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FCC TEST REPORT (PART 24)

REPORT NO.: RF120309C41-1
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
RF120309C41-1	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 24, Subpart E

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 24 & Part 2			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
2.1046 24.232	Equivalent isotropically radiated power	PASS	Meet the requirement of limit.
2.1055 24.235	Frequency Stability	PASS	Meet the requirement of limit.
2.1049 24.238(b)	Occupied Bandwidth	PASS	Meet the requirement of limit.
24.238(b)	Band Edge Measurements	PASS	Meet the requirement of limit.
2.1051 24.238	Conducted Spurious Emissions	PASS	Meet the requirement of limit.
2.1053 24.238	Radiated Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -22.16dB at 3760.00MHz.

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.



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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

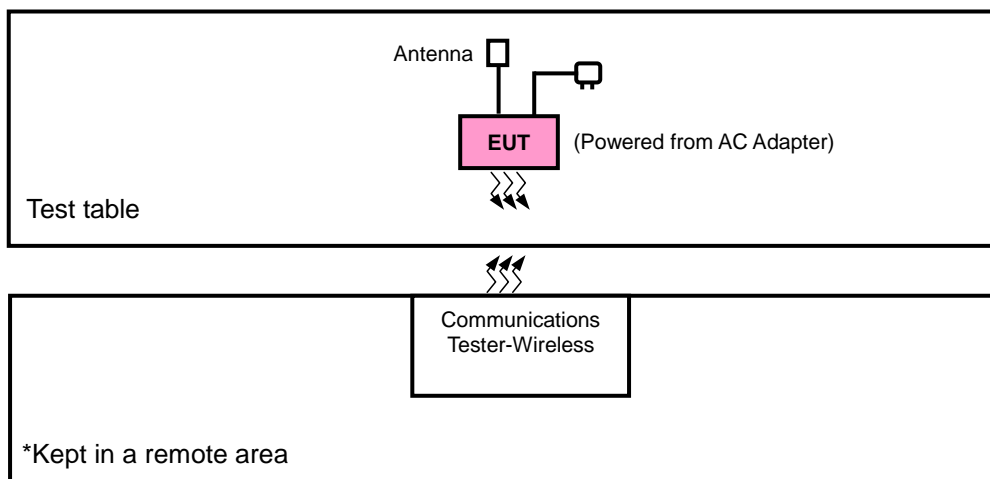
3.1 GENERAL DESCRIPTION OF EUT

EUT	Qual-Band GSM/GPRS/EDGE Voice and Data Module
MODEL NO.	HiLoNC-3GPS
POWER SUPPLY	3.7Vdc from external power supply (120Vac)
MODULATION TYPE	GMSK, 8PSK
FREQUENCY RANGE	1850.2MHz ~ 1909.8MHz
MAX. EIRP POWER	GPRS: 0.56Watts EDGE: 0.27Watts
MULTI-SLOTS CLASS	12
ANTENNA TYPE	Dipole antenna with -0.1dBi gain
I/O PORTS	Refer to users' manual
DATA CABLE	NA
ACCESSORY DEVICES	NA

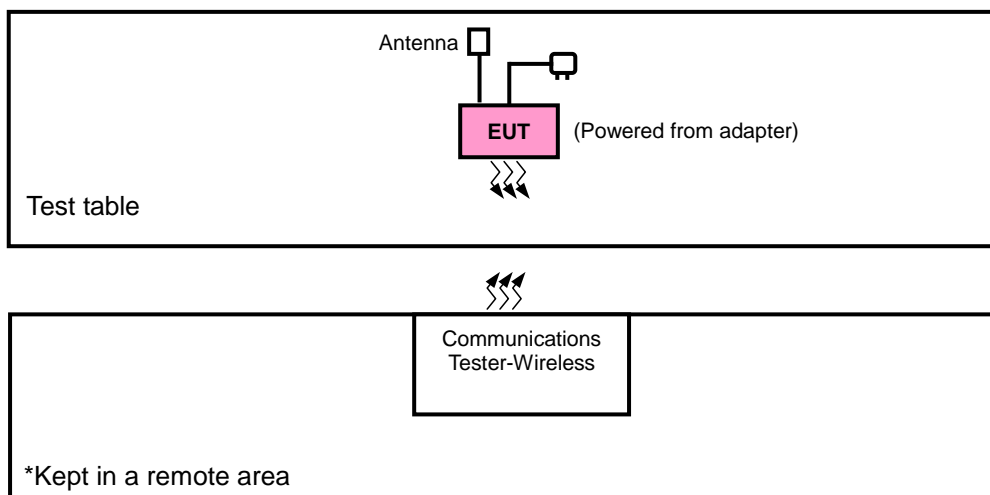
NOTE: The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST



FOR E.I.R.P. TEST





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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	KSAS0100500 200VU	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	512 to 810	512, 661, 810	GPRS, EDGE
FREQUENCY STABILITY	512 to 810	661	GPRS, EDGE
OCCUPIED BANDWIDTH	512 to 810	512, 661, 810	GPRS, EDGE
BAND EDGE	512 to 810	512, 810	GPRS, EDGE
CONDCUDED EMISSION	512 to 810	661	GPRS, EDGE
RADIATED EMISSION	512 to 810	661	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 24

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 and portable stations are limited to 2 watts EIRP

4.1.2 TEST PROCEDURES

EIRP MEASUREMENT:

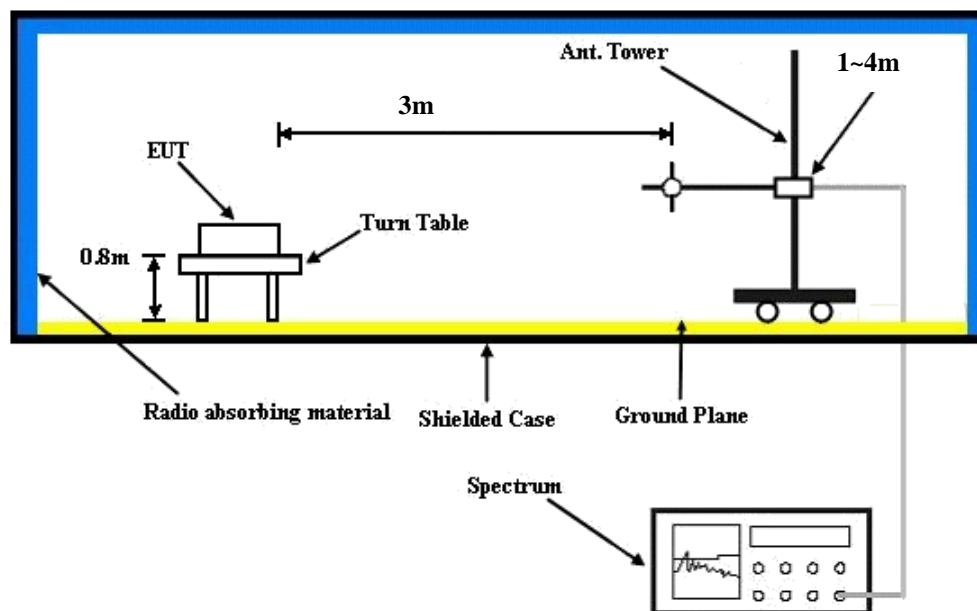
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1MHz for GPRS & EDGE mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search 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. $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn.}$

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.

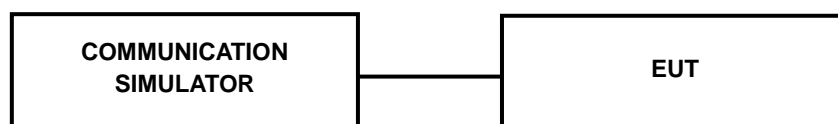
4.1.3 TEST SETUP

EIRP 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 1900		
	512	661	810
Channel	1850.2	1880.0	1909.8
Frequency (MHz)	1850.2	1880.0	1909.8
GSM	29.59	29.76	29.53
GPRS 8	30.12	29.78	29.84
GPRS 10	29.97	29.66	29.77
GPRS 12	29.90	29.46	29.61
DTM 9 (GPRS)	29.49	29.61	29.77
DTM 11 (GPRS)	29.42	29.54	29.70
EDGE 8 (MCS9)	25.64	25.67	25.60
EDGE 10 (MCS9)	25.64	25.67	25.53
EDGE 12 (MCS9)	25.50	25.46	25.32
DTM 9 (EDGE)	25.78	25.76	25.71
DTM 11 (EDGE)	25.74	25.70	25.64
EDGE 8 (MCS1)	25.71	26.28	26.17
EDGE 10 (MCS1)	25.21	25.89	25.86
EDGE 11 (MCS1)	24.91	25.44	25.35
EDGE 12 (MCS1)	24.40	25.01	24.85



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EIRP POWER (dBm)

GPRS 1900

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(W)	Polarization (H/V)
X	512	1850.2	-18.55	38.19	19.64	0.09	H
	661	1880.0	-19.50	38.70	19.20	0.08	H
	810	1909.8	-20.76	39.35	18.59	0.07	H
	512	1850.2	-10.97	38.48	27.51	0.56	V
	661	1880.0	-11.33	38.59	27.26	0.53	V
	810	1909.8	-11.73	38.87	27.14	0.52	V

EDGE 1900

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(W)	Polarization (H/V)
X	512	1850.2	-22.22	38.19	15.97	0.04	H
	661	1880.0	-23.15	38.70	15.55	0.04	H
	810	1909.8	-23.84	39.35	15.51	0.04	H
	512	1850.2	-14.24	38.48	24.24	0.27	V
	661	1880.0	-14.39	38.59	24.20	0.26	V
	810	1909.8	-15.27	38.87	23.60	0.23	V

4.2 FREQUENCY STABILITY MEASUREMENT

4.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

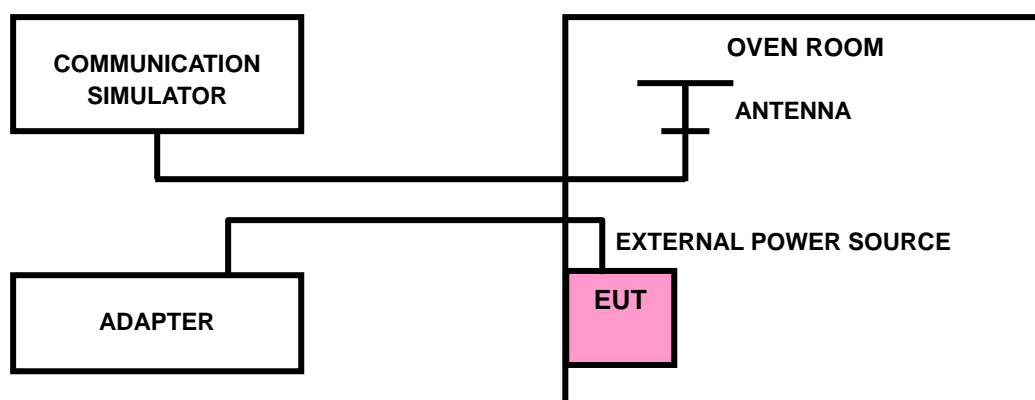
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

4.2.2 TEST PROCEDURE

- a. 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.
- b. 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.
- c. 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	-0.02	-0.02	2.5
3.4	-0.01	-0.02	2.5
4.2	-0.01	-0.02	2.5

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

FREQUENCY ERROR vs. TEMPERATURE.

