



# FCC Test Report

**APPLICANT** : Honeywell International Inc  
**EQUIPMENT** : Mobile computer  
**BRAND NAME** : Honeywell  
**MODEL NAME** : CT47X0N  
**FCC ID** : HD5-CT47X0N  
**STANDARD** : 47 CFR Part 15 Subpart B  
**CLASSIFICATION** : Certification  
**TEST DATE(S)** : Oct. 13, 2022 ~ Oct. 24, 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 9.08 dB at 0.160 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 5.16 dB at 480.08 MHz for Quasi-Peak

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and Explanations:</b>
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

Honeywell International Inc  
9680 Old Bailes Rd, Fort Mill, SC 29707 United States

## 1.2. Manufacturer

Honeywell International Inc  
9680 Old Bailes Rd, Fort Mill, SC 29707 United States

## 1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile computer
Brand Name	Honeywell
Model Name	CT47X0N
FCC ID	HD5-CT47X0N
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/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC
SN Code	Conduction: 22211E2281 for Sample 1 22211E2101 for Sample 2 22211E2031 for Sample 3 22211E3671 for Sample 4 Radiation: 22211E2281 for Sample 1 22211E2101 for Sample 2 22211E2031 for Sample 3 22211E3671 for Sample 4
HW Version	V1.0
SW Version	CT47-S-412.01.00.1628-G-DEBUG-TEST-H2G-QFIL
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 differences could be referred to the CT47X0N\_Operational Description of Product Equality Declaration which is exhibit separately. According to the difference, we choose sample 1 to full test and the sample 2/3/4 is verified for the difference.



### 1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	802.11b/g/n: 2400 MHz ~ 2483.5 MHz 802.11a/n/ac/ax/ax: 5150 MHz ~ 5250 MHz; 5250 MHz ~ 5350 MHz; 5470 MHz ~ 5725 MHz 5725 MHz ~ 5850 MHz  WLAN 802.11ax: 5925 MHz ~ 7125 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC : 13.56 MHz
<b>Rx Frequency</b>	802.11b/g/n: 2400 MHz ~ 2483.5 MHz 802.11a/n/ac/ax: 5150 MHz ~ 5250 MHz; 5250 MHz ~ 5350 MHz; 5470 MHz ~ 5725 MHz 5725 MHz ~ 5850 MHz  WLAN 802.11ax: 5925 MHz ~ 7125 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC : 13.56 MHz
<b>Antenna Type</b>	WLAN : LDS Internal Bluetooth : LDS Internal NFC: FPC Antenna
<b>Type of Modulation</b>	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK NFC: ASK

