

FCC Test Report

Report No.: AGC01165240704FR02

FCC ID	:	2AHLIJM7
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	Multi-functional Bluetooth Speaker
BRAND NAME	:	Joiimu
MODEL NAME	:	JM7,R20, LXLTC511C, LXLTC511BC, LXLTC511BJ
APPLICANT	:	Shenzhen Ihold Technology Co., Ltd
DATE OF ISSUE	:	Aug. 21, 2024
STANDARD(S)	:	FCC Part 15 Subpart C
REPORT VERSION	:	V1.0







Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes	
V1.0	/	Aug. 21, 2024	Valid	Initial Release	



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1. General Information

Applicant	Shenzhen Ihold Technology Co., Ltd
Address	4th Floor, Building D, Huafeng No.1 Technology Park, Sanwei, Xi'xiang, Bao'an, Shenzhen, Guangdong 518102, China
Manufacturer	Shenzhen Ihold Technology Co., Ltd
Address	4th Floor, Building D, Huafeng No.1 Technology Park, Sanwei, Xi'xiang, Bao'an, Shenzhen, Guangdong 518102, China
Factory	Shenzhen Ihold Technology Co., Ltd
Address	4th Floor, Building D, Huafeng No.1 Technology Park, Sanwei, Xi'xiang, Bao'an, Shenzhen, Guangdong 518102, China
Product Designation	Multi-functional Bluetooth Speaker
Brand Name	Joiimu
Test Model	JM7
Series Model(s)	R20, LXLTC511C, LXLTC511BC, LXLTC511BJ
Difference Description	All the same except the model name
Date of receipt of test item	Jul. 30, 2024
Date of Test	Jul. 30, 2024~Aug. 21, 2024
Deviation from Standard	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Test Report Form No	AGCER -FCC-WPT-V1

Note: The test results of this report relate only to the tested sample identified in this report.

Jouk Gai Prepared By Jack Gui Aug. 21, 2024 (Project Engineer) **Reviewed By** Calvin Liu Aug. 21, 2024 (Reviewer) Max Zhang Approved By Max Zhang Aug. 21, 2024 (Authorized Officer)



2. Product Information

2.1 Product Technical Description

Equipment Type	WPT System
Operation Frequency Band	WPT Band I: 110.5kHz-205kHz
Test Frequency	130KHz
Hardware Version	V1
Software Version	V1
Modulation Type	ASK
Field Strength of Fundamental	76.38dBuV/m (Max)
Antenna Designation	Coil Antenna
Antenna Gain	0dBi
EUT Input Rating	DC 3.7V 2200mAh by battery or DC5V/9V from adapter
Wireless Charging Output Power	5W,7.5W,10W

2.2 Test Frequency List

Frequency Band Channel Number		Frequency
110.5kHz-205kHz	01	130kHz



2.3 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for FCC ID: **2AHLIJM7**, filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

2.4 Test Methodology

The tests were performed according to following standards:

No.	Identity	Document Title
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations
2	FCC 47 CFR Part 15	Radio Frequency Devices
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

2.5 Special Accessories

Not available for this EUT intended for grant.

2.6 Equipment Modifications

Not available for this EUT intended for grant.

2.7 Antenna Requirement

Standard Requirement

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is 0 dBi.



3. Test Environment

3.1 Address of The Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to FOLLOW CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories.)

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842 (CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



3.3 Environmental Conditions

	Normal Conditions
Temperature range (°C)	15 - 35
Relative humidity range	20% - 75%
Pressure range (kPa)	86 - 106

3.4 Measurement Uncertainty

The reported uncertainty of measurement y $\pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 2.9 \text{ dB}$
Uncertainty of Radiated Emission below 150kHz	$U_c = \pm 4.2 \text{ dB}$
Uncertainty of Radiated Emission below 30MHz	$U_c = \pm 3.8 \text{ dB}$
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 3.9 \text{ dB}$
Uncertainty of Occupied Channel Bandwidth	$U_c = \pm 2 \%$



