



Report No.: AGC00119130305FE04

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FCC Test Report

Report No.: AGC00119130305FE04

FCC ID : BRCPC1002

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION : tablet pc

BRAND NAME : Titan, Kinwei

MODEL NAME : See the section 1.

CLIENT : Kintech Co. Ltd

DATE OF ISSUE : Apr.02,2013

STANDARD(S) : FCC Part 15 Rules

REPORT VERSION : V1.0



Attestation of Global Compliance (Shenzhen) Co., Ltd

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Apr.02,2013	Valid	Original Report

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1. VERIFICATION OF CONFORMITY

Applicant	Kintech Co. Ltd
Address	1F-5F, Bldg 22, Chen Tian Industrial Zone, Xi Xiang Bao An District, Shenzhen, Guang Dong, China
Manufacturer	Kintech Co. Ltd
Address	1F-5F, Bldg 22, Chen Tian Industrial Zone, Xi Xiang Bao An District, Shenzhen, Guang Dong, China
Product Designation	tablet pc
Brand Name	Titan/Kinwei
Test Model	PC1002ME
Series Model	PC10XXME (xx represents 00~99) PC10XXB (xx represents 00~99) PC10XX (xx represents 00~99) KW-PC10XXC (xx represents 00~99) KW-PC10XX (xx represents 00~99)
Difference description	All the same except for the model name and brand name.
Date of test	Mar.25, 2013 to Mar.28, 2013
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-US-BGN/RF (2013-03-01)

We hereby certify that:

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

Prepared By

Wall Huang

Wall Huang Apr.02,2013

Checked By

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Authorized By

Solger Zhang

Solger Zhang Apr.02,2013

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

The EUT is designed as a “tablet pc”. 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~2.462GHz
Max. Output Power	11b:9.81dBm
Modulation	DSSS(DBPSK/DQPSK/CCK);OFDM(16-QAM/64-QAM)
Data Rate	DSSS(1/2/5.5/11),OFDM(6/9/12/18/24/36/48/54) See section 2.3 for 802.11n
Number of channels	11
Antenna Designation	Integrated Antenna
Antenna Gain	2.0dBi
Power Supply	DC3.7V by Built-in Li-ion Battery

2.2. TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency
2400~2483.5MHZ	1	2412 MHZ
	2	2417 MHZ
	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	2462 MHZ

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

2.3. IEEE 802.11N MODULATION SCHEME

MCS Index	Nss	Modulation	R	NBPSC	NCBPS	NDBPS	Data rate(Mbps)
							800nsGI
					20MHz	20MHz	20MHz
0	1	BPSK	1/2	1	52	26	6.5
1	1	QPSK	1/2	2	104	52	13.0
2	1	QPSK	3/4	2	104	78	19.5
3	1	16-QAM	1/2	4	208	104	26.0
4	1	16-QAM	3/4	4	208	156	39.0
5	1	64-QAM	2/3	6	312	208	52.0
6	1	64-QAM	3/4	6	312	234	58.5
7	1	64-QAM	5/6	6	312	260	65.0

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: BRCPC1002** filing to comply with the FCC Part 15 requirements.

2.5. TEST METHODOLOGY

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

2.6. SPECIAL ACCESSORIES

Refer to section 2.2.

2.7. EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

3. MEASUREMENT UNCERTAINTY

Conducted measurement: +/- 2.75dB

Radiated measurement: +/- 3.2dB

4. DESCRIPTION OF TEST MODES

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

Note:

1. V means worst mode for Conducted Emission.
2. 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)
(13.5/27/40.5/54/81/108/121.5/135)

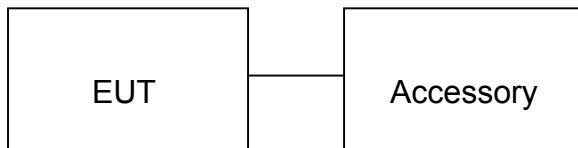
Note:

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

5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure1:



Note: the EUT controlled by PC to work in continuous TX mode and Normal hopping mode.

5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	Table pc	QM-G2GRQ1BK	FCC ID: BRCPC1002	EUT
2	Battery	N/A	DC 7.4V / 4000mAh	Accessory
3	Adapter	JKY	DC 9V/ 2000mA	Accessory

Note: All the accessories have been used during the test except for the earphone 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

6. TEST FACILITY

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

ALL TEST EQUIPMENT LIST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Power meter	R&S	NRP-Z23	100323	07/18/2012	07/17/2013
RF attenuator	N/A	RFA20db	68	N/A	N/A
Spectrum Analyzer	Agilent	E4440A	US44300399	07/18/2012	06/17/2013
Amplifier	EM	EM30180	0607030	07/18/2012	07/17/2013
Horn Antenna	EM	EM-AH-10180	67	04/21/2012	04/20/2013
Horn Antenna	A.H. Systems Inc.	SAS-574	26	07/18/2012	07/17/2013
EMI Test Receiver	Rohde & Schwarz	ESCI	100694	07/18/2012	07/17/2013
Biological Antenna	A.H. Systems Inc.	SAS-521-4	28	06/08/2012	06/09/2013
Loop Antenna	A.H.	SAS-526B	264	07/15/2012	07/14/2013

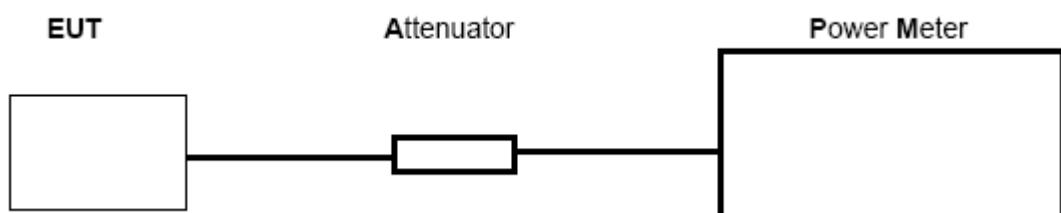
7. PEAK OUTPUT POWER

7.1. MEASUREMENT PROCEDURE

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to 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.
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.

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



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	8.32	9.81	30	Pass
2.437	8.21	9.67	30	Pass
2.462	8.18	9.63	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	7.96	8.95	30	Pass
2.437	7.94	8.92	30	Pass
2.462	7.91	8.89	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	7.01	8.04	30	Pass
2.437	7.06	8.08	30	Pass
2.462	7.05	8.01	30	Pass

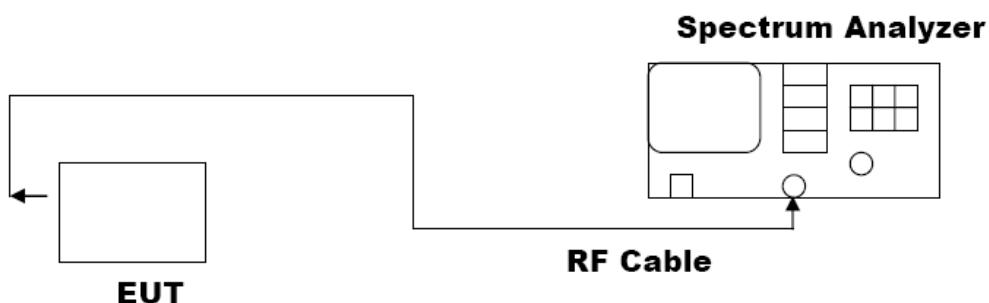
8. 6DB BANDWIDTH

8.1. MEASUREMENT PROCEDURE

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

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

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



8.3. LIMITS AND MEASUREMENT RESULTS

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

LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	8.090	PASS
	Middle Channel	9.076	PASS
	High Channel	9.069	PASS

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

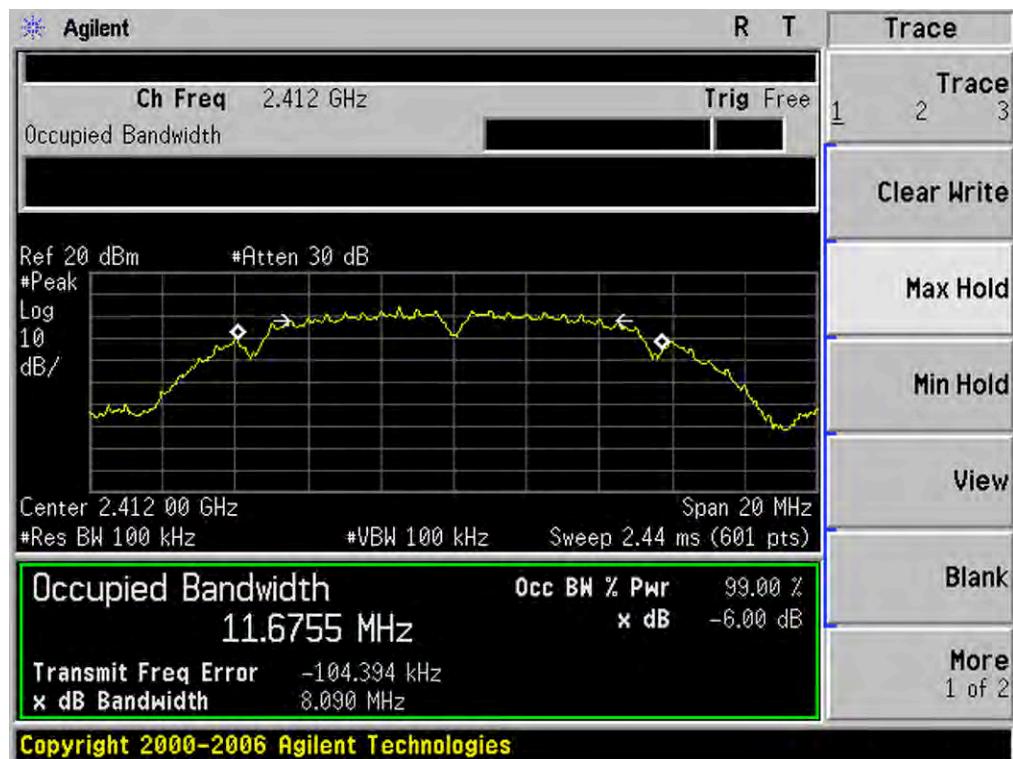
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	16.440	PASS
	Middle Channel	16.496	PASS
	High Channel	16.442	PASS

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

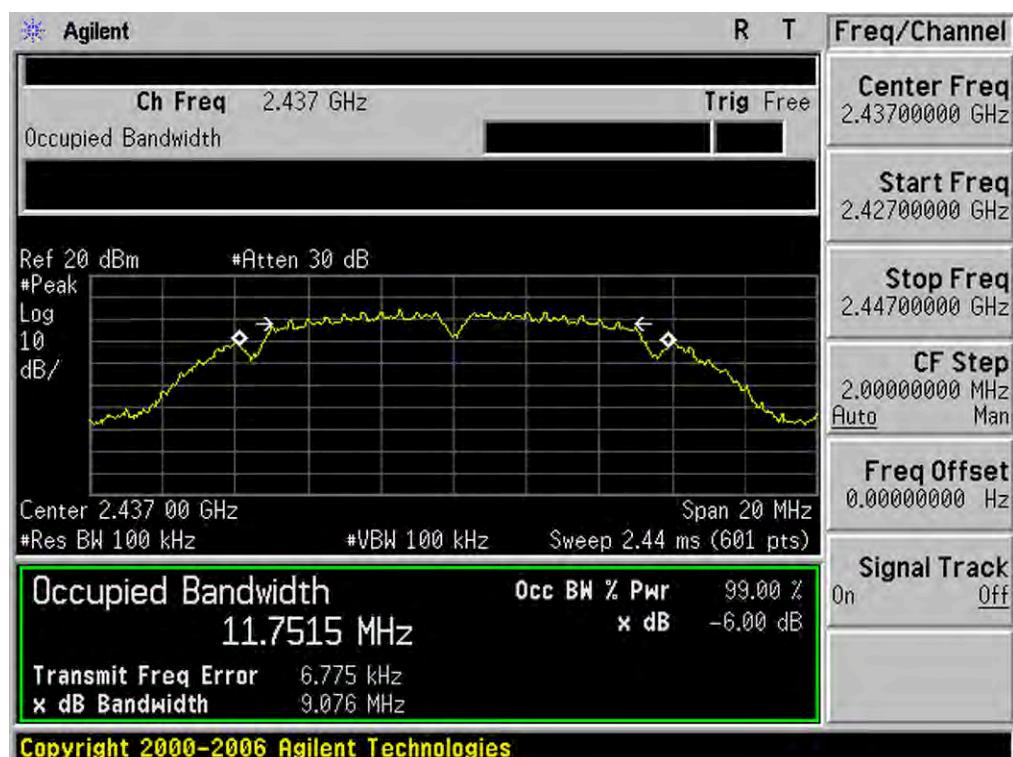
LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Applicable Limits		
	Test Data (MHz)		Criteria
>500KHZ	Low Channel	17.656	PASS
	Middle Channel	17.632	PASS
	High Channel	17.662	PASS

