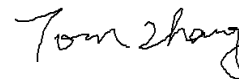


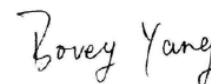
## FCC RADIO TEST REPORT

**Report Reference No.** ..... : NTEK-2012NT0105022F

**Compiled by (+ signature)** ..... : Tom Zhang



**Approved by (+ signature)** ..... : Bovey Yang



**Applicant's name** ..... : E line USA,.Inc

**Address**..... : 939 N Plum Grove Rd.Schaumburg, IL 60173 USA

**Manufacture's Name** ..... : E line USA,.Inc

**Address**..... : 939 N Plum Grove Rd.Schaumburg, IL 60173 USA

### Test specification:

**Standard** ..... : FCC Part15.247

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

### Test item description

**Product name** ..... : MID

**FCC ID** ..... : **A5KEL915**

**Trademark** ..... : PRODIGY

**Model and/or type reference** : EL915,EL718,EL908,EL990,EL978,EL888,EL868,  
EL778,EL988,EL985

**Rating(s)** ..... : DC 3.7V by battery

### Testing Laboratory information:

**Testing Laboratory Name** ..... : NTEK Testing Technology Co., Ltd

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

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

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**Testing** .....

**Date of receipt of test item** ..... : 05 Jan. 2012

**Date (s) of performance of tests** ..... : 05Jan. 2012 ~13 Jan 2012

**Date of Issue**..... : 13 Jan. 2012

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

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## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

| FCC Part15 (15.247) , Subpart C |                                     |          |        |
|---------------------------------|-------------------------------------|----------|--------|
| Standard Section                | Test Item                           | Judgment | Remark |
| 15.207                          | Conducted Emission                  | PASS     |        |
| 15.247 (c)                      | Antenna conducted Spurious Emission | PASS     |        |
| 15.247 (a)(2)                   | 6dB Bandwidth                       | PASS     |        |
| 15.247 (b)                      | Peak Output Power                   | PASS     |        |
| 15.247 (c)                      | Radiated Spurious Emission          | PASS     |        |
| 15.247 (d)                      | Power Spectral Density              | PASS     |        |
| 15.203                          | Antenna Requirement                 | PASS     |        |

### NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

## 1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd

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

FCC FRN Registration Nombre:238937; IC Registration Nombre:9270A-1

## 1.2 MEASUREMENT UNCERTAINTY

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

| No. | Item                         | Uncertainty         |
|-----|------------------------------|---------------------|
| 1   | Conducted Emission Test      | $\pm 1.38\text{dB}$ |
| 2   | Radiated Emission Test       | $\pm 3.17\text{dB}$ |
| 3   | RF power,conducted           | $\pm 0.16\text{dB}$ |
| 4   | Spurious emissions,conducted | $\pm 0.21\text{dB}$ |
| 5   | All emissions,radiated(<1G)  | $\pm 4.68\text{dB}$ |
| 6   | All emissions,radiated(>1G)  | $\pm 4.89\text{dB}$ |

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------|------------------|-------------------------|-------------------------|---------------------------------------------------------------|-------------------|---------------------------|----------------------|--------------------|--------------------------|--------------------------------------------------------|--------------------|---------|------|------------------------------------------------------|
| Equipment                | MID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Trade Name               | PRODIGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Model Name               | EL915,EL718,EL908,EL990,EL978,EL888,EL868,<br>EL778,EL988,EL985                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| OEM Brand/Model Name     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Model Difference         | The colour and appearance are different.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Product Description      | <p>The EUT is a MID</p> <table border="1"> <tr> <td>Operation Frequency:</td><td>2412~2462 MHz</td></tr> <tr> <td>Modulation Type:</td><td>CCK, DQPSK, DBPSK, OFDM</td></tr> <tr> <td>Bit Rate of Transmitter</td><td>802.11b:11/5.5/2/1 Mbps<br/>802.11g:54/48/36/24/18/12/9/6 Mbps</td></tr> <tr> <td>Number Of Channel</td><td>11 CH, Please see Note 2.</td></tr> <tr> <td>Antenna Designation:</td><td>Please see Note 3.</td></tr> <tr> <td>Output Power(Conducted):</td><td>802.11b: 12.28 dBm (Max.)<br/>802.11g: 12.22 dBm (Max.)</td></tr> <tr> <td>Antenna Gain (dBi)</td><td>0.20dbi</td></tr> <tr> <td>EIRP</td><td>802.11b 12.48 dBm (Max.)<br/>802.11g 12.42 dBm (Max.)</td></tr> </table> <p>Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.</p> | Operation Frequency: | 2412~2462 MHz | Modulation Type: | CCK, DQPSK, DBPSK, OFDM | Bit Rate of Transmitter | 802.11b:11/5.5/2/1 Mbps<br>802.11g:54/48/36/24/18/12/9/6 Mbps | Number Of Channel | 11 CH, Please see Note 2. | Antenna Designation: | Please see Note 3. | Output Power(Conducted): | 802.11b: 12.28 dBm (Max.)<br>802.11g: 12.22 dBm (Max.) | Antenna Gain (dBi) | 0.20dbi | EIRP | 802.11b 12.48 dBm (Max.)<br>802.11g 12.42 dBm (Max.) |
| Operation Frequency:     | 2412~2462 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Modulation Type:         | CCK, DQPSK, DBPSK, OFDM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Bit Rate of Transmitter  | 802.11b:11/5.5/2/1 Mbps<br>802.11g:54/48/36/24/18/12/9/6 Mbps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Number Of Channel        | 11 CH, Please see Note 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Antenna Designation:     | Please see Note 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Output Power(Conducted): | 802.11b: 12.28 dBm (Max.)<br>802.11g: 12.22 dBm (Max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Antenna Gain (dBi)       | 0.20dbi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| EIRP                     | 802.11b 12.48 dBm (Max.)<br>802.11g 12.42 dBm (Max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Channel List             | Please refer to the Note 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Power Rating             | DC 3.7V by battery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Adapter                  | INPUT: AC 100~240V, 50/60Hz, 500mA<br>OUTPUT: 5.0V/2A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Connecting I/O Port(s)   | Please refer to the User's Manual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| Products Covered         | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |
| EUT Modification(s)      | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |               |                  |                         |                         |                                                               |                   |                           |                      |                    |                          |                                                        |                    |         |      |                                                      |

Note  
:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

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

3.

Table for Filed Antenna

| Ant | Brand | Model Name | Antenna Type   | Connector | Gain (dBi) | NOTE |
|-----|-------|------------|----------------|-----------|------------|------|
| 1   | N/A   | N/A        | Integrated ANT | N/A       | 0.20       | N/A  |

## 2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

| Pretest Mode | Description            |
|--------------|------------------------|
| Mode 1       | 802.11b CH1/ CH6/ CH11 |
| Mode 2       | 802.11g CH1/ CH6/ CH11 |
| Mode 3       | Charging               |

| For Conducted Emission |                  |
|------------------------|------------------|
| Final Test Mode        | Description      |
| Mode 3                 | Charging (TX ON) |

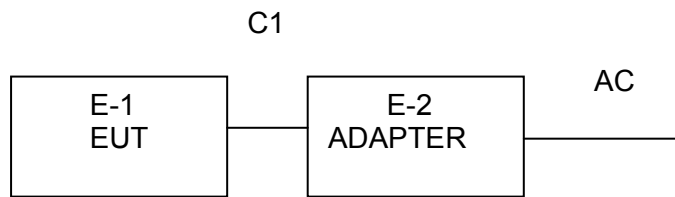
| For Radiated Emission |                        |
|-----------------------|------------------------|
| Final Test Mode       | Description            |
| Mode 1                | 802.11b CH1/ CH6/ CH11 |
| Mode 2                | 802.11g CH1/ CH6/ CH11 |

Note:

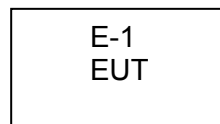
- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported

## 2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

### Conducted Emission Test



### Radiated Spurious Emission Test



## 2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Item | Equipment | Mfr/Brand | Model/Type No. | Series No. | Note |
|------|-----------|-----------|----------------|------------|------|
| E-1  | MID       | N/A       | EL915          | N/A        | EUT  |
| E-2  | ADAPTER   | N/A       | JT-H050200     | N/A        |      |
|      |           |           |                |            |      |
|      |           |           |                |            |      |
|      |           |           |                |            |      |
|      |           |           |                |            |      |

| Item | Shielded Type | Ferrite Core | Length | Note |
|------|---------------|--------------|--------|------|
| C1   | NO            | NO           | 0.8M   |      |
|      |               |              |        |      |
|      |               |              |        |      |
|      |               |              |        |      |
|      |               |              |        |      |

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

## 2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

### Radiation Test equipment

| Item | Kind of Equipment  | Manufacturer | Type No.    | Serial No. | Calibrated until |
|------|--------------------|--------------|-------------|------------|------------------|
| 1    | Spectrum Analyzer  | Agilent      | E4407B      | 160400005  | Jul. 06. 2012    |
| 2    | Test Receiver      | R&S          | ESPI        | 101318     | Jul. 06. 2012    |
| 3    | Bilog Antenna      | TESEQ        | CBL6111D    | 31216      | Jul. 06. 2012    |
| 4    | 50Ω Coaxial Switch | Anritsu      | MP59B       | 6200264416 | Jul. 06. 2012    |
| 5    | Spectrum Analyzer  | ADVANTEST    | R3132       | 150900201  | Jul. 06. 2012    |
| 6    | Horn Antenna       | EM           | EM-AH-10180 | 2011071402 | Jul. 06. 2012    |
| 7    | Horn Ant           | Schwarzbeck  | BBHA 9170   | 9170-181   | Jul. 06. 2012    |
| 8    | Amplifier          | EM           | EM-30180    | 060538     | Jul. 06. 2012    |
| 9    | Loop Antenna       | ARA          | PLA-1030/B  | 1029       | Jul. 06. 2012    |
| 10   | Power Meter        | R&S          | NRVS        | 100696     | Jul. 06. 2012    |

### Conduction Test equipment

| Item | Kind of Equipment     | Manufacturer | Type No. | Serial No. | Calibrated until |
|------|-----------------------|--------------|----------|------------|------------------|
| 1    | Test Receiver         | R&S          | ESCI     | 101160     | Jul. 06. 2012    |
| 2    | LISN                  | R&S          | ENV216   | 101313     | Jul. 06. 2012    |
| 3    | LISN                  | EMCO         | 3816/2   | 00042990   | Jul. 06. 2012    |
| 4    | 50Ω Coaxial Switch    | Anritsu      | MP59B    | 6200264417 | Jul. 06. 2012    |
| 5    | Passive Voltage Probe | R&S          | ESH2-Z3  | 100196     | Jul. 06. 2012    |
| 6    | Absorbing clamp       | R&S          | MOS-21   | 100423     | Jul. 06. 2012    |

### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

| FREQUENCY (MHz) | Class A (dBuV) |         | Class B (dBuV) |           | Standard |
|-----------------|----------------|---------|----------------|-----------|----------|
|                 | Quasi-peak     | Average | Quasi-peak     | Average   |          |
| 0.15 -0.5       | 79.00          | 66.00   | 66 - 56 *      | 56 - 46 * | CISPR    |
| 0.50 -5.0       | 73.00          | 60.00   | 56.00          | 46.00     | CISPR    |
| 5.0 -30.0       | 73.00          | 60.00   | 60.00          | 50.00     | CISPR    |

|           |       |       |           |           |     |
|-----------|-------|-------|-----------|-----------|-----|
| 0.15 -0.5 | 79.00 | 66.00 | 66 - 56 * | 56 - 46 * | FCC |
| 0.50 -5.0 | 73.00 | 60.00 | 56.00     | 46.00     | FCC |
| 5.0 -30.0 | 73.00 | 60.00 | 60.00     | 50.00     | FCC |

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

| Receiver Parameters | Setting  |
|---------------------|----------|
| Attenuation         | 10 dB    |
| Start Frequency     | 0.15 MHz |
| Stop Frequency      | 30 MHz   |
| IF Bandwidth        | 9 kHz    |

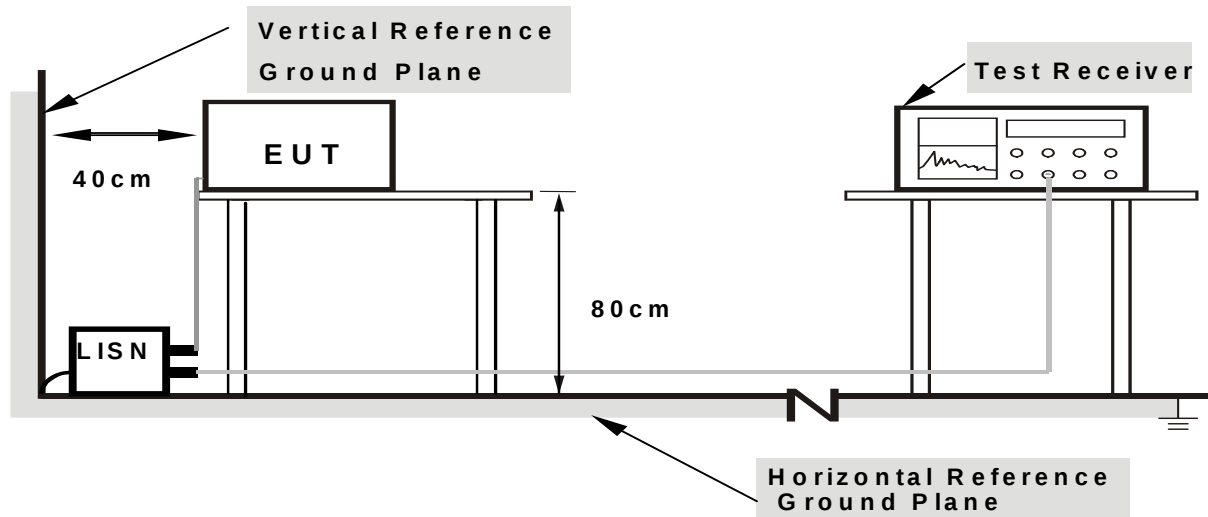
### 3.1.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 3.1.3 DEVIATION FROM TEST STANDARD

No deviation

### 3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

### 3.1.6 TEST RESULTS

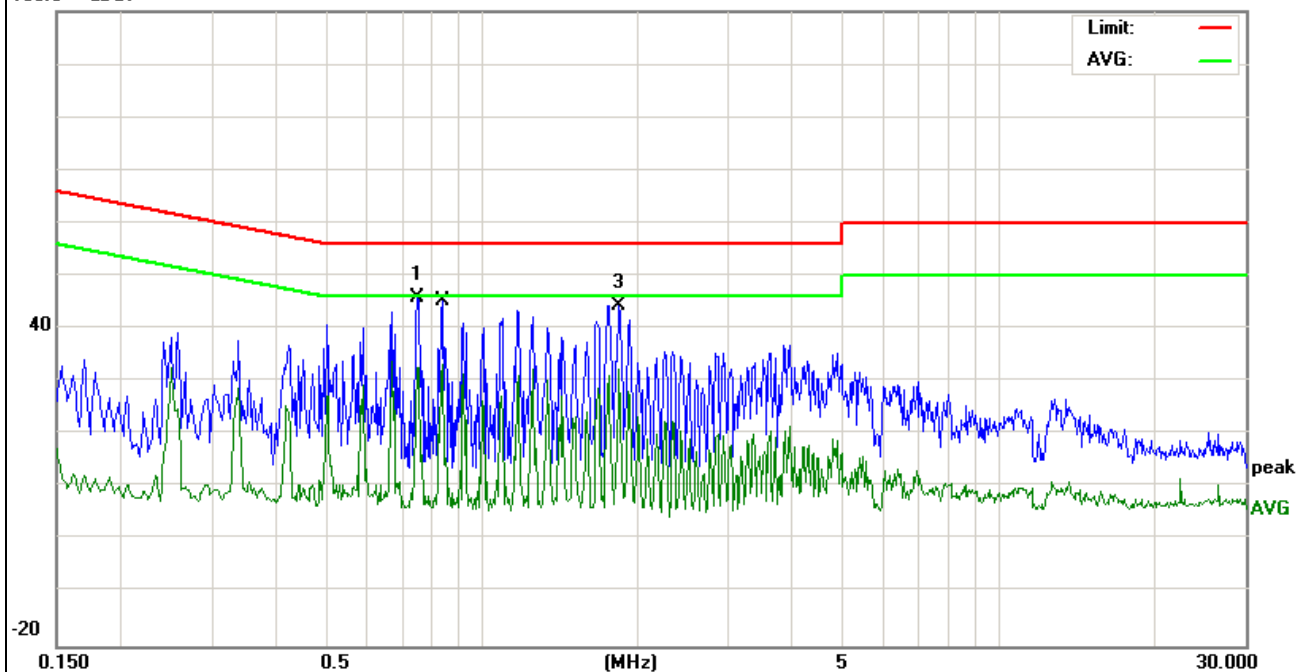
|                |                              |                     |           |
|----------------|------------------------------|---------------------|-----------|
| EUT :          | MID                          | Model Name. :       | EL915     |
| Temperature :  | 26 °C                        | Relative Humidity : | 54%       |
| Pressure :     | 1010hPa                      | Test Date :         | 2012-1-10 |
| Test Mode :    | Charging (TX ON)             | Phase :             | L         |
| Test Voltage : | DC 3.7V from adapter AC 120V |                     |           |

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|--------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV)         | (dBμV) | (dB)   |               |
| *0.75     | 35.40         | 10.41  | 45.81          | 56     | -10.19 | peak          |
| 0.842     | 22.91         | 10.41  | 33.32          | 46     | -12.68 | AVG           |
| 1.846     | 34.01         | 10.41  | 44.42          | 56     | -11.58 | peak          |
| 1.846     | 21.90         | 10.42  | 32.32          | 46     | -13.68 | AVG           |

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. '\*' means the worst case

100.0 dBμV

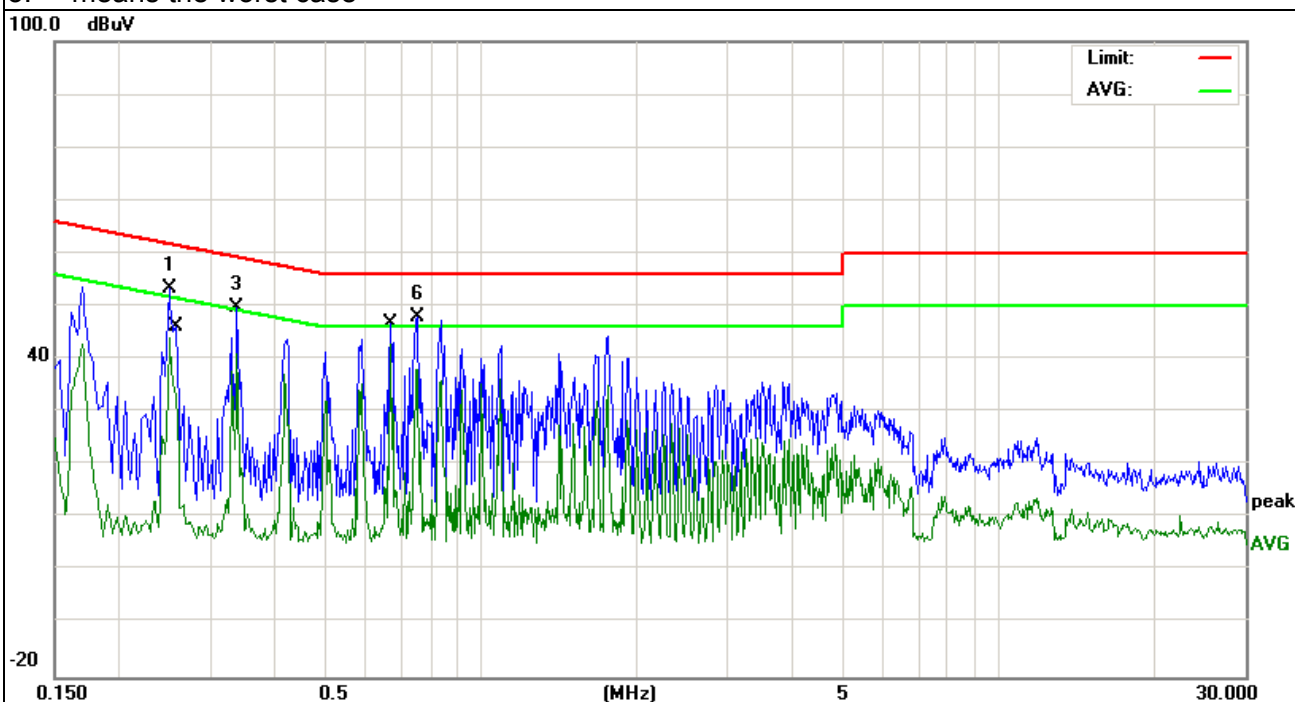


|                |                              |                     |           |
|----------------|------------------------------|---------------------|-----------|
| EUT :          | MID                          | Model Name. :       | EL915     |
| Temperature :  | 26 °C                        | Relative Humidity : | 54%       |
| Pressure :     | 1010hPa                      | Test Date :         | 2012-1-10 |
| Test Mode :    | Charging (TX ON)             | Phase :             | N         |
| Test Voltage : | DC 3.7V from adapter AC 120V |                     |           |

| Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Detector Type |
|-----------|---------------|--------|----------------|--------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV)         | (dBμV) | (dB)   |               |
| 0.25      | 42.90         | 10.43  | 53.33          | 61.75  | -8.32  | peak          |
| 0.2589    | 18.00         | 10.43  | 28.43          | 51.46  | -23.23 | AVG           |
| 0.3379    | 39.20         | 10.42  | 49.62          | 59.25  | -9.63  | peak          |
| 0.3379    | 30.62         | 10.42  | 41.04          | 49.25  | -8.21  | AVG           |
| *0.67     | 32.50         | 10.4   | 42.90          | 46     | -3.10  | AVG           |
| 0.758     | 37.44         | 10.41  | 47.85          | 56     | -8.15  | peak          |

#### Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. '\*' means the worst case



## 3.2 RADIATED EMISSION MEASUREMENT

### 3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

| Frequencies<br>(MHz) | Field Strength<br>(microvolt/meter) | Measurement Distance<br>(meters) |
|----------------------|-------------------------------------|----------------------------------|
| 0.009~0.490          | 2400/F(KHz)                         | 300                              |
| 0.490~1.705          | 24000/F(KHz)                        | 30                               |
| 1.705~30.0           | 30                                  | 30                               |
| 30~88                | 100                                 | 3                                |
| 88~216               | 150                                 | 3                                |
| 216~960              | 200                                 | 3                                |
| Above 960            | 500                                 | 3                                |

### LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

| FREQUENCY (MHz) | Class A (dBuV/m) (at 3M) |         | Class B (dBuV/m) (at 3M) |         |
|-----------------|--------------------------|---------|--------------------------|---------|
|                 | PEAK                     | AVERAGE | PEAK                     | AVERAGE |
| Above 1000      | 80                       | 60      | 74                       | 54      |

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

| Spectrum Parameter                    | Setting                                          |
|---------------------------------------|--------------------------------------------------|
| Attenuation                           | Auto                                             |
| Start Frequency                       | 1000 MHz                                         |
| Stop Frequency                        | 10th carrier harmonic                            |
| RB / VB (emission in restricted band) | 1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average |

| Receiver Parameter     | Setting                          |
|------------------------|----------------------------------|
| Attenuation            | Auto                             |
| Start ~ Stop Frequency | 9kHz~150kHz / RB 200Hz for QP    |
| Start ~ Stop Frequency | 150kHz~30MHz / RB 9kHz for QP    |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 120kHz for QP |

**3.2.2 TEST PROCEDURE**

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

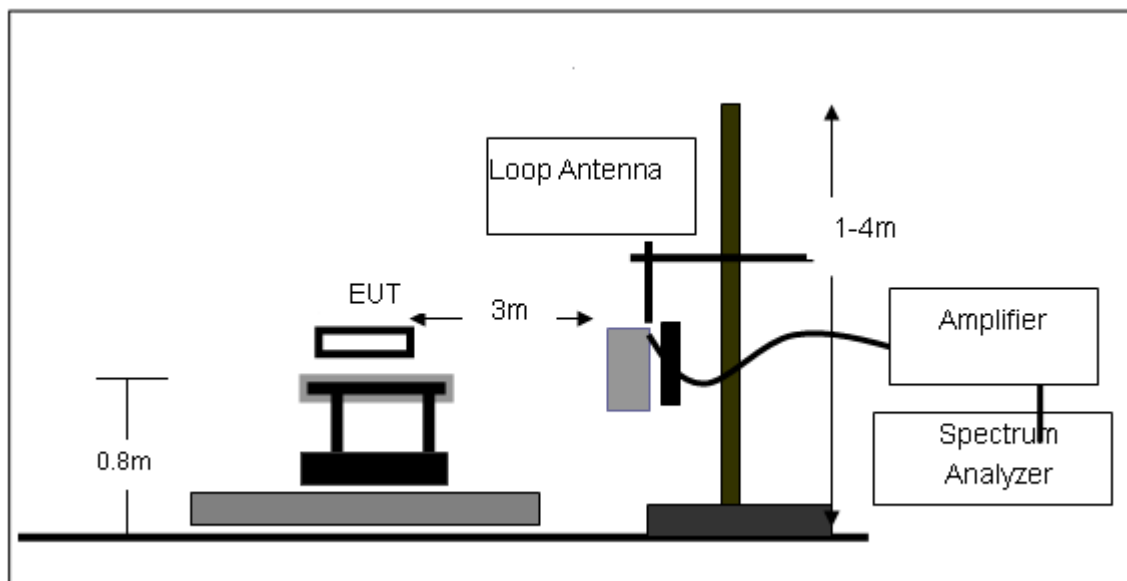
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

**3.2.3 DEVIATION FROM TEST STANDARD**

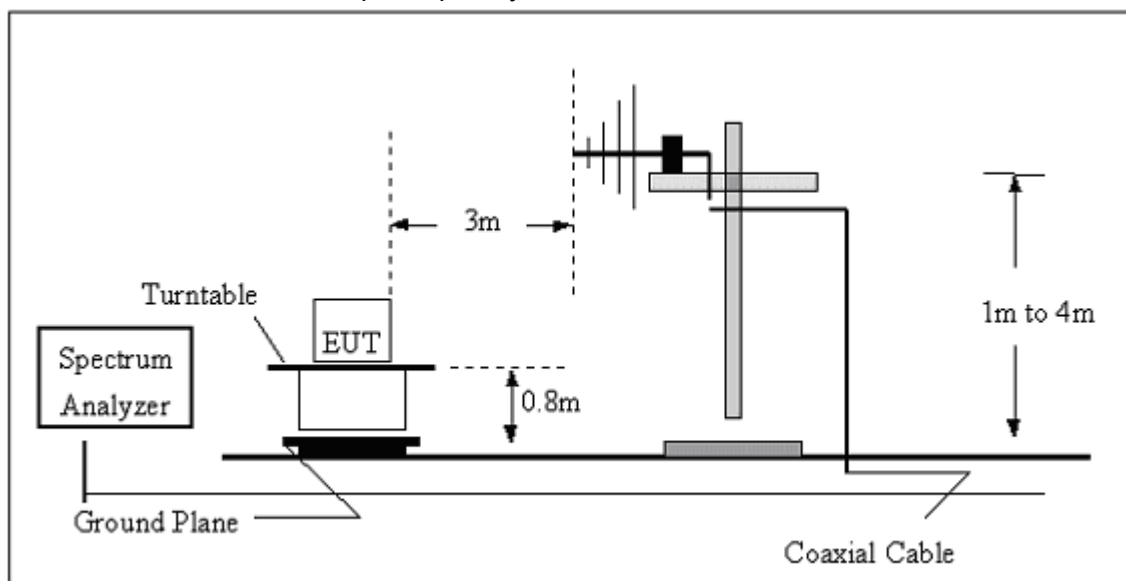
No deviation

### 3.2.4 TEST SETUP

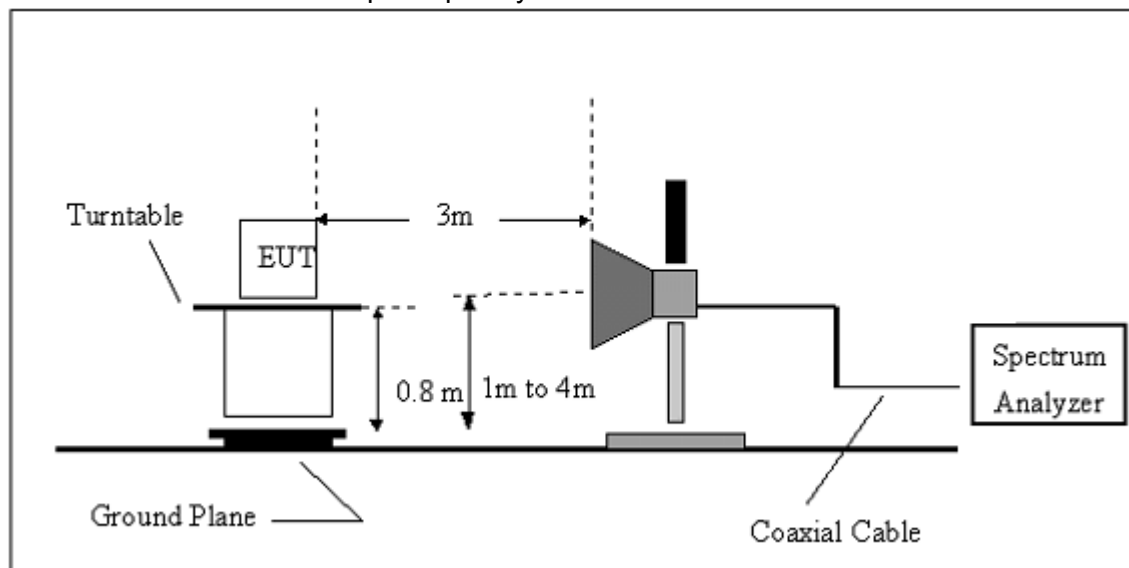
#### (A) Radiated Emission Test-Up Frequency Below 30MHz



#### (B) Radiated Emission Test-Up Frequency 30MHz~1GHz



## (C) Radiated Emission Test-Up Frequency Above 1GHz

**3.2.5 EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

### 3.2.6 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)

|               |          |                     |         |
|---------------|----------|---------------------|---------|
| EUT :         | MID      | Model Name. :       | EL915   |
| Temperature : | 20 °C    | Relative Humidity : | 48%     |
| Pressure :    | 1010 hPa | Test Voltage :      | DC 3.7V |
| Test Mode :   | TX       | Polarization :      | --      |

| Freq. | Reading  | Limit    | Margin | State |
|-------|----------|----------|--------|-------|
| (MHz) | (dBuV/m) | (dBuV/m) | (dB)   | P/F   |
| --    | --       | --       | --     | PASS  |
| --    | --       | --       | --     | PASS  |

#### NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =  $20 \log (\text{specific distance/test distance})(\text{dB})$ ;

Limit line = specific limits(dBuv) + distance extrapolation factor.

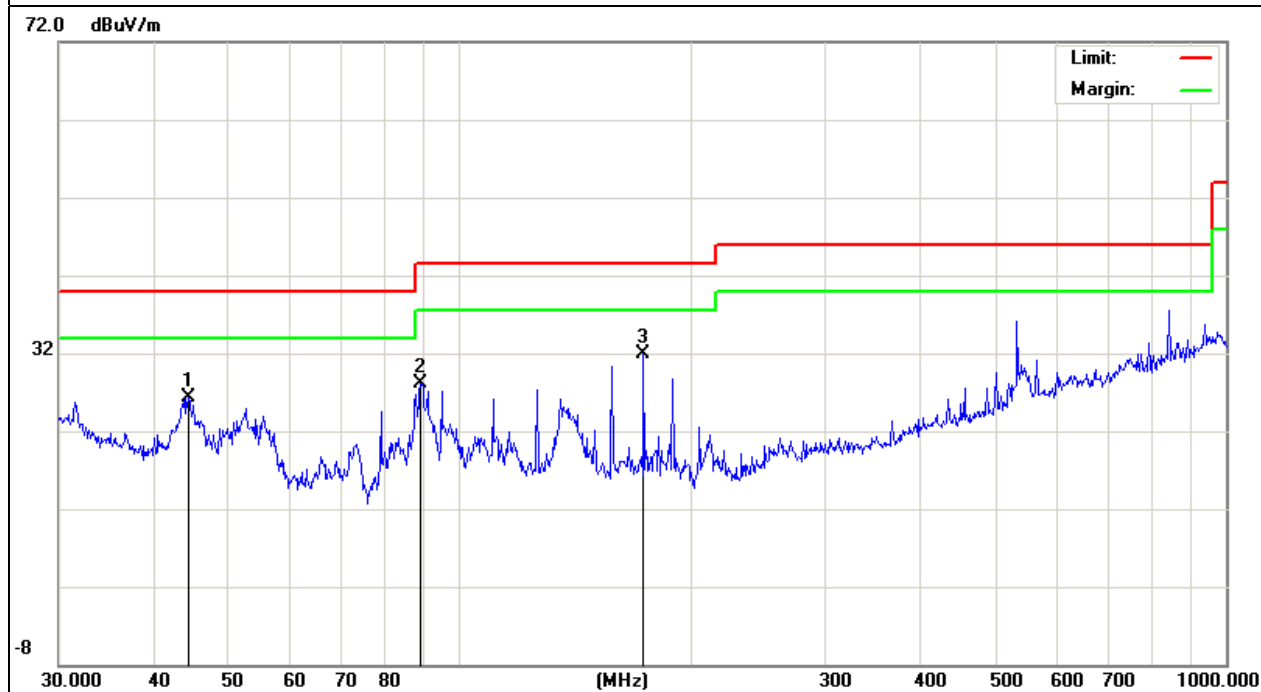
### 3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)

|               |          |                     |            |
|---------------|----------|---------------------|------------|
| EUT :         | MID      | Model Name :        | EL915      |
| Temperature : | 20 °C    | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa | Test Voltage :      | DC 3.7V    |
| Test Mode :   | TX       | Polarization :      | Horizontal |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Detector Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|---------------|
| 44.2751            | 15.34                   | 11.02          | 26.36                      | 40                 | -13.64         | Quasi-Peak    |
| 88.9637            | 18.89                   | 9.2            | 28.09                      | 43.5               | -15.41         | Quasi-Peak    |
| 173.8135           | 22.16                   | 9.77           | 31.93                      | 43.5               | -11.57         | Quasi-Peak    |
|                    |                         |                |                            |                    |                |               |

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

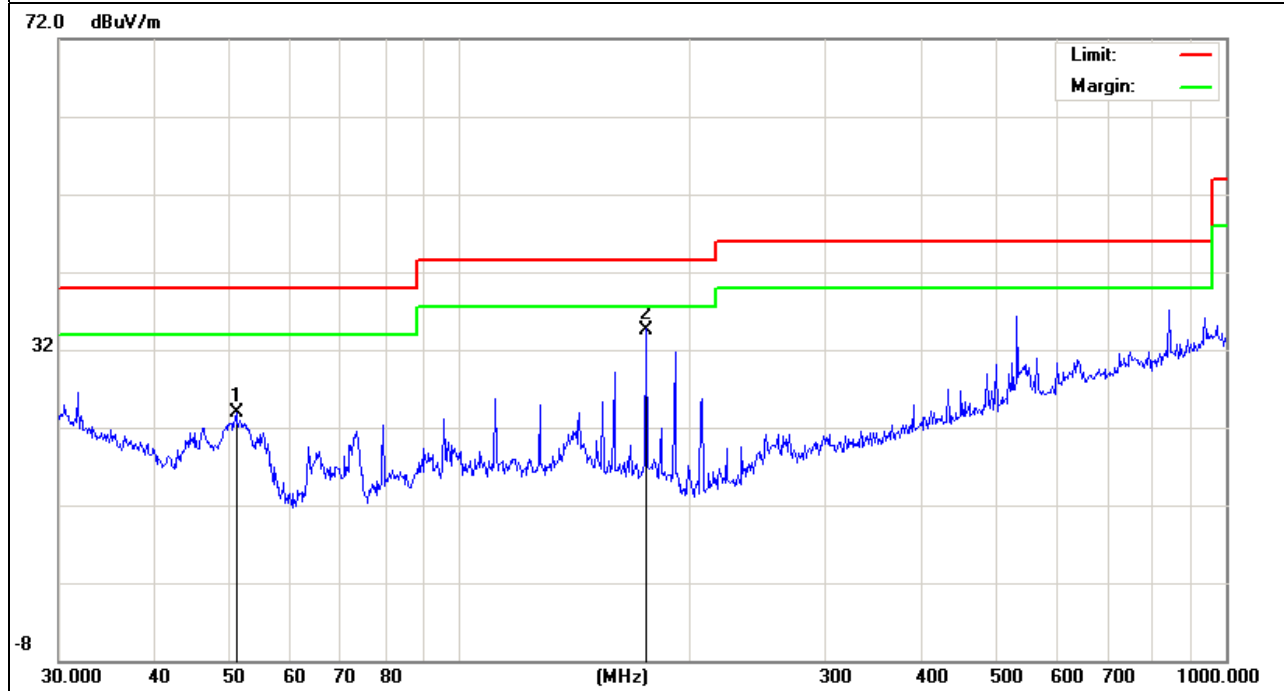


|               |          |                     |          |
|---------------|----------|---------------------|----------|
| EUT :         | MID      | Model Name :        | EL915    |
| Temperature : | 20 °C    | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa | Test Voltage :      | DC 3.7V  |
| Test Mode :   | TX       | Polarization :      | Vertical |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Detector Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|---------------|
| 51.1209            | 16.25                   | 7.65           | 23.9                       | 40                 | -16.1          | Quasi-Peak    |
| 175.0368           | 24.9                    | 9.7            | 34.6                       | 43.5               | -8.9           | Quasi-Peak    |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.



