

Report No.: AGC00654130501FE04 Page 1 of 69

FCC Test Report

Report No.: AGC00654130501FE04

FCC ID : 2AAGI-C1

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION: 3G Mobile Phone

BRAND NAME : CETUS

MODEL NAME : C1

CLIENT : SHENZHEN BRIGHT FUTURE TECHNOLOGY CO., LTD.

DATE OF ISSUE : June 5,2013

STANDARD(S) : FCC Part 15 Rules

REPORT VERSION: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

CAUTION:

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.

Page 2 of 69

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	June 5,2013	Valid	Original Report

TABLE OF CONTENTS

1. VERIFICATION OF CONFORMITY	5
2. GENERAL INFORMATION	6
2.1. PRODUCT DESCRIPTION	6
2.2. TABLE OF CARRIER FREQUENCYS	6
2.3. IEEE 802.11N MODULATION SCHEME	7
2.4. RELATED SUBMITTAL(S) / GRANT (S)	7
2.5. TEST METHODOLOGY	7
2.6. SPECIAL ACCESSORIES	7
2.7. EQUIPMENT MODIFICATIONS	7
3. MEASUREMENT UNCERTAINTY	8
4. DESCRIPTION OF TEST MODES	8
5. SYSTEM TEST CONFIGURATION	9
5.1. CONFIGURATION OF EUT SYSTEM	g
5.2. EQUIPMENT USED IN EUT SYSTEM	g
5.3. SUMMARY OF TEST RESULTS	g
6. TEST FACILITY	10
7. PEAK OUTPUT POWER	11
7.1. MEASUREMENT PROCEDURE	11
7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	11
7.3. LIMITS AND MEASUREMENT RESULT	12
8. 6DB BANDWIDTH	14
8.1. MEASUREMENT PROCEDURE	14
8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	14
8.3. LIMITS AND MEASUREMENT RESULTS	15
9. CONDUCTED SPURIOUS EMISSION	25
9.1. MEASUREMENT PROCEDURE	25
9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	25
9.3. MEASUREMENT EQUIPMENT USED	25
9.4. LIMITS AND MEASUREMENT RESULT	25
10. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY	28
10.1 MEASUREMENT PROCEDURE	28
10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	28
10.3 MEASUREMENT EQUIPMENT USED	28
10.4 LIMITS AND MEASUREMENT RESULT	28

11. RADIATED EMISSION	38
11.1. MEASUREMENT PROCEDURE	38
11.2. TEST SETUP	39
11.3. LIMITS AND MEASUREMENT RESULT	40
11.4. TEST RESULT	40
12. BAND EDGE EMISSION	49
12.1. MEASUREMENT PROCEDURE	49
12.2. TEST SET-UP	49
12.3. TEST RESULT	50
13. FCC LINE CONDUCTED EMISSION TEST	58
13.1. LIMITS OF LINE CONDUCTED EMISSION TEST	58
13.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST	58
13.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST	59
13.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST	59
13.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST	60
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	62
APPENDIX B: PHOTOGRAPHS OF EUT	63

Page 5 of 69

1. VERIFICATION OF CONFORMITY

Applicant	SHENZHEN BRIGHT FUTURE TECHNOLOGY CO., LTD.
Address	BRIGHT FUTURE TECHNOLOGY PARK, TONGFU INDUSTRIAL AREA, DAPENG NEW DISTRICT, SHENZHEN, CHINA
Manufacturer	SHENZHEN BRIGHT FUTURE TECHNOLOGY CO., LTD.
Address	BRIGHT FUTURE TECHNOLOGY PARK, TONGFU INDUSTRIAL AREA, DAPENG NEW DISTRICT, SHENZHEN, CHINA
Product Designation	3G Mobile Phone
Brand Name	CETUS
Test Model	C1
Date of test	May 29, 2013 to June 4, 2013
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-US-BGN/RF (2013-03-01)

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with requirement of FCC Part 15 Rules requirement.

Wall Huang June 5,2013

Checked By

Forrest Lei June 5,2013

Authorized By

Solger Zhang June 5,2013

Page 6 of 69

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as "3G Mobile Phone". It is designed by way of utilizing the DSSS and OFDM technology to achieve the system operation.

A major technical description of EUT is described as following

7 major teerimear description of	Amajor technical description of Let is described as following			
Operation Frequency 2.412 GHz~2.462GHz				
Max. Output Power	802.11b:11.95dBm, 802.11g:10.96dBm, 802.11n(20):10.33dBm, 802.11n(40):7.53dBm			
Modulation	DSSS(BPSK/QPSK/CCK);OFDM(16-QAM/64-QAM)			
Data Rate	DSSS(1/2/5.5/11),OFDM(6/9/12/18/24/36/48/54) See section 2.3 for 802.11n			
Number of channels	11			
Hardware Version	E1920_V1.2			
Software Version	N/A			
Antenna Designation	Integrated Antenna			
Antenna Gain	1.2dBi			
Power Supply	DC3.7V by Built-in Li-ion Battery			

2.2. TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency	
	1	2412 MHZ	
	2	2417 MHZ	
	3	2422 MHZ	
	4	2427 MHZ	
	5	2432 MHZ	
2400~2483.5MHZ	6	2437 MHZ	
	7	2442 MHZ	
	8	2447 MHZ	
	9	2452 MHZ	
	10	2457 MHZ	
	11	2462 MHZ	

Note: For 20MHZ bandwidth system use Channel 1 to Channel 11 For 40MHZ bandwidth system use Channel 3 to Channel 9

Page 7 of 69

2.3. IEEE 802.11N MODULATION SCHEME

MCS Index	Nss	Modulation	R	NBPSC	NCBPS NDBPS		NDBPS Pata rate(Mbps) 800nsGl			
					20MHz	40MHz	20MHz	40MHz	20MHz	40MHz
0	1	BPSK	1/2	1	52	108	26	54	6.5	13.5
1	1	QPSK	1/2	2	104	216	52	108	13.0	27.0
2	1	QPSK	3/4	2	104	216	78	162	19.5	40.5
3	1	16-QAM	1/2	4	208	432	104	216	26.0	54.0
4	1	16-QAM	3/4	4	208	432	156	324	39.0	81.0
5	1	64-QAM	2/3	6	312	648	208	432	52.0	108.0
6	1	64-QAM	3/4	6	312	648	234	489	58.5	121.5
7	1	64-QAM	5/6	6	312	648	260	540	65.0	135.0

Symbol	Explanation	
NSS	Number of spatial streams	
R	Code rate	
NBPSC	Number of coded bits per single carrier	
NCBPS	Number of coded bits per symbol	
NDBPS	Number of data bits per symbol	
GI	Guard interval	

2.4. RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: 2AAGI-C1** filing to comply with the FCC Part 15 requirements.

2.5. TEST METHODOLOGY

Because the EUT received power from DC3.7V lithium battery, so only radiated testing was performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters.

2.6. SPECIAL ACCESSORIES

Refer to section 5.2.

2.7. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

Page 8 of 69

3. MEASUREMENT UNCERTAINTY

Conducted measurement: +/- 2.75dB Radiated measurement: +/- 3.2dB

4. DESCRIPTION OF TEST MODES

NO.	TEST MODE DESCRIPTION
1	Low channel TX
2	Middle channel TX
3	High channel TX
4	Normal operating (WiFi)

Note:

Transmit by 802.11b with Date rate (1/2/5.5/11)

Transmit by 802.11g with Date rate (6/9/12/18/24/36/48/54)

Transmit by 802.11n (20MHz) with Date rate (6.5/13/19.5/26/39/52/58.5/65)

Transmit by 802.11n (40MHz) with Date rate

(13.5/27/40.5/54/81/108/121.5/135)

Note:

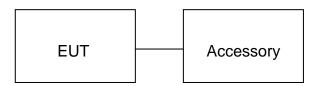
- 1. The EUT has been set to operate continuously on the lowest, middle and highest operation frequency individually.
- 2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.
- 3. For Radiated Emission, 3axis were chosen for testing for each applicable mode.

