



# FCC Test Report

**APPLICANT** : Lenovo (Shanghai) Electronics Technology Co., Ltd.  
**EQUIPMENT** : Portable Tablet Computer  
**BRAND NAME** : Lenovo  
**MODEL NAME** : TB328FU  
**FCC ID** : O57TB328FU  
**STANDARD** : 47 CFR Part 15 Subpart B  
**CLASSIFICATION** : Certification  
**TEST DATE(S)** : Dec. 27, 2021 ~ Jan. 04, 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.

This report contains data that were produced under subcontract by Sporton International Inc. (ShenZhen)

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.

Reviewed by: Jason Jia / Supervisor

Approved by: Alex Wang / Manager



**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 7.86 dB at 0.570 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.11 dB at 682.810 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	TB328FU
FCC ID	O57TB328FU
EUT supports Radios application	WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR / EDR / LE GNSS
HW Version	Lenovo Tablet TB328FU
SW Version	TB328FU_RF01_220118
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 four types of EUT , the different between them refer to the TB328FU\_Operational Description of Product Equality Declaration which is exhibit separately.

### 1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	WLAN 802.11b/g/n: 2400 MHz ~ 2483.5 MHz WLAN 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
<b>Rx Frequency</b>	WLAN 802.11b/g/n: 2400 MHz ~ 2483.5 MHz WLAN 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
<b>Antenna Type</b>	WLAN : PIFA Antenna Bluetooth : PIFA Antenna GNSS: PIFA Antenna
<b>Type of Modulation</b>	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac: 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.

<b>Test Firm</b>	Sporton International Inc. (Kunshan)		
<b>Test Site Location</b>	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		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	CO01-KS	CN1257	314309



Sporton International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

<b>Test Firm</b>	Sporton International Inc. (Shenzhen)		
<b>Test Site Location</b>	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH05-SZ	CN1256	421272

Test data subcontracted: Radiated Emission test case in section 3.2 of this report

### 1.7. Test Software

Item	Site	Manufacturer	Name	Version
1.	CO01-KS	AUDIX	E3	6.2009-8-24
2.	03CH05-SZ	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.