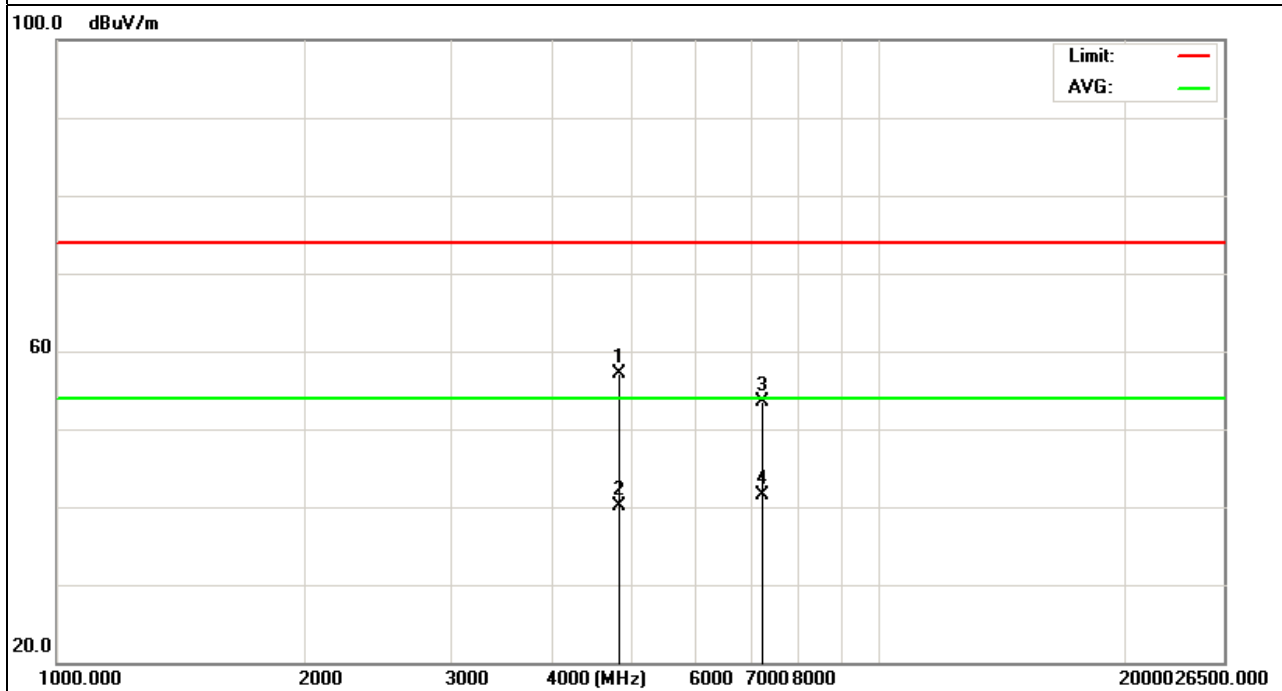
### 3.2.8 TEST RESULTS (ABOVE 1000 MHZ)

|               |                    |                     |            |
|---------------|--------------------|---------------------|------------|
| EUT :         | MID                | Model Name :        | EL915      |
| Temperature : | 20 °C              | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH1 (802.11b Mode) | Polarization :      | Horizontal |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 4824      | 65.31         | -8.12  | 57.19          | 74       | -16.81 | peak          |
| 4824      | 48.21         | -8.12  | 40.09          | 54       | -13.91 | AVG           |
| 7239      | 61.02         | -7.47  | 53.55          | 74       | -20.45 | peak          |
| 7239      | 48.99         | -7.47  | 41.52          | 54       | -12.48 | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

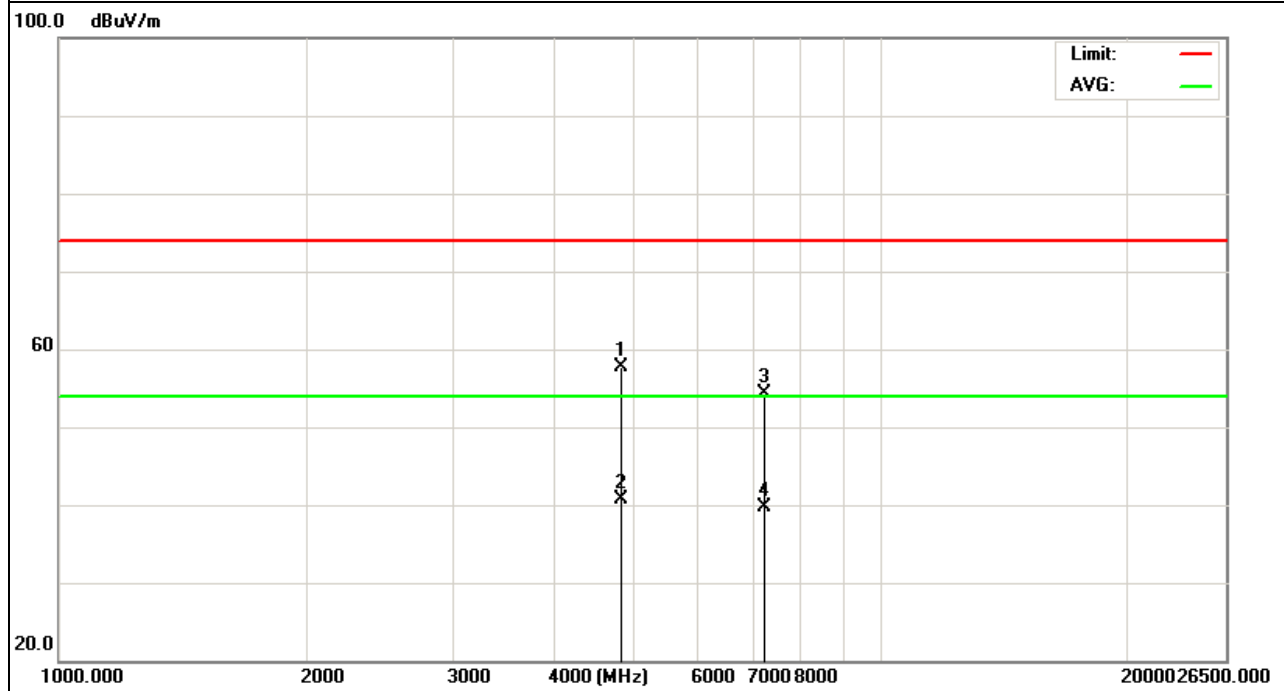


|               |                    |                     |          |
|---------------|--------------------|---------------------|----------|
| EUT :         | MID                | Model Name :        | EL915    |
| Temperature : | 20 °C              | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH1 (802.11b Mode) | Polarization :      | Vertical |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 4824      | 65.74         | -8.12  | 57.62          | 74       | -16.38 | peak          |
| 4824      | 48.89         | -8.12  | 40.77          | 54       | -13.23 | AVG           |
| 7239      | 61.79         | -7.47  | 54.32          | 74       | -19.68 | peak          |
| 7239      | 47.1          | -7.47  | 39.63          | 54       | -14.37 | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

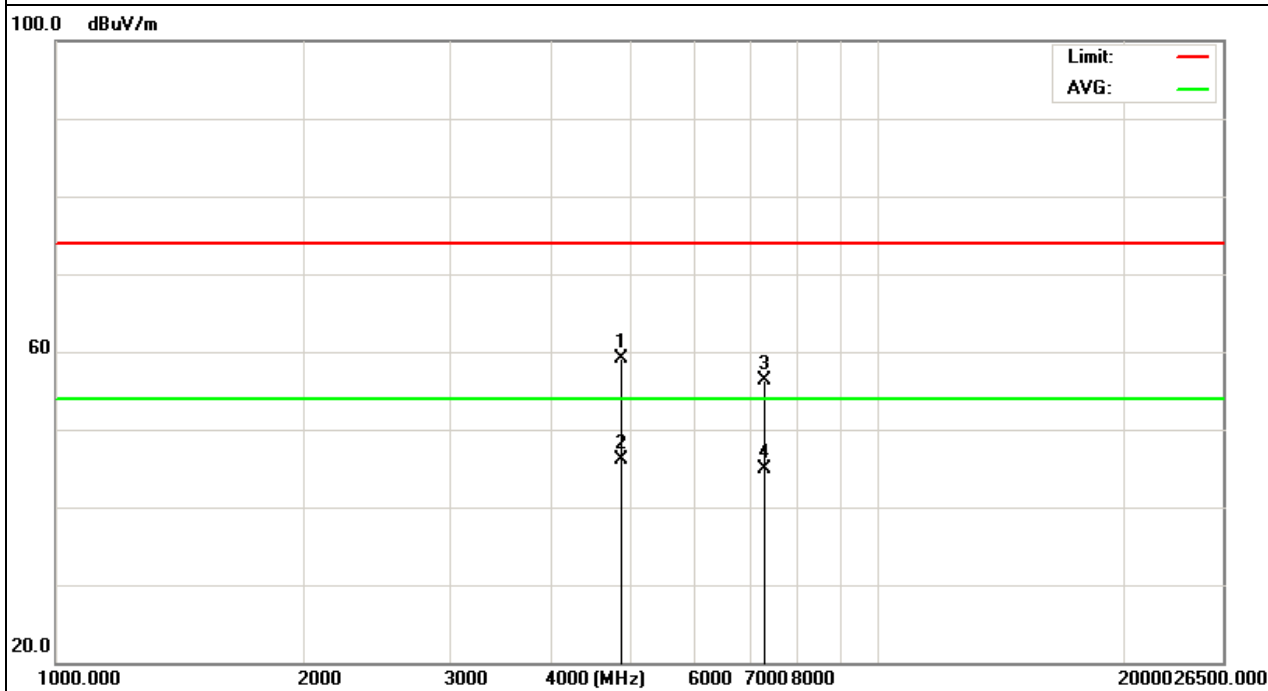


|               |                    |                     |            |
|---------------|--------------------|---------------------|------------|
| EUT :         | MID                | Model Name :        | EL915      |
| Temperature : | 20 °C              | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH6 (802.11b Mode) | Polarization :      | Horizontal |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Detector Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|---------------|
| 4874               | 67.22                   | -8.19          | 59.03                      | 74                 | -14.97         | peak          |
| 4874               | 54.31                   | -8.19          | 46.12                      | 54                 | -7.88          | AVG           |
| 7311               | 63.44                   | -7.21          | 56.23                      | 74                 | -17.77         | peak          |
| 7311               | 52.11                   | -7.21          | 44.9                       | 54                 | -9.1           | AVG           |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

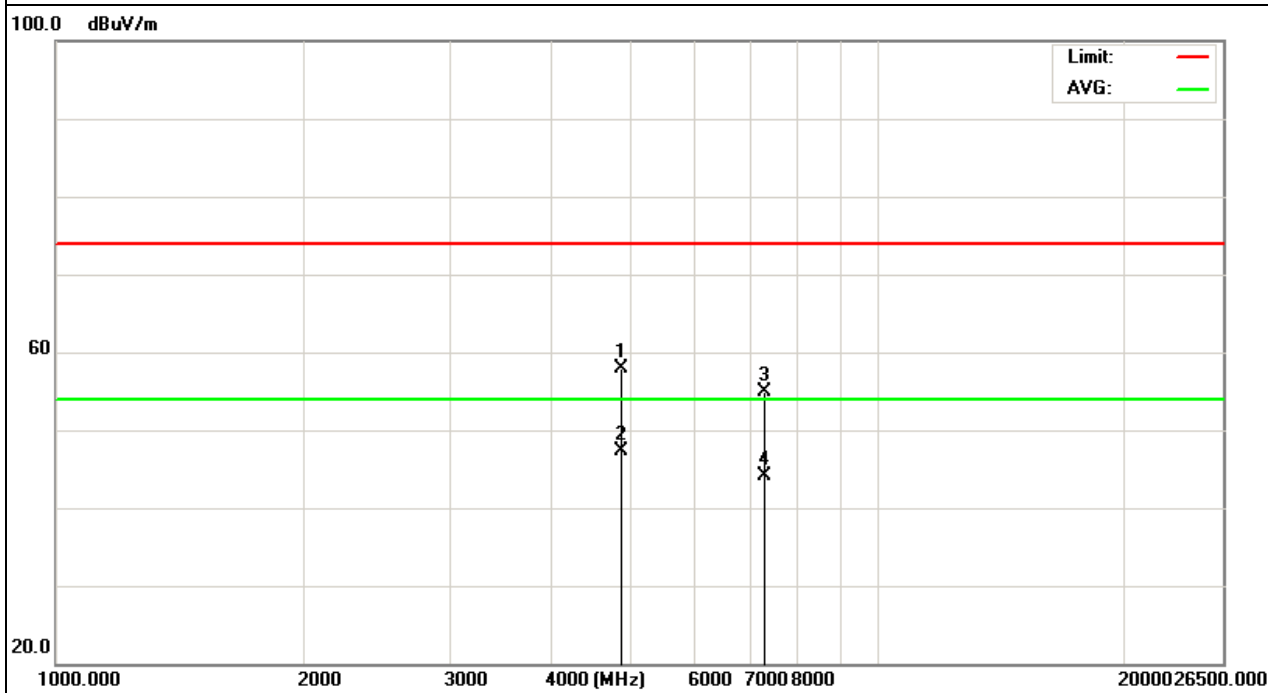


|               |                    |                     |          |
|---------------|--------------------|---------------------|----------|
| EUT :         | MID                | Model Name :        | EL915    |
| Temperature : | 20 °C              | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH6 (802.11b Mode) | Polarization :      | Vertical |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 4874      | 66.01         | -8.19  | 57.82          | 74       | -16.18 | peak          |
| 4874      | 55.51         | -8.19  | 47.32          | 54       | -6.68  | AVG           |
| 7311      | 62.12         | -7.21  | 54.91          | 74       | -19.09 | peak          |
| 7311      | 51.29         | -7.21  | 44.08          | 54       | -9.92  | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

#### Remark:

- Factor = Antenna Factor + Cable Loss – Pre-amplifier.
- No emission detected above 18GHz

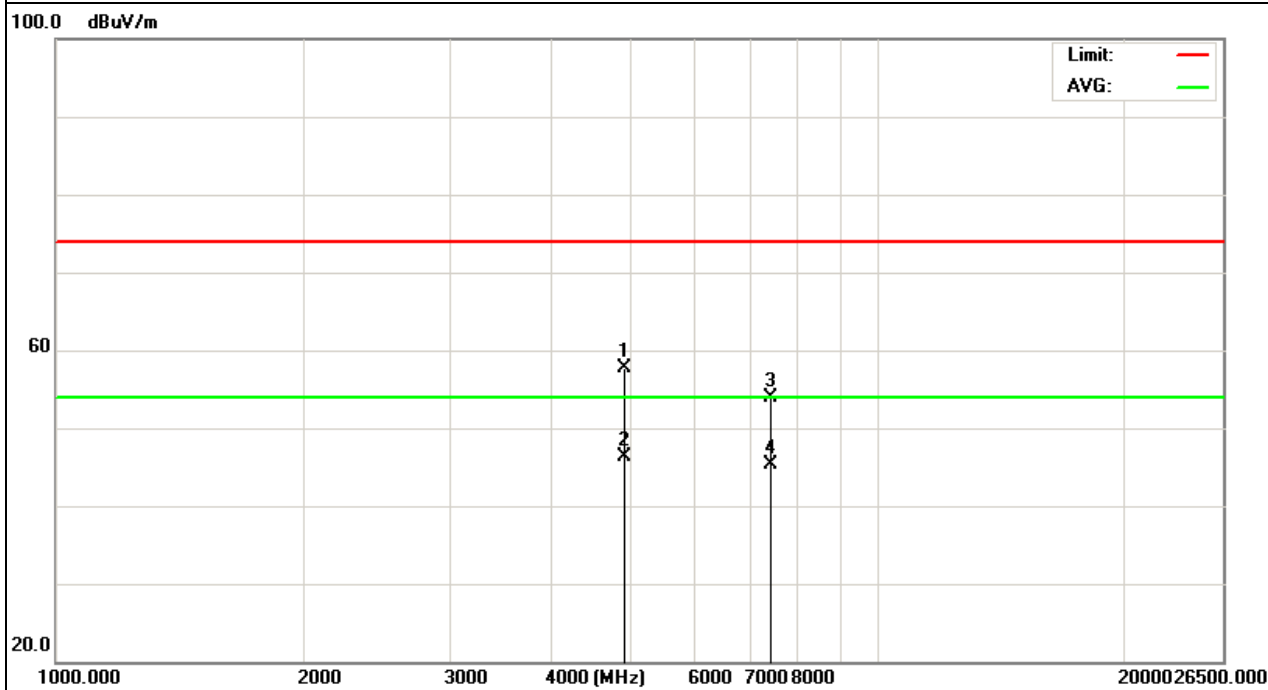


|               |                     |                     |            |
|---------------|---------------------|---------------------|------------|
| EUT :         | MID                 | Model Name :        | EL915      |
| Temperature : | 20 °C               | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa            | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH11 (802.11b Mode) | Polarization :      | Horizontal |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 4924      | 65.9          | -8.22  | 57.68          | 74       | -16.32 | peak          |
| 4924      | 54.48         | -8.22  | 46.26          | 54       | -7.74  | AVG           |
| 7386      | 61.39         | -7.39  | 54             | 74       | -20    | peak          |
| 7386      | 52.69         | -7.39  | 45.3           | 54       | -8.7   | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

- Factor = Antenna Factor + Cable Loss – Pre-amplifier.
- No emission detected above 18GHz

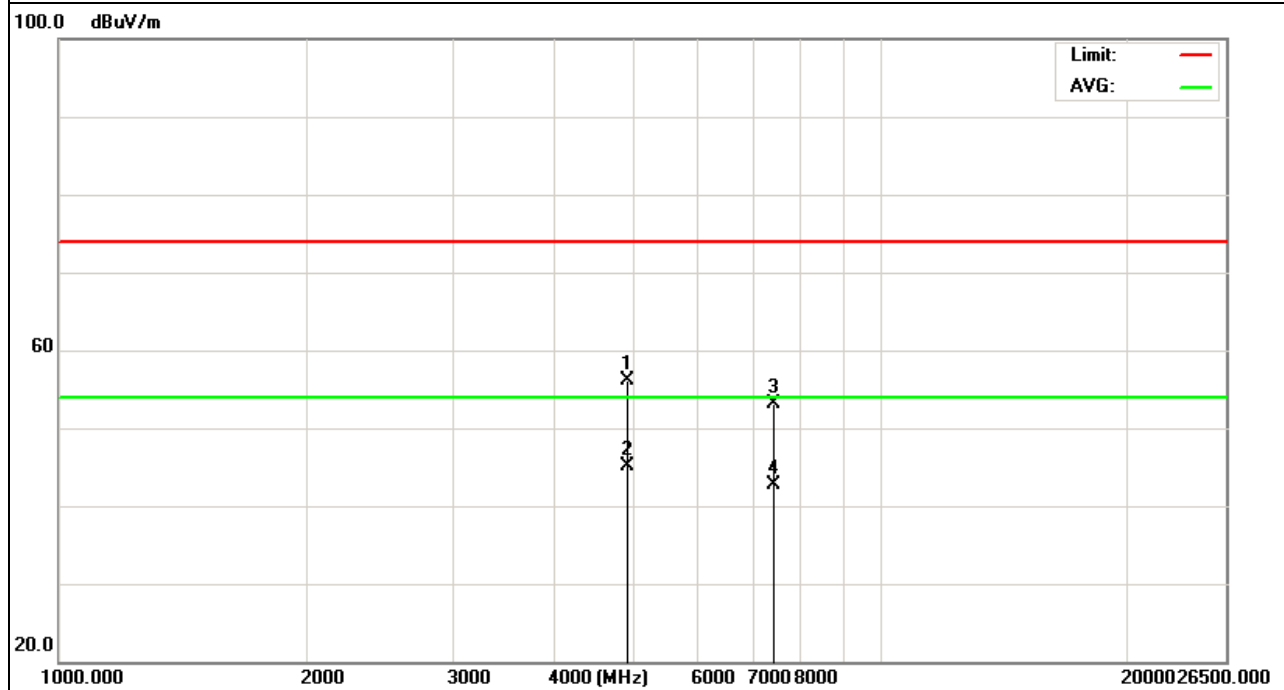


|               |                     |                     |          |
|---------------|---------------------|---------------------|----------|
| EUT :         | MID                 | Model Name :        | EL915    |
| Temperature : | 20 °C               | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa            | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH11 (802.11b Mode) | Polarization :      | Vertical |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Detector Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|---------------|
| 4924               | 64.33                   | -8.22          | 56.11                      | 74                 | -17.89         | peak          |
| 4924               | 53.31                   | -8.22          | 45.09                      | 54                 | -8.91          | AVG           |
| 7386               | 60.51                   | -7.39          | 53.12                      | 74                 | -20.88         | peak          |
| 7386               | 50.11                   | -7.39          | 42.72                      | 54                 | -11.28         | AVG           |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