3.5 List of Equipment Used

• R	RF Conducted Test System							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
\boxtimes	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2024-05-24	2025-05-23	
\square	N/A	RF Connection Cable	N/A	2#	N/A	Each time	N/A	
• R	adiated Spurio	ous Emission						
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2024-02-01	2025-01-31	
\boxtimes	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2024-05-24	2025-05-23	
	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2024-05-28	2025-05-27	
	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04	
	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10	
\boxtimes	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2024-03-31	2025-03-30	
\boxtimes	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23	
\boxtimes	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2024-08-03	2026-07-23	
	AGC-EM-A119	2.4G Filter	SongYi	N/A	N/A	2024-05-23	2025-05-22	
	AGC-EM-A138	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08	
	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08	

• A	AC Power Line Conducted Emission								
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)		
\square	AGC-EM-E045	EMI Test Receiver	R&S	ESPI	101206	2024-05-28	2025-05-27		
\boxtimes	AGC-EM-A130	6dB Attenuator	Eeatsheep	LM-XX-6-5W	DC-6GZ	2023-06-09	2025-06-08		
\boxtimes	AGC-EM-E023	AMN	R&S	100086	ESH2-Z5	2024-05-28	2025-05-27		

• Te:	st Software				
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information
	AGC-EM-S001	CE Test System	R&S	ES-K1	V1.71
	AGC-EM-S003	RE Test System	FARA	EZ-EMC	VRA-03A
	AGC-ER-S012	BT/WIFI Test System	Tonscend	JS1120-2	2.6
\boxtimes	AGC-EM-S011	RSE Test System	Tonscend	TS+-Ver2.1(JS36-RSE)	4.0.0.0



4.System Test Configuration

4.1 EUT Configuration

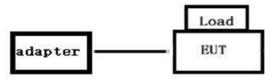
The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT Exercise

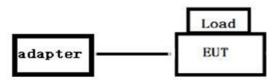
The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

4.3 Configuration of Tested System

Radiated Emission Configure:



Conducted Emission Configure:



4.4 Equipment Used in Tested System

The following peripheral devices and interface cables were connected during the measurement:

- ☐ Test Accessories Come From The Laboratory
- Test Accessories Come From The Manufacturer

No	Equipment	Manufacturer	Model No.	Specification Information	Cable
1	Wireless Charging Load	HUAWEI		Support 5W,7.5W,10W,15W	
2	Adapter	HW-200440C 00	HUAWEI	Input(AC):100V-240V 50/60Hz 2.4A Output(DC):USB-C(5V/3A;9V/3A;10V/4A;11V /6A;12V/3A;15V/3A;20V4.4A) USB-A(5V/2A;10V/4A;11V/6A;20V/4.4A)	1.0m unshielded



4.5 Summary of Test Results

Item	FCC Rules	Description Of Test	Result
1	§15.203	Antenna Equipment	Pass
2	§15.209(a)(f)	Radiated Spurious Emission	Pass
3	§15.215(c)	20dB Bandwidth	Pass
4	§15.205(a)	Restricted Bands of Operation	Pass
5	§15.207	AC Power Line Conducted Emission	Pass



5. Description of Test Modes

	Summary table of Test Cases
Test Item	Equipment type / Modulation
iest item	WPT_(TX:130kHz)/ ASK
Radiated &Conducted Test Cases	Mode 1: AC/DC Adapter Input DC 5V 2A + EUT +Wireless load (5W) Mode 2: AC/DC Adapter Input DC 5V 2A + EUT +Wireless load (2.5W) Mode 3: AC/DC Adapter Input DC 5V 2A + EUT +Wireless load (0W) Mode 4: AC/DC Adapter Input DC 9V 2A + EUT +Wireless load (10W) Mode 5: AC/DC Adapter Input DC 9V 2A + EUT +Wireless load (5W) Mode 6: AC/DC Adapter Input DC 9V 2A + EUT +Wireless load (5W)
AC Conducted Emission	Mode 1: AC/DC Adapter Input DC 5V 2A + EUT +Wireless load (5W) Mode 2: AC/DC Adapter Input DC 5V 2A + EUT +Wireless load (2.5W) Mode 3: AC/DC Adapter Input DC 5V 2A + EUT +Wireless load (0W) Mode 4: AC/DC Adapter Input DC 9V 2A + EUT +Wireless load (10W) Mode 5: AC/DC Adapter Input DC 9V 2A + EUT +Wireless load (5W) Mode 6: AC/DC Adapter Input DC 9V 2A + EUT +Wireless load (5W)
Note:	
2	worst case was recorded in the report, if no other cases.

