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# TEST REPORT

FCC Test for RF4402D-D1A
Class II Permissive Change

**APPLICANT**
SAMSUNG Electronics Co., Ltd.

**REPORT NO.**
HCT-RF-2107-FC052-R1

**DATE OF ISSUE**
August 17, 2021

**Tested by**
Kyung Soo Kang

**Technical Manager**
Jong Seok Lee

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BongJai Huh / CEO

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# TEST REPORT

FCC Test for
RF4402D-D1A

REPORT NO.
HCT-RF-2107-FC052-R1

DATE OF ISSUE
August 17, 2021

Additional Model
-

| | |
|---|---|
| Applicant | **SAMSUNG Electronics Co., Ltd.**<br>129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea |
| EUT Type | RRU (RF4402d) |
| Model Name | RF4402D-D1A |
| FCC ID | A3LRF4402D-D1A |
| Date of Test | June 10, 2021 ~ August 10, 2021 |
| FCC Rule Parts: | CFR 47 Part 2, Part 24, Part 27 |

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test results were applied only to the test methods required by the standard.

## REVISION HISTORY

The revision history for this test report is shown in table.

| Revision No. | Date of Issue | Description |
|---|---|---|
| 0 | August 12, 2021 | Initial Release |
| 1 | August 17, 2021 | Revised the tabular data of RF Non-Contiguous output power on pages 44 to 50. |

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 the FCC Rules under normal use and maintenance.

If this report is required to confirmation of authenticity, please contact to www.hct.co.kr

## CONTENTS

# 1. GENERAL INFORMATION

## 1.1. APPLICANT INFORMATION

| | |
|---|---|
| Company Name | Samsung Electronics Co., Ltd. |
| Company Address | 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677,<br>Rep. of Korea |

## 1.2. PRODUCT INFORMATION

| | |
|---|---|
| EUT Type | RRU (RF4402d) |
| EUT Serial Number | S2L5800491 |
| Power Supply | -48 VDC |
| Output Power | Intra band |

| Band | Carrier | Bandwidth | Power |
|---|---|---|---|
| B2 DSS | 1 | 10 MHz | 20 W/path, Total: 80 W |
| B66 DSS | 1 | 10 MHz | 20 W/path, Total: 80 W |
| B2 LTE + B2 DSS | 2 | 5 MHz + 10 MHz | 20 W/path, Total: 80 W |
| B2 LTE + B2 DSS | 2 | 10 MHz +10 MHz | 20 W/path, Total: 80 W |
| B66 LTE + B66 DSS | 2 | 5 MHz + 10 MHz | 30 W/path, Total: 120 W |
| B66 DSS + B66 LTE | 2 | 10 MHz + 20 MHz | 30 W/path, Total: 120 W |
| B66 LTE + B66 DSS + B66 LTE | 3 | 5 MHz + 10 MHz + 5 MHz | 30 W/path, Total: 120 W |
| B66 LTE + B66 LTE + B66 DSS | 3 | 5 MHz + 15 MHz + 10 MHz | 30 W/path, Total: 120 W |

Inter band

| Band | | Carrier | Bandwidth (MHz) | | Power | | |
|---|---|---|---|---|---|---|---|
| B2 | B66 | B2 + B66 | B2 | B66 | B2 | B66 | Total |
| DSS | LTE | 1 + 1 | 10 | 10 | 20 W/path | 20 W/path | 160 W |
| LTE | DSS | 1 + 1 | 10 | 10 | 20 W/path | 20 W/path | 160 W |
| DSS | LTE + LTE | 1 + 2 | 10 | 10 + 5 | 10 W/path | 30 W/path | 160 W |
| LTE | DSS + LTE | 1 + 2 | 10 | 10 + 5 | 10 W/path | 30 W/path | 160 W |
| LTE + LTE | DSS + LTE | 2 + 2 | 10 +10 | 10 + 20 | 20 W/path | 20 W/path | 160 W |
| LTE + LTE | DSS + LTE | 2 + 2 | 10 +10 | 10 + 20 | 10 W/path | 30 W/path | 160 W |

| | |
|---|---|
| Frequency Range | Band 2 : 1 930 MHz ~ 1 990 MHz<br>Band 66 : 2 110 MHz ~ 2 180 MHz |

| | Mode | Bandwidth | Emission Designator | | | |
|---|---|---|---|---|---|---|
| | | | QPSK (G7D) | Conducted (W) | 16/64/256 QAM (W7D) | Conducted (W) |
| Emission Designator | B2 DSS | 10 MHz | 9M25G7D | 83.35 | 9M21W7D | 83.54 |
| | B66 AWS | 10 MHz | 9M24G7D | 79.59 | 9M18W7D | 79.29 |
| | B2 LTE + B2 DSS (Contiguous) | 5 MHz + 10 MHz | 14M3G7D | 83.57 | 14M3W7D | 83.08 |
| | B2 LTE + B2 DSS (Contiguous) | 10 MHz +10 MHz | 19M0G7D | 84.96 | 19M1W7D | 84.60 |
| | B66 LTE + B66 DSS (Contiguous) | 5 MHz + 10 MHz | 14M3G7D | 118.48 | 14M3W7D | 118.49 |
| | B66 DSS + B66 LTE (Contiguous) | 10 MHz + 20 MHz | 28M5G7D | 113.64 | 28M6W7D | 113.80 |
| | B66 LTE + B66 DSS + B66 LTE (Contiguous) | 5 MHz + 10 MHz + 5 MHz | 19M3G7D | 119.51 | 19M3W7D | 119.49 |
| | B66 LTE + B66 LTE + B66 DSS (Contiguous) | 5 MHz + 15 MHz + 10 MHz | 28M7G7D | 114.28 | 28M7W7D | 114.65 |
| | B2 LTE + B2 DSS (Non-Contiguous) | 5 MHz + 10 MHz | 13M7G7D | 80.17 | 13M7W7D | 80.33 |
| | B2 LTE + B2 DSS (Non-Contiguous) | 10 MHz +10 MHz | 18M2G7D | 80.97 | 18M2W7D | 80.48 |
| | B66 LTE + B66 DSS (Non-Contiguous) | 5 MHz + 10 MHz | 13M7G7D | 106.70 | 13M6W7D | 108.21 |
| | B66 DSS + B66 LTE (Non-Contiguous) | 10 MHz + 20 MHz | 27M1G7D | 111.21 | 27M1W7D | 111.12 |
| | B66 LTE + B66 DSS + B66 LTE 1C +2C (Non-Contiguous) | 5 MHz + 10 MHz + 5 MHz | 18M8G7D | 108.66 | 18M7W7D | 107.76 |
| | B66 LTE + B66 DSS + B66 LTE 2C + 1C (Non-Contiguous) | 5 MHz + 10 MHz + 5 MHz | 18M6G7D | 110.07 | 18M6W7D | 110.39 |
| | B66 LTE + B66 LTE + B66 DSS 1C +2C (Non-Contiguous) | 5 MHz + 15 MHz + 10 MHz | 28M2G7D | 107.10 | 28M2W7D | 106.00 |
| | B66 LTE + B66 LTE + B66 DSS 2C + 1C (Non-Contiguous) | 5 MHz + 15 MHz + 10 MHz | 28M1G7D | 107.64 | 28M0W7D | 109.47 |
| Modulation Type | QPSK, 16QAM, 64QAM, 256QAM | | | | | |

### 1.3. TEST INFORMATION

| | |
|---|---|
| FCC Rule Parts | CFR 47 Part 2, Part 24, Part 27 |
| Measurement standards | ANSI C63.26-2015, KDB 662911 D01 v02r01, KDB 971168 D01 v03r01 |
| Place of Test | HCT CO., LTD.<br>74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do,<br>17383, Rep. of KOREA |

## 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 :2014) and CISPR Publication 22.
Detailed description of test facility was submitted to the Commission and accepted dated April 02, 2018 (Registration Number: KR0032).

### 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 24, Part 27

| Description | Reference | Results |
|---|---|---|
| RF Output Power | § 2.1046, § 24.232, § 27.50(d)(2) | Compliant Note |
| PAPR | § 24.232(d), § 27.50(d)(5) | Compliant Note |
| Occupied Bandwidth | § 2.1049 | Compliant Note |
| Out-of-band Unwanted Emissions | § 2.1051, § 24.238, § 27.53(h) | Compliant Note |
| Spurious Unwanted Emissions | | Compliant Note |
| Radiated Emissions | § 2.1053, § 24.238, § 27.53(h) | Compliant Note |
| Frequency Stability | § 2.1055, § 24.235, § 27.54 | Compliant Note |

**Note:** This report only covers single-carrier DSS mode and Multi-carrier of LTE and DSS. Single carrier of LTE operating modes have already been certified and the proposed change does not affect those operations. Single carrier DSS mode and multi-carrier mode of LTE and DSS operations are supported and addressed all operations in this report.

## 3.2. ADDITIONAL DESCRIPTIONS ABOUT 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.
- All LTE and 5G NR modulation types (QPSK, 16QAM, 64QAM, 256QAM) within the DSS operating mode and LTE modulation types (QPSK, 16QAM, 64QAM, 256QAM) have been tested.
- The dummy loads were connected to the RF output ports for radiated spurious emission testing.
- This device supports Dynamic Spectrum Sharing(DSS) on a 10 MHz channel with LTE:5G NR ratios of between 9:1 and 2:8. Preliminary testing across various different ratios indicated that the ratio had no significant affect on the emissions from the device. This report includes data for worst case ratio to be representative of all possible LTE:5G NR ratios.
- In multi-carrier mode addressed in this report, worst LTE:5G NR ratios are applied based on test result of single carrier DSS mode.
- The device was operating at 100% duty cycle
- The tests results in plots are already including the actual value of loss for the attenuator and cable combination. Please check correction factors below table.

ANT0

| Correction factor table | | | |
|---|---|---|---|
| Frequency (MHz) | Factor (dB) | Frequency (MHz) | Factor (dB) |
| 500 | 30.592 | 4000 | 35.834 |
| 600 | 30.737 | 5000 | 36.198 |
| 700 | 30.845 | 6000 | 36.553 |
| 800 | 31.029 | 7000 | 36.889 |
| 900 | 31.171 | 8000 | 37.219 |
| 1000 | 31.248 | 9000 | 38.009 |
| 1100 | 31.381 | 10000 | 38.036 |
| 1200 | 31.443 | 11000 | 39.641 |
| 1300 | 31.565 | 12000 | 39.364 |
| 1400 | 31.673 | 13000 | 39.806 |
| 1500 | 31.722 | 14000 | 40.279 |
| 1600 | 31.680 | 15000 | 40.353 |
| 1700 | 31.724 | 16000 | 41.032 |
| 1800 | 31.839 | 17000 | 41.408 |
| 1900 | 32.177 | 18000 | 41.739 |
| 2000 | 32.096 | 19000 | 41.530 |
| 2100 | 32.109 | 20000 | 43.425 |
| 2200 | 32.386 | 21000 | 43.517 |
| 2300 | 32.441 | 22000 | 43.144 |
| 2400 | 32.336 | 23000 | 43.497 |
| 2500 | 32.476 | 24000 | 45.247 |
| 2600 | 32.509 | 25000 | 48.764 |
| 2700 | 32.534 | 26000 | 45.257 |
| 2800 | 32.638 | - | - |
| 2900 | 32.675 | - | - |
| 3000 | 32.875 | - | - |

ANT1

| Correction factor table | | | |
|---|---|---|---|
| Frequency (MHz) | Factor (dB) | Frequency (MHz) | Factor (dB) |
| 500 | 30.289 | 4000 | 34.906 |
| 600 | 30.428 | 5000 | 35.099 |
| 700 | 30.535 | 6000 | 35.588 |
| 800 | 30.659 | 7000 | 35.939 |
| 900 | 30.862 | 8000 | 36.496 |
| 1000 | 30.938 | 9000 | 37.029 |
| 1100 | 31.013 | 10000 | 37.318 |
| 1200 | 31.116 | 11000 | 38.226 |
| 1300 | 31.258 | 12000 | 38.353 |
| 1400 | 31.328 | 13000 | 38.946 |
| 1500 | 31.370 | 14000 | 39.425 |
| 1600 | 31.485 | 15000 | 39.615 |
| 1700 | 31.552 | 16000 | 40.577 |
| 1800 | 31.703 | 17000 | 39.882 |
| 1900 | 31.804 | 18000 | 40.061 |
| 2000 | 31.887 | 19000 | 39.562 |
| 2100 | 31.906 | 20000 | 40.994 |
| 2200 | 32.065 | 21000 | 41.649 |
| 2300 | 32.035 | 22000 | 41.513 |
| 2400 | 32.078 | 23000 | 42.111 |
| 2500 | 32.205 | 24000 | 42.237 |
| 2600 | 32.229 | 25000 | 42.735 |
| 2700 | 32.275 | 26000 | 45.801 |
| 2800 | 32.385 | - | - |
| 2900 | 32.425 | - | - |
| 3000 | 32.507 | - | - |

ANT2

| Correction factor table | | | |
|---|---|---|---|
| Frequency (MHz) | Factor (dB) | Frequency (MHz) | Factor (dB) |
| 500 | 30.107 | 4000 | 34.852 |
| 600 | 30.248 | 5000 | 34.912 |
| 700 | 30.374 | 6000 | 35.460 |
| 800 | 30.475 | 7000 | 35.665 |
| 900 | 30.663 | 8000 | 36.085 |
| 1000 | 30.737 | 9000 | 36.633 |
| 1100 | 30.822 | 10000 | 37.078 |
| 1200 | 30.924 | 11000 | 37.836 |
| 1300 | 31.053 | 12000 | 38.048 |
| 1400 | 31.194 | 13000 | 38.187 |
| 1500 | 31.181 | 14000 | 38.749 |
| 1600 | 31.312 | 15000 | 38.529 |
| 1700 | 31.387 | 16000 | 39.728 |
| 1800 | 31.552 | 17000 | 39.104 |
| 1900 | 31.629 | 18000 | 40.201 |
| 2000 | 31.730 | 19000 | 39.170 |
| 2100 | 31.713 | 20000 | 41.137 |
| 2200 | 31.792 | 21000 | 41.402 |
| 2300 | 31.809 | 22000 | 43.137 |
| 2400 | 31.849 | 23000 | 41.489 |
| 2500 | 31.967 | 24000 | 44.028 |
| 2600 | 32.033 | 25000 | 45.221 |
| 2700 | 32.090 | 26000 | 42.850 |
| 2800 | 32.144 | - | - |
| 2900 | 32.202 | - | - |
| 3000 | 32.338 | - | - |

ANT3

| Correction factor table | | | |
|---|---|---|---|
| Frequency (MHz) | Factor (dB) | Frequency (MHz) | Factor (dB) |
| 500 | 30.248 | 4000 | 34.838 |
| 600 | 30.369 | 5000 | 35.328 |
| 700 | 30.473 | 6000 | 35.709 |
| 800 | 30.572 | 7000 | 35.887 |
| 900 | 30.793 | 8000 | 36.561 |
| 1000 | 30.875 | 9000 | 37.163 |
| 1100 | 30.940 | 10000 | 37.891 |
| 1200 | 31.043 | 11000 | 38.354 |
| 1300 | 31.159 | 12000 | 38.919 |
| 1400 | 31.214 | 13000 | 39.828 |
| 1500 | 31.312 | 14000 | 40.621 |
| 1600 | 31.423 | 15000 | 39.702 |
| 1700 | 31.477 | 16000 | 40.338 |
| 1800 | 31.605 | 17000 | 40.170 |
| 1900 | 31.677 | 18000 | 40.809 |
| 2000 | 31.786 | 19000 | 40.366 |
| 2100 | 31.898 | 20000 | 42.353 |
| 2200 | 31.997 | 21000 | 43.127 |
| 2300 | 32.059 | 22000 | 43.994 |
| 2400 | 32.064 | 23000 | 44.962 |
| 2500 | 32.148 | 24000 | 46.471 |
| 2600 | 32.212 | 25000 | 47.924 |
| 2700 | 32.227 | 26000 | 45.484 |
| 2800 | 32.308 | - | - |
| 2900 | 32.423 | - | - |
| 3000 | 32.569 | - | - |

### 3.3. MAXIMUM MEASUREMENTUNCERTAINTY

| Description | Condition | Uncertainty |
|---|---|---|
| Radiated Disturbance | 9 kHz ~ 30 MHz | ± 3.40 dB |
| | 30 MHz ~ 1 GHz | ± 4.80 dB |
| | 1 GHz ~ 18 GHz | ± 5.70 dB |
| | 18 GHz ~ 40 GHz | ± 5.05 dB |

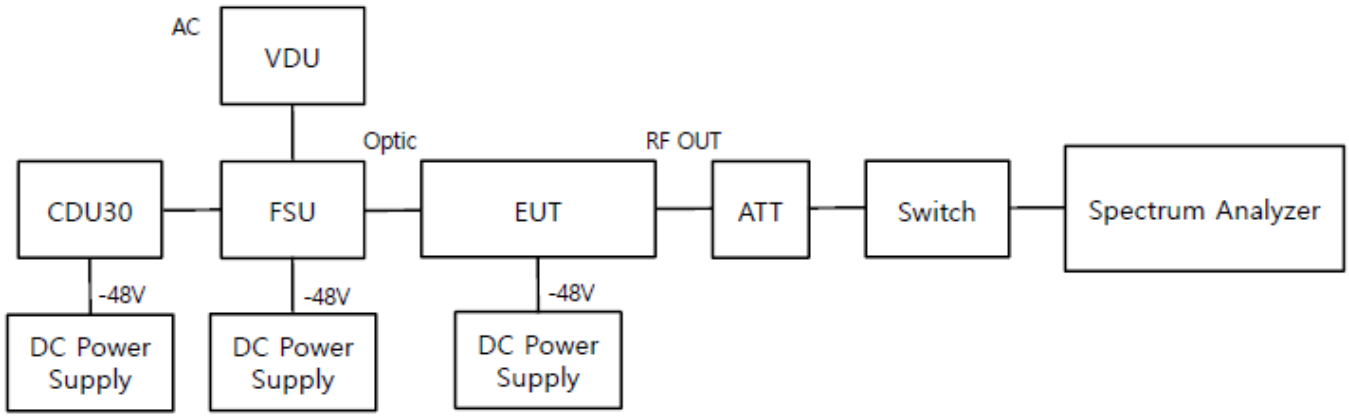
Coverage factor $k = 2$, Confidence levels of 95 %

### 3.4. STANDARDS ENVIRONMENTAL TEST CONDITIONS

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

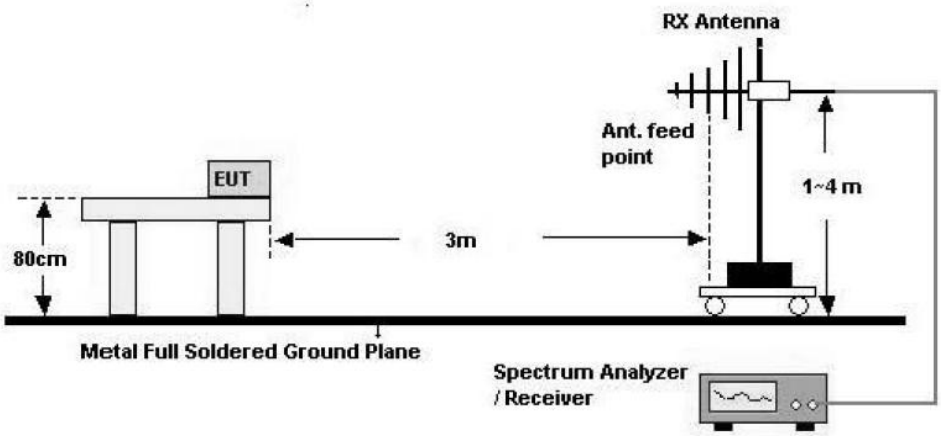
## 3.5. TEST DIAGRAMS

**Conducted Test**

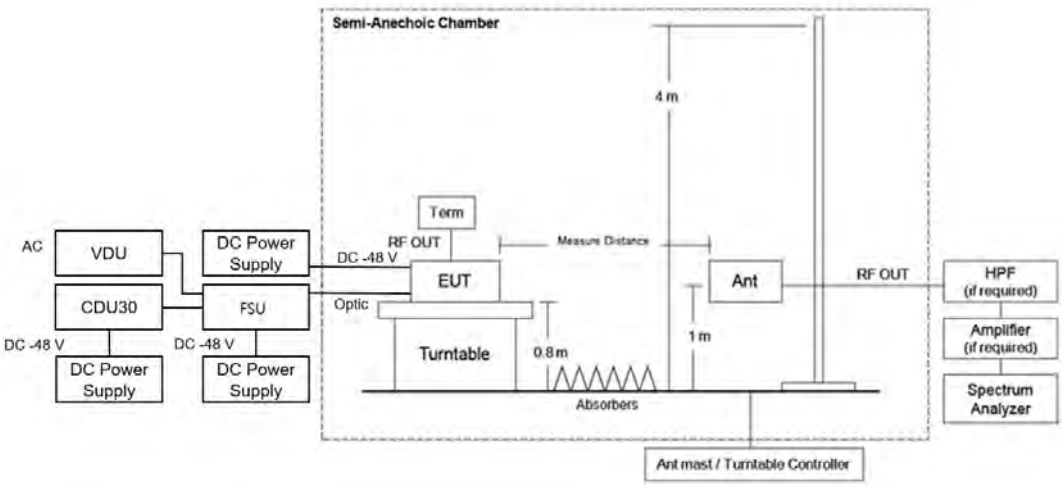



Radiated Test

30 MHz ~ 1 GHz

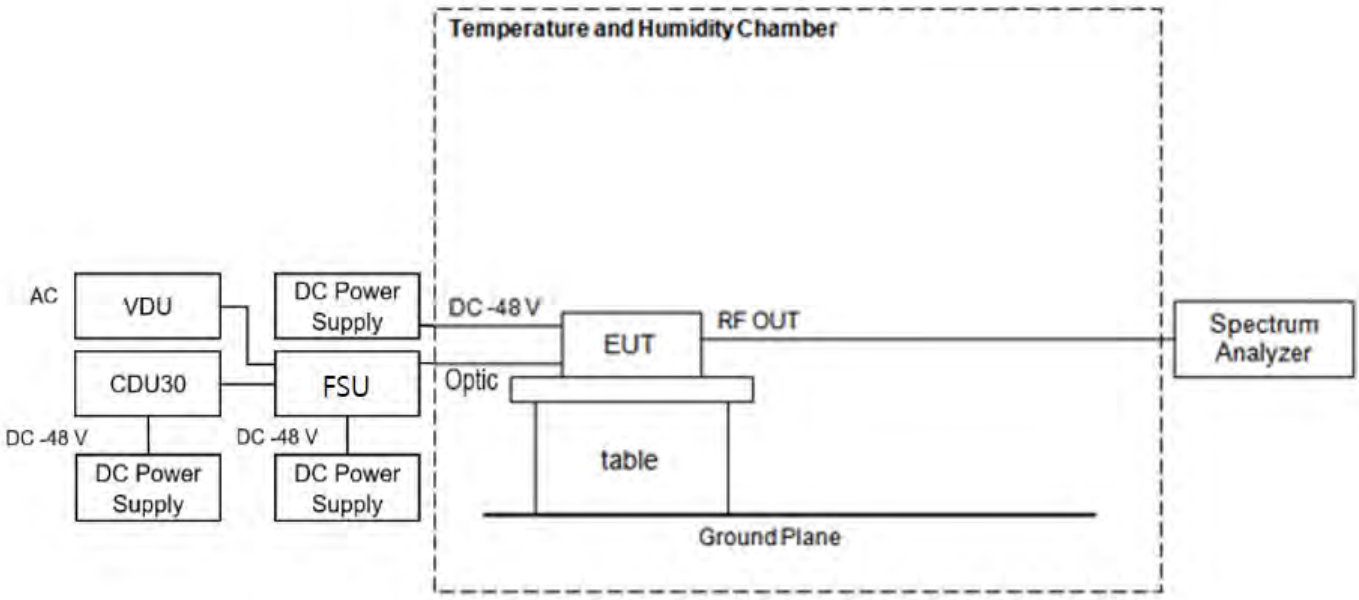



Above 1 GHz




※ EUT position is adopted by placement of floor-standing refer to section 5.5.2.3.2 of ANSI C63.26-2015

## Frequency Stability




**Note:** All modulations(QPSK, 16QAM, 64QAM, 256QAM) were investigated and the worst case configuration channel results are reported.

## 4. TEST EQUIPMENTS

| Manufacturer | Model / Equipment | Calibration Date | Calibration Interval | Serial No. |
|---|---|---|---|---|
| Agilent | N9020A / MXA Signal Analyzer | 2020-08-18 | Annual | MY46471250 |
| Keysight | N9030A / PXA Signal Analyzer | 2021-03-30 | Annual | US51350313 |
| TNM system | TMX0108 / RF Switch System | N/A | N/A | TM20110001 |
| Weinschel Associates | WA93-30-33 / 30 dB Attenuator | 2021-03-30 | Annual | 0137 |
| Weinschel Associates | WA93-30-33 / 30 dB Attenuator | 2021-03-30 | Annual | 0190 |
| Weinschel Associates | WA93-30-33 / 30 dB Attenuator | 2021-03-30 | Annual | 0155 |
| Weinschel Associates | WA93-30-33 / 30 dB Attenuator | 2021-03-30 | Annual | 0149 |
| Hewlett Packard | 6674A / DC Power Supply | 2021-06-30 | Annual | 3637A01843 |
| KIKUSUI | PWR1600L / DC Power Supply | 2020-10-14 | Annual | RL002213 |
| NANGYEUL CO., LTD. | NY-THR18750/<br>Temperature and Humidity Chamber | 2021-01-14 | Annual | NY-200912201A |
| TNM system | FBSM-01B /<br>Amp & Filter Bank Switch Controller | N/A | N/A | TM20090002 |
| Innco systems | CO3000 /<br>Controller(Antenna mast & Turn Table) | N/A | N/A | CO3000/1251/48920320/P |
| Innco systems | MA4640/800-XP-ET /<br>Antenna Position Tower | N/A | N/A | N/A |
| Innco systems | DS2000-S / Turn Table | N/A | N/A | N/A |
| Ets | Turn Table | N/A | N/A | N/A |
| Schwarzbeck | FMZB 1513 / Loop Antenna | 2020-03-19 | Biennial | 1513-333 |
| Schwarzbeck | VULB 9168 / Hybrid Antenna | 2020-08-02 | Biennial | 01039 |
| Schwarzbeck | BBHA 9120D / Horn Antenna | 2020-06-28 | Biennial | 02296 |
| Schwarzbeck | BBHA9170 /<br>Horn Antenna(15 GHz ~ 40 GHz) | 2020-10-13 | Biennial | BBHA9170342 |
| Rohde & Schwarz | FSP40 / Spectrum Analyzer | 2021-05-27 | Annual | 100843 |
| TNM system | FBSR-04C /<br>HPF(3 ~ 18 GHz) + LNA(0.1 ~ 18 GHz) | 2020-09-23 | Annual | N/A |
| LTC Microwave | LLAU1183540Q / Low Noise Amplifier | 2020-09-23 | Annual | 100 |
| Wainwright Instruments | WHKX12-2805-3000-18000-40SS /<br>High Pass Filter | 2020-09-23 | Annual | 45 |
| CERNEX | CBL18265035 / Power Amplifier | 2020-12-04 | Annual | 22966 |
| CERNEX | CBL26405040 / Power Amplifier | 2021-03-23 | Annual | 25956 |

**Note:**

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date, or will be tested after the calibration is completed.

# 5. TEST RESULT

## 5.1. RF OUTPUT POWER and PSD

**Test Requirements:**

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

(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.

(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 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.

(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.

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

(a) (1) Base stations with an emission bandwidth of 1 MHz or less are limited to 1640 watts equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below.

(2) Base stations with an emission bandwidth greater than 1 MHz are limited to 1640 watts/MHz equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT, except as described in paragraph (b) below.

(3) Base station antenna heights may exceed 300 meters HAAT with a corresponding reduction in power; see Tables 1 and 2 of this section.

(4) The service area boundary limit and microwave protection criteria specified in § § 24.236 and 24.237 apply.

Table 1—Reduced Power for Base Station Antenna Heights Over 300 Meters, With Emission Bandwidth of 1 MHz or Less

| HAAT in meters | Maximum EIRP watts |
|---|---|
| ≤300 | 1640 |
| ≤500 | 1070 |
| ≤1000 | 490 |
| ≤1500 | 270 |
| ≤2000 | 160 |

Table 2—Reduced Power for Base Station Antenna Heights Over 300 Meters, With Emission Bandwidth Greater Than 1 MHz

| HAAT in meters | Maximum EIRP watts/MHz |
|---|---|
| ≤300 | 1640 |
| ≤500 | 1070 |
| ≤1000 | 490 |
| ≤1500 | 270 |
| ≤2000 | 160 |

(b) (1) Base stations that are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census, with an emission bandwidth of 1 MHz or less are limited to 3280 watts equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT.

(2) Base stations that are located in counties with population densities of 100 persons or fewer per square mile, based upon the most recently available population statistics from the Bureau of the Census, with an emission bandwidth greater than 1 MHz are limited to 3280 watts/MHz equivalent isotropically radiated power (EIRP) with an antenna height up to 300 meters HAAT.

(3) Base station antenna heights may exceed 300 meters HAAT with a corresponding reduction in power; see Tables 3 and 4 of this section.

(4) The service area boundary limit and microwave protection criteria specified in § § 24.236 and 24.237 apply.

(5) Operation under this paragraph (b) at power limits greater than permitted under paragraph (a) of this section must be coordinated in advance with all broadband PCS licensees authorized to operate on adjacent frequency blocks within 120 kilometers (75 miles) of the base station and is limited to base stations located more than 120 kilometers (75 miles) from the Canadian border and more than 75 kilometers (45 miles) from the Mexican border.

Table 3—Reduced Power for Base Station Antenna Heights Over 300 Meters, With Emission Bandwidth of 1 MHz or Less

| HAAT in meters | Maximum EIRP watts |
|---|---|
| ≤300 | 3280 |
| ≤500 | 2140 |
| ≤1000 | 980 |
| ≤1500 | 540 |
| ≤2000 | 320 |

Table 4—Reduced Power for Base Station Antenna Heights Over 300 Meters, With Emission Bandwidth Greater Than 1 MHz

| HAAT in meters | Maximum EIRP watts/MHz |
|---|---|
| ≤300 | 3280 |
| ≤500 | 2140 |
| ≤1000 | 980 |
| ≤1500 | 540 |
| ≤2000 | 320 |

(c) Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

(d) Power measurements for transmissions by stations authorized under this section may be made either in accrdance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

(e) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an 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, sensitivity, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

**§ 27.50 Power limits and duty cycle.**

**(d)** (2) The power of each fixed or base station transmitting in the 1995-2000 MHz, the 2110-2155 MHz 2155-2180 MHz band, or 2180-2200 MHz band and situated in any geographic location other than that described in paragraph (d)(1) of this section is limited to:

**(ii)** An EIRP of 1640 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz.

(5) Equipment employed must be authorized in accordance with the provisions of § 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

**Test Procedures:**

The measurement is performed in accordance with Section 5.2.4.4.1 of ANSI C63.26.

The EUT is considered to transmit continuously if it can be configured to transmit at a burst duty cycle of greater than or equal to 98% throughout the duration of the measurement. If this condition can be achieved, then the following procedure can be used to measure the average output power of the EUT.

a) Set span to 2 × to 3 × the OBW.

b) Set RBW = 1% to 5% of the OBW.

c) Set VBW ≥ 3 × RBW.

d) Set number of measurement points in sweep ≥ 2 × span / RBW.

e) Sweep time:

1) Set = auto-couple, or

2) Set ≥ [10 × (number of points in sweep) × (transmission period)] for single sweep (automation-compatible) measurement. Transmission period is the on and off time of the transmitter.

f) Detector = power averaging (rms).

g) If the EUT can be configured to transmit continuously, then set the trigger to free run.

h) If the EUT cannot be configured to transmit continuously, then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Verify that the sweep time is less than or equal to the transmission burst duration. Time gating can also be used under similar constraints (i.e., configured such that measurement data is collected only during active full-power transmissions).

i) Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over multiple symbols, it can be necessary to increase the number of traces to be averaged above 100 or, if using a manually configured sweep time, increase the sweep time.

j) Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function, with the band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

The measurement is performed in accordance with Section 5.2.4.5 of ANSI C63.26.
Some regulatory requirements specify the RF output power limits in terms of maximum or average PSD, (i.e., the output power or unwanted emissions power limits are defined within a specified reference bandwidth).
When average PSD limits are specified, the same fundamental measurement condition applies as previously discussed (i.e., averaging is to be performed only over durations of active transmissions at maximum output power level). Thus, when performing this measurement, the EUT must either be configured to transmit continuously at full power while the compliance measurement is performed, or else the measurement instrumentation must be configured to acquire data only over durations when the EUT is actively transmitting at full power. In circumstances where neither of these conditions can be realized, then alternative procedures are provided for both constant duty cycle and non-constant duty cycle transmissions.
The PSD is measured following the same procedures described in 5.2.4.4 for measuring the total average power, but with the RBW set to the reference bandwidth specified by the applicable regulatory requirement, and by using the marker function to identify the maximum PSD instead of summing the power across the OBW. If the fundamental measurement condition cannot be realized, then one of the alternative procedures in 5.2.4.4.2 or 5.2.4.4.3 should be selected, based on whether the transmitter duty cycle is constant (variations ≤ ±2%) or non-constant (variations > ±2%), respectively.

**Note:** The results of the Conducted output power and PSD test shown above the frequency measured values are very small and similar trend for each port, so we are attached only the worst case plot.

**Test Results:**
**Tabular Data of RF output power**

**B2 LTE 5 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 1 | QPSK | Middle | 1960.00 | 42.37 | 17.27 |
| | 16QAM | Middle | 1960.00 | 42.38 | 17.30 |
| | 64QAM | Middle | 1960.00 | 42.34 | 17.13 |
| | 256QAM | Middle | 1960.00 | 42.33 | 17.11 |

**B2 LTE 10 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 1 | QPSK | Middle | 1960.00 | 42.35 | 17.17 |
| | 16QAM | Middle | 1960.00 | 42.40 | 17.36 |
| | 64QAM | Middle | 1960.00 | 42.36 | 17.21 |
| | 256QAM | Middle | 1960.00 | 42.37 | 17.25 |

**B2 LTE 15 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 1 | QPSK | Middle | 1960.00 | 42.37 | 17.27 |
| | 16QAM | Middle | 1960.00 | 42.35 | 17.18 |
| | 64QAM | Middle | 1960.00 | 42.33 | 17.09 |
| | 256QAM | Middle | 1960.00 | 42.37 | 17.24 |

**B2 LTE 20 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 1 | QPSK | Middle | 1960.00 | 42.33 | 17.09 |
| | 16QAM | Middle | 1960.00 | 42.32 | 17.04 |
| | 64QAM | Middle | 1960.00 | 42.38 | 17.31 |
| | 256QAM | Middle | 1960.00 | 42.39 | 17.35 |

**B66 LTE 5 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Middle | 2145.00 | 42.74 | 18.80 |
| | 16QAM | Middle | 2145.00 | 42.73 | 18.77 |
| | 64QAM | Middle | 2145.00 | 42.70 | 18.60 |
| | 256QAM | Middle | 2145.00 | 42.73 | 18.75 |

**B66 LTE 10 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Middle | 2145.00 | 44.39 | 27.51 |
| | 16QAM | Middle | 2145.00 | 44.45 | 27.85 |
| | 64QAM | Middle | 2145.00 | 44.43 | 27.72 |
| | 256QAM | Middle | 2145.00 | 44.47 | 27.97 |

**B66 LTE 15 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Middle | 2145.00 | 44.47 | 27.99 |
| | 16QAM | Middle | 2145.00 | 44.47 | 27.99 |
| | 64QAM | Middle | 2145.00 | 44.43 | 27.76 |
| | 256QAM | Middle | 2145.00 | 44.45 | 27.86 |

**B66 LTE 20 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Middle | 2145.00 | 44.47 | 27.98 |
| | 16QAM | Middle | 2145.00 | 44.45 | 27.86 |
| | 64QAM | Middle | 2145.00 | 44.40 | 27.52 |
| | 256QAM | Middle | 2145.00 | 44.49 | 28.11 |

**B2 DSS 10 MHz 9to1 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 1960.00 | 43.41 | 21.93 |
| | 16QAM | Middle | 1960.00 | 43.55 | 22.64 |
| | 64QAM | Middle | 1960.00 | 43.46 | 22.17 |
| | 256QAM | Middle | 1960.00 | 43.40 | 21.87 |

**B2 DSS 10 MHz 8to2 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 1960.00 | 43.45 | 22.14 |
| | 16QAM | Middle | 1960.00 | 43.46 | 22.20 |
| | 64QAM | Middle | 1960.00 | 43.45 | 22.12 |
| | 256QAM | Middle | 1960.00 | 43.41 | 21.91 |

**B2 DSS 10 MHz 7to3 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 1960.00 | 43.46 | 22.18 |
| | 16QAM | Middle | 1960.00 | 43.47 | 22.24 |
| | 64QAM | Middle | 1960.00 | 43.41 | 21.93 |
| | 256QAM | Middle | 1960.00 | 43.35 | 21.64 |

**B2 DSS 10 MHz 6to4 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 1960.00 | 43.40 | 21.87 |
| | 16QAM | Middle | 1960.00 | 43.32 | 21.46 |
| | 64QAM | Middle | 1960.00 | 43.45 | 22.12 |
| | 256QAM | Middle | 1960.00 | 43.30 | 21.37 |

**B2 DSS 10 MHz 5to5 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 1960.00 | 43.31 | 21.41 |
| | 16QAM | Middle | 1960.00 | 43.28 | 21.29 |
| | 64QAM | Middle | 1960.00 | 43.35 | 21.64 |
| | 256QAM | Middle | 1960.00 | 43.32 | 21.47 |

**B2 DSS 10 MHz 4to6 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 1960.00 | 43.39 | 21.85 |
| | 16QAM | Middle | 1960.00 | 43.39 | 21.83 |
| | 64QAM | Middle | 1960.00 | 43.33 | 21.52 |
| | 256QAM | Middle | 1960.00 | 43.35 | 21.62 |

**B2 DSS 10 MHz 3to7 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 1960.00 | 43.44 | 22.10 |
| | 16QAM | Middle | 1960.00 | 43.39 | 21.81 |
| | 64QAM | Middle | 1960.00 | 43.35 | 21.61 |
| | 256QAM | Middle | 1960.00 | 43.23 | 21.03 |

**B2 DSS 10 MHz 2to8 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 1960.00 | 43.35 | 21.60 |
| | 16QAM | Middle | 1960.00 | 43.37 | 21.73 |
| | 64QAM | Middle | 1960.00 | 43.30 | 21.39 |
| | 256QAM | Middle | 1960.00 | 43.29 | 21.34 |

*** The worst ratio for LTE:NR is 9:1.**

B2 DSS 10 MHz 1 Carrier

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 1935.00 | 43.46 | 22.18 |
| | | Middle | 1960.00 | 43.41 | 21.93 |
| | | High | 1985.00 | 43.44 | 22.07 |
| | 16QAM | Low | 1935.00 | 43.53 | 22.55 |
| | | Middle | 1960.00 | 43.55 | 22.64 |
| | | High | 1985.00 | 43.34 | 21.57 |
| | 64QAM | Low | 1935.00 | 43.38 | 21.77 |
| | | Middle | 1960.00 | 43.46 | 22.17 |
| | | High | 1985.00 | 43.36 | 21.68 |
| | 256QAM | Low | 1935.00 | 43.31 | 21.42 |
| | | Middle | 1960.00 | 43.40 | 21.87 |
| | | High | 1985.00 | 43.37 | 21.74 |
| 1 | QPSK | Low | 1935.00 | 43.05 | 20.19 |
| | | Middle | 1960.00 | 43.06 | 20.25 |
| | | High | 1985.00 | 42.92 | 19.60 |
| | 16QAM | Low | 1935.00 | 43.16 | 20.69 |
| | | Middle | 1960.00 | 43.09 | 20.38 |
| | | High | 1985.00 | 42.90 | 19.50 |
| | 64QAM | Low | 1935.00 | 43.05 | 20.17 |
| | | Middle | 1960.00 | 43.08 | 20.33 |
| | | High | 1985.00 | 42.94 | 19.66 |
| | 256QAM | Low | 1935.00 | 43.02 | 20.04 |
| | | Middle | 1960.00 | 43.06 | 20.23 |
| | | High | 1985.00 | 42.86 | 19.33 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 1935.00 | 42.88 | 19.40 |
| | | Middle | 1960.00 | 43.14 | 20.59 |
| | | High | 1985.00 | 43.14 | 20.63 |
| | 16QAM | Low | 1935.00 | 42.87 | 19.38 |
| | | Middle | 1960.00 | 43.07 | 20.29 |
| | | High | 1985.00 | 43.20 | 20.87 |
| | 64QAM | Low | 1935.00 | 42.92 | 19.57 |
| | | Middle | 1960.00 | 43.07 | 20.29 |
| | | High | 1985.00 | 43.17 | 20.75 |
| | 256QAM | Low | 1935.00 | 42.82 | 19.14 |
| | | Middle | 1960.00 | 43.15 | 20.63 |
| | | High | 1985.00 | 43.11 | 20.48 |
| 3 | QPSK | Low | 1935.00 | 43.01 | 20.01 |
| | | Middle | 1960.00 | 43.09 | 20.38 |
| | | High | 1985.00 | 43.23 | 21.06 |
| | 16QAM | Low | 1935.00 | 42.96 | 19.78 |
| | | Middle | 1960.00 | 43.06 | 20.24 |
| | | High | 1985.00 | 43.27 | 21.25 |
| | 64QAM | Low | 1935.00 | 43.04 | 20.14 |
| | | Middle | 1960.00 | 43.09 | 20.38 |
| | | High | 1985.00 | 43.25 | 21.12 |
| | 256QAM | Low | 1935.00 | 42.92 | 19.57 |
| | | Middle | 1960.00 | 43.04 | 20.13 |
| | | High | 1985.00 | 43.16 | 20.71 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 1935.00 | 81.78 | 82.41 | 81.64 | 80.18 |
| 1960.00 | 83.15 | 83.54 | 83.17 | 82.86 |
| 1985.00 | 83.35 | 83.19 | 83.21 | 82.26 |

**B66 DSS 10 MHz 9to1 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 2145.00 | 43.18 | 20.78 |
| | 16QAM | Middle | 2145.00 | 43.22 | 20.99 |
| | 64QAM | Middle | 2145.00 | 43.19 | 20.84 |
| | 256QAM | Middle | 2145.00 | 43.21 | 20.93 |

**B66 DSS 10 MHz 8to2 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 2145.00 | 43.21 | 20.94 |
| | 16QAM | Middle | 2145.00 | 43.16 | 20.70 |
| | 64QAM | Middle | 2145.00 | 43.20 | 20.89 |
| | 256QAM | Middle | 2145.00 | 43.14 | 20.61 |

**B66 DSS 10 MHz 7to3 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 2145.00 | 43.21 | 20.97 |
| | 16QAM | Middle | 2145.00 | 43.16 | 20.72 |
| | 64QAM | Middle | 2145.00 | 43.20 | 20.88 |
| | 256QAM | Middle | 2145.00 | 43.14 | 20.59 |

**B66 DSS 10 MHz 6to4 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 2145.00 | 43.18 | 20.81 |
| | 16QAM | Middle | 2145.00 | 43.08 | 20.33 |
| | 64QAM | Middle | 2145.00 | 43.17 | 20.75 |
| | 256QAM | Middle | 2145.00 | 43.05 | 20.19 |

**B66 DSS 10 MHz 5to5 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 2145.00 | 43.20 | 20.91 |
| | 16QAM | Middle | 2145.00 | 43.11 | 20.48 |
| | 64QAM | Middle | 2145.00 | 43.18 | 20.77 |
| | 256QAM | Middle | 2145.00 | 43.11 | 20.45 |

**B66 DSS 10 MHz 4to6 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 2145.00 | 43.08 | 20.30 |
| | 16QAM | Middle | 2145.00 | 43.11 | 20.48 |
| | 64QAM | Middle | 2145.00 | 43.11 | 20.46 |
| | 256QAM | Middle | 2145.00 | 43.04 | 20.16 |

**B66 DSS 10 MHz 3to7 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 2145.00 | 43.14 | 20.63 |
| | 16QAM | Middle | 2145.00 | 43.14 | 20.61 |
| | 64QAM | Middle | 2145.00 | 43.14 | 20.59 |
| | 256QAM | Middle | 2145.00 | 43.05 | 20.20 |

**B66 DSS 10 MHz 2to8 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Middle | 2145.00 | 43.09 | 20.39 |
| | 16QAM | Middle | 2145.00 | 43.15 | 20.64 |
| | 64QAM | Middle | 2145.00 | 43.10 | 20.42 |
| | 256QAM | Middle | 2145.00 | 43.12 | 20.49 |

*** The worst ratio for LTE:NR is 9:1.**

B66 DSS 10 MHz 1 Carrier

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2115.00 | 43.11 | 20.45 |
| | | Middle | 2145.00 | 43.18 | 20.78 |
| | | High | 2175.00 | 43.45 | 22.13 |
| | 16QAM | Low | 2115.00 | 43.02 | 20.05 |
| | | Middle | 2145.00 | 43.22 | 20.99 |
| | | High | 2175.00 | 43.46 | 22.18 |
| | 64QAM | Low | 2115.00 | 43.03 | 20.08 |
| | | Middle | 2145.00 | 43.19 | 20.84 |
| | | High | 2175.00 | 43.49 | 22.33 |
| | 256QAM | Low | 2115.00 | 43.01 | 20.02 |
| | | Middle | 2145.00 | 43.21 | 20.93 |
| | | High | 2175.00 | 43.48 | 22.26 |
| 1 | QPSK | Low | 2115.00 | 42.81 | 19.08 |
| | | Middle | 2145.00 | 42.94 | 19.70 |
| | | High | 2175.00 | 43.39 | 21.83 |
| | 16QAM | Low | 2115.00 | 42.74 | 18.81 |
| | | Middle | 2145.00 | 42.97 | 19.84 |
| | | High | 2175.00 | 43.28 | 21.31 |
| | 64QAM | Low | 2115.00 | 42.78 | 18.96 |
| | | Middle | 2145.00 | 42.94 | 19.69 |
| | | High | 2175.00 | 43.39 | 21.85 |
| | 256QAM | Low | 2115.00 | 42.81 | 19.10 |
| | | Middle | 2145.00 | 42.97 | 19.83 |
| | | High | 2175.00 | 43.28 | 21.28 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2115.00 | 42.11 | 16.26 |
| | | Middle | 2145.00 | 42.34 | 17.15 |
| | | High | 2175.00 | 42.61 | 18.26 |
| | 16QAM | Low | 2115.00 | 42.09 | 16.17 |
| | | Middle | 2145.00 | 42.23 | 16.70 |
| | | High | 2175.00 | 42.56 | 18.04 |
| | 64QAM | Low | 2115.00 | 42.11 | 16.26 |
| | | Middle | 2145.00 | 42.23 | 16.70 |
| | | High | 2175.00 | 42.55 | 17.97 |
| | 256QAM | Low | 2115.00 | 42.08 | 16.14 |
| | | Middle | 2145.00 | 42.23 | 16.70 |
| | | High | 2175.00 | 42.56 | 18.03 |
| 3 | QPSK | Low | 2115.00 | 42.09 | 16.18 |
| | | Middle | 2145.00 | 42.32 | 17.07 |
| | | High | 2175.00 | 42.40 | 17.37 |
| | 16QAM | Low | 2115.00 | 42.06 | 16.08 |
| | | Middle | 2145.00 | 42.41 | 17.43 |
| | | High | 2175.00 | 42.38 | 17.28 |
| | 64QAM | Low | 2115.00 | 42.08 | 16.13 |
| | | Middle | 2145.00 | 42.37 | 17.28 |
| | | High | 2175.00 | 42.34 | 17.14 |
| | 256QAM | Low | 2115.00 | 42.07 | 16.12 |
| | | Middle | 2145.00 | 42.28 | 16.91 |
| | | High | 2175.00 | 42.38 | 17.31 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2115.00 | 71.96 | 71.11 | 71.42 | 71.38 |
| 2145.00 | 74.70 | 74.97 | 74.51 | 74.37 |
| 2175.00 | 79.59 | 78.81 | 79.29 | 78.88 |