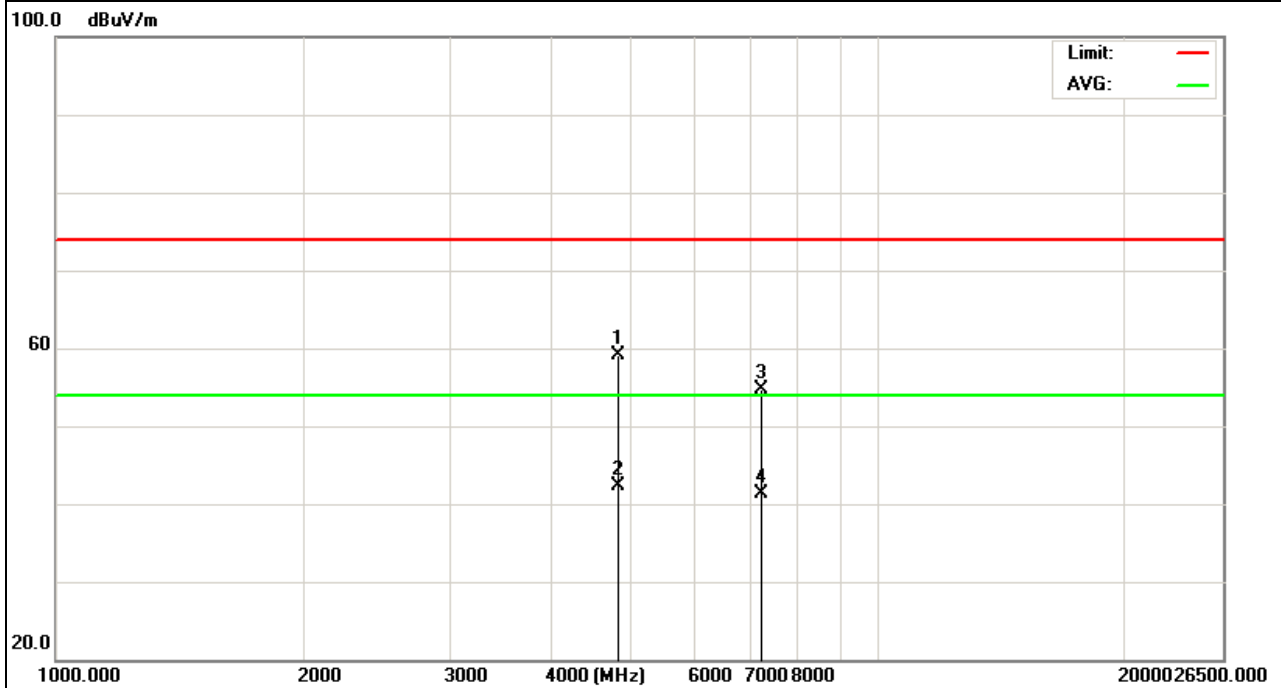


|               |                    |                     |            |
|---------------|--------------------|---------------------|------------|
| EUT :         | MID                | Model Name :        | EL915      |
| Temperature : | 20 °C              | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH1 (802.11g Mode) | Polarization :      | Horizontal |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 4824      | 67.21         | -8.12  | 59.09          | 74       | -14.91 | peak          |
| 4824      | 50.33         | -8.12  | 42.21          | 54       | -11.79 | AVG           |
| 7239      | 62.12         | -7.47  | 54.65          | 74       | -19.35 | peak          |
| 7239      | 48.87         | -7.47  | 41.4           | 54       | -12.6  | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

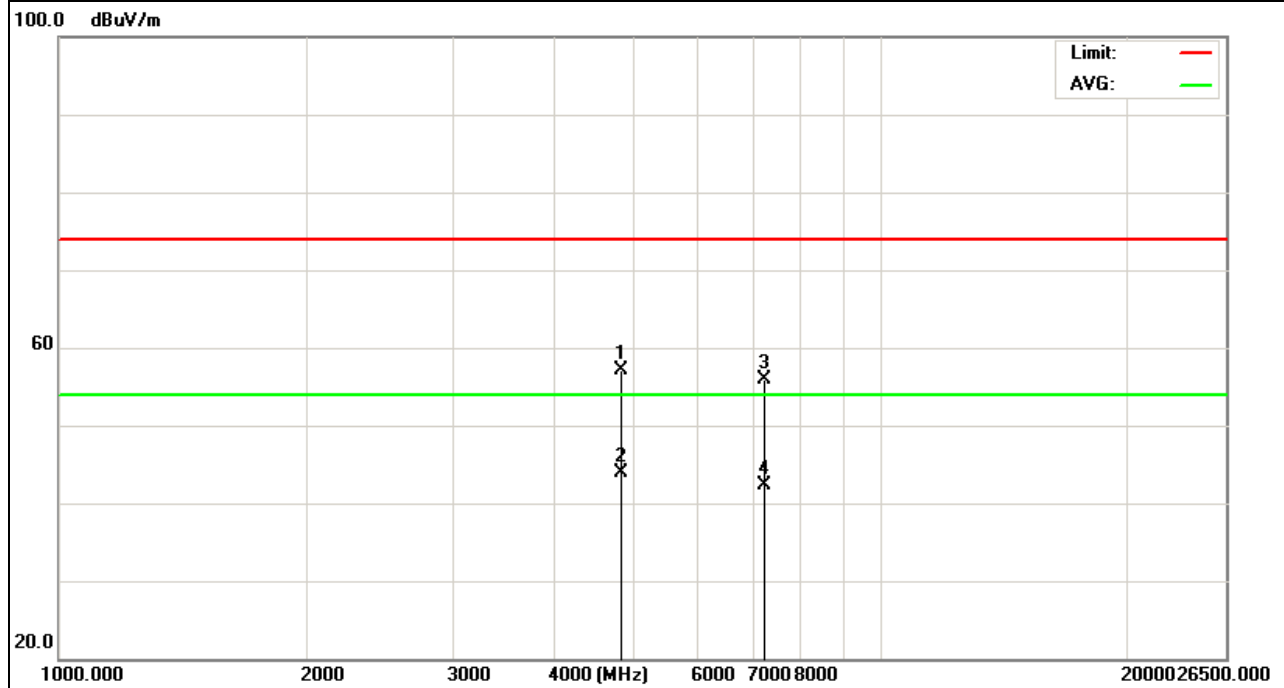
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



|               |                    |                     |          |
|---------------|--------------------|---------------------|----------|
| EUT :         | MID                | Model Name :        | EL915    |
| Temperature : | 20 °C              | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH1 (802.11g Mode) | Polarization :      | Vertical |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Detector Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|---------------|
| 4824               | 65.21                   | -8.12          | 57.09                      | 74                 | -16.91         | peak          |
| 4824               | 52.12                   | -8.12          | 44                         | 54                 | -10            | AVG           |
| 7239               | 63.33                   | -7.47          | 55.86                      | 74                 | -18.14         | peak          |
| 7239               | 49.8                    | -7.47          | 42.33                      | 54                 | -11.67         | AVG           |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |

Remark:  
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

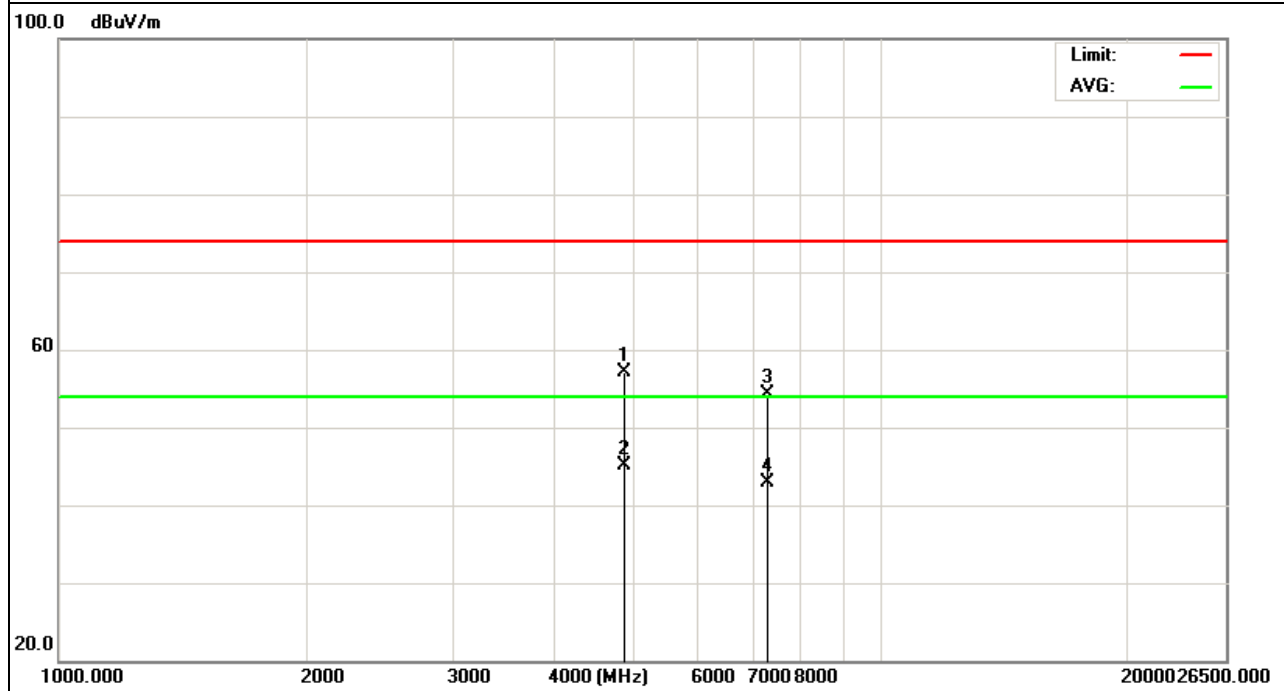


|               |                    |                     |            |
|---------------|--------------------|---------------------|------------|
| EUT :         | MID                | Model Name :        | EL915      |
| Temperature : | 20 °C              | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH6 (802.11g Mode) | Polarization :      | Horizontal |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 4874      | 65.32         | -8.19  | 57.13          | 74       | -16.87 | peak          |
| 4874      | 53.21         | -8.19  | 45.02          | 54       | -8.98  | AVG           |
| 7311      | 61.44         | -7.21  | 54.23          | 74       | -19.77 | peak          |
| 7311      | 50.09         | -7.21  | 42.88          | 54       | -11.12 | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

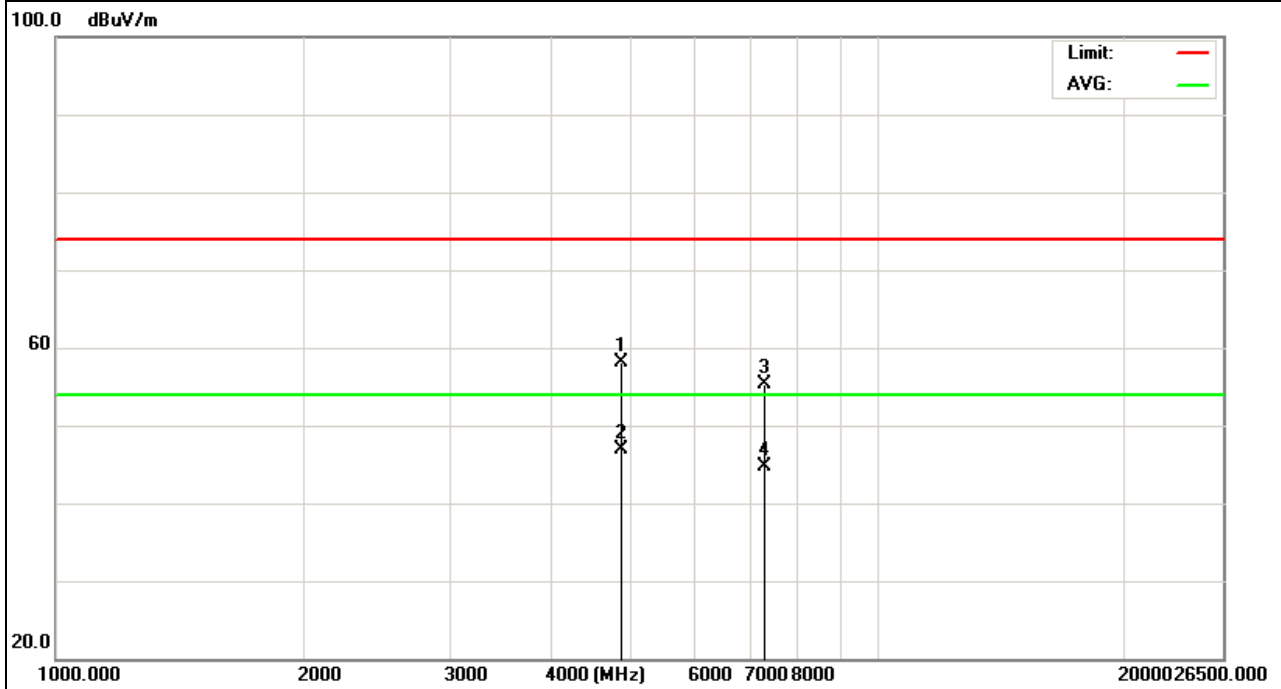


|               |                    |                     |          |
|---------------|--------------------|---------------------|----------|
| EUT :         | MID                | Model Name :        | EL915    |
| Temperature : | 20 °C              | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH6 (802.11g Mode) | Polarization :      | Vertical |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 4874      | 66.22         | -8.19  | 58.03          | 74       | -15.97 | peak          |
| 4874      | 55.14         | -8.19  | 46.95          | 54       | -7.05  | AVG           |
| 7311      | 62.56         | -7.21  | 55.35          | 74       | -18.65 | peak          |
| 7311      | 51.89         | -7.21  | 44.68          | 54       | -9.32  | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

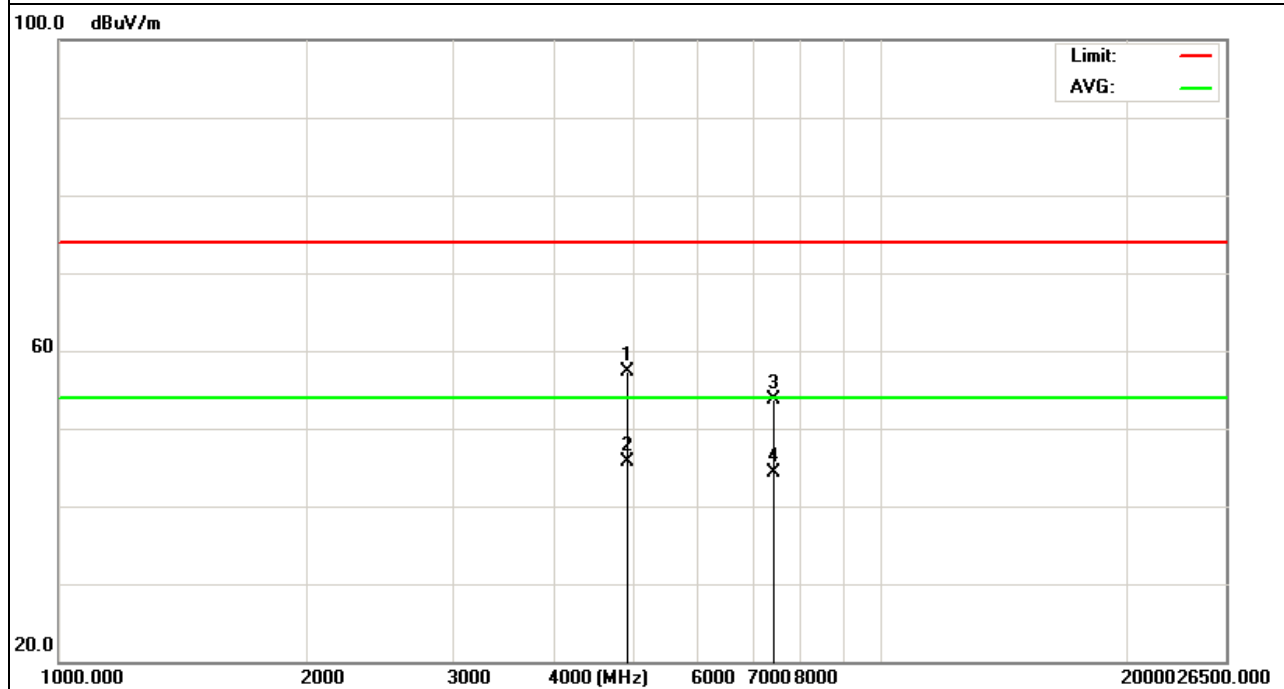
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



|               |                     |                     |            |
|---------------|---------------------|---------------------|------------|
| EUT :         | MID                 | Model Name :        | EL915      |
| Temperature : | 20 °C               | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa            | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH11 (802.11g Mode) | Polarization :      | Horizontal |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Detector Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|---------------|
| 4924               | 65.46                   | -8.22          | 57.24                      | 74                 | -16.76         | peak          |
| 4924               | 54.01                   | -8.22          | 45.79                      | 54                 | -8.21          | AVG           |
| 7386               | 61.11                   | -7.39          | 53.72                      | 74                 | -20.28         | peak          |
| 7386               | 51.65                   | -7.39          | 44.26                      | 54                 | -9.74          | AVG           |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |

Remark:  
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

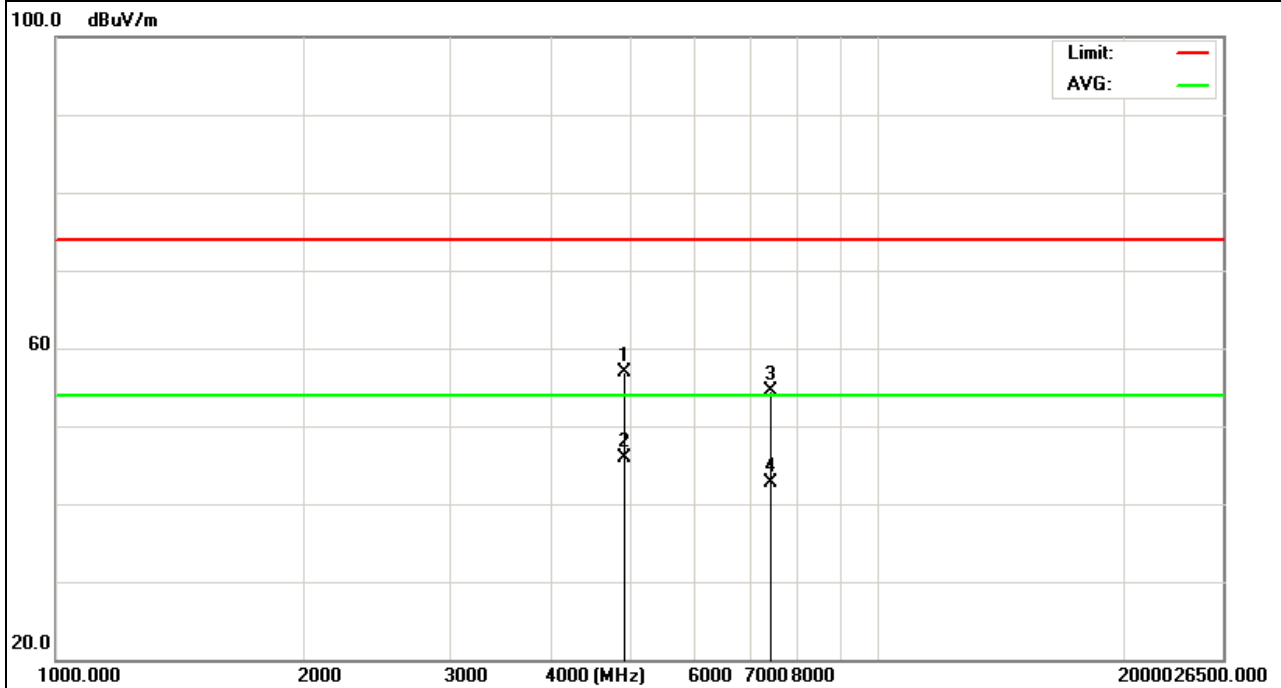


|               |                    |                     |          |
|---------------|--------------------|---------------------|----------|
| EUT :         | MID                | Model Name :        | EL915    |
| Temperature : | 20 °C              | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH11(802.11g Mode) | Polarization :      | Vertical |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 4924      | 65.21         | -8.22  | 56.99          | 74       | -17.01 | peak          |
| 4924      | 54.11         | -8.22  | 45.89          | 54       | -8.11  | AVG           |
| 7386      | 61.89         | -7.39  | 54.5           | 74       | -19.5  | peak          |
| 7386      | 50.09         | -7.39  | 42.7           | 54       | -11.3  | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.



