



FCC RF Test Report

APPLICANT : Xplore Technologies Corp.
EQUIPMENT : Wireless Modules
BRAND NAME : Xplore Technologies
MODEL NAME : EM7355
FCC ID : Q2GEM7355B
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E), 27(L)
CLASSIFICATION : PCS Licensed Transmitter (PCB)

This is a partial report which is included the radiated test items. The product was received on Feb. 02, 2015 and testing was completed on Apr. 08, 2015. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-C-2004 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: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



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
FG520236A	Rev. 01	Initial issue of report	Apr. 09, 2015



SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	§2.1053 §22.917(a) §24.238(a) §27.53(h)	RSS-132 (5.5) RSS-133 (6.5) RSS-139 (6.5)	Field Strength of Spurious Radiation	$< 43 + 10 \log_{10}(P[\text{Watts}])$	PASS	Under limit 21.18 dB at 3819.000 MHz



1 General Description

1.1 Applicant

Xplore Technologies Corp.

14000 Summit Road Suite 900, Austin, Texas, 78728 USA

1.2 Manufacturer

Sierra Wireless Inc.

13811, Wireless Way, Richmond, British Columbia, Canada

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wireless Modules
Brand Name	Xplore Technologies
Model Name	EM7355
FCC ID	Q2GEM7355B
Integrated the Rugged Tablet PC	Brand Name : Xplore Technologies Corp Model Number : iX101B2
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE
EUT Stage	Production Unit

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 Product Specification subjective to this standard

Product Specification subjective to this standard	
Tx Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band IV : 1712.4 MHz ~ 1752.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz
Rx Frequency	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 IV : 2112.4 MHz ~ 2152.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz CDMA2000 BC0: 869.70 MHz ~ 893.31 MHz CDMA2000 BC1: 1931.25 MHz ~ 1988.75 MHz
Maximum Output Power to Antenna	GSM850 : 32.19 dBm GSM1900 : 29.23 dBm WCDMA Band V : 22.48 dBm WCDMA Band IV : 22.62 dBm WCDMA Band II : 22.41 dBm CDMA2000 BC0 : 23.55 dBm CDMA2000 BC1 : 23.58 dBm
Antenna Type	PIFA Antenna
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA: QPSK (Uplink) HSDPA: QPSK (Downlink) HSUPA: QPSK (Uplink) CDMA2000: QPSK CDMA2000 1xEV-DO: QPSK/8PSK

1.5 Modification of EUT

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

1.6 Testing 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 1 st 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.	
	TH02-HY	03CH07-HY

1.7 Applicable 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), 27(L)
- ANSI / TIA / EIA-603-C-2004
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for GSM850, WCDMA Band V, and CDMA2000 BC0..
2. 30 MHz to 18000 MHz for WCDMA Band IV
3. 30 MHz to 19000 MHz for GSM1900, WCDMA Band II, and CDMA2000 BC1.

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

Test Modes		
Band	Radiated TCs	Conducted TCs
GSM 850	■ GPRS class 8 Link ■ EDGE class 8 Link	■ GPRS class 8 Link ■ EDGE class 8 Link
GSM 1900	■ GPRS class 8 Link ■ EDGE class 8 Link	■ GPRS class 8 Link ■ EDGE class 8 Link
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
CDMA2000 BC0	■ 1xEV-DO Rev. 0 Link Mode	■ 1xEV-DO Rev. 0 Link Mode
CDMA2000 BC1	■ 1xEV-DO Rev. 0 Link Mode	■ 1xEV-DO Rev. 0 Link Mode

Note: The maximum power levels are chosen to test as the worst case configuration as follows:

GPRS multi-slot class 8 mode for GMSK modulation,

EDGE multi-slot class 8 mode for 8PSK modulation,

RMC 12.2Kbps mode for WCDMA band V and WCDMA band IV,

RMC 12.2Kbps mode for WCDMA band II,

1xEV-DO Rev. 0 RTAP 153.6K mode for CDMA2000 BC0,

1xEV-DO Rev. 0 RTAP 153.6K mode for CDMA2000 BC1, only these modes were used for all tests.



