

## ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

### UN-INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART B CERTIFICATION REQUIREMENT

OF

**Product Name:** 3G Data Module

**Brand Name:** FIH Foxconn

**Model No.:** Momo-U

**Model Difference:** N/A

**FCC ID:** BCZ-ZVA

**Report No.:** EI/2012/40014

**Issue Date:** May. 04, 2012

**FCC Rule Part:** Part 15 B, Class B

**Prepared for:** Foxconn International Holdings,Ltd.

No.151,Sec.1,Nankan Rd., Lujhu  
Township,Taoyuan County 33859,Taiwan

**Prepared by:** SGS Taiwan Ltd.

Electronics & Communication Laboratory

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



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## VERIFICATION OF COMPLIANCE

**Applicant:** Foxconn International Holdings,Ltd.

No.151,Sec.1,Nankan Rd., Lujhu Township,Taoyuan County  
33859,Taiwan

**Product Description:** 3G Data Module

**Brand Name:** FIH Foxconn

**Model No.:** Momo-U

**Model Difference:** N/A

**FCC ID:** BCZ-ZVA

**File Number:** EI/2012/40014

**Date of test:** Apr. 27, 2012 ~ May. 02, 2012

**Date of EUT Receive:** Apr. 27, 2012

### We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 :2003 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 Rules Part 15B, Class B.

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

**Test By:**



**Date:**

May. 04, 2012

*Eddy Cheng / Engineer*

**Prepared By:**

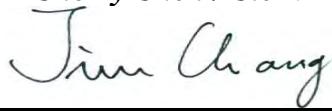


**Date:**

May. 04, 2012

*Cherry Chen / Clerk*

**Approved By:**



**Date:**

May. 04, 2012

*Jim Chang / Supervisor*

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FCC ID: BCZ-ZVA

Report No.: EI/2012/40014

Issue Date: May. 04, 2012

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## Version

Version No.	Date	Description
00	May. 04, 2012	Initial creation of document

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## 1. GENERAL INFORMATION

### 1.1. Product Description

General:

Product Name:	3G Data Module
Brand Name:	FIH Foxconn
Model No.:	Momo-U
Model Difference:	N/A
Antenna Type:	Dipole Antenna

GPRS and WCDMA:

Cellular Phone Standards Frequency Range and Power:	Operating Frequency		Rated Power
	GPRS 850, Class 10	824 MHz– 849MHz	31 dBm
	EDGE 850, Class 10	824 MHz– 849MHz	27 dBm
	GPRS 1900, Class 10	1850.2MHz – 1909.8MHz	30 dBm
	EDGE 1900, Class 10	1850.2MHz – 1909.8MHz	26 dBm
	WCDMA/HSUPA/HSDPA Band II	1852.4MHz – 1907.6MHz	24 dBm
	WCDMA/HSUPA/HSDPA Band V	826.4 MHz - 846.6 MHz	24 dBm
Hardware Version:	DVT		
Software Version:	1610.00.01.00.000		

The test report compliance for GPRS 850/1900, WCDMA B2 and B5

\*Note: This given application contains two suppliers of PCB boards.

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## 1.2. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for **FCC ID: BCZ-ZVA** filing to comply with Part15 Subpart B, class B of the FCC CFR 47 Rules.

## 1.3. Test Methodology

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4: 2003. Radiated testing was performed at an antenna to EUT distance 3 meters.

## 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.

## 1.6. Equipment Modifications

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 was operated in the normal continuous transmitting and all function.

### 2.3. Test Procedure

#### 2.3.1 Conducted Emissions

The EUT is a placed on as turn table which is 0.8 m above ground plane. According to the requirements in Section 7 of ANSI C63.4: 2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

#### 2.3.2 Radiated Emissions

The EUT is a placed on as 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 and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna. according to the requirements in Section 8 of ANSI C63.4: 2003.

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## 2.4. Limitation

### (1) Conducted Emission

According to section 15.107(a) Conducted Emission Limits is as following.

Frequency range MHz	Class B Limits dB (uV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Note

- 1.The lower limit shall apply at the transition frequencies
- 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

### (2) Radiated Emission

According to section 15.109(a) Radiated Emission Class B Limits is as following:

Frequency (MHz)	Field strength μV/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

Standard	Date	Description
CISPR 22	2006	Limits and methods of measurement of radio interference characteristics of information technology equipment.

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## CISPR 22 Limit:

Frequency range MHz	Limits dBuV/m (10m)	
	Quasi-peak	
30 to 230		30
230 to 1000		37

Remark:

1. Emission level in dBuV/m=20 log (uV/m)
2. Measurement was performed at an antenna to the closed point of EUT distance of 3 meters.

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## 2.5. Configuration of Tested System

Fig. 2-1 Configuration of Tested System (Radiation)

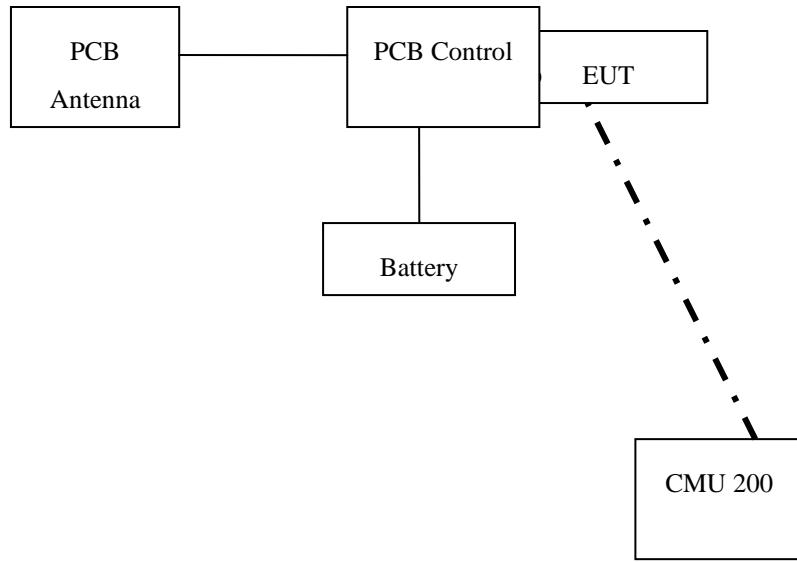


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Data Cable	Power Cord
1.	Radio Communication Analyzer	R&S	CMU200	111787	shielded	shielded
2.	Battery	N/A	BA700	N/A	Un-shielded	Un-shielded
3.	PCB Control	N/A	AF005AN001	N/A	Un-shielded	Un-shielded
4.	PCB Antenna	N/A	AF005@@04	N/A	Un-shielded	Un-shielded

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### 3. Summary of Test Results

FCC Rules	Description Of Test	Result
§15.107	Conducted Emission Class B	N/A
§15.109	Radiated Emission Class B	Compliant

### 4. Description of test modes

The EUT was stayed in normal operation mode with all its ancillary functions being operated.(GPRS link with simulator).

Test Mode:

Momo		Config 1
		part 15B
EN No.	Description	
8.2	radiated emission (30-1GHz & 1-10GHz)	GPRS 850/1900 & WCDMA B2/5 link
8.3	conducted emission (DC Power)	NA
8.4	conducted emission (AC Power)	NA

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<b>Momo(2nd)</b>		<b>Config 2</b>
<b>EN No.</b>	<b>Description</b>	
8.2	radiated emission (1-10GHz)	WCDMA B5 link
8.3	conducted emission (DC Power)	NA
8.4	conducted emission (AC Power)	NA

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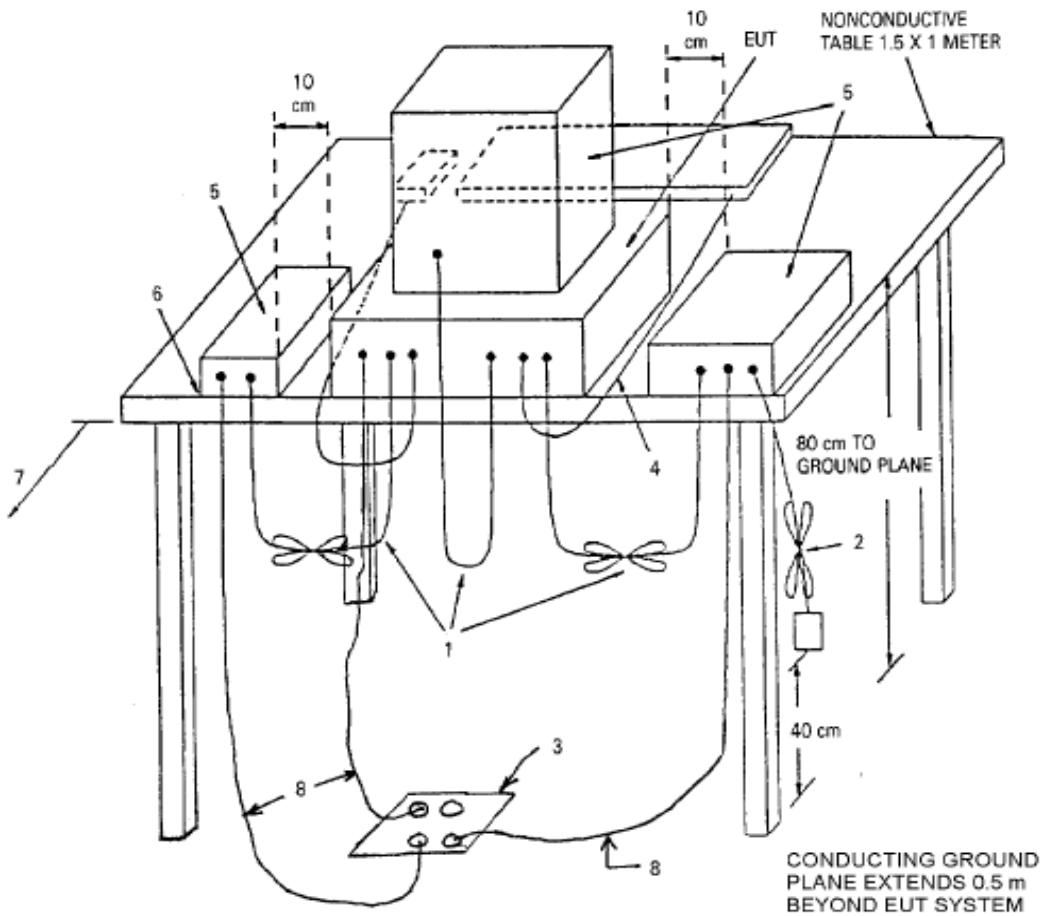
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## 5. Conducted Emissions Test

