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# FCC TEST REPORT (PART 22)

**REPORT NO.:** RF120309C41  
**MODEL NO.:** HiLoNC-3GPS  
**FCC ID:** VW3HILONC-3GPS  
**RECEIVED:** Mar. 09, 2012  
**TESTED:** Mar. 23 ~ Mar. 24, 2012  
**ISSUED:** Mar. 29, 2012

**APPLICANT:** Sagemcom SAS

**ADDRESS:** 250 Route de l'Empereur, 92848 Rueil Malmaison  
Cedex France

**ISSUED BY:** Bureau Veritas Consumer Products Services  
(H.K.) Ltd., Taoyuan Branch

**LAB ADDRESS:** No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New  
Taipei City, Taiwan ( R.O.C. )

**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei  
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120309C41	Original Release	Mar. 29, 2012



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## 1 CERTIFICATION

**PRODUCT:** Qual-Band GSM/GPRS/EDGE Voice and Data Module

**MODEL:** HiLoNC-3GPS

**BRAND:** Sagemcom

**APPLICANT:** Sagemcom SAS

**TESTED:** Mar. 23 ~ Mar. 24, 2012

**TEST SAMPLE:** ENGINEERING SAMPLE

**STANDARDS:** FCC Part 22, Subpart H

The above equipment (model: HiLoNC-3GPS) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY** : Ivonne Wu , **DATE** : Mar. 29, 2012  
Ivonne Wu / Senior Specialist

**APPROVED BY** : Gary Chang , **DATE** : Mar. 29, 2012  
Gary Chang / Technical Manager

## 2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 22 & Part 2			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
2.1046 22.913 (a)	Effective radiated power	PASS	Meet the requirement of limit.
2.1055 22.355	Frequency Stability	PASS	Meet the requirement of limit.
2.1049	Occupied Bandwidth	PASS	Meet the requirement of limit.
22.917	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 22.917	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 22.917	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -23.13dB at 30.00MHz.

### 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.34 dB
	200MHz ~1000MHz	3.35 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



## 2.2 TEST SITE AND INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver Agilent	N9038A	MY51210203	Dec. 22, 2011	Dec. 21, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 21, 2011	Dec. 20, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 20, 2011	Dec. 19, 2012
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Dec. 20, 2011	Dec. 19, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 20, 2011	Dec. 19, 2012
Preamplifier EMCI	EMC 012645	980115	Dec. 30, 2011	Dec. 29, 2012
Preamplifier EMCI	EMC 330H	980112	Dec. 30, 2011	Dec. 29, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295014/4	Aug. 19, 2011	Aug. 18, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	Aug. 19, 2011	Aug. 18, 2012
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	NA	NA
Communication Tester R&S	CMU200	104484	Dec. 30, 2011	Dec. 29, 2012
Standard Temperature & Humidity Chamber WIT	MHU-225AU	920842	Jun. 15, 2011	Jun. 14, 2012
Mini-Circuits Power Splitter	ZN2PD-9G	NA	May 25, 2011	May 24, 2012
JFW 20dB attenuation	50HF-020-SMA	NA	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  2. The test was performed in HwaYa Chamber 10.
  3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
  4. The FCC Site Registration No. is 460141.
  5. The IC Site Registration No. is IC 7450F-4.



### 3 GENERAL INFORMATION

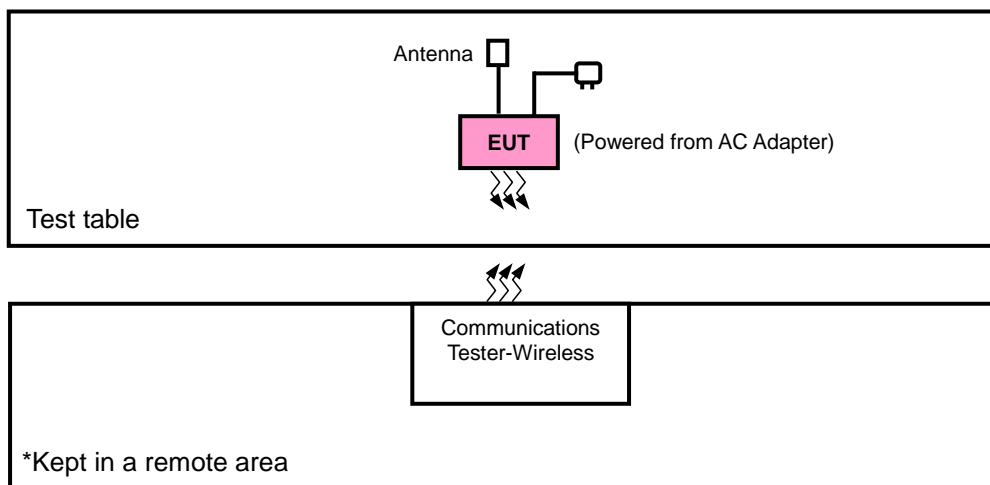
#### 3.1 GENERAL DESCRIPTION OF EUT

<b>EUT</b>	Qual-Band GSM/GPRS/EDGE Voice and Data Module
<b>MODEL NO.</b>	HiLoNC-3GPS
<b>POWER SUPPLY</b>	3.7Vdc from external power supply (120Vac)
<b>MODULATION TYPE</b>	GMSK, 8PSK
<b>FREQUENCY RANGE</b>	824.2MHz ~ 848.8MHz
<b>MAX. ERP POWER</b>	<b>GPRS:</b> 1.22Watts <b>EDGE:</b> 0.35Watts
<b>MULTI-SLOTS CLASS</b>	12
<b>ANTENNA TYPE</b>	Dipole antenna with 0.6dBi gain
<b>I/O PORTS</b>	Refer to users' manual
<b>DATA CABLE</b>	NA
<b>ACCESSORY DEVICES</b>	NA