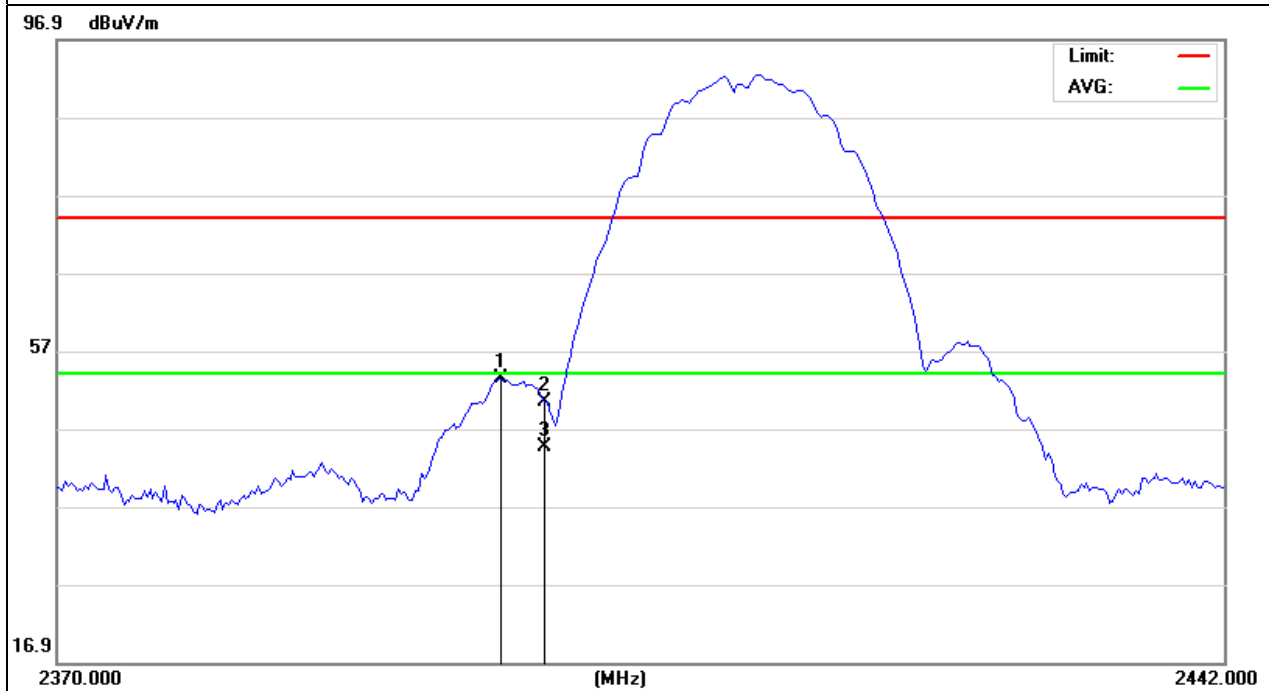
## Band Edge Emission:

|               |                   |                     |            |
|---------------|-------------------|---------------------|------------|
| EUT :         | MID               | Model Name :        | EL915      |
| Temperature : | 20 °C             | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa          | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH1(802.11b Mode) | Polarization :      | Horizontal |

| Frequency<br>(MHz) | Meter Reading<br>(dBμV) | Factor<br>(dB) | Emission Level<br>(dBμV/m) | Limits<br>(dBμV/m) | Margin<br>(dB) | Detector Type |
|--------------------|-------------------------|----------------|----------------------------|--------------------|----------------|---------------|
| 2397.18            | 70.84                   | -17.48         | 53.36                      | 74                 | -20.64         | peak          |
| 2400               | 67.77                   | -17.46         | 50.31                      | 74                 | -23.69         | peak          |
| 2400               | 61.97                   | -17.46         | 44.51                      | 54                 | -9.49          | AVG           |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |
|                    |                         |                |                            |                    |                |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

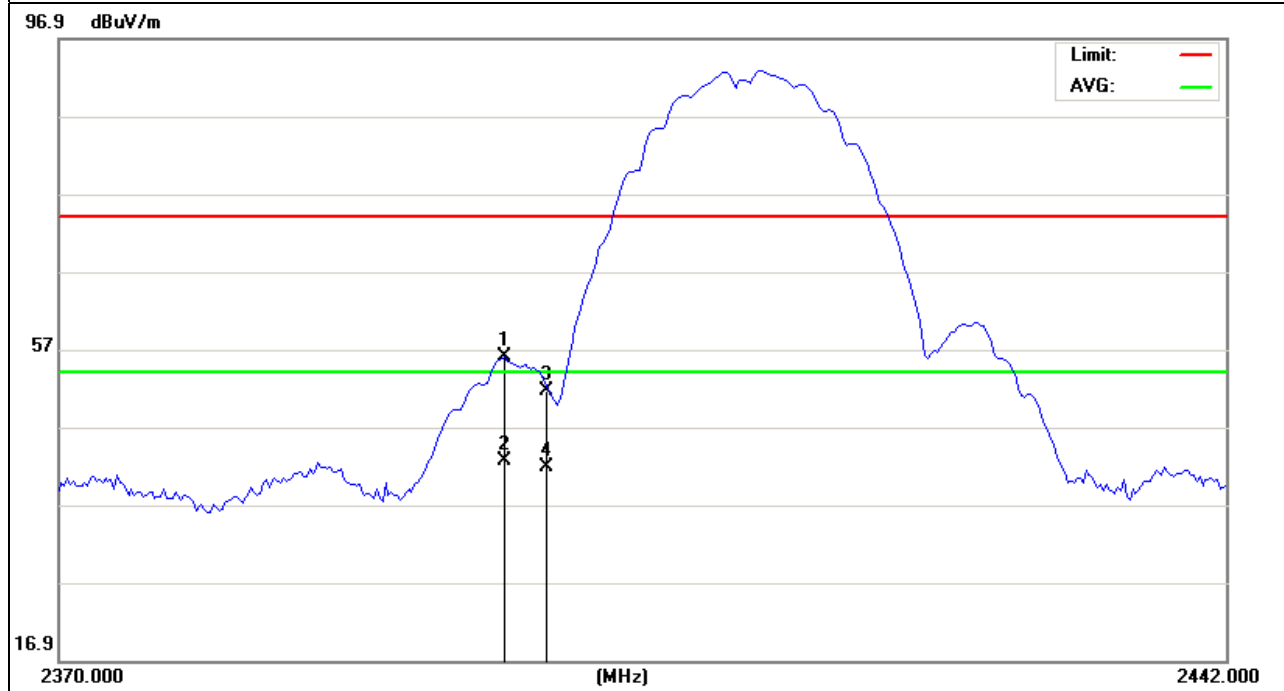


|               |                   |                     |          |
|---------------|-------------------|---------------------|----------|
| EUT :         | MID               | Model Name :        | EL915    |
| Temperature : | 20 °C             | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa          | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH1(802.11b Mode) | Polarization :      | Vertical |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 2397.36   | 73.45         | -17.48 | 55.97          | 74       | -18.03 | peak          |
| 2397.36   | 60.14         | -17.48 | 42.66          | 54       | -11.34 | AVG           |
| 2400      | 69.15         | -17.46 | 51.69          | 74       | -22.31 | peak          |
| 2400      | 59.22         | -17.46 | 41.76          | 54       | -12.24 | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

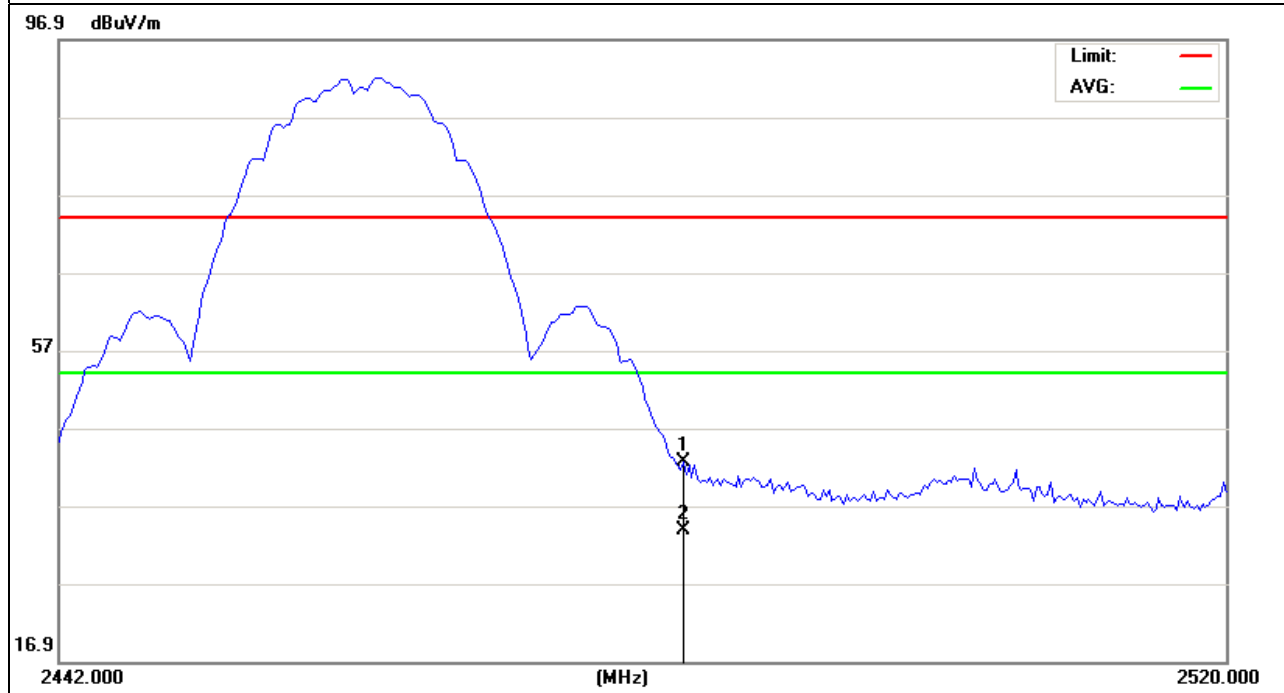


|               |                    |                     |            |
|---------------|--------------------|---------------------|------------|
| EUT :         | MID                | Model Name :        | EL915      |
| Temperature : | 20 °C              | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH11(802.11b Mode) | Polarization :      | Horizontal |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 2483.5    | 59.91         | -17.35 | 42.56          | 74       | -31.44 | peak          |
| 2483.5    | 51.09         | -17.35 | 33.74          | 54       | -20.26 | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

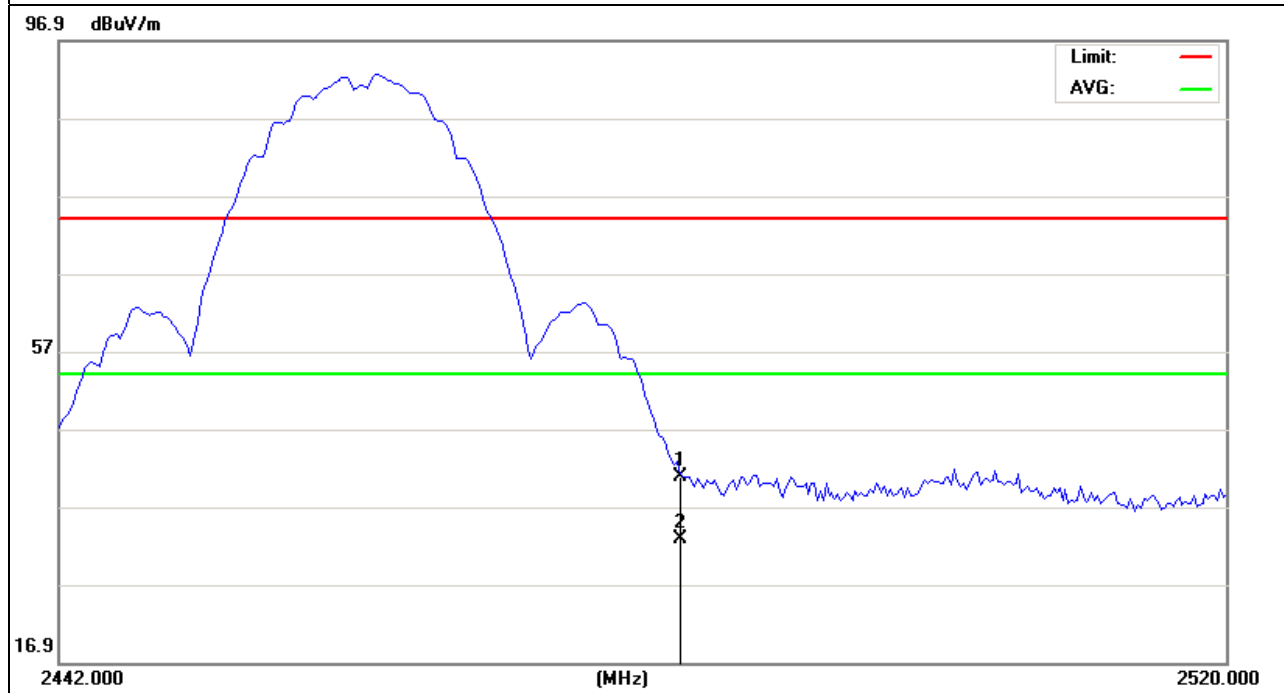


|               |                    |                     |          |
|---------------|--------------------|---------------------|----------|
| EUT :         | MID                | Model Name :        | EL915    |
| Temperature : | 20 °C              | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH11(802.11b Mode) | Polarization :      | Vertical |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 2483.5    | 58.19         | -17.35 | 40.84          | 74       | -33.16 | peak          |
| 2483.5    | 50.17         | -17.35 | 32.82          | 54       | -21.18 | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

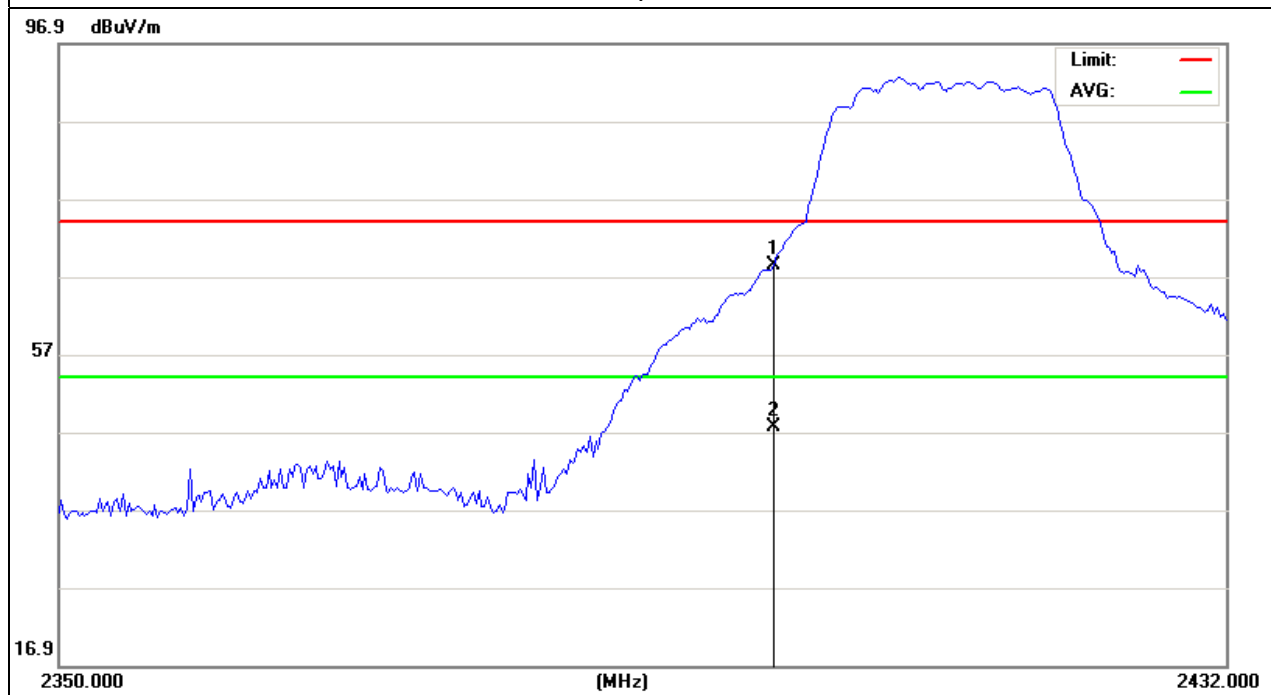


|               |                   |                     |            |
|---------------|-------------------|---------------------|------------|
| EUT :         | MID               | Model Name :        | EL915      |
| Temperature : | 20 °C             | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa          | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH1(802.11g Mode) | Polarization :      | Horizontal |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 2400      | 85.86         | -17.46 | 68.4           | 74       | -5.6   | peak          |
| 2400      | 64.97         | -17.46 | 47.51          | 54       | -6.49  | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

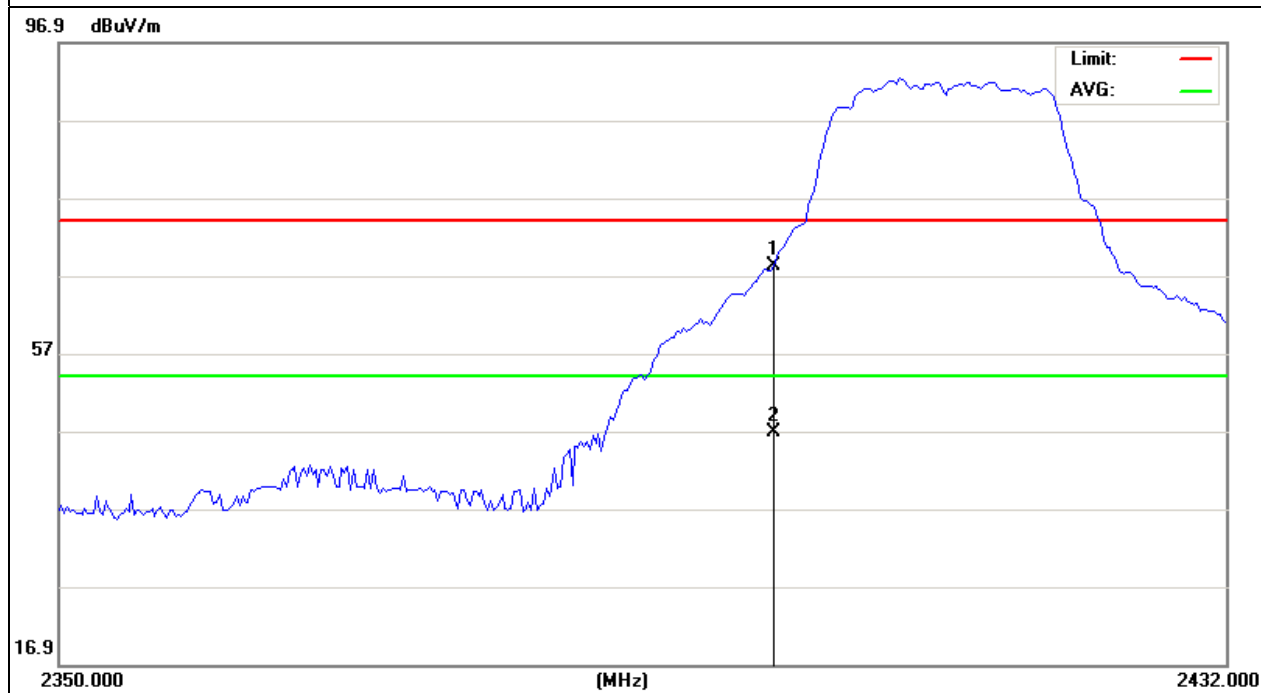


|               |                  |                     |          |
|---------------|------------------|---------------------|----------|
| EUT :         | MID              | Model Name :        | EL915    |
| Temperature : | 20 °C            | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa         | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH1(802.11gMode) | Polarization :      | Vertical |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 2400      | 85.66         | -17.46 | 68.2           | 74       | -5.8   | peak          |
| 2400      | 64.34         | -17.46 | 46.88          | 54       | -7.12  | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

