FCC REPORT (WIFI)

Applicant: Power Idea Technology (Shenzhen) Co., Ltd.

4th Floor, A Section, Languang Science&technology Xinxi RD,

Address of Applicant: Hi-Tech Industrial Park North, Nanshan District ShenZhen City,

China.

Equipment Under Test (EUT)

Product Name: Mobile Phone

Model No.: RG220,SWIFT PLUS

Trade mark: RugGear

FCC ID: ZLE-RG220

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of sample receipt: 17 Jul., 2013

Date of Test: 18 Jul., to 08 Aug., 2013

Date of report issued: 08 Aug., 2013

Test Result: PASS *

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

Authorized Signature:



Bruce Zhang Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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2 Version

Version No.	Date	Description
00	08 Aug., 2013	Original

Sera	Date:	08 Aug., 2013
Report Clerk		
Project Engineer	Date:	08 Aug., 2013
	1	Report Clerk Date:



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4 Test Summary

Test Item	Section in CFR 47	Result	
Antenna requirement	15.203/15.247 (c)	Pass	
AC Power Line Conducted Emission	15.207	Pass	
Conducted Peak Output Power	15.247 (b)(3)	Pass	
6dB Emission Bandwidth	45.247 (5)(2)	Daga	
99% Occupied Bandwidth	15.247 (a)(2)	Pass	
Power Spectral Density	15.247 (e)	Pass	
Band Edge	15.247(d)	Pass	
Spurious Emission	15.205/15.209	Pass	

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

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5 General Information

5.1 Client Information

Applicant:	Power Idea Technology (Shenzhen) Co., Ltd.	
Address of Applicant:	4th Floor, A Section ,Languang Science&technology Xinxi RD, Hi- Tech Industrial Park North, Nanshan District ShenZhen City,China.	
Manufacturer:	Power Idea Technology (Shenzhen) Co., Ltd.	
Address of Manufacturer:	4th Floor, A Section ,Languang Science&technology Xinxi RD, Hi- Tech Industrial Park North, Nanshan District ShenZhen City,China.	

5.2 General Description of E.U.T.

Product Name:	Mobile Phone		
Model No.:	RG220,SWIFT PLUS		
Trade mark:	RugGear		
On a ration Fraguesia	2412MHz~2462MHz (802.11b/802.11g/802.11n(H20))		
Operation Frequency:	2422MHz~2452MHz (802.11n(H40))		
Channel numbers:	11 for 802.11b/802.11g/802.11(H20)		
Channel numbers.	7 for 802.11n(H40)		
Channel separation:	5MHz		
Modulation technology: (IEEE 802.11b)	Direct Sequence Spread Spectrum (DSSS)		
Modulation technology: (IEEE 802.11g/802.11n)	Orthogonal Frequency Division Multiplexing(OFDM)		
Data speed (IEEE 802.11b):	1Mbps, 2Mbps, 5.5Mbps, 11Mbps		
Data speed (IEEE 802.11g):	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps		
Data speed (IEEE 802.11n):	Up to 150Mbps		
Antenna Type:	Internal Antenna		
Antenna gain:	0.7 dBi		
AC adapter:	Input:100-240V AC,50/60Hz 0.15A		
AC adapter :	Output:5.0V DC MAX1000mA		
Power supply:	Rechargeable Li-ion Battery DC3.7V-1800mAh		
Remark:	The Model: RG220 and SWIFT PLUS are identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name.		

Shenzhen Zhongjian Nanfang Testing Co., Ltd. No.B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China

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Operation	Operation Frequency each of channel For 802.11b/g/n(H20)						
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Operation	Operation Frequency each of channel For 802.11n(H40)						
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
		4	2427MHz	7	2442MHz		
		5	2432MHz	8	2447MHz		
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

802.11b/802.11g/802.11n (H20)

Channel	Frequency
The lowest channel	2412MHz
The middle channel	2437MHz
The Highest channel	2462MHz

802.11n (H40)

Channel	Frequency
The lowest channel	2422MHz
The middle channel	2437MHz
The Highest channel	2452MHz



5.3 Test environment and mode

Operating Environment:				
Temperature:	24.0 °C			
Humidity:	54 % RH			
Atmospheric Pressure:	1010 mbar			
Test mode:				
Operation mode Keep the EUT in continuous transmitting with modulation				

The sample was placed 0.8m above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11b	1Mbps
802.11g	6Mbps
802.11n(H20)	6.5Mbps
802.11n(H40)	13.5Mbps

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup" 1Mbps for 802.11b, 6Mbps for 802.11n(H20) and 13.5 Mbps for 802.11n(H40). Duty cycle setting during the transmission is 100% with maximum power setting for all modulations.

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Project No.: CCIS130700219RF

5.4 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.

5.5 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: 0755-23118282 Fax: 0755-23116366

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5.6 Test Instruments list

Radia	ated Emission:					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	SAEMC	9(L)*6(W)* 6(H)	CCIS0001	June 09 2013	June 08 2014
2	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	CCIS0005	May 25 2013	May 24 2014
3	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	CCIS0006	May 25 2013	May 24 2014
4	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
5	Coaxial Cable	CCIS	N/A	CCIS0016	Apr. 01 2013	Mar. 31 2014
6	Coaxial Cable	CCIS	N/A	CCIS0017	Apr. 01 2013	Mar. 31 2014
7	Coaxial cable	CCIS	N/A	CCIS0018	Apr. 01 2013	Mar. 31 2014
8	Coaxial Cable	CCIS	N/A	CCIS0019	Apr. 01 2013	Mar. 31 2014
9	Coaxial Cable	CCIS	N/A	CCIS0087	Apr. 01 2013	Mar. 31 2014
10	Amplifier(10kHz- 1.3GHz)	HP	8447D	CCIS0003	Apr. 01 2013	Mar. 31 2014
11	Amplifier(1GHz- 18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	June 09 2013	June 08 2014
12	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	Apr. 01 2013	Mar. 31 2014
13	Horn Antenna	ETS-LINDGREN	3160	GTS217	Mar. 30 2013	Mar. 29 2014
14	Printer	HP	HP LaserJet P1007	N/A	N/A	N/A
15	Positioning Controller	UC	UC3000	CCIS0015	N/A	N/A
16	Spectrum analyzer 9k-30GHz	Rohde & Schwarz	FSP	CCIS0023	May. 25 2013	May. 24 2014
17	EMI Test Receiver	Rohde & Schwarz	ESPI	CCIS0022	Apr 01 2013	Mar. 31 2014
18	Loop antenna	Laplace instrument	RF300	EMC0701	Aug. 12 2012	Aug. 11 2013
19	Universal radio communication tester	Rhode & Schwarz	CMU200	CCIS0069	May. 25 2013	May. 24 2014
20	Signal Analyzer	Rohde & Schwarz	FSIQ3	CCIS0088	May. 25 2013	May. 24 2014
21	Spectrum analyzer	Agilent	E4440A	US43362176	Jan.11 2013	Jan.10 2014

Cond	Conducted Emission:									
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)				
1	Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	June 09 2013	June 08 2014				
2	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	May 25 2013	May 24 2014				
3	LISN	CHASE	MN2050D	CCIS0074	Apr 01 2013	Mar. 31 2014				
4	Coaxial Cable	CCIS	N/A	CCIS0086	Apr. 01 2013	Mar. 31 2014				
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A				

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6 Test results and Measurement Data

6.1 Antenna requirement:

Standard requirement: FCC Part15 C Section 15.203 /247(c)

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.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

E.U.T Antenna:

The antenna is an internal antenna which cannot replace by end-user, the best case gain of the antenna is 0.7 dBi.



BT/WIFI Antenna

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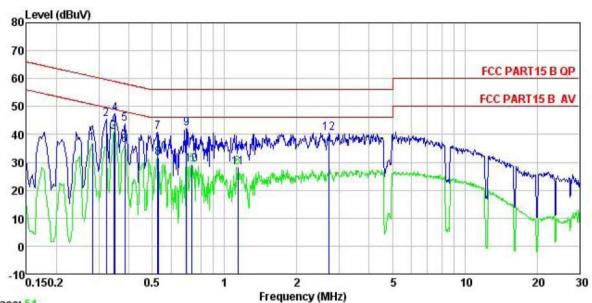
6.2 Conducted Emission

To at De avilaga a satu	ECC Dantas C Caption 45 007					
Test Requirement:	FCC Part15 C 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:	Fraguency range (MHz)	Limit (c	lBuV)			
	Frequency range (MHz)	Quasi-peak	Average			
	0.15-0.5	66 to 56*	56 to 46*			
	0.5-5	56	46			
	5-30	60	50			
	* Decreases with the logarithm					
Test procedure	The E.U.T and simulators a line impedance stabilize 50ohm/50uH coupling imp	ation network (L.I.S.N.) pedance for the measu	, which provides a uring equipment.			
	 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). 					
	m conducted sion, the relative ables must be nducted					
Test setup:	Refere	nce Plane				
	LISN 40cm	80cm LISN Filt	er — AC power			
	Remark E.U.T. Equipment Under Test LISN Line Impedence Stabilization Test table height=0.8m	EMI Receiver				
Test Instruments:	Test table/Insulation pla Remark E.U.T. Equipment Under Test LISN Line Impedence Stabilization	ne EMI Receiver				
Test Instruments: Test mode:	Test table/Insulation pla Remark E.U.T. Equipment Under Test LISN Line Impedence Stabilization Test table height=0.8m	ne EMI Receiver				

Measurement Data



Neutral:



Trace: 51

: CCIS Conducted test Site : FCC PART15 B QP LISN NEUTRAL Site Condition

Job No. EUT 219RF : Mobile Phone : RG220 Model Test Mode : Wifi Mode

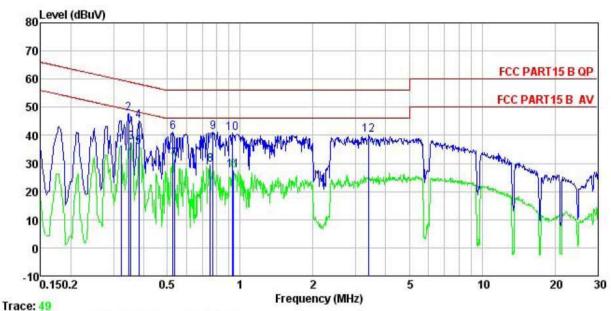
Power Rating: AC 120V/60Hz
Environment: Temp: 23 °C Huni:56% Atmos:101KPa
Test Engineer: Vincent

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu∜	<u>dB</u>	₫B	dBu₹	dBu₹	dB	
1	0.282	25.79	10.24	0.74	36.77	50.76	-13.99	Average
2	0.322	34.55	10.24	0.74	45.53		-14.13	
2	0.346	29.92	10.25	0.73	40.90	49.05	-8.15	Average
4	0.350	36.46	10.25	0.73	47.44		-11.52	
5	0.385	32.94	10.26	0.72	43.92	58.17	-14.25	QP
6	0.385	25.25	10.26	0.72	36.23	48.17	-11.94	Average
7	0.527	29.68	10.26	0.76	40.70		-15.30	
4 5 6 7 8 9	0.529	20.57	10.26	0.76	31.59	46.00	-14.41	Average
9	0.694	31.11	10.16	0.77	42.04	56.00	-13.96	QP
10	0.731	18.11	10.16	0.78	29.05	46.00	-16.95	Average
11	1.135	17.05	10.21	0.89	28.15			Average
12	2.721	29.44	10.27	0.93	40.64		-15.36	

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Line:



Site CCIS Conducted test Site Condition FCC PART15 B QP LISN LINE

Job No. EUT 219RF : Mobile Phone Model RG220 Test Mode : Wifi Mode Power Rating : AC 120V/60Hz

Environment : Temp: 23 °C Huni: 56% Atmos: 101KPa Test Engineer: Vincent

1031	Freq	Read Level	The second second second second	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu₹	dB	<u>dB</u>	dBu∜	dBu∛	dB	
1	0.322	25.65	10.27	0.74	36.66	49.66	-13.00	Average
2	0.346	36.85	10.27	0.73	47.85	59.05	-11.20	QP
3	0.354	26.52	10.27	0.73	37.52	48.87	-11.35	Average
4	0.381	34.25	10.28	0.72	45.25	58.25	-13.00	QP
1 2 3 4 5 6 7 8 9	0.381	24.72	10.28	0.72	35.72	48.25	-12.53	Average
6	0.527	29.97	10.26	0.76	40.99	56.00	-15.01	QP
7	0.535	20.43	10.25	0.76	31.44	46.00	-14.56	Average
8	0.751	18.38	10.19	0.79	29.36	46.00	-16.64	Average
9	0.771	30.13	10.19	0.80	41.12	56.00	-14.88	QP
10	0.928	29.60	10.20	0.85	40.65	56.00	-15.35	QP
11	0.938	16.55	10.20	0.85	27.60	46.00	-18.40	Average
12	3.399	28.91	10.29	0.91	40.11	56.00	-15.89	QP

Notes:

- 1. An initial pre-scan was performed on the live and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss



6.3 Conducted Output Power

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)			
Test Method:	ANSI C63.4:2003 and KDB558074			
Limit:	30dBm			
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane			
Test Instruments:	Refer to section 5.6 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Passed			
Remark:	Test method refer to KDB558074 (DTS Measure Guidance) section 8.2, option 1.			

