

Partial FCC/IC RF Test Report

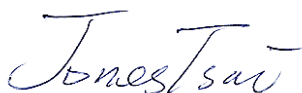
APPLICANT : Sony Mobile Communications AB
EQUIPMENT : Smart phone
BRAND NAME : SONY
MODEL NAME : D2305
TYPE NAME : PM-0720-BV
FCC ID : PY7PM-0720
IC : 4170B-PM0720
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)
IC RSS-132 issue 3 and RSS-133 issue 6
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

This is a partial report which is included the conducted output power and field strength of spurious radiation test items. The product was received on Nov. 02, 2013 and testing was completed on Jan. 06, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown to be compliant 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: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

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FCC ID : PY7PM-0720

IC: 4170B-PM0720

Page Number : 1 of 30

Report Issued Date : Jan. 20, 2014

Report Version : Rev. 01

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG3O0204	Rev. 01	Initial issue of report	Jan. 20, 2014

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	§2.1046	RSS-132 (5.4) RSS-133 (6.4)	Conducted Output Power	N/A	PASS	-
3.2	§2.1053 §22.917(a) §24.238(a)	RSS-132 (5.5) RSS-133 (6.5)	Field Strength of Spurious Radiation	$< 43 + 10 \log_{10}(P[\text{Watts}])$	PASS	Under limit 9.81 dB at 3812.000 MHz

1 General Description

1.1 Applicant

Sony Mobile Communications AB
Nya Vattentorget, 22188 Lund, Sweden

1.2 Manufacturer

Compal Communications, INC.
No. 385, Yangguang Street, Neihu, Taipei 11491, 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, Wi-Fi 5GHz 802.11a/n, Bluetooth with FM Receiver, GPS, and NFC features, and below is details of information.

Product Feature	
Equipment	Smart phone
Brand Name	SONY
Model Name	D2305
Type Name	PM-0720-BV
FCC ID	PY7PM-0720
IC	4170B-PM0720
GSM Operating Band(s)	GSM 850/900/1800/1900MHz
GPRS / EGPRS Multi Slot Class	GPRS Class 33 , EGPRS Class 33
WCDMA Operating Band(s)	FDD Band I / II / V / VIII
WCDMA Rel. Version	Rel. 7
Wi-Fi Specification	802.11b/g/n (HT20) 802.11a/n (HT20/HT40)
Bluetooth Version	v3.0+EDR / v4.0-LE
NFC Specification	ISO14443A / ISO14443B / Felica
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.

1.4 Details of Tested Sample (EUT) Information

Product Specification subjective to this Test Standard	
Transmitter Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz
Receiver Frequency Range	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz
Maximum Output Power to Antenna	GSM850 : 34.21 dBm GSM1900 : 30.49 dBm WCDMA Band V: 24.40 dBm WCDMA Band II: 24.00 dBm
Antenna Type	PIFA Antenna
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA: QPSK (Uplink) HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink)
EUT Serial Number	IMEI : 004402146980515 S/N : ZH8001KA2M
H/W	A
S/W	18.0.A.0.6
EUT Stage	Production Unit

Accessory List	
AC Adapter	Model No. : EP800
	Type No. : CAA-0002016-US B
Battery	Model No. : LIS1502ERPC
	Type No. : Sony LIS1502ERPC
Earphone	Model No. : MH410c
	Type No. : AG-1100
USB Cable	Model No. : AHAB EC450
	Part No. : 1242-6715.4

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, and the serial number of each type of accessories is listed in each section of this report.
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 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	TH02-HY	03CH07-HY	722060/4086B-1

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 Part 2, 22(H), 24(E)
- ♦ ANSI / TIA / EIA-603-C-2004
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v02r01
- ♦ IC RSS-132 Issue 3
- ♦ IC RSS-133 Issue 6
- ♦ IC RSS-Gen Issue 3
- ♦ NOTICE 2012-DRS0126

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. Per the section 2.2.3 of Notice of 2012-DRS0126, " Receivers Excluded from Industry Canada Requirements", only radiocommunication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

- a. Preliminary tests were performed in different radio applications and recorded the RF output power in the following table:

Conducted Power		Burst Average Power (dBm)					
Band		GSM850			GSM1900		
Channel		128	189	251	512	661	810
Frequency (MHz)		824.2	836.4	848.8	1850.2	1880.0	1909.8
GSM		34.18	34.19	34.19	30.43	30.46	30.47
GPRS Class 8		34.19	34.21	34.20	30.44	30.46	30.49
GPRS Class 10		34.07	34.10	34.11	30.34	30.39	30.40
GPRS Class 11		33.97	33.96	34.20	30.24	30.26	30.29
GPRS Class 33		33.77	33.80	34.10	30.17	30.14	30.18
EGPRS Class 8		26.01	26.12	26.20	24.12	24.41	24.47
EGPRS Class 10		25.90	26.00	26.09	24.13	24.25	24.36
EGPRS Class 11		25.83	25.87	25.92	24.03	24.17	24.20
EGPRS Class 33		25.68	25.78	25.82	23.90	24.08	24.17
DTM 5	GSM (GMSK, 1 Tx slot)	34.06	34.08	34.09	30.43	30.45	30.47
	GPRS (GMSK, 1 Tx slot)	34.05	34.07	34.06	30.42	30.44	30.46
DTM 9	GSM (GMSK, 1 Tx slot)	34.07	34.08	34.08	30.44	30.45	30.47
	GPRS (GMSK, 1 Tx slot)	34.05	34.07	34.07	30.42	30.42	30.47
DTM 11	GSM (GMSK, 1 Tx slot)	33.95	33.94	34.18	30.23	30.25	30.27
	GPRS (GMSK, 2 Tx slots)	33.94	33.93	34.15	30.22	30.24	30.26
DTM 5	GSM (GMSK, 1 Tx slot)	34.06	34.08	34.09	30.42	30.42	30.47
	EDGE (8PSK, 1 Tx slot)	25.87	25.98	26.08	24.13	24.25	24.36
DTM 9	GSM (GMSK, 1 Tx slot)	34.06	34.08	34.09	30.42	30.42	30.47
	EDGE (8PSK, 1 Tx slot)	25.90	26.00	26.09	24.13	24.25	24.36
DTM 11	GSM (GMSK, 1 Tx slot)	34.05	34.07	34.06	30.22	30.24	30.26
	EDGE (8PSK, 2 Tx slots)	25.81	25.84	25.88	24.03	24.17	24.20