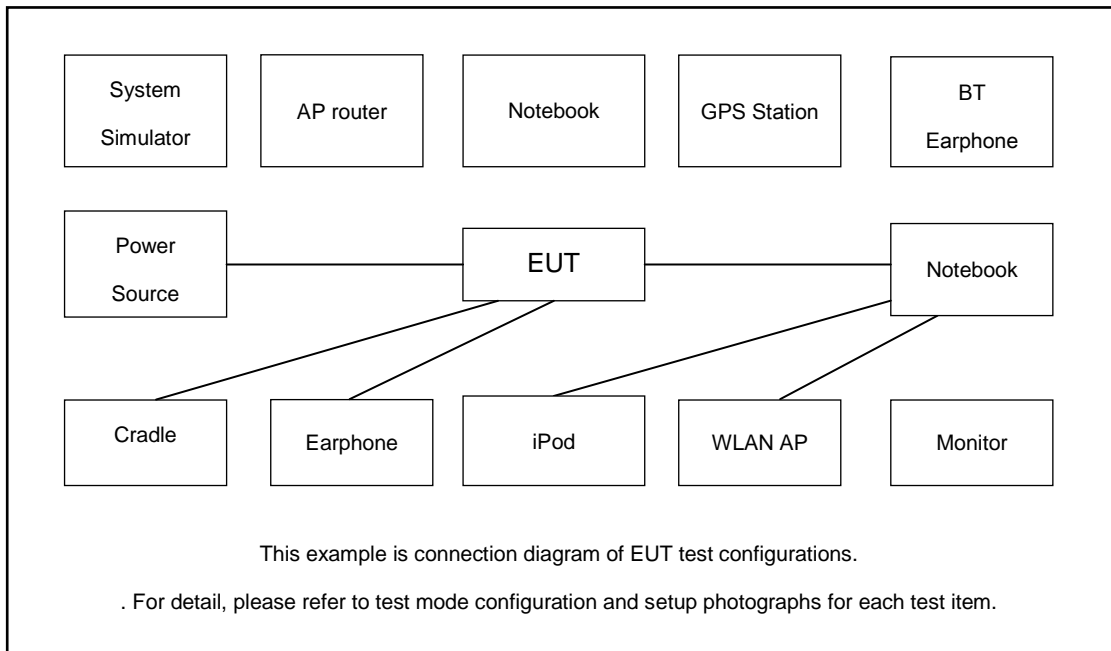
Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (30MHz to the 5th harmonic of the highest frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: Bluetooth Idle + WLAN Idle(2.4G) + Camera(Rear) + Earphone + USB Cable1(Charging from Adapter1) for Sample 1
	Mode 2: Bluetooth Idle + WLAN Idle(5G) + Camera(Front) + Earphone + USB Cable2(Charging from Adapter2) for Sample 1
	Mode 3: Bluetooth Idle + WLAN Idle(2.4G) + MPEG4(Run Color Bar) + Earphone + USB Cable1(Charging from Adapter1) for Sample 1
	Mode 4: Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + Earphone + USB Cable1(Data Link with Notebook) for Sample 1
	Mode 5: Bluetooth Idle + WLAN Idle(2.4G) + GNSS Rx + Earphone + USB Cable2(Data Link with Notebook) for Sample 1
	Mode 6: Bluetooth Idle + WLAN Idle(2.4G) + Camera(Rear) + Earphone + USB Cable1(Charging from Adapter1) for Sample 2
	Mode 7: Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + Earphone + USB Cable1(Data Link with Notebook) for Sample 2
	Mode 8: Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + Earphone + USB Cable1(Data Link with Notebook) for Sample 3
	Mode 9: Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + Earphone + USB Cable1(Data Link with Notebook) for Sample 4
Radiated Emissions	Mode 1: Bluetooth Idle + WLAN Idle(2.4G) + Camera(Rear) + Earphone + USB Cable1(Charging from Adapter1) for Sample 1
	Mode 2: Bluetooth Idle + WLAN Idle(5G) + Camera(Front) + Earphone + USB Cable2(Charging from Adapter2) for Sample 1
	Mode 3: Bluetooth Idle + WLAN Idle(2.4G) + MPEG4(Run Color Bar) + Earphone + USB Cable1(Charging from Adapter1) for Sample 1
	Mode 4: Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + Earphone + USB Cable1(Data Link with Notebook) for Sample 1
	Mode 5: Bluetooth Idle + WLAN Idle(2.4G) + GNSS Rx + Earphone + USB Cable2(Data Link with Notebook) for Sample 1
	Mode 6: Bluetooth Idle + WLAN Idle(2.4G) + Camera(Rear) + Earphone + USB Cable1(Charging from Adapter1) for Sample 2
	Mode 7: Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + Earphone + USB



	<p>Cable1(Data Link with Notebook) for Sample 2</p> <p>Mode 8: Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + Earphone + USB Cable1(Data Link with Notebook) for Sample 3</p> <p>Mode 9: Bluetooth Idle + WLAN Idle(5G) + GNSS Rx + Earphone + USB Cable1(Data Link with Notebook) for Sample 4</p>
<p><b>Remark:</b></p> <ol style="list-style-type: none"> <li>1. The worst case of AC is mode 6; only the test data of this mode is reported.</li> <li>2. The worst case of RE is mode 8; only the test data of this mode is reported.</li> <li>3. Data Link with Notebook means data application transferred mode between EUT and Notebook.</li> </ol>	