Measurement Data

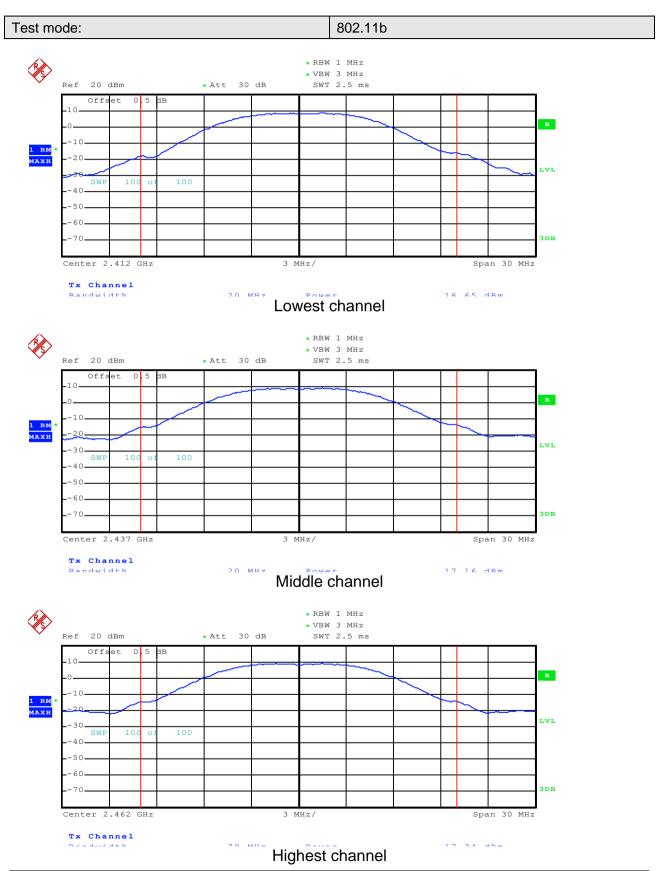
T	Max	kimum Conduct		D		
Test CH	802.11b	802.11g	802.11n(H20)	802.11n(H40)	Limit(dBm)	Result
Lowest	16.65	14.20	13.01	12.90		
Middle	17.16	15.40	14.25	13.40	30.00	Pass
Highest	17.34	15.98	14.76	12.08		

Test plot as follows:

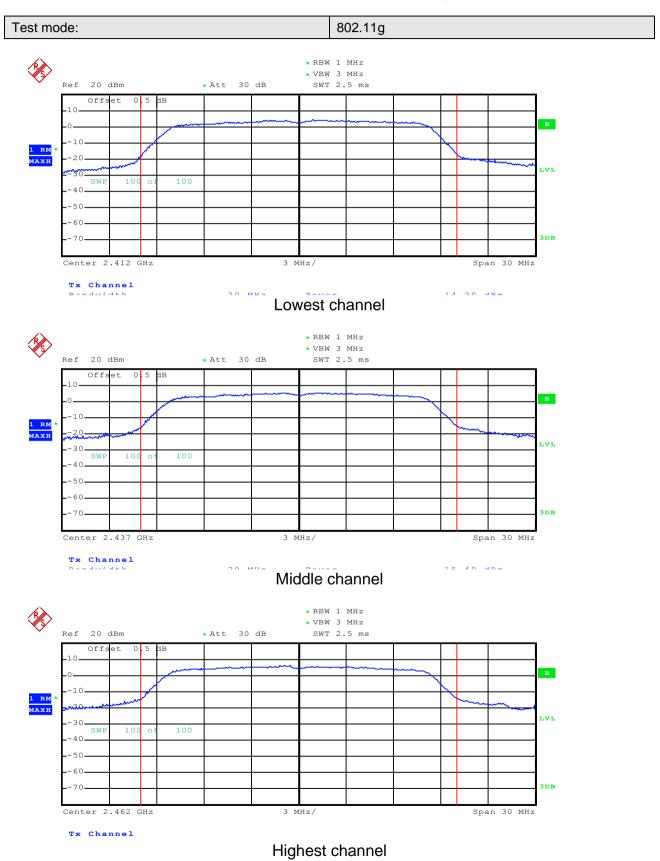
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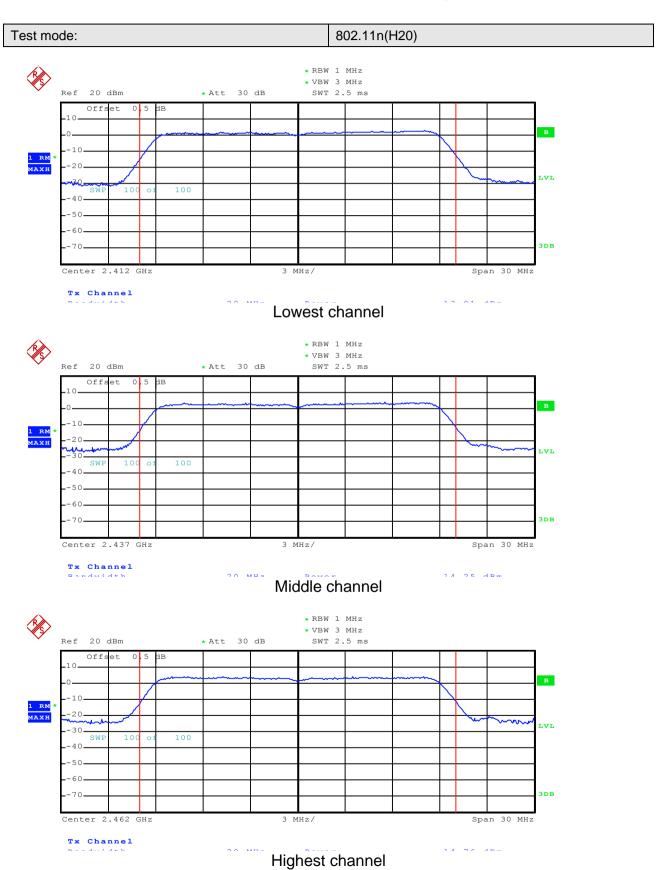




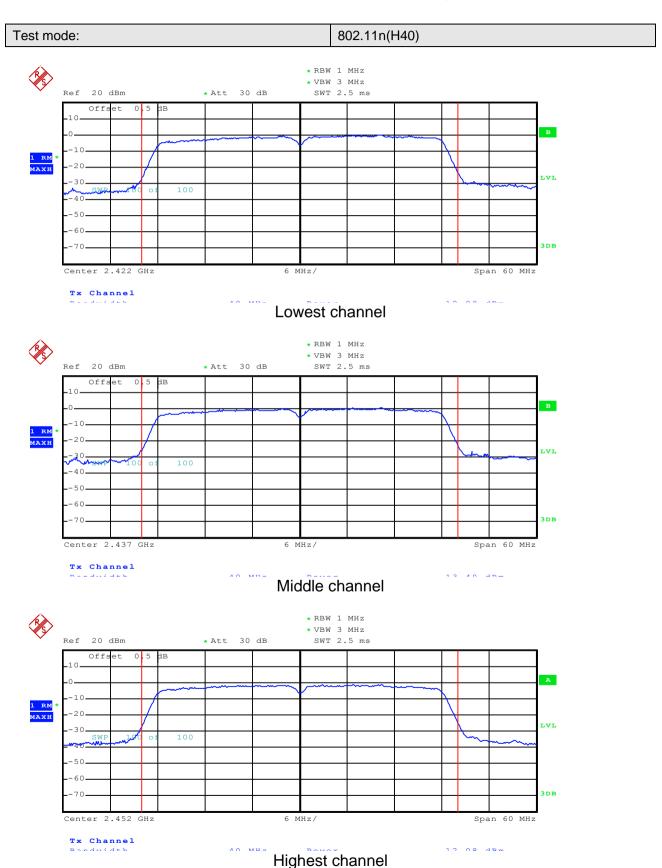














6.4 Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.247 (a)(2)		
Test Method:	ANSI C63.4:2003 and KDB558074		
Limit:	>500kHz		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.6 for details		
Test mode:	Refer to section 5.3 for details		
Test results:	Passed		

Measurement Data

		6dB Emission		.			
Test CH	802.11b	802.11g	802.11n(H20)	802.11n(H40)	Limit(kHz)	Result	
Lowest	9.18	16.50	17.82	36.60			
Middle	9.66	16.56	17.88	36.60	>500	Pass	
Highest	10.08	16.56	17.88	36.48			

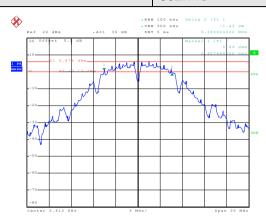
-		99% Occupy		- I		
Test CH	802.11b	802.11g	802.11n(H20)	802.11n(H40)	Limit(kHz)	Result
Lowest	13.44	16.50	17.76	36.00		
Middle	14.22	16.44	17.82	36.00	N/A	N/A
Highest	14.28	16.44	17.76	36.12		

Test plot as follows:



Test mode:6dB OBW

802.11b



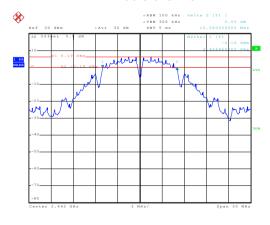
Date: 23.JUL.2013 13:50:34

Lowest channel



Date: 23..TIIT..2013 14:10:22

Middle channel



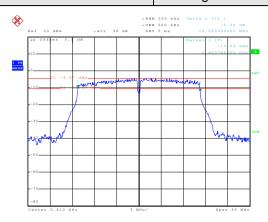
Date: 23.JUL.2013 14:16:41

Highest channel



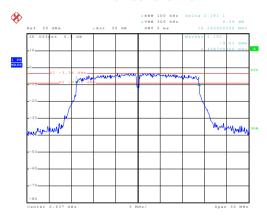
Test mode:6dB OBW

802.11g



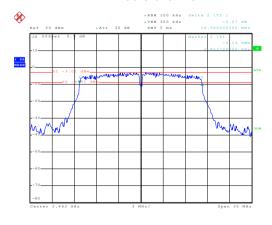
Date: 23.JUL.2013 14:36:06

Lowest channel



Date: 23..TIIT..2013 14:29:40

Middle channel



Date: 23.JUL.2013 14:22:14

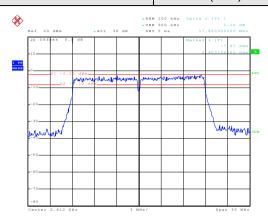
Highest channel

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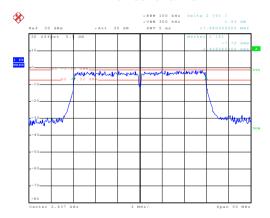
Test mode:6dB OBW

802.11n(H20)



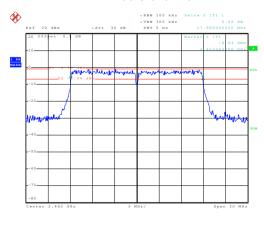
Date: 23.JUL.2013 15:27:28

Lowest channel



Date: 23..TIIT..2013 15:26:36

Middle channel



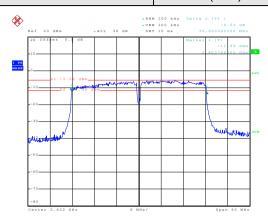
Date: 23.JUL.2013 15:31:56

Highest channel



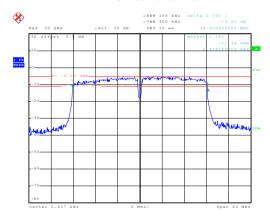
Test mode:6dB OBW

802.11n(H40)



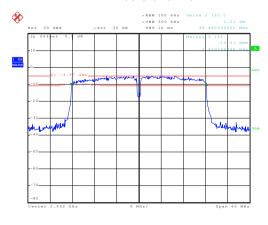
Date: 23.JUL.2013 15:36:30

Lowest channel



Date: 23..TIIT..2013 15:46:38

Middle channel

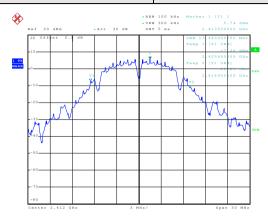


Date: 23.JUL.2013 15:51:40

Highest channel



Test mode:99% OBW 802.11b



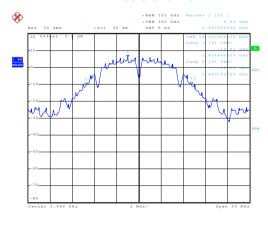
Date: 23.JUL.2013 13:51:17

Lowest channel



Date: 23..TIIT..2013 14:10:46

Middle channel

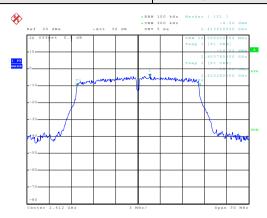


Date: 23.JUL.2013 14:17:13

Highest channel

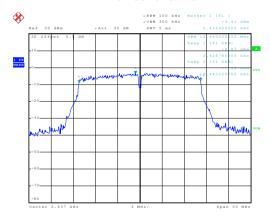


Test mode: 99% OBW 802.11g



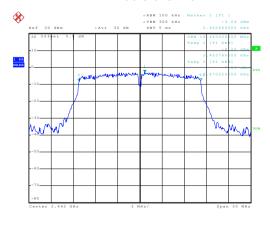
Date: 23.JUL.2013 14:37:01

Lowest channel



Date: 23..TIIT..2013 14:30:12

Middle channel

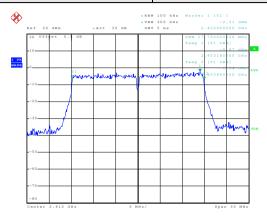


Date: 23.JUL.2013 14:24:31

Highest channel

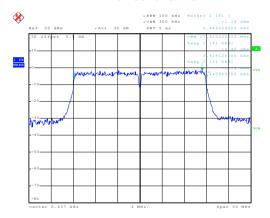


Test mode: 99% OBW 802.11n(H20)



