FCC REPORT

Applicant:	SHENZHEN CHUANGXINQI COMMUNICATION CO., LTD
Address of Applicant:	Rm 501B, Block A1, kexing Science Park, Keyuan North Rd., Science and Technology Park, Nanshan, Shenzhen, Guangdong, China

Equipment Under Test (EUT)

Product Name:	Smart Phone
Model No.:	V8,V8C,V8Y,V8G,V8A,G551,G551A,G551C,G551Y,G551G
Trade mark:	iNew
FCC ID:	2ACI4-V8
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.225
Date of sample receipt:	11 Jul., 2014
Date of Test:	11 Jul., to 06 Aug., 2014
Date of report issue:	08 Aug., 2014
Test Result:	PASS*

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Bruce Zhang
Laboratory Manager

2 Version

Version No.	Date	Description
00	*08 Aug., 2014*	*Original*

Prepared By: Sera Xiang ***Date:*** *08 Aug., 2014*

Report Clerk

Check By: Abomb Yang ***Date:*** *08 Aug., 2014*

Project Engineer

3 Contents

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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
Field strength of the fundamental signal	15.225 (a),(b),(c)	Pass
Spurious emissions	15.225 (d) & 15.209	Pass
20dB Bandwidth	15.215 (c)	Pass
Frequency tolerance	15.225 (e)	Pass
Conducted Emission	15.207	Pass

Remarks:

Pass: The EUT complies with the essential requirements in the standard.

5 General Information

5.1 Client Information

Applicant:	SHENZHEN CHUANGXINQI COMMUNICATION CO., LTD
Address of Applicant:	Rm 501B, Block A1, kexing Science Park, Keyuan North Rd., Science and Technology Park, Nanshan, Shenzhen, Guangdong, China
Manufacturer:	SHENZHEN CHUANGXINQI COMMUNICATION CO., LTD
Address of Manufacturer:	Rm 501B, Block A1, kexing Science Park, Keyuan North Rd., Science and Technology Park, Nanshan, Shenzhen, Guangdong, China
Factory:	Hongjiada Electronics Co., Limited
Address of Factory:	4th Floor, C16 Building, Jiuwei Fuyuan Industrial Zone, Xi Xiang, Bao'an District, Shenzhen China 518000

5.2 General Description of E.U.T.

Product Name:	Smart Phone
Model No.:	V8,V8C,V8Y,V8G,V8A,G551,G551A,G551C,G551Y,G551G
Operation Frequency:	13.56MHz
Channel numbers:	1
Modulation type:	ASK
Antenna Type:	Internal Antenna
Antenna gain:	0dBi
Power supply:	Rechargeable Li-ion Battery DC3.8V-2400mAh
AC adapter:	Model:ASUC37a-055090 Input:100-240V AC,50/60Hz 0.3A Output:5.5V DC MAX900mA
Remark:	Item No.: V8,V8C,V8Y,V8G,V8A,G551,G551A,G551C,G551Y,G551G were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being appearance of colors and battery cover mark.

5.3 Test mode

Transmitting mode:	Keep the EUT in transmitting mode with modulation

Pre-Test Mode:

CCIS has verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	X	Y	Z
Field Strength(dBuV/m)	47.20	46.95	45.78

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup": X axis (see the test setup photo).

5.4 Description of Support Units

N/A

5.5 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC - Registration No.: 817957**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in out files. Registration 817957, February 27, 2012.

● **IC - Registration No.: 10106A-1**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L6048**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

5.6 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
Tel: +86-755-23118282
Fax: +86-755-23116366

5.7 Test Instruments list

Radiated Emission:

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
1	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	04-10-2014	04-10-2015
2	Loop Antenna	Com-power	AL-130	CCS078	12-10-2013	12-10-2014
2	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	CCIS0005	04-19-2014	04-19-2015
3	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	CCIS0006	04-19-2014	04-19-2015
4	Amplifier (10kHz-1.3GHz)	HP	8447D	CCIS0003	03-31-2014	03-30-2015
5	Amplifier (1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	03-31-2014	03-30-2015
6	Spectrum analyzer	Rohde & Schwarz	FSP30	CCIS0023	04-10-2014	04-10-2015

Conducted Emission:

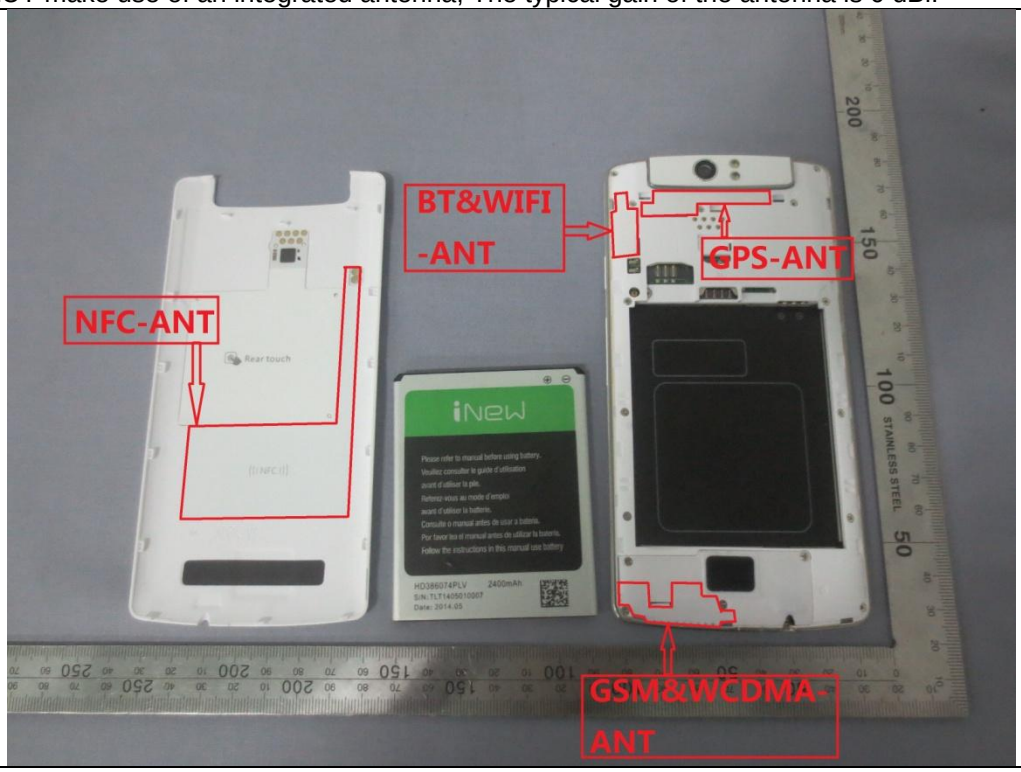
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (mm-dd-yy)	Cal. Date (mm-dd-yy)
1	Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	06-09-2014	06-08-2015
2	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	04-10-2014	04-10-2015

3	LISN	CHASE	MN2050D	CCIS0074	04-10-2014	04-10-2015
4	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

6 Test results and Measurement Data

6.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
E.U.T Antenna:	
The EUT make use of an integrated antenna, The typical gain of the antenna is 0 dBi.	



6.2 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.225(a),(b),(c),(d) and 15.209
Test Method:	ANSI C63.4: 2003
Test Frequency Range:	9 kHz to 1000MHz
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)

Receiver setup:

Frequency	Detector	RBW	VBW	Remark
9kHz-150kHz	Quasi-peak	200Hz	600Hz	Quasi-peak Value
150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
30MHz-1GHz	Quasi-peak	120kHz	300KHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value

Limit:
(Field strength of the fundamental signal)

Frequency	Limit (uV/m @30m)	Limit (dBuV/m @3m)
13.553MHz-13.567MHz	15848	124.0
13.410MHz-13.553MHz & 13.567MHz-13.710MHz	334	90.5
13.110MHz-13.410MHz & 13.710MHz-14.010MHz	106	80.5