## 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.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
2.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	shielded cable DC O/P 1.8m Unshielded AC I/P cable 1.8m
3.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
4.	WLAN AP	ASUSTek	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,2.7m with Core
5.	Hard Disk	Lenovo	F310	DoC	Shielded, 1.2m	N/A
6.	SD Card	Kingston	8GB	N/A	N/A	N/A
7.	iPod	Apple	MC525 ZP/A	Fcc DoC	Shielded, 1.0m	N/A
8.	Notebook	DELL	Inspiron 15-7570	Fcc DoC	N/A	shielded cable DC O/P 1.8m Unshielded AC I/P cable 1.8m
9.	GPS Station	ADIVIE	MP9000	N/A	N/A	Unshielded,1.8m
10.	Bluetooth Earphone	Samsung	EO-MG900	CCAH14LP1680T5	N/A	N/A
11.	Earphone	Eimuse	E-500MV	Fcc DoC	Shielded, 2.2m	N/A
12.	Vector Signal Generator	R&S	SMBV100A	258305	N/A	N/A

### 2.4. EUT Operation Test Setup

The EUT was synchronized to the BCCH, and is in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the Bluetooth earphone or 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.

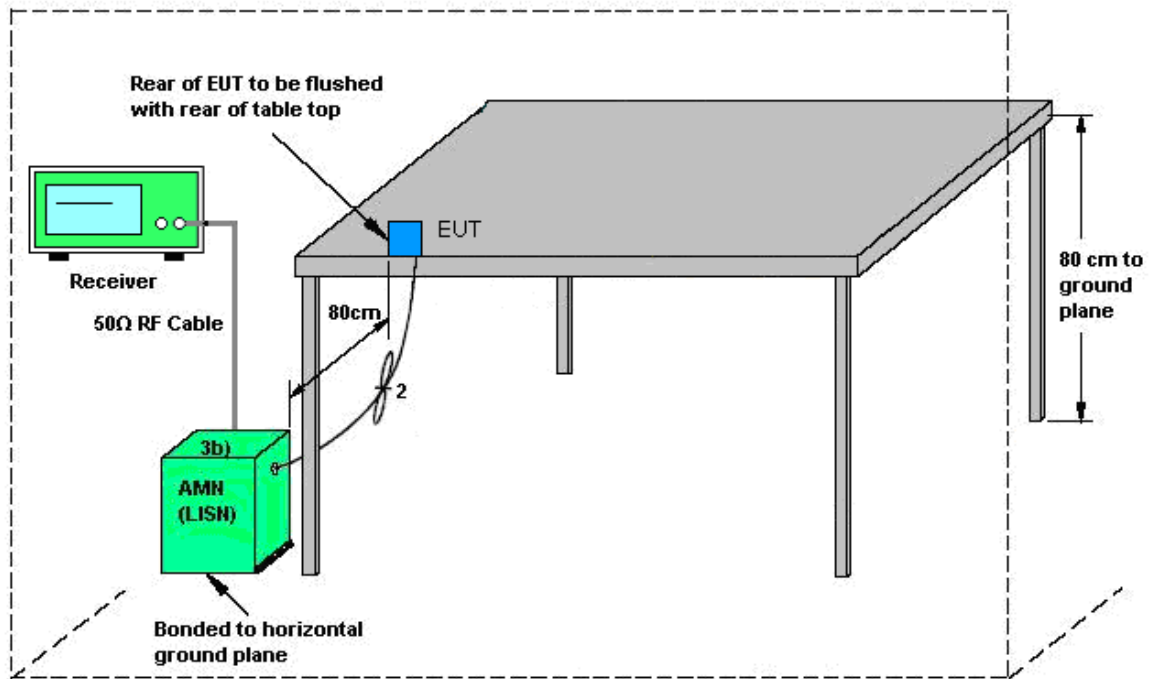
##### 3.1.2 Measuring Instruments

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

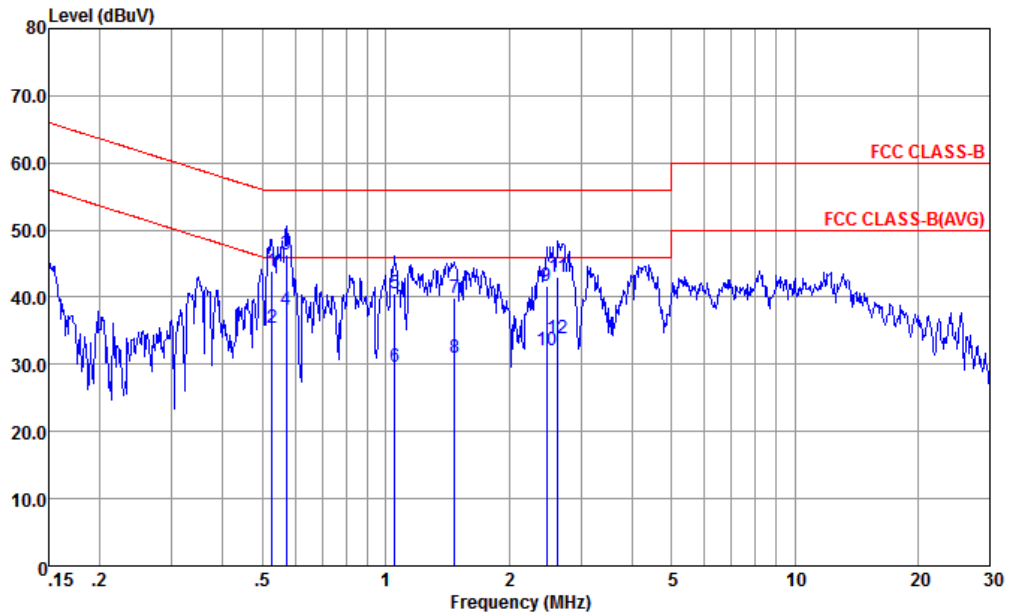


AMN = Artificial mains network (LISN)  
AE = Associated equipment  
EUT = Equipment under test  
ISN = Impedance stabilization network



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.		

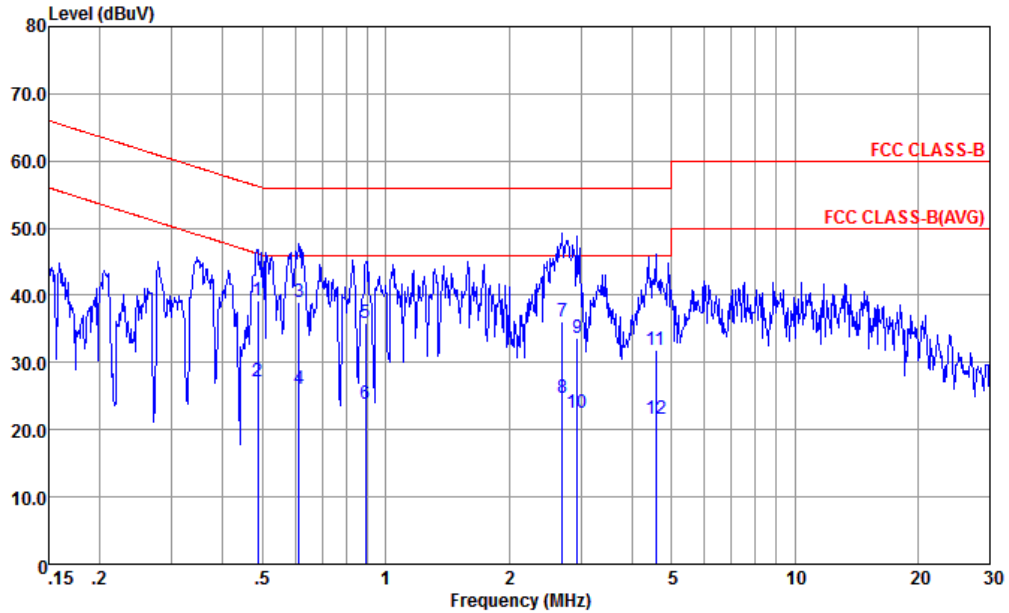


Site : CO01-KS  
 Condition : FCC CLASS-B LISN-060105-L LINE  
 Project : (FC) 1D0313-01  
 mode : Mode 6  
 : HA1JV27Q #87