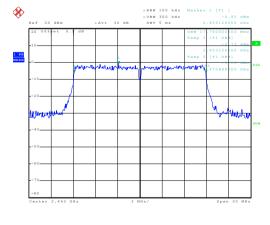
Date: 23.JUL.2013 15:28:53

Lowest channel



Date: 23..TIIT..2013 15:28:27

Middle channel

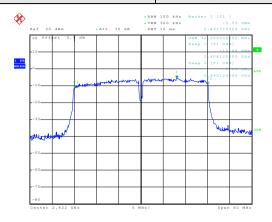


Date: 23.JUL.2013 15:32:12

Highest channel

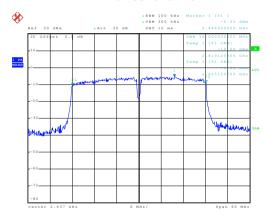


Test mode: 99% OBW 802.11n(H40)



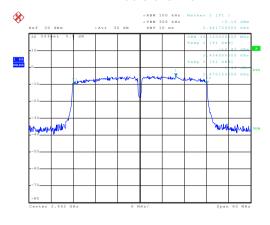
Date: 23.JUL.2013 15:42:26

Lowest channel



Date: 23..TIIT..2013 15:46:55

Middle channel



Date: 23.JUL.2013 15:52:00

Highest channel



6.5 Power Spectral Density

Test Requirement:	FCC Part15 C Section 15.247 (e)			
Test Method:	ANSI C63.4:2003 and KDB558074			
Limit:	8dBm			
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane			
Test Instruments:	Refer to section 5.6 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Passed			

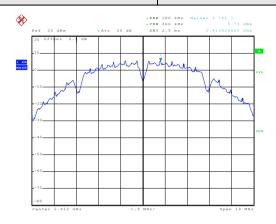
Measurement Data

Tark Old		Power Spec	L' '(/ JD)	Danult		
Test CH	802.11b	802.11g	802.11n(H20)	802.11n(H40)	Limit(dBm)	Result
Lowest	5.73	-4.55	-2.43	-5.56		
Middle	5.86	-3.26	-1.55	-5.27	8.00	Pass
Highest	6.05	-2.91	-1.03	-5.19		

Test plot as follows:

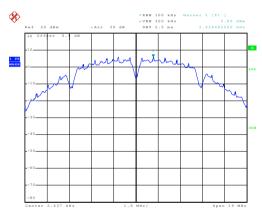


Test mode: 802.11b



Date: 23.JUL.2013 13:51:50

Lowest channel



Date: 23.JUL.2013 14:12:01

Middle channel

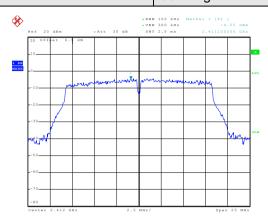


Date: 23.JUL.2013 14:18:33

Highest channel

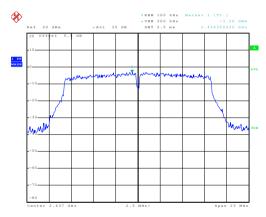


Test mode: 802.11g



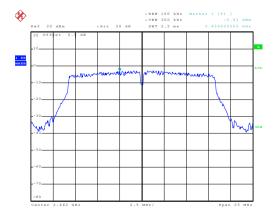
Date: 23.JUL.2013 14:38:37

Lowest channel



Date: 23.JUL.2013 14:31:37

Middle channel

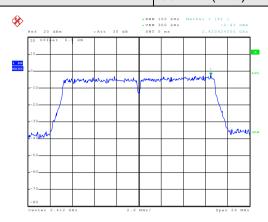


Date: 23.JUL.2013 14:26:05

Highest channel

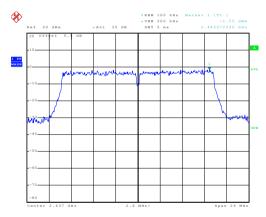


Test mode: 802.11n(H20)



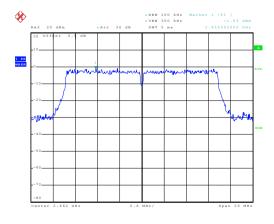
Date: 23.JUL.2013 15:23:24

Lowest channel



Date: 23.JUL.2013 15:30:18

Middle channel

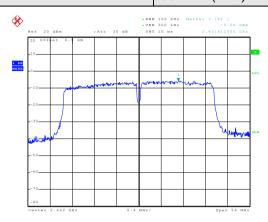


Date: 23.JUL.2013 15:32:55

Highest channel

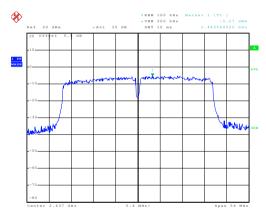


Test mode: 802.11n(H40)



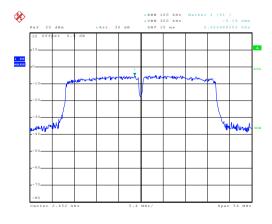
Date: 23.JUL.2013 15:44:17

Lowest channel



Date: 23.JUL.2013 15:49:01

Middle channel



Date: 23.JUL.2013 15:53:00

Highest channel



6.6 Band Edge

6.6.1 Conducted Emission Method

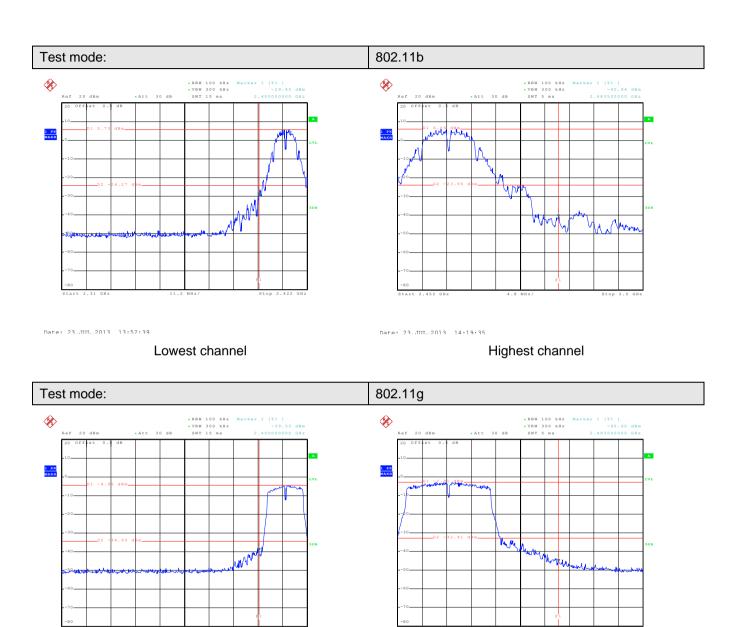
Test Requirement:	FCC Part15 C Section 15.247 (d)				
Test Method:	ANSI C63.4:2003 and KDB558074				
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.				
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane				
Test Instruments:	Refer to section 5.6 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Passed				

Test plot as follows:

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Lowest channel

Date: 23..TIIT..2013 14:39:17

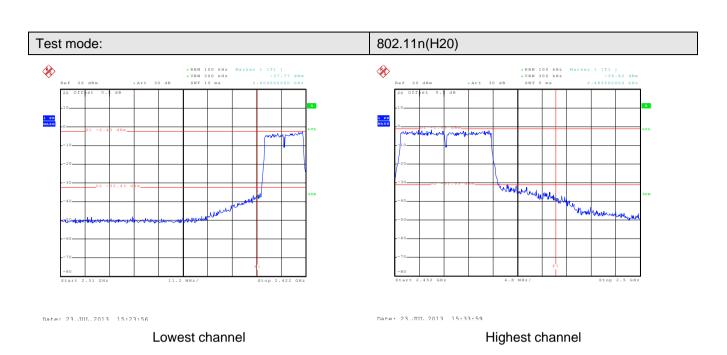
Highest channel

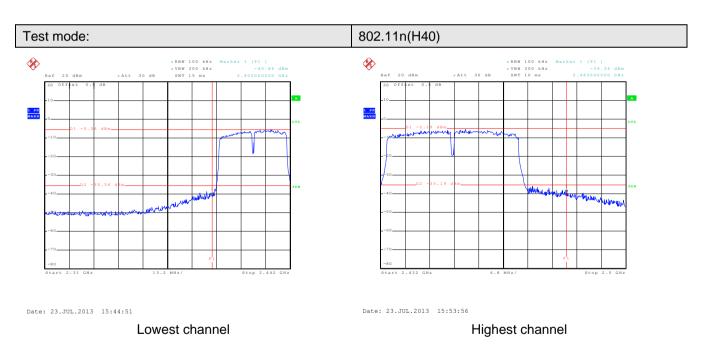
Date: 23..TIT..2013 14:26:49

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Shenzhen Zhongjian Nanfang Testing Co., Ltd. No.B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China

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6.6.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205						
Test Method:	ANSI C63.4: 2003						
Test Frequency Range:	2.3GHz to 2.5GHz						
Test site:	Measurement Distance: 3m						
Receiver setup:							
	Frequency	Detector	RBW	VBW	Remark		
	Above 1GHz	Peak	1MHz	3MHz	Peak Value		
1100		Peak	1MHz	10Hz	Average Value		
Limit:	Frequency		Limit (dBuV/m @3m) Rema		Remark		
	Above 1GHz		54.00		Average Value		
			74.00		Peak Value		
Test setup:	 The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 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. 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 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. 						
	Antenna Tower Horn Antenna Spectrum Analyzer Turn O.8m Im Table Amplifier						
Test Instruments:	Refer to section 5.6 for details						
Test mode:	Refer to section 5.3 for details						
Test results:	Passed						

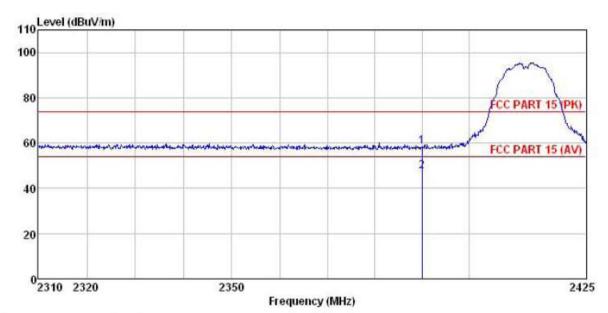
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802.11b

Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : 219RF Condition

Job No.

: Mobile phone EUT Model : RG220 Test mode : Wifi B-L mode Power Rating : AC 120V/60Hz Environment : Temp:25°C Huni:55% Atmos:101Kpa

14.04 27.58

Test Engineer: Vincent

2390.028

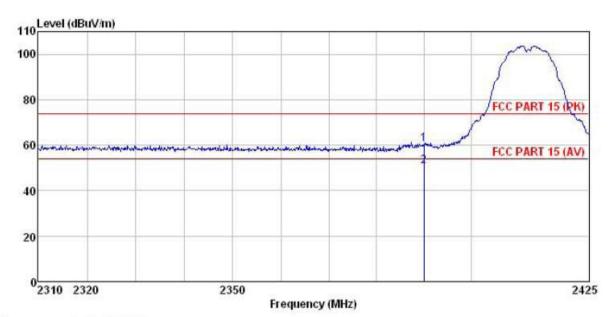
ReadAntenna Cable Preamp Limit Over Freq Level Factor Loss Factor Level Line Limit Remark MHz dBuV dB/m dB dB dBuV/m dBuV/m dB 0.00 58.40 74.00 -15.60 Peak 0.00 47.29 54.00 -6.71 Average 25.15 5.67

5.67

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Vertical:



: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

: 219RF : Mobile phone Job No. EUT Model : RG220 : Wifi B-L mode Test mode

Power Rating: AC 120V/60Hz Environment: Temp:25°C Huni:55% Atmos:101Kpa Test Engineer: Vincent

Limit Over Line Limit Remark ReadAntenna Cable Preamp Loss Factor Level Freq Level Factor dBu∀ dB/m dB dB dBuV/m dBuV/m 2390, 028 2390, 028 27.43 27.58 27.58 0.00 60.68 74.00 -13.32 Peak 0.00 50.58 54.00 -3.42 Average 5.67 17.33 5.67

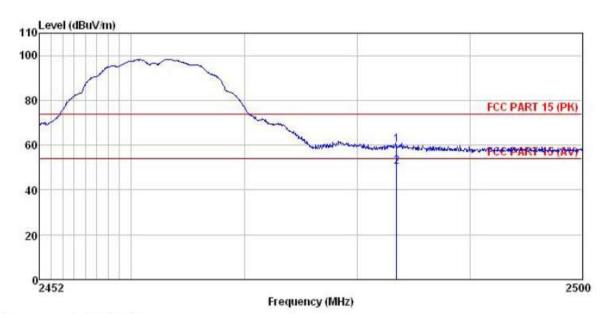
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Project No.: CCIS130700219RF

Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : 219RF Condition Job No.

EUT

: Mobile phone Model : RG220 Test mode : Wifi B-H mode

Power Rating: AC 120V/60Hz Environment: Temp:25°C Huni:55% Atmos:101Kpa

Test Engineer: Vincent

ReadAntenna Cable Preamp Over Limit Freq Level Factor Loss Factor Level Line Limit Remark dB --dB/m dB dBuV/m dBuV/m

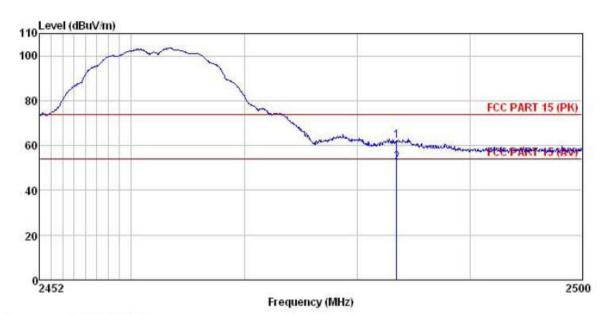
0.00 59.99 74.00 -14.01 Peak 0.00 50.43 54.00 -3.57 Average 2483.479 26.77 27.52 5.70 2483.479 17.21 27.52 5.70

Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366 Page 39 of 89



Project No.: CCIS130700219RF

Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

: 219RF Job No. EUT : Mobile phone

Model : RG220
Test mode : Wifi B-H mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

ReadAntenna Cable Preamp Limit Over Freq Level Factor Loss Factor Level Line Limit Remark MHz dBuV dB/m dB dB dBuV/m dBuV/m 5.70 0.00 61.91 74.00 -12.09 Peak 5.70 0.00 52.33 54.00 -1.67 Average 2483.479 28.69 27.52 2483.479 19.11 27.52

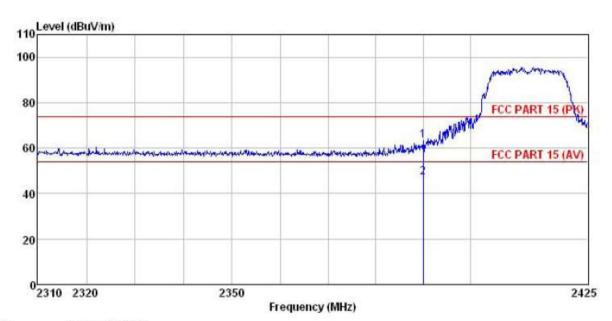
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802.11g

Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

: 219RF Job No.

