
FCC Test Report

Report No.: AGC17P111101F2C

FCC ID : XJSACEI100

PRODUCT DESIGNATION : Mobile Phone

BRAND NAME : N/A

TEST MODEL : ACE i100

CLIENT : FIYING TECHNOLOGY DEVELOPMENT CO.,LTD

DATE OF ISSUE : Dec.09, 2011

STANDARD(S) : FCC Part 15 Rules

Attestation of Global Compliance Co., Ltd.

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VERIFICATION OF COMPLIANCE

Applicant	FIYING TECHNOLOGY DEVELOPMENT CO.,LTD
	Rm.2312,23/F.Metropolis tower,10Metroplon Driv Hung Hom, Kowloon,999077, HongKong
Manufacturer	FIYING TECHNOLOGY DEVELOPMENT CO.,LTD
	Rm.2312,23/F.Metropolis tower,10Metroplon Driv Hung Hom, Kowloon,999077, HongKong
Product Designation	Mobile Phone
Brand Name	N/A
Model Name	ACEi100
FCC ID	XJSACEI100
Report Number	AGC17P111101F2C
Date of Test	Dec.01, 2011 to Dec.08, 2011

WE HEREBY CERTIFY THAT:

The above equipment was tested by Attestation of Global Compliance 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 radiated emission limits of FCC Rules Part 15.247.

Tested By: Curoky Chen
Curoky Chen Dec.09, 2011

Reviewed By: Forrest Lei
Forrest Lei Dec.09, 2011

Approved By: Solger Zhang
Solger Zhang Dec.09, 2011

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1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The EUT is a **GSM Mobile Phone** designed as an “WiFi Device”. 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

Operation Frequency	2.412 GHz to 2.462GHz
Wifi IC model name:	MT5921
Rated Output Power	11b:12.86dBm ,11g:11.79dBm
Modulation	DBPSK,DQPSK,CCK,16-QAM,64-QAM
Data Rate	DSSS(1/2/5.5/11),OFDM(6/9/12/18/24/36/48/54)
Number of channels	11
Antenna Designation	Integrated Antenna
Antenna Gain	0.9dBi(max)
Power Supply	DC3.7V by Built-in Li-ion Battery

1.2 TABLE OF CARRIER FREQUENCIES

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

1.3 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: XJSACEI100** filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

1.4 TEST METHODOLOGY

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters.

1.5 TEST FACILITY

All measurement facilities used to collect the measurement data are located at
Attestation of Global Compliance Co., Ltd.
1F., No.2 Building, Huafeng No.1 Technical Industrial Park, Sanwei, Xixiang, Baoan District, Shenzhen
The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003.
FCC register No.: 259865

1.6 SPECIAL ACCESSORIES

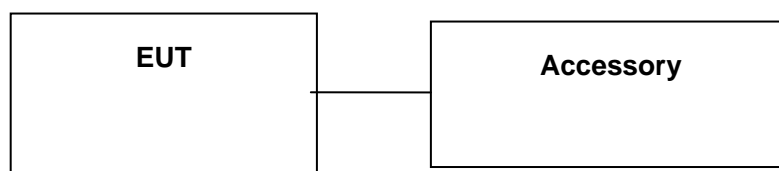
Not available for this EUT intended for grant.

1.7 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2. SYSTEM TEST CONFIGURATION

2.1 CONFIGURATION OF EUT SYSTEM



2.2 EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID
1	GSM Mobile Phone	N/A	ACEi100	EUT
2	Adapter	N/A	520500	accessory
3	battery	N/A	BL-4U	accessory
4	USB Cable	N/A	N/A	accessory
5	Earphone	N/A	N/A	accessory

Note: All the accessories have been used during the test. all the following “EUT” in setup diagram means EUT system.

3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.207	Conduction Emission	Not applicable
§15.209	Radiated Emission	Compliant
§15.247	Maximum Output Power	Compliant
§15.247	6dB Bandwidth	Compliant
§15.247	Band Edges	Compliant
§15.247	Spurious Emission	Compliant
§15.247	Power Spectral Density	Compliant

4. DESCRIPTION OF TEST MODES

The following operating modes were applied for the related test items. For Radiated Emission, 3 axis were chosen for testing for each applicable modes.

TEST MODES
Transmit by 802.11b with Data rate(1/2/5.5/11)
Transmit by 802.11g with Data rate (6/9/12/18/24/36/48/54)
Normal(Wi-Fi)

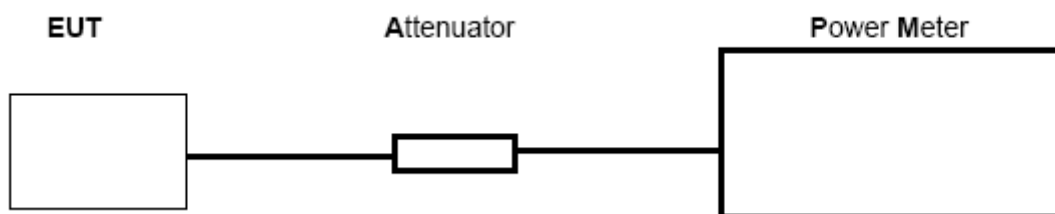
- 1 The EUT has been set to operate continuously on the lowest, middle and highest operation frequency individually.
- 2 All modes under which configure applicable have been tested and the worst mode test data recording in the test report.

5 PEAK OUTPUT POWER

5.1 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 power meter through an RF attenuator
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
4. Set the RBW greater than 6DB bandwidth of emission.
5. Record the maximum power from the power meter.

5.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



5.3 MEASUREMENT EQUIPMENT USED

Description	Manufacturer	Model	SERIAL NUMBER	Cal. Date	Cal. Due
Power meter	Agilent	N1911A	N/A	06/27/2011	06/26/2012
Power sensor	Agilent	N192XA	N/A	06/27/2011	06/26/2012
RF attenuator	N/A	RFA20db	N/A	N/A	N/A

5.4 LIMITS AND MEASUREMENT RESULT

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

LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Result (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	12.86	30	Pass
2.442	12.80	30	Pass
2.462	12.82	30	Pass

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

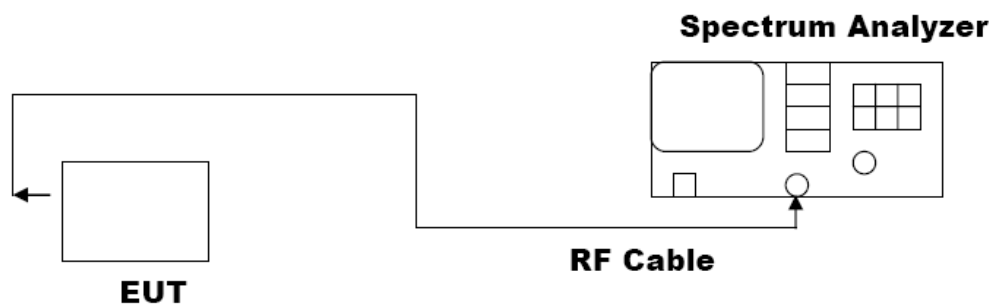
LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Result (dBm)	Applicable Limits (dBm)	Pass or Fail
2.412	11.79	30	Pass
2.442	11.64	30	Pass
2.462	11.68	30	Pass

6 6 DB BANDWIDTH

6.1 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.
3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz,
VBW= 100 KHz.
4. Set SPA Trace 1 Max hold, then View.

6.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



6.3 MEASUREMENT EQUIPMENT USED

SHIELDING ROOM					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Agilent	E4440A	N/A	06/27/2011	06/26/2012
Spectrum Analyzer	Agilent	E4446A	N/A	06/27/2011	06/26/2012

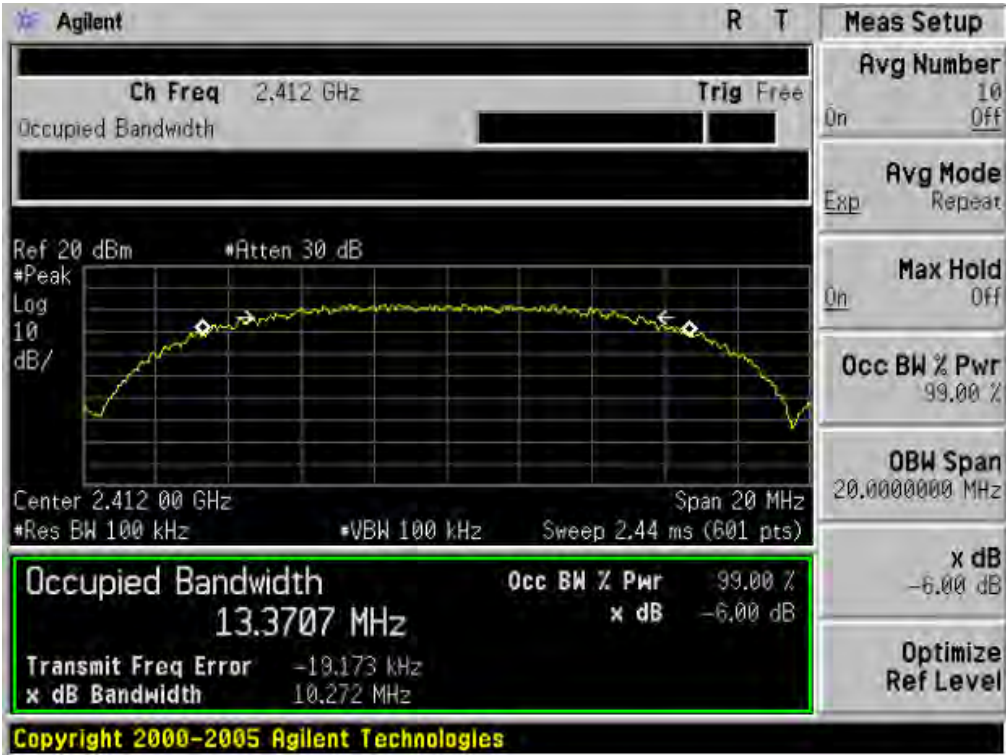
6.4 LIMITS AND MEASUREMENT RESULTS

TEST ITEM	6DB BANDWIDTH		
TEST MODE	802.11b with data rate 1		
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	10.272	PASS
	Middle Channel	10.259	PASS
	High Channel	10.256	PASS

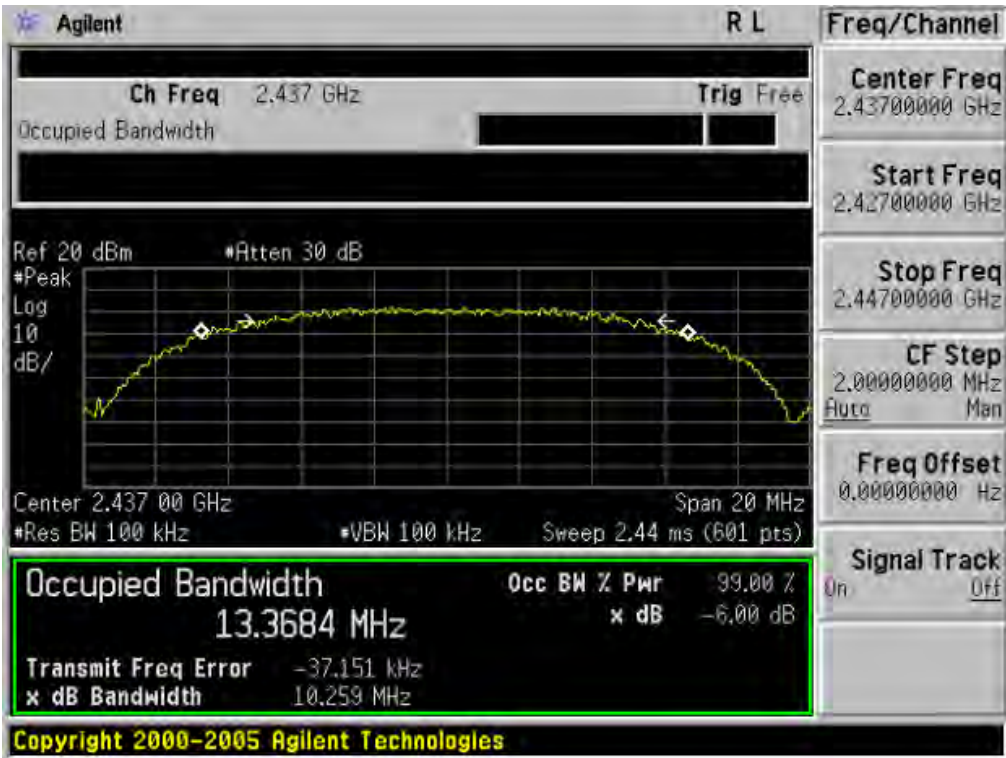
TEST ITEM	6DB BANDWIDTH		
TEST MODE	802.11g with data rate 6		

LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	16.557	PASS
	Middle Channel	16.545	PASS
	High Channel	16.544	PASS

