

# FCC TEST REPORT

## (PART 27)

**REPORT NO.:** RF131213C05-2

**MODEL NO.:** T00D

**FCC ID:** MSQT00D

**RECEIVED:** Dec. 13, 2013

**TESTED:** Dec. 22, 2013 ~ Feb. 21, 2014

**ISSUED:** Feb. 27, 2014

**APPLICANT:** ASUSTek COMPUTER INC.

**ADDRESS:** 4F., No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN

**ISSUED BY:** Bureau Veritas Consumer Products Services  
(H.K.) Ltd., Taoyuan Branch

**LAB ADDRESS:** No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,  
New Taipei City, Taiwan, R.O.C.

**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei  
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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## RELEASE CONTROL RECORD

| ISSUE NO.     | REASON FOR CHANGE | DATE ISSUED   |
|---------------|-------------------|---------------|
| RF131213C05-2 | Original release  | Feb. 27, 2014 |



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## 1 CERTIFICATION

**PRODUCT:** PadFone X  
**MODEL NO.:** T00D  
**BRAND:** ASUS  
**APPLICANT:** ASUSTek COMPUTER INC.  
**TESTED:** Dec. 22, 2013 ~ Feb. 21, 2014  
**TEST SAMPLE:** Identical Prototype  
**STANDARDS:** FCC Part 27, Subpart C, L  
FCC Part 2  
ANSI C63.4-2003

The above equipment (model: T00D) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY** : Vera Huang , **DATE:** Feb. 27, 2014

Vera Huang / Specialist

**APPROVED BY** : Sam chen , **DATE:** Feb. 27, 2014

Sam Chen / Senior Project Engineer

## 2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| LTE BAND 17            |                              |        |                                                                                     |
|------------------------|------------------------------|--------|-------------------------------------------------------------------------------------|
| STANDARD SECTION       | TEST TYPE AND LIMIT          | RESULT | REMARK                                                                              |
| 2.1046<br>27.50(C)(10) | Maximum Peak Output Power    | PASS   | Meet the requirement of limit.                                                      |
| 2.1055<br>27.54        | Frequency Stability          | PASS   | Meet the requirement of limit.                                                      |
| 2.1049<br>27.53(g)     | Occupied Bandwidth           | PASS   | Meet the requirement of limit.                                                      |
| 27.50(d)(5)            | Peak to average ratio        | PASS   | Meet the requirement of limit.                                                      |
| 27.53(g)               | Band Edge Measurements       | PASS   | Meet the requirement of limit.                                                      |
| 2.1051<br>27.53(g)     | Conducted Spurious Emissions | PASS   | Meet the requirement of limit.                                                      |
| 2.1053<br>27.53(g)     | Radiated Spurious Emissions  | PASS   | Meet the requirement of limit.<br>Minimum passing margin is -13.37dB at 2130.00MHz. |

| LTE BAND 4            |                              |        |                                                                                     |
|-----------------------|------------------------------|--------|-------------------------------------------------------------------------------------|
| STANDARD SECTION      | TEST TYPE AND LIMIT          | RESULT | REMARK                                                                              |
| 2.1046<br>27.50(d)(4) | Maximum Peak Output Power    | PASS   | Meet the requirement of limit.                                                      |
| 2.1055<br>27.54       | Frequency Stability          | PASS   | Meet the requirement of limit.                                                      |
| 2.1049<br>27.53(h)    | Occupied Bandwidth           | PASS   | Meet the requirement of limit.                                                      |
| 27.50(d)(5)           | Peak to average ratio        | PASS   | Meet the requirement of limit.                                                      |
| 27.53(h)              | Band Edge Measurements       | PASS   | Meet the requirement of limit.                                                      |
| 2.1051<br>27.53(h)    | Conducted Spurious Emissions | PASS   | Meet the requirement of limit.                                                      |
| 2.1053<br>27.53(h)    | Radiated Spurious Emissions  | PASS   | Meet the requirement of limit.<br>Minimum passing margin is -10.52dB at 6930.00MHz. |

## 2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| MEASUREMENT         | FREQUENCY       | UNCERTAINTY |
|---------------------|-----------------|-------------|
| Conducted emissions | 150kHz~30MHz    | 2.44 dB     |
| Radiated emissions  | 30MHz ~ 200MHz  | 2.93 dB     |
|                     | 200MHz ~1000MHz | 2.95 dB     |
|                     | 1GHz ~ 18GHz    | 2.26 dB     |
|                     | 18GHz ~ 40GHz   | 1.94 dB     |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

## 2.2 TEST SITE AND INSTRUMENTS

| DESCRIPTION & MANUFACTURER                     | MODEL NO.      | SERIAL NO. | DATE OF CALIBRATION | DUE DATE OF CALIBRATION |
|------------------------------------------------|----------------|------------|---------------------|-------------------------|
| Test Receiver<br>ROHDE & SCHWARZ               | ESCI           | 100744     | Apr. 15, 2013       | Apr. 14, 2014           |
| Spectrum Analyzer<br>ROHDE & SCHWARZ           | FSU43          | 101261     | Dec. 21, 2013       | Dec. 20, 2014           |
| BILOG Antenna<br>SCHWARZBECK                   | VULB9168       | 9168-472   | Mar. 25, 2013       | Mar. 24, 2014           |
| HORN Antenna<br>SCHWARZBECK                    | BBHA 9120 D    | 9120D-563  | Nov. 01, 2013       | Oct. 31, 2014           |
| HORN Antenna<br>SCHWARZBECK                    | BBHA 9170      | 9170-480   | Dec. 18, 2013       | Dec. 17, 2014           |
| Loop Antenna                                   | 3127-836       | 00099258   | Aug. 09, 2013       | Aug. 08, 2014           |
| Preamplifier<br>EMCI                           | 8447D          | 2944A10631 | Aug. 30, 2013       | Aug. 29, 2014           |
| Preamplifier<br>EMCI                           | 8449B          | 3008A1960  | Aug. 30, 2013       | Aug. 29, 2014           |
| Preamplifier<br>EMCI                           | EMC 330H       | 980112     | Dec. 28, 2012       | Dec. 27, 2013           |
| Preamplifier<br>EMCI                           | EMC 330H       | 980112     | Dec. 27, 2013       | Dec. 26, 2014           |
| RF signal cable<br>HUBER+SUHNNER               | SUCOFLEX 104   | 309219/4   | Oct. 18, 2013       | Oct. 17, 2014           |
| RF signal cable<br>HUBER+SUHNNER               | SUCOFLEX 104   | 250130/4   | Oct. 18, 2013       | Oct. 17, 2014           |
| RF signal cable<br>Worken                      | RG-213         | NA         | Nov. 07, 2013       | Nov. 06, 2014           |
| Software                                       | E3<br>6.120103 | NA         | NA                  | NA                      |
| Antenna Tower<br>MF                            | MFA-440H       | NA         | NA                  | NA                      |
| Turn Table<br>MF                               | MFT-201SS      | NA         | NA                  | NA                      |
| Antenna Tower & Turn<br>Table Controller<br>MF | MF-7802        | NA         | NA                  | NA                      |
| Mini-Circuits Power Splitter                   | ZN2PD-9G       | NA         | Jul. 18, 2013       | Jul. 17, 2014           |
| JFW 20dB attenuation                           | 50HF-020-SMA   | NA         | NA                  | NA                      |
| Communications<br>Tester-Wireless              | E5515C         | MY52102544 | Sep. 05, 2012       | Sep. 04, 2014           |
| Radio Communication<br>Analyzer                | MT8820C        | 6201300640 | Aug. 01, 2013       | Jul. 31, 2014           |

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.  
2. The test was performed in HwaYa Chamber 10.  
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.  
4. The FCC Site Registration No. is 690701.  
5. The IC Site Registration No. is IC 7450F-10.

### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

|                              |                                                      |                      |
|------------------------------|------------------------------------------------------|----------------------|
| <b>PRODUCT</b>               | PadFone X                                            |                      |
| <b>MODEL NO.</b>             | T00D                                                 |                      |
| <b>POWER SUPPLY</b>          | 5Vdc (adapter or host equipment)<br>3.8Vdc (battery) |                      |
| <b>MODULATION TECHNOLOGY</b> | LTE Band 17                                          | QPSK, 16QAM          |
|                              | LTE Band 4                                           | QPSK, 16QAM          |
| <b>FREQUENCY RANGE</b>       | LTE Band 17<br>Channel Bandwidth: 5MHz               | 706.5MHz ~ 713.5MHz  |
|                              | LTE Band 17<br>Channel Bandwidth: 10MHz              | 709MHz ~ 711MHz      |
|                              | LTE Band 4<br>Channel Bandwidth: 5MHz                | 1712.5MHz ~1752.5MHz |
|                              | LTE Band 4<br>Channel Bandwidth: 10MHz               | 1715MHz ~1750MHz     |
| <b>EMISSION DESIGNATOR</b>   | LTE Band 17<br>Channel Bandwidth: 5MHz               | 4M50G7D              |
|                              | LTE Band 17<br>Channel Bandwidth: 10MHz              | 8M88G7D              |
|                              | LTE Band 4<br>Channel Bandwidth: 5MHz                | 4M50G7D              |
|                              | LTE Band 4<br>Channel Bandwidth: 10MHz               | 8M92W7D              |
| <b>MAX. ERP POWER (W)</b>    | LTE Band 17<br>Channel Bandwidth: 5MHz               | 88.92mW              |
|                              | LTE Band 17<br>Channel Bandwidth: 10MHz              | 93.11mW              |
| <b>MAX. EIRP POWER (mW)</b>  | LTE Band 4<br>Channel Bandwidth: 5MHz                | 296.41mW             |
|                              | LTE Band 4<br>Channel Bandwidth: 10MHz               | 284.38mW             |
| <b>CATEGORY</b>              | 3                                                    |                      |
| <b>ANTENNA TYPE</b>          | Fixed Internal Antenna                               |                      |
| <b>DATA CABLE</b>            | Refer to Note as below                               |                      |
| <b>I/O PORTS</b>             | Refer to users' manual                               |                      |
| <b>ACCESSORY DEVICES</b>     | Refer to Note as below                               |                      |

**NOTE:**

1. The EUT has following accessories.

| ITEM             | BRAND    | MODEL                   | DESCRIPTION                                     |
|------------------|----------|-------------------------|-------------------------------------------------|
| AC Adapter 1     | ASUS     | AD897320                | I/P: 100-240Vac, 50-60Hz, 0.3A<br>O/P: 5Vdc, 2A |
| AC Adapter 2     | ASUS     | W12-010N3A              | I/P: 100-240Vac, 50-60Hz, 0.3A<br>O/P: 5Vdc, 2A |
| Li-ion Battery   | ASUS     | C11P1322                | Rating: 3.8Vdc, 8.7Wh                           |
| Earphone 1       | ASUS     | OBOPRO2                 | 1.27m cable                                     |
| Earphone 2       | ASUS     | WW                      | 1.25m cable                                     |
| Earphone 3       | ASUS     | CHM-125STS02001         | 1.15m cable                                     |
| USB cable 1      | ASUS     | AA780300                | 0.85m cable                                     |
| USB cable 2      | ASUS     | L65U2008-CS-B           | 0.95m cable                                     |
| USB cable 3      | ASUS     | CUHD003B-Y05-EF         | 0.95m cable                                     |
| LCD Panel        | SHARP    | LS050T1SX04             | --                                              |
| Front Camera 1   | AZWAVE   | AM-2F024                | --                                              |
| Front Camera 2   | Chicony  | CCFD21220003871LH       | --                                              |
| Rear Camera      | LARVIEW  | CBAA0-010A              | --                                              |
| WLAN / BT Module | QUALCOMM | WIRELESS IC<br>79BWLNSP | --                                              |

2. The device has configurations as below.

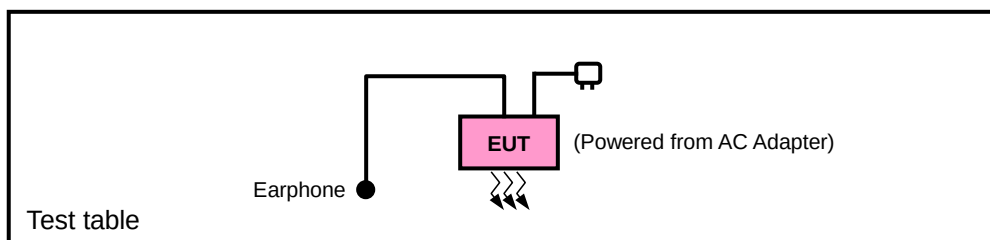
| EUT CONFIGURE MODE | Description                               |
|--------------------|-------------------------------------------|
| <b>A</b>           | EUT with Front Camera 1                   |
| <b>B</b>           | EUT + PadFone Station with Front Camera 1 |
| <b>C</b>           | EUT with Front Camera 2                   |
| <b>D</b>           | EUT + PadFone Station with Front Camera 2 |

3. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

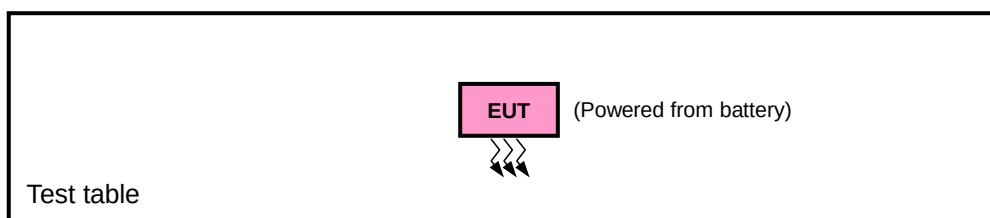
## 3.2 CONFIGURATION OF SYSTEM UNDER TEST

### MODE A & C

#### FOR RADIATION EMISSION TEST

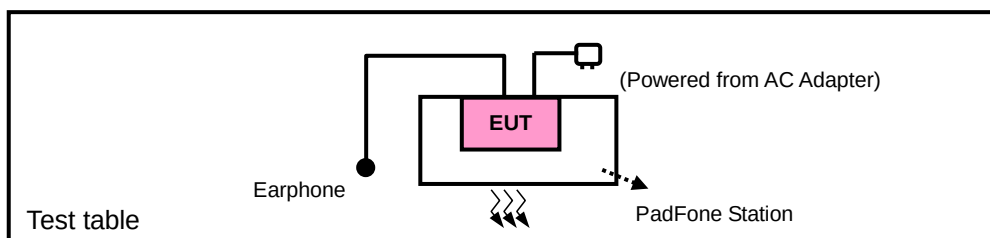


#### FOR E.I.R.P. TEST

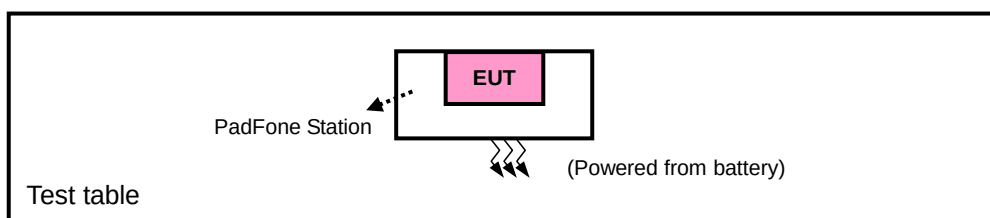


### MODE B & D

#### FOR RADIATION EMISSION TEST



#### FOR E.I.R.P. TEST



### 3.3 DESCRIPTION OF SUPPORT UNITS

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.

| NO. | PRODUCT                       | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|-----|-------------------------------|-------|-----------|------------|--------|
| 1   | PadFone X Station             | ASUS  | T00DP     | N/A        | N/A    |
| 2   | Battery for PadFone X Station | ASUS  | C11P1323  | N/A        | N/A    |

| NO. | SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|-----------------------------------------------------|
| 1   | N/A                                                 |
| 2   | N/A                                                 |

**NOTE:**

1. All power cords of the above support units are non shielded (1.8m).
2. Items 1-2 were provided by client.

### 3.4 DESCRIPTION OF TEST MODES

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case was found as listed below for radiated emission. Following channel(s) was (were) selected for the final test as listed below:

| EUT CONFIGURE MODE |                   | BAND                     | AXIS FOR RADIATED EMISSION |
|--------------------|-------------------|--------------------------|----------------------------|
| A                  | ERP               | LTE Band 17              | X                          |
|                    | EIRP              | LTE Band 4               | Y                          |
|                    | RADIATED EMISSION | LTE Band 17              | X                          |
|                    |                   | LTE Band 4               | Y                          |
| B                  | ERP               | LTE Band 17              | X                          |
|                    | EIRP              | LTE Band 4               | Y                          |
|                    | RADIATED EMISSION | LTE Band 17              | Z                          |
|                    |                   | LTE Band 4               | Y                          |
| C                  | RADIATED EMISSION | LTE Band 17              | X                          |
|                    |                   | LTE Band 4               | Z                          |
| D                  | RADIATED EMISSION | LTE Band 17 / LTE Band 4 | Y                          |

### LTE Band 17

| EUT CONFIGURE MODE | TEST ITEM             | AVAILABLE CHANNEL | TESTED CHANNEL      | CHANNEL BANDWIDTH | MODULATION  | MODE                |
|--------------------|-----------------------|-------------------|---------------------|-------------------|-------------|---------------------|
| A, B               | ERP                   | 23755 to 23825    | 23755, 23790, 23825 | 5MHz              | QPSK, 16QAM | 1 RB / 12 RB Offset |
|                    |                       | 23780 to 23800    | 23780, 23790, 23800 | 10MHz             | QPSK, 16QAM | 1 RB / 24 RB Offset |
| A                  | FREQUENCY STABILITY   | 23755 to 23825    | 23790               | 5MHz              | QPSK        | 1 RB / 12 RB Offset |
|                    |                       | 23780 to 23800    | 23790               | 10MHz             | QPSK        | 1 RB / 24 RB Offset |
| A                  | OCCUPIED BANDWIDTH    | 23755 to 23825    | 23755, 23790, 23825 | 5MHz              | QPSK, 16QAM | 25 RB / 0 RB Offset |
|                    |                       | 23780 to 23800    | 23780, 23790, 23800 | 10MHz             | QPSK, 16QAM | 50 RB / 0 RB Offset |
| A                  | PEAK TO AVERAGE RATIO | 23755 to 23825    | 23755, 23790, 23825 | 5MHz              | QPSK, 16QAM | 1 RB / 12 RB Offset |
|                    |                       | 23780 to 23800    | 23780, 23790, 23800 | 10MHz             | QPSK, 16QAM | 1 RB / 24 RB Offset |
| A                  | BAND EDGE             | 23755 to 23825    | 23755               | 5MHz              | QPSK        | 1 RB / 0 RB Offset  |
|                    |                       |                   |                     |                   |             | 25 RB / 0 RB Offset |
|                    |                       |                   | 23825               | 5MHz              | QPSK        | 1 RB / 24 RB Offset |
|                    |                       |                   |                     |                   |             | 25 RB / 0 RB Offset |
|                    |                       | 23780 to 23800    | 23780               | 10MHz             | QPSK        | 1 RB / 0 RB Offset  |
|                    |                       |                   |                     |                   |             | 50 RB / 0 RB Offset |
| A                  | CONDCUDED EMISSION    | 23755 to 23825    | 23790               | 5MHz              | QPSK        | 1 RB / 12 RB Offset |
|                    |                       | 23780 to 23800    | 23790               | 10MHz             | QPSK        | 1 RB / 24 RB Offset |
| A, B               | RADIATED EMISSION     | 23755 to 23825    | 23790               | 5MHz              | QPSK        | 1 RB / 12 RB Offset |
|                    |                       | 23780 to 23800    | 23790               | 10MHz             | QPSK        | 1 RB / 24 RB Offset |
| C, D               | RADIATED EMISSION     | 23780 to 23800    | 23790               | 10MHz             | QPSK        | 1 RB / 24 RB Offset |

**Note:** This device was tested under all bandwidths, RB configurations and modulations. The worst case were found in QPSK modulation.

## LTE Band 4

| EUT CONFIGURE MODE | TEST ITEM             | AVAILABLE CHANNEL | TESTED CHANNEL      | CHANNEL BANDWIDTH | MODULATION  | MODE                |
|--------------------|-----------------------|-------------------|---------------------|-------------------|-------------|---------------------|
| A, B               | EIRP                  | 19975 to 20375    | 19975, 20175, 20375 | 5MHz              | QPSK, 16QAM | 1 RB / 12 RB Offset |
|                    |                       | 20000 to 20350    | 20000, 20175, 20350 | 10MHz             | QPSK, 16QAM | 1 RB / 24 RB Offset |
| A                  | FREQUENCY STABILITY   | 19975 to 20375    | 20175               | 5MHz              | QPSK        | 1 RB / 12 RB Offset |
|                    |                       | 20000 to 20350    | 20175               | 10MHz             | QPSK        | 1 RB / 24 RB Offset |
| A                  | OCCUPIED BANDWIDTH    | 19975 to 20375    | 19975, 20175, 20375 | 5MHz              | QPSK, 16QAM | 25 RB / 0 RB Offset |
|                    |                       | 20000 to 20350    | 20000, 20175, 20350 | 10MHz             | QPSK, 16QAM | 50 RB / 0 RB Offset |
| A                  | PEAK TO AVERAGE RATIO | 19975 to 20375    | 19975, 20175, 20375 | 5MHz              | QPSK, 16QAM | 1 RB / 12 RB Offset |
|                    |                       | 20000 to 20350    | 20000, 20175, 20350 | 10MHz             | QPSK, 16QAM | 1 RB / 24 RB Offset |
| A                  | BAND EDGE             | 19975 to 20375    | 19975               | 5MHz              | QPSK        | 1 RB / 0 RB Offset  |
|                    |                       |                   | 20375               | 5MHz              | QPSK        | 25 RB / 0 RB Offset |
|                    |                       | 20000 to 20350    | 20000               | 10MHz             | QPSK        | 1 RB / 24 RB Offset |
|                    |                       |                   |                     |                   |             | 25 RB / 0 RB Offset |
|                    |                       |                   | 20350               | 10MHz             | QPSK        | 1 RB / 0 RB Offset  |
|                    |                       |                   |                     |                   |             | 50 RB / 0 RB Offset |
| A                  | CONDCUDED EMISSION    | 19975 to 20375    | 20175               | 5MHz              | QPSK        | 1 RB / 12 RB Offset |
|                    |                       | 20000 to 20350    | 20175               | 10MHz             | QPSK        | 1 RB / 24 RB Offset |
| A, B               | RADIATED EMISSION     | 19975 to 20375    | 20175               | 5MHz              | QPSK        | 1 RB / 12 RB Offset |
|                    |                       | 20000 to 20350    | 20175               | 10MHz             | QPSK        | 1 RB / 24 RB Offset |
| C, D               | RADIATED EMISSION     | 19975 to 20375    | 20175               | 5MHz              | QPSK        | 1 RB / 12 RB Offset |

**Note:** This device was tested under all bandwidths, RB configurations and modulations. The worst case were found in QPSK modulation.