: Mobile phone EUT Model : RG220 Test mode : Wifi G-L mode Power Rating : AC 120V/60Hz

Environment : Temp:25°C Huni:55% Atmos:101Kpa Test Engineer: Vincent

ReadAntenna Cable Preamp Limit Over Freq Level Factor Loss Factor Level Line Limit Remark MHz dBu∀ dB/m ďΒ dB dBuV/m dBuV/m 0.00 63.48 74.00 -10.52 Peak 0.00 47.15 54.00 -6.85 Average 2390.028 30.23 27.58 5.67 2390.028 13.90 27.58 5.67

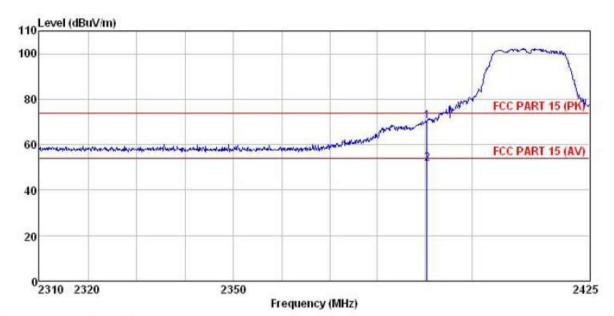
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Project No.: CCIS130700219RF

Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

: 219RF Job No. EUT : Mobile phone Model : RG220

Test mode : Wifi G-L mode Power Rating : AC 120V/60Hz : Wifi G-L mode

Environment : Temp: 25°C Huni: 55% Atmos: 101Kpa

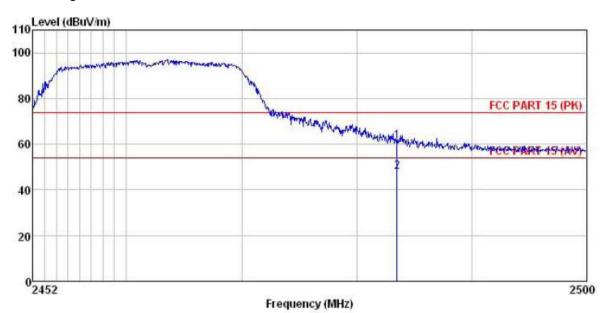
Test Engineer: Vincent

ReadAntenna Cable Preamp Limit Over Freq Level Factor Loss Factor Level Line Limit Remark dBuV dB/m dB dBuV/m dBuV/m MHz dB dB 0.00 70.29 74.00 -3.71 Peak 0.00 51.52 54.00 -2.48 Average 2390.492 37.04 27.58 5.67 2390.492 18.27 27.58 5.67

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Test channel: Highest



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

Job No. : 219RF

EUT : Mobile phone Test mode : Wifi G-H mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

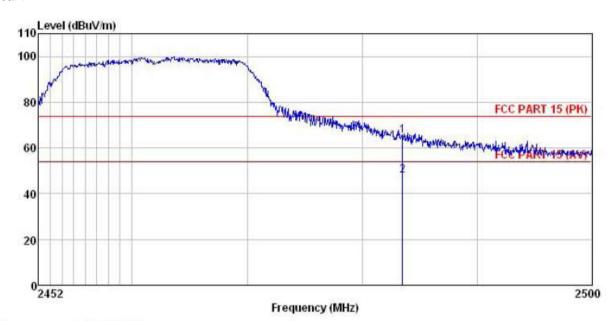
Over ReadAntenna Cable Preamp Limit Loss Factor Level Line Limit Remark Freq Level Factor MHz dBuV dB/m dB dB dBuV/m dBuV/m 0.00 61.48 74.00 -12.52 Peak 0.00 47.77 54.00 -6.23 Average 2483,479 28,26 27.52 27.52 5.70 2483.479 14.55 5.70

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Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

: 219RF Job No. EUT : Mobile phone Model : RG220

Test mode : Wifi G-H mode Power Rating : AC 120V/60Hz : Wifi G-H mode

Environment : Temp: 25°C Huni: 55% Atmos: 101Kpa

Test Engineer: Vincent

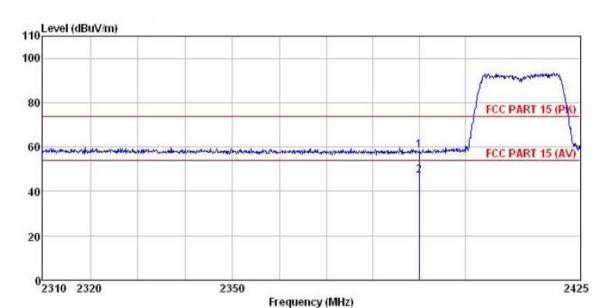
ReadAntenna Cable Preamp Limit Over Freq Level Factor Loss Factor Level Line Limit Remark MHz dBu∀ dB/m dB dB dBuV/m dBuV/m ďΒ 0.00 65.47 74.00 -8.53 Peak 0.00 47.80 54.00 -6.20 Average 2483.479 32.25 27.52 5.70 2483.479 14.58 27.52 5.70

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Project No.: CCIS130700219RF

802.11n (H20) Test channel: Lowest Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : 219RF Condition

Job No. : Mobile phone EUT

Model : RG220

: Wifi N20-L mode Test mode

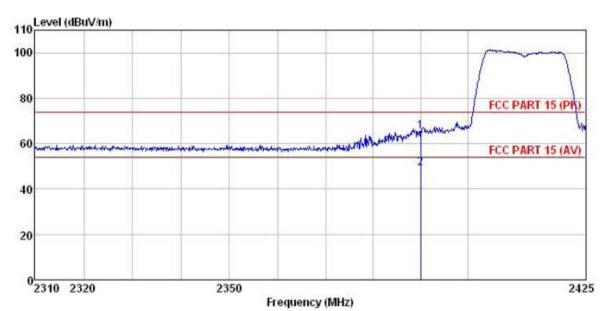
Power Rating: AC 120V/60Hz Environment: Temp:25°C Huni:55% Atmos:101Kpa Test Engineer: Vincent

	Freq				Cable Preamp Loss Factor Level				Remark
	MHz	MHz dBuV	dB/m	dB/m dB	dB	dBuV/m	dBuV/m	dB	
1 2	2390.028 2390.028				0.00 0.00				

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Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : 219RF Condition

Job No. : Mobile phone : RG220 EUT

Model : Wifi N20-L mode Test mode

Power Rating: AC 120V/60Hz Environment: Temp:25°C Huni:55% Atmos:101Kpa Test Engineer: Vincent

	Freq						Limit Over Line Limit Rem		
	MHz	dBu∜	dB/m	dB	dB	dBuV/m	dBuV/m	₫B	
1 2	2390, 028 2390, 028								

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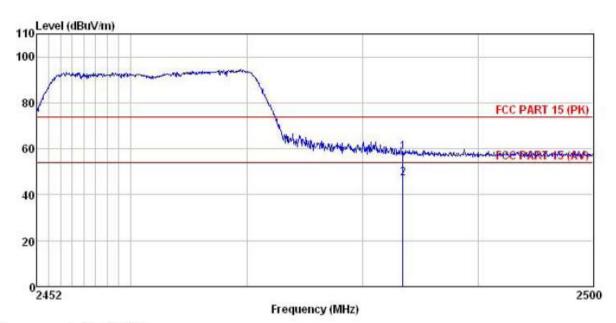
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Project No.: CCIS130700219RF

Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : 219RF Condition

Job No. EUT : Mobile phone : RG220 Model

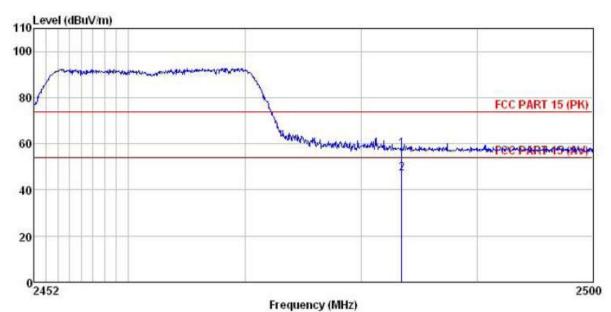
Test mode : Wifi N20-H mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

est	Engineer:		t Antenna	Cable	Preamp		Limit	Over	
	Freq								Remark
	MHz	dBu∜	dB/m	dB	<u>dB</u>	dBuV/m	dBuV/m	dB	
1	2483.479	25. 15	27.52	5.70	0.00	58.37	74.00	-15.63	Peak
2	2483 479	13 77	27 52	5.70	0.00	46 99	54 00	-7.01	Average

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Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : 219RF Condition

Job No. EUT : Mobile phone

: RG220 Model Test mode : Wifi N20-H mode Power Rating : AC 120V/60Hz

Environment : Temp: 25°C Huni: 55% Atmos: 101Kpa

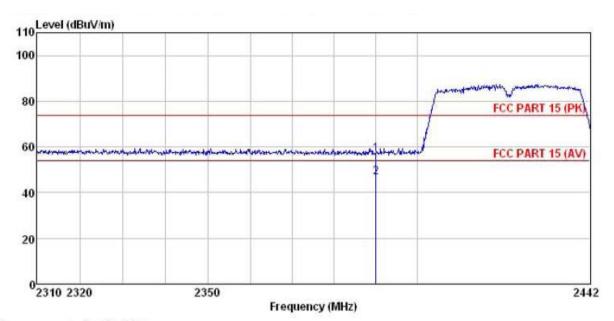
Test Engineer: Vincent

Limit Over Line Limit Remark ReadAntenna Cable Preamp Loss Factor Level Freq Level Factor dBuV dB/m dB dB dBuV/m dBuV/m 0.00 57.73 74.00 -16.27 Peak 0.00 47.09 54.00 -6.91 Average 2483.479 24.51 27.52 2483.479 13.87 27.52 5.70 5.70

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802.11n (H40) Test channel: Lowest Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

Job No. : 219RF EUT : Mobile phone

Model : RG220 Test mode : Wifi N40-L mode Power Rating : AC 120V/60Hz

Environment : Temp:25°C Huni:55% Atmos:101Kpa

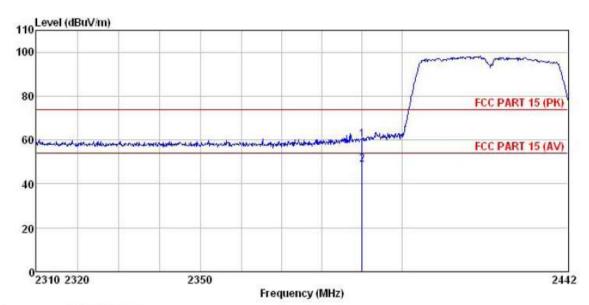
Test Engineer: Vincent

ReadAntenna Cable Preamp Limit Over Freq Level Factor Loss Factor Level Line Limit Remark MHz dBuV dB/m dB dB dBuV/m dBuV/m dB 0.00 56.85 74.00 -17.15 Peak 0.00 46.74 54.00 -7.26 Average 2390.044 23.60 27.58 5.67 2390.044 13.49 27.58 5.67

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Vertical:



Site Condition : 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL

: 219RF Job No.

EUT : Mobile phone Test mode : Wifi N40-L mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent Model : RG220

ReadAntenna Cable Preamp Limit Over Freq Level Factor Loss Factor Level Line Limit Remark MHz dBuV dB/m dB dBuV/m dBuV/m ďB dB

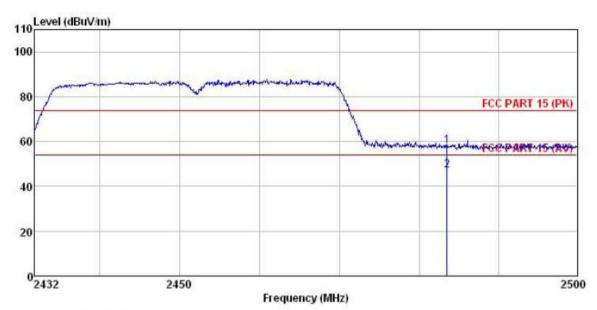
0.00 59.95 74.00 -14.05 Peak 0.00 48.87 54.00 -5.13 Average 2390.044 26.70 27.58 5.67 2390.044 15.62 27.58 5.67

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Test channel: Highest

Horizontal:



: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : 219RF Condition

Job No.

