



# TEST REPORT

**APPLICANT** : Nubia Technology Co.,Ltd.  
**PRODUCT NAME** : 5G Digital Mobile Phone  
**MODEL NAME** : NX659J  
**BRAND NAME** : REDMAGIC  
**FCC ID** : 2AHJO-NX659J  
**STANDARD(S)** : 47 CFR Part 22, Subpart H  
: 47 CFR Part 24, Subpart E  
**RECEIPT DATE** : 2020-01-15  
**TEST DATE** : 2020-02-22 to 2020-03-30  
**ISSUE DATE** : 2020-04-03

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Peng Huarui ( Supervisor )

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| <b>Change History</b> |             |                          |
|-----------------------|-------------|--------------------------|
| <b>Version</b>        | <b>Date</b> | <b>Reason for change</b> |
| 1.0                   | 2020-04-03  | First edition            |
|                       |             |                          |



# 1. Technical Information

Note: Provide by applicant.

## 1.1. Applicant and Manufacturer Information

|                             |  |
|-----------------------------|--|
| <b>Applicant:</b>           | Nubia Technology Co.,Ltd.  |
| <b>Applicant Address:</b>   | 16/F,Building 2,chongwen Park,Nanshan zhiyuan,3370 Liuxian Road,Nanshan District,Shenzhen,China. |
| <b>Manufacturer:</b>        | Nubia Technology Co.,Ltd.  |
| <b>ManufacturerAddress:</b> | 16/F,Building 2,chongwen Park,Nanshan zhiyuan,3370 Liuxian Road,Nanshan District,Shenzhen,China. |

## 1.2. Equipment Under Test (EUT) Description

|                          |  |  |                       |          |
|--------------------------|--|--|-----------------------|----------|
| <b>Product Name:</b>     | 5G Digital Mobile Phone  |  |                       |          |
| <b>Hardware Version:</b> | NX659J_V1AMB   |  |                       |          |
| <b>Software Version:</b> | NX659J_ENCommon_V1.22  |  |                       |          |
| <b>Modulation Type:</b>  | CDMA2000 1X:QPSK,OQPSK;<br>EVDO 0:QPSK,OQPSK;<br>EVDO A:QPSK,OQPSK;<br>EVDO B:QPSK,OQPSK |  |                       |          |
| <b>Operation Band:</b>   | CDMA 800MHz: (BC0);CDMA 1900Mhz:(BC1)  |  |                       |          |
| <b>Frequency Range:</b>  | CDMA 800MHz(BC0)   | Tx: 824 – 849 MHz;<br>Rx: 869 - 894 MHz    |                       |          |
|                          | CDMA 1900MHz(BC1 )   | Tx: 1850 – 1910 MHz;<br>Rx: 1930 - 1990MHz |                       |          |
| <b>Antenna Type:</b>     | Fixed Internal   |  |                       |          |
| <b>Antenna Gain:</b>     | <b>Top Antenna</b>   |  | <b>Bottom Antenna</b> |          |
|                          | CDMA 800MHz, BC0:  | 1.54 dBi                                   | CDMA 800MHz, BC0:     | 1.54 dBi |
|                          | CDMA 1900MHz BC1   | 1.39 dBi                                   | CDMA 1900MHz BC1      | 1.39 dBi |



|                               |                |   |
|-------------------------------|----------------|---|
| <b>Accessory Information:</b> | Battery        |   |
|                               | Brand Name:    | ATL   |
|                               | Model No.:     | Li3945T44P8h526391  |
|                               | Capacity:      | 4400mAh   |
|                               | Rated Voltage: | 3.87V   |
|                               | Charge Limit:  | 4.45V   |
|                               | AC Adapter 1   |   |
|                               | Brand Name:    | N/A   |
|                               | Model No.:     | CYNBY090200-A00   |
|                               | Rated Input:   | 100-240V $\sim$ 50/60Hz 0.5A                                  |
|                               | Rated Output:  | 12.0V $\equiv$ 1.5A or 9.0V $\equiv$ 2.0A or 5.0V $\equiv$ 3A |

**Note 1:** For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



### 1.3. Test Standards and Results

The objective of the report is to perform testing according to Part 2 and Part 27 for the EUT FCC ID Certification:

| No | Identity       | Document Title  |
|----|----------------|---|
| 1  | 47 CFR Part 2  | Frequency Allocations and Radio Treaty Matters; General Rules and Regulations |
| 2  | 47 CFR Part 22 | Public Mobile Services  |
| 3  | 47 CFR Part 24 | Personal Communications Services  |



Test detailed items/section required by FCC rules and results are as below:

| Section  | Description                         | Test Date               | Test Engineer | Result |
|--|-------------------------------------|-------------------------|---------------|--------|
| 2.1046   | Transmitter Conducted Output Power  | Mar 26 to 31, 2020      | Gao Mingzhou  | PASS   |
| 2.1049   | Occupied Bandwidth                  | Feb 22, to Mar 7, 2020  | Gao Mingzhou  | PASS   |
| 24.232(d)  | Peak-Average Ratio                  | Feb 22 to 28, 2020      | Gao Mingzhou  | PASS   |
| 2.1055,22.355,24.235   | Frequency Stability                 | Feb 22, to Mar 7, 2020  | Gao Mingzhou  | PASS   |
| 2.1051,22.917(a), 24.238(a)  | Conducted Spurious Emissions        | Feb 22, to Mar 14, 2020 | Gao Mingzhou  | PASS   |
| 2.1051,22.917(a), 24.238(a)  | Band Edge                           | Feb 22, to Mar 14, 2020 | Gao Mingzhou  | PASS   |
| 2.1046, 22.913(a),24.232(a)  | Equivalent Isotropic Radiated Power | Feb 22, to Mar 31, 2020 | Wang Dalong   | PASS   |
| 2.1053,22.917(a), 24.238(a)  | Radiated Spurious Emissions         | Mar 26 to 31, 2020      | Wang Dalong   | PASS   |
| <b>Note:</b> The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 (Oct 27, 2017)and ANSI/TIA-603-E-2016. |                                     |                         |               |        |



## 1.4. Environmental Conditions

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

|                             |         |
|-----------------------------|---------|
| Temperature (°C):           | 15 - 35 |
| Relative Humidity (%):      | 30 -60  |
| Atmospheric Pressure (kPa): | 86-106  |





### 1.5. Maximum ERP/EIRP and Emission Designator

| CDMA2000 | Maximum ERP/EIRP (W) |       |                |       | Emission Designator<br>(99%OBW) |
|----------|----------------------|-------|----------------|-------|---------------------------------|
|          | Top Antenna          |       | Bottom Antenna |       |                                 |
|          | dBm                  | W     | dBm            | W     |                                 |
| BC 0     | 21.71                | 0.148 | 24.63          | 0.290 | 1M28F9W                         |
| BC 1     | 20.34                | 0.108 | 24.52          | 0.283 | 1M28F9W                         |

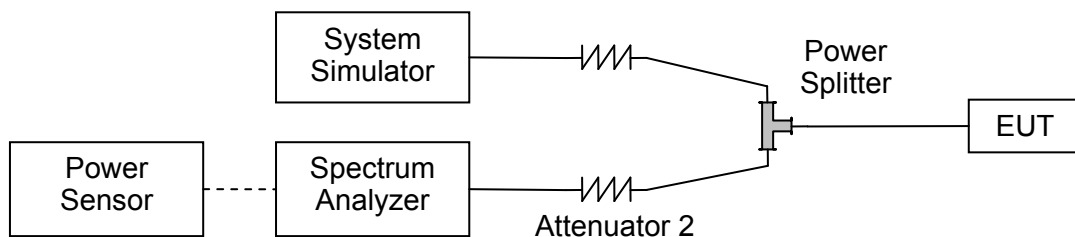
## 2.47 CFR Part 2, Part 22H and Part 24E Requirements

### 2.1. Transmitter Conducted Output Power

#### 2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

#### 2.1.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

#### 2.1.3. Test procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

#### 2.1.4. Result



## Top Antenna

| Band             | CDMA2000 BC0 |        |        |
|------------------|--------------|--------|--------|
| TX Channel       | 1013         | 384    | 777    |
| Frequency (MHz)  | 824.7        | 836.52 | 848.31 |
| RC1 SO55         | 22.11        | 22.34  | 22.20  |
| RC3 SO55         | 22.35        | 22.33  | 22.33  |
| RC3 SO32 (F+SCH) | 22.33        | 22.18  | 22.34  |
| RC3 SO32 (+SCH)  | 22.31        | 22.21  | 22.32  |
| 1xEVDO Rev 0     | 22.27        | 22.20  | 22.17  |
| 1xEVDO Rev A     | 22.23        | 22.14  | 22.12  |
| 1xEVDO Rev B     | 22.01        | 22.06  | 22.03  |

| Band             | CDMA2000 BC1 |       |         |
|------------------|--------------|-------|---------|
| TX Channel       | 25           | 600   | 1175    |
| Frequency (MHz)  | 1851.25      | 1880  | 1908.75 |
| RC1 SO55         | 20.25        | 20.27 | 20.21   |
| RC3 SO55         | 20.35        | 20.33 | 20.23   |
| RC3 SO32 (F+SCH) | 20.28        | 20.34 | 20.33   |
| RC3 SO32 (+SCH)  | 20.33        | 20.34 | 20.26   |
| 1xEVDO Rev 0     | 20.26        | 20.23 | 20.21   |
| 1xEVDO Rev A     | 20.33        | 20.20 | 20.11   |
| 1xEVDO Rev B     | 20.11        | 20.01 | 20.03   |



## Bottom Antenna

| Band             | CDMA2000 BC0 |        |        |
|------------------|--------------|--------|--------|
| TX Channel       | 1013         | 384    | 777    |
| Frequency (MHz)  | 824.7        | 836.52 | 848.31 |
| RC1 SO55         | 23.96        | 23.97  | 23.54  |
| RC3 SO55         | 24.00        | 24.02  | 23.63  |
| RC3 SO32 (F+SCH) | 23.98        | 24.00  | 23.65  |
| RC3 SO32 (+SCH)  | 23.93        | 24.01  | 23.63  |
| 1xEVDO Rev 0     | 23.85        | 23.55  | 23.44  |
| 1xEVDO Rev A     | 23.57        | 23.74  | 23.55  |
| 1xEVDO Rev B     | 23.26        | 23.12  | 23.13  |

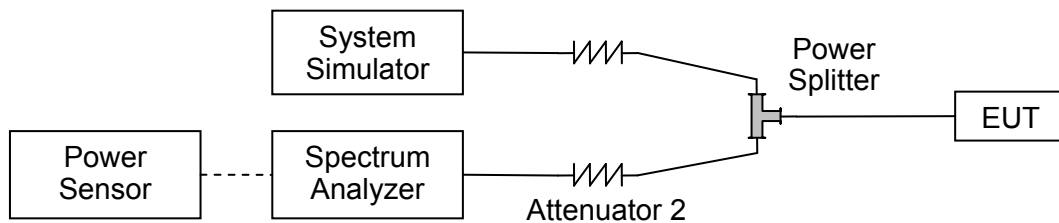
| Band             | CDMA2000 BC1 |       |         |
|------------------|--------------|-------|---------|
| TX Channel       | 25           | 600   | 1175    |
| Frequency (MHz)  | 1851.25      | 1880  | 1908.75 |
| RC1 SO55         | 23.86        | 23.82 | 23.82   |
| RC3 SO55         | 23.91        | 23.88 | 23.87   |
| RC3 SO32 (F+SCH) | 23.87        | 23.88 | 23.85   |
| RC3 SO32 (+SCH)  | 23.89        | 23.89 | 23.90   |
| 1xEVDO Rev 0     | 23.75        | 23.52 | 23.63   |
| 1xEVDO Rev A     | 23.69        | 23.60 | 23.63   |
| 1xEVDO Rev B     | 23.37        | 23.19 | 23.15   |

## 2.2. Occupied Bandwidth

### 2.2.1. Requirement

According to FCC section 2.1049, the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Occupied bandwidth is also known as the 99% emission bandwidth.

### 2.2.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.2.3. Test procedure

KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.

