

FCC Test Report

Product Name : Bluetooth Headset
Model No. : HSC040Wa

Applicant : GN Audio A/S
Address : Lautrupbjerg 7, 2750 Ballerup, Denmark

Date of Receipt : 2022/03/18
Issued Date : 2022/04/28
Report No. : 2230636R-E3012110001-A
Report Version : V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

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Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

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Product Name : Bluetooth Headset

Applicant : GN Audio A/S

Address : Lautrupbjerg 7, 2750 Ballerup, Denmark

Manufacturer : GN Audio A/S

Model No. : HSC040Wa

EUT Rated Voltage : DC 5V by USB or DC 3.7V by Battery

EUT Test Voltage : AC 120 V / 60Hz by PC , DC 3.7V by Battery

Trade Name : Jabra

Applicable Standard : FCC CFR Title 47 Part 15 Subpart B: 2020, Class B

Test Result : Complied

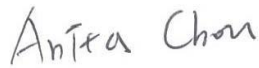
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(Director / Vincent Lin)

Laboratory Information

We, **DEKRA Testing and Certification Co., Ltd.**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scopes:

Taiwan	:	BSMI, NCC, TAF
Norway	:	DNVGL
USA	:	FCC
Japan	:	VCCI

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site : <http://www.dekra.com.tw>

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Product Photos: Please refer to the file: 2230636R-Product Photos

Revision History

Report No.	Version	Description	Issued Date
2230636R-E3012110001-A	V1.0	Initial issue of report.	2022-04-28

1. General Information

1.1. EUT Description

Product Name	Bluetooth Headset
Trade Name	Jabra
Model No.	HSC040Wa
EUT Max Frequency	2483.5MHz

Component		
Item	Brand Name (Manufacturer)	Model Name
Micro USB B male to USB A male cable	Jabra (GN Audio A/S)	Micro USB B male to USB A male cable Shielded, 1.5m
USB Dongle	Jabra (GN Audio A/S)	END060W

1.2. Mode of Operation

DEKRA has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

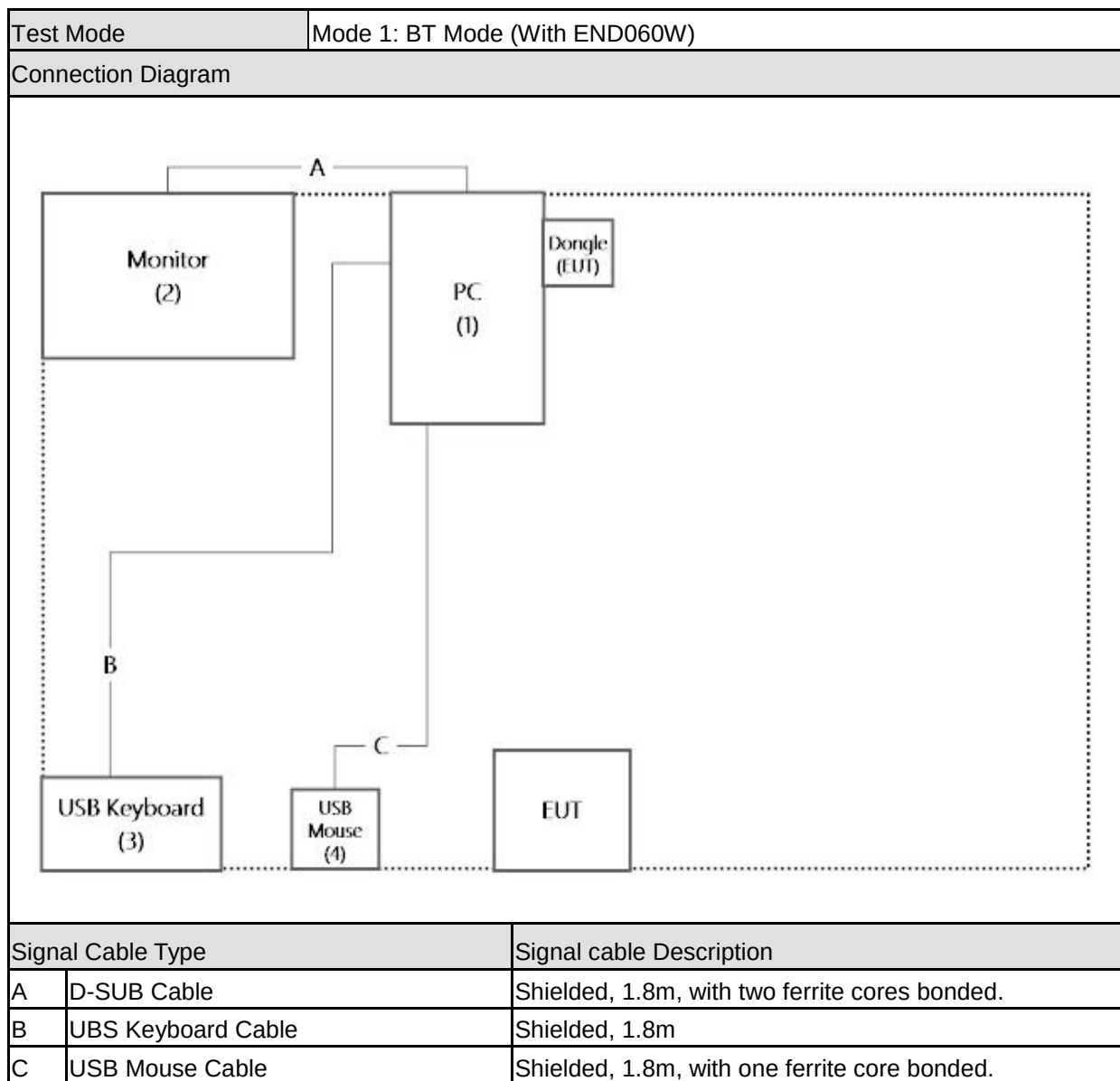
Pre-Test Mode	
Mode 1: BT Mode (With END060W)	
Mode 2: USB & Charging Mode	
Final Test Mode	
Emission	Mode 1: BT Mode (With END060W)
	Mode 2: USB & Charging Mode