802.11b TEST RESULT

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

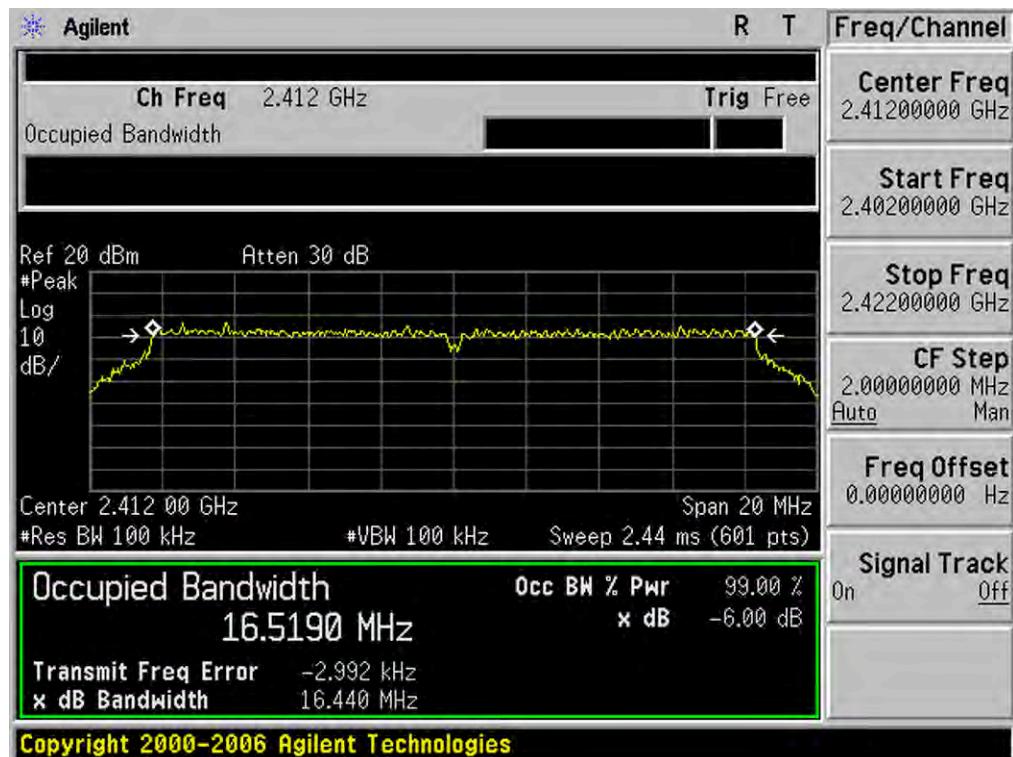


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

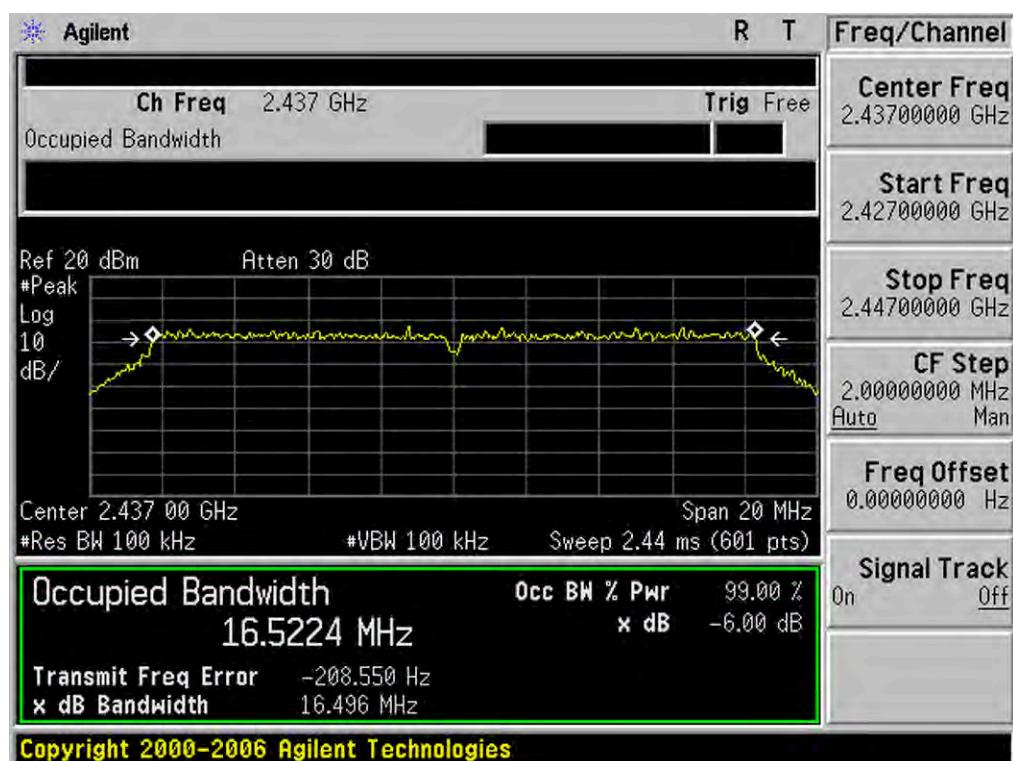


802.11g TEST RESULT

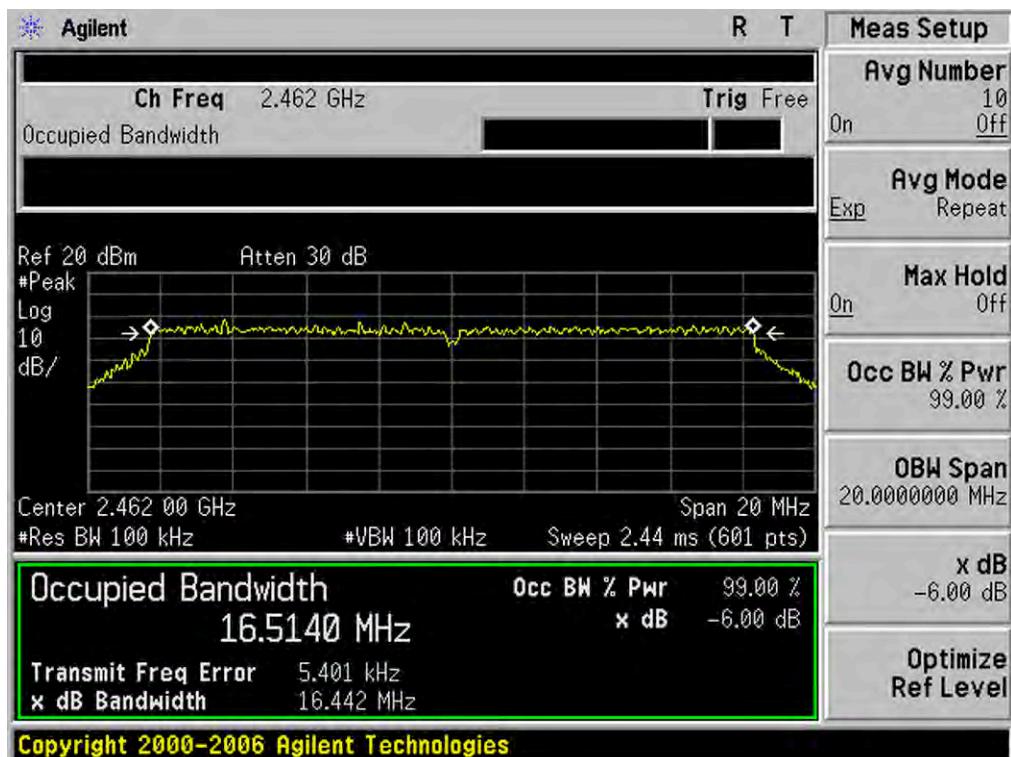
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL

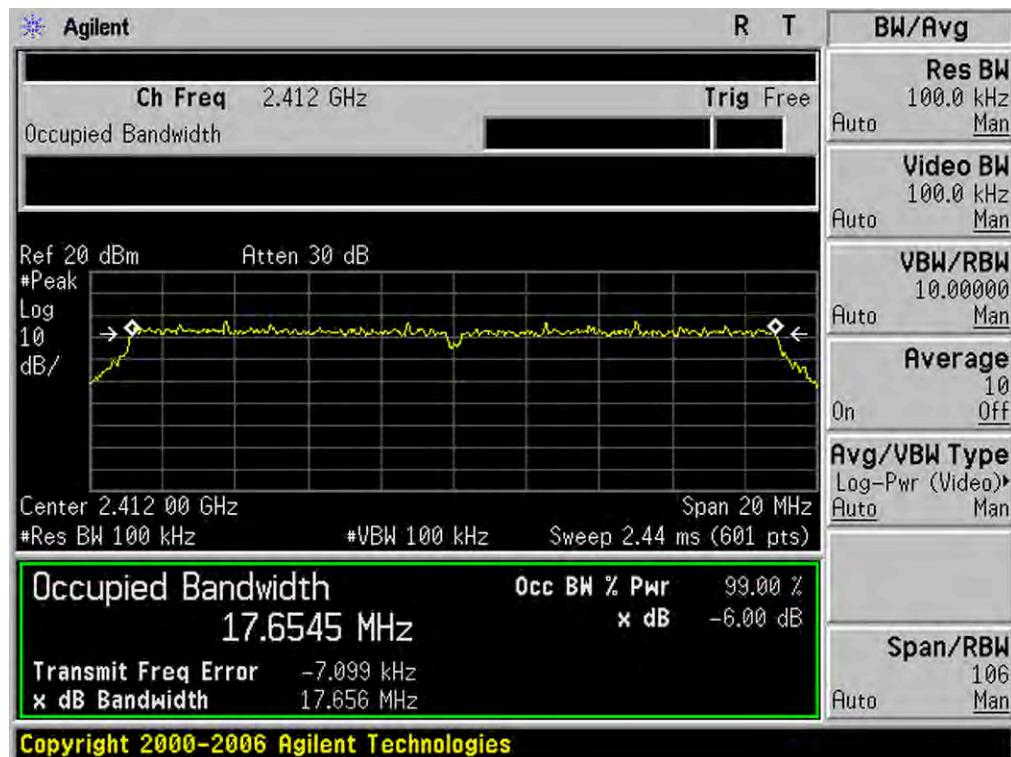


TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

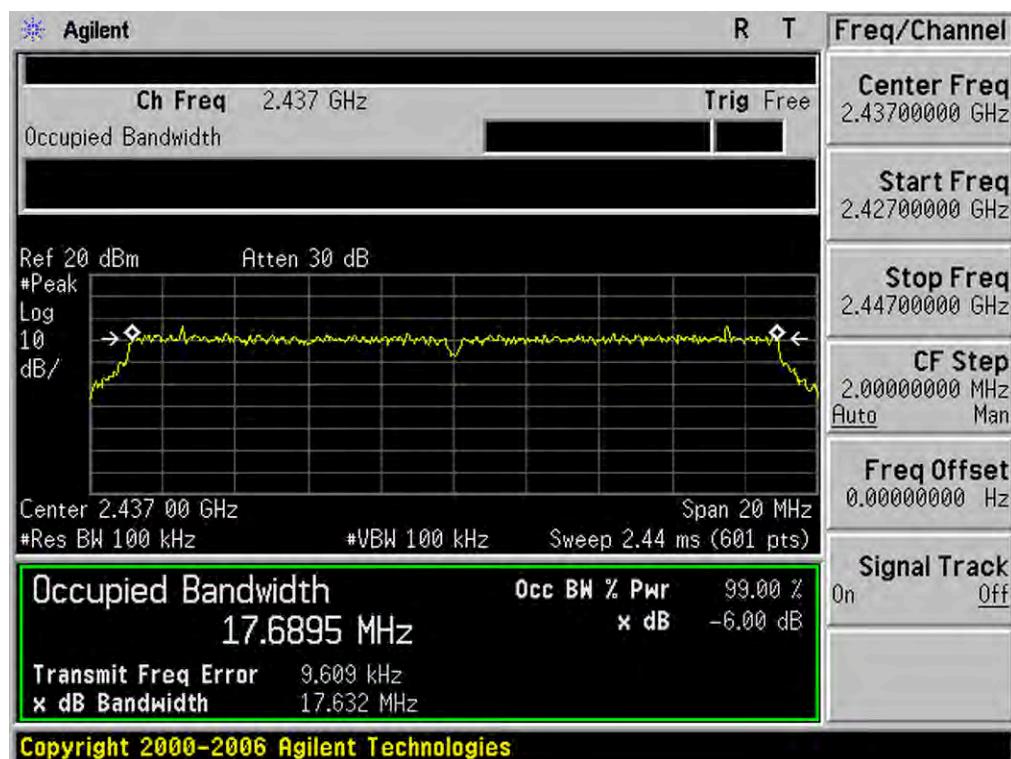


802.11n(20) TEST RESULT

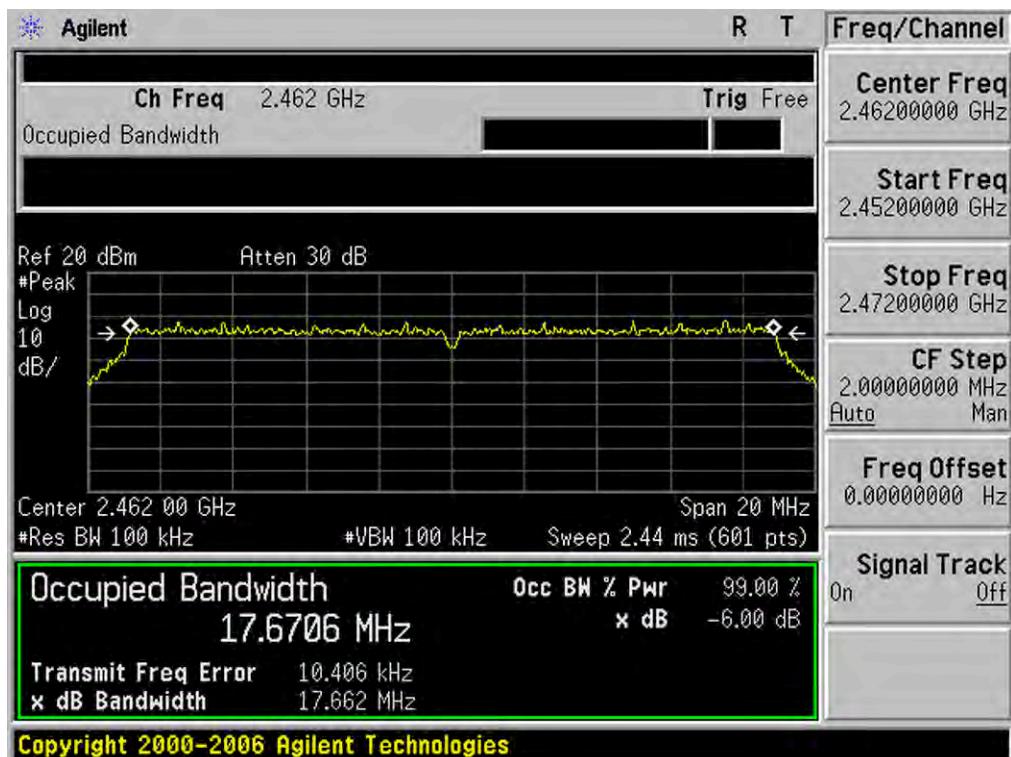
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



9. CONDUCTED SPURIOUS EMISSION

9.1. MEASUREMENT PROCEDURE

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

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

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

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

The same as described in section 8.2.

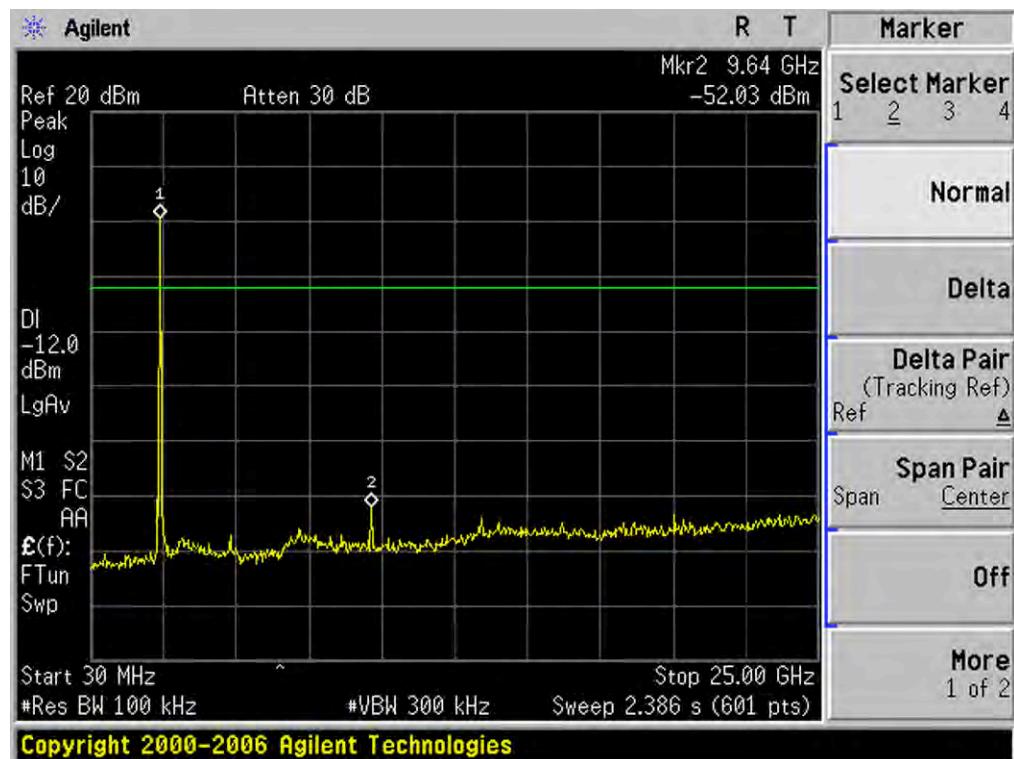
9.3. MEASUREMENT EQUIPMENT USED

The same as described in section 6.

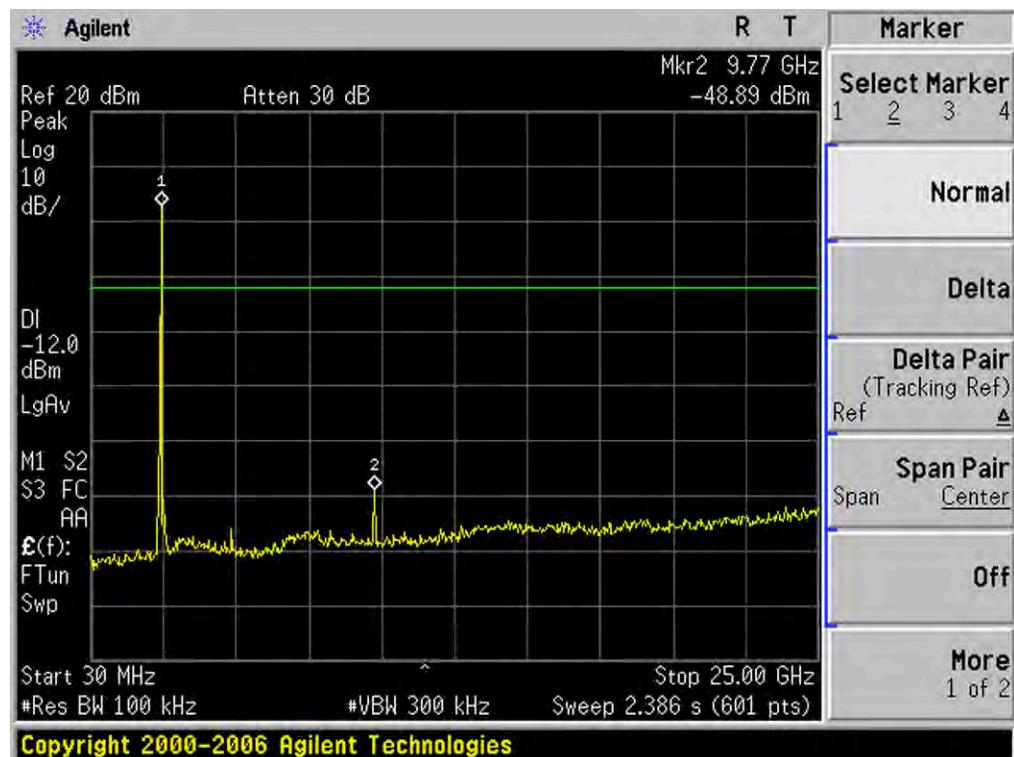
9.4. LIMITS AND MEASUREMENT RESULT

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

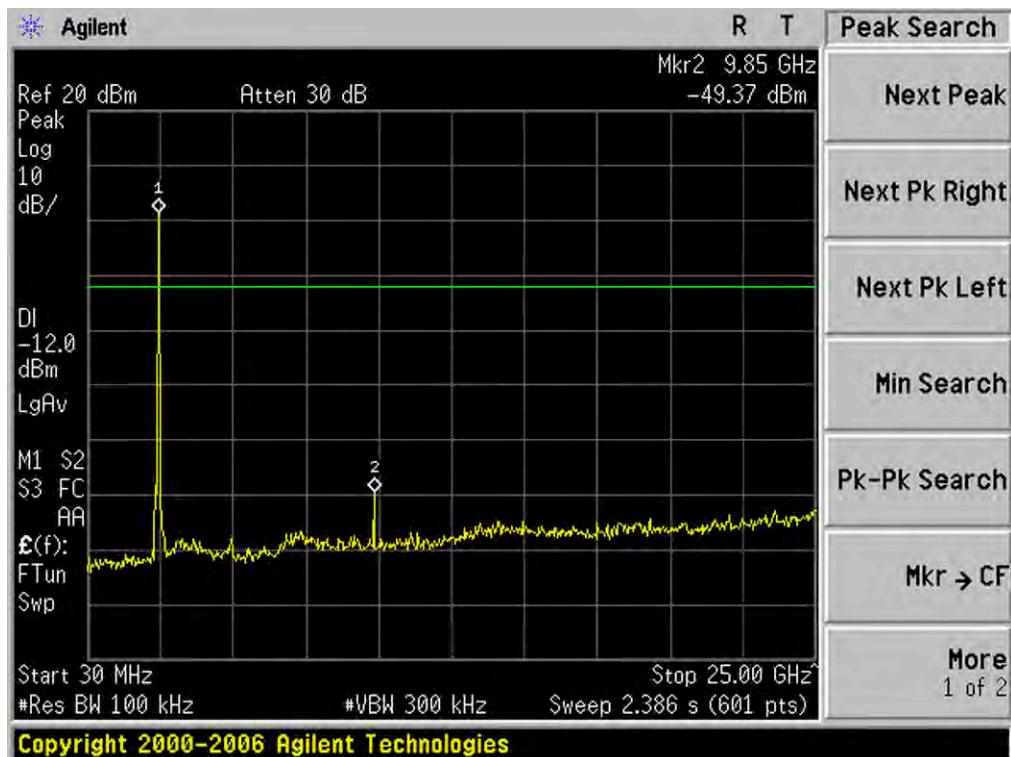
TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE
OF 802.11b FOR MODULATION IN LOW CHANNEL