Conducted Power (*Unit: dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9262	9400	9538
Frequency	826.4	836.4	846.6	1852.4	1880.0	1907.6
RMC 12.2K	24.40	24.22	24.27	23.70	23.87	24.00
HSDPA Subtest-1	23.45	23.24	23.25	22.75	22.89	23.01
HSDPA Subtest-2	23.47	23.21	23.24	22.74	22.86	23.02
HSDPA Subtest-3	22.95	22.78	22.81	22.21	22.37	22.51
HSDPA Subtest-4	22.93	22.71	22.85	22.30	22.40	22.53
HSUPA Subtest-1	23.41	23.25	23.12	22.00	22.34	22.85
HSUPA Subtest-2	22.33	22.18	22.04	21.14	21.48	21.74
HSUPA Subtest-3	22.12	21.95	21.88	21.47	21.61	22.08
HSUPA Subtest-4	22.68	22.49	22.37	21.89	22.09	22.58
HSUPA Subtest-5	23.39	23.13	23.23	22.74	22.68	23.00

- b. During all testing, EUT was in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and the EUT was rotated on three test axes planes to find out the worst emission.

Frequency range investigated for radiated emission is as follows:

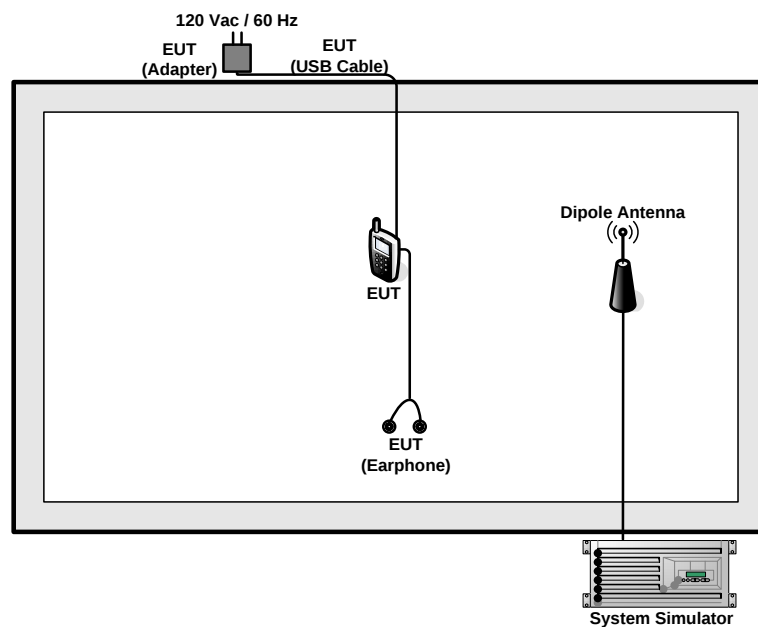
- 30 MHz to 9000 MHz for GSM850.
- 30 MHz to 19000 MHz for WCDMA Band II.

Test Modes	
Band	Radiated TCs
GSM 850	■ GPRS class 8 Link
WCDMA Band II	■ RMC 12.2Kbps Link

Note:

- The maximum power levels of GPRS multi-slot class 8 and WCDMA RMC 12.2Kbps mode are chosen for radiated test. All of all modes evaluated in report are demonstrated in compliance with FCC test standard.
- Because there are individual antennas for each WWAN, WLAN, and Bluetooth, the co-location test modes are not required.

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m

3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals shall be reported.

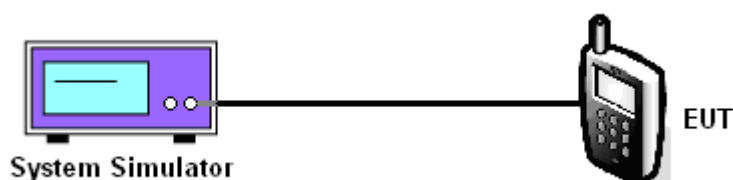
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM.

3.1.4 Test Setup



3.1.5 Test Result of Conducted Output Power

Cellular Band									
Modes	GSM850 (GPRS class 8)			GSM850 (EDGE class 8)			WCDMA Band V (RMC 12.2Kbps)		
Channel	128 (Low)	189 (Mid)	251 (High)	128 (Low)	189 (Mid)	251 (High)	4132 (Low)	4182 (Mid)	4233 (High)
Frequency (MHz)	824.2	836.4	848.8	824.2	836.4	848.8	826.4	836.4	846.6
Conducted Power (dBm)	34.19	34.21	34.20	26.01	26.12	26.20	24.40	24.22	24.27
Conducted Power (Watts)	2.62	2.64	2.63	0.40	0.41	0.42	0.28	0.26	0.27

PCS Band									
Modes	GSM1900 (GPRS class 8)			GSM1900 (EDGE class 8)			WCDMA Band II (RMC 12.2Kbps)		
Channel	512 (Low)	661 (Mid)	810 (High)	512 (Low)	661 (Mid)	810 (High)	9262 (Low)	9400 (Mid)	9538 (High)
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8	1852.4	1880	1907.6
Conducted Power (dBm)	30.44	30.46	30.49	24.12	24.41	24.47	23.70	23.87	24.00
Conducted Power (Watts)	1.11	1.11	1.12	0.26	0.28	0.28	0.23	0.24	0.25

Note: maximum burst average power for GPRS and maximum average power for WCDMA.