2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.



6. Field Strength of Fundamental

6.1 Measurement Limits

Test Requirement:	FCC Part15 C Section	on 15.209			
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 1GHz				
Test site:	Measurement Dista	nce: 3m			
	Frequency	Detector	RBW	VBW	Value
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
Receiver setup:	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
Receiver setup.	30MHz-1GHz	Quasi-peak	100kHz	300kHz	Quasi-peak
		Peak	1MHz	3MHz	Peak
	Above 1GHz	Peak	1MHz	10Hz	Average
	•	•	•		

Limits for frequency below 30MHz

Frequency	Limit (µV /m)	Measurement Distance(m)	Remark
0.009-0.490	2400/F(kHz)	300	Quasi-peak Value
0.490-1.705	24000/F(kHz)	30	Quasi-peak Value
1.705-30	30	30	Quasi-peak Value

Limits for frequency Above 30MHz

Frequency	Limit (dBµV/m @3m)	Remark
30MHz-88MHz	40.00	Quasi-peak Value
88MHz-216MHz	43.50	Quasi-peak Value
216MHz-960MHz	46.00	Quasi-peak Value
960MHz-1GHz	54.00	Quasi-peak Value
Above 1GHz	54.00	Average Value
	74.00	Peak Value

Remark: (1) Emission level $dB\mu V = 20 \log Emission level \mu V/m$

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance Is The Distance In Meters Between The Measuring Instrument, Antenna And The Closest Point Of Any Part Of The Device Or System.



6.2 Measurement Procedure

- 1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.



6.3 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any), Average Factor (optional) from the measured reading. The basic equation with a sample calculation is as follows:

 $\begin{array}{ll} FS = RA + AF + CF - AG - AV \\ where & FS = Field Strength in dB\mu V/m \\ RA = Receiver Amplitude (including preamplifier) in dB\mu V \\ CF = Cable Attenuation Factor in dB \\ AF = Antenna Factor in dB/m \\ AG = Amplifier Gain in dB \\ AV = Average Factor in dB \end{array}$

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:

FS = RR + LF

where $FS = Field Strength in dB\mu V/m$ RR = RA - AG - AV in dB μ V LF = CF + AF in dB

Assume a receiver reading of 52.0 dB μ V is obtained. The antenna factor of 7.4 dB/m and cable factor of 1.6 dB are added. The amplifier gain of 29 dB and average factor of 5 dB are subtracted, giving a field strength of 27 dB μ V/m.

This value in dB μ V/m was converted to its corresponding level in μ V/m.

 $\begin{array}{ll} RA = 52.0 \ dB\mu V/m \\ AF = 7.4 \ dB/m \\ CF = 1.6 \ dB \\ AG = 29.0 \ dB \\ AV = 5.0 \ dB \\ FS = RR + LF \\ FS = 18 + 9 = 27 \ dB\mu V/m \end{array}$

Level in μ V/m = Common Antilogarithm [(27 dB μ V/m)/20] = 22.4 μ V/m

Magnetic field strength calculation (9 kHz – 30 MHz)

When the limit is in terms of magnetic field, the following equation applies: $H[dB(\mu A/m)] = V[dB(\mu V)] + LC [dB] - GPA [dB] + AFH [dB(S/m)]$

Where,

H is the magnetic field strength (to be compared with the limit),

V is the voltage level measured by the receiver or spectrum analyzer,

LC is the cable loss,

GPA is the gain of the preamplifier (if used), and

AFH is the magnetic antenna factor.