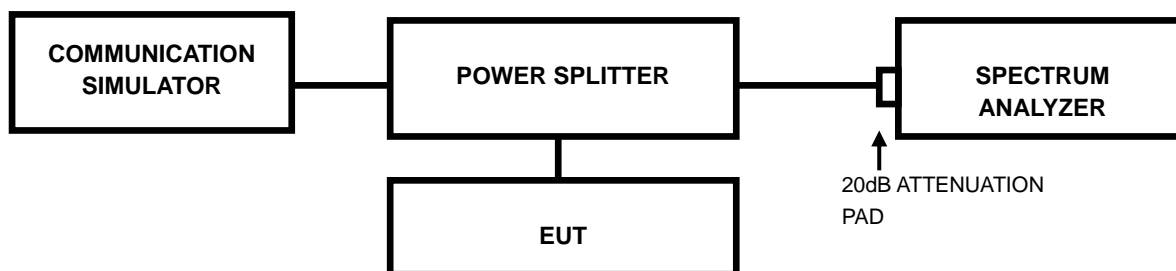
TEMP. (°C)	FREQUENCY ERROR (ppm)		LIMIT (ppm)
	GPRS	EDGE	
-30	0.02	0.02	2.5
-20	-0.01	0.01	2.5
-10	-0.01	-0.01	2.5
0	-0.01	-0.01	2.5
10	-0.01	0.01	2.5
20	-0.03	-0.01	2.5
30	-0.03	-0.02	2.5
40	-0.03	-0.02	2.5
50	-0.02	-0.02	2.5

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

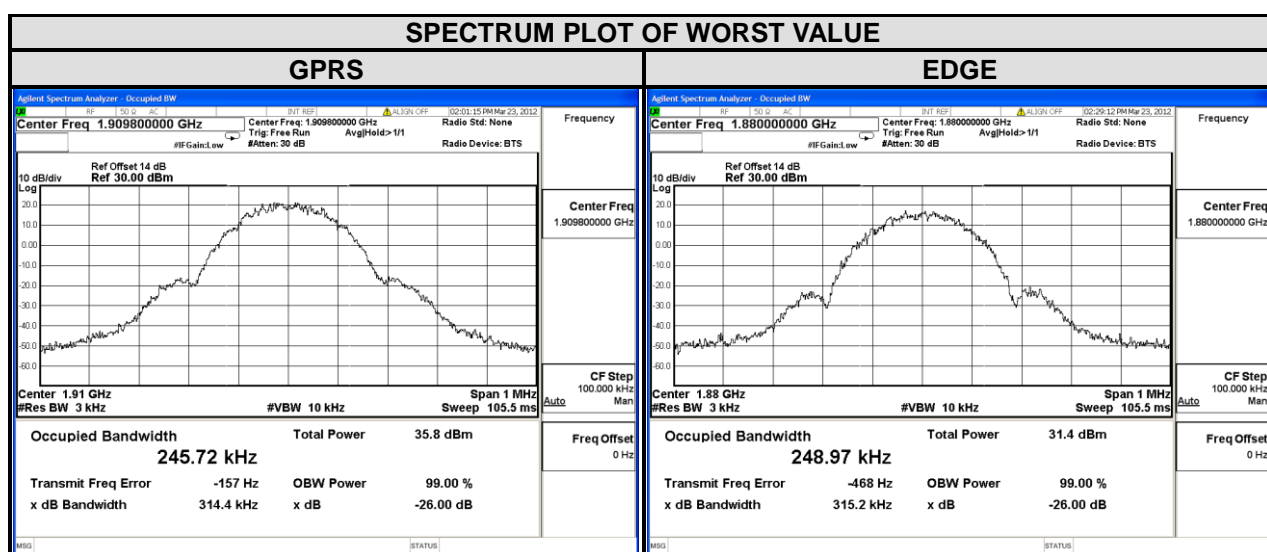




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4.3.3 TEST RESULTS

CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (kHz)	
		GPRS	EDGE
512	1850.2	244.78	245.67
661	1880.0	243.29	248.97
810	1909.8	245.72	244.16