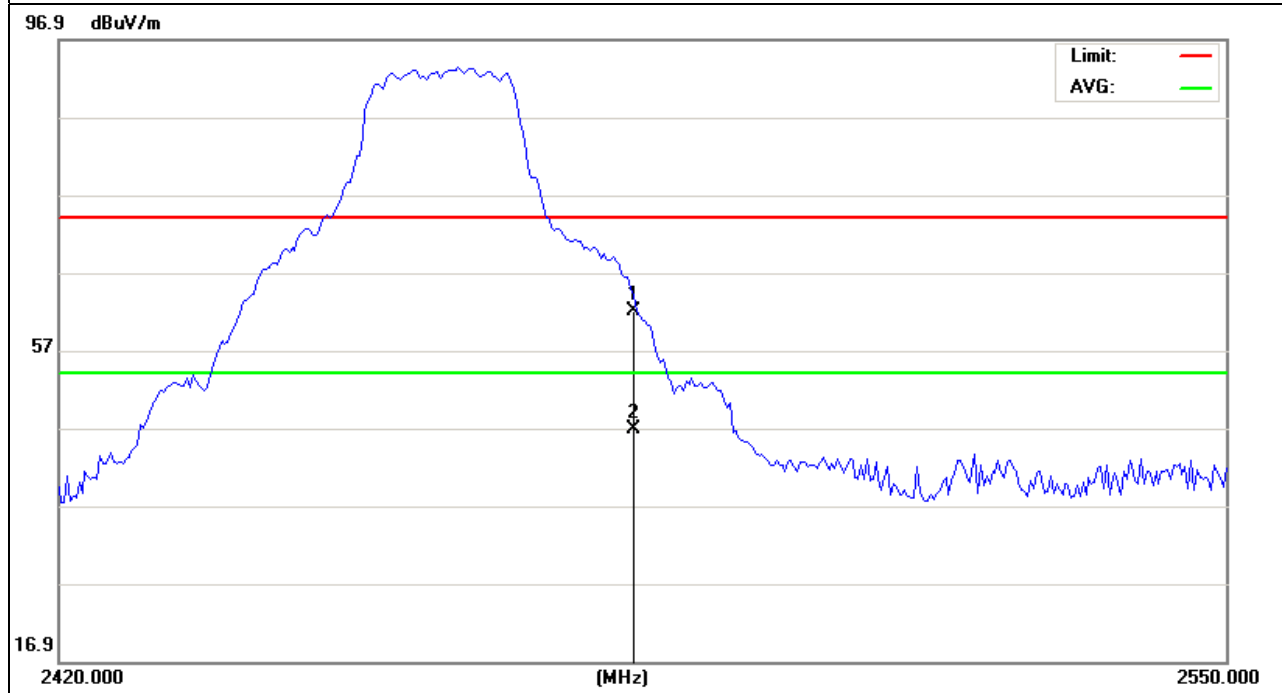


|               |                    |                     |            |
|---------------|--------------------|---------------------|------------|
| EUT :         | MID                | Model Name :        | EL915      |
| Temperature : | 20 °C              | Relative Humidity : | 48%        |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V    |
| Test Mode :   | CH11(802.11g Mode) | Polarization :      | Horizontal |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 2483.5    | 79.26         | -17.35 | 61.91          | 74       | -12.09 | peak          |
| 2483.5    | 64.12         | -17.35 | 46.77          | 54       | -7.23  | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

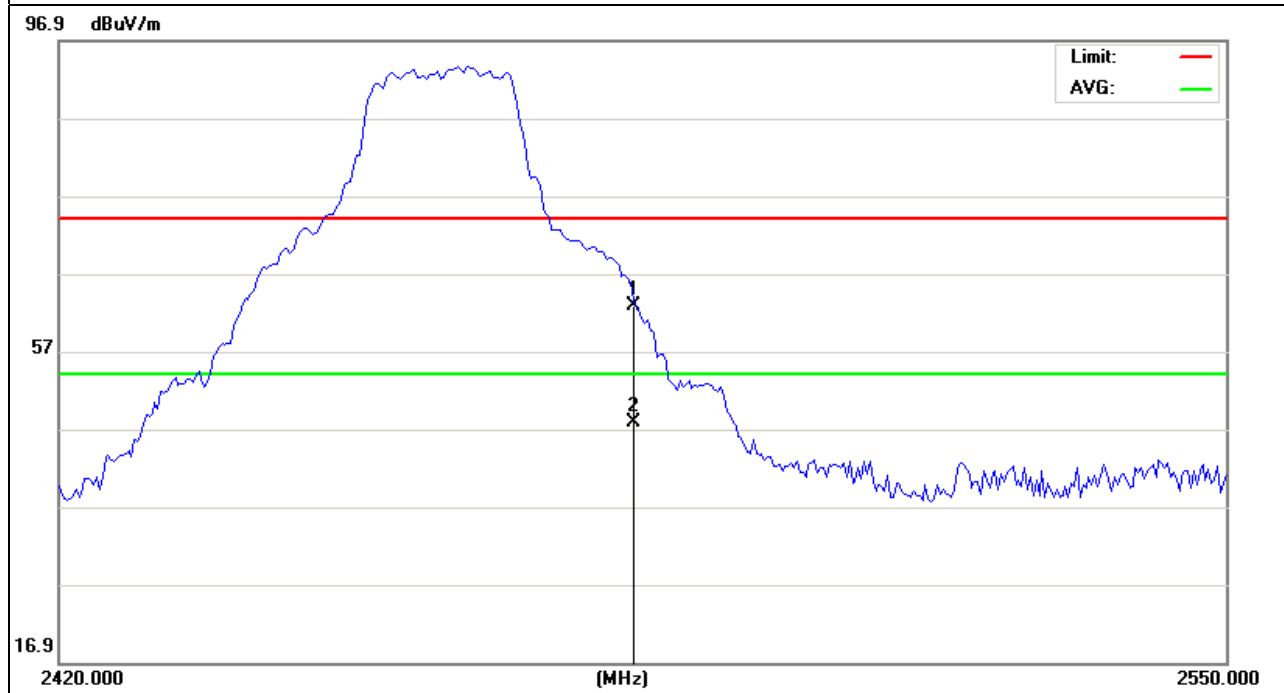


|               |                    |                     |          |
|---------------|--------------------|---------------------|----------|
| EUT :         | MID                | Model Name :        | EL915    |
| Temperature : | 20 °C              | Relative Humidity : | 48%      |
| Pressure :    | 1010 hPa           | Test Voltage :      | DC 3.7V  |
| Test Mode :   | CH11(802.11g Mode) | Polarization :      | Vertical |

| Frequency | Meter Reading | Factor | Emission Level | Limits   | Margin | Detector Type |
|-----------|---------------|--------|----------------|----------|--------|---------------|
| (MHz)     | (dBμV)        | (dB)   | (dBμV/m)       | (dBμV/m) | (dB)   |               |
| 2483.5    | 80.18         | -17.35 | 62.83          | 74       | -11.17 | peak          |
| 2483.5    | 65.15         | -17.35 | 47.8           | 54       | -6.2   | AVG           |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |
|           |               |        |                |          |        |               |

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.



## 4. POWER SPECTRAL DENSITY TEST

### 4.1 APPLIED PROCEDURES / LIMIT

| FCC Part15 (15.247) , Subpart C |                        |                        |                       |        |
|---------------------------------|------------------------|------------------------|-----------------------|--------|
| Section                         | Test Item              | Limit                  | Frequency Range (MHz) | Result |
| 15.247                          | Power Spectral Density | 8 dBm<br>(in any 3KHz) | 2400-2483.5           | PASS   |

| Spectrum Parameters | Setting                     |
|---------------------|-----------------------------|
| Attenuation         | Auto                        |
| Span Frequency      | > Operating Frequency Range |
| RB                  | 3 kHz                       |
| VB                  | 30 kHz                      |
| Detector            | Peak                        |
| Trace               | Max Hold                    |
| Sweep Time          | 500s                        |

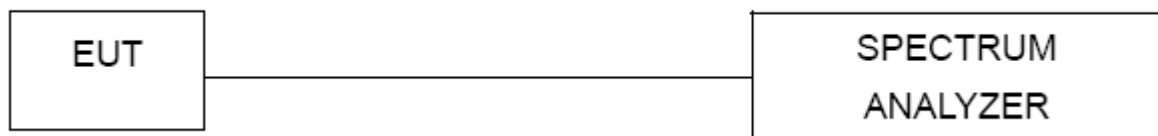
#### 4.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 3KHz, VBW=30KHz, Sweep time = 500s.

#### 4.1.2 DEVIATION FROM STANDARD

No deviation.

#### 4.1.3 TEST SETUP



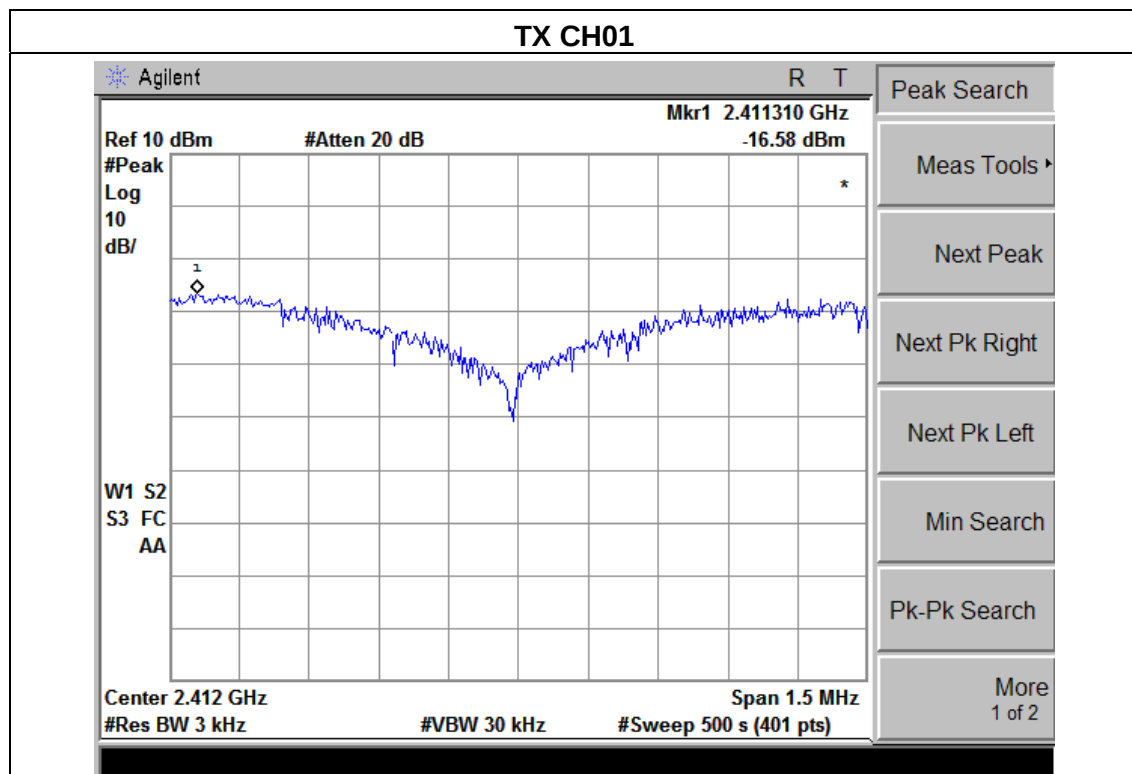
#### 4.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

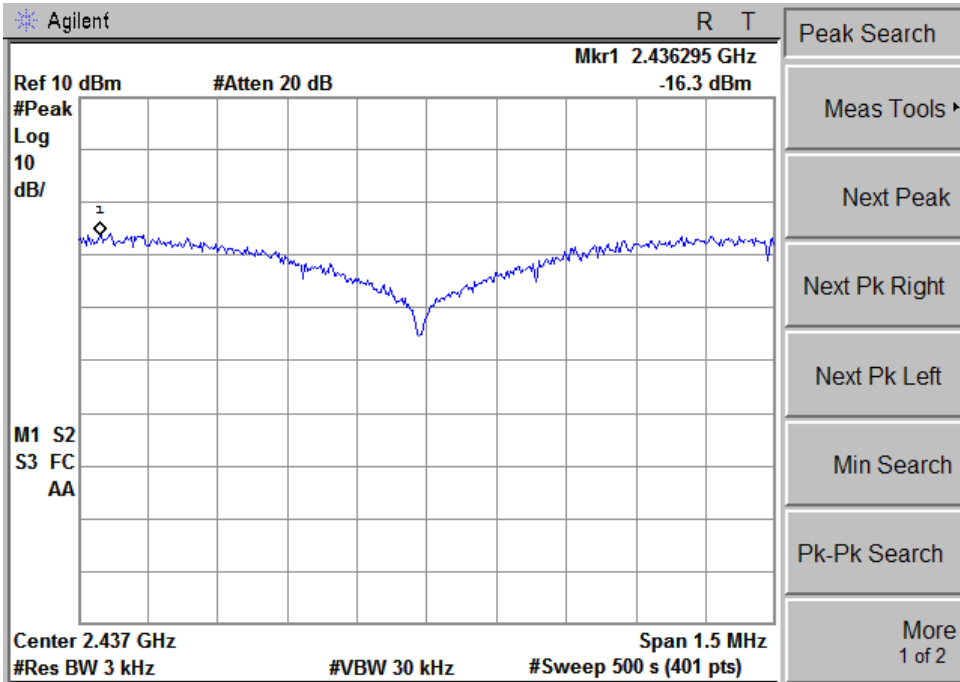
#### 4.1.5 TEST RESULTS

|               |                             |                     |         |
|---------------|-----------------------------|---------------------|---------|
| EUT :         | MID                         | Model Name :        | EL915   |
| Temperature : | 25 °C                       | Relative Humidity : | 60%     |
| Pressure :    | 1015 hPa                    | Test Voltage :      | DC 3.7V |
| Test Mode :   | TX b Mode /CH01, CH06, CH11 |                     |         |

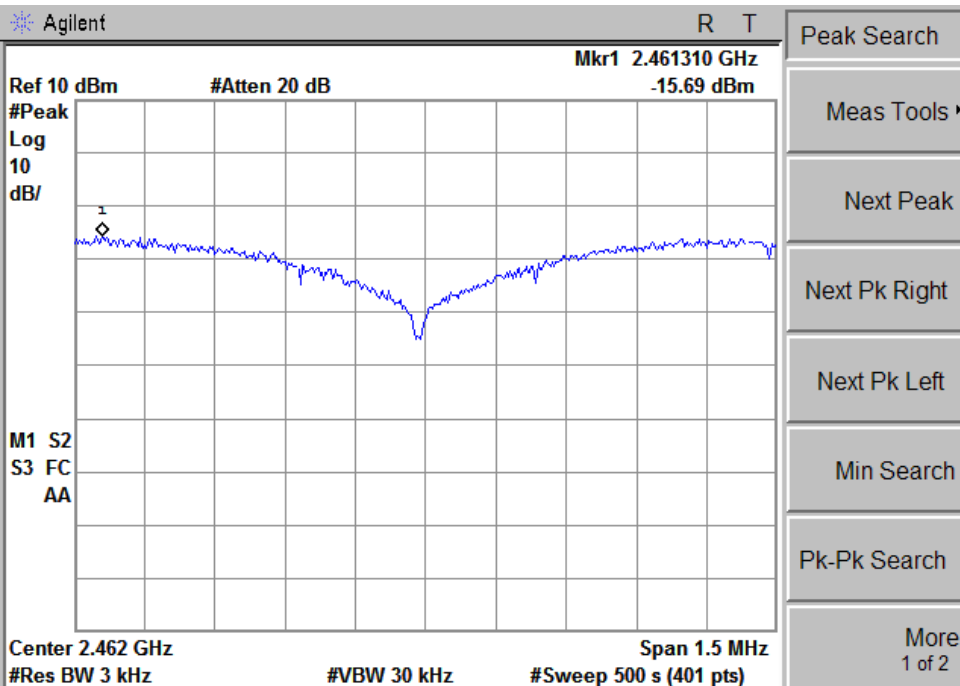
| Frequency | Power Density (dBm) | Limit (dBm) | Result |
|-----------|---------------------|-------------|--------|
| 2412 MHz  | -16.58              | 8           | PASS   |
| 2437 MHz  | -16.30              | 8           | PASS   |
| 2462 MHz  | -15.69              | 8           | PASS   |



