

FCC Test Report

(Part 24)

Report No.: RF150612C01-8

FCC ID: VQK-F02H

Test Model: F-02H

Received Date: Jun. 12, 2015

Test Date: Jul. 30 ~ Aug. 11, 2015

Issued Date: Aug. 13, 2015

Applicant: FUJITSU LIMITED

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

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Release Control Record

Issue No.	Description	Date Issued
RF150612C01-8	Original release	Aug. 13, 2015

1 Certificate of Conformity

Product: Smart Phone

Brand: FUJITSU

Test Model: F-02H

Sample Status: Engineering sample

Applicant: FUJITSU LIMITED

Test Date: Jul. 30 ~ Aug. 11, 2015

Standards: FCC Part 24, Subpart E

The above equipment 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 : Celine Chou, **Date:** Aug. 13, 2015
Celine Chou / Specialist

Approved by : Bruce Chen, **Date:** Aug. 13, 2015
Bruce Chen / Project Engineer

2 Summary of Test Results

Applied Standard: FCC Part 24 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 24.232	Effective Radiated Power	Pass	Meet the requirement of limit.
2.1046 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 -23.30dB 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	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.59 dB
	200MHz ~1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Test Site and Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Oct. 06, 2014	Oct. 05, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 08, 2015	Jul. 07, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Feb. 06, 2015	Feb. 05, 2016
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Feb. 05, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Preamplifier Agilent	8449B	3008A01960	Aug. 09, 2014	Aug. 08, 2015
			Aug. 09, 2015	Aug. 08, 2016
Preamplifier Agilent	8447D	2944A10631	Aug. 09, 2014	Aug. 08, 2015
			Aug. 09, 2015	Aug. 08, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309220/4	Aug. 09, 2014	Aug. 08, 2015
			Aug. 09, 2015	Aug. 08, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250724/4	Aug. 09, 2014	Aug. 08, 2015
			Aug. 09, 2015	Aug. 08, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295012/4	Aug. 09, 2014	Aug. 08, 2015
			Aug. 09, 2015	Aug. 08, 2016
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100.	SC93021703	NA	NA
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2015	Jun. 07, 2016
Mini-Circuits Power Splitter	ZN2PD-9G	NA	Jun. 09, 2015	Jun. 08, 2016
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 4.
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 IC7450F-4.

3 General Information

3.1 General Description of EUT

Product	Smart Phone
Brand	FUJITSU
Test Model	F-02H
Status of EUT	Engineering sample
Power Supply Rating	3.8Vdc (Battery) 5Vdc (Adapter or cradle)
Modulation Type	GMSK
Operating Frequency	1850.2MHz ~ 1909.8MHz
Max. EIRP Power	537.032mW (27.30dBm)
Antenna Type	$\lambda/4$ Monopole Antenna with 0dBi gain
Antenna Connector	Murata
Accessory Device	Refer to Note as below
Data Cable Supplied	NA

Note:

1. The EUT contains the following accessories.

Product	Brand	Model	Description
Battery	NTT docomo	N/A	3.8Vdc, 3390mAh, 12.8Wh (Built-in battery)
Cradle	NTT docomo	F52	Input: 5.0Vdc, 1.5A Output: 5.0Vdc, 1.5A

2. The following adapter is support unit only.

Product	Brand	Model	Description
Adapter	NTT docomo	AC Adapter 04	Input: 100-240Vac, 50-60Hz, 0.22A Output: 5.0Vdc, 1.8A Power line: 1.05m cable with two cores attached on adapter

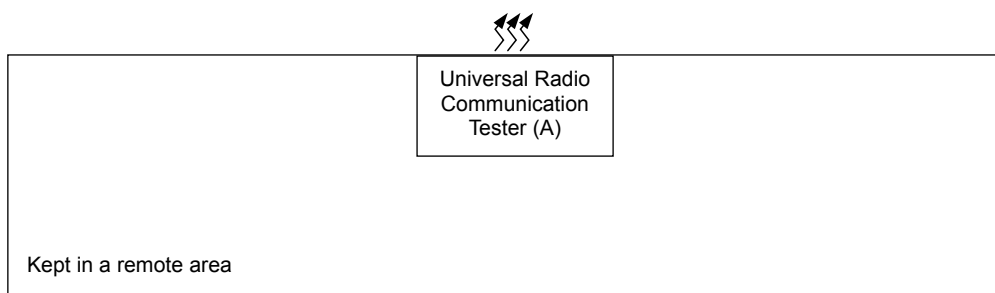
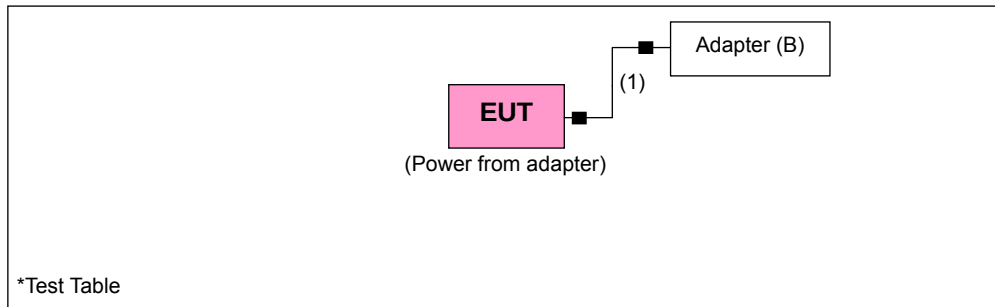
3. SW version is R021.1e

4. HW version is v2.1.0.

5. IMEI Code: 351914070005027.

6. The above EUT information is 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



3.2.1 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.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Universal Radio Communication Tester	R&S	CMU200	123112	NA	-
B.	Adapter	NTT docomo	AC Adapter 04	NA	NA	Provided by the client

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Power cable	1	1.05	Y	2	Provided by the client Attached on adapter

Note: The core(s) is(are) originally attached to the cable(s).