Tabular Data of RF Contiguous output power

B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 1937.50 | 43.31 | 21.42 |
| | | Middle | 1960.00 | 43.46 | 22.16 |
| | | High | 1982.50 | 43.31 | 21.41 |
| | 16QAM | Low | 1937.50 | 43.26 | 21.19 |
| | | Middle | 1960.00 | 43.34 | 21.56 |
| | | High | 1982.50 | 43.35 | 21.61 |
| | 64QAM | Low | 1937.50 | 43.23 | 21.04 |
| | | Middle | 1960.00 | 43.25 | 21.12 |
| | | High | 1982.50 | 43.25 | 21.15 |
| | 256QAM | Low | 1937.50 | 43.23 | 21.05 |
| | | Middle | 1960.00 | 43.28 | 21.30 |
| | | High | 1982.50 | 43.28 | 21.27 |
| 1 | QPSK | Low | 1937.50 | 43.10 | 20.40 |
| | | Middle | 1960.00 | 43.22 | 21.00 |
| | | High | 1982.50 | 43.01 | 20.00 |
| | 16QAM | Low | 1937.50 | 43.03 | 20.11 |
| | | Middle | 1960.00 | 43.26 | 21.20 |
| | | High | 1982.50 | 43.07 | 20.27 |
| | 64QAM | Low | 1937.50 | 42.97 | 19.80 |
| | | Middle | 1960.00 | 43.08 | 20.33 |
| | | High | 1982.50 | 42.99 | 19.93 |
| | 256QAM | Low | 1937.50 | 42.99 | 19.91 |
| | | Middle | 1960.00 | 43.27 | 21.24 |
| | | High | 1982.50 | 42.93 | 19.66 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 1937.50 | 42.88 | 19.40 |
| | | Middle | 1960.00 | 43.03 | 20.07 |
| | | High | 1982.50 | 43.00 | 19.98 |
| | 16QAM | Low | 1937.50 | 42.90 | 19.48 |
| | | Middle | 1960.00 | 43.00 | 19.96 |
| | | High | 1982.50 | 43.06 | 20.22 |
| | 64QAM | Low | 1937.50 | 42.98 | 19.86 |
| | | Middle | 1960.00 | 43.05 | 20.16 |
| | | High | 1982.50 | 42.96 | 19.77 |
| | 256QAM | Low | 1937.50 | 42.93 | 19.64 |
| | | Middle | 1960.00 | 43.02 | 20.04 |
| | | High | 1982.50 | 42.97 | 19.81 |
| 3 | QPSK | Low | 1937.50 | 43.13 | 20.57 |
| | | Middle | 1960.00 | 43.08 | 20.33 |
| | | High | 1982.50 | 43.04 | 20.16 |
| | 16QAM | Low | 1937.50 | 43.11 | 20.46 |
| | | Middle | 1960.00 | 43.01 | 20.00 |
| | | High | 1982.50 | 42.99 | 19.91 |
| | 64QAM | Low | 1937.50 | 43.20 | 20.89 |
| | | Middle | 1960.00 | 43.12 | 20.50 |
| | | High | 1982.50 | 43.02 | 20.05 |
| | 256QAM | Low | 1937.50 | 43.14 | 20.63 |
| | | Middle | 1960.00 | 43.12 | 20.50 |
| | | High | 1982.50 | 43.06 | 20.24 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 1937.50 | 81.79 | 81.24 | 81.59 | 81.22 |
| 1960.00 | 83.57 | 82.72 | 82.11 | 83.08 |
| 1982.50 | 81.54 | 82.02 | 80.89 | 80.97 |

**B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 1940.00 | 43.40 | 21.86 |
| | | Middle | 1960.00 | 43.47 | 22.24 |
| | | High | 1980.00 | 43.49 | 22.34 |
| | 16QAM | Low | 1940.00 | 43.29 | 21.31 |
| | | Middle | 1960.00 | 43.45 | 22.11 |
| | | High | 1980.00 | 43.40 | 21.86 |
| | 64QAM | Low | 1940.00 | 43.27 | 21.21 |
| | | Middle | 1960.00 | 43.57 | 22.75 |
| | | High | 1980.00 | 43.37 | 21.71 |
| | 256QAM | Low | 1940.00 | 43.36 | 21.68 |
| | | Middle | 1960.00 | 43.54 | 22.58 |
| | | High | 1980.00 | 43.30 | 21.37 |
| 1 | QPSK | Low | 1940.00 | 42.93 | 19.65 |
| | | Middle | 1960.00 | 43.08 | 20.30 |
| | | High | 1980.00 | 43.08 | 20.31 |
| | 16QAM | Low | 1940.00 | 42.94 | 19.66 |
| | | Middle | 1960.00 | 43.04 | 20.14 |
| | | High | 1980.00 | 42.97 | 19.80 |
| | 64QAM | Low | 1940.00 | 43.01 | 19.99 |
| | | Middle | 1960.00 | 43.11 | 20.46 |
| | | High | 1980.00 | 43.00 | 19.96 |
| | 256QAM | Low | 1940.00 | 43.05 | 20.17 |
| | | Middle | 1960.00 | 43.07 | 20.30 |
| | | High | 1980.00 | 43.06 | 20.22 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 1940.00 | 42.93 | 19.66 |
| | | Middle | 1960.00 | 43.28 | 21.29 |
| | | High | 1980.00 | 43.10 | 20.42 |
| | 16QAM | Low | 1940.00 | 42.92 | 19.60 |
| | | Middle | 1960.00 | 43.18 | 20.81 |
| | | High | 1980.00 | 43.08 | 20.34 |
| | 64QAM | Low | 1940.00 | 42.99 | 19.89 |
| | | Middle | 1960.00 | 43.22 | 20.98 |
| | | High | 1980.00 | 43.03 | 20.11 |
| | 256QAM | Low | 1940.00 | 43.00 | 19.98 |
| | | Middle | 1960.00 | 43.20 | 20.88 |
| | | High | 1980.00 | 43.08 | 20.34 |
| 3 | QPSK | Low | 1940.00 | 43.07 | 20.26 |
| | | Middle | 1960.00 | 43.25 | 21.13 |
| | | High | 1980.00 | 43.14 | 20.59 |
| | 16QAM | Low | 1940.00 | 43.08 | 20.32 |
| | | Middle | 1960.00 | 43.24 | 21.10 |
| | | High | 1980.00 | 43.05 | 20.20 |
| | 64QAM | Low | 1940.00 | 43.11 | 20.46 |
| | | Middle | 1960.00 | 43.10 | 20.42 |
| | | High | 1980.00 | 43.07 | 20.26 |
| | 256QAM | Low | 1940.00 | 43.12 | 20.50 |
| | | Middle | 1960.00 | 43.18 | 20.78 |
| | | High | 1980.00 | 43.04 | 20.15 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 1940.00 | 81.43 | 80.89 | 81.56 | 82.32 |
| 1960.00 | 84.96 | 84.15 | 84.60 | 84.54 |
| 1980.00 | 83.66 | 82.19 | 82.04 | 82.08 |

B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2117.50 | 45.19 | 33.05 |
| | | Middle | 2145.00 | 45.17 | 32.85 |
| | | High | 2172.50 | 45.29 | 33.78 |
| | 16QAM | Low | 2117.50 | 45.01 | 31.72 |
| | | Middle | 2145.00 | 45.12 | 32.51 |
| | | High | 2172.50 | 45.21 | 33.23 |
| | 64QAM | Low | 2117.50 | 45.02 | 31.75 |
| | | Middle | 2145.00 | 45.10 | 32.39 |
| | | High | 2172.50 | 45.28 | 33.74 |
| | 256QAM | Low | 2117.50 | 45.05 | 31.97 |
| | | Middle | 2145.00 | 45.13 | 32.58 |
| | | High | 2172.50 | 45.19 | 33.06 |
| 1 | QPSK | Low | 2117.50 | 44.73 | 29.72 |
| | | Middle | 2145.00 | 44.81 | 30.25 |
| | | High | 2172.50 | 45.12 | 32.51 |
| | 16QAM | Low | 2117.50 | 44.65 | 29.19 |
| | | Middle | 2145.00 | 44.83 | 30.41 |
| | | High | 2172.50 | 45.15 | 32.73 |
| | 64QAM | Low | 2117.50 | 44.81 | 30.30 |
| | | Middle | 2145.00 | 44.76 | 29.95 |
| | | High | 2172.50 | 45.10 | 32.32 |
| | 256QAM | Low | 2117.50 | 44.64 | 29.11 |
| | | Middle | 2145.00 | 44.83 | 30.44 |
| | | High | 2172.50 | 45.14 | 32.64 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2117.50 | 43.89 | 24.50 |
| | | Middle | 2145.00 | 44.05 | 25.43 |
| | | High | 2172.50 | 44.19 | 26.22 |
| | 16QAM | Low | 2117.50 | 43.92 | 24.67 |
| | | Middle | 2145.00 | 44.05 | 25.43 |
| | | High | 2172.50 | 44.21 | 26.35 |
| | 64QAM | Low | 2117.50 | 43.88 | 24.46 |
| | | Middle | 2145.00 | 44.05 | 25.43 |
| | | High | 2172.50 | 44.22 | 26.45 |
| | 256QAM | Low | 2117.50 | 43.85 | 24.26 |
| | | Middle | 2145.00 | 44.00 | 25.15 |
| | | High | 2172.50 | 44.18 | 26.21 |
| 3 | QPSK | Low | 2117.50 | 43.91 | 24.58 |
| | | Middle | 2145.00 | 44.27 | 26.71 |
| | | High | 2172.50 | 44.13 | 25.91 |
| | 16QAM | Low | 2117.50 | 43.86 | 24.30 |
| | | Middle | 2145.00 | 44.23 | 26.49 |
| | | High | 2172.50 | 44.11 | 25.74 |
| | 64QAM | Low | 2117.50 | 43.82 | 24.11 |
| | | Middle | 2145.00 | 44.26 | 26.67 |
| | | High | 2172.50 | 44.14 | 25.97 |
| | 256QAM | Low | 2117.50 | 43.84 | 24.19 |
| | | Middle | 2145.00 | 44.25 | 26.63 |
| | | High | 2172.50 | 44.16 | 26.04 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2117.50 | 111.85 | 109.89 | 110.62 | 109.53 |
| 2145.00 | 115.24 | 114.84 | 114.44 | 114.80 |
| 2172.50 | 118.42 | 118.05 | 118.49 | 117.95 |

B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier]

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2125.00 | 44.80 | 30.23 |
| | | Middle | 2145.00 | 45.03 | 31.85 |
| | | High | 2165.00 | 44.88 | 30.80 |
| | 16QAM | Low | 2125.00 | 44.83 | 30.43 |
| | | Middle | 2145.00 | 45.05 | 31.97 |
| | | High | 2165.00 | 44.83 | 30.38 |
| | 64QAM | Low | 2125.00 | 44.81 | 30.26 |
| | | Middle | 2145.00 | 45.07 | 32.17 |
| | | High | 2165.00 | 44.79 | 30.12 |
| | 256QAM | Low | 2125.00 | 44.76 | 29.94 |
| | | Middle | 2145.00 | 45.04 | 31.91 |
| | | High | 2165.00 | 44.70 | 29.48 |
| 1 | QPSK | Low | 2125.00 | 44.49 | 28.11 |
| | | Middle | 2145.00 | 44.77 | 30.03 |
| | | High | 2165.00 | 44.51 | 28.25 |
| | 16QAM | Low | 2125.00 | 44.46 | 27.93 |
| | | Middle | 2145.00 | 44.74 | 29.76 |
| | | High | 2165.00 | 44.54 | 28.45 |
| | 64QAM | Low | 2125.00 | 44.58 | 28.71 |
| | | Middle | 2145.00 | 44.73 | 29.70 |
| | | High | 2165.00 | 44.52 | 28.28 |
| | 256QAM | Low | 2125.00 | 44.49 | 28.14 |
| | | Middle | 2145.00 | 44.70 | 29.49 |
| | | High | 2165.00 | 44.51 | 28.23 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2125.00 | 43.88 | 24.43 |
| | | Middle | 2145.00 | 44.01 | 25.19 |
| | | High | 2165.00 | 44.25 | 26.62 |
| | 16QAM | Low | 2125.00 | 43.82 | 24.09 |
| | | Middle | 2145.00 | 43.94 | 24.77 |
| | | High | 2165.00 | 44.29 | 26.86 |
| | 64QAM | Low | 2125.00 | 43.89 | 24.50 |
| | | Middle | 2145.00 | 44.03 | 25.29 |
| | | High | 2165.00 | 44.29 | 26.82 |
| | 256QAM | Low | 2125.00 | 43.81 | 24.06 |
| | | Middle | 2145.00 | 43.92 | 24.67 |
| | | High | 2165.00 | 44.17 | 26.15 |
| 3 | QPSK | Low | 2125.00 | 43.84 | 24.20 |
| | | Middle | 2145.00 | 44.24 | 26.55 |
| | | High | 2165.00 | 44.11 | 25.79 |
| | 16QAM | Low | 2125.00 | 43.85 | 24.25 |
| | | Middle | 2145.00 | 44.26 | 26.66 |
| | | High | 2165.00 | 44.18 | 26.17 |
| | 64QAM | Low | 2125.00 | 43.98 | 24.99 |
| | | Middle | 2145.00 | 44.25 | 26.63 |
| | | High | 2165.00 | 44.18 | 26.19 |
| | 256QAM | Low | 2125.00 | 43.90 | 24.55 |
| | | Middle | 2145.00 | 44.15 | 25.97 |
| | | High | 2165.00 | 44.15 | 25.98 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2125.00 | 106.97 | 106.70 | 108.46 | 106.69 |
| 2145.00 | 113.61 | 113.17 | 113.80 | 112.04 |
| 2165.00 | 111.45 | 111.86 | 111.41 | 109.84 |

**B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [3 Carrier]**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2120.00 | 44.90 | 30.90 |
| | | Middle | 2145.00 | 45.45 | 35.09 |
| | | High | 2170.00 | 44.76 | 29.90 |
| | 16QAM | Low | 2120.00 | 45.00 | 31.65 |
| | | Middle | 2145.00 | 45.41 | 34.77 |
| | | High | 2170.00 | 44.76 | 29.91 |
| | 64QAM | Low | 2120.00 | 44.95 | 31.23 |
| | | Middle | 2145.00 | 45.43 | 34.90 |
| | | High | 2170.00 | 44.79 | 30.16 |
| | 256QAM | Low | 2120.00 | 44.87 | 30.72 |
| | | Middle | 2145.00 | 45.40 | 34.71 |
| | | High | 2170.00 | 44.64 | 29.10 |
| 1 | QPSK | Low | 2120.00 | 44.78 | 30.05 |
| | | Middle | 2145.00 | 44.93 | 31.15 |
| | | High | 2170.00 | 44.41 | 27.59 |
| | 16QAM | Low | 2120.00 | 44.87 | 30.71 |
| | | Middle | 2145.00 | 44.90 | 30.88 |
| | | High | 2170.00 | 44.44 | 27.80 |
| | 64QAM | Low | 2120.00 | 44.83 | 30.42 |
| | | Middle | 2145.00 | 44.91 | 30.97 |
| | | High | 2170.00 | 44.41 | 27.62 |
| | 256QAM | Low | 2120.00 | 44.85 | 30.53 |
| | | Middle | 2145.00 | 44.85 | 30.56 |
| | | High | 2170.00 | 44.43 | 27.71 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2120.00 | 43.98 | 25.03 |
| | | Middle | 2145.00 | 44.05 | 25.40 |
| | | High | 2170.00 | 44.24 | 26.55 |
| | 16QAM | Low | 2120.00 | 43.92 | 24.64 |
| | | Middle | 2145.00 | 44.02 | 25.22 |
| | | High | 2170.00 | 44.24 | 26.53 |
| | 64QAM | Low | 2120.00 | 43.90 | 24.54 |
| | | Middle | 2145.00 | 44.05 | 25.41 |
| | | High | 2170.00 | 44.23 | 26.51 |
| | 256QAM | Low | 2120.00 | 43.93 | 24.71 |
| | | Middle | 2145.00 | 44.05 | 25.40 |
| | | High | 2170.00 | 44.32 | 27.06 |
| 3 | QPSK | Low | 2120.00 | 43.92 | 24.67 |
| | | Middle | 2145.00 | 44.45 | 27.87 |
| | | High | 2170.00 | 44.15 | 25.98 |
| | 16QAM | Low | 2120.00 | 43.97 | 24.97 |
| | | Middle | 2145.00 | 44.45 | 27.85 |
| | | High | 2170.00 | 44.15 | 25.97 |
| | 64QAM | Low | 2120.00 | 43.92 | 24.64 |
| | | Middle | 2145.00 | 44.50 | 28.21 |
| | | High | 2170.00 | 44.16 | 26.09 |
| | 256QAM | Low | 2120.00 | 43.90 | 24.54 |
| | | Middle | 2145.00 | 44.49 | 28.14 |
| | | High | 2170.00 | 44.11 | 25.76 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2120.00 | 110.65 | 111.98 | 110.83 | 110.50 |
| 2145.00 | 119.51 | 118.72 | 119.49 | 118.81 |
| 2170.00 | 110.01 | 110.21 | 110.38 | 109.64 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [3 Carrier]**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2125.00 | 44.82 | 30.31 |
| | | Middle | 2145.00 | 45.22 | 33.26 |
| | | High | 2165.00 | 44.64 | 29.09 |
| | 16QAM | Low | 2125.00 | 44.84 | 30.46 |
| | | Middle | 2145.00 | 45.28 | 33.75 |
| | | High | 2165.00 | 44.59 | 28.78 |
| | 64QAM | Low | 2125.00 | 44.90 | 30.94 |
| | | Middle | 2145.00 | 45.19 | 33.08 |
| | | High | 2165.00 | 44.59 | 28.79 |
| | 256QAM | Low | 2125.00 | 44.84 | 30.46 |
| | | Middle | 2145.00 | 45.13 | 32.58 |
| | | High | 2165.00 | 44.57 | 28.64 |
| 1 | QPSK | Low | 2125.00 | 44.51 | 28.26 |
| | | Middle | 2145.00 | 44.65 | 29.19 |
| | | High | 2165.00 | 44.30 | 26.90 |
| | 16QAM | Low | 2125.00 | 44.57 | 28.67 |
| | | Middle | 2145.00 | 44.66 | 29.26 |
| | | High | 2165.00 | 44.30 | 26.93 |
| | 64QAM | Low | 2125.00 | 44.51 | 28.25 |
| | | Middle | 2145.00 | 44.66 | 29.21 |
| | | High | 2165.00 | 44.26 | 26.69 |
| | 256QAM | Low | 2125.00 | 44.57 | 28.64 |
| | | Middle | 2145.00 | 44.68 | 29.41 |
| | | High | 2165.00 | 44.25 | 26.60 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2125.00 | 43.91 | 24.62 |
| | | Middle | 2145.00 | 44.10 | 25.72 |
| | | High | 2165.00 | 44.14 | 25.97 |
| | 16QAM | Low | 2125.00 | 43.91 | 24.62 |
| | | Middle | 2145.00 | 44.09 | 25.63 |
| | | High | 2165.00 | 44.17 | 26.10 |
| | 64QAM | Low | 2125.00 | 43.93 | 24.74 |
| | | Middle | 2145.00 | 44.11 | 25.78 |
| | | High | 2165.00 | 44.11 | 25.77 |
| | 256QAM | Low | 2125.00 | 43.94 | 24.77 |
| | | Middle | 2145.00 | 44.10 | 25.68 |
| | | High | 2165.00 | 44.22 | 26.41 |
| 3 | QPSK | Low | 2125.00 | 43.94 | 24.78 |
| | | Middle | 2145.00 | 44.17 | 26.11 |
| | | High | 2165.00 | 44.12 | 25.85 |
| | 16QAM | Low | 2125.00 | 43.96 | 24.89 |
| | | Middle | 2145.00 | 44.15 | 26.01 |
| | | High | 2165.00 | 44.14 | 25.94 |
| | 64QAM | Low | 2125.00 | 44.02 | 25.25 |
| | | Middle | 2145.00 | 44.15 | 26.03 |
| | | High | 2165.00 | 44.10 | 25.72 |
| | 256QAM | Low | 2125.00 | 44.01 | 25.16 |
| | | Middle | 2145.00 | 44.13 | 25.86 |
| | | High | 2165.00 | 44.10 | 25.70 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2125.00 | 107.97 | 108.65 | 109.18 | 109.03 |
| 2145.00 | 114.28 | 114.65 | 114.10 | 113.54 |
| 2165.00 | 107.80 | 107.75 | 106.97 | 107.34 |

## Tabular Data of RF Non-Contiguous output power

### B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Mod | B2 LTE 5 MHz | | B2 DSS 10 MHz | | Summation Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dBm) | Frequency (MHz) | Measured Value (dBm) | | |
| 0 | QPSK | 1932.50 | 38.44 | 1985.00 | 41.53 | 43.27 | 21.22 |
| | 16QAM | 1932.50 | 38.50 | 1985.00 | 41.44 | 43.23 | 21.03 |
| | 64QAM | 1932.50 | 38.42 | 1985.00 | 41.45 | 43.20 | 20.90 |
| | 256QAM | 1932.50 | 38.46 | 1985.00 | 41.47 | 43.23 | 21.03 |
| 1 | QPSK | 1932.50 | 38.16 | 1985.00 | 41.25 | 42.98 | 19.87 |
| | 16QAM | 1932.50 | 38.21 | 1985.00 | 41.18 | 42.96 | 19.75 |
| | 64QAM | 1932.50 | 38.09 | 1985.00 | 41.04 | 42.82 | 19.14 |
| | 256QAM | 1932.50 | 38.00 | 1985.00 | 40.96 | 42.74 | 18.80 |
| 2 | QPSK | 1932.50 | 37.91 | 1985.00 | 41.25 | 42.90 | 19.51 |
| | 16QAM | 1932.50 | 37.91 | 1985.00 | 41.19 | 42.86 | 19.32 |
| | 64QAM | 1932.50 | 37.96 | 1985.00 | 41.16 | 42.86 | 19.32 |
| | 256QAM | 1932.50 | 37.84 | 1985.00 | 41.10 | 42.78 | 18.96 |
| 3 | QPSK | 1932.50 | 38.05 | 1985.00 | 41.20 | 42.92 | 19.58 |
| | 16QAM | 1932.50 | 38.22 | 1985.00 | 41.33 | 43.06 | 20.23 |
| | 64QAM | 1932.50 | 38.14 | 1985.00 | 41.17 | 42.92 | 19.60 |
| | 256QAM | 1932.50 | 38.14 | 1985.00 | 41.31 | 43.01 | 20.02 |

### Sum Data of Port 0, Port 1, Port 2 and Port 3

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 1932.50 + 1985.00 | 80.17 | 80.33 | 78.97 | 78.82 |

**B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | B2 LTE 10 MHz | | B2 DSS 10 MHz | | Summation Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dBm) | Frequency (MHz) | Measured Value (dBm) | | |
| 0 | QPSK | 1935.00 | 40.31 | 1985.00 | 40.47 | 43.40 | 21.88 |
| | 16QAM | 1935.00 | 40.36 | 1985.00 | 40.45 | 43.42 | 21.97 |
| | 64QAM | 1935.00 | 40.27 | 1985.00 | 40.42 | 43.36 | 21.66 |
| | 256QAM | 1935.00 | 40.22 | 1985.00 | 40.37 | 43.31 | 21.41 |
| 1 | QPSK | 1935.00 | 39.86 | 1985.00 | 39.89 | 42.89 | 19.43 |
| | 16QAM | 1935.00 | 39.87 | 1985.00 | 39.82 | 42.85 | 19.28 |
| | 64QAM | 1935.00 | 39.80 | 1985.00 | 39.84 | 42.83 | 19.18 |
| | 256QAM | 1935.00 | 39.88 | 1985.00 | 39.79 | 42.85 | 19.27 |
| 2 | QPSK | 1935.00 | 39.73 | 1985.00 | 40.06 | 42.90 | 19.52 |
| | 16QAM | 1935.00 | 39.71 | 1985.00 | 39.91 | 42.82 | 19.16 |
| | 64QAM | 1935.00 | 39.75 | 1985.00 | 40.00 | 42.88 | 19.43 |
| | 256QAM | 1935.00 | 39.69 | 1985.00 | 39.94 | 42.83 | 19.18 |
| 3 | QPSK | 1935.00 | 39.94 | 1985.00 | 40.11 | 43.04 | 20.13 |
| | 16QAM | 1935.00 | 39.93 | 1985.00 | 40.10 | 43.02 | 20.06 |
| | 64QAM | 1935.00 | 39.92 | 1985.00 | 40.17 | 43.06 | 20.21 |
| | 256QAM | 1935.00 | 39.95 | 1985.00 | 40.15 | 43.06 | 20.24 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 1935.00 + 1985.00 | 80.97 | 80.47 | 80.48 | 80.10 |

**B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | B66 LTE 5 MHz | | B66 DSS 10 MHz | | Summation Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dBm) | Frequency (MHz) | Measured Value (dBm) | | |
| 0 | QPSK | 2112.50 | 39.60 | 2175.00 | 42.94 | 44.59 | 28.79 |
| | 16QAM | 2112.50 | 39.59 | 2175.00 | 42.94 | 44.59 | 28.78 |
| | 64QAM | 2112.50 | 39.53 | 2175.00 | 43.01 | 44.62 | 28.99 |
| | 256QAM | 2112.50 | 39.55 | 2175.00 | 42.91 | 44.56 | 28.57 |
| 1 | QPSK | 2112.50 | 39.22 | 2175.00 | 42.50 | 44.17 | 26.14 |
| | 16QAM | 2112.50 | 39.41 | 2175.00 | 42.59 | 44.29 | 26.88 |
| | 64QAM | 2112.50 | 39.31 | 2175.00 | 42.63 | 44.29 | 26.85 |
| | 256QAM | 2112.50 | 39.42 | 2175.00 | 42.59 | 44.29 | 26.88 |
| 2 | QPSK | 2112.50 | 39.26 | 2175.00 | 42.53 | 44.21 | 26.34 |
| | 16QAM | 2112.50 | 39.27 | 2175.00 | 42.54 | 44.22 | 26.40 |
| | 64QAM | 2112.50 | 39.20 | 2175.00 | 42.52 | 44.18 | 26.19 |
| | 256QAM | 2112.50 | 39.21 | 2175.00 | 42.57 | 44.22 | 26.41 |
| 3 | QPSK | 2112.50 | 39.18 | 2175.00 | 42.34 | 44.05 | 25.42 |
| | 16QAM | 2112.50 | 39.21 | 2175.00 | 42.41 | 44.11 | 25.77 |
| | 64QAM | 2112.50 | 39.26 | 2175.00 | 42.48 | 44.18 | 26.16 |
| | 256QAM | 2112.50 | 39.21 | 2175.00 | 42.41 | 44.11 | 25.74 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2112.50 + 2175.00 | 106.70 | 107.84 | 108.21 | 107.60 |

**B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | B66 LTE 20 MHz | | B66 DSS 10 MHz | | Summation Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dBm) | Frequency (MHz) | Measured Value (dBm) | | |
| 0 | QPSK | 2120.00 | 43.17 | 2175.00 | 40.58 | 45.07 | 32.15 |
| | 16QAM | 2120.00 | 43.20 | 2175.00 | 40.61 | 45.10 | 32.40 |
| | 64QAM | 2120.00 | 43.19 | 2175.00 | 40.56 | 45.08 | 32.20 |
| | 256QAM | 2120.00 | 43.15 | 2175.00 | 40.59 | 45.06 | 32.09 |
| 1 | QPSK | 2120.00 | 42.43 | 2175.00 | 39.87 | 44.35 | 27.20 |
| | 16QAM | 2120.00 | 42.31 | 2175.00 | 39.82 | 44.25 | 26.62 |
| | 64QAM | 2120.00 | 42.45 | 2175.00 | 39.99 | 44.40 | 27.54 |
| | 256QAM | 2120.00 | 42.27 | 2175.00 | 39.75 | 44.20 | 26.29 |
| 2 | QPSK | 2120.00 | 42.15 | 2175.00 | 39.41 | 44.00 | 25.14 |
| | 16QAM | 2120.00 | 42.09 | 2175.00 | 39.40 | 43.96 | 24.88 |
| | 64QAM | 2120.00 | 42.09 | 2175.00 | 39.32 | 43.93 | 24.74 |
| | 256QAM | 2120.00 | 42.14 | 2175.00 | 39.32 | 43.96 | 24.91 |
| 3 | QPSK | 2120.00 | 42.45 | 2175.00 | 39.60 | 44.27 | 26.71 |
| | 16QAM | 2120.00 | 42.43 | 2175.00 | 39.65 | 44.27 | 26.73 |
| | 64QAM | 2120.00 | 42.45 | 2175.00 | 39.58 | 44.26 | 26.64 |
| | 256QAM | 2120.00 | 42.39 | 2175.00 | 39.61 | 44.23 | 26.48 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2120.00 + 2175.00 | 111.21 | 110.63 | 111.12 | 109.78 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier]**

| Ant. | Mod | B66 LTE 5 MHz | | B66 LTE 5 MHz + B66 DSS 10 MHz | | Summation Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dBm) | Frequency (MHz) | Measured Value (dBm) | | |
| 0 | QPSK | 2112.50 | 38.58 | 2172.50 | 43.57 | 44.77 | 29.98 |
| | 16QAM | 2112.50 | 38.50 | 2172.50 | 43.45 | 44.65 | 29.19 |
| | 64QAM | 2112.50 | 38.44 | 2172.50 | 43.39 | 44.60 | 28.84 |
| | 256QAM | 2112.50 | 38.42 | 2172.50 | 43.45 | 44.64 | 29.08 |
| 1 | QPSK | 2112.50 | 38.01 | 2172.50 | 43.20 | 44.35 | 27.22 |
| | 16QAM | 2112.50 | 38.13 | 2172.50 | 43.18 | 44.36 | 27.31 |
| | 64QAM | 2112.50 | 38.11 | 2172.50 | 43.16 | 44.35 | 27.20 |
| | 256QAM | 2112.50 | 38.10 | 2172.50 | 43.25 | 44.41 | 27.61 |
| 2 | QPSK | 2112.50 | 38.00 | 2172.50 | 42.95 | 44.15 | 26.01 |
| | 16QAM | 2112.50 | 37.97 | 2172.50 | 42.93 | 44.13 | 25.90 |
| | 64QAM | 2112.50 | 38.02 | 2172.50 | 42.89 | 44.12 | 25.80 |
| | 256QAM | 2112.50 | 37.99 | 2172.50 | 42.89 | 44.11 | 25.75 |
| 3 | QPSK | 2112.50 | 37.97 | 2172.50 | 42.83 | 44.06 | 25.44 |
| | 16QAM | 2112.50 | 37.89 | 2172.50 | 42.84 | 44.04 | 25.35 |
| | 64QAM | 2112.50 | 37.93 | 2172.50 | 42.82 | 44.04 | 25.37 |
| | 256QAM | 2112.50 | 37.98 | 2172.50 | 42.78 | 44.02 | 25.24 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2112.50 + 2172.50 | 108.66 | 107.76 | 107.21 | 107.69 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier]**

| Ant. | Mod | B66 LTE 5 MHz + B66 LTE 5 MHz | | B66 DSS 10 MHz | | Summation Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dBm) | Frequency (MHz) | Measured Value (dBm) | | |
| 0 | QPSK | 2115.00 | 42.00 | 2175.00 | 42.25 | 45.13 | 32.61 |
| | 16QAM | 2115.00 | 42.05 | 2175.00 | 42.19 | 45.13 | 32.60 |
| | 64QAM | 2115.00 | 41.96 | 2175.00 | 42.16 | 45.07 | 32.14 |
| | 256QAM | 2115.00 | 42.04 | 2175.00 | 42.13 | 45.09 | 32.31 |
| 1 | QPSK | 2115.00 | 41.17 | 2175.00 | 41.54 | 44.37 | 27.36 |
| | 16QAM | 2115.00 | 41.19 | 2175.00 | 41.46 | 44.34 | 27.15 |
| | 64QAM | 2115.00 | 41.16 | 2175.00 | 41.56 | 44.37 | 27.38 |
| | 256QAM | 2115.00 | 41.17 | 2175.00 | 41.44 | 44.32 | 27.04 |
| 2 | QPSK | 2115.00 | 41.00 | 2175.00 | 41.06 | 44.04 | 25.35 |
| | 16QAM | 2115.00 | 40.89 | 2175.00 | 41.01 | 43.96 | 24.90 |
| | 64QAM | 2115.00 | 40.94 | 2175.00 | 41.06 | 44.01 | 25.19 |
| | 256QAM | 2115.00 | 40.94 | 2175.00 | 41.08 | 44.02 | 25.24 |
| 3 | QPSK | 2115.00 | 40.91 | 2175.00 | 40.93 | 43.93 | 24.74 |
| | 16QAM | 2115.00 | 41.09 | 2175.00 | 41.10 | 44.11 | 25.74 |
| | 64QAM | 2115.00 | 41.02 | 2175.00 | 41.01 | 44.03 | 25.27 |
| | 256QAM | 2115.00 | 41.00 | 2175.00 | 40.99 | 44.01 | 25.16 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2115.00 + 2175.00 | 110.07 | 110.39 | 109.99 | 109.74 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier]**

| Ant. | Mod | B66 LTE 5 MHz | | B66 LTE 15 MHz + B66 DSS 10 MHz | | Summation Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dBm) | Frequency (MHz) | Measured Value (dBm) | | |
| 0 | QPSK | 2112.50 | 36.66 | 2167.50 | 43.84 | 44.60 | 28.87 |
| | 16QAM | 2112.50 | 36.57 | 2167.50 | 43.78 | 44.54 | 28.42 |
| | 64QAM | 2112.50 | 36.41 | 2167.50 | 43.79 | 44.52 | 28.31 |
| | 256QAM | 2112.50 | 36.44 | 2167.50 | 43.76 | 44.50 | 28.18 |
| 1 | QPSK | 2112.50 | 36.28 | 2167.50 | 43.63 | 44.37 | 27.33 |
| | 16QAM | 2112.50 | 36.28 | 2167.50 | 43.54 | 44.29 | 26.85 |
| | 64QAM | 2112.50 | 36.27 | 2167.50 | 43.56 | 44.30 | 26.92 |
| | 256QAM | 2112.50 | 36.19 | 2167.50 | 43.59 | 44.32 | 27.04 |
| 2 | QPSK | 2112.50 | 36.09 | 2167.50 | 43.33 | 44.08 | 25.61 |
| | 16QAM | 2112.50 | 36.09 | 2167.50 | 43.27 | 44.03 | 25.28 |
| | 64QAM | 2112.50 | 36.08 | 2167.50 | 43.31 | 44.06 | 25.48 |
| | 256QAM | 2112.50 | 36.10 | 2167.50 | 43.30 | 44.06 | 25.46 |
| 3 | QPSK | 2112.50 | 36.06 | 2167.50 | 43.28 | 44.03 | 25.29 |
| | 16QAM | 2112.50 | 36.09 | 2167.50 | 43.21 | 43.98 | 25.01 |
| | 64QAM | 2112.50 | 36.07 | 2167.50 | 43.27 | 44.03 | 25.28 |
| | 256QAM | 2112.50 | 36.13 | 2167.50 | 43.24 | 44.02 | 25.21 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2112.50 + 2167.50 | 107.10 | 105.56 | 106.00 | 105.89 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier]**

| Ant. | Mod | B66 LTE 5 MHz + B66 LTE 15 MHz | | B66 DSS 10 MHz | | Summation Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dBm) | Frequency (MHz) | Measured Value (dBm) | | |
| 0 | QPSK | 2120.00 | 43.14 | 2175.00 | 40.40 | 44.99 | 31.54 |
| | 16QAM | 2120.00 | 43.09 | 2175.00 | 40.48 | 44.99 | 31.54 |
| | 64QAM | 2120.00 | 43.24 | 2175.00 | 40.56 | 45.11 | 32.45 |
| | 256QAM | 2120.00 | 43.20 | 2175.00 | 40.47 | 45.05 | 32.03 |
| 1 | QPSK | 2120.00 | 42.23 | 2175.00 | 39.70 | 44.16 | 26.04 |
| | 16QAM | 2120.00 | 42.24 | 2175.00 | 39.73 | 44.17 | 26.15 |
| | 64QAM | 2120.00 | 42.23 | 2175.00 | 39.77 | 44.18 | 26.21 |
| | 256QAM | 2120.00 | 42.22 | 2175.00 | 39.70 | 44.15 | 26.01 |
| 2 | QPSK | 2120.00 | 42.15 | 2175.00 | 39.44 | 44.01 | 25.19 |
| | 16QAM | 2120.00 | 42.15 | 2175.00 | 39.46 | 44.02 | 25.22 |
| | 64QAM | 2120.00 | 42.23 | 2175.00 | 39.51 | 44.09 | 25.64 |
| | 256QAM | 2120.00 | 42.20 | 2175.00 | 39.41 | 44.04 | 25.33 |
| 3 | QPSK | 2120.00 | 42.16 | 2175.00 | 39.27 | 43.96 | 24.87 |
| | 16QAM | 2120.00 | 42.17 | 2175.00 | 39.22 | 43.95 | 24.84 |
| | 64QAM | 2120.00 | 42.19 | 2175.00 | 39.35 | 44.01 | 25.16 |
| | 256QAM | 2120.00 | 42.12 | 2175.00 | 39.36 | 43.97 | 24.93 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | Output Power(Conducted) | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W | | | |
| 2120.00 + 2175.00 | 107.64 | 107.76 | 109.47 | 108.30 |

## Plot Data of RF Output Power

### Antenna 1 / B2 LTE 5 MHz 1 Carrier / 16QAM / Middle


### Antenna 1 / B2 LTE 10 MHz 1 Carrier / 16QAM / Middle

## Antenna 1 / B2 LTE 15 MHz 1 Carrier / QPSK / Middle


## Antenna 1 / B2 LTE 20 MHz 1 Carrier / 256QAM / Middle

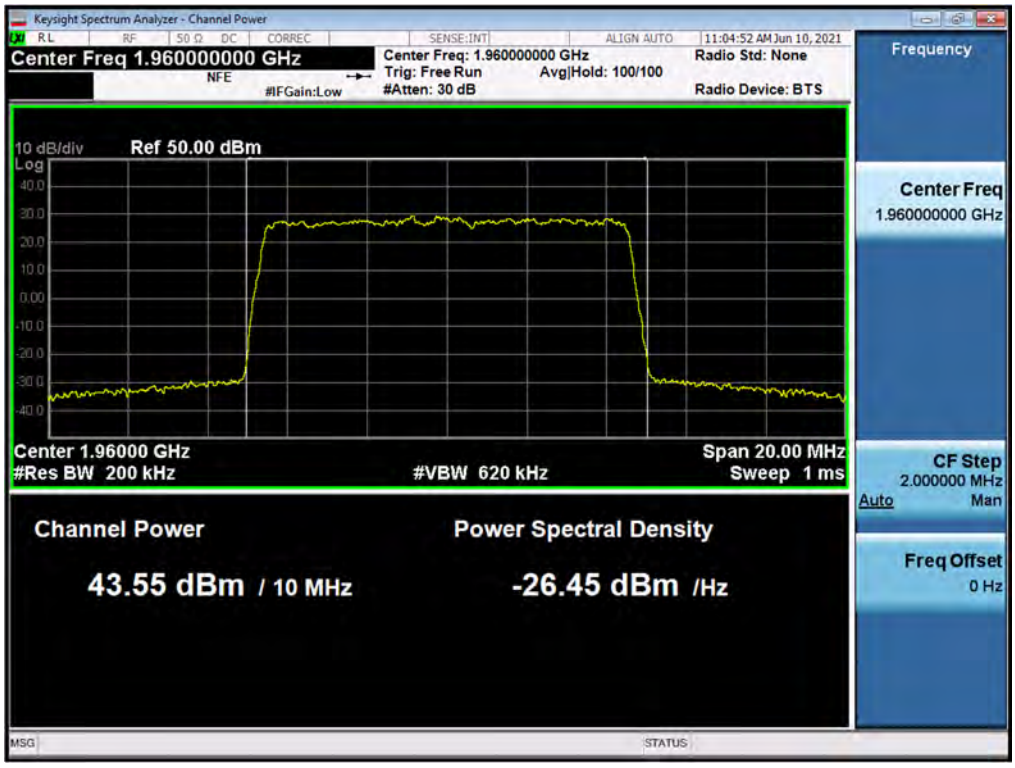
## Antenna 2 / B66 LTE 5 MHz 1 Carrier / QPSK / Middle


## Antenna 2 / B66 LTE 10 MHz 1 Carrier / 256QAM / Middle

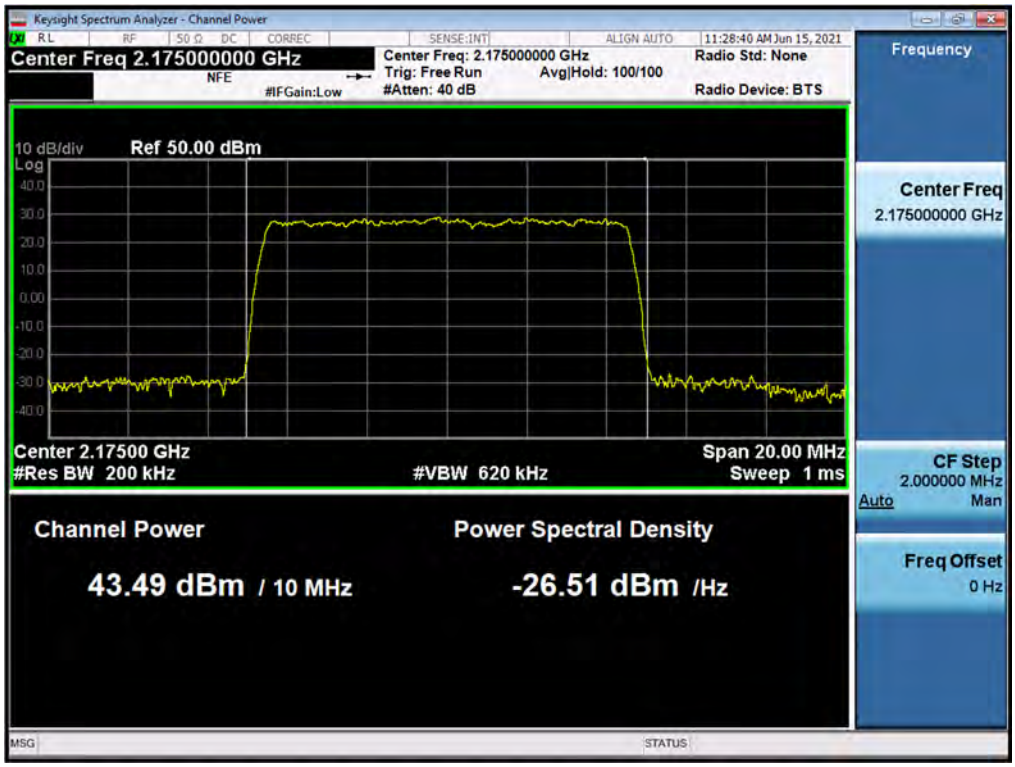
Antenna 2 / B66 LTE 15 MHz 1 Carrier / QPSK / Middle


Antenna 2 / B66 LTE 20 MHz 1 Carrier / 256QAM / Middle

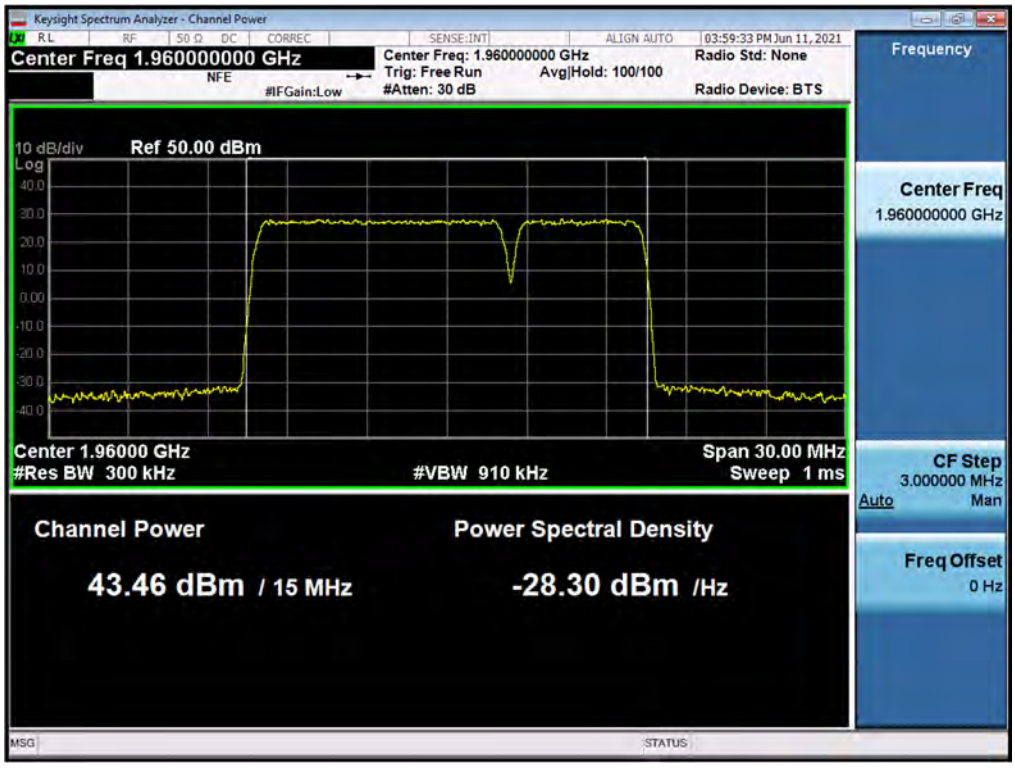
Antenna 0 / B2 DSS 10 MHz 1 Carrier/ 16QAM / Middle



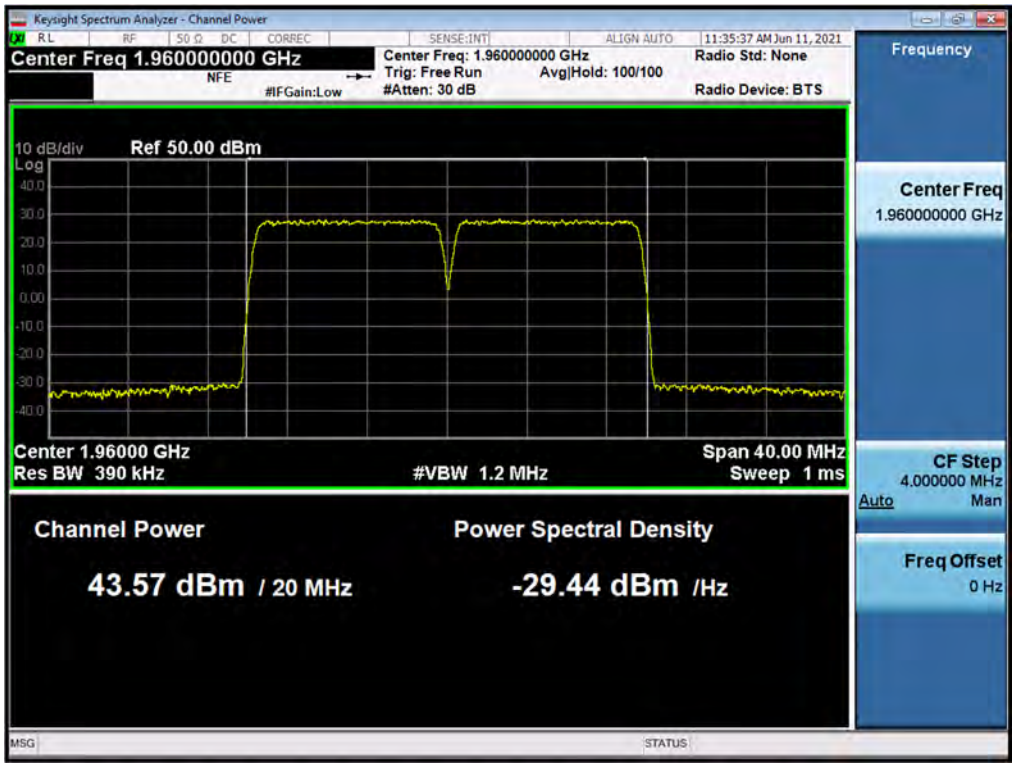

Antenna 0 / B66 DSS 10 MHz 1 Carrier/ 64QAM / High



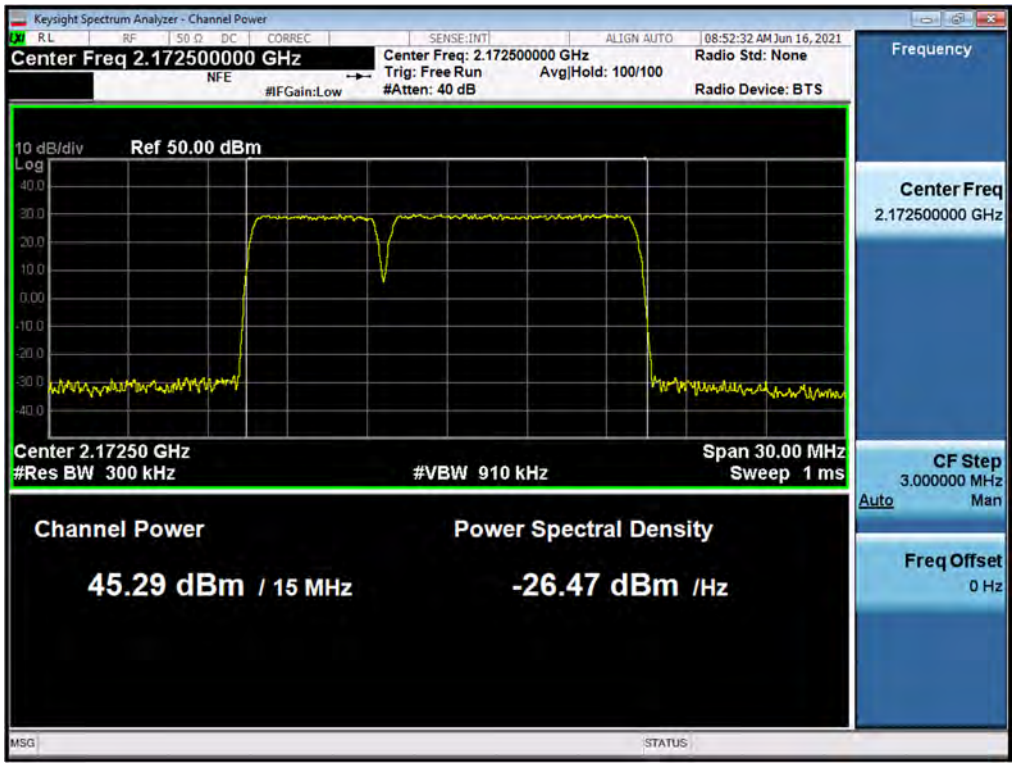
Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Middle



