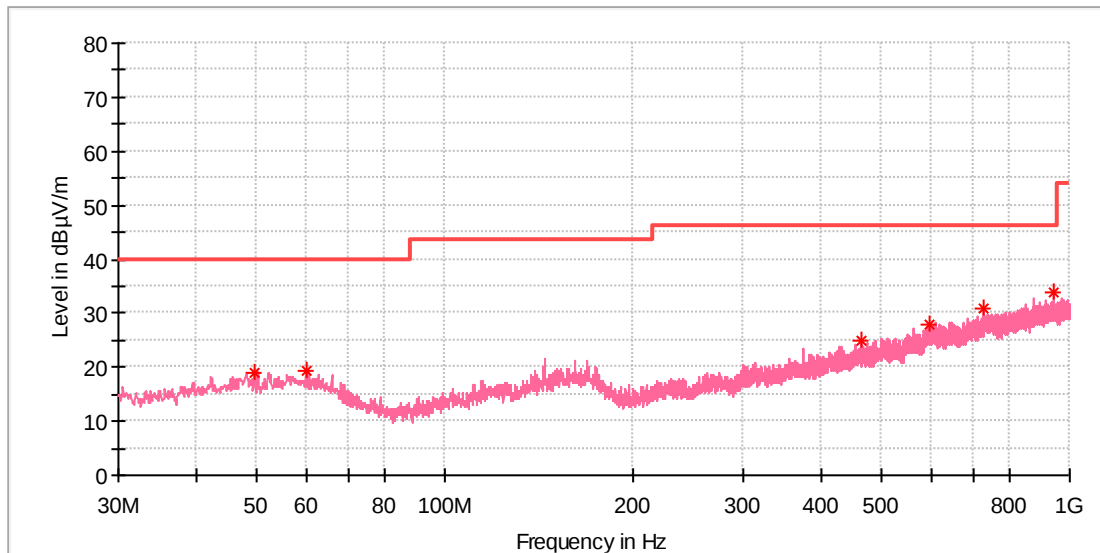


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.684000	20.96	40.00	19.04	200.0	H	76.0	21.1
57.548000	19.06	40.00	20.94	200.0	H	28.0	21.3
65.211000	18.13	40.00	21.87	100.0	H	142.0	20.1
594.346000	28.60	46.00	17.40	100.0	H	311.0	27.6
735.966000	30.57	46.00	15.43	100.0	H	94.0	30.0
935.107000	32.94	46.00	13.06	200.0	H	157.0	32.1

EUT Information

EUT Name: True Wireless Earbuds
Order No: 168360082 370
Model: PODZ
Test mode: Play by Bluetooth
Test Voltage: Battery
Test By: Charlie Zha
Review By: Gary Chen
Remark: 3m Chamber



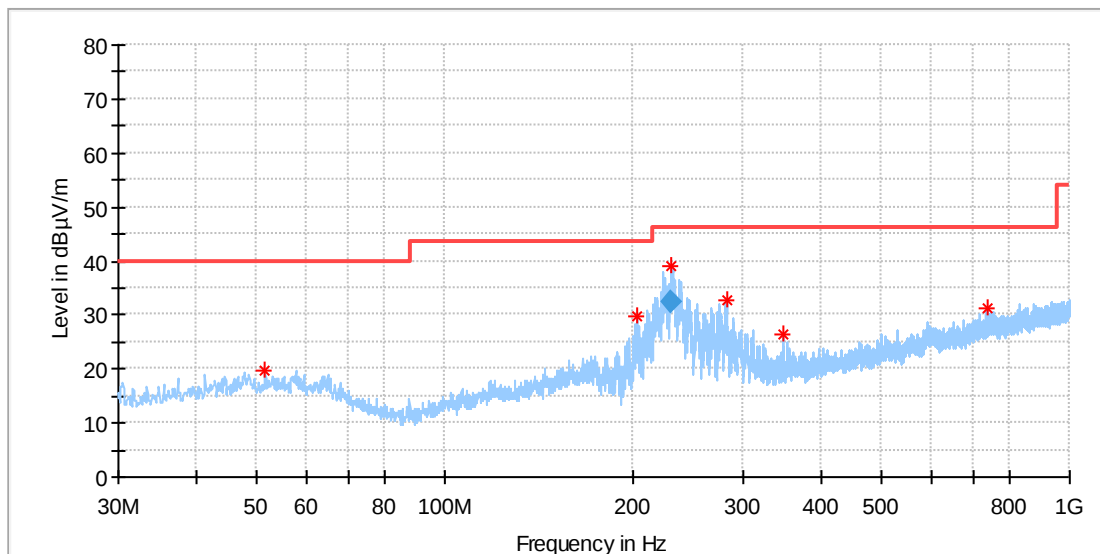
Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
59.973000	19.34	40.00	20.66	100.0	V	355.0	20.9
729.564000	30.88	46.00	15.12	200.0	V	43.0	29.6
596.189000	27.78	46.00	18.22	200.0	V	109.0	27.8
49.400000	18.91	40.00	21.09	200.0	V	224.0	20.9
463.299000	25.07	46.00	20.93	200.0	V	296.0	24.8
941.024000	33.71	46.00	12.29	200.0	V	296.0	32.3

