FCC Test Report

Report No.: AGC07Z110901F2A

FCC ID	:	GSS-VS14406
IC		4280A-VS14406
PRODUCT DESIGNATION	:	Tablet PC
BRAND NAME	:	ViewSonic
TEST MODEL	:	VS14406
CLIENT	:	ViewSonic Corporation
DATE OF ISSUE	:	Oct.27, 2011
STANDARD(S)	:	FCC Part 15 Rules RSS-210: December 2010

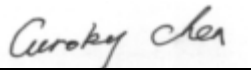
Attestation of ***G***lobal ***C***ompliance Co., Ltd.

VERIFICATION OF COMPLIANCE

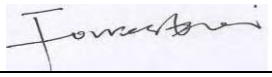
Applicant	ViewSonic Corporation
	381 Brea Canyon Road, Walnut, CA 91789, USA
Manufacturer	ViewSonic Corporation
	381 Brea Canyon Road, Walnut, CA 91789, USA
Product Designation	Tablet PC
Brand Name	ViewSonic
Model Name	VS14406
FCC ID	GSS-VS14406
IC	4280A-VS14406
Report Number	AGC07Z110901F2A
Date of Test	Oct.24 to Oct.26, 2011

WE HEREBY CERTIFY THAT:

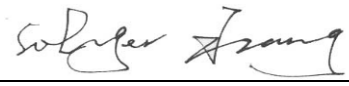
The above equipment was tested by Attestation of Global Compliance Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC Rules Part 15.247.

Tested By: 

Curoky Chen Oct.27, 2011

Reviewed By: 

Forrest Lei Oct.27, 2011

Approved By: 

Solger Zhang Oct.27, 2011

TABLE OF CONTENTS

1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The EUT is a Tablet PC 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
Max. Output Power	11b:17.86dBm,11g:14.87dBm,11n(20):13.76dBm,11n(40):12.58dBm
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) See section 1.3 for 802.11n
Number of channels	11
Antenna Designation	Integrated Antenna
Antenna Gain	Antenna (max): 1.2dBi
Power Supply	DC 10.8V by battery

1.2 TABLE OF CARRIER FREQUENCYS

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	2442 MHZ
	8	2447 MHZ
	9	2452 MHZ
	10	2457 MHZ
	11	2462MHZ

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

1.3 IEEE 802.11N MODULATION SCHEME

MCS Index	Nss	Modulation	R	NBPSC	NCBPS		NDBPS		Data 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	486	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

1.4 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: GSS-VS14406** and **IC: 4280A-VS14406,** filing to comply with the FCC Part 15 and RSS-210 requirements.

1.5 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.

1.6 TEST FACILITY

The test site used to collect the radiated data is located on the address of Attestation of Global Compliance Co., Ltd. 2F., 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 and IC requirements in documents RS212.
FCC register No.: 259865

1.7 SPECIAL ACCESSORIES

Refer to section 2.2.

1.8 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2. SYSTEM TEST CONFIGURATION

2.1 CONFIGURATION OF EUT SYSTEM

Configure :

2.2 EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Mfr/Brand	Model/Type No.	Remark
1	Tablet PC	N/A	VS14406	EUT
2	Keyboard	DELL	KB212-B	A.E
3	mouse	DELL	N889	A.E
4	earphone	SONY	MDR-E9LP	A.E
5	Charger	N/A	HKA03619021-6C	accessory

Note: the following "EUT" in setup diagram means EUT system.

3. SUMMARY OF TEST RESULTS

FCC RULES	IC RULES	DESCRIPTION OF TEST	RESULT
§15.247	A8(RSS-210)	Peak Output Power	Compliant
§15.247	A8(RSS-210)	20 dB Bandwidth	Compliant
§15.247	A8(RSS-210)	Conducted Spurious Emission	Compliant
§15.209	RS-GEN	Radiated Emission	Compliant
§15.247	A8(RSS-210)	Band Edges	Compliant
§15.207	RS-GEN	Line Conduction Emission	Compliant

4. DESCRIPTION OF TEST MODES

TEST MODES
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)
Normal (Wi-Fi)

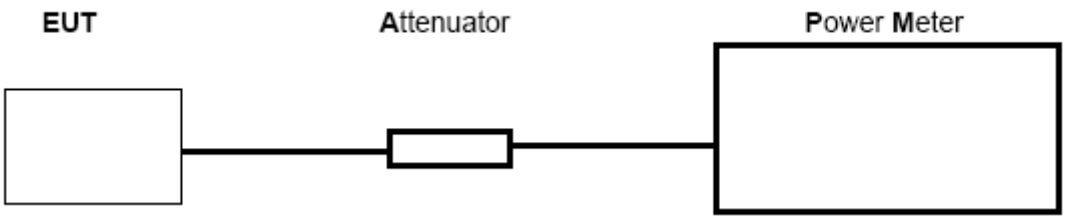
Note: 1 The EUT has been set to operate continuously on the lowest, middle and highest operation frequency individually.
2 All modes under which configure applicable have been tested and the worst mode test data recording in the test report.
3 For Radiated Emission, 3 axis were chosen for testing for each applicable modes.

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
AGILENT	Agilent	E4440A	N/A	06/27/2011	06/26/2012

5.4 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	16.97	17.86	30	Pass
2.437	16.91	17.84	30	Pass
2.462	16.89	17.78	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	13.95	14.84	30	Pass
2.437	13.94	14.76	30	Pass
2.462	13.99	14.87	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	12.81	13.76	30	Pass
2.437	12.68	13.62	30	Pass
2.462	12.69	13.65	30	Pass

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

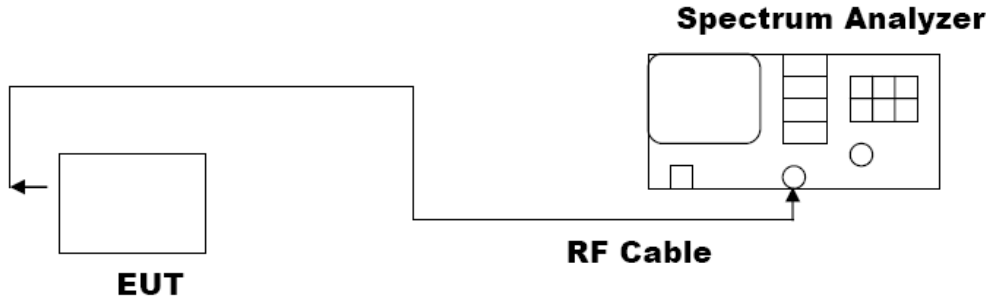
	LIMITS AND MEASUREMENT RESULT			
Frequency (GHz)	Average Power (dBm)	Peak Power (dBm)	Applicable Limits (dBm)	Pass or Fail
2.422	11.65	12.58	30	Pass
2.437	11.32	12.29	30	Pass
2.452	11.46	12.36	30	Pass

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

Description	Manufacturer	Model	SERIAL NUMBER	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4440A	N/A	06/27/2011	06/26/2012
RF attenuator	N/A	RFA20db	N/A	N/A	N/A

6.4 LIMITS AND MEASUREMENT RESULTS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11b with data rate 1

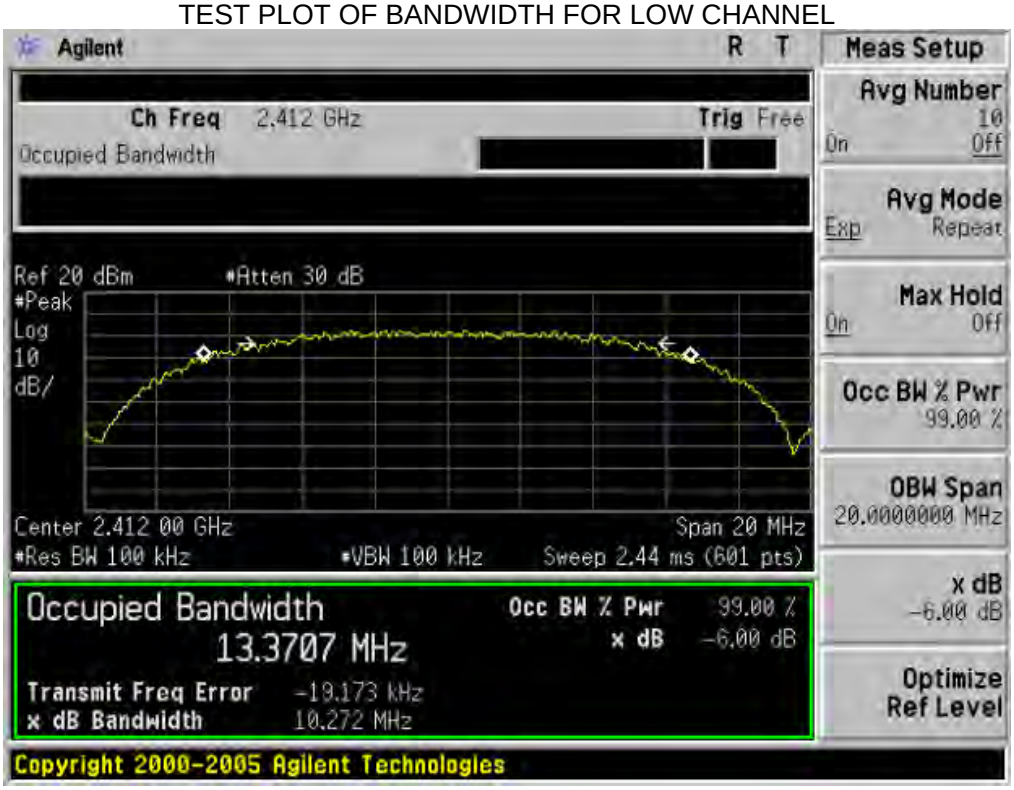
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	10.27	PASS
	Middle Channel	10.26	PASS
	High Channel	10.26	PASS

TEST ITEM	6DB BANDWIDTH
TEST MODE	802.11n 40 with data rate 13.5

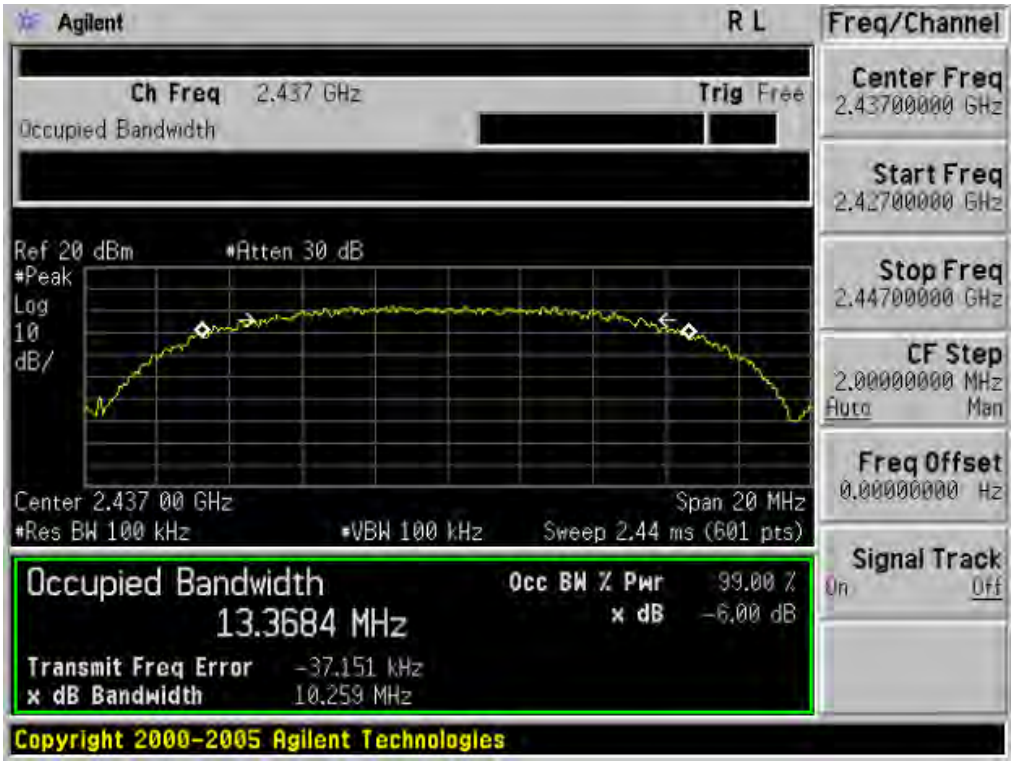
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	36.54	PASS
	Middle Channel	36.58	PASS
	High Channel	36.55	PASS

