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-PM0931
STANDARD	:	FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION	:	FCC CLASS B PERSONAL COMPUTERS AND PERIPHERALS

The product was received on Feb. 18, 2016 and testing was completed on Mar. 12, 2016. 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.

Louis Wu

Reviewed by: Louis Wu / Manager

Jones Tsai

Approved by: Jones Tsai / Manager

Testing Laboratory 1190

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District Tao Yuan City, Taiwan, R.O.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC621809	Rev. 01	Initial issue of report	Apr. 01, 2016

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 7.30 dB at 0.190 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 5.24 dB at 33.240 MHz for Peak

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. Feature of Equipment Under Test

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

Product Specification subjective to this standard	
Antenna Type	WWAN: Fixed Internal Antenna WLAN: Folded Monopole Antenna Bluetooth: Folded Monopole Antenna GPS: Monopole Antenna NFC: Loop Antenna

1.4. Details of Tested Sample (EUT) Information

Below EUT sample and accessory are used to test.

EUT Information List				
IMEI	HW Version	SW Version	S/N	Performed Test Item
IMEI 1: 004402455937049 IMEI 2: 004402455937056	A	34.0.A.1.25	CB5129YTVH	Conducted Emission Radiated Emission

Accessory List	
Earphone	Model No. : MH410c
	Type No. : AG-1100
	S/N : 12361A15006EF0E
USB Cable	Model No. : UCB16
	Type No. : AI-0142
	S/N : 1602A9000002606

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.

1.5. Modification of EUT

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

1.6. Test Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1st 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	
Test Site No.	Sporton Site No.	
	CO05-HY	03CH06-HY

1.7. Applied 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).

The following tables are showing the test modes as the worst cases and recorded in this report.

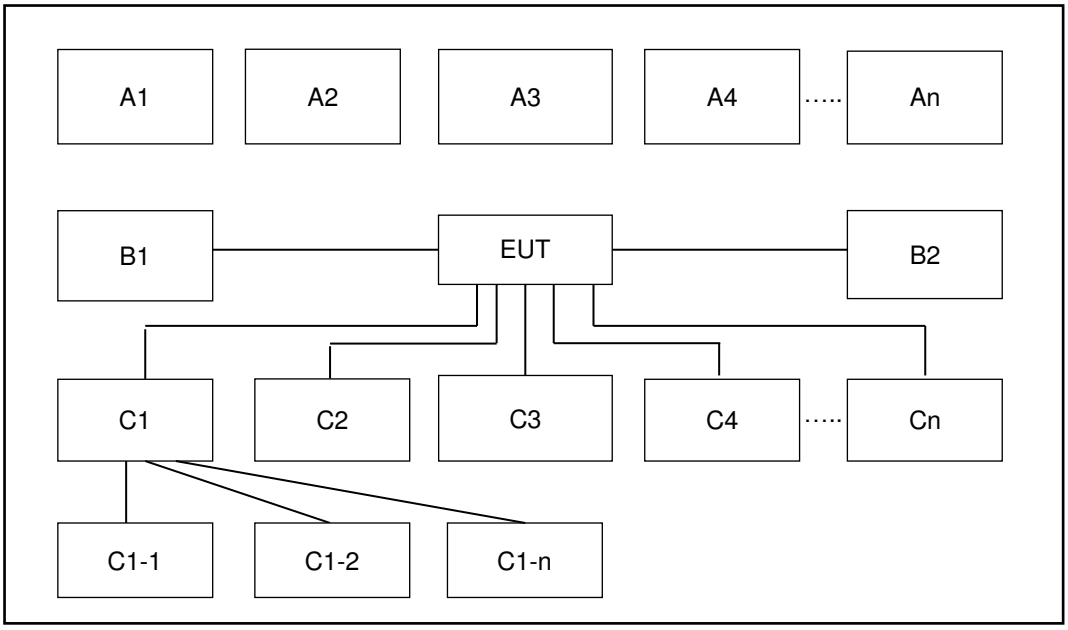
Item	EUT Configuration	Test Condition	
		EMI AC	EMI RE
1.	Data Link with Notebook	☒	☒

The data application (each file size is greater than 30Mbytes) is continuously transferred between the EUT and Notebook connected via USB cable, while GSM, WLAN, and Bluetooth and GPS idle.

Abbreviations:

- EMI AC: AC conducted emissions
- EMI RE: EUT radiated emissions

2.2. Connection Diagram of Test System



Conduction and Radiation Test Setup									
No.	Wireless Station	Connection Type	Test Mode						
			1	2	3	-	-	-	-
A1	BT Earphone	Bluetooth	X	X	X				
A2	System Simulator	GSM	X	X	X				
A3	GPS Station	GPS	X		X				
A4	AP router	WiFi	X	X	X				
A5	NFC Card	NFC		X					
No.	**Power Source**	**Connection Type**	**1**	**2**	**3**	**-**	**-**	**-**	**-**
B1	AC : 120V/60Hz	AC Power Cable	X	X	X				
No.	**Setup Peripherals**	**Connection Type**	**1**	**2**	**3**	**-**	**-**	**-**	**-**
C1	Notebook	USB Cable	X	X	X				
C1-1	iPod	USB Cable to C1	X	X	X				
C1-2	AP router	RJ-45 Cable to C1	X	X	X				
C2	Earphone	Earphone jack	X	X	X				
C3	SD card	SD I/O interface without Cable	X	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.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
4.	WLAN AP	D-Link	DIR-865L	KA2IR865LA1	N/A	Unshielded, 1.8 m
5.	Bluetooth Earphone	Sony	SBH20	PY7-RD0010	Unshielded, 0.8 m	N/A
6.	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
7.	iPod	Apple	A1199	FCC DoC	Shielded, 1.0 m	N/A
8.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
9.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
10.	NFC Card	Metro Taipei	Easy Card	N/A	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 GSM and Bluetooth, WLAN and GPS idle.

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.

