

Prüfbericht-Nr.: <i>Test report no.:</i>	CN228TQ3 001	Auftrags-Nr.: <i>Order no.:</i>	168392589	Seite 1 von 44 <i>Page 1 of 44</i>
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2022-09-27	
Auftraggeber: <i>Client:</i>	Shenzhen Chuangwei-RGB Electronics Co., Ltd. 13F-16F, Unit A, Skyworth Building, Shennan Road, Nanshan District, Shenzhen, China			
Prüfgegenstand: <i>Test item:</i>	BT voice remote controller			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	HS-8AB			
Auftrags-Inhalt: <i>Order content:</i>	Test Report			
Prüfgrundlage: <i>Test specification:</i>	FCC CFR Title 47, Part 15, Subpart C, Section 15.247 RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2022-09-27	Please refer to Photo Document		
Prüfmuster-Nr.: <i>Test sample no.:</i>	T220927046-Y01/02			
Prüfzeitraum: <i>Testing period:</i>	2022-09-27 – 2022-10-10			
Ort der Prüfung: <i>Place of testing:</i>	Shenzhen Central Standard International Center Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	genehmigt von: <i>authorized by:</i>			
Datum: <i>Date:</i>	Ausstellungsdatum: <i>Issue date:</i>			
Stellung / Position:	Stellung / Position:			
Sonstiges / Other:				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* 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. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 6dB BANDWIDTH

RESULT: Pass

5.1.5 99% BANDWIDTH

RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

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

2 Test Sites

2.1 Test Facilities

Shenzhen Central Standard International Center Co., Ltd.
Room 201, Building 1, Mogen Fashion Industrial Park, No. 10, Shilongzai Road, Xinshi Community, Dalang Street, Longhua District, Shenzhen.
CNAS No.: L11671
A2LA No.: 6426.01
FCC Registration No.: CN1317
IC CAB identifier No.: CN0051

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Spectrum Analyzer	Agilent	N9020A	MY50200391	Jun. 13, 2023
Power sensor	KEYSIGHT	U2021XA	MY55080015	Jun. 13, 2023
Power sensor	KEYSIGHT	U2021XA	MY54250016	Jun. 13, 2023
Power sensor	KEYSIGHT	U2021XA	MY54250020	Jun. 13, 2023
Power sensor	KEYSIGHT	U2021XA	MY54210030	Jun. 13, 2023
Vector Signal Generator	Agilent	N5182A	MY50140130	Jun. 13, 2023
Signal generator	Agilent	SML03	100925	Jun. 13, 2023
Power sensor Box	MWRFtest	N/A	N/A	N/A
RF Switch Box	MWRFtest	MW100-RFCB	N/A	N/A
MTS 8310	MWRFtest	V: 2.0.0.0		
Unwanted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Spectrum Analyzer	Agilent	N9020A	MY50200391	Jun. 13, 2023
Bilog Antenna	Schwarzbeck	VULB9168	VULB9168-250	Jul. 25, 2025
Horn Antenna	AARONIAAG	Powerlog 70180	3980	Jul. 04, 2025
Loop Antenna	Schwarzbeck	FMZB1519B	00023	Nov. 16, 2022
Amplifier	HP	8447F	2634A02050	Jun. 13, 2023
Amplifier	Agilent	8449B	4035A00116	Jun. 13, 2023
3M Chamber	Maor	9*6*6	--	Jul. 26, 2023

2.3 Traceability

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

2.4 Calibration

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

2.5 Measurement Uncertainty

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

Parameter	Uncertainty
Radio Frequency	$\pm 2.7 \times 10^{-5}$
RF Power (conducted)	± 0.66 dB
Radiated Emission of Transmitter, valid up to 26.5 GHz	± 5.08 dB
Radiated Emission of Receiver, valid up to 26.5 GHz	± 5.08 dB
Radiated Emission (3m SAC), 30MHz to 1000MHz	± 4.48 dB
Radiated Emission (3m SAC), above 1000MHz	± 5.08 dB
Temperature	± 2 °C
Humidity	± 5 %
Voltage (DC)	± 5 %

2.6 Location of Original Data

The original copies of all test data taken during actual testing were showed in 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

Shenzhen Central Standard International Center Co., Ltd. Test facility located at Room 201, Building 1, Mogen Fashion Industrial Park, No. 10, Shilongzai Road, Xinshi Community, Dalang Street, Longhua District, Shenzhen is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a **BT voice remote controller**, It is a HS-8AB it supports Buletooth BLE(1Mbps) wireless technology.

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:	BT voice remote controller
Type Designation:	HS-8AB
Trademark:	/
FCC ID:	2ANM3HS8AB
IC	23165-HS8AB
HVIN	HS-8AB
FVIN	V0.1.3
Operating Voltage:	Battery operated (3.0Vdc, 2 X AAA batteries)
Technical Specification of Bluetooth LE	
Frequency Range:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK
Channel Number:	40 channels
Data Rate:	1 Mbps
Channel Separation:	2 MHz
Antenna Type:	IFA Antenna
Antenna Gain:	1.5 dBi

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth LE transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, Normal operation with Bluetooth mode
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|----------------------|------------------------------|
| - Application Form | - ID Label and Location Info |
| - Instruction Manual | - Schematics |
| - Block Diagram | - 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.

Table 3: Test environments

Environment Parameter	Values During Tests		
	Temperature	Voltage	Relative Humidity
NTNV	25°C±2°C	3Vdc	Ambient

Table 4: Test channel and frequency

Mode	Test Channels (MHz)	Remark
Transmitting	L/M/H: 2402MHz, 2440MHz, 2480MHz	--

4.3 Special Accessories and Auxiliary Equipment

Table 5: Auxiliary Equipment Used during Test

Description	Manufacturer	Model	S/N	Rating
LED TV	SKYWORTH	32D22	/	/

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)

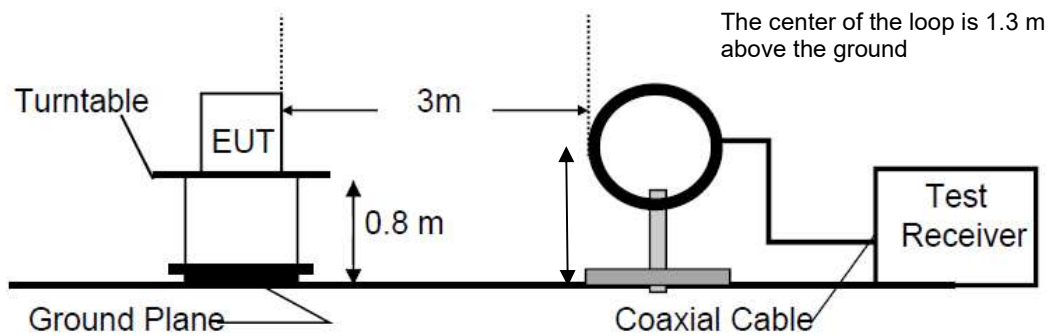


Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

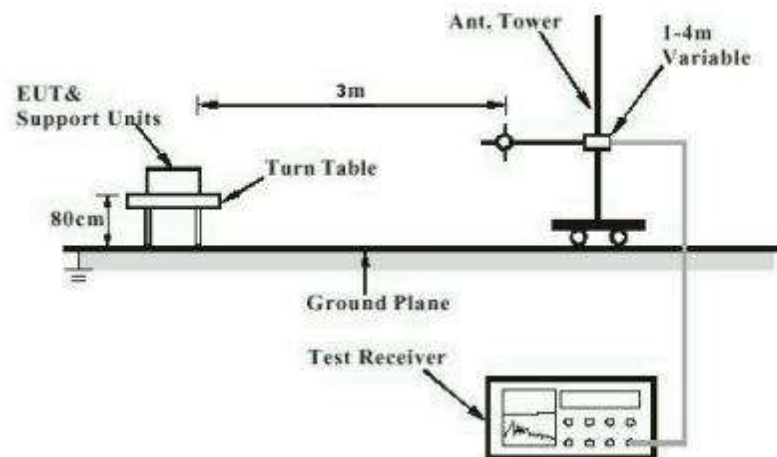


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

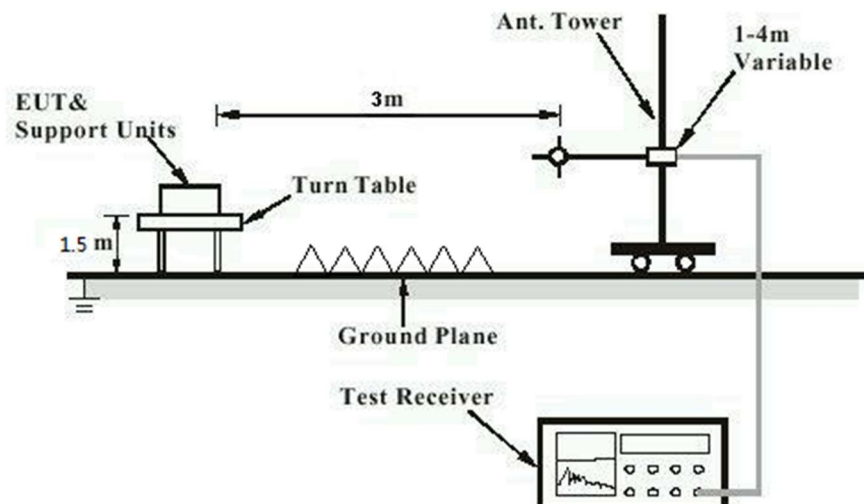
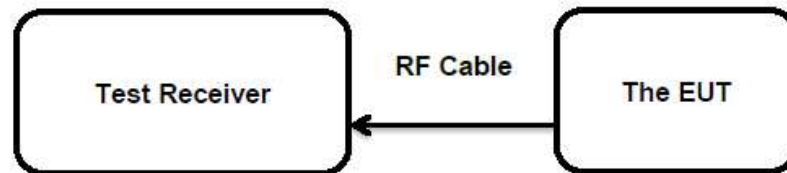


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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 6.7

According to the manufacturer declared, the EUT has a IFA Antenna, the gain of antenna is 1.5 dBi, which that permanent attachment and no consideration of replacement.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(b)(3)
 RSS-247 Clause 5.4(d)
 Basic standard : ANSI C63.10: 2013
 Limits : 1.0 Watts
 e.i.r.p. <4W
 Kind of test site : Shielded Room

Test Setup

Date of testing : 2022-09-28
 Input voltage : DC 3V
 Operation mode : A
 Test channel : Low / Middle / High
 Ambient temperature : 25.4 °C
 Relative humidity : 56 %
 Atmospheric pressure : 100.2 kPa

Table 6: Test Result of Maximum Peak Conducted Output Power, BLE

Test Mode	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
BLE_1Mbps	2402	-2.770	0.000528	< 1.0
	2440	-1.615	0.000689	
	2480	-1.051	0.000785	
Max. Measured Value		-1.051	0.000785	