### TEST CONDITION:

| TEST ITEM           | ENVIRONMENTAL CONDITIONS | INPUT POWER  | TESTED BY                       |
|---------------------|--------------------------|--------------|---------------------------------|
| ERP/EIRP            | 25deg. C, 59%RH          | 3.8Vdc       | Howard Kao                      |
| FREQUENCY STABILITY | 25deg. C, 59%RH          | 3.8Vdc       | Howard Kao                      |
| OCCUPIED BANDWIDTH  | 25deg. C, 59%RH          | 3.8Vdc       | Howard Kao                      |
| BAND EDGE           | 25deg. C, 59%RH          | 3.8Vdc       | Howard Kao                      |
| CONDCUDED EMISSION  | 25deg. C, 59%RH          | 3.8Vdc       | Howard Kao                      |
| RADIATED EMISSION   | 25deg. C, 65%RH          | 120Vac, 60Hz | Anson Lin / Kay Wu / Dylan Yang |

### **3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS**

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC 47 CFR Part 2**

**FCC 47 CFR Part 27**

**ANSI C63.4-2003**

**ANSI/TIA/EIA-603-C 2004**

**NOTE:** All test items have been performed and recorded as per the above standards.

## 4 TEST TYPES AND RESULTS

### 4.1 OUTPUT POWER MEASUREMENT

#### 4.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.

Portable stations (hand-held devices) operating in the 704-716 MHz band are limited to 3 watts ERP.

#### 4.1.2 TEST PROCEDURES

##### EIRP / ERP MEASUREMENT:

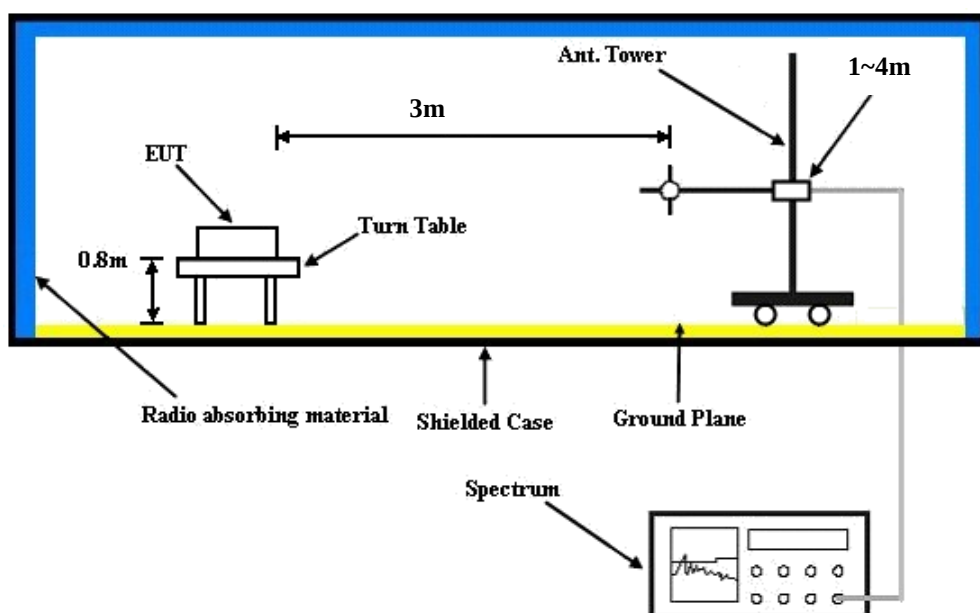
- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 1MHz for GSM, GPRS & EDGE, 5MHz for WCDMA and CDMA mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value” of step b. Record the power level of S.G
- d.  $EIRP = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn.}$   
E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  $E.R.P \text{ power} = E.I.R.P \text{ power} - 2.15\text{dBi}.$

#### CONDUCTED POWER MEASUREMENT:

The EUT was set up for the maximum power with GSM, GPRS, EDGE, WCDMA & CDMA link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

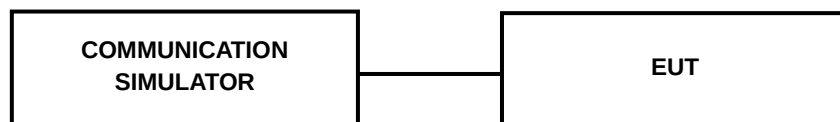
#### 4.1.3 TEST SETUP

##### EIRP / ERP MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### CONDUCTED POWER MEASUREMENT:



For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 4.1.4 TEST RESULTS

### AVERAGE CONDUCTED OUTPUT POWER (dBm)

| Band / BW | Modulation | RB Size | RB Offset | Low CH 23755        | Mid CH 23790        | High CH 23825       | 3GPP MPR (dB) |
|-----------|------------|---------|-----------|---------------------|---------------------|---------------------|---------------|
|           |            |         |           | Frequency 706.5 MHz | Frequency 710.0 MHz | Frequency 713.5 MHz |               |
| 17 / 5M   | QPSK       | 1       | 0         | 22.02               | 21.98               | 21.97               | 0             |
|           |            | 1       | 12        | 22.28               | 22.25               | 22.24               | 0             |
|           |            | 1       | 24        | 22.06               | 21.91               | 21.89               | 0             |
|           |            | 12      | 0         | 22.14               | 22.22               | 22.23               | 1             |
|           |            | 12      | 6         | 22.24               | 22.21               | 22.22               | 1             |
|           |            | 12      | 13        | 22.25               | 22.19               | 22.16               | 1             |
|           |            | 25      | 0         | 22.27               | 22.20               | 22.13               | 1             |
|           | 16QAM      | 1       | 0         | 20.99               | 20.95               | 20.94               | 1             |
|           |            | 1       | 12        | 21.25               | 21.22               | 21.21               | 1             |
|           |            | 1       | 24        | 21.03               | 20.88               | 20.86               | 1             |
|           |            | 12      | 0         | 21.11               | 21.19               | 21.20               | 2             |
|           |            | 12      | 6         | 21.21               | 21.18               | 21.19               | 2             |
|           |            | 12      | 13        | 21.22               | 21.16               | 21.13               | 2             |
|           |            | 25      | 0         | 21.24               | 21.17               | 21.10               | 2             |

| Band / BW | Modulation | RB Size | RB Offset | Low CH 23780        | Mid CH 23790        | High CH 23800       | 3GPP MPR (dB) |
|-----------|------------|---------|-----------|---------------------|---------------------|---------------------|---------------|
|           |            |         |           | Frequency 709.0 MHz | Frequency 710.0 MHz | Frequency 711.0 MHz |               |
| 17 / 10M  | QPSK       | 1       | 0         | 22.06               | 22.02               | 22.01               | 0             |
|           |            | 1       | 24        | <b>22.32</b>        | 22.29               | 22.28               | 0             |
|           |            | 1       | 49        | 22.10               | 21.95               | 21.93               | 0             |
|           |            | 25      | 0         | 22.18               | 22.26               | 22.27               | 1             |
|           |            | 25      | 12        | 22.28               | 22.25               | 22.26               | 1             |
|           |            | 25      | 25        | 22.29               | 22.23               | 22.20               | 1             |
|           |            | 50      | 0         | 22.31               | 22.24               | 22.17               | 1             |
|           | 16QAM      | 1       | 0         | 21.01               | 20.97               | 20.96               | 1             |
|           |            | 1       | 24        | 21.27               | 21.24               | 21.23               | 1             |
|           |            | 1       | 49        | 21.05               | 20.90               | 20.88               | 1             |
|           |            | 25      | 0         | 21.13               | 21.21               | 21.22               | 2             |
|           |            | 25      | 12        | 21.23               | 21.20               | 21.21               | 2             |
|           |            | 25      | 25        | 21.24               | 21.18               | 21.15               | 2             |
|           |            | 50      | 0         | 21.26               | 21.19               | 21.12               | 2             |

| Band / BW | Modulation | RB Size | RB Offset | Low CH 19975         | Mid CH 20175         | High CH 20375        | 3GPP MPR (dB) |
|-----------|------------|---------|-----------|----------------------|----------------------|----------------------|---------------|
|           |            |         |           | Frequency 1712.5 MHz | Frequency 1732.5 MHz | Frequency 1752.5 MHz |               |
| 4 / 5M    | QPSK       | 1       | 0         | 22.21                | 22.26                | 22.34                | 0             |
|           |            | 1       | 12        | 22.08                | 22.41                | 22.51                | 0             |
|           |            | 1       | 24        | 22.08                | 22.16                | 22.33                | 0             |
|           |            | 12      | 0         | 21.21                | 21.30                | 21.43                | 1             |
|           |            | 12      | 6         | 21.20                | 21.28                | 21.47                | 1             |
|           |            | 12      | 13        | 21.21                | 21.26                | 21.47                | 1             |
|           |            | 25      | 0         | 21.27                | 21.29                | 21.42                | 1             |
|           | 16QAM      | 1       | 0         | 21.17                | 21.22                | 21.30                | 1             |
|           |            | 1       | 12        | 21.04                | 21.37                | 21.47                | 1             |
|           |            | 1       | 24        | 21.04                | 21.12                | 21.29                | 1             |
|           |            | 12      | 0         | 20.17                | 20.26                | 20.39                | 2             |
|           |            | 12      | 6         | 20.16                | 20.24                | 20.43                | 2             |
|           |            | 12      | 13        | 20.17                | 20.22                | 20.43                | 2             |
|           |            | 25      | 0         | 20.23                | 20.25                | 20.38                | 2             |

| Band / BW | Modulation | RB Size | RB Offset | Low CH 20000         | Mid CH 20175         | High CH 20350        | 3GPP MPR (dB) |
|-----------|------------|---------|-----------|----------------------|----------------------|----------------------|---------------|
|           |            |         |           | Frequency 1715.0 MHz | Frequency 1732.5 MHz | Frequency 1750.0 MHz |               |
| 4 / 10M   | QPSK       | 1       | 0         | 22.23                | 22.28                | 22.36                | 0             |
|           |            | 1       | 24        | 22.10                | 22.43                | <b>22.53</b>         | 0             |
|           |            | 1       | 49        | 22.10                | 22.18                | 22.35                | 0             |
|           |            | 25      | 0         | 21.23                | 21.32                | 21.45                | 1             |
|           |            | 25      | 12        | 21.22                | 21.30                | 21.49                | 1             |
|           |            | 25      | 25        | 21.23                | 21.28                | 21.49                | 1             |
|           |            | 50      | 0         | 21.29                | 21.31                | 21.44                | 1             |
|           | 16QAM      | 1       | 0         | 21.20                | 21.25                | 21.33                | 1             |
|           |            | 1       | 24        | 21.07                | 21.40                | 21.50                | 1             |
|           |            | 1       | 49        | 21.07                | 21.15                | 21.32                | 1             |
|           |            | 25      | 0         | 20.20                | 20.29                | 20.42                | 2             |
|           |            | 25      | 12        | 20.19                | 20.27                | 20.46                | 2             |
|           |            | 25      | 25        | 20.20                | 20.25                | 20.46                | 2             |
|           |            | 50      | 0         | 20.26                | 20.28                | 20.41                | 2             |

## MODE A

### AVERAGE ERP (dBm)

### LTE BAND 17

### CHANNEL BANDWIDTH: 5MHz QPSK

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|----------|---------|--------------------|
| X     | 23755   | 706.5           | -12.22    | 30.36                 | 15.99    | 39.72   | H                  |
|       | 23790   | 710             | -12.31    | 30.17                 | 15.71    | 37.24   | H                  |
|       | 23825   | 713.5           | -12.50    | 30.17                 | 15.52    | 35.65   | H                  |
|       | 23755   | 706.5           | -19.88    | 32.03                 | 10.00    | 10.00   | V                  |
|       | 23790   | 710             | -19.51    | 31.98                 | 10.32    | 10.76   | V                  |
|       | 23825   | 713.5           | -18.79    | 32.06                 | 11.12    | 12.94   | V                  |

### CHANNEL BANDWIDTH: 5MHz 16QAM

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|----------|---------|--------------------|
| X     | 23755   | 706.5           | -13.46    | 30.36                 | 14.75    | 29.85   | H                  |
|       | 23790   | 710             | -13.54    | 30.17                 | 14.48    | 28.05   | H                  |
|       | 23825   | 713.5           | -13.85    | 30.17                 | 14.17    | 26.12   | H                  |
|       | 23755   | 706.5           | -20.11    | 32.03                 | 9.77     | 9.48    | V                  |
|       | 23790   | 710             | -20.47    | 31.98                 | 9.36     | 8.63    | V                  |
|       | 23825   | 713.5           | -20.18    | 32.06                 | 9.73     | 9.40    | V                  |

### CHANNEL BANDWIDTH: 10MHz QPSK

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|----------|---------|--------------------|
| X     | 23780   | 709             | -12.90    | 30.17                 | 15.12    | 32.51   | H                  |
|       | 23790   | 710             | -12.34    | 30.17                 | 15.68    | 36.98   | H                  |
|       | 23800   | 711             | -12.39    | 30.18                 | 15.64    | 36.64   | H                  |
|       | 23780   | 709             | -19.50    | 31.96                 | 10.31    | 10.74   | V                  |
|       | 23790   | 710             | -19.22    | 31.98                 | 10.61    | 11.51   | V                  |
|       | 23800   | 711             | -19.36    | 32.03                 | 10.52    | 11.27   | V                  |

### CHANNEL BANDWIDTH: 10MHz 16QAM

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|----------|---------|--------------------|
| X     | 23780   | 709             | -13.75    | 30.17                 | 14.27    | 26.73   | H                  |
|       | 23790   | 710             | -13.70    | 30.17                 | 14.32    | 27.04   | H                  |
|       | 23800   | 711             | -13.49    | 30.18                 | 14.54    | 28.44   | H                  |
|       | 23780   | 709             | -20.58    | 31.96                 | 9.23     | 8.38    | V                  |
|       | 23790   | 710             | -20.50    | 31.98                 | 9.33     | 8.57    | V                  |
|       | 23800   | 711             | -20.49    | 32.03                 | 9.39     | 8.69    | V                  |

## AVERAGE EIRP (dBm)

### LTE BAND 4

#### CHANNEL BANDWIDTH: 5MHz QPSK

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|-----------|----------|--------------------|
| Y     | 19975   | 1712.5          | -14.56    | 36.45                 | 21.89     | 154.53   | H                  |
|       | 20175   | 1732.5          | -14.09    | 36.80                 | 22.71     | 186.59   | H                  |
|       | 20375   | 1752.5          | -14.61    | 36.94                 | 22.33     | 171.12   | H                  |
|       | 19975   | 1712.5          | -20.03    | 37.28                 | 17.25     | 53.05    | V                  |
|       | 20175   | 1732.5          | -20.70    | 37.63                 | 16.93     | 49.32    | V                  |
|       | 20375   | 1752.5          | -20.68    | 37.64                 | 16.96     | 49.66    | V                  |

#### CHANNEL BANDWIDTH: 5MHz 16QAM

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|-----------|----------|--------------------|
| Y     | 19975   | 1712.5          | -14.81    | 36.45                 | 21.64     | 145.88   | H                  |
|       | 20175   | 1732.5          | -15.12    | 36.80                 | 21.68     | 147.20   | H                  |
|       | 20375   | 1752.5          | -15.11    | 36.94                 | 21.83     | 152.51   | H                  |
|       | 19975   | 1712.5          | -21.96    | 37.28                 | 15.32     | 34.02    | V                  |
|       | 20175   | 1732.5          | -21.55    | 37.63                 | 16.08     | 40.55    | V                  |
|       | 20375   | 1752.5          | -21.48    | 37.64                 | 16.16     | 41.30    | V                  |

### CHANNEL BANDWIDTH: 10MHz QPSK

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|-----------|----------|--------------------|
| Y     | 20000   | 1715            | -14.16    | 36.64                 | 22.48     | 177.01   | H                  |
|       | 20175   | 1732.5          | -14.16    | 36.80                 | 22.64     | 183.44   | H                  |
|       | 20350   | 1750            | -14.49    | 36.80                 | 22.31     | 170.22   | H                  |
|       | 20000   | 1715            | -20.74    | 37.44                 | 16.70     | 46.76    | V                  |
|       | 20175   | 1732.5          | -20.76    | 37.63                 | 16.87     | 48.63    | V                  |
|       | 20350   | 1750            | -20.69    | 37.64                 | 16.95     | 49.49    | V                  |

### CHANNEL BANDWIDTH: 10MHz 16QAM

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|-----------|----------|--------------------|
| Y     | 20000   | 1715            | -15.07    | 36.64                 | 21.57     | 143.55   | H                  |
|       | 20175   | 1732.5          | -15.08    | 36.80                 | 21.72     | 148.42   | H                  |
|       | 20350   | 1750            | -14.49    | 36.80                 | 22.31     | 170.22   | H                  |
|       | 20000   | 1715            | -21.03    | 37.44                 | 16.41     | 43.74    | V                  |
|       | 20175   | 1732.5          | -21.26    | 37.63                 | 16.37     | 43.34    | V                  |
|       | 20350   | 1750            | -21.46    | 37.64                 | 16.18     | 41.45    | V                  |

## MODE B

### AVERAGE ERP (dBm)

### LTE BAND 17

### CHANNEL BANDWIDTH: 5MHz QPSK

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|----------|---------|--------------------|
| X     | 23755   | 706.5           | -8.72     | 30.36                 | 19.49    | 88.92   | H                  |
|       | 23790   | 710             | -8.85     | 30.17                 | 19.17    | 82.60   | H                  |
|       | 23825   | 713.5           | -8.54     | 30.17                 | 19.48    | 88.72   | H                  |
|       | 23755   | 706.5           | -20.88    | 32.03                 | 9.00     | 7.94    | V                  |
|       | 23790   | 710             | -20.46    | 31.98                 | 9.37     | 8.65    | V                  |
|       | 23825   | 713.5           | -20.20    | 32.06                 | 9.71     | 9.35    | V                  |

### CHANNEL BANDWIDTH: 5MHz 16QAM

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|----------|---------|--------------------|
| X     | 23755   | 706.5           | -8.90     | 30.17                 | 19.12    | 81.66   | H                  |
|       | 23790   | 710             | -8.97     | 30.17                 | 19.05    | 80.35   | H                  |
|       | 23825   | 713.5           | -9.11     | 30.18                 | 18.92    | 77.98   | H                  |
|       | 23755   | 706.5           | -19.88    | 31.96                 | 9.93     | 9.84    | V                  |
|       | 23790   | 710             | -19.80    | 31.98                 | 10.03    | 10.07   | V                  |
|       | 23825   | 713.5           | -19.53    | 32.03                 | 10.35    | 10.84   | V                  |

### CHANNEL BANDWIDTH: 10MHz QPSK

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|----------|---------|--------------------|
| X     | 23780   | 709             | -8.59     | 30.36                 | 19.62    | 91.62   | H                  |
|       | 23790   | 710             | -8.64     | 30.17                 | 19.38    | 86.70   | H                  |
|       | 23800   | 711             | -8.33     | 30.17                 | 19.69    | 93.11   | H                  |
|       | 23780   | 709             | -20.75    | 32.03                 | 9.13     | 8.18    | V                  |
|       | 23790   | 710             | -20.35    | 31.98                 | 9.48     | 8.87    | V                  |
|       | 23800   | 711             | -20.06    | 32.06                 | 9.85     | 9.66    | V                  |

### CHANNEL BANDWIDTH: 10MHz 16QAM

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | ERP(dBm) | ERP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|----------|---------|--------------------|
| X     | 23780   | 709             | -9.34     | 30.17                 | 18.68    | 73.79   | H                  |
|       | 23790   | 710             | -9.56     | 30.17                 | 18.46    | 70.15   | H                  |
|       | 23800   | 711             | -9.44     | 30.18                 | 18.59    | 72.28   | H                  |
|       | 23780   | 709             | -19.65    | 31.96                 | 10.16    | 10.38   | V                  |
|       | 23790   | 710             | -19.57    | 31.98                 | 10.26    | 10.62   | V                  |
|       | 23800   | 711             | -19.32    | 32.03                 | 10.56    | 11.38   | V                  |

## AVERAGE EIRP (dBm)

### LTE BAND 4

#### CHANNEL BANDWIDTH: 5MHz QPSK

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|-----------|----------|--------------------|
| Y     | 19975   | 1712.5          | -12.68    | 36.45                 | 23.77     | 238.23   | H                  |
|       | 20175   | 1732.5          | -12.08    | 36.80                 | 24.72     | 296.41   | H                  |
|       | 20375   | 1752.5          | -12.88    | 36.94                 | 24.06     | 254.86   | H                  |
|       | 19975   | 1712.5          | -20.35    | 37.28                 | 16.93     | 49.28    | V                  |
|       | 20175   | 1732.5          | -19.45    | 37.63                 | 18.18     | 65.77    | V                  |
|       | 20375   | 1752.5          | -19.40    | 37.64                 | 18.24     | 66.68    | V                  |

#### CHANNEL BANDWIDTH: 5MHz 16QAM

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|-----------|----------|--------------------|
| Y     | 19975   | 1712.5          | -13.33    | 36.45                 | 23.12     | 205.12   | H                  |
|       | 20175   | 1732.5          | -13.72    | 36.80                 | 23.08     | 203.19   | H                  |
|       | 20375   | 1752.5          | -13.95    | 36.94                 | 22.99     | 199.20   | H                  |
|       | 19975   | 1712.5          | -20.37    | 37.28                 | 16.91     | 49.06    | V                  |
|       | 20175   | 1732.5          | -19.86    | 37.63                 | 17.77     | 59.84    | V                  |
|       | 20375   | 1752.5          | -19.48    | 37.64                 | 18.16     | 65.46    | V                  |

