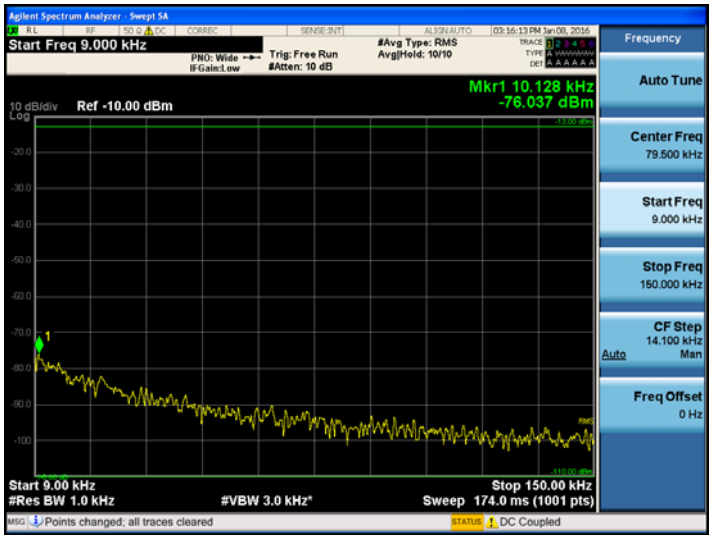
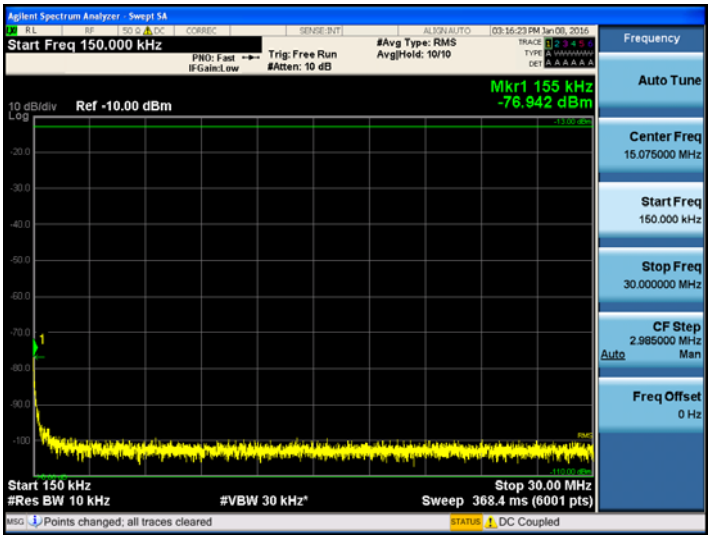
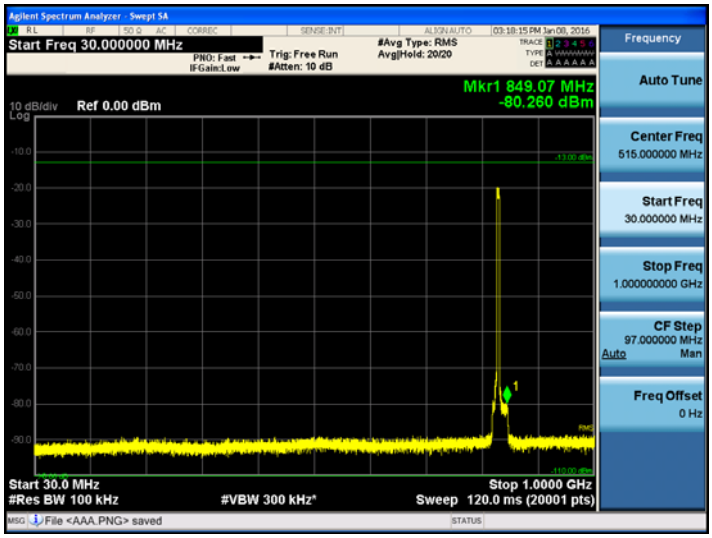
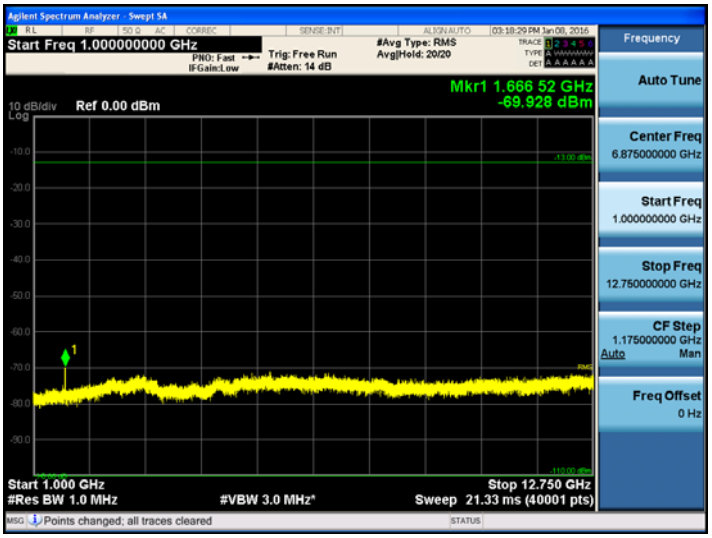
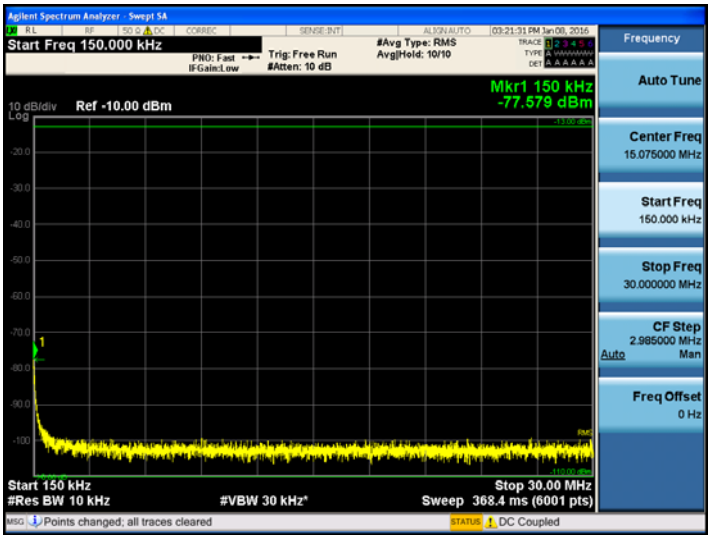
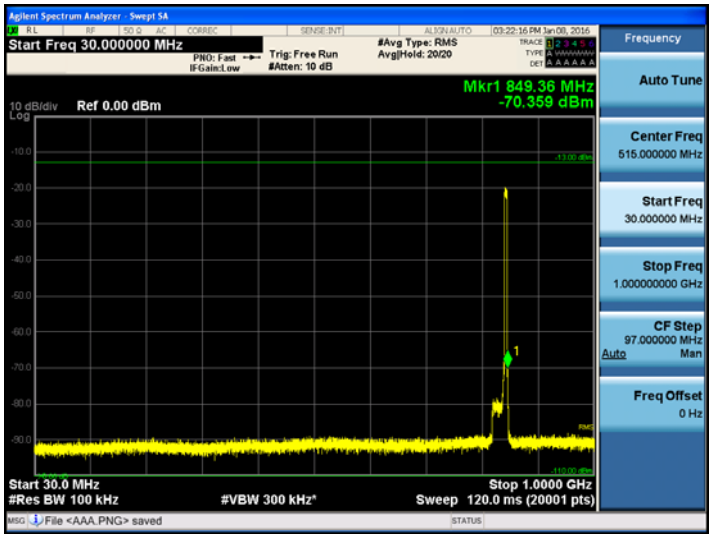
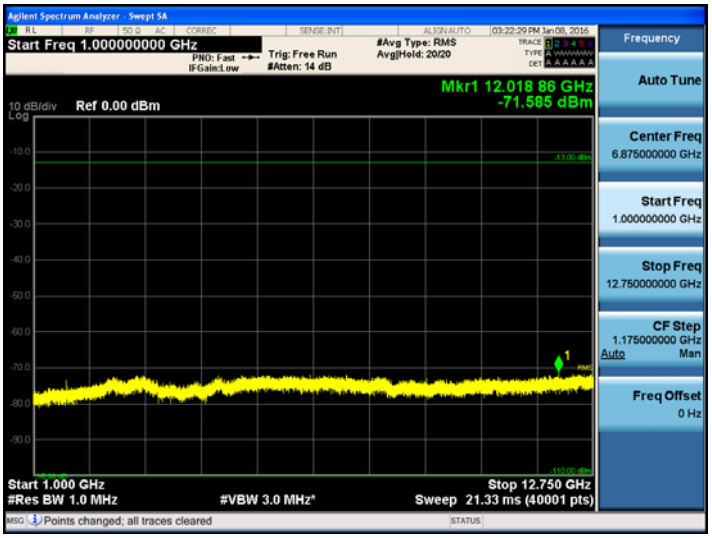
## [SMR800, 850Cellualr Band _LTE 5 MHz Uplink Mid]