802.11b TEST RESULT

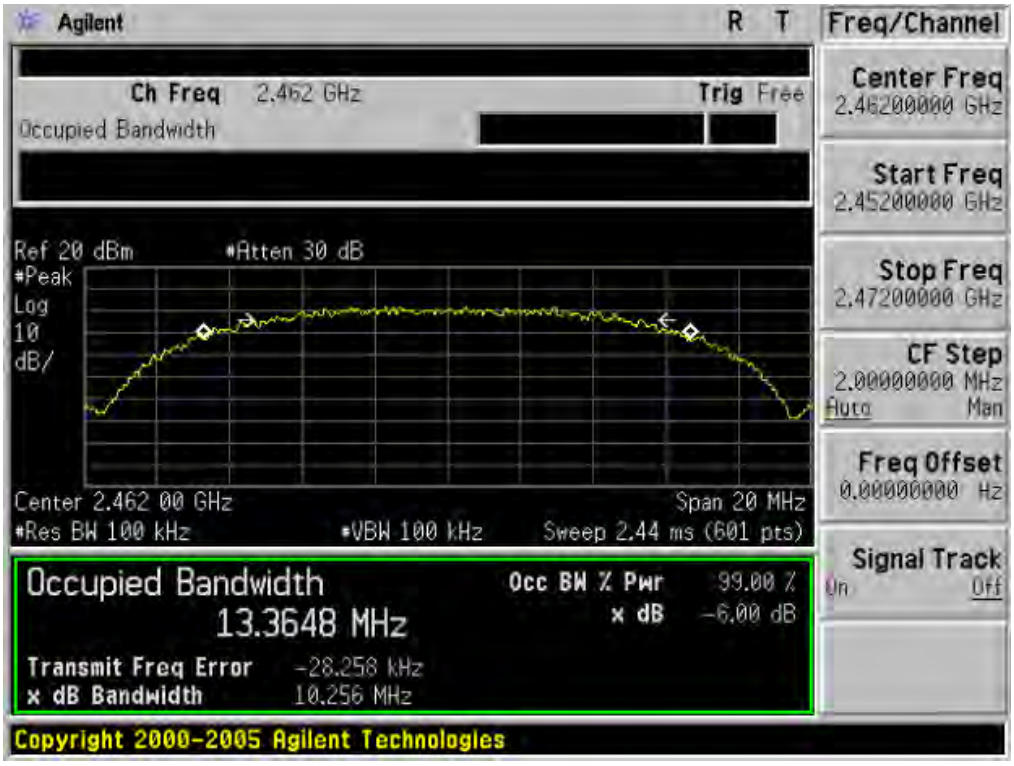
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

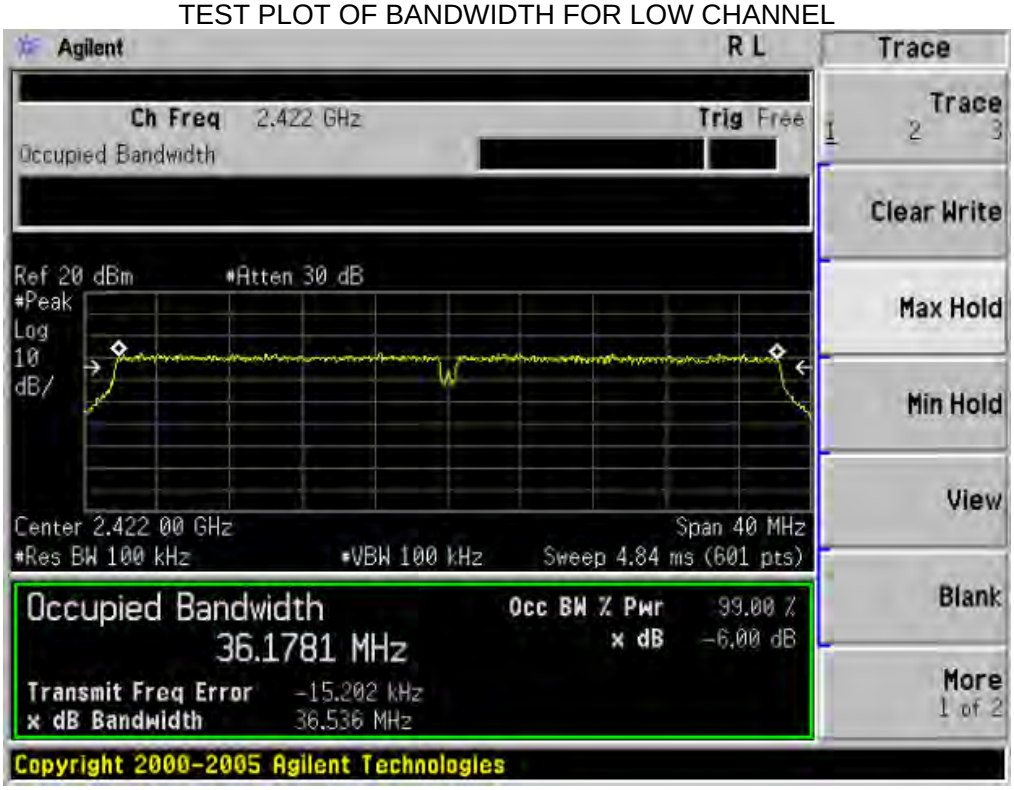


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

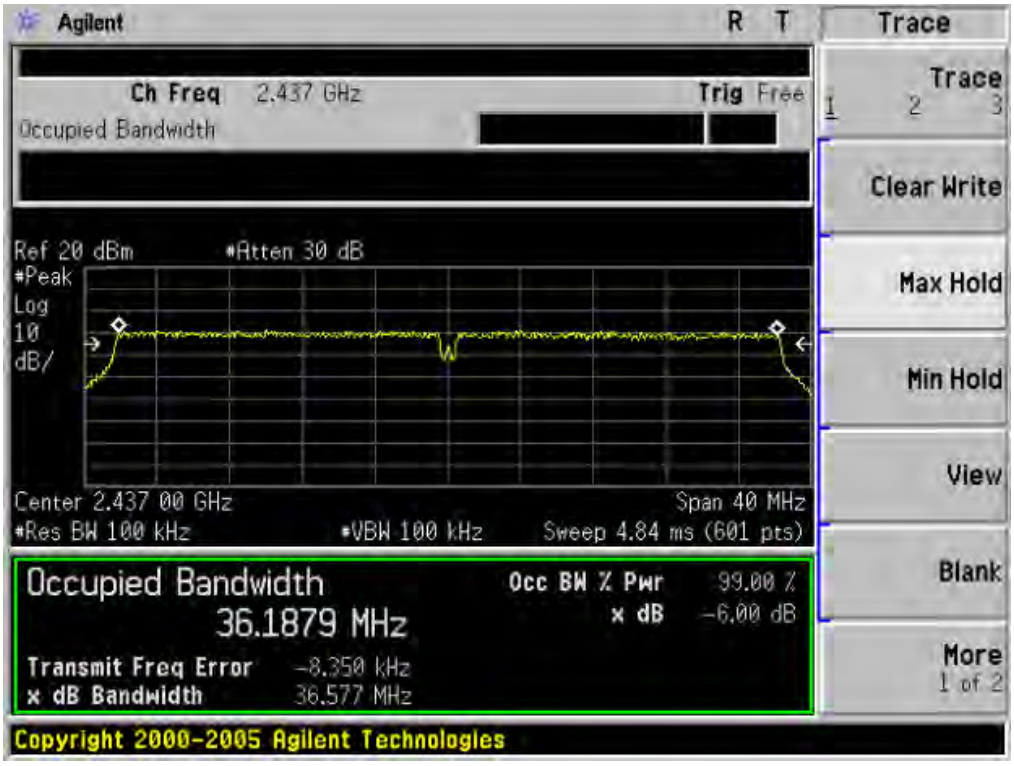


802.11n 40 TEST RESULT

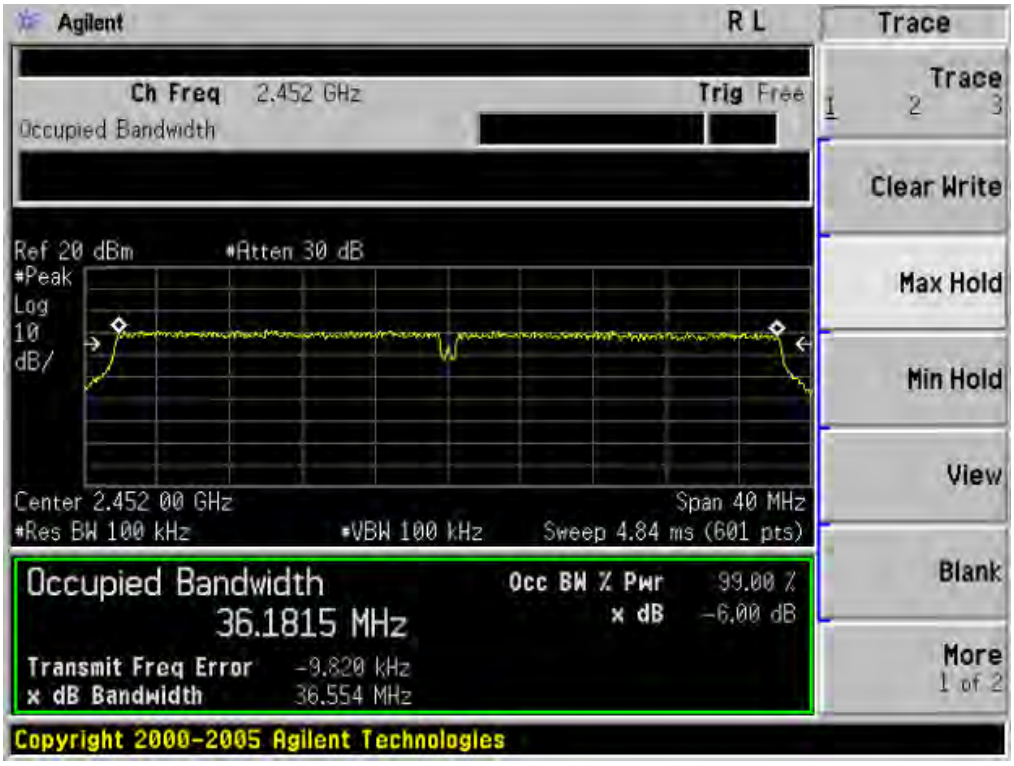
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



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= 3 KHz., Sweep time= AUTO
(5). Set SPA Trace 1 Max hold, then View.

7.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

Refer To Section 6.2

7.3 MEASUREMENT EQUIPMENT USED

Refer To Section 6.3

7.4 LIMITS AND MEASUREMENT RESULT

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

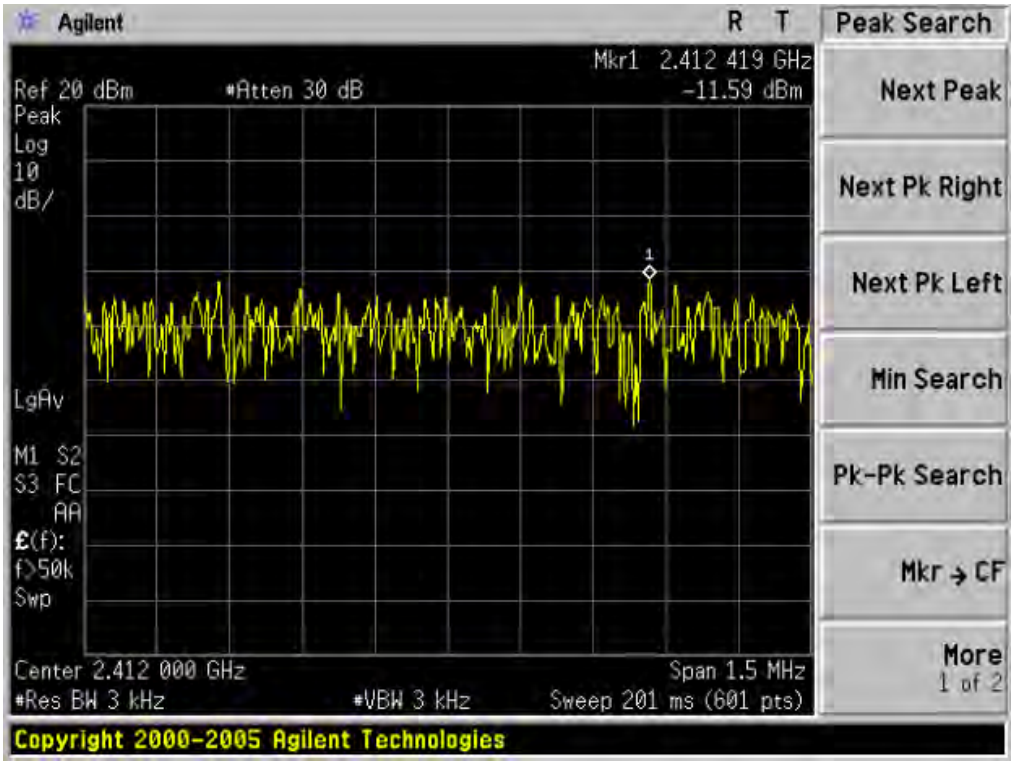
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (dBm/3KHz)		Criteria
8 dBm / 3KHz	Low Channel	-11.59	Pass
	Middle Channel	-13.85	Pass
	High Channel	-15.00	Pass

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

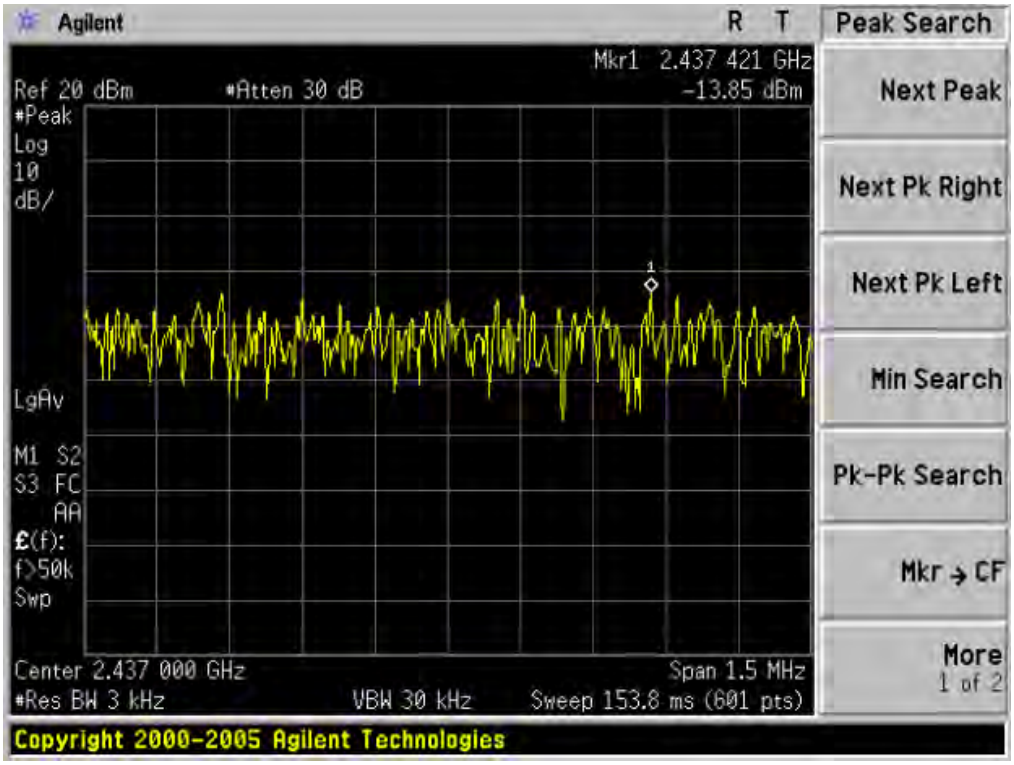
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (dBm/3KHz)		Criteria
8 dBm / 3KHz	Low channel	-20.15	Pass
	Middle Channel	-20.15	Pass
	High channel	-19.78	Pass

