



FCC Test Report

APPLICANT : Lenovo(Shanghai) Electronics Technology Co., Ltd.
EQUIPMENT : Portable Tablet Computer
BRAND NAME : Lenovo
MODEL NAME : TB310FU
FCC ID : O57TB310FU
STANDARD : 47 CFR Part 15 Subpart B
CLASSIFICATION : Certification
TEST DATE(S) : Oct. 12, 2022 ~ Oct. 14, 2022

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (Kunshan)

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China**



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SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	Under limit 6.49 dB at 0.181 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 6.42 dB at 44.55 MHz

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1. General Description

1.1. Applicant

Lenovo(Shanghai) Electronics Technology Co., Ltd.
Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone

1.2. Manufacturer

Lenovo PC HK Limited
23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, China

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Portable Tablet Computer
Brand Name	Lenovo
Model Name	TB310FU
FCC ID	O57TB310FU
EUT supports Radios application	WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE GNSS
HW Version	Lenovo Tablet TB310FU
SW Version	TB310FU_RF01_220917
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are five samples under test, the detailed differences could be referred to the TB310FU_Operational Description of Product Equality Declaration which is exhibit separately. According to the differences, sample 1 perform full test and sample 2/3/4/5 verify the USB data link mode.

1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	802.11b/g/n: 2400 MHz ~ 2483.5 MHz 802.11a/n/ac: 5150 MHz ~ 5250 MHz; 5250 MHz ~ 5350 MHz; 5470 MHz ~ 5725 MHz 5725 MHz ~ 5850 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz
Rx Frequency	802.11b/g/n: 2400 MHz ~ 2483.5 MHz 802.11a/n/ac: 5150 MHz ~ 5250 MHz; 5250 MHz ~ 5350 MHz; 5470 MHz ~ 5725 MHz 5725 MHz ~ 5850 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz GNSS : 1559 MHz ~ 1610 MHz
Antenna Type	WLAN : PIFA Antenna Bluetooth PIFA Antenna GNSS: PIFA Antenna
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n/ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GNSS : BPSK

1.5. Modification of EUT

No modifications are made to the EUT during all test items.

1.6. Test Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CO01-KS 03CH02-KS	CN1257	314309

1.7. Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH02-KS	AUDIX	E3	6.2009-8-24a
2.	CO01-KS	AUDIX	E3	6.2009-8-24

1.8. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 15 Subpart B
- ANSI C63.4-2014

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.