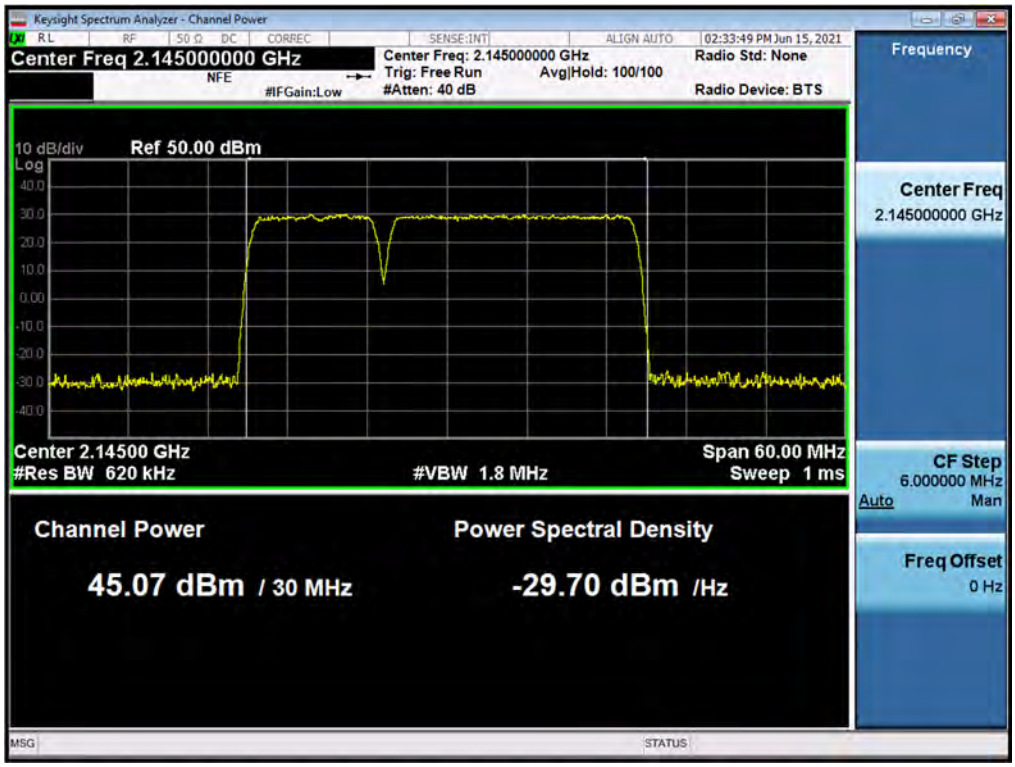

Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle



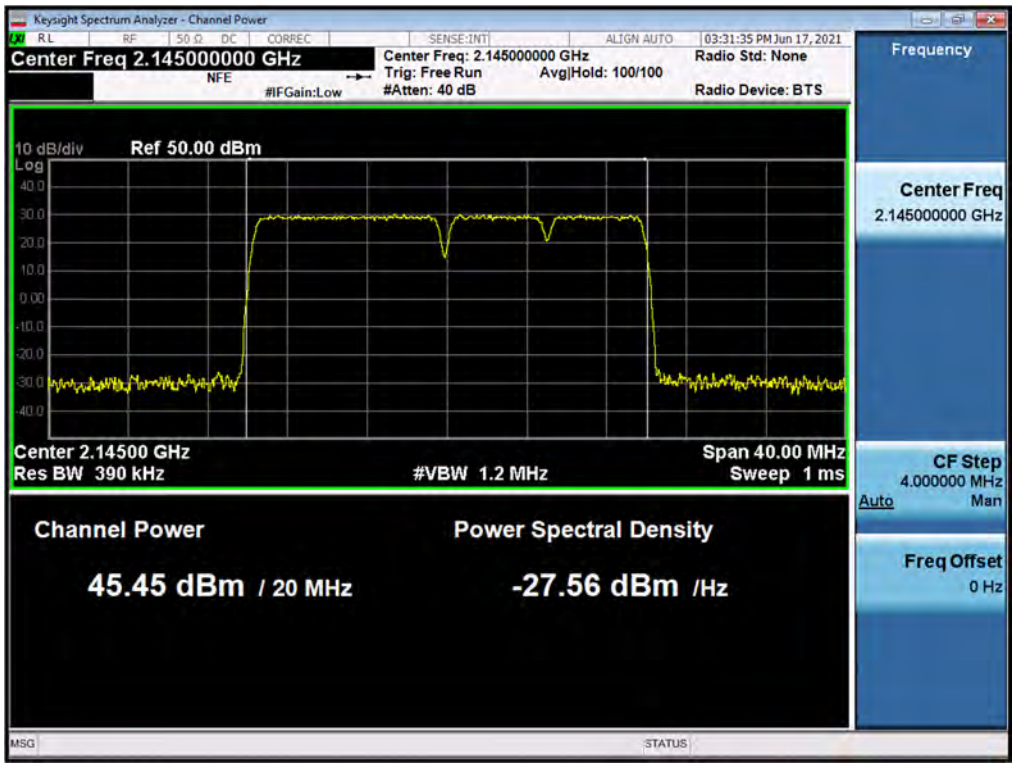
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High



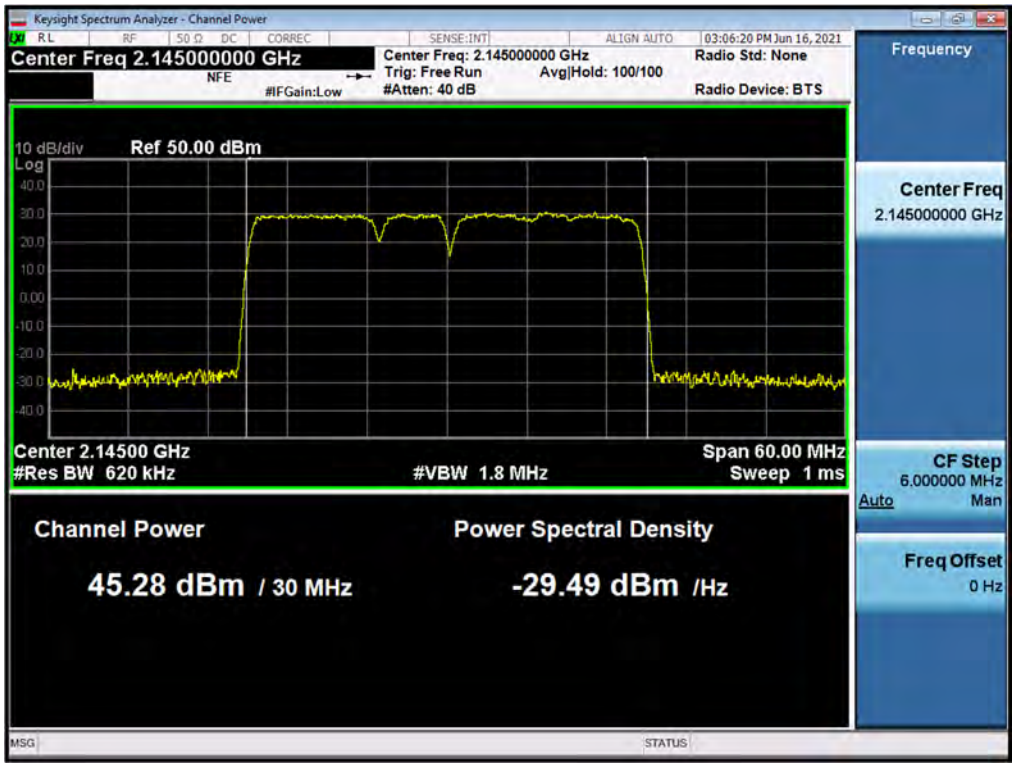

Antenna 0 / B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle



Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [3 Carrier] / Contiguous / QPSK / Middle

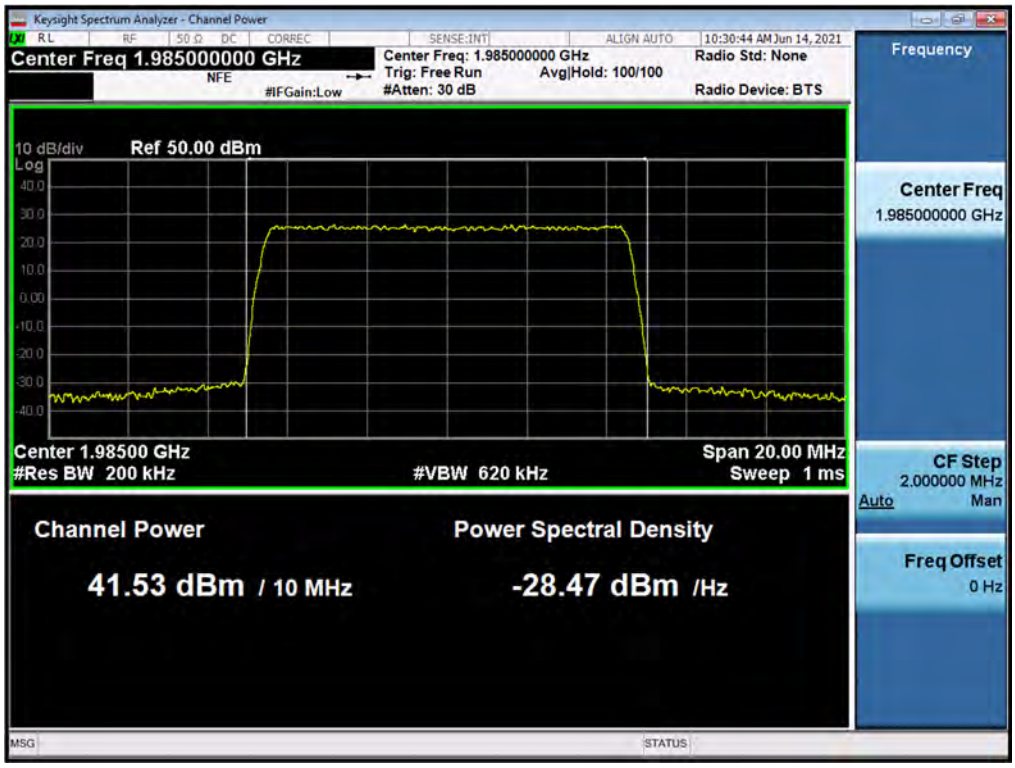



Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle

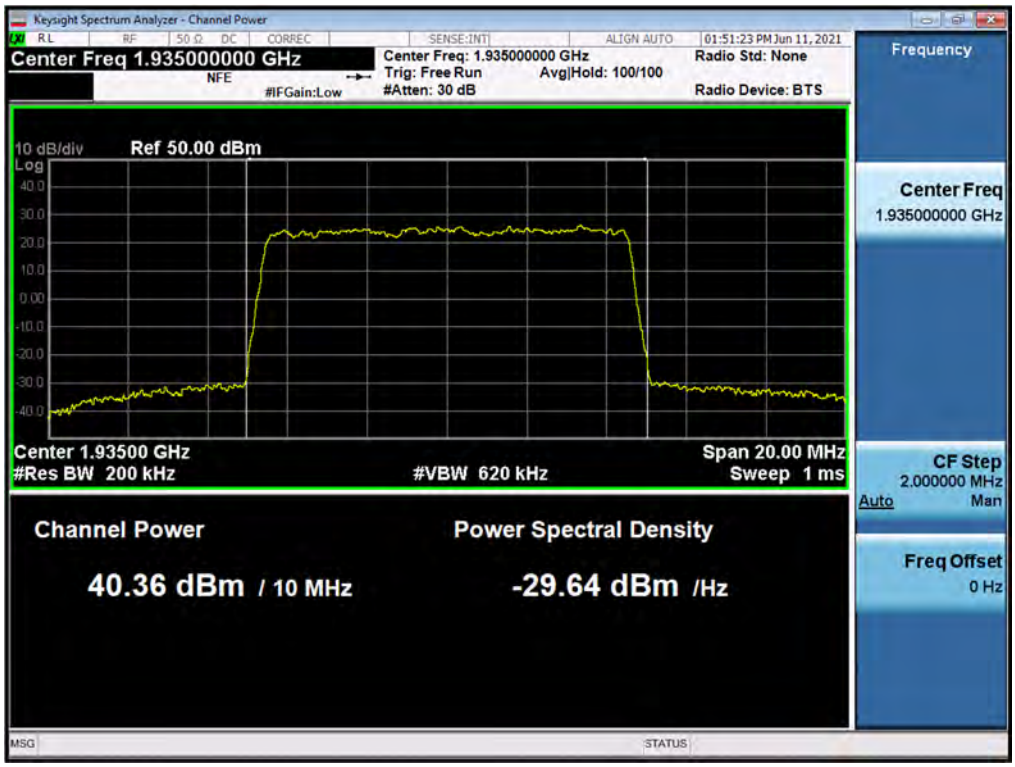


Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 LTE 5 MHz / Non-Contiguous / QPSK / Low

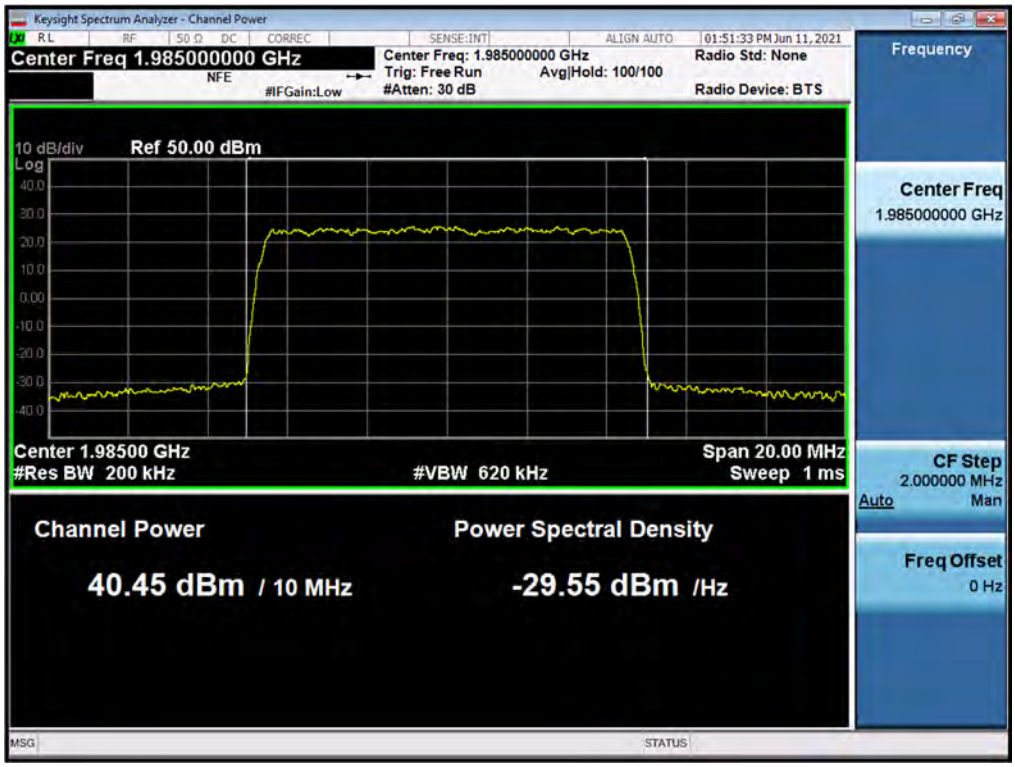

Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 DSS 10 MHz / Non-Contiguous / QPSK / High



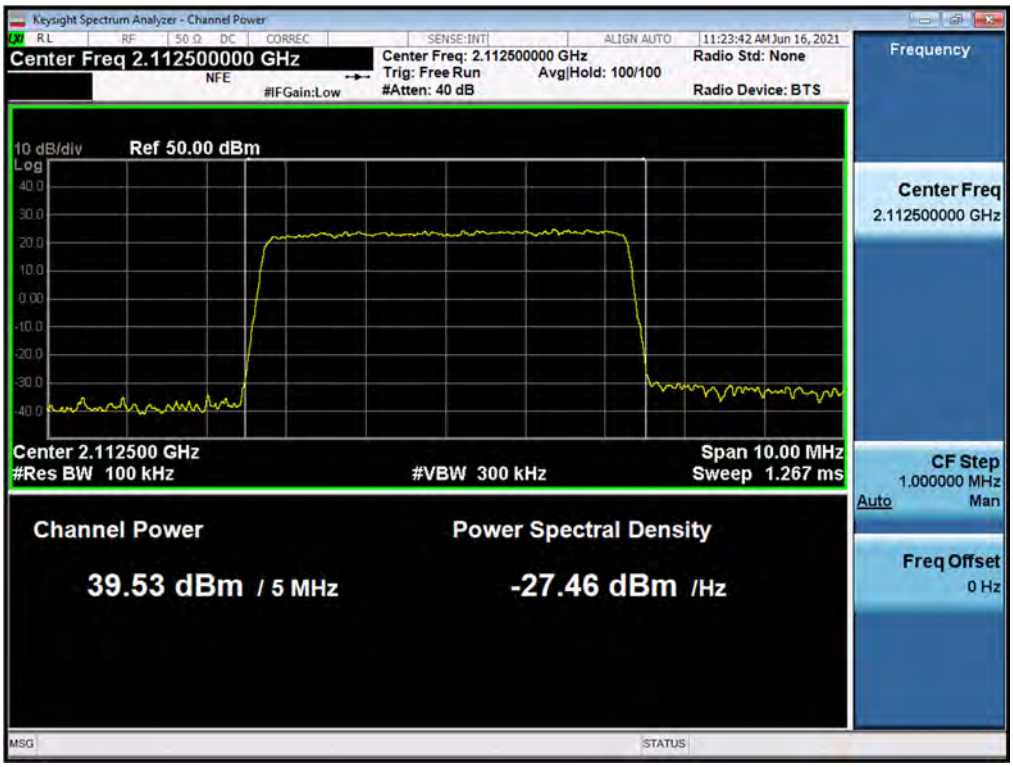
Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 LTE 10 MHz / Non-Contiguous / 16QAM / Low



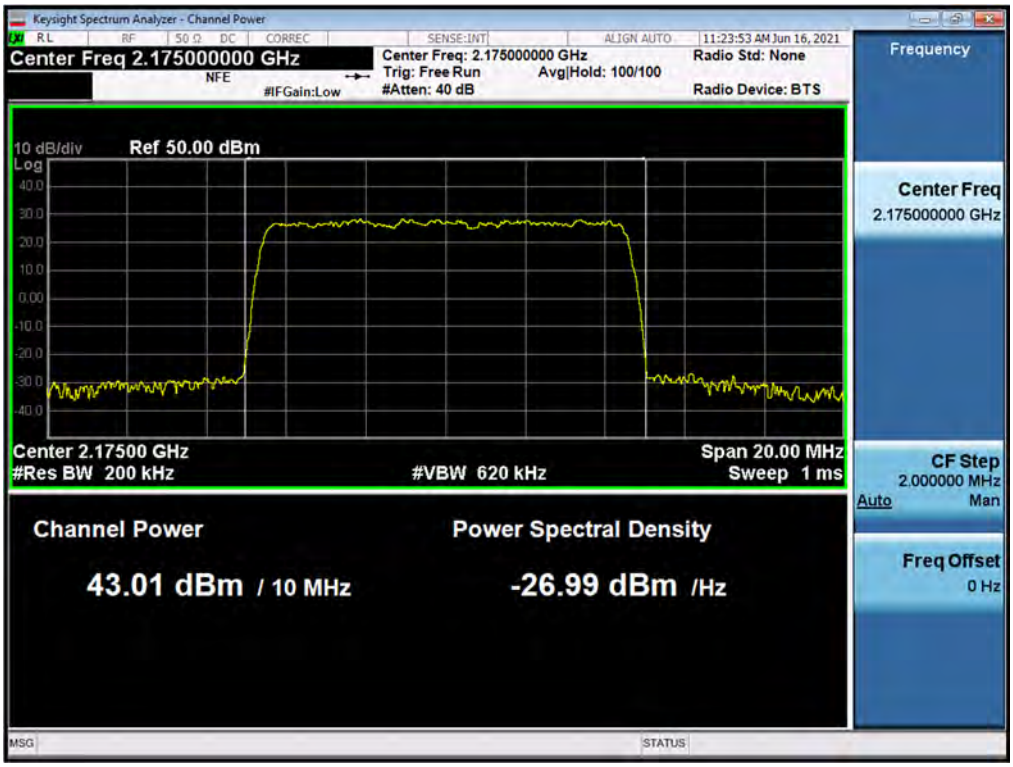

Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 DSS 10 MHz / Non-Contiguous / 16QAM / High



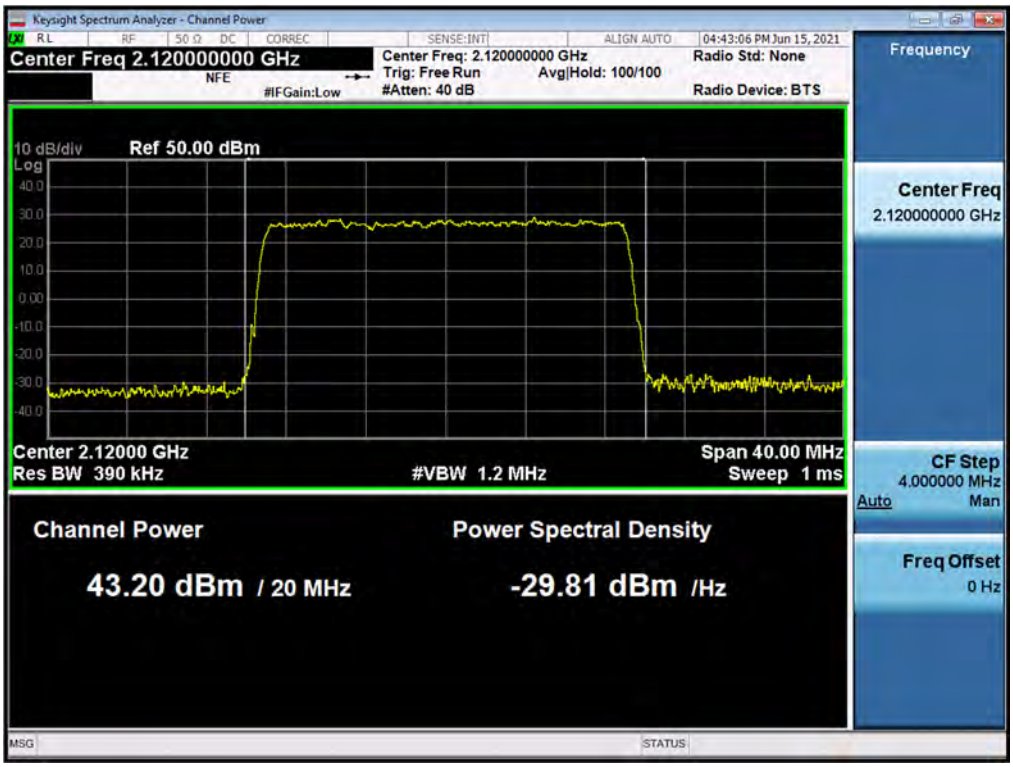
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 LTE 5 MHz / Non-Contiguous / 64QAM / Low



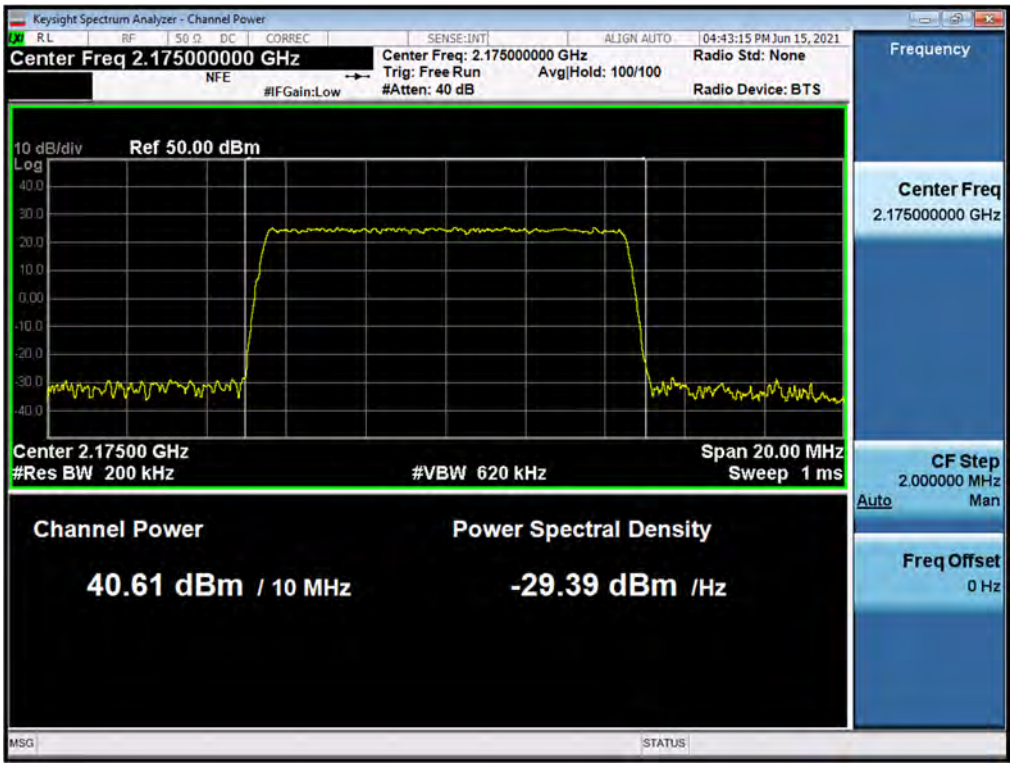

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 64QAM / High



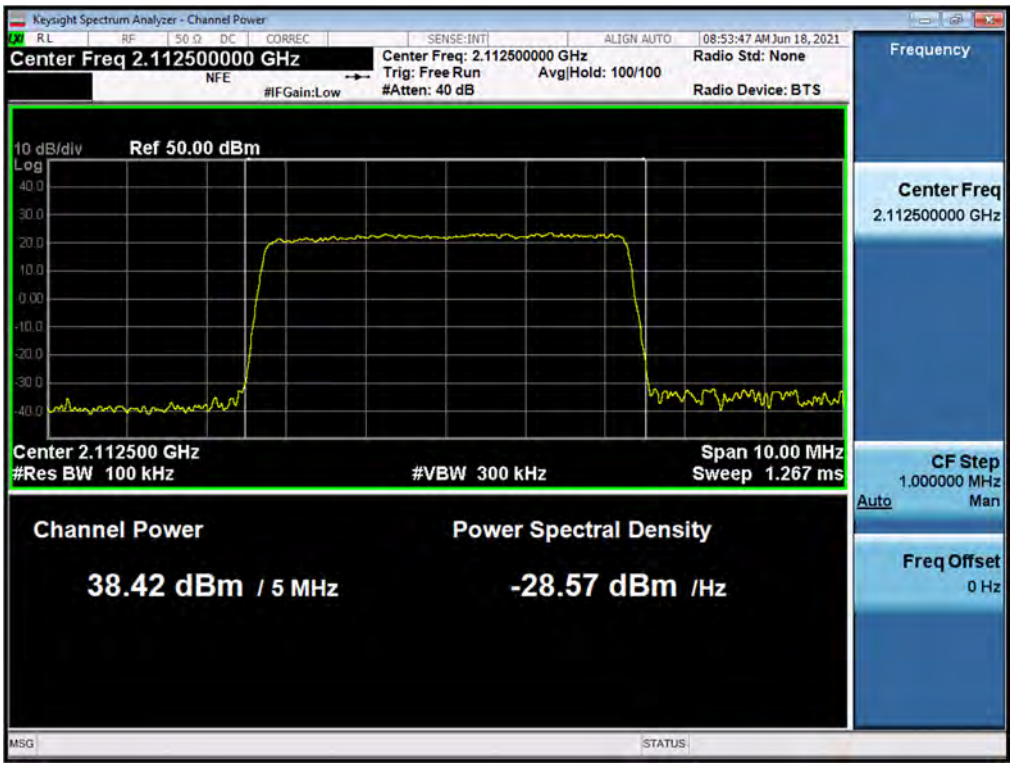
Antenna 0 / B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 LTE 20 MHz / Non-Contiguous / 16QAM / Low



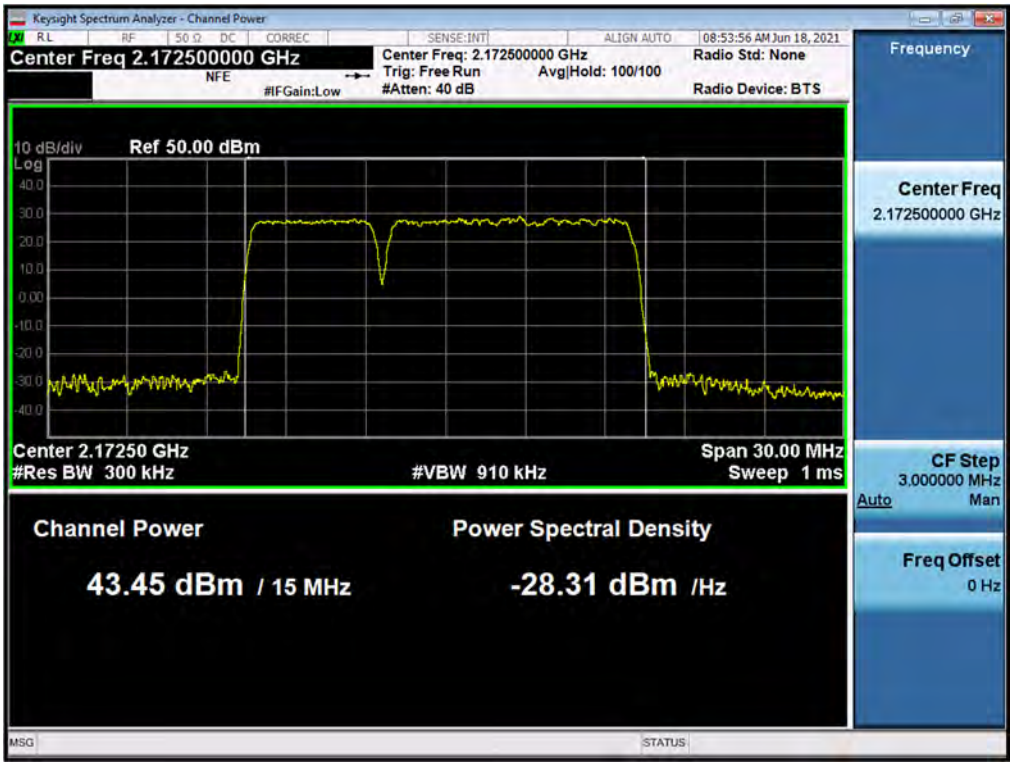

Antenna 0 / B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 16QAM / High



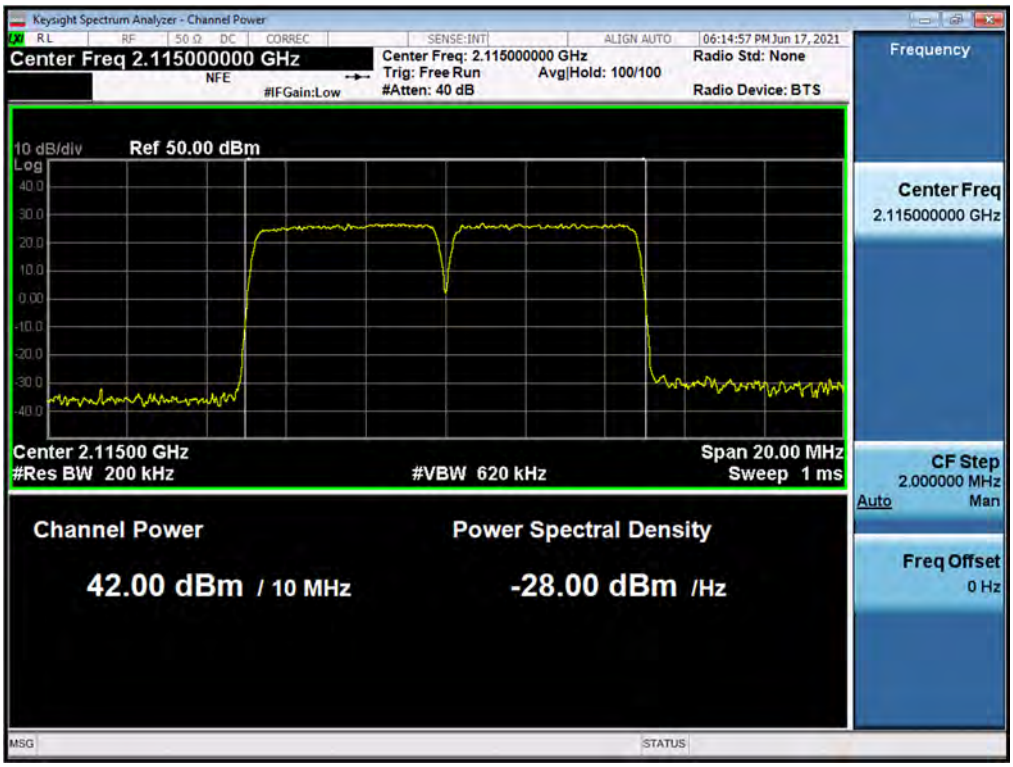
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz / Non-Contiguous / 256QAM / Low



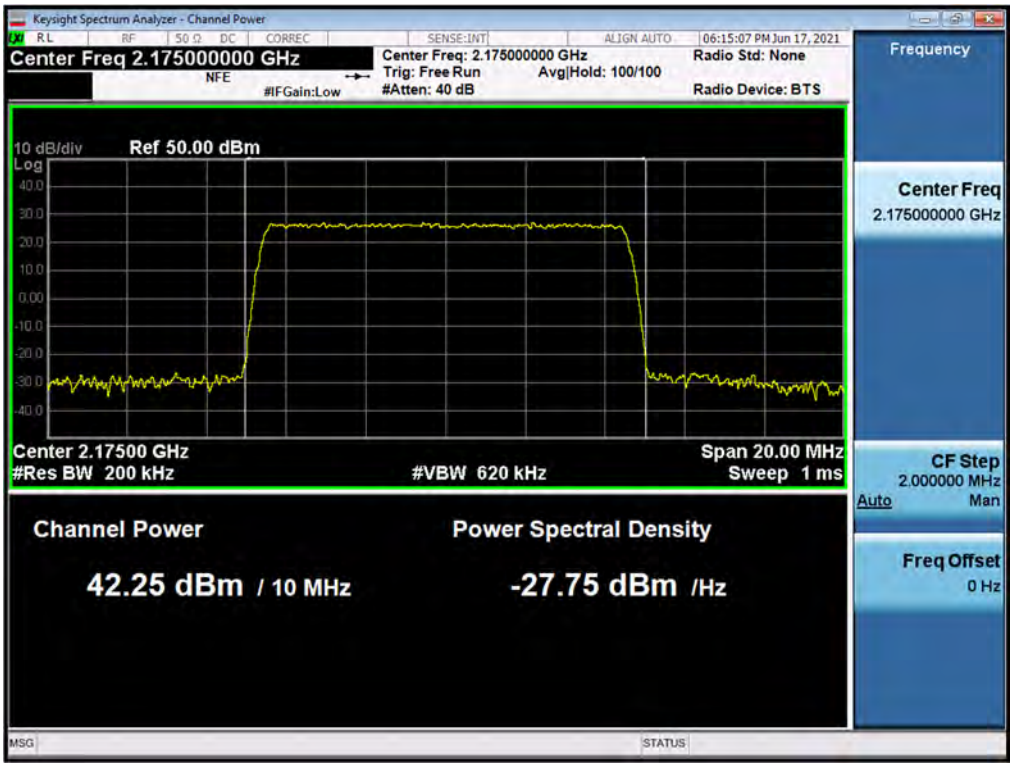

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz + B66 DSS 10 MHz / Non-Contiguous / 256QAM / High



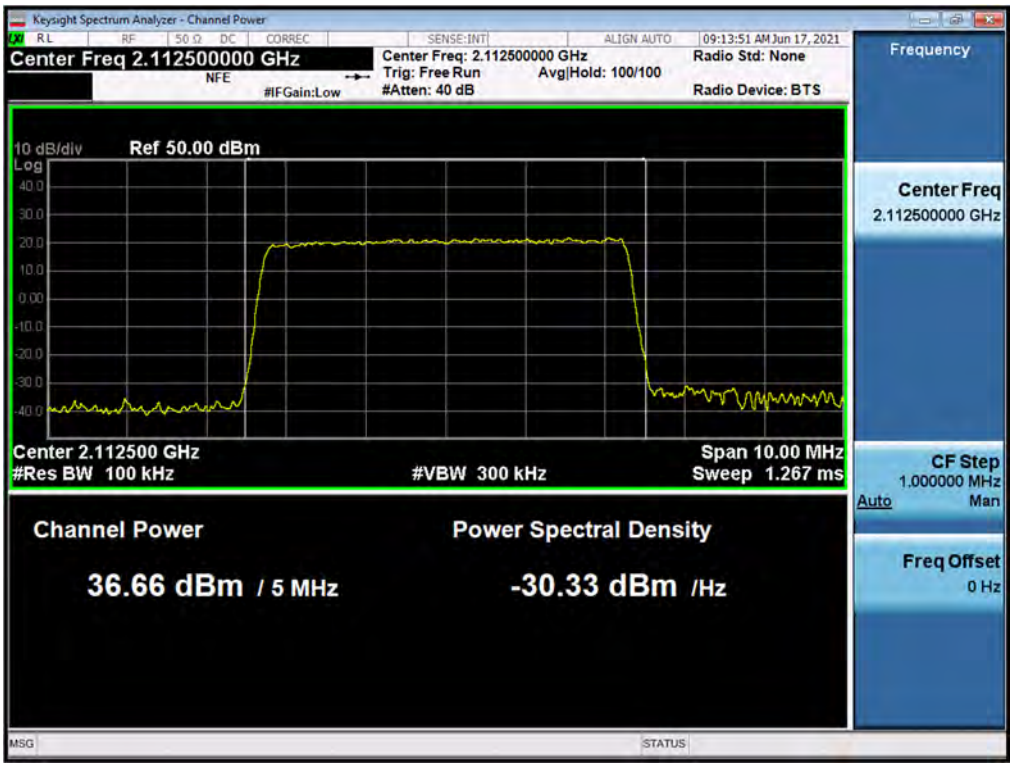
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 LTE 5 MHz + B66 LTE 5 MHz / Non-Contiguous / QPSK / Low



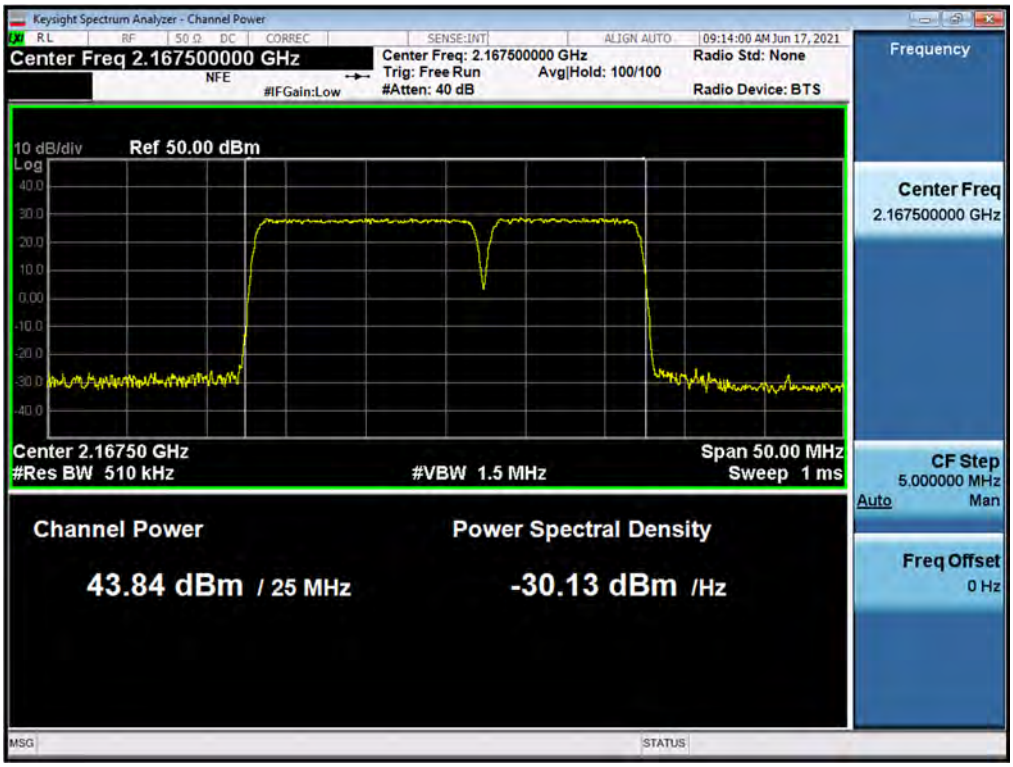

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 DSS 10 MHz / Non-Contiguous / QPSK / High



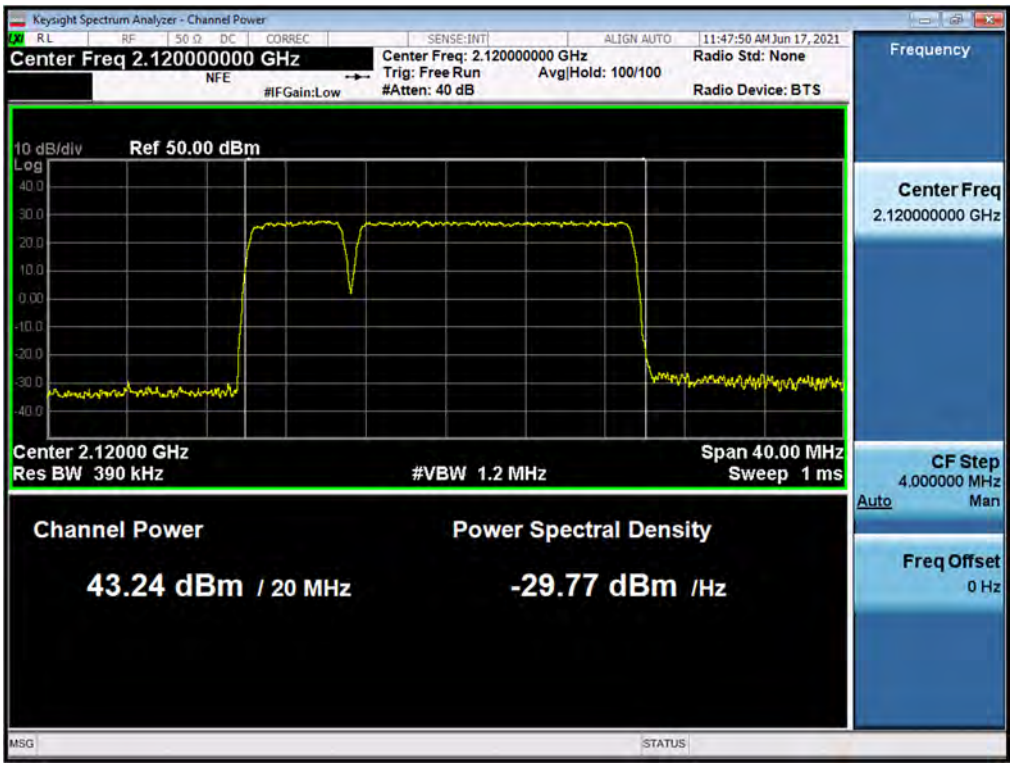
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz / Non-Contiguous / QPSK / Low



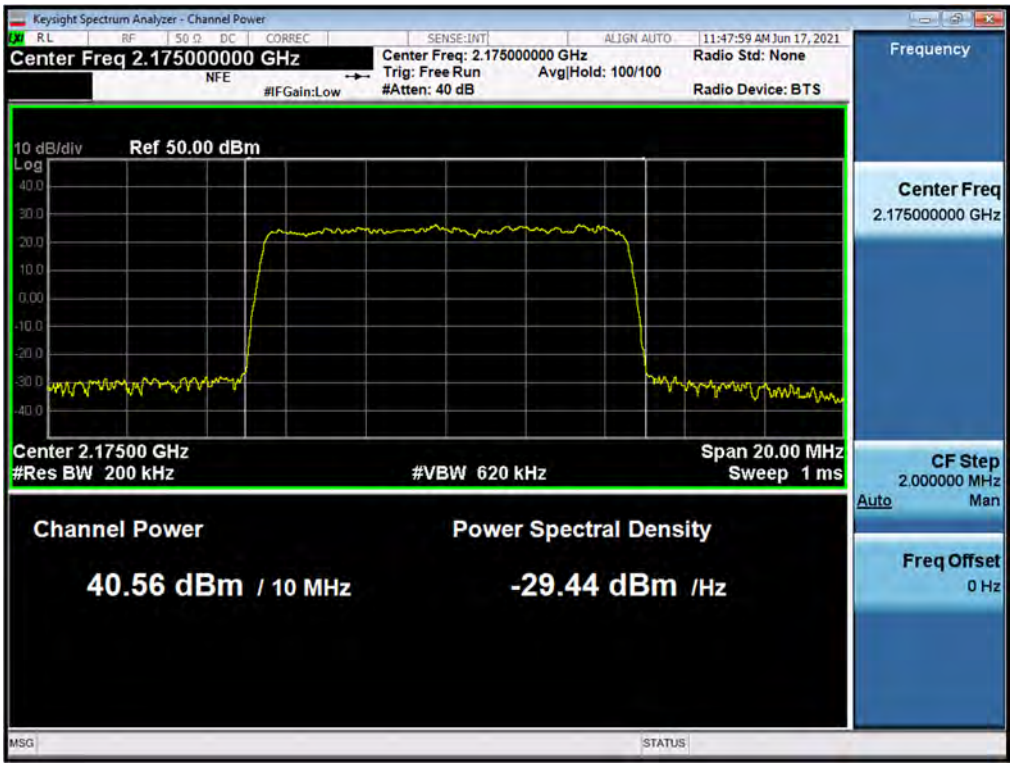

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 15 MHz + B66 DSS 10 MHz / Non-Contiguous / QPSK / High



Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 LTE 5 MHz + B66 LTE 15 MHz / Non-Contiguous / 64QAM / Low




Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 64QAM / High



## Tabular Data of PSD

### B2 LTE 5 MHz 1 Carrier

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 1 | QPSK | Middle | 1959.13 | 36.89 | 4.89 |
| | 16QAM | Middle | 1960.83 | 37.21 | 5.26 |
| | 64QAM | Middle | 1960.51 | 36.65 | 4.62 |
| | 256QAM | Middle | 1958.70 | 36.87 | 4.86 |

### B2 LTE 10 MHz 1 Carrier

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 1 | QPSK | Middle | 1962.56 | 33.97 | 2.50 |
| | 16QAM | Middle | 1963.66 | 34.26 | 2.67 |
| | 64QAM | Middle | 1958.02 | 33.94 | 2.48 |
| | 256QAM | Middle | 1957.76 | 33.82 | 2.41 |

### B2 LTE 15 MHz 1 Carrier

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 1 | QPSK | Middle | 1964.89 | 32.25 | 1.68 |
| | 16QAM | Middle | 1954.63 | 32.66 | 1.85 |
| | 64QAM | Middle | 1954.66 | 32.00 | 1.59 |
| | 256QAM | Middle | 1959.37 | 32.25 | 1.68 |

### B2 LTE 20 MHz 1 Carrier

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 1 | QPSK | Middle | 1966.64 | 30.78 | 1.20 |
| | 16QAM | Middle | 1954.40 | 31.28 | 1.34 |
| | 64QAM | Middle | 1965.92 | 30.89 | 1.23 |
| | 256QAM | Middle | 1965.52 | 30.97 | 1.25 |

**B66 LTE 5 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Middle | 2144.58 | 37.26 | 5.32 |
| | 16QAM | Middle | 2146.21 | 37.60 | 5.76 |
| | 64QAM | Middle | 2146.19 | 37.21 | 5.26 |
| | 256QAM | Middle | 2146.07 | 37.22 | 5.27 |

**B66 LTE 10 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Middle | 2146.12 | 35.84 | 3.84 |
| | 16QAM | Middle | 2144.66 | 36.53 | 4.49 |
| | 64QAM | Middle | 2145.88 | 36.05 | 4.03 |
| | 256QAM | Middle | 2146.06 | 35.92 | 3.90 |