### 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 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).

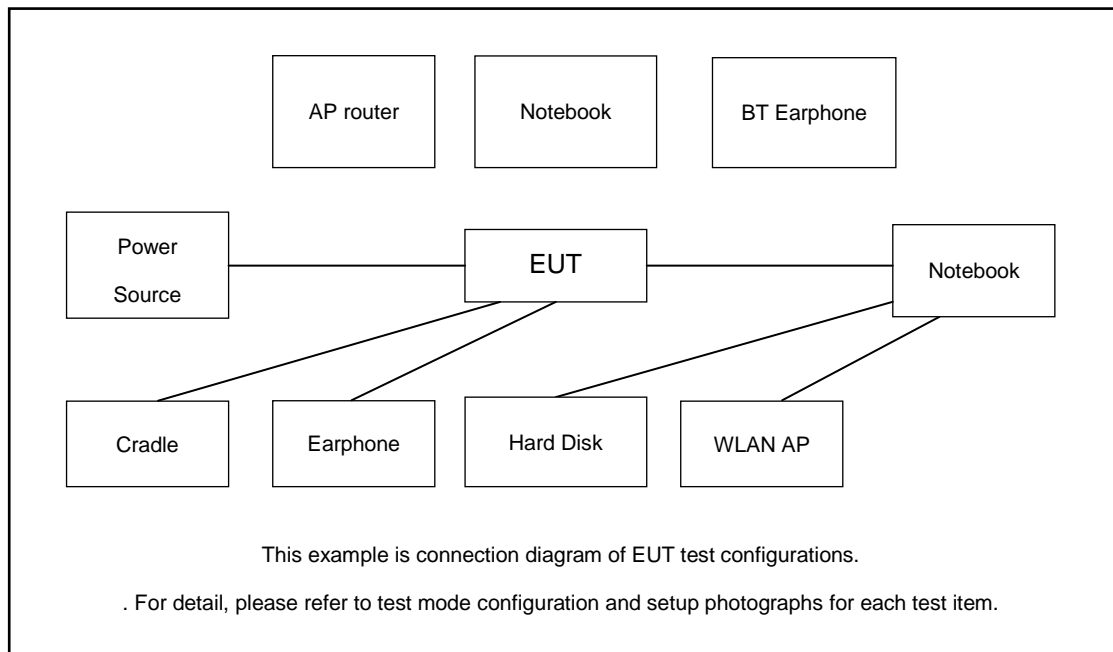
Test Items	Function Type
AC Conducted Emission	Mode 1: Bluetooth Idle 1 + WLAN (2.4G) Idle + Camera(Rear) + Battery + USB Cable (Charging from Adapter ) for Sample 1
	Mode 2: Bluetooth Idle 1 + WLAN (5G) Idle + Camera(Front) + Battery + Holster + USB Cable (Charging from Adapter ) for Sample 1
	Mode 3: Bluetooth Idle 1 + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + pouch + USB Cable (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB for Sample 1
	Mode 4: Bluetooth Idle 1 + WLAN (2.4G) Idle + NFC On + Battery + USB Cable (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) for Sample 1
	Mode 5: Bluetooth Idle 1 + WLAN (2.4G) Idle + scanning + Battery + USB Cable (Data Link with Notebook) + EUT (SD) USB Data Link to PC/NB for Sample 1
	Mode 6: Bluetooth Idle 1 + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + USB Cable (Data Link with Notebook) + PC/NB USB Data Link to EUT (SD) for Sample 1
	Mode 7: Bluetooth Idle 1 + WLAN (2.4G) Idle + MPEG4(Run Color Bar) + Battery + USB Cable (Data Link with Notebook) + EUT ((IPSM CARD) USB Data Link to PC/NB for Sample 1
	Mode 8: Bluetooth Idle 1 + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + USB Cable (Data Link with Notebook) + PC/NB USB Data Link to EUT (IPSM CARD) for Sample 1
	Mode 9: Bluetooth Idle 2 + Phone turn-off + Battery + pouch + USB Cable (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB for Sample 1
	Mode 10 : Bluetooth Idle 1 + WLAN 6E Idle + MPEG4(Run Color Bar) + Charging from cradle for Sample 1
	Mode 11 : Bluetooth Idle 1 + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + pouch + USB Cable (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB for Sample 2
	Mode 12 : Bluetooth Idle 1 + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + pouch + USB Cable (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB for Sample 3
	Mode 13 : Bluetooth Idle 1 + WLAN 6E Idle + scanning + Battery + pouch + USB Cable (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB for Sample 4





