# **FCC Test Report**

**APPLICANT**: Sony Mobile Communications Inc.

**EQUIPMENT** : Smart phone

BRAND NAME : SONY

TYPE NAME : PM-0633-BV FCC ID : PY7-PM0633

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION : FCC CLASS B PERSONAL

**COMPUTERS AND PERIPHERALS** 

The product was received on Oct. 21, 2014 and testing was completed on Oct. 30, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2009 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

Louis Win

Approved by: Jones Tsai / Manager

### SPORTON INTERNATIONAL INC.

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

SPORTON INTERNATIONAL INC.

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Testing Laboratory 1190

Report No.: FC4O2136



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### **REVISION HISTORY**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC4O2136	Rev. 01	Initial issue of report	Dec. 24, 2014

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### **SUMMARY OF TEST RESULT**

Report Section	FCC Rule	Description	Limit	Result	Remark	
					Under limit	
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	7.30 dB at	
					0.158 MHz	
					Under limit	
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	8.29 dB at	
					240.060 MHz	

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### 1. General Description

### 1.1. Applicant

Sony Mobile Communications Inc.

Nya Vattentornet, 22188 Lund, Sweden

#### 1.2. Manufacturer

**Arima Communications Corp.** 

6F,No.866,Jhongjheng Rd., Jhonghe Dist., New Taipei City 23586, Taiwan

### 1.3. Feature of Equipment Under Test

The Equipment Under Test (hereafter called: EUT) is smart phone supporting, GSM / WCDMA, Wi-Fi 2.4GHz 802.11b/g/n, Bluetooth with FM Receiver, and GPS features, and below is details of information.

Product Feature				
Equipment	Smart phone			
Brand Name	SONY			
Type Name	PM-0633-BV			
FCC ID	PY7-PM0633			
GSM Operating Band(s)	GSM 850/900/1800/1900MHz			
GPRS / EGPRS Multi Slot Class	GPRS Class 12, EGPRS Class 12			
WCDMA Operating Band(s)	FDD Band I / II / V			
WCDMA Rel. Version	Rel. 7			
Wi-Fi Specification	802.11b/g/n (HT20/HT40)			
Bluetooth Version	v3.0 + EDR / v4.0 - LE			
Power Supply	Battery / AC Adapter / Car Charger			

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

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### 1.4. Details of Tested Sample (EUT) Information

Below EUT sample and accessory are used to test.

, i i i i i i i i i i i i i i i i i i i								
EUT Information List								
IMEI	HW Version	SW Version	S/N	Performed Test Item				
IMEI 1: 004402147947539 IMEI 2: 004402147947547	А	24.0.B.0.16	FR4A12D59194	Conducted Emission Radiated Spurious Emission				

Accessory List						
Battery	Battery Model No. : Charles					
	Model No.: MH410c					
Earphone	Type No. : AG-1103					
	S/N: 1411204B00BC72C					
	Model No. : EC450					
USB Cable 1	Type No. : AI-0700					
	S/N: 1412D01471694					
	Model No.: EC300					
USB Cable 2	Type No. : AI-1000					
	S/N: 14280D76058321C					

#### 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.

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#### 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.				
	No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park,				
Took Cita Lagation	Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.				
Test Site Location	TEL: +886-3-327-3456				
	FAX: +886-3-328-4978				
Toot Site No	Sporton	Site No.			
Test 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 C63.4-2009

#### 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.

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### 2. Test Configuration of Equipment Under Test

#### 2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2009 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.

		Test Co	ndition
Item	EUT Configuration	EMI	EMI
		AC	RE
1.	Data Link with Notebook	$\boxtimes$	$\boxtimes$

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

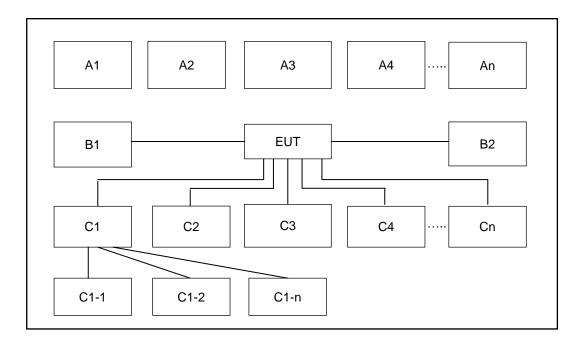
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## 2.2. Connection Diagram of Test System



	Radiation and Conduction Test Setup								
No	Wireless Station	Connection Type	Test Mode						
No.			1	2	-	-	-	-	-
A1	BT Earphone	Bluetooth	Х	Х					
A2	System Simulator	GSM	Х	Х					
А3	GPS Station	GPS	Х	Х					
A4	AP router	WiFi	Х	Х					
No.	Setup Peripherals	Connection Type	1	2	-	-	-	-	-
B1	Notebook	USB port	Х	Х					
No.	Setup Peripherals	Connection Type	1	2	•	-	-	-	-
C1	Notebook	USB cable	Х	Χ					
C1-1	IPod	USB Cable to C1	Х	Х					
C1-2	AP router	RJ-45 Cable to C1	Х	Х					
C2	Earphone	Earphone jack	Х	Х					
C3	SD card	SD I/O interface	Х	Х					
US	3D Calu	without cable	X	^					

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### 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.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	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, 0.75m	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

### 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.

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

<sup>\*</sup>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

- 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 with Maximum Hold Mode.

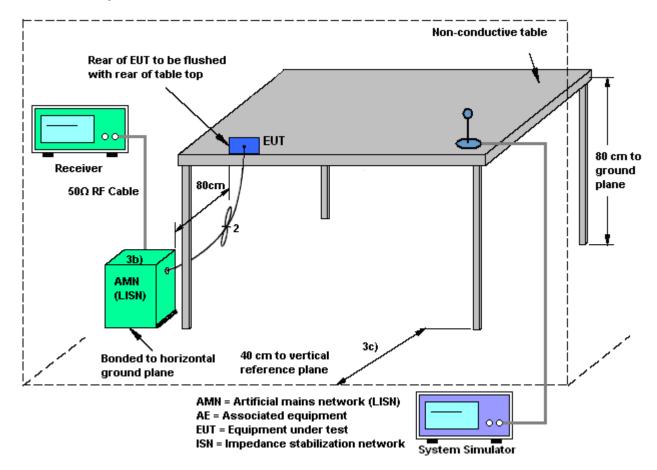
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### 3.1.4 Test Setup

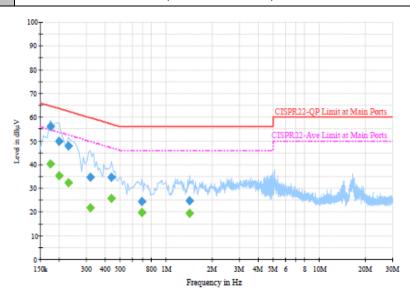


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#### 3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Line

Function Type: Data Link with Notebook (with USB cable 1) + SIM1



#### Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	56.2	Off	L1	19.4	8.6	64.8
0.198000	49.9	Off	L1	19.5	13.8	63.7
0.230000	47.8	Off	L1	19.5	14.6	62.4
0.318000	34.7	Off	L1	19.5	25.1	59.8
0.438000	34.5	Off	L1	19.5	22.6	57.1
0.694000	24.5	Off	L1	19.5	31.5	56.0
1.422000	24.8	Off	L1	19.5	31.2	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	40.1	Off	L1	19.4	14.7	54.8
0.198000	35.2	Off	L1	19.5	18.5	53.7
0.230000	32.2	Off	L1	19.5	20.2	52.4
0.318000	21.6	Off	L1	19.5	28.2	49.8
0.438000	25.7	Off	L1	19.5	21.4	47.1
0.694000	19.8	Off	L1	19.5	26.2	46.0
1.422000	19.5	Off	L1	19.5	26.5	46.0

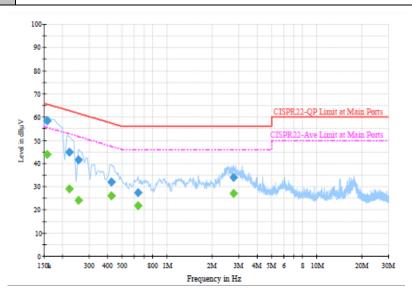
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Test Mode: Mode 1 21~23℃ Temperature : Test Engineer: Eric Jeng Relative Humidity: 46~48% Test Voltage : 120Vac / 60Hz Phase: Neutral

Function Type: Data Link with Notebook (with USB cable 1) + SIM1



#### Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	58.3	Off	N	19.5	7.3	65.6
0.222000	45.0	Off	N	19.5	17.7	62.7
0.254000	41.5	Off	N	19.5	20.1	61.6
0.422000	32.1	Off	N	19.5	25.3	57.4
0.638000	27.3	Off	N	19.5	28.7	56.0
2.758000	33.9	Off	N	19.5	22.1	56.0

#### Final Result : Average

•	Frequency (MHz)         Average (dBμV)         Filter Filter         Line Line Line (dB)         Corr. (dB)         Margin (dBμV)         Limit (dBμV)           0.158000         43.8         Off N         19.5         11.8         55.6           0.232000         29.2         Off N         19.5         23.5         52.7						
	•		Filter	Line			
	(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
	0.158000	43.8	Off	N	19.5	11.8	55.6
	0.222000	29.2	Off	N	19.5	23.5	52.7
	0.254000	24.1	Off	N	19.5	27.5	51.6
	0.422000	26.0	Off	N	19.5	21.4	47.4
	0.638000	21.8	Off	N	19.5	24.2	46.0
	2.758000	27.0	Off	N	19.5	19.0	46.0

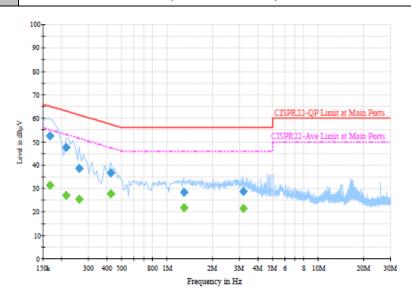
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Test Mode :	Mode 2	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Line

Function Type: Data Link with Notebook (with USB cable 2) + SIM2



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	52.5	Off	L1	19.4	12.7	65.2
0.214000	47.6	Off	L1	19.5	15.4	63.0
0.262000	38.5	Off	L1	19.5	22.9	61.4
0.422000	36.7	Off	L1	19.5	20.7	57.4
1.286000	28.3	Off	L1	19.5	27.7	56.0
3.166000	28.8	Off	L1	19.6	27.2	56.0

Final Result : Average

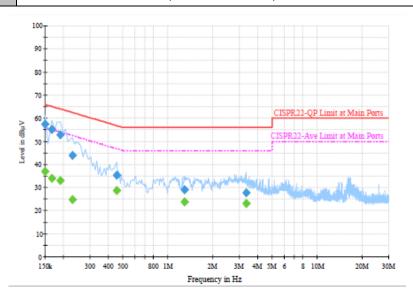
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	Frequency	Average	Filter	Line	Corr.	Margin	Limit
	(MHz)	(dBµV)	I IIICI	Lille	(dB)	(dB)	(dBµV)
	0.166000	31.5	Off	L1	19.4	23.7	55.2
	0.214000	26.9	Off	L1	19.5	26.1	53.0
	0.262000	25.5	Off	L1	19.5	25.9	51.4
	0.422000	27.8	Off	L1	19.5	19.6	47.4
	1.286000	21.9	Off	L1	19.5	24.1	46.0
	3.166000	21.5	Off	L1	19.6	24.5	46.0

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Test Mode :	Mode 2	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral

Function Type: Data Link with Notebook (with USB cable 2) + SIM2



#### Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr.	Margin (dB)	Limit (dBµV)
0.150000	57.4	Off	N	19.5	8.6	66.0
0.166000	55.0	Off	N	19.5	10.2	65.2
0.190000	52.8	Off	N	19.5	11.2	64.0
0.230000	43.8	Off	N	19.5	18.6	62.4
0.454000	35.5	Off	N	19.5	21.3	56.8
1.294000	29.0	Off	N	19.5	27.0	56.0
3.342000	27.9	Off	N	19.6	28.1	56.0

#### Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	36.9	Off	N	19.5	19.1	56.0
0.166000	34.0	Off	N	19.5	21.2	55.2
0.190000	32.9	Off	N	19.5	21.1	54.0
0.230000	24.8	Off	N	19.5	27.6	52.4
0.454000	28.8	Off	N	19.5	18.0	46.8
1.294000	23.6	Off	N	19.5	22.4	46.0
3.342000	23.0	Off	N	19.6	23.0	46.0

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#### 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	Field Strength	Measurement Distance		
(MHz)	(microvolts/meter)	(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.
- 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.

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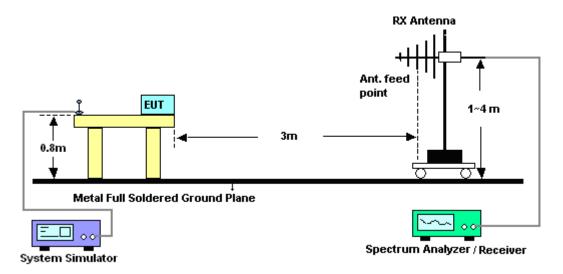
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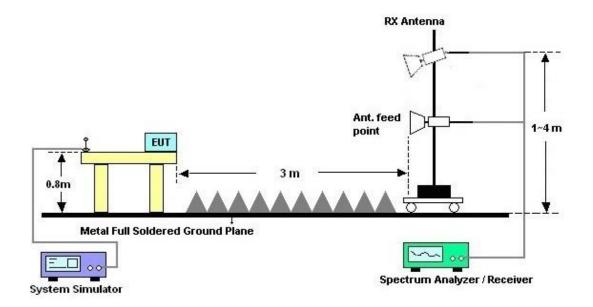


#### 3.2.4. Test Setup of Radiated Emission

#### For radiated emissions from 30MHz to 1GHz

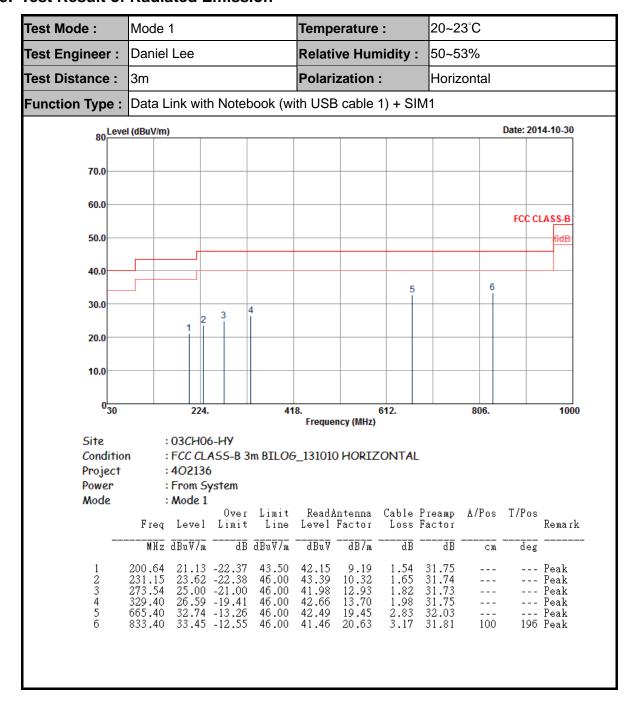


#### For radiated emissions above 1GHz



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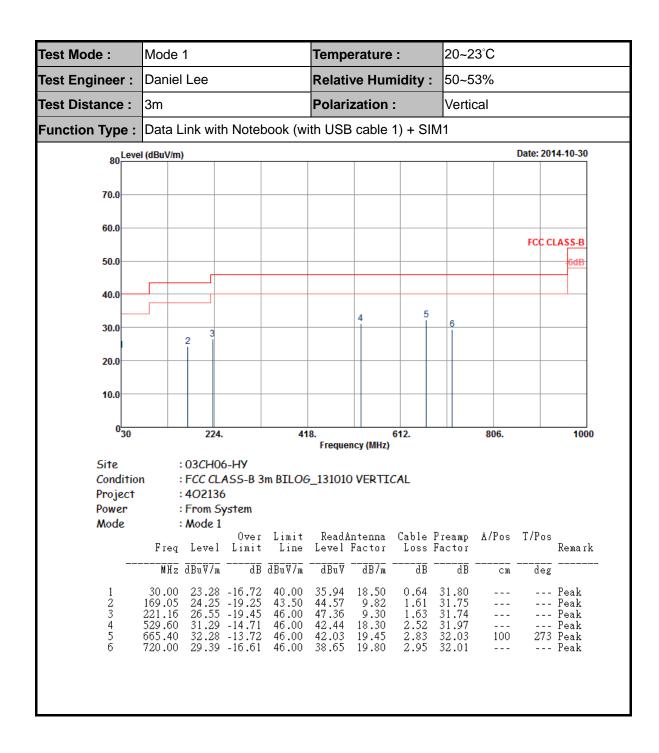
#### 3.2.5. Test Result of Radiated Emission



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Test Mode :	Mode	2			Temp	erature	:	20~2	3°C		
Test Engineer :	Daniel	Lee			Relati	ve Hun	nidity :	50~5	3%		
Test Distance :	3m				Polari	zation	:	Horiz	ontal		
Function Type :	Data L	ink wit	h Noteb	ook (wi	ith USE	3 cable	2) + SII	M2			
Remark :	#8 is s	ystem	simulat	or signa	al which	n can be	e ignore	ed.			
97 Leve	l (dBuV/m	)								Date: 20	14-10-31
1											
84.9											
72.8										FCC C	LASS-B
		8									-6dB
60.6									FCC	CLASS-	B (AVG)
48.5		7	9			10	11	12			13 <sub>6dB</sub>
36.4											
30.4 24 11	5 <sub>6</sub>										
24.3											
12.1											
030		2624	i	52		ncy (MHz)	7812.		10406.		13000
Site		03 <i>C</i> H0	6-H <b>y</b>								
Condition Project		FCC CL. 402136		m HF-AN	NT_583_	_140731	HORIZ	ONTAL			
Power Mode	:	From S	ystem								
Mode				Limit Line	ReadA Level	ntenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBu∀7m	dB	dBu∀7m	dBu∀	dB7m	dB	dB	cm	deg	
8 1	138.54 167.16 240.06 315.40 665.40 833.40 1892.00 1960.00 3890.00	30.43 37.71 31.60 32.06 30.21 43.89 62.59	-19.19 -13.07 -8.29 -14.40 -13.94 -15.79 -30.11	43.50 43.50 46.00 46.00 46.00 74.00 74.00	43.55 50.74 56.27 47.83 41.81 38.22 68.23 86.35 64.95	11.20 9.86 11.49 13.55 19.45 20.63 30.84 31.33 33.23	1.31 1.58 1.69 1.95 2.83 3.17 5.30 5.40 7.53	31.75 31.75 31.74 31.73 32.03 31.81 60.48 60.49 61.64	100	63   	Peak Peak Peak Peak Peak Peak Peak Peak
10 6 11 8 12 9	5578.00 3372.00 9322.00 2322.00	42.68 44.05 45.11	-31.32 -29.95 -28.89 -25.02	74.00 74.00 74.00 74.00	57.56 55.18 56.13 53.88	35.80 35.65 36.33 39.13	9.81 12.77 13.51 15.43	60.49 59.55 60.86 59.46	100		Peak Peak Peak Peak

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Test Mode :	Mode 2			Temperature :			20~2	20~23°C				
Test Engineer :	Daniel Lee				Relati	Relative Humidity :			50~53%			
Test Distance :	3m				Polari	Polarization :			Vertical			
Function Type :	Data Link with Notebook (wit				th USB cable 2) + SIM2							
Remark: #7 is system simulator signal which can be i						e ignore	d.					
97 Leve	l (dBuV/m)	<u> </u>								Date: 201	14-10-31	
84.9												
72.8		_								FCC C	-6dB	
60.6		7							FCC	CLASS-	B (AVG)	
48.5		8	10			11	12	13			-6t/B	
36.4	5 6	9										
24.3												
12.1												
030		2624	i	52		ncy (MHz)	7812.		10406.		13000	
Site Condition	n :		ASS-B3	m HF-AN	NT_583	_140731	VERTI <i>C</i>	AL				
Project : 402136 Power : From System												
Mode		Mode 2			<b>5</b>		a		L Jr.	m /n		
	Freq	Level	Over Limit		Kead <i>t</i> Level		Cable 1 Loss 1		A/Pos	1/Pos	Remark	
	MHz	dBu∀/m	dB	$\overline{\mathtt{dBuV/m}}$	dBu∀	<u>dB</u> /m	<u>dB</u>	₫B	cm	deg		
8 2 9 10 3 11 6 12 8 13 9		25.28 26.11 31.97 33.91 28.10 63.76 49.75 33.15 44.73 43.62 44.58 45.45	-14.54 -18.22 -17.39 -14.03 -12.09 -17.90 -24.25 -20.85 -29.27 -30.38 -29.42 -28.55 -24.77	40.00 43.50 43.50 46.00 46.00 74.00 74.00 74.00 74.00 74.00 74.00 74.00		15.50 11.40 9.82 17.79 19.45 20.63 31.33 31.79 31.79 32.67 35.80 35.80 36.34 39.40	0.69 1.30 1.61 2.48 2.83 3.17 5.40 5.86 5.86 7.07 10.09 12.39 13.56 15.79	31.79 31.75 31.75 31.93 32.03 31.81 60.49 60.50 60.50 61.26 60.43 59.65 60.88 60.00	100 100 100 100 100	157  26 26 	Peak Peak Peak Peak Peak Peak Peak Peak	

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# 4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 15, 2013	Oct. 30, 2014	Nov. 14, 2014	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2013	Oct. 30, 2014	Dec. 11, 2014	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 04, 2013	Oct. 30, 2014	Dec. 03, 2014	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Oct. 30, 2014	N/A	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Apr. 23, 2014	Oct. 30, 2014	Apr. 22, 2015	Conduction (CO05-HY)
Test Software	N/A	EMC32	8.40.0	N/A	N/A	Oct. 30, 2014	N/A	Conduction (CO05-HY)
LF Cable	Shuner	RG-402	N/A	N/A	Oct. 07, 2014	Oct. 30, 2014	Oct. 06, 2015	Conduction (CO05-HY)
EMI Test Receiver	R&S	ESVS10	834468/0003	20MHz ~ 1000MHz	May 06, 2014	Oct. 30, 2014	May 05, 2015	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211028	9kHz ~ 26.5GHz	Aug. 23, 2014	Oct. 30, 2014	Aug. 22, 2015	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Jan. 15, 2014	Oct. 30, 2014	Jan. 14, 2015	Radiation (03CH06-HY)
Bilog Antenna	Teseq GmbH	CBL6112D	35379	30MHz -2GHz	Sep. 27, 2014	Oct. 30, 2014	Sep. 26, 2015	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Jul. 24, 2014	Oct. 30, 2014	Jul. 23, 2015	Radiation (03CH06-HY)
Amplifier	SONOMA	310N	186713	9kHz ~ 1GHz	Apr. 16, 2014	Oct. 30, 2014	Apr. 15, 2015	Radiation (03CH06-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1850117	1GHz ~ 18GHz	Apr. 11, 2014	Oct. 30, 2014	Apr. 10, 2015	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	Oct. 30, 2014	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1 m ~ 4 m	N/A	Oct. 30, 2014	N/A	Radiation (03CH06-HY)
Hygrometer	WISEWIND	0410	BU5004	N/A	May 06, 2014	Oct. 30, 2014	May 05, 2015	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	RG 142	N/A	30MHz ~1GHz	Nov. 28, 2013	Oct. 30, 2014	Nov. 27, 2014	Radiation (03CH06-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	286027/4	1GHz ~26.5GHz	Nov. 28, 2013	Oct. 30, 2014	Nov. 27, 2014	Radiation (03CH06-HY)
Test Software	Audix	E3	Version 6.2009-8-24	N/A	N/A	Oct. 30, 2014	N/A	Radiation (03CH06-HY)

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

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# 5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of	2.26		
Confidence of 95% (U = 2Uc(y))	2.20		

#### <u>Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)</u>

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

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