

# **FCC Test Report**

# (PART 22)

Report No.: RF161117C09-1

FCC ID: XHG-R872

Test Model: R872

Received Date: Nov. 17, 2016

Test Date: Jan. 06, 2017 ~ Jan. 18, 2017

**Issued Date:** Jan. 24, 2017

Applicant: Franklin Technology Inc.

Address: 906 JEI Platz, 186, Gasan digital 1-ro, Geumcheon-gu, Seoul, Korea,

(08502)

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

Lab Address: No. 47-2, 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 Vil., Kwei Shan Dist., Taoyuan City

33383, TAIWAN (R.O.C.)





This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies



# **Table of Contents**

Re	eleas	e Control Record	3
1	Cer	tificate of Conformity	4
2	Sun	nmary of Test Results	5
		Measurement Uncertainty Test Site and Instruments	
3		neral Information	
		General Description of EUT	
		Configuration of System under Test	
	3.2	3.2.1 Description of Support Units	
	3.3	Test Mode Applicability and Tested Channel Detail	
		EUT Operating Conditions	
		General Description of Applied Standards	
4	Tes	t Types and Results	12
	4.1	Output Power Measurement	12
		4.1.1 Limits of Output Power Measurement	12
		4.1.2 Test Procedures	
		4.1.3 Test Setup	
		4.1.4 Test Results	
	4.2	Frequency Stability Measurement	
		4.2.1 Limits of Frequency Stability Measurement	
		4.2.3 Test Setup	
		4.2.4 Test Results	
	4.3	Occupied Bandwidth Measurement	
		4.3.1 Test Procedure	
		4.3.2 Test Setup	17
		4.3.3 Test Result	17
	4.4	Band Edge Measurement	
		4.4.1 Limits of Band Edge Measurement	
		4.4.2 Test Setup	
		4.4.3 Test Procedures	
	1 E	4.4.4 Test Results	
	4.5	Peak to Average Ratio	
		4.5.2 Test Setup	
		4.5.3 Test Procedures	
		4.5.4 Test Results	
	4.6	Conducted Spurious Emissions	
		4.6.1 Limits of Conducted Spurious Emissions Measurement	20
		4.6.2 Test Setup	
		4.6.3 Test Procedure	
		4.6.4 Test Results	
	4.7	Radiated Emission Measurement	
		4.7.1 Limits of Radiated Emission Measurement	
		4.7.3 Deviation from Test Standard	
		4.7.4 Test Setup	
		4.7.5 Test Results	
5	Pict	tures of Test Arrangements	
		dix – Information on the Testing Laboratories	
٦,			_ •



# **Release Control Record**

Issue No.	Description	Date Issued
RF161117C09-1	Original Release	Jan. 24, 2017



# 1 Certificate of Conformity

**Product:** Mobile Hotspot

Brand: Franklin

Test Model: R872

Sample Status: Production Unit

Applicant: Franklin Technology Inc.

Test Date: Jan. 06, 2017 ~ Jan. 18, 2017

Standards: FCC Part 22, Subpart H

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 : , Date: Jan. 24, 2017

Rona Chen / Specialist

**Approved by:** / , **Date:** Jan. 24, 2017

Stanley Wu / Assistant Manager



# 2 Summary of Test Results

	Applied Standard: FCC Part 22 & Part 2						
FCC Clause	Test Item	Result	Remarks				
2.1046 22.913 (a)	Effective Radiated Power	Pass	Meet the requirement of limit.				
	Peak to Average Ratio		Meet the requirement of limit.				
2.1055 22.355	Frequency Stability	Pass	Meet the requirement of limit.				
2.1049	2.1049 Occupied Bandwidth		Meet the requirement of limit.				
22.917	22.917 Band Edge Measurements		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 -19.98 dB at 30.97 MHz.				

