

FCC TEST REPORT

(PART 24)

REPORT NO.: RF120309C35-1 R1

MODEL NO.: FZ-A1BDAAAAM

FCC ID: ACJ9TGFZ-A13

RECEIVED: Mar. 09, 2012

TESTED: Apr. 06 ~ Jun. 15, 2012

ISSUED: Jun. 15, 2012

APPLICANT: Panasonic Corporation of North America

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ISSUED BY: Bureau Veritas Consumer Products Services
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120309C35-1	Original release	May 31, 2012
RF120309C35-1 R1	Revised the emission designator, peak to average ratio and typing error.	Jun. 15, 2012



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1 CERTIFICATION

PRODUCT: Tablet PC

MODEL: FZ-A1BDAAAAM

BRAND: Panasonic

APPLICANT: Panasonic Corporation of North America

TESTED: Apr. 06 ~ Jun. 15, 2012

TEST SAMPLE: Production Unit

STANDARDS: FCC Part 24, Subpart E

The above equipment (model: FZ-A1BDAAAAM) 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** : Jun. 15, 2012
Ivonne Wu / Senior Specialist

APPROVED BY : Gary Chang , **DATE** : Jun. 15, 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.
24.232(d)	Peak to Average Ratio	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 -23.95Db at 39.99MHz.

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	2.93 Db
	200MHz ~1000MHz	2.95 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	309219/4	Oct. 21, 2011	Oct. 20, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Jan. 02, 2012	Jan. 01, 2013
RF signal cable Worken	RG-213	NA	Jan. 02, 2012	Jan. 01, 2013
Software	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA
Mini-Circuits Power Splitter	ZN2PD-9G	NA	Mar. 23, 2012	Mar. 22, 2013
JFW 20Db attenuation	50HF-020-SMA	NA	NA	NA
Communications Tester-Wireless	E5515C	MY50266653	Sep. 28, 2011	Sep. 27, 2012
Radio Communication Analyzer	MT8820C	6201010284	Aug. 01, 2011	Jul. 31, 2012

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 9.

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	Tablet PC
MODEL NO.	FZ-A1BDAAAAM
POWER SUPPLY	12.0Vdc (adapter) 7.4Vdc (battery)
MODULATION TYPE	GPRS: GMSK EDGE: 8PSK WCDMA : BPSK
FREQUENCY RANGE	GPRS, EDGE: 1850.2MHz ~ 1909.8MHz WCDMA: 1852.4MHz ~ 1907.6MHz
MAX. EIRP POWER	GPRS: 1.24Watts EDGE: 0.43Watts WCDMA: 0.25Watts
EMISSION DESIGNATOR	GPRS: 245KGXW EDGE: 244KG7W WCDMA: 4M16F9W
MULTI-SLOTS CLASS	12
WCDMA RELEASE VERSION	6
ANTENNA TYPE	Fixed Internal antenna with 3.81 dBi gain
I/O PORTS	Refer to users' manual
DATA CABLE	Refer to Note as below
ACCESSORY DEVICES	Refer to Note as below

NOTE:

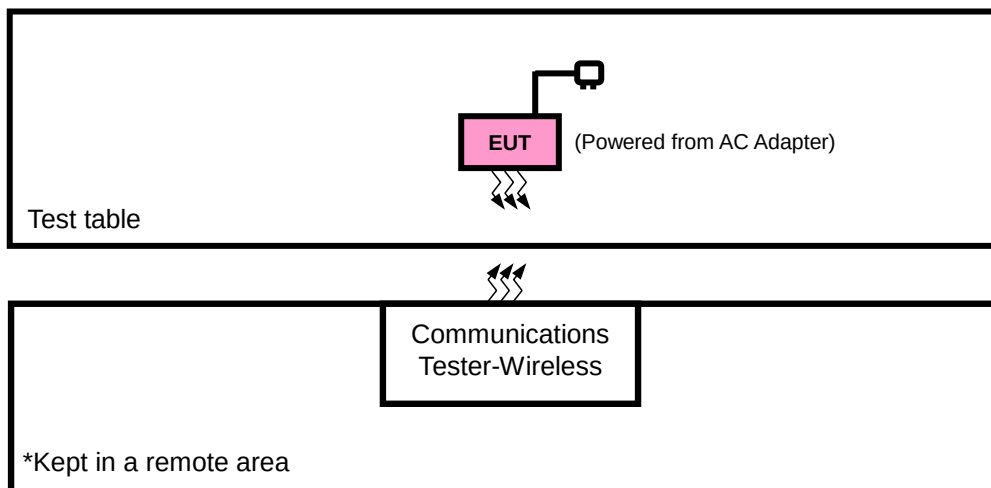
- The EUT contains the following accessories.

AC Adapter	Brand Name	JRC
	Model Name	NJD-9370
	Power Rating	I/P:100-240Vac, 0.5A ~ 0.3A, 50/60Hz; O/P: 12Vdc, 2.0A
	DC Power Cord Type	0.7 meter non-shielded cable without ferrite core
Battery	Brand Name	SANYO
	Model Name	2UF484462-3-T0775
	Power Rating	7.4Vdc
	Type	Li-ion
LCD Panel	Brand Name	Hannstar
	Model Name	HSD100PXN1
Main Camera	Brand Name	D-Max Technology
	Model Name	HAC-001502-W1A
2nd Camera	Brand Name	D-Max Technology
	Model Name	HAC-002103-W1A

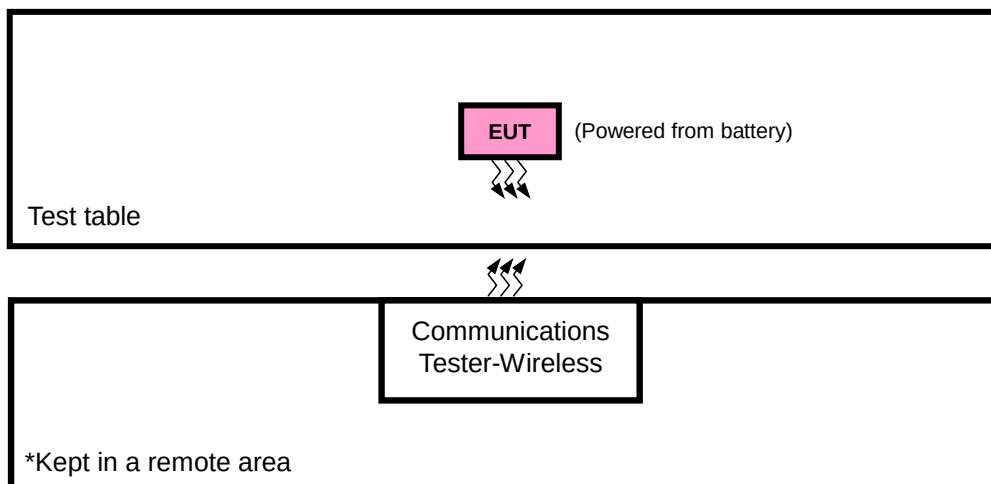
- The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 CONFIGURATION OF SYSTEM UNDER TEST

FOR RADIATION EMISSION TEST



FOR E.I.R.P. TEST



3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units.

