CE EMC TEST REPORT

FOR

Applicant	:	Harman International Industries, Inc.
Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES
Equipment Under Test	:	Portable Bluetooth Speaker
Model No.	:	CHARGE5H
Trade Mark	:	JBL
Manufacturer	:	Harman International Industries, Inc.
Address	:	8500 Balboa Boulevard, Northridge, CA 91329, UNITED STATES

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

Tel.: +86-0769-38826678, **E-mail:** ddt@dgddt.com, **Http:**//www.dgddt.com

REPORT

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Test Report Declare

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Test Standard Used:

EN 55032:2015, EN 55035:2017, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1:2019

Test Procedure Used:

EN 61000-4-2:2009, EN 61000-4-3:2006+A2:2010, EN 61000-4-4:2012,
EN 61000-4-5: 2014/A1: 2017, EN 61000-4-6:2014/AC:2015, EN 61000-4-8:2010,
EN 61000-4-11:2004/A1:2017

We Declare:

The equipment described above is tested by Dongguan Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Dongguan Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment in accordance with above standards about the electromagnetic compatibility requirements of Directive 2014/30/EU.

Report No.:	DDT-R20070616-1E2		
Date of Receipt:	Oct. 15, 2020	**Date of Test:**	Oct. 15, 2020 ~ Nov. 03, 2020

Prepared By:

Jerry Xue/Engineer

Approved By:

DONGGUAN DONGDIAN TESTING SERVICE CO., LTD. APPROVED

Damon Hu/EMC Manager

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Nov. 03, 2020	

1. Summary of Test Results

Description of Test Item	Standard	Result
Conducted emissions from the AC mains power ports	EN 55032:2015	PASS
Asymmetric mode conducted emissions	EN 55032:2015	N/A[a]
Conducted differential voltage emissions	EN 55032:2015	N/A[a]
Radiated emissions test	EN 55032:2015	PASS
Harmonic current emissions	EN IEC 61000-3-2:2019	N/A[b]
Voltage fluctuations & flicker	EN 61000-3-3:2013+A1:2019	PASS
Electrostatic discharge (ESD)	EN 55035:2017; EN 61000-4-2:2009	PASS
Continuous RF electromagnetic field disturbances	EN 55035:2017; EN 61000-4-3:2006+A1:2008+A2:2010	PASS
Electrical fast transients / burst	EN 55035:2017; EN 61000-4-4:2012	PASS
Surges	EN 55035:2017; EN 61000-4-5: 2014/AC: 2017	PASS
Continuous induced RF disturbances	EN 55035:2017; EN 61000-4-6:2014/AC:2015	PASS
Power-frequency magnetic fields	EN 55035:2017; EN 61000-4-8:2010	PASS
Voltage dips and interruptions	EN 55035:2017; EN 61000-4-11:2004/A1:2017	PASS

Note: N/A is an abbreviation for Not Applicable, and means this item is not applicable for this device.
a: This product does not have such a port.
b: This product is not defined as lighting equipment, and has rated power less than 75W, therefore, no limit apply according to EN IEC 61000-3-2 harmonics currents emissions test.

2. General Test Information

2.1. Description of EUT

EUT* Name	:	Portable Bluetooth Speaker
Model Number	:	CHARGE5H
EUT Function Description	:	Please reference user manual of this device
Power Supply	:	DC 5V from external AC Adapter DC 3.6V 7500mAh Polymer Li-ion built-in battery
EUT Class	:	Class B
Maximum Work Frequency	:	2480MHz
Sample number	:	0792ND-0000260JK

Note: EUT is the abbreviation of equipment under test.

2.2. Primary function of EUT

Function	Description
☒Broadcast reception function	N/A
☒Print	N/A
☒Scan	N/A
☒Display or display output	N/A
☒Musical tone generating	N/A
☒Networking	N/A
☑Audio output	Loudspeaker output
☒Telephony	N/A
☑Bluetooth	Bluetooth
☑Other:	Charging internal battery by AC/DC power converter
Note: "☒" means the product does not have this function, "☑" means the product has this function, N/A means not applicable	

2.3. Port of EUT

Port	Description
☑AC mains power port	Powered by AC/DC power converter
☒DC network power port	N/A
☒Wired network port	N/A
☒Signal data/control port	N/A
☒Antenna port	N/A
☑Audio output port	Loudspeaker output
☒Video output port	N/A
☑Other:	USB output port: 5V⎓2.0A Max
Note: "☒" means the product does not have this port, "☑" means the product has this port, N/A means not applicable	

2.4. Accessories of EUT

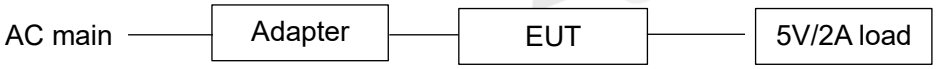
Description of Accessories	Manufacturer	Model number	Description	Remark
USB cable	Harman	N/A	N/A	Length: 1.2m, unshielded

Battery information

Description of Accessories	Manufacturer	Model number	Description	Remark
Rechargeable Li-ion Battery	ICON ENERGY SYSTEM(SHENZHEN)CO., LTD	IAA011NA	Rated Capacity: 3.6V 7500mAh 27.0Wh	N/A

2.5. Block diagram EUT configuration for test

Mode 1: Charging + 5V/2A load mode



Mode 2: 5V/2A load mode

2.6. Decision of final test mode

Emission	Conducted Emission	Mode 1: Charging + 5V/2A load mode
	Radiated emission	Mode 1: Charging + 5V/2A load mode Mode 2: 5V/2A load mode
	Voltage fluctuation and flicker	Mode 1: Charging + 5V/2A load mode
Immunity	Electrostatic discharge	Mode 1: Charging + 5V/2A load mode Mode 2: 5V/2A load mode
	Continuous RF electromagnetic field disturbances	Mode 1: Charging + 5V/2A load mode Mode 2: 5V/2A load mode
	Electrical fast transients / burst	Mode 1: Charging + 5V/2A load mode
	Surges	Mode 1: Charging + 5V/2A load mode
	Continuous induced RF disturbances	Mode 1: Charging + 5V/2A load mode
	Power-frequency magnetic fields	Mode 1: Charging + 5V/2A load mode Mode 2: 5V/2A load mode
	Voltage dips and interruptions	Mode 1: Charging + 5V/2A load mode

2.7. Deviations of test standard

No deviation.

2.8. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25℃
Humidity range:	40-75%
Pressure range:	86-106kPa

2.9. Test laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

Tel.: +86-0769-38826678, Http://www.dgddt.com, Email: ddt@dgddt.com

CNAS Accreditation No. L6451; A2LA Accreditation No. 3870.01

FCC Designation Number: CN1182; Test Firm Registration Number: 540522

Industry Canada site registration number: 10288A-1

2.10. Measurement uncertainty

Test Item	Uncertainty
Conducted disturbance at mains terminals	3.32dB (150KHz-30MHz)
Uncertainty for telecommunication port conduction emission test	AAN with aLCL = 55 ... 40 dB c: 3.64dB AAN with aLCL = 65 ... 50 dB c: 4.08dB AAN with aLCL = 75 ... 60 dB c: 4.56dB
Uncertainty for 3m Radiation Emission test (30MHz-1GHz)	4.70 dB (Antenna Polarize: V)
	4.84 dB (Antenna Polarize: H)
Uncertainty for 10m Radiation Emission test (30MHz-1GHz)	4.172 dB (Antenna Polarize: V)
	4.172 dB (Antenna Polarize: H)
Uncertainty for Radiation disturbance test (1GHz to 6GHz)	4.10dB(1-6GHz)
Temperature	0.4℃
Humidity	2%
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3. Conducted Emission Test Report (AC Mains Power Ports)

3.1. General information

Test and report Engineer	:	Lori Mi
Test and report Date	:	Oct. 24, 2020

3.2. Test equipment

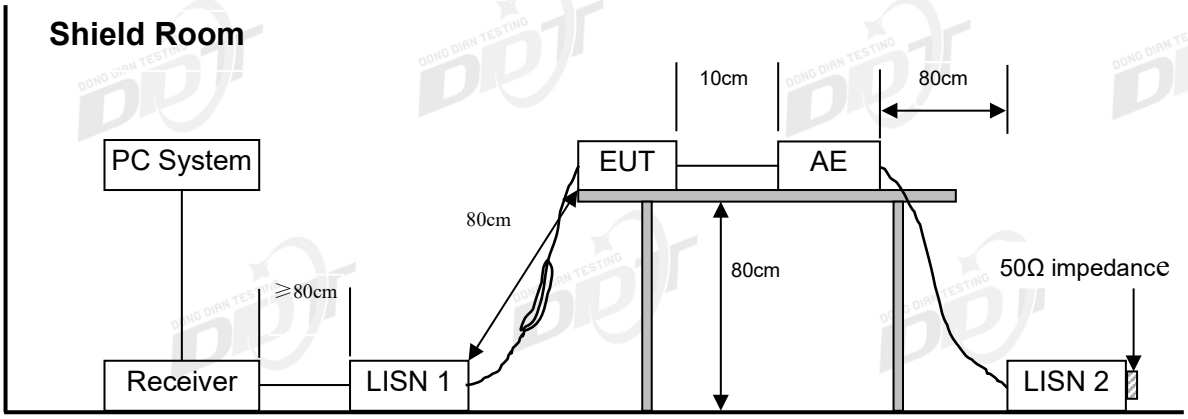
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Test Receiver	R&S	ESCI	100551	Sep. 24, 2020	1 Year
LISN 1	R&S	ENV216	101109	Sep. 28, 2020	1 Year
LISN 2	R&S	ESH2-Z5	100309	Sep. 28, 2020	1 Year
Pulse Limiter	R&S	ESH3-Z2	101242	Sep. 24, 2020	1 Year
CE Cable 1	HUBSER	ESU8/RF2	W10.01	Sep. 24, 2020	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A

3.3. Reference standard

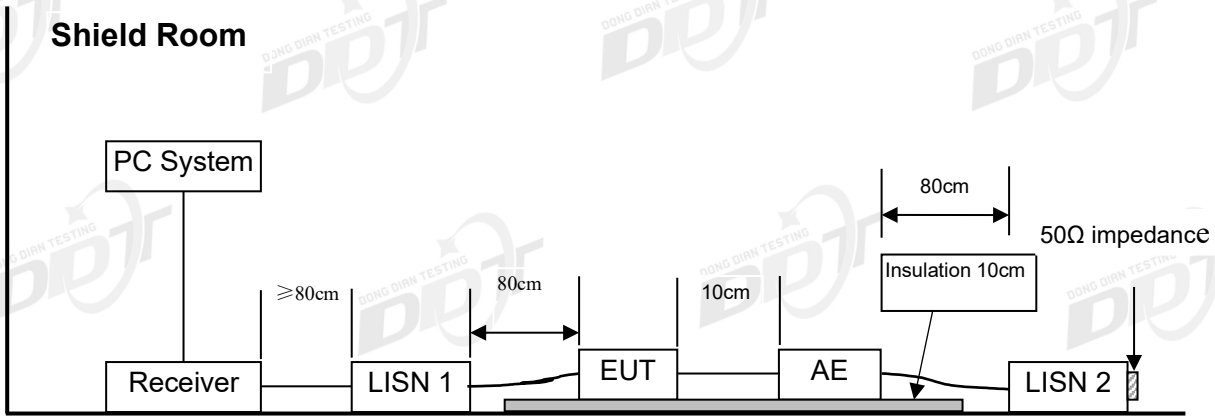
EN 55032:2015

3.4. Block diagram of test setup

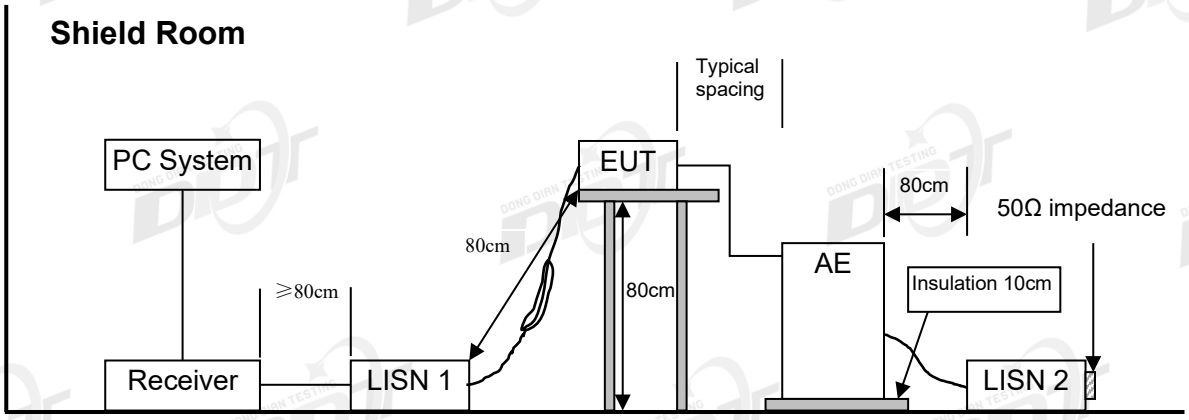
For table-top equipment



For floor standing equipment



For combinations equipment



3.5. Limits

Class A

Frequency			Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz	~	500kHz	79	66
500kHz	~	30MHz	73	60

Class B

Frequency			Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz	~	500kHz	66 ~ 56*	56 ~ 46*
500kHz	~	5MHz	56	46
5MHz	~	30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

3.7. Test procedure

(1) The EUT was placed on a non-metallic table, 80cm above the ground plane.

(2) Setup the EUT and assistant equipment as shown in section 2.5 and 3.6.

(3) The EUT's power adapter was connected to the power mains through a line impedance stabilization network (L.I.S.N). which this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted disturbance. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to EN 55032 on conducted disturbance emission test.

(4) The bandwidth of test receiver is set at 9 kHz.

(5) The frequency range from 150 kHz to 30MHz is checked.

3.8. Test result

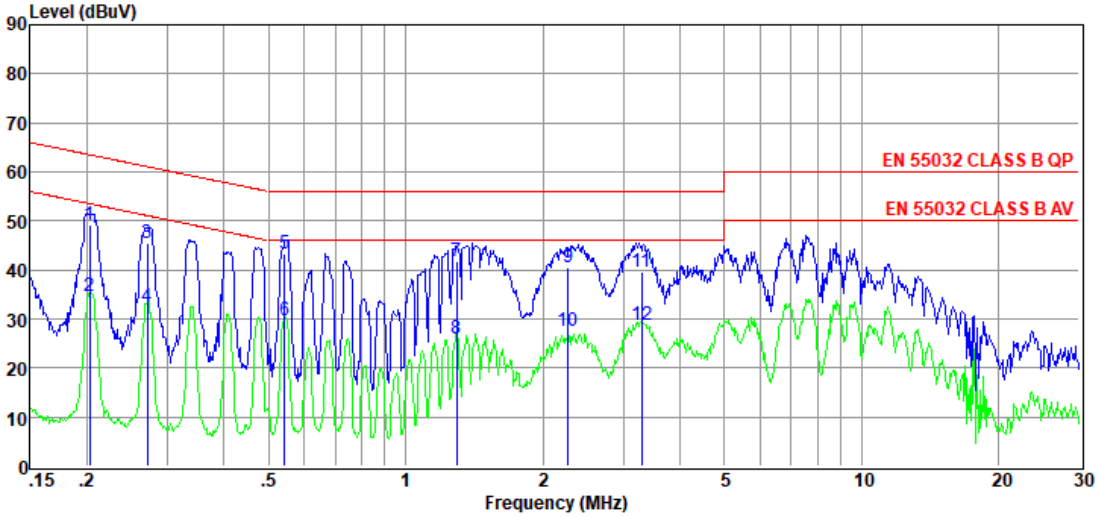
PASS. (See below detailed test result)

Note 1: All emissions not reported below are too low against the prescribed limits.
Note 2: "-----" means Peak detection; "-----" means Average detection.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	D:\2020 CE report data\Q20070616-1E\20201024 CE.EM6	
Test Date	: 2020-10-24	**Tested By**	: Lori Mi
EUT	: Portable Bluetooth Speaker	**Model Number**	: CHARGE5H
Power Supply	: AC 240V/50Hz	**Test Mode**	: Charging + 5V/2A load mode
Condition	: TEMP:24.8°C, RH:51.8%, BP:101.4kPa	**LISN**	: 2019 ENV216 1#/LINE
Memo	:		

Data: 2



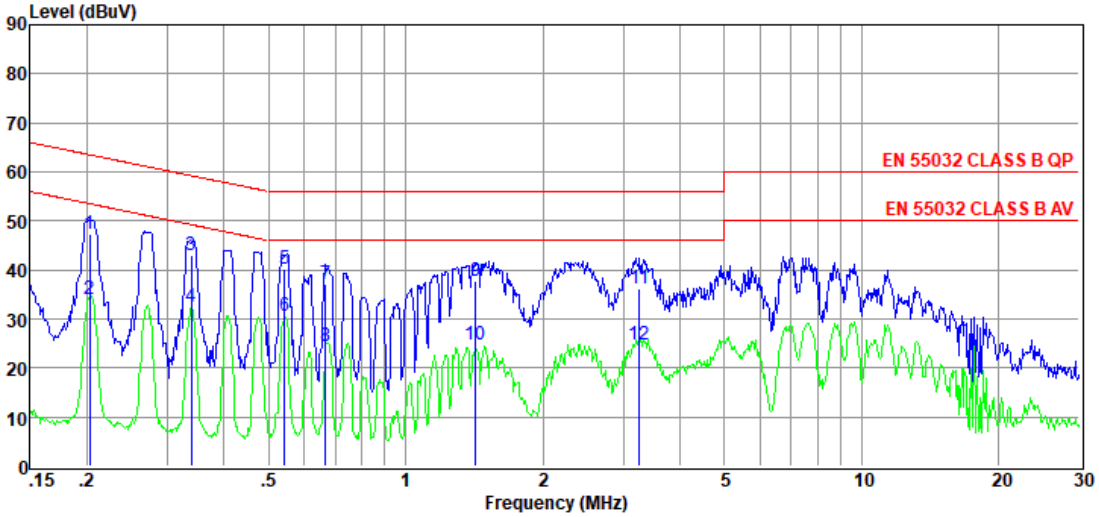
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.20	29.64	9.60	0.02	9.86	49.12	63.49	-14.37	QP	LINE
2	0.20	15.18	9.60	0.02	9.86	34.66	53.49	-18.83	Average	LINE
3	0.27	26.04	9.60	0.02	9.86	45.52	61.07	-15.55	QP	LINE
4	0.27	13.03	9.60	0.02	9.86	32.51	51.07	-18.56	Average	LINE
5	0.54	23.85	9.60	0.02	9.86	43.33	56.00	-12.67	QP	LINE
6	0.54	10.33	9.60	0.02	9.86	29.81	46.00	-16.19	Average	LINE
7	1.30	22.31	9.60	0.04	9.86	41.81	56.00	-14.19	QP	LINE
8	1.30	6.60	9.60	0.04	9.86	26.10	46.00	-19.90	Average	LINE
9	2.27	21.01	9.60	0.06	9.86	40.53	56.00	-15.47	QP	LINE
10	2.27	8.11	9.60	0.06	9.86	27.63	46.00	-18.37	Average	LINE
11	3.29	20.10	9.60	0.07	9.87	39.64	56.00	-16.36	QP	LINE
12	3.29	9.18	9.60	0.07	9.87	28.72	46.00	-17.28	Average	LINE

Note:
1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	D:\2020 CE report data\Q20070616-1E\20201024 CE.EM6	
Test Date	: 2020-10-24	**Tested By**	: Lori Mi
EUT	: Portable Bluetooth Speaker	**Model Number**	: CHARGE5H
Power Supply	: AC 240V/50Hz	**Test Mode**	: Charging + 5V/2A load mode
Condition	: TEMP:24.8°C, RH:51.8%, BP:101.4kPa	**LISN**	: 2019 ENV216 1#/NEUTRAL
Memo	:		

Data: 4



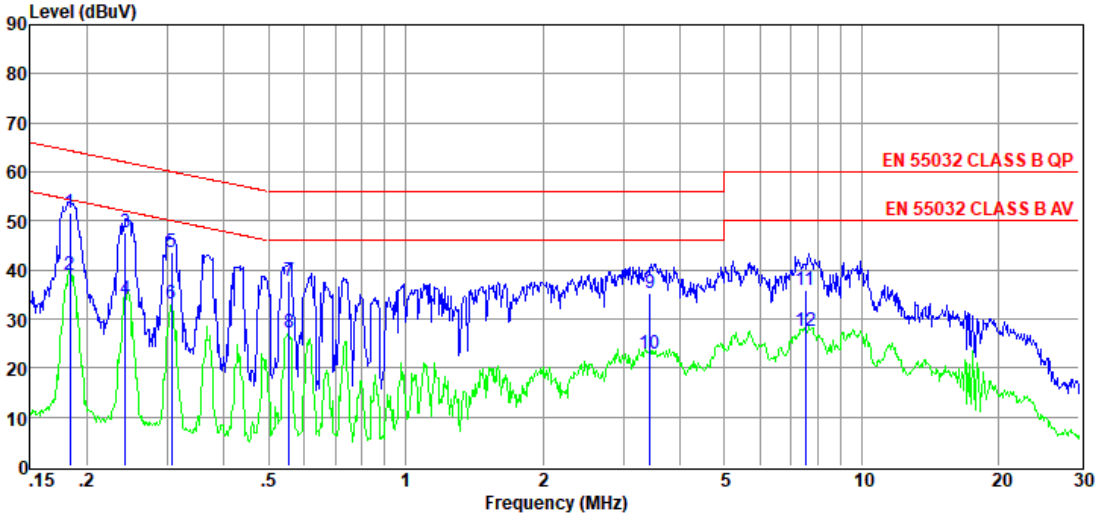
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.20	27.91	9.60	0.02	9.86	47.39	63.49	-16.10	QP	NEUTRAL
2	0.20	14.47	9.60	0.02	9.86	33.95	53.49	-19.54	Average	NEUTRAL
3	0.34	23.52	9.60	0.02	9.86	43.00	59.22	-16.22	QP	NEUTRAL
4	0.34	13.06	9.60	0.02	9.86	32.54	49.22	-16.68	Average	NEUTRAL
5	0.54	20.85	9.60	0.02	9.86	40.33	56.00	-15.67	QP	NEUTRAL
6	0.54	11.14	9.60	0.02	9.86	30.62	46.00	-15.38	Average	NEUTRAL
7	0.67	17.76	9.60	0.03	9.86	37.25	56.00	-18.75	QP	NEUTRAL
8	0.67	4.82	9.60	0.03	9.86	24.31	46.00	-21.69	Average	NEUTRAL
9	1.43	18.22	9.60	0.04	9.86	37.72	56.00	-18.28	QP	NEUTRAL
10	1.43	5.20	9.60	0.04	9.86	24.70	46.00	-21.30	Average	NEUTRAL
11	3.26	16.78	9.60	0.07	9.87	36.32	56.00	-19.68	QP	NEUTRAL
12	3.26	5.07	9.60	0.07	9.87	24.61	46.00	-21.39	Average	NEUTRAL

Note:
1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	D:\2020 CE report data\Q20070616-1E\20201024 CE.EM6	
Test Date	: 2020-10-24	**Tested By**	: Lori Mi
EUT	: Portable Bluetooth Speaker	**Model Number**	: CHARGE5H
Power Supply	: AC 120V/60Hz	**Test Mode**	: Charging + 5V/2A load mode
Condition	: TEMP:24.8°C, RH:51.8%, BP:101.4kPa	**LISN**	: 2019 ENV216 1#/NEUTRAL
Memo	:		