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

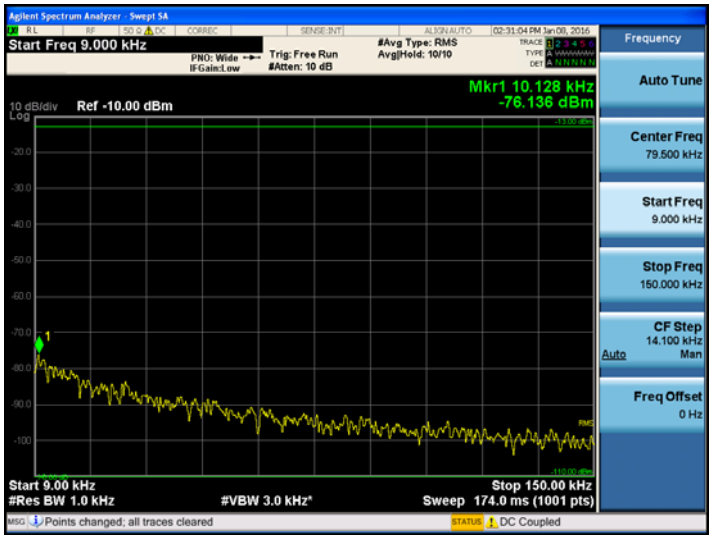
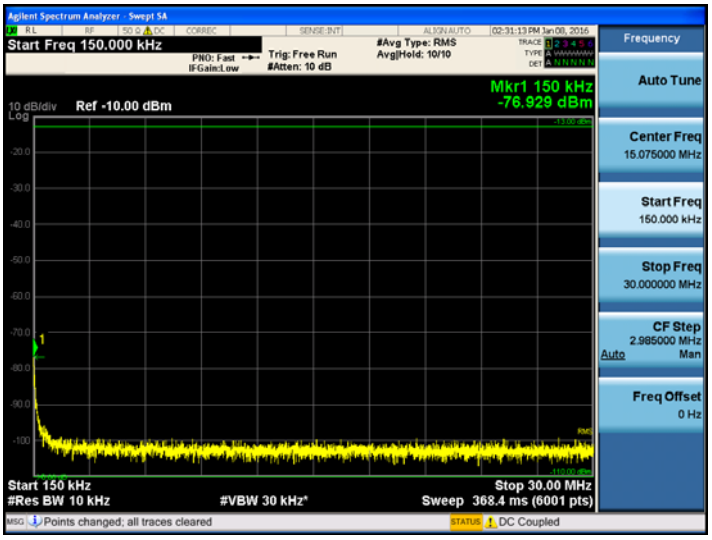
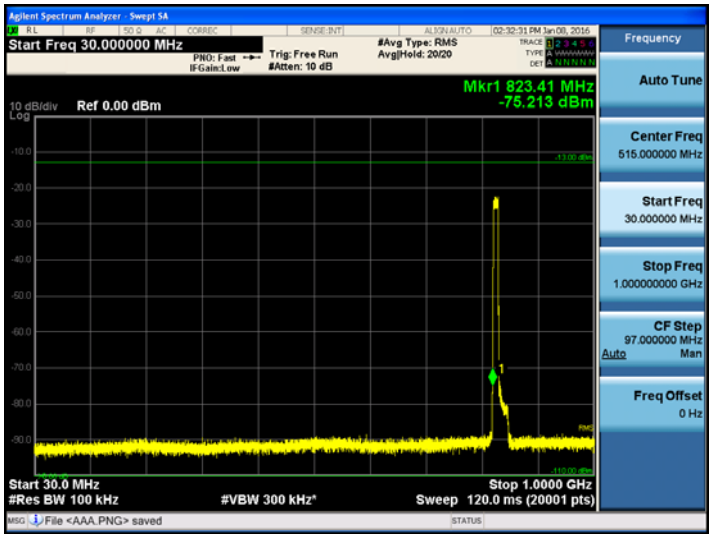
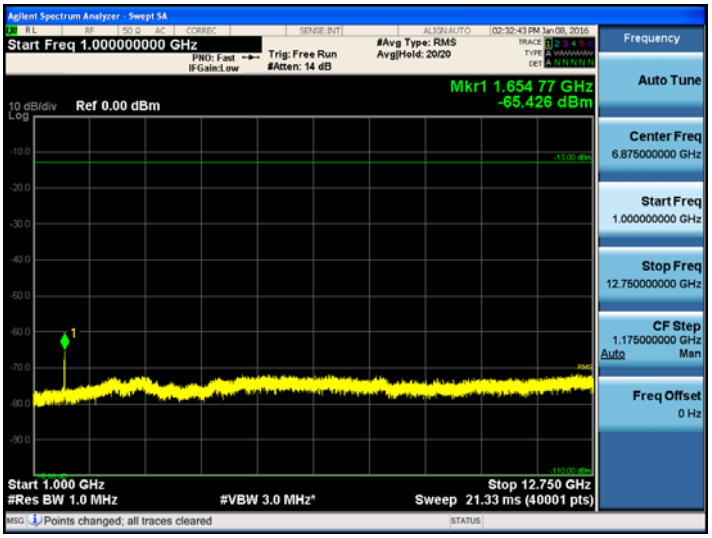
## [SMR800, 850Cellualr Band _LTE 5 MHz Uplink High]

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
| |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

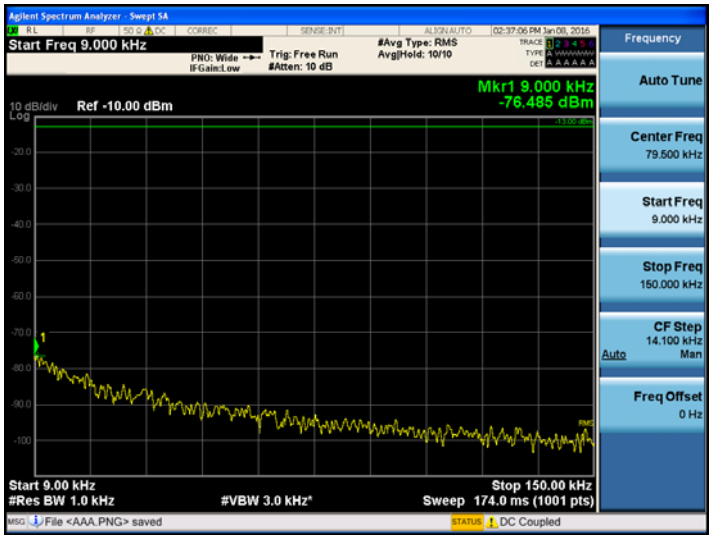
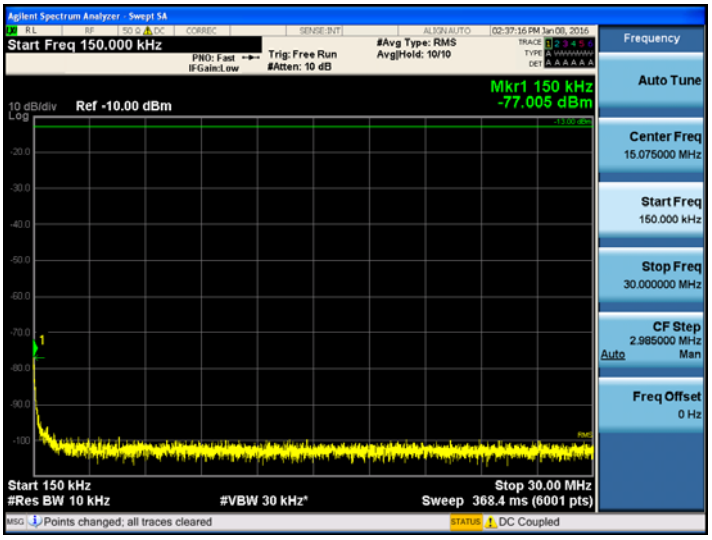
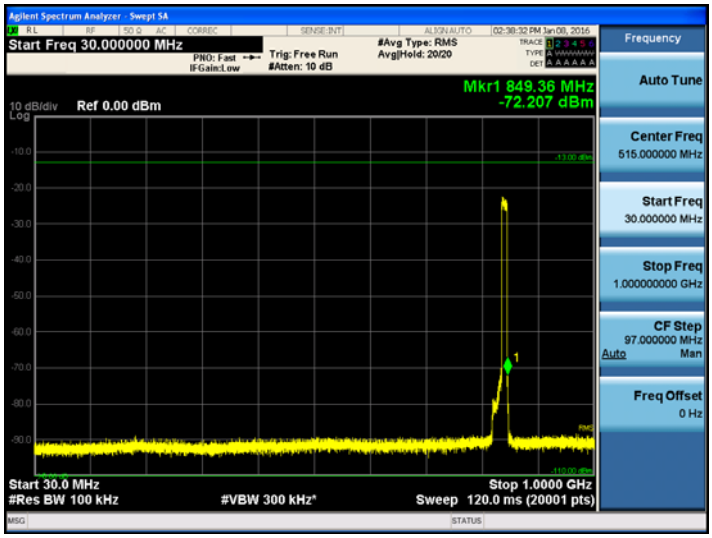
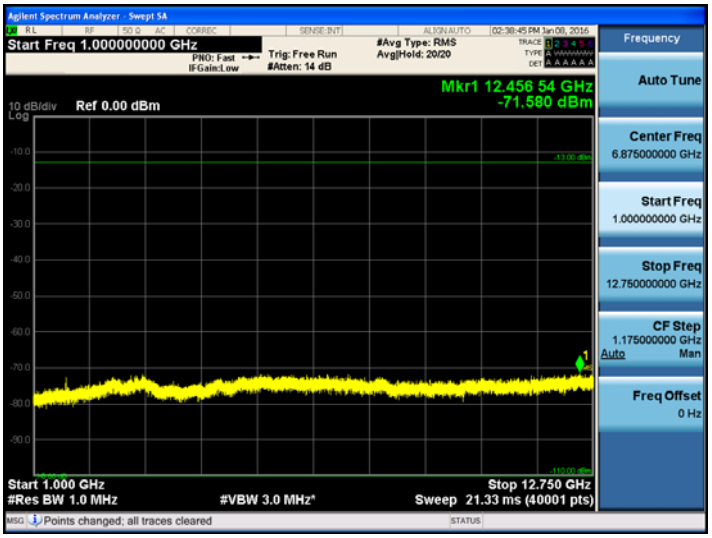
| Band Edge_LTE 5MHz Uplink Low | Band Edge_LTE 5MHz Uplink High |
|---|---|
| | |