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:

GSM MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
-	EIRP	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
-	PEAK TO AVERAGE RATIO	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

WCDMA MODE

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
-	EIRP	9262 to 9538	9262, 9400, 9538	WCDMA
-	FREQUENCY STABILITY	9262 to 9538	9400	WCDMA
-	OCCUPIED BANDWIDTH	9262 to 9538	9262, 9400, 9538	WCDMA
-	PEAK TO AVERAGE RATIO	9262 to 9538	9262, 9400, 9538	WCDMA
-	BAND EDGE	9262 to 9538	9262, 9538	WCDMA
-	CONDCUDED EMISSION	9262 to 9538	9400	WCDMA
-	RADIATED EMISSION	9262 to 9538	9400	WCDMA

TEST CONDITION:

TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	25deg. C, 65%RH	7.4Vdc	Phoenix Chen
FREQUENCY STABILITY	25deg. C, 65%RH	7.4Vdc	Phoenix Chen
OCCUPIED BANDWIDTH	25deg. C, 65%RH	7.4Vdc	Phoenix Chen
PEAK TO AVERAGE RATIO	25deg. C, 65%RH	7.4Vdc	Phoenix Chen
BAND EDGE	25deg. C, 65%RH	7.4Vdc	Phoenix Chen
CONDCUDED EMISSION	25deg. C, 65%RH	7.4Vdc	Phoenix Chen
RADIATED EMISSION	25deg. C, 65%RH	120Vac, 60Hz	Kay Wu



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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:

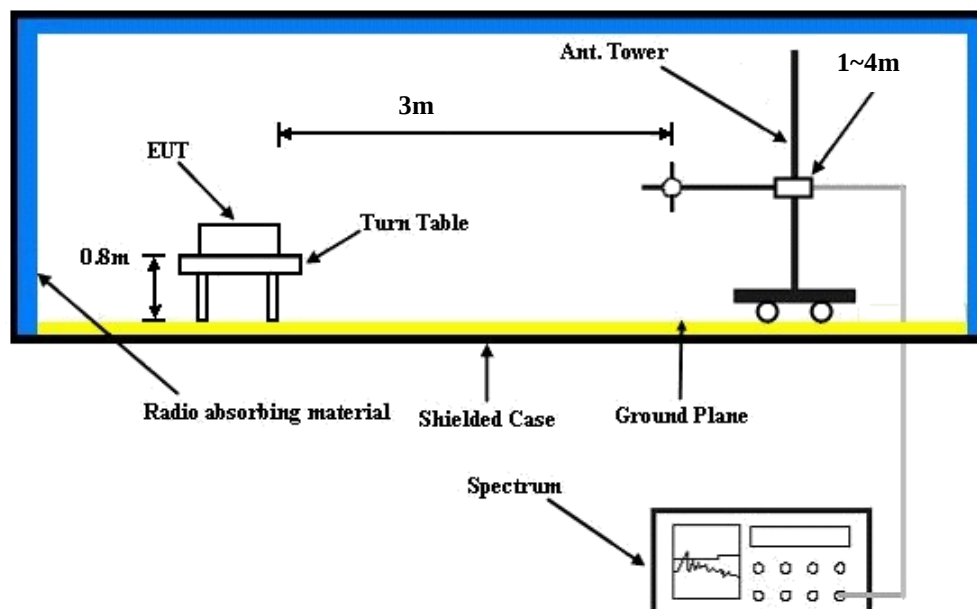
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1MHz for GPRS & EDGE and 5MHz for WCDMA mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 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 & WCDMA 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.

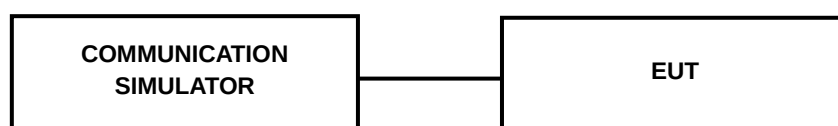
4.1.3 TEST SETUP

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

AVERAGE CONDUCTED OUTPUT POWER (dBm)

Band	GPRS1900		
Channel	512	661	810
Frequency (MHz)	1850.2	1880.0	1909.8
GPRS 8 (GMSK, 1 slot)	29.38	29.58	29.70
GPRS 10 (GMSK, 2 slot)	29.26	29.56	29.61
EDGE 8 (GMSK, 1 slot)	25.94	26.47	26.51
EDGE 10 (GMSK, 2 slot)	25.84	26.32	26.31
EDGE 11 (GMSK, 3 slot)	25.62	26.04	26.00
EDGE 12 (GMSK, 4 slot)	25.38	25.78	25.58
EDGE 8 (8PSK, 1 slot)	25.39	25.22	25.33
EDGE 10 (8PSK, 2 slot)	25.31	25.21	25.30
EDGE 11 (8PSK, 3 slot)	25.23	25.30	25.29
EDGE 12 (8PSK, 4 slot)	24.93	25.00	25.25

Band	WCDMA II		
Channel	9262	9400	9538
Frequency (MHz)	1852.4	1880.0	1907.6
RMC 12.2K	22.82	22.83	22.90
HSDPA Subtest-1	22.38	21.95	22.39
HSDPA Subtest-2	22.36	22.29	22.46
HSDPA Subtest-3	21.92	21.88	21.93
HSDPA Subtest-4	21.88	21.84	21.89
HSUPA Subtest-1	21.73	21.72	22.11
HSUPA Subtest-2	20.77	20.66	20.87
HSUPA Subtest-3	21.08	21.09	21.02
HSUPA Subtest-4	21.41	21.05	21.21
HSUPA Subtest-5	22.44	22.30	22.29

AVERAGE 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	-8.96	38.19	29.23	0.84	H
	661	1880.0	-9.02	38.70	29.68	0.93	H
	810	1909.8	-8.42	39.35	30.93	1.24	H
	512	1850.2	-11.61	38.48	26.87	0.49	V
	661	1880.0	-11.29	38.59	27.30	0.54	V
	810	1909.8	-11.26	38.87	27.61	0.58	V

EDGE 1900

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(W)	Polarization (H/V)
X	512	1850.2	-13.28	38.19	24.91	0.31	H
	661	1880.0	-13.18	38.70	25.52	0.36	H
	810	1909.8	-12.98	39.35	26.37	0.43	H
	512	1850.2	-15.92	38.48	22.56	0.18	V
	661	1880.0	-15.55	38.59	23.04	0.20	V
	810	1909.8	-15.86	38.87	23.01	0.20	V

WCDMA 1900

Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor(dB)	EIRP(dBm)	EIRP(W)	Polarization (H/V)
X	9262	1852.4	-15.08	38.19	23.11	0.20	H
	9400	1880.0	-15.46	38.70	23.24	0.21	H
	9538	1907.6	-15.45	39.35	23.90	0.25	H
	9262	1852.4	-18.39	38.48	20.09	0.10	V
	9400	1880.0	-18.65	38.59	19.94	0.10	V
	9538	1907.6	-18.70	38.87	20.17	0.10	V

4.2 FREQUENCY STABILITY MEASUREMENT

4.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

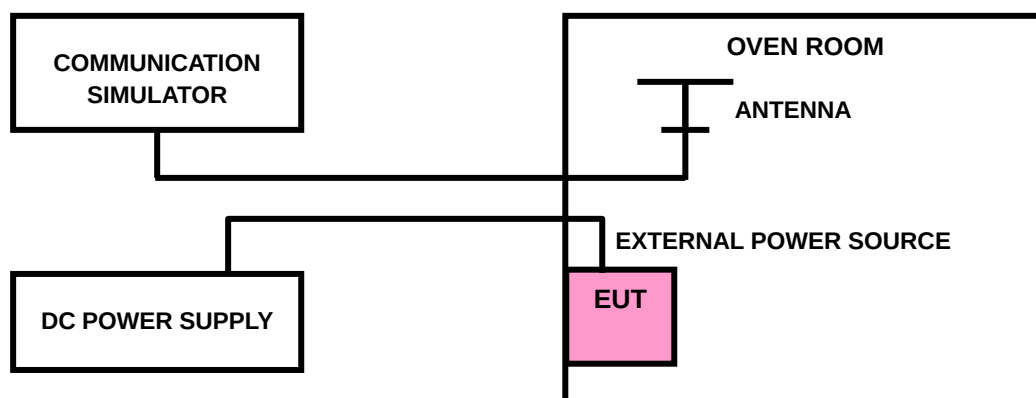
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

4.2.2 TEST PROCEDURE

- 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	WCDMA	
7.7	0.030	0.007	0.004	2.5
7.0	0.029	0.007	0.004	2.5
8.4	0.031	0.007	0.004	2.5

NOTE: The applicant defined the normal working voltage of the battery is from 7.0Vdc to 8.4Vdc.

FREQUENCY ERROR vs. TEMPERATURE.