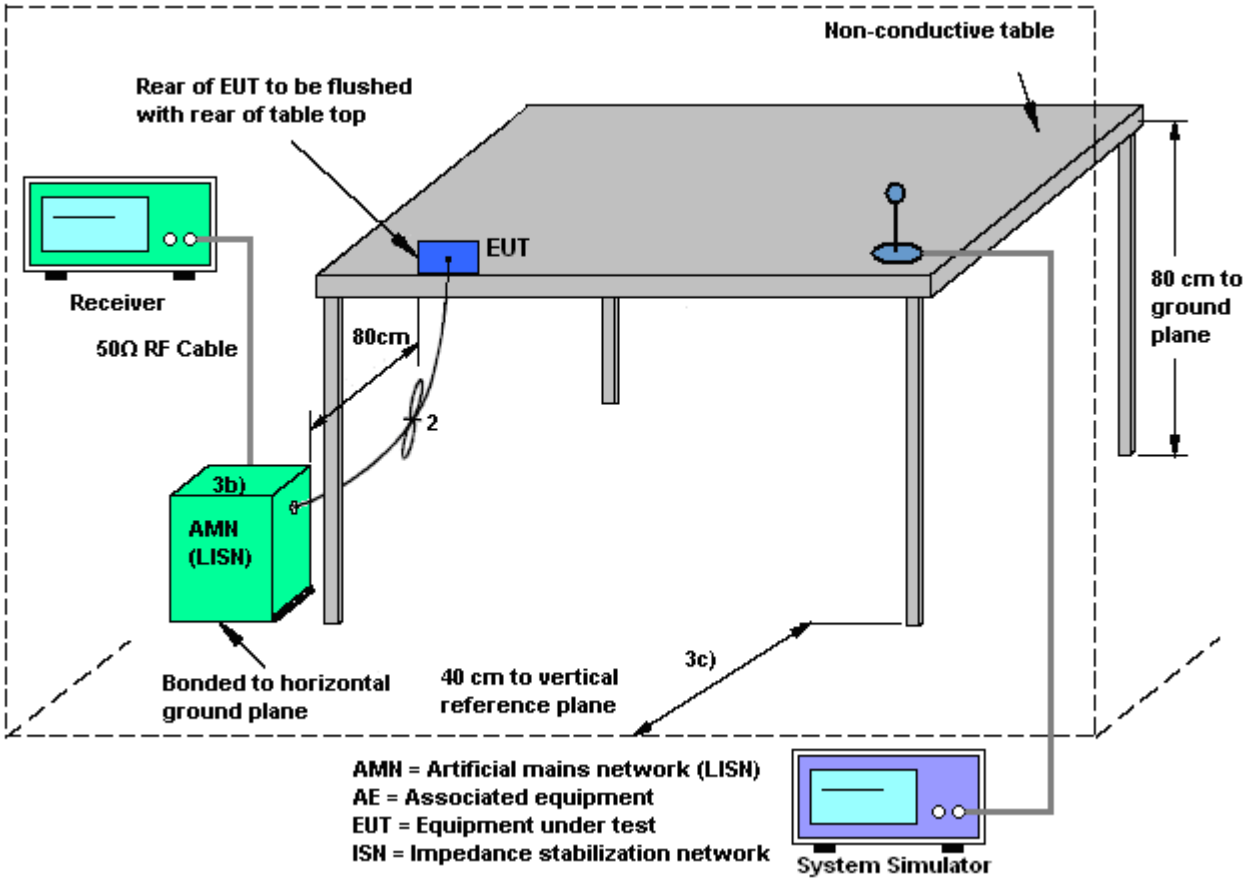
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

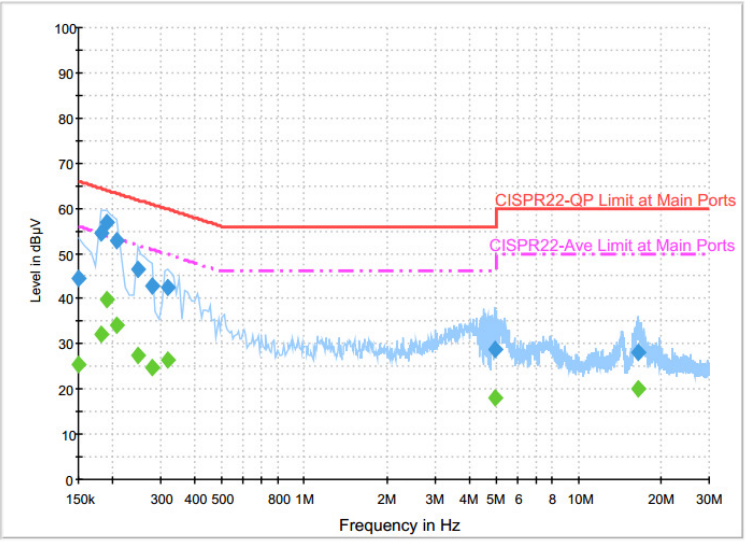
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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



3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	**Temperature :**	21~22℃
Test Engineer :	Eric Jeng	**Relative Humidity :**	51~53%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	Data Link with Notebook (with USB Cable) + WLAN (2.4GHz) Idle + GPS Rx + Earphone + SIM 1		



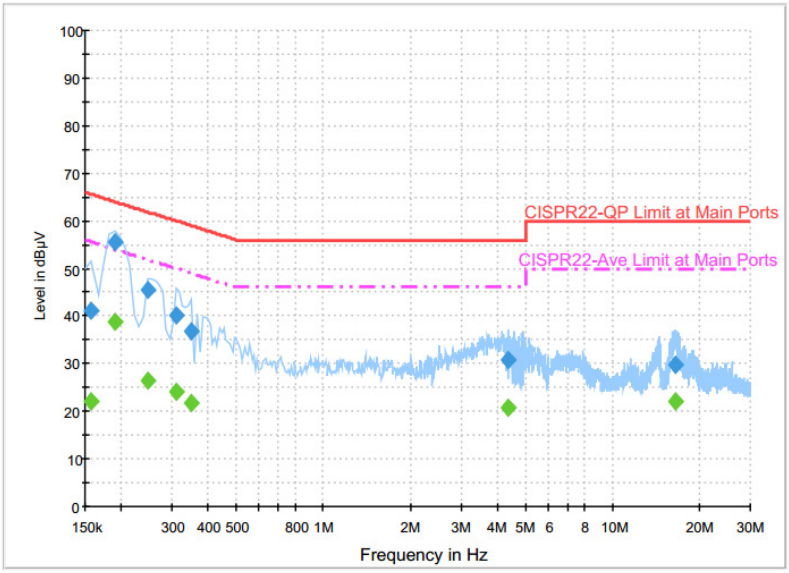
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	44.6	Off	L1	19.6	21.4	66.0
0.182000	54.7	Off	L1	19.6	9.7	64.4
0.190000	56.7	Off	L1	19.6	7.3	64.0
0.206000	52.9	Off	L1	19.6	10.5	63.4
0.246000	46.6	Off	L1	19.6	15.3	61.9
0.278000	42.9	Off	L1	19.6	18.0	60.9
0.318000	42.4	Off	L1	19.6	17.4	59.8
4.990000	28.7	Off	L1	19.7	27.3	56.0
16.598000	28.2	Off	L1	19.8	31.8	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	25.3	Off	L1	19.6	30.7	56.0
0.182000	32.1	Off	L1	19.6	22.3	54.4
0.190000	39.8	Off	L1	19.6	14.2	54.0
0.206000	34.2	Off	L1	19.6	19.2	53.4
0.246000	27.4	Off	L1	19.6	24.5	51.9
0.278000	24.9	Off	L1	19.6	26.0	50.9
0.318000	26.4	Off	L1	19.6	23.4	49.8
4.990000	18.2	Off	L1	19.7	27.8	46.0
16.598000	20.1	Off	L1	19.8	29.9	50.0