1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

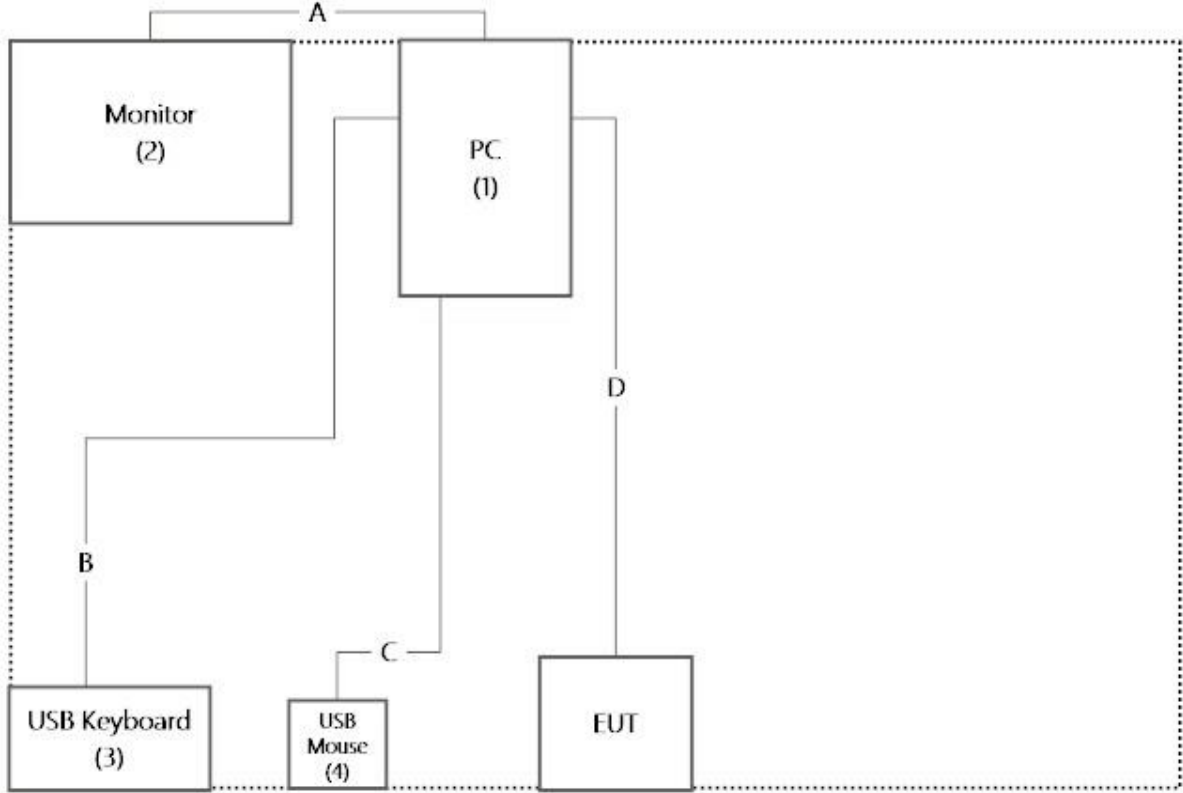
Product		Manufacturer	Model No.	Serial No.	Power Cord
1	PC	ASUS	E500 G5	J9S0GX00023K	Non-Shielded, 1.8m
2	Monitor	DELL	U2410	CN-0J257M-72872-985-0A6L	Non-Shielded, 1.8m
3	USB Keyboard	Microsoft	1576	65809394843	N/A
4	USB Mouse	Microsoft	1113	N/A	N/A

1.4. Configuration of Tested System



Note:

- ☒ Use Full system setup configuration determines Worst-Case Mode.
- ☐ Use 2dB law program determines Max. Cable Configuration and Worst-Case Mode.
- ☒ Radiated emission item test: Performed using the Horn Antenna 3dB Beamwidth to 3m from the EUT size sufficient to cover the procedure.
- ☐ Radiated emission item test: Performed using the Horn Antenna 3dB Beamwidth non 3m distance sufficient to cover the size of the EUT program.

Test Mode		Mode 2: USB & Charging Mode
Connection Diagram		
		
Signal Cable Type		Signal cable Description
A	D-SUB Cable	Shielded, 1.8m, with two ferrite cores bonded.
B	UBS Keyboard Cable	Shielded, 1.8m
C	USB Mouse Cable	Shielded, 1.8m, with one ferrite core bonded.
D	Micro USB B male to USB A male Cable	Shielded, 1.5m

Note:

- ☒ Use Full system setup configuration determines Worst-Case Mode.
- ☐ Use 2dB law program determines Max. Cable Configuration and Worst-Case Mode.
- ☒ Radiated emission item test: Performed using the Horn Antenna 3dB Beamwidth to 3m from the EUT size sufficient to cover the procedure.
- ☐ Radiated emission item test: Performed using the Horn Antenna 3dB Beamwidth non 3m distance sufficient to cover the size of the EUT program.

1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.4.
2	Turn on the power of all equipment.
3	All the features of the EUT operation normally.

2. Technical Test

2.1. Summary of Test Result

- ☒ No deviations from the test standards
☐ Deviations from the test standards as below description:

Emission			
Performed Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart B: 2020, Class B CISPR 22: 2008 ANSI C63.4-2014, ANSI C63.4a-2017	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart B: 2020, Class B CISPR 22: 2008 ANSI C63.4-2014, ANSI C63.4a-2017	Yes	No

2.2. List of Test Equipment

Conducted Emission / LK-SR08 (SR8)

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
EMI Test Receiver	R&S	ESR3	101973	2021/11/12	2022/11/11
Two-Line V-Network	R&S	ENV216	101479	2021/08/13	2022/08/12
Two-Line V-Network	R&S	ENV216	101105	2021/05/04	2022/05/03
Coaxial Cable	SUHNER	RG 400	LC018-RG	2021/06/18	2022/06/17

Test Software version : DEKRA Test System V2.0

Note: Test Receiver Detector: Quasipeak and Average Bandwidth: 9kHz

Radiated Emission / LK-Site02 (Site2)

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
Bilog Antenna	Schaffner	CBL6112B	2921	2021/08/11	2022/08/10
EMI Test Receiver	R&S	ESCS 30	100369	2021/12/15	2022/12/14
Coaxial Cable	SUHNER	RG 214	LC002A-RG LC002B-RG	2021/06/10	2022/06/09
Coaxial Switch	Anritsu	MP59B	6200436230	2021/06/10	2022/06/09
Preamplifier	Jet-Power	JPA-10M1G33	170101000330009	2021/06/10	2022/06/09
NSA	DEKRA	N/A	N/A	2021/06/10	2022/06/09

Test Software version : DEKRA Test System V2.0

Note: Test Receiver Detector: Quasipeak Bandwidth: 120kHz

Radiated Emission (Above 1GHz) / LK-CB05 (CB7)

Instrument	Manufacturer	Type No.	Serial No	Cal. Date	Due. Date
Double Ridged Guide Horn Antenna	ETS-Lindgren	3117	00202723	2021/10/12	2022/10/11
EMI Test Receiver	R&S	ESU26	100433	2022/01/12	2023/01/11
Coaxial Cable	SUHNER	SUCOFLEX 104	LC034-SF	2021/06/21	2022/06/20
Coaxial Cable	ROSNOL	R-Test EW0630	LC046-SF	2021/06/21	2022/06/20
Coaxial Cable	ROSNOL	MP533A	AC031-MP	2021/06/21	2022/06/20
Microwave Preamplifier	EMCI	EMC051845SE	980359	2021/12/14	2022/12/13
VSWR	DEKRA	N/A	N/A	2021/06/22	2022/06/21

Test Software version : DEKRA Test System V2.0

2.3. Measurement Uncertainty

Conducted Emission

The measurement uncertainty is evaluated as ± 3.49 dB.

Radiated Emission

The measurement uncertainty is evaluated as ± 5.16 dB.

Radiated Emission Above 1GHz

The measurement uncertainty is evaluated as ± 4.88 dB.