Data: 6



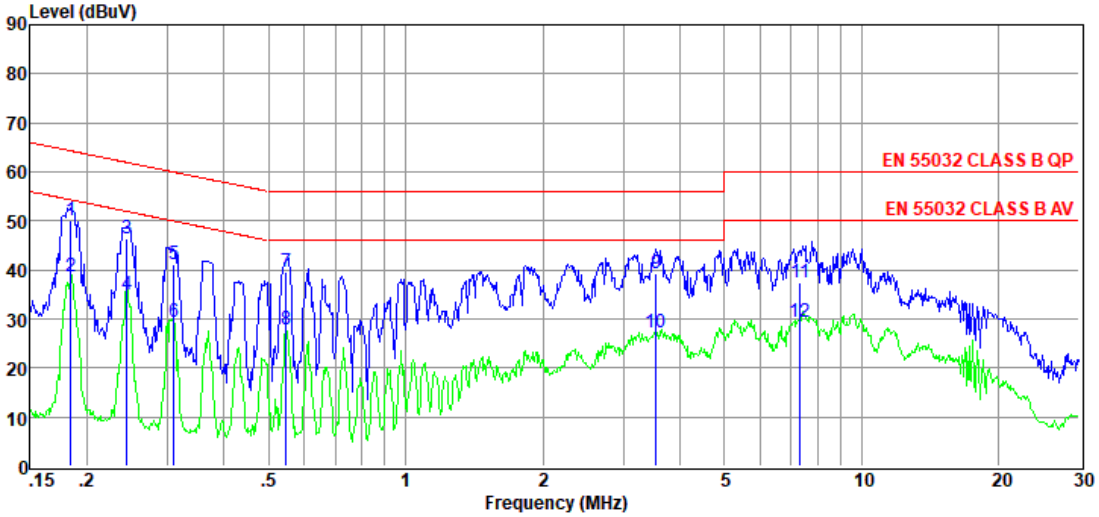
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.18	32.18	9.60	0.02	9.86	51.66	64.33	-12.67	QP	NEUTRAL
2	0.18	19.51	9.60	0.02	9.86	38.99	54.33	-15.34	Average	NEUTRAL
3	0.24	28.30	9.60	0.02	9.86	47.78	62.00	-14.22	QP	NEUTRAL
4	0.24	14.49	9.60	0.02	9.86	33.97	52.00	-18.03	Average	NEUTRAL
5	0.31	24.23	9.60	0.02	9.86	43.71	60.06	-16.35	QP	NEUTRAL
6	0.31	13.71	9.60	0.02	9.86	33.19	50.06	-16.87	Average	NEUTRAL
7	0.56	18.22	9.60	0.02	9.86	37.70	56.00	-18.30	QP	NEUTRAL
8	0.56	7.86	9.60	0.02	9.86	27.34	46.00	-18.66	Average	NEUTRAL
9	3.44	15.63	9.60	0.07	9.87	35.17	56.00	-20.83	QP	NEUTRAL
10	3.44	3.34	9.60	0.07	9.87	22.88	46.00	-23.12	Average	NEUTRAL
11	7.53	16.21	9.60	0.10	9.88	35.79	60.00	-24.21	QP	NEUTRAL
12	7.53	8.03	9.60	0.10	9.88	27.61	50.00	-22.39	Average	NEUTRAL

Note:
1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

TR-4-E-010 Conducted Emission Test Result

Test Site	: DDT 1# Shield Room	D:\2020 CE report data\Q20070616-1E\20201024 CE.EM6	
Test Date	: 2020-10-24	**Tested By**	: Lori Mi
EUT	: Portable Bluetooth Speaker	**Model Number**	: CHARGE5H
Power Supply	: AC 120V/60Hz	**Test Mode**	: Charging + 5V/2A load mode
Condition	: TEMP:24.8°C, RH:51.8%, BP:101.4kPa	**LISN**	: 2019 ENV216 1#/LINE
Memo	:		

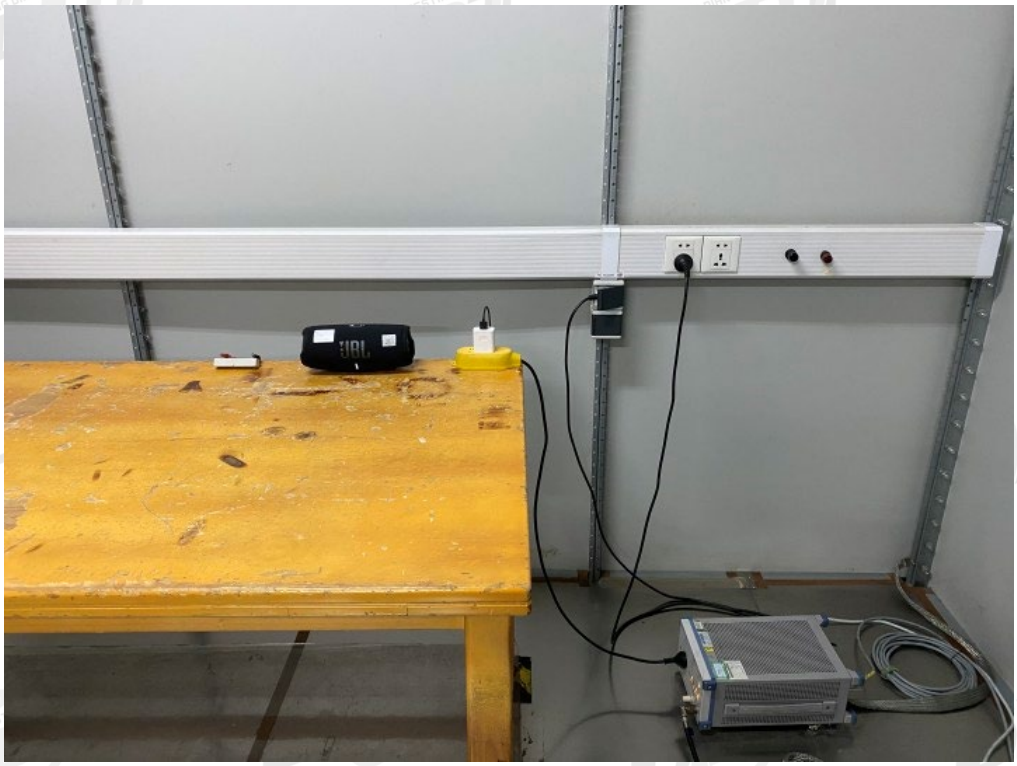
Data: 8



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.18	30.63	9.60	0.02	9.86	50.11	64.28	-14.17	QP	LINE
2	0.18	19.04	9.60	0.02	9.86	38.52	54.28	-15.76	Average	LINE
3	0.24	26.96	9.60	0.02	9.86	46.44	61.95	-15.51	QP	LINE
4	0.24	15.43	9.60	0.02	9.86	34.91	51.95	-17.04	Average	LINE
5	0.31	21.76	9.60	0.02	9.86	41.24	59.97	-18.73	QP	LINE
6	0.31	9.94	9.60	0.02	9.86	29.42	49.97	-20.55	Average	LINE
7	0.55	20.14	9.60	0.02	9.86	39.62	56.00	-16.38	QP	LINE
8	0.55	8.28	9.60	0.02	9.86	27.76	46.00	-18.24	Average	LINE
9	3.55	19.66	9.60	0.07	9.87	39.20	56.00	-16.80	QP	LINE
10	3.55	7.54	9.60	0.07	9.87	27.08	46.00	-18.92	Average	LINE
11	7.33	17.91	9.60	0.10	9.88	37.49	60.00	-22.51	QP	LINE
12	7.33	9.73	9.60	0.10	9.88	29.31	50.00	-20.69	Average	LINE

Note:
1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

3.9. Test photo



4. Radiated Emissions Test

4.1. General information

Test and report Engineer	:	Lori Mi
Test and report Date	:	Oct. 27, 2020

4.2. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Radiation DQT 10m 1#chamber (below 1G)					
Test Receiver	Rohde & Schwarz	ESU40	100012	Jan. 12, 2020	1 Year
Trilog Broadband Antenna	Schwarzbeck	VULB9163	331	Mar. 12, 2019	3 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A
Radiation 1#chamber (above 1G)					
EMI Test Receiver	R&S	ESU8	100316	Sep. 24, 2020	1 Year
Spectrum analyzer	Agilent	E4447A	MY50180031	Jul. 01, 2020	1 Year
Double Ridged Horn Antenna	R&S	HF907	100276	Nov. 15, 2019	1 Year
Pre-amplifier	TERA-MW	TRLA-0040G35	101303	Sep. 28, 2020	1 Year
Pre-amplifier	A.H.	PAM-0118	360	Sep. 28, 2020	1 Year
RF Cable	N/A	SMAJ-SMAJ-1M+ SMAJ-SMAJ-11M	17070133+17070131	Sep. 30, 2020	1 Year
Test software	Audix	E3	V 6.11111b	N/A	N/A
Notes. N/A means Not applicable.					

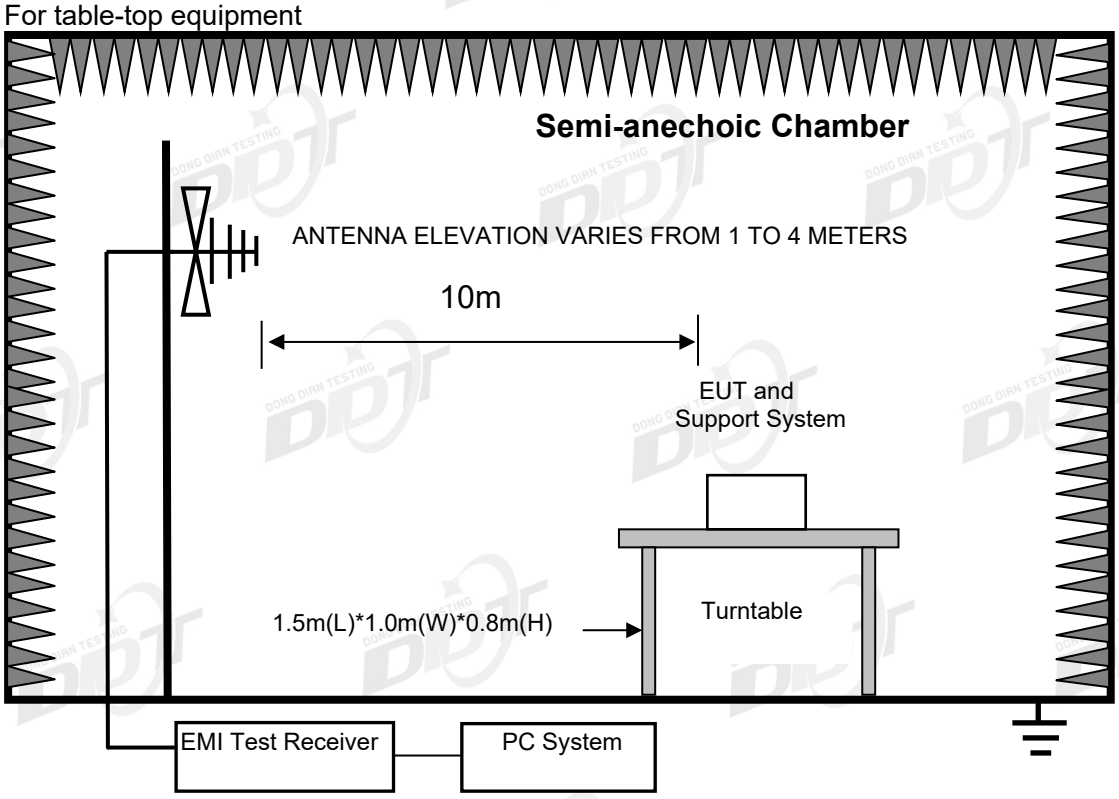
4.3. Reference standard

EN 55032:2015

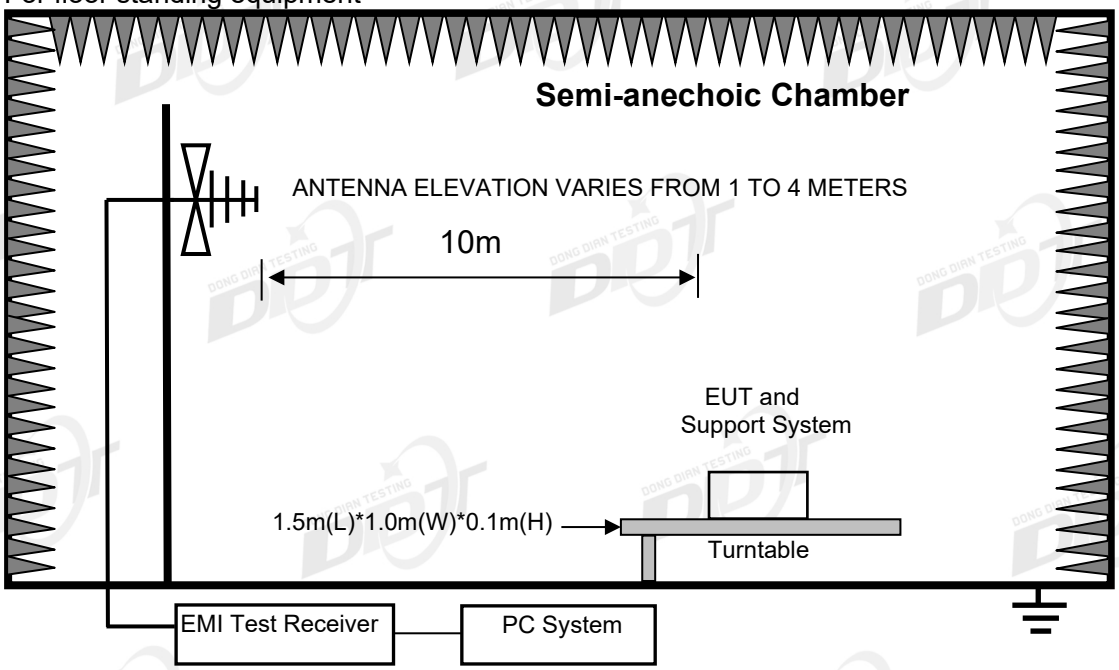
4.4. Block diagram of test setup

Below 1GHz

For table-top equipment

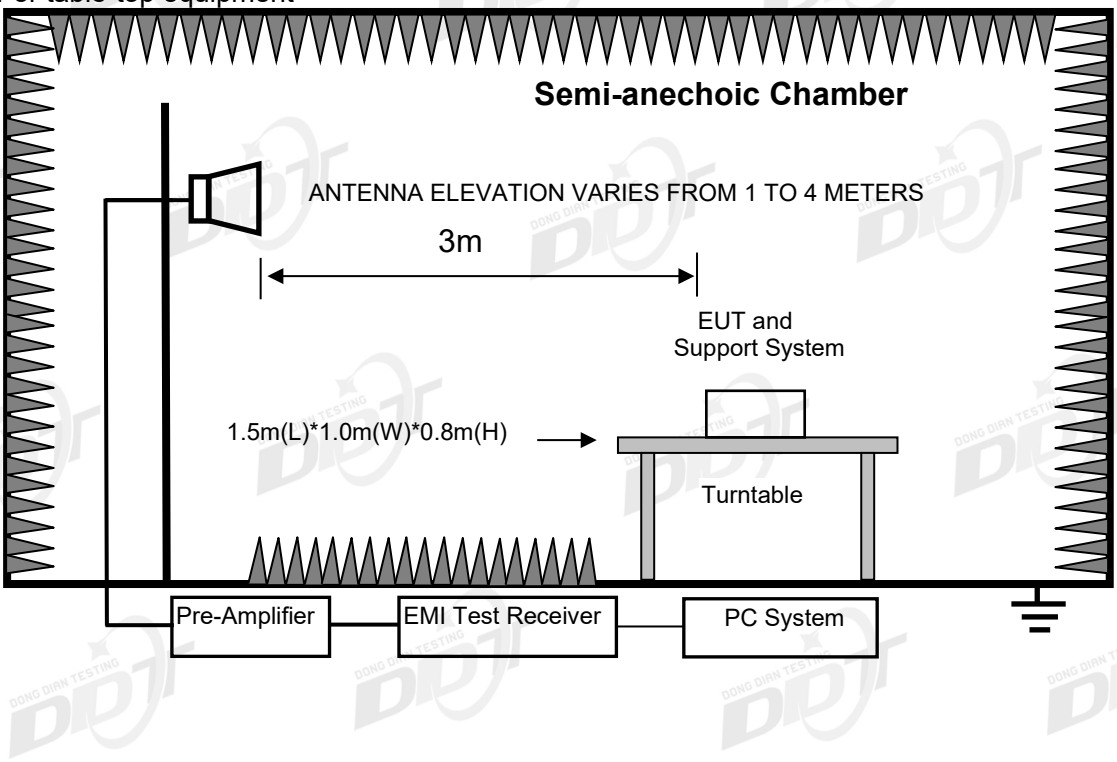


For floor standing equipment

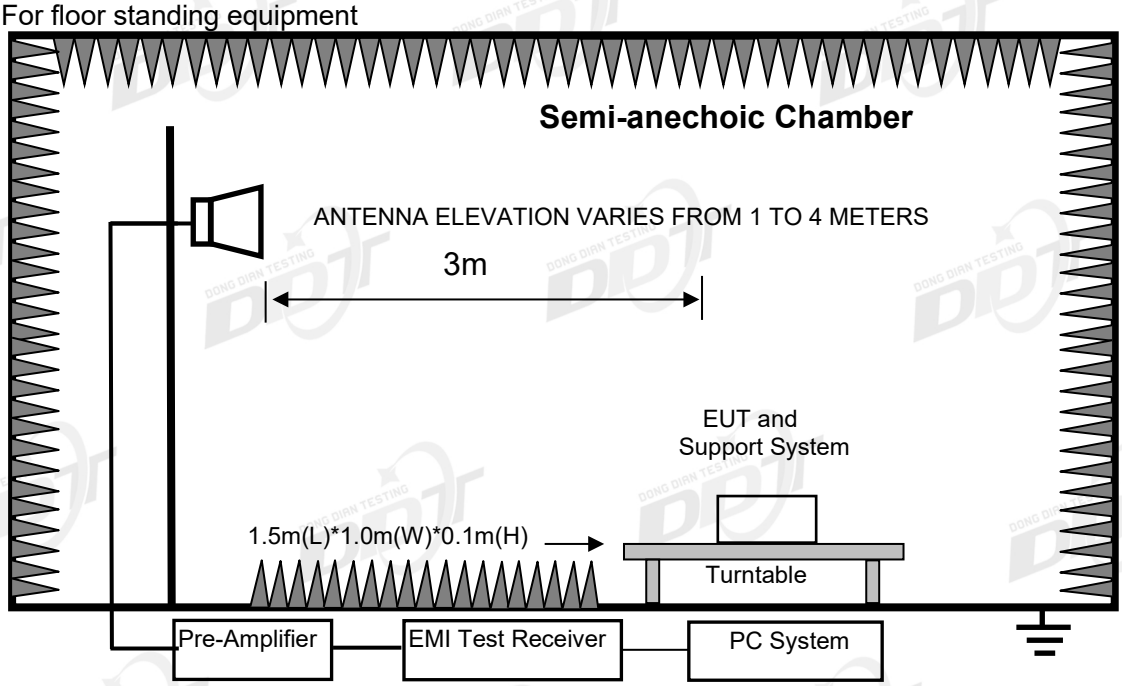


Above 1GHz

For table-top equipment



For floor standing equipment



4.5. Limits

Class A

Equipment	Frequency	Field Strengths Limits at 10m measuring distance dB(μV)/m	Field Strengths Limits at 3m measuring distance dB(μV)/m
Class A Equipment	30MHz to 230MHz	40	50
	230MHz to 1000MHz	47	57
	1GHz to 3GHz	/	Average:56 ; Peak:76
	3GHz to 6GHz	/	Average:60 ; Peak:80

Class B

Equipment	Frequency	Field Strengths Limits at 10m measuring distance dB(μV)/m	Field Strengths Limits at 3m measuring distance dB(μV)/m
Class B Equipment	30MHz to 230MHz	30	40
	230MHz to 1000MHz	37	47
	1GHz to 3GHz	/	Average:50 ; Peak:70
	3GHz to 6GHz	/	Average:54 ; Peak:74
FM receivers*	30MHz to 1000MHz	Fundamental 50	Fundamental 60
	30MHz to 300MHz	Harmonics 42	Harmonics 52
	300MHz to 1000MHz	Harmonics 46	Harmonics 56
*: these relaxed limits apply only to emission at the fundamental and harmonic frequencies of the local oscillator signals at all other frequencies shall be compliant with the limits of class B equipment given above.			

Note: (1) The smaller limit shall apply at the cross point between two frequency bands.

(2) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

4.7. Test procedure

(1) The EUT was placed on a non-metallic table, 80 cm above the ground plane inside an semi-anechoic chamber.

(2) Test antenna was located ☒3m / ☒10m (see note) from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipment and

all of the interface cables were changed according to EN 55032 on radiated emission test.

(3) Spectrum frequency from 30MHz to☐1GHz /☒6GHz was investigated.

(4) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to EN 55032 on Radiated Emission test.

(5) For emissions from 30MHz to 1GHz, Quasi-Peak values were measured with EMI Receiver and the bandwidth of Receiver is 120 kHz.

(6) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz VBW is set at 3MHz.

Note: This test emissions from 30MHz to 1GHz was subcontracted to Bureau of Quality and Technology Supervision of Dongguan City.