Test Mode :	Mode 1	**Temperature :**	21~22℃
Test Engineer :	Eric Jeng	**Relative Humidity :**	51~53%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	Data Link with Notebook (with USB Cable) + WLAN (2.4GHz) Idle + GPS Rx + Earphone + SIM 1		



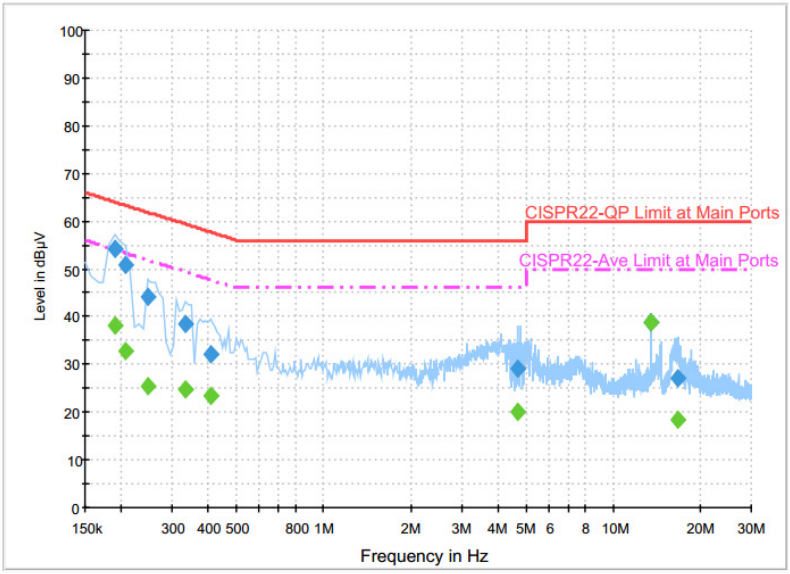
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	41.3	Off	N	19.6	24.3	65.6
0.190000	55.5	Off	N	19.6	8.5	64.0
0.246000	45.3	Off	N	19.6	16.6	61.9
0.310000	40.2	Off	N	19.6	19.8	60.0
0.350000	36.6	Off	N	19.6	22.4	59.0
4.358000	30.7	Off	N	19.6	25.3	56.0
16.598000	29.7	Off	N	19.9	30.3	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	22.2	Off	N	19.6	33.4	55.6
0.190000	38.7	Off	N	19.6	15.3	54.0
0.246000	26.6	Off	N	19.6	25.3	51.9
0.310000	24.2	Off	N	19.6	25.8	50.0
0.350000	21.8	Off	N	19.6	27.2	49.0
4.358000	20.6	Off	N	19.6	25.4	46.0
16.598000	22.0	Off	N	19.9	28.0	50.0

Test Mode :	Mode 2	**Temperature :**	21~22℃
Test Engineer :	Eric Jeng	**Relative Humidity :**	51~53%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	Data Link with Notebook (with USB Cable) + WLAN (5GHz) Idle + NFC On + Earphone + SIM 1		



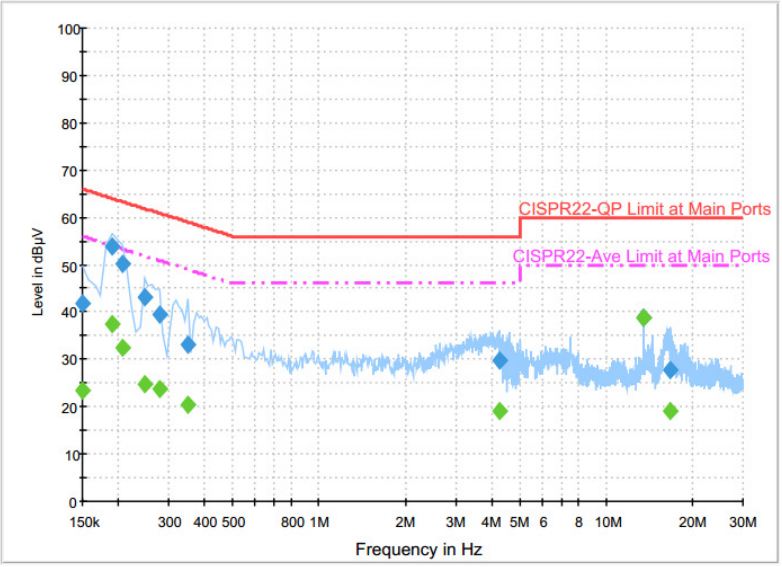
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.190000	54.3	Off	L1	19.6	9.7	64.0
0.206000	50.8	Off	L1	19.6	12.6	63.4
0.246000	44.1	Off	L1	19.6	17.8	61.9
0.334000	38.6	Off	L1	19.6	20.8	59.4
0.406000	32.1	Off	L1	19.6	25.6	57.7
4.678000	29.0	Off	L1	19.7	27.0	56.0
13.558000	38.9	Off	L1	19.8	21.1	60.0
16.726000	27.1	Off	L1	19.8	32.9	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.190000	38.0	Off	L1	19.6	16.0	54.0
0.206000	32.9	Off	L1	19.6	20.5	53.4
0.246000	25.5	Off	L1	19.6	26.4	51.9
0.334000	24.9	Off	L1	19.6	24.5	49.4
0.406000	23.3	Off	L1	19.6	24.4	47.7
4.678000	20.0	Off	L1	19.7	26.0	46.0
13.558000	38.7	Off	L1	19.8	11.3	50.0
16.726000	18.5	Off	L1	19.8	31.5	50.0

Test Mode :	Mode 2	**Temperature :**	21~22℃
Test Engineer :	Eric Jeng	**Relative Humidity :**	51~53%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	Data Link with Notebook (with USB Cable) + WLAN (5GHz) Idle + NFC On + Earphone + SIM 1		



