



# FCC Test Report

**APPLICANT** : Sony Mobile Communications Inc.  
**EQUIPMENT** : GSM/WCDMA/LTE Phone+Bluetooth, DTS/UNII  
a/b/g/n/ac and NFC  
**BRAND NAME** : Sony  
**FCC ID** : PY7-78553D  
**STANDARD** : FCC 47 CFR FCC Part 15 Subpart B  
**CLASSIFICATION** : FCC Class B personal computers and peripherals

The product was received on Jun. 27, 2017 and testing was completed on Nov. 04, 2017. We, SPORTON INTERNATIONAL INC., 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., the test report shall not be reproduced except in full.

Reviewed by: Louis Wu / Manager

Approved by: Jones Tsai / Manager



## **SPORTON INTERNATIONAL INC.**

**No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.**



# TABLE OF CONTENTS

**REVISION HISTORY..... 3**

**SUMMARY OF TEST RESULT ..... 4**

**1. GENERAL DESCRIPTION ..... 5**

    1.1. Applicant..... 5

    1.2. Manufacturer ..... 5

    1.3. Product Feature of Equipment Under Test ..... 5

    1.4. Modification of EUT ..... 6

    1.5. Test Location ..... 6

    1.6. Applicable Standards ..... 7

**2. TEST CONFIGURATION OF EQUIPMENT UNDER TEST ..... 8**

    2.1. Test Mode ..... 8

    2.2. Connection Diagram of Test System ..... 9

    2.3. Support Unit used in test configuration and system ..... 10

    2.4. EUT Operation Test Setup ..... 10

**3. TEST RESULT ..... 11**

    3.1. Test of AC Conducted Emission Measurement ..... 11

    3.2. Test of Radiated Emission Measurement ..... 17

**4. LIST OF MEASURING EQUIPMENT ..... 24**

**5. UNCERTAINTY OF EVALUATION ..... 26**



### REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC762713-01	Rev. 01	Initial issue of report	Nov. 06, 2017



### 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 10.100 dB at 0.158 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 4.02 dB at 549.900 MHz



# 1. General Description

## 1.1. Applicant

**Sony Mobile Communications Inc.**

4-12-3 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002, Japan

## 1.2. Manufacturer

**Sony Mobile Communications Inc.**

4-12-3 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002, Japan

## 1.3. Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, DTS/UNII a/b/g/n/ac, FM Receiver, NFC, and GPS.

Product Specification subjective to this standard	
<b>Antenna Type</b>	WWAN Antenna Main: PIFA Antenna Aux. : PIFA Antenna WLAN: Monopole Antenna Bluetooth: Monopole Antenna GPS / Glonass: Monopole Antenna NFC: Loop Antenna

EUT Information List			
HW Version	SW Version	S/N	Performed Test Item
A	2.27	CQ3000017K	Conducted Emission
		CQ30000547	Radiated Emission



Accessory List	
Earphone 1	Model No. : MH410c
	S/N : N/A
Earphone 2	Model No. : MH410c
	S/N : N/A
USB Cable	Model No. : UCB20
	S/N : N/A

**Note:**

1. Above EUT list and accessory list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test.
3. For other wireless features of this EUT, test report will be issued separately.

### 1.4. Modification of EUT

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

### 1.5. Test Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1093 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

<b>Test Site</b>	SPORTON INTERNATIONAL INC.	
<b>Test Site Location</b>	No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
<b>Test Site No.</b>	<b>Sporton Site No.</b>	
	CO05-HY	03CH06-HY



## 1.6. Applicable Standards

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

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

### **Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. For FCC 15 Subpart B - Unintentional Radiators, device supporting USB interface or similar peripherals (defined as the Section 15.3 (r) Peripheral device) acting as a peripheral for personal computers shall be authorized as “The Class B personal computers and peripherals” per the Section 15.101 (a) Equipment authorization of unintentional radiators.
3. For other Unintentional Radiators features of this EUT, test reports are be issued separately.  
Per the Note of the Section 15.101, when device supports features (USB, FM Radio, digital devices...etc) more than one category of authorization, type of authorization shall be appropriately chosen for FCC 15B compliance rule, and the Section 15.101 (b), only those receivers that operate (tune) within the frequency range of 30-960 MHz, CB receivers and radar detectors are subject to the authorizations shown in paragraph (a) of the Section 15.101. However, receivers indicated as being subject to Declaration of Conformity that are contained within a transceiver, the transmitter portion of which is subject to certification, shall be authorized under the verification procedure.



## 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.

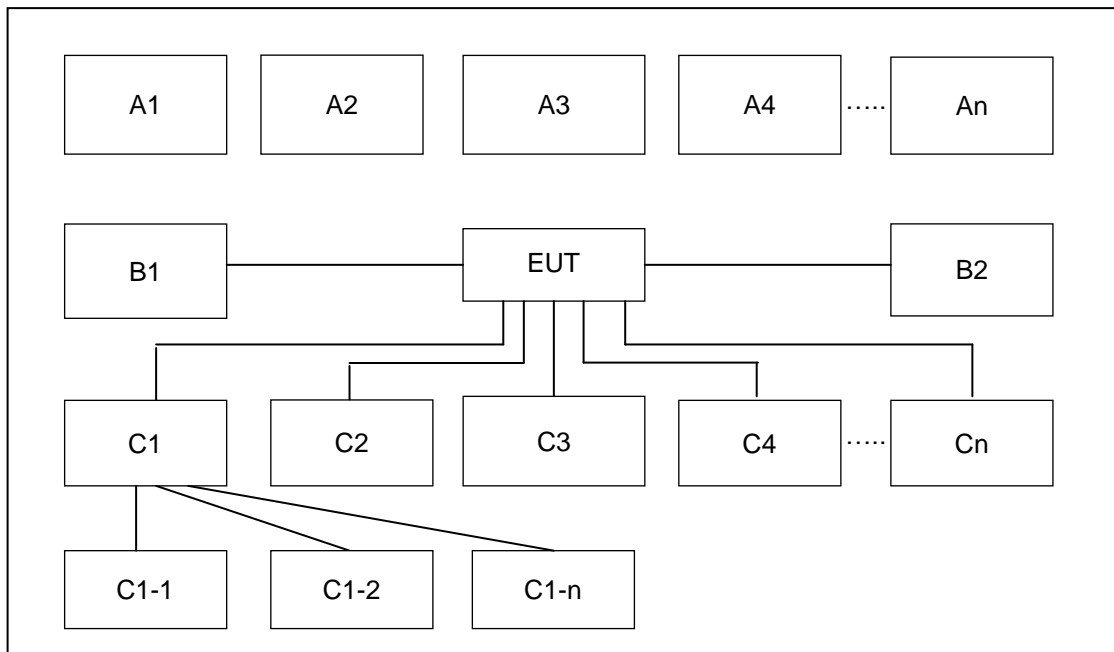
Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1: Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 + SIM 1
	Mode 2: Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 + SIM 2
Radiated Emissions	Mode 1: Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 + SIM 1
	Mode 2: Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 + SIM 2