If the "electrical" antenna factor is used instead, the above equation becomes:

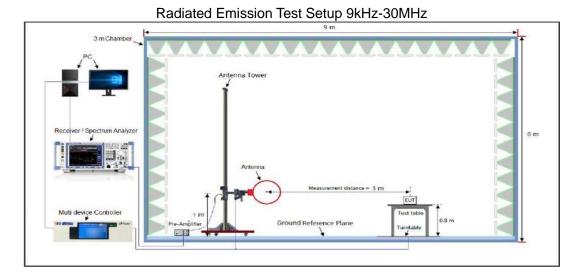
 $H[dB(\mu A/m)] = V[dB(\mu V)] + LC [dB] - GPA [dB] + AFE [dB(m-1)] - 51.5 [dB\Omega]$

where AFE is the "electric" antenna factor, as provided by the antenna calibration laboratory.

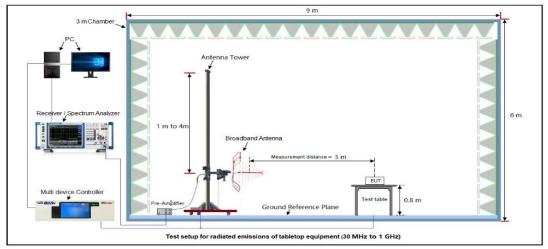
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6.4 Measurement Setup



Radiated Emission Test Setup 30MHz-1000MHz

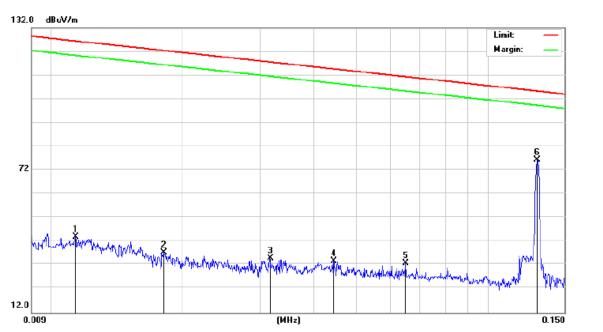


The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.205 limits.



6.5 Measurement Result

	Electric Field Test in The Freq	uency Range 9kHz-150k	Hz
EUT Name	Multi-functional Bluetooth Speaker	Model Name	JM7
Temperature	22°C	Relative Humidity	55%
Pressure	960hPa	Test Voltage	DC 9V from adapter
Test Mode	Mode 4	Antenna	Face



	Over	Limit	Measure- ment	Correct Factor	Reading Level	Freq.	No. Mk.
Detector	dB	dBuV/m	dBuV/m	dB	dBuV	MHz	
peak	-82.32	126.36	44.04	42.86	1.18	0.0114	1
peak	-85.04	122.35	37.31	39.06	-1.75	0.0181	2
peak	-82.68	117.50	34.82	35.44	-0.62	0.0317	3
peak	-80.86	114.59	33.73	34.02	-0.29	0.0444	4
peak	-78.33	111.30	32.97	32.88	0.09	0.0649	5
peak	-28.91	105.92	76.38	32.29	44.09	0.1300	6 *

