

APPLICATION CERTIFICATION FCC Part 15C  
On Behalf of  
GUANGZHOU SHANGKE INFORMATION TECHNOLOGY CO., LTD

Tpad

Model No.: A80se, A80se Quad, A80 se, P19, G19, X19, P98, G98, X98, P90, G90, X90,  
P89, G18, X89, P86, X86, P79, G17, X79, P70, A78, A88

FCC ID: 2ACGT-A80SE

Prepared for : GUANGZHOU SHANGKE INFORMATION  
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Report Number : ATE20140804  
Date of Test : May 16-23, 2014  
Date of Report : May 23, 2014

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## Test Report Certification

Applicant : GUANGZHOU SHANGKE INFORMATION TECHNOLOGY  
CO.,LTD LIMITED

Manufacturer : GUANGZHOU SHANGKE INFORMATION TECHNOLOGY  
CO.,LTD LIMITED

EUT Description : Tpad

(A) MODEL NO.: A80se, A80se Quad, A80 se, P19, G19, X19, P98, G98,  
X98, P90, G90, X90, P89, G18, X89, P86, X86, P79, G17, X79, P70, A78,  
A88

(B) Trade Name.: Teclast

(C) POWER SUPPLY: DC 3.7V (Powered by battery) or DC 5V (Powered by  
adapter)

Measurement Procedure Used:

**FCC Rules and Regulations Part 15 Subpart C Section 15.247**  
**ANSI C63.4: 2009**

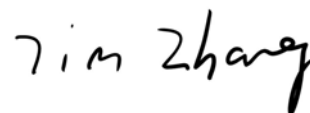
The EUT was tested according to DTS test procedure of April 09, 2013 KDB558074 D01 DTS  
Meas Guidance v03 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine  
the maximum emission levels emanating from the device. The maximum emission levels are  
compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are  
contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full  
responsibility for the accuracy and completeness of these measurements. Also, this report shows  
that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part  
without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : May 16, 2014- May 23, 2014

Prepared by :



(Tim.zhang, Engineer)

Approved & Authorized Signer :



( Sean Liu, Manager)

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

|                         |   |                                                                                                                                                                                                                                            |
|-------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EUT                     | : | Tpad                                                                                                                                                                                                                                       |
| Model Number            | : | A80se, A80se Quad, A80 se, P19, G19, X19, P98, G98, X98, P90, G90, X90, P89, G18, X89, P86, X86, P79, G17, X79, P70, A78, A88<br>Note: These samples are same except for the model number is difference. So we prepare the A80se for test. |
| Frequency Range         | : | 802.11b/g/n(20MHz): 2412-2462MHz<br>802.11n(40MHz): 2422-2452MHz                                                                                                                                                                           |
| Number of Channels      | : | 802.11b/g/n (20MHz):11<br>802.11n (40MHz): 7                                                                                                                                                                                               |
| Antenna Gain            | : | 1.0dBi                                                                                                                                                                                                                                     |
| Power Supply            | : | DC 5V (Power by adapter)&DC 3.7V(Battery)                                                                                                                                                                                                  |
| Modulation mode         | : | DSSS,OFDM                                                                                                                                                                                                                                  |
| Applicant               | : | GUANGZHOU SHANGKE INFORMATION TECHNOLOGY CO., LTD                                                                                                                                                                                          |
| Address                 | : | A1, E1, C2 Room, 17/F No. 689, GuangDa Bank Bldg., North-Tianhe Road, Tianhe District, GUANGZHOU, China.                                                                                                                                   |
| Manufacturer            | : | GUANGZHOU SHANGKE INFORMATION TECHNOLOGY CO., LTD                                                                                                                                                                                          |
| Address                 | : | A1, E1, C2 Room, 17/F No. 689, GuangDa Bank Bldg., North-Tianhe Road, Tianhe District, GUANGZHOU, China.                                                                                                                                   |
| Date of sample received | : | May 16, 2014                                                                                                                                                                                                                               |
| Date of Test            | : | May 16-23, 2014                                                                                                                                                                                                                            |

## 1.2.Carrier Frequency of Channels

802.11b, 802.11g, 802.11n (20MHz)

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 01      | 2412           | 07      | 2442           |
| 02      | 2417           | 08      | 2447           |
| 03      | 2422           | 09      | 2452           |
| 04      | 2427           | 10      | 2457           |
| 05      | 2432           | 11      | 2462           |
| 06      | 2437           | ---     | ---            |

802.11n (40MHz)

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| ---     | ---            | 07      | 2442           |
| ---     | ---            | 08      | 2447           |
| 03      | 2422           | 09      | 2452           |
| 04      | 2427           | ---     | ---            |
| 05      | 2432           | ---     | ---            |
| 06      | 2437           | ---     | ---            |

## 1.3.Special Accessory and Auxiliary Equipment

n.a.

## 1.4.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC

The Registration Number is 752051

Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee  
for Laboratories

The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.  
Science & Industry Park, Nanshan, Shenzhen, Guangdong  
P.R. China

### 1.5.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. MEASURING DEVICE AND TEST EQUIPMENT

**Table 1: List of Test and Measurement Equipment**

| Kind of equipment  | Manufacturer              | Type                                    | S/N        | Calibrated dates | Calibrated until |
|--------------------|---------------------------|-----------------------------------------|------------|------------------|------------------|
| EMI Test Receiver  | Rohde&Schwarz             | ESCS30                                  | 100307     | Jan. 11, 2014    | Jan. 10, 2015    |
| EMI Test Receiver  | Rohde&Schwarz             | ESPI3                                   | 101526/003 | Jan. 11, 2014    | Jan. 10, 2015    |
| Spectrum Analyzer  | Agilent                   | E7405A                                  | MY45115511 | Jan. 11, 2014    | Jan. 10, 2015    |
| Pre-Amplifier      | Rohde&Schwarz             | CBLU118354<br>0-01                      | 3791       | Jan. 11, 2014    | Jan. 10, 2015    |
| Loop Antenna       | Schwarzbeck               | FMZB1516                                | 1516131    | Jan. 15, 2014    | Jan. 14, 2015    |
| Bilog Antenna      | Schwarzbeck               | VULB9163                                | 9163-323   | Jan. 15, 2014    | Jan. 14, 2015    |
| Horn Antenna       | Schwarzbeck               | BBHA9120D                               | 9120D-655  | Jan. 15, 2014    | Jan. 14, 2015    |
| Horn Antenna       | Schwarzbeck               | BBHA9120D                               | 9120D-1067 | Jan. 15, 2014    | Jan. 14, 2015    |
| LISN               | Rohde&Schwarz             | ESH3-Z5                                 | 100305     | Jan. 11, 2014    | Jan. 10, 2015    |
| LISN               | Schwarzbeck               | NSLK8126                                | 8126431    | Jan. 11, 2014    | Jan. 10, 2015    |
| Highpass Filter    | Wainwright<br>Instruments | WHKX3.6/18<br>G-10SS                    | N/A        | Jan. 11, 2014    | Jan. 10, 2015    |
| Band Reject Filter | Wainwright<br>Instruments | WRCG2400/2<br>485-2375/2510<br>-60/11SS | N/A        | Jan. 11, 2014    | Jan. 10, 2015    |

### 3. OPERATION OF EUT DURING TESTING

#### 3.1.Operating Mode

The mode is used: **1.802.11b Transmitting mode**

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

**2.802.11g Transmitting mode**

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

**3.802.11n (20MHz) Transmitting mode**

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

**4.802.11n (40MHz) Transmitting mode**

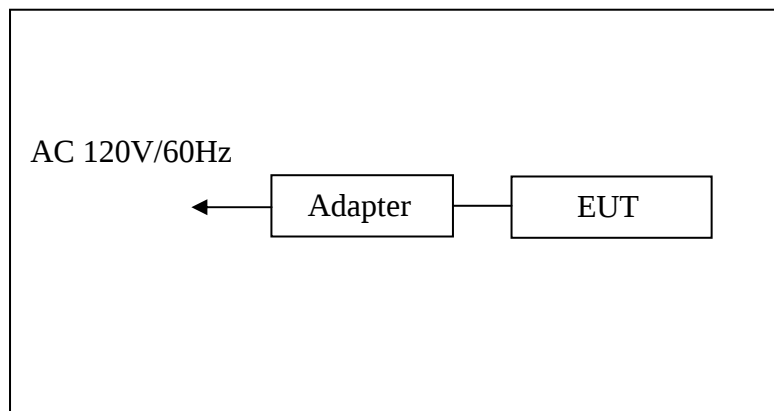
Low Channel: 2422MHz

Middle Channel: 2437MHz

High Channel: 2452MHz

**5. Charging**

#### 3.2.Configuration and peripherals

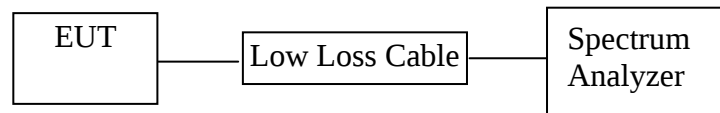


#### 4. TEST PROCEDURES AND RESULTS

| FCC Rules                           | Description of Test                   | Result    |
|-------------------------------------|---------------------------------------|-----------|
| Section 15.247(a)(2)                | 6dB Bandwidth Test                    | Compliant |
| Section 15.247(e)                   | Power Spectral Density Test           | Compliant |
| Section 15.247(b)(3)                | Maximum Peak Output Power Test        | Compliant |
| Section 15.247(d)                   | Band Edge Compliance Test             | Compliant |
| Section 15.247(d)<br>Section 15.209 | Radiated Spurious Emission Test       | Compliant |
| Section 15.247(d)                   | Conducted Spurious Emission Test      | Compliant |
| Section 15.207                      | AC Power Line Conducted Emission Test | Compliant |
| Section 15.203                      | Antenna Requirement                   | Compliant |

## 5. 6DB BANDWIDTH MEASUREMENT

### 5.1. Block Diagram of Test Setup



### 5.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

### 5.3. EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 5.4. Operating Condition of EUT

5.4.1. Setup the EUT and simulator as shown as Section 5.1.

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

### 5.5. Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz.
2. Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

## 5.6.Test Result

| The test was performed with 802.11b |                 |                     |             |
|-------------------------------------|-----------------|---------------------|-------------|
| Channel                             | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) |
| Low                                 | 2412            | 10.12               | > 0.5MHz    |
| Middle                              | 2437            | 10.12               | > 0.5MHz    |
| High                                | 2462            | 10.12               | > 0.5MHz    |

| The test was performed with 802.11g |                 |                     |             |
|-------------------------------------|-----------------|---------------------|-------------|
| Channel                             | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) |
| Low                                 | 2412            | 16.60               | > 0.5MHz    |
| Middle                              | 2437            | 16.60               | > 0.5MHz    |
| High                                | 2462            | 16.60               | > 0.5MHz    |

| The test was performed with 802.11n (Bandwidth: 20 MHz) |                 |                     |             |
|---------------------------------------------------------|-----------------|---------------------|-------------|
| Channel                                                 | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) |
| Low                                                     | 2412            | 17.88               | > 0.5MHz    |
| Middle                                                  | 2437            | 17.88               | > 0.5MHz    |
| High                                                    | 2462            | 17.88               | > 0.5MHz    |

| The test was performed with 802.11n (Bandwidth: 40 MHz) |                 |                     |             |
|---------------------------------------------------------|-----------------|---------------------|-------------|
| Channel                                                 | Frequency (MHz) | 6dB Bandwidth (MHz) | Limit (MHz) |
| Low                                                     | 2422            | 36.56               | > 0.5MHz    |
| Middle                                                  | 2437            | 36.56               | > 0.5MHz    |
| High                                                    | 2452            | 36.56               | > 0.5MHz    |

The spectrum analyzer plots are attached as below.

1 PK MAXH

Ref 20 dBm Att 50 dB RBW 100 kHz VBW 300 kHz SWT 2.5 ms Delta 3 [T1 ] -6.28 dB 5.560000000 MHz

Marker 1 [T1 ] -3.92 dBm 2.415200000 GHz Delta 2 [T1 ] -6.02 dB -4.560000000 MHz

Center 2.412 GHz 2 MHz/ Span 20 MHz

\*RBW 100 kHz Delta 3 [T1 ]  
 \*VBW 300 kHz -5.87 dB  
 SWT 2.5 ms 5.560000000 MHz

Ref 20 dBm Att 50 dB

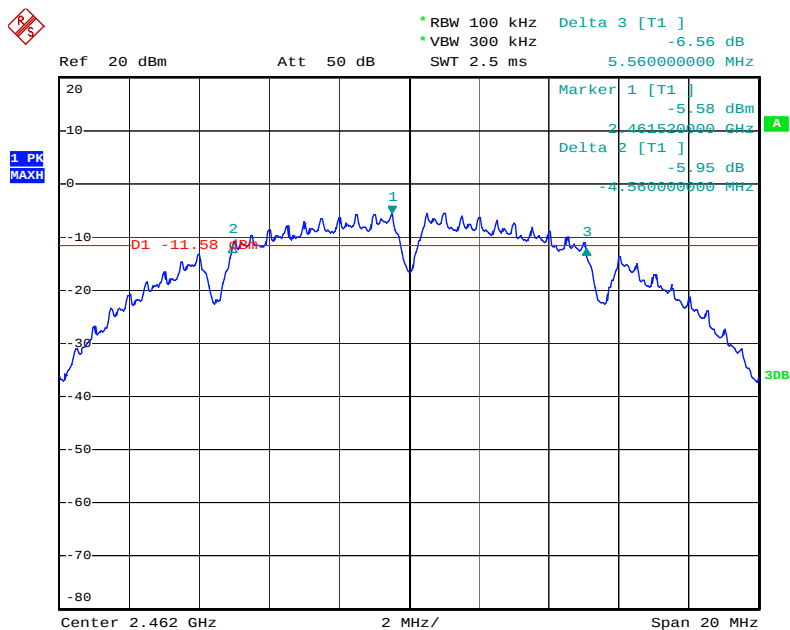
1 PK MAXH

Marker 1 [T1 ] -4.73 dBm  
 2 436520000 GHz  
 Delta 2 [T1 ] -6.15 dB  
 -4.500000000 MHz

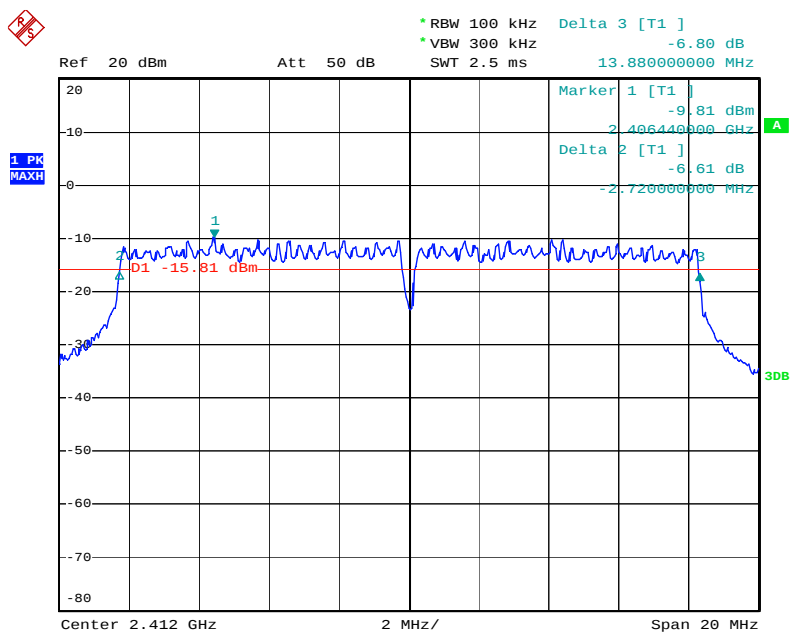
3DB

Center 2.437 GHz 2 MHz/ Span 20 MHz

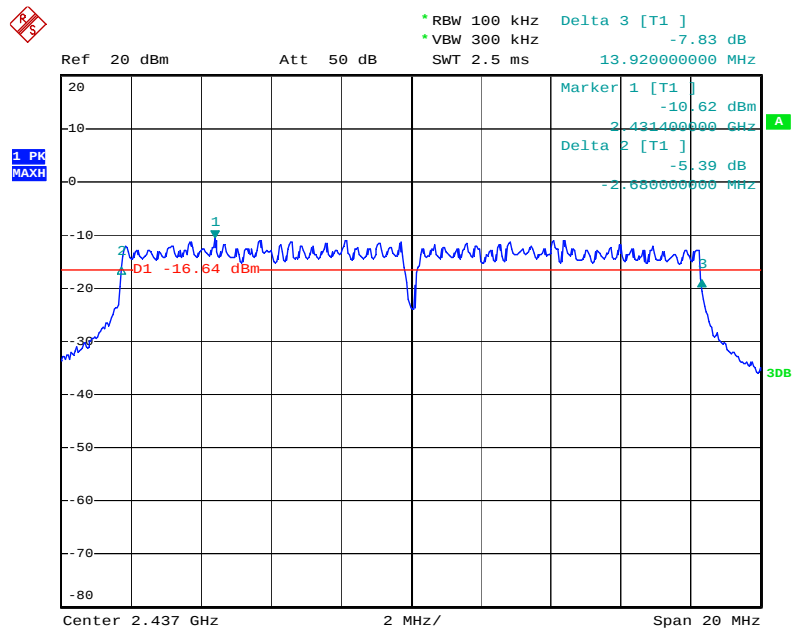
## 802.11b Channel High 2462MHz



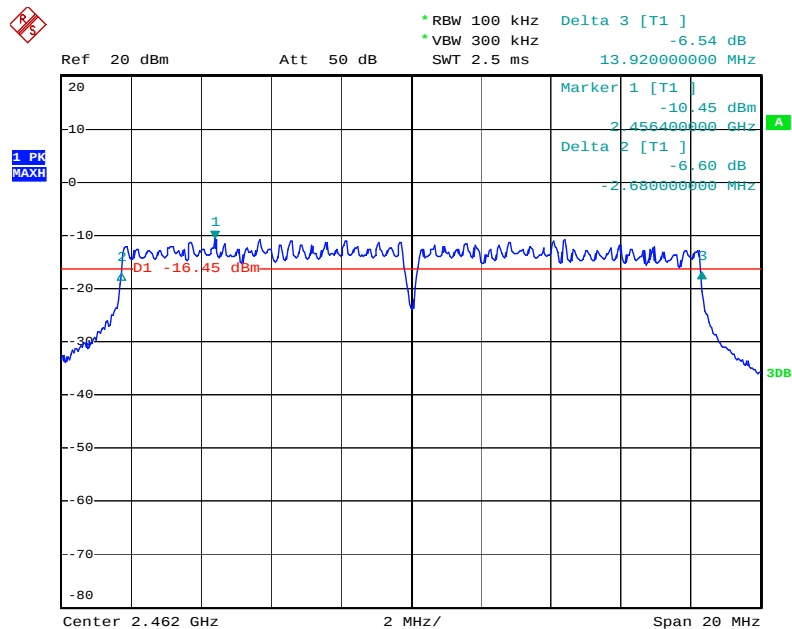
## 802.11g Channel Low 2412MHz



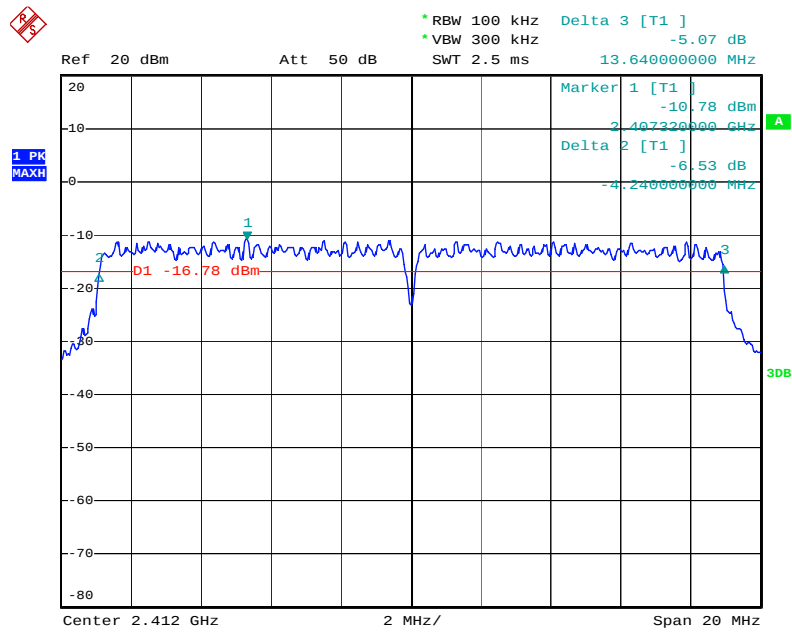
## 802.11g Channel Middle 2437MHz



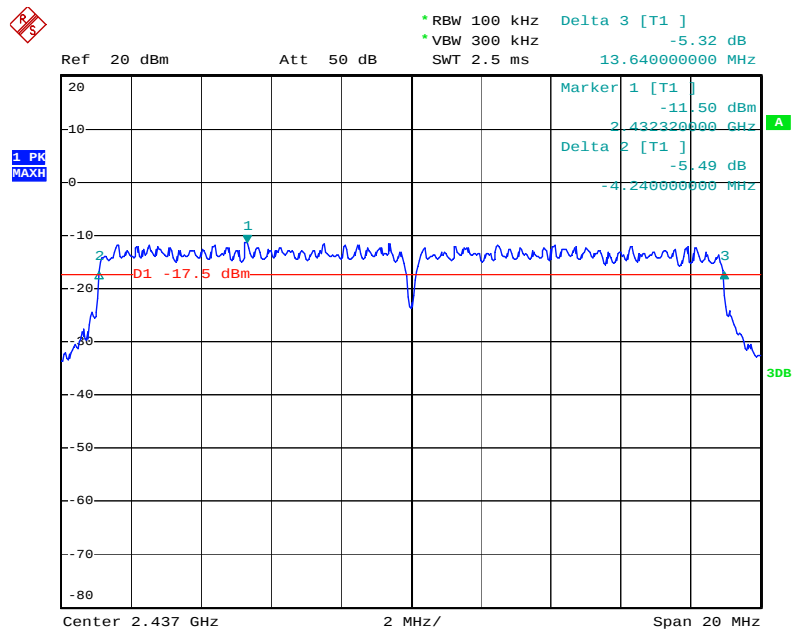
## 802.11g Channel High 2462MHz



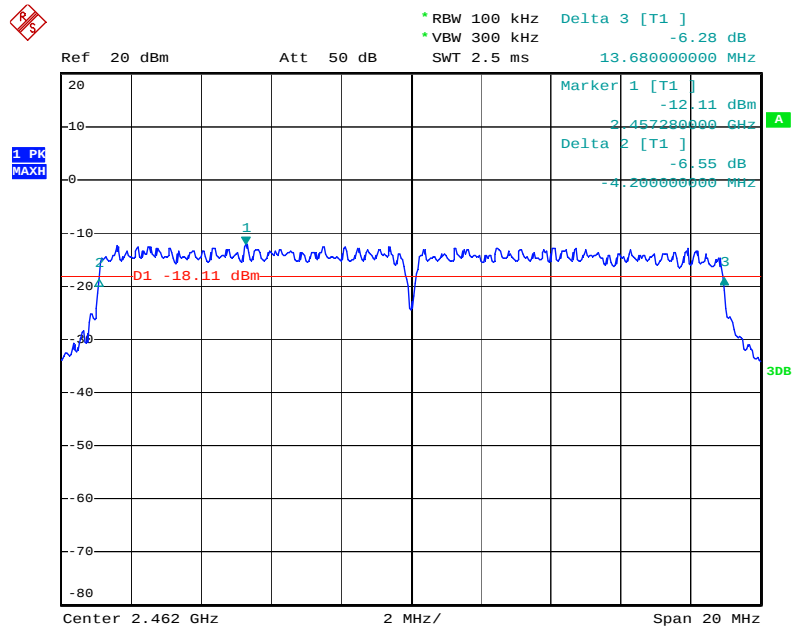
## 802.11n Channel Low 2412MHz (20MHz)



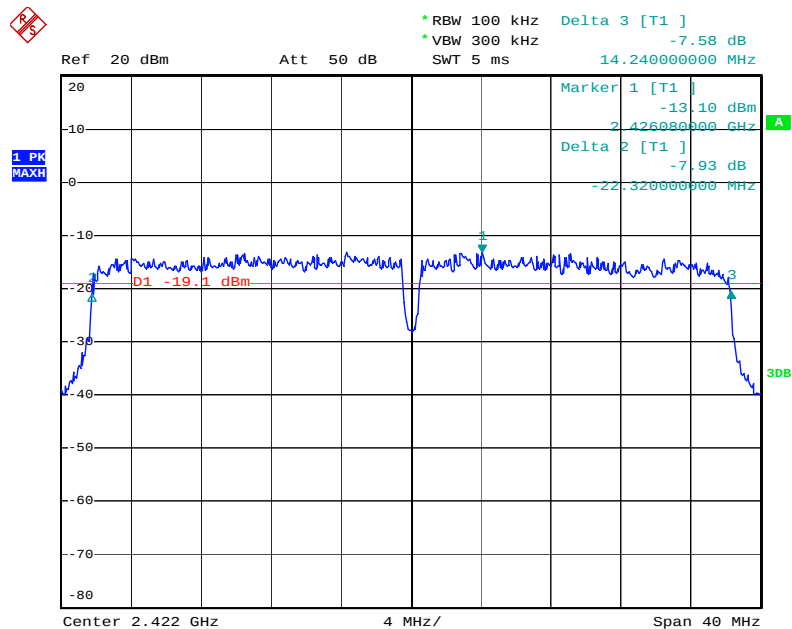
## 802.11n Channel Middle 2437MHz(20MHz)



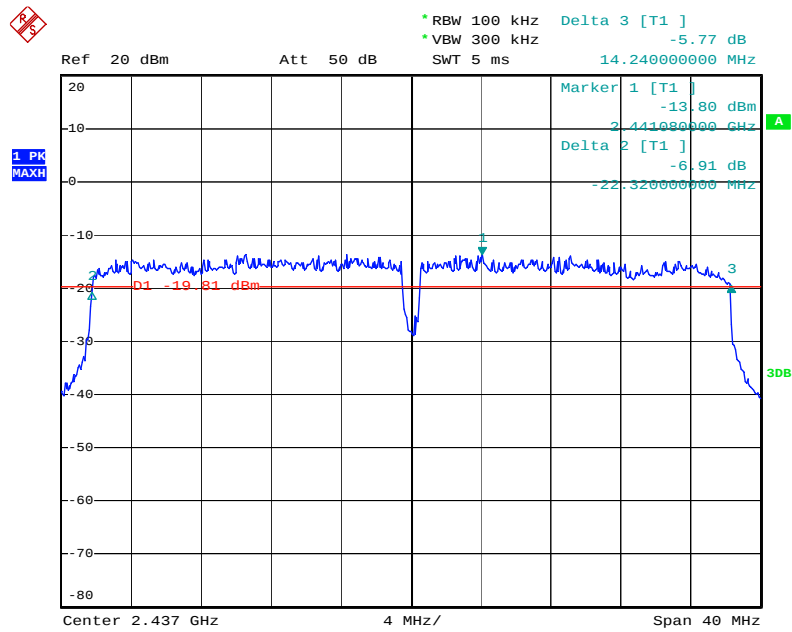
## 802.11n Channel High 2462MHz(20MHz)



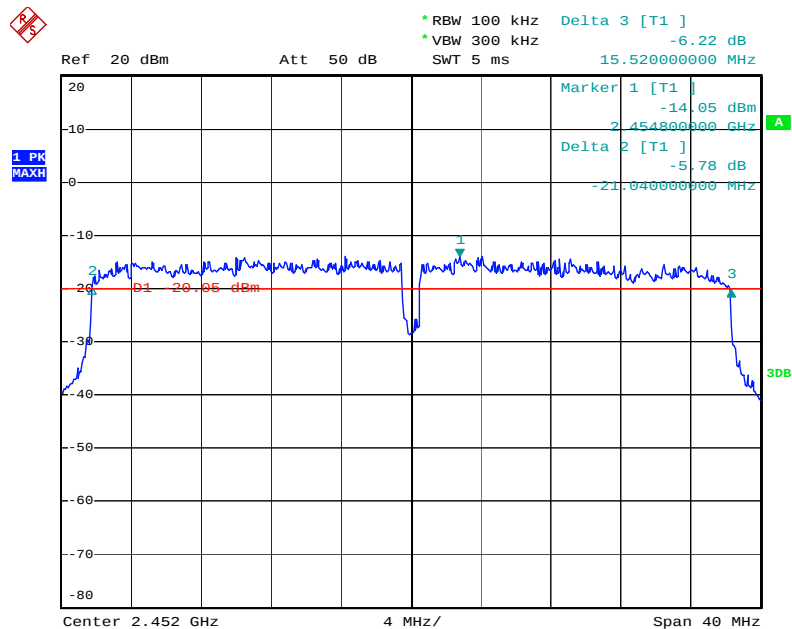
## 802.11n Channel Low 2422MHz (40MHz)



### 802.11n Channel Middle 2437MHz(40MHz)



### 802.11n Channel High 2452MHz(40MHz)



## 6. MAXIMUM PEAK OUTPUT POWER

### 6.1. Block Diagram of Test Setup



### 6.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

### 6.3. EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

### 6.5. Test Procedure

6.5.1. The EUT was tested according to DTS test procedure of April 09, 2013 KDB558074 D01 DTS Meas Guidance v03 for compliance to FCC 47CFR 15.247 requirements.

6.5.2. The transmitter output was connected to the spectrum analyzer through a low loss cable.

6.5.3. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.

6.5.4. Measurement the maximum peak output power.

## 6.6.Test Result

| The test was performed with 802.11b |                 |                         |                        |                |
|-------------------------------------|-----------------|-------------------------|------------------------|----------------|
| Channel                             | Frequency (MHz) | Peak Output Power (dBm) | Peak Output Power (mW) | Limits dBm / W |
| Low                                 | 2412            | 9.11                    | 8.15                   | 30 dBm / 1 W   |
| Middle                              | 2437            | 8.76                    | 7.52                   | 30 dBm / 1 W   |
| High                                | 2462            | 8.08                    | 6.43                   | 30 dBm / 1 W   |

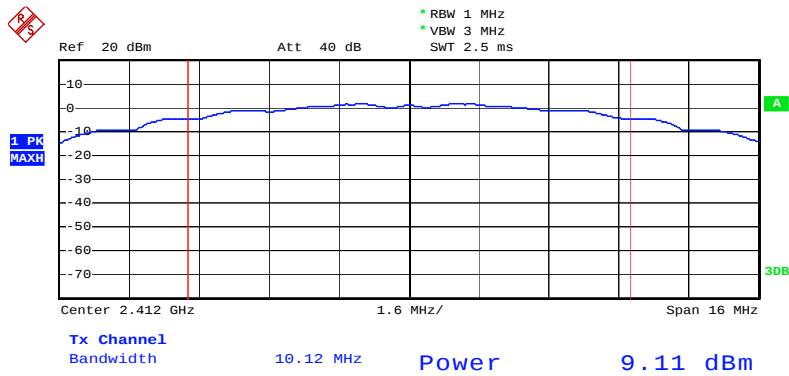
| The test was performed with 802.11g |                 |                         |                        |                |
|-------------------------------------|-----------------|-------------------------|------------------------|----------------|
| Channel                             | Frequency (MHz) | Peak Output Power (dBm) | Peak Output Power (mW) | Limits dBm / W |
| Low                                 | 2412            | 7.94                    | 6.22                   | 30 dBm / 1 W   |
| Middle                              | 2437            | 7.81                    | 6.04                   | 30 dBm / 1 W   |
| High                                | 2462            | 7.47                    | 5.58                   | 30 dBm / 1 W   |

| The test was performed with 802.11n (20MHz) |                 |                         |                        |                |
|---------------------------------------------|-----------------|-------------------------|------------------------|----------------|
| Channel                                     | Frequency (MHz) | Peak Output Power (dBm) | Peak Output Power (mW) | Limits dBm / W |
| Low                                         | 2412            | 7.73                    | 5.93                   | 30 dBm / 1 W   |
| Middle                                      | 2437            | 7.19                    | 5.24                   | 30 dBm / 1 W   |
| High                                        | 2462            | 6.71                    | 4.69                   | 30 dBm / 1 W   |

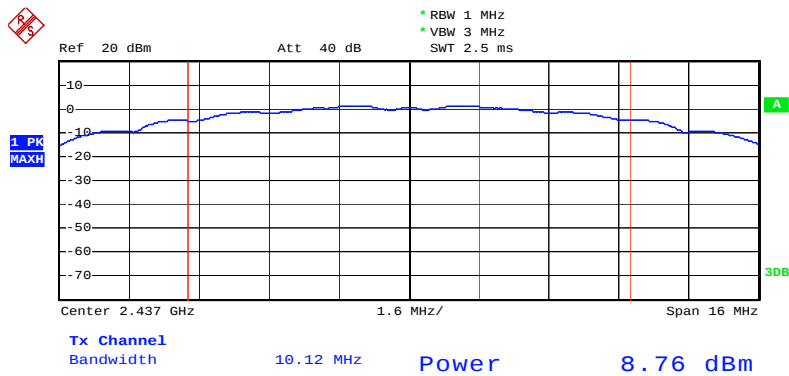
| The test was performed with 802.11n (40MHz) |                 |                         |                        |                |
|---------------------------------------------|-----------------|-------------------------|------------------------|----------------|
| Channel                                     | Frequency (MHz) | Peak Output Power (dBm) | Peak Output Power (mW) | Limits dBm / W |
| Low                                         | 2422            | 7.48                    | 5.60                   | 30 dBm / 1 W   |
| Middle                                      | 2437            | 7.08                    | 5.11                   | 30 dBm / 1 W   |
| High                                        | 2452            | 6.11                    | 4.08                   | 30 dBm / 1 W   |

The spectrum analyzer plots are attached as below.

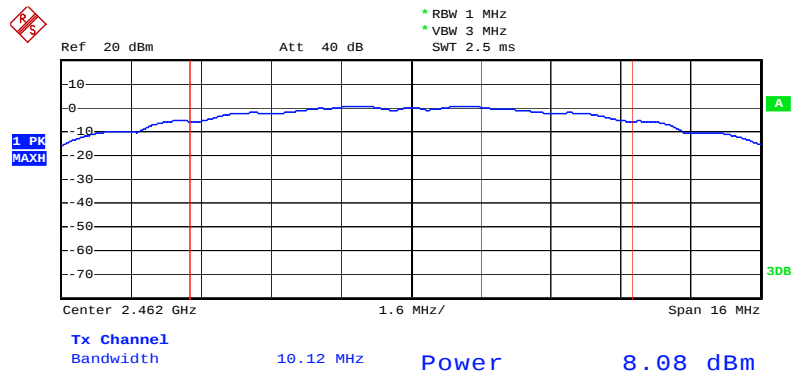
## 802.11b Channel Low 2412MHz



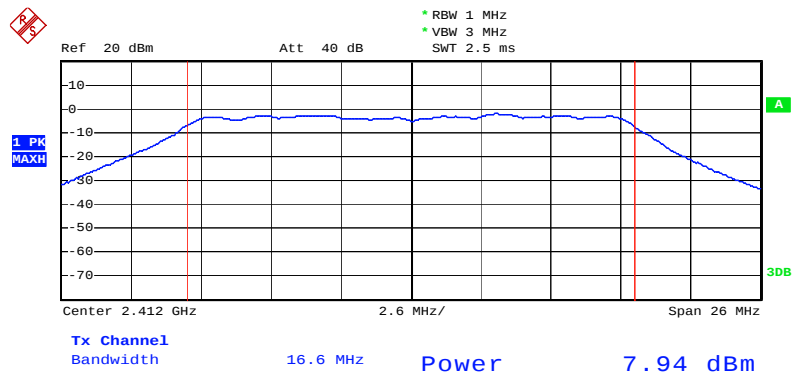
## 802.11b Channel Middle 2437MHz



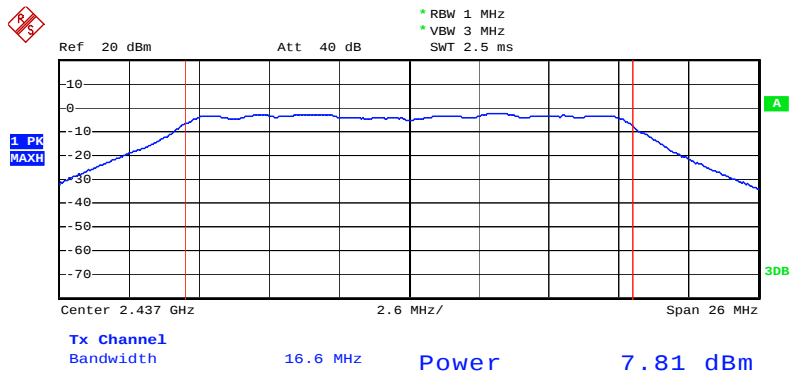
## 802.11b Channel High 2462MHz



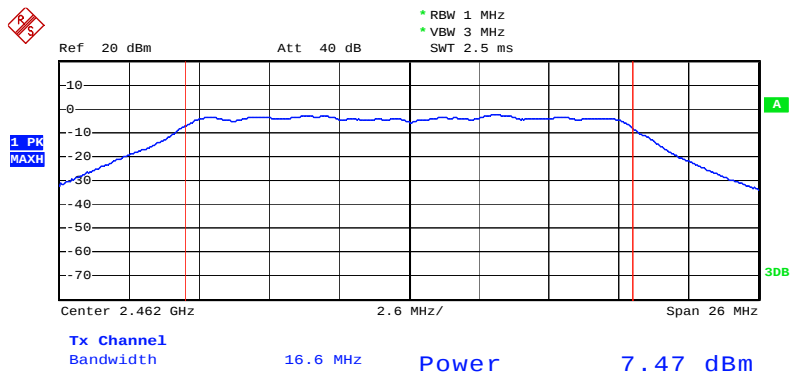
## 802.11g Channel Low 2412MHz



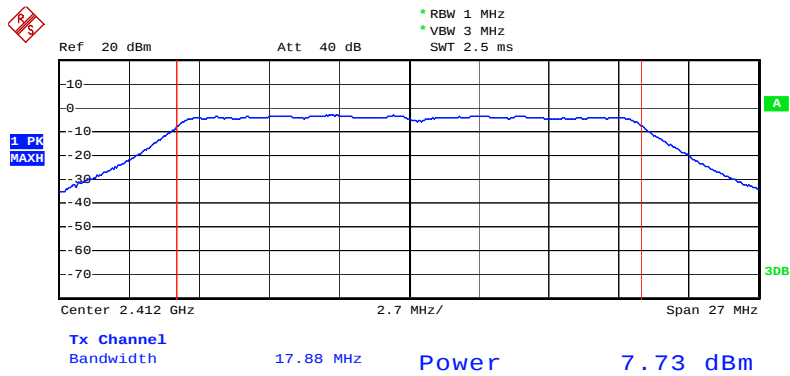
### 802.11g Channel Middle 2437MHz



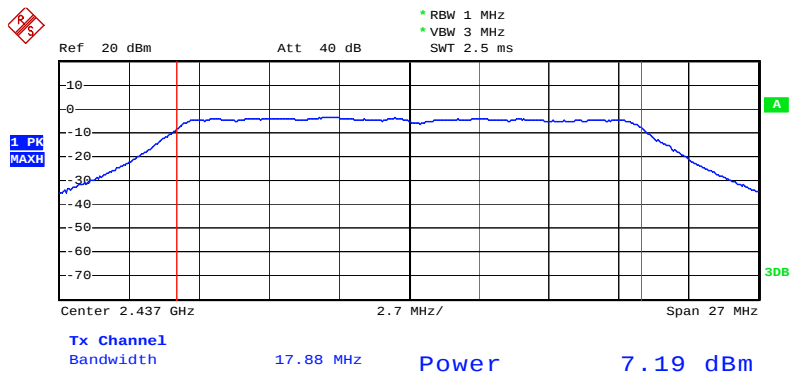
### 802.11g Channel High 2462MHz



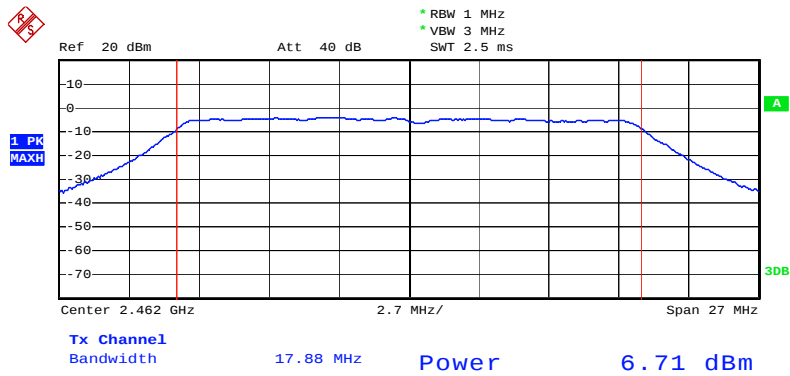
### 802.11n Channel Low 2412MHz (20MHz)



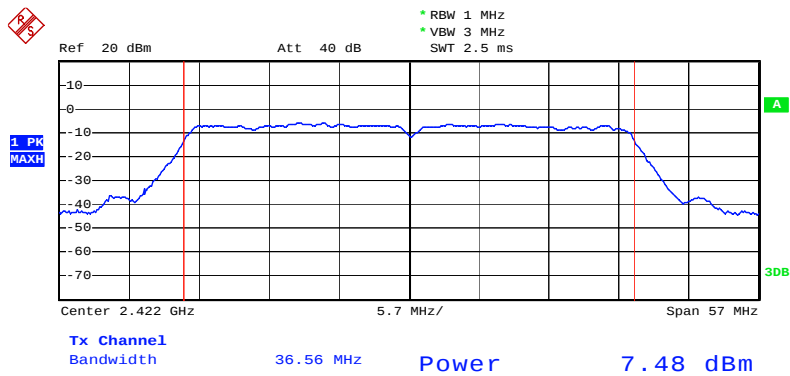
### 802.11n Channel Middle 2437MHz (20MHz)



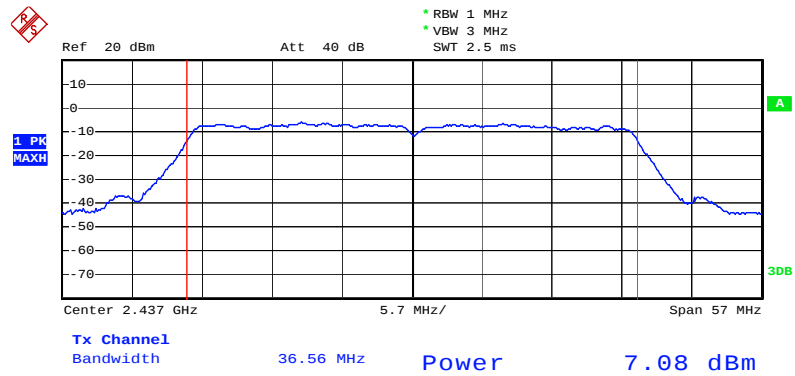
## 802.11n Channel High 2462MHz (20MHz)



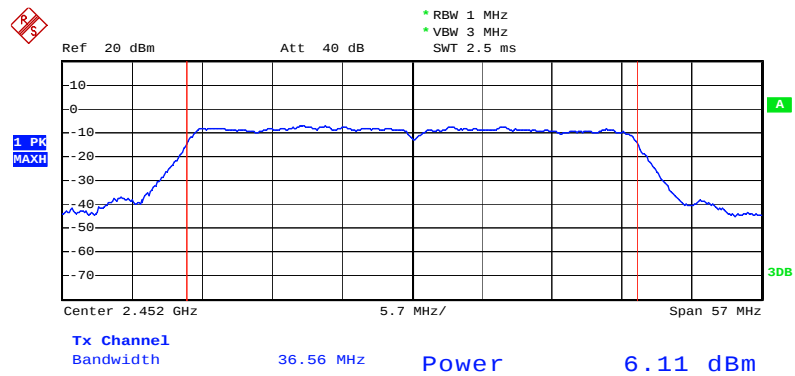
## 802.11n Channel Low 2422MHz (40MHz)



## 802.11n Channel Middle 2437MHz (40MHz)

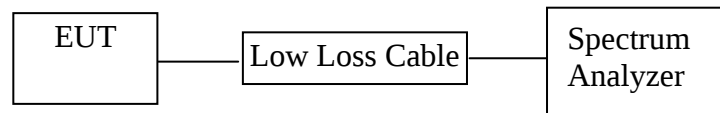


## 802.11n Channel High 2452MHz (40MHz)



## 7. POWER SPECTRAL DENSITY MEASUREMENT

### 7.1. Block Diagram of Test Setup



### 7.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### 7.3. EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

### 7.5. Test Procedure

7.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.2. Measurement Procedure PKPSD:

This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.

3. Set the RBW  $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ .
4. Set the VBW  $\geq 3 \times \text{RBW}$ .
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

7.5.3.Measurement the maximum power spectral density.