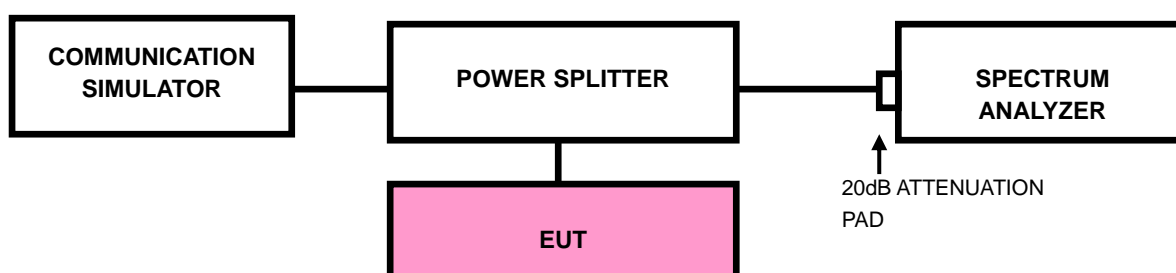


4.4 BAND EDGE MEASUREMENT

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



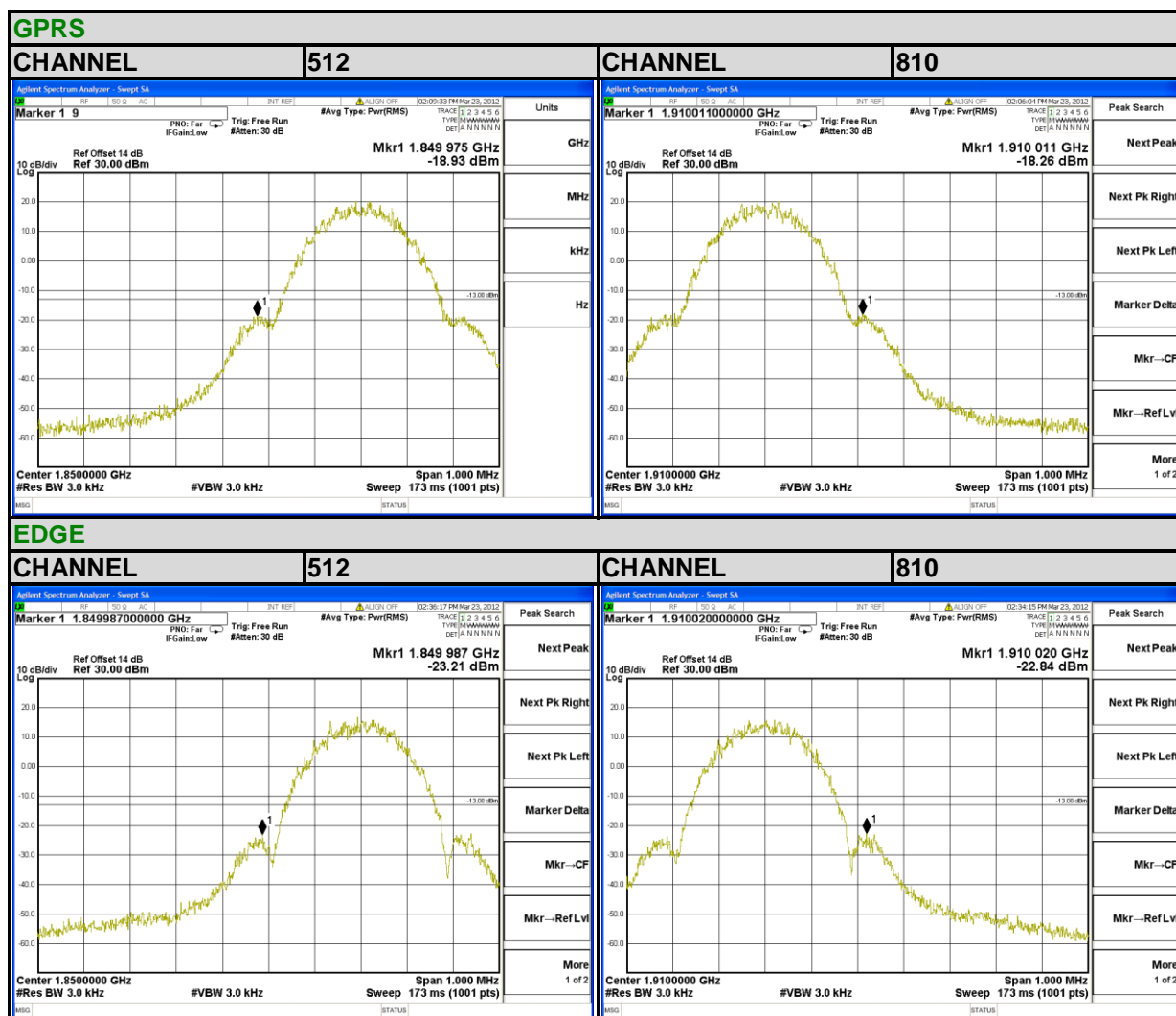
4.4.3 TEST PROCEDURES

- 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

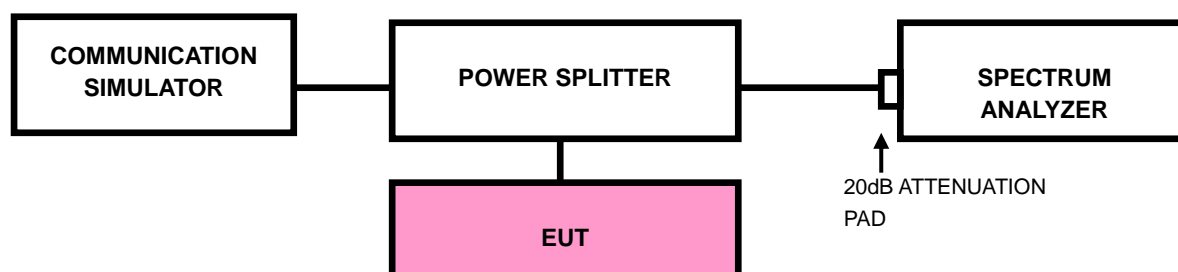
4.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

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 -13dBm .