Radiated Emissions	<p>Mode 1: Bluetooth Idle 1 + WLAN (2.4G) Idle + Camera(Rear) + Battery + USB Cable (Charging from Adapter) for Sample 1</p> <p>Mode 2: Bluetooth Idle 1 + WLAN (5G) Idle + Camera(Front) + Earphone + Battery + Holster for Sample 1</p> <p>Mode 3: Bluetooth Idle 1 + WLAN 6E Idle + MPEG4(Run Color Bar) + Battery + pouch + USB Cable (Data Link with Notebook) + EUT (eMMC) USB Data Link to PC/NB for Sample 1</p> <p>Mode 4: Bluetooth Idle 1 + WLAN (2.4G) Idle + NFC On + Battery + USB Cable (Data Link with Notebook) + PC/NB USB Data Link to EUT (eMMC) for Sample 1</p> <p>Mode 5: Bluetooth Idle 1 + WLAN (5G) Idle + scanning + Battery + USB Cable (Data Link with Notebook) + EUT (SD) USB Data Link to PC/NB for Sample 1</p> <p>Mode 6: Bluetooth Idle 1 + WLAN 6E Idle + GNSS Rx + Battery + USB Cable (Data Link with Notebook) + PC/NB USB Data Link to EUT (SD) for Sample 1</p> <p>Mode 7: Bluetooth Idle 1 + WLAN (2.4G) Idle + Camera(Rear) + Battery + USB Cable (Data Link with Notebook) + EUT ((IPSM CARD) USB Data Link to PC/NB for Sample 1</p> <p>Mode 8: Bluetooth Idle 1 + WLAN (2.4G) Idle + Camera(Rear) + Battery + PC/NB USB Data Link to EUT (IPSM CARD) for Sample 1</p> <p>Mode 9: Bluetooth Idle 2 + Phone turn-off for Sample 1</p> <p>Mode 10 : Bluetooth Idle 1 + WLAN (2.4G) Idle + Camera(Rear) + Battery + Charging from cradle for Sample 1</p> <p>Mode 11 : Bluetooth Idle 1 + WLAN (2.4G) Idle + Camera(Rear) + Battery + USB Cable (Data Link with Notebook) + PC/NB USB Data Link to EUT (IPSM CARD) for Sample 2</p> <p>Mode 12 : Bluetooth Idle 1 + WLAN (2.4G) Idle + Camera(Rear) + Battery + USB Cable (Data Link with Notebook) + PC/NB USB Data Link to EUT (IPSM CARD) for Sample 3</p> <p>Mode 13 : Bluetooth Idle 1 + WLAN (2.4G) Idle + scanning + Battery + USB Cable (Data Link with Notebook) + PC/NB USB Data Link to EUT (IPSM CARD) for Sample 4</p>
<b>Remark:</b>	
<ol style="list-style-type: none"> <li>1. The worst case of AC is mode 11; 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 / PC means data application transferred mode between EUT and Notebook / PC.</li> <li>4. Bluetooth Idle 1 is a Bluetooth module 1 which could normal idle</li> <li>5. Bluetooth Idle 2 is a Bluetooth module 2 which could work in shutdown state</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	Xiaomi	LYEJ02LM	N/A	N/A	N/A
2.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
3.	LTE Base Station	Anritus	MT8820C	N/A	N/A	Unshielded, 1.8 m
4.	WLAN AP	TP-Link	TL-WDR5600	N/A	N/A	Unshielded, 1.8 m
5.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
6.	Notebook	Lenovo	V130-14IKB001	N/A	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
7.	Notebook	Lenovo	V130-15IKB005	N/A	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
8.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
9.	Hard disk	KINGSHARE	KSP6120G	N/A	N/A	N/A
10.	Signal Generator	R&S	SMBV100A	N/A	N/A	N/A
11.	Hard Disk	Lenovo	F310	DoC	Shielded, 1.2m	N/A
12.	Cradle	N/A	N/A	N/A	N/A	N/A
13.	Adapter for Cradle	N/A	N/A	N/A	N/A	N/A

### 2.4. EUT Operation Test Setup

The EUT was in Bluetooth idle mode during the testing. 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. Execute “H Pattern” to show H Pattern via USB Cable on the Notebook.
5. Turn on NFC function



