

FCC Test Report

(PART 24)

Report No.: RF150508C06A-1

FCC ID: A4R-WT2

Test Model: WT2

Received Date: Jul. 13, 2016

Test Date: Jul. 24, 2016 ~ Aug. 05, 2016

Issued Date: Aug. 25, 2016

Company Name: Google Inc.

Address: 1600 Amphitheatre Parkway Mountain View California United States 94043

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

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Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Summary of Test Results.....	5
2.1 Measurement Uncertainty.....	5
2.2 Test Site And Instruments	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Configuration of System under Test.....	8
3.2.1 Description of Support Units	8
3.3 Test Mode Applicability and Tested Channel Detail	9
3.4 EUT Operating Conditions	10
3.5 General Description of Applied Standards.....	10
4 Test Types and Results	11
4.1 Output Power Measurement.....	11
4.1.1 Limits of Output Power Measurement	11
4.1.2 Test Procedures.....	11
4.1.3 Test Setup.....	12
4.1.4 Test Results	12
4.2 Radiated Emission Measurement.....	17
4.2.1 Limits of Radiated Emission Measurement	17
4.2.2 Test Procedure	17
4.2.3 Deviation from Test Standard	17
4.2.4 Test Setup.....	17
4.2.5 Test Results	18
5 Pictures of Test Arrangements.....	24
Appendix – Information on the Testing Laboratories	25

Release Control Record

Issue No.	Description	Date Issued
RF150508C06A-1	Original Release	Aug. 25, 2016

1 Certificate of Conformity

Product Name/Description: Connectivity Bridge

Brand: Google

Test Model: WT2

Sample Status: Identical Prototype

Company Name: Google Inc.

Test Date: Jul. 24, 2016 ~ Aug. 05, 2016

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 : Evonne Liu, **Date:** Aug. 25, 2016
Evonne Liu / Specialist

Approved by : Stanley Wu, **Date:** Aug. 25, 2016
Stanley Wu / Assistant Manager

2 Summary of Test Results

Applied Standard: FCC Part 24 & Part 2			
FCC Clause	Test Item	Result	Remarks
2.1046 24.232	Effective Isotropic Radiated Power	Pass	Meet the requirement of limit.
2.1046 24.232(d)	Peak to Average Ratio	Not Applicable	Refer to Note
2.1055 24.235	Frequency Stability	Not Applicable	Refer to Note
2.1049 24.238(b)	Occupied Bandwidth	Not Applicable	Refer to Note
24.238(b)	Band Edge Measurements	Not Applicable	Refer to Note
2.1051 24.238	Conducted Spurious Emissions	Not Applicable	Refer to Note
2.1053 24.238	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -21.25 dB at 3760 MHz.

NOTE: Only the test item for EIRP Power and radiated emission had been tested for this addendum and the conducted data is referring to module report (Report No.: T140415W02-RP3/T140415W02-RP1).

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	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

2.2 Test Site And Instruments

Description & Manufacturer	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	Sep. 03, 2015	Sep. 02, 2016
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 17, 2015	Dec. 16, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Jan. 07, 2016	Jan. 06, 2017
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Jan. 04, 2016	Jan. 03, 2017
Double Ridge Guide Horn Antenna EMCO	3115	5619	Jan. 04, 2016	Jan. 03, 2017
BILOG Antenna SCHWARZBECK	VULB 9168	9168-153	Jan. 07, 2016	Jan. 06, 2017
Agilent Communications Tester-Wireless	8960 Series 10	MY53201073	Jul. 03, 2015	Jul. 02, 2017
Preamplifier EMCI	EMC 012645	980115	Dec. 21, 2015	Dec. 20, 2016
Preamplifier EMCI	EMC 184045	980116	Dec. 21, 2015	Dec. 20, 2016
Preamplifier EMCI	EMC 330H	980112	Dec. 28, 2015	Dec. 27, 2016
Power Meter Anritsu	ML2495A	1232002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor Anritsu	MA2411B	1207325	Sep. 21, 2015	Sep. 20, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4 2950114	Oct. 12, 2015	Oct. 11, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 12, 2015	Oct. 11, 2016
RF Coaxial Cable Worken	8D-FB	Cable-Ch10-01	Oct. 12, 2015	Oct. 11, 2016
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
Radio Communication Analyzer	MT8820C	6201300640	Aug. 10, 2015	Aug. 09, 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 Name/Description	Connectivity Bridge	
Brand	Google	
Test Model	WT2	
Status of EUT	Identical Prototype	
Power Supply Rating	5.0 Vdc (adapter)	
Modulation Type	GSM/GPRS	GMSK
	WCDMA	BPSK
	LTE	QPSK, 16QAM
Frequency Range	GSM/GPRS/EDGE	1850.2 ~ 1909.8 MHz
	WCDMA	1852.4 ~ 1907.6 MHz
	LTE Band 2 (Channel Bandwidth: 1.4 MHz)	1850.7 ~ 1909.3 MHz
	LTE Band 2 (Channel Bandwidth: 3 MHz)	1851.5 ~ 1908.5 MHz
	LTE Band 2 (Channel Bandwidth: 5 MHz)	1852.5 ~ 1907.5 MHz
	LTE Band 2 (Channel Bandwidth: 10 MHz)	1855.0 ~ 1905.0 MHz
	LTE Band 2 (Channel Bandwidth: 15 MHz)	1857.5 ~ 1902.5 MHz
	LTE Band 2 (Channel Bandwidth: 20 MHz)	1860.0 ~ 1900.0 MHz
Max. EIRP Power	GSM/GPRS	547.39 mW
	WCDMA	142.92 mW
	LTE Band 2 (Channel Bandwidth: 1.4 MHz)	114.39 mW
	LTE Band 2 (Channel Bandwidth: 3 MHz)	116.79 mW
	LTE Band 2 (Channel Bandwidth: 5 MHz)	127.17 mW
	LTE Band 2 (Channel Bandwidth: 10 MHz)	138.80 mW
	LTE Band 2 (Channel Bandwidth: 15 MHz)	142.36 mW
	LTE Band 2 (Channel Bandwidth: 20 MHz)	147.37 mW
Antenna Type	Fixed Internal Antenna	
Accessory Device	Refer to Note as below	
Data Cable Supplied	Refer to Note as below	