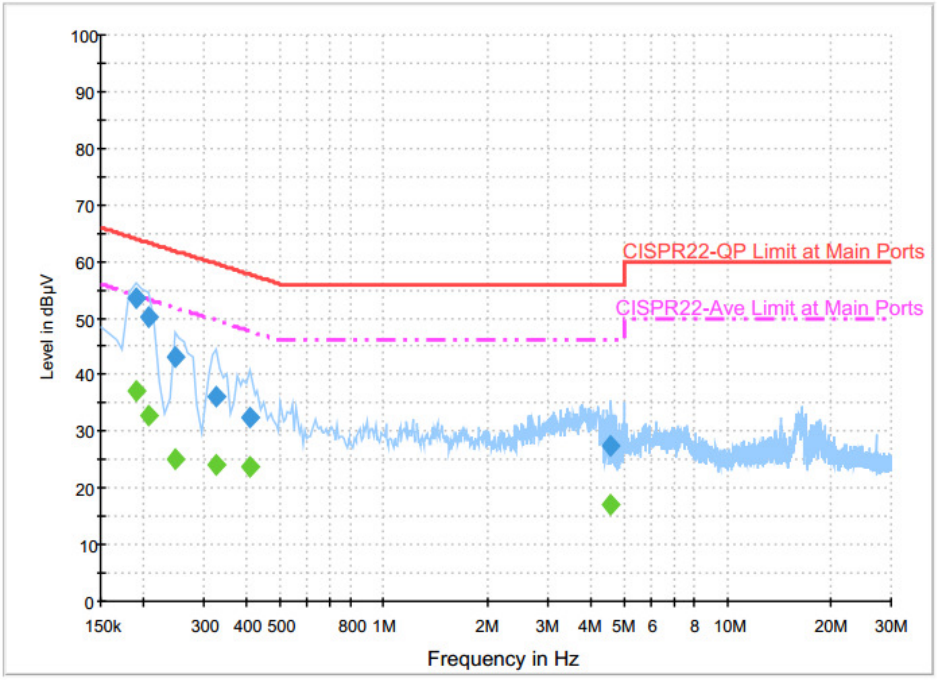
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	41.7	Off	N	19.6	24.3	66.0
0.190000	53.7	Off	N	19.6	10.3	64.0
0.206000	50.3	Off	N	19.6	13.1	63.4
0.246000	43.2	Off	N	19.6	18.7	61.9
0.278000	39.5	Off	N	19.6	21.4	60.9
0.350000	33.2	Off	N	19.6	25.8	59.0
4.262000	29.7	Off	N	19.6	26.3	56.0
13.558000	38.9	Off	N	19.8	21.1	60.0
16.758000	27.6	Off	N	19.9	32.4	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	23.4	Off	N	19.6	32.6	56.0
0.190000	37.3	Off	N	19.6	16.7	54.0
0.206000	32.4	Off	N	19.6	21.0	53.4
0.246000	24.9	Off	N	19.6	27.0	51.9
0.278000	23.7	Off	N	19.6	27.2	50.9
0.350000	20.3	Off	N	19.6	28.7	49.0
4.262000	19.0	Off	N	19.6	27.0	46.0
13.558000	38.7	Off	N	19.8	11.3	50.0
16.758000	19.1	Off	N	19.9	30.9	50.0

Test Mode :	Mode 3	**Temperature :**	21~22℃
Test Engineer :	Eric Jeng	**Relative Humidity :**	51~53%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	Data Link with Notebook (with USB Cable) + WLAN (2.4GHz) Idle + GPS Rx + Earphone + SIM 2		



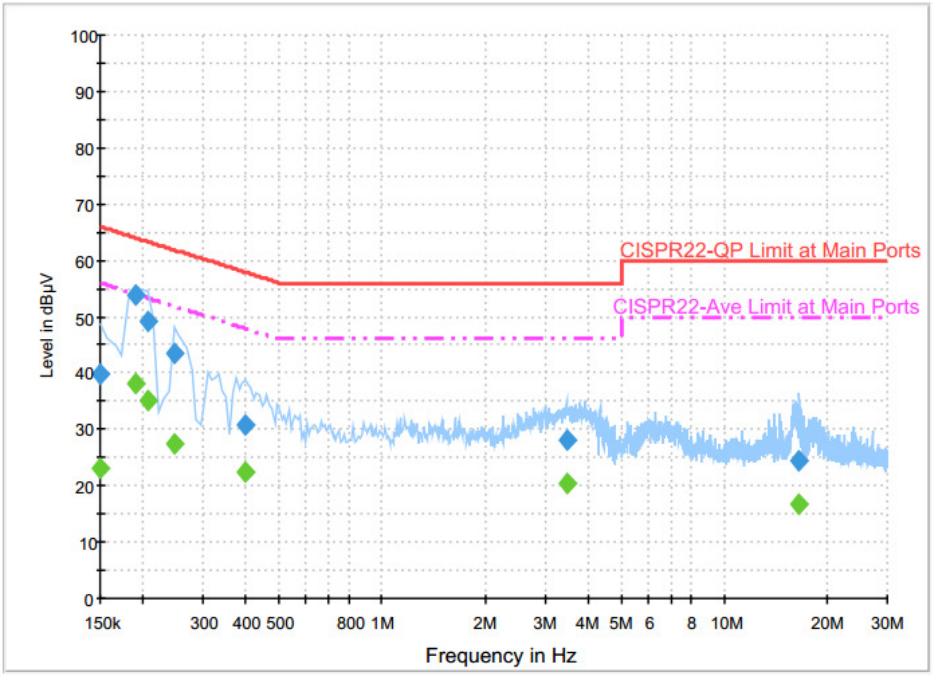
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.190000	53.4	Off	L1	19.6	10.6	64.0
0.206000	50.1	Off	L1	19.6	13.3	63.4
0.246000	43.3	Off	L1	19.6	18.6	61.9
0.326000	36.2	Off	L1	19.6	23.4	59.6
0.406000	32.4	Off	L1	19.6	25.3	57.7
4.598000	27.4	Off	L1	19.7	28.6	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.190000	37.1	Off	L1	19.6	16.9	54.0
0.206000	32.7	Off	L1	19.6	20.7	53.4
0.246000	24.9	Off	L1	19.6	27.0	51.9
0.326000	23.9	Off	L1	19.6	25.7	49.6
0.406000	23.7	Off	L1	19.6	24.0	47.7
4.598000	17.1	Off	L1	19.7	28.9	46.0

Test Mode :	Mode 3	**Temperature :**	21~22℃
Test Engineer :	Eric Jeng	**Relative Humidity :**	51~53%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	Data Link with Notebook (with USB Cable) + WLAN (2.4GHz) Idle + GPS Rx + Earphone + SIM 2		



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	39.8	Off	N	19.6	26.2	66.0
0.190000	53.8	Off	N	19.6	10.2	64.0
0.206000	49.2	Off	N	19.6	14.2	63.4
0.246000	43.5	Off	N	19.6	18.4	61.9
0.398000	30.7	Off	N	19.6	27.2	57.9
3.462000	28.1	Off	N	19.6	27.9	56.0
16.638000	24.4	Off	N	19.9	35.6	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	23.0	Off	N	19.6	33.0	56.0
0.190000	38.0	Off	N	19.6	16.0	54.0
0.206000	35.0	Off	N	19.6	18.4	53.4
0.246000	27.4	Off	N	19.6	24.5	51.9
0.398000	22.3	Off	N	19.6	25.6	47.9
3.462000	20.5	Off	N	19.6	25.5	46.0
16.638000	16.8	Off	N	19.9	33.2	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