## 7.6.Test Result

| The test was performed with 802.11b |                 |                              |              |
|-------------------------------------|-----------------|------------------------------|--------------|
| Channel                             | Frequency (MHz) | Power Spectral Density (dBm) | Limits (dBm) |
| Low                                 | 2412            | -23.99                       | 8 dBm        |
| Middle                              | 2437            | -24.69                       | 8 dBm        |
| High                                | 2462            | -27.49                       | 8 dBm        |

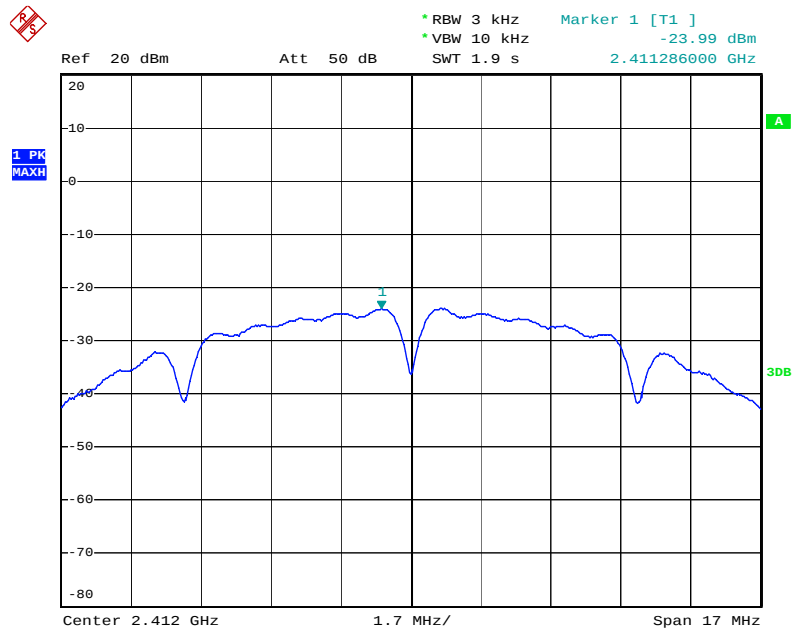
| The test was performed with 802.11g |                 |                              |              |
|-------------------------------------|-----------------|------------------------------|--------------|
| Channel                             | Frequency (MHz) | Power Spectral Density (dBm) | Limits (dBm) |
| Low                                 | 2412            | -26.26                       | 8 dBm        |
| Middle                              | 2437            | -26.62                       | 8 dBm        |
| High                                | 2462            | -27.19                       | 8 dBm        |

| The test was performed with 802.11n (20MHz) |                 |                              |              |
|---------------------------------------------|-----------------|------------------------------|--------------|
| Channel                                     | Frequency (MHz) | Power Spectral Density (dBm) | Limits (dBm) |
| Low                                         | 2412            | -26.17                       | 8 dBm        |
| Middle                                      | 2437            | -27.60                       | 8 dBm        |
| High                                        | 2462            | -27.19                       | 8 dBm        |

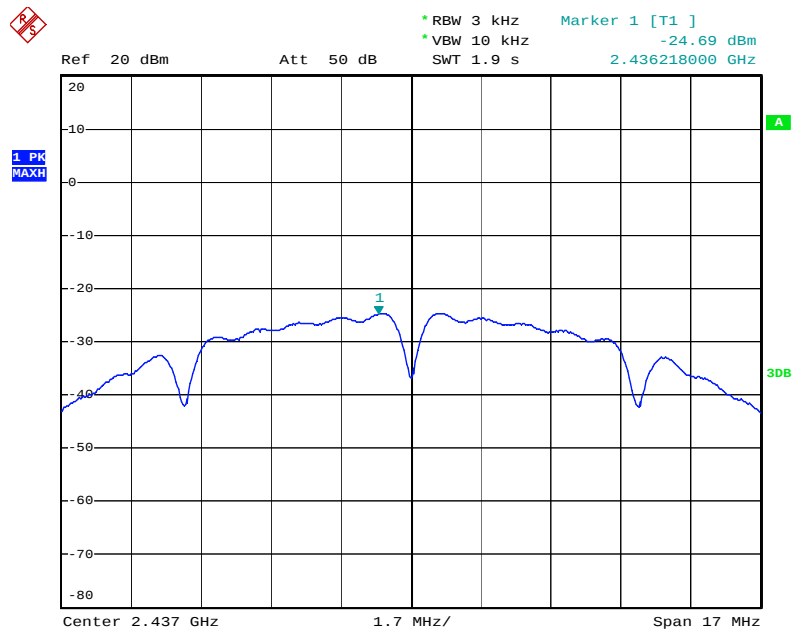
| The test was performed with 802.11n (40MHz) |                 |                              |              |
|---------------------------------------------|-----------------|------------------------------|--------------|
| Channel                                     | Frequency (MHz) | Power Spectral Density (dBm) | Limits (dBm) |
| Low                                         | 2422            | -28.45                       | 8 dBm        |
| Middle                                      | 2437            | -29.09                       | 8 dBm        |
| High                                        | 2452            | -29.40                       | 8 dBm        |

The spectrum analyzer plots are attached as below.

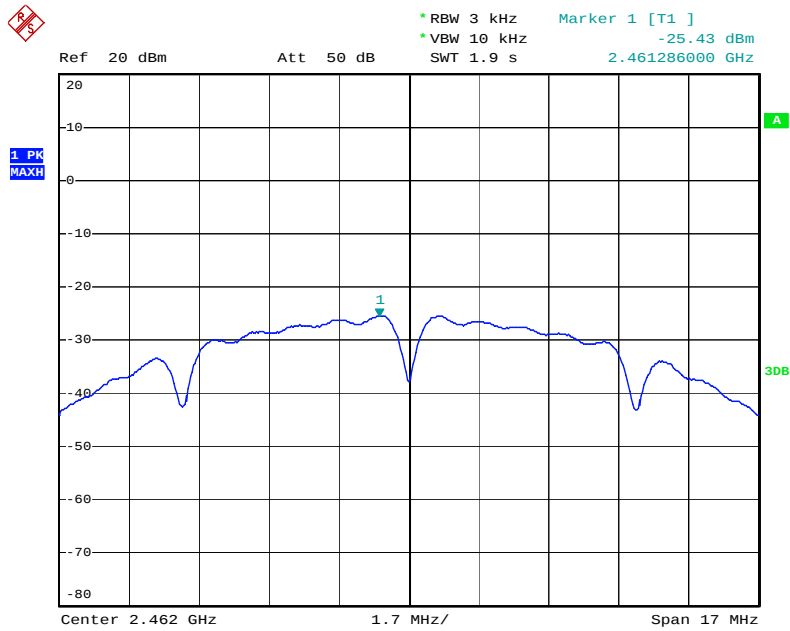
### 802.11b Channel Low 2412MHz



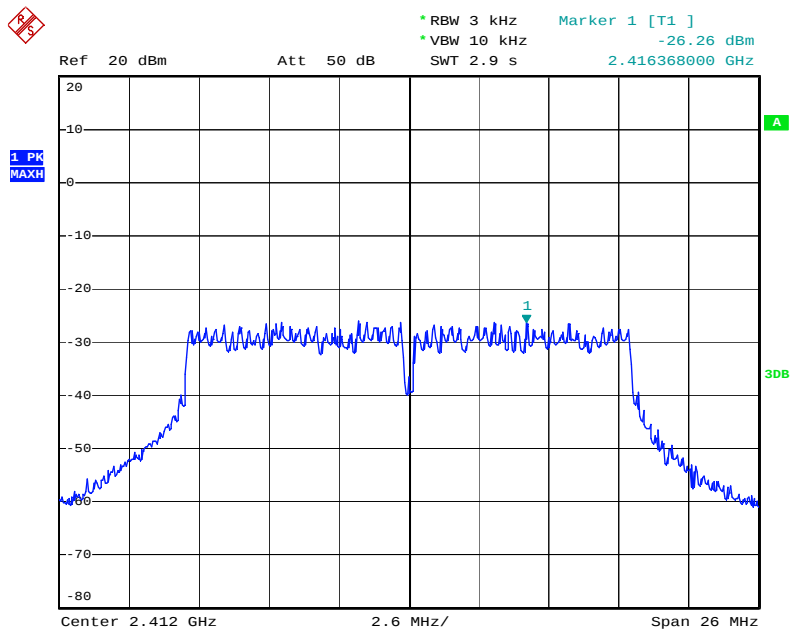
### 802.11b Channel Middle 2437MHz



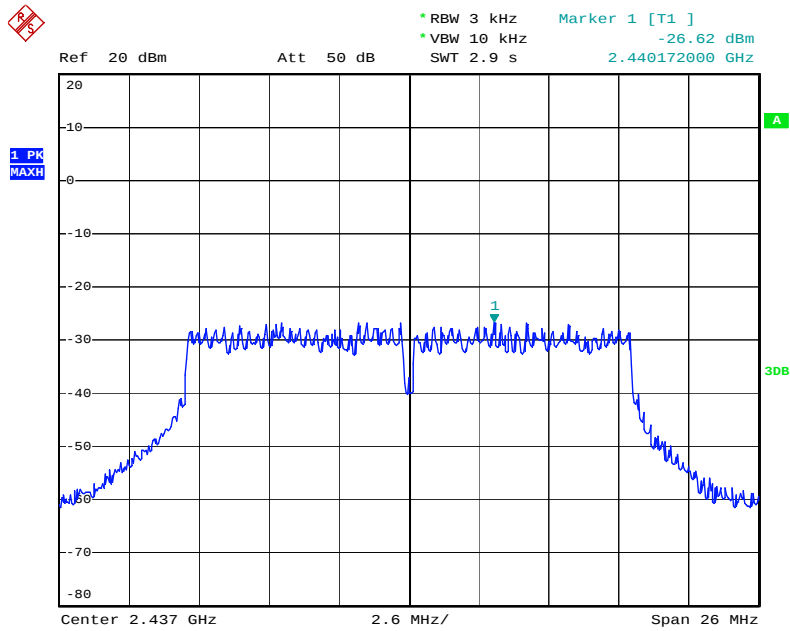
## 802.11b Channel High 2462MHz



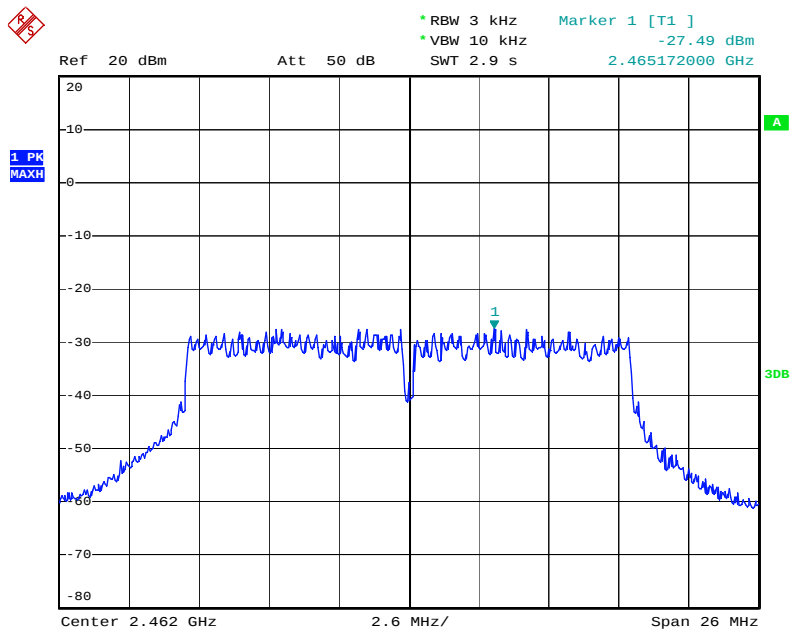
## 802.11g Channel Low 2412MHz



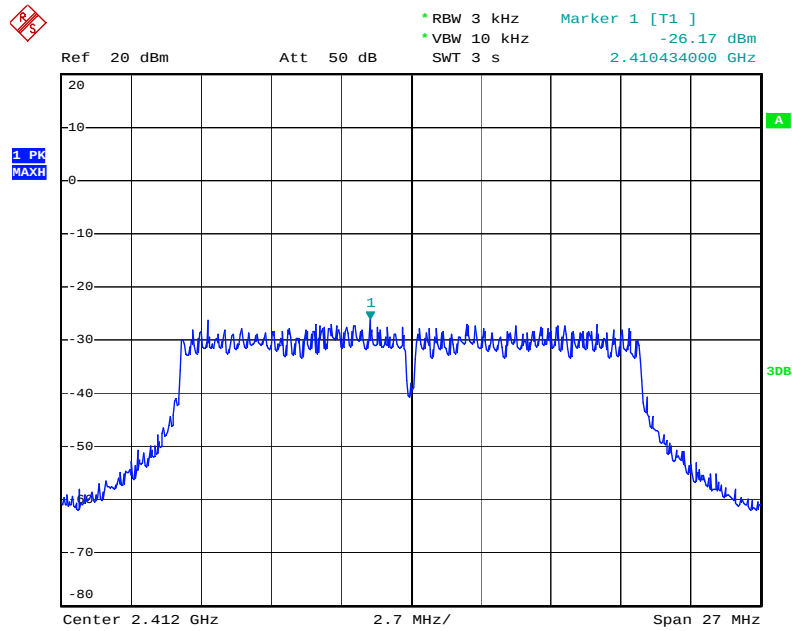
### 802.11g Channel Middle 2437MHz



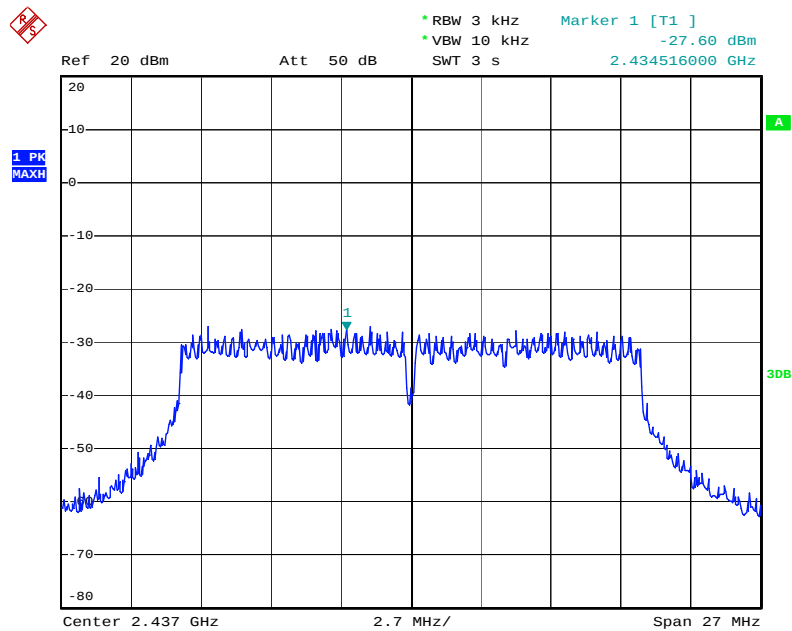
### 802.11g Channel High 2462MHz



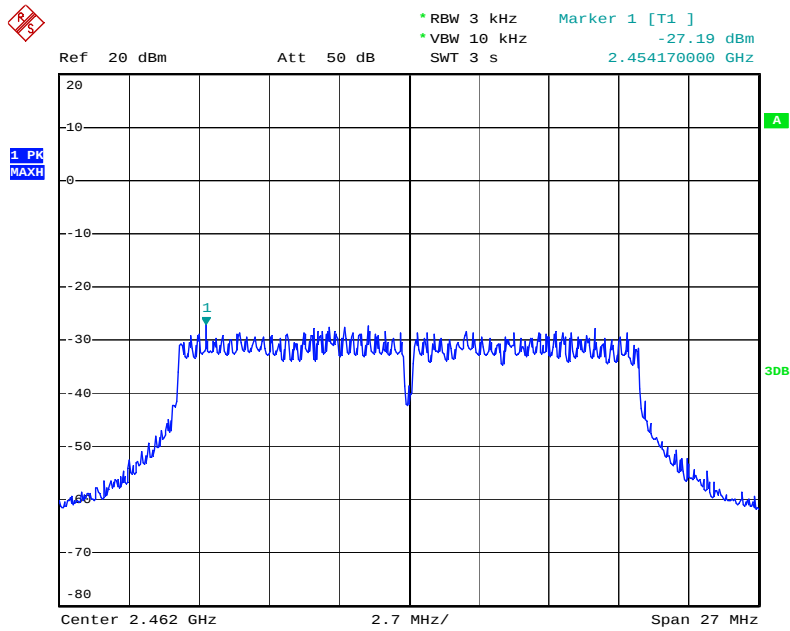
### 802.11n Channel Low 2412MHz (20MHz)



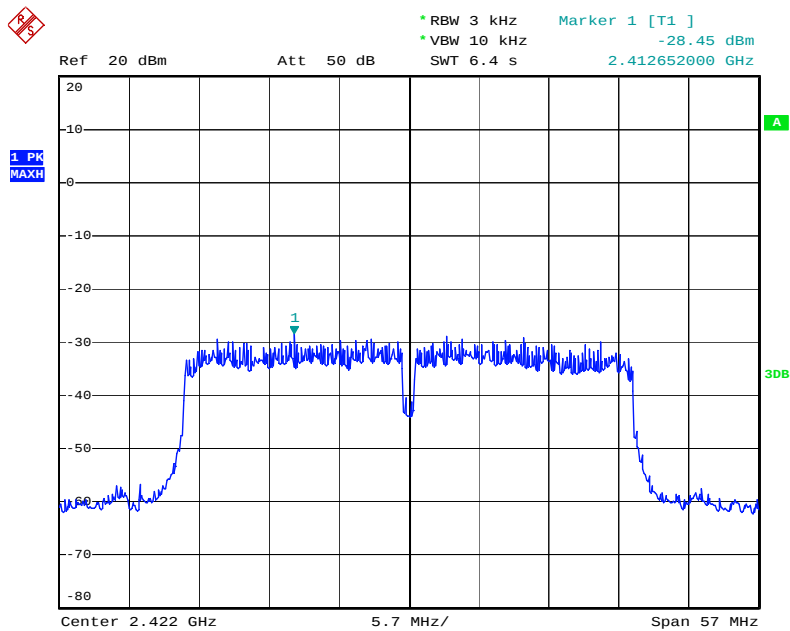
### 802.11n Channel Middle 2437MHz (20MHz)



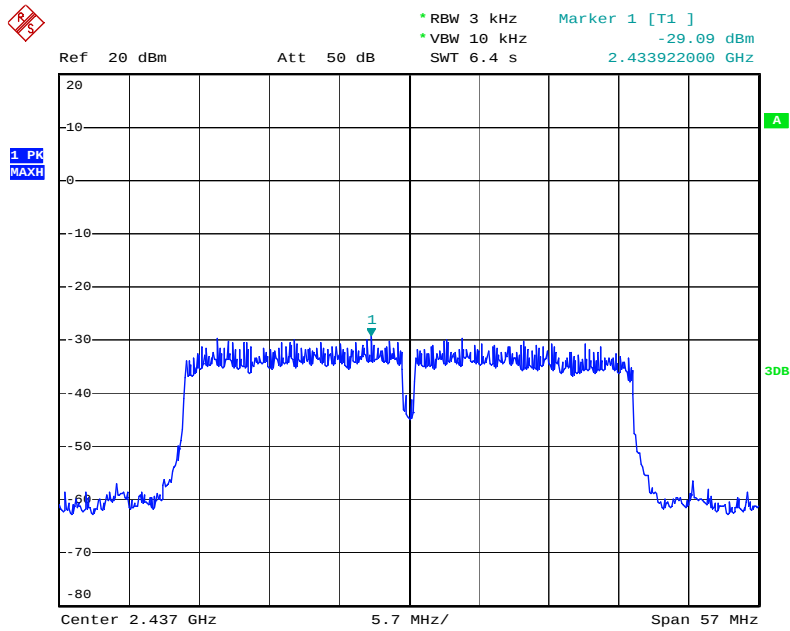
## 802.11n Channel High 2462MHz(20MHz)



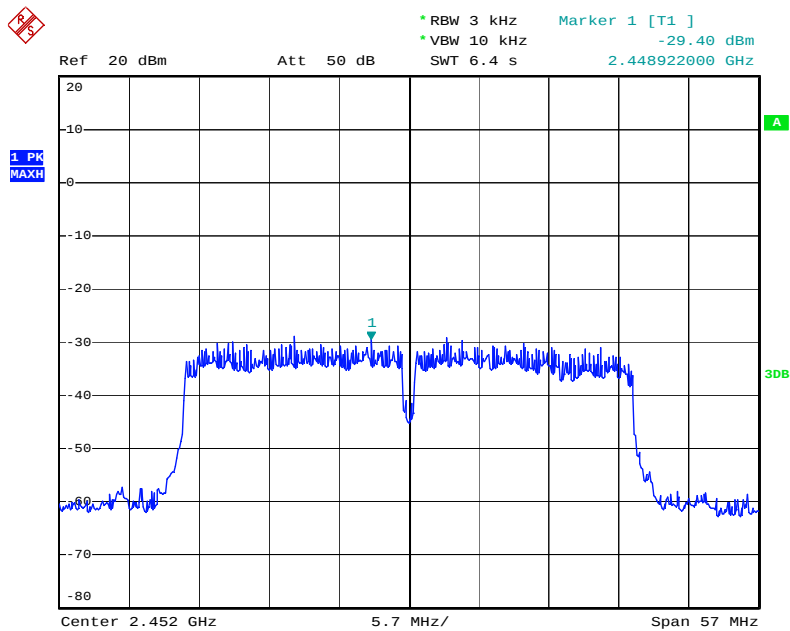
## 802.11n Channel Low 2422MHz (40MHz)



## 802.11n Channel Middle 2437MHz(40MHz)



## 802.11n Channel High 2452MHz(40MHz)



## 8. BAND EDGE COMPLIANCE TEST

### 8.1. Block Diagram of Test Setup



### 8.2. The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

### 8.3. EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 8.4. Operating Condition of EUT

8.4.1. Setup the EUT and simulator as shown as Section 8.1.

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz MHz. We select 2412MHz, 2462MHz and 2422MHz, 2452MHz TX frequency to transmit.

### 8.5. Test Procedure

Conducted Band Edge:

8.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.

8.5.2. Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.

Radiate Band Edge:

8.5.3. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

8.5.4. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

8.5.5. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

8.5.6. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

RBW=1MHz, VBW=1MHz

8.5.7. The band edges were measured and recorded.

## 8.6. Test Result

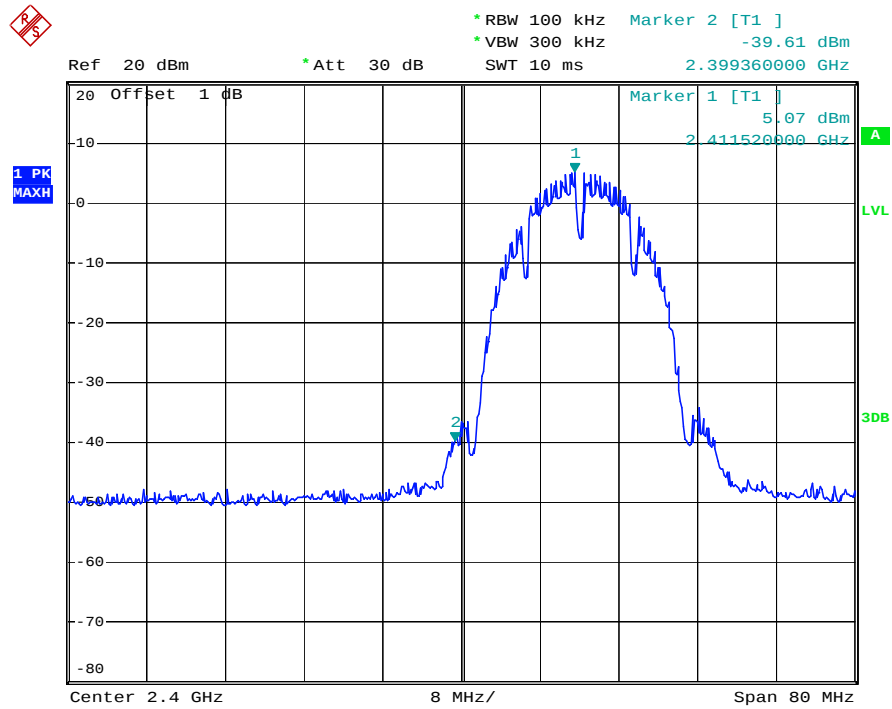
| The test was performed with 802.11b |                           |                          |
|-------------------------------------|---------------------------|--------------------------|
| Frequency (MHz)                     | Result of Band Edge (dBc) | Limit of Band Edge (dBc) |
| 2412                                | 44.68                     | > 20dBc                  |
| 2462                                | 52.87                     | > 20dBc                  |

| The test was performed with 802.11g |                           |                          |
|-------------------------------------|---------------------------|--------------------------|
| Frequency (MHz)                     | Result of Band Edge (dBc) | Limit of Band Edge (dBc) |
| 2412                                | 34.95                     | > 20dBc                  |
| 2462                                | 40.66                     | > 20dBc                  |

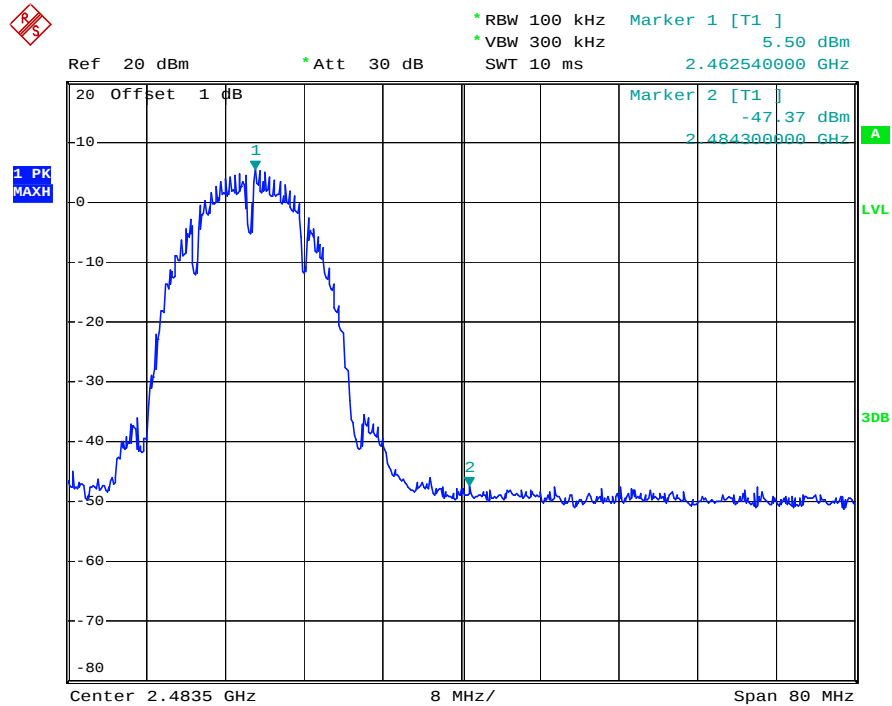
| The test was performed with 802.11n (20MHz) |                           |                          |
|---------------------------------------------|---------------------------|--------------------------|
| Frequency (MHz)                             | Result of Band Edge (dBc) | Limit of Band Edge (dBc) |
| 2412                                        | 36.25                     | > 20dBc                  |
| 2462                                        | 41.87                     | > 20dBc                  |

| The test was performed with 802.11n (40MHz) |                           |                          |
|---------------------------------------------|---------------------------|--------------------------|
| Frequency (MHz)                             | Result of Band Edge (dBc) | Limit of Band Edge (dBc) |
| 2422                                        | 31.15                     | > 20dBc                  |
| 2452                                        | 37.70                     | > 20dBc                  |

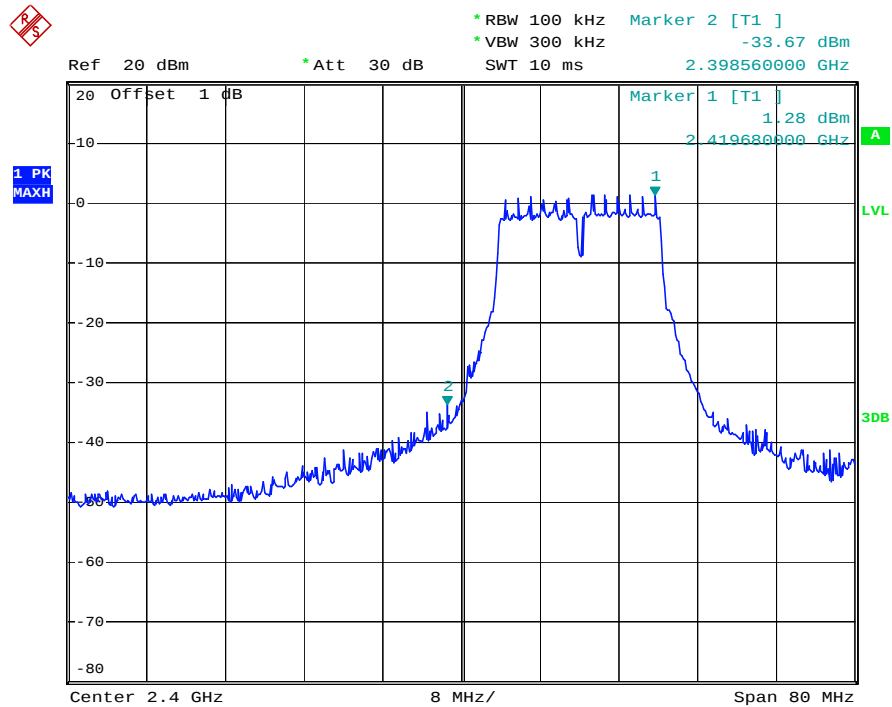
## 802.11b Channel Low 2412MHz



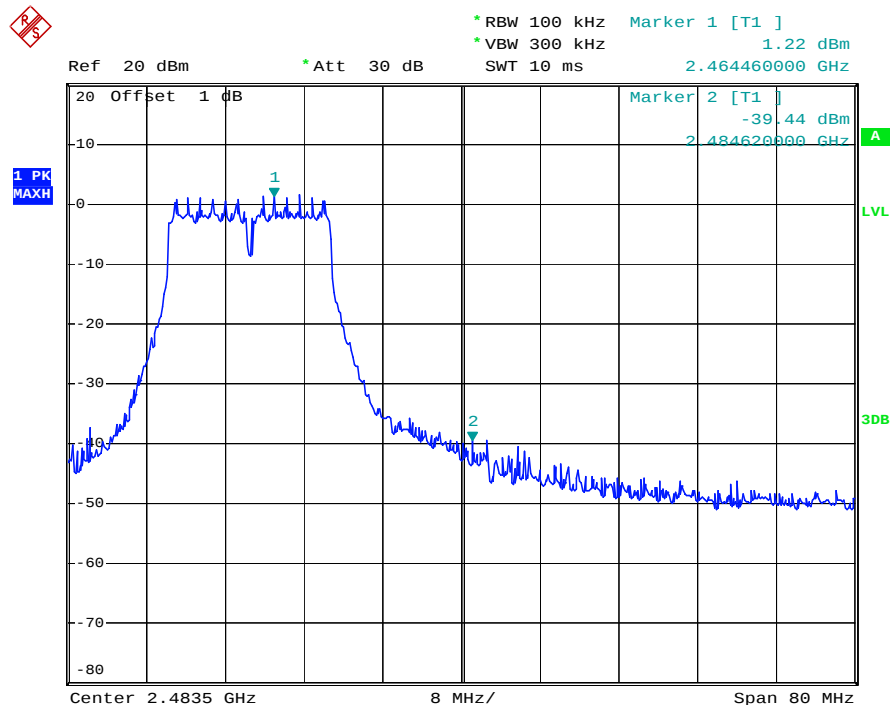
## 802.11b Channel High 2462MHz



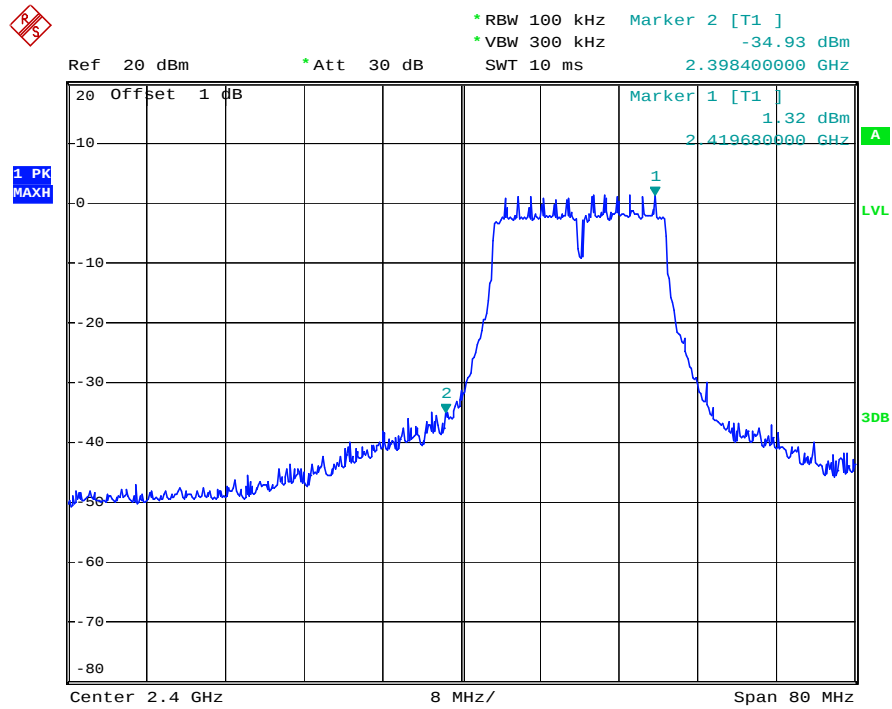
## 802.11g Channel Low 2412MHz



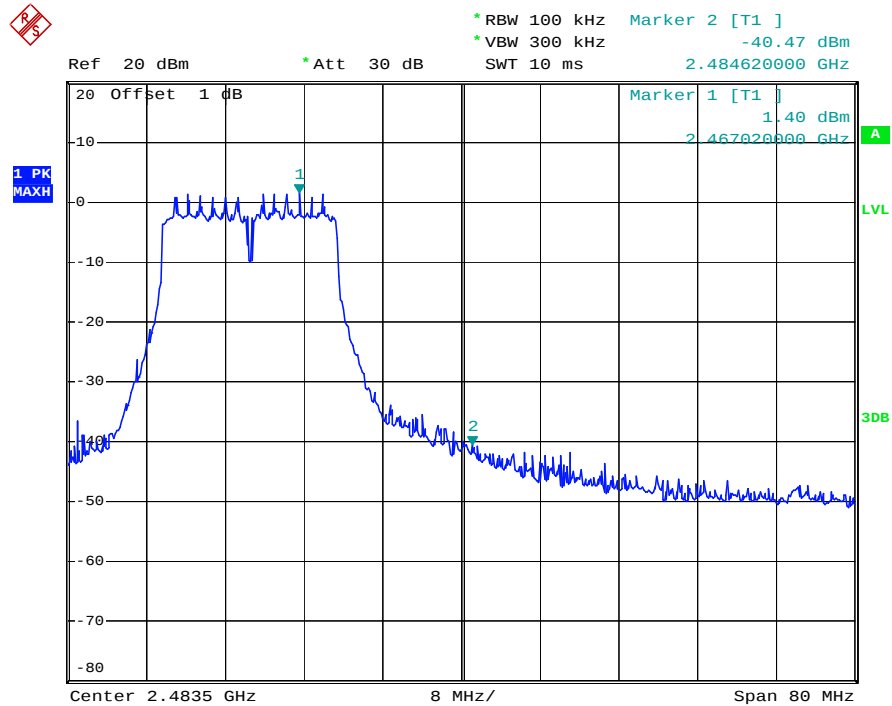
## 802.11g Channel High 2462MHz



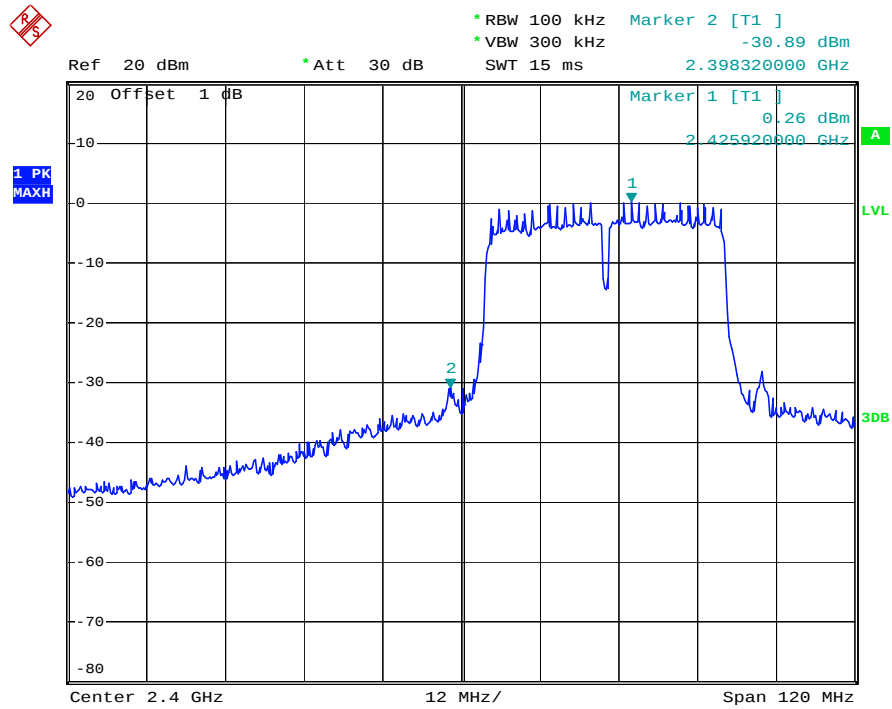
## 802.11n Channel Low 2412MHz (20MHz)



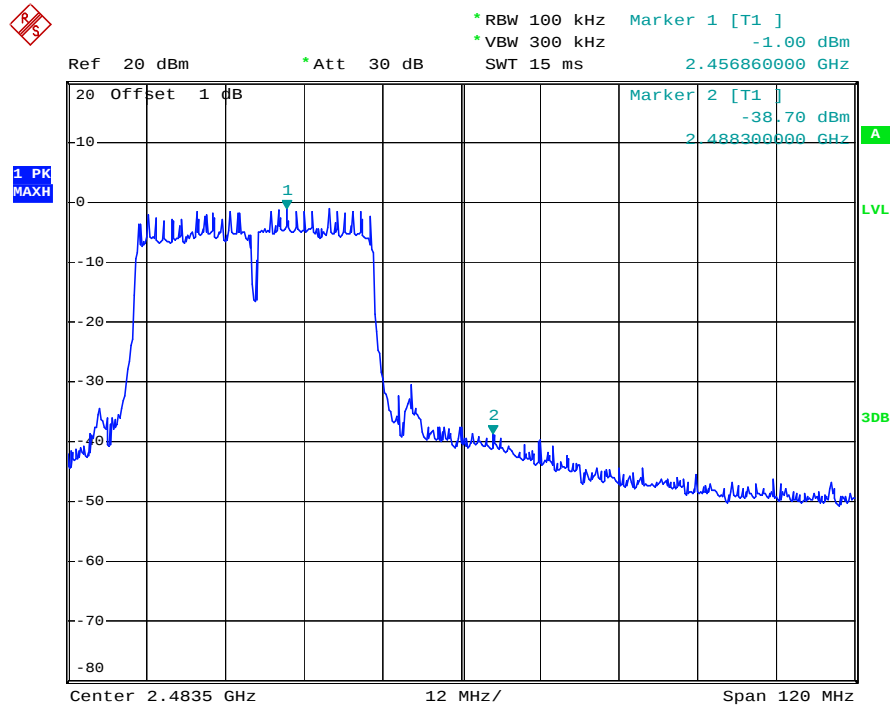
## 802.11n Channel High 2462MHz (20MHz)



### 802.11n Channel Low 2422MHz (40MHz)



### 802.11n Channel High 2452MHz (40MHz)



## Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

3. Display the measurement of peak values.



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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #2997

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

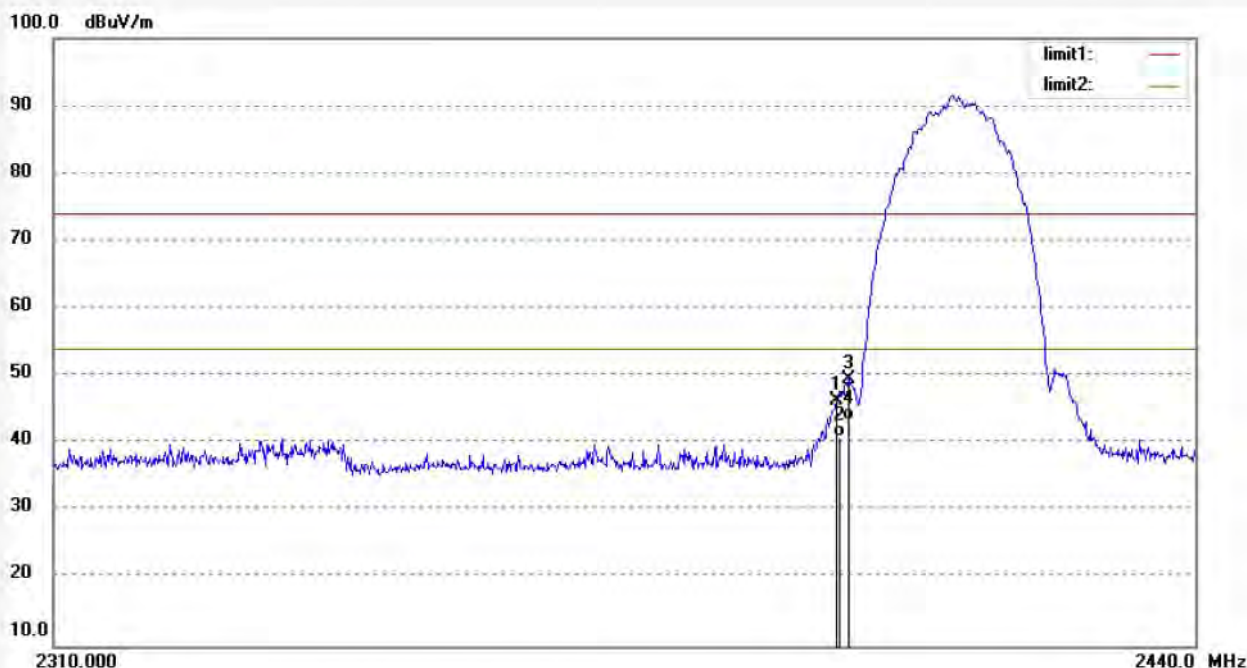
Date: 2014/05/20

Time: 16/57/37

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2398.530    | 53.17            | -6.75       | 46.42           | 74.00          | -27.58      | peak     |             |               |        |
| 2   | 2398.530    | 47.68            | -6.75       | 40.93           | 54.00          | -13.07      | AVG      |             |               |        |
| 3   | 2399.830    | 56.15            | -6.76       | 49.39           | 74.00          | -24.61      | peak     |             |               |        |
| 4   | 2399.830    | 50.21            | -6.76       | 43.45           | 54.00          | -10.55      | AVG      |             |               |        |

Job No.: alen #2999

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

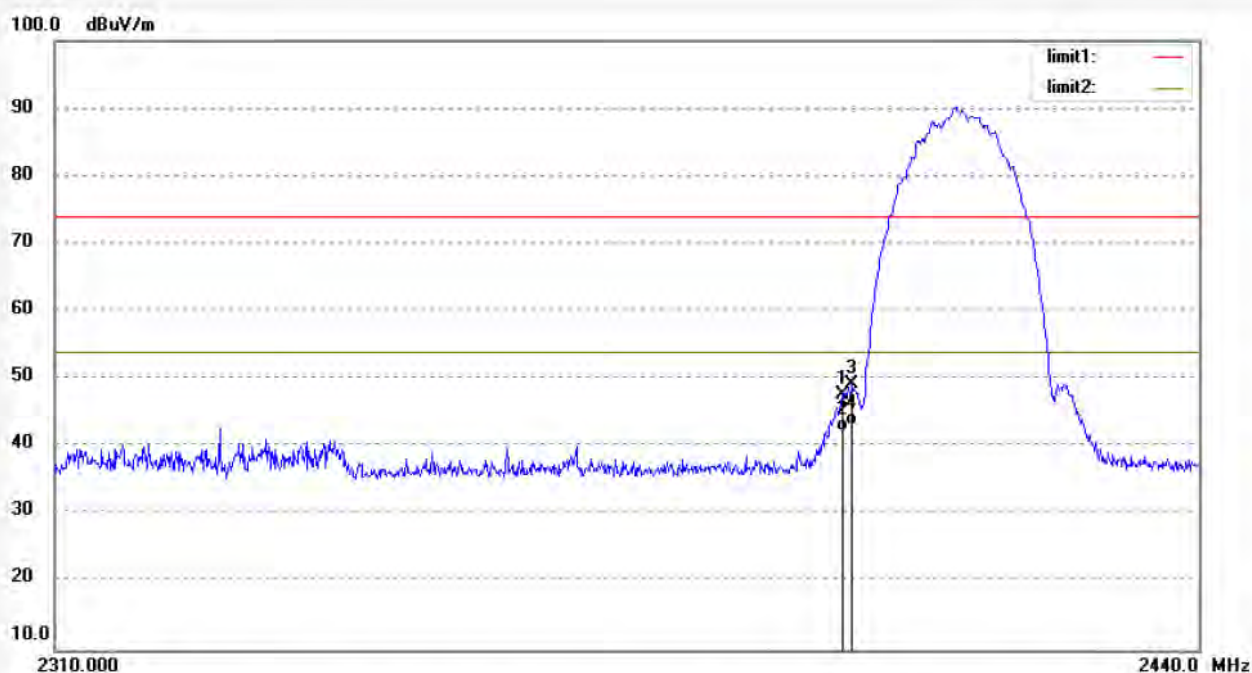
Date: 2014/05/20

Time: 17/00/37

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2398.790    | 54.45            | -6.76       | 47.69           | 74.00          | -26.31      | peak     |             |               |        |
| 2   | 2398.790    | 48.98            | -6.76       | 42.22           | 54.00          | -11.78      | AVG      |             |               |        |
| 3   | 2399.960    | 55.93            | -6.76       | 49.17           | 74.00          | -24.83      | peak     |             |               |        |
| 4   | 2399.960    | 50.04            | -6.76       | 43.28           | 54.00          | -10.72      | AVG      |             |               |        |