Page 9 of 69

5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure:



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment Model N		ID or Specification	Note
1	3G Mobile Phone C1 FCC ID: 2AAGI-C1		EUT	
2	Adapter	H472	DC5.0V / 500mA	Accessory
3	Battery H472 DC3.7V/ 2100 mAh Acce		Accessory	
4	Earphone H472 N/A Acc		Accessory	
5	USB Cable	H472	N/A	Accessory

Note: All the accessories have been used during the test in conduction emission test.

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.247	Peak Output Power	Compliant
§15.247	6 dB Bandwidth	Compliant
§15.247	Conducted Spurious Emission	Compliant
§15.247	Maximum Conducted Output Power SPECTRAL Density	Compliant
§15.209	Radiated Emission	Compliant
§15.247	Band Edges	Compliant
§15.207	Line Conduction Emission	Compliant

Note: The EUT received power from DC3.7V lithium battery.

Page 10 of 69

6. TEST FACILITY

Site	Attestation of Global Compliance (Shenzhen) Co., Ltd		
Location	2/F., Building 2, No.1-No.4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China		
Description	The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2003.		

ALL TEST EQUIPMENT LIST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Power meter	R&S	NRP-Z23	100323	07/18/2012	07/17/2013
RF attenuator	N/A	RFA20db	68	N/A	N/A
Spectrum Analyzer	Agilent	E4440A	US41421290	07/18/2012	07/17/2013
Amplifier	EM	EM30180	0607030	07/18/2012	07/17/2013
Horn Antenna	EM	EM-AH-10180	67	04/21/2013	04/20/2014
Horn Antenna	A.H. Systems Inc.	SAS-574		07/18/2012	07/17/2013
EMI Test Receiver	Rohde & Schwarz	ESCI	100694	07/18/2012	07/17/2013
Biological Antenna	A.H. Systems Inc.	SAS-521-4	26	06/08/2012	06/07/2013
Loop Antenna	A.H.	SAS-526B	264	07/15/2012	07/14/2013

Page 11 of 69

7. PEAK OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

For peak power test:

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 3. Set the EUT Work on the top, middle and the bottom operation frequency individually.
- 4. Set the RBW greater than 6DB bandwidth of emission.
- 5. Record the maximum power from the Spectrum Analyzer.

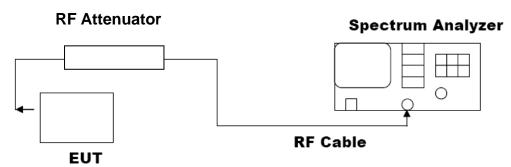
For average power test:

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to power meter through an RF attenuator
- 3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 4. Record the maximum power from the power meter.
- 5. The maximum peak power shall be less 1 Watt (30dBm).

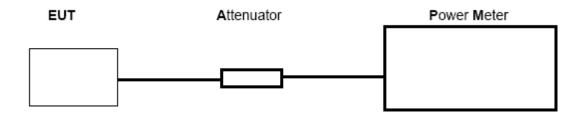
Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

7.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

PEAK POWER TEST SETUP



AVERAGE POWER SETUP



Page 12 of 69

7.3. LIMITS AND MEASUREMENT RESULT

TEST ITEM	PEAK POWER
TEST MODE	802.11b with data rate 1

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	9.85	11.78	30	Pass
2.437	9.95	11.84	30	Pass
2.462	10.03	11.95	30	Pass

TEST ITEM	PEAK POWER
TEST MODE	802.11g with data rate 6

LIMITS AND MEASUREMENT RESULT				
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	8.88	10.77	30	Pass
2.437	8.96	10.88	30	Pass
2.462	9.02	10.96	30	Pass

TEST ITEM	PEAK POWER
TEST MODE	802.11n 20 with data rate 6.5

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	8.25	10.19	30	Pass
2.437	8.35	10.26	30	Pass
2.462	8.43	10.33	30	Pass

Page 13 of 69

TEST ITEM	PEAK POWER
TEST MODE	802.11n 40 with data rate 13.5

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.422	5.57	7.47	30	Pass
2.437	5.53	7.42	30	Pass
2.452	5.66	7.53	30	Pass

Page 14 of 69

8. 6DB BANDWIDTH

8.1. MEASUREMENT PROCEDURE

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW≥RBW.
- 4. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



Page 15 of 69

8.3. LIMITS AND MEASUREMENT RESULTS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11b with data rate 11

LIMITS AND MEASUREMENT RESULT				
Applicable Limite	Applicable Limits			
Applicable Limits	Test Data (MHz) Criteria			
	Low Channel	9.093	PASS	
>500KHZ	Middle Channel	9.078	PASS	
	High Channel	8.536	PASS	

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11g with data rate 54

LIMITS AND MEASUREMENT RESULT			
Annliaghla Limita	Applicable Limits		
Applicable Limits	Test Data (MHz)		Criteria
>500KHZ	Low Channel	16.442	PASS
	Middle Channel	16.463	PASS
	High Channel	16.470	PASS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 20 with data rate 65

LIMITS AND MEASUREMENT RESULT			
Applicable Limits			
Applicable Limits	Test Data (MHz)		Criteria
>500KHZ	Low Channel	17.668	PASS
	Middle Channel	17.664	PASS
	High Channel	17.630	PASS

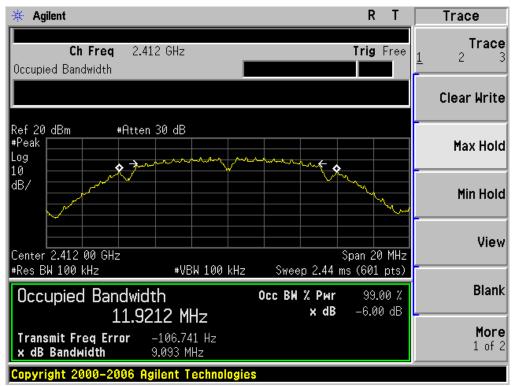
Page 16 of 69

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 40 with data rate 135

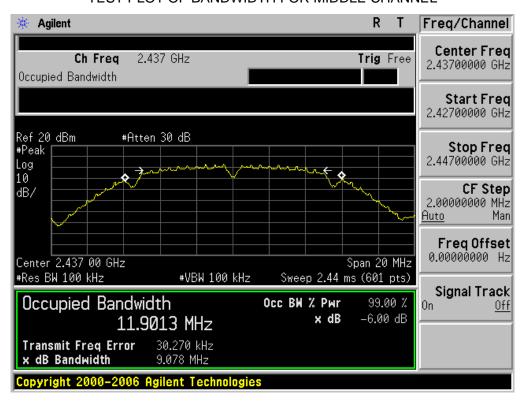
LIMITS AND MEASUREMENT RESULT			
Applicable Limits			
Applicable Limits	Test Data (MHz)		Criteria
>500KHZ	Low Channel	35.678	PASS
	Middle Channel	35.214	PASS
	High Channel	35.232	PASS