802.11b TEST RESULT

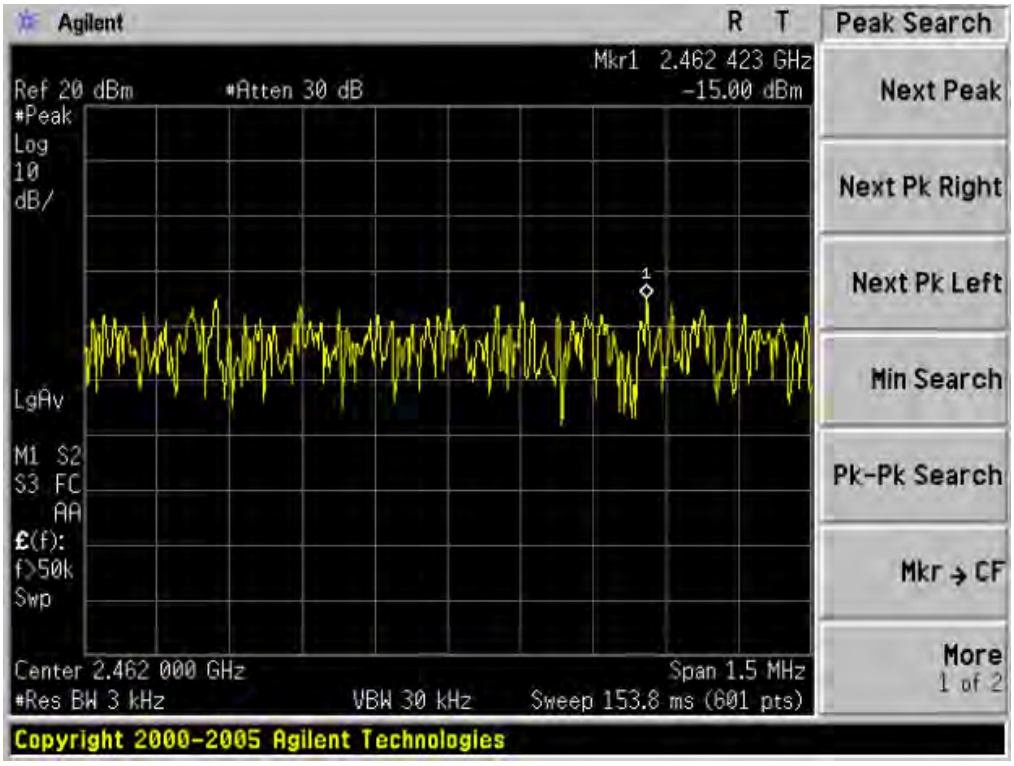
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL

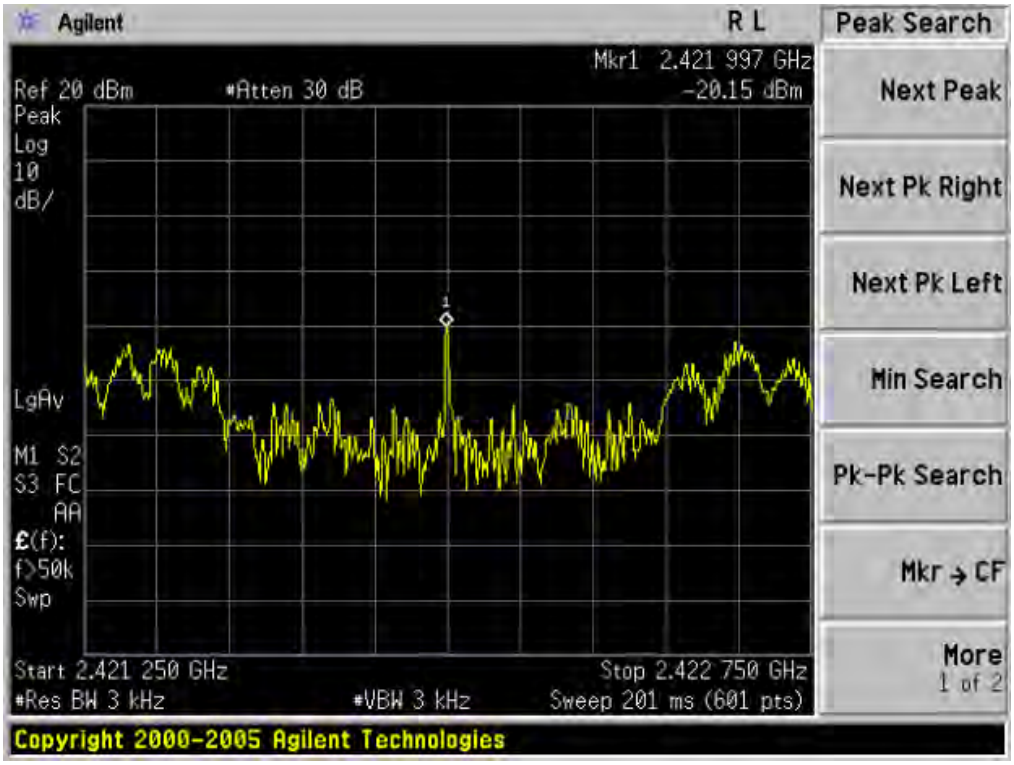


TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL

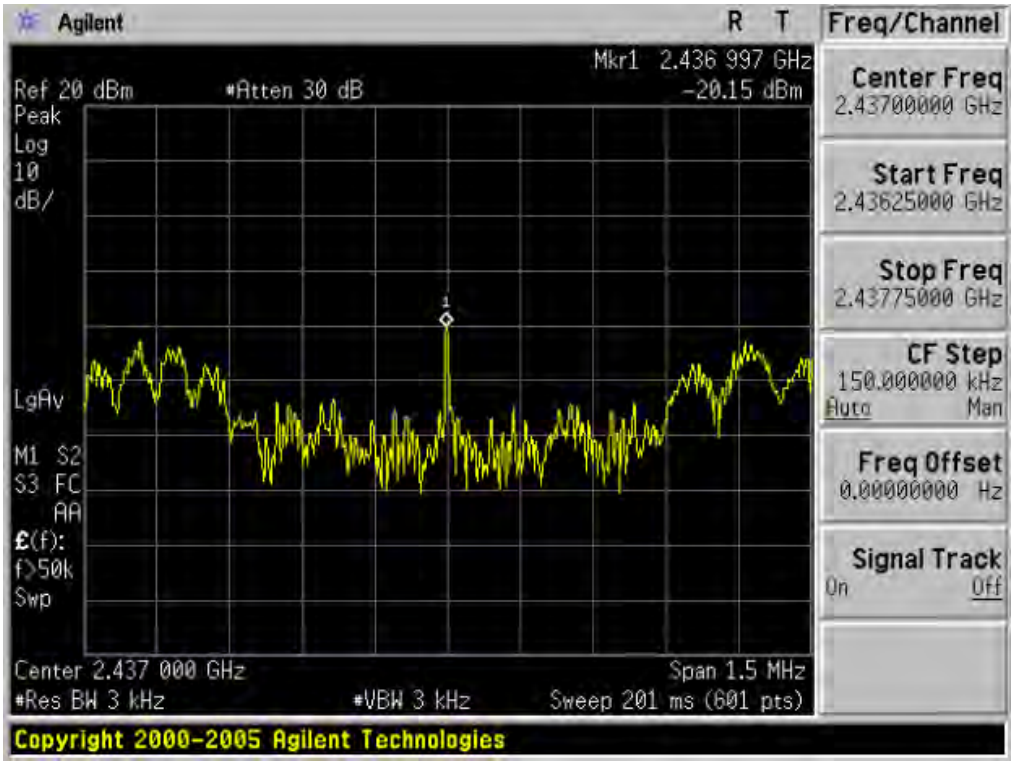


802.11n 40 TEST RESULT

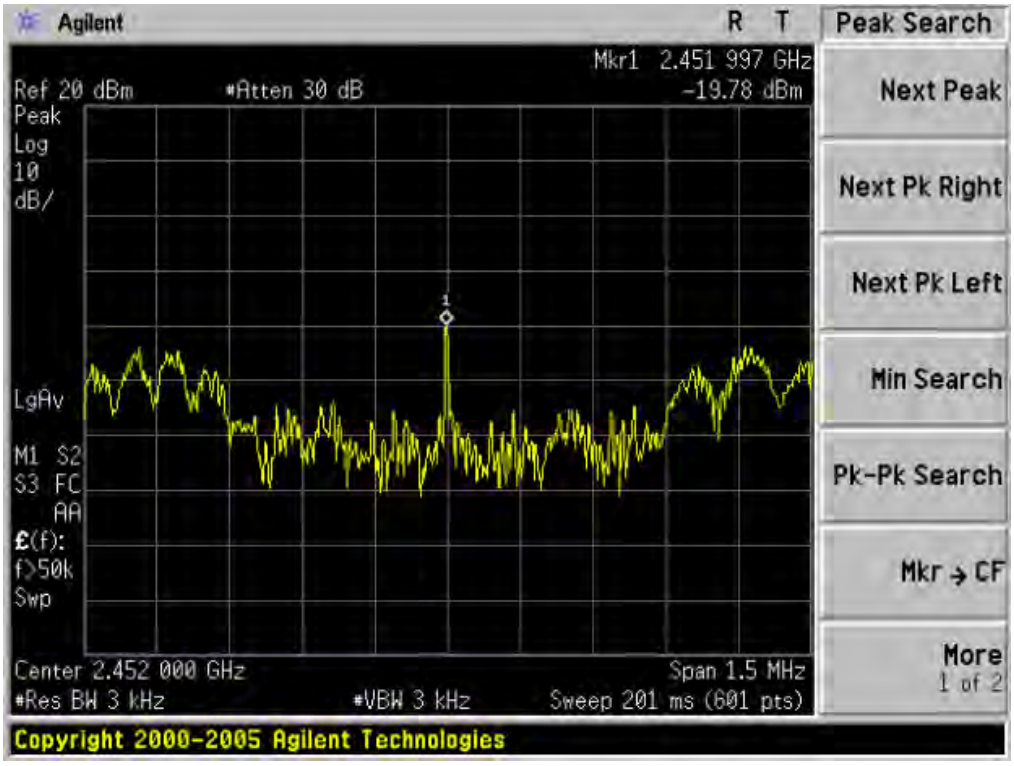
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



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.

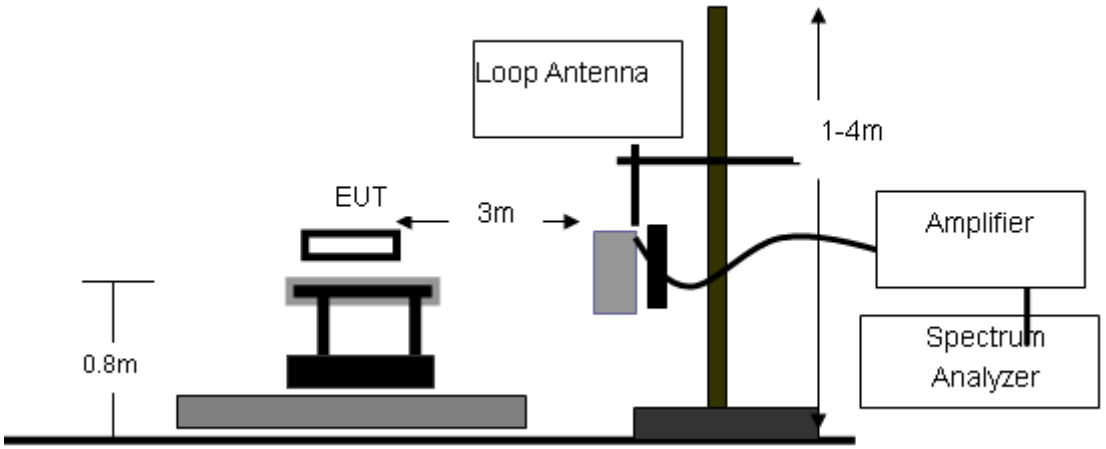
8 If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3dB margin will be repeated one by one using the quasi-peak method for below 1GHz.

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.