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.527	43.84	-12.16	56.00	33.50	0.10	10.24	QP
2	0.527	35.44	-10.56	46.00	25.10	0.10	10.24	Average
3	0.570	46.44	-9.56	56.00	36.10	0.10	10.24	QP
4 *	0.570	38.14	-7.86	46.00	27.80	0.10	10.24	Average
5	1.054	40.46	-15.54	56.00	30.10	0.13	10.23	QP
6	1.054	29.66	-16.34	46.00	19.30	0.13	10.23	Average
7	1.472	39.97	-16.03	56.00	29.60	0.14	10.23	QP
8	1.472	30.87	-15.13	46.00	20.50	0.14	10.23	Average
9	2.474	41.58	-14.42	56.00	31.20	0.15	10.23	QP
10	2.474	31.98	-14.02	46.00	21.60	0.15	10.23	Average
11	2.636	42.98	-13.02	56.00	32.59	0.15	10.24	QP
12	2.636	33.88	-12.12	46.00	23.49	0.15	10.24	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 CLASS-B LISN-060105-N NEUTRAL  
 Project : (FC) 1D0313-01  
 mode : Mode 6  
 : HA1JV27Q #87

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.486	39.15	-17.08	56.23	28.80	0.11	10.24	QP
2	0.486	27.15	-19.08	46.23	16.80	0.11	10.24	Average
3 *	0.614	38.95	-17.05	56.00	28.60	0.11	10.24	QP
4	0.614	26.15	-19.85	46.00	15.80	0.11	10.24	Average
5	0.894	35.95	-20.05	56.00	25.59	0.12	10.24	QP
6	0.894	23.95	-22.05	46.00	13.59	0.12	10.24	Average
7	2.707	36.19	-19.81	56.00	25.80	0.15	10.24	QP
8	2.707	24.69	-21.31	46.00	14.30	0.15	10.24	Average
9	2.946	33.69	-22.31	56.00	23.30	0.15	10.24	QP
10	2.946	22.59	-23.41	46.00	12.20	0.15	10.24	Average
11	4.574	31.94	-24.06	56.00	21.51	0.17	10.26	QP
12	4.574	21.64	-24.36	46.00	11.21	0.17	10.26	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.

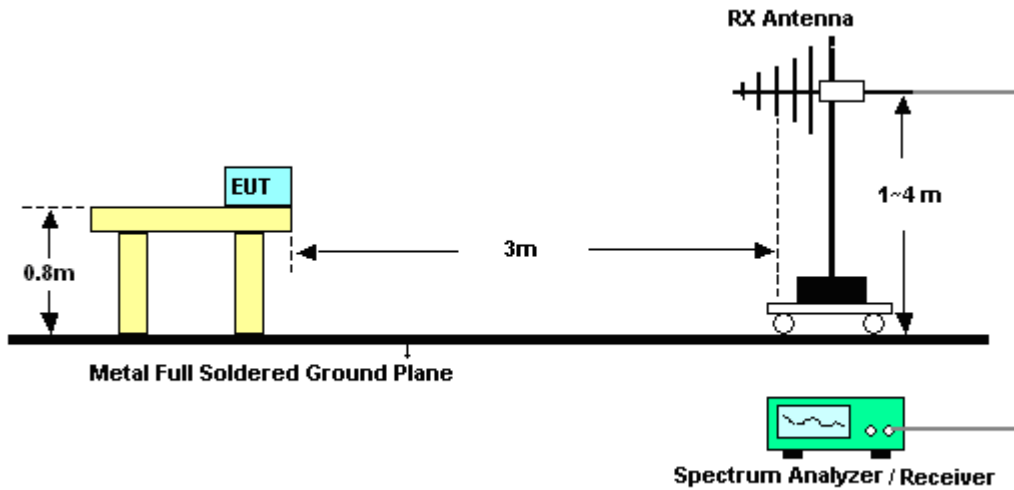
#### 3.2.3. Test Procedures

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 (dBµV/m) = 20 log Emission level (µV/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

