

Prüfbericht-Nr.: Test report no.:	CN22GIJI 001	Auftrags-Nr.: Order no.:	168370794	Seite 1 von 27 Page 1 of 27
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2022-05-06	
Auftraggeber: Client:	Shokz Holding Limited Room 2603A, 26/F., Tower 1, Lippo Centre, 89 Queensway, Admiralty, Hong Kong			
Prüfgegenstand: Test item:	RoadWave			
Bezeichnung / Typ-Nr.: Identification / Type no.:	V102 (Trademark: SHOKZ)			
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 RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: Date of sample receipt:	2022-05-06	Refer Photo documents		
Prüfmuster-Nr.: Test sample no.:	A003254962-009			
Prüfzeitraum: Testing period:	2022-05-10 - 2022-05-26			
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:	2022-05-31		Ausstellungsdatum: Issue date:	2022-05-31
	签署者: Breeze Jiang			Signed by: Winnie Hou
Stellung / Position	Assistant Project Manager		Stellung / Position	Reviewer
Sonstiges / Other: FCC ID: 2A5CD-V102 IC: 28271-V102 HVIN: V102 Manufacturer: Shenzhen Shokz Co., Ltd. Address: Floors 1-4, Factory Building 26, Shancheng Industrial Park, Shixin Community, Langxin Community, Shiyan Street, Bao'an District, Shenzhen, Guangdong, China				
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 specifications(s) F(ail) = failed a.m. test specifications(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>				

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Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 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 NUMBER OF HOPPING FREQUENCY

RESULT: Pass

5.1.9 TIME OF OCCUPANCY

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 Conducted Testing

Appendix C: Test Results of Radiated Emission

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

IC Registration No.: 25069

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2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing (TS8997)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Signal Analyzer	R&S	FSV 40	101441	09.08.2022
OSP	R&S	OSP 150	101017	02.12.2022
Control PC	DELL	OptiPlex 7050	FTJZ9P2	N/A
Test Software	R&S	WMS32 (V11.00.00)	N/A	N/A
Power Meter	R&S	NRP2	107105	02.12.2022
Wideband Power Sensor	R&S	NRP-Z81	105677	09.08.2022
Shielding Room 8#	Albatross	SR8	APC17151-SR8	22.06.2024
Unwanted Emission Testing (TS9975)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	10.08.2022
Signal Analyzer	R&S	FSV 40	101439	09.08.2022
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	09.08.2022
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	09.08.2022
Amplifier	R&S	SCU-18F	180070	09.08.2022
Amplifier	R&S	SCU40A	100475	09.08.2022
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	08.08.2022
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	08.08.2022
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	08.08.2022
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	13.09.2022
Wideband Ridged Horn Antenna (12-18 GHz)	Steatite	QMS-00208	18313	08.08.2022
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	22.06.2024

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Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR3	102428	08.08.2022
Artificial Mains Network	R&S	ENV216	102333	08.08.2022
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

2.3 Traceability

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

2.4 Calibration

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

2.5 Measurement Uncertainty

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

Parameter	Uncertainty
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
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	± 3.70 dB / ± 3.30 dB
Radiated Emission (3m SAC), 30MHz to 1000MHz	± 4.52 dB
Radiated Emission (3m SAC), above 1000MHz	± 4.37 dB
Temperature	± 1 °C
Humidity	± 5 %
Voltage (DC)	± 1 %
Voltage (AC, <10kHz)	± 2 %

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B & C & D & E 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 EUT is a **RoadWave**, The unit is powered by a built-in, lithium-ion rechargeable battery, a left ear and a right ear, both the left and right earbuds supports Bluetooth BDR&EDR wireless technology.

