



# FCC TEST REPORT

**Test report  
On Behalf of  
PEAG,LLC dba JLab Audio  
For  
Bluetooth Headphones  
Model No.: NEON BT**

**FCC ID: 2AHYVNEONBT**

**Prepared for : PEAG,LLC dba JLab Audio  
2281 Las Palmas Dr, Suite 101, Carlsbad, CA92011, USA**

**Prepared By : Shenzhen HUAK Testing Technology Co., Ltd.  
1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street,  
Bao'an District, Shenzhen City, China**

**Date of Test: Sep. 20, 2018 ~ Oct. 16, 2018  
Date of Report: Oct. 26, 2018  
Report Number: HK1809191120E**



## TEST RESULT CERTIFICATION

**Applicant's name** ..... : PEAG,LLC dba JLab Audio

Address ..... : 2281 Las Palmas Dr, Suite 101, Carlsbad, CA92011, USA

**Manufacture's Name** ..... : Casonic Intelligent Technologies Co.,Ltd.

5th Floor, 1st Building, No.6, South Industry Road, Songshan Lake

Address ..... : National High-tech Industrial Development Zone, Dongguan City, Guangdong, China 523808

### Product description

Trade Mark: ..... JLab

Product Name ..... : Bluetooth Headphones

Model and/or type reference .. : NEON BT

Series Model ..... : JBuddies Studio BT

Difference Description ..... : All the same except for the appearance color and size.

**Standards** ..... : FCC Rules and Regulations Part 15 Subpart C Section 15.247  
ANSI C63.10: 2013

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**Date of Test** ..... :

Date (s) of performance of tests ..... : Sep. 20, 2018 ~ Oct. 16, 2018

Date of Issue ..... : Oct. 26, 2018

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

Testing Engineer : 

(Gary Qian)

Technical Manager : 

(Eden Hu)

Authorized Signatory : 

(Jason Zhou)



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## 1. TEST SUMMARY

### 1.1. TEST PROCEDURES AND RESULTS

| DESCRIPTION OF TEST         | RESULT    |
|-----------------------------|-----------|
| PEAK OUTPUT POWER           | COMPLIANT |
| 20 DB BANDWIDTH             | COMPLIANT |
| CONDUCTED SPURIOUS EMISSION | COMPLIANT |
| RADIATED EMISSION           | COMPLIANT |
| BAND EDGES                  | COMPLIANT |
| NUMBER OF HOPPING FREQUENCY | COMPLIANT |
| TIME OF OCCUPANCY           | COMPLIANT |
| FREQUENCY SEPARATION        | COMPLIANT |
| LINE CONDUCTION EMISSION    | N/A       |

Note: N/A means it's not applicable to this item.

### 1.2. TEST FACILITY

Test Firm : Shenzhen HUAK Testing Technology Co., Ltd.

Address : 1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park,  
Fuhai Street, Bao'an District, Shenzhen City, China

Designation Number: : CN1229

Test Firm Registration Number : 616276

### 1.3. MEASUREMENT UNCERTAINTY

Measurement Uncertainty

|   |               |
|---|---------------|
| Conducted Emission Expanded Uncertainty               | = 2.23dB, k=2 |
| Radiated emission expanded uncertainty(9kHz-30MHz)    | = 3.08dB, k=2 |
| Radiated emission expanded uncertainty(30MHz-1000MHz) | = 4.42dB, k=2 |
| Radiated emission expanded uncertainty(Above 1GHz)    | = 4.06dB, k=2 |



## 2. GENERAL INFORMATION

### 2.1. GENERAL DESCRIPTION OF EUT

|                            |  |
|----------------------------|--|
| <b>Operation Frequency</b> | 2.402 GHz to 2.480GHz  |
| <b>RF Output Power</b>     | 0.19dBm(Max)   |
| <b>Bluetooth Version</b>   | V5.0   |
| <b>Modulation</b>          | BR <input checked="" type="checkbox"/> GFSK, EDR <input checked="" type="checkbox"/> π/4-DQPSK, <input checked="" type="checkbox"/> 8DPSK<br>BLE <input type="checkbox"/> GFSK |
| <b>Number of channels</b>  | 79 for BR/EDR  |
| <b>Hardware Version</b>    | V2.0   |
| <b>Software Version</b>    | V2.2   |
| <b>Antenna Designation</b> | PCB Antenna  |
| <b>Antenna Gain</b>        | 5.19dBi  |
| <b>Power Supply</b>        | DC 3.7V by battery   |

Note: 1. The USB port only used for charging and can't be used to transfer data with PC.  
2. The BT function of EUT didn't work when charging.



## 2.2. CARRIER FREQUENCY OF CHANNELS

BR/EDR Channel List

| Frequency Band | Channel Number | Frequency |
|----------------|----------------|-----------|
| 2400~2483.5MHz | 0              | 2402MHz   |
|                | 1              | 2403MHz   |
|                | :              | :         |
|                | 38             | 2440 MHz  |
|                | 39             | 2441 MHz  |
|                | 40             | 2442 MHz  |
|                | :              | :         |
|                | 77             | 2479 MHz  |
|                | 78             | 2480 MHz  |

## 2.3. OPERATION OF EUT DURING TESTING

| NO. | TEST MODE DESCRIPTION         |
|-----|-------------------------------|
| 1   | Low channel GFSK              |
| 2   | Middle channel GFSK           |
| 3   | High channel GFSK             |
| 4   | Low channel $\pi/4$ -DQPSK    |
| 5   | Middle channel $\pi/4$ -DQPSK |
| 6   | High channel $\pi/4$ -DQPSK   |
| 7   | Low channel 8DPSK             |
| 8   | Middle channel 8DPSK          |
| 9   | High channel 8DPSK            |
| 10  | BT Link with charging         |
| 11  | BT Link(Hopping mode)         |

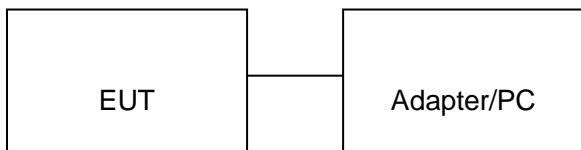
Note:

1. All the test modes can be supply by battery, only the result of the worst case was recorded in the report, if no other cases.
2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
3. The EUT used fully-charged battery when tested.



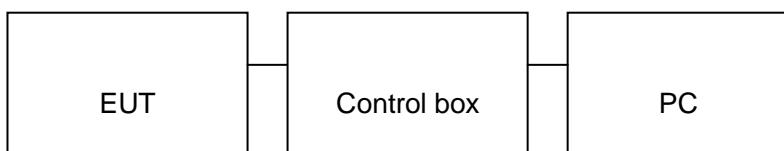
## 2.4. DESCRIPTION OF TEST SETUP

Configure 1: (Normal hopping)



**Note:** Owing to the EUT has own battery, and testing may be performed while adapter or PC removed.

Configure 2: (Control continuous TX)



## 2.5. EQUIPMENT USED IN EUT SYSTEM

| Item | Equipment                   | Mfr/Brand | Model/Type No. | Remark    |
|------|-----------------------------|-----------|----------------|-----------|
| 1    | Bluetooth Headphones        | JLab      | NEON BT        | EUT       |
| 2    | Battery                     | SL        | 502035         | Accessory |
| 3    | PC                          | APPLE     | A1465          | A.E       |
| 4    | Control box                 | SERIAL    | N/A            | A.E       |
| 5    | USB Cable                   | N/A       | 1m unshielded  | A.E       |
| 6    | IPOD                        | APPLE     | A1367          | A.E       |
| 7    | Temporary Antenna Connector | T10       | N/A            | A.E       |

Note: The temporary antenna connector is a RF SMA connector with fifty ohm resistor, which is welded to the PCB board or module.



## 2.6. MEASUREMENT INSTRUMENTS LIST

### TEST EQUIPMENT OF CONDUCTED EMISSION TEST

| Item | Equipment                            | Manufacturer | Model No. | Lab Equipment No. | Last Cal.     | Cal. Interval |
|------|--------------------------------------|--------------|-----------|-------------------|---------------|---------------|
| 1.   | L.I.S.N.<br>Artificial Mains Network | R&S          | ENV216    | HKE-002           | Dec. 28, 2017 | 1 Year        |
| 2.   | Receiver                             | R&S          | ESCI 7    | HKE-010           | Dec. 28, 2017 | 1 Year        |

### TEST EQUIPMENT OF RADIATED EMISSION TEST

| Item | Equipment               | Manufacturer    | Model No.    | Lab Equipment No. | Last Cal.     | Cal. Interval |
|------|-------------------------|-----------------|--------------|-------------------|---------------|---------------|
| 1.   | Spectrum analyzer       | Agilent         | N9020A       | HKE-048           | Dec. 28, 2017 | 1 Year        |
| 2.   | Preamplifier            | Schwarzbeck     | BBV 9743     | HKE-006           | Dec. 28, 2017 | 1 Year        |
| 3.   | EMI Test Receiver       | Rohde & Schwarz | ESCI 7       | HKE-010           | Dec. 28, 2017 | 1 Year        |
| 4.   | Bilog Broadband Antenna | Schwarzbeck     | VULB9163     | HKE-012           | Dec. 28, 2017 | 1 Year        |
| 5.   | Loop Antenna            | Schwarzbeck     | FMZB 1519 B  | HKE-014           | Dec. 28, 2017 | 1 Year        |
| 6.   | Horn Antenna            | Schwarzbeck     | 9120D        | HKE-013           | Dec. 28, 2017 | 1 Year        |
| 7.   | Broad-band Horn Antenna | A-INFOMW        | LB-180400-KF | HKE-031           | Dec. 28, 2017 | 1 Year        |
| 8.   | Pre-amplifier           | EMCI            | EMC051845SE  | HKE-015           | Dec. 28, 2017 | 1 Year        |
| 9.   | Pre-amplifier           | Agilent         | 83051A       | HKE-016           | Dec. 28, 2017 | 1 Year        |
| 10.  | Radiation Cable 1       | MXT             | HK1          | R05               | N/A           | N/A           |
| 11.  | Radiation Cable 2       | MXT             | HK1          | R06               | N/A           | N/A           |

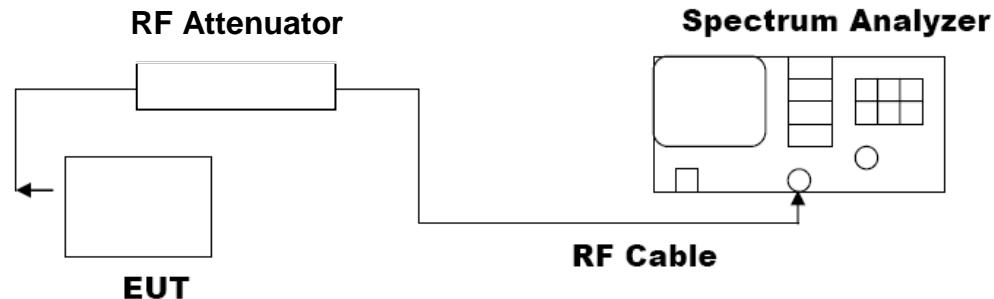
### 3. PEAK OUTPUT POWER

#### 3.1. MEASUREMENT PROCEDURE

For peak power test:

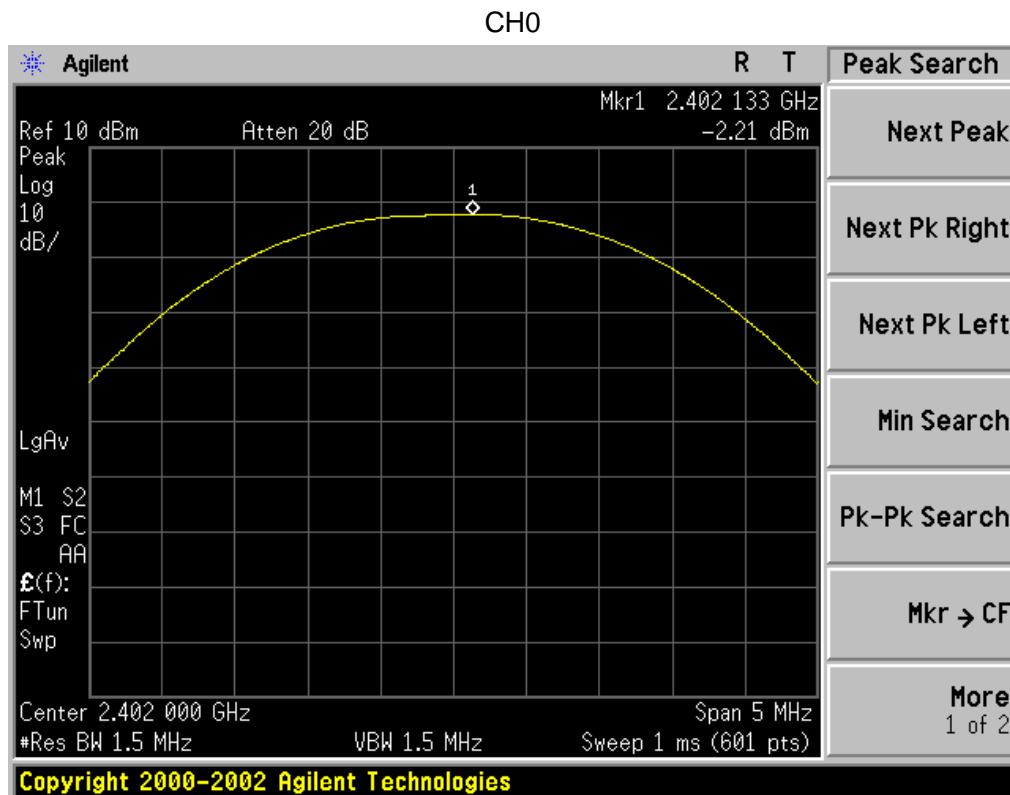
1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, middle and the bottom operation frequency individually.
3. RBW > the 20 dB bandwidth of the emission being measured,  $VBW \geq RBW$ .
4. Record the maximum power from the Spectrum Analyzer.
5. The maximum peak power shall be less 21dBm.

#### 3.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



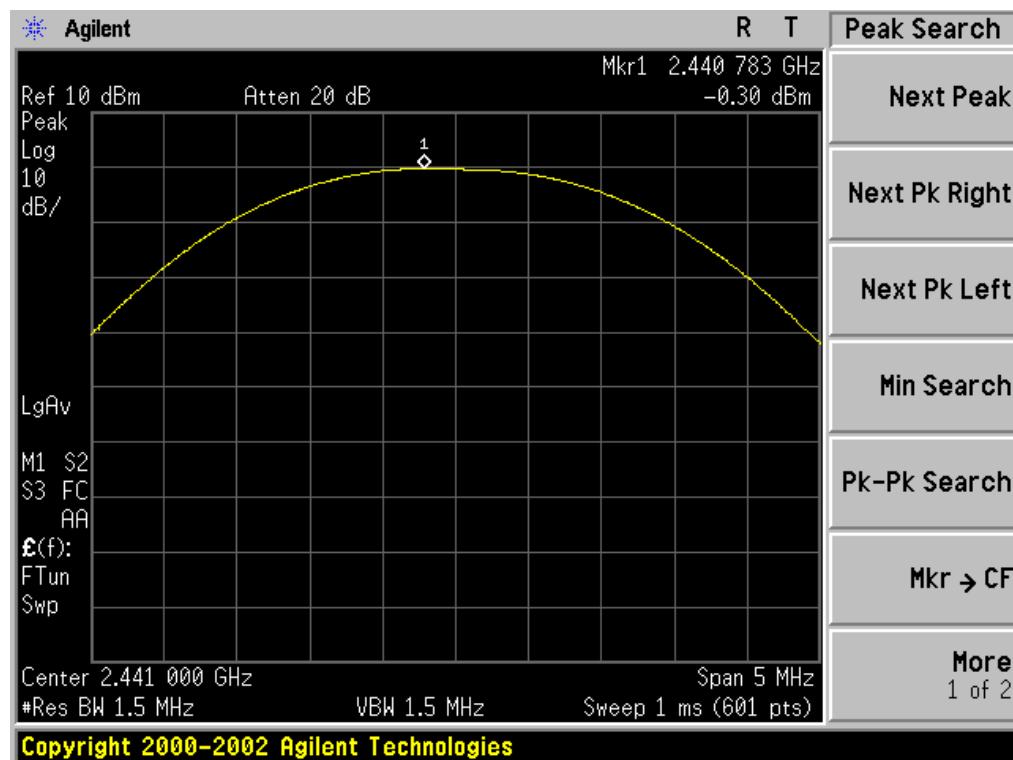
### 3.3. LIMITS AND MEASUREMENT RESULT

| PEAK OUTPUT POWER MEASUREMENT RESULT<br>FOR GFSK MOUDULATION |                     |                            |              |
|--|---------------------|----------------------------|--------------|
| Frequency<br>(GHz)   | Peak Power<br>(dBm) | Applicable Limits<br>(dBm) | Pass or Fail |
| 2.402  | -2.21               | 21                         | Pass         |
| 2.441  | -0.30               | 21                         | Pass         |
| 2.480  | 0.19                | 21                         | Pass         |

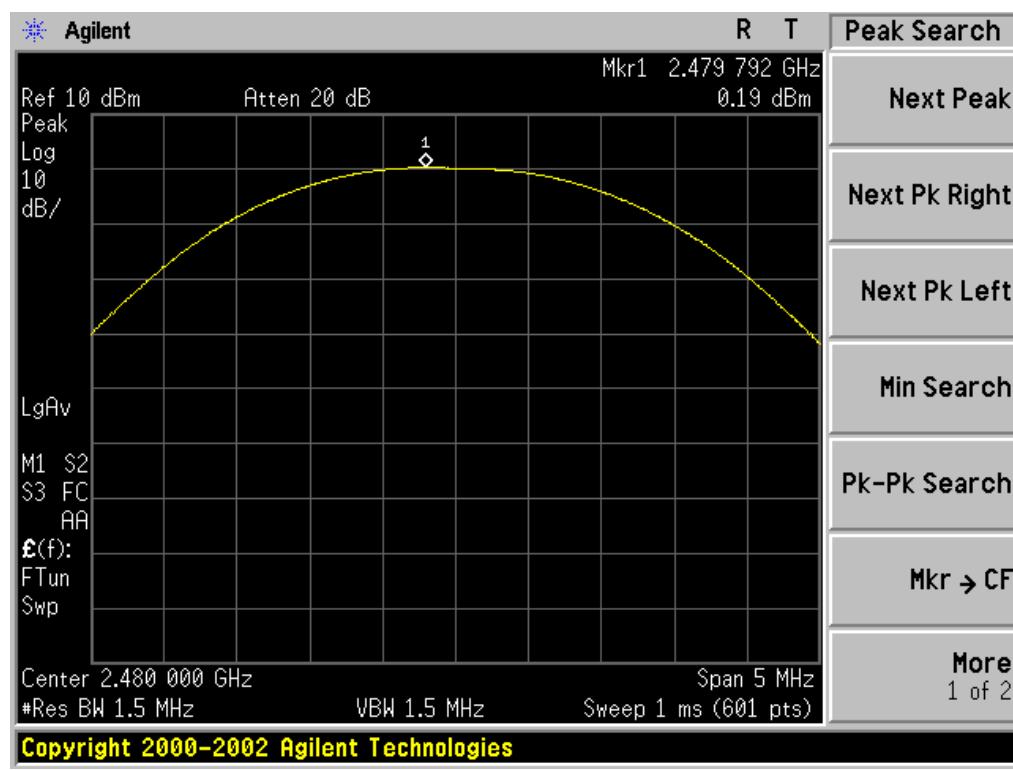




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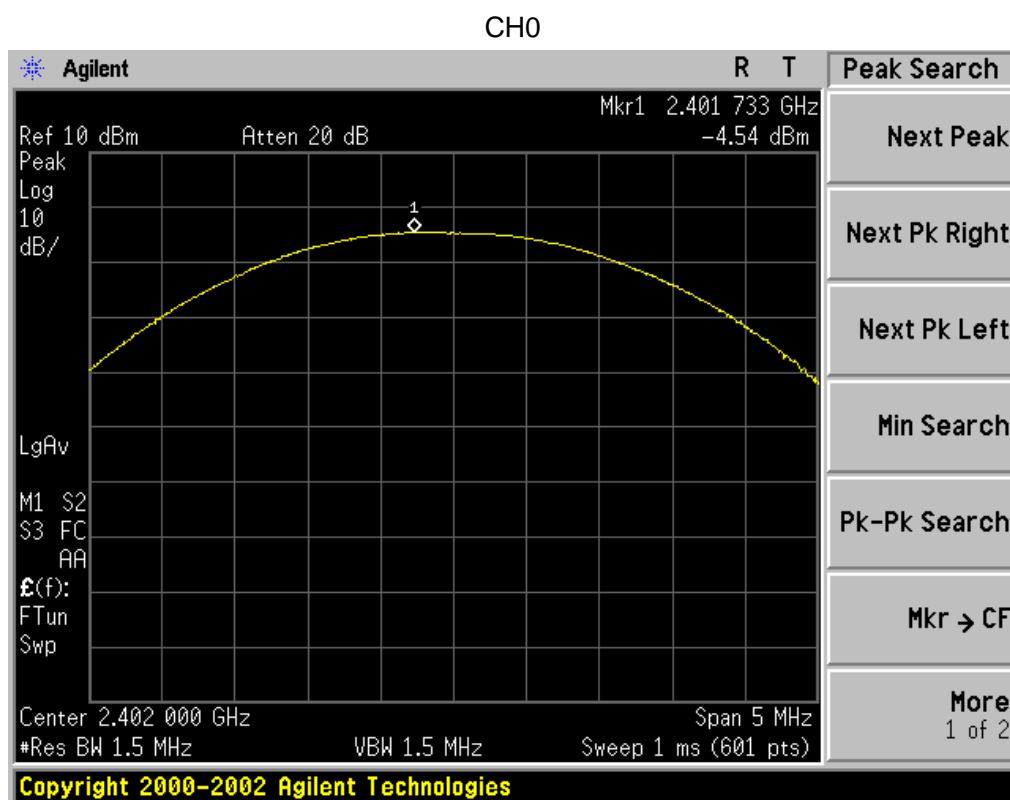