3.3 Test Mode Applicability and Tested Channel Detail

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. Following channel(s) was (were) selected for the final test as listed below:

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	EIRP	512 to 810	512, 661, 810	GSM
-	Frequency Stability	512 to 810	661	GSM
-	Occupied Bandwidth	512 to 810	512, 661, 810	GSM, GPRS
-	Band Edge	512 to 810	512, 810	GSM, GPRS
-	Peak To Average Ratio	512 to 810	512, 661, 810	GSM, GPRS
-	Conducuted Emission	512 to 810	512, 661, 810	GSM, GPRS
-	Radiated Emission Below 1GHz	512 to 810	512	GSM
-	Radiated Emission Above 1GHz	512 to 810	512, 661, 810	GSM

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
Frequency Stability	24deg. C, 64%RH	3.9Vdc	Match Tsui
Occupied Bandwidth	24deg. C, 64%RH	3.9Vdc	Match Tsui
Band Edge	24deg. C, 64%RH	3.9Vdc	Match Tsui
Peak To Average Ratio	24deg. C, 64%RH	3.9Vdc	Match Tsui
Conducted Emission	24deg. C, 64%RH	3.9Vdc	Match Tsui
Radiated Emission	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin

3.4 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

3.5 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

KDB 971168 D01 Power Meas License Digital Systems v02r01

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 2 watts e.i.r.p.

4.1.2 Test Procedures

EIRP / ERP Measurement:

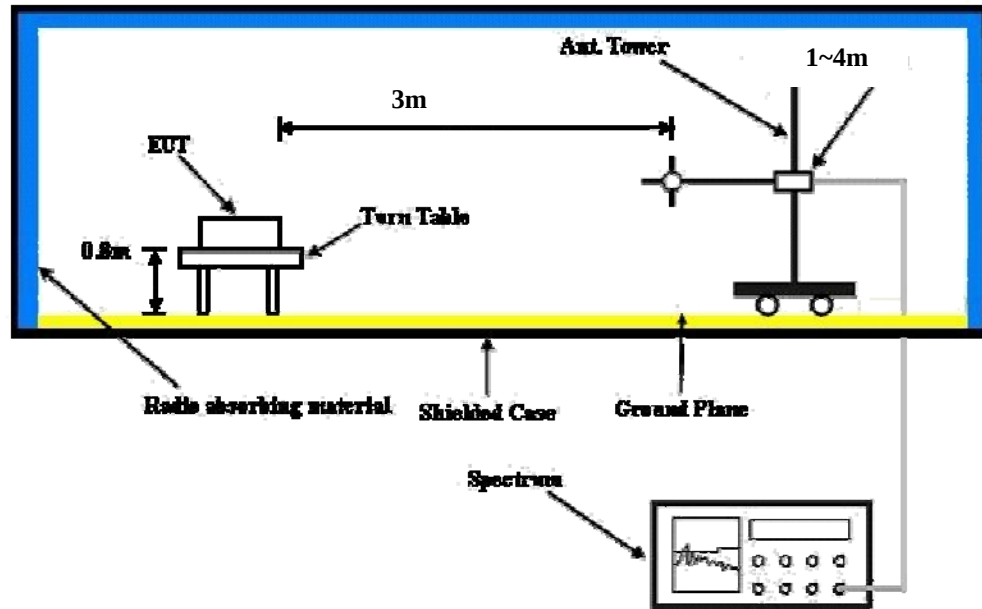
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1MHz for GSM, GPRS.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the 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, $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15\text{dBi.}$

Conducted Power Measurement:

The EUT was set up for the maximum power with GPRS & 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 / 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	GPRS1900		
Channel	512	661	810
Frequency (MHz)	1850.2	1880.0	1909.8
GSM	29.95	29.65	29.04
GPRS 8	29.91	29.64	29.03
GPRS 10	27.37	26.98	26.37
GPRS 11	25.67	25.28	24.67
GPRS 12	24.27	23.88	23.27
GPRS 30	29.87	29.63	29.02
GPRS 31	27.34	26.95	26.34
GPRS 32	25.62	25.23	24.62
GPRS 33	24.24	23.85	23.24
DTM 9 (GPRS)	27.27	26.88	26.27
DTM 11 (GPRS)	25.50	25.14	24.49

EIRP Power (dBm)

MODE		TX channel 512					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1850.20	-14.90	25.00	1.00	26.00	33.00	-7.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1850.20	-17.50	21.30	1.00	22.30	33.00	-10.70

MODE		TX channel 661					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-14.40	25.70	1.10	26.80	33.00	-6.20
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1880.00	-18.20	20.30	1.10	21.40	33.00	-11.60

MODE		TX channel 810					
Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1909.80	-14.20	26.20	1.10	27.30	33.00	-5.70
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	1909.80	-16.60	21.80	1.10	22.90	33.00	-10.10

Note: EIRP (dBm) = S.G Power Value (dBm) + Correction Factor (dB).