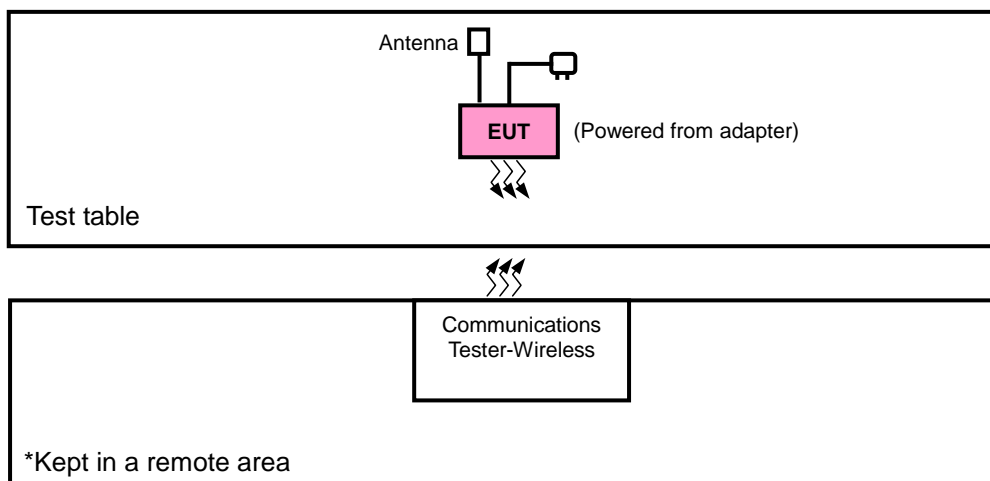
**NOTE:** The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

### 3.2 CONFIGURATION OF SYSTEM UNDER TEST

#### FOR RADIATION EMISSION TEST



#### FOR E.R.P. TEST







### 3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Adapter	Ktec	KSAS0100500200VU	NA	NA
2	Communications Tester-Wireless	Agilent	E5515C	MY50266628	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.5m non-shielded cable without ferrite core
2	NA

**NOTE:**

1. Item 1 was provided by client.
2. Item 2 acted as a communication partner to transfer data.



### 3.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found when positioned on X-plane for ERP and X-axis for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
ERP	128 to 251	128, 189, 251	GPRS, EDGE
FREQUENCY STABILITY	128 to 251	189	GPRS, EDGE
OCCUPIED BANDWIDTH	128 to 251	128, 189, 251	GPRS, EDGE
BAND EDGE	128 to 251	128, 251	GPRS, EDGE
CONDCUDED EMISSION	128 to 251	189	GPRS, EDGE
RADIATED EMISSION	128 to 251	189	GPRS, EDGE

#### TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
FREQUENCY STABILITY	25deg. C, 60%RH	120Vac, 60Hz	Peter Weng
OCCUPIED BANDWIDTH	25deg. C, 60%RH	120Vac, 60Hz	Peter Weng
BAND EDGE	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu
CONDCUDED EMISSION	25deg. C, 60%RH	120Vac, 60Hz	Peter Weng
RADIATED EMISSION	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu

### **3.5 EUT OPERATING CONDITIONS**

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

### **3.6 GENERAL DESCRIPTION OF APPLIED STANDARDS**

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 22**

**ANSI/TIA/EIA-603-C 2004**

**NOTE:** All test items have been performed and recorded as per the above standards.

## 4 TEST TYPES AND RESULTS

### 4.1 OUTPUT POWER MEASUREMENT

#### 4.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Mobile / Portable station are limited to 7 watts e.r.p.

#### 4.1.2 TEST PROCEDURES

##### **EIRP / ERP MEASUREMENT:**

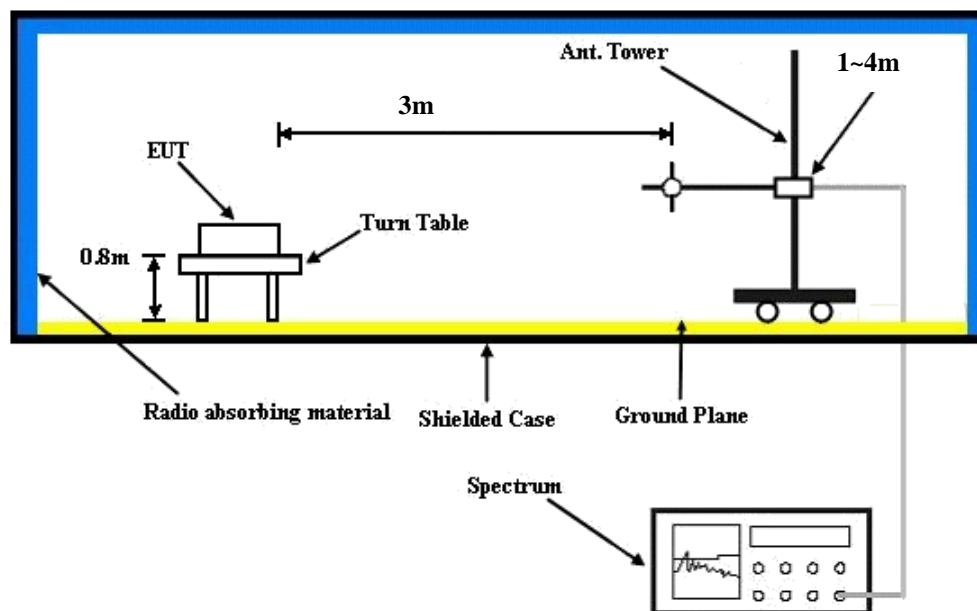
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1MHz for GPRS and EDGE mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step b. Record the power level of S.G
- d.  $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn.}$   
E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15\text{dBi.}$

##### **CONDUCTED POWER MEASUREMENT:**

The EUT was set up for the maximum power with GPRS & EDGE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

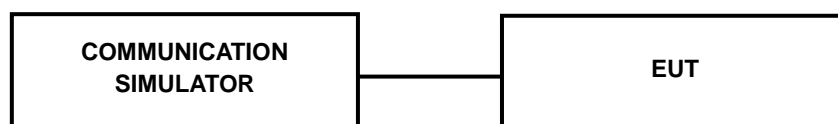
### 4.1.3 TEST SETUP

#### EIRP / ERP MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### CONDUCTED POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.1.4 TEST RESULTS