### CHANNEL BANDWIDTH: 10MHz QPSK

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|-----------|----------|--------------------|
| Y     | 20000   | 1715            | -12.51    | 36.45                 | 23.94     | 247.74   | H                  |
|       | 20175   | 1732.5          | -12.26    | 36.80                 | 24.54     | 284.38   | H                  |
|       | 20350   | 1750            | -12.65    | 36.94                 | 24.29     | 268.72   | H                  |
|       | 20000   | 1715            | -20.09    | 37.28                 | 17.19     | 52.32    | V                  |
|       | 20175   | 1732.5          | -19.28    | 37.63                 | 18.35     | 68.39    | V                  |
|       | 20350   | 1750            | -19.06    | 37.64                 | 18.58     | 72.11    | V                  |

### CHANNEL BANDWIDTH: 10MHz 16QAM

| Plane | Channel | Frequency (MHz) | LVL (dBm) | Correction Factor(dB) | EIRP(dBm) | EIRP(mW) | Polarization (H/V) |
|-------|---------|-----------------|-----------|-----------------------|-----------|----------|--------------------|
| Y     | 20000   | 1715            | -13.22    | 36.45                 | 23.23     | 210.38   | H                  |
|       | 20175   | 1732.5          | -13.51    | 36.80                 | 23.29     | 213.26   | H                  |
|       | 20350   | 1750            | -13.57    | 36.94                 | 23.37     | 217.42   | H                  |
|       | 20000   | 1715            | -20.15    | 37.28                 | 17.13     | 51.61    | V                  |
|       | 20175   | 1732.5          | -19.57    | 37.63                 | 18.06     | 63.97    | V                  |
|       | 20350   | 1750            | -19.22    | 37.64                 | 18.42     | 69.50    | V                  |

## 4.2 FREQUENCY STABILITY MEASUREMENT

### 4.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

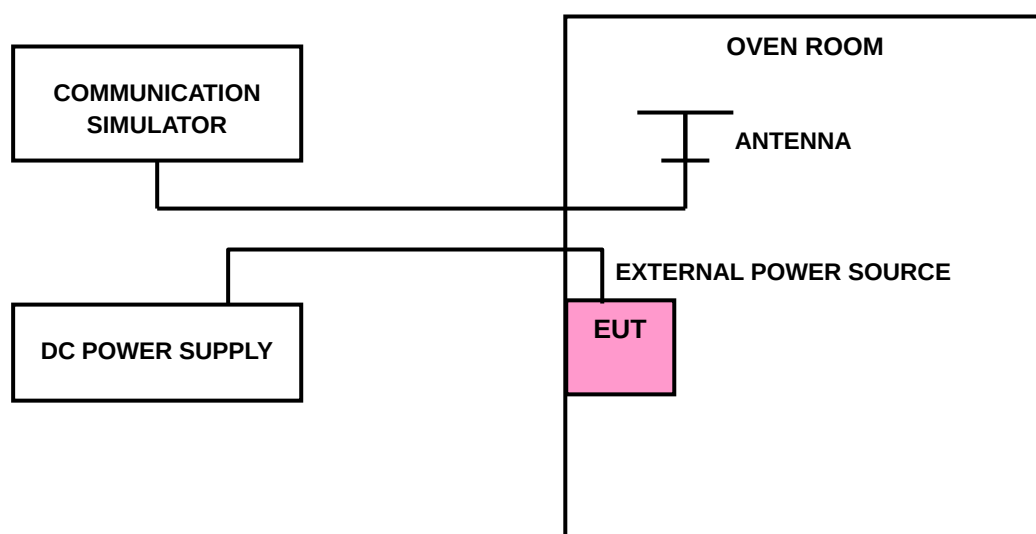
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

### 4.2.2 TEST PROCEDURE

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the  $\pm 0.5^{\circ}\text{C}$  during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

**NOTE:** The frequency error was recorded frequency error from the communication simulator.

### 4.2.3 TEST SETUP



#### 4.2.4 TEST RESULTS

| VOLTAGE<br>(Volts) | FREQUENCY ERROR (ppm) |         |            |         | LIMIT<br>(ppm) |
|--------------------|-----------------------|---------|------------|---------|----------------|
|                    | LTE BAND 17           |         | LTE BAND 4 |         |                |
|                    | 5MHz                  | 10MHz   | 5MHz       | 10MHz   |                |
| 3.8                | -0.0024               | -0.0061 | -0.0048    | -0.0012 | 2.5            |
| 3.6                | -0.0031               | -0.0023 | -0.0008    | -0.0032 | 2.5            |
| 4.2                | -0.0054               | 0.0058  | 0.0013     | 0.0010  | 2.5            |

**NOTE:** The applicant defined the normal working voltage of the battery is from 3.6Vdc to 4.2Vdc.

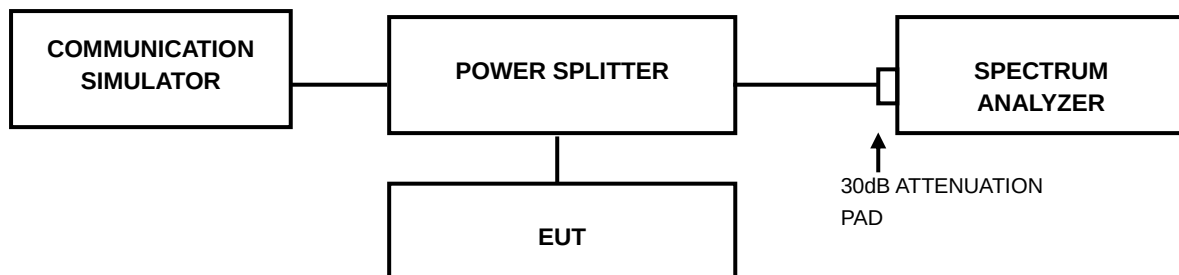
| TEMP. (°C) | FREQUENCY ERROR (ppm) |         |            |         | LIMIT (ppm) |
|------------|-----------------------|---------|------------|---------|-------------|
|            | LTE BAND 17           |         | LTE BAND 4 |         |             |
|            | 5MHz                  | 10MHz   | 5MHz       | 10MHz   |             |
| -30        | -0.0042               | -0.0049 | -0.0009    | -0.0025 | 2.5         |
| -20        | -0.0055               | -0.0028 | -0.0022    | -0.0021 | 2.5         |
| -10        | 0.0045                | -0.0045 | 0.0012     | -0.0042 | 2.5         |
| 0          | -0.0030               | 0.0037  | -0.0020    | -0.0009 | 2.5         |
| 10         | 0.0041                | 0.0024  | -0.0033    | -0.0021 | 2.5         |
| 20         | 0.0018                | -0.0052 | -0.0025    | 0.0023  | 2.5         |
| 30         | -0.0058               | 0.0048  | -0.0032    | -0.0033 | 2.5         |
| 40         | -0.0035               | -0.0027 | -0.0012    | 0.0023  | 2.5         |
| 50         | 0.0066                | 0.0024  | 0.0043     | 0.0019  | 2.5         |

## 4.3 OCCUPIED BANDWIDTH MEASUREMENT

### 4.3.1 LIMITS OF OCCUPIED BANDWIDTH MEASUREMENT

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

### 4.3.2 TEST SETUP

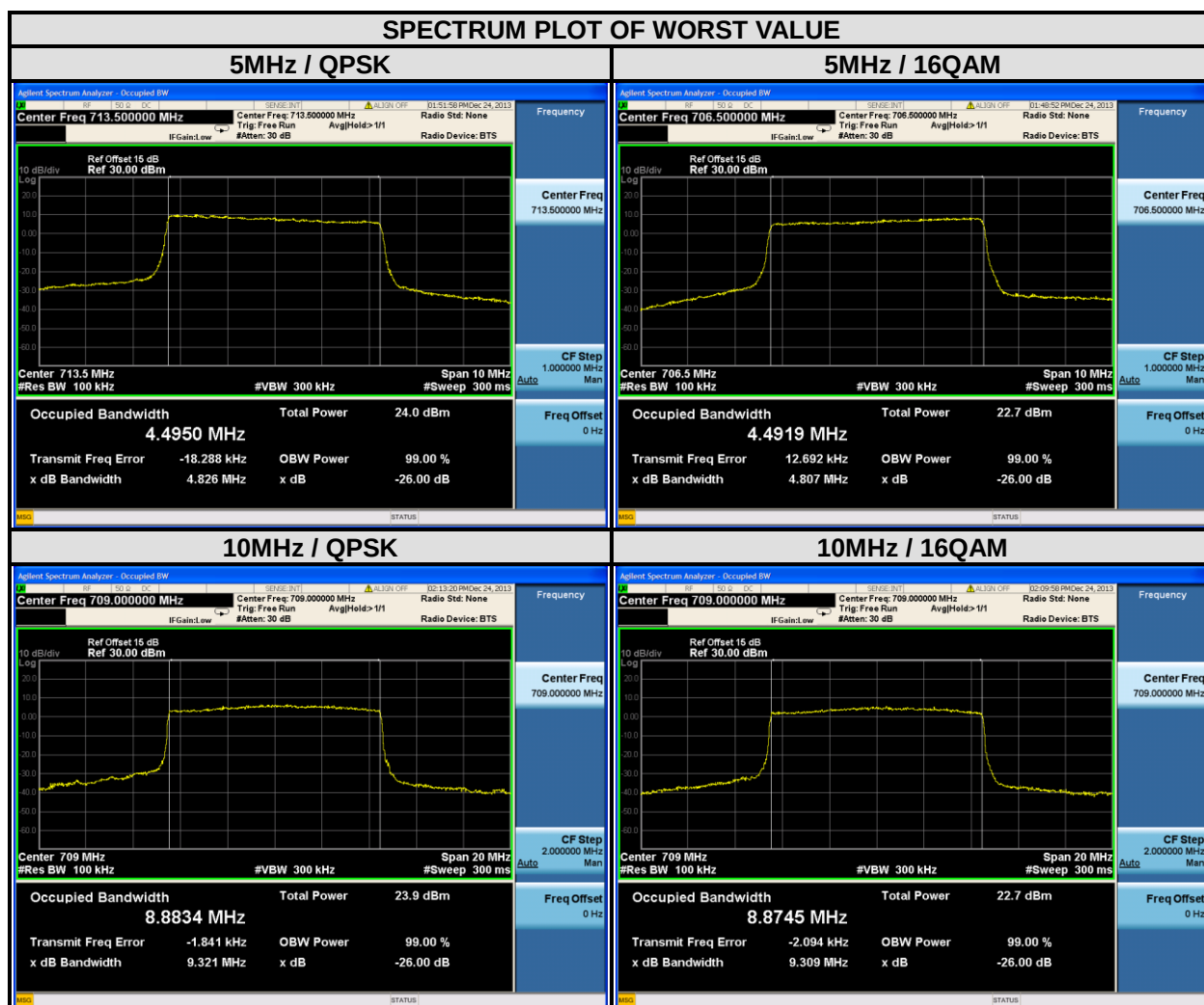


### 4.3.3 TEST PROCEDURES

- The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

#### 4.3.4 TEST RESULTS

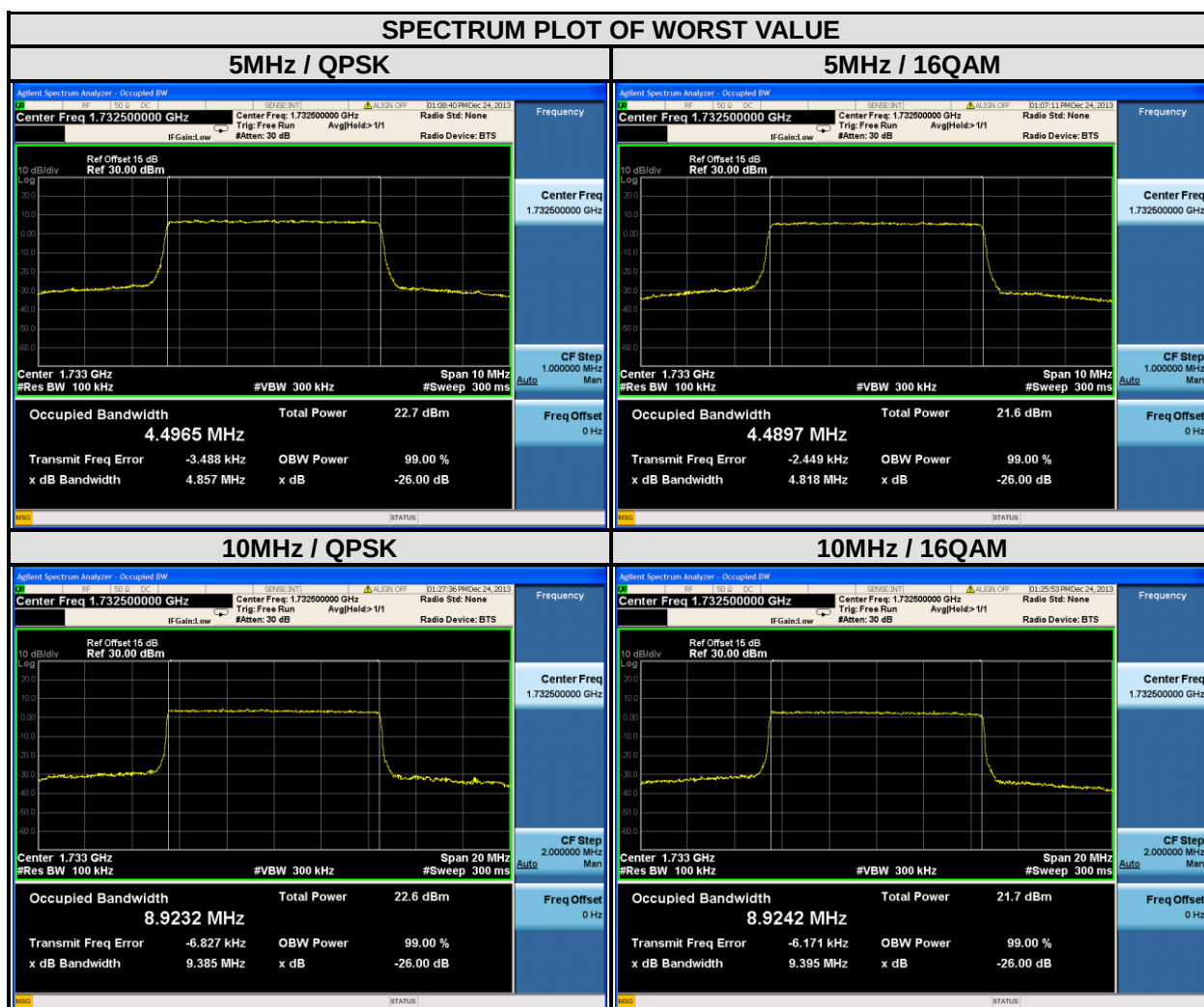
| LTE BAND 17             |                 |                              |        |                          |                 |                              |        |
|-------------------------|-----------------|------------------------------|--------|--------------------------|-----------------|------------------------------|--------|
| CHANNEL BANDWIDTH: 5MHz |                 |                              |        | CHANNEL BANDWIDTH: 10MHz |                 |                              |        |
| CHANNEL                 | FREQUENCY (MHz) | 99% OCCUPIED BANDWIDTH (MHz) |        | CHANNEL                  | FREQUENCY (MHz) | 99% OCCUPIED BANDWIDTH (MHz) |        |
|                         |                 | QPSK                         | 16QAM  |                          |                 | QPSK                         | 16QAM  |
| 23755                   | 706.5           | 4.4947                       | 4.4919 | 23780                    | 709.0           | 8.8834                       | 8.8745 |
| 23790                   | 710.0           | 4.4888                       | 4.4824 | 23790                    | 710.0           | 8.8659                       | 8.8690 |
| 23825                   | 713.5           | 4.4950                       | 4.4898 | 23800                    | 711.0           | 8.8738                       | 8.8641 |





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| LTE BAND 4              |                 |                              |        |                          |                 |                              |        |
|-------------------------|-----------------|------------------------------|--------|--------------------------|-----------------|------------------------------|--------|
| CHANNEL BANDWIDTH: 5MHz |                 |                              |        | CHANNEL BANDWIDTH: 10MHz |                 |                              |        |
| CHANNEL                 | FREQUENCY (MHz) | 99% OCCUPIED BANDWIDTH (MHz) |        | CHANNEL                  | FREQUENCY (MHz) | 99% OCCUPIED BANDWIDTH (MHz) |        |
|                         |                 | QPSK                         | 16QAM  |                          |                 | QPSK                         | 16QAM  |
| 19975                   | 1712.5          | 4.4908                       | 4.4845 | 20000                    | 1715.0          | 8.8951                       | 8.8965 |
| 20175                   | 1732.5          | 4.4965                       | 4.4897 | 20175                    | 1732.5          | 8.9232                       | 8.9242 |
| 20375                   | 1752.5          | 4.4916                       | 4.4861 | 20350                    | 1750.0          | 8.8934                       | 8.9010 |