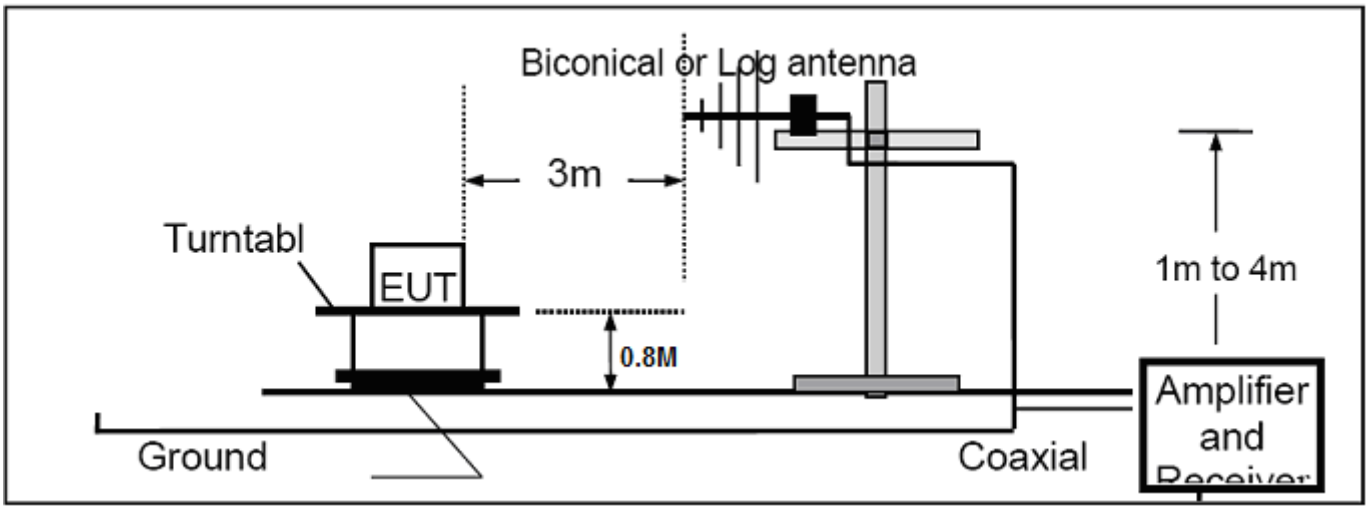
10 in case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded Data should be QP measured by receiver. High-Low scan is not required in this case.

8.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

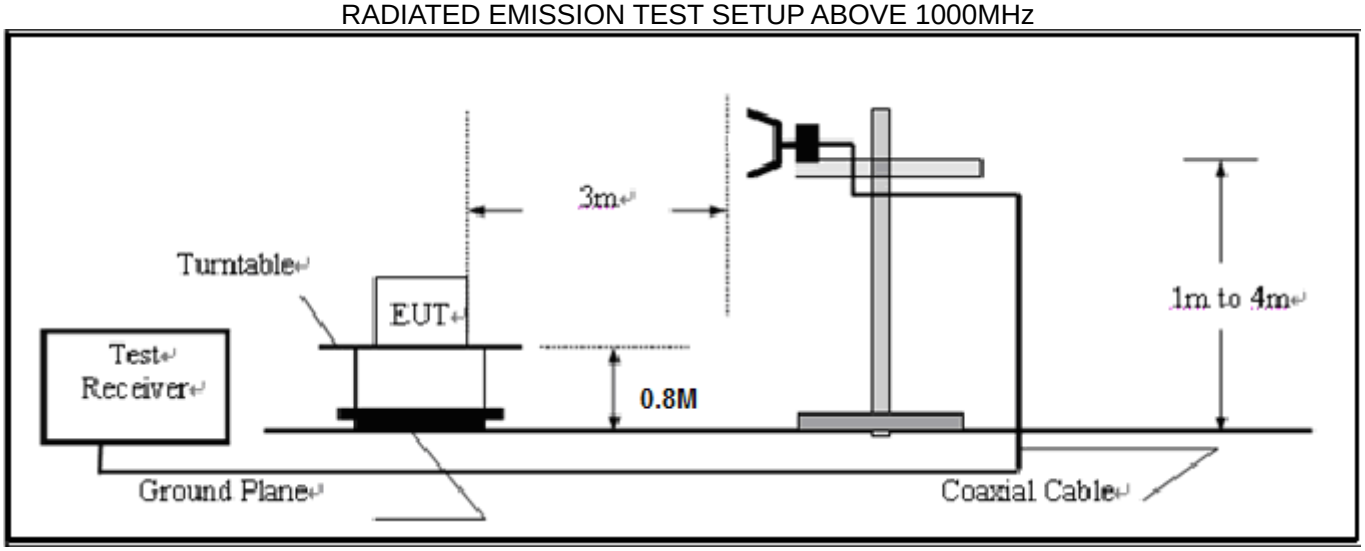
RADIATED EMISSION TEST SETUP BELOW 30MHz



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
Horn Antenna	A.H. Systems Inc.	SAS-574	--	06/27/2011	06/26/2012
EMI Test Receiver	Rohde & Schwarz	ESCI	N/A	06/27/2011	06/26/2012
Amplifier	EM	EM30180	N/A	06/27/2011	06/26/2012
Bilogical Antenna	A.H. Systems Inc.	SAS-521-4	N/A	06/27/2011	06/26/2012
Loop Antenna	A.H.	SAS-526B	264	06/27/2011	06/26/2012
Isolation Transformer	LETEAC	LTBK	--	06/27/2011	06/26/2012

8.4 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

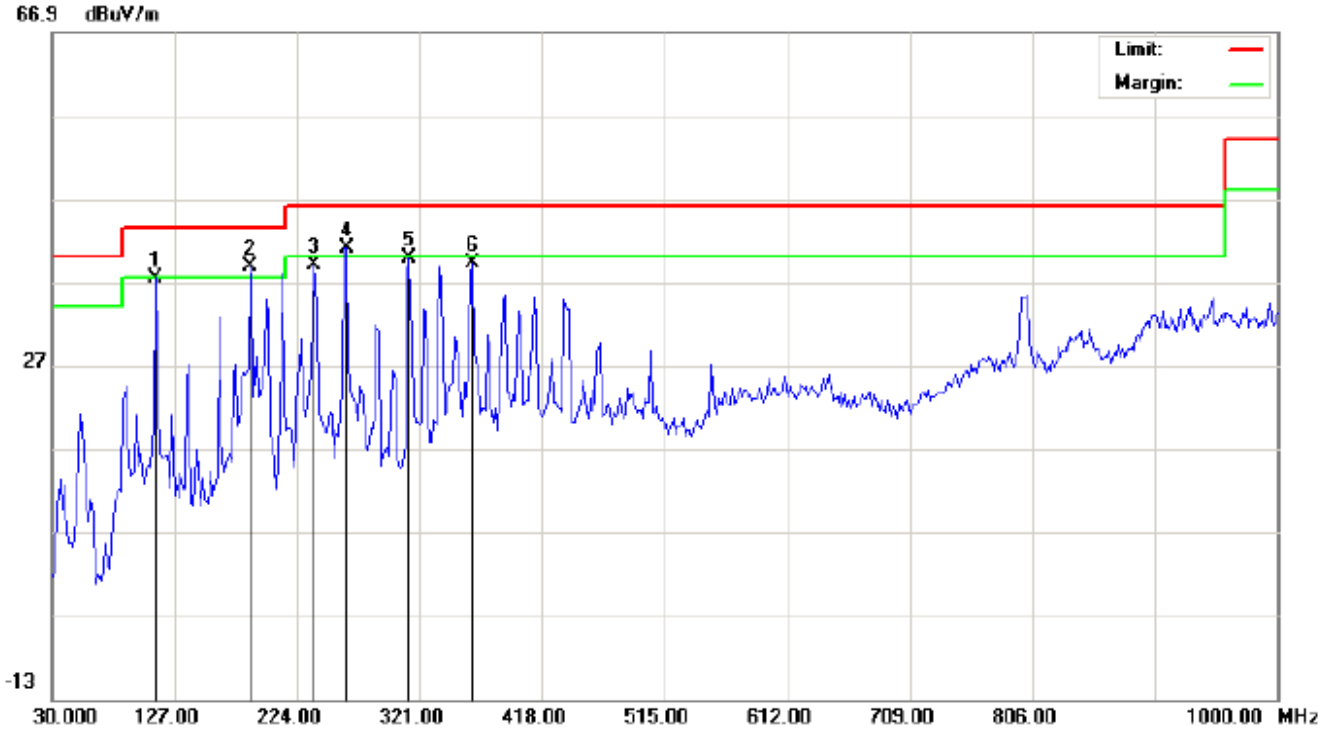
Note: All modes were tested For restricted band radiated emission,
the test records reported below are the worst result compared to other modes.

RADIATED EMISSION BELOW 30MHZ

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

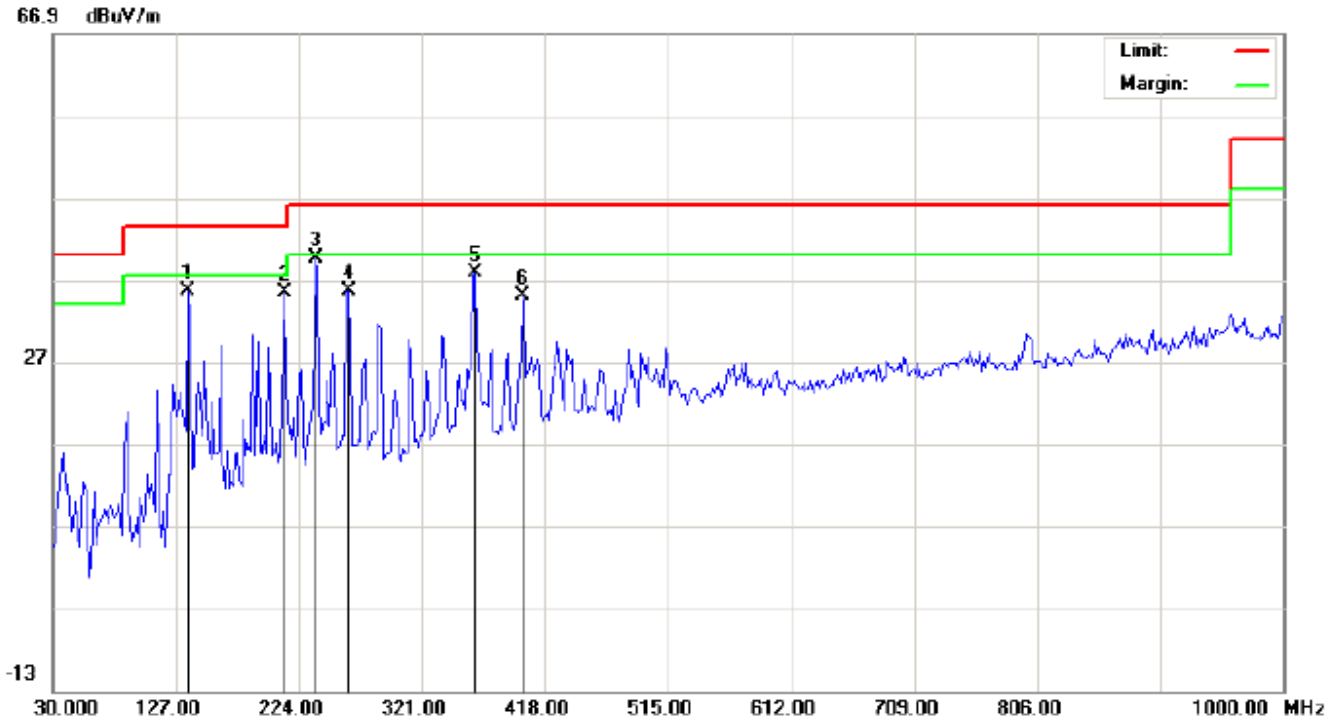
RADIATED EMISSION BELOW 1GHZ

EUT	Tablet PC	Model Name	VS14406
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		112.4500	24.81	12.63	37.44	43.50	-6.06	peak			
2	*	186.8163	23.47	15.27	38.74	43.50	-4.76	peak			
3		236.9333	22.25	16.70	38.95	46.00	-7.05	peak			
4	!	262.8000	24.17	16.86	41.03	46.00	-4.97	peak			
5		312.9166	21.98	17.85	39.83	46.00	-6.17	peak			
6		363.0332	20.09	19.13	39.22	46.00	-6.78	peak			

EUT	Tablet PC	Model Name	VS14406
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With date rate 1 2412MHZ	Antenna	Horizontal

