HCT CO.,LTD
74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA
TEL: +82-31-645-6300 FAX: +82-31-645-6401

# REPORT

## FCC Certification

**Applicant Name:**
KMW U.S.A.,INC.

**Address:**
1818 E. Orangethorpe Ave. Fullerton, CA 92831

**Date of Issue:**
September 13, 2016

**Test Site/Location:**
HCT CO., LTD., 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

**Report No.:** HCT-R-1609-F007-1

**HCT FRN:** 0005866421

**IC Recognition No.:** 5944A-5

| | |
|---|---|
| **FCC ID:** | **ZUQ-H-FEM-L-P7P8** |
| **APPLICANT:** | **KMW U.S.A., INC.** |

| | |
|---|---|
| FCC Model: | POD-H-FEM-L-P7P8 |
| EUT Type: | DAS 2-Band Remote Unit for Public Safety(SMR) |
| Frequency Ranges : | 788 MHz ~ 805 MHz (798 MHz ~ 799 MHz Guard band)<br>806 MHz ~ 824 MHz (816 MHz ~ 817 MHz Guard band) |
| Conducted Output Power: | 0.5 W (27 dBm) |
| Date of Test: | December 07, 2015 ~ January 11, 2016 |
| FCC Rule Part(s): | CFR 47 Part 2, Part 90 |

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of Part 90 of the FCC Rules under normal use and maintenance.

**Report prepared by**
**: Seul Kik Lee**
**Test engineer of RF Team**

**Approved by**
**: Jong Seok Lee**
**Manager of RF Team**

This report only responds to the tested sample and may not be reproduced, except in full, without written approval of the HCT Co., Ltd.

# Version

| TEST REPORT NO. | DATE | DESCRIPTION |
|---|---|---|
| HCT-R-1609-F007 | September 07, 2016 | - First Approval Report |
| HCT-R-1609-F007-1 | September 13, 2016 | - Revised the Frequency Ranges |
| | | |
| | | |
| | | |

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# 1. CLIENT INFORMATION

**The EUT has been tested by request of**

| | |
|---|---|
| Company | KMW U.S.A.,INC.<br><br>1818 E. Orangethorpe Ave. Fullerton, CA 92831 |

| | |
|---|---|
| **FCC ID:** | ZUQ-H-FEM-L-P7P8 |
| **EUT Type:** | DAS 2-Band Remote Unit for Public Safety(SMR) |
| **FCC Model:** | POD-H-FEM-L-P7P8 |
| **Frequency Ranges :** | 788 MHz ~ 805 MHz (798 MHz ~ 799 MHz Guard band)<br>806 MHz ~ 824 MHz (816 MHz ~ 817 MHz Guard band) |
| **Conducted Output Power:** | 0.5 W (27 dBm) |
| **Antenna Gain(s):** | Manufacturer does not provide an antenna. |
| **Measurement standard(s):** | ANSI/TIA-603-C-2004, KDB 971168 D01 v02r02<br>KDB 935210 D02 v03r02, KDB 935210 D05 v01r01 |
| **FCC Rule Part(s):** | CFR 47 Part 2, Part 90 |
| **Place of Tests:** | HCT CO., LTD.,<br>74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA<br>(IC Recognition No. : 5944A-5) |

# 2. FACILITIES AND ACCREDITATIONS

## 2.1. FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA. The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2003) and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated July 07, 2015 (Registration Number: 90661).

## 2.2. EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.
Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.
All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

# 3. TEST SPECIFICATIONS

## 3.1. STANDARDS

The following tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 2, Part 90.

| Description | Reference (FCC) | Results |
|---|---|---|
| Conducted RF Output Power | §2.1046; §90.541, §90.542, §90.635 | Compliant |
| Occupied Bandwidth | §2.1049 | Compliant |
| Passband Gain and Bandwidth & Out of Band Rejection | KDB 935210 D02 v03r02 | Compliant |
| Noise Figure | §90.219 | Compliant |
| Emission Masks | §90.210 | Compliant |
| Spurious Emissions at Antenna Terminals | §2.1051, §90.543, §90.691 | Compliant |
| Radiated Spurious Emissions | §2.1053, §90.543 §90.691 | Compliant |
| Frequency Stability | §2.1055, §90.213 §90.539 | N/A The EUT does not perform frequency translation |

## 3.2. MODE OF OPERATION DURING THE TEST

The EUT was operated in a manner representative of the typical usage of the equipment.

During all testing, system components were manipulated within the confines of typical usage to maximize each emission.

The device does not supply antenna(s) with the system, so the dummy loads were connected to the RF output ports for radiated spurious emission testing.

| Frequency | Modulation |
|---|---|
| 788 MHz ~ 798 MHz | LTE(5 MHz), LTE(10 MHz) |
| 793 MHz ~ 805 MHz<br>(798 MHz ~ 799 MHz Guard band) | P25(12.5 kHz),<br>FM |
| 806 MHz ~ 817 MHz<br>(816 MHz ~ 817 MHz Guard band) | P25(12.5 kHz)<br>FM |
| 817 MHz~824 MHz | LTE(5 MHz), CDMA(1.25 MHz) |

## 3.3. MAXIMUM MEASUREMENT UNCERTAINTY

The value of the measurement uncertainty for the measurement of each parameter.

Coverage factor *k* = 2, Confidence levels of 95 %

| Description | Condition | Uncertainty |
|---|---|---|
| Conducted RF Output Power | - | ± 0.72 dB |
| Occupied Bandwidth | OBW ≤ 20 MHz | ± 52 kHz |
| Passband Gain<br>and Bandwidth<br>& Out of Band Rejection | Gain<br>20 dB bandwidth | ± 0.89 dB<br>± 0.58 MHz |
| Spurious Emissions at<br>Antenna Terminals | - | ± 1.08 dB |
| Noise Figure, Emission Masks | - | ± 0.89 dB |
| Radiated Spurious Emissions | f ≤ 1 GHz<br>f > 1 GHz | ± 4.80 dB<br>± 6.07 dB |

# 4. STANDARDS ENVIRONMENTAL TEST CONDITIONS

| | |
|---|---|
| **Temperature :** | **+ 15 ℃ to + 35 ℃** |
| **Relative humidity:** | **30 % to 60 %** |
| **Air pressure** | **860 mbar to 1 060 mbar** |

# 5. TEST EQUIPMENT

| Manufacturer | Model / Equipment | Cal Interval | Calibration Date | Serial No. |
|---|---|---|---|---|
| Agilent | E4438C /Signal Generator | Annual | 09/02/2015 | MY42082646 |
| Agilent | N5182A /Signal Generator | Annual | 04/07/2015 | MY50141649 |
| Agilent | N5182A /Signal Generator | Annual | 05/13/2015 | MY47070230 |
| NANGYEUL CO., LTD. | NY-THR18750/ Temperature and Humidity Chamber | Annual | 10/27/2015 | NY-2009012201A |
| Agilent | N9020A /Signal Analyzer | Annual | 07/15/2015 | MY51110068 |
| WEINSCHEL | 67-30-33 / Fixed Attenuator | Annual | 10/29/2015 | BR0530 |
| DEAYOUNG ENT | DFSS60 / AC Power Supply | Annual | 04/01/2015 | 1003030-1 |
| Rohde & Schwarz | FSP / Spectrum Analyzer | Annual | 09/24/2015 | 100688 |
| CERNEX, Inc | CBLU1183540/AMP | Annual | 07/21/2015 | 22964 |
| WEINSCHEL | 1506A/Power Divider | Annual | 10/21/2015 | MD793 |
| Schwarzbeck | BBHA 9120D/ Horn Antenna | Biennial | 07/30/2015 | 1151 |
| Schwarzbeck | VULB 9160/TRILOG Antenna | Biennial | 10/10/2014 | 9160-3368 |
| HD | MA240 / Antenna Position Tower | N/A | N/A | 556 |
| EMCO | 1050 / Turn Table | N/A | N/A | 114 |
| HD GmbH | HD 100 / Controller | N/A | N/A | 13 |
| HD GmbH | KMS 560/ SlideBar | N/A | N/A | 12 |

# 6. RF OUTPUT POWER

**FCC Rules**

**Test Requirements:**

**§ 2.1046 Measurements required: RF power output:**

**§ 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 § 2.1033(c)(8).The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

**§ 2.1046 (b)** For single sideband, independent sideband, and single channel, controlled carrier radiotelephone transmitters, the procedure specified in paragraph (a) of this section shall be employed and, in addition, the transmitter shall be modulated during the test as specified and as applicable in § 2.1046 (b) (1-5). In all tests, the input level of the modulating signal shall be such as to develop rated peak envelope power or carrier power, as appropriate, for the transmitter.

**§ 2.1046 (c)** For measurements conducted pursuant to paragraphs (a) and (b) of this section, all calculations and methods used by the applicant for determining carrier power or peak envelope power, as appropriate, on the basis of measured power in the radio frequency load attached to the transmitter output terminals shall be shown. Under the test conditions specified, no components of the emission spectrum shall exceed the limits specified in the applicable rule parts as necessary for meeting occupied bandwidth or emission limitations.

**§ 90.541 Transmitting power and antenna height limits.**

The transmitting power and antenna height of base, mobile, portable and control stations operating in the 769-775 MHz and 799-805 MHz frequency bands must not exceed the maximum limits in this section. Power limits are listed in effective radiated power (ERP).

(a) The transmitting power and antenna height of base stations must not exceed the limits given in paragraph (a) of §90.635.

(b) The transmitting power of a control station must not exceed 200 watts ERP.

(c) The transmitting power of a mobile unit must not exceed 100 watts ERP.

(d) The transmitting power of a portable (hand-held) unit must not exceed 3 watts ERP.

(e) Transmitters operating on the narrowband low power channels listed in §90.531(b)(3) and (4), must not exceed 2 watts ERP.

**§ 90.542 Broadband transmitting power limits.**

(a) The following power limits apply to the 758-768/788-798 MHz band:

(1) Fixed and base stations transmitting a signal in the 758-768 MHz band with an emission bandwidth of 1 MHz or less must not exceed an ERP of 1000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section. (2) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 758-768 MHz band with an emission bandwidth of 1 MHz or less must not exceed an ERP of 2000 watts and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts ERP in accordance with Table 2 of this section. (3) Fixed and base stations transmitting a signal in the 758-768 MHz band with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP accordance with Table 3 of this section. (4) Fixed and base stations located in a county with population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and transmitting a signal in the 758-768 MHz band with an emission bandwidth greater than 1 MHz must not exceed an ERP of 2000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 2000 watts/MHz ERP in accordance with Table 4 of this section. (5) Licensees of fixed or base stations transmitting a signal in the 758-768 MHz band at an ERP greater than 1000 watts must comply with the provisions set forth in paragraph (b) of this section. (6) Control stations and mobile stations transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 30 watts ERP. (7) Portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP. (8) For transmissions in the 758-768 MHz and 788-798 MHz bands, licensees may employ equipment operating in compliance with either of the following measurement techniques:

(i) The maximum composite transmit power shall be measured over any interval of continuous transmission using instrumentation calibrated in terms of RMS-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, etc., so as to obtain a true maximum composite measurement for the emission in question over the full bandwidth of the channel.

(ii) A Commission-approved average power technique.

**TABLE 1 TO §90.542(a)—PERMISSIBLE POWER AND ANTENNA HEIGHTS FOR BASE AND FIXED STATIONS IN THE 758-768 MHZ BAND TRANSMITTING A SIGNAL WITH AN EMISSION BANDWIDTH OF 1 MHZ OR LESS**

| Antenna height (AAT) in meters (feet) | Effective radiated power (ERP) (watts) |
|---|---|
| Above 1372 (4500) | 65 |
| Above 1220 (4000) To 1372 (4500) | 70 |
| Above 1067 (3500) To 1220 (4000) | 75 |
| Above 915 (3000) To 1067 (3500) | 100 |
| Above 763 (2500) To 915 (3000) | 140 |
| Above 610 (2000) To 763 (2500) | 200 |
| Above 458 (1500) To 610 (2000) | 350 |
| Above 305 (1000) To 458 (1500) | 600 |
| Up to 305 (1000) | 1000 |

**TABLE 2 TO §90.542(a)—PERMISSIBLE POWER AND ANTENNA HEIGHTS FOR BASE AND FIXED STATIONS IN THE 758-768 MHZ BAND TRANSMITTING A SIGNAL WITH AN EMISSION BANDWIDTH OF 1 MHZ OR LESS**

| Antenna height (AAT) in meters (feet) | Effective radiated power (ERP) (watts) |
|---|---|
| Above 1372 (4500) | 130 |
| Above 1220 (4000) To 1372 (4500) | 140 |
| Above 1067 (3500) To 1220 (4000) | 150 |
| Above 915 (3000) To 1067 (3500) | 200 |
| Above 763 (2500) To 915 (3000) | 280 |
| Above 610 (2000) To 763 (2500) | 400 |
| Above 458 (1500) To 610 (2000) | 700 |
| Above 305 (1000) To 458 (1500) | 1200 |
| Up to 305 (1000) | 2000 |

**TABLE 3 TO §90.542(a)—PERMISSIBLE POWER AND ANTENNA HEIGHTS FOR BASE AND FIXED STATIONS IN THE 758-768 MHZ BAND TRANSMITTING A SIGNAL WITH AN EMISSION BANDWIDTH GREATER THAN 1 MHZ**

| Antenna height (AAT) in meters (feet) | Effective radiated power (ERP) per MHz (watts/MHz) |
|---|---|
| Above 1372 (4500) | 65 |
| Above 1220 (4000) To 1372 (4500) | 70 |
| Above 1067 (3500) To 1220 (4000) | 75 |
| Above 915 (3000) To 1067 (3500) | 100 |
| Above 763 (2500) To 915 (3000) | 140 |
| Above 610 (2000) To 763 (2500) | 200 |
| Above 458 (1500) To 610 (2000) | 350 |
| Above 305 (1000) To 458 (1500) | 600 |
| Up to 305 (1000) | 1000 |

**TABLE 4 TO §90.542(a)—PERMISSIBLE POWER AND ANTENNA HEIGHTS FOR BASE AND FIXED STATIONS IN THE 758-768 MHZ BAND TRANSMITTING A SIGNAL WITH AN EMISSION BANDWIDTH GREATER THAN 1 MHZ**

| Antenna height (AAT) in meters (feet) | Effective radiated power (ERP) per MHz (watts/MHz) |
|---|---|
| Above 1372 (4500) | 130 |
| Above 1220 (4000) To 1372 (4500) | 140 |
| Above 1067 (3500) To 1220 (4000) | 150 |
| Above 915 (3000) To 1067 (3500) | 200 |
| Above 763 (2500) To 915 (3000) | 280 |
| Above 610 (2000) To 763 (2500) | 400 |
| Above 458 (1500) To 610 (2000) | 700 |
| Above 305 (1000) To 458 (1500) | 1200 |
| Up to 305 (1000) | 2000 |

(b) For base and fixed stations operating in the 758-768 MHz band in accordance with the provisions of paragraph (a)(5) of this section, the power flux density that would be produced by such stations through a combination of antenna height and vertical gain pattern must not exceed 3000 microwatts per square meter on the ground over the area extending to 1 km from the base of the antenna mounting structure.