4.2 Frequency Stability Measurement

4.2.1 Limits of Frequency Stability Measurement

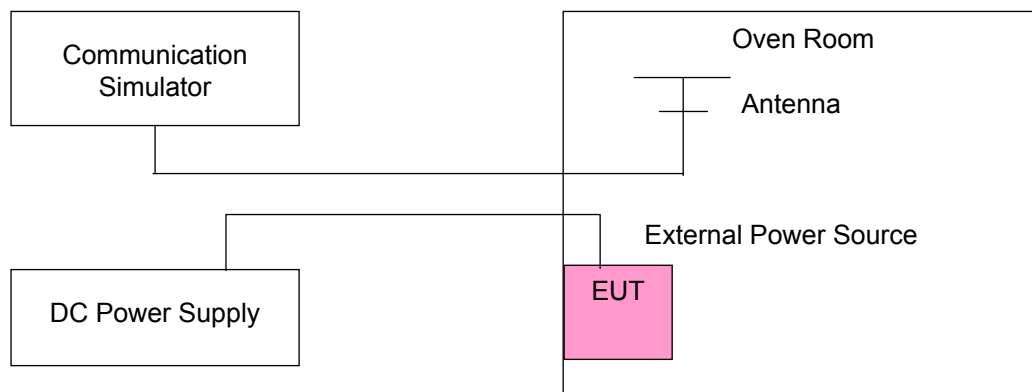
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

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 ± 0.5 °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)
4.29	-0.008	2.5
3.9	-0.007	2.5
3.51	-0.009	2.5

Note: The applicant defined the normal working voltage is from 4.29Vdc to 3.51Vdc.

Frequency Error vs. Temperature.

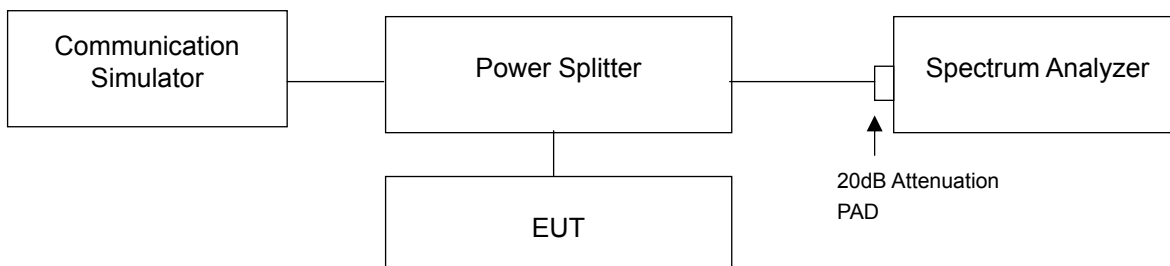
Temp. (°C)	Frequency Error (ppm)	Limit (ppm)
60	-0.014	2.5
50	-0.012	2.5
40	-0.011	2.5
30	-0.009	2.5
20	-0.007	2.5
10	-0.011	2.5
0	-0.013	2.5
-10	-0.016	2.5
-20	-0.016	2.5

4.3 Occupied Bandwidth Measurement

4.3.1 Test Procedure

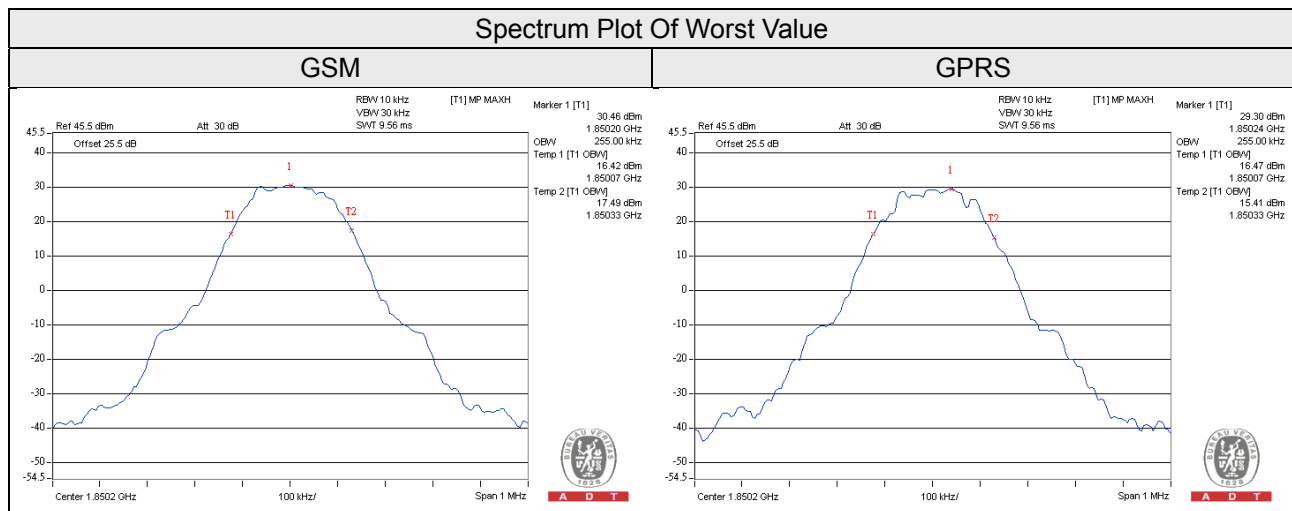
The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range, The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function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