##### CONDUCTED OUTPUT POWER (dBm)

Band	GPRS 850		
	128	189	251
Channel	824.2	836.4	848.8
Frequency (MHz)	824.2	836.4	848.8
GSM	33.00	32.88	33.02
GPRS 8	33.00	32.87	33.05
GPRS 10	33.29	33.14	33.21
GPRS 12	33.11	32.98	33.06
DTM 9 (GPRS)	32.65	32.67	32.52
DTM 11 (GPRS)	32.63	32.55	32.75
EDGE 8 (MCS9)	27.00	26.98	26.94
EDGE 10 (MCS9)	26.86	26.86	26.86
EDGE 12 (MCS9)	26.72	26.66	26.57
DTM 9 (EDGE)	26.57	26.57	26.55
DTM 11 (EDGE)	26.50	26.55	26.50
EDGE 8 (MCS1)	26.58	26.63	26.27
EDGE 10 (MCS1)	26.12	26.30	26.03
EDGE 11 (MCS1)	25.90	25.98	25.63
EDGE 12 (MCS1)	25.47	25.68	25.46

**ERP POWER (dBm)****GPRS 850**

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(W)	Polarization (H/V)
X	128	824.2	0.41	32.62	30.88	1.22	H
	189	836.4	0.24	32.52	30.61	1.15	H
	251	848.8	-0.40	32.65	30.10	1.02	H
	128	824.2	-1.81	32.76	28.80	0.76	V
	189	836.4	-2.26	32.39	27.98	0.63	V
	251	848.8	-1.89	32.54	28.50	0.71	V

**EDGE 850**

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(W)	Polarization (H/V)
X	128	824.2	-5.09	32.62	25.38	0.35	H
	189	836.4	-5.60	32.52	24.77	0.30	H
	251	848.8	-5.88	32.65	24.62	0.29	H
	128	824.2	-7.34	32.76	23.27	0.21	V
	189	836.4	-7.87	32.39	22.37	0.17	V
	251	848.8	-7.69	32.54	22.70	0.19	V

## 4.2 FREQUENCY STABILITY MEASUREMENT

### 4.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

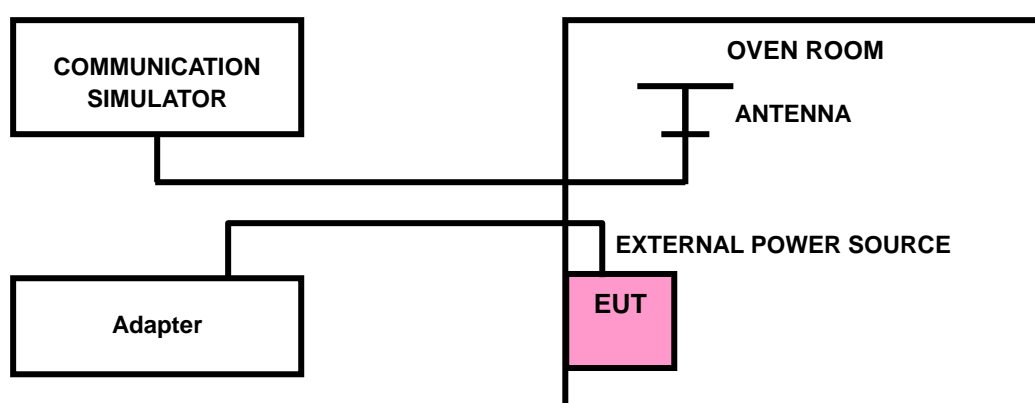
1.5 ppm is for base and fixed station. 2.5 ppm is for mobile station.

### 4.2.2 TEST PROCEDURE

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the  $\pm 0.5^{\circ}\text{C}$  during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

**NOTE:** The frequency error was recorded frequency error from the communication simulator.

### 4.2.3 TEST SETUP







## 4.2.4 TEST RESULTS

### FREQUENCY ERROR VS. VOLTAGE

VOLTAGE (Volts)	FREQUENCY ERROR (ppm)		LIMIT (ppm)
	GPRS	EDGE	
3.7	-0.05	-0.03	2.5
3.4	-0.03	-0.03	2.5
4.2	-0.04	-0.05	2.5

**NOTE:** The applicant defined the normal working voltage of the battery is from 3.4Vdc to 4.2Vdc.

### FREQUENCY ERROR vs. TEMPERATURE.

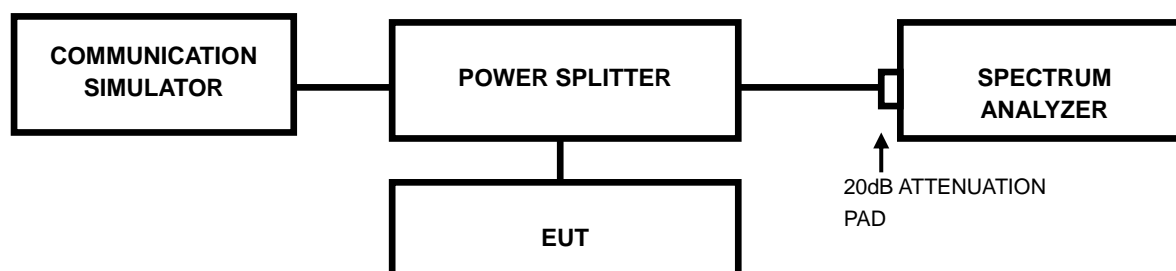
TEMP. (°C)	FREQUENCY ERROR (ppm)		LIMIT (ppm)
	GPRS	EDGE	
-30	0.05	0.04	2.5
-20	-0.02	0.02	2.5
-10	-0.01	0.01	2.5
0	-0.03	-0.01	2.5
10	-0.01	0.02	2.5
20	0.01	-0.02	2.5
30	0.02	-0.06	2.5
40	0.02	-0.05	2.5
50	-0.05	-0.04	2.5