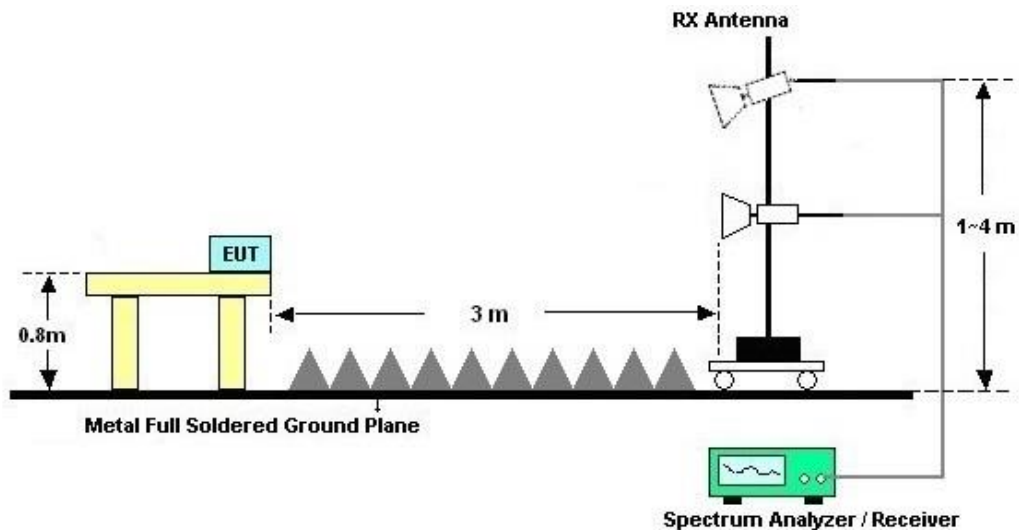
10. Exploratory radiated emissions testing of handheld and/or body-worn devices shall include rotation of the EUT through three orthogonal axes (X/Y/Z Plane) to determine the orientation (attitude) that maximizes the emissions.

### 3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz

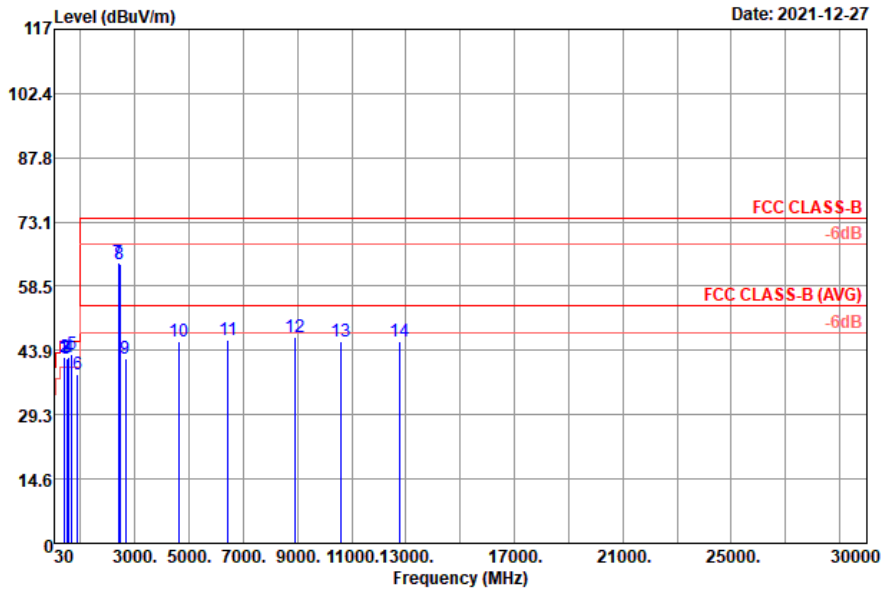






3.2.5. Test Result of Radiated Emission

Test Engineer :	Zhang Tao	Temperature :	24~25°C
		Relative Humidity :	48~49%
Test Distance :	3m	Polarization :	Horizontal
Remark :	#7 and #8 are RF signals which come from Bluetooth used to connect the EUT, and which can be ignored.		