# 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	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Padiated Emissions up to 1 CHz	30 MHz ~ 200 MHz	2.93 dB
Radiated Emissions up to 1 GHz	200 MHz ~1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
Radiated Emissions above 1 GHZ	18 GHz ~ 40 GHz	1.94 dB



# 2.2 Test Site and Instruments

Description & Manaufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY51210203	Jan. 21, 2016	Jan. 20, 2017
Spectrum Analyzer Agilent	N9010A	MY52220314	Dec. 16, 2016	Dec. 15, 2017
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 13, 2016	Dec. 12, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 26, 2016	Dec. 27, 2017
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Dec. 12, 2016	Dec. 13, 2017
Double Ridge Guide Horn Antenna EMCO	3115	5619	Dec. 26, 2016	Dec. 27, 2017
BILOG Antenna SCHWARZBECK	VULB 9168	9168-153	Dec. 12, 2016	Dec. 13, 2017
Fixed Attenuator Mini-Circuits	BW-N10W5+	NA	Jul. 08, 2016	Jul. 07, 2017
MXG Vector signal generator Agilent	N5182B	MY53050430	Oct. 19, 2016	Oct. 18, 2017
Preamplifier EMCI	EMC 012645	980115	Oct. 21, 2016	Oct. 20, 2017
Preamplifier EMCI	EMC 184045	980116	Oct. 21, 2016	Oct. 20, 2017
Preamplifier EMCI	EMC 330H	980112	Oct. 21, 2016	Oct. 20, 2017
Power Meter Anritsu	ML2495A	1232002	Sep. 08, 2016	Sep. 07, 2017
Power Sensor Anritsu	MA2411B	1207325	Sep. 08, 2016	Sep. 07, 2017
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4 2950114	Oct. 21, 2016	Oct. 20, 2017
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 21, 2016	Oct. 20, 2017
RF Coaxial Cable Worken	8D-FB	Cable-Ch10-01	Oct. 21, 2016	Oct. 20, 2017
Software BV ADT	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
Fixed Attenuator Mini-Circuits	BW-N10W5+	NA	Jul. 08, 2016	Jul. 07, 2017
Radio Communication Analyzer	MT8820C	6201300640	Aug. 10, 2015	Aug. 09, 2017
Communications Tester-Wireless	8960 Series 10	MY53201073	Jul. 03, 2015	Jul. 02, 2017



Note: 1. The calibration interval of the above test instruments is 12 / 24 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 preamplifier (model: EMC 184045) are used only for the measurement of emission frequency above 1 GHz if tested. 4. The FCC Site Registration No. is 690701. 5. The IC Site Registration No. is IC7450F-10.



# 3 General Information

# 3.1 General Description of EUT

Product	Mobile Hotspot			
Brand	Franklin			
Test Model	R872			
Status of EUT	Production Unit			
Dower Cumply Deting	5.0 Vdc (adapter or host equipment)			
Power Supply Rating	3.8 Vdc (Li-ion battery)			
Modulation Type	CDMA QPSK, OPQKS, HPSK			
Frequency Range	CDMA	824.7 ~ 848.31 MHz		
Max. ERP Power	CDMA	78.70 mW		
<b>Emission Designator</b>	CDMA	1M28F9W		
Antenna Type	Fixed Internal Antenna			
<b>Accessory Device</b>	Refer to Note as below			
Data Cable Supplied	Refer to Note as below			

# Note:

1. The EUT contains following accessory devices.

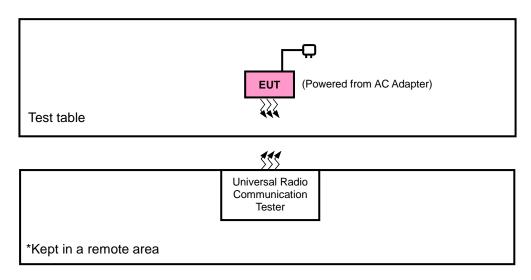
Product	Brand	Model	Description
			I/P: 100-240 Vac, 0.3 A
Adapter	Franklin Wireless	FWCR900TVL	O/P: 5 Vdc, 1 A
			1.5 m cable non-shielded cable w/o core
Battery	Franklin Wireless	R871	3.8 Vdc, 2450 mAh

2. 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.