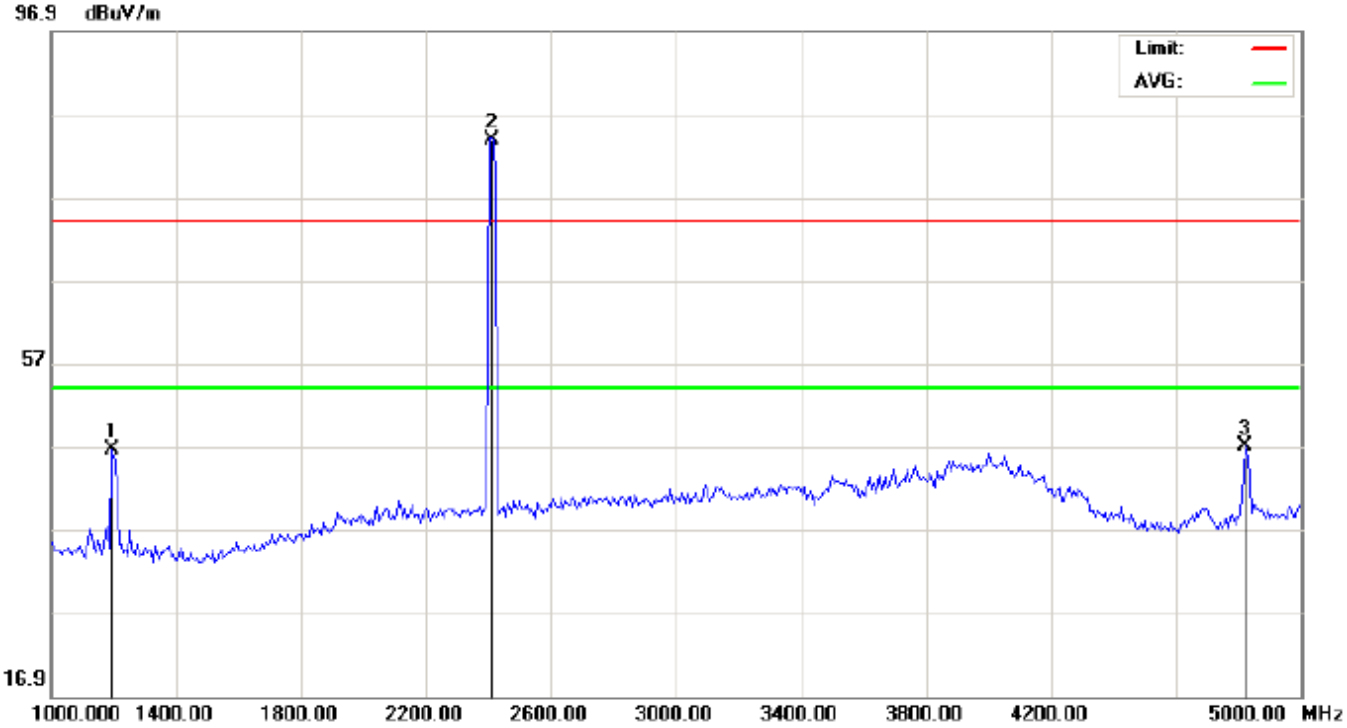


No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		136.6999	21.76	13.89	35.65	43.50	-7.85	peak			
2		212.6833	20.68	14.64	35.32	43.50	-8.18	peak			
3	*	236.9333	24.11	15.51	39.62	46.00	-6.38	peak			
4		262.8000	18.42	17.23	35.65	46.00	-10.35	peak			
5		363.0332	18.61	19.13	37.74	46.00	-8.26	peak			
6		400.2167	14.13	20.84	34.97	46.00	-11.03	peak			

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

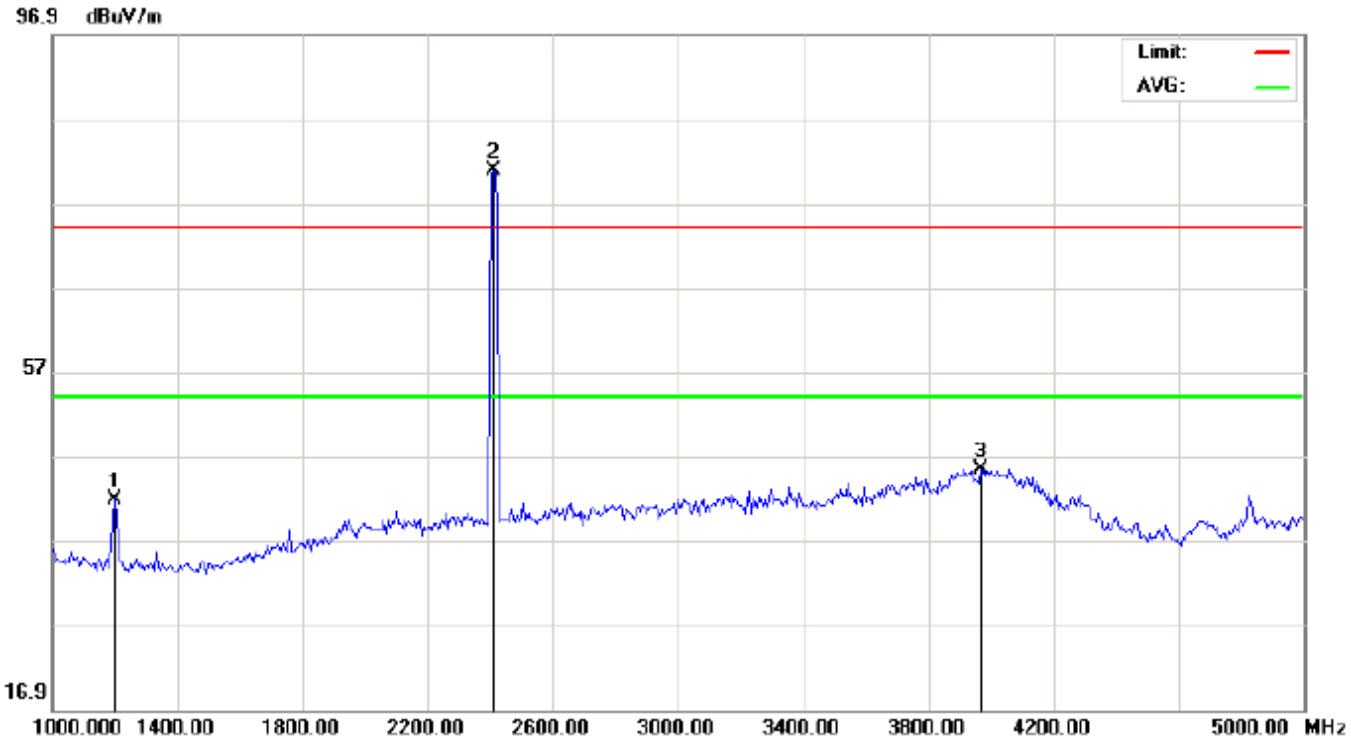
RADIATED EMISSION ABOVE 1GHZ

EUT	Tablet PC	Model Name	VS14406
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		1193.333	52.02	-5.51	46.51	74.00	-27.49	peak			
2	*	2412.000	83.42	0.33	83.75	74.00	9.75	peak			
3		4820.000	49.32	-2.27	47.05	74.00	-26.95	peak			

EUT	Tablet PC	Model Name	VS14406
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		1200.000	47.40	-5.51	41.89	74.00	-32.11	peak			
2	*	2412.000	80.56	0.33	80.89	74.00	6.89	peak			
3		3966.667	40.45	4.98	45.43	74.00	-28.57	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

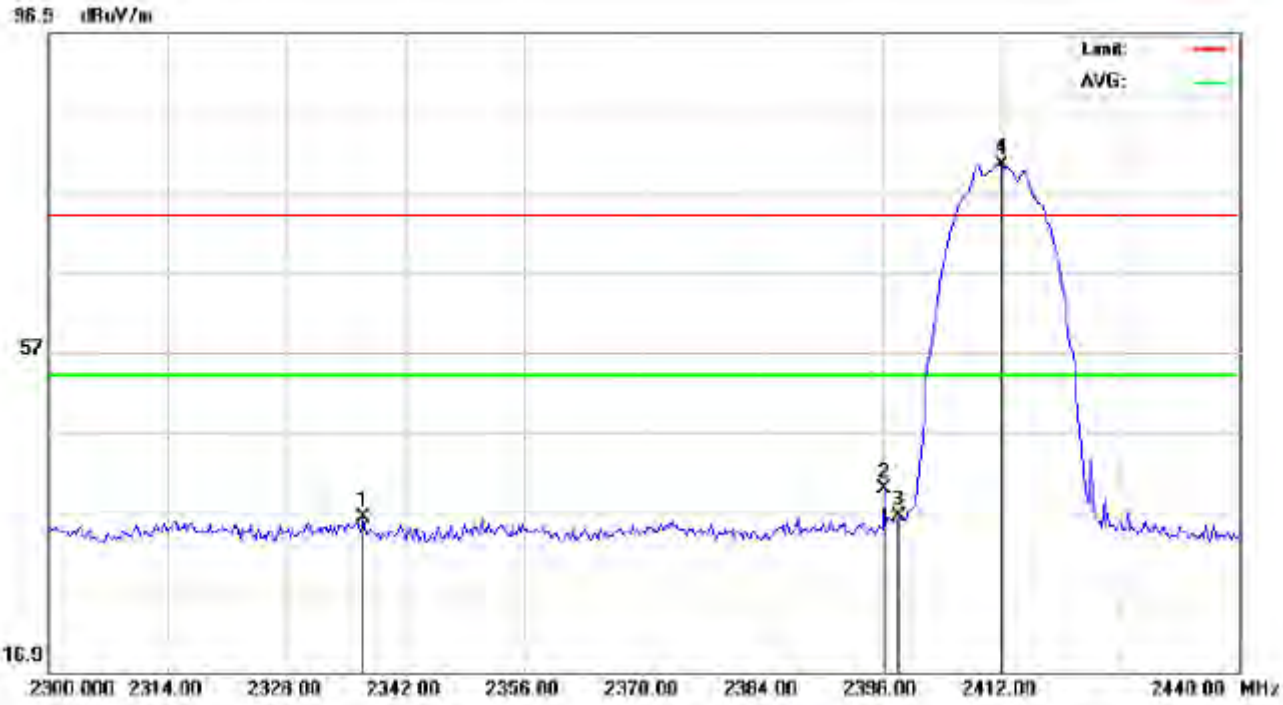
1, Set the EUT Work on the top, the bottom operation frequency individually.
2. Set SPA Start or Stop Frequency = Operation Frequency, RBW= 1MHz, VBW= 1MHz.
3. The band edges was measured and recorded.

9.2 TEST SET-UP

The Same as described in section 8.2

9.3 TEST RESULT

EUT	Tablet PC	Model Name	VS14406
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With data rate 1 2412MHZ	Antenna	Vertical



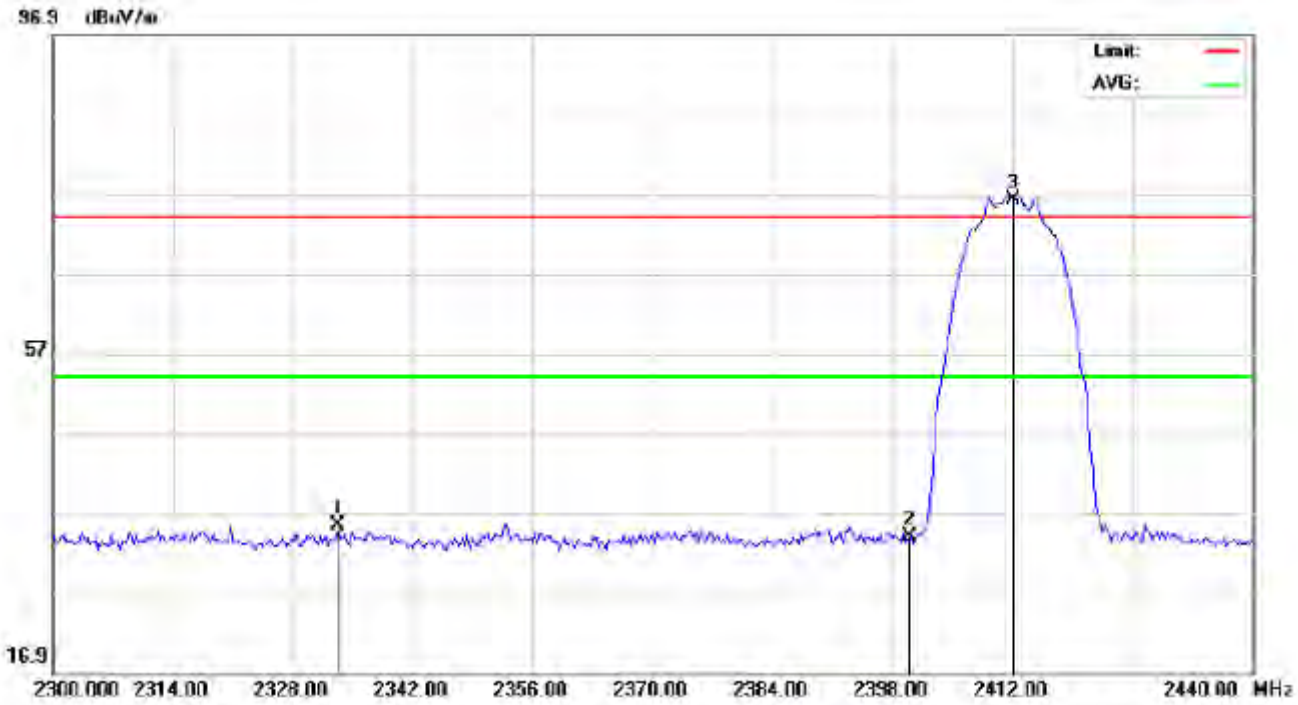
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: Tablet PC
M/N: VS14406
Mode: 2412 TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

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		2337.100	35.94	0.25	36.19	74.00	-37.81	peak			
2		2398.233	39.58	0.32	39.90	74.00	-34.10	peak			
3		2400.000	36.00	0.32	36.32	74.00	-37.68	peak			
4	*	2412.000	80.09	0.33	80.42	74.00	6.42	peak			

EUT	Tablet PC	Model Name	VS14406
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With data rate 1 2412MHZ	Antenna	Horizontal