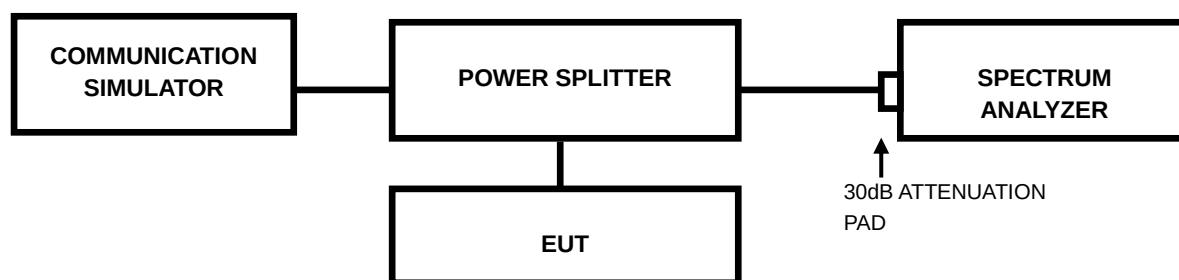


## 4.4 PEAK TO AVERAGE RATIO

### 4.4.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

### 4.4.2 TEST SETUP

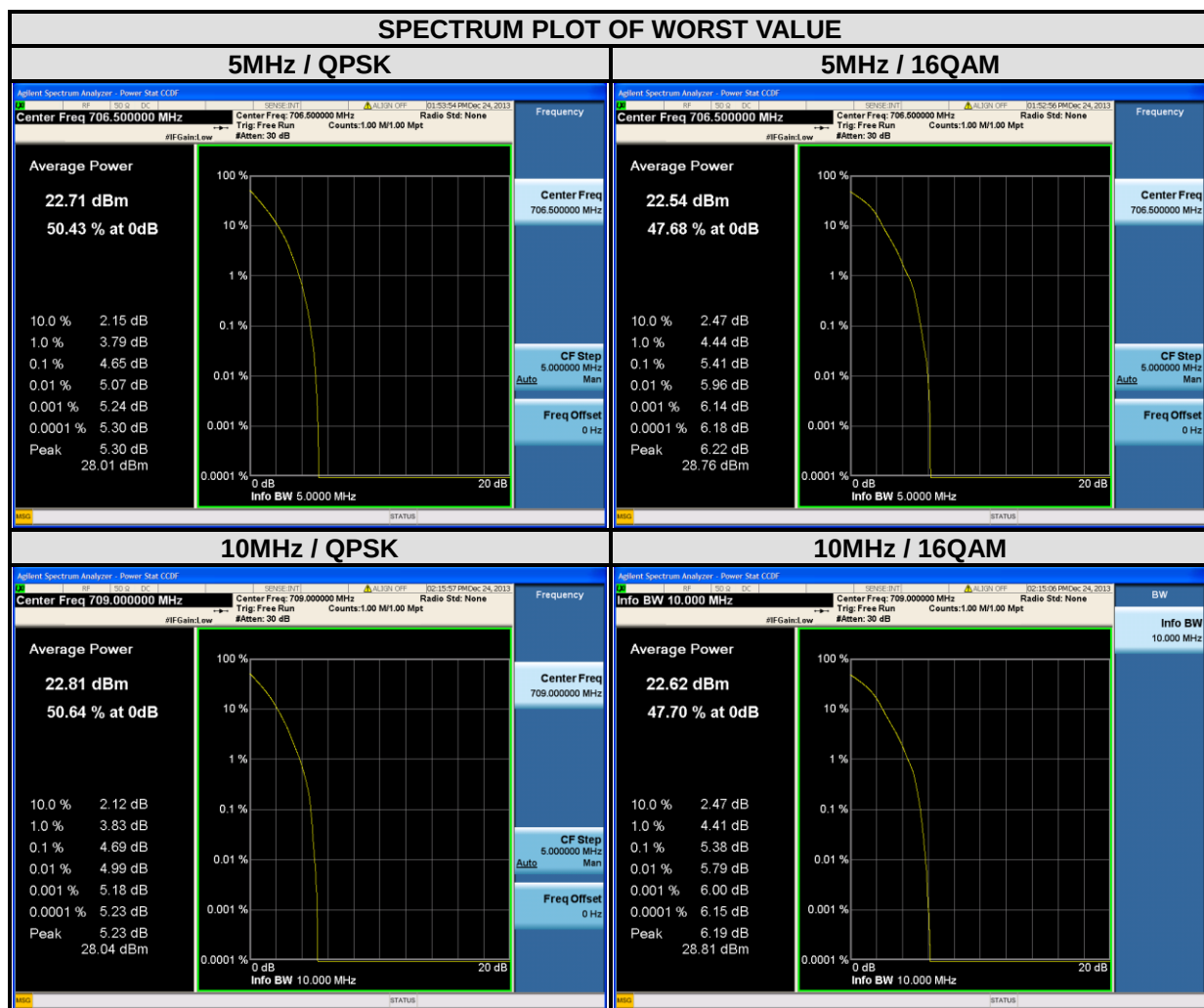


### 4.4.3 TEST PROCEDURES

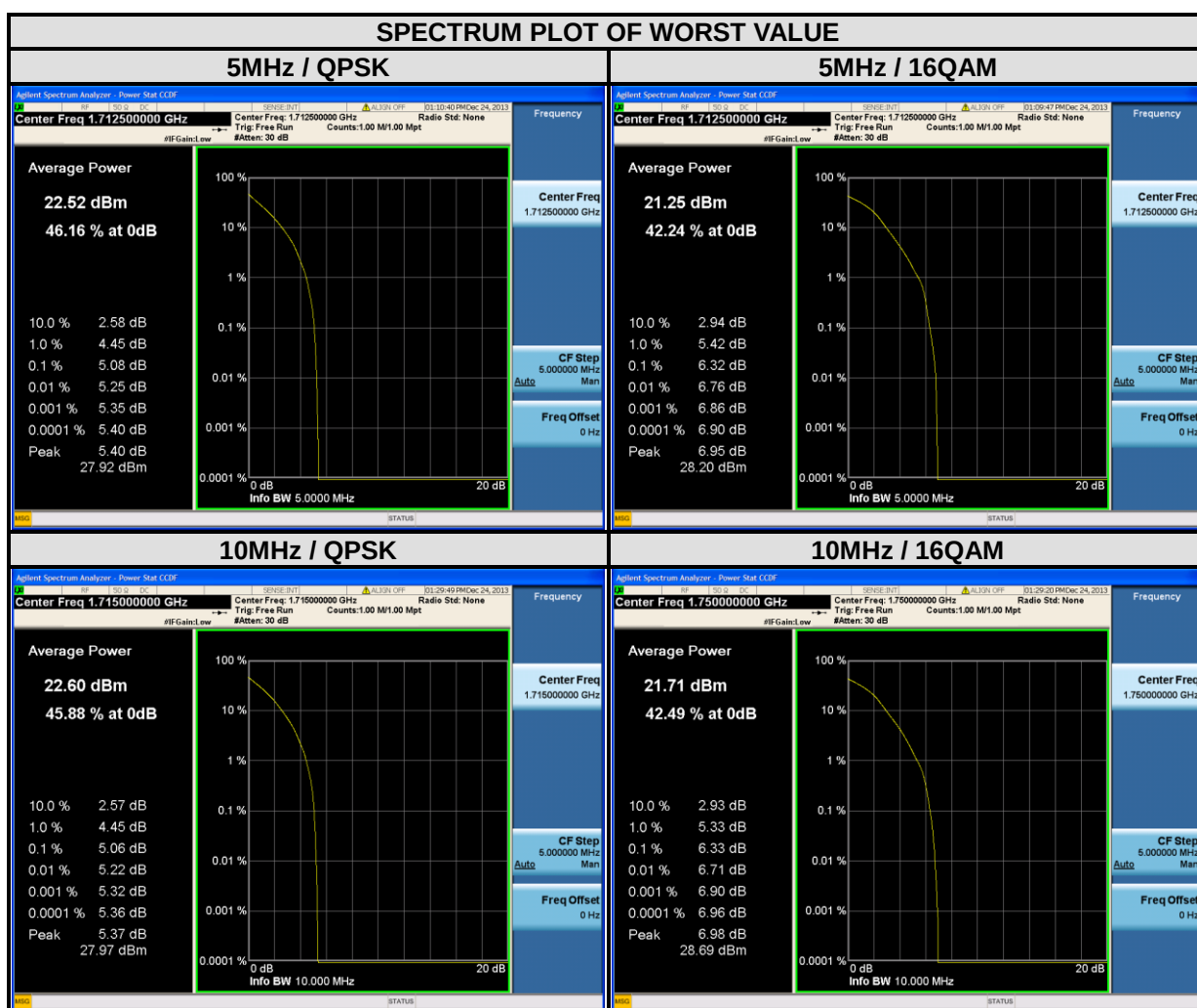
1. Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

#### 4.4.4 TEST RESULTS

| LTE BAND 17             |                 |                            |       |                          |                 |                            |       |
|-------------------------|-----------------|----------------------------|-------|--------------------------|-----------------|----------------------------|-------|
| CHANNEL BANDWIDTH: 5MHz |                 |                            |       | CHANNEL BANDWIDTH: 10MHz |                 |                            |       |
| CHANNEL                 | FREQUENCY (MHz) | PEAK TO AVERAGE RATIO (dB) |       | CHANNEL                  | FREQUENCY (MHz) | PEAK TO AVERAGE RATIO (dB) |       |
|                         |                 | QPSK                       | 16QAM |                          |                 | QPSK                       | 16QAM |
| 23755                   | 706.5           | 4.65                       | 5.41  | 23780                    | 709.0           | 4.69                       | 5.38  |
| 23790                   | 710.0           | 4.15                       | 5.22  | 23790                    | 710.0           | 4.59                       | 5.24  |
| 23825                   | 713.5           | 4.09                       | 5.07  | 23800                    | 711.0           | 4.51                       | 5.21  |



| LTE BAND 4              |                 |                            |       |                          |                 |                            |       |
|-------------------------|-----------------|----------------------------|-------|--------------------------|-----------------|----------------------------|-------|
| CHANNEL BANDWIDTH: 5MHz |                 |                            |       | CHANNEL BANDWIDTH: 10MHz |                 |                            |       |
| CHANNEL                 | FREQUENCY (MHz) | PEAK TO AVERAGE RATIO (dB) |       | CHANNEL                  | FREQUENCY (MHz) | PEAK TO AVERAGE RATIO (dB) |       |
|                         |                 | QPSK                       | 16QAM |                          |                 | QPSK                       | 16QAM |
| 19975                   | 1712.5          | 5.08                       | 6.32  | 20000                    | 1715.0          | 5.06                       | 6.30  |
| 20175                   | 1732.5          | 3.58                       | 4.90  | 20175                    | 1732.5          | 3.71                       | 4.88  |
| 20375                   | 1752.5          | 3.32                       | 4.83  | 20350                    | 1750.0          | 5.00                       | 6.33  |



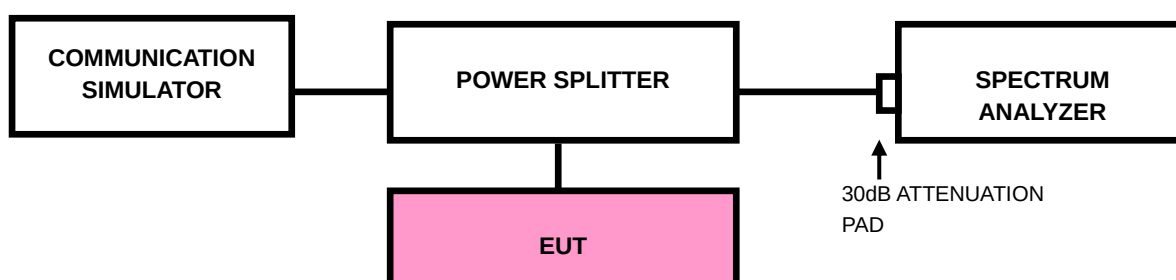
## 4.5 BAND EDGE MEASUREMENT

### 4.5.1 LIMITS OF BAND EDGE MEASUREMENT

For operations in the 704-716 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

For operations in the 1710 – 1755 MHz MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB.

### 4.5.2 TEST SETUP

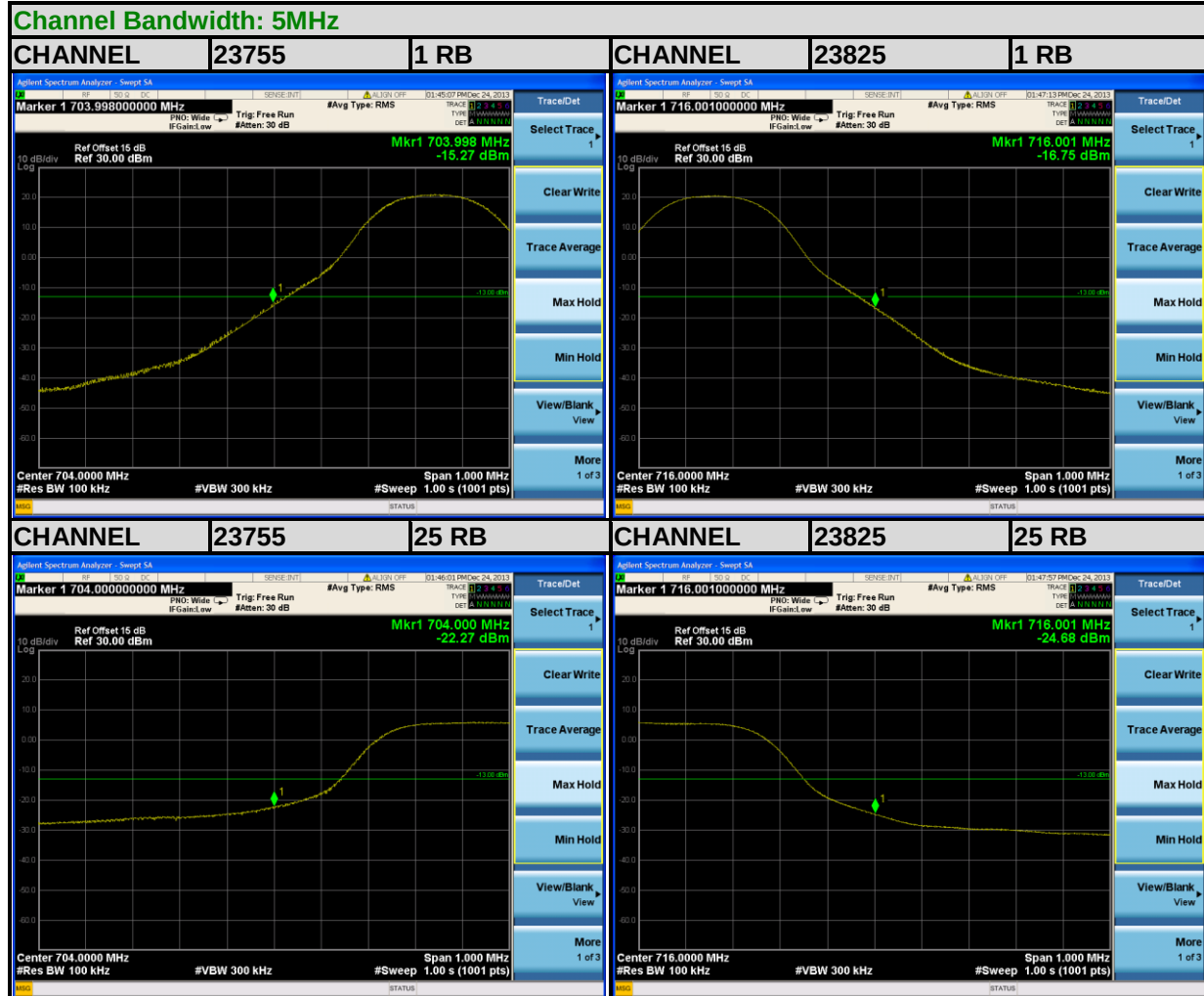


#### 4.5.3 TEST PROCEDURES

- a. The EUT was set up for the maximum peak power with LTE link data modulation. The power was measured with R&S Spectrum Analyzer. All measurements were done at 2 channels (low and high operational frequency range.).
- b. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
- c. The center frequency of spectrum is the band edge frequency and span is 2 MHz. RB of the spectrum is 100kHz and VB of the spectrum is 300kHz.
- d. Record the max trace plot into the test report.

## 4.5.4 TEST RESULTS

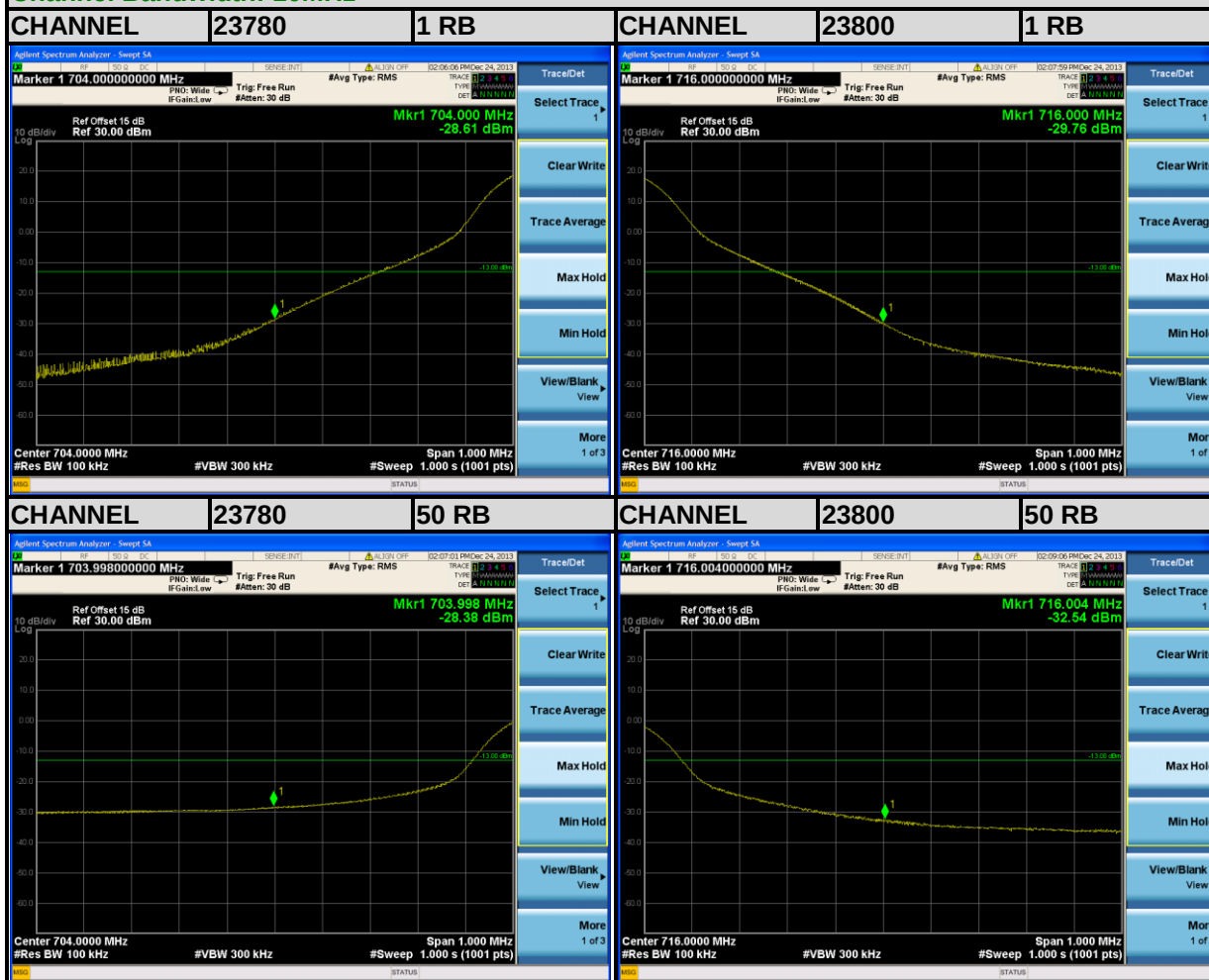
### LTE BAND 17





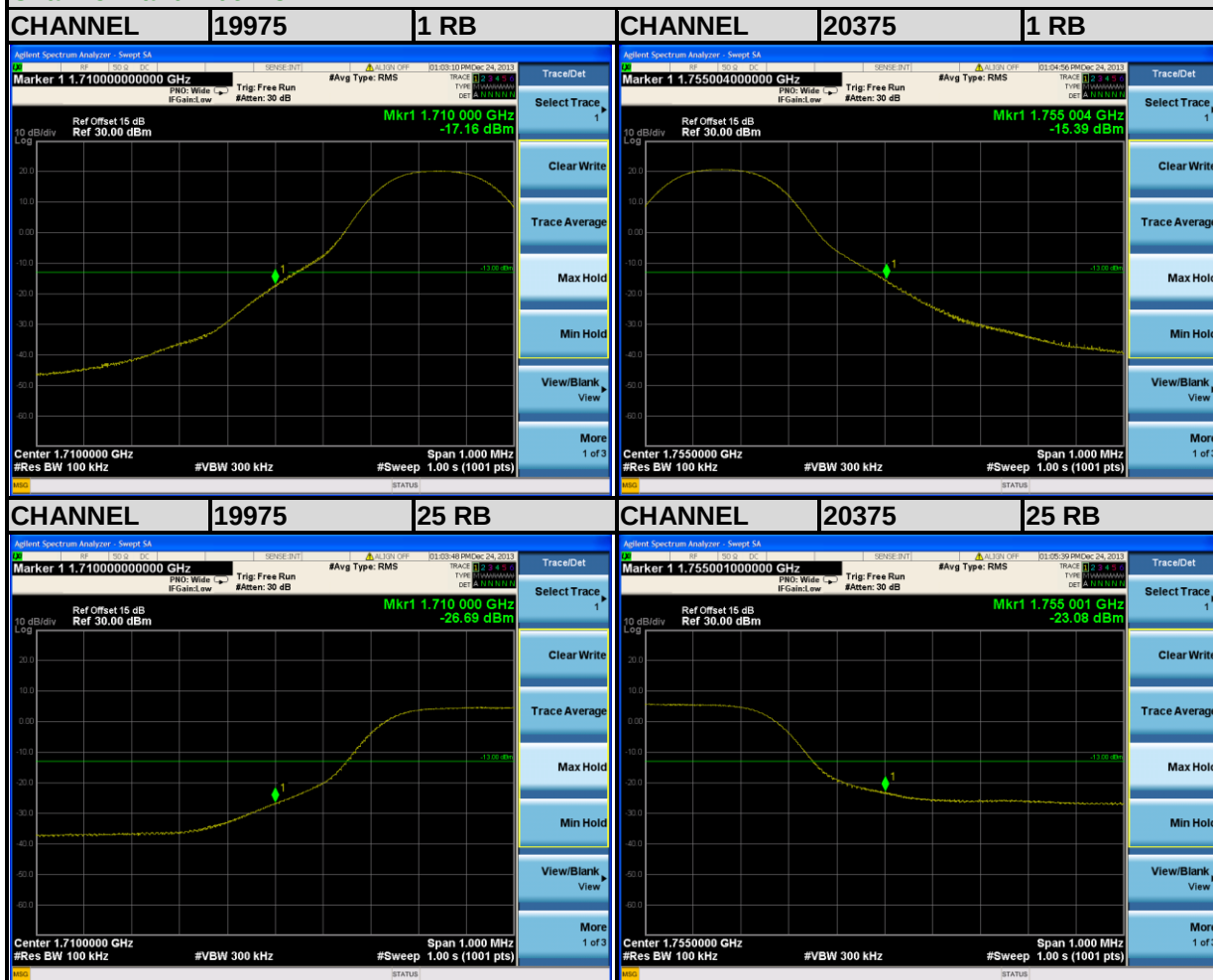
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### Channel Bandwidth: 10MHz



## LTE BAND 4

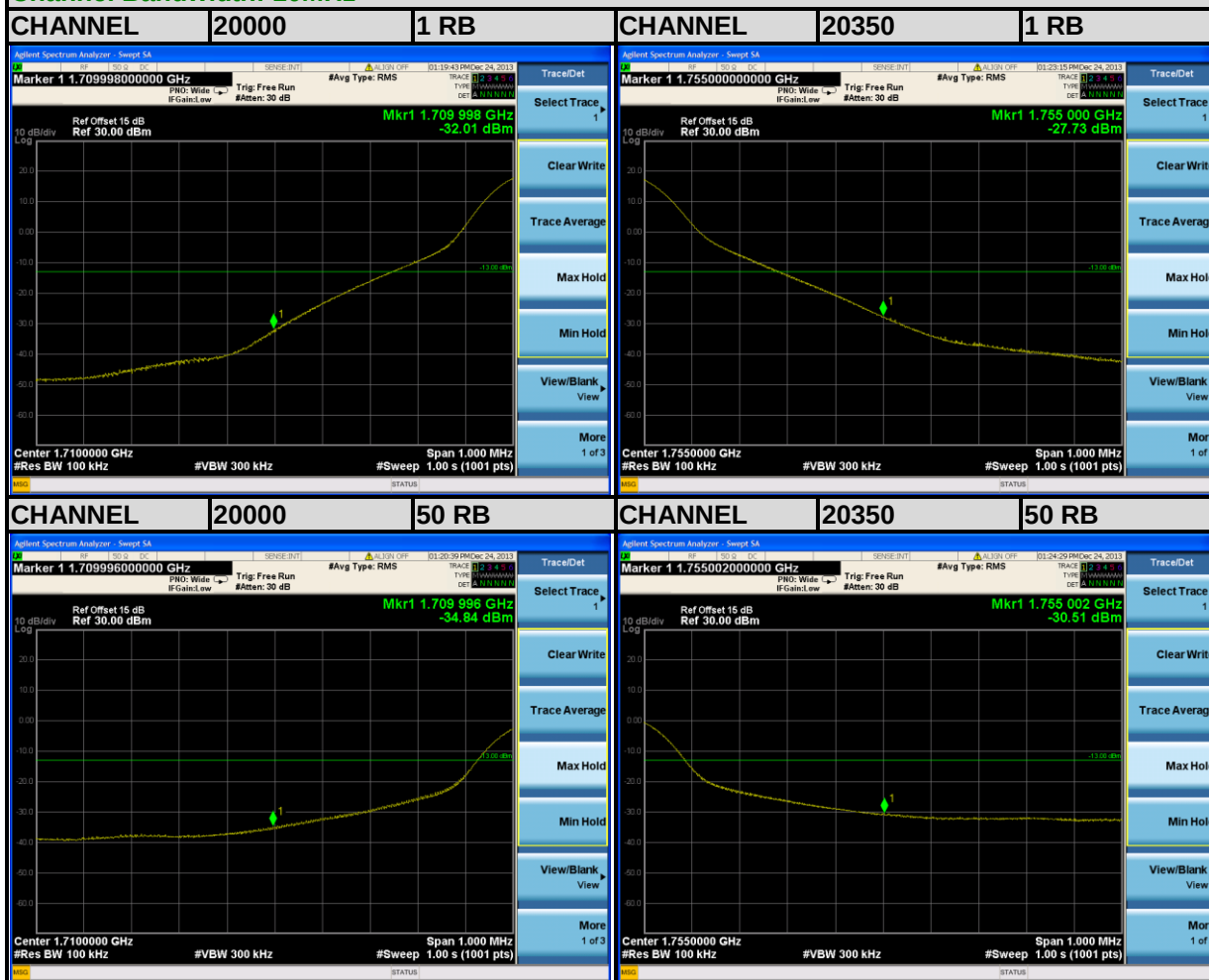
### Channel Bandwidth: 5MHz





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### Channel Bandwidth: 10MHz