**§ 90.635 Power and antenna height limits**.

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

| Antenna height (AAT) in meters (feet) | Effective radiated power (watts) |
|---|---|
| Above 1372 (4500) | 65 |
| Above 1220 (4000) To 1372 (4500) | 70 |
| Above 1067 (3500) To 1220 (4000) | 75 |
| Above 915 (3000) To 1067 (3500) | 100 |
| Above 763 (2500) To 915 (3000) | 140 |
| Above 610 (2000) To 763 (2500) | 200 |
| Above 458 (1500) To 610 (2000) | 350 |
| Above 305 (1000) To 458 (1500) | 600 |
| Up to 305 (1000) | 1000 |

**Test Procedures:**

Measurements were in accordance with the test methods section 3.5.2 of KDB 935210 D05 v01r01.

a) Connect a signal generator to the input of the EUT.

b) Configure to generate the AWGN (broadband) test signal.

c) The frequency of the signal generator shall be set to the frequency of (f0) as determined from 3.3.

d) Connect a spectrum analyzer or power meter to the output of the EUT using appropriate attenuation as necessary.

e) Set the signal generator output power to a level that produces an EUT output level that is just below the AGC threshold (see 3.2), but not more than 0.5 dB below.

f) Measure the output power of the EUT and record (Power measurement with a spectrum

analyzer).

g) Remove the EUT from the measurement setup and using the same signal generator settings, repeat the power measurement on the input signal to the EUT and record as input power.

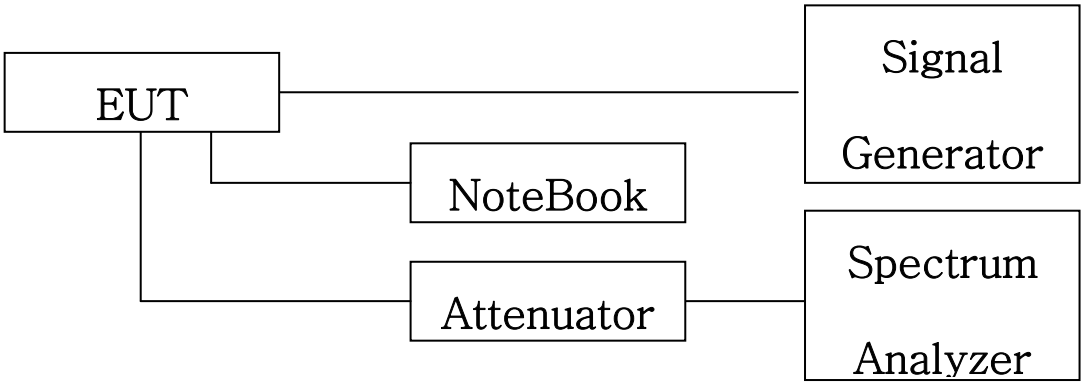
h) Repeat the procedure with the narrowband test signal.

i) Repeat the procedure for both test signals with input signal amplitude set to 3 dB above the AGC threshold level.

j) Repeat for all frequency bands authorized for use by the EUT.

**Power measurement Method :**

Guidance for performing input/output power measurements using a spectrum or signal analyzer is provided in 5.2 of KDB Publication 971168.




**Block Diagram 1. RF Power Output Test Setup**

**Test Results:**

| Input Signal | Input Level (dBm) | Maximum Amp Gain |
|---|---|---|
| LTE 5 MHz | UL : -42 dBm | UL : 37 dB |
| LTE 10 MHz | | |
| CDMA 1.25 MHz | | |
| P25 12.5 kHz | | |
| FM | | |

**Single channel Enhancer**

* Due to EUT's ALC function (Auto Level Control), even if input signal is increased,

The same output power is transmit.

**[Uplink]**

| | Channel | Frequency (MHz) | Output Power | |
|---|---|---|---|---|
| | | | (dBm) | (mW) |
| 700 Band_ LTE 5 MHz AGC threshold | Low | 790.5000 | -5.07 | 0.311 |
| | Middle | - | - | - |
| | High | 795.5000 | -5.08 | 0.310 |
| 700 Band_ LTE 10 MHz AGC threshold | Low | - | - | - |
| | Middle | 793.0000 | -5.01 | 0.316 |
| | High | - | - | - |
| 700 Band_P25 AGC threshold | Low | 793.0125 | -5.00 | 0.316 |
| | Middle | 799.0125 | -5.02 | 0.315 |
| | High | 804.9875 | -5.00 | 0.316 |
| 700 Band_FM AGC threshold | Low | 793.0125 | -5.07 | 0.311 |
| | Middle | 799.0125 | -5.05 | 0.313 |
| | High | 804.9875 | -5.06 | 0.312 |

| | Channel | Frequency (MHz) | Output Power | |
|---|---|---|---|---|
| | | | (dBm) | (mW) |
| 700 Band_ LTE 5 MHz +3dB above AGC threshold | Low | 790.5000 | -5.01 | 0.315 |
| | Middle | - | - | - |
| | High | 795.5000 | -5.00 | 0.316 |
| 700 Band_ LTE 10 MHz +3dB above AGC threshold | Low | - | - | - |
| | Middle | 793.0000 | -5.04 | 0.313 |
| | High | - | - | - |
| 700 Band_P25 +3dB above AGC threshold | Low | 793.0125 | -4.99 | 0.317 |
| | Middle | 799.0125 | -5.02 | 0.315 |
| | High | 804.9875 | -5.06 | 0.312 |
| 700 Band_FM +3dB above AGC threshold | Low | 793.0125 | -5.05 | 0.312 |
| | Middle | 799.0125 | -5.01 | 0.315 |
| | High | 804.9875 | -5.02 | 0.315 |

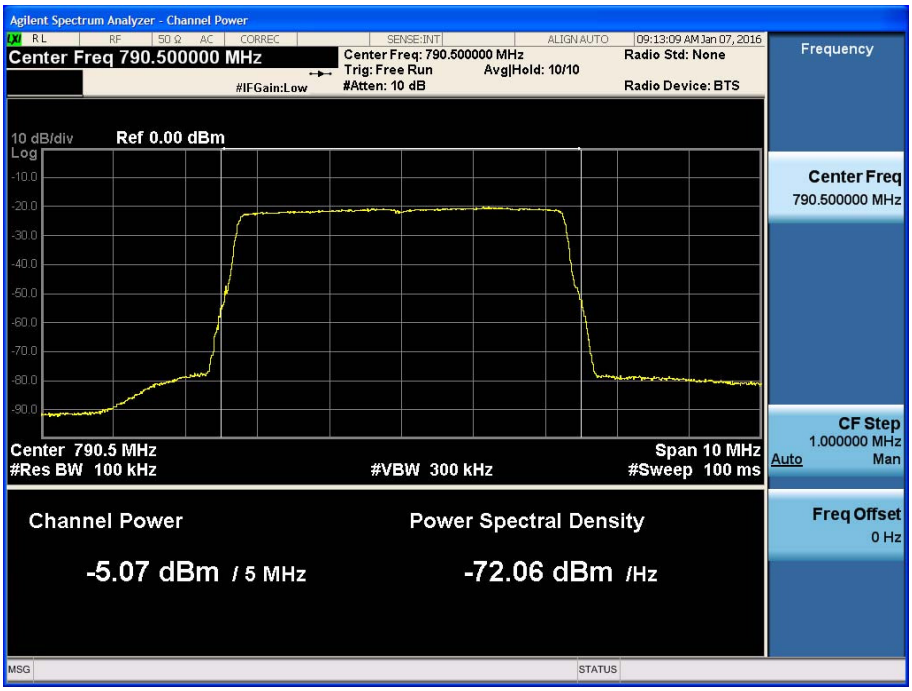
| | Channel | Frequency (MHz) | Output Power | |
|---|---|---|---|---|
| | | | (dBm) | (mW) |
| 800 Band_ LTE 5 MHz AGC threshold | Low | 819.5000 | -5.06 | 0.312 |
| | Middle | - | - | - |
| | High | 821.5000 | -5.09 | 0.310 |
| 800 Band_ CDMA 1.25 MHz AGC threshold | Low | 818.2500 | -5.03 | 0.314 |
| | Middle | 820.5000 | -5.08 | 0.311 |
| | High | 822.7500 | -5.08 | 0.310 |
| 800 Band_P25 AGC threshold | Low | 806.0125 | -5.02 | 0.315 |
| | Middle | 811.0000 | -5.02 | 0.315 |
| | High | 815.9875 | -5.02 | 0.315 |
| 800 Band_FM AGC threshold | Low | 806.0125 | -5.01 | 0.316 |
| | Middle | 811.0000 | -5.02 | 0.315 |
| | High | 815.9875 | -5.02 | 0.315 |

| | Channel | Frequency (MHz) | Output Power | |
|---|---|---|---|---|
| | | | (dBm) | (mW) |
| 800 Band_ LTE 5 MHz +3dB above AGC threshold | Low | 819.5000 | -5.04 | 0.313 |
| | Middle | - | - | - |
| | High | 821.5000 | -5.12 | 0.308 |
| 800 Band_ CDMA 1.25 MHz +3dB above AGC threshold | Low | 818.2500 | -5.01 | 0.315 |
| | Middle | 820.5000 | -5.12 | 0.307 |
| | High | 822.7500 | -5.08 | 0.311 |
| 800 Band_P25 +3dB above AGC threshold | Low | 806.0125 | -5.05 | 0.313 |
| | Middle | 811.0000 | -5.00 | 0.316 |
| | High | 815.9875 | -5.05 | 0.313 |
| 800 Band_FM +3dB above AGC threshold | Low | 806.0125 | -5.07 | 0.311 |
| | Middle | 811.0000 | -5.02 | 0.315 |
| | High | 815.9875 | -5.14 | 0.307 |

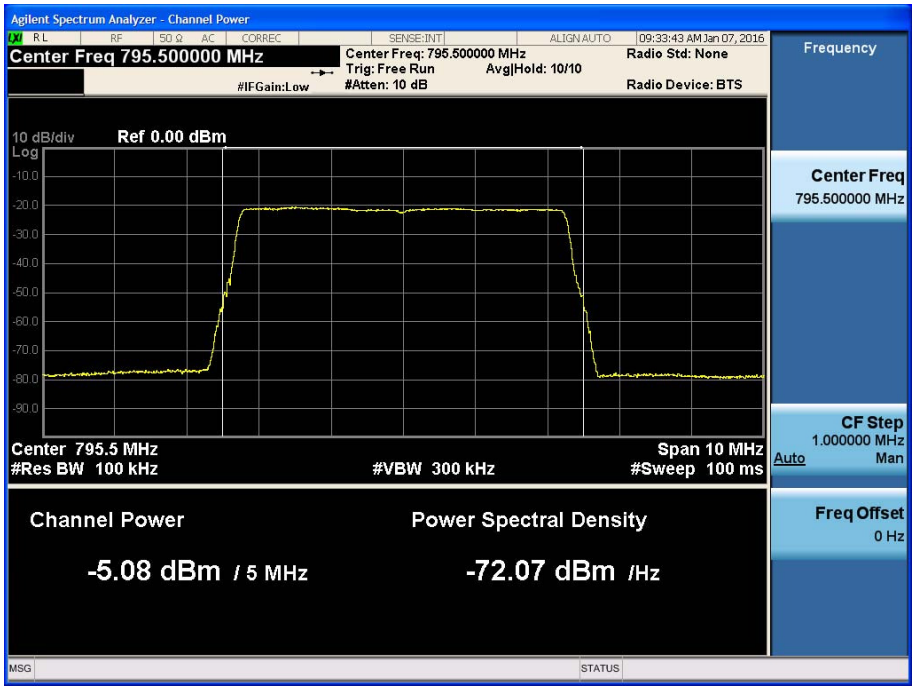
## Single channel Enhancer Plots of RF Output Power