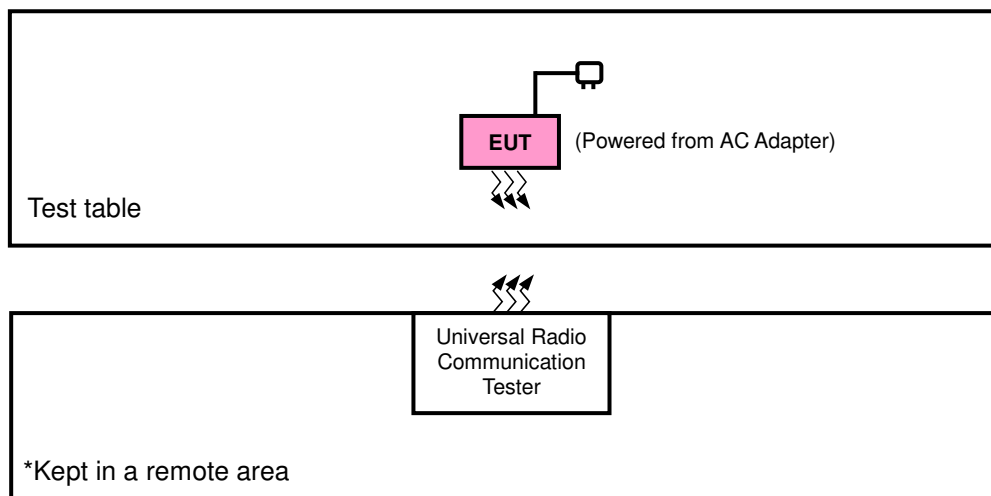
Note:

1. The EUT contains following accessory devices.

Product	Brand	Model	Description
Adapter	TPT	MII050200	I/P: 100-240Vac, 50-60Hz, 0.3A O/P: 5Vdc, 2A
WWAN Module	Telit	LE910-NAG	--
WiFi Module	AzureWave	AW-CM389NF	--

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



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	EIRP	Radiated Emission
GSM	X-plane	X-axis
WCDMA	X-plane	X-axis
LTE Band 2	Z-plane	Z-axis

GSM

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	EIRP	512 to 810	512, 661, 810	GSM, EDGE
-	Radiated Emission	512 to 810	661	GSM, EDGE

WCDMA

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Mode
-	EIRP	9262 to 9538	9262, 9400, 9538	WCDMA
-	Radiated Emission	9262 to 9538	9400	WCDMA

LTE Band 2

EUT Configure Mode	Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
-	EIRP	18607 to 19193	18607, 18900, 19193	1.4 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18615 to 19185	18615, 18900, 19185	3 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18625 to 19175	18625, 18900, 19175	5 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18650 to 19150	18650, 18900, 19150	10 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18675 to 19125	18675, 18900, 19125	15 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
		18700 to 19100	18700, 18900, 19100	20 MHz	QPSK, 16QAM	1 RB / 0 RB Offset
-	Radiated Emission	18700 to 19100	18900	20 MHz	QPSK	1 RB / 0 RB Offset

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
EIRP	26 deg. C, 58 % RH	5 Vdc	Getaz Yang
Radiated Emission	25 deg. C, 65 % RH	120 Vac, 60 Hz	Getaz Yang

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 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 2 watts e.i.r.p.