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



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



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

Set RBW= 100 kHz, VBW□300KHz, SPAN to 5-30 % greater than the EBW, Scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = $10\log(3\text{ kHz}/100\text{ kHz}) = -15.2\text{ dB}$.

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.	Reading Value (dBm)	BWCF (dB)	PSD (dBm)	Limit (dBm)	Result
Low Channel	2.51	-15.2	-12.69	8	Pass
Middle Channel	3.67	-15.2	-11.53	8	Pass
High Channel	4.55	-15.2	-10.65	8	Pass

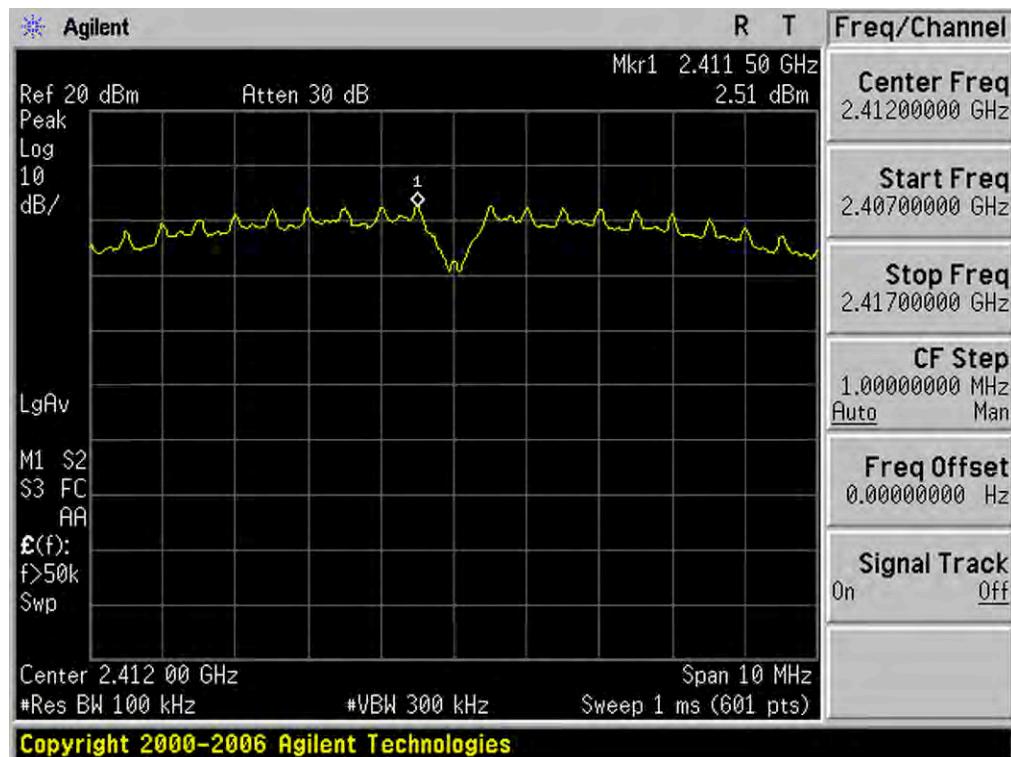
TEST ITEM	POWER PECTRAL DENSITY				
TEST MODE	802.11g with data rate 6				

Channel No.	Reading Value (dBm)	BWCF (dB)	PSD (dBm)	Limit (dBm)	Result
Low Channel	-2.86	-15.2	-18.06	8	Pass
Middle Channel	-2.41	-15.2	-17.61	8	Pass
High Channel	-0.04	-15.2	-15.24	8	Pass

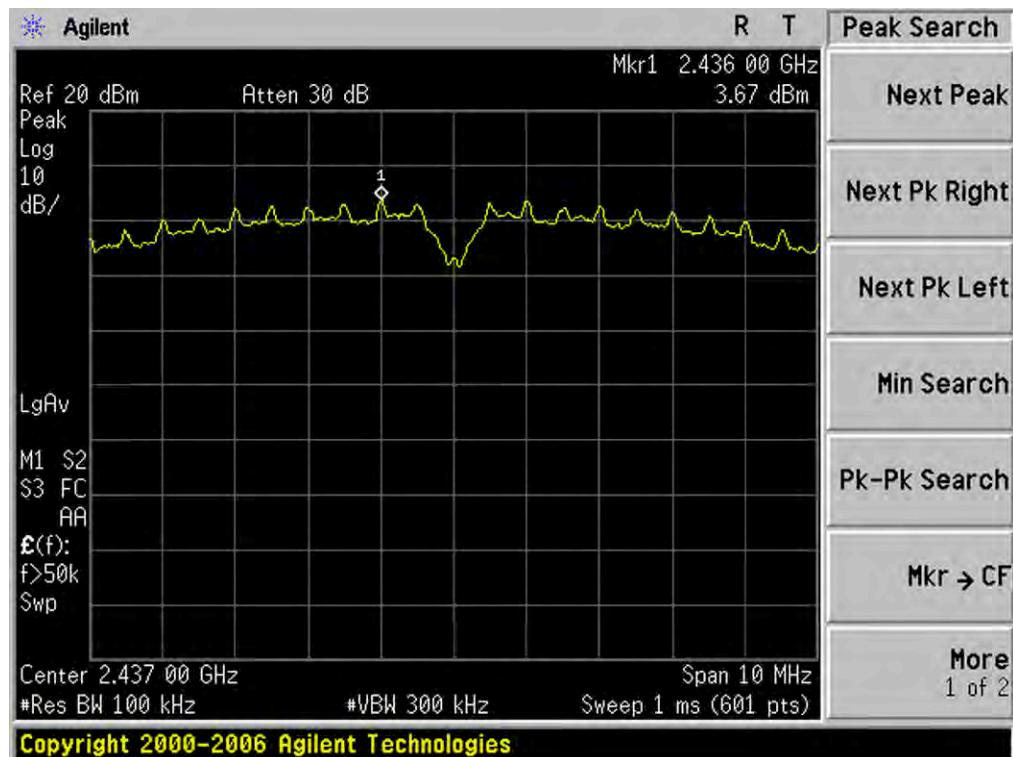
TEST ITEM	POWER PECTRAL DENSITY
TEST MODE	802.11n 20 with data rate 6.5

Channel No.	Reading Value (dBm)	BWCF (dB)	PSD (dBm)	Limit (dBm)	Result
Low Channel	-2.76	-15.2	-17.96	8	Pass
Middle Channel	-2.8	-15.2	-18	8	Pass
High Channel	-0.87	-15.2	-16.07	8	Pass

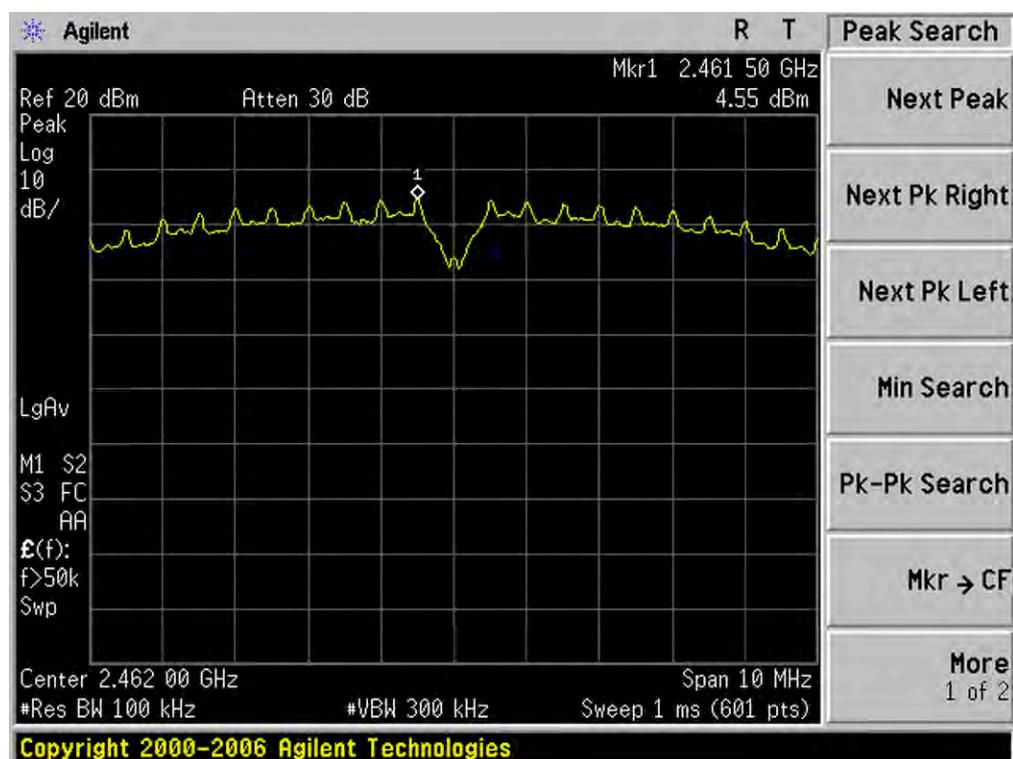
802.11b TEST RESULT
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



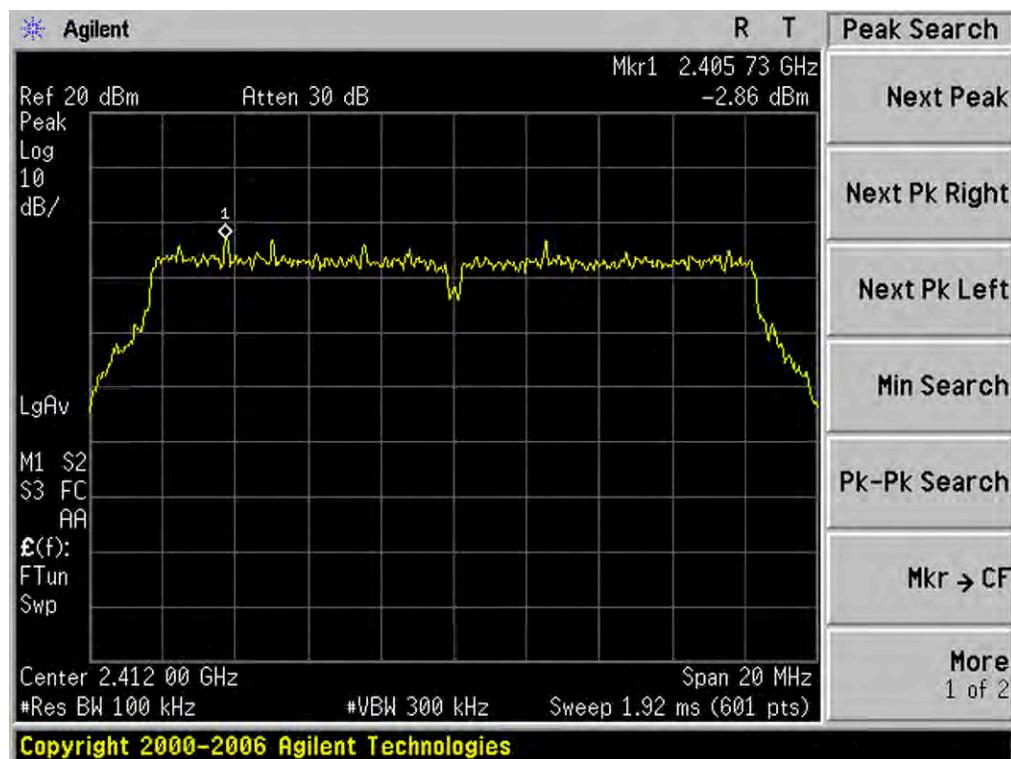
TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



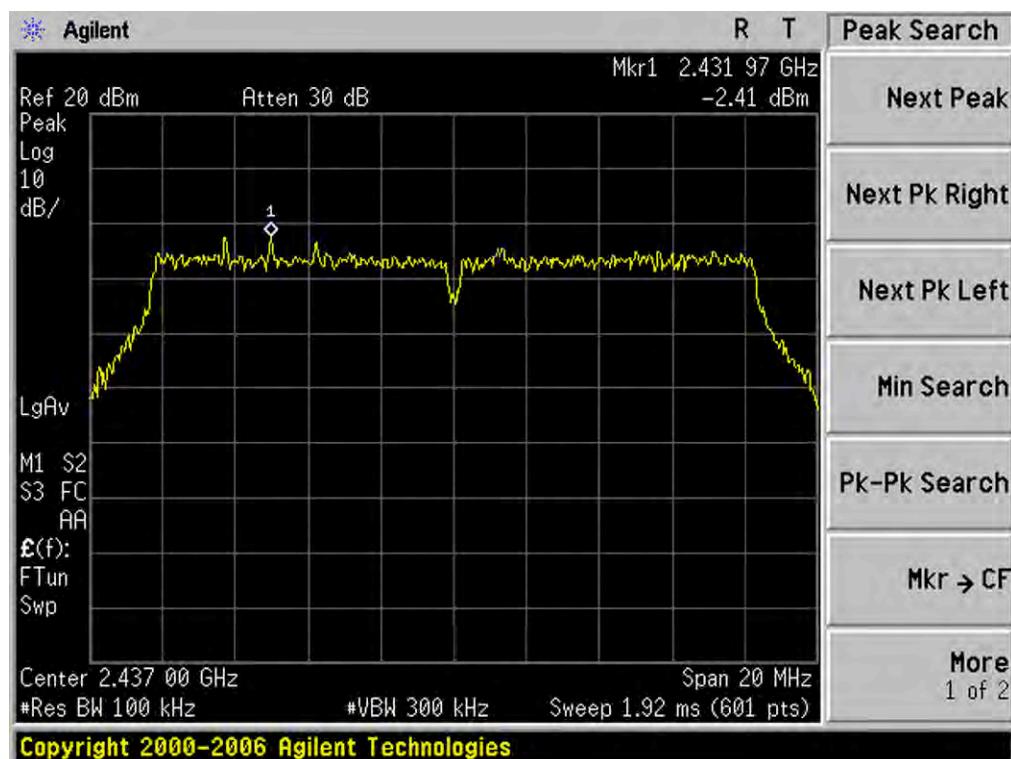
TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