Result: Pass



T Name	Multi-functiona	al Bluetooth	Speaker	Model Name		JM7	
mperature	22°C			Relative Hur	nidity	55%	
essure	960hPa			Test Voltage		DC 9V	from adapte
st Mode	Mode 4			Antenna		Side	
132.0 dBuV/m							
						Limit:	
						Margi	in:
			_				
							6
72							Ť
1							
1 1 12.0	un and a second se	h h h h h h h h h h h h h h h h h h h	3 Manuary manuari	Wireson & Wemmy yorber	twon the state of	wandonalyd	Jan In
1 1 12.0 0.009	un alternation and a second se	h h h h h h h h h h h h h h h h h h h	3 Min Min Marine (MHz)	Winn Whom My ober	handaga Andrean Jacob Anandaga Andrean Jacob Andrean Jacob Anandaga Andrean Jacob Andrean Jacob And	wandendyd	f llan
12.0		Reading Level		Measure- ment	hondon Albert Anna Limit	Over	/ Im
0.009		Reading	(MHz) Correct	Measure-			/ Im
0.009	. Freq.	Reading Level	(MH2) Correct Factor	Measure- ment	Limit	Over dB	0.150
0.009 	x. Freq. MHz	Reading Level dBuV	(мн₂) Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB -76.14	0.150
No. Mk	x. Freq. MHz 0.0097	Reading Level dBuV 7.78	(MH₂) Correct Factor dB 43.83	Measure- ment dBuV/m 51.61	Limit dBuV/m 127.75	Over dB -76.14 -82.52	0.150 Detector peak
No. Mk	 Freq. MHz 0.0097 0.0152 	Reading Level dBuV 7.78 0.65	(MH₂) Correct Factor dB 43.83 40.70	Measure- ment dBuV/m 51.61 41.35	Limit dBuV/m 127.75 123.87	Over dB -76.14 -82.52 -83.72	Detector peak peak
No. Mk	 Freq. MHz 0.0097 0.0152 0.0280 	Reading Level dBuV 7.78 0.65 -1.25	(мн₂) Correct Factor dB 43.83 40.70 36.11	Measure- ment dBuV/m 51.61 41.35 34.86	Limit dBuV/m 127.75 123.87 118.58	Over dB -76.14 -82.52 -83.72 -82.18	Detector peak peak peak

Electric Field Test in The Frequency Range 9kHz-150kHz

Result: Pass



EUT Name	Multi-functional Blu	uetooth Speaker	Model Name	JM7	
Temperature	22°C		Relative Humidity	55%	
Pressure	960hPa		Test Voltage	DC 9V	from adapter
Test Mode	Mode 4		Antenna	Face	
122.0 dBuV	/m			Limit	
2.0				17.65.66.600072-47800-4780016460-300	
word with		(MHz)	5	n an	30.000
۳ ^{۳/۲} ۹۹/۱۹۹۹ 2.0			5 t Measure-		
2.0 0.150	ution of the second sec	(MH2) eading Correct	5 t Measure- r ment Lir		
2.0 0.150	ution of the second sec	(MHz) eading Correct evel Factor	5 t Measure- r ment Lir	nit Over	30.000 Detector
2.0 0.150 No. 1	0.5 0.5 0.5 Mk. Freq. L 0.3893 2	(MH₂) eading Correct _evel Factor dBuV dB	5 t Measure- ment Lir dBuV/m dBu	mit Over IV/m dB 79 -39.70	30.000 Detector peak
2.0 0.150 No. 1	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	(MH₂) eading Correct _evel Factor dBuV dB 23.77 32.32	5 t Measure- ment Lir dBuV/m dBu 56.09 95.	mit Over IV/m dB 79 -39.70 38 -23.45	30.000 Detector peak
2.0 0.150 No. 1 1 2 '	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	(MH₂) eading Correct Level Factor dBuV dB 23.77 32.32 15.75 32.18	5 t Measure- ment Lir dBuV/m dBu 56.09 95. 47.93 71.	nit Over V/m dB 79 -39.70 38 -23.45 39 -25.67	30.000 Detector peak peak peak
2.0 0.150 No. 1 1 2 ' 3	0.3893 2 0.9136 1	(MHz) eading Correct Eevel Factor dBuV dB 23.77 32.32 15.75 32.18 10.63 32.09	5 t Measure- ment Lin dBuV/m dBu 56.09 95. 47.93 71. 42.72 68. 38.14 69.	mit Over V/m dB 79 -39.70 38 -23.45 39 -25.67 54 -31.40	30.000 Detector peak peak peak