4.1.2 Test Procedures

EIRP / ERP Measurement:

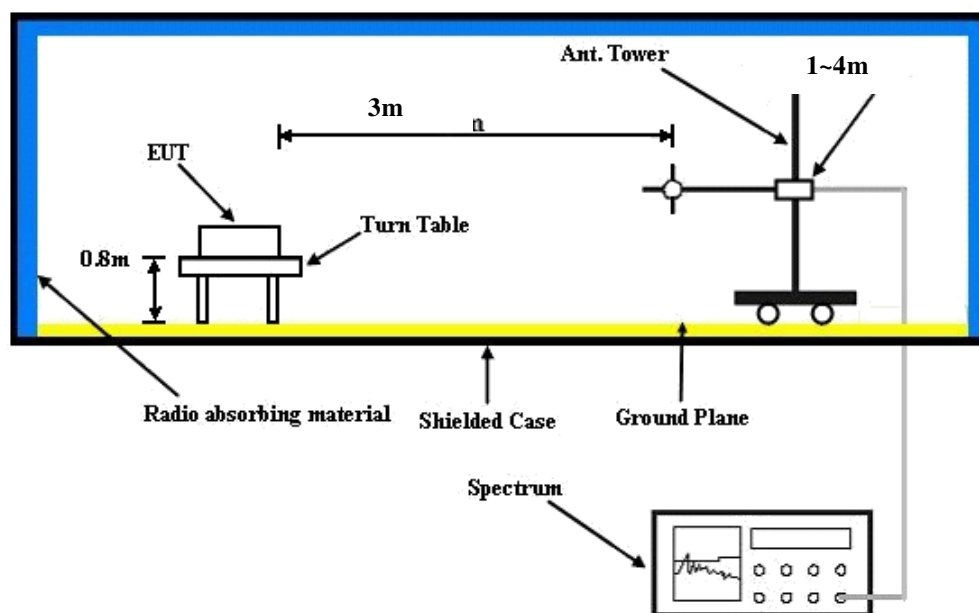
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1 MHz for GSM, GPRS & EDGE, 5 MHz for WCDMA and CDMA, and 10 MHz for LTE mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of 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 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 from E.I.R.P power by subtracting the gain of dipole, $E.R.P \text{ power} = E.I.P.R \text{ power} - 2.15 \text{ dBi}$.

Conducted Power Measurement:

The EUT was set up for the maximum power with GSM, GPRS, EDGE, WCDMA, 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

EIRP Power (dBm)

GSM							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	512	1850.2	-13.05	36.57	23.52	225.01	H
	661	1880.0	-13.12	37.22	24.10	257.28	
	810	1909.8	-13.77	37.18	23.41	219.38	
	512	1850.2	-10.36	37.65	27.29	535.92	V
	661	1880.0	-10.20	37.58	27.38	547.39	
	810	1909.8	-10.31	37.48	27.17	521.19	

WCDMA							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
X	9262	1852.4	-18.98	36.57	17.59	57.44	H
	9400	1880.0	-18.33	37.22	18.89	77.52	
	9538	1907.6	-18.24	37.18	18.94	78.38	
	9262	1852.4	-16.10	37.65	21.55	142.92	V
	9400	1880.0	-16.16	37.58	21.42	138.77	
	9538	1907.6	-16.02	37.48	21.46	139.96	

LTE Band 2							
Channel Bandwidth: 1.4 MHz / QPSK							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	18607	1850.7	-16.02	36.57	20.55	113.55	H
	18900	1880.0	-16.64	37.22	20.58	114.39	
	19193	1909.3	-16.77	37.18	20.41	109.95	
	18607	1850.7	-20.43	37.65	17.22	52.74	V
	18900	1880.0	-20.21	37.58	17.37	54.61	
	19193	1909.3	-20.24	37.48	17.24	52.97	
Channel Bandwidth: 1.4 MHz / 16QAM							
Z	18607	1850.7	-17.45	36.57	19.12	81.70	H
	18900	1880.0	-17.97	37.22	19.25	84.22	
	19193	1909.3	-17.99	37.18	19.19	83.02	
	18607	1850.7	-21.33	37.65	16.32	42.86	V
	18900	1880.0	-21.21	37.58	16.37	43.38	
	19193	1909.3	-21.22	37.48	16.26	42.27	