### 700 MHz Band LTE UL

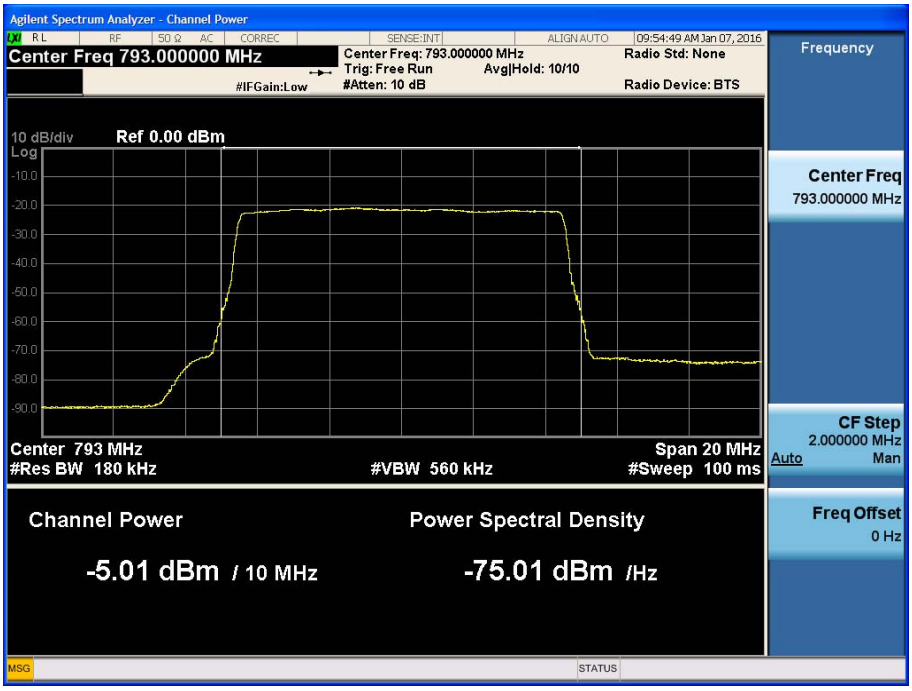
**[700 Band AGC threshold Uplink LTE 5 MHz Low]**



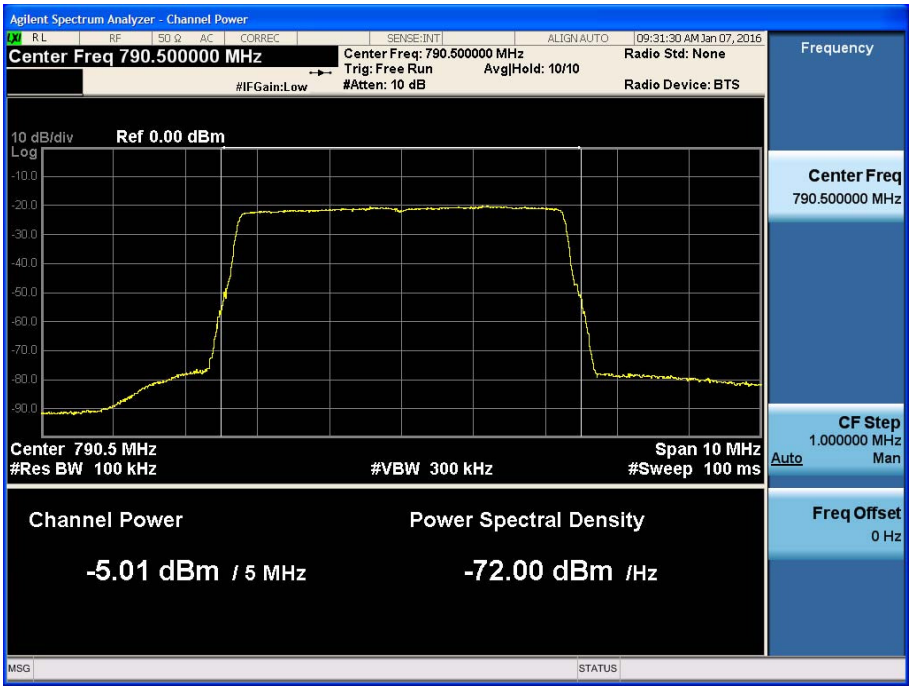

**[700 Band AGC threshold Uplink LTE 5 MHz High]**



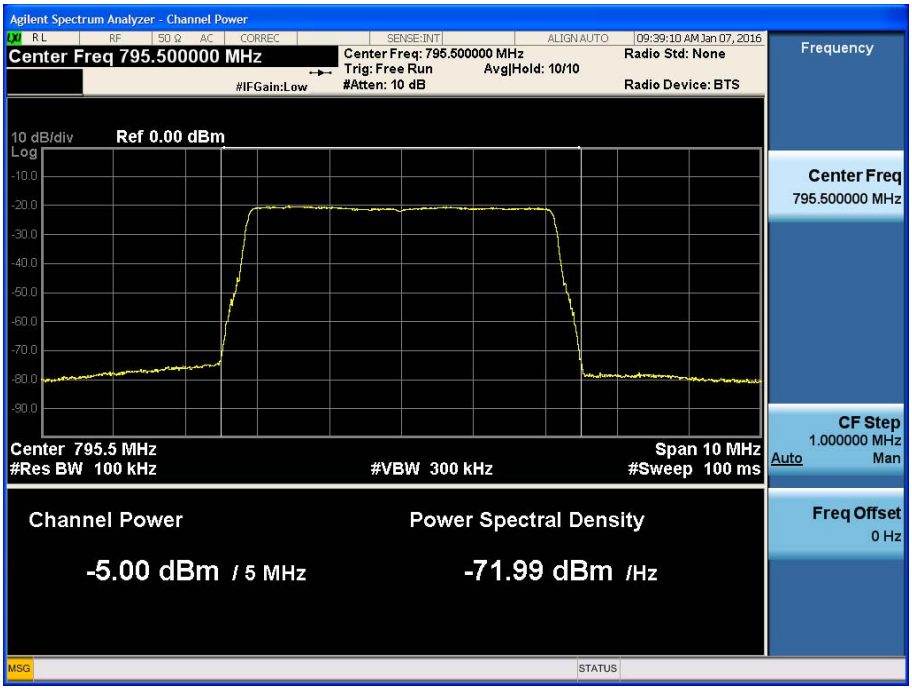
**[700 Band AGC threshold Uplink LTE 10 MHz Middle]**



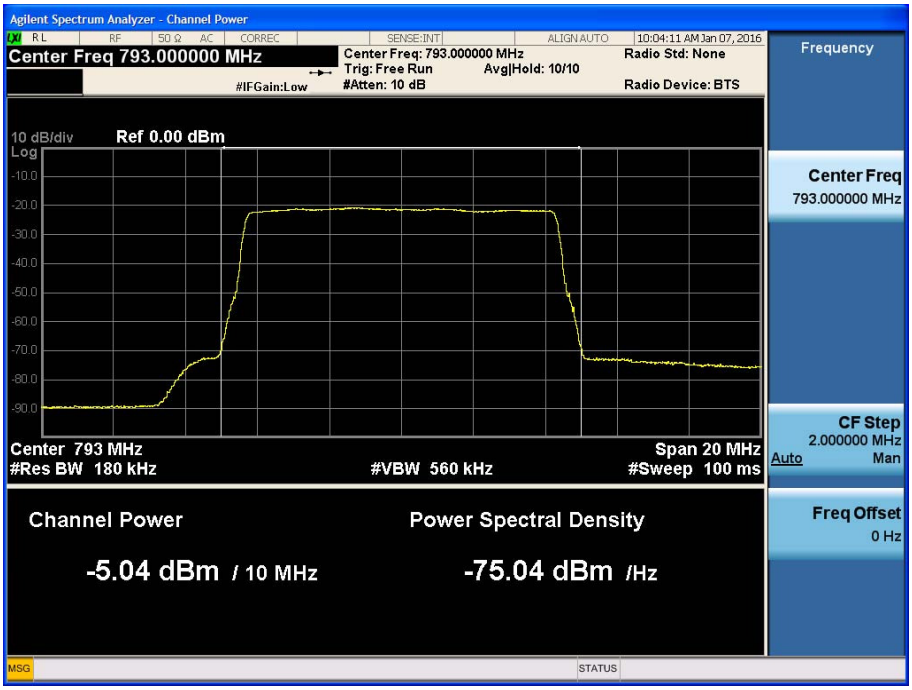

**[700 Band +3dB above the AGC threshold Uplink LTE 5 MHz Low]**



**[700 Band +3dB above the AGC threshold Uplink LTE 5 MHz High]**

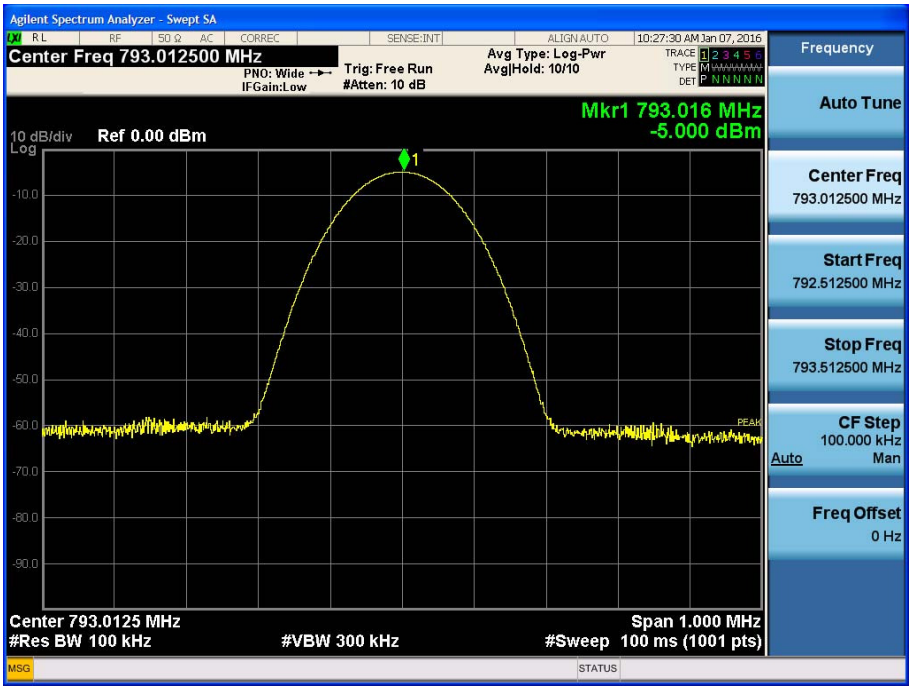



**[700 Band +3dB above the AGC threshold Uplink LTE 10 MHz Middle]**

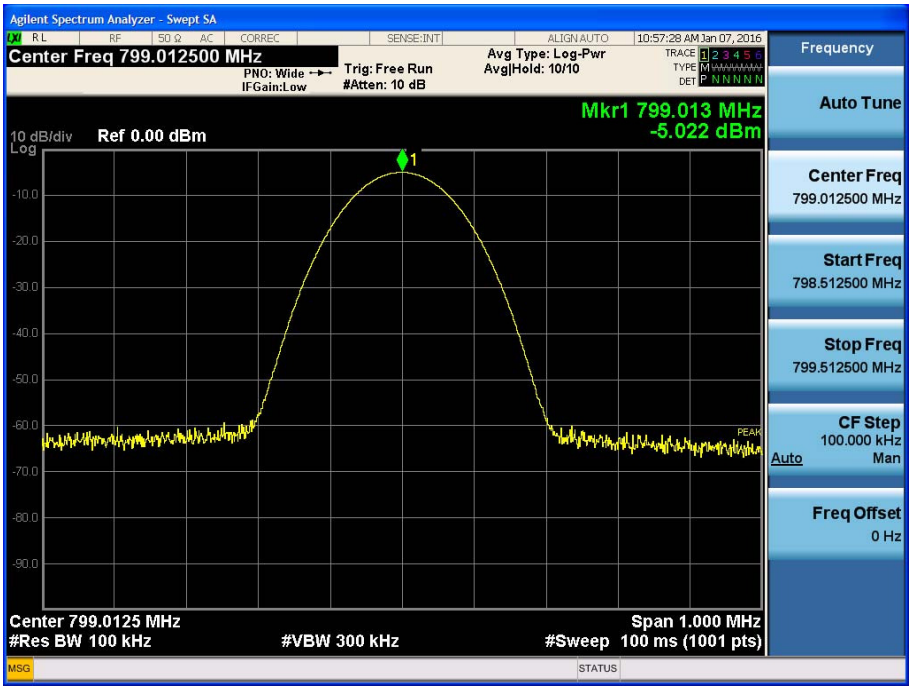


**700 MHz Band_P25, FM UL**

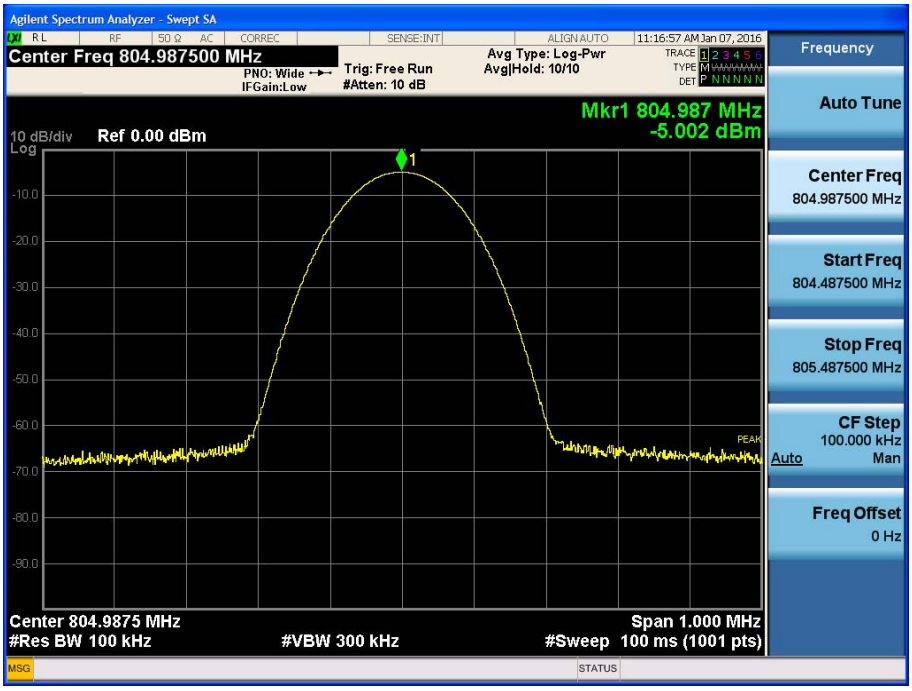
**[700 Band AGC threshold Uplink P25 Low]**