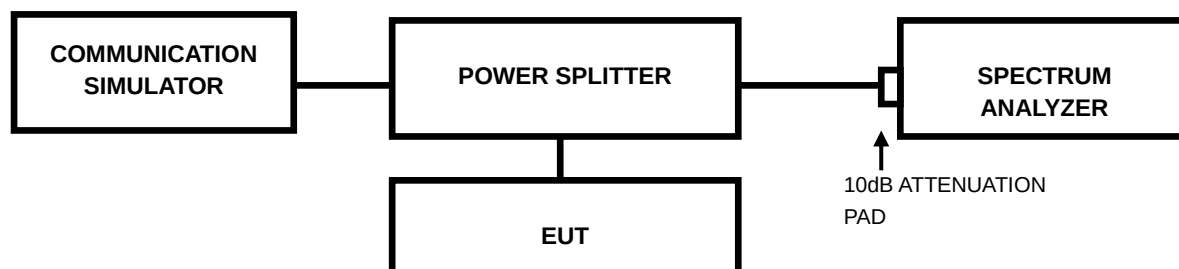
TEMP. (°C)	FREQUENCY ERROR (ppm)			LIMIT (ppm)
	GPRS	EDGE	WCDMA	
-10	0.033	-0.009	0.004	2.5
0	0.034	-0.009	0.003	2.5
10	0.028	-0.010	0.005	2.5
20	0.029	-0.010	0.003	2.5
30	0.029	-0.009	0.004	2.5
40	0.029	-0.011	0.003	2.5
50	0.030	-0.010	0.003	2.5

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



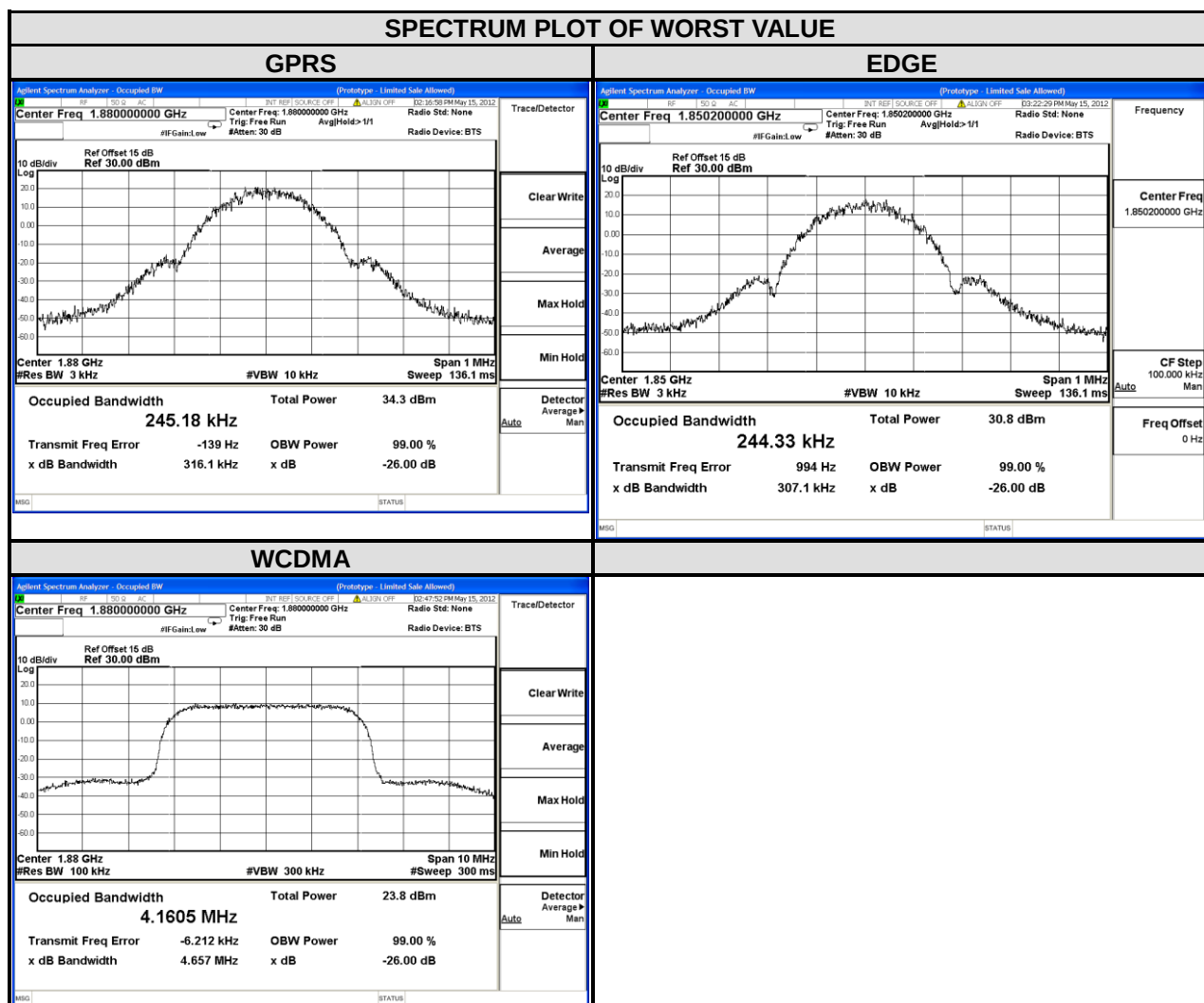


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4.3.3 TEST RESULTS

CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (kHz)		CHANNEL	FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH (MHz)
		GPRS	EDGE			WCDMA
512	1850.2	244.71	244.33	9262	1852.4	4.15
661	1880.0	245.18	243.77	9400	1880.0	4.16
810	1909.8	240.75	242.02	9538	1907.6	4.15

CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (kHz)		CHANNEL	FREQUENCY (MHz)	26dB BANDWIDTH (MHz)
		GPRS	EDGE			WCDMA
512	1850.2	316.70	307.10	9262	1852.4	4.65
661	1880.0	316.10	299.20	9400	1880.0	4.66
810	1909.8	308.10	308.20	9538	1907.6	4.65