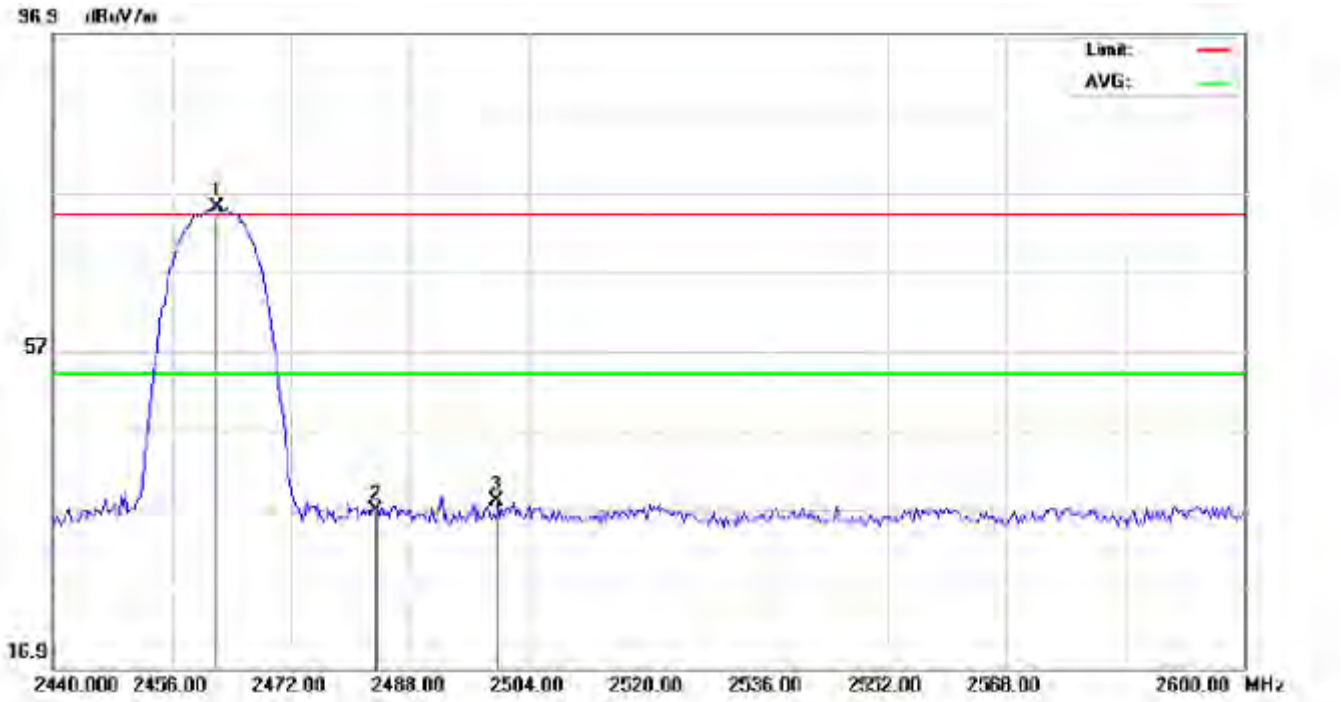
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: Tablet PC
M/N: VS14406
Mode: 2412 TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

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		2333.367	35.14	0.25	35.39	74.00	-38.61	peak			
2		2400.000	33.61	0.32	33.93	74.00	-40.07	peak			
3	*	2412.000	75.96	0.33	76.29	74.00	2.29	peak			

EUT	Tablet PC	Model Name	VS14406
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
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: Tablet PC
M/N: VS14406
Mode: 2462 TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

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	74.69	0.39	75.08	74.00	1.08	peak			
2		2483.500	36.49	0.41	36.90	74.00	-37.10	peak			
3		2499.733	37.50	0.43	37.93	74.00	-36.07	peak			

EUT	Tablet PC	Model Name	VS14406
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b With data rate 1 2462MHZ	Antenna	Horizontal

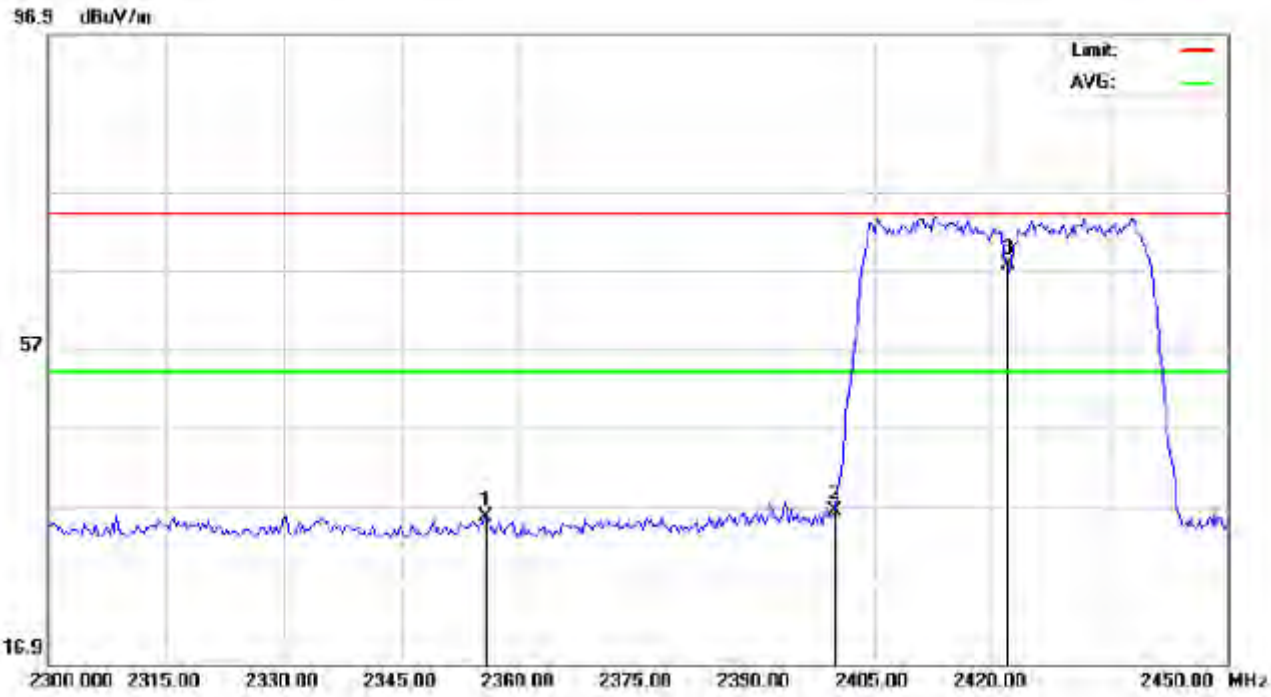
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: Tablet PC
M/N: VS14406
Mode: 2462 TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

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	75.80	0.39	76.19	74.00	2.19	peak			
2		2483.500	36.35	0.41	36.76	74.00	-37.24	peak			
3		2524.533	37.49	0.49	37.98	74.00	-36.02	peak			

EUT	Tablet PC	Model Name	VS14406
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



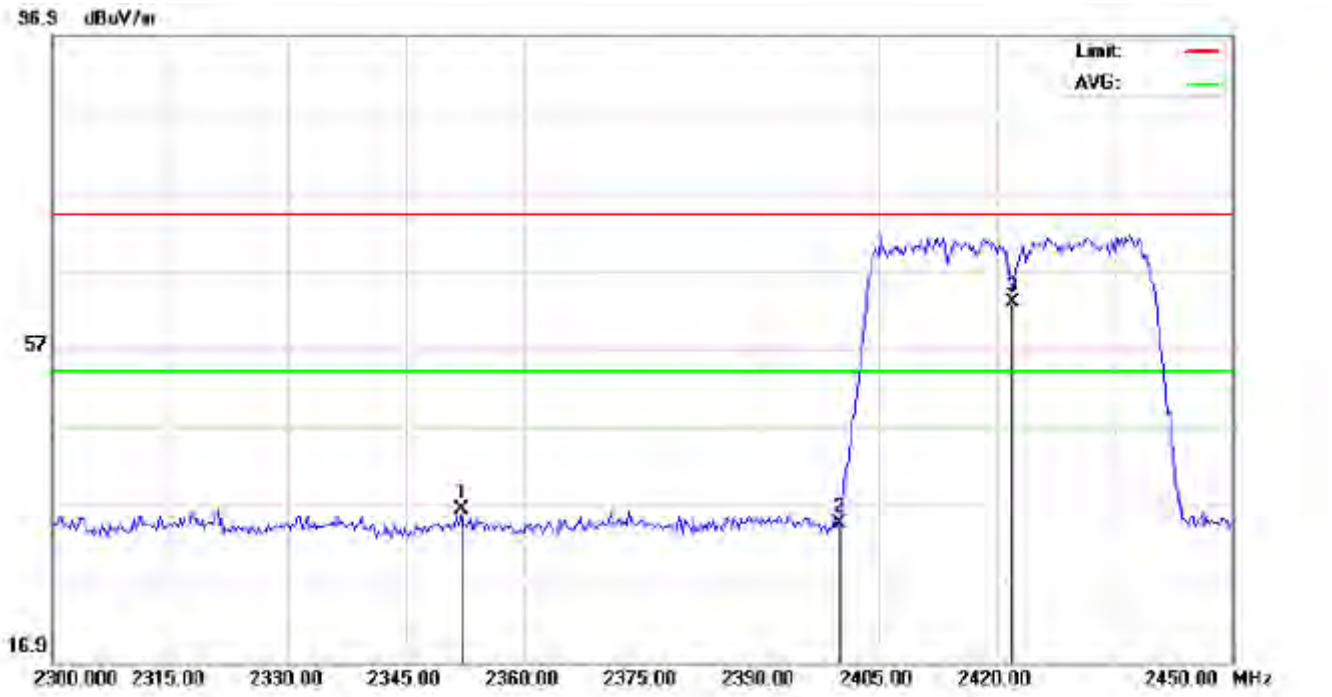
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: Tablet PC
M/N: VS14406
Mode: 2422 TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

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		2355.750	35.41	0.27	35.68	74.00	-38.32	peak			
2		2400.000	36.17	0.32	36.49	74.00	-37.51	peak			
3	*	2422.000	67.21	0.34	67.55	74.00	-6.45	peak			

EUT	Tablet PC	Model Name	VS14406
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



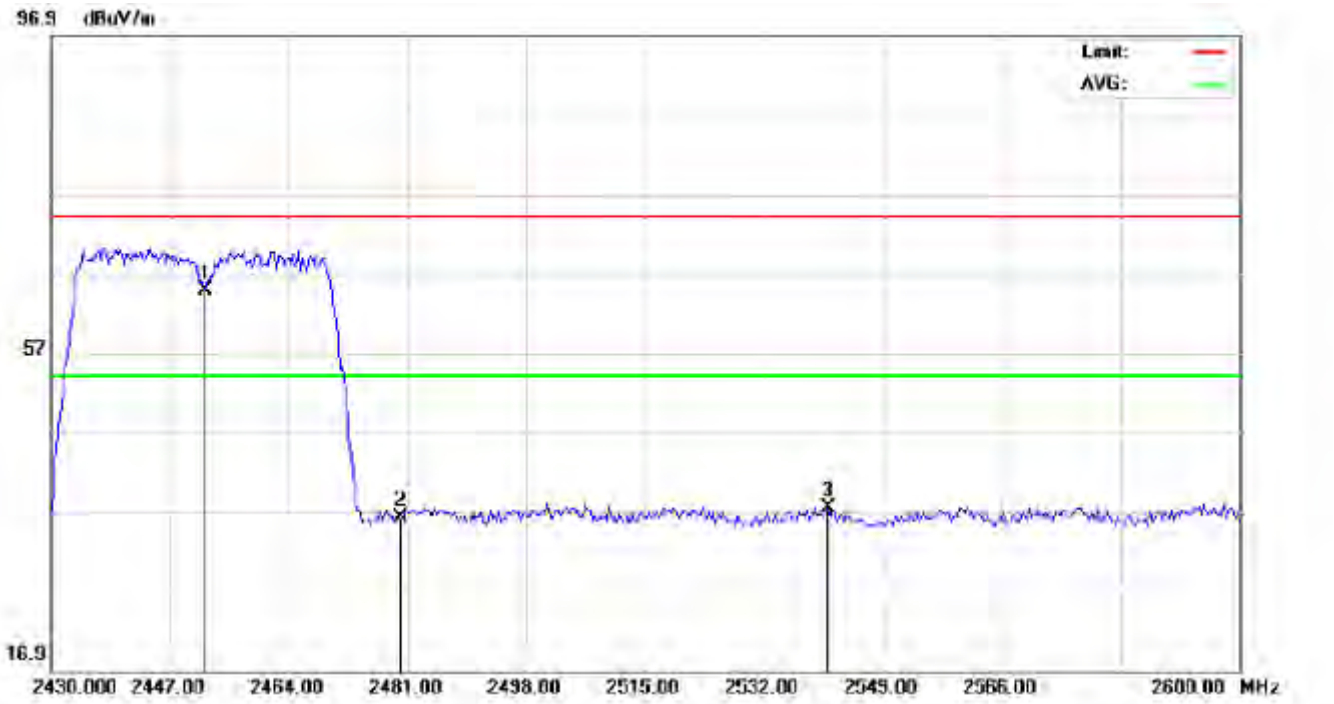
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: Tablet PC
M/N: VS14406
Mode: 2422 TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

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		2352.000	36.09	0.27	36.36	74.00	-37.64	peak			
2		2400.000	34.34	0.32	34.66	74.00	-39.34	peak			
3	*	2422.000	62.41	0.34	62.75	74.00	-11.25	peak			

EUT	Tablet PC	Model Name	VS14406
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