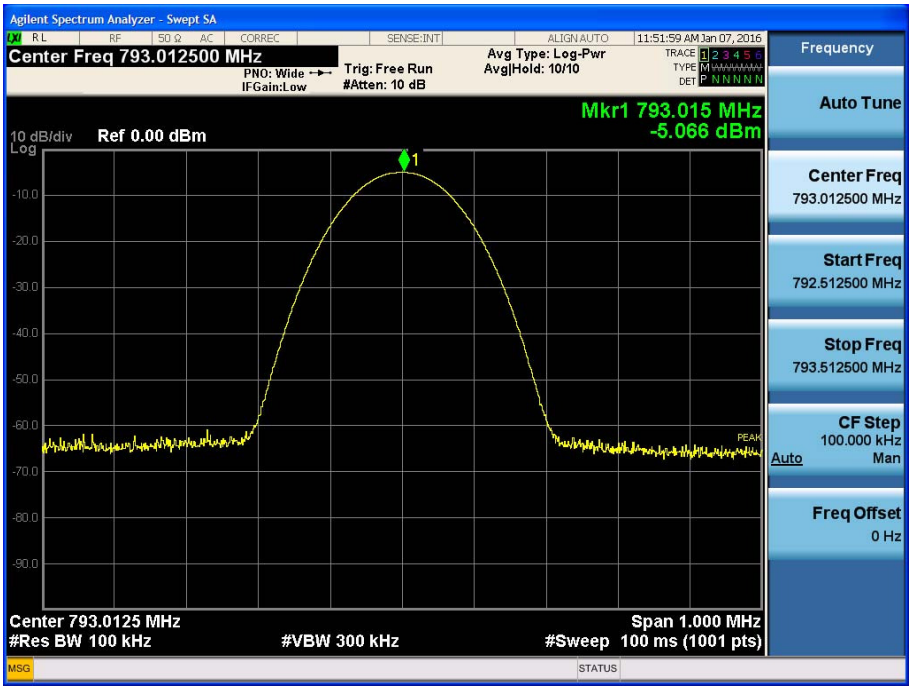

**[700 Band AGC threshold Uplink P25 Middle]**



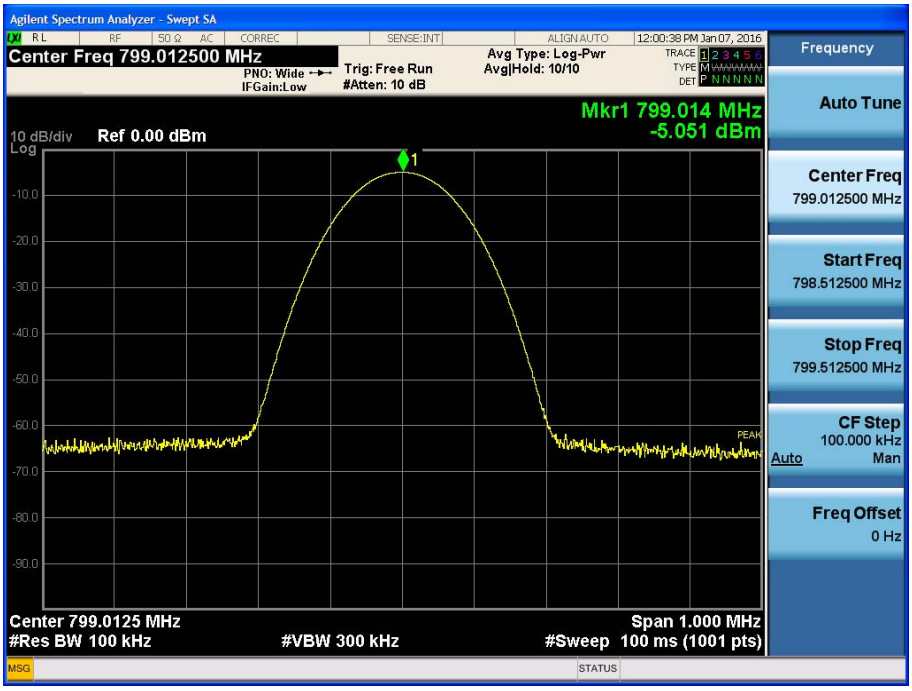
**[700 Band AGC threshold Uplink P25 High]**



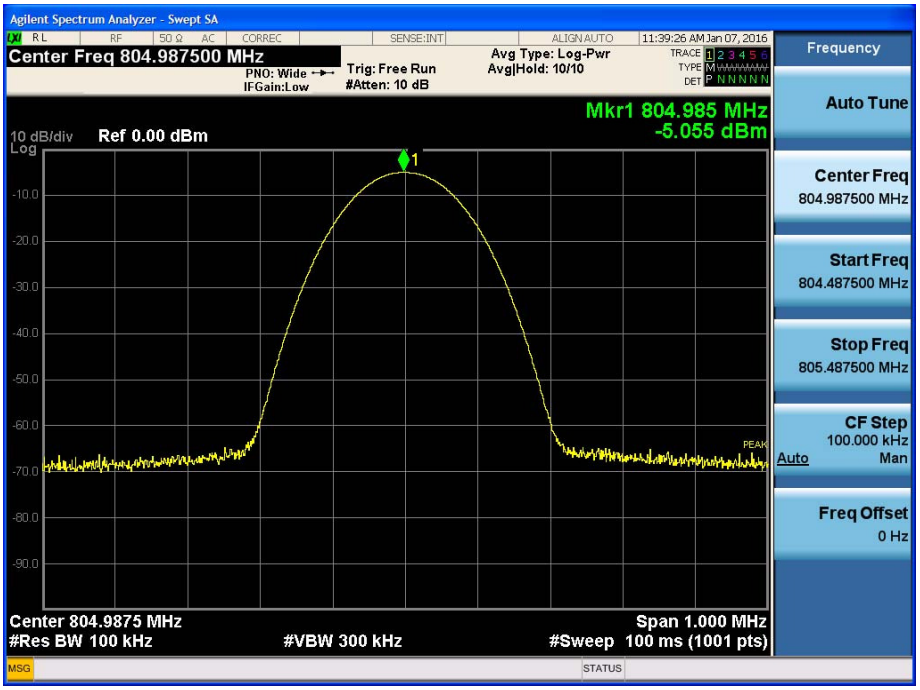

**[700 Band AGC threshold Uplink FM Low]**



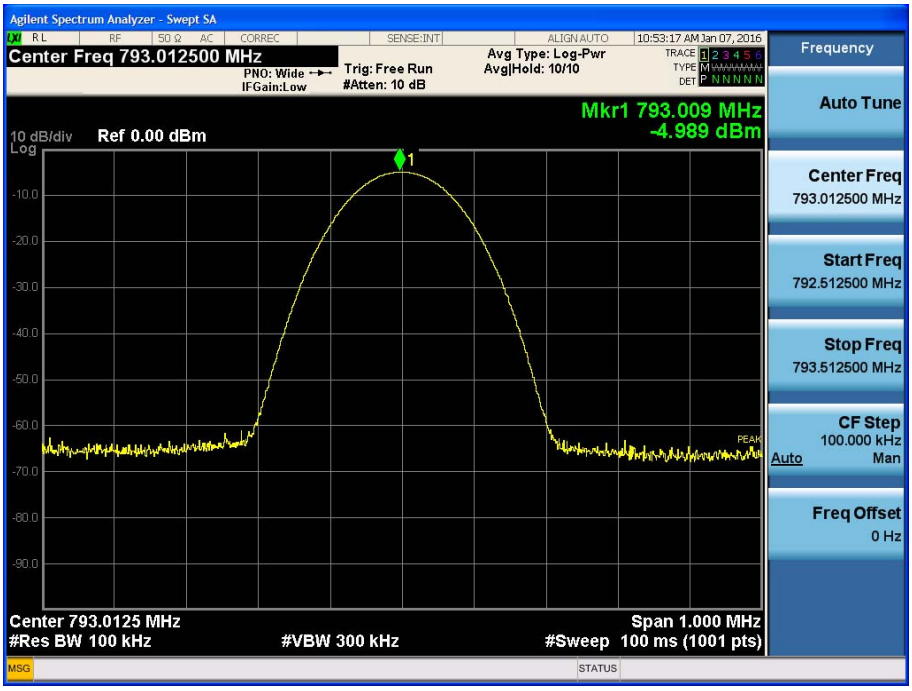
**[700 Band AGC threshold Uplink FM Middle]**



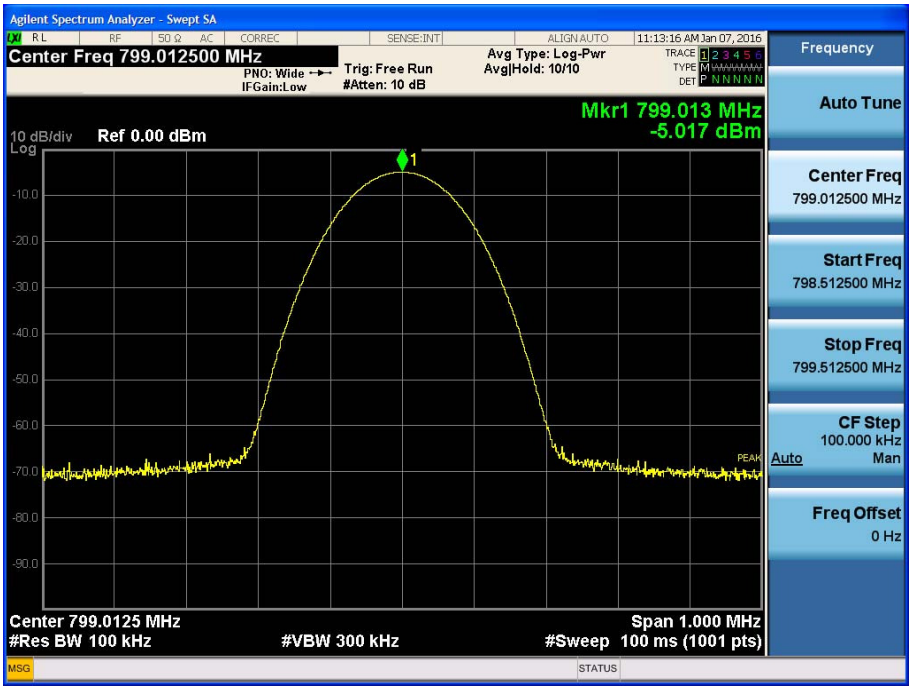

**[700 Band AGC threshold Uplink FM High]**



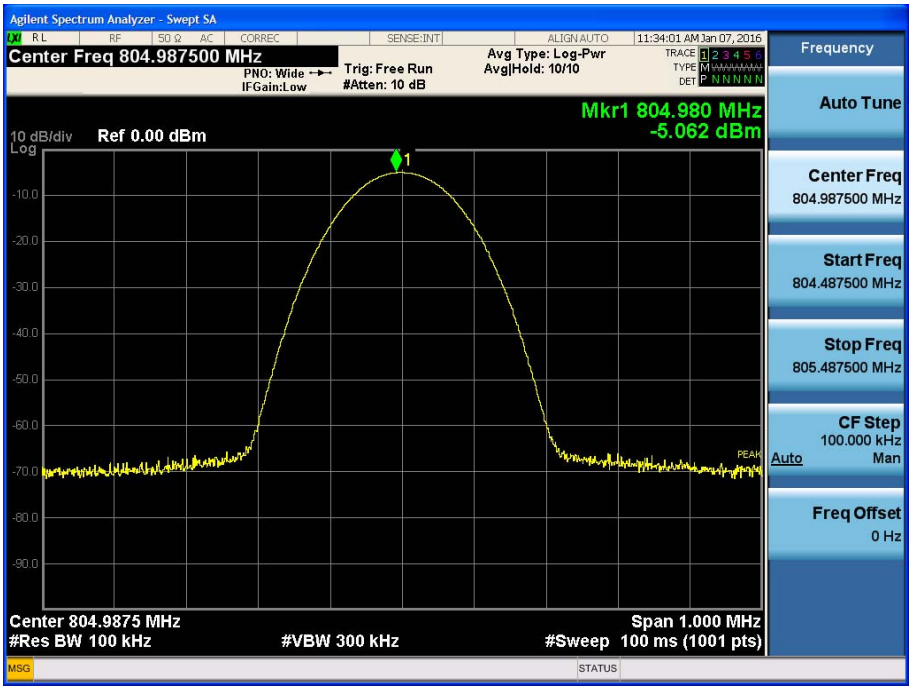
**[700 Band +3dB above the AGC threshold Uplink P25 Low]**