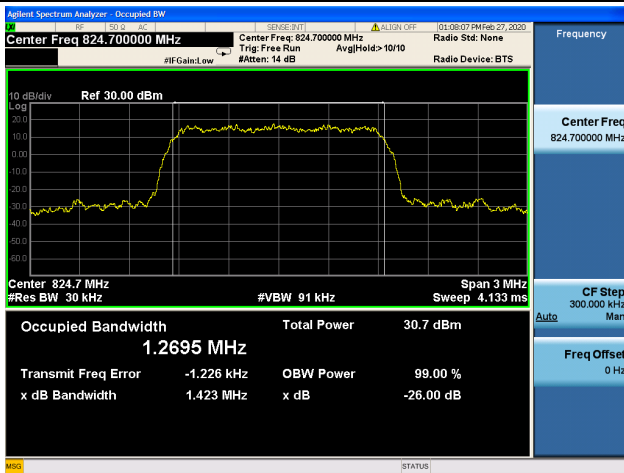


2.2.4. Test Result

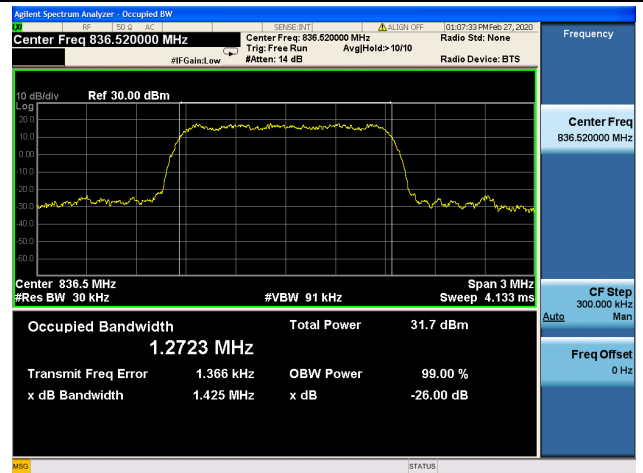
| Band       | Channel | Frequency (MHz) | 99% Occupied Bandwidth (kHz) | -26dB bandwidth (kHz) |
|------------|---------|-----------------|------------------------------|-----------------------|
| CDMA (BC0) | 1013    | 824.7           | 1.270                        | 1.423                 |
|            | 384     | 836.52          | 1.272                        | 1.425                 |
|            | 777     | 848.31          | 1.275                        | 1.422                 |
| CDMA (BC1) | 25      | 1851.25         | 1.270                        | 1.423                 |
|            | 600     | 1880            | 1.275                        | 1.428                 |
|            | 1175    | 1908.75         | 1.269                        | 1.421                 |



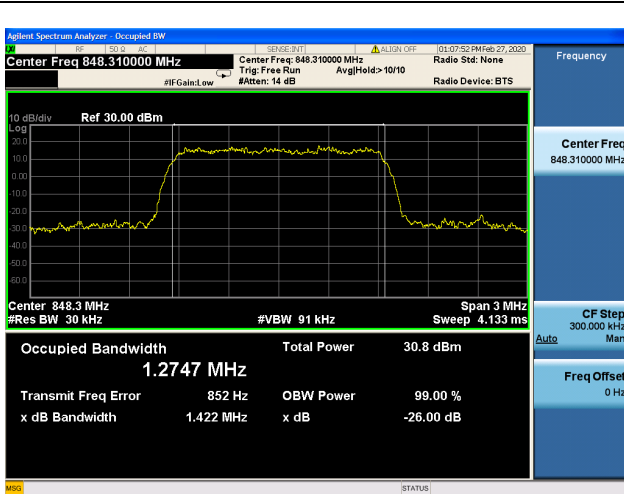
**CDMA BC0, Channel=1013**



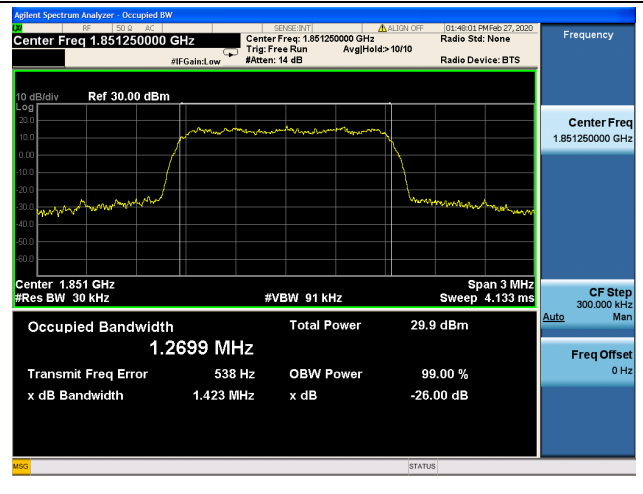
**CDMA BC0, Channel=384**



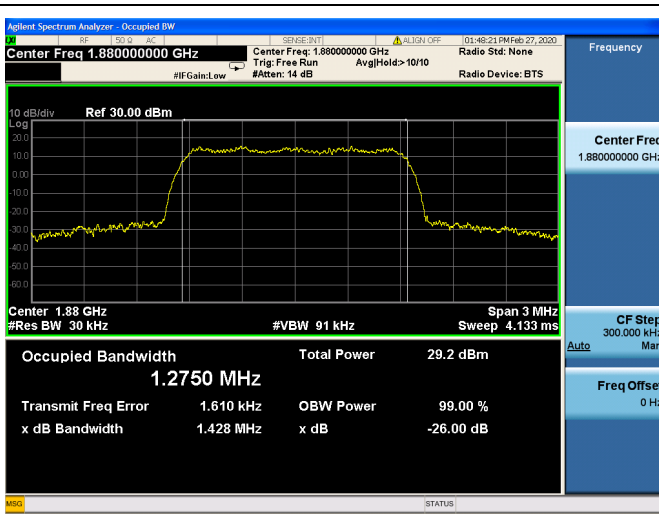
**CDMA BC0, Channel=777**



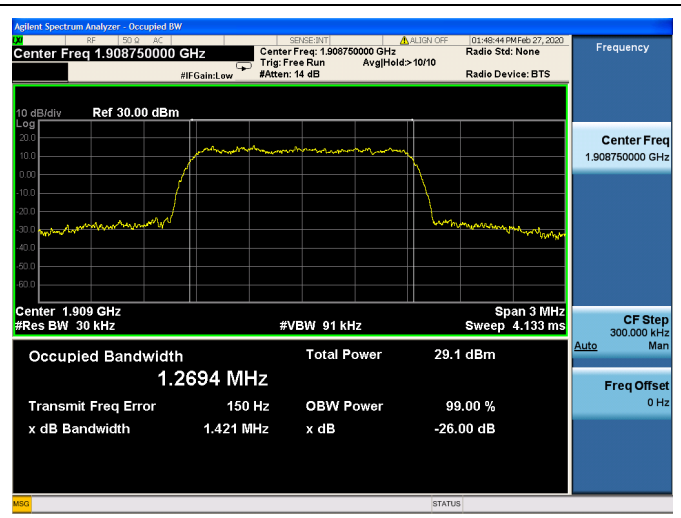
**CDMA BC1, Channel=25**



**CDMA BC1, Channel=600**



**CDMA BC1, Channel=1175**



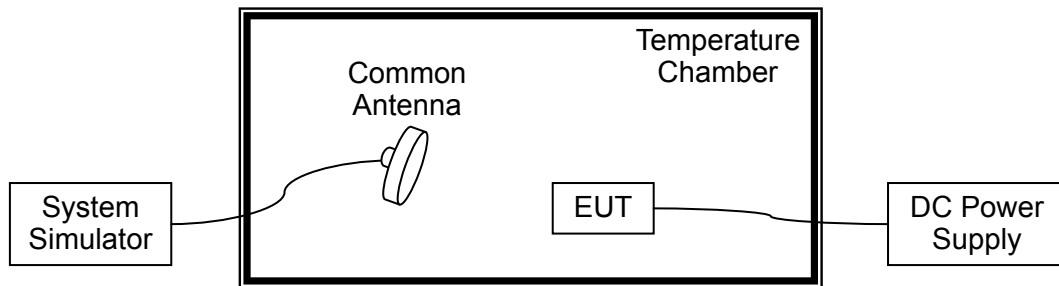
## 2.3. Frequency Stability

### 2.3.1. Requirement

According to FCC section 2.1055 & 22.355&24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  at intervals of not more than  $10^{\circ}\text{C}$ .
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

### 2.3.2. Test Description



The EUT which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power. A call is established between the EUT and the SS via a Common Antenna.

### 2.3.3. Test procedure

KDB 971168 D01v03 Section 9.0 and ANSI/TIA-603-E-2016.

### 2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.87VDC, 4.45VDC and 3.3VDC, which are specified by the applicant; the normal temperature here used is  $20^{\circ}\text{C}$ .





| CDMA2000 BC0, Channel 384, Frequency 836.52MHz |             |          |                |                 |        |
|--|-------------|----------|----------------|-----------------|--------|
| Limit =±2.5ppm                                 |             |          |                |                 |        |
| Voltage(%)                                     | Power(V DC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100  | 3.87        | +20(Ref) | 57             | 0.068           | PASS   |
| 100  |             | -10      | -34            | -0.041          |        |
| 100  |             | 0        | 35             | 0.042           |        |
| 100  |             | +10      | 35             | 0.042           |        |
| 100  |             | +20      | 41             | 0.049           |        |
| 100  |             | +30      | 21             | 0.025           |        |
| 100  |             | +40      | 32             | 0.038           |        |
| 115  | 4.45        | +20      | 29             | 0.035           |        |
| 85   | 3.30        | +20      | -23            | -0.027          |        |

| CDMA2000 BC1, Channel 600, Frequency 1880MHz |             |          |                |                 |        |
|--|-------------|----------|----------------|-----------------|--------|
| Limit =±1ppm                                 |             |          |                |                 |        |
| Voltage(%)                                   | Power(V DC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100  | 3.87        | +20(Ref) | 57             | 0.068           | PASS   |
| 100  |             | -10      | -34            | -0.041          |        |
| 100  |             | 0        | 35             | 0.042           |        |
| 100  |             | +10      | 35             | 0.042           |        |
| 100  |             | +20      | 41             | 0.049           |        |
| 100  |             | +30      | 21             | 0.025           |        |
| 100  |             | +40      | 32             | 0.038           |        |
| 115  | 4.45        | +20      | 29             | 0.035           |        |
| 85   | 3.30        | +20      | -23            | -0.027          |        |

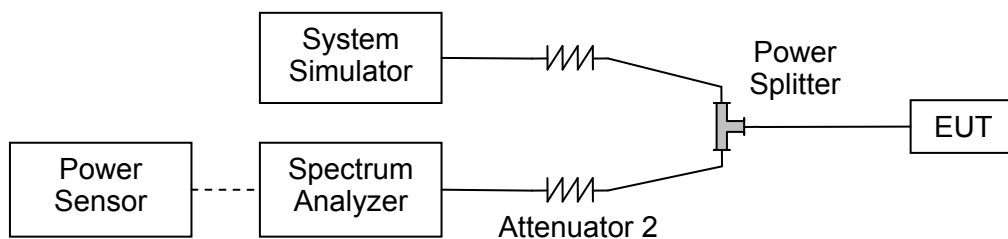
## 2.4. Peak to Average Ratio

### 2.4.1. Requirement

According to FCC section 24.232(d), the peak to average ratio (PAR) of the transmission may not exceed 13dB.

### 2.4.2. Test Description

#### A. Test Set:



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

### 2.4.3. Test procedure

KDB 971168 D01v03 Section 5.7 and ANSI/TIA-603-E-2016.

### 2.4.4. Test Result

Record the maximum PAPR level associated with a probability of 0.1%.

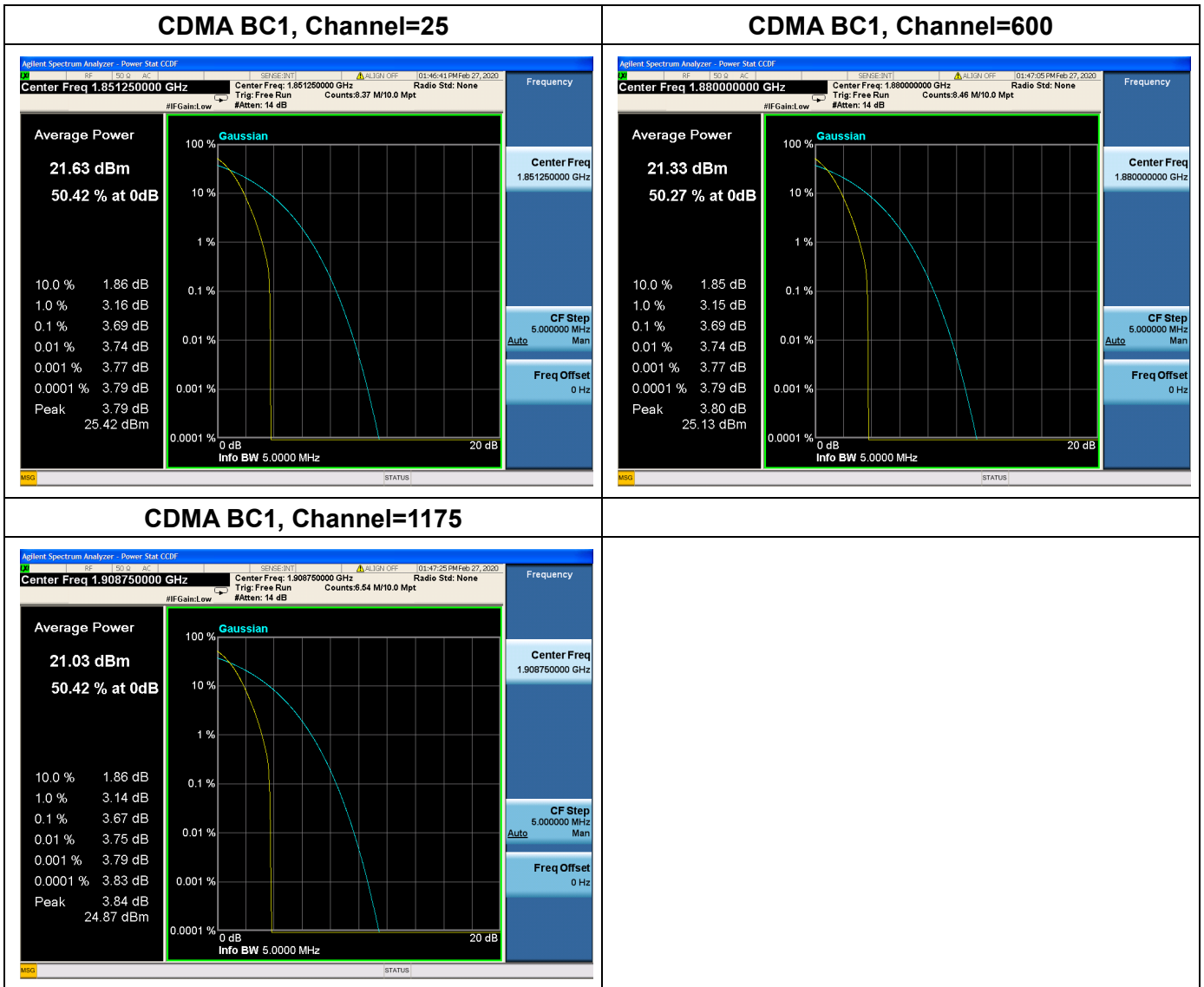
Note: This test case only supports CDMA BC 1 band ,not CDMA BC 0 band.