Job No.: alen #3001

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

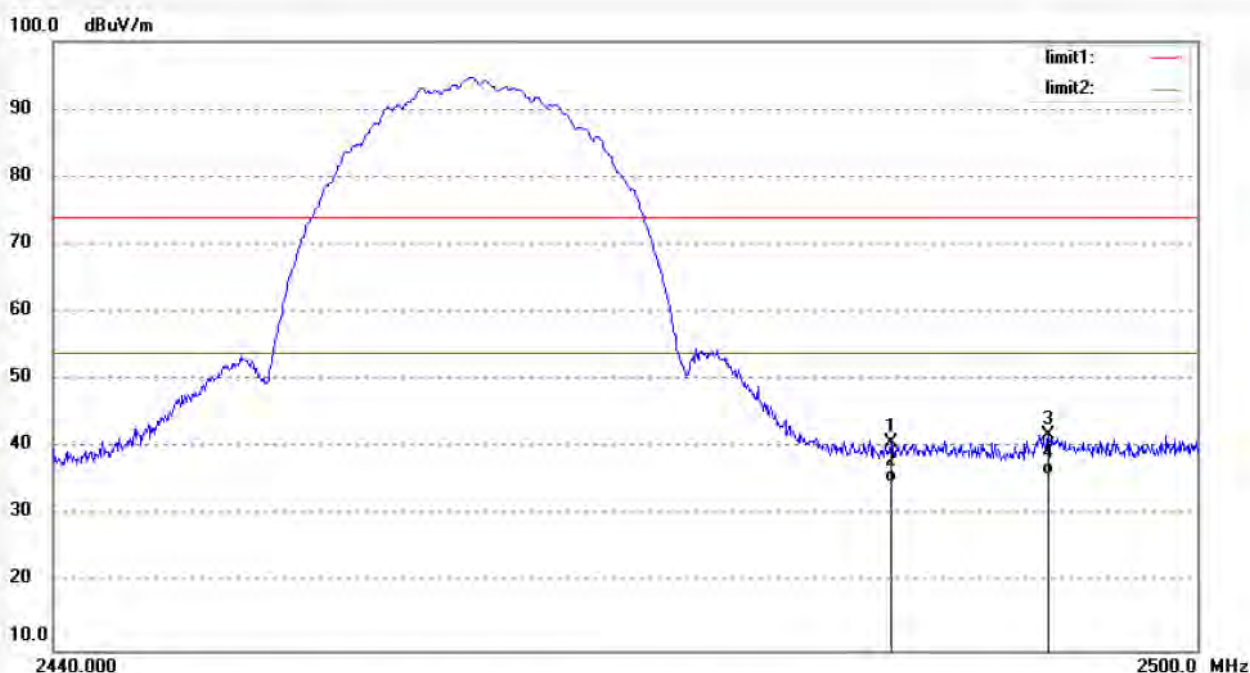
Date: 2014/05/20

Time: 17/02/47

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



Job No.: alen #3000

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

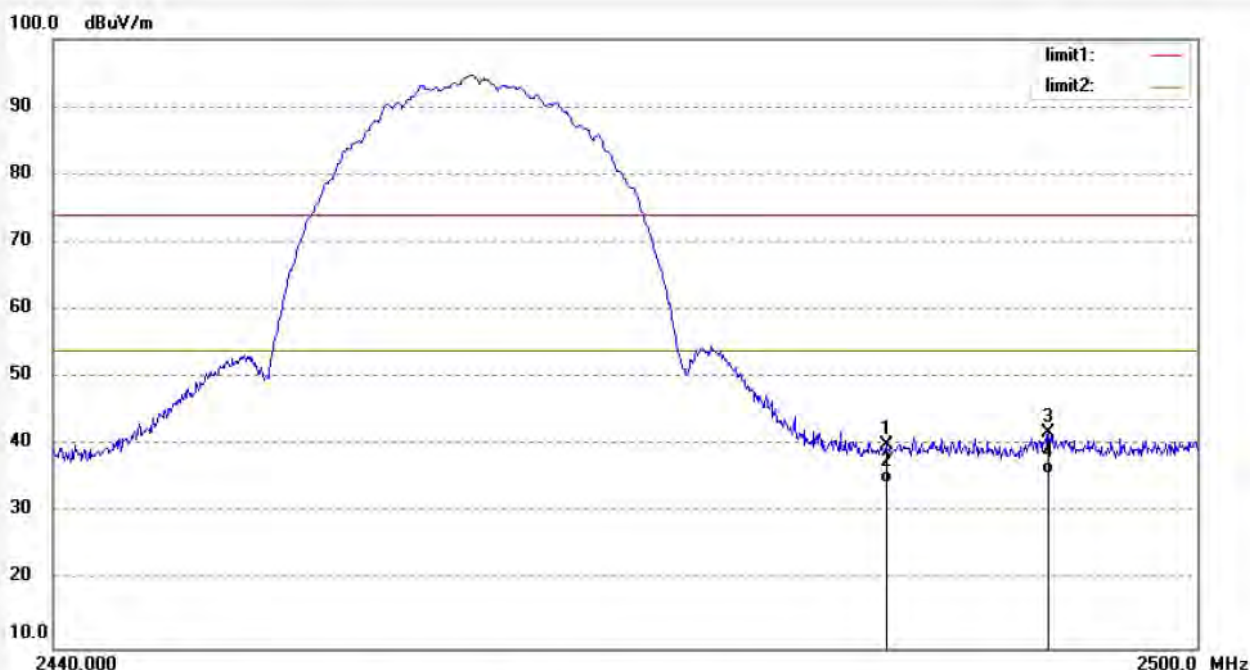
Date: 2014/05/20

Time: 17/02/06

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2483.560    | 46.67            | -6.54       | 40.13           | 74.00          | -33.87      | peak     |             |               |        |
| 2   | 2483.560    | 40.89            | -6.54       | 34.35           | 54.00          | -19.65      | AVG      |             |               |        |
| 3   | 2492.140    | 48.26            | -6.51       | 41.75           | 74.00          | -32.25      | peak     |             |               |        |
| 4   | 2492.140    | 42.35            | -6.51       | 35.84           | 54.00          | -18.16      | AVG      |             |               |        |

Job No.: alen #3005

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

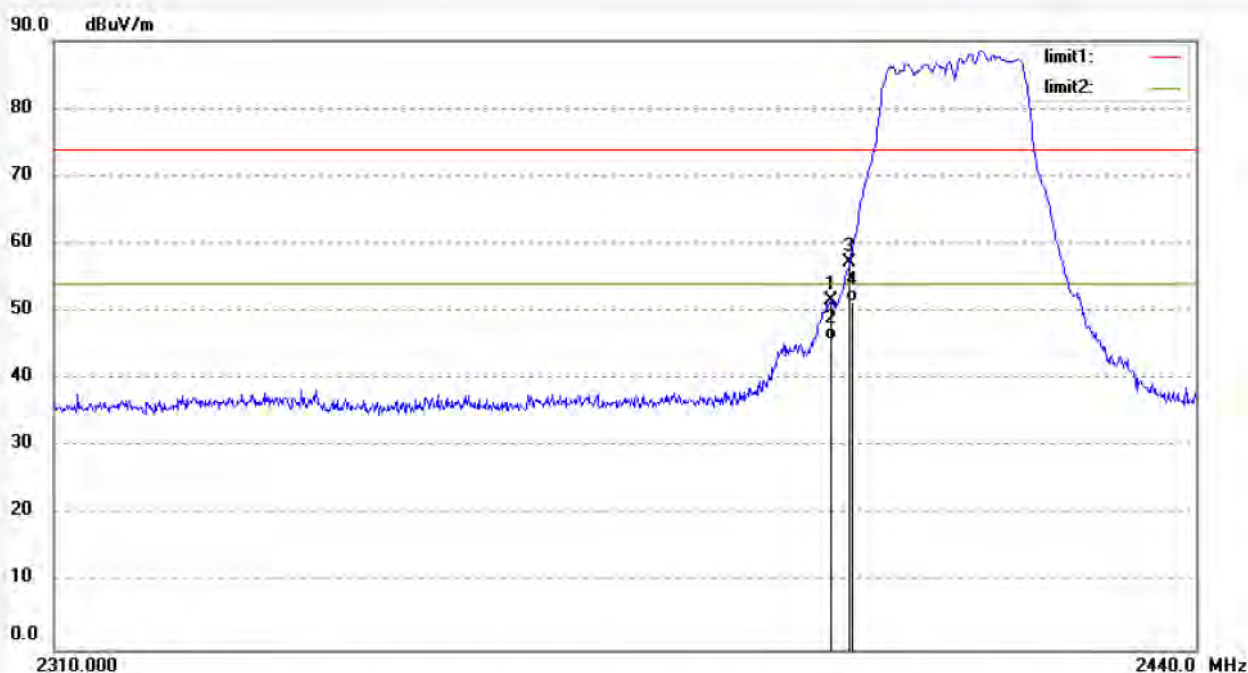
Date: 2014/05/20

Time: 17/10/15

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 2397.750       | 58.34               | -6.76          | 51.58              | 74.00             | -22.42         | peak     |                |                  |        |
| 2   | 2397.750       | 52.47               | -6.76          | 45.71              | 54.00             | -8.29          | AVG      |                |                  |        |
| 3   | 2399.960       | 64.12               | -6.76          | 57.36              | 74.00             | -16.64         | peak     |                |                  |        |
| 4   | 2399.960       | 58.21               | -6.76          | 51.45              | 54.00             | -2.55          | AVG      |                |                  |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3004

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

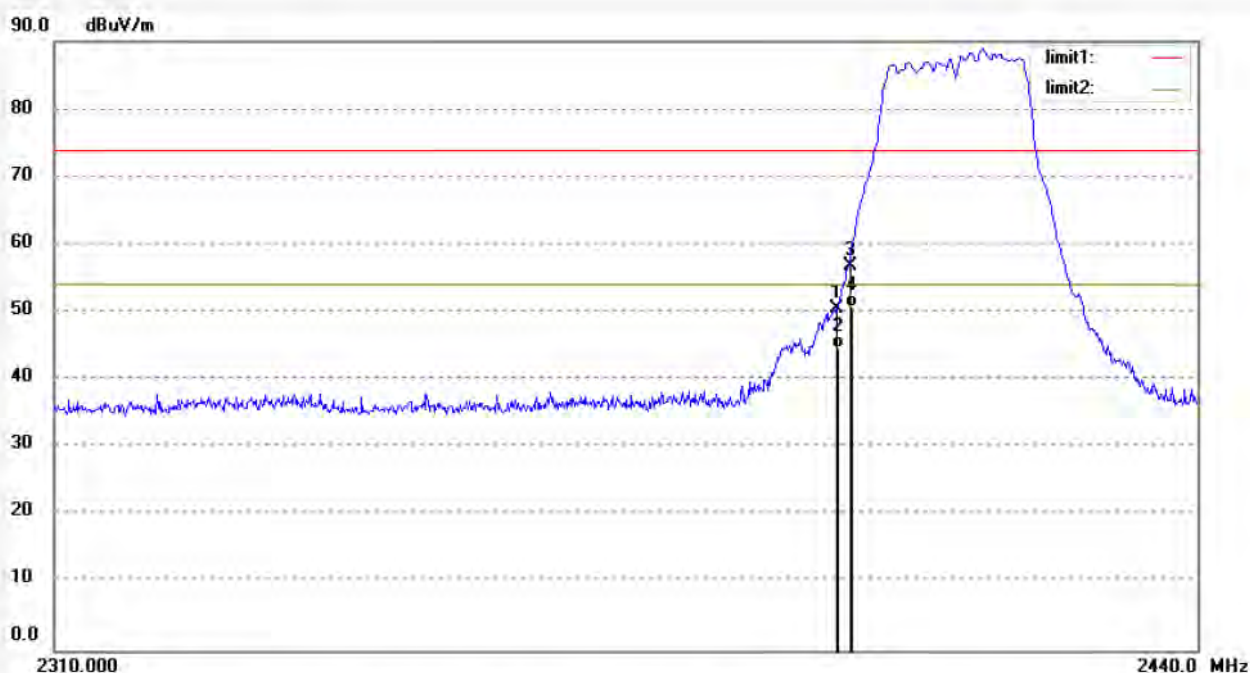
Date: 2014/05/20

Time: 17/09/31

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 2398.270       | 57.32               | -6.75          | 50.57              | 74.00             | -23.43         | peak     |                |                  |        |
| 2   | 2398.270       | 51.43               | -6.75          | 44.68              | 54.00             | -9.32          | AVG      |                |                  |        |
| 3   | 2399.700       | 63.54               | -6.76          | 56.78              | 74.00             | -17.22         | peak     |                |                  |        |
| 4   | 2399.700       | 57.57               | -6.76          | 50.81              | 54.00             | -3.19          | AVG      |                |                  |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3002

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

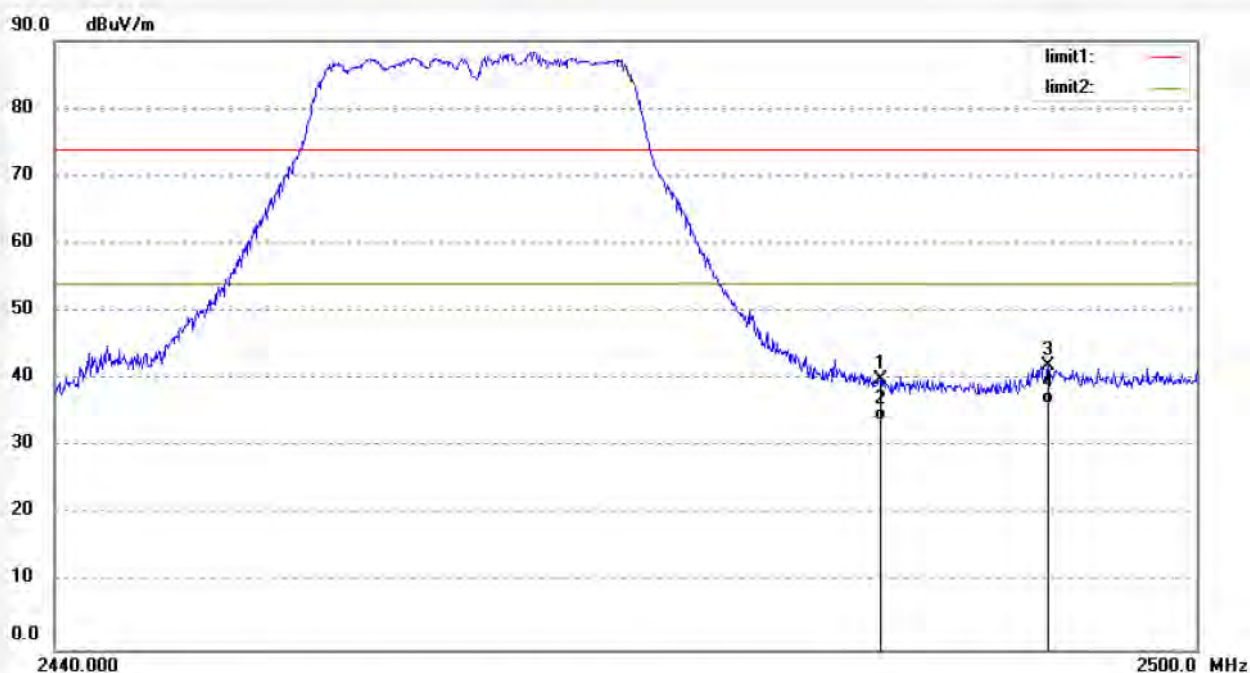
Date: 2014/05/20

Time: 17/05/05

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 2483.260       | 46.37               | -6.54          | 39.83              | 74.00             | -34.17         | peak     |                |                  |        |
| 2   | 2483.260       | 40.35               | -6.54          | 33.81              | 54.00             | -20.19         | AVG      |                |                  |        |
| 3   | 2492.140       | 48.58               | -6.51          | 42.07              | 74.00             | -31.93         | peak     |                |                  |        |
| 4   | 2492.140       | 42.74               | -6.51          | 36.23              | 54.00             | -17.77         | AVG      |                |                  |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3003

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

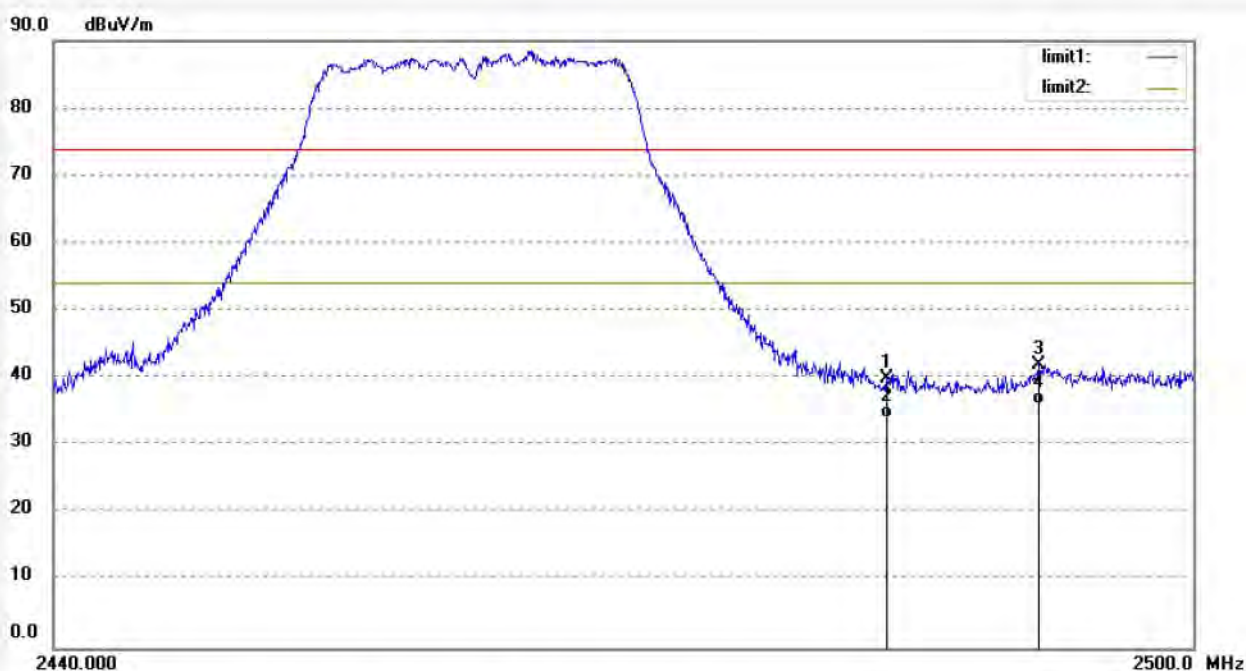
Date: 2014/05/20

Time: 17/05/45

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2483.740    | 46.52            | -6.54       | 39.98           | 74.00          | -34.02      | peak     |             |               |        |
| 2   | 2483.740    | 40.68            | -6.54       | 34.14           | 54.00          | -19.86      | AVG      |             |               |        |
| 3   | 2491.780    | 48.50            | -6.51       | 41.99           | 74.00          | -32.01      | peak     |             |               |        |
| 4   | 2491.780    | 42.54            | -6.51       | 36.03           | 54.00          | -17.97      | AVG      |             |               |        |



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Site: 1# Chamber

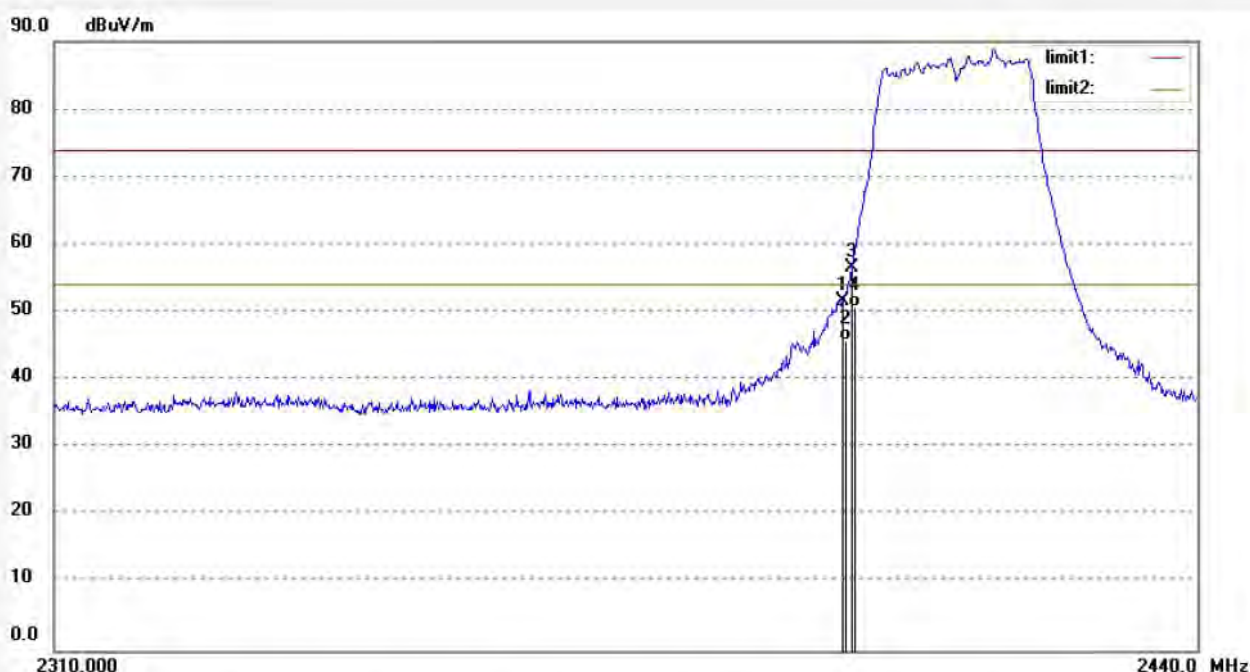
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3006  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2412MHz(802.11n20)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 17/11/35  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2399.050    | 58.48            | -6.76       | 51.72           | 74.00          | -22.28      | peak     |             |               |        |
| 2   | 2399.050    | 52.57            | -6.76       | 45.81           | 54.00          | -8.19       | AVG      |             |               |        |
| 3   | 2400.090    | 63.38            | -6.76       | 56.62           | 74.00          | -17.38      | peak     |             |               |        |
| 4   | 2400.090    | 57.54            | -6.76       | 50.78           | 54.00          | -3.22       | AVG      |             |               |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3007

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

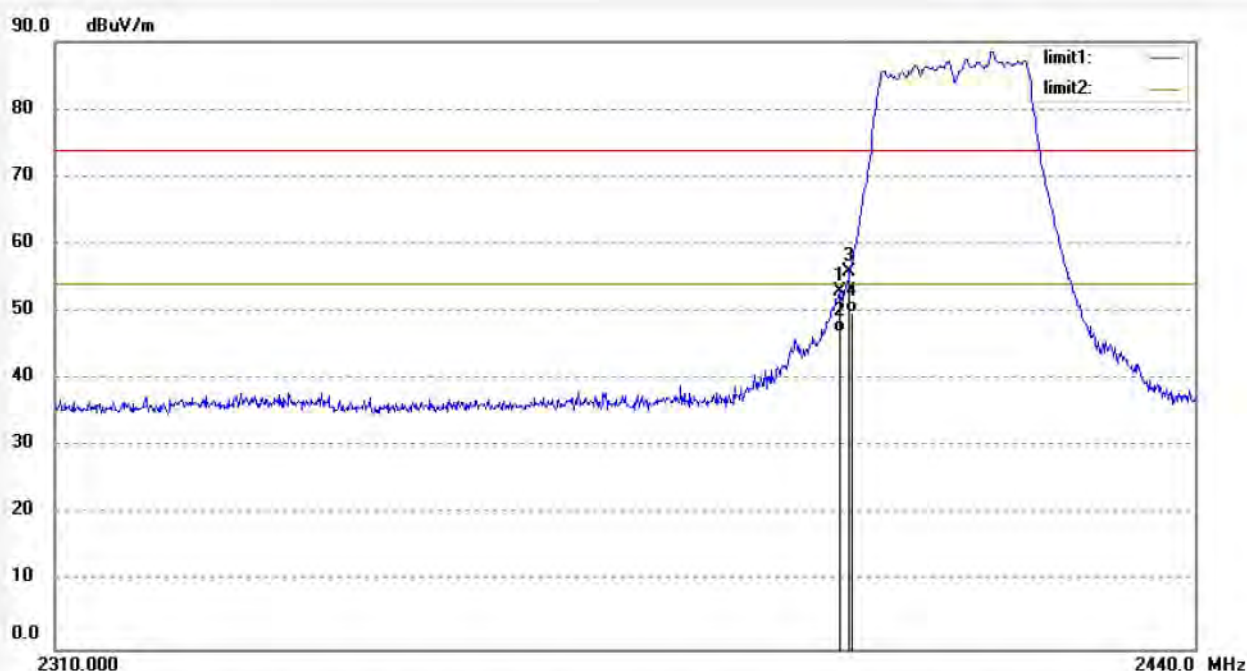
Date: 2014/05/20

Time: 17/12/08

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804





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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3009

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

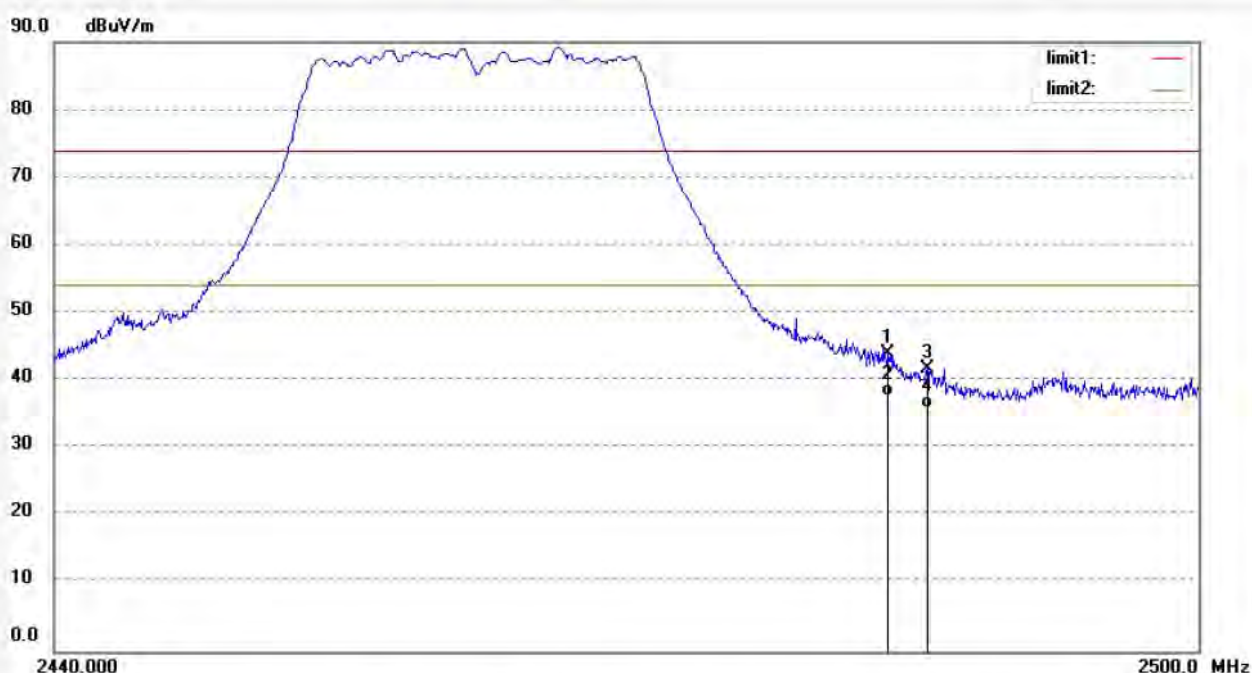
Date: 2014/05/20

Time: 17/14/10

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2483.620    | 50.47            | -6.54       | 43.93           | 74.00          | -30.07      | peak     |             |               |        |
| 2   | 2483.620    | 44.28            | -6.54       | 37.74           | 54.00          | -16.26      | AVG      |             |               |        |
| 3   | 2485.660    | 48.29            | -6.54       | 41.75           | 74.00          | -32.25      | peak     |             |               |        |
| 4   | 2485.660    | 42.32            | -6.54       | 35.78           | 54.00          | -18.22      | AVG      |             |               |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3008

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

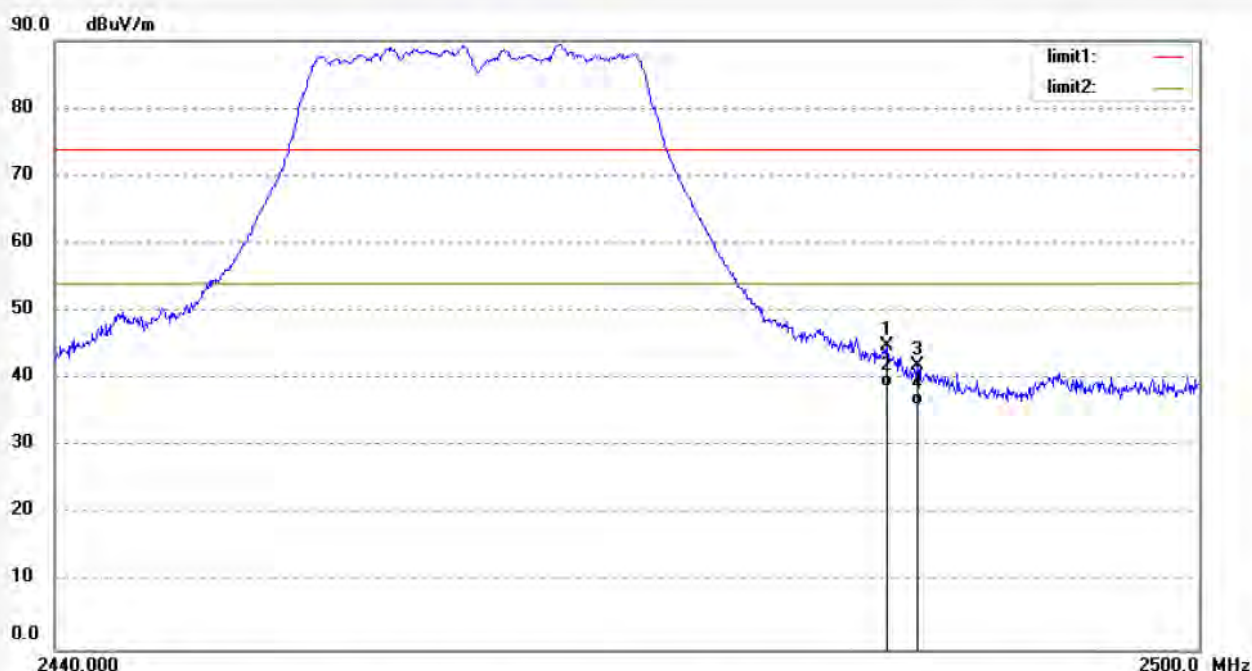
Date: 2014/05/20

Time: 17/13/33

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2483.500    | 51.51            | -6.54       | 44.97           | 74.00          | -29.03      | peak     |             |               |        |
| 2   | 2483.500    | 45.39            | -6.54       | 38.85           | 54.00          | -15.15      | AVG      |             |               |        |
| 3   | 2485.120    | 48.48            | -6.54       | 41.94           | 74.00          | -32.06      | peak     |             |               |        |
| 4   | 2485.120    | 42.57            | -6.54       | 36.03           | 54.00          | -17.97      | AVG      |             |               |        |



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Site: 1# Chamber

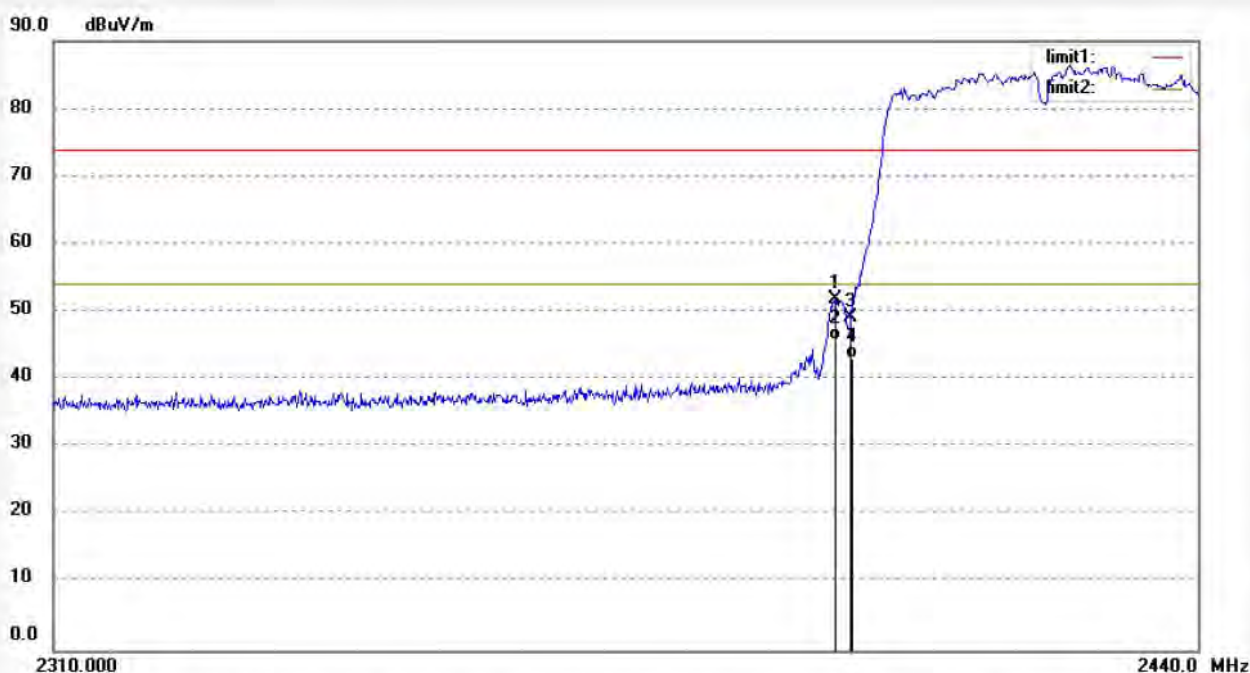
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3013  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2422MHz(802.11n40)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 17/18/29  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2398.140    | 58.70            | -6.75       | 51.95           | 74.00          | -22.05      | peak     |             |               |        |
| 2   | 2398.140    | 52.57            | -6.75       | 45.82           | 54.00          | -8.18       | AVG      |             |               |        |
| 3   | 2399.960    | 55.85            | -6.76       | 49.09           | 74.00          | -24.91      | peak     |             |               |        |
| 4   | 2399.960    | 49.78            | -6.76       | 43.02           | 54.00          | -10.98      | AVG      |             |               |        |



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Site: 1# Chamber

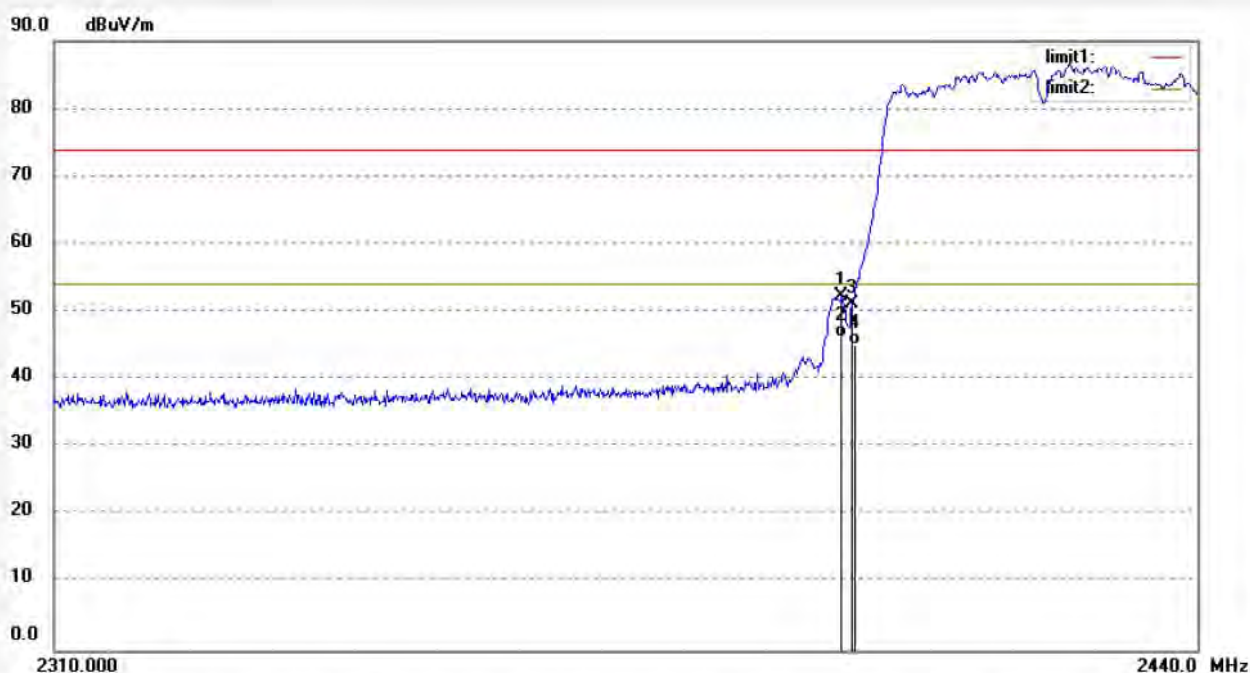
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3012  
Standard: FCC PK  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2422MHz(802.11n40)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 17/17/54  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2398.920    | 59.05            | -6.76       | 52.29           | 74.00          | -21.71      | peak     |             |               |        |
| 2   | 2398.920    | 52.98            | -6.76       | 46.22           | 54.00          | -7.78       | AVG      |             |               |        |
| 3   | 2400.090    | 57.97            | -6.76       | 51.21           | 74.00          | -22.79      | peak     |             |               |        |
| 4   | 2400.090    | 51.87            | -6.76       | 45.11           | 54.00          | -8.89       | AVG      |             |               |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3010

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2452MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

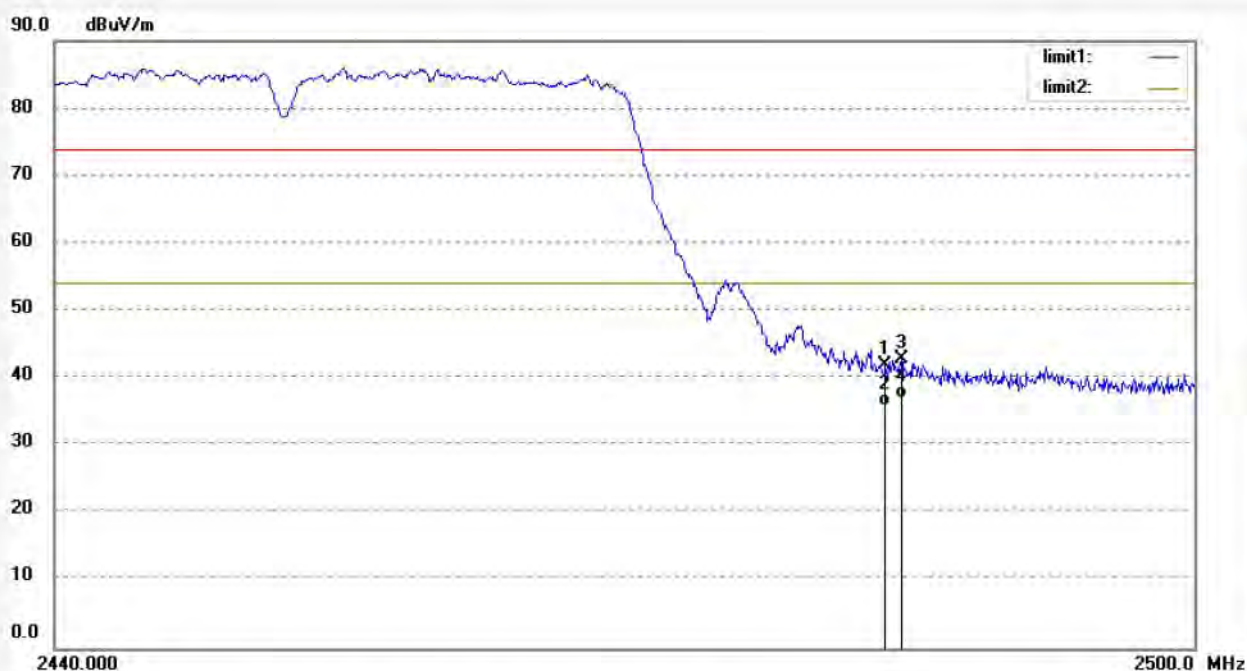
Date: 2014/05/20

Time: 17/15/34

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2483.620    | 48.41            | -6.54       | 41.87           | 74.00          | -32.13      | peak     |             |               |        |
| 2   | 2483.620    | 42.48            | -6.54       | 35.94           | 54.00          | -18.06      | AVG      |             |               |        |
| 3   | 2484.460    | 49.30            | -6.54       | 42.76           | 74.00          | -31.24      | peak     |             |               |        |
| 4   | 2484.460    | 43.51            | -6.54       | 36.97           | 54.00          | -17.03      | AVG      |             |               |        |

Job No.: alen #3011

Standard: FCC PK

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2452MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

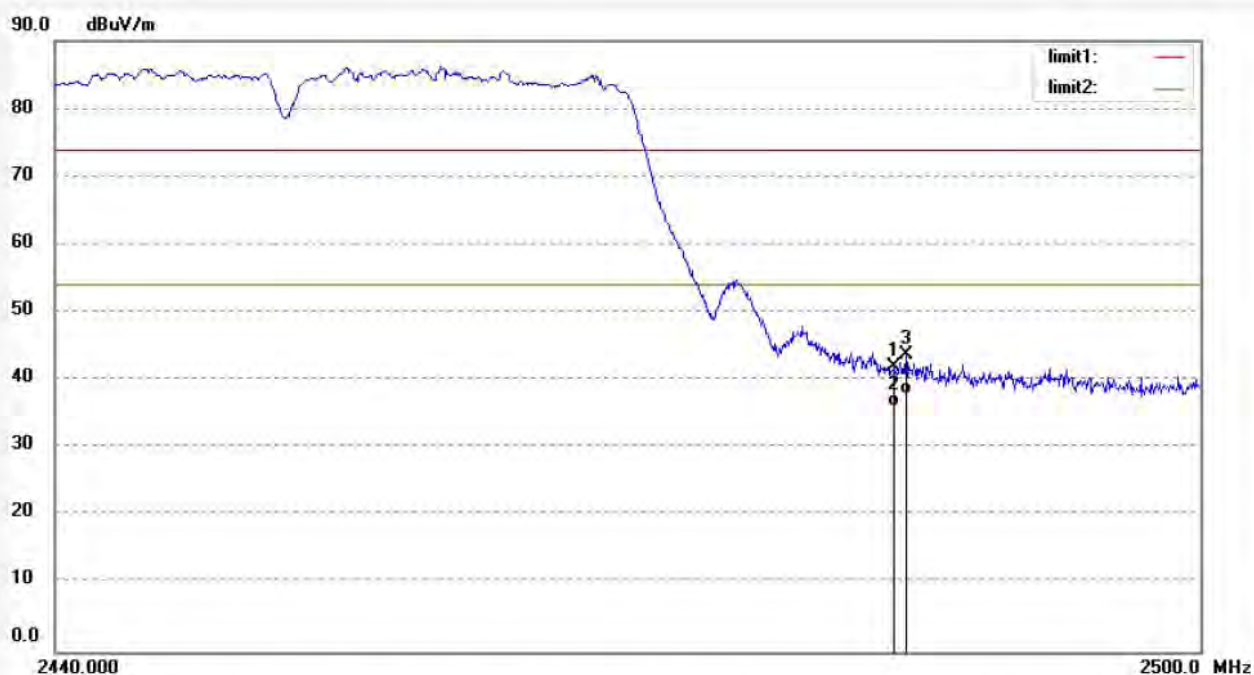
Date: 2014/05/20

Time: 17/16/16

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804

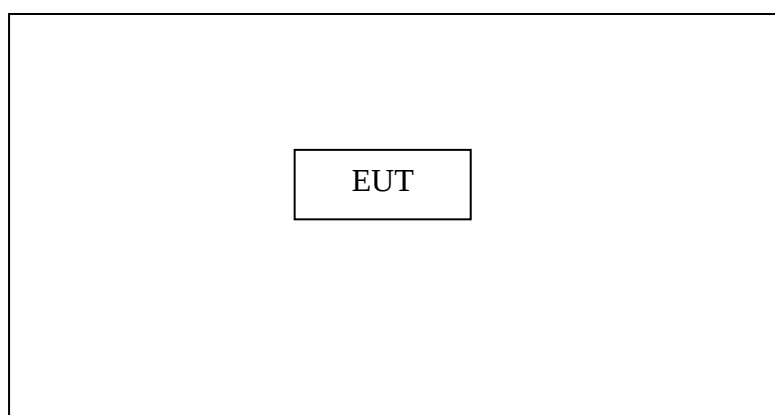


| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 2483.860    | 48.59            | -6.54       | 42.05           | 74.00          | -31.95      | peak     |             |               |        |
| 2   | 2483.860    | 42.65            | -6.54       | 36.11           | 54.00          | -17.89      | AVG      |             |               |        |
| 3   | 2484.460    | 50.24            | -6.54       | 43.70           | 74.00          | -30.30      | peak     |             |               |        |
| 4   | 2484.460    | 44.38            | -6.54       | 37.84           | 54.00          | -16.16      | AVG      |             |               |        |

## 9. RADIATED SPURIOUS EMISSION TEST

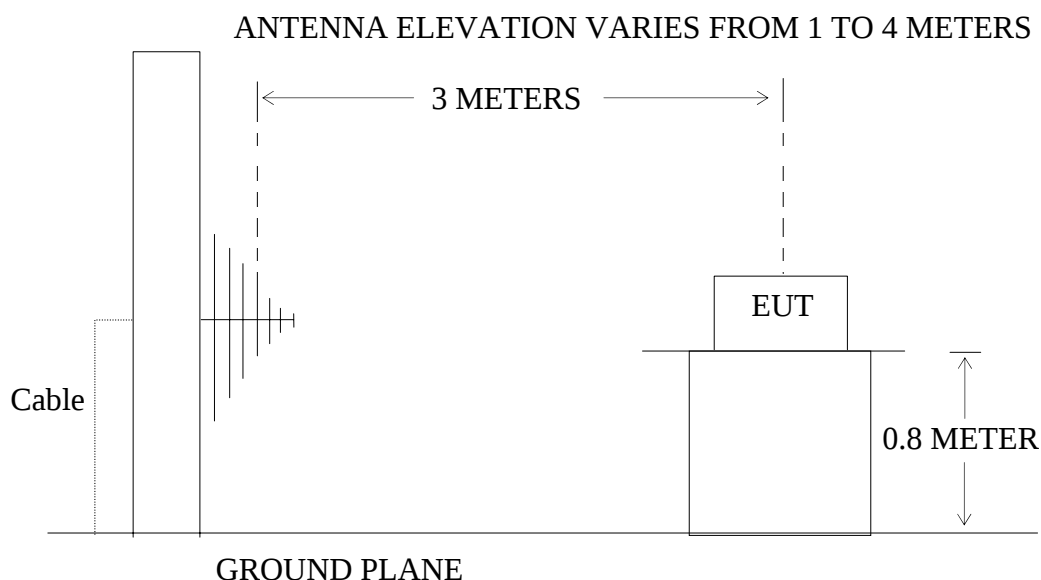
### 9.1. Block Diagram of Test Setup

#### 9.1.1. Block diagram of connection between the EUT and peripherals



Setup: Transmitting mode

#### 9.1.2. Semi-Anechoic Chamber Test Setup Diagram



### 9.2. The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the

transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

### 9.3.Restricted bands of operation

#### 9.3.1.FCC Part 15.205 Restricted bands of operation

(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         | 2690-2900     | 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

<sup>2</sup>Above 38.6

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

### 9.4.Configuration of EUT on Measurement

The equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

## 9.5. Operating Condition of EUT

9.5.1. Setup the EUT and simulator as shown as Section 9.1.

9.5.2. Turn on the power of all equipment.

9.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

## 9.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The worst-case data rate for this channel to be 1Mbps for 802.11b mode and 6Mbps for 802.11g mode and 150Mbps for 802.11n mode, based on previous with 802.11 WLAN product design architectures.