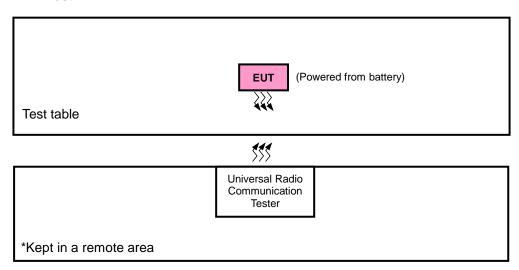


# 3.2 Configuration of System under Test

# <Radiated Emission Test>



# <E.R.P. 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.



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

Band	ERP	Radiated Emission	
CDMA	Y-plane	Y-axis	

#### **CDMA**

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	ERP	1013 to 777	1013, 384, 777	1xEVDO
-	Frequency Stability	1013 to 777	1013, 777	1xEVDO
-	Occupied Bandwidth	1013 to 777	1013, 384, 777	1xEVDO
-	Band Edge	1013 to 777	1013, 777	1xEVDO
-	Peak to Average Ratio	1013 to 777	1013, 384, 777	1xEVDO
-	Condcudeted Emission	1013 to 777	1013, 384, 777	1xEVDO
-	Radiated Emission	1013 to 777	1013, 384, 777	1xEVDO

# **Test Condition:**

Test Item	Environmental Conditions	Input Power	Tested By
ERP	25 deg. C, 65 % RH	3.8 Vdc	Gavin Wu
Frequency Stability	25 deg. C, 65 % RH	3.8 Vdc	Carlos Chen
Occupied Bandwidth	25 deg. C, 65 % RH	3.8 Vdc	Carlos Chen
Band Edge	25 deg. C, 65 % RH	3.8 Vdc	Carlos Chen
Peak to Average Ratio	25 deg. C, 65 % RH	3.8 Vdc	Carlos Chen
Condcudeted Emission	25 deg. C, 65 % RH	3.8 Vdc	Carlos Chen
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Gavin Wu

# 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 22
KDB 971168 D01 Power Meas License Digital Systems v02r02
ANSI/TIA/EIA-603-D 2010

**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 5 MHz for CDMA and 10 MHz for LTE mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m 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 1 m to 4 m 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 = Output power level of S.G TX cable loss + 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 power = E.I.P.R power 2.15 dBi.

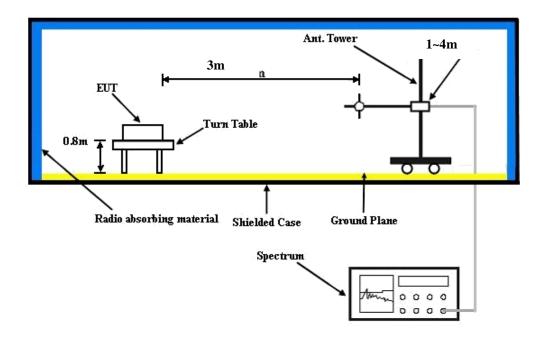
#### **Conducted Power Measurement:**

The EUT was set up for the maximum power with CDMA and LTE 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.



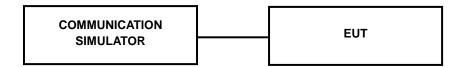
# 4.1.3 Test Setup

# **EIRP / ERP Measurement:**



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

# **Conducted Power Measurement:**





# 4.1.4 Test Results

# **Conducted Output Power (dBm)**

Band	CDMA			
Channel	1013	384	777	
Frequency (MHz)	824.70	836.52	848.31	
RC1+SO55	23.75	23.71	23.71	
RC3+SO55	23.38	23.17	23.27	
RC3+SO32(+ F-SCH)	23.22	23.20	23.27	
RC3+SO32(+SCH)	23.41	23.21	23.40	
RTAP 153.6	23.79	23.68	23.52	
<b>RETAP 4096</b>	23.37	23.38	23.33	

# ERP Power (dBm)

	CDMA							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (mW)	Polarization (H/V)	
	1013	824.7	-11.58	32.62	18.89	77.45		
	384	836.52	-11.41	32.52	18.96	78.70	Н	
Y	777	848.31	-11.65	32.65	18.85	76.74		
Ī	1013	824.7	-19.98	32.76	10.63	11.56		
	384	836.52	-19.60	32.39	10.64	11.59	V	
	777	848.31	-19.77	32.54	10.62	11.53		



# 4.2 Frequency Stability Measurement

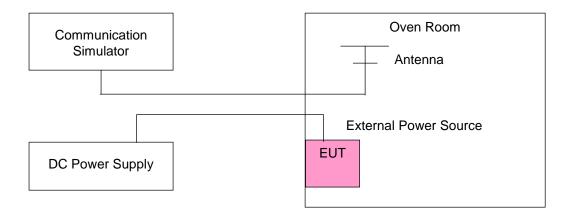
- 4.2.1 Limits of Frequency Stability Measurement
- 1.5 ppm is for base and fixed station. 2.5 ppm is for mobile station.