The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

**A. Test Verdict:**

| Band       | Channel | Frequency (MHz) | Peak to Average ratio (dB) | Limit(dB) | Verdict |
|------------|---------|-----------------|----------------------------|-----------|---------|
| CDMA (BC1) | 1013    | 1851.25         | 3.69                       | 13        | PASS    |
|            | 384     | 1880            | 3.69                       |           | PASS    |
|            | 777     | 1908.75         | 3.67                       |           | PASS    |



## 2.5. Conducted Spurious Emissions

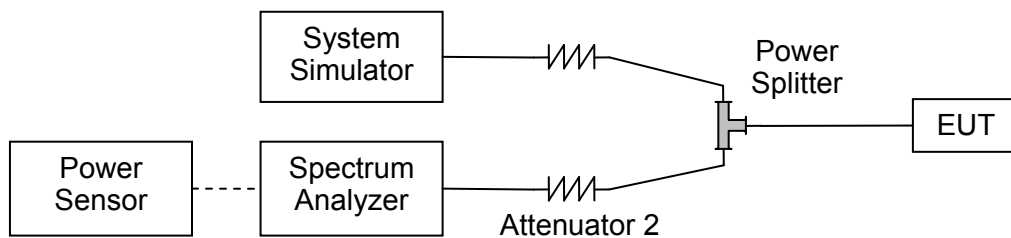
### 2.5.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43+10*\log(P)$ dB. This calculated to be -13dBm.

Additional requirement for LTE Band 7:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $55 + 10 \log(P)$  dB. This calculated to be -25dBm.

### 2.5.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

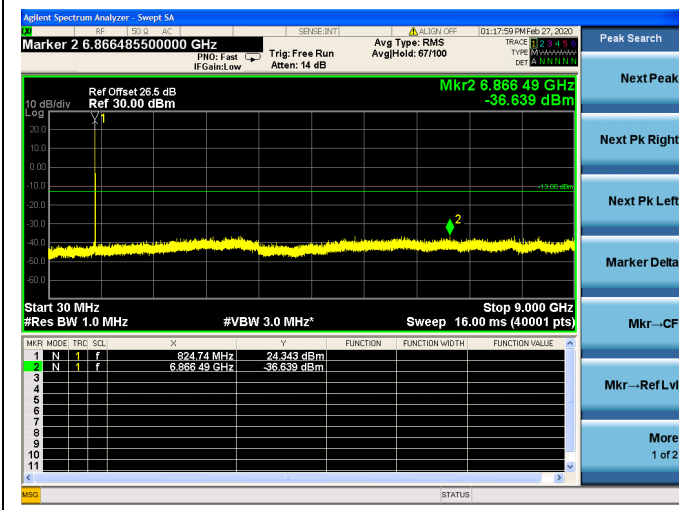
### 2.5.3. Test procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

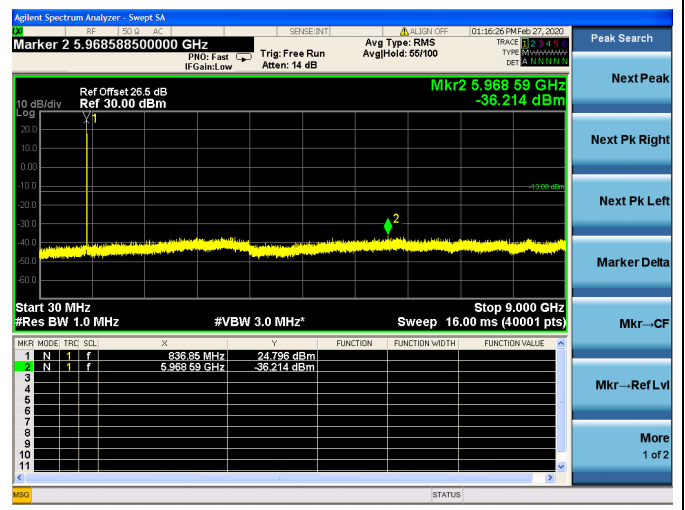
### 2.5.4. Test Result



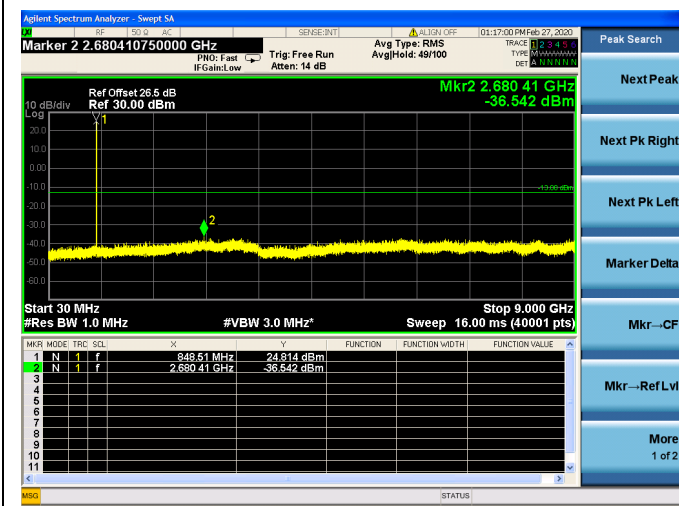
**CDMA BC0, Channel=1013**



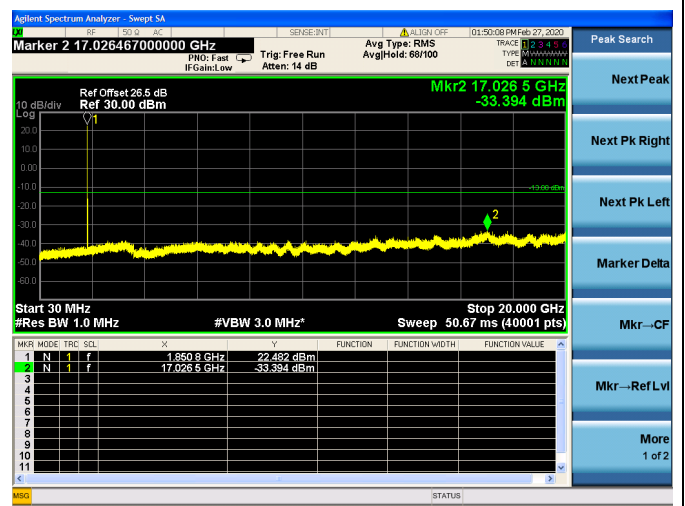
**CDMA BC0, Channel=384**



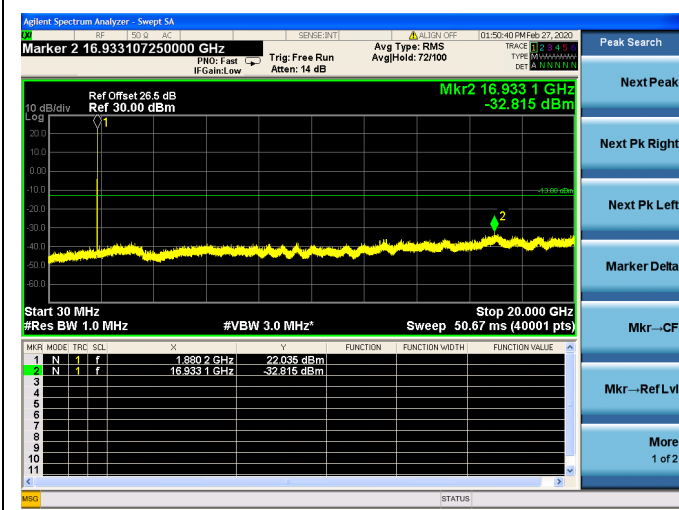
**CDMA BC0, Channel=777**



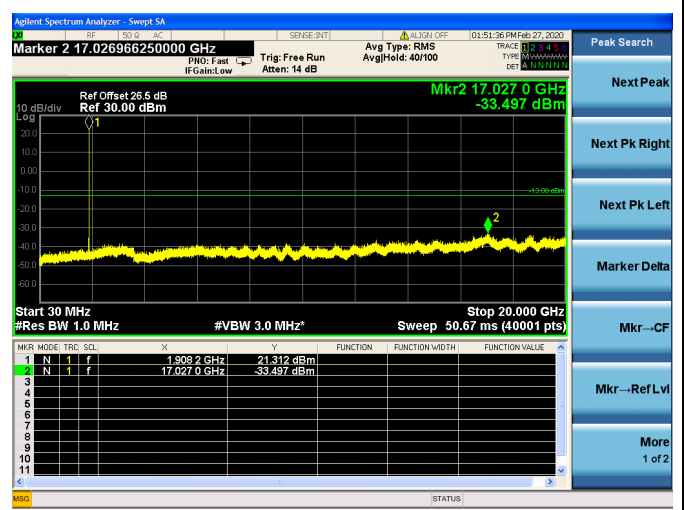
**CDMA BC1, Channel=25**



**CDMA BC1, Channel=600**



**CDMA BC1, Channel=1175**



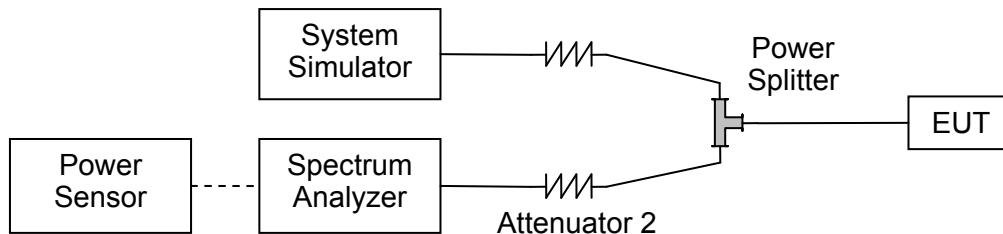
## 2.6. Band Edge

### 2.6.1. Requirement

According to FCC section 22.917(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

According to FCC section 24.238(a), The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

### 2.6.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

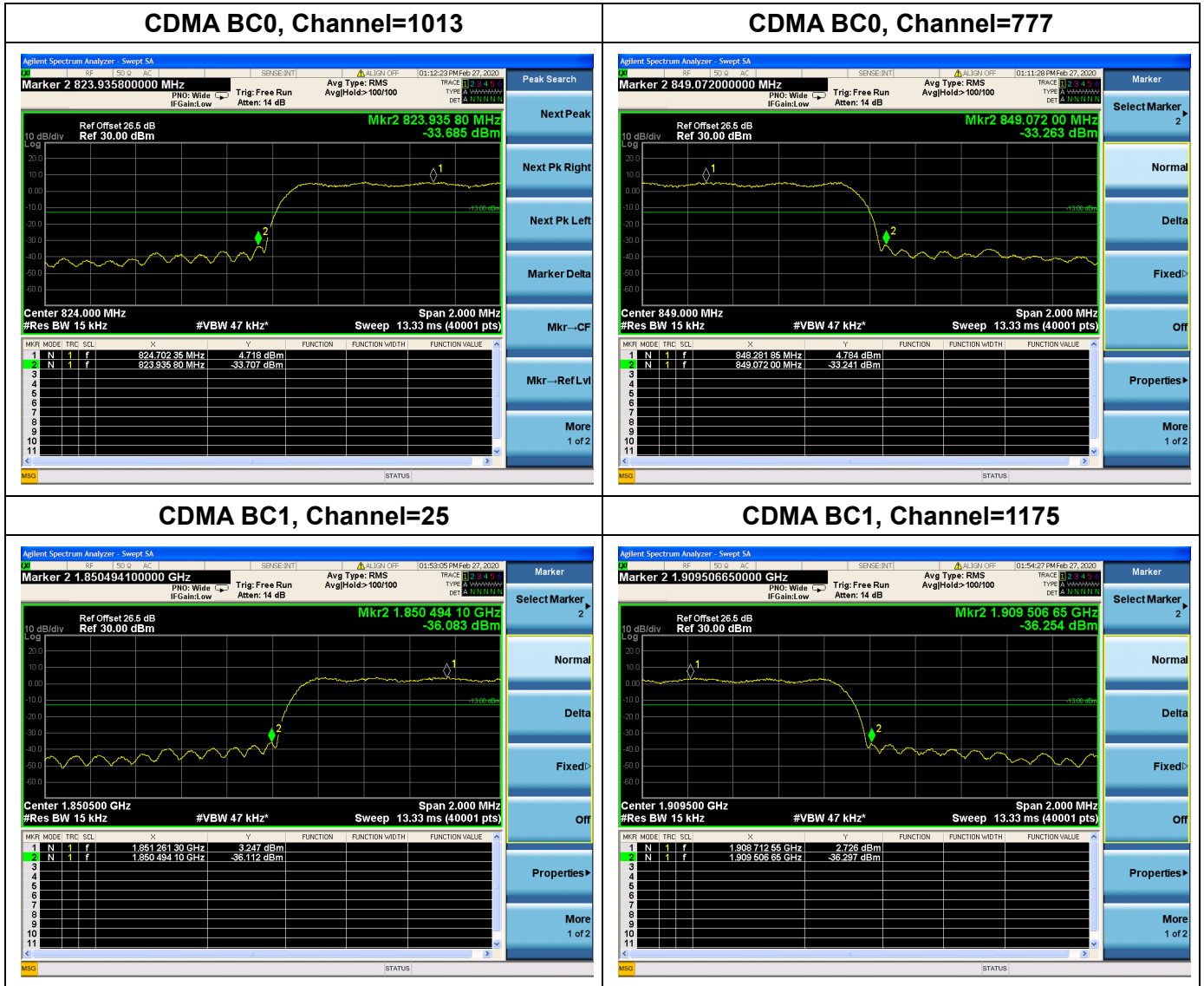
### 2.6.3. Test procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.