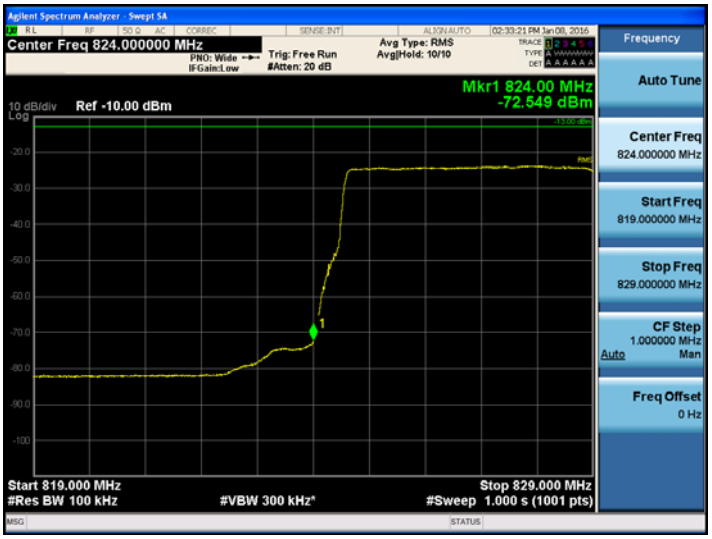
**850Cellualr Band LTE_10 MHz**

**[850Cellualr _LTE 10 MHz Uplink Low]**

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

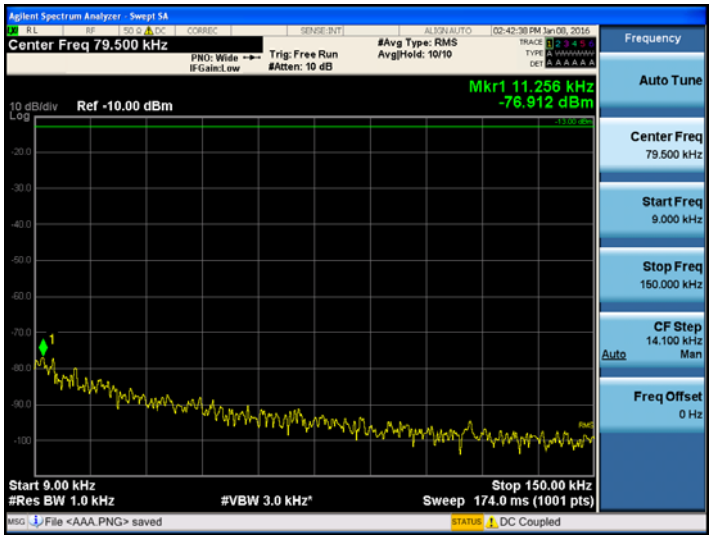
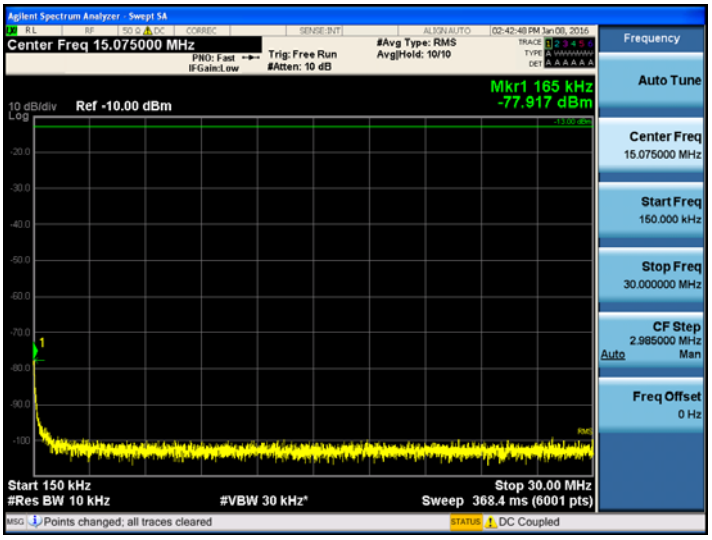
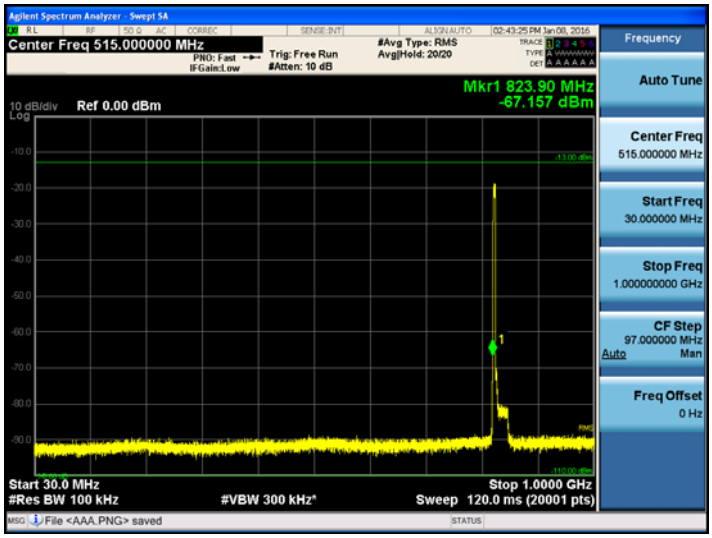
## [Band _LTE 10 MHz Uplink High]

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

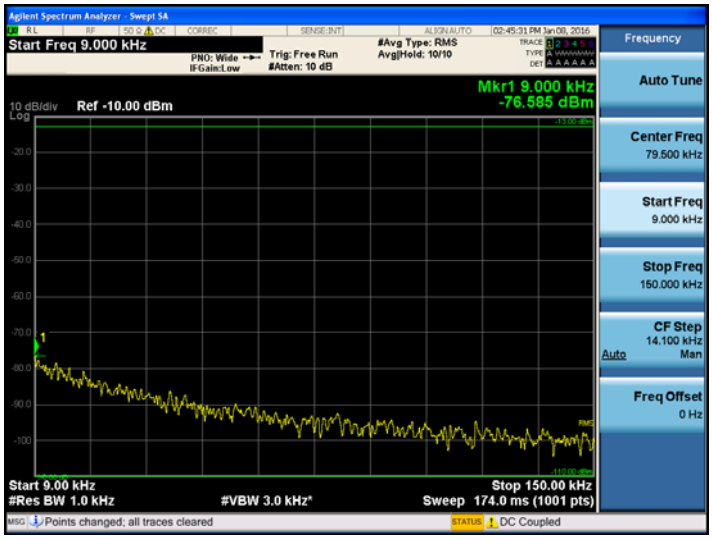
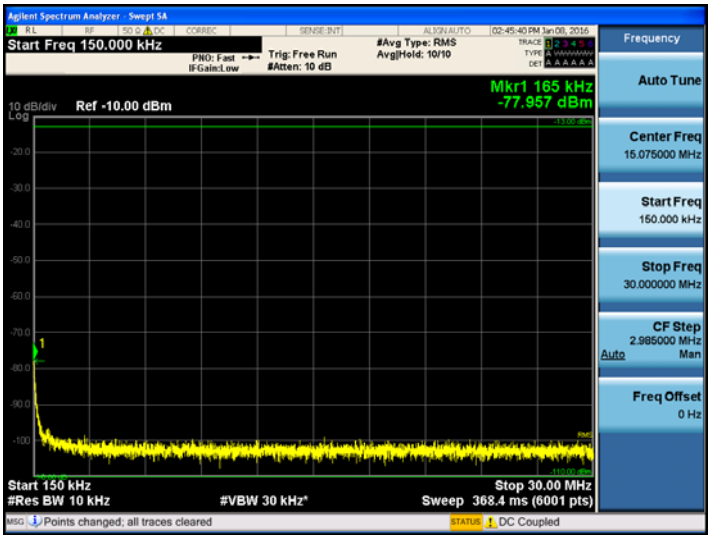
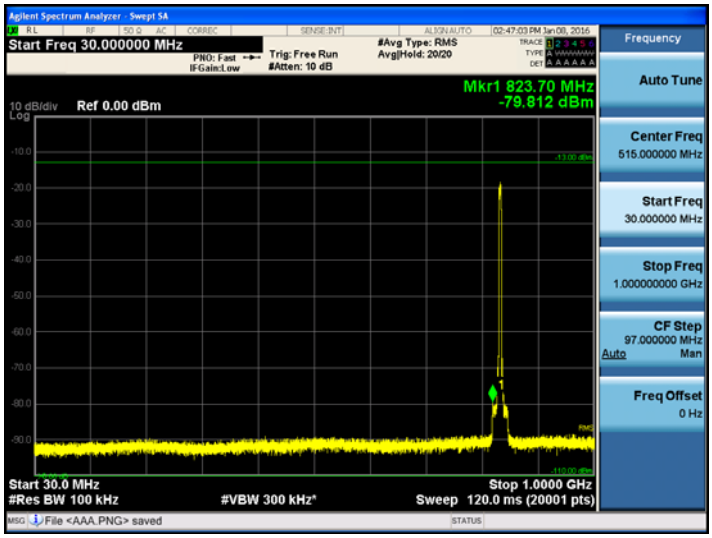
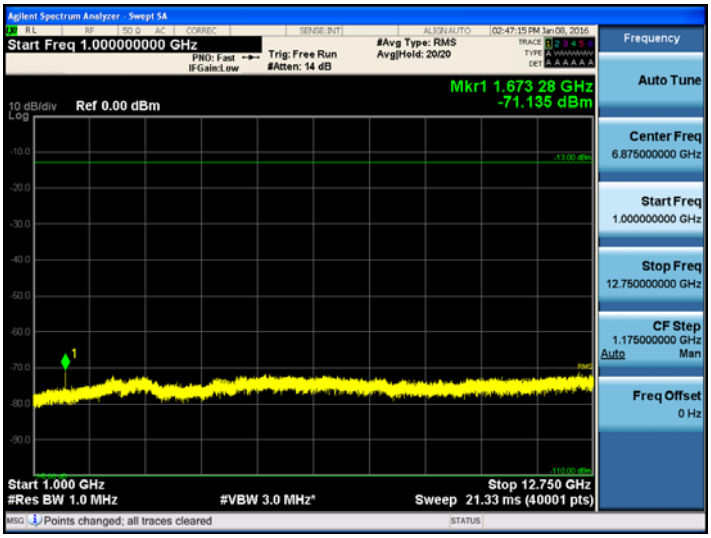
| Band Edge_LTE 10MHz Uplink Low | Band Edge_LTE 10MHz Uplink High |
|---|---|
|  | |