## 4.6 CONDUCTED SPURIOUS EMISSIONS

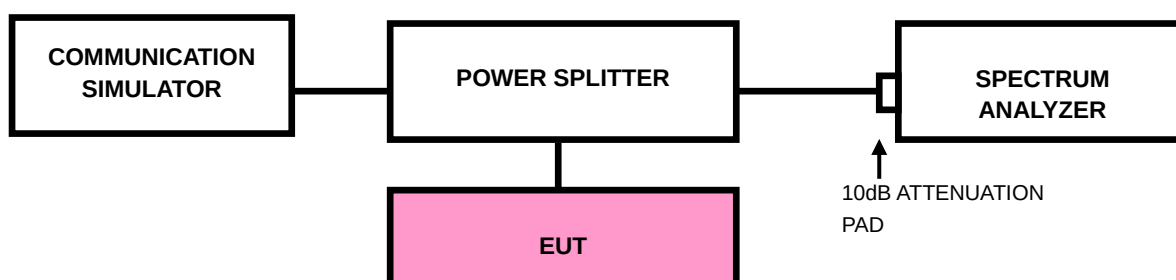
### 4.6.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB. The limit of emission equal to  $-13\text{dBm}$

### 4.6.2 TEST PROCEDURE

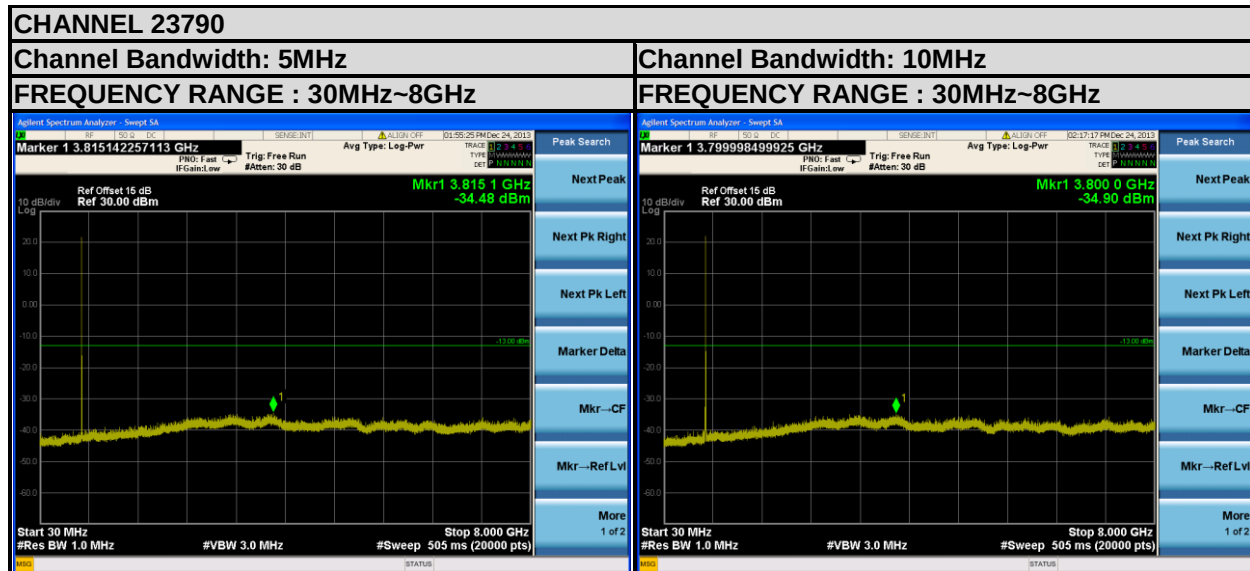
- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range is from 30 MHz to 8GHz for LTE Band 17 and from 30MHz to 18GHz for LTE Band 4. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz are used for conducted emission measurement.

### 4.6.3 TEST SETUP

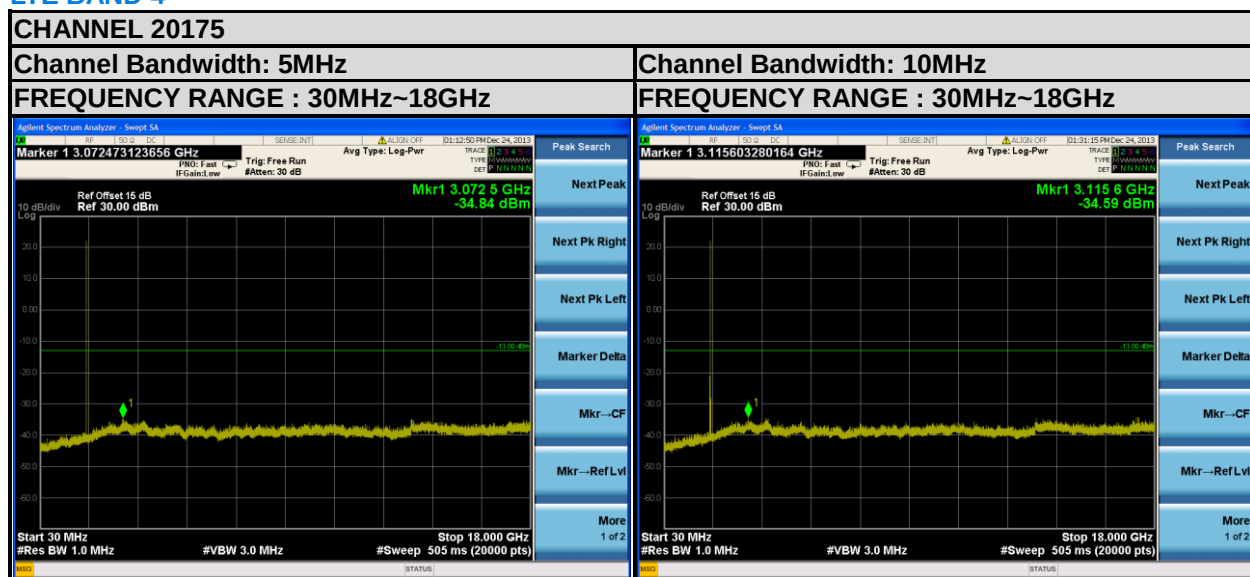


## 4.6.4 TEST RESULTS

### LTE BAND 17



### LTE BAND 4



## 4.7 RADIATED EMISSION MEASUREMENT

### 4.7.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB. The limit of emission equal to  $-13\text{dBm}$

For operations in the 746 – 763 MHz, 775 – 793 MHz, and 805 – 806 MHz bands, emissions in the band 1559 – 1610 MHz shall be limited to  $-70\text{ dBW/MHz}$  equivalent isotropically radiated power (EIRP) for wideband signals, and  $-80\text{ dBW}$  EIRP for discrete emissions of less than 700 Hz bandwidth.

### 4.7.2 TEST PROCEDURES

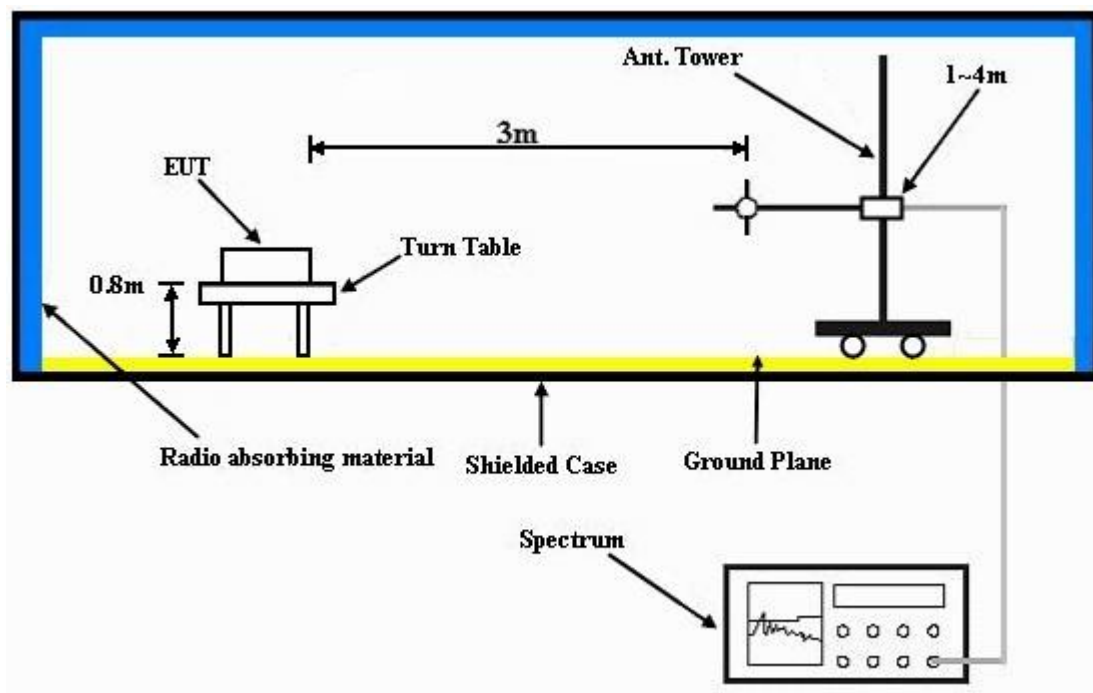
- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value “ of step a. Record the power level of S.G
- c.  $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}.$
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole,  $\text{E.R.P power} = \text{E.I.P.R power} - 2.15\text{dBi}.$

**NOTE:** The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

#### 4.7.3 DEVIATION FROM TEST STANDARD

No deviation

#### 4.7.4 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 4.7.5 TEST RESULTS

### MODE A

### LTE BAND 17

### CHANNEL BANDWIDTH: 5MHZ / QPSK

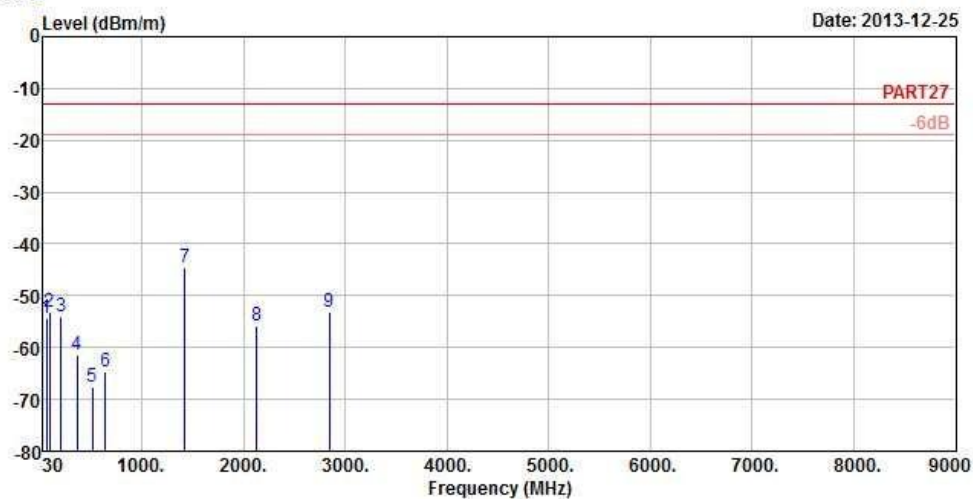


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Data: 9

Date: 2013-12-25



Site : 966 Chamber 5  
Condition : PART27 3m HORIZONTAL  
Brand/Model: A91  
Remark : LTE Band 17\_5M QPSK(1,12) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : X

|      | Freq    | Level  | Read   | Limit  | Over   |        |        |
|------|---------|--------|--------|--------|--------|--------|--------|
|      | MHz     | dBm/m  | Level  | Line   | Limit  | Factor | Remark |
|      | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1    | 62.94   | -54.34 | -47.27 | -13.00 | -41.34 | -7.07  | Peak   |
| 2    | 94.53   | -53.20 | -42.71 | -13.00 | -40.20 | -10.49 | Peak   |
| 3    | 206.31  | -54.17 | -46.53 | -13.00 | -41.17 | -7.64  | Peak   |
| 4    | 366.50  | -61.46 | -55.58 | -13.00 | -48.46 | -5.88  | Peak   |
| 5    | 512.80  | -67.72 | -64.98 | -13.00 | -54.72 | -2.74  | Peak   |
| 6    | 642.30  | -64.59 | -64.99 | -13.00 | -51.59 | 0.40   | Peak   |
| 7 pp | 1420.00 | -44.55 | -30.96 | -13.00 | -31.55 | -13.59 | Peak   |
| 8    | 2130.00 | -55.83 | -44.11 | -13.00 | -42.83 | -11.72 | Peak   |
| 9    | 2840.00 | -53.27 | -43.53 | -13.00 | -40.27 | -9.74  | Peak   |



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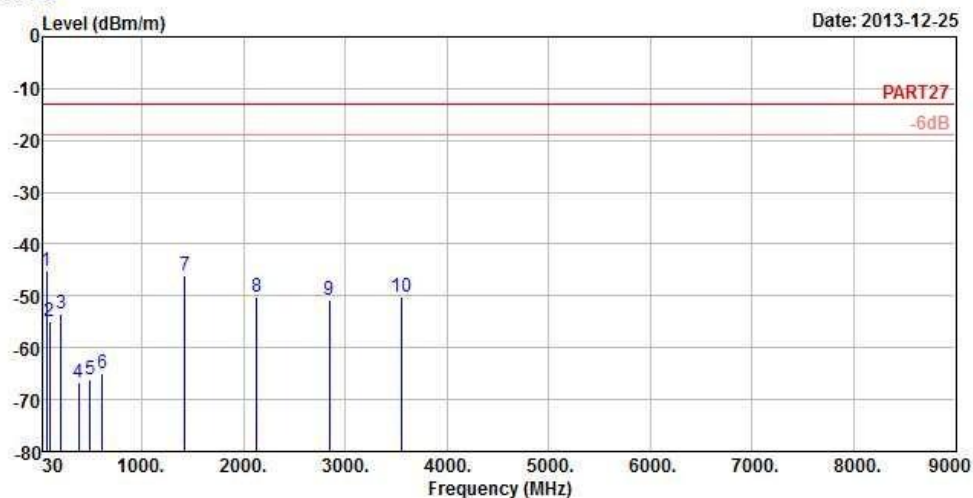


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Data: 10

Date: 2013-12-25



Site : 966 Chamber 5  
Condition : PART27 3m VERTICAL  
Brand/Model: A91  
Remark : LTE Band 17\_5M QPSK(1,12) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : X

|    | Freq | Level   | Read Level | Limit Line | Over Limit | Factor | Remark      |
|----|------|---------|------------|------------|------------|--------|-------------|
|    | MHz  | dBm/m   | dBm        | dBm/m      | dB         | dB/m   |             |
| 1  | pp   | 64.02   | -45.13     | -37.73     | -13.00     | -32.13 | -7.40 Peak  |
| 2  |      | 93.72   | -54.79     | -44.28     | -13.00     | -41.79 | -10.51 Peak |
| 3  |      | 206.58  | -53.55     | -45.91     | -13.00     | -40.55 | -7.64 Peak  |
| 4  |      | 379.10  | -66.84     | -61.05     | -13.00     | -53.84 | -5.79 Peak  |
| 5  |      | 489.70  | -66.09     | -62.73     | -13.00     | -53.09 | -3.36 Peak  |
| 6  |      | 612.90  | -64.91     | -64.79     | -13.00     | -51.91 | -0.12 Peak  |
| 7  |      | 1420.00 | -46.16     | -32.57     | -13.00     | -33.16 | -13.59 Peak |
| 8  |      | 2130.00 | -50.30     | -38.58     | -13.00     | -37.30 | -11.72 Peak |
| 9  |      | 2840.00 | -50.80     | -41.06     | -13.00     | -37.80 | -9.74 Peak  |
| 10 |      | 3550.00 | -50.10     | -41.26     | -13.00     | -37.10 | -8.84 Peak  |



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## LTE BAND 17

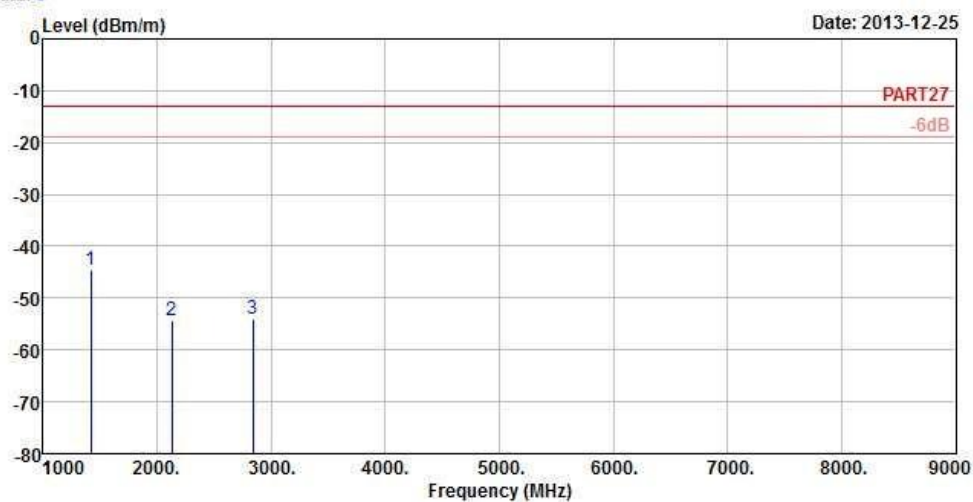
CHANNEL BANDWIDTH: 10MHZ / QPSK



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

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Data: 5



Site : 966 Chamber 5  
Condition : PART27 3m HORIZONTAL  
Brand/Model: A91  
Remark : LTE Band 17\_10M QPSK(1,24) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : X

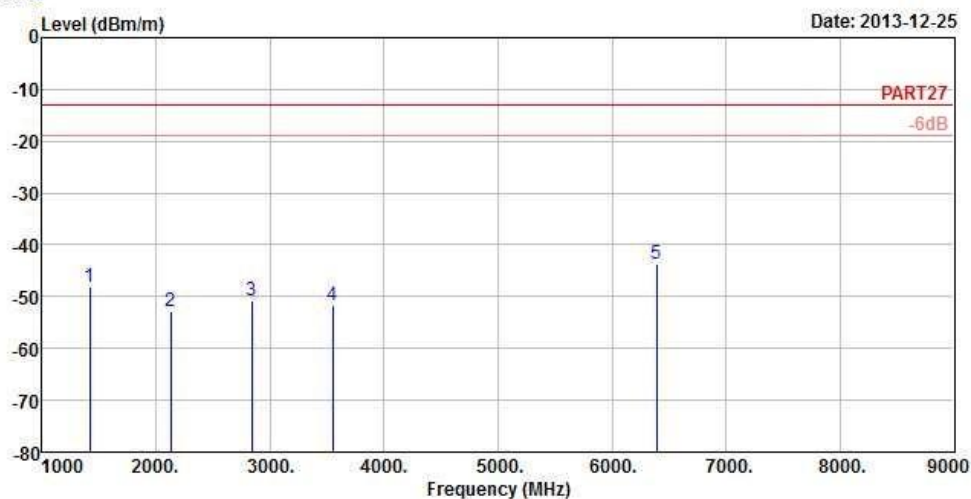
|      |         |        | Read   | Limit  | Over   |        |        |
|------|---------|--------|--------|--------|--------|--------|--------|
|      | Freq    | Level  | Level  | Line   | Limit  | Factor | Remark |
|      | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1 pp | 1420.00 | -44.62 | -31.03 | -13.00 | -31.62 | -13.59 | Peak   |
| 2    | 2130.00 | -54.46 | -42.74 | -13.00 | -41.46 | -11.72 | Peak   |
| 3    | 2840.00 | -53.98 | -44.24 | -13.00 | -40.98 | -9.74  | Peak   |



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Data: 6



Site : 966 Chamber 5  
 Condition : PART27 3m VERTICAL  
 Brand/Model: A91  
 Remark : LTE Band 17\_10M QPSK(1,24) Link  
 Tested by : Anson Lin  
 Temperature : 25°C  
 Humidity : 65%  
 Plane : X

|      | Freq    | Level  | Read Level | Limit Line | Over Limit | Factor | Remark |
|------|---------|--------|------------|------------|------------|--------|--------|
|      | MHz     | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |
| 1    | 1420.00 | -48.01 | -34.42     | -13.00     | -35.01     | -13.59 | Peak   |
| 2    | 2130.00 | -52.88 | -41.16     | -13.00     | -39.88     | -11.72 | Peak   |
| 3    | 2840.00 | -50.78 | -41.04     | -13.00     | -37.78     | -9.74  | Peak   |
| 4    | 3550.00 | -51.72 | -42.88     | -13.00     | -38.72     | -8.84  | Peak   |
| 5 pp | 6390.00 | -43.80 | -44.69     | -13.00     | -30.80     | 0.89   | Peak   |