**Remark:** Data Link with Notebook means data application transferred mode between EUT and Notebook.



## 2.2.Connection Diagram of Test System



Test Setup									
No.	Setup Peripherals	Connection Type	Test Mode						
			1	2	3	4	5	6	7
C1	Notebook	USB Cable	X	X					
C1-1	Music Player	USB Cable to C1	X	X					
C1-2	AP router	RJ-45 Cable to C1	X	X					
C2	Earphone	Earphone jack	X	X					
C3	SD card	SD I/O interface without Cable	X	X					



### 2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
2.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Music Player	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
4.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
5.	SD Card	SanDisk	microSDHC 16GB Class 10 UHS-I	FCC DoC	N/A	N/A

### 2.4. EUT Operation Test Setup

The data application (each file size is greater than 30Mbytes) is continuously transferred between the EUT and Notebook connected via USB cable, while Flight mode.



### 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.

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.

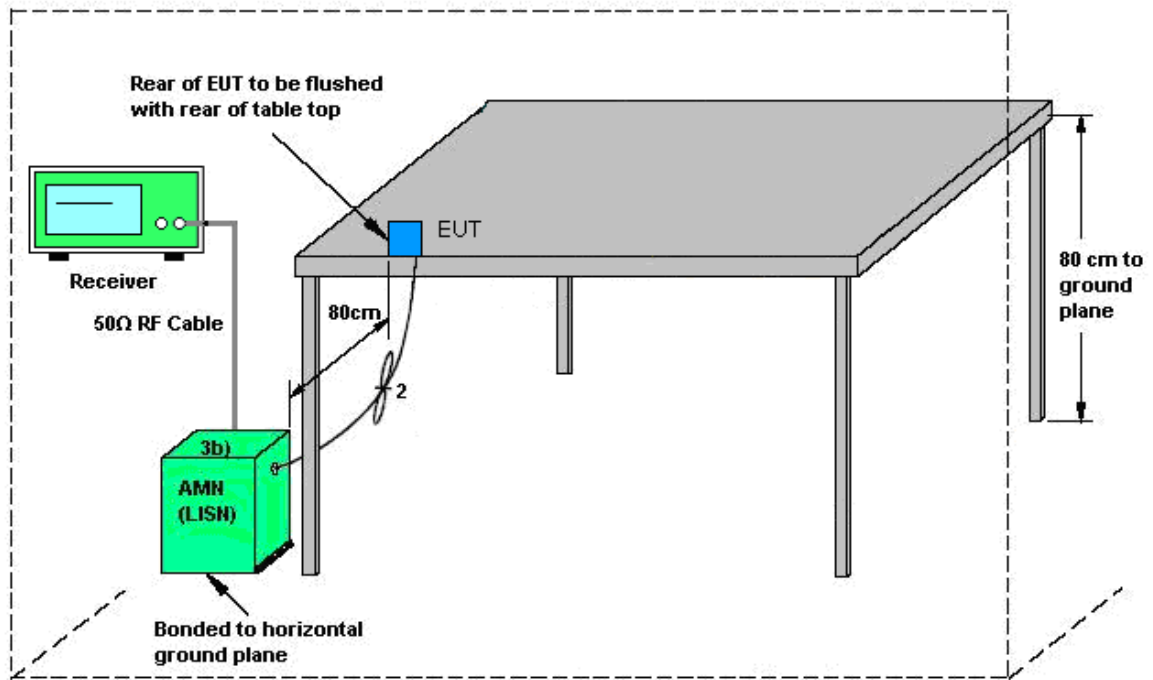
##### 3.1.2 Measuring Instruments

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

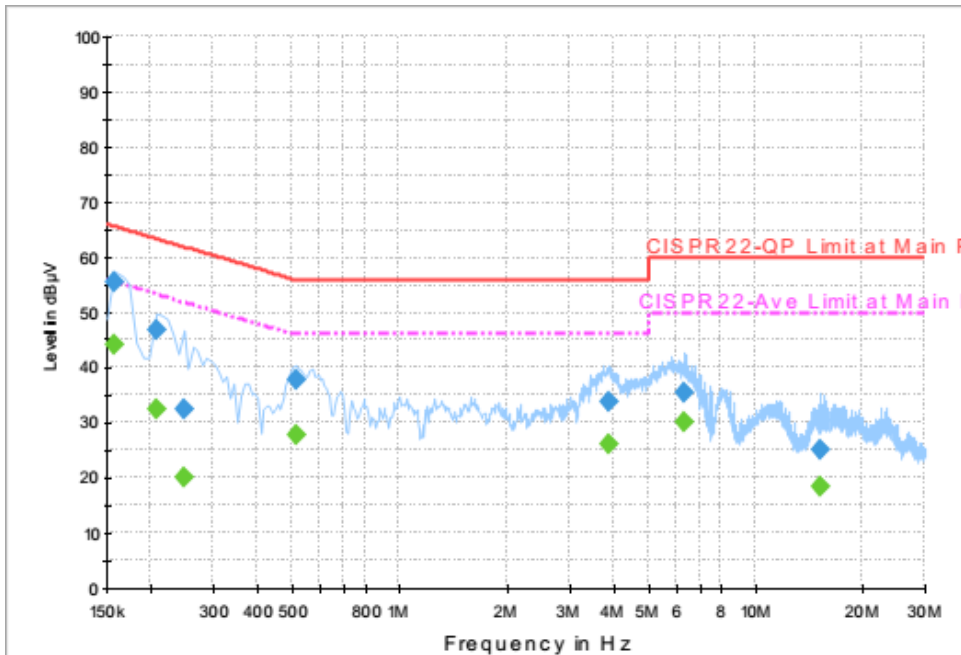


AMN = Artificial mains network (LISN)  
AE = Associated equipment  
EUT = Equipment under test  
ISN = Impedance stabilization network