### 5.1. Measurement Procedure:

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

### 5.2. Test SET-UP (Block Diagram of Configuration)



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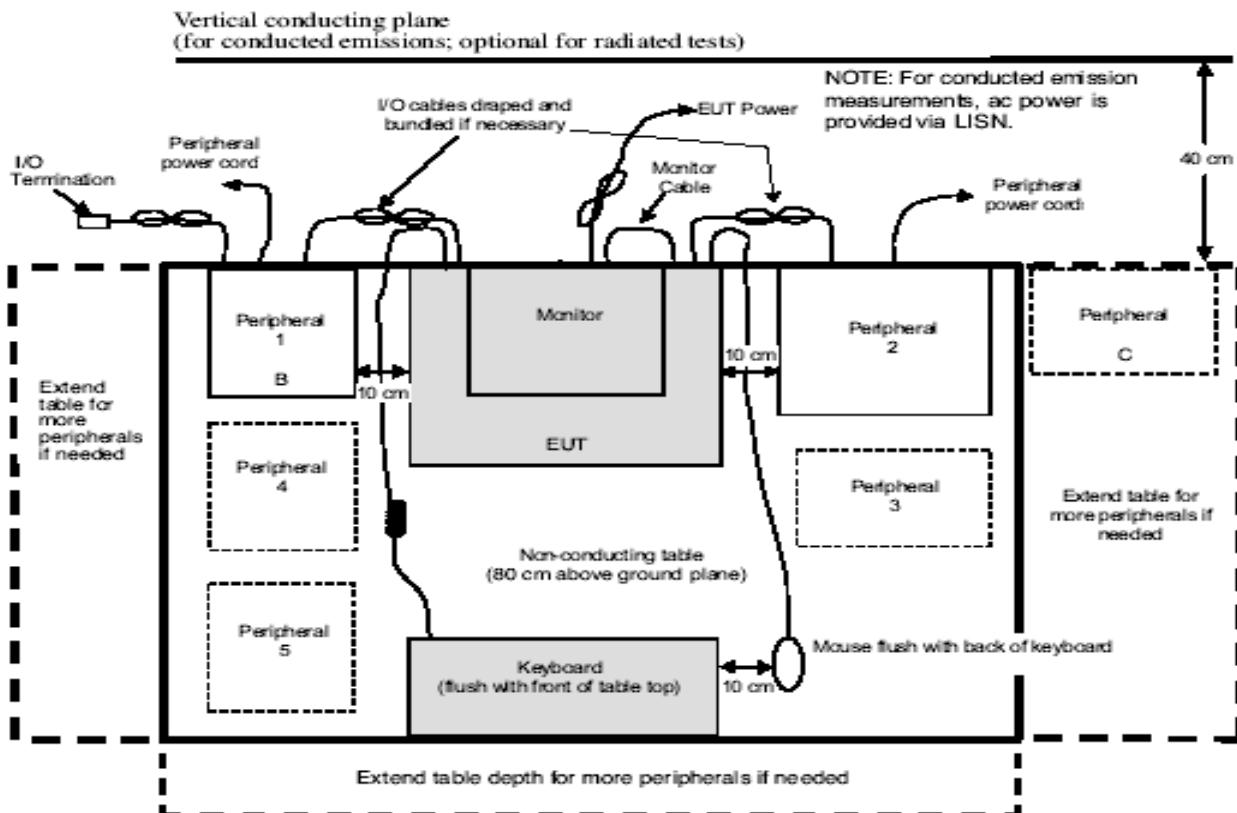
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**LEGEND:**

- 1) Interconnecting cables that hang closer than 40 cm to the groundplane shall be folded back and forth in the center, forming a bundle 30 to 40 cm long (see 6.1.4 and 11.2.4).
- 2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated if required using the correct terminating impedance. The total length shall not exceed 1 m (see 6.1.4).
- 3) If LISNs are kept in the test setup for radiated emissions, it is preferred that they be installed under the groundplane with the receptacle flush with the groundplane (see 6.1.4).
- 4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use (see 6.2.1.3 and 11.2.4).
- 5) Non-EUT components of EUT system being tested (see also Figure 13).
- 6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop (see 6.2.1.1 and 6.2.1.2).
- 7) No vertical conducting plane used (see 5.2.2).

**Figure 11a—Test arrangement for radiated emissions tabletop equipment**



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### 5.3. Measurement Equipment Used:

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
EMI Test Receiver	ROHDE&SCHWARZ	ESCS 30	828985/004	Sep. 23, 2011	Sep. 22, 2012
Coaxial Cables	N/A	WK CE Cable	N/A	Jan. 04, 2012	Jan. 03, 2013
L.I.S.N	Rolf-Heine	NNB-2/16Z	99012	Mar. 23, 2012	Mar. 22, 2013
L.I.S.N	FCC	FCC-LISN-50/250-2 5-2-01	04034	Mar. 23, 2012	Mar. 22, 2013
Software	Farad	EZ-EMC-VER2A1.1 (USB)	N/A	N/A	N/A

### 5.4. Measurement Result:

N/A

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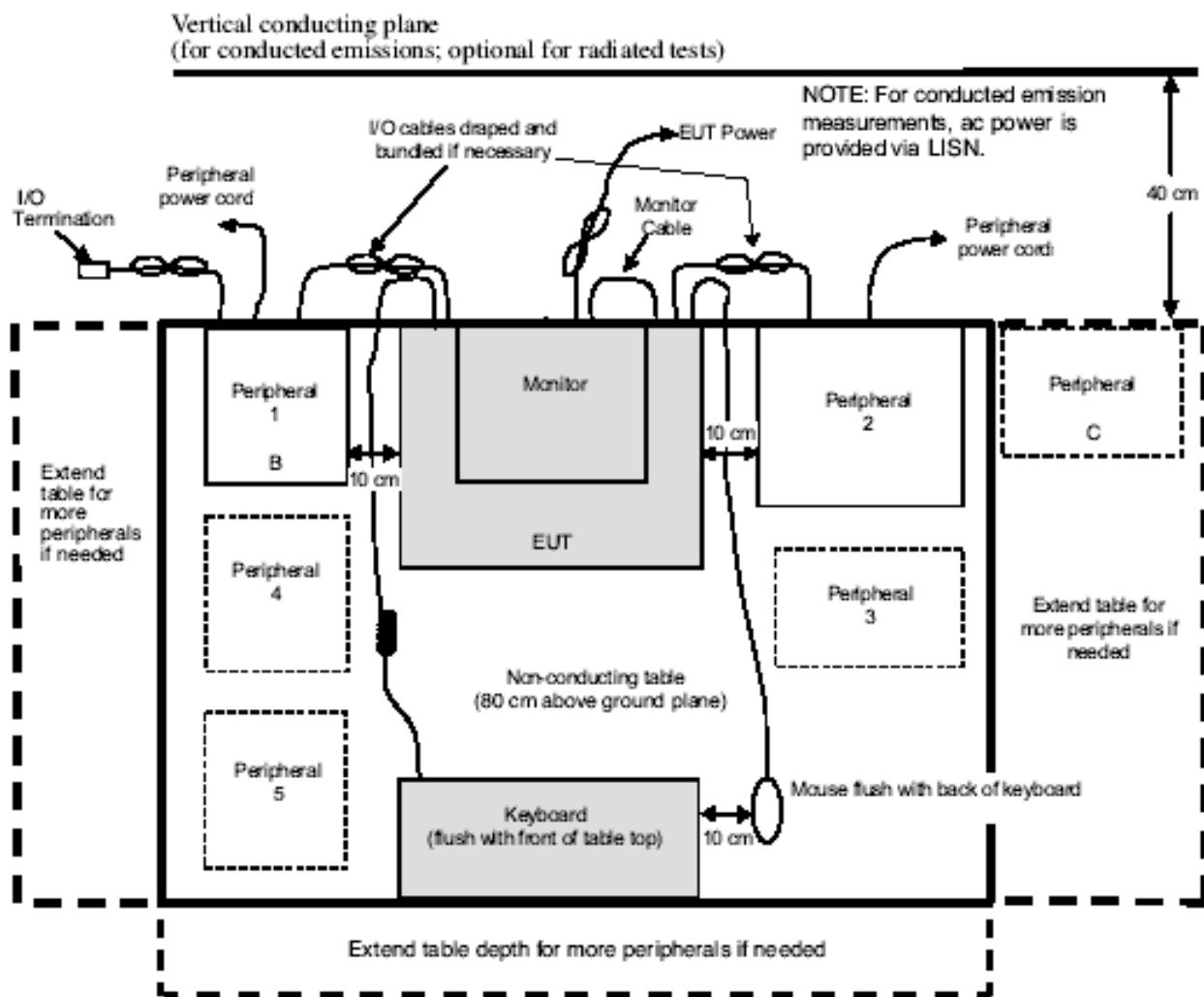
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## 6. Radiated Emission Test

### 6.1. Measurement Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.

### 6.2. Test SET-UP (Block Diagram of Configuration)



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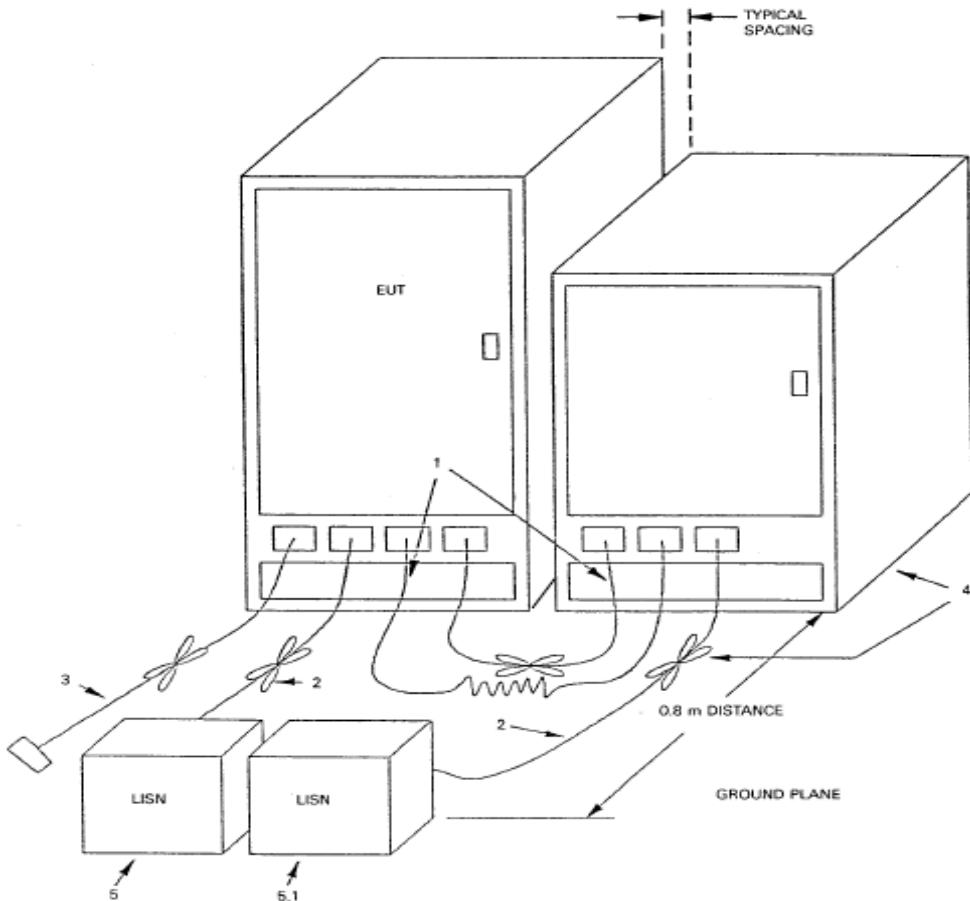
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**LEGEND:**