## 850Cellualr Band UMTS

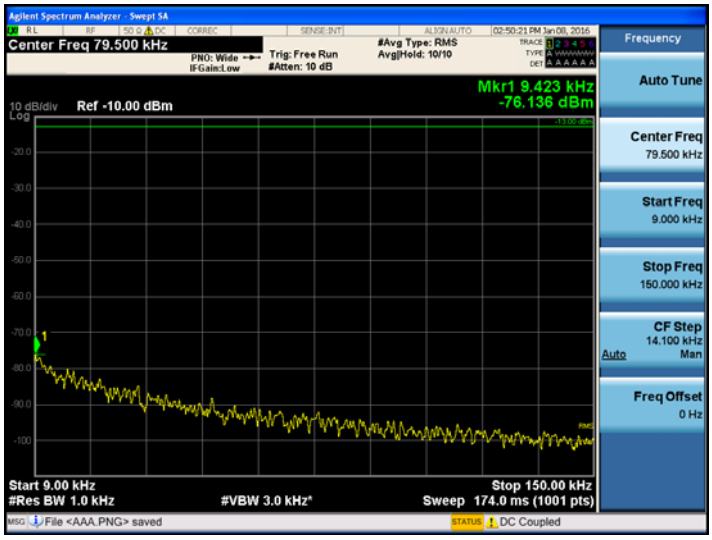
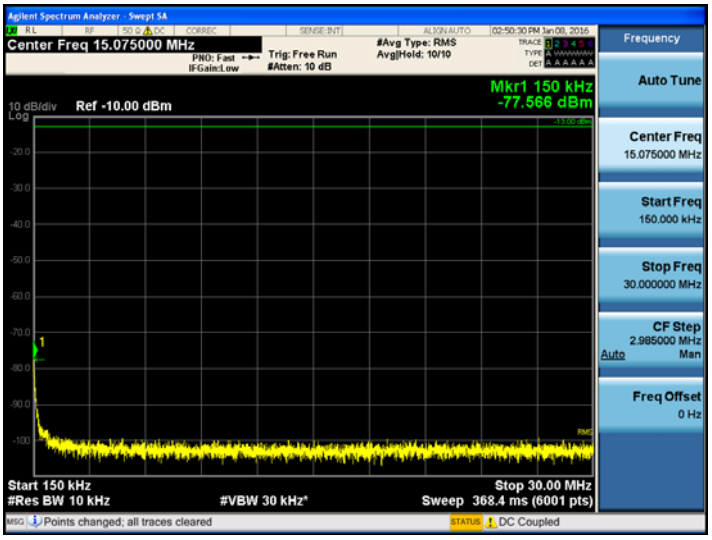
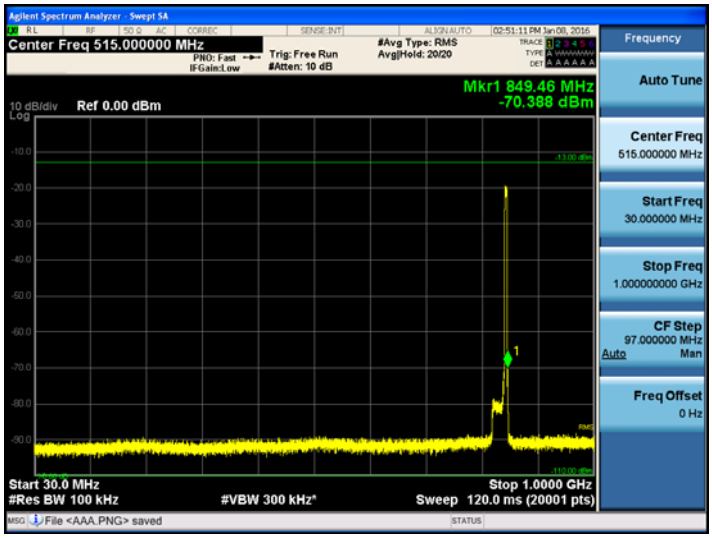
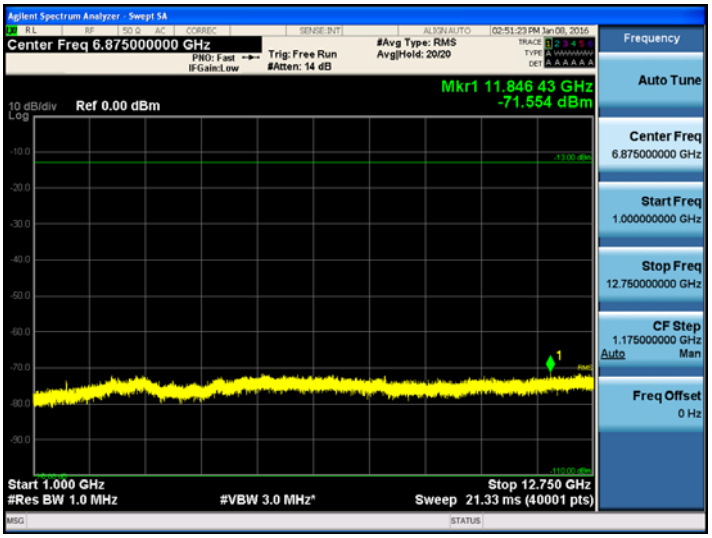
### [850Cellualr Band UMTS Uplink Low]

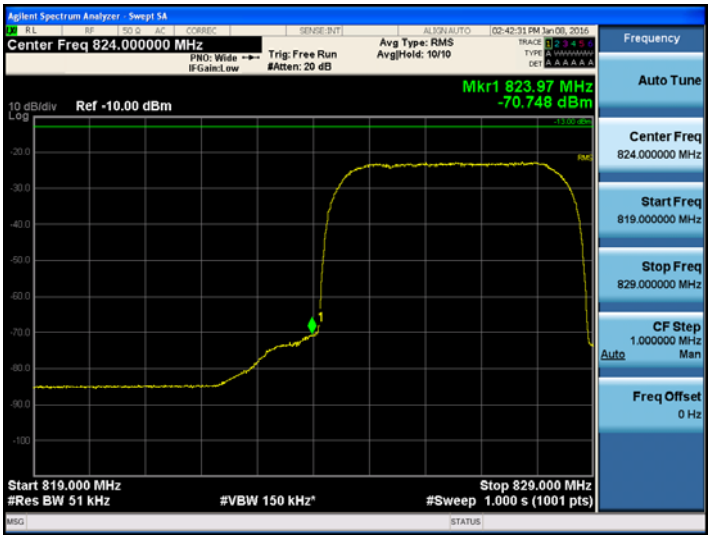
| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  | |

## [850Cellualr Band _UMTS Uplink Mid]

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

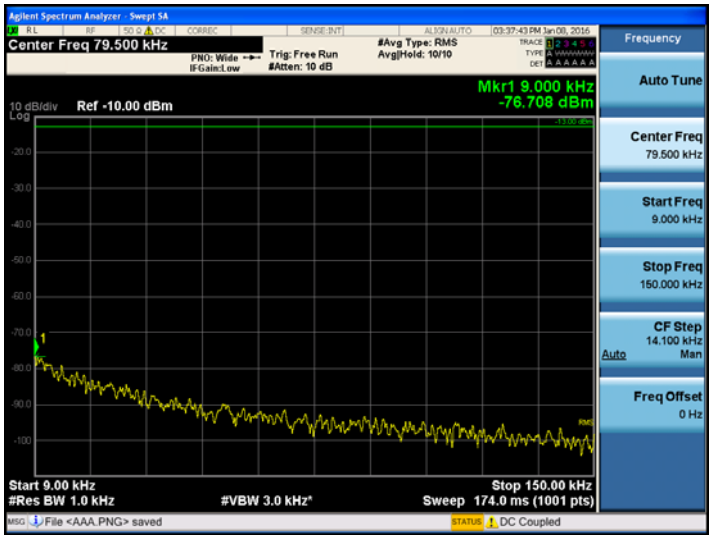
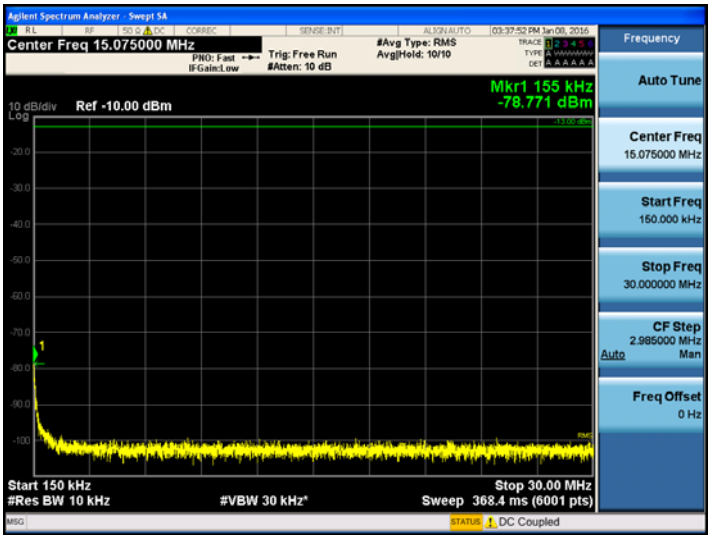
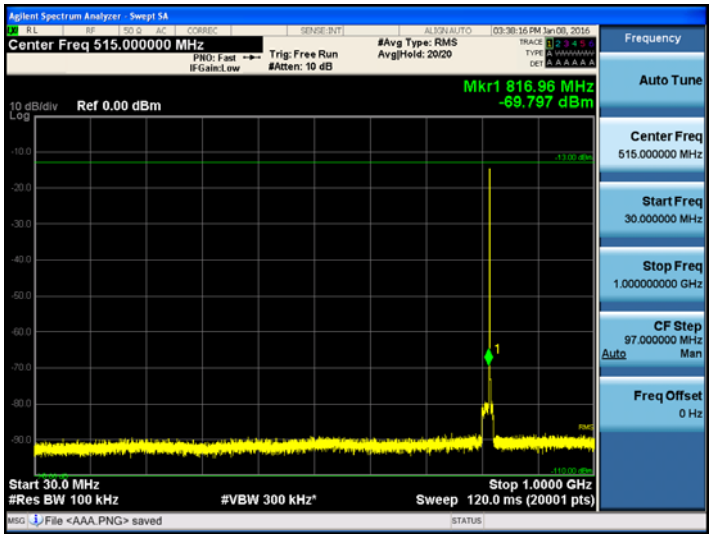
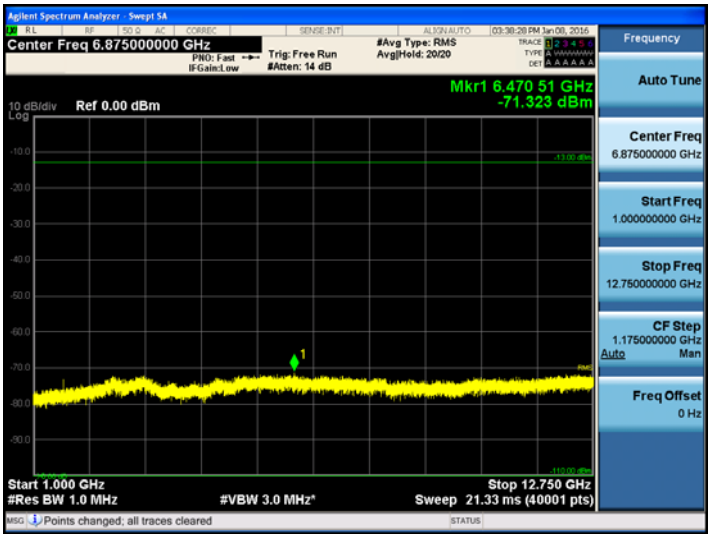
## [850Cellualr Band UMTS Uplink High]