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G): 1.5 dBi

5.1.3 Conducted Power Spectral Density

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

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

Test Setup

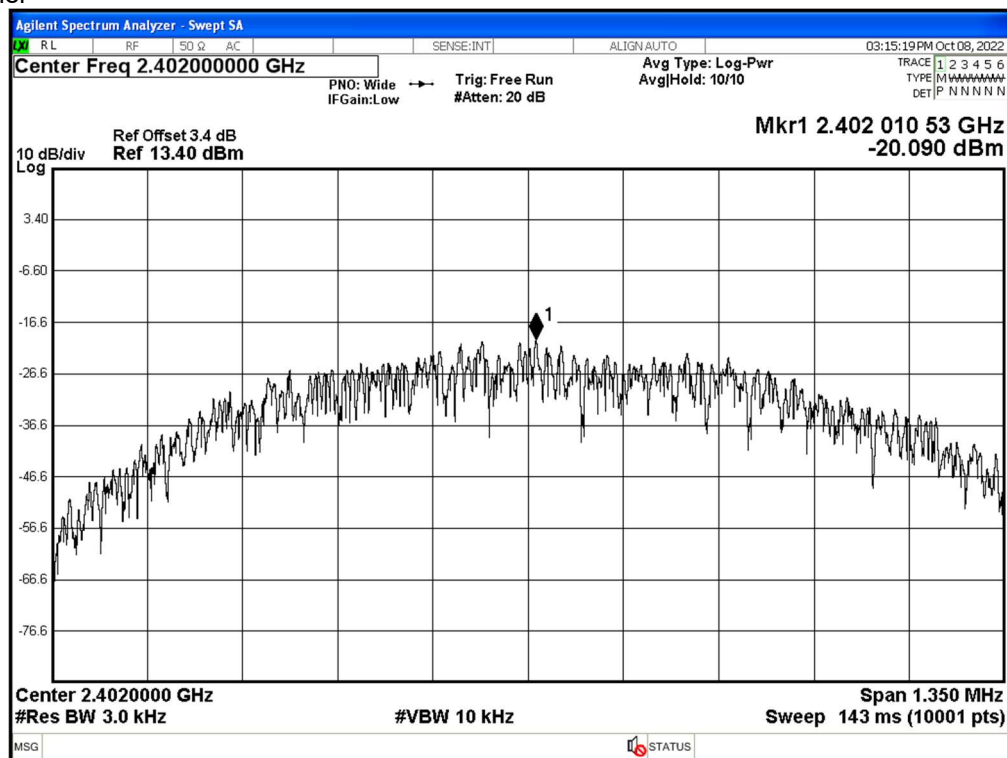
Date of testing : 2022-09-28
Input voltage : DC 3V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 25.4 °C
Relative humidity : 56 %
Atmospheric pressure : 100.2 kPa

Test Mode	Frequency (MHz)	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
BLE	2402	-20.090	8	Pass
BLE	2440	-18.710	8	Pass
BLE	2480	-18.623	8	Pass

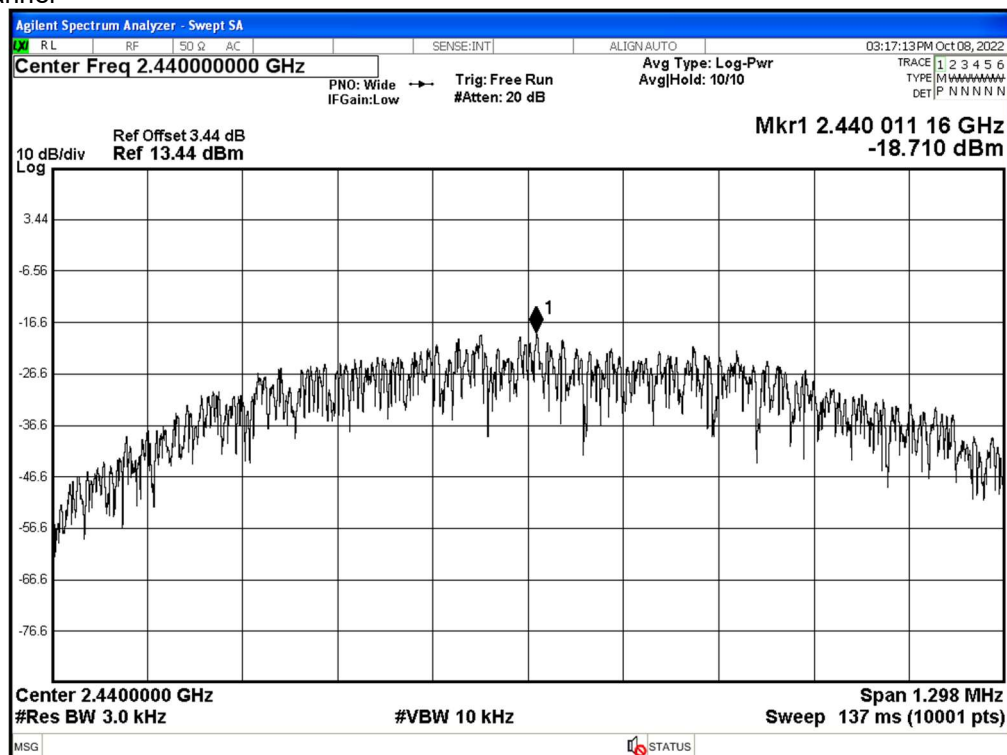
Test Results of Conducted Power Spectral Density

For BLE_1Mbps

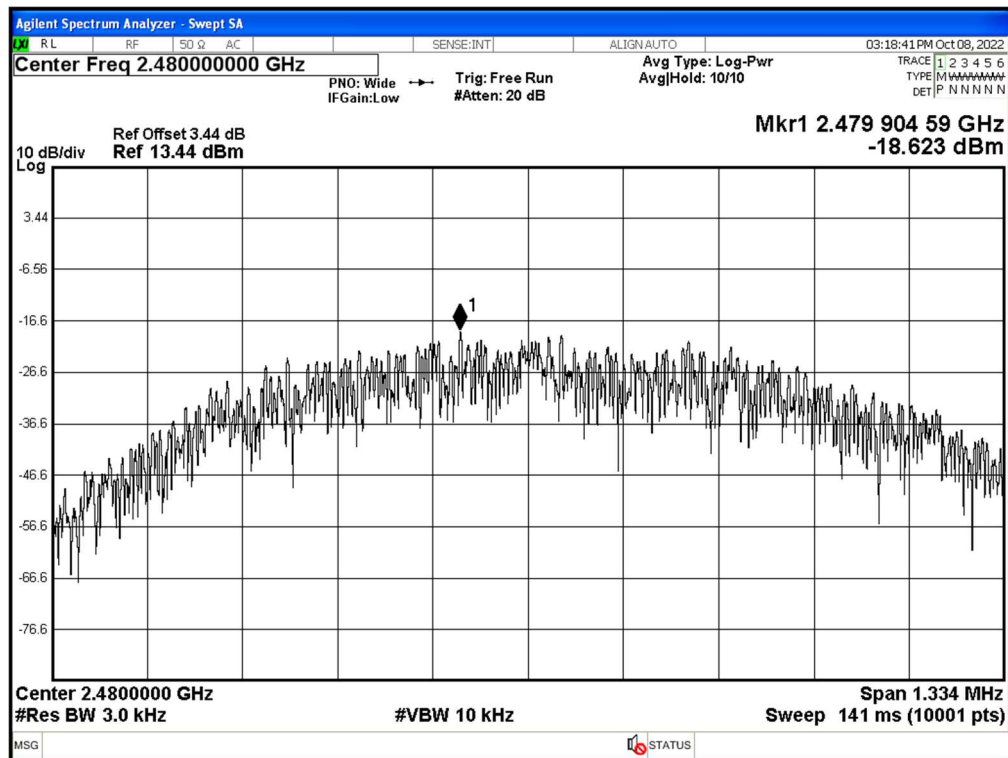
Low Channel



Middle Channel



High Channel



5.1.4 6dB Bandwidth

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

Test standard : FCC Part 15.247(a)(2)
RSS-247 Clause 5.2(a)
Basic standard : ANSI C63.10: 2013
Limits : > 500 KHz
Kind of test site : Shielded Room

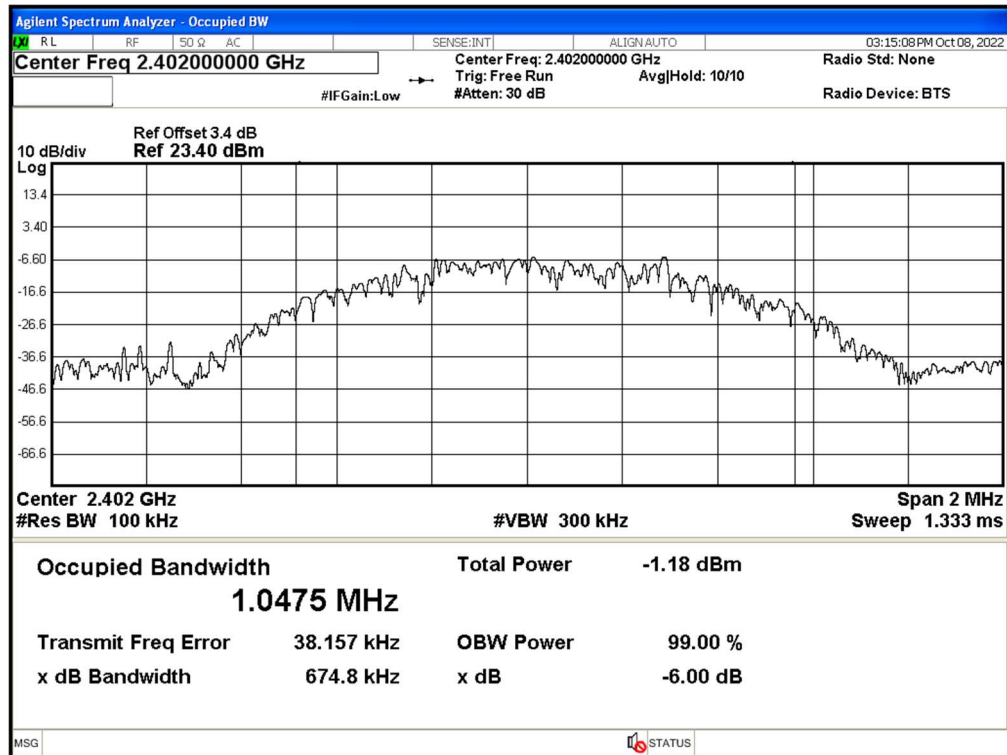
Test Setup

Date of testing : 2022-09-28
Input voltage : DC 3V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 25.4 °C
Relative humidity : 56 %
Atmospheric pressure : 100.2 kPa

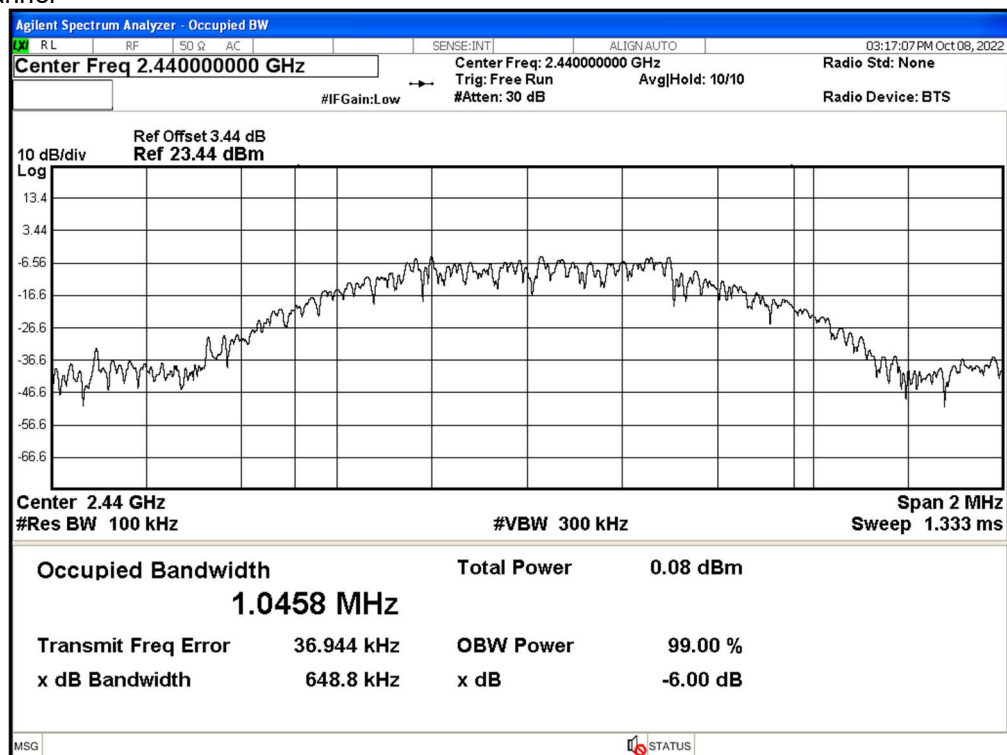
Test Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
BLE	2402	0.6748	0.5	Pass
BLE	2440	0.6488	0.5	Pass
BLE	2480	0.6672	0.5	Pass