### 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.

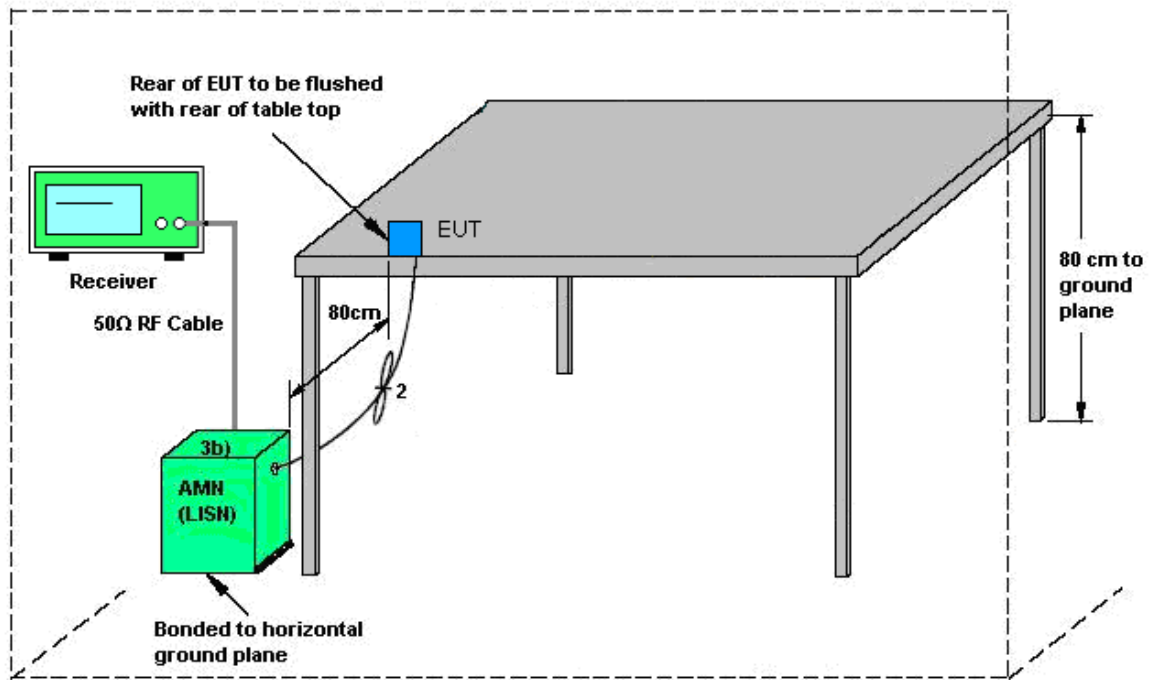
##### 3.1.2 Measuring Instruments

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

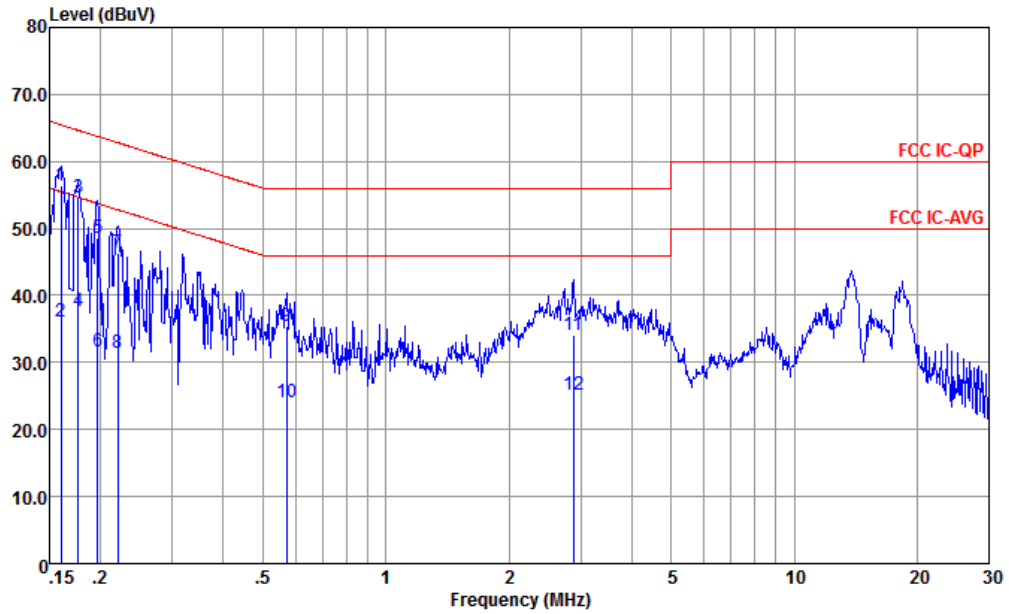


AMN = Artificial mains network (LISN)  
AE = Associated equipment  
EUT = Equipment under test  
ISN = Impedance stabilization network



3.1.5 Test Result of AC Conducted Emission

Test Engineer :	Amos	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.		