3.2 Field Strength of Spurious Radiation Measurement

3.2.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.2.2 Measuring Instruments

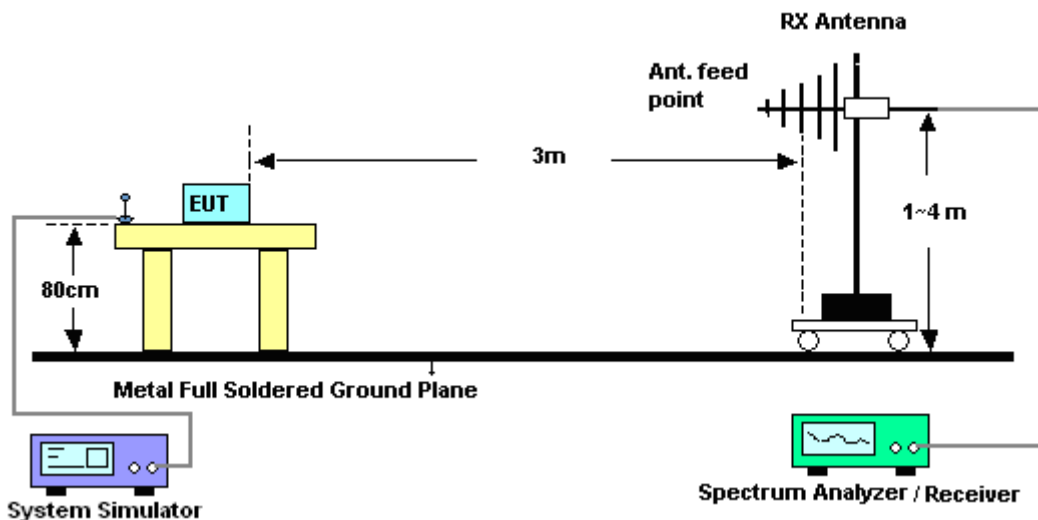
The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

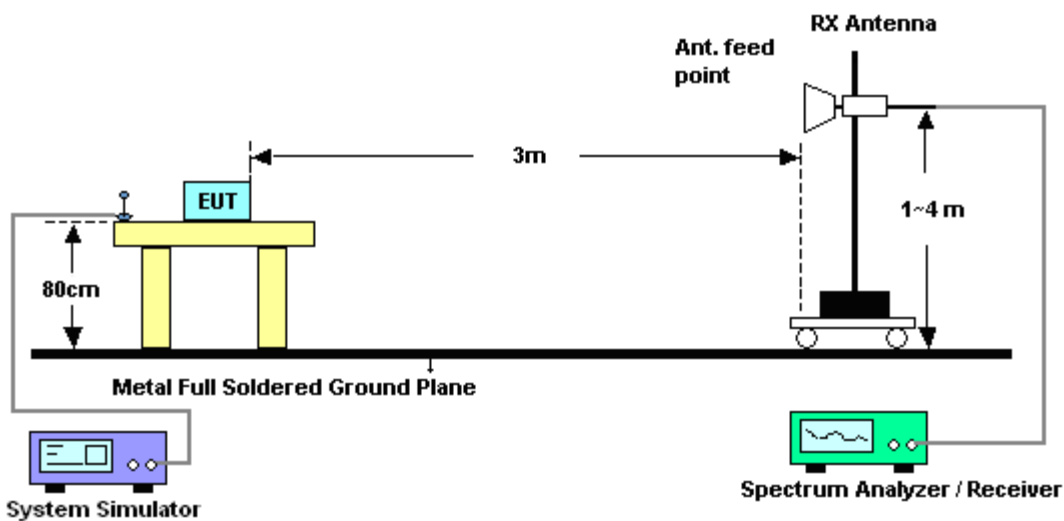
1. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
11. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$
12. $\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$
13. $\text{ERP (dBm)} = \text{EIRP} - 2.15$

3.2.4 Test Setup

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



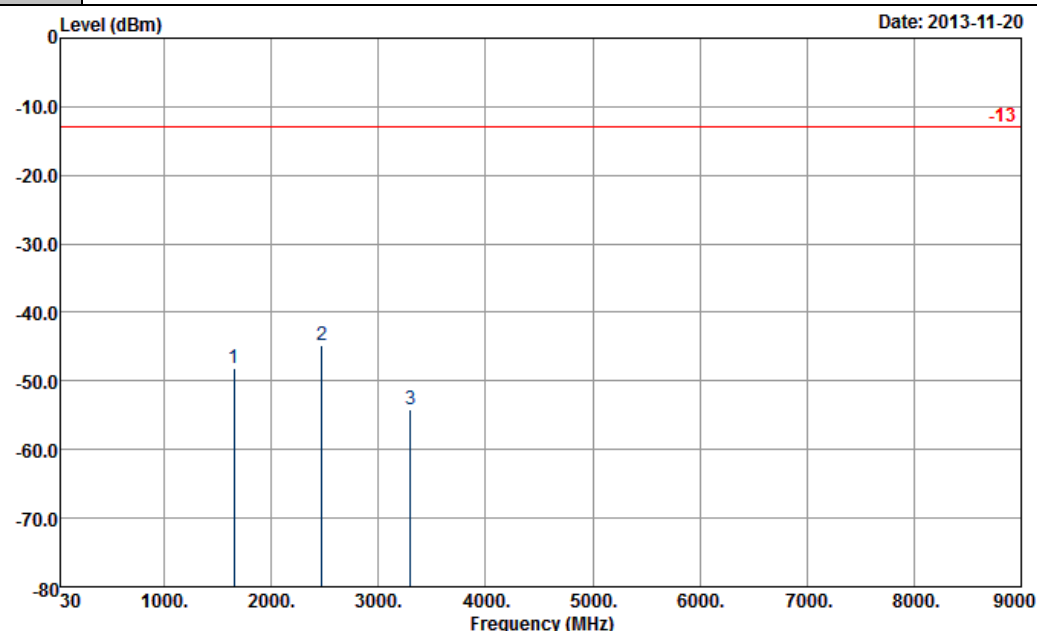
3.2.5 Test Result of Field Strength of Spurious Radiated