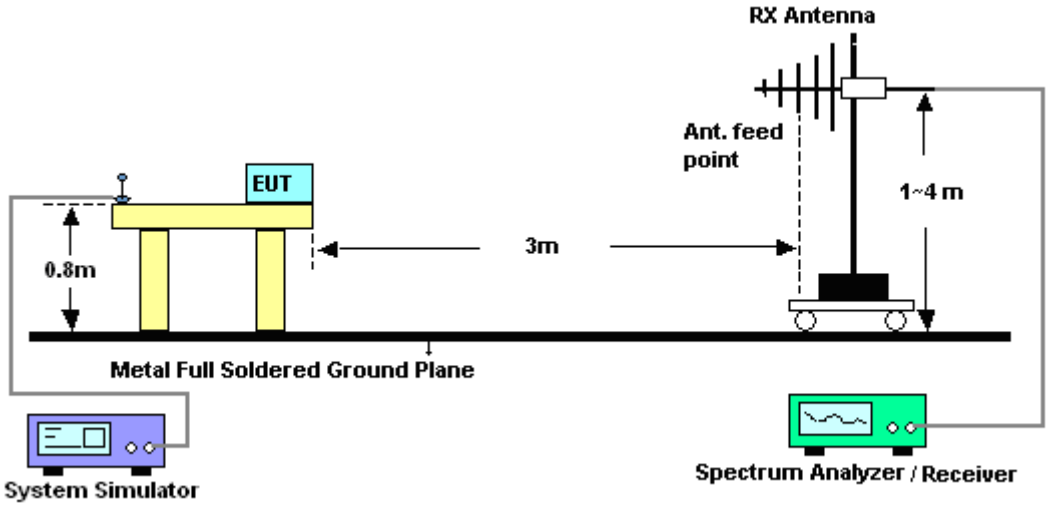
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

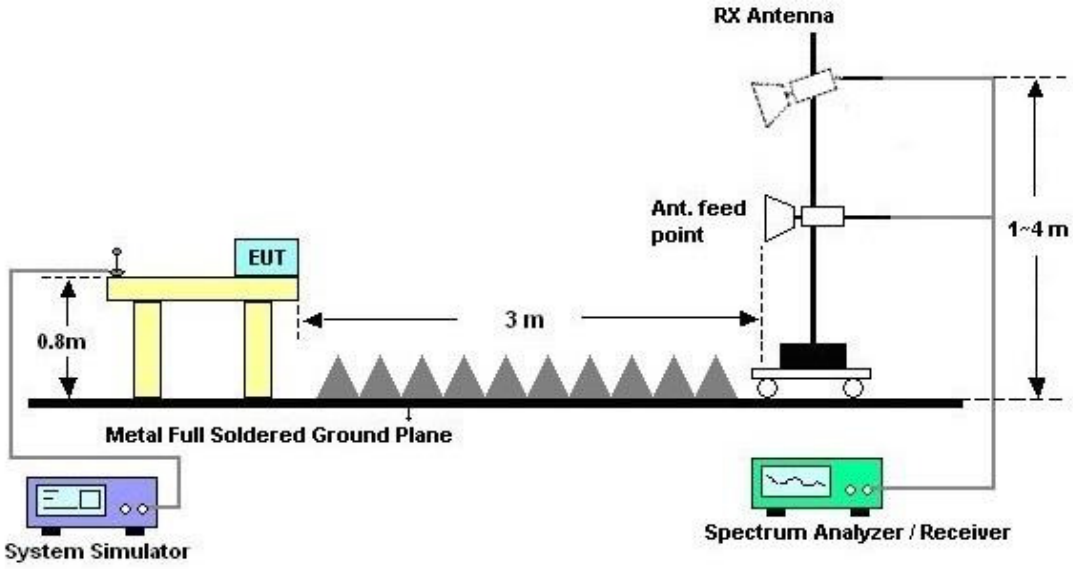
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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