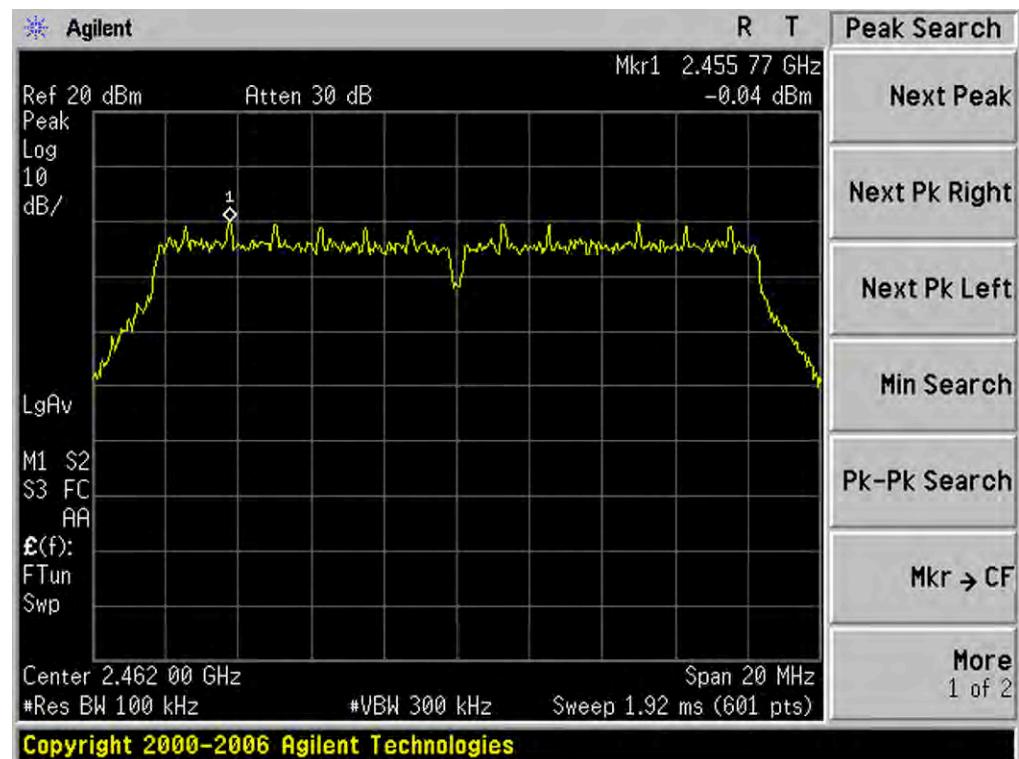
802.11g TEST RESULT
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



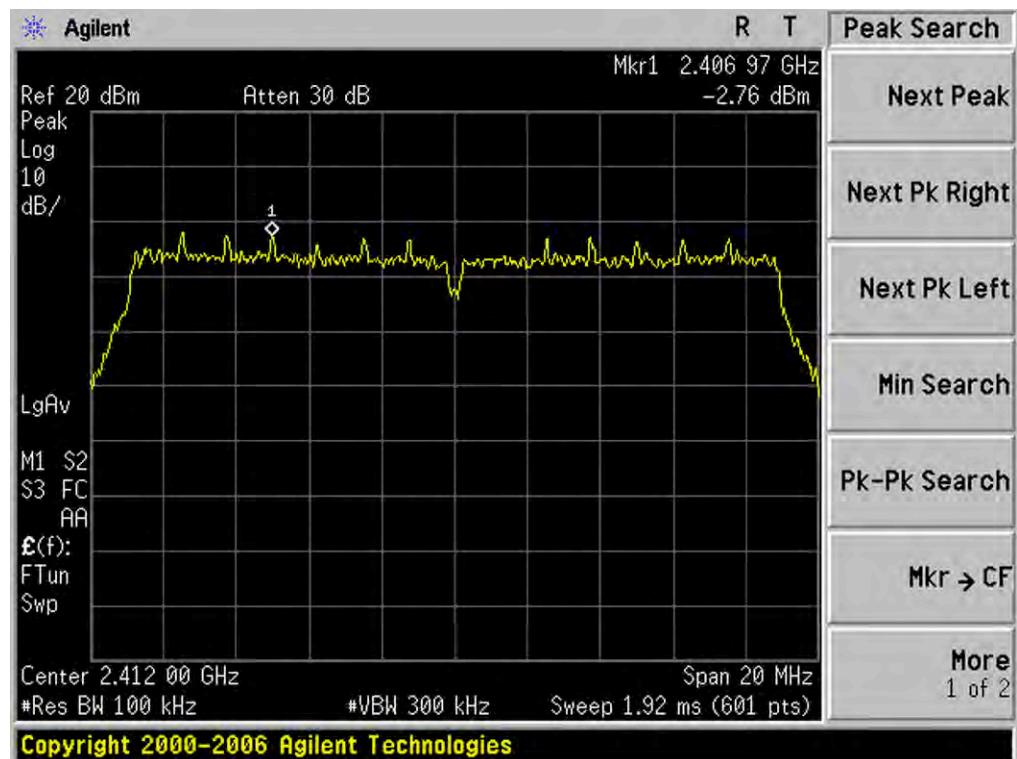
TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



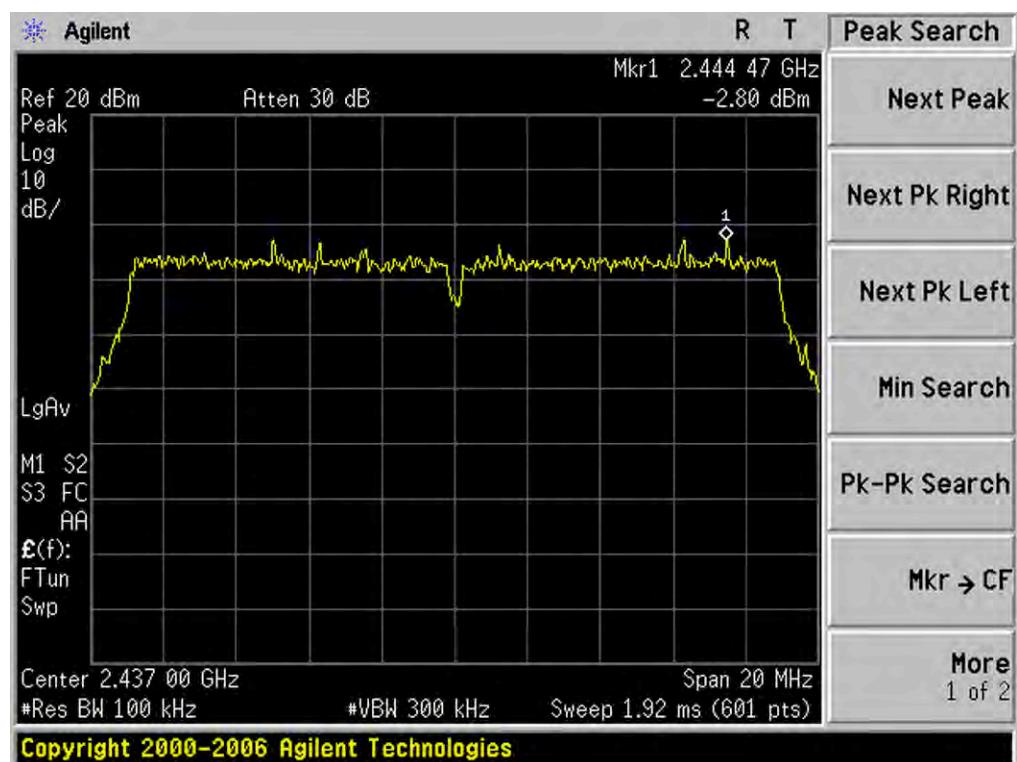
TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



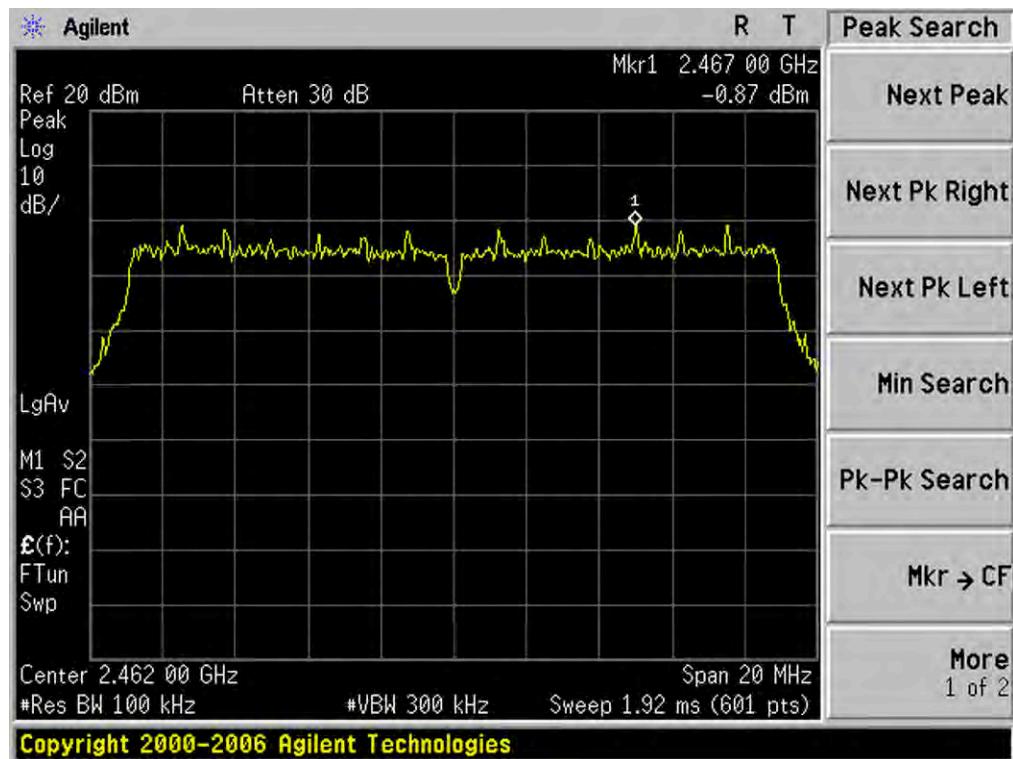
802.11n 20 TEST RESULT
TEST PLOT OF SPECTRAL DENSITY FOR LOW CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR MIDDLE CHANNEL



TEST PLOT OF SPECTRAL DENSITY FOR HIGH CHANNEL



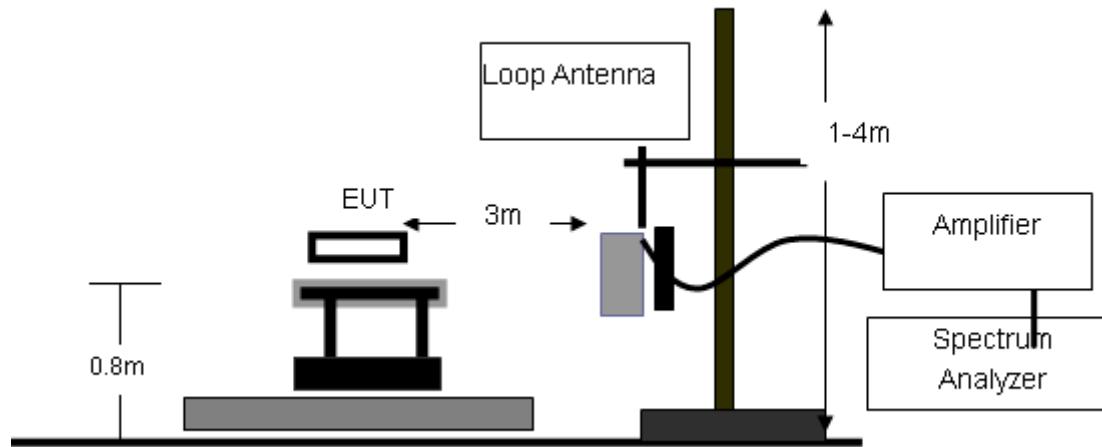
11. RADIATED EMISSION

11.1. MEASUREMENT PROCEDURE

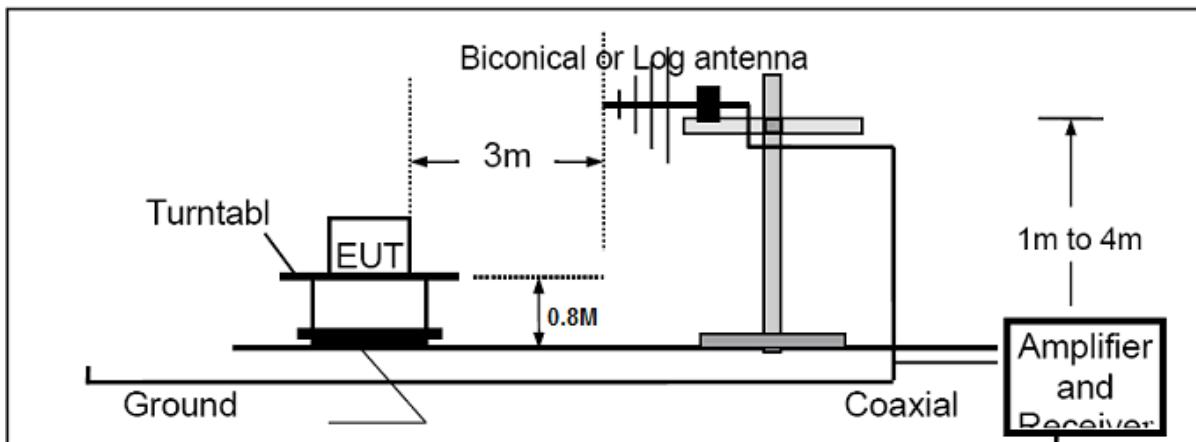
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting 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.

11.2. TEST SETUP

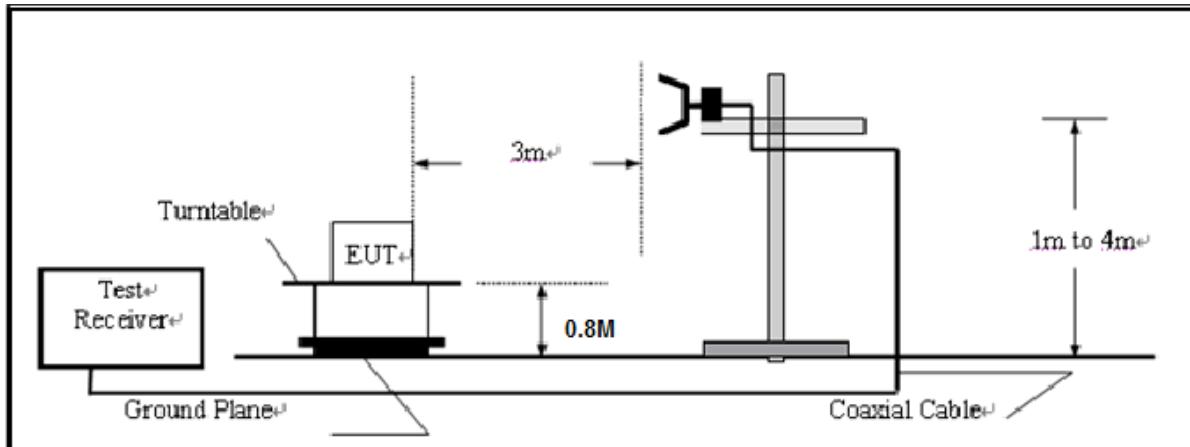
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



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.