2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

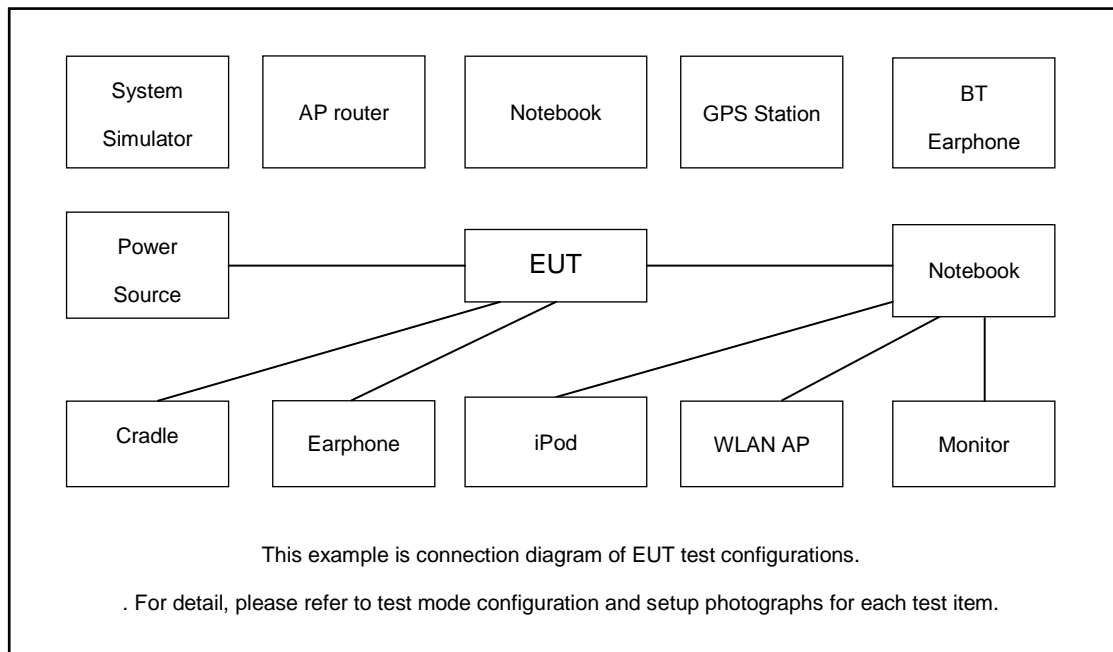
Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (30MHz to the 5th harmonic of the highest frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: Bluetooth Idle + WLAN (2.4G) Idle + Camera(Rear) + USB Cable 1(Charging from Adapter1) + Earphone + Battery 1 For Sample 1
	Mode 2: Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + USB Cable2 (Charging from Adapter2) + Earphone + Battery 1 For Sample 1
	Mode 3: Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + USB Cable1 (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB + Earphone + Battery 1 For Sample 1
	Mode 4: Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) + Earphone + Battery 1 For Sample 1
	Mode 5: Bluetooth Idle + WLAN (2.4G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + EUT (SD) USB Data Link to PC/NB + Earphone + Battery 1 For Sample 1
	Mode 6: Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable 1(Data Link with Notebook) + PC/NB USB Data Link to EUT (SD) + Earphone + Battery 1 For Sample 1
	Mode 7: Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable2 (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) + Earphone + Battery 1 For Sample 1
	Mode 8: Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + USB Cable2 (Charging from Adapter2) + Earphone + Battery 2 For Sample 2
	Mode 9: Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) + Earphone + Battery 2 For Sample 2
	Mode 10 : Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) + Earphone + Battery 2 For Sample 3
	Mode 11 : Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) + Earphone + Battery 1 For Sample 4
	Mode 12 : Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) + Earphone + Battery 2 For Sample 5



Radiated Emissions	<p>Mode 1: Bluetooth Idle + WLAN (2.4G) Idle + Camera(Rear) + USB Cable 1(Charging from Adapter1) + Earphone + Battery 1 For Sample 1</p> <p>Mode 2: Bluetooth Idle + WLAN (5G) Idle + Camera(Front) + USB Cable2 (Charging from Adapter2) + Earphone + Battery 1 For Sample 1</p> <p>Mode 3: Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + USB Cable1 (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB + Earphone + Battery 1 For Sample 1</p> <p>Mode 4: Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) + Earphone + Battery 1 For Sample 1</p> <p>Mode 5: Bluetooth Idle + WLAN (2.4G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + EUT (SD) USB Data Link to PC/NB + Earphone + Battery 1 For Sample 1</p> <p>Mode 6: Bluetooth Idle + WLAN (5G) Idle + GNSS Rx + USB Cable1 (Data Link with Notebook) + PC/NB USB Data Link to EUT (SD) + Earphone + Battery 1 For Sample 1</p> <p>Mode 7: Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + USB Cable1 (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB + Earphone + Battery 1 For Sample 1</p> <p>Mode 8: Bluetooth Idle + WLAN (2.4G) Idle + Camera(Front) + USB Cable2 (Charging from Adapter2) + Earphone + Battery 2 For Sample 2</p> <p>Mode 9: Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + USB Cable1 (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB + Earphone + Battery 2 For Sample 2</p> <p>Mode 10 : Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + USB Cable1 (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB + Earphone + Battery 2 For Sample 3</p> <p>Mode 11 : Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + USB Cable1 (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB + Earphone + Battery 1 For Sample 4</p> <p>Mode 12 : Bluetooth Idle + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + USB Cable1 (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB + Earphone + Battery 2 For Sample 5</p>
<p>Remark:</p> <ol style="list-style-type: none"> 1. The worst case of AC is mode 2; only the test data of this mode is reported. 2. The worst case of RE is mode 11; only the test data of this mode is reported. 3. Data Link with Notebook / PC means data application transferred mode between EUT and Notebook / PC. 	