Charging mode

EUT Information

EUT Name: True Wireless Earbuds
Order No: 168360082 370
Model: PODZ
Test mode: Charging
Test Voltage: AC 120V, 60Hz
Test By: Charlie Zha
Review By: Gary Chen
Remark: 3m Chamber



Critical_Freqs

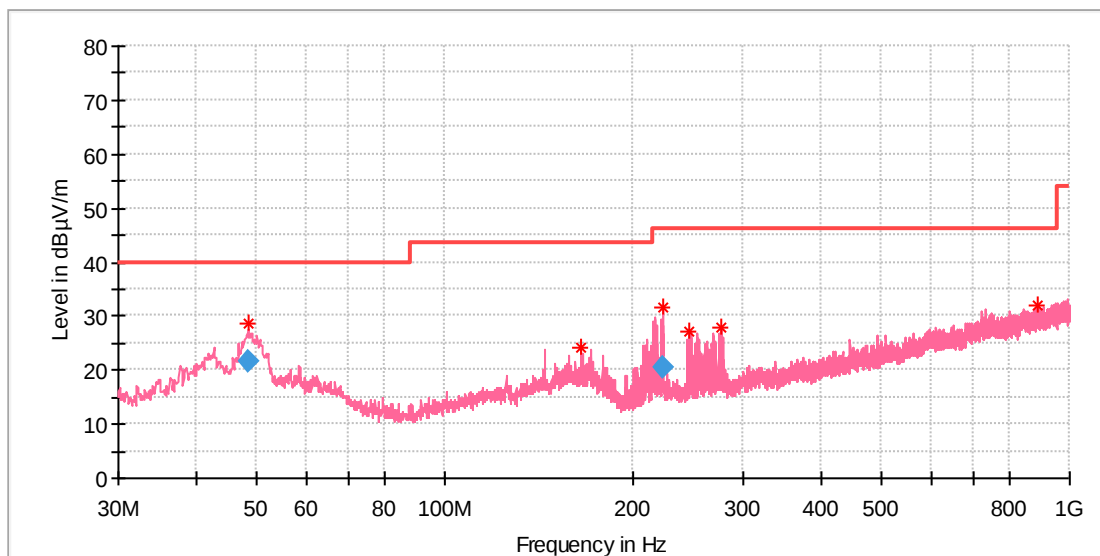
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
51.437000	19.75	40.00	20.25	100.0	H	327.0	20.8
203.630000	29.60	43.50	13.90	100.0	H	128.0	17.3
230.536000	38.96	46.00	7.04	100.0	H	14.0	18.9
282.200000	32.72	46.00	13.28	100.0	H	222.0	20.0
348.936000	26.38	46.00	19.62	100.0	H	241.0	21.9
740.525000	31.12	46.00	14.88	200.0	H	198.0	30.3

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
230.536000	32.26	46.00	13.74	1000.0	120.000	100.0	H	14.0	18.9

EUT Information

EUT Name: True Wireless Earbuds
Order No: 168360082 370
Model: PODZ
Test mode: Charging
Test Voltage: AC 120V, 60Hz
Test By: Charlie Zha
Review By: Gary Chen
Remark: 3m Chamber



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.313000	28.82	40.00	11.18	200.0	V	84.0	21.3
164.927000	24.26	43.50	19.24	100.0	V	189.0	21.2
223.147000	31.62	46.00	14.38	100.0	V	161.0	18.7
246.310000	27.31	46.00	18.69	100.0	V	201.0	18.6
277.544000	27.88	46.00	18.12	100.0	V	126.0	20.2
890.293000	32.13	46.00	13.87	100.0	V	76.0	31.5

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
48.313000	21.72	40.00	18.28	1000.0	120.000	200.0	V	84.0	21.3
223.147000	20.48	46.00	25.52	1000.0	120.000	100.0	V	161.0	18.7