#### 4.2.2 Test Procedure

- 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  $\pm 0.5$  °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	Low C	hannel	High C	Limit (ppm)	
(Volts)	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)	(4)
3.8	824.700002	0.003	848.310003	0.003	2.5
3.5	824.700002	0.002	848.310002	0.002	2.5
4.35	824.700001	0.001	848.310002	0.002	2.5

**Note:** The applicant defined the normal working voltage of the battery is from 3.5 Vdc to 4.35 Vdc.

# Frequency Error vs. Temperature

Temp. (°C)	Low C	hannel	High C	Limit (ppm)		
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)		
-30	824.700003	0.003	848.310002	0.002	2.5	
-20	824.700004	0.005	848.310003	0.004	2.5	
-10	824.700002	0.003	848.310003	0.003	2.5	
0	0 824.700002 0.002		848.310002	0.002	2.5	
10	824.700003	0.003	848.310003	0.003	2.5	
20	824.699997	-0.004	848.309999	-0.001	2.5	
30	824.699998	-0.002	848.309998	-0.002	2.5	
40	824.699999	-0.001	848.309998	-0.003	2.5	
50	824.699999	-0.002	848.309998	-0.003	2.5	
55	824.699998	-0.003	848.309998	-0.002	2.5	

### Note:

- 1. The applicant declared that the normal operating temperature of the EUT is from -30°C to 55°C.
- 2. The EUT would shut down automatically as below -30°C.

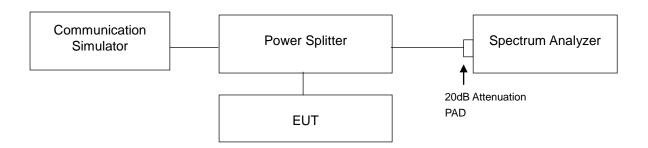


# 4.3 Occupied Bandwidth Measurement

#### 4.3.1 Test Procedure

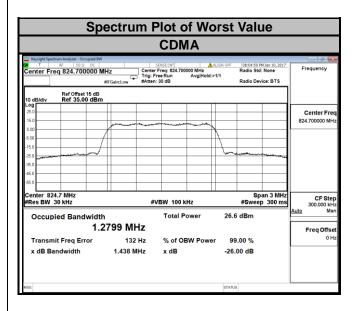
The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function 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)		
	(IVITZ)	CDMA		
1013	824.70	1.2799		
384	836.52	1.2731		
777	848.31	1.2756		



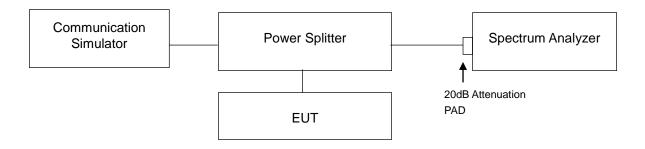


# 4.4 Band Edge Measurement

#### 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.

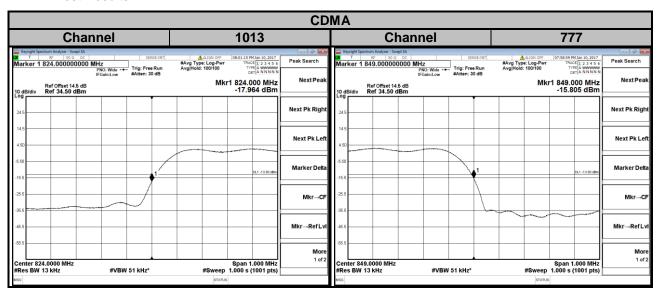
#### 4.4.2 Test Setup



#### 4.4.3 Test Procedures

- a. All measurements were done at low and high operational frequency range.
- b. The center frequency of spectrum is the band edge frequency and span is 1 MHz. RB of the spectrum is 13 kHz and VB of the spectrum is 51 kHz (CDMA)
- c. Record the max trace plot into the test report.