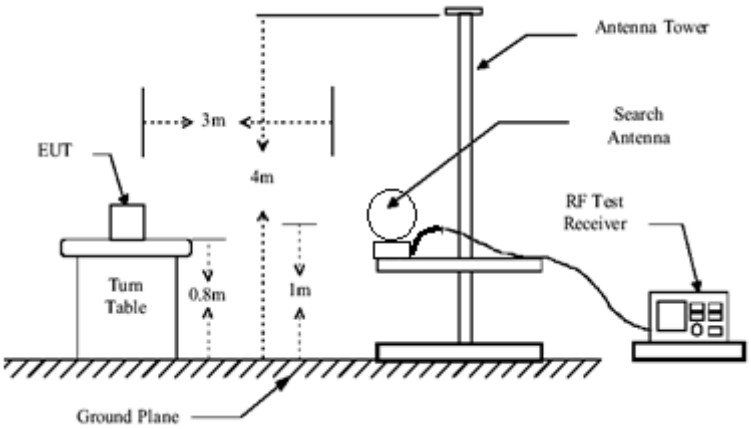
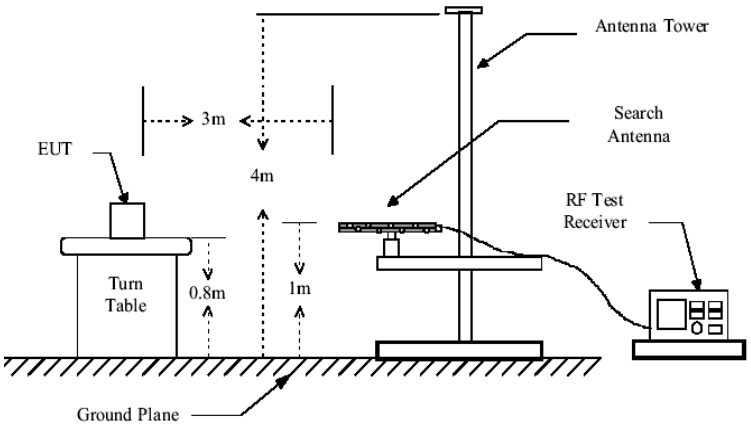
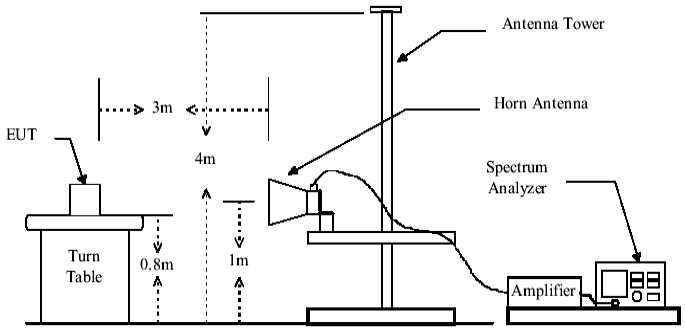
Remark: Per FCC part 15.31, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

Limit:
(Spurious Emissions)

Frequency (MHz)	Limit (uV/m @3m)	Distance (m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 1GHz	500	3

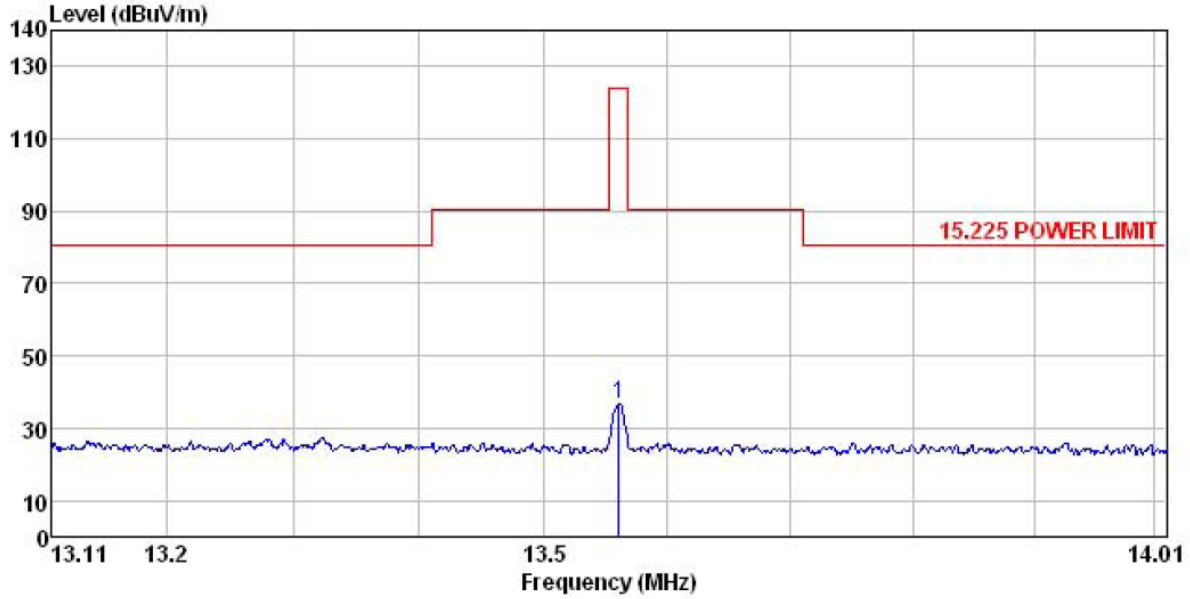
Test Procedure:

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Test setup:	9kHz-30MHz  30MHz-1GHz  Above 1GHz 
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Measurement Record:	Uncertainty:±4.88 dB
Test results:	Pass

Measurement Data

6.2.1 Field Strength Of The Fundamental Signal



Site : 3m chamber
Condition : 15.225 POWER LIMIT 3m AL-130 LOOP ANTENNA HORIZONTAL
EUT : Smart Phone
Model : V8
Test mode : Charging & NFC mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5℃ Huni:55%
Test Engineer: Carey
REMARK :

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	13.561	22.78	13.36	0.64	0.00	36.78	124.00	-87.22	

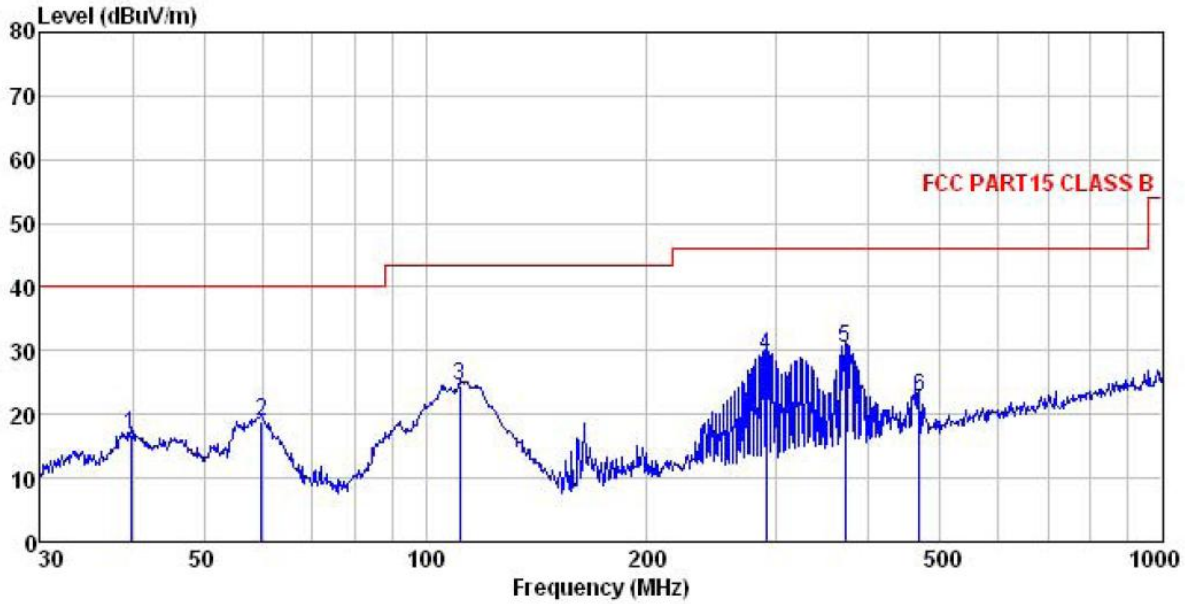
6.2.2 Spurious Emissions

9kHz-30MHz:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
0.036	16.51	14.91	0.14	31.56	116.88	-85.32	Horizontal
4.407	15.26	14.97	0.62	30.85	72.51	-41.66	Horizontal
13.623	17.41	13.34	0.64	31.39	70.74	-39.35	Horizontal
16.398	18.82	13.32	0.68	32.82	70.45	-37.63	Horizontal