Page 17 of 69

802.11b TEST RESULTTEST PLOT OF BANDWIDTH FOR LOW CHANNEL

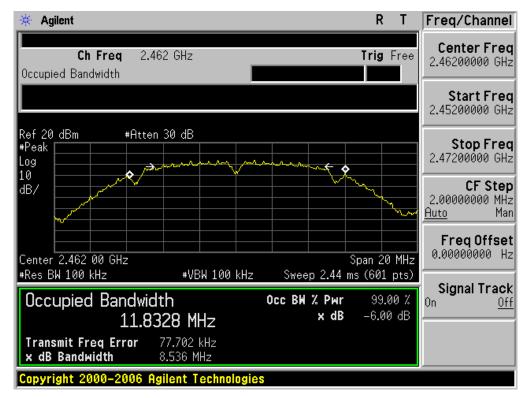


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



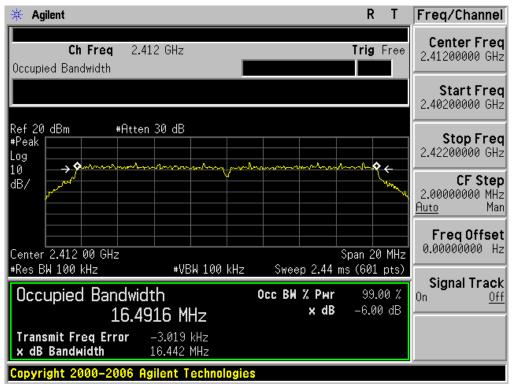
Page 18 of 69

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

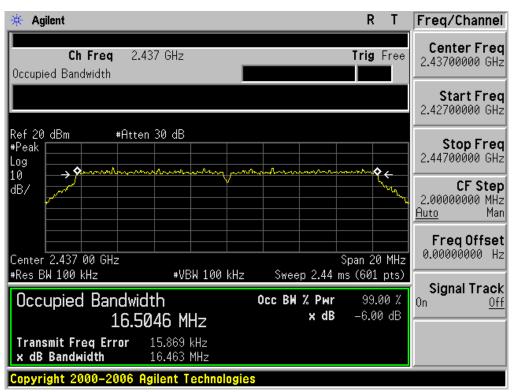


Page 19 of 69

802.11g TEST RESULTTEST PLOT OF BANDWIDTH FOR LOW CHANNEL

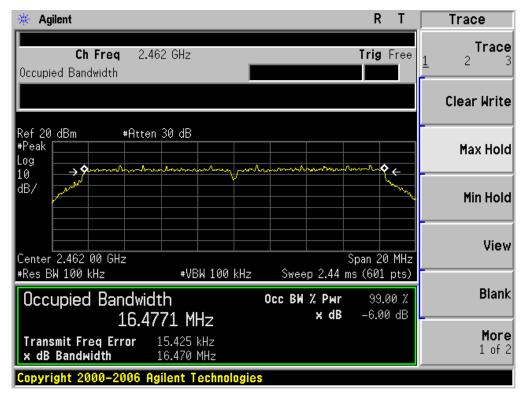


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



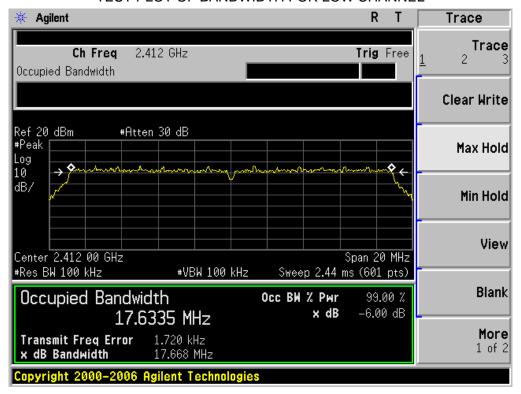
Page 20 of 69

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

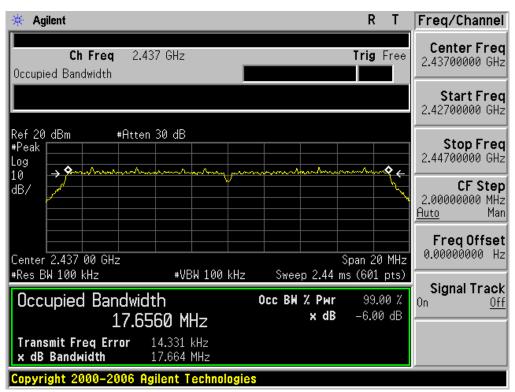


Page 21 of 69

802.11n(20) TEST RESULTTEST PLOT OF BANDWIDTH FOR LOW CHANNEL

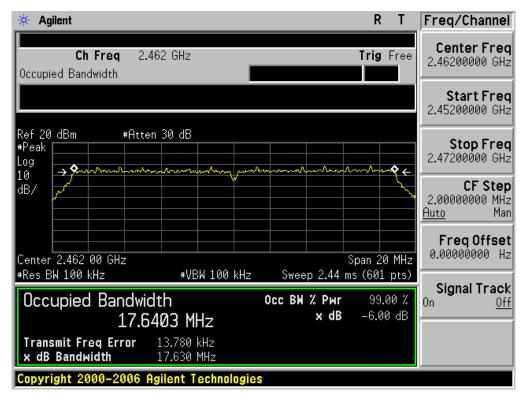


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



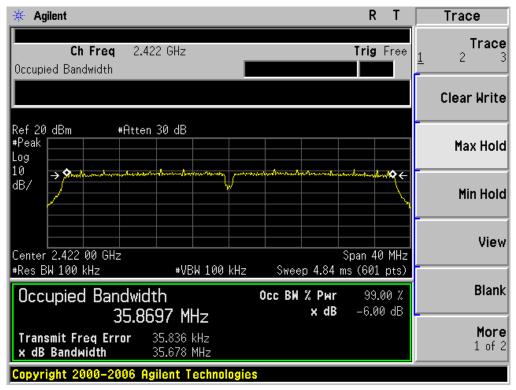
Page 22 of 69

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

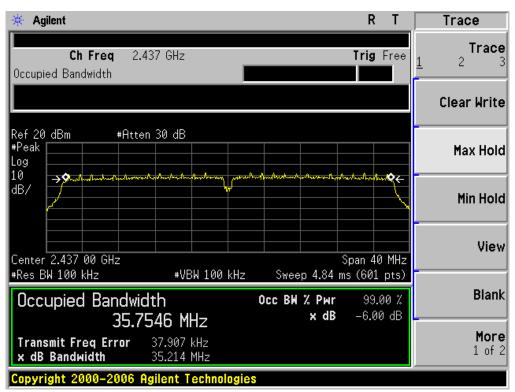


Page 23 of 69

802.11n(40) TEST RESULT
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

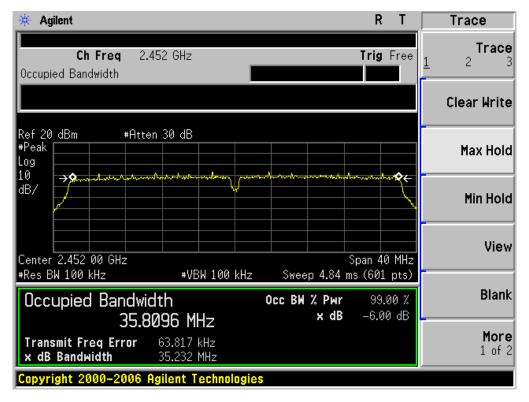


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



Page 24 of 69

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



Page 25 of 69

9. CONDUCTED SPURIOUS EMISSION

9.1. MEASUREMENT PROCEDURE

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 3, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 4. Set SPA Trace 1 Max hold, then View.

Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The same as described in section 8.2.

9.3. MEASUREMENT EQUIPMENT USED

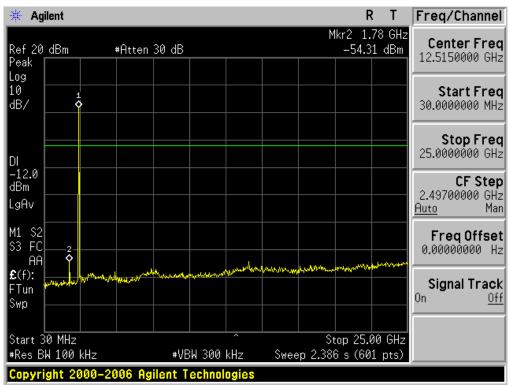
The same as described in section 6.