Test Results of 6dB Bandwidth

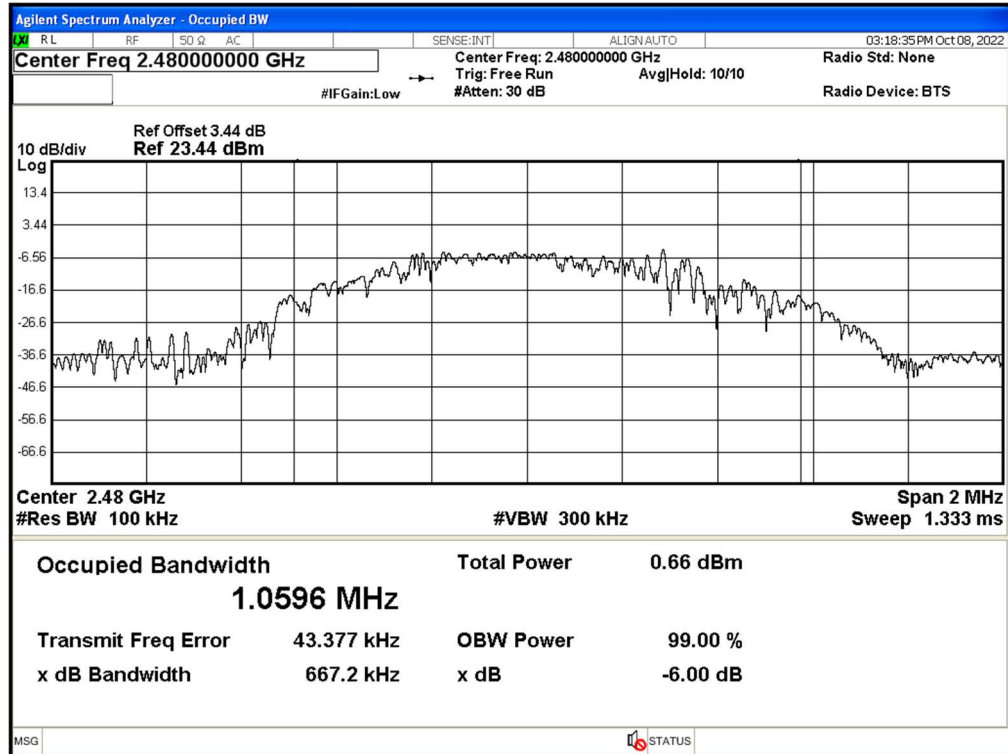
Low Channel



Middle Channel



High Channel



5.1.5 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 : 2022-09-28

Input voltage : DC 3V

Operation mode : A

Test channel : Low / Middle / High

Ambient temperature : 25.4 °C

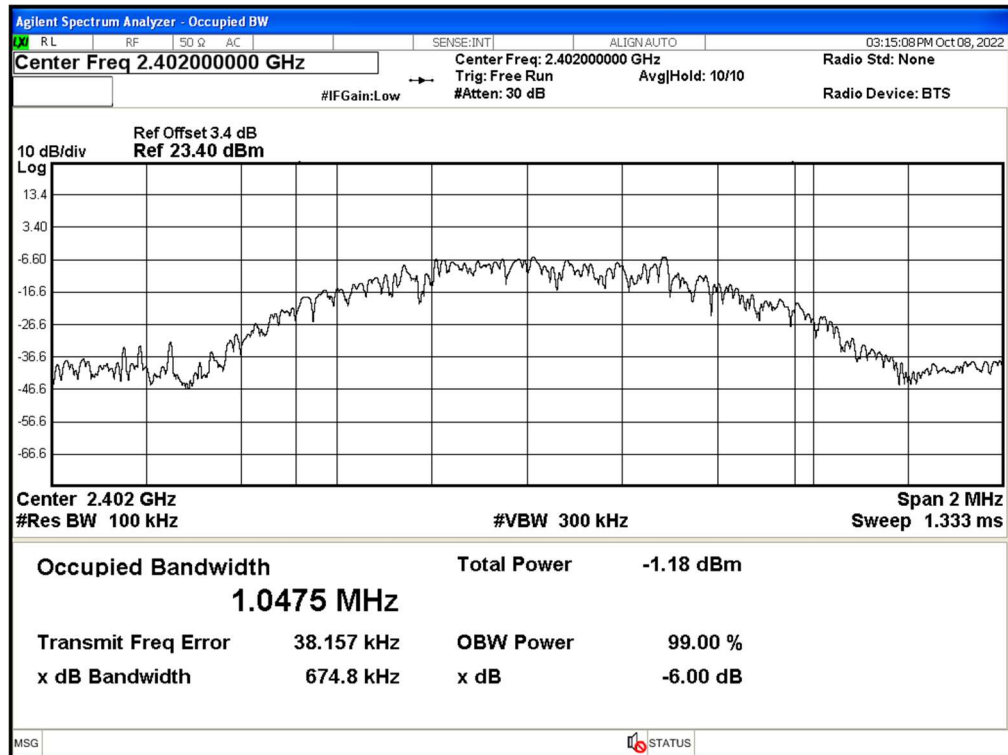
Relative humidity : 56 %

Atmospheric pressure : 100.2 kPa

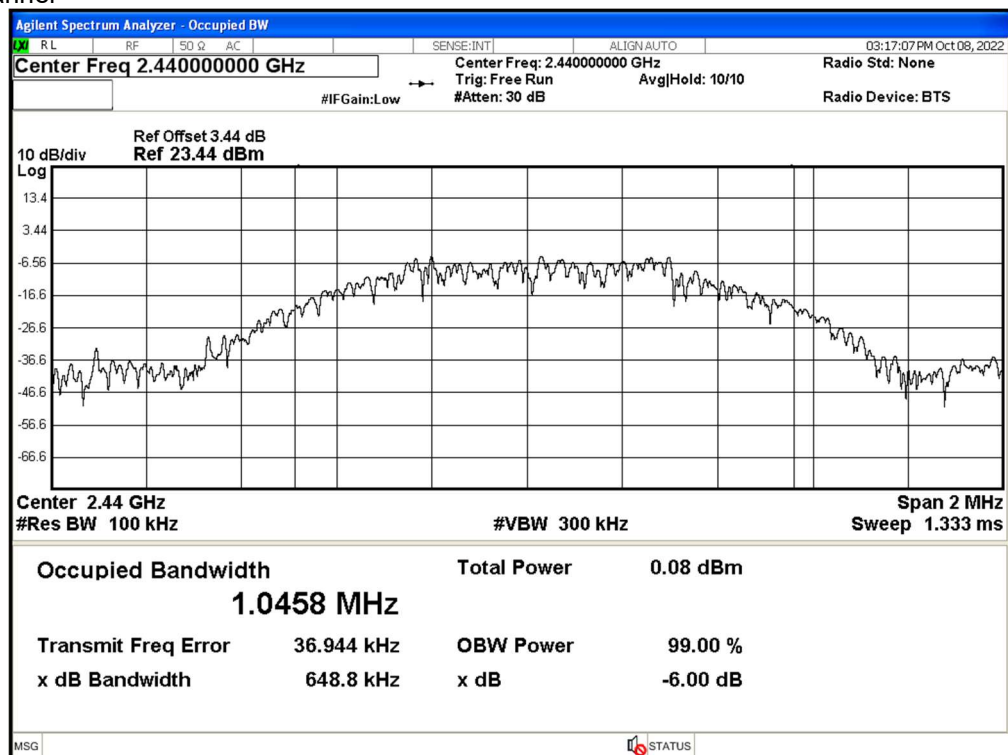
Test Mode	Frequency (MHz)	99% OBW (MHz)	Verdict
BLE	2402	1.0475	Pass
BLE	2440	1.0458	Pass
BLE	2480	1.0596	Pass