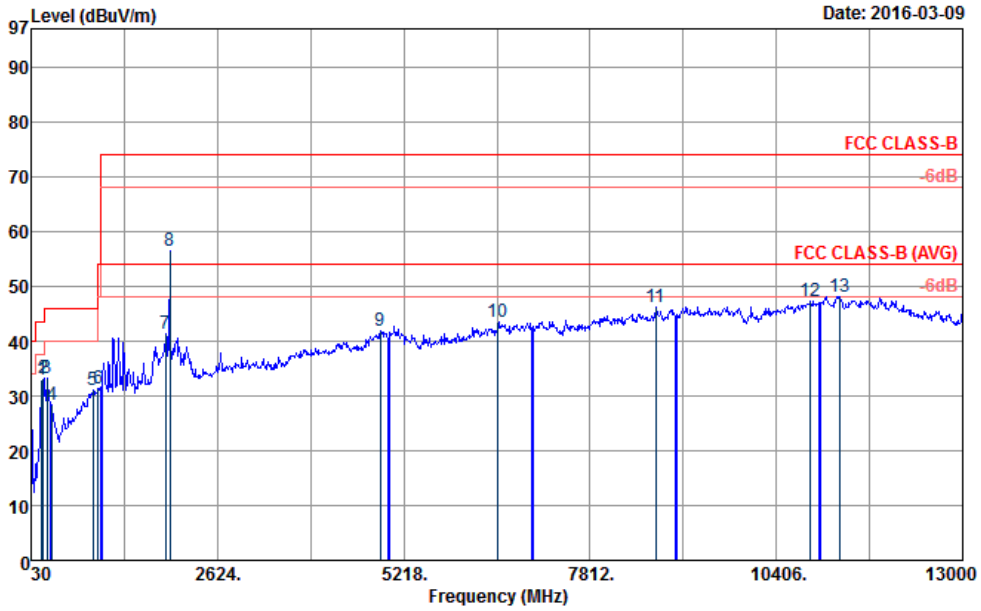


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

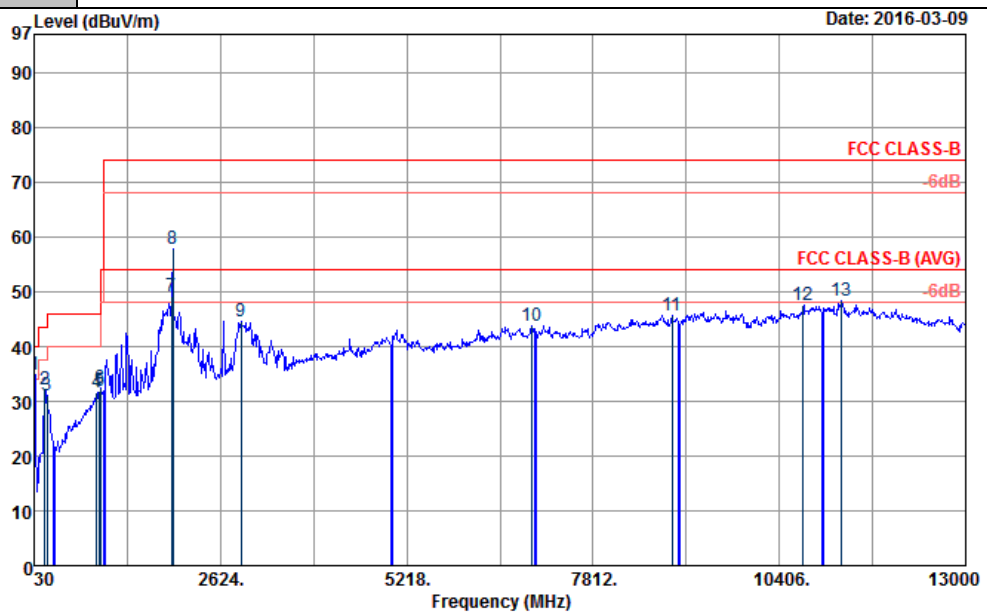
Test Mode :	Mode 1	**Temperature :**	20~23°C
Test Engineer :	Donny Tang	**Relative Humidity :**	50~53%
Test Distance :	3m	**Polarization :**	Horizontal
Function Type :	Data Link with Notebook (with USB cable) + WLAN (2.4GHz) Idle + GPS Rx + Earphone + SIM 1		
Remark :	#8 is system simulator signal which can be ignored.		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m 9120D_1156_150827 HORIZONTAL
Project : 621809
Power : From system
Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read 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	176.88	33.02	-10.48	43.50	47.33	15.42	2.00	31.73	---	---	Peak
2	201.99	33.22	-10.28	43.50	47.06	15.94	1.95	31.73	100	133	Peak
3	248.97	33.14	-12.86	46.00	44.05	18.61	2.20	31.72	---	---	Peak
4	325.20	28.31	-17.69	46.00	37.48	20.30	2.26	31.73	---	---	Peak
5	891.50	31.09	-14.91	46.00	29.86	29.35	3.38	31.50	---	---	Peak
6	958.00	31.41	-14.59	46.00	28.60	30.70	3.06	30.95	---	---	Peak
7	1902.00	41.45	-32.55	74.00	69.64	26.16	6.15	60.50	---	---	Peak
8	1960.00	56.48			84.44	26.23	6.31	60.50	---	---	Peak
9	4888.00	41.81	-32.19	74.00	58.75	31.33	11.11	59.38	---	---	Peak
10	6530.00	43.47	-30.53	74.00	57.46	34.14	12.27	60.40	---	---	Peak
11	8726.00	46.13	-27.87	74.00	54.32	37.25	14.35	59.79	---	---	Peak
12	10886.00	47.23	-26.77	74.00	51.35	40.42	14.87	59.41	---	---	Peak
13	11280.00	48.19	-25.81	74.00	50.95	40.33	15.61	58.70	100	299	Peak

Test Mode :	Mode 1	**Temperature :**	20~23°C
Test Engineer :	Donny Tang	**Relative Humidity :**	50~53%
Test Distance :	3m	**Polarization :**	Vertical
Function Type :	Data Link with Notebook (with USB cable) + WLAN (2.4GHz) Idle + GPS Rx + Earphone + SIM 1		
Remark :	#8 is system simulator signal which can be ignored.		

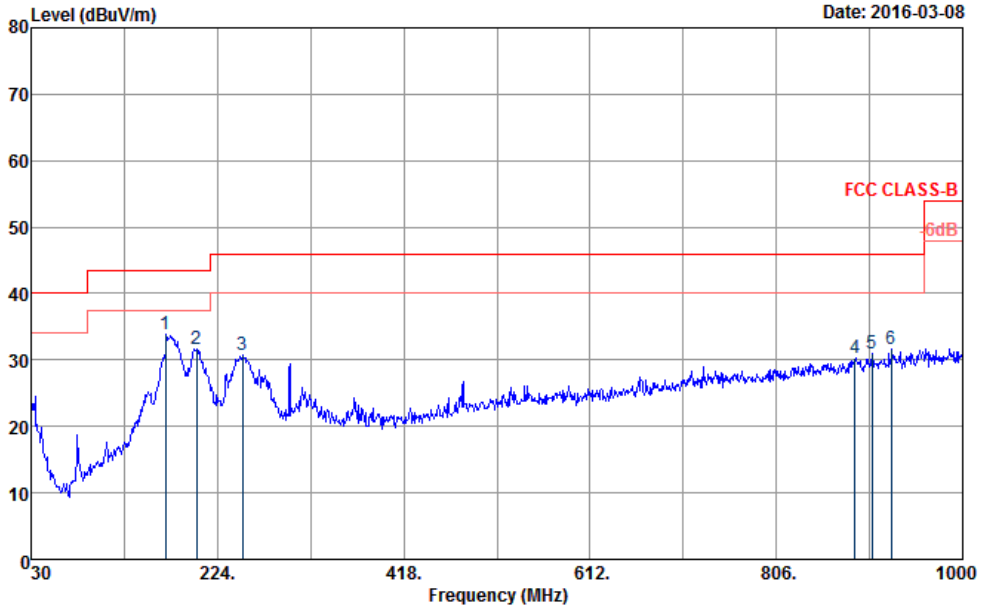


Site : 03CH06-HY
Condition : FCC CLASS-B 3m 9120D_1156_150827 VERTICAL

Power : From system
Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read 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	33.24	34.76	-5.24	40.00	40.61	24.02	1.91	31.78	100	161	Peak
2	176.34	32.27	-11.23	43.50	46.57	15.42	2.01	31.73	---	---	Peak
3	205.50	31.04	-12.46	43.50	44.79	16.01	1.97	31.73	---	---	Peak
4	902.00	31.58	-14.42	46.00	30.19	29.45	3.38	31.44	---	---	Peak
5	942.60	31.86	-14.14	46.00	29.32	30.52	3.10	31.08	---	---	Peak
6	955.90	32.43	-13.57	46.00	29.64	30.70	3.06	30.97	---	---	Peak
7	1938.00	49.06	-24.94	74.00	77.12	26.21	6.23	60.50	100	157	Peak
8	1960.00	57.74	------	------	85.70	26.23	6.31	60.50	---	---	Peak
9	2908.00	44.68	-29.32	74.00	69.59	28.28	7.63	60.82	---	---	Peak
10	6950.00	43.79	-30.21	74.00	57.12	35.18	11.80	60.31	---	---	Peak
11	8910.00	45.68	-28.32	74.00	53.99	37.54	14.27	60.12	---	---	Peak
12	10734.00	47.61	-26.39	74.00	52.53	40.29	14.67	59.88	---	---	Peak
13	11268.00	48.29	-25.71	74.00	51.14	40.34	15.54	58.73	---	---	Peak