: Mobile phone : RG220 EUT Model

: Wifi N40-H mode Test mode

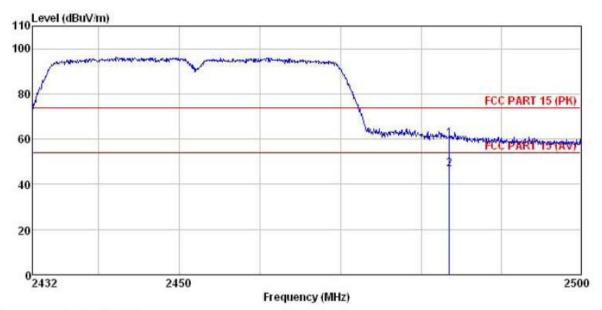
Power Rating: AC 120V/60Hz Environment: Temp:25°C Huni:55% Atmos:101Kpa Test Engineer: Vincent

	Freq	ReadAntenna Level Factor			Preamp Factor Level			
	MHz		dB/m		dB			
,	2483.509 2483.509		5 TO 100 PER PROPERTY OF THE PARTY OF THE PA	C. EU. D.				CO. C.

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Vertical:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : 219RF Condition

Job No. EUT : Mobile phone Model : RG220

Test mode : Wifi N40-H mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

	Ding Into 1.		Antenna	Cable	Preamp		Limit	Over	
	Freq		Factor						
	MHz	dBu∜	dB/m	dB	<u>dB</u>	dBuV/m	dBuV/m	₫B	
1 2	2483.509 2483.509								

- Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- The emission levels of other frequencies are very lower than the limit and not show in test report. 2.



6.7 Spurious Emission

6.7.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)							
Test Method:	ANSI C63.4:2003 and KDB558074							
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.							
Test setup:								
	Spectrum Analyzer E.U.T Non-Conducted Table							
	Ground Reference Plane							
Test Instruments:	Refer to section 5.6 for details							
Test mode:	Refer to section 5.3 for details							
Test results:	Passed							

Test plot as follows:

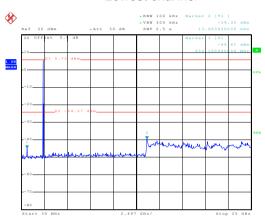
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Test mode: 802.11b

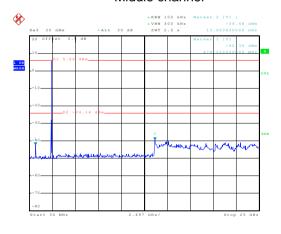
Lowest channel



Date: 23.JUL.2013 13:53:57

30MHz~25GHz

Middle channel



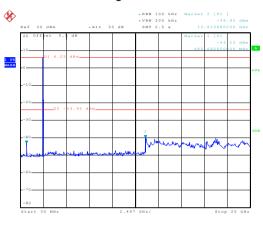
Date: 23.JUL.2013 14:13:33

30MHz~25GHz

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Highest channel

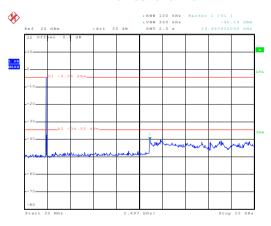


Date: 23.JUL.2013 14:20:03

30MHz~25GHz

Test mode: 802.11g

Lowest channel

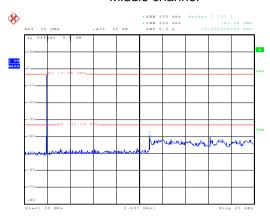


Date: 23.JUL.2013 14:40:50

30MHz~25GHz



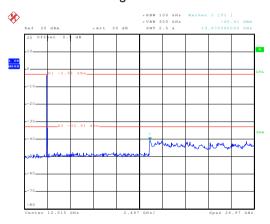
Middle channel



Date: 23.JUL.2013 14:32:13

30MHz~25GHz

Highest channel



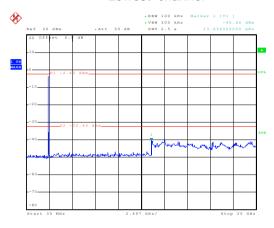
Date: 23..TIIT..2013 14:28:11

30MHz~25GHz



Test mode: 802.11n(H20)

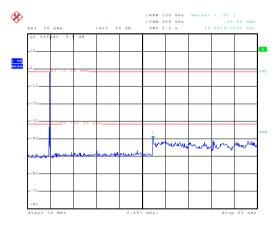
Lowest channel



Date: 23.JUL.2013 15:25:03

30MHz~25GHz

Middle channel

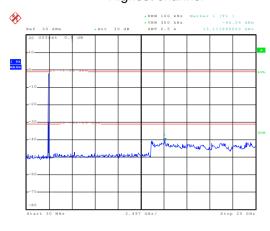


Date: 23.JUL.2013 15:31:00

30MHz~25GHz



Highest channel

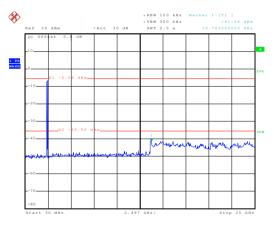


Date: 23.JUL.2013 15:34:29

30MHz~25GHz

Test mode: 802.11n(H40)

Lowest channel



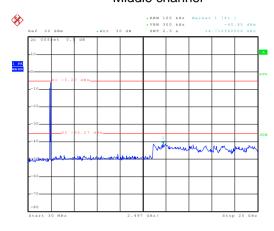
Date: 23.JUL.2013 15:45:18

30MHz~25GHz

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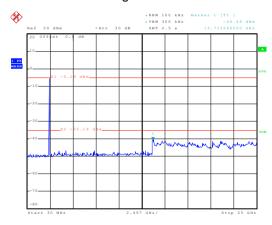
Middle channel



Date: 23.JUL.2013 15:49:40

30MHz~25GHz

Highest channel



Date: 23.JUL.2013 15:54:47

30MHz~25GHz

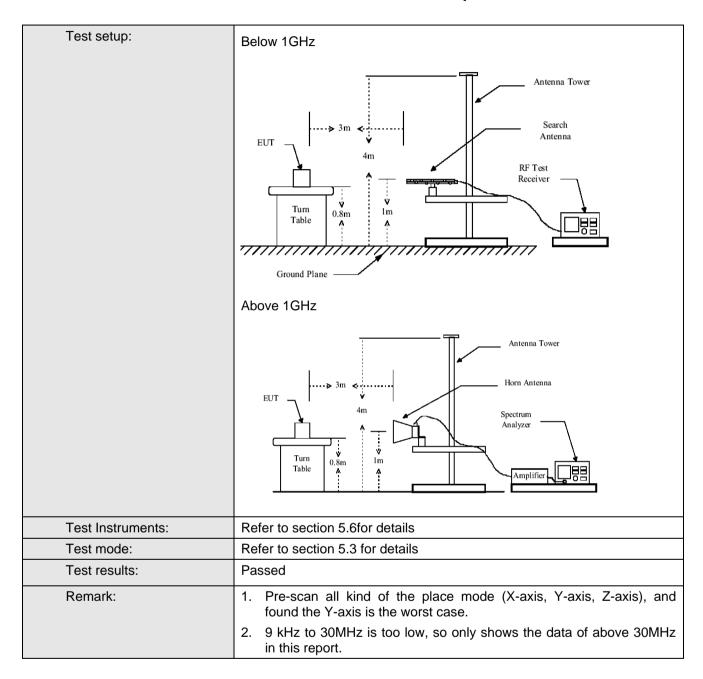


6.7.2 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205							
Test Method:	ANSI C63.4:200)3						
Test Frequency Range:	9KHz to 25GHz							
Test site:	Measurement D	istance: 3m						
Receiver setup:								
·	Frequency Detector RBW VBW Remark							
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value			
	Above 1GHz	Peak	1MHz	3MHz	Peak Value			
	Above IGIIZ	Peak	1MHz	10Hz	Average Value			
Limit:								
	Freque		Limit (dBuV/		Remark			
	30MHz-8		40.0		Quasi-peak Value			
	88MHz-21		43.5		Quasi-peak Value			
	216MHz-9		46.0		Quasi-peak Value			
	960MHz-	TGHZ	54.0 54.0		Quasi-peak Value			
	Above 1	GHz	74.0 74.0		Average Value Peak Value			
Test Procedure:	the ground to determin 2. The EUT wantenna, wantenna, wantenna and the ground Both horizon make the numbers and to find the number of the limit spundles of the did not have	at a 3 meter cane the position of as set 3 meter which was mour that he ight is varied to determine the antennal and vertice measurement. If the rota table maximum read ceiver system is andwidth with sion level of the ecified, then tene EUT would be a 10dB margin i-peak or average and in the rota table.	he top of a reamber. The famber. The famber. The famber is away from the don the total famber in the maximum all polarizations in the EU a was turned famber in the EUT in peasing could be reported.	otating table table was restracted in the interferop of a variate meter to for a value of the ons of the art to heights from 0 degreeak Detect old Mode. It was estopped of the otherwise estested one	e 0.8 meters above otated 360 degrees rence-receiving able-height antenna our meters above the field strength, intenna are set to anged to its worst from 1 meter to 4 thees to 360 degrees. Function and s 10dB lower than and the peak the emissions that			

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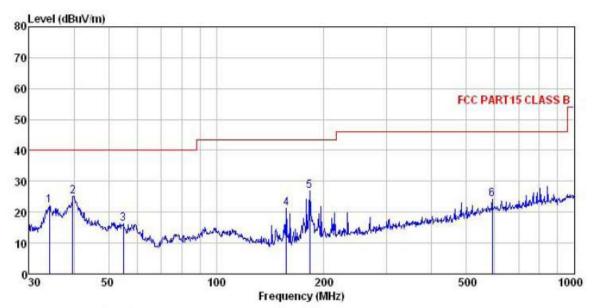
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Project No.: CCIS130700219RF

Below 1GHz

Horizontal:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M1G) HORIZONTAL : 219RF Condition

Job NO. EUT : Mobile phone Model : RG220

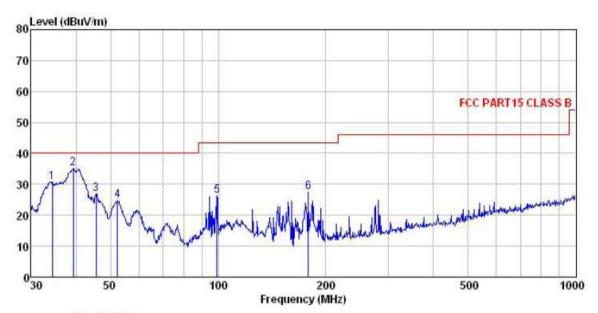
Test mode: Wifi mode
Power Rating: AC 120V /60Hz
Environment: Temp:24°C Huni:65% Atmos:101Kpa
Test Engineer: Vincent

	Freq	ReadAntenna Freq Level Factor							
	MHz	dBu∀				dBuV/m			
1	34, 156	35.69	12.31	0.98	26.71	22.27	40.00	-17.73	QP
2	39.715	37.58	13.49	1.21	27.22	25.06	40.00	-14.94	QP
3	55.027	30.65	13.05	1.36	28.77	16.29	40.00	-23.71	QP
4 5 6	157.007	39.86	8.54	2.57	29.74	21.23	43.50	-22.27	QP
5	182.559	41.62	9.92	2.75	27.28	27.01	43.50	-16.49	QP
6	590.974	32.63	18.29	3.93	30.55	24.30	46.00	-21.70	QP

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Vertical:



Site

: 3m chamber : FCC PART15 CLASS B 3m VULB9163(30M1G) VERTICAL : 219RF : Mobile phone Condition

Job NO. EUT Model : RG220

Test mode : Wifi mode
Power Rating : AC 120V /60Hz
Environment : Temp:24°C Huni:65% Atmos:101Kpa
Test Engineer: Vincent

	Freq	ReadAnten Freq Level Fact					Limit Ov Level Line Lim		Remark
-	MHz	dBu∜	dB/m	<u>d</u> B	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
1	34.396	44.24	12.30	1.04	26.74	30.84	40.00	-9.16	QP
2	39.299	47.68	13.39	1.21	27.20	35.08	40.00	-4.92	QP
3	45.535	39.97	13.52	1.29	27.85	26.93	40.00	-13.07	QP
4	52.391	38.99	13.15	1.29	28.52	24.91	40.00	-15.09	QP
2 3 4 5	99.180	41.31	13.13	1.95	30.09	26.30	43.50	-17.20	QP
6	178.758	41.92	9.62	2.72	26.81	27.45	43.50	-16.05	QP

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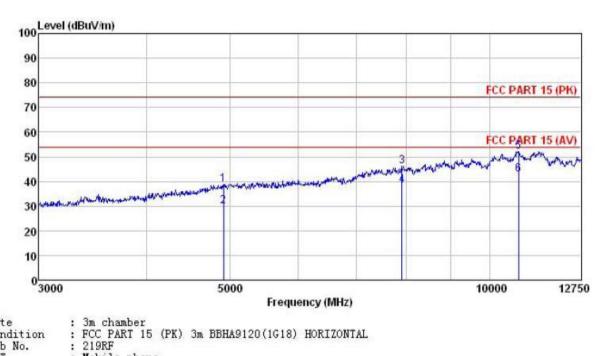
Project No.: CCIS130700219RF

Above 1GHz

802.11b

Test channel: Lowest

Horizontal:



Site

Condition

Job No. : Mobile phone EUT Model : RG220 Test mode: Wifi B-L mode
Power Rating: AC 120V/60Hz
Environment: Temp:25°C Humi:55% Atmos:101Kpa
Test Engineer: Vincent
ReadAntenna Cable Preamp