CH78



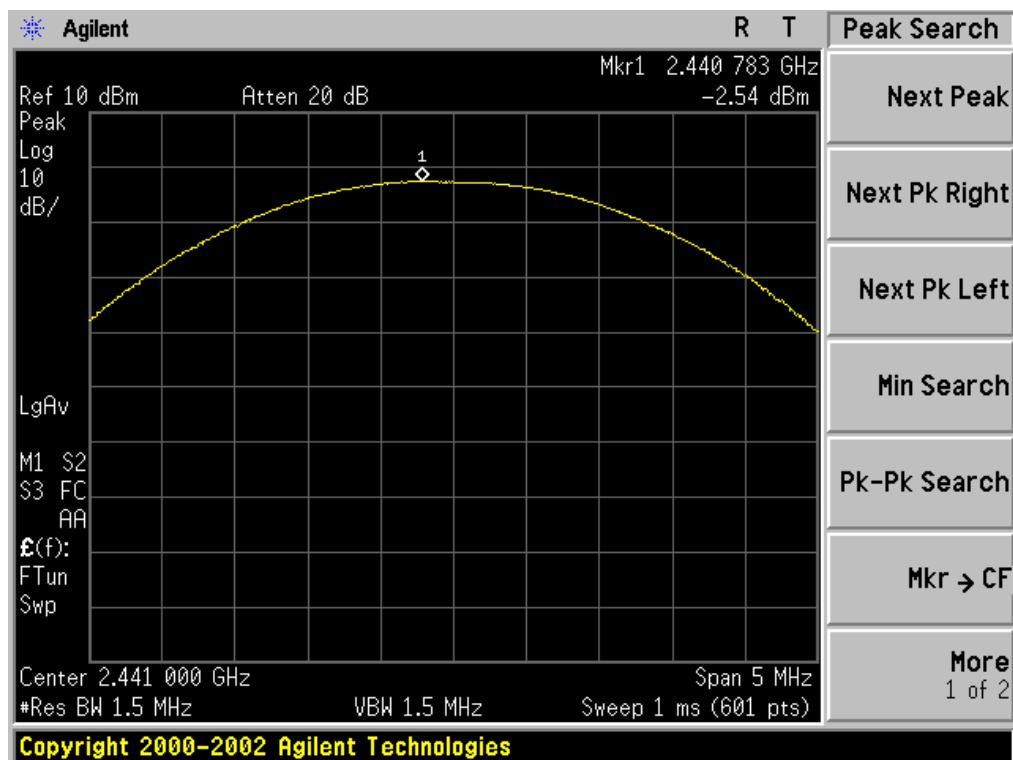


| PEAK OUTPUT POWER MEASUREMENT RESULT<br>FOR II /4-DQPSK MODULATION |                     |                            |              |
|--|---------------------|----------------------------|--------------|
| Frequency<br>(GHz)   | Peak Power<br>(dBm) | Applicable Limits<br>(dBm) | Pass or Fail |
| 2.402  | -4.54               | 21                         | Pass         |
| 2.441  | -2.54               | 21                         | Pass         |
| 2.480  | -2.12               | 21                         | Pass         |

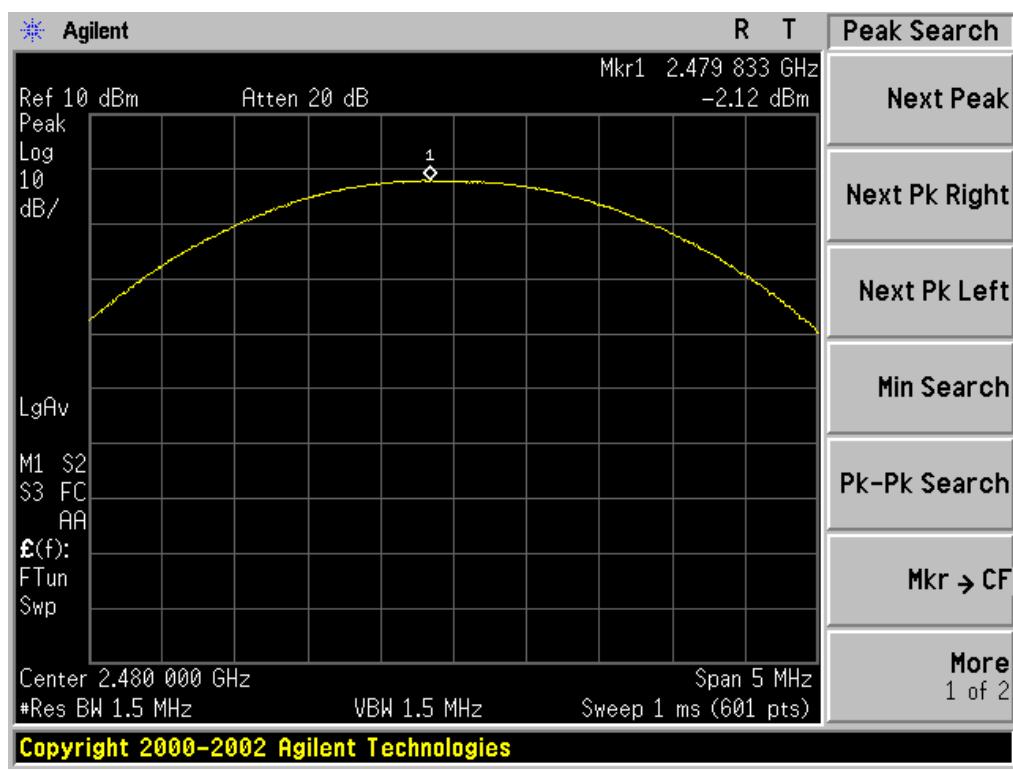




CH39



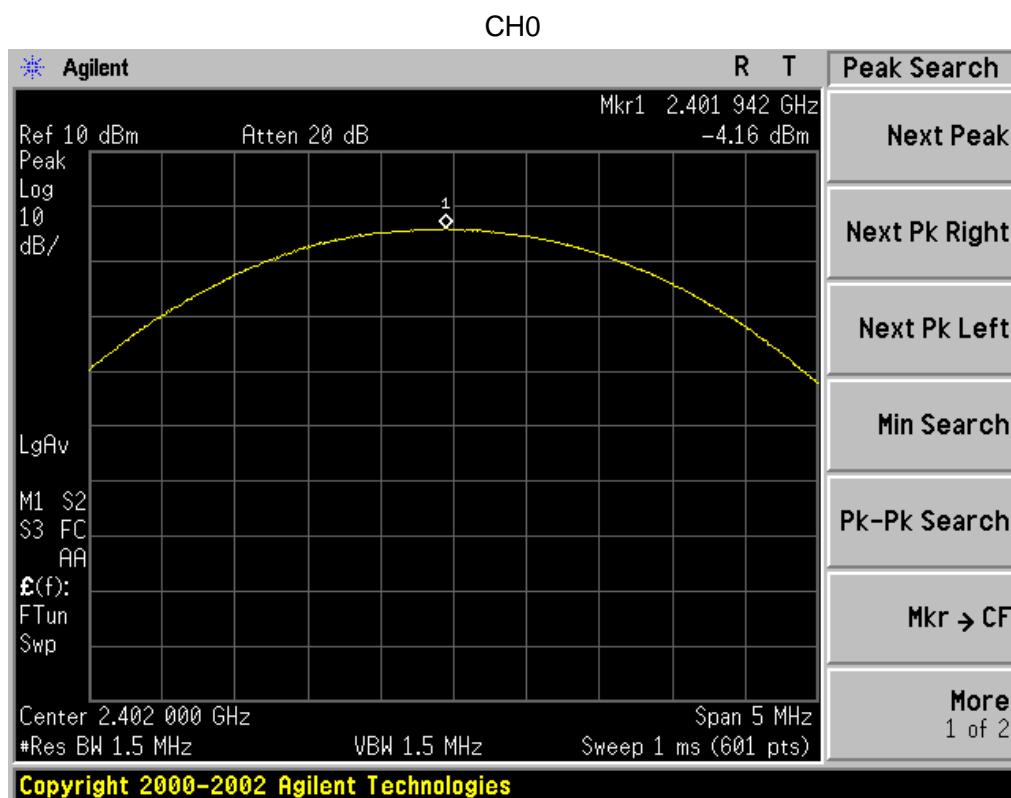
CH78





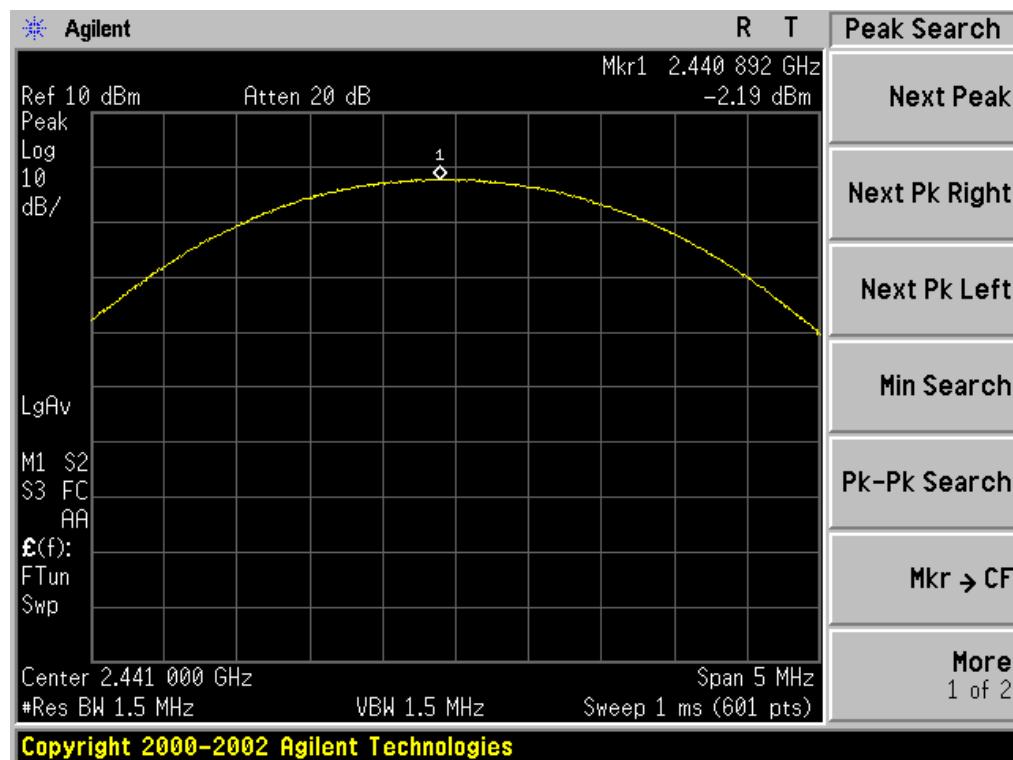
**PEAK OUTPUT POWER MEASUREMENT RESULT  
FOR 8DPSK MODULATION**

| Frequency (GHz) | Peak Power (dBm) | Applicable Limits (dBm) | Pass or Fail |
|-----------------|------------------|-------------------------|--------------|
| 2.402           | -4.16            | 21                      | Pass         |
| 2.441           | -2.19            | 21                      | Pass         |
| 2.480           | -1.75            | 21                      | Pass         |

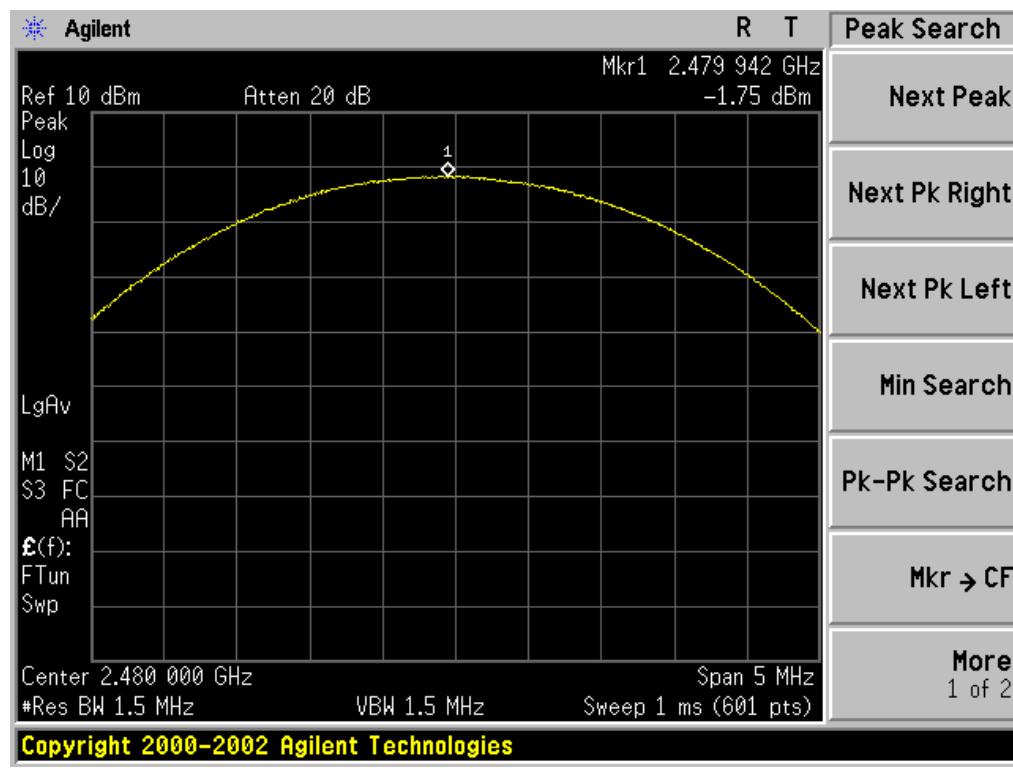




CH39



CH78

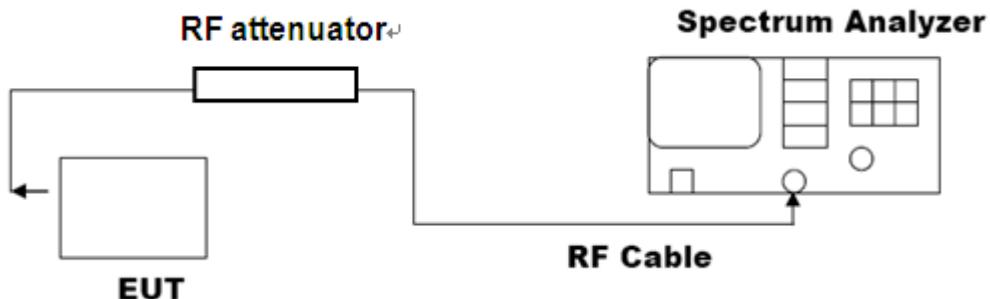


## 4. BANDWIDTH

### 4.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hoping channel  
 $RBW \geq 1\%$  of the 20 dB bandwidth,  $VBW \geq 3RBW$ ; Sweep = auto; Detector function = peak
4. Set SPA Trace 1 Max hold, then View.

### 4.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



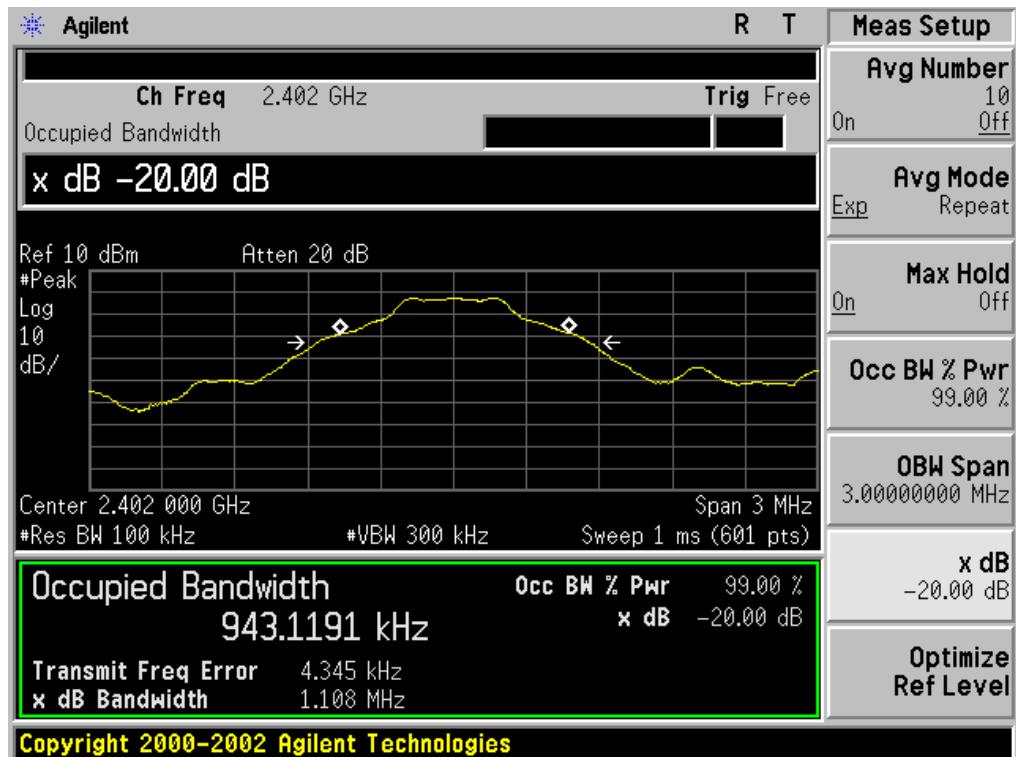
Note: The EUT has been used temporary antenna connector for testing.

### 4.3. LIMITS AND MEASUREMENT RESULTS

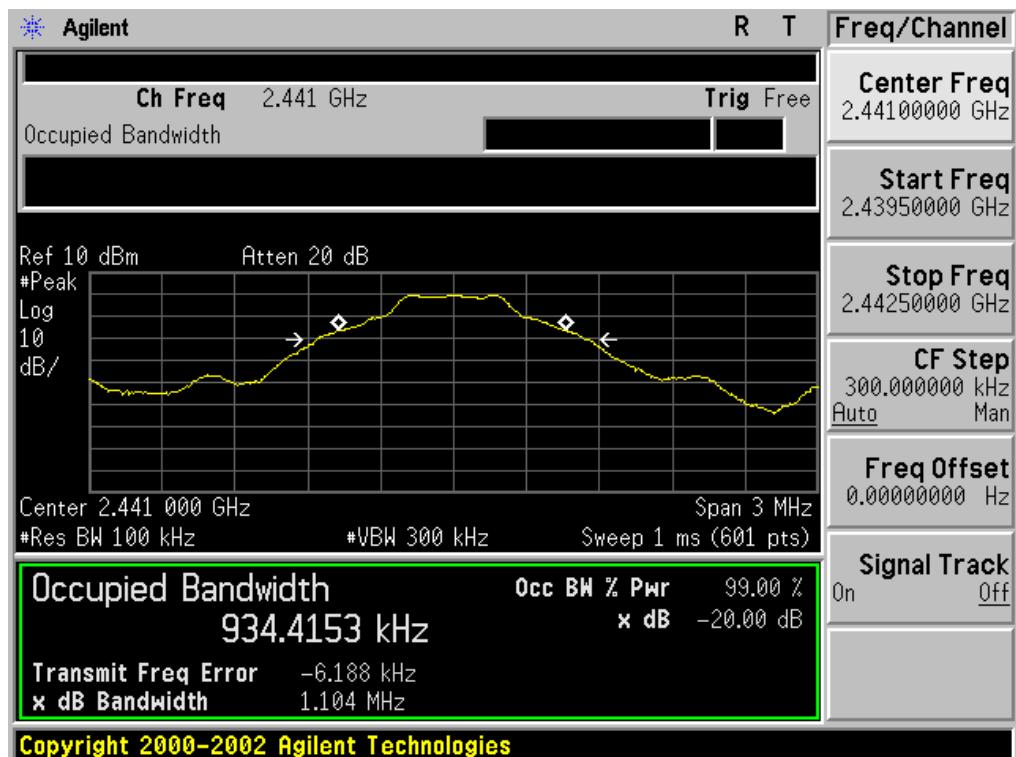
| BLUETOOTH 1MBPS LIMITS AND MEASUREMENT RESULT |                    |              |               |        |  |
|---|--------------------|--------------|---------------|--------|--|
| Applicable Limits                             | Measurement Result |              |               |        |  |
|   | Test Data (MHz)    |              |               | Result |  |
|   |                    | 99%OBW (MHz) | -20dB BW(MHz) |        |  |
| N/A   | Low Channel        | 0.943        | 1.108         | PASS   |  |
|   | Middle Channel     | 0.934        | 1.104         | PASS   |  |
|   | High Channel       | 0.931        | 1.101         | PASS   |  |



## TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

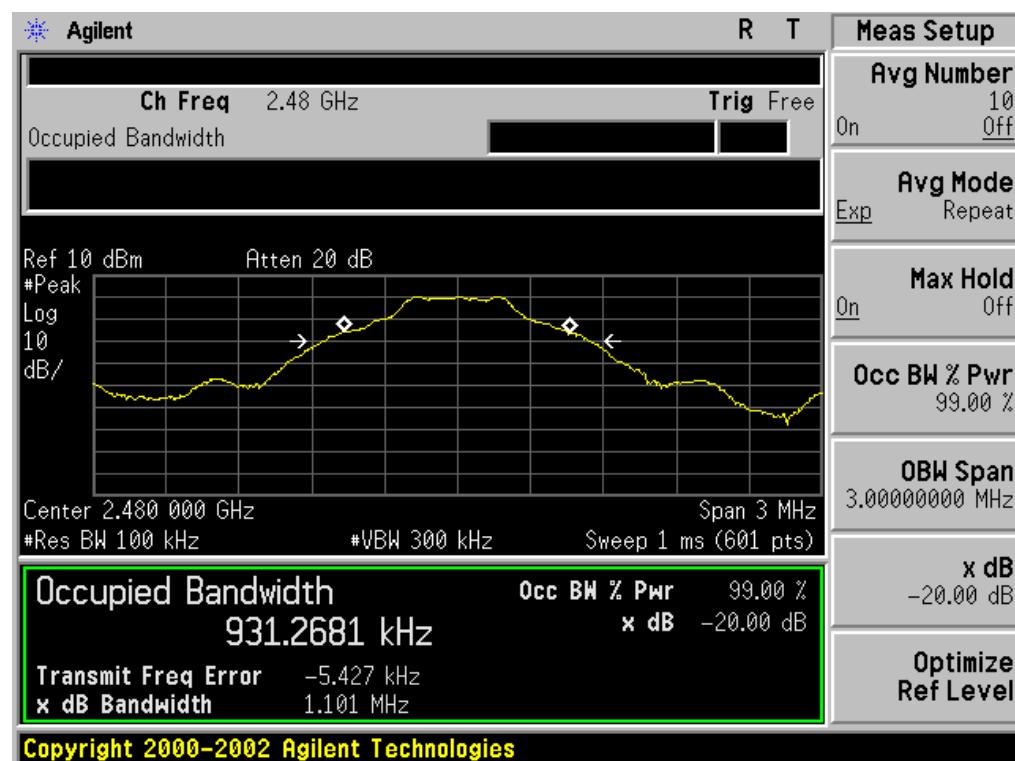


## TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL





## TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL





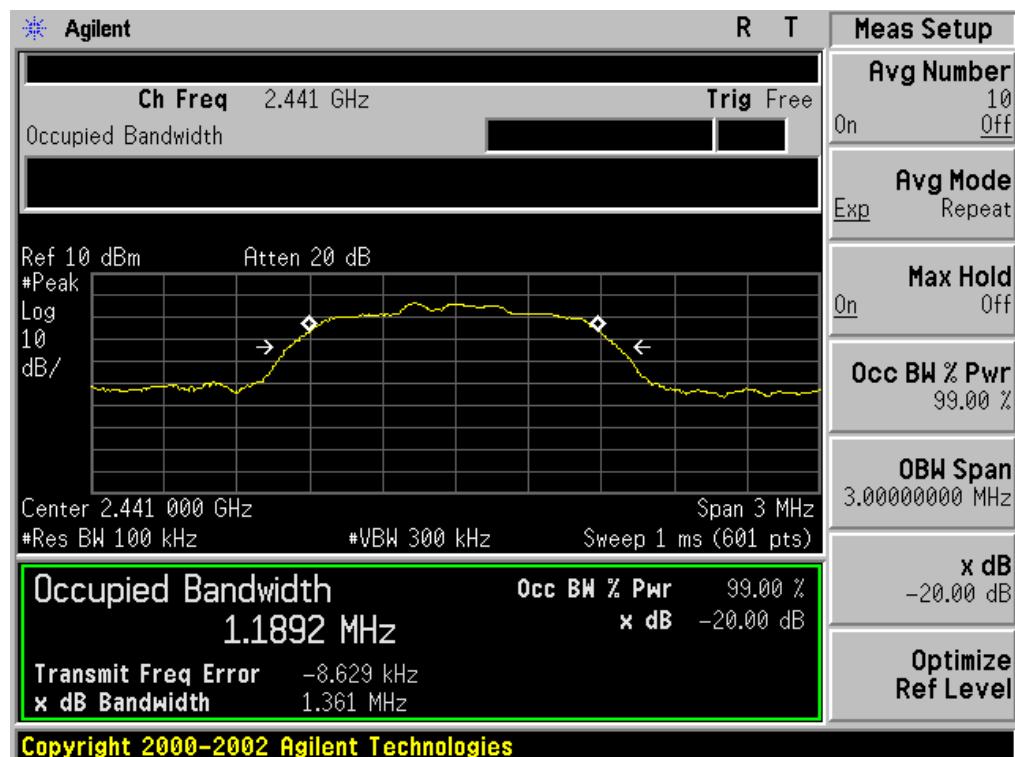
| BLUETOOTH 2MBPS LIMITS AND MEASUREMENT RESULT |                    |              |               |        |
|---|--------------------|--------------|---------------|--------|
| Applicable Limits                             | Measurement Result |              |               |        |
|   | Test Data (MHz)    |              |               | Result |
|   |                    | 99%OBW (MHz) | -20dB BW(MHz) |        |
| N/A   | Low Channel        | 1.215        | 1.370         | PASS   |
|   | Middle Channel     | 1.189        | 1.361         | PASS   |
|   | High Channel       | 1.188        | 1.360         | PASS   |

## TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

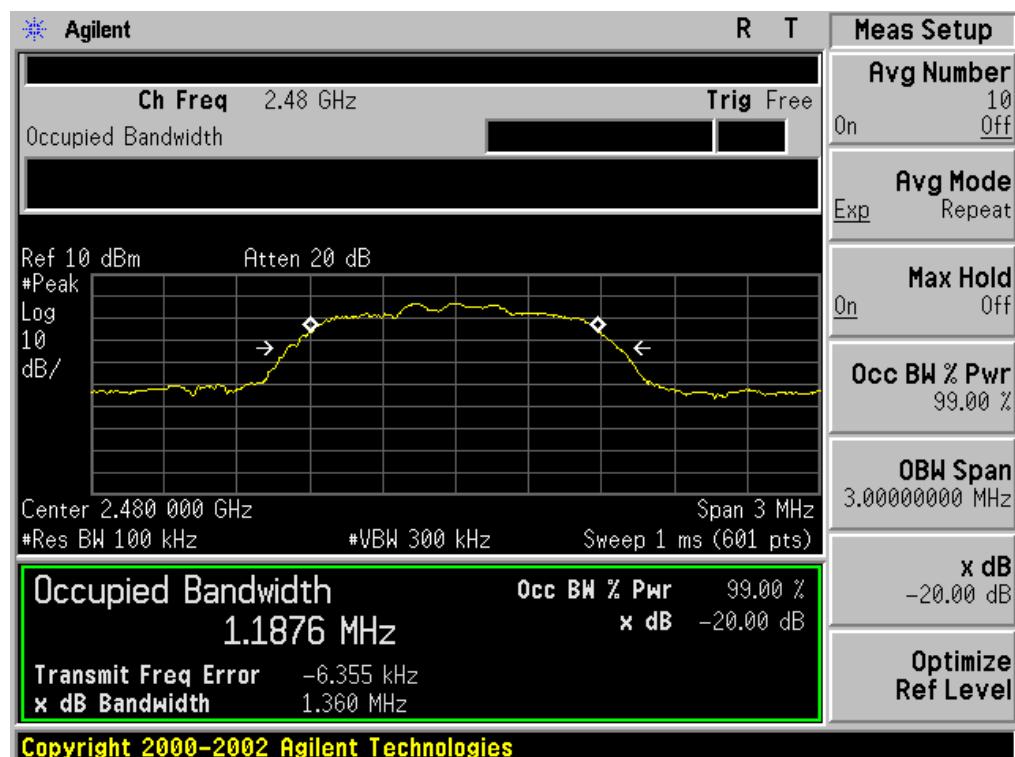




## TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



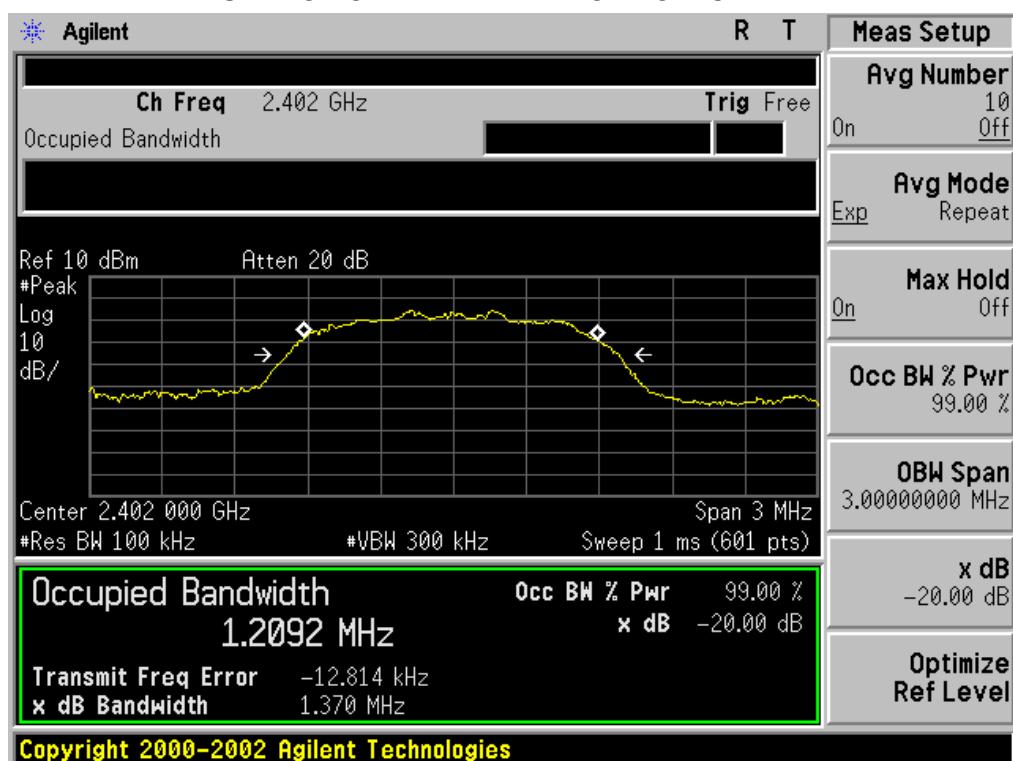
## TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL





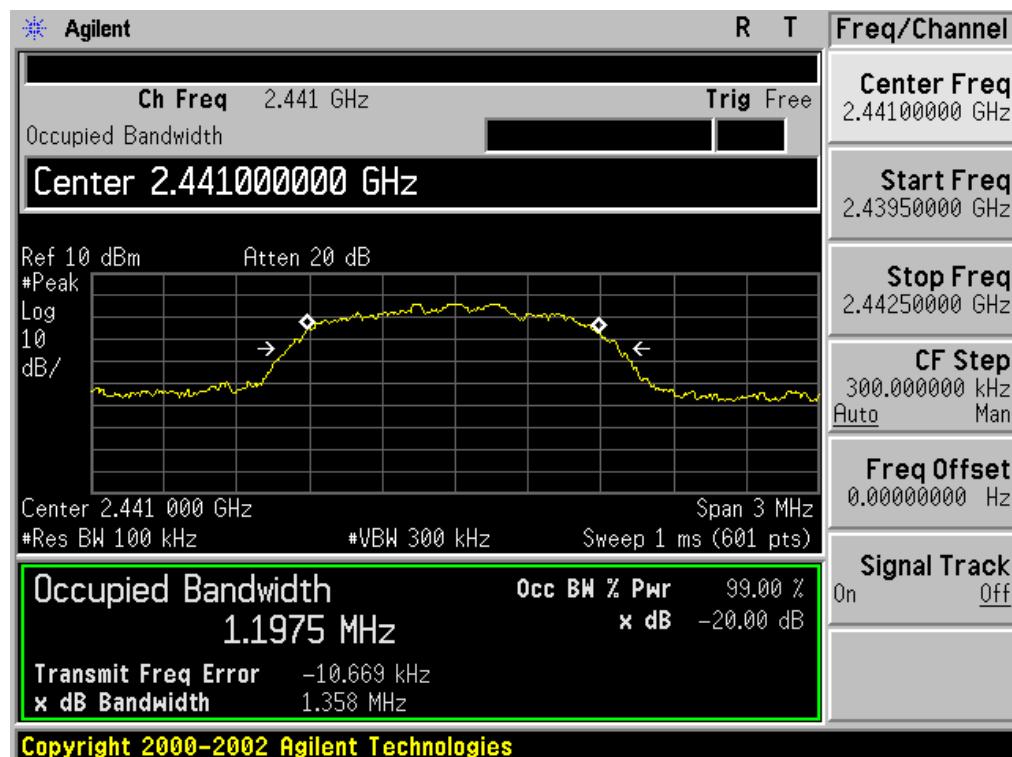
| BLUETOOTH 3MBPS LIMITS AND MEASUREMENT RESULT |                    |              |               |        |
|---|--------------------|--------------|---------------|--------|
| Applicable Limits                             | Measurement Result |              |               |        |
|   | Test Data (MHz)    |              |               | Result |
|   |                    | 99%OBW (MHz) | -20dB BW(MHz) |        |
| N/A   | Low Channel        | 1.209        | 1.370         | PASS   |
|   | Middle Channel     | 1.198        | 1.358         | PASS   |
|   | High Channel       | 1.203        | 1.364         | PASS   |

## TEST PLOT OF BANDWIDTH FOR LOW CHANNEL





## TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



## TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

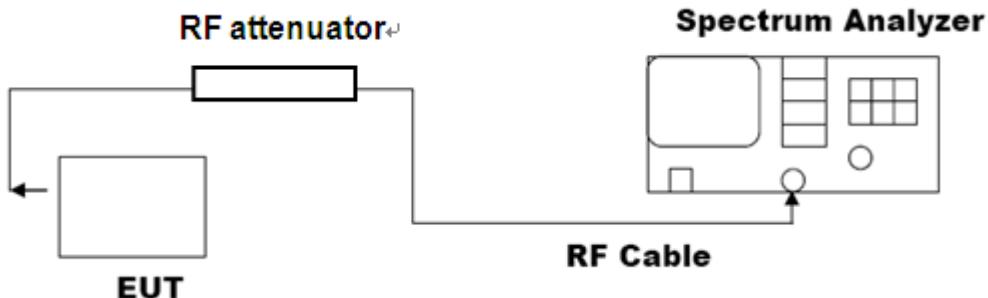


## 5. CONDUCTED SPURIOUS EMISSION

### 5.1. MEASUREMENT PROCEDURE

1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
2. Set the EUT Work on the top, the Middle and the bottom operation frequency individually.
3. Set the Span = wide enough to capture the peak level of the in-band emission and all spurious emissions from the lowest frequency generated in the EUT up through the 10th harmonic.  
RBW = 100 kHz; VBW = 300kHz; Sweep = auto; Detector function = peak.
4. Set SPA Trace 1 Max hold, then View.

### 5.2. TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

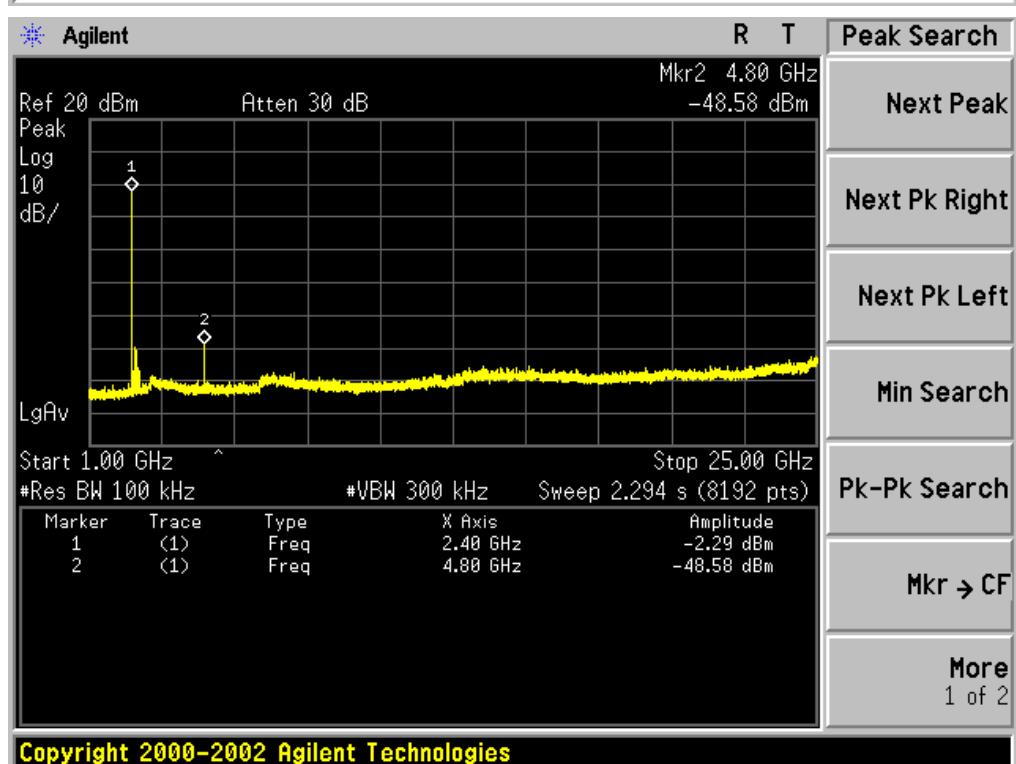
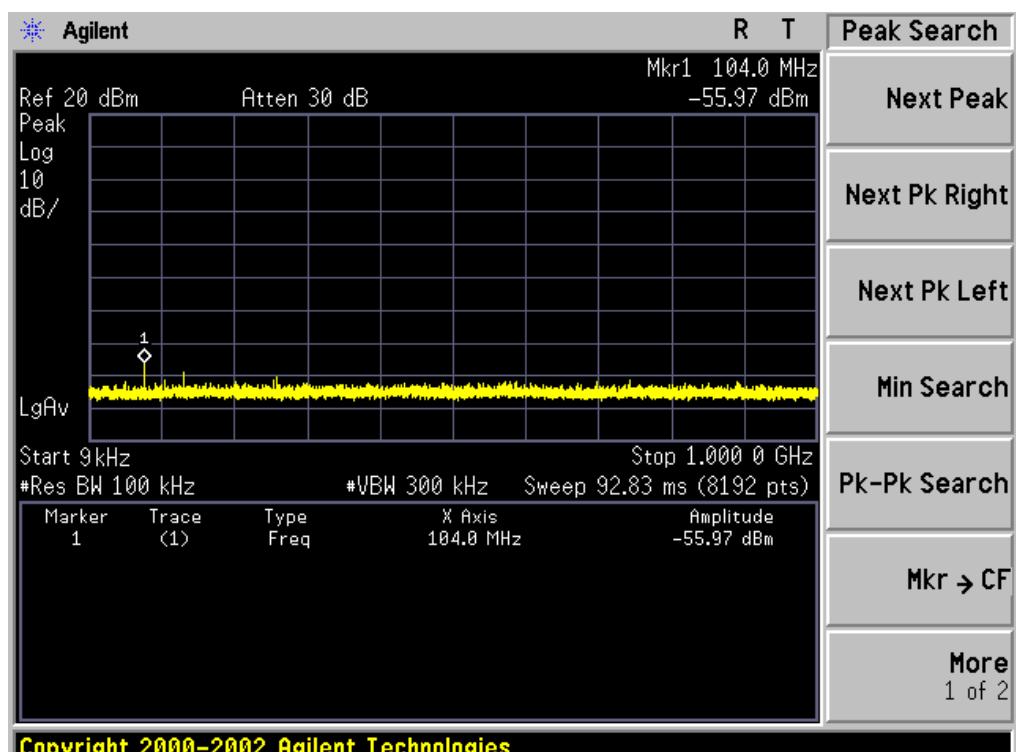


### 5.3. LIMITS AND MEASUREMENT RESULT

| LIMITS AND MEASUREMENT RESULT   |  |        |
|---|--|--------|
| Applicable Limits   | Measurement Result   |        |
|   | Test Data  | Result |
| 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.<br>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   |

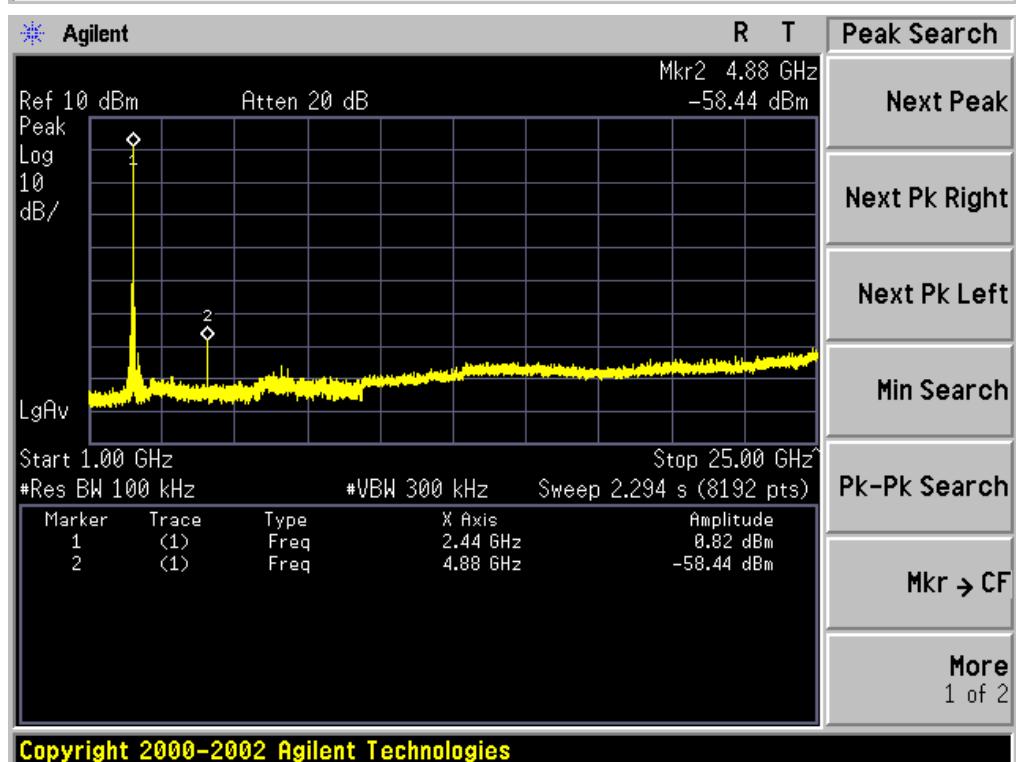
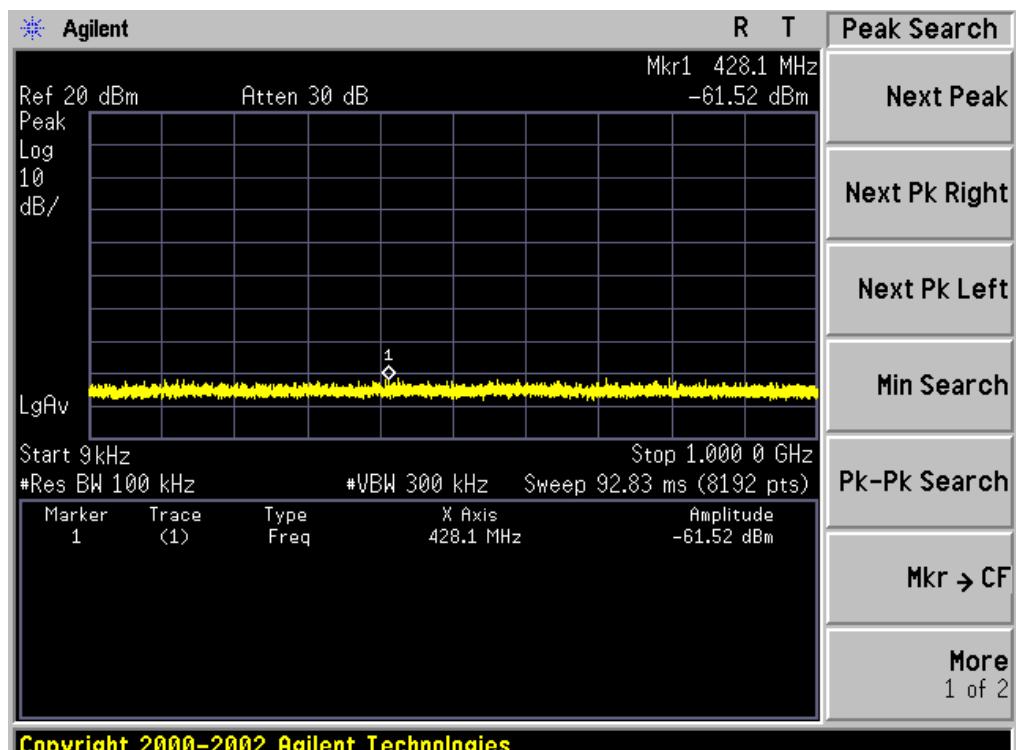