Electric Field Test in The Frequency Range 150kHz-30MHz

Result: Pass



EUT Name	Multi-function	al Bluetooth	Speaker	Model Name	е	JM7	
Temperature	22°C			Relative Hu		55%	
Pressure	960hPa			Test Voltage	-		from adapter
Test Mode	Mode 4			Antenna		Side	
122.0 dBuV/	 'm 						
62 ////////////////////////////////////		March March		www.www.www.www.www.www.www.www.www.ww	Mulu Multuren		
2.0	0.5		(MHz)	5			30.000
	0.5						30.000
		Reading	(MHz) Correct Factor	5 Measure- ment	Limit	Over	30.000
0.150		Reading	Correct	Measure-	Limit dBuV/m	Over dB	30.000 Detector
0.150	lk. Freq.	Reading Level	Correct Factor	Measure- ment			
0.150 No. N	lk. Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	dBuV/m	dB	Detector
0.150 No. N	Ik. Freq. MHz 0.2603	Reading Level dBuV 18.75	Correct Factor dB 32.51	Measure- ment dBuV/m 51.26	dBuV/m 99.27	dB -48.01	Detector peak
0.150 No. N 1 2	Ik. Freq. MHz 0.2603 0.3893	Reading Level dBuV 18.75 16.67	Correct Factor dB 32.51 32.32	Measure- ment dBuV/m 51.26 48.99	dBuV/m 99.27 95.79	dB -48.01 -46.80	Detector peak peak
0.150 No. N 1 2 3 *	Ik. Freq. MHz 0.2603 0.3893 0.5237	Reading Level dBuV 18.75 16.67 13.67	Correct Factor dB 32.51 32.32 32.20	Measure- ment dBuV/m 51.26 48.99 45.87	dBuV/m 99.27 95.79 73.22	dB -48.01 -46.80 -27.35	Detector peak peak peak

Electric Field Test in The Frequency Range 150kHz-30MHz

Result: Pass

Notes:

- 1. Quasi-Peak detector is used for frequency below 30MHz.
- 2. Negative value in the margin column shows emission below limit.
- 3. All measurements were made with 0.6m loop antenna at 3m distance. All emissions are below the QP limit.
- 4. Corr. Factor= Antenna Factor (dB/m) + Cable Loss (dB)
- 5. Loop antenna is used for the emission under 30MHz.



EUT Name	Multi-functional Bluetoot	h Speaker	Model Name	JM7				
Temperature	22°C		Relative Humidity	55%				
Pressure	960hPa		Test Voltage	DC 9V from adapter				
Test Mode	Mode 4		Antenna	Horizontal				
72.0 dBu∀/m				Limit: —				
				Margin:				
		_						
32			Å. m	and when the way				
1	and the second sec	1 mg Ma	when the way the second and the second					
WHAT December - Star	under All water Martin Starley and a strain a	Mr. I	*hla wat					
-8								
30.000 40	50 60 70 80	(MHz)	300 400 500	600 700 1000.000				
	Reading		leasure-					
No. Mk.	•	Factor	ment Limit	Over				
	MHz dBuV	dB (dBuV/m dBuV/m	dB Detector				
1	42.8998 5.70	13.70	19.40 40.00 -	-20.60 peak				
2	137.9028 16.70	15.33	32.03 43.50	11.47 peak				
3	199.2855 14.45	14.42	28.87 43.50 -	-14.63 peak				
4	441.7426 6.45	25.04	31.49 46.00	14.51 peak				
5	601.4265 5.72	25.11	30.83 46.00 -	15.17 peak				
	900.1474 6.03			-8.19 peak				

Radiated Emission at 30MHz-1000MHz Test Result

Result: Pass



EUT Name	Multi functional Plu	staath Spaakar	Model Name	JM7
	Multi-functional Blue	eloolin Speaker		
Temperature	22°C		Relative Humidity	55%
Pressure	960hPa		Test Voltage	DC 9V from adapter
Test Mode	Mode 4		Antenna	Vertical
72.0 dBu∀/m				Limit: —
				Margin:
			1	
				5
32	3	M.	, Marina	well with a second of the seco
Sime	Mary municipality and a second	my mark manual	Mrs. www. water water water	
and i	an dan ana na katang		101	
-8 30.000 40	D 50 60 70 80	(MHz)	300 400 50	D 600 700 1000.000
	Read	ing Correct N	Aeasure-	
No. Mk			ment Limit	Over
	MHz dBu	V dB	dBuV/m dBuV/m	dB Detector
1	41.2765 13.6	6 16.91	30.57 40.00	-9.43 peak
2	54.2610 11.3	30 17.04	28.34 40.00	-11.66 peak
3	147.9214 14.7	75 18.20	32.95 43.50	-10.55 peak
4	462.3455 6.9	6 25.04	32.00 46.00	14.00 peak
5	716.6820 6.0	01 28.68	34.69 46.00	11.31 peak
6 *	938.8326 6.5		37.42 46.00	-8.58 peak
				eree been

Radiated Emission at 30MHz-1000MHz Test Result

Result: Pass

Note: 1. Factor=Antenna Factor + Cable loss, Over=Measurement-Limit.