- 1) Excess I/O cables shall be bundled in the center. If bundling is not possible, the cables shall be arranged in serpentine fashion. Bundling shall not exceed 40 cm in length (see 6.1.4 and 11.2.4).
- 2) Excess power cords shall be bundled in the center or shortened to appropriate length (see 7.2.1).
- 3) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. If bundling is not possible, the cable shall be arranged in serpentine fashion (see 6.1.4).
- 4) EUT and all cables shall be insulated, if required, from the groundplane by up to 12 mm of insulating material (see 6.1.4 and 6.2.2).
- 5) EUT connected to one LISN. LISN can be placed on top of, or immediately beneath, the groundplane. 5.1) All other equipment powered from a second LISN or additional LISN(s) (see 5.2.3 and 7.2.1). 5.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.

**Figure 10b—Test arrangement for conducted emissions floor-standing equipment**

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### 6.3. Measurement Equipment Used:

Below 1G used:

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
Site NSA	TDK	966 Chamber	N/A	Nov. 06, 2011	Nov. 05, 2012
EMI Test Receiver	ROHDE&SCHWARZ	ESCI 7	1166.5950K07-10760-GK	May 20, 2011	May 19, 2012
Spectrum Analyzer	Agilent	E4440A	MY45304525	Mar. 17, 2012	Mar. 16, 2014
Broadband Antenna	SCHWAZBEC K	VULB9160	9160-3136	Dec. 28, 2011	Dec. 27, 2012
RF-Amplifier	HP	8447D	2944A09469	Nov. 26, 2011	Nov. 25, 2012
Antenna Master	HD GmbH	MA240-N	240/657	N/A	N/A
Turn Table	HD GmbH	DS420	420/542	N/A	N/A
Controller	HD GmbH	HD 100	100/803	N/A	N/A
CCD Video Camera System	N/A	VCS-04	N/A	N/A	N/A
Color Monitor	Lenovo	16dcpw5-1	N/A	N/A	N/A
Software	Farad	EZ-EMC-VER2A1.1(USB)	N/A	N/A	N/A

Above 1G used:

Description	Manufacturer	Model No.	Serial No.	Last Calibration Date	Next Calibration Date
Site NSA	Chamost	966II Chamber	N/A	Dec. 30, 2011	Dec. 29, 2012
Site VSWR	Chamost	966II Chamber	N/A	Dec. 30, 2011	Dec. 29, 2012
EMI Test Receiver	ROHDE&SCHWARZ	ESCI 7	1166.5950K07-10760-GK	May 20, 2011	May 19, 2012
Spectrum Analyzer	Agilent	E4440A	MY45304525	Mar. 17, 2012	Mar. 16, 2014
RF-Amplifier (0.1-1300MHz)	HP	8447D	1937A02774	Nov. 26, 2011	Nov. 25, 2012
RF-Amplifier (1-26.5GHz)	HP	8449B	3008A00578	Dec. 27, 2011	Dec. 26, 2012
RF-Amplifier (26-40GHz)	EM Electronics Corp.	EM26400	N/A	Dec. 28, 2011	Dec. 27, 2012
Coaxial Cables (For 9kHz~26.5GHz)	SUCOFLEX	104PEA	N/A	Dec. 28, 2011	Dec. 27, 2012

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Re Cables (966II) (For 1~40GHz)	HUBER SUHNER	SUCCOFLEX 102	22962/2	Dec. 28, 2011	Dec. 27, 2012
Re Cables (966II) (For 1~40GHz)	HUBER SUHNER	SUCCOFLEX 102	23051/2	Dec. 28, 2011	Dec. 27, 2012
Antenna Master	MF.	N/A	N/A	N/A	N/A
Turn Table	MF.	N/A	N/A	N/A	N/A
Controller	MF.	3000	MF780208153	N/A	N/A
Antenna	SCHWAZBEC K	VULB9160	3068	Nov. 01, 2011	Oct. 31, 2012
Horn Antenna (For 1~18G )	ETS-Lindgren	3117	00135200	Oct. 06, 2011	Oct. 05, 2012
Horn Antenna (For 18~40G )	SCHWAZBEC K	BBHA 9170	BBHA9170185	Jul. 11, 2011	Jul. 10, 2013
Software	Farad	EZ-EMC-VE R2A1.1(USB)	N/A	N/A	N/A

#### 6.4. 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	

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## 6.5. Measurement Result:

### GPRS 850 mode

Test Mode: Config 1

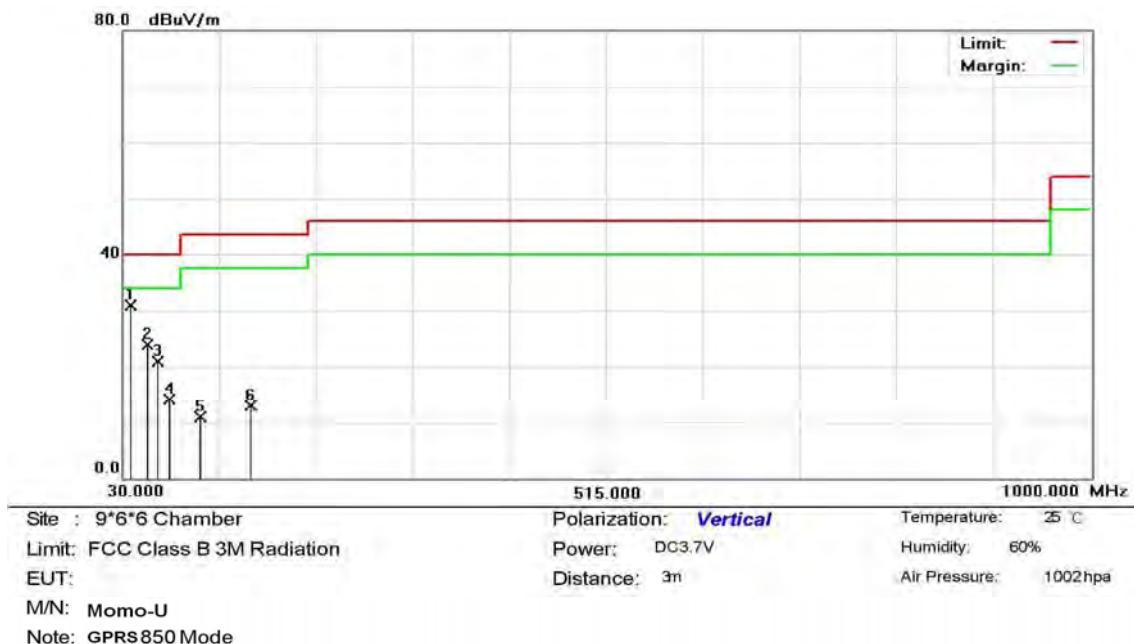
Test Date : Apr. 30, 2012

Detector Function: QP

Test By: Eddy

Frequency Range: 30MHz-1000MHz

Pol: Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Factor dB	Measure- ment dBuV/m	Limit dB	Over	
							Detector	Comment
1	*	36.1100	47.81	-16.87	30.94	40.00	-9.06	QP
2		54.2600	39.85	-15.94	23.91	40.00	-16.09	QP
3		63.9200	37.98	-17.04	20.94	40.00	-19.06	QP
4		75.1700	33.17	-19.16	14.01	40.00	-25.99	QP
5		106.2800	28.90	-17.92	10.98	43.50	-32.52	QP
6		157.1600	27.23	-14.23	13.00	43.50	-30.50	QP

### Remark :

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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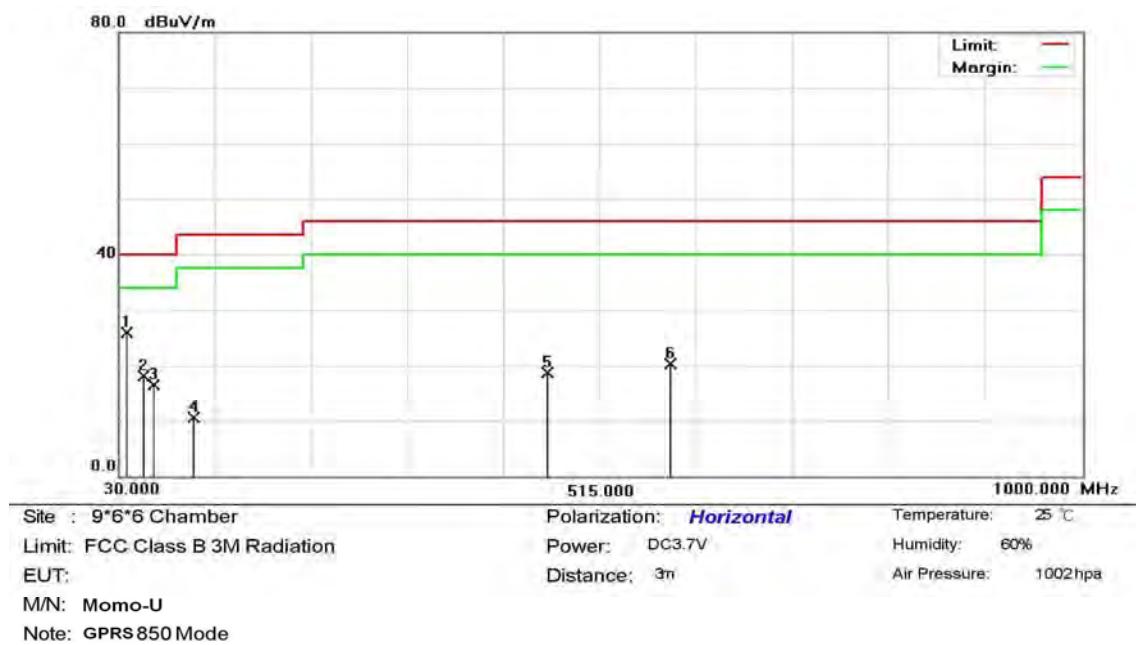
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**Measurement Result:**