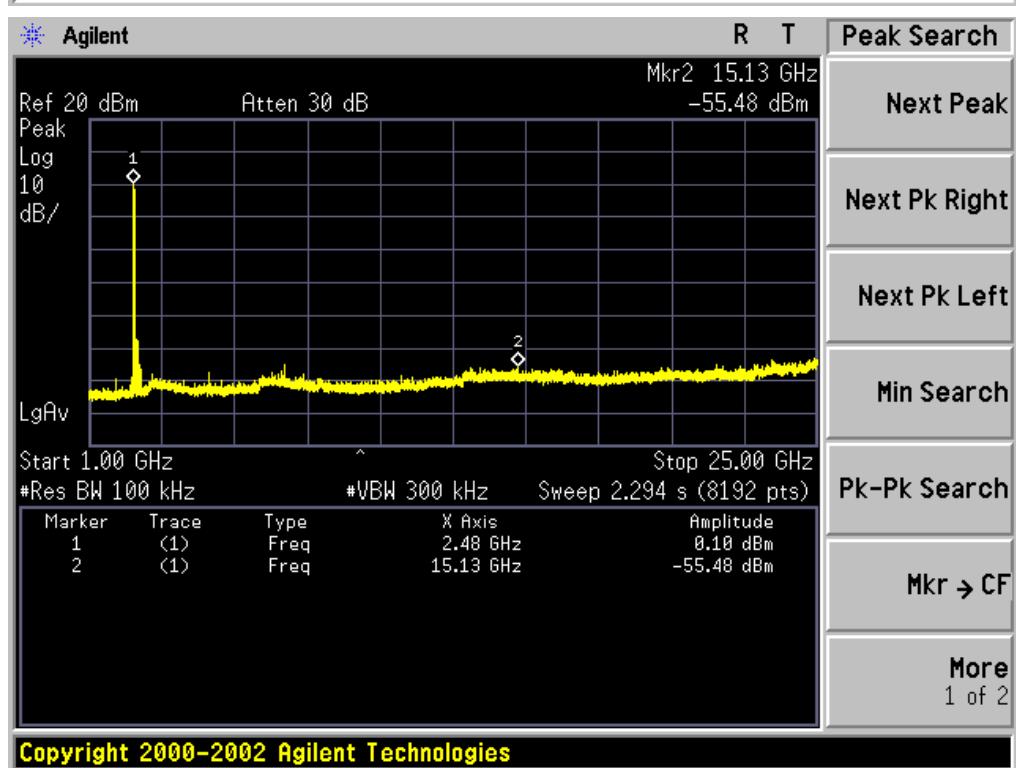
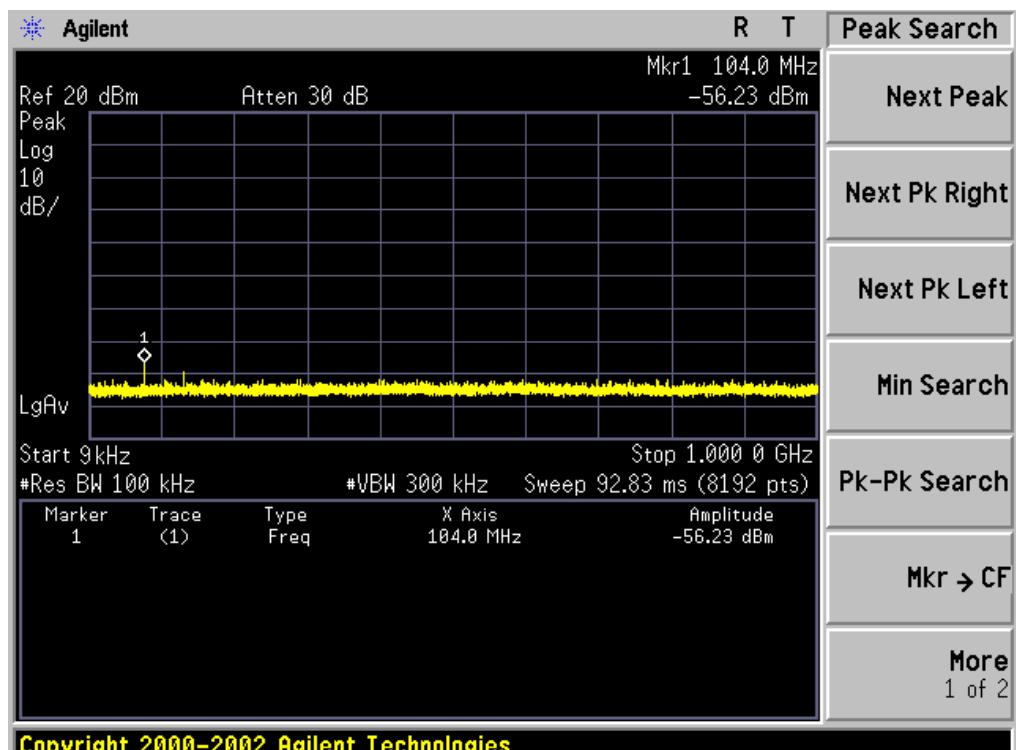
TEST PLOT OF OUT OF BAND EMISSIONS WITH THE WORST CASE  
OF GFSK MODULATION IN LOW CHANNEL





TEST PLOT OF OUT OF BAND EMISSIONS  
OF GFSK MODULATION IN MIDDLE CHANNEL



TEST PLOT OF OUT OF BAND EMISSIONS  
OF GFSK MODULATION IN HIGH CHANNEL



## 6. RADIATED EMISSION

### 6.1. TEST LIMIT

| Frequency<br>(MHz) | Distance<br>Meters | Field Strengths Limit   |                                   |
|--------------------|--------------------|---|-----------------------------------|
|                    |                    | $\mu$ V/m   | $\text{dB}(\mu\text{V})/\text{m}$ |
| 0.009 ~ 0.490      | 300                | 2400/F(kHz)   | ---                               |
| 0.490 ~ 1.705      | 30                 | 24000/F(kHz)  | ---                               |
| 1.705 ~ 30         | 30                 | 30  | ---                               |
| 30 ~ 88            | 3                  | 100   | 40.0                              |
| 88 ~ 216           | 3                  | 150   | 43.5                              |
| 216 ~ 960          | 3                  | 200   | 46.0                              |
| 960 ~ 1000         | 3                  | 500   | 54.0                              |
| Above 1000         | 3                  | Other: 74.0 dB( $\mu\text{V}$ )/m (Peak) 54.0 dB( $\mu\text{V}$ )/m (Average) |                                   |

Remark: (1) Emission level  $\text{dB}(\mu\text{V}) = 20 \log \text{Emission level } \mu \text{ V/m}$   
(2) The smaller limit shall apply at the cross point between two frequency bands.  
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

### 6.2. MEASUREMENT PROCEDURE

1. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation(Below 1GHz)
2. The measuring distance of 3m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation(Above 1GHz)
3. The height of the test antenna shall vary between 1m to 4m. Both horizontal and vertical polarization of the antenna are set to make the measurement.
4. The initial step in collecting radiated emission data is a receive peak detector mode. Pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
5. All readings are peak unless otherwise stated QP in column of Note. Peak denoted that the Peak reading compliance with the QP limits and then QP Mode measurement didn't perform(Below 1GHz)
6. All readings are Peak mode value unless otherwise stated AVG in column of Note. If the Peak mode measured value compliance with the Peak limits and lower than AVG Limits, the EUT shall be deemed to meet Peak&AVG limits and then only Peak mode was measured, but AVG mode didn't perform.(Above 1GHz)



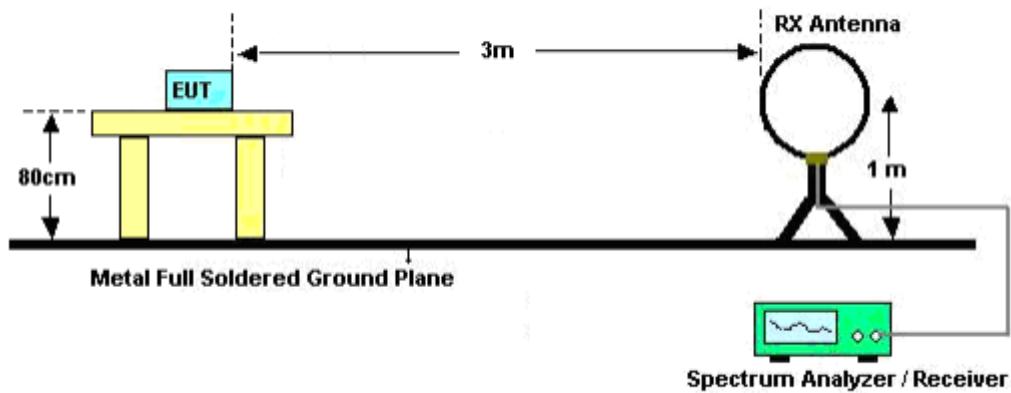
The following table is the setting of spectrum analyzer and receiver.

| <b>Spectrum Parameter</b> | <b>Setting</b>   |
|---------------------------|--|
| Start ~Stop Frequency     | 9KHz~150KHz/RB 200Hz for QP  |
| Start ~Stop Frequency     | 150KHz~30MHz/RB 9KHz for QP  |
| Start ~Stop Frequency     | 30MHz~1000MHz/RB 120KHz for QP   |
| Start ~Stop Frequency     | 1GHz~26.5GHz<br>RBW 1MHz/ VBW 3MHz for Peak,<br>RBW 1MHz/ VBW 10Hz for Average |

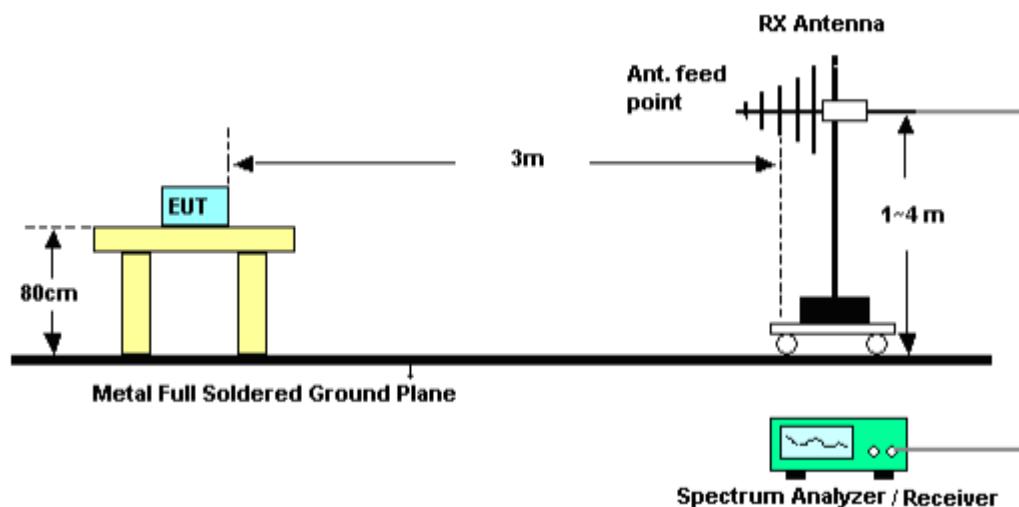
| <b>Receiver Parameter</b> | <b>Setting</b>                 |
|---------------------------|--------------------------------|
| Start ~Stop Frequency     | 9KHz~150KHz/RB 200Hz for QP    |
| Start ~Stop Frequency     | 150KHz~30MHz/RB 9KHz for QP    |
| Start ~Stop Frequency     | 30MHz~1000MHz/RB 120KHz for QP |

### 6.3. TEST SETUP

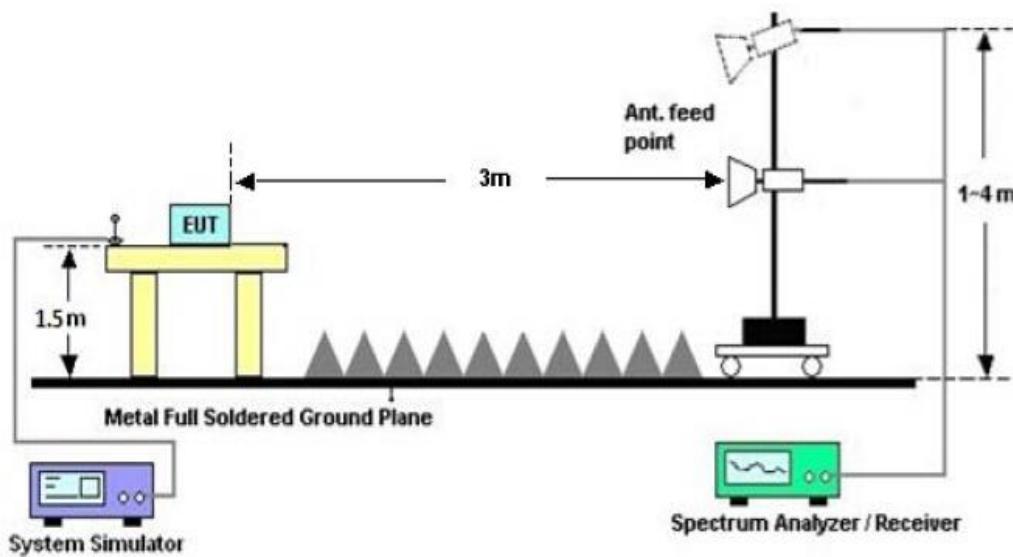
#### RADIATED EMISSION TEST SETUP BELOW 30MHz



#### RADIATED EMISSION TEST SETUP 30MHz-1000MHz



## RADIATED EMISSION TEST SETUP ABOVE 1000MHz



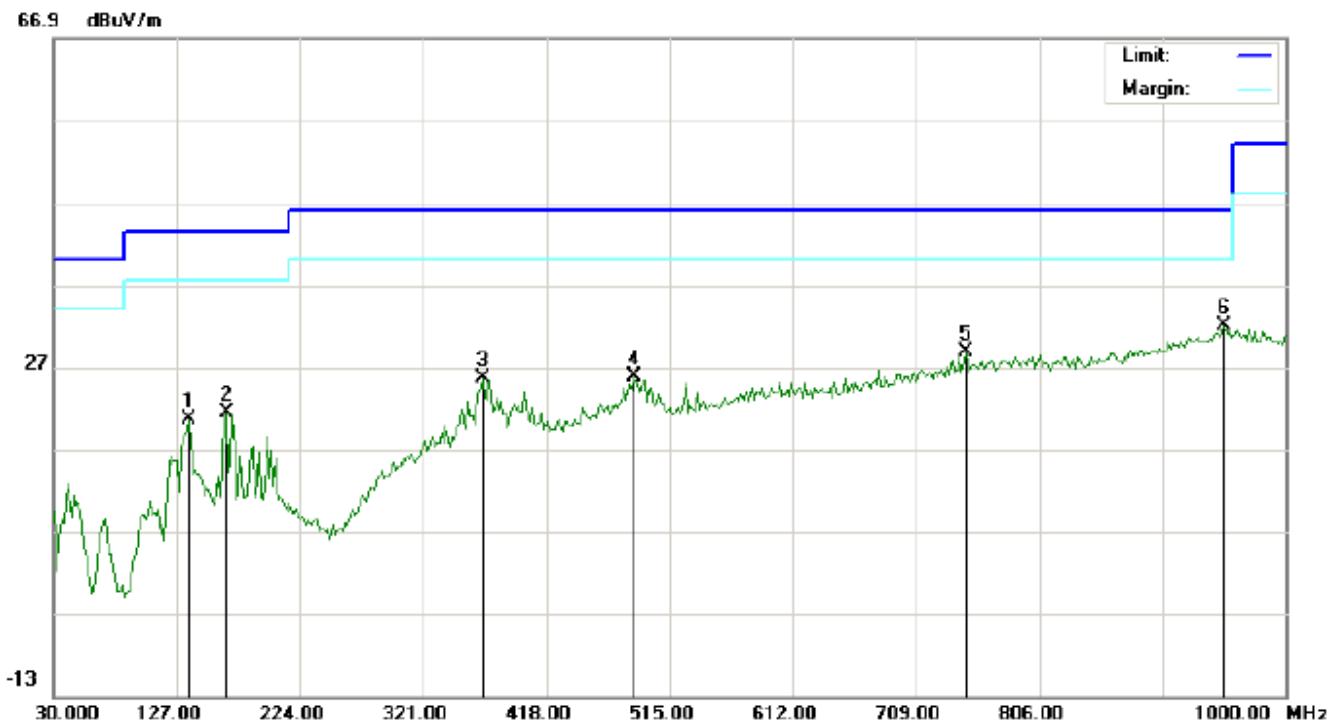


#### 6.4. TEST RESULT

(Worst Modulation: GFSK)

##### **RADIATED EMISSION BELOW 30MHz**

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

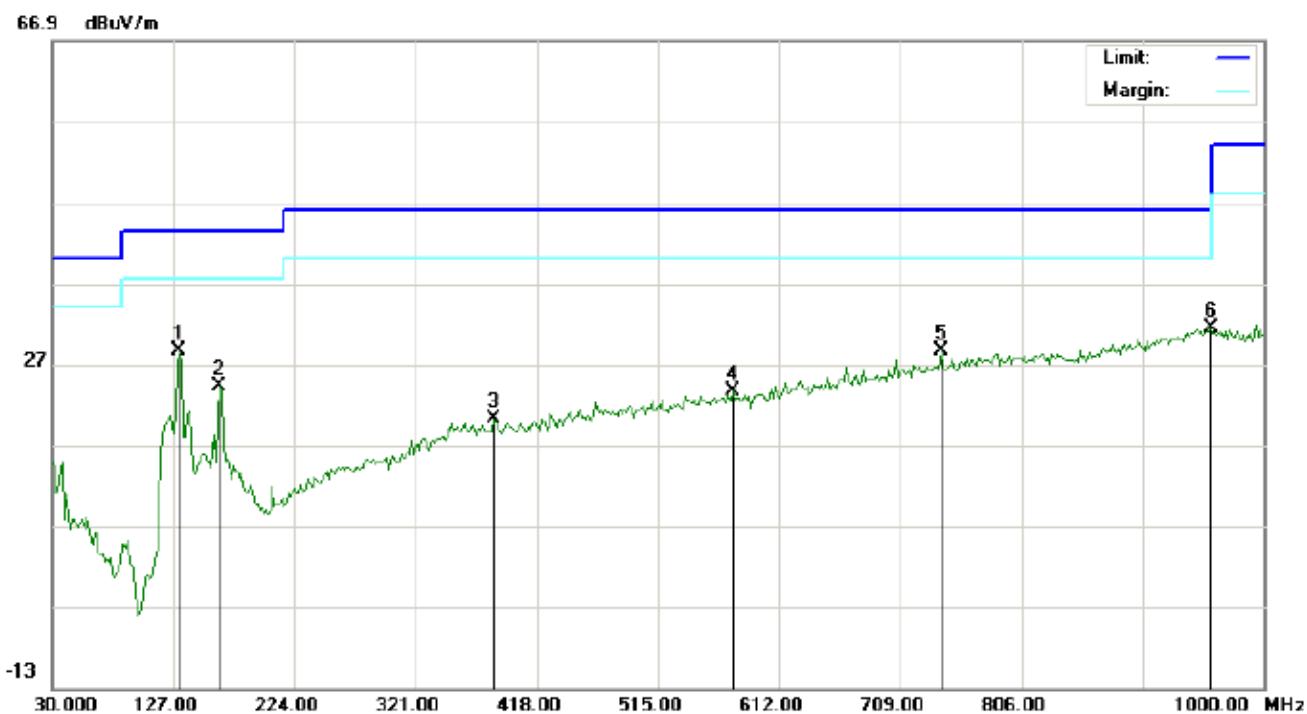
**RADIATED EMISSION BELOW 1GHz****RADIATED EMISSION TEST- (30MHz-1GHz)-LOW CHANNEL-HORIZONTAL**

| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          |                |              |         |
| 1   |    | 136.7000 | 6.97    | 13.66  | 20.63       | 43.50  | -22.87 | peak     |                |              |         |
| 2   |    | 165.8000 | 10.90   | 10.54  | 21.44       | 43.50  | -22.06 | peak     |                |              |         |
| 3   |    | 367.8833 | 6.78    | 18.86  | 25.64       | 46.00  | -20.36 | peak     |                |              |         |
| 4   |    | 487.5167 | 4.73    | 21.00  | 25.73       | 46.00  | -20.27 | peak     |                |              |         |
| 5   |    | 747.8000 | 2.30    | 26.57  | 28.87       | 46.00  | -17.13 | peak     |                |              |         |
| 6   | *  | 951.5000 | 1.93    | 29.99  | 31.92       | 46.00  | -14.08 | peak     |                |              |         |

**RESULT: PASS**



## RADIATED EMISSION TEST- (30MHz-1GHz)-LOW CHANNEL -VERTICAL



| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          |                |              |         |
| 1   |    | 131.8500 | 16.84   | 11.80  | 28.64       | 43.50  | -14.86 | peak     |                |              |         |
| 2   |    | 164.1833 | 9.05    | 15.07  | 24.12       | 43.50  | -19.38 | peak     |                |              |         |
| 3   |    | 384.0500 | 1.21    | 18.96  | 20.17       | 46.00  | -25.83 | peak     |                |              |         |
| 4   |    | 574.8167 | 0.96    | 22.60  | 23.56       | 46.00  | -22.44 | peak     |                |              |         |
| 5   |    | 741.3333 | 2.20    | 26.38  | 28.58       | 46.00  | -17.42 | peak     |                |              |         |
| 6   | *  | 957.9667 | 1.46    | 29.92  | 31.38       | 46.00  | -14.62 | peak     |                |              |         |