Test Results of 99% Bandwidth

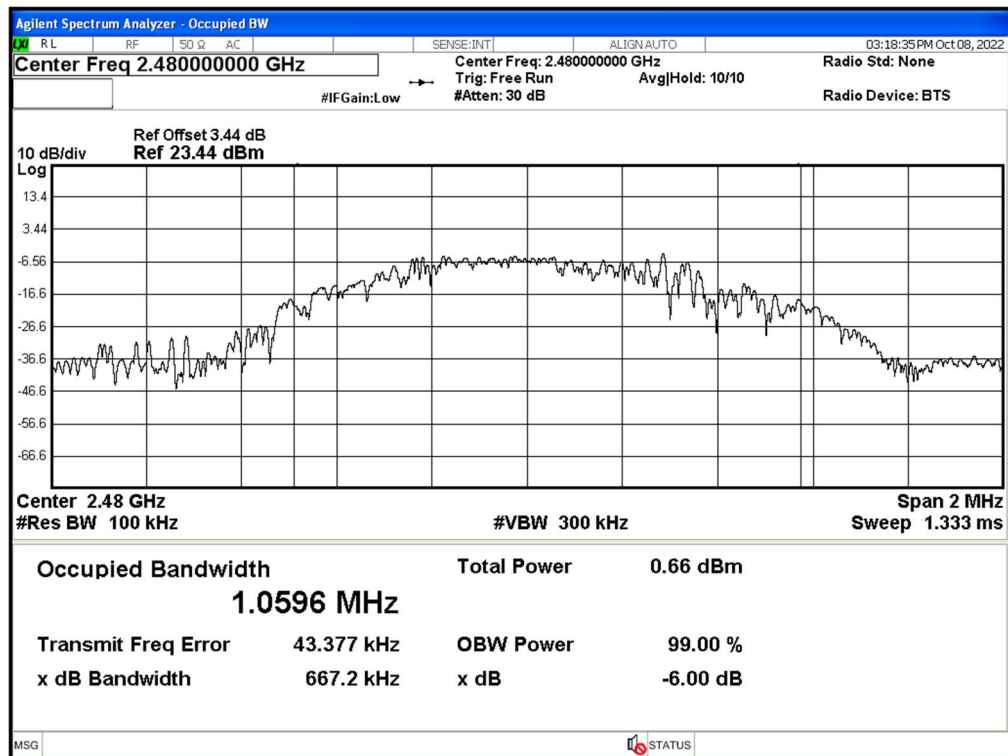
Low Channel



Middle Channel



High Channel



5.1.6 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

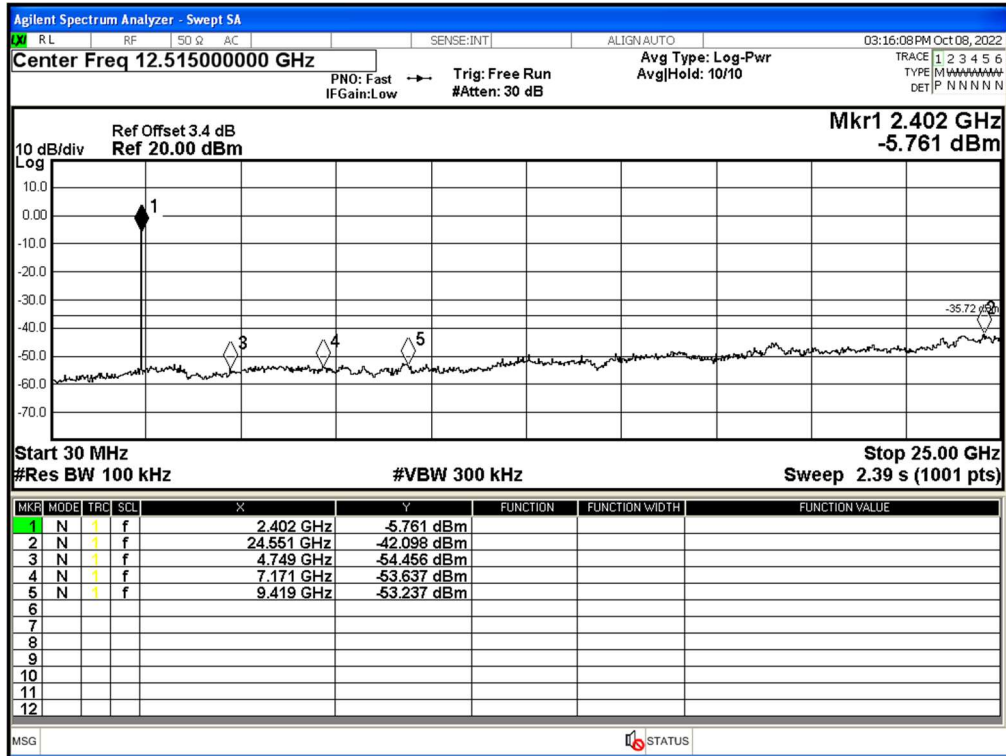
Test Setup

Date of testing	: 2022-09-28
Input voltage	: DC 3V
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 25.4 °C
Relative humidity	: 56 %
Atmospheric pressure	: 100.2 kPa

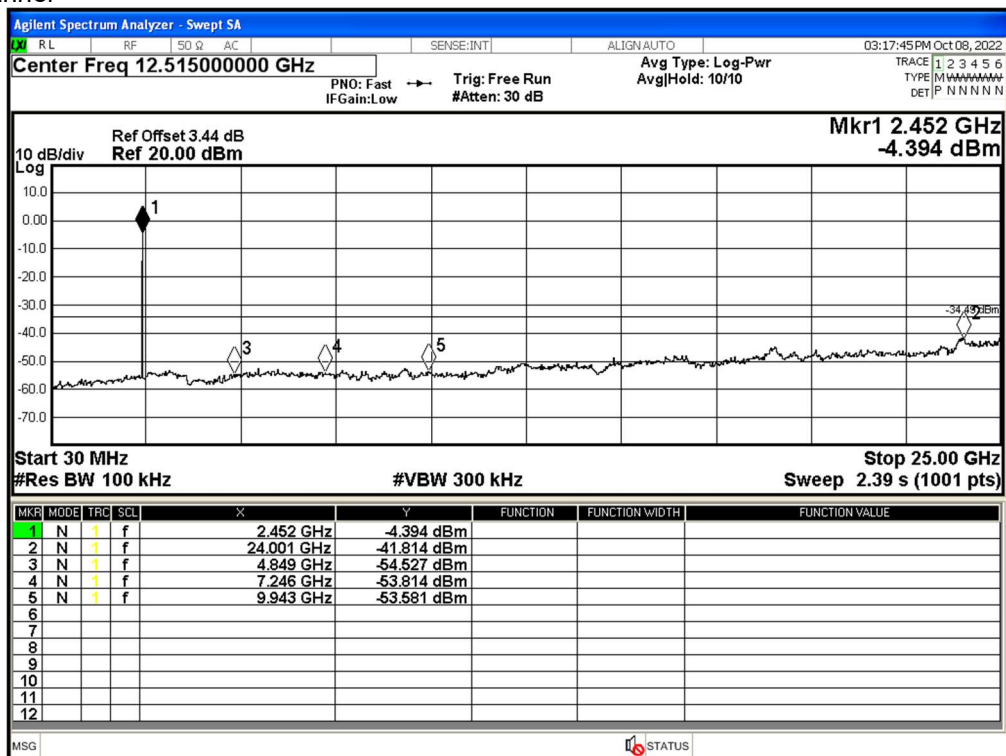
Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

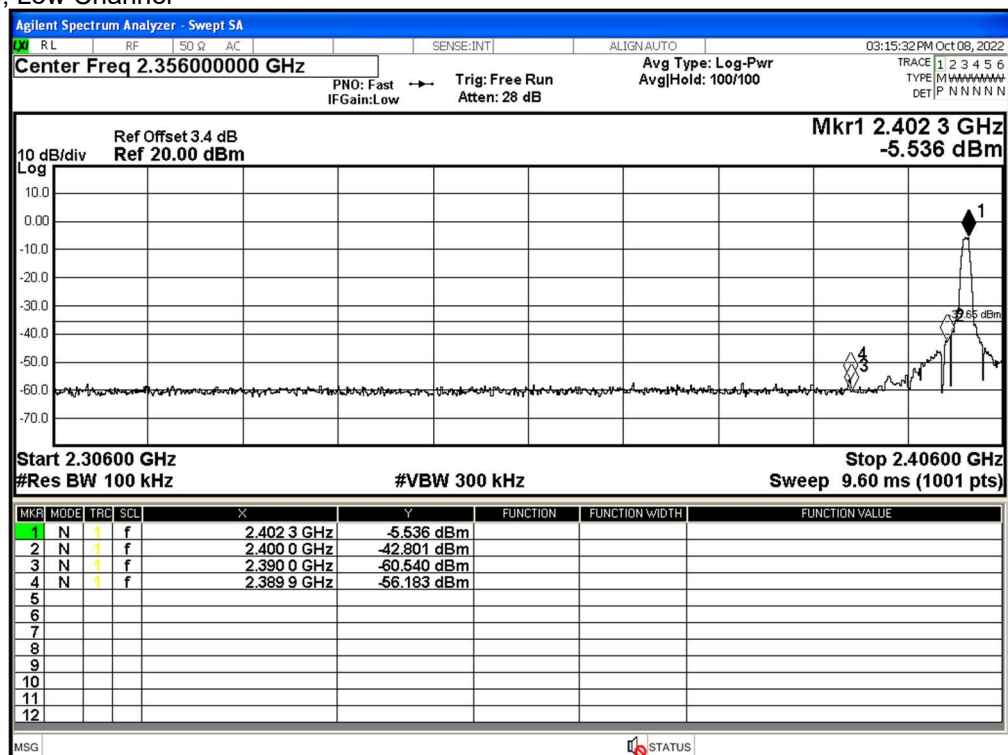
Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

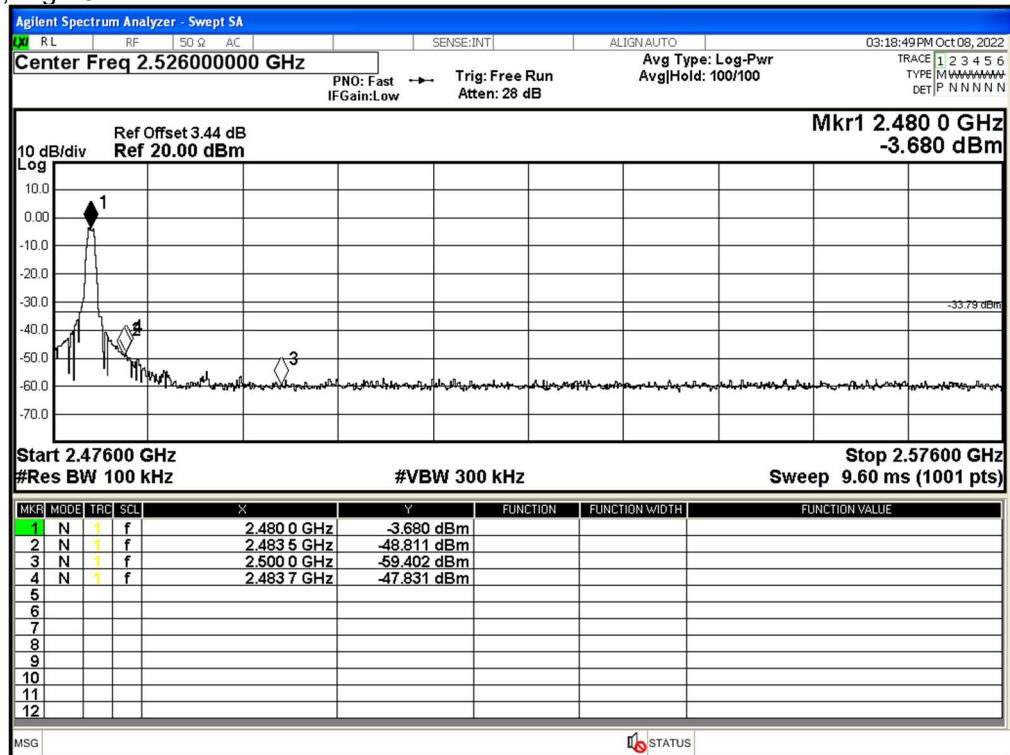
BLE_1Mbps
Low Channel



Middle Channel







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5.1.7 Radiated Spurious Emission

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

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

Test Setup

Date of testing	: 2022-09-29
Input voltage	: DC 3V
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 100.1 kPa

Remark:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 12.75GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 12.75GHz were reported.

Test Results of Radiated Spurious Emissions

30 MHz to 1GHz

Low Channel



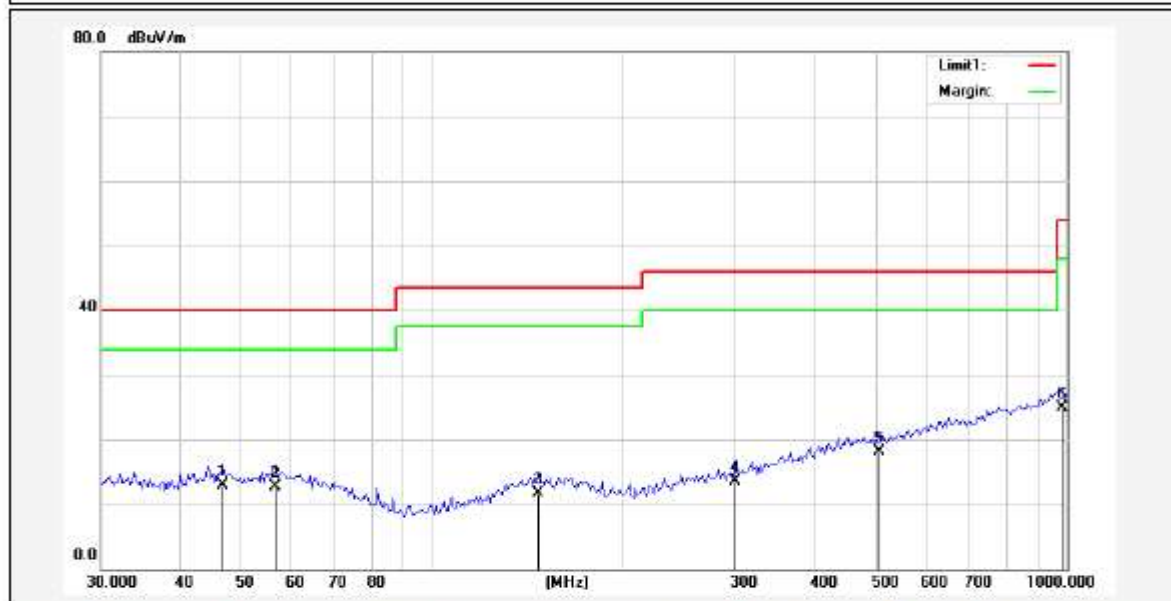
深圳中标国际检验技术有限公司

ShenZhen Central Standard International Center Co.,Ltd.