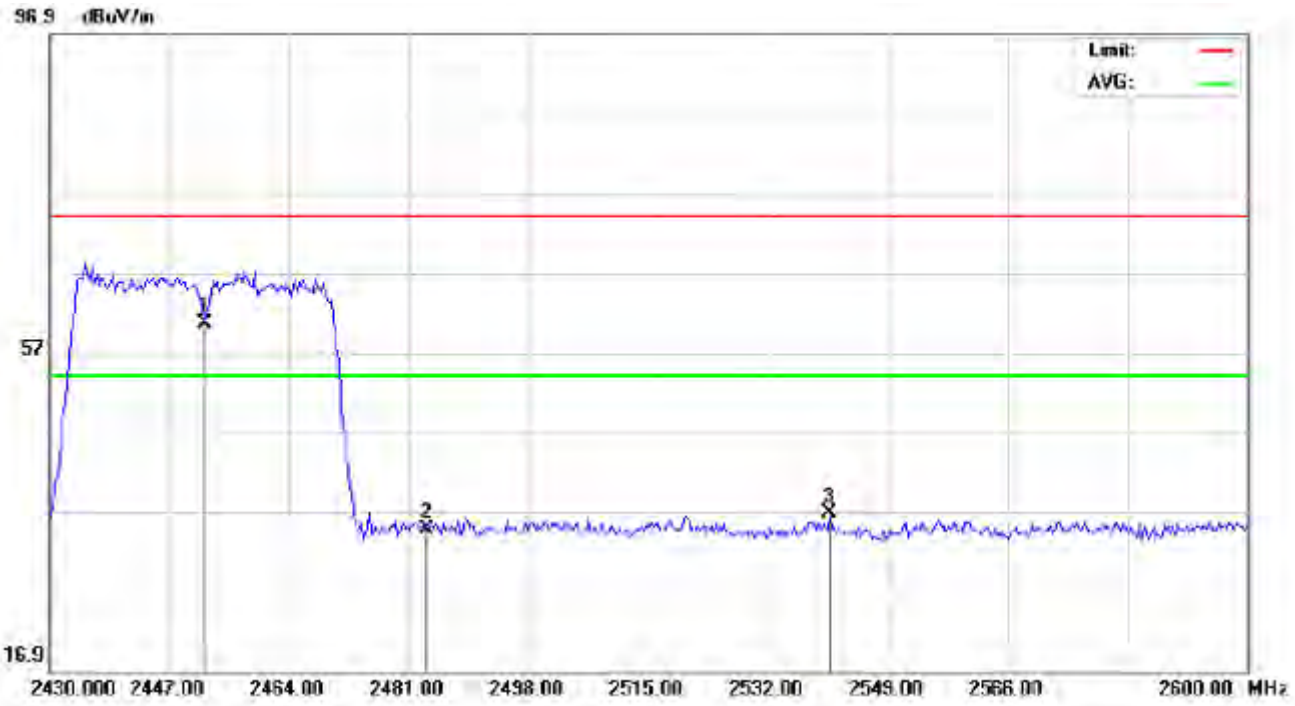
Site: site #1
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: Tablet PC
M/N: VS14406
Mode: 2452 TX
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

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	*	2452.000	64.40	0.38	64.78	74.00	-9.22	peak			
2		2480.000	35.72	0.41	36.13	74.00	-37.87	peak			
3		2541.067	36.82	0.53	37.35	74.00	-36.65	peak			

EUT	Tablet PC	Model Name	VS14406
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
Limit: FCC Class B 3M Radiation above 1GHZ(PK)
EUT: Tablet PC
M/N: VS14406
Mode: 2452 TX
Note:

Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 26
Humidity: 60 %

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	*	2452.000	60.25	0.38	60.63	74.00	-13.37	peak			
2		2483.500	34.36	0.41	34.77	74.00	-39.23	peak			
3		2540.783	36.21	0.53	36.74	74.00	-37.26	peak			

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

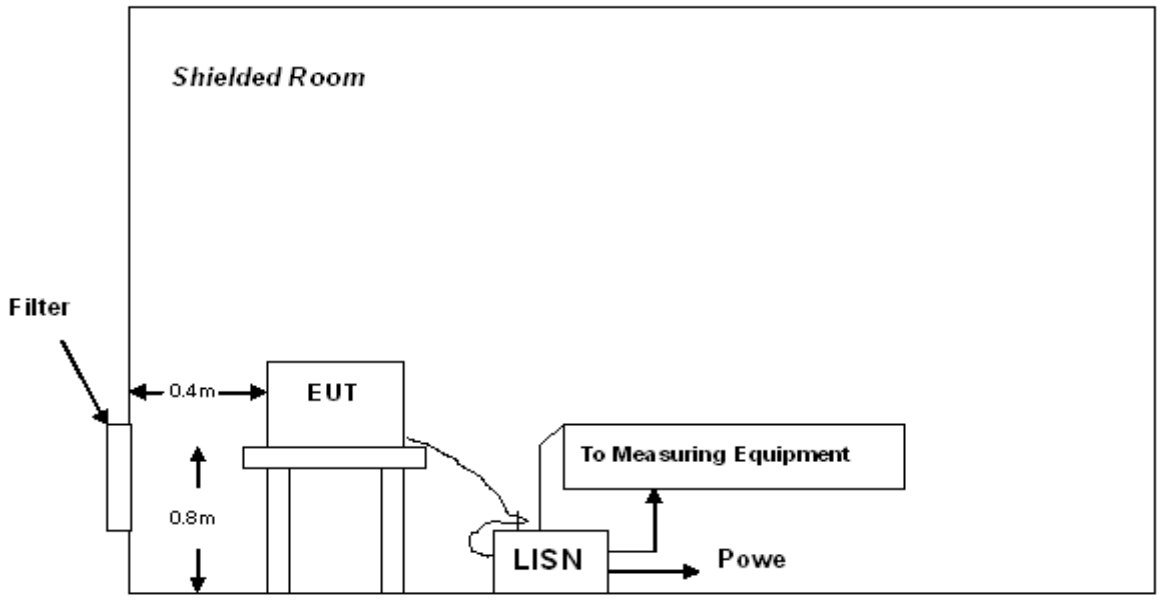
10 FCC LINE CONDUCTED EMISSION TEST

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) All support equipments received AC120V power from a LISN, if any.
5) The EUT received power from support adapter.
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	10/26/2011	AGC07Z110901A	VS14406-0	☒
802.11g	10/26/2011	AGC07Z110901A	VS14406-1	☐
802.11n(20)	10/26/2011	AGC07Z110901A	VS14406-2	☐
802.11n(40)	10/26/2011	AGC07Z110901A	VS14406-3	☐

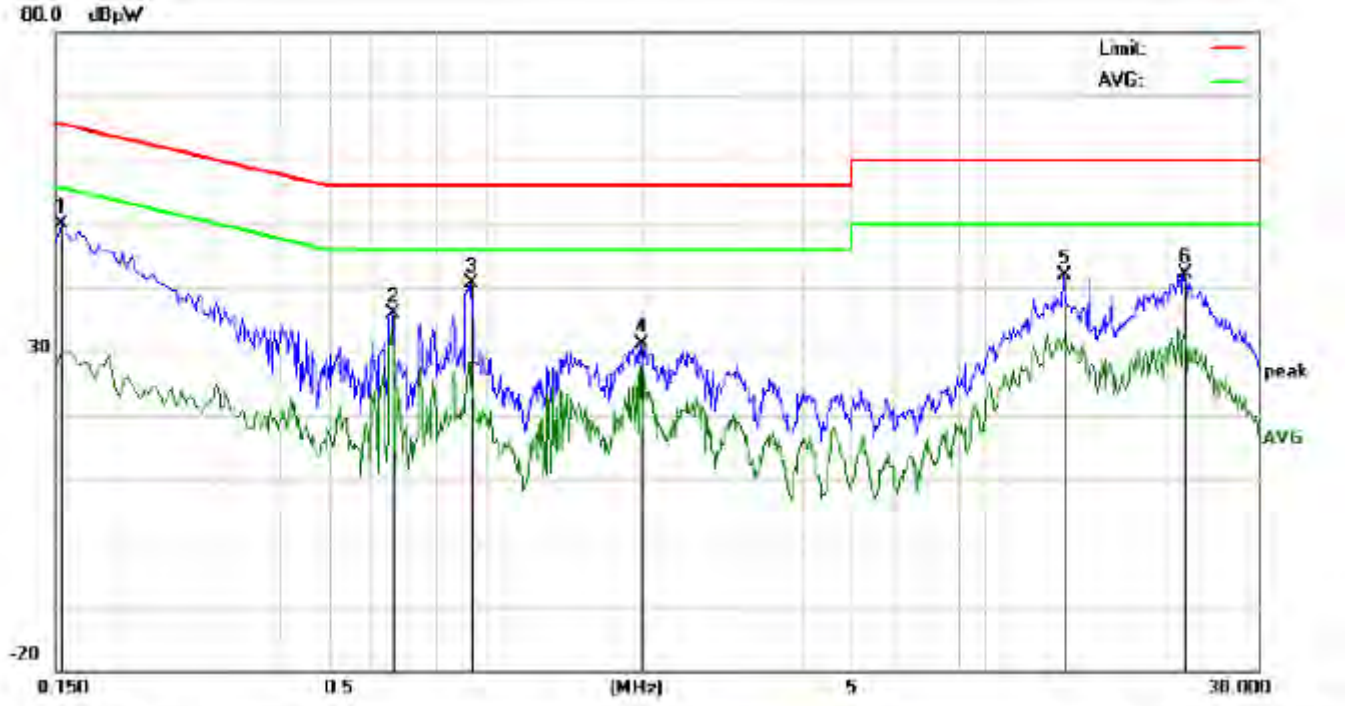
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

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: Tablet PC
M/N: VS14406
Mode: 802.11 b
Note:

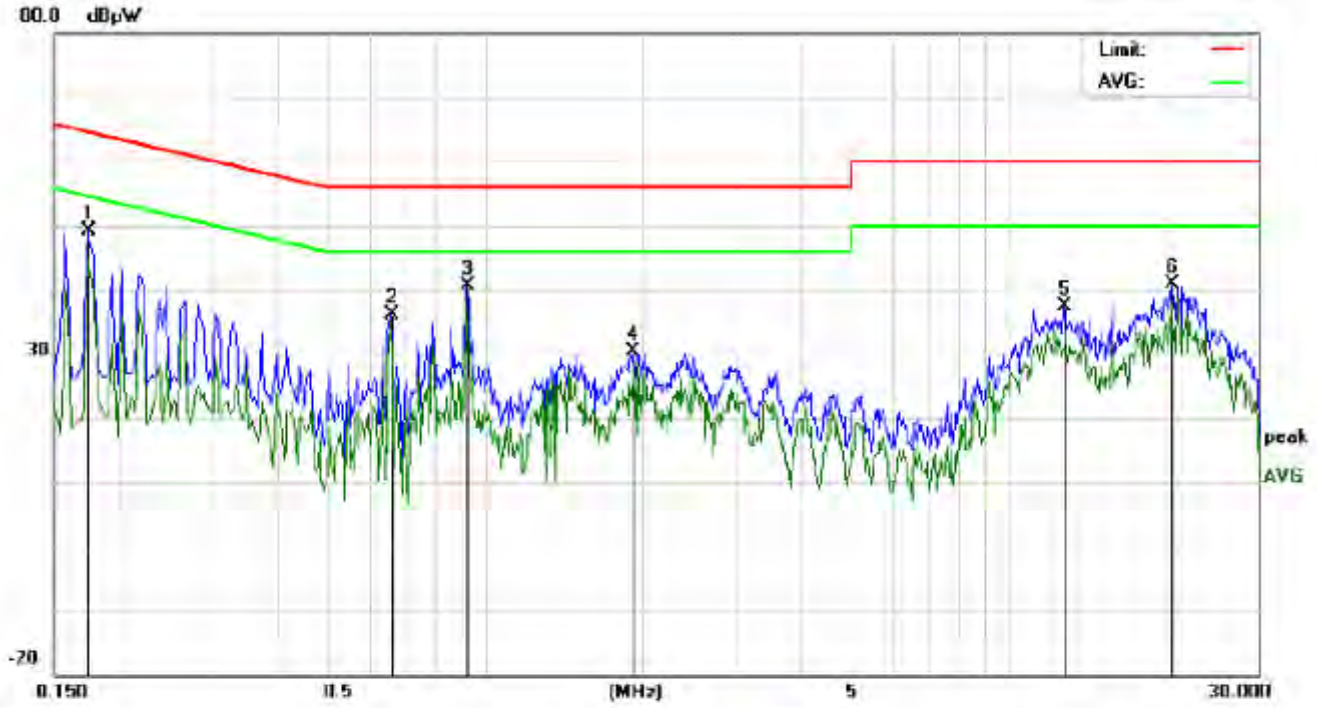
L1

Power:

Temperature: 26
Humidity: 60 %

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBpW)			Limit (dBpW)		Margin (dB)		P/F	Comment
		Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1539	39.82		20.01	10.16	49.98		30.17	65.78	55.78	-15.80	-25.61	P	
2	0.6580	25.55		23.45	10.33	35.88		33.78	56.00	46.00	-20.12	-12.22	P	
3	0.9340	30.12		15.97	10.40	40.52		26.37	56.00	46.00	-15.48	-19.63	P	
4	1.9740	20.90		17.40	10.23	31.13		27.63	56.00	46.00	-24.87	-18.37	P	
5	12.7340	31.74		21.74	10.14	41.88		31.88	60.00	50.00	-18.12	-18.12	P	
6	21.7099	32.10		22.61	10.12	42.22		32.73	60.00	50.00	-17.78	-17.27	P	

TEST RESULT OF N LINE



Site: Conduction
N
Temperature: 26
Limit: FCC Class B Conduction(QP)
Power:
Humidity: 60 %
EUT: Tablet PC
M/N: VS14406
Mode: 802.11 b
Note:

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBpW)			Limit (dBpW)		Margin (dB)		P/F	Comment
		Peak	QP	AVG	dB	Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.1740	39.02		34.59	10.19	49.21		44.78	64.76	54.76	-15.55	-9.98	P	
2	0.6580	25.84		24.94	10.33	36.17		35.27	56.00	46.00	-19.83	-10.73	P	
3	0.9220	30.17		27.83	10.40	40.57		38.23	56.00	46.00	-15.43	-7.77	P	
4	1.9100	20.15		17.09	10.25	30.40		27.34	56.00	46.00	-25.60	-18.66	P	
5	12.7619	27.29		20.70	10.14	37.43		30.84	60.00	50.00	-22.57	-19.16	P	
6	20.5700	30.71		27.39	10.12	40.83		37.51	60.00	50.00	-19.17	-12.49	P	