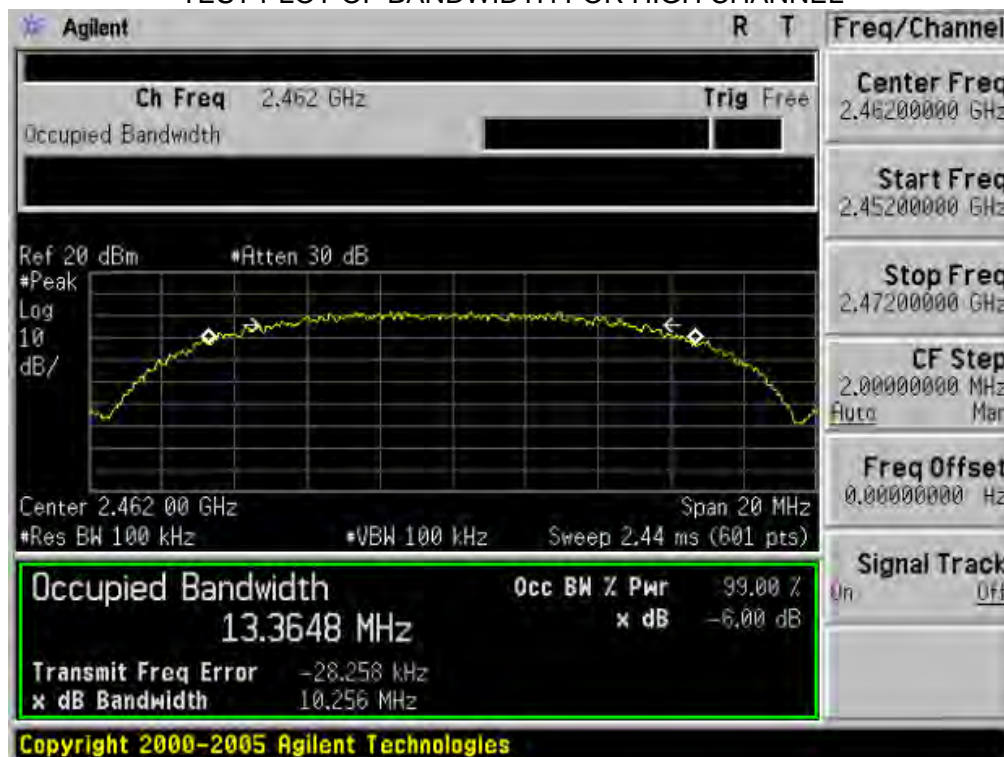
802.11b TEST RESULT
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

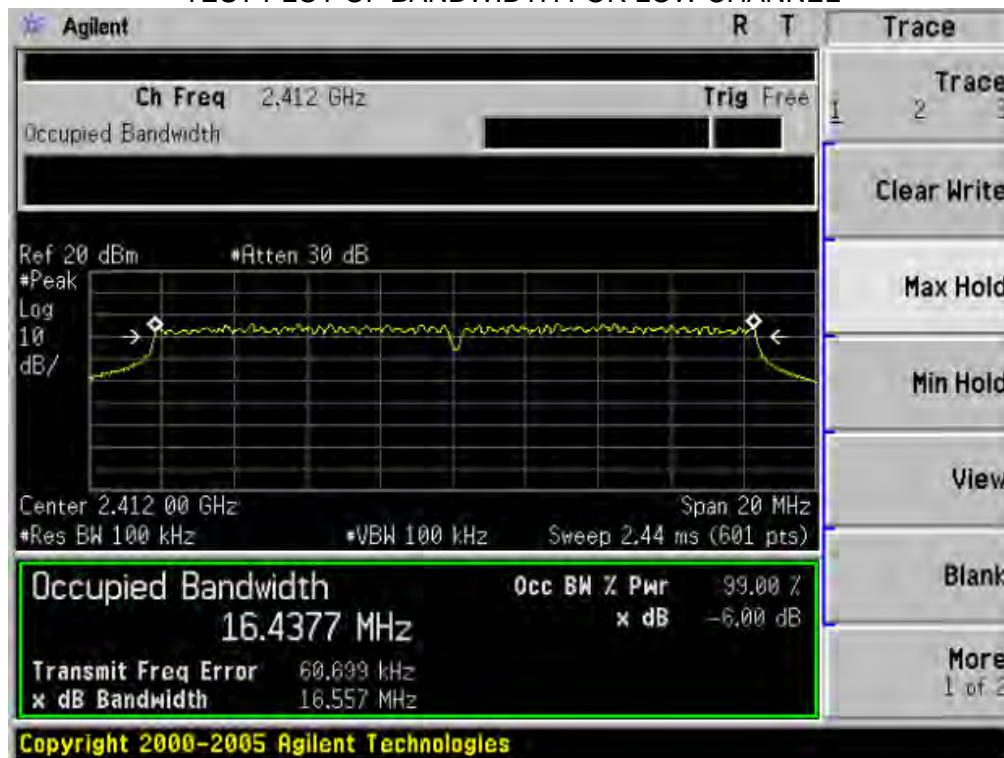


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

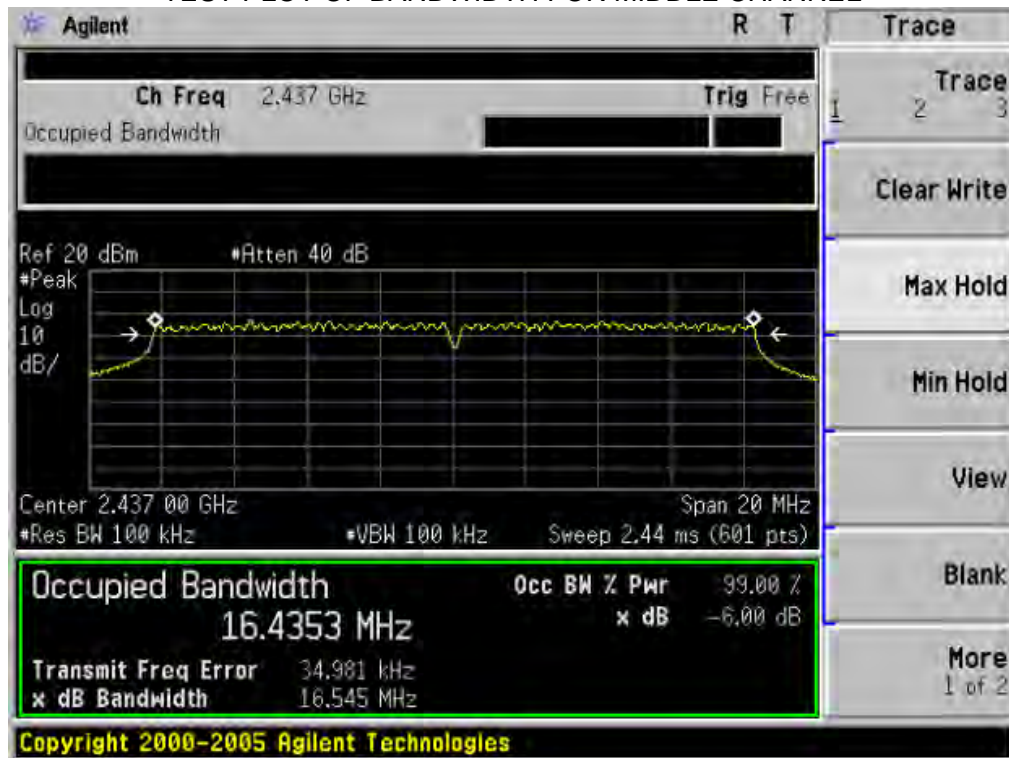


802.11g TEST RESULT

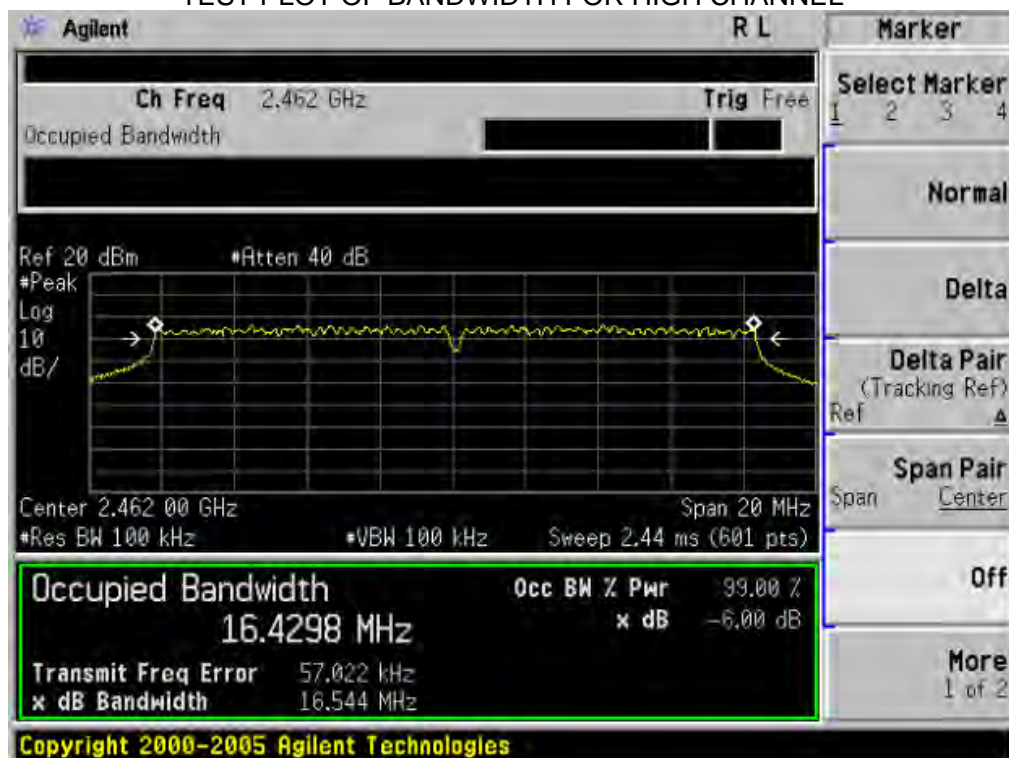
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

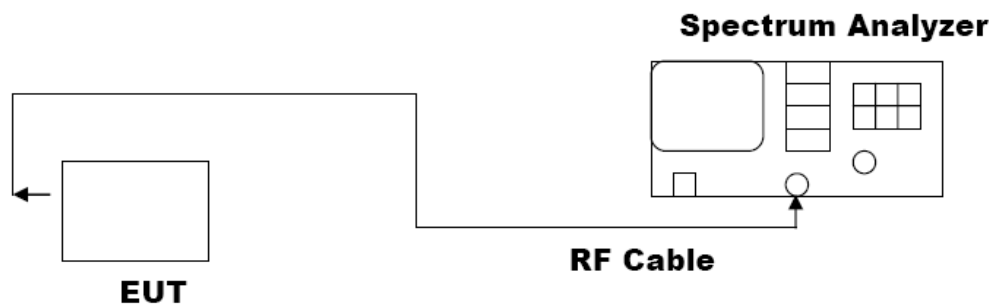


7. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY

7.1 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 Centre Frequency = Operation Frequency, RBW= 3 KHz,
VBW= 30 KHz., Sweep time= Auto
- (5). Set SPA Trace 1 Max hold, then View.

7.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



7.3 MEASUREMENT EQUIPMENT USED

SHIELDING ROOM					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Agilent	E4440A	N/A	06/27/2011	06/26/2012

7.4 LIMITS AND MEASUREMENT RESULT

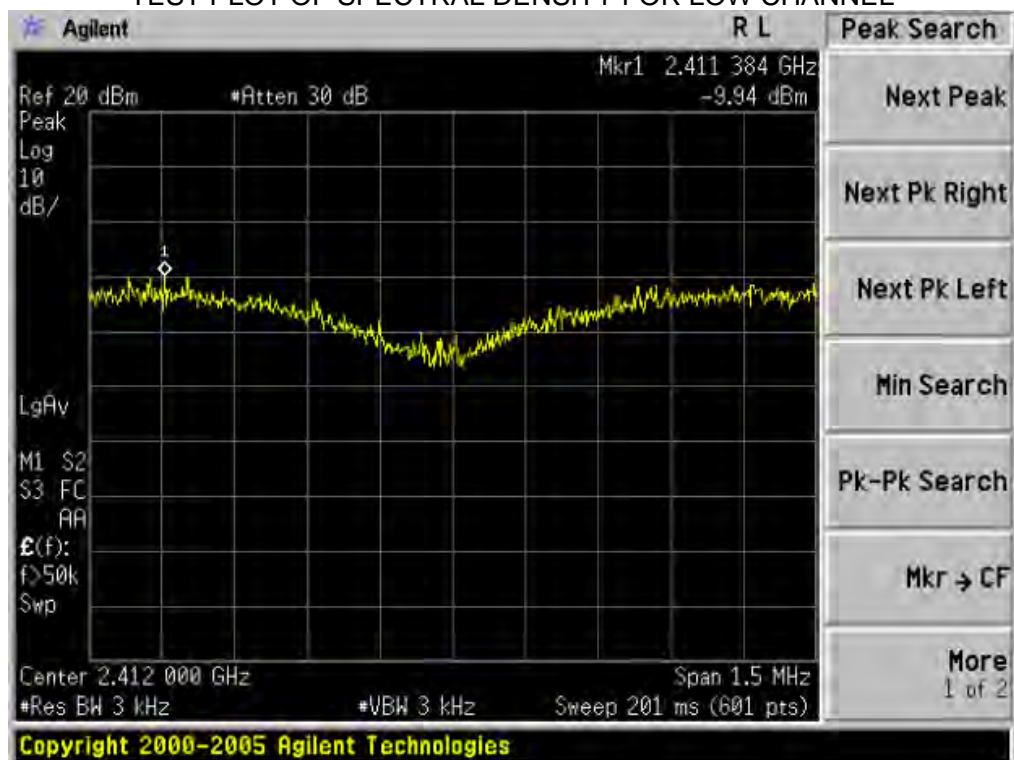
TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11b with data rate 1

LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (dBm/3KHz)		Criteria
8 dBm / 3KHz	Low Channel	-9.94	Pass
	Middle Channel	-8.77	Pass
	High Channel	-8.56	Pass