4.8. Test result

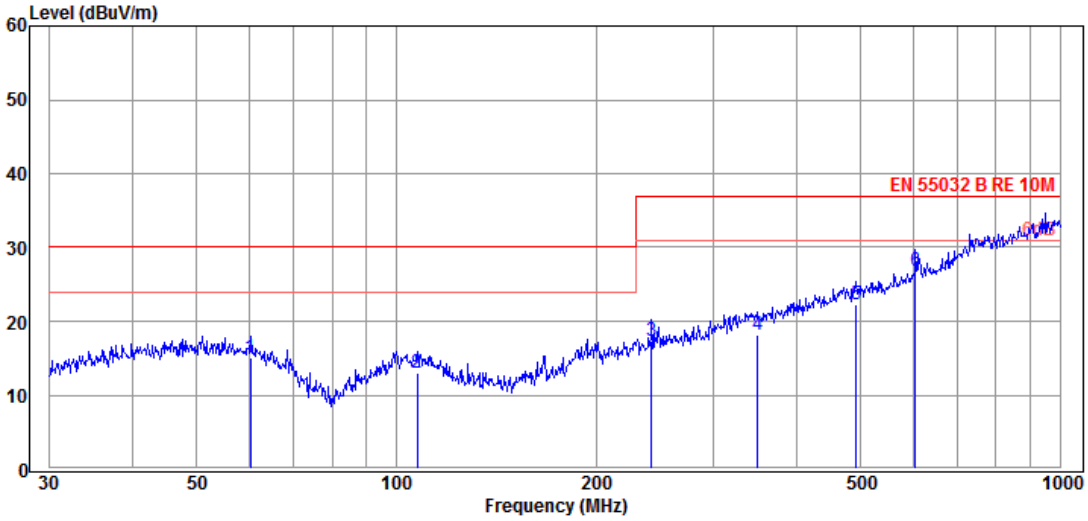
PASS. (See below detailed test result)

Note: All emissions not reported below are too low against the prescribed limits.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DQT 10 m Chamber 1#	D:\2020 Report test data\Q20070616-1E\20201027 10M RE.EM6		
Test Date	:	2020-10-27	**Tested By**	:	Lori Mi
EUT	:	Portable Bluetooth Speaker	**Model Number**	:	CHARGE5H
Power Supply	:	Battery	**Test Mode**	:	5V/2A load mode
Condition	:	Temp:24.5°C,Humi:55%,Press:101.4kPa	**Antenna/Distance**	:	DQT FACTOR/10m/HORIZONTAL
Memo	:				

Data: 25



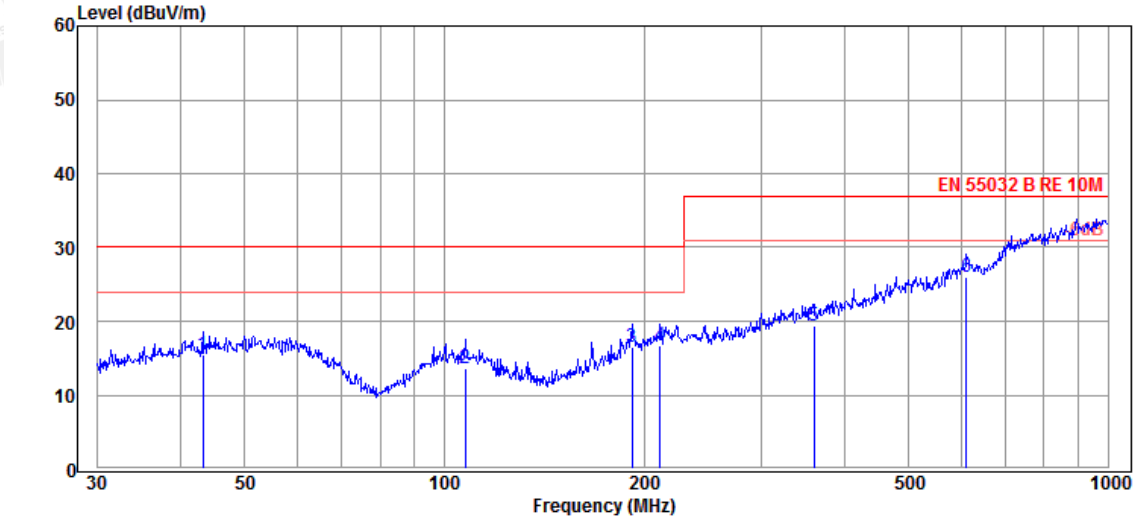
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Factor (dB/m)	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	60.28	0.51	14.45	14.96	30.00	-15.04	QP	HORIZONTAL
2	107.51	-0.72	13.62	12.90	30.00	-17.10	QP	HORIZONTAL
3	242.53	2.13	15.13	17.26	37.00	-19.74	QP	HORIZONTAL
4	350.48	-0.21	18.35	18.14	37.00	-18.86	QP	HORIZONTAL
5	492.47	1.13	21.17	22.30	37.00	-14.70	QP	HORIZONTAL
6	605.66	4.31	22.47	26.78	37.00	-10.22	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	:	DQT 10 m Chamber 1#	D:\2020 Report test data\Q20070616-1E\20201027 10M RE.EM6		
Test Date	:	2020-10-27	**Tested By**	:	Lori Mi
EUT	:	Portable Bluetooth Speaker	**Model Number**	:	CHARGE5H
Power Supply	:	Battery	**Test Mode**	:	5V/2A load mode
Condition	:	Temp:24.5°C,Humi:55%,Press:101.4kPa	**Antenna/Distance**	:	DQT FACTOR/10m/VERTICAL
Memo	:				

Data: 26



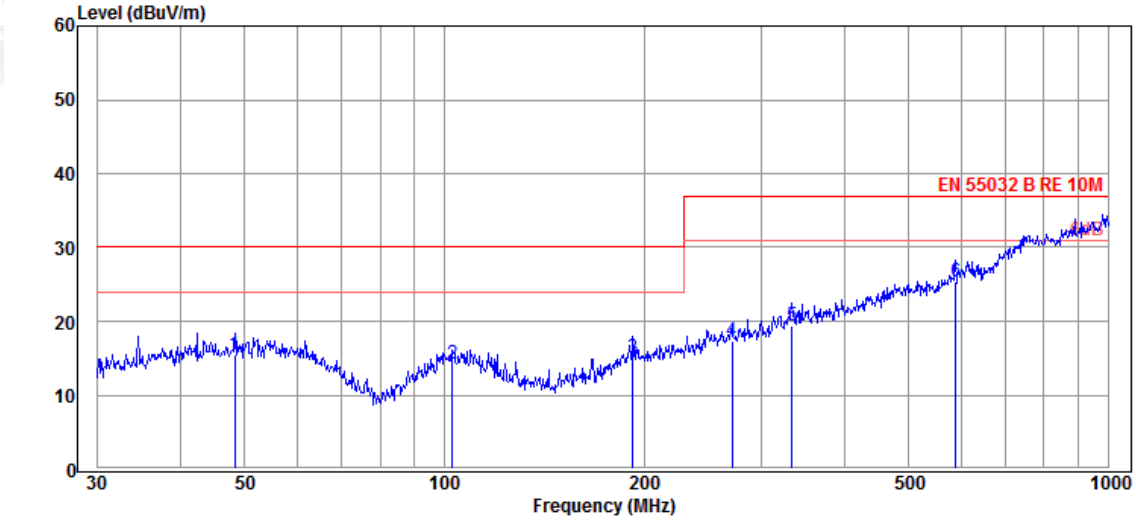
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Factor (dB/m)	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	43.20	0.79	14.67	15.46	30.00	-14.54	QP	VERTICAL
2	107.51	-0.05	13.62	13.57	30.00	-16.43	QP	VERTICAL
3	191.75	2.99	13.53	16.52	30.00	-13.48	QP	VERTICAL
4	211.53	2.67	13.99	16.66	30.00	-13.34	QP	VERTICAL
5	360.45	0.80	18.57	19.37	37.00	-17.63	QP	VERTICAL
6	612.06	3.62	22.40	26.02	37.00	-10.98	QP	VERTICAL

Note: 1. Result Level = Read Level + Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DQT 10 m Chamber 1#	D:\2020 Report test data\Q20070616-1E\20201027 10M RE.EM6	
Test Date	: 2020-10-27	**Tested By**	: Lori Mi
EUT	: Portable Bluetooth Speaker	**Model Number**	: CHARGE5H
Power Supply	: AC 120V/60Hz	**Test Mode**	: Charging + 5V/2A load mode
Condition	: Temp:24.5°C,Humi:55%,Press:101.4kPa	**Antenna/Distance**	: DQT FACTOR/10m/HORIZONTAL
Memo	:		

Data: 27



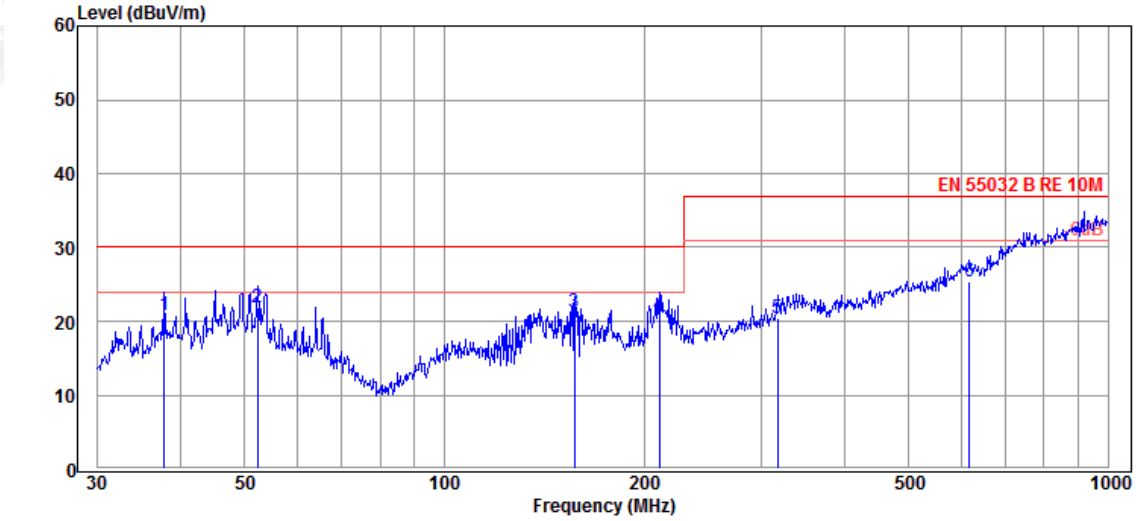
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Factor (dB/m)	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	48.33	0.51	14.93	15.44	30.00	-14.56	QP	HORIZONTAL
2	102.72	0.32	13.81	14.13	30.00	-15.87	QP	HORIZONTAL
3	192.42	1.44	13.53	14.97	30.00	-15.03	QP	HORIZONTAL
4	271.33	1.40	15.93	17.33	37.00	-19.67	QP	HORIZONTAL
5	333.69	1.63	17.80	19.43	37.00	-17.57	QP	HORIZONTAL
6	588.91	3.06	22.21	25.27	37.00	-11.73	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DQT 10 m Chamber 1#	D:\2020 Report test data\Q20070616-1E\20201027 10M RE.EM6	
Test Date	: 2020-10-27	**Tested By**	: Lori Mi
EUT	: Portable Bluetooth Speaker	**Model Number**	: CHARGE5H
Power Supply	: AC 120V/60Hz	**Test Mode**	: Charging + 5V/2A load mode
Condition	: Temp:24.5°C,Humi:55%,Press:101.4kPa	**Antenna/Distance**	: DQT FACTOR/10m/VERTICAL
Memo	:		

Data: 28



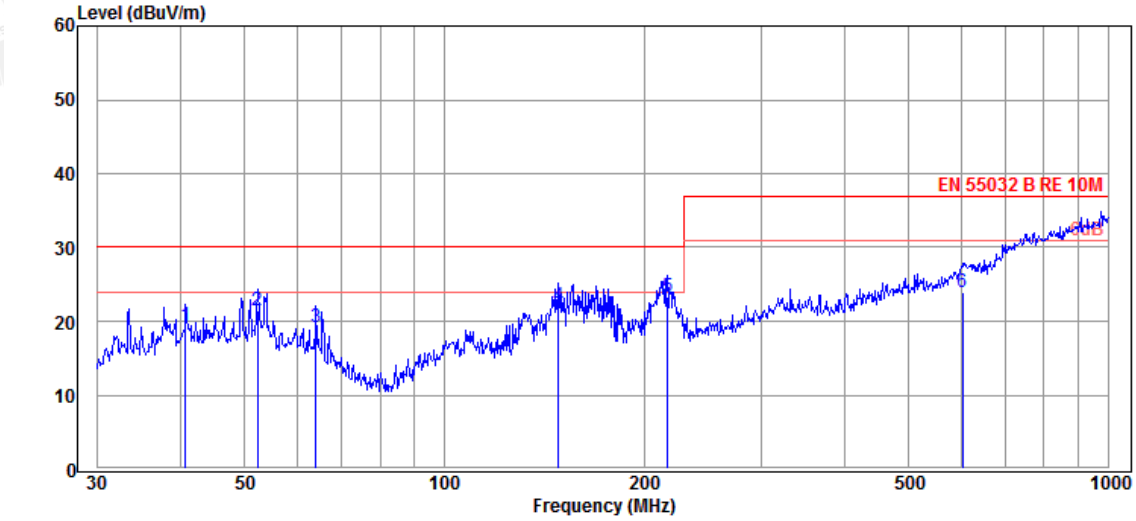
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Factor (dB/m)	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	37.81	6.78	14.04	20.82	30.00	-9.18	QP	VERTICAL
2	52.21	6.91	14.90	21.81	30.00	-8.19	QP	VERTICAL
3	157.01	10.71	10.63	21.34	30.00	-8.66	QP	VERTICAL
4	210.79	6.88	13.97	20.85	30.00	-9.15	QP	VERTICAL
5	317.70	3.21	17.25	20.46	37.00	-16.54	QP	VERTICAL
6	618.54	2.99	22.32	25.31	37.00	-11.69	QP	VERTICAL

Note: 1. Result Level = Read Level + Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DQT 10 m Chamber 1#	D:\2020 Report test data\Q20070616-1E\20201027 10M RE.EM6	
Test Date	: 2020-10-27	**Tested By**	: Lori Mi
EUT	: Portable Bluetooth Speaker	**Model Number**	: CHARGE5H
Power Supply	: AC 240V/50Hz	**Test Mode**	: Charging + 5V/2A load mode
Condition	: Temp:24.5°C,Humi:55%,Press:101.4kPa	**Antenna/Distance**	: DQT FACTOR/10m/VERTICAL
Memo	:		

Data: 29



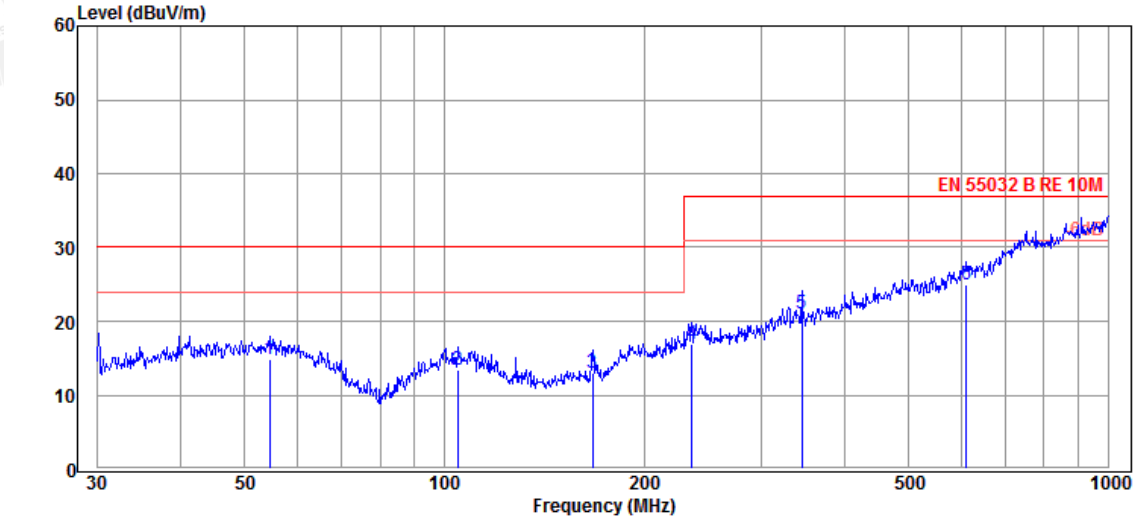
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Factor (dB/m)	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	40.70	4.77	14.53	19.30	30.00	-10.70	QP	VERTICAL
2	52.21	6.45	14.90	21.35	30.00	-8.65	QP	VERTICAL
3	63.98	5.88	13.26	19.14	30.00	-10.86	QP	VERTICAL
4	148.44	12.03	10.13	22.16	30.00	-7.84	QP	VERTICAL
5	216.78	9.05	14.20	23.25	30.00	-6.75	QP	VERTICAL
6	603.54	1.35	22.49	23.84	37.00	-13.16	QP	VERTICAL

Note: 1. Result Level = Read Level + Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Site	: DQT 10 m Chamber 1#	D:\2020 Report test data\Q20070616-1E\20201027 10M RE.EM6	
Test Date	: 2020-10-27	**Tested By**	: Lori Mi
EUT	: Portable Bluetooth Speaker	**Model Number**	: CHARGE5H
Power Supply	: AC 240V/50Hz	**Test Mode**	: Charging + 5V/2A load mode
Condition	: Temp:24.5°C,Humi:55%,Press:101.4kPa	**Antenna/Distance**	: DQT FACTOR/10m/HORIZONTAL
Memo	:		

Data: 30



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Factor (dB/m)	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	54.45	0.05	14.79	14.84	30.00	-15.16	QP	HORIZONTAL
2	104.54	-0.31	13.73	13.42	30.00	-16.58	QP	HORIZONTAL
3	167.24	1.89	11.19	13.08	30.00	-16.92	QP	HORIZONTAL
4	235.82	1.96	14.90	16.86	37.00	-20.14	QP	HORIZONTAL
5	345.60	2.88	18.20	21.08	37.00	-15.92	QP	HORIZONTAL
6	612.06	2.65	22.40	25.05	37.00	-11.95	QP	HORIZONTAL

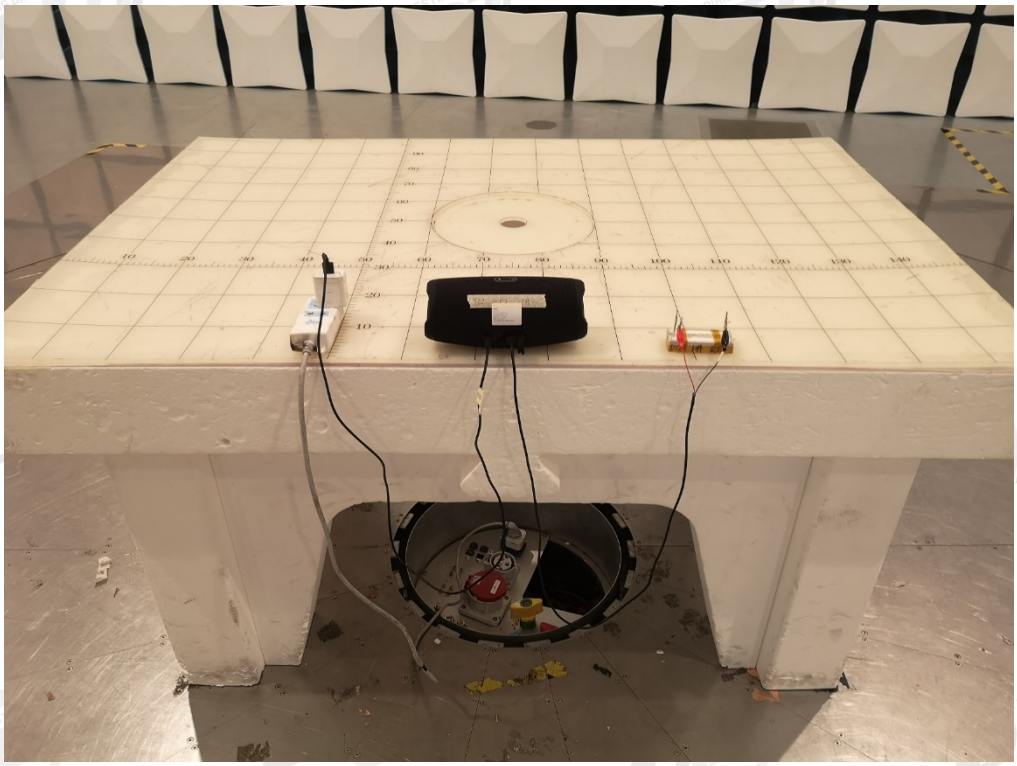
Note: 1. Result Level = Read Level + Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

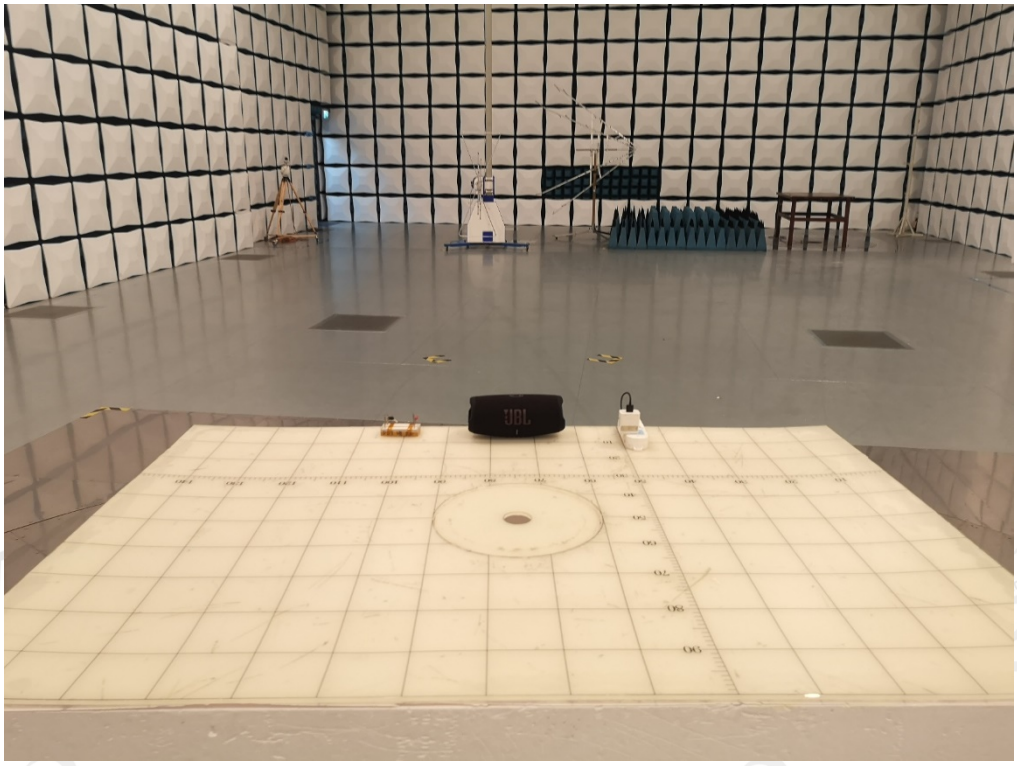
Radiated emission test (1GHz-6GHz)