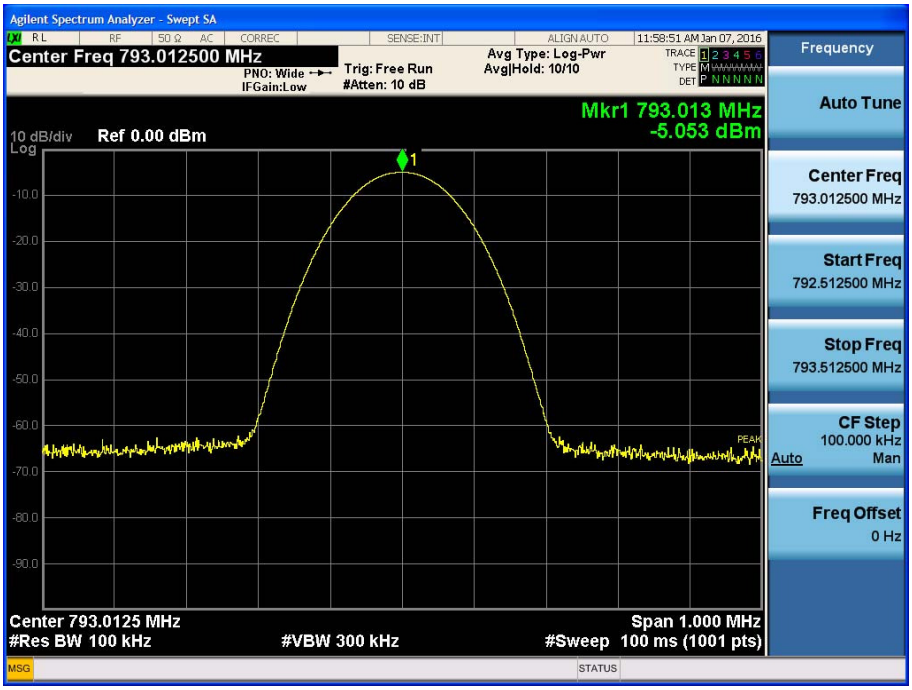

**[700 Band +3dB above the AGC threshold Uplink P25 Middle]**



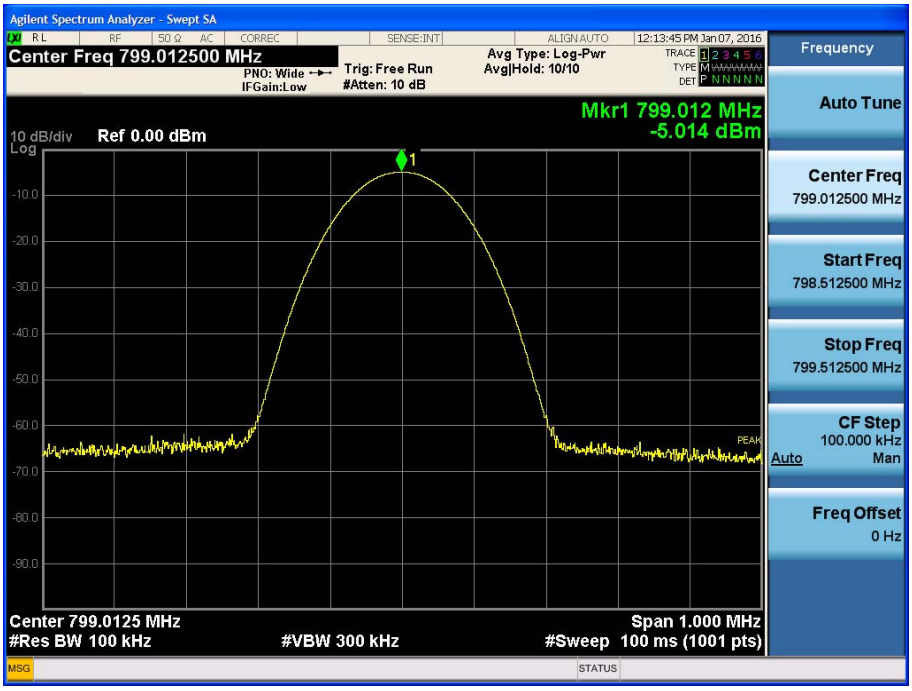
**[700 Band +3dB above the AGC threshold Uplink P25 High]**



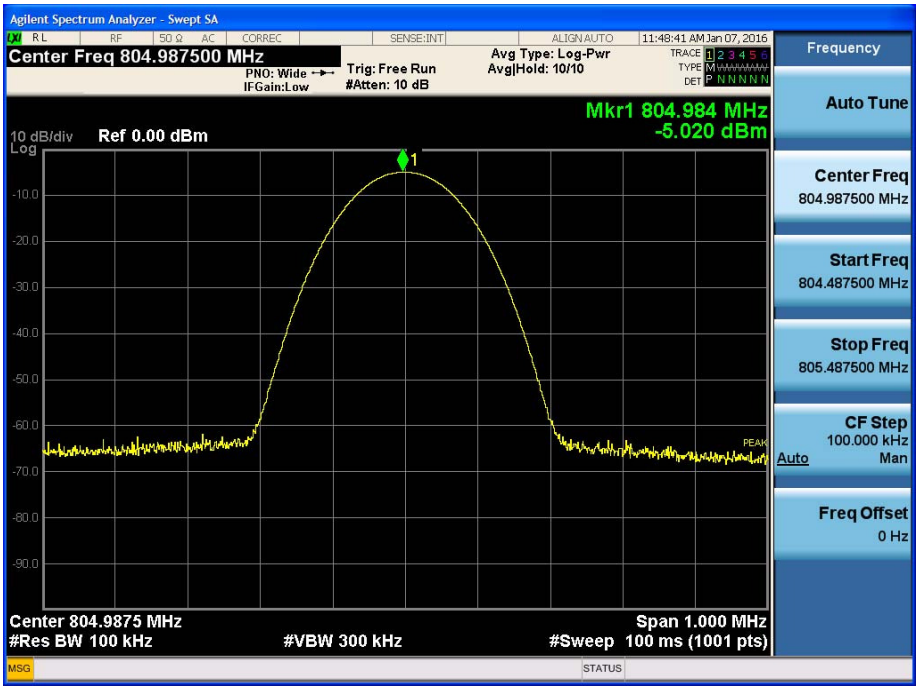

**[700 Band +3dB above the AGC threshold Uplink FM Low]**



**[700 Band +3dB above the AGC threshold Uplink FM Middle]**

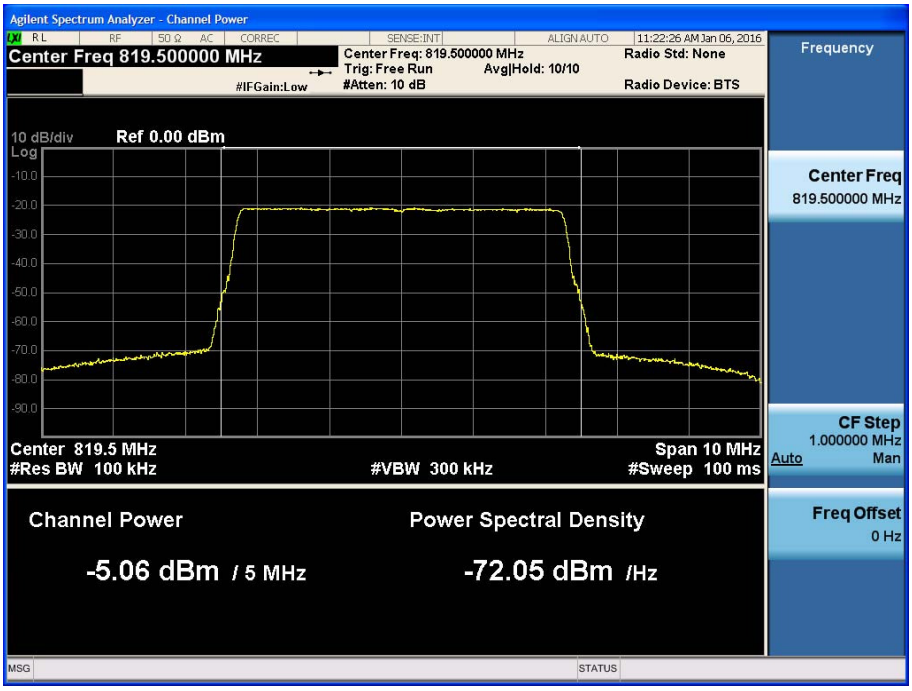



**[700 Band +3dB above the AGC threshold Uplink FM High]**

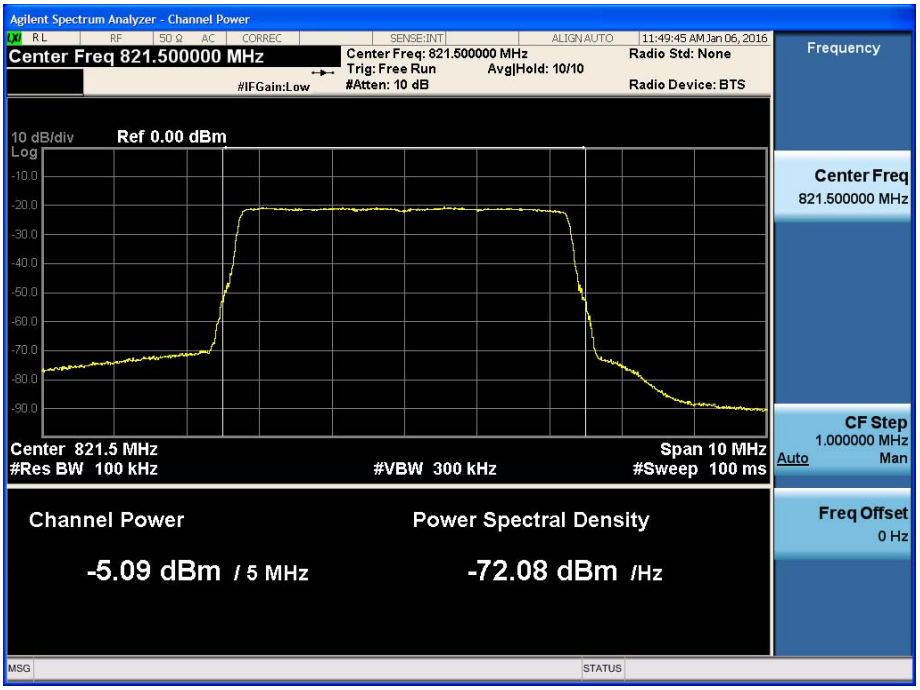


**800 MHz Band_LTE, CDMA UL**

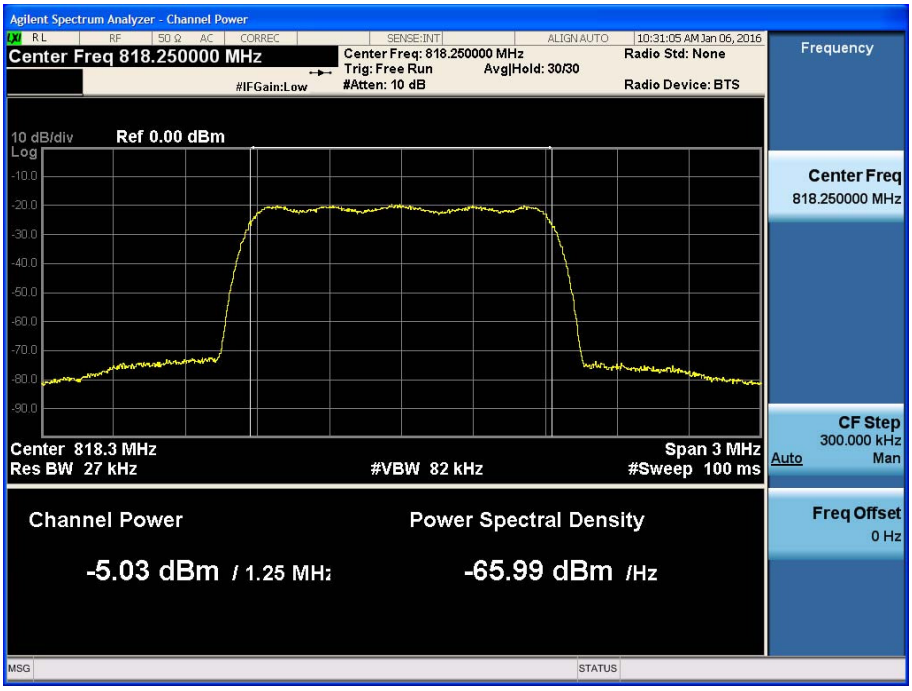
**[800 Band AGC threshold Uplink LTE 5 MHz Low]**