LTE Band 2							
Channel Bandwidth: 3 MHz / QPSK							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	18615	1851.5	-15.97	36.57	20.60	114.87	H
	18900	1880.0	-16.55	37.22	20.67	116.79	
	19185	1908.5	-16.64	37.18	20.54	113.29	
	18615	1851.5	-20.30	37.65	17.35	54.34	V
	18900	1880.0	-20.11	37.58	17.47	55.89	
	19185	1908.5	-20.10	37.48	17.38	54.70	
Channel Bandwidth: 3 MHz / 16QAM							
Z	18615	1851.5	-17.02	36.57	19.55	90.20	H
	18900	1880.0	-17.62	37.22	19.60	91.29	
	19185	1908.5	-17.81	37.18	19.37	86.54	
	18615	1851.5	-21.18	37.65	16.47	44.37	V
	18900	1880.0	-21.08	37.58	16.50	44.70	
	19185	1908.5	-21.10	37.48	16.38	43.45	

LTE Band 2							
Channel Bandwidth: 5 MHz / QPSK							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	18625	1852.5	-15.62	36.57	20.95	124.51	H
	18900	1880.0	-16.18	37.22	21.04	127.17	
	19175	1907.5	-16.22	37.18	20.96	124.80	
	18625	1852.5	-20.14	37.65	17.51	56.38	V
	18900	1880.0	-19.95	37.58	17.63	57.98	
	19175	1907.5	-20.01	37.48	17.47	55.85	
Channel Bandwidth: 5 MHz / 16QAM							
Z	18625	1852.5	-16.95	36.57	19.62	91.66	H
	18900	1880.0	-17.50	37.22	19.72	93.84	
	19175	1907.5	-17.62	37.18	19.56	90.41	
	18625	1852.5	-21.06	37.65	16.59	45.61	V
	18900	1880.0	-20.92	37.58	16.66	46.38	
	19175	1907.5	-20.97	37.48	16.51	44.77	

LTE Band 2							
Channel Bandwidth: 10 MHz / QPSK							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	18650	1855.0	-15.21	36.57	21.36	136.84	H
	18900	1880.0	-15.80	37.22	21.42	138.80	
	19150	1905.0	-15.90	37.18	21.28	134.34	
	18650	1855.0	-20.01	37.65	17.64	58.09	V
	18900	1880.0	-19.82	37.58	17.76	59.74	
	19150	1905.0	-19.89	37.48	17.59	57.41	
Channel Bandwidth: 10 MHz / 16QAM							
Z	18650	1855.0	-16.82	36.57	19.75	94.45	H
	18900	1880.0	-17.37	37.22	19.85	96.69	
	19150	1905.0	-17.49	37.18	19.69	93.15	
	18650	1855.0	-20.98	37.65	16.67	46.46	V
	18900	1880.0	-20.86	37.58	16.72	47.02	
	19150	1905.0	-20.85	37.48	16.63	46.03	

LTE Band 2							
Channel Bandwidth: 15 MHz / QPSK							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	18675	1857.5	-15.11	36.57	21.46	140.02	H
	18900	1880.0	-15.69	37.22	21.53	142.36	
	19125	1902.5	-15.79	37.18	21.39	137.78	
	18675	1857.5	-19.85	37.65	17.80	60.27	V
	18900	1880.0	-19.72	37.58	17.86	61.14	
	19125	1902.5	-19.73	37.48	17.75	59.57	
Channel Bandwidth: 15 MHz / 16QAM							
Z	18675	1857.5	-16.61	36.57	19.96	99.13	H
	18900	1880.0	-17.14	37.22	20.08	101.95	
	19125	1902.5	-17.24	37.18	19.94	98.67	
	18675	1857.5	-20.84	37.65	16.81	47.98	V
	18900	1880.0	-20.75	37.58	16.83	48.23	
	19125	1902.5	-20.74	37.48	16.74	47.21	

LTE Band 2							
Channel Bandwidth: 20 MHz / QPSK							
Plane	Channel	Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (mW)	Polarization (H/V)
Z	18700	1860.0	-15.02	36.57	21.55	142.96	H
	18900	1880.0	-15.54	37.22	21.68	147.37	
	19100	1900.0	-15.63	37.18	21.55	142.96	
	18700	1860.0	-19.72	37.65	17.93	62.10	V
	18900	1880.0	-19.63	37.58	17.95	62.42	
	19100	1900.0	-19.60	37.48	17.88	61.38	
Channel Bandwidth: 20 MHz / 16QAM							
Z	18700	1860.0	-16.34	36.57	20.23	105.49	H
	18900	1880.0	-16.97	37.22	20.25	106.02	
	19100	1900.0	-17.03	37.18	20.15	103.56	
	18700	1860.0	-20.76	37.65	16.89	48.88	V
	18900	1880.0	-20.67	37.58	16.91	49.12	
	19100	1900.0	-20.62	37.48	16.86	48.53	

4.2 Radiated Emission Measurement

4.2.1 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.