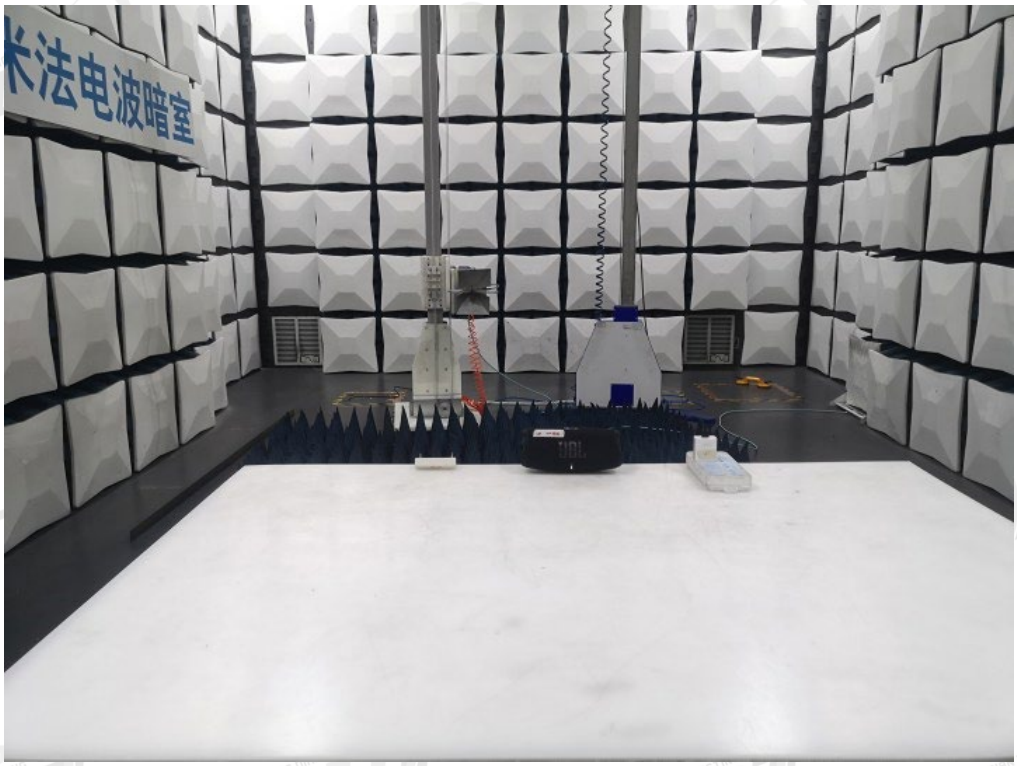
Freq. (MHz)	Read level (dBμV)	Antenna Factor (dB/m)	PRM Factor(dB)	Cable Loss (dB)	Result Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector type	Polarization
Power Supply: AC 120V/60Hz Test mode: Charging + 5V/2A mode									
2635.00	47.69	30.13	43.32	4.58	39.08	70.00	-30.92	Peak	VERTICAL
3575.00	48.75	32.73	43.67	5.75	43.56	74.00	-30.44	Peak	VERTICAL
3975.00	49.45	33.36	43.79	6.27	45.29	74.00	-28.71	Peak	VERTICAL
4380.00	49.57	33.48	43.64	6.54	45.95	74.00	-28.05	Peak	VERTICAL
4890.00	49.25	34.29	43.45	6.84	46.93	74.00	-27.07	Peak	VERTICAL
5360.00	48.65	34.72	43.29	7.17	47.25	74.00	-26.75	Peak	VERTICAL
3240.00	49.25	31.90	43.56	5.27	42.86	74.00	-31.14	Peak	HORIZONTAL
3655.00	49.34	32.86	43.70	5.86	44.36	74.00	-29.64	Peak	HORIZONTAL
3970.00	49.18	33.35	43.79	6.26	45.00	74.00	-29.00	Peak	HORIZONTAL
4480.00	49.13	33.50	43.60	6.60	45.63	74.00	-28.37	Peak	HORIZONTAL
4950.00	48.37	34.40	43.43	6.87	46.21	74.00	-27.79	Peak	HORIZONTAL
5520.00	48.36	34.82	43.24	7.28	47.22	74.00	-26.78	Peak	HORIZONTAL
Power Supply: AC 240V/50Hz Test mode: Charging + 5V/2A mode									
3085.00	48.25	31.45	43.50	5.04	41.24	74.00	-32.76	Peak	HORIZONTAL
3585.00	48.97	32.74	43.67	5.77	43.81	74.00	-30.19	Peak	HORIZONTAL
4335.00	49.62	33.47	43.66	6.52	45.95	74.00	-28.05	Peak	HORIZONTAL
4605.00	49.32	33.72	43.56	6.68	46.16	74.00	-27.84	Peak	HORIZONTAL
5025.00	48.96	34.52	43.41	6.92	46.99	74.00	-27.01	Peak	HORIZONTAL
5335.00	48.83	34.70	43.30	7.15	47.38	74.00	-26.62	Peak	HORIZONTAL
2820.00	48.52	30.69	43.40	4.75	40.56	70.00	-29.44	Peak	VERTICAL
3375.00	49.97	32.27	43.60	5.47	44.11	74.00	-29.89	Peak	VERTICAL
3745.00	49.20	33.01	43.72	5.98	44.47	74.00	-29.53	Peak	VERTICAL
4325.00	48.82	33.47	43.67	6.51	45.13	74.00	-28.87	Peak	VERTICAL
4705.00	49.23	33.92	43.52	6.74	46.37	74.00	-27.63	Peak	VERTICAL
5005.00	49.02	34.50	43.41	6.90	47.01	74.00	-26.99	Peak	VERTICAL
Power Supply: Battery Test mode: 5V/2A mode									
2545.00	48.32	29.85	43.28	4.49	39.38	70.00	-30.62	Peak	VERTICAL
2935.00	48.14	31.02	43.44	4.85	40.57	70.00	-29.43	Peak	VERTICAL
3325.00	47.84	32.13	43.59	5.40	41.78	74.00	-32.22	Peak	VERTICAL
3945.00	48.72	33.32	43.78	6.23	44.49	74.00	-29.51	Peak	VERTICAL
4695.00	48.06	33.90	43.52	6.73	45.17	74.00	-28.83	Peak	VERTICAL
5335.00	48.35	34.70	43.30	7.15	46.90	74.00	-27.10	Peak	VERTICAL
2935.00	48.43	31.02	43.44	4.85	40.86	70.00	-29.14	Peak	HORIZONTAL
3415.00	49.24	32.38	43.62	5.53	43.53	74.00	-30.47	Peak	HORIZONTAL
4030.00	48.51	33.41	43.79	6.32	44.45	74.00	-29.55	Peak	HORIZONTAL
4655.00	48.75	33.82	43.54	6.71	45.74	74.00	-28.26	Peak	HORIZONTAL
4970.00	49.47	34.44	43.43	6.88	47.36	74.00	-26.64	Peak	HORIZONTAL
5460.00	48.39	34.78	43.26	7.24	47.15	74.00	-26.85	Peak	HORIZONTAL
Result: Pass									

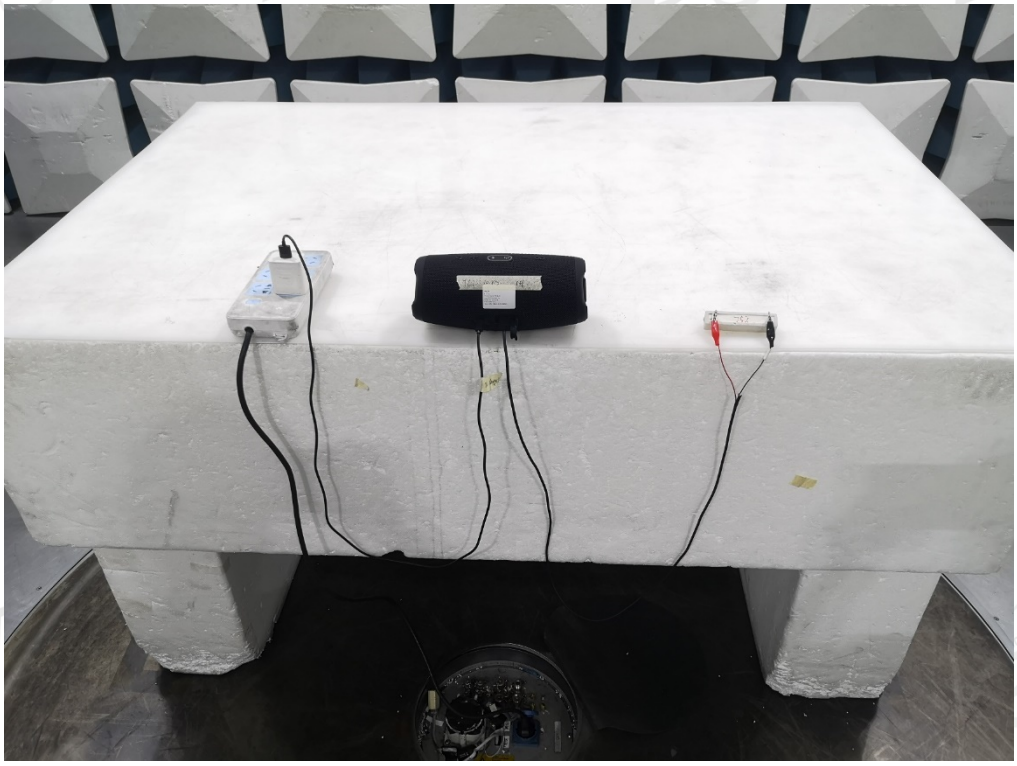
Note: Result Level = Read Level + Antenna Factor + Cable loss - PRM Factor.

4.9. Test photo






半法电波暗室



5. Harmonic Current and Voltage Fluctuations & Flicker Test Report

5.1. General information

Test and report Engineer	:	Elosky Liu
Test and report Date	:	Oct. 26, 2020

5.2. Test equipment

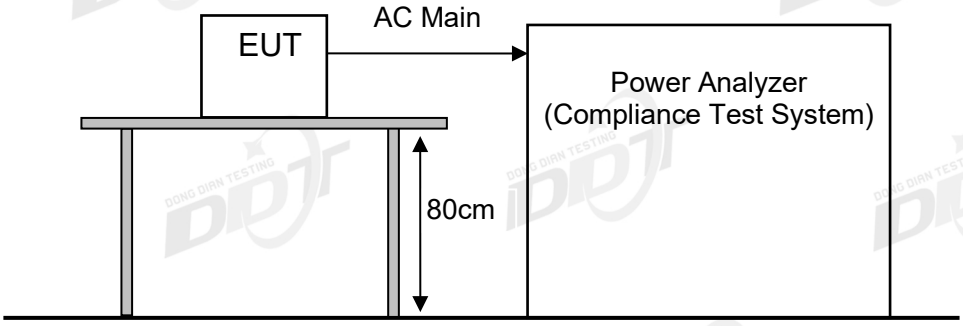
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
HARMONICS and Voltage fluctuation and flicker tester	EMC-PARTNER	HAR1000-1P	HAP1000-1P230V-0205	Jul. 27, 2020	1Year
Test Software	EMC-PARTNER	Harmonics-1000	4.19	N/A	N/A

5.3. Test standard

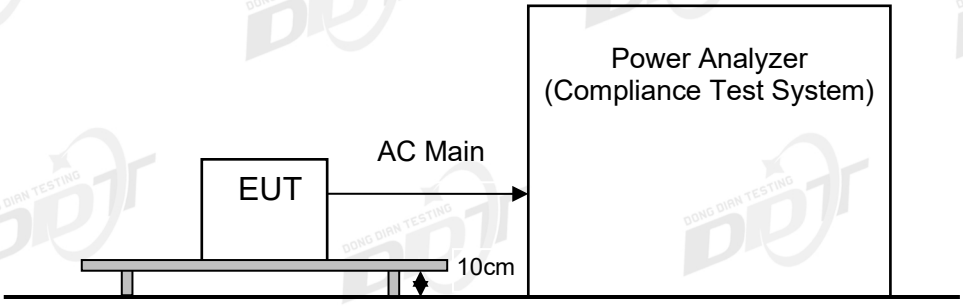
EN IEC 61000-3-2:2019, Classification of equipment: ☒ Class A, ☐ Class B, ☐ Class C, ☐ Class D. EN 61000-3-3:2013+A1:2019

5.4. Block diagram of test setup

(1) Table-top device



(2) Floor-standing device



5.5. Harmonic current limits

For Class A equipment

Harmonic order(n)	Maximum permissible harmonic current (A)
3	2.30
5	1.14
7	0.77
9	0.40
11	0.33
13	0.21
15≤n≤39	0.15*15/n
Even harmonics	
2	1.08
4	0.43
6	0.30
8≤n≤40	0.23*8/n

For Class B equipment

The harmonics of the input current shall not exceed the values given in class A equipment limits multiplied by a factor of 1.5.

For Class C equipment

Harmonic order(n)	Maximum permissible harmonic currrent expressed as a percentage of the input current at the fundamental frequency %
2	2
3	30xλ
5	10
7	7
9	3
11≤n≤39 (odd harmonic only)	0.23*8/n
Note: λ is the circuit power factor.	

For Class D equipment

Harmonic order(n)	Maximum permissible harmonic current per watt mA/W	Maximum permissible harmonic current (A)
3	3.4	2.30
5	1.9	1.14
7	1.0	0.77
9	0.5	0.40
11	0.35	0.33
13≤n≤39 (odd harmonic only)	3.85/n	Refer to Class A limit

5.6. Voltage fluctuations & flicker Limit

Test Item	Limit	Note
Pst	1.0	Pst means Short-term flicker indicator
Plt	0.65	Plt means long-term flicker indicator
Tdt	0.5	Tdt means maximum time that dt exceeds 3.3%
dmax(%)	4%	dmax means maximum relative voltage change.
dc(%)	3.3%	dc means relative steady-state voltage change.

5.7. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

5.8. Test procedure

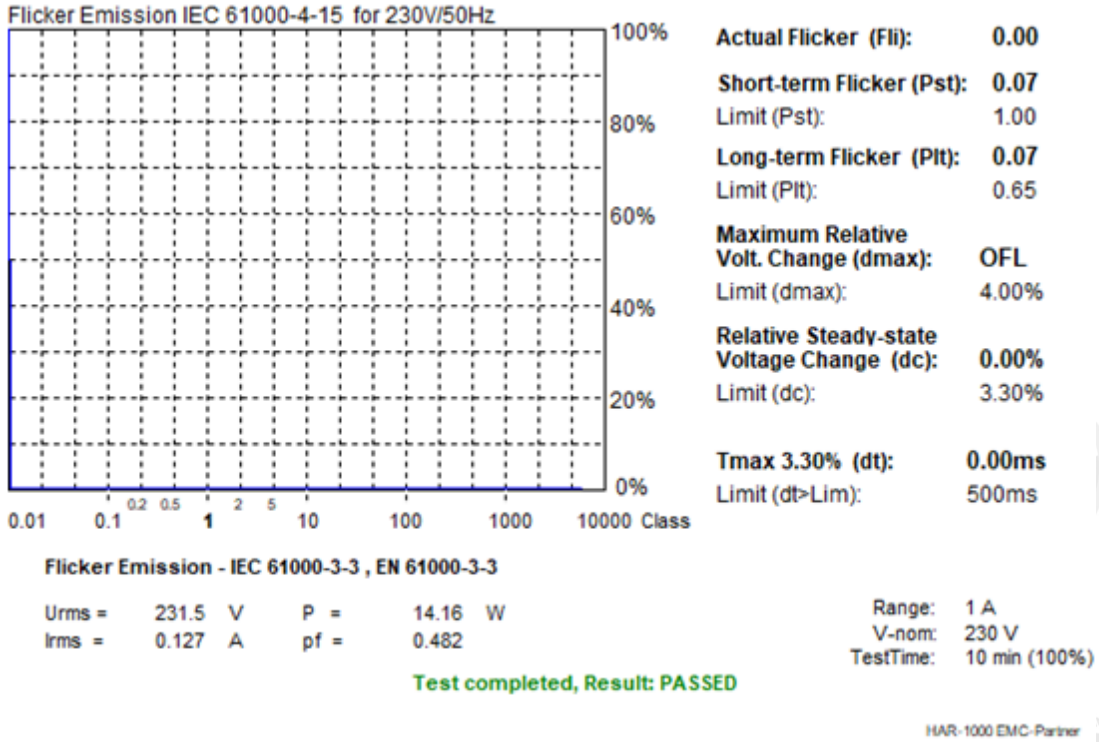
For Harmonic current test:
The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the maximum harmonic components under normal operating conditions for each successive harmonic component in turn. The correspondent test program of test instrument to measure the current harmonics emanated from EUT is chosen. The measure time shall be not less than the necessary for the EUT to be exercised.

For Voltage fluctuations & flicker
The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the most unfavorable sequence of voltage changes under normal conditions during the flick measurement; the measure time shall include that part of whole operation changes. The observation period for short-term flicker indicator is 10 minutes and the observation period for long-term flicker indicator is 2 hours.

5.9. Test result

Harmonic current test result:
Not Applicable
This product is not defined as lighting equipment, and has rated power less than 75W, therefore, no limit apply according to EN IEC 61000-3-2 harmonics currents emissions test.

Voltage fluctuations & flicker test result:



Full Bar : Actual Values
Empty Bar : Maximum Values
Circles : Average Values
Blue : Current , Green : Voltage , Red : Failed

File :

Operator	Elosky Liu
Unit	Portable Bluetooth Speaker
Serial Number	CHARGE5H
Test Mode	Charging + 5V/2A load mode

Urms =	231.5V	Freq =	49.987	Range:	1 A
Irms =	0.127A	Ipk =	0.513A	cf =	4.038
P =	14.16W	S =	29.39VA	pf =	0.482

Test - Time : 1 x 10min = 10min (100 %)
LIN (Line Impedance Network) : L: 0.24ohm +j0.15ohm N: 0.16ohm +j0.10ohm

Limits :	Plt :	0.65	Pst :	1.00	
		dmax :	4.00 %	dc :	3.30 %
		dtLim:	3.30 %	dt>Lim:	500ms

Test completed, Result: PASSED

	dmax [%]
1	0.020

5.10. Test photo

6. 5Electrostatic Discharge Test Report

6.1. General information

Test and report Engineer	:	Elosky Liu
Test and report Date	:	Oct. 26, 2020

6.2. Test equipment

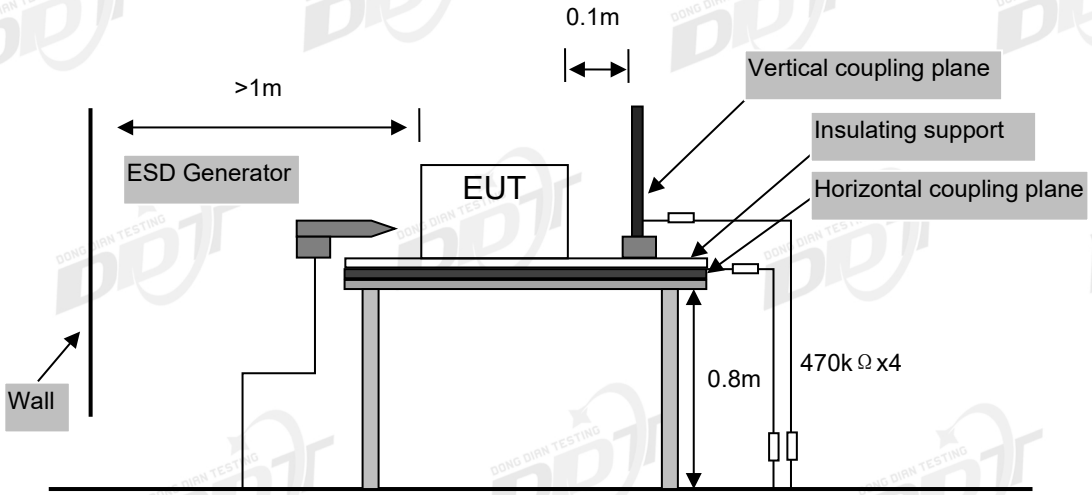
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ESD Generator	TESEQ	NSG 437	981	Nov. 14, 2019	1 Year

6.3. Test and reference standards

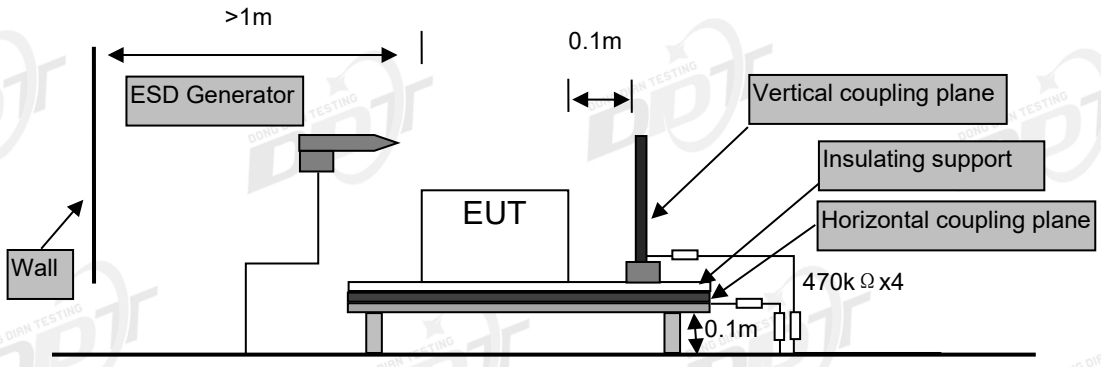
EN 55035:2017, EN 61000-4-2:2009

6.4. Block diagram of test setup

(1) Table-top equipment



(2) Floor-standing equipment



6.5. Test levels and performance criterion

Test Level		Performance Criteria
Air Discharge	±2kV, ±4kV and ±8kV	B
Contact Discharge	±4kV	

Performance criteria B description: During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. After the test, the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the EUT is used as intended.

6.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

6.7. Test procedure

Air Discharge:
The test was applied on non-conductive surfaces of EUT. The round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT. After each discharge, the discharge electrode was removed from the EUT. The generator was re-triggered for a new single discharge and repeated 20 times for each pre-selected test point. This procedure was repeated until all the air discharge completed.

Contact Discharge:
All the procedure was same as air discharge. Except that the generator was re-triggered for a new single discharge. The tip of the discharge electrode was touching the EUT before the discharge switch was operated.

Indirect discharge for horizontal coupling plane:
At least 20 single discharges were applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

Indirect discharge for vertical coupling plane:
At least 20 single discharges were applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, was placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges were applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

6.8. Test result

Ambient Condition : 23.5 ℃ 50.8 %RH 101.4 kPa

Test Site: DDT 3# Shield Room Power supply: AC 230V/50Hz, Battery

Test Times: 20 times at each point for contact discharge; 20 times at each point for air discharge.

Operation Mode	Type of discharge	Test Level	Test Point	Performance		Result
				Required	Observation	(Pass/Fail)
5V/2A load mode	Contact to EUT	±4kV	1,2,3	B	A	Pass
	Contact to Coupling Planes	±4kV	Coupling Planes	B	A	Pass
	Air	±2kV, ±4kV, ±8kV	1,2,4,5,6, 7	B	A	Pass
Charging + 5V/2A load mode	Contact to EUT	±4kV	1,2	B	A	Pass
	Contact to Coupling Planes	±4kV	Coupling Planes	B	A	Pass
	Air	±2kV, ±4kV, ±8kV	1,2,3,4,5, 6,7	B	A	Pass

Test Point:

No.	Description	No.	Description	No.	Description
1	LOGO	4	USB port	7	LED
2	Metal	5	Key	8	/
3	Type-C port	6	Gap	9	/

Observation Description:
A: Operation as intend, no loss of function during test and after test.

Photo of ESD point on EUT:

6.9. Test photo

7. Continuous Radio Frequency Disturbances

7.1. General information

Test and report Engineer	:	Elosky Liu
Test and report Date	:	Oct. 26, 2020

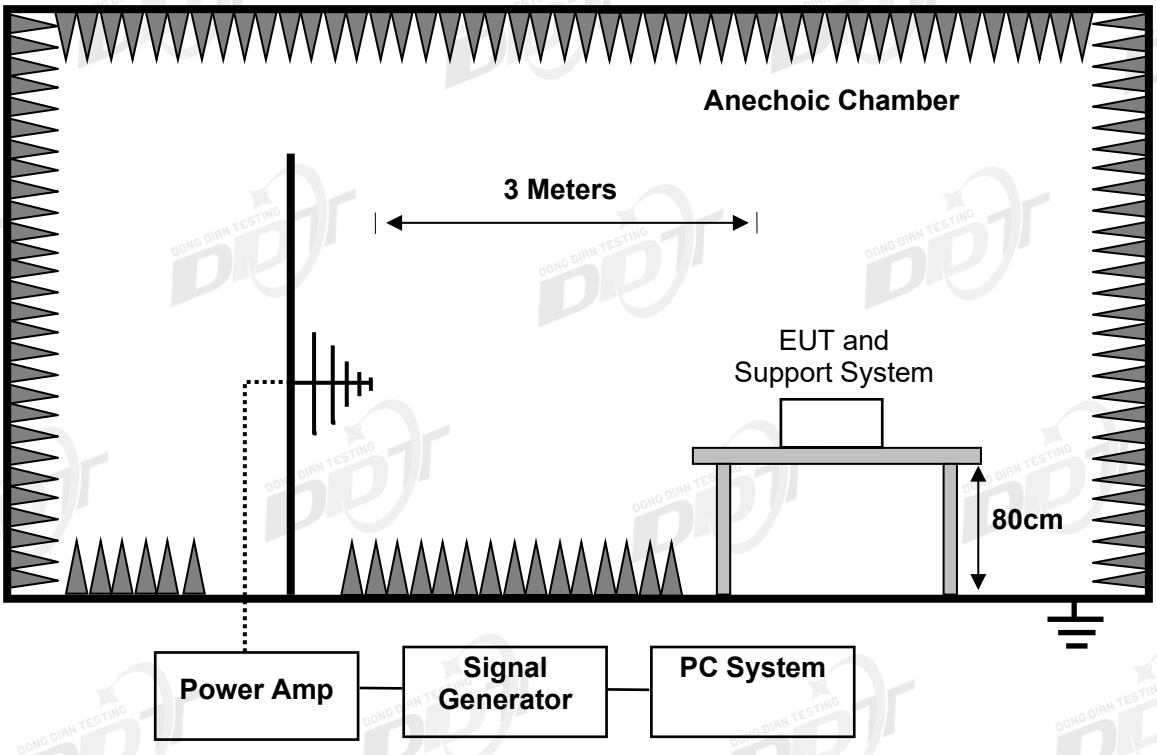
7.2. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Signal Generator	Agilent	N5172B	MY53050018	Sep. 24, 2020	1 Year
Amplifier	Wonder	HPA80M1000M500	101	Jul. 10, 2020	1 Year
Amplifier	Wonder	HPA1000M2500M300	102	Jul. 10, 2020	1 Year
Amplifier	Wonder	HPA2500M6000M200	103	Jul. 10, 2020	1 Year
Power meter	Agilent	E4417A	MY45100568	Sep. 24, 2020	1 Year
Power sensor	Agilent	E9323	MY44420907	Sep. 24, 2020	1 Year
Power sensor	Agilent	E9323	US40410405	Sep. 24, 2020	1 Year
Log-periodic antenna	Schwarzbeck	STLP 9149	587	N/A	N/A
Log-periodic antenna	Schwarzbeck	STLP 9128D special	090	N/A	N/A
Field strength probe	PMM	EP-601	611WX80209	Nov. 08, 2019	1 Year

7.3. Test and reference standards

EN 55035:2017, EN 61000-4-3: 2006+A2: 2010

7.4. Block diagram of test setup



7.5. Test levels and performance criterion

Swept frequency test		Performance Criteria
Frequency (MHz)	80 to 1000	A
Field Strength	3V/m rms voltage level of the unmodulated signal	
Modulation	AM modulated to a depth of 80% by a sine wave of ☒1kHz,☐400Hz(note 1)	
Step Size	1% increments	
Dwell time	< 5 Sec.	