When the EUT charging that wireless function can't working, the charging mode was tested in the FCC Part 15B (sDOC) report.(report no.: CN22R4M8 002)

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	RoadWave
Type Designation	V102
Trade Mark	SHOKZ
FCC ID	2A5CD-V102
IC	28271-V102
HVIN	V102
Operating Voltage	For left & right ear: USB port operated, Internal Battery operated (3.8Vdc, rechargeable lithium battery)
Technical Specification of Bluetooth	
Technical Specification	Value
Operating Frequency	2402 - 2480 MHz
Type of Modulation	GFSK, $\pi/4$ DQPSK, 8DPSK
Channel Number	BDR & EDR mode:79 channels
Channel Separation	BDR & EDR mode:1MHz
Wireless Technology	Bluetooth 5.2
Antenna Type	Integral Antenna
Max. Antenna Gain	0 dBi for left ear and right ear

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Table 3: RF Channel and Frequency of 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. On, Bluetooth connecting mode
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

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

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

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

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

4.2 Test Operation and Test Software

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

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	Rating
Notebook	Lenovo	ThinkPad E575	2016AP5013

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)

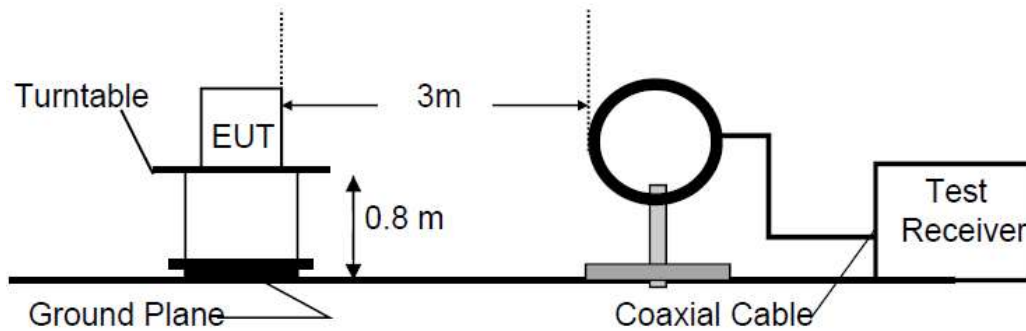


Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

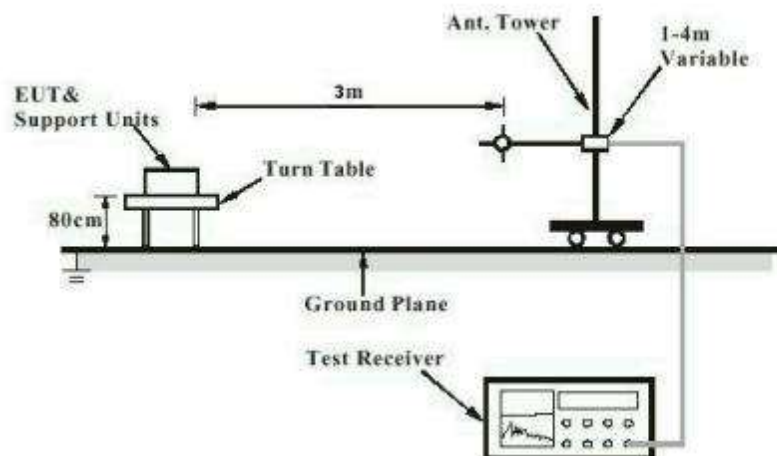
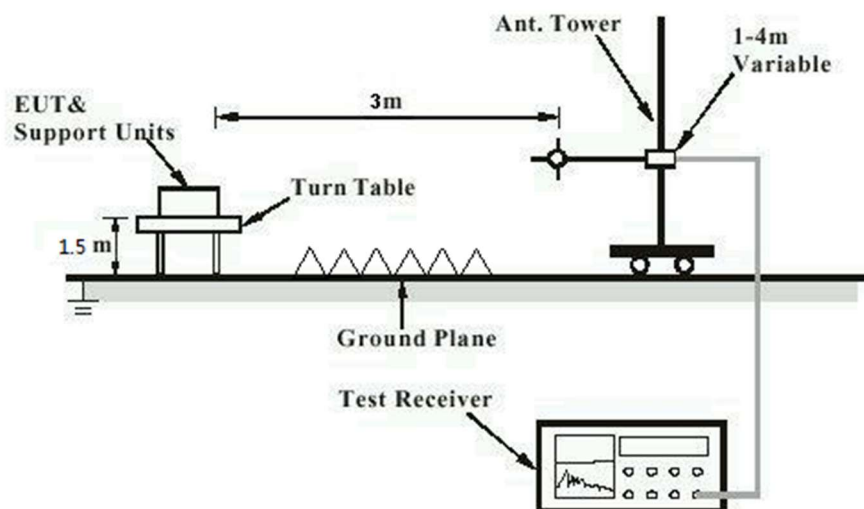


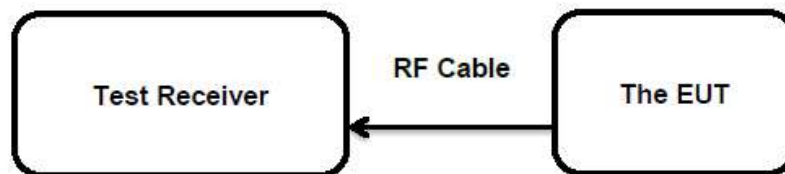
Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



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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 an integral antenna, the directional gain of antenna is 0 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.