<Low Channel>

Band :	GSM850	Temperature :	21~25°C
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	51~56%
Channel :	128	Polarization :	Horizontal
Test Engineer :	Eric Shih		

Remark :

- Spurious emissions within 30-1000MHz were found more than 20dB below limit line.
- The harmonic (5th, 7th, 8th,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.



Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL
Project : FG 3N0204

Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1649	-48.20	-13	-35.20	-54.38	-52.2	1.53	5.53	H	Pass
2474	-44.81	-13	-31.81	-58.32	-48.9	2.06	6.15	H	Pass
3298	-54.15	-13	-41.15	-68.36	-59.6	2.48	7.93	H	Pass

Other harmonics are lower than background noise

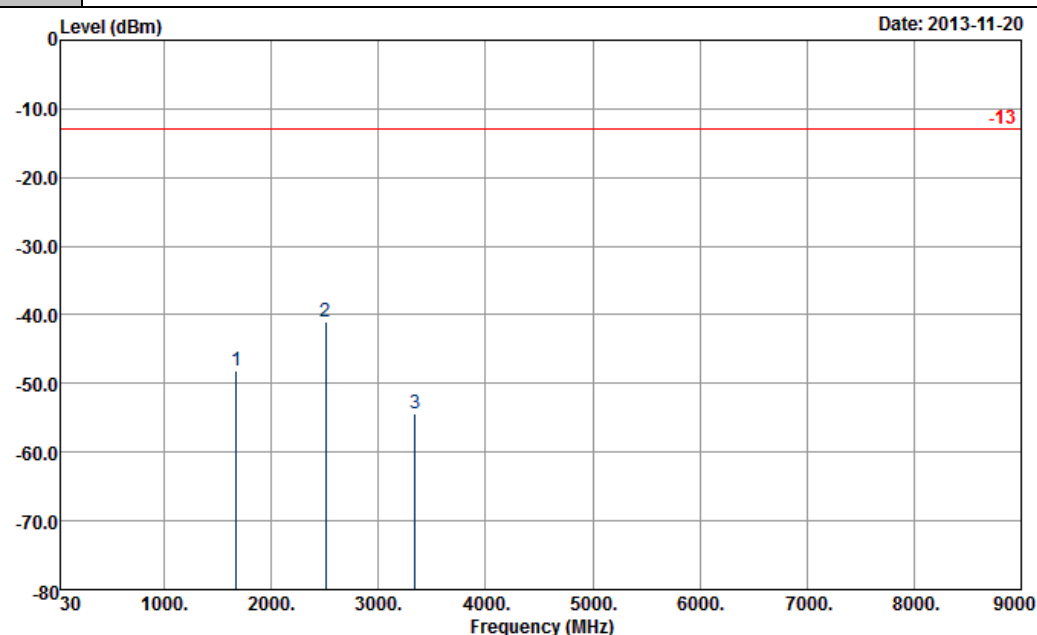
Band :	GSM850	Temperature :	21~25°C
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	51~56%
Channel :	128	Polarization :	Vertical
Test Engineer :	Eric Shih		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 7 th , 8 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		
Level (dBm) <			

<Middle Channel>

Band :	GSM850	Temperature :	21~25°C
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	51~56%
Channel :	189	Polarization :	Horizontal
Test Engineer :	Eric Shih		

Remark :

1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line.
2. The harmonic (5th, 7th, 8th,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.



Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL
Project : FG 3N0204

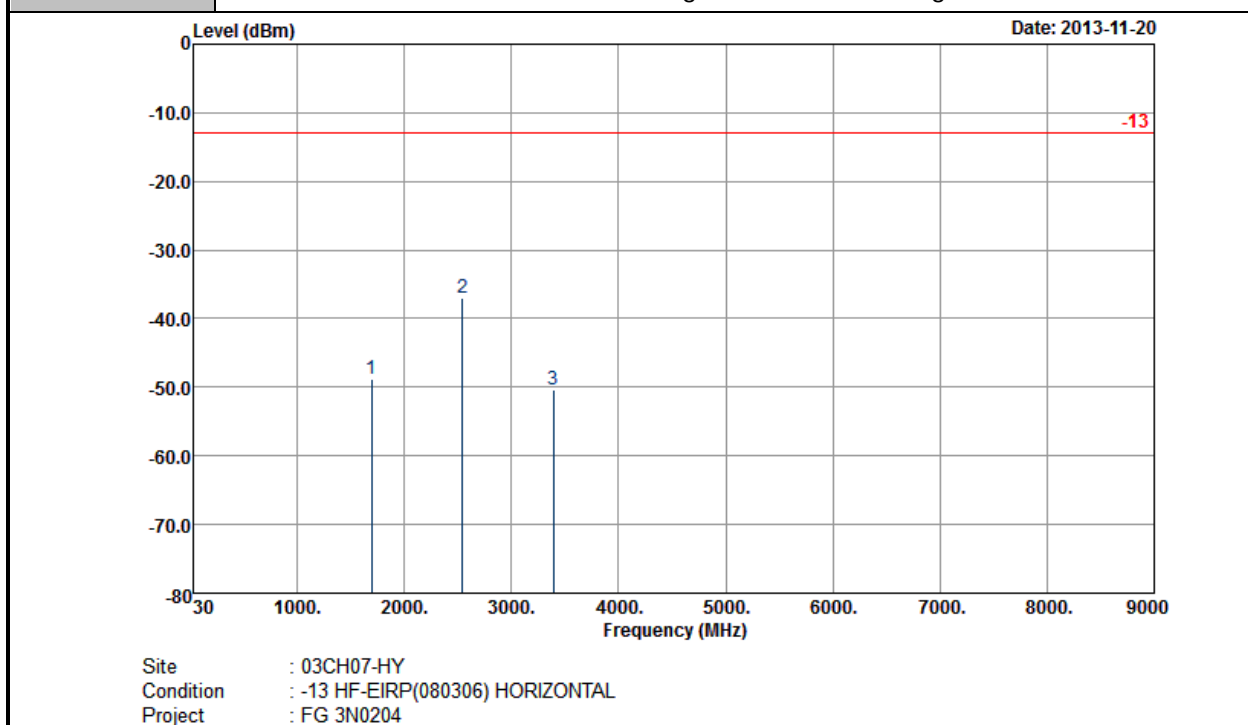
Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1672	-48.23	-13	-35.23	-57.17	-52.1	1.62	5.49	H	Pass
2509	-41.08	-13	-28.08	-54.65	-45.2	2.1	6.22	H	Pass
3345	-54.36	-13	-41.36	-68.73	-59.4	3.03	8.07	H	Pass