4.3.2 Test Setup



4.3.3 Test Result

Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	
		GSM	GPRS
512	1850.20	255	255
661	1880.00	255	255
810	1909.80	255	255

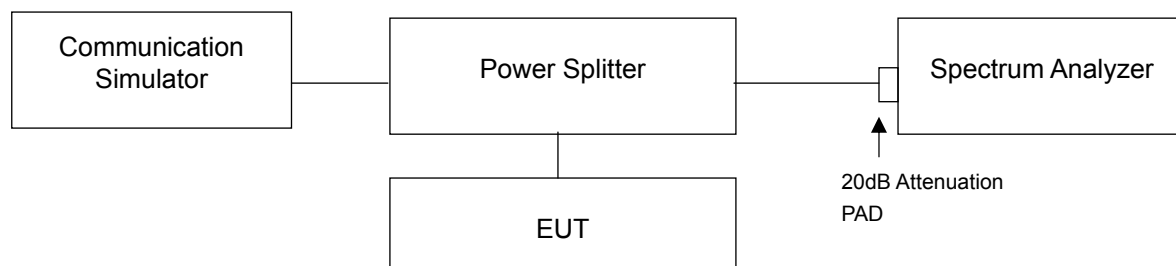


4.4 Band Edge Measurement

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.

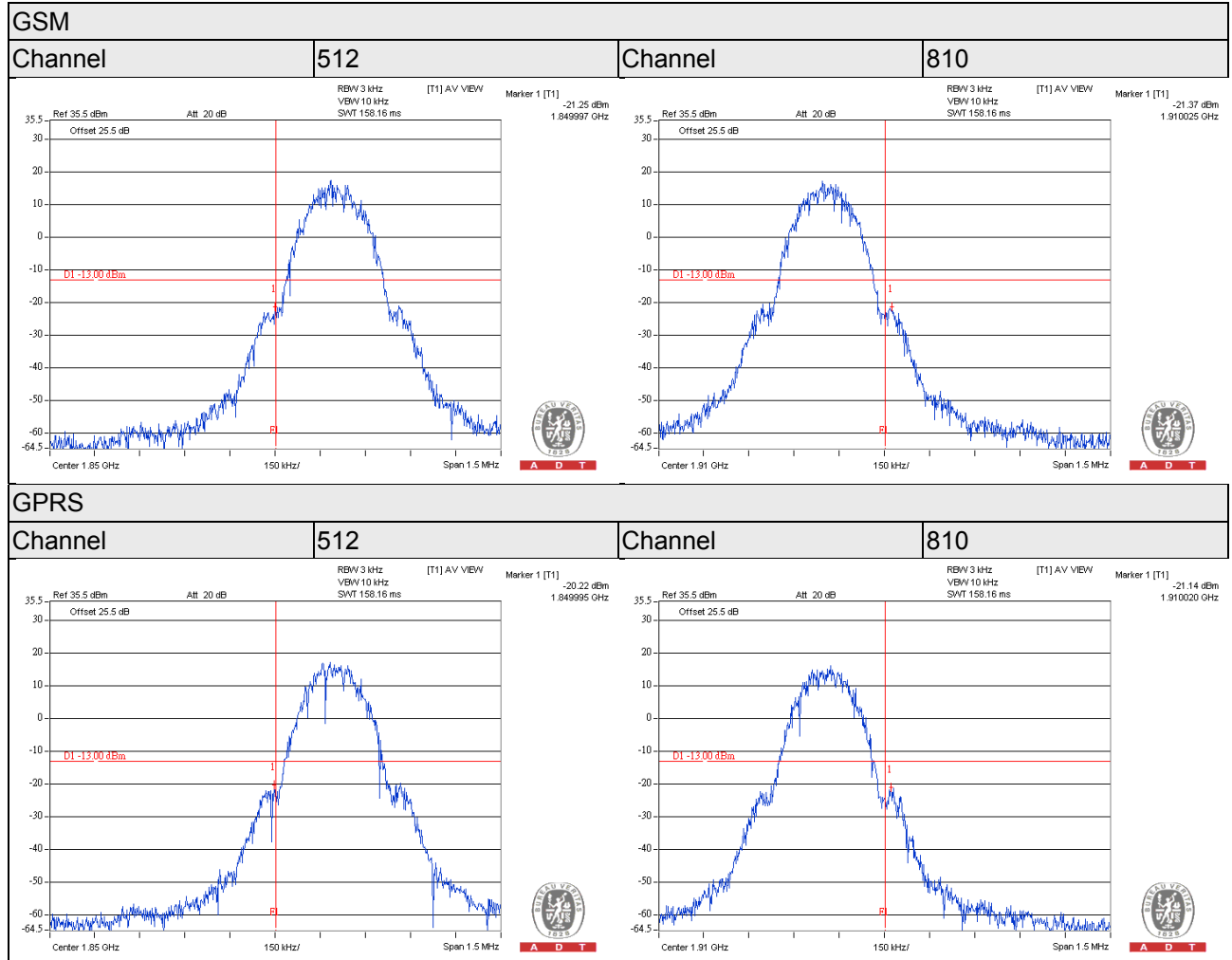
4.4.2 Test Setup



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 1.5MHz. RB of the spectrum is 3kHz and VB of the spectrum is 10kHz (GPRS/GPRS).
- Record the max trace plot into the test report.