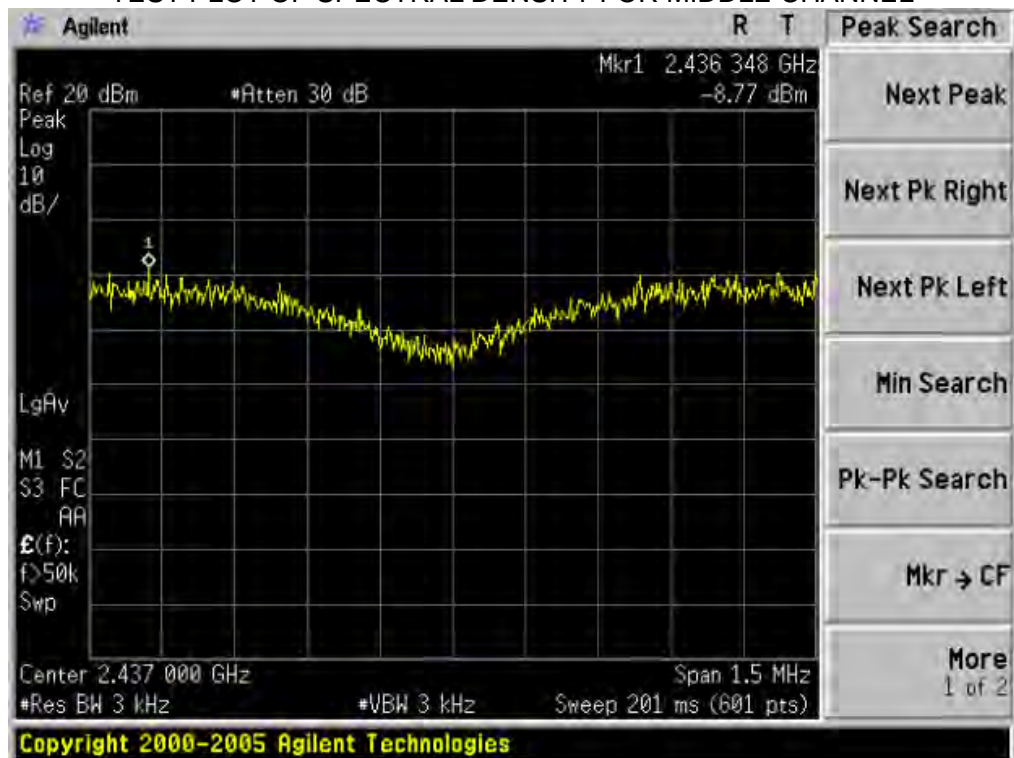
TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11g with data rate 6

LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (dBm/3KHz)		Criteria
8 dBm / 3KHz	Low Channel	-12.62	Pass
	Middle Channel	-11.92	Pass
	High Channel	-11.15	Pass

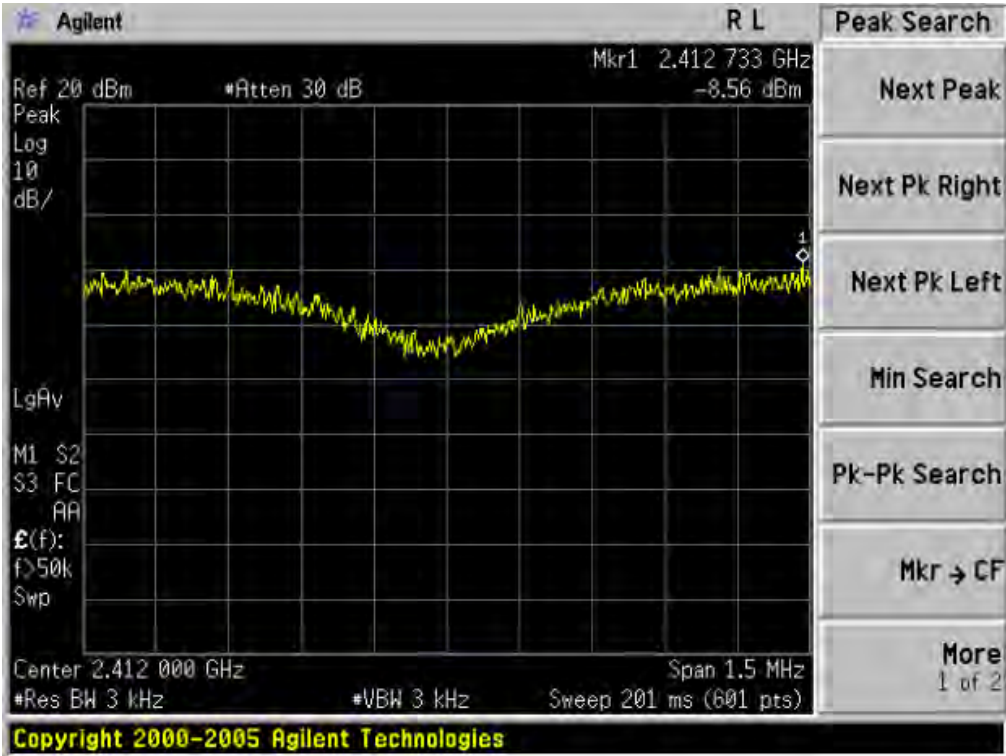
802.11b TEST RESULT
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

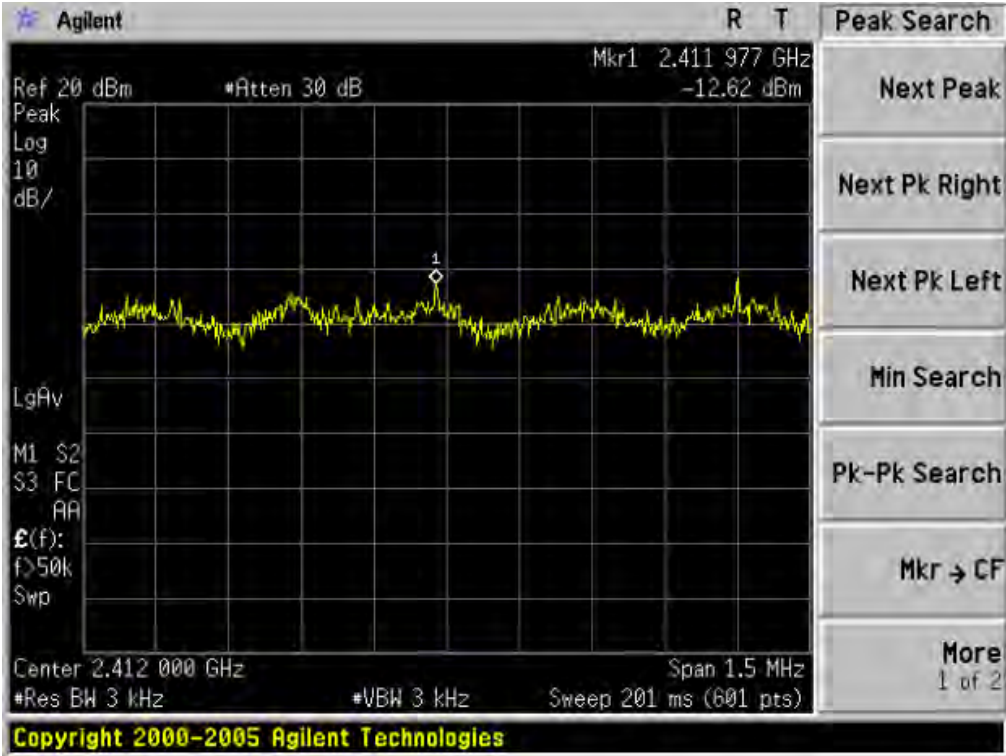


TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

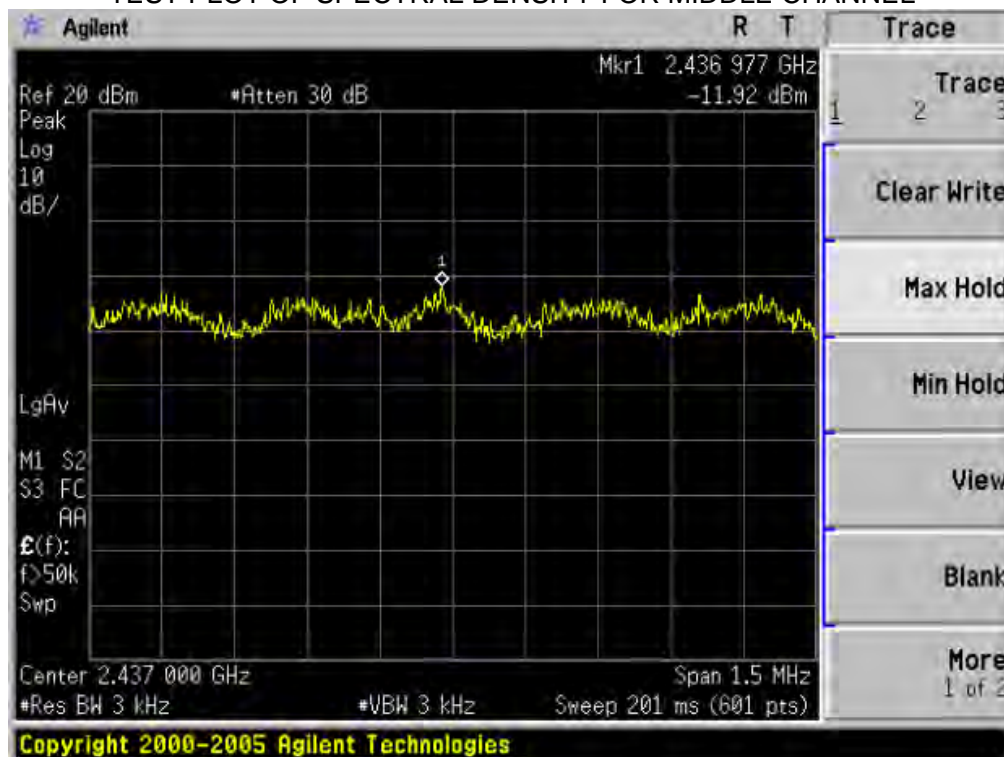


802.11g TEST RESULT

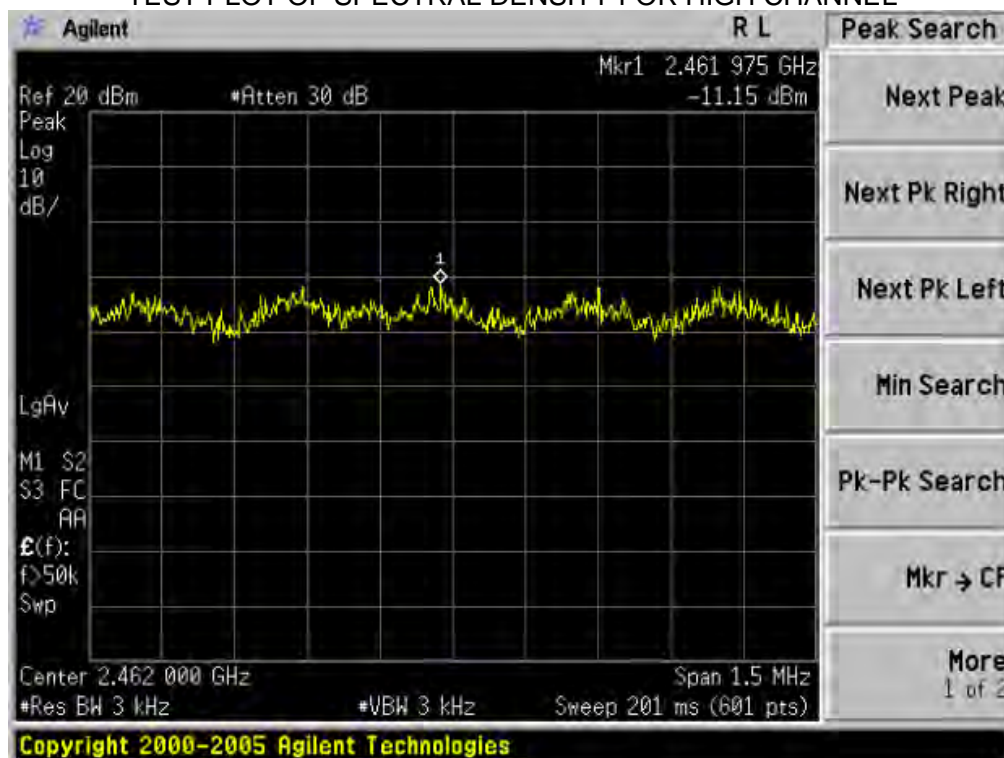
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