Spot frequency test		Performance Criteria
Frequency (MHz)	1800, 2600, 3500, 5000	A
Field Strength	3V/m rms voltage level of the unmodulated signal	
Modulation	AM modulated to a depth of 80% by a sine wave of ☒1kHz, ☐400Hz(note 1)	
Dwell time	< 5 Sec.	

Note 1: The 1kHz modulation may be replaced by a different audio modulation frequency more appropriate for a given EUT if, for example, 1kHz is not within the operating audio range of the EUT.

Performance criteria A description for devices with the audio output function: The measured acoustic interference ratio and/or the measured electrical interference ratio during the test shall be -20 dB or better.

For equipment with audio output function:

☐The acoustic measurement method was selected according to clause G6.4.1 of EN 55035.

☐The electrical measurement method was selected according to clause G6.4.2 of EN 55035.

Performance criteria A for devices with the telephony function.

Frequency range MHz	Acoustic or electrical interference ratio	Equivalent direct measurement		
		dB(SPL)	Digital dBm0	Analogue dBm0
80 to 1000	-0 dB	75	-30	-30

Note: At the step in the frequency range, the lower limit shall be applied.
The interference ratio (electrical or acoustic) shall meet the limits in column 2; or,
The acoustic level of the demodulated audio shall be less than the limits in column 3; or
The digitally coded level of demodulated audio shall be less than limits in column 4; or,
The analogue level of the demodulated audio shall be less than the limits in column 5.

Performance criteria A description for other devices: During and after the test the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a minimum performance level specified by the manufacturer when the EUT is used as intended.

7.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

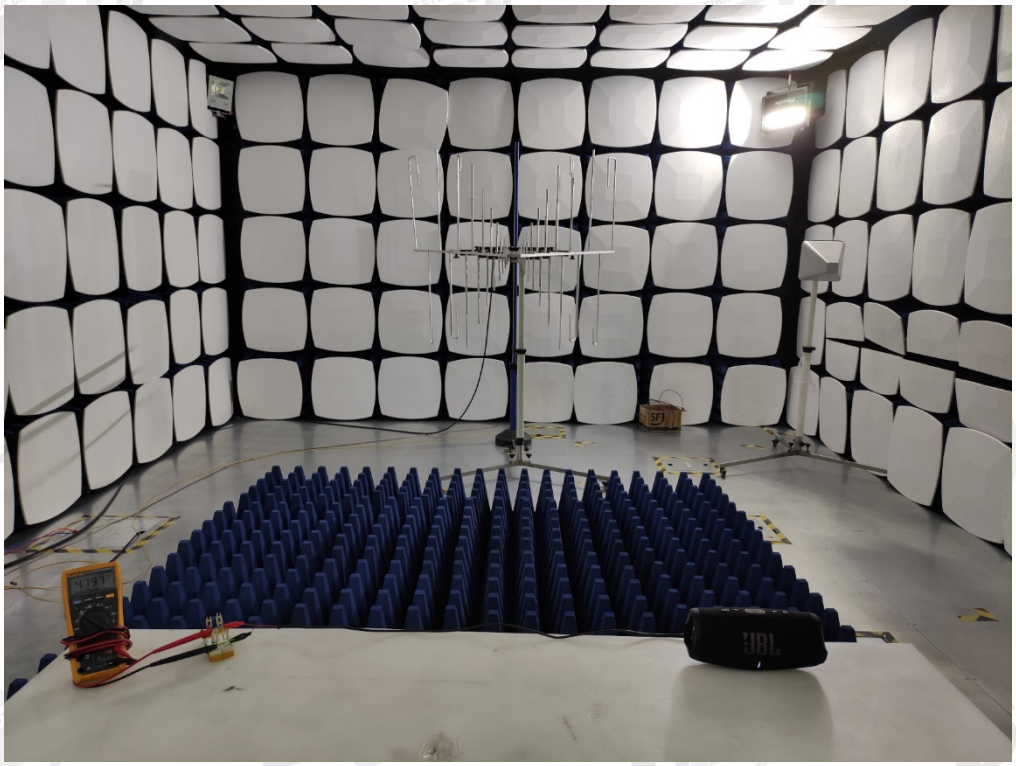
7.7. Test procedure

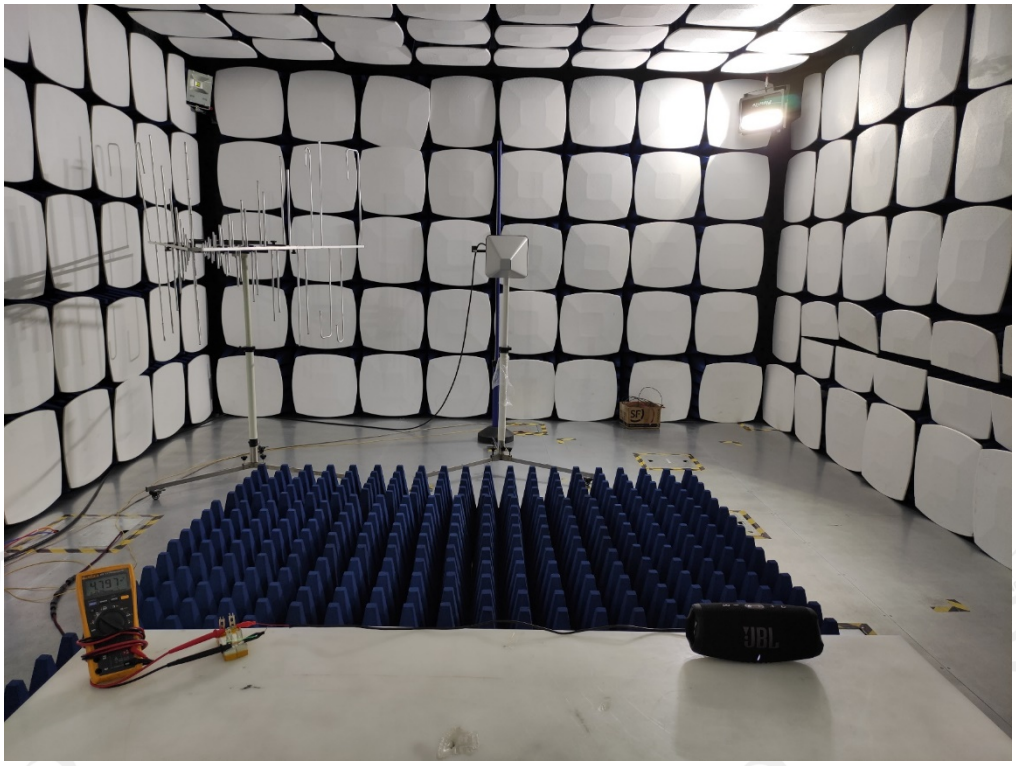
The field sensor is placed on the EUT table (0.8 meter above the ground) which is 3 meters away from the transmitting antenna. Through the signal generator, power amplifier and transmitting antenna to produce a uniformity field strength (3V/m measured by field sensor) around the EUT table from frequency range specified and records the signal generator‘s output level at the same time for whole measured frequency range. Then, put EUT and its simulators on the EUT turn table and keep them 3 meters away from the transmitting antenna which is mounted on an antenna tower and fixes at 1 meter height above the ground. Using the recorded signal generator’s output level to measure the EUT from frequency range specified and both horizontal & vertical polarization of antenna must be set and measured. Each of the four sides of EUT must be faced this transmitting antenna and measures individually.

7.8. Test result

Ambient Condition : 23.1 ℃ 52.1 %RH 101.4 kPa						
Power supply: AC 230V/50Hz, Battery						
Field Strength : ☒3V/m ☐10V/m Steps: ☒1% ☐other: Dwell time: ☒1s ☐other:						
Swept Frequency Range: ☒80MHz---1GHz; ☒1800MHz, 2600MHz, 3500MHz, 5000MHz; ☐other:						
Modulation : ☐None ☒AM ☒1kHz ☐400Hz Modulation depth: ☒80% ☐other:						
Operation Mode	EUT Position towards antenna	Antenna: Horizontal		Antenna: Vertical		Result
		Required	Observation	Required	Observation	(Pass/Fail)
Charging + 5V/2A load mode	Front	A	A	A	A	Pass
	Right	A	A	A	A	Pass
	Rear	A	A	A	A	Pass
	Left	A	A	A	A	Pass
5V/2A load mode	Front	A	A	A	A	Pass
	Right	A	A	A	A	Pass
	Rear	A	A	A	A	Pass
	Left	A	A	A	A	Pass
Observation Description: A: Operation as intend, no loss of function during test and after test.						

7.9. Test photo





8. Electrical Fast Transients (EFT) Test Report

8.1. General information

Test and report Engineer	:	Elosky Liu
Test and report Date	:	Oct. 26, 2020

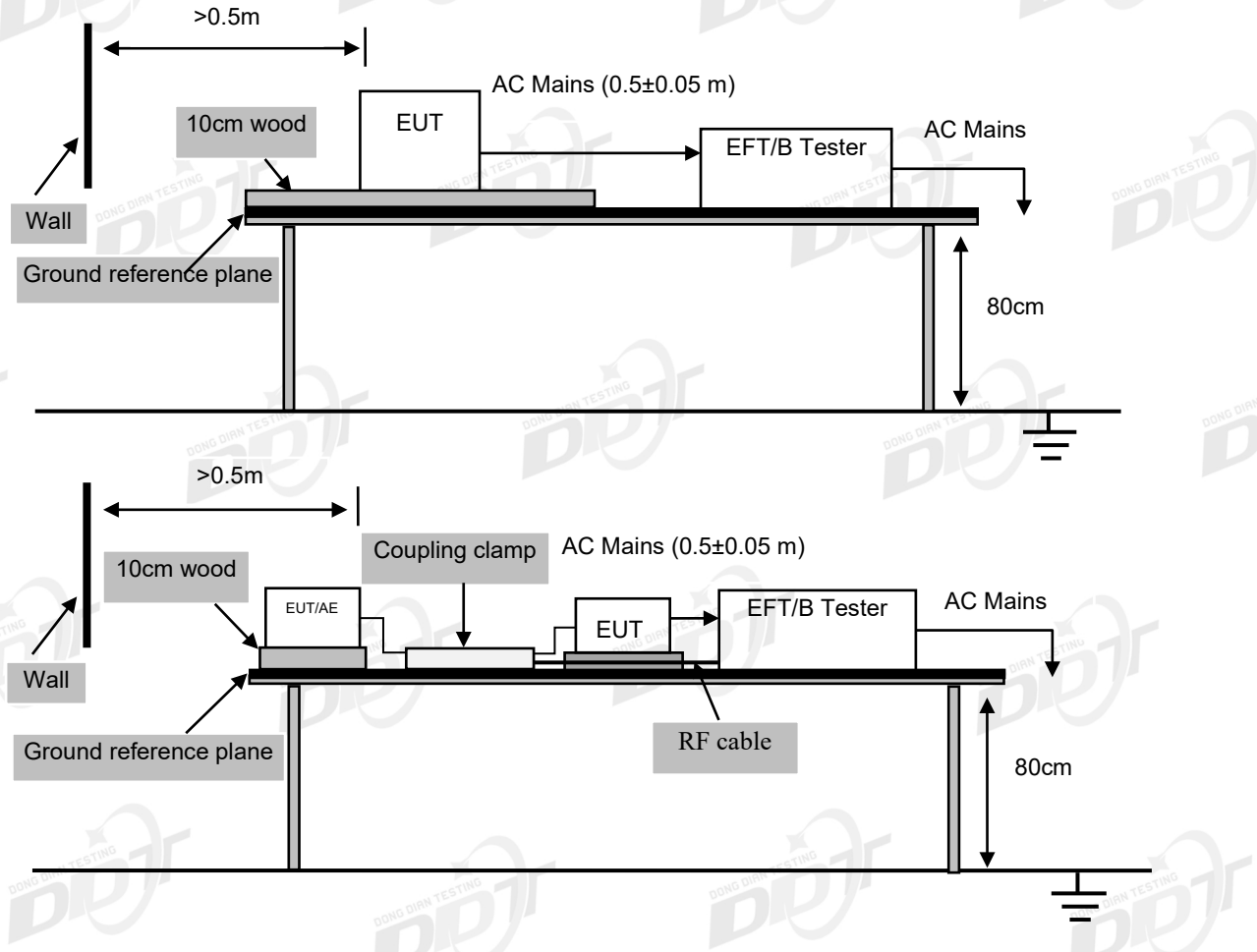
8.2. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EFT Generator	EMC PARTNER	TRA3000F	TRA3000F-1502	Jul. 01, 2020	1 Year
Capacitive coupling clamp	EMC PARTNER	103648	CN-EFT1000-1514	Jul. 01, 2020	1 Year

8.3. Test and reference standards

EN 55035:2017, EN 61000-4-4:2012

8.4. Block diagram of test setup



8.5. Test levels and performance criterion

Test Level			Performance Criteria
Test voltage	±1kV For AC mains Port	±0.5kV for dc input or signal Port	B
Repetition Frequency	5kHz	5kHz	
Burst Duration	15ms	15ms	
Burst Period	300ms	300ms	
Inject Time(s)	120s	120s	
Inject Method	Direct For AC mains port	Direct For signal port Direct For dc input port	
Inject Line	AC Mains of adapter	DC input of adapter or Capacitive coupling clamp	

Note: This test shall be additionally performed on analogue/digital data ports, and DC network power ports, of radio equipment and associated ancillary equipment, if the cables may be longer than 3 m.

Performance criteria B description: During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. After the test, the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the EUT is used as intended.

8.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

8.7. Test procedure

The EUT and its simulators were placed on the ground reference plane and were insulated from it by a wood support 0.1m ± 0.01m thick. The ground reference plane was 1m*1m metallic sheet with 0.65mm minimum thickness. This reference ground plane was project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane was more than 0.5m. All cables to the EUT was placed on the wood support, cables not subject to EFT/B was routed as far as possible from the cable under test to minimize the coupling between the cables.

For DC input and AC power ports:
The EUT was connected to the power mains by using a coupling device that couples the EFT interference signal to AC power lines. Both positive transients and negative transients of test voltage were applied during compliance test and the duration of the test can’t less than 2mins.

For signal ports:

The capacitive coupling clamp was connected to the power by using a coupling device that couples the EFT interference signal to capacitive coupling clamp. Both positive transients and negative transients of test voltage were applied during compliance test and the duration of the test can't less than 2mins.

8.8. Test result

Ambient Condition : 23.1 ℃ 51.3 %RH 101.4 kPa						
Test Site: DDT 4# Shield Room Power supply: AC 230V/50Hz						
Port: ☒AC Mains ☐DC Supply ☐Signal: Burst Period: ☒300ms ☐Other:						
Coupling: ☒Direct ☐Capacitive Clamp			Test Time: ☒120S ☐Other:			
Repetition Frequency: ☒5kHz ☐100kHz			Burst Duration: ☒15ms ☐Other:			
Operation Mode	Line/port	Test Voltage	Performance			Result
			Required	Observation(+)	Observation(-)	(Pass/Fail)
Charging + 5V/2A load mode	L	1kV	B	A	A	Pass
	N	1kV	B	A	A	Pass
	L-N	1kV	B	A	A	Pass
Observation Description: A: Operation as intend, no loss of function during test and after test.						

8.9. Test photo

9. Surges Test Report

9.1. General information

Test and report Engineer	:	Elosky Liu
Test and report Date	:	Oct. 26, 2020

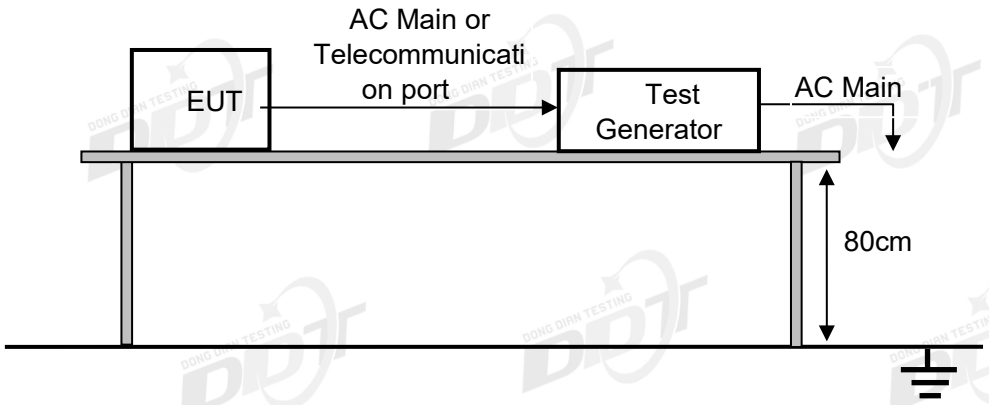
9.2. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Surge Generator	EMC PARTNER	TRANSIENT2000	MIG0603IN2S-T-1504	Jul. 01, 2020	1 Year
Coupling/Decoupling Network for communication port	EMC PARTNER	CDN-UTP8 ED3	1557	Dec. 05, 2019	1 Year
Coupling/Decoupling Network for signal port	EMC PARTNER	CDN-KIT1000	CDN-KIT1000-1510	Jul. 01, 2020	1 Year

9.3. Test and reference standards

EN55035:2017, EN 61000-4-5:2014/AC: 2017

9.4. Block diagram of test setup



9.5. Test levels and performance criterion

Test level for AC mains ports		Performance Criterion
Line to Line	1kV 1.2/50(8/20) μs	B
Line to Ground	2kV 1.2/50(8/20) μs	B
Analogue/digital data port, Port type: unshielded symmetrical		Performance Criterion
Line to Ground	1 kV and 4kV 10/700(5/320) μs (used with the primary protection)	C
Line to Ground	1 kV 10/700(5/320) μs (used without the primary protection)	C
Note: Applicable only to ports which, according to the manufacturer's specification, the cable lengths greater than 3m.		

Analogue/digital data port, Port type: coaxial or shielded		Performance Criterion
Shield to ground	0.5 kV 1.2/50(8/20) μs	B
Note: Applicable only to ports which, according to the manufacturer's specification, the cable lengths greater than 3m.		
DC network power port		Performance Criterion
Line to reference ground	0.5 kV 1.2/50(8/20) μs	B
Note: Applicable only to ports which, according to the manufacturer's specification, 1. The cable lengths greater than 3m; 2. May connect directly to outdoor cables.		

Performance criteria B description: During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. After the test, the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the EUT is used as intended.

9.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

9.7. Test procedure

For line-to-neutral coupling mode, provide a 0.5 kV/1 kV 1.2/50 us voltage surge (at open-circuit condition) and 8/20 us current surge to EUT selected points.
For line-to-ground coupling mode, provide a 0.5 kV/1 kV/2 kV 1.2/50 us voltage surge (at open-circuit condition) and 8/20 us current surge to EUT selected points.

The number of pulses applied shall be as follows:
• Five positive pulses line-to-neutral at 90° phase
• Five negative pulses line-to-neutral at 270° phase

The following additional pulses are required only if the EUT has an earth connection or if the EUT is earthed via any AE.
• Five positive pulses line-to-earth at 90° phase
• Five negative pulses line-to-earth at 270° phase
• Five negative pulses neutral-to-earth at 90° phase
• Five positive pulses neutral-to-earth at 270° phase
Maximum 1/min repetition rate are applied during test.
Different phase angles are done individually.

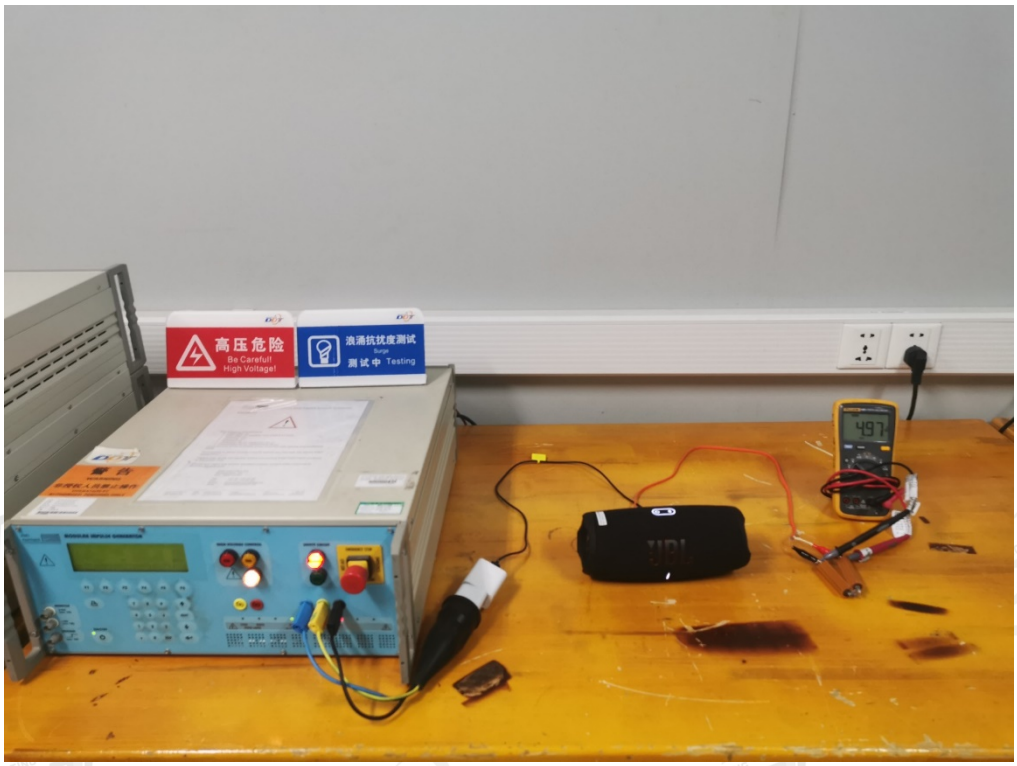
For telecommunication surge test, each line of internet port to ground coupling mode, provide a 1.0kV 10/700us voltage surge (at open-circuit condition) and 5/320us current surge to EUT selected points.