4.4.4 Test Results

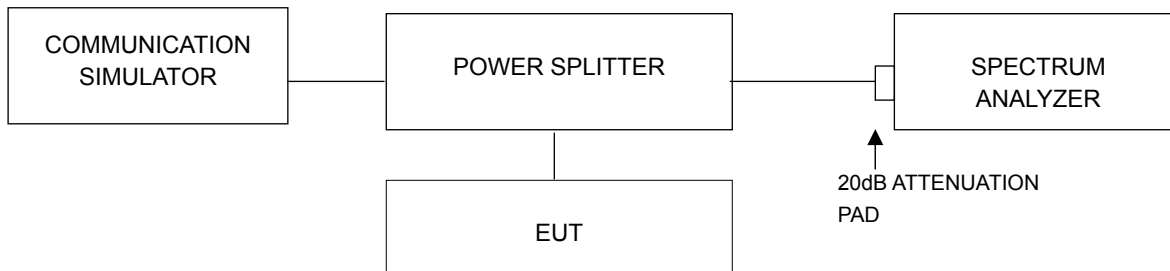


4.5 Peak To Average Ratio

4.5.1 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

4.5.2 Test Setup

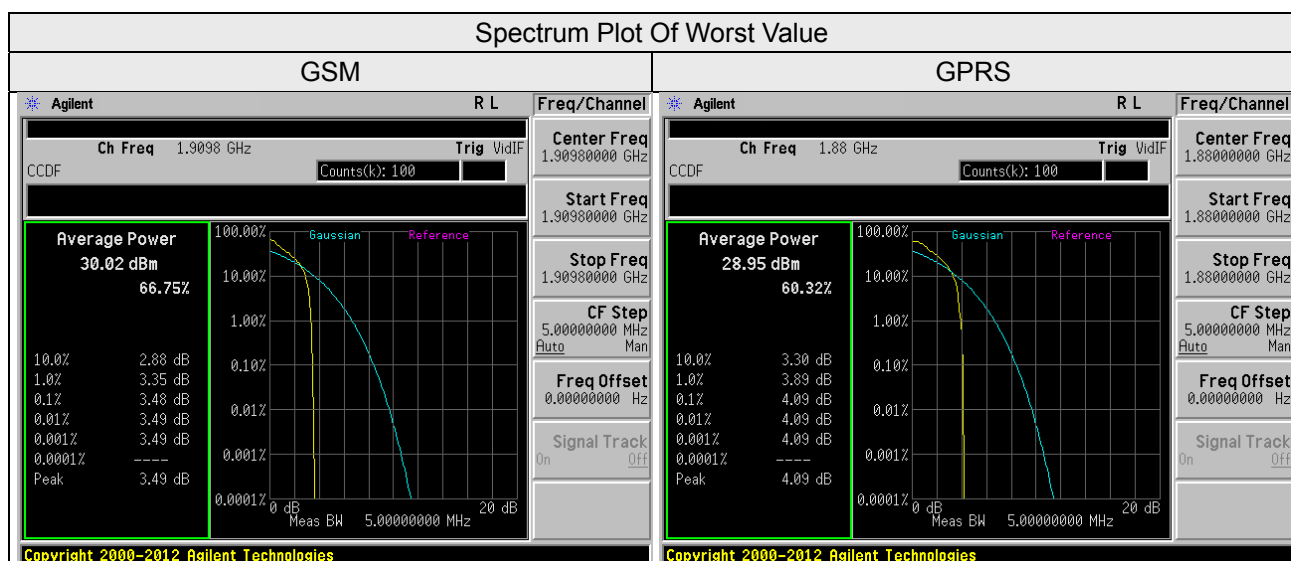


4.5.3 Test Procedures

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

4.5.4 Test Results

Channel	Frequency (MHz)	Peak To Average Ratio (dB)	
		GSM	GPRS
512	1850.20	3.25	3.68
661	1880.00	3.19	4.09
810	1909.80	3.48	3.78

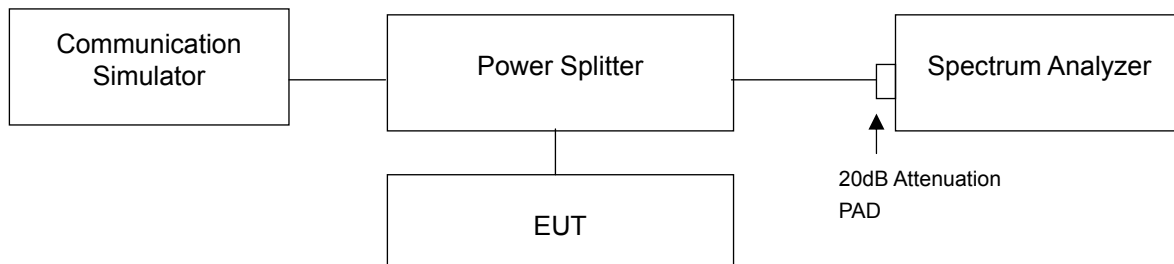


4.6 Conducted Spurious Emissions

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 Setup



4.6.3 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 20GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