Test Mode: Config 1  
Detector Function: QP  
Frequency Range: 30MHz-1000MHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol.: Horizontal



No.	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over		
							dB	Detector	Comment
1	*	36.1300	42.86	-16.87	25.99	40.00	-14.01	QP	
2		54.5700	34.05	-15.96	18.09	40.00	-21.91	QP	
3		63.2900	33.41	-16.93	16.48	40.00	-23.52	QP	
4		104.2900	28.78	-18.27	10.51	43.50	-32.99	QP	
5		461.7600	27.17	-8.56	18.61	46.00	-27.39	QP	
6		585.4400	26.63	-6.36	20.27	46.00	-25.73	QP	

**Remark :**

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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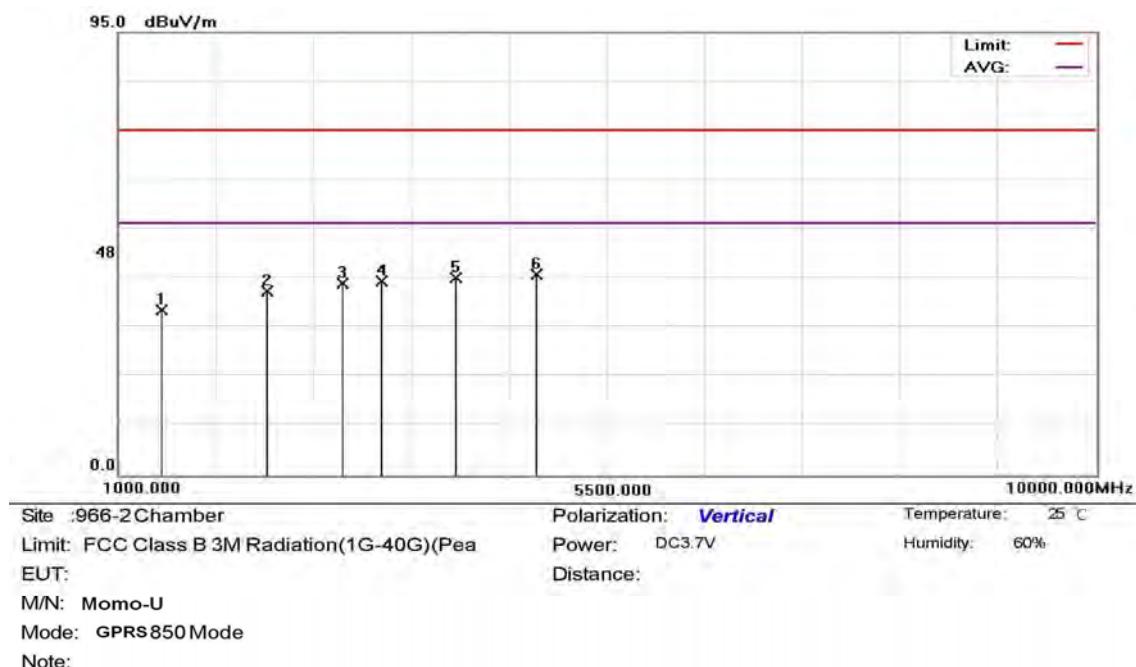
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### Measurement Result Above 1GHz :

Test Mode : Config 1  
Detector Function: Peak  
Frequency Range: 1 – 10GHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol. Vertical



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB	Over	
							Detector	Comment
1		1396.000	38.32	-2.70	35.62	74.00	-38.38	peak
2		2368.000	37.44	2.08	39.52	74.00	-34.48	peak
3		3070.000	37.81	3.45	41.26	74.00	-32.74	peak
4		3430.000	37.65	4.10	41.75	74.00	-32.25	peak
5		4114.000	37.10	5.25	42.35	74.00	-31.65	peak
6	*	4852.000	36.43	6.57	43.00	74.00	-31.00	peak

### Remark :

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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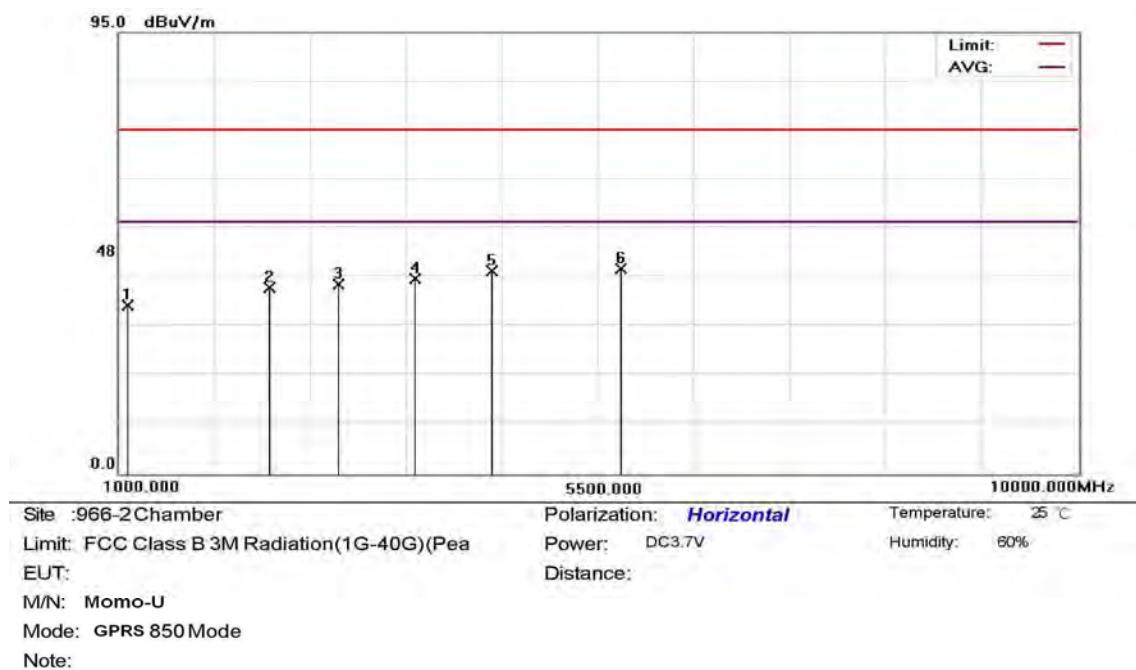
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Test Mode : Config 1  
Detector Function: Peak  
Frequency Range: 1 – 10GHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol. Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		1090.000	40.02	-3.70	36.32	74.00	-37.68	peak	
2		2422.000	37.69	2.23	39.92	74.00	-34.08	peak	
3		3070.000	37.37	3.45	40.82	74.00	-33.18	peak	
4		3790.000	37.10	4.83	41.93	74.00	-32.07	peak	
5		4510.000	37.49	6.02	43.51	74.00	-30.49	peak	
6	*	5716.000	36.37	7.76	44.13	74.00	-29.87	peak	

#### Remark :

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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**Measurement Result:**  
**GPRS 1900 mode**

Test Mode: Config 1

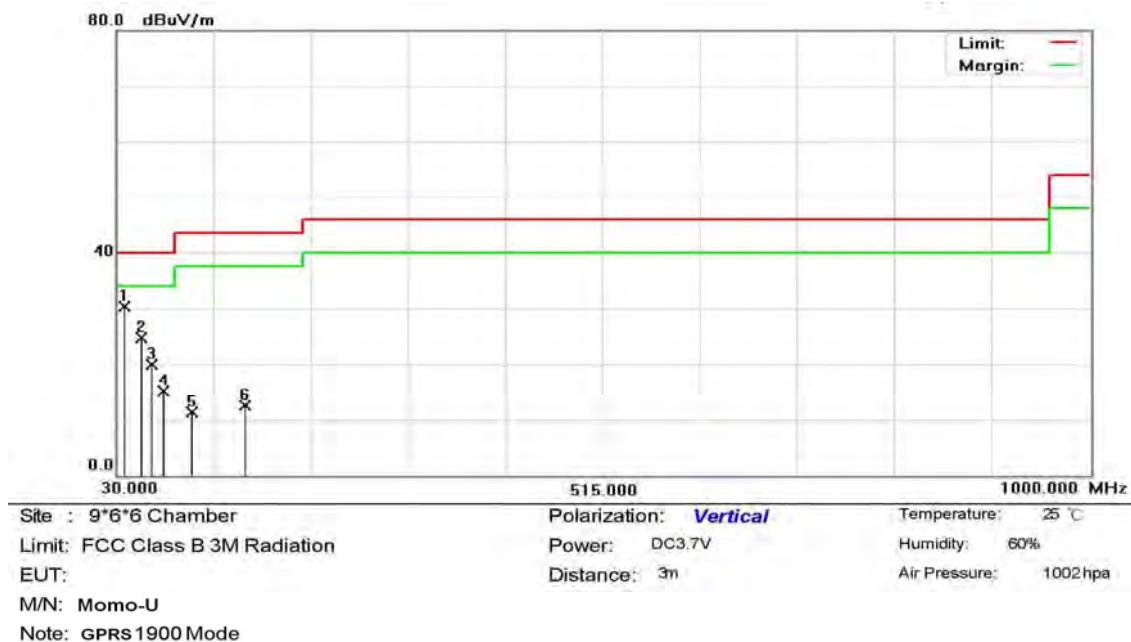
Test Date : Apr. 30, 2012

Detector Function: QP

Test By: Eddy

Frequency Range: 30MHz-1000MHz

Pol: Vertical



No.	Mk.	Freq.	Reading	Factor	Measure- ment	Limit	Over		
			Level				dB	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m			
1	*	36.0800	47.11	-16.88	30.23	40.00	-9.77	QP	
2		54.1700	40.61	-15.93	24.68	40.00	-15.32	QP	
3		63.2200	36.79	-16.91	19.88	40.00	-20.12	QP	
4		75.2900	34.35	-19.18	15.17	40.00	-24.83	QP	
5		104.2800	29.50	-18.27	11.23	43.50	-32.27	QP	
6		157.1100	26.64	-14.23	12.41	43.50	-31.09	QP	