2.2. Connection Diagram of Test System



The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application

2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	GPS Station	T&E	GS-50	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
3.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
4.	Notebook	Lenovo	V130-15IKB005	N/A	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
5.	Vector Signal Generator	R&S	SMBV100A	258305	N/A	N/A
6.	Earphone	Lenovo	P121	N/A	N/A	Unshielded,1.2m
7.	Hard Disk	Lenovo	F310	DoC	Shielded, 1.2m	N/A



2.4. EUT Operation Test Setup

The EUT was attached to the Bluetooth earphone and WLAN AP, and the following programs installed in the EUT were programmed during the test.

1. Data application is transferred between notebook and EUT via USB cable.
2. Turn on camera to capture images.
3. Turn on MPEG4 function.
4. Turn on GNSS function to make the EUT receive continuous signals from GNSS station.



3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

<Class B Limit>

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

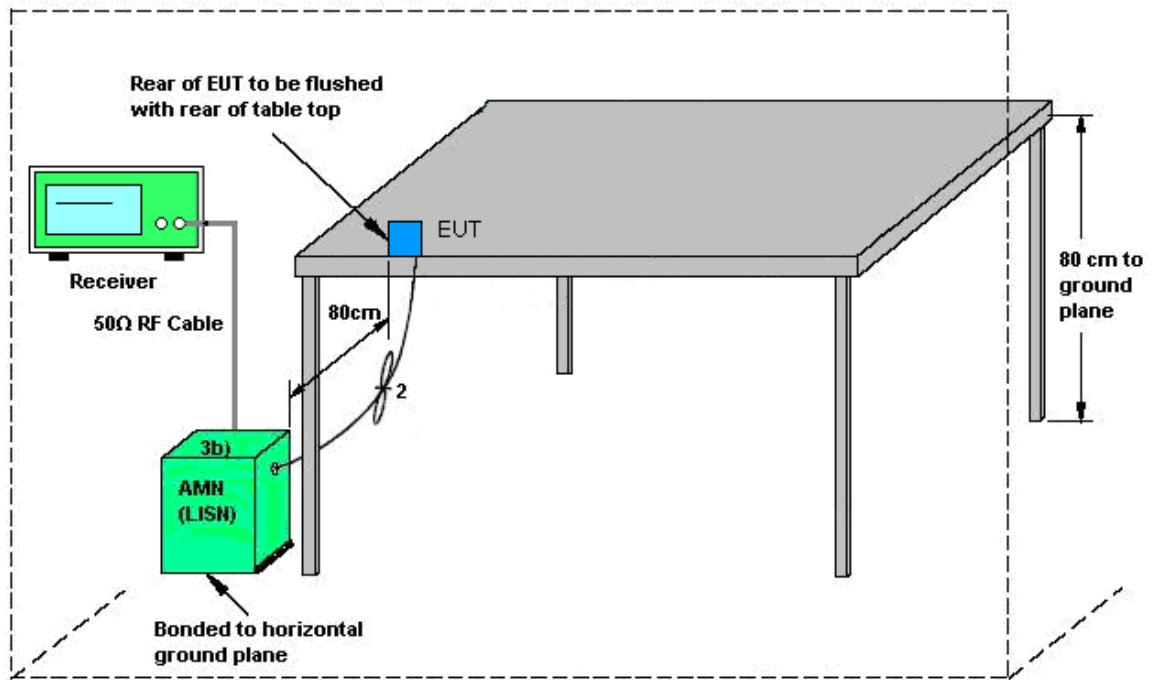
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

