

Report No.: AGC00068130903FE04 Page 1 of 73

FCC Test Report

Report No.: AGC00068130903FE04

FCC ID : Z3JQT900

APPLICATION PURPOSE: Original Equipment

PRODUCT DESIGNATION: GSM Mobile Phone

BRAND NAME : G'FIVE

MODEL NAME : QT900

CLIENT: G'FIVE INTERNATIONAL LIMITED

DATE OF ISSUE : Oct. 14, 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.

Report No.: AGC00068130903FE04 Page 2 of 73

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Oct. 14, 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	ε
	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	9
	5.2. EQUIPMENT USED IN EUT SYSTEM	9
	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)	12
	7.3. LIMITS AND MEASUREMENT RESULT	13
8.	6DB BANDWIDTH	21
	8.1. MEASUREMENT PROCEDURE	21
	8.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	21
	8.3. LIMITS AND MEASUREMENT RESULTS	22
9.	CONDUCTED SPURIOUS EMISSION	30
	9.1. MEASUREMENT PROCEDURE	30
	9.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	30
	9.3. MEASUREMENT EQUIPMENT USED	30
	9.4. LIMITS AND MEASUREMENT RESULT	30
10	D. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY	33
	10.1 MEASUREMENT PROCEDURE	33
	10.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)	33
	10.3 MEASUREMENT EQUIPMENT USED	33
	10.4 LIMITS AND MEASUREMENT RESULT	33

11. RADIATED EMISSION	41
11.1. MEASUREMENT PROCEDURE	41
11.2. TEST SETUP	42
11.3. LIMITS AND MEASUREMENT RESULT	43
11.4. TEST RESULT	43
12. BAND EDGE EMISSION	53
12.1. MEASUREMENT PROCEDURE	53
12.2. TEST SET-UP	53
12.3. TEST RESULT	54
13. FCC LINE CONDUCTED EMISSION TEST	62
13.1. LIMITS OF LINE CONDUCTED EMISSION TEST	62
13.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST	62
13.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST	63
13.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST	63
13.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST	64
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	66
APPENDIX B: PHOTOGRAPHS OF EUT	67

Page 5 of 73

1. VERIFICATION OF CONFORMITY

G'FIVE INTERNATIONAL LIMITED		
Unit 1, 16/F, Cable TV Tower, 9 Hoi Shing Road, Tsuen Wan, N.T., HongKong		
G'FIVE Mobile (Shenzhen) Co., Ltd.		
Floor 1-5, Building F, Plant9, Shangxue Industry Park, Bantian Street, Longgang District, Shenzhen City, P. R. China		
GSM Mobile Phone		
G'FIVE		
QT900		
Sept.29, 2013 to Oct.12, 2013		
None		
Normal		
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 Oct. 14, 2013

Checked By

Kidd Yang Oct. 14, 2013

Authorized By

Solger Zhang Oct. 14, 2013

Page 6 of 73

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as "GSM 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

.,	. Let be accompanied an ionicity in			
Operation Frequency	2.412 GHz~2.462GHz			
Output Bower	IEEE 802.11b:17.46dBm; IEEE 802.11g:15.05dBm;			
Output Power	IEEE 802.11n(20):13.23dBm; IEEE 802.11n(40):11.88dBm			
Modulation	DSSS(DBPSK/DQPSK/CCK);OFDM(BPSK/QPSK/16-QAM/64-QAM)			
Number of channels	11			
Hardware Version	S812			
Software Version	N/A			
Antenna Designation	Integrated Antenna			
Antenna Gain	1.0dBi			
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 73

2.3. IEEE 802.11N MODULATION SCHEME

MCS Index	Nss	Modulation	R	NBPSC	NCBPS NDBPS		NDBPS Pata rate(Mbps) 800nsGI			
					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: Z3JQT900** filing to comply with the FCC Part 15 requirements.

2.5. TEST METHODOLOGY

Both conducted and 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.

Others testing (listed at item 5.3) was performed according to the procedures in FCC Part 15.247 rules.

2.6. SPECIAL ACCESSORIES

Refer to section 5.2.

2.7. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

Page 8 of 73

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

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:

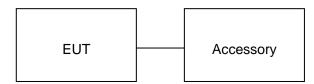
- 1. The EUT has been set to operate continuously on the lowest, middle and highest operation frequency individually.
- 2. All modes under which configure applicable have been tested and the worst mode test data recording in the test report, if no other mode data.
- 3. For Radiated Emission, 3axis were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

Page 9 of 73

5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure:



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Equipment Model No. ID or Specification		Remark	
1	GSM Mobile Phone	QT900	FCC ID: Z3JQT900	EUT	
2	Adapter	G19	DC5.0V /500mA	Accessory	
3	Battery	QT900	DC3.7V/ 950 mAh	Accessory	
4	Earphone	QT900	N/A	Accessory	
5	USB Cable	QT900	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.

Report No.: AGC00068130903FE04 Page 10 of 73

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 Probe	R&S	NRP-Z23	100323	07/17/2013	07/16/2014
RF attenuator	N/A	RFA20db	68	N/A	N/A
Spectrum Analyzer	Agilent	E4440A	US41421290	07/17/2013	07/16/2014
Amplifier	EM	EM30180	0607030	07/17/2013	07/16/2014
Horn Antenna	EM	EM-AH-10180	67	04/21/2013	04/20/2014
Horn Antenna	A.H. Systems Inc.	SAS-574		07/17/2013	07/16/2014
EMI Test Receiver	Rohde & Schwarz	ESCI	100694	07/17/2013	07/16/2014
Biological Antenna	A.H. Systems Inc.	SAS-521-4	26	06/07/2013	06/06/2014
Loop Antenna	A.H.	SAS-526B	264	07/14/2013	07/13/2014
LISN	R&S	ESH3-Z5	8389791009	07/17/2013	07/16/2014

Page 11 of 73

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. Use the following spectrum analyzer settings:

Set the RBW = 1 MHz

Set the VBW ≥ 3 RBW

Set the span ≥ 1.5 x DTS bandwidth

Detector = peak

Sweep time = auto couple

Trace mode = max hold

- 5. Allow the trace to stabilize. Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges.
- 6. Record the result form the Spectrum Analyzer.

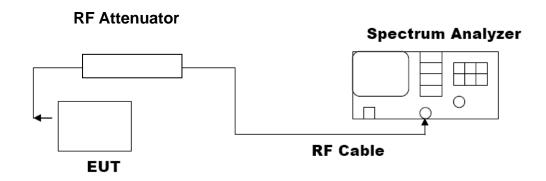
For average power test:

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

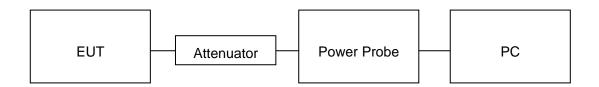
Note: The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

Page 12 of 73

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



AVERAGE POWER SETUP

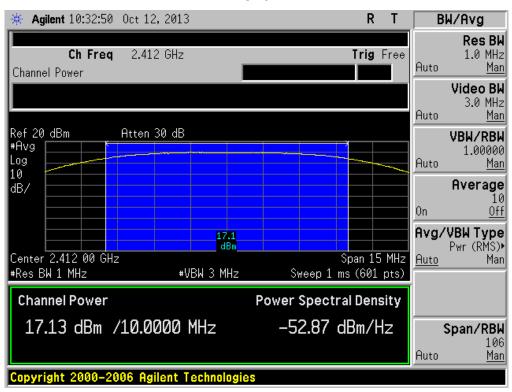


Page 13 of 73

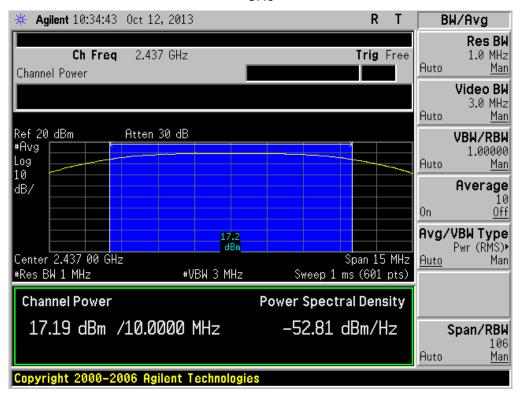
7.3. LIMITS AND MEASUREMENT RESULT

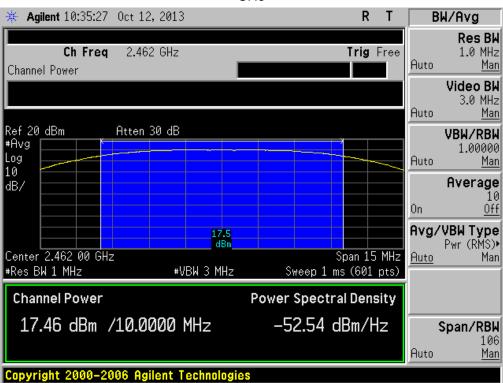
TEST ITEM	PEAK POWER
TEST MODE	802.11b with data rate 1