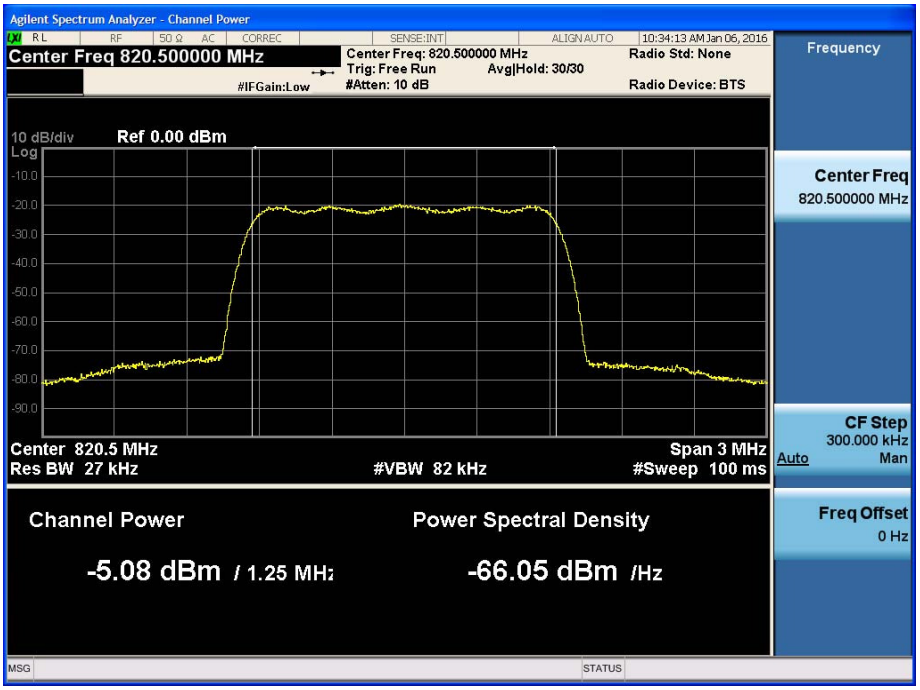

**[800 Band AGC threshold Uplink LTE 5 MHz High]**



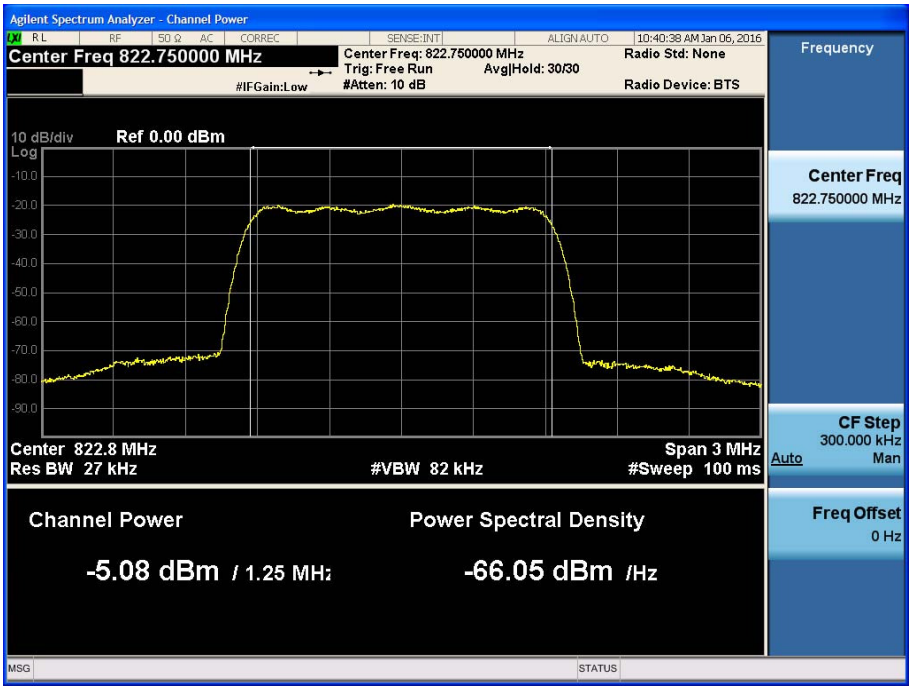
**[800 Band AGC threshold Uplink CDMA 1.25 MHz Low]**



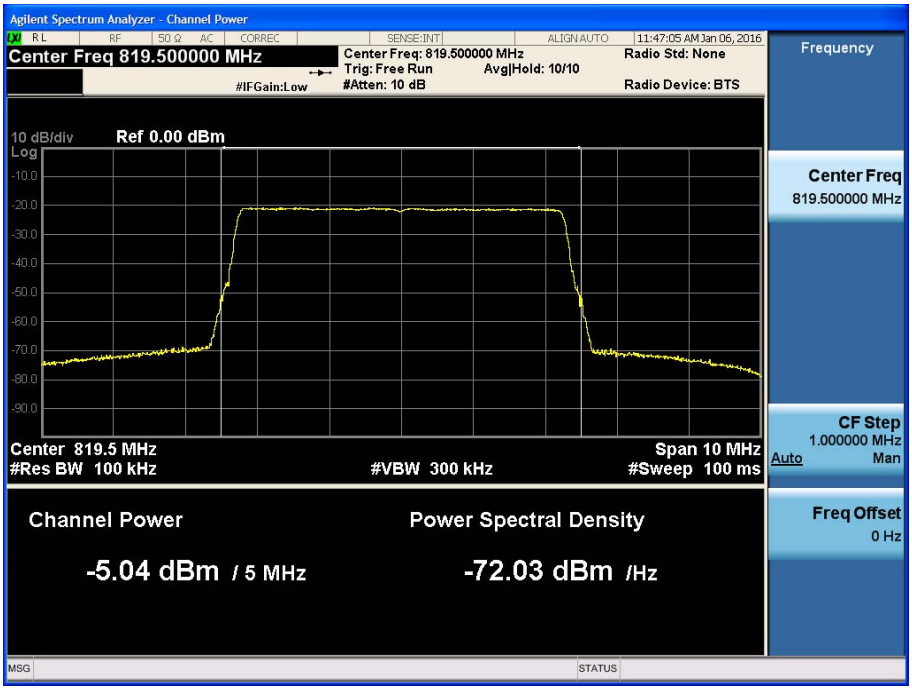

**[800 Band AGC threshold Uplink CDMA 1.25 MHz Middle]**



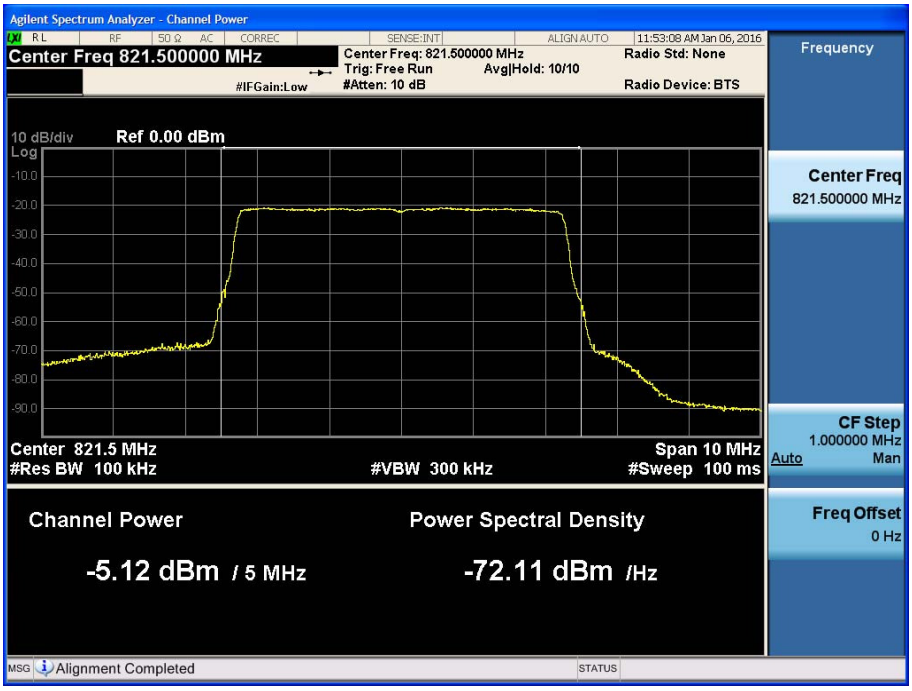
**[800 Band AGC threshold Uplink CDMA 1.25 MHz High]**



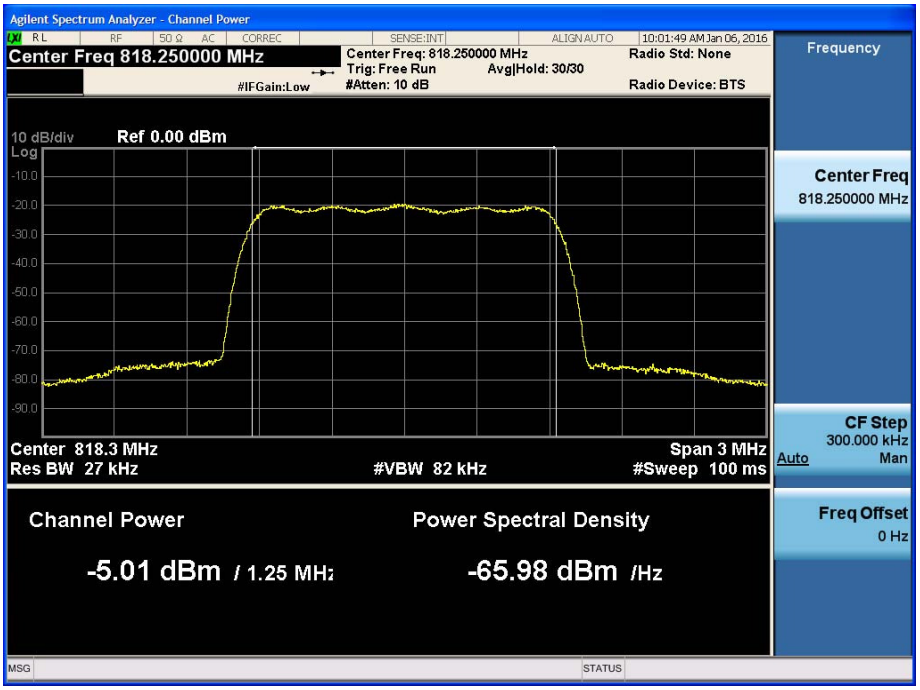

**[800 Band +3dB above the AGC threshold Uplink LTE 5 MHz Low]**



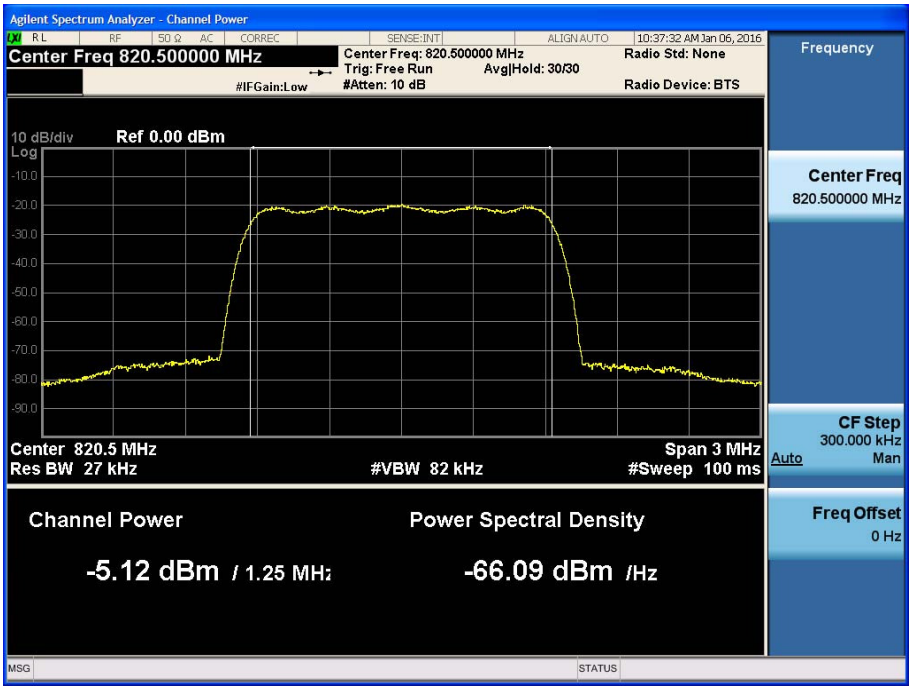
**[800 Band +3dB above the AGC threshold Uplink LTE 5 MHz High]**