## 4.3 OCCUPIED BANDWIDTH MEASUREMENT

### 4.3.1 TEST PROCEDURES

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

### 4.3.2 TEST SETUP

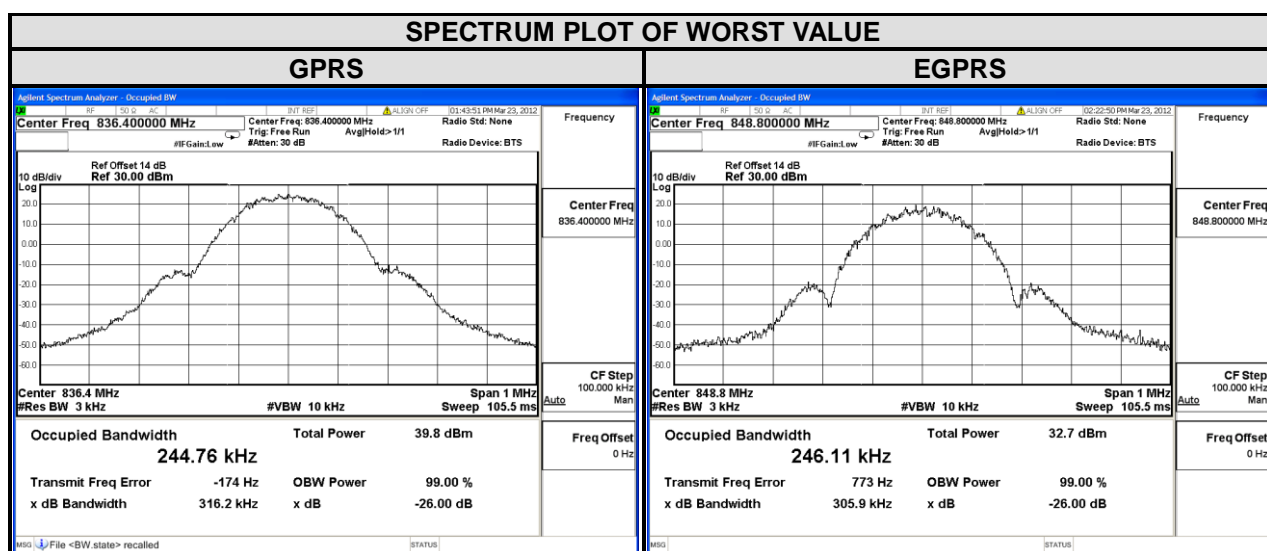




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### 4.3.3 TEST RESULTS

CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (kHz)	
		GPRS	EDGE
128	824.2	243.57	244.31
189	836.4	244.76	244.34
251	848.8	241.61	246.11

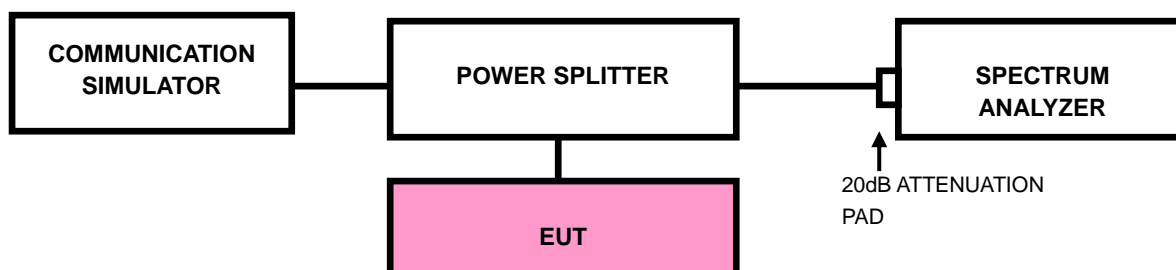


## 4.4 BAND EDGE MEASUREMENT

### 4.4.1 LIMITS OF BAND EDGE MEASUREMENT

Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

### 4.4.2 TEST SETUP



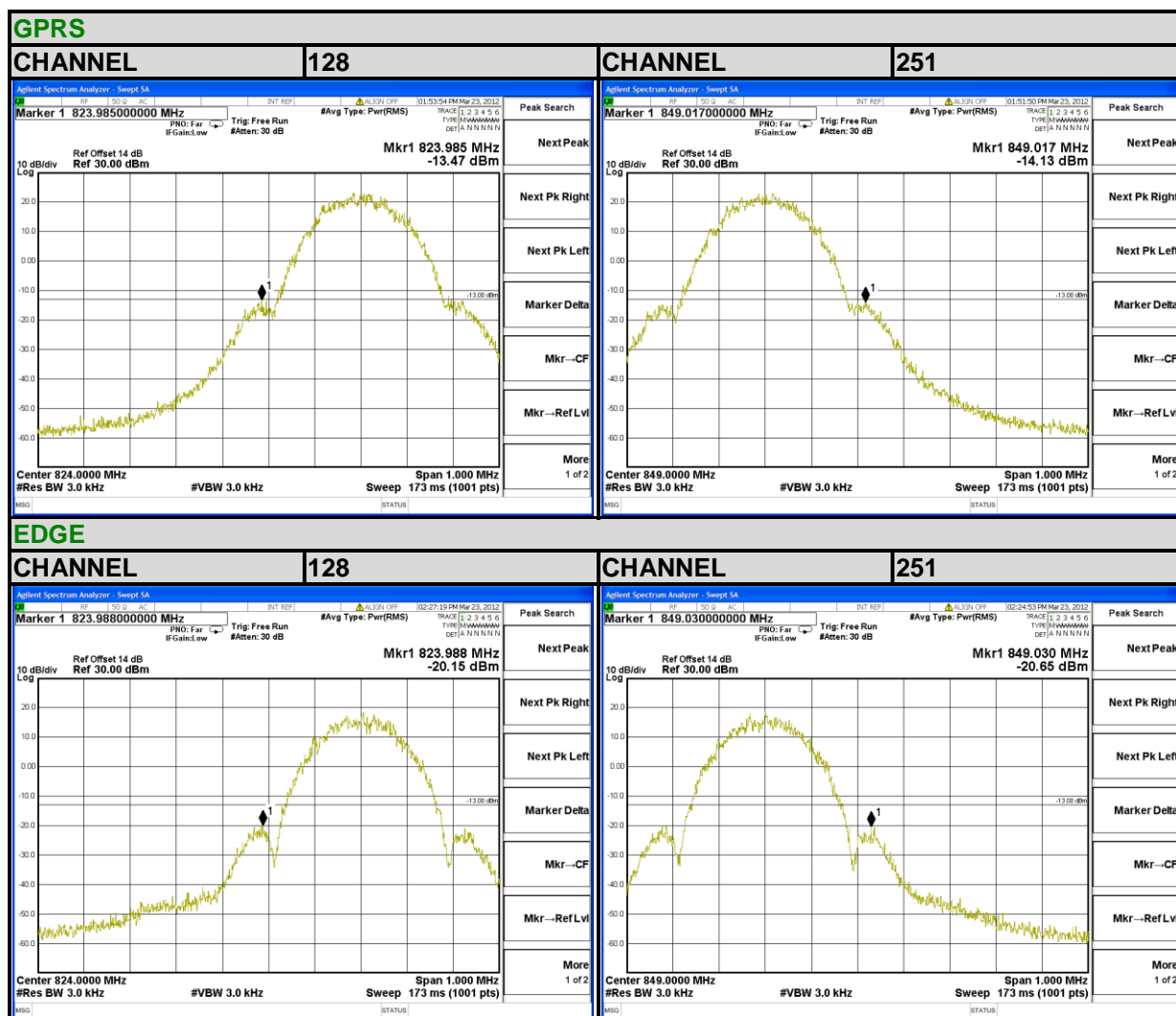
### 4.4.3 TEST PROCEDURES

- All measurements were done at low and high operational frequency range.
- The center frequency of spectrum is the band edge frequency and span is 1.5 MHz. RBW of the spectrum is 3kHz and VBW of the spectrum is 3kHz (GPRS/EDGE).
- Record the max trace plot into the test report.