The bandwidth of test receiver is set at 9kHz in below 30MHz. and set at 120kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 9kHz to 25GHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

## 9.7. The Field Strength of Radiation Emission Measurement Results

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. The average measurement was not performed when peak measured data under the limit of average detection.

3. The fundamental radiated emissions were reduced by Band Reject Filter in the attached plots.

4. The EUT is tested radiation emission at each test mode(802.11 b/g/n) in three axes. The worst emissions are reported in all test mode and channels.

5. The 18-25GHz emissions are not reported, because the levels are too low against the limit.

Below 1G



**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4079

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

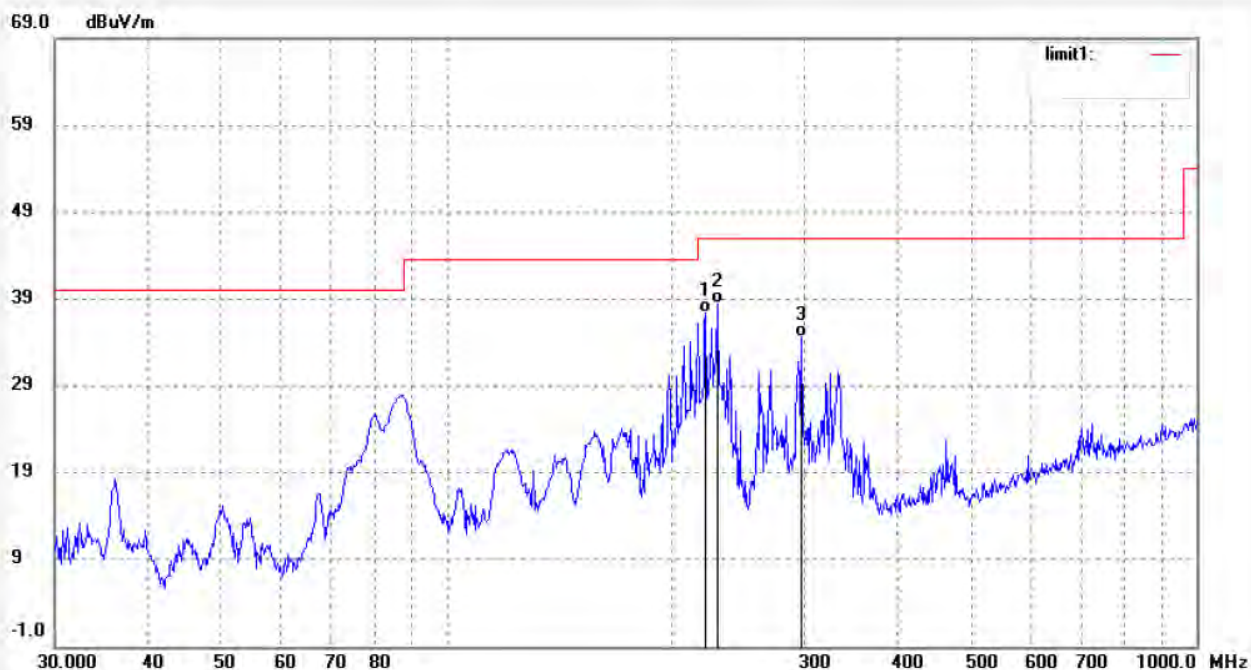
Date: 2014/05/20

Time: 11:21:56

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 221.3920    | 57.40            | -19.93      | 37.47           | 46.00          | -8.53       | QP       |             |               |        |
| 2   | 229.2931    | 58.32            | -19.86      | 38.46           | 46.00          | -7.54       | QP       |             |               |        |
| 3   | 297.2241    | 52.45            | -17.92      | 34.53           | 46.00          | -11.47      | QP       |             |               |        |



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Site: 1# Chamber

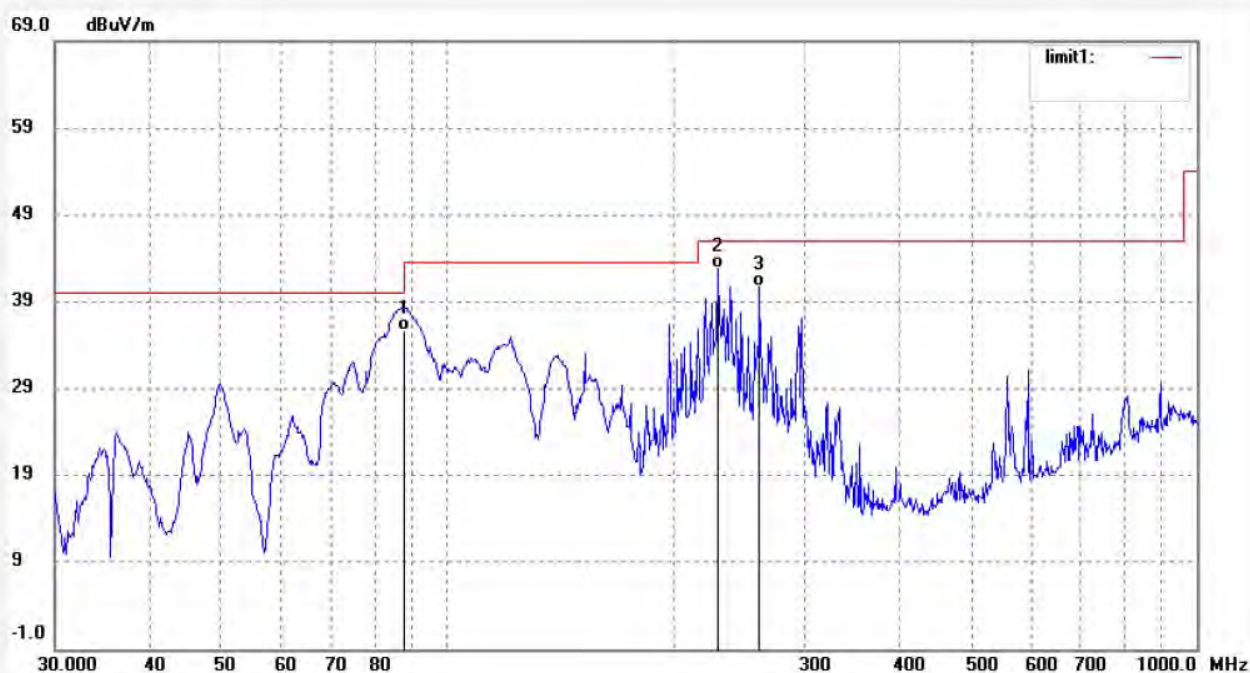
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4078  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2412MHz(802.11b)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 11:21:14  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 87.7248     | 57.35            | -21.62      | 35.73           | 40.00          | -4.27       | QP       |             |               |        |
| 2   | 229.2931    | 62.77            | -19.86      | 42.91           | 46.00          | -3.09       | QP       |             |               |        |
| 3   | 261.0582    | 59.78            | -19.08      | 40.70           | 46.00          | -5.30       | QP       |             |               |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4080

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

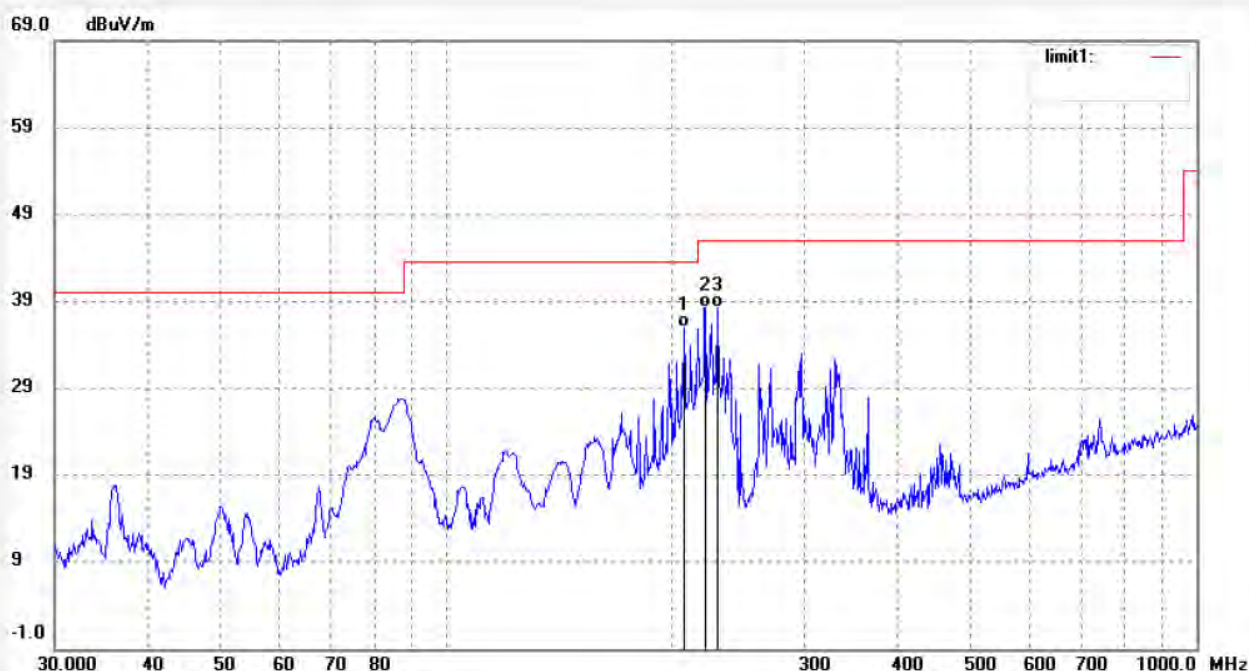
Date: 2014/05/20

Time: 11:22:53

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 207.1226       | 56.09               | -20.04         | 36.05              | 43.50             | -7.45          | QP       |                |                  |        |
| 2   | 221.3919       | 58.28               | -19.93         | 38.35              | 46.00             | -7.65          | QP       |                |                  |        |
| 3   | 229.2931       | 58.16               | -19.86         | 38.30              | 46.00             | -7.70          | QP       |                |                  |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4081

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

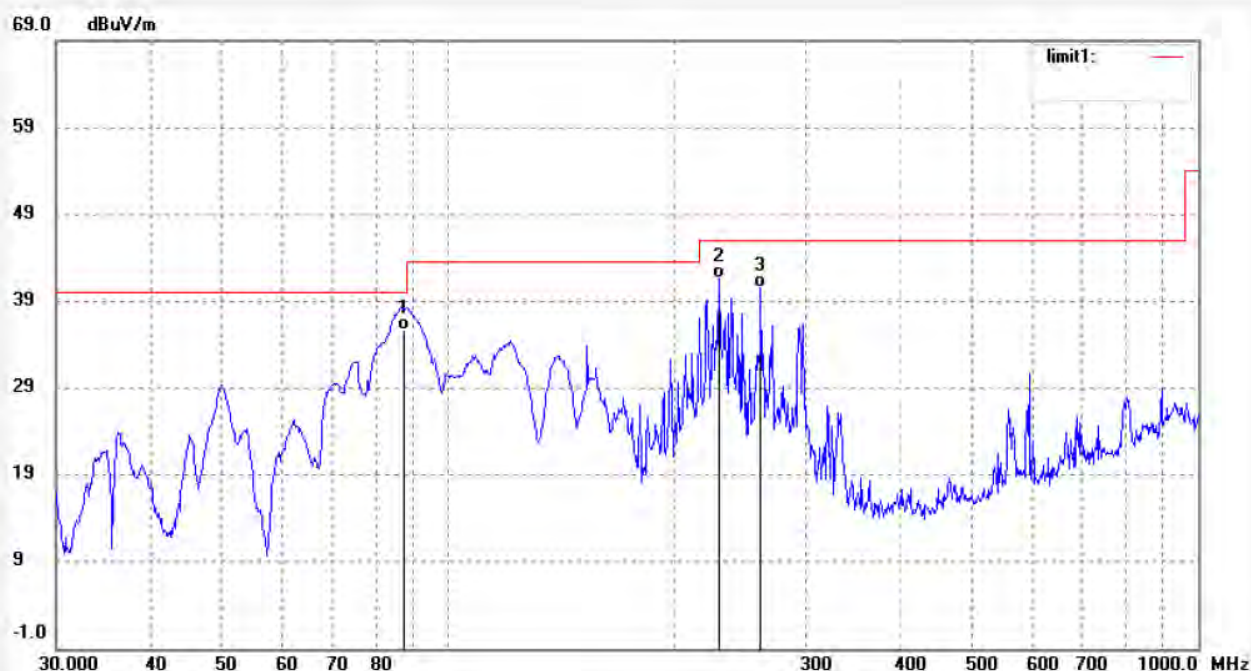
Date: 2014/05/20

Time: 11:23:35

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.1116        | 57.34               | -21.61         | 35.73              | 40.00             | -4.27          | QP       |                |                  |        |
| 2   | 229.2931       | 61.39               | -19.86         | 41.53              | 46.00             | -4.47          | QP       |                |                  |        |
| 3   | 261.0582       | 59.64               | -19.08         | 40.56              | 46.00             | -5.44          | QP       |                |                  |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4083

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

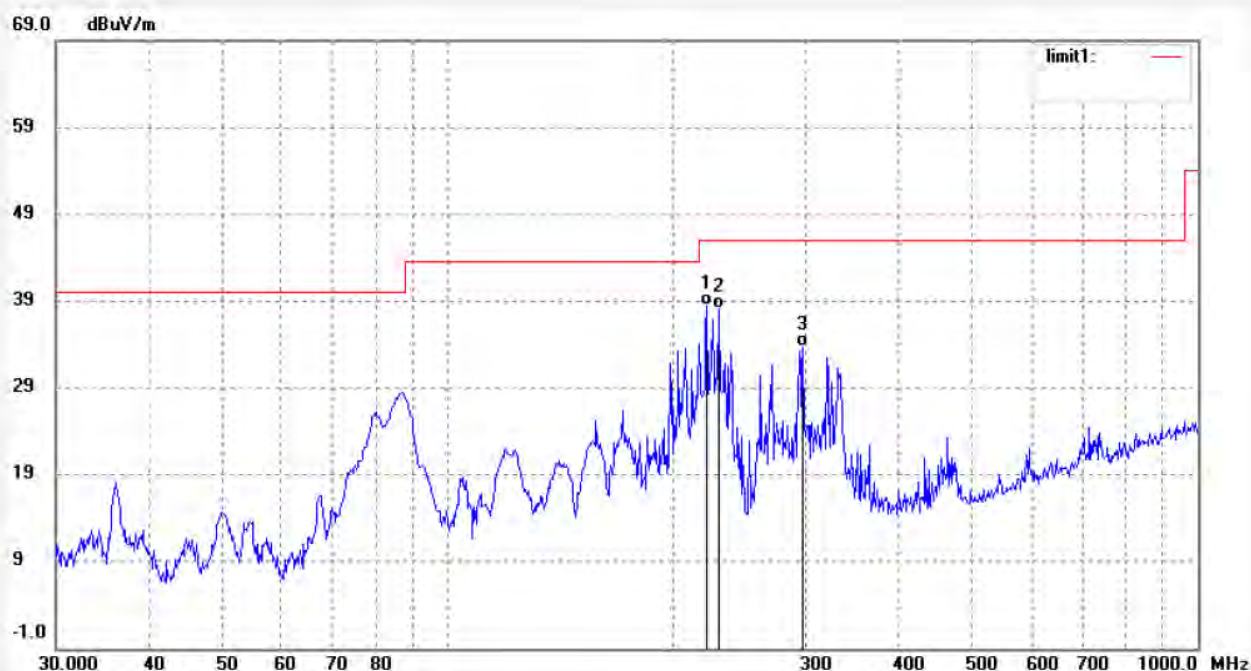
Date: 2014/05/20

Time: 11:27:39

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 221.3920       | 58.38               | -19.93         | 38.45              | 46.00             | -7.55          | QP       |                |                  |        |
| 2   | 229.2931       | 57.94               | -19.86         | 38.08              | 46.00             | -7.92          | QP       |                |                  |        |
| 3   | 297.2241       | 51.66               | -17.92         | 33.74              | 46.00             | -12.26         | QP       |                |                  |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4082

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

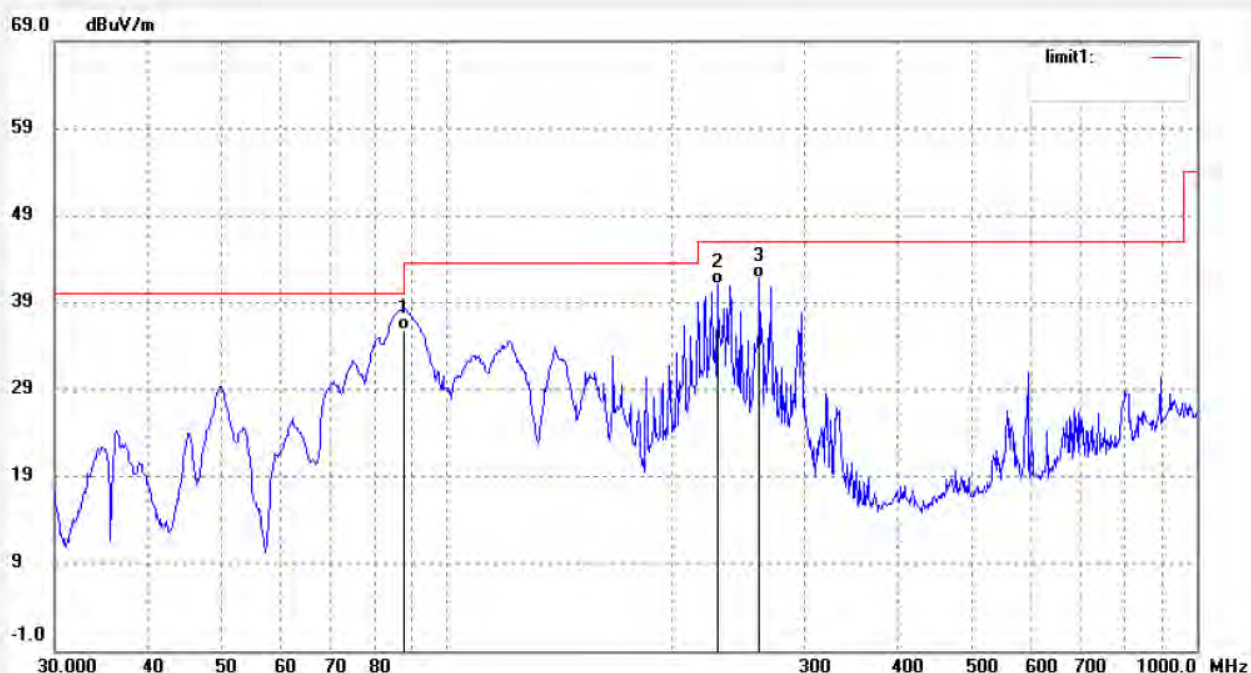
Date: 2014/05/20

Time: 11:26:44

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.7248        | 57.38               | -21.62         | 35.76              | 40.00             | -4.24          | QP       |                |                  |        |
| 2   | 229.2931       | 60.96               | -19.86         | 41.10              | 46.00             | -4.90          | QP       |                |                  |        |
| 3   | 261.0581       | 60.82               | -19.08         | 41.74              | 46.00             | -4.26          | QP       |                |                  |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4088

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

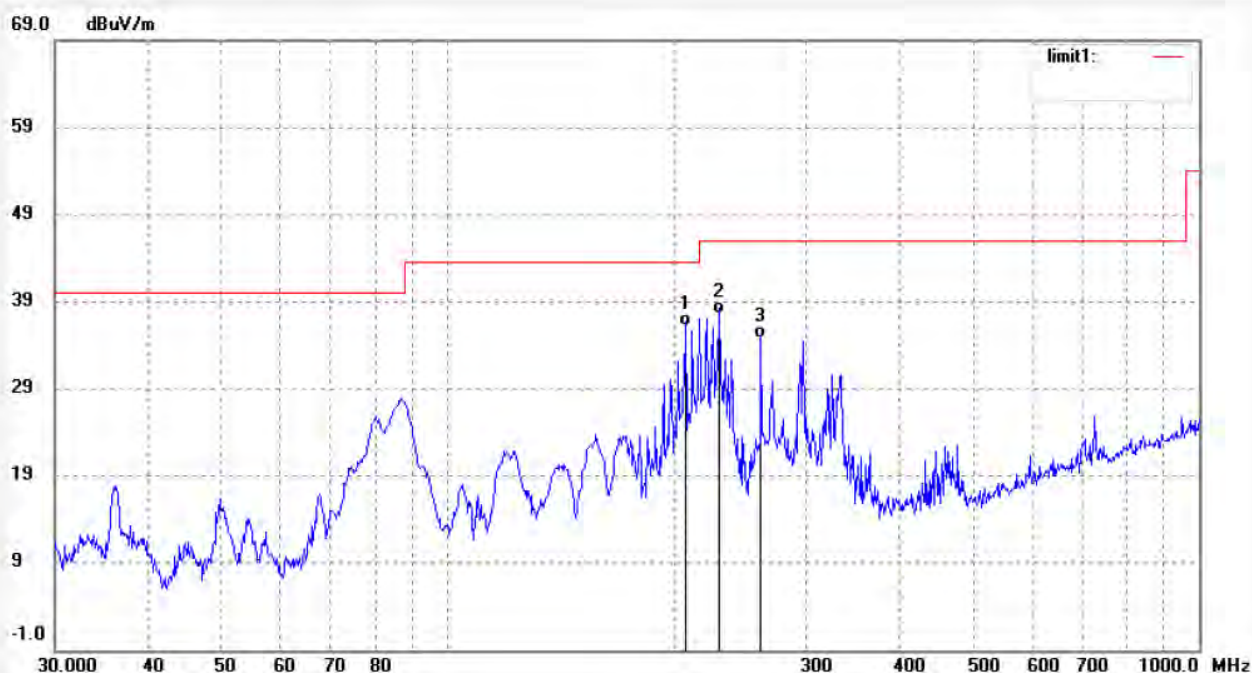
Date: 2014/05/20

Time: 11:30:47

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 207.1226    | 56.21            | -20.04      | 36.17           | 43.50          | -7.33       | QP       |             |               |        |
| 2   | 230.0985    | 57.45            | -19.86      | 37.59           | 46.00          | -8.41       | QP       |             |               |        |
| 3   | 261.0582    | 53.88            | -19.08      | 34.80           | 46.00          | -11.20      | QP       |             |               |        |

Job No.: alen #4089

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

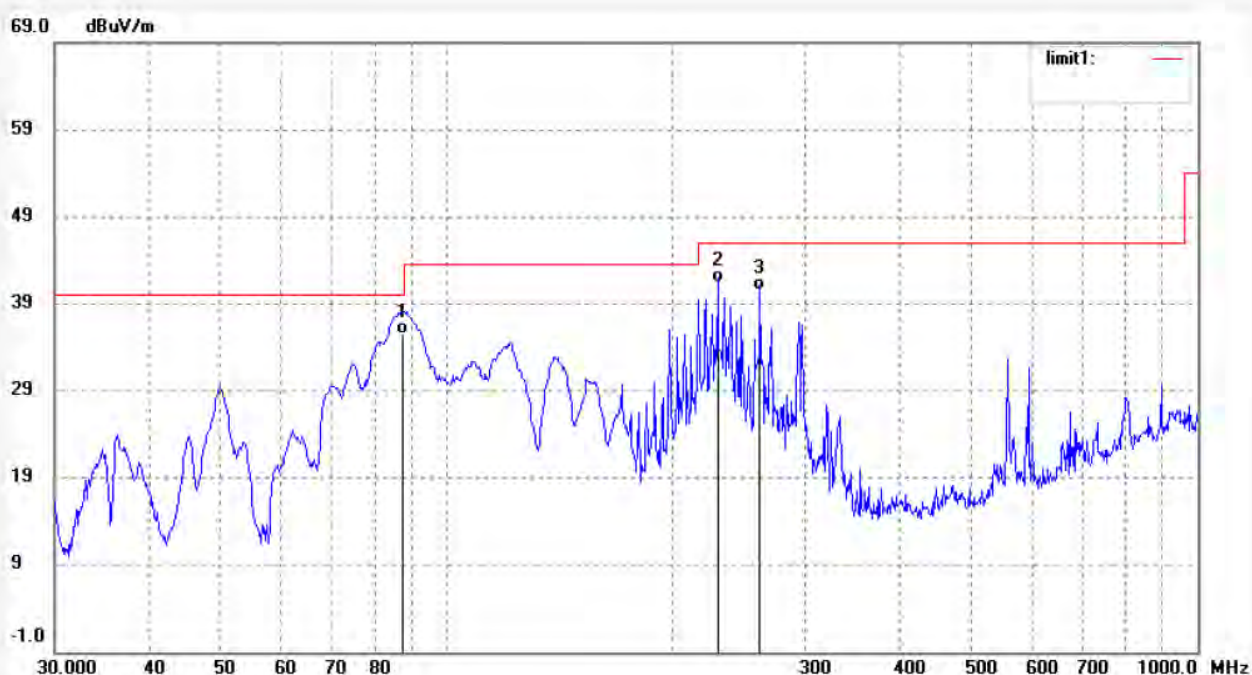
Date: 2014/05/20

Time: 11:31:31

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804

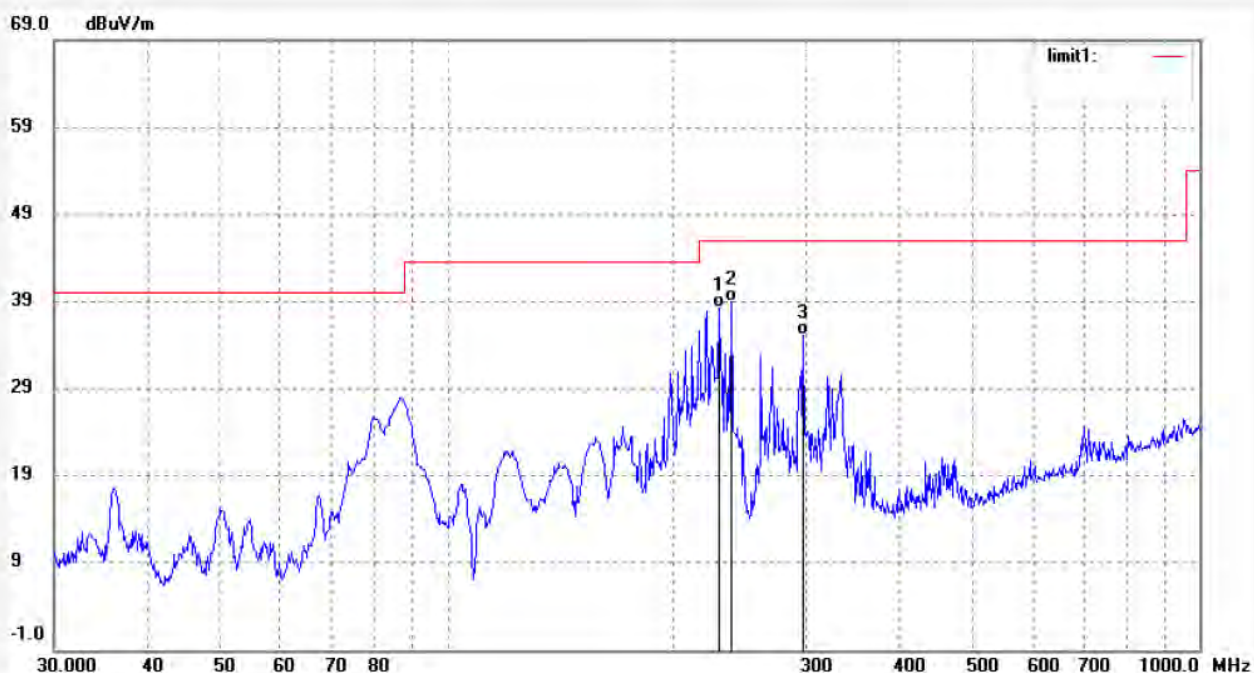


| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.1116        | 57.18               | -21.61         | 35.57              | 40.00             | -4.43          | QP       |                |                  |        |
| 2   | 229.2931       | 61.35               | -19.86         | 41.49              | 46.00             | -4.51          | QP       |                |                  |        |
| 3   | 261.0582       | 59.71               | -19.08         | 40.63              | 46.00             | -5.37          | QP       |                |                  |        |

Job No.: alen #4087  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2437MHz(802.11g)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 11:30:11  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 229.2931       | 58.10               | -19.86         | 38.24              | 46.00             | -7.76          | QP       |                |                  |        |
| 2   | 238.3102       | 58.83               | -19.82         | 39.01              | 46.00             | -6.99          | QP       |                |                  |        |
| 3   | 297.2241       | 53.05               | -17.92         | 35.13              | 46.00             | -10.87         | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4086

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

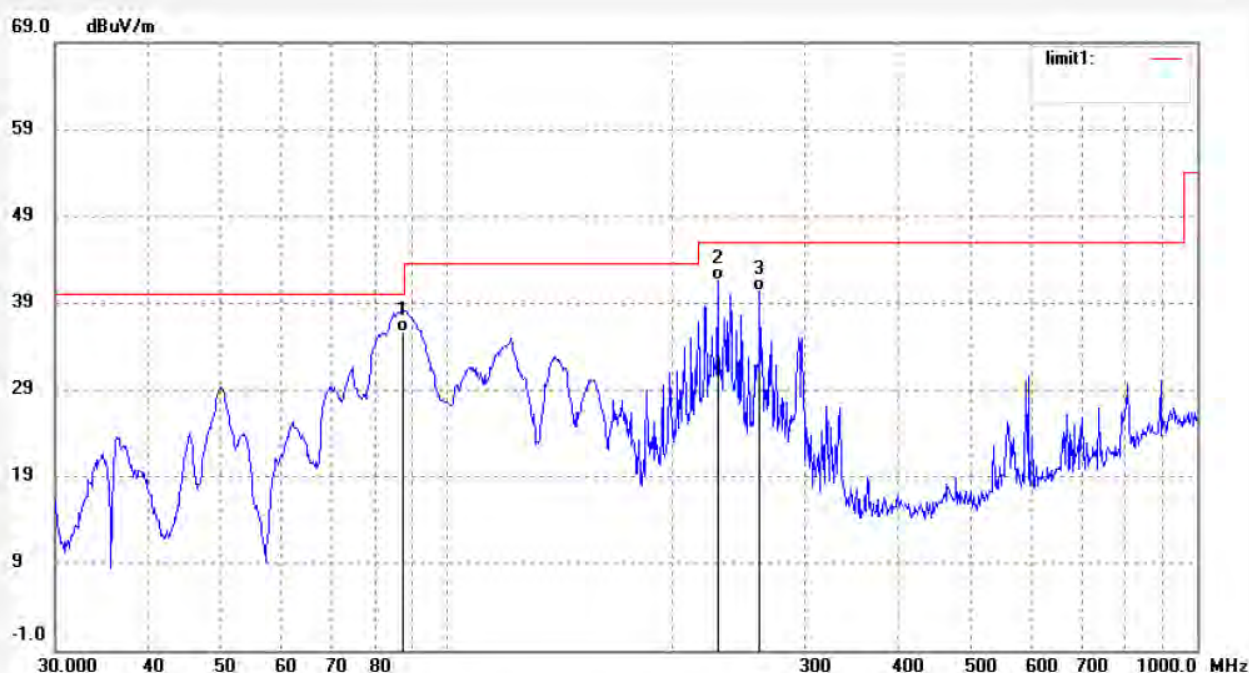
Date: 2014/05/20

Time: 11:29:27

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 87.1116     | 57.25            | -21.61      | 35.64           | 40.00          | -4.36       | QP       |             |               |        |
| 2   | 229.2931    | 61.51            | -19.86      | 41.65           | 46.00          | -4.35       | QP       |             |               |        |
| 3   | 261.0582    | 59.41            | -19.08      | 40.33           | 46.00          | -5.67       | QP       |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

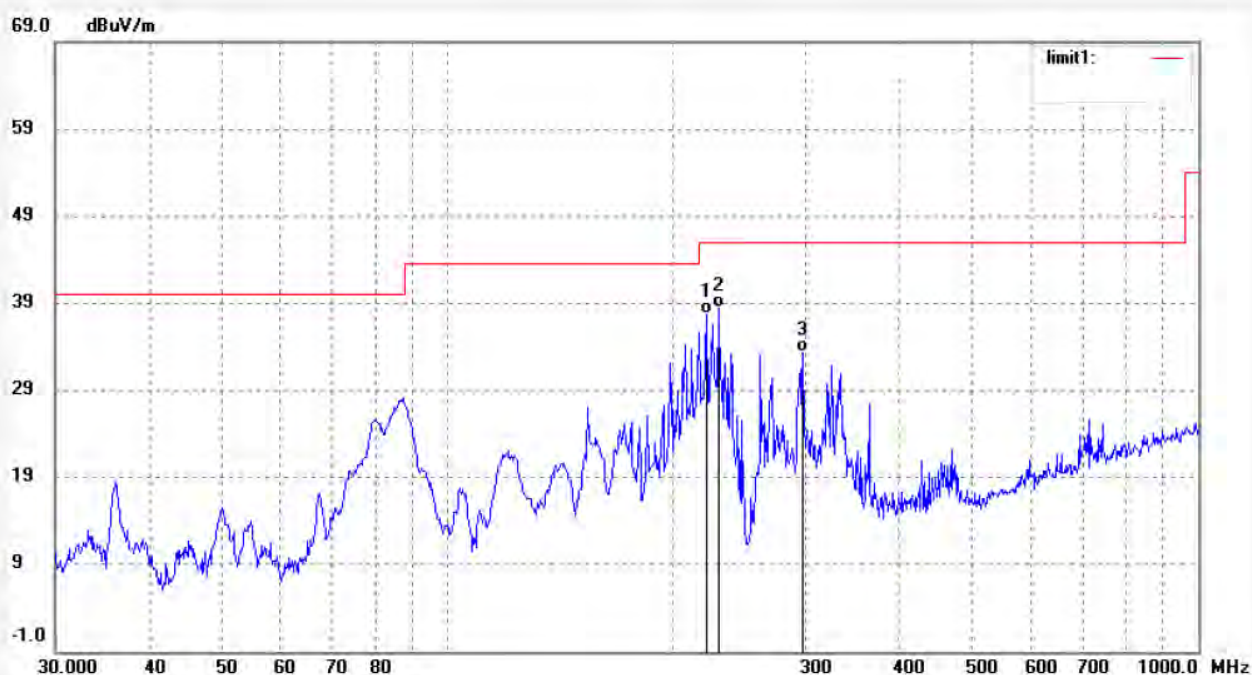
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber  
Tel:+86-0755-26503290  
Fax:+86-0755-26503396

Job No.: alen #4084  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2462MHz(802.11g)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 11:28:19  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 221.3920       | 57.72               | -19.93         | 37.79              | 46.00             | -8.21          | QP       |                |                  |        |
| 2   | 229.2931       | 58.35               | -19.86         | 38.49              | 46.00             | -7.51          | QP       |                |                  |        |
| 3   | 297.2241       | 51.29               | -17.92         | 33.37              | 46.00             | -12.63         | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4085

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

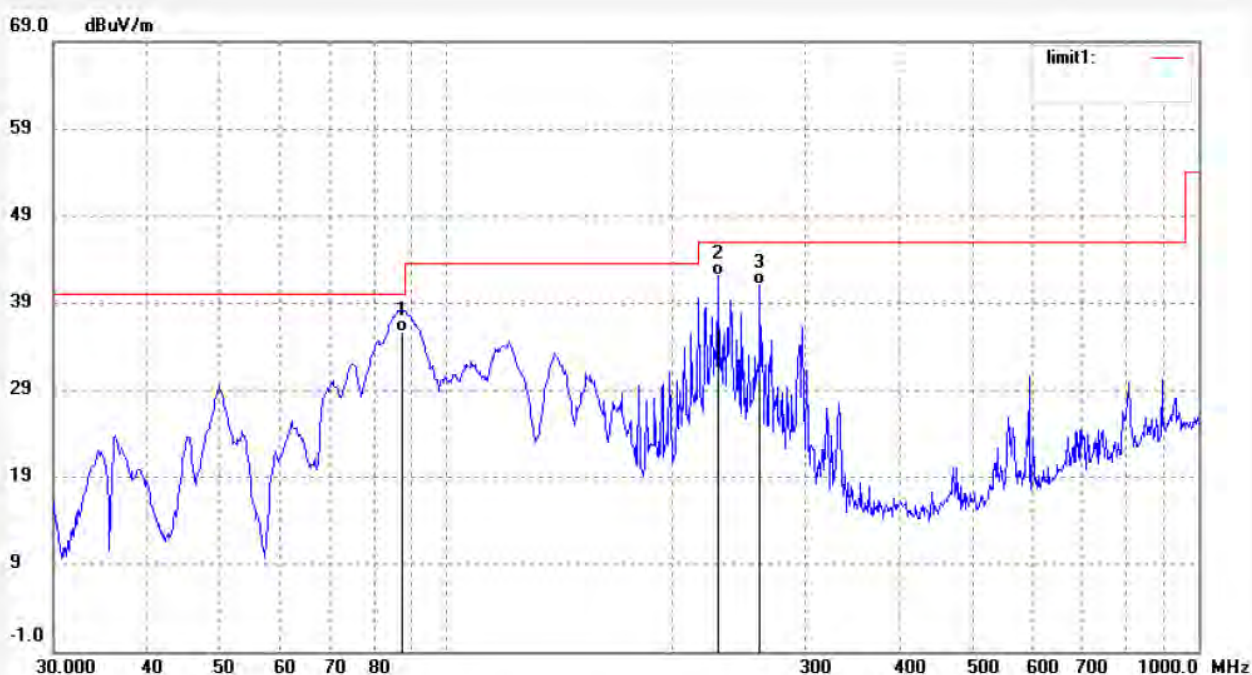
Date: 2014/05/20

Time: 11:28:58

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.1115        | 57.31               | -21.61         | 35.70              | 40.00             | -4.30          | QP       |                |                  |        |
| 2   | 229.2931       | 62.08               | -19.86         | 42.22              | 46.00             | -3.78          | QP       |                |                  |        |
| 3   | 261.0581       | 60.16               | -19.08         | 41.08              | 46.00             | -4.92          | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

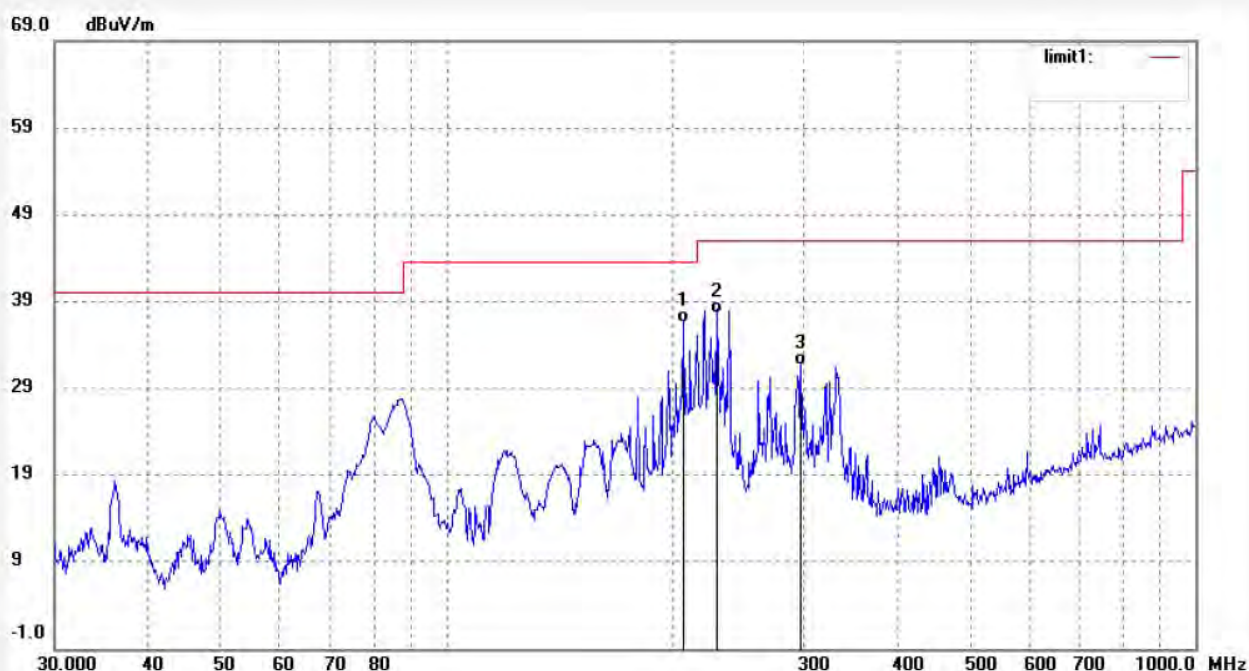
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4091  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2412MHz(802.11n20)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 11:32:41  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804

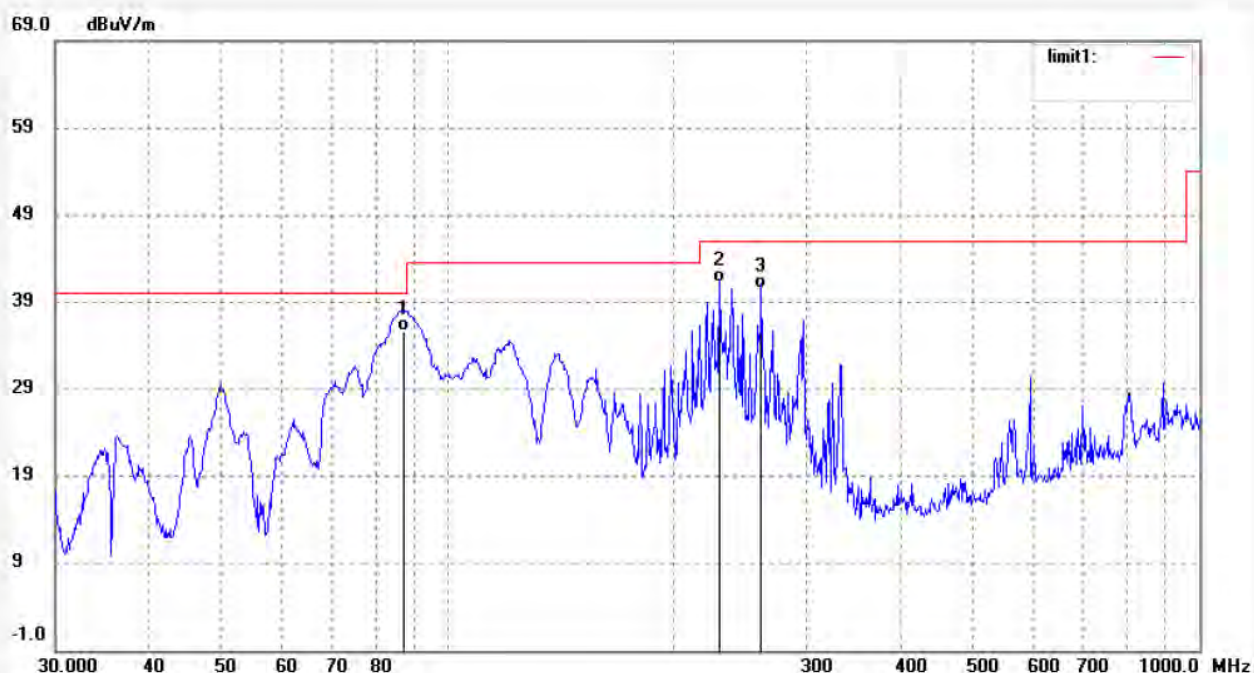


| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 207.1226       | 56.51               | -20.04         | 36.47              | 43.50             | -7.03          | QP       |                |                  |        |
| 2   | 229.2931       | 57.52               | -19.86         | 37.66              | 46.00             | -8.34          | QP       |                |                  |        |
| 3   | 297.2241       | 49.48               | -17.92         | 31.56              | 46.00             | -14.44         | QP       |                |                  |        |