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

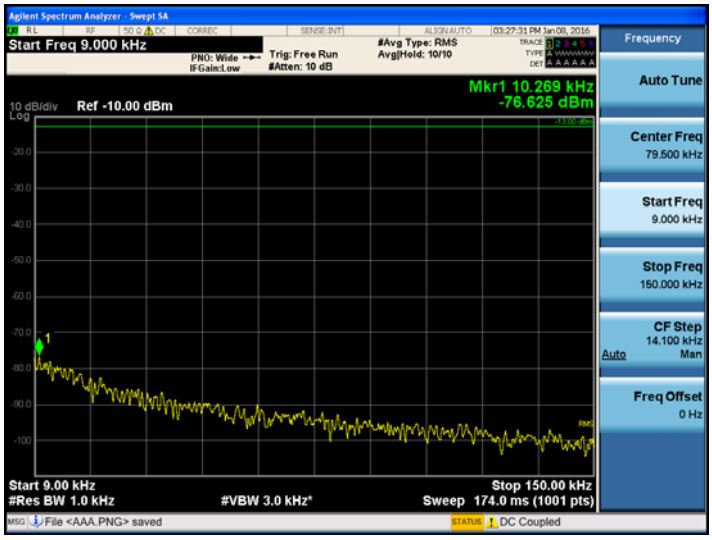
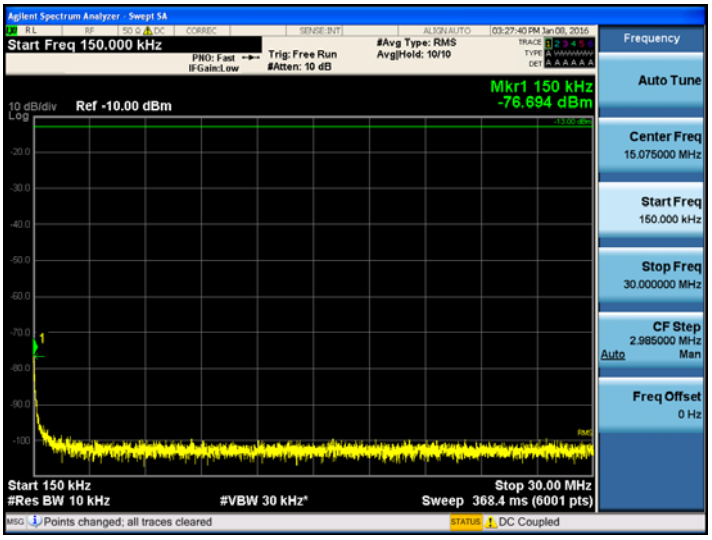
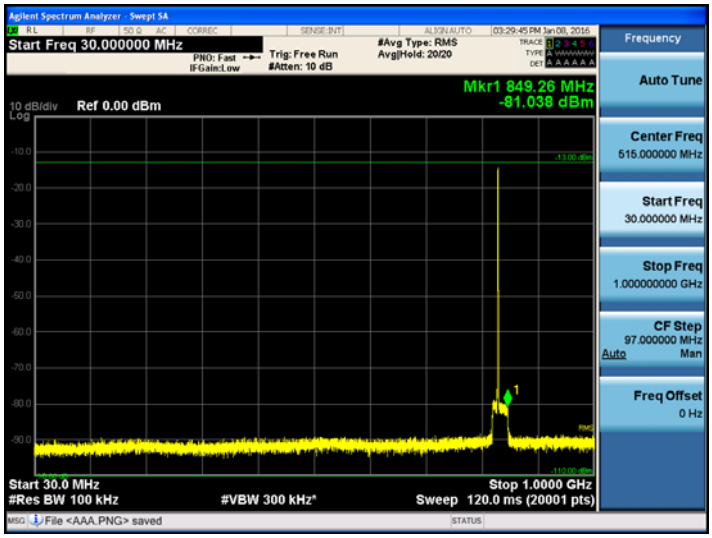
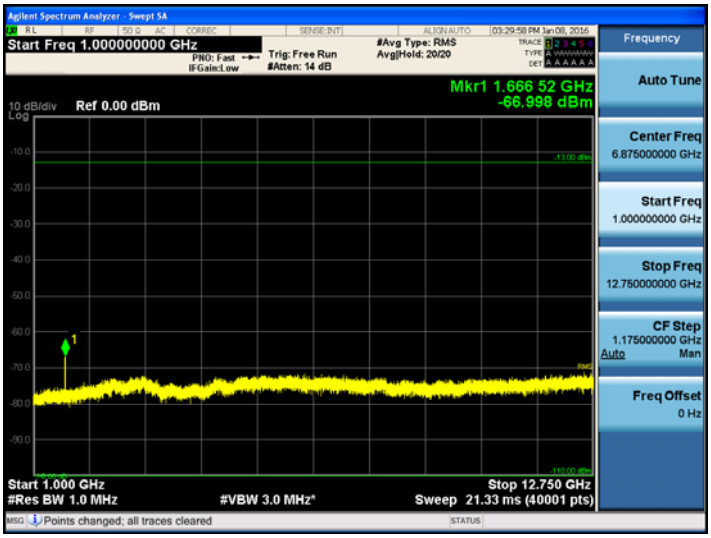
| Band Edge_UMTS Uplink Low | Band Edge_UMTS Uplink High |
|---|---|
|  | |

## 850Cellualr Band CDMA

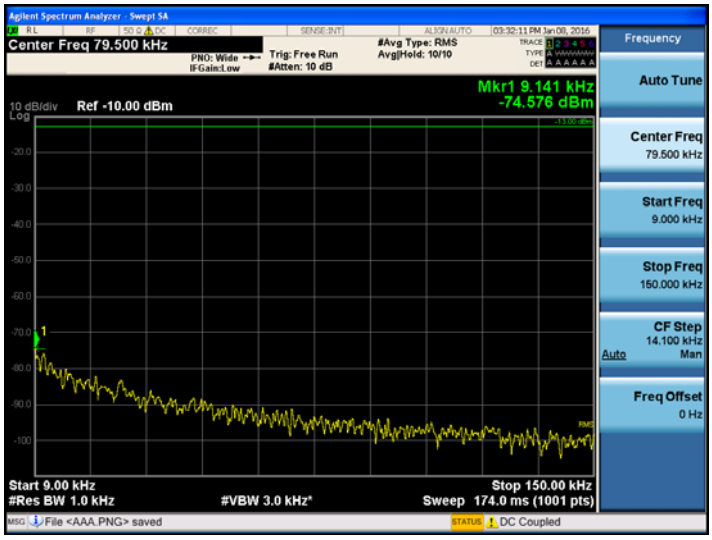
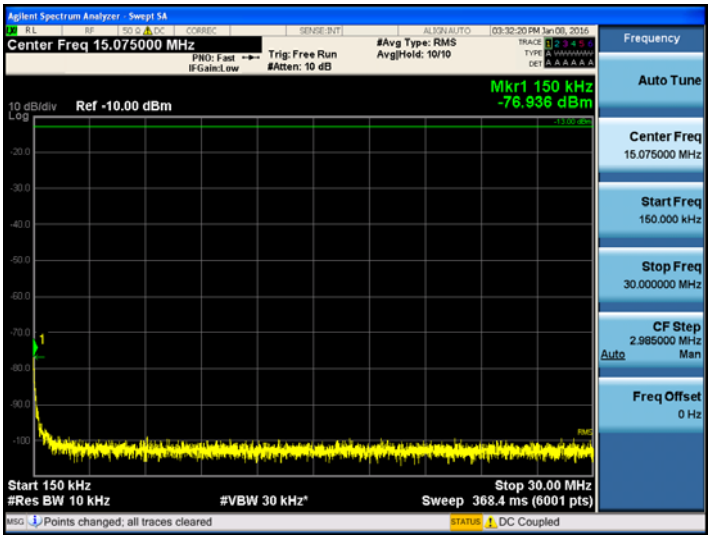
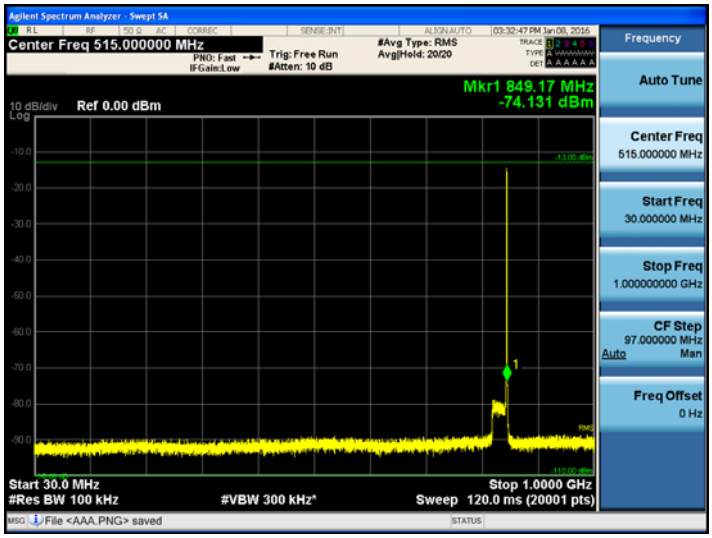
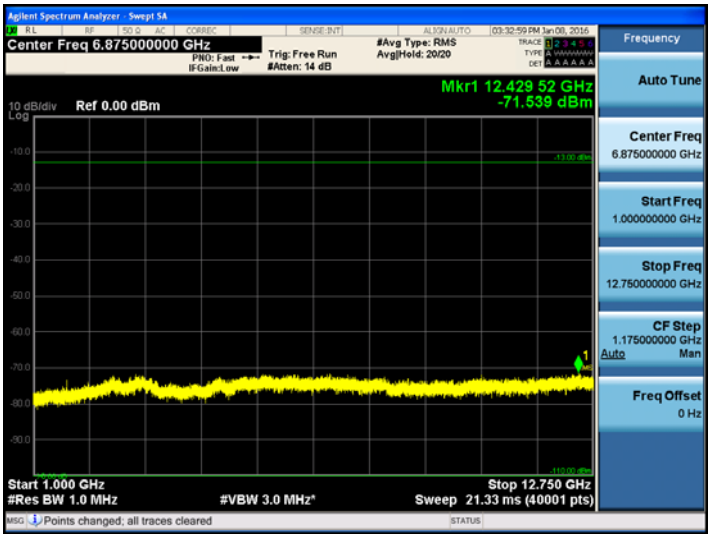
### [850Cellualr Band CDMA Uplink Low]

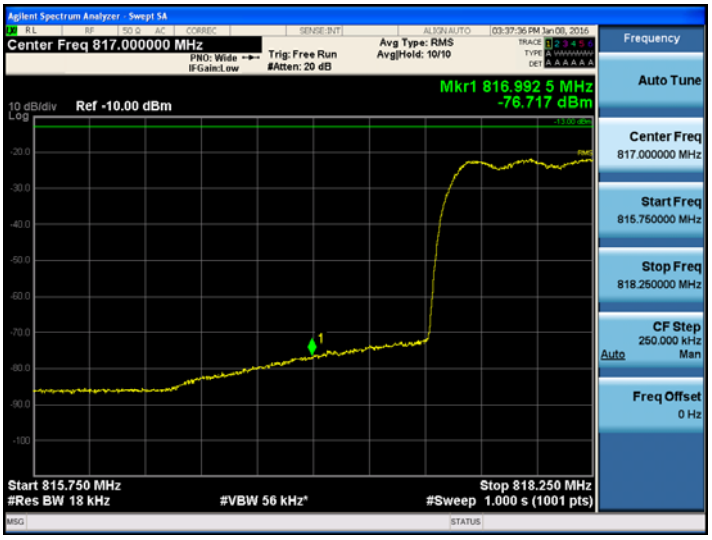
| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