At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are applied during test.
Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

9.8. Test result

Ambient Condition : 23.1 ℃ 50.2 %RH 101.4 kPa											
Test Site: DDT 3# Shield Room Power supply: AC 230V/50Hz											
Line : ☒AC Mains ☐DC Supply ☐Signal											
Wave Type: ☒1.2/50us-8/20us ☐10/700 us-5/320us											
Pluse times: ☒five positive pluses at 90°phase, five negitive pluses at 270°phase. ☐five positive pluses and five negitive pluses. Pulse Interval: 60S											
Operation Mode	Line/Port	0.5kV			1kV			2kV			Result
		Performance			Performance			Performance			(Pass/Fail)
		Required	+	-	Required	+	-	Required	+	-	
Charging + +5V/2A load mode	L-N	B	A	A	B	A	A	/	/	/	Pass
	L-PE	/	/	/	/	/	/	/	/	/	/
	N-PE	/	/	/	/	/	/	/	/	/	/
Observation Description: A: Operation as intend, no loss of function during test and after test.											

9.9. Test photo



10. Continuous Conducted Disturbances

10.1. General information

Test and report Engineer	:	Elosky Liu
Test and report Date	:	Oct. 26, 2020

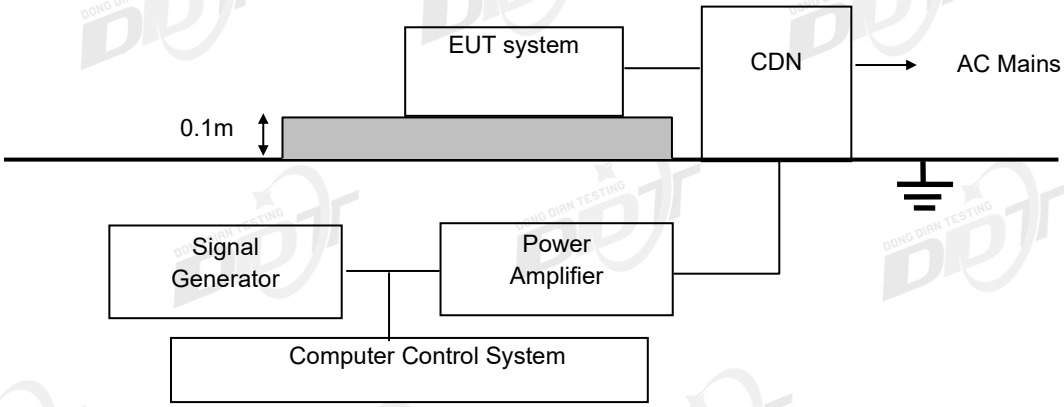
10.2. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Conducted immunity test system	FRANKONIA	CIT-10	126B1207	Jul. 01, 2020	1 Year
CDN	SCHWARZBECK	CDN M2+M3PE 16A	ZC01558	Sep. 28, 2020	1 Year
Attenuation	BIRD	DAM75W (6dB)	1143	Oct. 15, 2020	1 Year
EM clamp	FRANKONIA	EMCL	132A1143/2012	Oct. 15, 2020	1 Year
Test Software	CD-LAB	F5.318	1435V9992015	N/A	N/A
Audio Analyzer	R&S	UPL16	100167	Jul. 01, 2020	1 Year

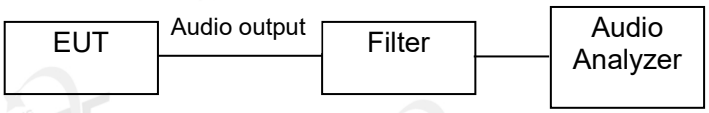
10.3. Test and reference standards

EN 55035:2017, EN 61000-4-6:2014/AC: 2015

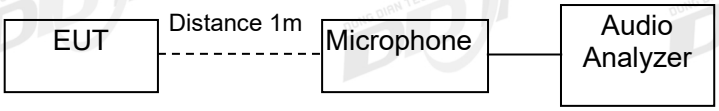
10.4. Block diagram of test setup



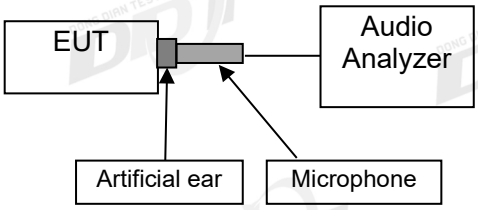
For audio output function (electrical measurement, direct connection to EUT)



For audio output function (acoustic measurement)



For audio output function (on-ear acoustic measurement)



10.5. Test levels and performance criterion

Test Level		Performance Criteria
Frequency and Field Strength	0.15MHz to 10MHz, 3V rms voltage level of the unmodulated signal	A
	10MHz to 30MHz, 3V to 1V rms voltage level of the unmodulated signal	
	30MHz to 80MHz, 1V rms voltage level of the unmodulated signal	
Modulation	AM modulated to a depth of 80% by a sine wave of ☒1kHz, ☐400Hz (note 1)	
Step Size	1% increments	
Dwell time	1 Sec.	

Note 1: The 1kHz modulation may be replaced by a different audio modulation frequency more appropriate for a given EUT if, for example, 1kHz is not within the operating audio range of the EUT.

Performance criteria A description for devices with the audio output function: The measured acoustic interference ratio and/or the measured electrical interference ratio during the test shall be -20 dB or better.

☐The acoustic measurement method was selected according to clause G6.4.1 of EN 55035.

☐The electrical measurement method was selected according to clause G6.4.2 of EN 55035.

Performance criteria A for devices with the telephony function.

Frequency range MHz	Acoustic or electrical interference ratio	Equivalent direct measurement		
		dB(SPL)	Digital dBm0	Analogue dBm0
0.15 to 30	-20 dB	55	-50	-50
30 to 80	-10 dB	65	-40	-40

Note: At the step in the frequency range, the lower limit shall be applied.

The interference ratio (electrical or acoustic) shall meet the limits in column 2; or,

The acoustic level of the demodulated audio shall be less than the limits in column 3; or

The digitally coded level of demodulated audio shall be less than limits in column 4; or,

The analogue level of the demodulated audio shall be less than the limits in column 5.

Performance criteria A description for other devices: During and after the test the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a minimum performance level specified by the manufacturer when the EUT is used as intended.

10.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

10.7. Test procedure

The EUT are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).

The disturbance signal described below is injected to EUT through CDN.
The EUT operates within its operational mode(s) under intended climatic conditions after power on.
The frequency range is swept from 0.150MHz to ☒80MHz/☐230MHz, the interference signal level according to clause 10.5, and with the disturbance signal 80% amplitude modulated with a ☒1kHz / ☐400Hz sine wave.
The rate of sweep shall not exceed $1.5*10^{-3}$decades/s. Where the frequency is swept incrementally; the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

10.8. Test result

Ambient Condition : 23.4 ℃ 51.5 %RH 101.4 kPa						
Test Site: DDT 4# Shield Room Power supply: AC 230V/50Hz						
Modulation Signal: ☒1kHz ☐400Hz 80% AM ☐Other: Steps: ☒1% ☐other: Dwell time: ☒1s ☐other:						
Operation mode	Frequency Range	Injected Position	Strength(e.m.f) (unmodulated)	Required	Observation	Result (Pass/Fail)
Charging + 5V/2A load mode	0.15MHz-10MHz	AC port	3V	A	A	Pass
	10MHz-30MHz		3V-1V	A	A	Pass
	30MHz-80MHz		1V	A	A	Pass
Note 1: this row only for the device with audio output function. Note 2: this device without the telephony function.						
Observation Description: A: Operation as intend, no loss of function during test and after test.						

10.9. Test photo

11. Power-Frequency Magnetic Fields

11.1. General information

Test and report Engineer	:	Elosky Liu
Test and report Date	:	Oct. 26, 2020

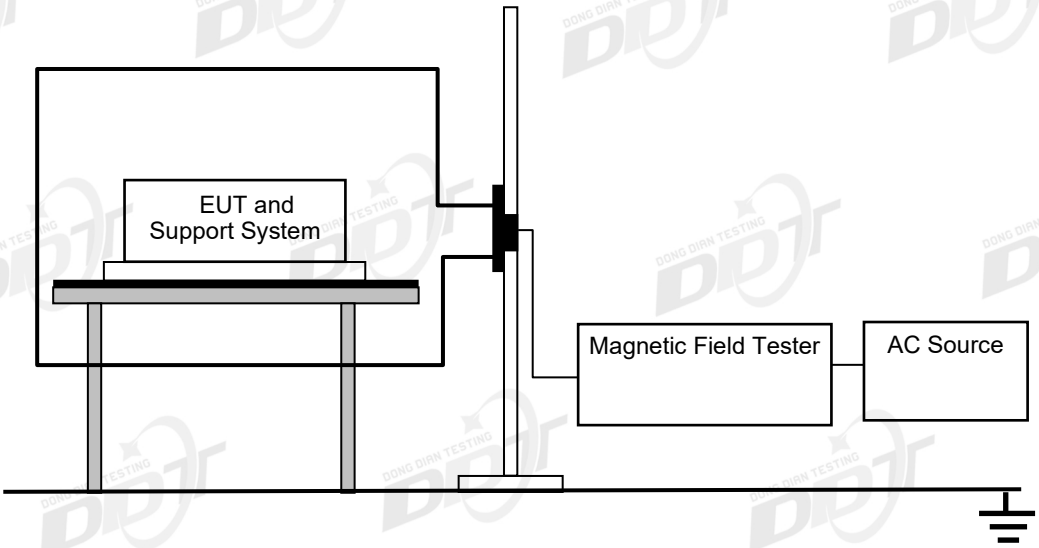
11.2. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Generator	EMC PARTNER	TRA3000F	TRA3000F-1502	Jul. 01, 2020	1 Year
Magnetic Field Tester	EMC-PARTNER	MF1000-1	207	Jul. 01, 2020	1 Year

11.3. Test and reference standards

EN 55035:2017, EN 61000-4-8:2010

11.4. Block diagram of test setup



11.5. Test levels and performance criterion

Level	Magnetic Field Strength (A/m)	Performance Criterion
1	1	A

Performance criteria A description: During and after the test the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a minimum performance level specified by the manufacturer when the EUT is used as intended.

11.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

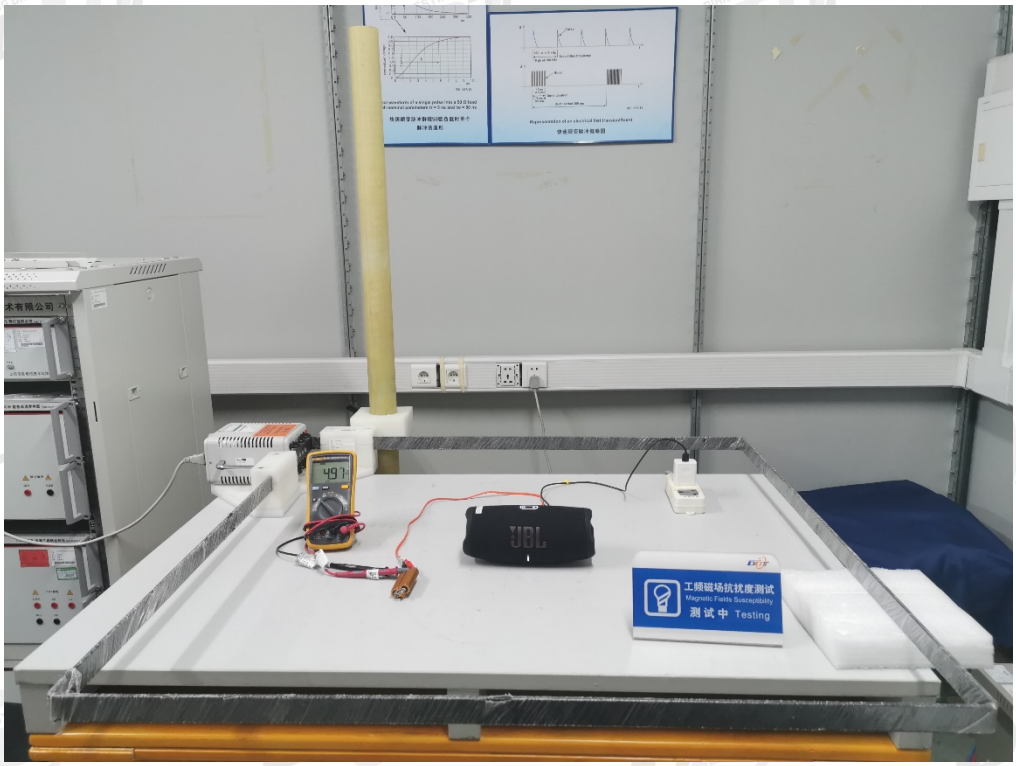
11.7. Test procedure

The EUT shall be subjected to the test magnetic field by using the induction coil of standard dimensions (1m*1m) and shown in Section 11.4 Then induction coil shall then be rotated by 90°in order to expose the EUT to the test field with different orientations.

11.8. Test result

Ambient Condition : 22.6 ℃ 51.5 %RH 101.4 kPa						
Test Site: DDT 4# Shield Room		Power supply: AC 230V/50Hz, Battery				
Operation Mode	Test Level	Testing Duration	Coil Orientation	Required	Observation	Result (Pass/Fail)
Charging + 5V/2A load mode	1A/m	5 min / coil	X	A	A	Pass
	1A/m	5 min / coil	Y	A	A	Pass
	1A/m	5 min / coil	Z	A	A	Pass
5V/2A load mode	1A/m	5 min / coil	X	A	A	Pass
	1A/m	5 min / coil	Y	A	A	Pass
	1A/m	5 min / coil	Z	A	A	Pass
Observation Description: A: Operation as intend, no loss of function during test and after test.						

11.9. Test photo



12. Voltage Dips and Interruptions

12.1. General information

Test and report Engineer	:	Elosky Liu
Test and report Date	:	Oct. 26, 2020

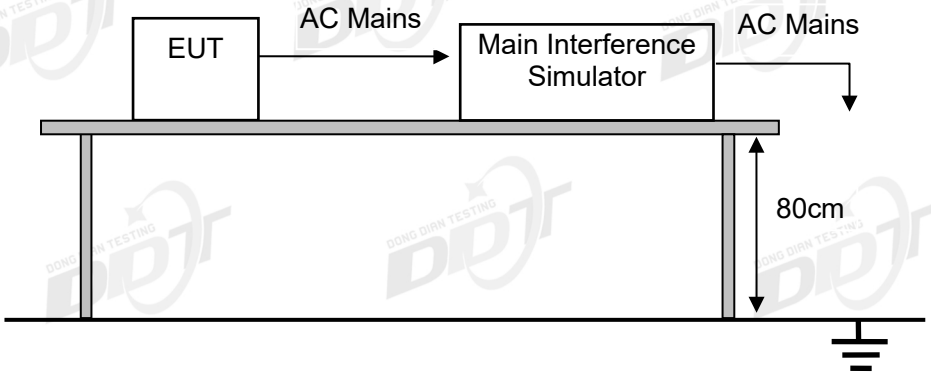
12.2. Test equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
DIPS TESTER	EMC PARTNER	TRA3000D	EXT-TRA3000D-1510	Jul. 01, 2020	1 Year

12.3. Test and reference standards

EN 55035:2017, EN 61000-4-11:2004/A1:2017

12.4. Block diagram of test setup



12.5. Test levels and performance criterion

Test Level %UT	Duration (in period)	Performance Criterion
＜5	0.5	B
70	25 for 50Hz/30 for 60Hz	C
＜5	250 for 50Hz/300 for 60Hz	C

Performance criteria B description: During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. After the test, the EUT shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacturer, when the EUT is used as intended.
Performance criteria C description: During and after testing, a temporary loss of function is allowed, provided the function is self recoverable, or can be restored by the operation of the controls or cycling of the power to the EUT by the user in accordance with the manufacturer's instructions. Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

12.6. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	Description	other
USB Output Cable	N/A	N/A	Length: 1.00m, unshielded, non-magnetic ring	N/A
R load	N/A	N/A	5V/2A	N/A
Adapter	HUAWEI	HW-050450C00	Input: 100-240V~ 50/60Hz, Output: 5V/2A or 4.5V/5A or 5V/4.5A	N/A

12.7. Test procedure

The EUT and test generator were setup as shown. The interruptions are introduced at selected phase angles with specified duration. Record any degradation of performance.

12.8. Test result

Ambient Condition : 24.2 ℃ 51.8 %RH 101.4 kPa

Test Site: DDT 4# Shield Room Power supply: AC 100V/60Hz

Operation Mode	Voltage Dips & Interruptions %Ur	Duration (in period)	Phase Angle	Required	Observation	Result (Pass/Fail)
Charging + 5V/2A load mode	0	0.5P	0°, 180°	B	A	Pass
	70	30P	0°, 180°	C	A	Pass
	0	300P	0°, 180°	C	B	Pass

Observation Description:
A: Operation as intend, no loss of function during test and after test.
B: The sample stops charging during the test and automatically resumes charging after the test is completed.

Ambient Condition : 24.2 ℃ 51.8 %RH 101.4 kPa

Test Site: DDT 4# Shield Room Power supply: AC 240V/50Hz

Operation Mode	Voltage Dips & Interruptions %Ur	Duration (in period)	Phase Angle	Required	Observation	Result (Pass/Fail)
Charging + 5V/2A load mode	0	0.5P	0°, 180°	B	A	Pass
	70	25P	0°, 180°	C	A	Pass
	0	250P	0°, 180°	C	B	Pass

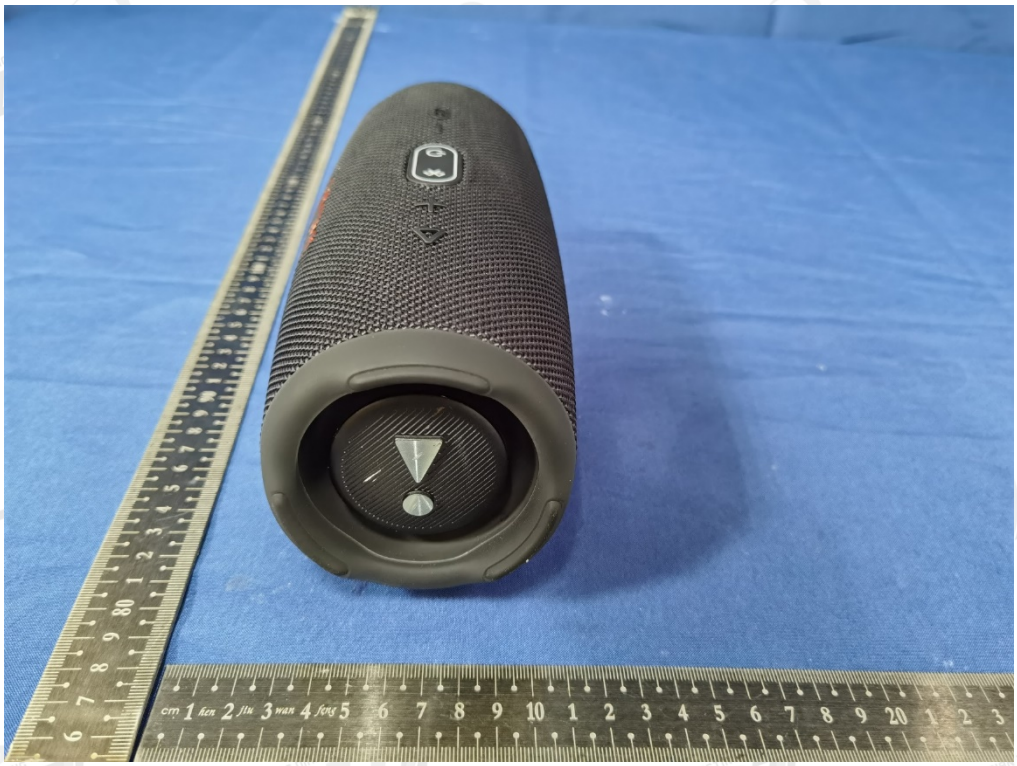
Observation Description:
A: Operation as intend, no loss of function during test and after test.
B: The sample stops charging during the test and automatically resumes charging after the test is completed.