3.1.4 Test Setup

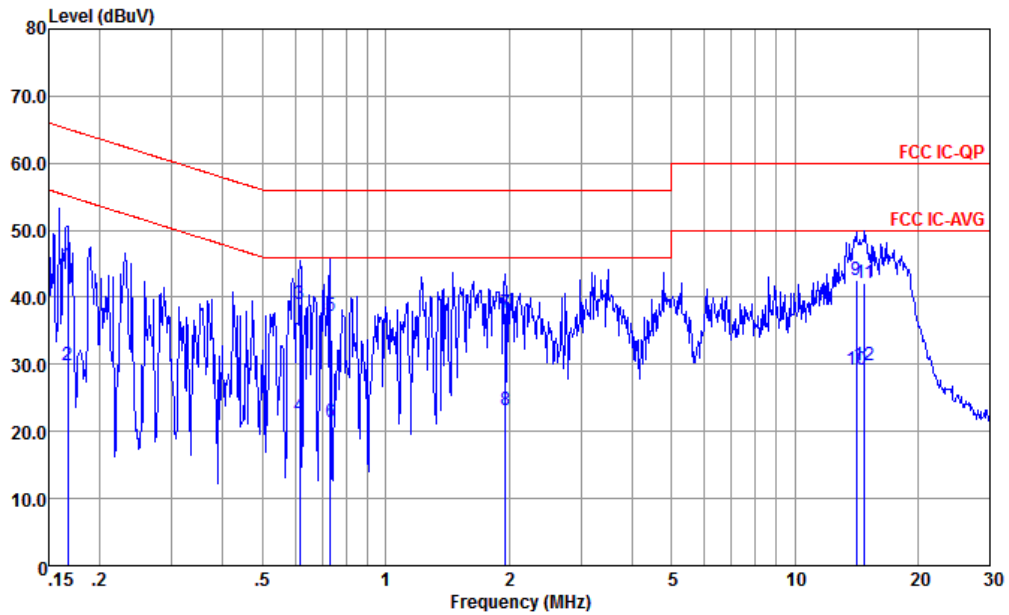


AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network



3.1.5 Test Result of AC Conducted Emission

Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

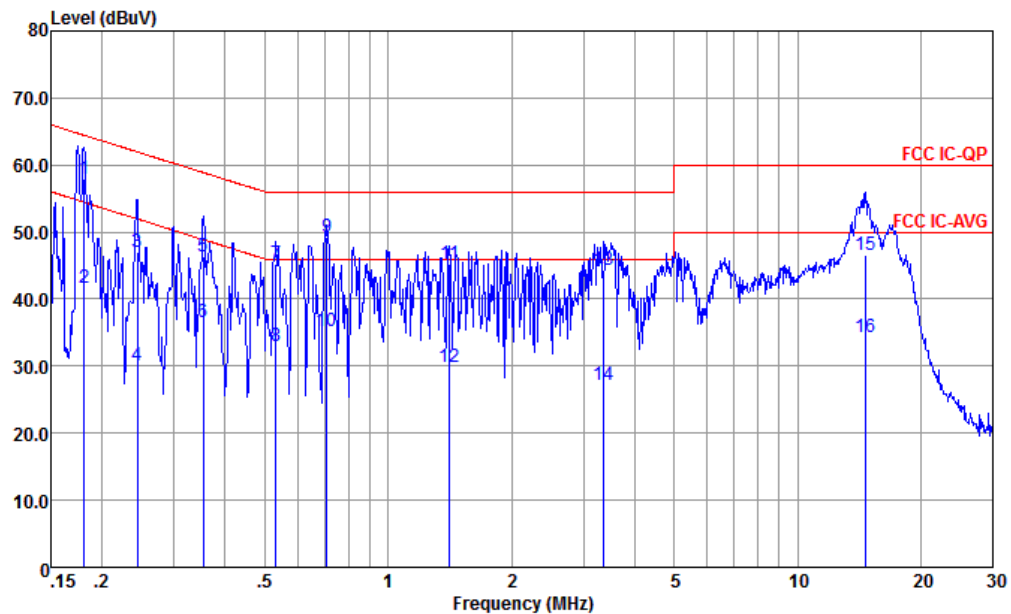


Site : CO01-KS
 Condition : FCC IC-QP LISN-060105-LINE LINE

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.167	44.78	-20.34	65.12	34.30	0.05	10.43	QP
2	0.167	29.78	-26.34	56.12	19.30	0.05	10.43	Average
3 *	0.617	38.91	-17.09	56.00	28.80	-0.07	10.18	QP
4	0.617	22.31	-23.69	46.00	12.20	-0.07	10.18	Average
5	0.731	37.26	-18.74	56.00	27.20	-0.09	10.15	QP
6	0.731	21.36	-24.64	46.00	11.30	-0.09	10.15	Average
7	1.959	37.74	-18.26	56.00	27.80	-0.12	10.06	QP
8	1.959	23.24	-22.76	46.00	13.30	-0.12	10.06	Average
9	14.138	42.56	-17.44	60.00	31.59	-0.20	11.17	QP
10	14.138	29.16	-20.84	50.00	18.19	-0.20	11.17	Average
11	14.828	42.21	-17.79	60.00	31.20	-0.21	11.22	QP
12	14.828	29.81	-20.19	50.00	18.80	-0.21	11.22	Average



Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