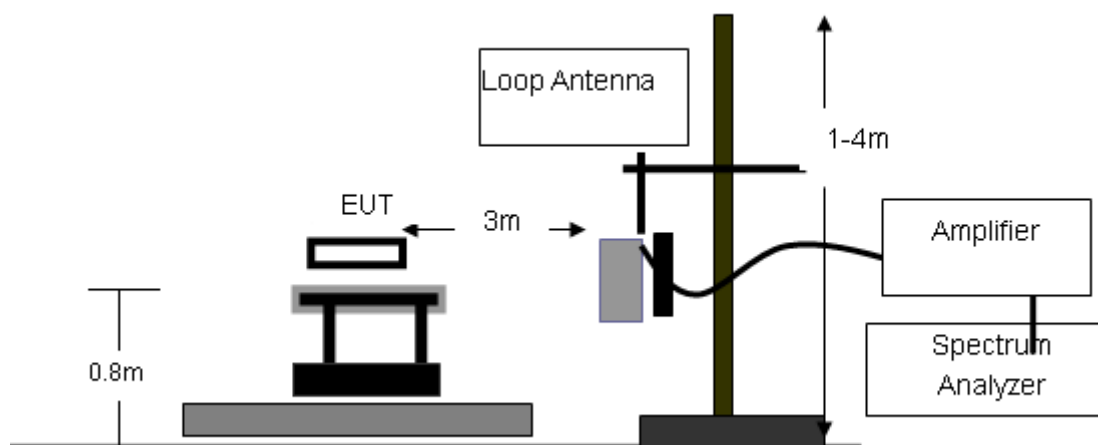
8. RADIATED EMISSION MEASUREMENT

8.1 MEASUREMENT PROCEDURE

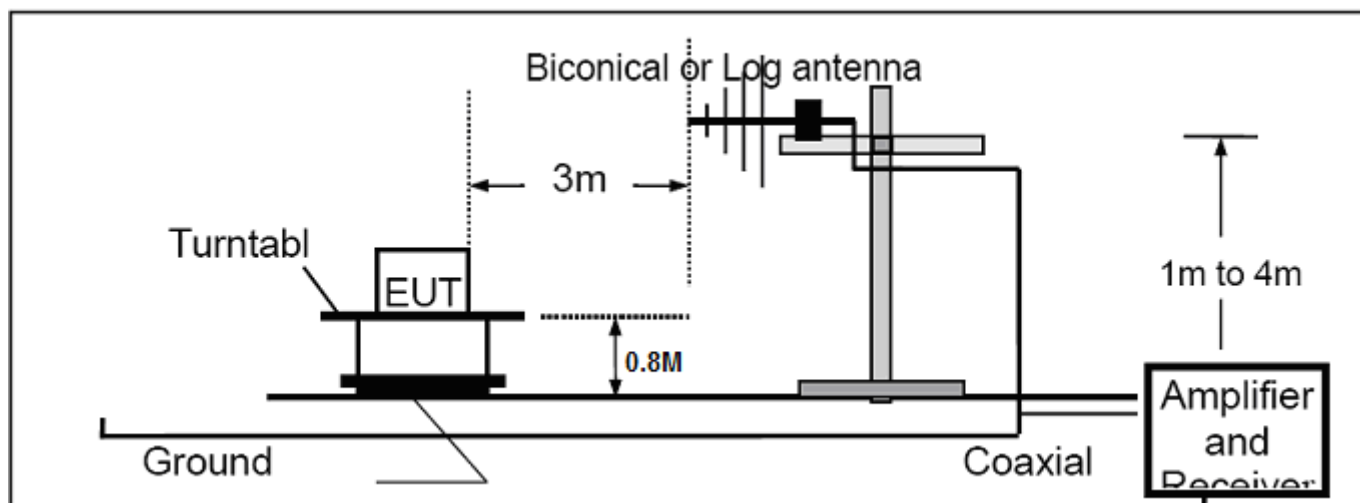
- 1 Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 Meter above ground. The phase center of the receiving antenna mounted on the top of a height-Variable antenna tower was placed 3 meters far away from the turntable.
- 2 Power on the EUT and all the supporting 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 1M to 4M)and then the turntable was Rotated(from 0 degree to 360degrees) 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 emission 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 seconds interval during which the field strength is at its maximum value.
- 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 3dB 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.

8.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

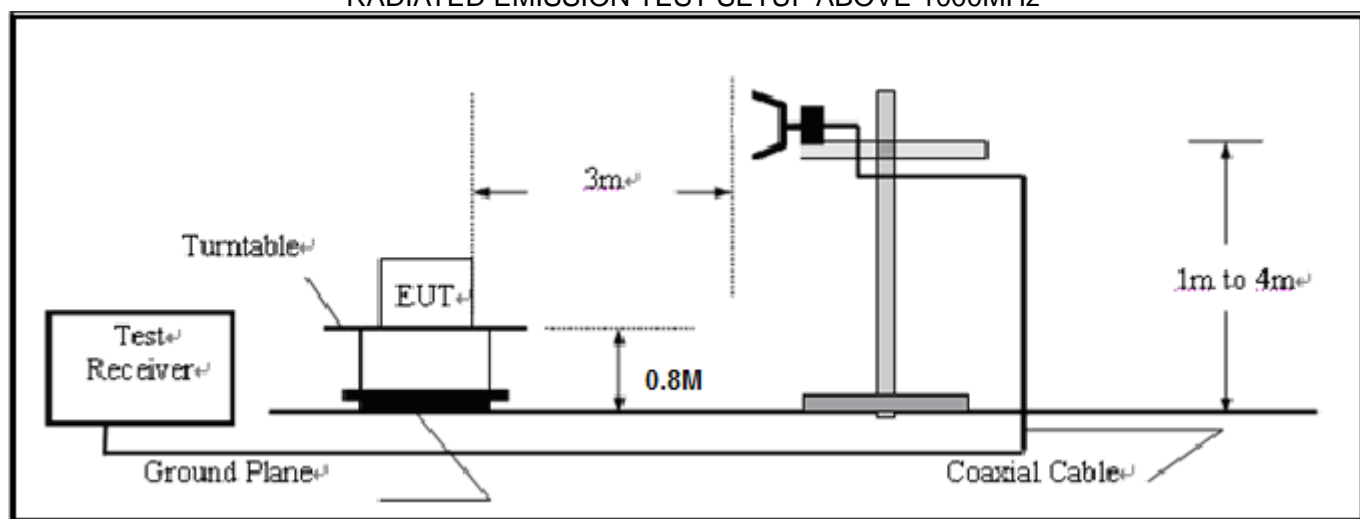
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



8.3 MEASUREMENT EQUIPMENT USED

Description	Manufacturer	Model	SERIAL NUMBER	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4440A	N/A	06/27/2011	06/26/2012
Amplifier	EM	EM30180	0607030	06/27/2011	06/26/2012
Horn Antenna	EM	EM-AH-10180	N/A	06/27/2011	06/26/2012
Amplifier	EM	EM30180	N/A	06/27/2011	06/26/2012
Biological Antenna	A.H. Systems Inc.	SAS-521-4	N/A	06/27/2011	06/26/2012
Loop Antenna	Daze	ZN30900N	SEL0097	06/27/2011	06/26/2012
Isolation Transformer	LETEAC	LTBK	--	06/27/2011	06/26/2012

8.4 LIMITS AND MEASUREMENT RESULT

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

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

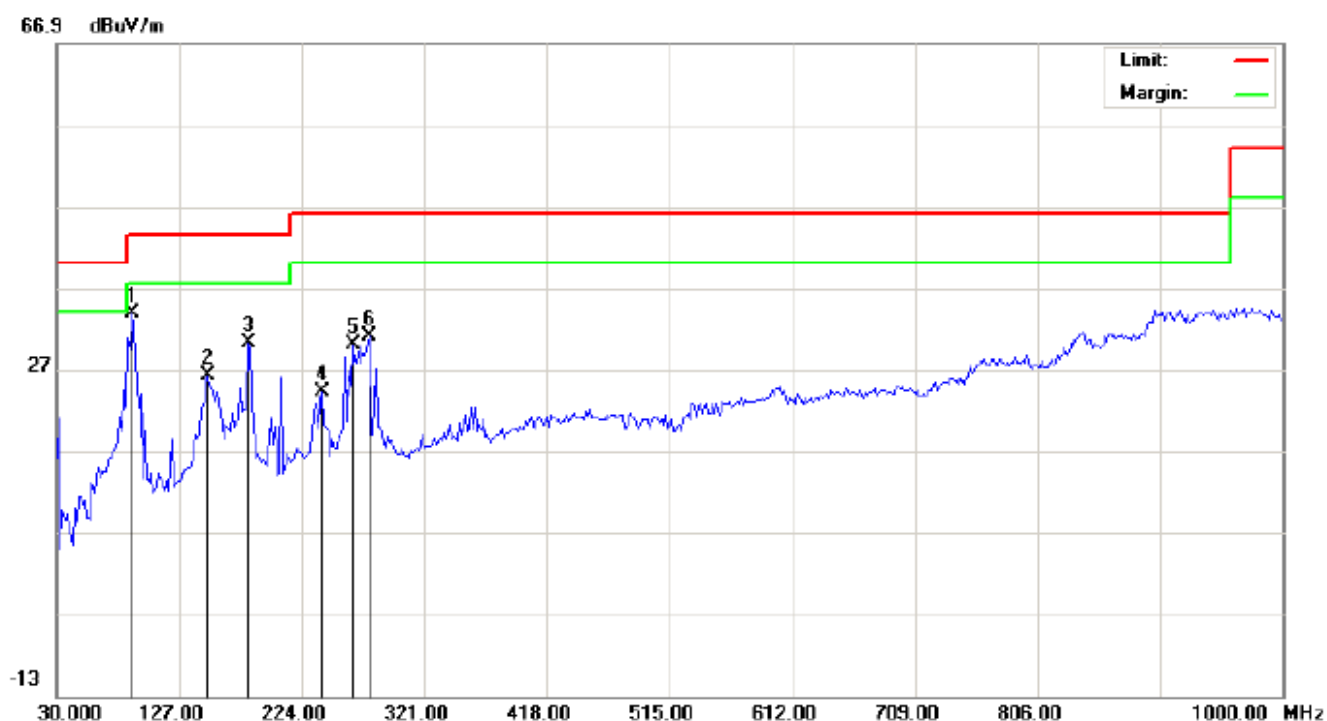
Note: All modes were tested For restricted band radiated emission, the test records reported below are the worst result compared to other modes.

RADIATED EMISSION BELOW 30MHZ

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

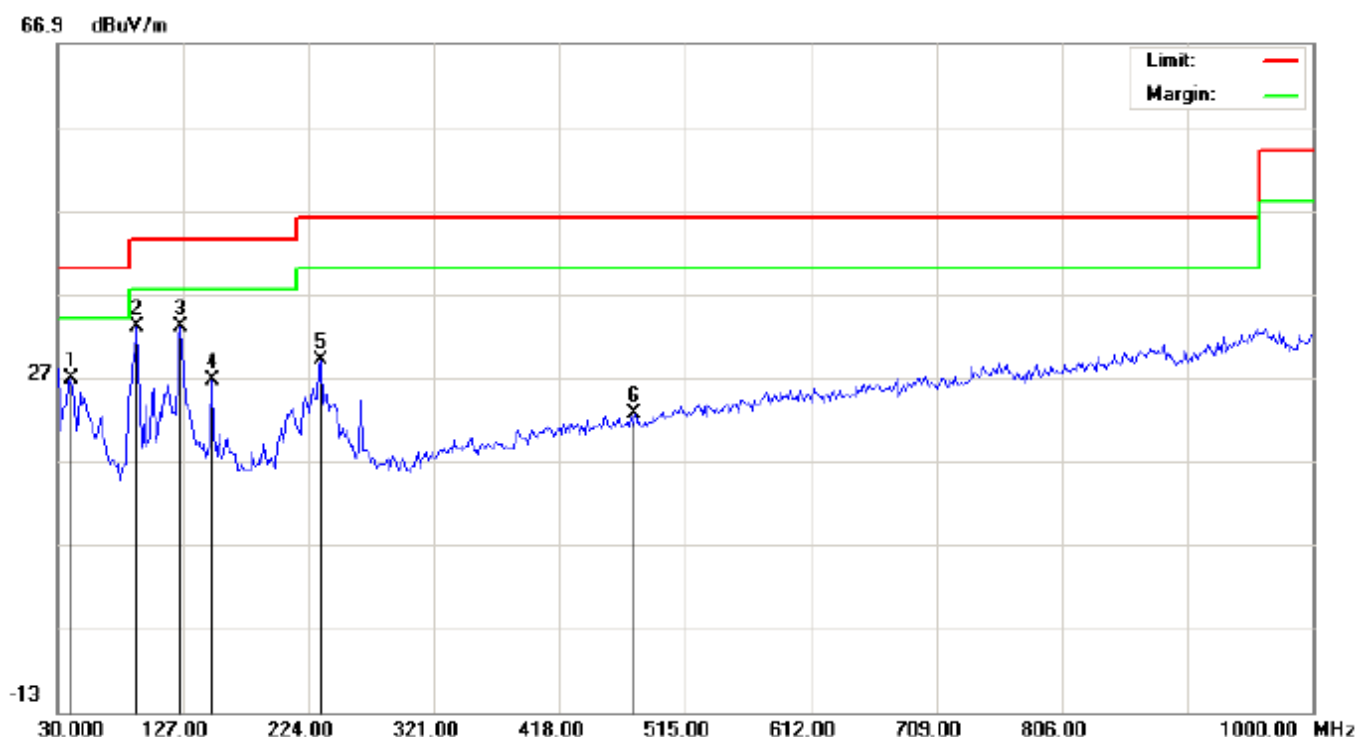
RADIATED EMISSION BELOW 1GHZ

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With date rate 1 2412MHZ	Antenna	Vertical