### TX CH06

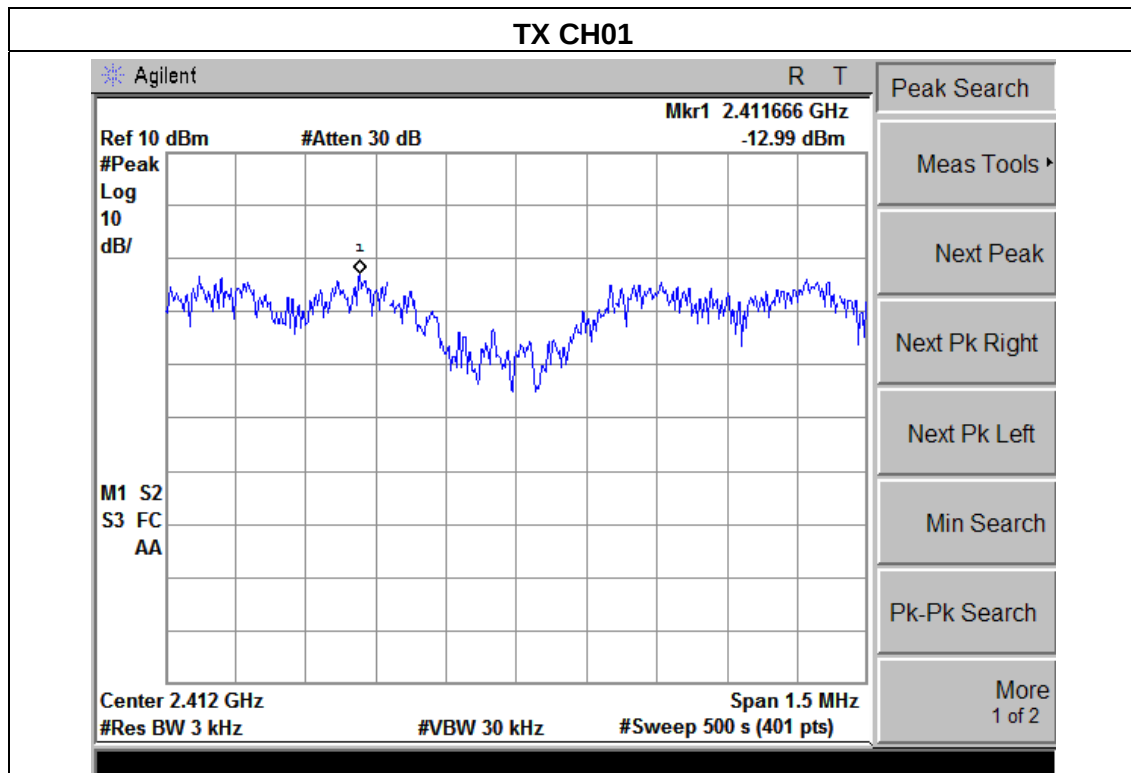


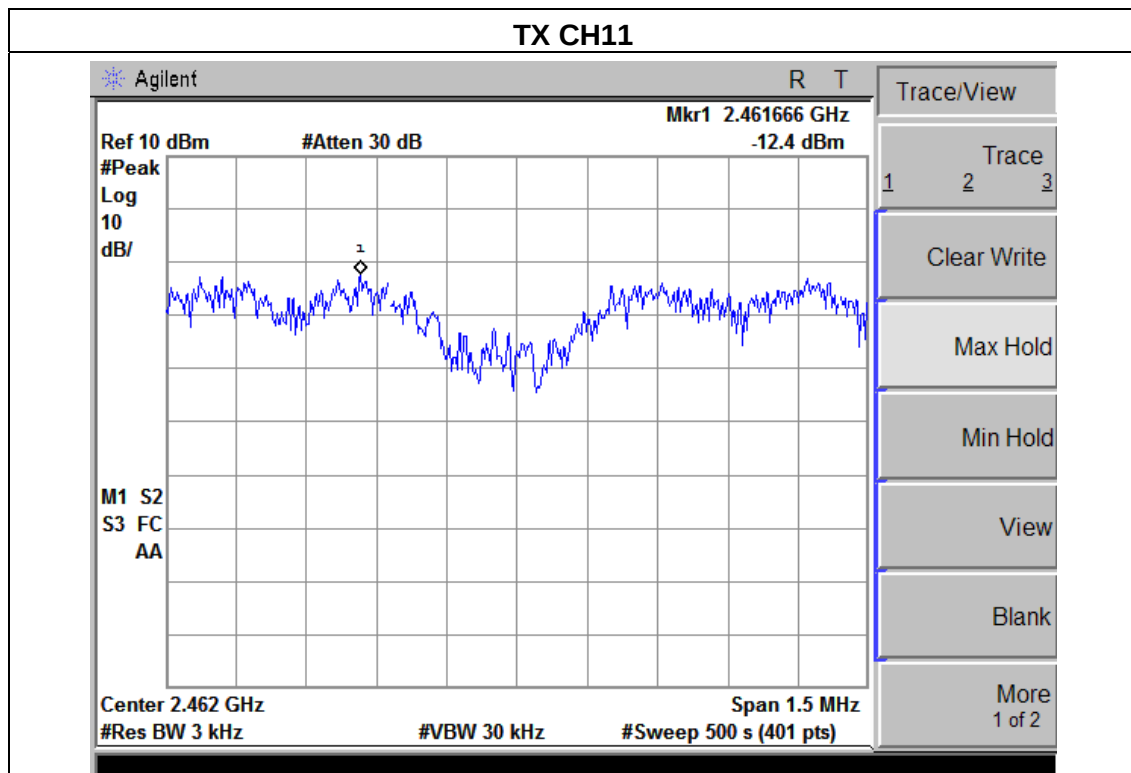
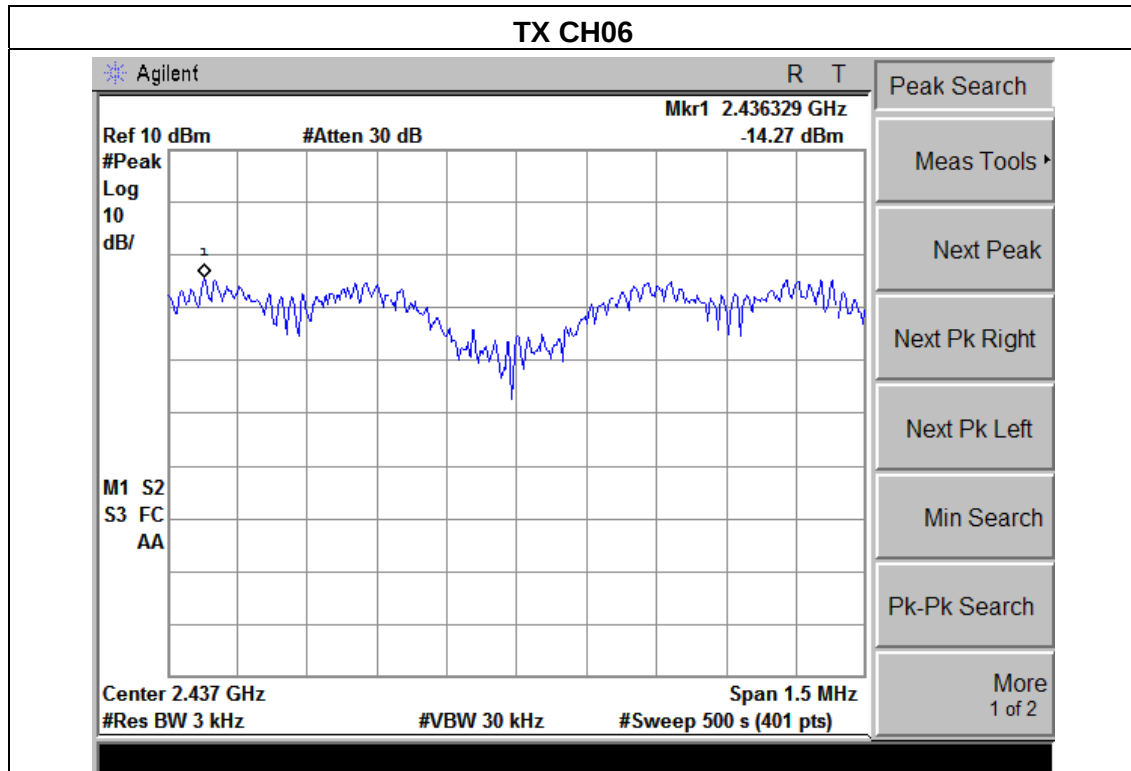
### TX CH11



|               |                             |                     |         |
|---------------|-----------------------------|---------------------|---------|
| EUT :         | MID                         | Model Name :        | EL915   |
| Temperature : | 25 °C                       | Relative Humidity : | 60%     |
| Pressure :    | 1015 hPa                    | Test Voltage :      | DC 3.7V |
| Test Mode :   | TX g Mode /CH01, CH06, CH11 |                     |         |

| Frequency | Power Density (dBm) | Limit (dBm) | Result |
|-----------|---------------------|-------------|--------|
| 2412 MHz  | -12.99              | 8           | PASS   |
| 2437MHz   | -14.27              | 8           | PASS   |
| 2462 MHz  | -12.40              | 8           | PASS   |





## 5. BANDWIDTH TEST

### 5.1 APPLIED PROCEDURES / LIMIT

| FCC Part15 (15.247) , Subpart C |           |                                         |                       |        |
|---------------------------------|-----------|-----------------------------------------|-----------------------|--------|
| Section                         | Test Item | Limit                                   | Frequency Range (MHz) | Result |
| 15.247(a)(2)                    | Bandwidth | $\geq 500\text{KHz}$<br>(6dB bandwidth) | 2400-2483.5           | PASS   |

| Spectrum Parameter | Setting                                                 |
|--------------------|---------------------------------------------------------|
| Attenuation        | Auto                                                    |
| Span Frequency     | > Measurement Bandwidth or Channel Separation           |
| RB                 | 30 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)  |
| VB                 | 100 kHz (20dB Bandwidth) / 300 kHz (Channel Separation) |
| Detector           | Peak                                                    |
| Trace              | Max Hold                                                |
| Sweep Time         | Auto                                                    |

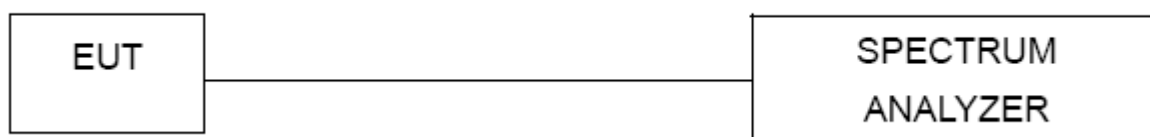
#### 5.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

#### 5.1.2 DEVIATION FROM STANDARD

No deviation.

#### 5.1.3 TEST SETUP



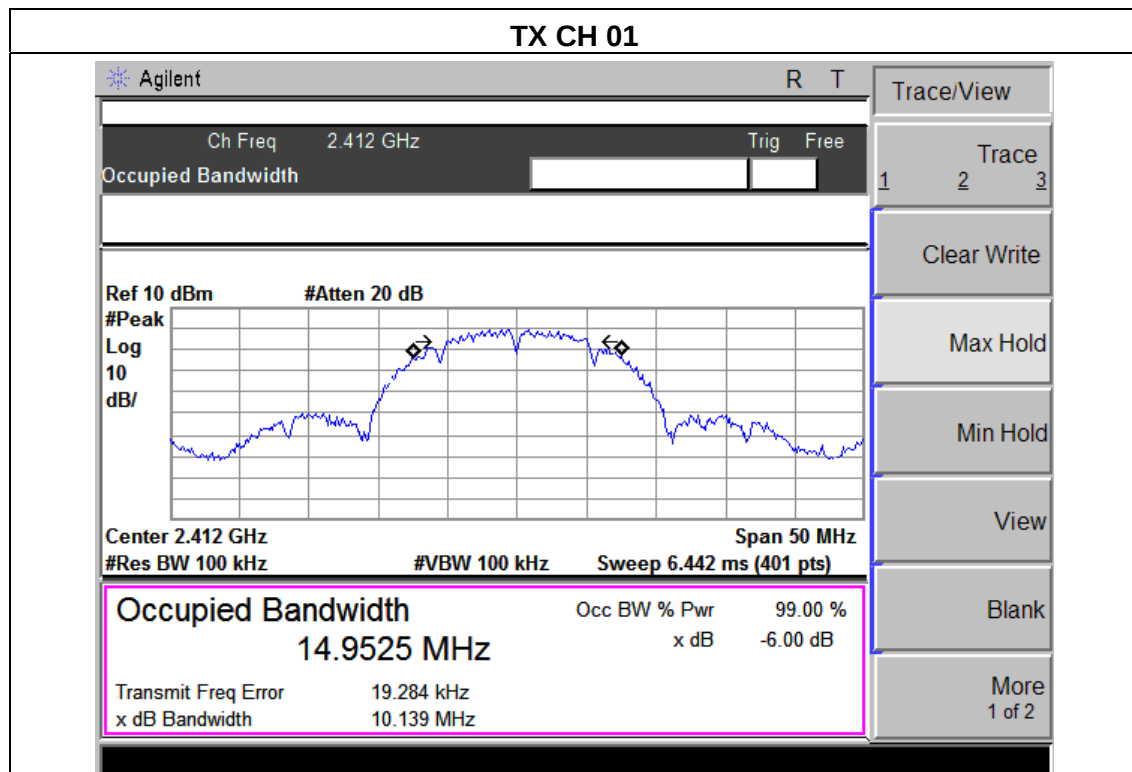
#### 5.1.4 EUT OPERATION CONDITIONS

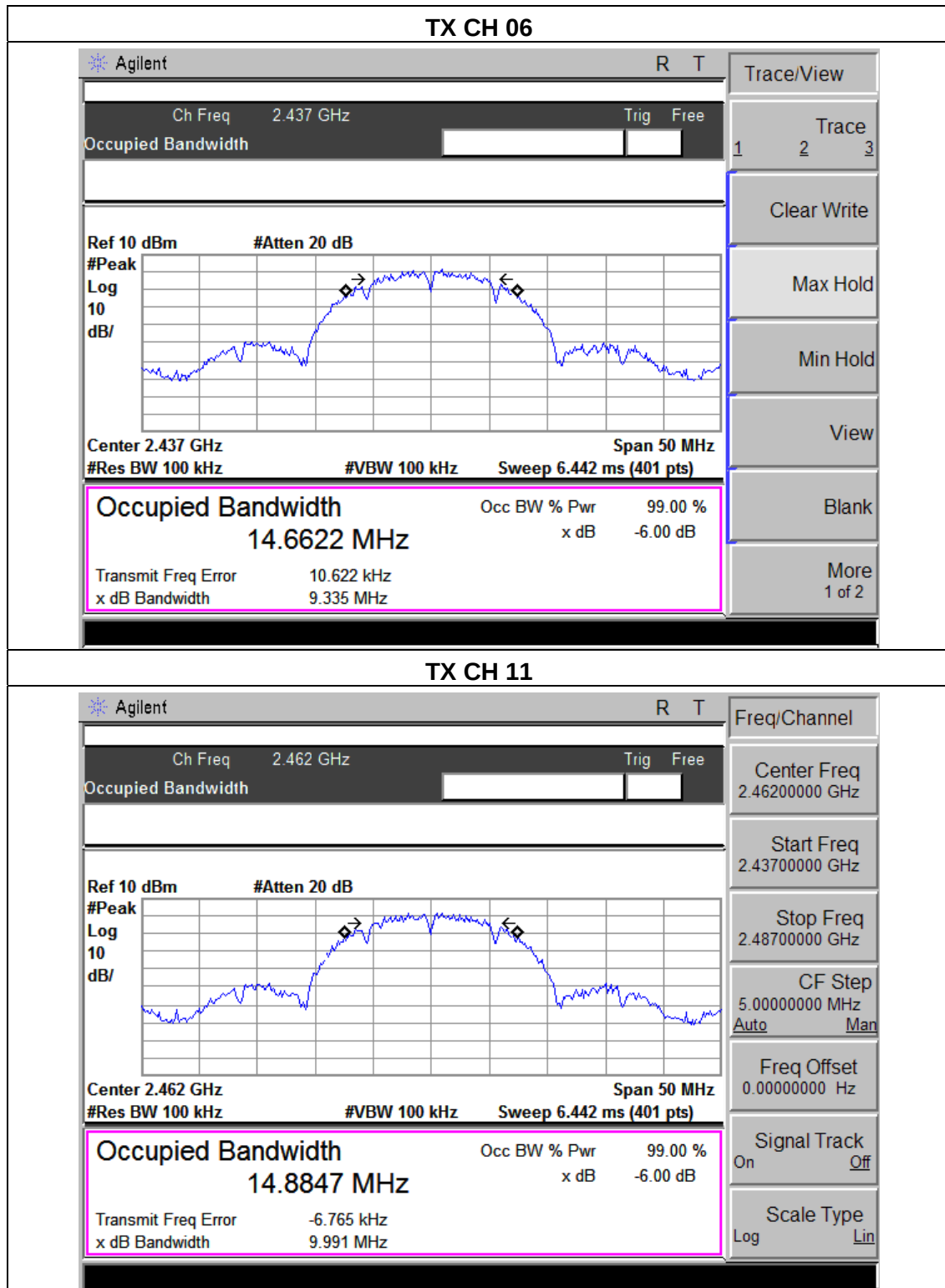
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

### 5.1.5 TEST RESULTS

|               |                             |                     |         |
|---------------|-----------------------------|---------------------|---------|
| EUT :         | MID                         | Model Name :        | EL915   |
| Temperature : | 25 °C                       | Relative Humidity : | 60%     |
| Pressure :    | 1012 hPa                    | Test Voltage :      | DC 3.7V |
| Test Mode :   | TX g Mode /CH01, CH06, CH11 |                     |         |

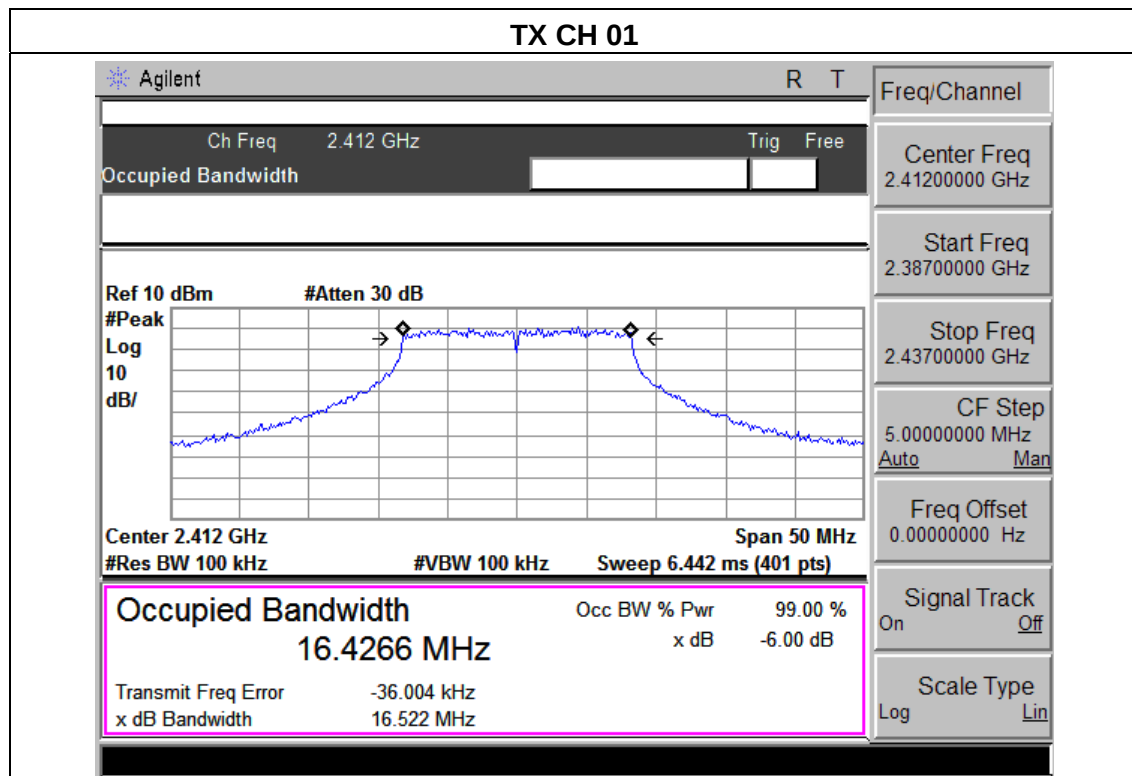
| Frequency | 6dB Bandwidth (MHz) | 99% Occupied BW (MHz) | Channel Separation (MHz) | Result |
|-----------|---------------------|-----------------------|--------------------------|--------|
| 2412 MHz  | 10.13               | 14.95                 | >=500KHz                 | PASS   |
| 2437 MHz  | 9.33                | 14.66                 | >=500KHz                 | PASS   |
| 2462 MHz  | 9.99                | 14.88                 | >=500KHz                 | PASS   |

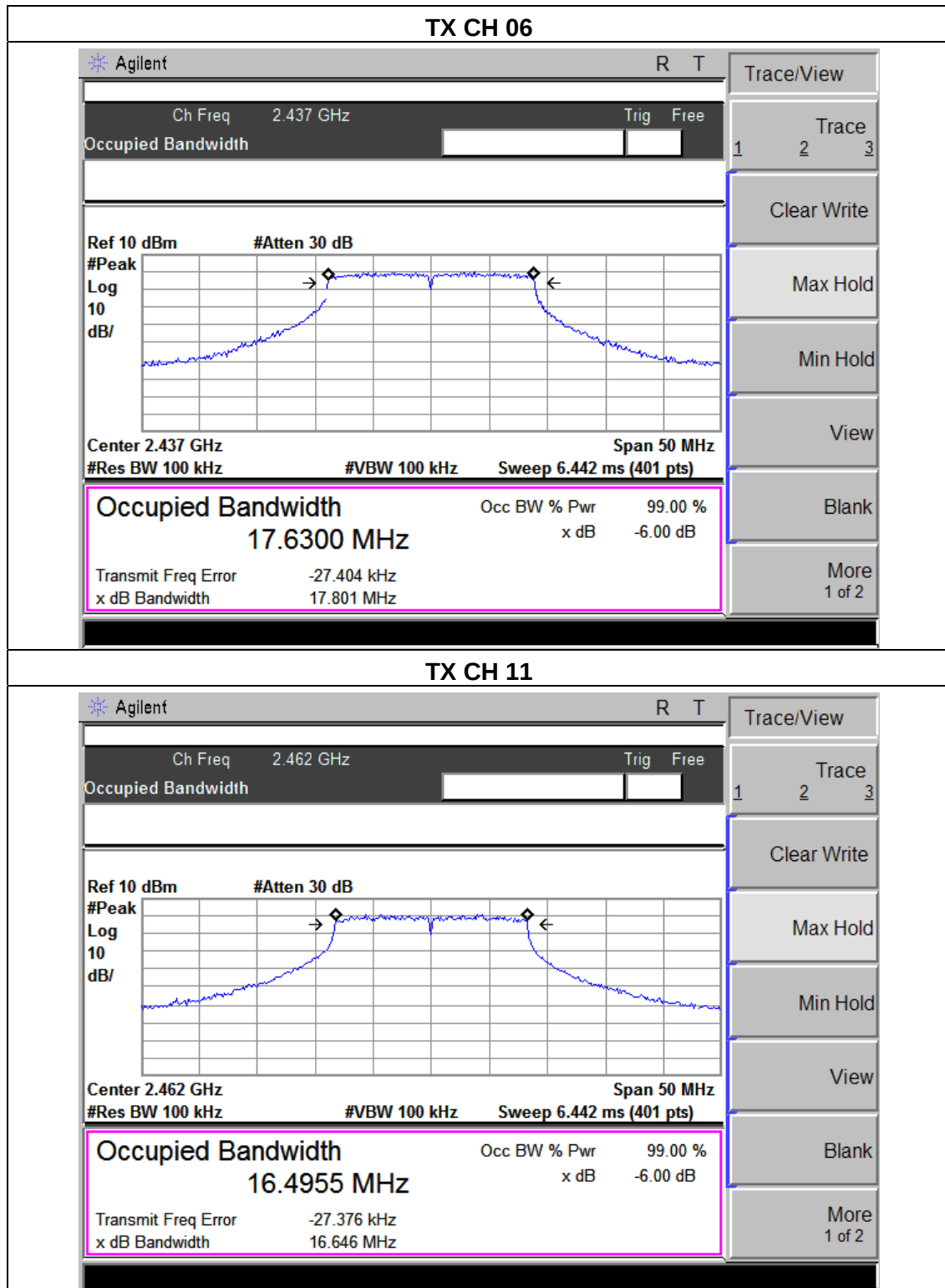




|               |                             |                     |         |
|---------------|-----------------------------|---------------------|---------|
| EUT :         | MID                         | Model Name :        | EL915   |
| Temperature : | 25 °C                       | Relative Humidity : | 60%     |
| Pressure :    | 1012 hPa                    | Test Voltage :      | DC 3.7V |
| Test Mode :   | TX g Mode /CH01, CH06, CH11 |                     |         |

| Frequency | 6dB Bandwidth (MHz) | 99% Occupied BW (MHz) | Channel Separation (MHz) | Result |
|-----------|---------------------|-----------------------|--------------------------|--------|
| 2412 MHz  | 16.52               | 16.42                 | >=500KHz                 | PASS   |
| 2437 MHz  | 17.80               | 17.63                 | >=500KHz                 | PASS   |
| 2462 MHz  | 16.64               | 16.49                 | >=500KHz                 | PASS   |





## 6. PEAK OUTPUT POWER TEST

### 6.1 APPLIED PROCEDURES / LIMIT

| FCC Part15 (15.247) , Subpart C |                   |                 |                       |        |
|---------------------------------|-------------------|-----------------|-----------------------|--------|
| Section                         | Test Item         | Limit           | Frequency Range (MHz) | Result |
| 15.247(b)(3)                    | Peak Output Power | 1 watt or 30dBm | 2400-2483.5           | PASS   |

#### 6.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the Spectrum Analyzer

#### 6.1.2 DEVIATION FROM STANDARD

No deviation.