 Condition : FCC IC-QP LISN-060105-NEUTRAL NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1 *	0.181	57.97	-6.49	64.46	47.51	0.04	10.42	QP
2	0.181	41.67	-12.79	54.46	31.21	0.04	10.42	Average
3	0.244	46.99	-14.96	61.95	36.60	0.00	10.39	QP
4	0.244	29.99	-21.96	51.95	19.60	0.00	10.39	Average
5	0.354	46.46	-12.41	58.87	36.20	-0.06	10.32	QP
6	0.354	36.56	-12.31	48.87	26.30	-0.06	10.32	Average
7	0.532	45.32	-10.68	56.00	35.20	-0.08	10.20	QP
8	0.532	33.02	-12.98	46.00	22.90	-0.08	10.20	Average
9	0.708	49.27	-6.73	56.00	39.20	-0.09	10.16	QP
10	0.708	35.27	-10.73	46.00	25.20	-0.09	10.16	Average
11	1.411	45.17	-10.83	56.00	35.20	-0.11	10.08	QP
12	1.411	29.77	-16.23	46.00	19.80	-0.11	10.08	Average
13	3.346	44.43	-11.57	56.00	34.50	-0.13	10.06	QP
14	3.346	27.13	-18.87	46.00	17.20	-0.13	10.06	Average
15	14.672	46.53	-13.47	60.00	35.50	-0.18	11.21	QP
16	14.672	34.23	-15.77	50.00	23.20	-0.18	11.21	Average

Note:

- Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
- Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)