Other harmonics are lower than background noise

Band :	GSM850	Temperature :	21~25°C
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	51~56%
Channel :	189	Polarization :	Vertical
Test Engineer :	Eric Shih		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 7 th , 8 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		
Level (dBm)			

<High Channel>

Band :	GSM850	Temperature :	21~25°C
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	51~56%
Channel :	251	Polarization :	Horizontal
Test Engineer :	Eric Shih		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 7 th , 8 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		

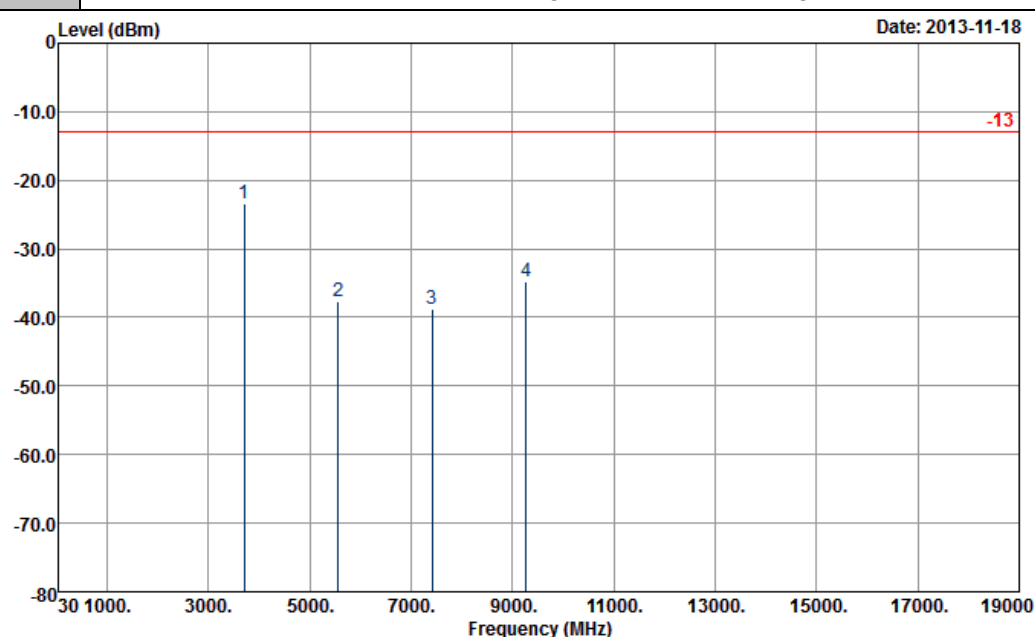


Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
1696	-48.72	-13	-35.72	-57.88	-52.6	1.57	5.45	H	Pass
2544	-36.94	-13	-23.94	-50.44	-41.2	2.02	6.28	H	Pass
3393	-50.40	-13	-37.40	-64.85	-56.3	2.3	8.20	H	Pass
Other harmonics are lower than background noise									

Band :	GSM850	Temperature :	21~25°C
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	51~56%
Channel :	251	Polarization :	Vertical
Test Engineer :	Eric Shih		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 7 th , 8 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		
Level (dBm)			

<Low Channel>

Band :	WCDMA Band II	Temperature :	21~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	51~56%
Channel :	9262	Polarization :	Horizontal
Test Engineer :	Eric Shih		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 6 th , 7 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