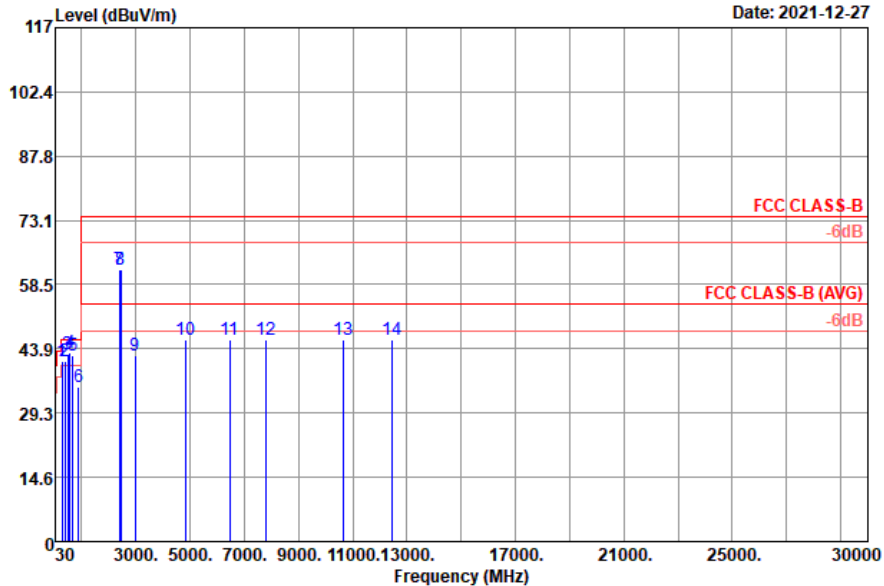
Site : 03CH05-SZ  
 Condition : FCC CLASS-B 3m VULB9168-01001 HORIZONTAL

Plane : Y  
 : NB TO SD

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	389.87	42.21	-3.79	46.00	51.81	21.93	3.29	34.82	---	---	Peak
2	420.91	42.45	-3.55	46.00	51.42	22.48	3.31	34.76	---	---	Peak
3	487.84	41.93	-4.07	46.00	49.57	23.63	3.43	34.70	---	---	Peak
4	584.84	42.47	-3.53	46.00	47.68	25.50	3.82	34.53	---	---	Peak
5 *	682.81	42.89	-3.11	46.00	46.73	26.68	3.98	34.50	---	---	Peak
6	877.78	38.44	-7.56	46.00	39.74	28.83	4.17	34.30	---	---	Peak
7	2402.00	63.79			78.63	27.79	7.81	50.44	---	---	Peak
8	2436.00	63.44			78.39	27.66	7.85	50.46	---	---	Peak
9	2654.00	42.17	-31.83	74.00	56.54	27.72	8.23	50.32	---	---	Peak
10	4652.00	46.02	-27.98	74.00	54.26	31.10	10.23	49.57	---	---	Peak
11	6448.00	46.25	-27.75	74.00	50.05	33.87	11.24	48.91	---	---	Peak
12	8910.00	46.97	-27.03	74.00	46.04	37.57	12.90	49.54	---	---	Peak
13	10588.00	46.09	-27.91	74.00	41.60	40.02	12.80	48.33	---	---	Peak
14	12779.00	46.08	-27.92	74.00	38.40	38.83	15.63	46.78	---	---	Peak



Test Engineer :	Zhang Tao	Temperature :	24~25°C
		Relative Humidity :	48~49%
Test Distance :	3m	Polarization :	Vertical
Remark :	#7 and #8 are RF signals which come from Bluetooth used to connect the EUT, and which can be ignored.		