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	15.16	17.13	30	Pass
2.437	15.22	17.19	30	Pass
2.462	15.49	17.46	30	Pass



CH₆

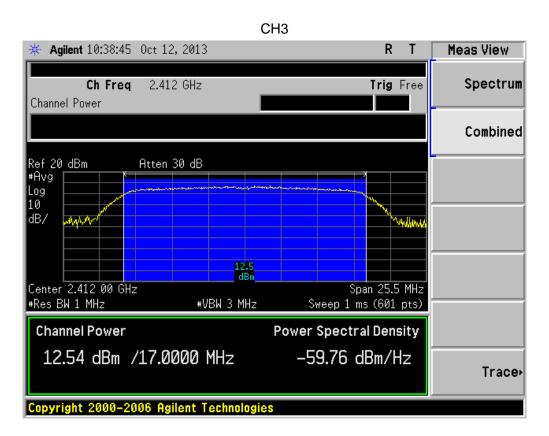




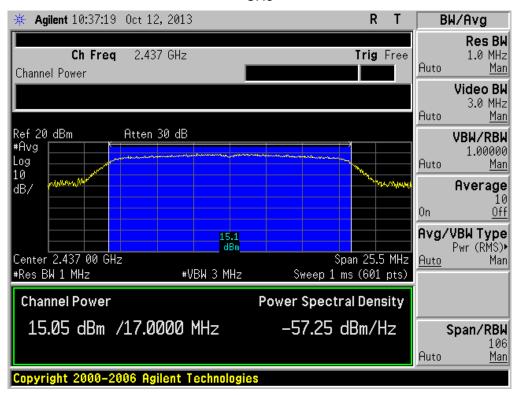
Report No.: AGC00068130903FE04 Page 15 of 73

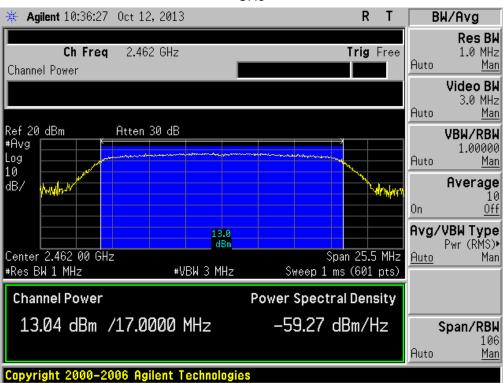
TEST ITEM	PEAK POWER
TEST MODE	802.11g with data rate 6

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	10.56	12.54	30	Pass
2.437	13.07	15.05	30	Pass
2.462	11.06	13.04	30	Pass



CH₆

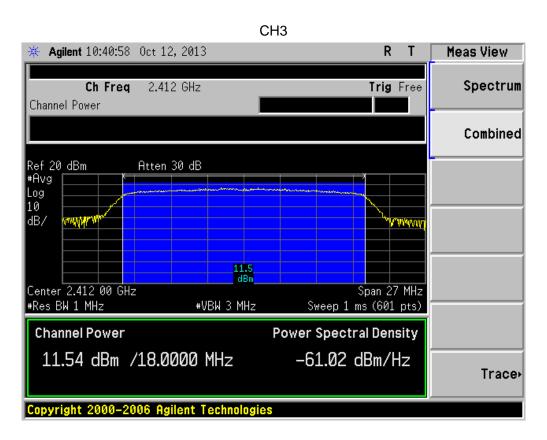




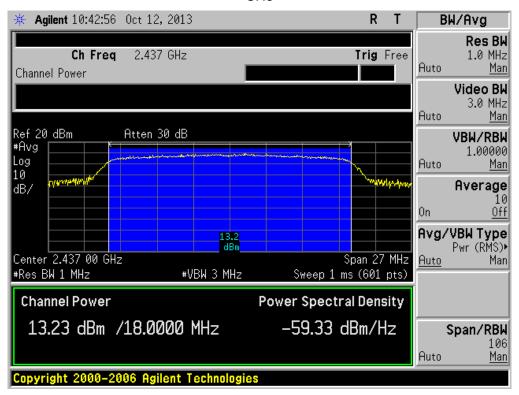
Report No.: AGC00068130903FE04 Page 17 of 73

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	9.58	11.54	30	Pass
2.437	11.27	13.23	30	Pass
2.462	10.59	12.55	30	Pass



CH₆

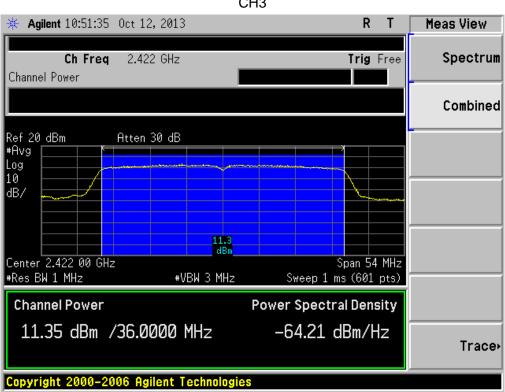




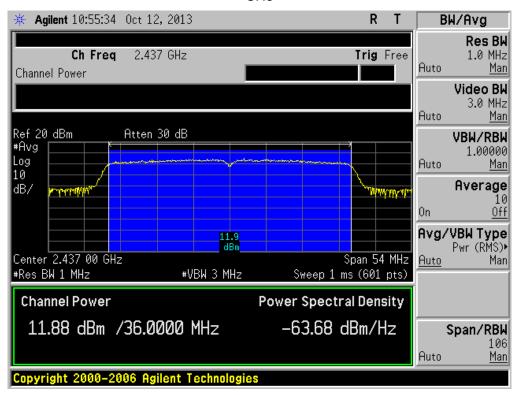
Report No.: AGC00068130903FE04 Page 19 of 73

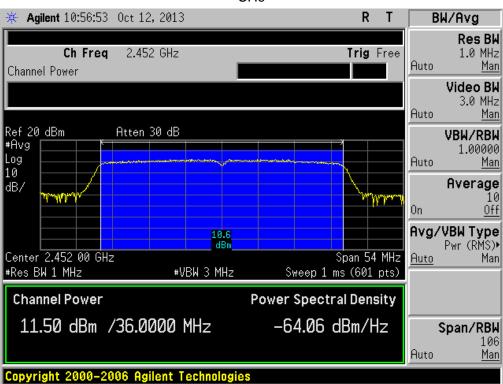
TEST ITEM	PEAK POWER
TEST MODE	802.11n 40 with data rate 13.5

	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.422	9.37	11.35	30	Pass
2.437	9.90	11.88	30	Pass
2.452	9.52	11.50	30	Pass



CH₆





Page 21 of 73

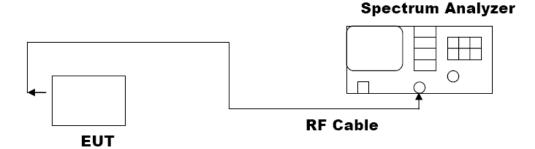
8. 6DB BANDWIDTH

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.
- 4. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW≥RBW.
- 5. 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 22 of 73

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	10.079	PASS	
>500KHZ	Middle Channel	10.069	PASS	
	High Channel	10.022	PASS	

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

LIMITS AND MEASUREMENT RESULT			
Annliachta Limita	Applicable Limits		
Applicable Limits	Test Data (MHz)		Criteria
>500KHZ	Low Channel	15.168	PASS
	Middle Channel	15.697	PASS
	High Channel	15.137	PASS

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

LIMITS AND MEASUREMENT RESULT			
Ammiinahin Limita	Applicable Limits		
Applicable Limits	Test Data (MHz)		Criteria
>500KHZ	Low Channel	15.173	PASS
	Middle Channel	15.147	PASS
	High Channel	15.166	PASS