Conducted Power Measurement Results:

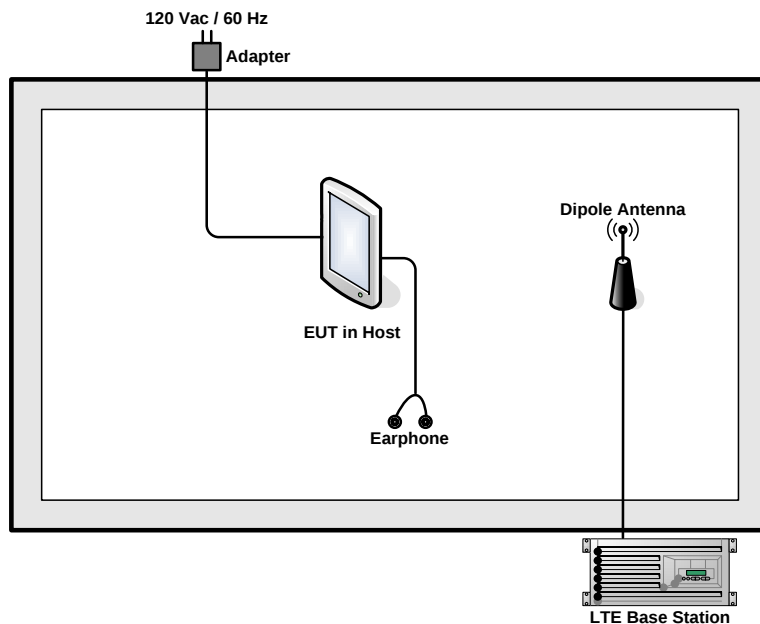
Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880.0	1909.8
GPRS class 8	32.17	32.19	32.00	29.21	29.08	29.23
GPRS class 10	31.93	31.96	31.89	29.17	29.00	29.18
EGPRS class 8	26.44	26.39	26.37	25.42	25.38	25.41
EGPRS class 10	26.30	26.27	26.34	25.39	25.37	25.38
EGPRS class 11	26.07	26.02	26.19	25.11	25.10	25.07
EGPRS class 12	25.80	25.86	25.94	24.01	24.03	24.06

Conducted Power (*Unit: dBm)									
Band	WCDMA Band V			WCDMA Band II			WCDMA Band IV		
Channel	4132	4182	4233	9262	9400	9538	1312	1413	1513
Frequency	826.4	836.4	846.6	1852.4	1880	1907.6	1712.4	1732.6	1752.6
RMC 12.2K	22.29	22.48	22.32	22.42	22.34	22.62	22.41	22.24	22.38
HSDPA Subtest-1	22.06	22.12	22.05	22.08	22.05	22.17	22.08	22.02	22.04
HSDPA Subtest-2	22.04	22.09	22.02	22.06	22.04	22.15	22.03	22.04	22.06
HSDPA Subtest-3	21.78	21.83	21.52	21.58	21.54	21.69	21.63	21.71	21.65
HSDPA Subtest-4	21.76	21.87	21.53	21.57	21.55	21.63	21.67	21.66	21.61
HSUPA Subtest-1	22.04	22.09	22.00	22.11	22.05	22.06	22.03	22.09	22.10
HSUPA Subtest-2	20.16	20.34	20.02	20.35	20.34	20.65	20.06	20.33	20.30
HSUPA Subtest-3	21.17	21.27	21.09	21.03	21.03	21.08	21.18	21.11	21.28
HSUPA Subtest-4	20.18	20.34	20.08	20.37	20.41	20.68	20.12	20.38	20.33
HSUPA Subtest-5	22.03	22.14	22.09	22.10	22.07	22.15	22.07	22.08	22.10