30MHz-1000MHz

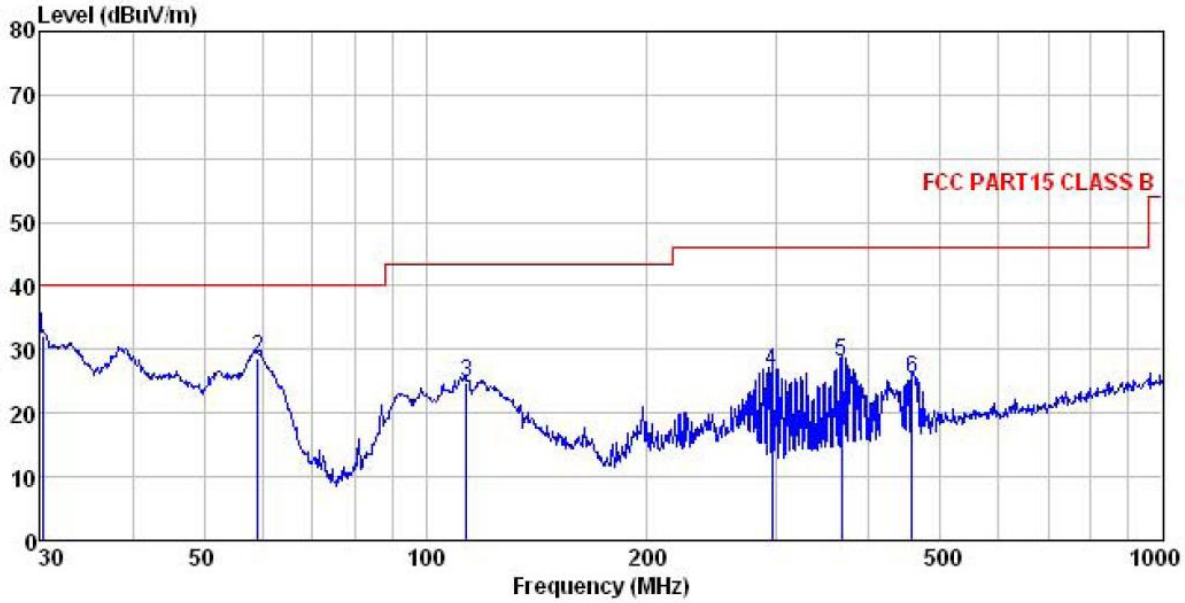
Horizontal:



Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163(30M1G) HORIZONTAL
Pro : 569RF
EUT : Smart Phone
Model : V8
Test mode : NFC mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5℃ Huni:55%
Test Engineer:
REMARK :

	Freq	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	39.854	32.82	13.53	0.52	29.90	16.97	40.00	-23.03	QP
2	59.859	35.38	12.71	0.69	29.77	19.01	40.00	-20.99	QP
3	111.347	40.88	12.04	1.06	29.45	24.53	43.50	-18.97	QP
4	290.017	43.19	12.86	1.74	28.47	29.32	46.00	-16.68	QP
5	370.702	42.64	14.51	2.02	28.65	30.52	46.00	-15.48	QP
6	468.876	33.60	15.83	2.31	28.90	22.84	46.00	-23.16	QP

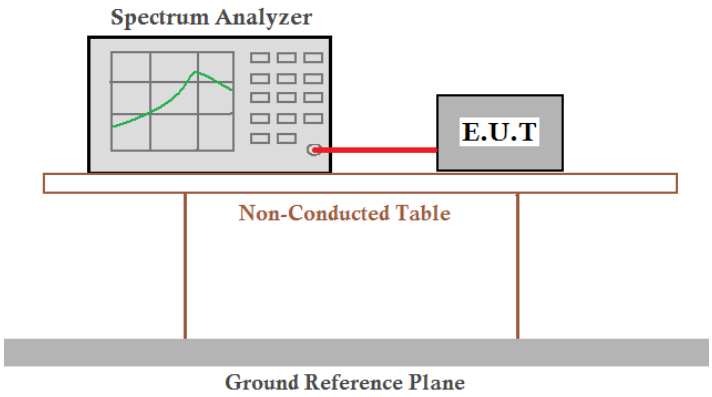
Vertical:



Site : 3m chamber
Condition : FCC PART15 CLASS B 3m VULB9163(30M1G) VERTICAL
Pro : 569RF
EUT : Smart Phone
Model : V8
Test mode : NFC mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5'C Huni:55%
Test Engineer:
REMARK :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	30.211	49.39	12.33	0.43	29.98	32.17	40.00	-7.83	QP
2	59.232	45.02	12.75	0.68	29.77	28.68	40.00	-11.32	QP
3	113.714	41.48	11.63	1.07	29.43	24.75	43.50	-18.75	QP
4	295.147	40.45	12.95	1.76	28.46	26.70	46.00	-19.30	QP
5	366.823	40.27	14.48	2.00	28.64	28.11	46.00	-17.89	QP
6	457.507	36.46	15.59	2.28	28.88	25.45	46.00	-20.55	QP