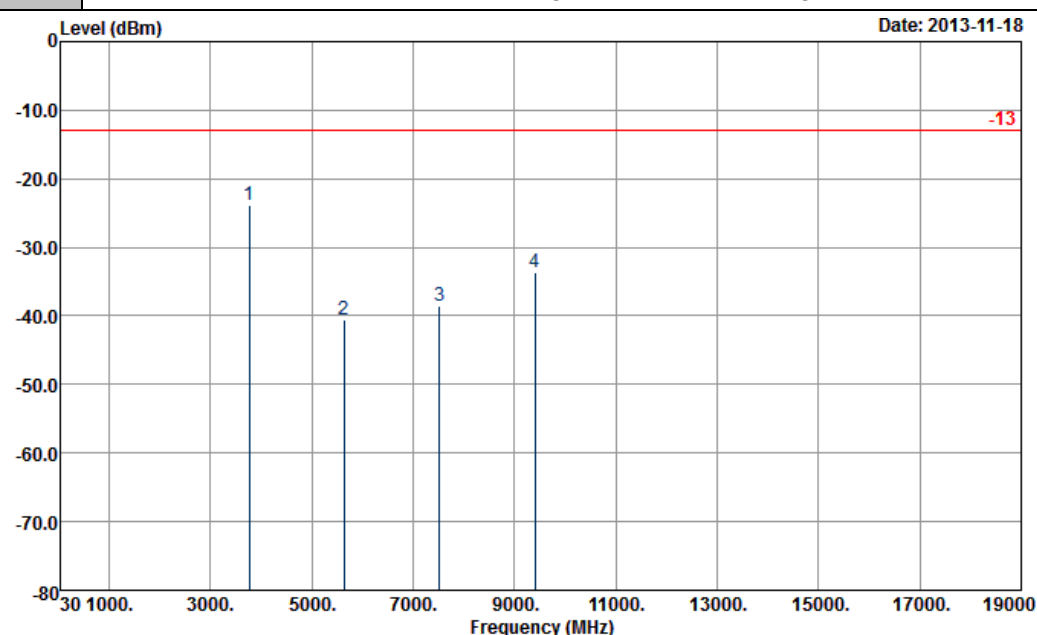
Site : 03CH07-HY
 Condition : -13 HF-EIRP(080306) HORIZONTAL
 Project : FG 3N0204

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3700	-23.32	-13	-10.32	-38.36	-29.47	2.59	8.74	H	Pass
5552	-37.70	-13	-24.70	-58.23	-45.36	3.04	10.70	H	Pass
7408	-38.83	-13	-25.83	-66.61	-47.57	3.28	12.02	H	Pass
9265	-34.70	-13	-21.70	-60.95	-44	3.9	13.20	H	Pass
Other harmonics are lower than background noise									

Band :	WCDMA Band II	Temperature :	21~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	51~56%
Channel :	9262	Polarization :	Vertical
Test Engineer :	Eric Shih		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 6 th , 7 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		
Level (dBm) <			

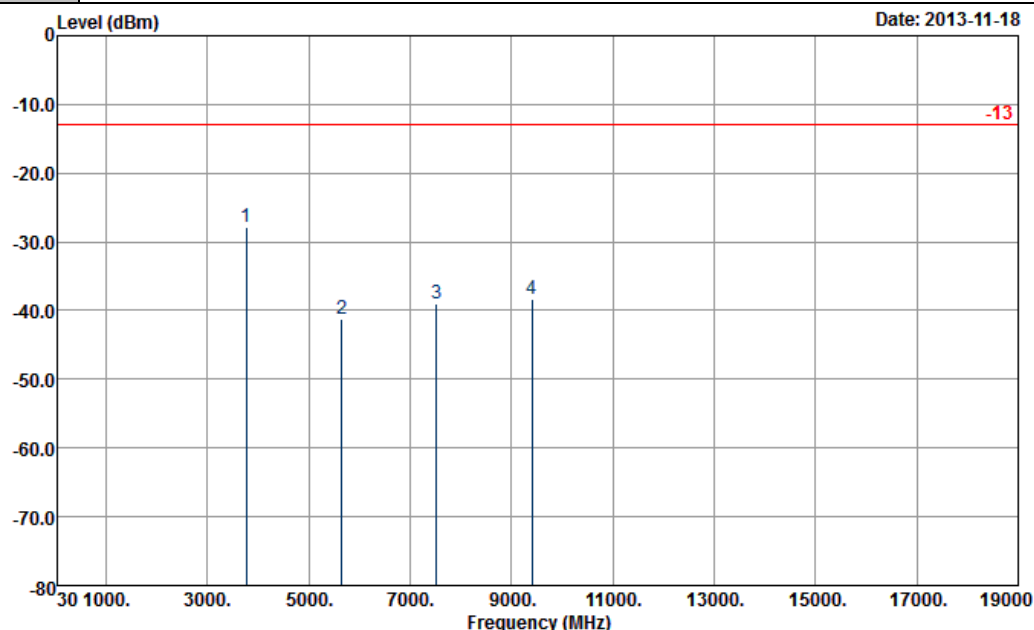
<Middle Channel>

Band :	WCDMA Band II	Temperature :	21~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	51~56%
Channel :	9400	Polarization :	Horizontal
Test Engineer :	Eric Shih		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 6 th , 7 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



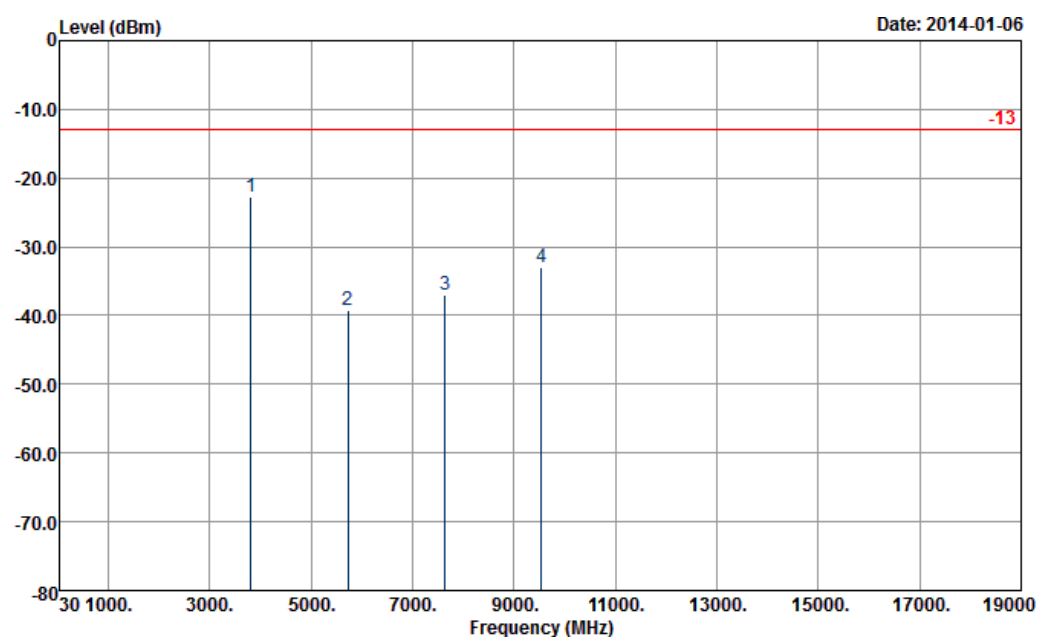
Site : 03CH07-HY
 Condition : -13 HF-EIRP(080306) HORIZONTAL
 Project : FG 3N0204