APPENDIX I
PHOTOGRAPHS OF THE EUT

TOTAL VIEW OF EUT

TOP VIEW OF EUT

BOTTOM VIEW OF EUT

FRONT VIEW OF EUT

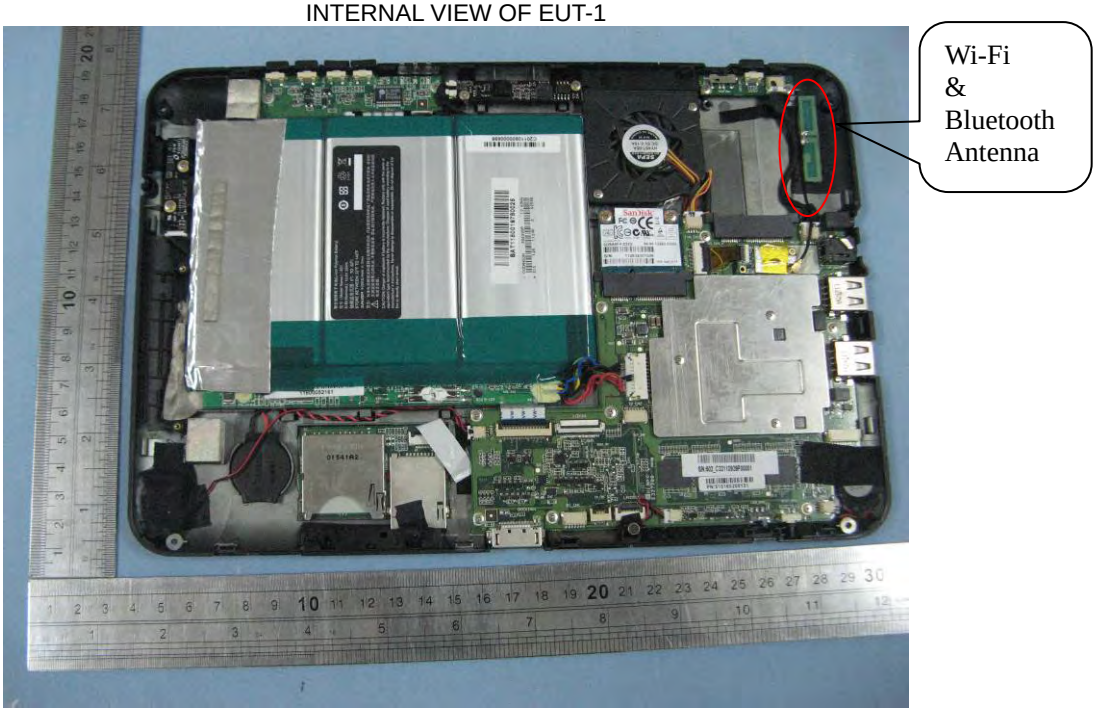
BACK VIEW OF EUT

LEFT VIEW OF EUT

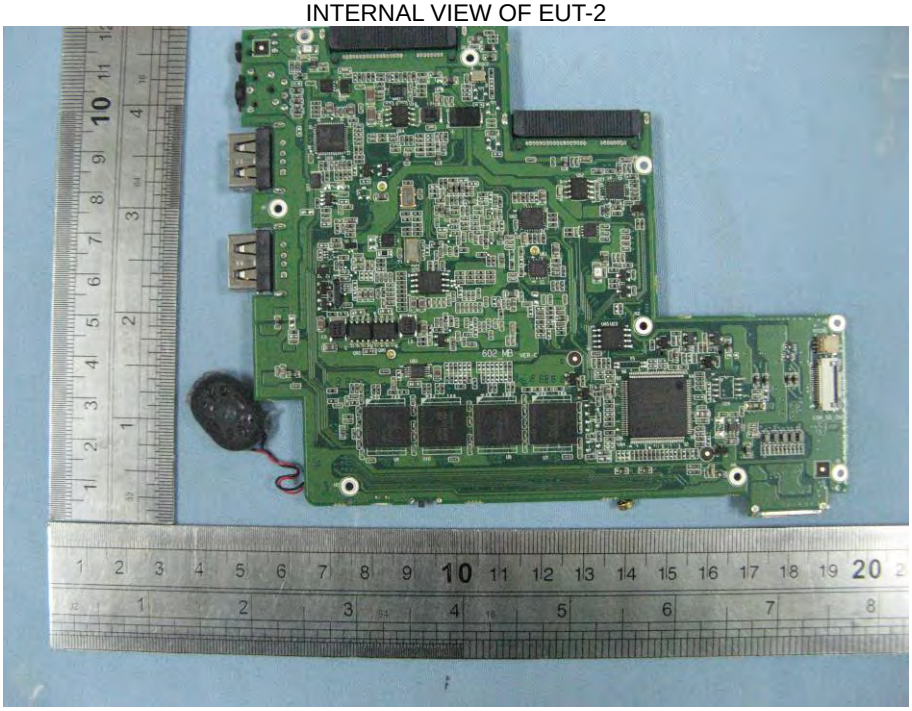
RIGHT VIEW OF EUT

OPEN VIEW OF EUT-1

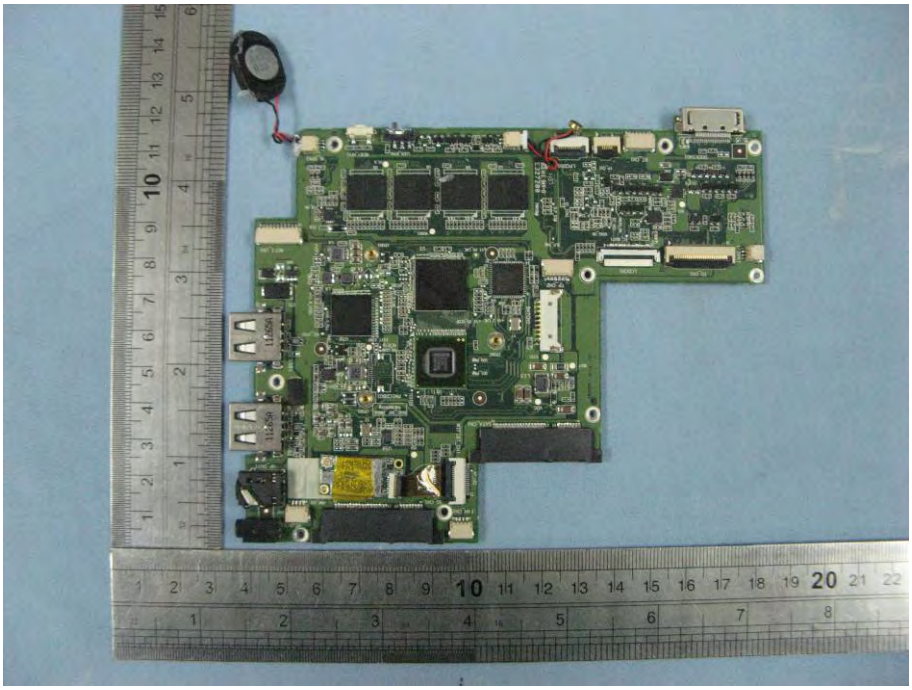
INTERNAL VIEW OF EUT-1



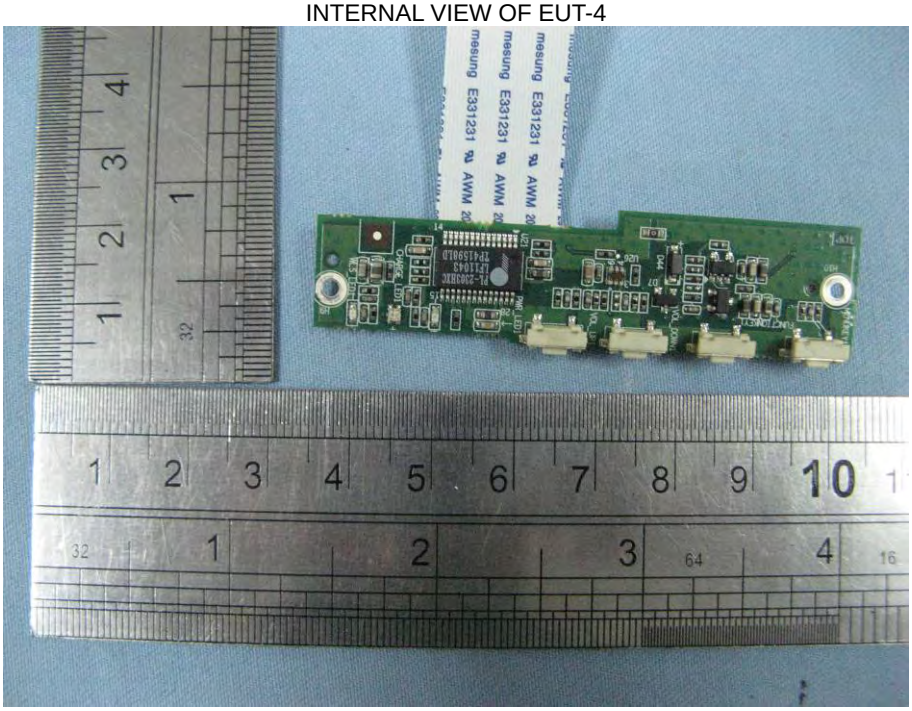
INTERNAL VIEW OF EUT-2



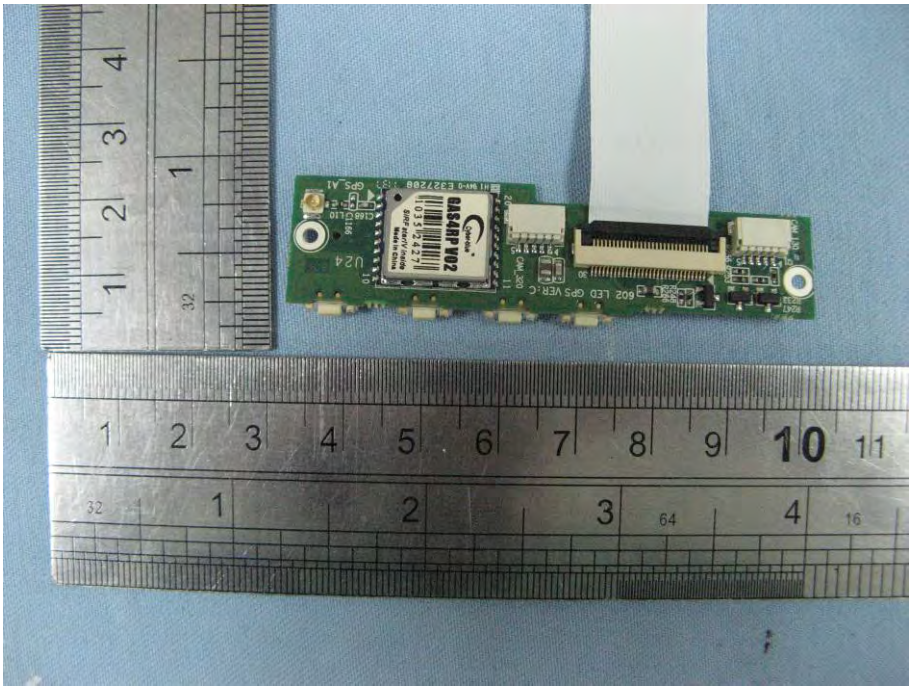
INTERNAL VIEW OF EUT-3



INTERNAL VIEW OF EUT-4



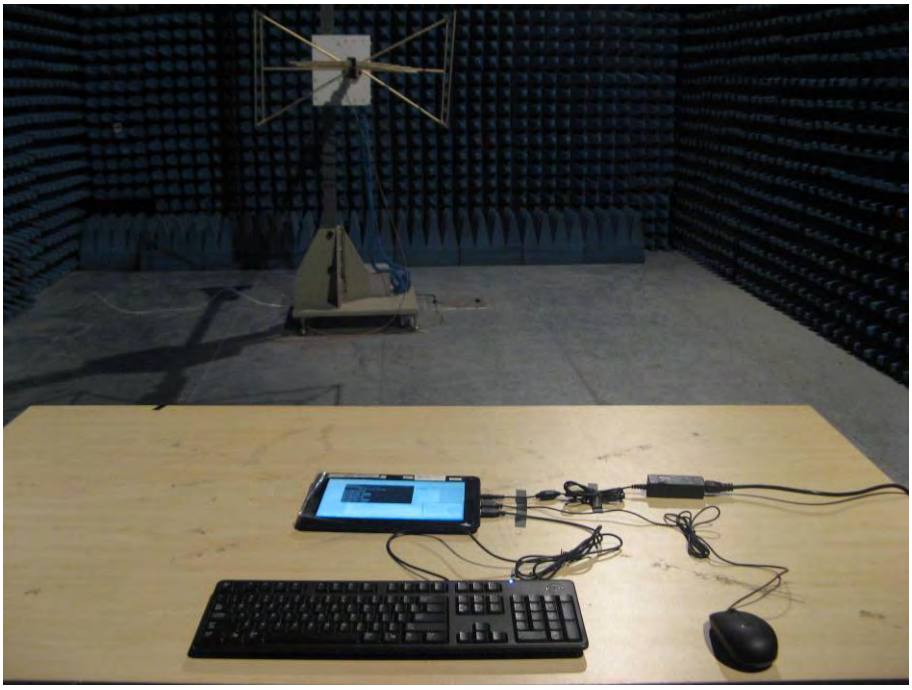
INTERNAL VIEW OF EUT-5



APPENDIX II

PHOTOGRAPHS OF THE TEST SETUP

RADIATED EMISSION TEST SETUP



CONDUCTED EMISSION TEST SETUP

----END OF REPORT----