Job No.: alen #4090  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2412MHz(802.11n20)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 11:32:02  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.1116        | 57.35               | -21.61         | 35.74              | 40.00             | -4.26          | QP       |                |                  |        |
| 2   | 229.2931       | 61.14               | -19.86         | 41.28              | 46.00             | -4.72          | QP       |                |                  |        |
| 3   | 261.0582       | 59.68               | -19.08         | 40.60              | 46.00             | -5.40          | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4092

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

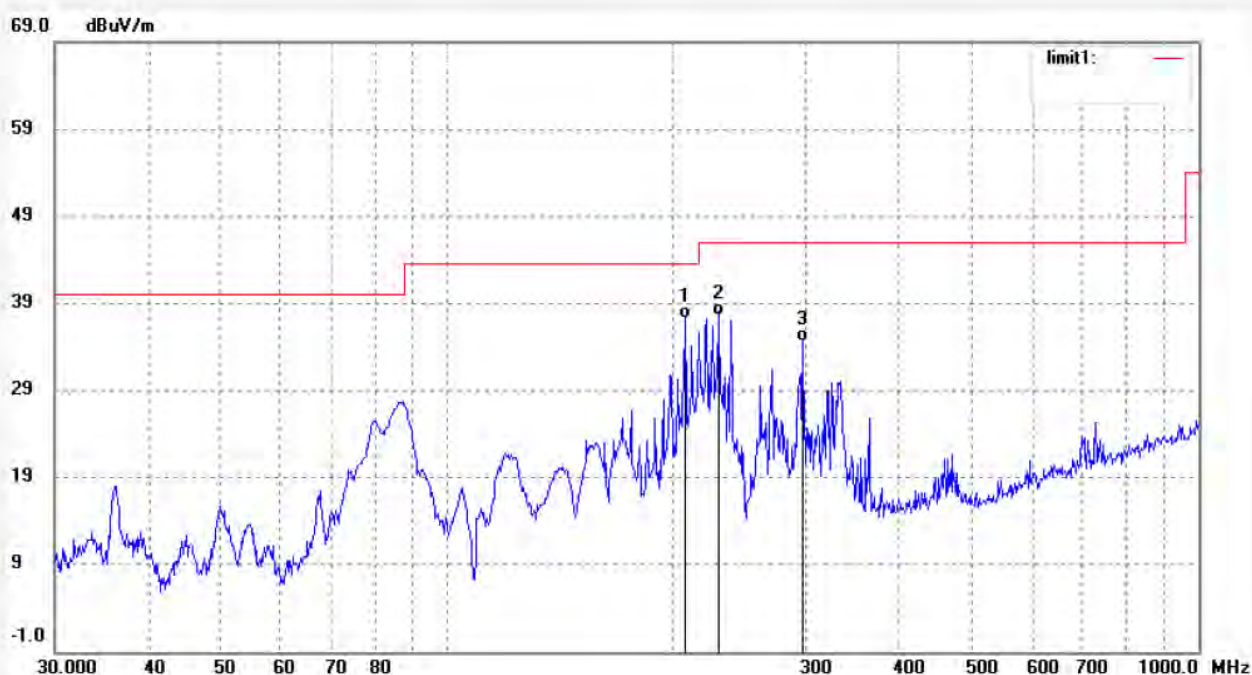
Date: 2014/05/20

Time: 11:33:15

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 207.1226    | 57.21            | -20.04      | 37.17           | 43.50          | -6.33       | QP       |             |               |        |
| 2   | 229.2931    | 57.53            | -19.86      | 37.67           | 46.00          | -8.33       | QP       |             |               |        |
| 3   | 297.2241    | 52.46            | -17.92      | 34.54           | 46.00          | -11.46      | QP       |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4093

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

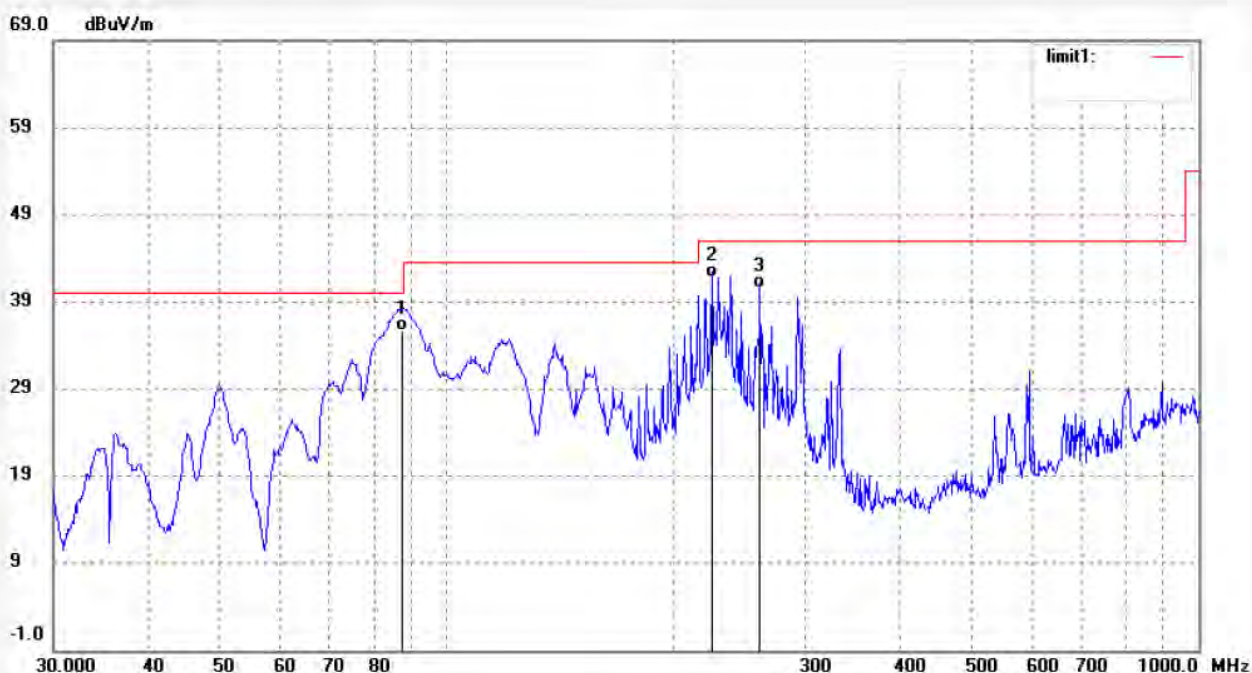
Date: 2014/05/20

Time: 11:36:18

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.1115        | 57.20               | -21.61         | 35.59              | 40.00             | -4.41          | QP       |                |                  |        |
| 2   | 225.3078       | 61.76               | -19.89         | 41.87              | 46.00             | -4.13          | QP       |                |                  |        |
| 3   | 261.0581       | 59.65               | -19.08         | 40.57              | 46.00             | -5.43          | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4095

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

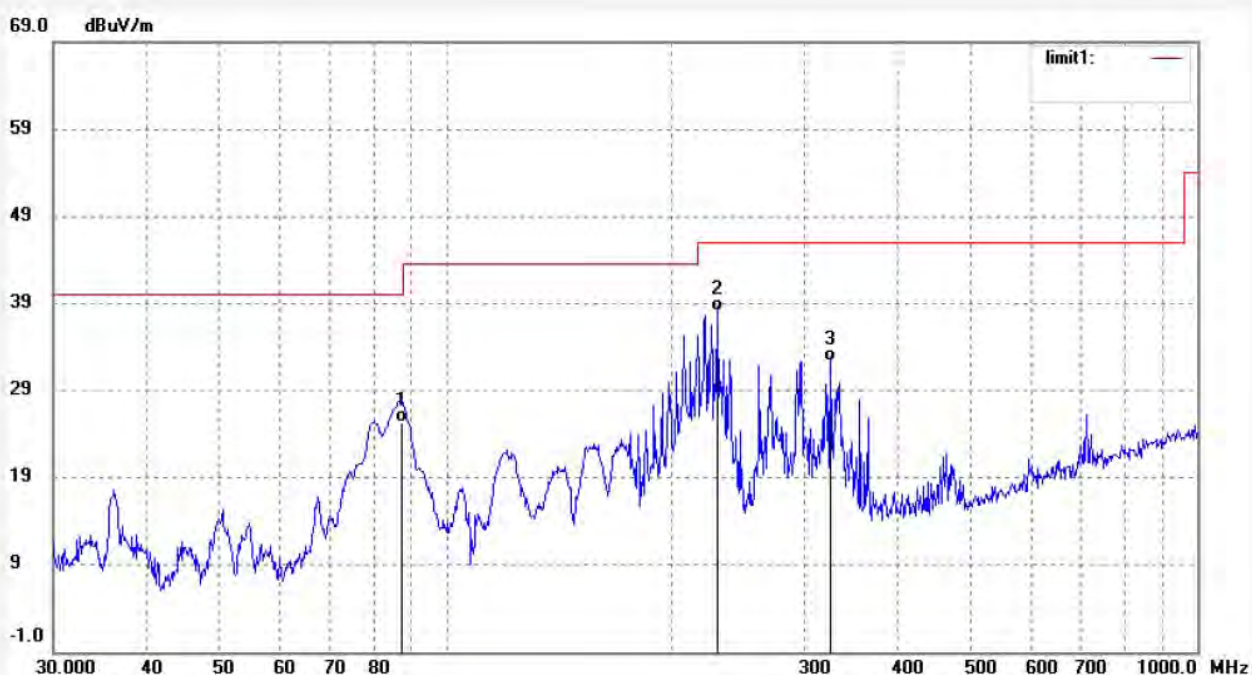
Date: 2014/05/20

Time: 11:37:30

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.4175        | 46.89               | -21.61         | 25.28              | 40.00             | -14.72         | QP       |                |                  |        |
| 2   | 229.2931       | 58.05               | -19.86         | 38.19              | 46.00             | -7.81          | QP       |                |                  |        |
| 3   | 324.4560       | 49.64               | -17.22         | 32.42              | 46.00             | -13.58         | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4094

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

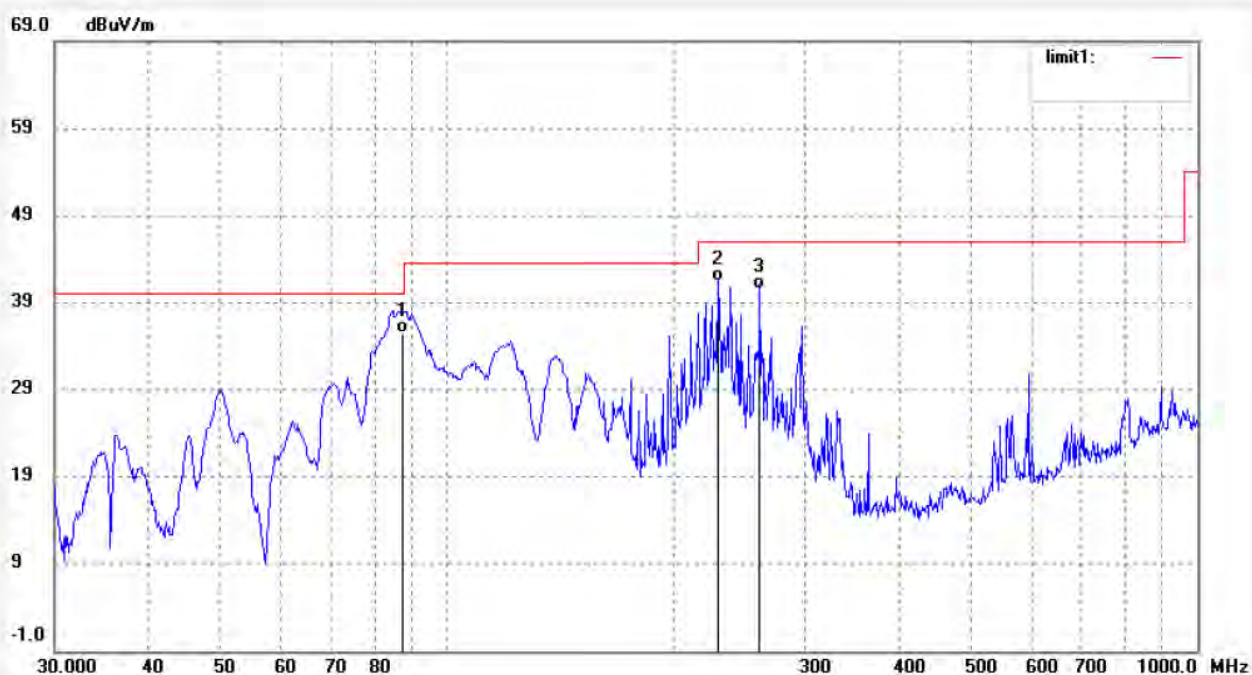
Date: 2014/05/20

Time: 11:36:55

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.4176        | 57.14               | -21.61         | 35.53              | 40.00             | -4.47          | QP       |                |                  |        |
| 2   | 229.2931       | 61.32               | -19.86         | 41.46              | 46.00             | -4.54          | QP       |                |                  |        |
| 3   | 261.0582       | 59.58               | -19.08         | 40.50              | 46.00             | -5.50          | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4100

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2422MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

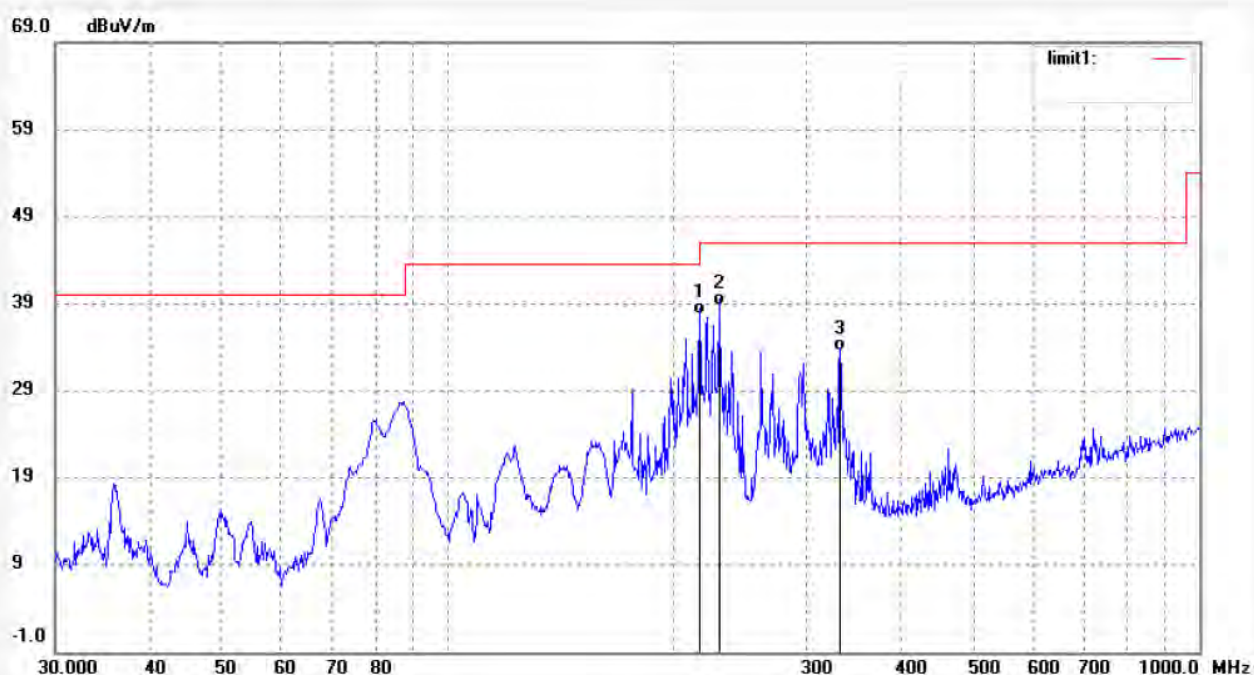
Date: 2014/05/20

Time: 11:40:30

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 216.0240       | 57.74               | -19.96         | 37.78              | 46.00             | -8.22          | QP       |                |                  |        |
| 2   | 229.2931       | 58.65               | -19.86         | 38.79              | 46.00             | -7.21          | QP       |                |                  |        |
| 3   | 332.5187       | 50.35               | -16.86         | 33.49              | 46.00             | -12.51         | QP       |                |                  |        |

Job No.: alen #4101

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2422MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

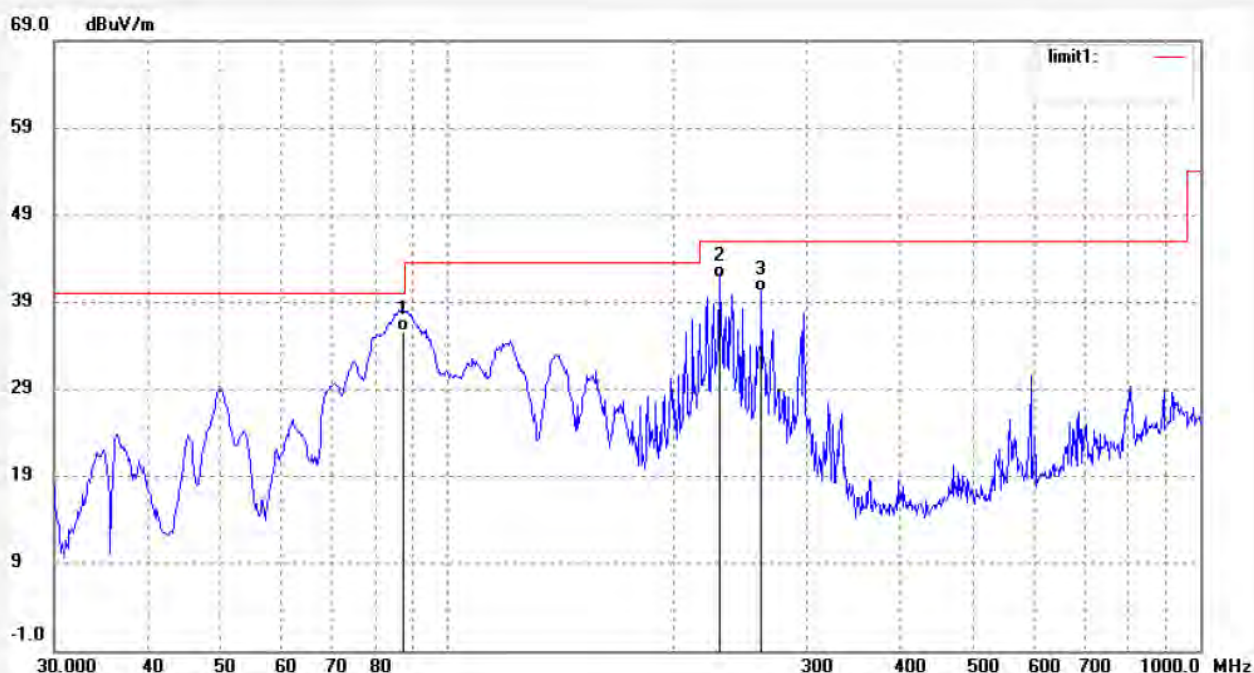
Date: 2014/05/20

Time: 11:41:38

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.1116        | 57.21               | -21.61         | 35.60              | 40.00             | -4.40          | QP       |                |                  |        |
| 2   | 229.2931       | 61.59               | -19.86         | 41.73              | 46.00             | -4.27          | QP       |                |                  |        |
| 3   | 261.0582       | 59.38               | -19.08         | 40.30              | 46.00             | -5.70          | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4099

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

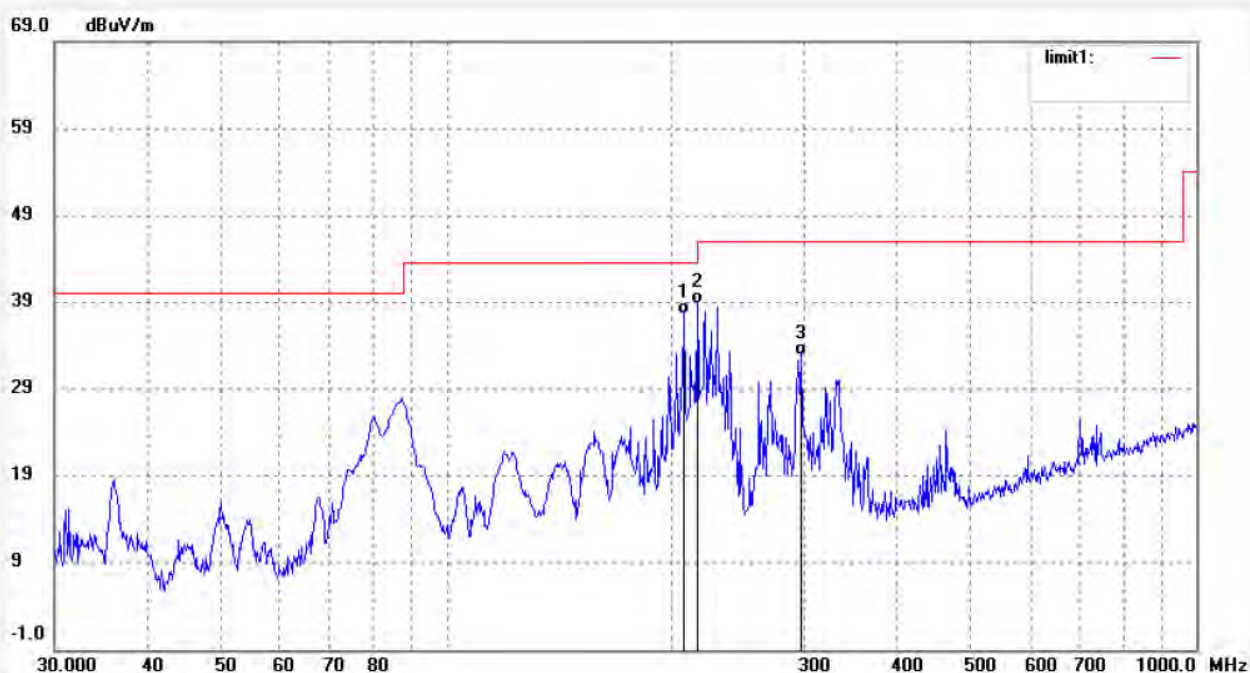
Date: 2014/05/20

Time: 11:39:52

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804





## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4098

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

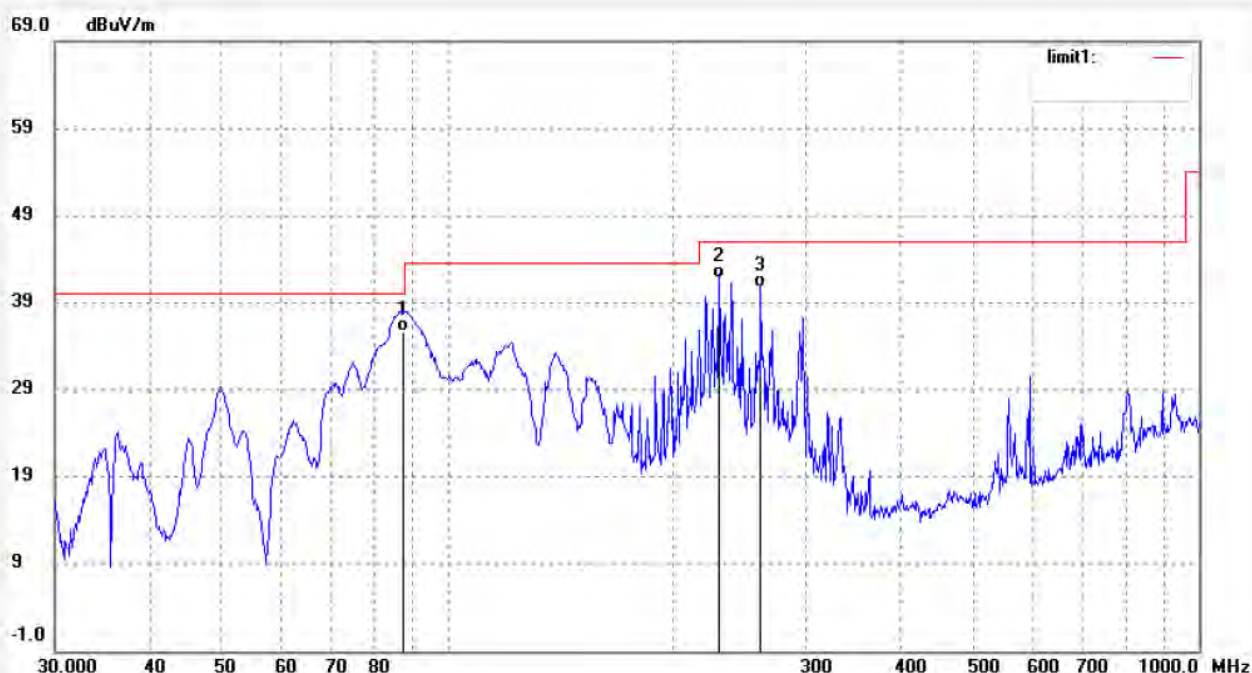
Date: 2014/05/20

Time: 11:39:12

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.1115        | 57.20               | -21.61         | 35.59              | 40.00             | -4.41          | QP       |                |                  |        |
| 2   | 230.0985       | 61.68               | -19.86         | 41.82              | 46.00             | -4.18          | QP       |                |                  |        |
| 3   | 261.0581       | 59.75               | -19.08         | 40.67              | 46.00             | -5.33          | QP       |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #4096

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2452MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

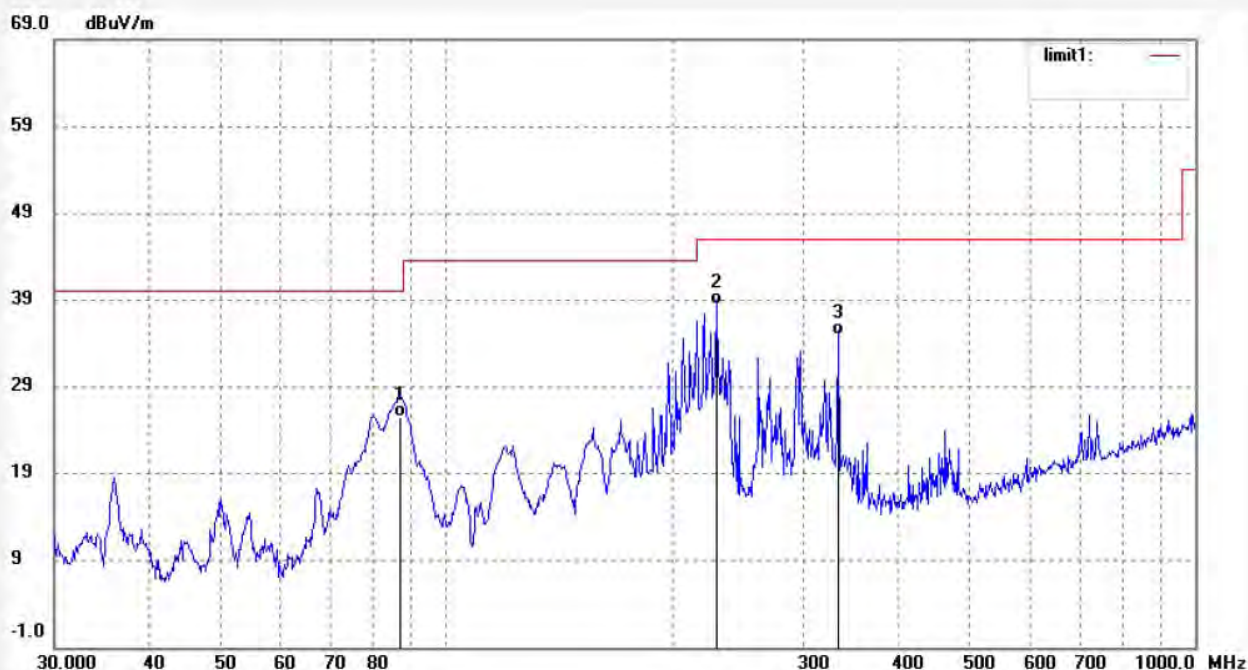
Date: 2014/05/20

Time: 11:38:06

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 86.8067     | 47.05            | -21.60      | 25.45           | 40.00          | -14.55      | QP       |             |               |        |
| 2   | 229.2931    | 58.36            | -19.86      | 38.50           | 46.00          | -7.50       | QP       |             |               |        |
| 3   | 333.6865    | 51.85            | -16.80      | 35.05           | 46.00          | -10.95      | QP       |             |               |        |

Job No.: alen #4097

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2452MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

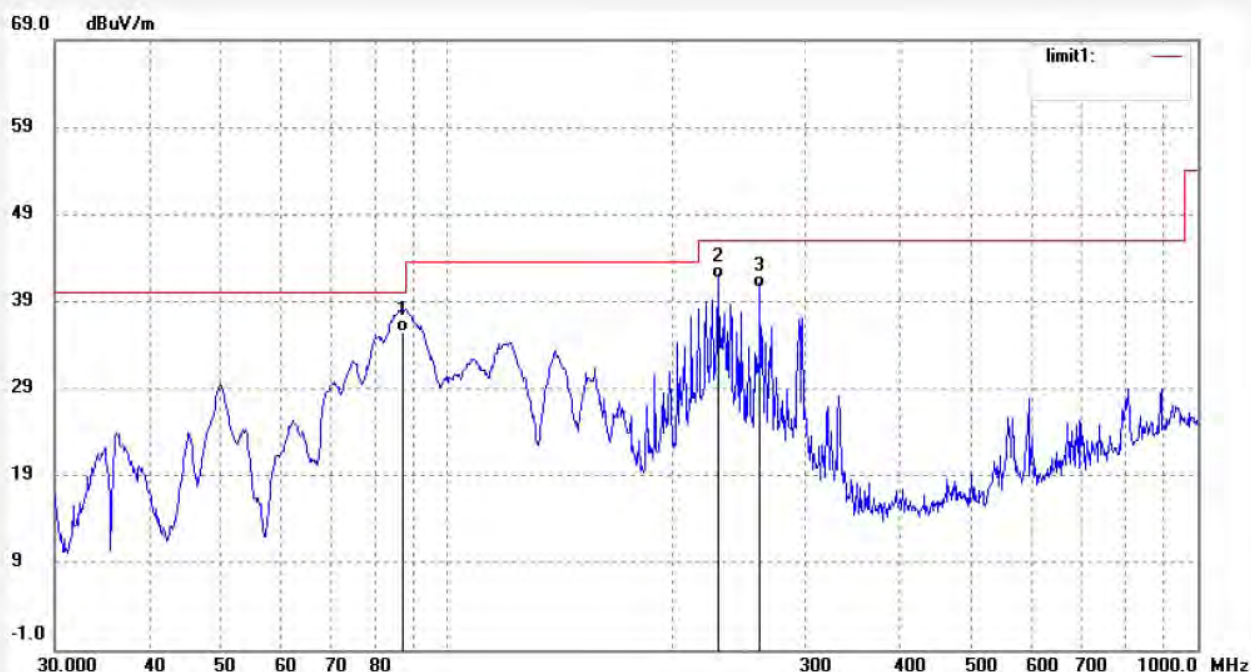
Date: 2014/05/20

Time: 11:38:44

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 87.1116        | 57.16               | -21.61         | 35.55              | 40.00             | -4.45          | QP       |                |                  |        |
| 2   | 229.2931       | 61.47               | -19.86         | 41.61              | 46.00             | -4.39          | QP       |                |                  |        |
| 3   | 261.0582       | 59.63               | -19.08         | 40.55              | 46.00             | -5.45          | QP       |                |                  |        |

Above 1G



**ACCURATE TECHNOLOGY CO., LTD.**

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

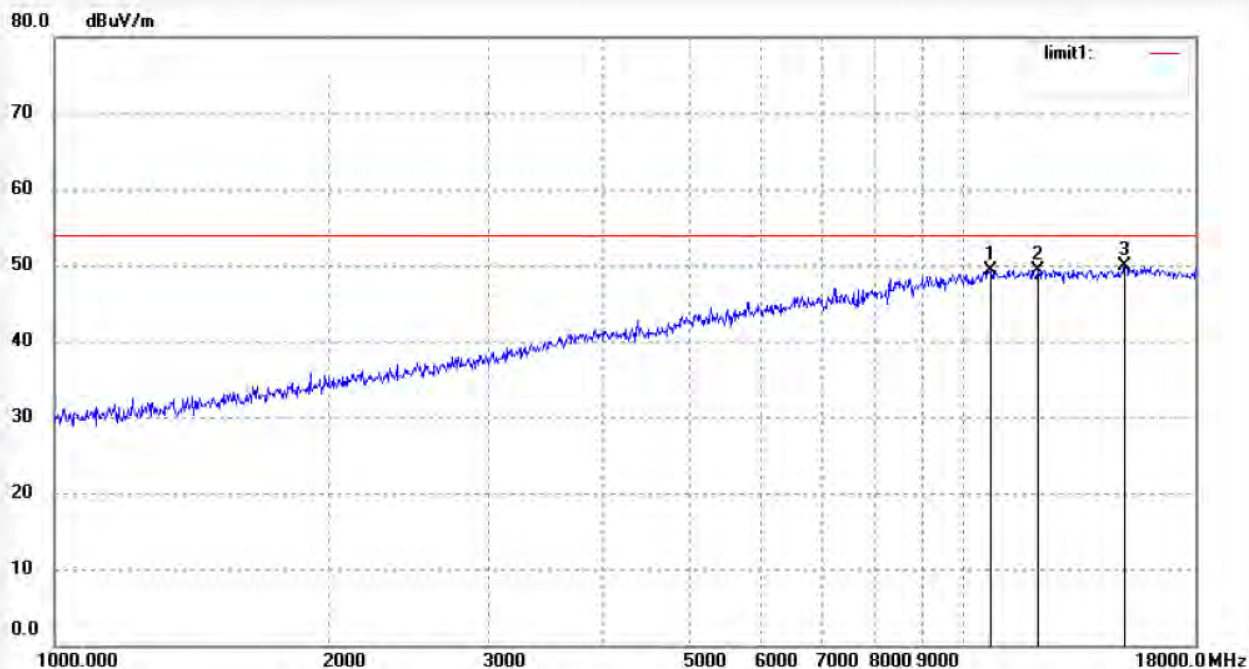
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3037  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2412MHz(802.11b)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 17/35/34  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 10729.481   | 43.95            | 5.34        | 49.29           | 54.00          | -4.71       | peak     |             |               |        |
| 2   | 12079.387   | 42.67            | 6.61        | 49.28           | 54.00          | -4.72       | peak     |             |               |        |
| 3   | 15046.851   | 38.08            | 11.82       | 49.90           | 54.00          | -4.10       | peak     |             |               |        |



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Site: 1# Chamber

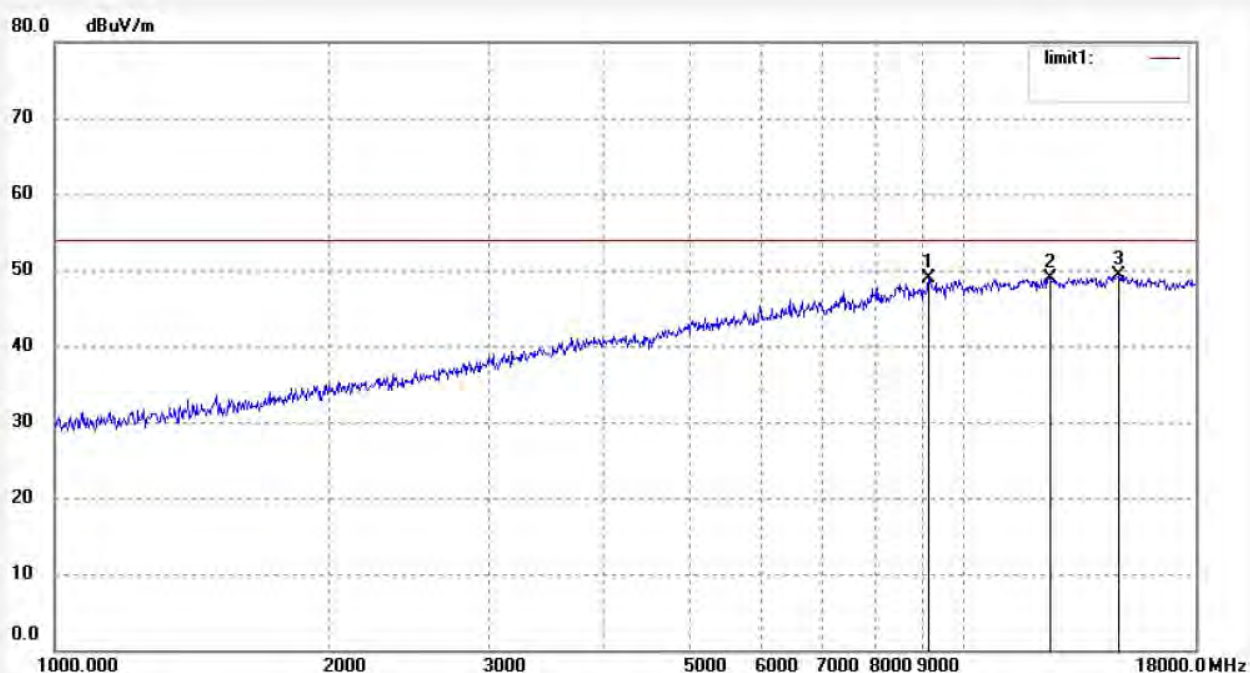
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3036  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2412MHz(802.11b)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 17/34/39  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804

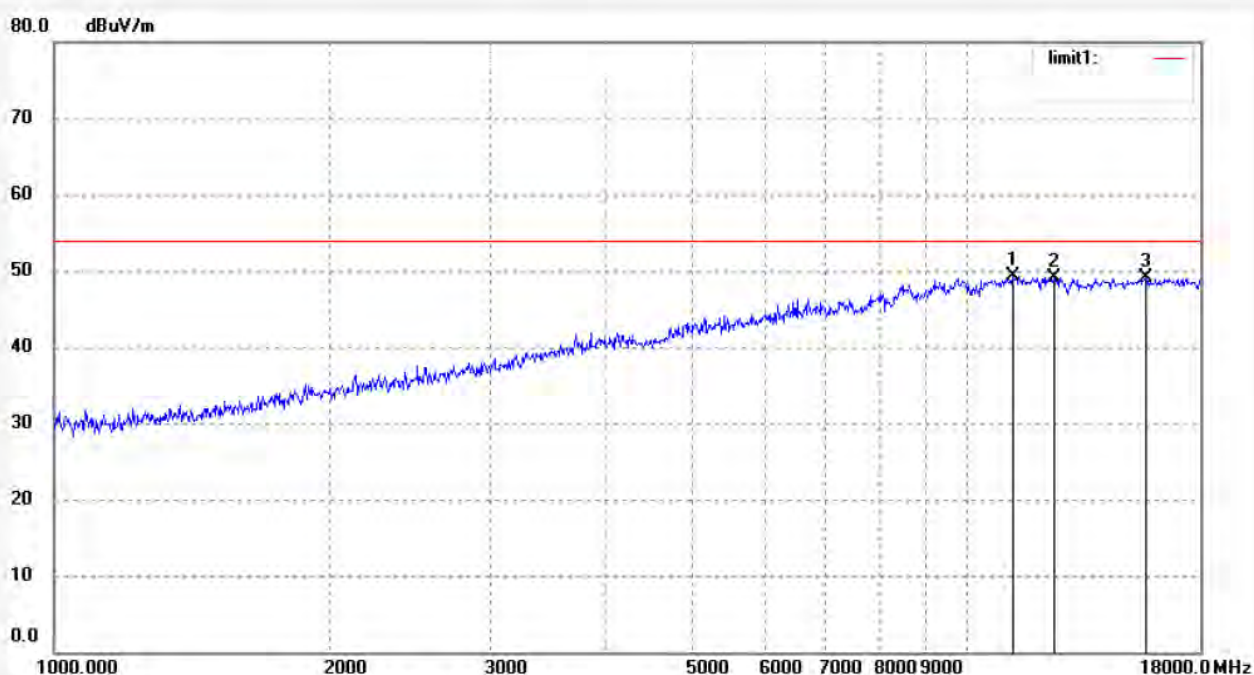


| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 9152.479       | 44.94               | 3.88           | 48.82              | 54.00             | -5.18          | peak     |                |                  |        |
| 2   | 12433.621      | 41.91               | 7.06           | 48.97              | 54.00             | -5.03          | peak     |                |                  |        |
| 3   | 14830.959      | 36.96               | 12.26          | 49.22              | 54.00             | -4.78          | peak     |                |                  |        |

Job No.: alen #3035  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2437MHz(802.11b)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Horizontal  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 17/34/05  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 11204.896      | 43.55               | 5.72           | 49.27              | 54.00             | -4.73          | peak     |                |                  |        |
| 2   | 12469.611      | 41.96               | 7.12           | 49.08              | 54.00             | -4.92          | peak     |                |                  |        |
| 3   | 15713.564      | 37.72               | 11.40          | 49.12              | 54.00             | -4.88          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3034

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

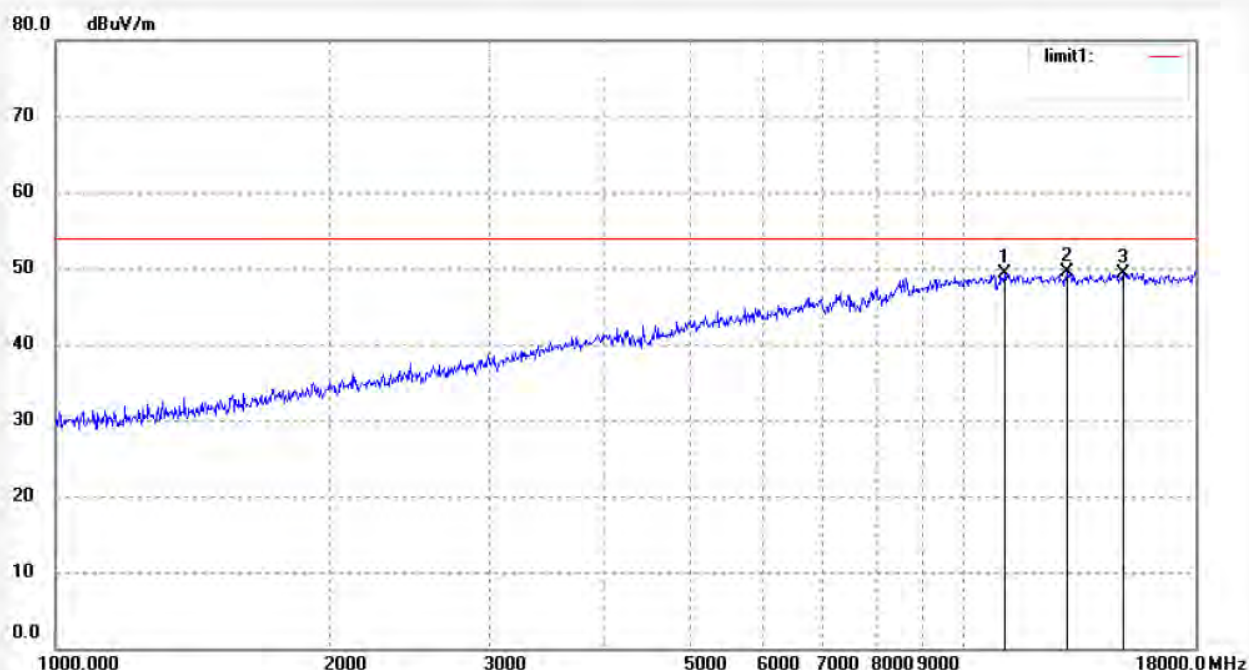
Date: 2014/05/20

Time: 17/33/34

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 11076.096   | 43.73            | 5.58        | 49.31           | 54.00          | -4.69       | peak     |             |               |        |
| 2   | 12984.544   | 41.54            | 7.87        | 49.41           | 54.00          | -4.59       | peak     |             |               |        |
| 3   | 15003.422   | 37.52            | 11.88       | 49.40           | 54.00          | -4.60       | peak     |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3032