9.4. LIMITS AND MEASUREMENT RESULT

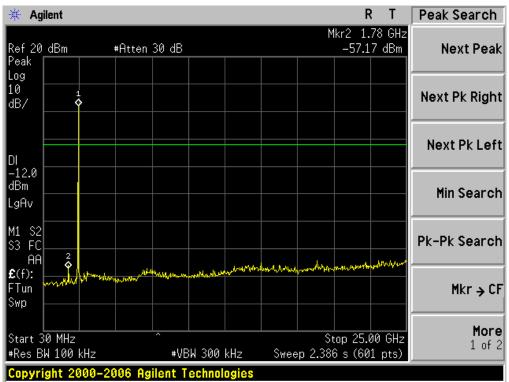
LIMITS AND MEASUREMENT RESULT				
Angliaghla Limite	Measurement Result			
Applicable Limits	Test Data	Criteria		
In any 100 KHz Bandwidth Outside the	At least -20dBc than the limit			
frequency band in which the spread spectrum	Specified on the BOTTOM	PASS		
intentional radiator is operating, the radio frequency	Channel			
power that is produce by the intentional radiator				
shall be at least 20 dB below that in 100KHz				
bandwidth within the band that contains the highest				
level of the desired power.	At least -20dBc than the limit	DACC		
In addition, radiation emissions which fall in the	Specified on the TOP Channel	PASS		
restricted bands, as defined in §15.205(a), must also				
comply with the radiated emission limits specified				
in§15.209(a))				

Page 26 of 69

TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE OF 802.11b FOR MODULATION IN LOW CHANNEL

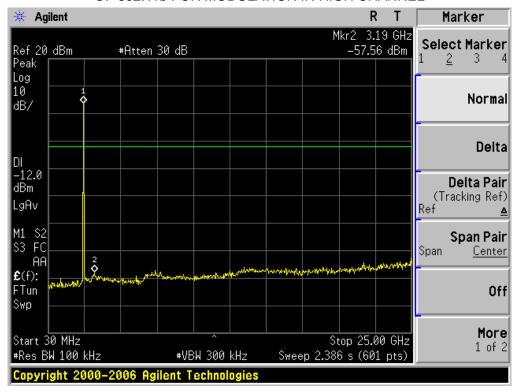


TEST PLOT OF OUT OF BAND EMISSIONS
OF 802.11b FOR MODULATION IN MIDDLE CHANNEL



Page 27 of 69

TEST PLOT OF OUT OF BAND EMISSIONS OF 802.11b FOR MODULATION IN HIGH CHANNEL



Page 28 of 69

10. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY

10.1 MEASUREMENT PROCEDURE

- (1). The EUT was placed on a turn table which is 0.8m above ground plane.
- (2). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- (3). Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- (4). Set SPA Trace 1 Max hold, then View.

10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 8.2.

10.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.

10.4 LIMITS AND MEASUREMENT RESULT

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11b with data rate 1

Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-10.84	8	Pass
Middle Channel	-10.48	8	Pass
High Channel	-7.77	8	Pass

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11g with data rate 6

Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-16.25	8	Pass
Middle Channel	-16.24	8	Pass
High Channel	-14.36	8	Pass

Page 29 of 69

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11n 20 with data rate 6.5

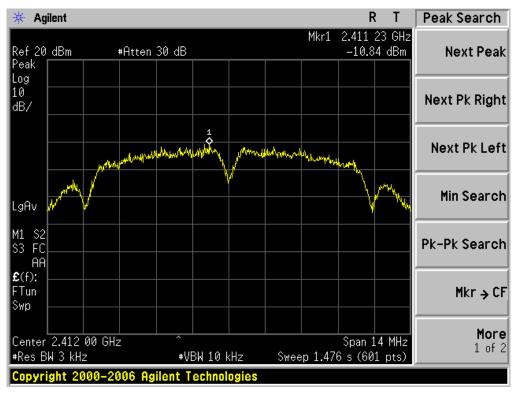
Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-17.85	8	Pass
Middle Channel	-16.64	8	Pass
High Channel	-15.75	8	Pass

TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11n 40 with data rate 13.5

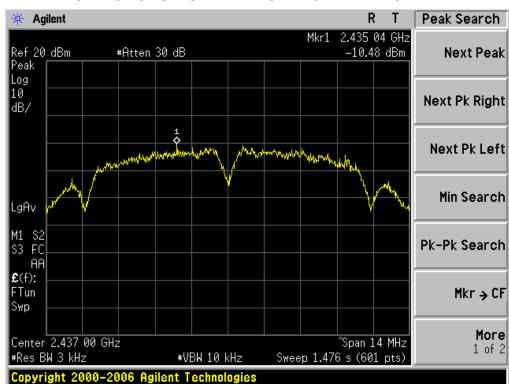
Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-21.53	8	Pass
Middle Channel	-22.15	8	Pass
High Channel	-19.26	8	Pass