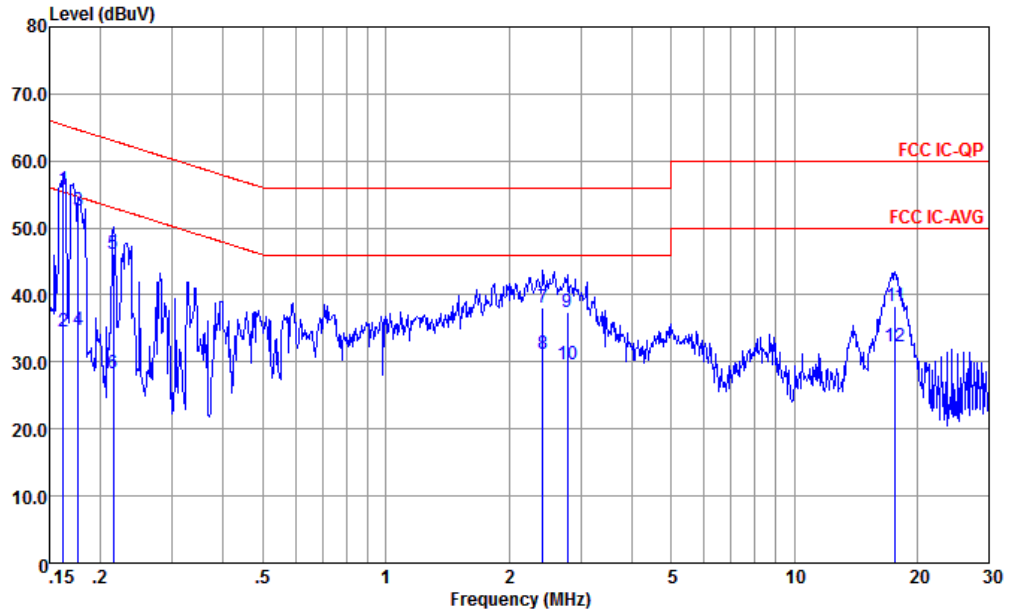


Site : CO01-KS  
 Condition : FCC IC-QP LISN-060105-LINE LINE

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1 *	0.160	56.39	-9.08	65.47	45.90	0.06	10.43	QP
2	0.160	36.09	-19.38	55.47	25.60	0.06	10.43	Average
3	0.177	54.67	-9.97	64.64	44.21	0.04	10.42	QP
4	0.177	37.67	-16.97	54.64	27.21	0.04	10.42	Average
5	0.197	48.64	-15.12	63.76	38.20	0.02	10.42	QP
6	0.197	31.64	-22.12	53.76	21.20	0.02	10.42	Average
7	0.221	46.33	-16.46	62.79	35.90	0.03	10.40	QP
8	0.221	31.33	-21.46	52.79	20.90	0.03	10.40	Average
9	0.570	35.34	-20.66	56.00	25.20	-0.05	10.19	QP
10	0.570	24.04	-21.96	46.00	13.90	-0.05	10.19	Average
11	2.884	34.16	-21.84	56.00	24.20	-0.10	10.06	QP
12	2.884	25.16	-20.84	46.00	15.20	-0.10	10.06	Average



Test Engineer :	Amos	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	dB	dBuV	dBuV	dB	dB	
1 *	0.162	55.66	-9.68	65.34	45.19	0.04	10.43	QP
2	0.162	34.56	-20.78	55.34	24.09	0.04	10.43	Average
3	0.177	52.67	-11.97	64.64	42.21	0.04	10.42	QP
4	0.177	34.67	-19.97	54.64	24.21	0.04	10.42	Average
5	0.215	46.04	-16.97	63.01	35.60	0.03	10.41	QP
6	0.215	28.24	-24.77	53.01	17.80	0.03	10.41	Average
7	2.422	38.13	-17.87	56.00	28.19	-0.12	10.06	QP
8	2.422	31.13	-14.87	46.00	21.19	-0.12	10.06	Average
9	2.779	37.53	-18.47	56.00	27.60	-0.13	10.06	QP
10	2.779	29.53	-16.47	46.00	19.60	-0.13	10.06	Average
11	17.661	38.24	-21.76	60.00	27.19	-0.24	11.29	QP
12	17.661	32.24	-17.76	50.00	21.19	-0.24	11.29	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.