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

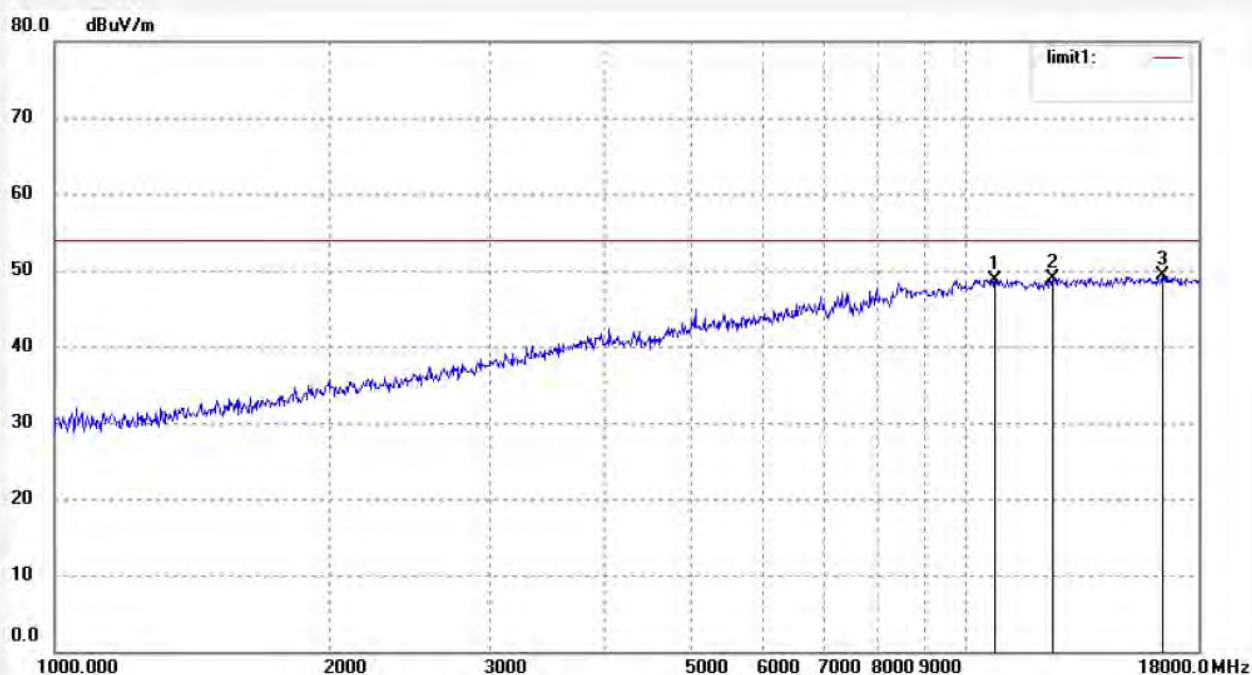
Date: 2014/05/20

Time: 17/32/22

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 10760.538      | 43.44               | 5.35           | 48.79              | 54.00             | -5.21          | peak     |                |                  |        |
| 2   | 12433.621      | 41.81               | 7.06           | 48.87              | 54.00             | -5.13          | peak     |                |                  |        |
| 3   | 16409.819      | 37.22               | 12.06          | 49.28              | 54.00             | -4.72          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3033

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11b)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

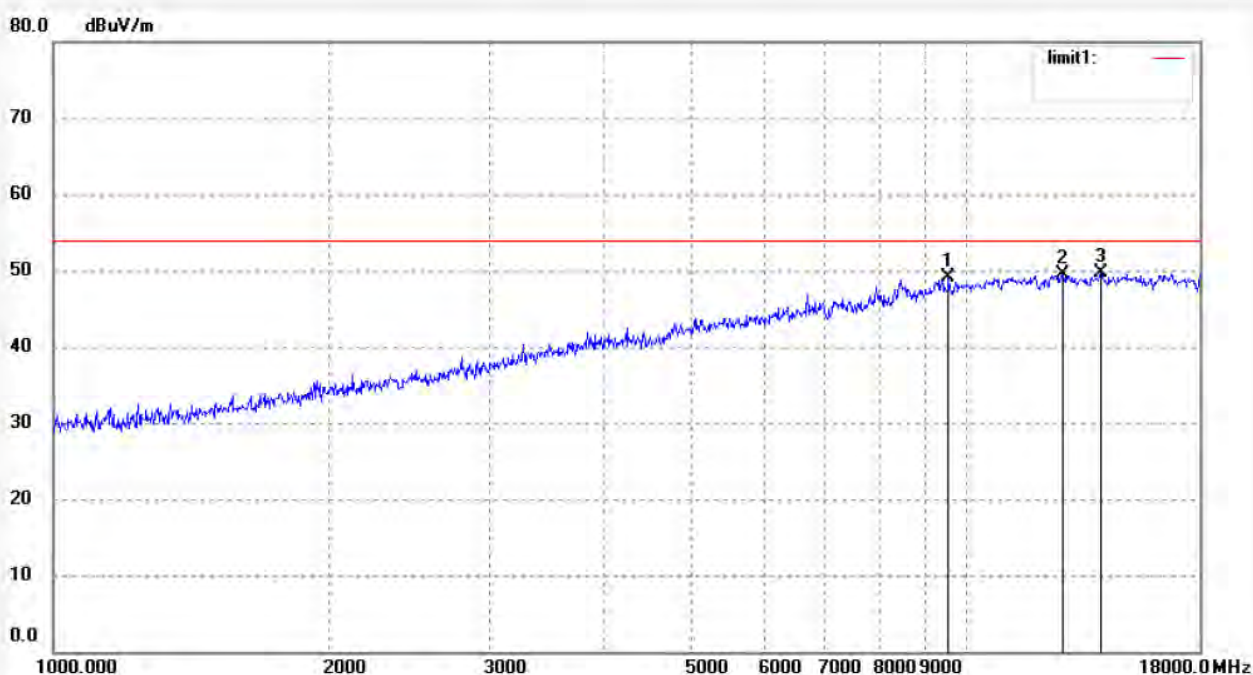
Date: 2014/05/20

Time: 17/32/56

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 9558.017    | 44.30            | 4.85        | 49.15           | 54.00          | -4.85       | peak     |             |               |        |
| 2   | 12724.473   | 41.96            | 7.49        | 49.45           | 54.00          | -4.55       | peak     |             |               |        |
| 3   | 14038.447   | 39.00            | 10.61       | 49.61           | 54.00          | -4.39       | peak     |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3027

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

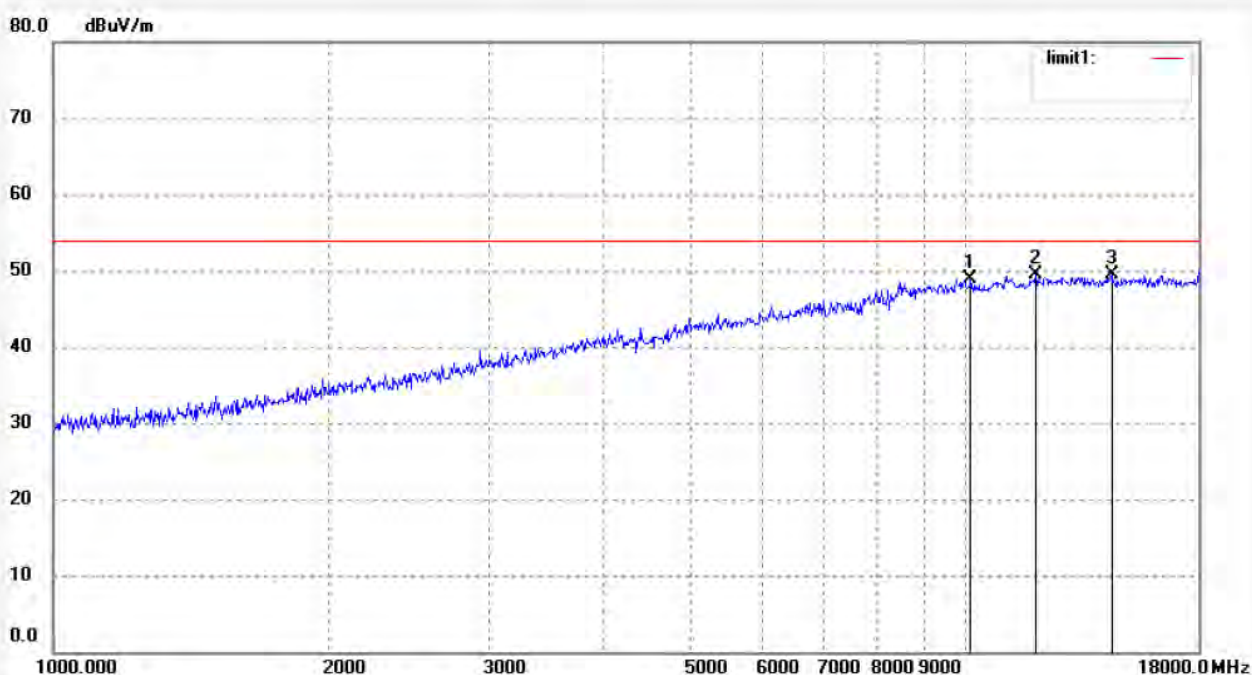
Date: 2014/05/20

Time: 17/28/56

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 10126.824      | 43.49               | 5.34           | 48.83              | 54.00             | -5.17          | peak     |                |                  |        |
| 2   | 11940.535      | 43.04               | 6.43           | 49.47              | 54.00             | -4.53          | peak     |                |                  |        |
| 3   | 14450.131      | 36.75               | 12.73          | 49.48              | 54.00             | -4.52          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3026

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

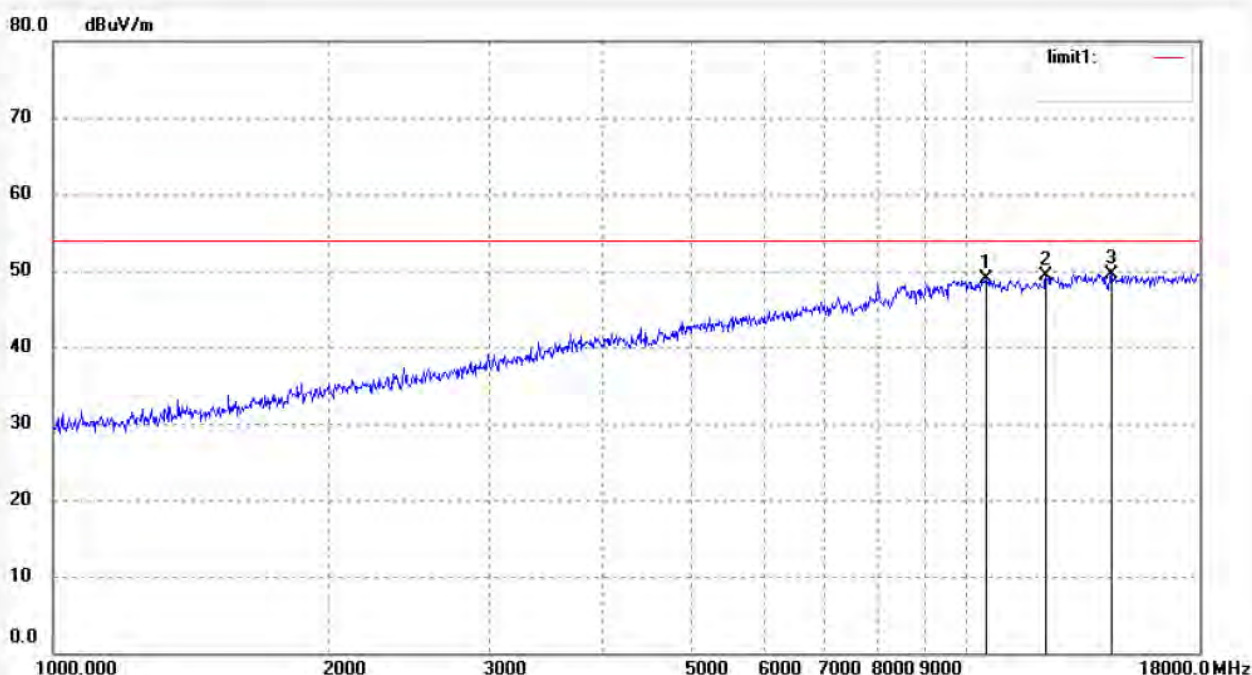
Date: 2014/05/20

Time: 17/28/22

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



Job No.: alen #3029

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

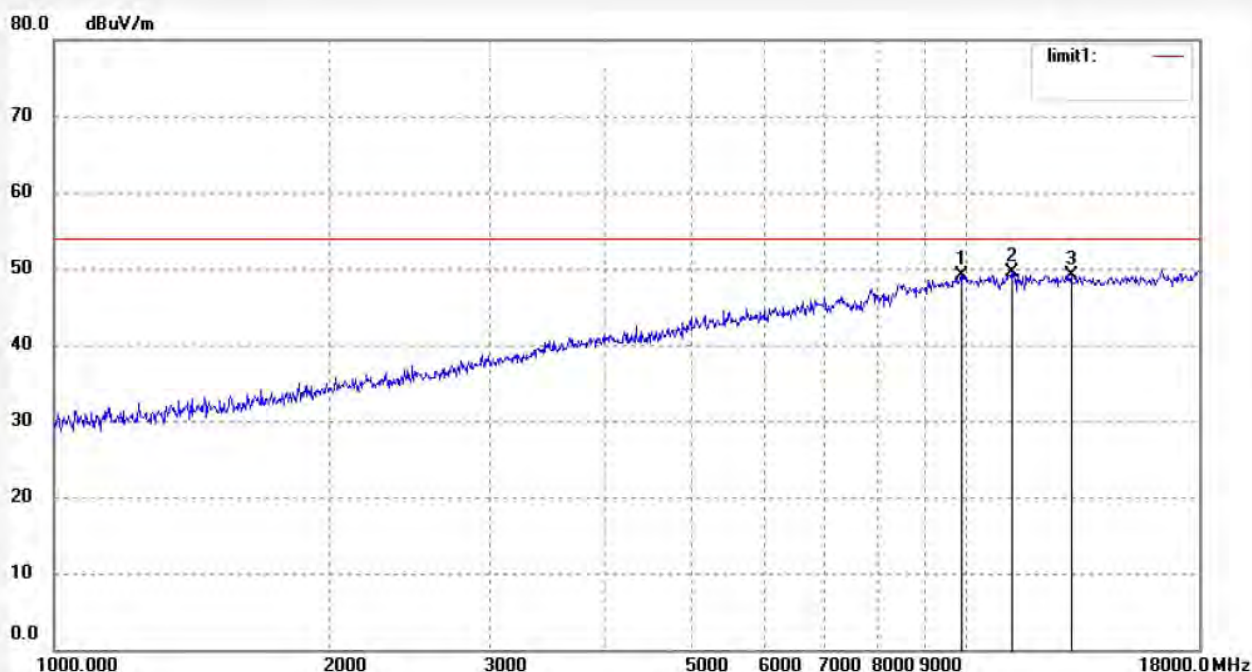
Date: 2014/05/20

Time: 17/30/30

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 9866.789       | 43.89               | 5.18           | 49.07              | 54.00             | -4.93          | peak     |                |                  |        |
| 2   | 11204.896      | 43.79               | 5.72           | 49.51              | 54.00             | -4.49          | peak     |                |                  |        |
| 3   | 13022.129      | 41.14               | 7.94           | 49.08              | 54.00             | -4.92          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3028

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

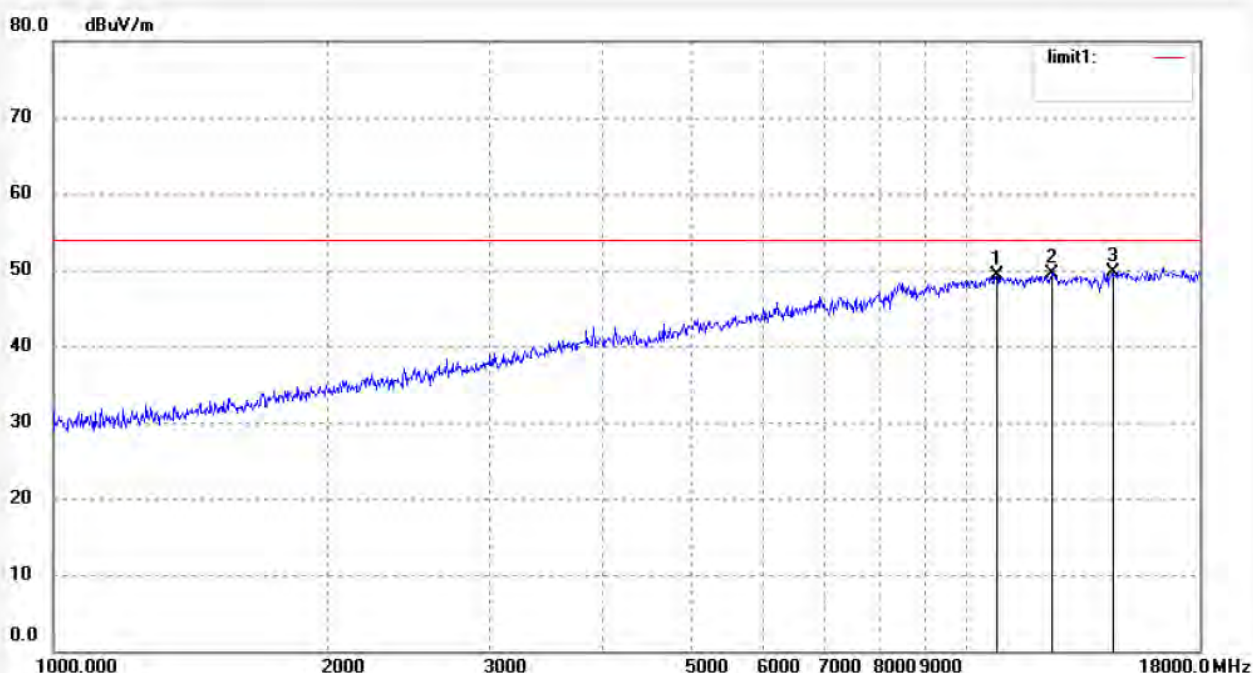
Date: 2014/05/20

Time: 17/29/39

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 10791.685      | 43.94               | 5.38           | 49.32              | 54.00             | -4.68          | peak     |                |                  |        |
| 2   | 12397.735      | 42.46               | 7.02           | 49.48              | 54.00             | -4.52          | peak     |                |                  |        |
| 3   | 14450.131      | 36.96               | 12.73          | 49.69              | 54.00             | -4.31          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3031

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

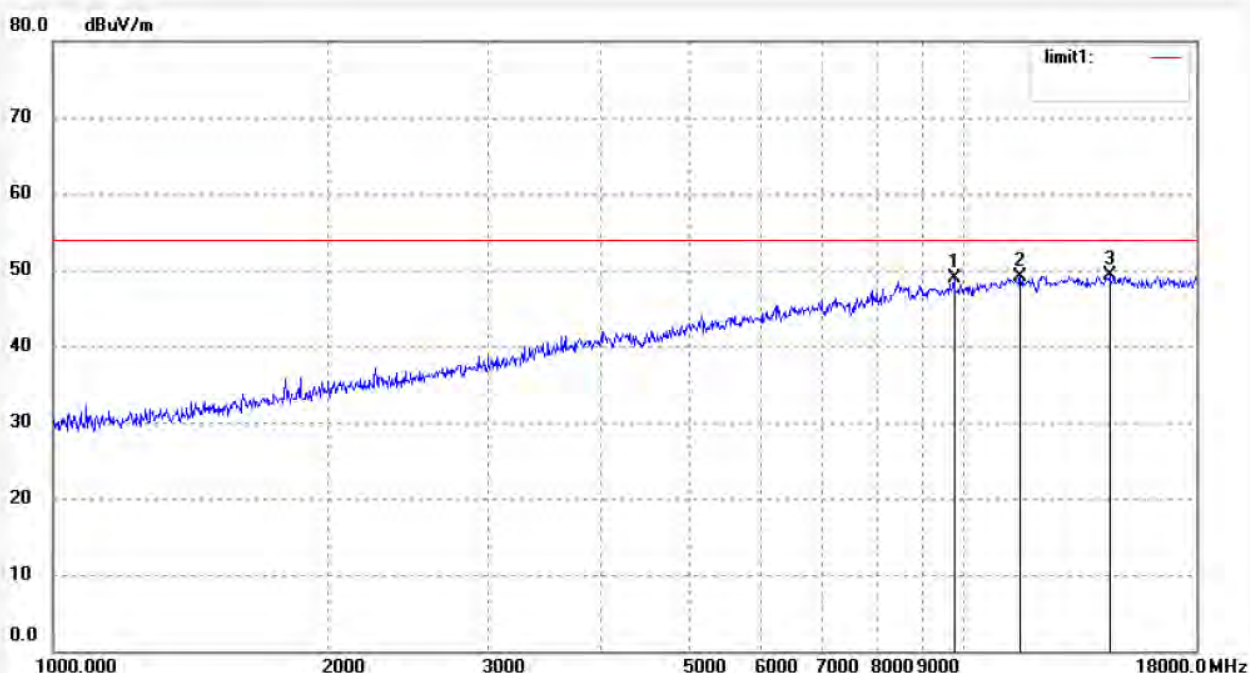
Date: 2014/05/20

Time: 17/31/47

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804





## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3030

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11g)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

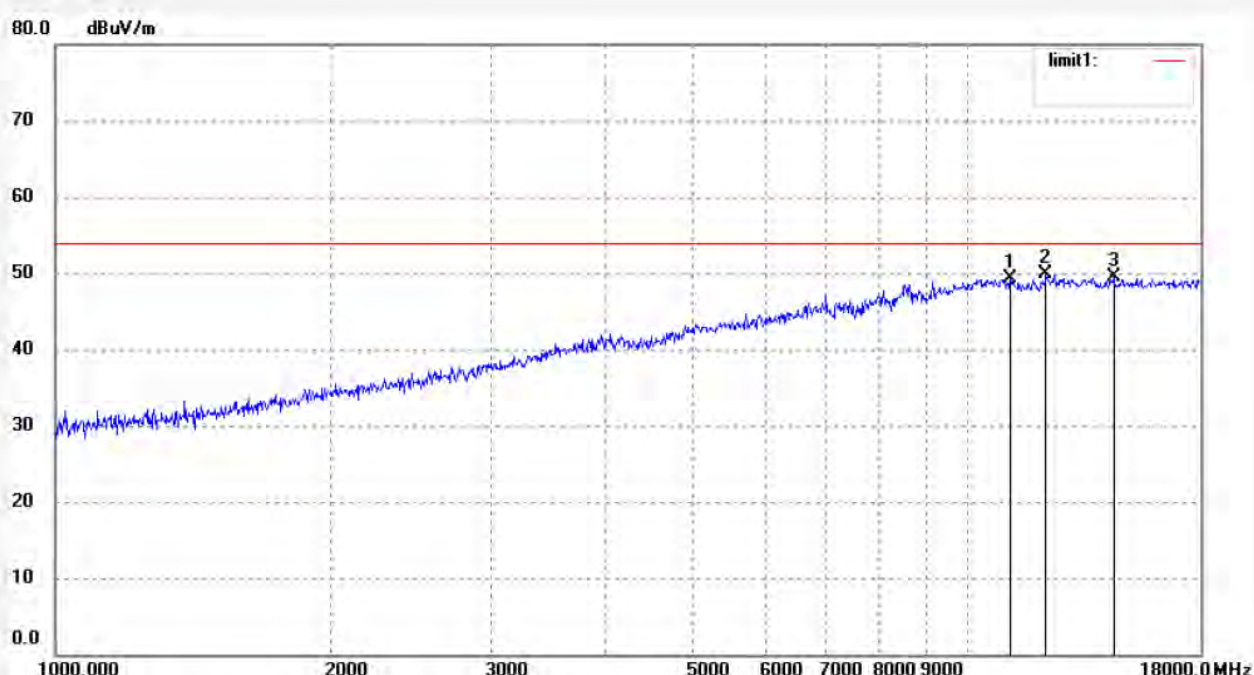
Date: 2014/05/20

Time: 17/31/09

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 11140.310      | 43.66               | 5.65           | 49.31              | 54.00             | -4.69          | peak     |                |                  |        |
| 2   | 12184.584      | 43.11               | 6.73           | 49.84              | 54.00             | -4.16          | peak     |                |                  |        |
| 3   | 14450.131      | 36.76               | 12.74          | 49.50              | 54.00             | -4.50          | peak     |                |                  |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3024

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

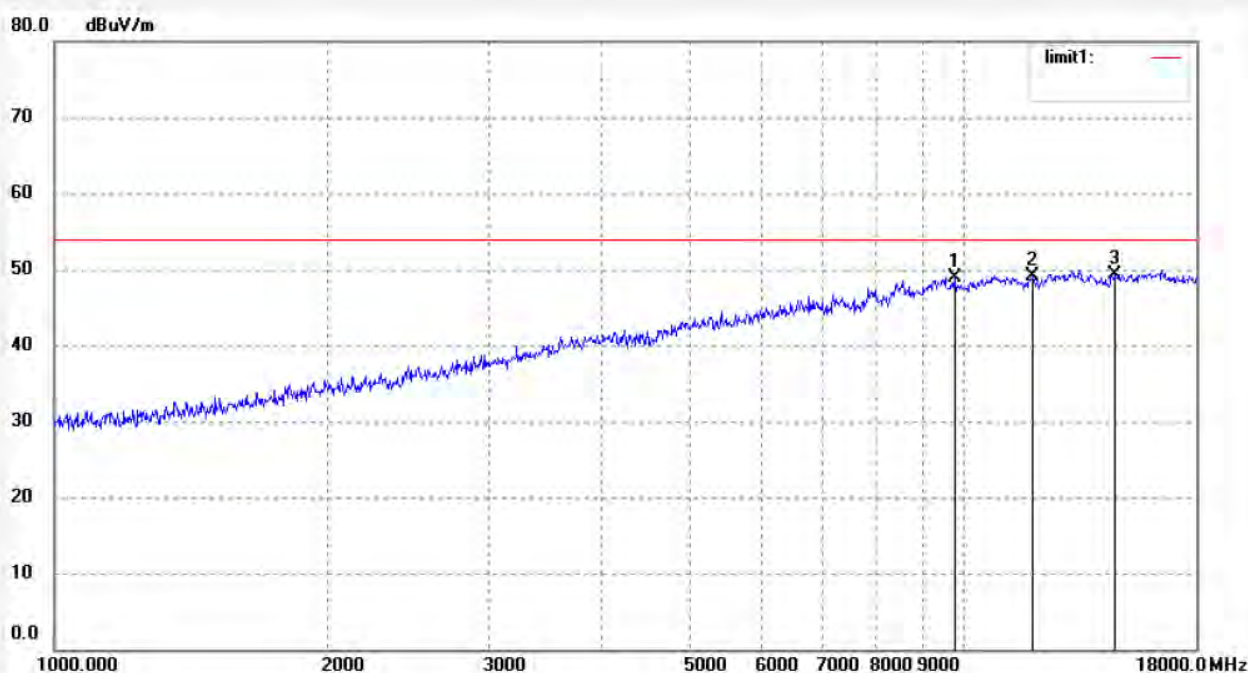
Date: 2014/05/20

Time: 17/27/10

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 9753.371    | 43.92            | 5.06        | 48.98           | 54.00          | -5.02       | peak     |             |               |        |
| 2   | 11906.073   | 42.61            | 6.41        | 49.02           | 54.00          | -4.98       | peak     |             |               |        |
| 3   | 14618.166   | 36.64            | 12.74       | 49.38           | 54.00          | -4.62       | peak     |             |               |        |



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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3025

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2412MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

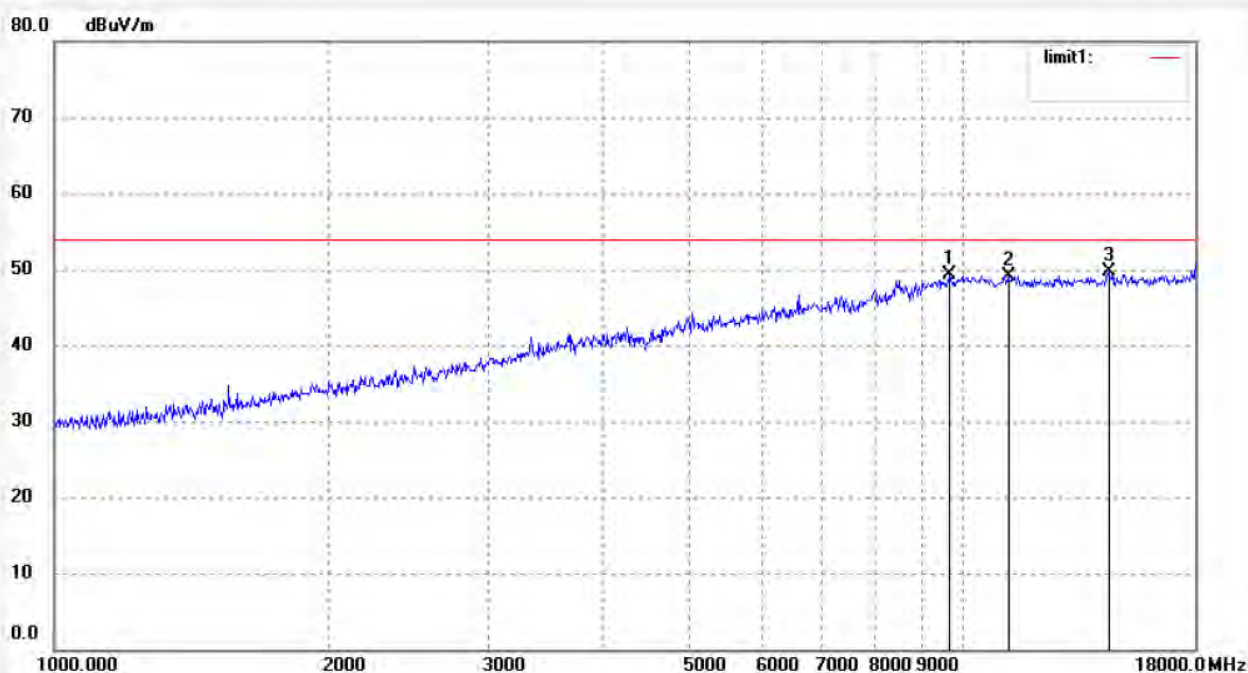
Date: 2014/05/20

Time: 17/27/47

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 9669.164       | 44.28               | 4.97           | 49.25              | 54.00             | -4.75          | peak     |                |                  |        |
| 2   | 11204.896      | 43.47               | 5.72           | 49.19              | 54.00             | -4.81          | peak     |                |                  |        |
| 3   | 14450.131      | 36.97               | 12.74          | 49.71              | 54.00             | -4.29          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3023

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

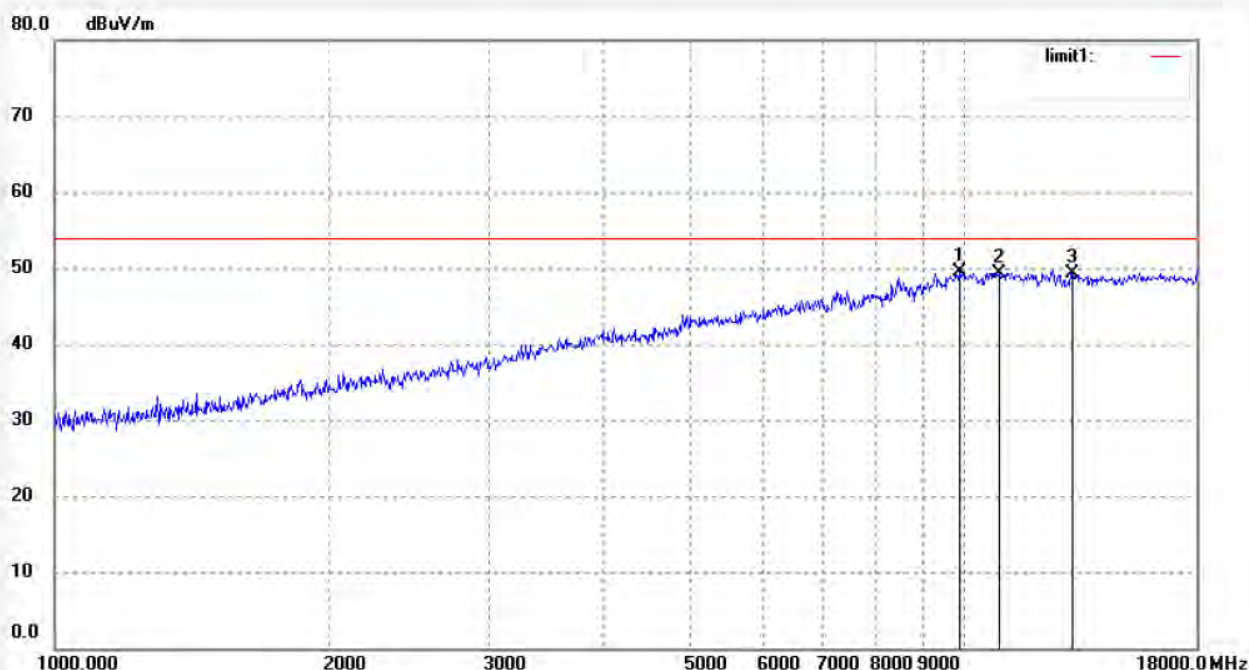
Date: 2014/05/20

Time: 17/26/31

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 9866.789       | 44.38               | 5.18           | 49.56              | 54.00             | -4.44          | peak     |                |                  |        |
| 2   | 10917.177      | 43.90               | 5.44           | 49.34              | 54.00             | -4.66          | peak     |                |                  |        |
| 3   | 13135.536      | 41.18               | 8.19           | 49.37              | 54.00             | -4.63          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3022

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

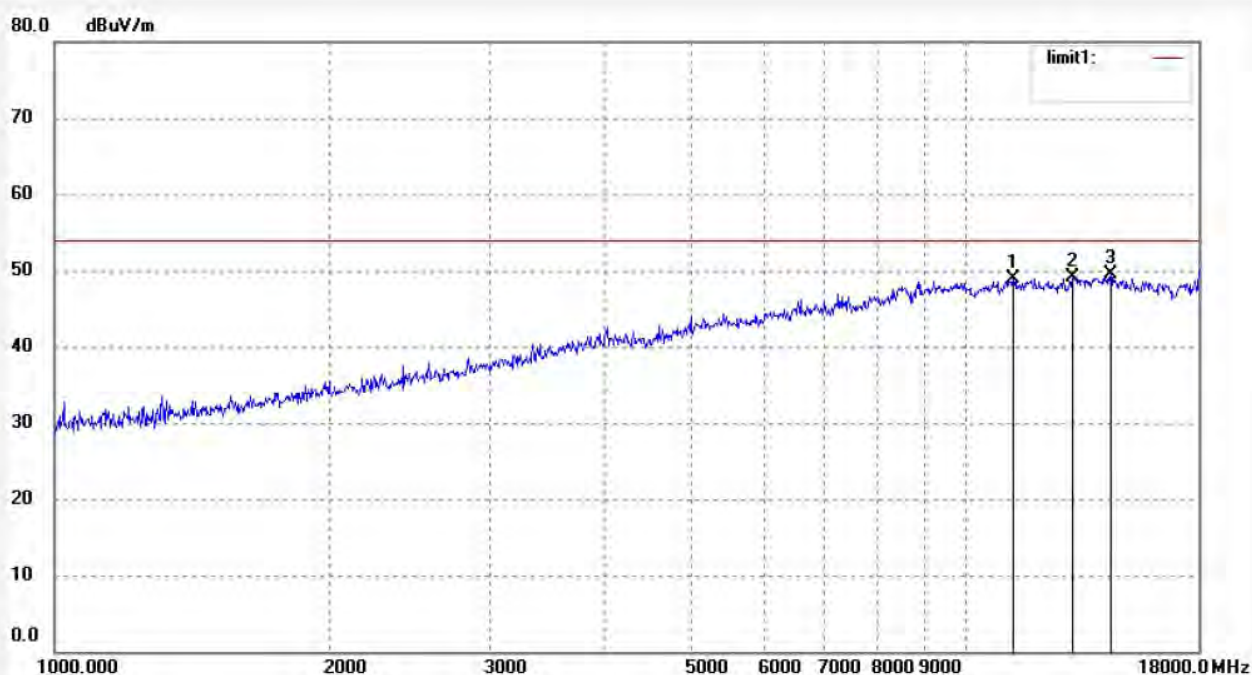
Date: 2014/05/20

Time: 17/25/53

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 11269.856   | 43.12            | 5.80        | 48.92           | 54.00          | -5.08       | peak     |             |               |        |
| 2   | 13097.624   | 41.00            | 8.11        | 49.11           | 54.00          | -4.89       | peak     |             |               |        |
| 3   | 14408.425   | 36.99            | 12.53       | 49.52           | 54.00          | -4.48       | peak     |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3021

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

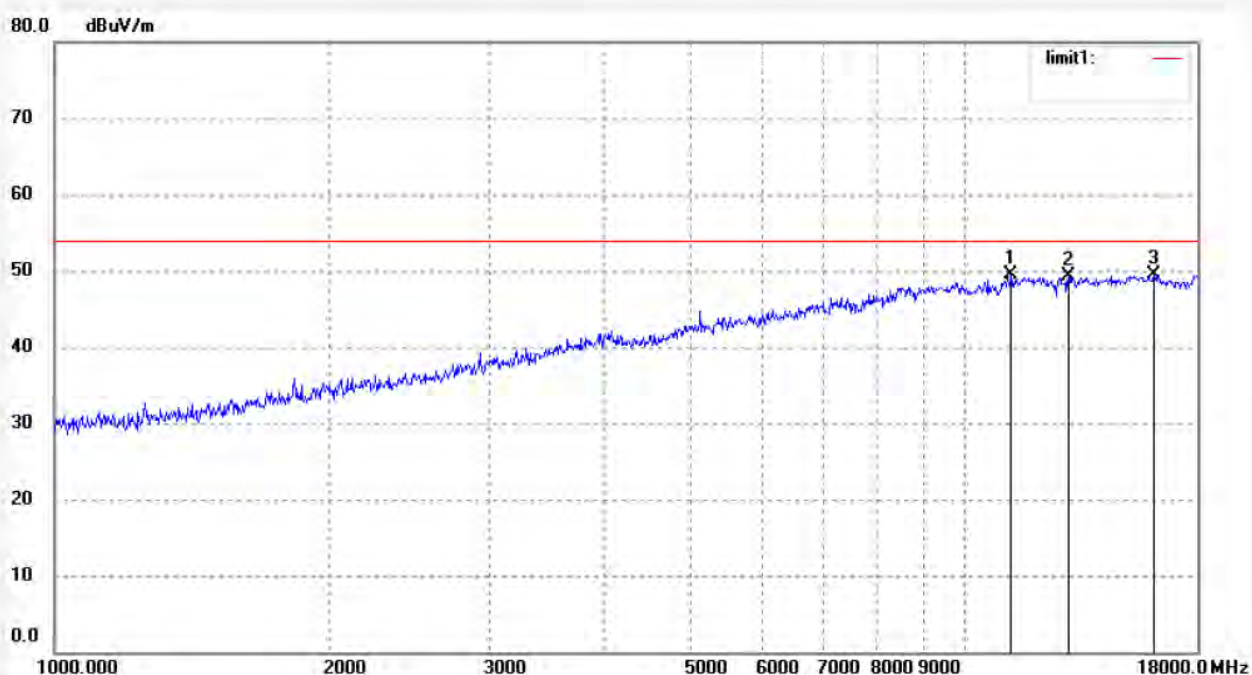
Date: 2014/05/20

Time: 17/25/16

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 11237.329      | 43.72               | 5.76           | 49.48              | 54.00             | -4.52          | peak     |                |                  |        |
| 2   | 12984.544      | 41.42               | 7.87           | 49.29              | 54.00             | -4.71          | peak     |                |                  |        |
| 3   | 16127.689      | 37.66               | 11.75          | 49.41              | 54.00             | -4.59          | peak     |                |                  |        |

Job No.: alen #3020

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2462MHz(802.11n20)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

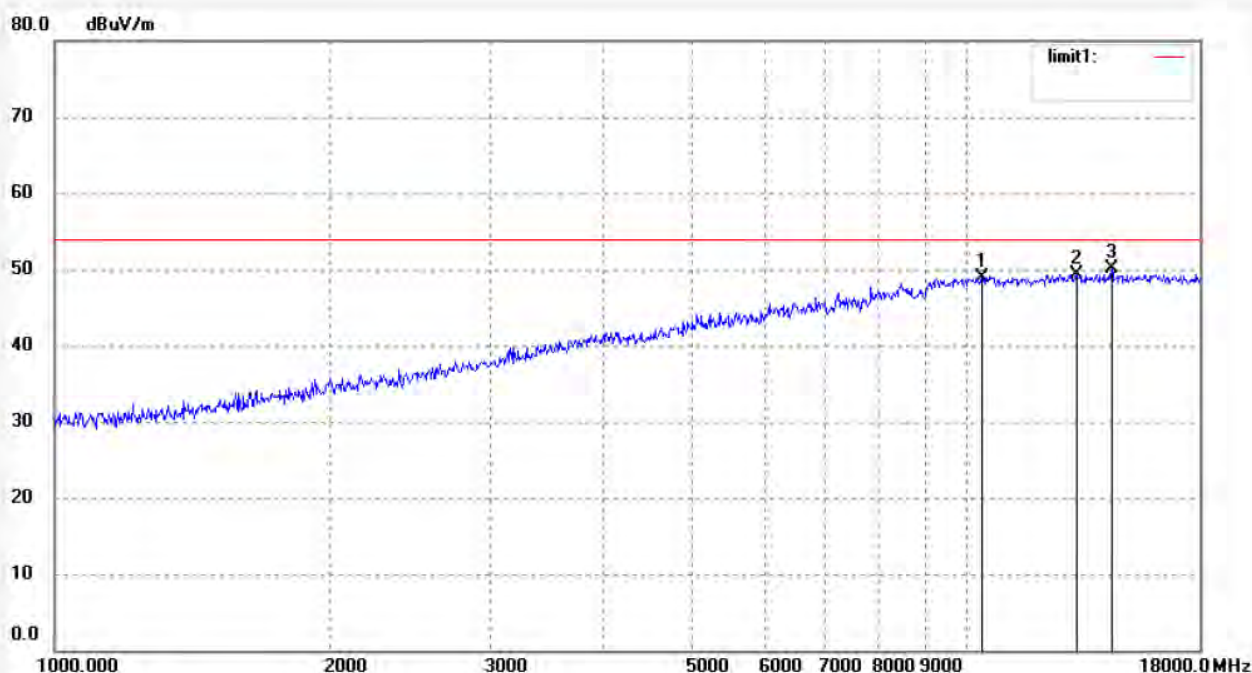
Date: 2014/05/20

Time: 17/24/41

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 10393.713      | 43.71               | 5.24           | 48.95              | 54.00             | -5.05          | peak     |                |                  |        |
| 2   | 13173.558      | 41.09               | 8.28           | 49.37              | 54.00             | -4.63          | peak     |                |                  |        |
| 3   | 14408.425      | 37.48               | 12.53          | 50.01              | 54.00             | -3.99          | peak     |                |                  |        |

Job No.: alen #3014

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2422MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

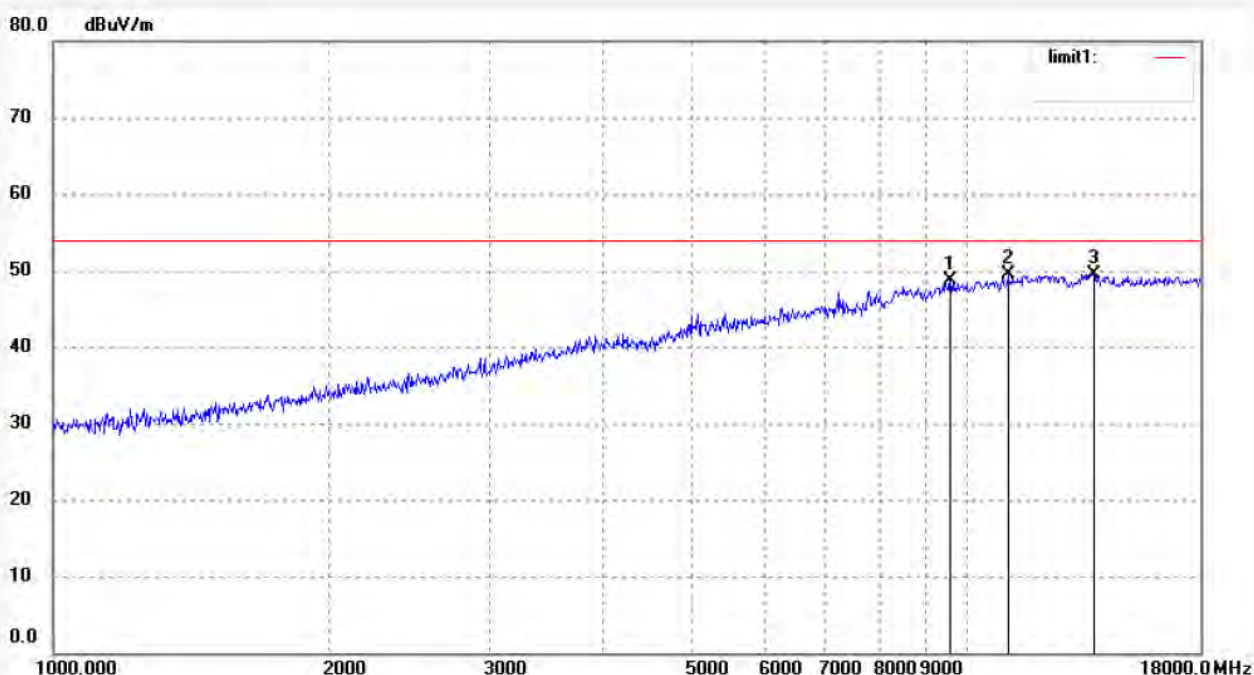
Date: 2014/05/20

Time: 17/20/40

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 9585.684       | 43.91               | 4.88           | 48.79              | 54.00             | -5.21          | peak     |                |                  |        |
| 2   | 11076.096      | 43.91               | 5.58           | 49.49              | 54.00             | -4.51          | peak     |                |                  |        |
| 3   | 13757.267      | 39.81               | 9.76           | 49.57              | 54.00             | -4.43          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