**B66 LTE 15 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Middle | 2146.32 | 34.26 | 2.67 |
| | 16QAM | Middle | 2144.97 | 35.00 | 3.16 |
| | 64QAM | Middle | 2144.49 | 34.34 | 2.72 |
| | 256QAM | Middle | 2146.05 | 34.10 | 2.57 |

**B66 LTE 20 MHz 1 Carrier**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Middle | 2149.48 | 32.92 | 1.96 |
| | 16QAM | Middle | 2138.80 | 33.19 | 2.08 |
| | 64QAM | Middle | 2147.00 | 32.84 | 1.92 |
| | 256QAM | Middle | 2152.36 | 33.04 | 2.02 |

B2 DSS 10 MHz 1 Carrier

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 1935.00 | 35.22 | 3.33 |
| | | Middle | 1960.00 | 34.83 | 3.04 |
| | | High | 1985.00 | 34.93 | 3.11 |
| | 16QAM | Low | 1935.00 | 35.31 | 3.40 |
| | | Middle | 1960.00 | 35.11 | 3.24 |
| | | High | 1985.00 | 35.22 | 3.32 |
| | 64QAM | Low | 1935.00 | 35.07 | 3.21 |
| | | Middle | 1960.00 | 35.05 | 3.20 |
| | | High | 1985.00 | 34.87 | 3.07 |
| | 256QAM | Low | 1935.00 | 34.92 | 3.10 |
| | | Middle | 1960.00 | 34.88 | 3.08 |
| | | High | 1985.00 | 34.90 | 3.09 |
| 1 | QPSK | Low | 1935.00 | 34.72 | 2.96 |
| | | Middle | 1960.00 | 34.61 | 2.89 |
| | | High | 1985.00 | 34.53 | 2.84 |
| | 16QAM | Low | 1935.00 | 35.02 | 3.18 |
| | | Middle | 1960.00 | 34.86 | 3.06 |
| | | High | 1985.00 | 34.80 | 3.02 |
| | 64QAM | Low | 1935.00 | 34.86 | 3.06 |
| | | Middle | 1960.00 | 34.48 | 2.81 |
| | | High | 1985.00 | 34.57 | 2.86 |
| | 256QAM | Low | 1935.00 | 34.51 | 2.83 |
| | | Middle | 1960.00 | 34.52 | 2.83 |
| | | High | 1985.00 | 34.57 | 2.86 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 1935.00 | 34.45 | 2.79 |
| | | Middle | 1960.00 | 34.54 | 2.84 |
| | | High | 1985.00 | 34.63 | 2.90 |
| | 16QAM | Low | 1935.00 | 34.83 | 3.04 |
| | | Middle | 1960.00 | 34.91 | 3.10 |
| | | High | 1985.00 | 34.90 | 3.09 |
| | 64QAM | Low | 1935.00 | 34.55 | 2.85 |
| | | Middle | 1960.00 | 34.73 | 2.97 |
| | | High | 1985.00 | 34.64 | 2.91 |
| | 256QAM | Low | 1935.00 | 34.36 | 2.73 |
| | | Middle | 1960.00 | 34.72 | 2.97 |
| | | High | 1985.00 | 34.79 | 3.01 |
| 3 | QPSK | Low | 1935.00 | 34.69 | 2.94 |
| | | Middle | 1960.00 | 34.48 | 2.80 |
| | | High | 1985.00 | 34.70 | 2.95 |
| | 16QAM | Low | 1935.00 | 34.90 | 3.09 |
| | | Middle | 1960.00 | 34.82 | 3.03 |
| | | High | 1985.00 | 34.98 | 3.15 |
| | 64QAM | Low | 1935.00 | 34.45 | 2.79 |
| | | Middle | 1960.00 | 34.61 | 2.89 |
| | | High | 1985.00 | 34.72 | 2.96 |
| | 256QAM | Low | 1935.00 | 34.48 | 2.81 |
| | | Middle | 1960.00 | 34.53 | 2.84 |
| | | High | 1985.00 | 34.72 | 2.96 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 1935.00 | 12.02 | 12.71 | 11.91 | 11.47 |
| 1960.00 | 11.58 | 12.43 | 11.87 | 11.71 |
| 1985.00 | 11.81 | 12.58 | 11.81 | 11.93 |

B66 DSS 10 MHz 1 Carrier

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2115.00 | 34.74 | 2.98 |
| | | Middle | 2145.00 | 34.65 | 2.92 |
| | | High | 2175.00 | 34.84 | 3.04 |
| | 16QAM | Low | 2115.00 | 34.89 | 3.08 |
| | | Middle | 2145.00 | 35.05 | 3.20 |
| | | High | 2175.00 | 35.08 | 3.22 |
| | 64QAM | Low | 2115.00 | 35.02 | 3.17 |
| | | Middle | 2145.00 | 35.00 | 3.16 |
| | | High | 2175.00 | 35.21 | 3.32 |
| | 256QAM | Low | 2115.00 | 35.00 | 3.16 |
| | | Middle | 2145.00 | 34.88 | 3.07 |
| | | High | 2175.00 | 35.04 | 3.19 |
| 1 | QPSK | Low | 2115.00 | 34.64 | 2.91 |
| | | Middle | 2145.00 | 34.26 | 2.67 |
| | | High | 2175.00 | 35.00 | 3.16 |
| | 16QAM | Low | 2115.00 | 34.72 | 2.96 |
| | | Middle | 2145.00 | 34.66 | 2.93 |
| | | High | 2175.00 | 34.83 | 3.04 |
| | 64QAM | Low | 2115.00 | 34.79 | 3.01 |
| | | Middle | 2145.00 | 34.67 | 2.93 |
| | | High | 2175.00 | 35.12 | 3.25 |
| | 256QAM | Low | 2115.00 | 34.46 | 2.79 |
| | | Middle | 2145.00 | 34.70 | 2.95 |
| | | High | 2175.00 | 34.83 | 3.04 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2115.00 | 33.56 | 2.27 |
| | | Middle | 2145.00 | 33.81 | 2.40 |
| | | High | 2175.00 | 34.20 | 2.63 |
| | 16QAM | Low | 2115.00 | 33.87 | 2.44 |
| | | Middle | 2145.00 | 33.64 | 2.31 |
| | | High | 2175.00 | 34.14 | 2.59 |
| | 64QAM | Low | 2115.00 | 34.01 | 2.52 |
| | | Middle | 2145.00 | 33.91 | 2.46 |
| | | High | 2175.00 | 34.32 | 2.70 |
| | 256QAM | Low | 2115.00 | 34.08 | 2.56 |
| | | Middle | 2145.00 | 33.87 | 2.44 |
| | | High | 2175.00 | 34.26 | 2.67 |
| 3 | QPSK | Low | 2115.00 | 33.65 | 2.32 |
| | | Middle | 2145.00 | 33.77 | 2.38 |
| | | High | 2175.00 | 33.81 | 2.40 |
| | 16QAM | Low | 2115.00 | 33.88 | 2.44 |
| | | Middle | 2145.00 | 33.84 | 2.42 |
| | | High | 2175.00 | 33.86 | 2.43 |
| | 64QAM | Low | 2115.00 | 33.94 | 2.48 |
| | | Middle | 2145.00 | 34.06 | 2.55 |
| | | High | 2175.00 | 34.04 | 2.54 |
| | 256QAM | Low | 2115.00 | 33.97 | 2.50 |
| | | Middle | 2145.00 | 34.11 | 2.57 |
| | | High | 2175.00 | 34.06 | 2.55 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2115.00 | 10.47 | 10.93 | 11.18 | 11.01 |
| 2145.00 | 10.37 | 10.86 | 11.10 | 11.03 |
| 2175.00 | 11.24 | 11.29 | 11.81 | 11.45 |

## Tabular Data of Contiguous PSD

### B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 1937.50 | 33.13 | 2.06 |
| | | Middle | 1960.00 | 33.03 | 2.01 |
| | | High | 1982.50 | 32.97 | 1.98 |
| | 16QAM | Low | 1937.50 | 33.37 | 2.17 |
| | | Middle | 1960.00 | 33.24 | 2.11 |
| | | High | 1982.50 | 33.37 | 2.17 |
| | 64QAM | Low | 1937.50 | 33.31 | 2.14 |
| | | Middle | 1960.00 | 33.19 | 2.08 |
| | | High | 1982.50 | 32.96 | 1.98 |
| | 256QAM | Low | 1937.50 | 33.00 | 1.99 |
| | | Middle | 1960.00 | 32.97 | 1.98 |
| | | High | 1982.50 | 33.00 | 2.00 |
| 1 | QPSK | Low | 1937.50 | 32.76 | 1.89 |
| | | Middle | 1960.00 | 32.98 | 1.99 |
| | | High | 1982.50 | 32.86 | 1.93 |
| | 16QAM | Low | 1937.50 | 32.82 | 1.92 |
| | | Middle | 1960.00 | 33.32 | 2.15 |
| | | High | 1982.50 | 33.14 | 2.06 |
| | 64QAM | Low | 1937.50 | 32.58 | 1.81 |
| | | Middle | 1960.00 | 32.68 | 1.85 |
| | | High | 1982.50 | 32.63 | 1.83 |
| | 256QAM | Low | 1937.50 | 32.90 | 1.95 |
| | | Middle | 1960.00 | 32.86 | 1.93 |
| | | High | 1982.50 | 32.56 | 1.80 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 1937.50 | 32.84 | 1.92 |
| | | Middle | 1960.00 | 32.75 | 1.88 |
| | | High | 1982.50 | 32.63 | 1.83 |
| | 16QAM | Low | 1937.50 | 32.83 | 1.92 |
| | | Middle | 1960.00 | 33.12 | 2.05 |
| | | High | 1982.50 | 33.04 | 2.01 |
| | 64QAM | Low | 1937.50 | 32.73 | 1.87 |
| | | Middle | 1960.00 | 32.67 | 1.85 |
| | | High | 1982.50 | 32.66 | 1.84 |
| | 256QAM | Low | 1937.50 | 32.70 | 1.86 |
| | | Middle | 1960.00 | 32.84 | 1.92 |
| | | High | 1982.50 | 32.89 | 1.94 |
| 3 | QPSK | Low | 1937.50 | 32.89 | 1.95 |
| | | Middle | 1960.00 | 32.93 | 1.96 |
| | | High | 1982.50 | 32.99 | 1.99 |
| | 16QAM | Low | 1937.50 | 33.24 | 2.11 |
| | | Middle | 1960.00 | 32.96 | 1.98 |
| | | High | 1982.50 | 32.80 | 1.90 |
| | 64QAM | Low | 1937.50 | 32.90 | 1.95 |
| | | Middle | 1960.00 | 32.99 | 1.99 |
| | | High | 1982.50 | 32.87 | 1.94 |
| | 256QAM | Low | 1937.50 | 32.77 | 1.89 |
| | | Middle | 1960.00 | 32.89 | 1.94 |
| | | High | 1982.50 | 33.07 | 2.03 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 1937.50 | 7.81 | 8.12 | 7.78 | 7.70 |
| 1960.00 | 7.85 | 8.29 | 7.78 | 7.78 |
| 1982.50 | 7.74 | 8.15 | 7.59 | 7.77 |

**B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 1940.00 | 31.65 | 1.46 |
| | | Middle | 1960.00 | 31.93 | 1.56 |
| | | High | 1980.00 | 31.99 | 1.58 |
| | 16QAM | Low | 1940.00 | 32.00 | 1.58 |
| | | Middle | 1960.00 | 32.45 | 1.76 |
| | | High | 1980.00 | 32.25 | 1.68 |
| | 64QAM | Low | 1940.00 | 31.78 | 1.51 |
| | | Middle | 1960.00 | 32.23 | 1.67 |
| | | High | 1980.00 | 31.82 | 1.52 |
| | 256QAM | Low | 1940.00 | 31.98 | 1.58 |
| | | Middle | 1960.00 | 31.95 | 1.57 |
| | | High | 1980.00 | 31.77 | 1.50 |
| 1 | QPSK | Low | 1940.00 | 31.27 | 1.34 |
| | | Middle | 1960.00 | 31.54 | 1.42 |
| | | High | 1980.00 | 31.49 | 1.41 |
| | 16QAM | Low | 1940.00 | 31.86 | 1.54 |
| | | Middle | 1960.00 | 31.88 | 1.54 |
| | | High | 1980.00 | 31.68 | 1.47 |
| | 64QAM | Low | 1940.00 | 31.50 | 1.41 |
| | | Middle | 1960.00 | 31.50 | 1.41 |
| | | High | 1980.00 | 31.45 | 1.40 |
| | 256QAM | Low | 1940.00 | 31.56 | 1.43 |
| | | Middle | 1960.00 | 31.67 | 1.47 |
| | | High | 1980.00 | 31.84 | 1.53 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 1940.00 | 31.49 | 1.41 |
| | | Middle | 1960.00 | 31.69 | 1.47 |
| | | High | 1980.00 | 31.47 | 1.40 |
| | 16QAM | Low | 1940.00 | 31.63 | 1.46 |
| | | Middle | 1960.00 | 32.40 | 1.74 |
| | | High | 1980.00 | 31.72 | 1.49 |
| | 64QAM | Low | 1940.00 | 31.45 | 1.40 |
| | | Middle | 1960.00 | 31.62 | 1.45 |
| | | High | 1980.00 | 31.40 | 1.38 |
| | 256QAM | Low | 1940.00 | 31.56 | 1.43 |
| | | Middle | 1960.00 | 31.78 | 1.51 |
| | | High | 1980.00 | 31.63 | 1.45 |
| 3 | QPSK | Low | 1940.00 | 31.70 | 1.48 |
| | | Middle | 1960.00 | 31.68 | 1.47 |
| | | High | 1980.00 | 31.50 | 1.41 |
| | 16QAM | Low | 1940.00 | 31.92 | 1.55 |
| | | Middle | 1960.00 | 32.16 | 1.65 |
| | | High | 1980.00 | 31.79 | 1.51 |
| | 64QAM | Low | 1940.00 | 31.64 | 1.46 |
| | | Middle | 1960.00 | 31.53 | 1.42 |
| | | High | 1980.00 | 31.46 | 1.40 |
| | 256QAM | Low | 1940.00 | 31.95 | 1.57 |
| | | Middle | 1960.00 | 31.90 | 1.55 |
| | | High | 1980.00 | 31.95 | 1.57 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 1940.00 | 5.69 | 6.13 | 5.78 | 6.01 |
| 1960.00 | 5.93 | 6.68 | 5.96 | 6.09 |
| 1980.00 | 5.81 | 6.15 | 5.70 | 6.05 |

**B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2117.50 | 35.01 | 3.17 |
| | | Middle | 2145.00 | 34.70 | 2.95 |
| | | High | 2172.50 | 35.05 | 3.20 |
| | 16QAM | Low | 2117.50 | 35.21 | 3.32 |
| | | Middle | 2145.00 | 35.07 | 3.21 |
| | | High | 2172.50 | 35.02 | 3.17 |
| | 64QAM | Low | 2117.50 | 35.49 | 3.54 |
| | | Middle | 2145.00 | 35.10 | 3.24 |
| | | High | 2172.50 | 35.11 | 3.24 |
| | 256QAM | Low | 2117.50 | 35.22 | 3.33 |
| | | Middle | 2145.00 | 35.22 | 3.33 |
| | | High | 2172.50 | 35.21 | 3.32 |
| 1 | QPSK | Low | 2117.50 | 34.60 | 2.88 |
| | | Middle | 2145.00 | 34.56 | 2.85 |
| | | High | 2172.50 | 34.87 | 3.07 |
| | 16QAM | Low | 2117.50 | 34.79 | 3.01 |
| | | Middle | 2145.00 | 34.71 | 2.96 |
| | | High | 2172.50 | 35.24 | 3.34 |
| | 64QAM | Low | 2117.50 | 34.67 | 2.93 |
| | | Middle | 2145.00 | 35.16 | 3.28 |
| | | High | 2172.50 | 34.84 | 3.05 |
| | 256QAM | Low | 2117.50 | 34.85 | 3.05 |
| | | Middle | 2145.00 | 34.97 | 3.14 |
| | | High | 2172.50 | 35.09 | 3.23 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2117.50 | 33.82 | 2.41 |
| | | Middle | 2145.00 | 33.70 | 2.34 |
| | | High | 2172.50 | 34.02 | 2.52 |
| | 16QAM | Low | 2117.50 | 33.98 | 2.50 |
| | | Middle | 2145.00 | 34.04 | 2.54 |
| | | High | 2172.50 | 34.05 | 2.54 |
| | 64QAM | Low | 2117.50 | 33.72 | 2.36 |
| | | Middle | 2145.00 | 33.87 | 2.44 |
| | | High | 2172.50 | 34.40 | 2.75 |
| | 256QAM | Low | 2117.50 | 34.21 | 2.64 |
| | | Middle | 2145.00 | 33.80 | 2.40 |
| | | High | 2172.50 | 34.04 | 2.54 |
| 3 | QPSK | Low | 2117.50 | 33.84 | 2.42 |
| | | Middle | 2145.00 | 33.96 | 2.49 |
| | | High | 2172.50 | 33.83 | 2.42 |
| | 16QAM | Low | 2117.50 | 33.91 | 2.46 |
| | | Middle | 2145.00 | 34.12 | 2.58 |
| | | High | 2172.50 | 34.08 | 2.56 |
| | 64QAM | Low | 2117.50 | 33.89 | 2.45 |
| | | Middle | 2145.00 | 34.21 | 2.63 |
| | | High | 2172.50 | 34.01 | 2.52 |
| | 256QAM | Low | 2117.50 | 34.20 | 2.63 |
| | | Middle | 2145.00 | 34.15 | 2.60 |
| | | High | 2172.50 | 34.03 | 2.53 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2117.50 | 10.88 | 11.29 | 11.27 | 11.65 |
| 2145.00 | 10.64 | 11.29 | 11.59 | 11.47 |
| 2172.50 | 11.21 | 11.61 | 11.56 | 11.61 |

**B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2125.00 | 31.64 | 1.46 |
| | | Middle | 2145.00 | 31.71 | 1.48 |
| | | High | 2165.00 | 31.54 | 1.42 |
| | 16QAM | Low | 2125.00 | 31.98 | 1.58 |
| | | Middle | 2145.00 | 32.07 | 1.61 |
| | | High | 2165.00 | 31.75 | 1.49 |
| | 64QAM | Low | 2125.00 | 31.87 | 1.54 |
| | | Middle | 2145.00 | 31.81 | 1.52 |
| | | High | 2165.00 | 31.69 | 1.48 |
| | 256QAM | Low | 2125.00 | 31.92 | 1.56 |
| | | Middle | 2145.00 | 31.90 | 1.55 |
| | | High | 2165.00 | 31.80 | 1.51 |
| 1 | QPSK | Low | 2125.00 | 31.30 | 1.35 |
| | | Middle | 2145.00 | 31.60 | 1.45 |
| | | High | 2165.00 | 31.46 | 1.40 |
| | 16QAM | Low | 2125.00 | 31.45 | 1.40 |
| | | Middle | 2145.00 | 31.75 | 1.50 |
| | | High | 2165.00 | 31.44 | 1.39 |
| | 64QAM | Low | 2125.00 | 31.67 | 1.47 |
| | | Middle | 2145.00 | 31.63 | 1.46 |
| | | High | 2165.00 | 31.41 | 1.38 |
| | 256QAM | Low | 2125.00 | 31.78 | 1.51 |
| | | Middle | 2145.00 | 31.59 | 1.44 |
| | | High | 2165.00 | 31.57 | 1.43 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2125.00 | 30.55 | 1.14 |
| | | Middle | 2145.00 | 30.81 | 1.20 |
| | | High | 2165.00 | 31.26 | 1.34 |
| | 16QAM | Low | 2125.00 | 31.24 | 1.33 |
| | | Middle | 2145.00 | 30.95 | 1.25 |
| | | High | 2165.00 | 31.35 | 1.36 |
| | 64QAM | Low | 2125.00 | 30.83 | 1.21 |
| | | Middle | 2145.00 | 31.16 | 1.31 |
| | | High | 2165.00 | 31.14 | 1.30 |
| | 256QAM | Low | 2125.00 | 31.11 | 1.29 |
| | | Middle | 2145.00 | 30.80 | 1.20 |
| | | High | 2165.00 | 31.93 | 1.56 |
| 3 | QPSK | Low | 2125.00 | 30.74 | 1.18 |
| | | Middle | 2145.00 | 30.97 | 1.25 |
| | | High | 2165.00 | 31.17 | 1.31 |
| | 16QAM | Low | 2125.00 | 31.03 | 1.27 |
| | | Middle | 2145.00 | 31.27 | 1.34 |
| | | High | 2165.00 | 31.03 | 1.27 |
| | 64QAM | Low | 2125.00 | 30.77 | 1.19 |
| | | Middle | 2145.00 | 31.31 | 1.35 |
| | | High | 2165.00 | 30.91 | 1.23 |
| | 256QAM | Low | 2125.00 | 31.25 | 1.33 |
| | | Middle | 2145.00 | 30.92 | 1.24 |
| | | High | 2165.00 | 31.12 | 1.29 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2125.00 | 5.13 | 5.57 | 5.41 | 5.69 |
| 2145.00 | 5.38 | 5.69 | 5.63 | 5.43 |
| 2165.00 | 5.47 | 5.52 | 5.40 | 5.80 |

**B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [3 Carrier]**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2120.00 | 33.37 | 2.17 |
| | | Middle | 2145.00 | 33.98 | 2.50 |
| | | High | 2170.00 | 33.27 | 2.12 |
| | 16QAM | Low | 2120.00 | 33.57 | 2.28 |
| | | Middle | 2145.00 | 33.82 | 2.41 |
| | | High | 2170.00 | 33.56 | 2.27 |
| | 64QAM | Low | 2120.00 | 33.72 | 2.36 |
| | | Middle | 2145.00 | 34.07 | 2.55 |
| | | High | 2170.00 | 33.48 | 2.23 |
| | 256QAM | Low | 2120.00 | 33.68 | 2.34 |
| | | Middle | 2145.00 | 34.12 | 2.58 |
| | | High | 2170.00 | 33.46 | 2.22 |
| 1 | QPSK | Low | 2120.00 | 33.39 | 2.18 |
| | | Middle | 2145.00 | 33.28 | 2.13 |
| | | High | 2170.00 | 33.05 | 2.02 |
| | 16QAM | Low | 2120.00 | 33.46 | 2.22 |
| | | Middle | 2145.00 | 33.64 | 2.31 |
| | | High | 2170.00 | 33.20 | 2.09 |
| | 64QAM | Low | 2120.00 | 33.67 | 2.33 |
| | | Middle | 2145.00 | 33.49 | 2.23 |
| | | High | 2170.00 | 33.05 | 2.02 |
| | 256QAM | Low | 2120.00 | 33.47 | 2.22 |
| | | Middle | 2145.00 | 33.55 | 2.27 |
| | | High | 2170.00 | 33.16 | 2.07 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2120.00 | 32.53 | 1.79 |
| | | Middle | 2145.00 | 32.45 | 1.76 |
| | | High | 2170.00 | 32.67 | 1.85 |
| | 16QAM | Low | 2120.00 | 32.86 | 1.93 |
| | | Middle | 2145.00 | 32.77 | 1.89 |
| | | High | 2170.00 | 32.95 | 1.97 |
| | 64QAM | Low | 2120.00 | 32.47 | 1.77 |
| | | Middle | 2145.00 | 32.51 | 1.78 |
| | | High | 2170.00 | 33.00 | 2.00 |
| | 256QAM | Low | 2120.00 | 32.78 | 1.90 |
| | | Middle | 2145.00 | 32.73 | 1.88 |
| | | High | 2170.00 | 32.80 | 1.90 |
| 3 | QPSK | Low | 2120.00 | 32.53 | 1.79 |
| | | Middle | 2145.00 | 33.05 | 2.02 |
| | | High | 2170.00 | 32.55 | 1.80 |
| | 16QAM | Low | 2120.00 | 32.46 | 1.76 |
| | | Middle | 2145.00 | 32.93 | 1.96 |
| | | High | 2170.00 | 32.89 | 1.95 |
| | 64QAM | Low | 2120.00 | 32.59 | 1.82 |
| | | Middle | 2145.00 | 33.01 | 2.00 |
| | | High | 2170.00 | 33.05 | 2.02 |
| | 256QAM | Low | 2120.00 | 32.67 | 1.85 |
| | | Middle | 2145.00 | 33.06 | 2.02 |
| | | High | 2170.00 | 32.59 | 1.82 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2120.00 | 7.94 | 8.19 | 8.27 | 8.30 |
| 2145.00 | 8.41 | 8.57 | 8.57 | 8.75 |
| 2170.00 | 7.79 | 8.28 | 8.26 | 8.01 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [3 Carrier]**

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 0 | QPSK | Low | 2125.00 | 31.66 | 1.47 |
| | | Middle | 2145.00 | 32.12 | 1.63 |
| | | High | 2165.00 | 31.32 | 1.36 |
| | 16QAM | Low | 2125.00 | 32.38 | 1.73 |
| | | Middle | 2145.00 | 32.71 | 1.87 |
| | | High | 2165.00 | 31.85 | 1.53 |
| | 64QAM | Low | 2125.00 | 31.74 | 1.49 |
| | | Middle | 2145.00 | 32.00 | 1.58 |
| | | High | 2165.00 | 31.57 | 1.44 |
| | 256QAM | Low | 2125.00 | 31.64 | 1.46 |
| | | Middle | 2145.00 | 31.75 | 1.50 |
| | | High | 2165.00 | 31.67 | 1.47 |
| 1 | QPSK | Low | 2125.00 | 31.52 | 1.42 |
| | | Middle | 2145.00 | 31.54 | 1.43 |
| | | High | 2165.00 | 31.05 | 1.27 |
| | 16QAM | Low | 2125.00 | 31.88 | 1.54 |
| | | Middle | 2145.00 | 32.16 | 1.64 |
| | | High | 2165.00 | 31.43 | 1.39 |
| | 64QAM | Low | 2125.00 | 31.75 | 1.50 |
| | | Middle | 2145.00 | 31.91 | 1.55 |
| | | High | 2165.00 | 31.37 | 1.37 |
| | 256QAM | Low | 2125.00 | 31.67 | 1.47 |
| | | Middle | 2145.00 | 31.50 | 1.41 |
| | | High | 2165.00 | 31.30 | 1.35 |

| Ant. | Mod | Ch | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W) |
|---|---|---|---|---|---|
| 2 | QPSK | Low | 2125.00 | 30.58 | 1.14 |
| | | Middle | 2145.00 | 30.91 | 1.23 |
| | | High | 2165.00 | 30.87 | 1.22 |
| | 16QAM | Low | 2125.00 | 31.39 | 1.38 |
| | | Middle | 2145.00 | 31.35 | 1.37 |
| | | High | 2165.00 | 31.37 | 1.37 |
| | 64QAM | Low | 2125.00 | 30.99 | 1.26 |
| | | Middle | 2145.00 | 30.96 | 1.25 |
| | | High | 2165.00 | 31.30 | 1.35 |
| | 256QAM | Low | 2125.00 | 31.05 | 1.27 |
| | | Middle | 2145.00 | 30.95 | 1.24 |
| | | High | 2165.00 | 31.25 | 1.33 |
| 3 | QPSK | Low | 2125.00 | 30.83 | 1.21 |
| | | Middle | 2145.00 | 30.94 | 1.24 |
| | | High | 2165.00 | 30.78 | 1.20 |
| | 16QAM | Low | 2125.00 | 31.46 | 1.40 |
| | | Middle | 2145.00 | 31.38 | 1.37 |
| | | High | 2165.00 | 31.84 | 1.53 |
| | 64QAM | Low | 2125.00 | 30.93 | 1.24 |
| | | Middle | 2145.00 | 31.17 | 1.31 |
| | | High | 2165.00 | 30.93 | 1.24 |
| | 256QAM | Low | 2125.00 | 30.93 | 1.24 |
| | | Middle | 2145.00 | 30.97 | 1.25 |
| | | High | 2165.00 | 30.96 | 1.25 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2125.00 | 5.24 | 6.05 | 5.48 | 5.44 |
| 2145.00 | 5.53 | 6.25 | 5.69 | 5.40 |
| 2165.00 | 5.05 | 5.82 | 5.39 | 5.40 |

## Tabular Data of Non-Contiguous PSD

### B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Mod | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W/MHz) |
|---|---|---|---|---|
| 0 | QPSK | 1932.50 + 1985.00 | 33.20 | 2.09 |
| | 16QAM | 1932.50 + 1985.00 | 33.39 | 2.18 |
| | 64QAM | 1932.50 + 1985.00 | 33.08 | 2.03 |
| | 256QAM | 1932.50 + 1985.00 | 33.14 | 2.06 |
| 1 | QPSK | 1932.50 + 1985.00 | 32.98 | 1.99 |
| | 16QAM | 1932.50 + 1985.00 | 32.93 | 1.96 |
| | 64QAM | 1932.50 + 1985.00 | 32.56 | 1.80 |
| | 256QAM | 1932.50 + 1985.00 | 32.87 | 1.94 |
| 2 | QPSK | 1932.50 + 1985.00 | 32.69 | 1.86 |
| | 16QAM | 1932.50 + 1985.00 | 32.78 | 1.89 |
| | 64QAM | 1932.50 + 1985.00 | 32.51 | 1.78 |
| | 256QAM | 1932.50 + 1985.00 | 32.58 | 1.81 |
| 3 | QPSK | 1932.50 + 1985.00 | 32.78 | 1.90 |
| | 16QAM | 1932.50 + 1985.00 | 33.06 | 2.02 |
| | 64QAM | 1932.50 + 1985.00 | 32.65 | 1.84 |
| | 256QAM | 1932.50 + 1985.00 | 32.82 | 1.91 |

### Sum Data of Port 0, Port 1, Port 2 and Port 3

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 1932.50 + 1985.00 | 7.83 | 8.07 | 7.46 | 7.72 |

**B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W/MHz) |
|---|---|---|---|---|
| 0 | QPSK | 2112.50 + 2175.00 | 32.04 | 1.60 |
| | 16QAM | 2112.50 + 2175.00 | 32.50 | 1.78 |
| | 64QAM | 2112.50 + 2175.00 | 31.96 | 1.57 |
| | 256QAM | 2112.50 + 2175.00 | 31.79 | 1.51 |
| 1 | QPSK | 2112.50 + 2175.00 | 31.55 | 1.43 |
| | 16QAM | 2112.50 + 2175.00 | 31.85 | 1.53 |
| | 64QAM | 2112.50 + 2175.00 | 31.66 | 1.47 |
| | 256QAM | 2112.50 + 2175.00 | 31.54 | 1.42 |
| 2 | QPSK | 2112.50 + 2175.00 | 31.44 | 1.39 |
| | 16QAM | 2112.50 + 2175.00 | 31.81 | 1.52 |
| | 64QAM | 2112.50 + 2175.00 | 31.52 | 1.42 |
| | 256QAM | 2112.50 + 2175.00 | 31.37 | 1.37 |
| 3 | QPSK | 2112.50 + 2175.00 | 31.51 | 1.42 |
| | 16QAM | 2112.50 + 2175.00 | 32.03 | 1.60 |
| | 64QAM | 2112.50 + 2175.00 | 31.72 | 1.49 |
| | 256QAM | 2112.50 + 2175.00 | 31.82 | 1.52 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2112.50 + 2175.00 | 5.84 | 6.42 | 5.94 | 5.83 |

**B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W/MHz) |
|---|---|---|---|---|
| 0 | QPSK | 2112.50 + 2175.00 | 34.48 | 2.81 |
| | 16QAM | 2112.50 + 2175.00 | 34.93 | 3.11 |
| | 64QAM | 2112.50 + 2175.00 | 34.72 | 2.97 |
| | 256QAM | 2112.50 + 2175.00 | 34.80 | 3.02 |
| 1 | QPSK | 2112.50 + 2175.00 | 34.10 | 2.57 |
| | 16QAM | 2112.50 + 2175.00 | 34.46 | 2.79 |
| | 64QAM | 2112.50 + 2175.00 | 34.53 | 2.84 |
| | 256QAM | 2112.50 + 2175.00 | 34.27 | 2.67 |
| 2 | QPSK | 2112.50 + 2175.00 | 34.15 | 2.60 |
| | 16QAM | 2112.50 + 2175.00 | 34.26 | 2.67 |
| | 64QAM | 2112.50 + 2175.00 | 34.29 | 2.69 |
| | 256QAM | 2112.50 + 2175.00 | 34.23 | 2.65 |
| 3 | QPSK | 2112.50 + 2175.00 | 34.04 | 2.54 |
| | 16QAM | 2112.50 + 2175.00 | 34.11 | 2.57 |
| | 64QAM | 2112.50 + 2175.00 | 34.06 | 2.55 |
| | 256QAM | 2112.50 + 2175.00 | 34.04 | 2.54 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2112.50 + 2175.00 | 10.51 | 11.14 | 11.04 | 10.88 |

**B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Mod | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W/MHz) |
|---|---|---|---|---|
| 0 | QPSK | 2120.00 + 2175.00 | 32.13 | 1.63 |
| | 16QAM | 2120.00 + 2175.00 | 31.99 | 1.58 |
| | 64QAM | 2120.00 + 2175.00 | 32.35 | 1.72 |
| | 256QAM | 2120.00 + 2175.00 | 32.21 | 1.66 |
| 1 | QPSK | 2120.00 + 2175.00 | 31.31 | 1.35 |
| | 16QAM | 2120.00 + 2175.00 | 31.55 | 1.43 |
| | 64QAM | 2120.00 + 2175.00 | 31.76 | 1.50 |
| | 256QAM | 2120.00 + 2175.00 | 31.72 | 1.48 |
| 2 | QPSK | 2120.00 + 2175.00 | 30.79 | 1.20 |
| | 16QAM | 2120.00 + 2175.00 | 30.95 | 1.25 |
| | 64QAM | 2120.00 + 2175.00 | 31.48 | 1.41 |
| | 256QAM | 2120.00 + 2175.00 | 31.01 | 1.26 |
| 3 | QPSK | 2120.00 + 2175.00 | 31.06 | 1.28 |
| | 16QAM | 2120.00 + 2175.00 | 31.12 | 1.29 |
| | 64QAM | 2120.00 + 2175.00 | 31.41 | 1.38 |
| | 256QAM | 2120.00 + 2175.00 | 31.54 | 1.43 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2120.00 + 2175.00 | 5.46 | 5.55 | 6.01 | 5.83 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier]**

| Ant. | Mod | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W/MHz) |
|---|---|---|---|---|
| 0 | QPSK | 2112.50 + 2172.50 | 33.49 | 2.23 |
| | 16QAM | 2112.50 + 2172.50 | 33.43 | 2.20 |
| | 64QAM | 2112.50 + 2172.50 | 33.32 | 2.15 |
| | 256QAM | 2112.50 + 2172.50 | 33.28 | 2.13 |
| 1 | QPSK | 2112.50 + 2172.50 | 32.99 | 1.99 |
| | 16QAM | 2112.50 + 2172.50 | 33.09 | 2.04 |
| | 64QAM | 2112.50 + 2172.50 | 32.99 | 1.99 |
| | 256QAM | 2112.50 + 2172.50 | 33.15 | 2.07 |
| 2 | QPSK | 2112.50 + 2172.50 | 32.62 | 1.83 |
| | 16QAM | 2112.50 + 2172.50 | 33.06 | 2.02 |
| | 64QAM | 2112.50 + 2172.50 | 33.07 | 2.03 |
| | 256QAM | 2112.50 + 2172.50 | 32.91 | 1.96 |
| 3 | QPSK | 2112.50 + 2172.50 | 32.80 | 1.90 |
| | 16QAM | 2112.50 + 2172.50 | 33.26 | 2.12 |
| | 64QAM | 2112.50 + 2172.50 | 32.68 | 1.85 |
| | 256QAM | 2112.50 + 2172.50 | 32.82 | 1.91 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2112.50 + 2172.50 | 7.96 | 8.38 | 8.02 | 8.06 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier]**

| Ant. | Mod | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W/MHz) |
|---|---|---|---|---|
| 0 | QPSK | 2115.00 + 2175.00 | 33.76 | 2.38 |
| | 16QAM | 2115.00 + 2175.00 | 34.10 | 2.57 |
| | 64QAM | 2115.00 + 2175.00 | 34.15 | 2.60 |
| | 256QAM | 2115.00 + 2175.00 | 34.01 | 2.52 |
| 1 | QPSK | 2115.00 + 2175.00 | 32.94 | 1.97 |
| | 16QAM | 2115.00 + 2175.00 | 33.20 | 2.09 |
| | 64QAM | 2115.00 + 2175.00 | 33.33 | 2.15 |
| | 256QAM | 2115.00 + 2175.00 | 33.27 | 2.12 |
| 2 | QPSK | 2115.00 + 2175.00 | 32.65 | 1.84 |
| | 16QAM | 2115.00 + 2175.00 | 33.04 | 2.01 |
| | 64QAM | 2115.00 + 2175.00 | 32.77 | 1.89 |
| | 256QAM | 2115.00 + 2175.00 | 32.66 | 1.85 |
| 3 | QPSK | 2115.00 + 2175.00 | 32.53 | 1.79 |
| | 16QAM | 2115.00 + 2175.00 | 32.83 | 1.92 |
| | 64QAM | 2115.00 + 2175.00 | 32.70 | 1.86 |
| | 256QAM | 2115.00 + 2175.00 | 32.74 | 1.88 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2115.00 + 2175.00 | 7.97 | 8.59 | 8.51 | 8.36 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier]**

| Ant. | Mod | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W/MHz) |
|---|---|---|---|---|
| 0 | QPSK | 2112.50 + 2167.50 | 31.34 | 1.36 |
| | 16QAM | 2112.50 + 2167.50 | 32.27 | 1.69 |
| | 64QAM | 2112.50 + 2167.50 | 31.37 | 1.37 |
| | 256QAM | 2112.50 + 2167.50 | 31.38 | 1.37 |
| 1 | QPSK | 2112.50 + 2167.50 | 31.20 | 1.32 |
| | 16QAM | 2112.50 + 2167.50 | 31.34 | 1.36 |
| | 64QAM | 2112.50 + 2167.50 | 31.15 | 1.30 |
| | 256QAM | 2112.50 + 2167.50 | 31.34 | 1.36 |
| 2 | QPSK | 2112.50 + 2167.50 | 31.27 | 1.34 |
| | 16QAM | 2112.50 + 2167.50 | 31.31 | 1.35 |
| | 64QAM | 2112.50 + 2167.50 | 31.39 | 1.38 |
| | 256QAM | 2112.50 + 2167.50 | 31.41 | 1.39 |
| 3 | QPSK | 2112.50 + 2167.50 | 30.79 | 1.20 |
| | 16QAM | 2112.50 + 2167.50 | 31.37 | 1.37 |
| | 64QAM | 2112.50 + 2167.50 | 30.95 | 1.25 |
| | 256QAM | 2112.50 + 2167.50 | 30.99 | 1.26 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2112.50 + 2167.50 | 5.22 | 5.77 | 5.30 | 5.38 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier]**

| Ant. | Mod | Frequency (MHz) | Measured Value (dBm/MHz) | Calculated (W/MHz) |
|---|---|---|---|---|
| 0 | QPSK | 2120.00 + 2175.00 | 32.05 | 1.60 |
| | 16QAM | 2120.00 + 2175.00 | 32.38 | 1.73 |
| | 64QAM | 2120.00 + 2175.00 | 32.42 | 1.75 |
| | 256QAM | 2120.00 + 2175.00 | 32.49 | 1.78 |
| 1 | QPSK | 2120.00 + 2175.00 | 31.22 | 1.32 |
| | 16QAM | 2120.00 + 2175.00 | 31.23 | 1.33 |
| | 64QAM | 2120.00 + 2175.00 | 31.76 | 1.50 |
| | 256QAM | 2120.00 + 2175.00 | 31.73 | 1.49 |
| 2 | QPSK | 2120.00 + 2175.00 | 30.76 | 1.19 |
| | 16QAM | 2120.00 + 2175.00 | 31.29 | 1.35 |
| | 64QAM | 2120.00 + 2175.00 | 31.20 | 1.32 |
| | 256QAM | 2120.00 + 2175.00 | 31.16 | 1.31 |
| 3 | QPSK | 2120.00 + 2175.00 | 30.82 | 1.21 |
| | 16QAM | 2120.00 + 2175.00 | 31.04 | 1.27 |
| | 64QAM | 2120.00 + 2175.00 | 31.42 | 1.39 |
| | 256QAM | 2120.00 + 2175.00 | 31.23 | 1.33 |

**Sum Data of Port 0, Port 1, Port 2 and Port 3**

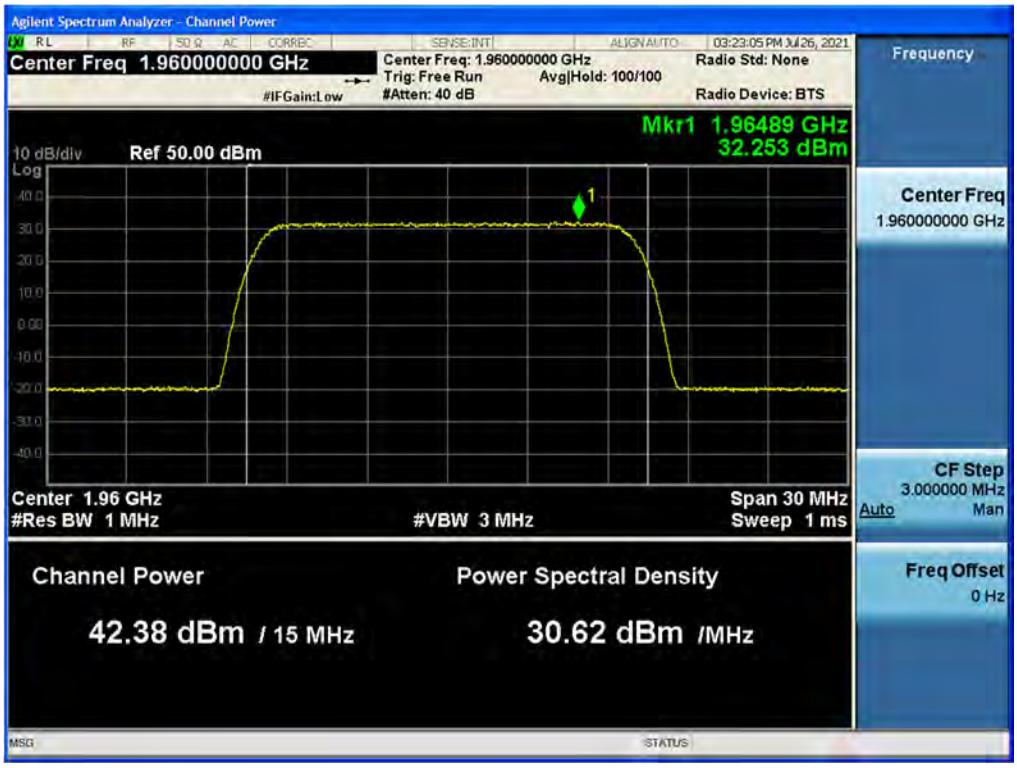
| Frequency (MHz) | PSD | | | |
|---|---|---|---|---|
| | QPSK | 16QAM | 64QAM | 256QAM |
| | W/MHz | | | |
| 2120.00 + 2175.00 | 5.33 | 5.67 | 5.95 | 5.90 |

## Plot Data of PSD

### Antenna 1 / B2 LTE 5 MHz 1 Carrier / 16QAM / Middle


### Antenna 1 / B2 LTE 10 MHz 1 Carrier / 16QAM / Middle

## Antenna 1 / B2 LTE 15 MHz 1 Carrier / QPSK / Middle

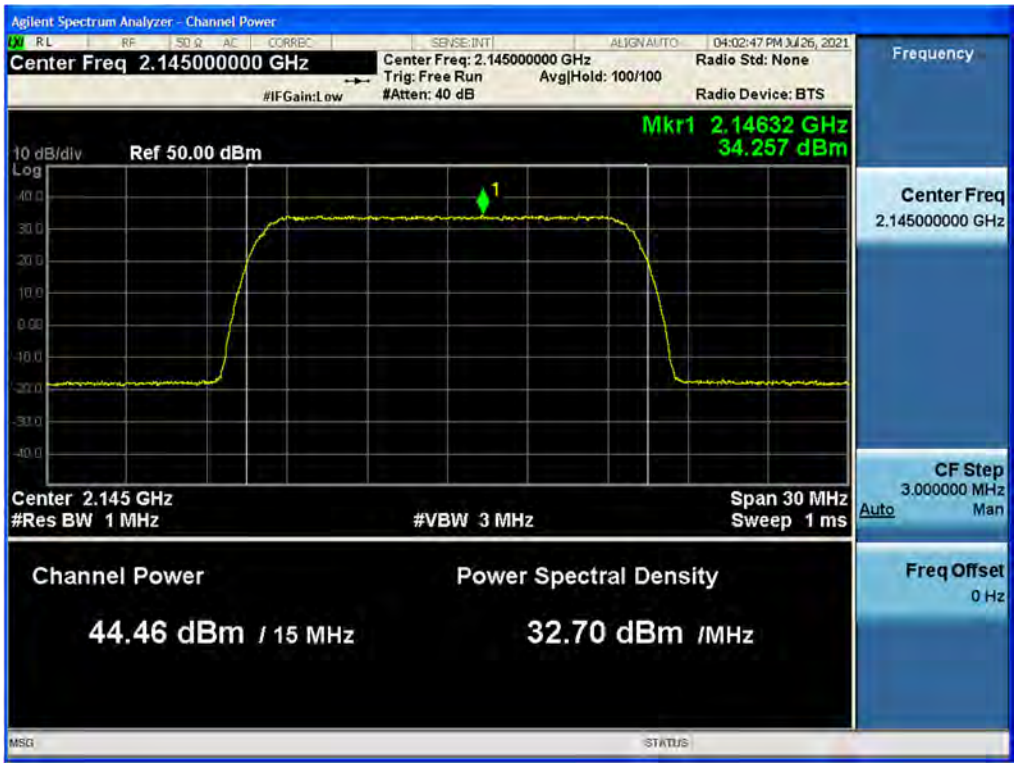



## Antenna 1 / B2 LTE 20 MHz 1 Carrier / 256QAM / Middle

Antenna 2 / B66 LTE 5 MHz 1 Carrier / QPSK / Middle


Antenna 2 / B66 LTE 10 MHz 1 Carrier / 256QAM / Middle

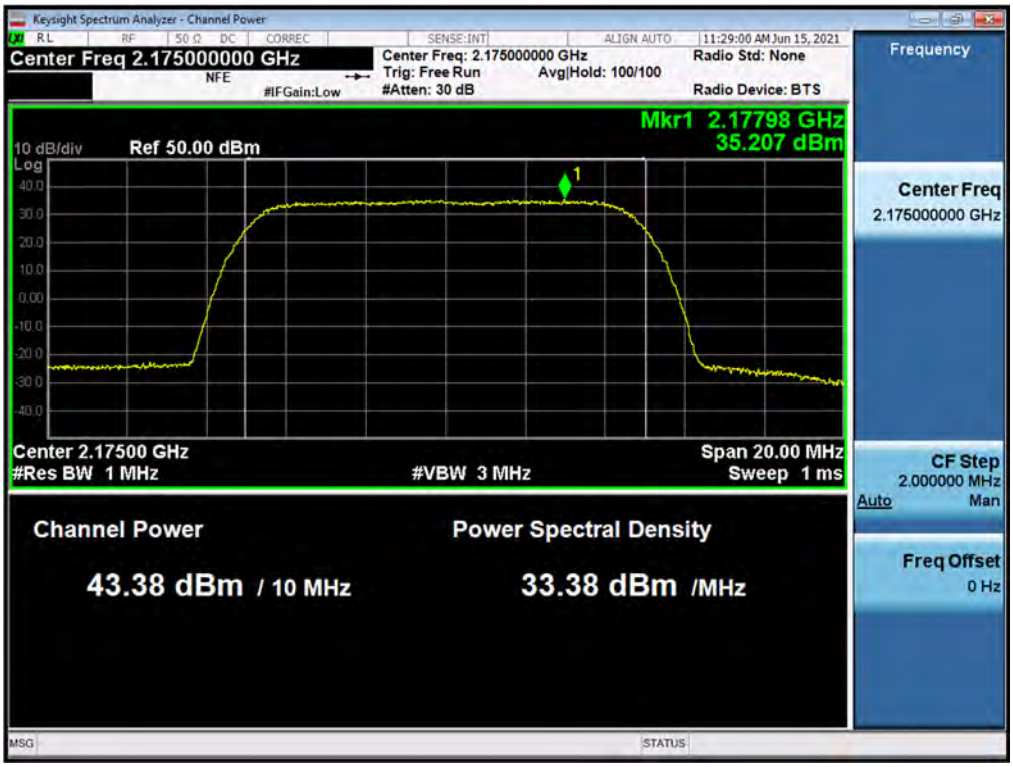
Antenna 2 / B66 LTE 15 MHz 1 Carrier / QPSK / Middle