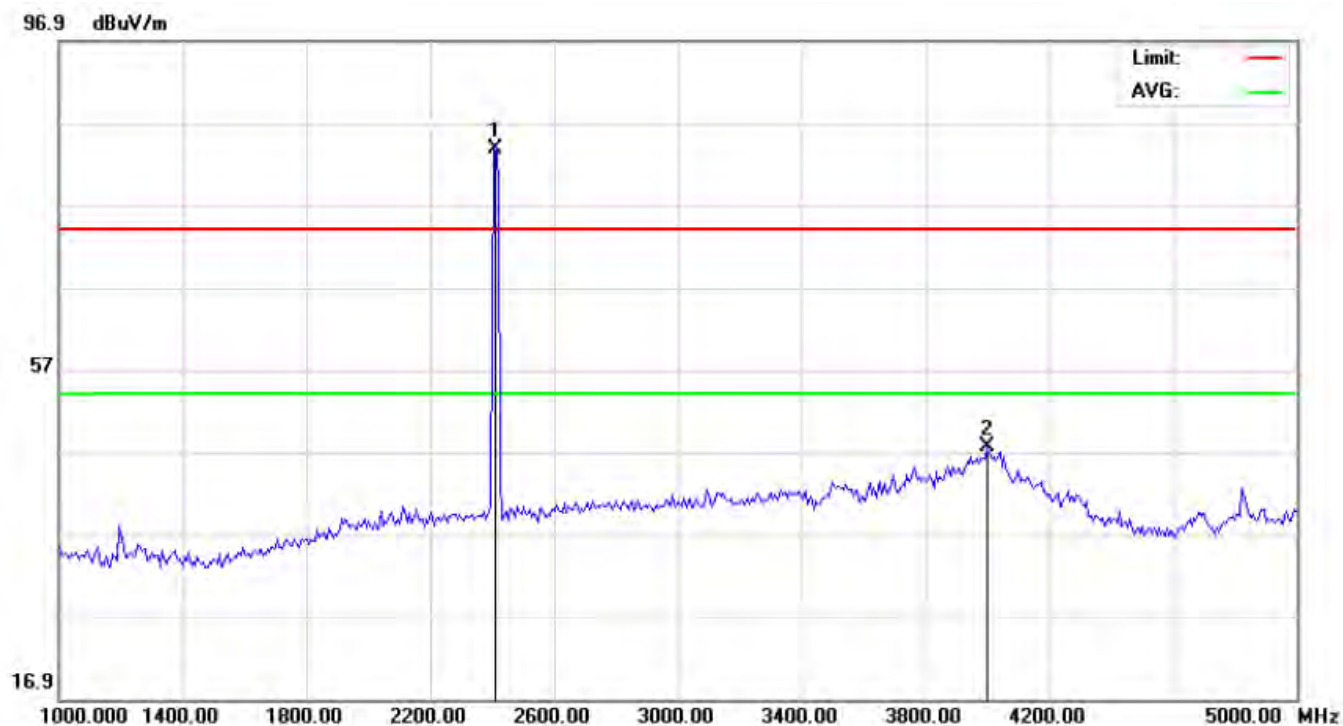
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	89.8166	16.65	17.11	33.76	43.50	-9.74	peak			
2		149.6332	12.96	13.30	26.26	43.50	-17.24	peak			
3		181.9667	12.83	17.35	30.18	43.50	-13.32	peak			
4		240.1666	7.05	17.13	24.18	46.00	-21.82	peak			
5		264.4166	12.99	16.94	29.93	46.00	-16.07	peak			
6		277.3500	13.78	17.20	30.98	46.00	-15.02	peak			

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With date rate 1 2412MHZ	Antenna	Horizontal



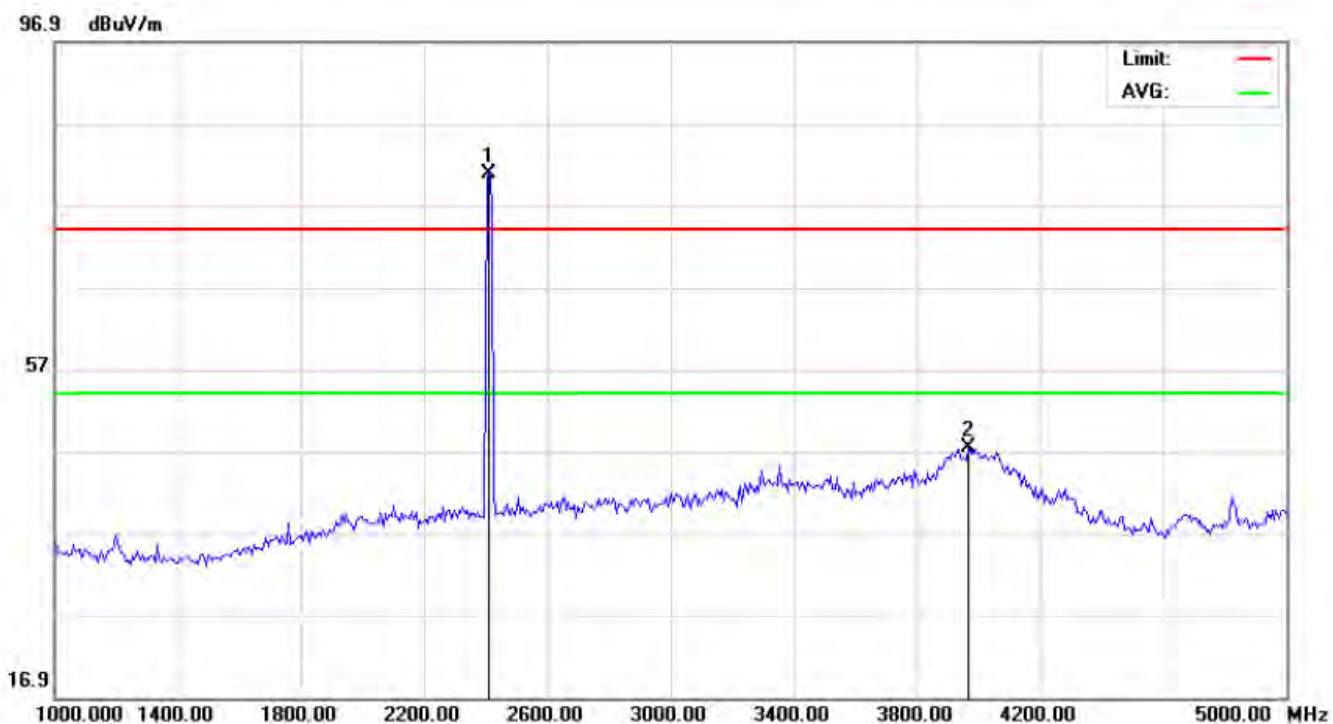
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		41.3166	21.54	5.32	26.86	40.00	-13.14	peak			
2	*	91.4333	25.47	7.58	33.05	43.50	-10.45	peak			
3		125.3833	21.71	11.30	33.01	43.50	-10.49	peak			
4		149.6332	7.60	19.00	26.60	43.50	-16.90	peak			
5		233.6999	15.38	13.70	29.08	46.00	-16.92	peak			
6		476.1999	0.87	21.64	22.51	46.00	-23.49	peak			

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With date rate 1 2412MHZ	Antenna	Vertical



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2412.000	83.42	0.33	83.75	74.00	9.75	peak			
2		4000.000	42.42	5.19	47.61	74.00	-26.39	peak			

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With date rate 1 2412MHZ	Antenna	Horizontal



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2412.000	80.56	0.33	80.89	74.00	6.89	peak			
2		3966.667	42.45	4.98	47.43	74.00	-26.57	peak			

Note: The other modes radiation emissions have more than 20dB margin.
Measurement= Reading + Factor, Over=Measure-Limit.
All modes radiation emission from 5GHz to 24GHz at least have 20dB margin.

9 BAND EDGE EMISSION

9.1 MEASUREMENT PROCEDURE

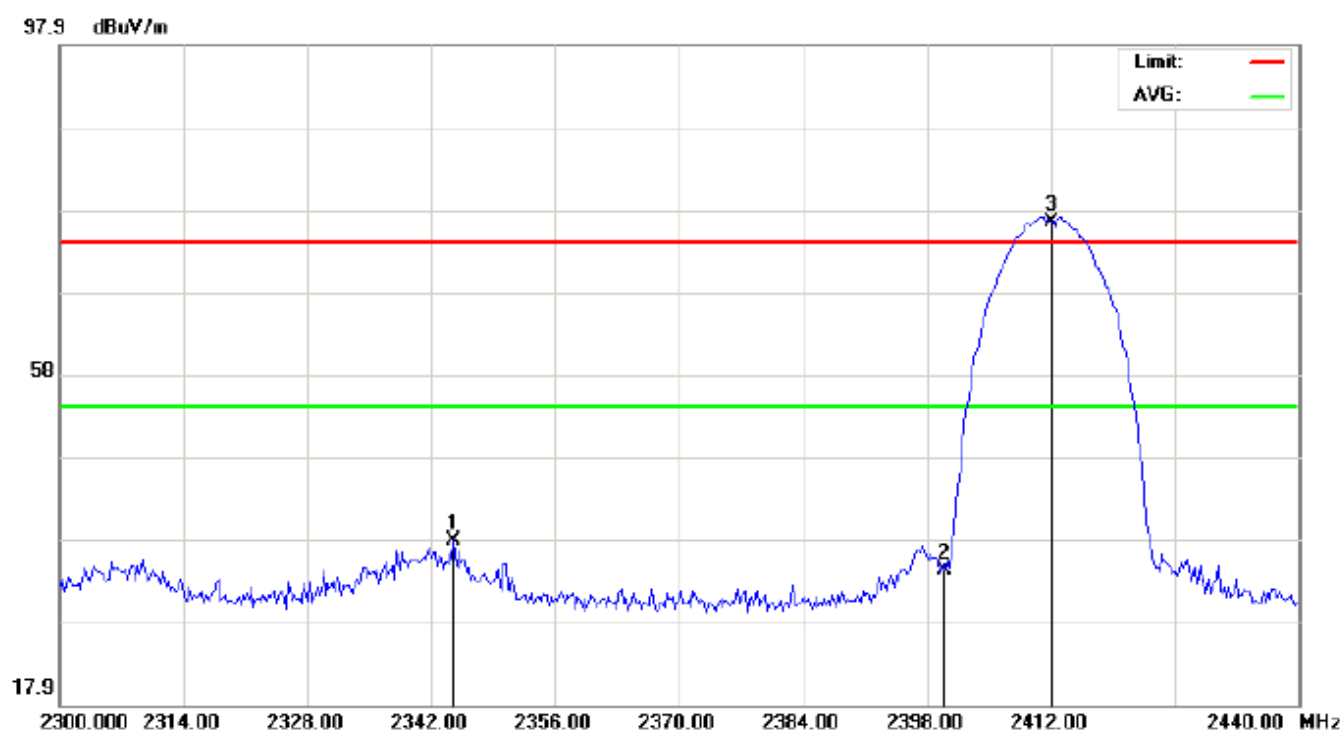
1. Set the EUT Work on the top, the bottom operation frequency individually.
2. Set SPA Start or Stop Frequency = Operation Frequency, RBW= 1MHz, VBW= 1MHz.
3. The band edges was measured and recorded.

9.2 TEST SET-UP

The Same as described in section 8.2

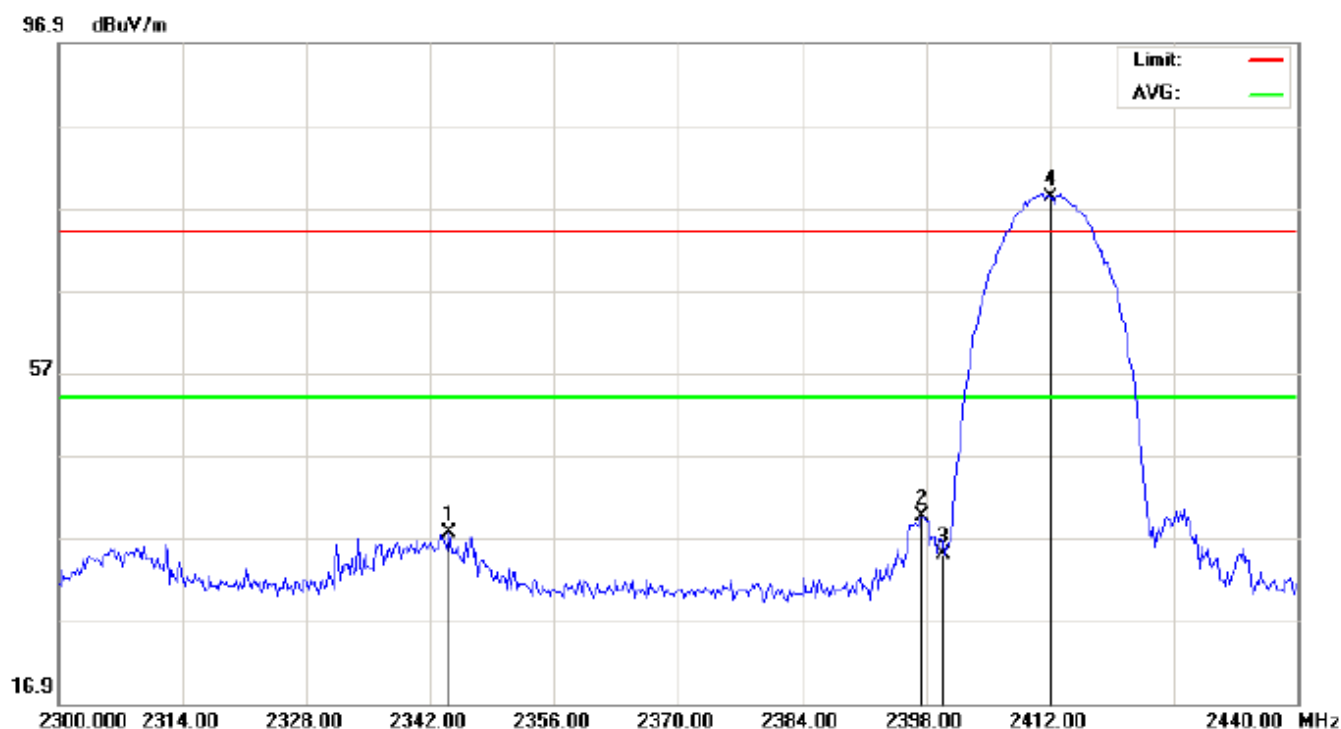
9.3 TEST RESULT

EUT	Mobile Phone	Model Name	ACEi100
Temperature	26° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With data rate 1 2412MHZ	Antenna	Vertical