3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	25~26°C
Test Engineer :	Blue Lan	Relative Humidity :	56~57%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 + SIM 1		



Final Result : Quasi-Peak

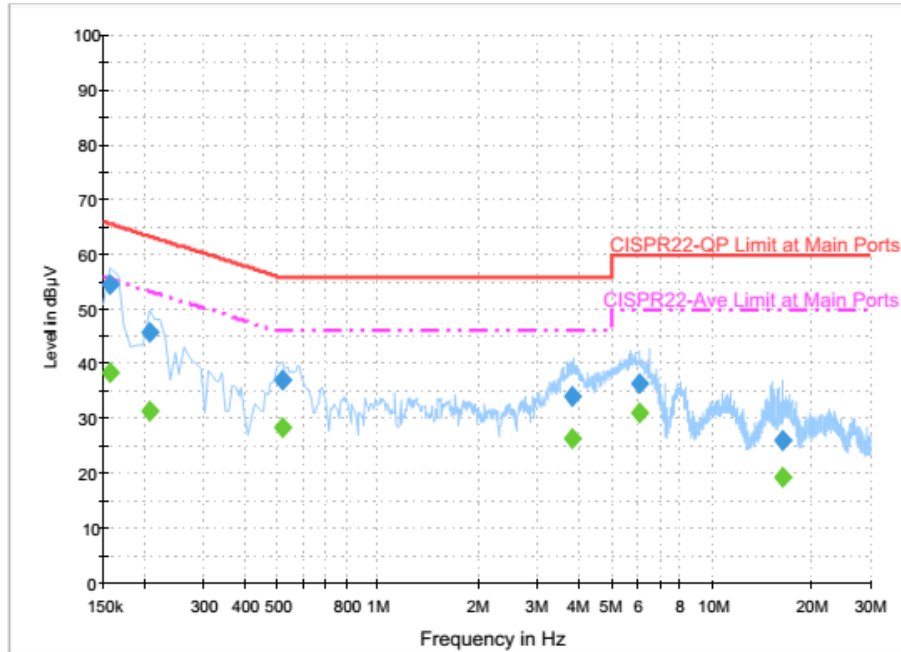
Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	55.5	Off	L1	19.5	10.1	65.6
0.206000	46.8	Off	L1	19.5	16.6	63.4
0.246000	32.5	Off	L1	19.5	29.4	61.9
0.510000	37.7	Off	L1	19.5	18.3	56.0
3.878000	33.7	Off	L1	19.6	22.3	56.0
6.302000	35.3	Off	L1	19.6	24.7	60.0
15.174000	24.9	Off	L1	19.7	35.1	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	44.2	Off	L1	19.5	11.4	55.6
0.206000	32.5	Off	L1	19.5	20.9	53.4
0.246000	20.0	Off	L1	19.5	31.9	51.9
0.510000	27.6	Off	L1	19.5	18.4	46.0
3.878000	26.2	Off	L1	19.6	19.8	46.0
6.302000	29.9	Off	L1	19.6	20.1	50.0
15.174000	18.5	Off	L1	19.7	31.5	50.0



Test Mode :	Mode 1	Temperature :	25~26°C
Test Engineer :	Blue Lan	Relative Humidity :	56~57%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 + SIM 1		



**Final Result : Quasi-Peak**

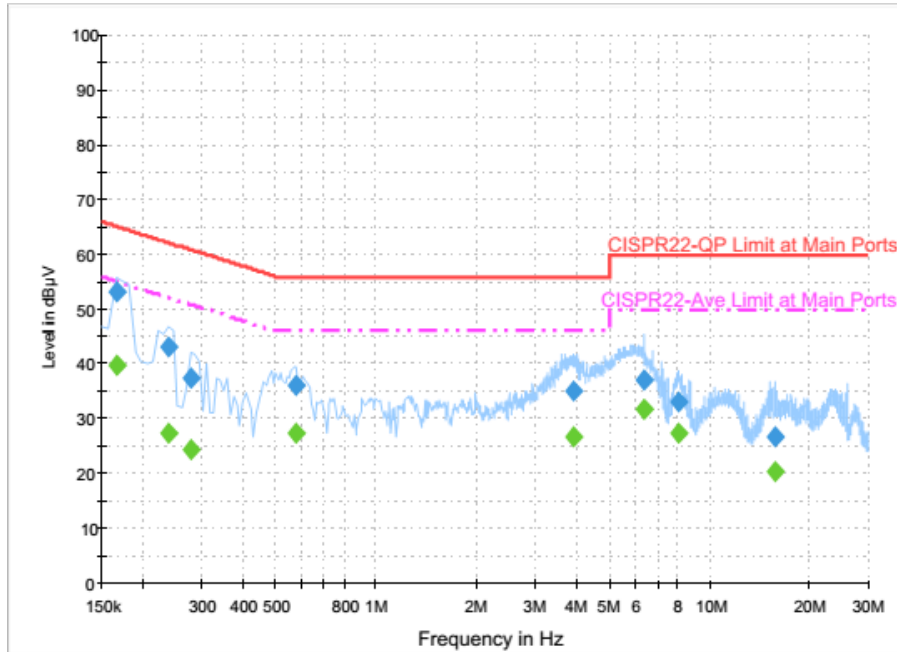
Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	54.5	Off	N	19.5	11.1	65.6
0.206000	45.9	Off	N	19.5	17.5	63.4
0.518000	37.0	Off	N	19.5	19.0	56.0
3.830000	34.2	Off	N	19.6	21.8	56.0
6.094000	36.3	Off	N	19.6	23.7	60.0
16.278000	26.2	Off	N	19.8	33.8	60.0