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3760	-23.88	-13	-10.88	-39.3	-30.18	2.51	8.81	H	Pass
5639	-40.64	-13	-27.64	-61.5	-48.35	2.99	10.70	H	Pass
7522	-38.60	-13	-25.60	-65.85	-47.13	3.59	12.12	H	Pass
9405	-33.56	-13	-20.56	-59.99	-42.66	4.1	13.20	H	Pass
Other harmonics are lower than background noise									

Band :	WCDMA Band II	Temperature :	21~25°C						
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	51~56%						
Channel :	9400	Polarization :	Vertical						
Test Engineer :	Eric Shih								
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 6 th , 7 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.								
Level (dBm) Date: 2013-11-18  Frequency (MHz) Site : 03CH07-HY Condition : -13 HF-EIRP(080306) VERTICAL Project : FG 3N0204									
Frequency	EIRP	Limit	Over Limit	SPA Reading	S.G. Power	TX Cable loss	TX Antenna Gain	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
3760	-27.92	-13	-14.92	-44.18	-34.22	2.51	8.81	V	Pass
5640	-41.30	-13	-28.30	-61.87	-49.01	2.99	10.70	V	Pass
7522	-38.91	-13	-25.91	-65.95	-47.44	3.59	12.12	V	Pass
9405	-38.23	-13	-25.23	-64.62	-47.33	4.1	13.20	V	Pass
Other harmonics are lower than background noise									

<High Channel>

Band :	WCDMA Band II	Temperature :	21~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	51~56%
Channel :	9538	Polarization :	Horizontal
Test Engineer :	Eric Shih		
Remark :	1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line. 2. The harmonic (5 th , 6 th , 7 th ,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.		



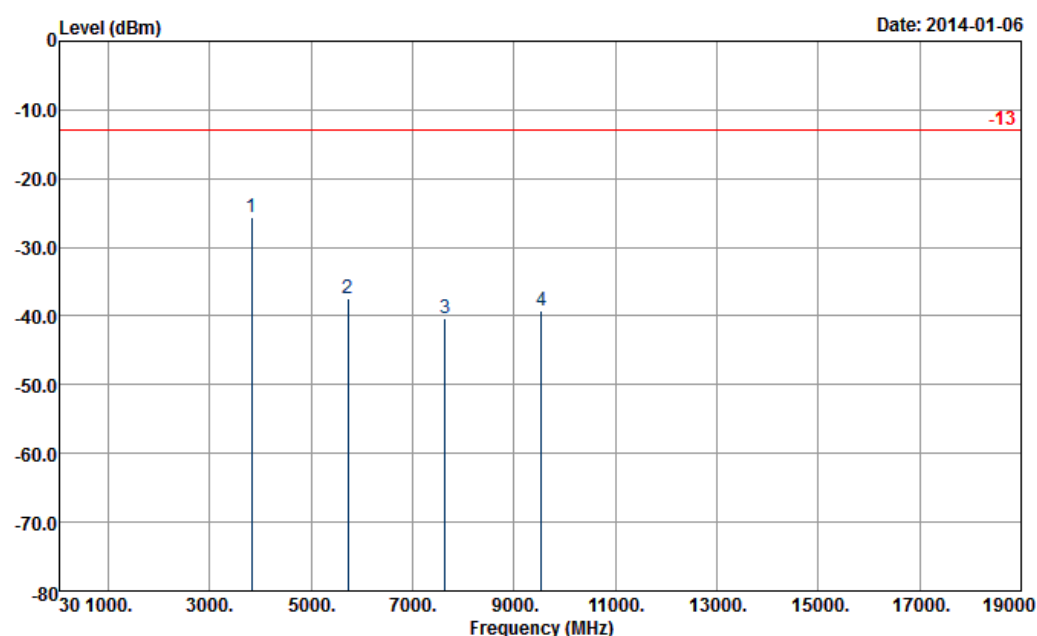
Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) HORIZONTAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3812	-22.81	-13	-9.81	-38.33	-29.22	2.47	8.88	H	Pass
5724	-39.16	-13	-26.16	-60.8	-46.86	3	10.70	H	Pass
7632	-37.06	-13	-24.06	-64.39	-45.84	3.43	12.21	H	Pass
9544	-32.92	-13	-19.92	-59.62	-42.13	3.99	13.20	H	Pass
Other harmonics are lower than background noise									

Band :	WCDMA Band II	Temperature :	21~25°C
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	51~56%
Channel :	9538	Polarization :	Vertical
Test Engineer :	Eric Shih		

Remark :

1. Spurious emissions within 30-1000MHz were found more than 20dB below limit line.
2. The harmonic (5th, 6th, 7th,...etc.) and other spurious are not reported, because those levels are lower than average limit line and background noise.