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5.1.2 Maximum Peak Conducted Output Power

RESULT:

Not applicable

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	: 25.05.2022
Input voltage	: DC 3.8V by fully charged battery
Operation mode	: A.1
Test channel	: Low / Middle / High
Ambient temperature	: 25.6 °C
Relative humidity	: 51 %
Atmospheric pressure	: 100.1 kPa

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Table 5: Test Result of Maximum Conducted Output Power

Left ear

Test Mode	Channel Frequency (MHz)	Measured Peak Output Power		Limit (W)
		(dBm)	(W)	
GFSK	2402	9.2	0.008318	< 0.125
	2441	8.8	0.007586	
	2480	8.0	0.006310	
8DPSK	2402	8.6	0.007244	< 0.125
	2441	8.2	0.006607	
	2480	7.4	0.005495	

Right ear

Test Mode	Channel Frequency (MHz)	Measured Peak Output Power		Limit (W)
		(dBm)	(W)	
GFSK	2402	6.5	0.004467	< 0.125
	2441	5.4	0.003467	
	2480	4.2	0.002630	
8DPSK	2402	5.8	0.003802	< 0.125
	2441	4.9	0.003090	
	2480	3.4	0.002188	

Note: The cable loss is taken into account in results and the maximum e.i.r.p. is 9.2dBm less than 4W(36dBm).

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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 : 25.05.2022
Input voltage : DC 3.8V by fully charged battery
Operation mode : A.1
Test channel : Low / Middle / High
Ambient temperature : 25.6 °C
Relative humidity : 51 %
Atmospheric pressure : 100.1 kPa

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Table 6: Test Result of 99% Bandwidth

Left ear

Test Mode	Channel Frequency (MHz)	99% Bandwidth (kHz)	Limit (kHz)
GFSK	2402	890.00	/
	2441	890.00	
	2480	890.00	
8DPSK	2402	1135.00	/
	2441	1140.00	
	2480	1140.00	

Right ear

Test Mode	Channel Frequency (MHz)	99% Bandwidth (kHz)	Limit (kHz)
GFSK	2402	880.00	/
	2441	880.00	
	2480	880.00	
8DPSK	2402	1140.00	/
	2441	1145.00	
	2480	1140.00	

For the measurement records, refer to the appendix B.

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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	: 25.05.2022
Input voltage	: DC 3.8V by fully charged battery
Operation mode	: A.1
Test channel	: Low / Middle / High
Ambient temperature	: 25.6 °C
Relative humidity	: 51 %
Atmospheric pressure	: 100.1 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.

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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	: 25.05.2022
Input voltage	: DC 3.8V by fully charged battery
Operation mode	: A.1
Test channel	: Low / Middle / High
Ambient temperature	: 23 °C
Relative humidity	: 58 %
Atmospheric pressure	: 100.2 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 C

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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 : 25.05.2022
Input voltage : DC 3.8V by fully charged battery
Operation mode : A.1
Test channel : Low / Middle / High
Ambient temperature : 25.6 °C
Relative humidity : 51 %
Atmospheric pressure : 100.1 kPa

Table 7: Test Result of 20dB Bandwidth

Left ear

Test Mode	Channel Frequency (MHz)	20dB Bandwidth (MHz)	2/3 of 20dB Bandwidth (MHz)	Limit (MHz)
GFSK	2402	0.950	0.633	/
	2441	0.950	0.633	
	2480	0.950	0.633	
8DPSK	2402	1.170	0.780	/
	2441	1.170	0.780	
	2480	1.165	0.777	

Right ear

Test Mode	Channel Frequency (MHz)	20dB Bandwidth (MHz)	2/3 of 20dB Bandwidth (MHz)	Limit (MHz)
GFSK	2402	0.955	0.637	/
	2441	0.955	0.637	
	2480	0.955	0.637	
8DPSK	2402	1.170	0.780	/
	2441	1.170	0.780	
	2480	1.170	0.780	

For the measurement records, refer to the appendix B.