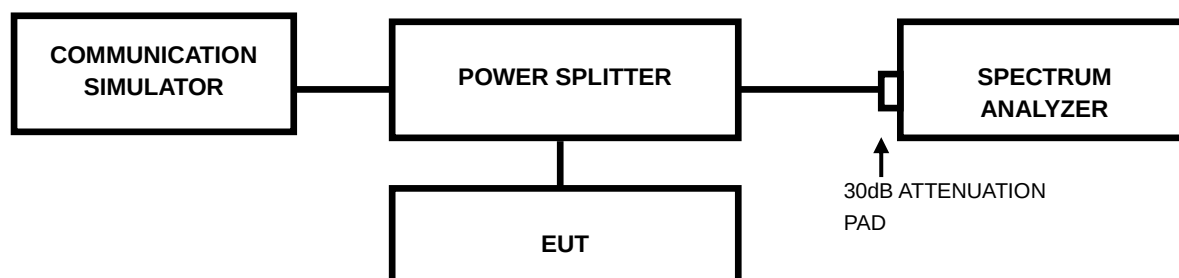


4.4 PEAK TO AVERAGE RATIO

4.4.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

4.4.2 TEST SETUP



4.4.3 TEST PROCEDURES

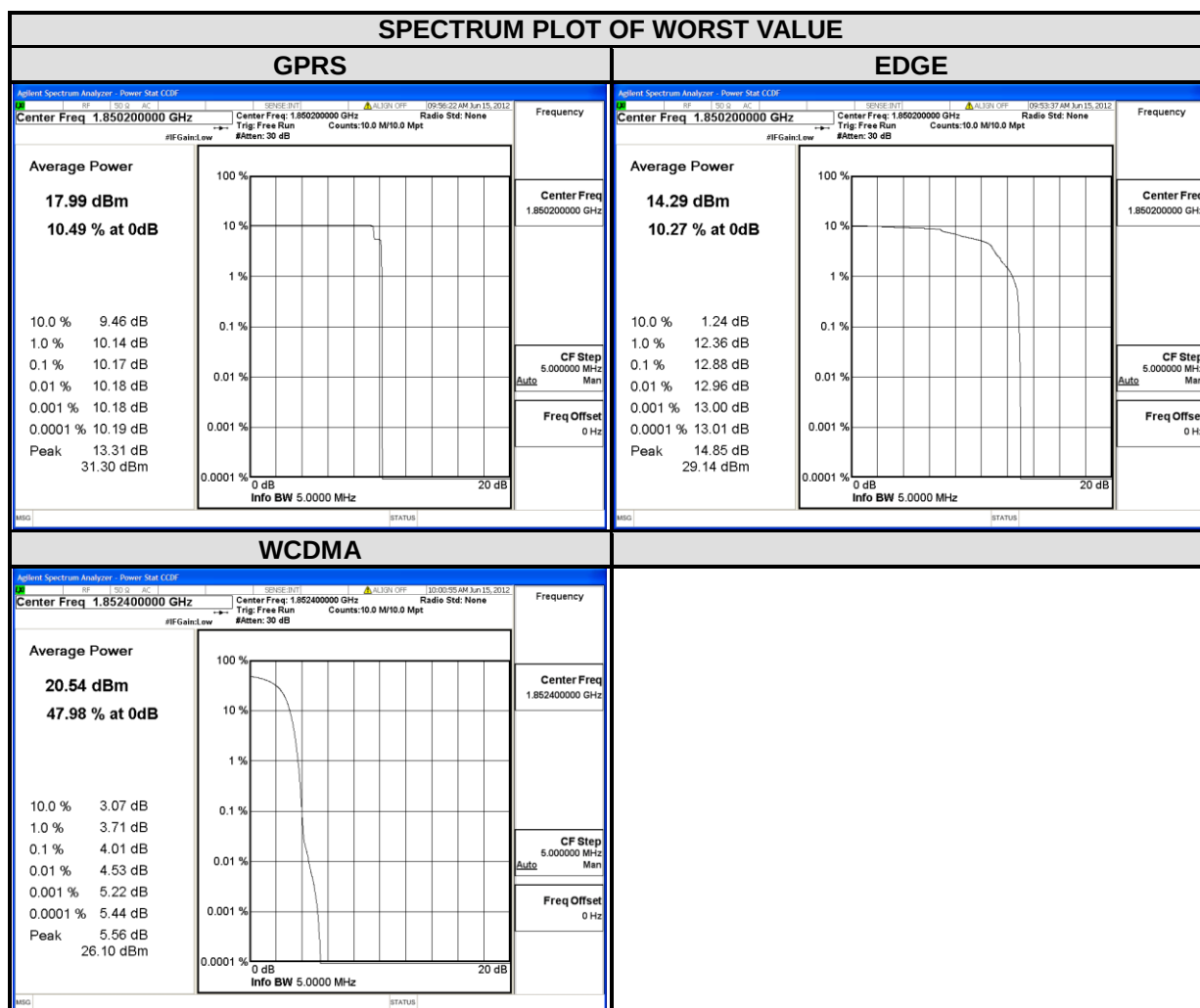
1. Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.



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4.4.4 TEST RESULTS

CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)		CHANNEL	FREQUENCY (MHz)	PEAK TO AVERAGE RATIO (dB)
		GPRS	EDGE			WCDMA
512	1850.2	10.17	12.88	9262	1852.4	4.01
661	1880.0	9.59	12.83	9400	1880.0	3.94
810	1909.8	10.09	12.48	9538	1907.6	3.97

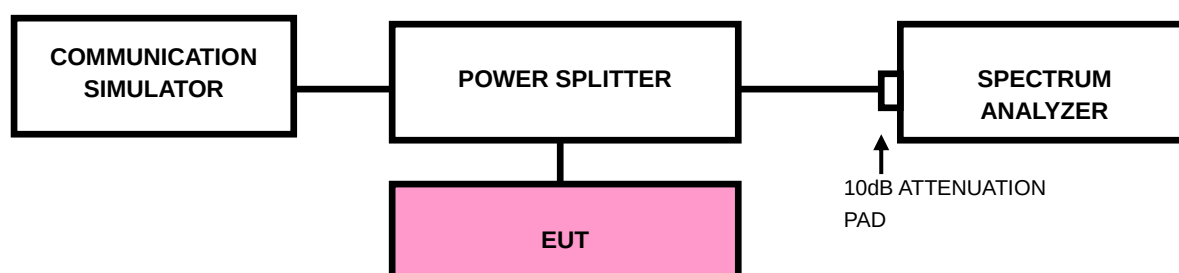


4.5 BAND EDGE MEASUREMENT

4.5.1 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.

4.5.2 TEST SETUP



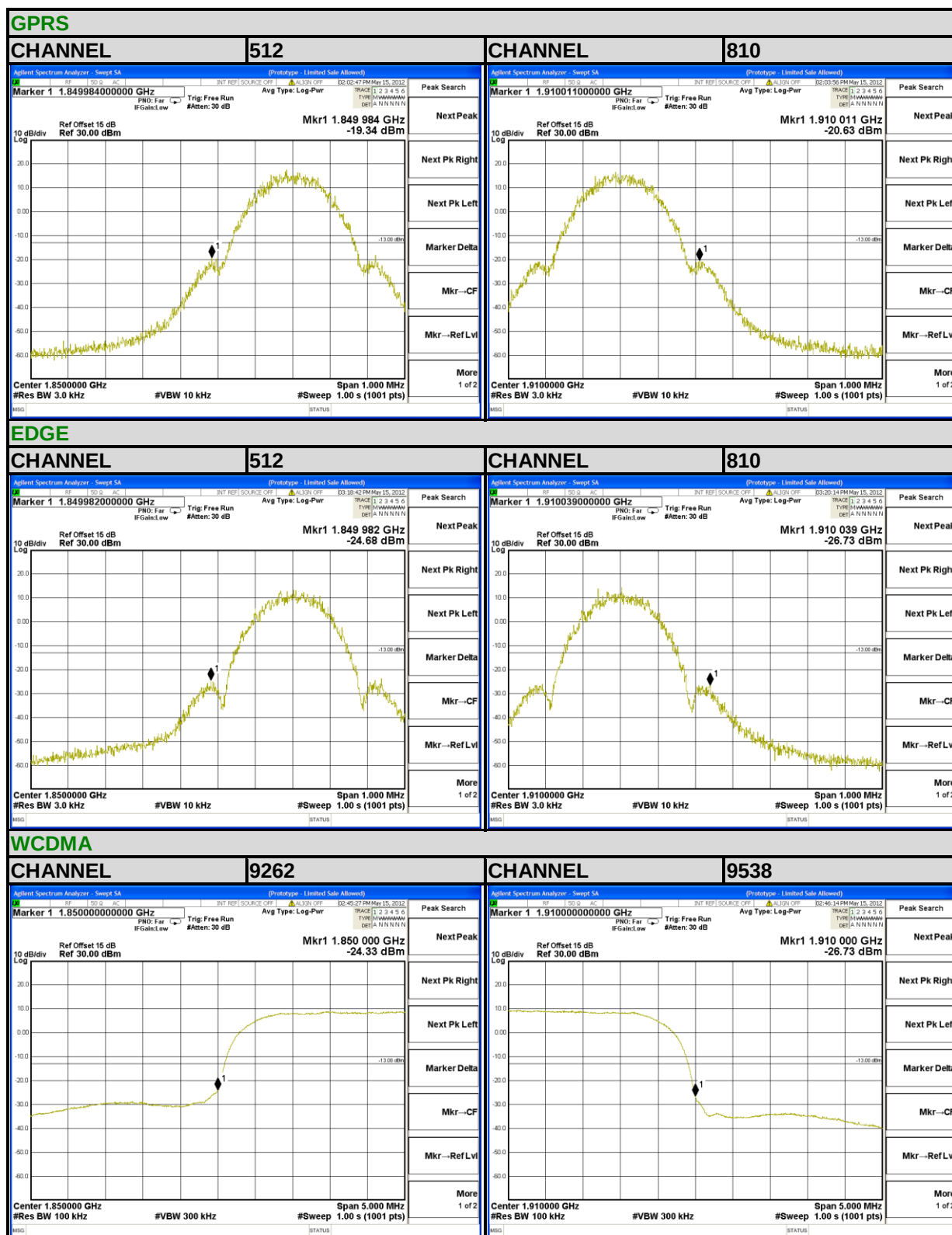
4.5.3 TEST PROCEDURES

- All measurements were done at low and high operational frequency range.
- The center frequency of spectrum is the band edge frequency and span is 1.0 MHz. RB of the spectrum is 3kHz and VB of the spectrum is 10kHz (GPRS / EDGE).
- The center frequency of spectrum is the band edge frequency and span is 5MHz. RB of the spectrum is 100kHz and VB of the spectrum is 300kHz (WCDMA).
- Record the max trace plot into the test report.