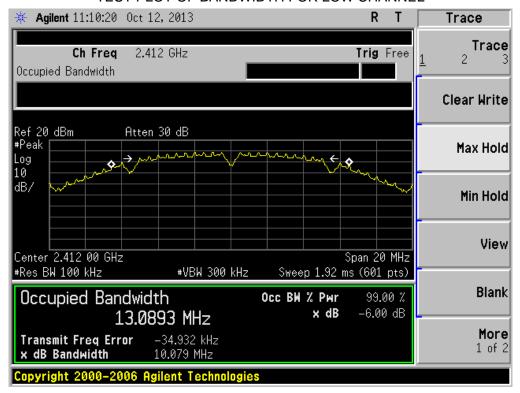
Page 23 of 73

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

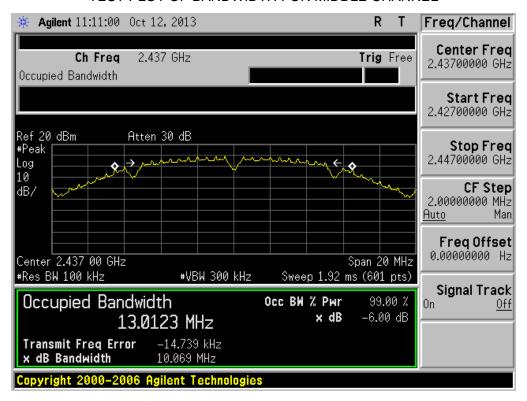
LIMITS AND MEASUREMENT RESULT			
Applicable Limits			
Applicable Limits	Test Data (MHz)		Criteria
>500KHZ	Low Channel	35.262	PASS
	Middle Channel	35.238	PASS
	High Channel	35.229	PASS

Page 24 of 73

802.11b TEST RESULTTEST PLOT OF BANDWIDTH FOR LOW CHANNEL

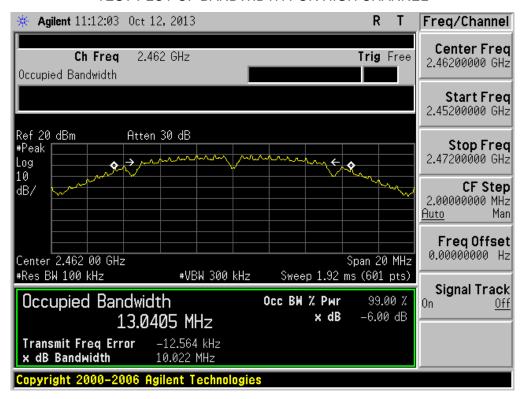


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



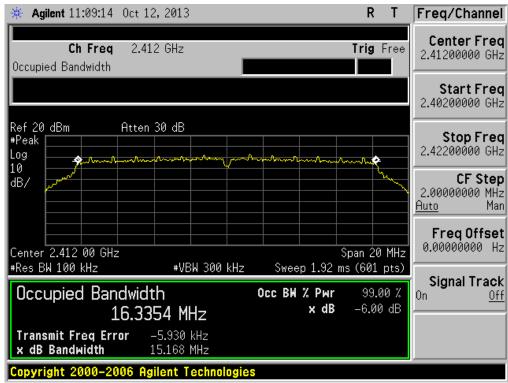
Page 25 of 73

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



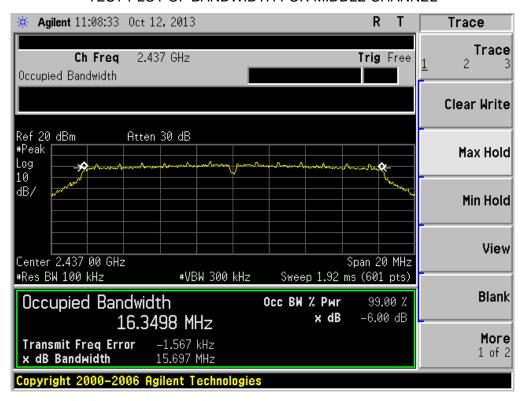
802.11g TEST RESULT

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

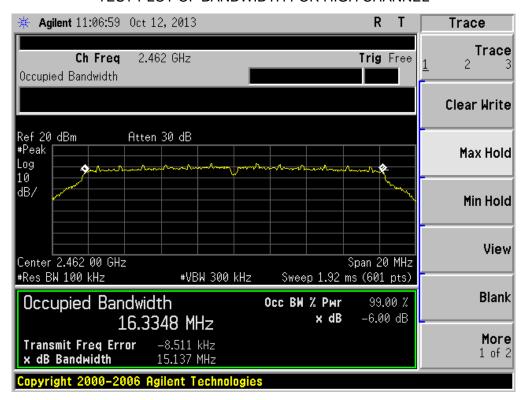


Page 26 of 73

TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

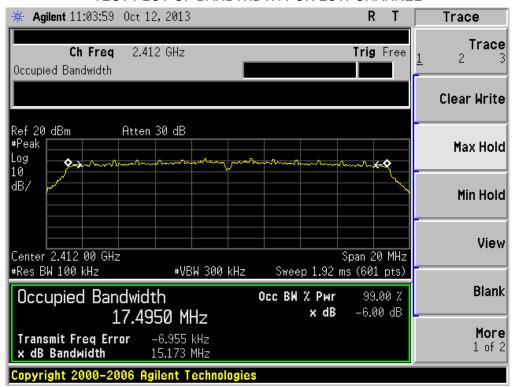


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

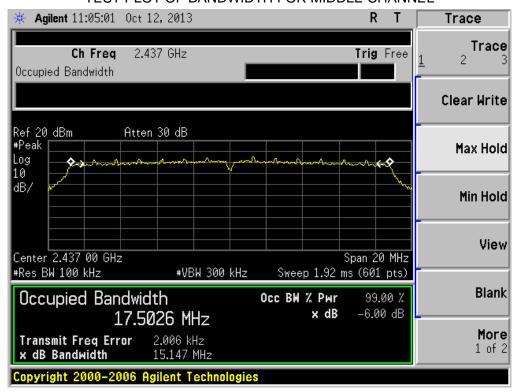


Page 27 of 73

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

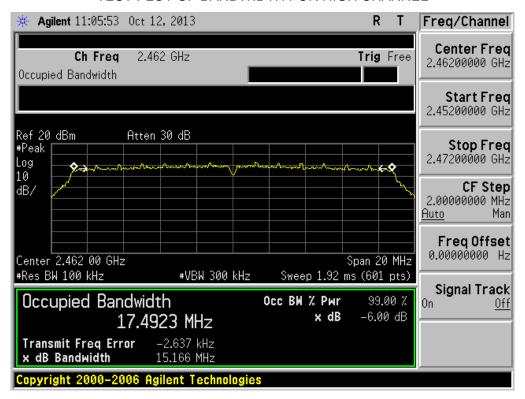


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



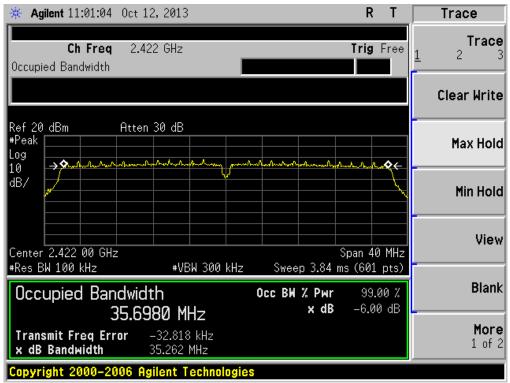
Page 28 of 73

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



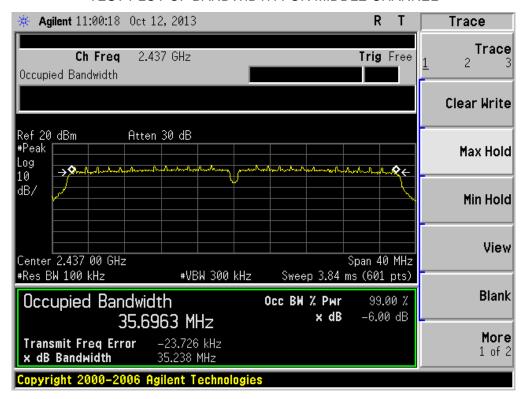
802.11n(40) TEST RESULT

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

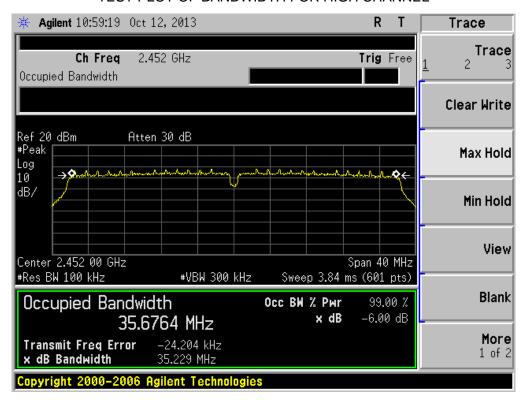


Page 29 of 73

TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



Page 30 of 73

9. CONDUCTED SPURIOUS EMISSION

9.1. 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.