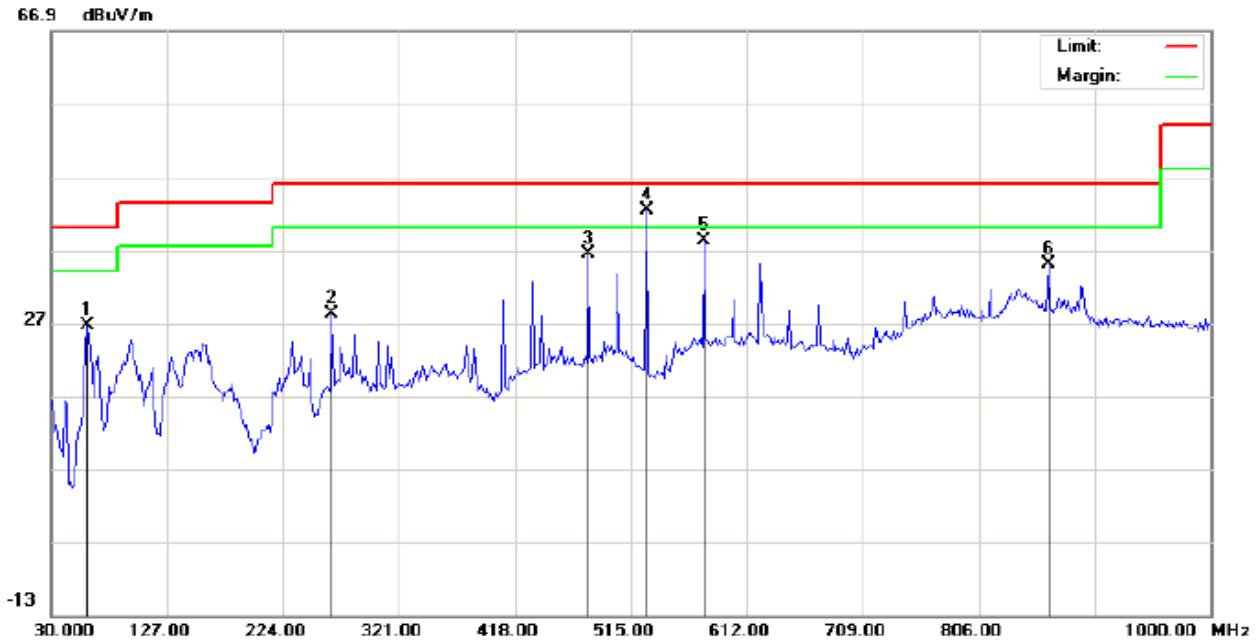
11.4. TEST RESULT

RADIATED EMISSION BELOW 30MHZ

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

RADIATED EMISSION BELOW 1GHZ

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal

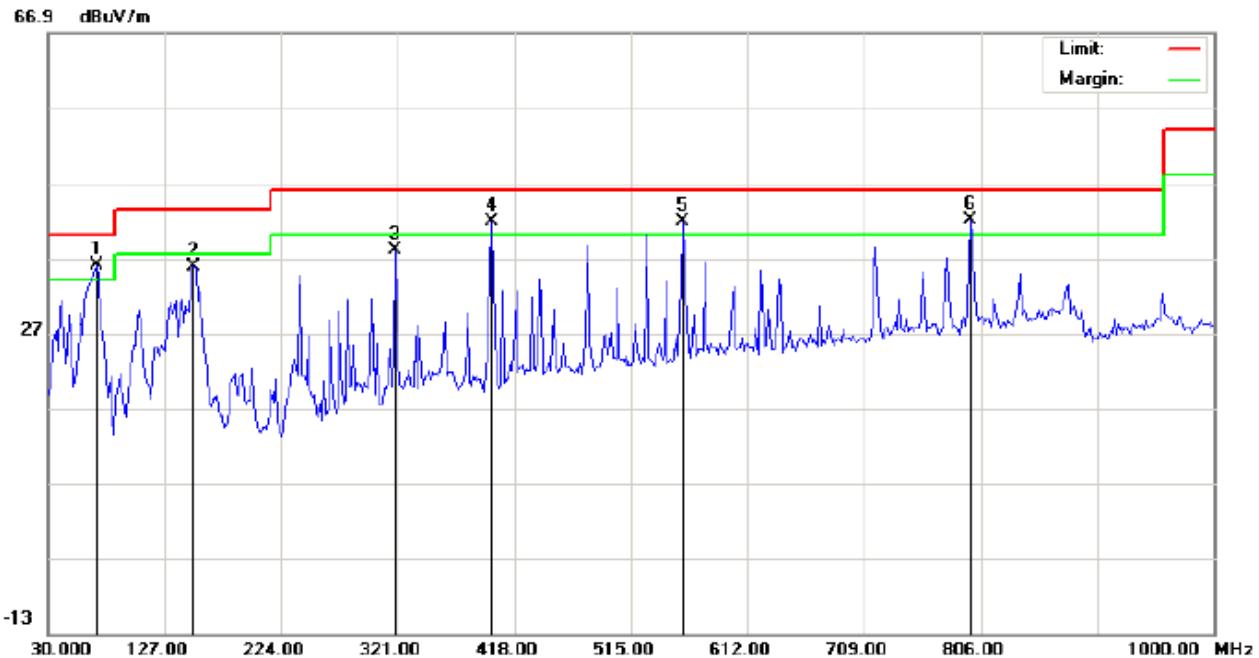


Site: site #1 Polarization: **Horizontal** Temperature: 26
 Limit: FCC Class B 3M Radiation Power: Humidity: 60 %
 EUT: tablet pc Distance:
 M/N: PC1002ME
 Mode: Low Channel TX
 Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna	Table	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		Height	Degree	
1		60.7167	22.53	4.06	26.59	40.00	-13.41	peak			
2		264.4167	13.56	14.71	28.27	46.00	-17.73	peak			
3		479.4333	14.66	21.67	36.33	46.00	-9.67	peak			
4	*	527.9333	22.13	20.23	42.36	46.00	-3.64	peak			
5		576.4333	13.73	24.54	38.27	46.00	-7.73	peak			
6		864.2000	5.90	29.14	35.04	46.00	-10.96	peak			

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Vertical

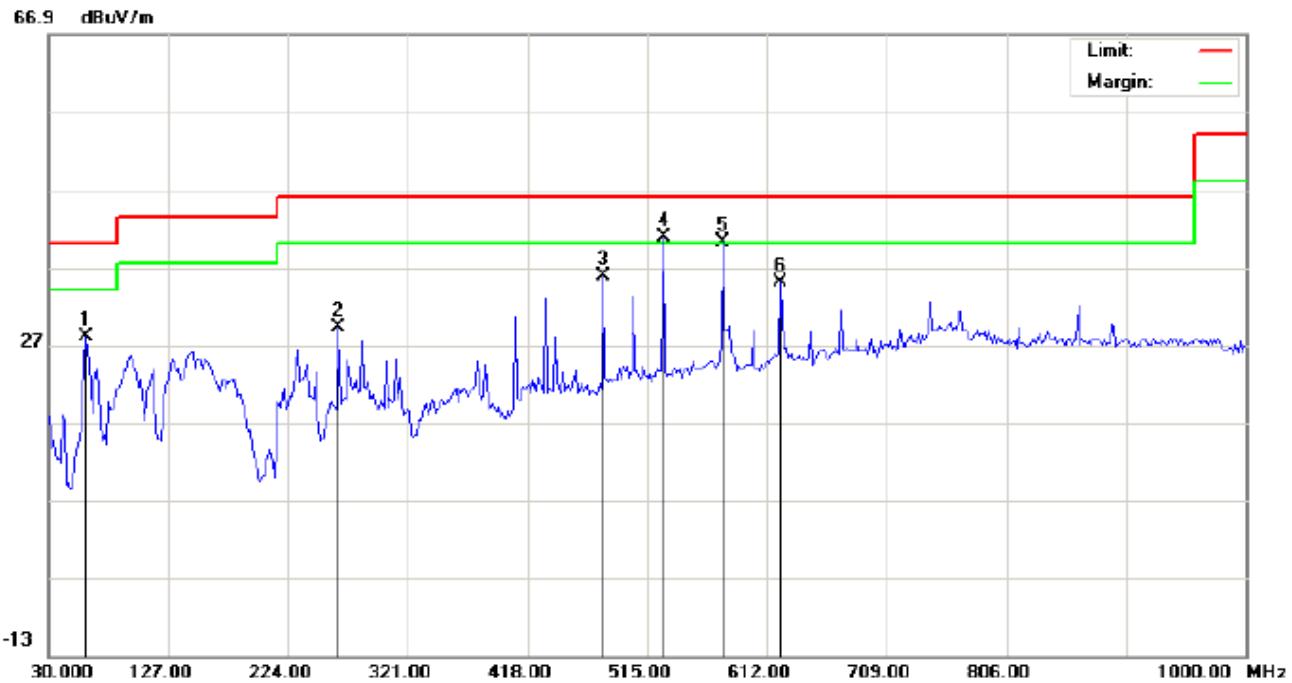


Site: site #1 Polarization: **Vertical** Temperature: 26
 Limit: FCC Class B 3M Radiation Power: Humidity: 60 %
 EUT: tablet pc Distance:
 M/N: PC1002ME
 Mode: Low Channel TX
 Note:

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	*	70.4167	31.72	4.34	36.06	40.00	-3.94	peak			
2		151.2500	22.17	13.67	35.84	43.50	-7.66	peak			
3		319.3833	19.83	18.27	38.10	46.00	-7.90	peak			
4	!	398.6000	22.89	18.86	41.75	46.00	-4.25	peak			
5	!	558.6500	17.87	23.97	41.84	46.00	-4.16	peak			
6	!	797.9167	13.93	28.04	41.97	46.00	-4.03	peak			

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Horizontal

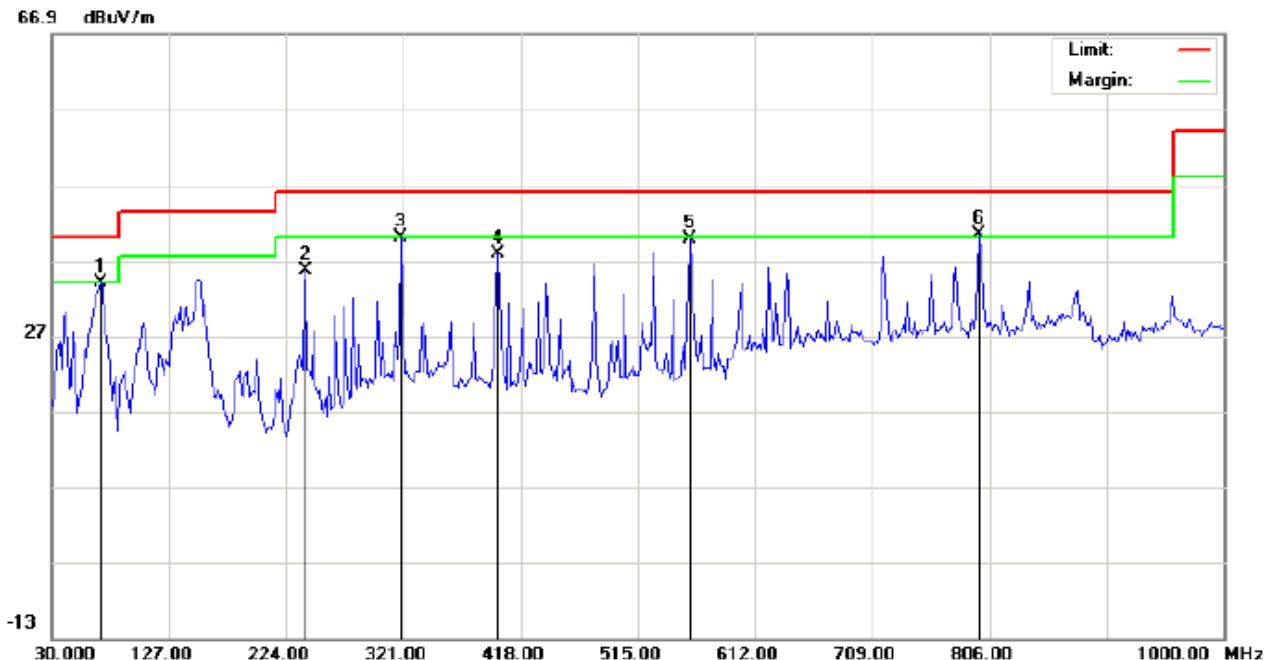


Site: site #1
Limit: FCC Class B 3M Radiation
EUT: tablet pc
M/N: PC1002ME
Mode: Middle Channel TX
Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna	Table	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		Height	Degree	
1		60.7167	24.03	4.06	28.09	40.00	-11.91	peak			
2		264.4167	14.56	14.71	29.27	46.00	-16.73	peak			
3		479.4333	14.16	21.67	35.83	46.00	-10.17	peak			
4	*	527.9333	20.62	20.23	40.85	46.00	-5.15	peak			
5	!	576.4333	15.73	24.54	40.27	46.00	-5.73	peak			
6		623.3167	10.02	25.01	35.03	46.00	-10.97	peak			

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2437MHZ	Antenna	Vertical

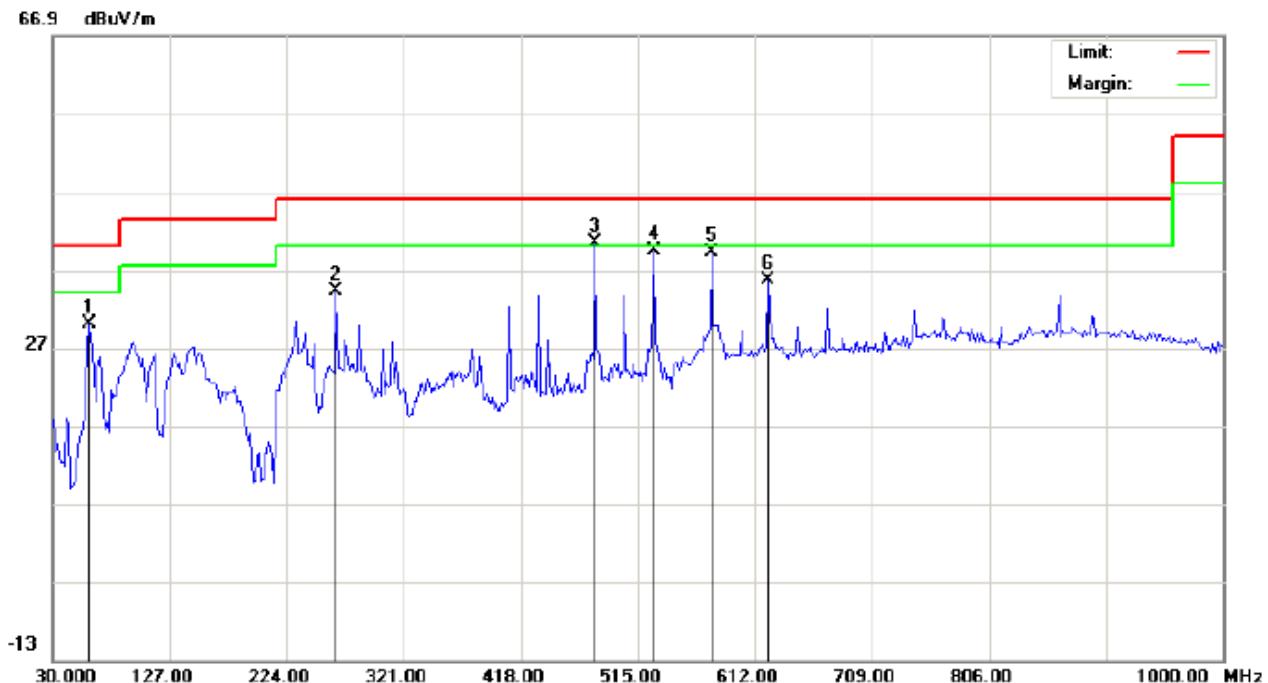


Site: site #1 Polarization: **Vertical** Temperature: 26
 Limit: FCC Class B 3M Radiation Power: Humidity: 60 %
 EUT: tablet pc Distance:
 M/N: PC1002ME
 Mode: Middle Channel TX
 Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna	Table	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	!	70.4167	29.72	4.34	34.06	40.00	-5.94	peak			
2		240.1667	21.31	14.23	35.54	46.00	-10.46	peak			
3	!	319.3833	21.83	18.27	40.10	46.00	-5.90	peak			
4		398.6000	18.89	18.86	37.75	46.00	-8.25	peak			
5		558.6500	15.87	23.97	39.84	46.00	-6.16	peak			
6	*	797.9167	12.43	28.04	40.47	46.00	-5.53	peak			

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Horizontal

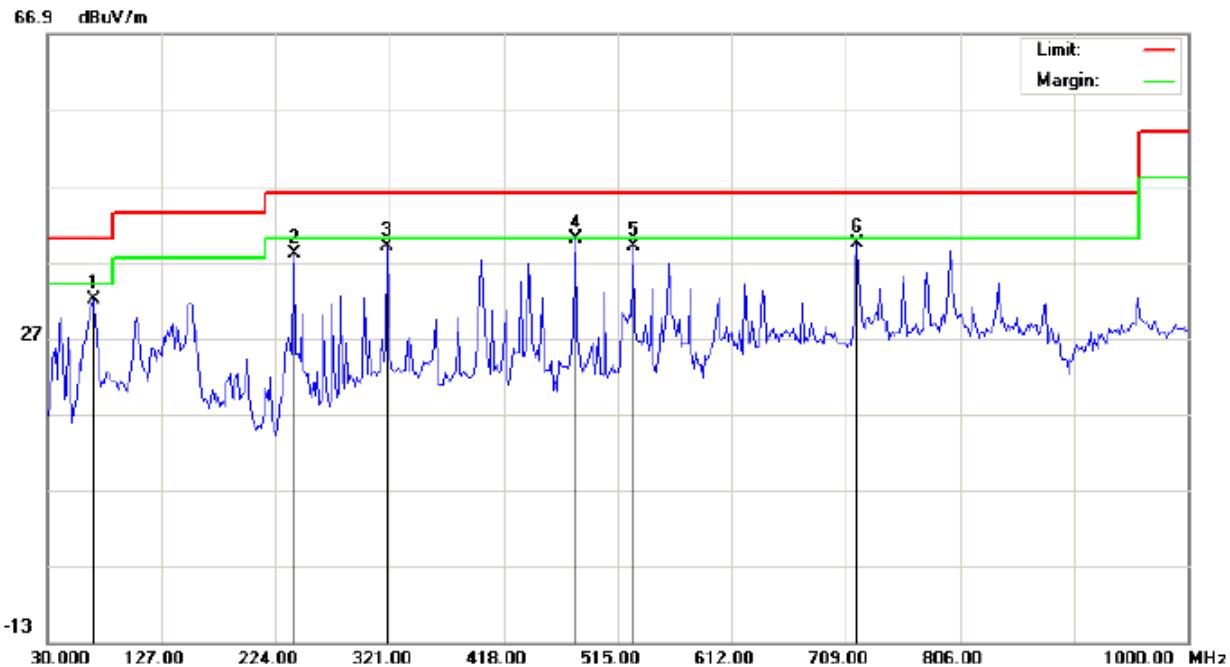


Site: site #1 Polarization: **Horizontal** Temperature: 26
 Limit: FCC Class B 3M Radiation Power: Humidity: 60 %
 EUT: tablet pc Distance:
 M/N: PC1002ME
 Mode: High Channel TX
 Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna	Table	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		60.7167	26.03	4.06	30.09	40.00	-9.91	peak			
2		264.4167	19.56	14.71	34.27	46.00	-11.73	peak			
3	*	479.4333	18.66	21.67	40.33	46.00	-5.67	peak			
4		527.9333	19.12	20.23	39.35	46.00	-6.65	peak			
5		576.4333	14.73	24.54	39.27	46.00	-6.73	peak			
6		623.3167	10.52	25.01	35.53	46.00	-10.47	peak			