## Remark :

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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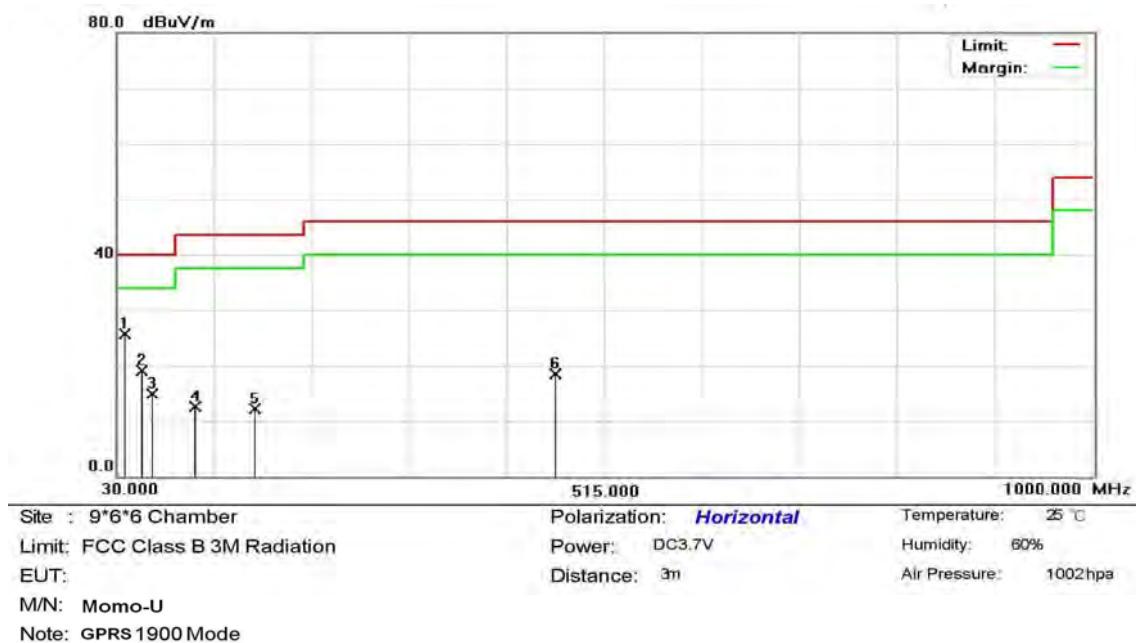
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**Measurement Result:**

Test Mode: Config 1  
Detector Function: QP  
Frequency Range: 30MHz-1000MHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol.: Horizontal



No.	Mk.	Freq.	Reading	Factor	Measure- ment	Limit	Over	
			Level				dBuV	dB
1	*	36.0500	42.66	-16.88	25.78	40.00	-14.22	QP
2		54.3800	35.08	-15.95	19.13	40.00	-20.87	QP
3		63.0700	31.79	-16.89	14.90	40.00	-25.10	QP
4		106.1900	30.38	-17.94	12.44	43.50	-31.06	QP
5		166.6000	26.29	-14.16	12.13	43.50	-31.37	QP
6		465.1400	27.25	-8.65	18.60	46.00	-27.40	QP

**Remark :**

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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**Measurement Result Above 1GHz :**

Test Mode : Config 1

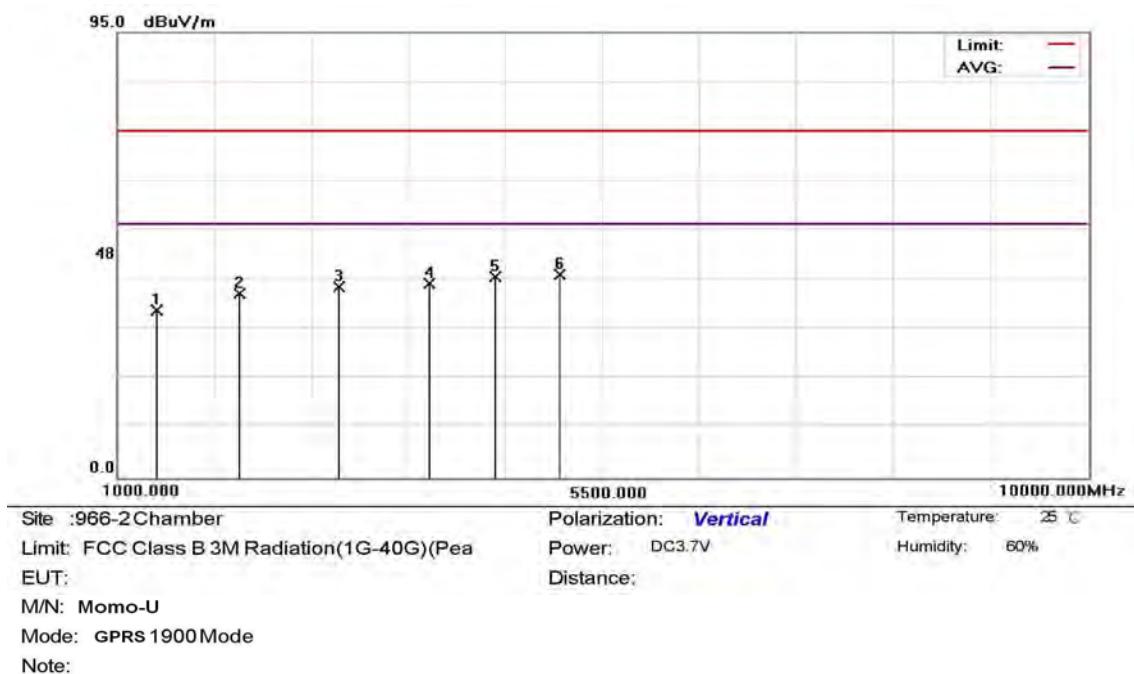
Test Date : Apr. 30, 2012

Detector Function: Peak

Test By: Eddy

Frequency Range: 1 – 10GHz

Pol. Vertical



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Comment
			Level	Factor	ment			
1		1360.000	38.46	-2.75	35.71	74.00	-38.29	peak
2		2134.000	37.90	1.46	39.36	74.00	-34.64	peak
3		3052.000	37.40	3.44	40.84	74.00	-33.16	peak
4		3898.000	36.43	4.98	41.41	74.00	-32.59	peak
5		4510.000	36.75	6.02	42.77	74.00	-31.23	peak
6	*	5104.000	36.50	6.88	43.38	74.00	-30.62	peak

**Remark :**

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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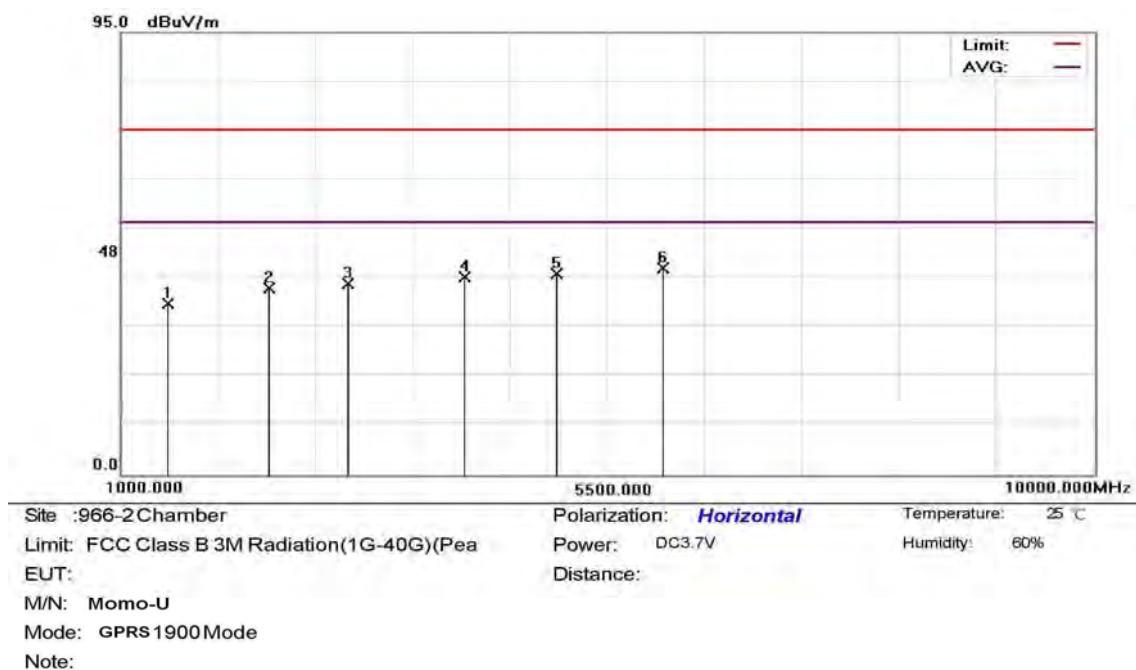
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Test Mode : Config 1  
Detector Function: Peak  
Frequency Range: 1 – 10GHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol. Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		1432.000	39.36	-2.62	36.74	74.00	-37.26	peak	
2		2368.000	38.04	2.08	40.12	74.00	-33.88	peak	
3		3106.000	37.48	3.51	40.99	74.00	-33.01	peak	
4		4186.000	37.12	5.33	42.45	74.00	-31.55	peak	
5		5032.000	36.35	6.78	43.13	74.00	-30.87	peak	
6	*	6022.000	35.72	8.48	44.20	74.00	-29.80	peak	

#### Remark :

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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## Measurement Result: WCDMA BAND 2 mode