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### 4.4.4 TEST RESULTS



## 4.5 CONDUCTED SPURIOUS EMISSIONS

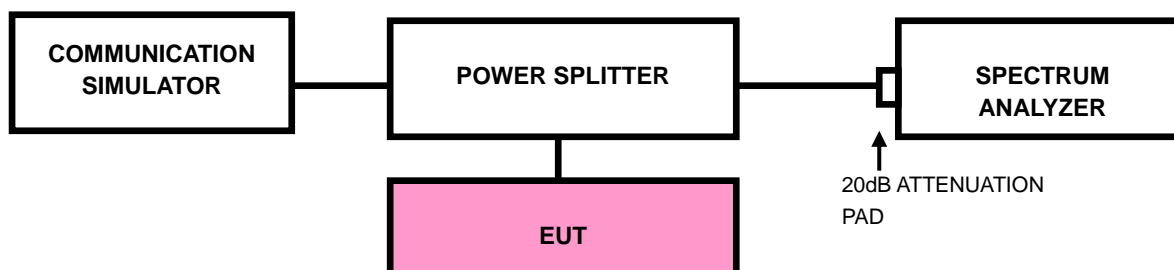
### 4.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. The emission limit equal to  $-13\text{dBm}$ .

### 4.5.2 TEST PROCEDURE

- The EUT makes a phone call to the communication simulator. All measurements were done at middle channel operational frequency.
- Measuring frequency range is from 9 kHz to 9GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