2.6.4. Test Result

The center frequency of spectrum is the band edge frequency and span is 2MHz, Record the max trace into the test report.





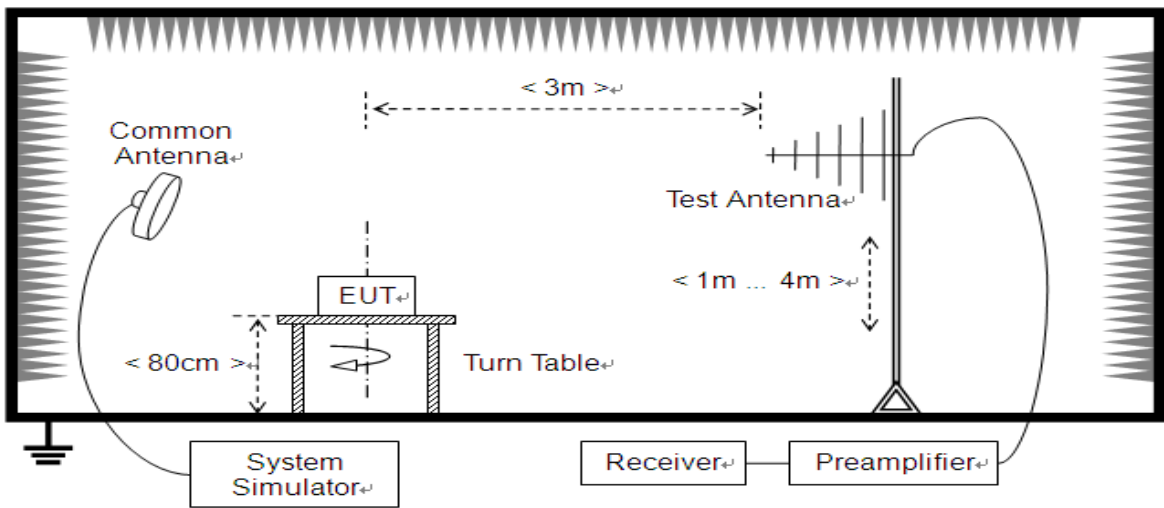
## 2.7. Transmitter Radiated Power (EIRP/ERP)

### 2.7.1. Requirement

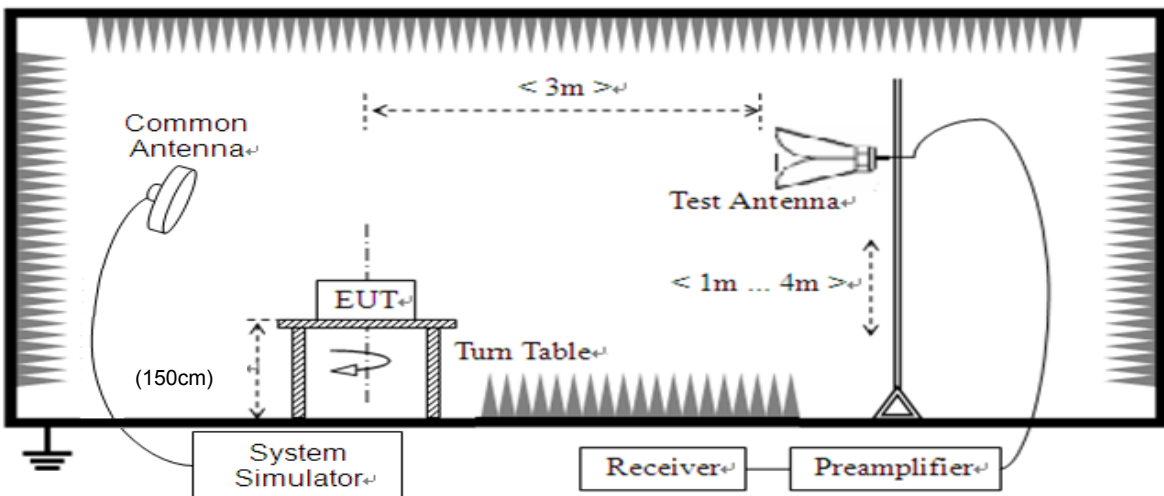
According to FCC section 22.913 (a.2) for CDMA BC0, the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 24.232 (c) for CDMA BC1, Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

### 2.7.2. Test Description



(For the test frequency from 30MHz to 1GHz)



(For the test frequency above 1GHz)



The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power, and only the test result of the maximum output power was recorded.

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360° to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

### **2.7.3. Test procedure**

KDB 971168 D01v03 Section 51&5.2 and ANSI/TIA-603-E-2016.



#### 2.7.4. Test Result

The EUT was verified under all configurations (RB size and offset) and the worst case radiated power reported for each modulation/channel bandwidth.

The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested.

The substitution corrections are obtained as described below:

$$A_{\text{SUBST}} = P_{\text{SUBST\_TX}} - P_{\text{SUBST\_RX}} - L_{\text{SUBST\_CABLES}} + G_{\text{SUBST\_TX\_ANT}}$$

$$A_{\text{TOT}} = L_{\text{CABLES}} + A_{\text{SUBST}}$$

Where  $A_{\text{SUBST}}$  is the final substitution correction including receive antenna gain.

$P_{\text{SUBST\_TX}}$  is signal generator level,

$P_{\text{SUBST\_RX}}$  is receiver level,

$L_{\text{SUBST\_CABLES}}$  is cable losses including TX cable,

$G_{\text{SUBST\_TX\_ANT}}$  is substitution antenna gain.

$A_{\text{TOT}}$  is total correction factor including cable loss and substitution correction

During the test, the data of  $A_{\text{TOT}}$  was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of  $A_{\text{TOT}}$ .

**Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.



Top Antenna:

| Band            |       |        |        | CDMA2000 BC0 |       |       |      | Limit |      | Verdict |
|-----------------|-------|--------|--------|--------------|-------|-------|------|-------|------|---------|
| TX Channel      | 1013  | 384    | 777    |              |       |       |      |       |      |         |
| Frequency (MHz) | 824.7 | 836.52 | 848.31 |              |       |       |      |       |      |         |
| Measured ERP    |       |        |        |              |       |       | dBm  | W     |      |         |
|                 | dBm   | W      | dBm    | W            | dBm   | W     |      |       |      |         |
| CDMA (BC0)      | 21.70 | 0.148  | 21.60  | 0.145        | 21.71 | 0.148 | 38.5 | 7     |      | PASS    |
| EVDO 0 (BC0)    | 21.66 | 0.147  | 21.59  | 0.144        | 21.56 | 0.143 |      |       | PASS |         |
| EVDO A (BC0)    | 21.62 | 0.145  | 21.53  | 0.142        | 21.51 | 0.142 |      |       | PASS |         |
| EVDO B (BC0)    | 20.11 | 0.103  | 20.01  | 0.100        | 20.03 | 0.101 |      |       | PASS |         |

| Band            |         |       |         | CDMA2000 BC1 |       |       |     | Limit |      | Verdict |
|-----------------|---------|-------|---------|--------------|-------|-------|-----|-------|------|---------|
| TX Channel      | 25      | 600   | 1175    |              |       |       |     |       |      |         |
| Frequency (MHz) | 1851.25 | 1880  | 1908.75 |              |       |       |     |       |      |         |
| Measured ERP    |         |       |         |              |       |       | dBm | W     |      |         |
|                 | dBm     | W     | dBm     | W            | dBm   | W     |     |       |      |         |
| CDMA (BC1)      | 20.33   | 0.108 | 20.34   | 0.108        | 20.26 | 0.106 | 33  | 2     |      | PASS    |
| EVDO 0 (BC1)    | 20.26   | 0.106 | 20.23   | 0.105        | 20.21 | 0.105 |     |       | PASS |         |
| EVDO A (BC1)    | 20.33   | 0.108 | 20.20   | 0.105        | 20.11 | 0.103 |     |       | PASS |         |
| EVDO B (BC1)    | 20.11   | 0.103 | 20.01   | 0.100        | 20.03 | 0.101 |     |       | PASS |         |



Bottom Antenna:

| Band            |       | CDMA2000 BC0 |       |        |       |       |      | Limit   |      | Verdict |
|-----------------|-------|--------------|-------|--------|-------|-------|------|---------|------|---------|
| TX Channel      | 1013  | 384          |       | 777    |       | Limit |      | Verdict |      |         |
| Frequency (MHz) | 824.7 | 836.52       |       | 848.31 |       | Limit |      |         |      |         |
| Measured ERP    |       |              |       |        |       |       | dBm  |         | W    |         |
|                 | dBm   | W            | dBm   | W      | dBm   | W     |      |         |      |         |
| CDMA (BC0)      | 24.57 | 0.286        | 24.58 | 0.287  | 24.15 | 0.260 | 38.5 | 7       | PASS |         |
| EVDO 0 (BC0)    | 24.61 | 0.289        | 24.63 | 0.290  | 24.24 | 0.265 |      |         | PASS |         |
| EVDO A (BC0)    | 24.59 | 0.288        | 24.61 | 0.289  | 24.26 | 0.267 |      |         | PASS |         |
| EVDO B (BC0)    | 24.54 | 0.284        | 24.62 | 0.290  | 24.24 | 0.265 |      |         | PASS |         |

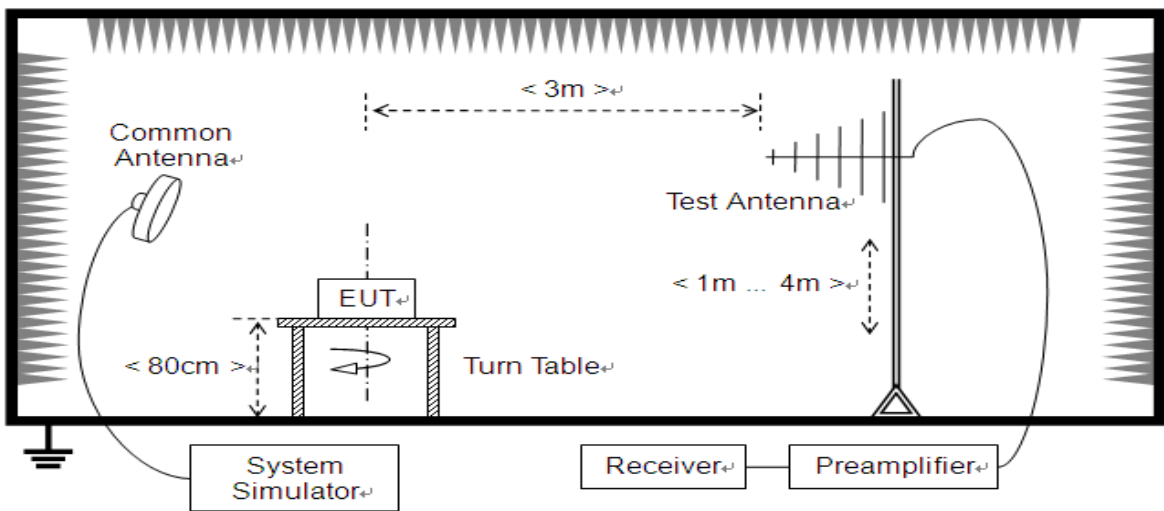
| Band            |         | CDMA2000 BC1 |       |         |       |       |     | Limit   |      | Verdict |
|-----------------|---------|--------------|-------|---------|-------|-------|-----|---------|------|---------|
| TX Channel      | 25      | 600          |       | 1175    |       | Limit |     | Verdict |      |         |
| Frequency (MHz) | 1851.25 | 1880         |       | 1908.75 |       | Limit |     |         |      |         |
| Measured ERP    |         |              |       |         |       |       | dBm |         | W    |         |
|                 | dBm     | W            | dBm   | W       | dBm   | W     |     |         |      |         |
| CDMA (BC1)      | 24.47   | 0.280        | 24.43 | 0.277   | 24.43 | 0.277 | 33  | 2       | PASS |         |
| EVDO 0 (BC1)    | 24.52   | 0.283        | 24.49 | 0.281   | 24.48 | 0.281 |     |         | PASS |         |
| EVDO A (BC1)    | 24.48   | 0.281        | 24.49 | 0.281   | 24.46 | 0.279 |     |         | PASS |         |
| EVDO B (BC1)    | 24.50   | 0.282        | 24.50 | 0.282   | 24.51 | 0.282 |     |         | PASS |         |