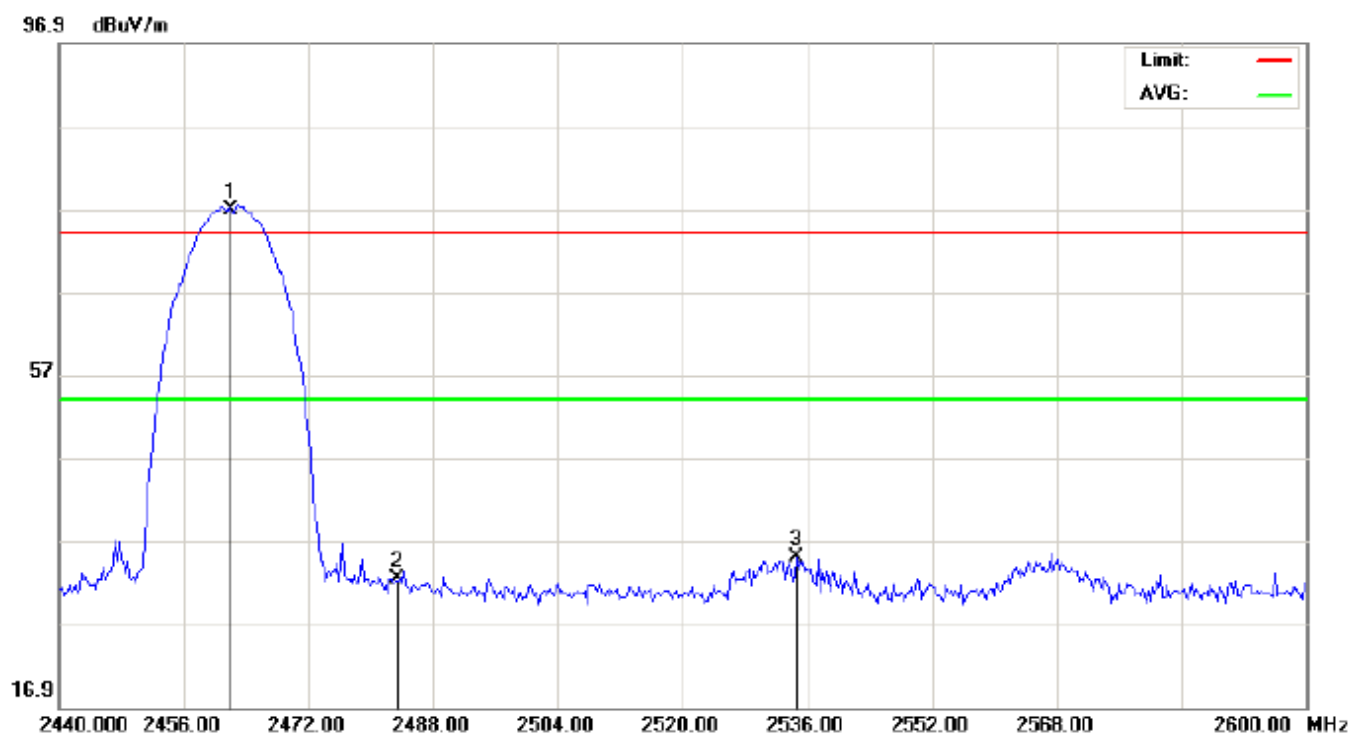
No.	Mk	Freq. MHz	Reading dBuV	Factor dB/m	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		2344.567	47.61	-9.74	37.87	74.00	-36.13	peak			
2		2400.000	43.93	-9.68	34.25	74.00	-39.75	peak			
3	*	2412.000	86.17	-9.67	76.50	74.00	2.50	peak			

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With data rate 1 2412MHZ	Antenna	Horizontal



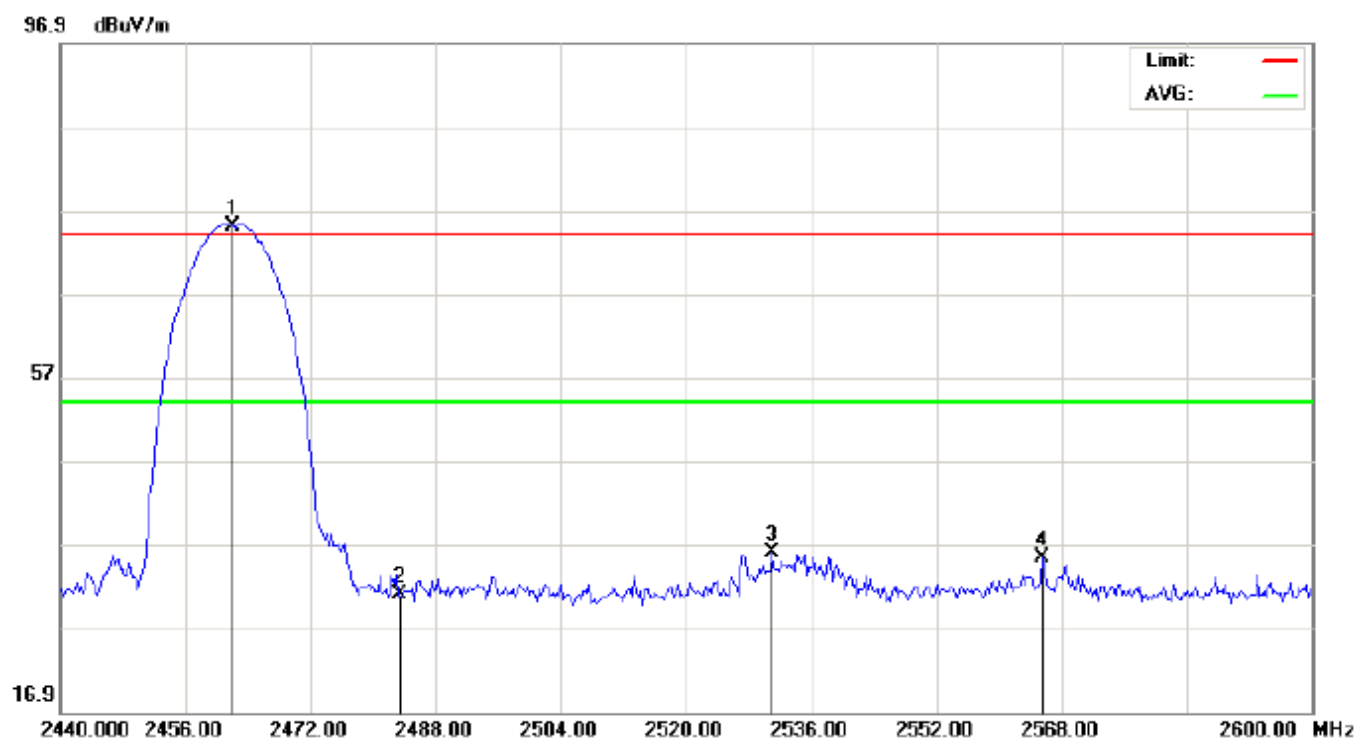
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2344.100	47.37	-9.74	37.63	74.00	-36.37	peak			
2		2397.533	49.24	-9.68	39.56	74.00	-34.44	peak			
3		2400.000	44.62	-9.68	34.94	74.00	-39.06	peak			
4	*	2412.000	87.95	-9.67	78.28	74.00	4.28	peak			

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With data rate 1 2462MHZ	Antenna	Vertical



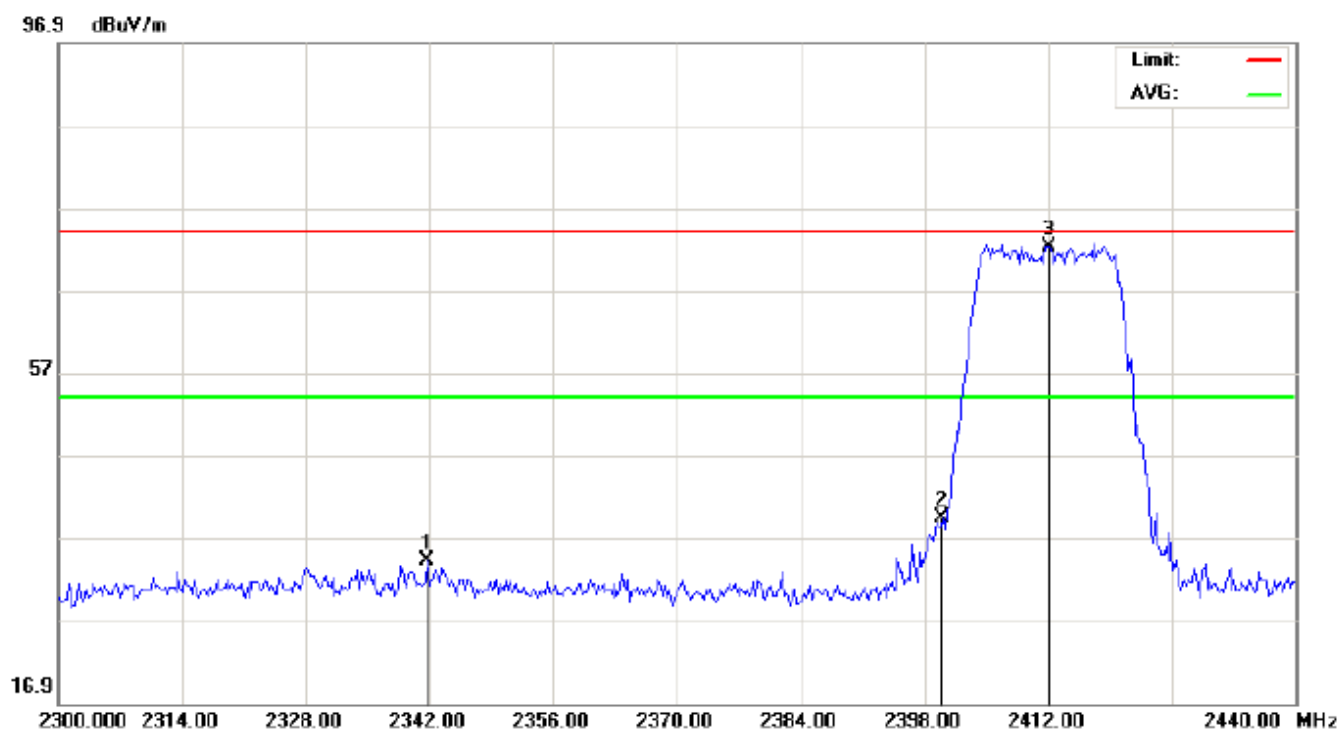
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2462.000	86.45	-9.61	76.84	74.00	2.84	peak			
2		2483.500	42.03	-9.59	32.44	74.00	-41.56	peak			
3		2534.667	44.53	-9.49	35.04	74.00	-38.96	peak			

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With data rate 1 2462MHZ	Antenna	Horizontal



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2462.000	84.63	-9.61	75.02	74.00	1.02	peak			
2		2483.500	40.67	-9.59	31.08	74.00	-42.92	peak			
3		2530.933	45.56	-9.50	36.06	74.00	-37.94	peak			
4		2565.600	44.77	-9.41	35.36	74.00	-38.64	peak			

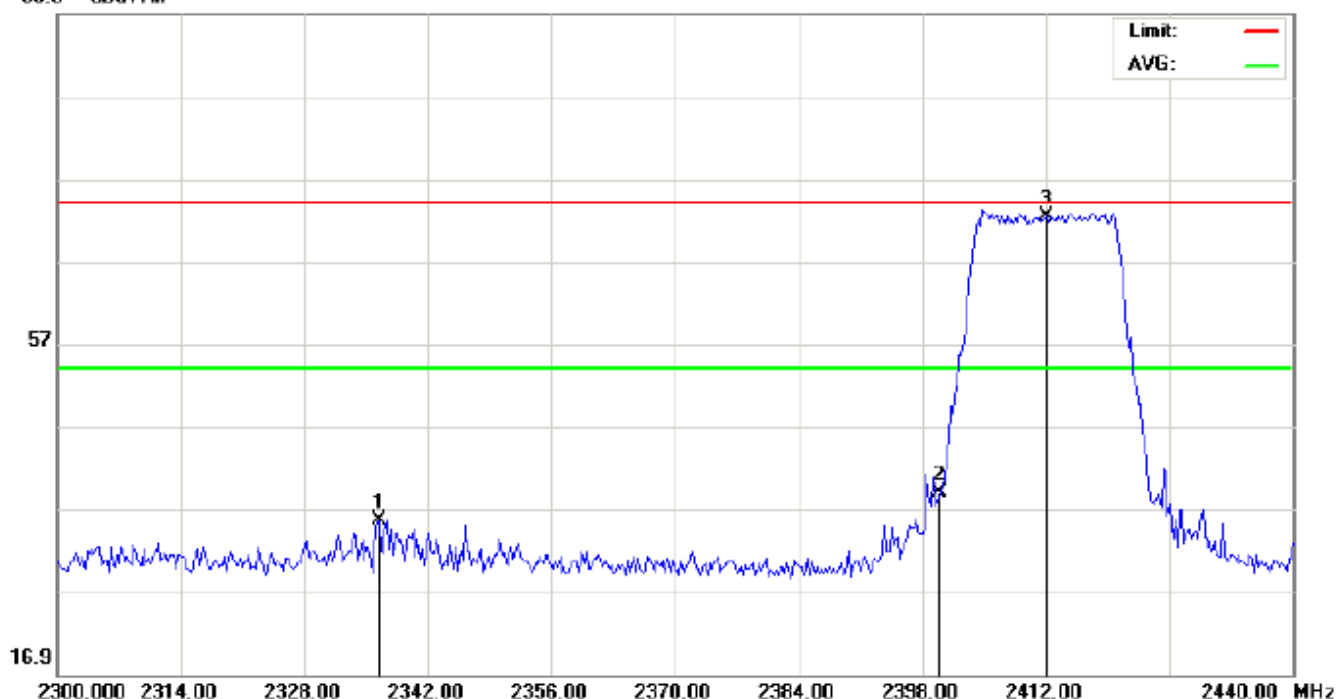
EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g With data rate 6 2412MHZ	Antenna	Vertical



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2341.767	43.86	-9.74	34.12	74.00	-39.88	peak			
2		2400.000	49.08	-9.68	39.40	74.00	-34.60	peak			
3	*	2412.000	81.80	-9.67	72.13	74.00	-1.87	peak			