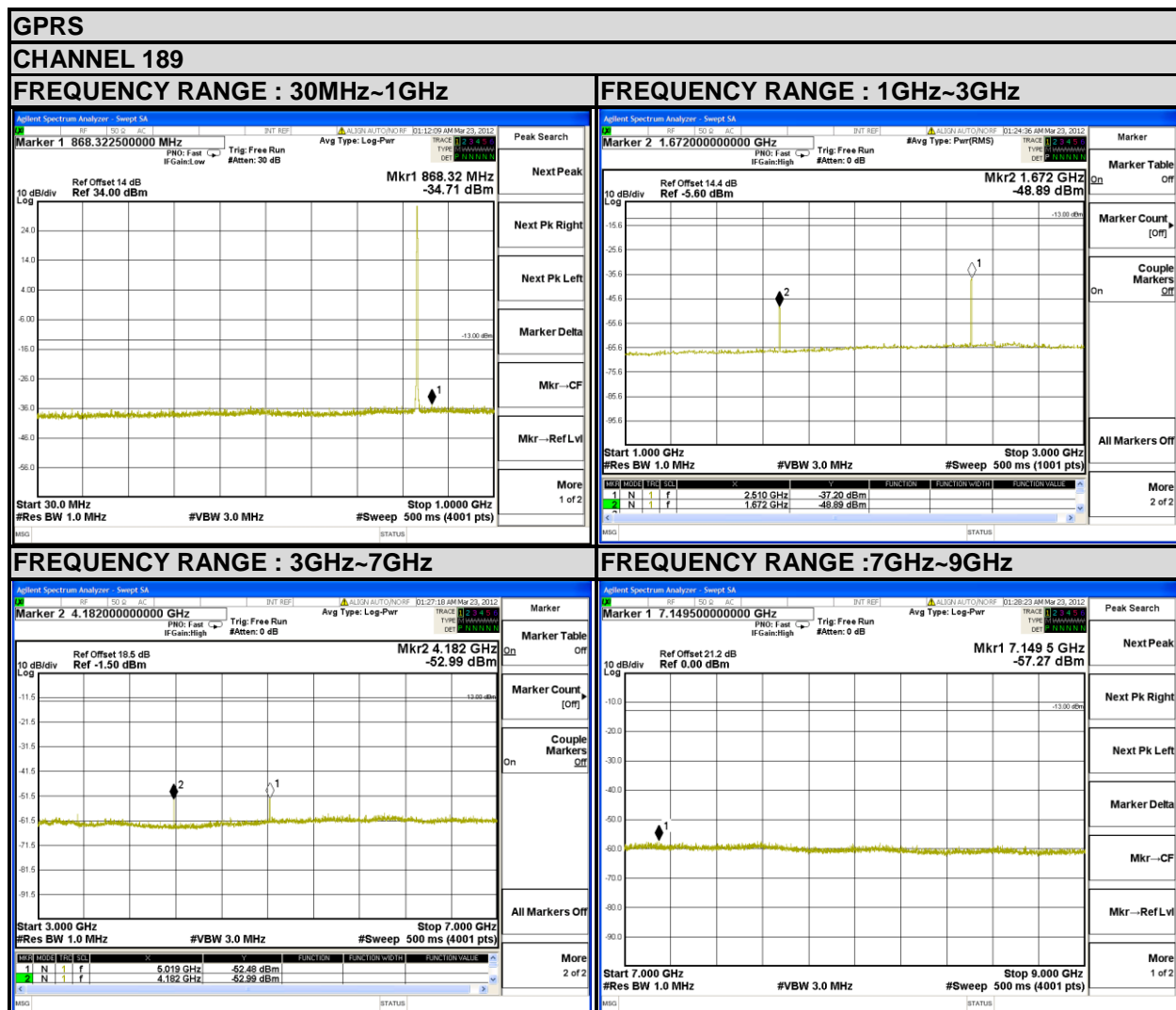
### 4.5.3 TEST SETUP





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### 4.5.4 TEST RESULTS



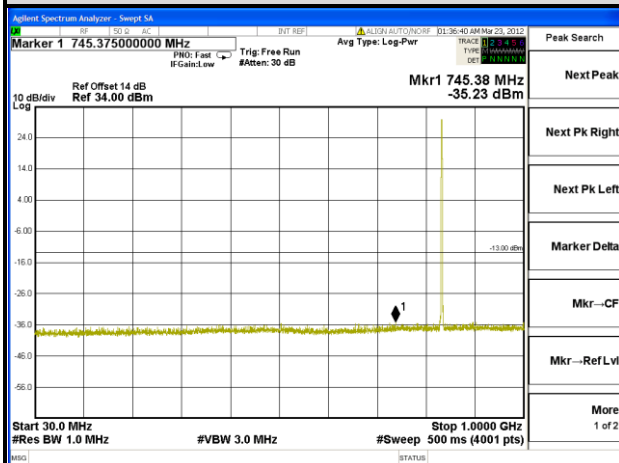


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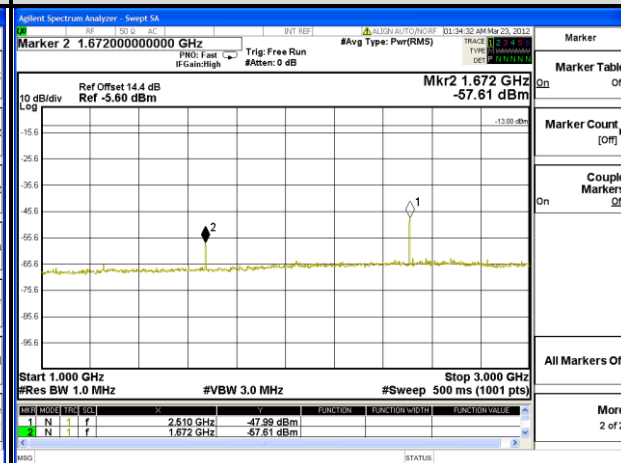
### EDGE

### CHANNEL 189

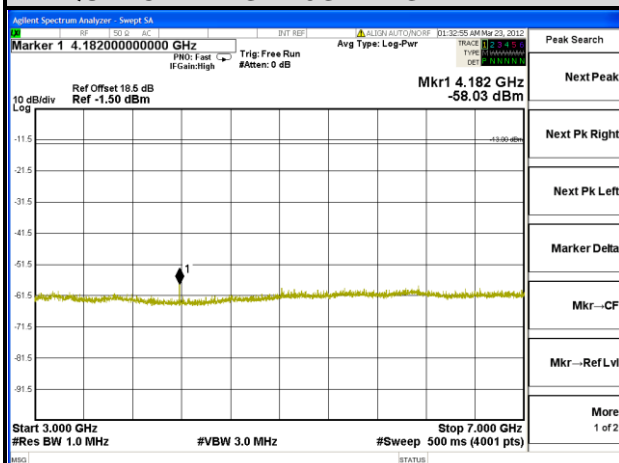
### FREQUENCY RANGE : 30MHz~1GHz



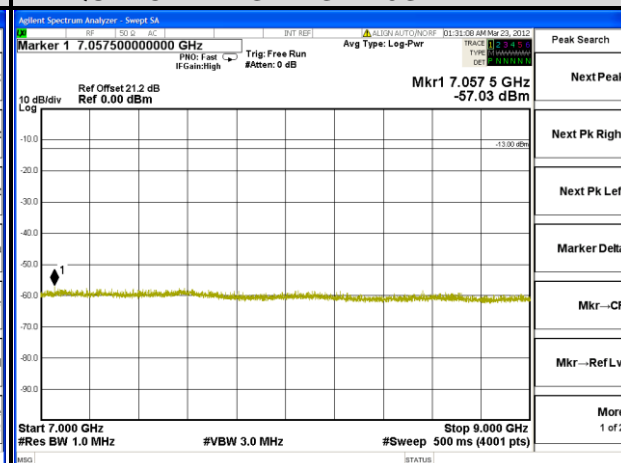
### FREQUENCY RANGE : 1GHz~3GHz



### FREQUENCY RANGE : 3GHz~7GHz



### FREQUENCY RANGE : 7GHz~9GHz





## 4.6 RADIATED EMISSION MEASUREMENT

### 4.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. The emission limit equal to  $-13\text{dBm}$ .

### 4.6.2 TEST PROCEDURES

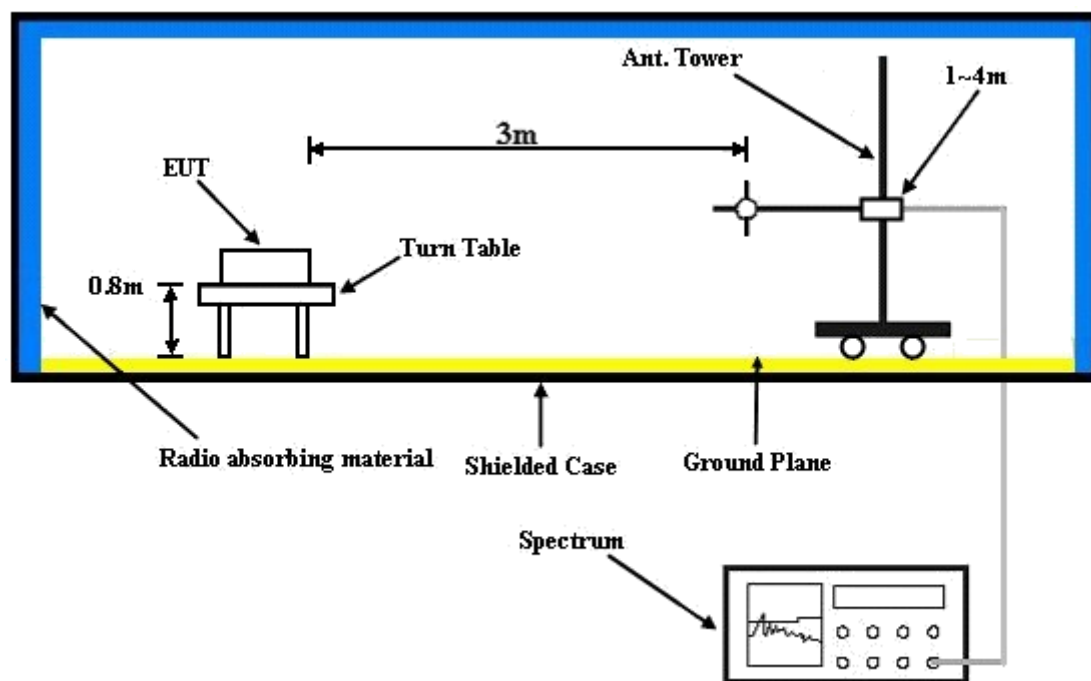
- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step a. Record the power level of S.G
- c.  $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}$ .
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  
 $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}$ .