Test Mode :	Mode 2	**Temperature :**	20~23°C
Test Engineer :	Donny Tang	**Relative Humidity :**	50~53%
Test Distance :	3m	**Polarization :**	Horizontal
Function Type :	Data Link with Notebook (with USB cable) + WLAN (5GHz) Idle + NFC On + Earphone + SIM 1		

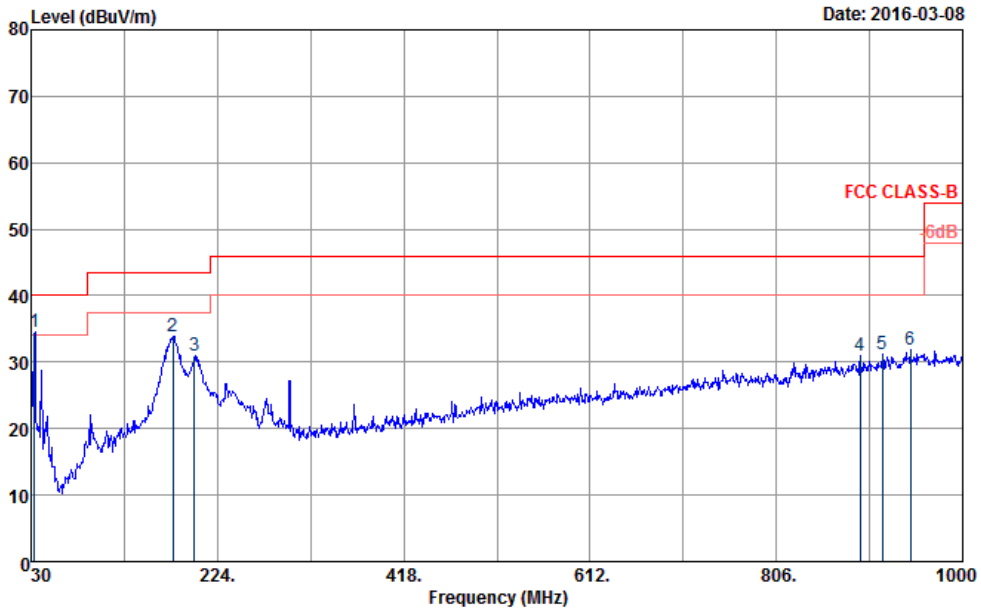


Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF_ANT_2725 HORIZONTAL

Power : From system
Mode : Mode 2

	Freq	Level	Over Limit	Limit Line	Read 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	169.86	33.95	-9.55	43.50	47.82	15.80	2.06	31.73	100	139	Peak
2	202.53	31.58	-11.92	43.50	45.40	15.95	1.96	31.73	---	---	Peak
3	250.32	30.85	-15.15	46.00	41.66	18.70	2.21	31.72	---	---	Peak
4	888.00	30.39	-15.61	46.00	29.21	29.33	3.37	31.52	---	---	Peak
5	905.50	30.99	-15.01	46.00	29.50	29.55	3.36	31.42	---	---	Peak
6	925.80	31.59	-14.41	46.00	29.52	30.09	3.21	31.23	---	---	Peak

Test Mode :	Mode 2	**Temperature :**	20~23°C
Test Engineer :	Donny Tang	**Relative Humidity :**	50~53%
Test Distance :	3m	**Polarization :**	Vertical
Function Type :	Data Link with Notebook (with USB cable) + WLAN (5GHz) Idle + NFC On + Earphone + SIM 1		

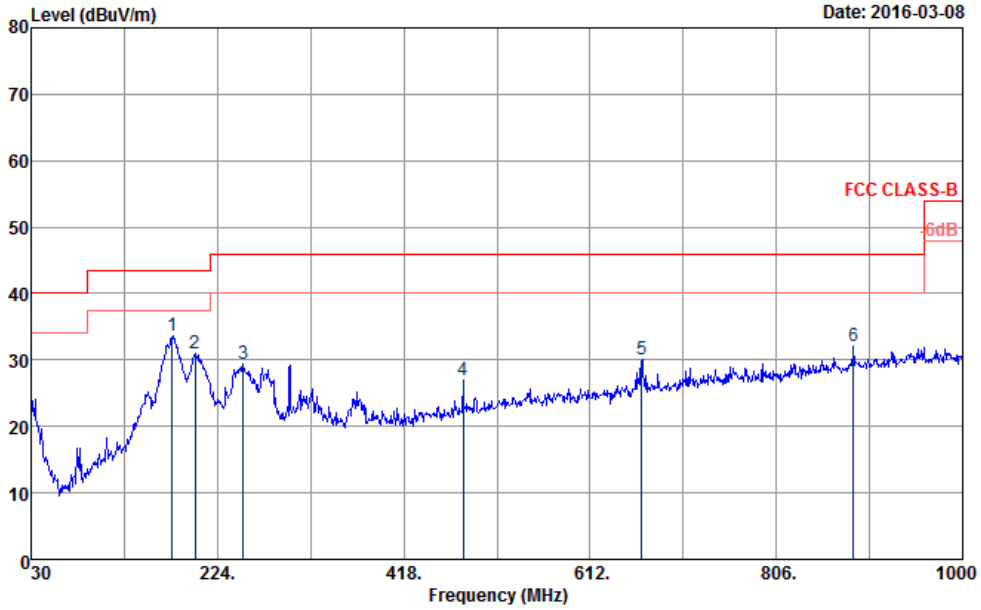


Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF_ANT_2725 VERTICAL

Power : From system
Mode : Mode 2

	Freq	Level	Over Limit	Limit Line	Read 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	33.24	34.60	-5.40	40.00	40.45	24.02	1.91	31.78	100	161	Peak
2	177.96	33.98	-9.52	43.50	48.40	15.31	2.00	31.73	---	---	Peak
3	200.37	30.92	-12.58	43.50	44.79	15.92	1.94	31.73	---	---	Peak
4	892.90	30.88	-15.12	46.00	29.63	29.36	3.38	31.49	---	---	Peak
5	916.00	31.21	-14.79	46.00	29.44	29.81	3.28	31.32	---	---	Peak
6	945.40	31.81	-14.19	46.00	29.19	30.60	3.08	31.06	---	---	Peak

Test Mode :	Mode 3	**Temperature :**	20~23°C
Test Engineer :	Donny Tang	**Relative Humidity :**	50~53%
Test Distance :	3m	**Polarization :**	Horizontal
Function Type :	Data Link with Notebook (with USB cable) + WLAN (2.4GHz) Idle + GPS Rx + Earphone + SIM 2		

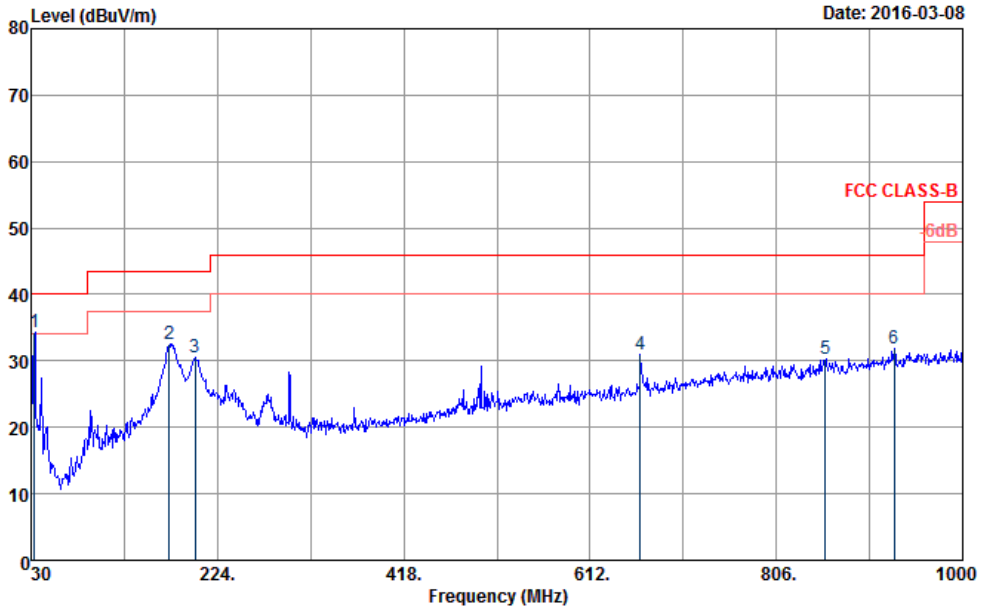


Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF_ANT_2725 HORIZONTAL

Power : From system
Mode : Mode 3

	Freq	Level	Over Limit	Limit Line	Read 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	176.88	33.68	-9.82	43.50	47.99	15.42	2.00	31.73	100	173	Peak
2	200.64	30.89	-12.61	43.50	44.75	15.92	1.95	31.73	---	---	Peak
3	250.59	29.51	-16.49	46.00	40.31	18.70	2.21	31.71	---	---	Peak
4	479.90	27.00	-19.00	46.00	32.33	23.70	2.86	31.89	---	---	Peak
5	666.10	30.18	-15.82	46.00	32.64	26.30	3.33	32.09	---	---	Peak
6	886.60	32.12	-13.88	46.00	30.95	29.32	3.37	31.52	---	---	Peak

Test Mode :	Mode 3	**Temperature :**	20~23°C
Test Engineer :	Donny Tang	**Relative Humidity :**	50~53%
Test Distance :	3m	**Polarization :**	Vertical
Function Type :	Data Link with Notebook (with USB cable) + WLAN (2.4GHz) Idle + GPS Rx + Earphone + SIM 2		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF_ANT_2725 VERTICAL

Power : From system
Mode : Mode 3

	Freq	Level	Over Limit	Limit Line	Read 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	33.24	34.34	-5.66	40.00	40.19	24.02	1.91	31.78	100	196	Peak
2	174.18	32.61	-10.89	43.50	46.78	15.53	2.03	31.73	---	---	Peak
3	200.64	30.45	-13.05	43.50	44.31	15.92	1.95	31.73	---	---	Peak
4	664.00	30.87	-15.13	46.00	33.36	26.27	3.33	32.09	---	---	Peak
5	857.20	30.30	-15.70	46.00	29.50	29.15	3.32	31.67	---	---	Peak
6	928.60	31.94	-14.06	46.00	29.81	30.14	3.19	31.20	---	---	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	Mar. 12, 2016	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 26, 2015	Mar. 12, 2016	Aug. 25, 2016	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Apr. 20, 2015	Mar. 12, 2016	Apr. 19, 2016	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 02, 2015	Mar. 12, 2016	Dec. 01, 2016	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 14, 2015	Mar. 12, 2016	Dec. 13, 2016	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 06, 2016	Mar. 12, 2016	Jan. 05, 2017	Conduction (CO05-HY)
Test Software	N/A	EMC32	8.40.0	N/A	N/A	Mar. 12, 2016	N/A	Conduction (CO05-HY)
Bilog Antenna	Schaffner	CBL6111C	2725	30MHz~1GHz	Nov. 17, 2015	Mar. 08, 2016	Nov. 16, 2016	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Jan. 07, 2016	Mar. 08, 2016	Jan. 06, 2017	Radiation (03CH06-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1156	1GHz~18GHz	Aug. 21, 2015	Mar. 08, 2016	Aug. 20, 2016	Radiation (03CH06-HY)
Hygrometer	WISEWIND	410	BU5004	N/A	May. 04, 2015	Mar. 08, 2016	May. 03, 2016	Radiation (03CH06-HY)
Preamplifier	SONOMA	310N	186713	9kHz~1GHz	Apr. 20, 2015	Mar. 08, 2016	Apr. 19, 2016	Radiation (03CH06-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1850117	1GHz ~ 18GHz	Jul. 01, 2015	Mar. 08, 2016	Jun. 30, 2016	Radiation (03CH06-HY)
Controller	INN-CO	EM1000	060782	Control Turn table & Ant Mast	N/A	Mar. 08, 2016	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1m~4m	N/A	Mar. 08, 2016	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0-360 degree	N/A	Mar. 08, 2016	N/A	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	RG_142_B/U	NA	30MHz ~ 1GHz	Nov. 26, 2015	Mar. 08, 2016	Nov. 25, 2016	Radiation (03CH06-HY)
RF Cable	Infinet	LL142	Infinet CA3601-3601 -1000	1GHz ~ 26.5GHz	Nov. 26, 2015	Mar. 08, 2016	Nov. 25, 2016	Radiation (03CH06-HY)
Test Software	Audix	E3	Version 6.2009-8-24	N/A	N/A	Mar. 08, 2016	N/A	Radiation (03CH06-HY)

Note: The test equipment calibration is traceable to the ISO17025.

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))	2.26

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.00