地址：深圳市龙华区大浪街道新石社区石龙仔路 10 号默根时尚产业园 1 栋 201

3M Anechoic Chamber 2

Job No.: T220927046 RF L	Probe : Horizontal
Standard: FCC Part15C	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 23.5 (C) / 58 %RH	Date: 2022/9/29 Time: 11:14:50
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2402	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1*	46.7077	24.66	-11.81	12.85	40.00	-27.15			QP
2	56.4662	24.60	-11.81	12.79	40.00	-27.21			QP
3	146.8392	23.75	-11.97	11.78	43.50	-31.72			QP
4	300.6988	24.63	-11.21	13.42	46.00	-32.58			QP
5	505.7891	24.27	-6.15	18.12	46.00	-27.88			QP
6	986.0440	23.26	1.70	24.96	54.00	-29.04			QP



深圳中标国际检验技术有限公司

ShenZhen Central Standard International Center Co.,Ltd.

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3M Anechoic Chamber 2

Job No.: T220927046 RF L	Probe : Vertical
Standard: FCC Part15C	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 23.5 (C) / 58 %RH	Date: 2022/9/29 Time: 11:17:58
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2402	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	62.3038	26.67	-12.36	14.31	40.00	-25.69			QP
2	79.6764	29.37	-15.79	13.58	40.00	-26.42			QP
3	133.0810	26.49	-13.02	13.47	43.50	-30.03			QP
4	250.4858	30.03	-12.48	17.55	46.00	-28.45			QP
5	827.1793	23.75	-0.44	23.31	46.00	-22.69			QP
6*	952.0000	23.75	1.34	25.09	46.00	-20.91			QP

Middle Channel



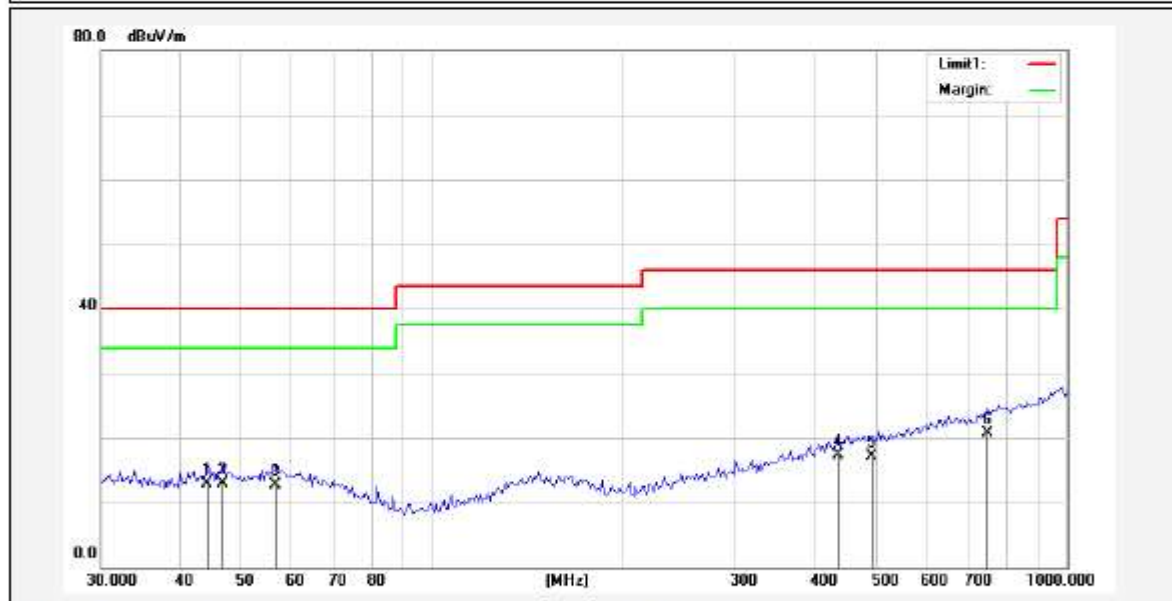
深圳中标国际检验技术有限公司

ShenZhen Central Standard International Center Co.,Ltd.

地址：深圳市龙华区大浪街道新石社区石龙仔路 10 号默根时尚产业园 1 栋 201

3M Anechoic Chamber 2

Job No.: T220927046 RF L	Probe : Horizontal
Standard: FCC Part15C	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 23.5 (C) / 58 %RH	Date: 2022/9/29 Time: 11:20:16
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2440	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	44.1544	24.92	-12.08	12.84	40.00	-27.16			QP
2	46.7077	24.66	-11.81	12.85	40.00	-27.15			QP
3	56.4662	24.60	-11.81	12.79	40.00	-27.21			QP
4	436.3956	24.60	-7.30	17.30	46.00	-28.70			QP
5	491.7700	23.53	-6.33	17.20	46.00	-28.80			QP
6*	749.6761	21.95	-1.27	20.68	46.00	-25.32			QP



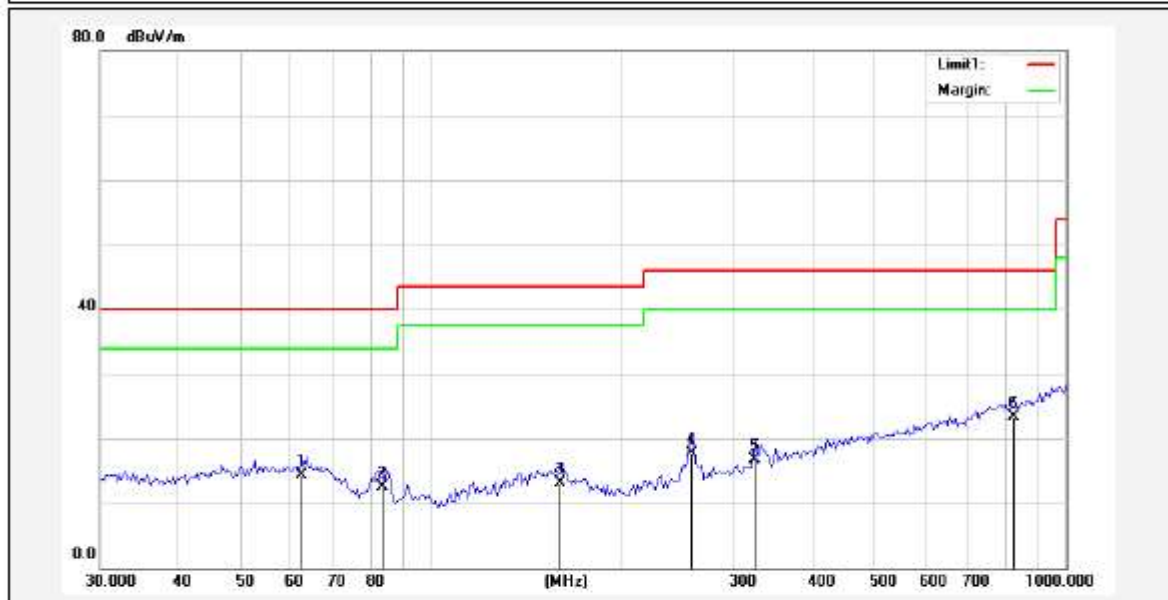
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3M Anechoic Chamber 2

Job No.: T220927046 RF L	Probe : Vertical
Standard: FCC Part15C	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 23.5 (C) / 58 %RH	Date: 2022/9/29 Time: 11:23:47
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2440	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	62.3038	26.67	-12.36	14.31	40.00	-25.69			QP
2	83.6937	29.11	-16.55	12.56	40.00	-27.44			QP
3	159.7586	24.86	-11.73	13.13	43.50	-30.37			QP
4	257.6265	29.99	-12.30	17.69	46.00	-28.31			QP
5	322.5896	27.33	-10.53	16.80	46.00	-29.20			QP
6*	827.1793	23.75	-0.44	23.31	46.00	-22.69			QP

High Channel



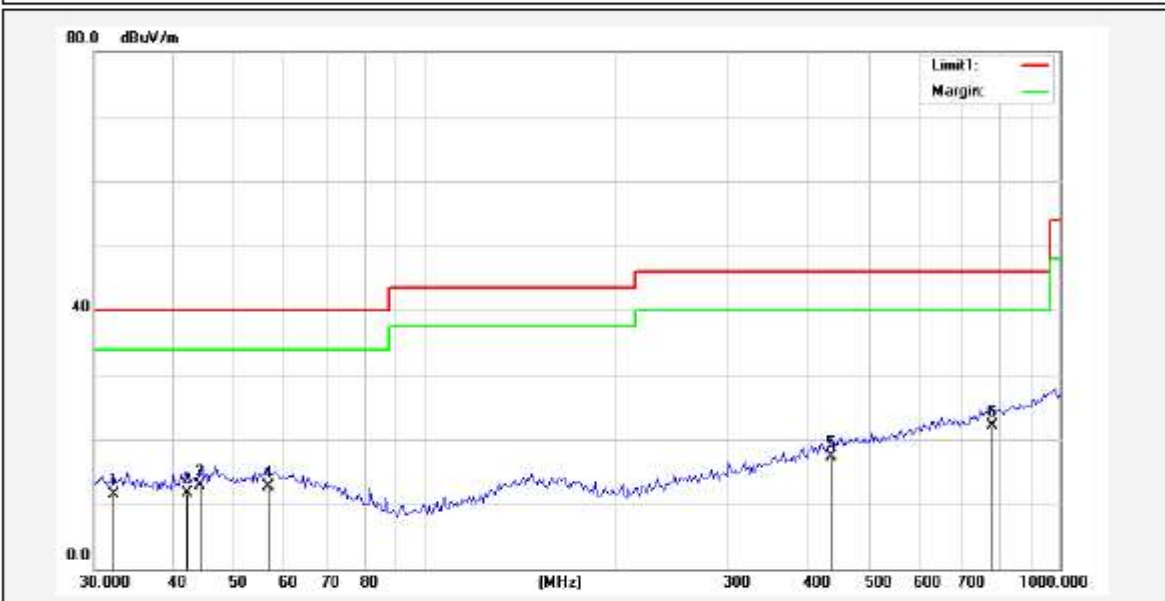
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3M Anechoic Chamber 2

Job No.: T220927046 RF L	Probe : Horizontal
Standard: FCC Part15C	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 23.5 (C) / 58 %RH	Date: 2022/9/29 Time: 11:26:40
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2480	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	32.1840	24.16	-12.56	11.60	40.00	-28.40			QP
2	42.0350	23.99	-12.29	11.70	40.00	-28.30			QP
3	44.1544	24.92	-12.08	12.84	40.00	-27.16			QP
4	56.4662	24.60	-11.81	12.79	40.00	-27.21			QP
5	436.3956	24.60	-7.30	17.30	46.00	-28.70			QP
6*	781.9605	22.95	-0.80	22.15	46.00	-23.85			QP