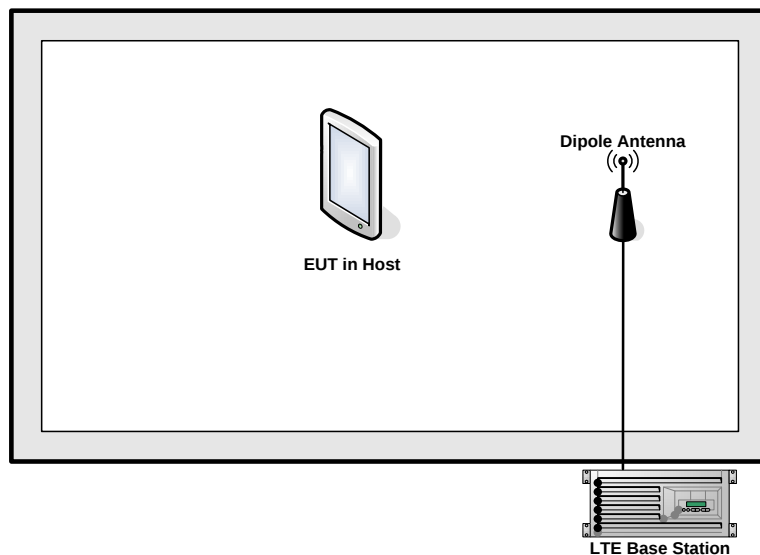
Conducted Power (*Unit: dBm)						
Band	CDMA2000 BC0			CDMA2000 BC1		
Channel	1013	384	777	25	600	1175
Frequency	824.7	836.52	848.31	1851.25	1880	1908.75
1xRTT RC1 SO55	23.38	23.49	23.11	23.50	23.48	23.43
1xRTT RC3 SO55	23.38	23.53	23.08	23.56	23.50	23.53
1xRTT RC3 SO32(+ F-SCH)	23.39	23.50	23.01	23.53	23.48	23.50
1xRTT RC3 SO32(+SCH)	23.40	23.51	23.09	23.52	23.49	23.51
1xEV-DO RTAP 153.6kbps	23.37	23.55	23.02	23.58	23.50	23.49
1xEV-DO RETAP 4096Bits	23.36	23.48	23.01	23.51	23.48	23.47

2.2 Connection Diagram of Test System

<EUT in host with Accessory>



<EUT in host without Accessory>





2.3 Support Unit used in test configuration

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
2.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A



3 Test Result

3.1 Field Strength of Spurious Radiation Measurement

3.1.1 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.

3.1.2 Measuring Instruments

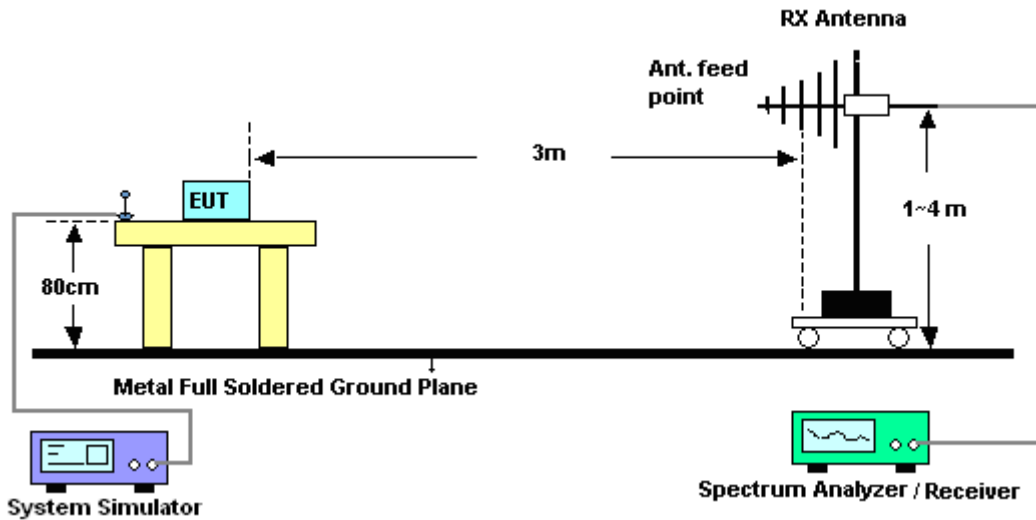
The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