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2462MHZ	Antenna	Vertical



Site: site #1
 Polarization: **Vertical**
 Temperature: 26
 Limit: FCC Class B 3M Radiation
 Power:
 Humidity: 60 %
 EUT: tablet pc
 Distance:
 M/N: PC1002ME
 Mode: High Channel TX
 Note:

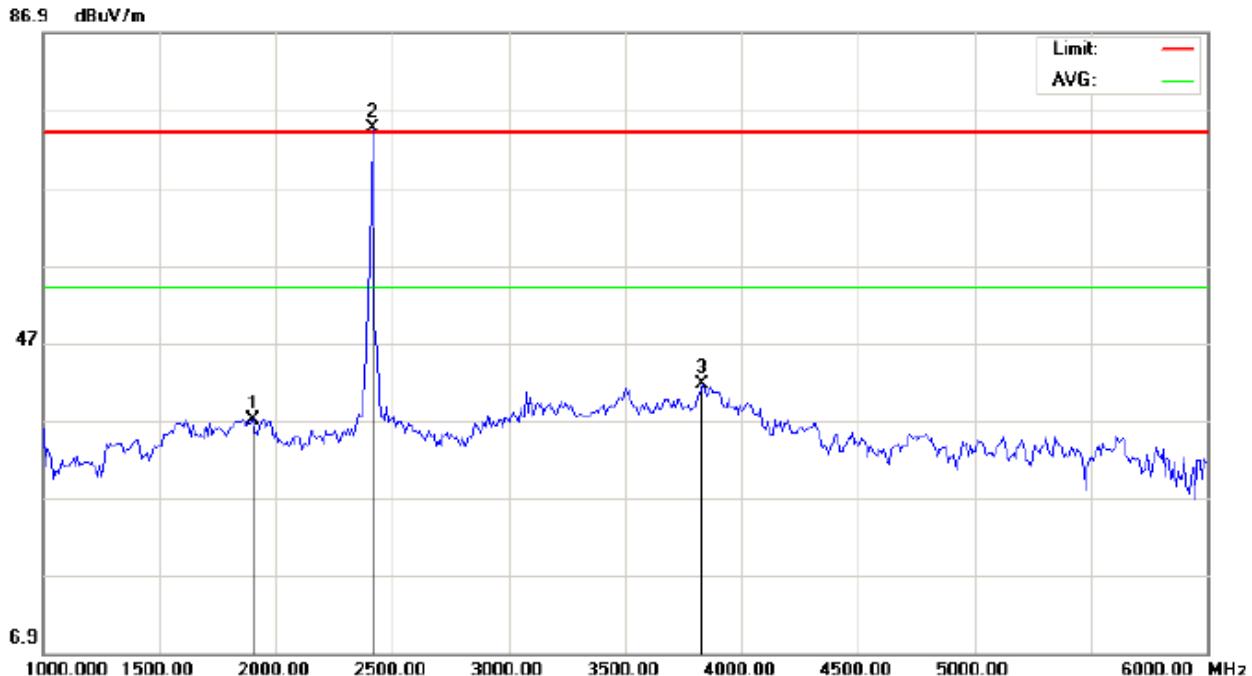
No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna	Table	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		Height	Degree	
1		68.8000	28.15	3.79	31.94	40.00	-8.06	peak			
2		240.1667	23.81	14.23	38.04	46.00	-7.96	peak			
3		319.3833	20.83	18.27	39.10	46.00	-6.90	peak			
4	*	479.4333	18.35	21.67	40.02	46.00	-5.98	peak			
5		527.9333	15.71	23.35	39.06	46.00	-6.94	peak			
6		718.7000	13.18	26.16	39.34	46.00	-6.66	peak			

RESULT: PASS

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

RADIATED EMISSION ABOVE 1GHZ

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with date rate 1 2412MHZ	Antenna	Horizontal



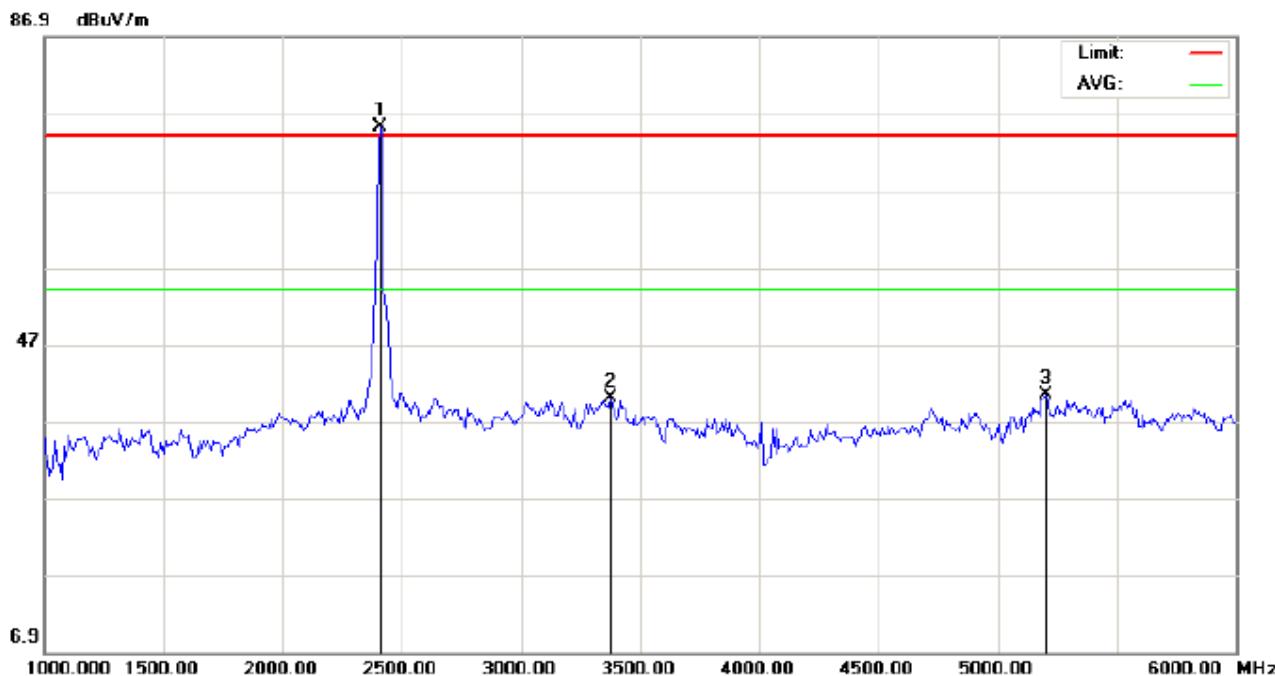
Site: site #1 Polarization: **Horizontal** Temperature: 26
 Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %
 EUT: tablet pc Distance: 3m
 M/N: PC1002ME
 Mode: Low channel TX
 Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna	Table	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		1900.000	37.10	0.00	37.10	74.00	-36.90	peak			
2	*	2412.000	74.66	0.00	74.66	74.00	0.66	peak			
3		3833.333	41.55	0.00	41.55	74.00	-32.45	peak			

****Mark 2 is basic frequency.**

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
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: tablet pc Distance: 3m
M/N: PC1002ME
Mode: Low channel TX
Note:

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	75.13	0.00	75.13	74.00	1.13	peak			
2		3375.000	39.98	0.00	39.98	74.00	-34.02	peak			
3		5200.000	40.38	0.00	40.38	74.00	-33.62	peak			

****Mark 2 is basic frequency.**

RESULT: PASS

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

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

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

12. BAND EDGE EMISSION

12.1. MEASUREMENT PROCEDURE

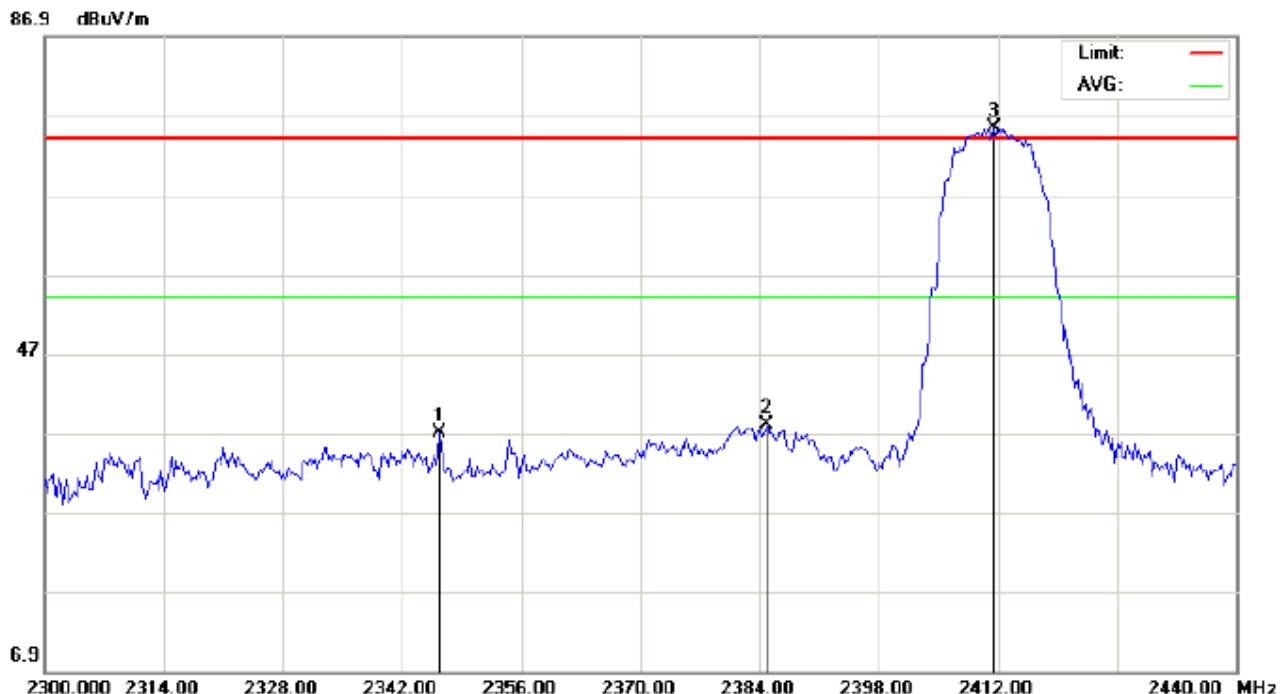
1. Set the EUT Work on the top, the bottom operation frequency individually.
2. Set SPA Start or Stop Frequency = Operation Frequency, $RBW \geq 1\% \text{span}$, $VBW \geq RBW$
3. The band edges was measured and recorded.

12.2. TEST SET-UP

Radiated same as 11.2

12.3. TEST RESULT

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2412MHZ	Antenna	Horizontal

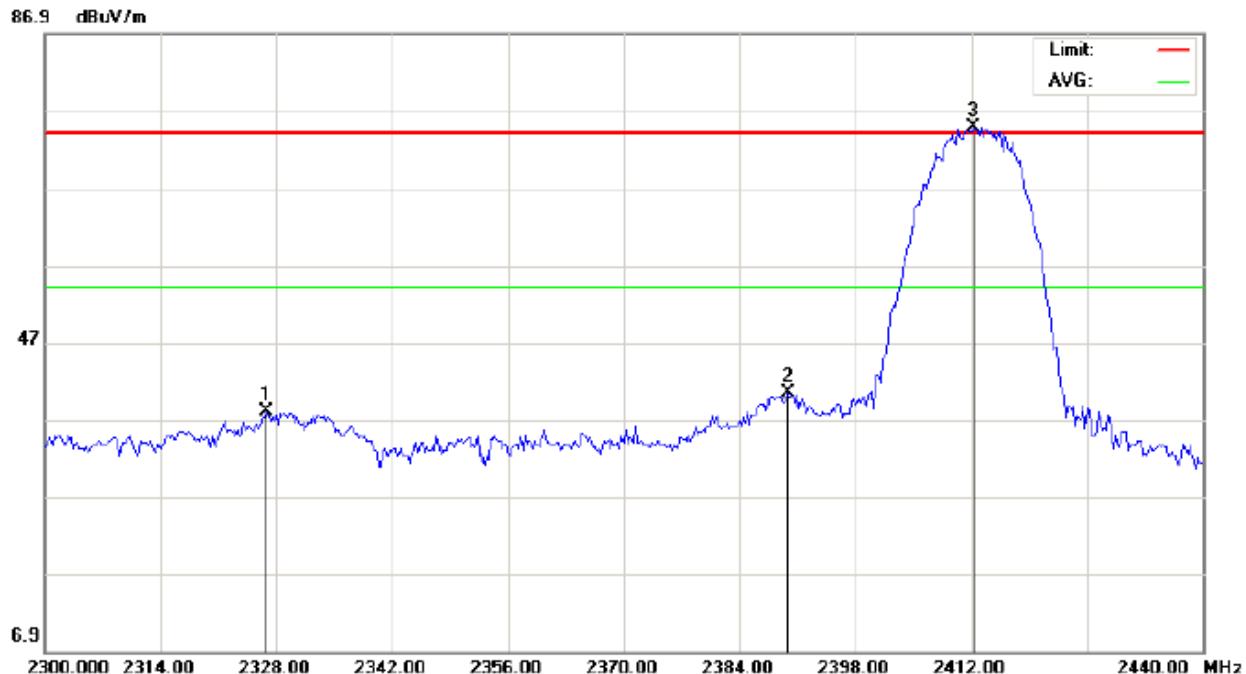


Site: site #1 Polarization: *Horizontal* Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %
EUT: tablet pc Distance: 3m
M/N: PC1002ME
Mode: 802.11b Low channel TX
Note:

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		2346.433	36.95	0.00	36.95	74.00	-37.05	peak			
2		2384.933	38.08	0.00	38.08	74.00	-35.92	peak			
3	*	2411.533	75.42	0.00	75.42	74.00	1.42	peak			

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
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: tablet pc Distance: 3m
M/N: PC1002ME
Mode: 802.11b Low channel TX
Note:

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		2326.833	38.02	0.00	38.02	74.00	-35.98	peak			
2		2389.833	40.31	0.00	40.31	74.00	-33.69	peak			
3	*	2412.233	74.86	0.00	74.86	74.00	0.86	peak			