**NOTE:** The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

### 4.6.3 DEVIATION FROM TEST STANDARD

No deviation

#### 4.6.4 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).



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### 4.6.5 TEST RESULTS

#### GPRS:

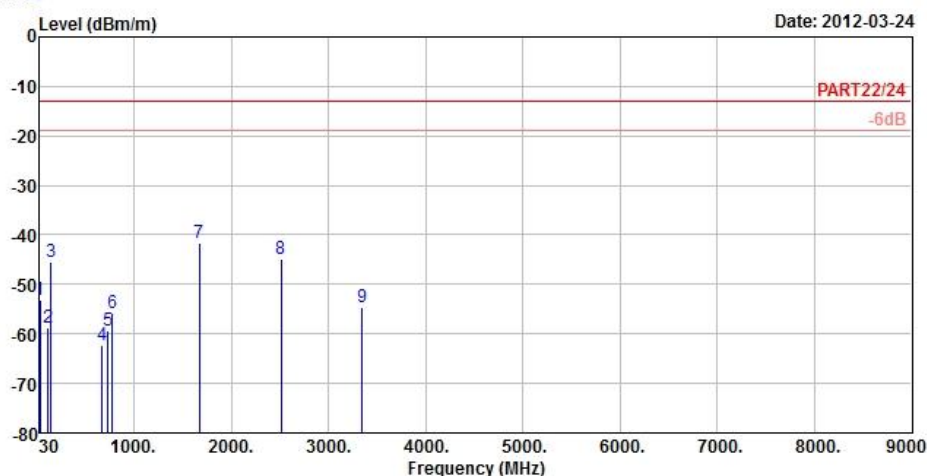


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 9

Date: 2012-03-24



Site : 966 Chamber 5  
 Condition : PART22/24 3m EIRP\_RSE\_1G~19G\_3 HORIZONTAL  
 Brand/Model: HiLoNC3GPS  
 Remark : GPRS850 Link  
 Tested by : Kay Wu  
 Temperature : 25°C  
 Humidity : 65%  
 Plane : X

	Freq	Level	Read	Limit	Over	
	MHz	dBm/m	Level	Line	Limit	Factor Remark
			dBm	dBm/m	dB	dB/m
1	30.00	-53.23	-54.30	-13.00	-40.23	1.07 Peak
2	115.32	-58.68	-47.94	-13.00	-45.68	-10.74 Peak
3	145.29	-45.54	-39.49	-13.00	-32.54	-6.05 Peak
4	674.50	-62.29	-63.27	-13.00	-49.29	0.98 Peak
5	728.40	-59.23	-60.87	-13.00	-46.23	1.64 Peak
6	777.40	-55.82	-57.80	-13.00	-42.82	1.98 Peak
7 pp	1672.80	-41.63	-28.81	-13.00	-28.63	-12.82 Peak
8	2509.20	-44.87	-35.70	-13.00	-31.87	-9.17 Peak
9	3345.60	-54.52	-46.71	-13.00	-41.52	-7.81 Peak



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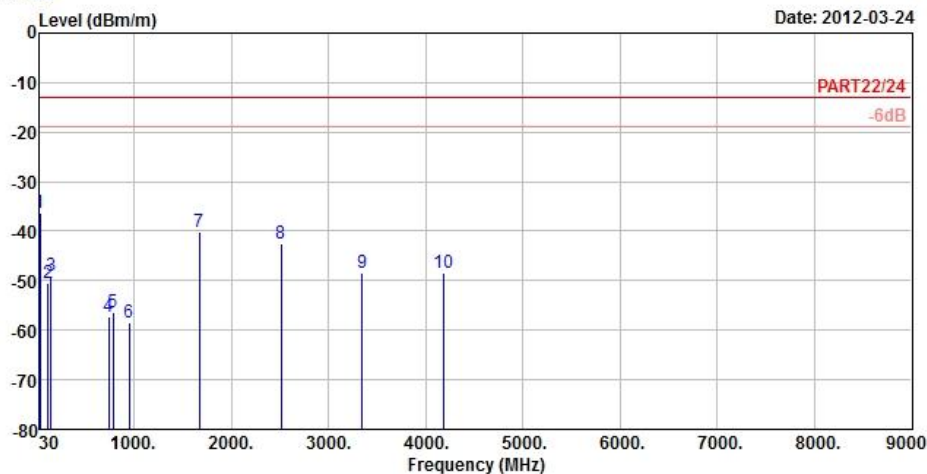


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2012-03-24



Site : 966 Chamber 5  
 Condition : PART22/24 3m EIRP\_RSE\_1G~19G\_3 VERTICAL  
 Brand/Model: HiLoNC3GPS  
 Remark : GPRS850 Link  
 Tested by : Kay Wu  
 Temperature : 25°C  
 Humidity : 65%  
 Plane : X

	Freq	Level	Read	Limit	Over		
	MHz	dBm/m	Level	Line	Limit	Factor	Remark
			dBm	dBm/m	dB	dB/m	
1	pp	30.00	-36.40	-37.47	-13.00	-23.40	1.07 Peak
2		115.86	-50.59	-39.83	-13.00	-37.59	-10.76 Peak
3		145.02	-48.99	-42.94	-13.00	-35.99	-6.05 Peak
4		737.50	-57.25	-58.95	-13.00	-44.25	1.70 Peak
5		787.20	-56.42	-58.46	-13.00	-43.42	2.04 Peak
6		948.90	-58.32	-61.98	-13.00	-45.32	3.66 Peak
7		1672.80	-40.22	-27.40	-13.00	-27.22	-12.82 Peak
8		2509.20	-42.37	-33.20	-13.00	-29.37	-9.17 Peak
9		3345.60	-48.49	-40.68	-13.00	-35.49	-7.81 Peak
10		4182.00	-48.51	-42.93	-13.00	-35.51	-5.58 Peak



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EDGE:

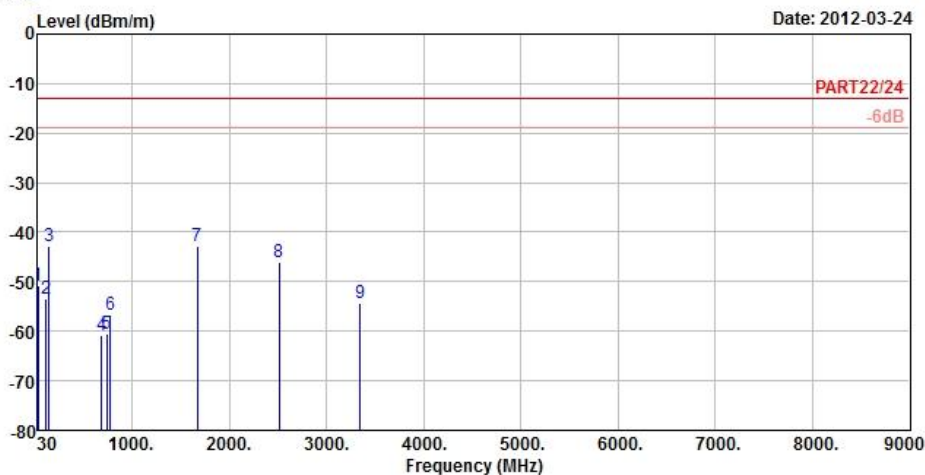


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2012-03-24



Site : 966 Chamber 5  
 Condition : PART22/24 3m EIRP\_RSE\_1G~19G\_3 HORIZONTAL  
 Brand/Model: HiLoNC3GPS  
 Remark : EDGE850 Link  
 Tested by : Kay Wu  
 Temperature : 25°C  
 Humidity : 65%  
 Plane : X

	Read	Limit	Over			
Freq	Level	Level	Line	Limit	Factor	Remark
MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	30.00	-50.73	-51.80	-13.00	-37.73	1.07 Peak
2	113.70	-53.54	-42.85	-13.00	-40.54	-10.69 Peak
3 pp	144.48	-42.84	-36.86	-13.00	-29.84	-5.98 Peak
4	685.70	-60.91	-62.10	-13.00	-47.91	1.19 Peak
5	739.60	-60.39	-62.11	-13.00	-47.39	1.72 Peak
6	773.20	-56.79	-58.74	-13.00	-43.79	1.95 Peak
7	1672.80	-42.93	-30.11	-13.00	-29.93	-12.82 Peak
8	2509.20	-46.08	-36.91	-13.00	-33.08	-9.17 Peak
9	3345.60	-54.28	-46.47	-13.00	-41.28	-7.81 Peak



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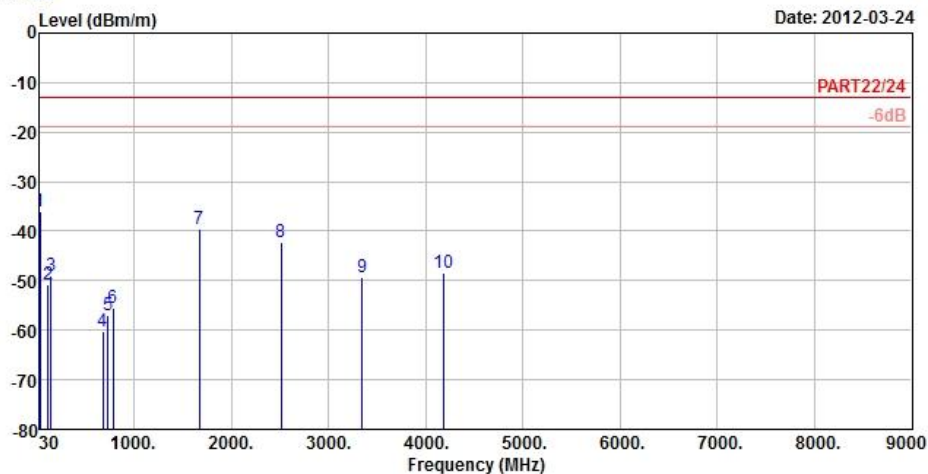


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2012-03-24



Site : 966 Chamber 5  
 Condition : PART22/24 3m EIRP\_RSE\_1G~19G\_3 VERTICAL  
 Brand/Model: HiLoNC3GPS  
 Remark : EDGE850 Link  
 Tested by : Kay Wu  
 Temperature : 25°C  
 Humidity : 65%  
 Plane : X

	Freq	Level	Read	Limit	Over		
	MHz	dBm/m	Level	Line	Limit	Factor	Remark
			dBm	dBm/m	dB	dB/m	
1	pp	30.00	-36.13	-37.20	-13.00	-23.13	1.07 Peak
2		117.21	-50.78	-40.00	-13.00	-37.78	-10.78 Peak
3		145.29	-48.91	-42.86	-13.00	-35.91	-6.05 Peak
4		678.70	-60.30	-61.37	-13.00	-47.30	1.07 Peak
5		734.00	-57.02	-58.70	-13.00	-44.02	1.68 Peak
6		780.20	-55.39	-57.38	-13.00	-42.39	1.99 Peak
7		1672.80	-39.50	-26.68	-13.00	-26.50	-12.82 Peak
8		2509.20	-42.10	-32.93	-13.00	-29.10	-9.17 Peak
9		3345.60	-49.22	-41.41	-13.00	-36.22	-7.81 Peak
10		4182.00	-48.31	-42.73	-13.00	-35.31	-5.58 Peak



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## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



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## 6 INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

Copies of accreditation and authorization certificates of our laboratories obtained from approval agencies can be downloaded from our web site:

[www.adt.com.tw/index.5.phtml](http://www.adt.com.tw/index.5.phtml). If you have any comments, please feel free to contact us at the following:

**Linko EMC/RF Lab:**

Tel: 886-2-26052180

Fax: 886-2-26051924

**Hsin Chu EMC/RF Lab:**

Tel: 886-3-5935343

Fax: 886-3-5935342

**Hwa Ya EMC/RF/Safety/Telecom Lab:**

Tel: 886-3-3183232

Fax: 886-3-3185050

**Email:** [service.adt@tw.bureauveritas.com](mailto:service.adt@tw.bureauveritas.com)

**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

The address and road map of all our labs can be found in our web site also.





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## **7 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB**

No any modifications were made to the EUT by the lab during the test.

---END---