2.4. Test Environment

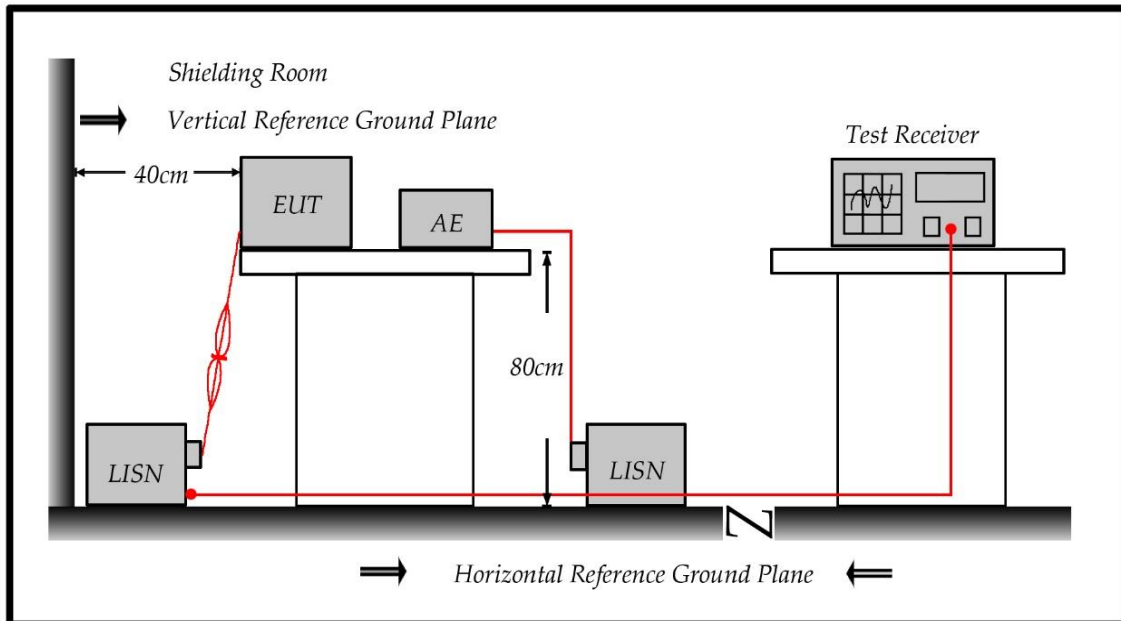
Performed Item	Items	Required
Conducted Emission	Temperature (°C)	10-40
	Humidity (%RH)	10-90
Radiated Emission	Temperature (°C)	10-40
	Humidity (%RH)	10-90

3. Conducted Emission

3.1. Test Specification

According to Standard : FCC Part 15 Subpart B, CISPR 22: 2008

3.2. Test Setup



3.3. Limit

Conducted emissions limits (AC mains power terminals)				
Frequency range (MHz)	Class A Quasi-peak (dBuV)	Class A Average (dBuV)	Class B Quasi-peak (dBuV)	Class B Average (dBuV)
0.15 – 0.5	79	66	66 to 56	56 to 46
0.5 - 5	73	60	56	46
5 - 30	73	60	60	50
Note:				
1. The more stringent limit applies at transition frequencies.				
2. The limit level in dB μ V decreases linearly with the logarithm of frequency				

3.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.

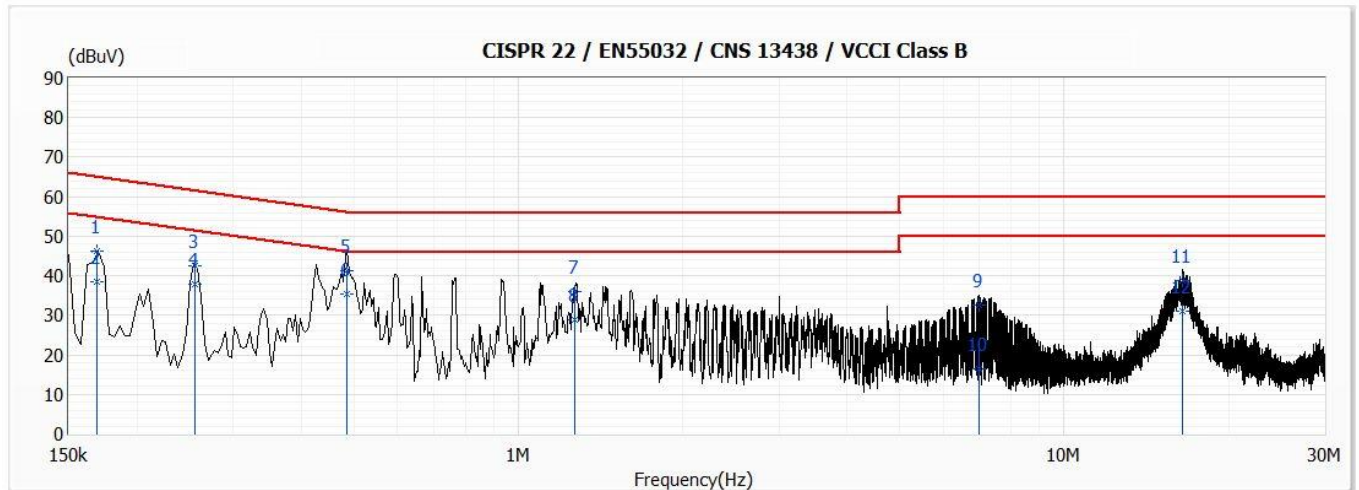
(Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5. Test Result

Model No	HSC040Wa	Site	SR8
Test Voltage	AC 120V/60Hz	Test Date	2022/4/8
Test Mode	Mode 1	Engineer	Gary Luo
Phase	L1	Temperature (°C)	25.3
Test Condition	--	Humidity (%RH)	46

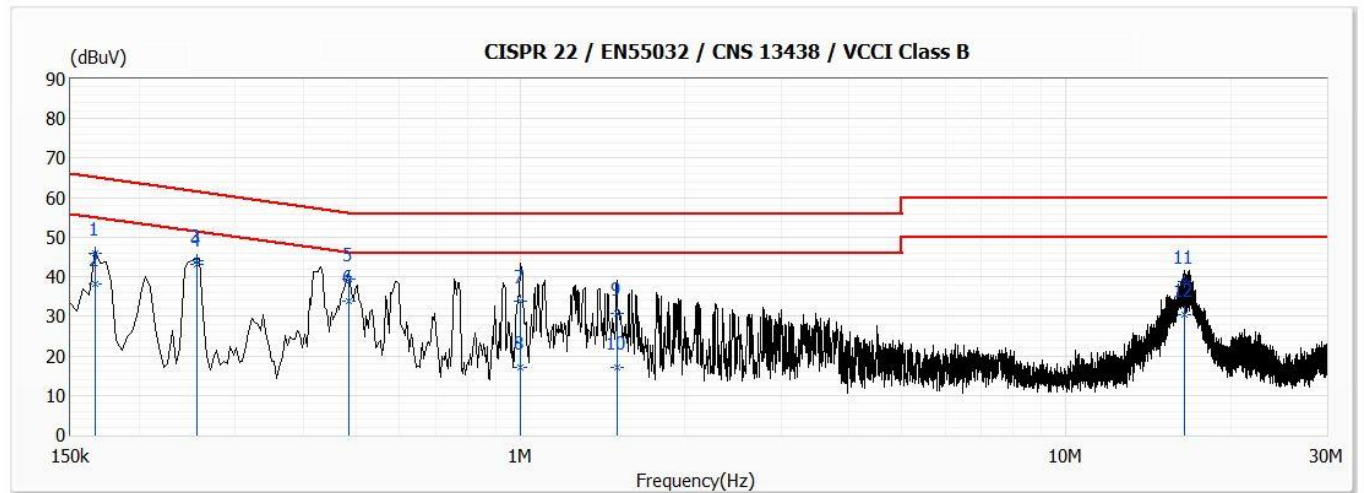


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.169	46.26	65.03	-18.77	36.66	9.60	QP
2	0.169	38.48	55.03	-16.55	28.88	9.60	AV
3	0.255	42.51	61.58	-19.07	32.90	9.61	QP
4	0.255	37.94	51.58	-13.64	28.33	9.61	AV
5	0.485	41.17	56.26	-15.09	31.54	9.63	QP
*6	0.485	35.46	46.26	-10.80	25.83	9.63	AV
7	1.271	36.15	56.00	-19.85	26.48	9.67	QP
8	1.271	28.80	46.00	-17.20	19.13	9.67	AV
9	6.996	32.61	60.00	-27.39	22.79	9.82	QP
10	6.996	16.41	50.00	-33.59	6.59	9.82	AV
11	16.467	38.91	60.00	-21.09	28.91	10.00	QP
12	16.467	31.09	50.00	-18.91	21.09	10.00	AV