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

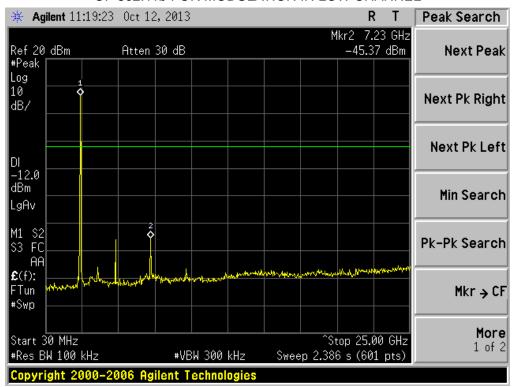
The same as described in section 6.

9.4. LIMITS AND MEASUREMENT RESULT

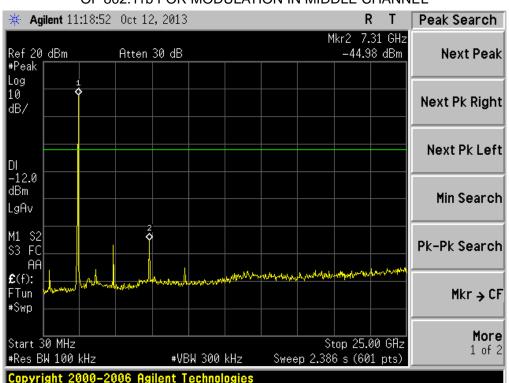
LIMITS AND MEASUREMENT RESULT			
Amuliachia Limita	Measurement Result		
Applicable Limits	Test Data	Criteria	
In any 100 KHz Bandwidth Outside the	At least -20dBc than the limit		
frequency band in which the spread spectrum	Specified on the BOTTOM	PASS	
intentional radiator is operating, the radio frequency	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	DAGO	
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 31 of 73

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

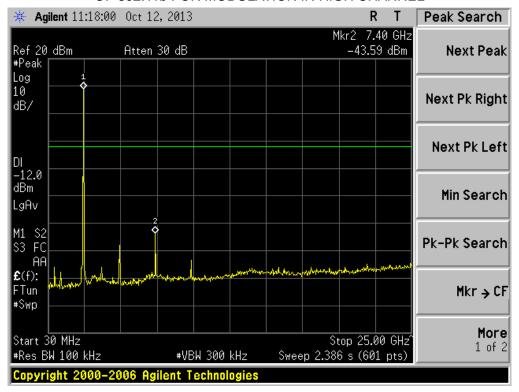


TEST PLOT OF OUT OF BAND EMISSIONS OF 802.11b FOR MODULATION IN MIDDLE CHANNEL



Page 32 of 73

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



Page 33 of 73

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.

Note: The method of PKPSD in the KDB 558074 item 10.2 was used in this testing.

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	-4.30	8	Pass
Middle Channel	-3.56	8	Pass
High Channel	-4.11	8	Pass

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

Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-11.55	8	Pass
Middle Channel	-8.95	8	Pass
High Channel	-10.40	8	Pass

Report No.: AGC00068130903FE04 Page 34 of 73

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

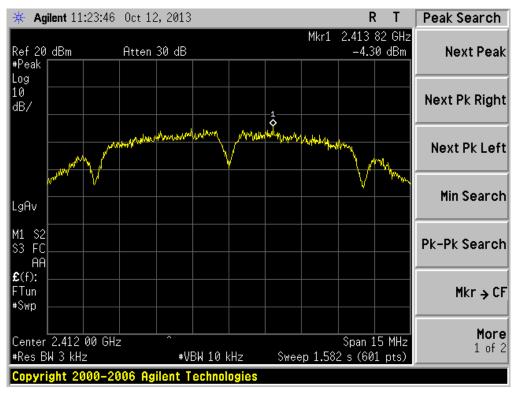
Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-11.69	8	Pass
Middle Channel	-9.52	8	Pass
High Channel	-10.94	8	Pass

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

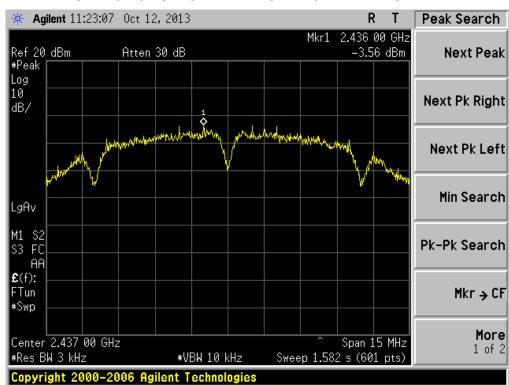
Channel No.	PSD (dBm)	Limit (dBm)	Result
Low Channel	-17.08	8	Pass
Middle Channel	-15.28	8	Pass
High Channel	-14.79	8	Pass

Page 35 of 73

802.11b TEST RESULT
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

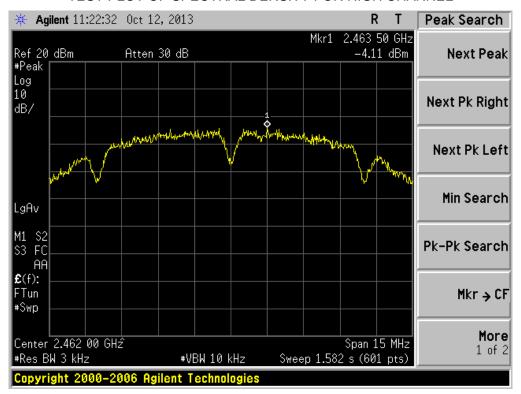


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

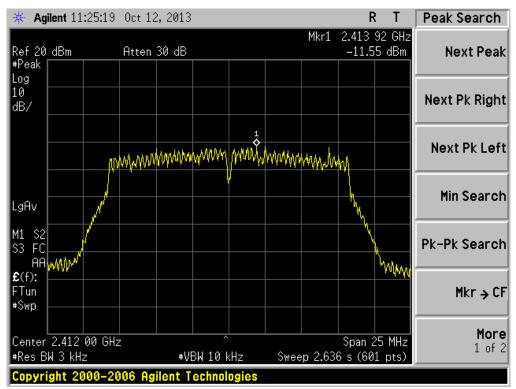


Page 36 of 73

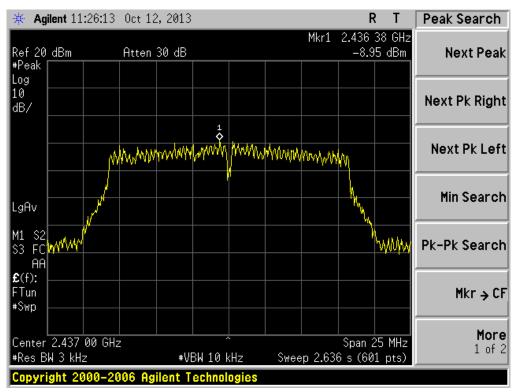
TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



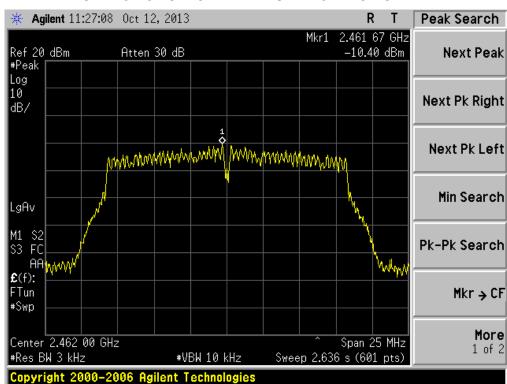
802.11g TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