4.5.2 TEST PROCEDURE

- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range is from 9 kHz to 19.1GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

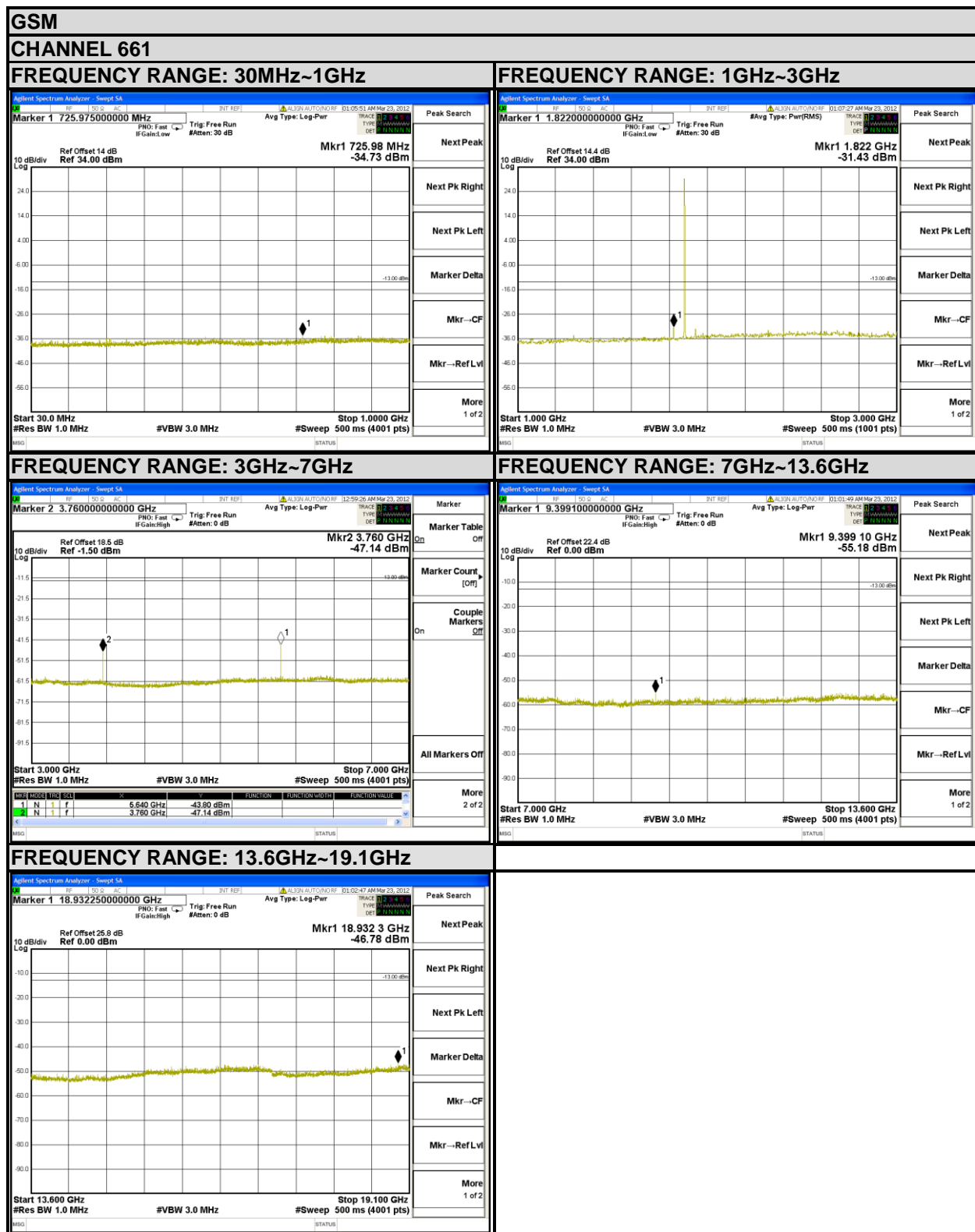
4.5.3 TEST SETUP





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4.5.4 TEST RESULTS



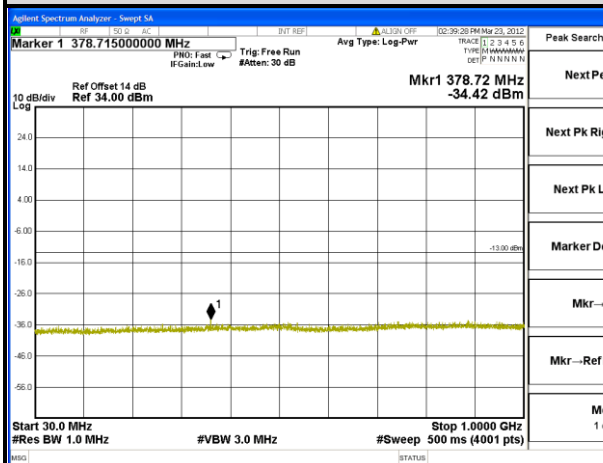


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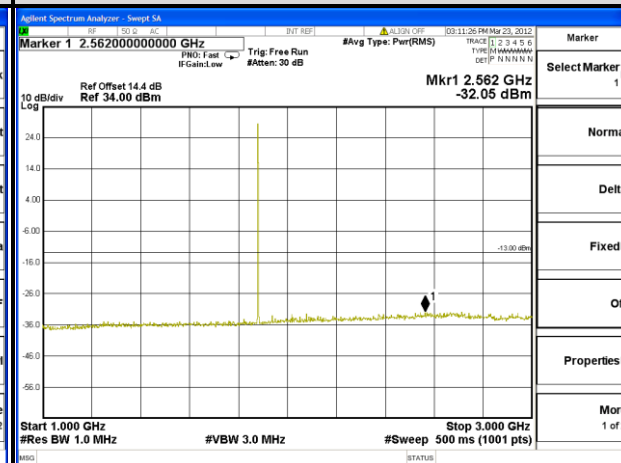
EDGE