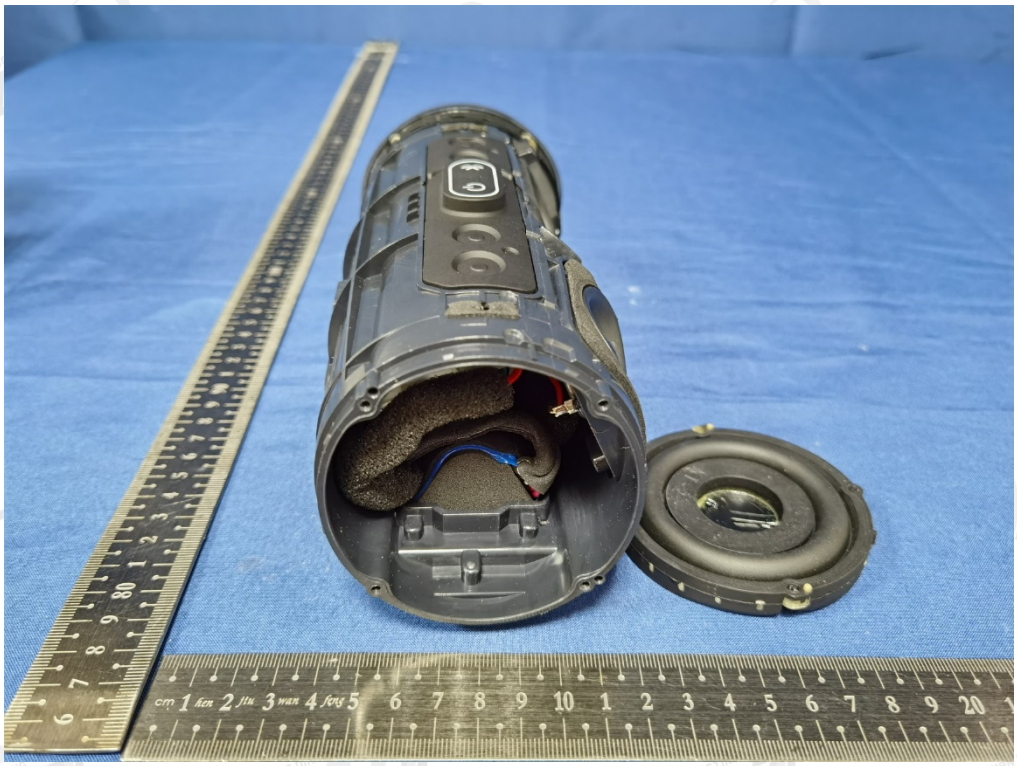
12.9. Test photo

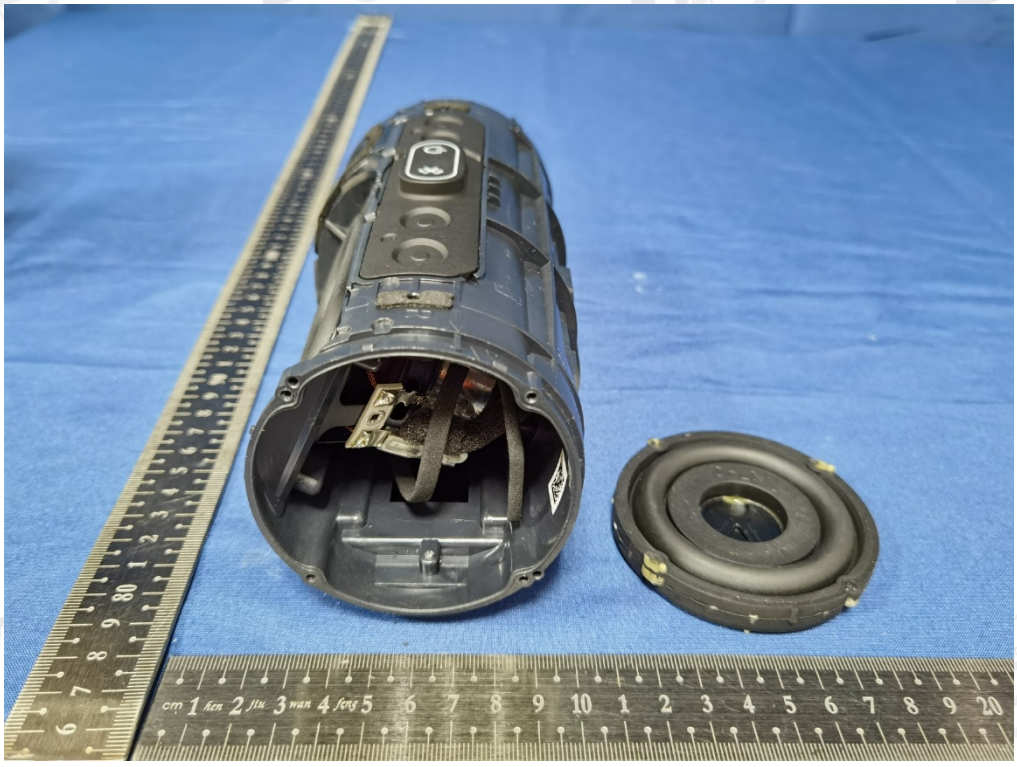
13. Photos of the EUT

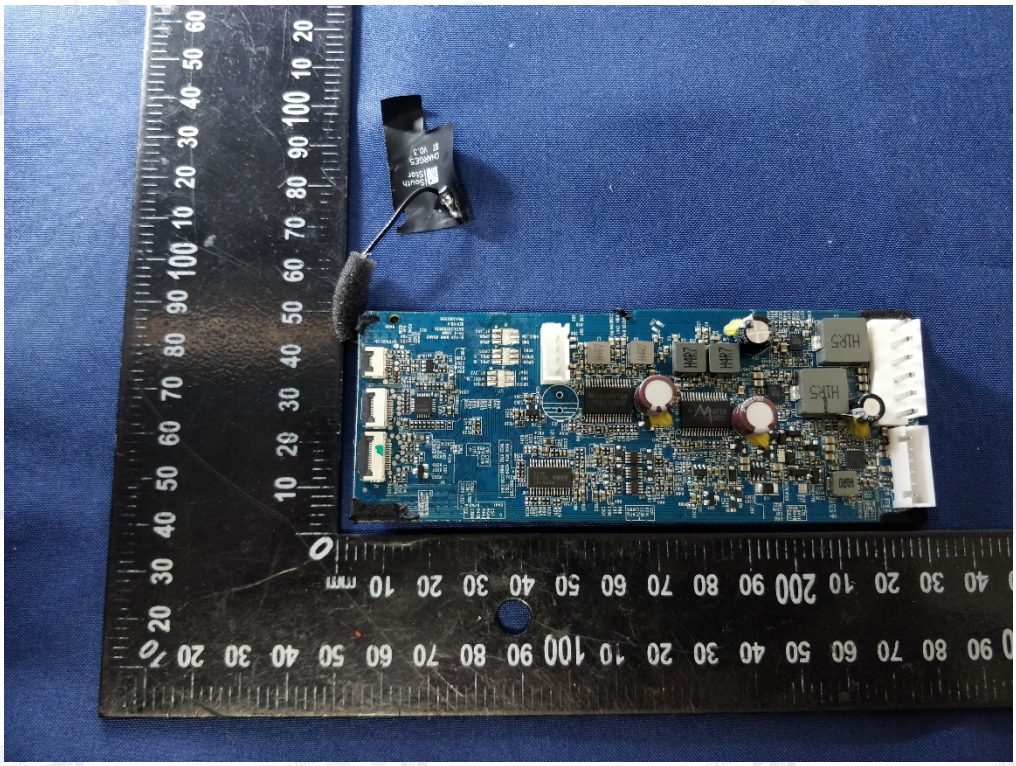

JBL

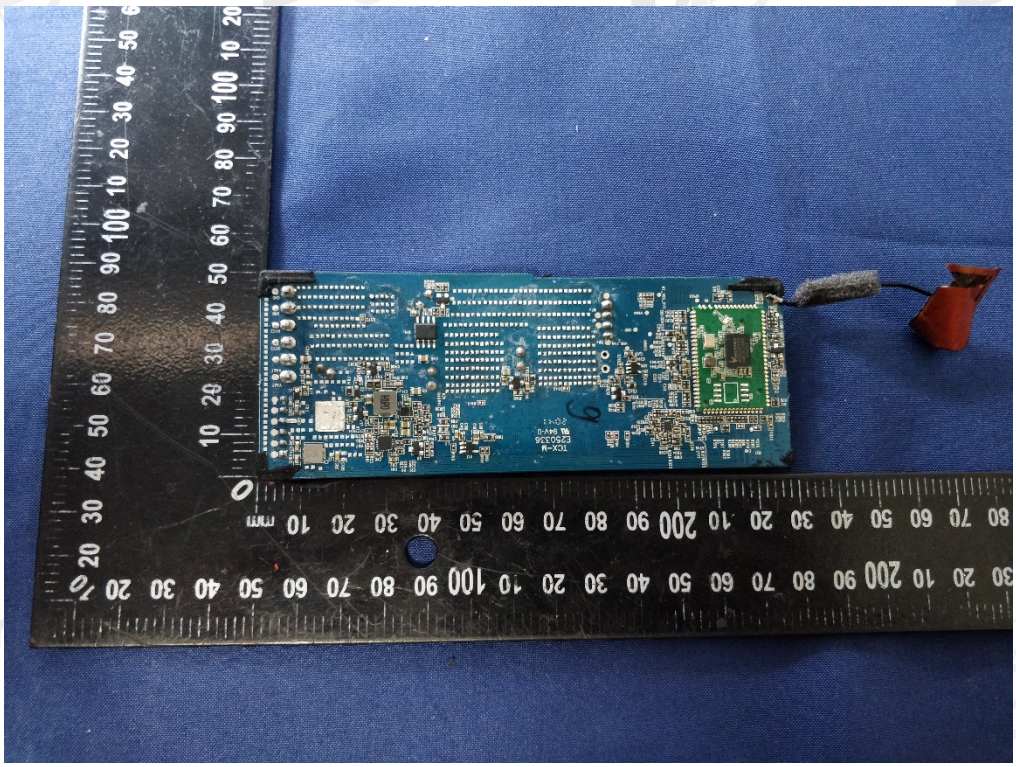

CHARGE 5

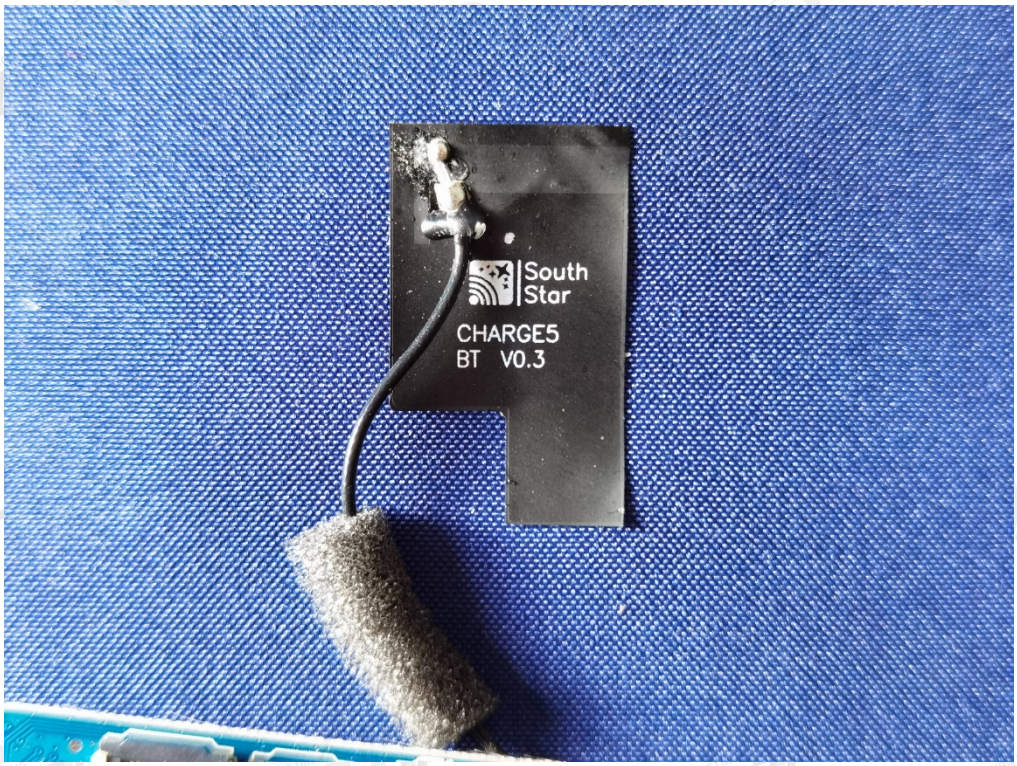


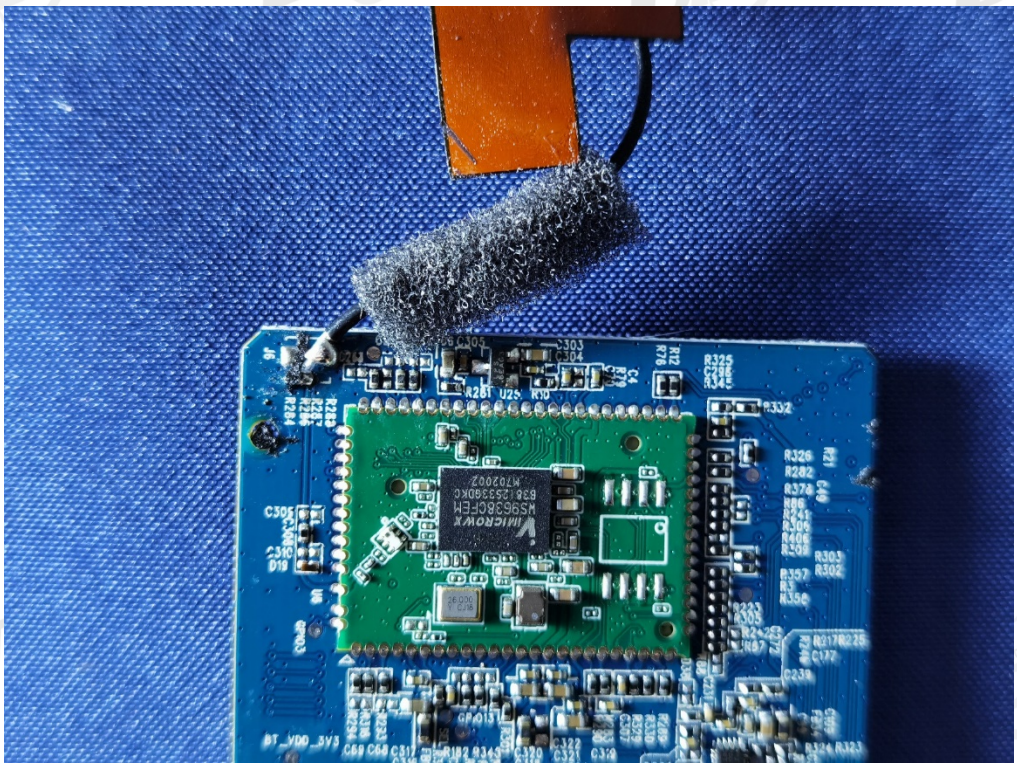


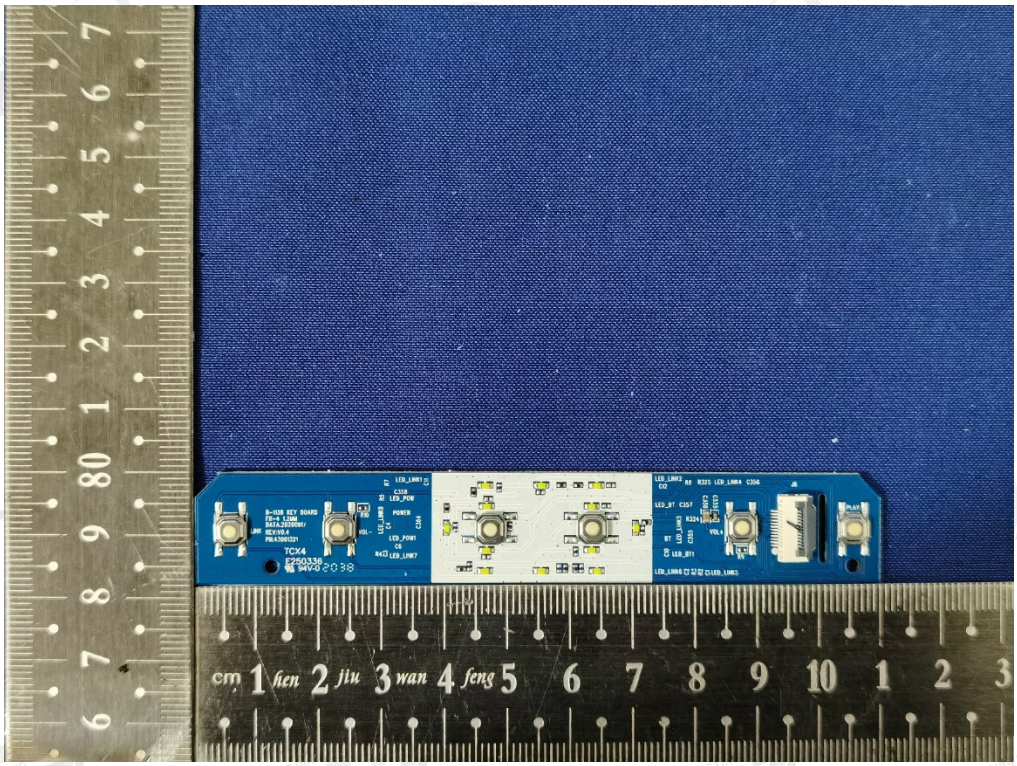







South Star
CHARGE5
BT V0.3

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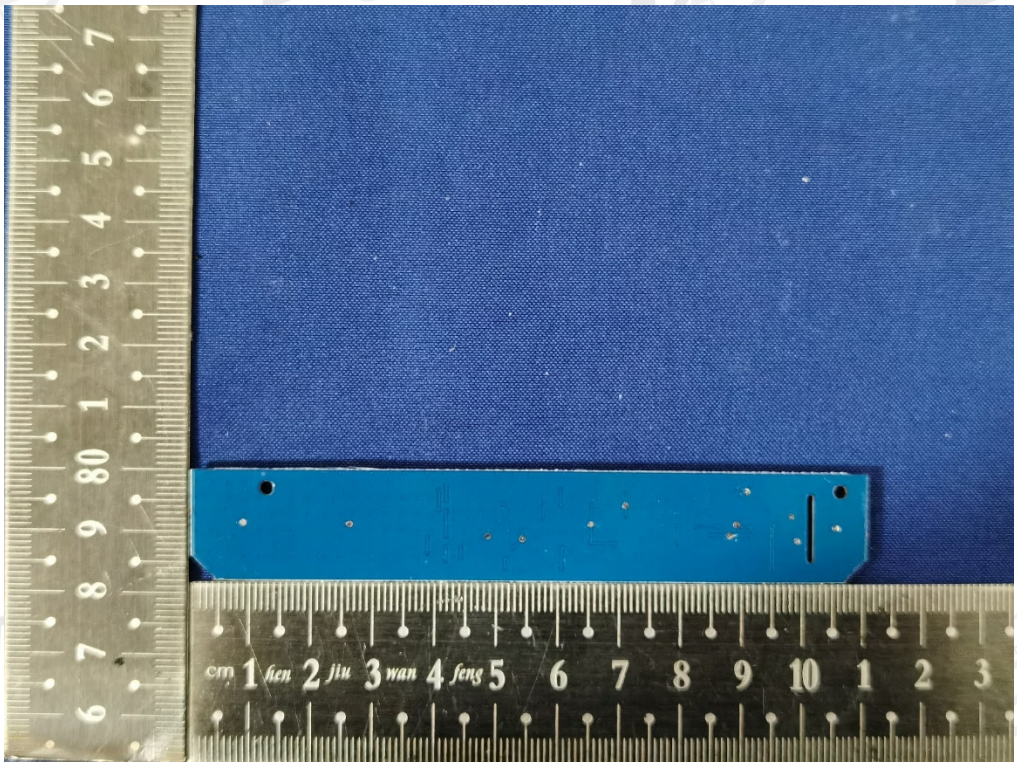
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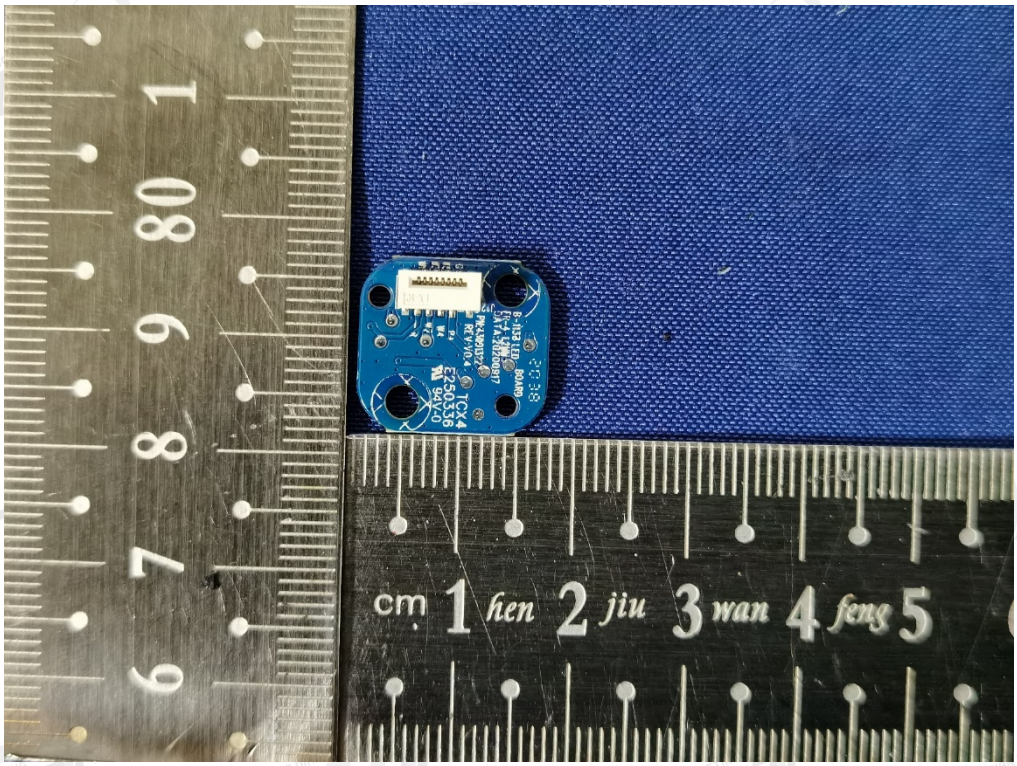
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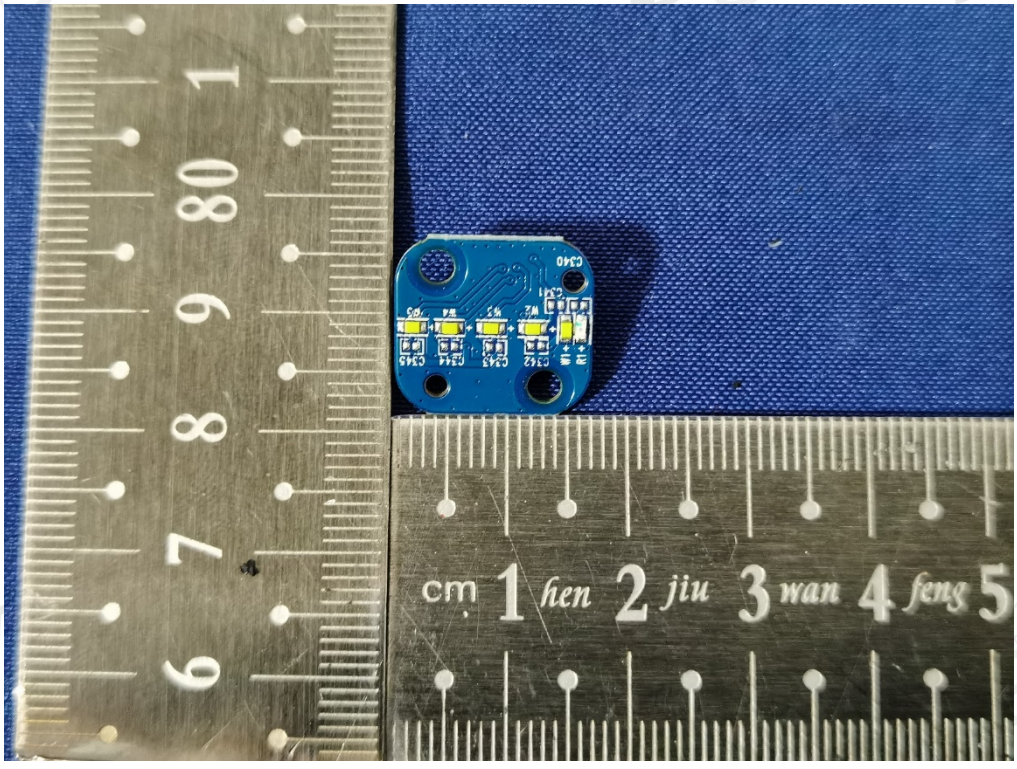
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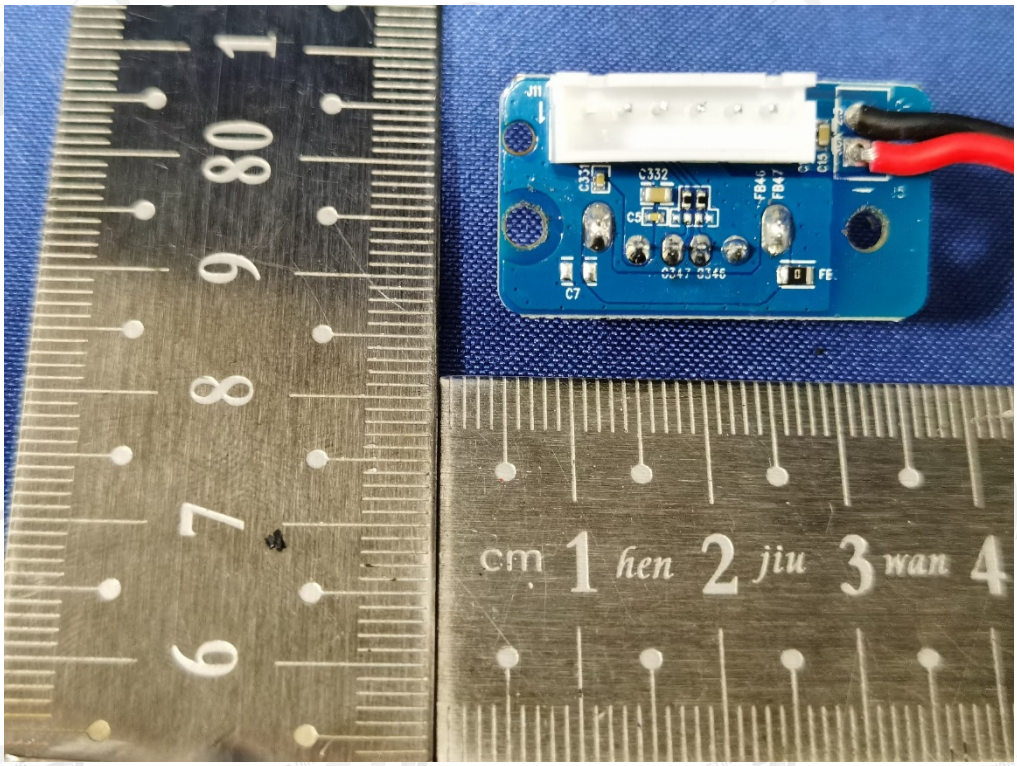
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C7