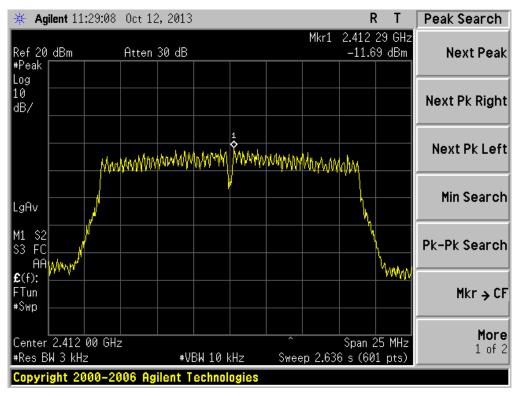


TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

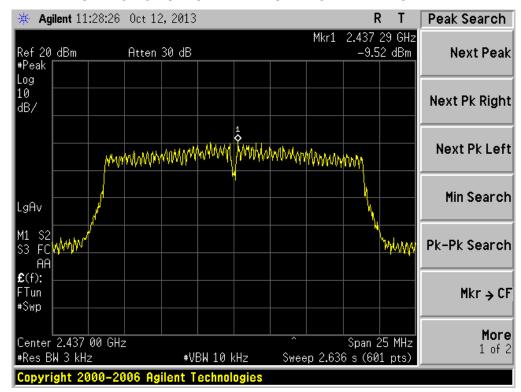


Page 38 of 73

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

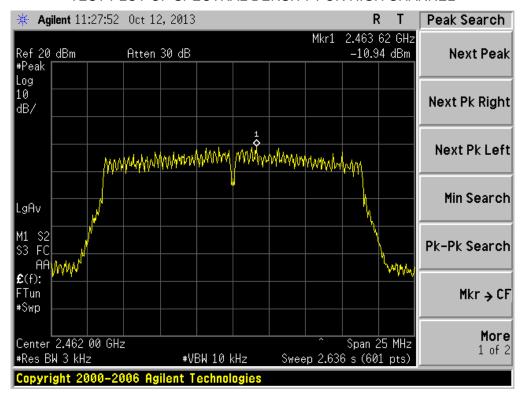


TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

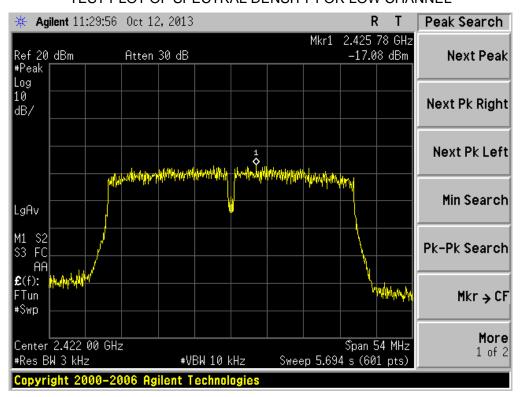


Page 39 of 73

TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

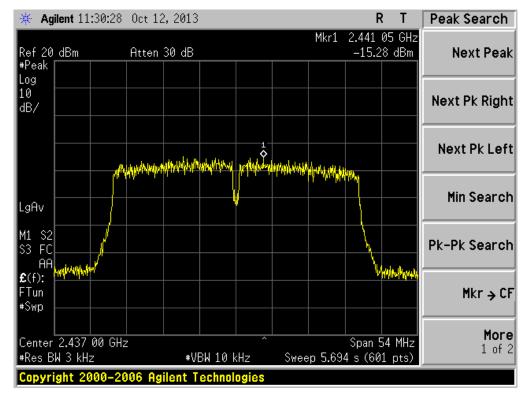


802.11n 40 TEST RESULTTEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL

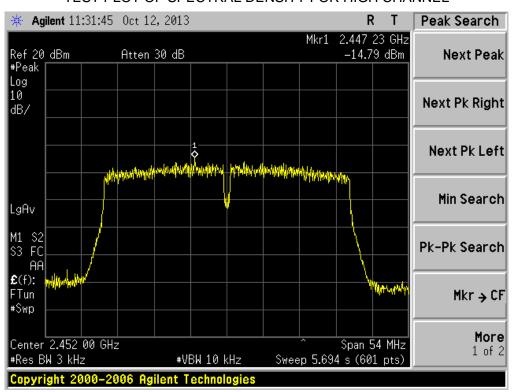


Page 40 of 73

TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



Page 41 of 73

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.

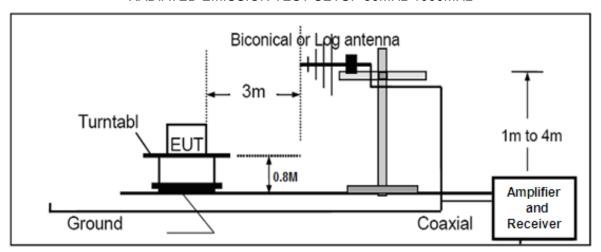
Page 42 of 73

11.2. TEST SETUP

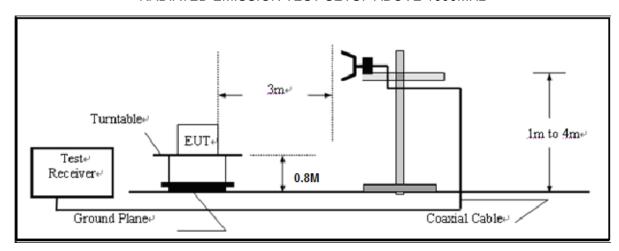
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



Page 43 of 73

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

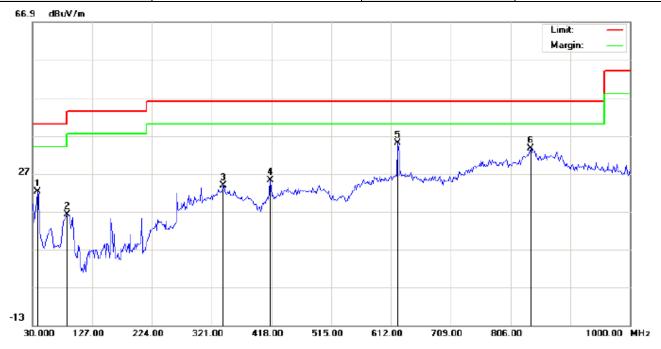
RADIATED EMISSION BELOW 30MHZ

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

Page 44 of 73

RADIATED EMISSION BELOW 1GHZ

EUT	GSM Mobile Phone	Model Name	QT900
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 Power: Humidity: 60 %

EUT: GSM Mobile Phone Distance: 3m

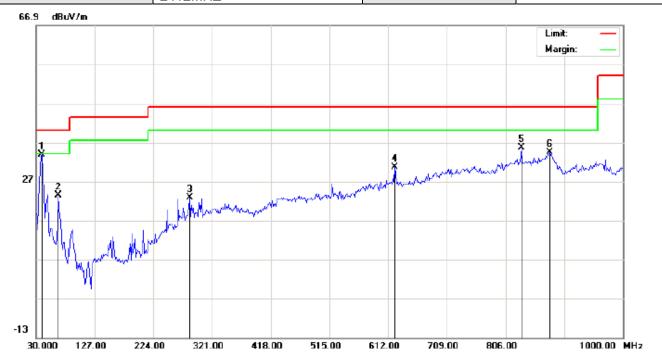
M/N: QT900

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		38.0833	13.67	8.60	22.27	40.00	-17.73	peak			
2		86.5832	3.63	12.65	16.28	40.00	-23.72	peak			
3		340.3999	3.48	20.28	23.76	46.00	-22.24	peak			
4		416.3833	5.71	19.40	25.11	46.00	-20.89	peak			
5	*	623.3165	9.23	25.86	35.09	46.00	-10.91	peak			
6		838.3333	1.07	32.49	33.56	46.00	-12.44	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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

Limit: FCC Class B 3M Radiation

EUT: GSM Mobile Phone

M/N: QT900

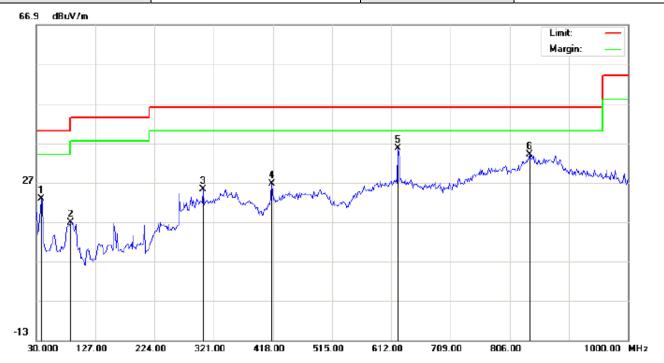
Mode: 802.11b Low channel TX

Note:

Pol	arızatıo	n:	Vertical	Temperatu	ire: 26
Pov	wer:			Humidity:	60 %
Dis	tance:	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	*	39.7000	26.20	7.64	33.84	40.00	-6.16	peak			
2		67.1833	19.82	3.64	23.46	40.00	-16.54	peak			
3		283.8167	5.48	17.31	22.79	46.00	-23.21	peak			
4		623.3165	4.68	25.86	30.54	46.00	-15.46	peak			
5		831.8667	5.74	29.88	35.62	46.00	-10.38	peak		·	
6		878.7500	2.64	31.71	34.35	46.00	-11.65	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

