

Report No.: EH/2011/70044 **Issue Date: Jul. 28, 2011**

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ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 22 SUBPART H, PART 24 SUBPART E AND INDUSTRY CANADA RSS-132 and RSS-133

For

Product Name: Tablet (Pad) Computer

Trade Name: Lenovo

ThinkPad Tablet Model:

Canadian Model number: **TP00028AE**

Model Difference: N/A

FCC ID: GKR-TP00028AE IC: 2533B-TP00028AE

Report No.: EH/2011/70044

Issue Date: Jul. 28, 2011

FCC Rule Part: 2, 22H & 24E

IC Rule Part: RSS 132 Issue 2 and RSS 133 Issue 5

Compal Electronics, Inc. Prepared for:

No.581, Ruiguang., Neihu District, Taipei City 11492,

Taiwan(R.O.C)

SGS Taiwan Ltd. Prepared by:

Electronics & Communication Laboratory

No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei

County, Taiwan.

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CERTIFICATION OF COMPLIANCE

Applicant: Compal Electronics, Inc.

No.581, Ruiguang., Neihu District, Taipei City 11492, Taiwan(R.O.C)

Product Name: Tablet (Pad) Computer

Trade Name: Lenovo

FCC ID: GKR-TP00028AE IC: 2533B-TP00028AE Model: ThinkPad Tablet

Canadian Model number: TP00028AE

Model Difference: N/A

File Number: EH/2011/70044

Date of test: Jul. 25, 2011 ~ Jul. 27, 2011

Date of EUT Received: Jul. 25, 2011

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA-603-C-2004, Issue 2 of RSS-Gen and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rule PART 22 subpart H, PART 24 subpart E and IC standards Issue 2 of RSS-132, Issue 5 of RSS-133.

The test results of this report relate only to the tested sample identified in this report.

1 1

Test By:	Lazz Huang	Date:	Jul. 28, 2011	
Prepared By:	Jazz Huang / Engineer	Date:	Jul. 28, 2011	
Approved By:	Gigi Yeh / Clerk Jim Ch any Jim Chang / Supervisor	Date:	Jul. 28, 2011	

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Version

Version No.	Date	Description
00	Jul. 28, 2011	Initial creation of document

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**SCST Taiwan Ltd No. 124 Wit Kung Poor Mills (Poor Poor Taiwan County Taiwan County



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GENERAL INFORMATION

1.1 **Product Description**

General:

Product name:	Tablet (Pad	Tablet (Pad) Computer			
Brand Name:	Lenovo				
Model :	ThinkPad T	Cablet			
Widder .	Timiki da I	dolet			
Canadian Model number:	TP00028A	E			
Model Difference:	N/A				
	7.4 Vdc re-chargeable battery or 5.35Vdc by AC/DC power adapter				
Power Supply:	Battery: Model No.:FRU P/N 42T4963 ASM P/N 42T496				
	2 4000131	Supplier: Lenovo			
	Adapter:	Model No.: PSA/10R-050Q, Supplier: PHIHONG			
Integrated WWAN	Band Name	e: Ericsson			
Module:	Model Nan	ne: F5521gw			
	Fixed Integ	rated antenna			
	PIFA type				
Antenna Type:	(Main) → ACON P/M: DC33000W300				
Timemia Type.	(Aux) → A	CON P/M: DC33000W310			
	(Main) →	WahYu P/N: DC33000XZ00			
	(Aux) → W	VahYu P/N: DC33000XZ10			

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GPRS / WCDMA:

	GPRS/EDGE 850, Class 10	824.2 - 848.8 MHz		
	GPRS/EDGE 900, Class 10	880.2 – 914.8 MHz		
Cellular Phone Standards	GPRS/EDGE 1800, Class 10	1710.2 - 1784.8 MHz		
Frequency Range	GPRS/EDGE 1900, Class 10	1850.2 – 1909.8 MHz		
	WCDMA/HSUPA/HSDPA Band II	1852.4 – 1907.6 MHz		
	WCDMA/HSUPA/HSDPA Band V	826.4 - 846.6 MHz		
IMEI	35822404000711805			
WWAN Module Name:	GSM Module			
WWAN Module Model No.:	F5521gw			
WWAN module FCC ID	VV7-MBMF5521GW1			
WWAN module IC ID	287AG-MBMF5521GW1			
Hardware Version for WWAN module	R1			
Software Version for WWAN Modular:	R1A29			
22H(GMSK): 824.2 - 848.8 MHz: 300KGXW 24E(GMSK): 1850.2 – 1909.8 MHz: 300KGXW 22H(8PSK): 824.2 - 848.8 MHz: 300KGXW 22H(8PSK): 1850.2 – 1909.8 MHz: 300KG7W 24E(8PSK): 1850.2 – 1909.8 MHz: 300KG7W 22H(8PSK): 1850.2 – 1909.8 MHz: 300KG7W				
FCC/IC-Transmit power (Conducted Power) Listed in Test Report / Original Grant	22H(GMSK): 824.2 - 848.8 MHz: 1.77W 24E(GMSK): 1850.2 – 1909.8 MHz: 0.91W 22H(8PSK): 824.2 - 848.8 MHz: 0.46W 24E(8PSK): 1850.2 – 1909.8 MHz: 0.39W 22H(8PSK): 826.4 - 846.6 MHz: 0.25W 24E(GMSK): 1852.4 – 1907.5 MHz: 0.19W			

This test report applies for GPRS/EDGE 850, GPRS/EDGE 1900, WCDMA/HSUPA/HSDPA Band II, Band V bands.

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1.2 **Related Submittal(s) / Grant (s)**

This submittal(s) (test report) is intended for FCC ID: GKR-TP00028AE filing to comply with Section Part 22 subpart H, Part 24 subpart E of the FCC CFR 47 Rules. And IC: 2533B-TP00028AE filing to comply with RSS-132 and issue 5 of RSS-133

1.3 **Test Methodology**

Both conducted and radiated testing were performed according to the procedures document on TIA/EIA-603-C-2004 and FCC CFR 47 2.1046, 2.1053, Issue 2 of RSS-132, Issue 5 of RSS-133 and Issue 2 of RSS-Gen.

1.4 **Test Facility**

The measurement facilities used to collect the 3m Radiated Emission and AC power line conducted data are located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan which are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003. FCC Registration Number are: 990257 and 236194, Canada Registration Number: 4620A-4

The 10 m Open Area Test Sites located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 29, Pau-Tou-Tsuo Valley Chia-Pau Tsuen, Linkou Hsiang, Taipei county, which is constructed and calibrated to meet the CISPR 22/EN 55022 requirements. SGS Site No. 1(3 &10 meters) and FCC Registration Number: 94644.

1.5 **Special Accessories**

Not available for this EUT intended for grant.

Equipment Modifications 1.6

Not available for this EUT intended for grant.

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2. SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The EUT (Transmitter) was operated in the engineering mode to fix the Tx frequency which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Measurement at Antenna Port:

According to measurement procured TIA/EIA 603C, the EUT is placed on a turn table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

2.3.2 Radiated Emissions (ERP/EIRP):

According to measurement procured TIA/EIA 603C, issue 2 of RSS-Gen and TIA/EIA IS-98 for Mobile stations. The EUT is placed on a turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements.

A standard antenna was used to replace the EUT and connect to the SG. Adjust the SG output level to reach the max emission level which were measured above.

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Configuration of Tested System

Fig. 1-1 Configuration for Radiated Emission

EUT

Fig. 1-2Configuration (Remote Side, on the corner)

CMU200

Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/ Type No.	Series No.	Data Cable	Power Cord
1.	Universal Radio Communication Tester	R&S	CMU200	102189	Shielded	Un-shielded

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3. SUMMARY OF TEST RESULTS

FCC Rules	IC Rules	Description Of Test	Result
\$24.232(C) \$22.913(a)(2)	N/A	RF Power output / Maxmum power reduction measurement	Compliant
\$2.1046(a) \$22.913(a)(2) \$24.232(c)	§4.8 (RSS-Gen) §4.4 (RSS-132) §6.4 (RSS-133)	ERP/ EIRP measurement	Compliant
\$2.1053 \$22.917(a) \$24.238(a)	§4.9 (RSS-Gen) §4.5 (RSS-132) §6.5 (RSS-133)	Field Strength of Spurious Radiation (TX)(RX)	Compliant

Max ERP/EIRP measurement result:

	dBm		W
GPRS 850 Band	30.04	ERP	1.009
GPRS 1900 Band	28.76	EIRP	0.752
EDGE 850 Band	29.27	ERP	0.845
EDGE 1900 Band	28.67	EIRP	0.736
WCDMA Band II	24.76	EIRP	0.299
HSUPA Band II	24.06	EIRP	0.255
HSDPA Band II	24.76	EIRP	0.299
WCDMA Band V	22.30	ERP	0.170
HSUPA Band V	23.55	ERP	0.226
HSDPA Band V	23.22	ERP	0.210

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4. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.

Set EUT power for maximum level for all test mode through base station.

The Channel Low, Mid and High for each type of bands with rated data rate were chosen for above testing.

The field strength of ERP/EIRP power and spurious radiation emission were measured as EUT stand up position for both GPRS/EDGE 850 and 1900 ,WCDMA/HSUPA/HSDPA Band II, Band V bands were reported which has worst data.

The radiated spurious emission that employs GPRS and HSUPA yields the highest emission closed to the regulated limit, and only the outcome that generates the worst-case result are recorded on the corresponding section of measurement of the report.



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RF POWER OUTPUT MEASUREMENT

5.1 Standard Applicable:

According to FCC §2.1046 & RSS-132(4.4), RSS-133(6.4)

FCC 22.913(a) Mobile station are limited to 7W.

FCC 24.232(c) Peak Power Measurement

3GPP Power limitation for HSDPA and HSUPA

Maximum Output Powers for HSDPA

Sub-test in table C.10.1.4	Power	Power Class 3		Class 4	
	Power (dBm)			Tol (dB)	
1	+24	+1.7/-3.7	+21	+2.7/-2.7	
2	+24	+1.7/-3.7	+21	+2.7/-2.7	
3	+23.5	+2.2/-3.7	+20.5	+3.2/-2.7	
4	+23.5	+2.2/-3.7	+20.5	+3.2/-2.7	

Maximum Output Powers for HSUPA

Sub-test in table	Power	Class 3	Power	Class 4
C.11.1.3	Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)
1	+24	+1.7/-6.7	+21	+2.7/-5.7
2	+22	+3.7/-5.2	+19	+4.7/-4.2
3	+23	+2.7/-5.2	+20	+3.7/-4.2
4	+22	+3.7/-5.2	+19	+4.7/-4.2
5	+24	+1.7/-6.7	+21	+2.7/-5.7

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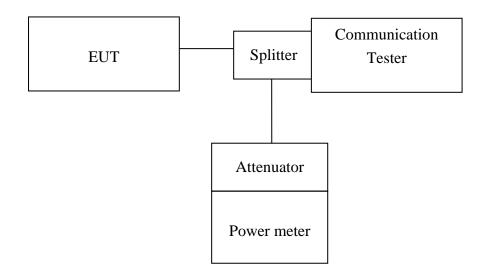
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5.2 Test Set-up:



Note: Measurement setup for testing on Antenna connector

5.3 Measurement Procedure:

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading. The Procedure of KDB941225(SAR Measurement Procedures for 3G devices, WCDMA/HSDPA) was used for EUT and Base station setting.RMC 12.2kps is used for this testing

5.4 Measurement Equipment Used:

Refer to section 2.4 in this report

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5.5 **Measurement Result:** 5.5.1RF Conducted Output Power **5.5.1.1.: GPRS/EDGE (GMSK; 8-PSK)**

Result:

Kesuit.						
EUT Mode	Frequency	СН	Peak Power (1DN 1UP)	Avg. Power (1DN 1UP)	Peak Power (1DN 2UP)	Avg. Power (1DN 2UP)
	(MHz)		(dBm)	(dBm)	(dBm)	(dBm)
GPRS 850 (Class 10)	824.2	128	32.60	32.50	30.40	30.20
	836.6	190	32.40	32.25	30.40	30.30
	848.8	251	32.50	32.31	30.20	30.10

EUT Mode	Frequency	СН	Peak Power (1DN 1UP)	Avg. Power (1DN 1UP)	Peak Power (1DN 2UP)	Avg. Power (1DN 2UP)
	(MHz)		(dBm)	(dBm)	(dBm)	(dBm)
	1850.2	512	30.40	29.60	27.50	27.30
GPRS 1900 (Class 10)	1880.0	661	30.20	29.30	27.40	27.20
	1909.8	810	30.30	29.50	27.40	27.20

EUT Mode	Frequency	СН	Peak Power (1DN 1UP)	Avg. Power (1DN 1UP)	Peak Power (1DN 2UP)	Avg. Power (1DN 2UP)
	(MHz)		(dBm)	(dBm)	(dBm)	(dBm)
	824.2	128	27.40	26.60	24.40	24.30
EDGE 850 (Class 10)	836.6	190	27.20	26.50	24.30	24.10
(23,33,23)	848.8	251	27.30	26.50	24.10	24.00

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EUT Mode	Frequency	СН	Peak Power (1DN 1UP)	Avg. Power (1DN 1UP)	Peak Power (1DN 2UP)	Avg. Power (1DN 2UP)
	(MHz)		(dBm)	(dBm)	(dBm)	(dBm)
a 1000	1850.2	512	26.50	25.90	24.50	23.50
EDGE 1900 (Class 10)	1880.0	661	26.30	25.70	24.30	23.40
	1909.8	810	26.50	25.90	24.60	23.50

Note: Offset 0.5 dB

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5.5.1.2: WCDMA mode

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 V8.4.0 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1/-3). RMC 12.2kps is used for this testing.