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Horizontal

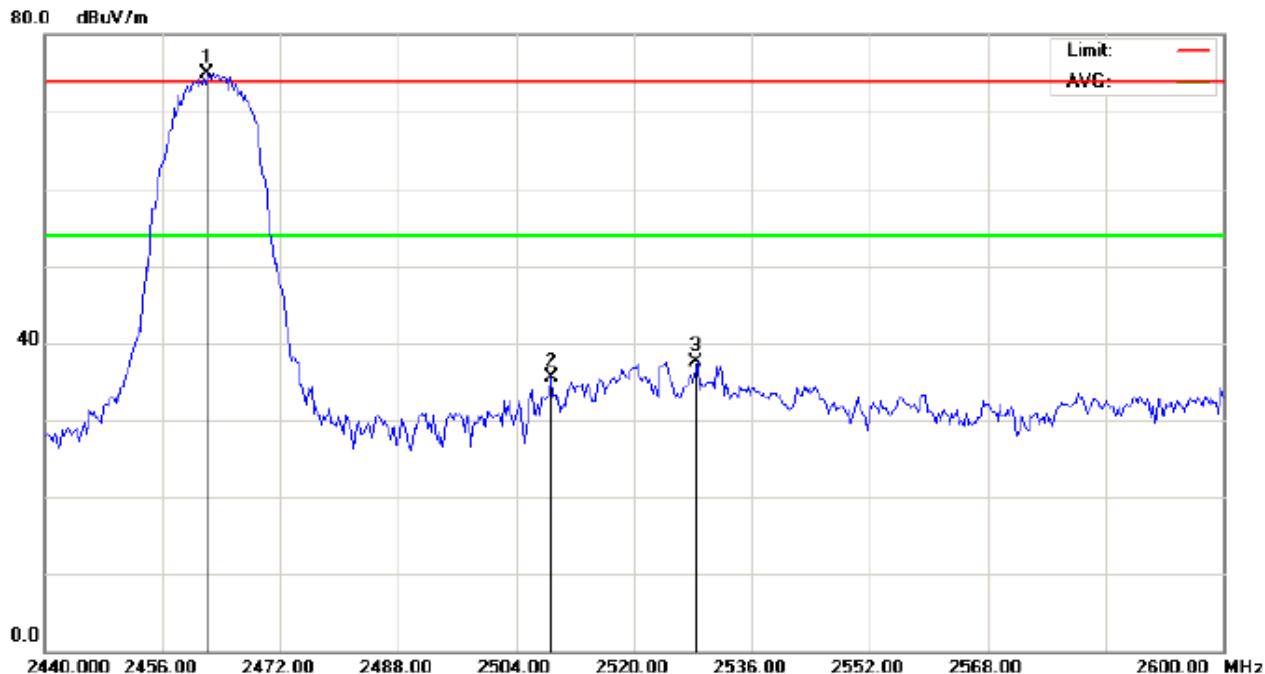


Site: site #1 Polarization: **Horizontal** Temperature: 26
Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %
EUT: tablet pc Distance: 3m
M/N: PC1002ME
Mode: 802.11b High channel TX
Note:

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	*	2461.867	74.77	0.00	74.77	74.00	0.77	peak			
2		2510.400	35.34	0.00	35.34	74.00	-38.66	peak			
3		2540.000	33.58	0.00	33.58	74.00	-40.42	peak			

RESULT: PASS

EUT	tablet pc	Model Name	PC1002ME,PC10XXME
Temperature	25°C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	802.11b with data rate 1 2462MHZ	Antenna	Vertical



Site: site #1 Polarization: **Vertical** Temperature: 26

Limit: FCC Class B 3M Radiation above 1GHZ(PK) Power: Humidity: 60 %

EUT: tablet pc Distance: 3m

M/N: PC1002ME

Mode: 802.11b High channel TX

Note:

No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna	Table	Comment
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1	*	2462.133	74.99	0.00	74.99	74.00	0.99	peak			
2		2508.800	35.44	0.00	35.44	74.00	-38.56	peak			
3		2528.533	37.53	0.00	37.53	74.00	-36.47	peak			

RESULT: PASS

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

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

13. FCC LINE CONDUCTED EMISSION TEST

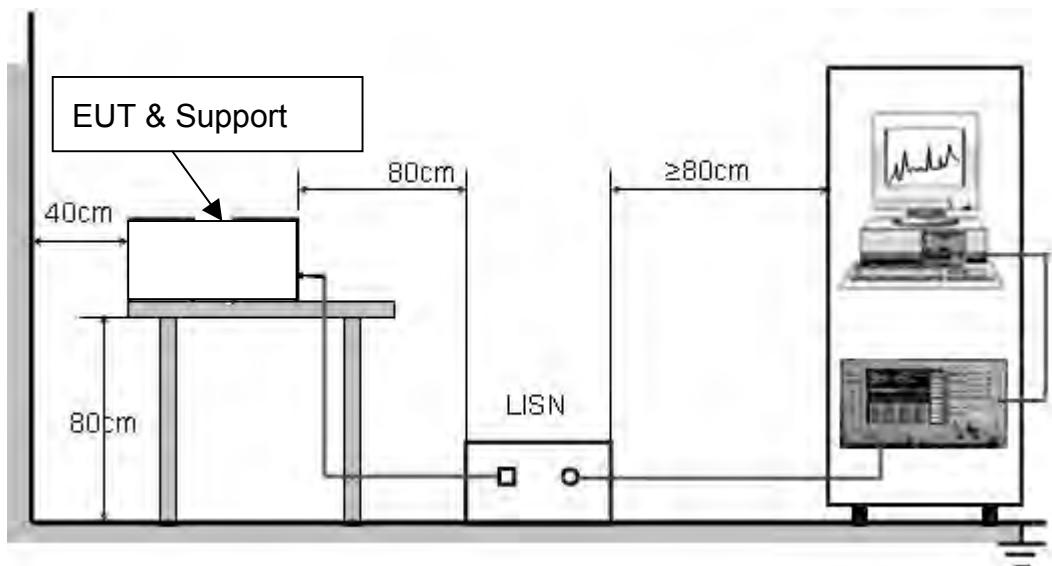
13.1. LIMITS OF LINE CONDUCTED EMISSION TEST

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.

13.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



13.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.4.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
4. All support equipments received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC5V charging voltage by adapter which received 120V/60Hz power by a LISN..
6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

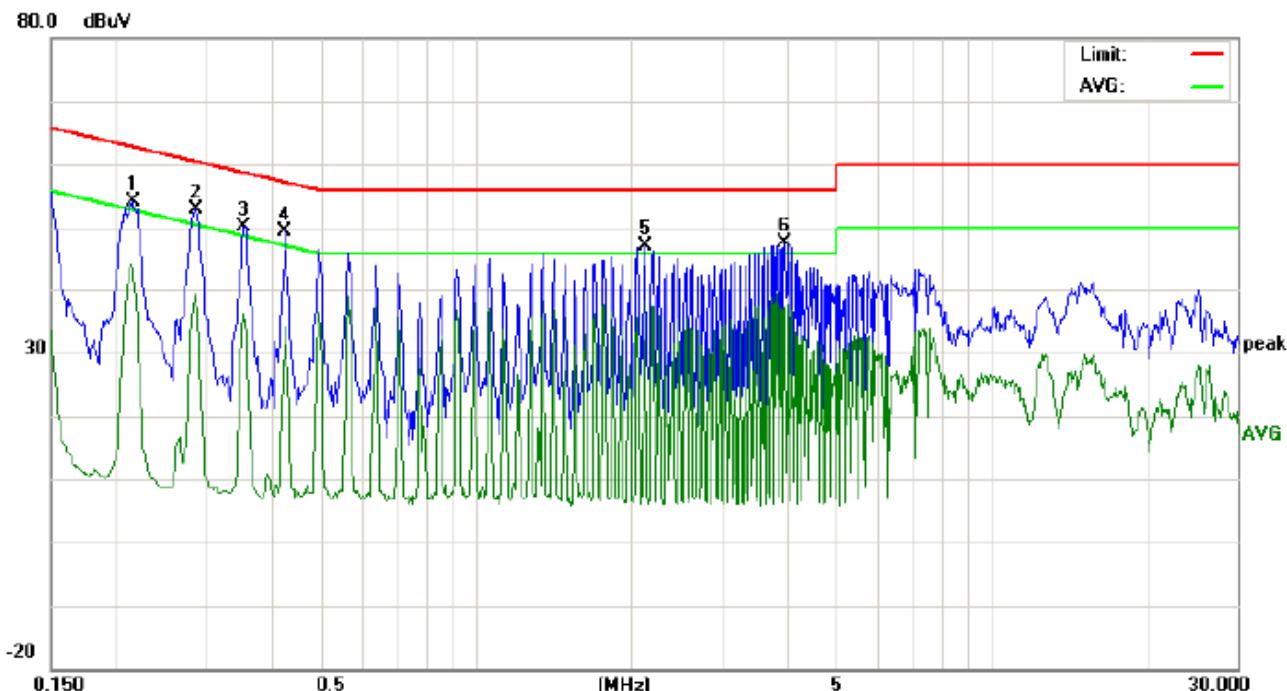
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

13.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

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

13.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

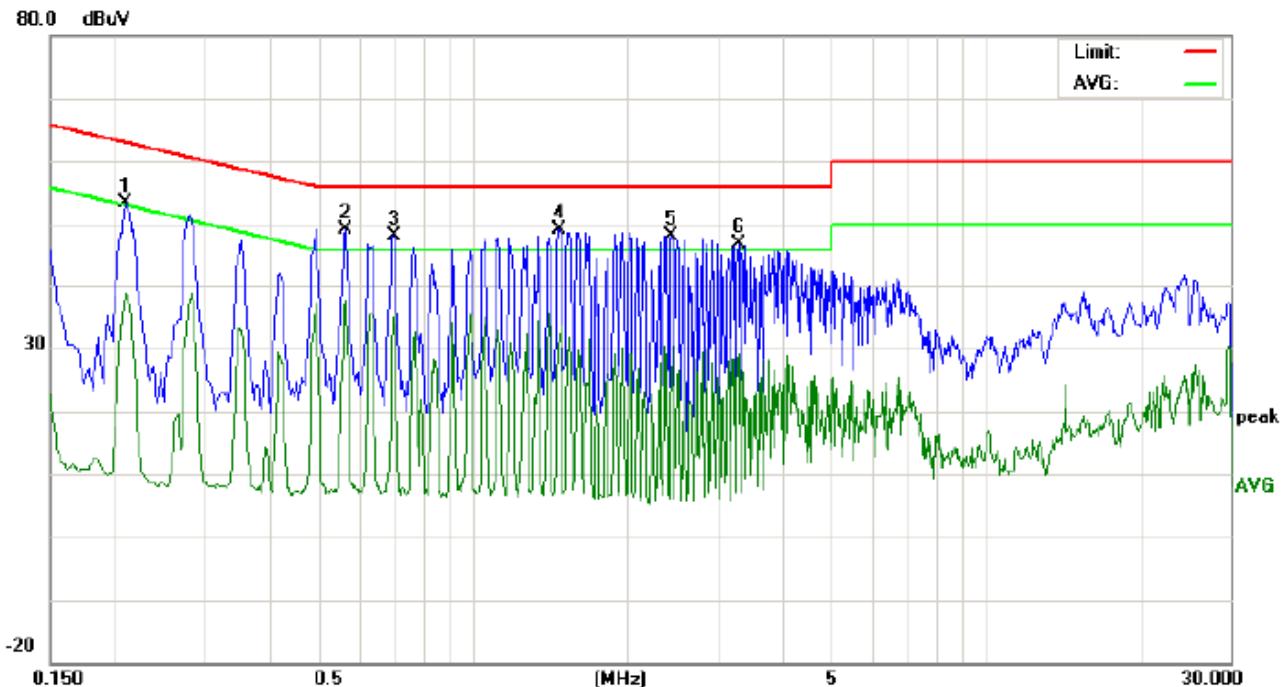
LINE CONDUCTED EMISSION TEST LINE 1-L



Site: Conduction Phase: **L1** Temperature: 26
 Limit: FCC Class B Conduction(QP) Power: Humidity: 60 %
 EUT: tablet pc
 M/N: PC1002ME
 Mode: Normal Operating (WiFi)
 Note:

No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG		Peak	QP	AVG	QP	AVG	QP	AVG		
1	0.2151	43.98		33.02	10.23	54.21		43.25	63.00	53.00	-8.79	-9.75	P	
2	0.2862	42.71		28.55	10.28	52.99		38.83	60.63	50.63	-7.64	-11.80	P	
3	0.3637	39.93		25.84	10.31	50.24		36.15	58.87	48.87	-8.63	-12.72	P	
4	0.4259	39.08		23.81	10.35	49.43		34.16	57.33	47.33	-7.90	-13.17	P	
5	2.1299	36.84		27.92	10.27	47.11		38.19	56.00	46.00	-8.89	-7.81	P	
6	3.9740	37.28		26.77	10.43	47.71		37.20	56.00	46.00	-8.29	-8.80	P	

Line Conducted Emission Test Line 2-N



Site: Conduction Phase: **N** Temperature: 26
 Limit: FCC Class B Conduction(QP) Power: Humidity: 60 %
 EUT: tablet pc
 M/N: PC1002ME
 Mode: Normal Operating (WiFi)
 Note:

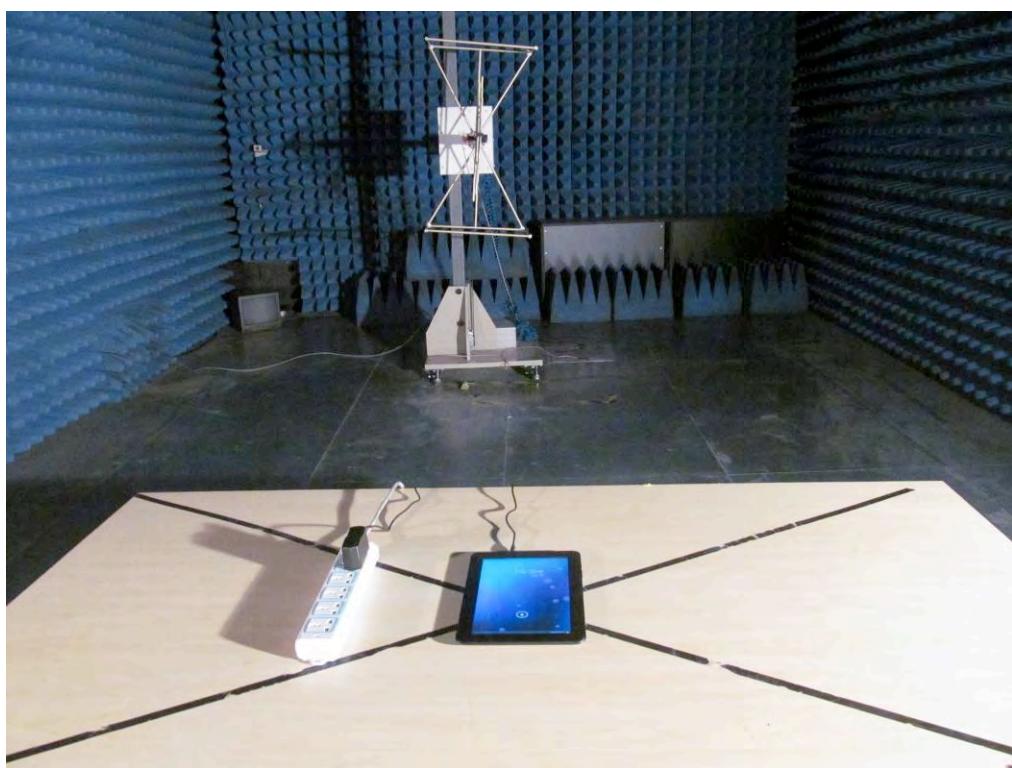
No.	Freq. (MHz)	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		P/F	Comment
		Peak	QP	AVG		dB	Peak	QP	Avg	QP	Avg	QP	Avg	
1	0.2100	43.26		28.35	10.23	53.49		38.58	63.20	53.20	-9.71	-14.62	P	
2	0.5660	38.81		27.34	10.34	49.15		37.68	56.00	46.00	-6.85	-8.32	P	
3	0.7019	37.84		25.29	10.35	48.19		35.64	56.00	46.00	-7.81	-10.36	P	
4	1.4780	38.82		21.09	10.38	49.20		31.47	56.00	46.00	-6.80	-14.53	P	
5	2.4380	37.78		13.48	10.40	48.18		23.88	56.00	46.00	-7.82	-22.12	P	
6	3.2940	36.44		18.55	10.53	46.97		29.08	56.00	46.00	-9.03	-16.92	P	