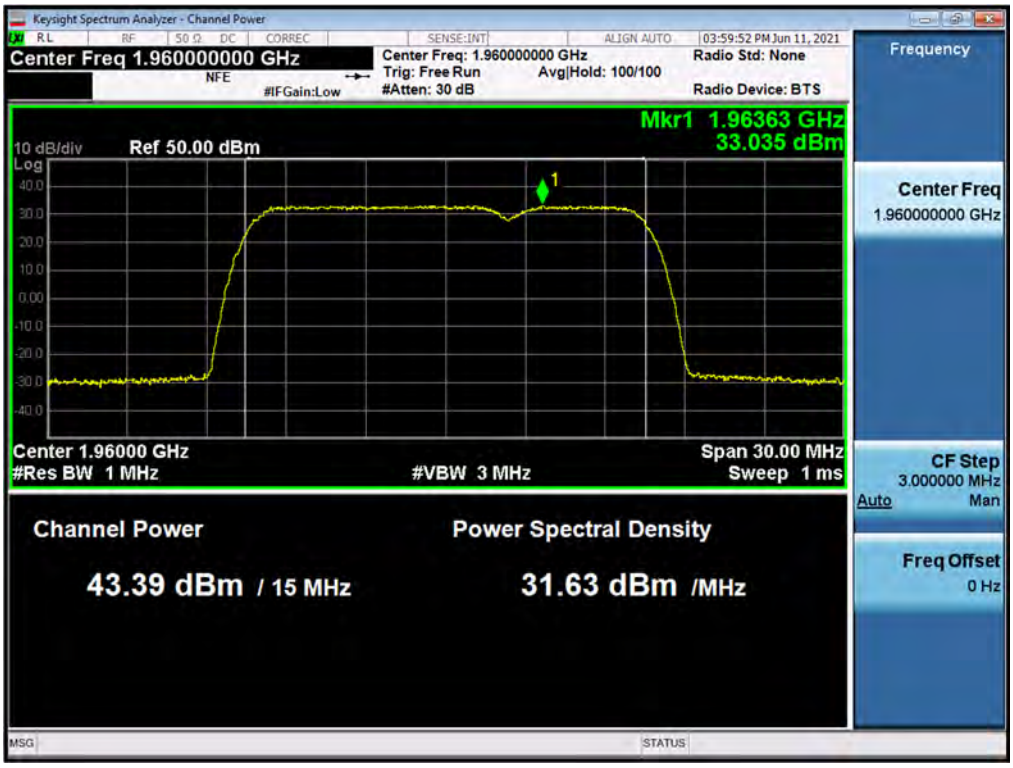

Antenna 2 / B66 LTE 20 MHz 1 Carrier / 256QAM / Middle

Antenna 0 / B2 DSS 10 MHz 1 Carrier/ 16QAM / Middle

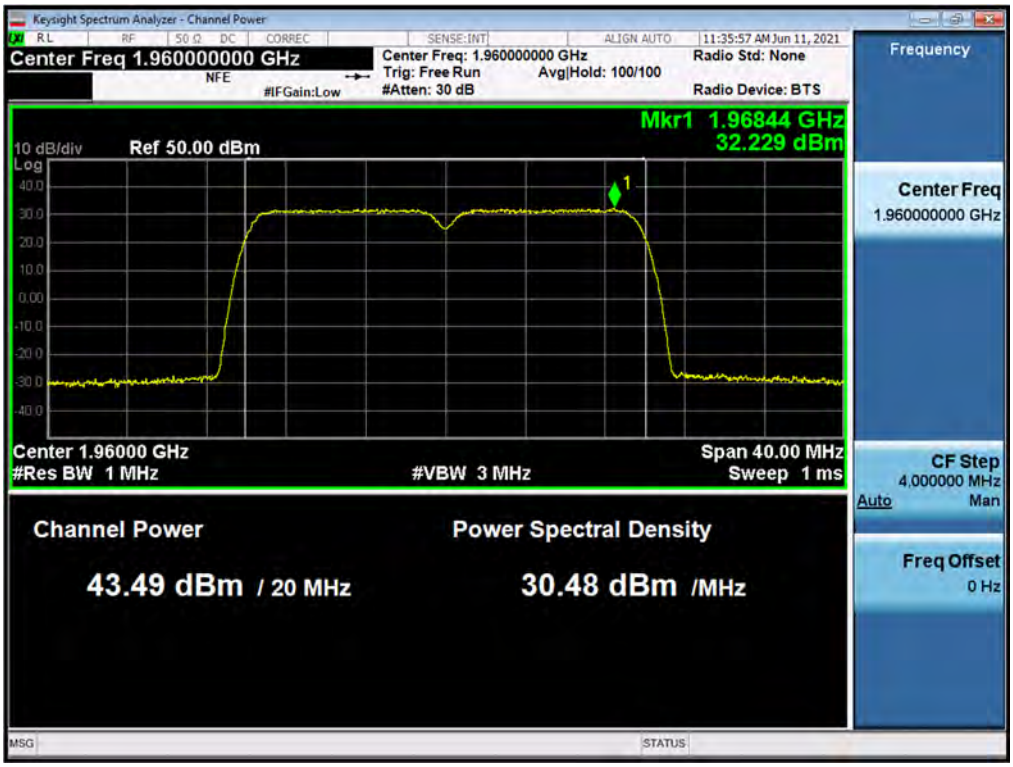

Antenna 0 / B66 DSS 10 MHz 1 Carrier/ 64QAM / High



Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Middle

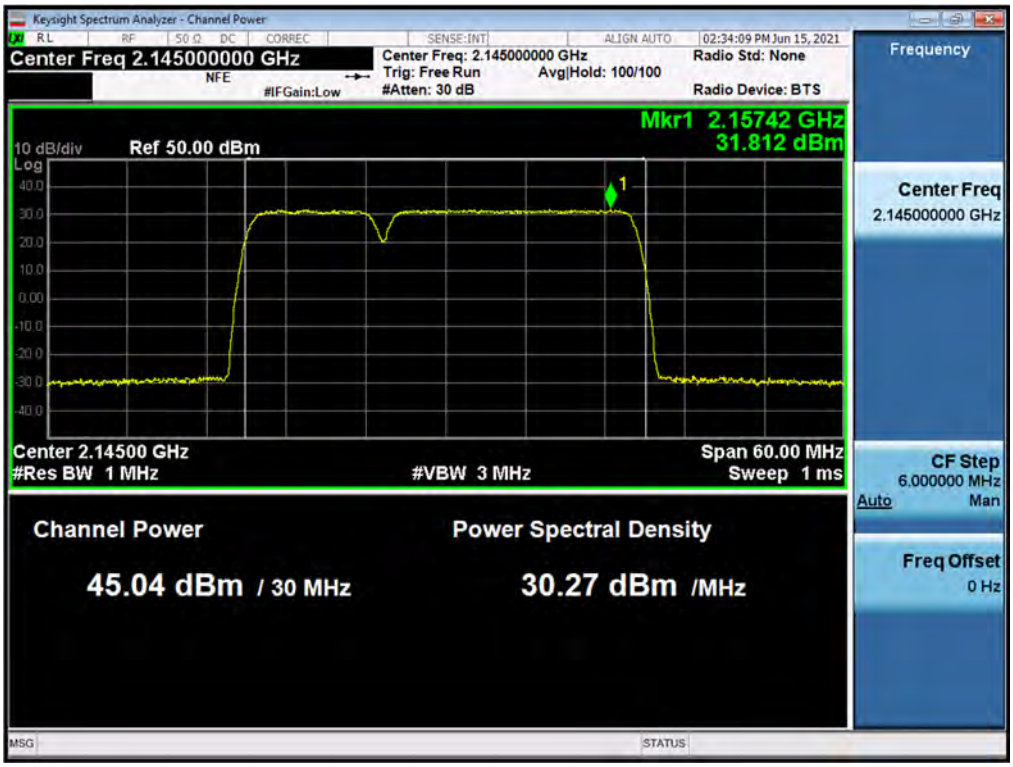



Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle

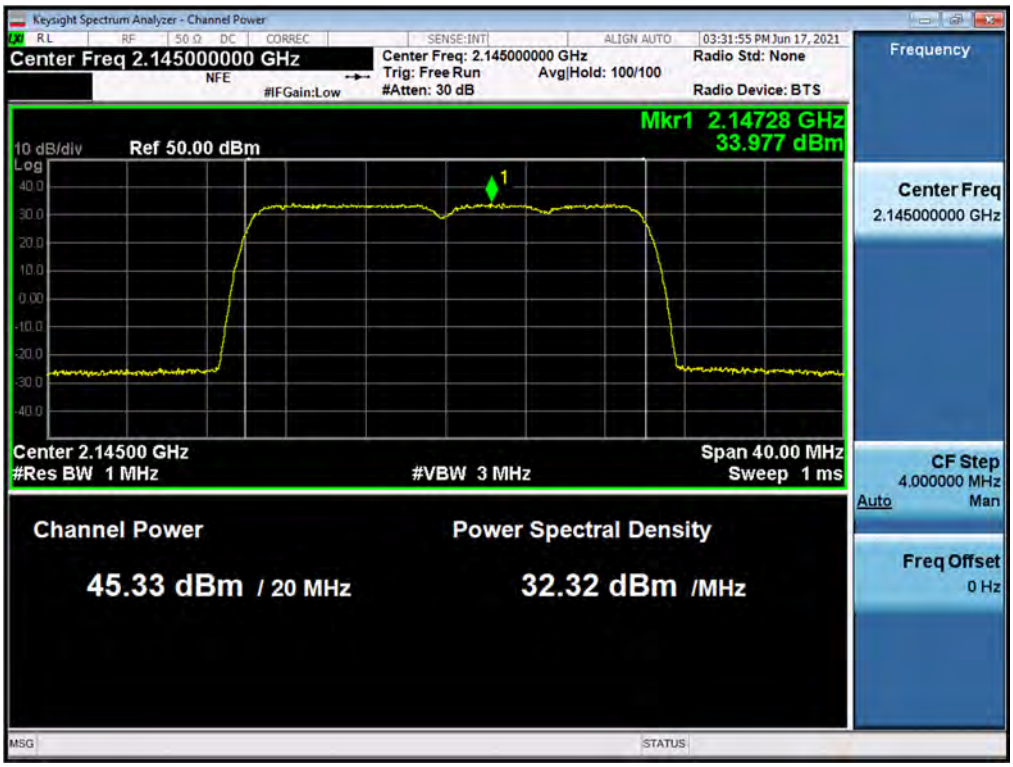


Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High

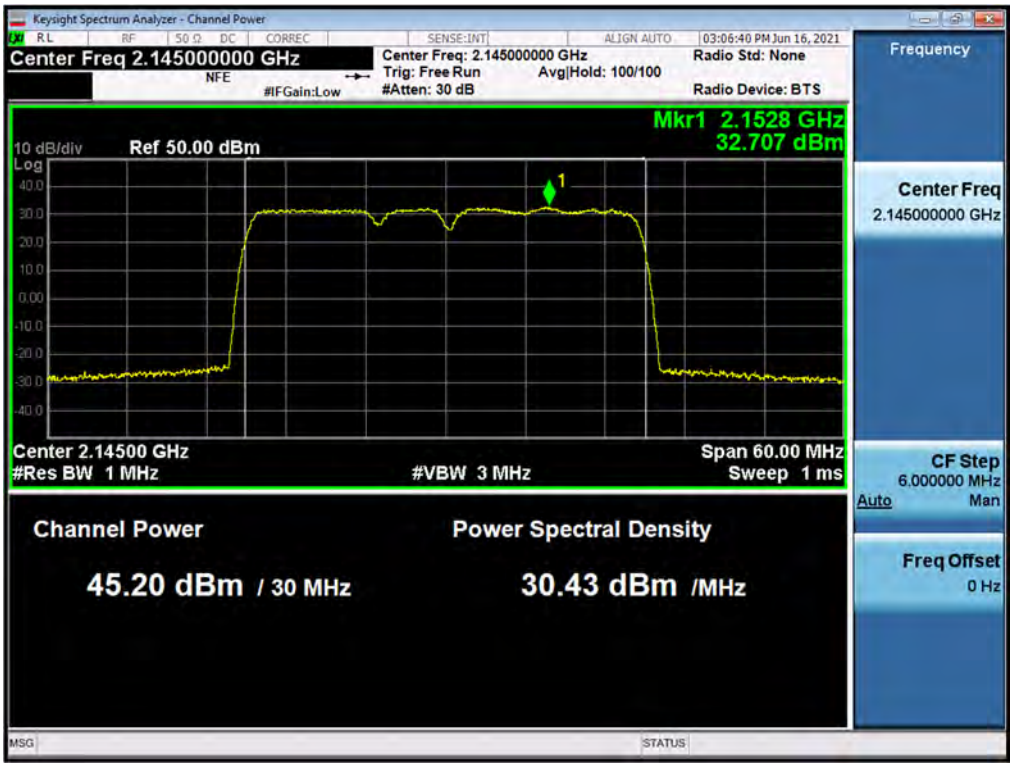

Antenna 0 / B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle



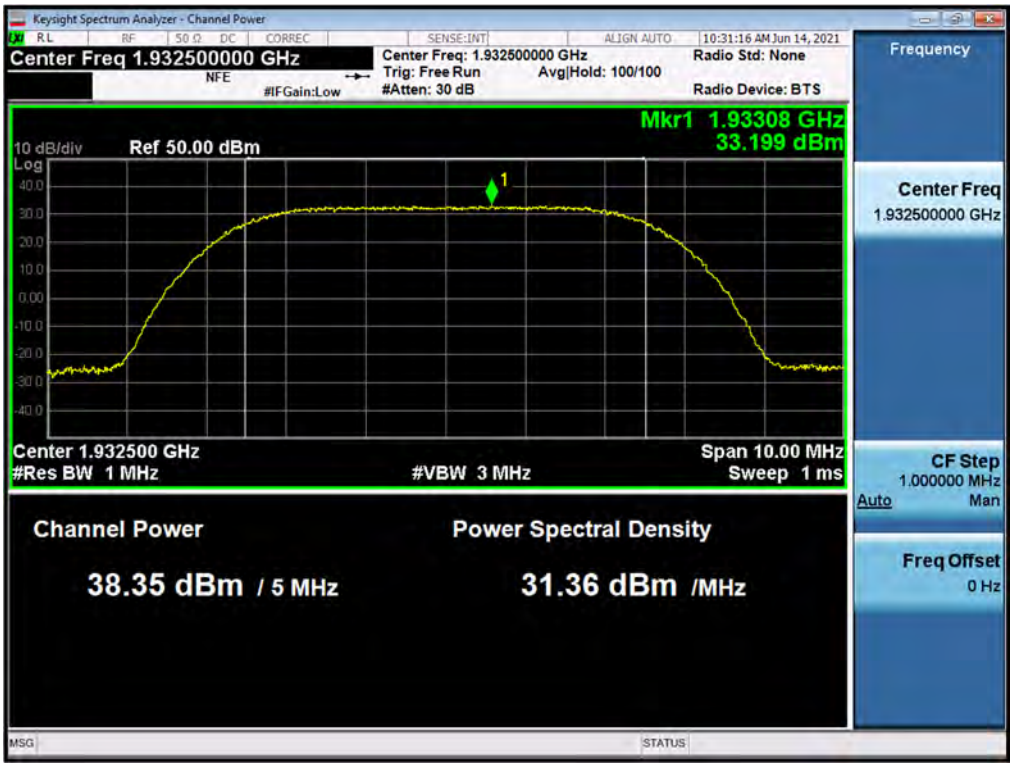
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [3 Carrier] / Contiguous / QPSK / Middle



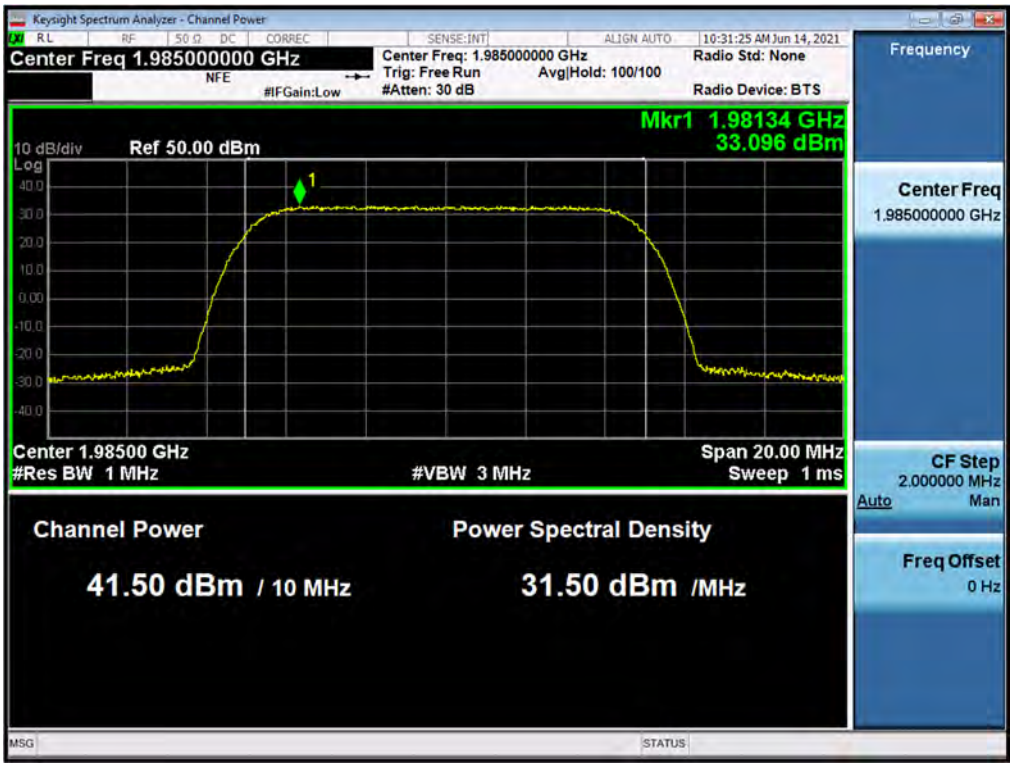

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle



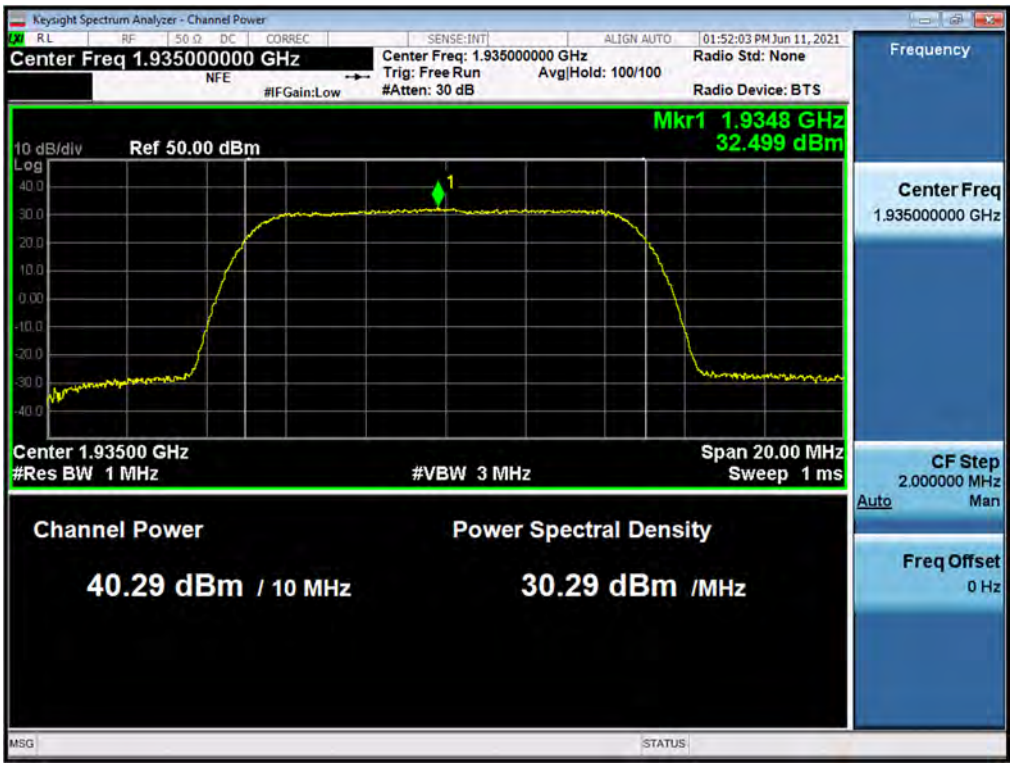
Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 LTE 5 MHz / Non-Contiguous / QPSK / Low



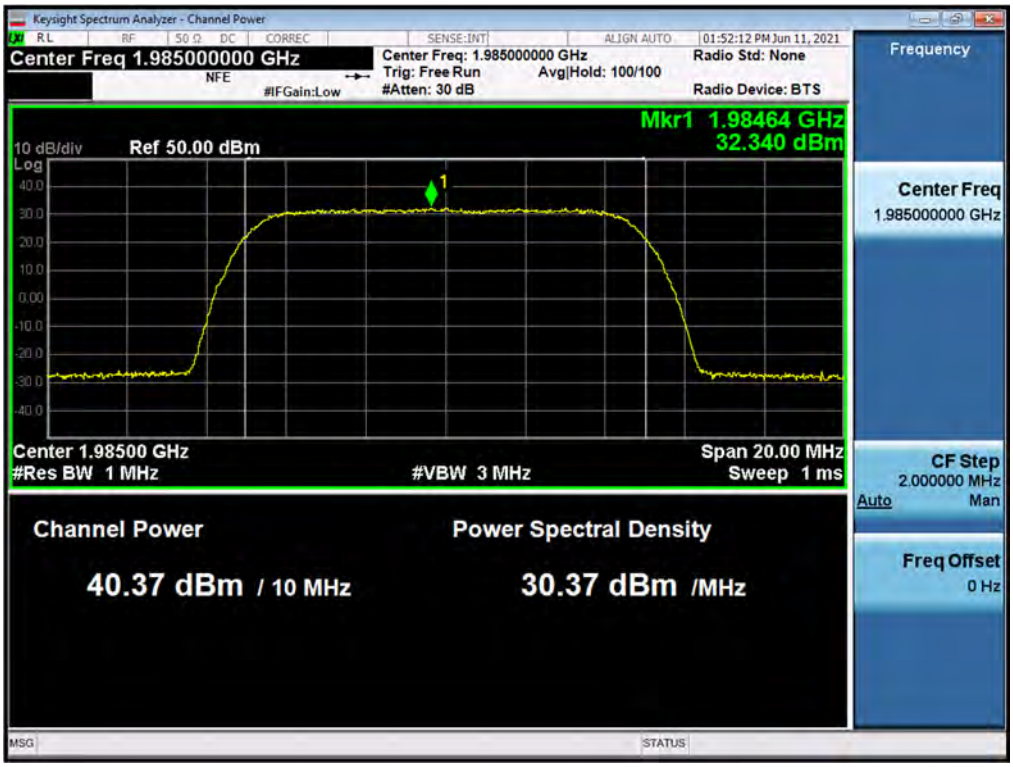

Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 DSS 10 MHz / Non-Contiguous / QPSK / High



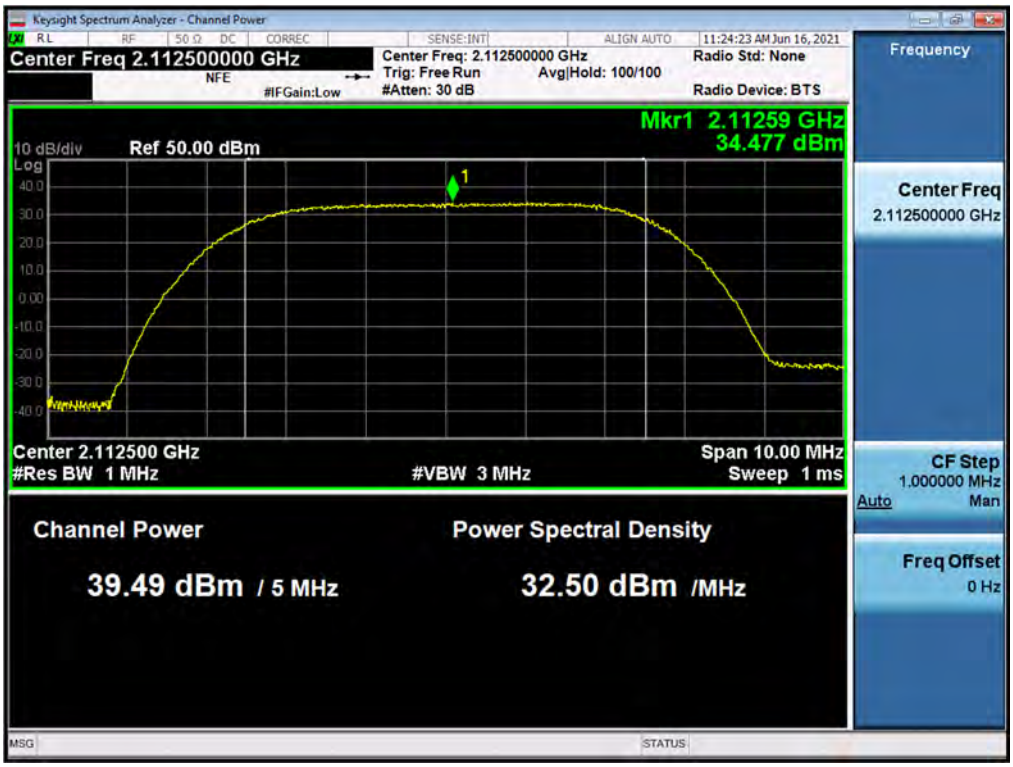
Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 LTE 10 MHz / Non-Contiguous / 16QAM / Low



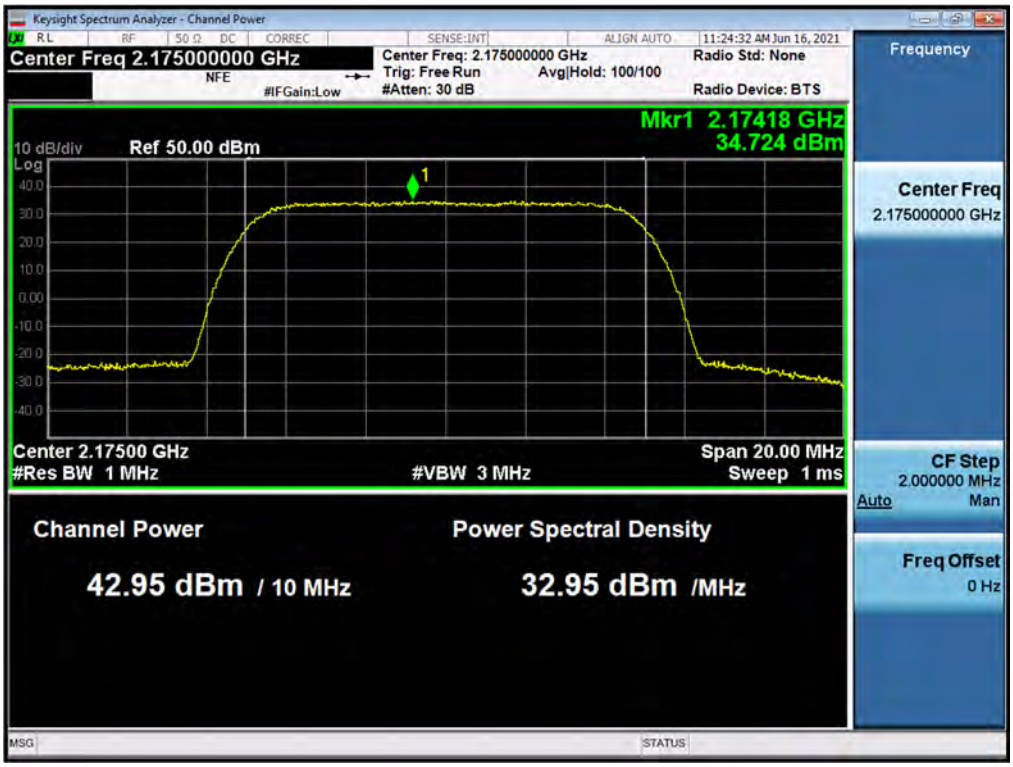

Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 DSS 10 MHz / Non-Contiguous / 16QAM / High



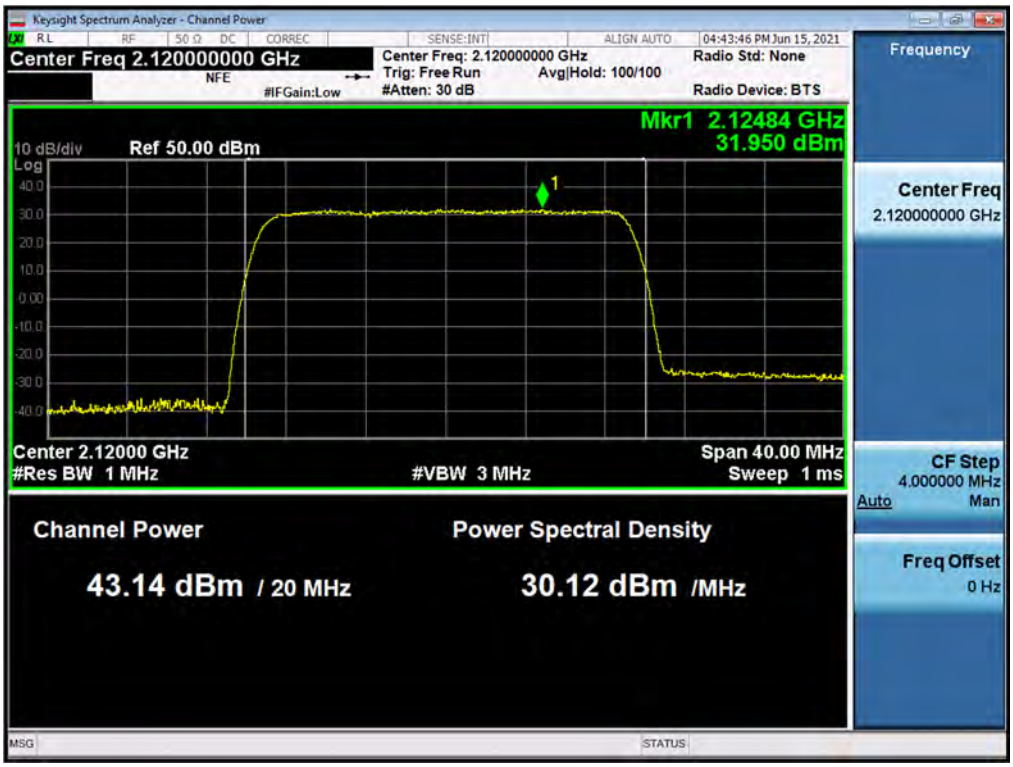
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 LTE 5 MHz / Non-Contiguous / 64QAM / Low




Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 64QAM / High

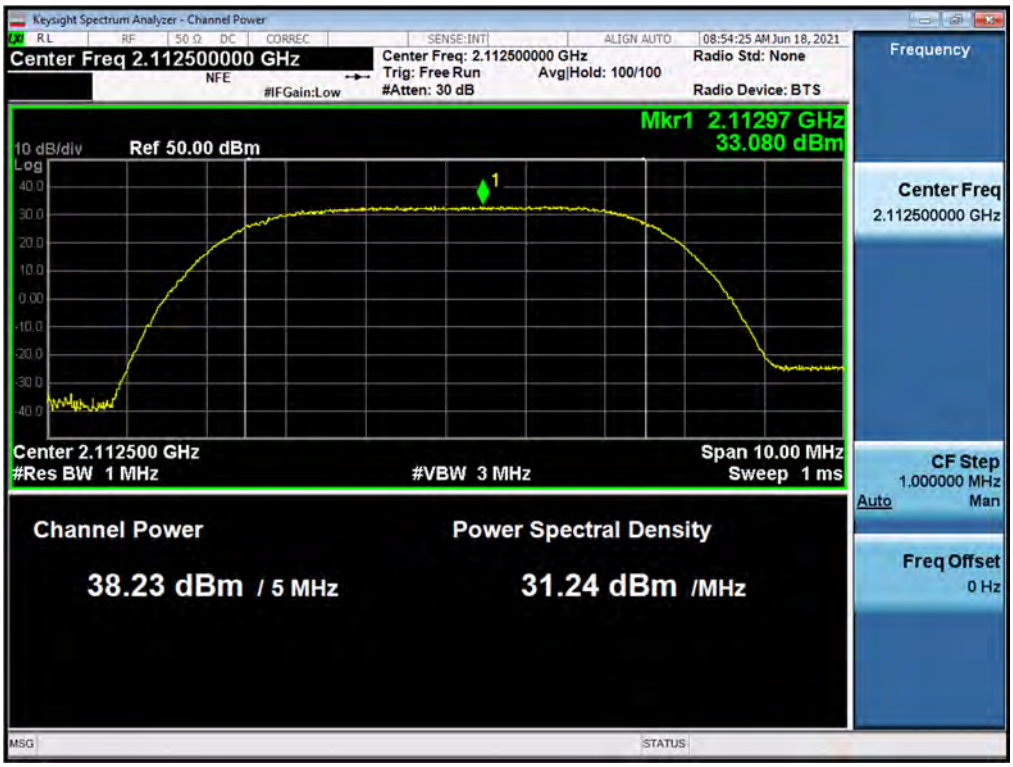


Antenna 0 / B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 LTE 20 MHz / Non-Contiguous / 16QAM / Low

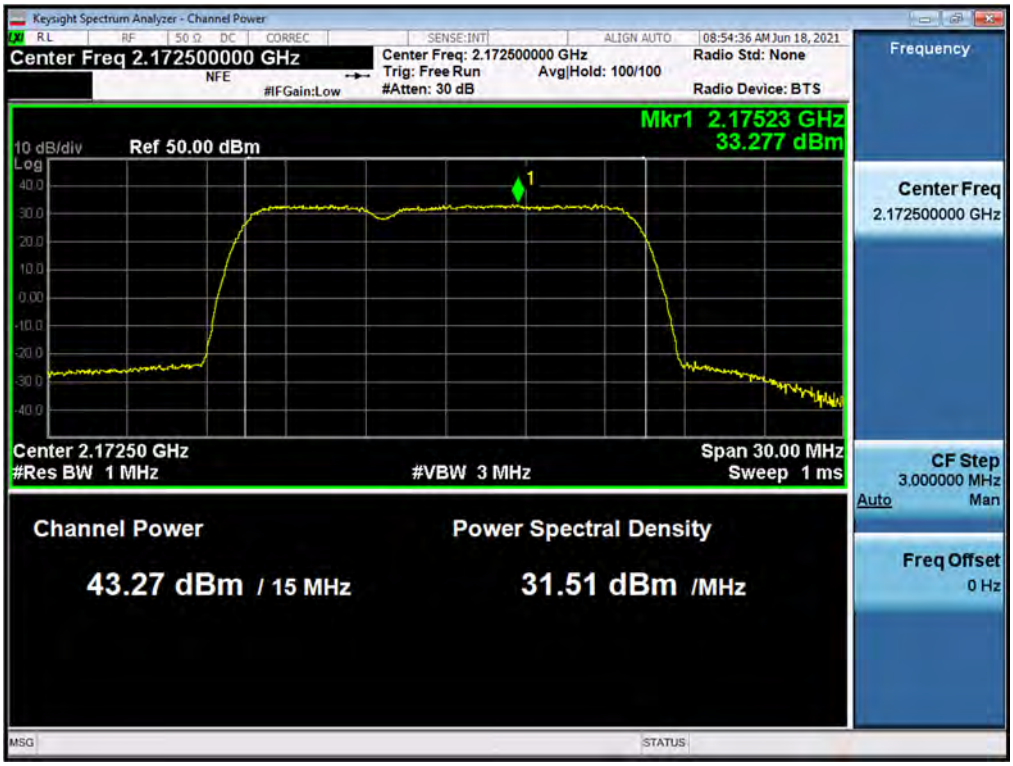



Antenna 0 / B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 16QAM / High

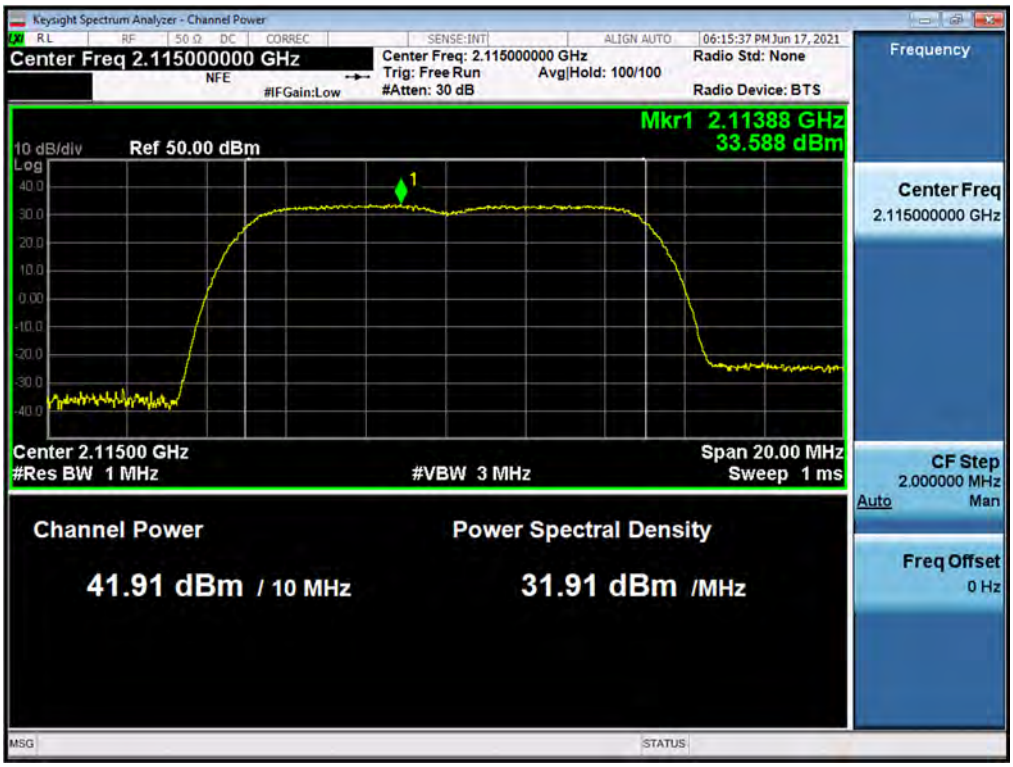
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz / Non-Contiguous / 256QAM / Low



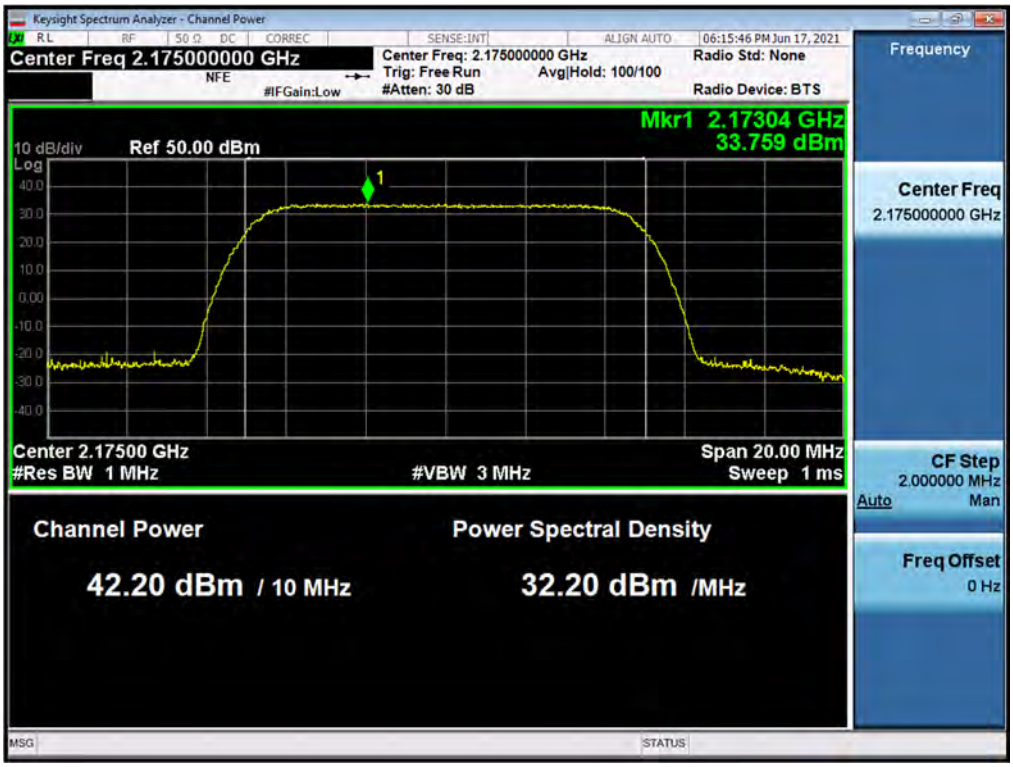

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz + B66 DSS 10 MHz / Non-Contiguous / 256QAM / High



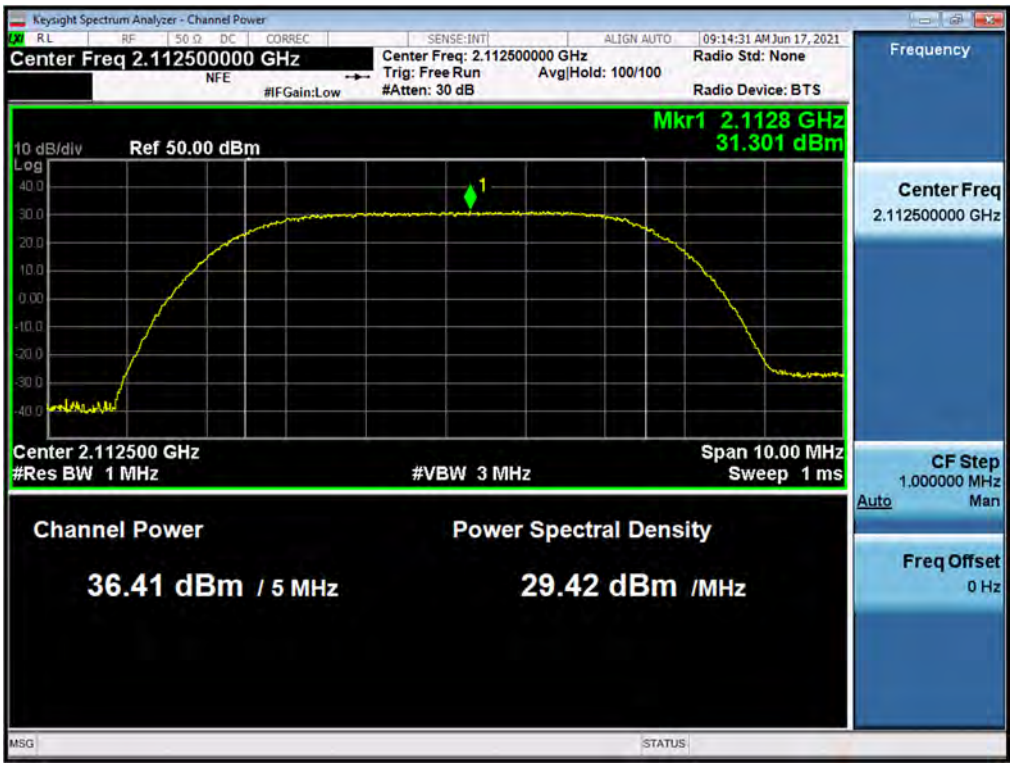
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 LTE 5 MHz + B66 LTE 5 MHz / Non-Contiguous / QPSK / Low



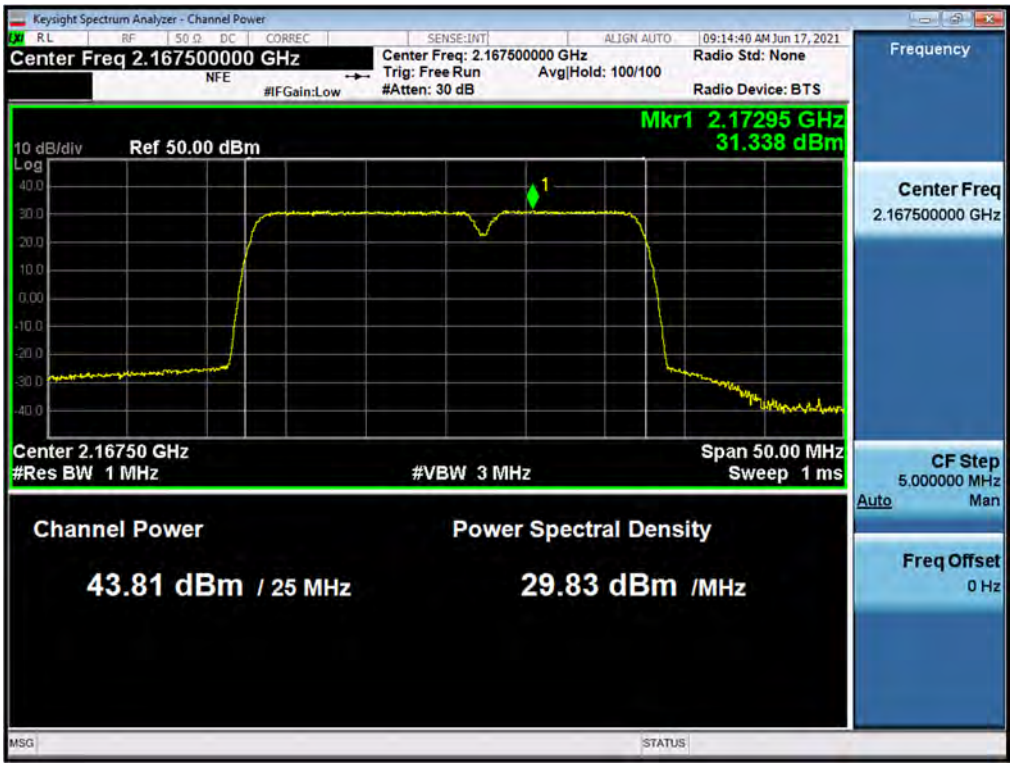

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 DSS 10 MHz / Non-Contiguous / QPSK / High



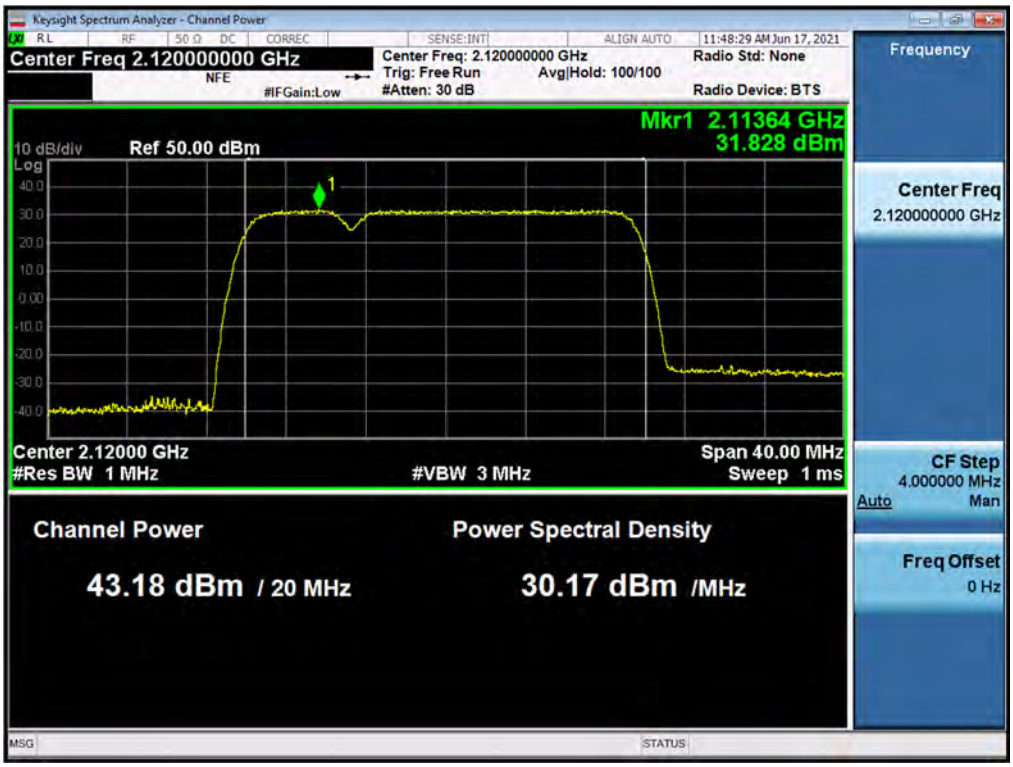
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz / Non-Contiguous / QPSK / Low



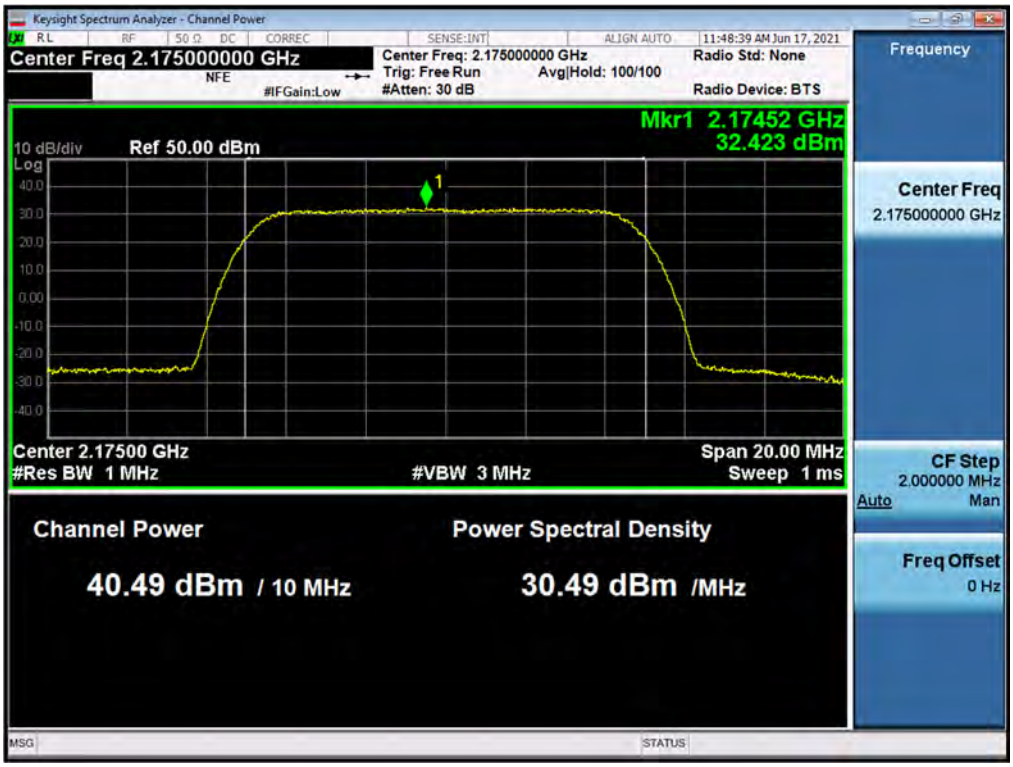

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 15 MHz + B66 DSS 10 MHz / Non-Contiguous / QPSK / High



Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 LTE 5 MHz + B66 LTE 15 MHz / Non-Contiguous / 64QAM / Low




Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 64QAM / High



## 5.2. PAPR

**Test Requirements:**

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

(d) Power measurements for transmissions by stations authorized under this section may be made either in accrdance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

**§ 27.50 Power limits and duty cycle.**

(d) (5) Equipment employed must be authorized in accordance with the provisions of § 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

**Test Procedures:**

The measurement is performed in accordance with Section 5.2.3.4 of ANSI C63.26.

The following guidelines are offered for performing a CCDF measurement..

a) Set resolution/measurement bandwidth ≥ OBW or specified reference bandwidth.

b) Set the number of counts to a value that stabilizes the measured CCDF curve.

c) Set the measurement interval as follows:

   1) For continuous transmissions, set to the greater of [10 × (number of points in sweep) × (transmission symbol period)] or 1 ms.

   2) For burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize. Set the measurement interval to a time that is less than or equal to the burst duration.

   3) If there are several carriers in a single antenna port, the peak power shall be determined for each individual carrier (by disabling the other carriers while measuring the required carrier) and the total peak power calculated from the sum of the individual carrier peak powers.

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

e) The peak power level is calculated form the sum of the PAPR value from step d) to the measured average power.

**Note:** The results of PAPR test shown above the frequency measured values are very small and similar trend for each port, so we are attached only the worst case plot.

## Tabular data of PAPR

### B2 LTE 5 MHz 1 Carrier

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 1 | QPSK | Middle | 1960.00 | 7.81 |
| | 16QAM | Middle | 1960.00 | 7.82 |
| | 64QAM | Middle | 1960.00 | 7.84 |
| | 256QAM | Middle | 1960.00 | 7.83 |

### B2 LTE 10 MHz 1 Carrier

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 1 | QPSK | Middle | 1960.00 | 7.81 |
| | 16QAM | Middle | 1960.00 | 7.83 |
| | 64QAM | Middle | 1960.00 | 7.81 |
| | 256QAM | Middle | 1960.00 | 7.82 |

### B2 LTE 15 MHz 1 Carrier

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 1 | QPSK | Middle | 1960.00 | 7.80 |
| | 16QAM | Middle | 1960.00 | 7.80 |
| | 64QAM | Middle | 1960.00 | 7.81 |
| | 256QAM | Middle | 1960.00 | 7.82 |

### B2 LTE 20 MHz 1 Carrier

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 1 | QPSK | Middle | 1960.00 | 7.80 |
| | 16QAM | Middle | 1960.00 | 7.82 |
| | 64QAM | Middle | 1960.00 | 7.82 |
| | 256QAM | Middle | 1960.00 | 7.84 |

**B66 LTE 5 MHz 1 Carrier**

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 2 | QPSK | Middle | 2145.00 | 7.79 |
| | 16QAM | Middle | 2145.00 | 7.81 |
| | 64QAM | Middle | 2145.00 | 7.81 |
| | 256QAM | Middle | 2145.00 | 7.84 |

**B66 LTE 10 MHz 1 Carrier**

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 2 | QPSK | Middle | 2145.00 | 7.80 |
| | 16QAM | Middle | 2145.00 | 7.80 |
| | 64QAM | Middle | 2145.00 | 7.81 |
| | 256QAM | Middle | 2145.00 | 7.82 |

**B66 LTE 15 MHz 1 Carrier**

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 2 | QPSK | Middle | 2145.00 | 7.80 |
| | 16QAM | Middle | 2145.00 | 7.81 |
| | 64QAM | Middle | 2145.00 | 7.81 |
| | 256QAM | Middle | 2145.00 | 7.81 |

**B66 LTE 20 MHz 1 Carrier**

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 2 | QPSK | Middle | 2145.00 | 7.83 |
| | 16QAM | Middle | 2145.00 | 7.82 |
| | 64QAM | Middle | 2145.00 | 7.84 |
| | 256QAM | Middle | 2145.00 | 7.83 |

B2 DSS 10 MHz 1 Carrier

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 0 | QPSK | Low | 1935.00 | 7.82 |
| | | Middle | 1960.00 | 7.78 |
| | | High | 1985.00 | 7.79 |
| | 16QAM | Low | 1935.00 | 7.84 |
| | | Middle | 1960.00 | 7.79 |
| | | High | 1985.00 | 7.79 |
| | 64QAM | Low | 1935.00 | 7.84 |
| | | Middle | 1960.00 | 7.79 |
| | | High | 1985.00 | 7.81 |
| | 256QAM | Low | 1935.00 | 7.83 |
| | | Middle | 1960.00 | 7.83 |
| | | High | 1985.00 | 7.81 |
| 1 | QPSK | Low | 1935.00 | 7.75 |
| | | Middle | 1960.00 | 7.82 |
| | | High | 1985.00 | 7.79 |
| | 16QAM | Low | 1935.00 | 7.75 |
| | | Middle | 1960.00 | 7.78 |
| | | High | 1985.00 | 7.80 |
| | 64QAM | Low | 1935.00 | 7.80 |
| | | Middle | 1960.00 | 7.79 |
| | | High | 1985.00 | 7.80 |
| | 256QAM | Low | 1935.00 | 7.82 |
| | | Middle | 1960.00 | 7.80 |
| | | High | 1985.00 | 7.81 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 1935.00 | 7.78 |
| | | Middle | 1960.00 | 7.79 |
| | | High | 1985.00 | 7.77 |
| | 16QAM | Low | 1935.00 | 7.85 |
| | | Middle | 1960.00 | 7.80 |
| | | High | 1985.00 | 7.79 |
| | 64QAM | Low | 1935.00 | 7.81 |
| | | Middle | 1960.00 | 7.81 |
| | | High | 1985.00 | 7.80 |
| | 256QAM | Low | 1935.00 | 7.82 |
| | | Middle | 1960.00 | 7.82 |
| | | High | 1985.00 | 7.82 |
| 3 | QPSK | Low | 1935.00 | 7.84 |
| | | Middle | 1960.00 | 7.81 |
| | | High | 1985.00 | 7.77 |
| | 16QAM | Low | 1935.00 | 7.79 |
| | | Middle | 1960.00 | 7.80 |
| | | High | 1985.00 | 7.82 |
| | 64QAM | Low | 1935.00 | 7.80 |
| | | Middle | 1960.00 | 7.79 |
| | | High | 1985.00 | 7.82 |
| | 256QAM | Low | 1935.00 | 7.83 |
| | | Middle | 1960.00 | 7.82 |
| | | High | 1985.00 | 7.81 |

B66 DSS 10 MHz 1 Carrier

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2115.00 | 7.86 |
| | | Middle | 2145.00 | 7.81 |
| | | High | 2175.00 | 7.82 |
| | 16QAM | Low | 2115.00 | 7.81 |
| | | Middle | 2145.00 | 7.83 |
| | | High | 2175.00 | 7.80 |
| | 64QAM | Low | 2115.00 | 7.79 |
| | | Middle | 2145.00 | 7.81 |
| | | High | 2175.00 | 7.82 |
| | 256QAM | Low | 2115.00 | 7.81 |
| | | Middle | 2145.00 | 7.80 |
| | | High | 2175.00 | 7.84 |
| 1 | QPSK | Low | 2115.00 | 7.84 |
| | | Middle | 2145.00 | 7.76 |
| | | High | 2175.00 | 7.78 |
| | 16QAM | Low | 2115.00 | 7.83 |
| | | Middle | 2145.00 | 7.76 |
| | | High | 2175.00 | 7.80 |
| | 64QAM | Low | 2115.00 | 7.81 |
| | | Middle | 2145.00 | 7.79 |
| | | High | 2175.00 | 7.80 |
| | 256QAM | Low | 2115.00 | 7.80 |
| | | Middle | 2145.00 | 7.80 |
| | | High | 2175.00 | 7.83 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2115.00 | 7.86 |
| | | Middle | 2145.00 | 7.81 |
| | | High | 2175.00 | 7.79 |
| | 16QAM | Low | 2115.00 | 7.84 |
| | | Middle | 2145.00 | 7.81 |
| | | High | 2175.00 | 7.82 |
| | 64QAM | Low | 2115.00 | 7.81 |
| | | Middle | 2145.00 | 7.82 |
| | | High | 2175.00 | 7.80 |
| | 256QAM | Low | 2115.00 | 7.77 |
| | | Middle | 2145.00 | 7.81 |
| | | High | 2175.00 | 7.82 |
| 3 | QPSK | Low | 2115.00 | 7.83 |
| | | Middle | 2145.00 | 7.79 |
| | | High | 2175.00 | 7.78 |
| | 16QAM | Low | 2115.00 | 7.84 |
| | | Middle | 2145.00 | 7.81 |
| | | High | 2175.00 | 7.81 |
| | 64QAM | Low | 2115.00 | 7.86 |
| | | Middle | 2145.00 | 7.80 |
| | | High | 2175.00 | 7.78 |
| | 256QAM | Low | 2115.00 | 7.82 |
| | | Middle | 2145.00 | 7.82 |
| | | High | 2175.00 | 7.78 |

## Tabular data of Contiguous PAPR

### B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 0 | QPSK | Low | 1937.50 | 8.07 |
| | | Middle | 1960.00 | 8.09 |
| | | High | 1982.50 | 8.05 |
| | 16QAM | Low | 1937.50 | 8.06 |
| | | Middle | 1960.00 | 8.08 |
| | | High | 1982.50 | 8.16 |
| | 64QAM | Low | 1937.50 | 8.05 |
| | | Middle | 1960.00 | 8.05 |
| | | High | 1982.50 | 8.03 |
| | 256QAM | Low | 1937.50 | 8.07 |
| | | Middle | 1960.00 | 8.07 |
| | | High | 1982.50 | 8.09 |
| 1 | QPSK | Low | 1937.50 | 8.07 |
| | | Middle | 1960.00 | 8.05 |
| | | High | 1982.50 | 8.02 |
| | 16QAM | Low | 1937.50 | 8.05 |
| | | Middle | 1960.00 | 8.09 |
| | | High | 1982.50 | 8.10 |
| | 64QAM | Low | 1937.50 | 8.05 |
| | | Middle | 1960.00 | 8.22 |
| | | High | 1982.50 | 8.11 |
| | 256QAM | Low | 1937.50 | 8.08 |
| | | Middle | 1960.00 | 7.99 |
| | | High | 1982.50 | 8.09 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 1937.50 | 8.03 |
| | | Middle | 1960.00 | 8.08 |
| | | High | 1982.50 | 8.05 |
| | 16QAM | Low | 1937.50 | 8.00 |
| | | Middle | 1960.00 | 8.09 |
| | | High | 1982.50 | 8.08 |
| | 64QAM | Low | 1937.50 | 8.01 |
| | | Middle | 1960.00 | 8.05 |
| | | High | 1982.50 | 8.08 |
| | 256QAM | Low | 1937.50 | 8.06 |
| | | Middle | 1960.00 | 8.11 |
| | | High | 1982.50 | 8.08 |
| 3 | QPSK | Low | 1937.50 | 8.03 |
| | | Middle | 1960.00 | 8.10 |
| | | High | 1982.50 | 8.10 |
| | 16QAM | Low | 1937.50 | 8.05 |
| | | Middle | 1960.00 | 8.06 |
| | | High | 1982.50 | 8.04 |
| | 64QAM | Low | 1937.50 | 8.00 |
| | | Middle | 1960.00 | 8.04 |
| | | High | 1982.50 | 8.04 |
| | 256QAM | Low | 1937.50 | 8.04 |
| | | Middle | 1960.00 | 8.08 |
| | | High | 1982.50 | 8.08 |

B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 0 | QPSK | Low | 1940.00 | 8.14 |
| | | Middle | 1960.00 | 8.15 |
| | | High | 1980.00 | 8.13 |
| | 16QAM | Low | 1940.00 | 8.19 |
| | | Middle | 1960.00 | 8.20 |
| | | High | 1980.00 | 8.23 |
| | 64QAM | Low | 1940.00 | 8.15 |
| | | Middle | 1960.00 | 8.20 |
| | | High | 1980.00 | 8.16 |
| | 256QAM | Low | 1940.00 | 8.13 |
| | | Middle | 1960.00 | 8.17 |
| | | High | 1980.00 | 8.18 |
| 1 | QPSK | Low | 1940.00 | 8.20 |
| | | Middle | 1960.00 | 8.17 |
| | | High | 1980.00 | 8.19 |
| | 16QAM | Low | 1940.00 | 8.14 |
| | | Middle | 1960.00 | 8.20 |
| | | High | 1980.00 | 8.21 |
| | 64QAM | Low | 1940.00 | 8.18 |
| | | Middle | 1960.00 | 8.16 |
| | | High | 1980.00 | 8.12 |
| | 256QAM | Low | 1940.00 | 8.10 |
| | | Middle | 1960.00 | 8.17 |
| | | High | 1980.00 | 8.16 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 1940.00 | 8.15 |
| | | Middle | 1960.00 | 8.16 |
| | | High | 1980.00 | 8.18 |
| | 16QAM | Low | 1940.00 | 8.17 |
| | | Middle | 1960.00 | 8.16 |
| | | High | 1980.00 | 8.17 |
| | 64QAM | Low | 1940.00 | 8.16 |
| | | Middle | 1960.00 | 8.19 |
| | | High | 1980.00 | 8.16 |
| | 256QAM | Low | 1940.00 | 8.09 |
| | | Middle | 1960.00 | 8.17 |
| | | High | 1980.00 | 8.18 |
| 3 | QPSK | Low | 1940.00 | 8.16 |
| | | Middle | 1960.00 | 8.20 |
| | | High | 1980.00 | 8.14 |
| | 16QAM | Low | 1940.00 | 8.16 |
| | | Middle | 1960.00 | 8.23 |
| | | High | 1980.00 | 8.23 |
| | 64QAM | Low | 1940.00 | 8.17 |
| | | Middle | 1960.00 | 8.19 |
| | | High | 1980.00 | 8.17 |
| | 256QAM | Low | 1940.00 | 8.14 |
| | | Middle | 1960.00 | 8.14 |
| | | High | 1980.00 | 8.12 |

B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2117.50 | 8.07 |
| | | Middle | 2145.00 | 8.10 |
| | | High | 2172.50 | 8.05 |
| | 16QAM | Low | 2117.50 | 8.04 |
| | | Middle | 2145.00 | 8.08 |
| | | High | 2172.50 | 8.06 |
| | 64QAM | Low | 2117.50 | 8.07 |
| | | Middle | 2145.00 | 8.07 |
| | | High | 2172.50 | 8.05 |
| | 256QAM | Low | 2117.50 | 8.08 |
| | | Middle | 2145.00 | 8.11 |
| | | High | 2172.50 | 8.08 |
| 1 | QPSK | Low | 2117.50 | 8.08 |
| | | Middle | 2145.00 | 8.04 |
| | | High | 2172.50 | 8.07 |
| | 16QAM | Low | 2117.50 | 8.04 |
| | | Middle | 2145.00 | 8.07 |
| | | High | 2172.50 | 8.07 |
| | 64QAM | Low | 2117.50 | 8.09 |
| | | Middle | 2145.00 | 8.10 |
| | | High | 2172.50 | 8.09 |
| | 256QAM | Low | 2117.50 | 8.12 |
| | | Middle | 2145.00 | 8.12 |
| | | High | 2172.50 | 8.07 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2117.50 | 8.07 |
| | | Middle | 2145.00 | 8.09 |
| | | High | 2172.50 | 8.09 |
| | 16QAM | Low | 2117.50 | 8.06 |
| | | Middle | 2145.00 | 8.08 |
| | | High | 2172.50 | 8.07 |
| | 64QAM | Low | 2117.50 | 8.07 |
| | | Middle | 2145.00 | 8.09 |
| | | High | 2172.50 | 8.09 |
| | 256QAM | Low | 2117.50 | 8.09 |
| | | Middle | 2145.00 | 8.07 |
| | | High | 2172.50 | 8.06 |
| 3 | QPSK | Low | 2117.50 | 8.06 |
| | | Middle | 2145.00 | 8.06 |
| | | High | 2172.50 | 8.04 |
| | 16QAM | Low | 2117.50 | 8.05 |
| | | Middle | 2145.00 | 8.08 |
| | | High | 2172.50 | 8.08 |
| | 64QAM | Low | 2117.50 | 8.07 |
| | | Middle | 2145.00 | 8.11 |
| | | High | 2172.50 | 8.09 |
| | 256QAM | Low | 2117.50 | 8.06 |
| | | Middle | 2145.00 | 8.07 |
| | | High | 2172.50 | 8.06 |

B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2125.00 | 8.14 |
| | | Middle | 2145.00 | 8.19 |
| | | High | 2165.00 | 8.22 |
| | 16QAM | Low | 2125.00 | 8.18 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2165.00 | 8.23 |
| | 64QAM | Low | 2125.00 | 8.15 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2165.00 | 8.15 |
| | 256QAM | Low | 2125.00 | 8.17 |
| | | Middle | 2145.00 | 8.24 |
| | | High | 2165.00 | 8.18 |
| 1 | QPSK | Low | 2125.00 | 8.19 |
| | | Middle | 2145.00 | 8.23 |
| | | High | 2165.00 | 8.17 |
| | 16QAM | Low | 2125.00 | 8.17 |
| | | Middle | 2145.00 | 8.18 |
| | | High | 2165.00 | 8.20 |
| | 64QAM | Low | 2125.00 | 8.18 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2165.00 | 8.18 |
| | 256QAM | Low | 2125.00 | 8.17 |
| | | Middle | 2145.00 | 8.20 |
| | | High | 2165.00 | 8.19 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2125.00 | 8.21 |
| | | Middle | 2145.00 | 8.21 |
| | | High | 2165.00 | 8.16 |
| | 16QAM | Low | 2125.00 | 8.23 |
| | | Middle | 2145.00 | 8.21 |
| | | High | 2165.00 | 8.21 |
| | 64QAM | Low | 2125.00 | 8.16 |
| | | Middle | 2145.00 | 8.15 |
| | | High | 2165.00 | 8.19 |
| | 256QAM | Low | 2125.00 | 8.18 |
| | | Middle | 2145.00 | 8.22 |
| | | High | 2165.00 | 8.18 |
| 3 | QPSK | Low | 2125.00 | 8.17 |
| | | Middle | 2145.00 | 8.22 |
| | | High | 2165.00 | 8.20 |
| | 16QAM | Low | 2125.00 | 8.19 |
| | | Middle | 2145.00 | 8.21 |
| | | High | 2165.00 | 8.11 |
| | 64QAM | Low | 2125.00 | 8.15 |
| | | Middle | 2145.00 | 8.22 |
| | | High | 2165.00 | 8.16 |
| | 256QAM | Low | 2125.00 | 8.19 |
| | | Middle | 2145.00 | 8.18 |
| | | High | 2165.00 | 8.21 |

**B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [3 Carrier]**

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2120.00 | 8.23 |
| | | Middle | 2145.00 | 8.20 |
| | | High | 2170.00 | 8.18 |
| | 16QAM | Low | 2120.00 | 8.13 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2170.00 | 8.19 |
| | 64QAM | Low | 2120.00 | 8.19 |
| | | Middle | 2145.00 | 8.22 |
| | | High | 2170.00 | 8.24 |
| | 256QAM | Low | 2120.00 | 8.21 |
| | | Middle | 2145.00 | 8.21 |
| | | High | 2170.00 | 8.21 |
| 1 | QPSK | Low | 2120.00 | 8.14 |
| | | Middle | 2145.00 | 8.21 |
| | | High | 2170.00 | 8.17 |
| | 16QAM | Low | 2120.00 | 8.12 |
| | | Middle | 2145.00 | 8.21 |
| | | High | 2170.00 | 8.18 |
| | 64QAM | Low | 2120.00 | 8.16 |
| | | Middle | 2145.00 | 8.18 |
| | | High | 2170.00 | 8.17 |
| | 256QAM | Low | 2120.00 | 8.09 |
| | | Middle | 2145.00 | 8.21 |
| | | High | 2170.00 | 8.17 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2120.00 | 8.13 |
| | | Middle | 2145.00 | 8.19 |
| | | High | 2170.00 | 8.18 |
| | 16QAM | Low | 2120.00 | 8.11 |
| | | Middle | 2145.00 | 8.14 |
| | | High | 2170.00 | 8.14 |
| | 64QAM | Low | 2120.00 | 8.20 |
| | | Middle | 2145.00 | 8.13 |
| | | High | 2170.00 | 8.15 |
| | 256QAM | Low | 2120.00 | 8.21 |
| | | Middle | 2145.00 | 8.19 |
| | | High | 2170.00 | 8.17 |
| 3 | QPSK | Low | 2120.00 | 8.15 |
| | | Middle | 2145.00 | 8.18 |
| | | High | 2170.00 | 8.19 |
| | 16QAM | Low | 2120.00 | 8.11 |
| | | Middle | 2145.00 | 8.20 |
| | | High | 2170.00 | 8.16 |
| | 64QAM | Low | 2120.00 | 8.19 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2170.00 | 8.17 |
| | 256QAM | Low | 2120.00 | 8.19 |
| | | Middle | 2145.00 | 8.19 |
| | | High | 2170.00 | 8.20 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [3 Carrier]**

| Ant. | Modulation | Channel | Frequency (MHz) | 0.1 % PAPR (dB) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2125.00 | 8.16 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2165.00 | 8.22 |
| | 16QAM | Low | 2125.00 | 8.18 |
| | | Middle | 2145.00 | 8.17 |
| | | High | 2165.00 | 8.16 |
| | 64QAM | Low | 2125.00 | 8.17 |
| | | Middle | 2145.00 | 8.17 |
| | | High | 2165.00 | 8.17 |
| | 256QAM | Low | 2125.00 | 8.16 |
| | | Middle | 2145.00 | 8.20 |
| | | High | 2165.00 | 8.20 |
| 1 | QPSK | Low | 2125.00 | 8.16 |
| | | Middle | 2145.00 | 8.18 |
| | | High | 2165.00 | 8.19 |
| | 16QAM | Low | 2125.00 | 8.14 |
| | | Middle | 2145.00 | 8.20 |
| | | High | 2165.00 | 8.17 |
| | 64QAM | Low | 2125.00 | 8.18 |
| | | Middle | 2145.00 | 8.15 |
| | | High | 2165.00 | 8.17 |
| | 256QAM | Low | 2125.00 | 8.20 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2165.00 | 8.19 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2125.00 | 8.15 |
| | | Middle | 2145.00 | 8.20 |
| | | High | 2165.00 | 8.16 |
| | 16QAM | Low | 2125.00 | 8.11 |
| | | Middle | 2145.00 | 8.19 |
| | | High | 2165.00 | 8.13 |
| | 64QAM | Low | 2125.00 | 8.11 |
| | | Middle | 2145.00 | 8.17 |
| | | High | 2165.00 | 8.18 |
| | 256QAM | Low | 2125.00 | 8.19 |
| | | Middle | 2145.00 | 8.19 |
| | | High | 2165.00 | 8.15 |
| 3 | QPSK | Low | 2125.00 | 8.15 |
| | | Middle | 2145.00 | 8.18 |
| | | High | 2165.00 | 8.16 |
| | 16QAM | Low | 2125.00 | 8.14 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2165.00 | 8.17 |
| | 64QAM | Low | 2125.00 | 8.12 |
| | | Middle | 2145.00 | 8.16 |
| | | High | 2165.00 | 8.19 |
| | 256QAM | Low | 2125.00 | 8.16 |
| | | Middle | 2145.00 | 8.18 |
| | | High | 2165.00 | 8.15 |

**Tabular data of Non-Contiguous PAPR**

**B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant. | Modulation | B2 LTE 5 MHz | | B2 DSS 10 MHz | |
|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 1932.50 | 8.28 | 1985.00 | 8.18 |
| | 16QAM | 1932.50 | 8.19 | 1985.00 | 8.13 |
| | 64QAM | 1932.50 | 8.33 | 1985.00 | 8.23 |
| | 256QAM | 1932.50 | 8.24 | 1985.00 | 8.20 |
| 1 | QPSK | 1932.50 | 8.34 | 1985.00 | 8.21 |
| | 16QAM | 1932.50 | 8.17 | 1985.00 | 8.20 |
| | 64QAM | 1932.50 | 8.36 | 1985.00 | 8.19 |
| | 256QAM | 1932.50 | 8.26 | 1985.00 | 8.25 |
| 2 | QPSK | 1932.50 | 8.40 | 1985.00 | 8.23 |
| | 16QAM | 1932.50 | 8.37 | 1985.00 | 8.14 |
| | 64QAM | 1932.50 | 8.28 | 1985.00 | 8.15 |
| | 256QAM | 1932.50 | 8.25 | 1985.00 | 8.21 |
| 3 | QPSK | 1932.50 | 8.35 | 1985.00 | 8.21 |
| | 16QAM | 1932.50 | 8.40 | 1985.00 | 8.15 |
| | 64QAM | 1932.50 | 8.18 | 1985.00 | 8.16 |
| | 256QAM | 1932.50 | 8.26 | 1985.00 | 8.23 |

B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | B2 LTE 10 MHz | | B2 DSS 10 MHz | |
|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 1935.00 | 8.22 | 1985.00 | 8.31 |
| | 16QAM | 1935.00 | 8.10 | 1985.00 | 8.22 |
| | 64QAM | 1935.00 | 8.23 | 1985.00 | 8.28 |
| | 256QAM | 1935.00 | 8.20 | 1985.00 | 8.26 |
| 1 | QPSK | 1935.00 | 8.29 | 1985.00 | 8.34 |
| | 16QAM | 1935.00 | 8.22 | 1985.00 | 8.24 |
| | 64QAM | 1935.00 | 8.22 | 1985.00 | 8.26 |
| | 256QAM | 1935.00 | 8.25 | 1985.00 | 8.32 |
| 2 | QPSK | 1935.00 | 8.21 | 1985.00 | 8.25 |
| | 16QAM | 1935.00 | 8.18 | 1985.00 | 8.25 |
| | 64QAM | 1935.00 | 8.20 | 1985.00 | 8.24 |
| | 256QAM | 1935.00 | 8.29 | 1985.00 | 8.32 |
| 3 | QPSK | 1935.00 | 8.27 | 1985.00 | 8.30 |
| | 16QAM | 1935.00 | 8.13 | 1985.00 | 8.25 |
| | 64QAM | 1935.00 | 8.24 | 1985.00 | 8.28 |
| | 256QAM | 1935.00 | 8.27 | 1985.00 | 8.31 |

B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant. | Modulation | B66 LTE 5 MHz | | B66 DSS 10 MHz | |
|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 2112.50 | 8.27 | 2175.00 | 8.25 |
| | 16QAM | 2112.50 | 8.21 | 2175.00 | 8.21 |
| | 64QAM | 2112.50 | 8.36 | 2175.00 | 8.14 |
| | 256QAM | 2112.50 | 8.33 | 2175.00 | 8.27 |
| 1 | QPSK | 2112.50 | 8.29 | 2175.00 | 8.25 |
| | 16QAM | 2112.50 | 8.26 | 2175.00 | 8.21 |
| | 64QAM | 2112.50 | 8.37 | 2175.00 | 8.14 |
| | 256QAM | 2112.50 | 8.22 | 2175.00 | 8.11 |
| 2 | QPSK | 2112.50 | 8.26 | 2175.00 | 8.17 |
| | 16QAM | 2112.50 | 8.23 | 2175.00 | 8.20 |
| | 64QAM | 2112.50 | 8.37 | 2175.00 | 8.17 |
| | 256QAM | 2112.50 | 8.22 | 2175.00 | 8.19 |
| 3 | QPSK | 2112.50 | 8.29 | 2175.00 | 8.18 |
| | 16QAM | 2112.50 | 8.19 | 2175.00 | 8.15 |
| | 64QAM | 2112.50 | 8.35 | 2175.00 | 8.14 |
| | 256QAM | 2112.50 | 8.28 | 2175.00 | 8.14 |

**B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier]**

| Ant. | Modulation | B66 DSS 10 MHz | | B66 LTE 20 MHz | |
|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 2120.00 | 8.22 | 2175.00 | 8.31 |
| | 16QAM | 2120.00 | 8.18 | 2175.00 | 8.30 |
| | 64QAM | 2120.00 | 8.15 | 2175.00 | 8.26 |
| | 256QAM | 2120.00 | 8.22 | 2175.00 | 8.31 |
| 1 | QPSK | 2120.00 | 8.22 | 2175.00 | 8.34 |
| | 16QAM | 2120.00 | 8.21 | 2175.00 | 8.36 |
| | 64QAM | 2120.00 | 8.15 | 2175.00 | 8.22 |
| | 256QAM | 2120.00 | 8.18 | 2175.00 | 8.37 |
| 2 | QPSK | 2120.00 | 8.22 | 2175.00 | 8.35 |
| | 16QAM | 2120.00 | 8.18 | 2175.00 | 8.34 |
| | 64QAM | 2120.00 | 8.11 | 2175.00 | 8.27 |
| | 256QAM | 2120.00 | 8.19 | 2175.00 | 8.37 |
| 3 | QPSK | 2120.00 | 8.17 | 2175.00 | 8.35 |
| | 16QAM | 2120.00 | 8.19 | 2175.00 | 8.30 |
| | 64QAM | 2120.00 | 8.17 | 2175.00 | 8.21 |
| | 256QAM | 2120.00 | 8.20 | 2175.00 | 8.30 |

B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier]

| Ant. | Modulation | B66 LTE 5 MHz | | B66 LTE 5 MHz + B66 DSS 10 MHz | |
|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 2112.50 | 8.36 | 2172.50 | 8.11 |
| | 16QAM | 2112.50 | 8.21 | 2172.50 | 8.15 |
| | 64QAM | 2112.50 | 8.20 | 2172.50 | 8.15 |
| | 256QAM | 2112.50 | 8.30 | 2172.50 | 8.13 |
| 1 | QPSK | 2112.50 | 8.28 | 2172.50 | 8.05 |
| | 16QAM | 2112.50 | 8.23 | 2172.50 | 8.16 |
| | 64QAM | 2112.50 | 8.46 | 2172.50 | 8.08 |
| | 256QAM | 2112.50 | 8.29 | 2172.50 | 8.11 |
| 2 | QPSK | 2112.50 | 8.29 | 2172.50 | 8.07 |
| | 16QAM | 2112.50 | 8.21 | 2172.50 | 8.06 |
| | 64QAM | 2112.50 | 8.42 | 2172.50 | 8.13 |
| | 256QAM | 2112.50 | 8.30 | 2172.50 | 8.14 |
| 3 | QPSK | 2112.50 | 8.29 | 2172.50 | 8.08 |
| | 16QAM | 2112.50 | 8.24 | 2172.50 | 8.07 |
| | 64QAM | 2112.50 | 8.39 | 2172.50 | 8.11 |
| | 256QAM | 2112.50 | 8.25 | 2172.50 | 8.10 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier]**

| Ant. | Modulation | B66 LTE 5 MHz + B66 LTE 5 MHz | | B66 DSS 10 MHz | |
|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 2115.00 | 8.19 | 2175.00 | 8.28 |
| | 16QAM | 2115.00 | 8.25 | 2175.00 | 8.30 |
| | 64QAM | 2115.00 | 8.23 | 2175.00 | 8.24 |
| | 256QAM | 2115.00 | 8.23 | 2175.00 | 8.23 |
| 1 | QPSK | 2115.00 | 8.23 | 2175.00 | 8.31 |
| | 16QAM | 2115.00 | 8.20 | 2175.00 | 8.33 |
| | 64QAM | 2115.00 | 8.19 | 2175.00 | 8.22 |
| | 256QAM | 2115.00 | 8.23 | 2175.00 | 8.24 |
| 2 | QPSK | 2115.00 | 8.22 | 2175.00 | 8.32 |
| | 16QAM | 2115.00 | 8.22 | 2175.00 | 8.24 |
| | 64QAM | 2115.00 | 8.21 | 2175.00 | 8.24 |
| | 256QAM | 2115.00 | 8.20 | 2175.00 | 8.26 |
| 3 | QPSK | 2115.00 | 8.19 | 2175.00 | 8.29 |
| | 16QAM | 2115.00 | 8.21 | 2175.00 | 8.31 |
| | 64QAM | 2115.00 | 8.18 | 2175.00 | 8.24 |
| | 256QAM | 2115.00 | 8.27 | 2175.00 | 8.27 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier]**

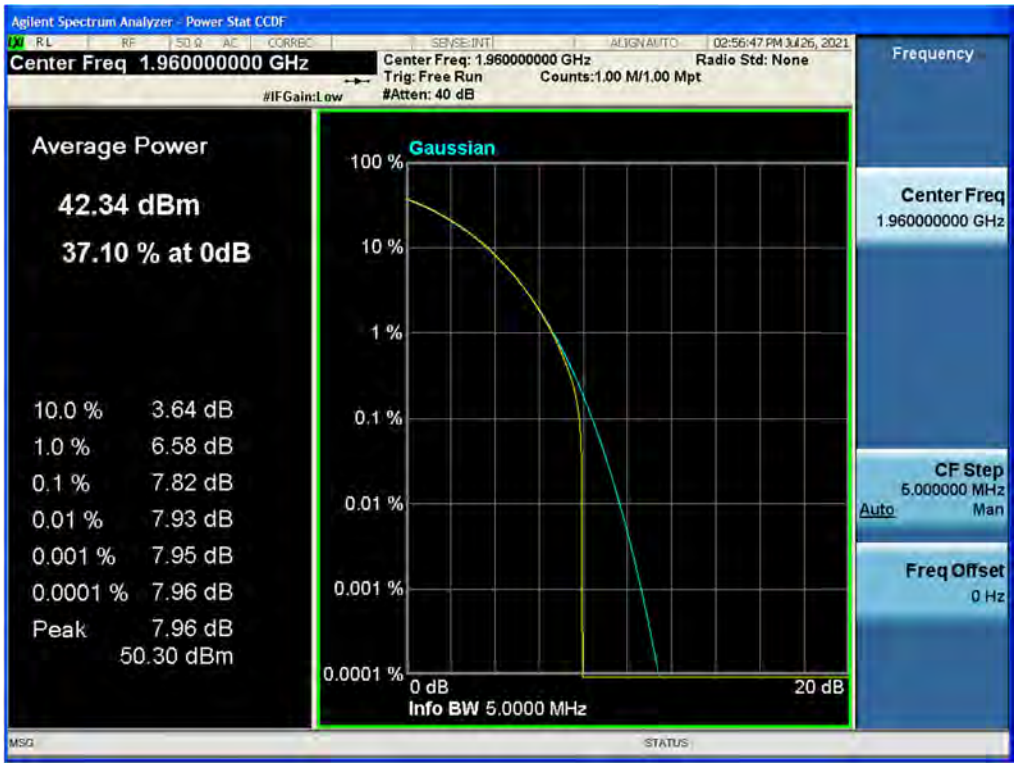
| Ant. | Modulation | B66 LTE 5 MHz | | B66 LTE 15 MHz + B66 DSS 10 MHz | |
|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 2112.50 | 8.41 | 2167.50 | 8.08 |
| | 16QAM | 2112.50 | 8.23 | 2167.50 | 8.09 |
| | 64QAM | 2112.50 | 8.37 | 2167.50 | 8.06 |
| | 256QAM | 2112.50 | 8.34 | 2167.50 | 8.10 |
| 1 | QPSK | 2112.50 | 8.44 | 2167.50 | 8.05 |
| | 16QAM | 2112.50 | 8.36 | 2167.50 | 8.07 |
| | 64QAM | 2112.50 | 8.37 | 2167.50 | 8.08 |
| | 256QAM | 2112.50 | 8.27 | 2167.50 | 8.12 |
| 2 | QPSK | 2112.50 | 8.40 | 2167.50 | 8.09 |
| | 16QAM | 2112.50 | 8.20 | 2167.50 | 8.09 |
| | 64QAM | 2112.50 | 8.31 | 2167.50 | 8.04 |
| | 256QAM | 2112.50 | 8.31 | 2167.50 | 8.11 |
| 3 | QPSK | 2112.50 | 8.36 | 2167.50 | 8.06 |
| | 16QAM | 2112.50 | 8.24 | 2167.50 | 8.08 |
| | 64QAM | 2112.50 | 8.35 | 2167.50 | 8.06 |
| | 256QAM | 2112.50 | 8.31 | 2167.50 | 8.11 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier]**

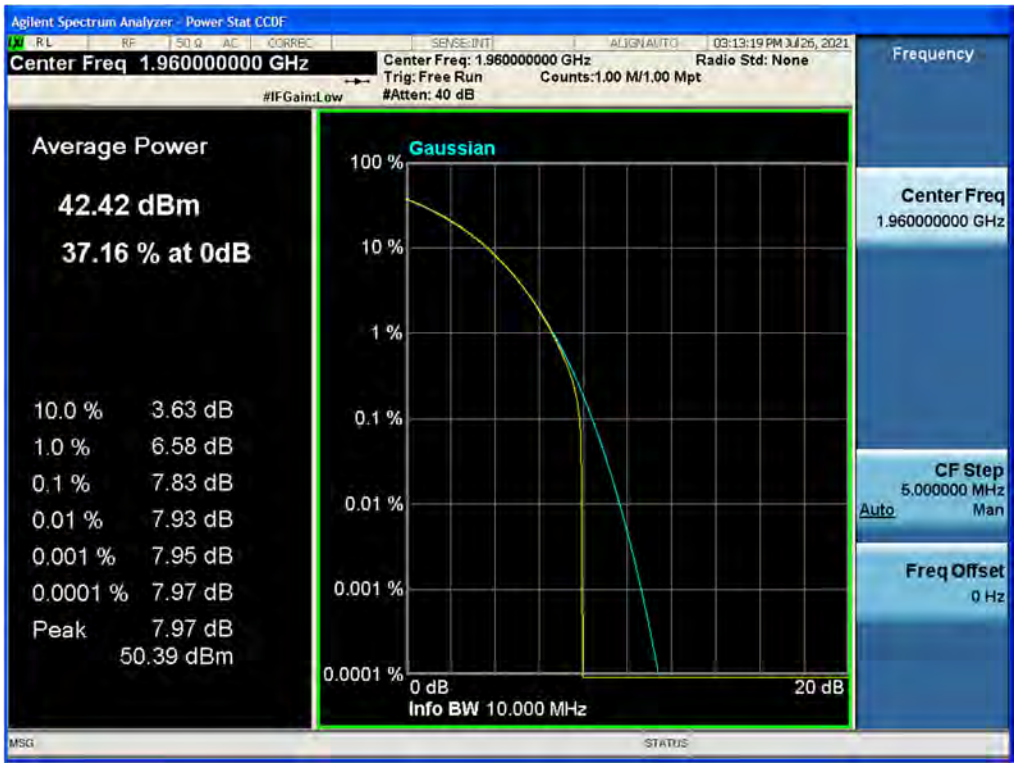
| Ant. | Modulation | B66 LTE 5 MHz + B66 LTE 15 MHz | | B66 DSS 10 MHz | |
|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (dB) | Frequency (MHz) | Measured Value (dB) |
| 0 | QPSK | 2120.00 | 8.22 | 2175.00 | 8.36 |
| | 16QAM | 2120.00 | 8.14 | 2175.00 | 8.39 |
| | 64QAM | 2120.00 | 8.20 | 2175.00 | 8.28 |
| | 256QAM | 2120.00 | 8.15 | 2175.00 | 8.32 |
| 1 | QPSK | 2120.00 | 8.21 | 2175.00 | 8.35 |
| | 16QAM | 2120.00 | 8.19 | 2175.00 | 8.38 |
| | 64QAM | 2120.00 | 8.23 | 2175.00 | 8.25 |
| | 256QAM | 2120.00 | 8.19 | 2175.00 | 8.33 |
| 2 | QPSK | 2120.00 | 8.23 | 2175.00 | 8.35 |
| | 16QAM | 2120.00 | 8.15 | 2175.00 | 8.38 |
| | 64QAM | 2120.00 | 8.14 | 2175.00 | 8.24 |
| | 256QAM | 2120.00 | 8.18 | 2175.00 | 8.25 |
| 3 | QPSK | 2120.00 | 8.20 | 2175.00 | 8.34 |
| | 16QAM | 2120.00 | 8.19 | 2175.00 | 8.32 |
| | 64QAM | 2120.00 | 8.16 | 2175.00 | 8.31 |
| | 256QAM | 2120.00 | 8.11 | 2175.00 | 8.31 |

## Plot Data of PAPR

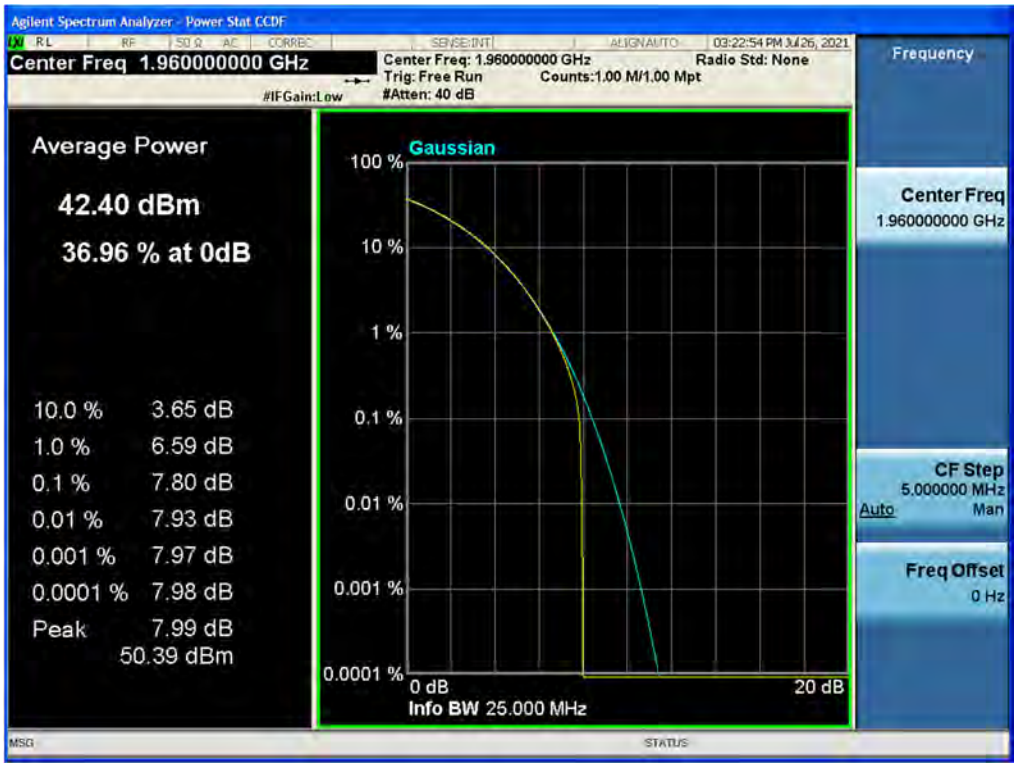
### Antenna 1 / B2 LTE 5 MHz 1 Carrier / 16QAM / Middle



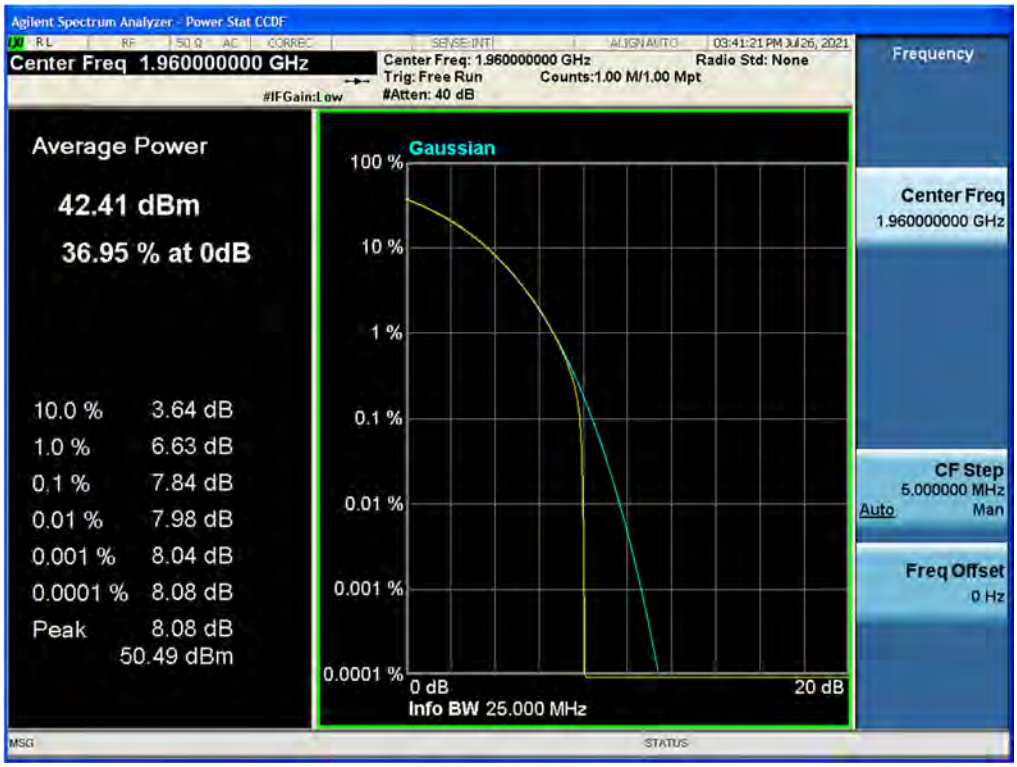

### Antenna 1 / B2 LTE 10 MHz 1 Carrier / 16QAM / Middle



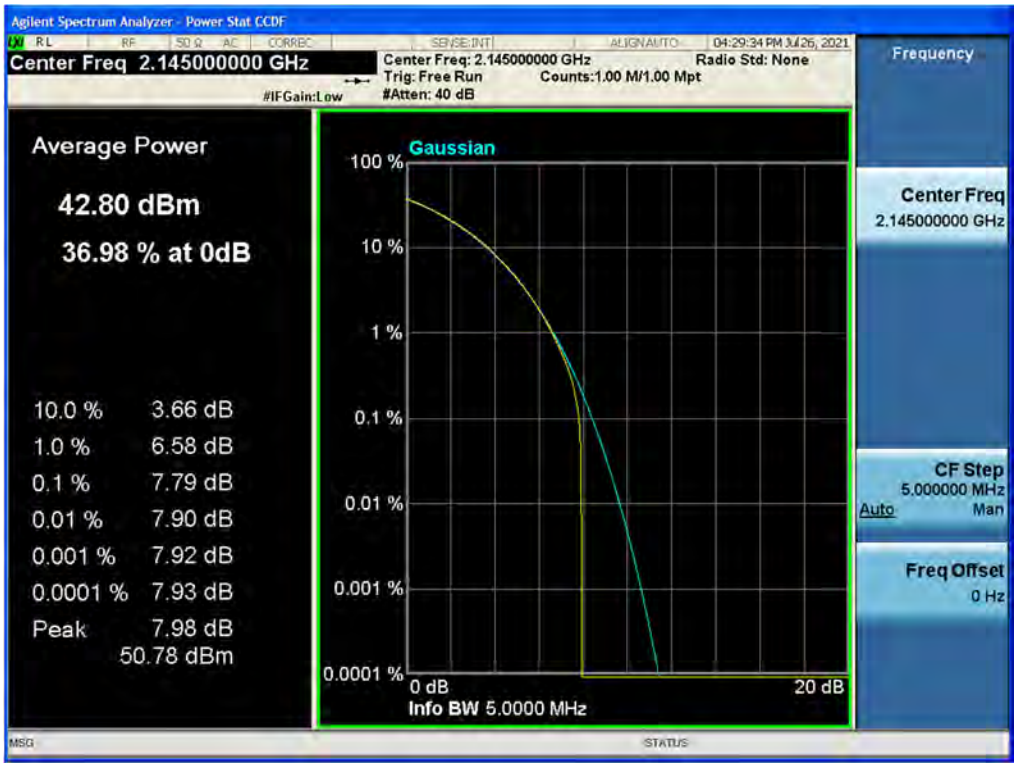
## Antenna 1 / B2 LTE 15 MHz 1 Carrier / QPSK / Middle