Test Mode: Config 1

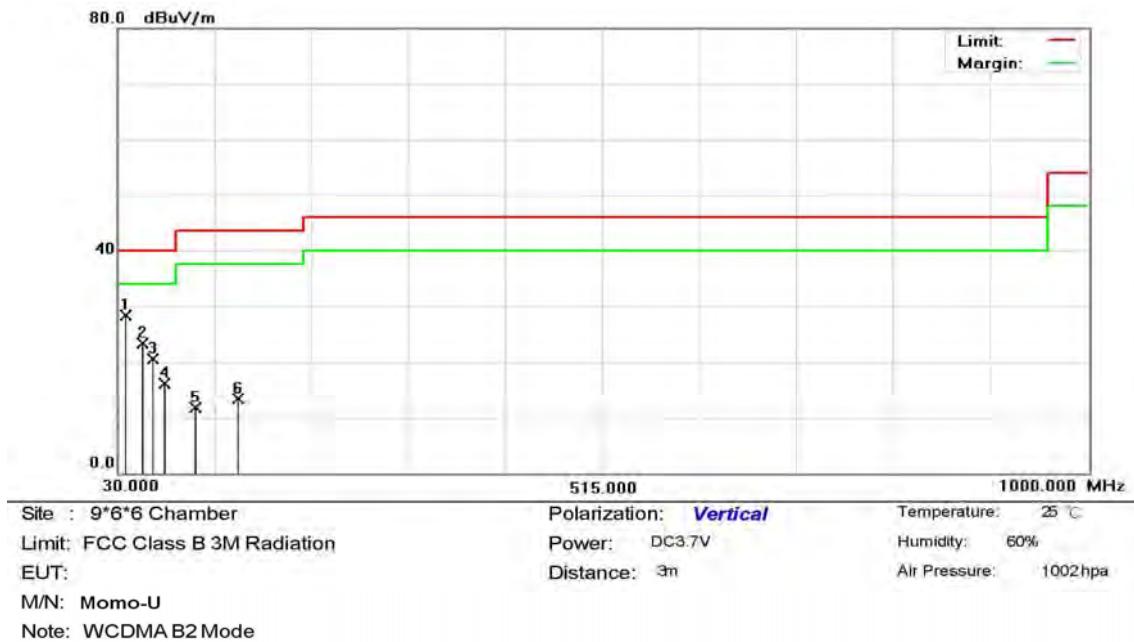
Test Date : Apr. 30, 2012

Detector Function: QP

Test By: Eddy

Frequency Range: 30MHz-1000MHz

Pol: Vertical



No.	Mk.	Freq.	Reading	Factor	Measure- ment	Limit	Over		
			Level				dB	Detector	Comment
1	*	36.3100	45.12	-16.85	28.27	40.00	-11.73	QP	
2		54.2200	39.22	-15.94	23.28	40.00	-16.72	QP	
3		63.2100	37.46	-16.91	20.55	40.00	-19.45	QP	
4		75.2900	35.21	-19.18	16.03	40.00	-23.97	QP	
5		106.3700	29.70	-17.91	11.79	43.50	-31.71	QP	
6		149.2600	27.49	-14.27	13.22	43.50	-30.28	QP	

### Remark :

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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**Measurement Result:**

Test Mode: Config 1

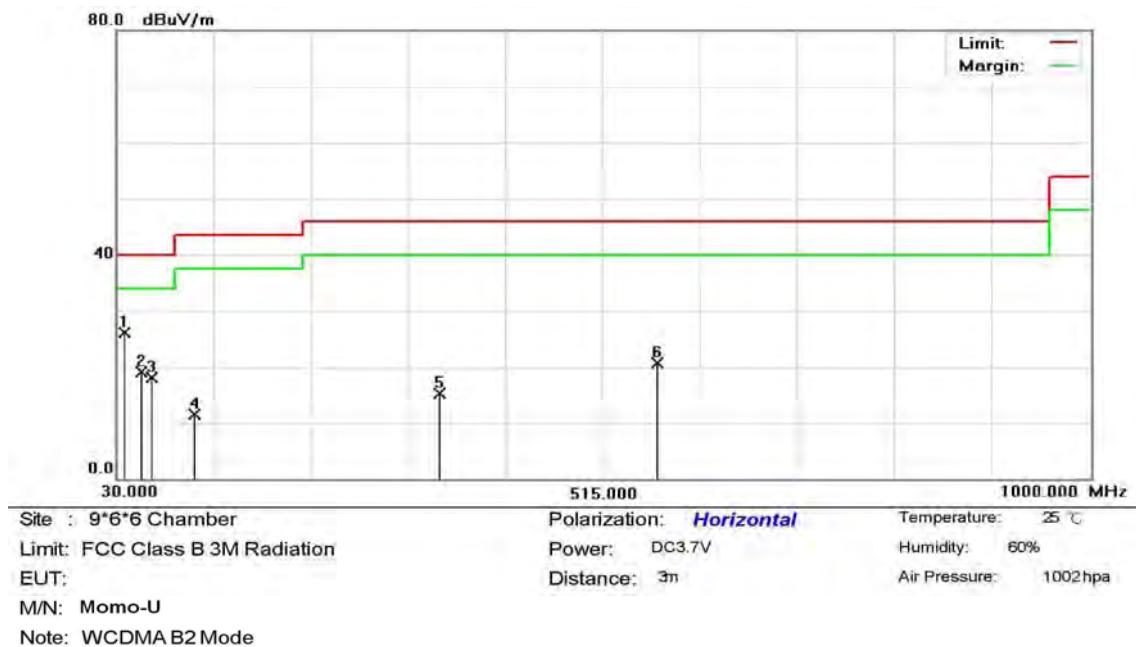
Test Date : Apr. 30, 2012

Detector Function: QP

Test By: Eddy

Frequency Range: 30MHz-1000MHz

Pol.: Horizontal



No.	Mk.	Freq.	Reading	Factor	Measure- ment	Limit	Over		
			Level				dB	Detector	Comment
1	*	36.2100	42.87	-16.86	26.01	40.00	-13.99	QP	
2		54.7200	35.02	-15.97	19.05	40.00	-20.95	QP	
3		64.2900	35.18	-17.11	18.07	40.00	-21.93	QP	
4		106.5200	29.39	-17.88	11.51	43.50	-31.99	QP	
5		351.2300	26.49	-11.22	15.27	46.00	-30.73	QP	
6		568.0900	27.65	-6.89	20.76	46.00	-25.24	QP	

**Remark :**

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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**Measurement Result Above 1GHz :**

Test Mode : Config 1

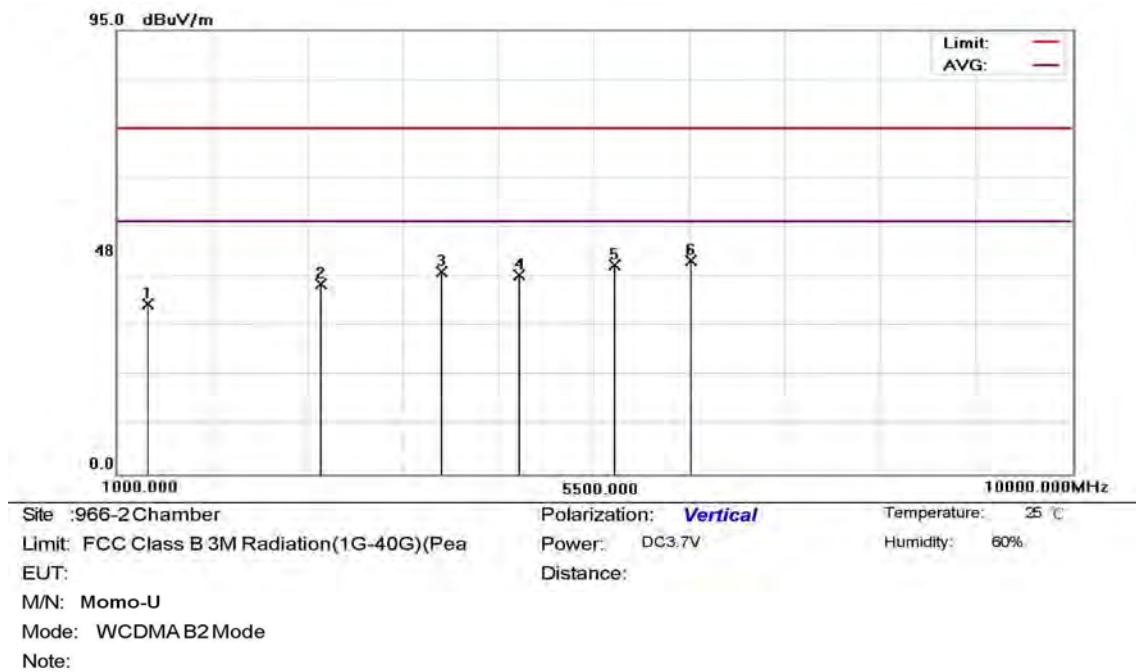
Test Date : Apr. 30, 2012

Detector Function: Peak

Test By: Eddy

Frequency Range: 1 –10GHz

Pol. Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		1288.000	39.38	-2.89	36.49	74.00	-37.51	peak	
2		2926.000	37.57	3.18	40.75	74.00	-33.25	peak	
3		4060.000	38.05	5.19	43.24	74.00	-30.76	peak	
4		4798.000	36.03	6.51	42.54	74.00	-31.46	peak	
5		5698.000	36.98	7.73	44.71	74.00	-29.29	peak	
6	*	6418.000	36.71	8.90	45.61	74.00	-28.39	peak	

**Remark :**

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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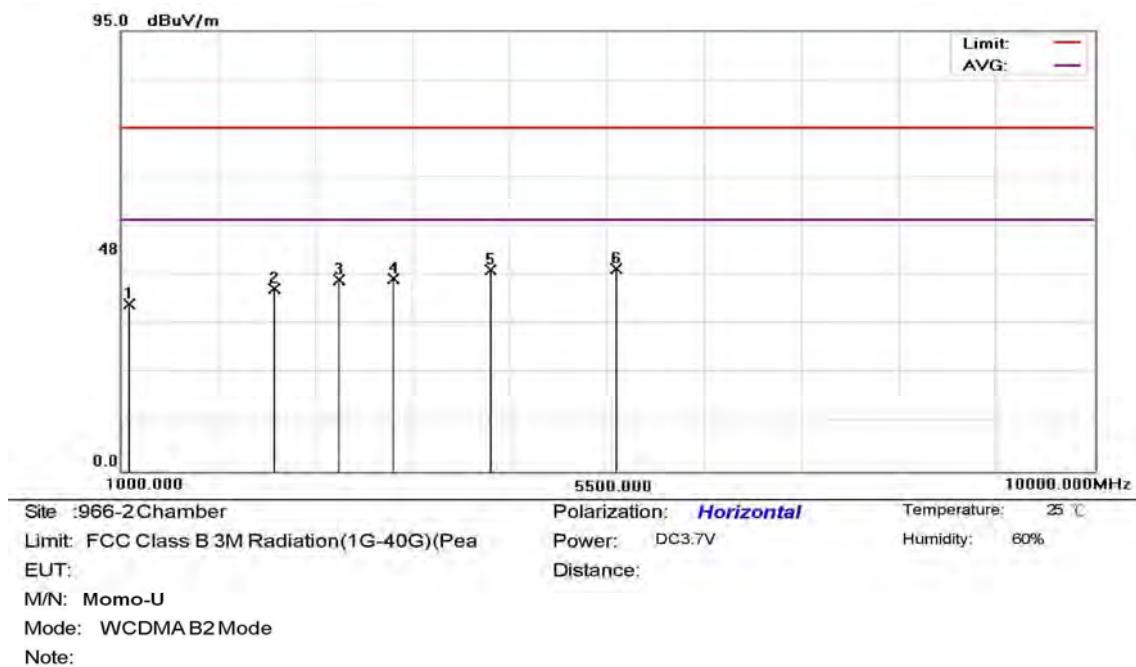
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Test Mode : Config 1  
Detector Function: Peak  
Frequency Range: 1 – 10GHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol. Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
1		1072.000	39.69	-3.77	35.92	74.00	-38.08	peak	
2		2422.000	37.19	2.23	39.42	74.00	-34.58	peak	
3		3016.000	37.94	3.38	41.32	74.00	-32.68	peak	
4		3520.000	37.12	4.27	41.39	74.00	-32.61	peak	
5		4420.000	37.61	5.81	43.42	74.00	-30.58	peak	
6	*	5590.000	36.12	7.58	43.70	74.00	-30.30	peak	