6.3 20dB Bandwidth

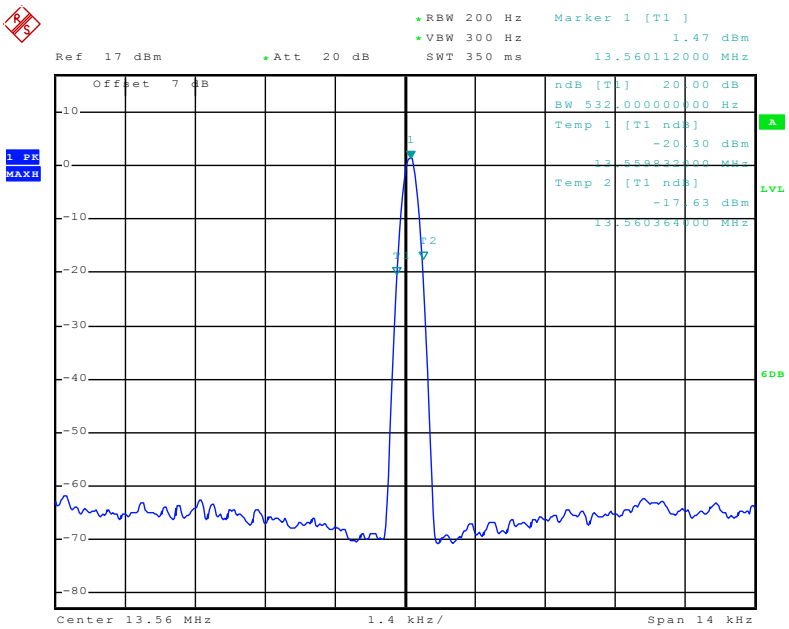
Test Requirement:	FCC Part15 C Section 15.215 (c)
Test Method:	ANSI C63.4:2003
Receiver setup:	RBW=200Hz, VBW=300Hz, detector: Peak
Limit:	The fundamental emission be kept within at least the central 80% of the permitted band
Test Procedure:	1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. 2. Set the EUT to proper test channel. 3. Max hold the radiated emissions, mark the peak power frequency point and the -20dB upper and lower frequency points. 4. Read 20dB bandwidth.
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data

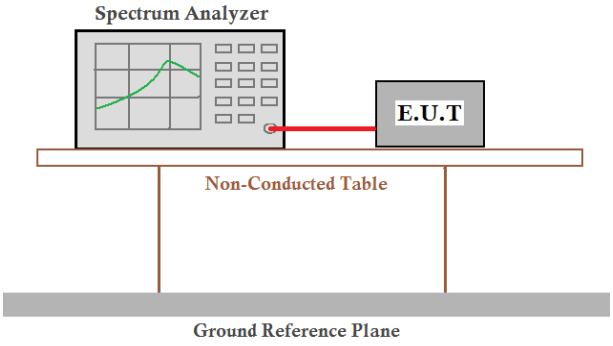
20dB bandwidth (kHz)	Limit (kHz)	Results
0.532	11.2	Passed

Note: For 13.56MHz, permitted Band is 14 kHz, so the Limit is 11.2 kHz.

Test plot as follows:



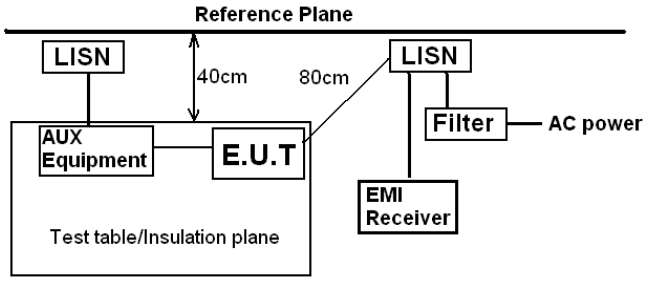
6.4 Frequency Tolerance

Test Requirement:	FCC Part15 C Section 15.225 (e)
Test Method:	ANSI C63.4:2003
Receiver setup:	RBW=200Hz, VBW=300Hz, span=14kHz, detector: Peak
Limit:	±0.01% of the operating frequency
Test mode:	Transmitting mode
Test Procedure:	**Frequency stability V.S. Temperature measurement** 1. The equipment under test was powered by a fresh battery. 2. RF output was connected to spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20℃ operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –20℃. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10℃ increased per stage until the highest temperature of +50℃ reached **Frequency stability V.S. Voltage measurement** 1. Set chamber temperature to 20℃. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test setup:	
Test Instruments:	Refer to section 5.7 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data