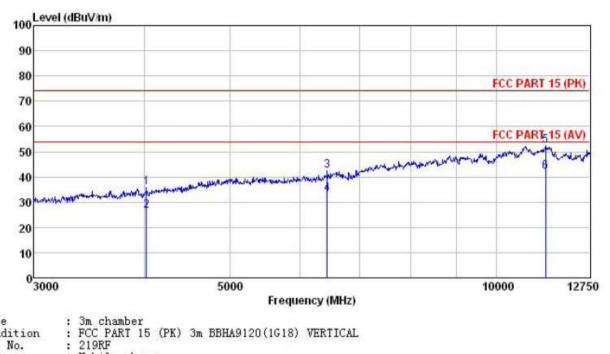
	Freq	Freq Level Factor					ne Limit	Remark	
	MHz	dBu∜	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	4906.519	38.29	31.59	9.02	40.10	38.80	74.00	-35.20	Peak
2	4906.519	29.56	31.59	9.02	40.10	30.07	54.00	-23.93	Average
3	7909.369	39.10	37.04	10.98	40.99			-27.87	
4	7909.369	31.49	37.04	10.98	40.99	38.52	54.00	-15.48	Average
5	10795.570	38.98	39.98	13.72	40.51	52.17	74.00	-21.83	Peak
6	10795.570	29.68	39.98	13.72	40.51	42.87			Average

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Vertical:

Report No: CCIS13070021903



Site

Condition Job No. EUT : Mobile phone Model : RG220

Test mode : Wifi B-L mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

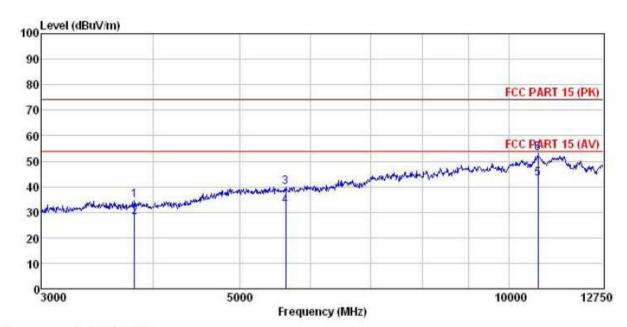
	mare manage .	. Tricori	~						
	F		Antenna				Limit	Over	
	rreq	Freq Level	er Factor	Loss	ractor	rever	Line	Limit	Remark
	MHz	dBu∜	dB/m	₫B	d₿	dBuV/m	dBuV/m	dB	
1	4018.425	39.52	29.89	7.69	41.12	35.98	74.00	-38.02	Peak
2	4018.425	30.26	29.89	7.69	41.12	26.72	54.00	-27.28	Average
3	6431.055	39.12	34.10	10.22	41.13	42.31	74.00	-31.69	Peak
4	6431.055	29.90	34.10	10.22	41.13	33.09	54.00	-20.91	Average
5	11356.360	39.10	40.07	13.76	40.58	52.35	74.00	-21.65	Peak
6	11356.360	28.89	40.07	13.76	40.58	42.14	54.00	-11.86	Average

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Test channel: Middle

Horizontal:



Site : 3m chamber

: FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

Job No. : 219RF

: Mobile phone EUT Model : RG220 Test mode : Wifi B-M mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

COL	THIS THUCK .	. ****	2110						
	Freq		Antenna Factor		Preamp Factor		Limit Line	Over Limit	
	MHz	dBu∀	dB/m	₫B	dB	dBuV/m	dBuV/m	<u>d</u> B	
1	3808.951	38.22	29.57	7.51	40.58	34.72	74.00	-39.28	Peak
2	3808.951	31.48	29.57	7.51	40.58	27.98			Average
2	5621.369	39.05	32.10	9.23	40.41	39.97		-34.03	
4	5621.369	31.48	32.10	9.23	40.41	32.40	54.00	-21.60	Average
5	10764.370	30.00	39.87	13.74	40.57	43.04	54.00	-10.96	Average
6	10764.370	39.92	39.87	13.74	40.57	52.96	74.00	-21.04	Peak

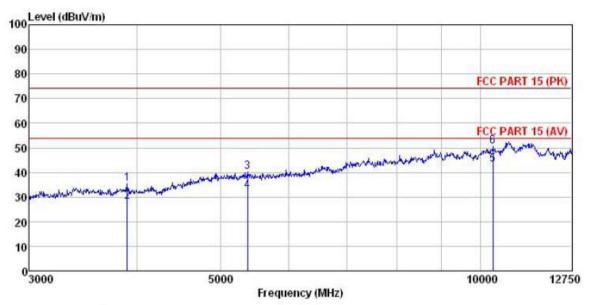
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Vertical:

Report No: CCIS13070021903



: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : 219RF Condition

Job No. : Mobile phone : RG220 EUT Model

Test mode : Wifi B-M mode Power Rating : AC 120V/60Hz

Temp:25°C Huni:55% Atmos:101Kpa Environment :

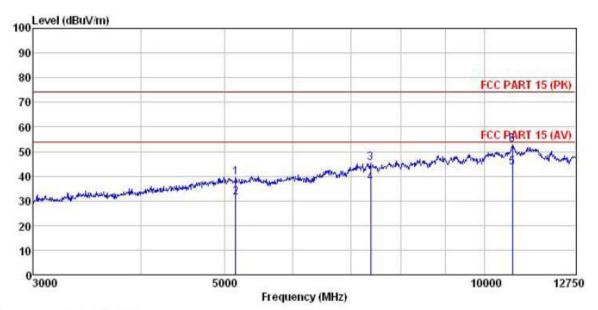
est.	Freq	Read	Antenna Factor				Limit Line	Over Limit	Remark
	MHz	dBu∜	dB/m	₫Ē	dB	dBuV/m	dBuV/m	<u>dB</u>	
1	3892.524	39.08	29.75	7.56	40.84	35.55	74.00	-38.45	Peak
2	3892.524	31.63	29.75	7.56	40.84	28.10	54.00	-25.90	Average
3	5367.025	39.59	31.81	9.15	40.19	40.36	74.00	-33.64	Peak
4	5367.025	31.56	31.81	9.15	40.19	32.33	54.00	-21.67	Average
5	10336.980	31.62	39.19	13.82	41.41	43.22	54.00	-10.78	Average
6	10336.980	39.09	39.19	13.82	41.41	50.69	74.00	-23.31	Peak

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Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : 219RF Condition

Job No.

EUT Mobile phone Model : RG220 Test mode : Wifi B-H mode Power Rating : AC 120V/60Hz Environment : Temp:25°C Huni:55% Atmos:101Kpa

Test Engineer: Vincent

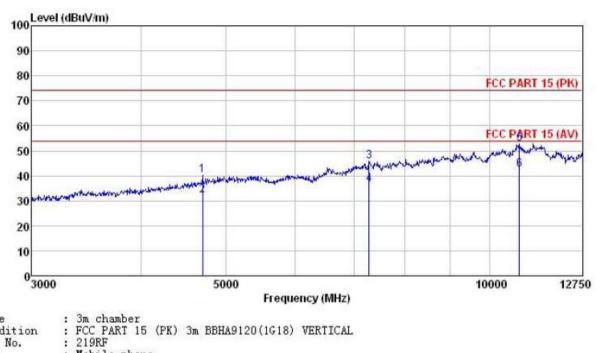
	Freq		Factor						Remark
	MHz	dBu∜	dB/m	₫₿	dB	dBuV/m	dBuV/m	dB	
1	5146.480	38.36	32.07	9.13	40.06	39.50	74.00	-34.50	Peak
2	5146.480	30.26	32.07	9.13	40.06	31.40	54.00	-22.60	Average
3	7378.688	39.16	36.52	10.74	41.11	45.31	74.00	-28.69	Peak
4	7378.688	31.16	36.52	10.74	41.11	37.31	54.00	-16.69	Average
5	10764.370	30.49	39.87	13.74	40.57	43.53	54.00	-10.47	Average
6	10764.370	39.60	39.87	13.74	40.57	52.64	74.00	-21.36	Peak

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Vertical:

Report No: CCIS13070021903



Site Condition

Job No. EUT Mobile phone Model : RG220

Test mode : Wifi B-H mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

est	Freq	Read	Antenna Factor				Limit Line	Over Limit	Remark
	MHz	dBu∜	dB/m	dB	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
1	4698.095	40.33	31.32	8.78	40.38	40.05	74.00	-33.95	Peak
2	4698.095	32.56	31.32	8.78	40.38	32.28	54.00	-21.72	Average
2	7283.224	39.81	36.49		41.18			-28.22	
4	7283.224	30.59	36.49	10.66	41.18	36.56	54.00	-17.44	Average
5	10811.200	39.34	40.03	13.71	40.48	52.60	74.00	-21.40	Peak
6	10811.200	29.15	40.03	13.71	40.48	42.41	54.00	-11.59	Average

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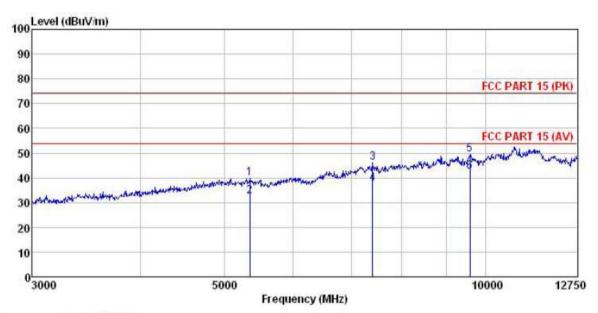


Project No.: CCIS130700219RF

802.11g

Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

Job No. : 219RF

Job No. : 219KF
EUT : Mobile phone
Model : RG220
Test mode : Wifi G-L mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Humi:55% Atmos:101Kpa
Test Engineer: Vincent

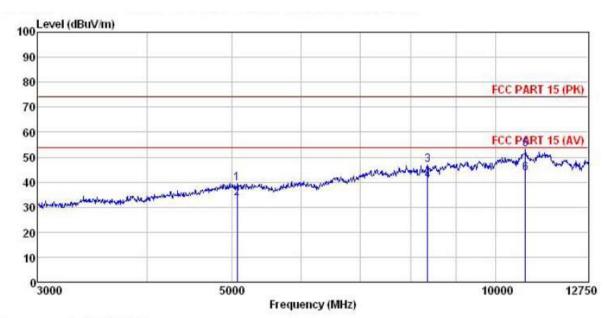
	ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBu∜	dB/m	dB	dB	dBuV/m	dBuV/m	d <u>B</u>	
1	5343.778	39.16	31.78	9.15	40.18	39.91	74.00	-34.09	Peak
2	5343.778	31.86	31.78	9.15	40.18	32.61	54.00	-21.39	Average
2 3	7400.072	39.86	36.54	10.75	41.09	46.06	74.00	-27.94	Peak
4	7400.072	31.26	36.54	10.75	41.09	37.46	54.00	-16.54	Average
5	9587.770	39.72	38.06	13.14	41.37	49.55	74.00	-24.45	Peak
6	9587.770	32.56	38.06	13.14	41.37	42.39			Average

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Vertical:

Report No: CCIS13070021903



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

Job No. : 219RF EUT : Mobile phone

Model : RG220 Test mode : Wifi G-L mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa

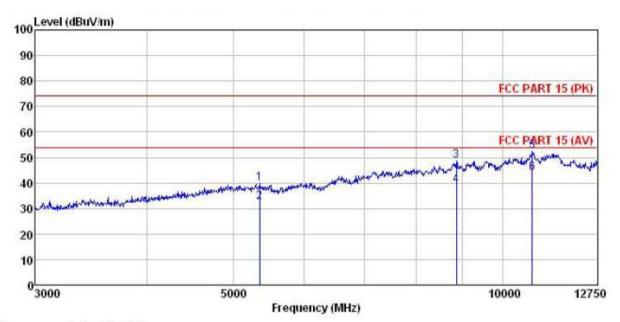
Test Engineer: Vincent
ReadAntenna Cable Preamp

	Freq	Freq Level Factor		Loss Factor					Remark
	MHz	dBu∀	dB/m	dB	<u>dB</u>	dBuV/m	dBuV/m	<u>d</u> B	
1	5065.217	38.29	32.01	9.13	40.02	39.41	74.00	-34.59	Peak
2	5065.217	32.59	32.01	9.13	40.02	33.71	54.00	-20.29	Average
3	8356.427	39.23	36.39	12.74	41.34	47.02	74.00	-26.98	Peak
4	8356.427	32.86	36.39	12.74	41.34	40.65	54.00	-13.35	Average
5	10811.200	39.90	40.03	13.71	40.48	53.16	74.00	-20.84	Peak
6	10811.200	30.46	40.03	13.71	40.48	43.72	54.00	-10.28	Average



Test channel: Middle

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

Job No. : 219RF : Mobile phone : RG220 EUT

Model

Test mode : Wifi G-M mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa

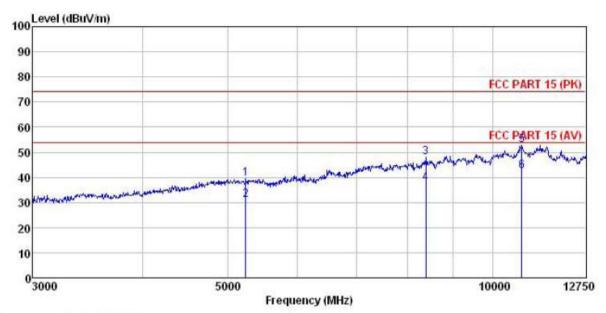
est	Engineer: Freq	Read	t Åntenna Factor		Preamp Factor		Limit Line	Over Limit	Remark
	MHz	dBu∀			dB	dBuV/m	dBuV/m		
1	5343.778	39.16	31.78	9.15	40.18	39.91	74.00	-34.09	Peak
2	5343.778	31.56	31.78	9.15	40.18	32.31	54.00	-21.69	Average
3	8867.160	39.22	36.93	13.68	41.29	48.54	74.00	-25.46	Peak
4	8867.160	29.65	36.93	13.68	41.29	38.97	54.00	-15.03	Average
5	10779.960	39.15	39.93	13.73	40.54	52.27	74.00	-21.73	Peak
6	10779.960	30.74	39.93	13.73	40.54	43.86	54.00	-10.14	Average

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Report No: CCIS13070021903



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

Job No. : 219RF : Mobile phone Model : RG220 Test mode: Wifi G-M mode
Power Rating: AC 120V/60Hz
Environment: Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