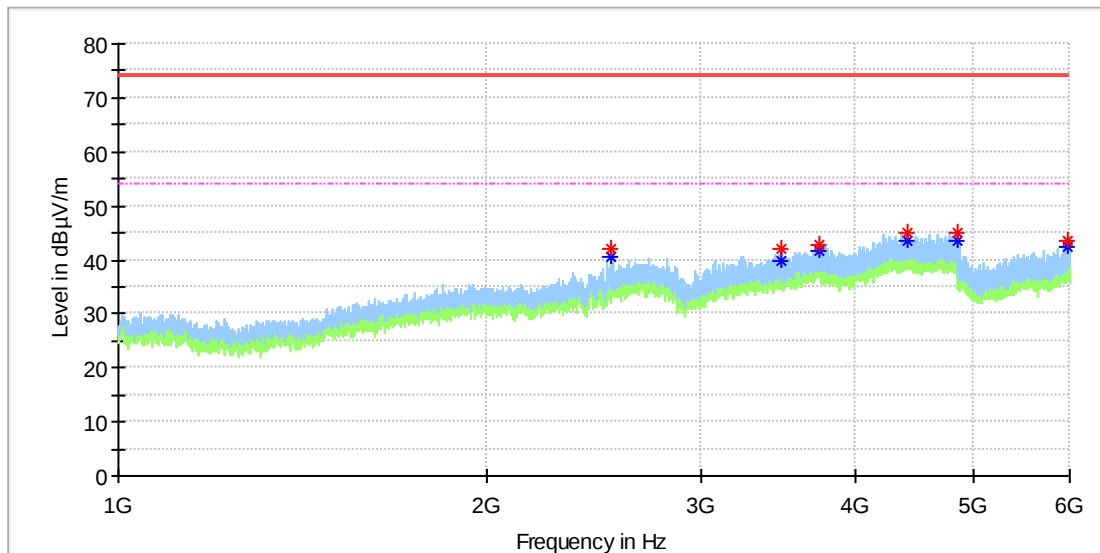
Appendix C.3: Test Plots of Radiated Emission, Above 1GHz

Note: Testing was carried out within frequency range 30MHz to the 5th harmonics. The measurement results above 6GHz were greater than 20dB below the limit, so only record the test result within the 30MHz to 6GHz.

Play by Bluetooth

EUT Information

EUT Name:	True Wireless Earbuds
Order No:	168360082 370
Model:	PODZ
Test mode:	Play by Bluetooth
Test Voltage:	Battery
Test By:	Charlie Zha
Review By:	Gary Chen
Remark:	3m Chamber