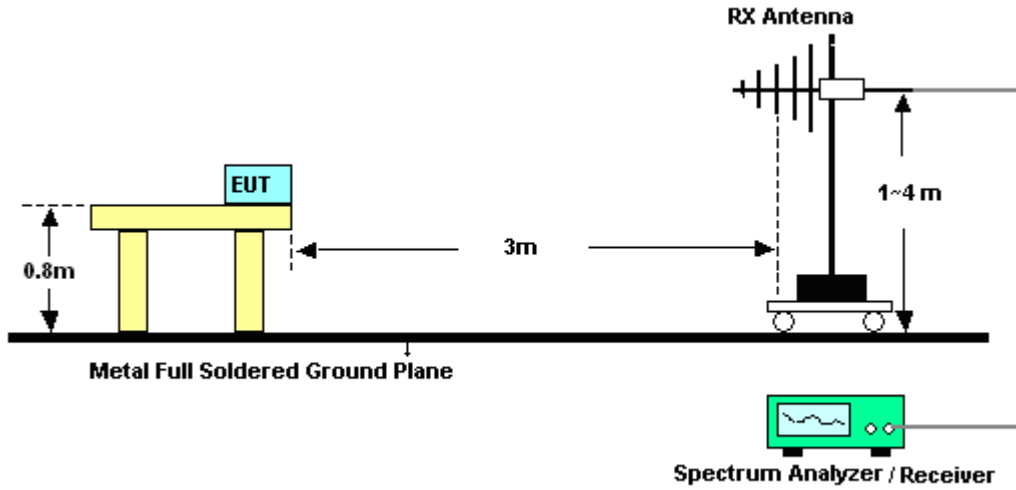


### **3.2.3. Test Procedures**

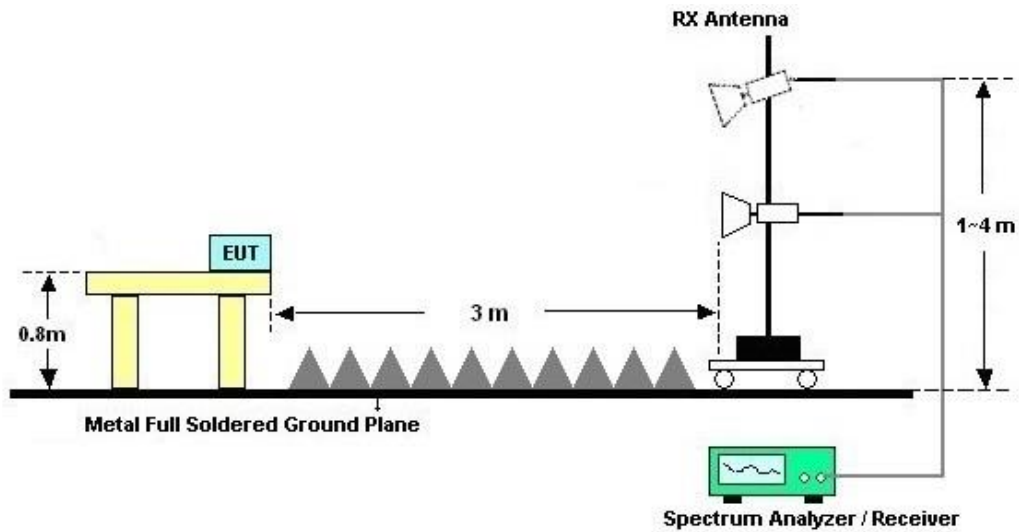
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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 $\mu$ V/m) = 20 log Emission level ( $\mu$ 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



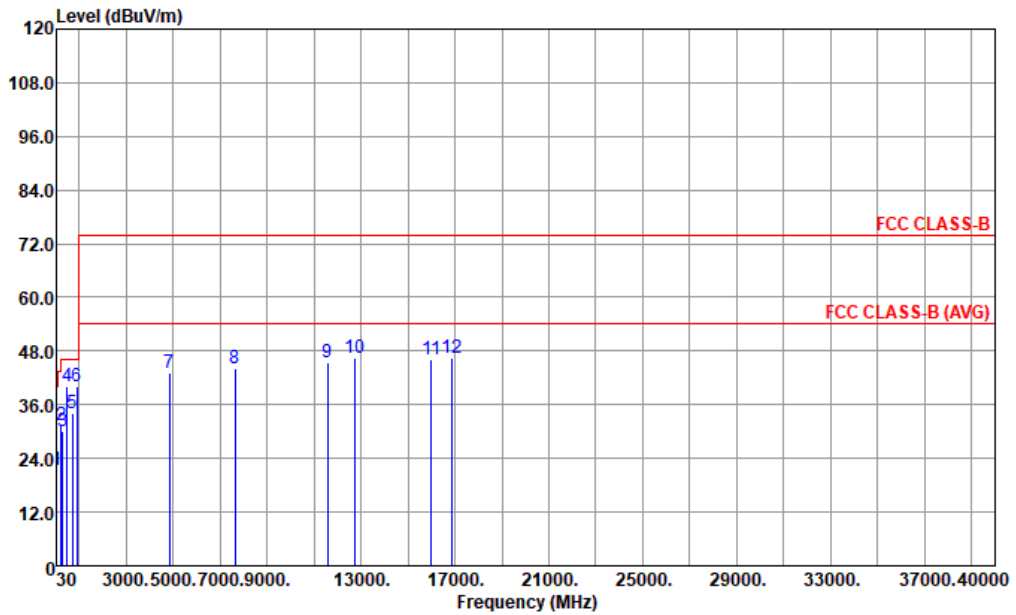
For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