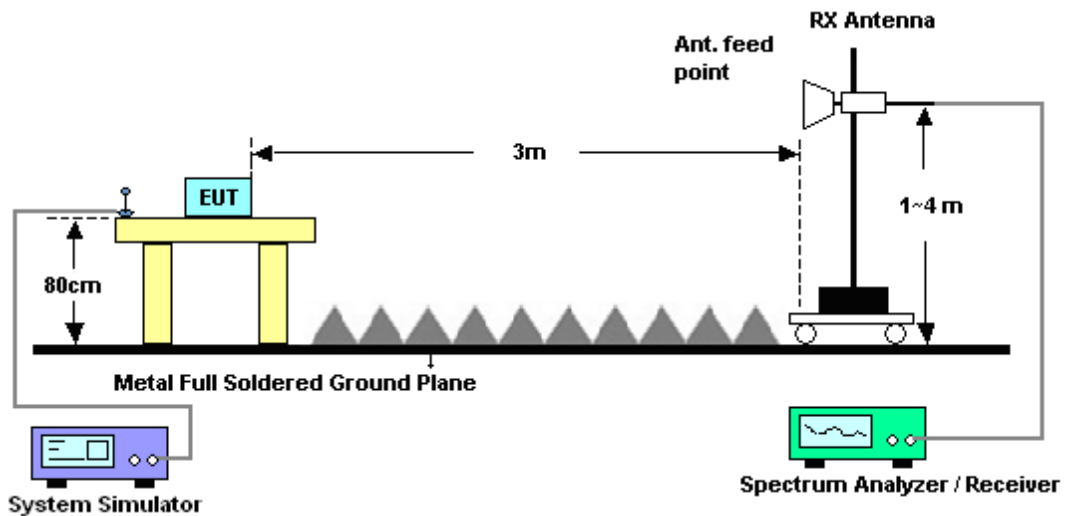
1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-C-2004 Section 2.2.12.
2. The EUT was placed on a rotatable wooden table 0.8 meters above the ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
12. $ERP \text{ (dBm)} = EIRP - 2.15$
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$

3.1.4 Test Setup

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.1.5 Test Result of Field Strength of Spurious Radiated

<Low Channel>

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
1648	-46.44	-13	-33.44	-57.78	-48.2	0.98	4.89	H	Pass
2473	-35.71	-13	-22.71	-52.39	-37.6	1.28	5.32	H	Pass
3298	-52.68	-13	-39.68	-70.14	-56.1	1.54	7.11	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1648	-50.04	-13	-37.04	-61.71	-51.8	0.98	4.89	V	Pass
2473	-38.31	-13	-25.31	-56.46	-40.2	1.28	5.32	V	Pass
3298	-50.38	-13	-37.38	-69.25	-53.8	1.54	7.11	V	Pass



<Middle Channel>

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-47.22	-13	-34.22	-58.6	-48.9	0.99	4.82	H	Pass
2509	-35.24	-13	-22.24	-52.38	-37.2	1.29	5.41	H	Pass
3346	-54.58	-13	-41.58	-72.34	-58.2	1.56	7.32	H	Pass
4180	-53.08	-13	-40.08	-74.45	-57.7	1.86	8.64	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-50.72	-13	-37.72	-62.76	-52.4	0.99	4.82	V	Pass
2509	-38.54	-13	-25.54	-56.64	-40.5	1.29	5.41	V	Pass
3346	-52.98	-13	-39.98	-72.31	-56.6	1.56	7.32	V	Pass
4180	-51.58	-13	-38.58	-74.08	-56.2	1.86	8.64	V	Pass



<High Channel>

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1696	-41.60	-13	-28.60	-53.49	-43.2	1.00	4.75	H	Pass
2545	-38.12	-13	-25.12	-54.79	-40.1	1.30	5.44	H	Pass
3397	-55.58	-13	-42.58	-73.09	-59.4	1.57	7.55	H	Pass
4240	-51.20	-13	-38.20	-72.99	-55.8	1.90	8.65	H	Pass

Band :	GSM850				Temperature :	23~24°C			
Test Mode :	GPRS class 8 Link (GMSK)				Relative Humidity :	46~48%			
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh				Polarization :	Vertical			
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1696	-43.50	-13	-30.50	-55.99	-45.1	1.00	4.75	V	Pass
2545	-40.02	-13	-27.02	-58.23	-42	1.30	5.44	V	Pass
3397	-53.68	-13	-40.68	-72.89	-57.5	1.57	7.55	V	Pass
4240	-51.50	-13	-38.50	-73.91	-56.1	1.90	8.65	V	Pass

**<Low Channel>**

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1648	-59.74	-13	-46.74	-71.11	-61.5	0.98	4.89	H	Pass
2473	-51.71	-13	-38.71	-68.07	-53.6	1.28	5.32	H	Pass
3298	-60.38	-13	-47.38	-77.81	-63.8	1.54	7.11	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	loss	Gain	(H/V)	
1648	-60.64	-13	-47.64	-72.32	-62.4	0.98	4.89	V	Pass
2473	-52.21	-13	-39.21	-70.12	-54.1	1.28	5.32	V	Pass
3298	-58.98	-13	-45.98	-77.65	-62.4	1.54	7.11	V	Pass