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4.5.4 TEST RESULTS



4.6 CONDUCTED SPURIOUS EMISSIONS

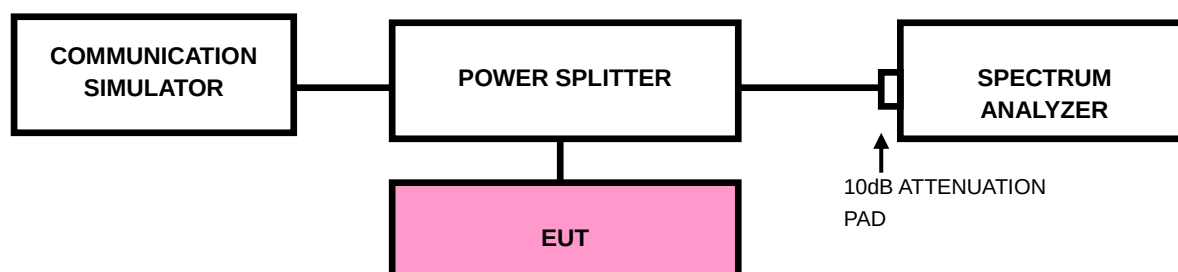
4.6.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

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 .

4.6.2 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 30MHz to 19.1GHz. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

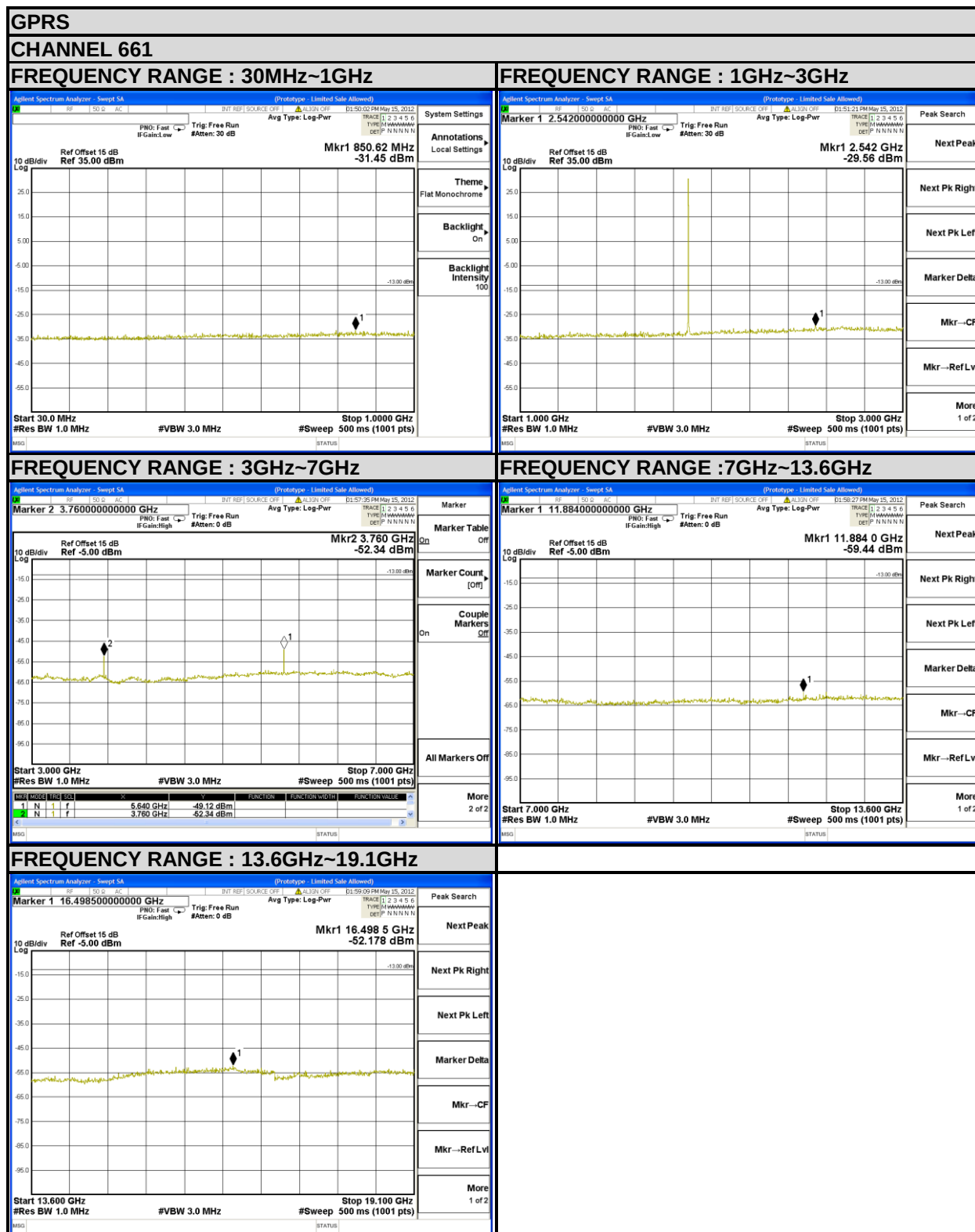
4.6.3 TEST SETUP





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4.6.4 TEST RESULTS



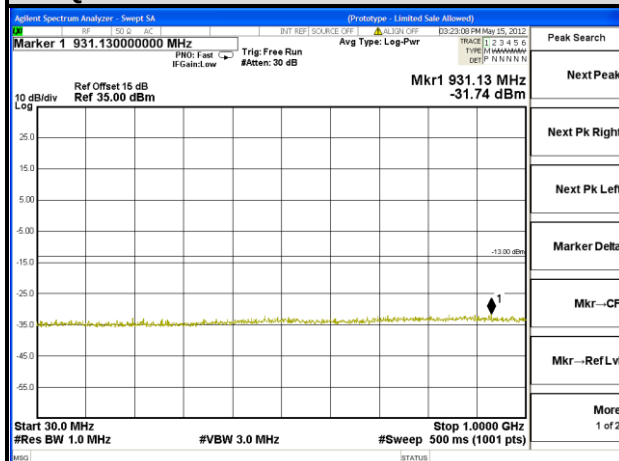


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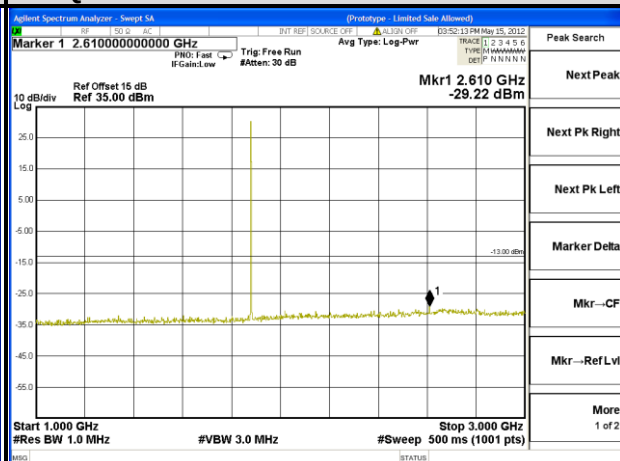
EDGE