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

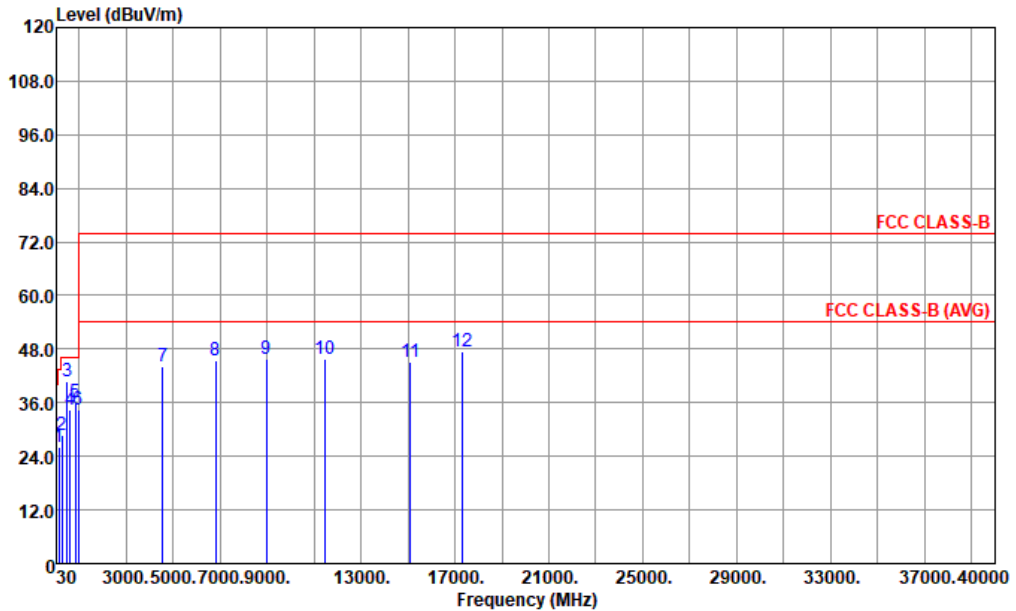


Site : 03CH02-KS  
 Condition : FCC CLASS-B 3m LF 49921 HORIZONTAL

	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	30.00	21.29	-18.71	40.00	27.19	25.74	0.76	32.40	---	---	Peak
2	244.37	31.50	-14.50	46.00	43.92	17.89	2.09	32.40	---	---	Peak
3	299.66	30.17	-15.83	46.00	40.68	19.33	2.56	32.40	---	---	Peak
4	480.08	39.98	-6.02	46.00	45.64	23.60	3.14	32.40	---	---	Peak
5	719.67	34.19	-11.81	46.00	35.54	27.01	4.00	32.36	---	---	Peak
6	889.42	40.08	-5.92	46.00	38.23	28.99	4.44	31.58	100	0	Peak
7	4859.00	43.16	-30.84	74.00	59.91	34.33	10.86	61.94	---	---	Peak
8	7647.00	44.04	-29.96	74.00	56.17	35.90	13.80	61.83	---	---	Peak
9	11591.00	45.50	-28.50	74.00	51.72	38.32	17.19	61.73	---	---	Peak
10	12747.00	46.35	-27.65	74.00	50.60	39.25	18.01	61.51	---	---	Peak
11	16011.00	46.22	-27.78	74.00	47.22	41.03	20.36	62.39	---	---	Peak
12	16878.00	46.48	-27.52	74.00	44.82	42.46	20.95	61.75	---	---	Peak



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



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	155.13	26.04	-17.46	43.50	39.85	16.77	1.82	32.40	---	---	Peak
2	255.04	28.63	-17.37	46.00	39.78	19.11	2.14	32.40	---	---	Peak
3	480.08	40.84	-5.16	46.00	46.50	23.60	3.14	32.40	100	0	QP
4	607.15	34.30	-11.70	46.00	36.82	26.23	3.65	32.40	---	---	Peak
5	830.25	36.07	-9.93	46.00	35.33	28.47	4.25	31.98	---	---	Peak
6	960.23	34.56	-19.44	54.00	30.93	29.99	4.61	30.97	---	---	Peak
7	4553.00	44.02	-29.98	74.00	61.80	34.33	10.29	62.40	---	---	Peak
8	6814.00	45.59	-28.41	74.00	58.59	35.92	12.84	61.76	---	---	Peak
9	8973.00	45.94	-28.06	74.00	57.18	36.29	14.82	62.35	---	---	Peak
10	11438.00	45.93	-28.07	74.00	52.55	38.16	17.04	61.82	---	---	Peak
11	15093.00	45.26	-28.74	74.00	47.94	40.02	19.54	62.24	---	---	Peak
12	17286.00	47.37	-26.63	74.00	45.55	42.09	21.12	61.39	---	---	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;	May 24, 2022	Oct. 24, 2022	May 23, 2023	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2022	Oct. 24, 2022	Oct. 12, 2023	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	May 24, 2022	Oct. 24, 2022	May 23, 2023	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2022	Oct. 24, 2022	Oct. 11, 2023	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max x 30dBm	Oct. 12, 2022	Oct. 13, 2022	Oct. 11, 2023	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44G,MAX 30dB	Oct. 12, 2022	Oct. 13, 2022	Oct. 11, 2023	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz-1GHz	Dec. 22, 2021	Oct. 13, 2022	Dec. 21, 2022	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Nov. 08, 2021	Oct. 13, 2022	Nov. 07, 2022	Radiation (03CH02-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	Oct. 13, 2022	Jan. 04, 2023	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	413741	9KHz-1GHz	Jan. 05, 2022	Oct. 13, 2022	Jan. 04, 2023	Radiation (03CH02-KS)
Amplifier	EM	EM01G18G	060806	1GHz~18GHz	Oct. 12, 2022	Oct. 13, 2022	Oct. 11, 2023	Radiation (03CH02-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2022	Oct. 13, 2022	Jan. 04, 2023	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Oct. 13, 2022	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Oct. 13, 2022	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Oct. 13, 2022	NCR	Radiation (03CH02-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% ( $U = 2Uc(y)$ )	2.78dB
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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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