Site : 03CH05-SZ  
 Condition : FCC CLASS-B 3m VULB9168-01001 VERTICAL

Plane : Y  
 : NB TO SD

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	291.90	41.20	-4.80	46.00	53.40	19.59	3.13	34.92	---	---	Peak
2	389.87	40.98	-5.02	46.00	50.58	21.93	3.29	34.82	---	---	Peak
3	487.84	42.81	-3.19	46.00	50.45	23.63	3.43	34.70	---	---	Peak
4 *	584.84	42.88	-3.12	46.00	48.09	25.50	3.82	34.53	---	---	Peak
5	682.81	42.25	-3.75	46.00	46.09	26.68	3.98	34.50	---	---	Peak
6	877.78	35.36	-10.64	46.00	36.66	28.83	4.17	34.30	---	---	Peak
7	2402.00	62.00			76.84	27.79	7.81	50.44	---	---	Peak
8	2436.00	61.84			76.79	27.66	7.85	50.46	---	---	Peak
9	2964.00	42.38	-31.62	74.00	54.82	28.67	8.83	49.94	---	---	Peak
10	4834.00	45.90	-28.10	74.00	53.73	31.30	10.40	49.53	---	---	Peak
11	6468.00	45.81	-28.19	74.00	49.50	33.96	11.26	48.91	---	---	Peak
12	7826.00	45.95	-28.05	74.00	46.56	37.15	12.41	50.17	---	---	Peak
13	10632.00	45.90	-28.10	74.00	41.07	40.08	13.04	48.29	---	---	Peak
14	12473.00	45.81	-28.19	74.00	39.98	38.53	14.34	47.04	---	---	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 Receiver	R&S	ESC17	100768	9kHz~7GHz;	Apr. 21, 2021	Jan. 04, 2022	Apr. 20, 2022	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 17, 2021	Jan. 04, 2022	Oct. 16, 2022	Conduction (CO01-KS)
AC LISN	R&S	ENV216	100334	9kHz~30MHz	Oct. 17, 2021	Jan. 04, 2022	Oct. 16, 2022	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 17, 2021	Jan. 04, 2022	Oct. 16, 2022	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	102261	9kHz~7GHz	May 21, 2021	Dec. 27, 2021	May 20, 2022	Radiation (03CH05-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY59071191	10Hz~44GHz	Apr. 07, 2021	Dec. 27, 2021	Apr. 06, 2022	Radiation (03CH05-SZ)
Log-periodic Antenna	SCHWARZBECK	VULB 9168	01001	20MHz~1.5GHz	Mar. 25, 2021	Dec. 27, 2021	Mar. 24, 2022	Radiation (03CH05-SZ)
Amplifier	EM Electronics	EM330	060756	0.01Hz ~3000MHz	Apr. 07, 2021	Dec. 27, 2021	Apr. 06, 2022	Radiation (03CH05-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-2206	1GHz~18GHz	Apr. 11, 2021	Dec. 27, 2021	Apr. 10, 2022	Radiation (03CH05-SZ)
HF Amplifier	EM Electronics	EM01G18GA	060781	1GHz~18GHz	Apr. 07, 2021	Dec. 27, 2021	Apr. 06, 2022	Radiation (03CH05-SZ)
HF Amplifier	EM Electronics	EM18G40G	060778	18GHz~40GHz	Apr. 07, 2021	Dec. 27, 2021	Apr. 06, 2022	Radiation (03CH05-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	00983	15GHz~40GHz	Apr. 11, 2021	Dec. 27, 2021	Apr. 10, 2022	Radiation (03CH05-SZ)
AC Power Source	APC	AFV-S-600	F119050013	N/A	NCR	Dec. 27, 2021	NCR	Radiation (03CH05-SZ)
Turn Table	EMEC	T-200-S-1	060925-T	0~360 degree	NCR	Dec. 27, 2021	NCR	Radiation (03CH05-SZ)
Antenna Mast	EMEC	MBS-400-1	060927	1 m~4 m	NCR	Dec. 27, 2021	NCR	Radiation (03CH05-SZ)

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% ( $U = 2Uc(y)$ )	2.94dB
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.2dB
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	5.1dB
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### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.1dB
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