#### 4.4.4 Test Results



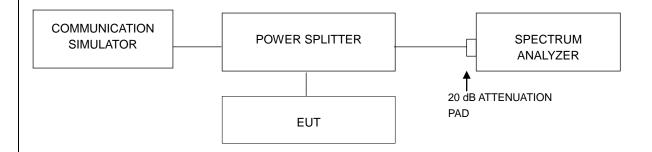


# 4.5 Peak to Average Ratio

#### 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

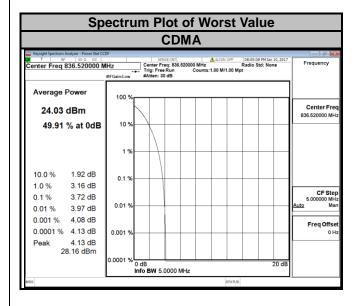


#### 4.5.3 Test Procedures

- 1. Set resolution/measurement bandwidth ≥ 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 %.

# 4.5.4 Test Results

Channel	Frequency	Peak to Average Ratio (dB)		
	(MHz)			
1013	824.70	2.75		
384	836.52	3.72		
777	848.31	3.22		



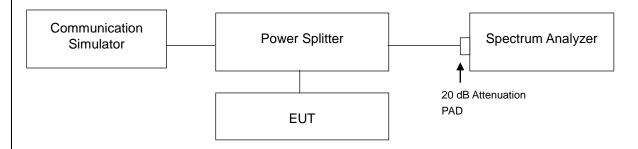


# 4.6 Conducted Spurious Emissions

#### 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 -13 dBm.

#### 4.6.2 Test Setup

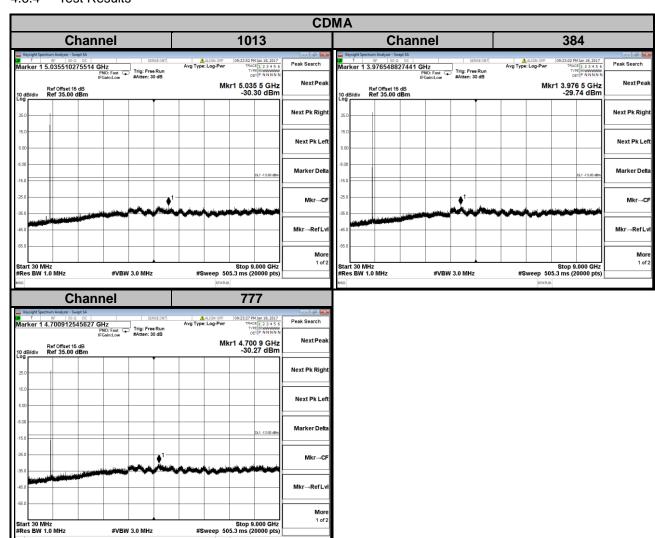


#### 4.6.3 Test Procedure

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



# 4.6.4 Test Results





#### 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 is equal to -13 dBm.

#### 4.7.2 Test Procedure

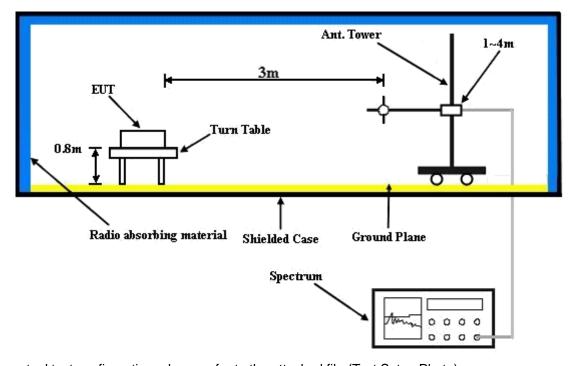
- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m 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. EIRP = Output power level of S.G TX cable loss + 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, E.R.P power = E.I.P.R power 2.15 dBi.