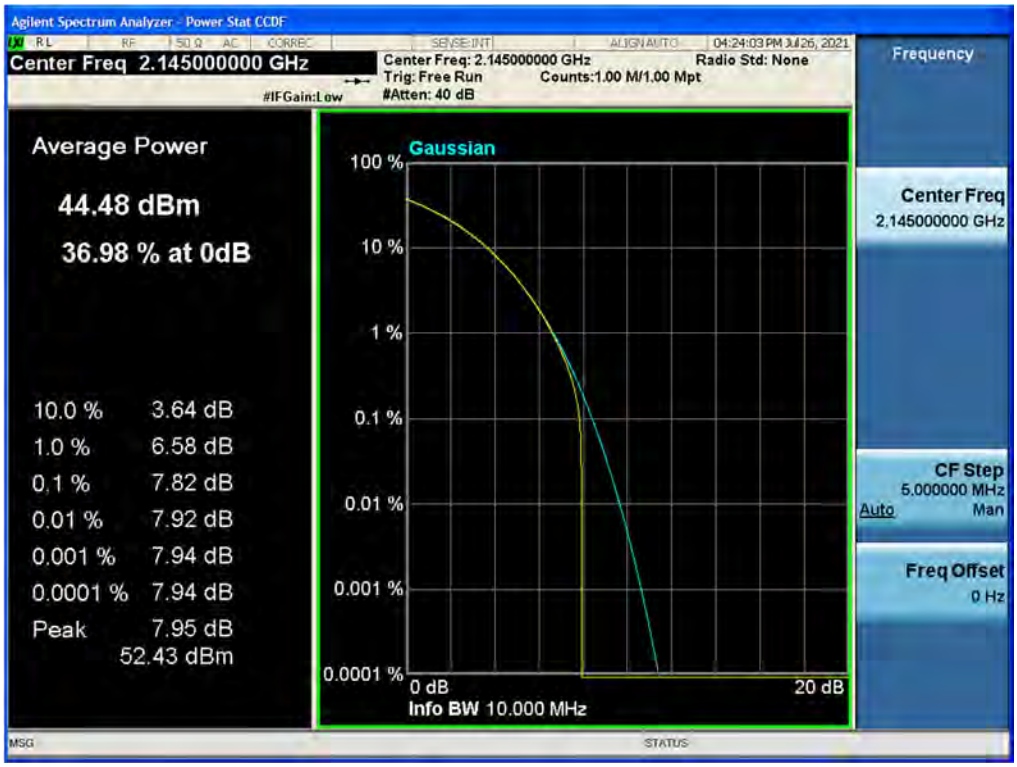

## Antenna 1 / B2 LTE 20 MHz 1 Carrier / 256QAM / Middle



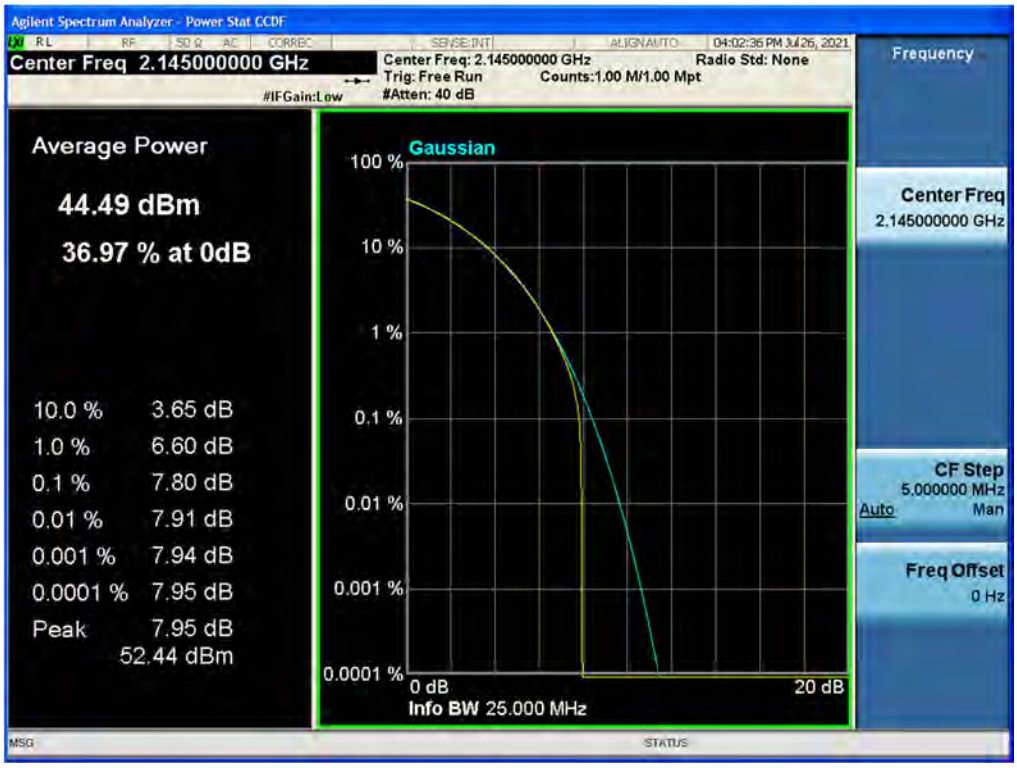
## Antenna 2 / B66 LTE 5 MHz 1 Carrier / QPSK / Middle



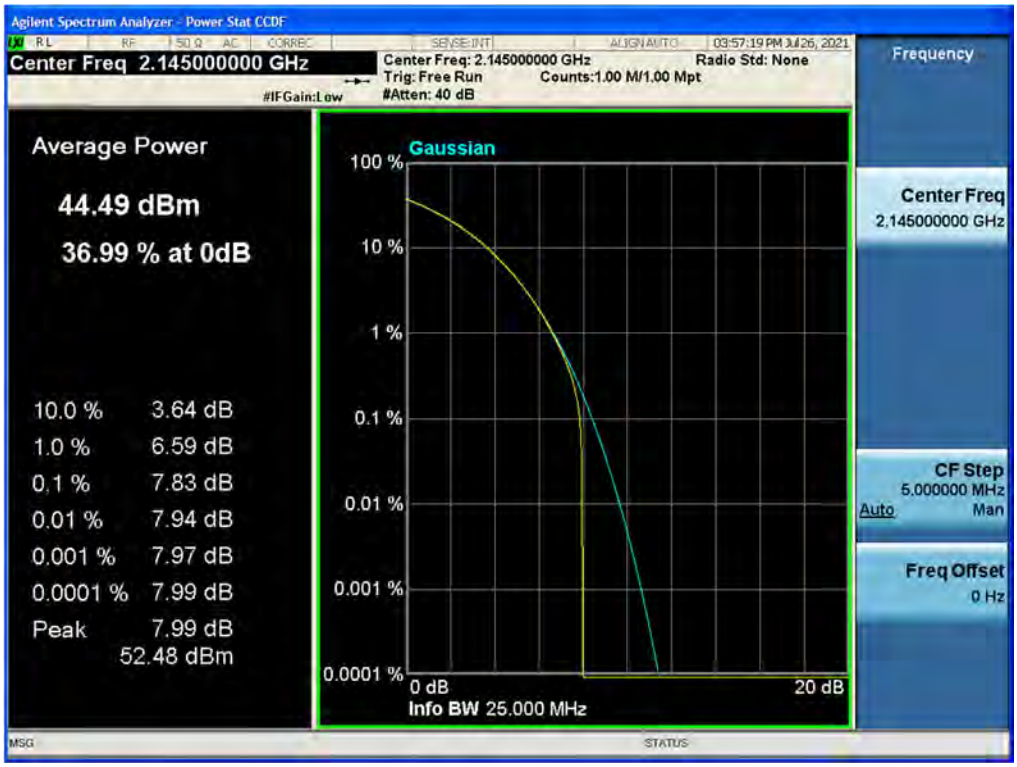

## Antenna 2 / B66 LTE 10 MHz 1 Carrier / 256QAM / Middle



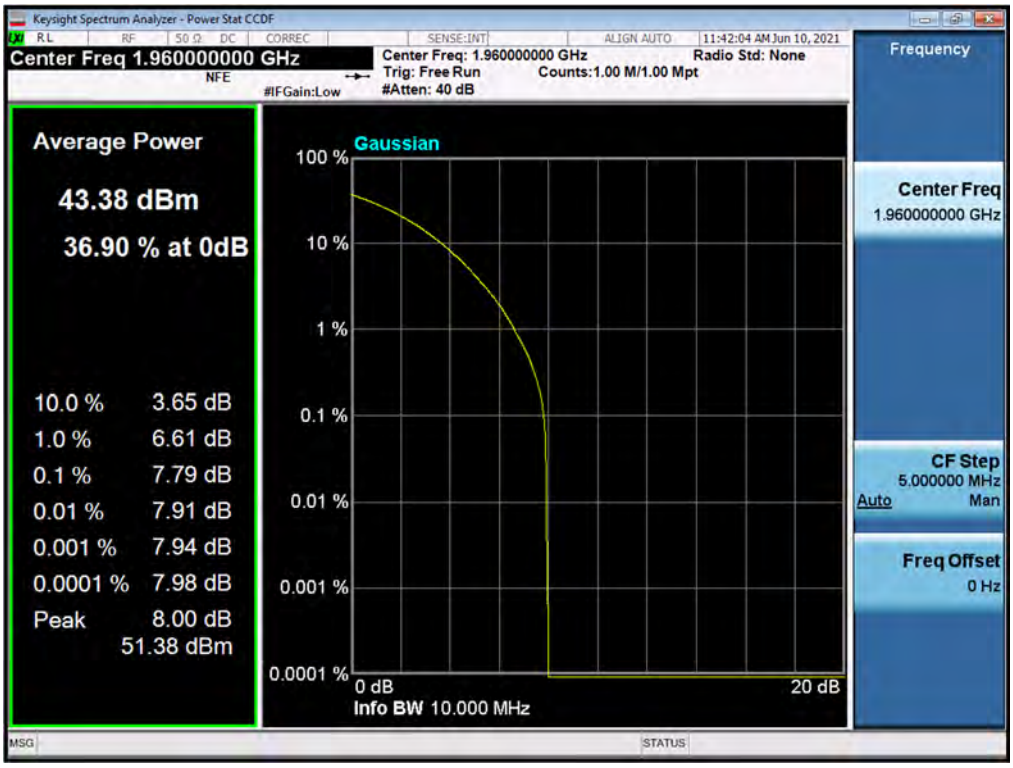
Antenna 2 / B66 LTE 15 MHz 1 Carrier / QPSK / Middle



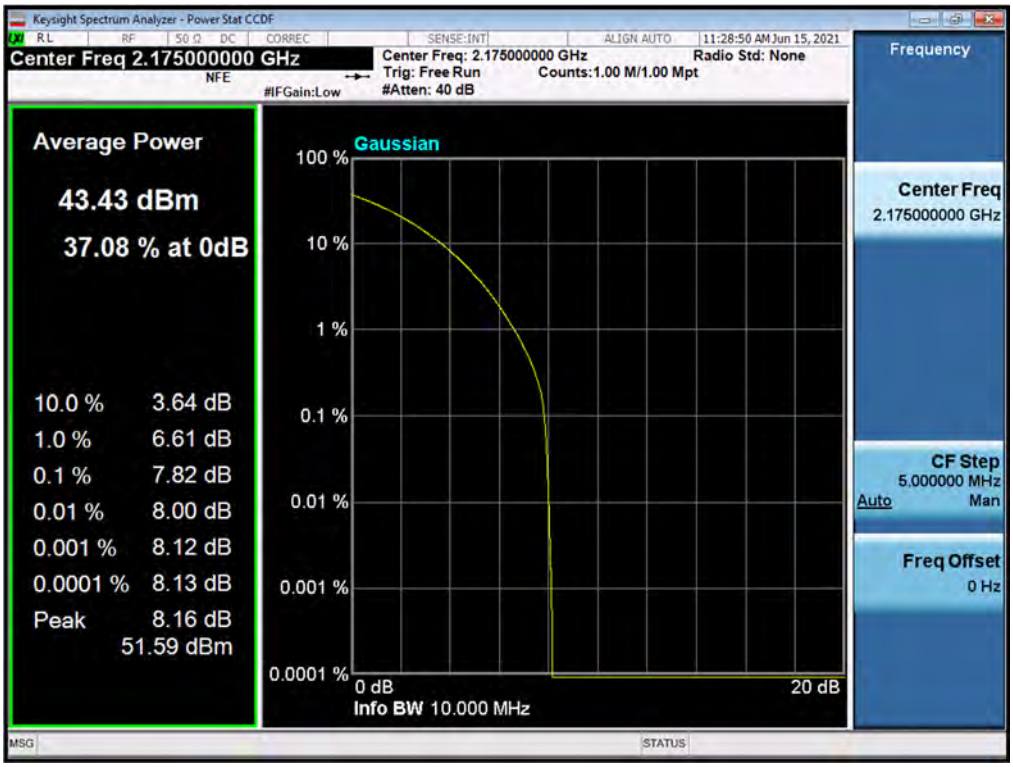

Antenna 2 / B66 LTE 20 MHz 1 Carrier / 256QAM / Middle



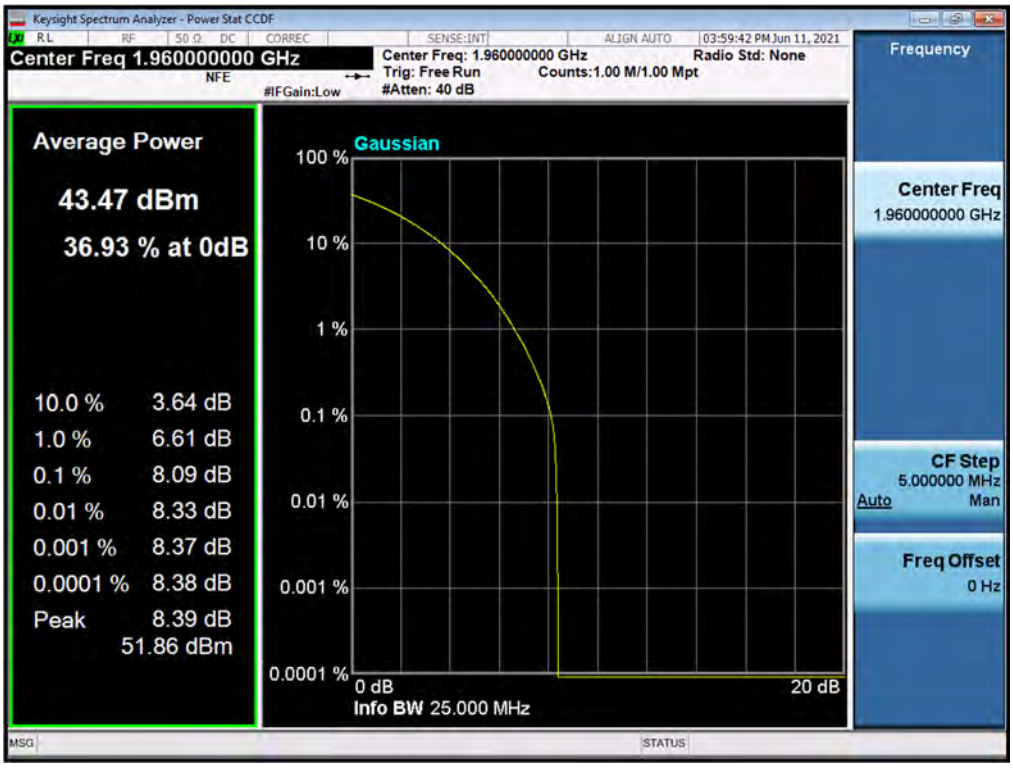
Antenna 0 / B2 DSS 10 MHz 1 Carrier/ 16QAM / Middle



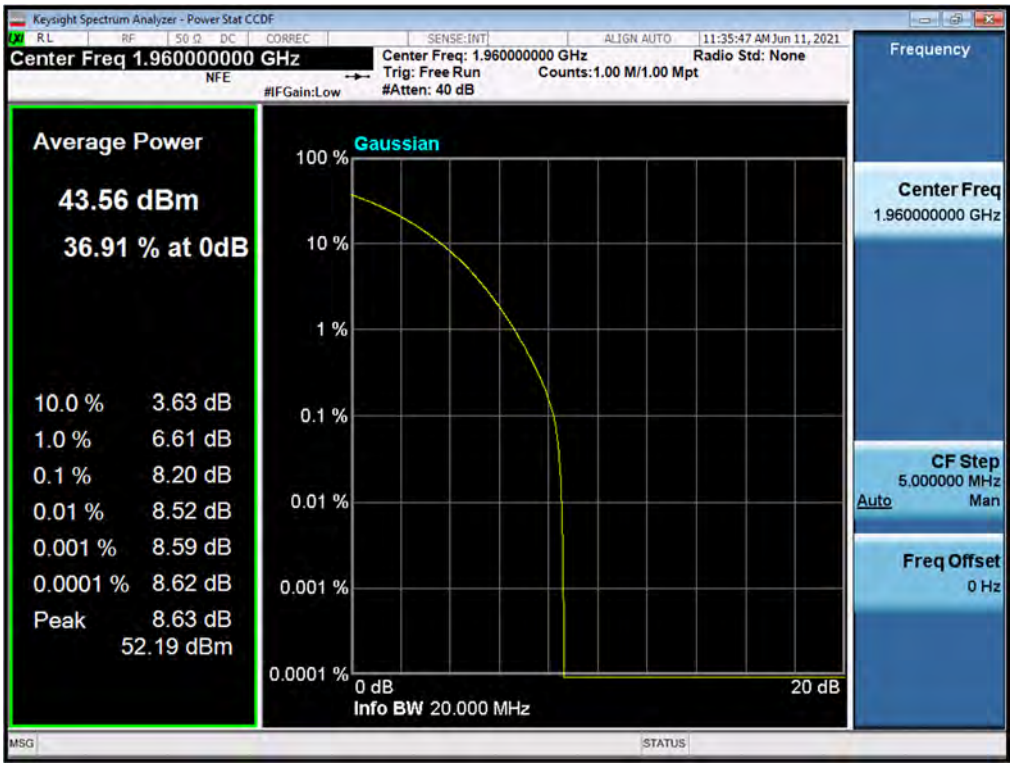

Antenna 0 / B66 DSS 10 MHz 1 Carrier/ 64QAM / High



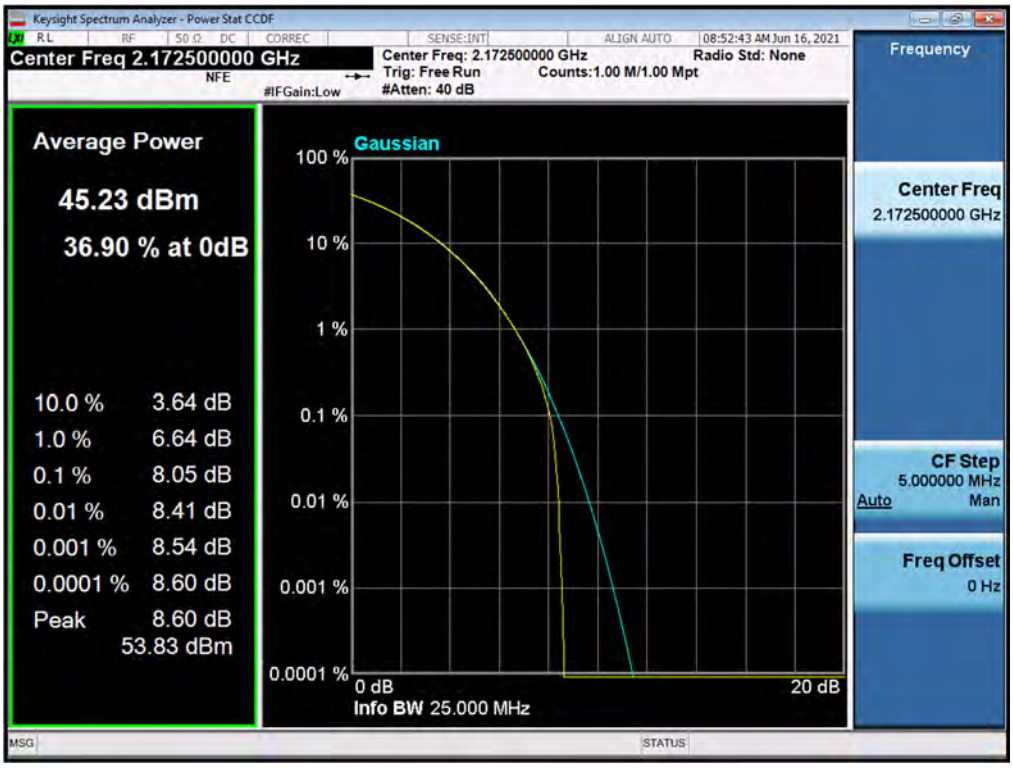
Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Middle



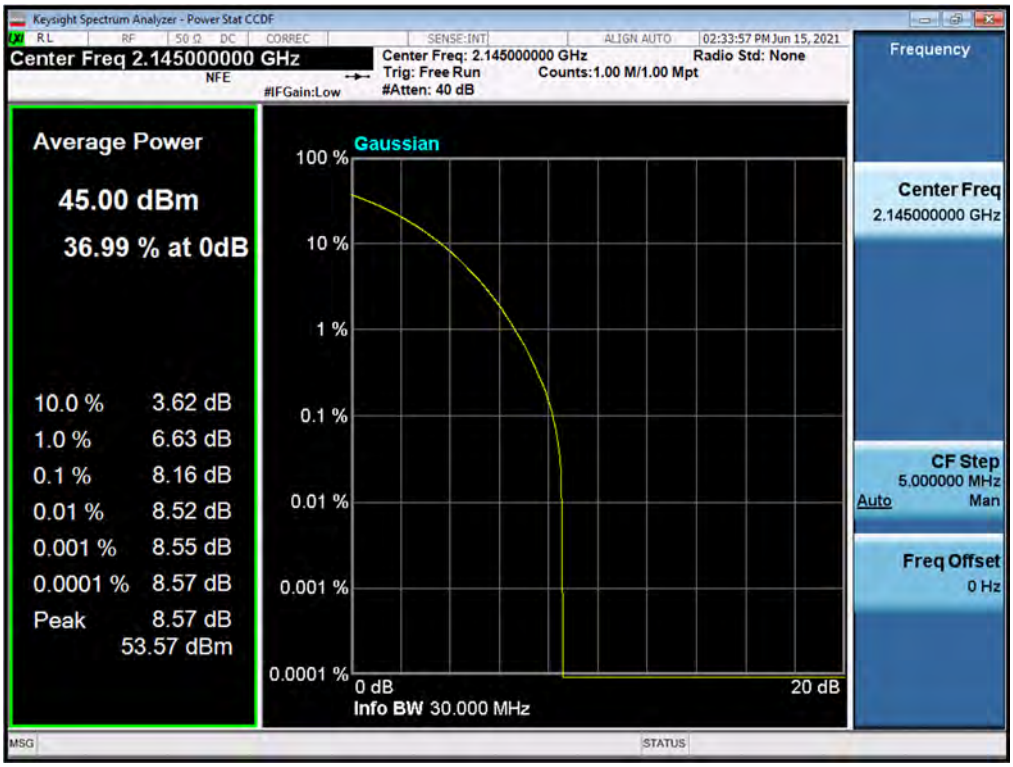

Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle



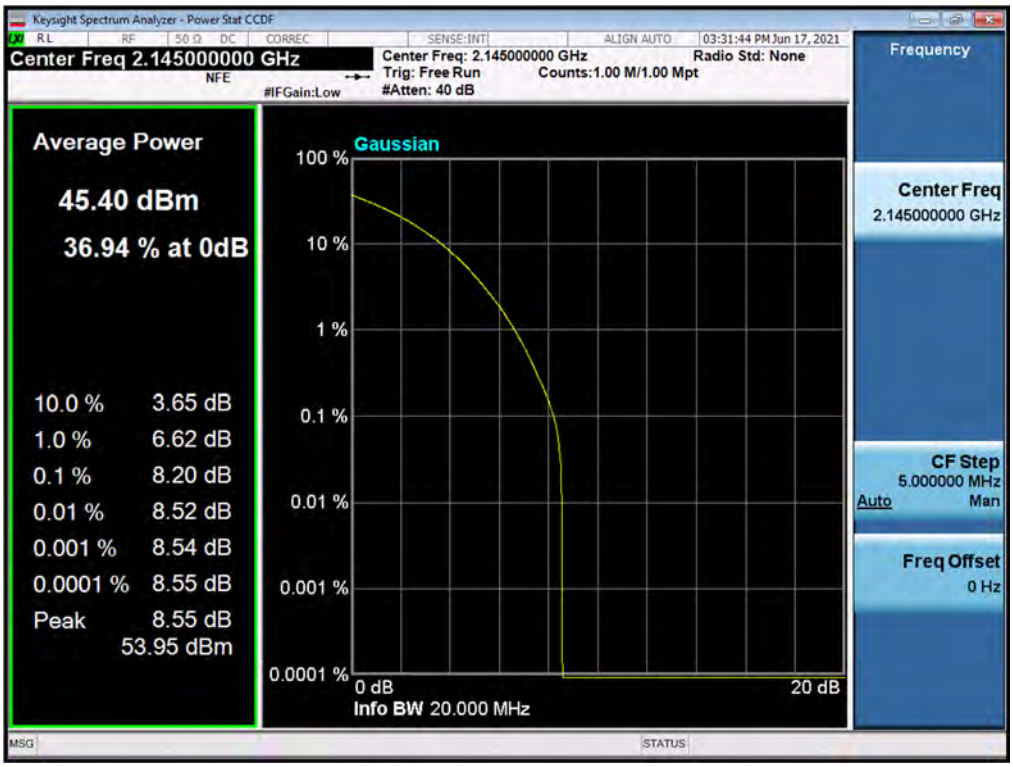
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High



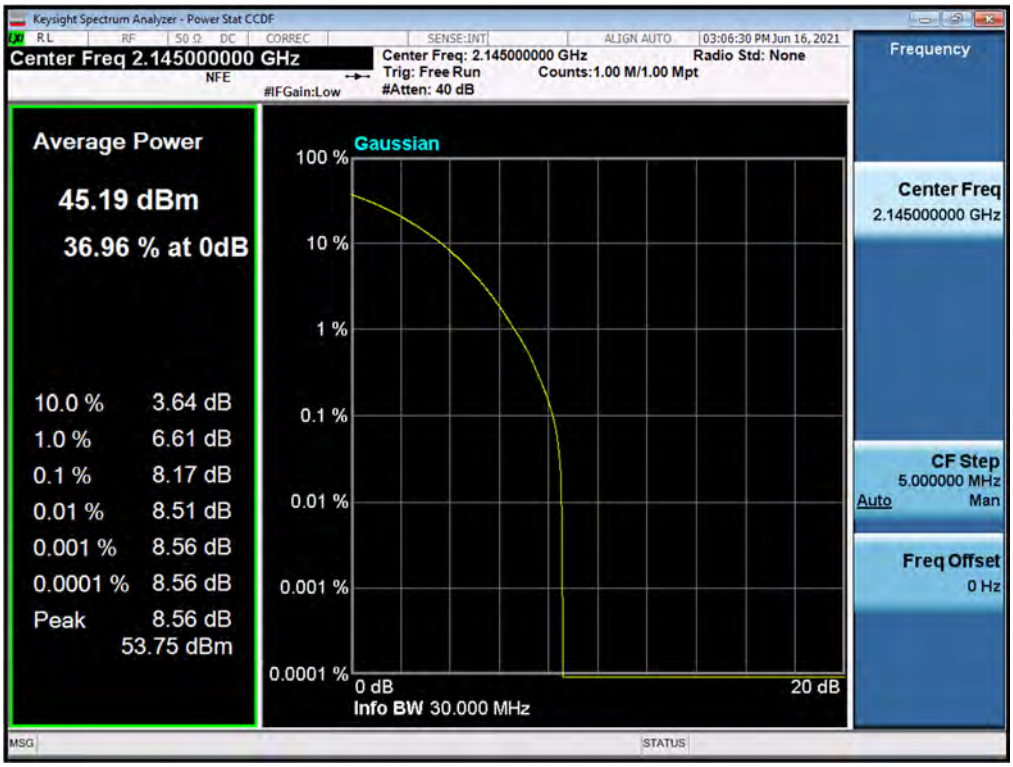

Antenna 0 / B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle



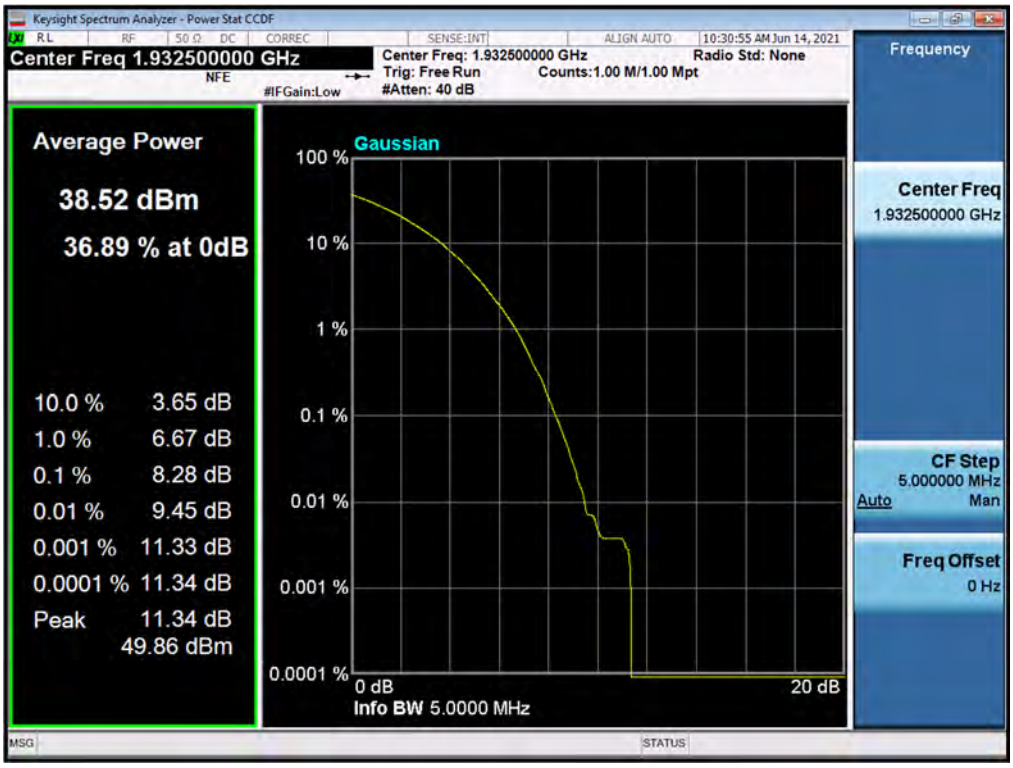
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [3 Carrier] / Contiguous / QPSK / Middle



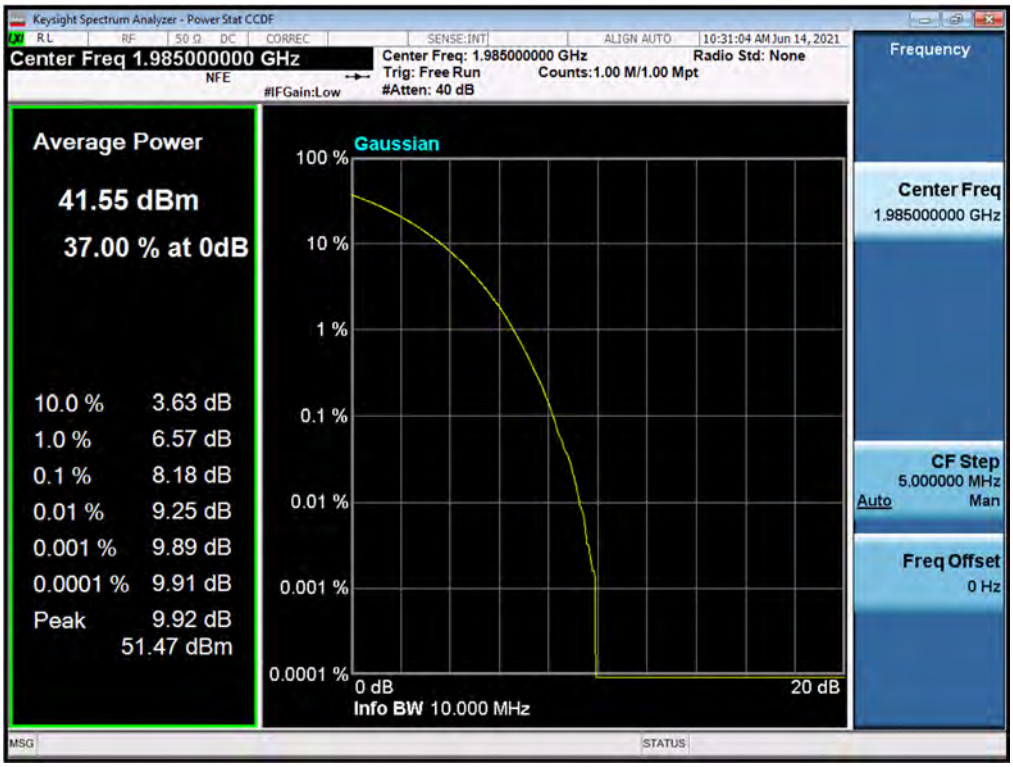

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle



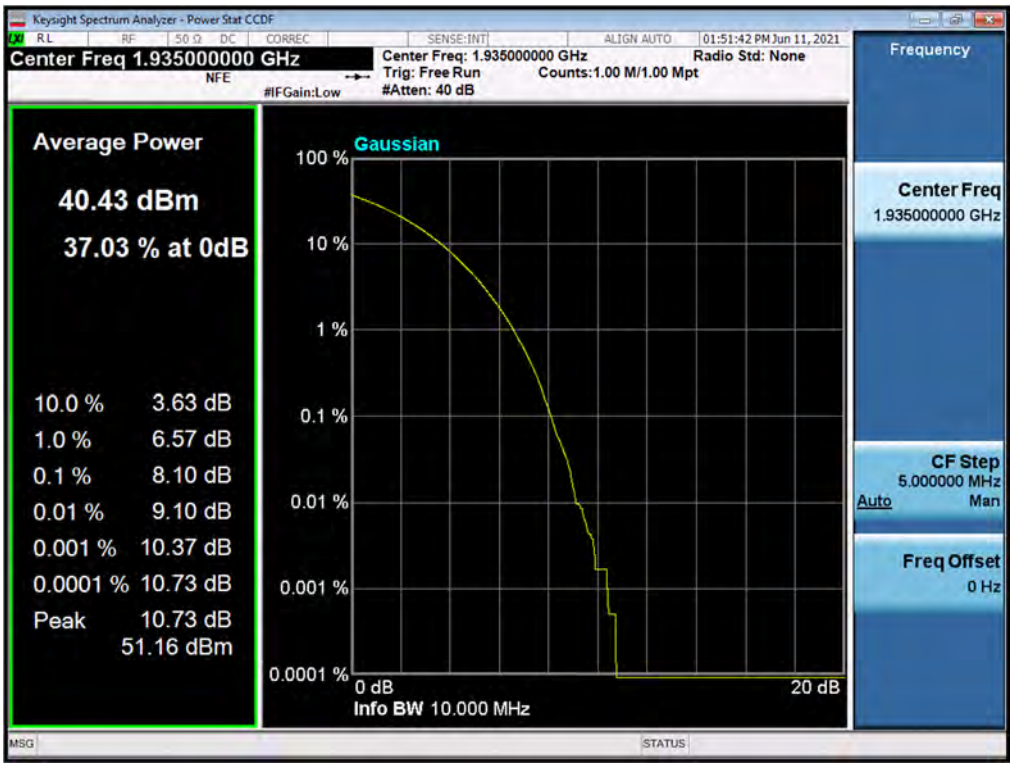
Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 LTE 5 MHz / Non-Contiguous / QPSK / Low



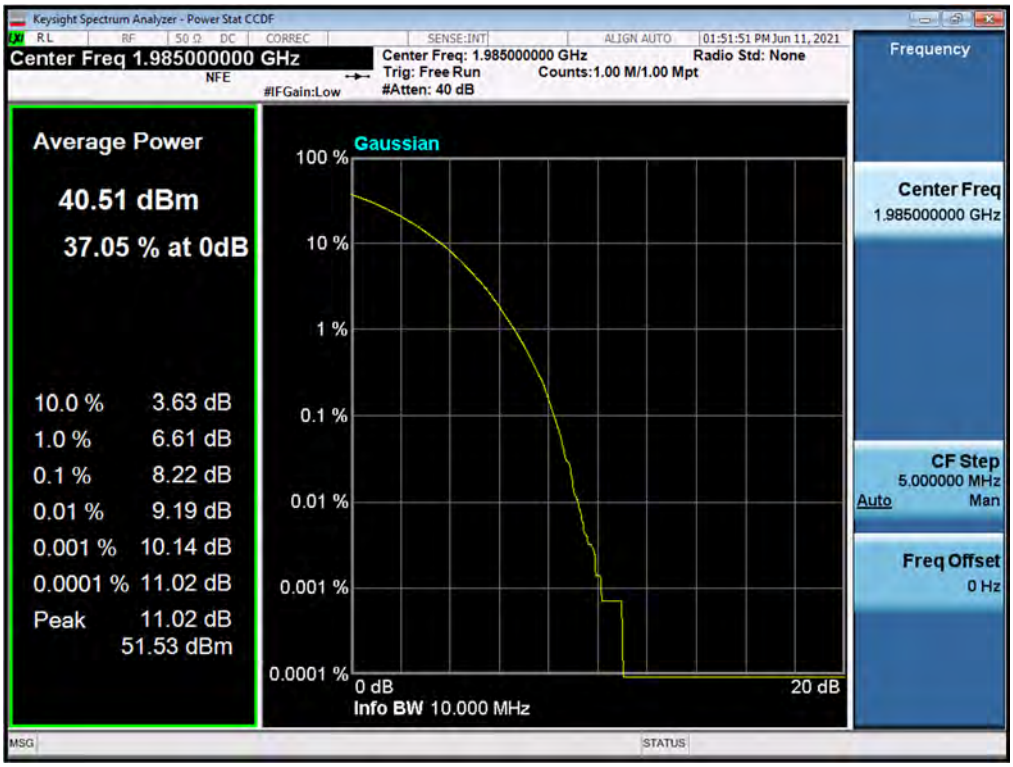

Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 DSS 10 MHz / Non-Contiguous / QPSK / High



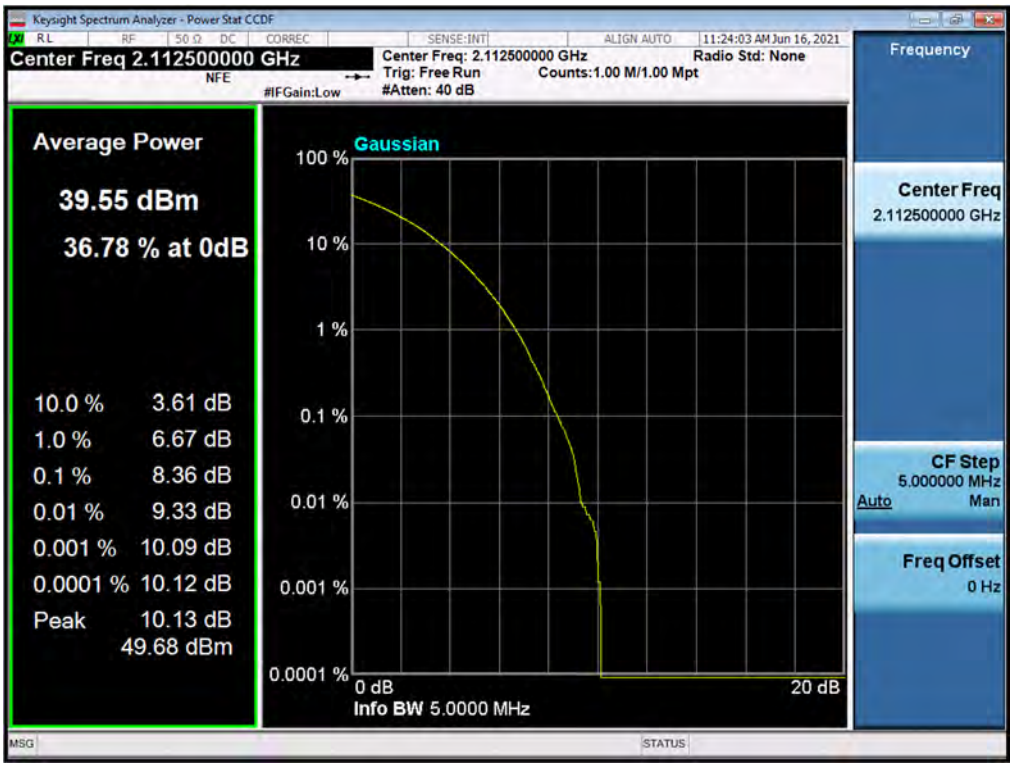
Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 LTE 10 MHz / Non-Contiguous / 16QAM / Low



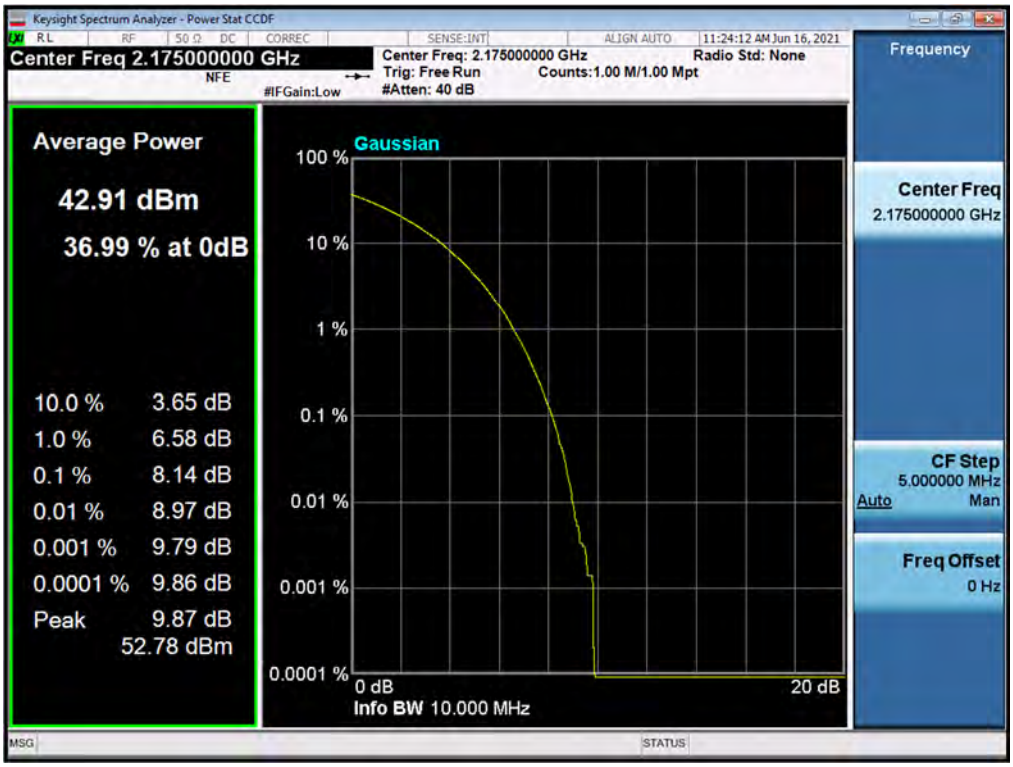

Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 DSS 10 MHz / Non-Contiguous / 16QAM / High



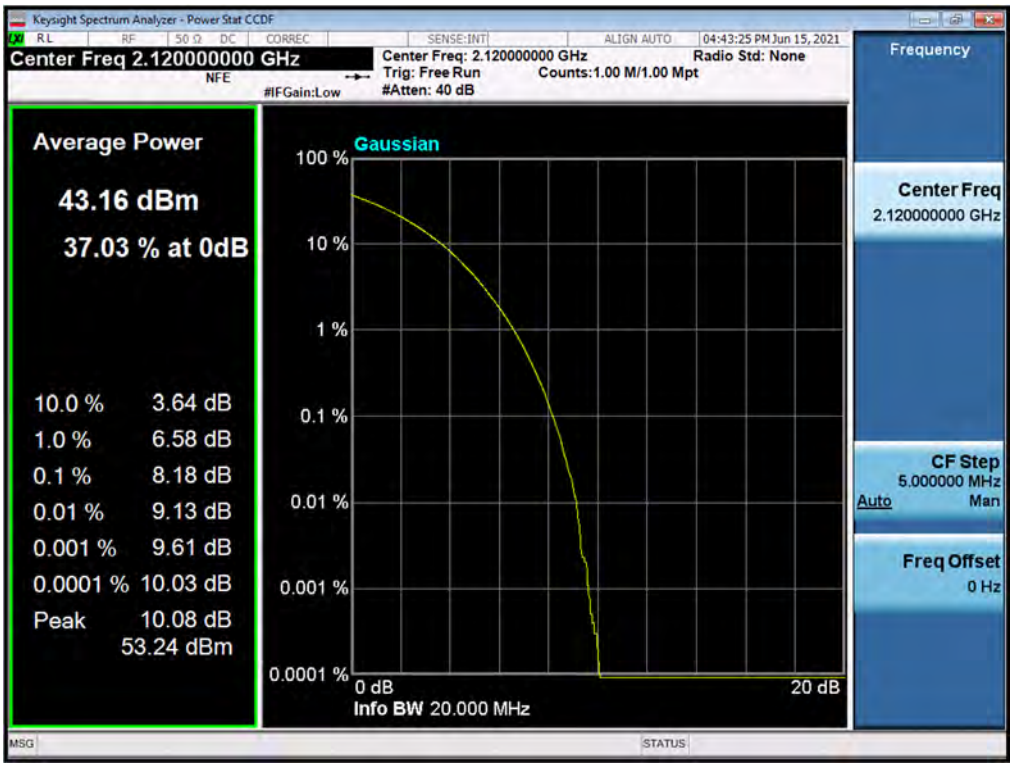
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 LTE 5 MHz / Non-Contiguous / 64QAM / Low