## [850Cellualr Band _CDMA Uplink Mid]

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

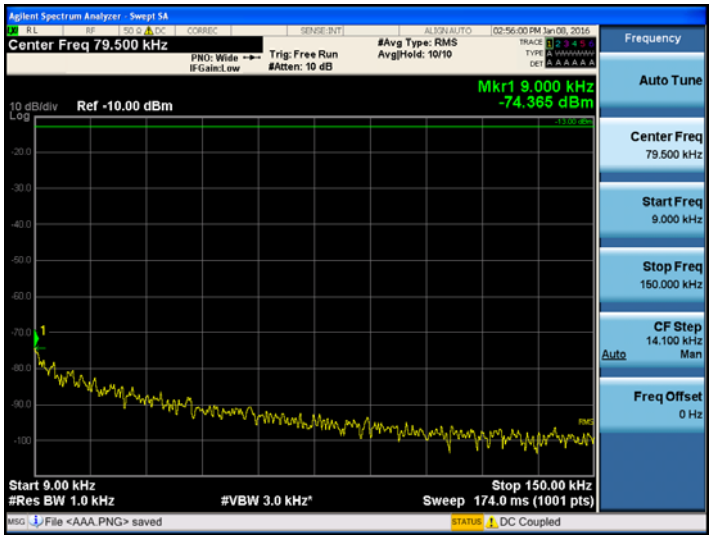
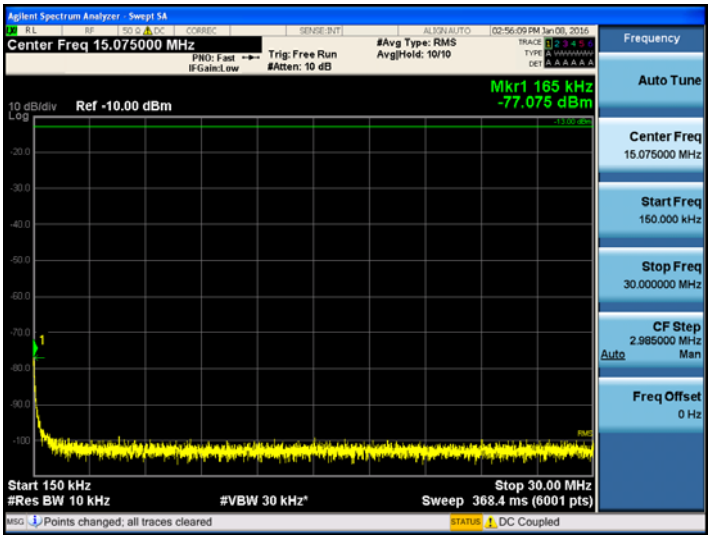
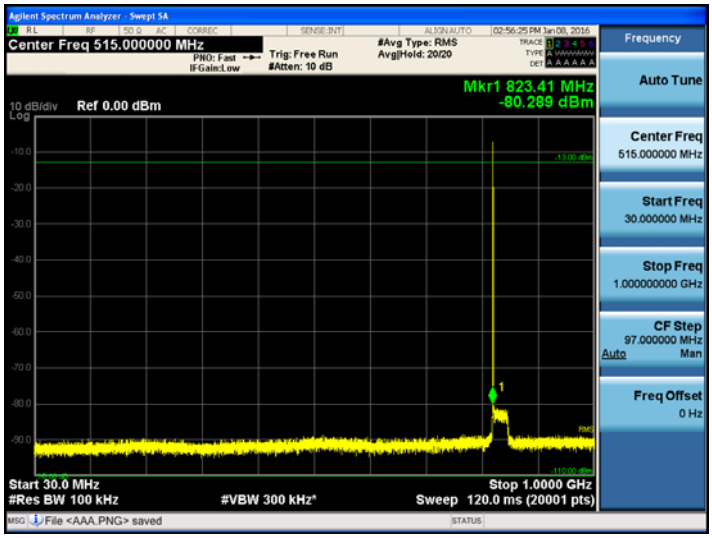
## [850Cellualr Band CDMA Uplink High]

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

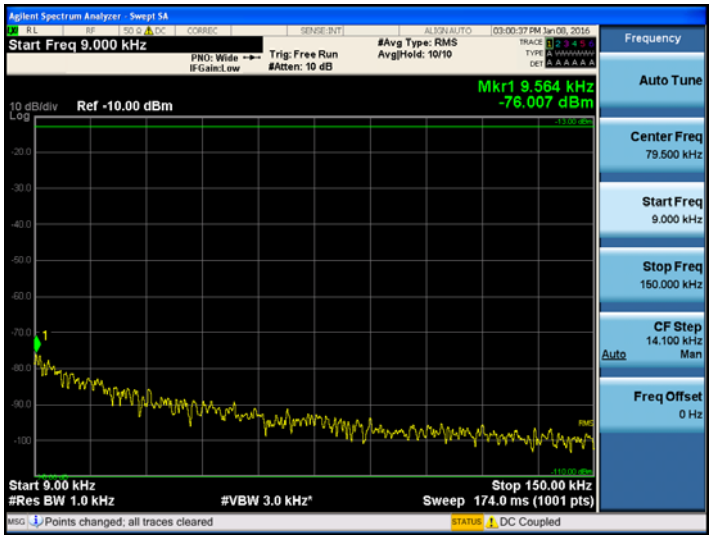
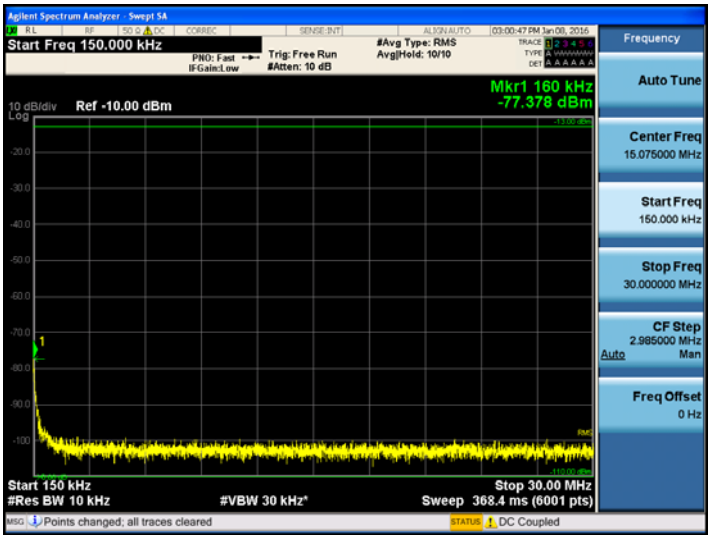
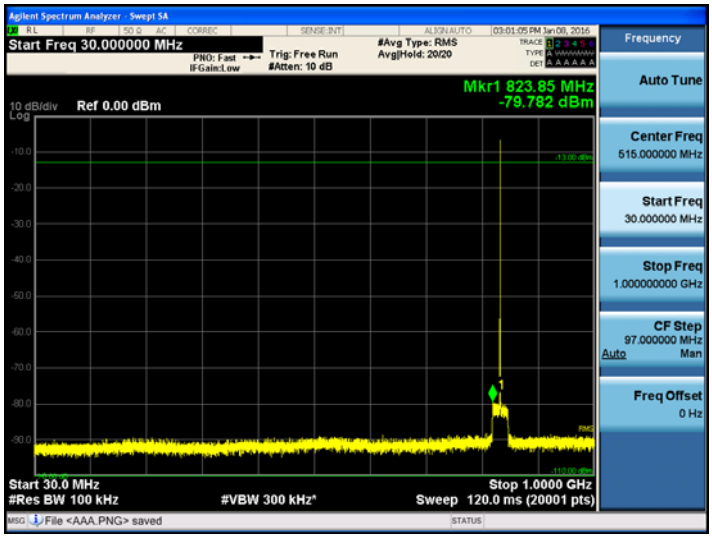
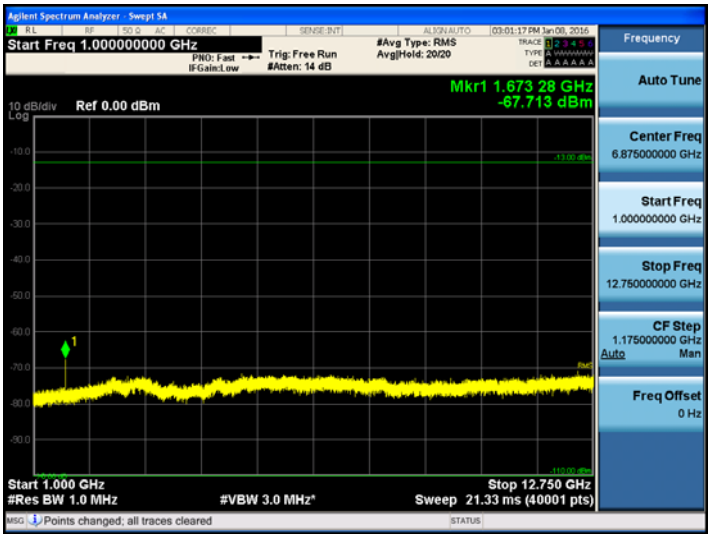
| Band Edge_CDMA Uplink Low | Band Edge_CDMA Uplink High |
|---|---|
|  | |