4.2.2 Test Procedure

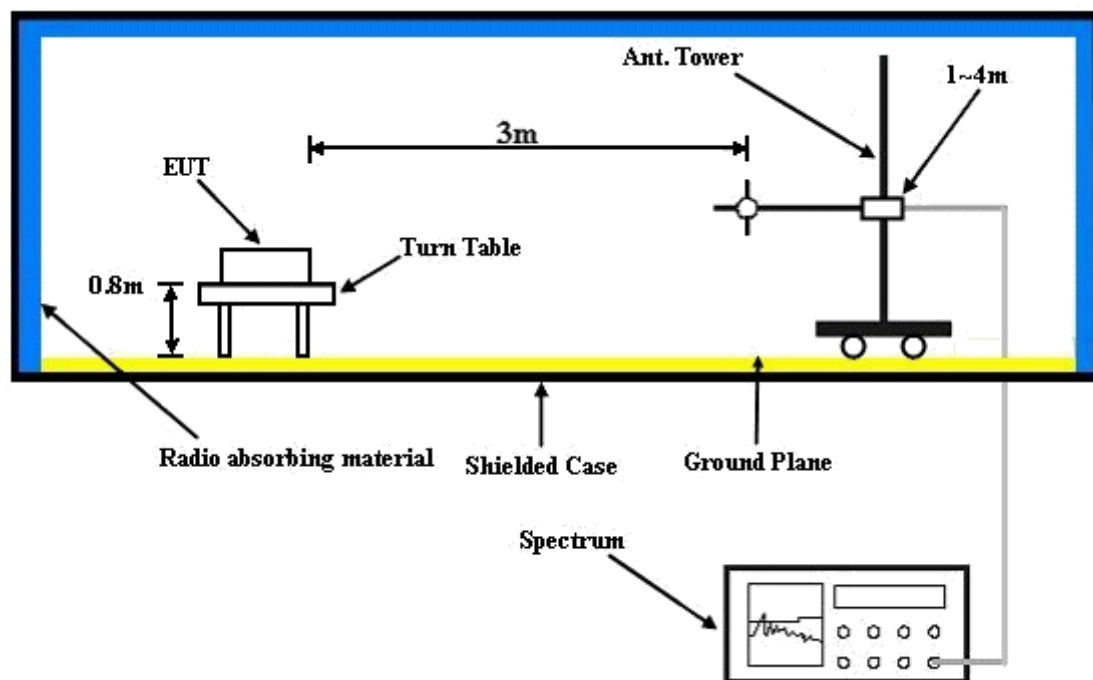
- Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- 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.
- 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.

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

4.2.3 Deviation from Test Standard

No deviation.

4.2.4 Test Setup



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

4.2.5 Test Results

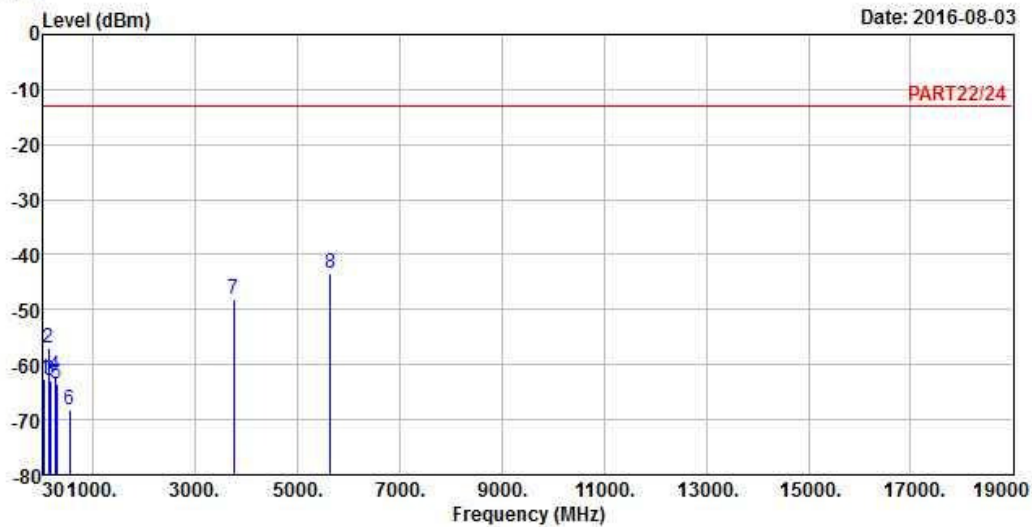
GSM:



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 7



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : GPRS 1900 Link
Tested by: Getaz Yang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	43.58	-62.68	-61.21	-13.00	-49.68	-1.47	Peak
2	127.97	-56.94	-48.02	-13.00	-43.94	-8.92	Peak
3	167.74	-62.76	-57.37	-13.00	-49.76	-5.39	Peak
4	254.07	-61.98	-55.91	-13.00	-48.98	-6.07	Peak
5	294.81	-63.46	-56.55	-13.00	-50.46	-6.91	Peak
6	550.89	-68.15	-65.34	-13.00	-55.15	-2.81	Peak
7	3760.00	-48.11	-40.05	-13.00	-35.11	-8.06	Peak
8 pp	5640.00	-43.29	-41.35	-13.00	-30.29	-1.94	Peak

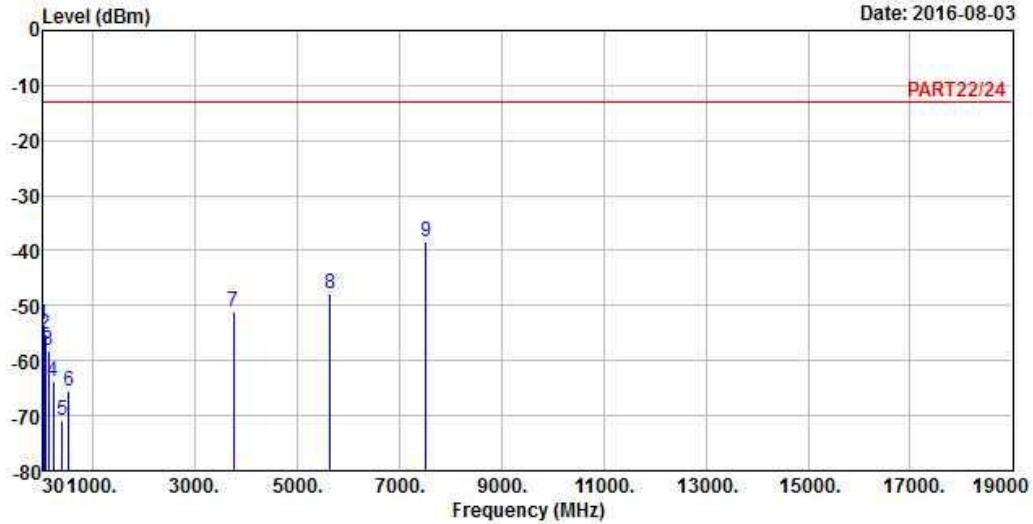


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 8

Date: 2016-08-03



Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : GPRS 1900 Link
Tested by: Getaz Yang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	39.70	-53.42	-54.06	-13.00	-40.42	0.64	Peak
2	72.68	-55.24	-46.17	-13.00	-42.24	-9.07	Peak
3	127.97	-58.10	-49.18	-13.00	-45.10	-8.92	Peak
4	222.06	-63.73	-56.61	-13.00	-50.73	-7.12	Peak
5	392.78	-70.95	-64.96	-13.00	-57.95	-5.99	Peak
6	533.43	-65.59	-62.15	-13.00	-52.59	-3.44	Peak
7	3760.00	-51.12	-43.06	-13.00	-38.12	-8.06	Peak
8	5640.00	-47.87	-45.93	-13.00	-34.87	-1.94	Peak
9 pp	7520.00	-38.31	-43.90	-13.00	-25.31	5.59	Peak