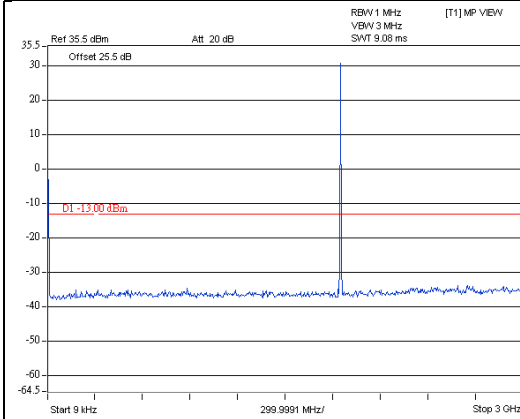
4.6.4 Test Results

GSM

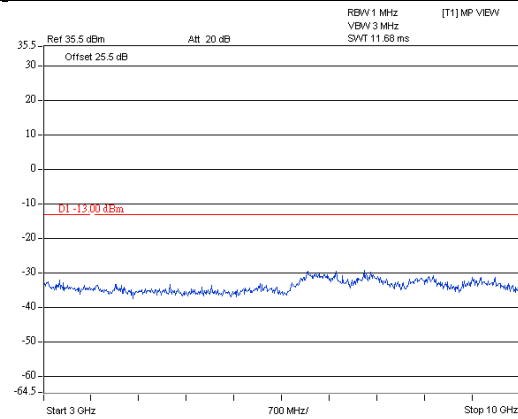
Channel 512

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz



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Frequency Range : 10GHz~20GHz