Page 30 of 69

802.11b TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

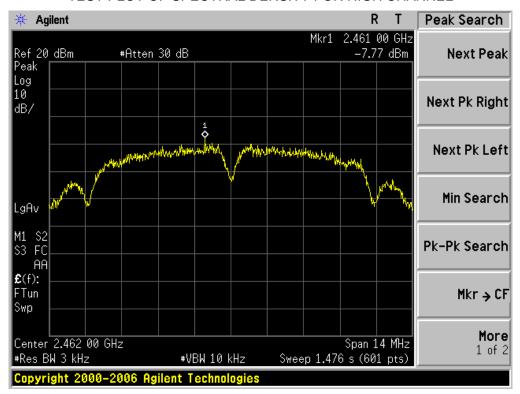


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



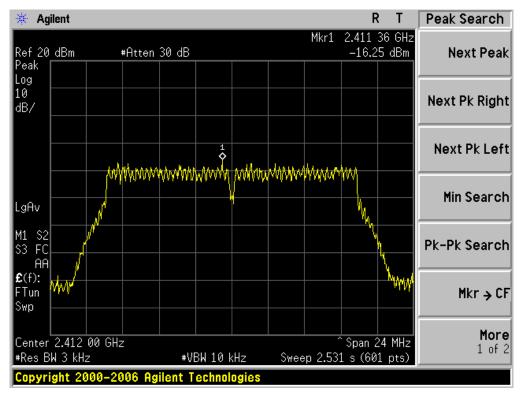
Page 31 of 69

TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

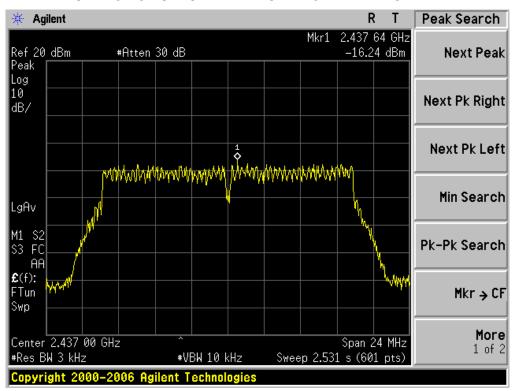


Page 32 of 69

802.11g TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

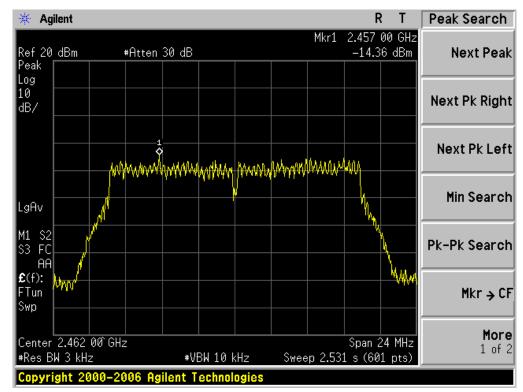


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



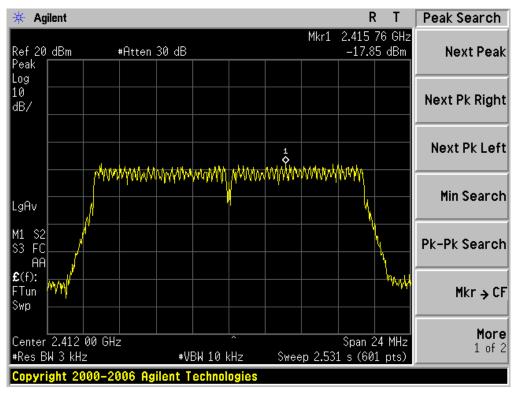
Page 33 of 69

TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

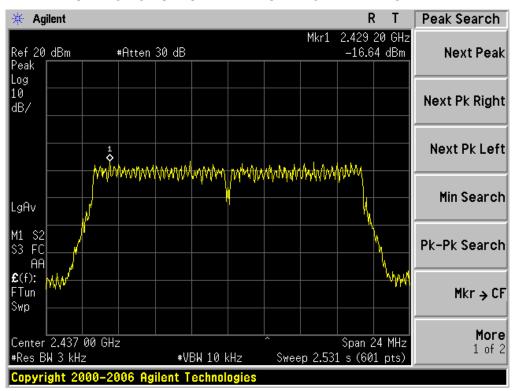


Page 34 of 69

802.11n 20 TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

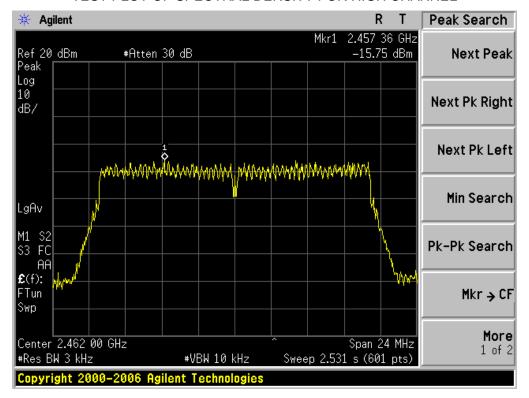


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



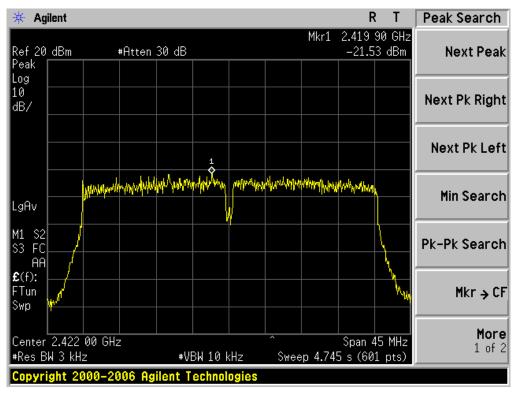
Page 35 of 69

TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

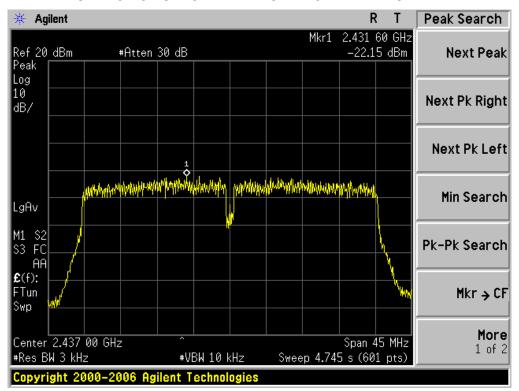


Page 36 of 69

802.11n 40 TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

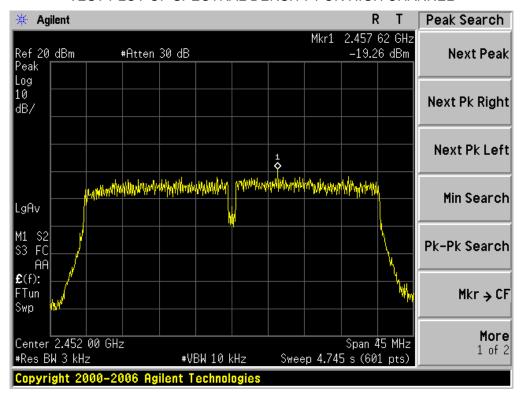


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



Page 37 of 69

TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



Page 38 of 69

11. RADIATED EMISSION

11.1. MEASUREMENT PROCEDURE

- 1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

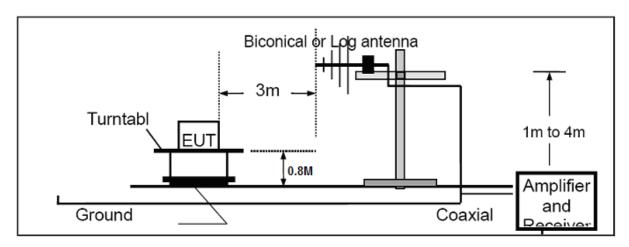
Page 39 of 69

11.2. TEST SETUP

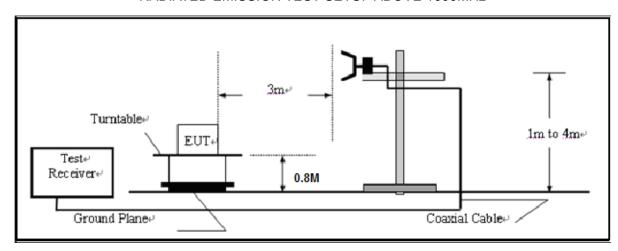
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



Page 40 of 69

11.3. LIMITS AND MEASUREMENT RESULT

15.209(a) Limit in the below table has to be followed

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: All modes were tested For restricted band radiated emission,

the test records reported below are the worst result compared to other modes.

11.4. TEST RESULT

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

Temperature: 26

Humidity: 60 %

Page 41 of 69

RADIATED EMISSION BELOW 1GHZ

EUT	3G Mobile Phone Model Name		C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal
Limit: FCC Class B 3M Radiation Power:

EUT: 3G Mobile Phone

M/N: C1

Mode: Low Channel TX

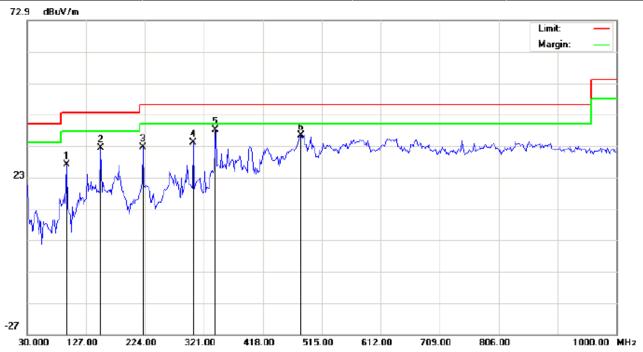
Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		94.6667	12.73	15.06	27.79	43.50	-15.71	peak			
2		157.7167	18.96	13.85	32.81	43.50	-10.69	peak			
3		293.5167	17.77	17.06	34.83	46.00	-11.17	peak			
4	*	340.4000	20.64	18.98	39.62	46.00	-6.38	peak			
5		523.0833	15.23	20.27	35.50	46.00	-10.50	peak			
6		568.3500	11.85	24.28	36.13	46.00	-9.87	peak			

Distance: 3m

Page 42 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

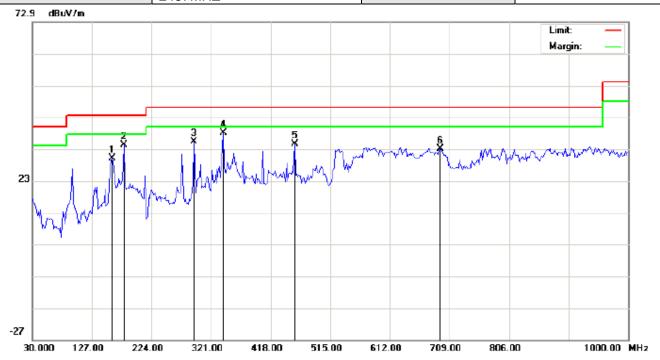
M/N: C1

Mode: Low Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		94.6667	11.87	15.06	26.93	43.50	-16.57	peak			
2		151.2500	18.84	13.41	32.25	43.50	-11.25	peak			
3		220.7666	20.15	12.47	32.62	46.00	-13.38	peak			
4		303.2167	16.92	17.21	34.13	46.00	-11.87	peak			
5	*	340.3999	19.00	18.98	37.98	46.00	-8.02	peak			
6		481.0500	14.60	21.74	36.34	46.00	-9.66	peak			

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

Mode: Middle Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		159.3333	16.18	13.96	30.14	43.50	-13.36	peak			
2		178.7333	22.33	12.03	34.36	43.50	-9.14	peak			
3		293.5167	18.27	17.06	35.33	46.00	-10.67	peak			
4	*	340.4000	19.14	18.98	38.12	46.00	-7.88	peak			
5		456.8000	12.94	21.51	34.45	46.00	-11.55	peak			
6		694.4500	10.10	22.96	33.06	46.00	-12.94	peak			

Page 44 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Vertical



Site: site #1

Limit: FCC Class B 3M Radiation

EUT: 3G Mobile Phone

M/N: C1

Mode: Middle Channel TX

Note:

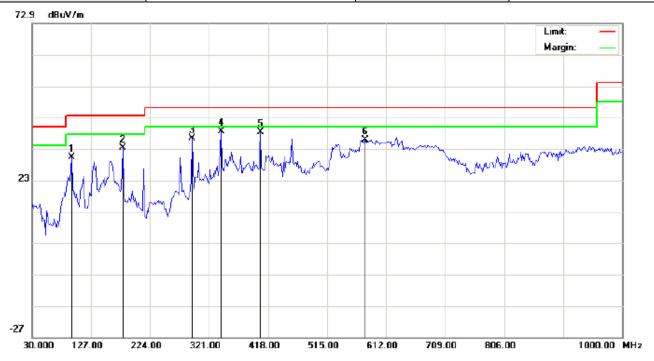
Polarization:	Vertical	Temperature: :	26
Power:		Humidity: 60 9	%

Distance: 3m

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		151.2500	20.84	13.41	34.25	43.50	-9.25	peak			
2		220.7666	19.65	12.47	32.12	46.00	-13.88	peak			
3		303.2167	17.92	17.21	35.13	46.00	-10.87	peak			
4	*	340.3999	19.00	18.98	37.98	46.00	-8.02	peak			
5		396.9832	21.53	16.34	37.87	46.00	-8.13	peak			
6		662.1167	12.22	23.82	36.04	46.00	-9.96	peak			

Page 45 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

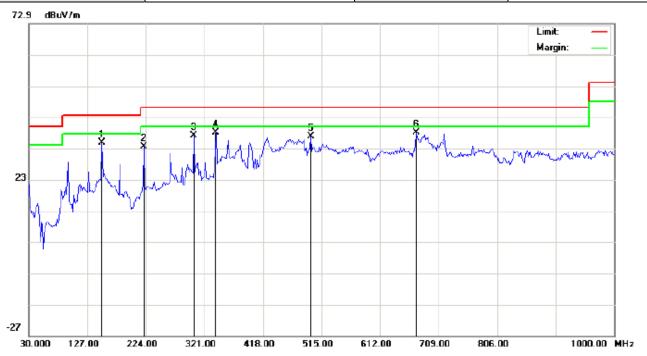
Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1		94.6667	15.23	15.06	30.29	43.50	-13.21	peak			
2		178.7333	21.33	12.03	33.36	43.50	-10.14	peak			
3		293.5167	19.27	17.06	36.33	46.00	-9.67	peak			
4	*	340.4000	19.64	18.98	38.62	46.00	-7.38	peak			
5		405.0667	21.17	17.00	38.17	46.00	-7.83	peak			
6		578.0500	11.21	24.60	35.81	46.00	-10.19	peak			

Page 46 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

Mode: High Channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		151.2500	21.34	13.41	34.75	43.50	-8.75	peak			
2		220.7666	21.15	12.47	33.62	46.00	-12.38	peak			
3		303.2167	19.92	17.21	37.13	46.00	-8.87	peak			
4		340.3999	19.00	18.98	37.98	46.00	-8.02	peak			
5		497.2167	13.98	22.78	36.76	46.00	-9.24	peak			
6	*	671.8166	14.18	23.82	38.00	46.00	-8.00	peak			

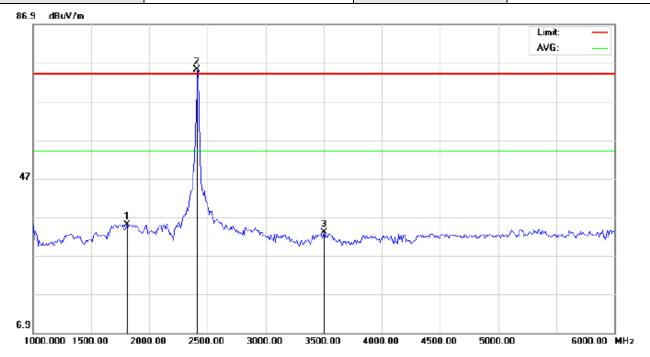
RESULT: PASS

Note: Measurement= Reading + Factor, Over=Measure-Limit.

Page 47 of 69

RADIATED EMISSION ABOVE 1GHZ

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

Mode: Low channel

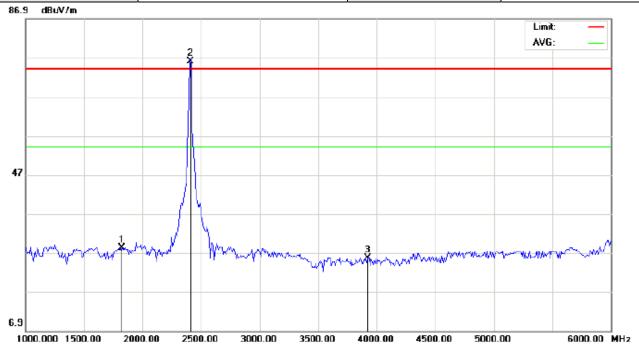
Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		1808.333	35.08	0.00	35.08	74.00	-38.92	peak			
2	*	2412.000	75.16	0.00	75.16	74.00	1.16	peak			
3		3500.000	32.91	0.00	32.91	74.00	-41.09	peak			

^{**}The mark 2 is the basic frequency.

Page 48 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

Mode: Low channel

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		1825.000	28.19	0.00	28.19	74.00	-45.81	peak			
2	*	2412.000	75.92	0.00	75.92	74.00	1.92	peak			
3		3925.000	25.68	0.00	25.68	74.00	-48.32	peak			

^{**}The mark 2 is the basic frequency.

RESULT: PASS

Note: The other modes radiation emissions have more than 20dB margin.

Measurement= Reading + Factor, Over=Measure-Limit.

All modes radiation emission from 6GHz to 25GHz at least have 20dB margin.

Page 49 of 69

12. BAND EDGE EMISSION

12.1. MEASUREMENT PROCEDURE

- 1. Set the EUT Work on the top, the bottom operation frequency individually.
- 2. Set SPA Start or Stop Frequency = Operation Frequency, RBW>=1%span, VBW>=RBW
- 3. The band edges was measured and recorded.

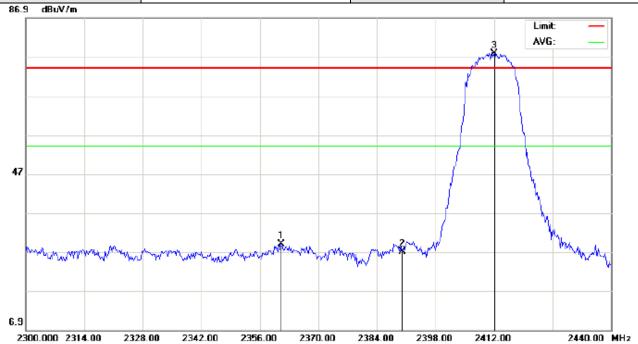
12.2. TEST SET-UP

Radiated same as 11.2

Page 50 of 69

12.3. TEST RESULT

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

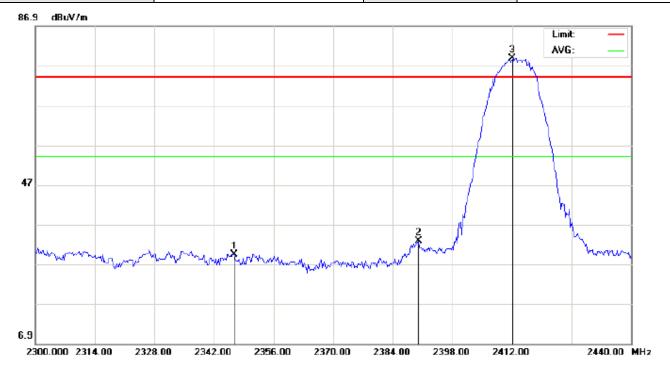
M/N: C1

Mode: 802.11b Low channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2361.133	28.98	0.00	28.98	74.00	-45.02	peak			
2		2390.001	27.10	0.00	27.10	74.00	-46.90	peak			
3	*	2412.001	77.73	0.00	77.73	74.00	3.73	peak			