Results:

В2	WCI	WCDMA		OPA	HSUPA		
	PK AV		PK	AV	PK	AV	
CH9262	26.88	22.70	26.78	22.63	26.73	22.58	
CH9400	27.45	22.73	26.93	22.52	27.03	22.64	
CH9538	26.52 22.78		26.71 22.70		0 26.61 22.6		

B5	WCDMA PK AV		HSI	OPA	HSU	JPA
			PK	AV	PK	AV
CH4132	27.42	23.80	27.18	23.50	27.46	23.55
CH4183	27.35	23.75	27.40	23.65	27.63	23.70
CH4233	27.42 23.95		27.10	27.10 23.73		23.59

Note: The results above reflect max power with all up bits.

Note: Offset 0.5 dB



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5.5.13: HSDPA Release 6 mode

The following 4 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C10.1.4 & C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing

HSDPA SUB-TEST Setting

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH(FOR HSDPA)

Sub-test	βс	βа	β _d (SF)	βc/βd	βнs (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)	RMC (Kbps)
1	2/15	15/15	64	2/15	4/15	0.0	0.0	12.2
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0	12.2
3	15/15	8/15	64	15/8	30/15	1.5	0.5	12.2
4	15/15	4/15	64	15/4	30/15	1.5	0.5	12.2

Note: The recommended HSDPA MPRs are implemented as per following sub-tests.

Results:

Mode	Sub-test	RMS	S Power (d Channel	(Bm)	Power Class 3 Limitation (dBm)	Comments
		9262	9400	9538		
HSDPA	1	22.87	22.62	22.54	20.3dBm – 25.7dBm	Pass
B2	2	22.58	22.59	22.53	20.3dBm – 25.7dBm	Pass
	3	22.39	22.17	22.01	19.8dBm – 25.7dBm	Pass
	4	22.46	22.18	22.13	19.8dBm – 25.7dBm	Pass

Results:

Mode	Sub-test	RMS	Power (d	Bm)	Power Class 3 Limita-	Comments
			Channel		tion (dBm)	
		4132	4172	4233		
HSDPA	1	23.69	23.61	24.70	20.3dBm – 25.7dBm	Pass
B5	2	23.83	23.64	24.45	20.3dBm – 25.7dBm	Pass
	3	23.23 23.13 24.2			19.8dBm – 25.7dBm	Pass
	4	23.28	23.17	24.27	19.8dBm – 25.7dBm	Pass

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5.5.1.4: HSPA (HSDPA & HSUPA) Release 6 mode

The following 5 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing

HSPA SUB-TEST Setting

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH(FOR HSUPA)

Sub- test	βε	$eta_{ m d}$	β _d (SF)	β_c/β_d	$eta_{ m HS}$	eta_{ec}	$eta_{ m ed}$	β _{ed} (SF)	β _{ed} (Codes)	CM (dB)	MPR (dB)	AG Index	E-TFCI	RMC (Kbps)
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/22	1309/225	4	1	1.0	0.0	20	75	12.2
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67	12.2
3	15/15	9/15	64	15/9	30/15	30/15	β _{ed} 1: 47/15 β _{ed} 2: 47/15	4 4	2	2.0	1.0	15	92	12.2
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71	12.2
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81	12.2

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Note: The recommended HSUPA are implemented as per following sub-tests.

Results:

Mode	Sub-test	RMS	S Power (d	Bm)	Power Class 3 Limita-	Comments
		Channel			tion (dBm)	
		9262 9400 9538				
HSUPA	1	22.62	22.71	22.62	17.3dBm – 25.7dBm	Pass
B2	2	20.67	20.78	20.66	16.8dBm – 25.7dBm	Pass
	3	21.68	21.73	21.70	17.8dBm – 25.7dBm	Pass
	4	20.80	20.83	20.70	16.8dBm – 25.7dBm	Pass
	5	22.51	22.57	22.53	17.3dBm – 25.7dBm	Pass

Results:

Mode	Sub-test	RMS	S Power (d Channel	Bm)	Power Class 3 Limitation (dBm)	Comments
		4132 4172 4233				
HSUPA	1	23.86	23.68	24.50	17.3dBm – 25.7dBm	Pass
B5	2	21.92	21.76	22.54	16.8dBm – 25.7dBm	Pass
	3	22.90	22.74	23.58	17.8dBm – 25.7dBm	Pass
	4	21.97	21.82	22.62	16.8dBm – 25.7dBm	Pass
	5	23.72	23.51	24.39	17.3dBm – 25.7dBm	Pass

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5.5.2 Maximum Power Reduction: PCS1900 band

PCL	0	1	2	3	4	5	6	7	8	
Output power (dBm)	30.2	30.2	30.2	30.2	28.1	26	23.9	21.9	19.8	
PCL	9	10	11	12	13	14	15	16	17	18
Output power (dBm)	17.8	15.6	13.5	11.5	10.1	8.1	6	4.1	2	-0.1

Note: The EUT output power was controlled by simulator. Set Communication Tester CMU200 PCL as above, and get the mobile phone output power reading.

WCDMA/HSDPA band II / V

The EUT output power was controlled by simulator. Set Communication Tester CMU200 function key "UE Power Control" and enter max rated power 24dBm. The EUT is going to be set to max output power to 24dBm. then record the read(see page 19 for measurement data). The min. power was measures by a function key "minimum power" then record the read. It is -52.5dBm. The power variation can be 0.1dB step by setting.

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6. ERP/EIRP MEASUREMENT

6.1 Standard Applicable

According to FCC §2.1046

FCC 22.913(a)(2) Mobile station are limited to 7W ERP.

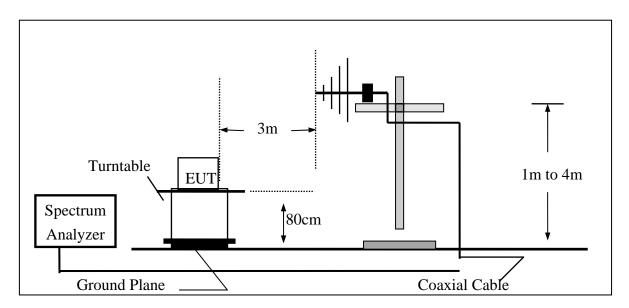
FCC 24.232(c) Mobile station are limited to 2W EIRP.

According to issue 5 of RSS-133 §6.4. The peak e.i.r.p. for transmitters operating in the band 1850-1910 MHz shall not exceed the limits given in SRSP-510.

According to issue 2 of RSS 132, section 4.4. The transmitter output power shall not exceed the limits given in SRSP-503.

6.2 Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



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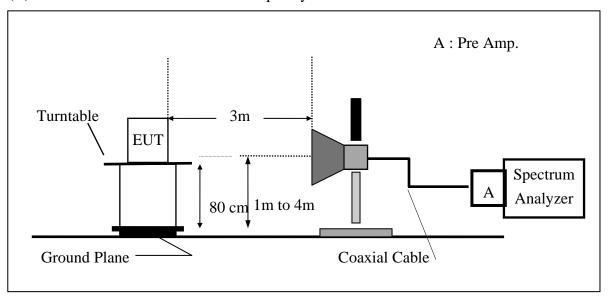
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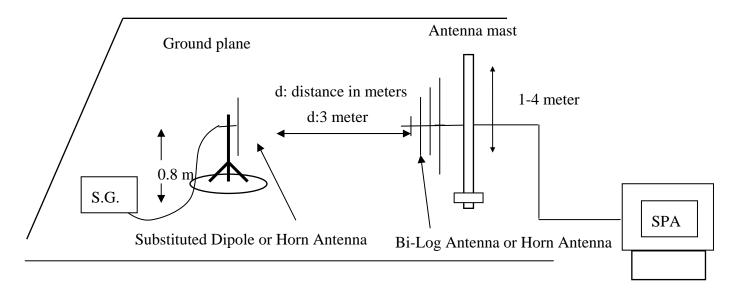
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(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



Substituted Method Test Set-UP



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6.3 Measurement Procedure

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.

During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:

EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by a horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

ERP = S.G. output (dBm) + Antenna Gain (dBd) - Cable Loss (dB)

EIRP = S.G. output (dBm) + Antenna Gain <math>(dBi) - Cable Loss (dB)



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6.4 Measurement Equipment Used:

ERP, EIRP MEASUREMENT EQUIPMENT List 966 Chamber											
EQUIPMENT	MFR	MODEL	SERIAL	LAST	CAL DUE.						
ТҮРЕ		NUMBER	NUMBER	CAL.							
Spectrum Analyzer	R&S	FSP 40	100034	03/30/2011	03/29/2012						
Bilog Antenna	SCHWAZBECK	VULB9160	3136	11/19/2009	11/18/2011						
Dipole Antenna	SCHWAZBECK	VHAP	908/909	07/17/2010	07/16/2012						
Dipole Antenna	SCHWAZBECK	UHAP	891/892	07/17/2010	07/16/2012						
Horn antenna	SCHWAZBECK	BBHA 9120D	309/320	01/22/2010	01/21/2012						
Signal Generator	R&S	SMR40	100210	02/10/2010	02/09/2012						
Signal Generator	Agilent	E4438C	MY45093613	07/08/2011	07/07/2013						
Pre-Amplifier	Agilent	8447D	1937A02834	01/05/2011	01/04/2012						
Pre-Amplifier	Agilent	8449B	3008A01973	01/05/2011	01/04/2012						
Attenuator	Mini-Circuit	BW-S20W5	001	01/05/2011	01/04/2012						
Attenuator	Mini-Circuit	BW-S10W5	001	01/05/2011	01/04/2012						
Attenuator	Mini-Circuit	BW-S6W5	001	01/05/2011	01/04/2012						
Radio Communication Analyzer	R&S	CMU200	111787	12/07/2011	12/06/2013						
Turn Table	HD	DT420	N/A	N.C.R	N.C.R						
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R						
Controller	HD	HD100	N/A	N.C.R	N.C.R						
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	01/05/2011	01/04/2012						
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	01/05/2011	01/04/2012						
Filter 800-1000	Micro-Tronics	BRM13462	1	01/05/2011	01/04/2012						
Filter 1800-2000	Micro-Tronics	BRM13463	1	01/05/2011	01/04/2012						
3m Site	SGS	966 chamber	N/A	11/08/2010	11/09/2011						

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6.5 **Measurement Result**

Refer to following pages for detail.