2. All test modes had been pre-tested. The mode 4 is the worst case and recorded in the report.

3. The "Factor" value can be calculated automatically by software of measurement system.



7. 20 dB Bandwidth Measurement

7.1 Provisions Applicable

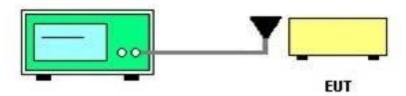
N/A

7.2 Measurement Procedure

Set the parameters of SPA as below:

- 1. The spectrum analyzer connected via a receive antenna placed near the EUT in peak Max hold mode.
- 2. Centre frequency = Operation Frequency
- 3. The resolution bandwidth of 300 Hz and the video bandwidth of 1 3kHz were used.
- 4. Span: 3kHz, Sweep time: Auto
- 5. Set the EUT to continue transmitting mode. Allow the trace to stabilize. Use the "N dB down" function of SPA to define the bandwidth.
- 6. Measured the spectrum width with power higher than 20dB below carrier.
- 7. Measured the 99% OBW.
- 8. Record the plots and Reported.

7.3 Measurement Setup

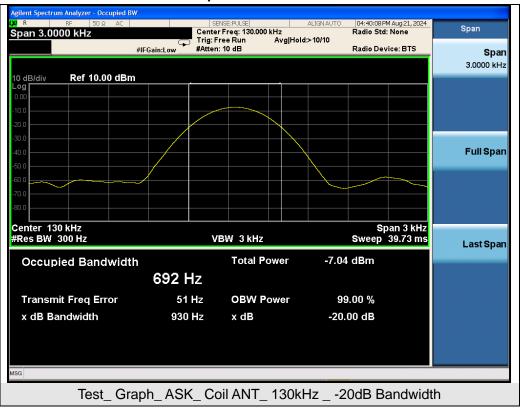


Spectrum Analyzer

7.4 Measurement Result

Test Data of Occupied Bandwidth and -20dB Bandwidth						
Test Mode	Test Channel (kHz)	99% Occupied Bandwidth (kHz)	-20dB Bandwidth (kHz)	Limits (kHz)	Pass or Fail	
ASK	130	0.692	0.930	N/A	Pass	





Test Graphs of -20dB Bandwidth



8. AC Power Line Conducted Emission Test

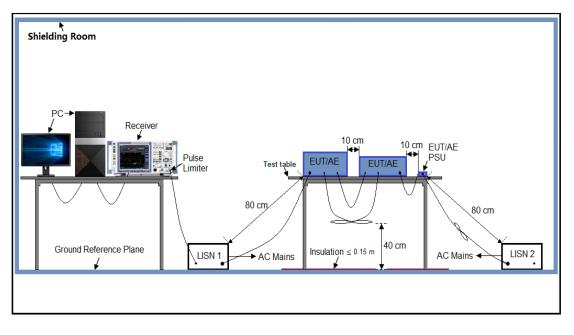
8.1 Measurement Limits

Francisco Danas	Maximum RF Line Voltage			
Frequency Range	Q.P. (dBµV)	Average (dBµV)		
150kHz~500kHz	66-56	56-46		
500kHz~5MHz	56	46		
5MHz~30MHz	60	50		

Note:

- 1. The lower limit shall apply at the transition frequency.
- 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

8.2 Measurement Setup





8.3 Preliminary Procedure of Line Conducted Emission Test

- 1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. All support equipment received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received DC 9V power from adapter which received AC120V/60Hz power from a LISN.
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