## 2.8. Radiated Spurious Emissions

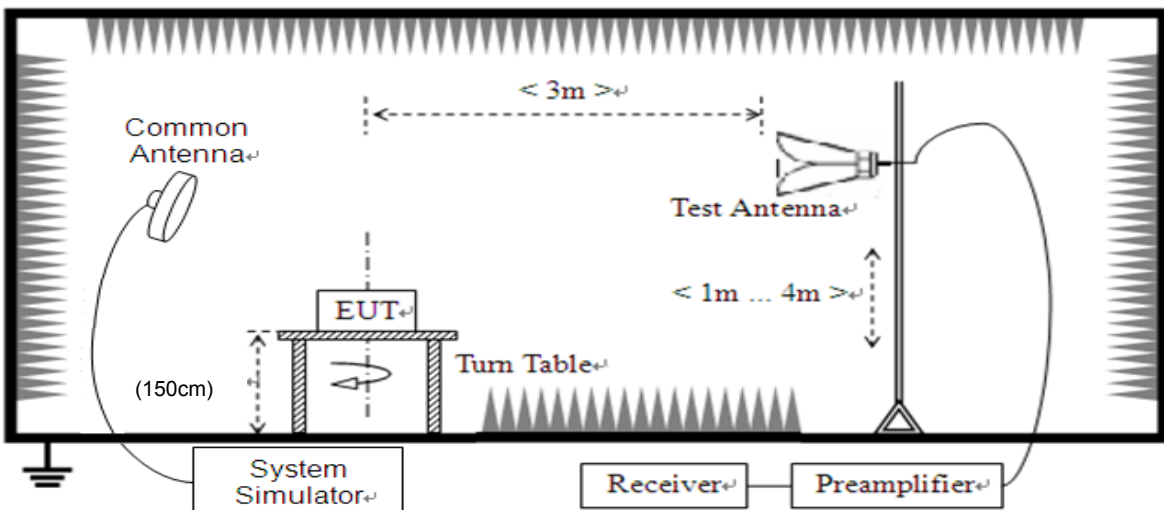
### 2.8.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43+10*\log(P)$ dB. This calculated to be -13dBm.

### 2.8.2. Test Description



(For the test frequency from 30MHz to1GHz)



(For the test frequency above 1GHz)



The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power, and only the test result of the maximum output power was recorded.

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360° to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

**Note:** when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

### 2.8.3. Test procedure

KDB 971168 D01v03 Section 5.8 and ANSI/TIA-603-E-2016.

### 2.8.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. Test Antenna height is varied from 1m to 4m above the ground, and the Turn Table is actuated to turn from 0° to 360°, both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

**Note1:** The power of the EUT transmitting frequency should be ignored.

**Note2:** All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

**Note3:** All bandwidth and test channel were considered and evaluated respectively by performing full test for each band, only the worst cases were recorded in this test report.



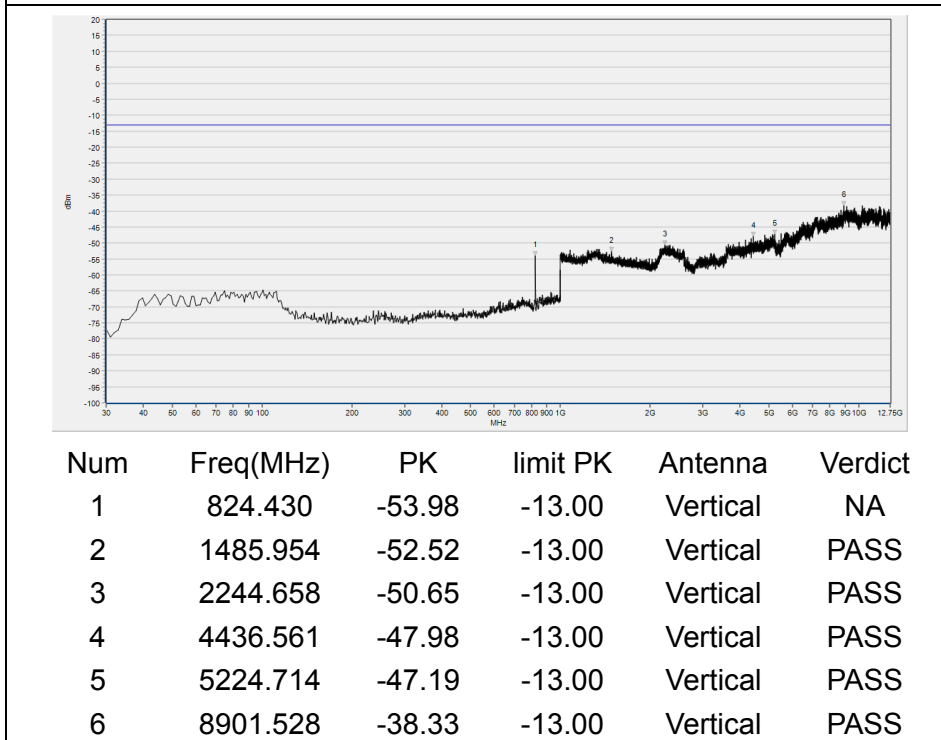
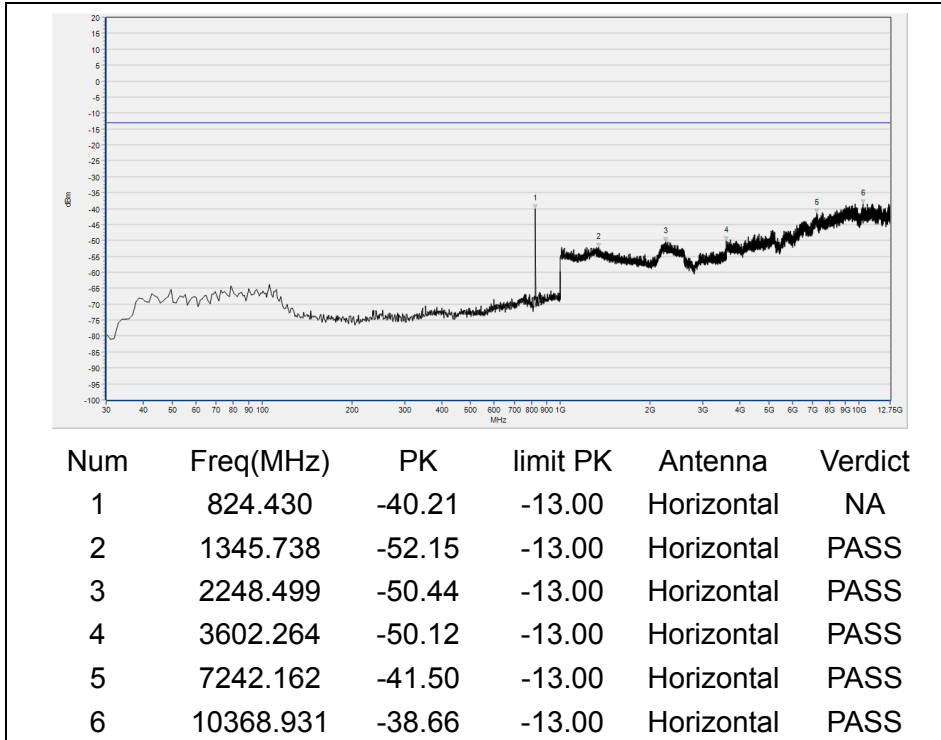
**A. Test Verdict:**

Top Antenna:

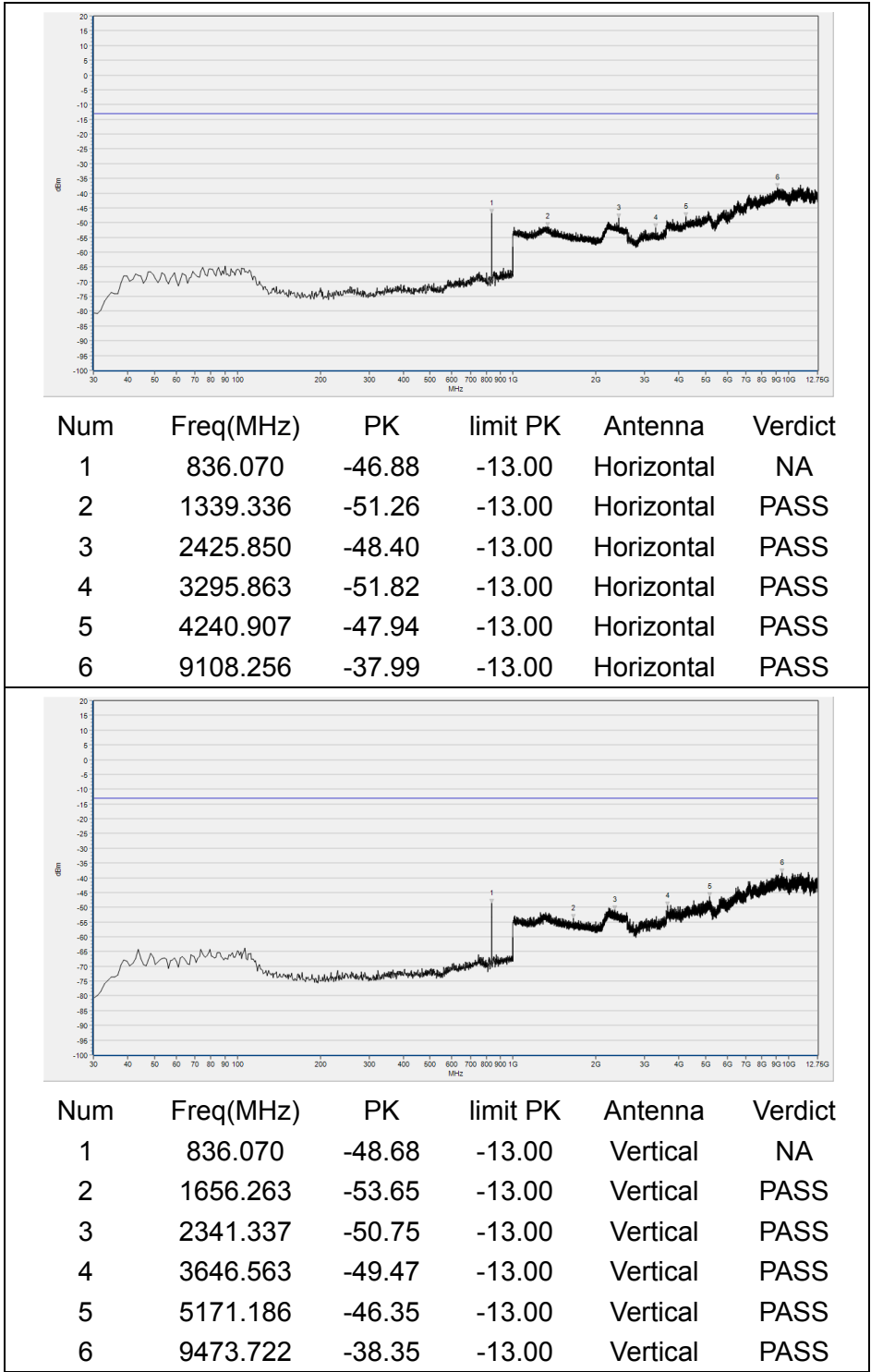
| Band       | Channel | Frequency (MHz) | Measured Max. Spurious Emission (dBm) |                       | Limit (dBm) | Verdict |
|------------|---------|-----------------|---------------------------------------|-----------------------|-------------|---------|
|            |         |                 | Test Antenna Horizontal               | Test Antenna Vertical |             |         |
| CDMA (BC0) | 1013    | 824.7           | < -25                                 | < -25                 | -13         | PASS    |
|            | 384     | 836.52          | < -25                                 | < -25                 |             | PASS    |
|            | 777     | 848.31          | < -25                                 | < -25                 |             | PASS    |
| CDMA (BC1) | 25      | 824.7           | < -25                                 | < -25                 |             | PASS    |
|            | 600     | 836.52          | < -25                                 | < -25                 |             | PASS    |
|            | 1175    | 848.31          | < -25                                 | < -25                 |             | PASS    |