Measurement Result:

EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
			Н	V	124.42	38.03	-7.87	3.62	26.53	38.45
			11	Н	126.33	40.06	-7.87	3.62	28.56	38.45
	824.20	128	E1	V	124.56	38.17	-7.87	3.62	26.67	38.45
	024.20		151	Н	122.82	36.55	-7.87	3.62	25.05	38.45
			E2	V	114.48	28.09	-7.87	3.62	16.59	38.45
			LL	Н	127.81	41.54	-7.87	3.62	30.04	38.45
		190	H E1	V	123.07	36.82	-7.88	3.65	25.29	38.45
				Н	125.26	39.03	-7.88	3.65	27.50	38.45
GSM 850	836.60			V	123.25	37.00	-7.88	3.65	25.47	38.45
GSW 650	030.00			Н	122.47	36.24	-7.88	3.65	24.71	38.45
			E2	V	114.65	28.40	-7.88	3.65	16.87	38.45
			LZ	Н	127.44	41.21	-7.88	3.65	29.68	38.45
			Н	V	121.79	35.67	-7.88	3.68	24.11	38.45
			11	Н	124.27	38.08	-7.88	3.68	26.52	38.45
	848.80	251	E1	V	122.39	36.27	-7.88	3.68	24.71	38.45
	848.80	251	151	Н	121.62	35.43	-7.88	3.68	23.87	38.45
			E2 -	V	114.80	28.68	-7.88	3.68	17.12	38.45
				Н	126.97	40.78	-7.88	3.68	29.22	38.45

Remark:

The RBW, VBW of SPA for frequency (1) RBW=300 KHz, VBW=1MHz

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EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
			Н	V	123.20	18.81	9.90	5.56	23.15	33.00
			п	Н	125.43	21.25	9.90	5.56	25.59	33.00
	1850.20	512	E1	V	127.58	23.19	9.90	5.56	27.53	33.00
	1630.20		EI	Н	126.07	21.89	9.90	5.56	26.23	33.00
			E2	V	114.21	9.82	9.90	5.56	14.16	33.00
			102	Н	126.24	22.06	9.90	5.84	26.12	33.00
	1880.00	661	H E1	V	124.34	19.98	9.99	5.61	24.36	33.00
				Н	126.14	22.00	9.99	5.61	26.37	33.00
PCS 1900				V	127.82	23.46	9.99	5.61	27.84	33.00
1 C5 1700	1000.00	001	Li	Н	126.09	21.95	9.99	5.61	26.32	33.00
			E2	V	113.86	9.50	9.99	5.61	13.88	33.00
			1.2	Н	126.48	22.34	9.99	5.61	26.71	33.00
			Н	V	125.61	21.28	10.08	5.66	25.70	33.00
				Н	127.28	23.17	10.08	5.66	27.59	33.00
	1909.80	810	F1	V	128.67	24.34	10.08	5.66	28.76	33.00
	1707.00	810	E1 -	Н	126.43	22.32	10.08	5.66	26.74	33.00
			E2 -	V	115.22	10.89	10.08	5.66	15.31	33.00
				Н	127.50	23.39	10.08	5.66	27.81	33.00

Remark:

(1) The RBW, VBW of SPA for frequency RBW=300 KHz, VBW=1MHz,

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**SCST Existent Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left visit of Country Televon Left No. 124 No. Kurs Pool With Left Visit of Country Televon Left No. 124 No. Kurs Pool With Left Visit of Country Televon Left No. 124 No. Kurs Pool With Left Visit of Country Televon Left No. 124 No. Kurs Pool With Left Visit of Country Televon Left No. 124 No. Kurs Pool With Left Visit of Country Televon Left No. 1

SGS Taiwan Ltd.No.134, Wu Kung Road, Wuku Industrial Zone, Taipei County, Taiwan /台北縣五股工業區五工路 134 號

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EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
			Н	V	124.83	38.44	-7.87	3.62	26.94	38.45
			п	Н	123.25	36.98	-7.87	3.62	25.48	38.45
	824.20	128	E1	V	121.30	34.91	-7.87	3.62	23.41	38.45
	024.20	126	LI	Н	127.04	40.77	-7.87	3.62	29.27	38.45
			E2	V	116.76	30.37	-7.87	3.62	18.87	38.45
			1.2	Н	126.90	40.63	-7.87	3.62	29.13	38.45
			H E1	V	123.54	37.29	-7.88	3.65	25.76	38.45
		190		Н	123.26	37.03	-7.88	3.65	25.50	38.45
EDGE 850	EDGE 850 836.60			V	124.01	37.76	-7.88	3.65	26.23	38.45
EDGE 650	830.00	170	Li	Н	126.14	39.91	-7.88	3.65	28.38	38.45
			E2	V	115.93	29.68	-7.88	3.65	18.15	38.45
			LZ	Н	126.82	40.59	-7.88	3.65	29.06	38.45
			Н	V	122.88	36.76	-7.88	3.68	25.20	38.45
			11	Н	122.14	35.95	-7.88	3.68	24.39	38.45
848	848.80	251	E1	V	122.81	36.69	-7.88	3.68	25.13	38.45
	040.00	8.80 251	LI	Н	125.60	39.41	-7.88	3.68	27.85	38.45
			E2 -	V	115.54	29.42	-7.88	3.68	17.86	38.45
		152	Н	126.03	39.84	-7.88	3.68	28.28	38.45	

Remark:

(1) The RBW, VBW of SPA for frequency RBW=300 KHz, VBW=1MHz

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EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
			Н	V	123.53	19.14	9.90	5.56	23.48	33.00
			п	Н	125.36	21.18	9.90	5.56	25.52	33.00
	1850.20	512	E1	V	127.86	23.47	9.90	5.56	27.81	33.00
			EI	Н	126.29	22.11	9.90	5.56	26.45	33.00
			E2	V	113.37	8.98	9.90	5.56	13.32	33.00
				Н	126.83	22.65	9.90	5.84	26.71	33.00
		661	H E1	V	124.46	20.10	9.99	5.61	24.48	33.00
				Н	125.54	21.40	9.99	5.61	25.77	33.00
EDGE 1900	1880.00			V	128.05	23.69	9.99	5.61	28.07	33.00
EDGE 1900	1000.00	001	LI	Н	126.28	22.14	9.99	5.61	26.51	33.00
			E2	V	113.91	9.55	9.99	5.61	13.93	33.00
			EZ	Н	127.19	23.05	9.99	5.61	27.42	33.00
			Н	V	125.66	21.33	10.08	5.66	25.75	33.00
			11	Н	126.66	22.55	10.08	5.66	26.97	33.00
	1000 80	810	E1	V	128.58	24.25	10.08	5.66	28.67	33.00
	1909.80	810	EI	Н	126.37	22.26	10.08	5.66	26.68	33.00
			E2 -	V	115.39	11.06	10.08	5.66	15.48	33.00
				Н	128.15	24.04	10.08	5.66	28.46	33.00

Remark:

(1) The RBW, VBW of SPA for frequency RBW=300 KHz, VBW=1MHz

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Measurement Result:

EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
			Н	V	121.26	16.88	9.90	5.56	21.21	33.00
			П	Н	124.51	20.33	9.90	5.56	24.67	33.00
	1852.40	9262	E1	V	124.11	19.73	9.90	5.56	24.06	33.00
	1632.40		151	Н	122.99	18.81	9.90	5.56	23.15	33.00
			E2	V	110.79	6.41	9.90	5.56	10.74	33.00
			EZ	Н	124.19	20.01	9.90	5.84	24.07	33.00
		9400	H E1	V	121.49	17.13	9.99	5.61	21.51	33.00
				Н	124.65	20.51	9.99	5.61	24.88	33.00
WCDMA	1880.00			V	124.18	19.79	9.90	5.56	24.13	33.00
Band II	1880.00	9400		Н	123.05	18.91	9.99	5.61	23.28	33.00
			E2	V	111.80	7.44	9.99	5.61	11.82	33.00
			LZ	Н	124.53	20.39	9.99	5.61	24.76	33.00
			Н	V	121.61	17.28	10.07	5.66	21.69	33.00
			11	Н	123.90	19.79	10.07	5.66	24.20	33.00
	1907.60	0538	E1	V	123.72	19.39	10.07	5.66	23.80	33.00
	1907.00	9538	1:1	Н	120.96	16.85	10.07	5.66	21.26	33.00
			E2 -	V	111.87	7.54	10.07	5.66	11.95	33.00
				Н	124.07	19.96	10.07	5.66	24.37	33.00

Remark:

(1) The RBW,VBW of SPA for frequency

RBW=5MHz, VBW=8MHz

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Measurement Result:

EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
			Н	V	119.57	15.19	9.90	5.56	19.52	33.00
			11	Н	122.46	18.28	9.90	5.56	22.62	33.00
	1852.40	9262	E1	V	120.23	15.85	9.90	5.56	20.18	33.00
	1632.40	9202		Н	121.49	17.31	9.90	5.56	21.65	33.00
			E2	V	110.41	6.03	9.90	5.56	10.36	33.00
		1.2	Н	124.18	20.00	9.90	5.84	24.06	33.00	
			Н	V	120.22	15.86	9.99	5.61	20.24	33.00
				Н	122.92	18.78	9.99	5.61	23.15	33.00
HSUPA	1880.00	9400	E1	V	120.49	16.10	9.90	5.56	20.44	33.00
Band II	1000.00	9400	151	Н	121.67	17.53	9.99	5.61	21.90	33.00
			E2	V	107.75	3.39	9.99	5.61	7.77	33.00
			EZ	Н	123.56	19.42	9.99	5.61	23.79	33.00
			Н	V	120.33	16.00	10.07	5.66	20.41	33.00
			11	Н	122.83	18.72	10.07	5.66	23.13	33.00
	1907.60	0538	E1	V	120.68	16.35	10.07	5.66	20.76	33.00
	1907.00	9538	151	Н	120.99	16.88	10.07	5.66	21.29	33.00
			E2 -	V	108.42	4.09	10.07	5.66	8.50	33.00
				Н	123.57	19.46	10.07	5.66	23.87	33.00

Remark:

(1) The RBW, VBW of SPA for frequency

RBW = 5MHz, VBW = 8MHz

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Measurement Result:

EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)
			Н	V	121.45	17.07	9.90	5.56	21.40	33.00
			П	Н	123.07	18.89	9.90	5.56	23.23	33.00
	1852.40	9262	E1	V	121.91	17.53	9.90	5.56	21.86	33.00
	1632.40	9202		Н	121.27	17.09	9.90	5.56	21.43	33.00
			E2	V	110.67	6.29	9.90	5.56	10.62	33.00
				Н	124.19	20.01	9.90	5.84	24.07	33.00
			Н	V	121.89	17.53	9.99	5.61	21.91	33.00
			11	Н	123.59	19.45	9.99	5.61	23.82	33.00
HSDPA	1880.00	9400	E1	V	121.86	17.47	9.90	5.56	21.81	33.00
Band II	1000.00	9400		Н	121.44	17.30	9.99	5.61	21.67	33.00
			E2	V	111.80	7.44	9.99	5.61	11.82	33.00
			EZ	Н	124.53	20.39	9.99	5.61	24.76	33.00
			Н	V	122.09	17.76	10.07	5.66	22.17	33.00
			11	Н	123.47	19.36	10.07	5.66	23.77	33.00
	1907.60	0539	E1	V	121.44	17.11	10.07	5.66	21.52	33.00
	1707.00	9538	151	Н	121.03	16.92	10.07	5.66	21.33	33.00
			E2 -	V	111.81	7.48	10.07	5.66	11.89	33.00
				Н	124.08	19.97	10.07	5.66	24.38	33.00

Remark:

(1) The RBW, VBW of SPA for frequency

RBW = 5MHz, VBW = 8MHz

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Measurement Result:

EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
			Н	V	119.74	33.38	-10.02	3.63	19.73	38.45
			11	Н	120.08	33.82	-10.02	3.63	20.18	38.45
	025.40	4132	E1	V	118.57	32.21	-10.02	3.63	18.56	38.45
826.40	826.40		121	Н	113.57	27.31	-10.02	3.63	13.67	38.45
		E2	V	107.44	21.08	-10.02	3.63	7.43	38.45	
			Н	121.63	35.37	-10.02	3.63	21.73	38.45	
		4183	Н	V	120.09	33.83	-10.02	3.65	20.16	38.45
	836.60			Н	120.43	34.20	-10.02	3.65	20.53	38.45
WCDMA			E1	V	119.19	32.93	-10.02	3.65	19.26	38.45
Band V	830.00	7103		Н	113.74	27.51	-10.02	3.65	13.84	38.45
			E2	V	108.45	22.19	-10.02	3.65	8.52	38.45
			LZ	Н	122.67	36.44	-10.02	3.65	22.77	38.45
			Н	V	119.29	33.14	-10.02	3.67	19.45	38.45
			11	Н	120.66	34.46	-10.02	3.67	20.77	38.45
	846.60	1233	F1	V	119.31	33.15	-10.02	3.67	19.46	38.45
	846.60	4233	E1 -	Н	112.60	26.40	-10.02	3.67	12.71	38.45
			E2 -	V	108.04	21.89	-10.02	3.67	8.20	38.45
				Н	122.19	35.99	-10.02	3.67	22.30	38.45

Remark:

(1) The RBW, VBW of SPA for frequency

RBW = 5MHz, VBW = 8MHz

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Measurement Result:

EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
			Н	V	121.52	35.16	-10.02	3.63	21.51	38.45
			11	Н	121.91	35.65	-10.02	3.63	22.01	38.45
	926.40	4132	E1	V	116.87	30.51	-10.02	3.63	16.86	38.45
	826.40	4132	151	Н	116.74	30.48	-10.02	3.63	16.84	38.45
			E2	V	111.23	24.87	-10.02	3.63	11.22	38.45
			LZ	Н	122.63	36.37	-10.02	3.63	22.73	38.45
		4183	H E1	V	122.12	35.86	-10.02	3.65	22.19	38.45
				Н	122.04	35.81	-10.02	3.65	22.14	38.45
HSUPA	836.60			V	117.25	30.99	-10.02	3.65	17.32	38.45
Band V	830.00	4103		Н	117.97	31.74	-10.02	3.65	18.07	38.45
			E2	V	110.62	24.36	-10.02	3.65	10.69	38.45
			LiZ	Н	123.45	37.22	-10.02	3.65	23.55	38.45
			Н	V	120.14	33.99	-10.02	3.67	20.30	38.45
			11	Н	121.66	35.46	-10.02	3.67	21.77	38.45
	846.60	1233	F1	V	117.78	31.62	-10.02	3.67	17.93	38.45
	040.00	4233	E1 -	Н	117.62	31.42	-10.02	3.67	17.73	38.45
			E2 -	V	109.86	23.71	-10.02	3.67	10.02	38.45
				Н	122.61	36.41	-10.02	3.67	22.72	38.45

Remark:

The RBW, VBW of SPA for frequency (1)

RBW = 5MHz, VBW = 8MHz

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留 90 天。本報告未經本公司書面許可,不可部份複製。



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Measurement Result:

EUT Mode	Frequency (MHz)	СН	EUT Pol.	Antenna Pol.	SPA Reading (dBuV)	S.G. Output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)
			Н	V	119.61	33.25	-10.02	3.63	19.60	38.45
			11	Н	120.34	34.08	-10.02	3.63	20.44	38.45
	926.40	4132	E1	V	118.86	32.50	-10.02	3.63	18.85	38.45
820.4	826.40	4132	151	Н	114.06	27.80	-10.02	3.63	14.16	38.45
			E2	V	108.38	22.02	-10.02	3.63	8.37	38.45
				Н	122.68	36.42	-10.02	3.63	22.78	38.45
			Н	V	120.10	33.84	-10.02	3.65	20.17	38.45
		4183		Н	121.00	34.77	-10.02	3.65	21.10	38.45
HSDPA	836.60		E1	V	119.46	33.20	-10.02	3.65	19.53	38.45
Band V	830.00	4103		Н	114.04	27.81	-10.02	3.65	14.14	38.45
			E2	V	108.94	22.68	-10.02	3.65	9.01	38.45
			Ľ2	Н	123.12	36.89	-10.02	3.65	23.22	38.45
			Н	V	119.40	33.25	-10.02	3.67	19.56	38.45
			11	Н	121.01	34.81	-10.02	3.67	21.12	38.45
	846.60	1233	E1	V	119.59	33.43	-10.02	3.67	19.74	38.45
	846.60	4233	151	Н	112.91	26.71	-10.02	3.67	13.02	38.45
			E2 -	V	108.48	22.33	-10.02	3.67	8.64	38.45
				Н	122.77	36.57	-10.02	3.67	22.88	38.45

Remark:

The RBW, VBW of SPA for frequency (1)

RBW = 5MHz, VBW = 8MHz

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留 90 天。本報告未經本公司書面許可,不可部份複製。

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7. FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT(TX)

7.1 Standard Applicable

According to FCC §2.1053,

FCC §22.917(a),§24.238(a) the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specified in the instruction manual and/ or alignment procedure, shall not be less than 43 + 10 log (mean output power in watts) dBc below the mean power output outside a license's frequency block (-13dBm)

According to RSS-132 § 4.5 and RSS-133 §6.5

Out-of-Block Emissions

a. Mobile stations must comply with subsection i. below.

In the first 1.0MHz band immediately outside and adjacent to the licensee's frequency block. the power of emissions per any 1% of the emission bandwidth shall be attenuated below the transmitter output power P (in watts) by at least $43 + 10 \log (P)$, dB.

b. After the first 1.0 MHz (for equipment that complies with a.i. of this subsection) or 1.5 MHz (for equipment that complies with a.ii.of this subsection), the power of emissions shall be attenuated below the transmitter output power by at least $43 + 10 \log (P)$, dB, per any MHz of bandwidth.

(Note: If the test result using 1% of the emission bandwidth is used, then power integration over 1.0 MHz is required; alternatively, the spectrum analyser resolution and video bandwidths can be increased to 1.0 MHz for this measurement).

Out-of-Sub-band Emissions

Outside the sub-bands 1850-1910 MHz and 1930-1990 MHz, the attenuation shall be equal to or greater than the out-of-block emission limits in Section 6.5.1.

7.2 EUT Setup (Block Diagram of Configuration)

Refer to section 5.2 for details

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7.3 Measurement Procedure

The EUT was placed on a non-conductive, The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission were identified, the power of the emission was determined using the substitution method.

ERP in frequency band 824.2 –848.80MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:

EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by a horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

ERP = S.G. output (dBm) + Antenna Gain(dBd) - Cable Loss <math>(dB)

EIRP = S.G. output (dBm) + Antenna Gain(dBi) – Cable Loss (dB)

7.4 Measurement Equipment Used:

Refer to section 5.4 for details

7.5 Measurement Result

Refer to attach tabular data sheets.

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH Low Mode Test Date: Jul, 26, 2011

Fundamental Frequency : 824.20 MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
175.50	41.78	V	-57.80	-7.82	1.65	-67.27	-13.00	-54.27
228.85	34.60	V	-66.09	-7.87	1.87	-75.83	-13.00	-62.83
309.36	33.53	V	-64.60	-7.87	2.21	-74.68	-13.00	-61.68
400.54	35.18	V	-60.30	-7.66	2.51	-70.48	-13.00	-57.48
487.84	34.59	V	-59.50	-7.72	2.77	-69.98	-13.00	-56.98
658.56	34.30	V	-54.71	-7.82	3.18	-65.71	-13.00	-52.71
1650.00	40.50	V	-64.08	9.29	5.23	-60.02	-13.00	-47.02
2472.60	51.74	V	-49.27	10.08	6.53	-45.72	-13.00	-32.72
3296.80		V		12.17	7.71		-13.00	
4121.00	51.04	V	-45.08	12.61	8.86	-41.33	-13.00	-28.33
4945.20		V		12.65	9.74		-13.00	
5769.40		V		13.55	10.54		-13.00	
6593.60		V		12.05	11.30		-13.00	
7417.80		V		11.49	12.10		-13.00	
8242.00		V		11.48	12.71		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- $4 \text{ ERP/EIRP } (dBm) = SG \text{ Setting}(dBm) + Antenna Gain } (dB/dBi) Cable loss } (dB)$

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH Low Mode Test Date: Jul, 26, 2011

Fundamental Frequency : 824.20 MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
173.56	43.07	Н	-56.53	-7.82	1.65	-65.99	-13.00	-52.99
238.56	33.27	Н	-66.51	-7.88	1.93	-76.31	-13.00	-63.31
316.15	36.58	Н	-60.93	-7.83	2.23	-70.99	-13.00	-57.99
390.84	35.01	Н	-61.56	-7.66	2.48	-71.70	-13.00	-58.70
558.65	33.74	Н	-57.80	-7.77	2.97	-68.54	-13.00	-55.54
633.34	34.11	Н	-55.94	-7.80	3.12	-66.86	-13.00	-53.86
1650.00	51.83	Н	-52.57	9.29	5.23	-48.51	-13.00	-35.51
2472.60	58.26	Н	-42.65	10.08	6.53	-39.10	-13.00	-26.10
3296.80		Н		12.17	7.71		-13.00	
4121.00	51.70	Н	-44.55	12.61	8.86	-40.80	-13.00	-27.80
4945.20		Н		12.65	9.74		-13.00	
5769.40		Н		13.55	10.54		-13.00	
6593.60		Н		12.05	11.30		-13.00	
7417.80		Н		11.49	12.10		-13.00	
8242.00		Н		11.48	12.71		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- $4 \text{ ERP/EIRP } (dBm) = SG \text{ Setting}(dBm) + Antenna Gain } (dB/dBi) Cable loss } (dB)$

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH Mid Mode Jul, 26, 2011 Test Date:

Fundamental Frequency: 836.60 MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
177.44	41.69	V	-58.06	-7.82	1.66	-67.54	-13.00	-54.54
219.15	38.82	V	-62.24	-7.86	1.82	-71.91	-13.00	-58.91
287.05	34.18	V	-64.49	-7.91	2.12	-74.53	-13.00	-61.53
400.54	35.40	V	-60.08	-7.66	2.51	-70.26	-13.00	-57.26
449.04	37.93	V	-56.03	-7.70	2.66	-66.39	-13.00	-53.39
616.85	34.35	V	-55.00	-7.80	3.07	-65.87	-13.00	-52.87
1663.00	41.16	V	-63.41	9.33	5.25	-59.33	-13.00	-46.33
2509.80	45.44	V	-55.34	10.09	6.58	-51.84	-13.00	-38.84
3346.40		V		12.28	7.79		-13.00	
4183.00		V		12.62	8.93		-13.00	
5019.60		V		12.67	9.81		-13.00	
5856.20		V		13.68	10.62		-13.00	
6692.80		V		11.95	11.39		-13.00	
7529.40		V		11.45	12.20		-13.00	
8366.00		V		11.59	12.81		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- $4 \text{ ERP/EIRP } (dBm) = SG \text{ Setting}(dBm) + Antenna Gain } (dB/dBi) Cable loss } (dB)$

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

: TX CH Mid Mode Jul, 26, 2011 Operation Mode Test Date:

Fundamental Frequency: 836.60 MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
175.50	42.77	Н	-56.98	-7.82	1.65	-66.45	-13.00	-53.45
248.25	36.45	Н	-62.86	-7.89	1.98	-72.72	-13.00	-59.72
311.30	36.54	Н	-61.02	-7.86	2.21	-71.09	-13.00	-58.09
432.55	34.57	Н	-60.21	-7.69	2.61	-70.50	-13.00	-57.50
555.74	33.54	Н	-58.06	-7.76	2.97	-68.79	-13.00	-55.79
658.56	33.49	Н	-55.87	-7.82	3.18	-66.87	-13.00	-53.87
1663.00	48.16	Н	-56.23	9.33	5.25	-52.15	-13.00	-39.15
2509.80	51.29	Н	-49.41	10.09	6.58	-45.91	-13.00	-32.91
3346.40		Н		12.28	7.79		-13.00	
4183.00		Н		12.62	8.93		-13.00	
5019.60		Н		12.67	9.81		-13.00	
5856.20		Н		13.68	10.62		-13.00	
6692.80		Н		11.95	11.39		-13.00	
7529.40		Н		11.45	12.20		-13.00	
8366.00		Н		11.59	12.81		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- $4 \text{ ERP/EIRP } (dBm) = SG \text{ Setting}(dBm) + Antenna Gain } (dB/dBi) Cable loss } (dB)$

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH High Mode Jul, 26, 2011

Fundamental Frequency: 848.80 MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
175.50	41.15	V	-58.43	-7.82	1.65	-67.90	-13.00	-54.90
206.54	43.63	V	-57.90	-7.85	1.75	-67.50	-13.00	-54.50
284.14	35.88	V	-62.89	-7.91	2.11	-72.91	-13.00	-59.91
400.54	35.16	V	-60.32	-7.66	2.51	-70.50	-13.00	-57.50
539.25	34.60	V	-58.24	-7.75	2.93	-68.92	-13.00	-55.92
652.74	33.27	V	-55.68	-7.81	3.17	-66.66	-13.00	-53.66
1702.00	39.51	V	-65.02	9.45	5.32	-60.89	-13.00	-47.89
2546.40	45.13	V	-55.51	10.20	6.63	-51.95	-13.00	-38.95
3395.20		V		12.38	7.87		-13.00	
4244.00		V		12.63	9.00		-13.00	
5092.80		V		12.74	9.88		-13.00	
5941.60		V		13.81	10.70		-13.00	
6790.40		V		11.86	11.48		-13.00	
7639.20		V		11.40	12.27		-13.00	
8488.00		V		11.70	12.91		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- $4 \text{ ERP/EIRP } (dBm) = SG \text{ Setting}(dBm) + Antenna Gain } (dB/dBi) Cable loss } (dB)$