**Final Result : Average**

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	38.6	Off	N	19.5	17.0	55.6
0.206000	31.5	Off	N	19.5	21.9	53.4
0.518000	28.4	Off	N	19.5	17.6	46.0
3.830000	26.3	Off	N	19.6	19.7	46.0
6.094000	31.1	Off	N	19.6	18.9	50.0
16.278000	19.3	Off	N	19.8	30.7	50.0



Test Mode :	Mode 2	Temperature :	25~26°C
Test Engineer :	Blue Lan	Relative Humidity :	56~57%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 + SIM 2		



**Final Result : Quasi-Peak**

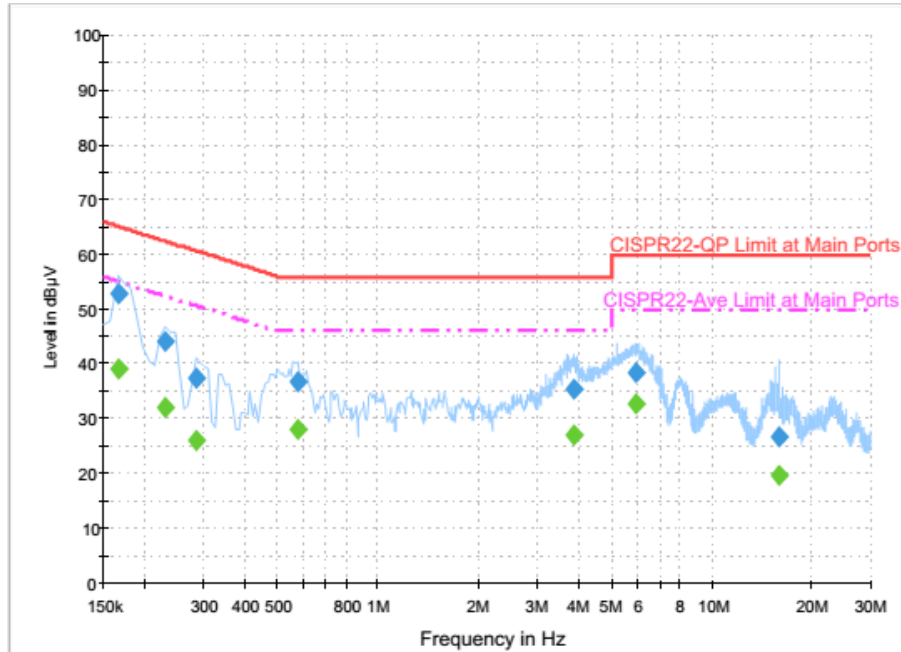
Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	53.1	Off	L1	19.5	12.1	65.2
0.238000	43.0	Off	L1	19.5	19.2	62.2
0.278000	37.5	Off	L1	19.5	23.4	60.9
0.574000	36.0	Off	L1	19.5	20.0	56.0
3.918000	35.1	Off	L1	19.6	20.9	56.0
6.398000	37.2	Off	L1	19.6	22.8	60.0
8.110000	32.9	Off	L1	19.6	27.1	60.0
15.814000	26.7	Off	L1	19.7	33.3	60.0

**Final Result : Average**

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	39.8	Off	L1	19.5	15.4	55.2
0.238000	27.4	Off	L1	19.5	24.8	52.2
0.278000	24.5	Off	L1	19.5	26.4	50.9
0.574000	27.3	Off	L1	19.5	18.7	46.0
3.918000	26.9	Off	L1	19.6	19.1	46.0
6.398000	31.6	Off	L1	19.6	18.4	50.0
8.110000	27.5	Off	L1	19.6	22.5	50.0
15.814000	20.4	Off	L1	19.7	29.6	50.0



Test Mode :	Mode 2	Temperature :	25~26°C
Test Engineer :	Blue Lan	Relative Humidity :	56~57%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 + SIM 2		



**Final Result : Quasi-Peak**

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	52.8	Off	N	19.5	12.4	65.2
0.230000	44.2	Off	N	19.5	18.2	62.4
0.286000	37.6	Off	N	19.5	23.0	60.6
0.574000	36.7	Off	N	19.5	19.3	56.0
3.870000	35.3	Off	N	19.6	20.7	56.0
5.942000	38.4	Off	N	19.6	21.6	60.0
15.958000	26.7	Off	N	19.8	33.3	60.0

**Final Result : Average**

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	39.1	Off	N	19.5	16.1	55.2
0.230000	32.2	Off	N	19.5	20.2	52.4
0.286000	26.0	Off	N	19.5	24.6	50.6
0.574000	27.9	Off	N	19.5	18.1	46.0
3.870000	27.0	Off	N	19.6	19.0	46.0
5.942000	32.9	Off	N	19.6	17.1	50.0
15.958000	19.6	Off	N	19.8	30.4	50.0





### 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:

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

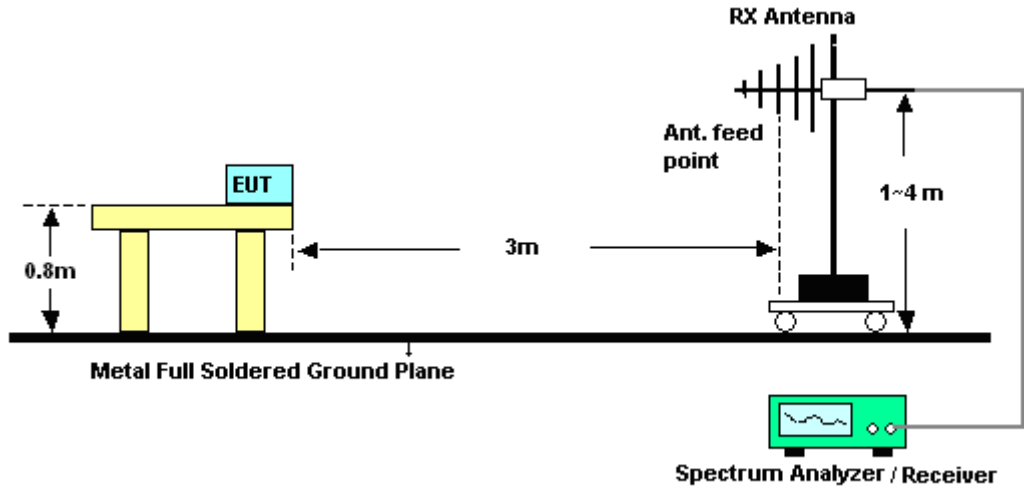
The measuring equipment is listed in the section 4 of this test report.