CHANNEL 661

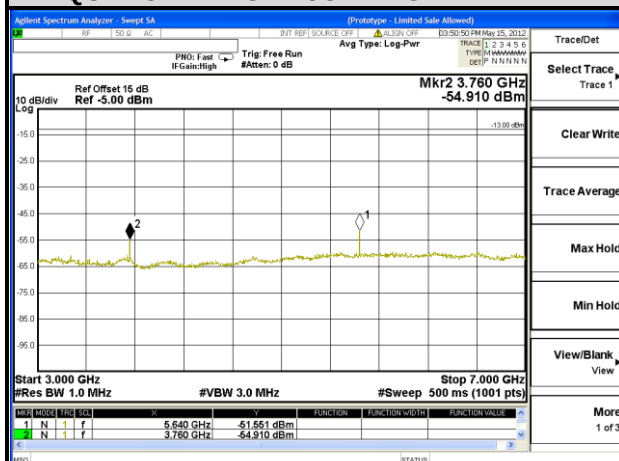
FREQUENCY RANGE : 30MHz~1GHz



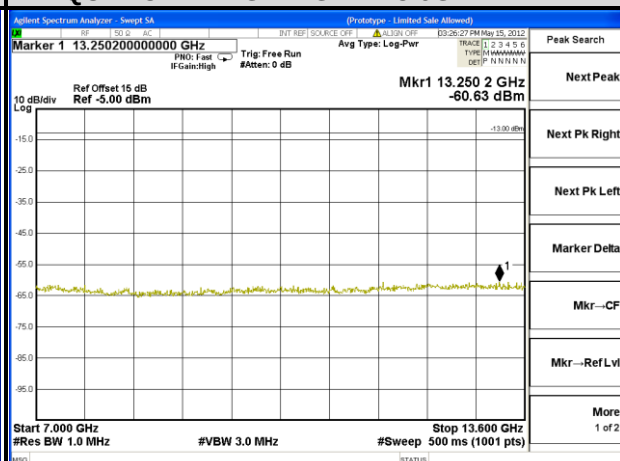
FREQUENCY RANGE : 1GHz~3GHz



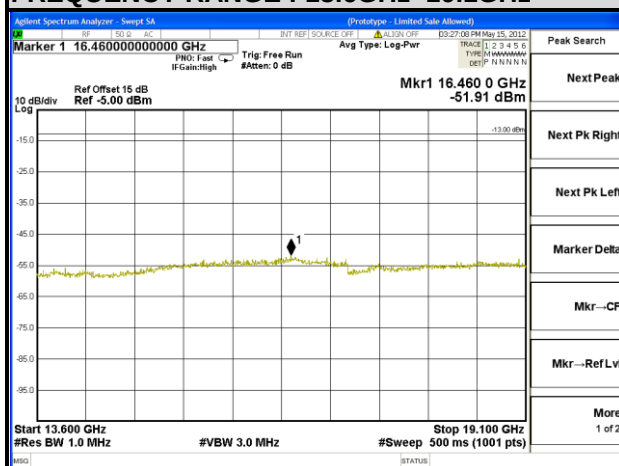
FREQUENCY RANGE : 3GHz~7GHz



FREQUENCY RANGE : 7GHz~13.6GHz



FREQUENCY RANGE : 13.6GHz~19.1GHz



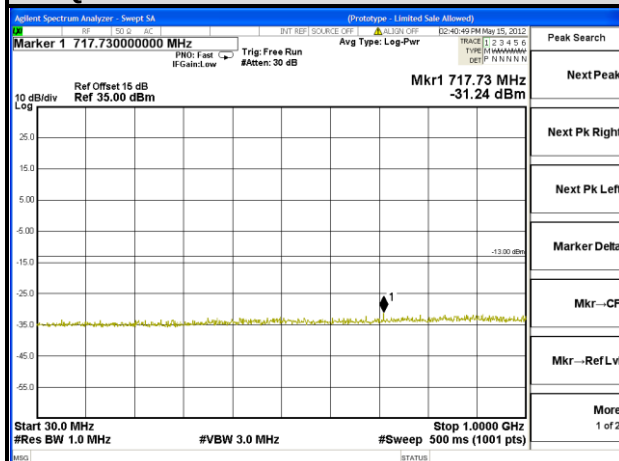


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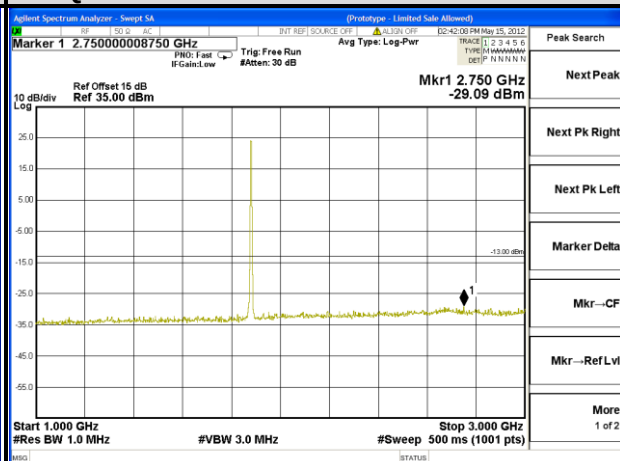
WCDMA

CHANNEL 9400

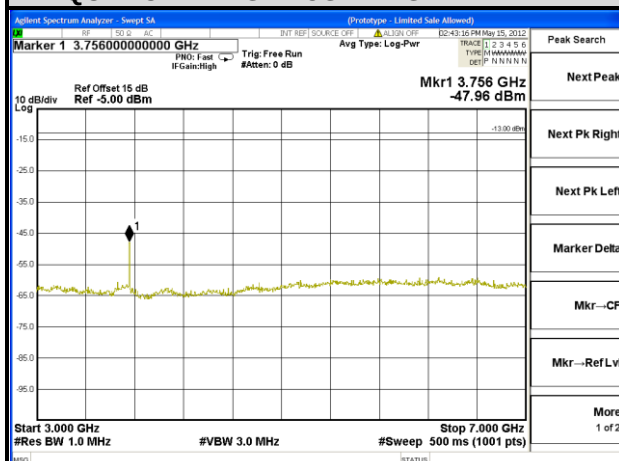
FREQUENCY RANGE : 30MHz~1GHz



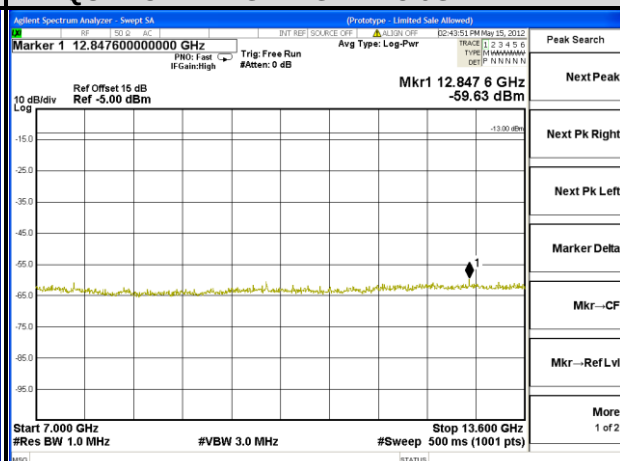
FREQUENCY RANGE : 1GHz~3GHz



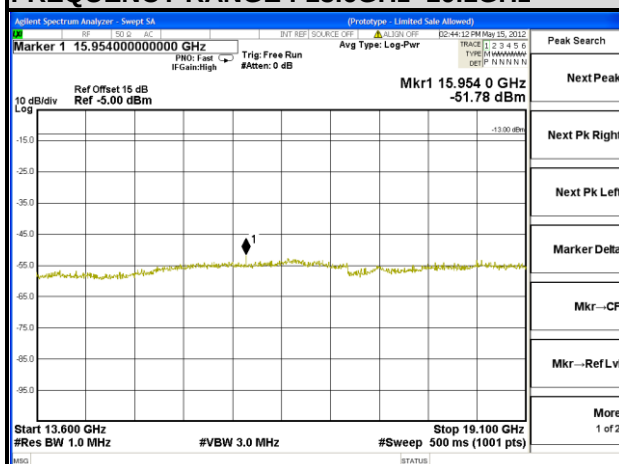
FREQUENCY RANGE : 3GHz~7GHz



FREQUENCY RANGE : 7GHz~13.6GHz



FREQUENCY RANGE : 13.6GHz~19.1GHz



4.7 RADIATED EMISSION MEASUREMENT

4.7.1 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 .