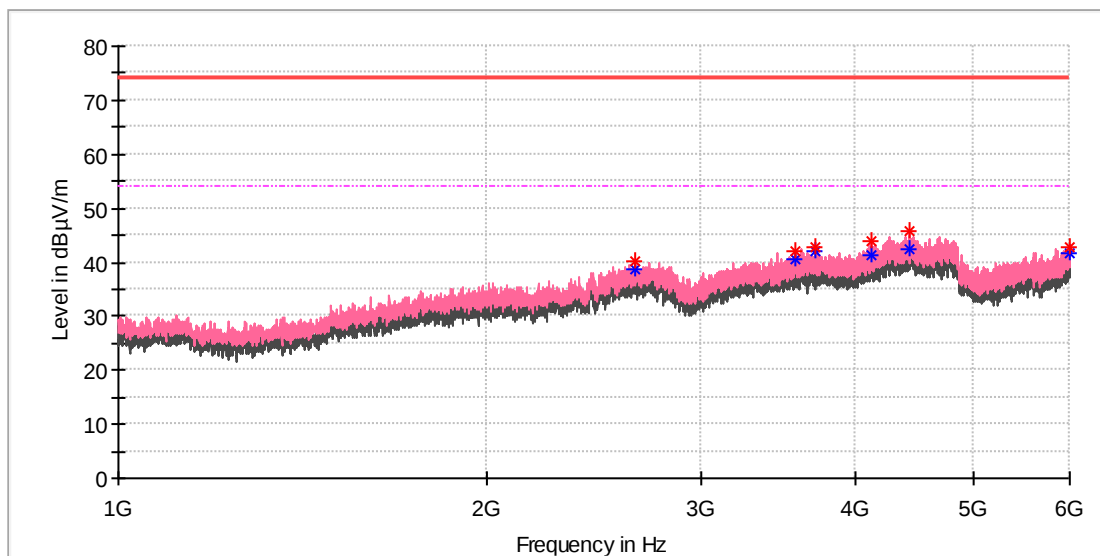


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2531.500000	42.18	---	74.00	31.82	100.0	H	133.0	-4.2
2531.500000	---	40.67	54.00	13.33	100.0	H	133.0	-4.2
3488.000000	---	40.00	54.00	14.00	100.0	H	206.0	-1.1
3488.000000	42.01	---	74.00	31.99	100.0	H	206.0	-1.1
3745.000000	42.89	---	74.00	31.11	100.0	H	139.0	0.2
3745.000000	---	41.64	54.00	12.36	100.0	H	139.0	0.2
4414.500000	---	43.38	54.00	10.62	100.0	H	196.0	1.9
4414.500000	44.88	---	74.00	29.12	100.0	H	196.0	1.9
4851.000000	---	43.70	54.00	10.30	100.0	H	286.0	1.6
4851.000000	45.12	---	74.00	28.88	100.0	H	286.0	1.6
5982.500000	---	42.34	54.00	11.66	100.0	H	0.0	2.3
5982.500000	43.46	---	74.00	30.54	100.0	H	0.0	2.3

EUT Information

EUT Name: True Wireless Earbuds
Order No: 168360082 370
Model: PODZ
Test mode: Play by Bluetooth
Test Voltage: Battery
Test By: Charlie Zha
Review By: Gary Chen
Remark: 3m Chamber



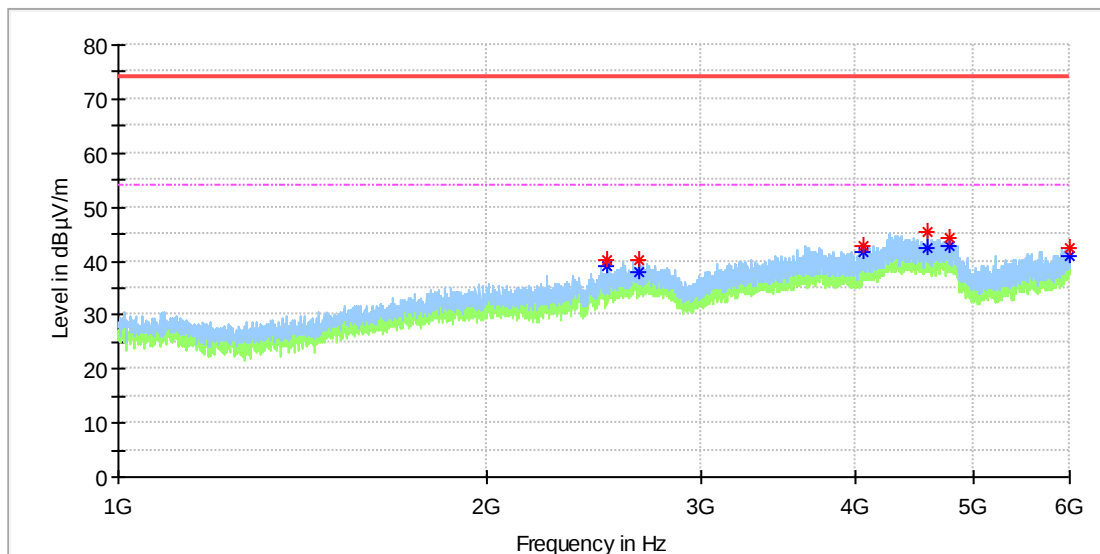
Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2649.500000	---	38.56	54.00	15.44	100.0	V	94.0	-3.2
2649.500000	40.34	---	74.00	33.66	100.0	V	94.0	-3.2
3585.000000	41.95	---	74.00	32.05	100.0	V	306.0	-0.7
3585.000000	---	40.44	54.00	13.56	100.0	V	306.0	-0.7
3716.500000	---	41.89	54.00	12.11	100.0	V	41.0	0.3
3716.500000	42.65	---	74.00	31.35	100.0	V	41.0	0.3
4130.500000	43.97	---	74.00	30.03	100.0	V	0.0	1.1
4131.000000	---	41.46	54.00	12.54	100.0	V	59.0	1.1
4434.000000	45.65	---	74.00	28.35	100.0	V	325.0	1.9
4434.000000	---	42.26	54.00	11.74	100.0	V	325.0	1.9
5996.500000	42.86	---	74.00	31.14	100.0	V	112.0	2.4
5998.000000	---	41.51	54.00	12.49	100.0	V	288.0	2.5