#### 3.2.3. Test Procedures

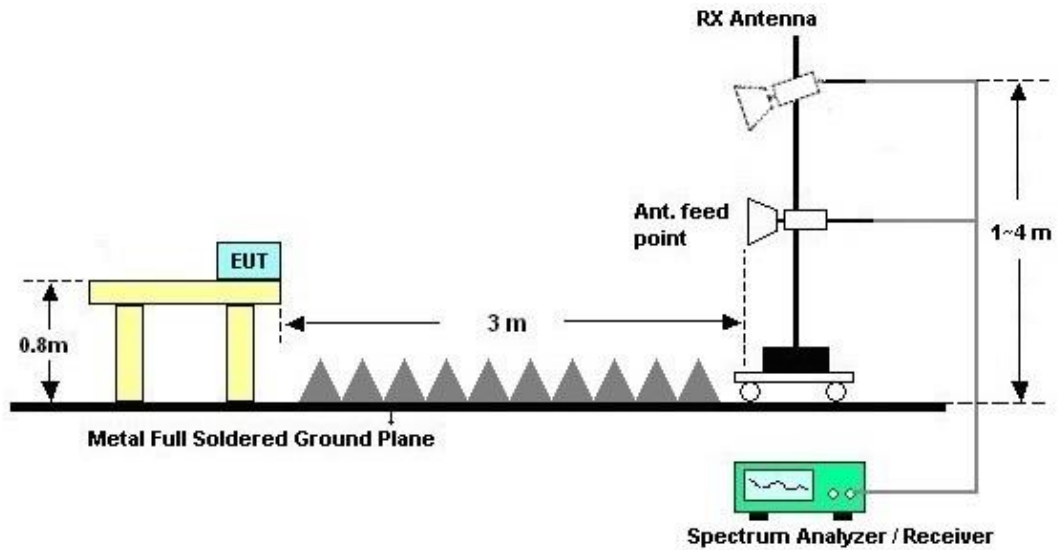
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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

### 3.2.4. Test Setup of Radiated Emission

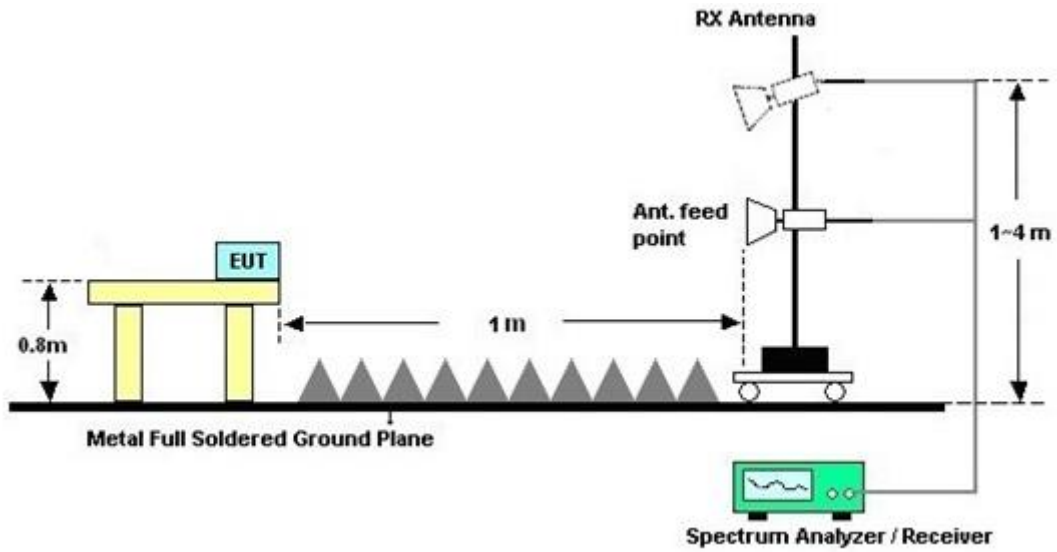
For radiated emissions from 30MHz to 1GHz



For radiated emissions from 1GHz to 18GHz



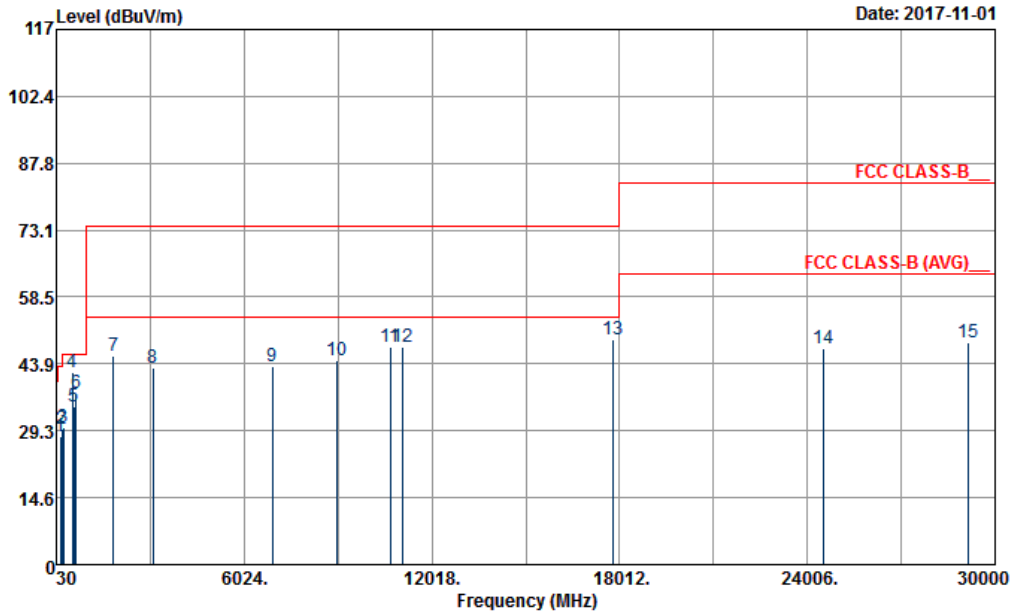
For radiated emissions above 18GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 1	Temperature :	26~28°C
Test Engineer :	Eric Jeng	Relative Humidity :	51~56%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 + SIM 1		