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	HSC040Wa	Site	SR8
Test Voltage	AC 120V/60Hz	Test Date	2022/4/8
Test Mode	Mode 1	Engineer	Gary Luo
Phase	N	Temperature (°C)	25.3
Test Condition	--	Humidity (%RH)	46

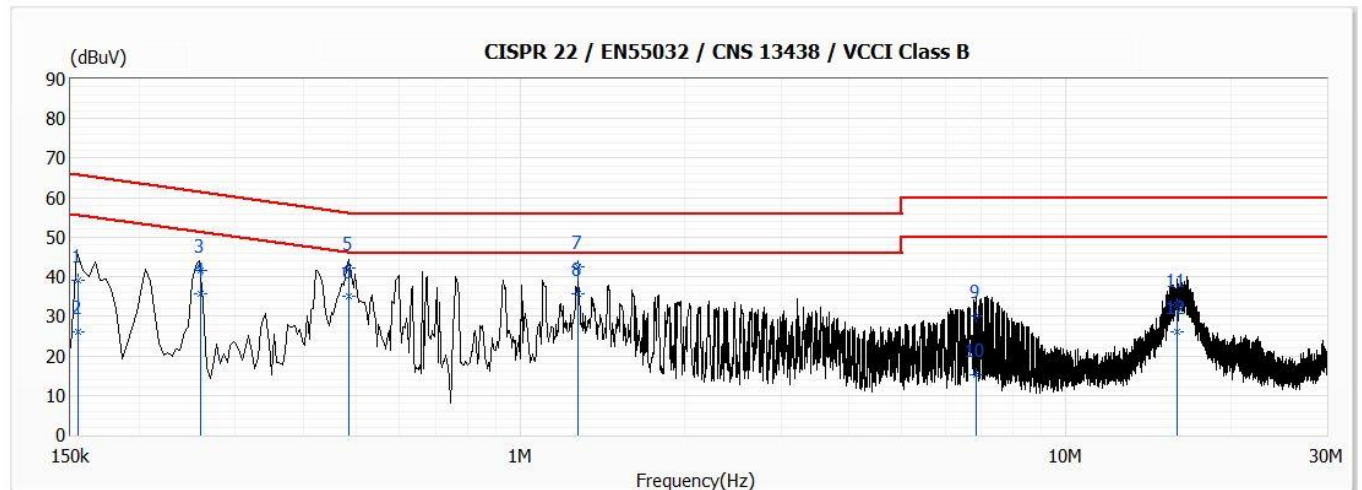


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.166	45.88	65.16	-19.28	36.28	9.60	QP
2	0.166	38.24	55.16	-16.92	28.64	9.60	AV
3	0.255	44.20	61.59	-17.39	34.59	9.61	QP
*4	0.255	43.00	51.59	-8.59	33.39	9.61	AV
5	0.485	39.49	56.25	-16.76	29.87	9.62	QP
6	0.485	33.75	46.25	-12.50	24.13	9.62	AV
7	1.001	33.98	56.00	-22.02	24.32	9.66	QP
8	1.001	17.00	46.00	-29.00	7.34	9.66	AV
9	1.504	30.68	56.00	-25.32	21.01	9.67	QP
10	1.504	17.15	46.00	-28.85	7.48	9.67	AV
11	16.461	38.64	60.00	-21.36	28.58	10.06	QP
12	16.461	30.52	50.00	-19.48	20.46	10.06	AV

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	HSC040Wa	Site	SR8
Test Voltage	AC 120V/60Hz	Test Date	2022/4/8
Test Mode	Mode 2	Engineer	Gary Luo
Phase	L1	Temperature (°C)	25.3
Test Condition	--	Humidity (%RH)	46

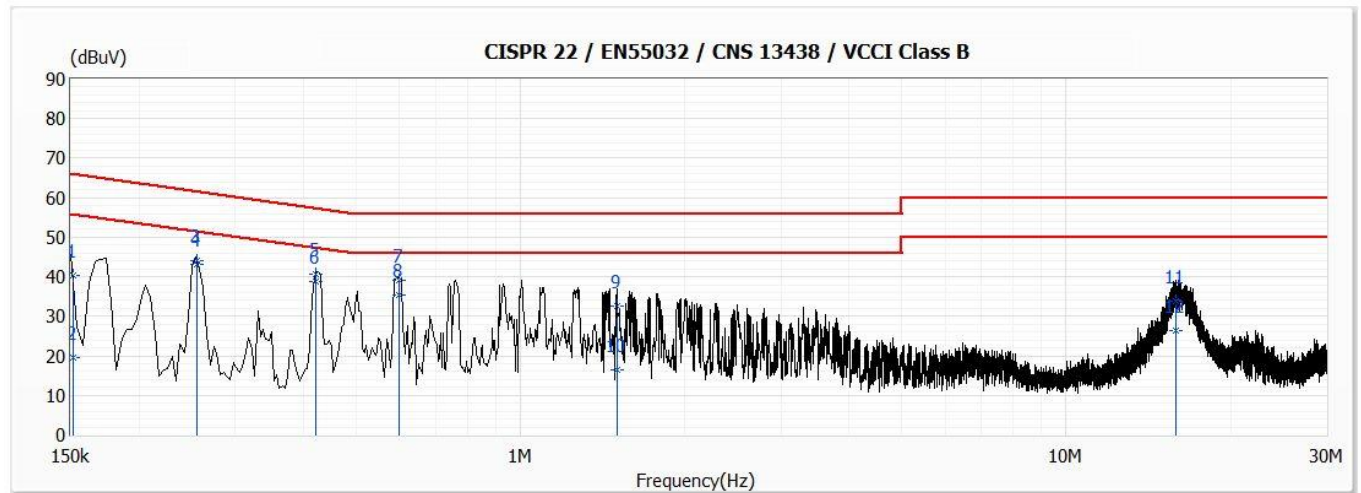


No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.155	38.95	65.74	-26.79	29.35	9.60	QP
2	0.155	25.99	55.74	-29.75	16.39	9.60	AV
3	0.259	41.54	61.47	-19.93	31.93	9.61	QP
4	0.259	35.70	51.47	-15.77	26.09	9.61	AV
5	0.485	42.34	56.26	-13.92	32.71	9.63	QP
6	0.485	35.15	46.26	-11.11	25.52	9.63	AV
7	1.272	42.56	56.00	-13.44	32.89	9.67	QP
*8	1.272	35.58	46.00	-10.42	25.91	9.67	AV
9	6.855	30.18	60.00	-29.82	20.36	9.82	QP
10	6.855	15.19	50.00	-34.81	5.37	9.82	AV
11	15.967	32.92	60.00	-27.08	22.93	9.99	QP
12	15.967	25.96	50.00	-24.04	15.97	9.99	AV

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

Model No	HSC040Wa	Site	SR8
Test Voltage	AC 120V/60Hz	Test Date	2022/4/8
Test Mode	Mode 2	Engineer	Gary Luo
Phase	N	Temperature (°C)	25.3
Test Condition	--	Humidity (%RH)	46



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.152	40.41	65.90	-25.49	30.81	9.60	QP
2	0.152	19.68	55.90	-36.22	10.08	9.60	AV
3	0.256	44.15	61.56	-17.41	34.54	9.61	QP
*4	0.256	43.27	51.56	-8.29	33.66	9.61	AV
5	0.423	40.68	57.39	-16.71	31.06	9.62	QP
6	0.423	38.80	47.39	-8.59	29.18	9.62	AV
7	0.598	39.08	56.00	-16.92	29.45	9.63	QP
8	0.598	35.44	46.00	-10.56	25.81	9.63	AV
9	1.503	32.50	56.00	-23.50	22.83	9.67	QP
10	1.503	16.59	46.00	-29.41	6.92	9.67	AV
11	15.904	33.98	60.00	-26.02	23.93	10.05	QP
12	15.904	26.26	50.00	-23.74	16.21	10.05	AV