	Freq		Intenna Factor						
	MHz	dBu∜	dB/m	₫B	dB	dBuV/m	dBuV/m	d <u>B</u>	
1	5236.619	38.79	31.75	9.14	40.11	39.57	74.00	-34.43	Peak
2	5236.619	30.26	31.75	9.14	40.11	31.04	54.00	-22.96	Average
3	8392.779	40.00	36.40	12.91	41.37	47.94	74.00	-26.06	Peak
4	8392.779	29.65	36.40	12.91	41.37	37.59	54.00	-16.41	Average
5	10779.960	39.73	39.93	13.73	40.54	52.85	74.00	-21.15	Peak
6	10779.960	29.26	39.93	13.73	40.54	42.38	54.00	-11.62	Average

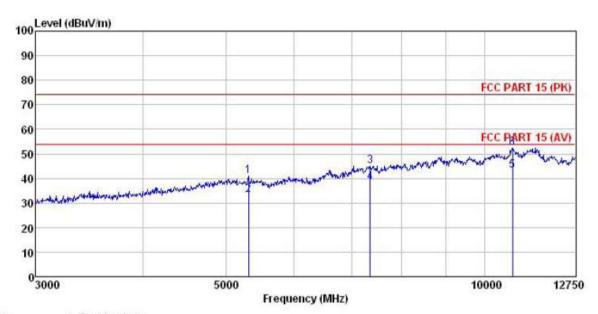
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Project No.: CCIS130700219RF

Test channel: Highest

Horizontal:



Site Condition

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL

Job No. 219RF EUT : Mobile phone : RG220 Model Test mode : Wifi G-H mode Power Rating : AC 120V/60Hz Environment : Temp:25°C Hur Test Engineer: Vincent

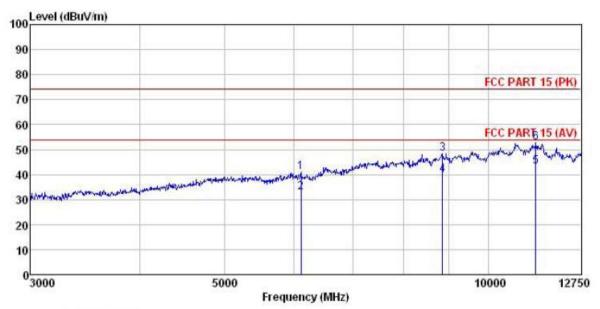
Huni:55% Atmos:101Kpa

	Freq		ReadAntenna (Level Factor				Limit Line	Over Limit	
	MHz	dBu∜	dB/m	₫B	dB	dBuV/m	dBuV/m	dB	
1	5305.258	40.16	31.72	9.14	40.15	40.87	74.00	-33.13	Peak
2	5305.258	32.66	31.72	9.14	40.15	33.37	54.00	-20.63	Average
3	7346.729	39.12	36.47	10.71	41.13	45.17	74.00	-28.83	Peak
4	7346.729	32.25	36.47	10.71	41.13	38.30	54.00	-15.70	Average
5	10764.370	30.26	39.87	13.74	40.57	43.30	54.00	-10.70	Average
6	10764.370	39.23	39.87	13.74	40.57	52.27	74.00	-21.73	Peak

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Report No: CCIS13070021903



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

Job No. : 219RF

: Mobile phone EUT Model : RG220
Test mode : Wifi G-H mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

	Trie Tricor.				_				
		Read	ånt enna	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBu∜	dB/m	d₿	dB	dBuV/m	dBuV/m	dB	
1	6104.642	39.49	32.93	9.65	40.94	41.13	74.00	-32.87	Peak
2	6104.642	31.26	32.93	9.65	40.94	32.90	54.00	-21.10	Average
3	8854.340	38.98	36.94	13.67	41.30		74.00		
4	8854.340	30.52	36.94	13.67	41.30	39.83	54.00	-14.17	Average
5	11323.540	29.79	40.04	13.74	40.53	43.04			Average
6	11323 540	39 41	40 04	13 74	40.53	52.66			

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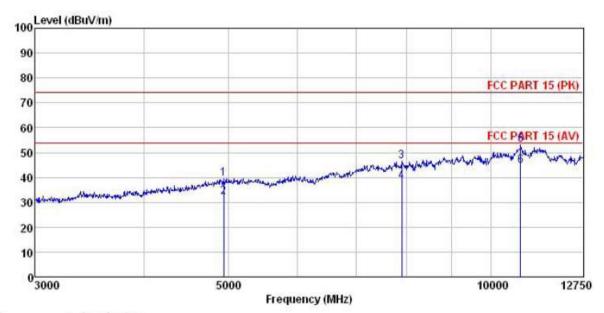


Project No.: CCIS130700219RF

802.11n(H20)

Test channel: Lowest

Horizontal:



Site Condition

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL

Job No. : 219RF EUT : Mobile phone : RG220 Model

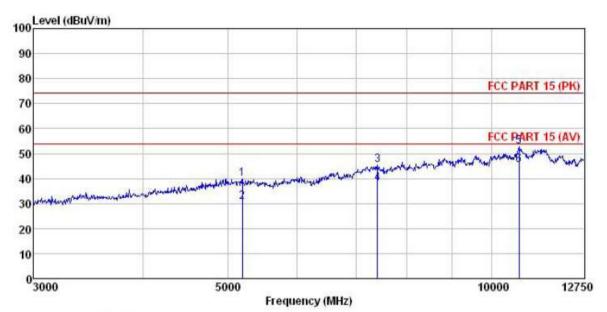
Test mode : Wifi N20-L mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

-			5						
		Read	Antenna	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBu∀	dB/m	dB	dB	dBuV/m	dBuV/m	<u>d</u> B	
1	4934.999	38.95	31.64	9.04	40.08	39.55	74.00	-34.45	Peak
2	4934.999	31.59	31.64	9.04	40.08	32.19	54.00	-21.81	Average
2	7897.933	39.36	37.00	10.98	40.99	46.35		-27.65	
4	7897.933	31.56	37.00	10.98	40.99	38.55	54.00	-15.45	Average
5	10811.200	39.90	40.03	13.71	40.48	53.16	74.00	-20.84	Peak
6	10811, 200	31, 56	40.03	13, 71	40.48	44.82	54,00	-9.18	Average

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Report No: CCIS13070021903



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : 219RF Condition

Job No.

: Mobile phone EUT Model : RG220 Test mode : Wifi N20-L mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

est	Engineer:		Antenna	Cable	Preamn		Limit	Over	
	Freq		Factor						
	MHz	dBu∜	dB/m	₫B	dB	dBuV/m	dBuV/m	dB	
1	5191.354	38.81	31.96	9.14	40.09	39.82	74.00	-34.18	Peak
2	5191.354	29.55	31.96	9.14	40.09	30.56	54.00	-23.44	Average
3	7400.072	39.34	36.54	10.75	41.09	45.54	74.00	-28.46	Peak
4	7400.072	31.75	36.54	10.75	41.09	37.95	54.00	-16.05	Average
5	10748.810	39.75	39.82	13.75	40.61	52.71	74.00	-21.29	Peak
6	10748.810	32.46	39.82	13.75	40.61	45.42	54.00	-8.58	Average

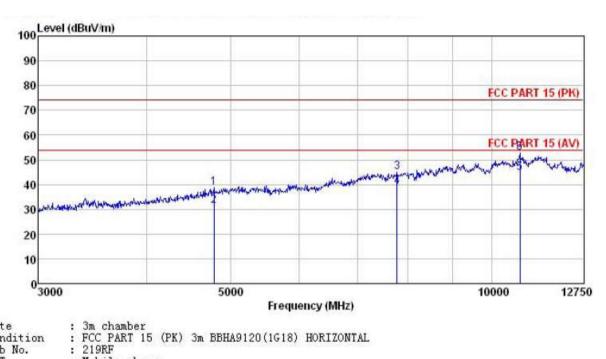
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Test channel: Middle

Horizontal:



Site

Condition

Job No.

EUT : Mobile phone Model : RG220

Test mode : Wifi N20-M mode Power Rating : AC 120V/60Hz Environment : Temp:25°C Huni: Test Engineer: Vincent

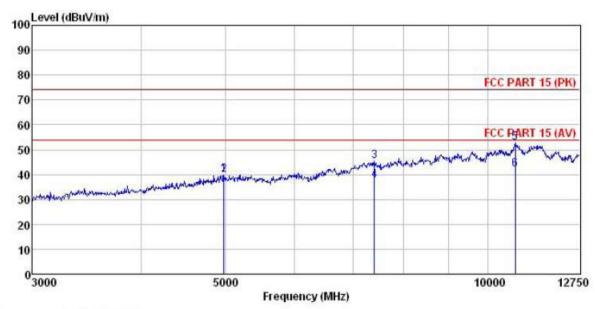
Huni:55% Atmos:101Kpa

	Read	Antenna				Limit Line		Remark
MHz	dBu∀	dB/m	₫B	dB	dBuV/m	dBuV/m	<u>dB</u>	
4780.381	38.63	31.50	8.86	40.29	38.70	74.00	-35.30	Peak
4780.381	31.43	31.50	8.86	40.29	31.50	54.00	-22.50	Average
7773.224	38.32	36.67	10.94	41.00	44.93	74.00	-29.07	Peak
7773.224	32.63	36.67	10.94	41.00	39.24	54.00	-14.76	Average
10764.370	31.56	39.87	13.74	40.57	44.60	54.00	-9.40	Average
10764.370	39.84	39.87	13.74	40.57	52.88	74.00	-21.12	Peak
	Freq MHz 4780.381 4780.381 7773.224 7773.224 10764.370	Read. Freq Level MHz dBuV 4780.381 38.63 4780.381 31.43 7773.224 38.32 7773.224 32.63 10764.370 31.56	MHz dBuV dB/m 4780.381 38.63 31.50 4780.381 31.43 31.50 7773.224 38.32 36.67 7773.224 32.63 36.67 10764.370 31.56 39.87	ReadAntenna Cable Level Factor Loss MHz dBuV dB/m dB 4780.381 38.63 31.50 8.86 4780.381 31.43 31.50 8.86 4780.381 31.43 31.50 8.86 7773.224 38.32 36.67 10.94 7773.224 32.63 36.67 10.94 10764.370 31.56 39.87 13.74	ReadAntenna Cable Preamp Level Factor Loss Factor MHz dBuV dB/m dB dB 4780.381 38.63 31.50 8.86 40.29 4780.381 31.43 31.50 8.86 40.29 7773.224 38.32 36.67 10.94 41.00 7773.224 32.63 36.67 10.94 41.00 10764.370 31.56 39.87 13.74 40.57	ReadAntenna Cable Preamp Level Factor Loss Factor Level MHz dBuV dB/m dB dB dBuV/m 4780.381 38.63 31.50 8.86 40.29 38.70 4780.381 31.43 31.50 8.86 40.29 31.50 7773.224 38.32 36.67 10.94 41.00 44.93 7773.224 32.63 36.67 10.94 41.00 39.24 10764.370 31.56 39.87 13.74 40.57 44.60	ReadAntenna Cable Preamp Limit Level Factor Loss Factor Level Line	ReadAntenna Cable Preamp Limit Over Level Factor Loss Factor Level Line Limit

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Report No: CCIS13070021903



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : 219RF Condition

Job No.

: Mobile phone : RG220 EUT Model Test mode : Wifi N20-M mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

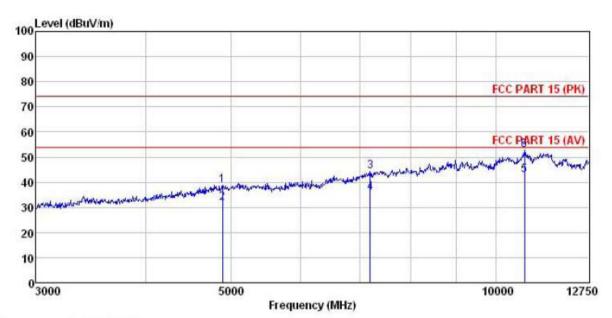
RATEVAS	Freq	ReadAntenna Freq Level Factor						Remark		
	MHz	dBu∜	dB/m	₫B	dB	dBuV/m	dBuV/m	dB		
1	4978.028	38.87	31.74	9.10	40.00	39.71	74.00	-34.29	Peak	
2	4978.028	38.87	31.74	9.10	40.00	39.71	54.00	-14.29	Average	
3	7400.072	39.34	36.54	10.75	41.09		74.00			
4	7400.072	31.56	36.54	10.75	41.09	37.76	54.00	-16.24	Average	
5	10748.810	39.75	39.82	13.75	40.61	52.71				
6	10748, 810	28.96	39.82	13.75	40.61	41.92	54.00	-12.08	Average	

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Test channel: Highest

Horizontal:



Site Condition : 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : 219RF

Job No. EUT : Mobile phone

Model : RG220

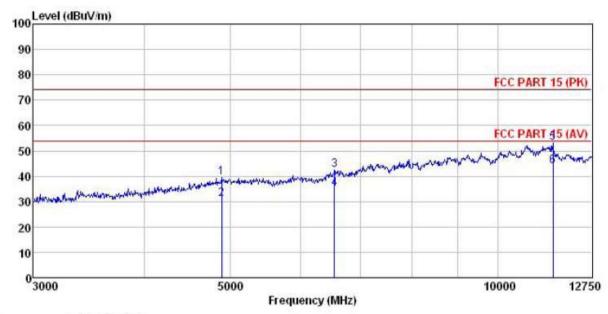
Test mode : Wifi N20-H mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

est	rugimeer.						120.0	2	
		Read	Antenna	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBu∜	dB/m	₫B	dB	dBuV/m	dBuV/m	<u>dB</u>	
1	4885.267	38.35	31.58	9.00	40.12	38.81	74.00	-35.19	Peak
2	4885.267	31.25	31.58	9.00	40.12	31.71	54.00	-22.29	Average
3	7188.995	38.52	36.42	10.57	41.26	44.25	74.00	-29.75	Peak
4	7188.995	30.00	36.42	10.57	41.26	35.73			Average
5	10764.370	29.79	39.87	13.74	40.57	42.83			Average
6	10764.370	39.84	39.87	13.74	40.57	52.88	74.00	-21.12	Peak