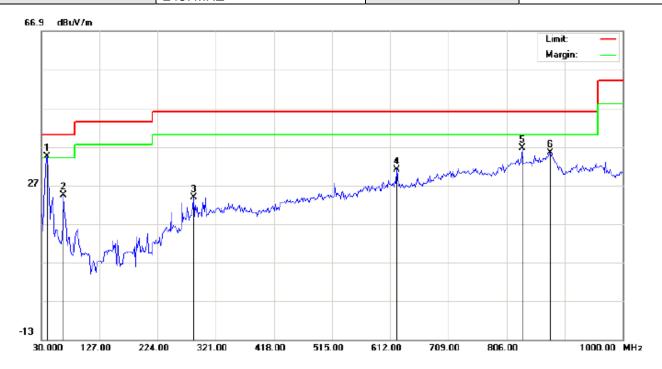
M/N: QT900

Mode: 802.11b Middle 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		38.0833	14.17	8.60	22.77	40.00	-17.23	peak			
2		86.5832	4.13	12.65	16.78	40.00	-23.22	peak			
3		303.2167	7.35	17.94	25.29	46.00	-20.71	peak			
4		416.3833	7.21	19.40	26.61	46.00	-19.39	peak			
5	*	623.3165	9.73	25.86	35.59	46.00	-10.41	peak			
6		838.3333	1.57	32.49	34.06	46.00	-11.94	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone

M/N: QT900

Mode: 802.11b Middle channel TX

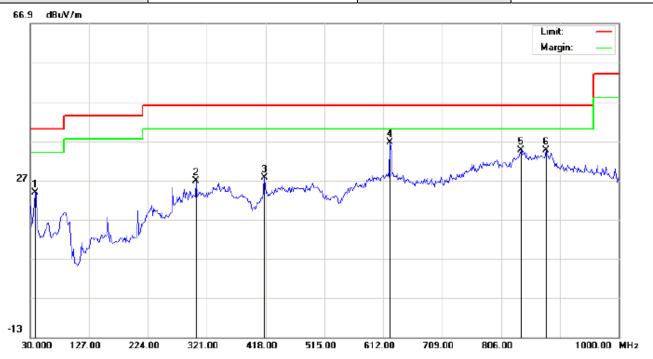
Note:

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

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	*	39.7000	26.70	7.64	34.34	40.00	-5.66	peak			
2		67.1833	20.82	3.64	24.46	40.00	-15.54	peak			
3		283.8167	6.48	17.31	23.79	46.00	-22.21	peak			
4		623.3165	5.18	25.86	31.04	46.00	-14.96	peak			
5		831.8667	6.74	29.88	36.62	46.00	-9.38	peak			
6		878.7500	3.64	31.71	35.35	46.00	-10.65	peak		·	

EUT	GSM Mobile Phone	Model Name	QT900
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

Limit: FCC Class B 3M Radiation

EUT: GSM Mobile Phone

M/N: QT900

Mode: 802.11b High channel TX

Note:

Polarization:	Horizontal	Temperature:	26
Power:		Humidity: 60	%

Distance: 3m

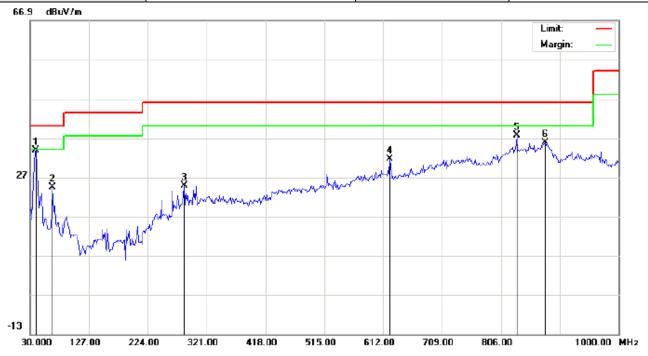
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1		38.0833	15.17	8.60	23.77	40.00	-16.23	peak			
2		303.2167	8.85	17.94	26.79	46.00	-19.21	peak			
3		416.3833	8.21	19.40	27.61	46.00	-18.39	peak			
4	*	623.3165	10.73	25.86	36.59	46.00	-9.41	peak			
5		838.3333	2.07	32.49	34.56	46.00	-11.44	peak			
6		880.3667	4.07	30.58	34.65	46.00	-11.35	peak			

Temperature: 26

Humidity: 60 %

Page 49 of 73

EUT	GSM Mobile Phone	Model Name	QT900
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Vertical



Polarization: Vertical

Site: site #1

Limit: FCC Class B 3M Radiation

EUT: GSM Mobile Phone

M/N: QT900

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	*	39.7000	26.20	7.64	33.84	40.00	-6.16	peak			
2		67.1833	20.82	3.64	24.46	40.00	-15.54	peak			
3		283.8167	7.48	17.31	24.79	46.00	-21.21	peak			
4		623.3165	5.68	25.86	31.54	46.00	-14.46	peak			
5		831.8667	7.74	29.88	37.62	46.00	-8.38	peak			
6		878.7500	4.14	31.71	35.85	46.00	-10.15	peak			

Power:

Distance: 3m

Page 50 of 73

RESULT: PASS

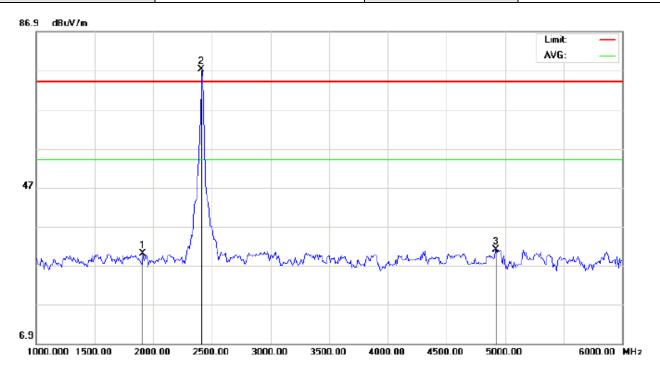
Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

Page 51 of 73

RADIATED EMISSION ABOVE 1GHZ

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

M/N: GT900

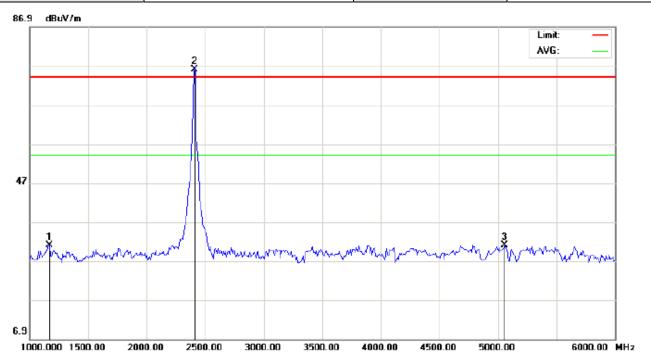
Mode: Low channel

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Ov er	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuWhn	dΒ	dBuV/m	dBu∀/m	dΒ		сm	degree	
1		1908.333	29.94	-10.22	19.72	74.00	-54.28	peak			
2	*	2412.067	84.45	-8.34	76.11	74.00	2.11	peak			
3		4925.000	31.08	-5.36	31.08	74.00	-42.92	peak			

Page 52 of 73

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

M/N: GT900

Mode: Low channel

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Ov er	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuWhn	dΒ	dBuV/m	dBu∀/m	dB		cm	degree	
1		1166.667	30.94	-10.23	30.94	74.00	-43.06	peak			
2	*	2412.086	84.06	-8.14	75.92	74.00	1.92	peak			
3		5058.333	31.08	-6.24	24.82	74.00	-49.18	peak			

RESULT: PASS

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

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

Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

Page 53 of 73

The "Factor" value can be calculated automatically by software of measurement system.

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.