Charging mode

EUT Information

EUT Name: True Wireless Earbuds
Order No: 168360082 370
Model: PODZ
Test mode: Charging
Test Voltage: AC 120V, 60Hz
Test By: Charlie Zha
Review By: Gary Chen
Remark: 3m Chamber

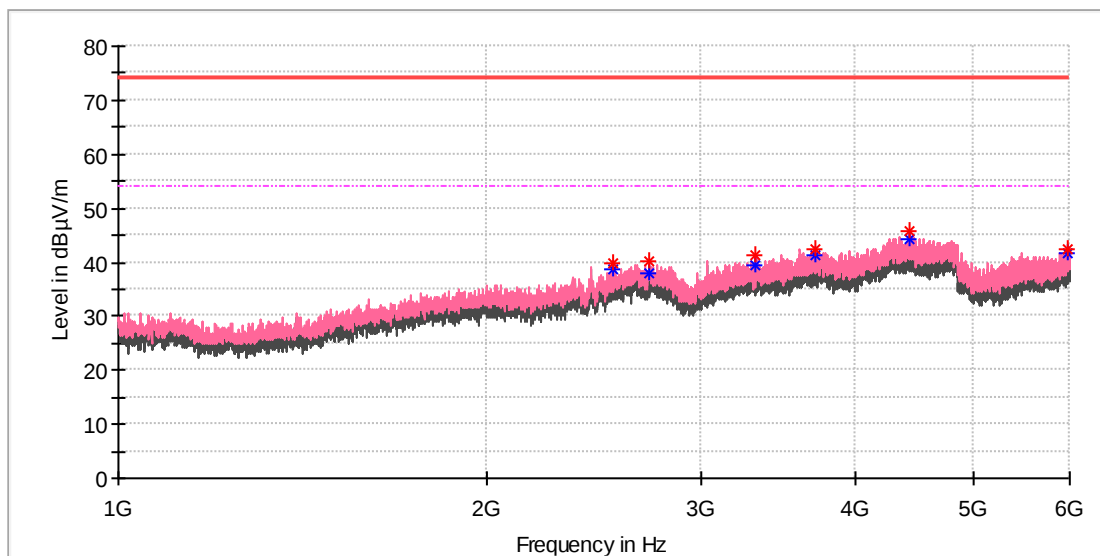


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2513.000000	---	38.94	54.00	15.06	100.0	H	86.0	-4.5
2513.000000	40.25	---	74.00	33.75	100.0	H	86.0	-4.5
2665.000000	40.36	---	74.00	33.64	100.0	H	222.0	-3.3
2665.500000	---	38.08	54.00	15.92	100.0	H	217.0	-3.3
4069.500000	---	41.64	54.00	12.36	100.0	H	185.0	0.7
4069.500000	42.80	---	74.00	31.20	100.0	H	185.0	0.7
4598.000000	45.47	---	74.00	28.53	100.0	H	194.0	1.9
4598.000000	---	42.37	54.00	11.63	100.0	H	194.0	1.9
4791.500000	---	42.78	54.00	11.22	100.0	H	213.0	2.5
4791.500000	44.17	---	74.00	29.83	100.0	H	213.0	2.5
5992.000000	---	40.93	54.00	13.07	100.0	H	34.0	2.4
5992.000000	42.38	---	74.00	31.62	100.0	H	34.0	2.4

EUT Information

EUT Name: True Wireless Earbuds
Order No: 168360082 370
Model: PODZ
Test mode: Charging
Test Voltage: AC 120V, 60Hz
Test By: Charlie Zha
Review By: Gary Chen
Remark: 3m Chamber



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2535.500000	---	38.78	54.00	15.22	100.0	V	19.0	-4.2
2535.500000	39.86	---	74.00	34.14	100.0	V	19.0	-4.2
2719.000000	---	37.91	54.00	16.09	100.0	V	140.0	-3.2
2719.500000	40.31	---	74.00	33.69	100.0	V	10.0	-3.2
3314.000000	41.37	---	74.00	32.63	100.0	V	250.0	-1.8
3314.000000	---	39.39	54.00	14.61	100.0	V	250.0	-1.8
3722.000000	---	41.34	54.00	12.66	100.0	V	0.0	0.3
3722.000000	42.60	---	74.00	31.40	100.0	V	0.0	0.3
4432.500000	45.64	---	74.00	28.36	100.0	V	61.0	1.9
4438.500000	---	44.17	54.00	9.83	100.0	V	0.0	1.9
5988.000000	---	41.69	54.00	12.31	100.0	V	37.0	2.4
5988.000000	42.50	---	74.00	31.50	100.0	V	37.0	2.4