**RESULT: PASS**

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

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



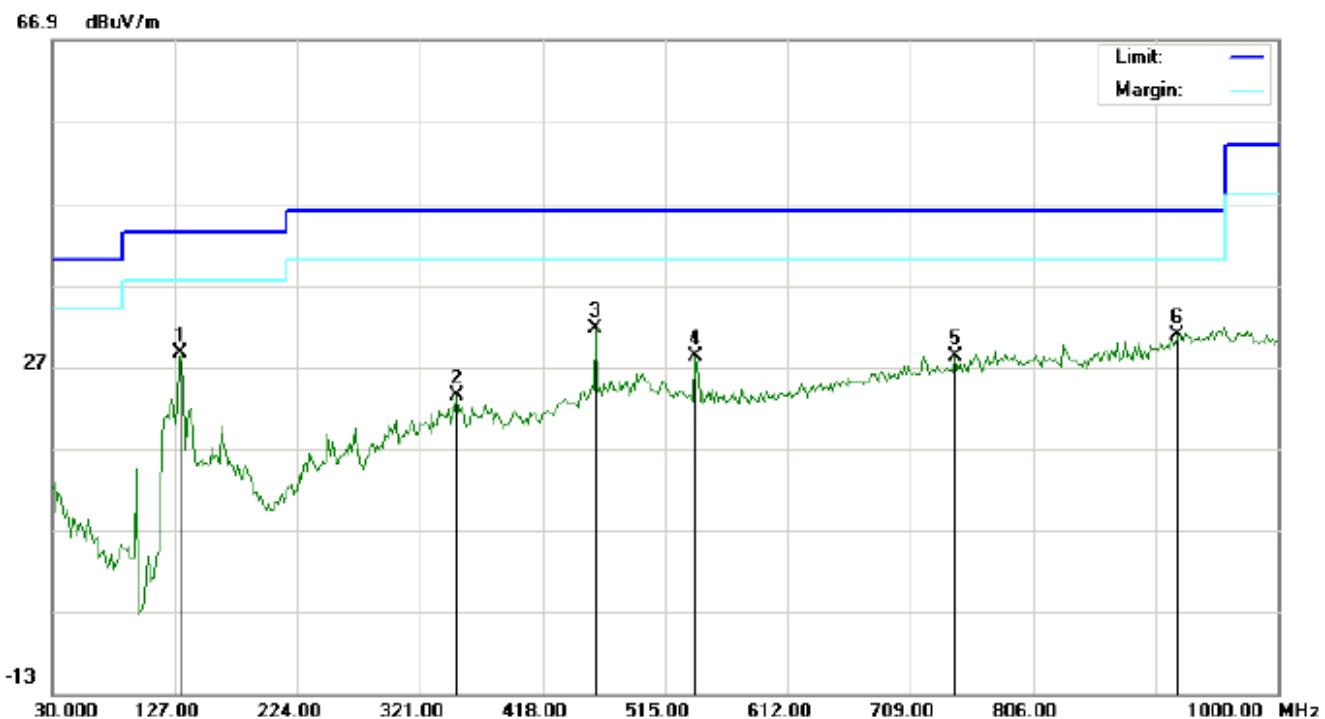
## RADIATED EMISSION TEST- (30MHz-1GHz)-MIDDLE CHANNEL-HORIZONTAL



| 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   |    | 96.2833  | 20.65   | 6.77   | 27.42       | 43.50  | -16.08 | peak     |                |              |         |
| 2   |    | 136.7000 | 8.64    | 13.66  | 22.30       | 43.50  | -21.20 | peak     |                |              |         |
| 3   |    | 288.6666 | 11.57   | 13.48  | 25.05       | 46.00  | -20.95 | peak     |                |              |         |
| 4   |    | 354.9500 | 7.95    | 18.77  | 26.72       | 46.00  | -19.28 | peak     |                |              |         |
| 5   |    | 539.2500 | 3.03    | 22.19  | 25.22       | 46.00  | -20.78 | peak     |                |              |         |
| 6   | *  | 843.1833 | 2.72    | 27.31  | 30.03       | 46.00  | -15.97 | peak     |                |              |         |

**RESULT: PASS**

## RADIATED EMISSION TEST- (30MHz-1GHz)- MIDDLE CHANNEL -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   |    | 131.8500 | 16.73   | 11.80  | 28.53       | 43.50  | -14.97 | peak     |                |              |         |
| 2   |    | 350.1000 | 4.60    | 18.74  | 23.34       | 46.00  | -22.66 | peak     |                |              |         |
| 3   | *  | 460.0333 | 10.96   | 20.70  | 31.66       | 46.00  | -14.34 | peak     |                |              |         |
| 4   |    | 539.2500 | 5.93    | 22.19  | 28.12       | 46.00  | -17.88 | peak     |                |              |         |
| 5   |    | 744.5667 | 1.81    | 26.47  | 28.28       | 46.00  | -17.72 | peak     |                |              |         |
| 6   |    | 920.7833 | 1.69    | 29.19  | 30.88       | 46.00  | -15.12 | peak     |                |              |         |

**RESULT: PASS**

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

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

## RADIATED EMISSION TEST- (30MHz-1GHz)-HIGH CHANNEL-HORIZONTAL

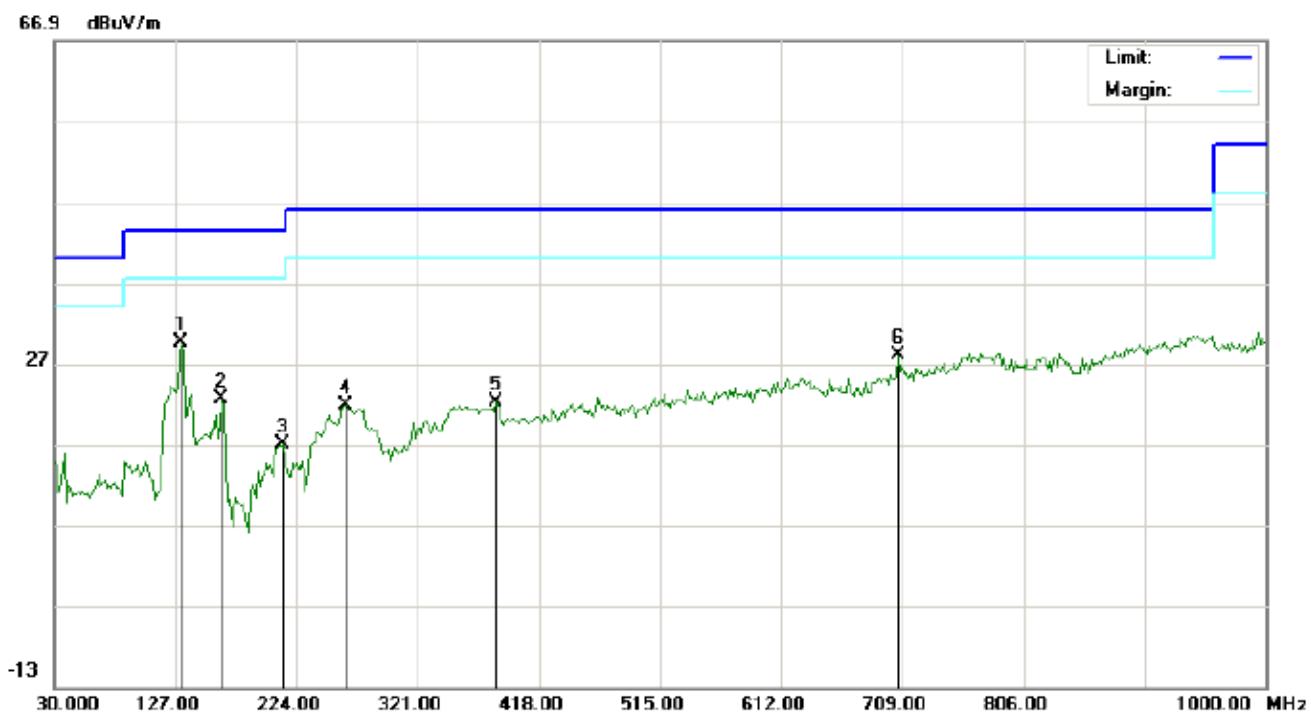


| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          | cm             | degree       |         |
| 1   |    | 136.6999 | 10.47   | 13.66  | 24.13       | 43.50  | -19.37 | peak     |                |              |         |
| 2   |    | 165.8000 | 12.90   | 10.54  | 23.44       | 43.50  | -20.06 | peak     |                |              |         |
| 3   | *  | 367.8833 | 9.78    | 18.86  | 28.64       | 46.00  | -17.36 | peak     |                |              |         |
| 4   |    | 487.5167 | 6.73    | 21.00  | 27.73       | 46.00  | -18.27 | peak     |                |              |         |
| 5   |    | 602.2999 | 1.43    | 23.74  | 25.17       | 46.00  | -20.83 | peak     |                |              |         |
| 6   |    | 747.7999 | 1.30    | 26.57  | 27.87       | 46.00  | -18.13 | peak     |                |              |         |

RESULT: PASS



## RADIATED EMISSION TEST- (30MHz-1GHz)-HIGH CHANNEL -VERTICAL

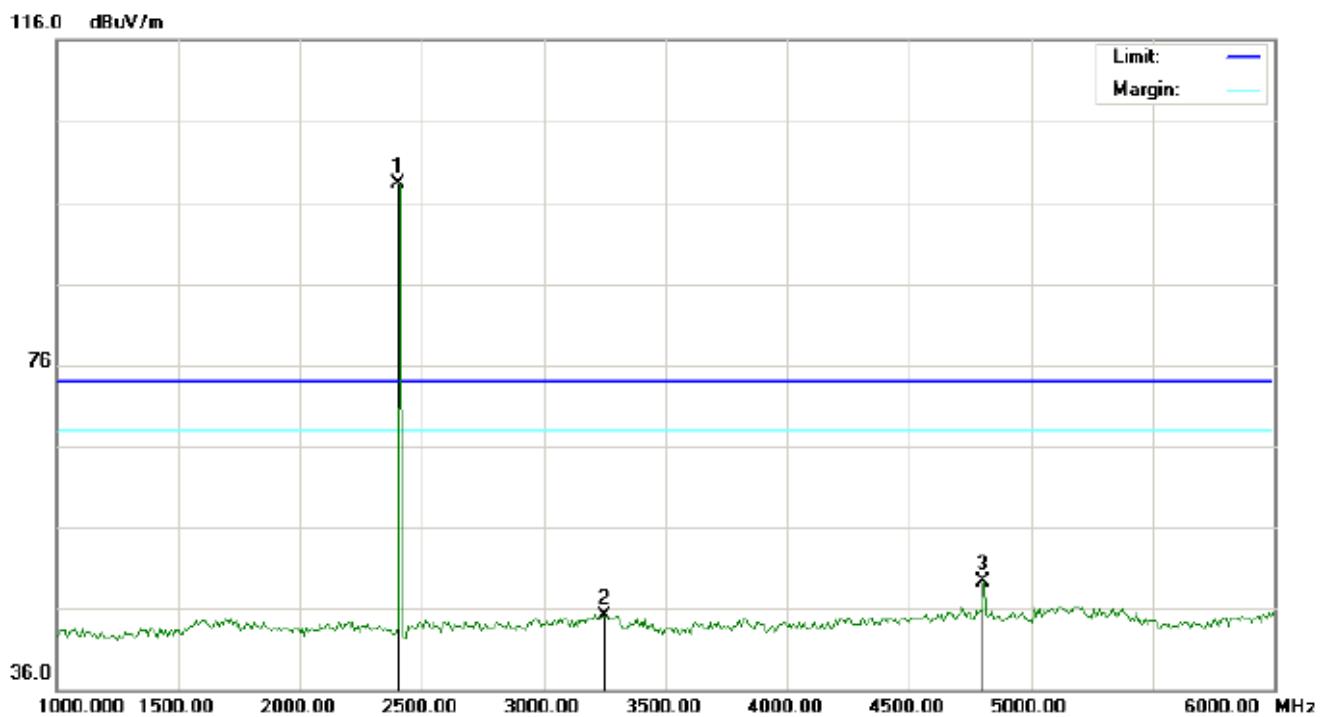


| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna | Table  | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|---------|--------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          | Height  | Degree |         |
| 1   | *  | 131.8499 | 17.84   | 11.80  | 29.64       | 43.50  | -13.86 | peak     |         |        |         |
| 2   |    | 164.1833 | 7.55    | 15.07  | 22.62       | 43.50  | -20.88 | peak     |         |        |         |
| 3   |    | 212.6833 | 6.67    | 10.24  | 16.91       | 43.50  | -26.59 | peak     |         |        |         |
| 4   |    | 262.8000 | 7.43    | 14.29  | 21.72       | 46.00  | -24.28 | peak     |         |        |         |
| 5   |    | 384.0500 | 3.21    | 18.96  | 22.17       | 46.00  | -23.83 | peak     |         |        |         |
| 6   |    | 705.7667 | 2.57    | 25.36  | 27.93       | 46.00  | -18.07 | peak     |         |        |         |

**RESULT: PASS**

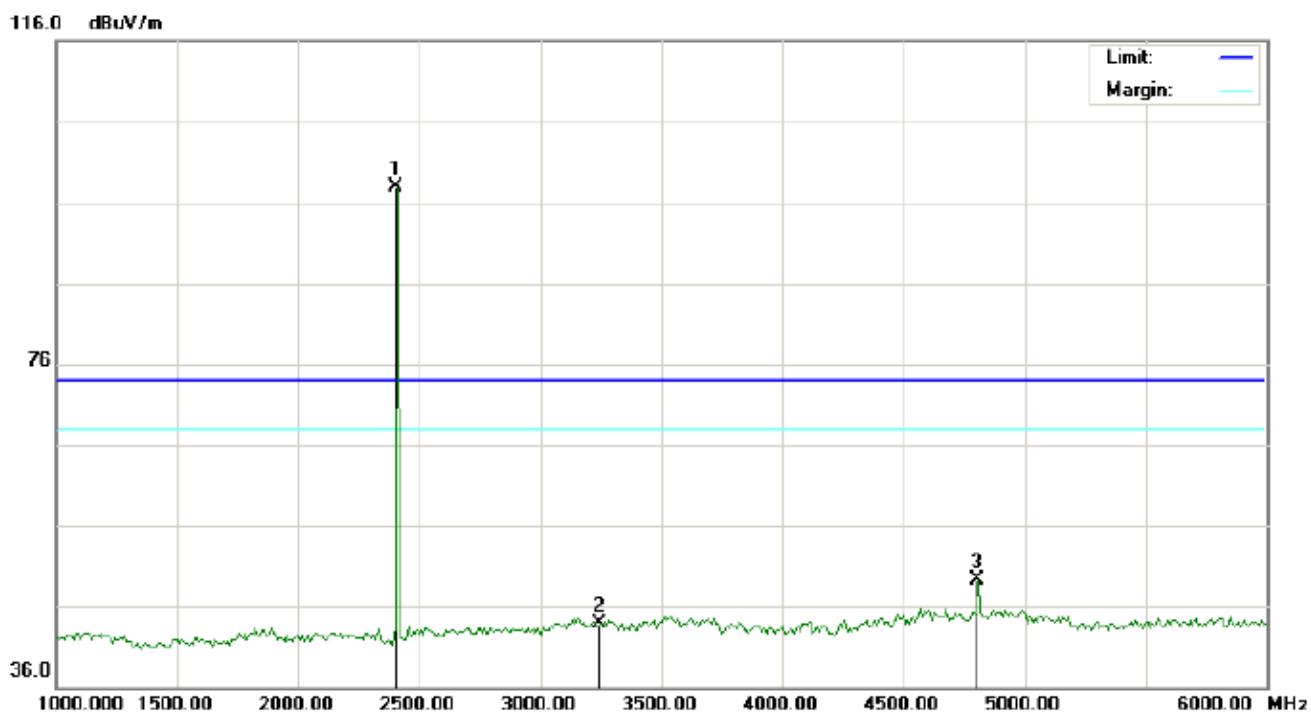
**Note:** 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

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

**RADIATED EMISSION ABOVE 1GHz****RADIATED EMISSION ABOVE 1GHz (1-10<sup>th</sup> Harmonics)-LOW CHANNEL-HORIZONTAL**

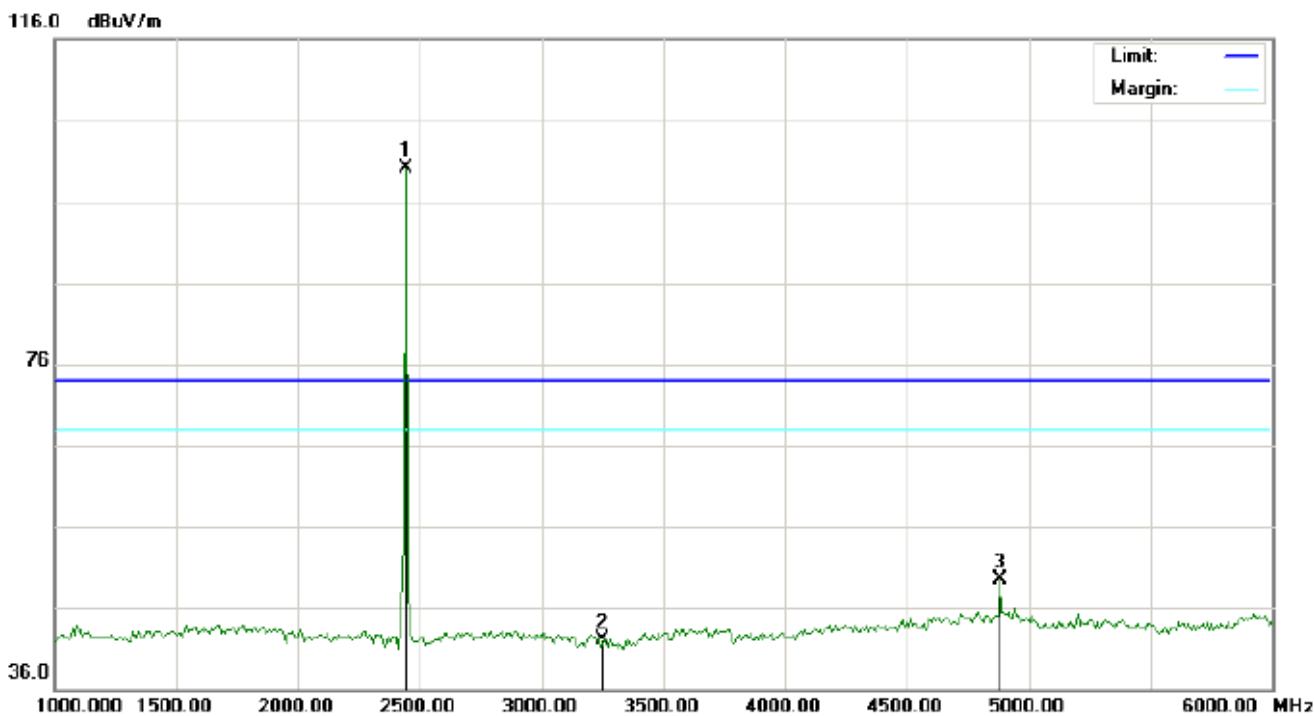
| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          | cm             | degree       |         |
| 1   | *  | 2402.000 | 87.91   | 10.32  | 98.23       | 74.00  | 24.23  | peak     |                |              |         |
| 2   |    | 3251.000 | 33.21   | 11.88  | 45.09       | 74.00  | -28.91 | peak     |                |              |         |
| 3   |    | 4804.000 | 41.71   | 7.69   | 49.40       | 74.00  | -24.60 | peak     |                |              |         |

**RESULT: PASS**

RADIATED EMISSION ABOVE 1GHz (1-10<sup>th</sup> Harmonics)-LOW CHANNEL –VERTICAL

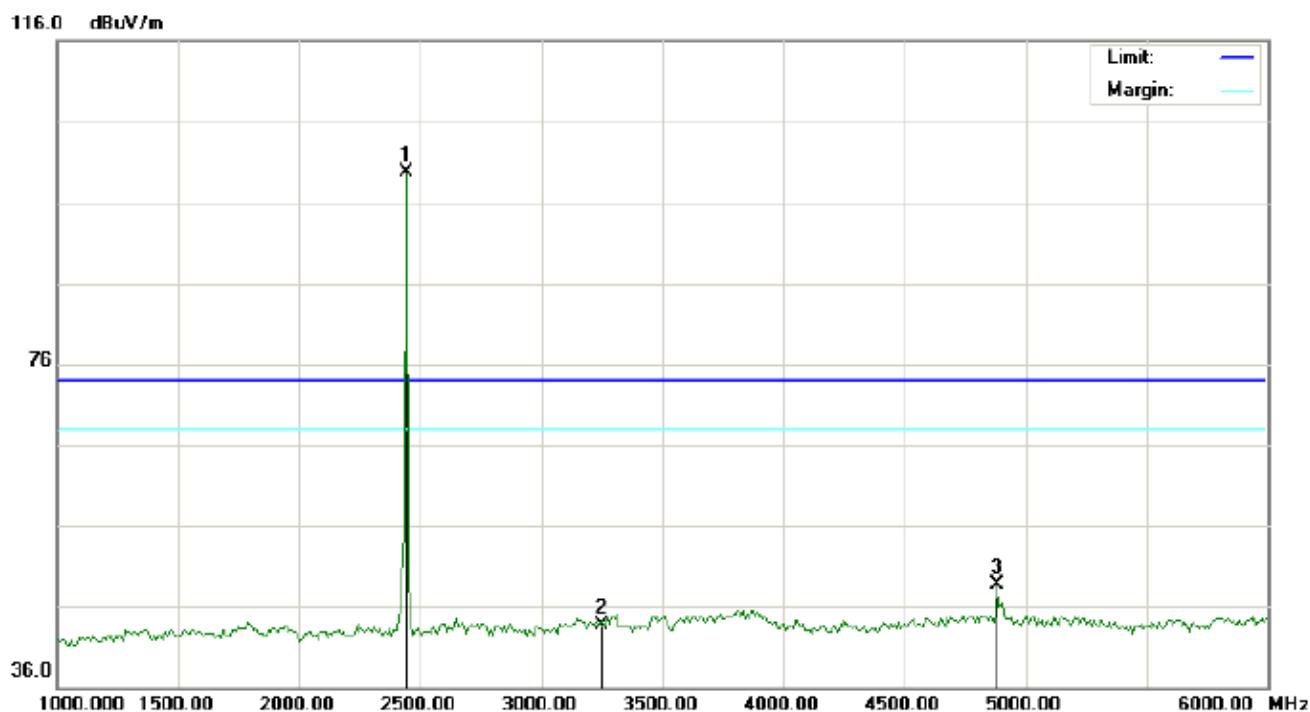
| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna | Table  | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|---------|--------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          | Height  | Degree |         |
| 1   | *  | 2402.000 | 87.49   | 10.32  | 97.81       | 74.00  | 23.81  | peak     |         |        |         |
| 2   |    | 3246.000 | 31.94   | 11.87  | 43.81       | 74.00  | -30.19 | peak     |         |        |         |
| 3   |    | 4804.000 | 41.55   | 7.69   | 49.24       | 74.00  | -24.76 | peak     |         |        |         |

**RESULT: PASS**

RADIATED EMISSION ABOVE 1GHz (1-10<sup>th</sup> Harmonics)-MIDDLE CHANNEL-HORIZONTAL