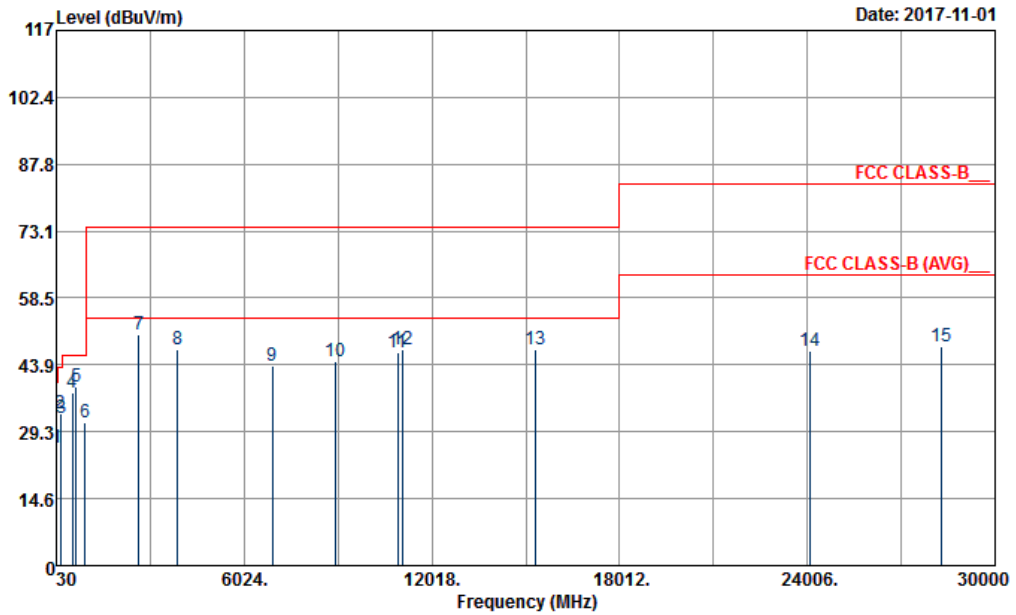


Site : 03CH06-HY  
 Condition : FCC CLASS-B\_\_ 1m SHF-EHF HORN HORIZONTAL  
 Project : 762711-01  
 Power : From System  
 Memo : Mode 1

	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	160.95	28.18	-15.32	43.50	41.64	16.21	2.12	31.79	---	---	Peak
2	196.86	29.77	-13.73	43.50	44.75	14.84	1.95	31.77	---	---	Peak
3	247.62	30.14	-15.86	46.00	41.46	18.24	2.20	31.76	---	---	Peak
4	549.90	41.98	-4.02	46.00	45.34	25.45	3.18	31.99	100	101	Peak
5	599.60	34.50	-11.50	46.00	37.56	25.88	3.11	32.05	---	---	Peak
6	650.00	37.33	-8.67	46.00	39.69	26.44	3.28	32.08	---	---	Peak
7	1850.00	45.57	-28.43	74.00	74.87	25.68	5.99	60.97	---	---	Peak
8	3112.00	43.18	-30.82	74.00	67.82	28.71	7.97	61.32	---	---	Peak
9	6928.00	43.29	-30.71	74.00	54.52	35.32	12.68	59.23	---	---	Peak
10	8968.00	44.56	-29.44	74.00	51.23	36.91	14.79	58.37	---	---	Peak
11	10696.00	47.51	-26.49	74.00	49.51	39.75	15.97	57.72	100	0	Peak
12	11090.00	47.44	-26.56	74.00	48.01	39.97	16.36	56.90	---	---	Peak
13	17820.00	49.20	-24.80	74.00	45.20	46.30	14.96	57.26	---	---	Peak
14	24540.00	47.35	-36.19	83.54	35.44	40.20	25.70	53.99	---	---	Peak
15	29160.00	48.51	-35.03	83.54	33.56	40.30	28.95	54.30	---	---	Peak



Test Mode :	Mode 1	Temperature :	26~28°C
Test Engineer :	Eric Jeng	Relative Humidity :	51~56%
Test Distance :	3m	Polarization :	Vertical
Function Type :	Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 1 + SIM 1		