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=LISN Factor+Cable Loss).
3. Margin=Emission Level-Limit

3.6. Test Photograph

Test Mode : Mode 1: BT Mode (With END060W)

Description : Front View of Conducted Test



Test Mode : Mode 1: BT Mode (With END060W)

Description : Back View of Conducted Test



Test Mode : Mode 2: USB & Charging Mode

Description : Front View of Conducted Test



Test Mode : Mode 2: USB & Charging Mode

Description : Back View of Conducted Test



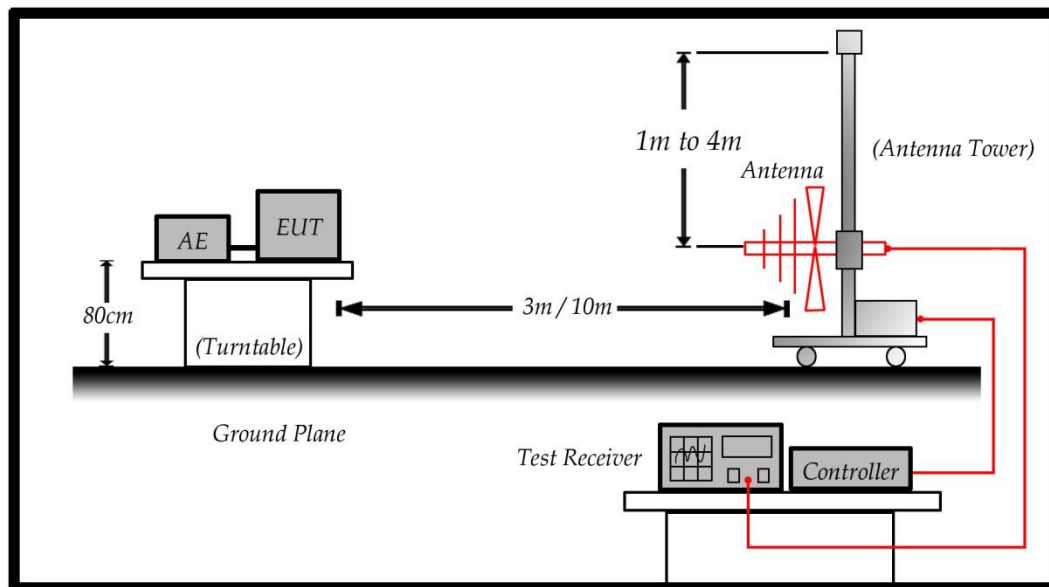
4. Radiated Emission

4.1. Test Specification

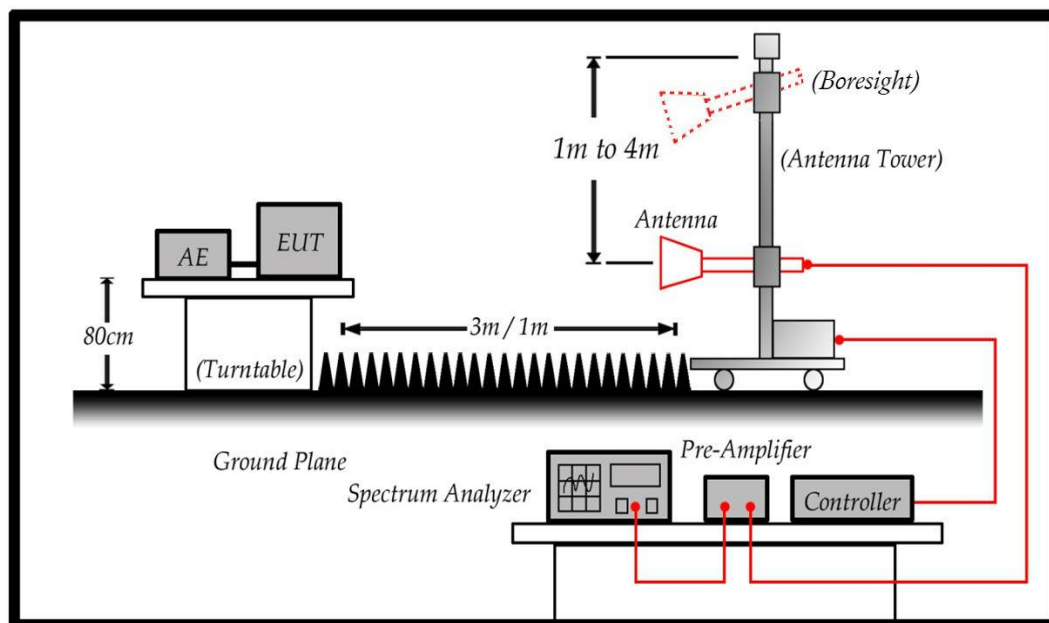
According to Standard : FCC Part 15 Subpart B, CISPR 22: 2008

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

Under 1GHz test shall not exceed the following value:

Limits		
Frequency (MHz)	Distance (m)	dBuV/m
30 – 230	10	30
230 – 1000	10	37

Remark:

1. The tighter limit shall apply at the edge between two frequency bands.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Above 1GHz test shall not exceed the following value:

FCC Part 15 Subpart B Paragraph 15.109 Limits (dBuV/m)		
Frequency (MHz)	Distance (m)	dBuV/m
30-88	3	40
88-216	3	43.5
216-960	3	46.0
960-1000	3	54
1000-40000	3	54
18000-40000	1	63.5

Remark:

1. The tighter limit shall apply at the edge between two frequency bands.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
3. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground.

The turn table can rotate 360 degrees to determine the position of the maximum emission level and the antenna (boresight antenna tower) can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated on radiated measurement.

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

On any frequency or frequencies below or equal to 1000 MHz, the radiated limits shown are based on measuring equipment employing a quasi-peak detector function and above 1000 MHz, the radiated limits shown are based measuring equipment employing an average detector function.

When average radiated emission measurement are included emission measurement Above 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

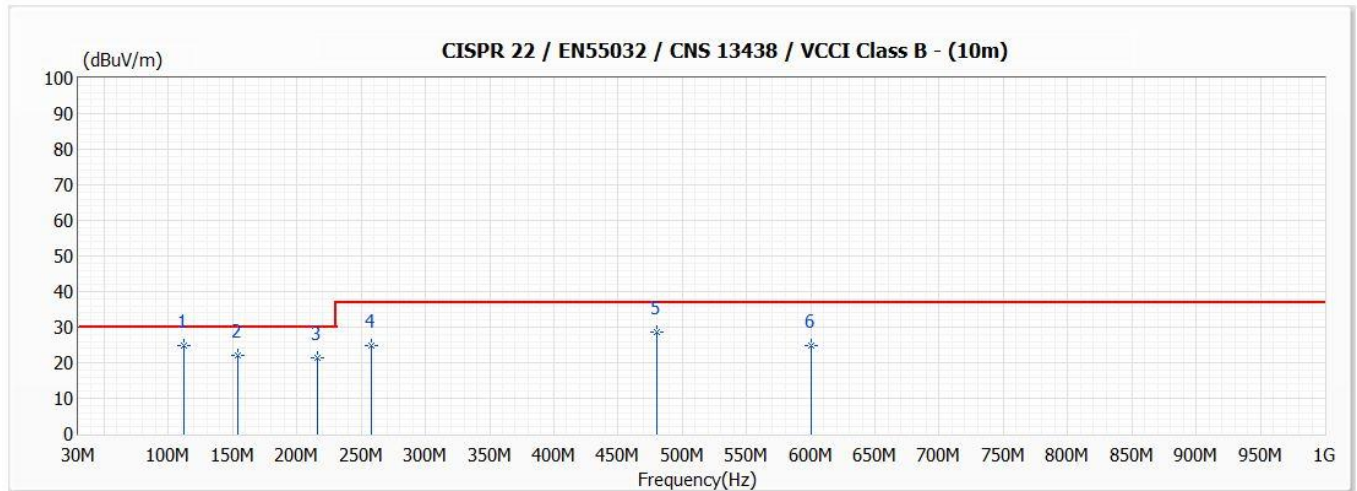
For class A, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and above 1GHz.

For class B, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and 3 meters for above 1GHz.

The bandwidth below 1GHz setting on the field strength meter (Test Receiver) is 120 kHz and above 1GHz is 1MHz.

4.5. Test Result

Model No	HSC040Wa	Site	SITE2
Test Voltage	AC 120V/60Hz	Test Date	2022/4/11
Test Mode	Mode 1	Engineer	Edward Chi
Polarity	Horizontal	Temperature (°C)	25.4
Test Condition	--	Humidity (%RH)	71.4

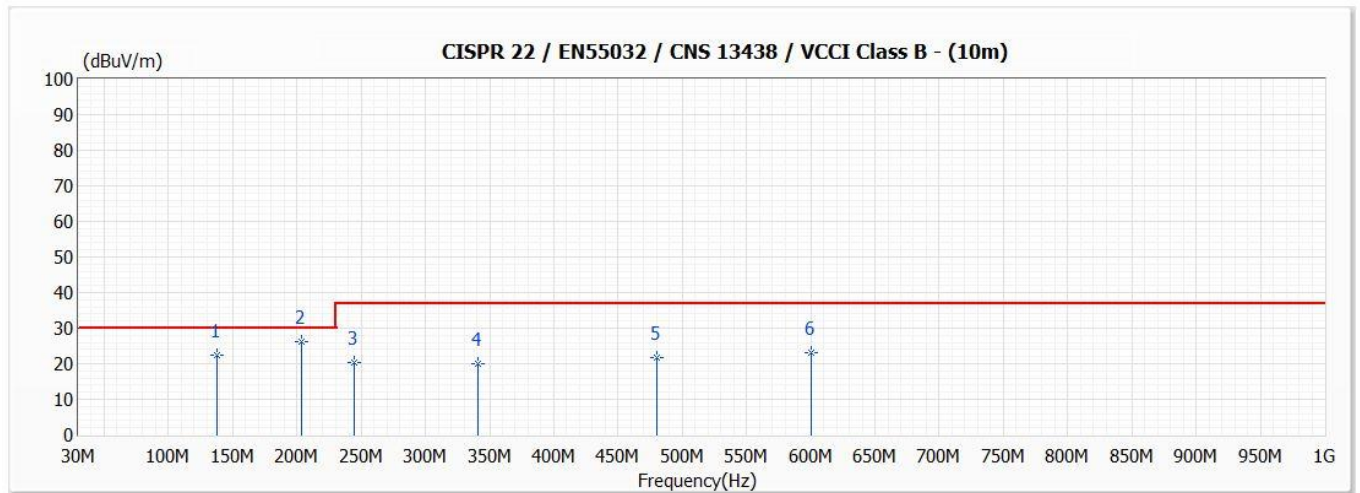


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
* 1	112.490	24.86	30.00	-5.14	37.40	-12.54	370	-15	QP
2	154.130	22.10	30.00	-7.90	35.70	-13.60	370	-93	QP
3	216.000	21.29	30.00	-8.71	35.60	-14.31	370	-17	QP
4	258.200	24.85	37.00	-12.15	34.30	-9.45	370	178	QP
5	480.000	28.75	37.00	-8.25	32.80	-4.05	200	17	QP
6	600.000	24.84	37.00	-12.16	26.40	-1.56	100	87	QP

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.

Model No	HSC040Wa	Site	SITE2
Test Voltage	AC 120V/60Hz	Test Date	2022/4/11
Test Mode	Mode 1	Engineer	Edward Chi
Polarity	Vertical	Temperature (°C)	25.4
Test Condition	--	Humidity (%RH)	71.4

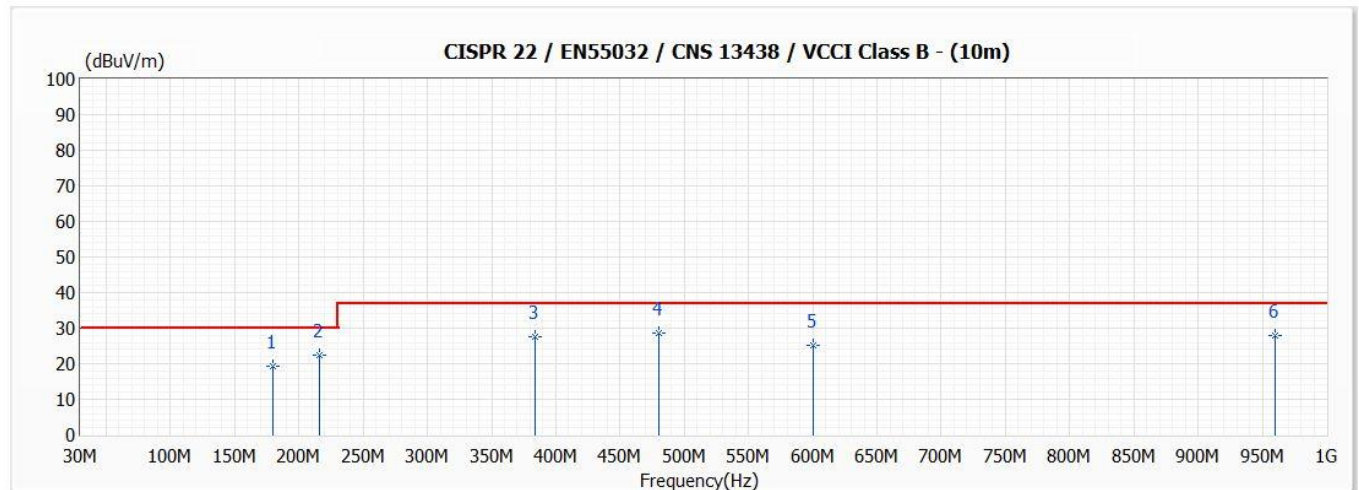


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	137.750	22.47	30.00	-7.53	35.20	-12.73	100	27	QP
* 2	203.900	26.12	30.00	-3.88	40.20	-14.08	100	64	QP
3	244.300	20.47	37.00	-16.53	31.80	-11.33	100	124	QP
4	340.800	19.96	37.00	-17.04	28.20	-8.24	100	-19	QP
5	480.000	21.85	37.00	-15.15	25.90	-4.05	300	-51	QP
6	600.000	23.24	37.00	-13.76	24.80	-1.56	250	-107	QP

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.

Model No	HSC040Wa	Site	SITE2
Test Voltage	AC 120V/60Hz	Test Date	2022/4/11
Test Mode	Mode 2	Engineer	Edward Chi
Polarity	Horizontal	Temperature (°C)	25.4
Test Condition	--	Humidity (%RH)	71.4

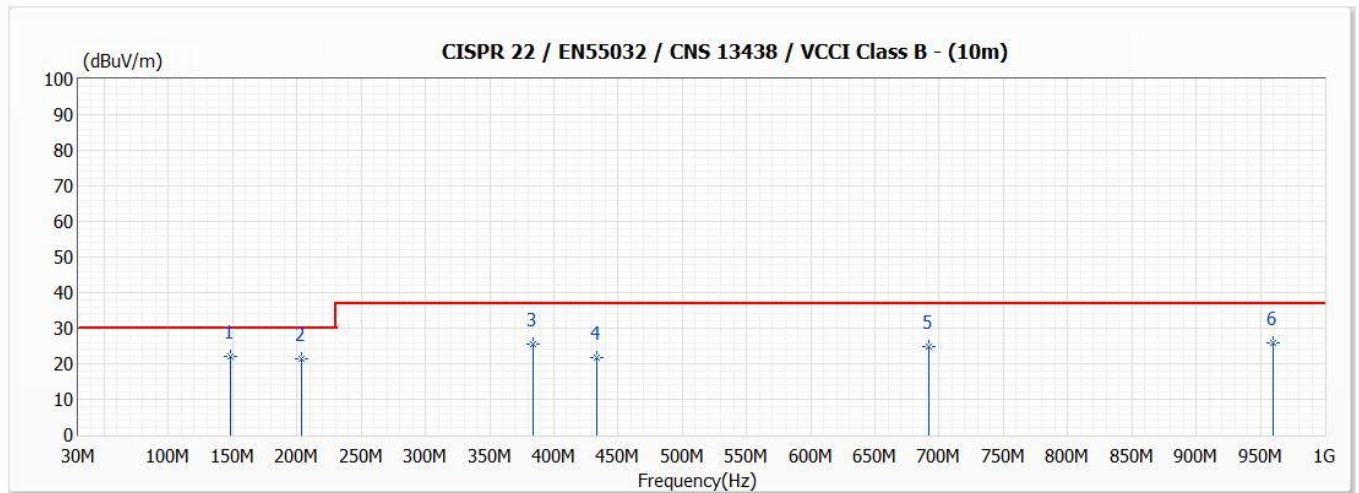


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	180.000	19.15	30.00	-10.85	33.70	-14.55	370	192	QP
* 2	216.000	22.39	30.00	-7.61	36.70	-14.31	370	-94	QP
3	384.000	27.47	37.00	-9.53	34.30	-6.83	300	-12	QP
4	480.000	28.75	37.00	-8.25	32.80	-4.05	100	95	QP
5	600.000	25.34	37.00	-11.66	26.90	-1.56	100	21	QP
6	960.000	27.77	37.00	-9.23	23.40	4.37	100	-113	QP

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.

Model No	HSC040Wa	Site	SITE2
Test Voltage	AC 120V/60Hz	Test Date	2022/4/11
Test Mode	Mode 2	Engineer	Edward Chi
Polarity	Vertical	Temperature (°C)	25.4
Test Condition	--	Humidity (%RH)	71.4

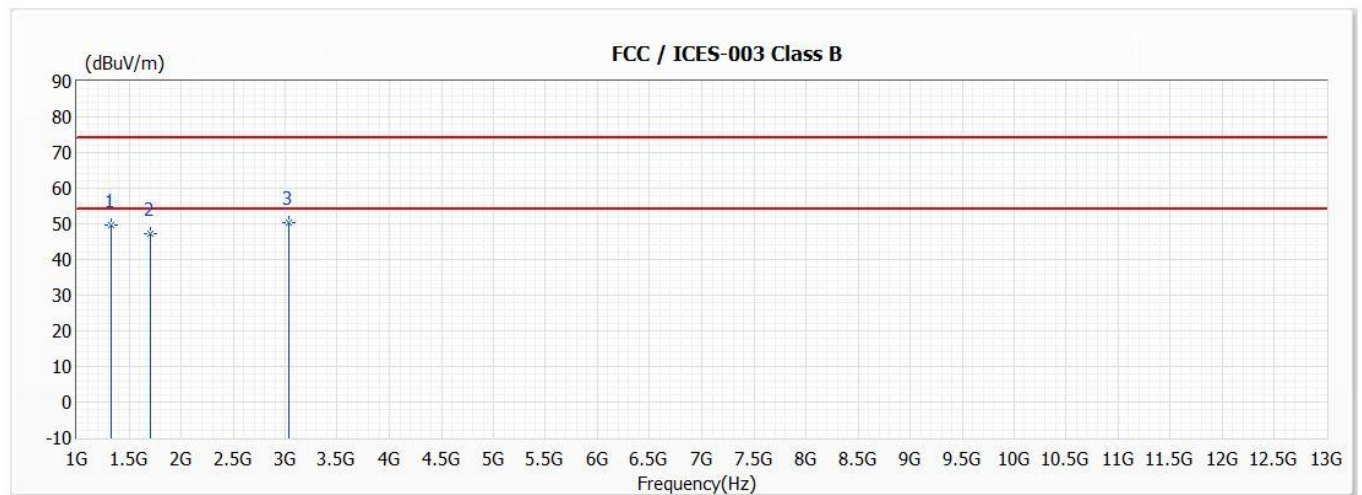


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
* 1	147.800	22.15	30.00	-7.85	35.40	-13.25	100	-116	QP
2	203.300	21.21	30.00	-8.79	35.30	-14.09	100	92	QP
3	384.100	25.59	37.00	-11.41	32.40	-6.81	100	-101	QP
4	433.800	21.70	37.00	-15.30	26.80	-5.10	300	-42	QP
5	691.800	24.99	37.00	-12.01	25.40	-0.41	250	-33	QP
6	960.000	25.87	37.00	-11.13	21.50	4.37	150	34	QP

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor(Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin=Emission Level-Limit.

Model No	HSC040Wa	Site	CB7
Test Voltage	AC 120V/60Hz	Test Date	2022/4/8
Test Mode	Mode 1	Engineer	Shianyu Chiou
Polarity	Horizontal	Temperature (°C)	22.8
Test Condition	--	Humidity (%RH)	68

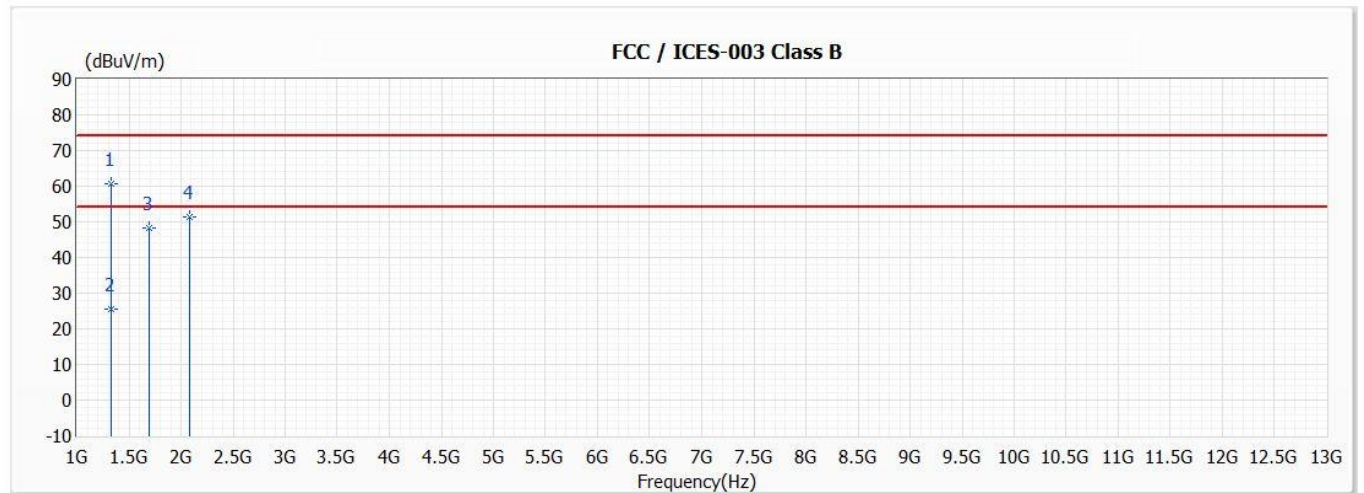


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
1	1324.000	49.70	74.00	-24.30	62.08	-12.38	100	172	PK
2	1708.000	47.26	74.00	-26.74	57.92	-10.66	100	168	PK
* 3	3040.000	50.24	74.00	-23.76	55.17	-4.93	100	-135	PK

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.