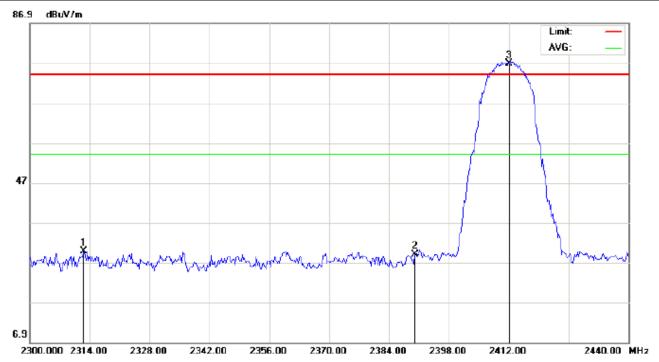
12.2. TEST SET-UP

Radiated same as 11.2

Page 54 of 73

12.3. TEST RESULT

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

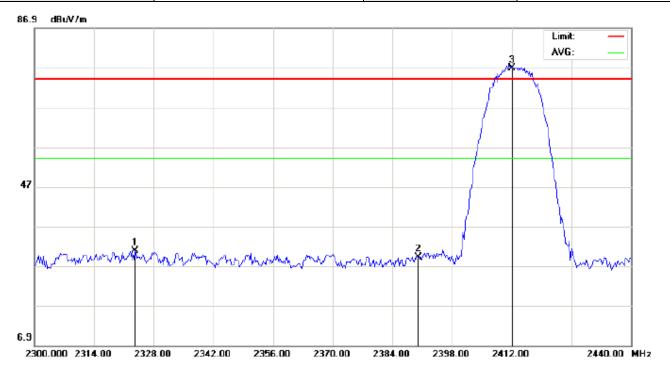
M/N: GT900

Mode: 802.11b Low channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Ov er	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		сm	degree	
1		2312.600	29.88	-8.07	21.81	74.00	-52.19	peak			
2		2390.000	29.10	-8.06	21.04	74.00	-52.96	peak			
3	*	2412.037	83.97	-8.04	75.93	74.00	1.93	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

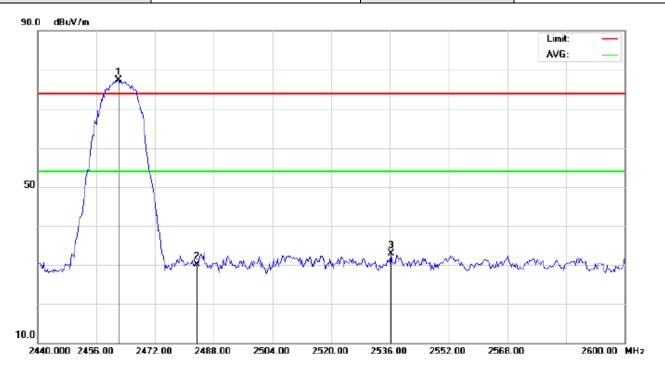
M/N: GT900

Mode: 802.11b Low channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Ov er	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuWhn	dΒ	dBuV/m	dBuV/m	dB		стп	degree	
1		2323.567	30.83	-8.06	22.77	74.00	-51.23	peak			
2		2390.000	29.25	-8.10	21.15	74.00	-52.85	peak			
3	*	2412.035	83.92	-8.07	75.85	74.00	1.85	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

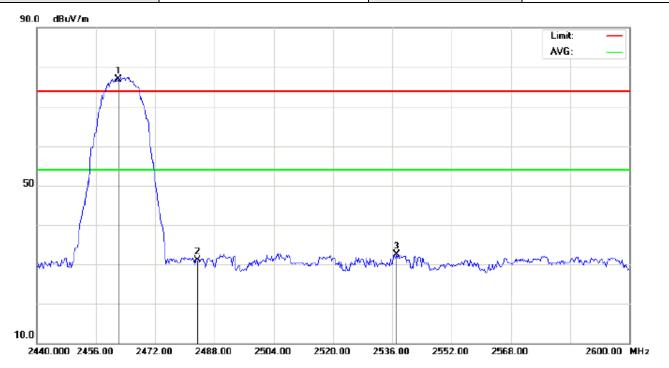
M/N: GT900

Mode: 802.11b High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height		Comment
		MHz	dBuV/m	dΒ	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2462.061	81.10	-8.05	76.05	74.00	2.05	peak			
2		2483.500	30.08	-8.14	21.94	74.00	-52.06	peak			
3		2536.267	32.82	-8.08	24.74	74.00	-49.26	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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 1 GHZ (PK) Power: Humidity: 60 %

EUT: GSM Mobile Phone Distance: 3m

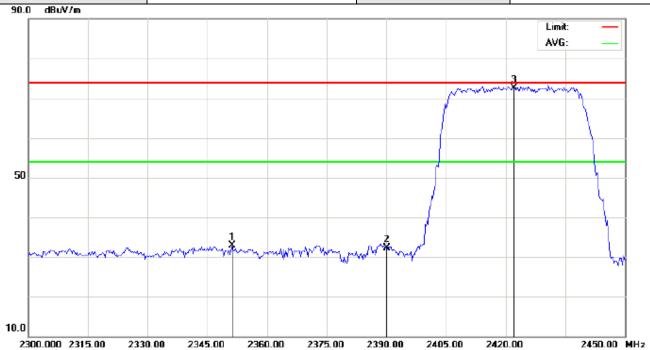
M/N: GT900

Mode: 802.11b High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Ov er	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dΒ		стп	degree	
1	*	2462.076	84.15	-8.07	76.08	74.00	2.08	peak			
2		2483.500	31.13	-8.11	23.02	74.00	-50.98	peak			
3		2537.067	32.48	-8.07	24.41	74.00	-49.59	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

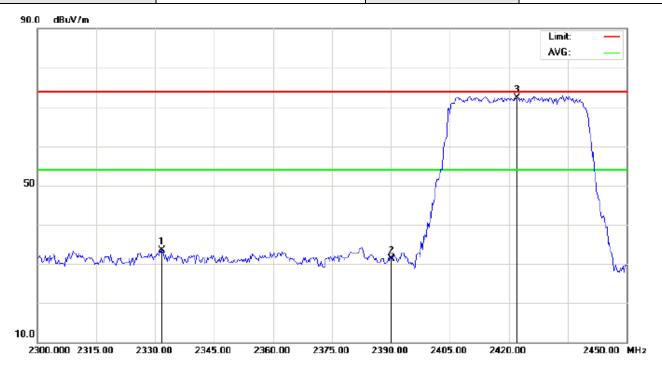
M/N: GT900

Mode: 802.11n40 Low channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuWhn	dΒ	dBuV/m	dBuV/m	dB		cm	degree	
1		2351.250	32.85	-8.01	24.84	74.00	-49.16	peak			
2		2390.000	32.24	-8.04	24.20	74.00	-49.80	peak			
3	*	2422.064	72.43	-8.02	64.41	74.00	-9.59	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

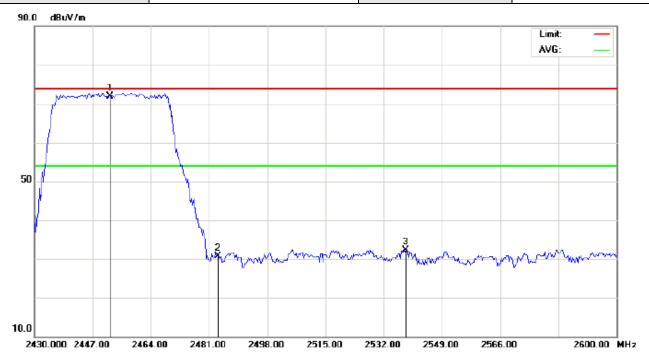
M/N: GT900

Mode: 802.11n40 Low channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Ov er	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuWhn	d₿	dBuV/m	dBuV/m	dB		cm	degree	
1		2331.750	33.45	-8.02	25.43	74.00	-48.57	peak			
2		2390.000	31.30	-8.04	23.26	74.00	-50.74	peak			
3	*	2422.038	72.37	-8.06	64.31	74.00	-9.69	peak			

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

M/N: GT900

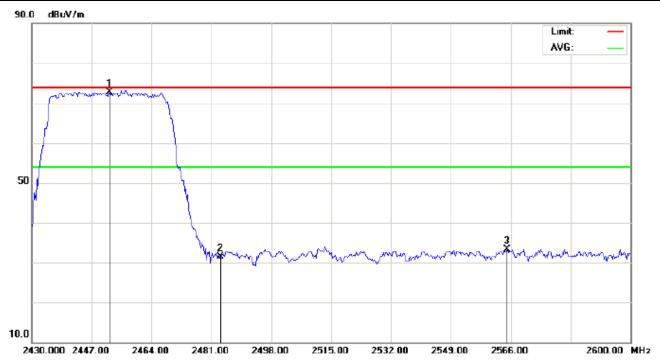
Mode: 802.11n40 High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Ov er	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV/m	dΒ	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2452.048	72.00	-8.05	63.95	74.0	-10.05	peak			
2		2483.500	30.73	-8.04	22.69	74.00	-51.31	peak			
3		2538.517	32.33	-8.07	24.26	74.00	-49.74	peak			