#### 6.1.3 TEST SETUP



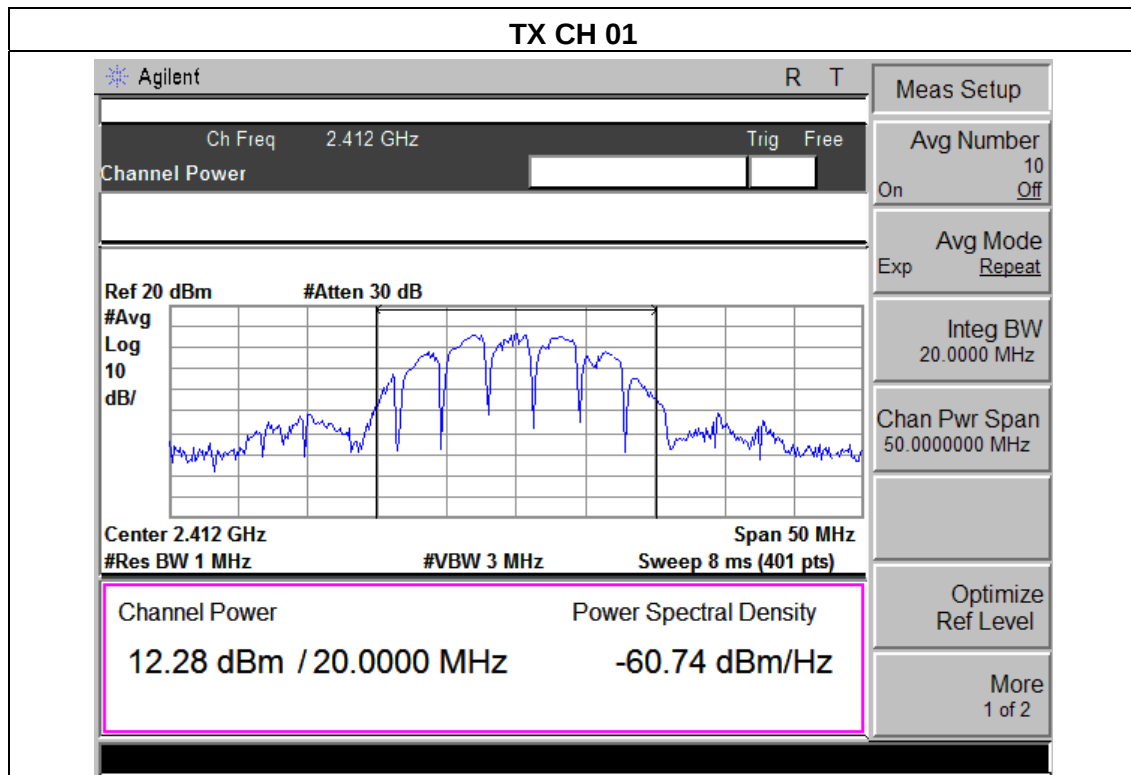
#### 6.1.4 EUT OPERATION CONDITIONS

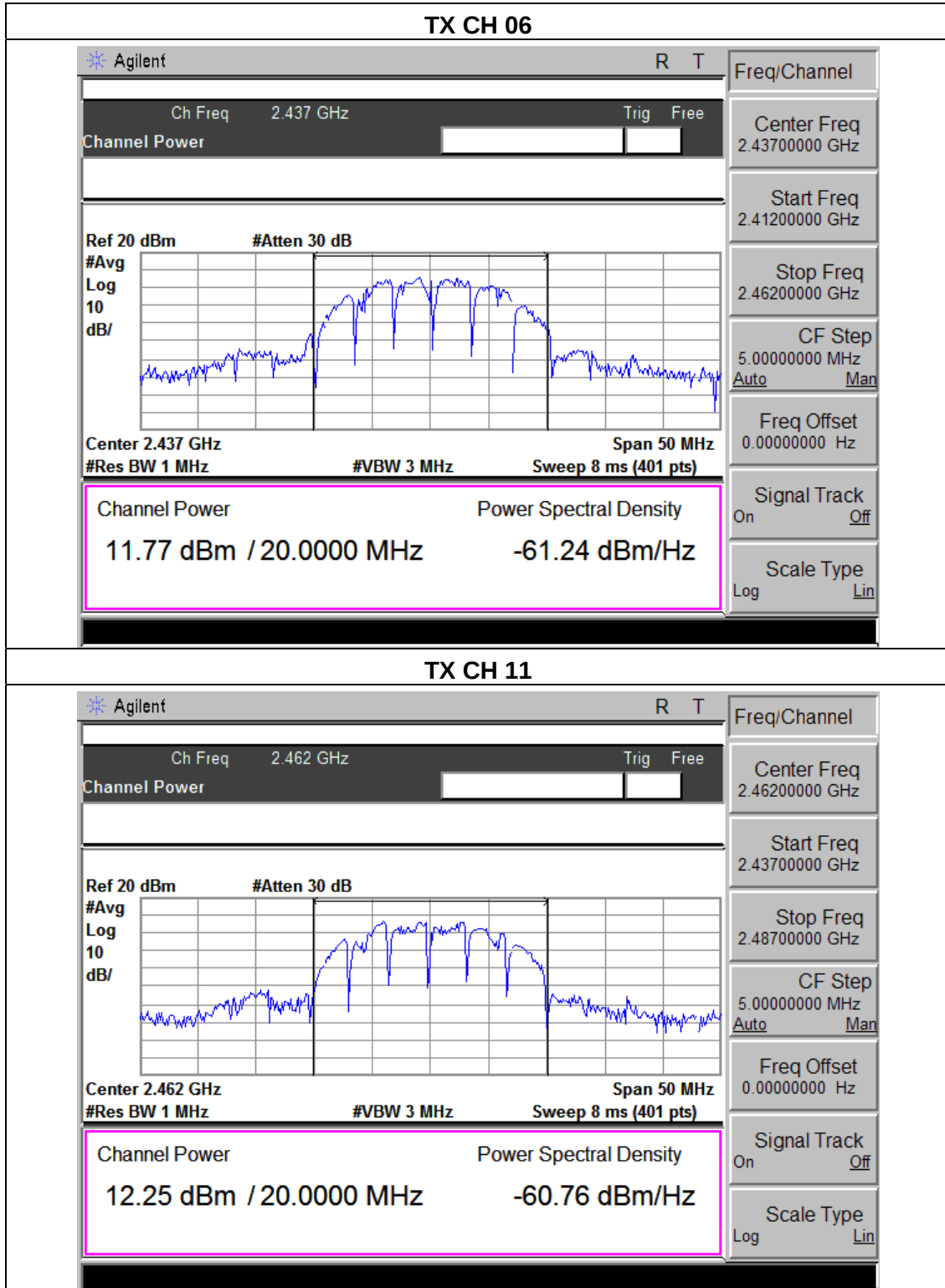
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

### 6.1.5 TEST RESULTS

|               |                             |                     |         |
|---------------|-----------------------------|---------------------|---------|
| EUT :         | MID                         | Model Name :        | EL915   |
| Temperature : | 25 °C                       | Relative Humidity : | 60%     |
| Pressure :    | 1012 hPa                    | Test Voltage :      | DC 3.7V |
| Test Mode :   | TX b Mode /CH01, CH06, CH11 |                     |         |

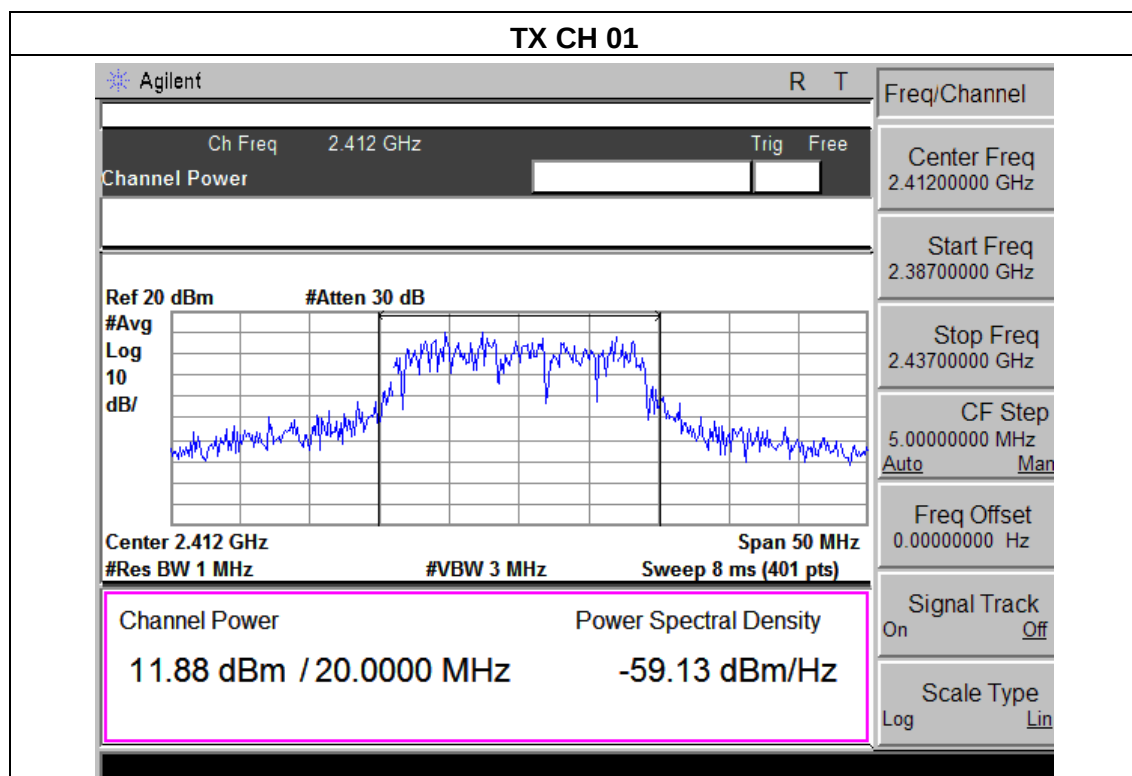
| Test Channel | Frequency (MHz) | Average output power (dBm) | LIMIT (dBm) | LIMIT (W) |
|--------------|-----------------|----------------------------|-------------|-----------|
| CH01         | 2412            | 12.28                      | 30          | 1         |
| CH06         | 2437            | 11.77                      | 30          | 1         |
| CH11         | 2462            | 12.25                      | 30          | 1         |

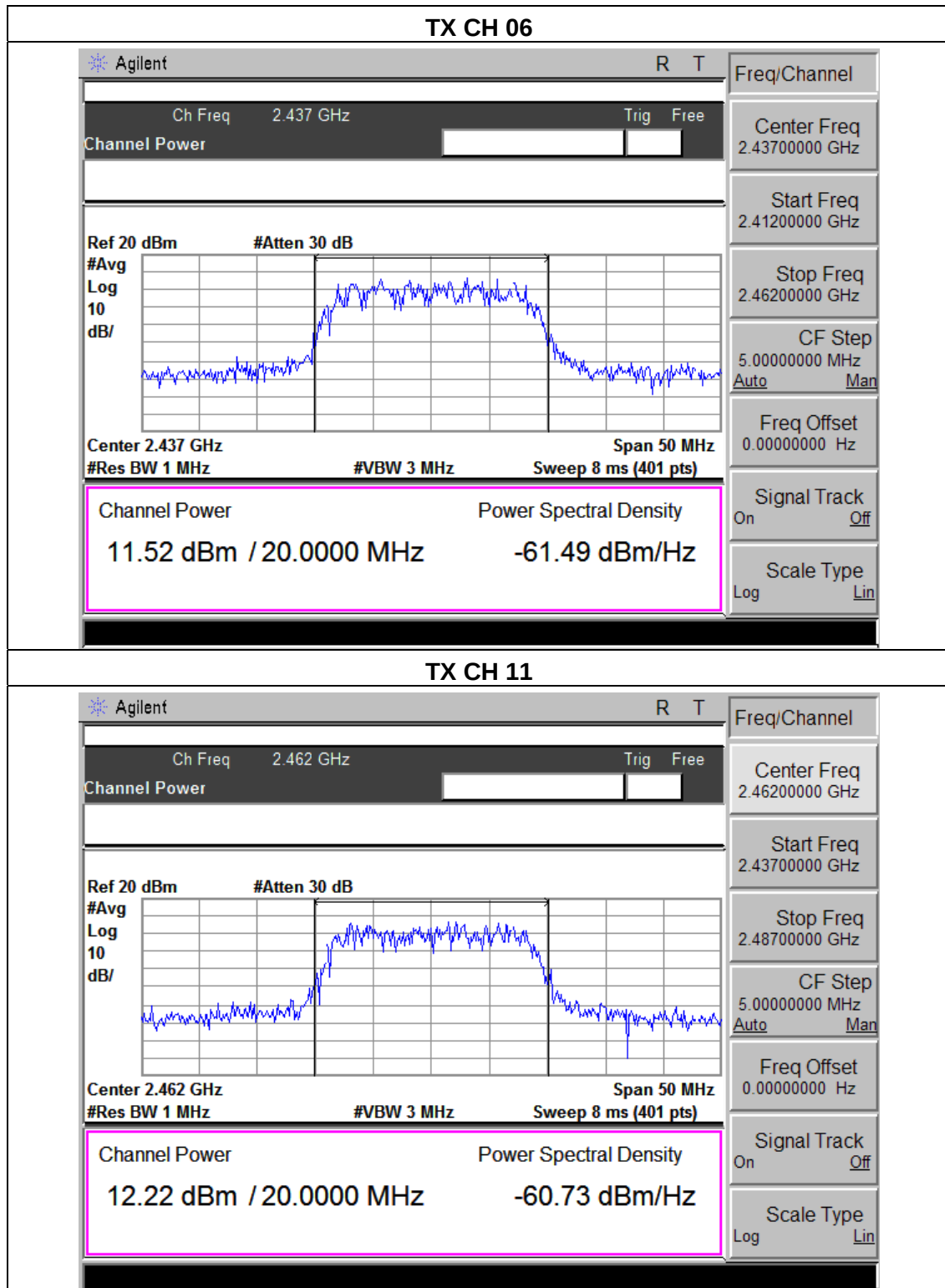




|               |                             |                     |         |
|---------------|-----------------------------|---------------------|---------|
| EUT :         | MID                         | Model Name :        | EL915   |
| Temperature : | 25 °C                       | Relative Humidity : | 60%     |
| Pressure :    | 1012 hPa                    | Test Voltage :      | DC 3.7V |
| Test Mode :   | TX g Mode /CH01, CH06, CH11 |                     |         |

| Test Channel | Frequency (MHz) | Average output power (dBm) | LIMIT (dBm) | LIMIT (W) |
|--------------|-----------------|----------------------------|-------------|-----------|
| CH01         | 2412            | 11.88                      | 30          | 1         |
| CH06         | 2437            | 11.52                      | 30          | 1         |
| CH11         | 2462            | 12.22                      | 30          | 1         |





Agilent R T

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Ch Freq 2.462 GHz Trig Free

Channel Power

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Ref 20 dBm

#Atten 30 dB

#Avg

Log

10

dB/

Center 2.462 GHz

Span 50 MHz

#Res BW 1 MHz

#VBW 3 MHz

Sweep 8 ms (401 pts)

Channel Power

Power Spectral Density

12.22 dBm / 20.0000 MHz

-60.73 dBm/Hz

Freq/Channel

---

Center Freq  
2.46200000 GHz

---

Start Freq  
2.43700000 GHz

---

Stop Freq  
2.48700000 GHz

---

CF Step  
5.00000000 MHz  
Auto Man

---

Freq Offset  
0.00000000 Hz

---

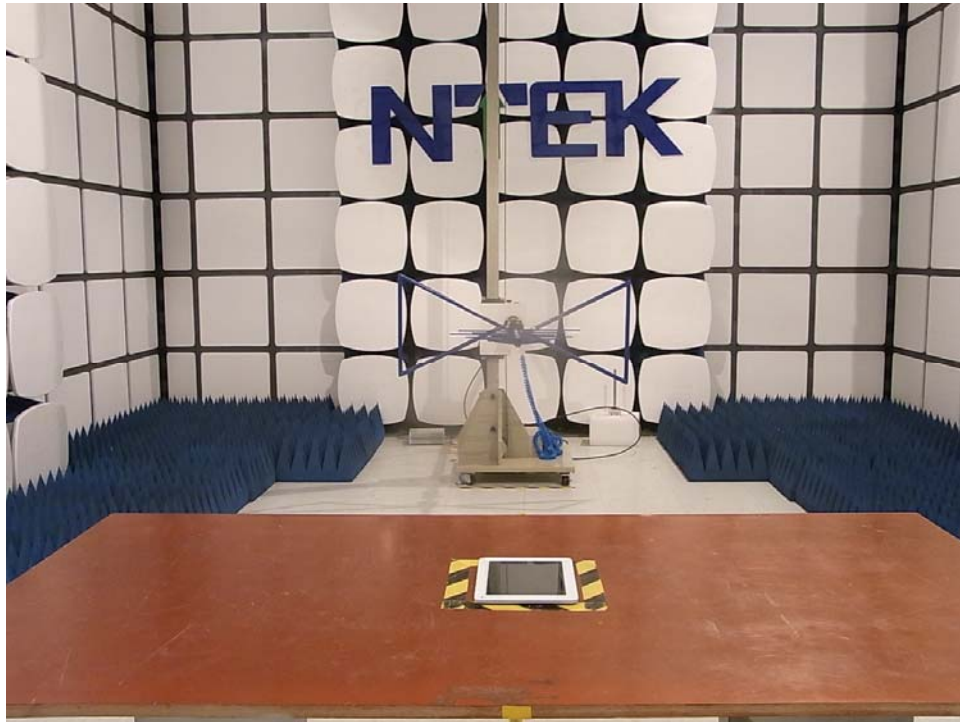
Signal Track  
On Off

---

Scale Type  
Log Lin

## 7. EUT TEST PHOTO

### Radiated Measurement Photos



### Conducted Measurement Photos