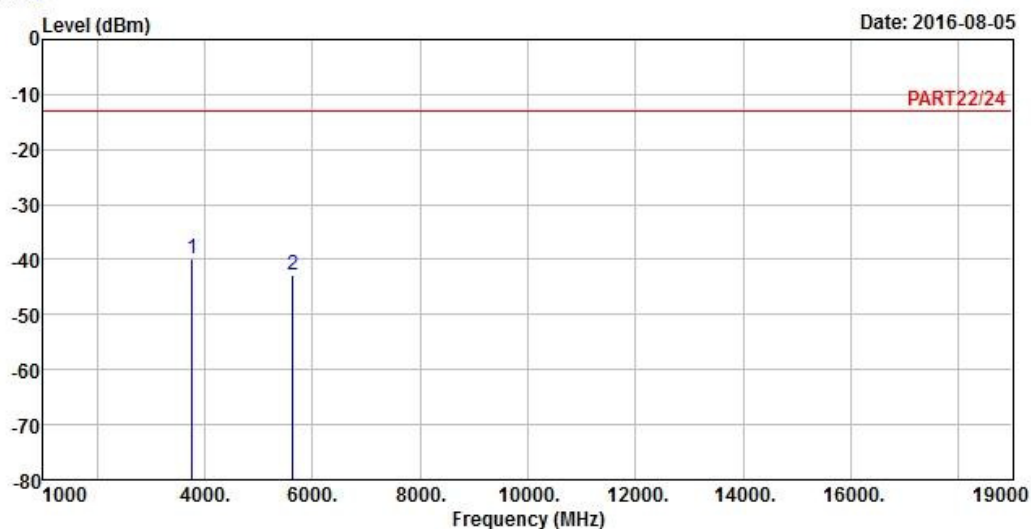
WCDMA:



Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

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Data: 5



Site : 966 Chamber 5
Condition: PART22/24 HORIZONTAL
Remak : WCDMA II Link
Tested by: Getaz Yang

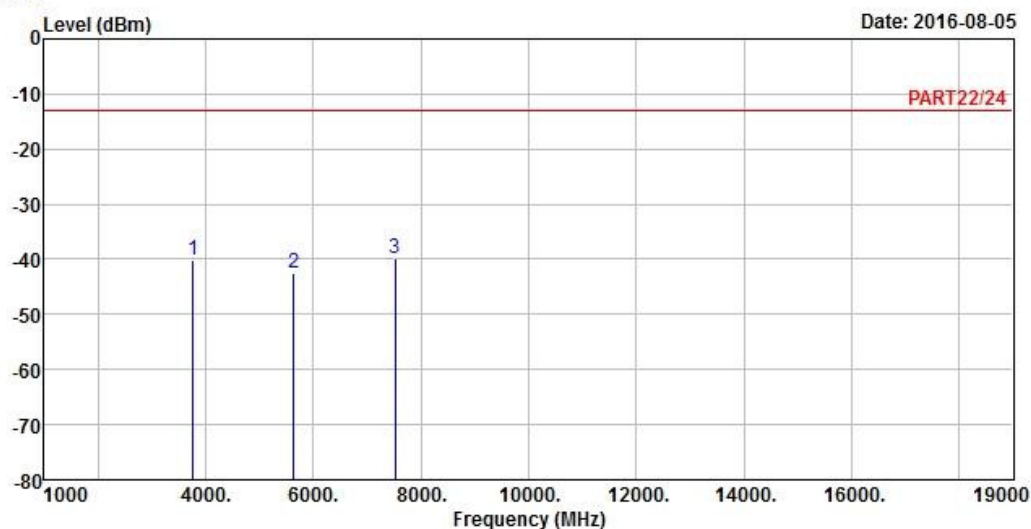
			Read	Limit	Over		
	Freq	Level	Level	Line	Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1 pp	3760.00	-39.92	-31.86	-13.00	-26.92	-8.06	Peak
2	5640.00	-42.95	-41.01	-13.00	-29.95	-1.94	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 6



Site : 966 Chamber 5
Condition: PART22/24 VERTICAL
Remak : WCDMA II Link
Tested by: Getaz Yang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	3760.00	-40.03	-31.97	-13.00	-27.03	-8.06	Peak
2	5640.00	-42.46	-40.52	-13.00	-29.46	-1.94	Peak
3 pp	7520.00	-39.72	-45.31	-13.00	-26.72	5.59	Peak

