



# TEST REPORT

**MANUFACTURER** : Hot Pepper, Inc.

**PRODUCT NAME** : 4G Smart Phone

**MODEL NAME** : HPP-L55

**BRAND NAME** : Hot Pepper

**FCC ID** : 2APD4-A95C

**STANDARD(S)** : 47 CFR Part 22, Subpart H  
47 CFR Part 24 Subpart E  
47 CFR Part 90 Subpart S

**RECEIPT DATE** : 2019-10-10

**TEST DATE** : 2019-10-30 to 2019-12-07

**ISSUE DATE** : 2019-12-30

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| Change History |            |                   |
|----------------|------------|-------------------|
| Version        | Date       | Reason for change |
| 1.0            | 2019-12-30 | First edition     |
|                |            |                   |



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1. Applicant and Manufacturer Information

|                              |                                                    |
|------------------------------|----------------------------------------------------|
| <b>Applicant:</b>            | Hot Pepper, Inc.                                   |
| <b>Applicant Address:</b>    | 5151 California Ave., Suite 100, Irvine 92617, USA |
| <b>Manufacturer:</b>         | Hot Pepper, Inc.                                   |
| <b>Manufacturer Address:</b> | 5151 California Ave., Suite 100, Irvine 92617, USA |

## 1.2. Equipment Under Test (EUT) Description

|                               |                                                                                |                                                          |
|-------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------|
| <b>Product Name:</b>          | 4G Smart Phone                                                                 |                                                          |
| <b>Hardware Version:</b>      | A95C_MAINBOARD_P3                                                              |                                                          |
| <b>Software Version:</b>      | HPP-L55-C1.0.0                                                                 |                                                          |
| <b>Modulation Type:</b>       | CDMA2000 1X:QPSK,OQPSK;<br>EVDO 0:QPSK,OQPSK;<br>EVDO A:QPSK,OQPSK;            |                                                          |
| <b>Operation Band:</b>        | CDMA 800MHz: (BC0);CDMA 1900Mhz:(BC1);CDMA 800MHz: (BC10)                      |                                                          |
| <b>Frequency Range:</b>       | CDMA 800MHz(BC0)                                                               | Tx: 824.025 - 848.985 MHz;<br>Rx: 869.025 - 893.985MHz;  |
|                               | CDMA1900MHz(BC1 )                                                              | Tx: 1850 MHz - 1894.95MHz;<br>Rx: 1930 MHz - 1974.95 MHz |
|                               | CDMA 800MHz(BC10)                                                              | Tx: 816 - 823.975 MHz;<br>Rx: 902.9 - 915.075MHz;        |
|                               |                                                                                |                                                          |
| <b>Emission Designator:</b>   | CDMA 800MHzBC0:1M27F9W,<br>CDMA 1900MHzBC1:1M27F9W,<br>CDMA 800MHzBC10:1M27F9W |                                                          |
| <b>Antenna Type:</b>          | Fixed Internal                                                                 |                                                          |
| <b>Antenna Gain:</b>          | CDMA 800MHz, BC0:                                                              | -2.0dBi                                                  |
|                               | CDMA 1900MHz, BC1:                                                             | -1.8 dBi                                                 |
|                               | CDMA 800MHz, BC10:                                                             | -2.0 dBi                                                 |
| <b>Accessory Information:</b> | Battery                                                                        |                                                          |
|                               | Manufacturer:                                                                  | Shenzhen HUATIAN TONG TECHNOLOGY CO.LTD                  |



REPORT No. : XM19080032W03

|  |                |                                       |
|--|----------------|---------------------------------------|
|  | Brand Name:    | Hot Pepper                            |
|  | Model No.:     | H2019A95C                             |
|  | Serial No.:    | (N/A, marked #1 by test site)         |
|  | Capacity:      | 2200mAh                               |
|  | Rated Voltage: | 3.80V                                 |
|  | Charge Limit:  | 4.35V                                 |
|  | AC Adapter     |                                       |
|  | Manufacturer:  | Shenzhen Tianyin Electronics Co.,Ltd. |
|  | Brand Name:    | Hot Pepper                            |
|  | Model No.:     | TPA-46B050100UU                       |
|  | Serial No.:    | (N/A, marked #1 by test site)         |
|  | Rated Input:   | 100-240V ~ 50/60Hz 0.2A               |
|  | Rated Output:  | 5V=1.0A                               |
|  |                |                                       |

**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 ,Part 22,Part 24 and Part 90 for the EUT FCC ID Certification:

| No | Identity       | Document Title                                                                   |
|----|----------------|----------------------------------------------------------------------------------|
| 1  | 47 CFR Part 2  | FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS;<br>GENERAL RULES AND REGULATIONS |
| 2  | 47 CFR Part 22 | PUBLIC MOBILE SERVICES                                                           |
| 3  | 47 CFR Part 24 | PERSONAL COMMUNICATIONS SERVICES                                                 |
| 4  | 47 CFR Part 90 | PRIVATE LAND MOBILE RADIO 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  | Dec 04, 2019                 | Lai Huihuang  | PASS   |
| 2.1049,22.917,<br>24.238,90.209          | Occupied Bandwidth                  | Dec 04, 2019                 | Lai Huihuang  | PASS   |
| 24.232(d),22.913(d)                      | Peak -Average Ratio                 | Dec 04, 2019                 | Lai Huihuang  | PASS   |
| 2.1055,22.355,<br>24.235,90.213          | Frequency Stability                 | Dec 04, 2019                 | Lai Huihuang  | PASS   |
| 2.1051,22.917(a),<br>24.238(a),90.691    | Conducted Spurious Emissions        | Dec 04, 2019                 | Lai Huihuang  | PASS   |
| 2.1051,22.917(a),<br>24.238(a),90.691    | Band Edge                           | Dec 04, 2019<br>Jan 16, 2020 | Lai Huihuang  | PASS   |
| 2.1046,22.913(a),<br>24.232(a),90.635(b) | Equivalent Isotropic Radiated Power | Nov 28, 2019                 | Yaming Luo    | PASS   |
| 2.1053,22.917(a),<br>24.238(a),90.691    | Radiated Spurious Emissions         | Nov 28, 2019                 | Yaming Luo    | PASS   |

**Note:** The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03r01 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 |

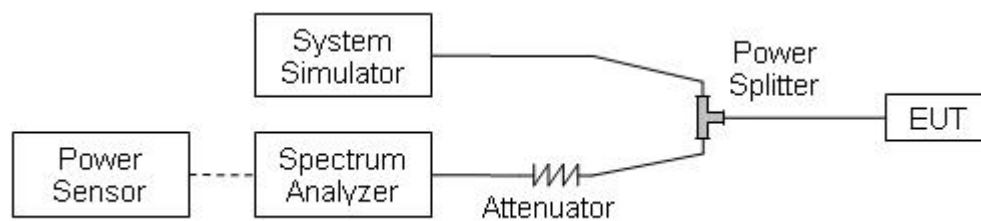
## 2.47 CFR Part 2,Part 22H,Part 24E and Part 90S Requirements

### 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 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.

#### 2.1.3. Test procedure

KDB 971168 D01 v03r01 Section 5.2 and ANSI/TIA-603-E-2016.

#### 2.1.4. Result

| Band             | CDMA2000 BC0 |       |        |       |        |       |
|------------------|--------------|-------|--------|-------|--------|-------|
| TX Channel       | 1013         |       | 384    |       | 777    |       |
| Frequency (MHz)  | 824.7        |       | 836.52 |       | 848.31 |       |
|                  | dBm          | W     | dBm    | W     | dBm    | W     |
| RC1 SO55         | 23.80        | 0.240 | 23.83  | 0.242 | 23.68  | 0.233 |
| RC3 SO55         | 24.04        | 0.254 | 23.95  | 0.248 | 23.88  | 0.244 |
| RC3 SO32 (F+SCH) | 23.15        | 0.207 | 23.20  | 0.209 | 23.11  | 0.205 |



|                 |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|
| RC3 SO32 (+SCH) | 22.80 | 0.191 | 22.88 | 0.194 | 22.83 | 0.192 |
| 1XEVDO Rev 0    | 23.61 | 0.230 | 23.62 | 0.230 | 23.64 | 0.231 |
| 1XEVDO Rev A    | 22.97 | 0.198 | 23.01 | 0.200 | 23.23 | 0.210 |

| Band             | CDMA2000 BC1 |       |       |       |         |       |
|------------------|--------------|-------|-------|-------|---------|-------|
| TX Channel       | 25           |       | 600   |       | 1175    |       |
| Frequency (MHz)  | 1851.25      |       | 1880  |       | 1908.75 |       |
|                  | dBm          | W     | dBm   | W     | dBm     | W     |
| RC1 SO55         | 23.40        | 0.219 | 23.48 | 0.223 | 23.67   | 0.233 |
| RC3 SO55         | 23.45        | 0.221 | 23.42 | 0.220 | 23.65   | 0.232 |
| RC3 SO32 (F+SCH) | 23.45        | 0.221 | 23.46 | 0.222 | 23.61   | 0.230 |
| RC3 SO32 (+SCH)  | 22.43        | 0.175 | 22.50 | 0.178 | 22.61   | 0.182 |
| 1XEVDO Rev 0     | 22.78        | 0.190 | 22.89 | 0.195 | 23.17   | 0.207 |
| 1XEVDO Rev A     | 22.67        | 0.185 | 22.82 | 0.191 | 23.05   | 0.202 |

| Band             | CDMA2000 BC10 |       |        |       |       |       |
|------------------|---------------|-------|--------|-------|-------|-------|
| TX Channel       | 476           |       | 526    |       | 684   |       |
| Frequency (MHz)  | 817.9         |       | 819.15 |       | 823.1 |       |
|                  | dBm           | W     | dBm    | W     | dBm   | W     |
| RC1 SO55         | 23.65         | 0.232 | 24.76  | 0.299 | 23.63 | 0.231 |
| RC3 SO55         | 23.35         | 0.216 | 23.45  | 0.221 | 23.34 | 0.216 |
| RC3 SO32 (F+SCH) | 23.57         | 0.228 | 23.82  | 0.241 | 23.36 | 0.217 |
| RC3 SO32 (+SCH)  | 23.48         | 0.223 | 22.90  | 0.195 | 23.60 | 0.229 |
| 1XEVDO Rev 0     | 23.34         | 0.216 | 23.68  | 0.233 | 23.42 | 0.220 |
| 1XEVDO Rev A     | 23.55         | 0.226 | 23.61  | 0.230 | 23.40 | 0.219 |

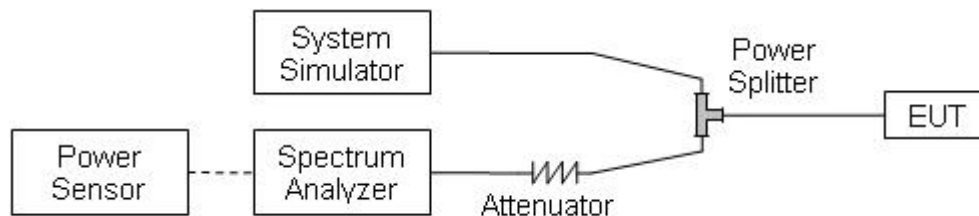


## 2.2. Occupied Bandwidth

### 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 D01 v03r01 Section 4.1 and ANSI/TIA-603-E-2016.



| Band               | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | 26dB bandwidth (MHz) | Refer to Plot |
|--------------------|---------|-----------------|------------------------------|----------------------|---------------|
| CDMA (BC0)         | 1013    | 824.7           | 1.275                        | 1.427                | Plot A1 to A3 |
|                    | 384     | 836.52          | 1.269                        | 1.426                |               |
|                    | 777     | 848.31          | 1.273                        | 1.425                |               |
| 1XEVD0 Rev 0 (BC0) | 1013    | 824.7           | 1.273                        | 1.427                | Plot B1 to B3 |
|                    | 384     | 836.52          | 1.276                        | 1.413                |               |
|                    | 777     | 848.31          | 1.265                        | 1.411                |               |
| 1XEVD0 Rev A (BC0) | 1013    | 824.7           | 1.273                        | 1.422                | Plot C1 to C3 |
|                    | 384     | 836.52          | 1.268                        | 1.407                |               |
|                    | 777     | 848.31          | 1.262                        | 1.407                |               |

| Band               | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | 26dB bandwidth (MHz) | Refer to Plot |
|--------------------|---------|-----------------|------------------------------|----------------------|---------------|
| CDMA (BC1)         | 25      | 1851.25         | 1.271                        | 1.429                | Plot D1 to D3 |
|                    | 600     | 1880            | 1.272                        | 1.431                |               |
|                    | 1175    | 1908.75         | 1.270                        | 1.432                |               |
| 1XEVD0 Rev 0 (BC1) | 25      | 1851.25         | 1.277                        | 1.429                | Plot E1 to E3 |
|                    | 600     | 1880            | 1.270                        | 1.430                |               |
|                    | 1175    | 1908.75         | 1.280                        | 1.431                |               |
| 1XEVD0 Rev A (BC1) | 25      | 1851.25         | 1.261                        | 1.414                | Plot F1 to F3 |
|                    | 600     | 1880            | 1.272                        | 1.437                |               |
|                    | 1175    | 1908.75         | 1.269                        | 1.416                |               |



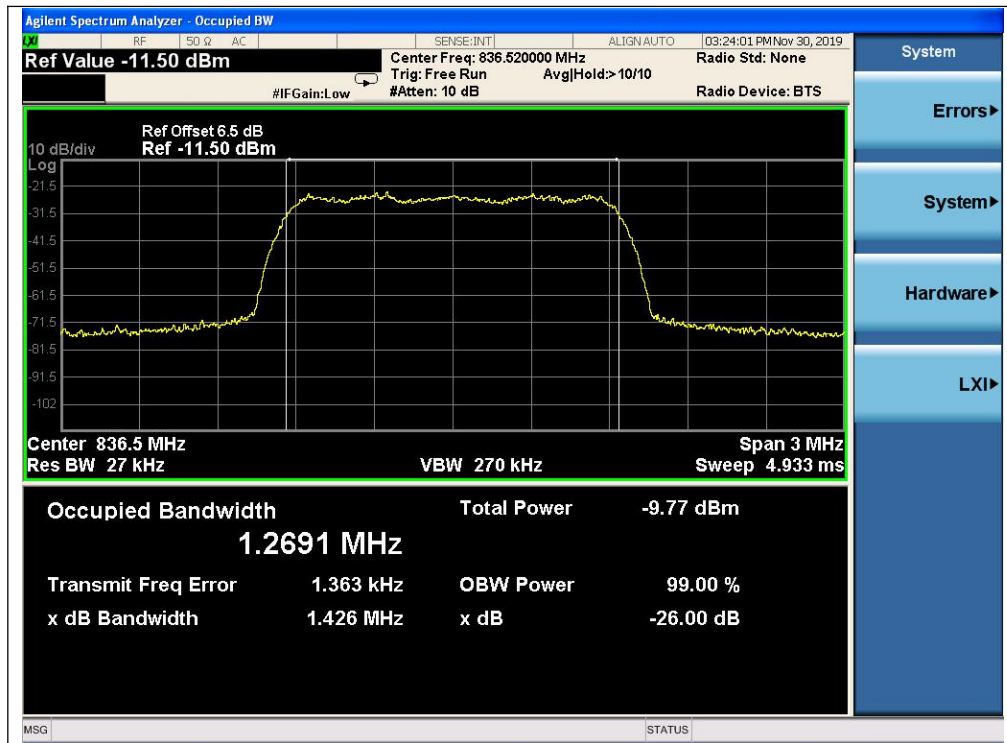
| Band                | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | 26dB bandwidth (MHz) | Refer to Plot |
|---------------------|---------|-----------------|------------------------------|----------------------|---------------|
| CDMA (BC10)         | 476     | 817.9           | 1.274                        | 1.430                | Plot G1 to G3 |
|                     | 526     | 819.15          | 1.268                        | 1.427                |               |
|                     | 684     | 823.1           | 1.271                        | 1.430                |               |
| 1xEVDO Rev 0 (BC10) | 476     | 817.9           | 1.270                        | 1.425                | Plot H1 to H3 |
|                     | 526     | 819.15          | 1.269                        | 1.416                |               |
|                     | 684     | 823.1           | 1.275                        | 1.422                |               |
| 1xEVDO Rev A (BC10) | 476     | 817.9           | 1.278                        | 1.428                | Plot I1 to I3 |
|                     | 526     | 819.15          | 1.270                        | 1.426                |               |
|                     | 684     | 823.1           | 1.266                        | 1.429                |               |

## 2.2.4. Test Result

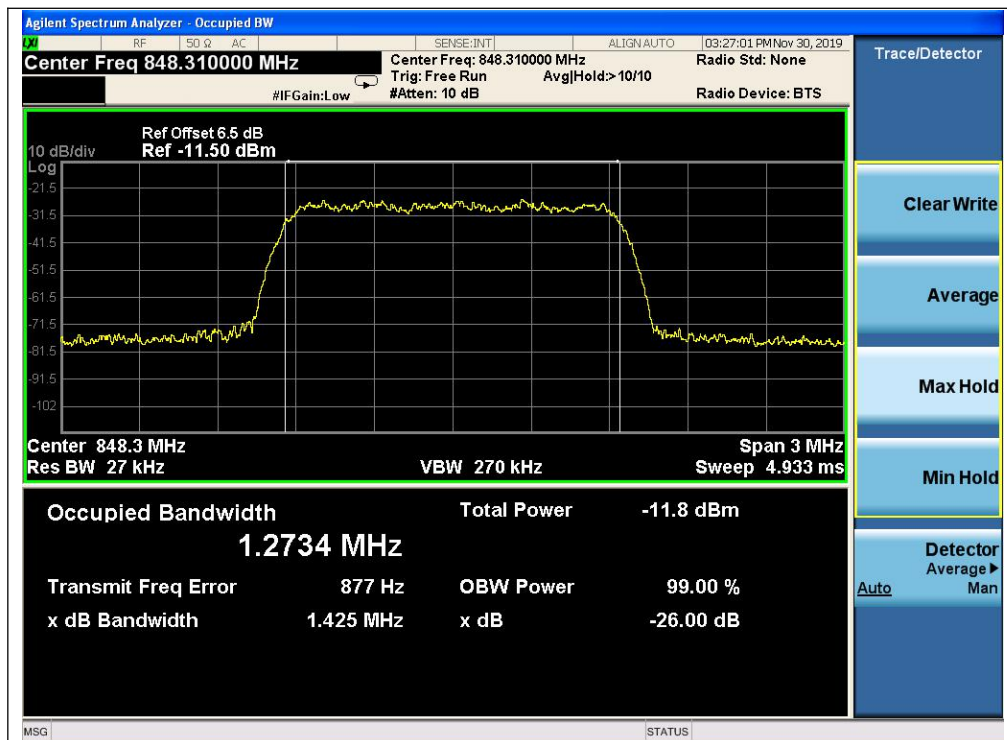
### Test Plots:



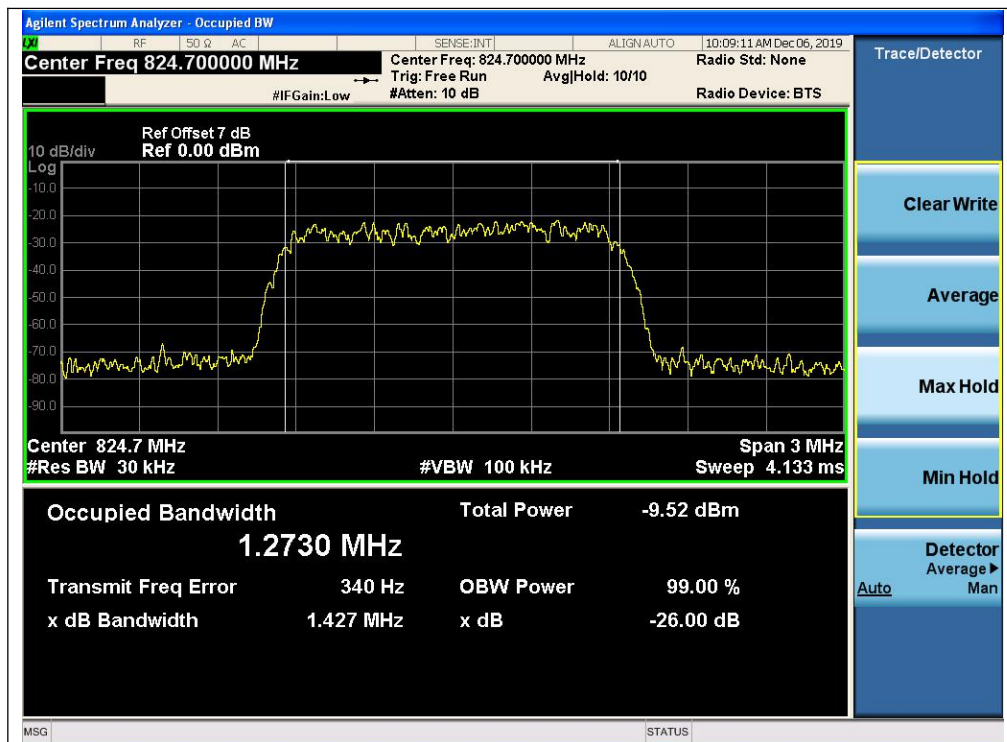
(Plot A1, CDMABC0, Channel = 1013)



(Plot A2, CDMABC0, Channel = 384)



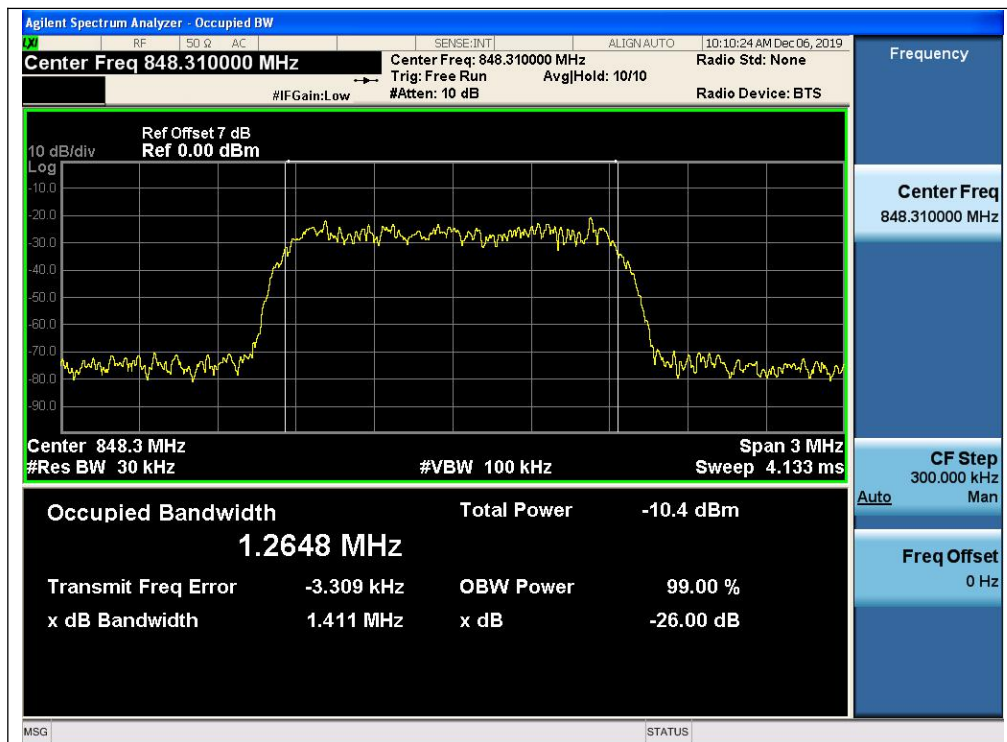
(Plot A3, CDMABC0, Channel = 777)



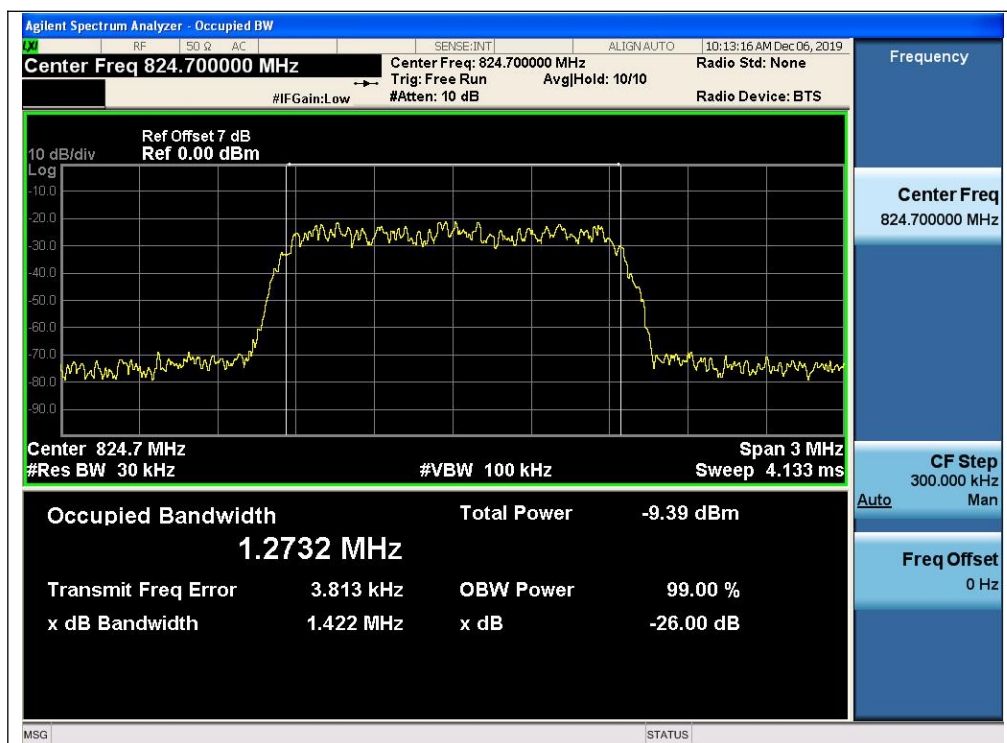
(Plot B1, 1XEVD0 Rev 0 BC0, Channel = 1013)



(Plot B2, 1XEVD0 Rev 0 BC0, Channel = 384)

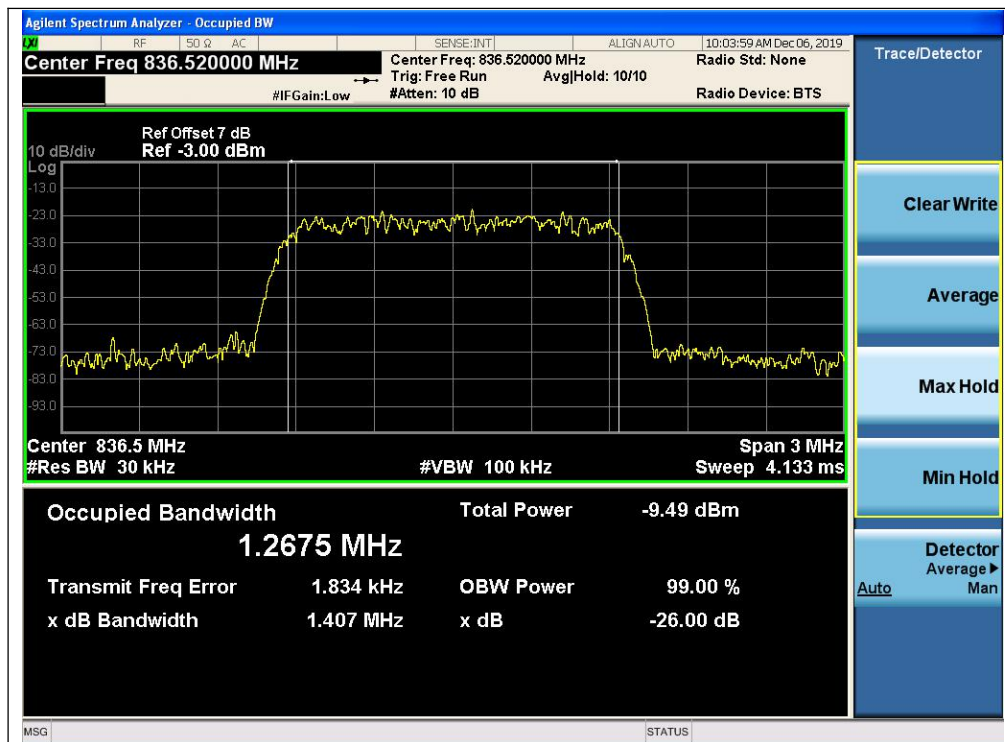


(Plot B3, 1XEVD0 Rev 0 BC0, Channel = 777)

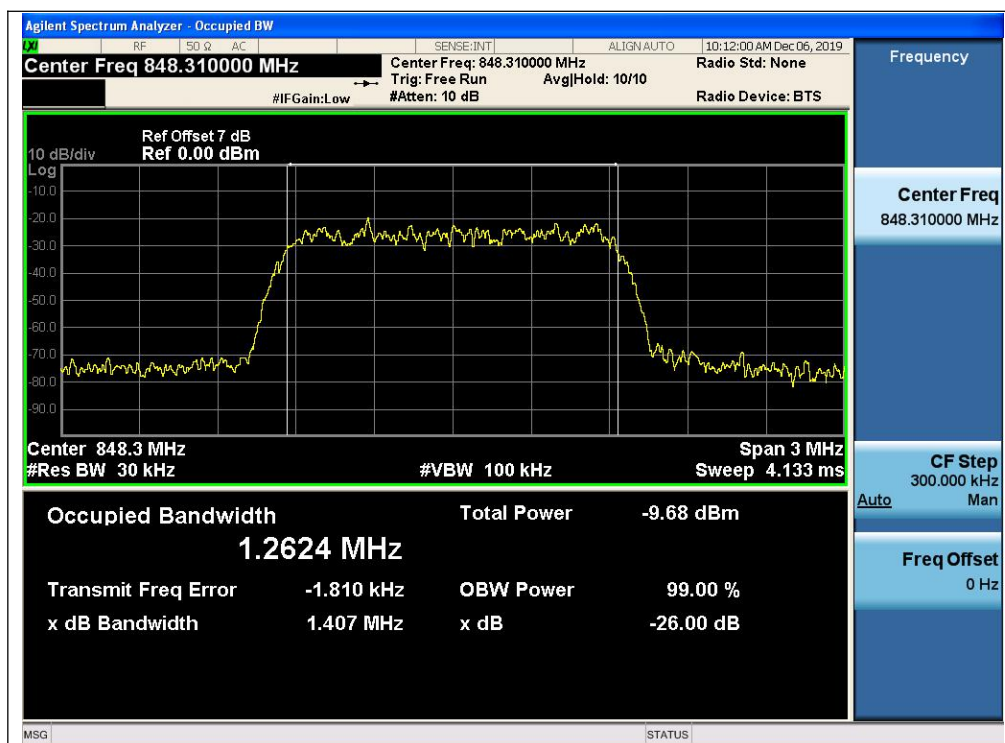


(Plot C1, 1XEVD0 Rev A BC0, Channel = 1013)

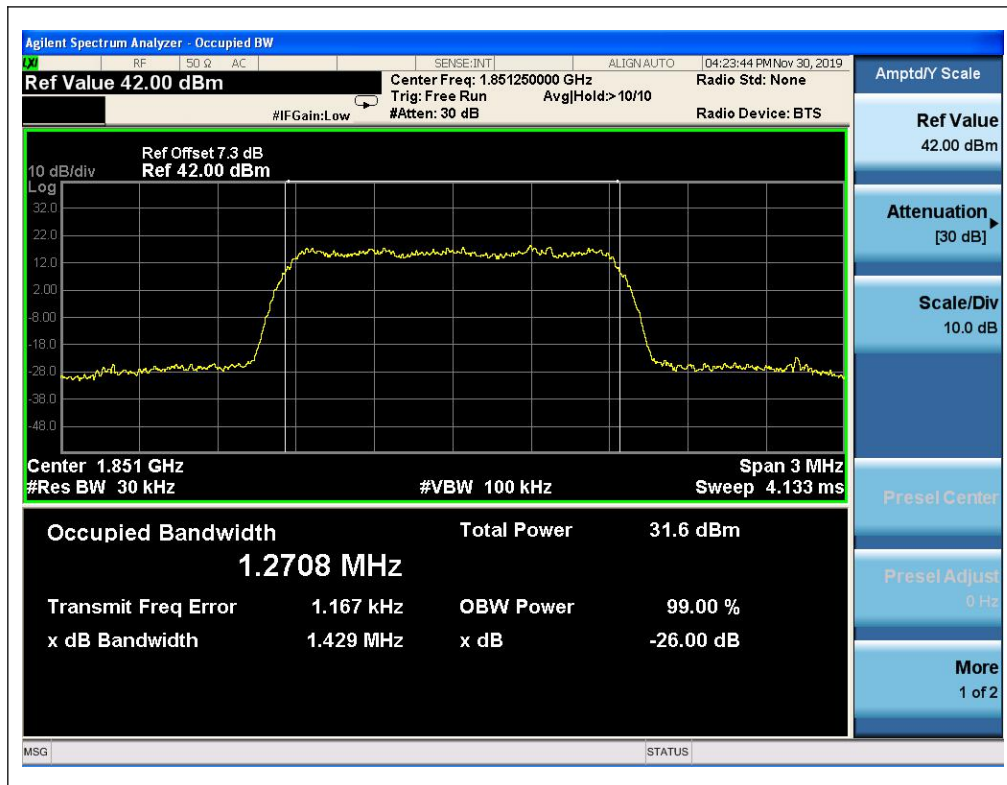




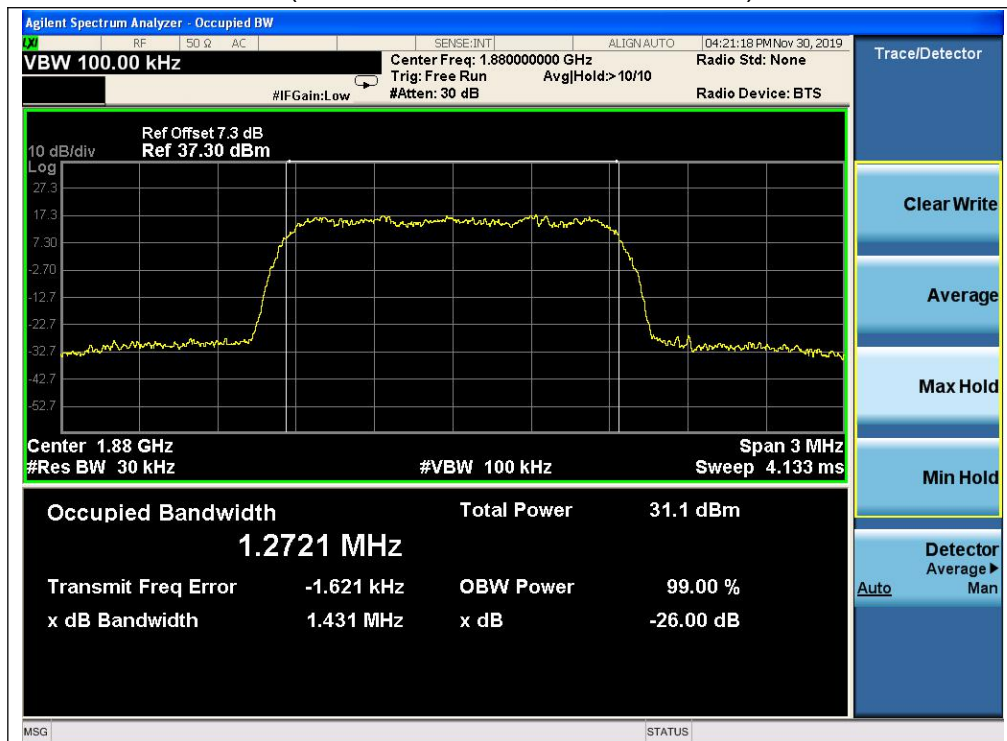
(Plot C2, 1XEVD0 Rev A BC0, Channel = 384)



(Plot C3, 1XEVD0 Rev A BC0, Channel = 777)

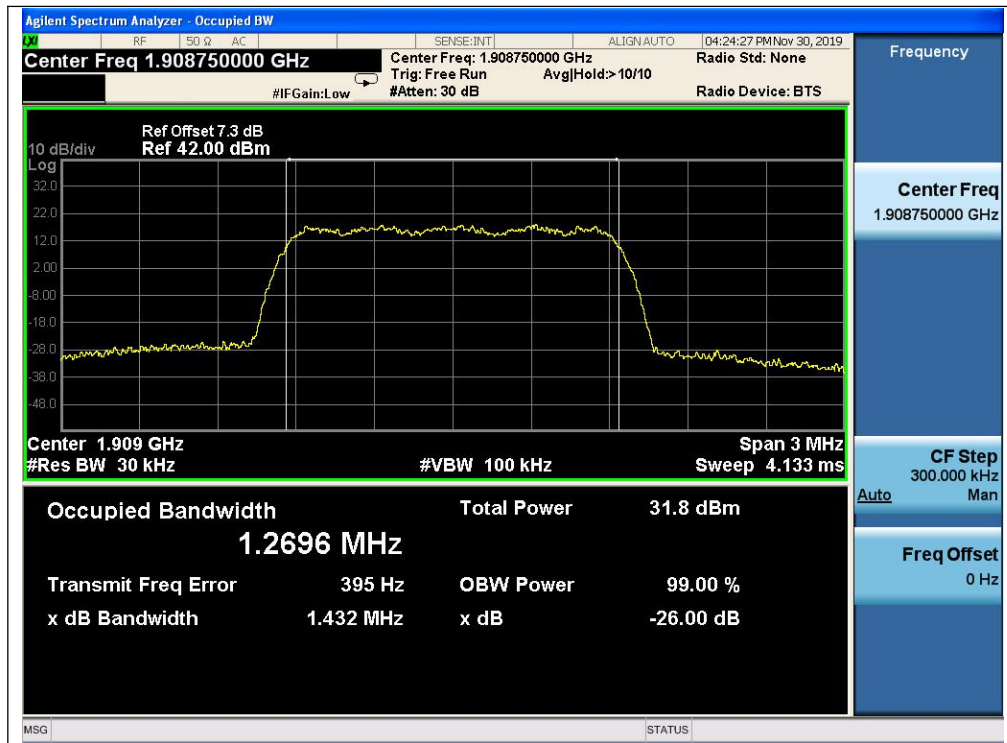


(Plot D1, CDMABC1, Channel = 25)

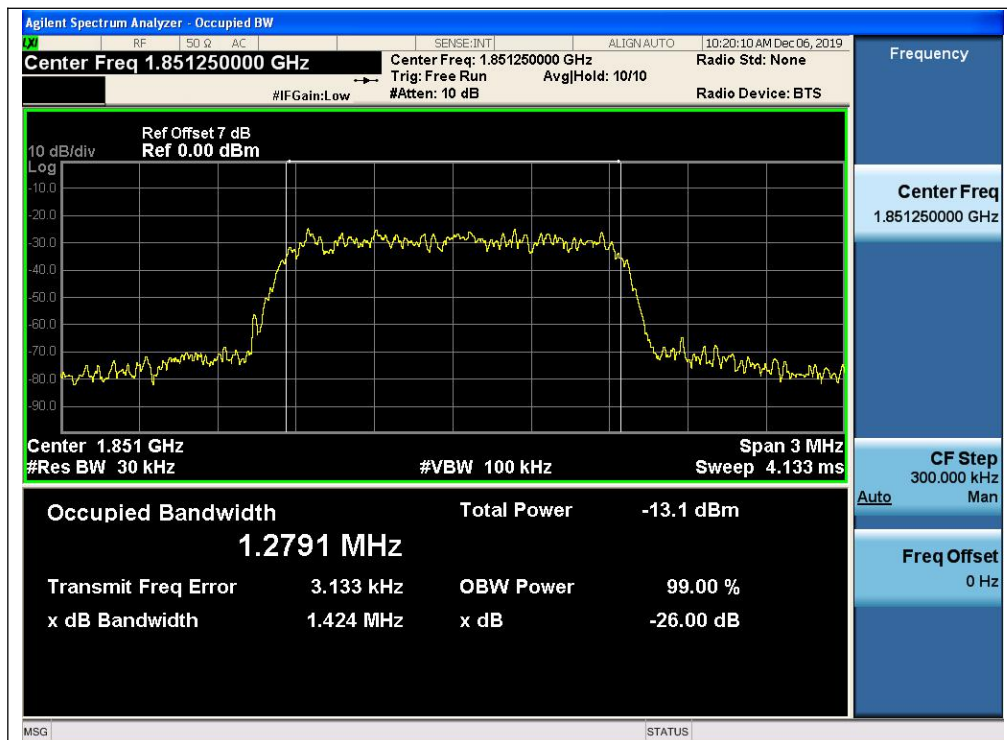


(Plot D2, CDMABC1, Channel = 600)

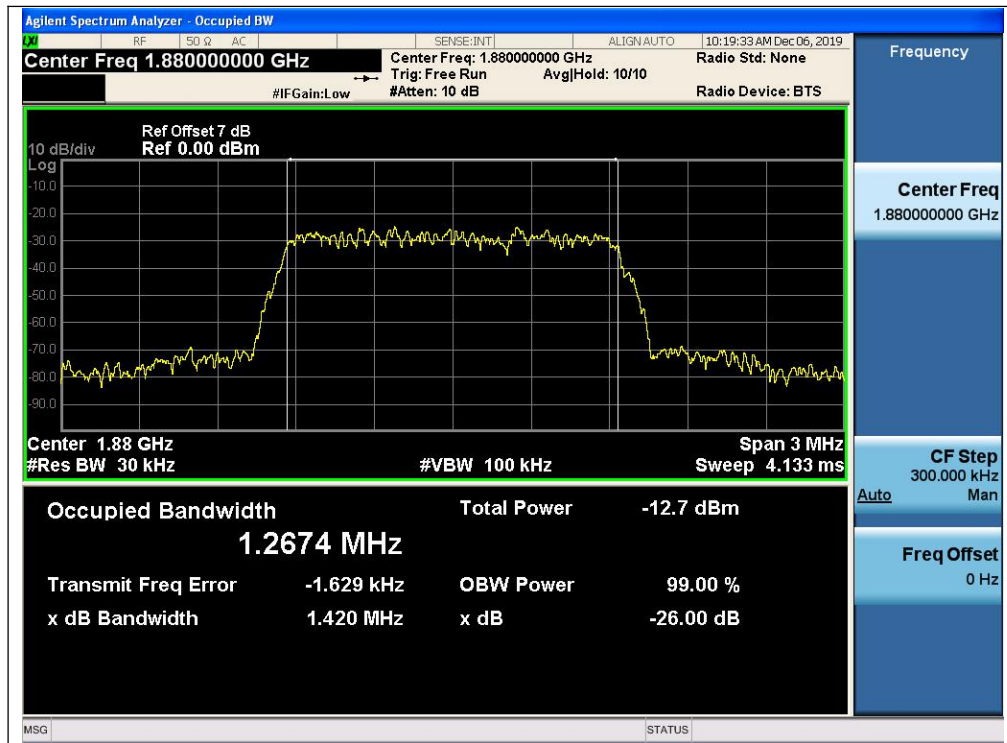




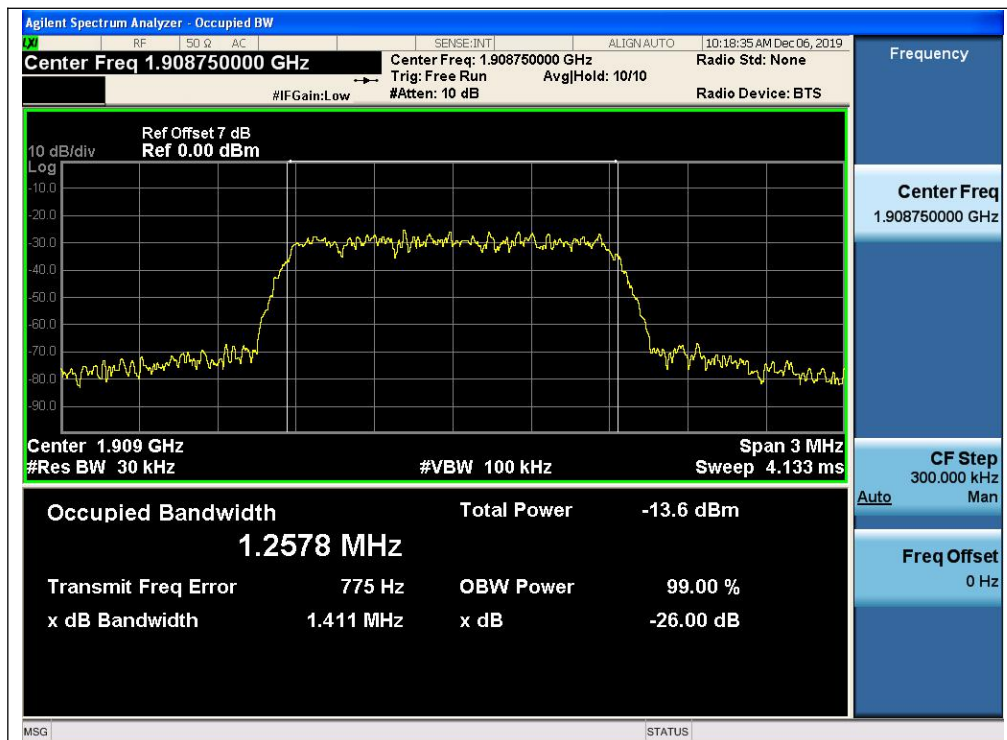
(Plot D3, CDMABC1, Channel = 1175)



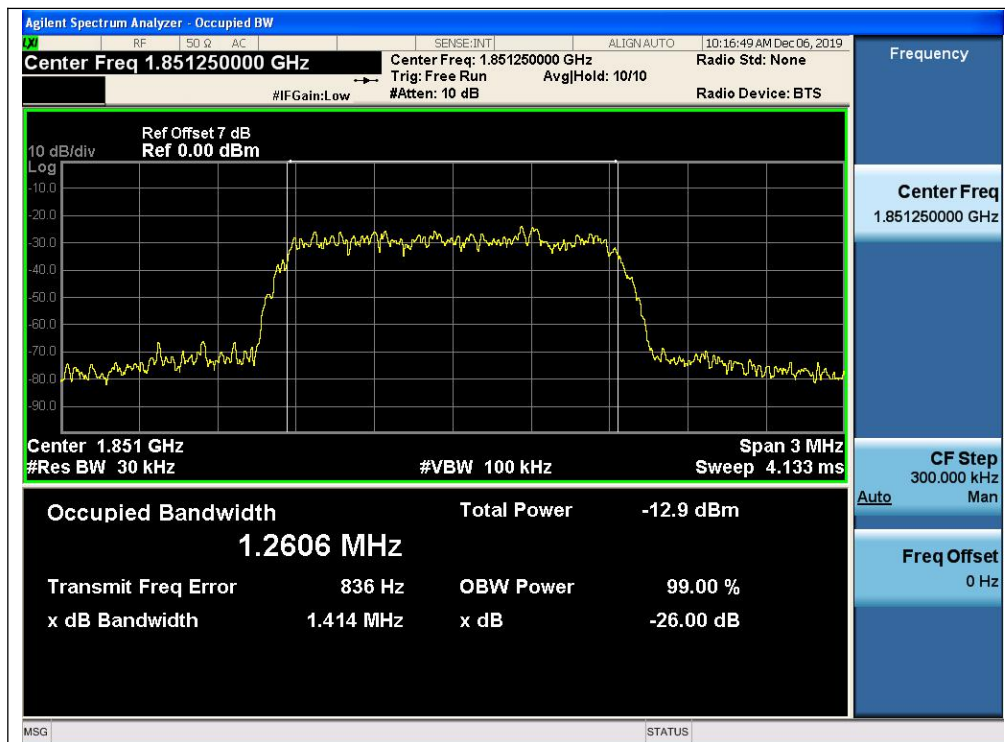
(Plot E1, 1XEVD0 Rev 0 BC1, Channel = 25)



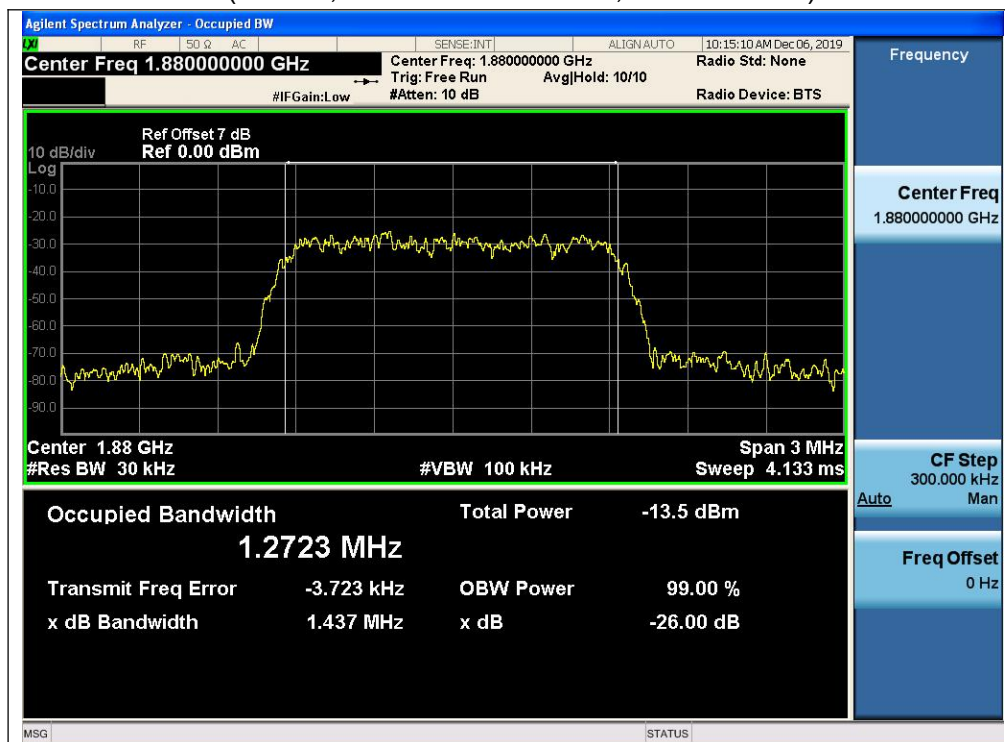
(Plot E2, 1XEVD0 Rev 0 BC1, Channel = 600)



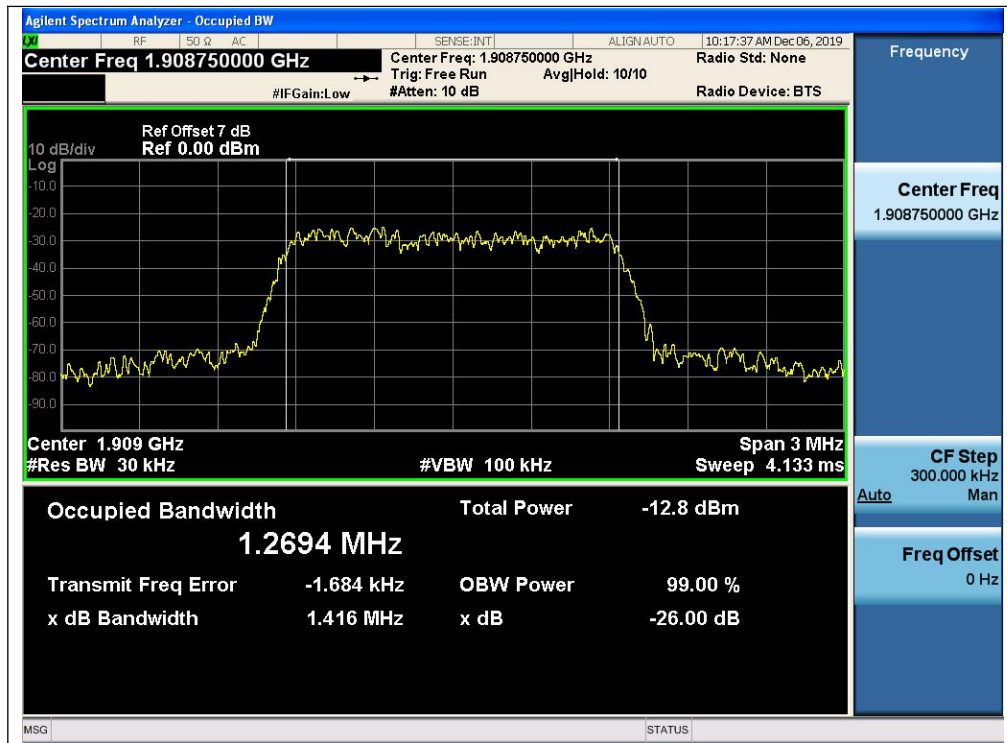
(Plot E3, 1XEVD0 Rev 0 BC1, Channel = 1175)



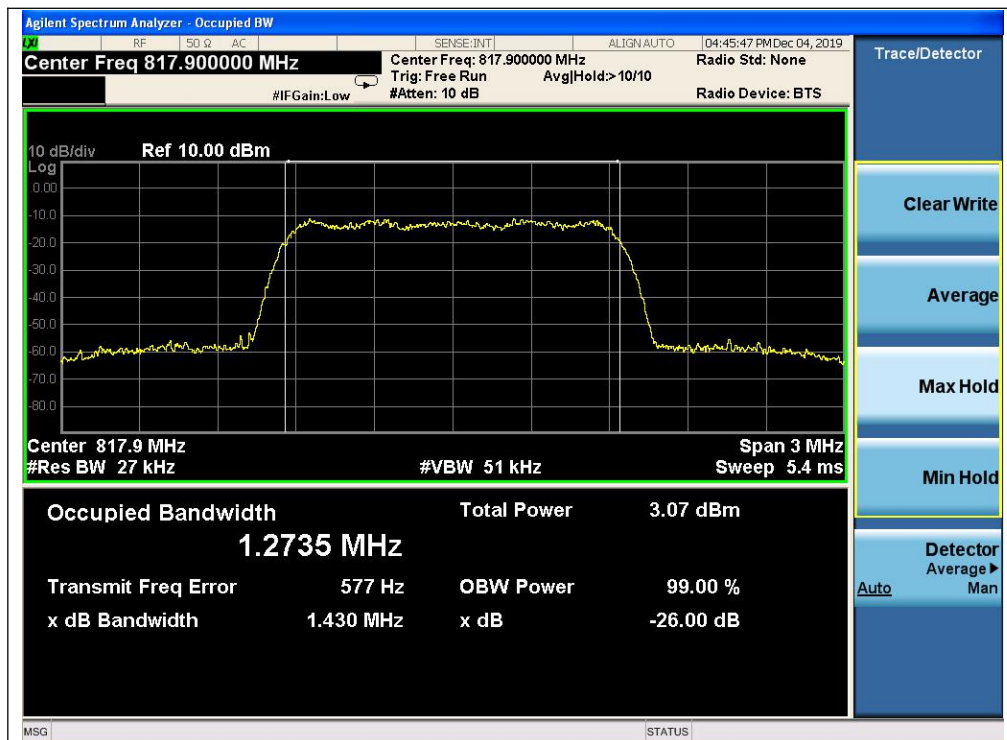
(Plot F1, 1XEVD0 Rev A BC1, Channel = 25)



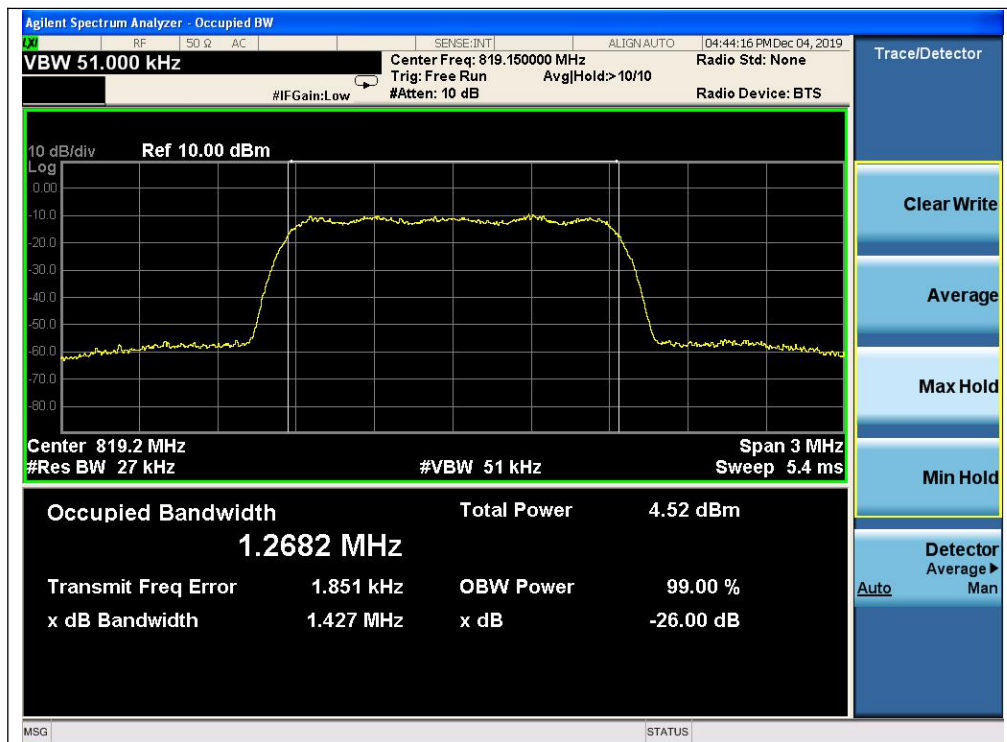
(Plot F2, 1XEVD0 Rev A BC1, Channel = 600)



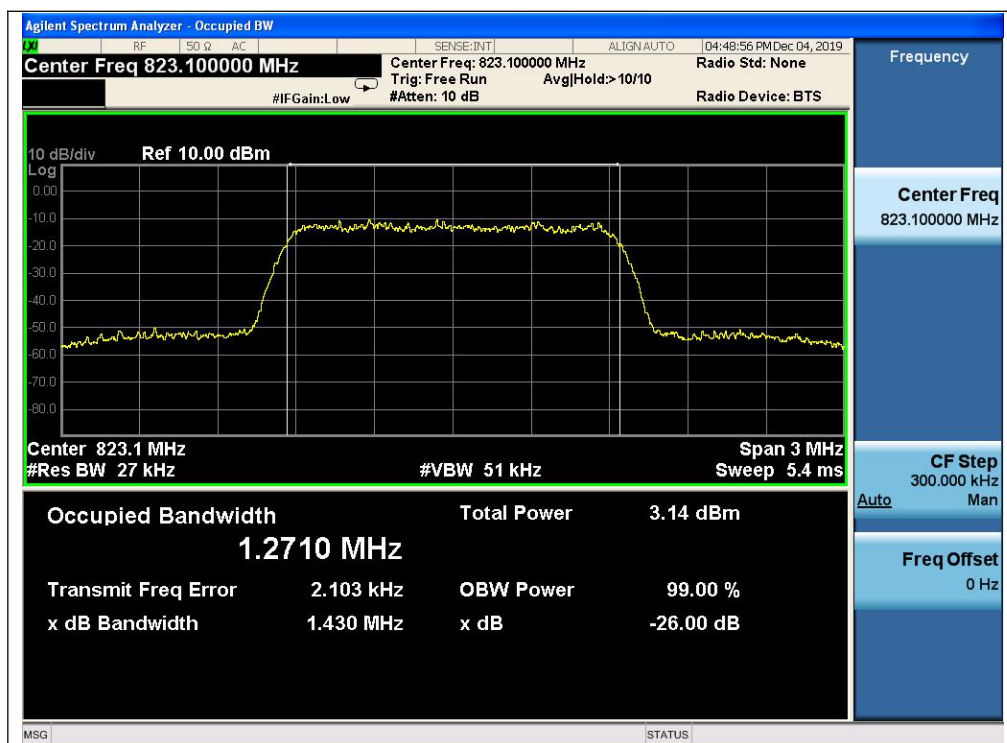
(Plot F3, 1XEVD0 Rev A BC1, Channel = 1175)



(Plot G1, CDMA BC10, Channel = 476)

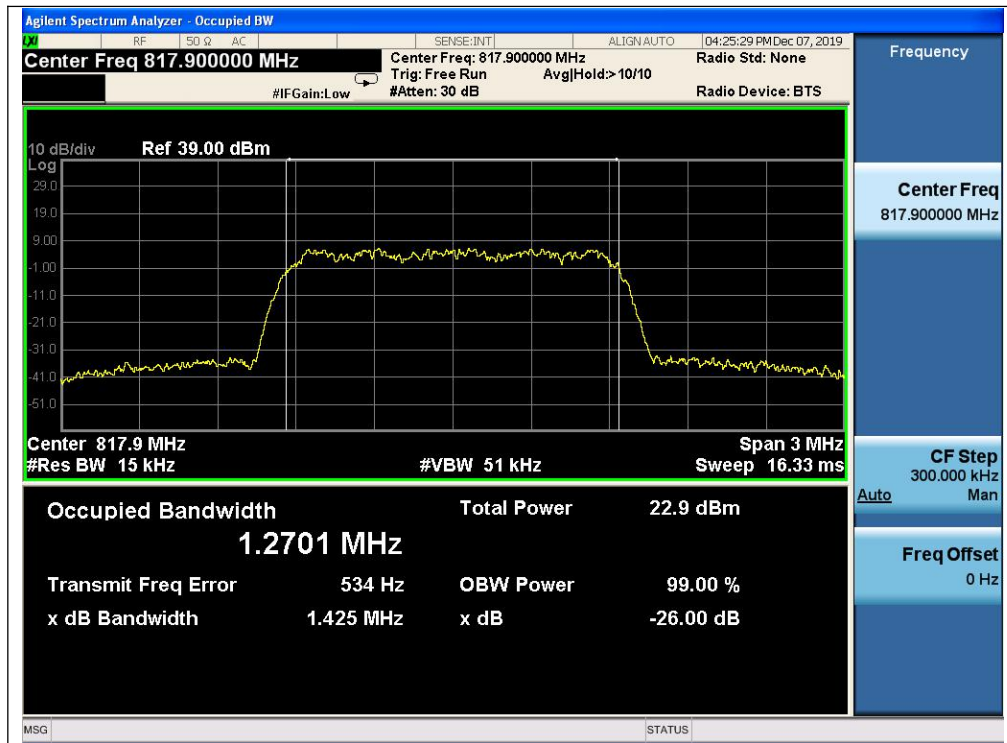


(Plot G1, CDMA BC10, Channel = 526)



(Plot G1, CDMA BC10, Channel = 684)

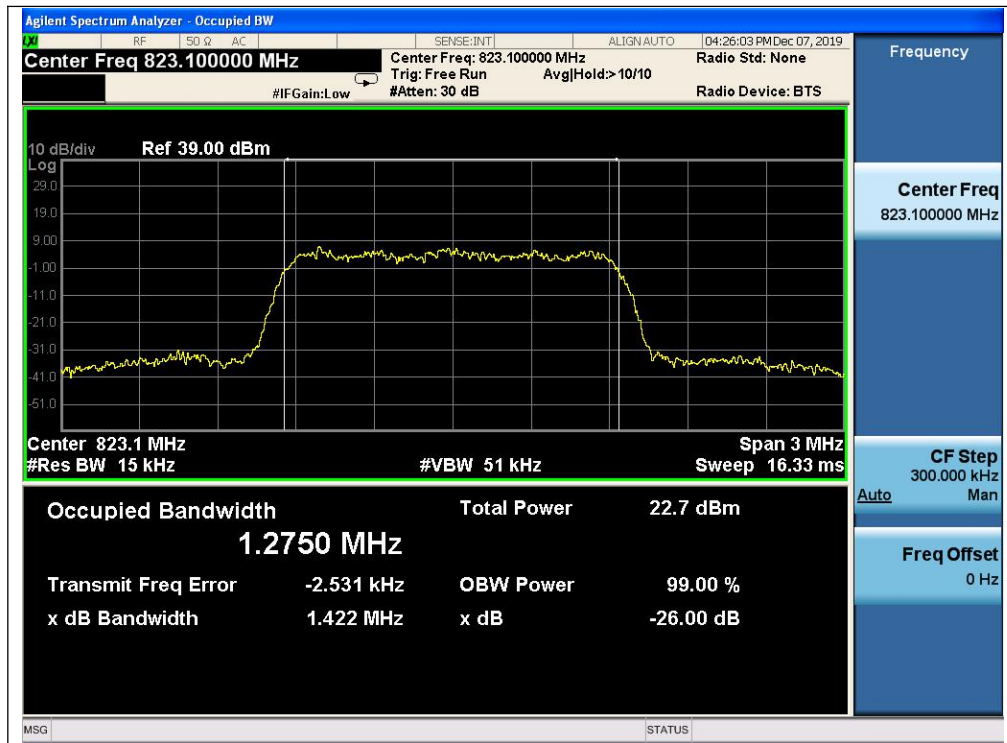




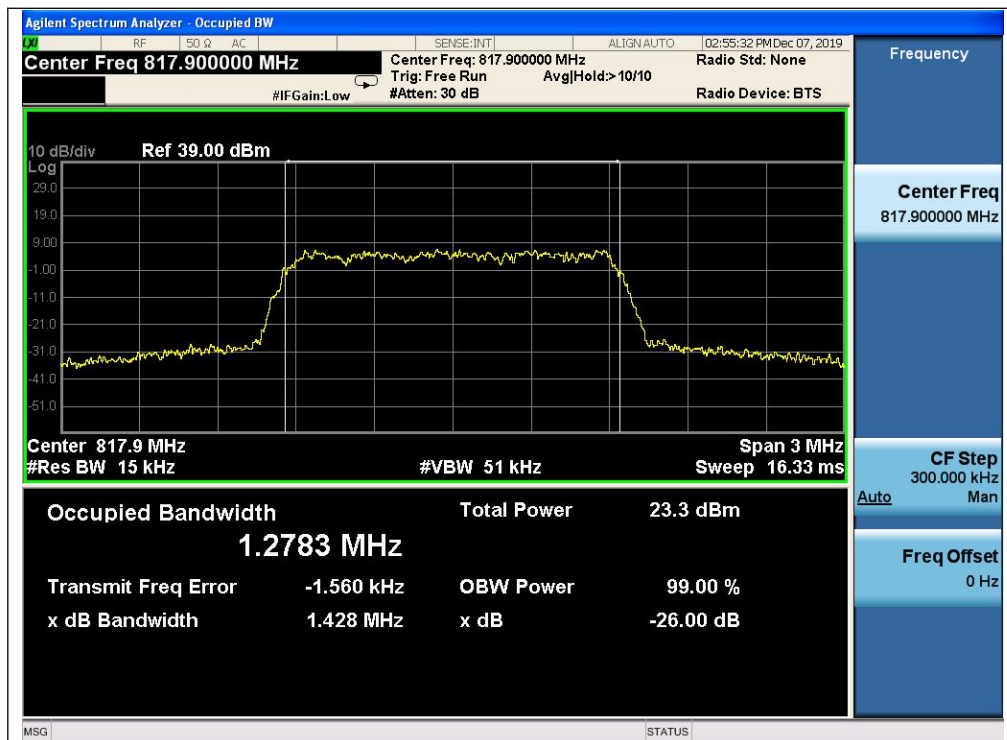
(Plot H1, 1XEVD0 Rev 0 BC10, Channel = 476)



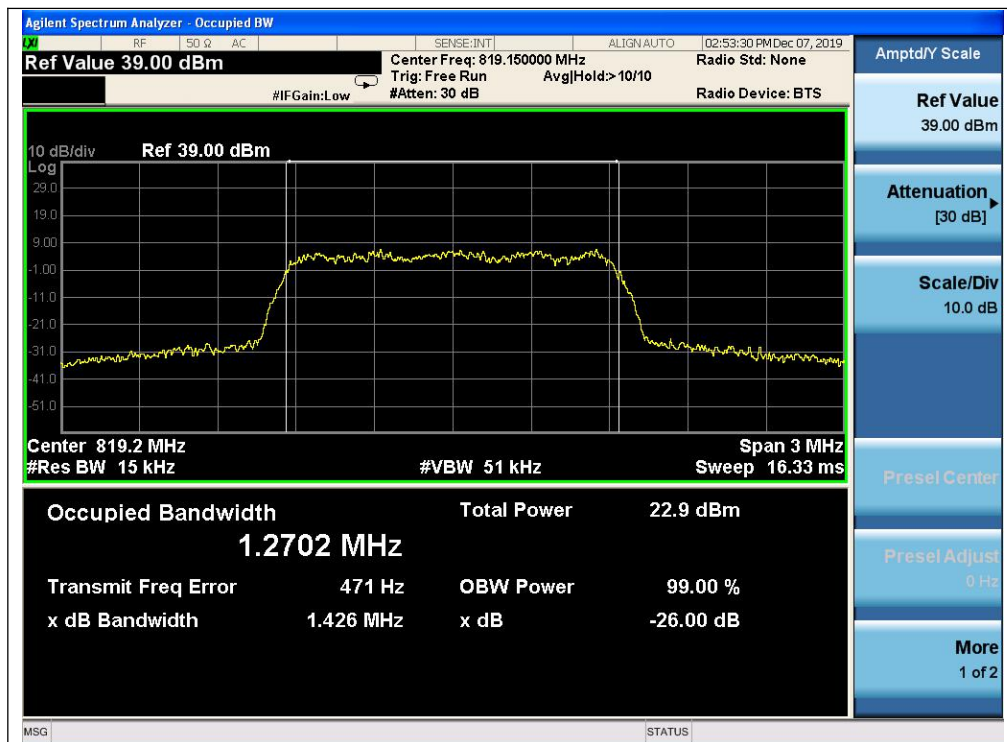
(Plot H2, 1XEVD0 Rev 0 BC10, Channel = 526)



(Plot H3, 1XEVD0 Rev 0 BC10, Channel = 684)



(Plot I1, 1XEVD0 Rev A BC10, Channel = 476)



( (Plot I2, 1XEVD0 Rev A BC10, Channel = 526)



( (Plot I3, 1XEVD0 Rev A BC10, Channel = 684)





## 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 -10°C to +55°C at intervals of not more than 10°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 D01 v03r01 Section 9.0 and ANSI/TIA-603-E-2016.

### 2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.8VDC, 4.35VDC and 3.5VDC, which are specified by the applicant; the normal temperature here used is 20°C.



| CDMA 800MHz BC0, Channel 384, Frequency 836.52MHz<br>Limit = $\pm$ 2.5ppm |             |                     |                |                 |        |
|---------------------------------------------------------------------------|-------------|---------------------|----------------|-----------------|--------|
| Voltage(%)                                                                | Power(V DC) | Temp( $^{\circ}$ C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100                                                                       | 3.80        | +20(Ref)            | -33            | -0.039          | PASS   |
| 100                                                                       |             | -10                 | -58            | -0.069          |        |
| 100                                                                       |             | 0                   | 66             | 0.079           |        |
| 100                                                                       |             | +10                 | -50            | -0.060          |        |
| 100                                                                       |             | +20                 | -84            | -0.100          |        |
| 100                                                                       |             | +30                 | 7              | 0.008           |        |
| 100                                                                       |             | +40                 | -36            | -0.043          |        |
| 100                                                                       |             | +50                 | 38             | 0.045           |        |
| 100                                                                       |             | +55                 | 75             | 0.090           |        |
| 115                                                                       | 4.35        | +20                 | 76             | 0.091           |        |
| 85                                                                        | 3.50        | +20                 | 21             | 0.025           |        |

| 1XEVD0 Rev0 BC0, Channel 384, Frequency 836.52MHz<br>Limit = $\pm$ 2.5ppm |             |                     |                |                 |        |
|---------------------------------------------------------------------------|-------------|---------------------|----------------|-----------------|--------|
| Voltage(%)                                                                | Power(V DC) | Temp( $^{\circ}$ C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100                                                                       | 3.80        | +20(Ref)            | 15             | 0.018           | PASS   |
| 100                                                                       |             | -10                 | 75             | 0.090           |        |
| 100                                                                       |             | 0                   | 82             | 0.098           |        |
| 100                                                                       |             | +10                 | -27            | -0.032          |        |
| 100                                                                       |             | +20                 | 16             | 0.019           |        |
| 100                                                                       |             | +30                 | 49             | 0.059           |        |
| 100                                                                       |             | +40                 | 68             | 0.081           |        |
| 100                                                                       |             | +50                 | 73             | 0.087           |        |
| 100                                                                       |             | +55                 | -54            | -0.065          |        |
| 115                                                                       | 4.35        | +20                 | 83             | 0.099           |        |
| 85                                                                        | 3.50        | +20                 | 63             | 0.075           |        |



| 1XEVD0 RevA BC0, Channel 384, Frequency 836.52MHz<br>Limit = $\pm$ 2.5ppm |             |                     |                |                 |        |
|---------------------------------------------------------------------------|-------------|---------------------|----------------|-----------------|--------|
| Voltage(%)                                                                | Power(V DC) | Temp( $^{\circ}$ C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100                                                                       | 3.80        | +20(Ref)            | -12            | -0.014          | PASS   |
| 100                                                                       |             | -10                 | 49             | 0.059           |        |
| 100                                                                       |             | 0                   | -6             | -0.007          |        |
| 100                                                                       |             | +10                 | -60            | -0.072          |        |
| 100                                                                       |             | +20                 | -23            | -0.027          |        |
| 100                                                                       |             | +30                 | -65            | -0.078          |        |
| 100                                                                       |             | +40                 | -2             | -0.002          |        |
| 100                                                                       |             | +50                 | 75             | 0.090           |        |
| 100                                                                       |             | +55                 | -24            | -0.029          |        |
| 115                                                                       | 4.35        | +20                 | 45             | 0.054           |        |
| 85                                                                        | 3.50        | +20                 | 80             | 0.096           |        |

| CDMA 1900MHz BC1, Channel 600, Frequency 1880MHz<br>Limit =Within Authorized Band |             |                     |                |                 |        |
|-----------------------------------------------------------------------------------|-------------|---------------------|----------------|-----------------|--------|
| Voltage(%)                                                                        | Power(V DC) | Temp( $^{\circ}$ C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100                                                                               | 3.80        | +20(Ref)            | 6              | 0.003           | PASS   |
| 100                                                                               |             | -10                 | -71            | -0.038          |        |
| 100                                                                               |             | 0                   | 50             | 0.027           |        |
| 100                                                                               |             | +10                 | 28             | 0.015           |        |
| 100                                                                               |             | +20                 | -52            | -0.028          |        |
| 100                                                                               |             | +30                 | -75            | -0.040          |        |
| 100                                                                               |             | +40                 | 67             | 0.036           |        |
| 100                                                                               |             | +50                 | -41            | -0.022          |        |
| 100                                                                               |             | +55                 | -45            | -0.024          |        |
| 115                                                                               | 4.35        | +20                 | 54             | 0.029           |        |
| 85                                                                                | 3.50        | +20                 | -67            | -0.036          |        |



| 1XEVD0 Rev0 BC1, Channel 600, Frequency 1800MHz<br>Limit =Within Authorized Band |             |          |                |                 |        |
|----------------------------------------------------------------------------------|-------------|----------|----------------|-----------------|--------|
| Voltage(%)                                                                       | Power(V DC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100                                                                              | 3.80        | +20(Ref) | 19             | 0.010           | PASS   |
| 100                                                                              |             | -10      | 26             | 0.014           |        |
| 100                                                                              |             | 0        | 75             | 0.040           |        |
| 100                                                                              |             | +10      | -5             | -0.003          |        |
| 100                                                                              |             | +20      | 37             | 0.020           |        |
| 100                                                                              |             | +30      | 19             | 0.010           |        |
| 100                                                                              |             | +40      | -42            | -0.022          |        |
| 100                                                                              |             | +50      | -39            | -0.021          |        |
| 100                                                                              |             | +55      | 70             | 0.037           |        |
| 115                                                                              | 4.35        | +20      | 80             | 0.043           |        |
| 85                                                                               | 3.50        | +20      | -41            | -0.022          |        |

| 1XEVD0 RevA BC1, Channel 600, Frequency 1800MHz<br>Limit =Within Authorized Band |             |          |                |                 |        |
|----------------------------------------------------------------------------------|-------------|----------|----------------|-----------------|--------|
| Voltage(%)                                                                       | Power(V DC) | Temp(°C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100                                                                              | 3.80        | +20(Ref) | -66            | -0.079          | PASS   |
| 100                                                                              |             | -10      | -3             | -0.004          |        |
| 100                                                                              |             | 0        | 11             | 0.013           |        |
| 100                                                                              |             | +10      | 64             | 0.077           |        |
| 100                                                                              |             | +20      | -24            | -0.029          |        |
| 100                                                                              |             | +30      | -67            | -0.080          |        |
| 100                                                                              |             | +40      | -57            | -0.068          |        |
| 100                                                                              |             | +50      | 42             | 0.050           |        |
| 100                                                                              |             | +55      | 66             | 0.079           |        |
| 115                                                                              | 4.35        | +20      | 58             | 0.069           |        |
| 85                                                                               | 3.50        | +20      | 17             | 0.020           |        |



| CDMA 800MHz BC10, Channel 526, Frequency 819.15MHz |             |                     |                |                 |        |
|----------------------------------------------------|-------------|---------------------|----------------|-----------------|--------|
| Limit = $\pm 2.5$ ppm                              |             |                     |                |                 |        |
| Voltage(%)                                         | Power(V DC) | Temp( $^{\circ}$ C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100                                                | 3.80        | +20(Ref)            | -72            | -0.088          | PASS   |
| 100                                                |             | -10                 | -6             | -0.007          |        |
| 100                                                |             | 0                   | 71             | 0.087           |        |
| 100                                                |             | +10                 | -54            | -0.066          |        |
| 100                                                |             | +20                 | 66             | 0.081           |        |
| 100                                                |             | +30                 | -40            | -0.049          |        |
| 100                                                |             | +40                 | 69             | 0.084           |        |
| 100                                                |             | +50                 | 70             | 0.085           |        |
| 100                                                |             | +55                 | 86             | 0.105           |        |
| 115                                                | 4.35        | +20                 | 48             | 0.059           |        |
| 85                                                 | 3.50        | +20                 | 12             | 0.015           |        |

| 1XEVD0 Rev0 BC10, Channel 526, Frequency 819.15MHz |             |                     |                |                 |        |
|----------------------------------------------------|-------------|---------------------|----------------|-----------------|--------|
| Limit = $\pm 2.5$ ppm                              |             |                     |                |                 |        |
| Voltage(%)                                         | Power(V DC) | Temp( $^{\circ}$ C) | Fre. Dev. (Hz) | Deviation (ppm) | Result |
| 100                                                | 3.80        | +20(Ref)            | 20             | 0.024           | PASS   |
| 100                                                |             | -10                 | -74            | -0.090          |        |
| 100                                                |             | 0                   | -58            | -0.071          |        |
| 100                                                |             | +10                 | 2              | 0.002           |        |
| 100                                                |             | +20                 | -42            | -0.051          |        |
| 100                                                |             | +30                 | 1              | 0.001           |        |
| 100                                                |             | +40                 | -12            | -0.015          |        |
| 100                                                |             | +50                 | 14             | 0.017           |        |
| 100                                                |             | +55                 | 40             | 0.049           |        |
| 115                                                | 4.35        | +20                 | 77             | 0.094           |        |
| 85                                                 | 3.50        | +20                 | -33            | -0.040          |        |



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| 1XEVD0 RevA BC10, Channel 526, Frequency 819.15MHz<br>Limit =±2.5ppm |                |          |                   |                    |        |
|----------------------------------------------------------------------|----------------|----------|-------------------|--------------------|--------|
| Voltage(%)                                                           | Power(V<br>DC) | Temp(°C) | Fre. Dev.<br>(Hz) | Deviation<br>(ppm) | Result |
| 100                                                                  | 3.80           | +20(Ref) | -3                | -0.004             | PASS   |
| 100                                                                  |                | -10      | 79                | 0.094              |        |
| 100                                                                  |                | 0        | -53               | -0.063             |        |
| 100                                                                  |                | +10      | -17               | -0.020             |        |
| 100                                                                  |                | +20      | 7                 | 0.008              |        |
| 100                                                                  |                | +30      | -51               | -0.061             |        |
| 100                                                                  |                | +40      | -79               | -0.094             |        |
| 100                                                                  |                | +50      | 50                | 0.060              |        |
| 100                                                                  |                | +55      | -13               | -0.016             |        |
| 115                                                                  | 4.35           | +20      | -6                | -0.007             |        |
| 85                                                                   | 3.50           | +20      | -48               | -0.057             |        |



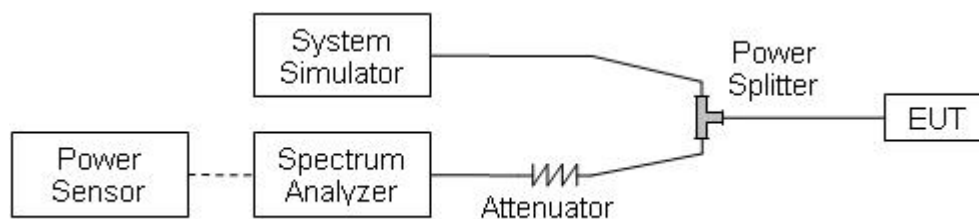
## 2.4. Peak to Average Radio

### 2.4.1. Requirement

According to FCC section 22.913(d) and 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 D01 v03r01 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%.

**Test Result**

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:**

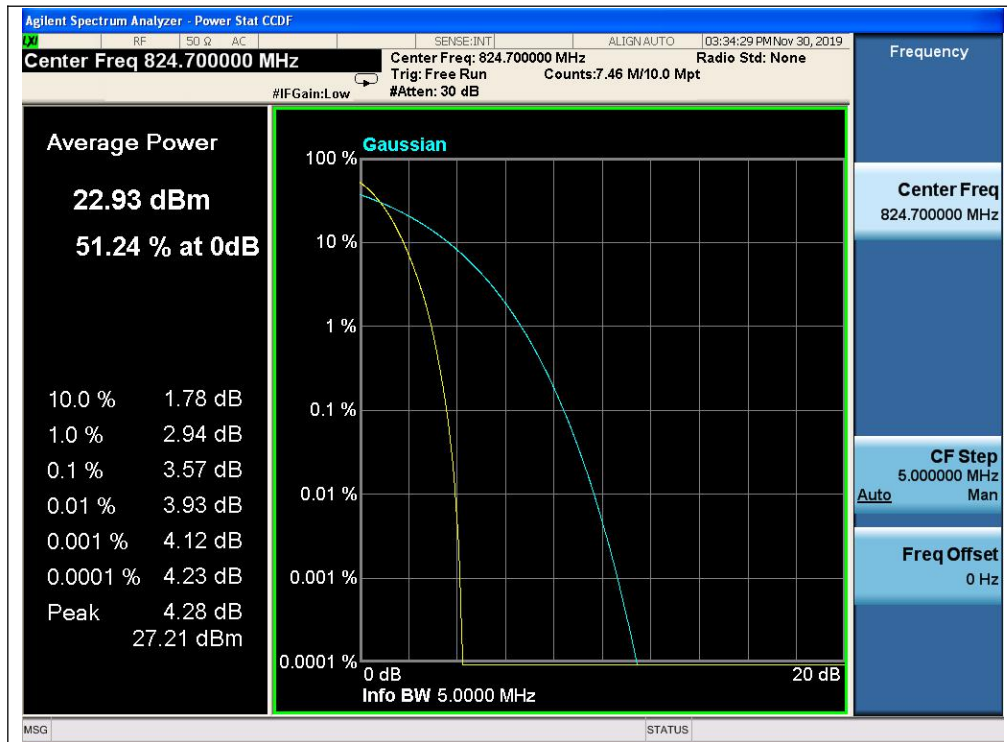
| Band                     | Channel | Frequency<br>(MHz) | Peak to Average ratio |               | Limit | Verdict |
|--------------------------|---------|--------------------|-----------------------|---------------|-------|---------|
|                          |         |                    | dB                    | Refer to Plot | dB    |         |
| CDMA<br>(BC0)            | 1013    | 824.7              | 3.57                  | Plot A1 to A3 | 13    | PASS    |
|                          | 384     | 836.52             | 3.73                  |               |       | PASS    |
|                          | 777     | 848.31             | 3.69                  |               |       | PASS    |
| 1XEVDO<br>Rev 0<br>(BC0) | 1013    | 824.7              | 3.55                  | Plot A4 to A6 |       | PASS    |
|                          | 384     | 836.52             | 4.52                  |               |       | PASS    |
|                          | 777     | 848.31             | 3.71                  |               |       | PASS    |
| 1XEVDO<br>Rev A<br>(BC0) | 1013    | 824.7              | 4.43                  | Plot A7 to A9 |       | PASS    |
|                          | 384     | 836.52             | 4.45                  |               |       | PASS    |
|                          | 777     | 848.31             | 4.20                  |               |       | PASS    |

| Band                     | Channel | Frequency<br>(MHz) | Peak to Average ratio |               | Limit | Verdict |
|--------------------------|---------|--------------------|-----------------------|---------------|-------|---------|
|                          |         |                    | dB                    | Refer to Plot | dB    |         |
| CDMA<br>(BC1)            | 25      | 1851.25            | 3.80                  | Plot B1 to B3 | 13    | PASS    |
|                          | 600     | 1880               | 3.96                  |               |       | PASS    |
|                          | 1175    | 1908.75            | 3.84                  |               |       | PASS    |
| 1XEVDO<br>Rev 0<br>(BC1) | 25      | 1851.25            | 3.74                  | Plot B4 to B6 |       | PASS    |
|                          | 600     | 1880               | 3.84                  |               |       | PASS    |
|                          | 1175    | 1908.75            | 3.91                  |               |       | PASS    |
| 1XEVDO<br>Rev A<br>(BC1) | 25      | 1851.25            | 4.73                  | Plot B7 to B9 |       | PASS    |
|                          | 600     | 1880               | 4.82                  |               |       | PASS    |
|                          | 1175    | 1908.75            | 4.60                  |               |       | PASS    |

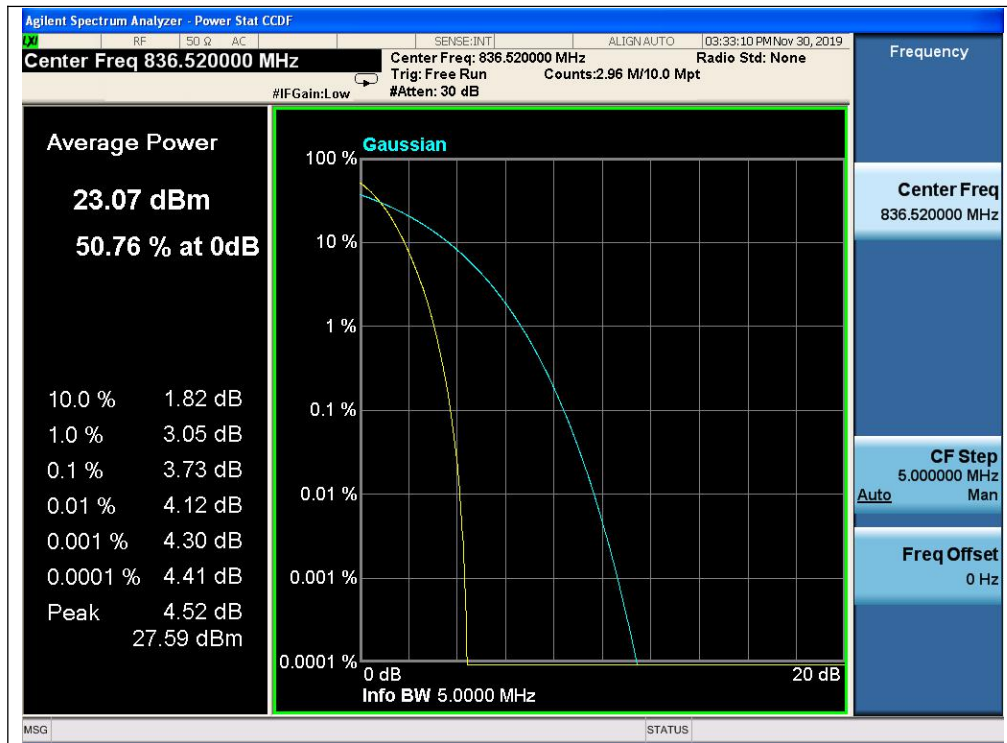


| Band                      | Channel | Frequency<br>(MHz) | Peak to Average ratio |               | Limit | Verdict |
|---------------------------|---------|--------------------|-----------------------|---------------|-------|---------|
|                           |         |                    | dB                    | Refer to Plot | dB    |         |
| CDMA<br>(BC10)            | 476     | 817.9              | 3.70                  | Plot C1 to C3 | 13    | PASS    |
|                           | 526     | 819.15             | 3.62                  |               |       | PASS    |
|                           | 684     | 823.1              | 3.54                  |               |       | PASS    |
| 1XEVD0<br>Rev 0<br>(BC10) | 476     | 817.9              | 4.41                  | Plot C4 to C6 |       | PASS    |
|                           | 526     | 819.15             | 4.26                  |               |       | PASS    |
|                           | 684     | 823.1              | 4.20                  |               |       | PASS    |
| 1XEVD0<br>Rev A<br>(BC10) | 476     | 817.9              | 4.65                  | Plot C7 to C9 |       | PASS    |
|                           | 526     | 819.15             | 4.50                  |               |       | PASS    |
|                           | 684     | 823.1              | 4.60                  |               |       | PASS    |

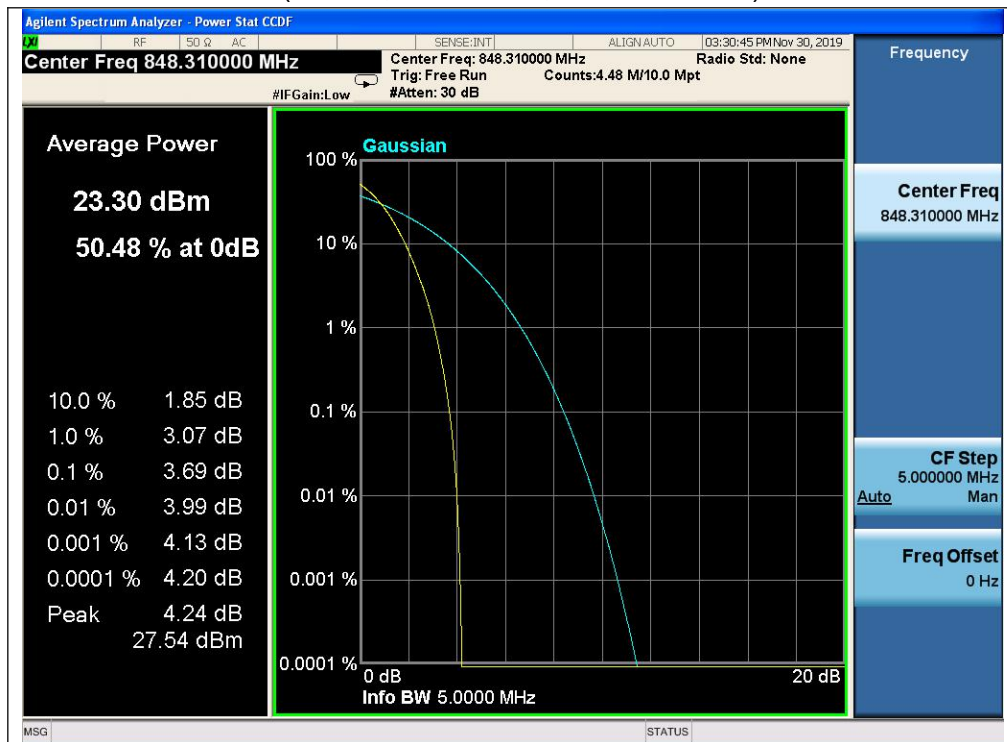
Test Plots:



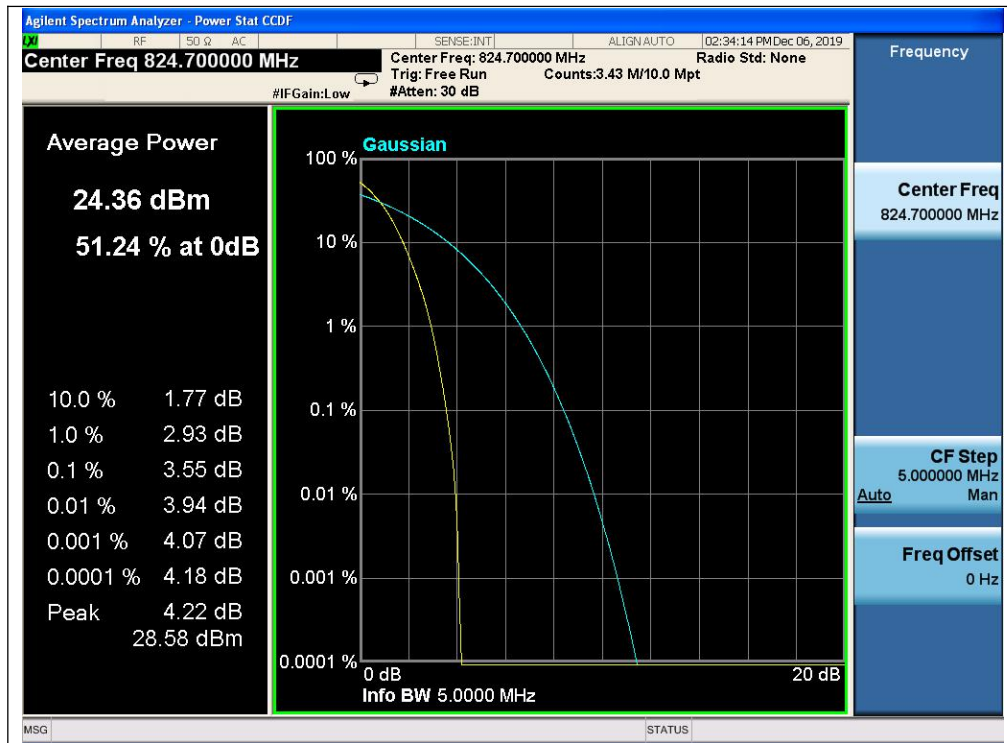
(Plot A1, CDMABC0, Channel = 1013)



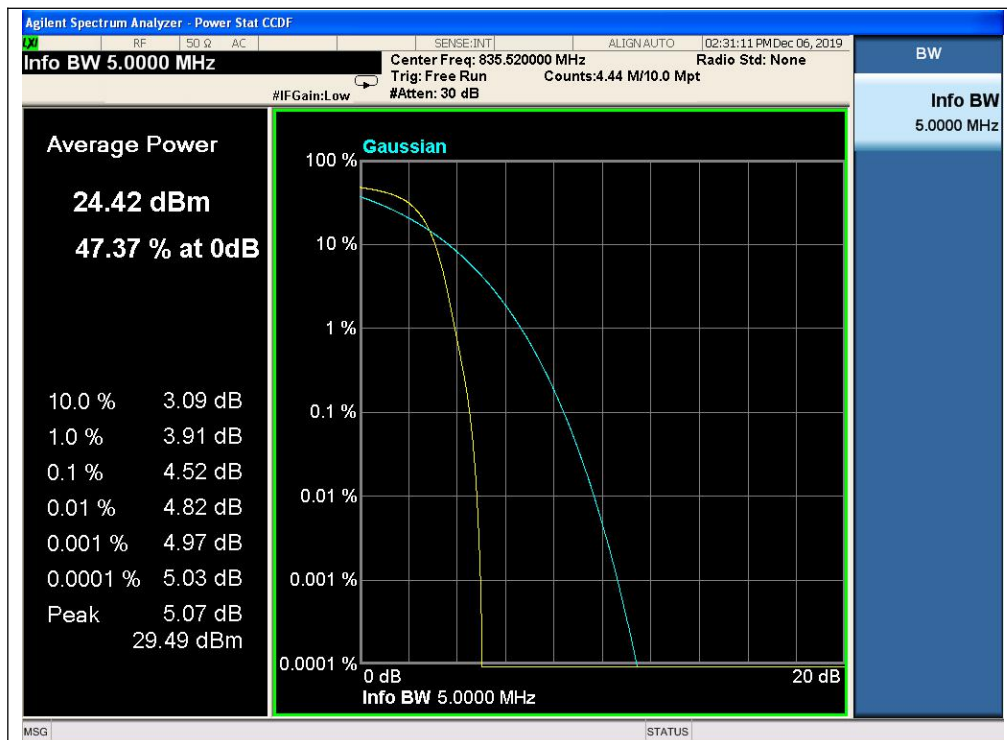
(Plot A2, CDMABC0, Channel = 384)



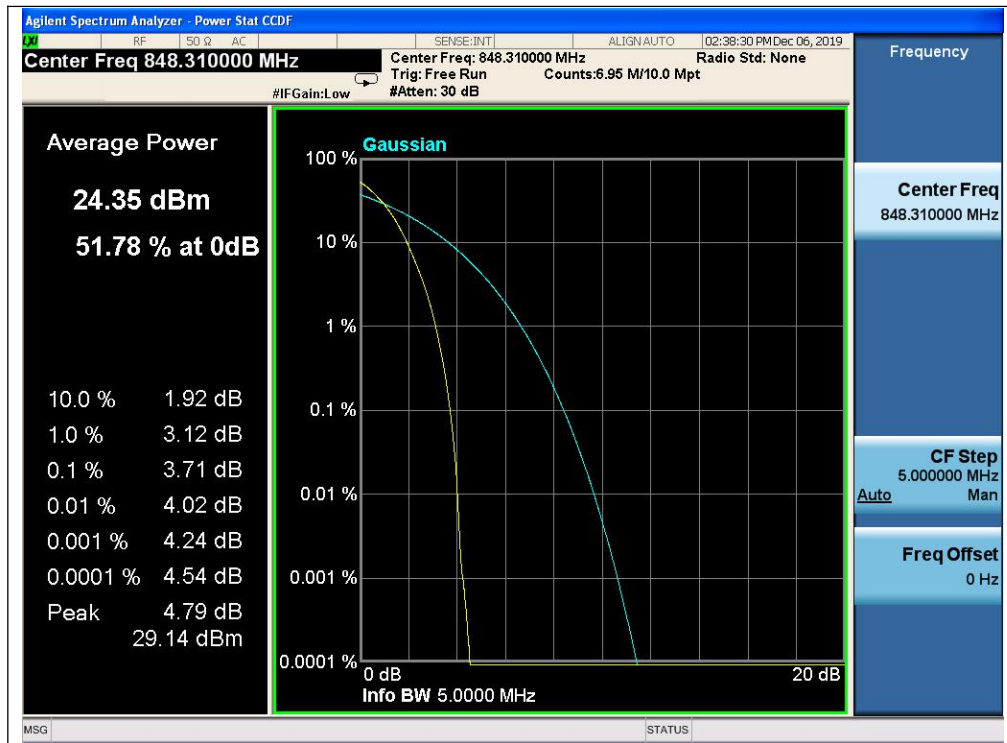
(Plot A3, CDMABC0, Channel = 777)



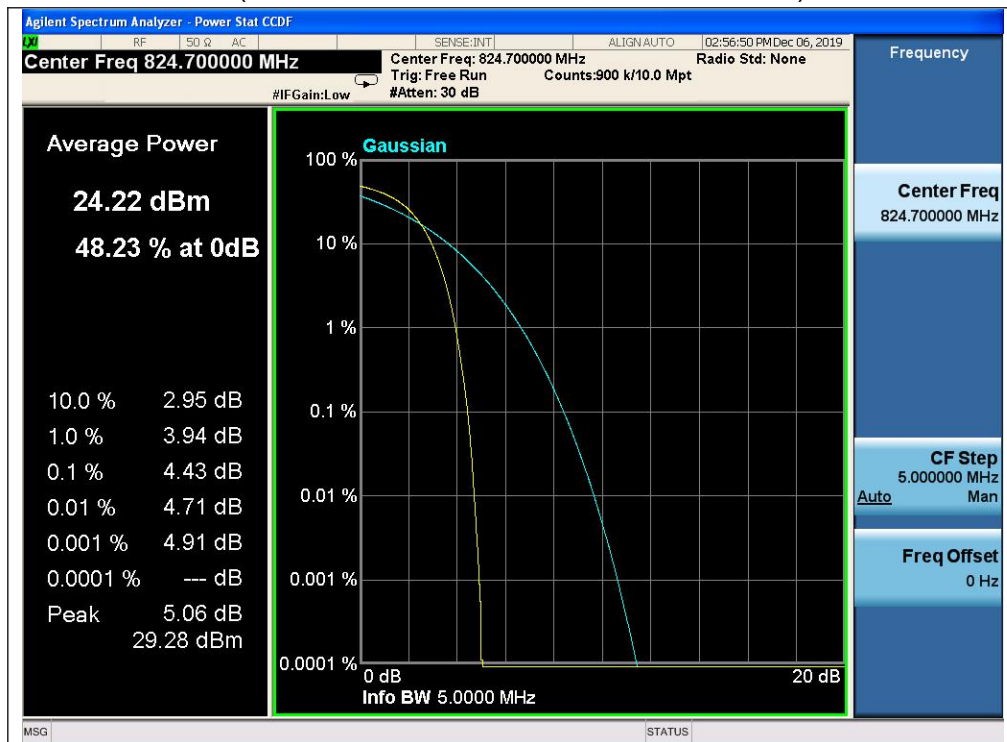
(Plot A4, EVDO Rev 0 BC0, Channel = 1013)



(Plot A5, EVDO Rev 0 BC0, Channel = 384)

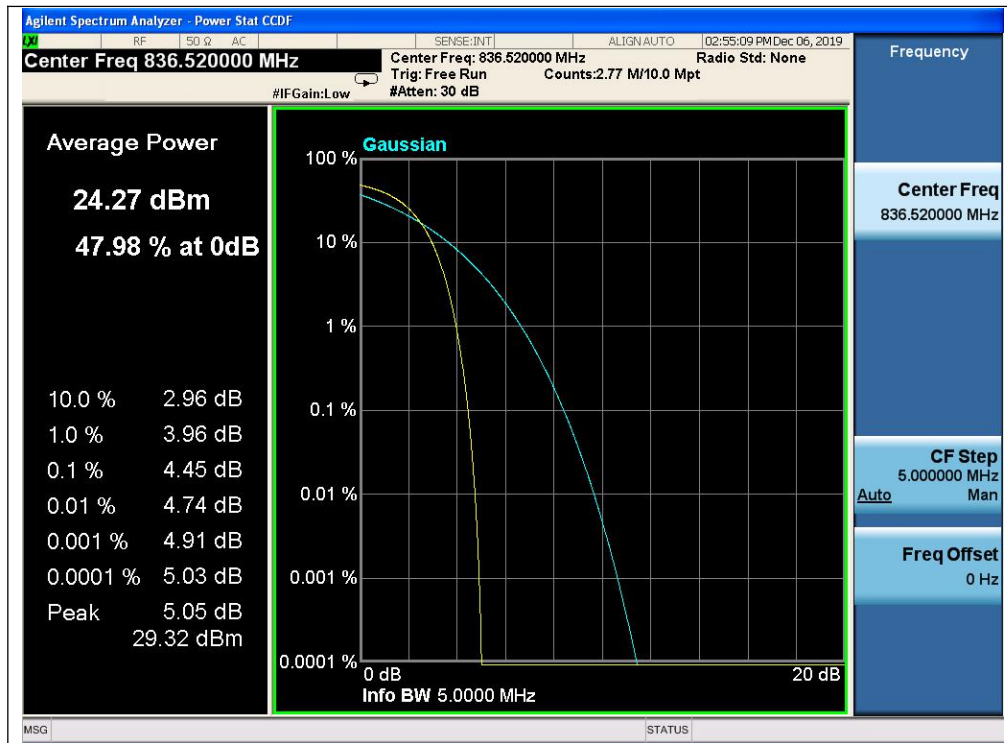


(Plot A6, EVDO Rev 0 BC0, Channel = 777)

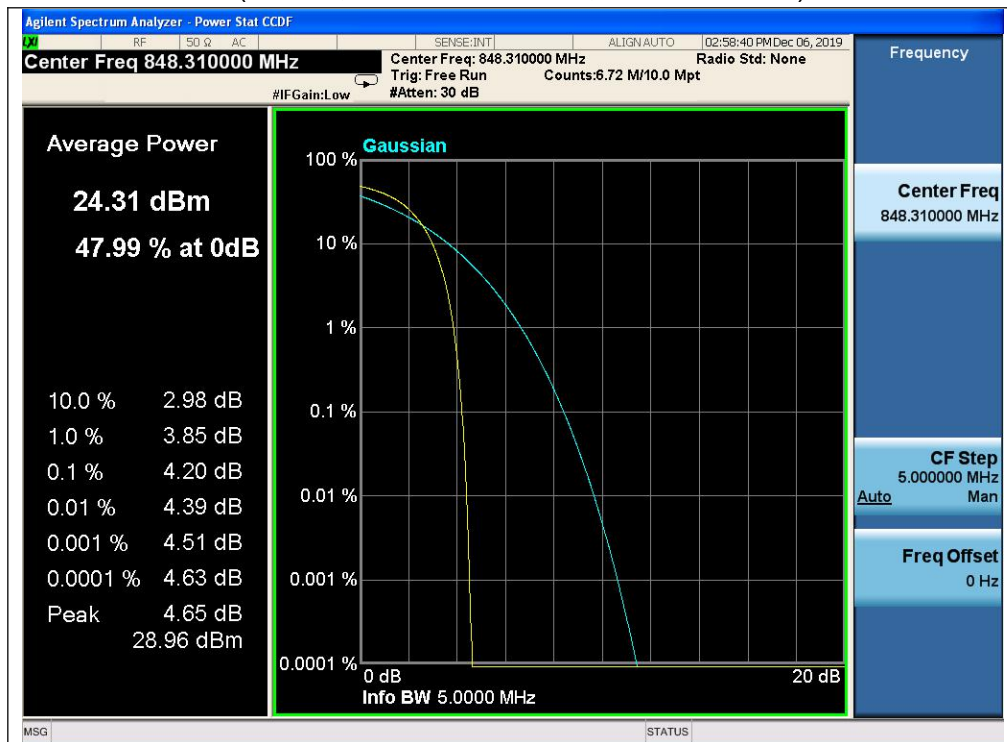


(Plot A7, EVDO Rev A BC0, Channel = 1013)



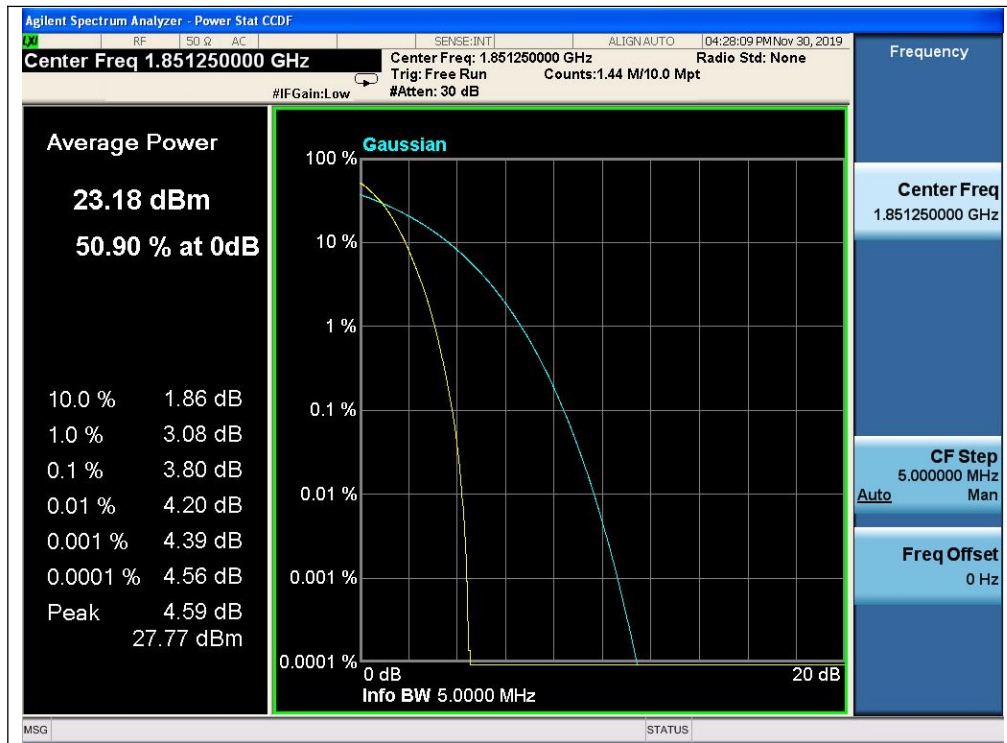


(Plot A8, EVDO Rev A BC0, Channel = 384)

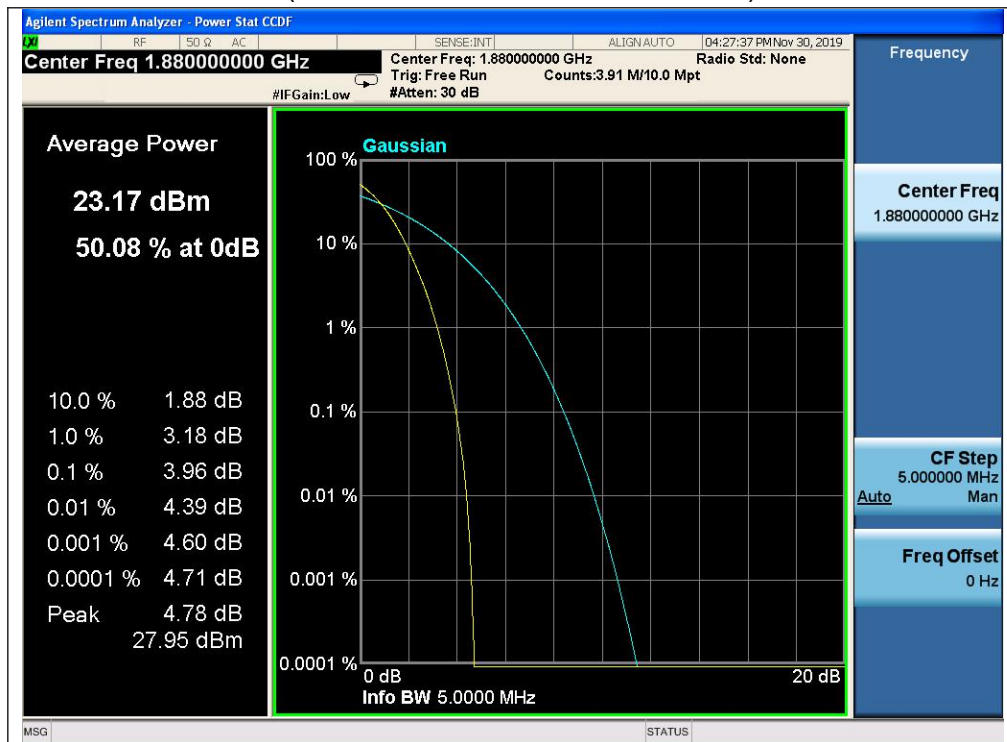


(Plot A9, EVDO Rev A BC0, Channel = 777)

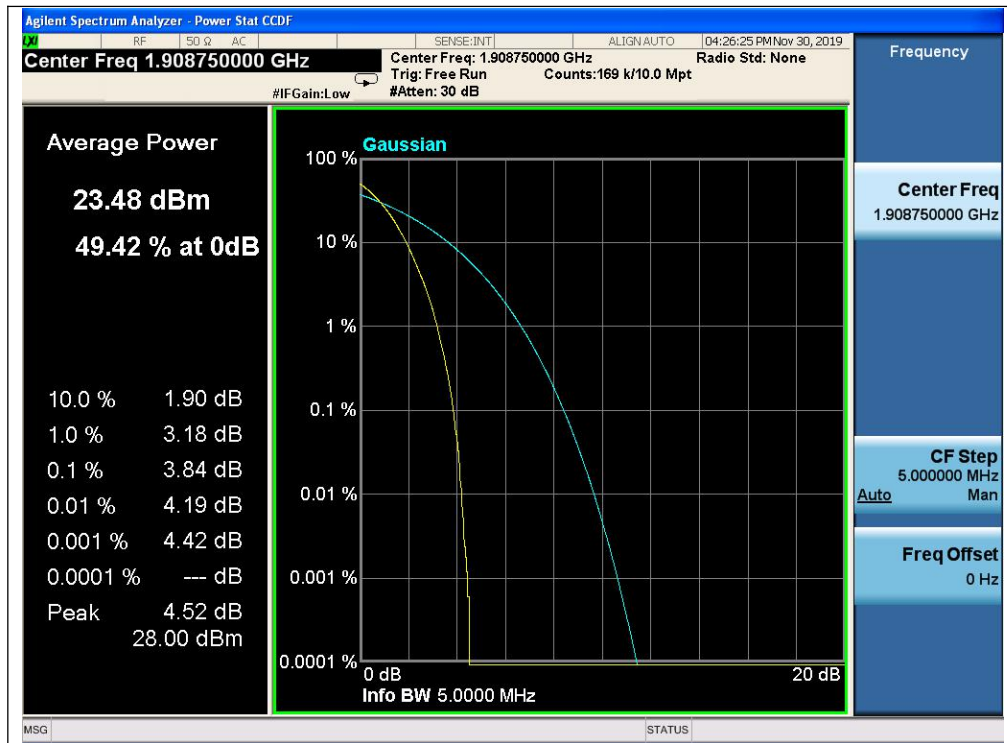




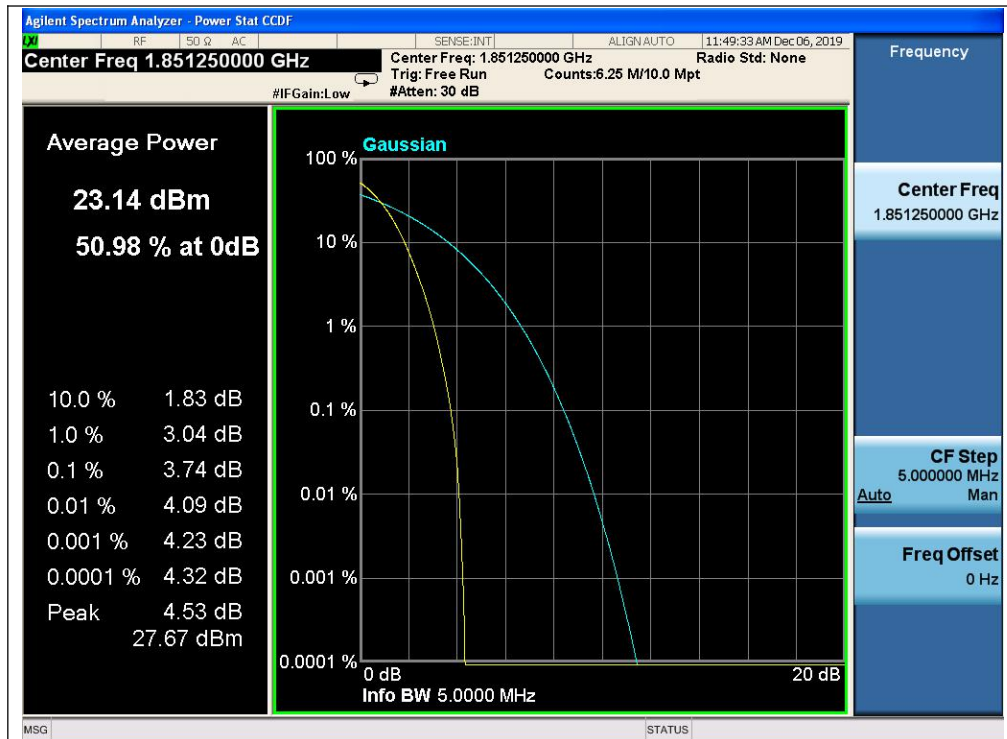
(Plot B1, CDMA BC1, Channel = 25)



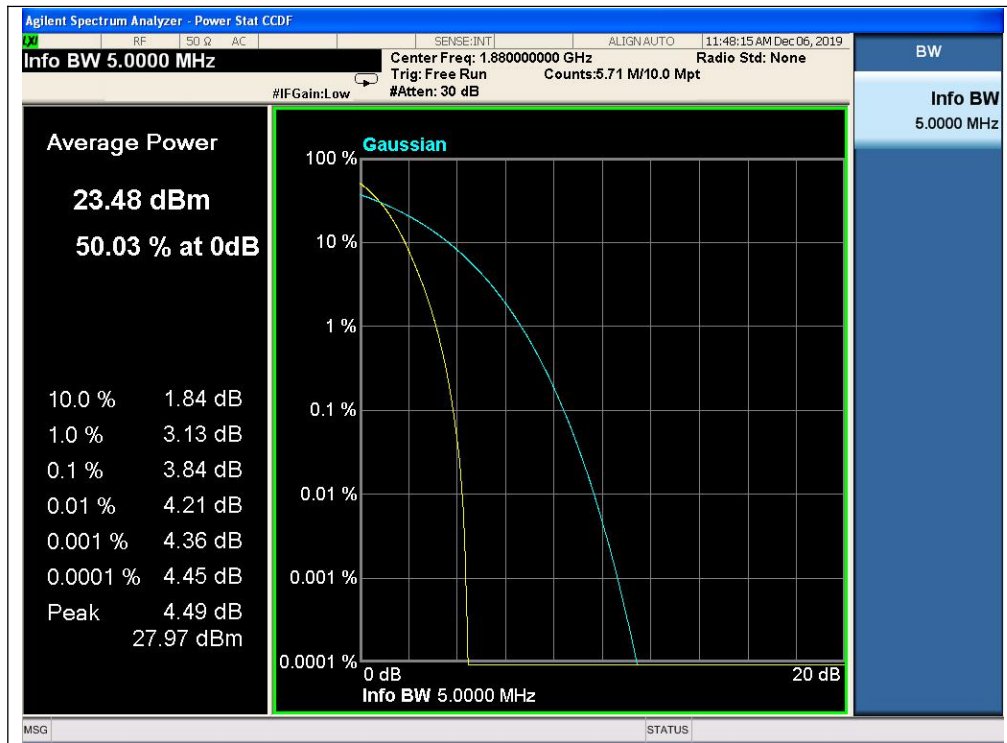
(Plot B2, CDMA BC1, Channel = 600)



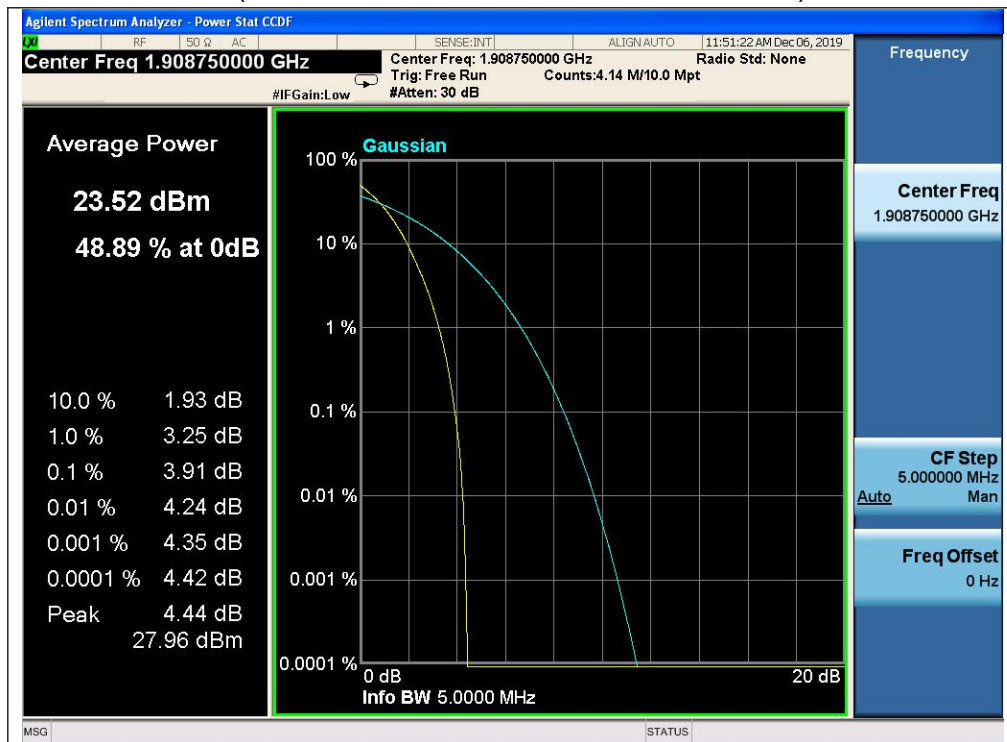
(Plot B3, CDMA BC1, Channel = 1175)



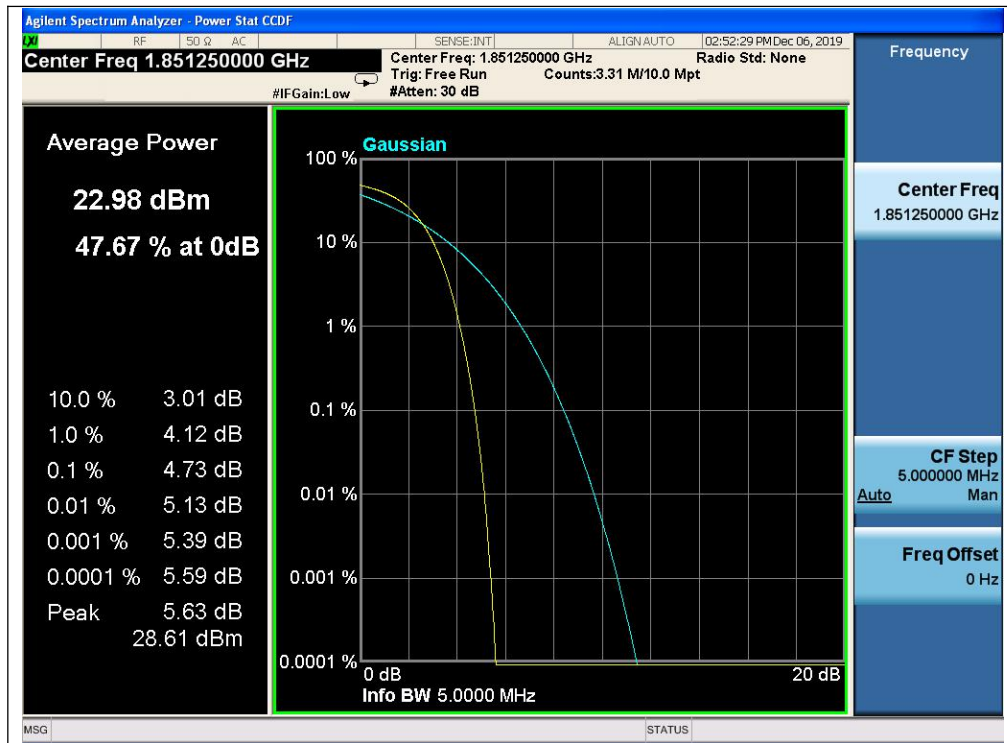
(Plot B4, EVDO Rev 0 BC1, Channel = 25)



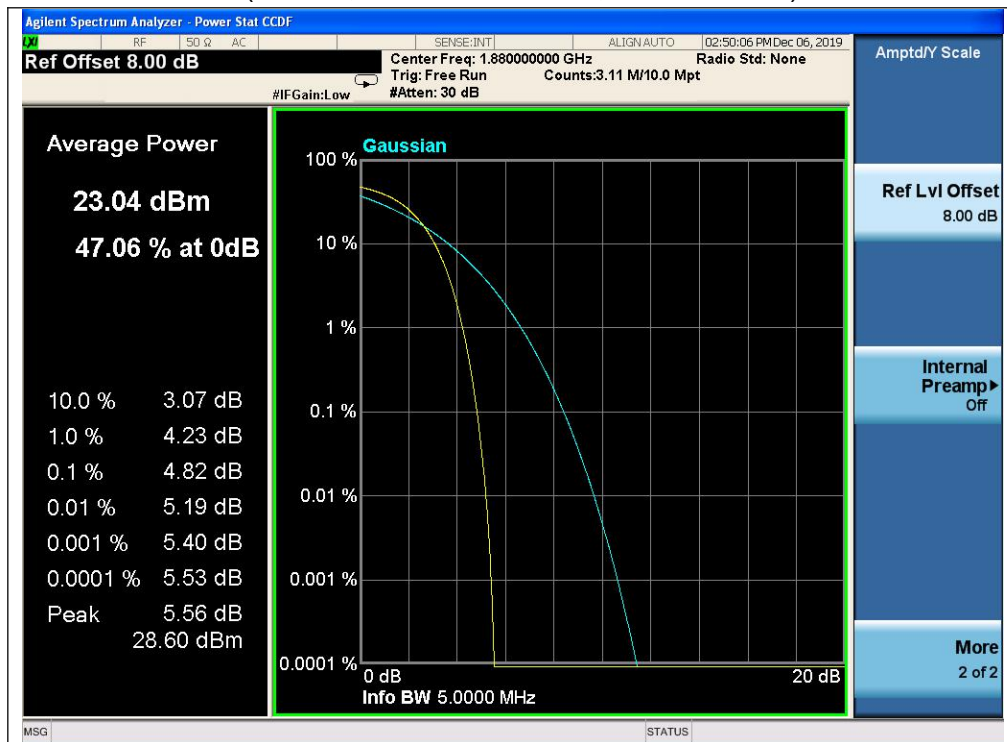
(Plot B5, EVDO Rev 0 BC1, Channel = 600)



(Plot B6, EVDO Rev 0 BC1, Channel = 1175)



(Plot B7, EVDO Rev A BC1, Channel = 25)



(Plot B8, EVDO Rev A BC1, Channel = 600)