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## LTE BAND 4

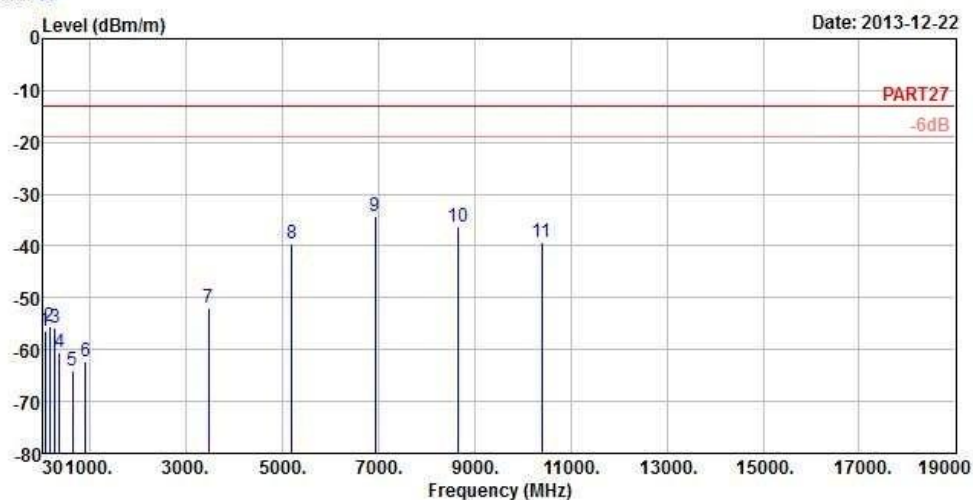
CHANNEL BANDWIDTH: 5MHZ / QPSK



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Data: 15



Site : 966 Chamber 5  
Condition : PART27, 3m, HORIZONTAL  
Brand/Model: A91  
Remark : LTE Band 4\_5M QPSK(1,12) Link  
Tested by : Kay wu  
Temperature : 25°C  
Humidity : 65%  
Plane : Y

|      |          | Read   | Limit  | Over   |        |               |
|------|----------|--------|--------|--------|--------|---------------|
|      | Freq     | Level  | Level  | Line   | Limit  | Factor Remark |
|      | MHz      | dBm/m  | dBm    | dBm/m  | dB     | dB/m          |
| 1    | 62.94    | -56.52 | -49.45 | -13.00 | -43.52 | -7.07 Peak    |
| 2    | 166.89   | -55.62 | -48.98 | -13.00 | -42.62 | -6.64 Peak    |
| 3    | 274.35   | -55.68 | -49.66 | -13.00 | -42.68 | -6.02 Peak    |
| 4    | 370.00   | -60.40 | -54.54 | -13.00 | -47.40 | -5.86 Peak    |
| 5    | 633.90   | -64.05 | -64.31 | -13.00 | -51.05 | 0.26 Peak     |
| 6    | 916.70   | -62.22 | -65.25 | -13.00 | -49.22 | 3.03 Peak     |
| 7    | 3465.00  | -51.98 | -42.96 | -13.00 | -38.98 | -9.02 Peak    |
| 8    | 5197.50  | -39.51 | -36.45 | -13.00 | -26.51 | -3.06 Peak    |
| 9 pp | 6930.00  | -34.19 | -36.49 | -13.00 | -21.19 | 2.30 Peak     |
| 10   | 8662.50  | -36.21 | -41.16 | -13.00 | -23.21 | 4.95 Peak     |
| 11   | 10395.00 | -39.29 | -46.42 | -13.00 | -26.29 | 7.13 Peak     |

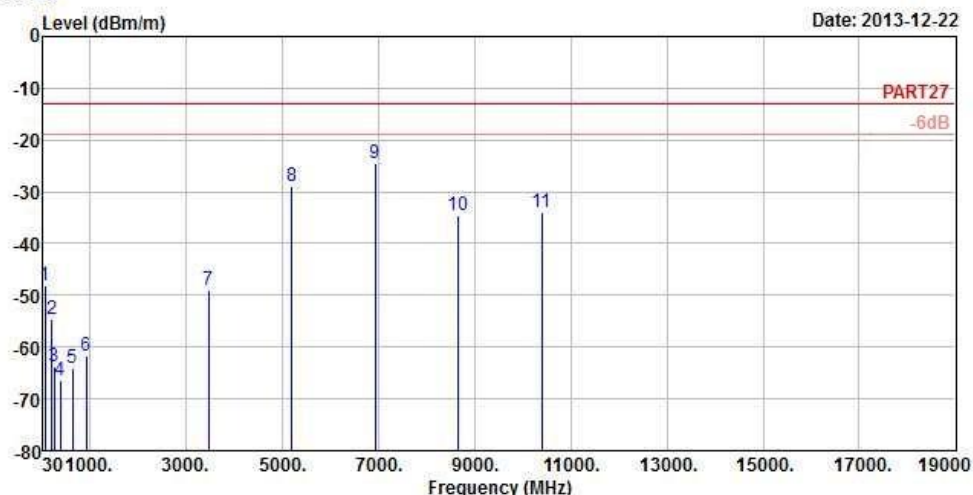


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16

Date: 2013-12-22



Site : 966 Chamber 5  
Condition : PART27 3m VERTICAL  
Brand/Model: A91  
Remark : LTE Band 4\_5M QPSK(1,12) Link  
Tested by : Kay wu  
Temperature : 25°C  
Humidity : 65%  
Plane : Y

|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark |
|------|----------|--------|------------|------------|------------|--------|--------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |
| 1    | 64.29    | -48.25 | -40.85     | -13.00     | -35.25     | -7.40  | Peak   |
| 2    | 207.12   | -54.55 | -46.95     | -13.00     | -41.55     | -7.60  | Peak   |
| 3    | 260.31   | -63.75 | -57.93     | -13.00     | -50.75     | -5.82  | Peak   |
| 4    | 381.90   | -66.38 | -60.61     | -13.00     | -53.38     | -5.77  | Peak   |
| 5    | 643.70   | -64.18 | -64.62     | -13.00     | -51.18     | 0.44   | Peak   |
| 6    | 924.40   | -61.79 | -64.97     | -13.00     | -48.79     | 3.18   | Peak   |
| 7    | 3465.00  | -48.92 | -39.90     | -13.00     | -35.92     | -9.02  | Peak   |
| 8    | 5197.50  | -29.04 | -25.98     | -13.00     | -16.04     | -3.06  | Peak   |
| 9 pp | 6930.00  | -24.54 | -26.84     | -13.00     | -11.54     | 2.30   | Peak   |
| 10   | 8662.50  | -34.56 | -39.51     | -13.00     | -21.56     | 4.95   | Peak   |
| 11   | 10395.00 | -34.04 | -41.17     | -13.00     | -21.04     | 7.13   | Peak   |



A D T

## LTE BAND 4

CHANNEL BANDWIDTH: 10MHZ / QPSK

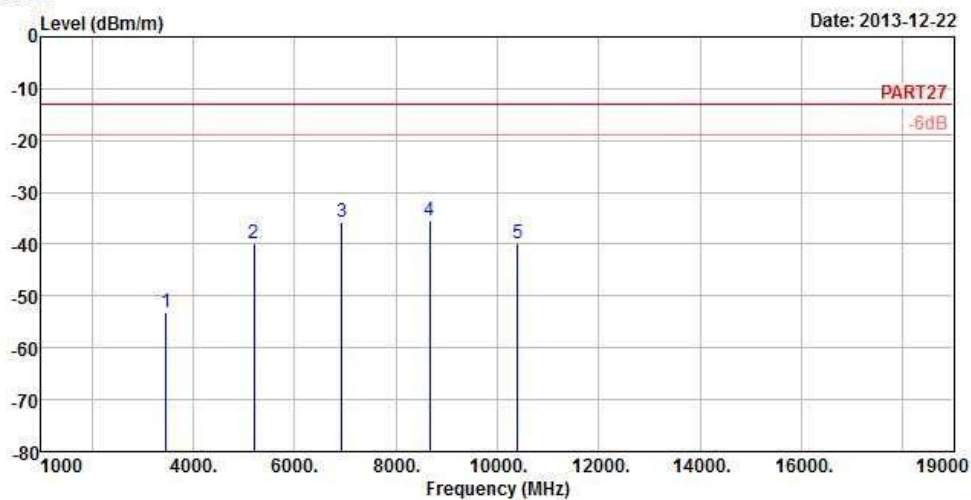


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 11

Date: 2013-12-22



Site : 966 Chamber 5  
Condition : PART27. 3m. HORIZONTAL  
Brand/Model: A91  
Remark : LTE Band 4\_10M QPSK(1,24) Link  
Tested by : Kay wu  
Temperature : 25°C  
Humidity : 65%  
Plane : Y

|      | Freq     | Level  | Read   | Limit  | Over   |               |
|------|----------|--------|--------|--------|--------|---------------|
|      | MHz      | dBm/m  | Level  | Line   | Limit  | Factor Remark |
|      | MHz      | dBm/m  | dBm    | dBm/m  | dB     | dB/m          |
| 1    | 3465.00  | -53.20 | -44.18 | -13.00 | -40.20 | -9.02 Peak    |
| 2    | 5197.50  | -39.96 | -36.90 | -13.00 | -26.96 | -3.06 Peak    |
| 3    | 6930.00  | -35.61 | -37.91 | -13.00 | -22.61 | 2.30 Peak     |
| 4 pp | 8662.50  | -35.29 | -40.24 | -13.00 | -22.29 | 4.95 Peak     |
| 5    | 10395.00 | -39.79 | -46.92 | -13.00 | -26.79 | 7.13 Peak     |



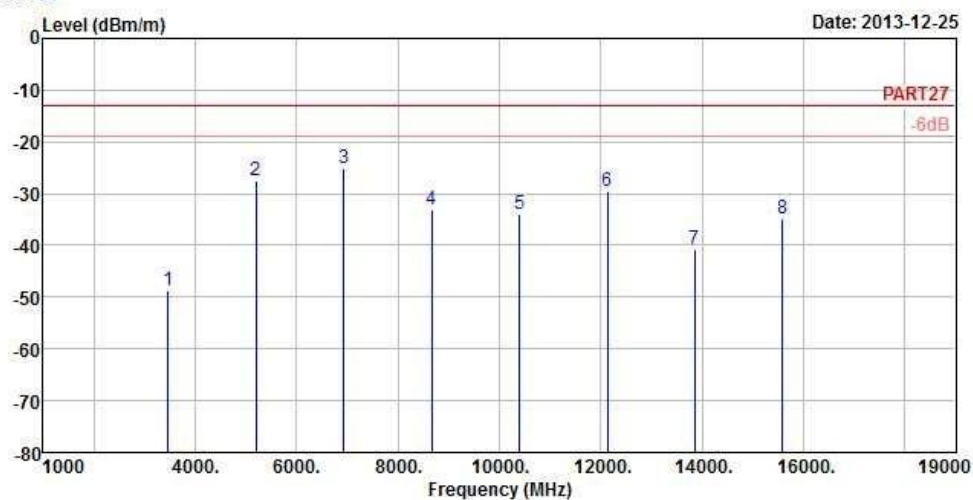
A D T



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 12



Site : 966 Chamber 5  
Condition : PART27 3m VERTICAL  
Brand/Model: A91  
Remark : LTE Band 4\_10M QPSK(1,24) Link  
Tested by : Kay wu  
Temperature : 25°C  
Humidity : 65%  
Plane : Y

|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark |
|------|----------|--------|------------|------------|------------|--------|--------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |
| 1    | 3465.00  | -48.70 | -39.68     | -13.00     | -35.70     | -9.02  | Peak   |
| 2    | 5197.50  | -27.59 | -24.53     | -13.00     | -14.59     | -3.06  | Peak   |
| 3 pp | 6930.00  | -25.06 | -27.36     | -13.00     | -12.06     | 2.30   | Peak   |
| 4    | 8662.50  | -33.06 | -38.01     | -13.00     | -20.06     | 4.95   | Peak   |
| 5    | 10395.00 | -33.94 | -41.07     | -13.00     | -20.94     | 7.13   | Peak   |
| 6    | 12127.50 | -29.62 | -38.03     | -13.00     | -16.62     | 8.41   | Peak   |
| 7    | 13860.00 | -40.77 | -48.64     | -13.00     | -27.77     | 7.87   | Peak   |
| 8    | 15592.50 | -34.74 | -43.30     | -13.00     | -21.74     | 8.56   | Peak   |

# MODE B

## LTE BAND 17

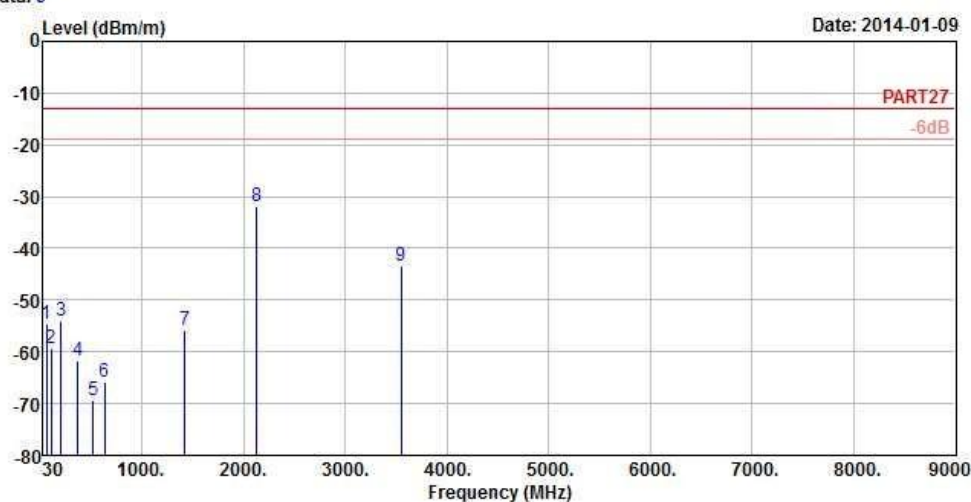
### CHANNEL BANDWIDTH: 5MHZ / QPSK



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9



Site : 966 Chamber 5  
Condition : PART27 3m HORIZONTAL  
Brand/Model: A91 (Phone+Pad)  
Remark : LTE Band 17\_5M QPSK(1,12) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : Z

|      |         | Read   | Limit  | Over   |        |               |
|------|---------|--------|--------|--------|--------|---------------|
|      | Freq    | Level  | Level  | Line   | Limit  | Factor Remark |
|      | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m          |
| 1    | 62.67   | -54.49 | -47.42 | -13.00 | -41.49 | -7.07 Peak    |
| 2    | 107.76  | -59.31 | -48.74 | -13.00 | -46.31 | -10.57 Peak   |
| 3    | 206.31  | -54.17 | -46.53 | -13.00 | -41.17 | -7.64 Peak    |
| 4    | 367.20  | -61.69 | -55.81 | -13.00 | -48.69 | -5.88 Peak    |
| 5    | 521.90  | -69.43 | -66.93 | -13.00 | -56.43 | -2.50 Peak    |
| 6    | 633.20  | -65.69 | -65.93 | -13.00 | -52.69 | 0.24 Peak     |
| 7    | 1420.00 | -55.88 | -42.29 | -13.00 | -42.88 | -13.59 Peak   |
| 8 pp | 2130.00 | -31.76 | -20.04 | -13.00 | -18.76 | -11.72 Peak   |
| 9    | 3550.00 | -43.39 | -34.55 | -13.00 | -30.39 | -8.84 Peak    |



A D T

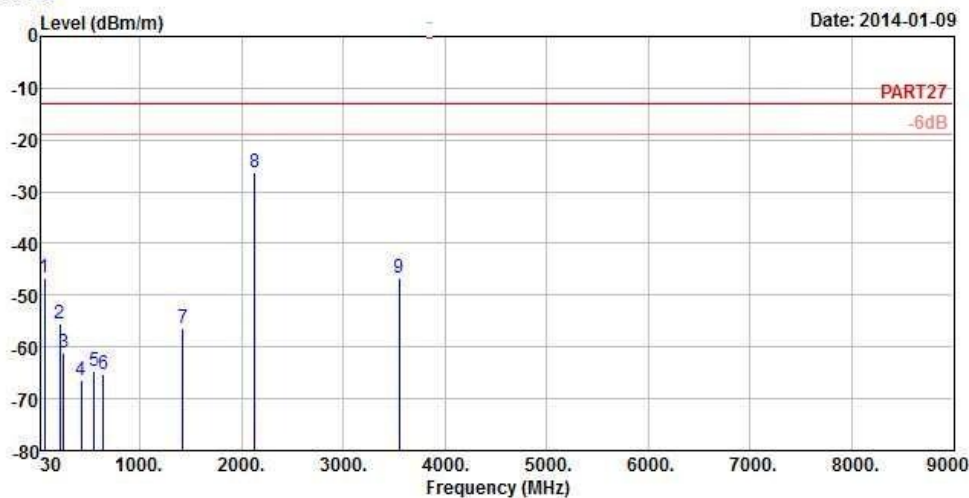


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10

Date: 2014-01-09



Site : 966 Chamber 5  
Condition : PART27 3m VERTICAL  
Brand/Model: A91 (Phone+Pad)  
Remark : LTE Band 17\_5M QPSK(1,12) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : Z

|      | Freq    | Level  | Read Level | Limit Line | Over Limit | Factor | Remark |
|------|---------|--------|------------|------------|------------|--------|--------|
|      | MHz     | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |
| 1    | 62.13   | -46.77 | -40.02     | -13.00     | -33.77     | -6.75  | Peak   |
| 2    | 211.17  | -55.51 | -48.08     | -13.00     | -42.51     | -7.43  | Peak   |
| 3    | 253.83  | -61.15 | -55.42     | -13.00     | -48.15     | -5.73  | Peak   |
| 4    | 424.60  | -66.33 | -61.33     | -13.00     | -53.33     | -5.00  | Peak   |
| 5    | 547.10  | -64.60 | -62.79     | -13.00     | -51.60     | -1.81  | Peak   |
| 6    | 640.90  | -65.34 | -65.72     | -13.00     | -52.34     | 0.38   | Peak   |
| 7    | 1420.00 | -56.44 | -42.85     | -13.00     | -43.44     | -13.59 | Peak   |
| 8 pp | 2130.00 | -26.37 | -14.65     | -13.00     | -13.37     | -11.72 | Peak   |
| 9    | 3550.00 | -46.58 | -37.74     | -13.00     | -33.58     | -8.84  | Peak   |



A D T

## LTE BAND 17

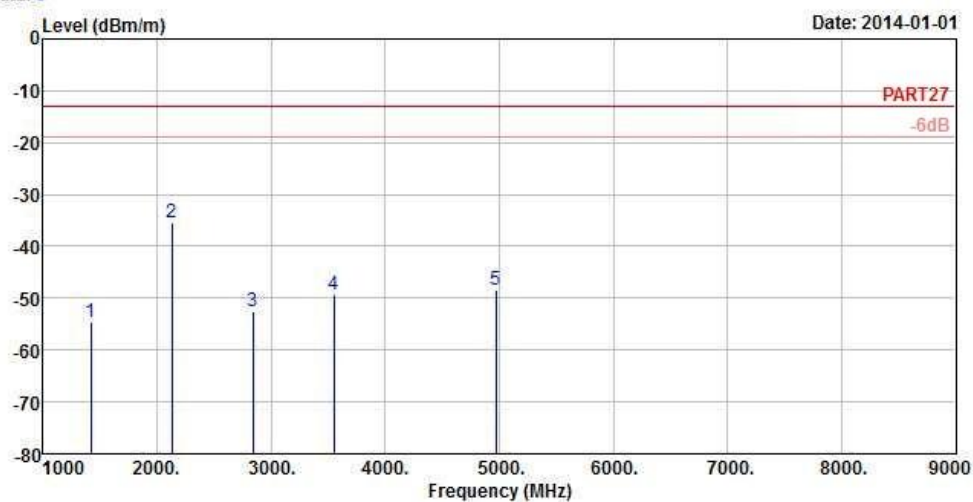
CHANNEL BANDWIDTH: 10MHZ / QPSK



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 5



Site : 966 Chamber 5  
Condition : PART27 3m HORIZONTAL  
Brand/Model: A91 (Phone+Pad)  
Remark : LTE Band 17\_10M QPSK(1,24) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : Z

|      | Freq    | Level  | Read   | Limit  | Over   |        |        |
|------|---------|--------|--------|--------|--------|--------|--------|
|      | MHz     | dBm/m  | Level  | Line   | Limit  | Factor | Remark |
|      | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1    | 1420.00 | -54.61 | -41.02 | -13.00 | -41.61 | -13.59 | Peak   |
| 2 pp | 2130.00 | -35.42 | -23.70 | -13.00 | -22.42 | -11.72 | Peak   |
| 3    | 2840.00 | -52.68 | -42.94 | -13.00 | -39.68 | -9.74  | Peak   |
| 4    | 3550.00 | -49.38 | -40.54 | -13.00 | -36.38 | -8.84  | Peak   |
| 5    | 4970.00 | -48.45 | -45.35 | -13.00 | -35.45 | -3.10  | Peak   |



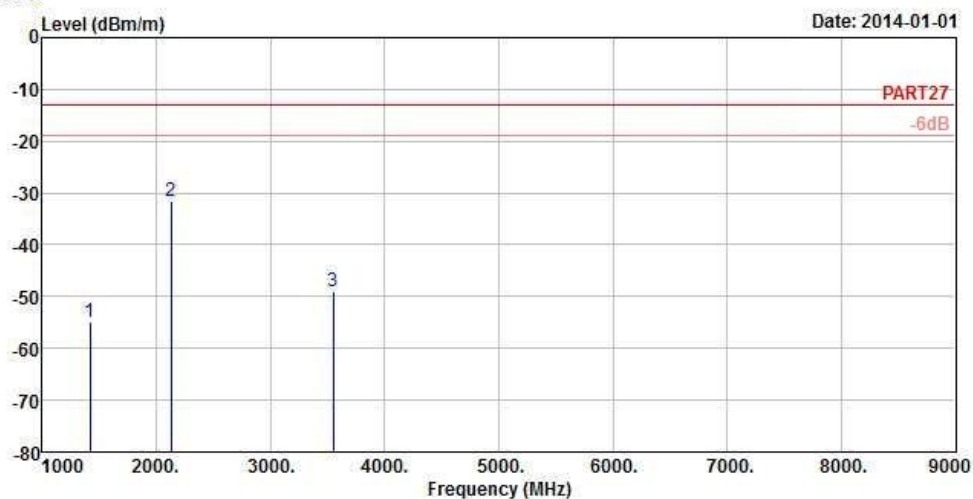
A D T



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 6



Site : 966 Chamber 5  
Condition : PART27 3m VERTICAL  
Brand/Model: A91 (Phone+Pad)  
Remark : LTE Band 17\_10M QPSK(1,24) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : Z

|      | Freq    | Level  | Read   | Limit  | Over   |        |        |
|------|---------|--------|--------|--------|--------|--------|--------|
|      | MHz     | dBm/m  | Level  | Line   | Limit  | Factor | Remark |
| 1    | 1420.00 | -54.97 | -41.38 | -13.00 | -41.97 | -13.59 | Peak   |
| 2 pp | 2130.00 | -31.71 | -19.99 | -13.00 | -18.71 | -11.72 | Peak   |
| 3    | 3550.00 | -49.14 | -40.30 | -13.00 | -36.14 | -8.84  | Peak   |