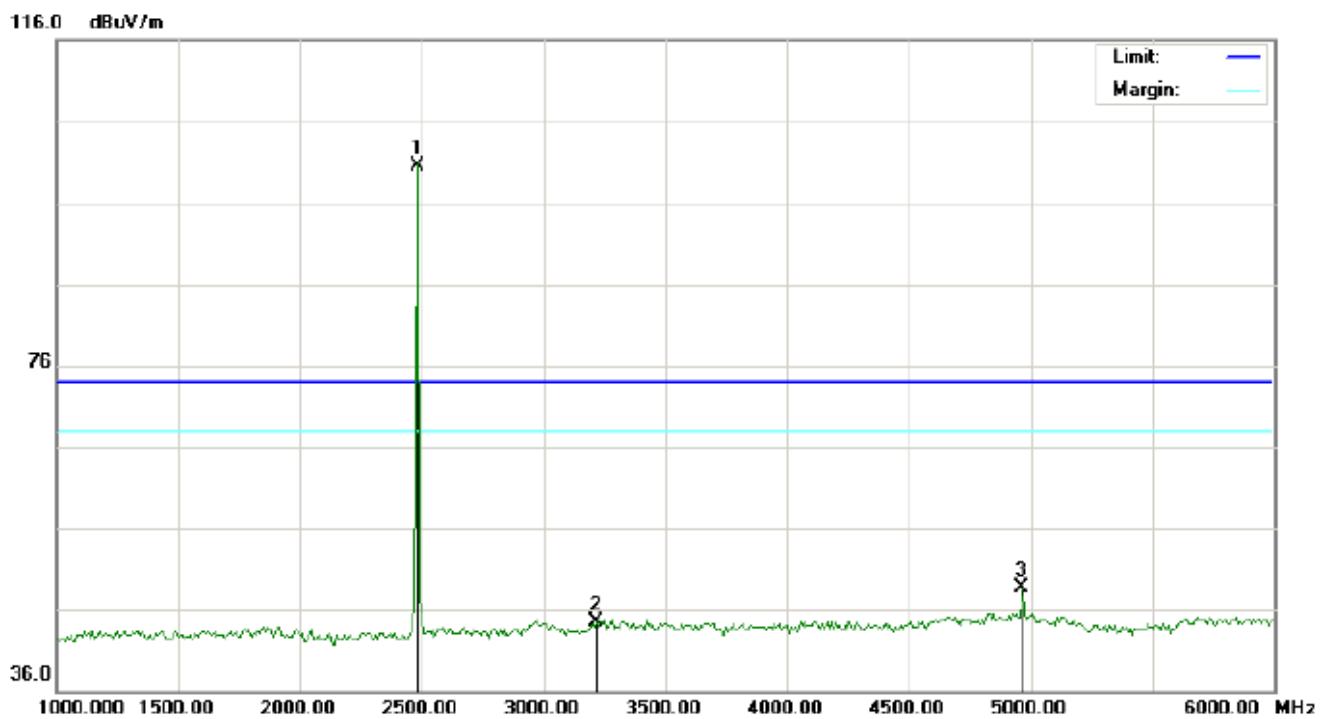
| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          |                |              |         |
| 1   | *  | 2441.000 | 89.81   | 10.36  | 100.17      | 74.00  | 26.17  | peak     |                |              |         |
| 2   |    | 3251.000 | 30.23   | 11.88  | 42.11       | 74.00  | -31.89 | peak     |                |              |         |
| 3   |    | 4882.000 | 41.66   | 7.89   | 49.55       | 74.00  | -24.45 | peak     |                |              |         |

**RESULT: PASS**

RADIATED EMISSION ABOVE 1GHz (1-10<sup>th</sup> Harmonics) - MIDDLE CHANNEL – VERTICAL

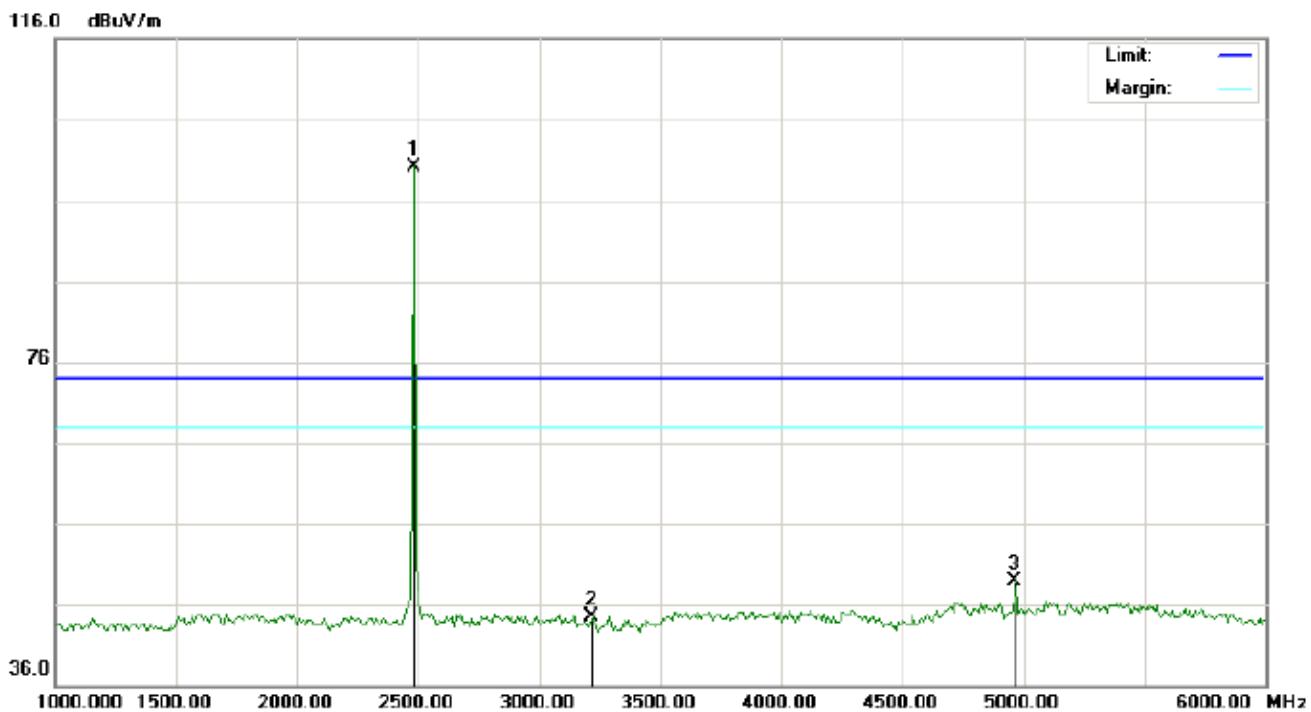
| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          | cm             | degree       |         |
| 1   | *  | 2441.000 | 89.31   | 10.36  | 99.67       | 74.00  | 25.67  | peak     |                |              |         |
| 2   |    | 3251.000 | 31.87   | 11.88  | 43.75       | 74.00  | -30.25 | peak     |                |              |         |
| 3   |    | 4882.000 | 40.89   | 7.89   | 48.78       | 74.00  | -25.22 | peak     |                |              |         |

**RESULT: PASS**

RADIATED EMISSION ABOVE 1GHz (1-10<sup>th</sup> Harmonics)-HIGH CHANNEL-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   | *  | 2480.000 | 90.10   | 10.41  | 100.51      | 74.00  | 26.51  | peak     |                |              |         |
|     |    | 3214.000 | 32.66   | 11.84  | 44.50       | 74.00  | -29.50 | peak     |                |              |         |
|     |    | 4960.000 | 40.60   | 8.09   | 48.69       | 74.00  | -25.31 | peak     |                |              |         |

**RESULT: PASS**

RADIATED EMISSION ABOVE 1GHz (1-10<sup>th</sup> Harmonics)-HIGH CHANNEL –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   | *  | 2480.000 | 89.60   | 10.41  | 100.01      | 74.00  | 26.01  | peak     |                |              |         |
| 2   |    | 3217.000 | 32.58   | 11.84  | 44.42       | 74.00  | -29.58 | peak     |                |              |         |
| 3   |    | 4960.000 | 40.91   | 8.09   | 49.00       | 74.00  | -25.00 | peak     |                |              |         |

**RESULT: PASS**

**Note:** 6~25GHz at least have 20dB margin. No recording in the test report.

Factor=Antenna Factor+ Cable loss-Amplifier gain, Margin=Measurement-Limit.

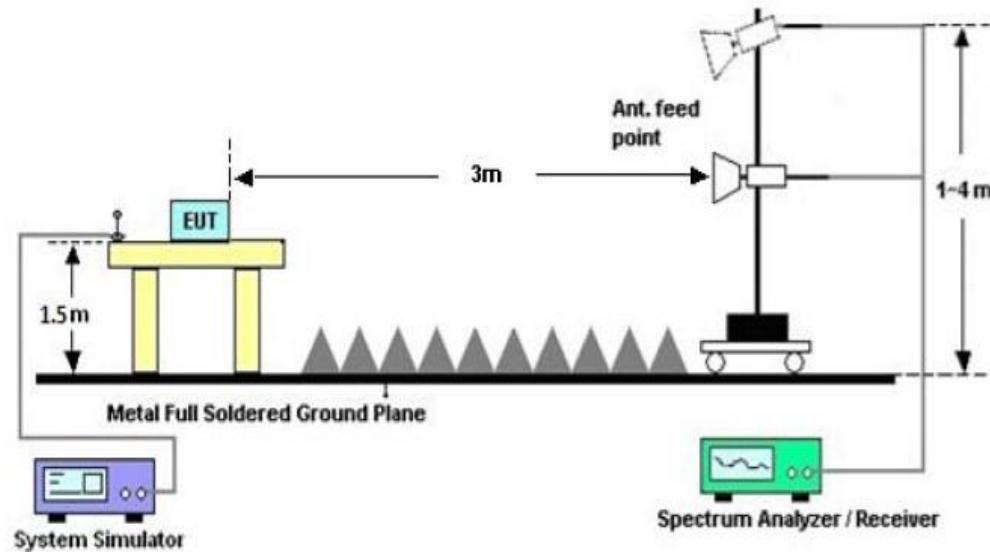
The “Factor” value can be calculated automatically by software of measurement system.

## 7. BAND EDGE EMISSION

### 7.1. MEASUREMENT PROCEDURE

1. Set the EUT Work on the top, the bottom operation frequency individually.
2. Set SPA Start or Stop Frequency=Operation Frequency,  
For unrestricted band: RBW=100kHz, VBW=300kHz  
For restricted band: RBW=1MHz, VBW=3\*RBW  
Center frequency =Operation frequency
3. The band edges was measured and recorded.

### 7.2. TEST SET-UP





### 7.3. TEST RESULT

#### (Worst Modulation: GFSK)

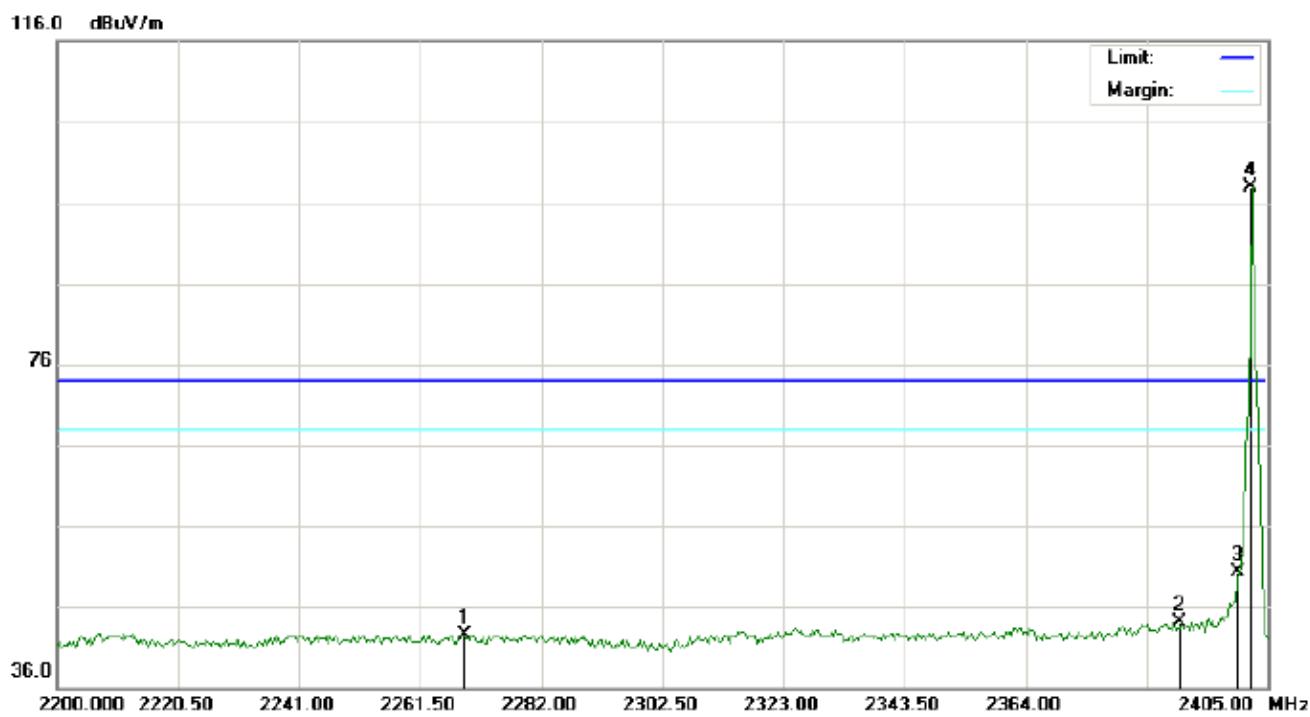
TEST PLOT OF BAND EDGE FOR LOW CHANNEL (1Mbps)-Horizontal



| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          |                |              |         |
| 1   |    | 2273.800 | 32.04   | 10.18  | 42.22       | 74.00  | -31.78 | peak     |                |              |         |
| 2   |    | 2390.000 | 32.00   | 10.31  | 42.31       | 74.00  | -31.69 | peak     |                |              |         |
| 3   |    | 2400.000 | 40.47   | 10.32  | 50.79       | 74.00  | -23.21 | peak     |                |              |         |
| 4   | *  | 2402.000 | 87.87   | 10.32  | 98.19       | 74.00  | 24.19  | peak     |                |              |         |



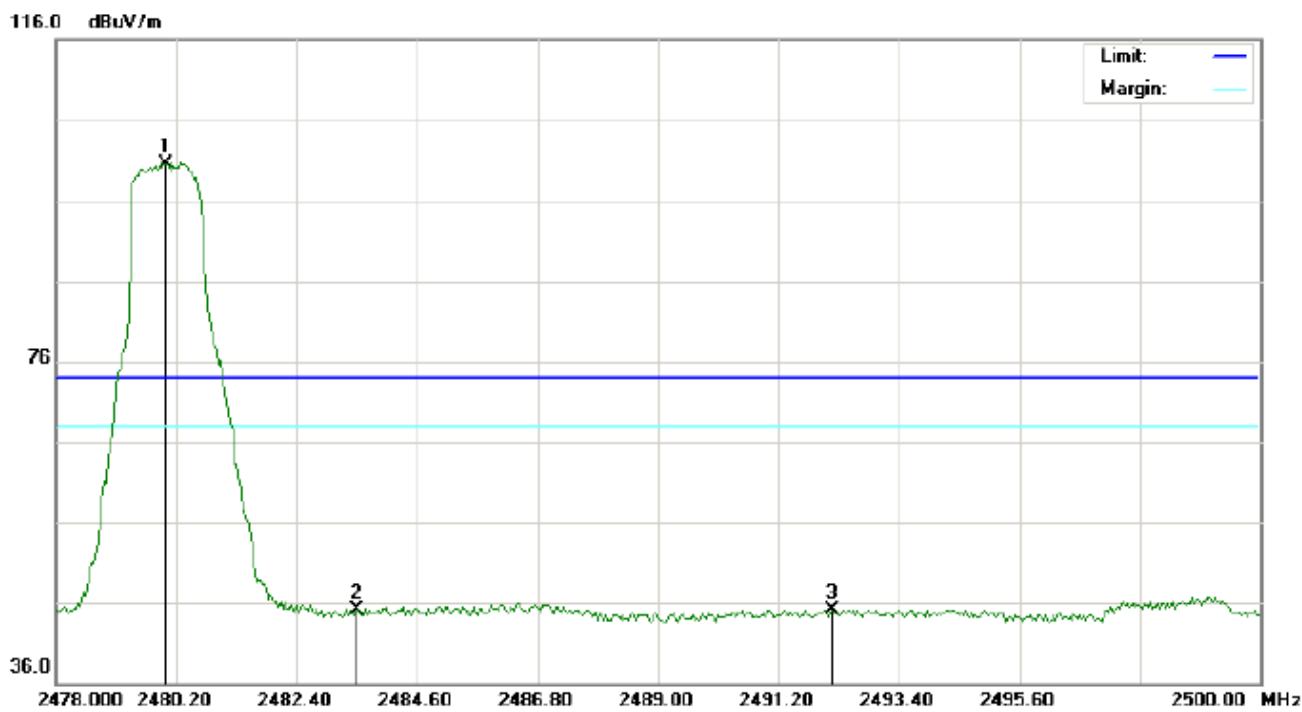
## TEST PLOT OF BAND EDGE FOR LOW CHANNEL (1Mbps)-Vertical



| 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   |    | 2269.017 | 32.29   | 10.18  | 42.47       | 74.00  | -31.53 | peak     |                |              |         |
| 2   |    | 2390.000 | 33.71   | 10.31  | 44.02       | 74.00  | -29.98 | peak     |                |              |         |
| 3   |    | 2400.000 | 40.06   | 10.32  | 50.38       | 74.00  | -23.62 | peak     |                |              |         |
| 4   | *  | 2402.000 | 87.59   | 10.32  | 97.91       | 74.00  | 23.91  | peak     |                |              |         |



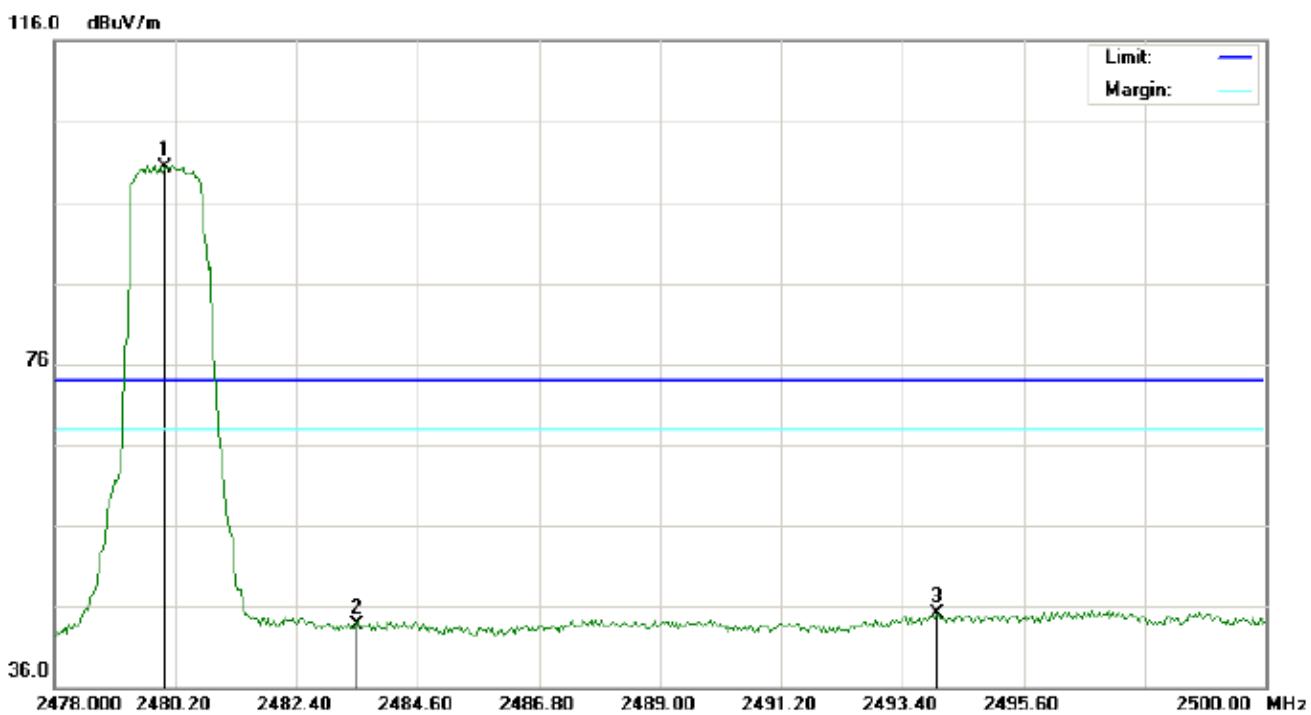
## TEST PLOT OF BAND EDGE FOR HIGH CHANNEL (1Mbps)-Horizontal



| No. | Mk | Freq.    | Reading | Factor | Measurement | Limit  | Over   | Detector | Antenna Height | Table Degree | Comment |
|-----|----|----------|---------|--------|-------------|--------|--------|----------|----------------|--------------|---------|
|     |    | MHz      | dBuV    | dB/m   | dBuV/m      | dBuV/m | dB     |          |                |              |         |
| 1   | *  | 2480.000 | 90.05   | 10.41  | 100.46      | 74.00  | 26.46  | peak     |                |              |         |
| 2   |    | 2483.500 | 34.69   | 10.41  | 45.10       | 74.00  | -28.90 | peak     |                |              |         |
| 3   |    | 2492.190 | 34.74   | 10.42  | 45.16       | 74.00  | -28.84 | peak     |                |              |         |



## TEST PLOT OF BAND EDGE FOR HIGH CHANNEL (1Mbps)-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   | *  | 2480.000 | 89.82   | 10.41  | 100.23      | 74.00  | 26.23  | peak     |                |              |         |
| 2   |    | 2483.500 | 33.26   | 10.41  | 43.67       | 74.00  | -30.33 | peak     |                |              |         |
| 3   |    | 2494.023 | 34.62   | 10.42  | 45.04       | 74.00  | -28.96 | peak     |                |              |         |

**RESULT: PASS**

**Note:**

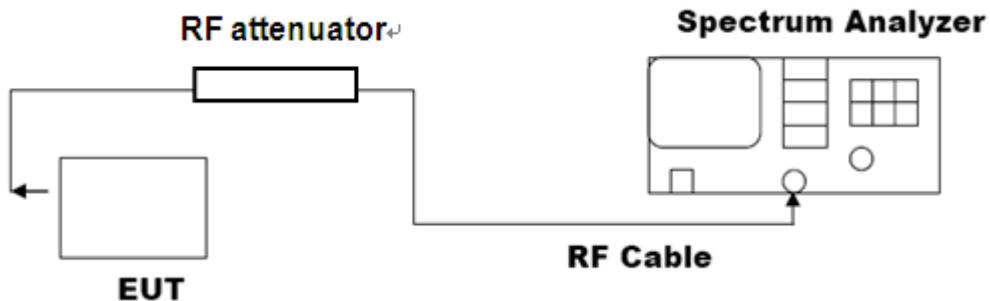
1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.
2. The "Factor" value can be calculated automatically by software of measurement system.
3. Hopping off and Hopping on have been tested and only worst case recorded

## 8. NUMBER OF HOPPING FREQUENCY

### 8.1. MEASUREMENT PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer Start = 2.4GHz Stop = 2.4835GHz
4. Set the Spectrum Analyzer as RBW>=1%span, VBW>=3RBW.