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

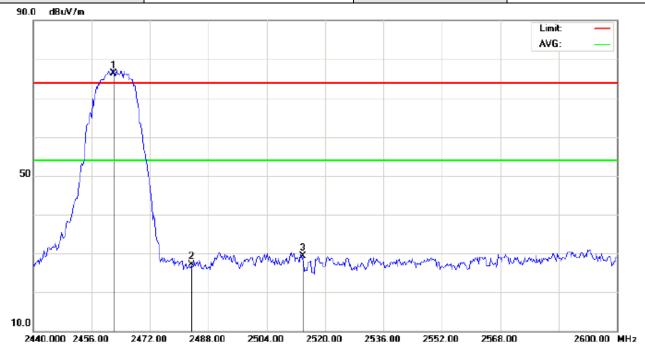
Mode: 802.11b Low channel TX

Note:

No	. Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		2346.667	29.49	0.00	29.49	74.00	-44.51	peak			
2		2390.000	32.75	0.00	32.75	74.00	-41.25	peak			
3	*	2412.002	78.86	0.00	78.86	74.00	4.86	peak			

Page 52 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

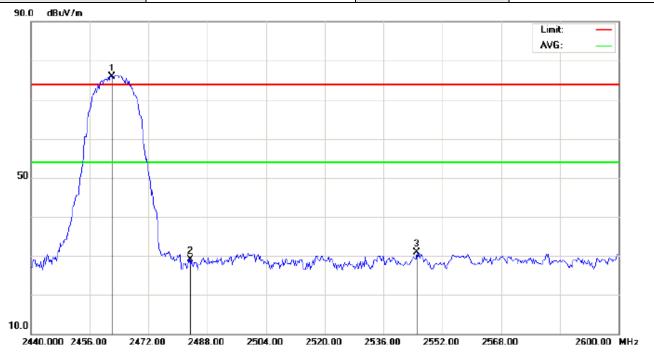
Mode: 802.11b High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1	*	2462.000	76.26	0.00	76.26	74.00	2.26	peak			
2		2483.500	27.08	0.00	27.08	74.00	-46.92	peak			
3		2513.867	29.40	0.00	29.40	74.00	-44.60	peak			

Page 53 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

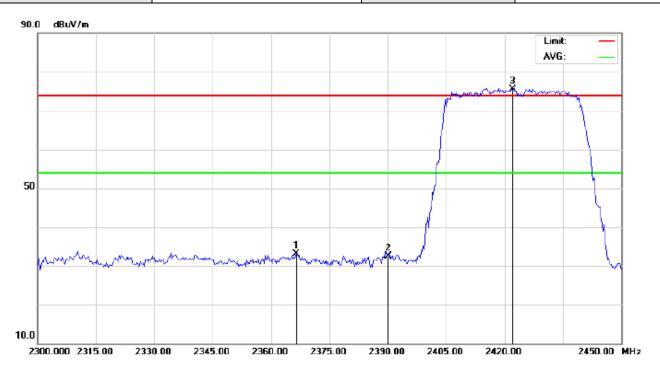
M/N: C1

Mode: 802.11b High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	2462.001	75.99	0.00	75.99	74.00	1.99	peak			
2		2483.500	29.13	0.00	29.13	74.00	-44.87	peak			
3		2545.067	30.95	0.00	30.95	74.00	-43.05	peak			

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2422MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

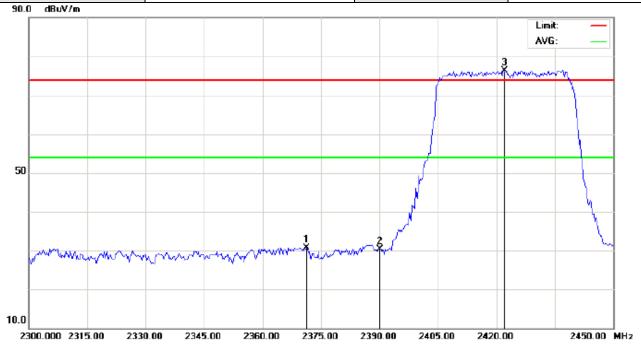
Mode: 802.11n40 Low channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2366.500	33.10	0.00	33.10	74.00	-40.90	peak			
2		2390.040	32.56	0.00	32.56	74.00	-41.44	peak			
3	*	2422.003	75.43	0.00	75.43	74.00	1.43	peak			

Page 55 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2422MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

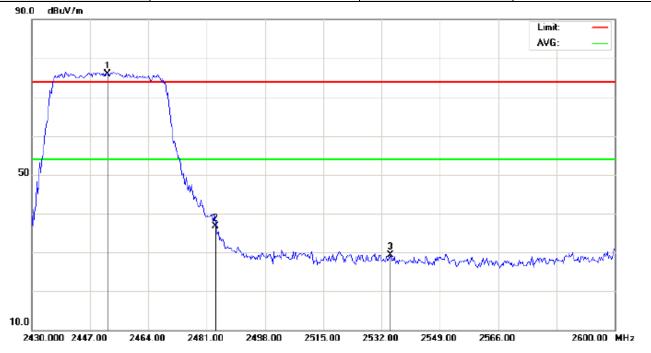
Mode: 802.11n40 Low channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	•	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2371.250	30.76	0.00	30.76	74.00	-43.24	peak			
2		2390.001	30.31	0.00	30.31	74.00	-43.69	peak			
3	*	2422.002	76.37	0.00	76.37	74.00	2.37	peak			

Page 56 of 69

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2452MHZ	Antenna	Horizontal



Site: site #1 Polarization: Horizontal Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

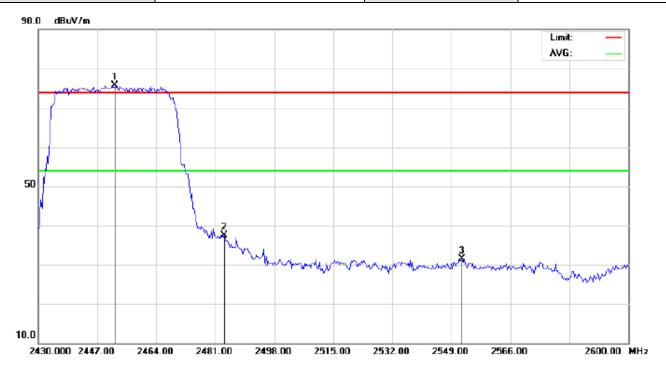
M/N: C1

Mode: 802.11n40 High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	2452.010	76.00	0.00	76.00	74.00	2.00	peak			
2		2483.500	36.73	0.00	36.73	74.00	-37.27	peak			
3		2534.550	29.35	0.00	29.35	74.00	-44.65	peak			

EUT	3G Mobile Phone	Model Name	C1
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11n 40 with data rate 13.5 2452MHZ	Antenna	Vertical



Site: site #1 Polarization: Vertical Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: 3G Mobile Phone Distance: 3m

M/N: C1

Mode: 802.11n40 High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1	*	2452.030	75.70	0.00	75.70	74.00	1.70	peak			
2		2483.502	37.42	0.00	37.42	74.00	-36.58	peak			
3		2552.117	31.50	0.00	31.50	74.00	-42.50	peak			

RESULT: PASS

Note: the other modes radiation emission have enough 20dB margin.

Measurement= Reading + Factor, Over=Measure-Limit.

Page 58 of 69

13. FCC LINE CONDUCTED EMISSION TEST

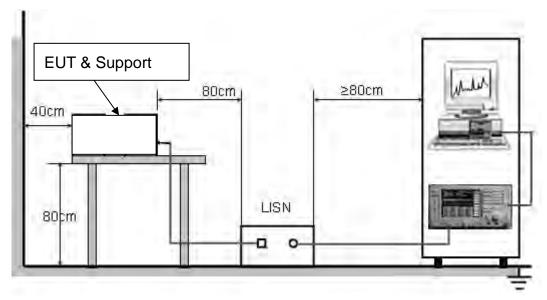
13.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Francisco	Maximum RF Line Voltage						
Frequency	Q.P.(dBuV)	Average(dBuV)					
150kHz~500kHz	66-56	56-46					
500kHz~5MHz	56	46					
5MHz~30MHz	60	50					

Note:

- 1. The lower limit shall apply at the transition frequency.
- 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

13.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



Page 59 of 69

13.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

- 2. Support equipment, if needed, was placed as per ANSI C63.4.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4. All support equipments received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received DC5V charging voltage by adapter which received 120V/60Hzpower by a LISN...
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

13.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

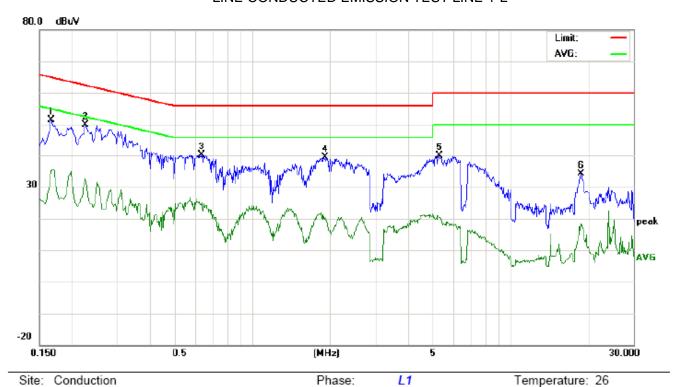
- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.