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



APPENDIX B: PHOTOGRAPHS OF EUT
TOTAL VIEW OF EUT



TOP VIEW OF EUT



BOTTOM VIEW OF EUT



FRONT VIEW OF EUT



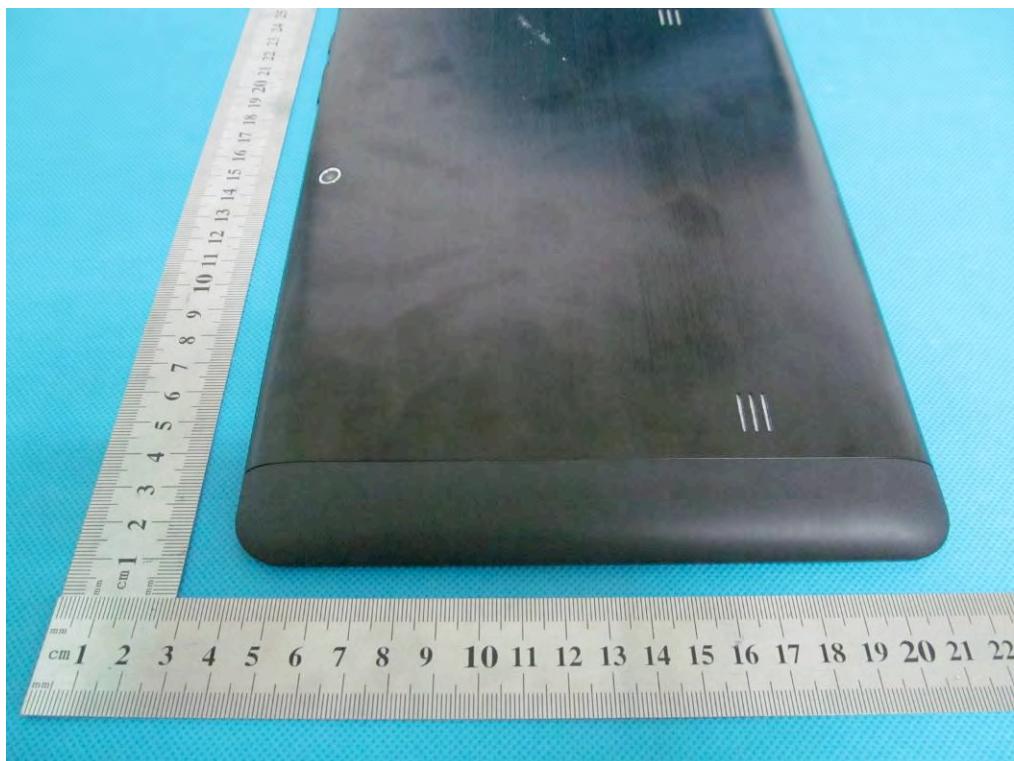
BACK VIEW OF EUT



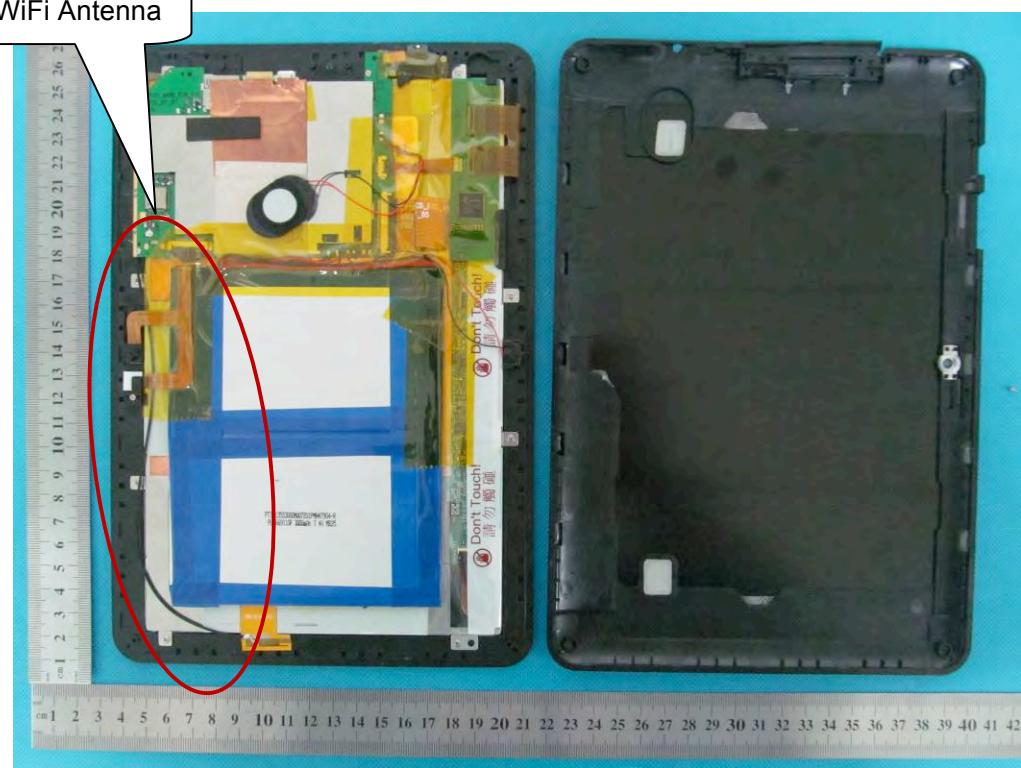
LEFT VIEW OF EUT



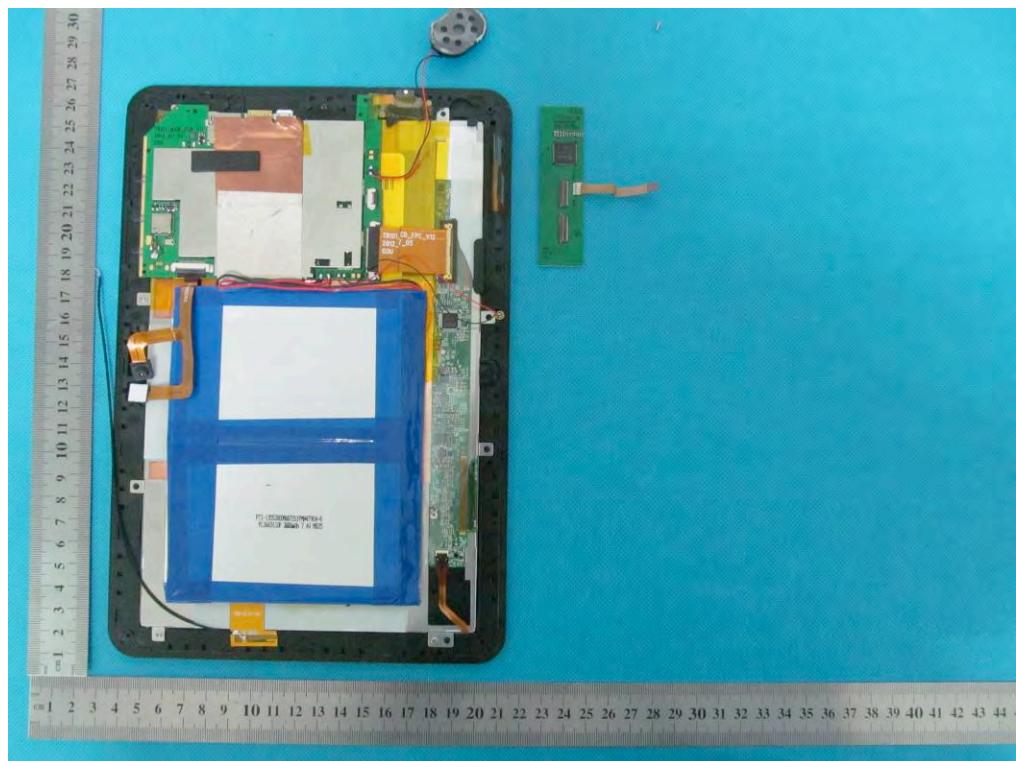
RIGHT VIEW OF EUT



OPEN VIEW OF EUT-1



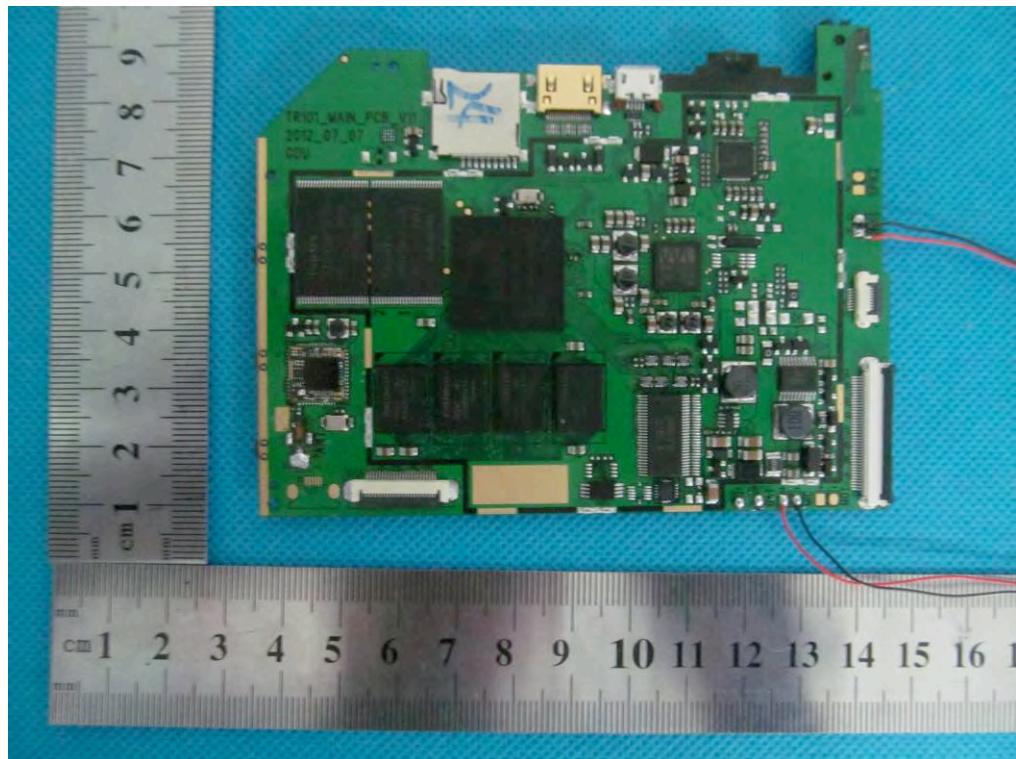
OPEN VIEW OF EUT-2



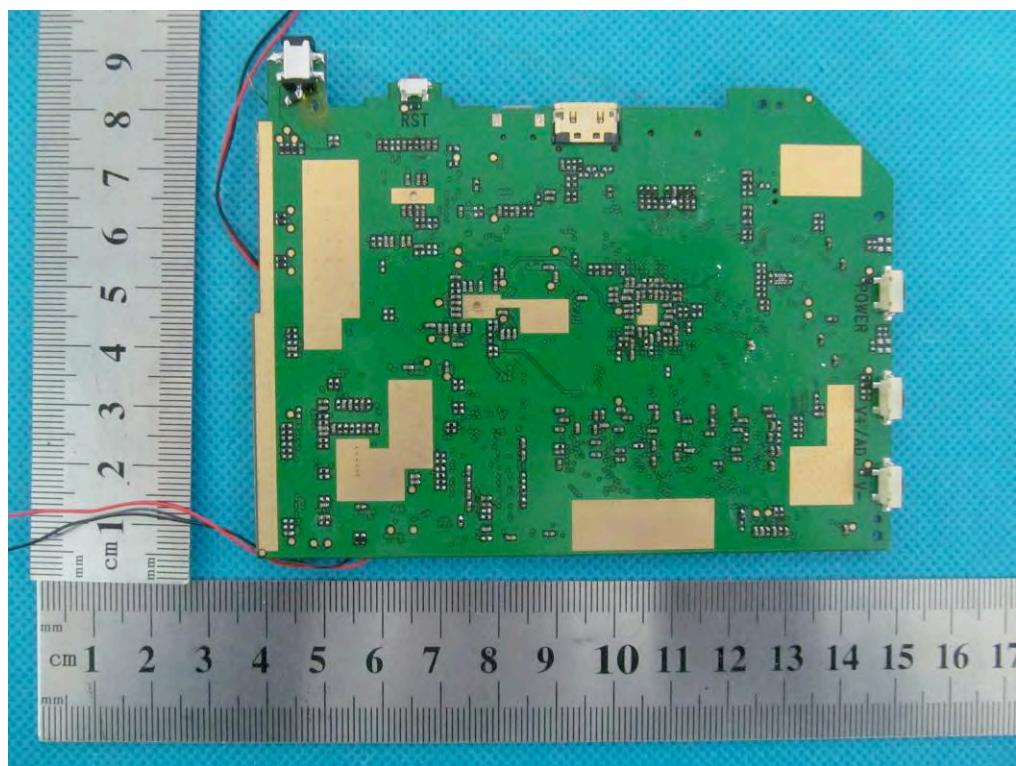
OPEN VIEW OF EUT-3



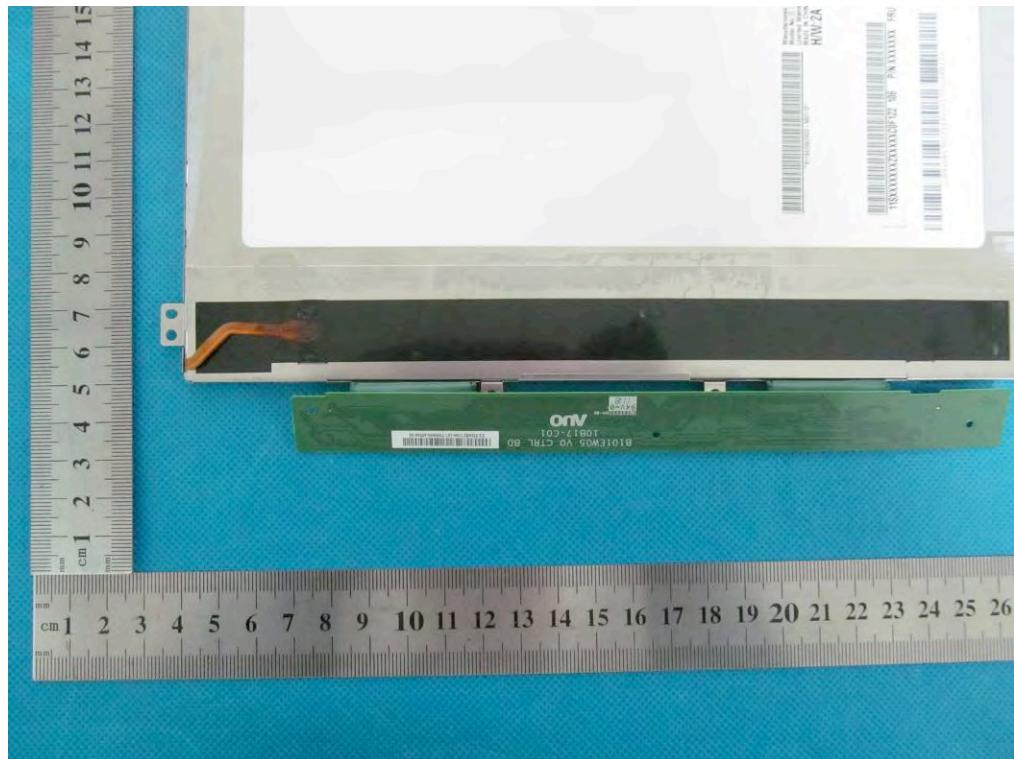
INTERNAL VIEW OF EUT-1



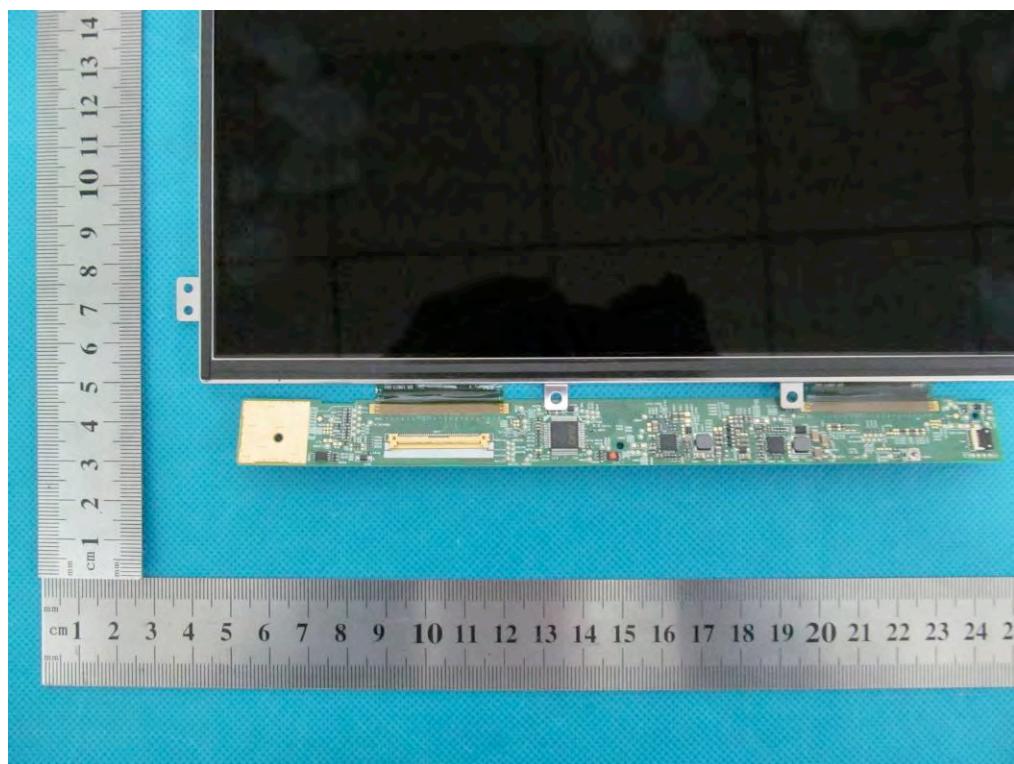
INTERNAL VIEW OF EUT-2



INTERNAL VIEW OF EUT-3



INTERNAL VIEW OF EUT-4



----END OF REPORT----