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

Test Setup

Date of testing	: 25.05.2022
Input voltage	: DC 3.8V by fully charged battery
Operation mode	: B
Test channel	: Low / Middle / High
Ambient temperature	: $25.6\text{ }^{\circ}\text{C}$
Relative humidity	: 51 %
Atmospheric pressure	: 100.1 kPa

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Table 8: Test Result of Carrier Frequency Separation

Left ear

Test Mode	Channel	Channel Frequency (MHz)	Measured Channel Separation (MHz)	Limit (MHz)	Result
GFSK	Low Channel	2401.965347	1.010	≥ 25kHz or 2/3 of 20dB bandwidth	Pass
	Adjacency Channel	2402.975248			
	Middle Channel	2440.965347	1.010		Pass
	Adjacency Channel	2441.975248			
	High Channel	2478.965347	1.010		Pass
	Adjacency Channel	2479.975248			
8DPSK	Low Channel	2401.995050	0.980	≥ 25kHz or 2/3 of 20dB bandwidth	Pass
	Adjacency Channel	2402.975248			
	Middle Channel	2440.995050	0.980		Pass
	Adjacency Channel	2441.975248			
	High Channel	2478.995050	0.980		Pass
	Adjacency Channel	2479.975248			

Right ear

Test Mode	Channel	Channel Frequency (MHz)	Measured Channel Separation (MHz)	Limit (MHz)	Result
GFSK	Low Channel	2401.965347	1.010	≥ 25kHz or 2/3 of 20dB bandwidth	Pass
	Adjacency Channel	2402.975248			
	Middle Channel	2440.965347	1.010		Pass
	Adjacency Channel	2441.975248			
	High Channel	2478.965347	1.010		Pass
	Adjacency Channel	2479.975248			
8DPSK	Low Channel	2401.995050	0.980	≥ 25kHz or 2/3 of 20dB bandwidth	Pass
	Adjacency Channel	2402.975248			
	Middle Channel	2440.995050	0.980		Pass
	Adjacency Channel	2441.975248			
	High Channel	2478.995050	0.980		Pass
	Adjacency Channel	2479.975248			

Note:

The limit is maximum 2/3 of the 20 dB bandwidth see table 7.

For the measurement records, refer to the appendix B.

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5.1.8 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 : 25.05.2022
Input voltage : DC 3.8V by fully charged battery
Operation mode : B
Ambient temperature : 25.6 °C
Relative humidity : 51 %
Atmospheric pressure : 100.1 kPa

Table 9: Test Result of Number of Hopping Frequency

Left and right ear

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

For the measurement records, refer to the appendix B

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5.1.9 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 : 25.05.2022
Input voltage : DC 3.8V by fully charged battery
Operation mode : B
Test channel : Low / Middle / High
Ambient temperature : 25.6 °C
Relative humidity : 51 %
Atmospheric pressure : 100.1 kPa

Table 10: Test Result of Time of Occupancy

Left ear

Test Mode	Channel	Data Packet	Pulse width (ms)	Measured Dwell time(s)	Limit (s)
GFSK	2441	DH1	0.391	0.05942	< 0.4s
		DH3	1.660	0.17590	
		DH5	2.934	0.19951	
8DPSK	2441	3DH1	0.402	0.06673	< 0.4s
		3DH3	1.661	0.17604	
		3DH5	2.936	0.22018	

Right ear

Test Mode	Channel	Data Packet	Pulse width (ms)	Measured Dwell time(s)	Limit (s)
GFSK	2441	DH1	0.389	0.06154	< 0.4s
		DH3	1.658	0.18067	
		DH5	2.924	0.26312	
8DPSK	2441	3DH1	0.399	0.06468	< 0.4s
		3DH3	1.649	0.17149	
		3DH5	2.913	0.23593	

Note:

Dwell time = Pulse width x (Hopping rate / Number of channels) x Period

Period = 0.4 x 79 (channel) = 31.6 seconds

For the measurement records, refer to the appendix B.