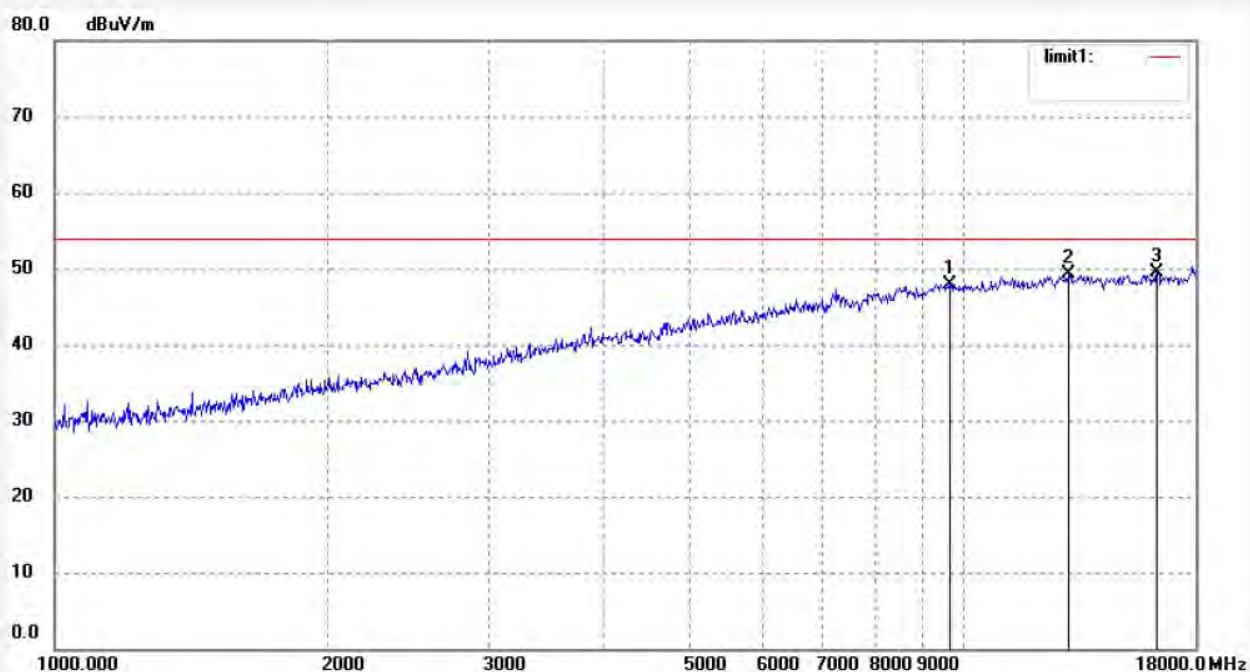
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3015  
Standard: FCC Class B 3M Radiated  
Test item: Radiation Test  
Temp.( C)/Hum.(%) 25 C / 55 %  
EUT: Tpad  
Mode: TX 2422MHz(802.11n40)  
Model: A80se  
Manufacturer: SHANGKE

Polarization: Vertical  
Power Source: AC 120V/60Hz  
Date: 2014/05/20  
Time: 17/21/18  
Engineer Signature:  
Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 9641.257       | 42.95               | 4.95           | 47.90              | 54.00             | -6.10          | peak     |                |                  |        |
| 2   | 13059.822      | 41.37               | 8.02           | 49.39              | 54.00             | -4.61          | peak     |                |                  |        |
| 3   | 16315.231      | 37.54               | 11.95          | 49.49              | 54.00             | -4.51          | peak     |                |                  |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3017

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

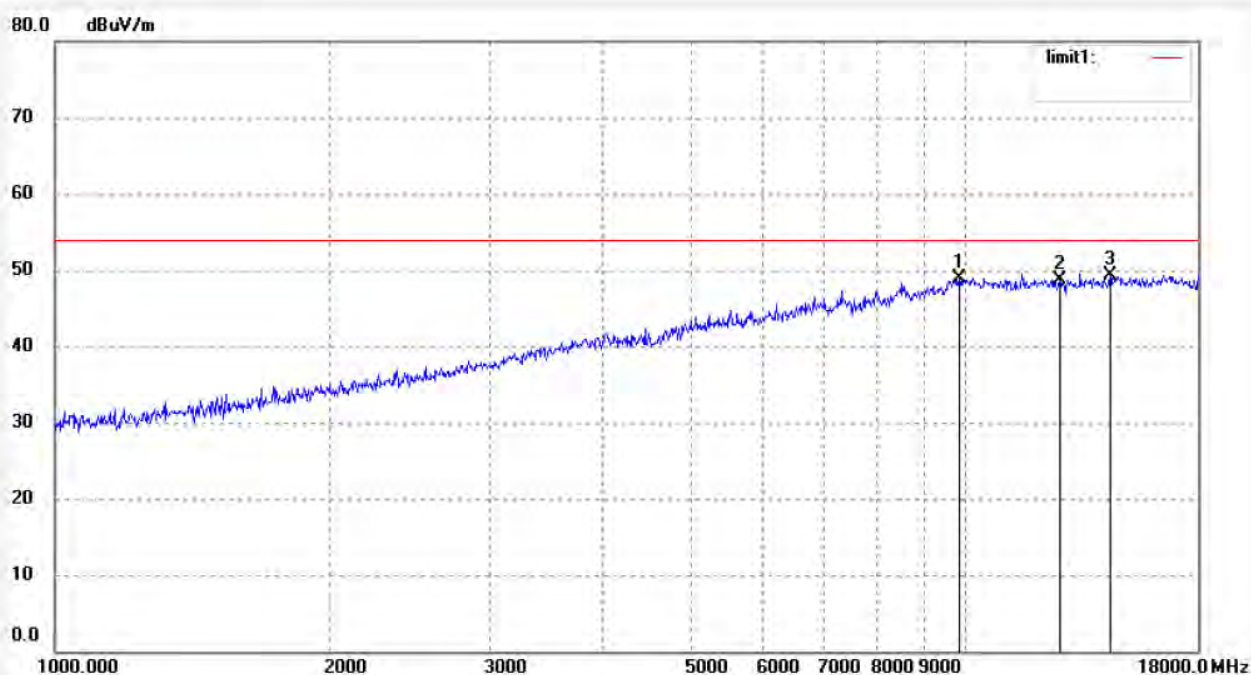
Date: 2014/05/20

Time: 17/22/39

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq. (MHz) | Reading (dBuV/m) | Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Degree (deg.) | Remark |
|-----|-------------|------------------|-------------|-----------------|----------------|-------------|----------|-------------|---------------|--------|
| 1   | 9838.311    | 43.70            | 5.15        | 48.85           | 54.00          | -5.15       | peak     |             |               |        |
| 2   | 12687.748   | 41.36            | 7.44        | 48.80           | 54.00          | -5.20       | peak     |             |               |        |
| 3   | 14408.425   | 36.83            | 12.53       | 49.36           | 54.00          | -4.64       | peak     |             |               |        |



## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3016

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2437MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

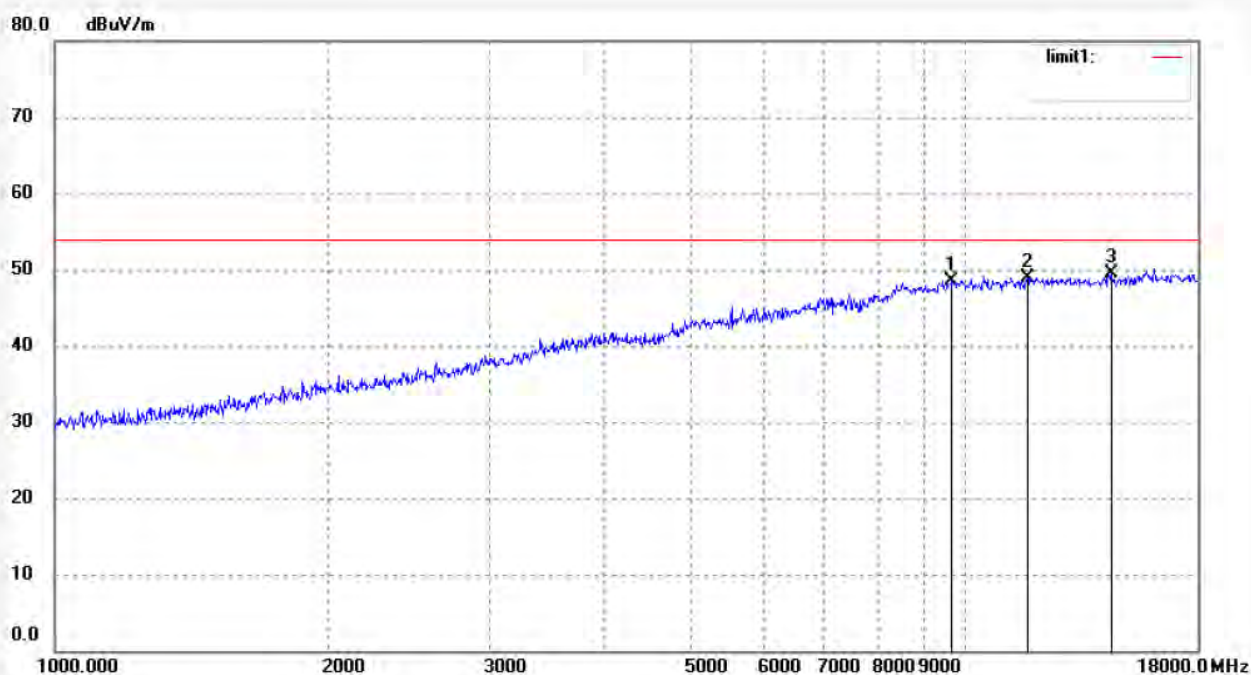
Date: 2014/05/20

Time: 17/22/01

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804





## ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3018

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2452MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Horizontal

Power Source: AC 120V/60Hz

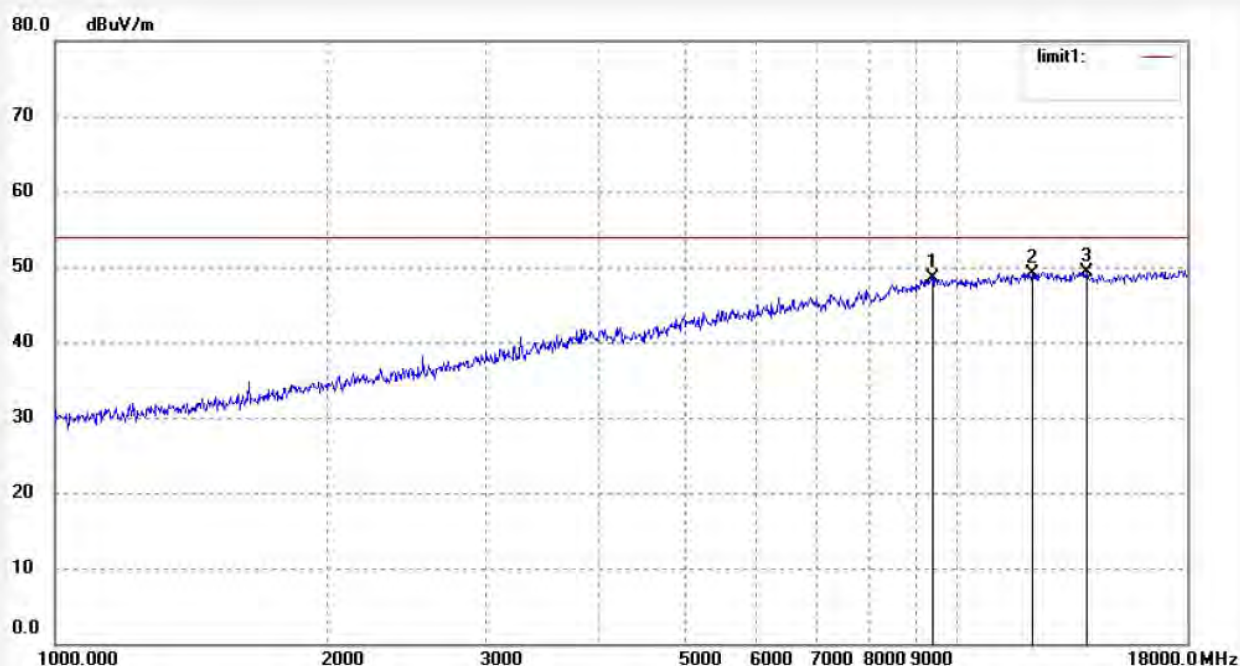
Date: 2014/05/20

Time: 17/23/17

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 9393.689       | 43.96               | 4.51           | 48.47              | 54.00             | -5.53          | peak     |                |                  |        |
| 2   | 12114.352      | 42.49               | 6.65           | 49.14              | 54.00             | -4.86          | peak     |                |                  |        |
| 3   | 13917.244      | 39.18               | 10.21          | 49.39              | 54.00             | -4.61          | peak     |                |                  |        |



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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: alen #3019

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 25 C / 55 %

EUT: Tpad

Mode: TX 2452MHz(802.11n40)

Model: A80se

Manufacturer: SHANGKE

Polarization: Vertical

Power Source: AC 120V/60Hz

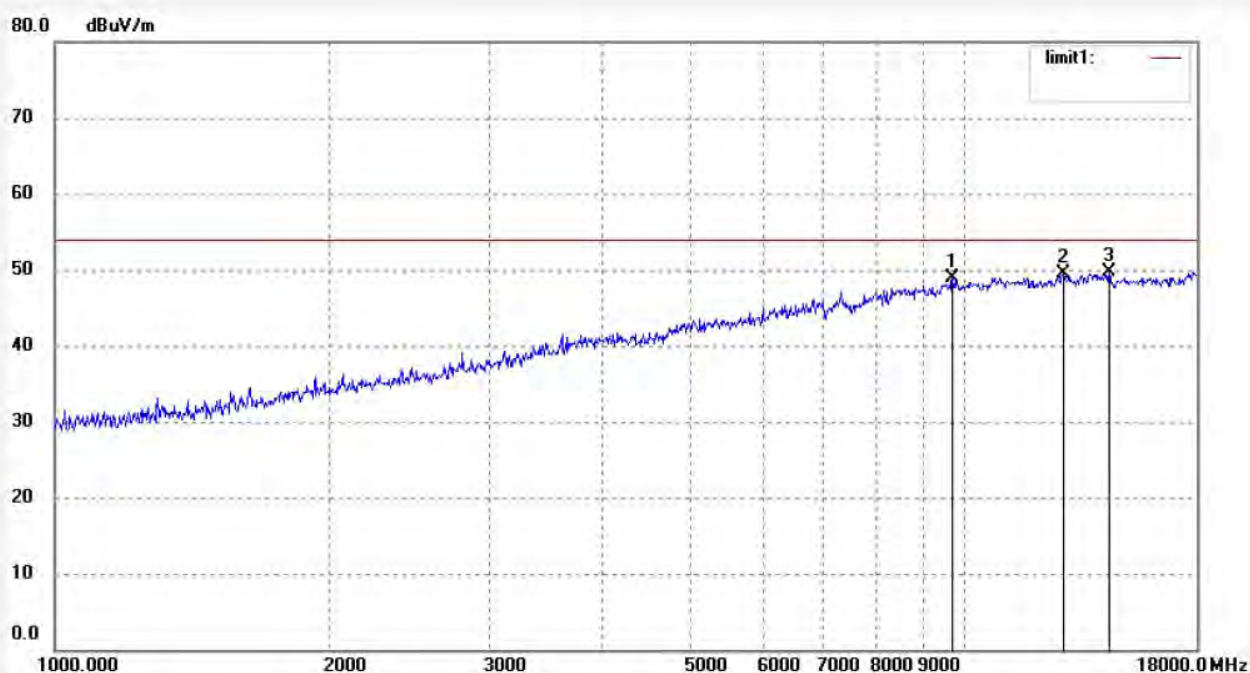
Date: 2014/05/20

Time: 17/23/52

Engineer Signature:

Distance: 3m

Note: Report No:ATE20140804



| No. | Freq.<br>(MHz) | Reading<br>(dBuV/m) | Factor<br>(dB) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Detector | Height<br>(cm) | Degree<br>(deg.) | Remark |
|-----|----------------|---------------------|----------------|--------------------|-------------------|----------------|----------|----------------|------------------|--------|
| 1   | 9697.152       | 43.82               | 5.00           | 48.82              | 54.00             | -5.18          | peak     |                |                  |        |
| 2   | 12835.288      | 41.87               | 7.65           | 49.52              | 54.00             | -4.48          | peak     |                |                  |        |
| 3   | 14408.425      | 37.10               | 12.53          | 49.63              | 54.00             | -4.37          | peak     |                |                  |        |

## 10.CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST

### 10.1.Block Diagram of Test Setup



### 10.2.The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

### 10.3.EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 10.4.Operating Condition of EUT

10.4.1.Setup the EUT and simulator as shown as Section 10.1.

10.4.2.Turn on the power of all equipment.

10.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

## 10.5. Test Procedure

10.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.

10.5.2. Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz (below 1GHz).

10.5.3. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz (above 1GHz).

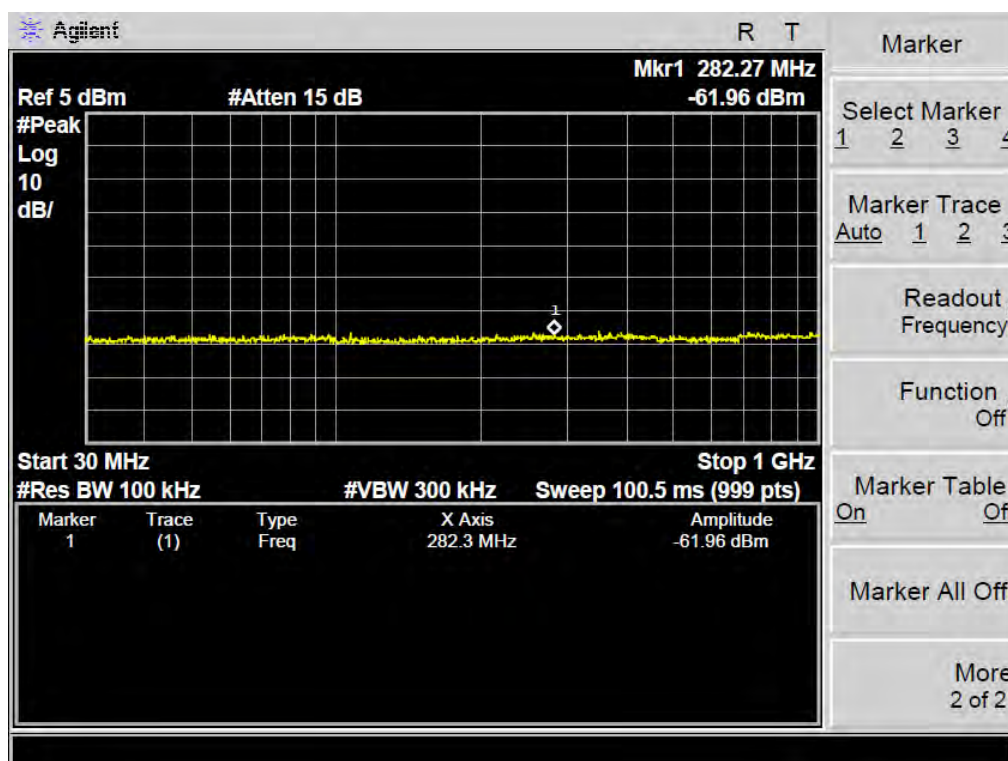
10.5.4. The Conducted Spurious Emission was measured and recorded.

## 10.6. Test Result

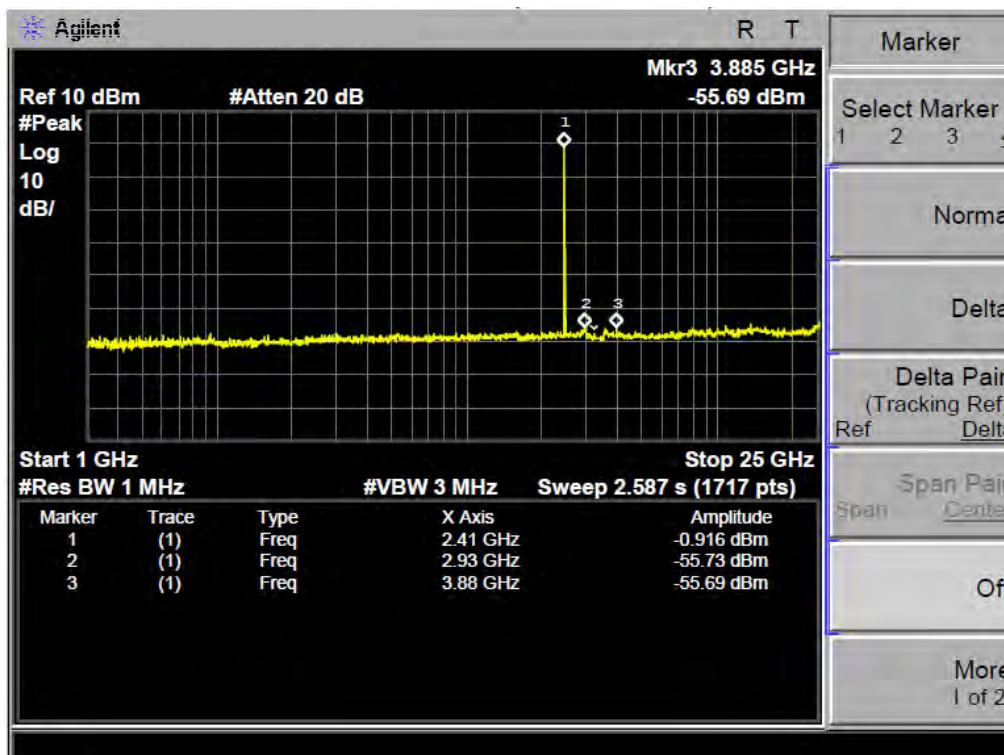
**Pass.**

The spectrum analyzer plots are attached as below.

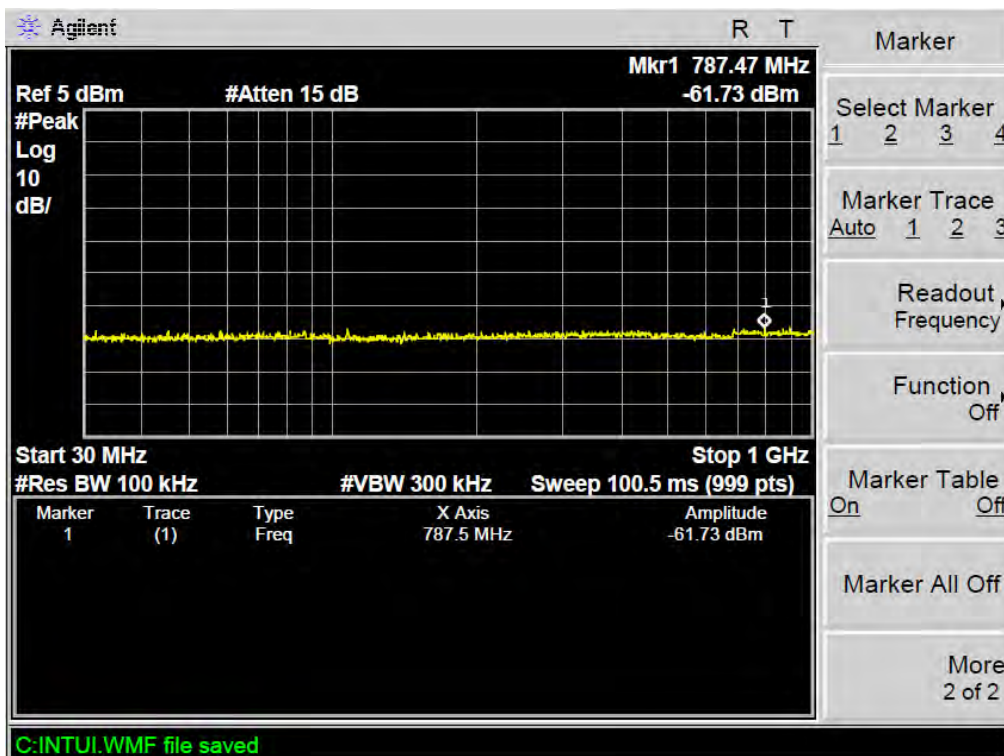
### TX 802.11b Channel Low 2412MHz (30MHz-1GHz)



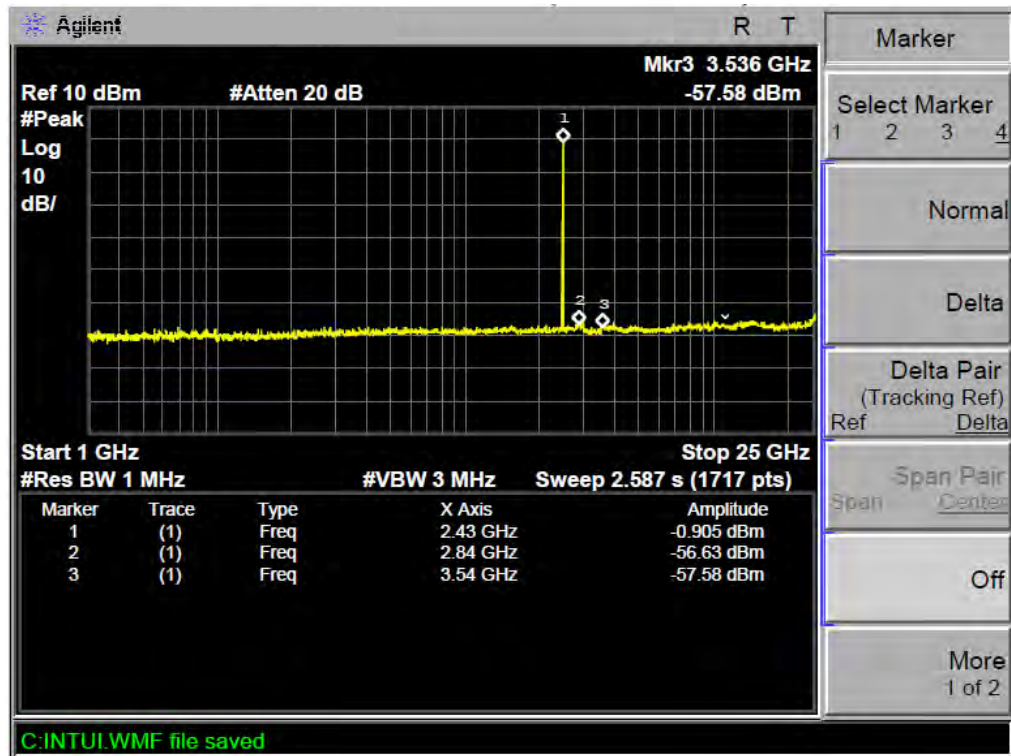
## TX 802.11b Channel Low 2412MHz (1GHz-25GHz)



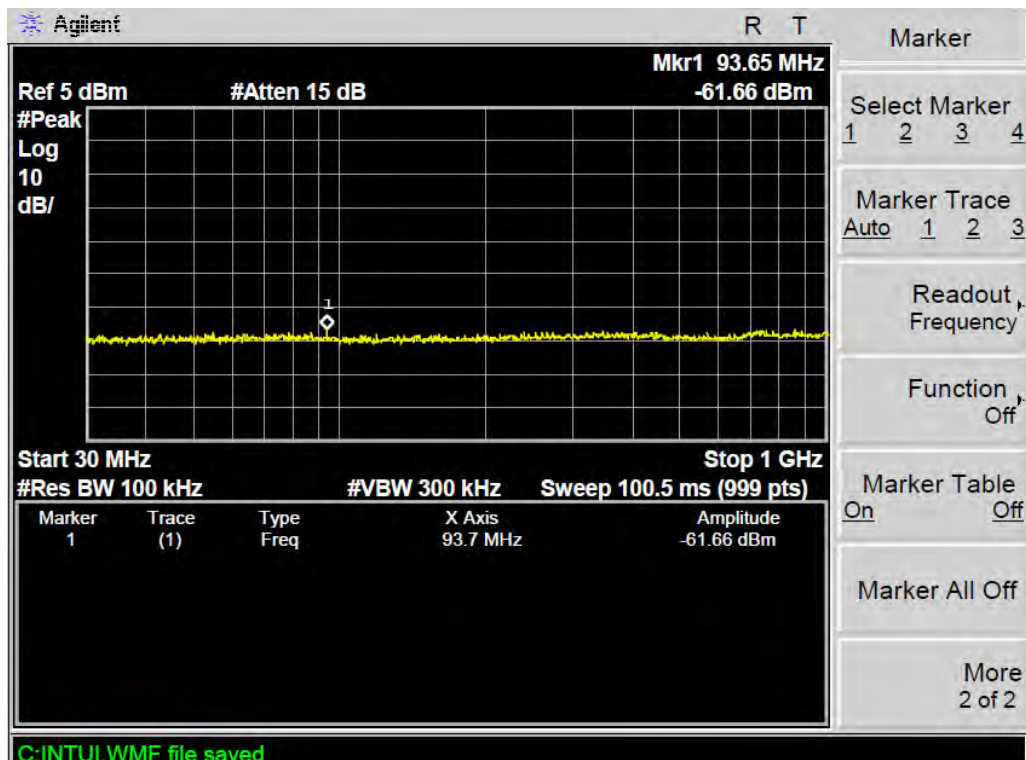
## TX 802.11b Channel Middle 2437MHz (30MHz-1GHz)



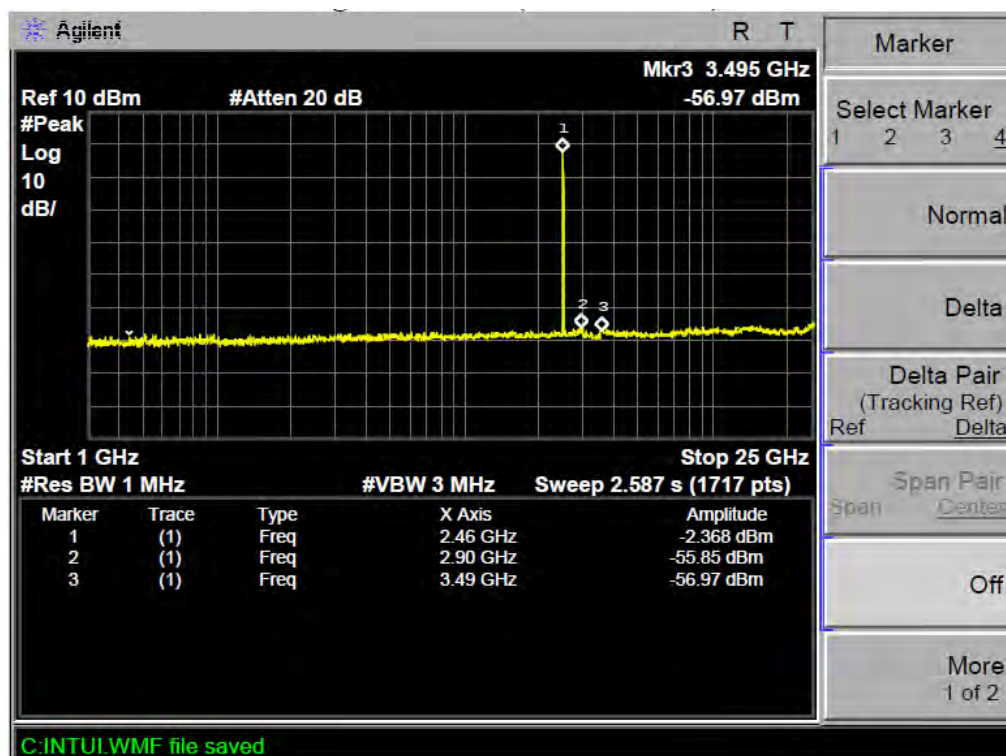
## TX 802.11b Channel Middle 2437MHz (1GHz-25GHz)



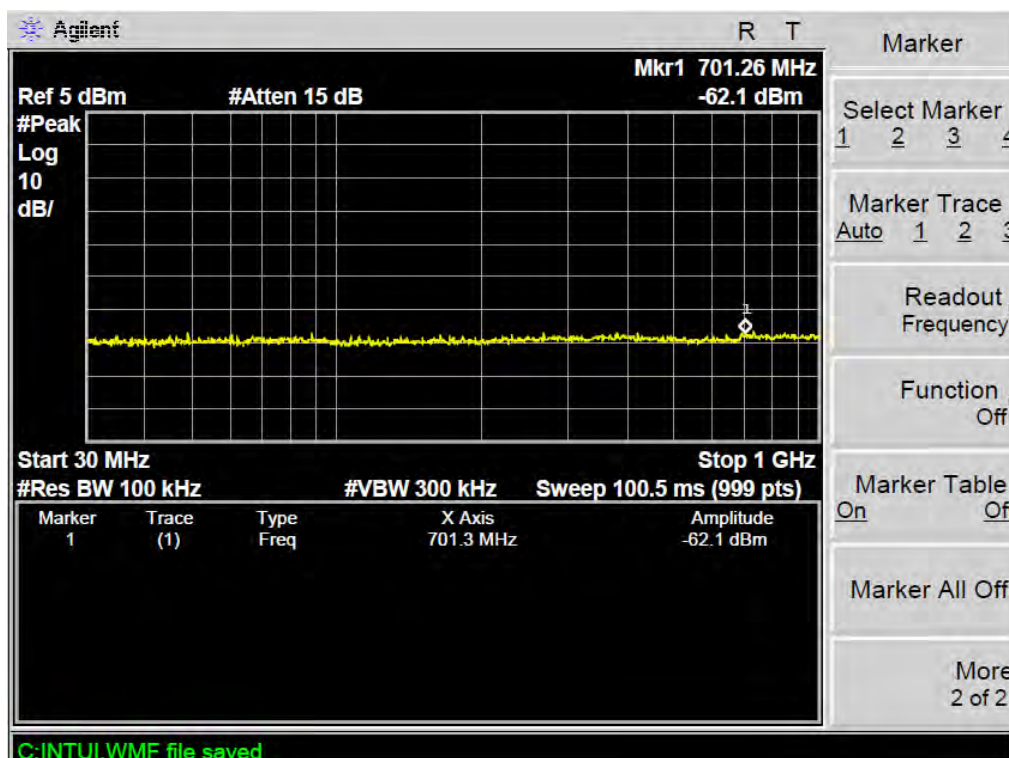
## TX 802.11b Channel High 2462MHz (30MHz-1GHz)



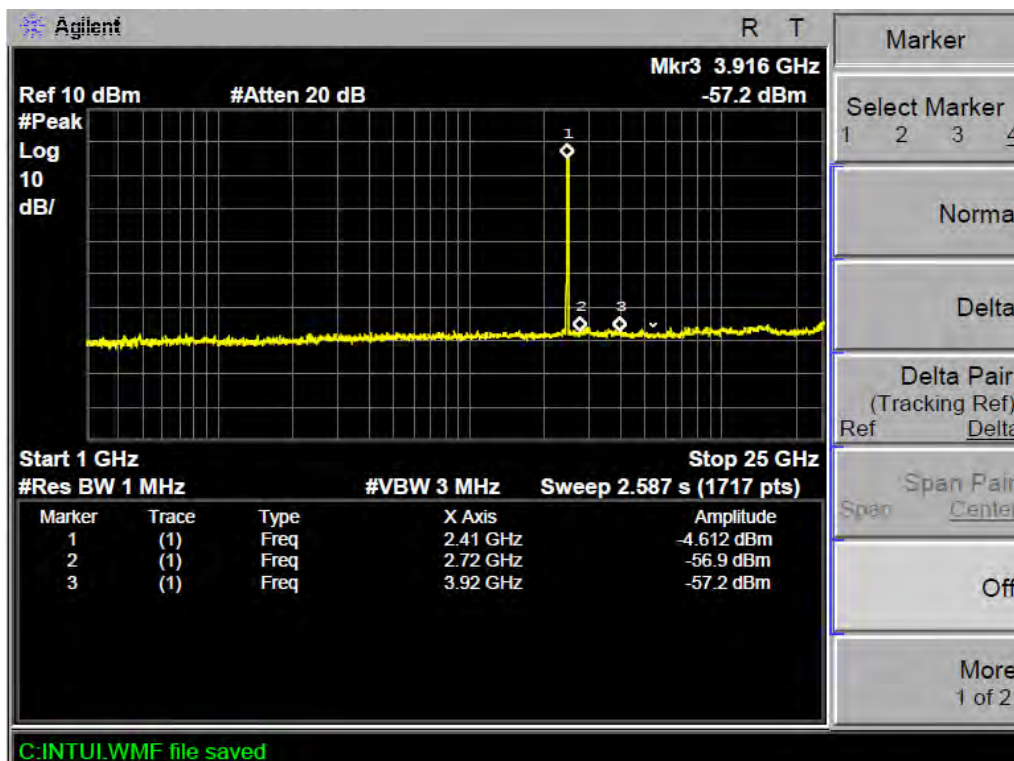
## TX 802.11b Channel High 2462MHz (1GHz-25GHz)



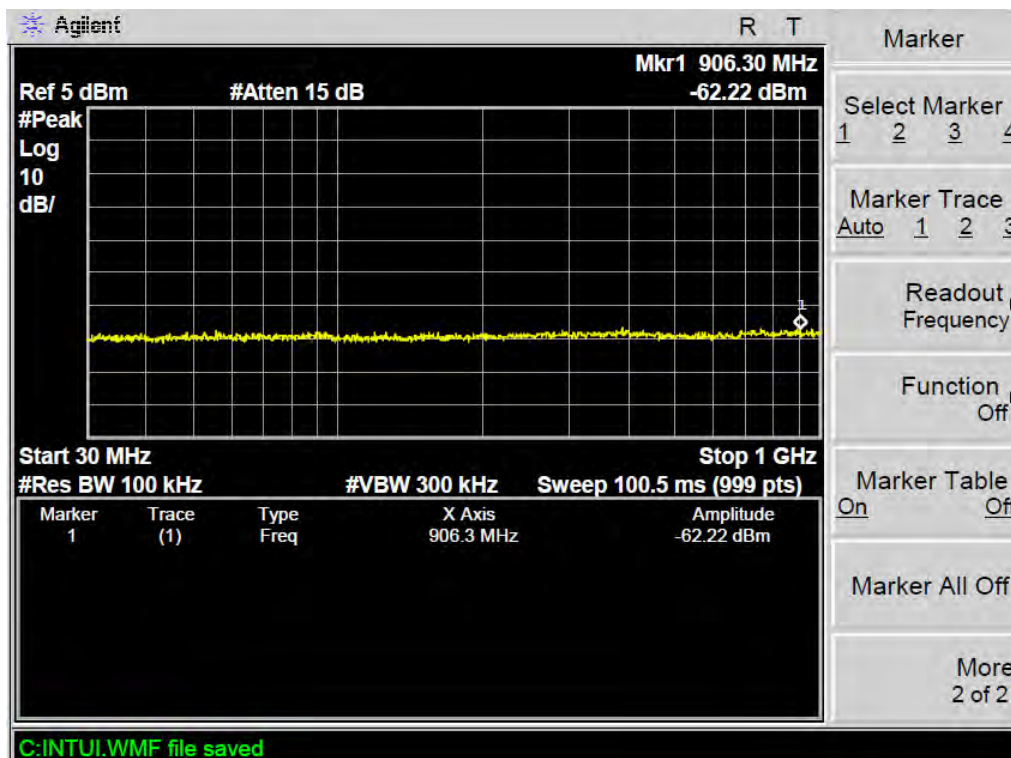
## TX 802.11g Channel Low 2412MHz (30MHz-1GHz)



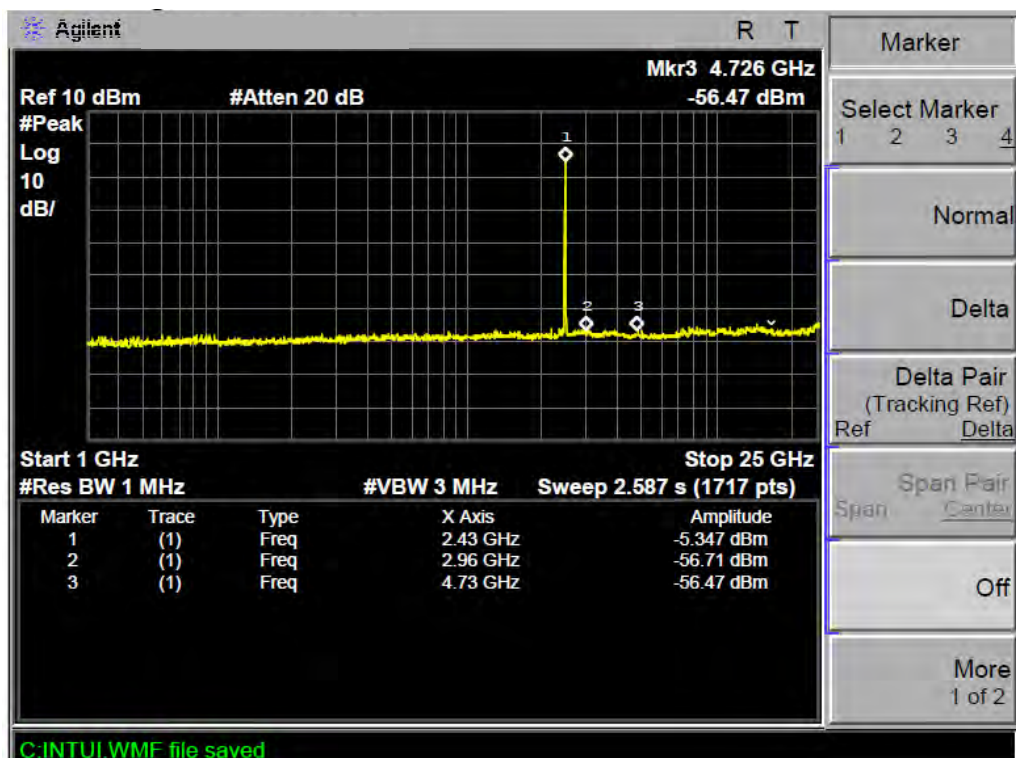
## TX 802.11g Channel Low 2412MHz (1GHz-25GHz)



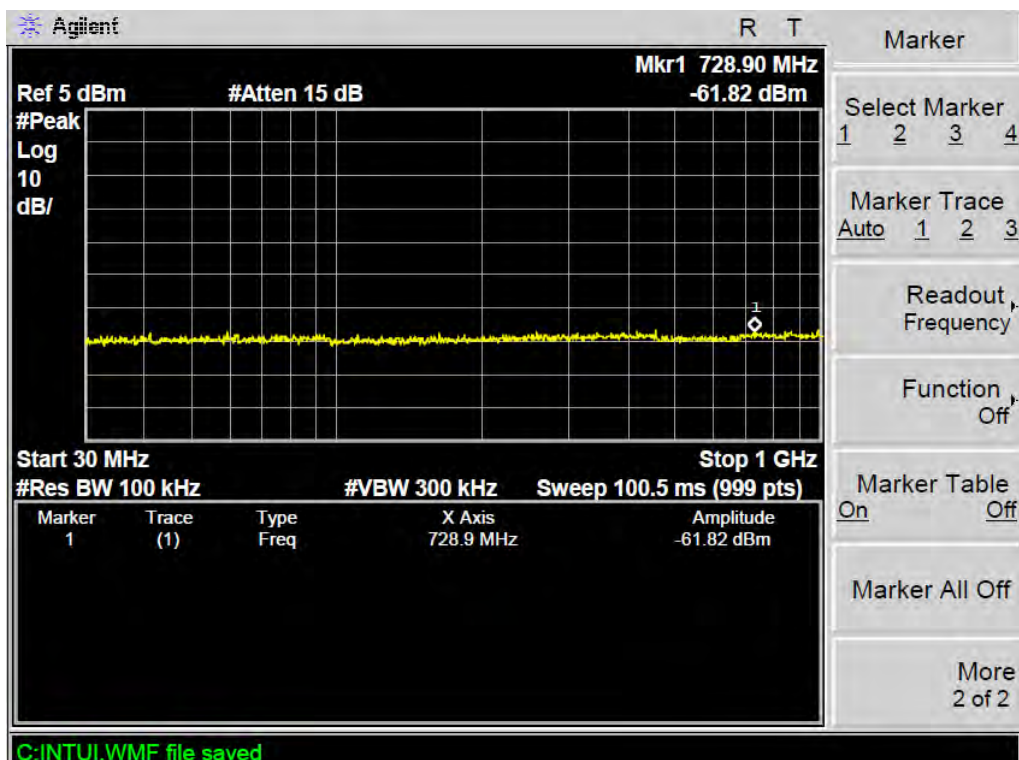
## TX 802.11g Channel Middle 2437MHz (30MHz-1GHz)