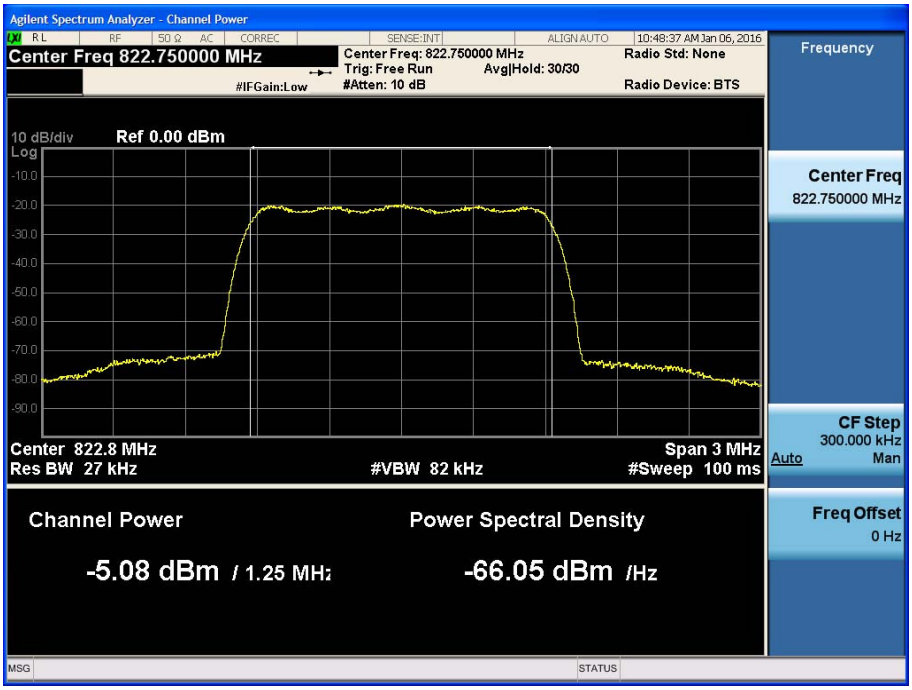

**[800 Band +3dB above the AGC threshold Uplink CDMA 1.25 MHz Low]**



**[800 Band +3dB above the AGC threshold Uplink CDMA 1.25 MHz Middle]**

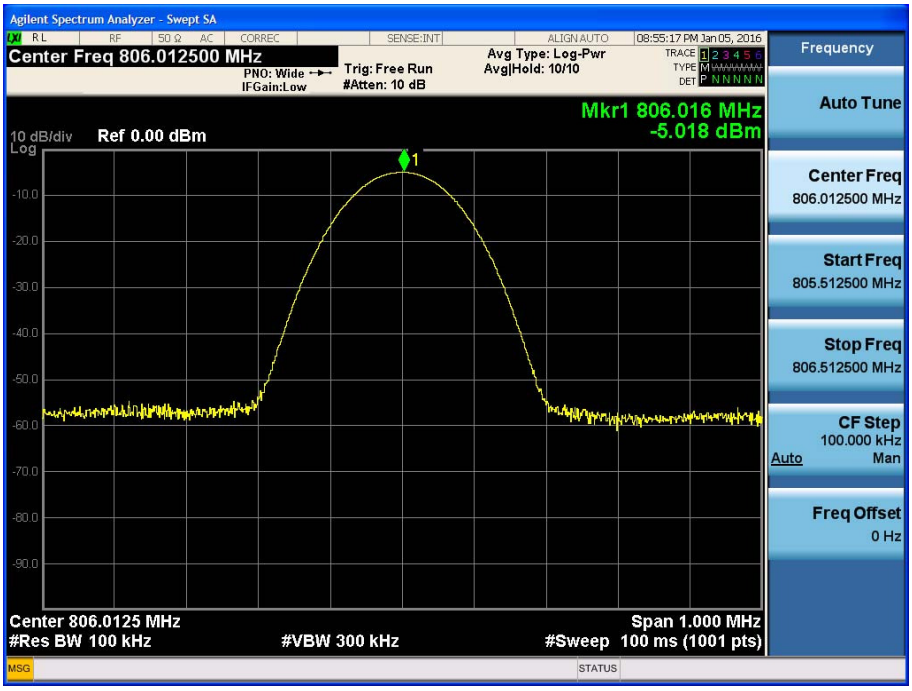



**[800 Band +3dB above the AGC threshold Uplink CDMA 1.25 MHz High]**

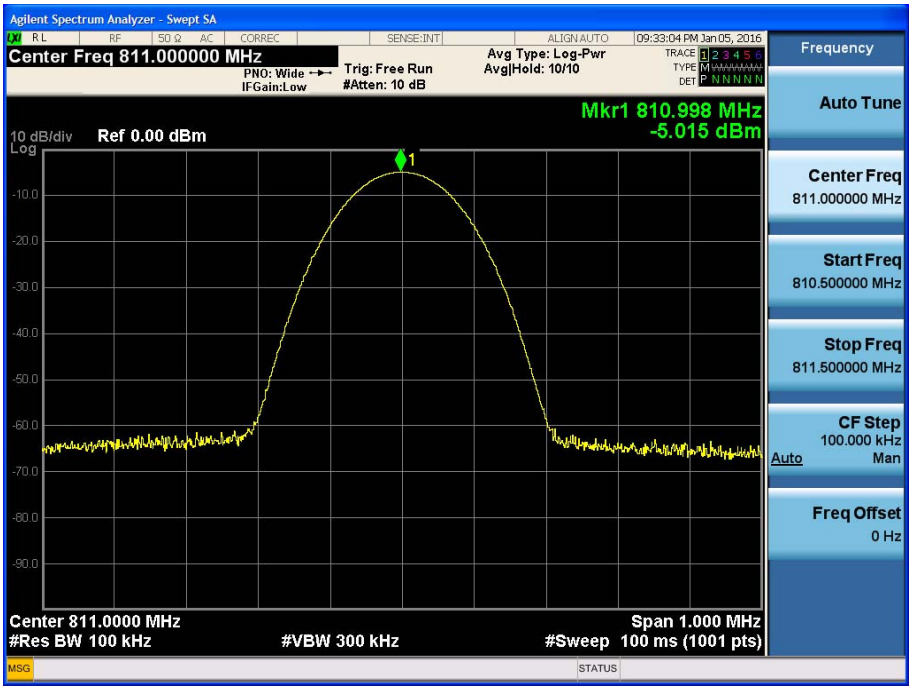


**800 MHz Band_P25, FM UL**

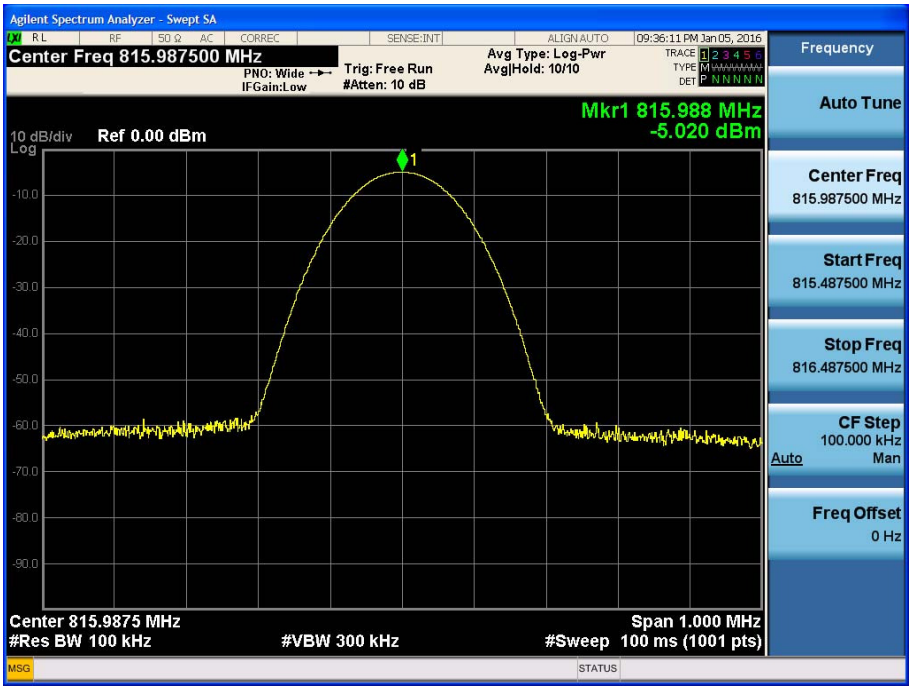
**[800 Band AGC threshold Uplink P25 Low]**



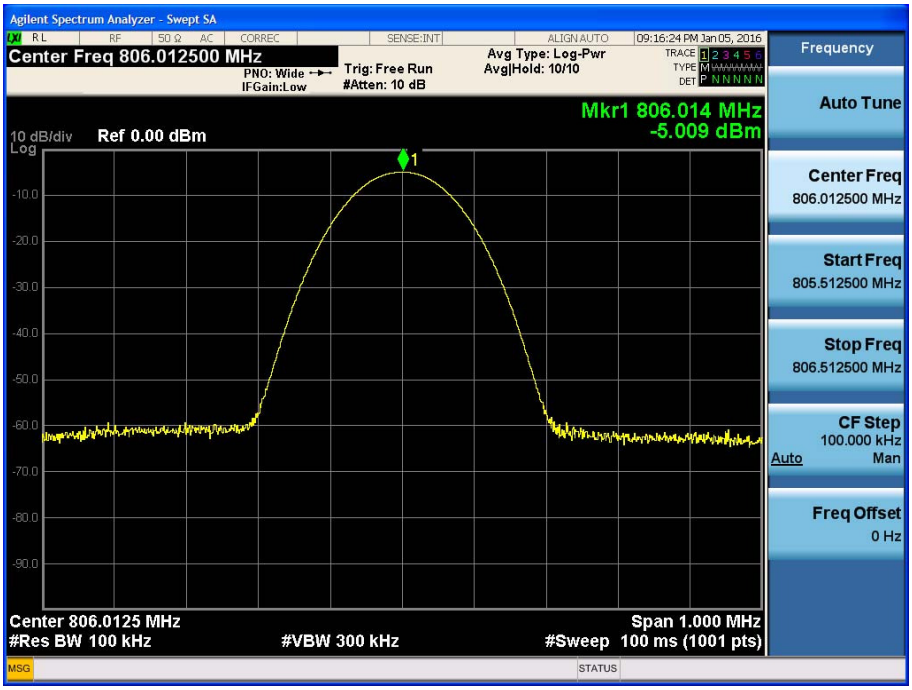

**[800 Band AGC threshold Uplink P25 Middle]**



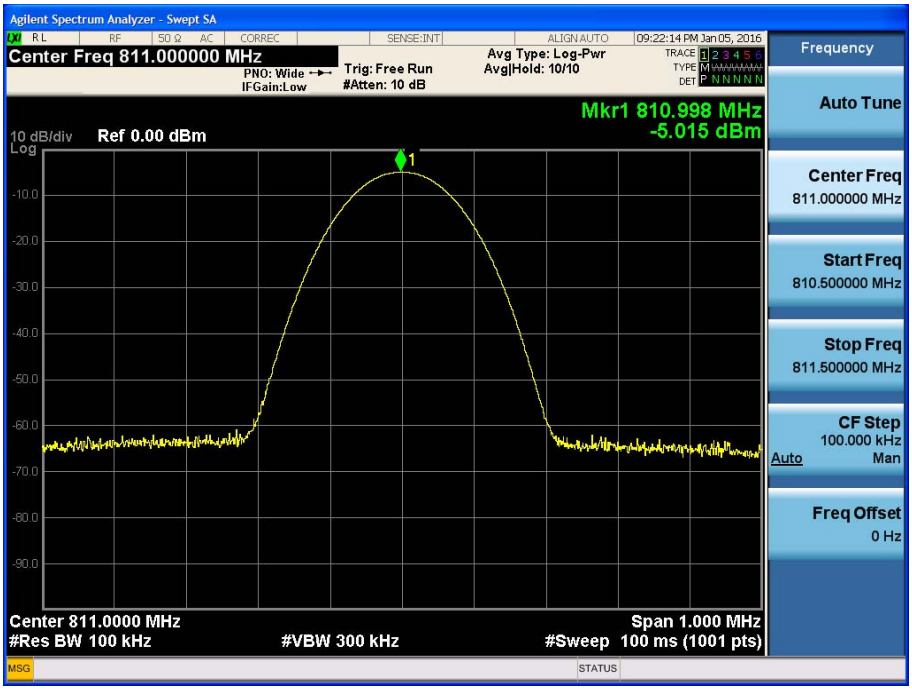
**[800 Band AGC threshold Uplink P25 High]**