Humidity: 60 %

Page 60 of 69

13.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST LINE 1-L



Limit: FCC Class B Conduction(QP)

EUT: 3G Mobile Phone

M/N: C1

Mode: Normal Operating(WiFi)

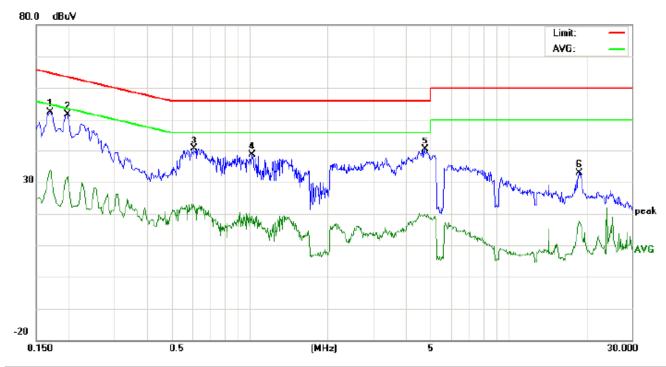
Note:

No.	No. Freq.		Reading_Level (dBuV)		Correct Factor	Measurement (dBuV)			Limit M (dBuV)		Mai (d	rgin IB)	P/F	Comment
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1660	41.25		24.88	10.18	51.43		35.06	65.15	55.15	-13.72	-20.09	Р	
2	0.2260	39.69		22.41	10.24	49.93		32.65	62.59	52.59	-12.66	-19.94	Р	
3	0.6340	29.81		14.77	10.32	40.13		25.09	56.00	46.00	-15.87	-20.91	Р	
4	1.9135	29.16		10.20	10.25	39.41		20.45	56.00	46.00	-16.59	-25.55	Р	
5	5.3258	29.73		10.03	10.25	39.98		20.28	60.00	50.00	-20.02	-29.72	Р	
6	18.7774	23.97		8.13	10.12	34.09		18.25	60.00	50.00	-25.91	-31.75	Р	

Power:

Page 61 of 69

Line Conducted Emission Test Line 2-N



Site: Conduction Phase: N Temperature: 26
Limit: FCC Class B Conduction(QP) Power: Humidity: 60 %

EUT: 3G Mobile Phone

M/N: C1

Mode: Normal Operating(WiFi)

Note:

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1700	42.32		23.63	10.18	52.50		33.81	64.96	54.96	-12.46	-21.15	Р	
2	0.1980	41.39		21.49	10.21	51.60		31.70	63.69	53.69	-12.09	-21.99	Р	
3	0.6097	30.33		12.86	10.31	40.64		23.17	56.00	46.00	-15.36	-22.83	Р	
4	1.0260	28.26		8.72	10.37	38.63		19.09	56.00	46.00	-17.37	-26.91	Р	
5	4.7698	30.25		9.62	10.23	40.48		19.85	56.00	46.00	-15.52	-26.15	Р	
6	18.7334	22.88		7.51	10.12	33.00		17.63	60.00	50.00	-27.00	-32.37	Р	

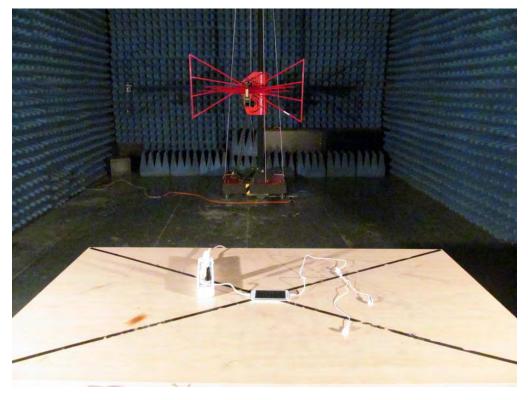
Page 62 of 69

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



Page 63 of 69

APPENDIX B: PHOTOGRAPHS OF EUT

TOTAL VIEW OF EUT



TOP VIEW OF EUT



Page 64 of 69

BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



Page 65 of 69

BACK VIEW OF EUT



LEFT VIEW OF EUT



Page 66 of 69

RIGHT VIEW OF EUT







Page 67 of 69

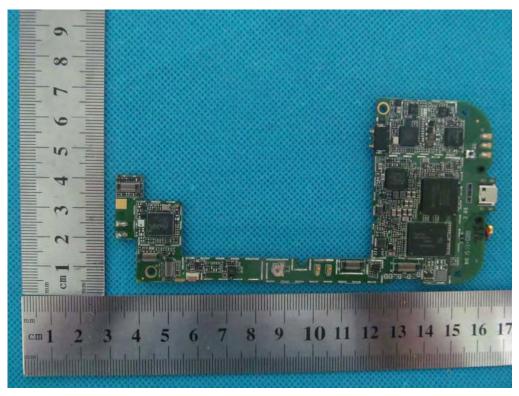
OPEN VIEW OF EUT-2



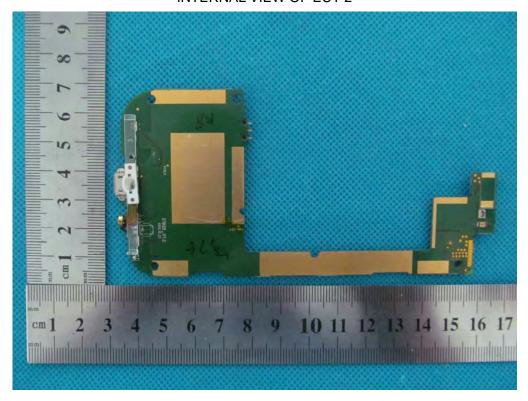
OPEN VIEW OF EUT-3



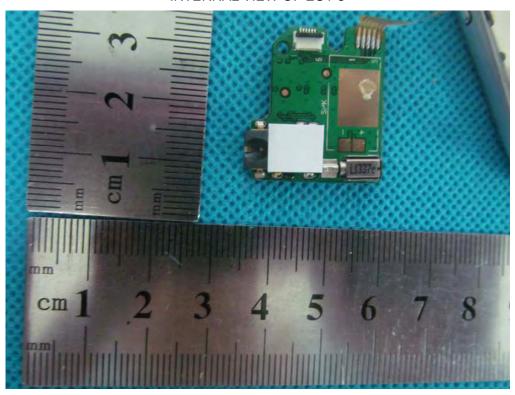
INTERNAL VIEW OF EUT-1



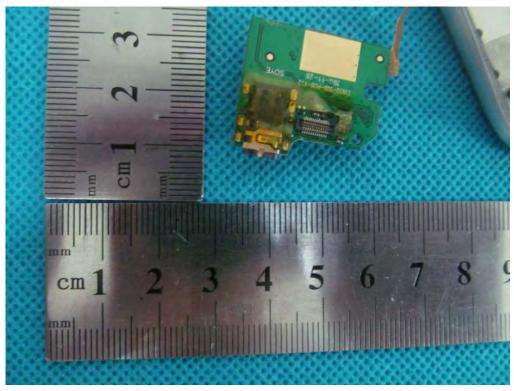
INTERNAL VIEW OF EUT-2



INTERNAL VIEW OF EUT-3



INTERNAL VIEW OF EUT-4



----END OF REPORT----