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

#### 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).



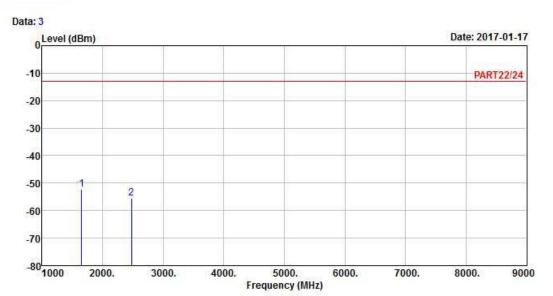
# 4.7.5 Test Results

#### CDMA:

**Low Channel** 



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 Chamber 5

Condition: PART22/24 HORIZONTAL

Remak : CDMA BCO\_L-CH

Tested by: Gavin Wu

Read Limit Over
Freq Level Level Line Limit Fac

Freq Level Line Limit Factor Remark

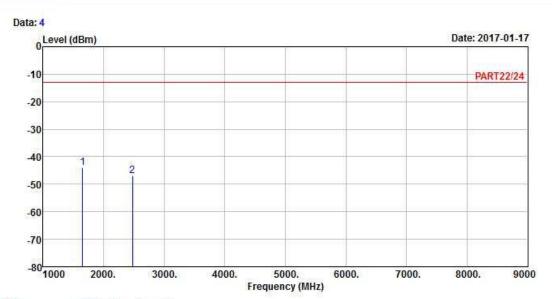
MHz dBm dBm dB dB

1 pp 1649.40 -52.30 -37.57 -13.00 -39.30 -14.73 Peak 2 2474.10 -55.37 -44.93 -13.00 -42.37 -10.44 Peak





# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 Chamber 5 Condition: PART22/24 VERTICAL Remak : CDMA BC0\_L-CH

Tested by: Gavin Wu

Read Limit Over
Freq Level Level Line Limit Factor Remark

MHz dBm dBm dB dB dB

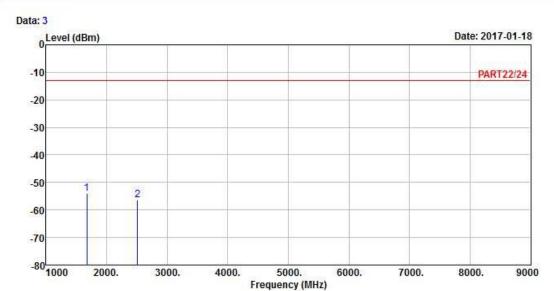
1 pp 1649.40 -43.97 -29.24 -13.00 -30.97 -14.73 Peak 2 2474.10 -47.08 -36.64 -13.00 -34.08 -10.44 Peak



# **Middle Channel**



# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 Chamber 5

Condition: PART22/24 HORIZONTAL

Remak : CDMA BCO\_M-CH

Tested by: Gavin Wu

Read Limit Over
Freq Level Level Line Limit Factor Remark

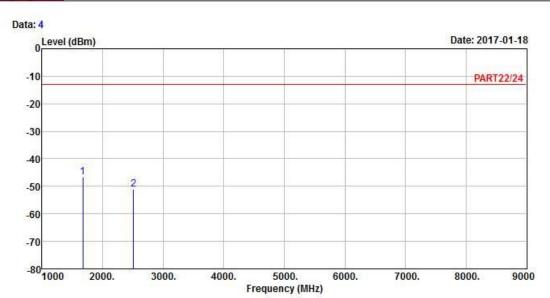
MHz dBm dBm dBm dB dB

1 pp 1673.04 -54.00 -39.32 -13.00 -41.00 -14.68 Peak 2 2509.56 -56.49 -45.58 -13.00 -43.49 -10.91 Peak





# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 Chamber 5 Condition: PART22/24 VERTICAL Remak : CDMA BCO\_M-CH