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH High Mode Jul, 26, 2011

Fundamental Frequency: 848.80 MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Out- put (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
177.44	43.61	Н	-56.29	-7.82	1.66	-65.77	-13.00	-52.77
238.55	37.14	Н	-62.64	-7.88	1.93	-72.44	-13.00	-59.44
299.66	41.10	Н	-56.57	-7.92	2.17	-66.66	-13.00	-53.66
396.66	37.93	Н	-58.55	-7.66	2.50	-68.71	-13.00	-55.71
437.40	39.23	Н	-55.30	-7.69	2.62	-65.61	-13.00	-52.61
636.25	33.57	Н	-56.42	-7.80	3.12	-67.35	-13.00	-54.35
1702.00	45.82	Н	-58.52	9.45	5.32	-54.39	-13.00	-41.39
2546.40	48.47	Н	-52.13	10.20	6.63	-48.57	-13.00	-35.57
3395.20		Н		12.38	7.87		-13.00	
4244.00		Н		12.63	9.00		-13.00	
5092.80		Н		12.74	9.88		-13.00	
5941.60		Н		13.81	10.70		-13.00	
6790.40		Н		11.86	11.48		-13.00	
7639.20		Н		11.40	12.27		-13.00	
8488.00		Н		11.70	12.91		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- $4 \text{ ERP/EIRP } (dBm) = SG \text{ Setting}(dBm) + Antenna Gain } (dB/dBi) Cable loss } (dB)$

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

: TX CH Low Mode Jul, 26, 2011 Test Date:

Fundamental Frequency: 1850.20MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
107.60	46.07	V	-55.15	-7.77	1.39	-64.31	-13.00	-51.31
175.50	40.31	V	-59.27	-7.82	1.65	-68.74	-13.00	-55.74
251.16	40.37	V	-59.48	-7.89	1.99	-69.37	-13.00	-56.37
425.76	36.70	V	-57.99	-7.68	2.59	-68.26	-13.00	-55.26
616.85	35.79	V	-53.56	-7.80	3.07	-64.43	-13.00	-51.43
844.80	34.62	V	-51.55	-7.88	3.67	-63.09	-13.00	-50.09
3700.40	45.45	V	-52.48	12.61	8.31	-48.18	-13.00	-35.18
5550.60		V		13.23	10.33		-13.00	
7400.80		V		11.50	12.08		-13.00	
9251.00		V		11.92	13.50		-13.00	
11101.20		V		11.66	15.11		-13.00	
12951.40		V		13.63	16.60		-13.00	
14801.60		V		12.76	17.95		-13.00	
16651.80		V		15.92	19.14		-13.00	
18502.00		V		18.75	10.40		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

: TX CH Low Mode Jul, 26, 2011 Test Date:

Fundamental Frequency: 1850.20MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	51.42	Н	-52.31	-7.75	1.27	-61.33	-13.00	-48.33
175.50	40.81	Н	-58.94	-7.82	1.65	-68.41	-13.00	-55.41
248.25	33.59	Н	-65.72	-7.89	1.98	-75.58	-13.00	-62.58
293.84	36.06	Н	-61.79	-7.92	2.15	-71.86	-13.00	-58.86
456.80	36.37	Н	-57.46	-7.70	2.68	-67.84	-13.00	-54.84
633.34	33.93	Н	-56.12	-7.80	3.12	-67.04	-13.00	-54.04
3700.40	42.37	Н	-55.67	12.61	8.31	-51.37	-13.00	-38.37
5550.60		Н		13.23	10.33		-13.00	
7400.80		Н		11.50	12.08		-13.00	
9251.00		Н		11.92	13.50		-13.00	
11101.20		Н		11.66	15.11		-13.00	
12951.40		Н		13.63	16.60		-13.00	
14801.60		Н		12.76	17.95		-13.00	
16651.80		Н		15.92	19.14		-13.00	
18502.00		Н		18.75	10.40		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode : TX CH Mid Mode Test Date: Jul, 26, 2011

Fundamental Frequency: 1880MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
107.60	45.95	V	-55.27	-7.77	1.39	-64.43	-13.00	-51.43
177.44	41.06	V	-58.69	-7.82	1.66	-68.17	-13.00	-55.17
214.30	42.92	V	-58.32	-7.85	1.79	-67.96	-13.00	-54.96
400.54	36.65	V	-58.83	-7.66	2.51	-69.01	-13.00	-56.01
468.44	37.43	V	-56.58	-7.71	2.71	-67.00	-13.00	-54.00
660.50	33.56	V	-55.47	-7.82	3.19	-66.48	-13.00	-53.48
3760.00	44.37	V	-53.29	12.60	8.39	-49.07	-13.00	-36.07
5640.00		V		13.36	10.41		-13.00	
7520.00		V		11.45	12.19		-13.00	
9400.00		V		11.93	13.61		-13.00	
11280.00		V		11.92	15.27		-13.00	
13160.00		V		13.33	16.71		-13.00	
15040.00		V		13.76	18.15		-13.00	
16920.00		V		15.27	19.32		-13.00	
18800.00		V		18.68	16.58		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode : TX CH Mid Mode Test Date: Jul, 26, 2011

Fundamental Frequency: 1880MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
119.24	47.18	Н	-53.81	-7.78	1.45	-63.03	-13.00	-50.03
177.44	40.74	Н	-59.16	-7.82	1.66	-68.64	-13.00	-55.64
248.25	33.11	Н	-66.20	-7.89	1.98	-76.06	-13.00	-63.06
303.54	39.77	Н	-57.86	-7.90	2.18	-67.94	-13.00	-54.94
456.80	35.71	Н	-58.12	-7.70	2.68	-68.50	-13.00	-55.50
652.74	33.47	Н	-56.14	-7.81	3.17	-67.12	-13.00	-54.12
3760.00	39.89	Н	-57.88	12.60	8.39	-53.67	-13.00	-40.67
5640.00		Н		13.36	10.41		-13.00	
7520.00		Н		11.45	12.19		-13.00	
9400.00		Н		11.93	13.61		-13.00	
11280.00		Н		11.92	15.27		-13.00	
13160.00		Н		13.33	16.71		-13.00	
15040.00		Н		13.76	18.15		-13.00	
16920.00		Н		15.27	19.32		-13.00	
18800.00		Н		18.68	16.58		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Test Date: Operation Mode : TX CH High Mode Jul, 26, 2011

Fundamental Frequency: 1909.8 MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
175.50	40.77	V	-58.81	-7.82	1.65	-68.28	-13.00	-55.28
222.06	37.44	V	-63.51	-7.86	1.83	-73.20	-13.00	-60.20
255.04	39.25	V	-60.47	-7.89	2.01	-70.38	-13.00	-57.38
313.24	33.75	V	-64.34	-7.85	2.22	-74.40	-13.00	-61.40
551.86	34.83	V	-57.55	-7.76	2.96	-68.28	-13.00	-55.28
604.24	34.04	V	-55.47	-7.79	3.04	-66.31	-13.00	-53.31
3819.60	49.29	V	-48.10	12.60	8.47	-43.97	-13.00	-30.97
5729.40		V		13.49	10.50		-13.00	
7639.20		V		11.40	12.27		-13.00	
9549.00		V		11.95	13.74		-13.00	
11458.80		V		12.17	15.43		-13.00	
13368.60		V		12.97	16.82		-13.00	
15278.40		V		15.00	18.29		-13.00	
17188.20		V		14.47	19.52		-13.00	
19098.00		V		18.66	20.78		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Test Date: Operation Mode : TX CH High Mode Jul, 26, 2011

Test By: Fundamental Frequency: 1909.8 MHz Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dB/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	51.07	Н	-52.66	-7.75	1.27	-61.68	-13.00	-48.68
177.44	40.19	Н	-59.71	-7.82	1.66	-69.19	-13.00	-56.19
264.74	37.35	Н	-61.41	-7.90	2.04	-71.35	-13.00	-58.35
400.54	36.54	Н	-59.86	-7.66	2.51	-70.03	-13.00	-57.03
456.80	35.48	Н	-58.35	-7.70	2.68	-68.73	-13.00	-55.73
645.95	33.66	Н	-56.14	-7.81	3.15	-67.10	-13.00	-54.10
3819.60	44.10	Н	-53.41	12.60	8.47	-49.27	-13.00	-36.27
5729.40		Н		13.49	10.50		-13.00	
7639.20		Н		11.40	12.27		-13.00	
9549.00		Н		11.95	13.74		-13.00	
11458.80		Н		12.17	15.43		-13.00	
13368.60		Н		12.97	16.82		-13.00	
15278.40		Н		15.00	18.29		-13.00	
17188.20		Н		14.47	19.52		-13.00	
19098.00		Н		18.66	20.78		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: WCDMA B2 Mode

Operation Mode : TX CH Low Mode Jul, 26, 2011 Test Date:

Fundamental Frequency : 1852.4 MHz Test By: Jazz Temperature : 25 Pol: Ver

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
107.60	47.67	V	-53.55	-9.94	1.39	-64.88	-13.00	-51.88
175.50	41.24	V	-58.34	-9.96	1.65	-69.95	-13.00	-56.95
219.15	36.02	V	-65.04	-10.00	1.82	-76.85	-13.00	-63.85
306.45	34.67	V	-63.50	-10.02	2.19	-75.72	-13.00	-62.72
544.10	33.36	V	-59.32	-9.90	2.94	-72.16	-13.00	-59.16
652.74	33.27	V	-55.68	-9.95	3.17	-68.80	-13.00	-55.80
3704.80	42.68	V	-55.23	12.61	8.31	-50.94	-13.00	-37.94
5557.20		V		13.24	10.33		-13.00	
7409.60		V		11.49	12.09		-13.00	
9262.00		V		11.92	13.51		-13.00	
11114.40		V		11.68	15.12		-13.00	
12966.80		V		13.62	16.61		-13.00	
14819.20		V		12.83	17.96		-13.00	
16671.60		V		15.87	19.15		-13.00	
18524.00		V		18.74	10.86		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: WCDMA B2 Mode

Operation Mode : TX CH Low Mode Jul, 26, 2011 Test Date:

Fundamental Frequency : 1852.4 MHz Test By: Jazz Temperature : 25 Pol: Hor

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	50.32	Н	-53.41	-9.84	1.27	-64.52	-13.00	-51.52
175.50	39.58	Н	-60.17	-9.96	1.65	-71.78	-13.00	-58.78
222.06	35.17	Н	-65.41	-10.00	1.83	-77.24	-13.00	-64.24
311.30	39.52	Н	-58.04	-10.00	2.21	-70.25	-13.00	-57.25
427.70	40.58	Н	-54.44	-9.82	2.59	-66.86	-13.00	-53.86
648.86	33.21	Н	-56.53	-9.95	3.16	-69.64	-13.00	-56.64
3704.80	45.15	Н	-52.87	12.61	8.31	-48.58	-13.00	-35.58
5557.20		Н		13.24	10.33		-13.00	
7409.60		Н		11.49	12.09		-13.00	
9262.00		Н		11.92	13.51		-13.00	
11114.40		Н		11.68	15.12		-13.00	
12966.80		Н		13.62	16.61		-13.00	
14819.20		Н		12.83	17.96		-13.00	
16671.60		Н		15.87	19.15		-13.00	
18524.00		Н		18.74	10.86		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: WCDMA B2 Mode

: TX CH Mid Mode Jul, 26, 2011

Fundamental Frequency: 1880.0 MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
107.60	46.53	V	-54.69	-9.94	1.39	-66.02	-13.00	-53.02
156.10	41.62	V	-56.22	-9.94	1.60	-67.77	-13.00	-54.77
222.06	36.82	V	-64.13	-10.00	1.83	-75.96	-13.00	-62.96
287.05	37.66	V	-61.01	-10.05	2.12	-73.19	-13.00	-60.19
553.80	33.20	V	-59.07	-9.90	2.97	-71.94	-13.00	-58.94
655.65	33.67	V	-55.31	-9.96	3.17	-68.44	-13.00	-55.44
3760.00	38.68	V	-58.98	12.60	8.39	-54.76	-13.00	-41.76
5640.00		V		13.36	10.41		-13.00	
7520.00		V		11.45	12.19		-13.00	
9400.00		V		11.93	13.61		-13.00	
11280.00		V		11.92	15.27		-13.00	
13160.00		V		13.33	16.71		-13.00	
15040.00		V		13.76	18.15		-13.00	
16920.00		V		15.27	19.32		-13.00	
18800.00		V		18.68	16.58		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: WCDMA B2 Mode

Operation Mode : TX CH Mid Mode Jul, 26, 2011 Test Date:

Fundamental Frequency: 1880.0 MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
122.15	46.08	Н	-54.60	-9.94	1.46	-66.01	-13.00	-53.01
175.50	40.55	Н	-59.20	-9.96	1.65	-70.81	-13.00	-57.81
250.19	33.90	Н	-65.31	-10.03	1.99	-77.33	-13.00	-64.33
282.20	35.08	Н	-63.14	-10.05	2.11	-75.29	-13.00	-62.29
437.40	36.41	Н	-58.12	-9.83	2.62	-70.57	-13.00	-57.57
643.04	33.03	Н	-56.83	-9.95	3.14	-69.92	-13.00	-56.92
3760.00	37.16	Н	-60.61	12.60	8.39	-56.40	-13.00	-43.40
5640.00		Н		13.36	10.41		-13.00	
7520.00		Н		11.45	12.19		-13.00	
9400.00		Н		11.93	13.61		-13.00	
11280.00		Н		11.92	15.27		-13.00	
13160.00		Н		13.33	16.71		-13.00	
15040.00		Н		13.76	18.15		-13.00	
16920.00		Н		15.27	19.32		-13.00	
18800.00		Н		18.68	16.58		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: WCDMA B2 Mode

: TX CH High Mode Jul, 26, 2011 Test Date:

Fundamental Frequency: 1907.6 MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
107.60	47.35	V	-53.87	-9.94	1.39	-65.20	-13.00	-52.20
199.75	42.12	V	-59.64	-9.98	1.71	-71.33	-13.00	-58.33
238.55	37.22	V	-63.10	-10.02	1.93	-75.05	-13.00	-62.05
340.40	32.95	V	-64.80	-9.83	2.32	-76.96	-13.00	-63.96
396.66	37.07	V	-58.57	-9.80	2.50	-70.87	-13.00	-57.87
652.74	33.36	V	-55.59	-9.95	3.17	-68.71	-13.00	-55.71
3815.20	35.99	V	-61.42	12.60	8.46	-57.28	-13.00	-44.28
5722.80	39.80	V	-50.53	13.48	10.49	-47.54	-13.00	-34.54
7630.40		V		11.41	12.27		-13.00	
9538.00		V		11.95	13.73		-13.00	
11445.60		V		12.15	15.42		-13.00	
13353.20		V		13.00	16.81		-13.00	
15260.80		V		14.91	18.28		-13.00	
17168.40		V		14.53	19.50		-13.00	
19076.00		V		18.65	20.76		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: WCDMA B2 Mode

: TX CH High Mode Jul, 26, 2011 Test Date:

Fundamental Frequency: 1907.6 MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	50.68	Н	-53.05	-9.84	1.27	-64.16	-13.00	-51.16
175.50	40.27	Н	-59.48	-9.96	1.65	-71.09	-13.00	-58.09
250.19	32.87	Н	-66.34	-10.03	1.99	-78.36	-13.00	-65.36
313.24	38.73	Н	-58.81	-9.99	2.22	-71.01	-13.00	-58.01
445.16	35.01	Н	-59.13	-9.84	2.65	-71.61	-13.00	-58.61
650.80	33.24	Н	-56.45	-9.95	3.16	-69.56	-13.00	-56.56
3815.20	38.51	Н	-59.02	12.60	8.46	-54.88	-13.00	-41.88
5722.80	39.12	Н	-51.35	13.48	10.49	-48.36	-13.00	-35.36
7630.40		Н		11.41	12.27		-13.00	
9538.00		Н		11.95	13.73		-13.00	
11445.60		Н		12.15	15.42		-13.00	
13353.20		Н		13.00	16.81		-13.00	
15260.80		Н		14.91	18.28		-13.00	
17168.40		Н		14.53	19.50		-13.00	
19076.00		Н		18.65	20.76		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA B5 Mode

: TX CH Low Mode Jul, 26, 2011 Test Date:

Fundamental Frequency: 826.40MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
170.60	46.65	V	-52.49	-9.96	1.64	-64.09	-13.00	-51.09
180.35	42.12	V	-57.90	-9.96	1.66	-69.52	-13.00	-56.52
202.66	42.98	V	-58.70	-9.98	1.72	-70.41	-13.00	-57.41
260.86	37.51	V	-62.02	-10.04	2.03	-74.09	-13.00	-61.09
429.64	37.04	V	-57.53	-9.82	2.60	-69.95	-13.00	-56.95
607.15	34.93	V	-54.55	-9.93	3.05	-67.53	-13.00	-54.53
1652.80		V		9.30	5.23		-13.00	
2479.20		V		10.07	6.54		-13.00	
3305.60		V		12.19	7.73		-13.00	
4132.00		V		12.62	8.87		-13.00	
4958.40		V		12.65	9.75		-13.00	
5784.80		V		13.58	10.55		-13.00	
6611.20		V		12.03	11.31		-13.00	
7437.60		V		11.48	12.12		-13.00	
8264.00		V		11.50	12.73		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA B5 Mode

: TX CH Low Mode Jul, 26, 2011 Test Date:

Fundamental Frequency: 826.40MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	50.12	Н	-53.61	-9.84	1.27	-64.72	-13.00	-51.72
177.44	43.35	Н	-56.55	-9.96	1.66	-68.17	-13.00	-55.17
222.06	35.38	Н	-65.20	-10.00	1.83	-77.03	-13.00	-64.03
303.54	39.55	Н	-58.08	-10.04	2.18	-70.30	-13.00	-57.30
478.14	35.24	Н	-58.40	-9.85	2.74	-70.99	-13.00	-57.99
655.65	33.90	Н	-55.58	-9.96	3.17	-68.71	-13.00	-55.71
1652.80	47.31	Н	-57.09	9.30	5.23	-53.02	-13.00	-40.02
2479.20	44.59	Н	-56.28	10.07	6.54	-52.74	-13.00	-39.74
3305.60		Н		12.19	7.73		-13.00	
4132.00		Н		12.62	8.87		-13.00	
4958.40		Н		12.65	9.75		-13.00	
5784.80		Н		13.58	10.55		-13.00	
6611.20		Н		12.03	11.31		-13.00	
7437.60		Н		11.48	12.12		-13.00	
8264.00		Н		11.50	12.73		-13.00	

	30MHz - 80MHz: 5.04dB				
Measurement uncertainty	80MHz -1000MHz: 3.76dB				
	1GHz - 40GHz: 4.45dB				

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA B5 Mode

Operation Mode : TX CH Mid Mode Test Date: Jul, 26, 2011

Fundamental Frequency: 836.60MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
127.00	48.85	V	-50.57	-9.94	1.48	-61.99	-13.00	-48.99
177.44	41.72	V	-58.03	-9.96	1.66	-69.65	-13.00	-56.65
332.64	33.62	V	-64.23	-9.88	2.29	-76.40	-13.00	-63.40
440.31	32.42	V	-61.81	-9.83	2.63	-74.28	-13.00	-61.28
515.00	32.97	V	-60.68	-9.87	2.85	-73.40	-13.00	-60.40
699.30	34.10	V	-55.33	-10.00	3.29	-68.62	-13.00	-55.62
1672.00	40.38	V	-64.18	9.36	5.27	-60.09	-13.00	-47.09
2508.00	39.77	V	-61.02	10.08	6.58	-57.52	-13.00	-44.52
3344.00		V		12.27	7.79		-13.00	
4180.00		V		12.62	8.93		-13.00	
5016.00		V		12.67	9.81		-13.00	
5852.00		V		13.68	10.62		-13.00	
6688.00		V		11.96	11.39		-13.00	
7524.00		V		11.45	12.20		-13.00	
8360.00		V		11.58	12.81		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA B5 Mode

Operation Mode : TX CH Mid Mode Test Date: Jul, 26, 2011

Fundamental Frequency: 836.60MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
90.14	49.20	Н	-54.53	-9.84	1.27	-65.64	-13.00	-52.64
177.44	43.46	Н	-56.44	-9.96	1.66	-68.06	-13.00	-55.06
277.35	37.32	Н	-61.05	-10.05	2.09	-73.18	-13.00	-60.18
313.24	38.36	Н	-59.18	-9.99	2.22	-71.38	-13.00	-58.38
534.40	33.74	Н	-58.52	-9.89	2.91	-71.32	-13.00	-58.32
650.80	33.66	Н	-56.03	-9.95	3.16	-69.14	-13.00	-56.14
1672.00	49.61	Н	-54.77	9.36	5.27	-50.67	-13.00	-37.67
2508.00	42.17	Н	-58.54	10.08	6.58	-55.03	-13.00	-42.03
3344.00		Н		12.27	7.79		-13.00	
4180.00		Н		12.62	8.93		-13.00	
5016.00		Н		12.67	9.81		-13.00	
5852.00		Н		13.68	10.62		-13.00	
6688.00		Н		11.96	11.39		-13.00	
7524.00		Н		11.45	12.20		-13.00	
8360.00		Н		11.58	12.81		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA B5 Mode

Test Date: Operation Mode : TX CH High Mode Jul, 26, 2011

Fundamental Frequency: 846.60 MHz Test By: Jazz Temperature Pol: Ver : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
107.60	47.72	V	-53.50	-9.94	1.39	-64.83	-13.00	-51.83
178.41	41.45	V	-58.39	-9.96	1.66	-70.01	-13.00	-57.01
212.36	41.64	V	-59.67	-9.99	1.78	-71.44	-13.00	-58.44
293.84	38.15	V	-60.30	-10.06	2.15	-72.51	-13.00	-59.51
546.04	36.17	V	-56.45	-9.90	2.95	-69.29	-13.00	-56.29
740.04	33.97	V	-53.60	-10.01	3.43	-67.05	-13.00	-54.05
1693.20	39.47	V	-65.07	9.42	5.30	-60.95	-13.00	-47.95
2539.80	38.76	V	-61.91	10.18	6.62	-58.36	-13.00	-45.36
3386.40		V		12.36	7.85		-13.00	
4233.00		V		12.63	8.99		-13.00	
5079.60		V		12.73	9.87		-13.00	
5926.20		V		13.79	10.69		-13.00	
6772.80		V		11.87	11.47		-13.00	
7619.40		V		11.41	12.26		-13.00	
8466.00		V		11.68	12.89		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA B5 Mode

Test Date: Operation Mode : TX CH High Mode Jul, 26, 2011

Fundamental Frequency: 846.60 MHz Test By: Jazz Temperature Pol: Hor : 25

Humidity : 65%

Freq. (MHz)	SPA. Reading (dBuV)	Ant.Pol. H/V	S.G Output (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)	ERP/ EIRP (dBm)	Limit (dBm)	Safe Margin (dBm)
173.56	43.28	Н	-56.32	-9.96	1.65	-67.92	-13.00	-54.92
241.46	32.39	Н	-67.25	-10.02	1.94	-79.21	-13.00	-66.21
272.50	44.54	Н	-53.98	-10.04	2.07	-66.09	-13.00	-53.09
306.45	38.79	Н	-58.81	-10.02	2.19	-71.03	-13.00	-58.03
559.62	32.97	Н	-58.55	-9.91	2.97	-71.43	-13.00	-58.43
643.04	33.59	Н	-56.27	-9.95	3.14	-69.36	-13.00	-56.36
1693.20	48.60	Н	-55.75	9.42	5.30	-51.63	-13.00	-38.63
2539.80	39.31	Н	-61.31	10.18	6.62	-57.75	-13.00	-44.75
3386.40		Н		12.36	7.85		-13.00	
4233.00		Н		12.63	8.99		-13.00	
5079.60		Н		12.73	9.87		-13.00	
5926.20		Н		13.79	10.69		-13.00	
6772.80		Н		11.87	11.47		-13.00	
7619.40		Н		11.41	12.26		-13.00	
8466.00		Н		11.68	12.89		-13.00	

	30MHz - 80MHz: 5.04dB
Measurement uncertainty	80MHz -1000MHz: 3.76dB
	1GHz - 40GHz: 4.45dB

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dBd/dBi) Cable loss (dB)

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SPURIOUS RADIATED EMISSION TEST (RX)

8.1 Standard Applicable

According to RSS 132 §4.6, all spurious emissions shall comply with the limits of Table 2. The resolution bandwidth of the spectrum analyzer shall be 100 kHz for spurious emissions measurements below 1.0 GHz, and 1.0 MHz for measurements above 1.0 GHz.

Frequency (MHz)	Field strength $\mu V/m$	Distance (m)	Field strength at 3m dBµV/m
30-88	100	3	40
88-216	150	3	43.5
216-960	200	3	46
Above 960	500	3	54

According to RSS 133 §6.6, Receiver spurious emissions shall comply with the limits specified in RSS-Gen.