**<Middle Channel>**

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-60.82	-13	-47.82	-71.92	-62.5	0.99	4.82	H	Pass
2509	-50.64	-13	-37.64	-67.35	-52.6	1.29	5.41	H	Pass
3345	-60.59	-13	-47.59	-78.29	-64.2	1.56	7.32	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	loss	Gain	(H/V)	
1672	-62.82	-13	-49.82	-74.72	-64.5	0.99	4.82	V	Pass
2509	-52.24	-13	-39.24	-70.4	-54.2	1.29	5.41	V	Pass
3345	-59.49	-13	-46.49	-78.42	-63.1	1.56	7.32	V	Pass

**<High Channel>**

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1696	-60.30	-13	-47.30	-72.04	-61.9	1.00	4.75	H	Pass
2545	-54.62	-13	-41.62	-71.29	-56.6	1.30	5.44	H	Pass
3393	-60.29	-13	-47.29	-77.82	-64.1	1.57	7.53	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1696	-61.20	-13	-48.20	-73.67	-62.8	1.00	4.75	V	Pass
2545	-56.07	-13	-43.07	-74.22	-60.2	1.30	5.44	V	Pass
3393	-58.84	-13	-45.84	-77.78	-64.8	1.57	7.53	V	Pass



<Low Channel>

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3700	-38.62	-13	-25.62	-57.45	-45.19	1.67	8.24	H	Pass
5548	-49.80	-13	-36.80	-73.89	-56.87	2.65	9.72	H	Pass
7403	-52.99	-13	-39.99	-78.67	-62.14	2.46	11.61	H	Pass

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3700	-42.94	-13	-29.94	-62.74	-49.51	1.67	8.24	V	Pass
5548	-51.58	-13	-38.58	-76.97	-58.65	2.65	9.72	V	Pass
7403	-50.96	-13	-37.96	-78.73	-60.11	2.46	11.61	V	Pass

**<Middle Channel>**

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3760	-45.89	-13	-32.89	-65.47	-52.52	1.69	8.31	H	Pass
5640	-53.63	-13	-40.63	-77.53	-60.68	2.71	9.76	H	Pass
7520	-51.52	-13	-38.52	-78.03	-60.91	2.42	11.81	H	Pass

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	loss	Gain	(H/V)	
3760	-43.48	-13	-30.48	-66.3	-50.11	1.69	8.31	V	Pass
5640	-51.82	-13	-38.82	-76.75	-58.87	2.71	9.76	V	Pass
7520	-49.89	-13	-36.89	-78.12	-59.28	2.42	11.81	V	Pass

**<High Channel>**

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3819	-51.34	-13	-38.34	-58.02	-58.02	1.70	8.38	H	Pass
5730	-64.56	-13	-51.56	-71.59	-71.59	2.76	9.79	H	Pass
7641	-68.80	-13	-55.80	-78.3	-78.3	2.38	11.88	H	Pass

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3819	-43.55	-13	-30.55	-64.15	-50.23	1.70	8.38	V	Pass
5730	-51.09	-13	-38.09	-76.01	-58.12	2.76	9.79	V	Pass
7641	-49.74	-13	-36.74	-78.45	-59.24	2.38	11.88	V	Pass

**<Low Channel>**

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3700	-51.16	-13	-38.16	-69.99	-57.73	1.67	8.24	H	Pass
5548	-55.26	-13	-42.26	-79.2	-62.33	2.65	9.72	H	Pass
7404	-53.83	-13	-40.83	-79.52	-62.98	2.46	11.61	H	Pass

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3700	-49.78	-13	-36.78	-69.57	-56.35	1.67	8.24	V	Pass
5548	-55.22	-13	-42.22	-79.26	-62.29	2.65	9.72	V	Pass
7404	-51.97	-13	-38.97	-79.49	-61.12	2.46	11.61	V	Pass

**<Middle Channel>**

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3760	-50.68	-13	-37.68	-70.26	-57.31	1.69	8.31	H	Pass
5640	-54.19	-13	-41.19	-78.12	-61.24	2.71	9.76	H	Pass
7520	-51.75	-13	-38.75	-78.27	-61.14	2.42	11.81	H	Pass