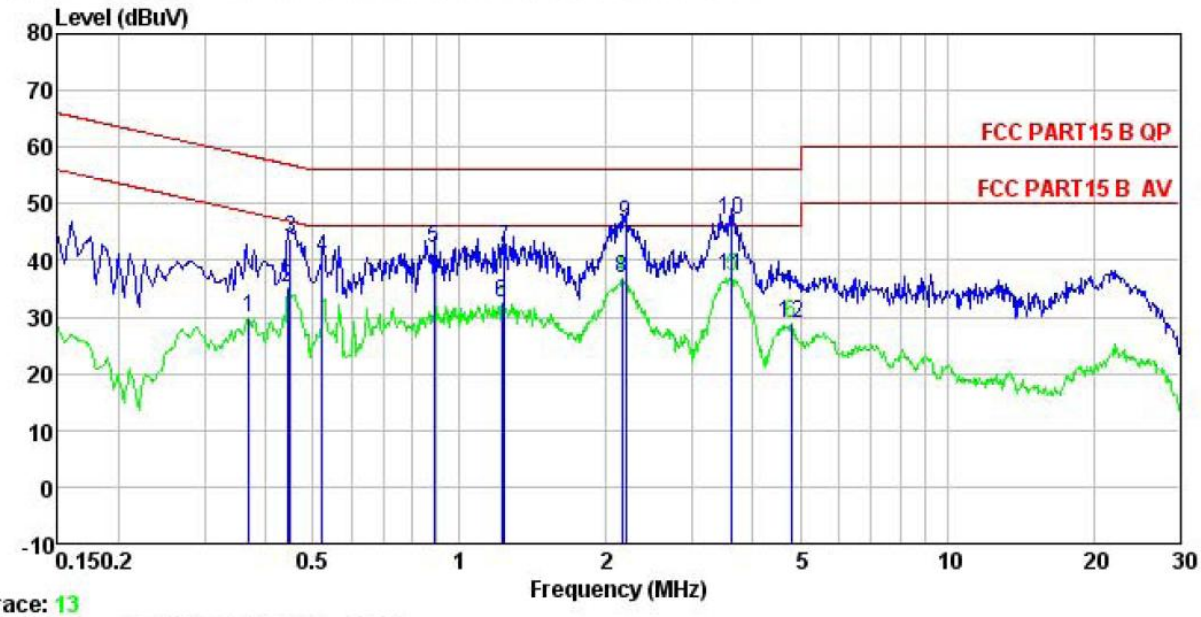
Temperature (℃)	Voltage (Vdc)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)
-20	3.80	13.56004	0.001	±0.01
+50	3.80	13.56005	0.001	±0.01
+20	3.23	13.56003	0.001	±0.01
+20	4.37	13.56007	0.001	±0.01

6.5 Conducted Emission

Test Requirement:	FCC Part15 B Section 15.207					
Test Method:	ANSI C63.4:2003					
Test Frequency Range:	150 kHz to 30 MHz					
Class / Severity:	Class B					
Receiver setup:	RBW=9 kHz, VBW=30 kHz					
Limit:	Frequency range (MHz)	Limit (dBμV)				
		Quasi-peak	Average			
	0.15-0.5	66 to 56*	56 to 46*			
	0.5-5	56	46			
	0.5-30	60	50			
	* Decreases with the logarithm of the frequency.					
Test setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*					
Test procedure	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.).It provide a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.					
Test environment:	Temp.:	23 °C	Humid.:	56%	Press.:	1 01kPa
Measurement Record:	Uncertainty: 3.28 dB					
Test Instruments:	Refer to section 5.7 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Pass					

Measurement Data:

Line:

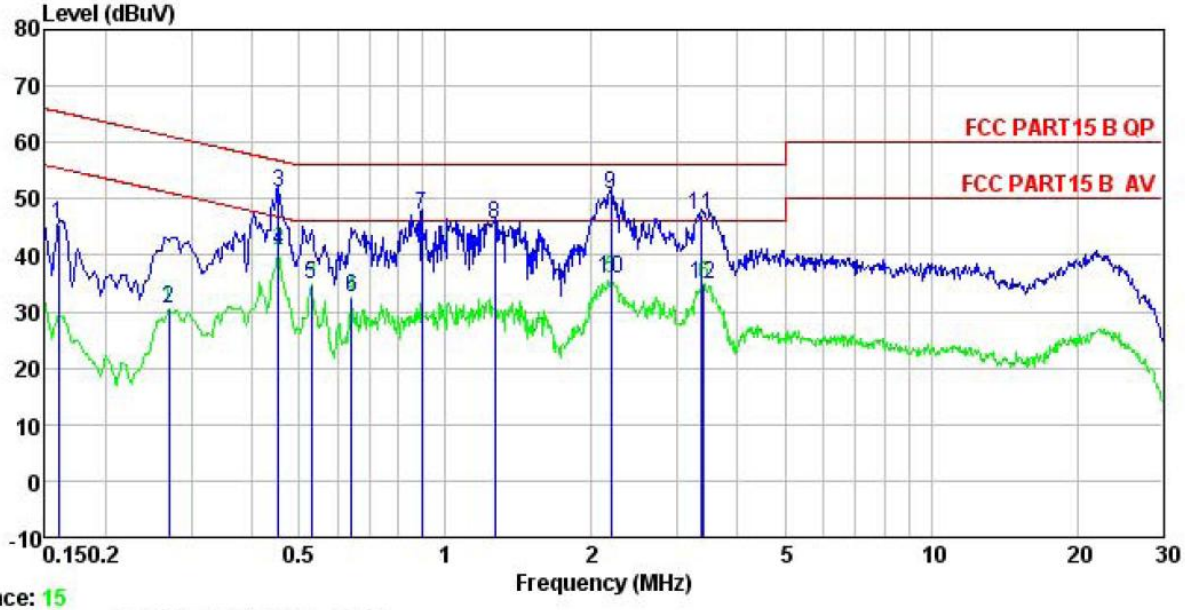


Trace: 13

Site : CCIS Shielding Room
Condition : FCC PART15 B QP LISN LINE
Job. no : 569RF
EUT : Smart Phone
Model : V8
Test Mode : NFC mode
Power Rating : AC 120V/60Hz
Environment : Temp: 23 'C Huni:56% Atmos:101KPa
Test Engineer: Carey
Remark :

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.369	18.86	0.27	10.73	29.86	48.52	-18.66	Average
2	0.444	24.25	0.28	10.74	35.27	46.98	-11.71	Average
3	0.449	32.85	0.29	10.74	43.88	56.89	-13.01	QP
4	0.524	29.44	0.28	10.76	40.48	56.00	-15.52	QP
5	0.885	30.92	0.24	10.84	42.00	56.00	-14.00	QP
6	1.223	21.39	0.25	10.90	32.54	46.00	-13.46	Average
7	1.236	31.11	0.25	10.90	42.26	56.00	-13.74	QP
8	2.155	25.50	0.26	10.95	36.71	46.00	-9.29	Average
9	2.190	35.17	0.26	10.95	46.38	56.00	-9.62	QP
10	3.623	35.94	0.28	10.90	47.12	56.00	-8.88	QP
11	3.623	26.11	0.28	10.90	37.29	46.00	-8.71	Average
12	4.797	17.64	0.29	10.86	28.79	46.00	-17.21	Average

Neutral:



Trace: 15

Site : CCIS Shielding Room
Condition : FCC PART15 B QP LISN NEUTRAL
Job. no : 569RF
EUT : Smart Phone
Model : V8
Test Mode : NFC mode
Power Rating : AC 120V/60Hz
Environment : Temp: 23 'C Huni:56% Atmos:101KPa
Test Engineer: Carey
Remark :

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.160	34.58	0.25	10.78	45.61	65.47	-19.86	QP
2	0.270	19.37	0.26	10.75	30.38	51.12	-20.74	Average
3	0.454	40.10	0.27	10.74	51.11	56.80	-5.69	QP
4	0.454	29.79	0.27	10.74	40.80	46.80	-6.00	Average
5	0.529	23.78	0.27	10.76	34.81	46.00	-11.19	Average
6	0.641	21.56	0.21	10.77	32.54	46.00	-13.46	Average
7	0.894	36.23	0.21	10.84	47.28	56.00	-8.72	QP
8	1.262	34.41	0.24	10.90	45.55	56.00	-10.45	QP
9	2.190	39.61	0.29	10.95	50.85	56.00	-5.15	QP
10	2.190	24.70	0.29	10.95	35.94	46.00	-10.06	Average
11	3.364	36.06	0.29	10.91	47.26	56.00	-8.74	QP
12	3.399	23.77	0.29	10.91	34.97	46.00	-11.03	Average