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Report No: CCIS13070021903



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL Condition

Job No. 219RF EUT : Mobile phone Model

Test mode : Wifi N20-H mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

est	Engineer:				Last transportation with		LANCE OF STREET	1124000000	
		Read	Antenna	Cable	Preamp		Limit	Over	
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
	MHz	dBu∜	dB/m	d₿	dB	dBuV/m	dBuV/m	dB	
1	4885.267	38.95	31.58	9.00	40.12	39.41	74.00	-34.59	Peak
2	4885.267	30.56	31.58	9.00	40.12	31.02	54.00	-22.98	Average
2	6543.692	38.61	34.58	10.37	41.20	42.36	74.00	-31.64	Peak
4	6543.692	31.29	34.58	10.37	41.20	35.04	54.00	-18.96	Average
5	11521.870	39.77	40.24	13.82	40.81	53.02	74.00	-20.98	Peak
6	11521,870	30, 59	40.24	13.82	40, 81	43, 84	54,00	-10.16	Average

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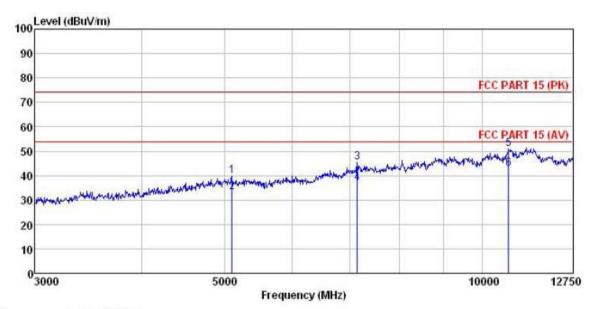


Project No.: CCIS130700219RF

802.11n(H40)

Test channel: Lowest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL : 219RF Condition

Job No. EUT : Mobile phone

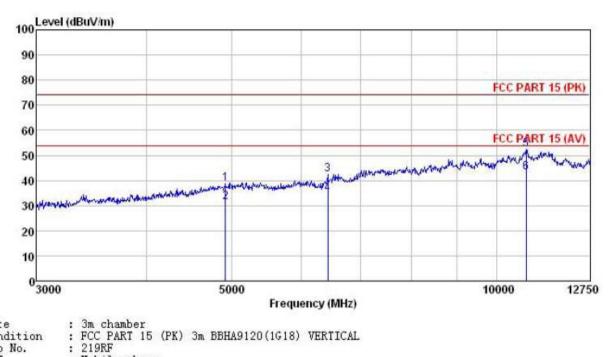
model : RG220
Test mode : Wifi N40-L mode
Power Rating : AC 120V/60Hz
Environment : Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

WE 50.5	Freq	ReadAntenna Level Factor		Cable Preamp Loss Factor			Limit Line	Over Limit	Remark
	MHz	dBu∀	dB/m		<u>d</u> B	dBuV/m	dBuV/m	<u>dB</u>	
1	5094.618	38.54	32.11	9.13	40.04	39.74	74.00	-34.26	Peak
2	5094.618	32.08	32.11	9.13	40.04	33.28			Average
3	7137.173	39.79	36.23	10.53	41.30	45.25	74.00	-28.75	Peak
4	7137.173	31.56	36.23	10.53	41.30	37.02	54.00	-16.98	Average
5	10733.270	38.13	39.78	13.75	40.61	51.05	74.00	-22.95	Peak
6	10733, 270	30, 04	39.78	13, 75	40.61	42.96	54,00	-11.04	Average

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Report No: CCIS13070021903



Site

Condition

Job No. : Mobile phone : RG220 EUT Model

: Wifi N40-L mode Test mode

Power Rating: AC 120V/60Hz Environment: Temp:25°C Huni:55% Atmos:101Kpa

est	Engineer:			Cable Preamp					
	Freq		Factor						
	MHz	dBu∜	dB/m	dB	<u>d</u> B	dBuV/m	dBuV/m	<u>dB</u>	
1	4913.624	38.39	31.59	9.02	40.10	38.90	74.00	-35.10	Peak
2	4913.624	31.02	31.59	9.02	40.10	31.53	54.00	-22.47	Average
3	6421.756	39.19	34.10	10.22	41.13	42.38	74.00	-31.62	Peak
4	6421.756	31.59	34.10	10.22	41.13	34.78	54.00	-19.22	Average
5	10795.570	39.15	39.98	13.72	40.51	52.34	74.00	-21.66	Peak
6	10795, 570	29.96	39.98	13.72	40.51	43.15	54.00	-10.85	Average

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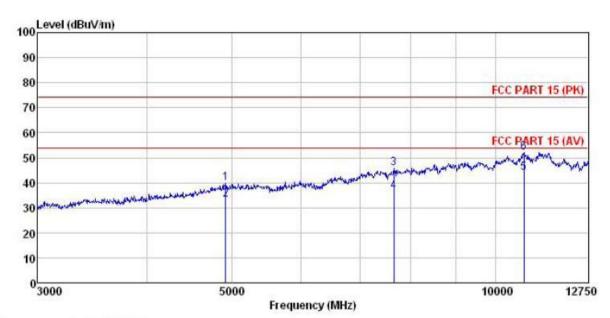
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Project No.: CCIS130700219RF

Test channel: Middle

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

: 219RF Job No. EUT : Mobile phone

Model : RG220 Test mode: Wifi N40-M mode
Power Rating: AC 120V/60Hz
Environment: Temp:25°C Huni:55% Atmos:101Kpa

Test

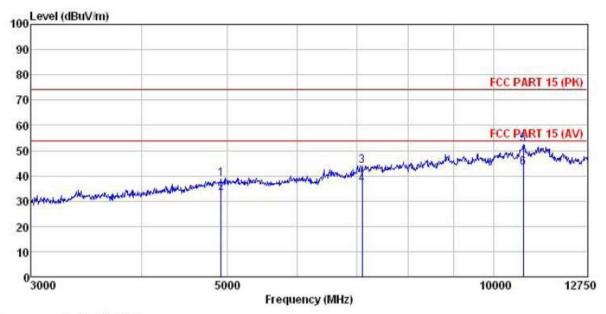
123456

τ	Engineer:		t Antenna	Cable	Preamp		Limit	Over	
	Freq	Level	Factor				Line	Limit	Remark
	MHz	dBu∀	dB/m	₫B	dB	dBuV/m	dBuV/m	dB	
3	4913.624	39.16	31.59	9.02	40.10	39.67	74.00	-34.33	Peak
	4913.624	32.56	31.59	9.02	40.10	33.07	54.00	-20.93	Average
	7650.484	39.32	36.49	10.89	41.00	45.70	74.00	-28.30	Peak
	7650.484	30.24	36.49	10.89	41.00	36.62	54.00	-17.38	Average
	10764.370	30.78	39.87	13.74	40.57	43.82	54.00	-10.18	Average
	10764, 370	39, 15	39, 87	13, 74	40, 57	52, 19	74.00	-21.81	Peak

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Report No: CCIS13070021903



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : 219RF Condition

Job No. EUT : Mobile phone Model : RG220 : Wifi N40-M mode Test mode

Power Rating: AC 120V/60Hz Environment: Temp:25°C Huni:55% Atmos:101Kpa

Test Engineer: Vincent

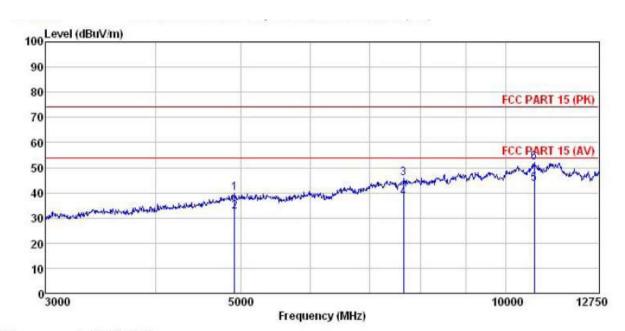
50000000	Freq	ReadAntenna Level Factor			The state of the s		Limit Line	Over Limit	Remark
	MHz	dBu∜		dB	20128018010	dBuV/m	200200000	THE REAL PROPERTY.	
1	4913.624	38.39	31.59	9.02	40.10	38.90	74.00	-35.10	Peak
2	4913.624	32.56	31.59	9.02	40.10	33.07	54.00	-20.93	Average
2	7095.985	38.84	36.06	10.50	41.33	44.07	74.00	-29.93	Peak
4	7095.985	31.47	36.06	10.50	41.33	36.70	54.00	-17.30	Average
5	10795.570	39.15	39.98	13.72	40.51	52.34	74.00	-21.66	Peak
6	10795.570	29.98	39.98	13.72	40.51	43.17	54.00	-10.83	Average

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Test channel: Highest

Horizontal:



Site

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL Condition

Job No.

: 219RF : Mobile phone EUT : RG220 Model Test mode: Wifi N40-H mode
Power Rating: AC 120V/60Hz
Environment: Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

	Freq	Readântenna Level Factor		Cable Preamp Loss Factor			Limit Line		
	MHz	dBu∜	dB/m	<u>d</u> B	<u>dB</u>	dBuV/m	dBuV/m	<u>ab</u>	
1	4913.624	39.16	31.59	9.02	40.10	39.67	74.00	-34.33	Peak
2	4913.624	32.08	31.59	9.02	40.10	32.59			Average
3	7650.484	39.32	36.49	10.89	41.00	45.70	74.00	-28.30	Peak
4	7650.484	31.46	36.49	10.89	41.00	37.84	54.00	-16.16	Average
5	10764.370	30.59	39.87	13.74	40.57	43.63	54.00	-10.37	Average
6	10764, 370	39, 15	39, 87	13.74	40, 57	52, 19	74.00	-21.81	Peak

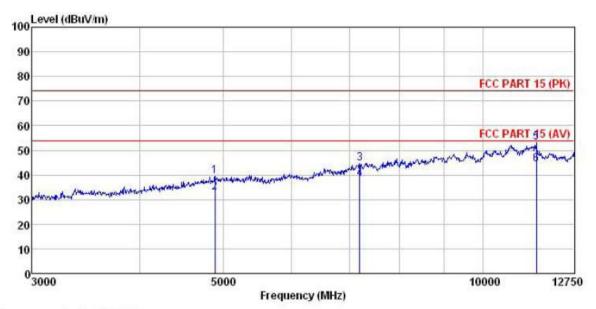
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Project No.: CCIS130700219RF

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Report No: CCIS13070021903



Site Condition

: 3m chamber : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL : 219RF

Job No. : Mobile phone : RG220 EUT

Model Test mode: Wifi N40-H mode
Power Rating: AC 120V/60Hz
Environment: Temp:25°C Huni:55% Atmos:101Kpa
Test Engineer: Vincent

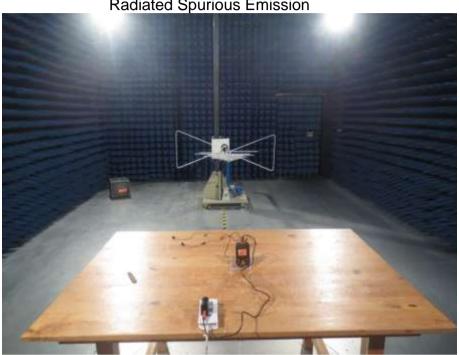
5500 1									
	The second second	ReadAnt enna					Limit	Over	
	Freq	Level dBuV	Factor	Loss dB			Line dBuV/m		Remark
			dB/m						
1	4885.267	38.95	31.58	9.00	40.12	39.41	74.00	-34.59	Peak
2	4885.267	32.56	31.58	9.00	40.12	33.02	54.00	-20.98	Average
3	7188.995	39.10	36.42	10.57	41.26	44.83	74.00	-29.17	Peak
4	7188.995	32.52	36.42	10.57	41.26	38.25	54.00	-15.75	Average
5	11521.870	39.77	40.24	13.82	40.81	53.02	74.00	-20.98	Peak
6	11521.870	30.89	40.24	13.82	40.81	44.14	54.00	-9.86	Average

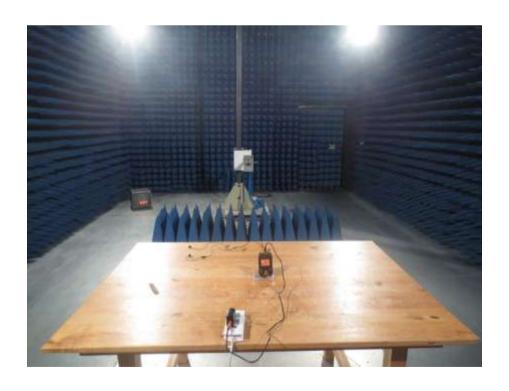
Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366



Test Setup Photo

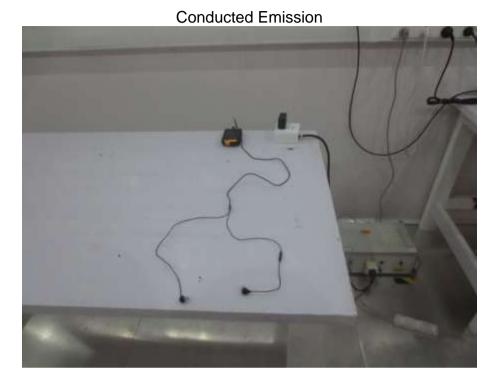






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8 EUT Constructional Details

Reference to the test report No. CCIS13070021901

-----End of report-----

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