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	loss	Gain	(H/V)	
3760	-47.70	-13	-34.70	-68	-54.33	1.69	8.31	V	Pass
5640	-52.93	-13	-39.93	-77.86	-59.98	2.71	9.76	V	Pass
7520	-49.80	-13	-36.80	-78.03	-59.19	2.42	11.81	V	Pass



<High Channel>

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain	(H/V)	
3820	-48.80	-13	-35.80	-69.4	-55.48	1.70	8.38	H	Pass
5728	-54.29	-13	-41.29	-78.26	-61.32	2.76	9.79	H	Pass
7641	-52.37	-13	-39.37	-79.51	-61.87	2.38	11.88	H	Pass

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
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
3820	-45.23	-13	-32.23	-66.29	-51.91	1.70	8.38	V	Pass
5728	-53.43	-13	-40.43	-78.27	-60.46	2.76	9.79	V	Pass
7640	-50.73	-13	-37.73	-79.53	-60.23	2.38	11.88	V	Pass

**<Low Channel>**

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1651	-61.85	-13	-48.85	-72.64	-63.6	0.98	4.88	H	Pass
2476	-58.51	-13	-45.51	-74.88	-60.4	1.28	5.33	H	Pass
3305	-60.65	-13	-47.65	-78.12	-64.1	1.54	7.14	H	Pass

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1654	-60.36	-13	-47.36	-71.95	-62.1	0.98	4.87	V	Pass
2479	-57.40	-13	-44.40	-75.18	-59.3	1.28	5.34	V	Pass
3305	-59.05	-13	-46.05	-78.02	-62.5	1.54	7.14	V	Pass



<Middle Channel>

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
1675	-62.43	-13	-49.43	-73.76	-64.1	0.99	4.81	H	Pass
2512	-58.23	-13	-45.23	-74.7	-60.2	1.29	5.41	H	Pass
3345	-60.99	-13	-47.99	-78.44	-64.6	1.56	7.32	H	Pass

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-59.82	-13	-46.82	-71.95	-61.5	0.99	4.82	V	Pass
2509	-56.24	-13	-43.24	-74.21	-58.2	1.29	5.41	V	Pass
3345	-59.29	-13	-46.29	-78.28	-62.9	1.56	7.32	V	Pass

**<High Channel>**

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
1693	-61.99	-13	-48.99	-73.68	-63.6	1.00	4.76	H	Pass
2539	-59.42	-13	-46.42	-75.95	-61.4	1.30	5.43	H	Pass
3386	-60.42	-13	-47.42	-77.98	-64.2	1.57	7.50	H	Pass

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1690	-59.48	-13	-46.48	-71.64	-61.1	1.00	4.77	V	Pass
2542	-57.12	-13	-44.12	-75.33	-59.1	1.30	5.43	V	Pass
3386	-58.92	-13	-45.92	-77.8	-62.7	1.57	7.50	V	Pass



<Low Channel>

Band :	WCDMA Band II					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3707	-49.31	-13	-36.31	-68.22	-55.89	1.67	8.25	H	Pass
5555	-44.91	-13	-31.91	-68.89	-51.98	2.66	9.72	H	Pass
7410	-52.51	-13	-39.51	-78.34	-61.67	2.46	11.62	H	Pass

Band :	WCDMA Band II					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3704	-47.23	-13	-34.23	-67.09	-53.81	1.67	8.24	V	Pass
5557	-44.30	-13	-31.30	-69.33	-51.36	2.66	9.72	V	Pass
7409	-51.02	-13	-38.02	-78.48	-60.18	2.46	11.62	V	Pass

**<Middle Channel>**

Band :	WCDMA Band II					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3760	-54.91	-13	-41.91	-74.49	-61.54	1.69	8.31	H	Pass
5640	-44.94	-13	-31.94	-68.84	-51.99	2.71	9.76	H	Pass
7520	-51.45	-13	-38.45	-77.97	-60.84	2.42	11.81	H	Pass

Band :	WCDMA Band II					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3760	-51.69	-13	-38.69	-71.99	-58.32	1.69	8.31	V	Pass
5640	-43.61	-13	-30.61	-68.54	-50.66	2.71	9.76	V	Pass
7520	-49.96	-13	-36.96	-78.19	-59.35	2.42	11.81	V	Pass

**<High Channel>**

Band :	WCDMA Band II					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
3812	-49.05	-13	-36.05	-69.59	-55.72	1.70	8.37	H	Pass
5723	-45.25	-13	-32.25	-69.23	-52.29	2.75	9.79	H	Pass
7627	-51.40	-13	-38.40	-78.21	-60.89	2.39	11.88	H	Pass