#### Remark :

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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## Measurement Result: WCDMA BAND 5 mode

Test Mode: Config 1

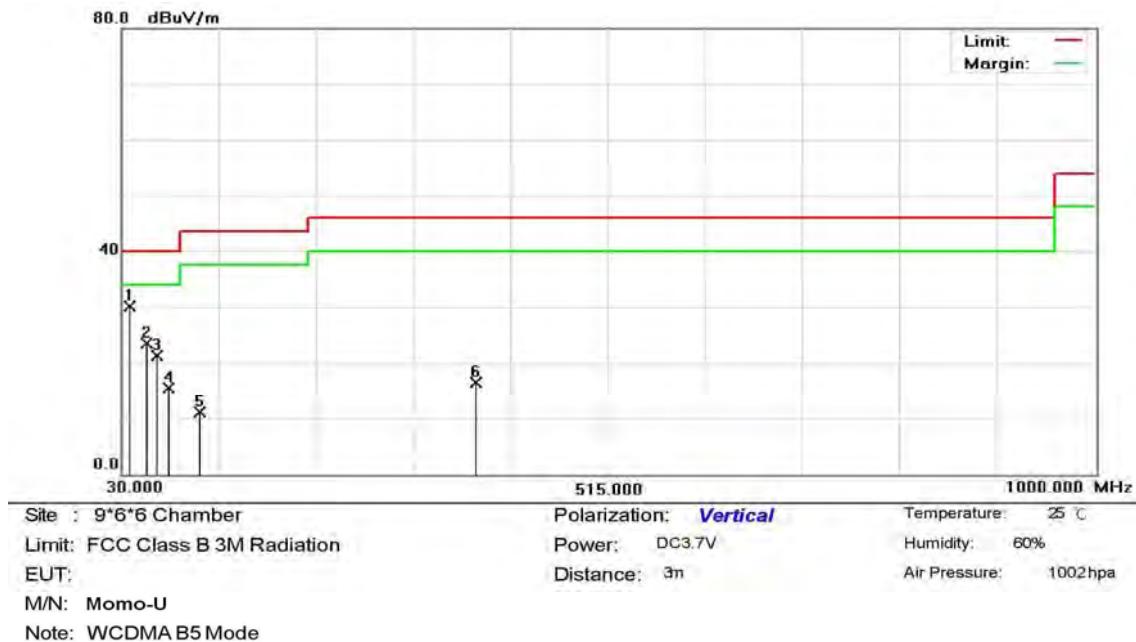
Test Date : Apr. 30, 2012

Detector Function: QP

Test By: Eddy

Frequency Range: 30MHz-1000MHz

Pol: Vertical



No.	Mk.	Freq.	Reading	Factor	Measure-	Limit	Over	Comment
			Level		ment			
1	*	36.7700	46.93	-16.79	30.14	40.00	-9.86	QP
2		54.3200	39.38	-15.95	23.43	40.00	-16.57	QP
3		63.1100	38.18	-16.89	21.29	40.00	-18.71	QP
4		75.2900	34.74	-19.18	15.56	40.00	-24.44	QP
5		106.0800	29.07	-17.96	11.11	43.50	-32.39	QP
6		382.1900	26.86	-10.27	16.59	46.00	-29.41	QP

### Remark :

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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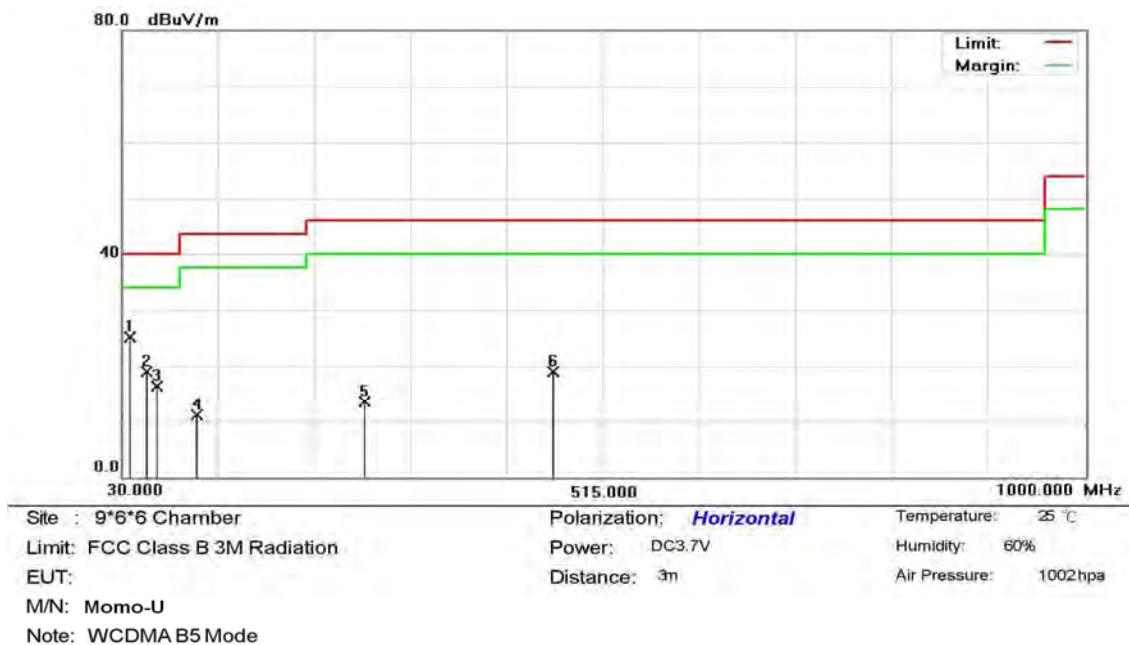
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**Measurement Result:**

Test Mode: Config 2  
Detector Function: QP  
Frequency Range: 30MHz-1000MHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol.: Horizontal



No.	Mk.	Freq.	Reading	Factor	Measure- ment	Limit	Over		
			Level				dB	Detector	Comment
1	*	36.7900	41.94	-16.79	25.15	40.00	-14.85	QP	
2		54.1100	34.77	-15.93	18.84	40.00	-21.16	QP	
3		63.2100	33.20	-16.91	16.29	40.00	-23.71	QP	
4		104.3800	29.38	-18.25	11.13	43.50	-32.37	QP	
5		273.0700	26.58	-13.02	13.56	46.00	-32.44	QP	
6		463.1900	27.44	-8.60	18.84	46.00	-27.16	QP	

**Remark :**

- (1) All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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**Measurement Result Above 1GHz :**

Test Mode : Config 2

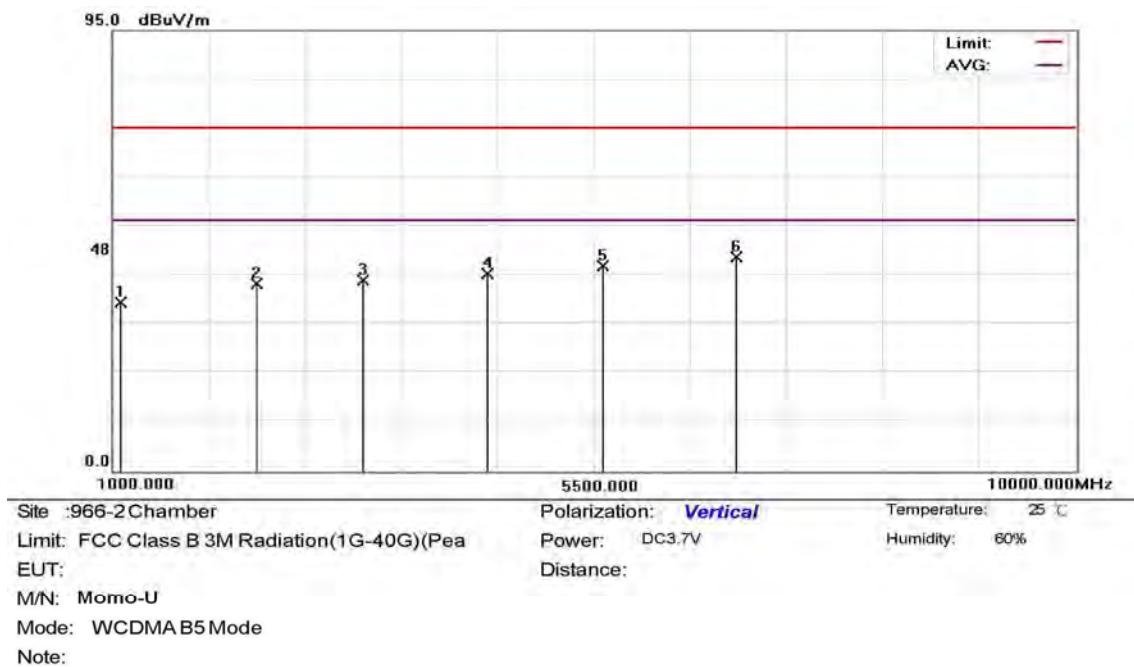
Test Date : Apr. 30, 2012

Detector Function: Peak

Test By: Eddy

Frequency Range: 1 – 10GHz

Pol. Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB	Detector	Comment
1		1072.000	40.19	-3.77	36.42	74.00	-37.58	peak
2		2350.000	38.53	2.03	40.56	74.00	-33.44	peak
3		3340.000	37.37	3.92	41.29	74.00	-32.71	peak
4		4510.000	36.59	6.02	42.61	74.00	-31.39	peak
5		5590.000	36.64	7.58	44.22	74.00	-29.78	peak
6	*	6832.000	37.02	9.18	46.20	74.00	-27.80	peak