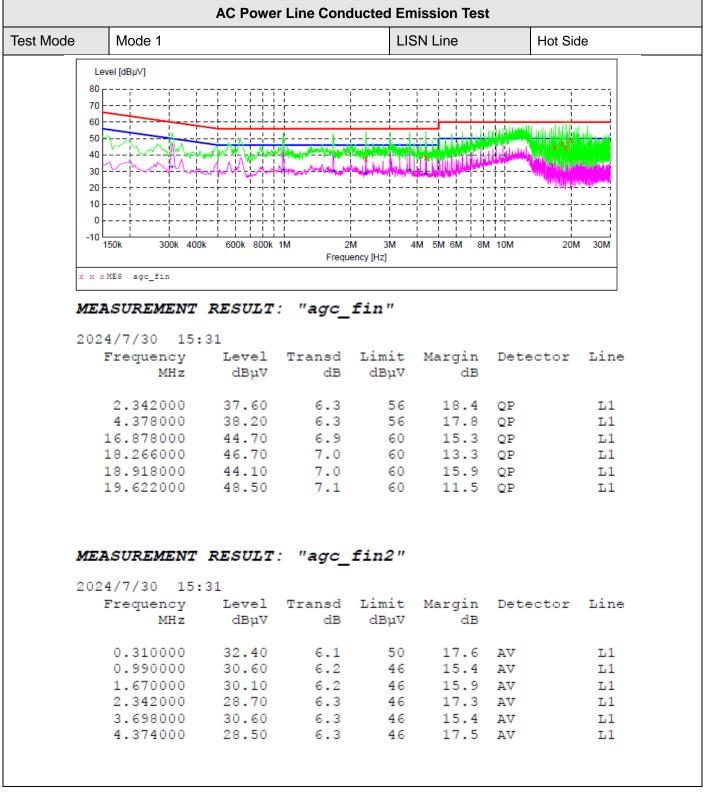
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

8.4 Final Procedure of Line Conducted Emission Test

- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.



8.5 Measurement Result



Result: Pass

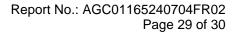
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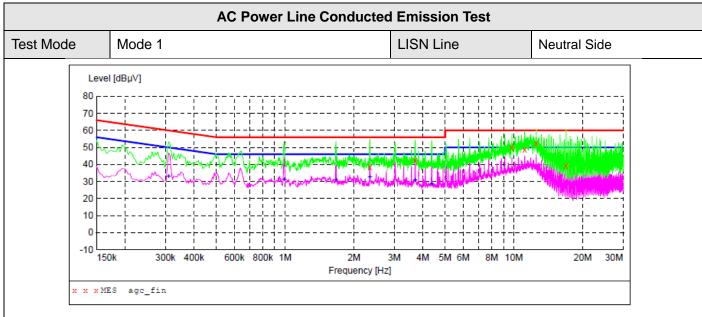
 Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

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 E-mail: agc@agccert.com

 Web: http://www.agccert.com/







MEASUREMENT RESULT: "agc_fin"

2024/7/30 15:24

024/7/30 13.	21					
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
2.346000	38.60	6.3	56	17.4	QP	N
3.698000	42.60	6.3	56	13.4	QP	N
9.798000	50.20	6.7	60	9.8	QP	N
11.142000	48.60	6.7	60	11.4	QP	N
12.510000	52.20	6.8	60	7.8	QP	N
16.914000	39.50	6.9	60	20.5	QP	N

MEASUREMENT RESULT: "agc_fin2"

2024/7/30 15:	24					
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.310000	32.80	6.1	50	17.2	AV	N
0.990000	31.30	6.2	46	14.7	AV	N
1.666000	30.90	6.2	46	15.1	AV	N
2.346000	32.50	6.3	46	13.5	AV	N
3.698000	30.70	6.3	46	15.3	AV	N
4.378000	28.60	6.3	46	17.4	AV	N

Result: Pass

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Appendix I: Photographs of Test Setup

Refer to the Report No.: AGC01165240704AP03

Appendix II: Photographs of Test EUT

Refer to the Report No.: AGC01165240704AP04

-----End of Report-----



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1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

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3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.