3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

<Class B Limit>

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

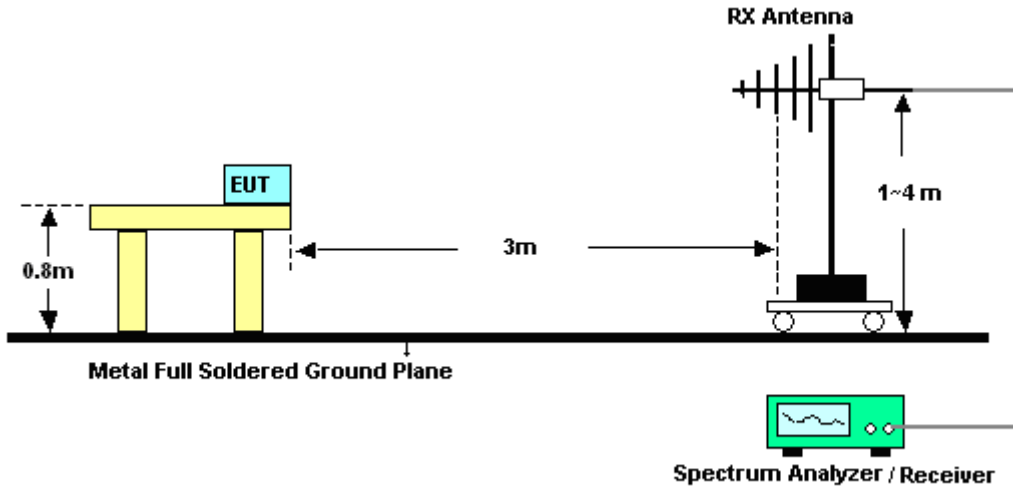


3.2.3. Test Procedures

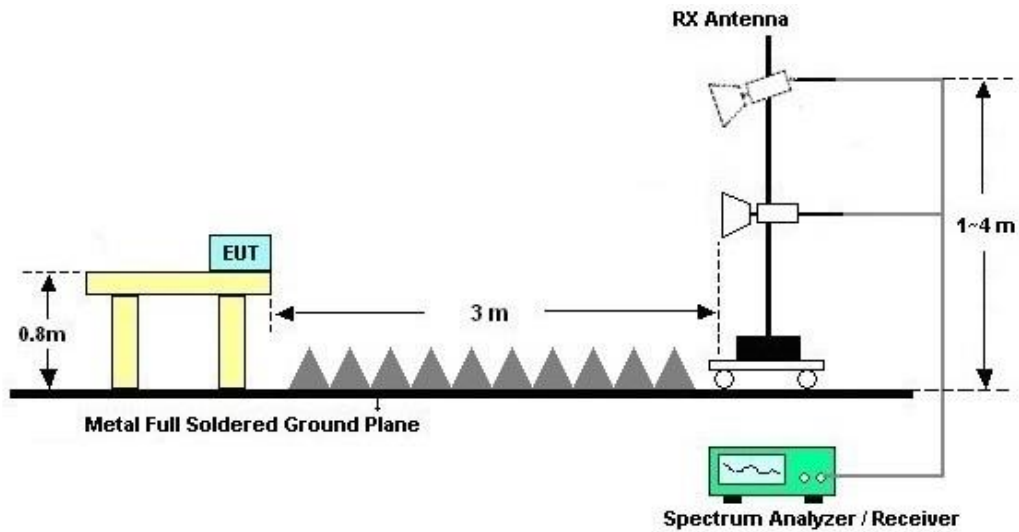
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
10. Exploratory radiated emissions testing of handheld and/or body-worn devices shall include rotation of the EUT through three orthogonal axes (X/Y/Z Plane) to determine the orientation (attitude) that maximizes the emissions.

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



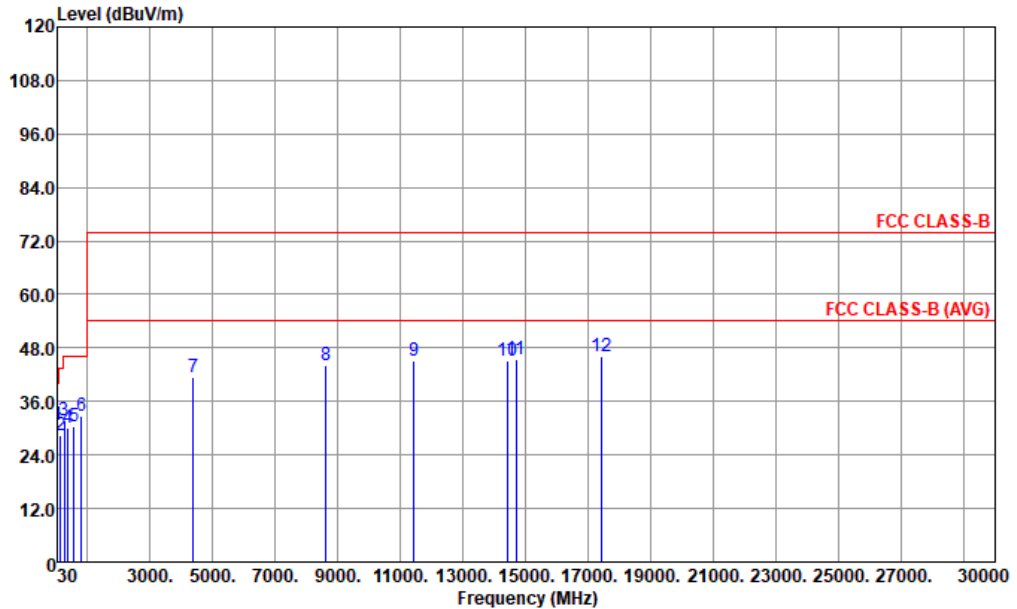
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Engineer :	Peter Peng	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal

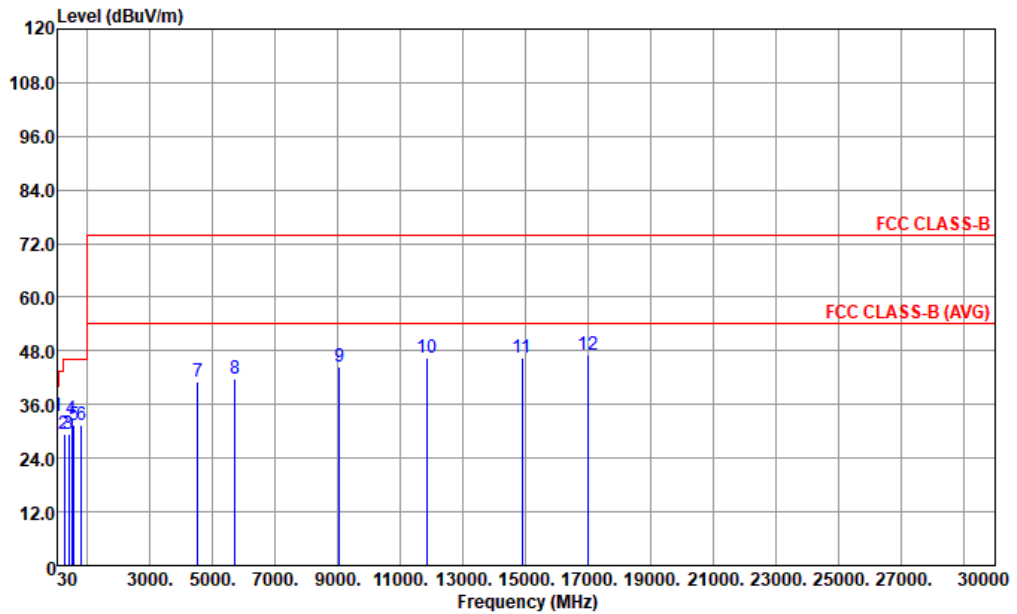


Site : 03CH02-KS
 Condition : FCC CLASS-B 3m LF 49921 HORIZONTAL

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	44.55	30.71	-9.29	40.00	45.21	16.95	0.95	32.40	---	---	Peak
2	147.37	28.31	-15.19	43.50	41.77	17.16	1.78	32.40	---	---	Peak
3	250.19	31.73	-14.27	46.00	43.47	18.56	2.10	32.40	---	---	Peak
4	371.44	30.19	-15.81	46.00	38.58	21.15	2.86	32.40	---	---	Peak
5	558.65	30.31	-15.69	46.00	34.15	25.29	3.27	32.40	---	---	Peak
6	801.15	32.71	-13.29	46.00	32.38	28.21	4.22	32.10	---	---	Peak
7	4366.00	41.32	-32.68	74.00	28.35	35.69	10.19	32.91	---	---	Peak
8	8616.00	43.97	-30.03	74.00	28.27	35.12	14.82	34.24	---	---	Peak
9	11438.00	44.98	-29.02	74.00	23.98	39.25	17.04	35.29	---	---	Peak
10	14396.00	45.18	-28.82	74.00	20.41	40.75	19.20	35.18	---	---	Peak
11	14685.00	45.44	-28.56	74.00	20.27	41.01	19.32	35.16	---	---	Peak
12	17405.00	46.11	-27.89	74.00	18.83	41.28	21.16	35.16	---	---	Peak