CHANNEL 661

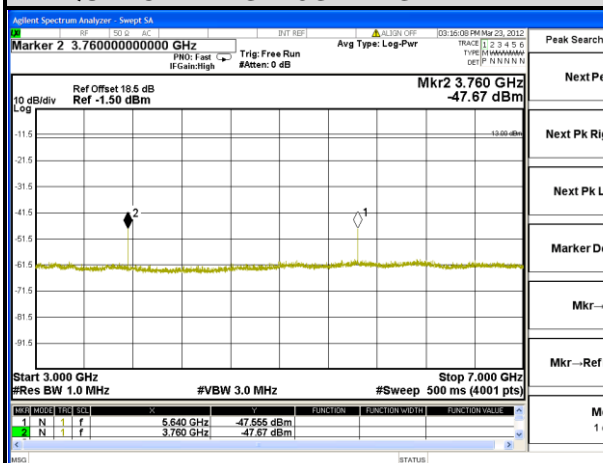
FREQUENCY RANGE: 30MHz~1GHz



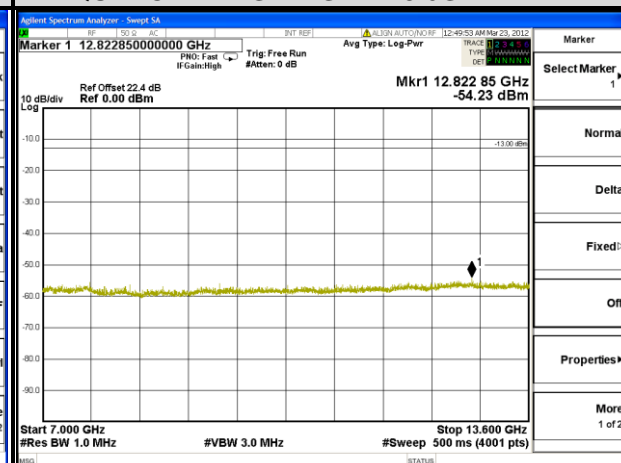
FREQUENCY RANGE: 1GHz~3GHz



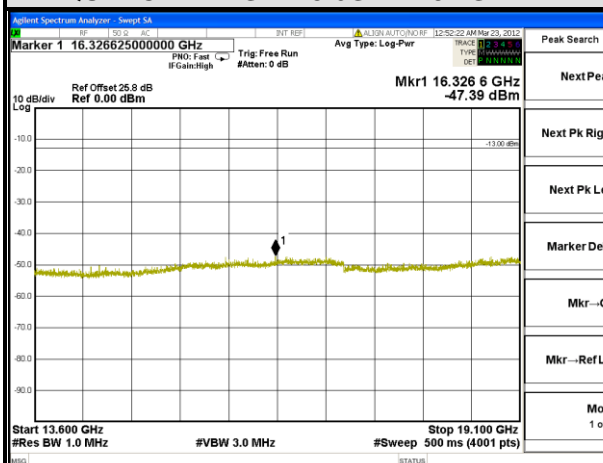
FREQUENCY RANGE: 3GHz~7GHz



FREQUENCY RANGE: 7GHz~13.6GHz



FREQUENCY RANGE: 13.6GHz~19.1GHz



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 -13dBm .

4.6.2 TEST PROCEDURES

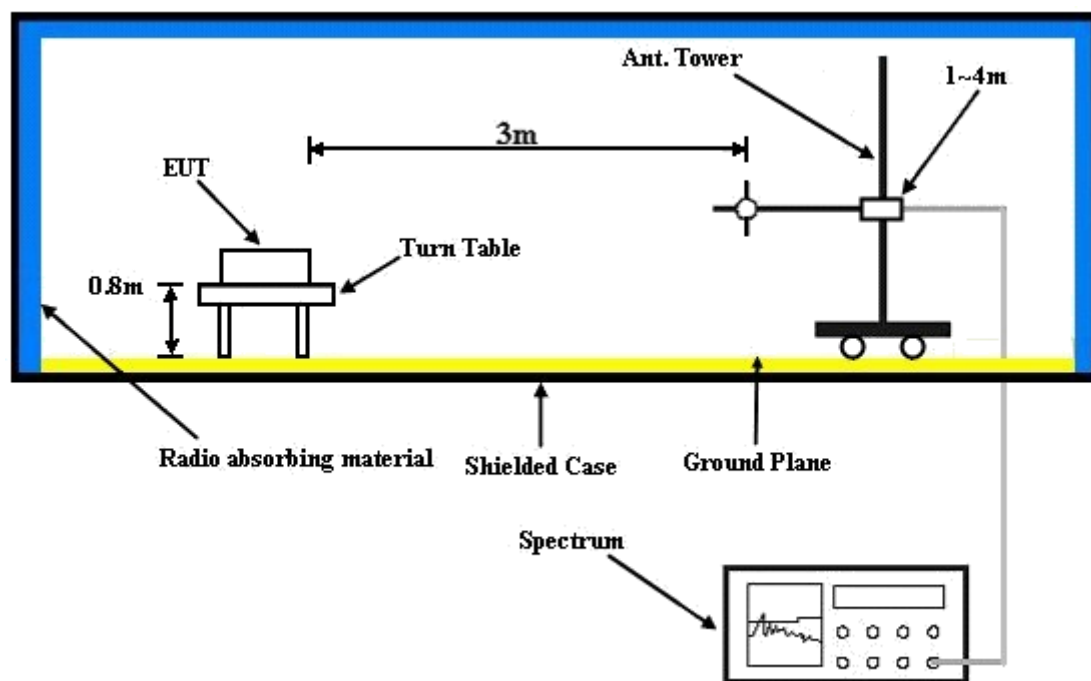
- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 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:

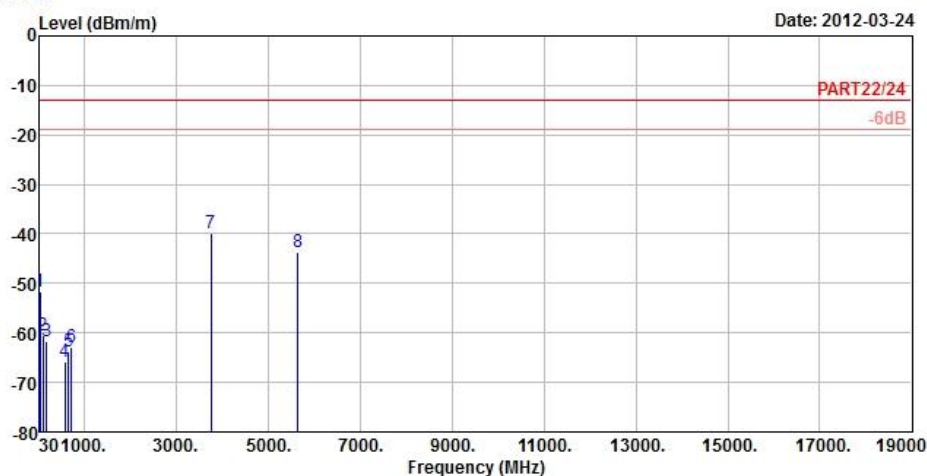


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 15

Date: 2012-03-24



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE_1G~19G_3 HORIZONTAL
 Brand/Model: HiLoNC3GPS
 Remark : GPRS1900 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	-51.76	-52.83	-13.00	-38.76	1.07	Peak
2	102.36	-60.61	-50.15	-13.00	-47.61	-10.46	Peak
3	184.71	-61.59	-55.46	-13.00	-48.59	-6.13	Peak
4	568.80	-65.80	-64.57	-13.00	-52.80	-1.23	Peak
5	649.30	-63.74	-64.26	-13.00	-50.74	0.52	Peak
6	717.20	-62.93	-64.49	-13.00	-49.93	1.56	Peak
7 pp	3760.00	-39.79	-33.06	-13.00	-26.79	-6.73	Peak
8	5640.00	-43.77	-43.98	-13.00	-30.77	0.21	Peak



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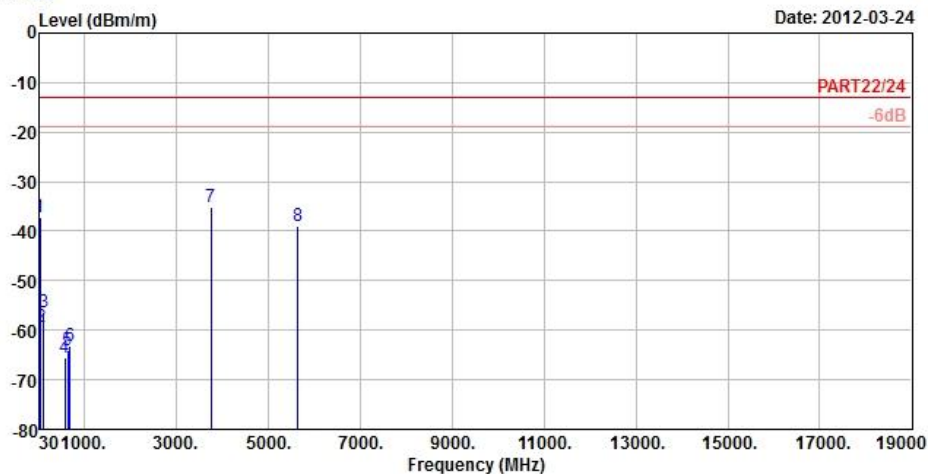


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 16

Date: 2012-03-24



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE_1G~19G_3 VERTICAL
 Brand/Model: HiLoNC3GPS
 Remark : GPRS1900 Link
 Tested by : Kay Wu
 Temperature : 25°C
 Humidity : 65%
 Plane : X

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	30.00	-37.31	-38.38	-13.00	-24.31	1.07	Peak
2	51.06	-59.39	-54.64	-13.00	-46.39	-4.75	Peak
3	118.02	-56.32	-45.52	-13.00	-43.32	-10.80	Peak
4	582.80	-65.65	-64.82	-13.00	-52.65	-0.83	Peak
5	636.70	-64.15	-64.45	-13.00	-51.15	0.30	Peak
6	685.00	-63.12	-64.29	-13.00	-50.12	1.17	Peak
7 pp	3760.00	-35.16	-28.43	-13.00	-22.16	-6.73	Peak
8	5640.00	-38.94	-39.15	-13.00	-25.94	0.21	Peak