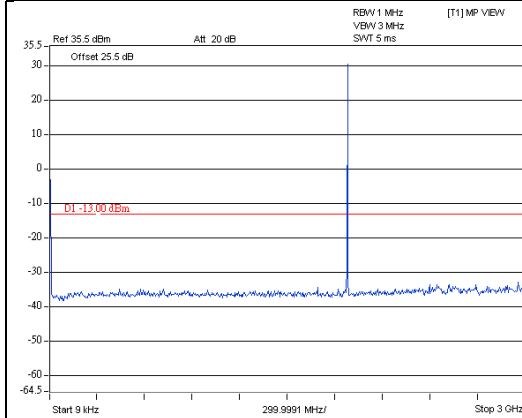
A D T

GSM

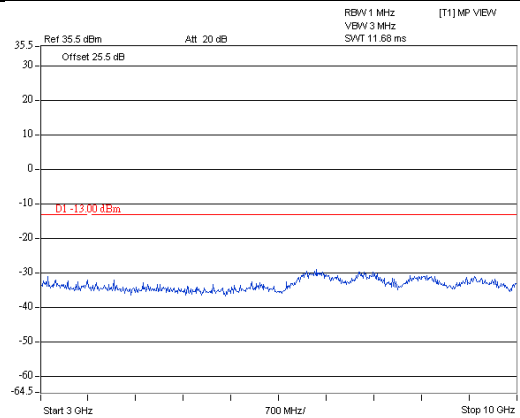
Channel 661

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz



A D T



A D T

Frequency Range : 10GHz~20GHz



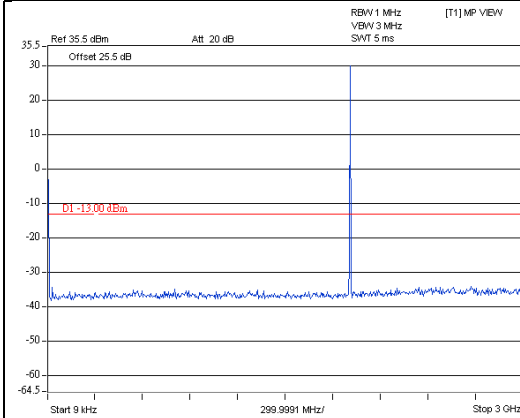
A D T

GSM

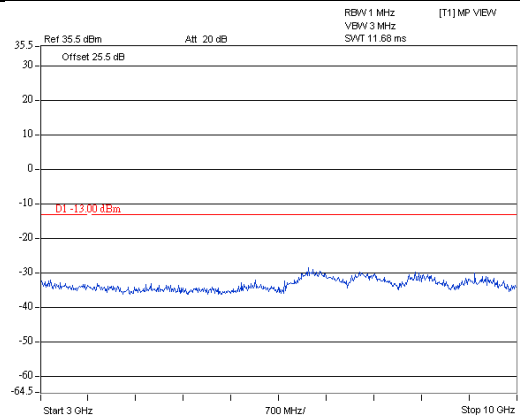
Channel 810

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

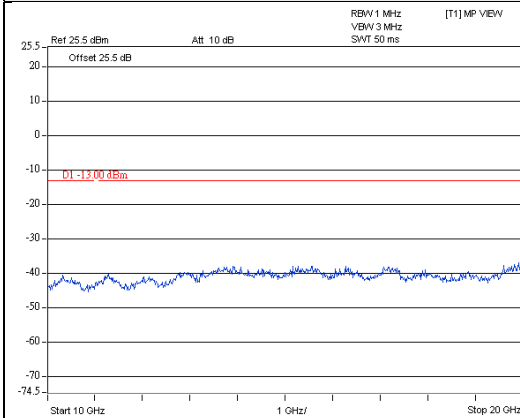


A D T



A D T

Frequency Range : 10GHz~20GHz



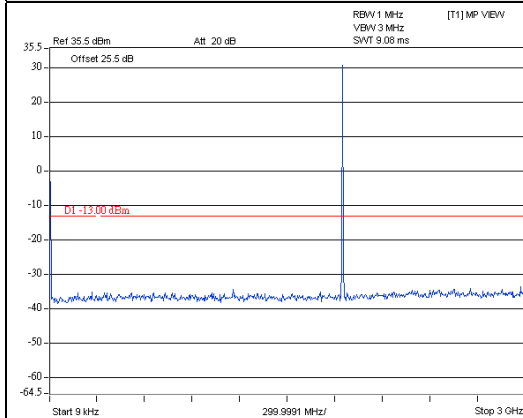
A D T

GPRS

Channel 512

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

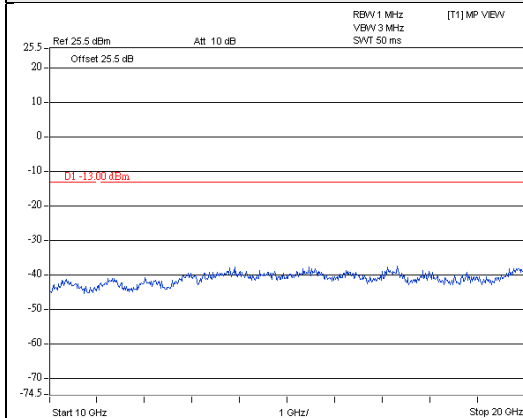


A D T



A D T

Frequency Range : 10GHz~20GHz



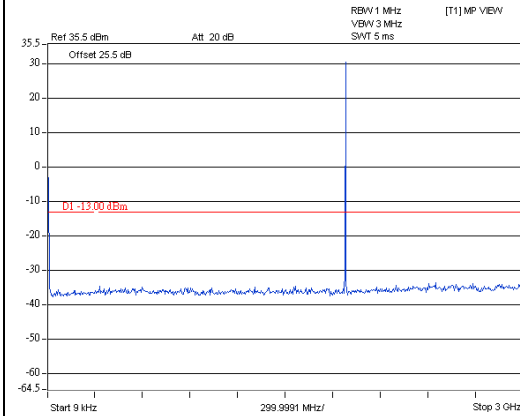
A D T

GPRS

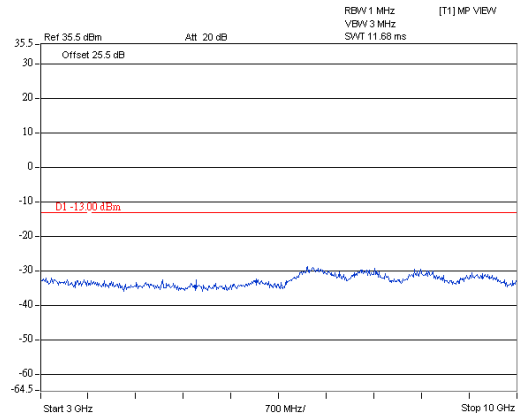
Channel 661

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

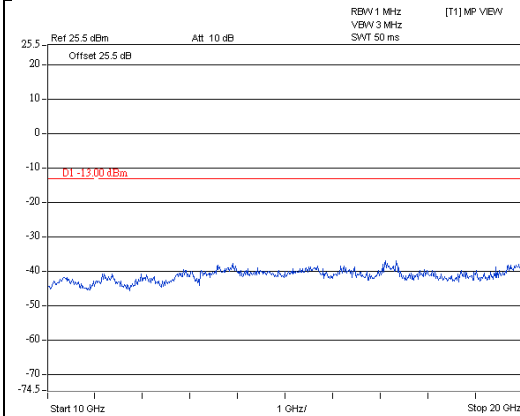


A D T



A D T

Frequency Range : 10GHz~20GHz



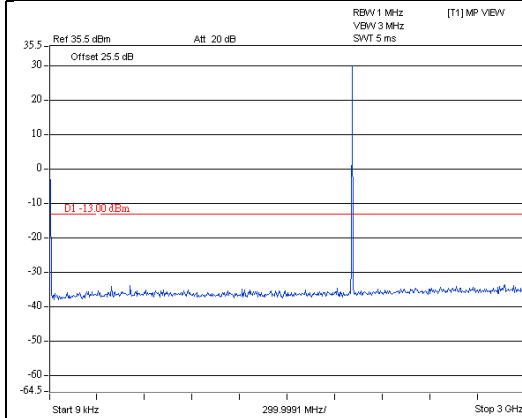
A D T

GPRS

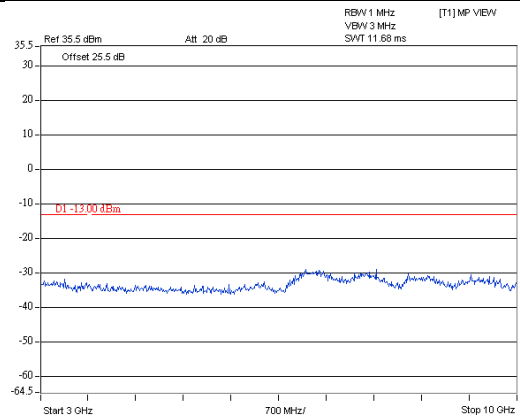
Channel 810

Frequency Range : 9kHz~3GHz

Frequency Range : 3GHz~10GHz

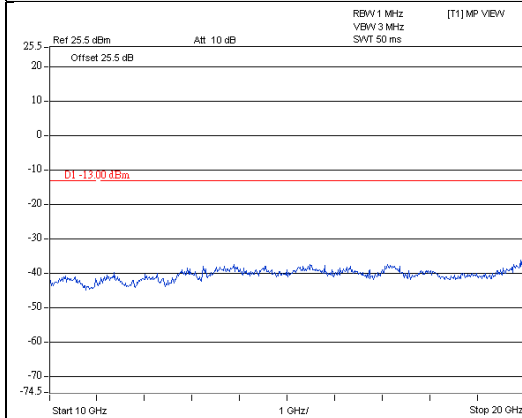


A D T



A D T

Frequency Range : 10GHz~20GHz



A D T

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 Procedure

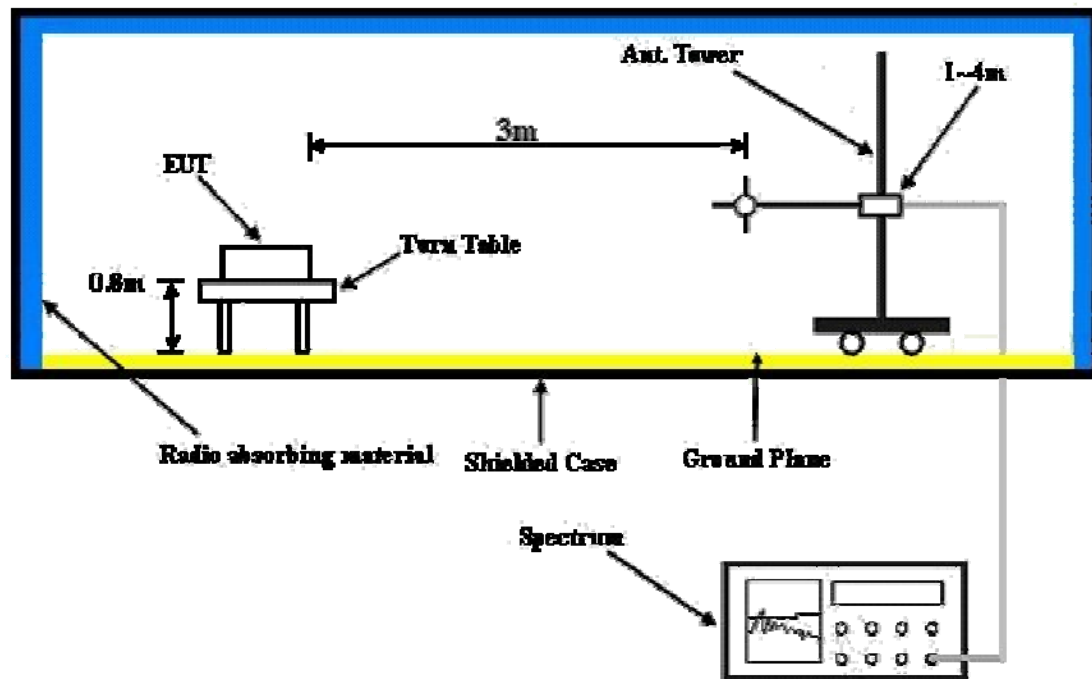
- Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- 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
- $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}.$
- E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $\text{E.R.P power} = \text{E.I.R.P power} - 2.15\text{dBi}.$

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).

4.7.5 Test Results

Below 1GHz

Mode	TX channel 512	Frequency Range	Below 1000 MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Chris Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	55.22	-58.10	-51.60	-8.70	-60.30	-13.00	-47.30
2	132.82	-54.70	-61.60	-0.10	-61.70	-13.00	-48.70
3	253.10	-57.30	-68.70	5.40	-63.30	-13.00	-50.30
4	542.16	-67.40	-72.80	4.70	-68.10	-13.00	-55.10
5	743.92	-68.20	-69.30	4.70	-64.60	-13.00	-51.60