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3M Anechoic Chamber 2

Job No.: T220927046 RF L	Probe : Vertical
Standard: FCC Part15C	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 23.5 (C) / 58 %RH	Date: 2022/9/29 Time: 11:30:01
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2480	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	107.0306	29.15	-15.59	13.56	43.50	-29.94			QP
2	133.0810	27.49	-13.02	14.47	43.50	-29.03			QP
3	159.7586	24.86	-11.73	13.13	43.50	-30.37			QP
4	259.4433	27.41	-12.25	15.16	46.00	-30.84			QP
5	324.8645	26.44	-10.45	15.99	46.00	-30.01			QP
6*	827.1793	23.75	-0.44	23.31	46.00	-22.69			QP

Above 1GHz

Test Results of Radiated Spurious Emissions

Low Channel



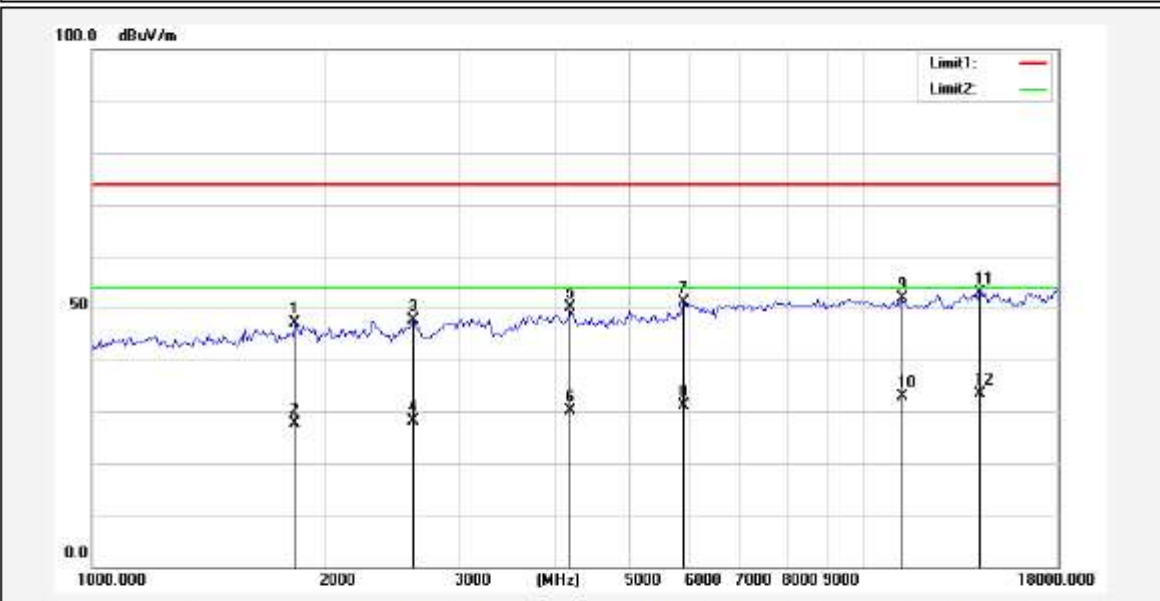
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3M Anechoic Chamber 2

Job No.: T220927046 RF FCC	Probe : Horizontal
Standard: FCC PART15 C ABOVE 1G-peak	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 24.5 (C) / 54 %RH	Date: 2022/9/29 Time: 10:30:12
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2402	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1837.111	51.53	-4.50	47.03	74.00	-26.97			peak
2	1837.111	32.06	-4.50	27.56	54.00	-26.44			AVG
3	2615.686	50.54	-2.83	47.71	74.00	-26.29			peak
4	2615.686	30.84	-2.83	28.01	54.00	-25.99			AVG
5	4181.646	49.45	0.58	50.03	74.00	-23.97			peak
6	4181.646	29.56	0.58	30.14	54.00	-23.86			AVG
7	5885.269	49.10	1.98	51.08	74.00	-22.92			peak
8	5885.269	29.27	1.98	31.25	54.00	-22.75			AVG
9	11324.692	18.44	33.51	51.95	74.00	-22.05			peak
10	11324.692	-0.55	33.51	32.96	54.00	-21.04			AVG
11	14277.411	21.18	31.82	53.00	74.00	-21.00			peak
12*	14277.411	1.65	31.82	33.47	54.00	-20.53			AVG



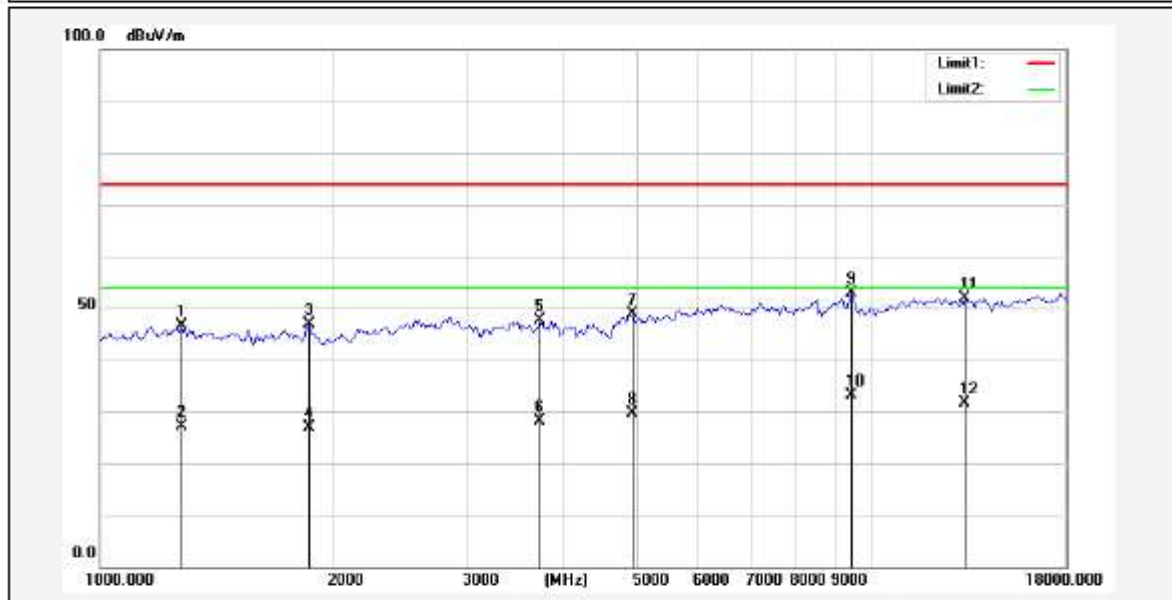
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3M Anechoic Chamber 2

Job No.: T220927046 RF FCC	Probe: Vertical
Standard: FCC PART15 C ABOVE 1G-peak	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 24.5 (C) / 54 %RH	Date: 2022/9/29 Time: 10:33:21
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By: Jeff
Test Mode: BLE 2402	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1275.423	53.60	-7.07	46.53	74.00	-27.47			peak
2	1275.423	34.20	-7.07	27.13	54.00	-26.87			AVG
3	1869.314	50.96	-4.16	46.80	74.00	-27.20			peak
4	1869.314	31.05	-4.16	26.89	54.00	-27.11			AVG
5	3724.224	47.14	0.52	47.66	74.00	-26.34			peak
6	3724.224	27.65	0.52	28.17	54.00	-25.83			AVG
7	4917.943	46.21	2.79	49.00	74.00	-25.00			peak
8	4917.943	26.79	2.79	29.58	54.00	-24.42			AVG
9	9463.320	44.96	7.85	52.81	74.00	-21.19			peak
10*	9463.320	25.36	7.85	33.21	54.00	-20.79			AVG
11	13318.722	19.29	32.70	51.99	74.00	-22.01			peak
12	13318.722	-1.12	32.70	31.58	54.00	-22.42			AVG

Middle Channel



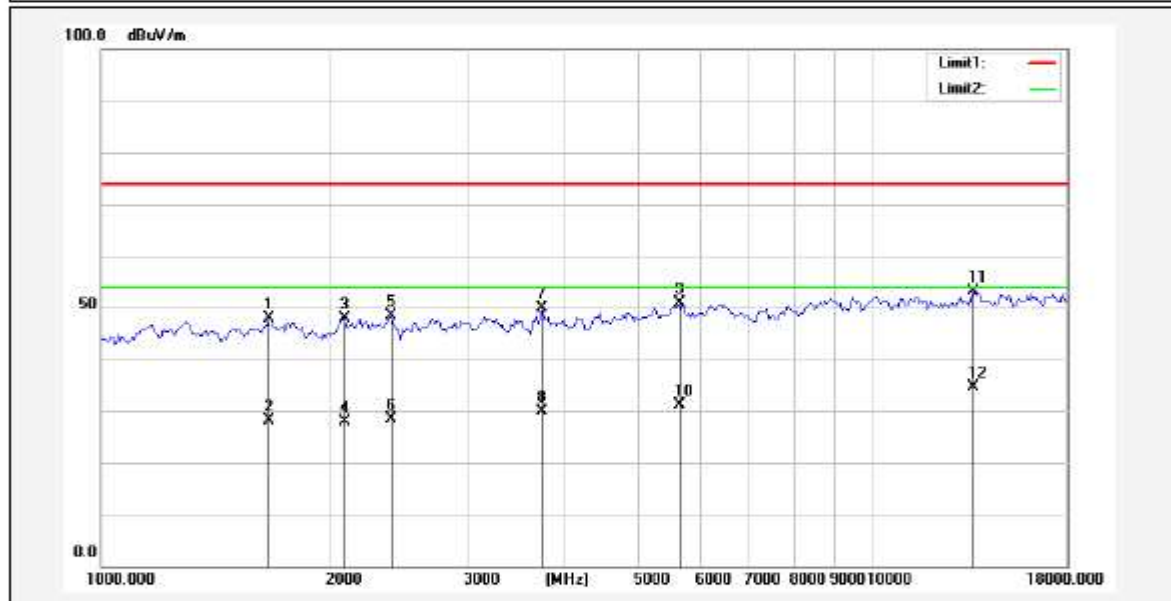
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3M Anechoic Chamber 2

Job No.: T220927046 RF FCC	Probe : Horizontal
Standard: FCC PART15 C ABOVE 1G-peak	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum. (%RH): 24.5 (C) / 54 %RH	Date: 2022/9/29 Time: 10:39:18
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2440	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1655.217	54.00	-6.00	48.00	74.00	-26.00			peak
2	1655.217	34.01	-6.00	28.01	54.00	-25.99			AVG
3	2074.735	51.85	-4.02	47.83	74.00	-26.17			peak
4	2074.735	31.98	-4.02	27.96	54.00	-26.04			AVG
5	2384.166	51.54	-3.15	48.39	74.00	-25.61			peak
6	2384.166	31.49	-3.15	28.34	54.00	-25.66			AVG
7	3745.858	49.97	-0.02	49.95	74.00	-24.05			peak
8	3745.858	29.90	-0.02	29.88	54.00	-24.12			AVG
9	5651.416	48.02	2.93	50.95	74.00	-23.05			peak
10	5651.416	28.31	2.93	31.24	54.00	-22.76			AVG
11	13630.910	22.17	31.06	53.23	74.00	-20.77			peak
12*	13630.910	3.53	31.06	34.59	54.00	-19.41			AVG