Page 61 of 73

EUT	GSM Mobile Phone	Model Name	QT900
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: GSM Mobile Phone Distance: 3m

M/N: GT900

Mode: 802.11n40 High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Ov er	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV/m	dΒ	dBuV/m	dBuV/m	dB		стп	degree	
1	*	2452.069	72.70	-8.02	64.68	74.00	-9.32	peak			
2		2483.500	31.42	-8.04	23.38	74.00	-50.62	peak			
3		2564.867	33.38	-8.05	25.33	74.00	-48.67	peak			

RESULT: PASS

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

Factor = Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

Page 62 of 73

13. FCC LINE CONDUCTED EMISSION TEST

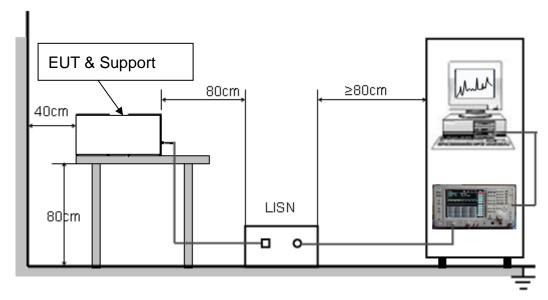
13.1. LIMITS OF LINE CONDUCTED EMISSION TEST

F	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 63 of 73

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 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

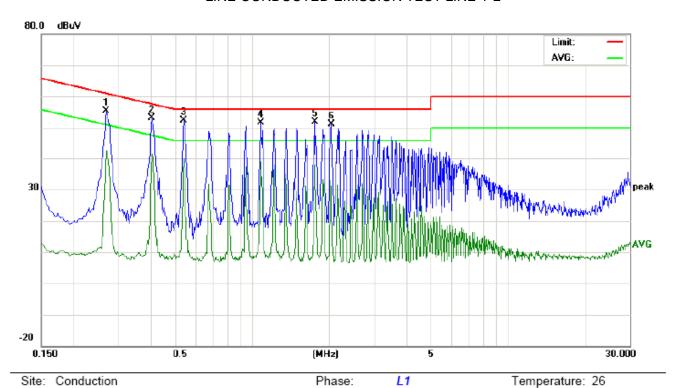
- EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used 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 64 of 73

13.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

LINE CONDUCTED EMISSION TEST LINE 1-L



Limit: FCC Class B Conduction(QP)

EUT: GSM Mobile Phone

M/N: QT900

Mode: Normal Operating (WIFI)

Note:

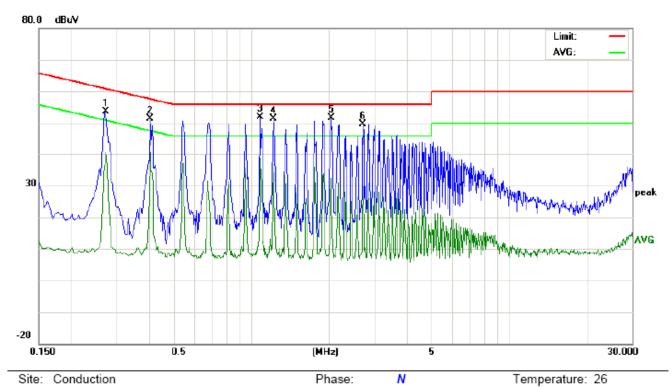
	Freq.	Rea	ding_L (dBuV)		Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2700	45.05		32.02	10.28	55.33		42.30	61.12	51.12	-5.79	-8.82	Р	
2	0.4060	42.70		31.09	10.33	53.03		41.42	57.73	47.73	-4.70	-6.31	Р	
3	0.5420	41.98		29.45	10.36	52.34		39.81	56.00	46.00	-3.66	-6.19	Р	
4	1.0820	41.20		28.58	10.37	51.57		38.95	56.00	46.00	-4.43	-7.05	Р	
5	1.7580	41.56		27.65	10.30	51.86		37.95	56.00	46.00	-4.14	-8.05	Р	
6	2.0459	40.84		15.78	10.24	51.08		26.02	56.00	46.00	-4.92	-19.98	Р	

Power:

Humidity: 60 %

Page 65 of 73

Line Conducted Emission Test Line 2-N



Limit: FCC Class B Conduction(QP)

EUT: GSM Mobile Phone

M/N: QT900

Mode: Normal Operating (WIFI)

Note:

	Freq.		Reading_Level (dBuV)		Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
	(MHz)	Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2740	43.23		30.13	10.28	53.51		40.41	60.99	50.99	-7.48	-10.58	Р	
2	0.4060	41.14		30.14	10.33	51.47		40.47	57.73	47.73	-6.26	-7.26	Р	
3	1.0859	41.49		28.13	10.37	51.86		38.50	56.00	46.00	-4.14	-7.50	Р	
4	1.2218	40.94		26.50	10.37	51.31		36.87	56.00	46.00	-4.69	-9.13	Р	
5	2.0499	41.28		14.16	10.24	51.52		24.40	56.00	46.00	-4.48	-21.60	Р	
6	2.7099	39.14		19.37	10.48	49.62		29.85	56.00	46.00	-6.38	-16.15	Р	

Power:

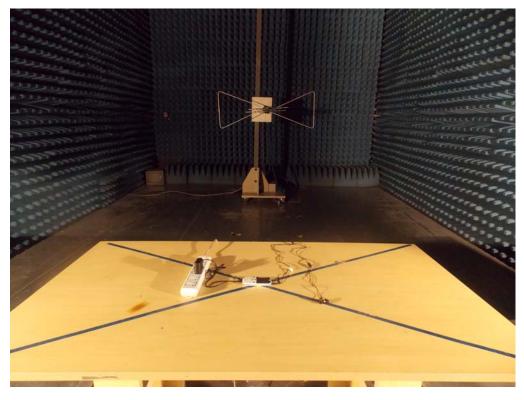
Page 66 of 73

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



Page 67 of 73

APPENDIX B: PHOTOGRAPHS OF EUT

TOTAL VIEW OF EUT





Page 68 of 73

TOP VIEW OF EUT



BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



BACK VIEW OF EUT



LEFT VIEW OF EUT

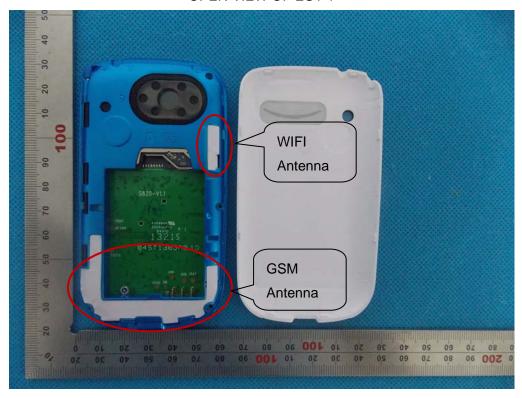


RIGHT VIEW OF EUT



Page 71 of 73

OPEN VIEW OF EUT-1



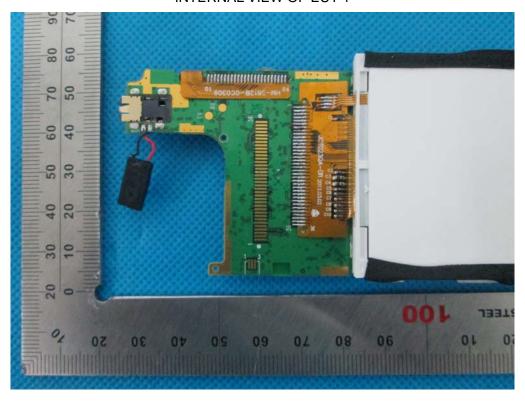
OPEN VIEW OF EUT-2



OPEN VIEW OF EUT-3



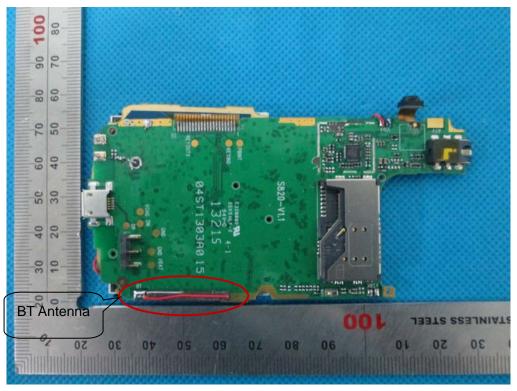
INTERNAL VIEW OF EUT-1



INTERNAL VIEW OF EUT-2



INTERNAL VIEW OF EUT-3



----END OF REPORT----