Model No	HSC040Wa	Site	CB7
Test Voltage	AC 120V/60Hz	Test Date	2022/4/8
Test Mode	Mode 1	Engineer	Shianyu Chiou
Polarity	Vertical	Temperature (°C)	22.8
Test Condition	--	Humidity (%RH)	68

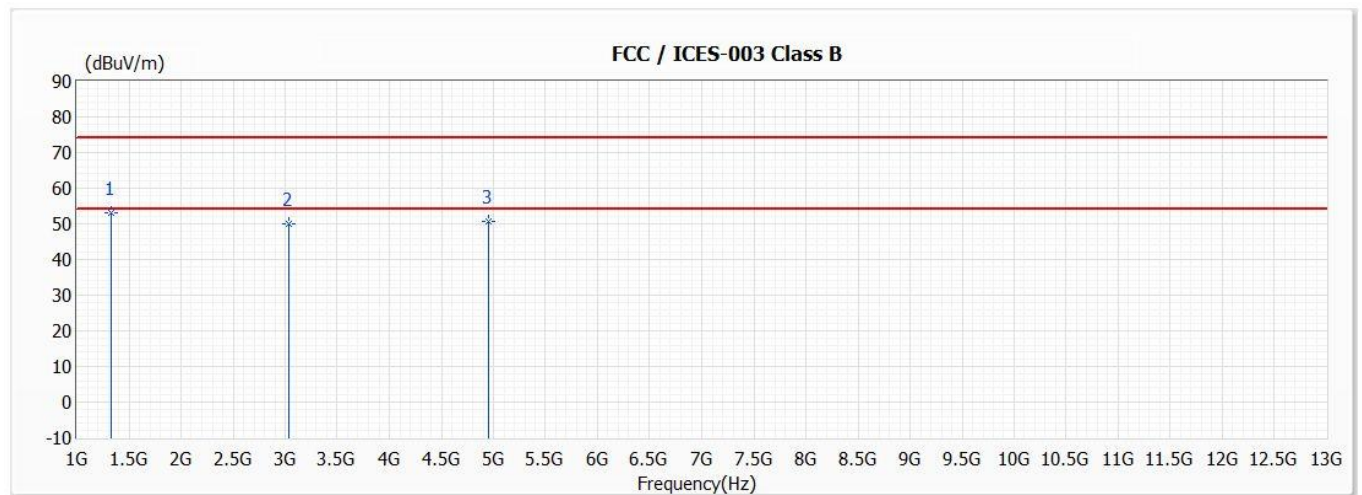


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
* 1	1324.000	60.58	74.00	-13.42	72.96	-12.38	100	129	PK
2	1324.000	25.60	54.00	-28.40	37.98	-12.38	100	129	AV
3	1696.000	48.25	74.00	-25.75	59.03	-10.78	100	184	PK
4	2080.000	51.41	74.00	-22.59	59.61	-8.20	150	-106	PK

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.

Model No	HSC040Wa	Site	CB7
Test Voltage	AC 120V/60Hz	Test Date	2022/4/8
Test Mode	Mode 2	Engineer	Shianyu Chiou
Polarity	Horizontal	Temperature (°C)	22.8
Test Condition	--	Humidity (%RH)	68

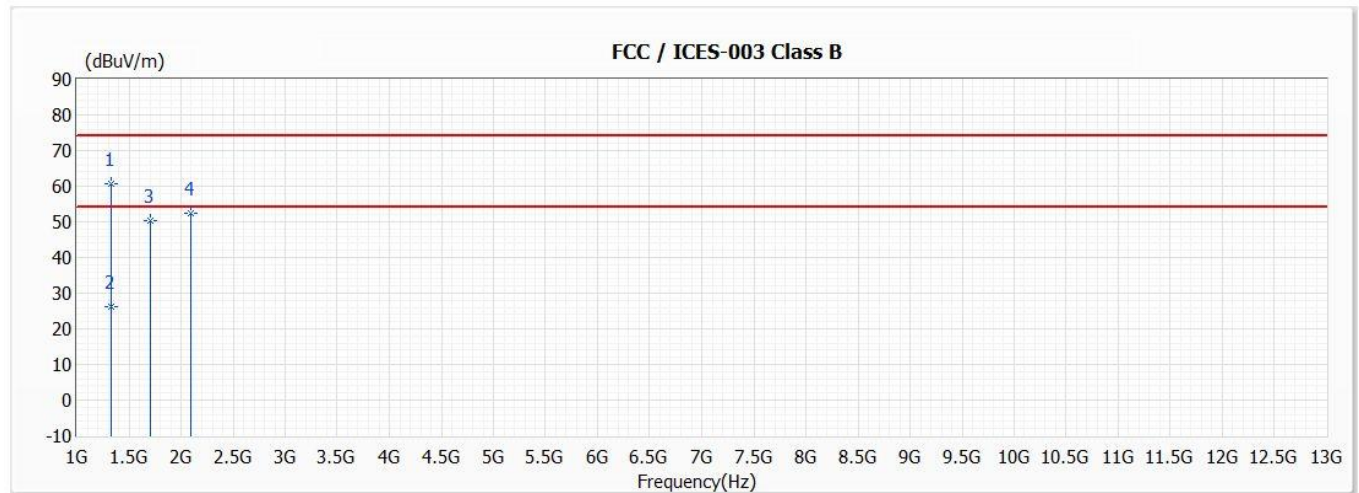


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
* 1	1324.000	53.14	74.00	-20.86	65.52	-12.38	100	-143	PK
2	3040.000	50.08	74.00	-23.92	55.01	-4.93	100	85	PK
3	4948.000	50.70	74.00	-23.30	51.83	-1.13	100	129	PK

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.

Model No	HSC040Wa	Site	CB7
Test Voltage	AC 120V/60Hz	Test Date	2022/4/8
Test Mode	Mode 2	Engineer	Shianyu Chiou
Polarity	Vertical	Temperature (°C)	22.8
Test Condition	--	Humidity (%RH)	68



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Ant Pos (cm)	TT Pos (deg)	Detector Type
* 1	1324.000	60.53	74.00	-13.47	72.91	-12.38	100	-133	PK
2	1324.000	26.10	54.00	-27.90	38.48	-12.38	100	-133	AV
3	1708.000	50.48	74.00	-23.52	61.14	-10.66	100	184	PK
4	2092.000	52.38	74.00	-21.62	60.52	-8.14	150	-46	PK

Remark:

1. "*" means this data is the worst emission level; "!" means this data is over limit.
2. Emission Level=Reading Level + Correct Factor (Correct Factor=Ant Factor+Cable Loss-Pre Amp).
3. Margin= Emission Level-Limit.
4. The above 1 GHz test. When PEAK measures level less than AV limit by 20 dBuV, its average is not measured separately.

4.6. Test Photograph

Test Mode : Mode 1: BT Mode (With END060W)

Description : Front View of Radiated Test



Test Mode : Mode 1: BT Mode (With END060W)

Description : Back View of Radiated Test



Test Mode : Mode 1: BT Mode (With END060W)

Description : Front View of High Frequency Radiated Test



Test Mode : Mode 2: USB & Charging Mode

Description : Front View of Radiated Test



Test Mode : Mode 2: USB & Charging Mode

Description : Back View of Radiated Test



Test Mode : Mode 2: USB & Charging Mode

Description : Front View of High Frequency Radiated Test