Band :	WCDMA Band II					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3812	-47.77	-13	-34.77	-68.73	-54.44	1.70	8.37	V	Pass
5723	-41.65	-13	-28.65	-66.5	-48.69	2.75	9.79	V	Pass
7627	-49.68	-13	-36.68	-78.37	-59.17	2.39	11.88	V	Pass



<Low Channel>

Band :	WCDMA Band IV					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
3424	-54.07	-13	-41.07	-71.89	-60.16	1.58	7.67	H	Pass
5136	-54.38	-13	-41.38	-77.86	-61.66	2.42	9.70	H	Pass
6848	-52.19	-13	-39.19	-78.6	-60.17	2.64	10.62	H	Pass

Band :	WCDMA Band IV					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3424	-55.62	-13	-42.62	-74.76	-61.71	1.58	7.67	V	Pass
5136	-53.16	-13	-40.16	-77.92	-60.44	2.42	9.70	V	Pass
6848	-51.03	-13	-38.03	-78.66	-59.01	2.64	10.62	V	Pass

**<Middle Channel>**

Band :	WCDMA Band IV					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3469	-51.52	-13	-38.52	-69.32	-57.79	1.59	7.86	H	Pass
5198	-53.43	-13	-40.43	-77.17	-60.68	2.45	9.70	H	Pass
6927	-49.90	-13	-36.90	-76.31	-58	2.61	10.71	H	Pass

Band :	WCDMA Band IV					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	loss	Gain	(H/V)	
3469	-55.26	-13	-42.26	-74.51	-61.53	1.59	7.86	V	Pass
5198	-52.77	-13	-39.77	-77.28	-60.02	2.45	9.70	V	Pass
6927	-49.14	-13	-36.14	-76.68	-57.24	2.61	10.71	V	Pass

**<High Channel>**

Band :	WCDMA Band IV					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3504	-54.12	-13	-41.12	-71.96	-60.52	1.61	8.00	H	Pass
5256	-53.74	-13	-40.74	-78.13	-60.96	2.48	9.70	H	Pass
7008	-51.92	-13	-38.92	-78.39	-60.15	2.59	10.82	H	Pass

Band :	WCDMA Band IV					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	loss	Gain	(H/V)	
3504	-53.65	-13	-40.65	-72.81	-60.05	1.61	8.00	V	Pass
5256	-52.89	-13	-39.89	-78.15	-60.11	2.48	9.70	V	Pass
7008	-50.97	-13	-37.97	-78.41	-59.2	2.59	10.82	V	Pass

**<Low Channel>**

Band :	CDMA2000 BC0					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1648	-51.09	-13	-38.09	-62	-52.85	0.98	4.89	H	Pass
2472	-59.03	-13	-46.03	-75	-60.91	1.28	5.32	H	Pass
3296	-59.30	-13	-46.30	-76.25	-62.71	1.54	7.10	H	Pass

Band :	CDMA2000 BC0					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1648	-53.80	-13	-40.80	-65.47	-55.56	0.98	4.89	V	Pass
2472	-56.81	-13	-43.81	-74.56	-58.69	1.28	5.32	V	Pass
3296	-57.30	-13	-44.30	-75.81	-60.71	1.54	7.10	V	Pass

**<Middle Channel>**

Band :	CDMA2000 BC0					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-51.95	-13	-38.95	-62.93	-53.63	0.99	4.82	H	Pass
2512	-57.84	-13	-44.84	-73.91	-59.81	1.29	5.41	H	Pass
3344	-59.03	-13	-46.03	-76.25	-62.64	1.56	7.31	H	Pass

Band :	CDMA2000 BC0					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-50.50	-13	-37.50	-62.12	-52.18	0.99	4.82	V	Pass
2512	-53.44	-13	-40.44	-71.23	-55.41	1.29	5.41	V	Pass
3344	-56.67	-13	-43.67	-75.37	-60.28	1.56	7.31	V	Pass

**<High Channel>**

Band :	CDMA2000 BC0					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
1696	-51.93	-13	-38.93	-63.32	-53.53	1.00	4.75	H	Pass
2544	-57.94	-13	-44.94	-74.15	-59.92	1.30	5.44	H	Pass
3392	-58.89	-13	-45.89	-76.43	-62.69	1.57	7.52	H	Pass