A D T

## LTE BAND 4

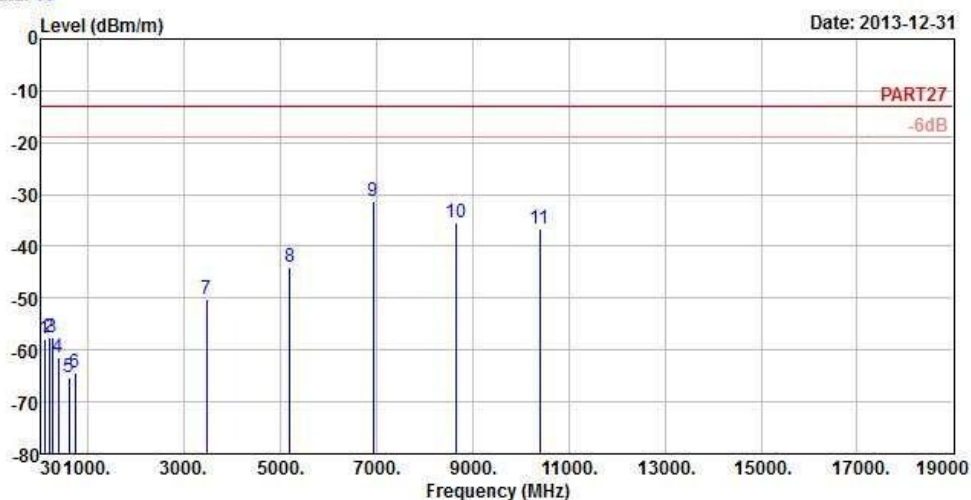
CHANNEL BANDWIDTH: 5MHZ / QPSK



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 15



Site : 966 Chamber 5  
Condition : PART27.3m HORIZONTAL  
Brand/Model: A91 (Phone+Pad)  
Remark : LTE Band 4\_5M QPSK(1,12) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : Y

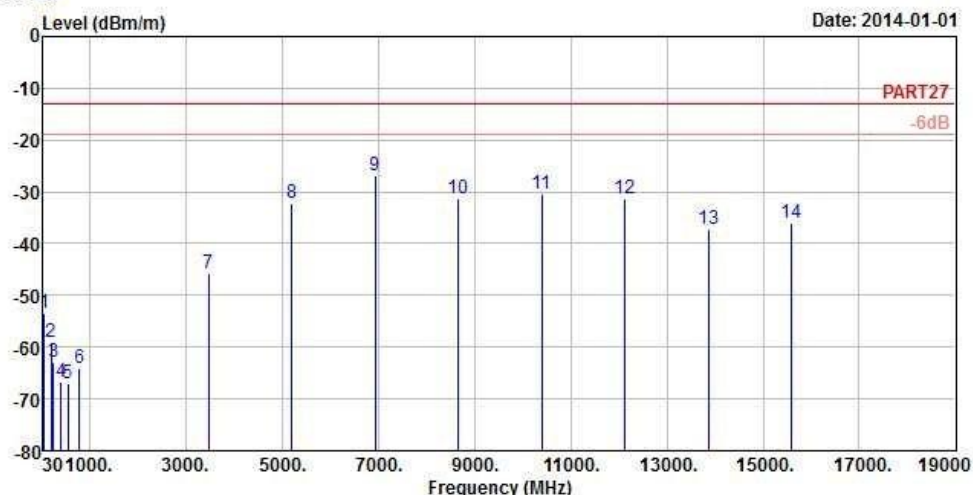
|      |          |        | Read   | Limit  | Over   |        |        |
|------|----------|--------|--------|--------|--------|--------|--------|
|      | Freq     | Level  | Level  | Line   | Limit  | Factor | Remark |
|      | MHz      | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1    | 98.58    | -57.99 | -47.57 | -13.00 | -44.99 | -10.42 | Peak   |
| 2    | 199.83   | -57.64 | -49.69 | -13.00 | -44.64 | -7.95  | Peak   |
| 3    | 261.39   | -57.67 | -51.83 | -13.00 | -44.67 | -5.84  | Peak   |
| 4    | 382.60   | -61.34 | -55.58 | -13.00 | -48.34 | -5.76  | Peak   |
| 5    | 610.80   | -65.12 | -64.96 | -13.00 | -52.12 | -0.16  | Peak   |
| 6    | 735.40   | -64.48 | -66.17 | -13.00 | -51.48 | 1.69   | Peak   |
| 7    | 3465.00  | -50.18 | -41.16 | -13.00 | -37.18 | -9.02  | Peak   |
| 8    | 5197.50  | -44.01 | -40.95 | -13.00 | -31.01 | -3.06  | Peak   |
| 9 pp | 6930.00  | -31.18 | -33.48 | -13.00 | -18.18 | 2.30   | Peak   |
| 10   | 8662.50  | -35.47 | -40.42 | -13.00 | -22.47 | 4.95   | Peak   |
| 11   | 10395.00 | -36.66 | -43.79 | -13.00 | -23.66 | 7.13   | Peak   |



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 16



Site : 966 Chamber 5  
Condition : PART27 3m VERTICAL  
Brand/Model: A91 (Phone+Pad)  
Remark : LTE Band 4\_5M QPSK(1,12) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : Y

|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark |
|------|----------|--------|------------|------------|------------|--------|--------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |
| 1    | 51.06    | -53.49 | -48.74     | -13.00     | -40.49     | -4.75  | Peak   |
| 2    | 199.83   | -59.17 | -51.22     | -13.00     | -46.17     | -7.95  | Peak   |
| 3    | 248.97   | -62.78 | -57.06     | -13.00     | -49.78     | -5.72  | Peak   |
| 4    | 393.80   | -66.85 | -61.17     | -13.00     | -53.85     | -5.68  | Peak   |
| 5    | 549.90   | -66.99 | -65.26     | -13.00     | -53.99     | -1.73  | Peak   |
| 6    | 777.40   | -64.14 | -66.12     | -13.00     | -51.14     | 1.98   | Peak   |
| 7    | 3465.00  | -45.74 | -36.72     | -13.00     | -32.74     | -9.02  | Peak   |
| 8    | 5197.50  | -32.31 | -29.25     | -13.00     | -19.31     | -3.06  | Peak   |
| 9 pp | 6930.00  | -26.96 | -29.26     | -13.00     | -13.96     | 2.30   | Peak   |
| 10   | 8662.50  | -31.38 | -36.33     | -13.00     | -18.38     | 4.95   | Peak   |
| 11   | 10395.00 | -30.43 | -37.56     | -13.00     | -17.43     | 7.13   | Peak   |
| 12   | 12127.50 | -31.28 | -39.69     | -13.00     | -18.28     | 8.41   | Peak   |
| 13   | 13860.00 | -37.19 | -45.06     | -13.00     | -24.19     | 7.87   | Peak   |
| 14   | 15592.50 | -36.12 | -44.68     | -13.00     | -23.12     | 8.56   | Peak   |



A D T

## LTE BAND 4

CHANNEL BANDWIDTH: 10MHZ / QPSK

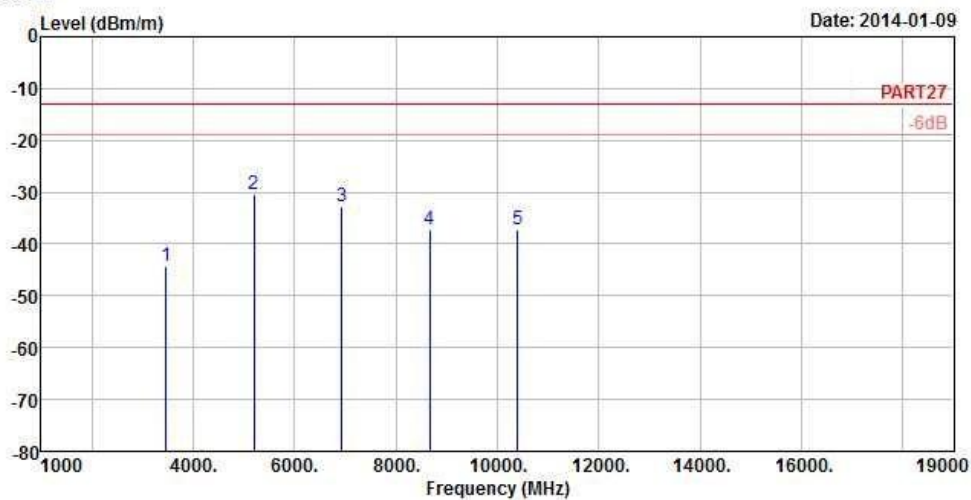


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 11

Date: 2014-01-09



Site : 966 Chamber 5  
Condition : PART27, 3m HORIZONTAL  
Brand/Model: A91 (Phone+Pad)  
Remark : LTE Band 4\_10M QPSK(1,24) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : Y

|      | Freq     | Level  | Read   | Limit  | Over   |               |
|------|----------|--------|--------|--------|--------|---------------|
|      | MHz      | dBm/m  | Level  | Line   | Limit  | Factor Remark |
|      | MHz      | dBm/m  | dBm    | dBm/m  | dB     | dB/m          |
| 1    | 3465.00  | -44.15 | -35.13 | -13.00 | -31.15 | -9.02 Peak    |
| 2 pp | 5197.50  | -30.51 | -27.45 | -13.00 | -17.51 | -3.06 Peak    |
| 3    | 6930.00  | -32.79 | -35.09 | -13.00 | -19.79 | 2.30 Peak     |
| 4    | 8662.50  | -37.06 | -42.01 | -13.00 | -24.06 | 4.95 Peak     |
| 5    | 10395.00 | -37.09 | -44.22 | -13.00 | -24.09 | 7.13 Peak     |



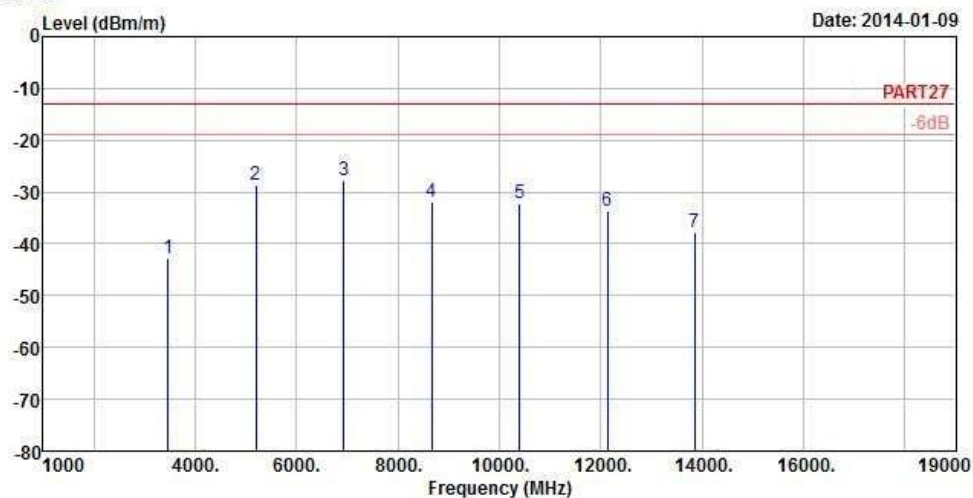
A D T



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 12



Site : 966 Chamber 5  
Condition : PART27 3m VERTICAL  
Brand/Model: A91 (Phone+Pad)  
Remark : LTE Band 4\_10M QPSK(1,24) Link  
Tested by : Anson Lin  
Temperature : 25°C  
Humidity : 65%  
Plane : Y

|      | Freq     | Level  | Read Level | Limit Line | Over Limit | Factor | Remark |
|------|----------|--------|------------|------------|------------|--------|--------|
|      | MHz      | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |
| 1    | 3465.00  | -42.93 | -33.91     | -13.00     | -29.93     | -9.02  | Peak   |
| 2    | 5197.50  | -28.62 | -25.56     | -13.00     | -15.62     | -3.06  | Peak   |
| 3 pp | 6930.00  | -27.65 | -29.95     | -13.00     | -14.65     | 2.30   | Peak   |
| 4    | 8662.50  | -31.79 | -36.74     | -13.00     | -18.79     | 4.95   | Peak   |
| 5    | 10395.00 | -32.04 | -39.17     | -13.00     | -19.04     | 7.13   | Peak   |
| 6    | 12127.50 | -33.58 | -41.99     | -13.00     | -20.58     | 8.41   | Peak   |
| 7    | 13860.00 | -37.70 | -45.57     | -13.00     | -24.70     | 7.87   | Peak   |

# MODE C

## LTE BAND 17

### CHANNEL BANDWIDTH: 10MHZ / QPSK

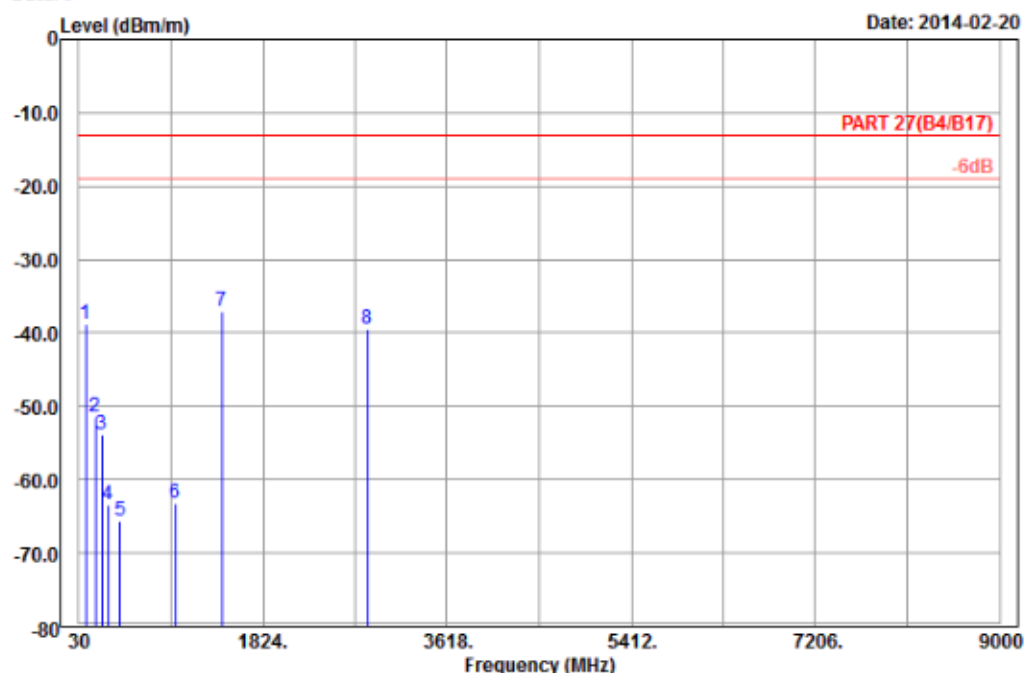


Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 9

Date: 2014-02-20



Site : 966 chamber 5  
Condition : PART 27(B4/B17) 3m Horizontal  
Brand/Model: A91\_2nd  
Remark : LTE\_Band 17 10M Link\_CH23790  
Tested by : Dylan Yang  
Plane : X

|      |         |        | Read   | Limit  | Over   |        |        |
|------|---------|--------|--------|--------|--------|--------|--------|
|      | Freq    | Level  | Level  | Line   | Limit  | Factor | Remark |
|      | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1    | 98.04   | -38.79 | -28.56 | -13.00 | -25.79 | -10.23 | Peak   |
| 2    | 192.27  | -51.51 | -45.69 | -13.00 | -38.51 | -5.82  | Peak   |
| 3    | 250.59  | -53.81 | -48.30 | -13.00 | -40.81 | -5.51  | Peak   |
| 4    | 316.80  | -63.51 | -57.75 | -13.00 | -50.51 | -5.76  | Peak   |
| 5    | 433.70  | -65.57 | -62.09 | -13.00 | -52.57 | -3.48  | Peak   |
| 6    | 969.90  | -63.32 | -68.49 | -13.00 | -50.32 | 5.17   | Peak   |
| 7 pp | 1420.00 | -36.95 | -43.31 | -13.00 | -23.95 | 6.36   | Peak   |
| 8    | 2840.00 | -39.43 | -52.40 | -13.00 | -26.43 | 12.97  | Peak   |



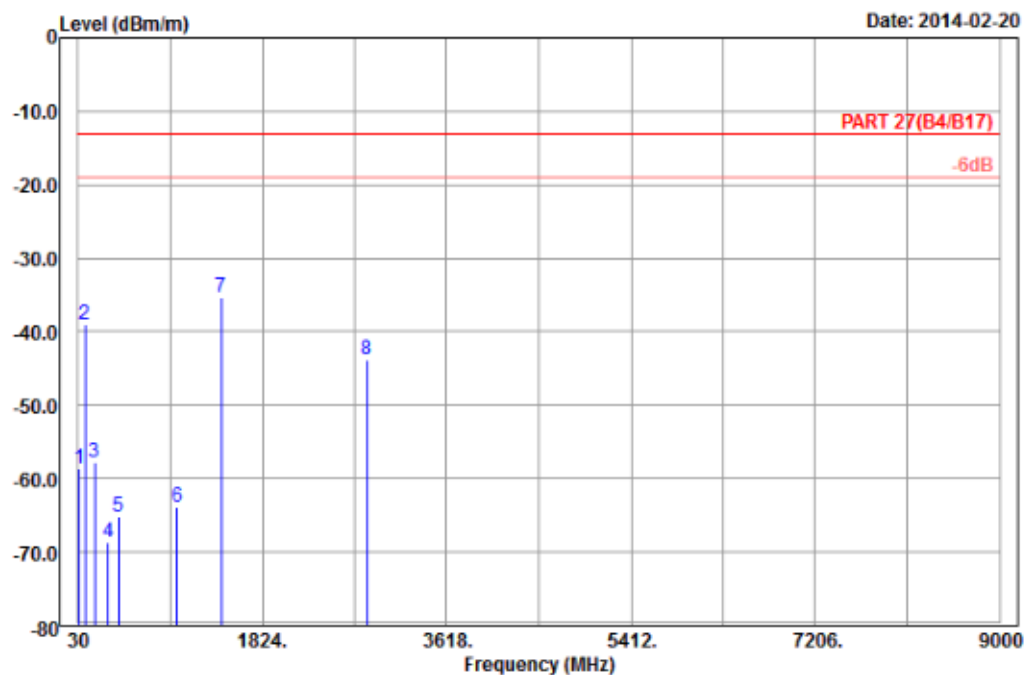
A D T



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 10



Site : 966 chamber 5  
Condition : PART 27(B4/B17) 3m Vertical  
Brand/Model: A91\_2nd  
Remark : LTE\_Band 17 10M Link\_CH23790  
Tested by : Dylan Yang  
Plane : X

|      |         |        | Read   | Limit  | Over   |        |        |
|------|---------|--------|--------|--------|--------|--------|--------|
|      | Freq    | Level  | Level  | Line   | Limit  | Factor | Remark |
|      | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1    | 45.39   | -58.61 | -46.13 | -13.00 | -45.61 | -12.48 | Peak   |
| 2    | 96.15   | -38.97 | -28.63 | -13.00 | -25.97 | -10.34 | Peak   |
| 3    | 190.38  | -57.86 | -52.13 | -13.00 | -44.86 | -5.73  | Peak   |
| 4    | 319.60  | -68.61 | -62.89 | -13.00 | -55.61 | -5.72  | Peak   |
| 5    | 426.70  | -65.14 | -61.80 | -13.00 | -52.14 | -3.34  | Peak   |
| 6    | 993.70  | -63.89 | -69.14 | -13.00 | -50.89 | 5.25   | Peak   |
| 7 pp | 1420.00 | -35.40 | -41.76 | -13.00 | -22.40 | 6.36   | Peak   |
| 8    | 2840.00 | -43.89 | -56.86 | -13.00 | -30.89 | 12.97  | Peak   |

# LTE BAND 4

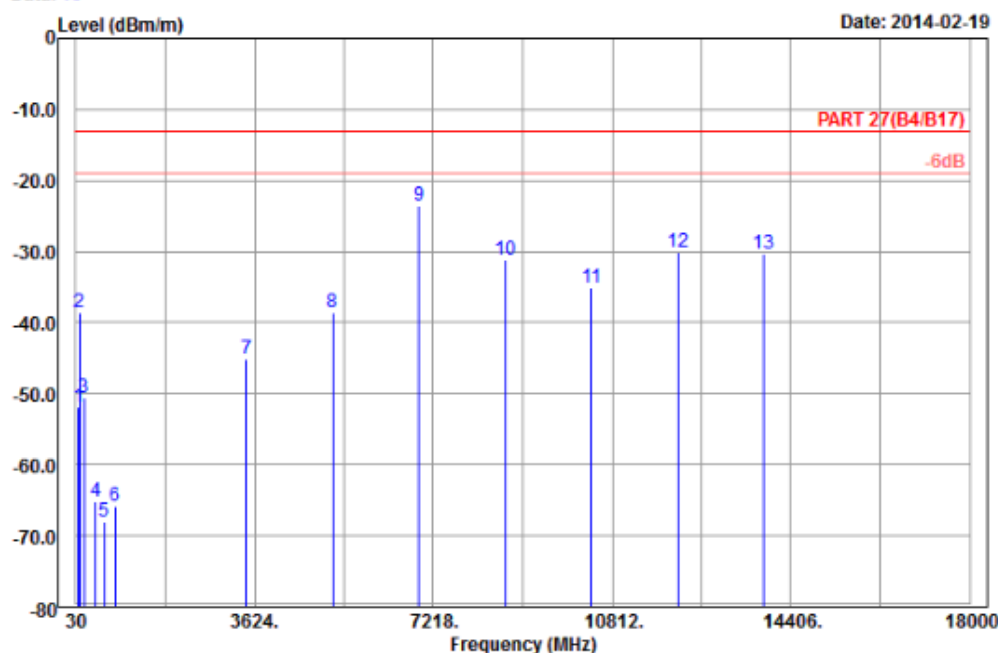
CHANNEL BANDWIDTH: 5MHZ / QPSK



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 13



Site : 966 chamber 5  
Condition : PART 27(B4/B17) 3m Horizontal  
Brand/Model: A91\_2nd  
Remark : LTE\_Band 4 5M Link\_CH20175  
Tested by : Dylan Yang  
Plane : Z