## 850Cellualr Band GSM

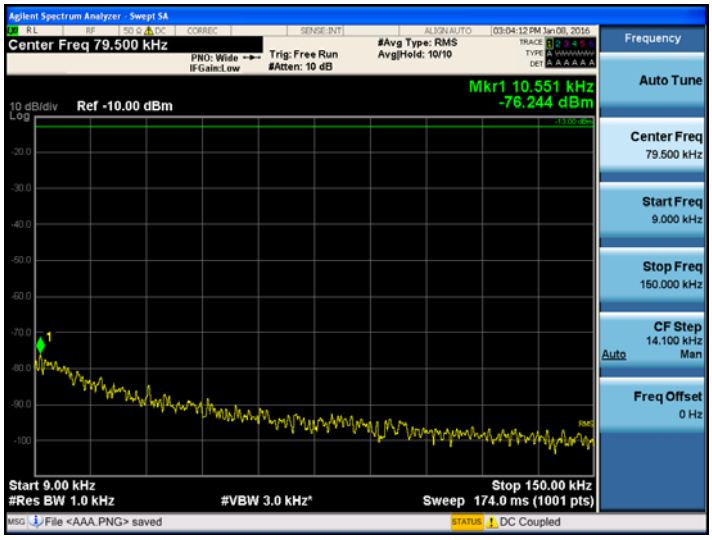
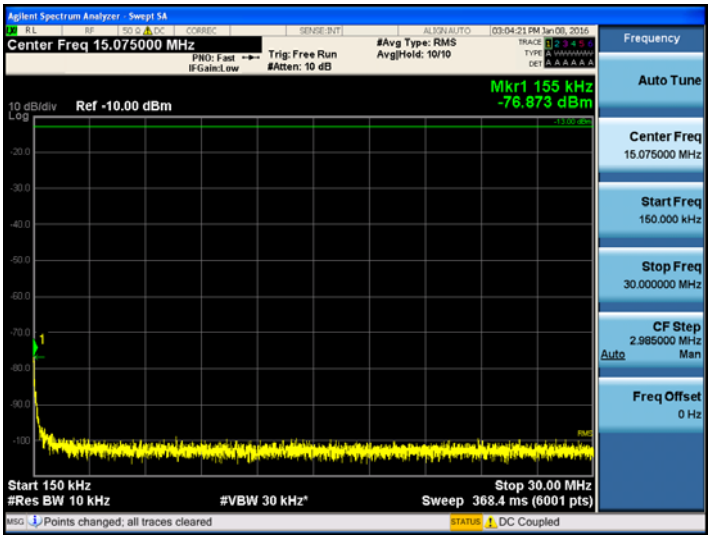
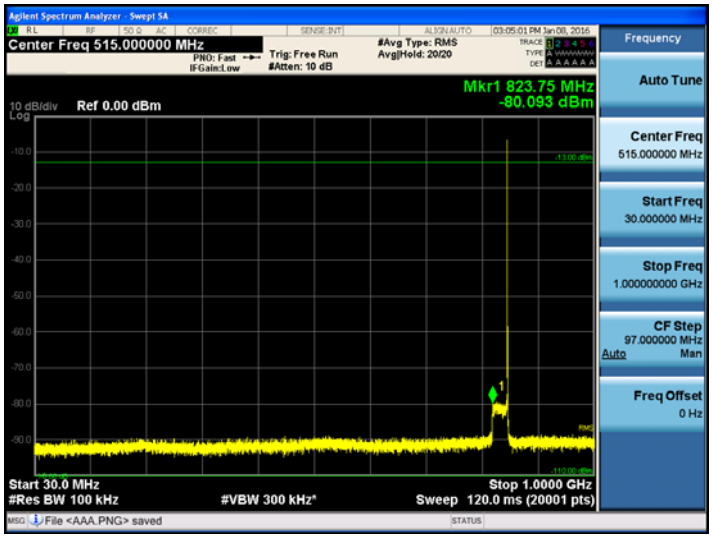
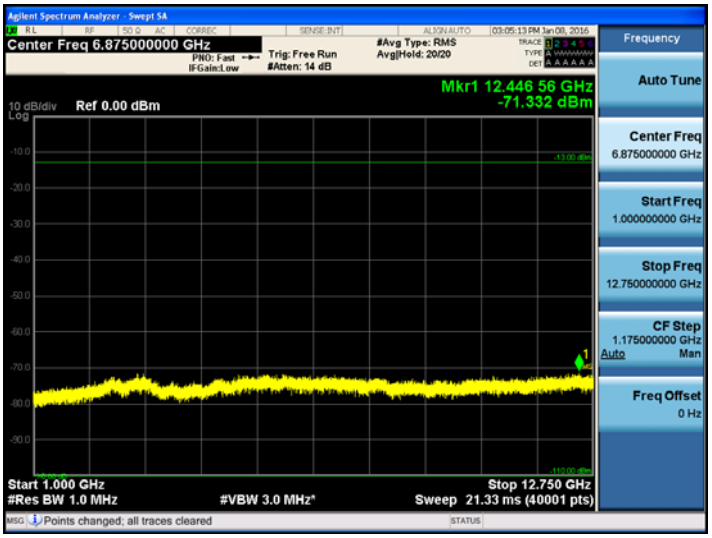
### [850Cellualr Band GSM Uplink Low]

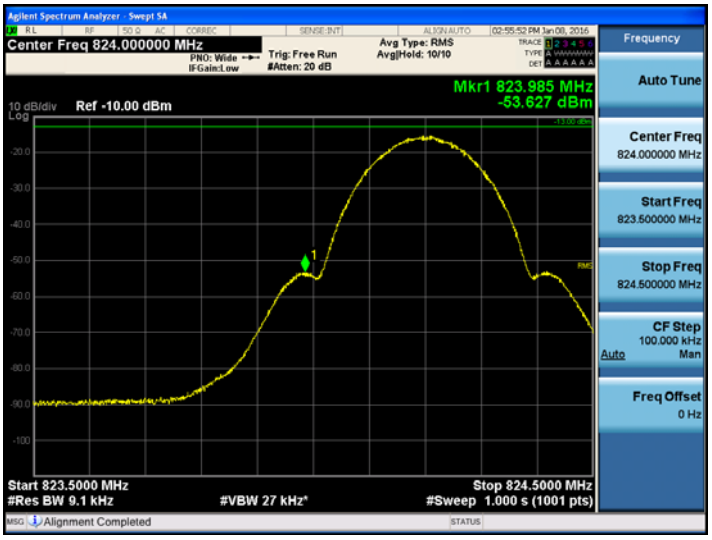
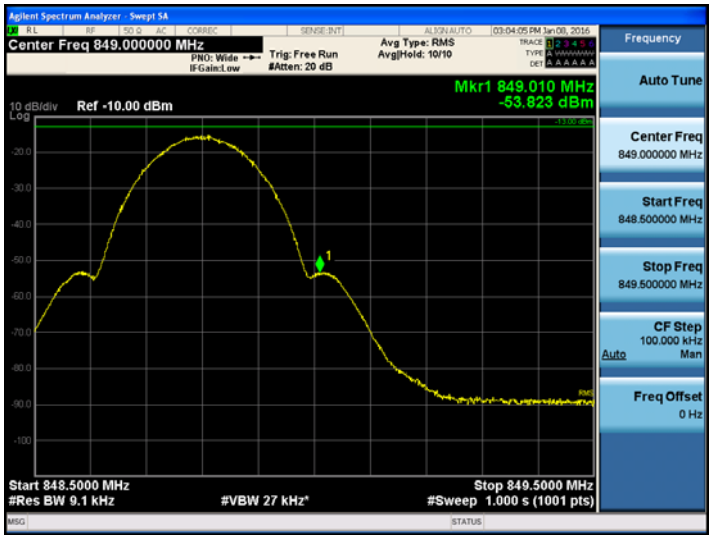
| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  | |

## [850Cellualr Band _GSM Uplink Mid]

| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

## [850Cellualr Band GSM Uplink High]

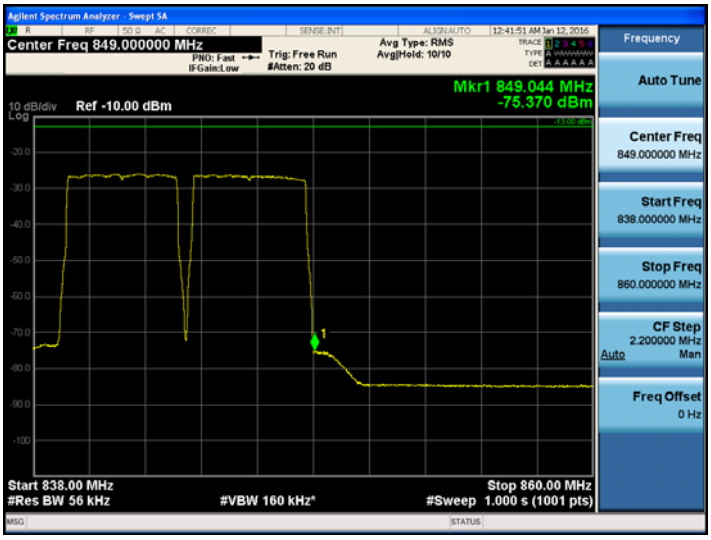
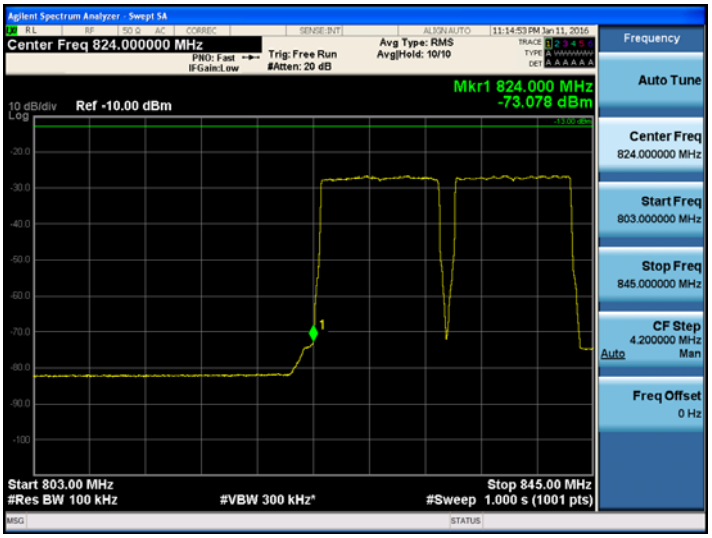
| 9㎑ ~ 150㎑ | 150㎑ ~ 30㎒ |
|---|---|
|  |  |
| **30㎒ ~ 1㎓** | **1㎓ ~ 12.75㎓** |
|  |  |