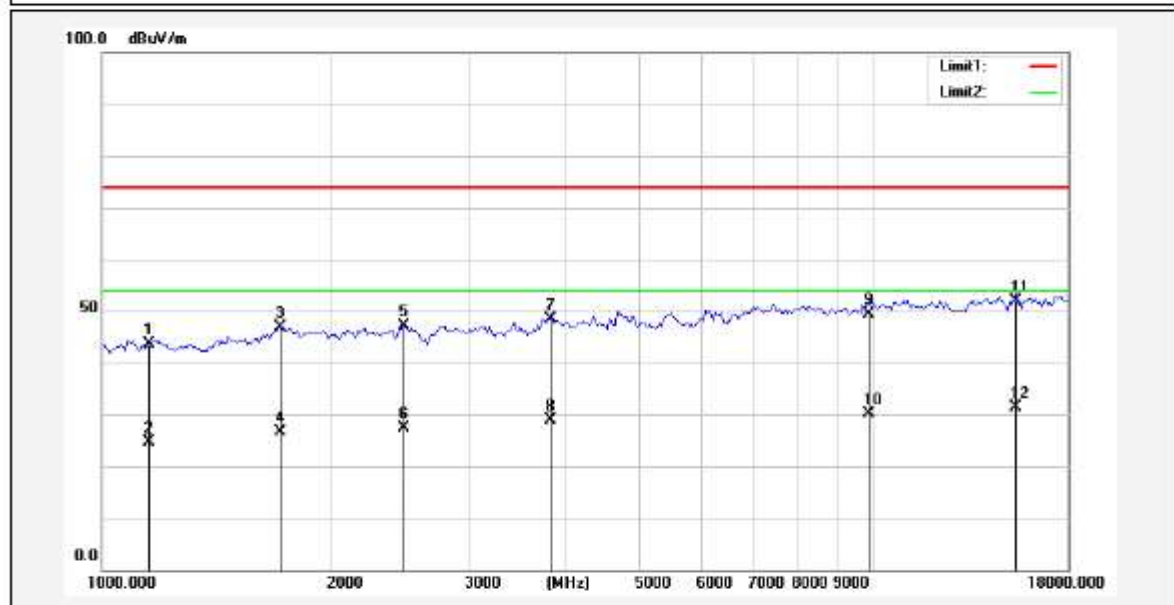
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3M Anechoic Chamber 2

Job No.: T220927046 RF FCC	Probe : Vertical
Standard: FCC PART15 C ABOVE 1G-peak	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 24.5 (C) / 54 %RH	Date: 2022/9/29 Time: 10:36:24
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2440	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1149.142	52.74	-8.99	43.75	74.00	-30.25			peak
2	1149.142	33.50	-8.99	24.51	54.00	-29.49			AVG
3	1703.857	52.34	-5.47	46.87	74.00	-27.13			peak
4	1703.857	32.05	-5.47	26.58	54.00	-27.42			AVG
5	2468.481	49.67	-2.59	47.08	74.00	-26.92			peak
6	2468.481	30.02	-2.59	27.43	54.00	-26.57			AVG
7	3833.661	47.90	0.60	48.50	74.00	-25.50			peak
8	3833.661	28.35	0.60	28.95	54.00	-25.05			AVG
9	9912.157	41.10	8.32	49.42	74.00	-24.58			peak
10	9912.157	21.69	8.32	30.01	54.00	-23.99			AVG
11*	15394.016	13.55	38.41	51.96	74.00	-22.04			peak
12	15394.016	-7.13	38.41	31.28	54.00	-22.72			AVG

High Channel



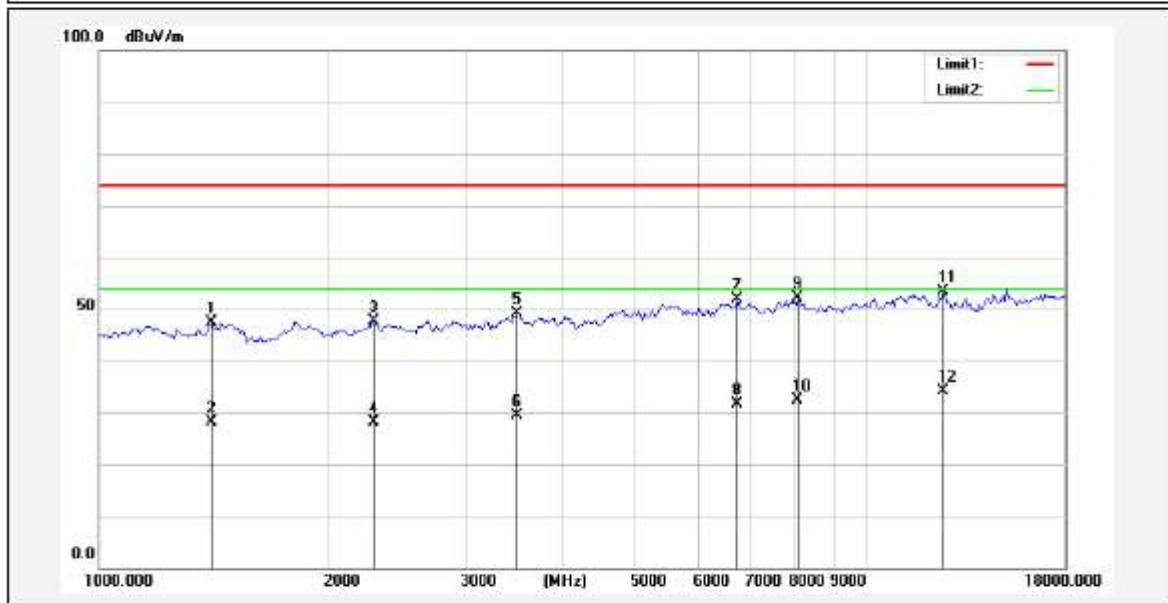
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3M Anechoic Chamber 2

Job No.: T220927046 RF FCC	Probe : Horizontal
Standard: FCC PART15 C ABOVE 1G-peak	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 24.5 (C) / 54 %RH	Date: 2022/9/29 Time: 10:42:47
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2480	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1399.276	54.69	-7.28	47.41	74.00	-26.59			peak
2	1399.276	35.42	-7.28	28.14	54.00	-25.86			AVG
3	2276.207	51.15	-3.52	47.63	74.00	-26.37			peak
4	2276.207	31.55	-3.52	28.03	54.00	-25.97			AVG
5	3494.334	49.63	-0.52	49.11	74.00	-24.89			peak
6	3494.334	29.85	-0.52	29.33	54.00	-24.67			AVG
7	6763.011	52.32	-0.56	51.76	74.00	-22.24			peak
8	6763.011	32.21	-0.56	31.65	54.00	-22.35			AVG
9	8093.251	50.00	2.12	52.12	74.00	-21.88			peak
10	8093.251	30.35	2.12	32.47	54.00	-21.53			AVG
11	12496.581	20.95	32.41	53.36	74.00	-20.64			peak
12*	12496.581	1.64	32.41	34.05	54.00	-19.95			AVG



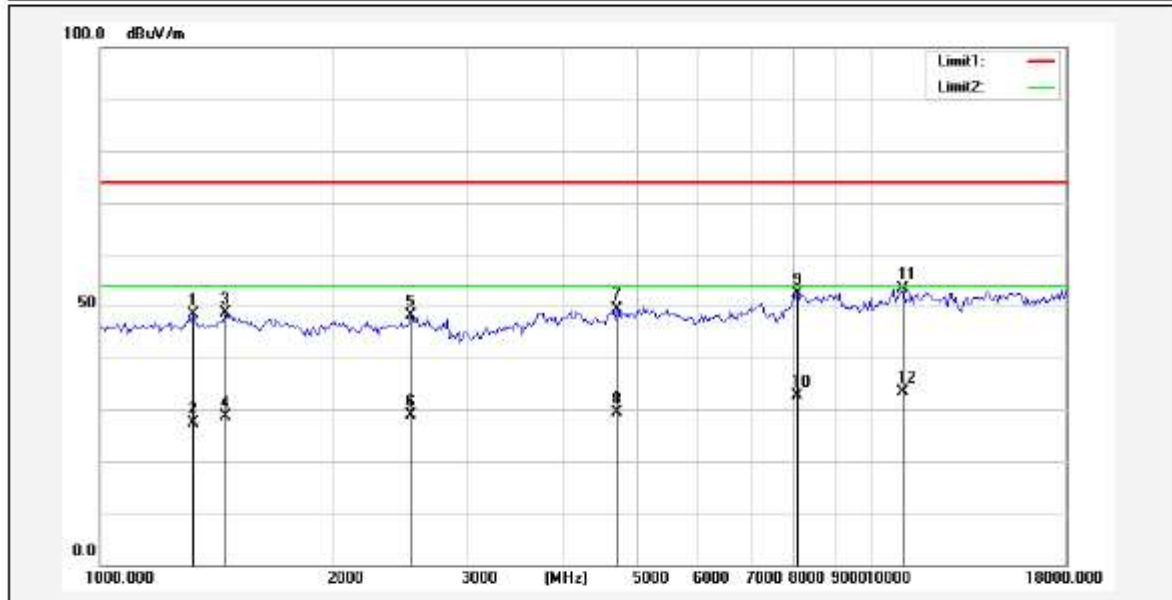
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3M Anechoic Chamber 2

Job No.: T220927046 RF FCC	Probe: Vertical
Standard: FCC PART15 C ABOVE 1G-peak	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 24.5 (C) / 54 %RH	Date: 2022/9/29 Time: 10:45:04
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By: Jeff
Test Mode: BLE 2480	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	1320.528	55.26	-6.92	48.34	74.00	-25.66			peak
2	1320.528	34.31	-6.92	27.39	54.00	-26.61			AVG
3	1457.178	55.78	-7.21	48.57	74.00	-25.43			peak
4	1457.178	35.85	-7.21	28.64	54.00	-25.36			AVG
5	2541.018	50.52	-2.44	48.08	74.00	-25.92			peak
6	2541.018	31.40	-2.44	28.96	54.00	-25.04			AVG
7	4695.251	46.62	2.76	49.38	74.00	-24.62			peak
8	4695.251	26.55	2.76	29.31	54.00	-24.69			AVG
9	8046.507	46.45	5.96	52.41	74.00	-21.59			peak
10	8046.507	26.58	5.96	32.54	54.00	-21.46			AVG
11	11065.323	49.55	3.90	53.45	74.00	-20.55			peak
12*	11065.323	29.57	3.90	33.47	54.00	-20.53			AVG