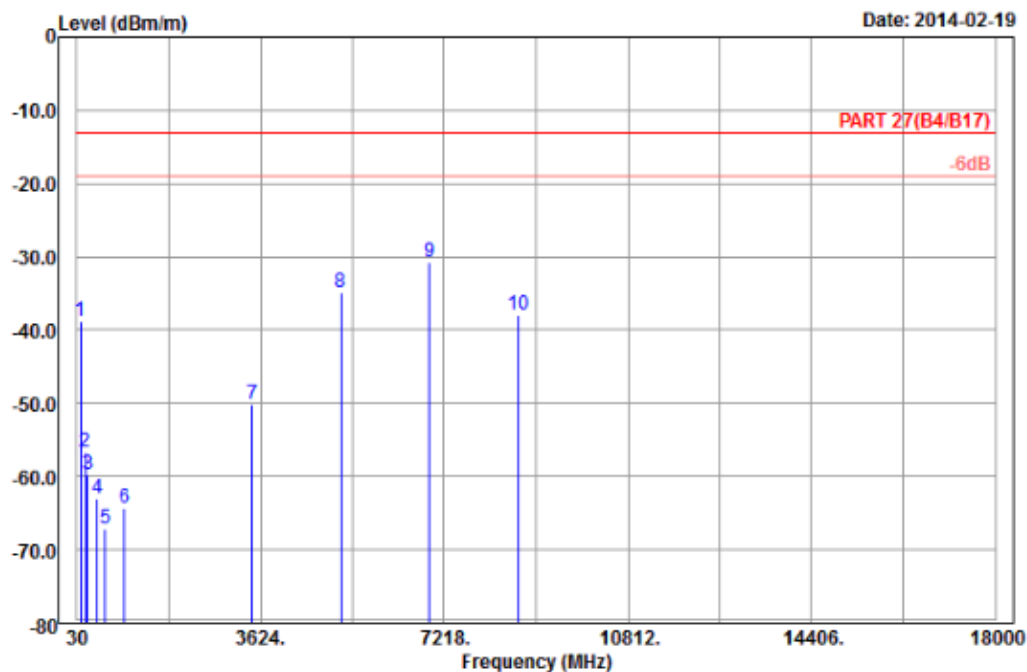
|      |          | Read   | Limit  | Over   |        |        |        |
|------|----------|--------|--------|--------|--------|--------|--------|
|      | Freq     | Level  | Level  | Line   | Limit  | Factor | Remark |
|      | MHz      | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1    | 76.98    | -51.94 | -39.84 | -13.00 | -38.94 | -12.10 | Peak   |
| 2    | 96.96    | -38.66 | -28.37 | -13.00 | -25.66 | -10.29 | Peak   |
| 3    | 192.81   | -50.60 | -44.73 | -13.00 | -37.60 | -5.87  | Peak   |
| 4    | 435.10   | -65.27 | -61.74 | -13.00 | -52.27 | -3.53  | Peak   |
| 5    | 608.00   | -68.03 | -68.37 | -13.00 | -55.03 | 0.34   | Peak   |
| 6    | 815.20   | -65.89 | -67.74 | -13.00 | -52.89 | 1.85   | Peak   |
| 7    | 3465.00  | -45.23 | -59.57 | -13.00 | -32.23 | 14.34  | Peak   |
| 8    | 5197.50  | -38.49 | -58.61 | -13.00 | -25.49 | 20.12  | Peak   |
| 9 pp | 6930.00  | -23.52 | -46.39 | -13.00 | -10.52 | 22.87  | Peak   |
| 10   | 8662.50  | -31.09 | -55.30 | -13.00 | -18.09 | 24.21  | Peak   |
| 11   | 10395.00 | -35.04 | -61.80 | -13.00 | -22.04 | 26.76  | Peak   |
| 12   | 12127.50 | -29.98 | -59.37 | -13.00 | -16.98 | 29.39  | Peak   |
| 13   | 13860.00 | -30.33 | -61.28 | -13.00 | -17.33 | 30.95  | Peak   |



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A D T

Data: 14



Site : 966 chamber 5  
Condition : PART 27(B4/B17) 3m Vertical  
Brand/Model: A91\_2nd  
Remark : LTE\_Band 4 5M Link\_CH20175  
Tested by : Dylan Yang  
Plane : Z

|      | Freq    | Level  | Read   | Limit  | Over   |               |
|------|---------|--------|--------|--------|--------|---------------|
|      | MHz     | dBm/m  | Level  | Line   | Limit  | Factor Remark |
|      | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m          |
| 1    | 96.42   | -38.83 | -28.49 | -13.00 | -25.83 | -10.34 Peak   |
| 2    | 189.84  | -56.70 | -50.97 | -13.00 | -43.70 | -5.73 Peak    |
| 3    | 239.79  | -59.75 | -54.10 | -13.00 | -46.75 | -5.65 Peak    |
| 4    | 426.70  | -63.04 | -59.70 | -13.00 | -50.04 | -3.34 Peak    |
| 5    | 583.50  | -67.19 | -66.93 | -13.00 | -54.19 | -0.26 Peak    |
| 6    | 958.00  | -64.22 | -69.35 | -13.00 | -51.22 | 5.13 Peak     |
| 7    | 3465.00 | -50.04 | -64.38 | -13.00 | -37.04 | 14.34 Peak    |
| 8    | 5197.50 | -34.89 | -55.01 | -13.00 | -21.89 | 20.12 Peak    |
| 9 pp | 6930.00 | -30.75 | -53.62 | -13.00 | -17.75 | 22.87 Peak    |
| 10   | 8662.50 | -37.96 | -62.17 | -13.00 | -24.96 | 24.21 Peak    |

# MODE D

## LTE BAND 17

### CHANNEL BANDWIDTH: 10MHZ / QPSK

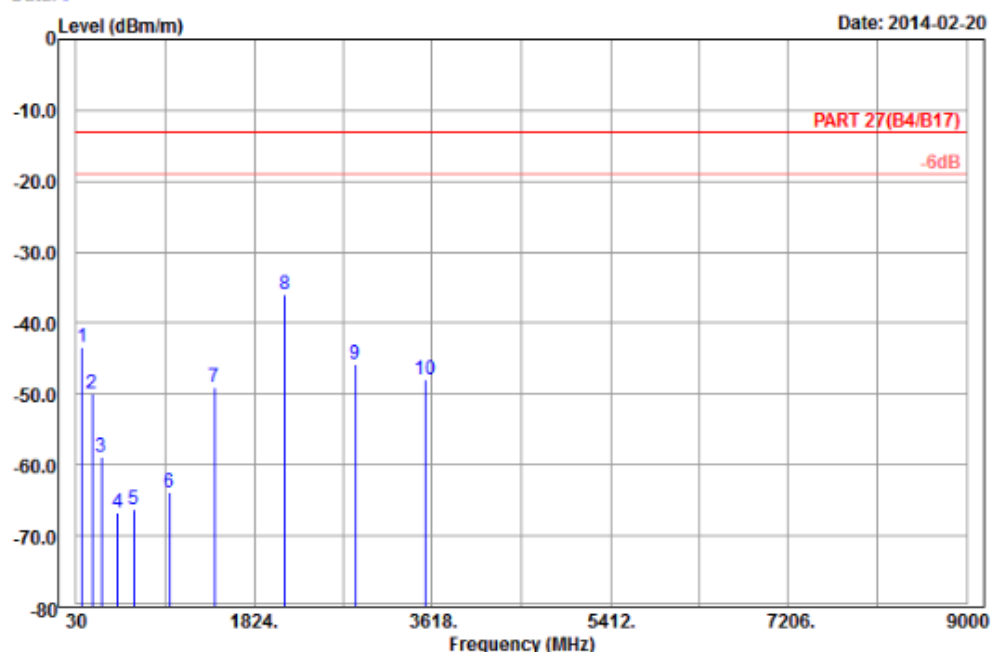


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A D T

Data: 9

Date: 2014-02-20



Site : 966 chamber 5  
Condition : PART 27(B4/B17) 3m Horizontal  
Brand/Model: A91\_2nd  
Remark : LTE\_Band 17 10M Link\_CH23790 (Pad+Phone)  
Tested by : Dylan Yang  
Plane : Y

|      |         |        | Read   | Limit  | Over   |               |
|------|---------|--------|--------|--------|--------|---------------|
|      | Freq    | Level  | Level  | Line   | Limit  | Factor Remark |
|      | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m          |
| 1    | 89.67   | -43.31 | -32.64 | -13.00 | -30.31 | -10.67 Peak   |
| 2    | 191.73  | -49.95 | -44.13 | -13.00 | -36.95 | -5.82 Peak    |
| 3    | 282.99  | -58.88 | -53.07 | -13.00 | -45.88 | -5.81 Peak    |
| 4    | 447.70  | -66.73 | -62.93 | -13.00 | -53.73 | -3.80 Peak    |
| 5    | 610.80  | -66.30 | -66.61 | -13.00 | -53.30 | 0.31 Peak     |
| 6    | 967.80  | -63.82 | -68.99 | -13.00 | -50.82 | 5.17 Peak     |
| 7    | 1420.00 | -49.06 | -55.42 | -13.00 | -36.06 | 6.36 Peak     |
| 8 pp | 2130.00 | -35.99 | -47.27 | -13.00 | -22.99 | 11.28 Peak    |
| 9    | 2840.00 | -45.69 | -58.66 | -13.00 | -32.69 | 12.97 Peak    |
| 10   | 3550.00 | -48.06 | -63.25 | -13.00 | -35.06 | 15.19 Peak    |



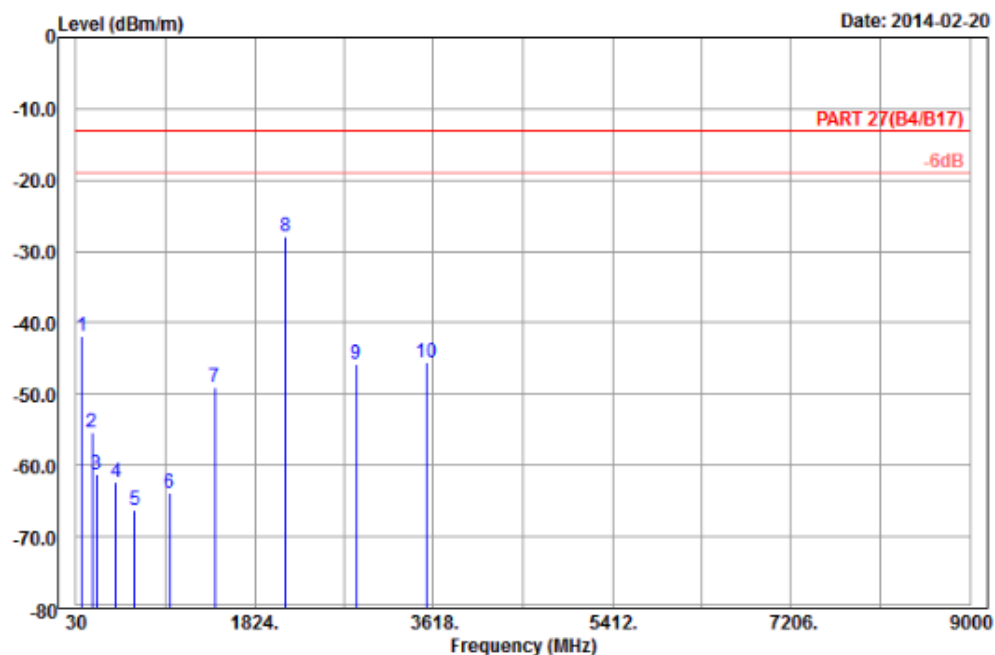
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Data: 10



Site : 966 chamber 5  
Condition : PART 27(B4/B17) 3m Vertical  
Brand/Model: A91\_2nd  
Remark : LTE\_Band 17 10M Link\_CH23790 (Pad+Phone)  
Tested by : Dylan Yang  
Plane : Y

|    |         |        | Read   | Limit  | Over   |        |        |
|----|---------|--------|--------|--------|--------|--------|--------|
|    | Freq    | Level  | Level  | Line   | Limit  | Factor | Remark |
|    | MHz     | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1  | 89.13   | -41.86 | -31.08 | -13.00 | -28.86 | -10.78 | Peak   |
| 2  | 191.19  | -55.33 | -49.55 | -13.00 | -42.33 | -5.78  | Peak   |
| 3  | 240.06  | -61.25 | -55.61 | -13.00 | -48.25 | -5.64  | Peak   |
| 4  | 430.90  | -62.43 | -59.01 | -13.00 | -49.43 | -3.42  | Peak   |
| 5  | 616.40  | -66.17 | -66.41 | -13.00 | -53.17 | 0.24   | Peak   |
| 6  | 966.40  | -63.88 | -69.04 | -13.00 | -50.88 | 5.16   | Peak   |
| 7  | 1420.00 | -49.06 | -55.42 | -13.00 | -36.06 | 6.36   | Peak   |
| 8  | 2130.00 | -27.91 | -39.19 | -13.00 | -14.91 | 11.28  | Peak   |
| 9  | 2840.00 | -45.82 | -58.79 | -13.00 | -32.82 | 12.97  | Peak   |
| 10 | 3550.00 | -45.58 | -60.77 | -13.00 | -32.58 | 15.19  | Peak   |

# LTE BAND 4

CHANNEL BANDWIDTH: 5MHZ / QPSK

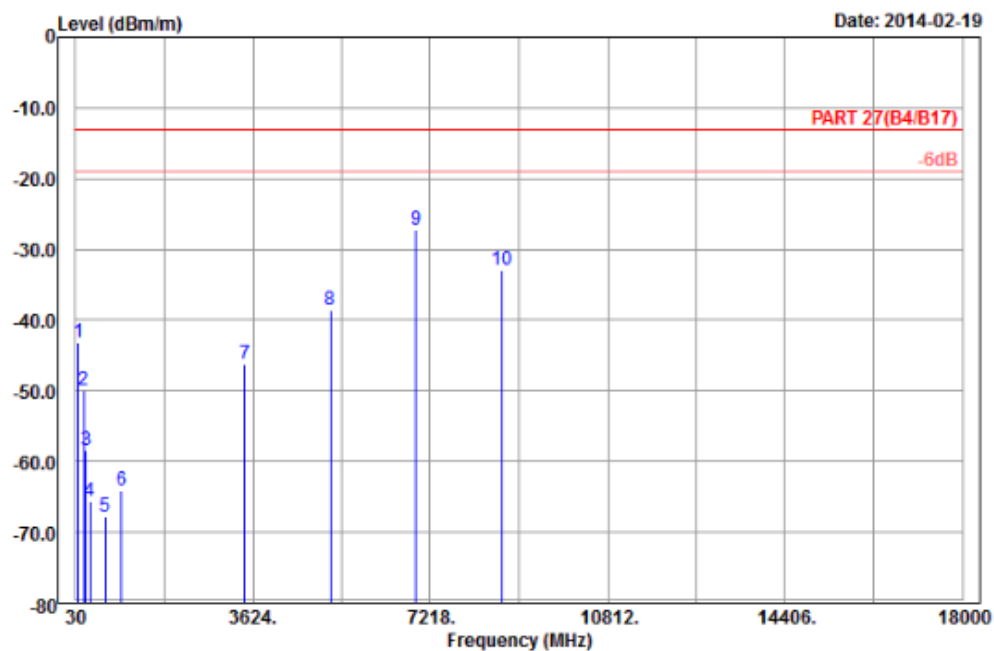


Bureau Veritas Consumer Products Services Ltd.,Taoyuan Branch

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Data: 13

Date: 2014-02-19



Site : 966 chamber 5  
Condition : PART 27(B4/B17) 3m Horizontal  
Brand/Model: A91\_2nd  
Remark : LTE B4 5M\_Link\_CH20175 (phone+pad)  
Tested by : Dylan Yang  
Plane : Y

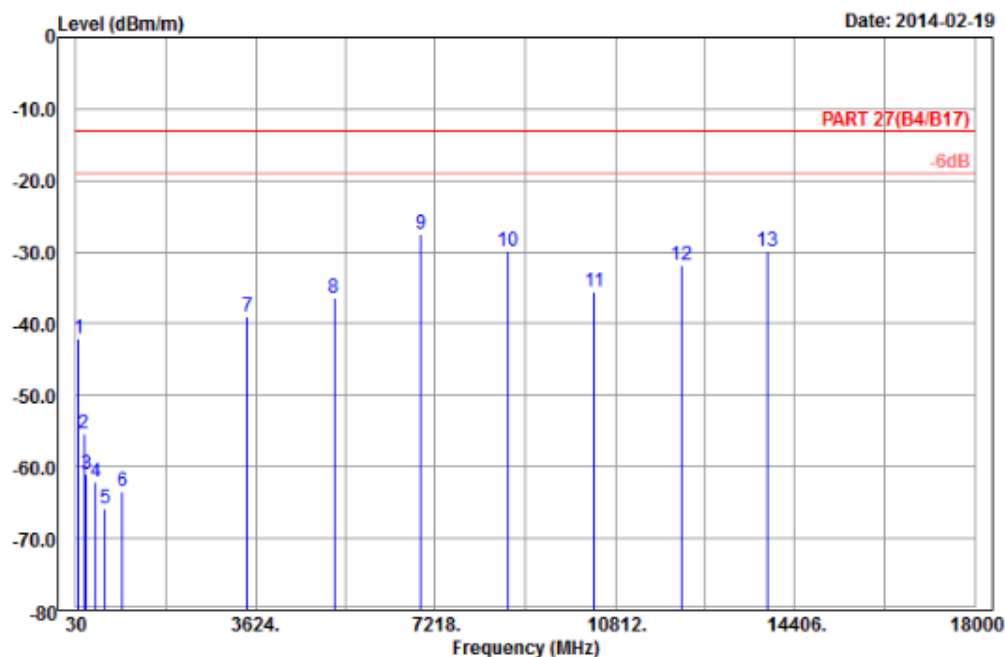
|      | Freq    | Level  | Read Level | Limit Line | Over Limit | Factor | Remark |
|------|---------|--------|------------|------------|------------|--------|--------|
|      | MHz     | dBm/m  | dBm        | dBm/m      | dB         | dB/m   |        |
| 1    | 89.67   | -43.20 | -32.53     | -13.00     | -30.20     | -10.67 | Peak   |
| 2    | 192.27  | -49.89 | -44.07     | -13.00     | -36.89     | -5.82  | Peak   |
| 3    | 240.33  | -58.35 | -52.71     | -13.00     | -45.35     | -5.64  | Peak   |
| 4    | 317.50  | -65.59 | -59.83     | -13.00     | -52.59     | -5.76  | Peak   |
| 5    | 627.60  | -67.85 | -67.97     | -13.00     | -54.85     | 0.12   | Peak   |
| 6    | 957.30  | -63.99 | -69.12     | -13.00     | -50.99     | 5.13   | Peak   |
| 7    | 3465.00 | -46.25 | -60.59     | -13.00     | -33.25     | 14.34  | Peak   |
| 8    | 5197.50 | -38.59 | -58.71     | -13.00     | -25.59     | 20.12  | Peak   |
| 9 pp | 6930.00 | -27.34 | -50.21     | -13.00     | -14.34     | 22.87  | Peak   |
| 10   | 8662.50 | -32.97 | -57.18     | -13.00     | -19.97     | 24.21  | Peak   |



Bureau Veritas Consumer Products Services Ltd., Taoyuan Branch

A D T

Data: 14



Site : 966 chamber 5  
Condition : PART 27(B4/B17) 3m Vertical  
Brand/Model: A91\_2nd  
Remark : LTE B4 5M\_Link\_CH20175 (phone+pad)  
Tested by : Dylan Yang  
Plane : Y

|      |          |        | Read   | Limit  | Over   |        |        |
|------|----------|--------|--------|--------|--------|--------|--------|
|      | Freq     | Level  | Level  | Line   | Limit  | Factor | Remark |
|      | MHz      | dBm/m  | dBm    | dBm/m  | dB     | dB/m   |        |
| 1    | 89.67    | -42.13 | -31.46 | -13.00 | -29.13 | -10.67 | Peak   |
| 2    | 189.57   | -55.37 | -49.64 | -13.00 | -42.37 | -5.73  | Peak   |
| 3    | 240.87   | -60.93 | -55.29 | -13.00 | -47.93 | -5.64  | Peak   |
| 4    | 426.70   | -62.18 | -58.84 | -13.00 | -49.18 | -3.34  | Peak   |
| 5    | 614.30   | -65.93 | -66.20 | -13.00 | -52.93 | 0.27   | Peak   |
| 6    | 966.40   | -63.44 | -68.60 | -13.00 | -50.44 | 5.16   | Peak   |
| 7    | 3465.00  | -39.12 | -53.46 | -13.00 | -26.12 | 14.34  | Peak   |
| 8    | 5197.50  | -36.39 | -56.51 | -13.00 | -23.39 | 20.12  | Peak   |
| 9 pp | 6930.00  | -27.37 | -50.24 | -13.00 | -14.37 | 22.87  | Peak   |
| 10   | 8662.50  | -29.89 | -54.10 | -13.00 | -16.89 | 24.21  | Peak   |
| 11   | 10395.00 | -35.48 | -62.24 | -13.00 | -22.48 | 26.76  | Peak   |
| 12   | 12127.50 | -31.75 | -61.14 | -13.00 | -18.75 | 29.39  | Peak   |
| 13   | 13860.00 | -29.89 | -60.84 | -13.00 | -16.89 | 30.95  | Peak   |

## 5 INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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Fax: 886-2-26051924

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**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

The address and road map of all our labs can be found in our web site also.



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## **6 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB**

No modifications were made to the EUT by the lab during the test.

**---END---**