4.7.2 TEST PROCEDURES

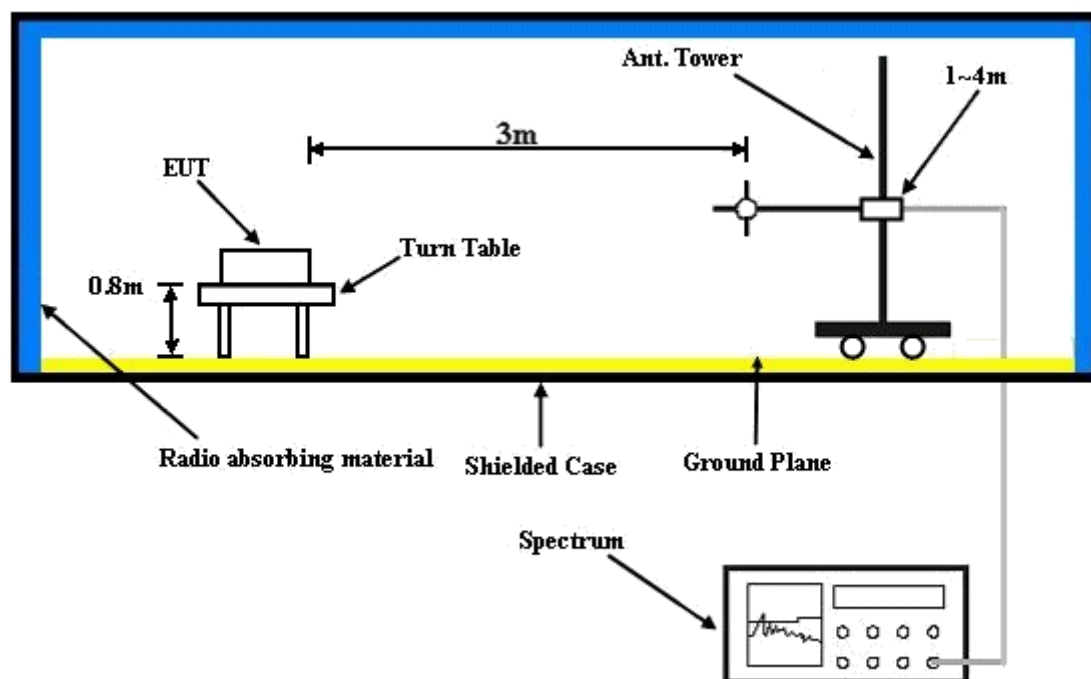
- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from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

4.7.3 DEVIATION FROM TEST STANDARD

No deviation

4.7.4 TEST SETUP



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



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4.7.5 TEST RESULTS

GPRS

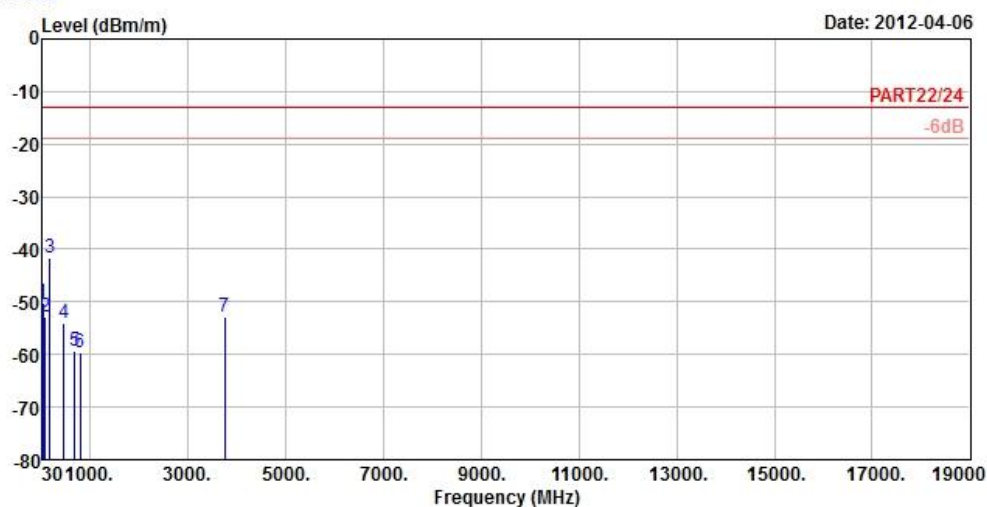


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 15

Date: 2012-04-06



Site : 966 Chamber 5
Condition : PART22/24 3m EIRP_RSE_1G~19G_3 HORIZONTAL
Brand/Model: SKU3
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	39.99	-50.11	-48.58	-13.00	-37.11	-1.53	Peak
2	87.24	-52.78	-42.29	-13.00	-39.78	-10.49	Peak
3 pp	171.75	-41.60	-34.87	-13.00	-28.60	-6.73	Peak
4	464.50	-53.92	-49.92	-13.00	-40.92	-4.00	Peak
5	683.60	-59.43	-60.58	-13.00	-46.43	1.15	Peak
6	797.70	-59.54	-61.65	-13.00	-46.54	2.11	Peak
7	3760.00	-52.94	-46.21	-13.00	-39.94	-6.73	Peak



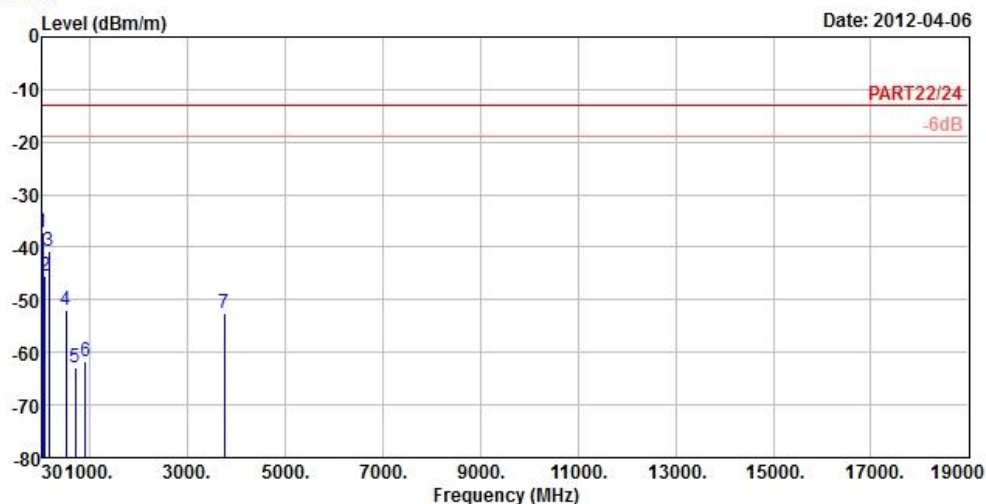
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Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16



Site : 966 Chamber 5
Condition : PART22/24 3m EIRP_RSE_1G~19G_3 VERTICAL
Brand/Model: SKU3
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	pp	39.99	-37.10	-35.57	-13.00	-24.10	-1.53 Peak
2		87.51	-45.59	-35.10	-13.00	-32.59	-10.49 Peak
3		164.46	-40.87	-34.27	-13.00	-27.87	-6.60 Peak
4		513.50	-51.97	-49.23	-13.00	-38.97	-2.74 Peak
5		709.50	-62.79	-64.31	-13.00	-49.79	1.52 Peak
6		902.70	-61.84	-64.60	-13.00	-48.84	2.76 Peak
7		3760.00	-52.67	-45.94	-13.00	-39.67	-6.73 Peak



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EDGE

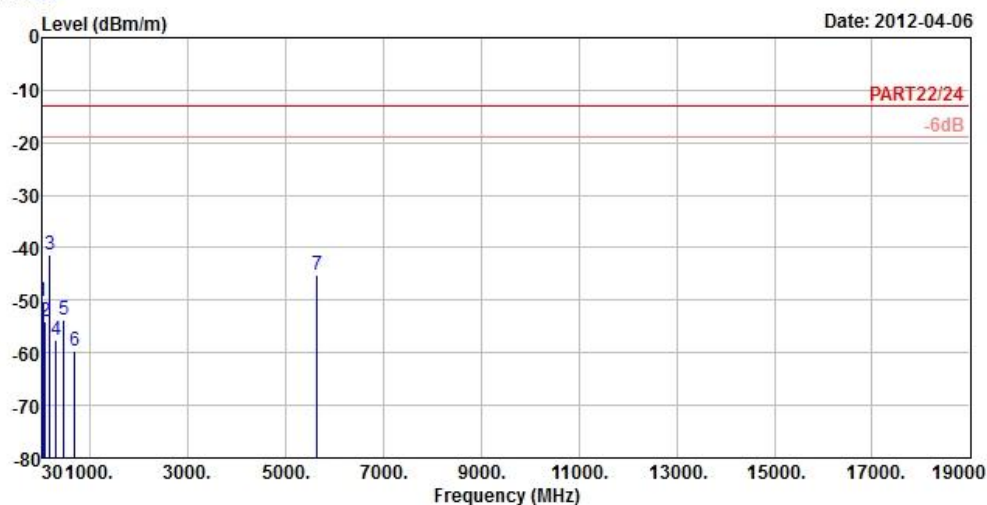


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15

Date: 2012-04-06



Site : 966 Chamber 5
Condition : PART22/24 3m EIRP_RSE_1G~19G_3 HORIZONTAL
Brand/Model: SKU3
Remark : EGPRS1900 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	39.72	-50.14	-48.61	-13.00	-37.14	-1.53	Peak
2	87.78	-54.10	-43.58	-13.00	-41.10	-10.52	Peak
3 pp	171.75	-41.28	-34.55	-13.00	-28.28	-6.73	Peak
4	304.90	-57.42	-51.08	-13.00	-44.42	-6.34	Peak
5	458.90	-53.83	-49.69	-13.00	-40.83	-4.14	Peak
6	683.60	-59.60	-60.75	-13.00	-46.60	1.15	Peak
7	5640.00	-45.02	-45.23	-13.00	-32.02	0.21	Peak