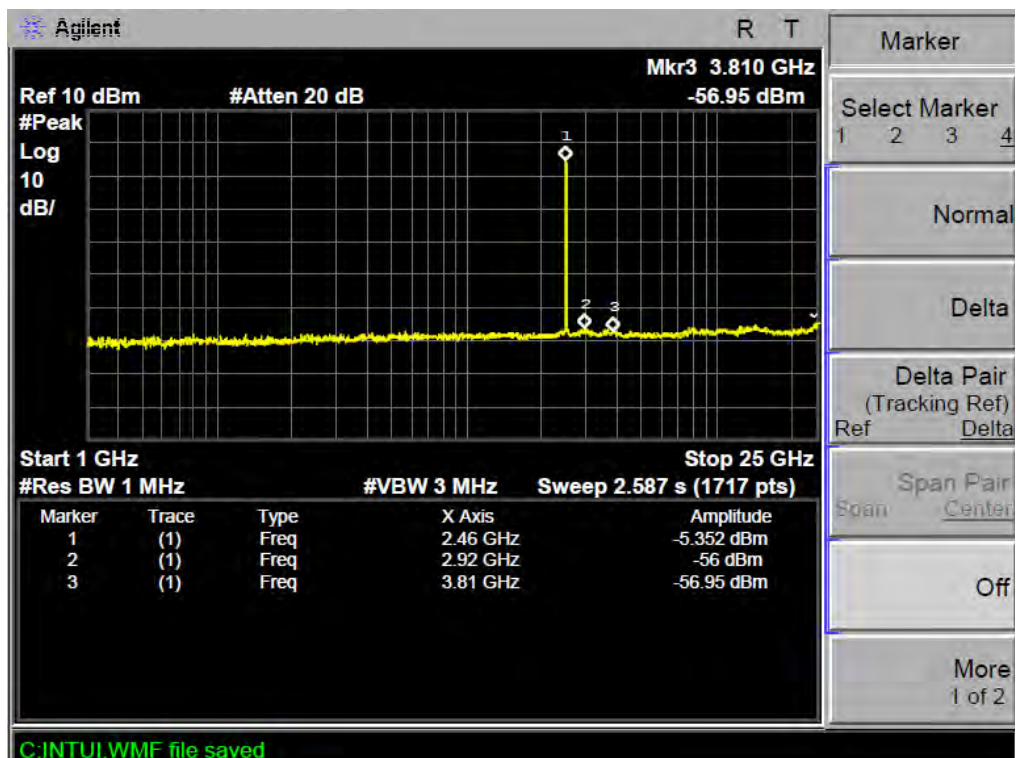
## TX 802.11g Channel Middle 2437MHz



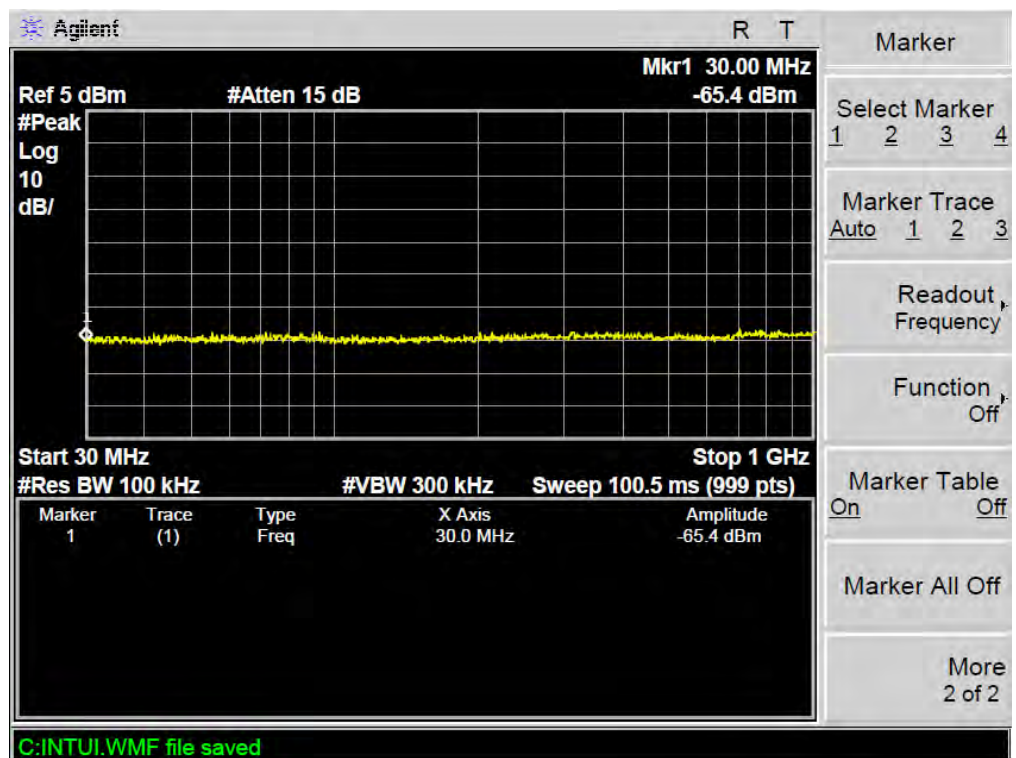
## TX 802.11g Channel High 2462MHz (30MHz-1GHz)



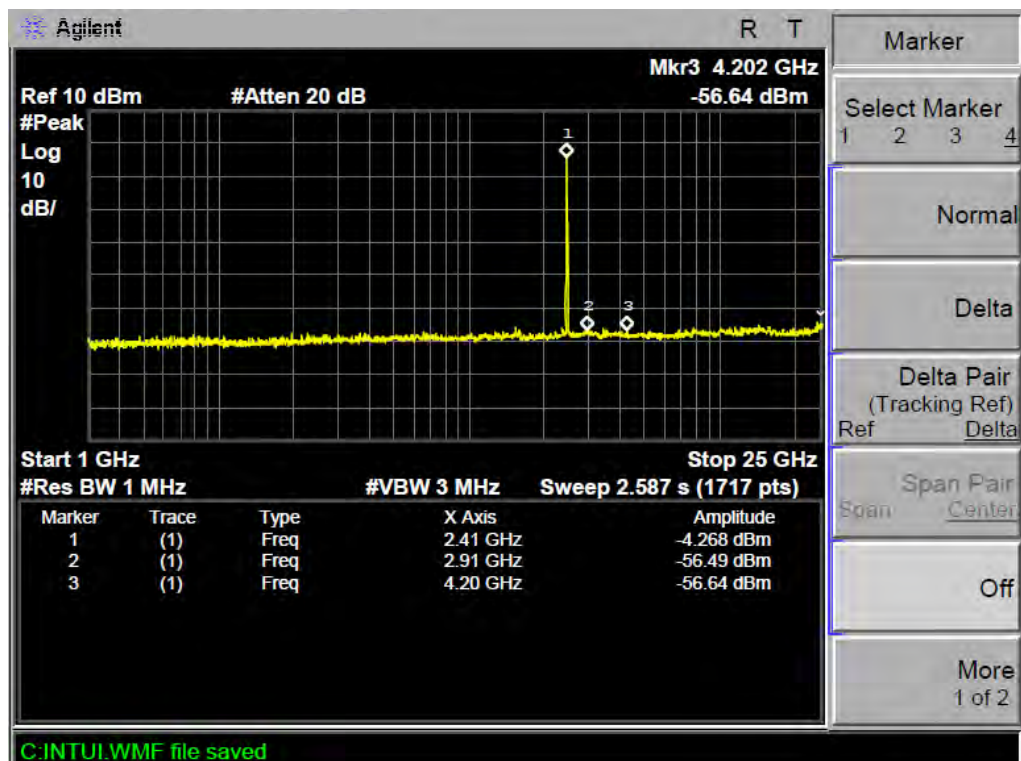
## TX 802.11g Channel High 2462MHz (1GHz-25GHz)



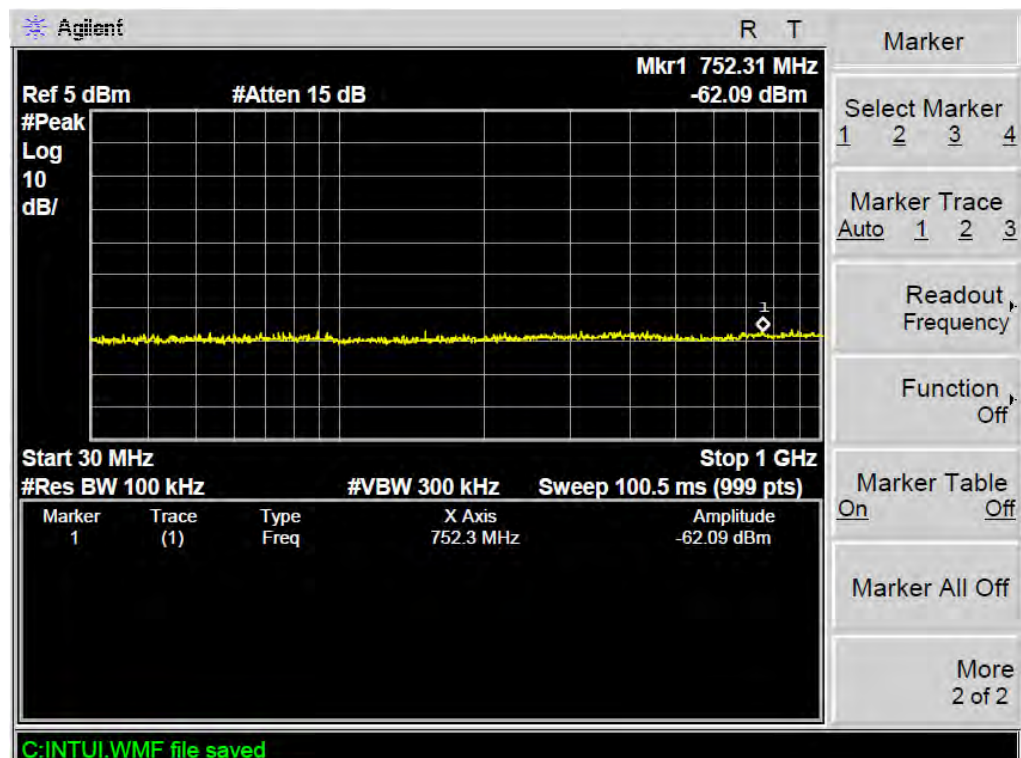
## TX 802.11n Channel Low 2412MHz (20MHz) (30MHz-1GHz)



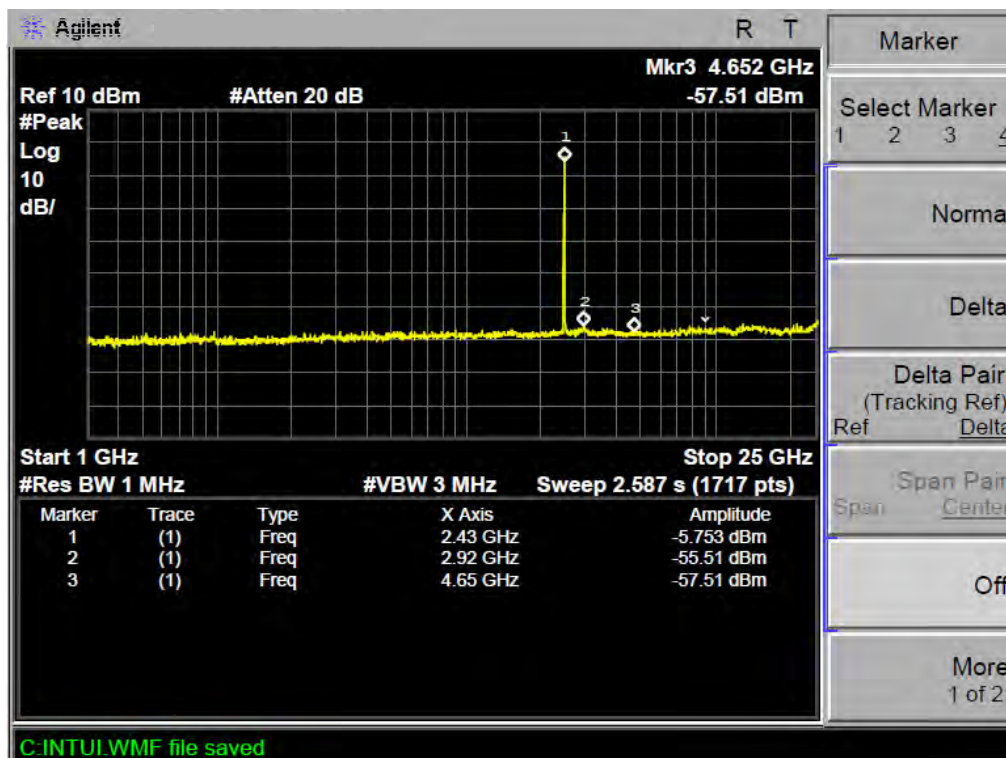
## TX 802.11n Channel Low 2412MHz (20MHz) (1GHz-25GHz)



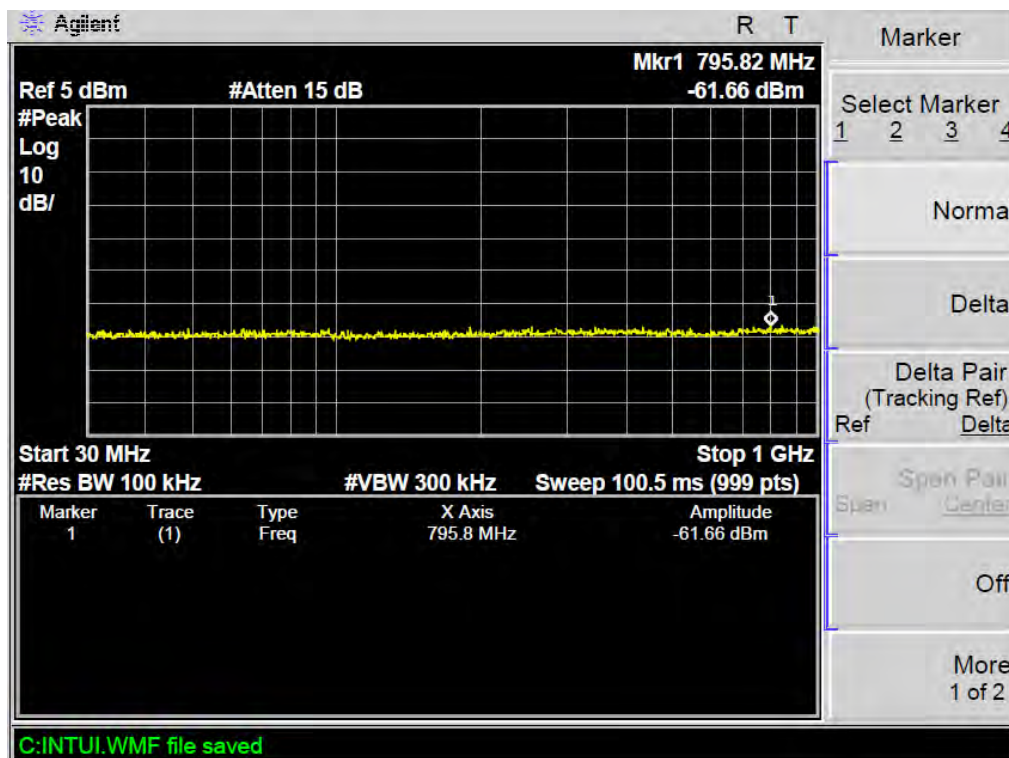
## TX 802.11n Channel Middle 2437MHz (20MHz) (30MHz-1GHz)



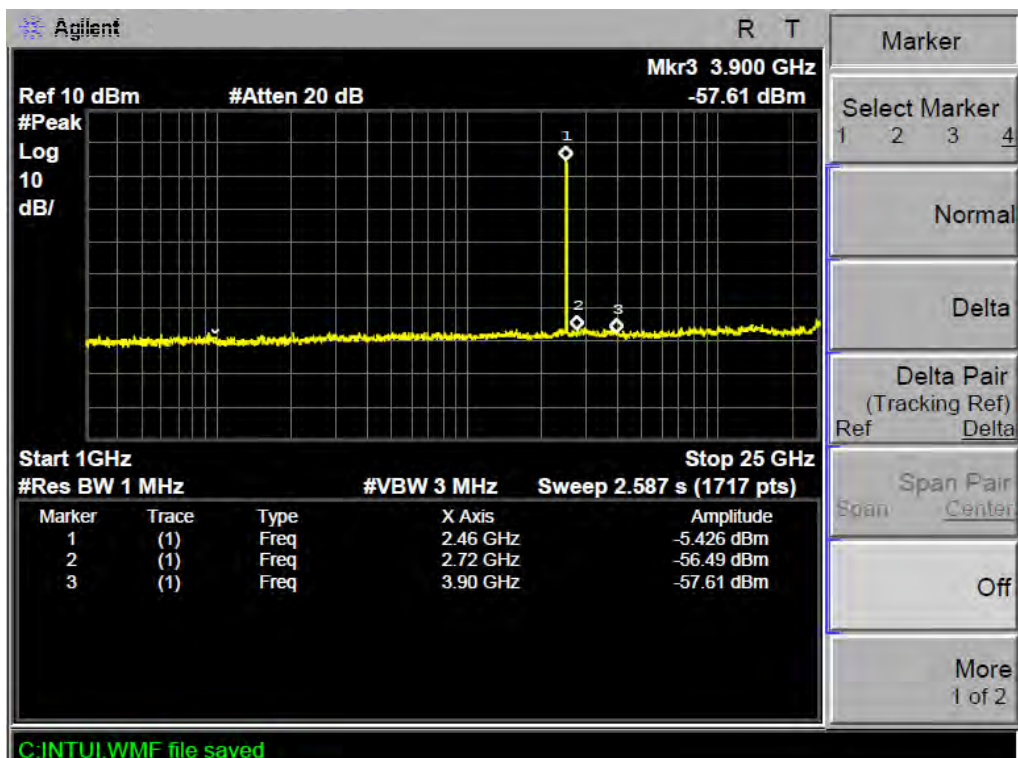
## TX 802.11n Channel Middle 2437MHz (20MHz) (1GHz-25GHz)



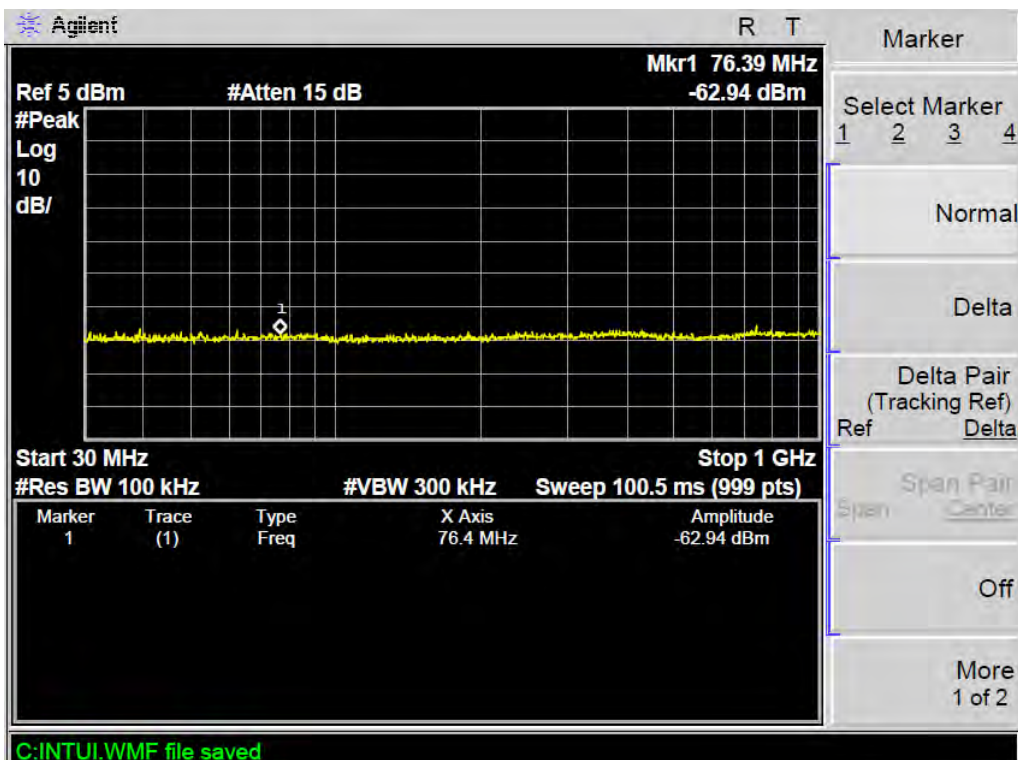
## TX 802.11n Channel High 2462MHz (20MHz) (30MHz-1GHz)



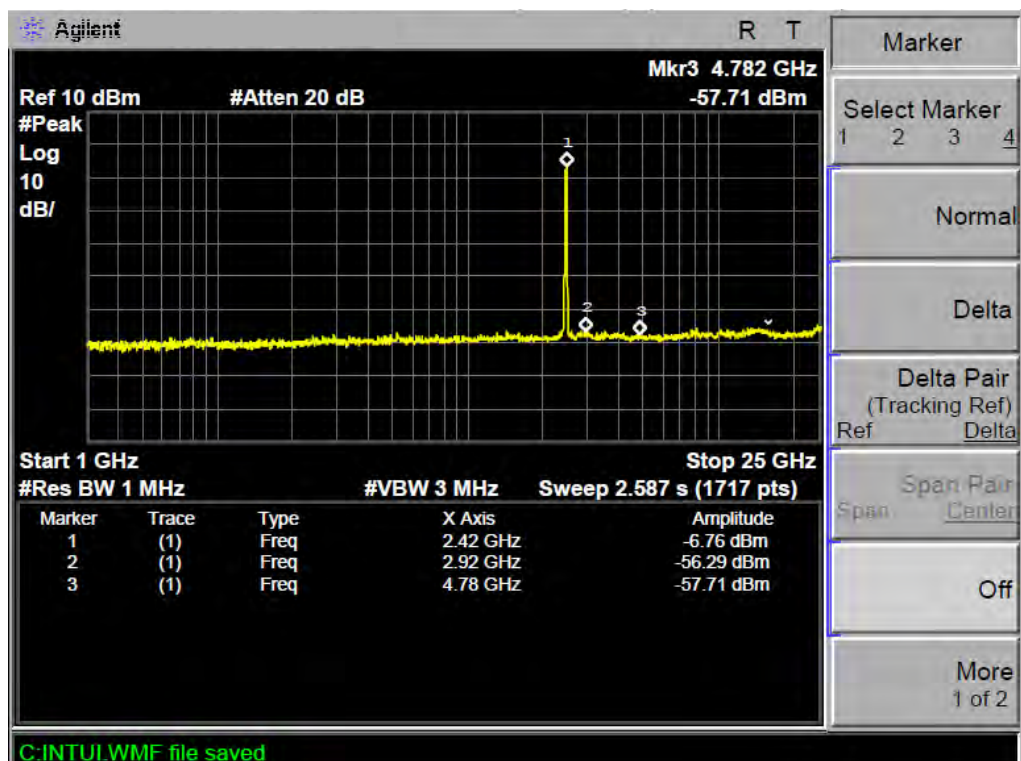
## TX 802.11n Channel High 2462MHz (20MHz) (1GHz-25GHz)



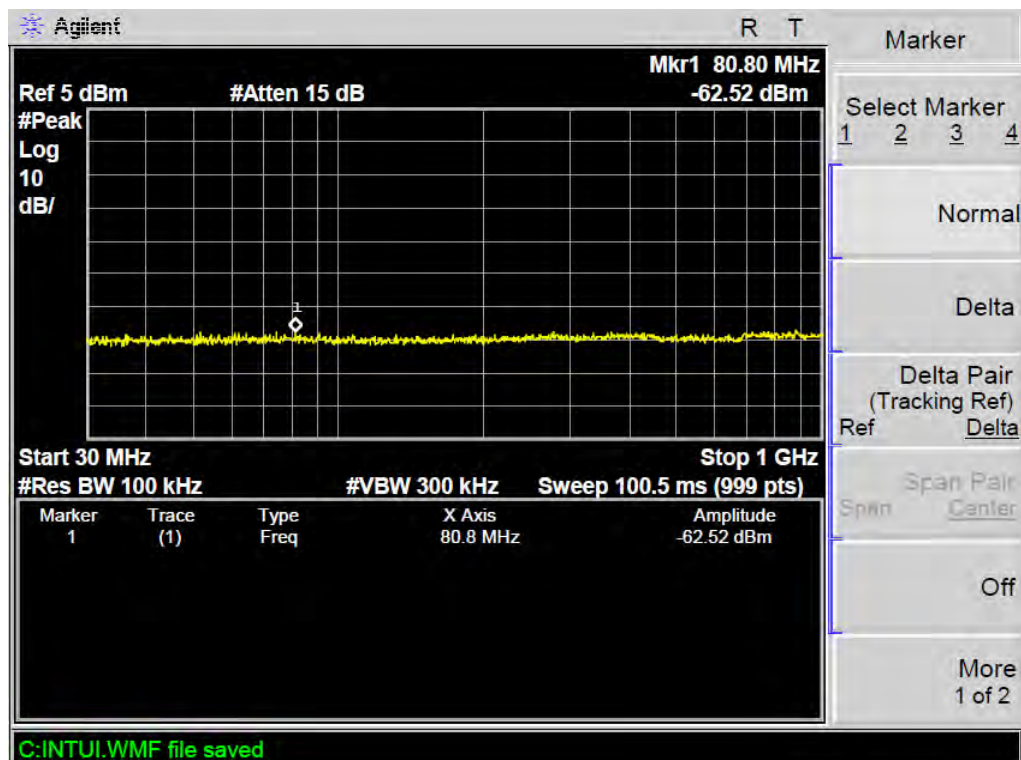
## TX 802.11n Channel Low 2422MHz (40MHz) (30MHz-1GHz)



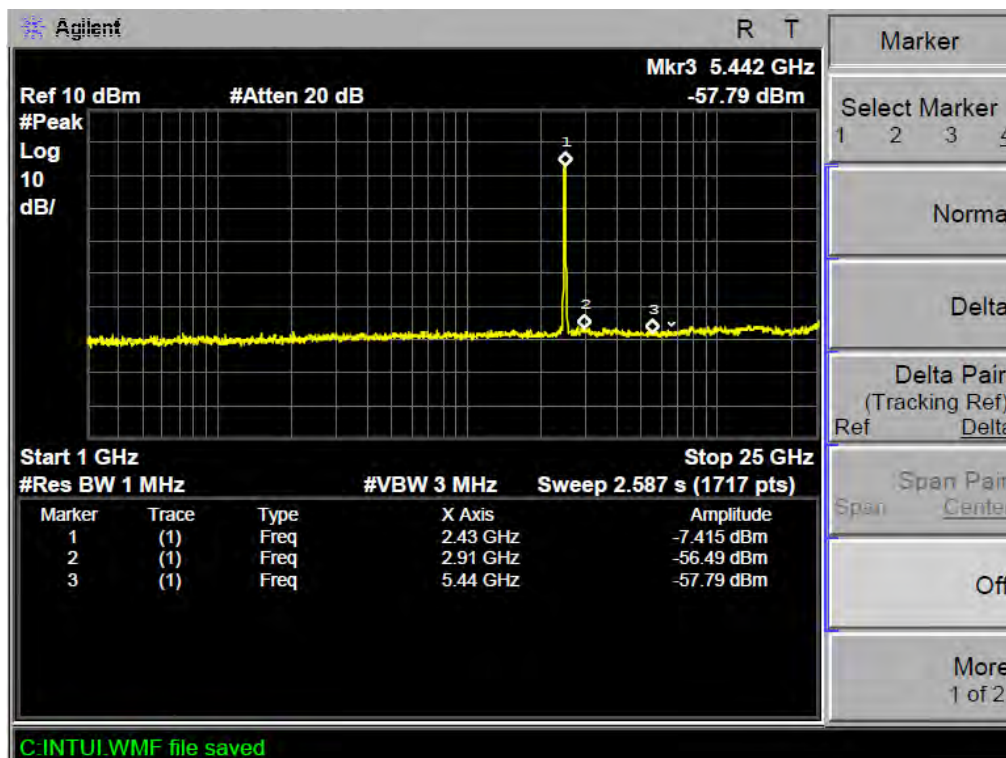
## TX 802.11n Channel Low 2422MHz (40MHz) (1GHz-25GHz)



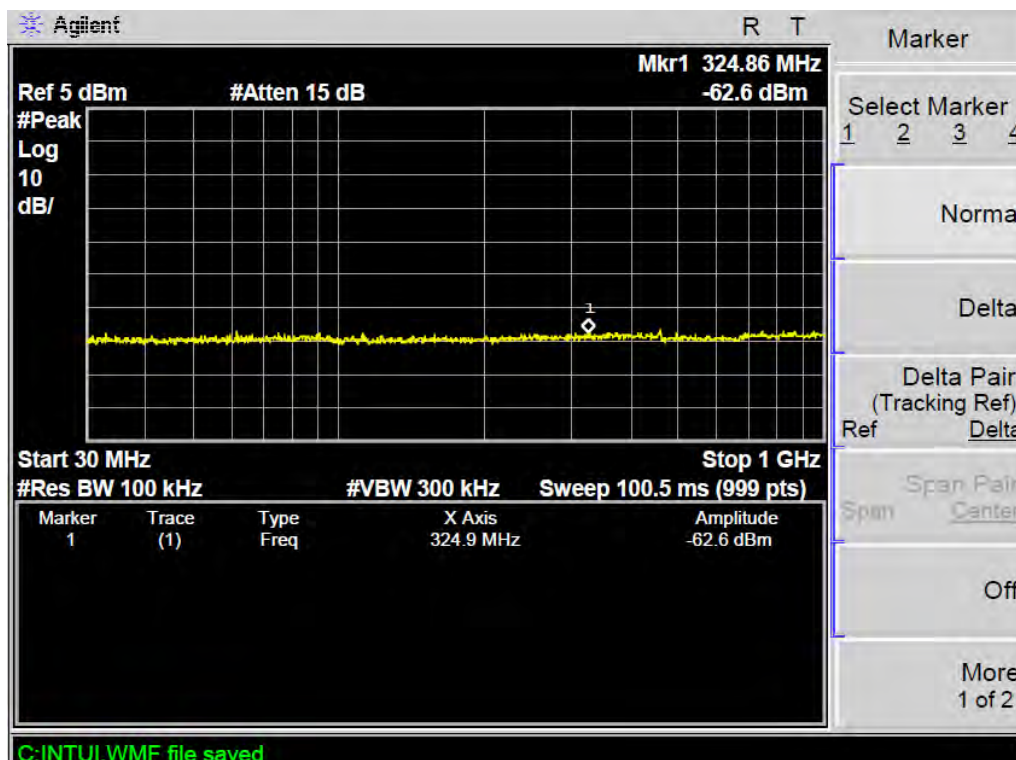
## TX 802.11n Channel Middle 2437MHz (40MHz) (30MHz-1GHz)



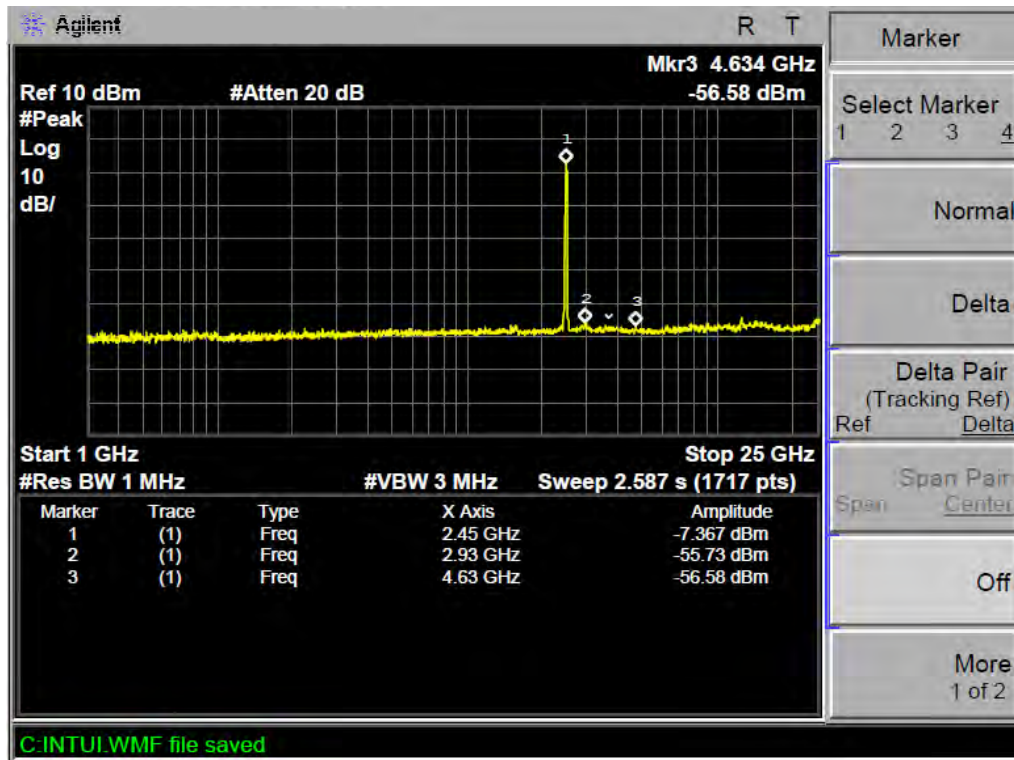
## TX 802.11n Channel Middle 2437MHz (40MHz) (1GHz-25GHz)



## TX 802.11n Channel High 2452MHz (40MHz) (30MHz-1GHz)



**TX 802.11n Channel High 2452MHz (40MHz) (1GHz-25GHz)**

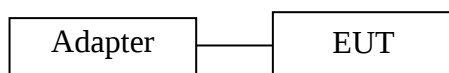


## 11.AC POWER LINE CONDUCTED EMISSION FOR FCC PART

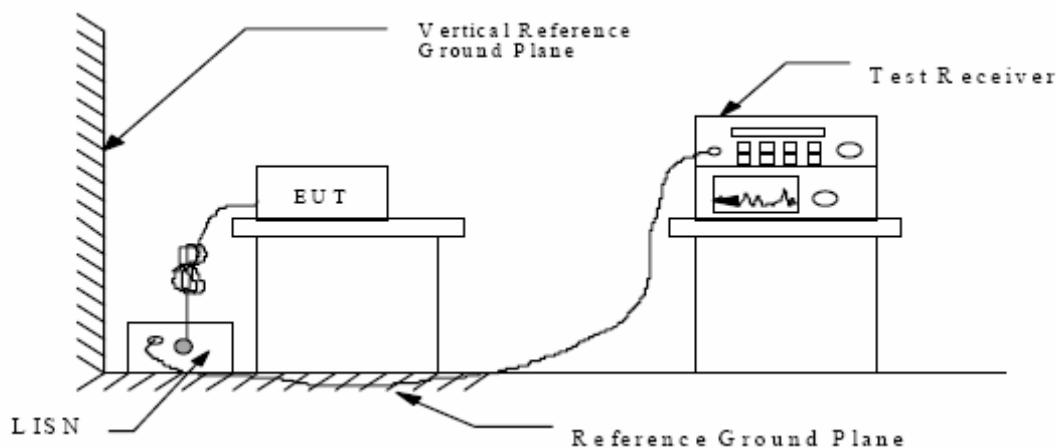
### 15 SECTION 15.207(A)

#### 11.1.Block Diagram of Test Setup

##### 11.1.1.Block diagram of connection between the EUT and simulators



##### 11.1.2.Shielding Room Test Setup Diagram



#### 11.2.The Emission Limit

##### 11.2.1.Conducted Emission Measurement Limits According to Section 15.207(a)

| Frequency<br>(MHz) | Limit dB(μV)     |               |
|--------------------|------------------|---------------|
|                    | Quasi-peak Level | Average Level |
| 0.15 - 0.50        | 66.0 – 56.0 *    | 56.0 – 46.0 * |
| 0.50 - 5.00        | 56.0             | 46.0          |
| 5.00 - 30.00       | 60.0             | 50.0          |

\* Decreases with the logarithm of the frequency.

### 11.3.Configuration of EUT on Measurement

The equipment are installed on the Conducted Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

### 11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in test mode and measure it.

### 11.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2009 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

### 11.6.Power Line Conducted Emission Measurement Results

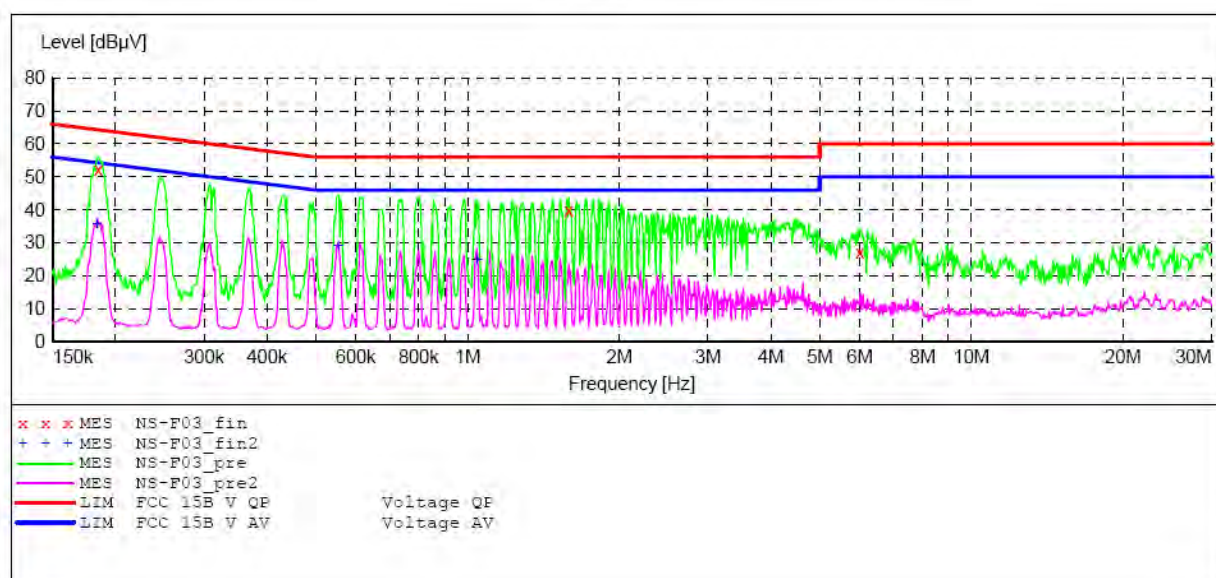
ACCURATE TECHNOLOGY CO.,LTD

## CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Tpad M/N:A80se  
 Manufacturer: GUANGZHOU SHANGKE  
 Operating Condition: WiFi/Charging  
 Test Site: 1#Shielding Room  
 Operator: Alen  
 Test Specification: L 120V/60Hz  
 Comment: Report No.:ATE20140804  
 Start of Test: 5/19/2014 / 8:50:28AM

### SCAN TABLE: "V 150K-30MHz fin"

Short Description: \_SUB\_STD\_VTERM2 1.70  
 Start Stop Step Detector Meas. IF Transducer  
 Frequency Frequency Width Time Bandw.  
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008  
 Average



### MEASUREMENT RESULT: "NS-F03\_fin"

5/19/2014 8:52AM

| Frequency<br>MHz | Level<br>dBμV | Transd<br>dB | Limit<br>dBμV | Margin<br>dB | Detector | Line | PE  |
|------------------|---------------|--------------|---------------|--------------|----------|------|-----|
| 0.184605         | 52.10         | 10.5         | 64            | 12.2         | QP       | L1   | GND |
| 1.587507         | 39.90         | 10.9         | 56            | 16.1         | QP       | L1   | GND |
| 5.998489         | 26.90         | 11.2         | 60            | 33.1         | QP       | L1   | GND |

### MEASUREMENT RESULT: "NS-F03\_fin2"

5/19/2014 8:52AM

| Frequency<br>MHz | Level<br>dBμV | Transd<br>dB | Limit<br>dBμV | Margin<br>dB | Detector | Line | PE  |
|------------------|---------------|--------------|---------------|--------------|----------|------|-----|
| 0.183870         | 35.40         | 10.5         | 54            | 18.9         | AV       | L1   | GND |
| 0.553370         | 29.10         | 10.7         | 46            | 16.9         | AV       | L1   | GND |
| 1.043940         | 24.80         | 10.9         | 46            | 21.2         | AV       | L1   | GND |

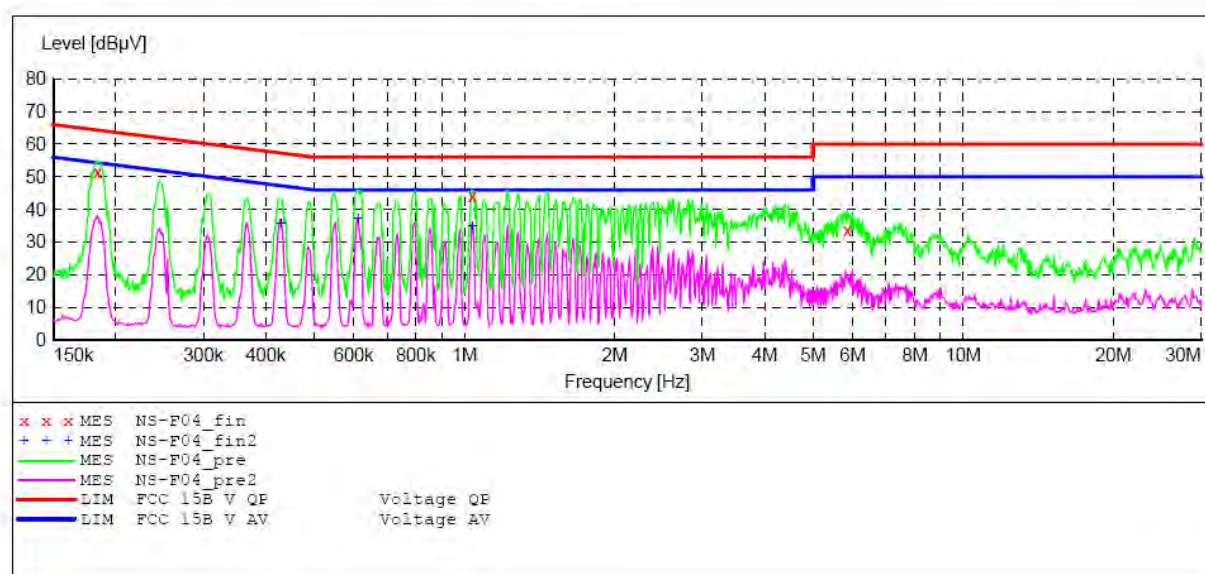
## ACCURATE TECHNOLOGY CO.,LTD

### CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Tpad M/N:A80se  
 Manufacturer: GUANGZHOU SHANGKE  
 Operating Condition: WiFi/Charging  
 Test Site: 1#Shielding Room  
 Operator: Alen  
 Test Specification: N 120V/60Hz  
 Comment: Report No.:ATE20140804  
 Start of Test: 5/19/2014 / 8:53:50AM

### SCAN TABLE: "V 150K-30MHz fin"

Short Description: \_SUB\_STD\_VTERM2 1.70  
 Start Stop Step Detector Meas. IF Transducer  
 Frequency Frequency Width Time Bandw.  
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008  
 Average



### MEASUREMENT RESULT: "NS-F04\_fin"

5/19/2014 8:56AM

| Frequency<br>MHz | Level<br>dBμV | Transd<br>dB | Limit<br>dBμV | Margin<br>dB | Detector | Line | PE  |
|------------------|---------------|--------------|---------------|--------------|----------|------|-----|
| 0.183870         | 51.30         | 10.5         | 64            | 13.0         | QP       | N    | GND |
| 1.035639         | 44.00         | 10.9         | 56            | 12.0         | QP       | N    | GND |
| 5.856520         | 33.80         | 11.2         | 60            | 26.2         | QP       | N    | GND |

### MEASUREMENT RESULT: "NS-F04\_fin2"

5/19/2014 8:56AM

| Frequency<br>MHz | Level<br>dBμV | Transd<br>dB | Limit<br>dBμV | Margin<br>dB | Detector | Line | PE  |
|------------------|---------------|--------------|---------------|--------------|----------|------|-----|
| 0.428605         | 35.50         | 10.7         | 47            | 11.8         | AV       | N    | GND |
| 0.611446         | 37.20         | 10.7         | 46            | 8.8          | AV       | N    | GND |
| 1.035639         | 34.80         | 10.9         | 46            | 11.2         | AV       | N    | GND |

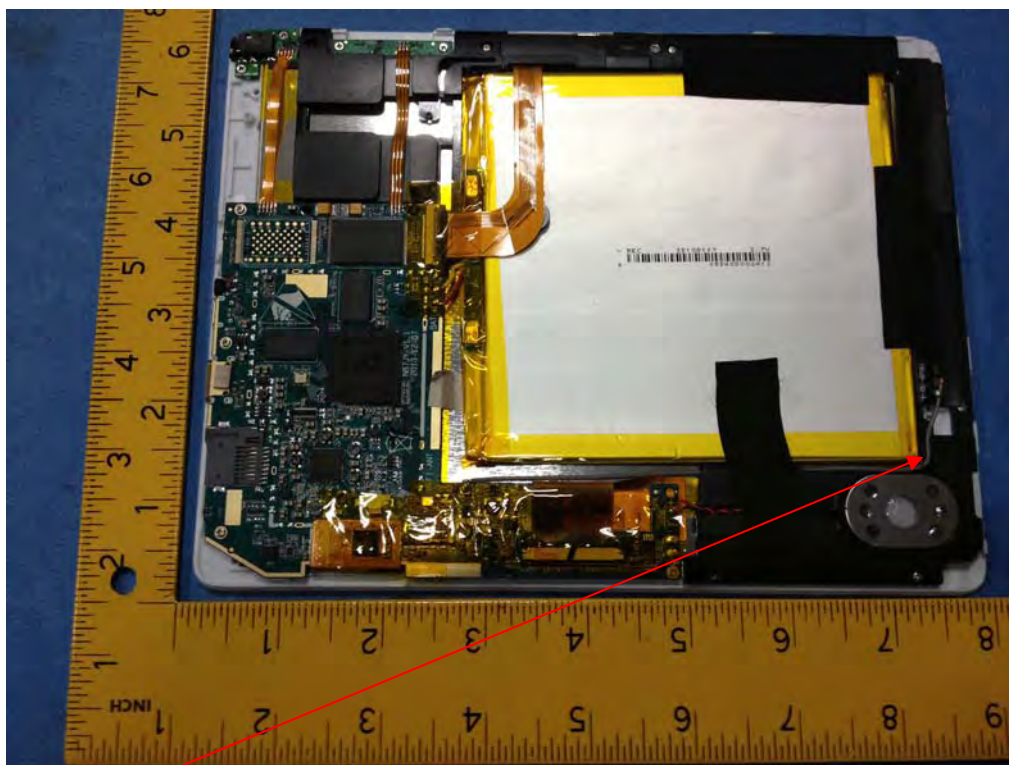
## 12.ANTENNA REQUIREMENT

### 12.1.The Requirement

According to 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.

### 12.2.Antenna Construction

Device is equipped with unique antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna