

Prüfbericht-Nr.: <i>Test report no.:</i>	CN20KOR9 001	Auftrags-Nr.: <i>Order no.:</i>	168286270	Seite 1 von 28 Page 1 of 28
Kunden-Referenz-Nr.: <i>Client reference no.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2020-10-16	
Auftraggeber: <i>Client:</i>	Premium Surge Promotions, LLC. 640N. LaSalle St, Suite 540, Chicago, IL 60654, United States			
Prüfgegenstand: <i>Test item:</i>	Sonix Bluetooth Speaker			
Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i>	SNX-TE-003 (Trademark: Sonix)			
Auftrags-Inhalt: <i>Order content:</i>	FCC and IC approval			
Prüfgrundlage: <i>Test specification:</i>	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 CFR47 FCC Part 2: Section 2.1093 RSS-247 Issue 2 February 2017 RSS-Gen Issue 5 April 2018 ICES-003 Issue 6 January 2016 RSS-102 Issue 5 March 2015			
Wareneingangsdatum: <i>Date of sample receipt:</i>	2020-10-29	Please refer to photo documents		
Prüfmuster-Nr.: <i>Test sample no.:</i>	A002937236-001~004			
Prüfzeitraum: <i>Testing period:</i>	2020-10-30 – 2020-11-16			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shenzhen) Co., Ltd. Testing Center			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von: <i>tested by:</i>	<u>X Jackson Yang</u>		genehmigt von: <i>authorized by:</i>	<u>X Winnie Hou</u>
Datum: <i>Date:</i> 2020-12-09	Signed by: Jackson Yang		Ausstellungsdatum: <i>Issue date:</i> 2020-12-09	Signed by: Winnie Hou
Stellung / Position:	Project Engineer		Stellung / Position:	Technical Certifier
Sonstiges / Other:	FCC ID: 2ATL4-3FBTSS2LS IC: 25105-3FBTSS2LS HVIN: SNX-TE-003			
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 P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	4 = ausreichend N/A = nicht anwendbar
* Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory F(ail) = failed a.m. test specification(s)	4 = sufficient N/A = not applicable
5 = mangelhaft N/T = nicht getestet 5 = poor N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

V05

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 Emission*RESULT: Pass***6.1.1** Electromagnetic Fields*RESULT: Pass*

Contents

1	General Remarks	5
1.1	Complementary Materials	5
2	Test Sites	5
2.1	Test Facilities	5
2.2	List of Test and Measurement Instruments	6
2.3	Traceability	7
2.4	Calibration	7
2.5	Measurement Uncertainty	8
2.6	Location of Original Data	8
2.7	Status of Facility Used for Testing	8
3	General Product Information	9
3.1	Product Function and Intended Use	9
3.2	Ratings and System Details	9
3.3	Independent Operation Modes	12
3.4	Noise Generating and Noise Suppressing Parts	12
3.5	Submitted Documents	12
4	Test Set-up and Operation Modes	13
4.1	Principle of Configuration Selection	13
4.2	Test Operation and Test Software	13
4.3	Special Accessories and Auxiliary Equipment	13
4.4	Countermeasures to Achieve EMC Compliance	13
4.5	Test Setup Diagram	14
5	Test Results	16
5.1	Transmitter Requirement & Test Suites	16
5.1.1	Antenna Requirement.....	16
5.1.2	Maximum Peak Conducted Output Power	17
5.1.3	99% Bandwidth.....	18
5.1.4	20dB Bandwidth.....	19
5.1.5	Carrier Frequency Separation	20
5.1.6	Number of Hopping Frequency	21
5.1.7	Time of Occupancy.....	22
5.1.8	Conducted Spurious Emissions Measured in 100 kHz Bandwidth.....	23
5.1.9	Radiated Spurious Emission.....	24
5.1.10	Conducted Emission on AC Mains.....	25
5.1.11	Radiated Emission	26
6	Safety Human Exposure	27
6.1	Radio Frequency Exposure Compliance	27
6.1.1	Electromagnetic Fields	27

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 4 von 28**
Page 4 of 28

7	Photographs of the Test Set-Up	28
8	List of Tables	28

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 Bluetooth (BR/EDR) mode

Appendix D: Test Results of FCC Part 15B and ICES-003

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd. Testing Center

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

TÜV Rheinland (Shenzhen) Co., Ltd. Testing Center

Radio Spectrum Testing (TS8997)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
Signal Analyzer	R&S	FSV 40	101441	2021-08-10
OSP	R&S	OSP 150	101017	2020-12-17
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	2020-12-17
Wideband Power Sensor	R&S	NRP-Z81	105350	2020-12-17
Shielding Room 8#	Albatross	SR8	APC17151-SR8	2021-07-23
Unwanted Emission Testing (TS9975)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	2021-08-11
Signal Analyzer	R&S	FSV 40	101439	2021-08-10
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	2021-08-10
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2021-08-10
Amplifier	R&S	SCU-18F	180070	2021-08-10
Amplifier	R&S	SCU40A	100475	2021-09-10
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
Wideband Ridged Horn Antenna (12-18 GHz)	Steatite	QMS-00208	18313	2021-09-02
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	2021-07-06

Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR3	102680	2021-05-19
Artificial Mains Network	R&S	ENV216	101445	2021-05-19
EMC32 test software	R&S	EMC32(Ver.10.50.01)	N/A	N/A
Radiated Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
3m SAC	ETS	SAC3	CT001632-Q1362	2021-08-23
EMI Test Receiver	R&S	ESR7	102111	2021-01-02
Horn Antenna	R&S	HF907	102706	2022-08-07
Preamplifier	FIT	SCU-18F	180077	2021-08-16
Active magnetic loop antenna	SCHWARZBECK	FMZB1519B	00080	2021-08-20
Trilog-Broadband antenna	SCHWARZBECK	VULB9168	0945	2020-12-08

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 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 Sonix Bluetooth Speaker, which supports Bluetooth (BR/EDR) function.

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	Sonix Bluetooth Speaker
Type Designation	SNX-TE-003
Trademark	Sonix
FCC ID	2ATL4-3FBTSS2LS
IC	25105-3FBTSS2LS
HVIN	SNX-TE-003
Operating Voltage	Via USB port DC 3.7V via internal rechargeable lithium battery
Technical Specification of Bluetooth (BDR/EDR)	
Operating Frequency	2402 MHz to 2480 MHz
Type of Modulation	GFSK(BDR), $\pi/4$ -DQPSK(EDR)
Channel Number	79 channels
Channel Separation	1MHz
Antenna Type	Board Antenna
Antenna Gain	-0.5 dBi

Table 3: RF Channel and Frequency of Bluetooth (BDR/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		

Table 4: Frequency Hopping Information

Technical Specification	Description
Hopping Range	Hereby we declare that the maximum frequency of this device is: 2402-2480MHz. This is according the Bluetooth Core Specification for devices which will be operated in the USA. This was checked during the Bluetooth Qualification tests (Test Case: TRM/CA/04-E).
Hopping Sequence	Example of a 79 hopping sequence in data mode: 33,04,21,44,23,42,53,46,55,48,40,59,72,29,76,31,08,73,07,75,09,45,60,39,58,13,47,11,77,52,35,50,65,54,67,56,69,62,71,64, 7,25,27,66,57,70,74,61,78,63,10,41,05,43,15,44,64,68,02,70,06,01,51,03,55,05,03,66,53,49,36,47,
Receiver input bandwidth	The input bandwidth of the receiver is 1MHz. In every connection one Bluetooth device is the master and the other one is the slave. The master determines the hopping sequence. The slave follows this sequence. Both devices shift between RX and TX time slot according to the clock of the master. Additionally the type of connection is set up at the beginning of the connection. The master adapts its hopping frequency and its TX/RX timing according to the packet type of the connection. Also the slave of the connection will use these settings. Repeating of a packer has no influence on the hopping sequence. The hopping sequence generated by the master of the connection will be followed in any case. That means a repeated packet will not be send on the same frequency, it is send on the next frequency of the hopping sequence.

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth transmitting mode
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
- B. On, Transmitting on Hopping channel
- C. On, Charging and BT playing mode
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

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

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

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013 and ANSI C63.4: 2014.

According to clause 3.1, all tests were performed on model SNX-TE-003 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	N/A
Adapter	Shenzhen Keyu power co., ltd	KA25-0501000CN	N/A	Input: AC 100-240V 50/60Hz 0.25A Max 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)

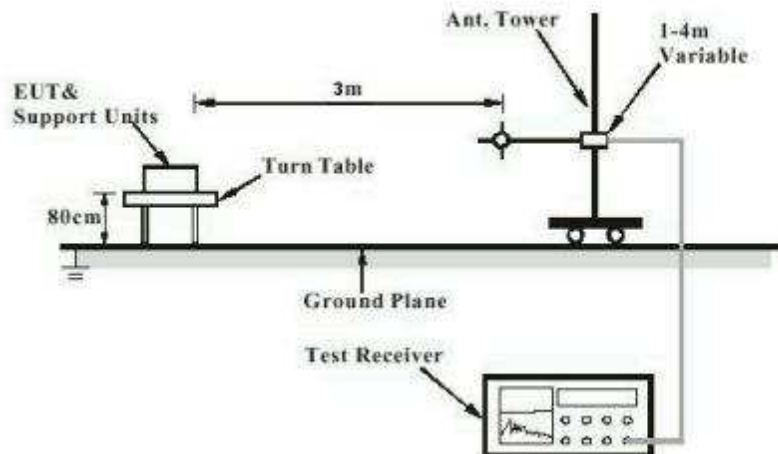


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

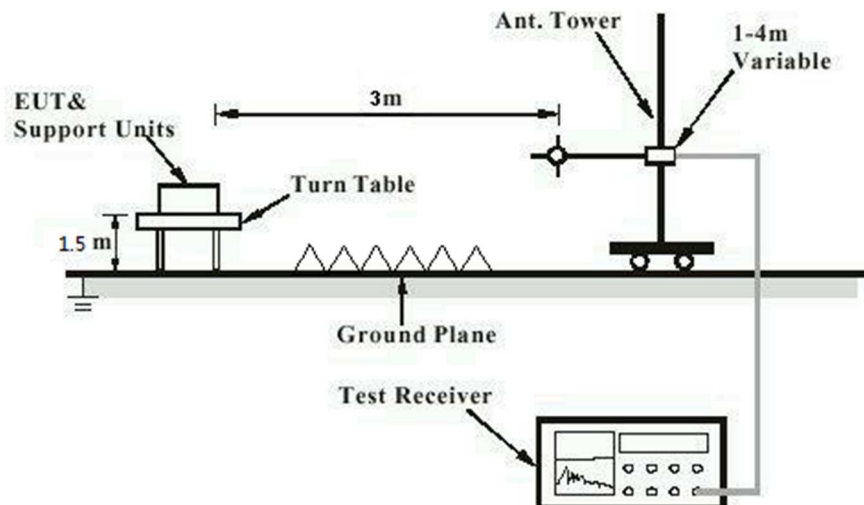


Diagram of Measurement Configuration for Mains Conduction Measurement

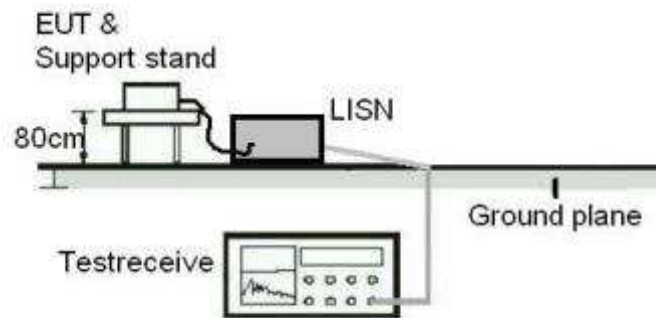
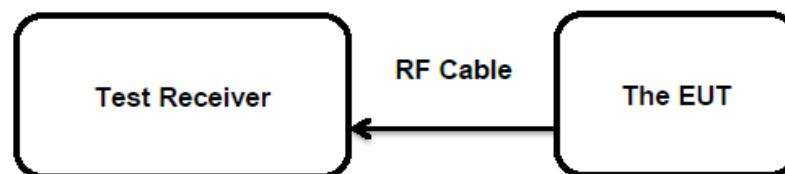


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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 internal antenna, the directional gain of antenna is -0.5 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.

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

Refer to EUT Photo for further details.