Site : 03CH07-HY
Condition : -13 HF-EIRP(080306) VERTICAL

Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)	Result
3816	-25.70	-13	-12.70	-42.19	-32.11	2.47	8.88	V	Pass
5728	-37.52	-13	-24.52	-58.62	-45.22	3	10.70	V	Pass
7632	-40.28	-13	-27.28	-66.82	-49.06	3.43	12.21	V	Pass
9544	-39.23	-13	-26.23	-65.96	-48.44	3.99	13.20	V	Pass
Other harmonics are lower than background noise									



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
System Simulator	Rohde & Schwarz	CMU200	117995	N/A	Aug. 01, 2013	Dec. 11, 2013	Jul. 31, 2014	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 07, 2013	Dec. 11, 2013	Jun. 06, 2014	Conducted (TH02-HY)
RF cable	WOKEN	SMA(M)-SMA(M) for SS405	S05-13070 3-32	N/A	Jul. 09, 2013	Dec. 11, 2013	Jul. 08, 2014	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz~30GHz	Nov. 30, 2012	Nov. 18, 2013 ~ Nov. 19, 2013	Nov. 29, 2013	Radiation (03CH07-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9KHz ~ 30GHz	Nov. 20, 2013	Nov. 20, 2013 ~ Jan. 06, 2014	Nov. 19, 2014	Radiation (03CH07-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Oct. 10, 2013	Nov. 18, 2013 ~ Jan. 06, 2014	Oct. 09, 2014	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1GHz~18GHz	Aug. 22, 2013	Nov. 18, 2013 ~ Jan. 06, 2014	Aug. 21, 2014	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170 251	15GHz- 40GHz	Oct. 03, 2013	Nov. 18, 2013 ~ Jan. 06, 2014	Oct. 02, 2014	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	30MHz~1GHz	Feb. 26, 2013	Nov. 18, 2013 ~ Jan. 06, 2014	Feb. 25, 2014	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A023 62	1GHz~26.5GHz	Dec. 01, 2012	Nov. 18, 2013 ~ Nov. 28, 2013	Nov. 30, 2013	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A023 62	1GHz~26.5GHz	Nov. 29, 2013	Nov. 29, 2013 ~ Jan. 06, 2014	Nov. 28, 2014	Radiation (03CH07-HY)
Turn Table	ChainTek	ChainTek 3000	N/A	0 ~ 360 degree	N/A	Nov. 18, 2013 ~ Jan. 06, 2014	N/A	Radiation (03CH07-HY)
Antenna Mast	ChainTek	ChainTek 3000	N/A	N/A	N/A	Nov. 18, 2013 ~ Jan. 06, 2014	N/A	Radiation (03CH07-HY)
High Pass Filter	Woken	1000-12750MHz SMA	0100V1H0 10001G	1GHz HPF	Nov. 26, 2012	Nov. 18, 2013 ~ Nov. 24, 2013	Nov. 25, 2013	Radiation (03CH07-HY)
High Pass Filter	Microwave Circuits	H1G013G1	SN477215	1GHz HPF	Nov. 28, 2013	Nov. 28, 2013 ~ Jan. 06, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
High Pass Filter	Microwave	H03G18G3	N/A	3GHz HPF	Nov. 26, 2012	Nov. 18, 2013 ~ Nov. 24, 2013	Nov. 25, 2013	Radiation (03CH07-HY)
High Pass Filter	Microwave Circuits	H3G018G1	SN477220	3GHz HPF	Nov. 28, 2013	Nov. 28, 2013 ~ Jan. 06, 2014	Nov. 27, 2014	Radiation (03CH07-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Notch Filter	Wainwright	WRCT 1800/2000-20/40 -10ssk	SN1	GSM 1900 / WCDMA Band 1,2 / LTE Band 2,25,33,35,36,37	Nov. 26, 2012	Nov. 18, 2013 ~ Nov. 24, 2013	Nov. 25, 2013	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCT 1800/2000-20/40 -10ssk	SN1	GSM 1900 / WCDMA Band 1,2 / LTE Band 2,25,33,35,36,37	Nov. 28, 2013	Nov. 28, 2013 ~ Jan. 06, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCG 824/849/814/859- 40 8SS	SN35	GSM 850 / WCDMA Band 5 / LTE Band 18,19,20	Nov. 26, 2012	Nov. 18, 2013 ~ Nov. 24, 2013	Nov. 25, 2013	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCG 824/849/814/859- 40 8SS	SN35	GSM 850 / WCDMA Band 5 / LTE Band 18,19,20	Nov. 28, 2013	Nov. 28, 2013 ~ Jan. 06, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
HF RF Cable	HUBER SUHNER	SUCOFLEX 104	38411/6	1GHz ~ 18GHz	Dec. 04, 2012	Nov. 18, 2013 ~ Nov. 27, 2013	Dec. 03, 2013	Radiation (03CH07-HY)
HF RF Cable	HUBER SUHNER	SUCOFLEX 104	38411/6	1GHz ~ 18GHz	Nov. 28, 2013	Nov. 28, 2013 ~ Jan. 06, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
LF RF Cable	Warison+HUBER SUHNER	WCBA-WC04NM. NM2	N/A	30MHz ~ 1GHz	Dec. 04, 2012	Nov. 18, 2013 ~ Nov. 27, 2013	Dec. 03, 2013	Radiation (03CH07-HY)
LF RF Cable	Warison+HUBER SUHNER	WCBA-WC04NM. NM2	N/A	30MHz ~ 1GHz	Nov. 28, 2013	Nov. 28, 2013 ~ Jan. 06, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Test Software	Audix	E3	Version 6.2009-08	N/A	N/A	Nov. 18, 2013 ~ Jan. 06, 2014	N/A	Radiation (03CH07-HY)
Hygrometer	Testo	608-H1	34897197	N/A	May 07, 2013	Nov. 18, 2013 ~ Jan. 06, 2014	May 06, 2014	Radiation (03CH07-HY)

Note: Test equipment calibration is traceable to the procedure of ISO17025.



5 Uncertainty of Evaluation

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

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