LTE Band 2

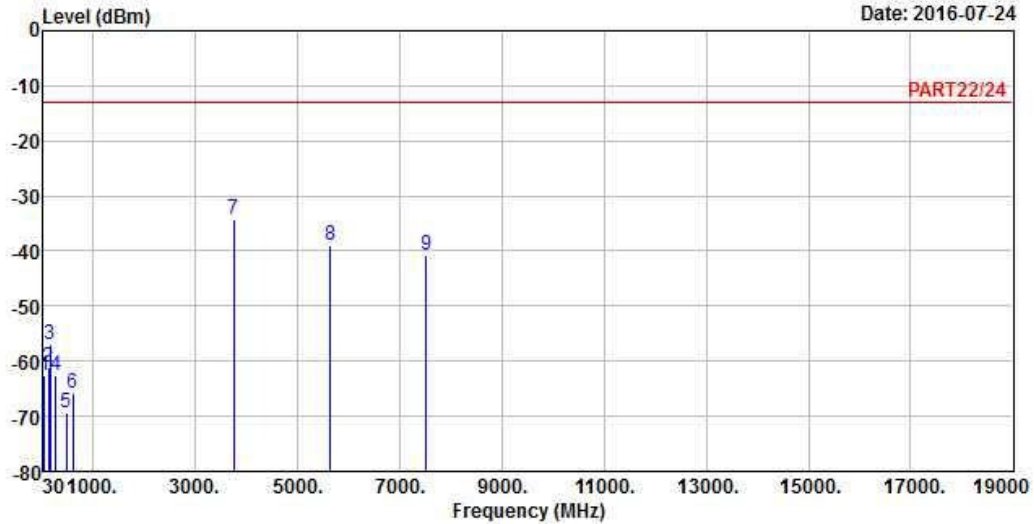
Channel Bandwidth: 20 MHz / QPSK



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 7



Site : 966 Chamber 5

Condition: PART22/24 HORIZONTAL

Remak : LTE Band II_QPSK_20M Link

Tested by: Geetaz Yang

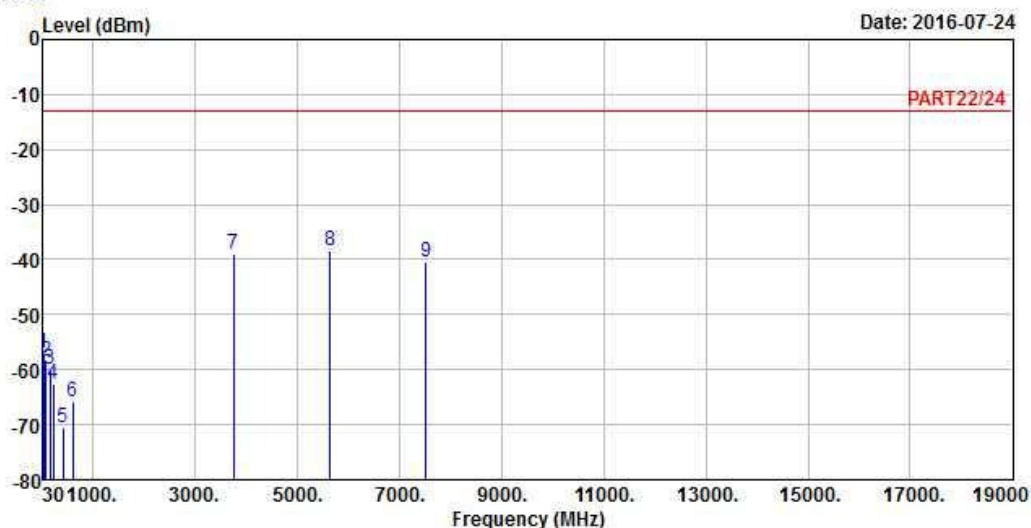
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	44.55	-62.58	-60.59	-13.00	-49.58	-1.99	Peak
2	130.88	-61.13	-52.44	-13.00	-48.13	-8.69	Peak
3	166.77	-56.85	-51.53	-13.00	-43.85	-5.32	Peak
4	268.62	-62.62	-56.25	-13.00	-49.62	-6.37	Peak
5	472.32	-69.48	-64.35	-13.00	-56.48	-5.13	Peak
6	600.36	-65.89	-65.14	-13.00	-52.89	-0.75	Peak
7 pp	3760.00	-34.25	-26.19	-13.00	-21.25	-8.06	Peak
8	5640.00	-38.84	-36.90	-13.00	-25.84	-1.94	Peak
9	7520.00	-40.62	-46.21	-13.00	-27.62	5.59	Peak



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 8



Site : 966 Chamber 5

Condition: PART22/24 VERTICAL

Remak : LTE Band II_QPSK_20M Link

Tested by: Geetaz Yang

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark
	MHz	dBm	dBm	dBm	dB	dB	
1	39.70	-57.11	-57.75	-13.00	-44.11	0.64	Peak
2	75.59	-58.48	-48.73	-13.00	-45.48	-9.75	Peak
3	161.92	-59.82	-54.84	-13.00	-46.82	-4.98	Peak
4	223.03	-62.63	-55.55	-13.00	-49.63	-7.08	Peak
5	422.85	-70.43	-64.67	-13.00	-57.43	-5.76	Peak
6	602.30	-65.76	-65.00	-13.00	-52.76	-0.76	Peak
7	3760.00	-39.07	-31.01	-13.00	-26.07	-8.06	Peak
8 pp	5640.00	-38.34	-36.40	-13.00	-25.34	-1.94	Peak
9	7520.00	-40.32	-45.91	-13.00	-27.32	5.59	Peak

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:

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

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Fax: 886-3-3270892

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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