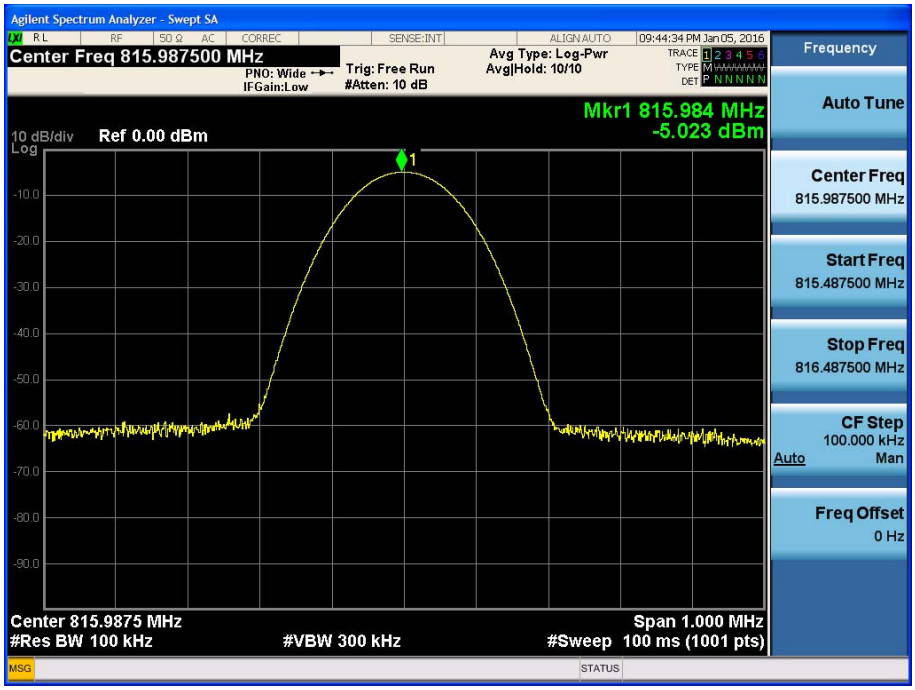

**[800 Band AGC threshold Uplink FM Low]**



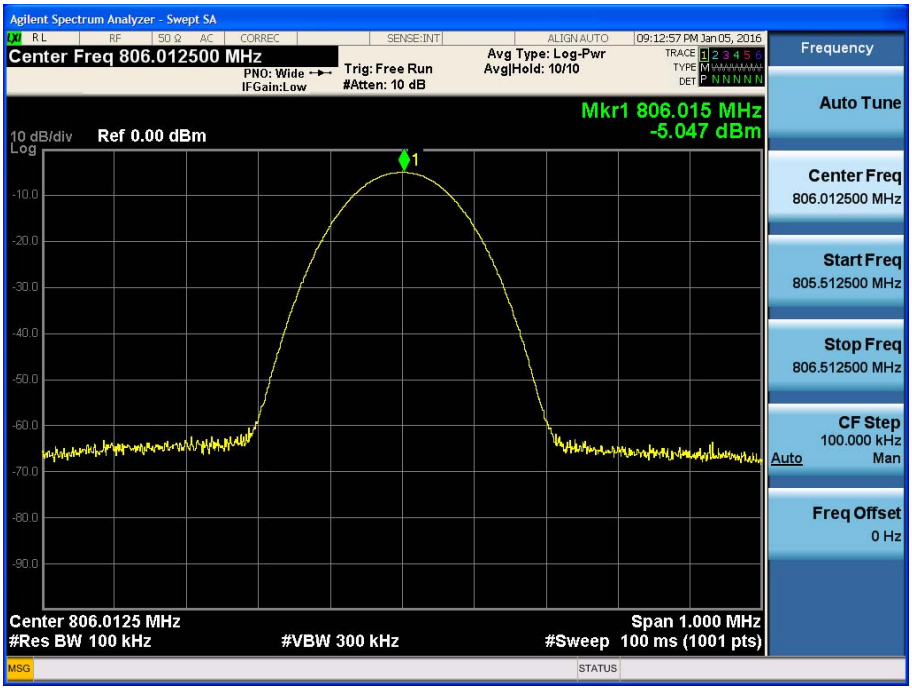
**[800 Band AGC threshold Uplink FM Middle]**



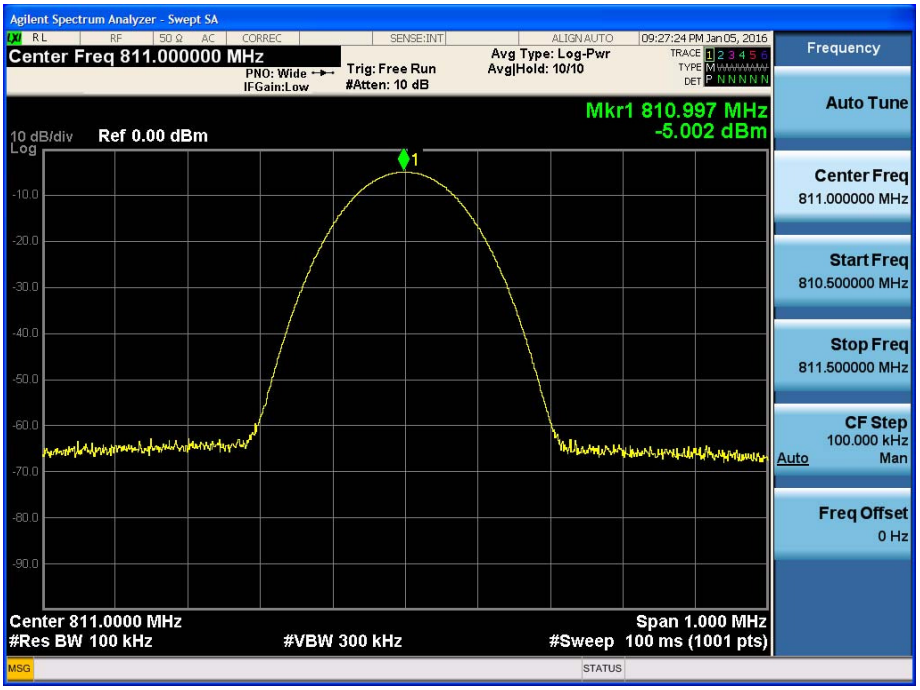

**[800 Band AGC threshold Uplink FM High]**



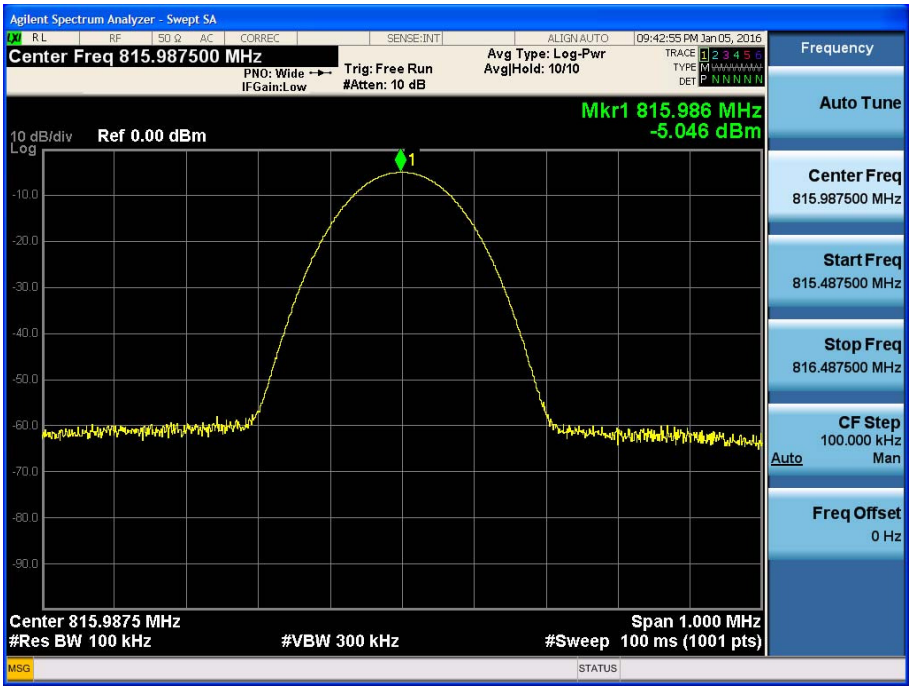
**[800 Band +3dB above the AGC threshold Uplink P25 Low]**



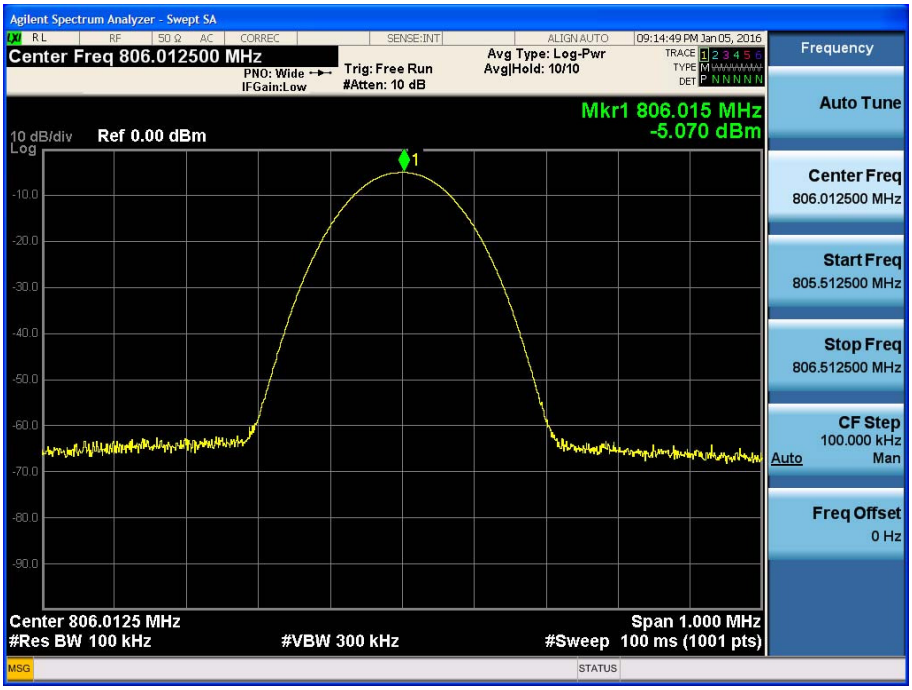

**[800 Band +3dB above the AGC threshold Uplink P25 Middle]**



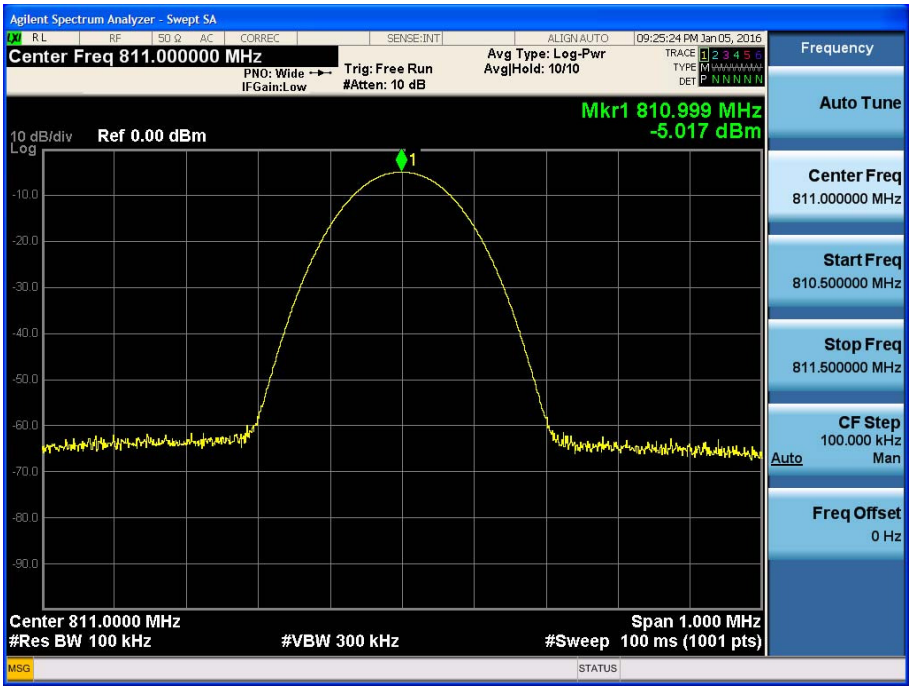
**[800 Band +3dB above the AGC threshold Uplink P25 High]**

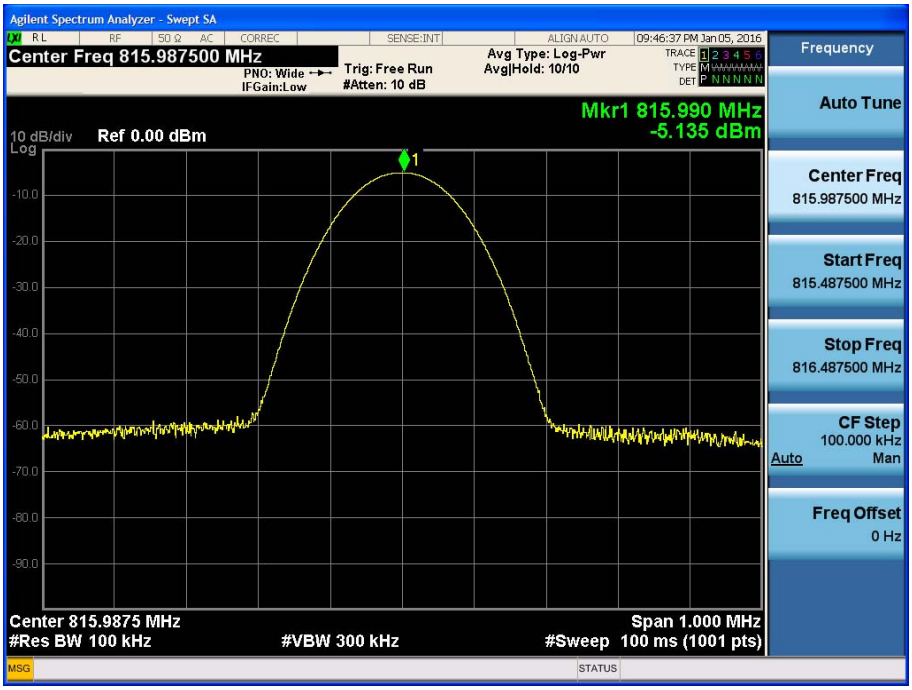



**[800 Band +3dB above the AGC threshold Uplink FM Low]**



**[800 Band +3dB above the AGC threshold Uplink FM Middle]**




**[800 Band +3dB above the AGC threshold Uplink FM High]**