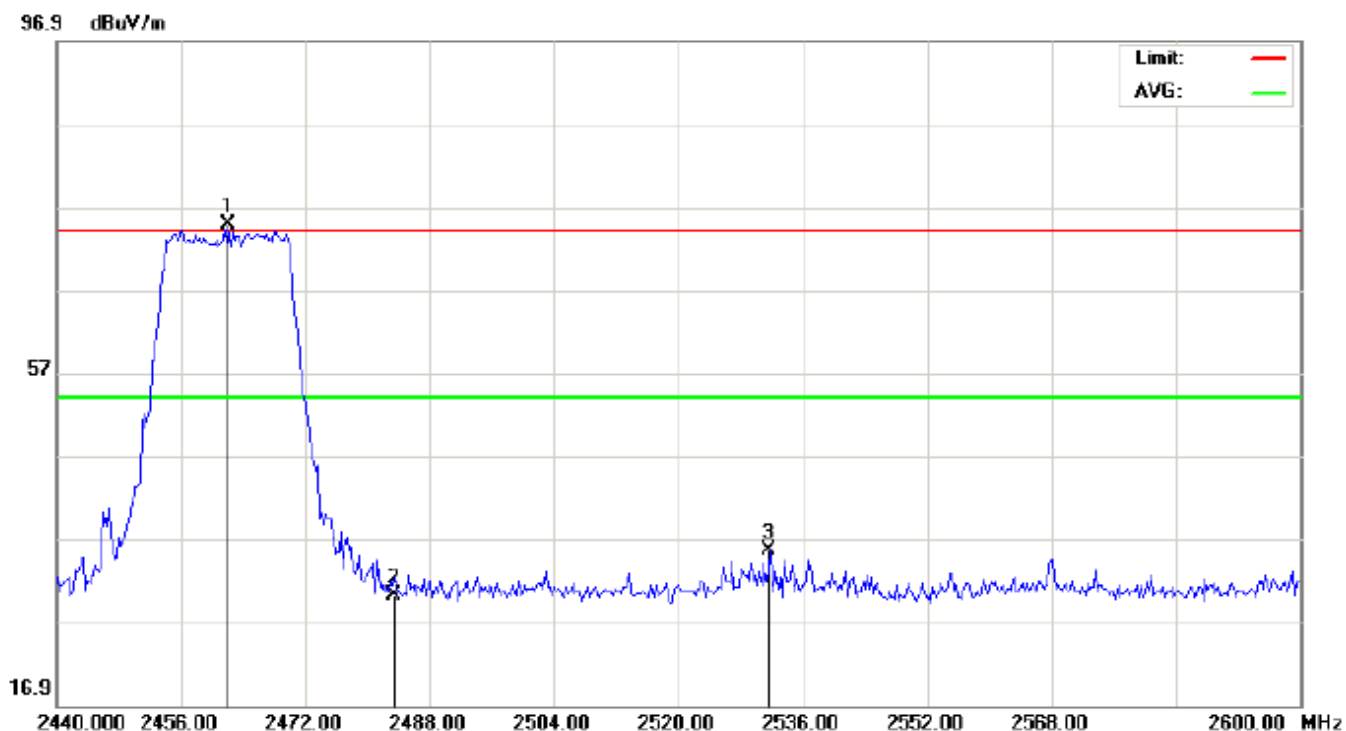
EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g With data rate 6 2412MHZ	Antenna	Horizontal

96.9 dBuV/m



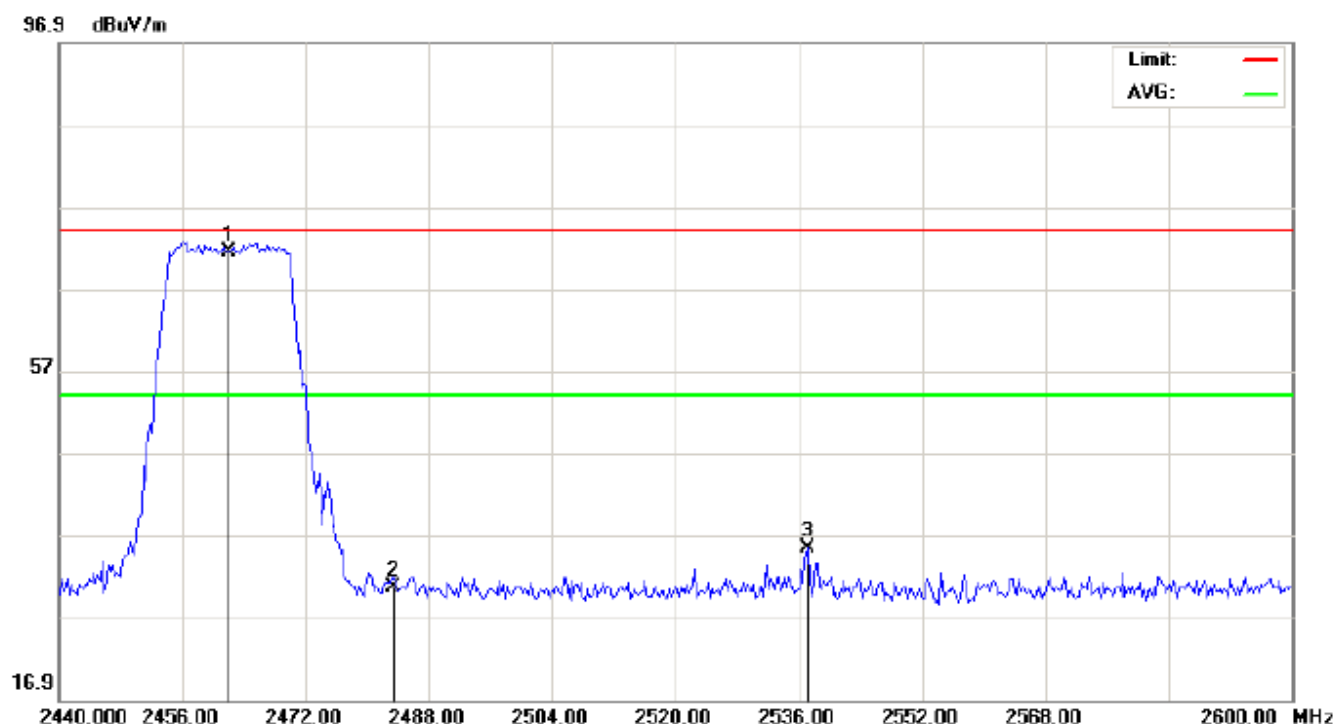
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2336.400	45.44	-9.75	35.69	74.00	-38.31	peak			
2		2400.000	48.61	-9.68	38.93	74.00	-35.07	peak			
3	*	2412.000	82.02	-9.67	72.35	74.00	-1.65	peak			

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g With data rate 6 2412MHZ	Antenna	Vertical



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2462.000	84.47	-9.61	74.86	74.00	0.86	peak			
2		2483.500	39.89	-9.59	30.30	74.00	-43.70	peak			
3		2531.733	45.15	-9.49	35.66	74.00	-38.34	peak			

EUT	Mobile Phone	Model Name	ACEi100
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11g With data rate 6 2412MHZ	Antenna	Horizontal



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2462.000	81.00	-9.61	71.39	74.00	-2.61	peak			
2		2483.500	40.20	-9.59	30.61	74.00	-43.39	peak			
3		2537.067	44.82	-9.48	35.34	74.00	-38.66	peak			

Note: the other modes radiation emission have enough 20dB margin.
Measurement= Reading + Factor, Over=Measure-Limit.

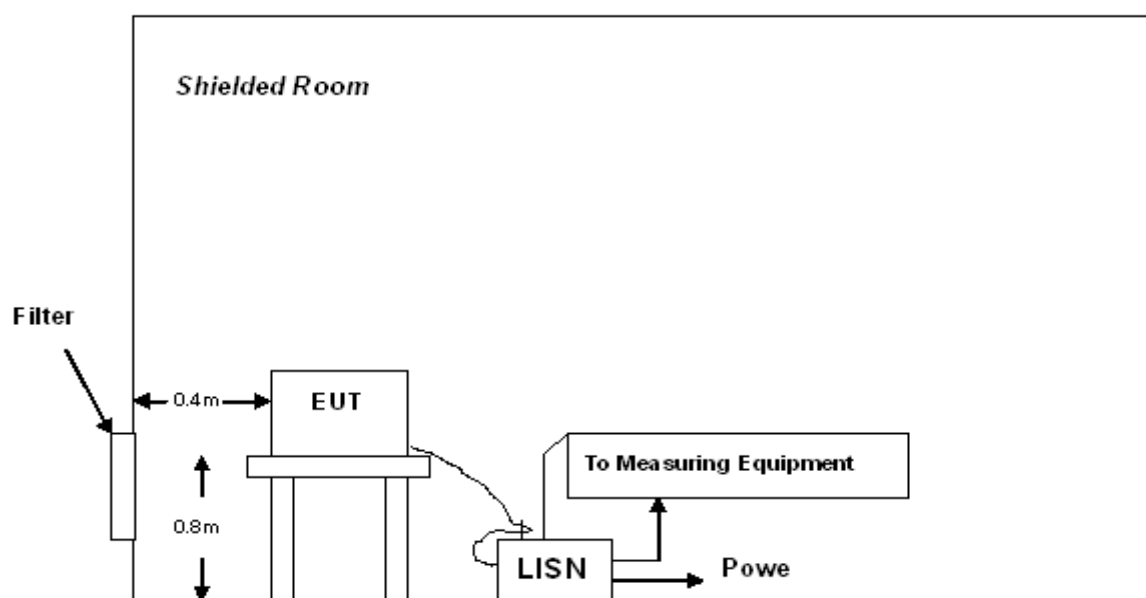
10 FCC LINE CONDUCTED EMISSION TEST

10.1 LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	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

10.2 BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



A: Powered through filter

10.3 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) The EUT charged by adapter which received 120V power from a LISN.
- 5) All support equipments received AC120V power from a second LISN, if any
- 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 following test mode(s) were scanned during the preliminary test:

Preliminary Line Conducted Emission Test				
Frequency Range Investigated		150 KHz TO 30 MHz		
Mode of operation	Date	Report No.	Data#	Worst Mode
802.11b	05/12/2011	AGC17P111101	ACEi100-0	<input checked="" type="checkbox"/>
802.11g	05/12/2011	AGC17P111101	ACEi100-1	<input type="checkbox"/>

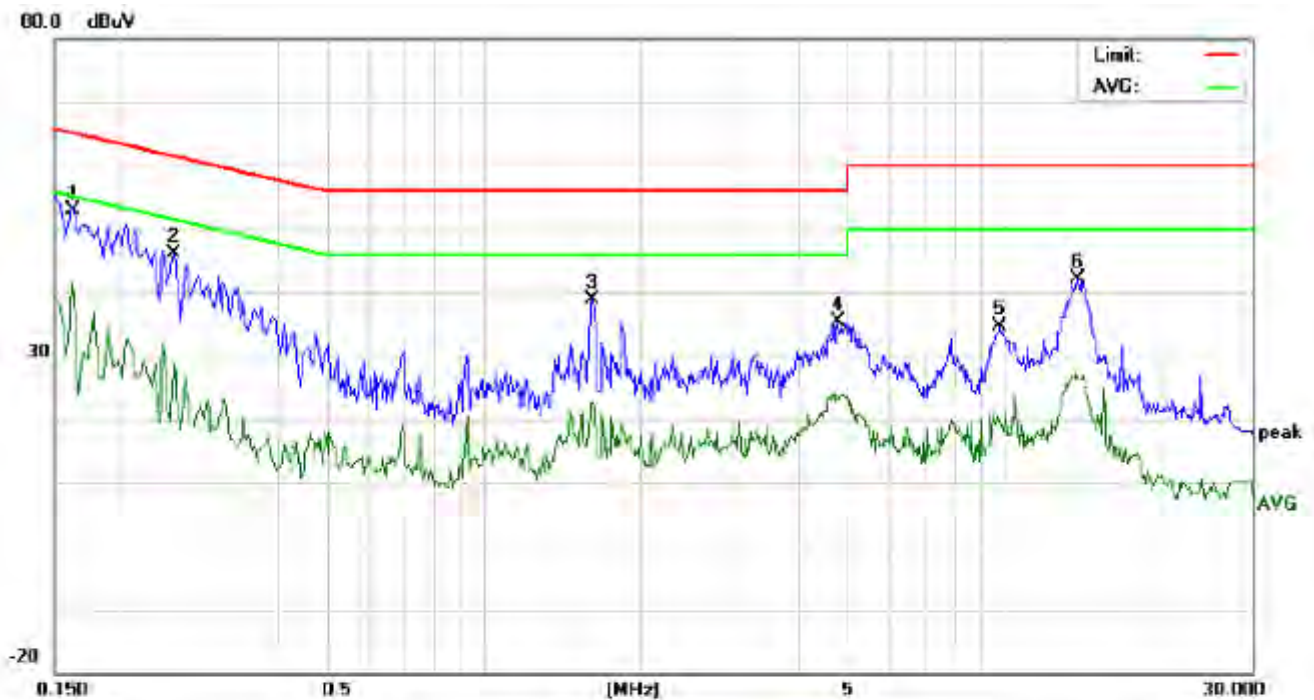
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

10.4 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.