### 8.2. TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION)

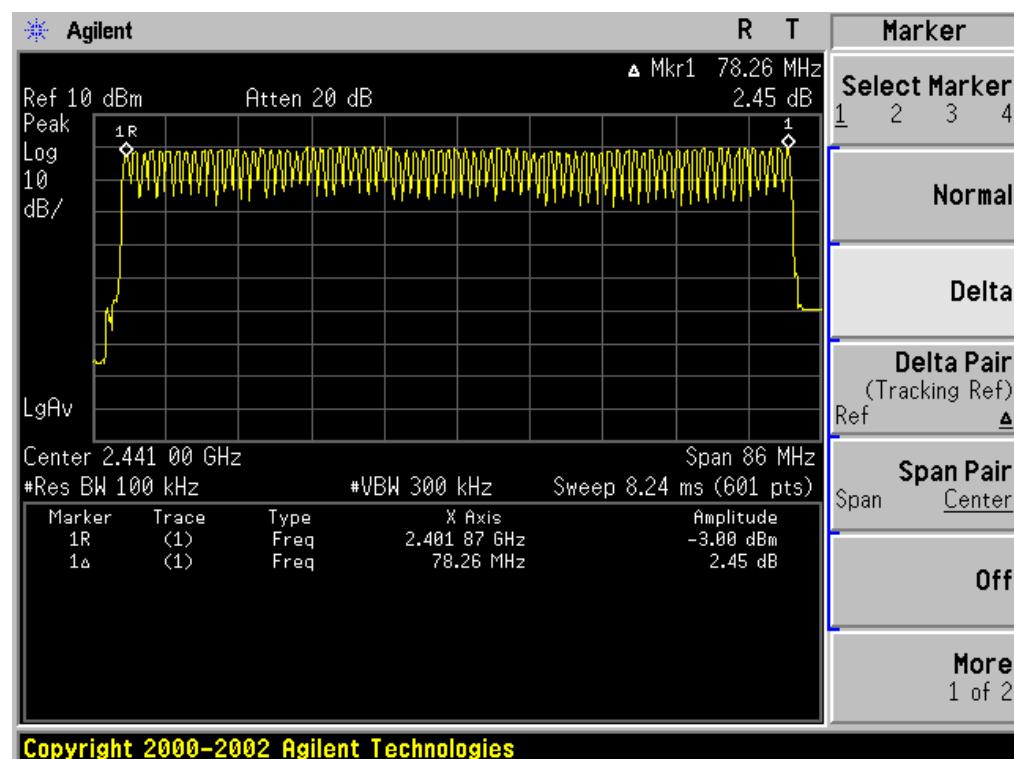


### 8.3. LIMITS AND MEASUREMENT RESULT

| TOTAL NO. OF<br>HOPPING CHANNEL | LIMIT (NO. OF CH) | MEASUREMENT<br>(NO. OF CH) | RESULT |
|---------------------------------|-------------------|----------------------------|--------|
|                                 |                   | >=15                       |        |
|                                 |                   | 79                         | PASS   |



## TEST PLOT FOR NO. OF TOTAL CHANNELS

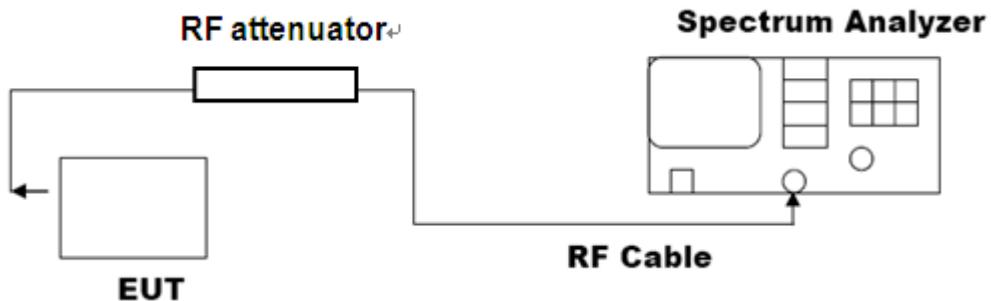


## 9. TIME OF OCCUPANCY (DWELL TIME)

### 9.1. MEASUREMENT PROCEDURE

1. Place the EUT on the table and set it in transmitting mode
2. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer.
3. Set Span = zero span, centered on a hopping channel
4. Set the spectrum analyzer as RBW=1MHz, VBW>=RBW, Span = 0 Hz

### 9.2. TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION)



### 9.3. LIMITS AND MEASUREMENT RESULT

The Worst Case (3Mbps)

| Channel | Time of Pulse for DH5<br>(ms) | Period Time<br>(s) | Sweep Time<br>(ms) | Limit<br>(ms) |
|---------|-------------------------------|--------------------|--------------------|---------------|
| Low     | 2.884                         | 31.6               | 307.63             | 400           |
| Middle  | 2.898                         | 31.6               | 309.12             | 400           |
| High    | 2.898                         | 31.6               | 309.12             | 400           |

Low Channel Time

$2.884 * (1600/6) / 79 * 31.6 = 307.63\text{ms}$

Middle Channel Time

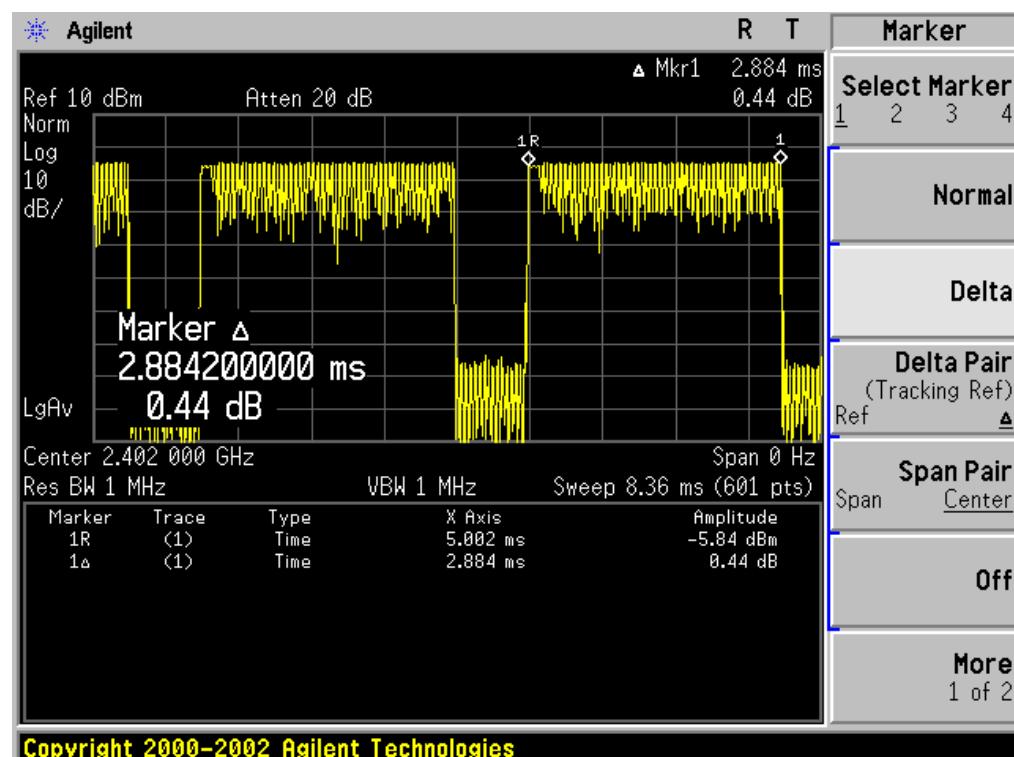
$2.898 * (1600/6) / 79 * 31.6 = 309.12\text{ms}$

High Channel Time

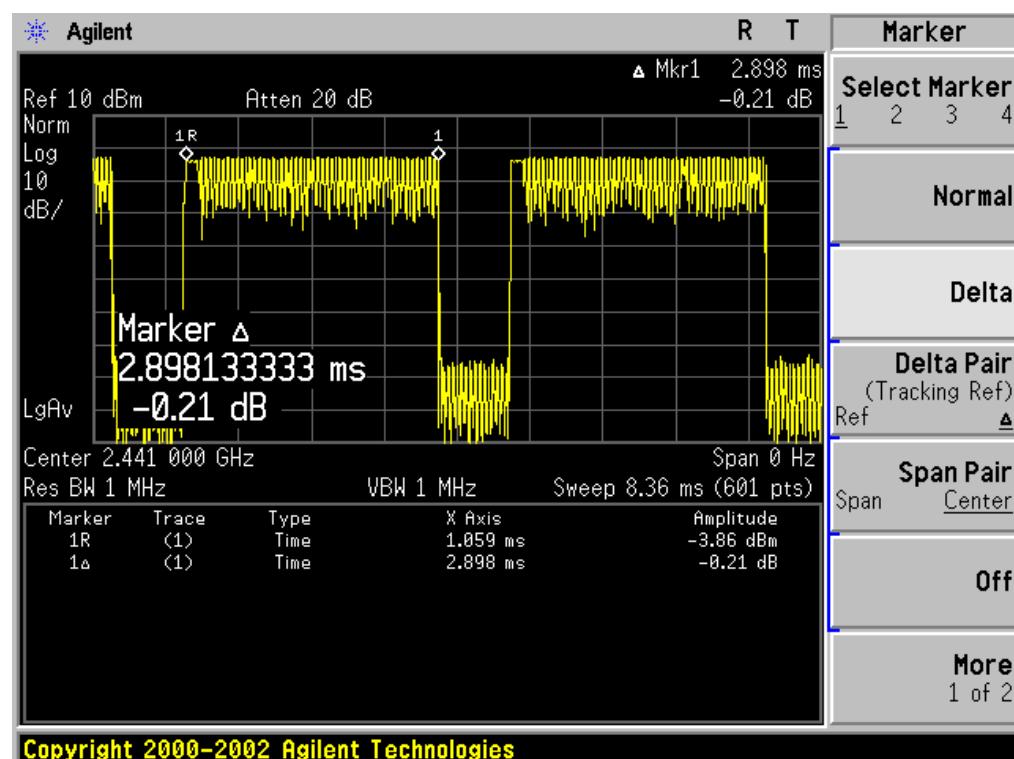
$2.898 * (1600/6) / 79 * 31.6 = 309.12\text{ms}$



## TEST PLOT OF LOW CHANNEL

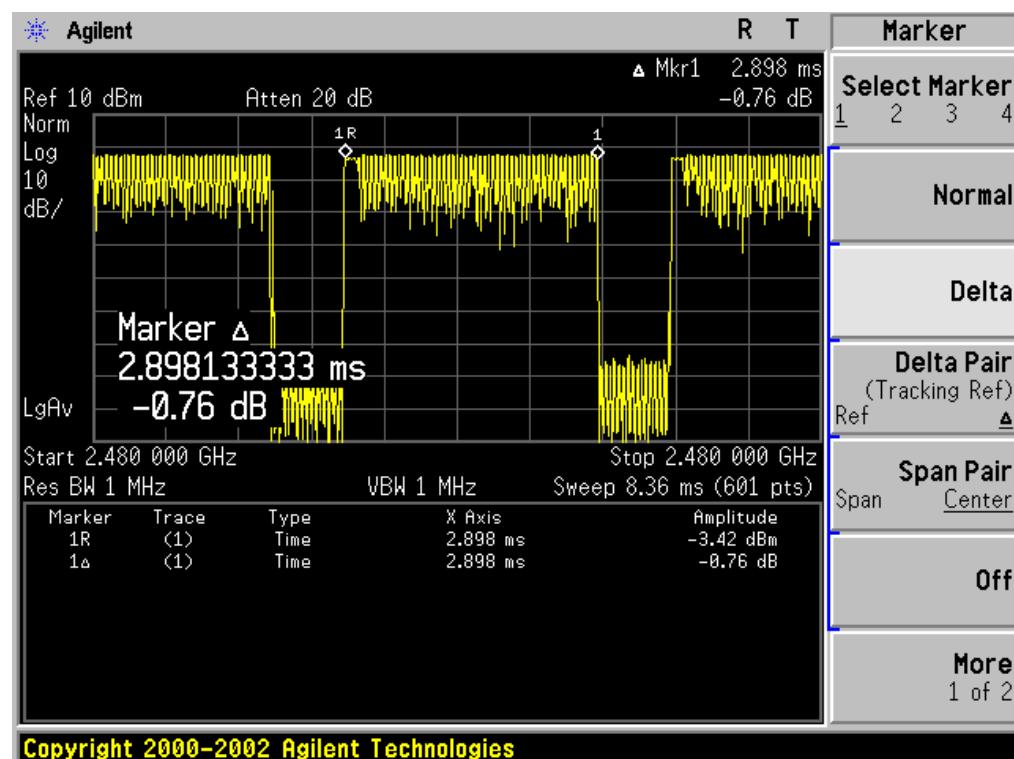


## TEST PLOT OF MIDDLE CHANNEL





## TEST PLOT OF HIGH CHANNEL

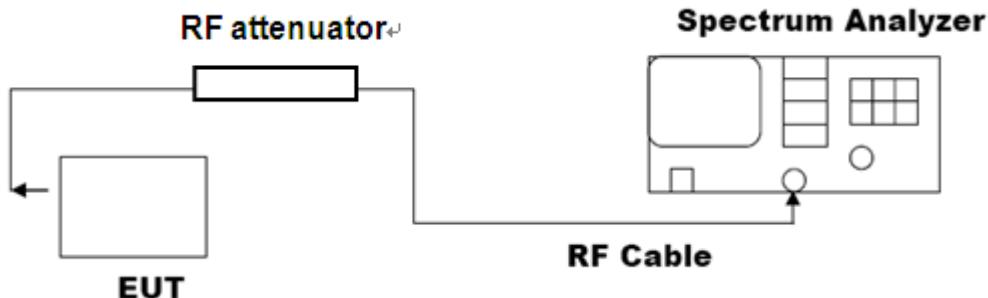


## 10. FREQUENCY SEPARATION

### 10.1. MEASUREMENT PROCEDURE

1. Place the EUT on the table and set it in transmitting mode
2. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer
3. Set Span = wide enough to capture the peaks of two adjacent channels Resolution (or IF) Bandwidth (RBW)  $\geq 1\%$  of the span Video (or Average) Bandwidth (VBW)  $\geq$  RBW; Sweep = auto; Detector function = peak; Trace = max hold

### 10.2. TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION)

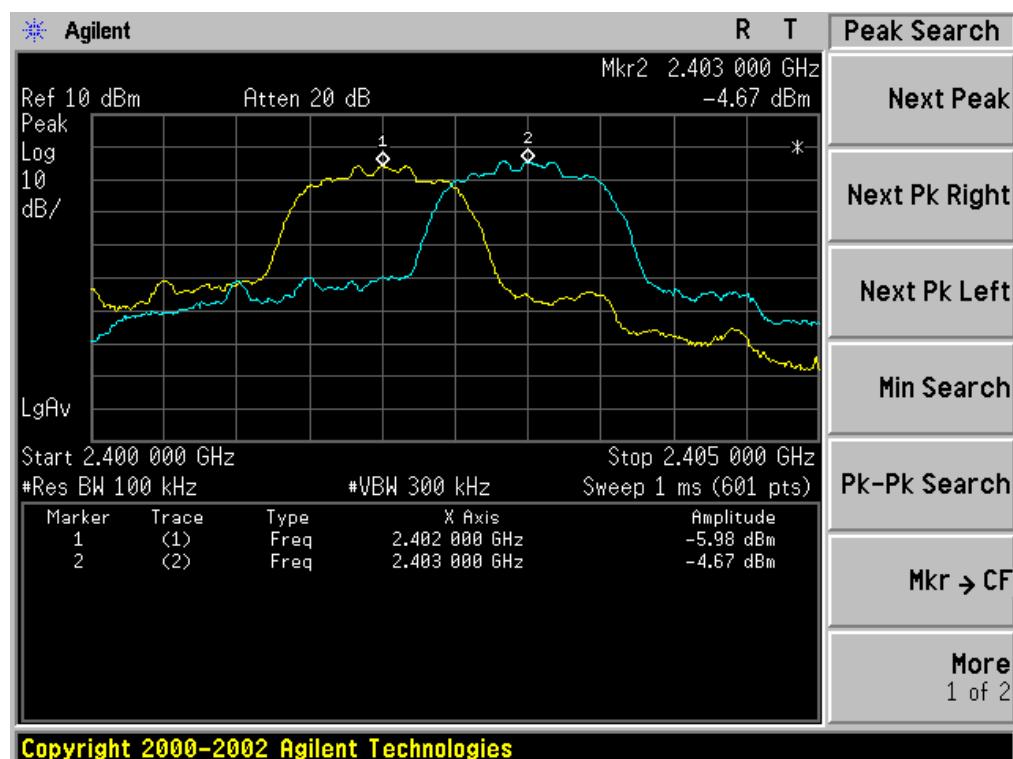


### 10.3. LIMITS AND MEASUREMENT RESULT

| CHANNEL   | CHANNEL<br>SEPARATION | LIMIT                              | RESULT |
|-----------|-----------------------|------------------------------------|--------|
|           | KHz                   | KHz                                |        |
| CH00-CH01 | 1000                  | $\geq 25$ KHz or $2/3$ 20 dB<br>BW | Pass   |



## TEST PLOT FOR FREQUENCY SEPARATION (3Mbps)



## 11. LINE CONDUCTED EMISSION TEST

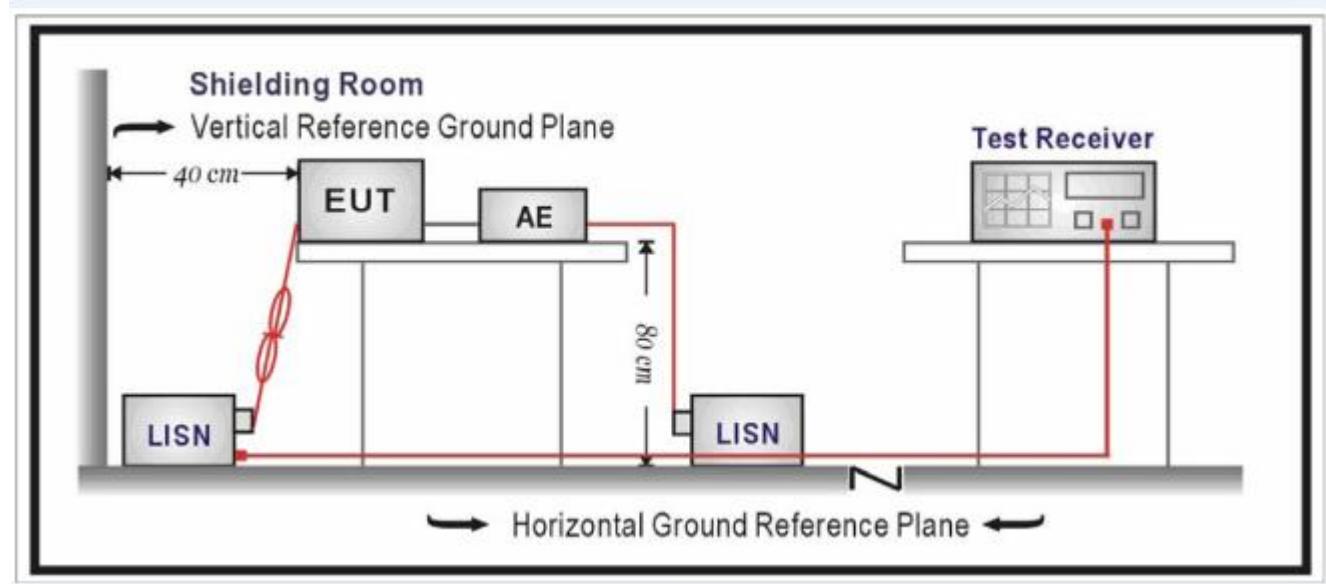
### 11.1. LIMITS OF LINE CONDUCTED EMISSION TEST

| 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.

### 11.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST





### 11.3. 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 C63.10 (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 C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipments received AC120V/60Hz power from a LISN, if any.
5. The EUT received DC 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.

### 11.4. 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.

### 11.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

N/A

Note: The BT function of EUT didn't work when charging.