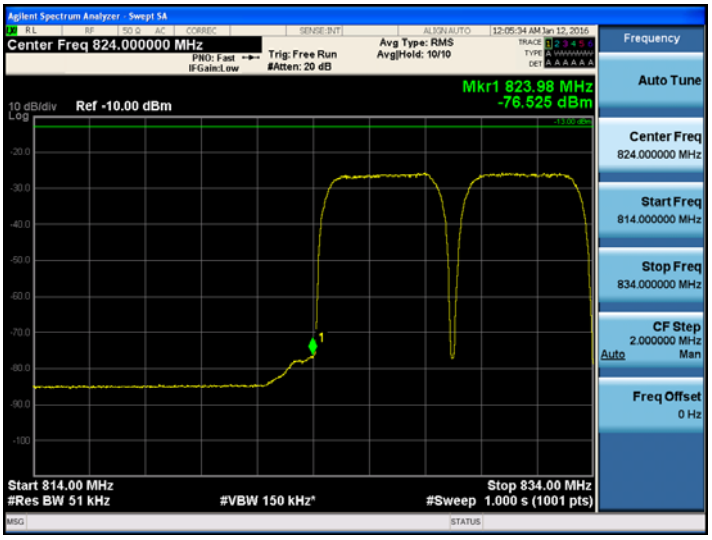
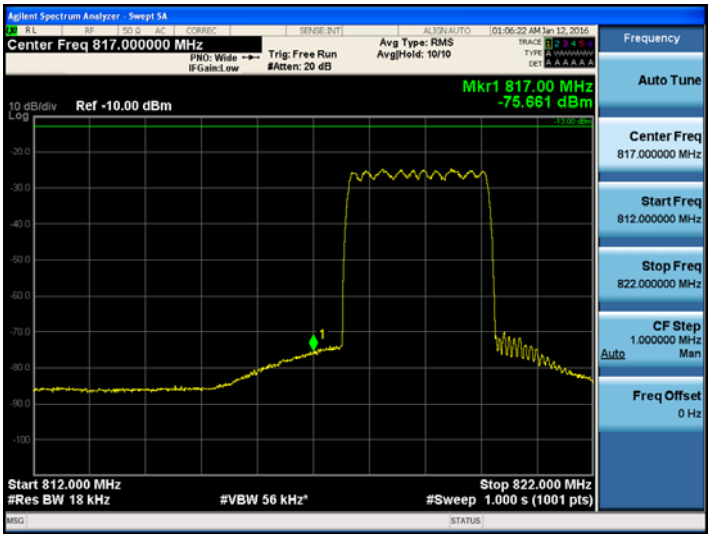
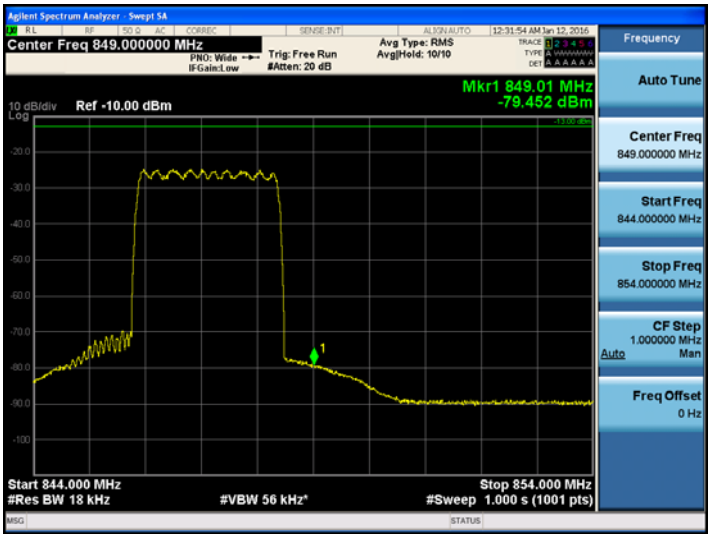
| Band Edge_GSM Downlink Low | Band Edge_GSM Downlink High |
|---|---|
|  |  |

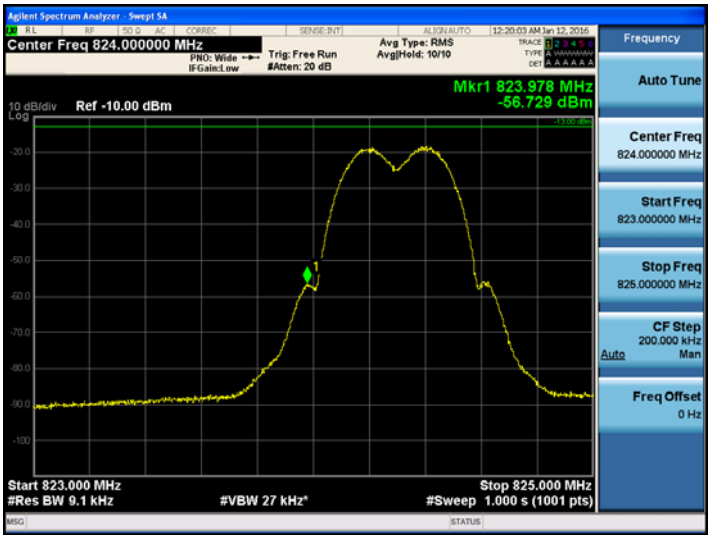
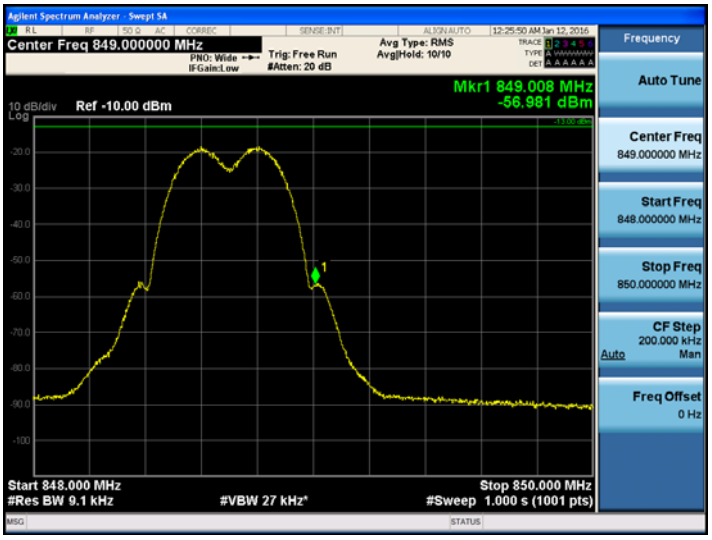
## Intermodulation Spurious Emissions for FCC

## Uplink

## 850Cellular Band

| [SMR 800,850 Cellualr LTE 5 MHz Uplink Low] | [SMR 800,850 Cellualr LTE 5MHz Uplink High] |
|---|---|
| **NO TEST**<br><br>**Note. SMR 800 Band amplifies only one selected channel.** |  |
| **[850 Cellualr LTE 10 MHz Uplink Low]** | **[850 Cellualr LTE 10 MHz Uplink High]** |
|  | |

| [850 Cellualr UMTS Uplink Low] | [850 Cellualr UMTS Uplink High] |
|---|---|
|  | |
| **[SMR 800,850 Cellualr CDMA Uplink Low]** | **[SMR 800,850 Cellualr CDMAUplinkHigh]** |
|  |  |

| [850 Cellualr GSM Uplink Low] | [850 Cellualr GSM Uplink High] |
|---|---|
|  |  |

# 10. RADIATED SPURIOUS EMISSIONS

**Test Requirement(s): § 2.1053 Measurements required: Field strength of spurious radiation.**

**§ 2.1053** (a) Measurements shall be made to detect spurious emissions that may be Radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of § 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from half-wave dipole antennas.

**§ 2.1053 (b):** The measurements specified in paragraph (a) of this section shall be made for the following equipment:

**(1)** Those in which the spurious emissions are required to be 60 dB or more below the mean power of the transmitter.

**(2)** All equipment operating on frequencies higher than 25 MHz.

**(3)** All equipment where the antenna is an integral part of, and attached directly to The transmitter.

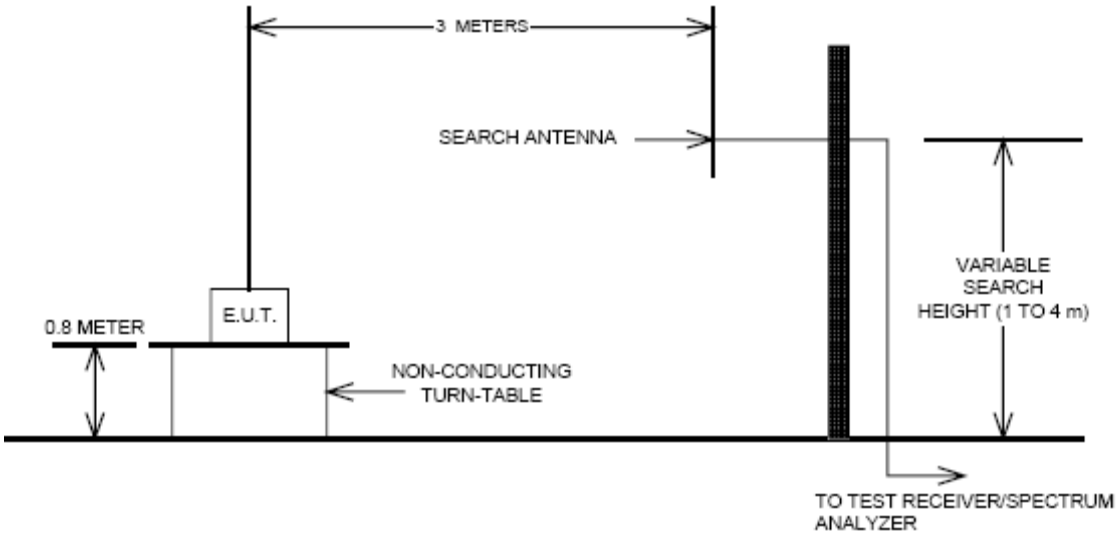
**(4)** Other types of equipment as required, when deemed necessary by the Commission.

**Test Procedures:** As required by 47 CFR 2.1053, *field strength of radiated spurious measurements* were made in accordance with the procedures of ANSI/TIA-603-C-2004 "Land Mobile FM or PM Communications Equipment Measurement and Performance Standards".

Radiated emission measurements were performed inside a 3 meter semi-anechoic chamber. The EUT was set at a distance of 3m from the receiving antenna. The EUT's RF ports were terminated to 50ohm load. The EUT was set to transmit at the low, mid and high channels of the transmitter frequency range at its maximum power level. The EUT was rotated about 360 and the receiving antenna scanned from 1-3m in order to capture the maximum

emission. A calibrated antenna source was positioned in place of the EUT and the previously recorded signal was duplicated. The maximum EIRP of the emission was calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps were carried. out with the receiving antenna in both vertical and horizontal polarization. Harmonic emissions up to the 10th or 40GHz, whichever was the lesser, were investigated.

## Radiated Spurious Emissions Test Setup



**Test Result:**

Note.

Input signal is the CW signal.

**850 Cellualr MHz band**

**[Uplink]**

| Voltage supplied to EUT | Tx Freq.(MHz) | Freq.(MHz) | Substitute Level [dBm] | Ant. Gain (dBi) | C.L | Pol. | EIRP (dBm) | Margin (dB) |
|---|---|---|---|---|---|---|---|---|
| 120 Vac | 864.50 | No Peak Found | | | | | | |
| | 878.00 | | | | | | | |
| | 891.50 | | | | | | | |