Band :	CDMA2000 BC0					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1696	-52.91	-13	-39.91	-65.02	-54.51	1.00	4.75	V	Pass
2544	-55.00	-13	-42.00	-73.18	-56.98	1.30	5.44	V	Pass
3392	-57.14	-13	-44.14	-75.51	-60.94	1.57	7.52	V	Pass



<Low Channel>

Band :	CDMA2000 BC1					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3700	-41.34	-13	-28.34	-60.16	-47.91	1.67	8.24	H	Pass
5555	-41.57	-13	-28.57	-65.51	-48.64	2.66	9.72	H	Pass
7403	-51.40	-13	-38.40	-77.18	-60.55	2.46	11.61	H	Pass

Band :	CDMA2000 BC1					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3700	-38.59	-13	-25.59	-58.39	-45.16	1.67	8.24	V	Pass
5555	-38.70	-13	-25.70	-63.74	-45.77	2.66	9.72	V	Pass
7403	-50.68	-13	-37.68	-78.2	-59.83	2.46	11.61	V	Pass



<Middle Channel>

Band :	CDMA2000 BC1					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3756	-40.76	-13	-27.76	-59.87	-47.38	1.68	8.31	H	Pass
5639	-40.71	-13	-27.71	-64.61	-47.76	2.71	9.76	H	Pass
7522	-50.97	-13	-37.97	-77.49	-60.36	2.42	11.81	H	Pass

Band :	CDMA2000 BC1					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3756	-37.33	-13	-24.33	-57.31	-43.95	1.68	8.31	V	Pass
5639	-49.73	-13	-36.73	-64.93	-56.78	2.71	9.76	V	Pass
7522	-49.97	-13	-36.97	-78.2	-59.36	2.42	11.81	V	Pass

**<High Channel>**

Band :	CDMA2000 BC1					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3819	-39.08	-13	-26.08	-59.68	-45.76	1.70	8.38	H	Pass
5723	-43.52	-13	-30.52	-67.5	-50.56	2.75	9.79	H	Pass
7634	-50.40	-13	-37.40	-77.44	-59.89	2.39	11.88	H	Pass

Band :	CDMA2000 BC1					Temperature :	23~24°C		
Test Mode :	1xEV-DO RTAP 153.6kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Nick Yu and Ken Wu and Stan Hsieh					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3819	-34.18	-13	-21.18	-55.24	-40.86	1.70	8.38	V	Pass
5723	-41.59	-13	-28.59	-66.44	-48.63	2.75	9.79	V	Pass
7634	-49.03	-13	-36.03	-77.82	-58.52	2.39	11.88	V	Pass



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 09, 2014	Feb. 24, 2015	Jun. 08, 2015	Conducted (TH02-HY)
Signal Analyzer	Rohde & Schwarz	FSV 30	100895	9kHz ~ 30GHz	Apr. 11, 2014	Mar. 06, 2015 ~ Apr. 08, 2015	Apr. 10, 2015	Radiation (03CH07-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Sep. 27, 2014	Mar. 06, 2015 ~ Apr. 08, 2015	Sep. 26, 2015	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1GHz~18GHz	Aug. 19, 2014	Mar. 06, 2015 ~ Apr. 08, 2015	Aug. 18, 2015	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10 MHz ~ 1000MHz	Mar. 17, 2014	Mar. 06, 2015	Mar. 16, 2015	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10 MHz ~ 1000MHz	Mar. 12, 2015	Apr. 08, 2015	Mar. 11, 2016	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1 GHz~26.5 GHz	Oct. 21, 2014	Mar. 06, 2015 ~ Apr. 08, 2015	Oct. 20, 2015	Radiation (03CH07-HY)
Turn Table	ChainTek	ChainTek 3000	N/A	0 ~ 360 degree	N/A	Mar. 06, 2015 ~ Apr. 08, 2015	N/A	Radiation (03CH07-HY)
Antenna Mast	ChainTek	M-400-0	114/8000604/L	N/A	N/A	Mar. 06, 2015 ~ Apr. 08, 2015	N/A	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Oct. 02, 2014	Mar. 06, 2015 ~ Apr. 08, 2015	Oct. 01, 2015	Radiation (03CH07-HY)



5 Uncertainty of Evaluation

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

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