6	937.92	-65.80	-62.60	3.90	-58.70	-13.00	-45.70
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	53.28	-44.20	-42.20	-8.50	-50.70	-13.00	-37.70
2	200.72	-56.60	-64.60	5.40	-59.20	-13.00	-46.20
3	313.24	-61.00	-66.70	5.10	-61.60	-13.00	-48.60
4	441.28	-63.30	-69.90	5.20	-64.70	-13.00	-51.70
5	681.84	-67.10	-67.20	5.10	-62.10	-13.00	-49.10
6	837.04	-67.90	-65.40	4.00	-61.40	-13.00	-48.40

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



A D T

Above 1GHz

Mode	TX channel 512	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Chris Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3700.40	-50.90	-44.90	7.10	-37.80	-13.00	-24.80
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3700.40	-55.90	-48.90	7.10	-41.80	-13.00	-28.80

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

Mode	TX channel 661	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Chris Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760.00	-49.90	-43.40	7.10	-36.30	-13.00	-23.30
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3760.00	-54.60	-47.20	7.10	-40.10	-13.00	-27.10

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).



Mode	TX channel 810	Frequency Range	Above 1000MHz
Environmental Conditions	25deg. C, 65%RH	Input Power	120Vac, 60Hz
Tested By	Chris Lin		

Antenna Polarity & Test Distance: Horizontal at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3819.60	-51.80	-45.10	7.10	-38.00	-13.00	-25.00
Antenna Polarity & Test Distance: Vertical at 3 M							
No.	Freq. (MHz)	Reading (dBm)	S.G Power Value (dBm)	Correction Factor (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
1	3819.60	-55.80	-48.10	7.10	-41.00	-13.00	-28.00

Remarks:

1. Output Power (dBm) = S.G Value (dBm) + Correction Factor (dB).
2. Correction Factor (dB) = Substitution Antenna Gain (dB) + Cable Loss (dB).

5 Pictures of Test Arrangements

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

Appendix – 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:

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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