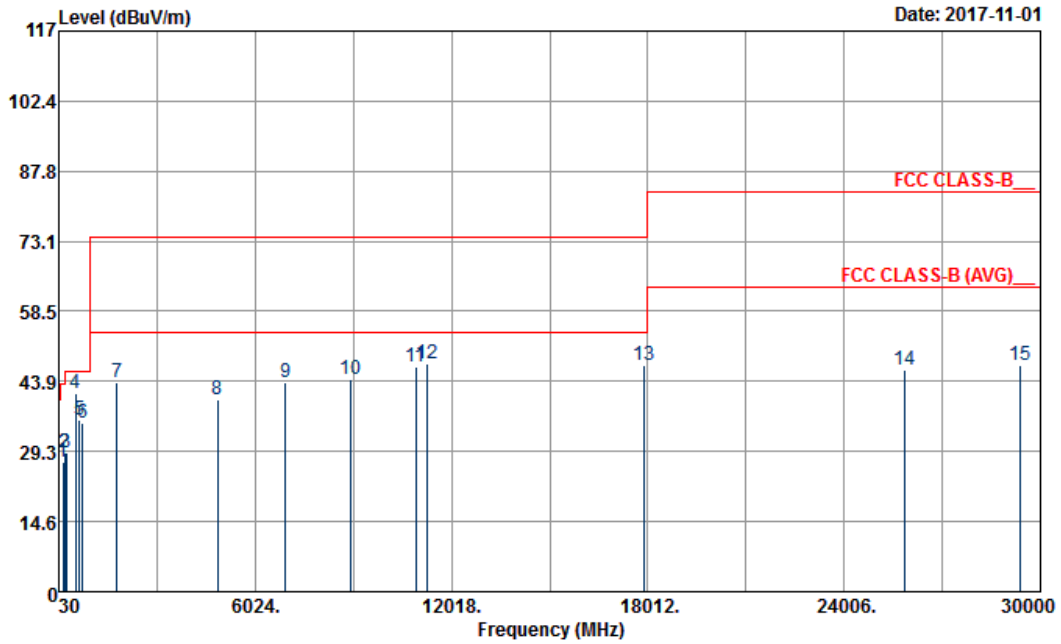


Site : 03CH06-HY  
 Condition : FCC CLASS-B\_\_ 1m SHF-EHF HORN VERTICAL  
 Project : 762711-01  
 Power : From System  
 Memo : Mode 1

	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	31.89	25.81	-14.19	40.00	32.50	23.24	1.91	31.84	---	---	Peak
2	160.95	33.33	-10.17	43.50	46.79	16.21	2.12	31.79	---	---	Peak
3	196.32	32.11	-11.39	43.50	47.11	14.82	1.95	31.77	---	---	Peak
4	549.90	37.75	-8.25	46.00	41.11	25.45	3.18	31.99	---	---	Peak
5	650.00	39.08	-6.92	46.00	41.44	26.44	3.28	32.08	100	32	Peak
6	937.70	31.19	-14.81	46.00	28.58	30.70	3.13	31.22	---	---	Peak
7	2664.00	50.55	-23.45	74.00	76.58	27.77	7.30	61.10	100	0	Peak
8	3900.00	47.18	-26.82	74.00	69.84	29.75	9.07	61.48	---	---	Peak
9	6928.00	43.56	-30.44	74.00	54.79	35.32	12.68	59.23	---	---	Peak
10	8950.00	44.76	-29.24	74.00	51.41	36.90	14.80	58.35	---	---	Peak
11	10922.00	46.44	-27.56	74.00	47.37	40.05	16.19	57.17	---	---	Peak
12	11098.00	47.41	-26.59	74.00	47.98	39.97	16.36	56.90	---	---	Peak
13	15336.00	47.27	-26.73	74.00	54.64	39.19	13.15	59.71	---	---	Peak
14	24084.00	46.99	-36.55	83.54	36.33	39.71	25.20	54.25	---	---	Peak
15	28308.00	47.76	-35.78	83.54	33.98	39.79	28.35	54.36	---	---	Peak



Test Mode :	Mode 2	Temperature :	26~28°C
Test Engineer :	Eric Jeng	Relative Humidity :	51~56%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 + SIM 2		

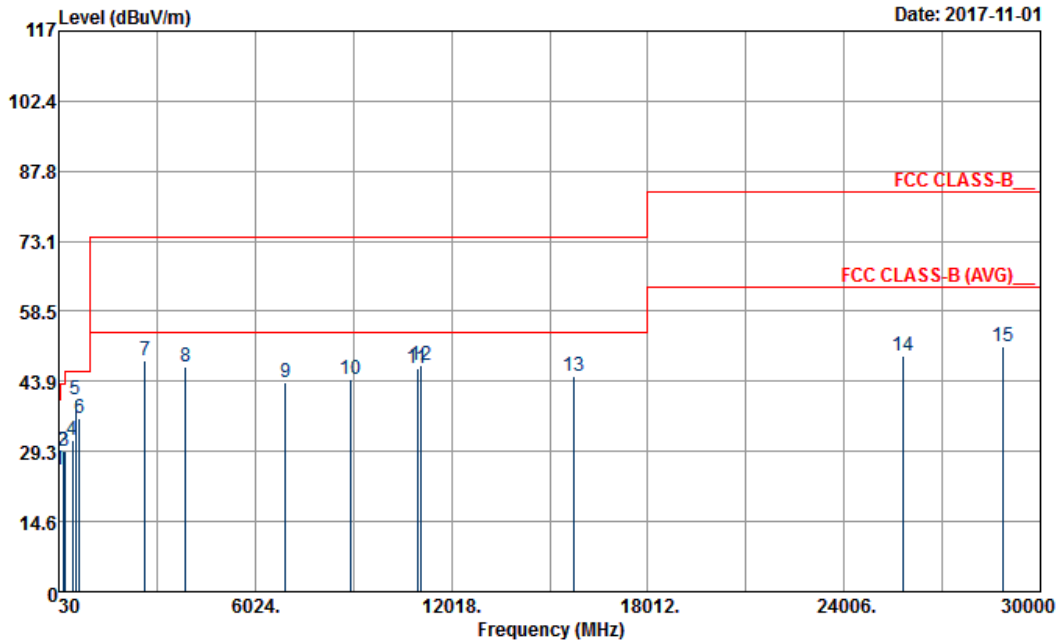


Site : 03CH06-HY  
 Condition : FCC CLASS-B\_\_1m SHF-EHF HORN HORIZONTAL  
 Project : 762711-01  
 Power : From System  
 Memo : Mode 2