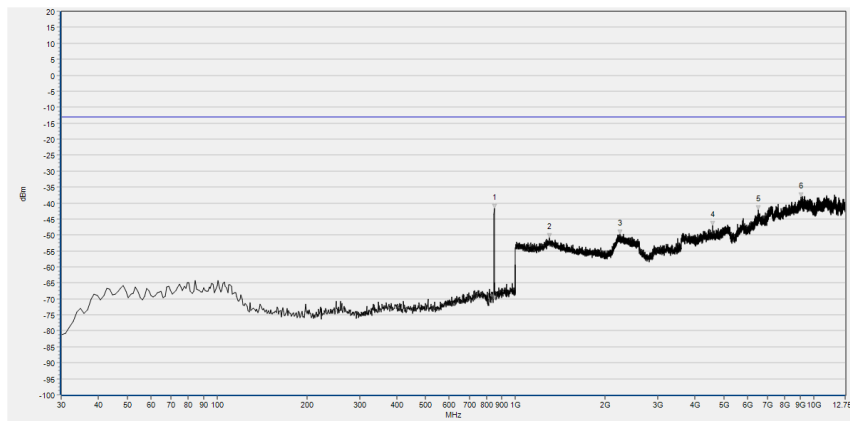
**B. Test Plots**



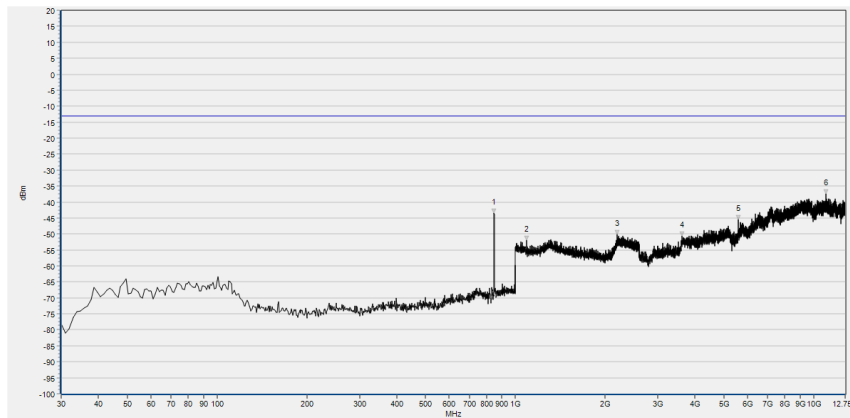
(CDMA BC0, Channel = 1013 )



(CDMA BC0, Channel = 384)

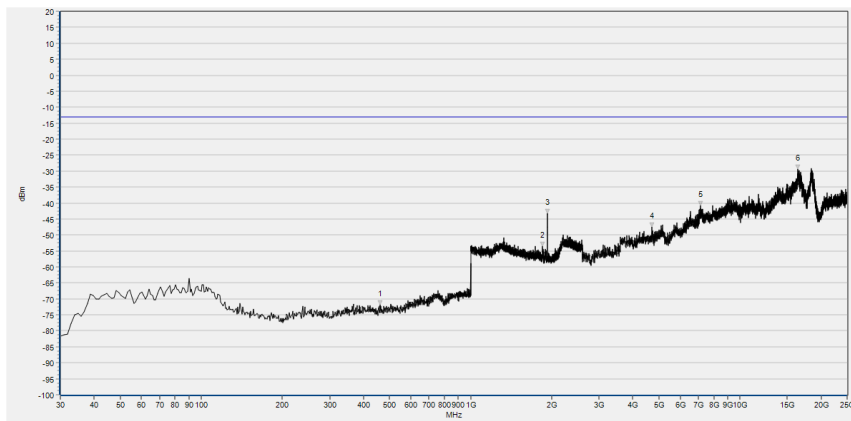


| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 848.680   | -41.77 | -13.00   | Horizontal | NA      |
| 2   | 1300.920  | -50.80 | -13.00   | Horizontal | PASS    |
| 3   | 2244.018  | -49.63 | -13.00   | Horizontal | PASS    |
| 4   | 4587.916  | -47.15 | -13.00   | Horizontal | PASS    |
| 5   | 6533.379  | -42.23 | -13.00   | Horizontal | PASS    |
| 6   | 9087.952  | -38.07 | -13.00   | Horizontal | PASS    |

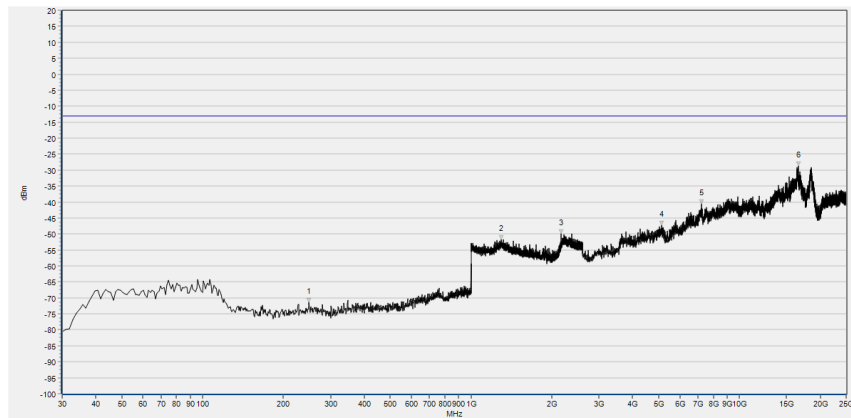


| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 847.710   | -43.39 | -13.00   | Vertical | NA      |
| 2   | 1089.636  | -51.95 | -13.00   | Vertical | PASS    |
| 3   | 2197.279  | -50.14 | -13.00   | Vertical | PASS    |
| 4   | 3620.722  | -50.68 | -13.00   | Vertical | PASS    |
| 5   | 5597.563  | -45.45 | -13.00   | Vertical | PASS    |
| 6   | 11011.266 | -37.54 | -13.00   | Vertical | PASS    |

(CDMA BC0, Channel = 777)

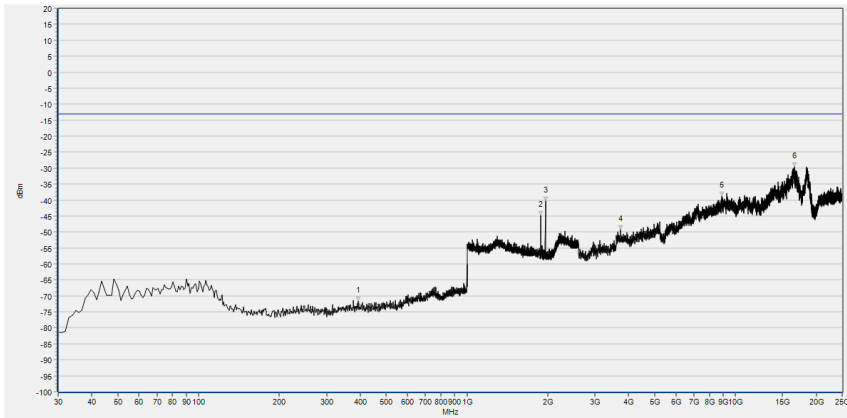


| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 462.620   | -71.80 | -13.00   | Horizontal | PASS    |
| 2   | 1850.900  | -53.60 | -13.00   | Horizontal | NA      |
| 3   | 1930.932  | -43.28 | -13.00   | Horizontal | NA      |
| 4   | 4714.130  | -47.46 | -13.00   | Horizontal | PASS    |
| 5   | 7150.064  | -40.83 | -13.00   | Horizontal | PASS    |
| 6   | 16437.570 | -29.42 | -13.00   | Horizontal | PASS    |

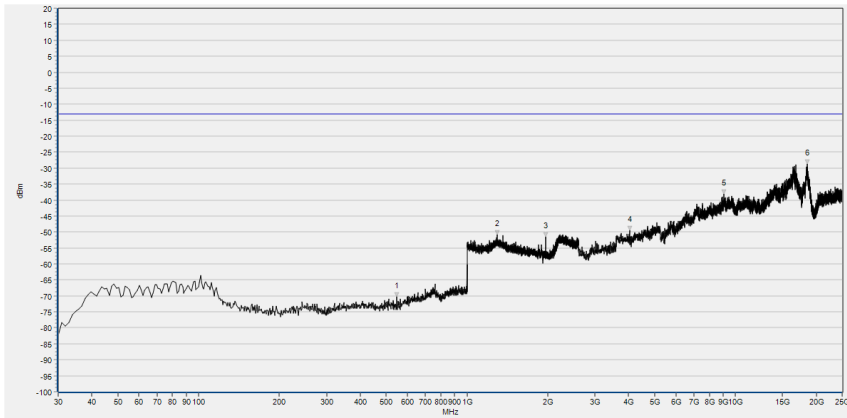


| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 249.220   | -71.42 | -13.00   | Vertical | PASS    |
| 2   | 1299.640  | -51.72 | -13.00   | Vertical | PASS    |
| 3   | 2167.187  | -49.94 | -13.00   | Vertical | PASS    |
| 4   | 5129.624  | -47.34 | -13.00   | Vertical | PASS    |
| 5   | 7235.606  | -40.59 | -13.00   | Vertical | PASS    |
| 6   | 16551.628 | -28.73 | -13.00   | Vertical | PASS    |

(CDMA BC1, Channel = 25 )

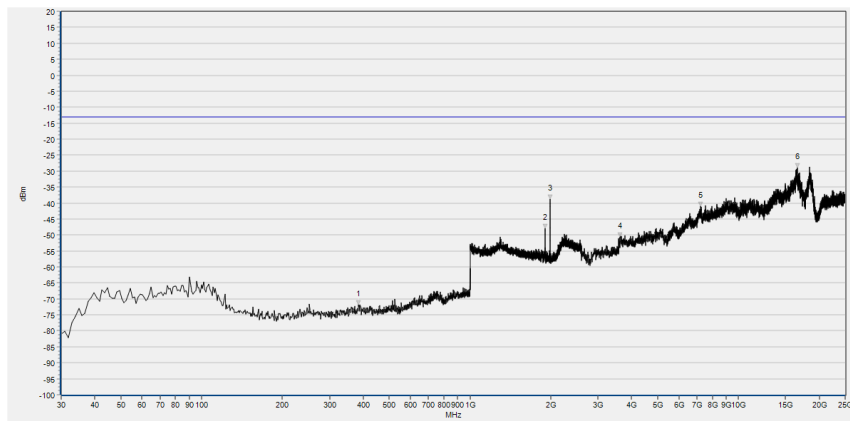


| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 394.720   | -71.70 | -13.00   | Horizontal | PASS    |
| 2   | 1879.712  | -44.73 | -13.00   | Horizontal | NA      |
| 3   | 1959.744  | -40.40 | -13.00   | Horizontal | NA      |
| 4   | 3732.424  | -49.21 | -13.00   | Horizontal | PASS    |
| 5   | 8905.728  | -38.87 | -13.00   | Horizontal | PASS    |
| 6   | 16559.775 | -29.56 | -13.00   | Horizontal | PASS    |

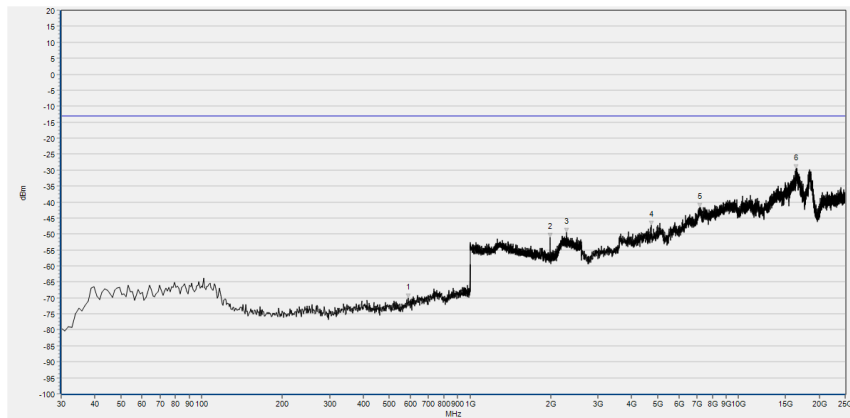


| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 547.010   | -70.29 | -13.00   | Vertical | PASS    |
| 2   | 1299.000  | -50.84 | -13.00   | Vertical | PASS    |
| 3   | 1960.384  | -51.52 | -13.00   | Vertical | NA      |
| 4   | 4033.861  | -49.53 | -13.00   | Vertical | PASS    |
| 5   | 9044.226  | -38.14 | -13.00   | Vertical | PASS    |
| 6   | 18478.378 | -28.74 | -13.00   | Vertical | PASS    |

(CDMA BC1, Channel = 600)



| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 385.020   | -71.90 | -13.00   | Horizontal | PASS    |
| 2   | 1908.523  | -47.99 | -13.00   | Horizontal | NA      |
| 3   | 1988.555  | -38.70 | -13.00   | Horizontal | NA      |
| 4   | 3614.294  | -50.60 | -13.00   | Horizontal | PASS    |
| 5   | 7247.827  | -40.90 | -13.00   | Horizontal | PASS    |
| 6   | 16551.628 | -28.88 | -13.00   | Horizontal | PASS    |



| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 589.690   | -70.09 | -13.00   | Vertical | PASS    |
| 2   | 1988.555  | -51.16 | -13.00   | Vertical | NA      |
| 3   | 2295.878  | -49.49 | -13.00   | Vertical | PASS    |
| 4   | 4726.350  | -47.18 | -13.00   | Vertical | PASS    |
| 5   | 7162.284  | -41.73 | -13.00   | Vertical | PASS    |
| 6   | 16437.570 | -29.54 | -13.00   | Vertical | PASS    |

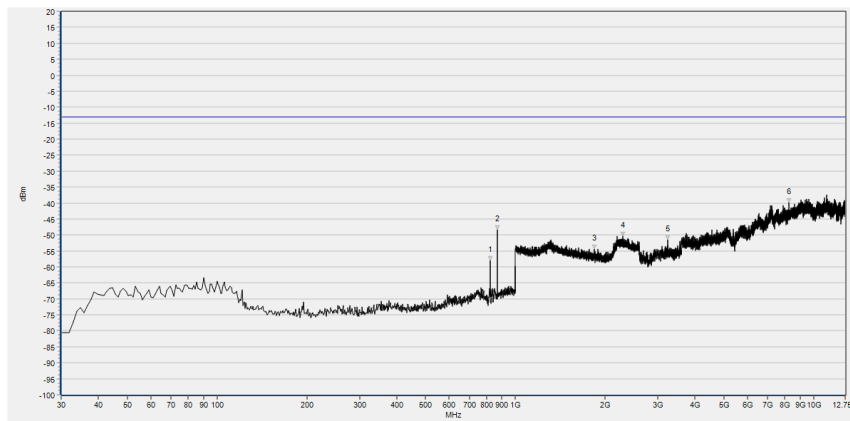
(CDMA BC1, Channel = 1175)



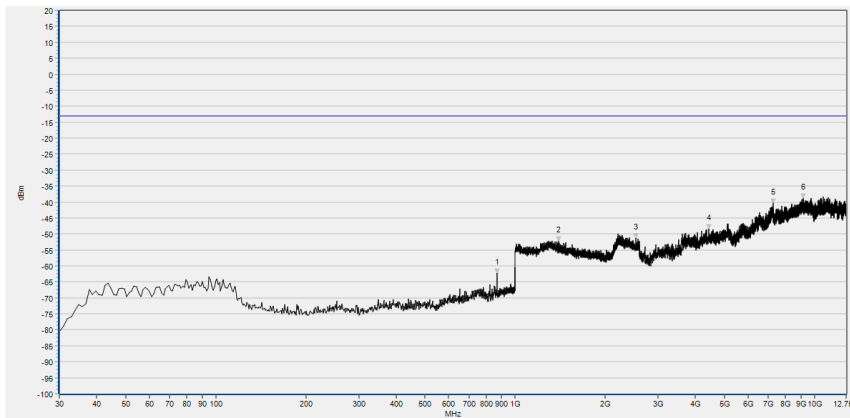
C. Test Verdict:

Bottom Antenna:

| Band       | Channel | Frequency (MHz) | Measured Max. Spurious Emission (dBm) |                       | Limit (dBm) | Verdict |
|------------|---------|-----------------|---------------------------------------|-----------------------|-------------|---------|
|            |         |                 | Test Antenna Horizontal               | Test Antenna Vertical |             |         |
| CDMA (BC0) | 1013    | 824.7           | < -25                                 | < -25                 | -13         | PASS    |
|            | 384     | 836.52          | < -25                                 | < -25                 |             | PASS    |
|            | 777     | 848.31          | < -25                                 | < -25                 |             | PASS    |
| CDMA (BC1) | 25      | 824.7           | < -25                                 | < -25                 |             | PASS    |
|            | 600     | 836.52          | < -25                                 | < -25                 |             | PASS    |
|            | 1175    | 848.31          | < -25                                 | < -25                 |             | PASS    |



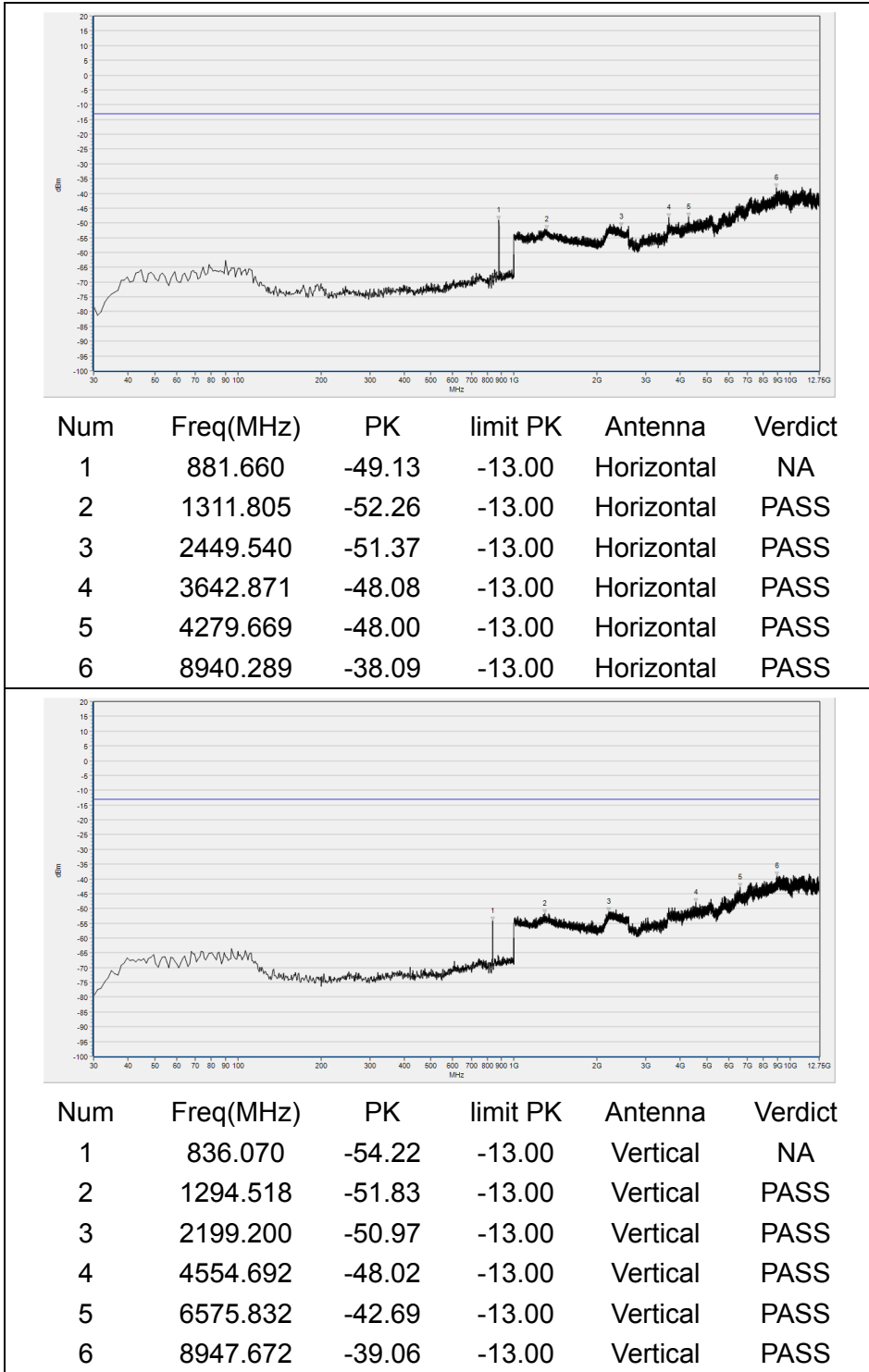
| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 824.430   | -57.96 | -13.00   | Horizontal | NA      |
| 2   | 869.050   | -48.32 | -13.00   | Horizontal | NA      |
| 3   | 1836.815  | -54.35 | -13.00   | Horizontal | PASS    |
| 4   | 2290.756  | -50.36 | -13.00   | Horizontal | PASS    |
| 5   | 3242.335  | -51.54 | -13.00   | Horizontal | PASS    |
| 6   | 8253.655  | -39.92 | -13.00   | Horizontal | PASS    |



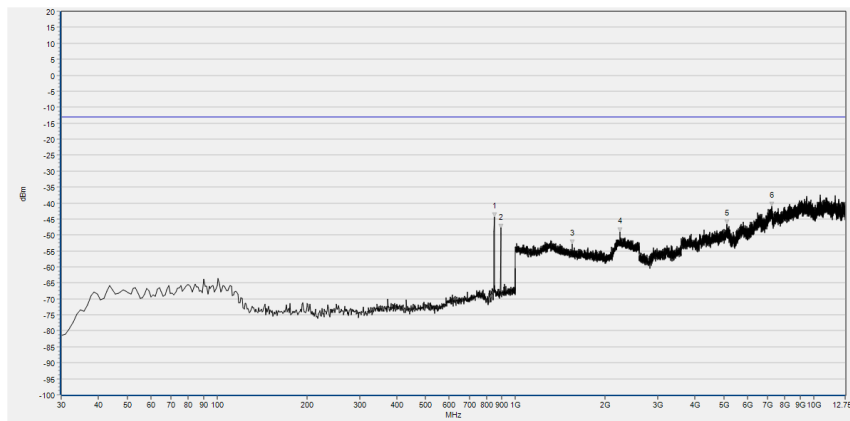
| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 870.020   | -62.22 | -13.00   | Vertical | NA      |
| 2   | 1395.038  | -52.16 | -13.00   | Vertical | PASS    |
| 3   | 2532.773  | -51.32 | -13.00   | Vertical | PASS    |
| 4   | 4427.332  | -48.37 | -13.00   | Vertical | PASS    |
| 5   | 7273.541  | -40.26 | -13.00   | Vertical | PASS    |
| 6   | 9158.092  | -38.87 | -13.00   | Vertical | PASS    |

(CDMA BC0, Channel = 1013 )

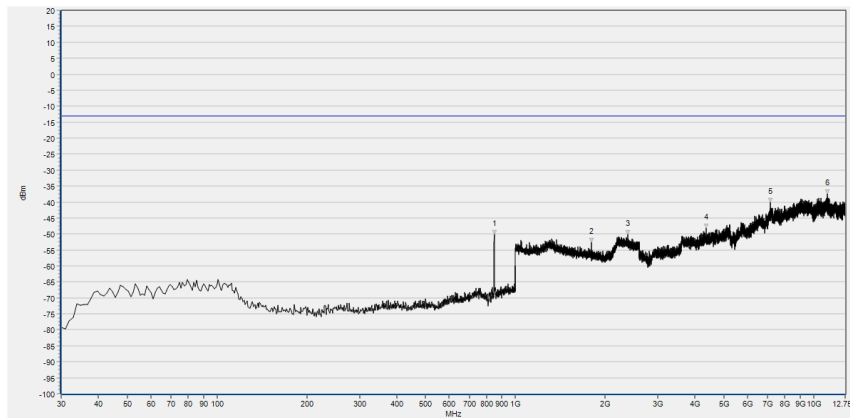




(CDMA BC0, Channel = 384)

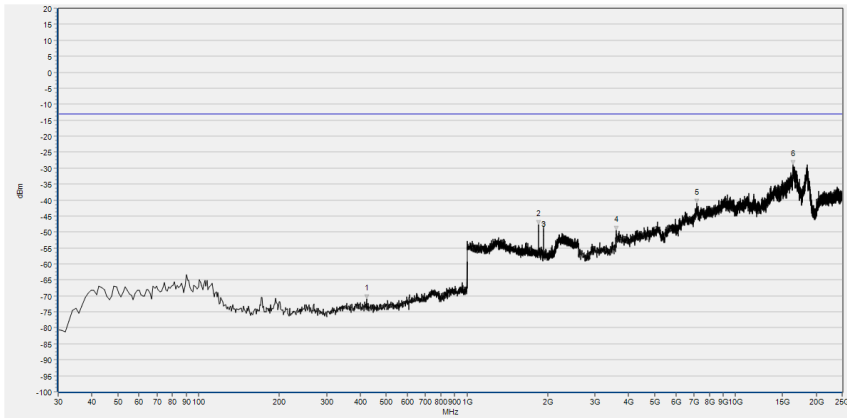


| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 848.680   | -44.40 | -13.00   | Horizontal | PASS    |
| 2   | 893.300   | -47.96 | -13.00   | Horizontal | PASS    |
| 3   | 1550.620  | -52.96 | -13.00   | Horizontal | PASS    |
| 4   | 2243.377  | -49.07 | -13.00   | Horizontal | PASS    |
| 5   | 5104.737  | -46.55 | -13.00   | Horizontal | PASS    |
| 6   | 7229.242  | -40.91 | -13.00   | Horizontal | PASS    |

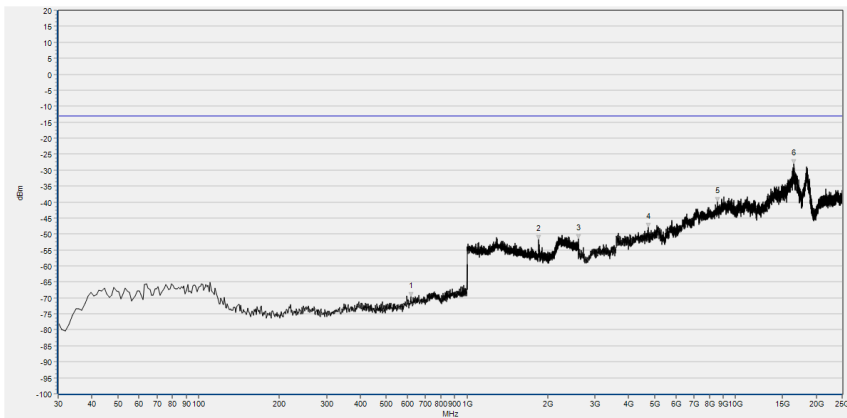


| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 848.680   | -50.25 | -13.00   | Vertical | NA      |
| 2   | 1800.960  | -52.56 | -13.00   | Vertical | PASS    |
| 3   | 2383.593  | -50.26 | -13.00   | Vertical | PASS    |
| 4   | 4351.655  | -48.10 | -13.00   | Vertical | PASS    |
| 5   | 7153.564  | -40.01 | -13.00   | Vertical | PASS    |
| 6   | 11133.088 | -37.45 | -13.00   | Vertical | PASS    |

(CDMA BC0, Channel = 777)

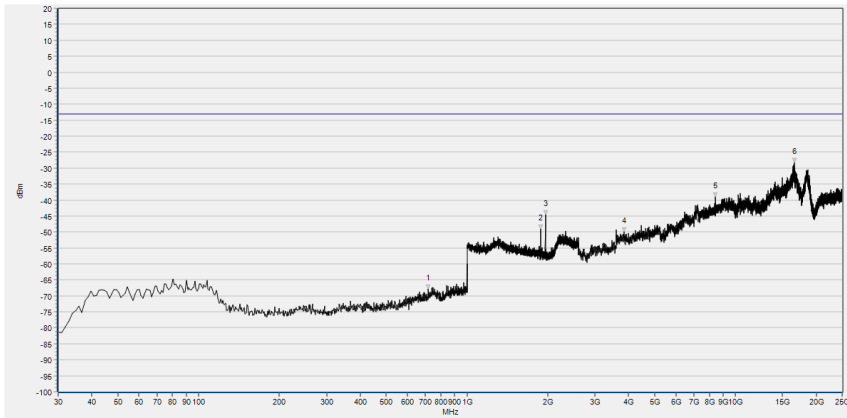


| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 422.850   | -71.03 | -13.00   | Horizontal | PASS    |
| 2   | 1851.541  | -47.64 | -13.00   | Horizontal | NA      |
| 3   | 1930.932  | -48.30 | -13.00   | Horizontal | NA      |
| 4   | 3602.073  | -49.48 | -13.00   | Horizontal | PASS    |
| 5   | 7198.945  | -41.01 | -13.00   | Horizontal | PASS    |
| 6   | 16433.497 | -28.85 | -13.00   | Horizontal | PASS    |

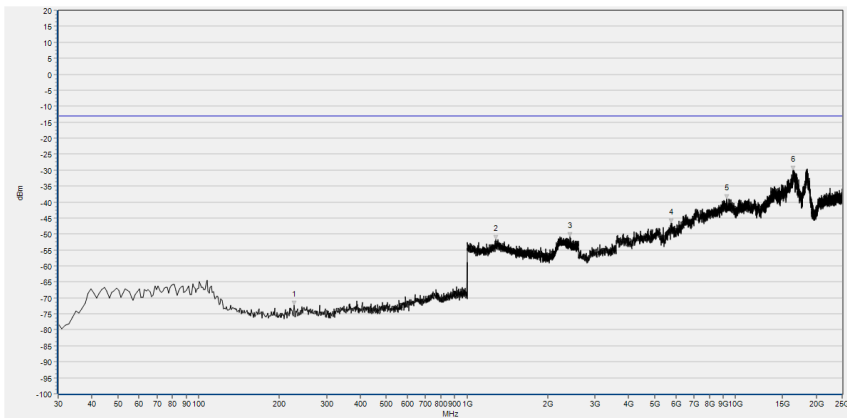


| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 616.850   | -69.54 | -13.00   | Vertical | PASS    |
| 2   | 1850.900  | -51.77 | -13.00   | Vertical | NA      |
| 3   | 2599.360  | -51.60 | -13.00   | Vertical | PASS    |
| 4   | 4746.718  | -47.99 | -13.00   | Vertical | PASS    |
| 5   | 8587.998  | -39.81 | -13.00   | Vertical | PASS    |
| 6   | 16543.481 | -28.12 | -13.00   | Vertical | PASS    |

(CDMA BC1, Channel = 25 )

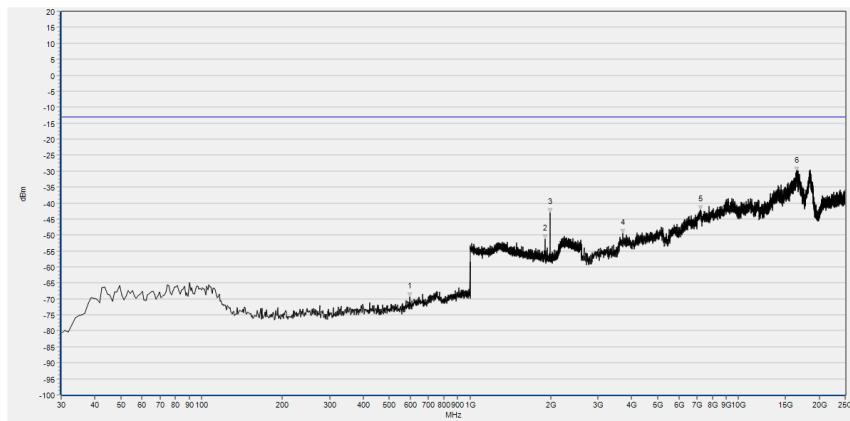


| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 717.730   | -67.76 | -13.00   | Horizontal | PASS    |
| 2   | 1879.712  | -48.98 | -13.00   | Horizontal | NA      |
| 3   | 1959.744  | -44.60 | -13.00   | Horizontal | NA      |
| 4   | 3854.628  | -50.02 | -13.00   | Horizontal | PASS    |
| 5   | 8445.426  | -38.99 | -13.00   | Horizontal | PASS    |
| 6   | 16563.848 | -28.37 | -13.00   | Horizontal | PASS    |

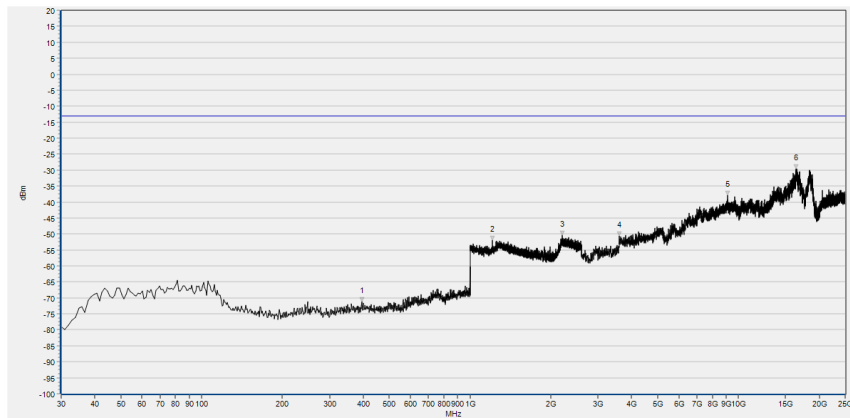


| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 226.910   | -72.20 | -13.00   | Vertical | PASS    |
| 2   | 1281.713  | -51.69 | -13.00   | Vertical | PASS    |
| 3   | 2425.850  | -50.86 | -13.00   | Vertical | PASS    |
| 4   | 5773.231  | -46.63 | -13.00   | Vertical | PASS    |
| 5   | 9296.781  | -38.90 | -13.00   | Vertical | PASS    |
| 6   | 16400.909 | -30.15 | -13.00   | Vertical | PASS    |

(CDMA BC1, Channel = 600)



| Num | Freq(MHz) | PK     | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 597.450   | -69.46 | -13.00   | Horizontal | PASS    |
| 2   | 1908.523  | -51.19 | -13.00   | Horizontal | NA      |
| 3   | 1988.555  | -43.07 | -13.00   | Horizontal | NA      |
| 4   | 3716.130  | -49.48 | -13.00   | Horizontal | PASS    |
| 5   | 7231.533  | -42.16 | -13.00   | Horizontal | PASS    |
| 6   | 16519.040 | -30.08 | -13.00   | Horizontal | PASS    |



| Num | Freq(MHz) | PK     | limit PK | Antenna  | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1   | 395.690   | -71.16 | -13.00   | Vertical | PASS    |
| 2   | 1213.205  | -51.91 | -13.00   | Vertical | PASS    |
| 3   | 2206.242  | -50.41 | -13.00   | Vertical | PASS    |
| 4   | 3598.000  | -50.61 | -13.00   | Vertical | PASS    |
| 5   | 9101.255  | -37.98 | -13.00   | Vertical | PASS    |
| 6   | 16417.203 | -29.61 | -13.00   | Vertical | PASS    |

(CDMA BC1, Channel = 1175)



## Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

| Test items                          | Uncertainty   |
|-------------------------------------|---------------|
| Output Power                        | $\pm 2.22$ dB |
| Bandwidth                           | $\pm 5\%$     |
| Conducted Spurious Emission         | $\pm 2.77$ dB |
| Band Edge                           | $\pm 2.77$ dB |
| Equivalent Isotropic Radiated Power | $\pm 2.22$ dB |
| Radiated Spurious Emissions         | $\pm 6$ dB    |

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



## Annex B Testing Laboratory Information

### 1. Identification of the Responsible Testing Laboratory

|                      |  |
|----------------------|--|
| <b>Company Name:</b> | Shenzhen Morlab Communications Technology Co., Ltd.  |
| <b>Department:</b>   | Morlab Laboratory  |
| <b>Address:</b>      | FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, Guangdong Province, P. R. China |
| <b>Telephone:</b>    | +86 755 36698555   |
| <b>Facsimile:</b>    | +86 755 36698525   |

### 2. Identification of the Responsible Testing Location

|                 |  |
|-----------------|--|
| <b>Name:</b>    | Shenzhen Morlab Communications Technology Co., Ltd.<br>Morlab Laboratory   |
| <b>Address:</b> | FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, Guangdong Province, P. R. China |

### 3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.



#### 4. Test Equipments Utilized

##### 4.1 Conducted Test Equipments

| Equipment Name         | Serial No. | Type    | Manufacturer                                   | Cal. Date  | Cal. Due   |
|------------------------|------------|---------|--|------------|------------|
| Power Splitter         | NW521      | 1506A   | Weinschel                                      | 2019.04.17 | 2020.04.16 |
| Attenuator 1           | (N/A.)     | 10dB    | Resnet   | 2019.04.17 | 2020.04.16 |
| Attenuator 2           | (N/A.)     | 3dB     | Resnet   | 2019.04.17 | 2020.04.16 |
| EXA Signal Analyzer    | MY53470836 | N9010A  | Agilent  | 2019.12.03 | 2020.12.02 |
| USB Power Sensor       | MY54210011 | U2021XA | Agilent  | 2019.04.17 | 2020.04.16 |
| System Simulator       | 152038     | CMW500  | R&S  | 2019.05.08 | 2020.05.07 |
| RF cable (30MHz-26GHz) | CB01       | RF01    | Morlab   | N/A        | N/A        |
| Coaxial cable          | CB02       | RF02    | Morlab   | N/A        | N/A        |
| SMA connector          | CN01       | RF03    | HUBER-SUHNER                                   | N/A        | N/A        |
| Temperature Chamber    | (N/A)      | HUT705P | CHONGQING HANBA EXPERIMENTAL EQUIPMENT CO.,LTD | 2019.04.17 | 2020.04.16 |



**4.2 Auxiliary Test Equipment**

| Equipment Name | Model No. | Brand Name | Manufacturer | Cal.Date | Cal.Due |
|----------------|-----------|------------|--------------|----------|---------|
| Computer       | T430i     | Think Pad  | Lenovo       | N/A      | N/A     |

**4.3 Radiated Test Equipments**

| Equipment Name                       | Serial No. | Type       | Manufacturer   | Cal. Date  | Cal.Due    |
|--------------------------------------|------------|------------|----------------|------------|------------|
| System Simulator                     | 152038     | CMW500     | R&S            | 2019.08.04 | 2020.08.03 |
| Receiver                             | MY54130016 | N9038A     | Agilent        | 2019.05.18 | 2020.05.17 |
| Test Antenna - Bi-Log                | 9163-519   | VULB 9163  | Schwarzbeck    | 2020.03.03 | 2021.03.02 |
| Test Antenna - Horn                  | 9170C-531  | BBHA9170   | Schwarzbeck    | 2019.08.06 | 2020.08.05 |
| Test Antenna - Horn                  | 01774      | BBHA 9120D | Schwarzbeck    | 2019.08.02 | 2020.08.01 |
| Coaxial cable (N male) (9KHz-30MHz)  | CB04       | EMC04      | Morlab         | N/A        | N/A        |
| Coaxial cable (N male) (30MHz-26GHz) | CB02       | EMC02      | Morlab         | N/A        | N/A        |
| Coaxial cable(N male) (30MHz-26GHz)  | CB03       | EMC03      | Morlab         | N/A        | N/A        |
| 1-18GHz pre-Amplifier                | MA02       | TS-PR18    | Rohde& Schwarz | 2019.05.08 | 2020.05.07 |
| 18-26.5GHz pre-Amplifier             | MA03       | TS-PR18    | Rohde& Schwarz | 2019.05.08 | 2020.05.07 |
| Anechoic Chamber                     | N/A        | 9m*6m*6m   | CRT            | 2017.11.19 | 2020.11.18 |

————— END OF REPORT —————