Tested by: Gavin Wu

Read Limit Over
Freq Level Level Line Limit Factor Remark

MHz dBm dBm dBm dB dB

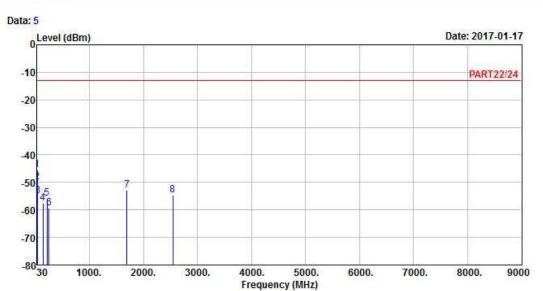
1 pp 1673.04 -46.72 -32.04 -13.00 -33.72 -14.68 Peak 2 2509.56 -51.13 -40.22 -13.00 -38.13 -10.91 Peak



# **High Channel**



# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 Chamber 5

Condition: PART22/24 HORIZONTAL

Remak : CDMA BCO\_H-CH

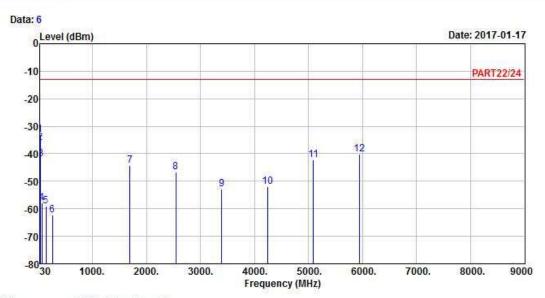
Tested by: Gavin Wu

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
8	MHz	dBm	dBm	dBm	dB	dB	-
1 pp	31.94	-45.51	-44.91	-13.00	-32.51	-0.60	Peak
2	34.85	-49.78	-47.71	-13.00	-36.78	-2.07	Peak
3	42.61	-54.87	-53.93	-13.00	-41.87	-0.94	Peak
4	136.70	-57.58	-48.92	-13.00	-44.58	-8.66	Peak
4 5	214.30	-55.85	-48.41	-13.00	-42.85	-7.44	Peak
6	251.16	-59.32	-53.31	-13.00	-46.32	-6.01	Peak
7	1696.62	-52.75	-38.22	-13.00	-39.75	-14.53	Peak
8	2544.93	-54.60	-43.83	-13.00	-41.60	-10.77	Peak





# Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch



Site : 966 Chamber 5 Condition: PART22/24 VERTICAL Remak : CDMA BCO\_H-CH

Tested by: Gavin Wu

				Read	Limit	0ver		
		Freq	Level	Level	Line	Limit	Factor	Remark
	8	MHz	dBm	dBm	dBm	dB	dB	
1	pp	30.97	-32.98	-32.87	-13.00	-19.98	-0.11	Peak
2		33.88	-35.98	-34.40	-13.00	-22.98	-1.58	Peak
3		42.61	-41.92	-40.98	-13.00	-28.92	-0.94	Peak
3 4 5 6		60.07	-57.77	-50.11	-13.00	-44.77	-7.66	Peak
5		135.73	-59.01	-50.34	-13.00	-46.01	-8.67	Peak
6		257.95	-62.39	-56.24	-13.00	-49.39	-6.15	Peak
7		1696.62	-44.25	-29.72	-13.00	-31.25	-14.53	Peak
7 8 9		2544.93	-46.68	-35.91	-13.00	-33.68	-10.77	Peak
9		3393.24	-52.94	-43.67	-13.00	-39.94	-9.27	Peak
10		4241.55	-51.88	-45.06	-13.00	-38.88	-6.82	Peak
11		5089.86	-42.09	-39.01	-13.00	-29.09	-3.08	Peak
12		5938.17	-40.13	-39.98	-13.00	-27.13	-0.15	Peak



F. Distance of Test Assessments						
5 Pictures of Test Arrangements Please refer to the attached file (Test Setup Photo).						
Please refer to the attached file (rest 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:

Linko EMC/RF Lab Hsin Chu EMC/RF/Telecom Lab

Tel: 886-2-26052180 Tel: 886-3-6668565 Fax: 886-2-26051924 Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety

Tel: 886-3-3183232 Fax: 886-3-3270892

Email: <a href="mailto:service.adt@tw.bureauveritas.com">service.adt@tw.bureauveritas.com</a>
Web Site: <a href="mailto:www.bureauveritas-adt.com">www.bureauveritas-adt.com</a>

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

--- END ---