



# **FCC 47 CFR PART 15 SUBPART C And Industry Canada RSS 210 Issue 8 TEST REPORT**

*For*

**Applicant : CLAMCASE, LLC**

**Address : 7095 HOLLYWOOD BLVD. , SUITE 444, , HOLLYWOOD, CA 90028 ,  
CA**

**Product Name : IPAD ACCESSORY WITH KB AND BT RADIO**

**Model Name : C51001**

**Brand Name : CLAMCASE**

**FCC ID : YUG-C51001**

**IC ID : 9422A-C51001**

**Report No. : STS140443F01**

**Date of Issue : May 7, 2014**

## **Prepared by**

**Shenzhen Super Test Service Technology Co., Ltd.**

**No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan,  
Shenzhen, Guangdong, China**

**86-755-2795 8522**

**86-755-2795 8022**

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## 1. VERIFICATION OF CONFORMITY

**Applicant's name**..... CLAMCASE, LLC

Address..... 7095 HOLLYWOOD BLVD. , SUITE 444, , HOLLYWOOD, CA  
90028 , CA

**Manufacture's Name** ..... CLAMCASE, LLC

Address..... 7095 HOLLYWOOD BLVD. , SUITE 444, , HOLLYWOOD, CA  
90028 , CA

### **Product description :**

Product name .....IPAD ACCESSORY WITH KB AND BT RADIO

Model and/or type  
reference ..... C51001

Serial Model ..... N/A

Ratings..... DC 3V

**Standards**..... FCC Part15.249

Test procedure .....ANSI C63.4-2003

This device described above has been tested by STS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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### **Date of Test :**

Date (s) of performance April 25, 2014- May 06, 2014  
of tests.....

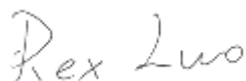
Date of Issue..... May 07, 2014

Test Result ..... **Pass**

The test results of this report relate only to the tested sample identified in this report.

Tested by (+ signature):

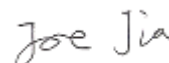
Approved by (+ signature):



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Rex Luo

Test Engineer



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Joe Jia

Manager

## 2. GENERAL INFORMATION

### 2.1 Product Information

Product	IPAD ACCESSORY WITH KB AND BT RADIO
Trade Name	CLAMCASE
Model Number	C51001
internal Antenna	2 dBi
Power Supply	DC 3V by battery
Frequency Range	2402MHz -2480MHz
Modulation Type	GFSK
Antenna Type:	Internal Fixed
Channel Spacing:	1MHz
Channel Number	79(CH Low: 2402MHz, CH Mid: 2441MHz, CH High: 2480MHz)
Temperature Range	-20°C ~ 70°C

**NOTE:**

1. Please refer to Appendix I for the photographs of the EUT. For a more detailed features description about the EUT, please refer to User's Manual.

## 2.2 OBJECTIVE

The objective of the report is to perform tests according to 47 CFR Part 15 Subpart C for the EUT FCC ID and IC Certification:

No.	Identity	Document Title
1	47 CFR Part 15(10-1-05 Edition)	Radio Frequency Devices
2	RSS 210 Issue8	Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment

## 2.3 TEST STANDARDS AND RESULTS

Test items and the results are as bellow:

FCC Rules	IC Rules	Description	Result	Date of Test
15.249(a)	RSS 210 A2.9	Spurious Emission	PASS	May 4, 2014
15.249(a)	RSS 210 A2.9	Band Edge	PASS	May 4, 2014
15.207	RSS Gen7.2.4	Power Line Conducted Emission Test	PASS	May 4, 2014

Note: 1. The test result judgment is decided by the limit of measurement standard  
2. The information of measurement uncertainty is available upon the customer's request.

## 2.4 ENVIRONMENTAL CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35°C
- Humidity: 30-60 %
- Atmospheric pressure: 86-106 kPa

### 3. TEST FACILITY

#### 3.1 TEST FACILITY

NETK Testing Technology Co., Ltd

Add. : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.

The **FCC** Registration Number is **238937**.

The **IC** Registration Number is **9270A-1**

## 2. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.38\text{dB}$
3	Spurious emissions, conducted	$\pm 0.21\text{dB}$
4	All emissions, radiated (<1G)	$\pm 4.68\text{dB}$
5	All emissions, radiated (>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^\circ\text{C}$
7	Humidity	$\pm 2\%$

#### 3.3 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

- (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41			

<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup> Above 38.6

- (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

#### 4. SETUP OF EQUIPMENT UNDER TEST

##### 4.1 SUPPORT EQUIPMENT

Device Type	Brand	Model	Series No.	Note
IPAD ACCESSORY WITH KB AND BT RADIO	CLAMCASE	C51001	N/A	

*Remark:*

*All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*

## 4.2 TEST EQUIPMENT LIST

**Instrumentation:** The following list contains equipment used at Most for testing. The equipment conforms to the CISPR 16-1 / ANSI C63.2 Specifications for Electromagnetic Interference and Field Strength Instrumentation from 10 kHz to 1.0 GHz or above.

### Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2013.07.06	2014.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2013.06.07	2014.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2013.07.06	2014.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2014.06.07	2014.06.06	1 year
5	Spectrum Analyzer	ADVANTES T	R3132	150900201	2013.06.07	2014.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2013.07.06	2014.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2013.07.06	2014.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2013.12.21	2014.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2013.06.08	2014.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2013.07.06	2014.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2013.07.06	2014.07.05	1 year

### Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2013.06.06	2014.06.05	1 year
2	LISN	R&S	ENV216	101313	2013.08.24	2014.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2013.08.24	2014.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2013.06.07	2014.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2013.06.07	2014.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2013.06.08	2014.06.07	1 year

**NOTE:** Equipments listed above have been calibrated and are in the period of validation.



## 5. 47 CFR Part 15C 15.249 Requirements

### 5.1 SPURIOUS EMISSION TEST

#### 5.1.1 REQUIREMENT

According to FCC section 15.249(a):

Except as provided in paragraph (a) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency (MHz)	Field Strength of Fundamental (mV/m)	Field Strength of Harmonics ( $\mu$ V/m)
902-928	50	500
2400-2483.5	50	500
5725-5875	50	500
24000-24250	250	2500

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ( $\mu$ V/m)	Measurement Distance (m)
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

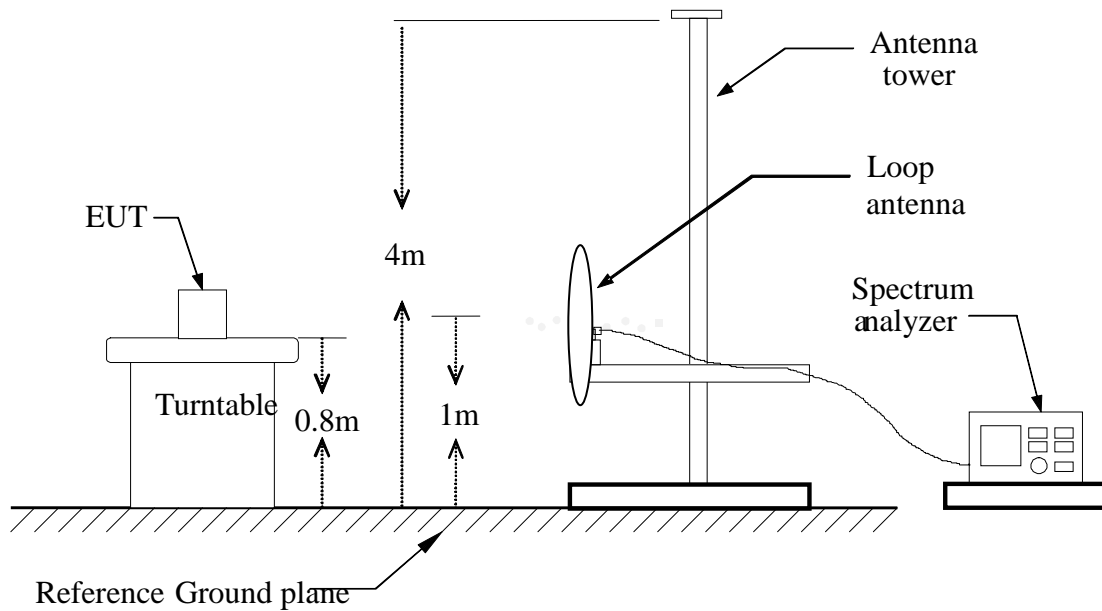
**Remark:** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

In the above emission table, the tighter limit applies at the band edges.

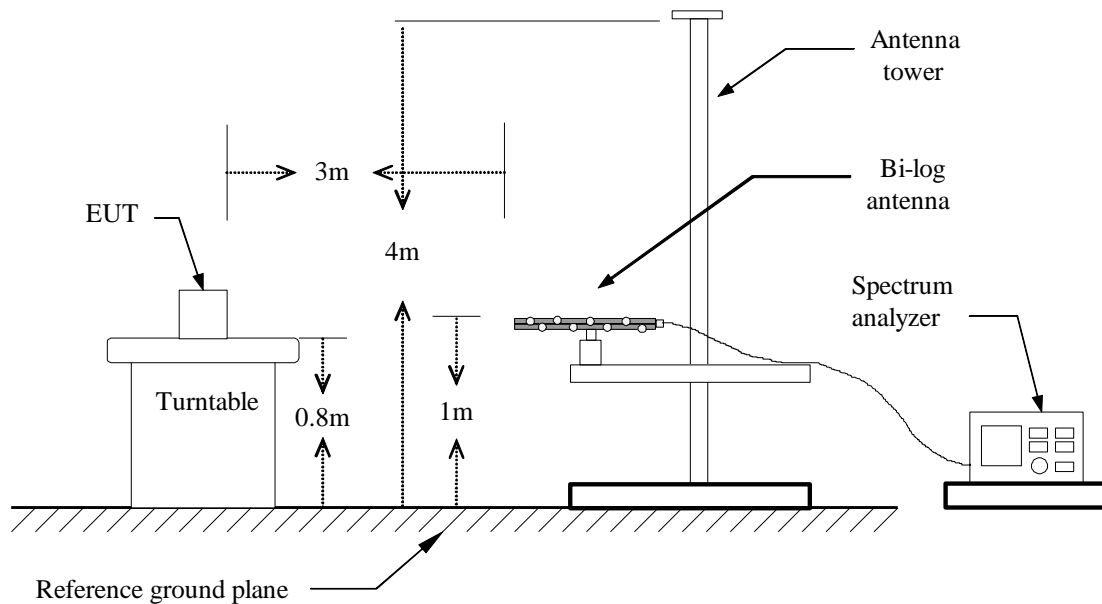
Frequency (MHz)	Field Strength ( $\mu$ V/m)	Measurement Distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

## 5.1.2 TEST DESCRIPTION

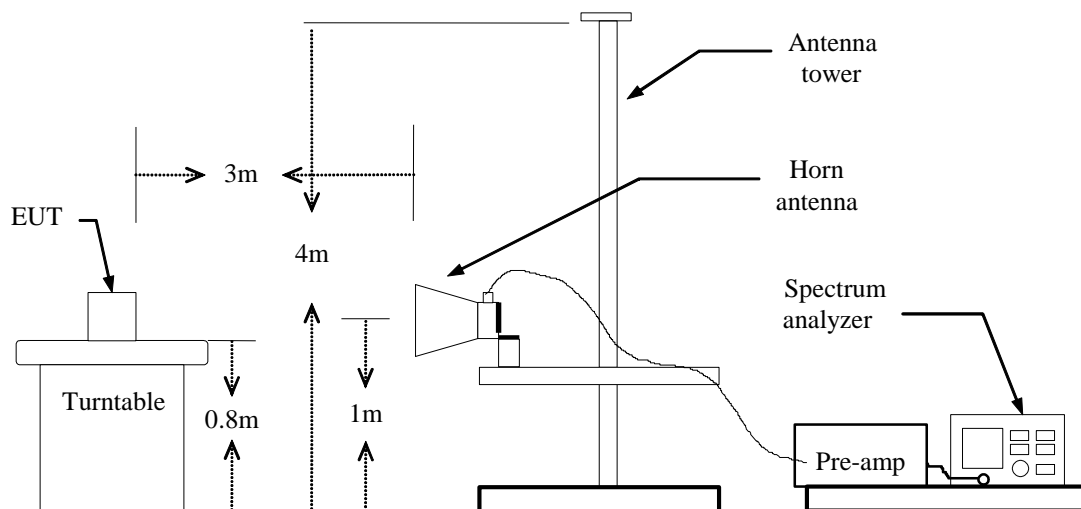
### TEST SETUP:



### Blow 1GHz:



### Above 1GHz:



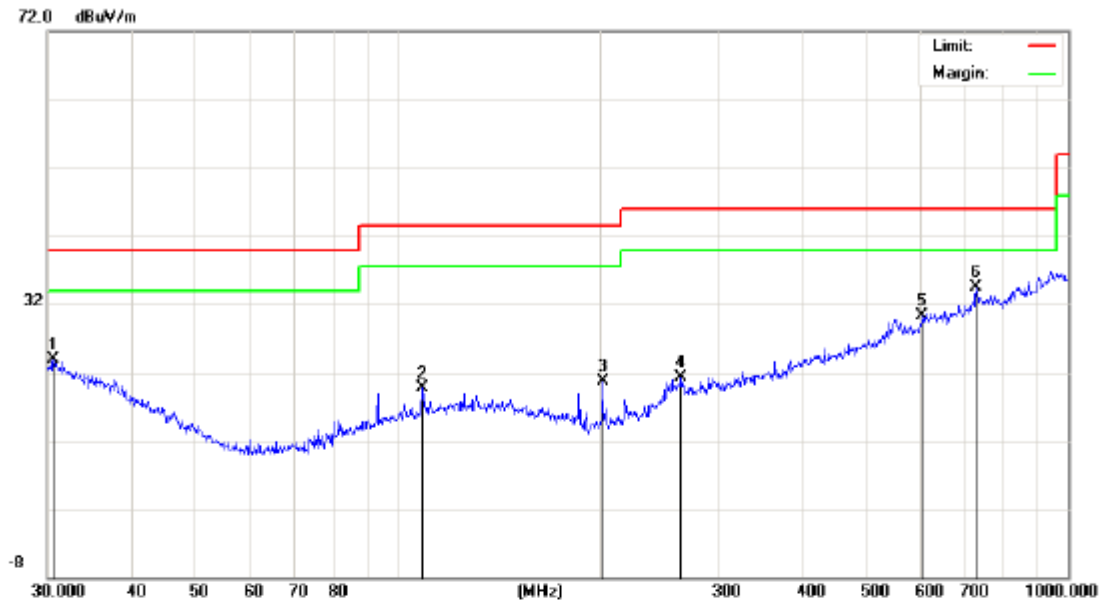
### 5.1.3 TEST DESCRIPTION

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:  
Below 1GHz: RBW=100 kHz / VBW=300 kHz / Sweep=AUTO  
Above 1GHz : ( a ) PEAK: RBW=VBW=1MHz / Sweep=AUTO  
( b ) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.
8. Determine the spurious emission test using the following equation:  
$$CF = \text{antenna factor (dB)} + \text{Cable loss (dB)} - \text{amplifier (dB)}$$

## 5.1.4 TEST RESULT

Form 30 MHz to 1GHz:

### Radiated Emission Measurement



Site NTEK 9\*6\*6 Chamber #1

Polarization: *Horizontal*

Temperature: 24

Limit: FCC\_PART15\_B\_03m\_QP

Power: AC 120V/60Hz

Humidity: 50 %

EUT: IPAD ACCESSORY WITH KB AND BT RADIO Distance: 3m

M/N: C51001

Mode: Link Model

Note:

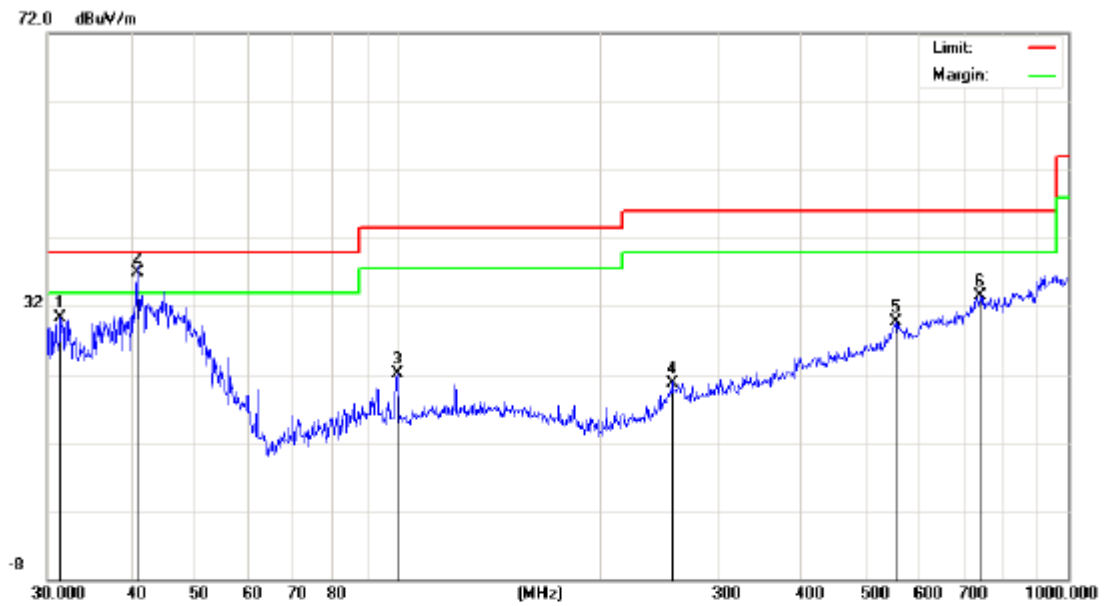
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		30.6377	5.82	18.04	23.86	40.00	-16.14	QP		
2		108.6470	8.21	11.47	19.68	43.50	-23.82	QP		
3		202.1005	11.64	9.11	20.75	43.50	-22.75	QP		
4		264.7456	6.85	14.53	21.38	46.00	-24.62	QP		
5		605.6592	7.18	23.12	30.30	46.00	-15.70	QP		
6	*	729.3583	8.25	26.21	34.46	46.00	-11.54	QP		

\*:Maximum data x:Over limit !:over margin

(Reference Only)

Engineer Signature:

### Radiated Emission Measurement



Site NTEK 9\*6\*6 Chamber #1 Polarization: *Horizontal* Temperature: 24  
 Limit: FCC\_PART15\_B\_03m\_QP Power: AC 230V/50Hz Humidity: 50 %  
 EUT: IPAD ACCESSORY WITH KB AND BT RADIO Distance: 3m  
 M/N: C51001  
 Mode: Link Model  
 Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		31.3992	12.50	17.71	30.21	40.00	-9.79	QP		
2	*	40.8446	23.97	12.90	36.87	40.00	-3.13	QP		
3		99.8777	11.42	10.67	22.09	43.50	-21.41	QP		
4		256.5210	6.33	14.47	20.80	46.00	-25.20	QP		
5		552.8832	6.15	23.54	29.69	46.00	-16.31	QP		
6		739.6604	6.96	26.47	33.43	46.00	-12.57	QP		

\*:Maximum data x:Over limit !:over margin

(Reference Only)

Engineer Signature:

# Above 1 GHz

Operation Mode: CH Low

Test Date: May 7, 2014

Temperature: 20°C

Humidity: 50 % RH

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
2402.00	H	86.45	63.85	9.43	95.88	73.28	114.00	94.00	-20.72
4815.00	H	59.43	36.75	-3.64	55.79	33.11	74.00	54.00	-20.89
N/A									>20
2402.00	V	83.75	59.64	9.32	93.07	68.96	114.00	94.00	-25.04
4815.00	V	57.26	34.60	-3.68	53.58	30.92	74.00	54.00	-23.08
N/A									>20

## Notes:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
  - a. Peak Setting 1GHz - 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = *auto*.
  - b. AV Setting 1GHz- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = *auto*.

**Operation Mode:** CH Mid **Test Date:** May 7, 2014  
**Temperature:** 20°C **Humidity:** 50 % RH

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
2441.00	H	87.57	69.38	9.51	97.08	78.89	114.00	94.00	-15.11
4885.00	H	61.93	42.16	-3.60	58.33	38.56	74.00	54.00	-15.44
N/A									>20
2441.00	V	88.92	70.83	9.45	98.37	80.28	114.00	94.00	-13.72
4885.00	V	58.03	34.27	-3.59	54.44	30.68	74.00	54.00	-23.32
N/A									>20

**Notes:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
  - a. Peak Setting 1GHz - 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = *auto*.
  - b. AV Setting 1GHz- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = *auto*.

**Operation Mode:** CH High

**Test Date:** May 7, 2014

**Temperature:** 20°C

**Humidity:** 50 % RH

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
2480.00	H	85.31	60.57	9.48	94.79	70.05	114.00	94.00	-23.95
4955.00	H	54.72	37.97	-3.52	51.20	34.45	74.00	54.00	-19.55
N/A									>20
2480.00	V	84.80	61.95	9.42	94.22	71.37	114.00	94.00	-22.63
4955.00	V	57.06	38.57	-3.49	53.57	35.08	74.00	54.00	-18.92
N/A									>20

**Notes:**

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
  - a. Peak Setting 1GHz - 26GHz, RBW = 1MHz, VBW = 1MHz, Sweep time = *auto*.
  - b. AV Setting 1GHz- 26GHz, RBW = 1MHz, VBW = 10Hz, Sweep time = *auto*.

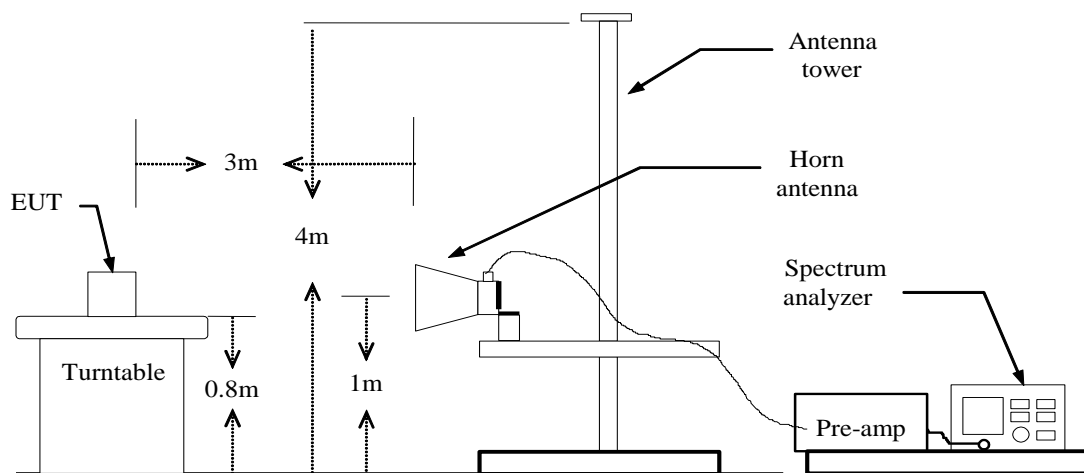


## 5.2 BAND EDGE

### 5.2.1 REQUIREMENT

According to FCC section 15.249(a), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

### 5.2.2 TEST DESCRIPTION



### 5.2.3 TEST RESULT

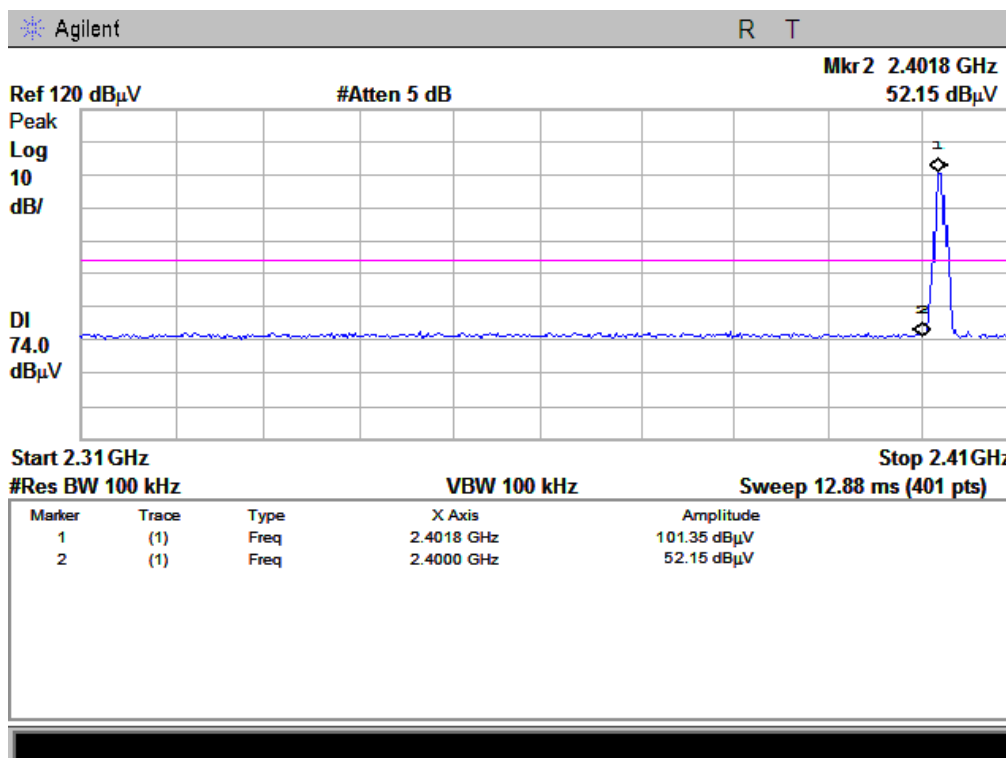
The EUT operates at hopping-off test mode. The lowest and highest channels are tested to verify the band edge emissions.

Test Channel	Frequency(MHz)	Peak Reading (dBuV)	Av Reading (dBuV)	Peak Limit (dBuV/m)	Av Limit (dBuV/m)
CH00	2402	52.15	N/A	74	54
CH78	2480	49.50	N/A	<b>74</b>	54

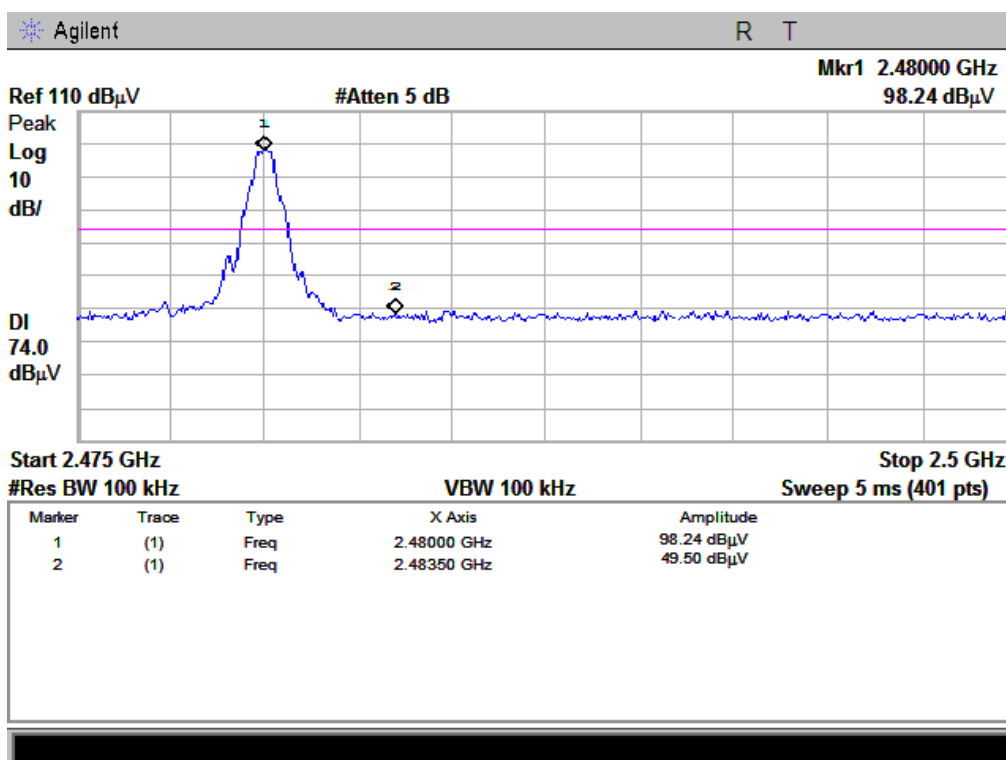
Note: 1. Every data is test both vertical and horizontal polarization and Spectrum Analyzer is max hold.

2. Peak Reading test data is lower Av Limit

# Test Plot:



(CH Low)



(CH High)

### 5.3 LINE CONDUCTED EMISSION TEST

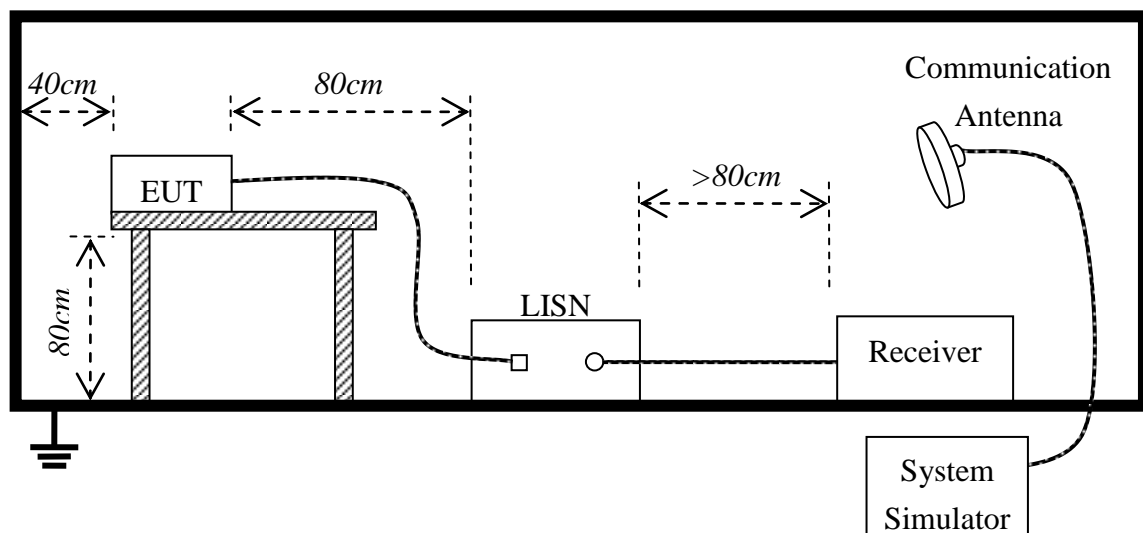
#### 5.3.1 LIMITS OF LINE CONDUCTED EMISSION TEST

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

#### 5.3.2 BLOCK DIAGRAM OF TEST SETUP



### **5.3.3 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 FCC Part 15 (see Test Facility for the dimensions of the ground plane used). When the EUT is 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 FCC Part 15.
- 3) All I/O cables were positioned to simulate typical actual usage as per FCC Part 15.
- 4) The EUT received DC 5V power by AC/DC adapter which through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5) All support equipments received power from a second LISN supplying power of AC 120V/60Hz, if any.
- 6) The EUT 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 30 MHz for emissions in each of the test modes.
- 8) During the above scans, the emissions were maximized by cable manipulation.

### **5.3.4 FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST**

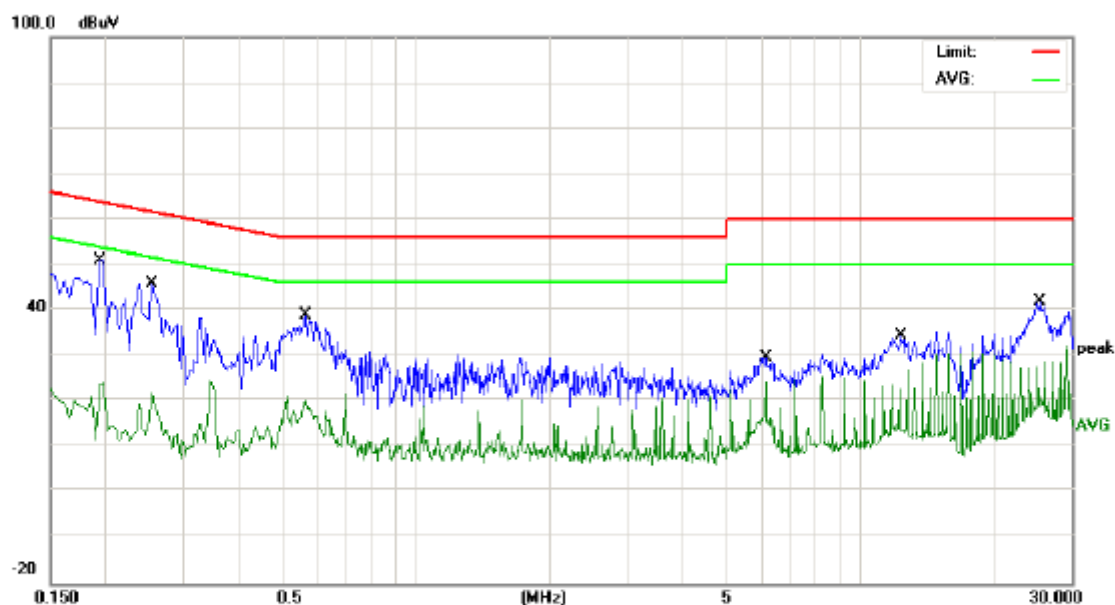
EUT and support equipment was set up on the test bench as per step 9 of the preliminary test.

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.

The test data of the worst case condition(s) was reported on the Summary Data page.

### **5.3.5 TEST RESULT OF LINE CONDUCTED EMISSION TEST**

### Conducted Emission Measurement



Site NTEK 9\*6\*6 Chamber #1

Phase: L1

Temperature: 24

Limit: FCC Part15 CE-Class B\_QP

Power: AC 120V/60Hz

Humidity: 50 %

EUT: IPAD ACCESSORY WITH KB AND BT RADIO

RBW: 9 KHz VBW: 30 KHz

M/N: C51001

Mode: Link Model

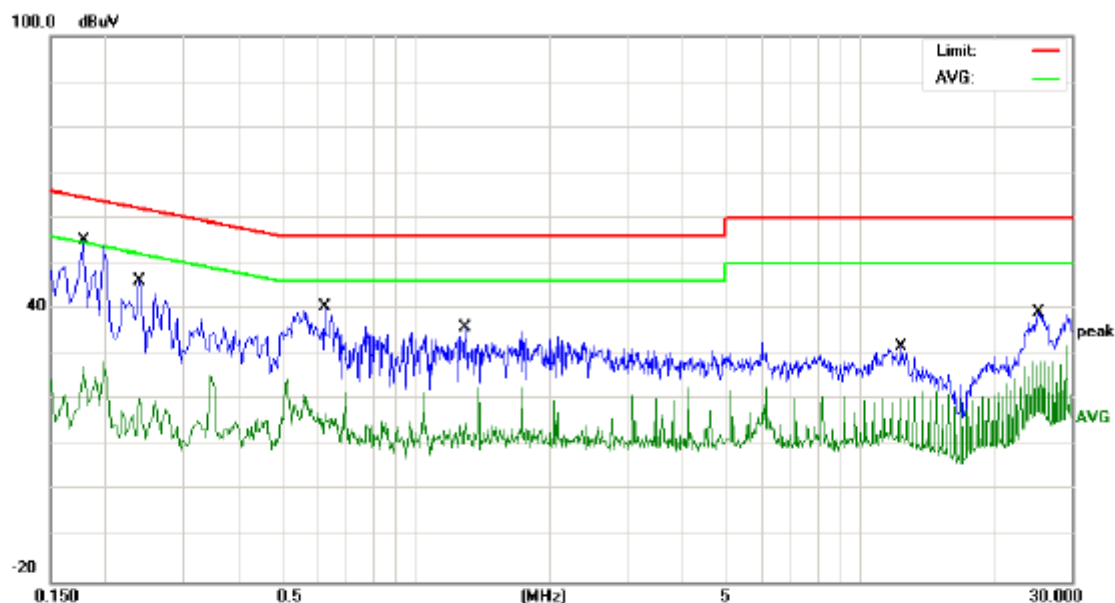
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1940	41.51	9.52	51.03	63.86	-12.83	QP	
2		0.1940	14.61	9.52	24.13	53.86	-29.73	AVG	
3		0.2540	36.26	9.51	45.77	61.62	-15.85	QP	
4		0.2540	12.46	9.51	21.97	51.62	-29.65	AVG	
5		0.5658	29.30	9.53	38.83	56.00	-17.17	QP	
6		0.5658	10.41	9.53	19.94	46.00	-26.06	AVG	
7		6.1459	20.14	9.64	29.78	60.00	-30.22	QP	
8		6.1459	14.56	9.64	24.20	50.00	-25.80	AVG	
9		12.3498	24.71	9.78	34.49	60.00	-25.51	QP	
10		12.3498	17.02	9.78	26.80	50.00	-23.20	AVG	
11		25.5538	31.60	10.29	41.89	60.00	-18.11	QP	
12		25.5538	18.36	10.29	28.65	50.00	-21.35	AVG	

\*:Maximum data x:Over limit !:over margin

Engineer Signature:

### Conducted Emission Measurement



Site NTEK 9\*6\*6 Chamber #1

Phase: N

Temperature: 24

Limit: FCC Part15 CE-Class B\_QP

Power: AC 120V/60Hz

Humidity: 50 %

EUT: IPAD ACCESSORY WITH KB AND BT RADIO

RBW: 9 KHz VBW: 30 KHz

M/N: C51001

Mode: Link Model

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1779	45.65	9.58	55.23	64.58	-9.35	QP	
2		0.1779	17.60	9.58	27.18	54.58	-27.40	AVG	
3		0.2379	36.62	9.50	46.12	62.17	-16.05	QP	
4		0.2379	10.85	9.50	20.35	52.17	-31.82	AVG	
5		0.6219	30.78	9.53	40.31	56.00	-15.69	QP	
6		0.6219	10.33	9.53	19.86	46.00	-26.14	AVG	
7		1.2900	26.41	9.56	35.97	56.00	-20.03	QP	
8		1.2900	5.28	9.56	14.84	46.00	-31.16	AVG	
9		12.3978	22.04	9.78	31.82	60.00	-28.18	QP	
10		12.3978	10.73	9.78	20.51	50.00	-29.49	AVG	
11		25.2939	28.95	10.29	39.24	60.00	-20.76	QP	
12		25.2939	18.18	10.29	28.47	50.00	-21.53	AVG	

\*:Maximum data x:Over limit !:over margin

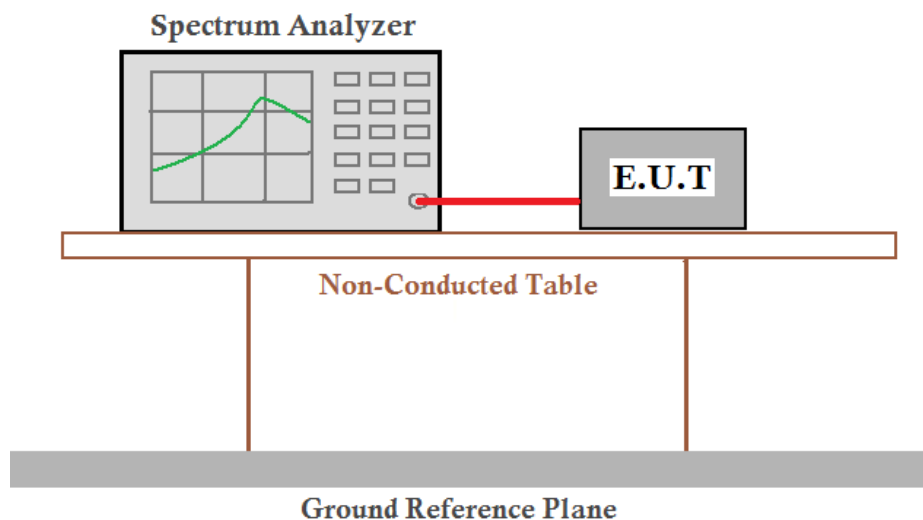
Engineer Signature:

## 5.4 20dB Bandwidth

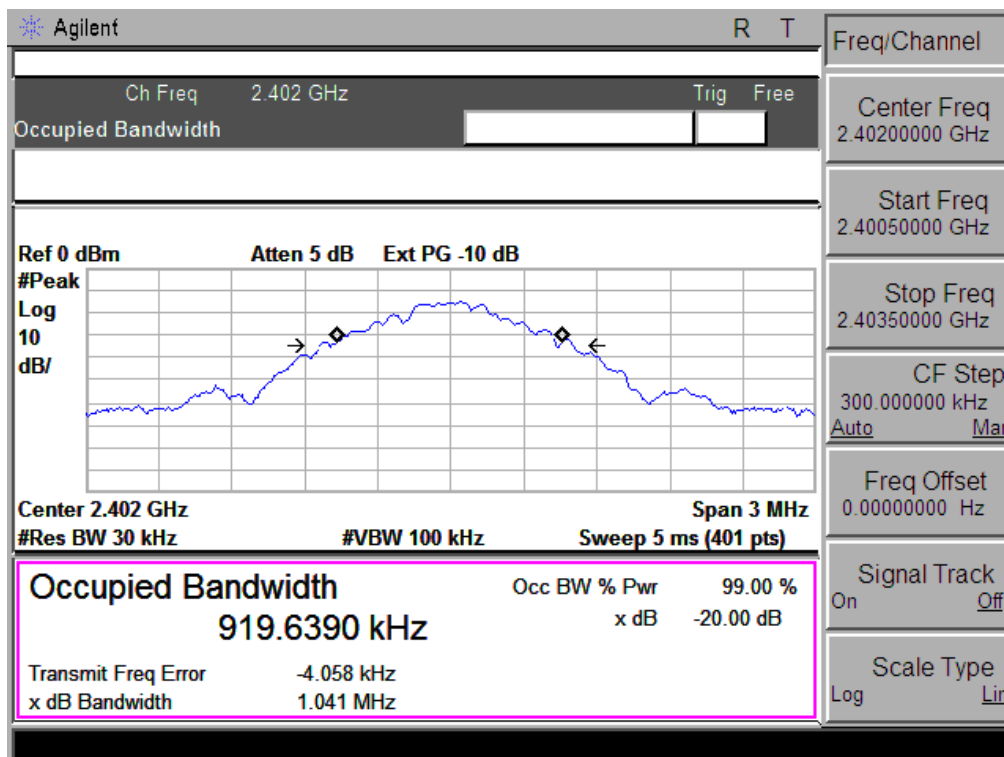
### 5.4.1 Definition

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

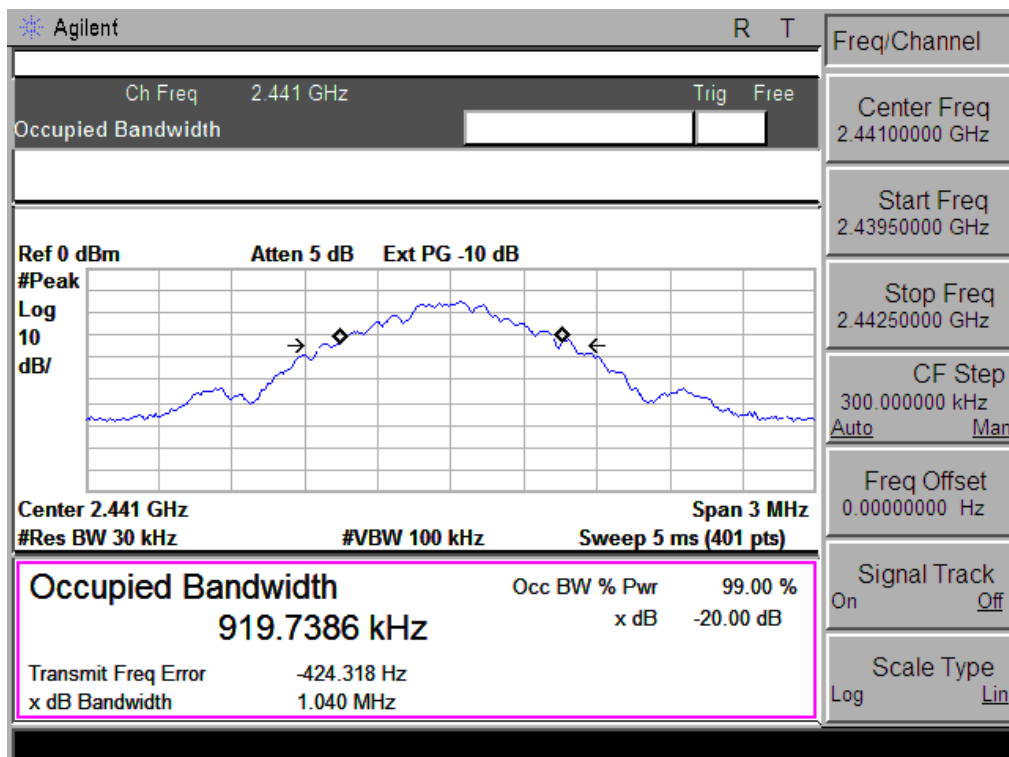
### 5.4.2 Test Description



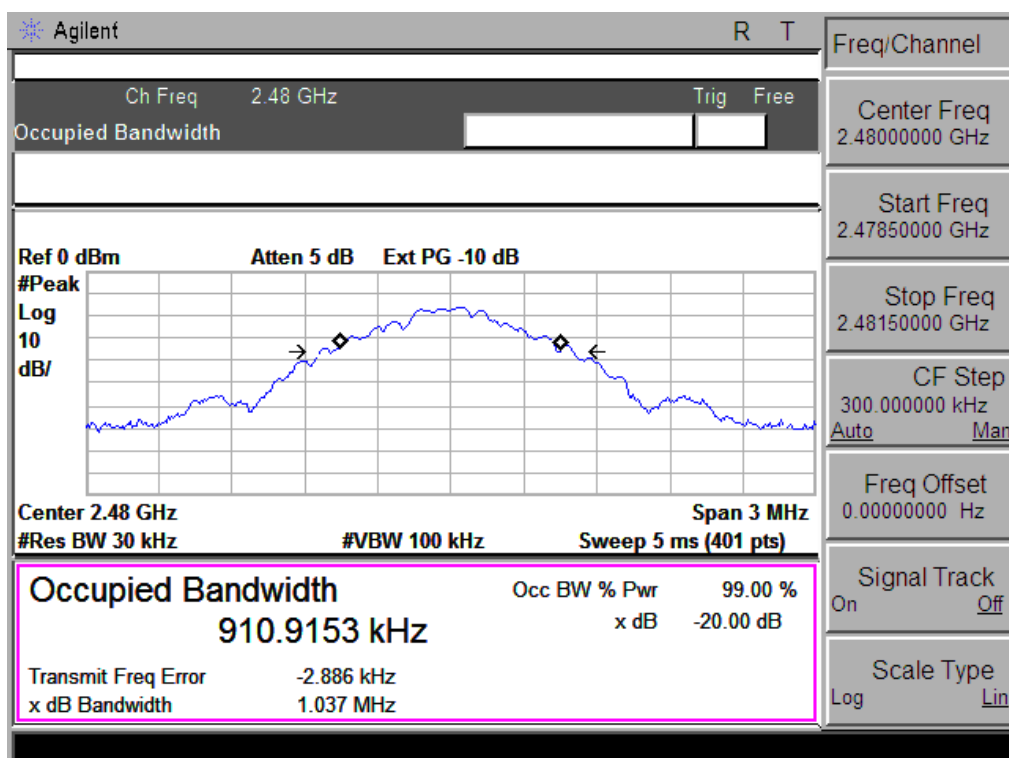
### 5.4.3 Test Result



(CH Low)



(CH Mid)



(CH High)

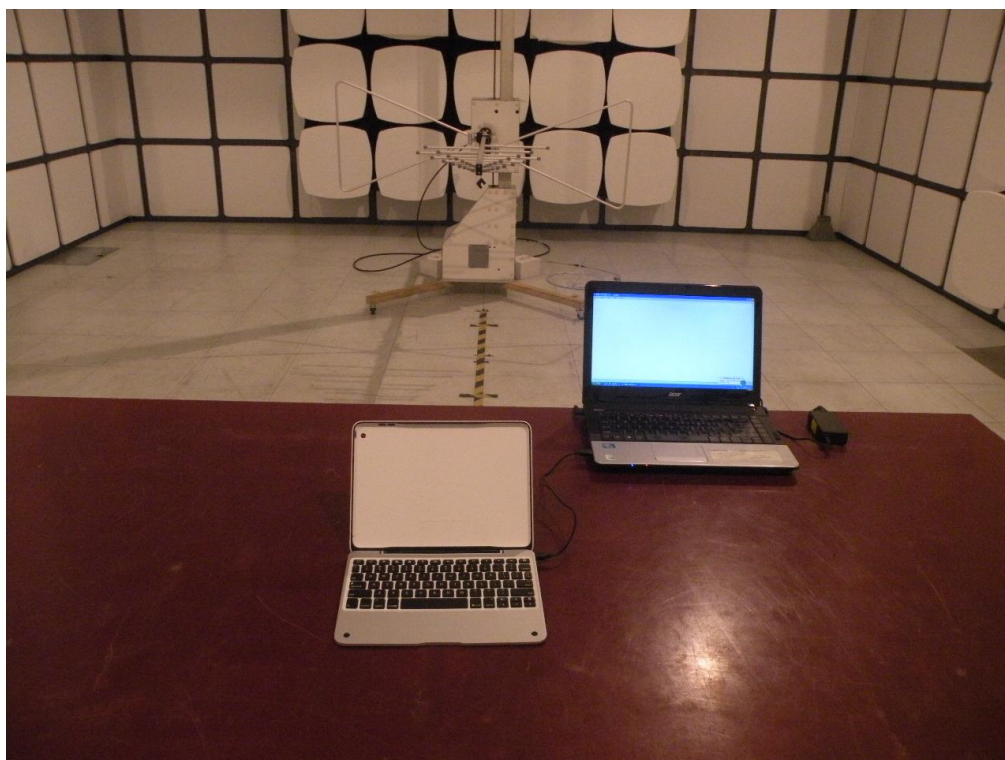


**APPENDIX 1**  
**PHOTOGRAPHS OF TEST SETUP**

### CE TEST SETUP



### RE TEST SETUP BLOW 1G



### ABOVE 1G