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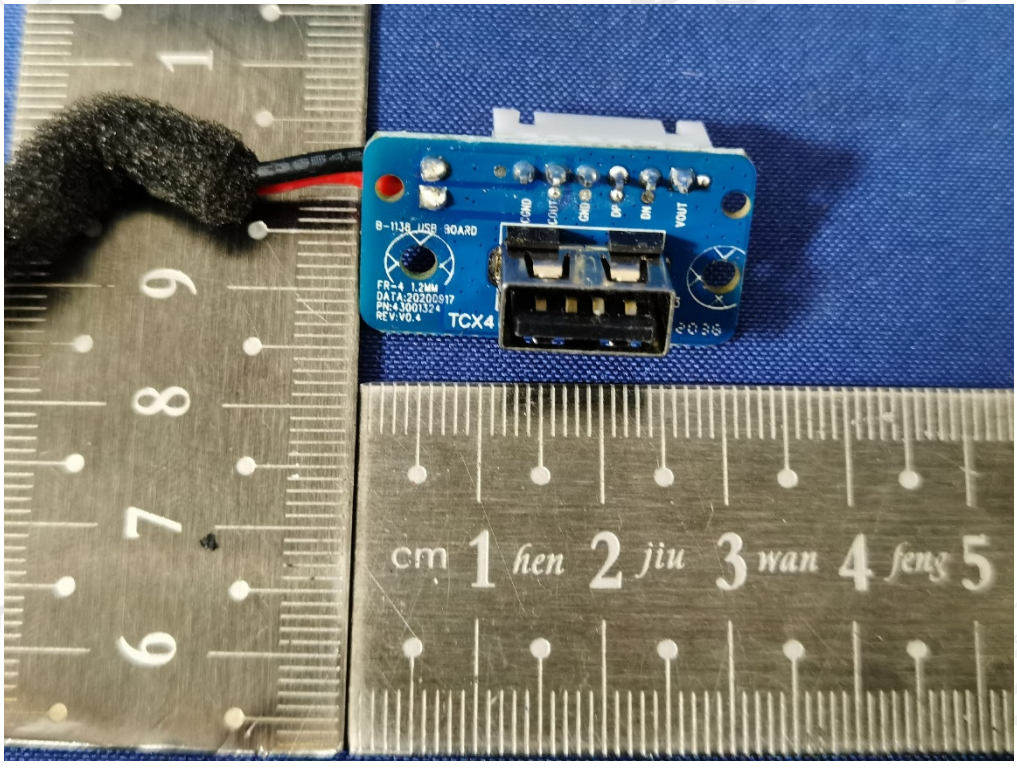
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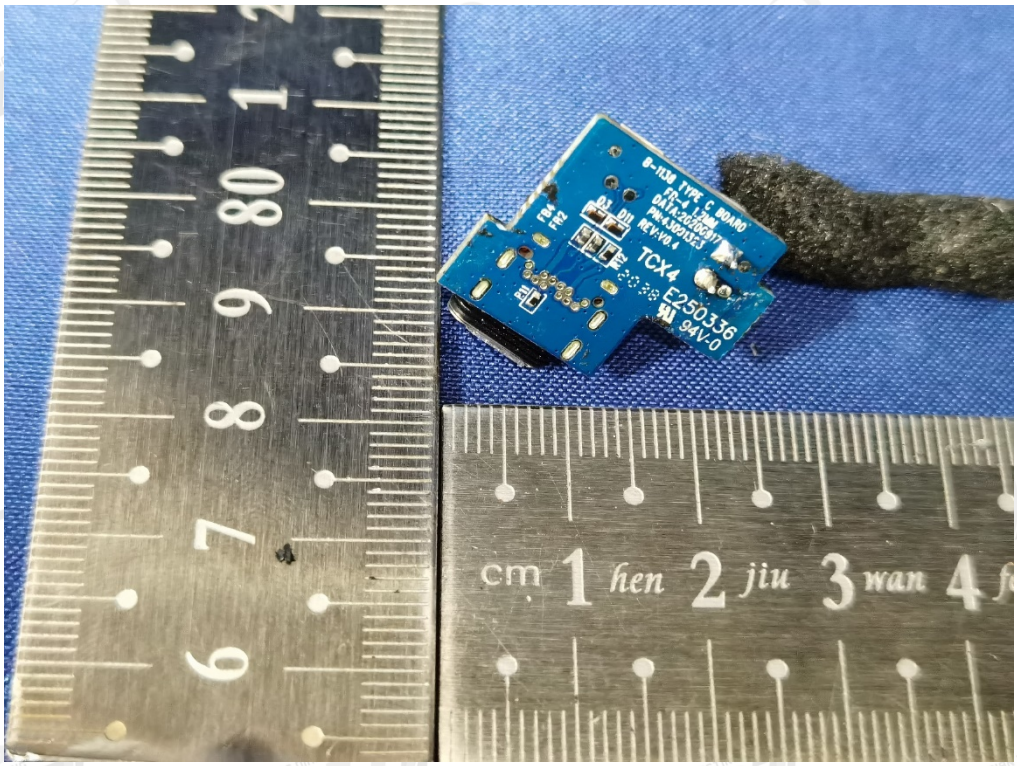
REV:V0.4
TCX4
VOUT
EN
OE
GND
SOUT
SCL
SDA
cm 1 hen 2 jiu 3 wan 4 feng 5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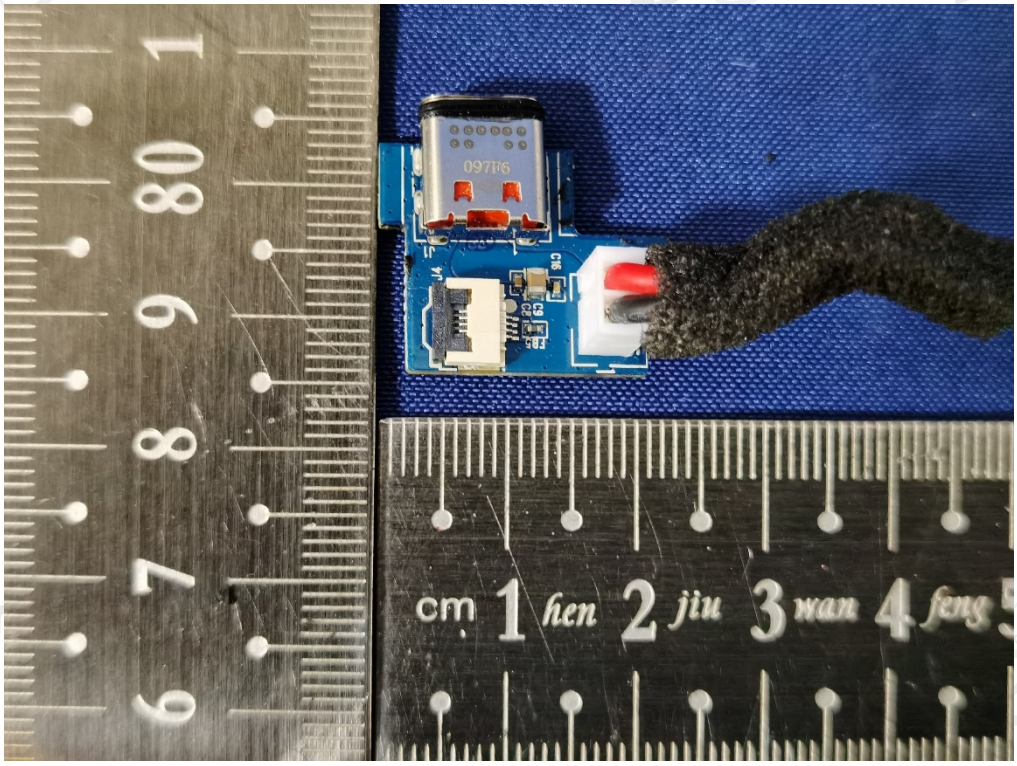
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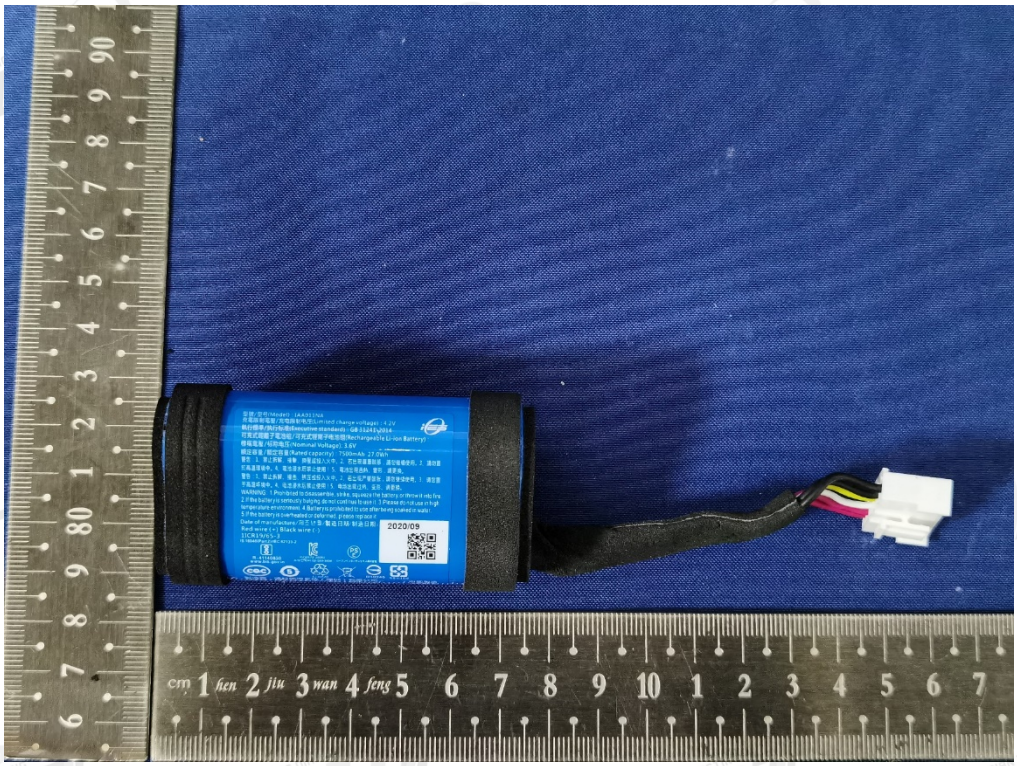
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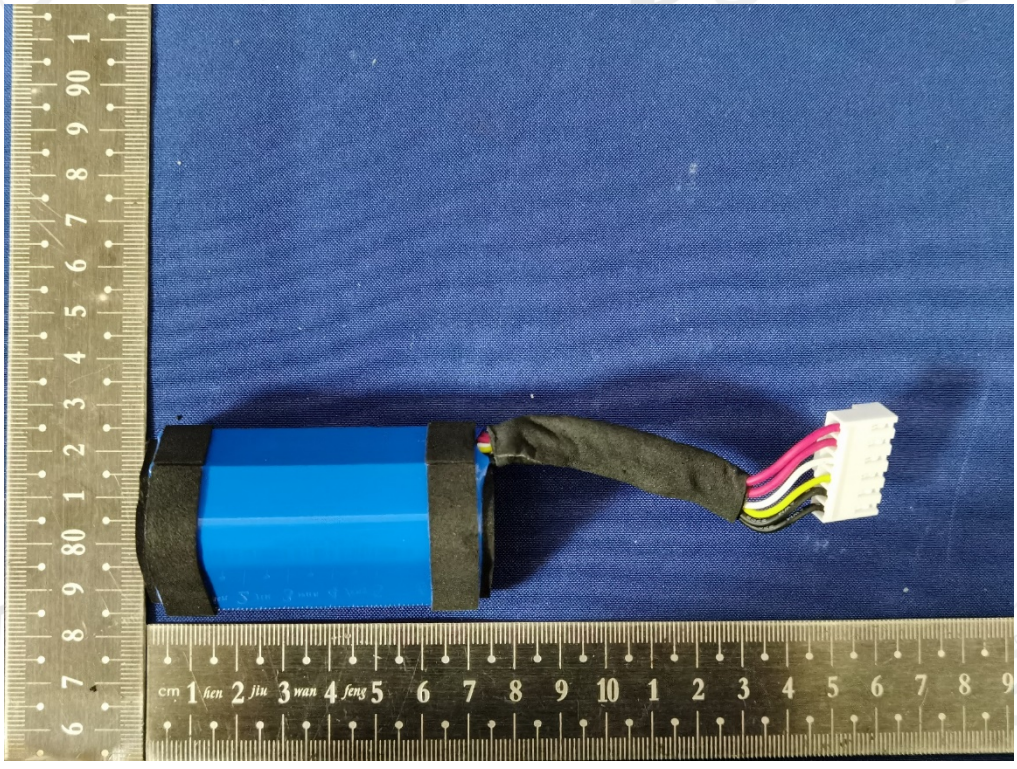

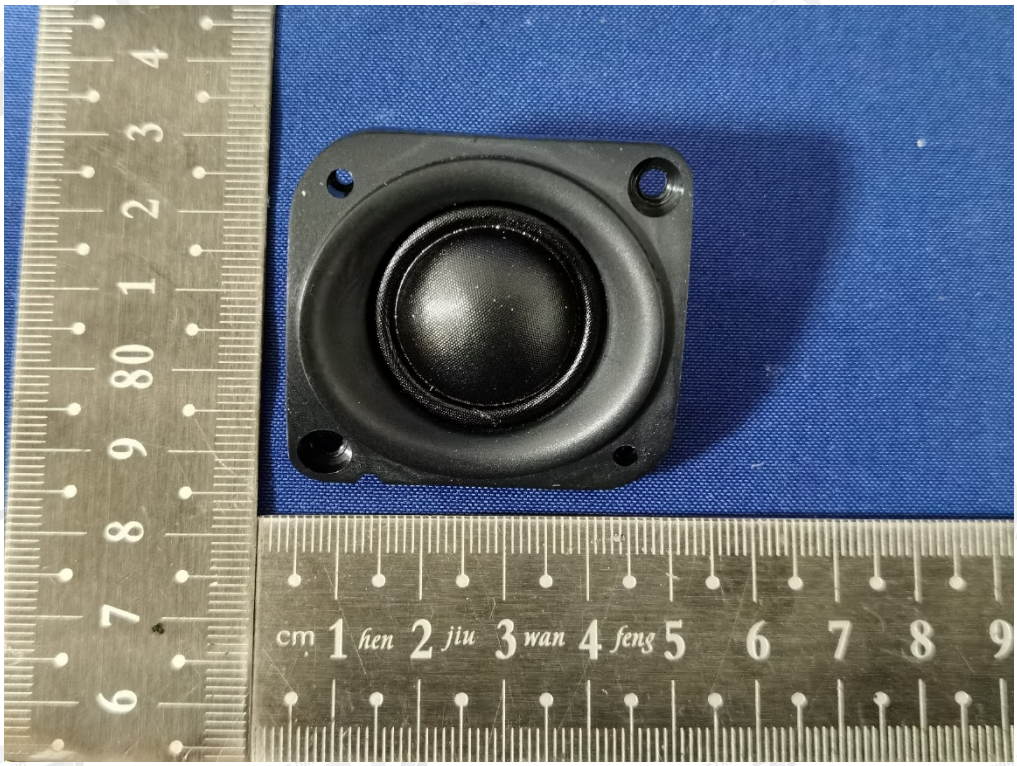
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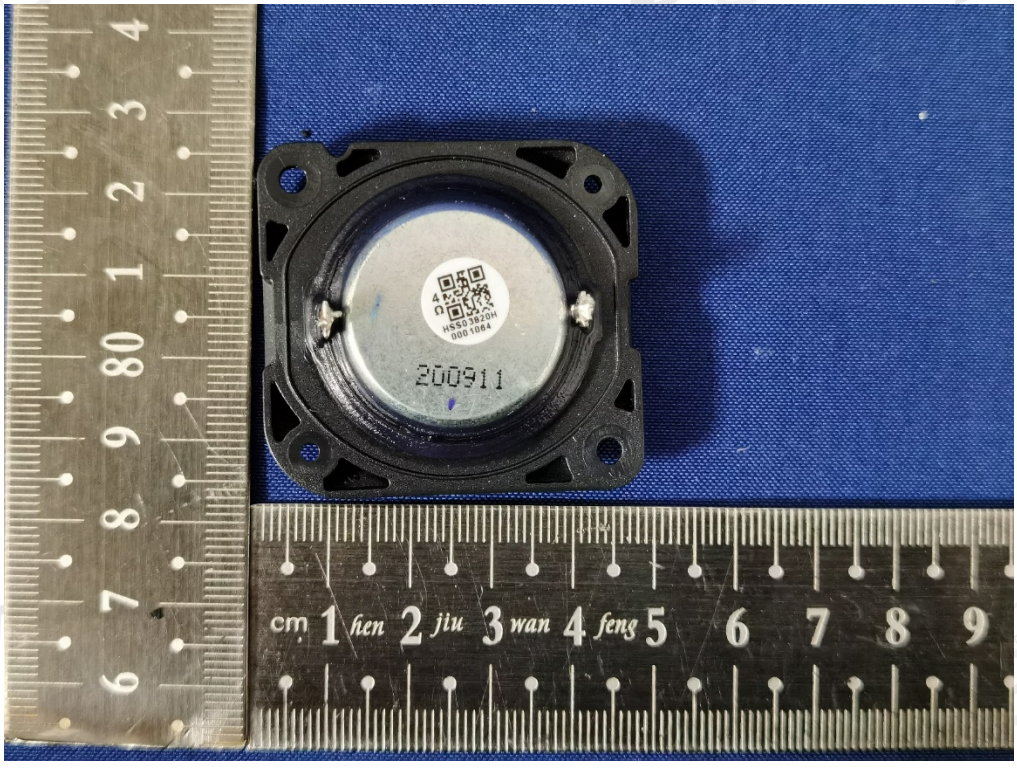
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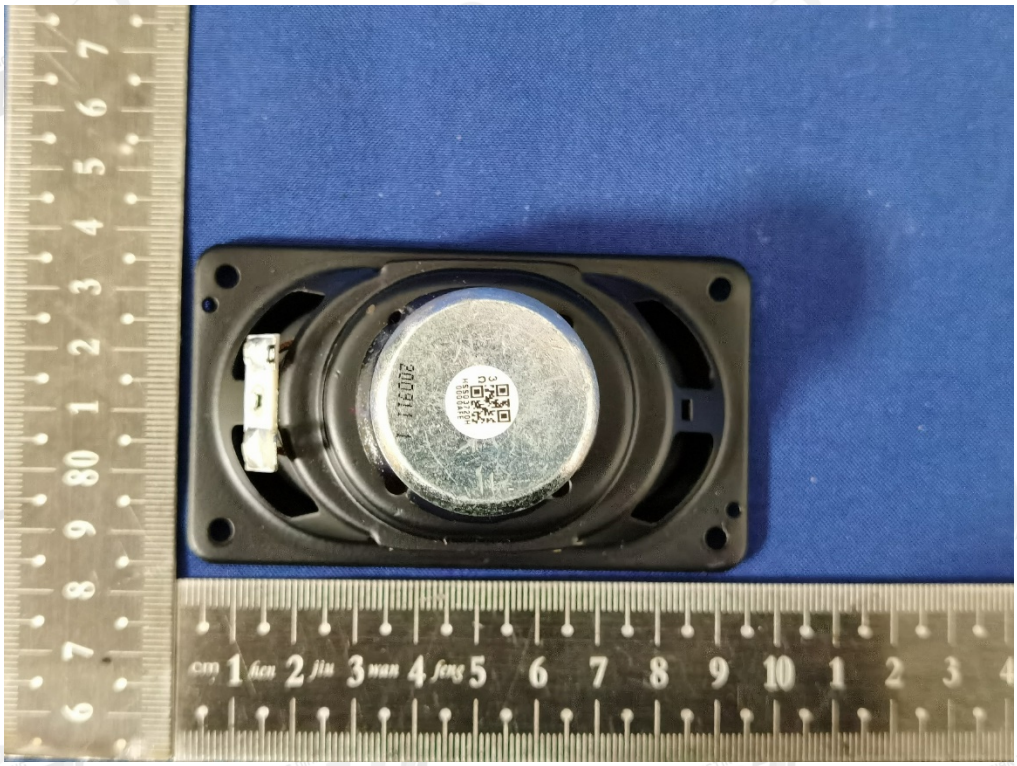

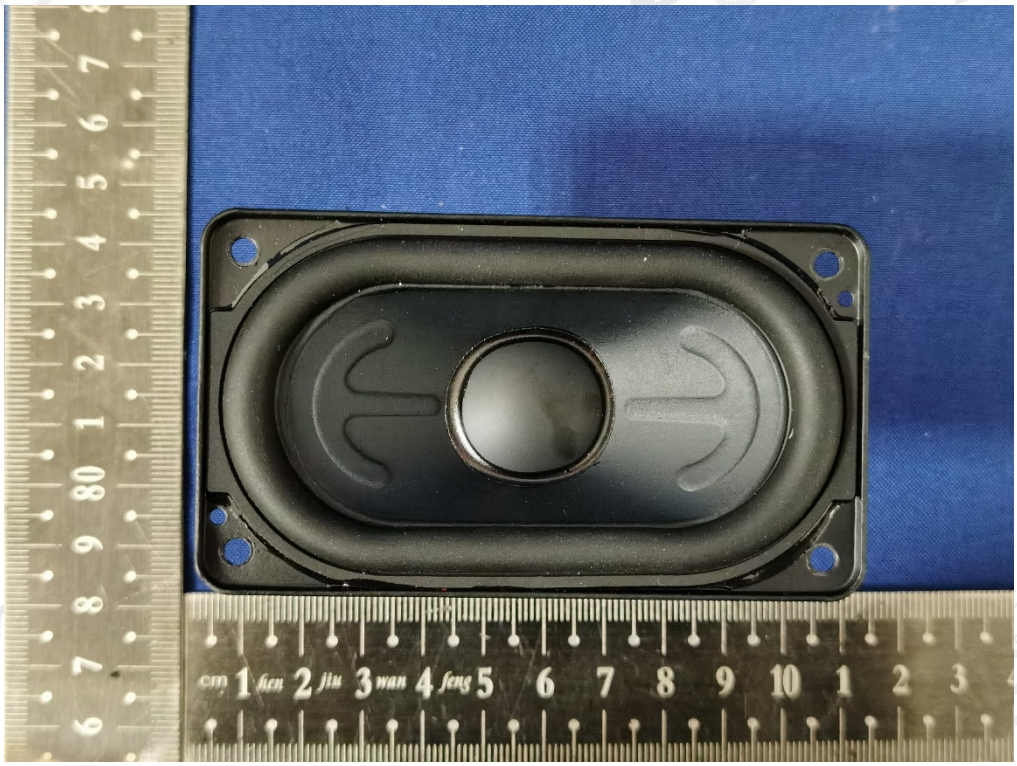

END OF REPORT