8.2 EUT Setup

- 1. The radiated emission tests were performed in the 3 meter open-test site, using the setup in accordance with the RSS-Gen.
- 2. The EUT was put in the front of the test table. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
- 3. The spacing between the peripherals was 10 centimeters.
- 4. External I/O cables were draped along the edge of the test table and bundle when necessary.
- 5. The host was connected with 120Vac/60Hz power source.

8.3 Measurement Procedure

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 5. Repeat above procedures until all frequency measured were complete.

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8.4 Test SET-UP (Block Diagram of Configuration)

Refer to section 6.2 in this report

8.5 Measurement Equipment Used:

Refer to section 2.4 in this report

8.6 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

8.7 Measurement Result

Refer to attach tabular data sheets.

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Radiated Spurious Emission Measurement Result (below 1GHz)

GPRS850 CH Low Mode Test Date Jul, 26, 2011 Operation Mode

Fundamental Frequency 824.2MHz Test By Jazz Temperature Pol Ver./Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
175.50	V	Peak	41.78	-14.26	27.52	43.50	-15.98
209.45	V	Peak	38.75	-15.28	23.47	43.50	-20.03
251.16	V	Peak	34.00	-13.72	20.28	46.00	-25.72
410.24	V	Peak	34.12	-9.64	24.48	46.00	-21.52
487.84	V	Peak	34.59	-8.57	26.02	46.00	-19.98
658.56	V	Peak	35.30	-4.98	30.32	46.00	-15.68
173.56	Н	Peak	43.07	-14.16	28.91	43.50	-14.59
267.65	Н	Peak	35.12	-13.57	21.55	46.00	-24.45
316.15	Н	Peak	36.58	-12.64	23.94	46.00	-22.06
342.34	Н	Peak	35.67	-11.97	23.70	46.00	-22.30
490.75	Н	Peak	33.92	-8.50	25.42	46.00	-20.58
633.34	Н	Peak	34.11	-5.32	28.79	46.00	-17.21

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz.
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode GPRS850 CH Mid Mode Test Date Jul, 26, 2011

Fundamental Frequency 836.6 MHz Test By Jazz Temperature 25 $^{\circ}\mathrm{C}$ Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
177.44	V	Peak	41.69	-14.38	27.31	43.50	-16.19
202.66	V	Peak	45.34	-15.51	29.83	43.50	-13.67
241.46	V	Peak	37.17	-14.09	23.08	46.00	-22.92
287.05	V	Peak	34.18	-13.25	20.93	46.00	-25.07
449.04	V	Peak	37.93	-8.61	29.32	46.00	-16.68
709.00	V	Peak	33.30	-4.87	28.43	46.00	-17.57
183.26	Н	Peak	41.84	-14.72	27.12	43.50	-16.38
212.36	Н	Peak	39.92	-15.19	24.73	43.50	-18.77
255.04	Н	Peak	41.29	-13.69	27.60	46.00	-18.40
342.34	Н	Peak	34.86	-11.97	22.89	46.00	-23.11
432.55	Н	Peak	34.57	-9.06	25.51	46.00	-20.49
701.24	Н	Peak	33.31	-4.97	28.34	46.00	-17.66

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

GPRS850 CH High Mode Operation Mode **Test Date** Jul, 26, 2011

Fundamental Frequency 848.8MHz Test By Jazz Temperature Pol Ver./Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
175.50	V	Peak	41.15	-14.26	26.89	43.50	-16.61
206.54	V	Peak	43.63	-15.39	28.24	43.50	-15.26
284.14	V	Peak	35.88	-13.28	22.60	46.00	-23.40
400.54	V	Peak	35.16	-9.99	25.17	46.00	-20.83
539.25	V	Peak	34.60	-7.87	26.73	46.00	-19.27
652.74	V	Peak	33.27	-4.96	28.31	46.00	-17.69
177.44	Н	Peak	43.61	-14.38	29.23	43.50	-14.27
238.55	Н	Peak	37.14	-14.18	22.96	46.00	-23.04
299.66	Н	Peak	41.10	-13.13	27.97	46.00	-18.03
396.66	Н	Peak	37.93	-10.12	27.81	46.00	-18.19
437.40	Н	Peak	39.23	-8.85	30.38	46.00	-15.62
636.25	Н	Peak	33.57	-5.26	28.31	46.00	-17.69

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

GPRS1900 CH Low Mode Operation Mode **Test Date** Jul, 26, 2011

Fundamental Frequency 1850.2MHz Test By Jazz Temperature Pol Ver./Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
175.50	V	Peak	40.31	-14.26	26.05	43.50	-17.45
251.16	V	Peak	40.37	-13.72	26.65	46.00	-19.35
396.66	V	Peak	37.14	-10.12	27.02	46.00	-18.98
425.76	V	Peak	36.70	-9.24	27.46	46.00	-18.54
616.85	V	Peak	35.79	-5.68	30.11	46.00	-15.89
742.95	V	Peak	33.92	-4.39	29.53	46.00	-16.47
179.38	Н	Peak	40.23	-14.49	25.74	43.50	-17.76
216.24	Н	Peak	40.09	-15.05	25.04	46.00	-20.96
272.50	Н	Peak	39.35	-13.52	25.83	46.00	-20.17
400.54	Н	Peak	36.30	-9.99	26.31	46.00	-19.69
456.80	Н	Peak	36.37	-8.60	27.77	46.00	-18.23
723.55	Н	Peak	34.09	-4.70	29.39	46.00	-16.61

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode GPRS1900 CH Mid Mode Test Date Jul, 26, 2011

Fundamental Frequency 1880.0MHz Test By Jazz

Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
177.44	V	Peak	41.06	-14.38	26.68	43.50	-16.82
206.54	V	Peak	42.73	-15.39	27.34	43.50	-16.16
342.34	V	Peak	35.98	-11.97	24.01	46.00	-21.99
400.54	V	Peak	36.65	-9.99	26.66	46.00	-19.34
468.44	V	Peak	37.43	-8.55	28.88	46.00	-17.12
602.30	V	Peak	34.23	-5.96	28.27	46.00	-17.73
179.38	Н	Peak	41.41	-14.49	26.92	43.50	-16.58
303.54	Н	Peak	39.77	-12.93	26.84	46.00	-19.16
400.54	Н	Peak	35.57	-9.99	25.58	46.00	-20.42
456.80	Н	Peak	35.71	-8.6	27.11	46.00	-18.89
532.46	Н	Peak	34.77	-7.97	26.80	46.00	-19.20
652.74	Н	Peak	33.47	-4.96	28.51	46.00	-17.49

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

GPRS1900 CH High Mode Operation Mode **Test Date** Jul, 26, 2011

Fundamental Frequency 1909.8MHz Test By Jazz Temperature Pol Ver./Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
177.44	V	Peak	40.42	-14.38	26.04	43.50	-17.46
255.04	V	Peak	39.25	-13.69	25.56	46.00	-20.44
342.34	V	Peak	36.73	-11.97	24.76	46.00	-21.24
400.54	V	Peak	36.19	-9.99	26.20	46.00	-19.80
456.80	V	Peak	34.40	-8.60	25.80	46.00	-20.20
551.86	V	Peak	34.83	-7.59	27.24	46.00	-18.76
107.60	Н	Peak	45.74	-16.41	29.33	43.50	-14.17
179.38	Н	Peak	40.14	-14.49	25.65	43.50	-17.85
264.74	Н	Peak	37.35	-13.59	23.76	46.00	-22.24
342.34	Н	Peak	35.18	-11.97	23.21	46.00	-22.79
400.54	Н	Peak	36.54	-9.99	26.55	46.00	-19.45
456.80	Н	Peak	35.48	-8.60	26.88	46.00	-19.12

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode WCDMA B2 CH Low Mode **Test Date** Jul, 26, 2011

Fundamental Frequency 1852.4MHz Test By Jazz Temperature Pol Ver./Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
174.53	V	Peak	40.58	-14.21	26.37	43.50	-17.13
219.15	V	Peak	36.02	-14.96	21.06	46.00	-24.94
251.16	V	Peak	35.70	-13.72	21.98	46.00	-24.02
306.45	V	Peak	34.67	-12.87	21.80	46.00	-24.20
451.95	V	Peak	33.50	-8.60	24.90	46.00	-21.10
493.66	V	Peak	33.63	-8.50	25.13	46.00	-20.87
131.85	Н	Peak	44.46	-14.33	30.13	43.50	-13.37
175.50	Н	Peak	39.58	-14.26	25.32	43.50	-18.18
222.06	Н	Peak	35.17	-14.85	20.32	46.00	-25.68
264.74	Н	Peak	42.20	-13.59	28.61	46.00	-17.39
311.30	Н	Peak	39.52	-12.76	26.76	46.00	-19.24
432.55	Н	Peak	37.01	-9.06	27.95	46.00	-18.05

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode WCDMA B2 CH Mid Mode Test Date Jul, 26, 2011

Fundamental Frequency 1880.0MHz Test By Jazz
Temperature 25 °C Pol Ver./Hor

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
107.60	V	Peak	46.53	-16.41	30.12	43.50	-13.38
175.50	V	Peak	42.19	-14.26	27.93	43.50	-15.57
222.06	V	Peak	36.82	-14.85	21.97	46.00	-24.03
287.05	V	Peak	37.66	-13.25	24.41	46.00	-21.59
451.95	V	Peak	33.50	-8.60	24.90	46.00	-21.10
655.65	V	Peak	33.67	-4.97	28.70	46.00	-17.30
122.15	Н	Peak	46.08	-15.09	30.99	43.50	-12.51
177.44	Н	Peak	40.28	-14.38	25.90	43.50	-17.60
260.86	Н	Peak	35.97	-13.63	22.34	46.00	-23.66
282.20	Н	Peak	35.08	-13.30	21.78	46.00	-24.22
437.40	Н	Peak	36.41	-8.85	27.56	46.00	-18.44
481.05	Н	Peak	34.58	-8.56	26.02	46.00	-19.98

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

WCDMA B2 CH High Mode Operation Mode **Test Date** Jul, 26, 2011

Fundamental Frequency 1907.6MHz Test By Jazz Temperature Pol Ver./Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
175.50	V	Peak	40.51	-14.26	26.25	43.50	-17.25
199.75	V	Peak	42.12	-15.62	26.50	43.50	-17.00
238.55	V	Peak	37.22	-14.18	23.04	46.00	-22.96
260.86	V	Peak	39.75	-13.63	26.12	46.00	-19.88
396.66	V	Peak	37.07	-10.12	26.95	46.00	-19.05
665.35	V	Peak	33.23	-5.02	28.21	46.00	-17.79
115.36	Н	Peak	46.28	-15.79	30.49	43.50	-13.01
163.86	Н	Peak	39.42	-13.63	25.79	43.50	-17.71
313.24	Н	Peak	38.73	-12.70	26.03	46.00	-19.97
379.20	Н	Peak	35.12	-10.76	24.36	46.00	-21.64
416.06	Н	Peak	35.38	-9.49	25.89	46.00	-20.11
445.16	Н	Peak	35.01	-8.69	26.32	46.00	-19.68

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

HSUPA B5 CH Low Mode Operation Mode **Test Date** Jul, 26, 2011

Fundamental Frequency 826.40MHz Test By Jazz Temperature Pol Ver./Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
122.15	V	Peak	43.8	-15.09	28.71	43.50	-14.79
178.41	V	Peak	41.68	-14.44	27.24	43.50	-16.26
202.66	V	Peak	42.98	-15.51	27.47	43.50	-16.03
260.86	V	Peak	37.51	-13.63	23.88	46.00	-22.12
429.64	V	Peak	37.04	-9.14	27.90	46.00	-18.10
607.15	V	Peak	34.93	-5.86	29.07	46.00	-16.93
125.06	Н	Peak	42.96	-14.86	28.10	43.50	-15.40
180.35	Н	Peak	43.3	-14.55	28.75	43.50	-14.75
216.24	Н	Peak	37.61	-15.05	22.56	46.00	-23.44
303.54	Н	Peak	39.55	-12.93	26.62	46.00	-19.38
442.25	Н	Peak	33.87	-8.74	25.13	46.00	-20.87
607.15	Н	Peak	34.03	-5.86	28.17	46.00	-17.83