10.5 TEST RESULT OF LINE CONDUCTED EMISSION TEST

TEST RESULT OF L LINE

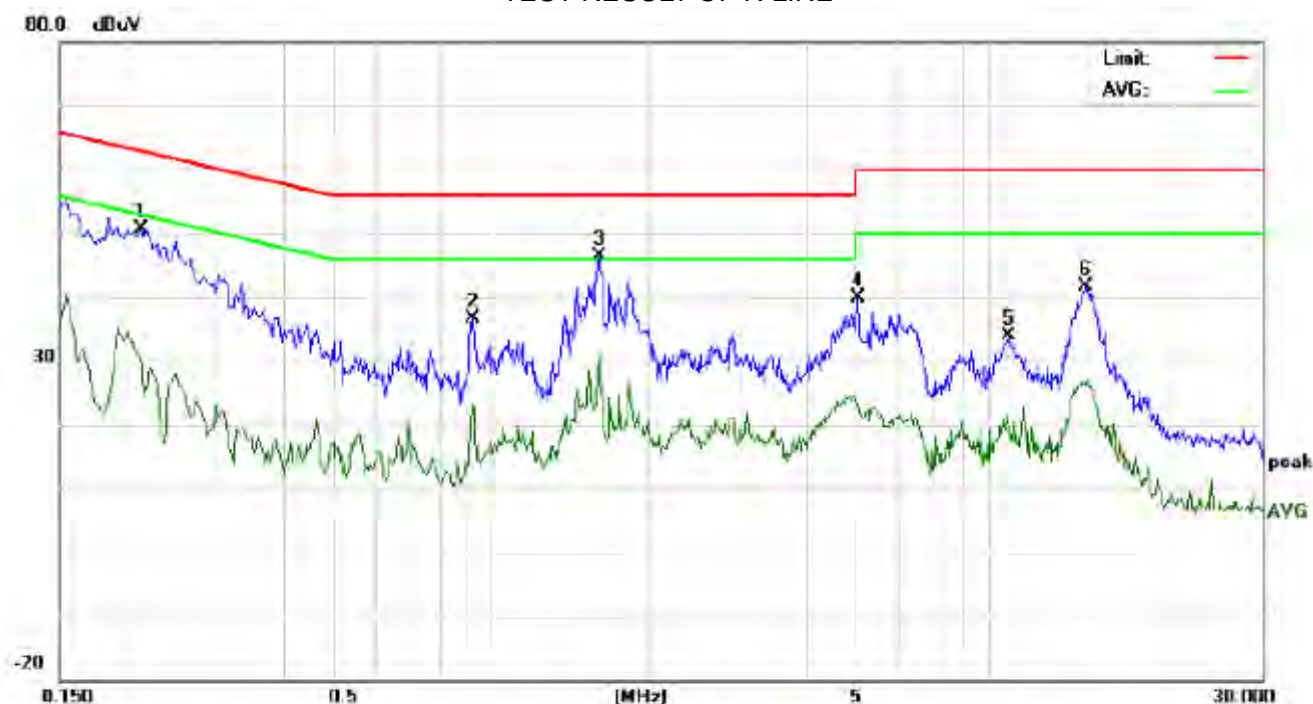


Site: Conduction
Limit: FCC Class B Conduction(QP)
EUT: Mobile Phone
M/N: ACEi100
Mode: 802.11b
Note:

Phase: **L1**
Power:
Temperature: 26
Humidity: 60 %

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor dB	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG		Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1640	45.12		29.23	10.18	55.30		39.41	65.25	55.25	-9.95	-15.84	P	
2	0.2540	35.75		18.43	10.27	46.02		28.70	61.62	51.62	-15.60	-22.92	P	
3	1.6220	28.53		11.94	10.34	38.87		22.28	56.00	46.00	-17.13	-23.72	P	
4	4.8018	25.02		13.22	10.23	35.25		23.45	56.00	46.00	-20.75	-22.55	P	
5	9.8099	24.44		9.57	10.20	34.64		19.77	60.00	50.00	-25.36	-30.23	P	
6	13.8858	31.97		16.72	10.12	42.09		26.84	60.00	50.00	-17.91	-23.16	P	

TEST RESULT OF N LINE



Site: Conduction

Phase: **N**

Temperature: 26

Limit: FCC Class B Conduction(QP)

Power:

Humidity: 60 %

EUT: Mobile Phone

M/N: ACEi100

Mode: 802.11b

Note:

No.	Freq. (MHz)	Reading Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG		Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2139	40.42		20.35	10.23	50.65		30.58	63.05	53.05	-12.40	-22.47	P	
2	0.9260	26.35		12.79	10.40	36.75		23.19	56.00	46.00	-19.25	-22.81	P	
3	1.6180	35.94		20.77	10.34	46.28		31.11	56.00	46.00	-9.72	-14.89	P	
4	5.0537	29.65		13.10	10.24	39.89		23.34	60.00	50.00	-20.11	-26.66	P	
5	9.8099	23.69		8.82	10.20	33.89		19.02	60.00	50.00	-26.11	-30.98	P	
6	13.8056	31.62		15.97	10.12	41.74		26.09	60.00	50.00	-18.26	-23.91	P	

APPENDIX I
PHOTOGRAPHS OF THE EUT
TOP VIEW OF SAMPLE



BOTTOM VIEW OF SAMPLE



LEFT VIEW OF SAMPLE



RIGHT VIEW OF SAMPLE



FRONT VIEW OF SAMPLE



BACK VIEW OF SAMPLE



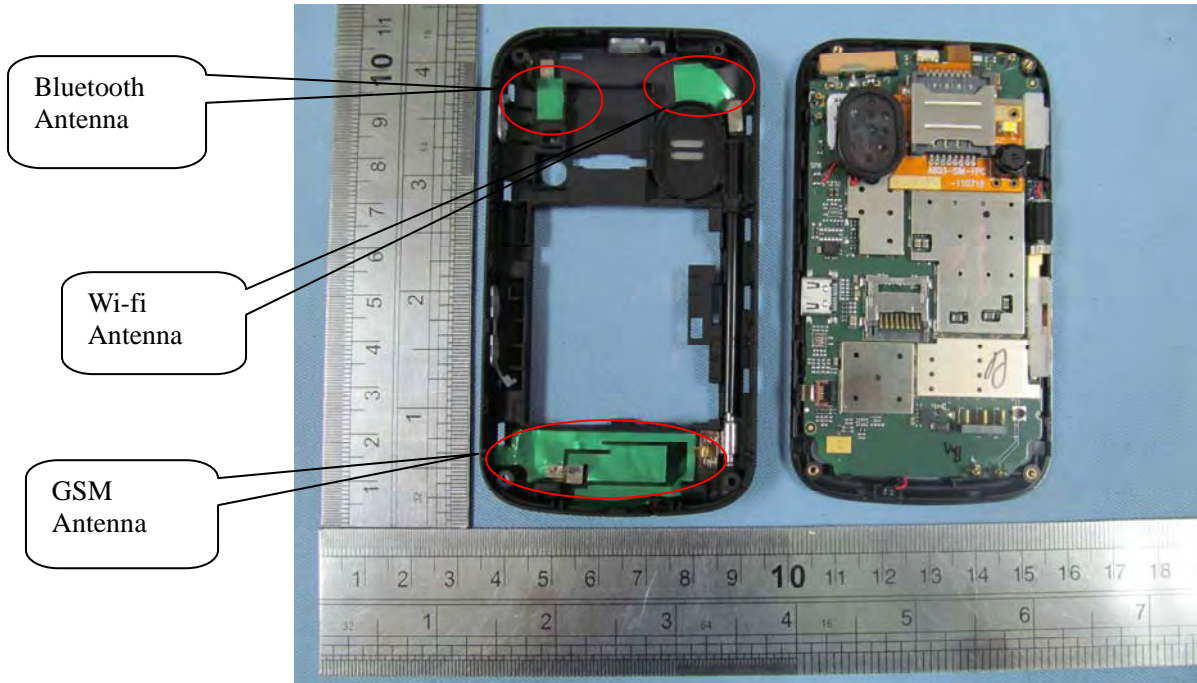
ALL VIEW OF SAMPLE



OPEN VIEW OF SAMPLE-1



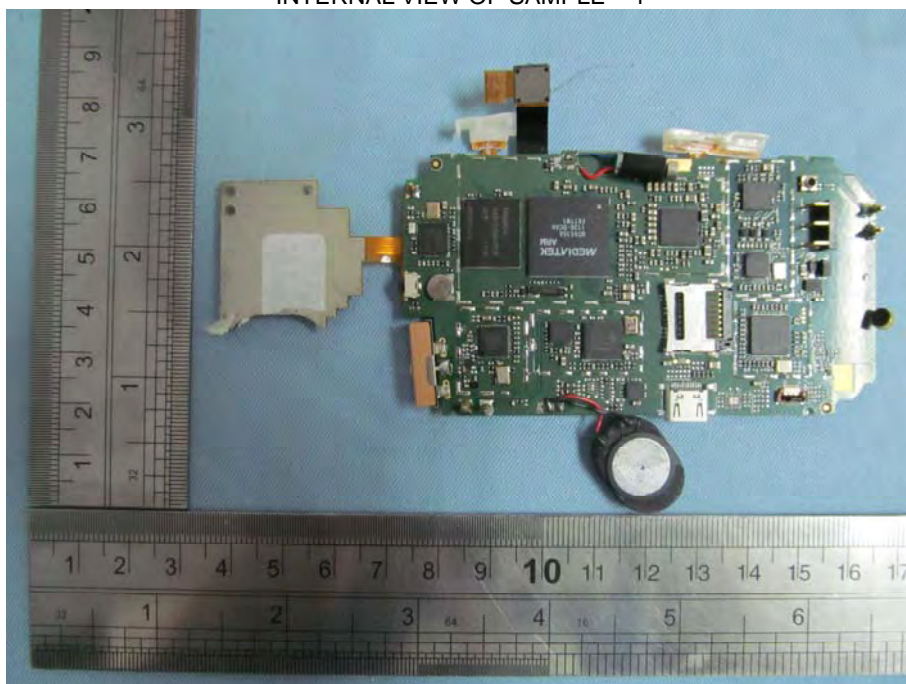
OPEN VIEW OF SAMPLE-2



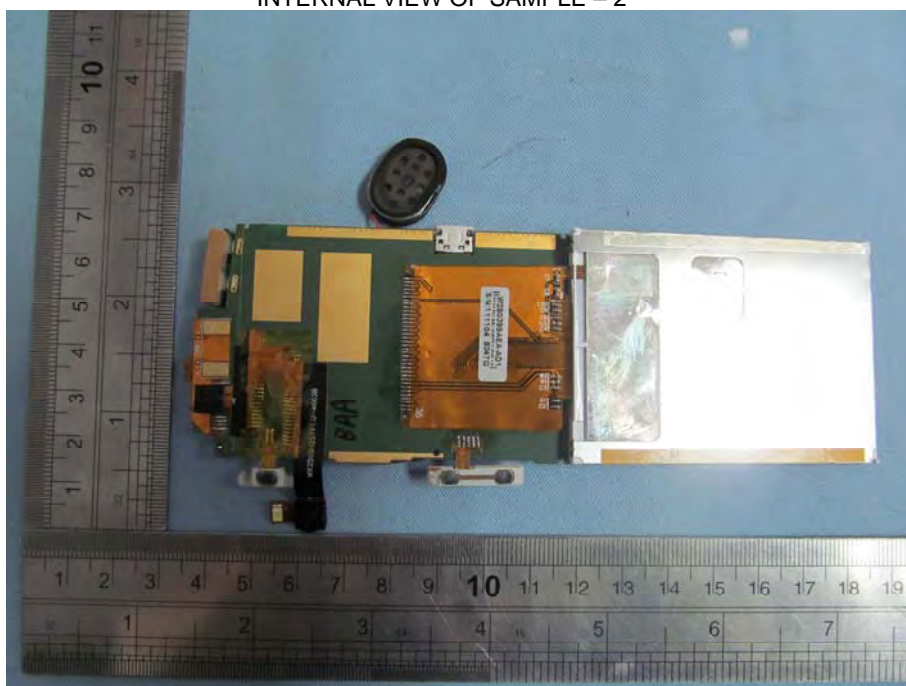
OPEN VIEW OF SAMPLE-3



INTERNAL VIEW OF SAMPLE – 1



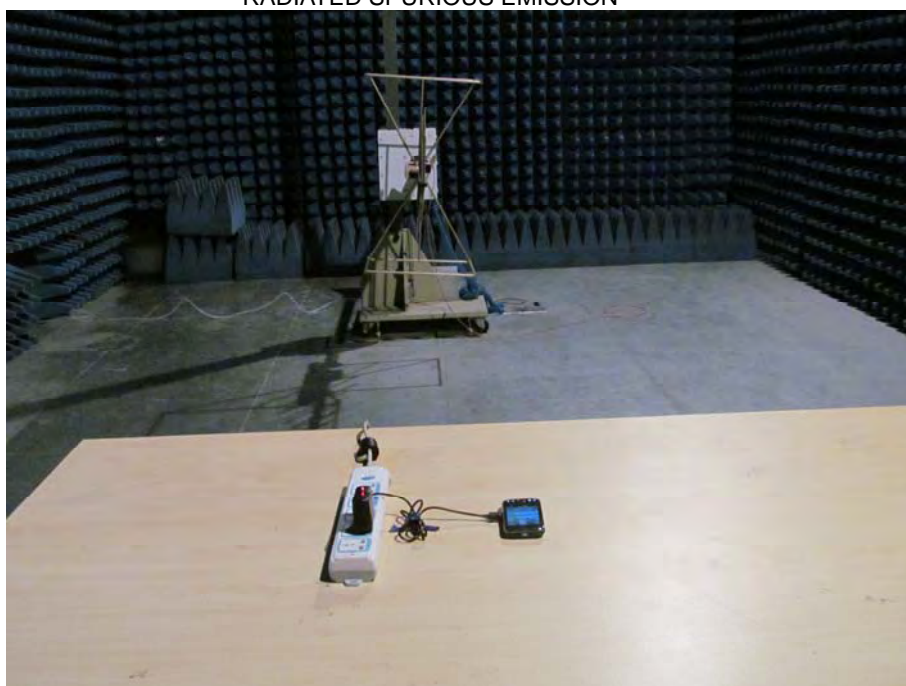
INTERNAL VIEW OF SAMPLE – 2



APPENDIX II
PHOTOGRAPHS OF THE TEST SETUP
CONDUCTED EMISSION



RADIATED SPURIOUS EMISSION



----END OF REPORT----