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G) : -0.5 dBi,
e.i.r.p.= $P_{(Av \text{ power})} + G$, which is far below the 4 W

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 18 von 28**
*Page 18 of 28***5.1.3 99% Bandwidth****RESULT:****Pass****Test Specification**

Test standard	: RSS-Gen Clause 6.6
Basic standard	: ANSI C63.10: 2013
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2020-10-16
Input voltage	: DC 3.3V (via USB port)
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 23 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 19 von 28**
*Page 19 of 28***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 : 2020-11-13
Input voltage : DC 3.3V (via USB port)
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 23 °C
Relative humidity : 50 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 20 von 28**
*Page 20 of 28***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	: 2020-11-13
Input voltage	: DC 3.3V (via USB port)
Operation mode	: B
Test channel	: Low / Middle / High
Ambient temperature	: 23 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 21 von 28**
*Page 21 of 28***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 : 2020-11-13
Input voltage : DC 3.3V (via USB port)
Operation mode : B
Ambient temperature : 23 °C
Relative humidity : 50 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 22 von 28**
*Page 22 of 28***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 : 2020-11-13
Input voltage : DC 3.3V (via USB port)
Operation mode : B
Test channel : Low / Middle / High
Ambient temperature : 23 °C
Relative humidity : 50 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 23 von 28**
*Page 23 of 28***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	: 2020-11-13
Input voltage	: DC 3.3V (via USB port)
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 23 °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.

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 24 von 28**
*Page 24 of 28***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)

Kind of test site : 3m Semi-anechoic Chamber

Test Setup

Date of testing : 2020-11-02

Input voltage : DC 5V (via USB port)

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.

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 25 von 28**
*Page 25 of 28***5.1.10 Conducted Emission on AC Mains****RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.207(a) & FCC Part 15.107(a) RSS-Gen Clause 8.8 & ICES-003
Basic standard	: ANSI C63.10: 2013 & ANSI C63.4: 2014
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) & FCC Part 15.107(a) RSS-Gen Table 3 & ICES-003 Table 2
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2020-11-02
Input voltage	: DC 3.7V by battery
Operation mode	: C
Earthing	: Not connected
Ambient temperature	: 23 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

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

Prüfbericht - Nr.: CN20KOR9 001
*Test Report No.***Seite 26 von 28**
*Page 26 of 28***5.1.11 Radiated Emission****RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.109(a) ICES-003
Basic standard	: ANSI C63.4: 2014
Frequency range	: 30 - 6000MHz
Classification	: Class B
Limits	: FCC Part 15.109(a) ICES-003 Table 5 & Table 7
Kind of test site	: 3m Semi-anechoic Chamber

Test Setup

Date of testing	: 2020-10-30 ~ 2020-11-02
Input voltage	: DC 3.7V by battery
Operation mode	: C
Earthing	: Not connected
Ambient temperature	: 23 °C
Relative humidity	: 50 %
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix C.

6 Safety Human Exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

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

Test standard : CFR47 FCC Part 2: Section 2.1093
FCC KDB Publication 447498 v06
RSS-102 Issue 5 March 2015

Measurement Record:

The minimum distance for the EUT is less than 5mm.

FCC Exempted evaluation:

Since maximum peak output power of the transmitter is 0.79 dBm $\approx 1.20 \text{ mW}$ $< \frac{3 \cdot d}{\sqrt{f}} = 9.52 \text{ mW}$.

Hence the EUT is excluded from SAR evaluation according to FCC KDB Publication 447498 D01 General RF Exposure Guidance v06.

IC Exempted evaluation:

The maximum peak output power of the transmitter is 0.79 dBm (1.20 mW), which is far below the SAR exclusion threshold level 4 mW $\approx 6.02 \text{ dBm}$.

7 Photographs of the Test Set-Up

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

8 List of Tables

Table 1: List of Test and Measurement Equipment	6
Table 2: Technical Specification of EUT	9
Table 3: RF Channel and Frequency of Bluetooth (BDR/EDR)	10
Table 4: Frequency Hopping Information	11
Table 5: Auxiliary Equipment Used during Test	13
Table 6: Test Result of Maximum Peak Conducted Output Power, Bluetooth (BDR/EDR)	17