Test Results of Band Edge

Band Edge, Low Channel



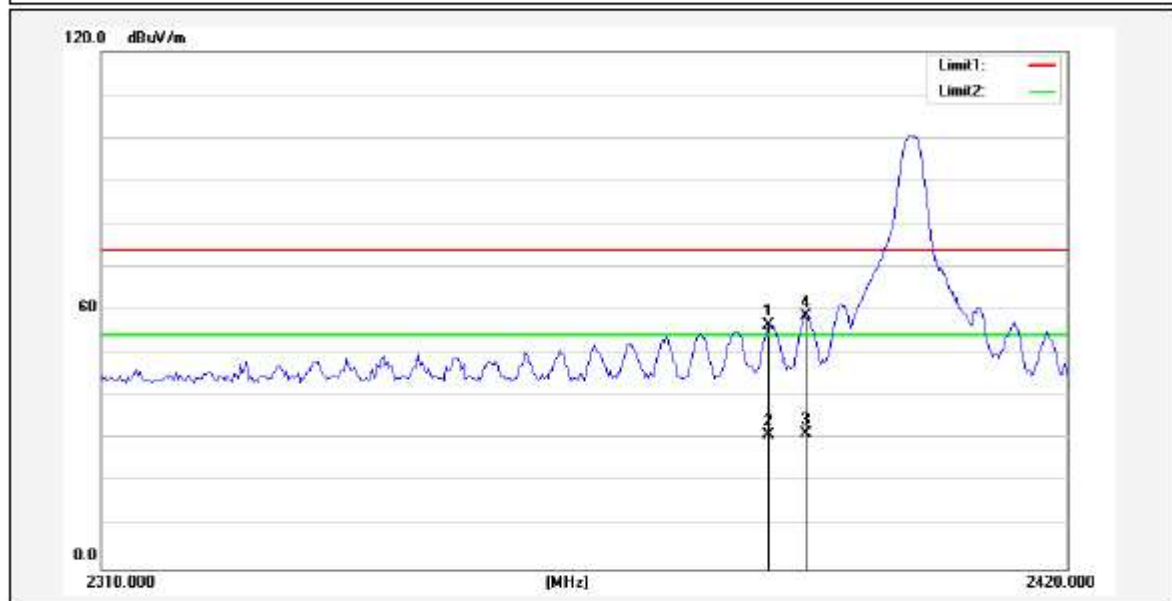
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3M Anechoic Chamber 2

Job No.:	T220927046 RF FCC	Probe :	Horizontal
Standard:	FCC PART15 C ABOVE 1G-peak	Tested Distance:	
Test item:	Radiation Test	Power Source:	DC 3V
Temp.(C)/Hum.(%RH):	22.5 (C) / 62 %RH	Date:	2022/9/29 Time: 9:06:18
Company:	Skyworth	EUT:	BT voice remote control
Model:	HS-8AB	Test By :	Jeff
Test Mode:	BLE 2402		



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	2385.611	53.38	3.10	56.48	74.00	-17.52			peak
2	2385.796	28.07	3.10	31.17	54.00	-22.83			AVG
3	2389.765	28.25	3.12	31.37	54.00	-22.63			AVG
4*	2390.000	55.38	3.13	58.51	74.00	-15.49			peak



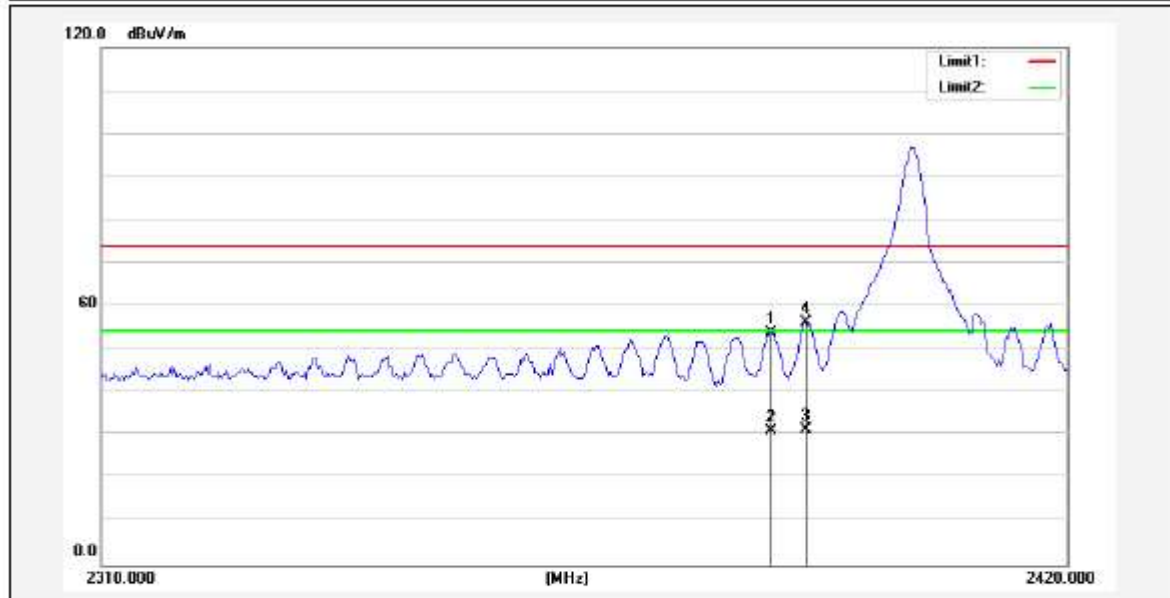
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3M Anechoic Chamber 2

Job No.: T220927046 RF FCC	Probe : Vertical
Standard: FCC PART15 C ABOVE 1G-peak	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum. (%RH): 22.5 (C) / 62 %RH	Date: 2022/9/29 Time: 9:12:29
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2402	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	2385.831	50.81	3.10	53.91	74.00	-20.09			peak
2	2385.955	28.07	3.10	31.17	54.00	-22.83			AVG
3	2389.594	28.25	3.12	31.37	54.00	-22.63			AVG
4*	2389.800	52.99	3.12	56.11	74.00	-17.89			peak

Band Edge, High Channel



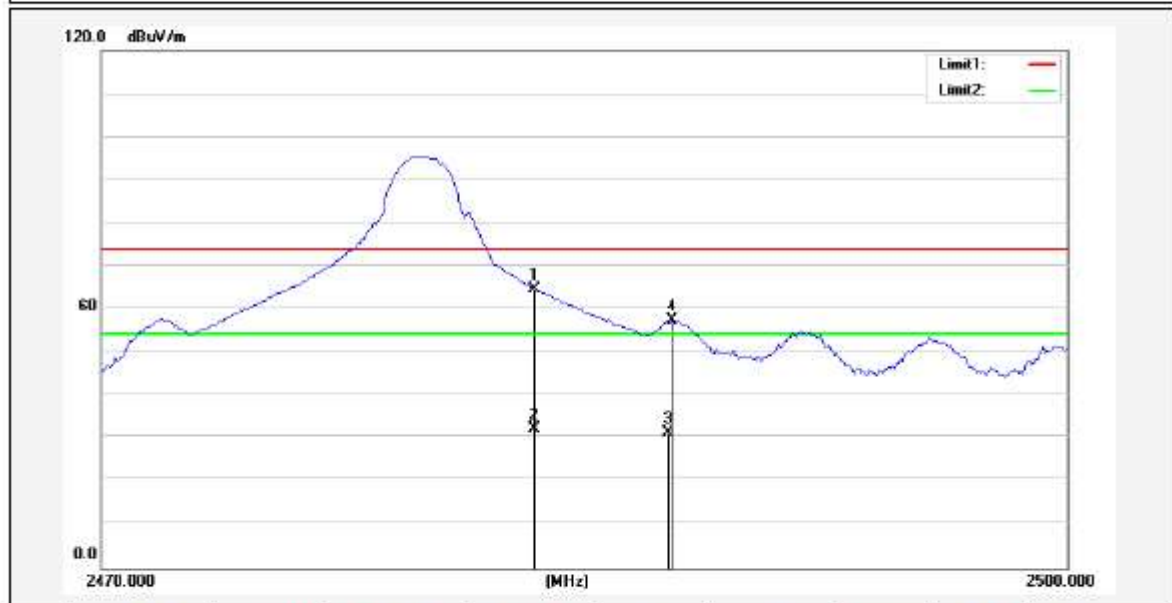
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3M Anechoic Chamber 2

Job No.: T220927046 RF FCC	Probe : Horizontal
Standard: FCC PART15 C ABOVE 1G-peak	Tested Distance:
Test item: Radiation Test	Power Source: DC 3V
Temp.(C)/Hum.(%RH): 22.5 (C) / 62 %RH	Date: 2022/9/29 Time: 9:31:35
Company: Skyworth	EUT: BT voice remote control
Model: HS-8AB	Test By : Jeff
Test Mode: BLE 2480	



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1*	2483.500	60.99	3.59	64.58	74.00	-9.42			peak
2	2483.500	28.76	3.59	32.35	54.00	-21.65			AVG
3	2487.637	27.70	3.62	31.32	54.00	-22.68			AVG
4	2487.735	53.87	3.62	57.49	74.00	-16.51			peak



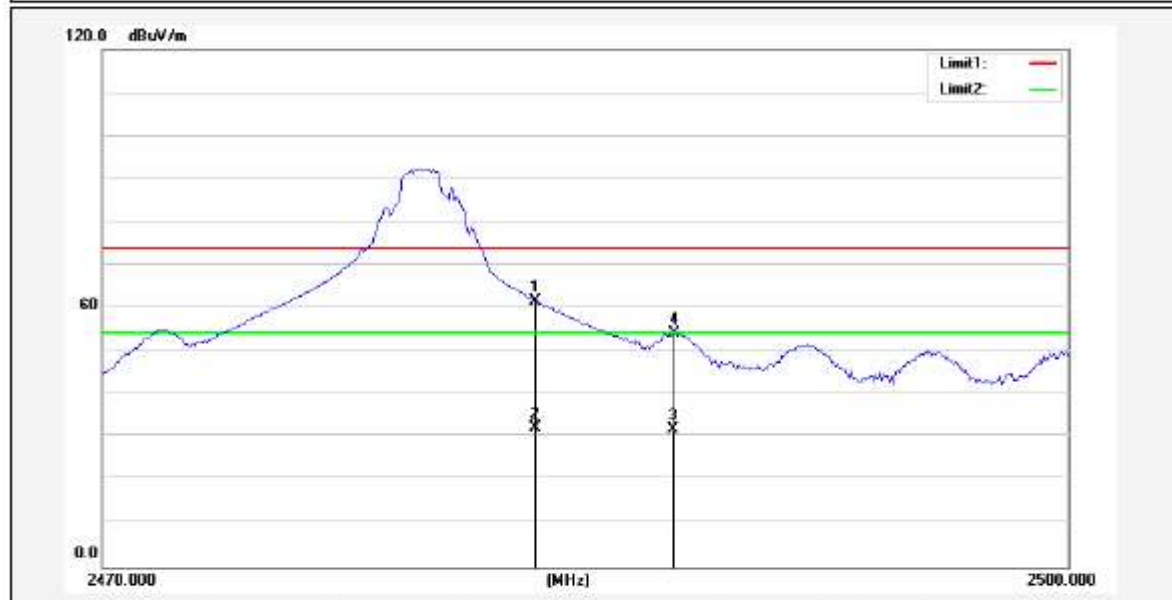
深圳中标国际检验技术有限公司

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3M Anechoic Chamber 2

Job No.:	T220927046 RF FCC	Probe :	Vertical
Standard:	FCC PART15 C ABOVE 1G-peak	Tested Distance:	
Test item:	Radiation Test	Power Source:	DC 3V
Temp.(C)/Hum. (%RH):	22.5 (C) / 62 %RH	Date:	2022/9/29 Time: 9:25:30
Company:	Skyworth	EUT:	BT voice remote control
Model:	HS-8AB	Test By :	Jeff
Test Mode: BLE 2480			



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1*	2483.500	57.96	3.59	61.55	74.00	-12.45			peak
2	2483.500	28.76	3.59	32.35	54.00	-21.65			AVG
3	2487.698	28.43	3.62	32.05	54.00	-21.95			AVG
4	2487.796	50.46	3.62	54.08	74.00	-19.92			peak

6 Photographs of the Test Set-Up

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