Test Engineer :	Peter Peng	Temperature :	21~22°C
		Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical



Site : 03CH02-KS
 Condition : FCC CLASS-B 3m LF 49921 VERTICAL

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	44.55	33.58	-6.42	40.00	48.08	16.95	0.95	32.40	---	---	Peak
2	254.07	29.52	-16.48	46.00	40.79	19.00	2.13	32.40	---	---	Peak
3	387.93	29.26	-16.74	46.00	37.15	21.57	2.94	32.40	---	---	Peak
4	491.72	32.64	-13.36	46.00	38.05	23.85	3.14	32.40	---	---	Peak
5	560.59	31.50	-14.50	46.00	35.28	25.33	3.29	32.40	---	---	Peak
6	801.15	31.50	-14.50	46.00	31.17	28.21	4.22	32.10	---	---	Peak
7	4519.00	41.05	-32.95	74.00	27.65	35.89	10.28	32.77	---	---	Peak
8	5709.00	41.71	-32.29	74.00	27.40	34.94	11.63	32.26	---	---	Peak
9	9058.00	44.37	-29.63	74.00	27.78	35.66	14.98	34.05	---	---	Peak
10	11846.00	46.31	-27.69	74.00	24.73	39.64	17.45	35.51	---	---	Peak
11	14889.00	46.31	-27.69	74.00	20.83	41.19	19.41	35.12	---	---	Peak
12	16997.00	47.21	-26.79	74.00	19.99	41.20	21.03	35.01	---	---	Peak

Note:

- Level(dBμV/m) = Read Level(dBμV) + Antenna Factor(dB/m) + Cable Loss(dB) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Oct. 12, 2022	Oct. 13, 2022~Oct. 14, 2022	Oct. 11, 2023	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44G,MAX 30dB	Oct. 16, 2021	Oct. 13, 2022~Oct. 14, 2022	Oct. 15, 2022	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz-1GHz	Dec. 22, 2021	Oct. 13, 2022~Oct. 14, 2022	Dec. 21, 2022	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Nov. 08, 2021	Oct. 13, 2022~Oct. 14, 2022	Nov. 07, 2022	Radiation (03CH02-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	Oct. 13, 2022~Oct. 14, 2022	Jan. 04, 2023	Radiation (03CH02-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2022	Oct. 13, 2022~Oct. 14, 2022	Jan. 04, 2023	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	413741	9KHz-1GHz	Jan. 05, 2022	Oct. 13, 2022~Oct. 14, 2022	Jan. 04, 2023	Radiation (03CH02-KS)
Amplifier	EM	EM01G18G	060806	1GHz~18GHz	Oct. 12, 2022	Oct. 13, 2022~Oct. 14, 2022	Oct. 11, 2023	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Oct. 13, 2022~Oct. 14, 2022	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Oct. 13, 2022~Oct. 14, 2022	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Oct. 13, 2022~Oct. 14, 2022	NCR	Radiation (03CH02-KS)
EMI Receiver	R&S	ESC17	100768	9kHz~7GHz;	May. 24, 2022	Oct. 12, 2022	May. 23, 2023	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 14, 2021	Oct. 12, 2022	Oct. 13, 2022	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	May. 24, 2022	Oct. 12, 2022	May. 23, 2023	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 14, 2021	Oct. 12, 2022	Oct. 13, 2022	Conduction (CO01-KS)

NCR: No Calibration Required



5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.32dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.0dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.1dB
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