## 12. ANTENNA REQUIREMENT

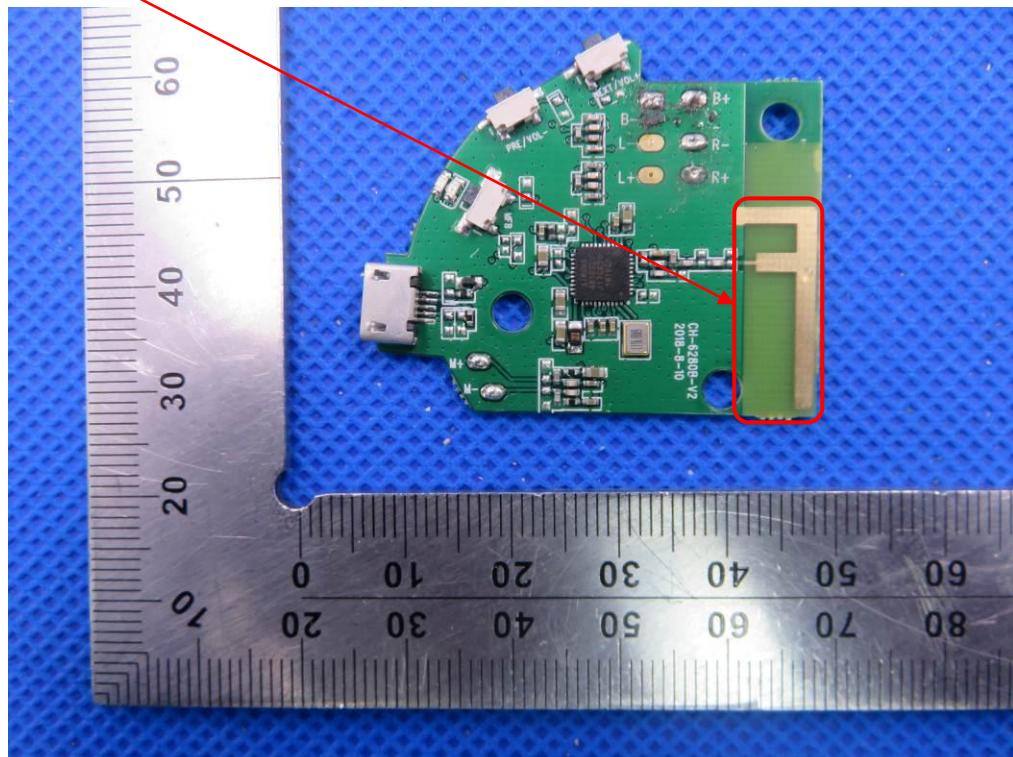
### Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

### Refer to statement below for compliance.

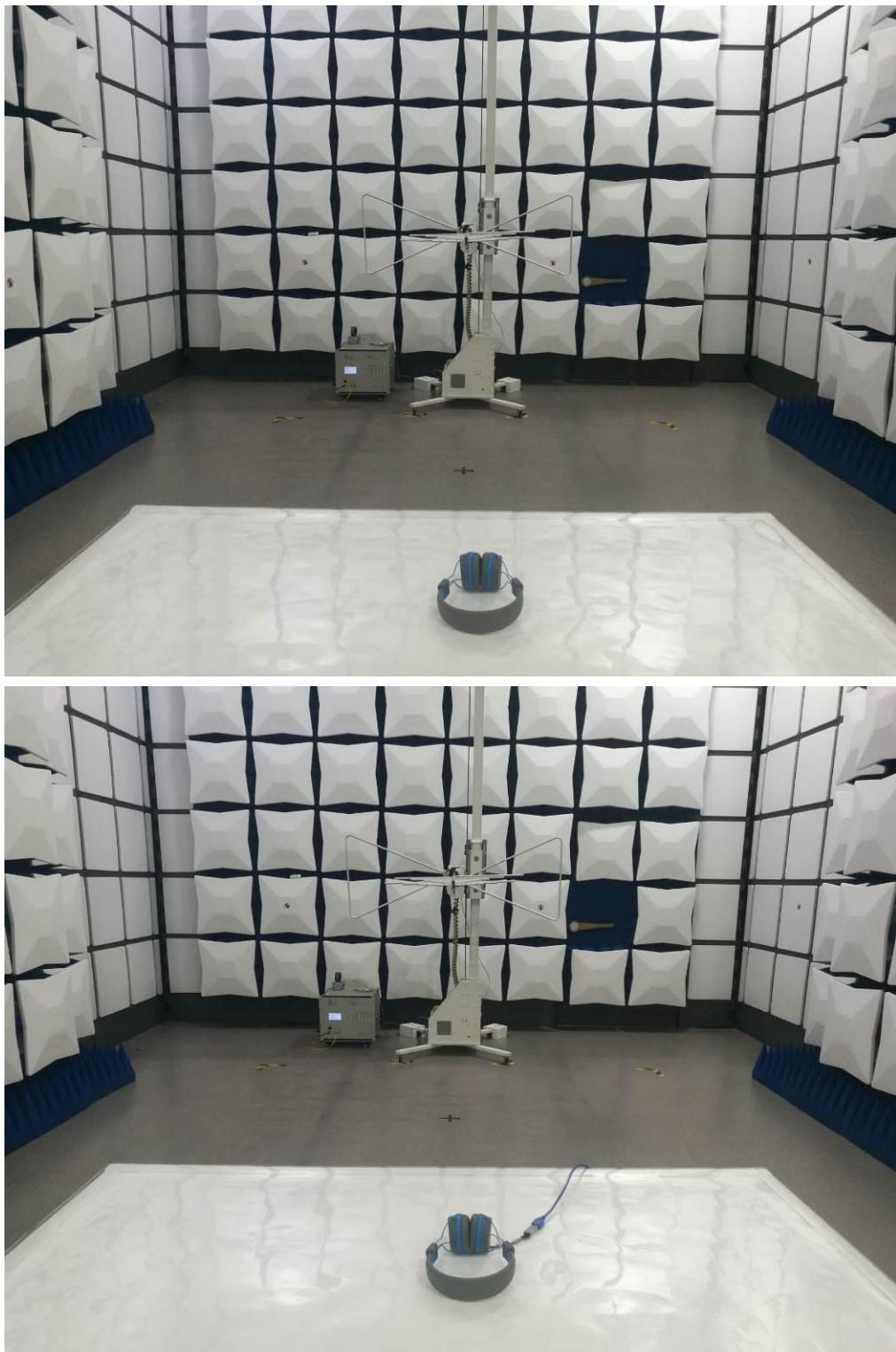
The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

#### ANTENNA



## 13. PHOTOGRAPH OF TEST

FCC RADIATED EMISSION TEST SETUP





## 14. PHOTOGRAPHS OF EUT

TOP VIEW OF EUT



BOTTOM VIEW OF EUT





## FRONT VIEW OF EUT

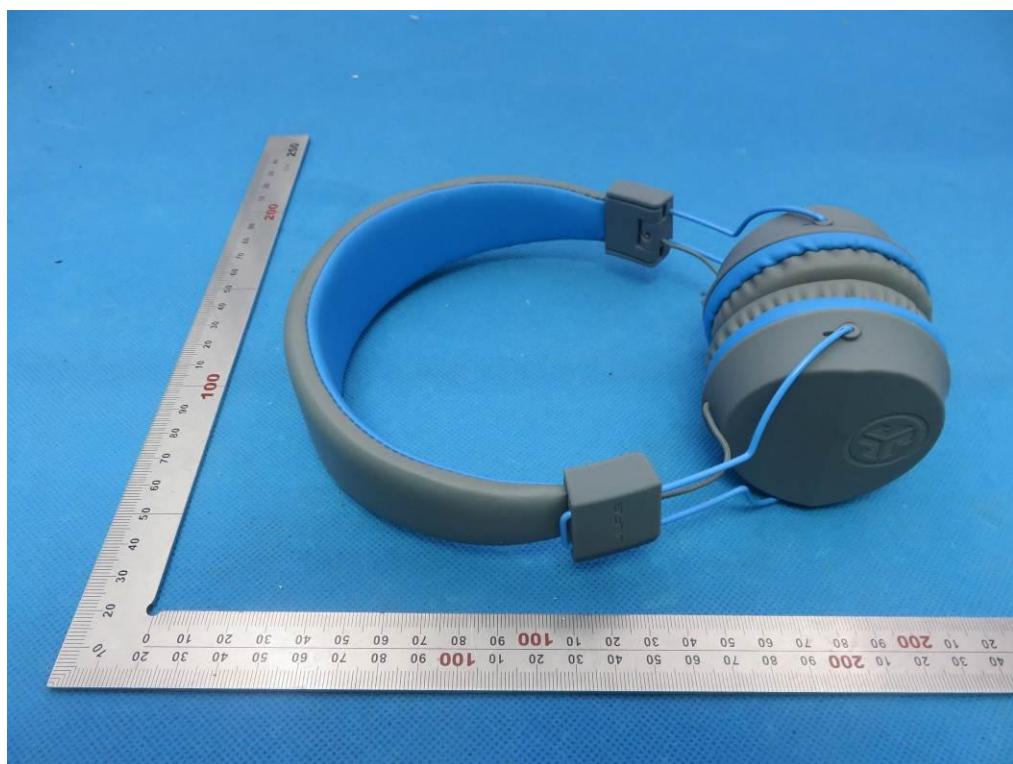


## BACK VIEW OF EUT





## LEFT VIEW OF EUT



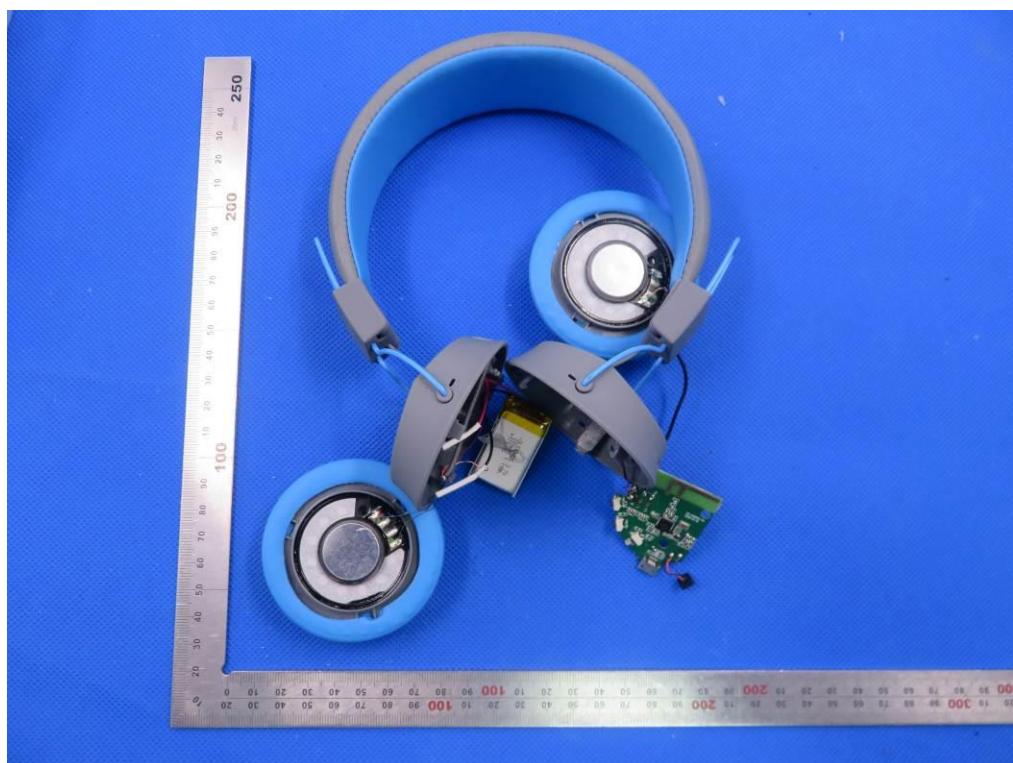
## RIGHT VIEW OF EUT



## VIEW OF EUT (PORT)

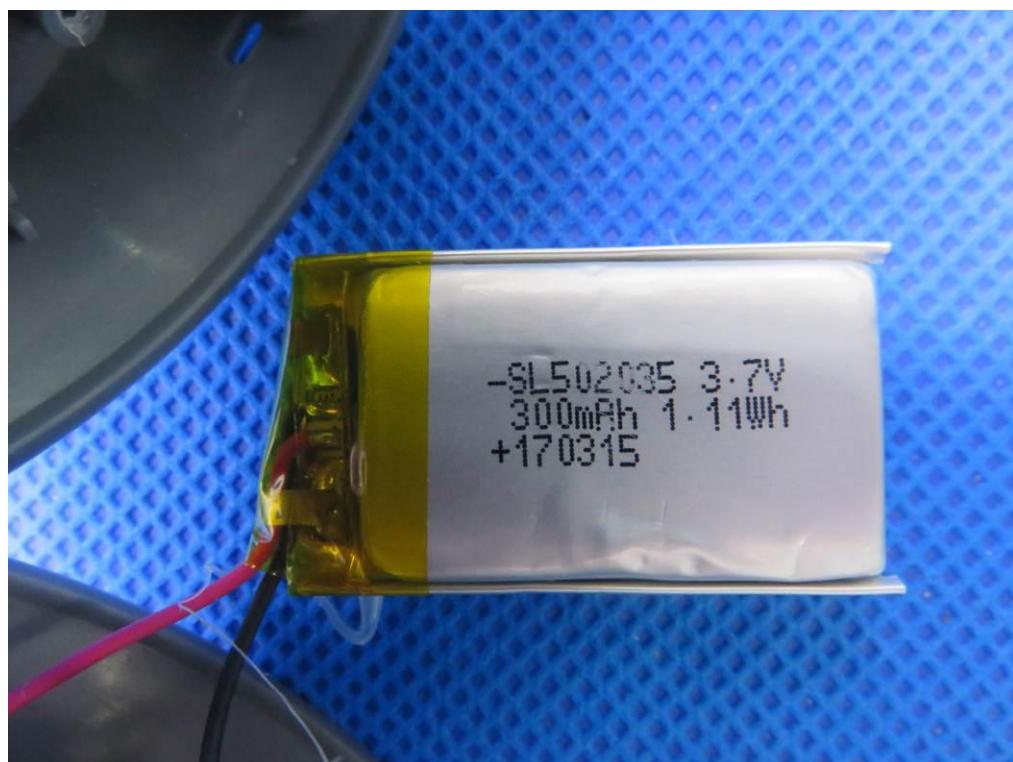


## OPEN VIEW OF EUT

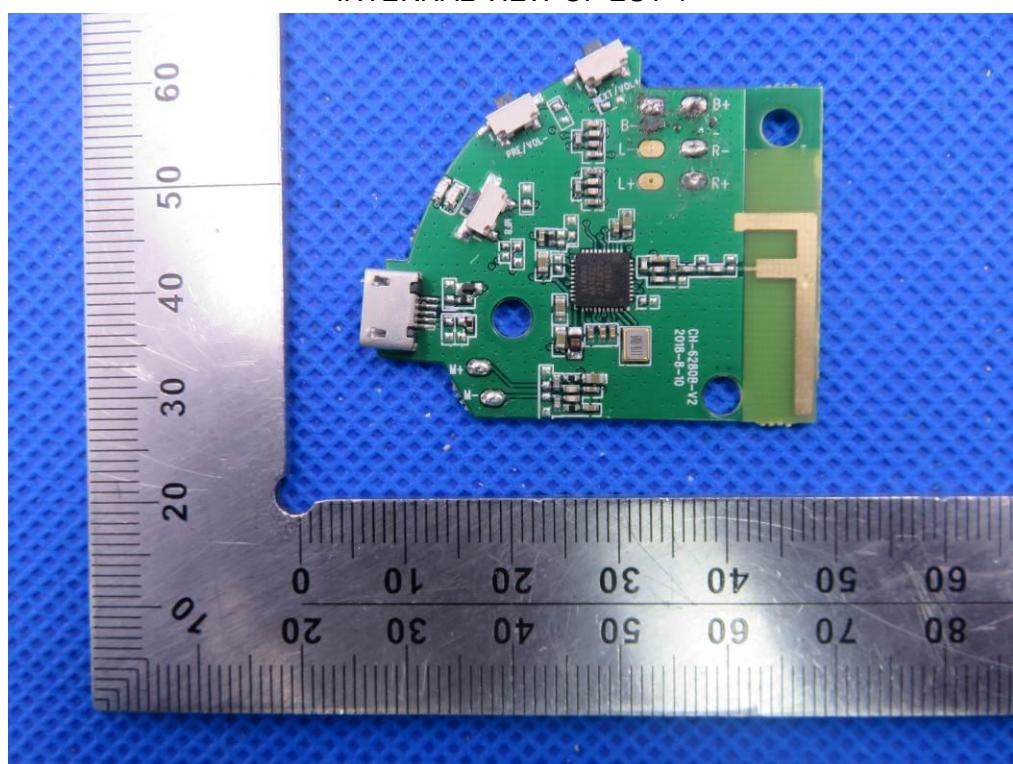




## VIEW OF BATTERY

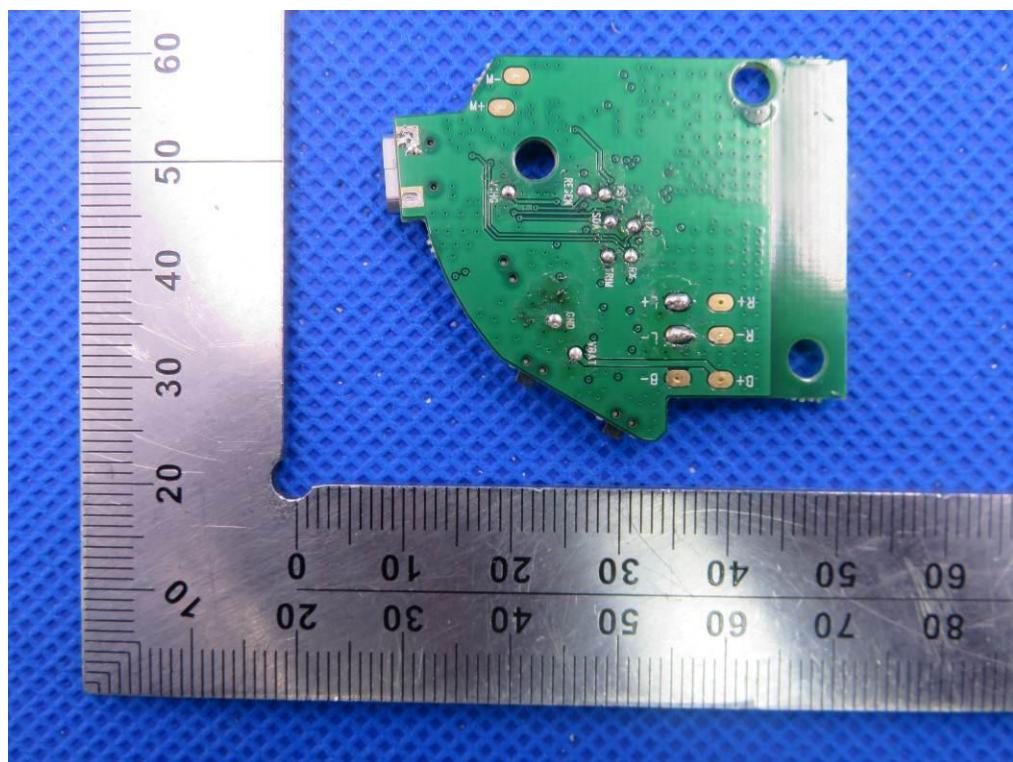


## INTERNAL VIEW OF EUT-1

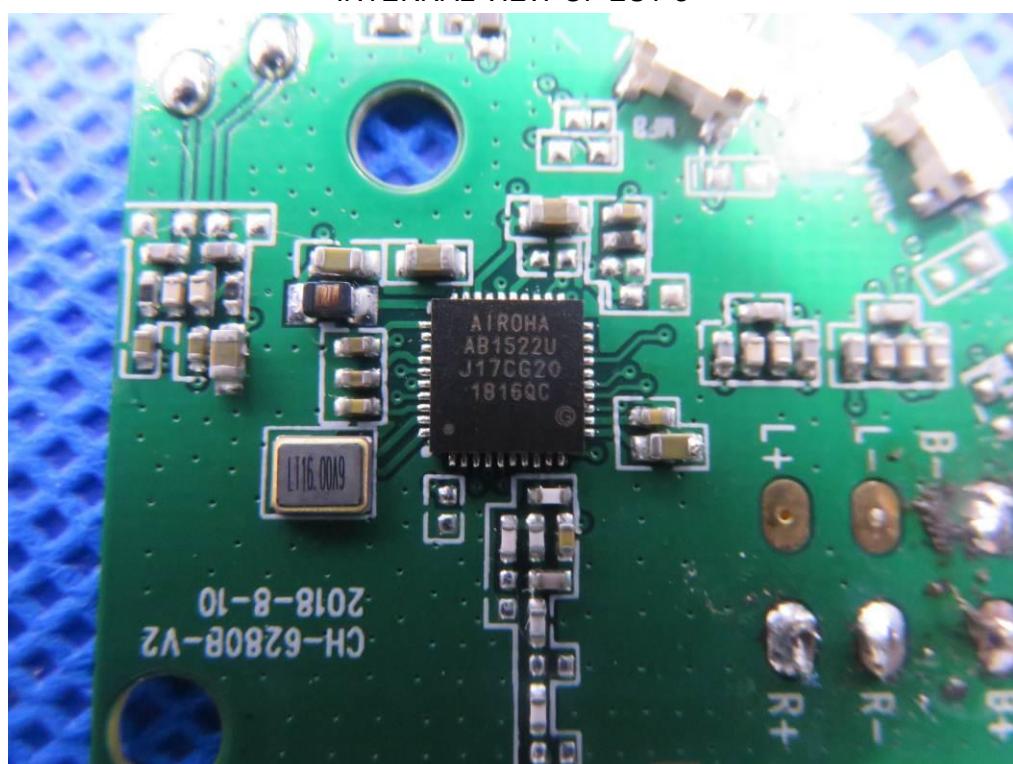




## INTERNAL VIEW OF EUT-2



## INTERNAL VIEW OF EUT-3





**All Color Sample**





**Series Model**  
**JBuddies Studio BT**  
**TOP VIEW OF EUT**



**BOTTOM VIEW OF EUT**





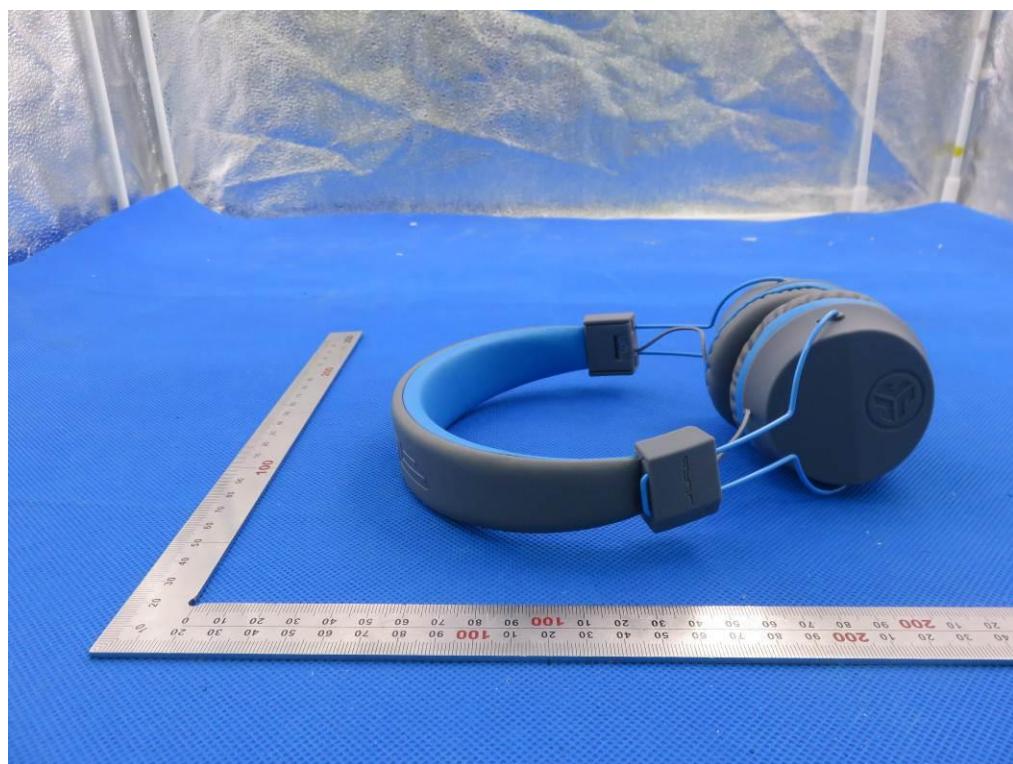
## FRONT VIEW OF EUT



## BACK VIEW OF EUT



## LEFT VIEW OF EUT



## RIGHT VIEW OF EUT





**VIEW OF EUT (PORT)**



**----END OF REPORT----**