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EDGE:

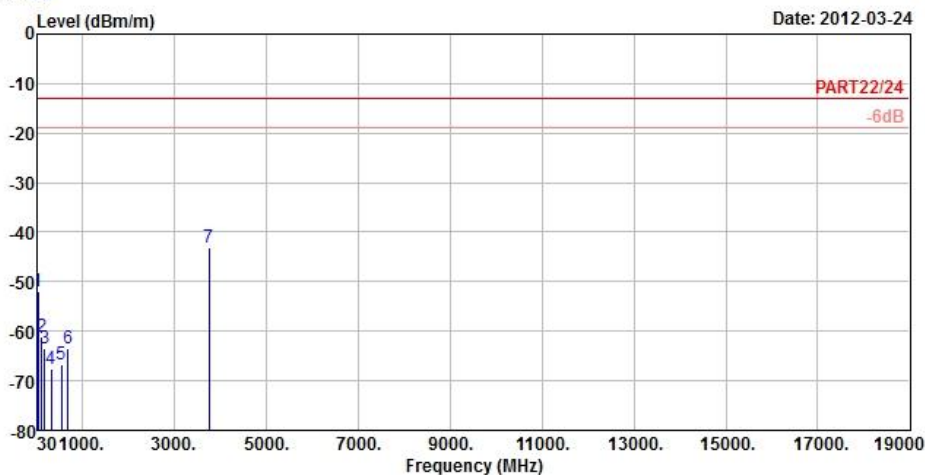


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 15

Date: 2012-03-24



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE_1G~19G_3 HORIZONTAL
 Brand/Model: HiLoNC3GPS
 Remark : EGPRS1900 Link
 Tested by : Kay Wu
 Temperature : 25°C
 Humidity : 65%
 Plane : X

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	30.00	-51.86	-52.93	-13.00	-38.86	1.07	Peak
2	119.10	-61.16	-50.34	-13.00	-48.16	-10.82	Peak
3	179.85	-63.46	-57.60	-13.00	-50.46	-5.86	Peak
4	328.00	-67.72	-61.55	-13.00	-54.72	-6.17	Peak
5	537.30	-66.71	-64.63	-13.00	-53.71	-2.08	Peak
6	687.80	-63.43	-64.65	-13.00	-50.43	1.22	Peak
7 pp	3760.00	-43.19	-36.46	-13.00	-30.19	-6.73	Peak



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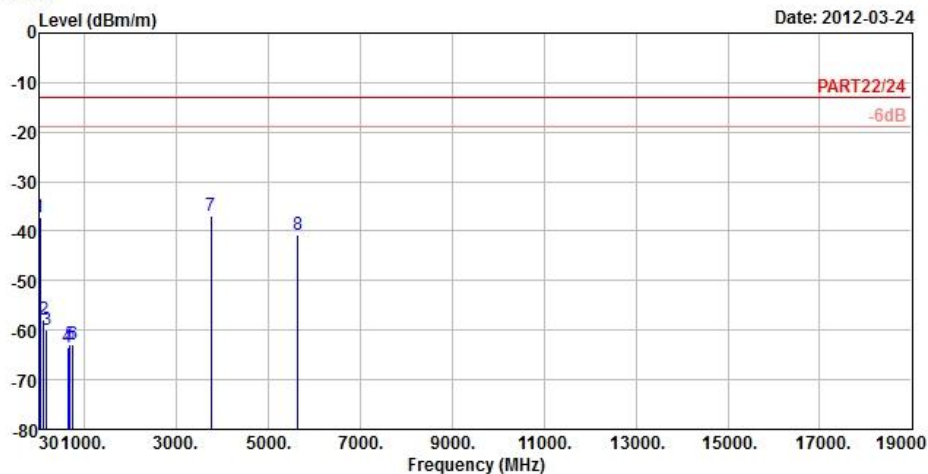


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 16

Date: 2012-03-24



Site : 966 Chamber 5
 Condition : PART22/24 3m EIRP_RSE_1G~19G_3 VERTICAL
 Brand/Model: HiLoNC3GPS
 Remark : EGPRS1900 Link
 Tested by : Kay Wu
 Temperature : 25°C
 Humidity : 65%
 Plane : X

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm/m	dBm	dBm/m	dB	dB/m	
1	30.00	-37.06	-38.13	-13.00	-24.06	1.07	Peak
2	116.94	-57.98	-47.20	-13.00	-44.98	-10.78	Peak
3	184.71	-59.97	-53.84	-13.00	-46.97	-6.13	Peak
4	633.90	-63.34	-63.60	-13.00	-50.34	0.26	Peak
5	688.50	-62.91	-64.15	-13.00	-49.91	1.24	Peak
6	748.70	-62.91	-64.69	-13.00	-49.91	1.78	Peak
7 pp	3760.00	-36.87	-30.14	-13.00	-23.87	-6.73	Peak
8	5640.00	-40.86	-41.07	-13.00	-27.86	0.21	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. 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

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Tel: 886-3-3183232

Fax: 886-3-3185050

Email: service.adt@tw.bureauveritas.com

Web Site: 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---