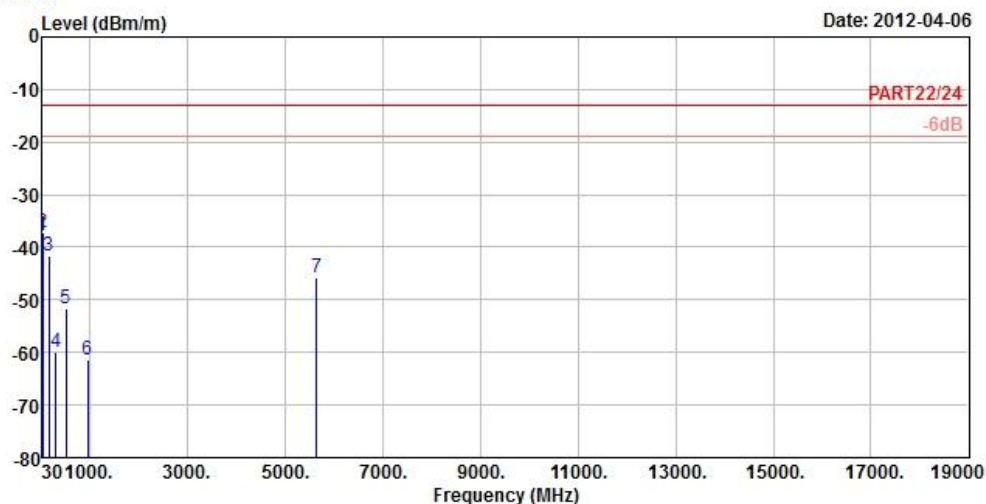
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Data: 16



Site : 966 Chamber 5
Condition : PART22/24 3m EIRP_RSE_1G~19G_3 VERTICAL
Brand/Model: SKU3
Remark : EGPRS1900 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	32.70	-37.87	-36.76	-13.00	-24.87	-1.11	Peak
2 pp	40.26	-37.06	-35.60	-13.00	-24.06	-1.46	Peak
3	164.46	-41.72	-35.12	-13.00	-28.72	-6.60	Peak
4	300.00	-59.79	-53.41	-13.00	-46.79	-6.38	Peak
5	507.90	-51.73	-48.85	-13.00	-38.73	-2.88	Peak
6	955.20	-61.50	-65.29	-13.00	-48.50	3.79	Peak
7	5640.00	-45.68	-45.89	-13.00	-32.68	0.21	Peak



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WCDMA

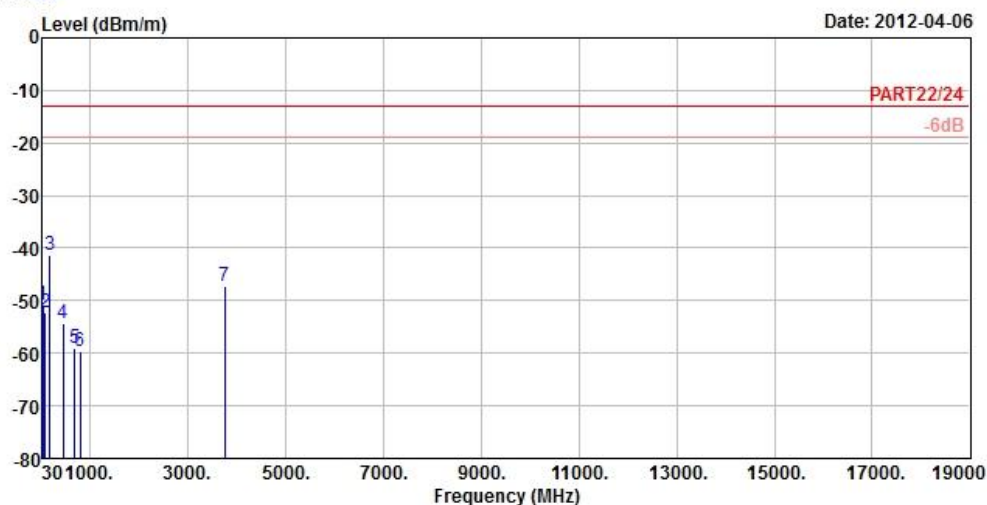


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Data: 15

Date: 2012-04-06



Site : 966 Chamber 5
Condition : PART22/24 3m EIRP_RSE_1G~19G_3 HORIZONTAL
Brand/Model: SKU3
Remark : Band II 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	39.99	-50.63	-49.10	-13.00	-37.63	-1.53	Peak
2	86.43	-52.27	-41.81	-13.00	-39.27	-10.46	Peak
3 pp	170.67	-41.42	-34.70	-13.00	-28.42	-6.72	Peak
4	455.40	-54.22	-50.00	-13.00	-41.22	-4.22	Peak
5	683.60	-59.03	-60.18	-13.00	-46.03	1.15	Peak
6	797.00	-59.67	-61.78	-13.00	-46.67	2.11	Peak
7	3760.00	-47.11	-40.38	-13.00	-34.11	-6.73	Peak



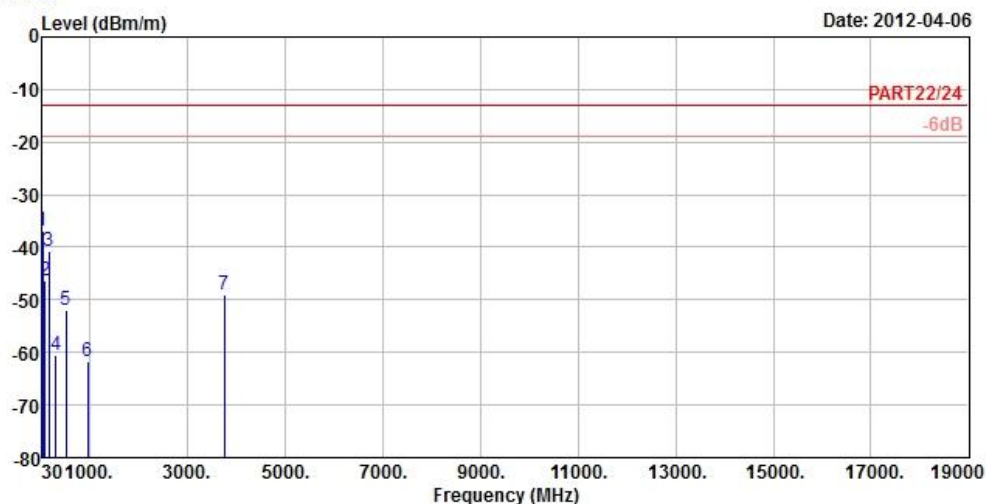
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Data: 16



Site : 966 Chamber 5
Condition : PART22/24 3m EIRP_RSE_1G~19G_3 VERTICAL
Brand/Model: SKU3
Remark : Band II 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	39.99	-36.95	-35.42	-13.00	-23.95	-1.53 Peak
2	86.97	-46.38	-35.89	-13.00	-33.38	-10.49 Peak
3	164.19	-40.70	-34.12	-13.00	-27.70	-6.58 Peak
4	300.70	-60.42	-54.05	-13.00	-47.42	-6.37 Peak
5	507.20	-52.03	-49.13	-13.00	-39.03	-2.90 Peak
6	951.70	-61.66	-65.37	-13.00	-48.66	3.71 Peak
7	3760.00	-49.06	-42.33	-13.00	-36.06	-6.73 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.

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: 886-3-3270892

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 are made to the EUT by the lab during the test.

---END---