**Remark :**

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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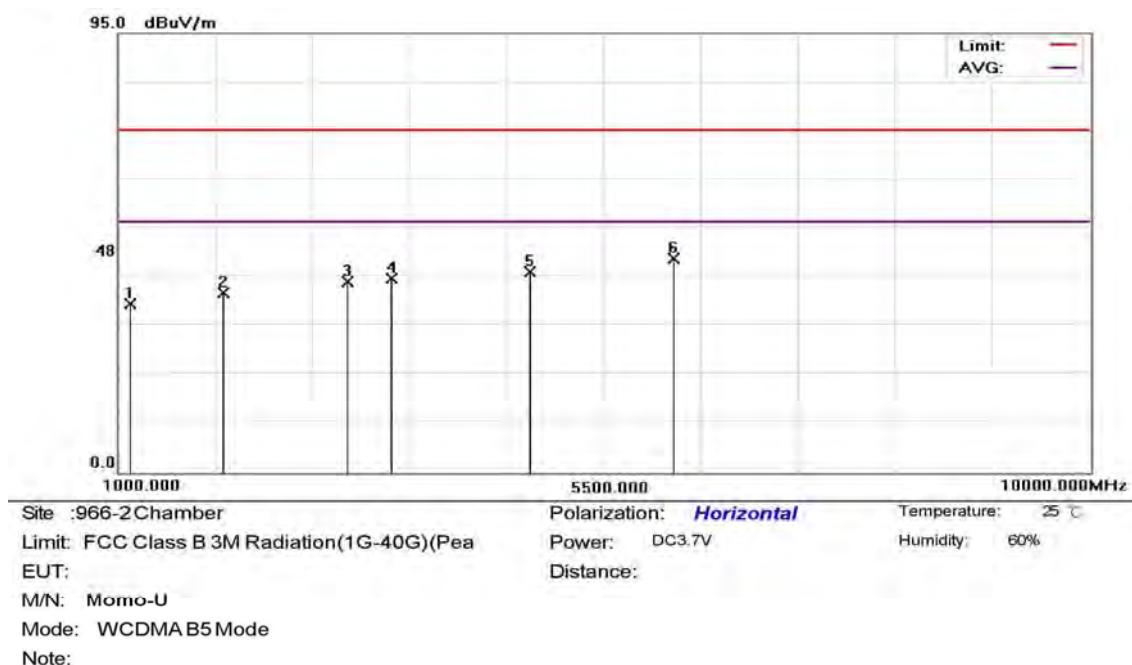
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Test Mode : Config 2  
Detector Function: Peak  
Frequency Range: 1 – 10GHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol. Horizontal



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		1108.000	40.01	-3.62	36.39	74.00	-37.61	peak	
2		1972.000	37.86	0.88	38.74	74.00	-35.26	peak	
3		3124.000	37.62	3.54	41.16	74.00	-32.84	peak	
4		3538.000	37.62	4.32	41.94	74.00	-32.06	peak	
5		4816.000	36.82	6.53	43.35	74.00	-30.65	peak	
6	*	6148.000	37.57	8.65	46.22	74.00	-27.78	peak	

#### Remark :

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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Measurement Result: (2<sup>nd</sup> Source) Above 1GHz :  
WCDMA BAND 5 mode

Test Mode : Config 2

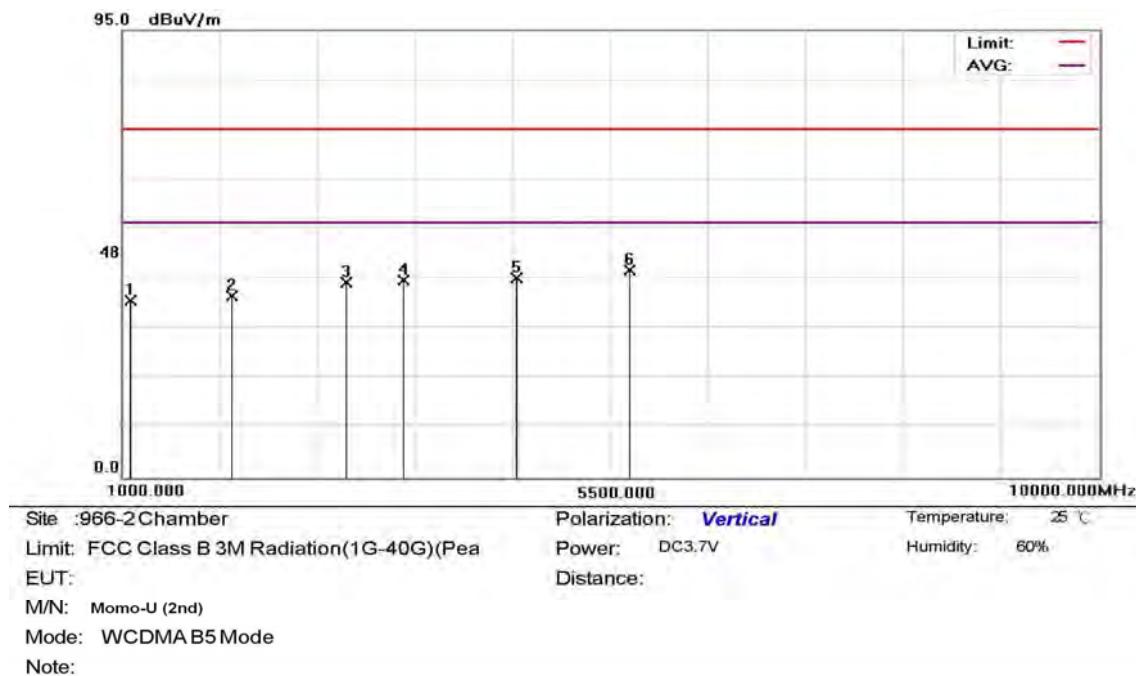
Test Date : Apr. 30, 2012

Detector Function: Peak

Test By: Eddy

Frequency Range: 1 – 10GHz

Pol. Vertical



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Comment
			Level	Factor	ment			
		MHz	dBuV	dB	dBuV/m	dB	Detector	
1		1072.000	41.50	-3.77	37.73	74.00	-36.27	peak
2		2008.000	37.35	1.14	38.49	74.00	-35.51	peak
3		3070.000	38.11	3.45	41.56	74.00	-32.44	peak
4		3592.000	37.50	4.43	41.93	74.00	-32.07	peak
5		4636.000	36.04	6.26	42.30	74.00	-31.70	peak
6	*	5680.000	36.40	7.71	44.11	74.00	-29.89	peak

## Remark :

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

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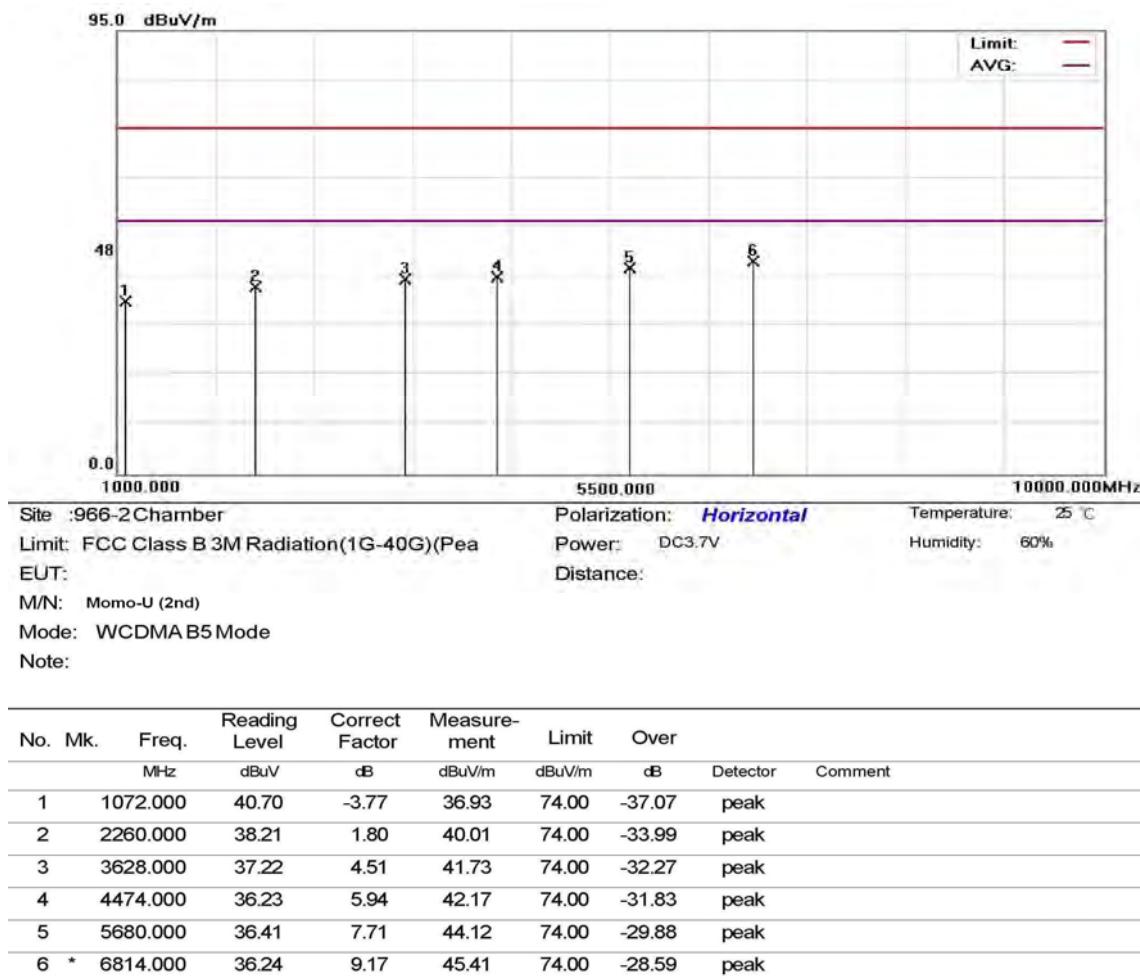
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Test Mode : Config 2  
Detector Function: Peak  
Frequency Range: 1 – 10GHz

Test Date : Apr. 30, 2012  
Test By: Eddy  
Pol. Horizontal



Remark :

- (1) All Readings above 1GHz are Peak and Average measurement as necessary.
- (2) The IF bandwidth of SPA 30MHz to 1GHz was 100KHz and 1GHz to 10GHz was 1MHz

*~ End of Report ~*

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