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

Operation Mode HSUPA B5 CH Mid Mode Test Date Jul, 26, 2011

Fundamental Frequency 836.60MHz Test By Jazz Pol Ver./Hor Temperature 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
127.00	V	Peak	46.85	-14.71	32.14	43.50	-11.36
179.38	V	Peak	41.82	-14.49	27.33	43.50	-16.17
255.04	V	Peak	34.66	-13.69	20.97	46.00	-25.03
332.64	V	Peak	33.62	-12.16	21.46	46.00	-24.54
568.35	V	Peak	33.44	-7.04	26.40	46.00	-19.60
699.36	V	Peak	34.10	-5.06	29.04	46.00	-16.96
107.60	Н	Peak	46.35	-16.47	29.88	43.50	-13.62
178.41	Н	Peak	43.29	-14.44	28.85	43.50	-14.65
277.35	Н	Peak	37.32	-13.35	23.97	46.00	-22.03
313.24	Н	Peak	38.36	-12.70	25.66	46.00	-20.34
432.55	Н	Peak	34.24	-9.06	25.18	46.00	-20.82
534.4	Н	Peak	33.74	-7.95	25.79	46.00	-20.21

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (below 1GHz)

HSUPA B5 CH High Mode Operation Mode **Test Date** Jul, 26, 2011

Fundamental Frequency 846.60MHz Test By Jazz Temperature Pol Ver./Hor 25 °C

Humidity 65 %

Freq.	Ant.Pol.	Detector Mode	Reading	Factor	Actual FS	Limit3m	Safe Margin
(MHz)	H/V	(PK/QP)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
177.44	V	Peak	41.59	-14.38	27.21	43.50	-16.29
212.36	V	Peak	41.64	-15.19	26.45	43.50	-17.05
293.84	V	Peak	38.15	-13.19	24.96	46.00	-21.04
456.80	V	Peak	34.50	-8.60	25.90	46.00	-20.10
546.04	V	Peak	36.17	-7.70	28.47	46.00	-17.53
610.06	V	Peak	35.01	-5.81	29.20	46.00	-16.80
180.35	Н	Peak	43.56	-14.55	29.01	43.50	-14.49
262.80	Н	Peak	42.42	-13.61	28.81	46.00	-17.19
272.50	Н	Peak	44.54	-13.52	31.02	46.00	-14.98
306.45	Н	Peak	38.79	-12.87	25.92	46.00	-20.08
607.15	Н	Peak	34.31	-5.86	28.45	46.00	-17.55
759.44	Н	Peak	33.86	-4.02	29.84	46.00	-16.16

Remark:

- (1) Measuring frequencies from 30 MHz to the 1GHz_o
- (2) Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak/AV detector mode.
- (3) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (4) The IF bandwidth of SPA between 30MHz to 1GHz was 100KHz.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode GPRS 850 CH Low Mode Test Date Jul, 26, 2011

Fundamental Frequency 824.2 MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

Freq.	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)
1648.4	V						74.00	54.00	
2472.6	V						74.00	54.00	
3296.8	V						74.00	54.00	
4121.0	V						74.00	54.00	
4945.2	V	34.92		6.11	41.03		74.00	54.00	-12.97
1648.4	Н						74.00	54.00	
2472.6	Н						74.00	54.00	
3296.8	Н						74.00	54.00	
4121.0	Н						74.00	54.00	
4945.2	Н	34.05		6.21	40.26		74.00	54.00	-13.74

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency_o
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode GPRS 850 CH Mid Mode Test Date Jul, 26, 2011

Fundamental Frequency 836.6MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

							Peak		
		Peak	\mathbf{AV}		Actual	Actual	Limit	AV Limit	
Freq.	Ant.Pol.	Reading	Reading	Factor	Peak FS	AV FS	at 3m	at 3m	Margin
(MHz)	H/V	(dBuV)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)
1673.2	V						74.00	54.00	
2509.8	V						74.00	54.00	
3346.4	V						74.00	54.00	
4183.0	V						74.00	54.00	
5019.6	V	34.41		5.83	40.24		74.00	54.00	-13.76
1673.2	Н						74.00	54.00	
2509.8	Н						74.00	54.00	
3346.4	Н						74.00	54.00	
4183.0	Н						74.00	54.00	
5019.6	Н	34.85		5.71	40.56		74.00	54.00	-13.44

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency_o
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode GPRS 850 CH High Mode Test Date Jul, 26, 2011

Fundamental Frequency 848.8MHz Test By Jazz

Temperature 25 °C Pol Ver. / Hor.

Humidity 65 %

		Peak	\mathbf{AV}		Actual	Actual	Peak Limit	AV Limit	
Freq.	Ant.Pol.	Reading	Reading	Factor	Peak FS	AV FS	at 3m	at 3m	Margin
(MHz)	H/V	(dBuV)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)
1697.6	V						74.00	54.00	
2546.4	V						74.00	54.00	
3395.2	V						74.00	54.00	
4244.0	V	35.22		5.16	40.38		74.00	54.00	-13.62
5092.8	V						74.00	54.00	
1697.6	Н						74.00	54.00	
2546.4	Н						74.00	54.00	
3395.2	Н						74.00	54.00	
4244.0	Н	34.17		6.44	40.61		74.00	54.00	-13.39
5092.8	Н						74.00	54.00	

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

GPRS 1900 CH Low Mode Operation Mode Test Date Jul, 26, 2011

Fundamental Frequency 1850.2MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)
3700.4	V						74.00	54.00	
5550.6	V	34.05		6.11	40.16		74.00	54.00	-13.84
7400.8	V						74.00	54.00	
9251.0	V						74.00	54.00	
11101.2	V						74.00	54.00	
3700.4	Н						74.00	54.00	
5550.6	Н	34.14		6.17	40.31		74.00	54.00	-13.69
7400.8	Н						74.00	54.00	
9251.0	Н						74.00	54.00	
11101.2	Н						74.00	54.00	

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

GPRS 1900 CH Mid Mode Operation Mode Test Date Jul, 26, 2011

Fundamental Frequency 1880.0MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)
3760.0	V						74.00	54.00	
5640.0	V	34.52		6.23	40.75		74.00	54.00	-13.25
7520.0	V						74.00	54.00	
9400.0	V						74.00	54.00	
11280.0	V						74.00	54.00	
3760.0	Н						74.00	54.00	
5640.0	Н	33.79		6.05	39.84		74.00	54.00	-14.16
7520.0	Н						74.00	54.00	
9400.0	Н						74.00	54.00	
11280.0	Н						74.00	54.00	

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

GPRS 1900 CH High Mode Operation Mode Test Date Jul, 26, 2011

Fundamental Frequency 1909.8MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)
3819.6	V						74.00	54.00	
5729.4	V	34.33		6.00	40.33		74.00	54.00	-13.67
7639.2	V						74.00	54.00	
9549.0	V						74.00	54.00	
11458.8	V						74.00	54.00	
3819.6	Н						74.00	54.00	
5729.4	Н	34.83		5.40	40.23		74.00	54.00	-13.77
7639.2	Н						74.00	54.00	
9549.0	Н						74.00	54.00	
11458.8	Н						74.00	54.00	

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode WCDMA B2 CH Low Mode Test Date Jul, 26, 2011

Fundamental Frequency 1852.40 MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)
3704.8	V						74.00	54.00	
5557.2	V	34.27		6.39	40.66		74.00	54.00	-13.34
7409.6	V						74.00	54.00	
9262.0	V						74.00	54.00	
11114.4	V						74.00	54.00	
3704.8	Н						74.00	54.00	
5557.2	H	34.70		5.31	40.01		74.00	54.00	-13.99
7409.6	H						74.00	54.00	
9262.0	Н						74.00	54.00	
11114.4	Н						74.00	54.00	

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode WCDMA B2 CH Mid Mode Test Date Jul, 26, 2011

Fundamental Frequency 1880.0MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

							Peak		
		Peak	\mathbf{AV}		Actual	Actual	Limit	AV Limit	
Freq.	Ant.Pol.	Reading	Reading	Factor	Peak FS	AV FS	at 3m	at 3m	Margin
(MHz)	H/V	(dBuV)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)
3760.0	V	35.05		5.16	40.21		74.00	54.00	-13.79
5640.0	V						74.00	54.00	
7520.0	V						74.00	54.00	
9400.0	V						74.00	54.00	
11280.0	V						74.00	54.00	
3760.0	Н	34.04		6.39	40.43		74.00	54.00	-13.57
5640.0	Н						74.00	54.00	
7520.0	Н						74.00	54.00	
9400.0	Н						74.00	54.00	
11280.0	Н						74.00	54.00	

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency_o
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

Operation Mode WCDMA B2 CH High Mode Test Date Jul, 26, 2011

Fundamental Frequency 1907.60MHz Test By Jazz

Temperature 25 °C Pol Ver. / Hor.

Humidity 65 %

								Peak		
			Peak	\mathbf{AV}		Actual	Actual	Limit	AV Limit	
	Freq.	Ant.Pol.	Reading	Reading	Factor	Peak FS	AV FS	at 3m	at 3m	Margin
_	(MHz)	H/V	(dBuV)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)
	3815.2	V						74.00	54.00	
	5722.8	V	34.93		6.44	41.37		74.00	54.00	-12.63
	7630.4	V						74.00	54.00	
	9538.0	V						74.00	54.00	
	11445.6	V						74.00	54.00	
	3815.2	Н						74.00	54.00	
	5722.8	Н	34.99		6.44	41.43		74.00	54.00	-12.57
	7630.4	Н						74.00	54.00	
	9538.0	Н						74.00	54.00	
	11445.6	Н						74.00	54.00	

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

HSUPA B5 CH Low Mode Operation Mode Test Date Jul, 26, 2011

Fundamental Frequency 826.40MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

		ъ 1	A T 7		A 4 1	A 4 1	Peak	A T 7 T • • • • • • • • • • • • • • • • • • •	
Ewas	Ant Dal	Peak	AV	Easter	Actual	Actual AV FS	Limit at 3m	AV Limit	Manain
Freq. (MHz)	H/V	(dBuV)	Reading (dBuV)	Factor (dB)	Peak FS (dBuV/m)	(dBuV/m)	(dBuV/m)	at 3m (dBuV/m)	Margin (dB)
1652.8	V	(ubu v)	(uDu v)	(ub)	(ubu v/III)	(uDu 7/III)	74.00	54.00	(ub)
1032.0							74.00	34.00	
2479.2	V						74.00	54.00	
3305.6	V						74.00	54.00	
4132.0	V						74.00	54.00	
4958.4	V	33.79		6.39	40.18		74.00	54.00	-13.82
1652.8	Н						74.00	54.00	
2479.2	Н						74.00	54.00	
3305.6	Н						74.00	54.00	
4132.0	Н						74.00	54.00	
4958.4	Н	33.49		6.44	39.93		74.00	54.00	-14.07

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column_o
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

HSUPA B5 CH Mid Mode Operation Mode Test Date Jul, 26, 2011

Fundamental Frequency 836.60 MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

		Peak	\mathbf{AV}		Actual	Actual	Peak Limit	AV Limit	
Freq.		U	Reading	Factor	Peak FS	AV FS	at 3m	at 3m	Margin
(MHz)	H/V	(dBuV)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dB)
1673.2	V						74.00	54.00	
3346.4	V						74.00	54.00	
4183.0	V						74.00	54.00	
5019.6	V	34.6		6.17	40.77		74.00	54.00	-13.23
1673.2	Н						74.00	54.00	
2509.8	Н						74.00	54.00	
3346.4	Н						74.00	54.00	
4183.0	Н						74.00	54.00	
5019.6	Н	34.2		5.86	40.05		74.00	54.00	-13.95

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency_o
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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Radiated Spurious Emission Measurement Result (above 1GHz)

HSUPA B5 CH High Mode Operation Mode Test Date Jul, 26, 2011

Fundamental Frequency 846.60 MHz Test By Jazz

Temperature Pol Ver. / Hor. 25 °C

Humidity 65 %

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)
1693.2	V						74.00	54.00	
2539.8	V						74.00	54.00	
3386.4	V						74.00	54.00	
4233.0	V						74.00	54.00	
5079.6	V	34.14		6.39	40.53		74.00	54.00	-13.47
1693.2	Н						74.00	54.00	
2539.8	Н						74.00	54.00	
3386.4	Н						74.00	54.00	
4233.0	Н						74.00	54.00	
5079.6	Н	35.5		5.8	41.32		74.00	54.00	-12.68

Remark:

- (1) Measuring frequencies from 1GHz to the 10th harmonic of highest fundamental frequency.
- (2) Data of measurement within this frequency range shown "-" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column
- (4) Spectrum Peak Setting: 1GHz-13GHz, RBW=1MHz, VBW=1MHz, Sweep time=200 ms.
- (5) Spectrum AV Setting: 1GHz-13GHz, RBW=1MHz, VBW=10Hz, Sweep time=200 ms.

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