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	162.84	27.06	-16.44	43.50	40.69	16.04	2.11	31.78	---	---	Peak
2	201.72	29.05	-14.45	43.50	43.97	14.90	1.95	31.77	---	---	Peak
3	250.86	28.99	-17.01	46.00	39.78	18.75	2.21	31.75	---	---	Peak
4	549.90	41.34	-4.66	46.00	44.70	25.45	3.18	31.99	100	57	Peak
5	650.00	35.74	-10.26	46.00	38.10	26.44	3.28	32.08	---	---	Peak
6	750.10	35.33	-10.67	46.00	35.70	28.27	3.40	32.04	---	---	Peak
7	1806.00	43.70	-30.30	74.00	73.10	25.66	5.90	60.96	---	---	Peak
8	4880.00	40.17	-33.83	74.00	57.54	31.23	10.75	59.35	---	---	Peak
9	6944.00	43.64	-30.36	74.00	54.80	35.36	12.70	59.22	---	---	Peak
10	8946.00	44.43	-29.57	74.00	51.09	36.89	14.80	58.35	---	---	Peak
11	10930.00	46.85	-27.15	74.00	47.78	40.05	16.19	57.17	---	---	Peak
12	11276.00	47.51	-26.49	74.00	48.00	39.70	16.53	56.72	100	0	Peak
13	17883.00	47.28	-26.72	74.00	42.44	47.10	15.02	57.28	---	---	Peak
14	25848.00	46.42	-37.12	83.54	34.05	39.53	26.78	53.94	---	---	Peak
15	29364.00	47.29	-36.25	83.54	32.48	40.30	28.81	54.30	---	---	Peak



Test Mode :	Mode 2	Temperature :	26~28°C
Test Engineer :	Eric Jeng	Relative Humidity :	51~56%
Test Distance :	3m	Polarization :	Vertical
Function Type :	Flight Mode + USB Cable (Data Link with Notebook) + Battery + Earphone 2 + SIM 2		



Site : 03CH06-HY  
 Condition : FCC CLASS-B\_\_1m SHF-EHF HORN VERTICAL  
 Project : 762711-01  
 Power : From System  
 Memo : Mode 2

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.89	25.35	-14.65	40.00	32.04	23.24	1.91	31.84	---	---	Peak
2	169.05	29.33	-14.17	43.50	43.49	15.56	2.06	31.78	---	---	Peak
3	203.07	29.22	-14.28	43.50	44.11	14.92	1.96	31.77	---	---	Peak
4	449.80	31.71	-14.29	46.00	37.56	23.22	2.79	31.86	---	---	Peak
5	549.90	40.15	-5.85	46.00	43.51	25.45	3.18	31.99	100	32	Peak
6	650.00	36.10	-9.90	46.00	38.46	26.44	3.28	32.08	---	---	Peak
7	2662.00	48.32	-25.68	74.00	74.39	27.77	7.26	61.10	100	355	Peak
8	3894.00	47.05	-26.95	74.00	69.76	29.70	9.07	61.48	---	---	Peak
9	6942.00	43.67	-30.33	74.00	54.84	35.36	12.70	59.23	---	---	Peak
10	8922.00	44.39	-29.61	74.00	51.00	36.88	14.82	58.31	---	---	Peak
11	10966.00	46.64	-27.36	74.00	47.38	40.09	16.24	57.07	---	---	Peak
12	11070.00	47.32	-26.68	74.00	47.90	40.02	16.33	56.93	---	---	Peak
13	15741.00	44.88	-29.12	74.00	52.44	38.01	13.35	58.92	---	---	Peak
14	25800.00	49.25	-34.29	83.54	36.92	39.54	26.71	53.92	---	---	Peak
15	28872.00	51.01	-32.53	83.54	36.21	40.20	28.93	54.33	---	---	Peak



## 4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Nov. 03, 2017~ Nov. 04, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Dec. 29, 2016	Nov. 03, 2017~ Nov. 04, 2017	Dec. 28, 2017	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	May 02, 2017	Nov. 03, 2017~ Nov. 04, 2017	May 01, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Nov. 03, 2017~ Nov. 04, 2017	Nov. 28, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 06, 2016	Nov. 03, 2017~ Nov. 04, 2017	Dec. 05, 2017	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 05, 2017	Nov. 03, 2017~ Nov. 04, 2017	Jan. 04, 2018	Conduction (CO05-HY)
Test Software	N/A	EMC32	8.40.0	N/A	N/A	Nov. 03, 2017~ Nov. 04, 2017	N/A	Conduction (CO05-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	35419&03	30MHz to 1GHz	Jan. 07, 2017	Nov. 01, 2017	Jan. 06, 2018	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Dec. 29, 2016	Nov. 01, 2017	Dec. 28, 2017	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Apr. 17, 2017	Nov. 01, 2017	Apr. 16, 2018	Radiation (03CH06-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1156	1GHz~18GHz	Aug. 08, 2017	Nov. 01, 2017	Aug. 07, 2018	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Nov. 01, 2017	Nov. 07, 2017	Radiation (03CH06-HY)
Preamplifier	SONOMA	310N	186713	9kHz~1GHz	Apr. 25, 2017	Nov. 01, 2017	Apr. 24, 2018	Radiation (03CH06-HY)
Amplifier	MITEQ	TTA1840-35-H G	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Nov. 01, 2017	Jul. 17, 2018	Radiation (03CH06-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1850117	1GHz ~ 18GHz	May. 22, 2017	Nov. 01, 2017	May. 21, 2018	Radiation (03CH06-HY)





Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER+SUHNER/UTIFLEX	SUCOFLEX 104 / UFA210A	MY24966/4 / LF-01	30MHz-1GHz	Nov. 25, 2016	Nov. 01, 2017	Nov. 24, 2017	Radiation (03CH06-HY)
RF Cable	Infinet/Sunhner	LL142/SF104	CA3601-3601-HLL	1GHz-26GHz	Nov. 25, 2016	Nov. 01, 2017	Nov. 24, 2017	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY84209521+ MY84209521	26GHz~40GHz	Jan. 03, 2017	Nov. 01, 2017	Jan. 02, 2018	Radiation (03CH06-HY)
Controller	INN-CO	EM1000	060782	Control Turn table & Ant Mast	N/A	Nov. 01, 2017	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1m~4m	N/A	Nov. 01, 2017	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0-360 degree	N/A	Nov. 01, 2017	N/A	Radiation (03CH06-HY)
Hygrometer	WISEWIND	410	BU5004	N/A	Mar. 20, 2017	Nov. 01, 2017	Mar. 19, 2018	Radiation (03CH06-HY)
Test Software	Audix	E3	6.2009-8-24	N/A	N/A	Nov. 01, 2017	N/A	Radiation (03CH06-HY)



## 5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.70
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.90
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.70
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### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 30000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.50
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