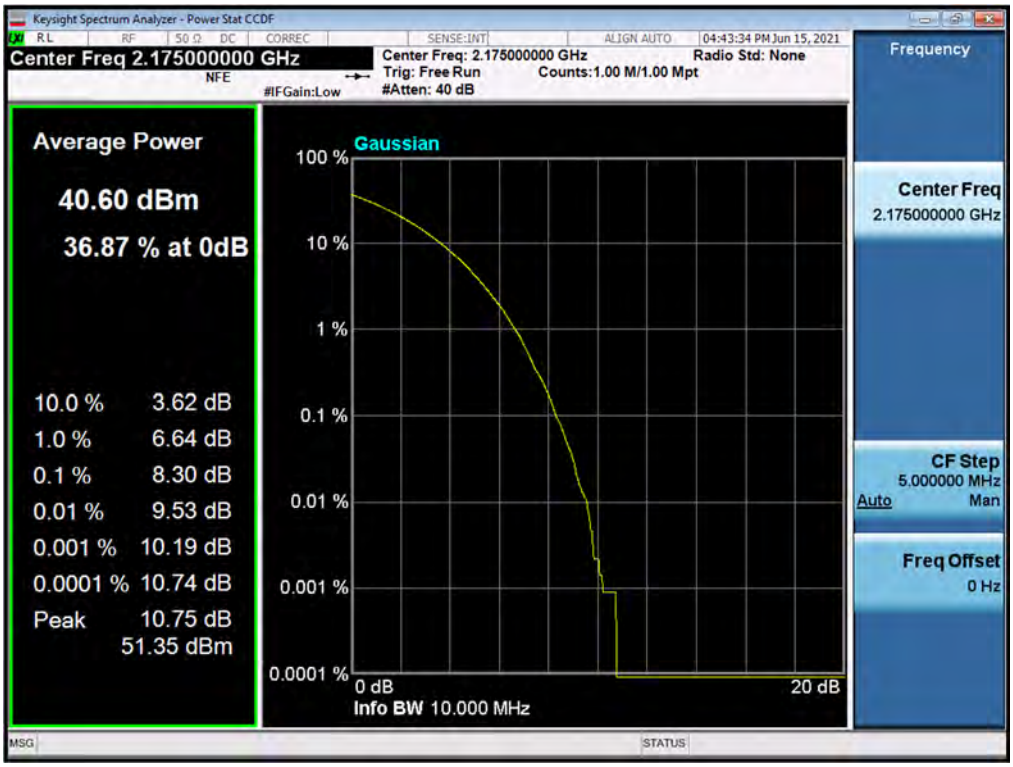

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 64QAM / High



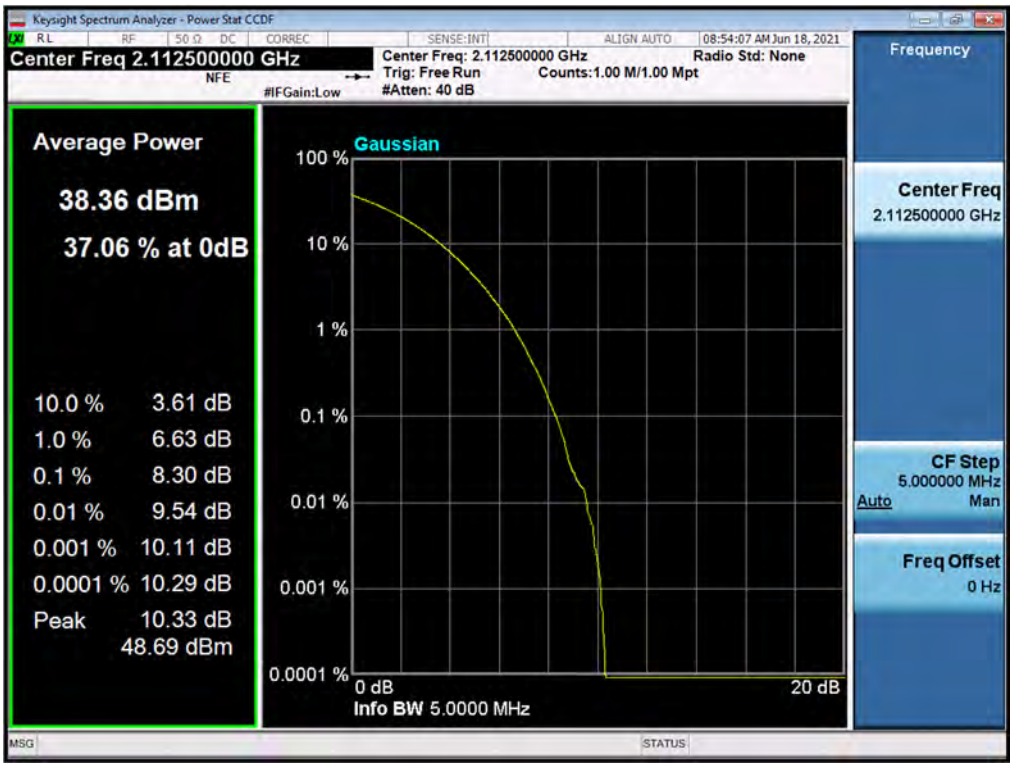
Antenna 0 / B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier] / B66 LTE 10 MHz / Non-Contiguous / 16QAM / Low



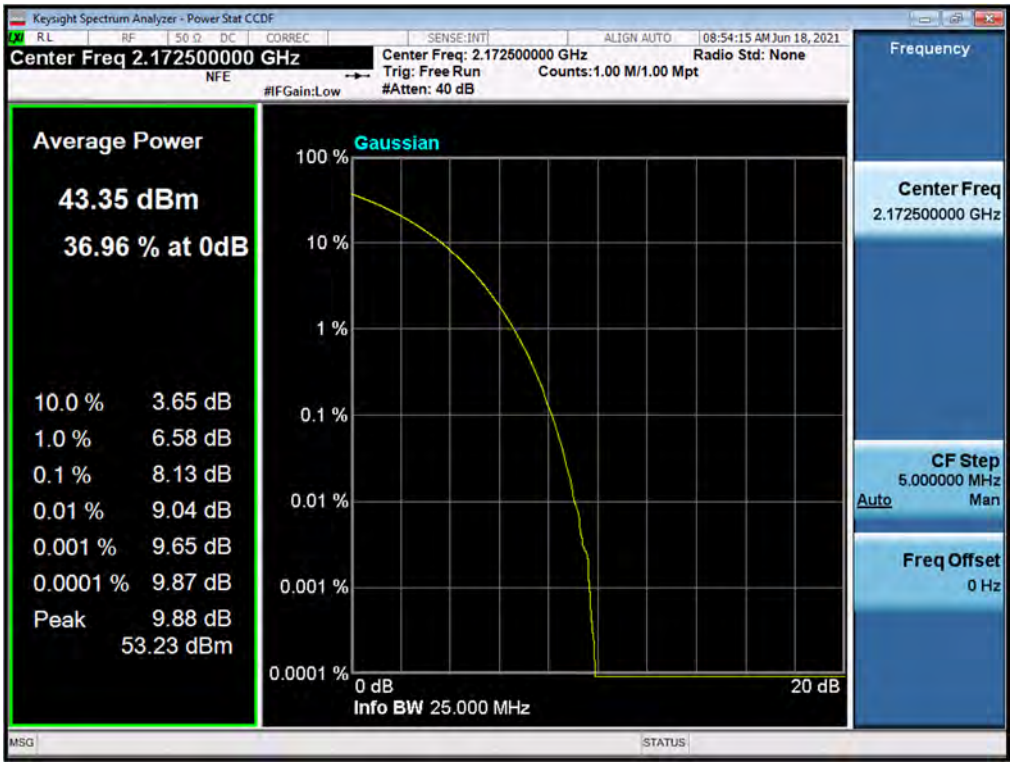

Antenna 0 / B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 16QAM / High



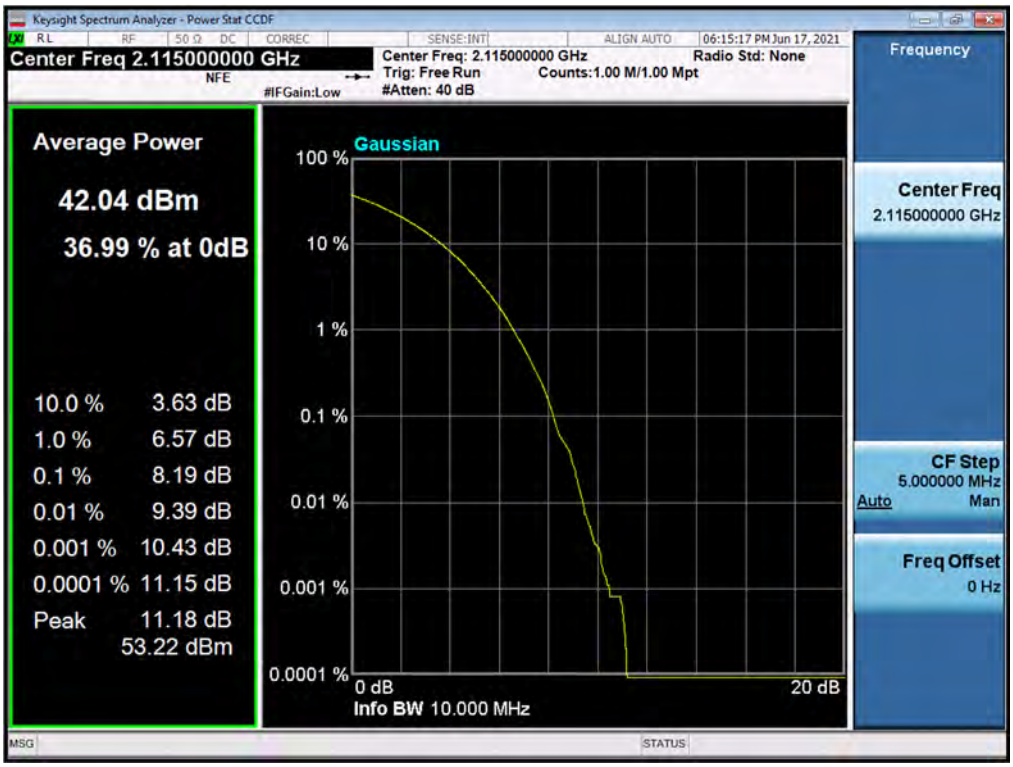
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz / Non-Contiguous / 256QAM / Low



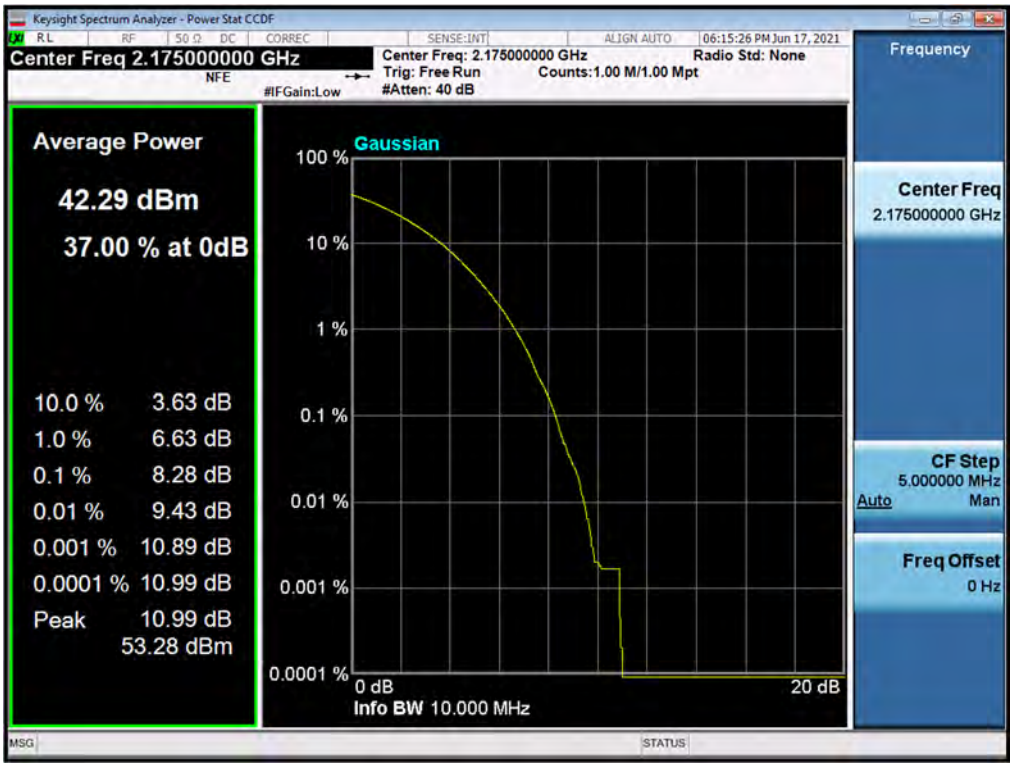

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz + B66 DSS 10 MHz / Non-Contiguous / 256QAM / High



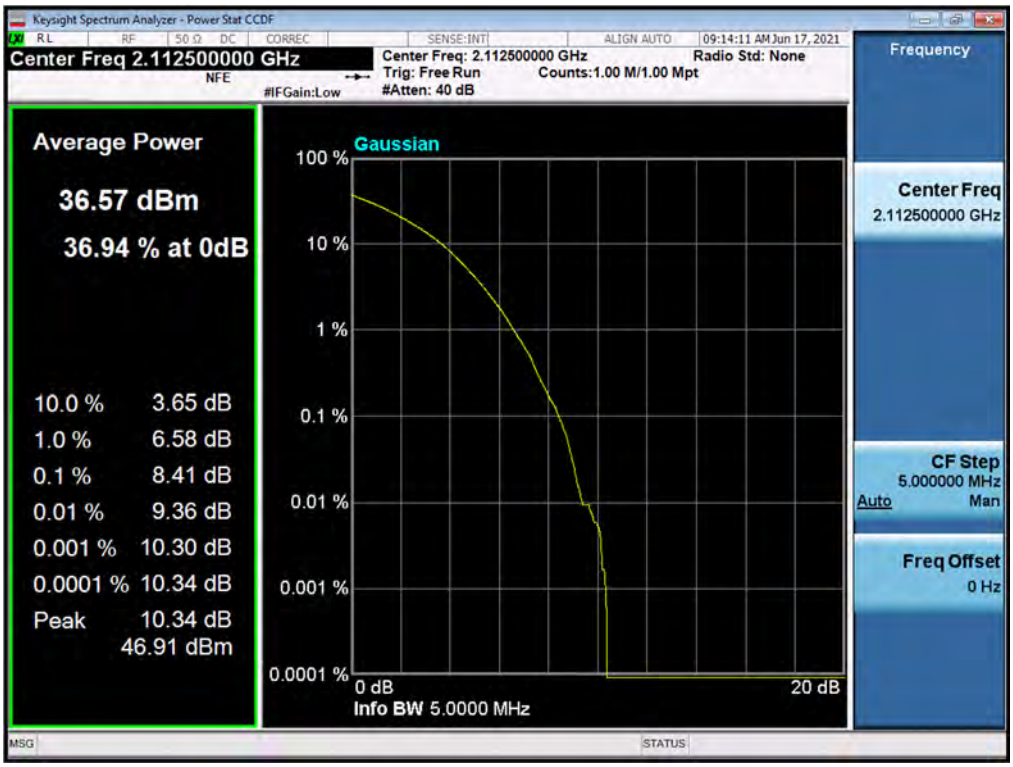
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 LTE 5 MHz + B66 LTE 5 MHz / Non-Contiguous / QPSK / Low



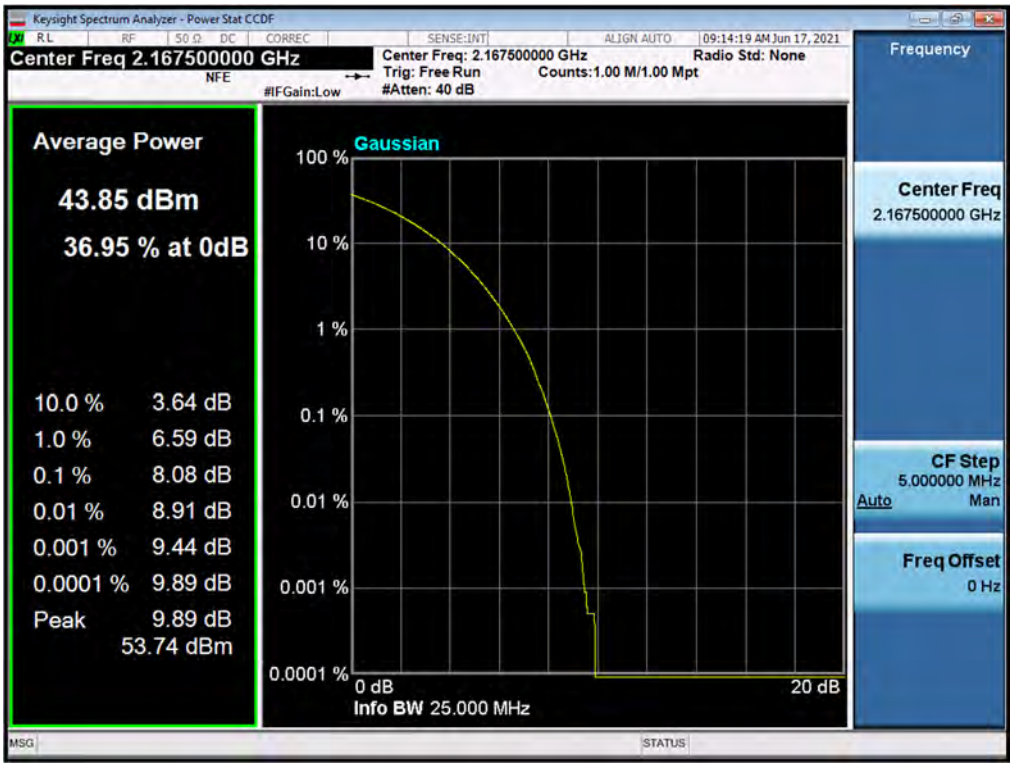

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 DSS 10 MHz / Non-Contiguous / QPSK / High



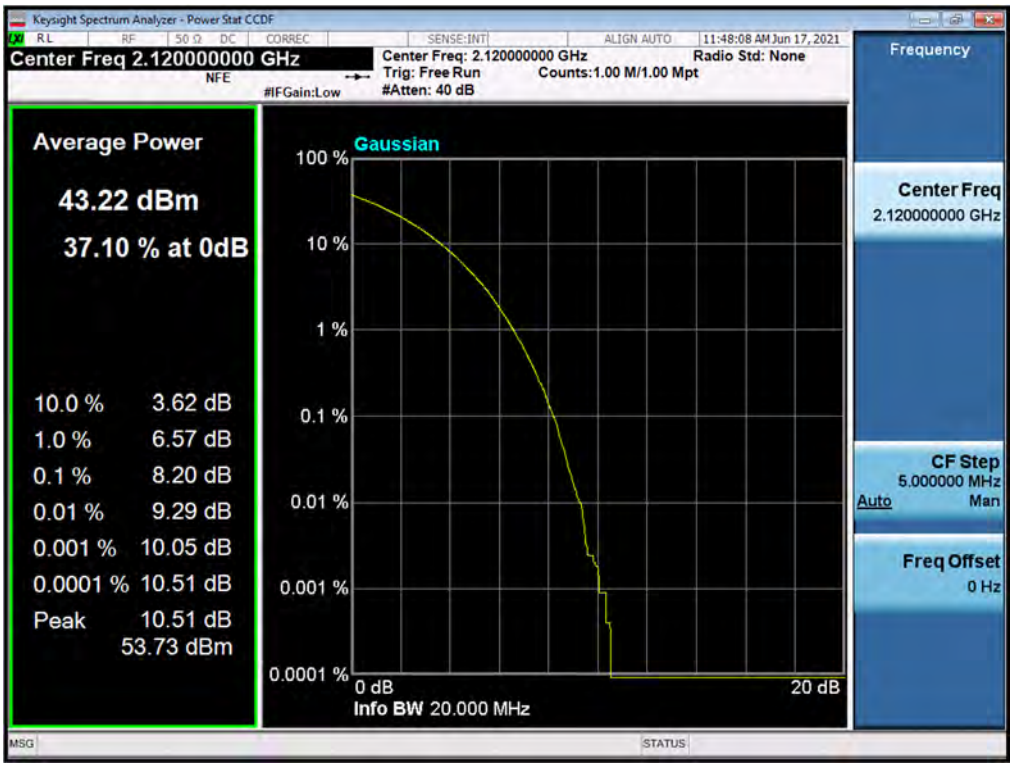
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz / Non-Contiguous / QPSK / Low



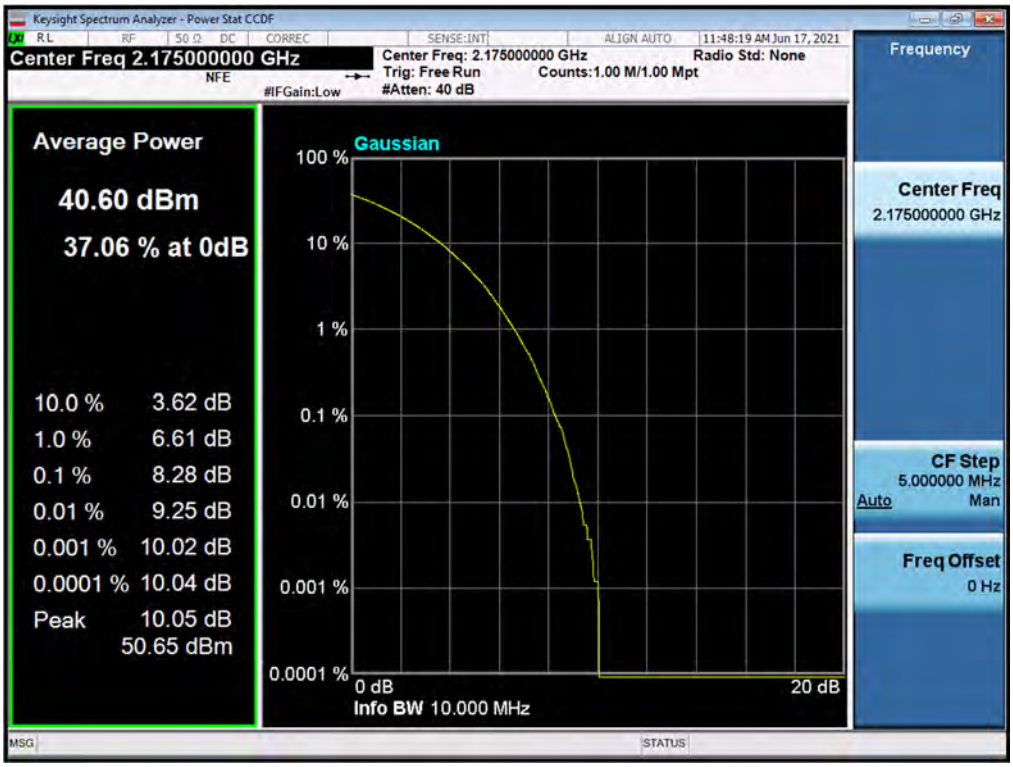

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 15 MHz + B66 DSS 10 MHz / Non-Contiguous / QPSK / High



Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 LTE 5 MHz + B66 LTE 15 MHz / Non-Contiguous / 64QAM / Low




Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 64QAM / High



## 5.3. OCCUPIED BANDWIDTH

**Test Requirements:**

**§ 2.1049 Measurements required: Occupied bandwidth.**

The occupied bandwidth, that 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 shall be measured under the specified conditions of § 2.1049 (a) through (i) as applicable.

**Test Procedures:**

The measurement is performed in accordance with Section 5.4.3 and 5.4.4 of ANSI C63.26.

5.4.3 Occupied bandwidth—Relative measurement procedure

The OBW is measured as the width of the spectral envelope of the modulated signal, at an amplitude level reduced from a reference value by a specified ratio (or in decibels, a specified number of dB down from the reference value). The typical ratio for transmitters is −26 dB, corresponding to the 26 dB BW; however, other ratios can be specified. In this subclause, the ratio is designated by "−X dB."

a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.

b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.

c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.

d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target "−X dB" requirement, i.e., if the requirement calls for measuring the −26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.

e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.

f) Determine the reference value by either of the following:
   1) Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the Highest level of the displayed trace (this is the reference value).
   2) Set the EUT to transmit an unmodulated carrier. Set the spectrum analyzer marker to the level of the carrier.

g) Determine the "−X dB amplitude" as equal to (Reference Value − X). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.

h) If the reference value was determined using an unmodulated carrier, turn the EUT modulation on, then either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise the trace from step f) shall be used for step i).

i) Place two markers, one at the lowest and the other at the Highest frequency of the envelope of the spectral display such that each marker is at or slightly below the "−X dB amplitude" determined in step f). If a marker is below this "−X dB amplitude" value it should be as close as possible to this value. The OBW is the positive frequency difference between the two markers. The spectral envelope can cross the "−X dB amplitude" at multiple points. The lowest or Highest frequency

shall be selected as the frequencies that are the farthest away from the center frequency at which the spectral envelope crosses the "−X dB amplitude."

j) The OBW shall be reported by providing plot(s) of the measuring instrument display, to include markers depicting the relevant frequency and amplitude information (e.g., marker table). The frequency and amplitude axis and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

5.4.4 Occupied bandwidth—Power bandwidth (99%) measurement procedure

The OBW is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

The following procedure shall be used for measuring (99%) power bandwidth:

a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (typically a span of 1.5 × OBW is sufficient).

b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.

c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
NOTE—Step a), step b), and step c) may require iteration to adjust within the specified tolerances.

d) Set the detection mode to peak, and the trace mode to max-hold.

e) If the instrument does not have a 99% OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5% of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5% of the total is reached and record that frequency as the upper OBW frequency. The 99% power OBW can be determined by computing the difference these two frequencies.

f) The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).

**Note:** The results of the Occupied Bandwidth test shown above the frequency measured values are very small and similar trend for each port, so we are attached only the worst case plot.

**Test Results:**
**Tabular Data of Occupied Bandwidth**

**B2 DSS 10 MHz 1 Carrier**

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|---|---|
| 0 | QPSK | Low | 1935.00 | 9.1616 |
| | | Middle | 1960.00 | 9.1123 |
| | | High | 1985.00 | 9.1799 |
| | 16QAM | Low | 1935.00 | 9.0974 |
| | | Middle | 1960.00 | 9.0628 |
| | | High | 1985.00 | 9.1425 |
| | 64QAM | Low | 1935.00 | 9.1172 |
| | | Middle | 1960.00 | 9.1900 |
| | | High | 1985.00 | 9.1902 |
| | 256QAM | Low | 1935.00 | 9.1104 |
| | | Middle | 1960.00 | 9.1384 |
| | | High | 1985.00 | 9.1392 |
| 1 | QPSK | Low | 1935.00 | 9.2022 |
| | | Middle | 1960.00 | 9.1584 |
| | | High | 1985.00 | 9.1927 |
| | 16QAM | Low | 1935.00 | 9.0311 |
| | | Middle | 1960.00 | 9.1137 |
| | | High | 1985.00 | 9.0728 |
| | 64QAM | Low | 1935.00 | 9.1148 |
| | | Middle | 1960.00 | 9.1682 |
| | | High | 1985.00 | 9.2079 |
| | 256QAM | Low | 1935.00 | 9.1152 |
| | | Middle | 1960.00 | 9.1173 |
| | | High | 1985.00 | 9.1321 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 1935.00 | 9.1925 |
| | | Middle | 1960.00 | 9.1643 |
| | | High | 1985.00 | 9.1242 |
| | 16QAM | Low | 1935.00 | 9.0333 |
| | | Middle | 1960.00 | 9.0761 |
| | | High | 1985.00 | 9.1267 |
| | 64QAM | Low | 1935.00 | 9.1862 |
| | | Middle | 1960.00 | 9.1708 |
| | | High | 1985.00 | 9.1086 |
| | 256QAM | Low | 1935.00 | 9.1264 |
| | | Middle | 1960.00 | 9.1718 |
| | | High | 1985.00 | 9.1402 |
| 3 | QPSK | Low | 1935.00 | 9.1562 |
| | | Middle | 1960.00 | 9.1654 |
| | | High | 1985.00 | 9.2502 |
| | 16QAM | Low | 1935.00 | 9.0955 |
| | | Middle | 1960.00 | 9.1285 |
| | | High | 1985.00 | 9.0819 |
| | 64QAM | Low | 1935.00 | 9.1368 |
| | | Middle | 1960.00 | 9.1372 |
| | | High | 1985.00 | 9.1934 |
| | 256QAM | Low | 1935.00 | 9.0826 |
| | | Middle | 1960.00 | 9.1857 |
| | | High | 1985.00 | 9.0980 |

B66 DSS 10 MHz 1 Carrier

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2115.00 | 9.1657 |
| | | Middle | 2145.00 | 9.1506 |
| | | High | 2175.00 | 9.1996 |
| | 16QAM | Low | 2115.00 | 9.0804 |
| | | Middle | 2145.00 | 9.0945 |
| | | High | 2175.00 | 9.0827 |
| | 64QAM | Low | 2115.00 | 9.1208 |
| | | Middle | 2145.00 | 9.1561 |
| | | High | 2175.00 | 9.1815 |
| | 256QAM | Low | 2115.00 | 9.0320 |
| | | Middle | 2145.00 | 9.0557 |
| | | High | 2175.00 | 9.0578 |
| 1 | QPSK | Low | 2115.00 | 9.1278 |
| | | Middle | 2145.00 | 9.1648 |
| | | High | 2175.00 | 9.2049 |
| | 16QAM | Low | 2115.00 | 9.0686 |
| | | Middle | 2145.00 | 9.0433 |
| | | High | 2175.00 | 9.1275 |
| | 64QAM | Low | 2115.00 | 9.0887 |
| | | Middle | 2145.00 | 9.1146 |
| | | High | 2175.00 | 9.1149 |
| | 256QAM | Low | 2115.00 | 9.0516 |
| | | Middle | 2145.00 | 9.1234 |
| | | High | 2175.00 | 9.0725 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2115.00 | 9.1543 |
| | | Middle | 2145.00 | 9.2444 |
| | | High | 2175.00 | 9.1539 |
| | 16QAM | Low | 2115.00 | 9.0480 |
| | | Middle | 2145.00 | 9.0562 |
| | | High | 2175.00 | 9.0587 |
| | 64QAM | Low | 2115.00 | 9.1118 |
| | | Middle | 2145.00 | 9.1112 |
| | | High | 2175.00 | 9.1085 |
| | 256QAM | Low | 2115.00 | 9.0487 |
| | | Middle | 2145.00 | 9.0986 |
| | | High | 2175.00 | 9.0921 |
| 3 | QPSK | Low | 2115.00 | 9.1341 |
| | | Middle | 2145.00 | 9.1086 |
| | | High | 2175.00 | 9.1889 |
| | 16QAM | Low | 2115.00 | 9.0415 |
| | | Middle | 2145.00 | 9.0978 |
| | | High | 2175.00 | 9.0523 |
| | 64QAM | Low | 2115.00 | 9.0925 |
| | | Middle | 2145.00 | 9.0882 |
| | | High | 2175.00 | 9.1148 |
| | 256QAM | Low | 2115.00 | 9.0805 |
| | | Middle | 2145.00 | 9.0736 |
| | | High | 2175.00 | 9.0074 |

## Tabular Data of Contiguous Occupied Bandwidth

### B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|---|---|
| 0 | QPSK | Low | 1937.50 | 14.249 |
| | | Middle | 1960.00 | 14.281 |
| | | High | 1982.50 | 14.261 |
| | 16QAM | Low | 1937.50 | 14.195 |
| | | Middle | 1960.00 | 14.220 |
| | | High | 1982.50 | 14.225 |
| | 64QAM | Low | 1937.50 | 14.288 |
| | | Middle | 1960.00 | 14.279 |
| | | High | 1982.50 | 14.219 |
| | 256QAM | Low | 1937.50 | 14.270 |
| | | Middle | 1960.00 | 14.287 |
| | | High | 1982.50 | 14.258 |
| 1 | QPSK | Low | 1937.50 | 14.269 |
| | | Middle | 1960.00 | 14.289 |
| | | High | 1982.50 | 14.259 |
| | 16QAM | Low | 1937.50 | 14.218 |
| | | Middle | 1960.00 | 14.216 |
| | | High | 1982.50 | 14.237 |
| | 64QAM | Low | 1937.50 | 14.275 |
| | | Middle | 1960.00 | 14.311 |
| | | High | 1982.50 | 14.239 |
| | 256QAM | Low | 1937.50 | 14.301 |
| | | Middle | 1960.00 | 14.218 |
| | | High | 1982.50 | 14.254 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 1937.50 | 14.266 |
| | | Middle | 1960.00 | 14.316 |
| | | High | 1982.50 | 14.313 |
| | 16QAM | Low | 1937.50 | 14.268 |
| | | Middle | 1960.00 | 14.262 |
| | | High | 1982.50 | 14.168 |
| | 64QAM | Low | 1937.50 | 14.236 |
| | | Middle | 1960.00 | 14.305 |
| | | High | 1982.50 | 14.319 |
| | 256QAM | Low | 1937.50 | 14.202 |
| | | Middle | 1960.00 | 14.229 |
| | | High | 1982.50 | 14.215 |
| 3 | QPSK | Low | 1937.50 | 14.247 |
| | | Middle | 1960.00 | 14.257 |
| | | High | 1982.50 | 14.250 |
| | 16QAM | Low | 1937.50 | 14.203 |
| | | Middle | 1960.00 | 14.219 |
| | | High | 1982.50 | 14.248 |
| | 64QAM | Low | 1937.50 | 14.337 |
| | | Middle | 1960.00 | 14.251 |
| | | High | 1982.50 | 14.241 |
| | 256QAM | Low | 1937.50 | 14.255 |
| | | Middle | 1960.00 | 14.277 |
| | | High | 1982.50 | 14.227 |

B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|---|---|
| 0 | QPSK | Low | 1940.00 | 18.944 |
| | | Middle | 1960.00 | 19.015 |
| | | High | 1980.00 | 18.957 |
| | 16QAM | Low | 1940.00 | 19.022 |
| | | Middle | 1960.00 | 18.990 |
| | | High | 1980.00 | 18.932 |
| | 64QAM | Low | 1940.00 | 18.991 |
| | | Middle | 1960.00 | 18.946 |
| | | High | 1980.00 | 18.990 |
| | 256QAM | Low | 1940.00 | 18.913 |
| | | Middle | 1960.00 | 18.999 |
| | | High | 1980.00 | 18.930 |
| 1 | QPSK | Low | 1940.00 | 18.931 |
| | | Middle | 1960.00 | 18.931 |
| | | High | 1980.00 | 18.979 |
| | 16QAM | Low | 1940.00 | 19.103 |
| | | Middle | 1960.00 | 19.041 |
| | | High | 1980.00 | 18.907 |
| | 64QAM | Low | 1940.00 | 18.969 |
| | | Middle | 1960.00 | 18.935 |
| | | High | 1980.00 | 18.991 |
| | 256QAM | Low | 1940.00 | 18.931 |
| | | Middle | 1960.00 | 18.969 |
| | | High | 1980.00 | 18.942 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 1940.00 | 19.009 |
| | | Middle | 1960.00 | 18.981 |
| | | High | 1980.00 | 18.988 |
| | 16QAM | Low | 1940.00 | 18.920 |
| | | Middle | 1960.00 | 19.043 |
| | | High | 1980.00 | 18.921 |
| | 64QAM | Low | 1940.00 | 18.961 |
| | | Middle | 1960.00 | 18.963 |
| | | High | 1980.00 | 18.999 |
| | 256QAM | Low | 1940.00 | 18.980 |
| | | Middle | 1960.00 | 18.988 |
| | | High | 1980.00 | 18.963 |
| 3 | QPSK | Low | 1940.00 | 18.958 |
| | | Middle | 1960.00 | 18.913 |
| | | High | 1980.00 | 18.996 |
| | 16QAM | Low | 1940.00 | 18.972 |
| | | Middle | 1960.00 | 19.007 |
| | | High | 1980.00 | 18.923 |
| | 64QAM | Low | 1940.00 | 18.980 |
| | | Middle | 1960.00 | 18.953 |
| | | High | 1980.00 | 18.953 |
| | 256QAM | Low | 1940.00 | 18.980 |
| | | Middle | 1960.00 | 19.007 |
| | | High | 1980.00 | 18.969 |

B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2117.50 | 14.267 |
| | | Middle | 2145.00 | 14.336 |
| | | High | 2172.50 | 14.253 |
| | 16QAM | Low | 2117.50 | 14.153 |
| | | Middle | 2145.00 | 14.255 |
| | | High | 2172.50 | 14.212 |
| | 64QAM | Low | 2117.50 | 14.206 |
| | | Middle | 2145.00 | 14.227 |
| | | High | 2172.50 | 14.245 |
| | 256QAM | Low | 2117.50 | 14.203 |
| | | Middle | 2145.00 | 14.241 |
| | | High | 2172.50 | 14.206 |
| 1 | QPSK | Low | 2117.50 | 14.170 |
| | | Middle | 2145.00 | 14.309 |
| | | High | 2172.50 | 14.233 |
| | 16QAM | Low | 2117.50 | 14.218 |
| | | Middle | 2145.00 | 14.275 |
| | | High | 2172.50 | 14.206 |
| | 64QAM | Low | 2117.50 | 14.237 |
| | | Middle | 2145.00 | 14.238 |
| | | High | 2172.50 | 14.281 |
| | 256QAM | Low | 2117.50 | 14.198 |
| | | Middle | 2145.00 | 14.247 |
| | | High | 2172.50 | 14.244 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2117.50 | 14.232 |
| | | Middle | 2145.00 | 14.230 |
| | | High | 2172.50 | 14.252 |
| | 16QAM | Low | 2117.50 | 14.147 |
| | | Middle | 2145.00 | 14.339 |
| | | High | 2172.50 | 14.207 |
| | 64QAM | Low | 2117.50 | 14.229 |
| | | Middle | 2145.00 | 14.196 |
| | | High | 2172.50 | 14.208 |
| | 256QAM | Low | 2117.50 | 14.230 |
| | | Middle | 2145.00 | 14.205 |
| | | High | 2172.50 | 14.187 |
| 3 | QPSK | Low | 2117.50 | 14.250 |
| | | Middle | 2145.00 | 14.286 |
| | | High | 2172.50 | 14.227 |
| | 16QAM | Low | 2117.50 | 14.198 |
| | | Middle | 2145.00 | 14.192 |
| | | High | 2172.50 | 14.185 |
| | 64QAM | Low | 2117.50 | 14.175 |
| | | Middle | 2145.00 | 14.217 |
| | | High | 2172.50 | 14.261 |
| | 256QAM | Low | 2117.50 | 14.184 |
| | | Middle | 2145.00 | 14.228 |
| | | High | 2172.50 | 14.248 |

B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2125.00 | 28.319 |
| | | Middle | 2145.00 | 28.424 |
| | | High | 2165.00 | 28.469 |
| | 16QAM | Low | 2125.00 | 28.374 |
| | | Middle | 2145.00 | 28.438 |
| | | High | 2165.00 | 28.342 |
| | 64QAM | Low | 2125.00 | 28.320 |
| | | Middle | 2145.00 | 28.395 |
| | | High | 2165.00 | 28.445 |
| | 256QAM | Low | 2125.00 | 28.349 |
| | | Middle | 2145.00 | 28.394 |
| | | High | 2165.00 | 28.352 |
| 1 | QPSK | Low | 2125.00 | 28.318 |
| | | Middle | 2145.00 | 28.439 |
| | | High | 2165.00 | 28.379 |
| | 16QAM | Low | 2125.00 | 28.404 |
| | | Middle | 2145.00 | 28.572 |
| | | High | 2165.00 | 28.386 |
| | 64QAM | Low | 2125.00 | 28.445 |
| | | Middle | 2145.00 | 28.432 |
| | | High | 2165.00 | 28.419 |
| | 256QAM | Low | 2125.00 | 28.403 |
| | | Middle | 2145.00 | 28.461 |
| | | High | 2165.00 | 28.366 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2125.00 | 28.359 |
| | | Middle | 2145.00 | 28.499 |
| | | High | 2165.00 | 28.398 |
| | 16QAM | Low | 2125.00 | 28.408 |
| | | Middle | 2145.00 | 28.403 |
| | | High | 2165.00 | 28.382 |
| | 64QAM | Low | 2125.00 | 28.305 |
| | | Middle | 2145.00 | 28.412 |
| | | High | 2165.00 | 28.443 |
| | 256QAM | Low | 2125.00 | 28.345 |
| | | Middle | 2145.00 | 28.454 |
| | | High | 2165.00 | 28.279 |
| 3 | QPSK | Low | 2125.00 | 28.305 |
| | | Middle | 2145.00 | 28.414 |
| | | High | 2165.00 | 28.422 |
| | 16QAM | Low | 2125.00 | 28.384 |
| | | Middle | 2145.00 | 28.437 |
| | | High | 2165.00 | 28.429 |
| | 64QAM | Low | 2125.00 | 28.418 |
| | | Middle | 2145.00 | 28.379 |
| | | High | 2165.00 | 28.452 |
| | 256QAM | Low | 2125.00 | 28.379 |
| | | Middle | 2145.00 | 28.469 |
| | | High | 2165.00 | 28.358 |

B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [3 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2120.00 | 19.146 |
| | | Middle | 2145.00 | 19.210 |
| | | High | 2170.00 | 19.220 |
| | 16QAM | Low | 2120.00 | 19.145 |
| | | Middle | 2145.00 | 19.193 |
| | | High | 2170.00 | 19.125 |
| | 64QAM | Low | 2120.00 | 19.100 |
| | | Middle | 2145.00 | 19.224 |
| | | High | 2170.00 | 19.184 |
| | 256QAM | Low | 2120.00 | 19.151 |
| | | Middle | 2145.00 | 19.241 |
| | | High | 2170.00 | 19.159 |
| 1 | QPSK | Low | 2120.00 | 19.143 |
| | | Middle | 2145.00 | 19.218 |
| | | High | 2170.00 | 19.221 |
| | 16QAM | Low | 2120.00 | 19.157 |
| | | Middle | 2145.00 | 19.223 |
| | | High | 2170.00 | 19.150 |
| | 64QAM | Low | 2120.00 | 19.183 |
| | | Middle | 2145.00 | 19.185 |
| | | High | 2170.00 | 19.177 |
| | 256QAM | Low | 2120.00 | 19.122 |
| | | Middle | 2145.00 | 19.164 |
| | | High | 2170.00 | 19.230 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2120.00 | 19.177 |
| | | Middle | 2145.00 | 19.208 |
| | | High | 2170.00 | 19.207 |
| | 16QAM | Low | 2120.00 | 19.123 |
| | | Middle | 2145.00 | 19.179 |
| | | High | 2170.00 | 19.113 |
| | 64QAM | Low | 2120.00 | 19.119 |
| | | Middle | 2145.00 | 19.212 |
| | | High | 2170.00 | 19.182 |
| | 256QAM | Low | 2120.00 | 19.138 |
| | | Middle | 2145.00 | 19.196 |
| | | High | 2170.00 | 19.214 |
| 3 | QPSK | Low | 2120.00 | 19.101 |
| | | Middle | 2145.00 | 19.283 |
| | | High | 2170.00 | 19.194 |
| | 16QAM | Low | 2120.00 | 19.188 |
| | | Middle | 2145.00 | 19.141 |
| | | High | 2170.00 | 19.129 |
| | 64QAM | Low | 2120.00 | 19.161 |
| | | Middle | 2145.00 | 19.212 |
| | | High | 2170.00 | 19.258 |
| | 256QAM | Low | 2120.00 | 19.086 |
| | | Middle | 2145.00 | 19.190 |
| | | High | 2170.00 | 19.203 |

B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [3 Carrier]

| Ant | Mod | Channel | Frequency (MHz) | Occupied Bandwidth (MHz) |
|---|---|---|---|---|
| 0 | QPSK | Low | 2125.00 | 28.568 |
| | | Middle | 2145.00 | 28.694 |
| | | High | 2165.00 | 28.638 |
| | 16QAM | Low | 2125.00 | 28.644 |
| | | Middle | 2145.00 | 28.657 |
| | | High | 2165.00 | 28.681 |
| | 64QAM | Low | 2125.00 | 28.561 |
| | | Middle | 2145.00 | 28.627 |
| | | High | 2165.00 | 28.701 |
| | 256QAM | Low | 2125.00 | 28.592 |
| | | Middle | 2145.00 | 28.599 |
| | | High | 2165.00 | 28.630 |
| 1 | QPSK | Low | 2125.00 | 28.644 |
| | | Middle | 2145.00 | 28.621 |
| | | High | 2165.00 | 28.654 |
| | 16QAM | Low | 2125.00 | 28.615 |
| | | Middle | 2145.00 | 28.645 |
| | | High | 2165.00 | 28.730 |
| | 64QAM | Low | 2125.00 | 28.629 |
| | | Middle | 2145.00 | 28.635 |
| | | High | 2165.00 | 28.704 |
| | 256QAM | Low | 2125.00 | 28.645 |
| | | Middle | 2145.00 | 28.702 |
| | | High | 2165.00 | 28.669 |

| | | | | |
|---|---|---|---|---|
| 2 | QPSK | Low | 2125.00 | 28.613 |
| | | Middle | 2145.00 | 28.612 |
| | | High | 2165.00 | 28.666 |
| | 16QAM | Low | 2125.00 | 28.648 |
| | | Middle | 2145.00 | 28.695 |
| | | High | 2165.00 | 28.675 |
| | 64QAM | Low | 2125.00 | 28.531 |
| | | Middle | 2145.00 | 28.649 |
| | | High | 2165.00 | 28.675 |
| | 256QAM | Low | 2125.00 | 28.667 |
| | | Middle | 2145.00 | 28.708 |
| | | High | 2165.00 | 28.618 |
| 3 | QPSK | Low | 2125.00 | 28.596 |
| | | Middle | 2145.00 | 28.686 |
| | | High | 2165.00 | 28.643 |
| | 16QAM | Low | 2125.00 | 28.554 |
| | | Middle | 2145.00 | 28.644 |
| | | High | 2165.00 | 28.624 |
| | 64QAM | Low | 2125.00 | 28.569 |
| | | Middle | 2145.00 | 28.716 |
| | | High | 2165.00 | 28.620 |
| | 256QAM | Low | 2125.00 | 28.638 |
| | | Middle | 2145.00 | 28.643 |
| | | High | 2165.00 | 28.662 |

## Tabular Data of Non-Contiguous Occupied Bandwidth

### B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | B2 LTE 5 MHz | | B2 DSS 10 MHz | | Total OBW (MHz) |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 1932.50 | 4.4932 | 1985.00 | 9.2186 | 13.712 |
| | 16QAM | 1932.50 | 4.4905 | 1985.00 | 9.1186 | 13.609 |
| | 64QAM | 1932.50 | 4.4966 | 1985.00 | 9.1203 | 13.617 |
| | 256QAM | 1932.50 | 4.4937 | 1985.00 | 9.1421 | 13.636 |
| 1 | QPSK | 1932.50 | 4.4999 | 1985.00 | 9.2062 | 13.706 |
| | 16QAM | 1932.50 | 4.4800 | 1985.00 | 9.1033 | 13.583 |
| | 64QAM | 1932.50 | 4.4973 | 1985.00 | 9.1401 | 13.637 |
| | 256QAM | 1932.50 | 4.5183 | 1985.00 | 9.1668 | 13.685 |
| 2 | QPSK | 1932.50 | 4.4941 | 1985.00 | 9.1633 | 13.657 |
| | 16QAM | 1932.50 | 4.4777 | 1985.00 | 9.1440 | 13.622 |
| | 64QAM | 1932.50 | 4.4989 | 1985.00 | 9.1038 | 13.603 |
| | 256QAM | 1932.50 | 4.4995 | 1985.00 | 9.1218 | 13.621 |
| 3 | QPSK | 1932.50 | 4.5029 | 1985.00 | 9.1445 | 13.647 |
| | 16QAM | 1932.50 | 4.4984 | 1985.00 | 9.0556 | 13.554 |
| | 64QAM | 1932.50 | 4.4947 | 1985.00 | 9.1704 | 13.665 |
| | 256QAM | 1932.50 | 4.5035 | 1985.00 | 9.1458 | 13.649 |

**B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier]**

| Ant | Mod | B2 LTE 10 MHz | | B2 DSS 10 MHz | | Total OBW (MHz) |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 1935.00 | 8.9837 | 1985.00 | 9.1351 | 18.119 |
| | 16QAM | 1935.00 | 8.9946 | 1985.00 | 9.1196 | 18.114 |
| | 64QAM | 1935.00 | 8.9706 | 1985.00 | 9.1125 | 18.083 |
| | 256QAM | 1935.00 | 8.9822 | 1985.00 | 9.1167 | 18.099 |
| 1 | QPSK | 1935.00 | 8.9836 | 1985.00 | 9.1867 | 18.170 |
| | 16QAM | 1935.00 | 9.0020 | 1985.00 | 9.0326 | 18.035 |
| | 64QAM | 1935.00 | 8.9767 | 1985.00 | 9.1685 | 18.145 |
| | 256QAM | 1935.00 | 8.9896 | 1985.00 | 9.1436 | 18.133 |
| 2 | QPSK | 1935.00 | 8.9690 | 1985.00 | 9.1309 | 18.100 |
| | 16QAM | 1935.00 | 8.9990 | 1985.00 | 9.0989 | 18.098 |
| | 64QAM | 1935.00 | 8.9746 | 1985.00 | 9.1968 | 18.171 |
| | 256QAM | 1935.00 | 8.9883 | 1985.00 | 9.0881 | 18.076 |
| 3 | QPSK | 1935.00 | 8.9800 | 1985.00 | 9.1329 | 18.113 |
| | 16QAM | 1935.00 | 9.0243 | 1985.00 | 9.0749 | 18.099 |
| | 64QAM | 1935.00 | 8.9713 | 1985.00 | 9.1994 | 18.171 |
| | 256QAM | 1935.00 | 8.9673 | 1985.00 | 9.1050 | 18.072 |

B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]]

| Ant | Mod | B66 LTE 5 MHz | | B66 DSS 10 MHz | | Total OBW (MHz) |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 2112.50 | 4.4761 | 2175.00 | 9.2059 | 13.682 |
| | 16QAM | 2112.50 | 4.4810 | 2175.00 | 9.1156 | 13.597 |
| | 64QAM | 2112.50 | 4.4768 | 2175.00 | 9.1436 | 13.620 |
| | 256QAM | 2112.50 | 4.4946 | 2175.00 | 9.1073 | 13.602 |
| 1 | QPSK | 2112.50 | 4.4912 | 2175.00 | 9.1819 | 13.673 |
| | 16QAM | 2112.50 | 4.4726 | 2175.00 | 9.1037 | 13.576 |
| | 64QAM | 2112.50 | 4.4821 | 2175.00 | 9.1653 | 13.647 |
| | 256QAM | 2112.50 | 4.4938 | 2175.00 | 9.0839 | 13.578 |
| 2 | QPSK | 2112.50 | 4.4909 | 2175.00 | 9.1050 | 13.596 |
| | 16QAM | 2112.50 | 4.4574 | 2175.00 | 9.0781 | 13.535 |
| | 64QAM | 2112.50 | 4.4932 | 2175.00 | 9.0848 | 13.578 |
| | 256QAM | 2112.50 | 4.4950 | 2175.00 | 9.0797 | 13.575 |
| 3 | QPSK | 2112.50 | 4.4796 | 2175.00 | 9.1396 | 13.619 |
| | 16QAM | 2112.50 | 4.4593 | 2175.00 | 9.1256 | 13.585 |
| | 64QAM | 2112.50 | 4.4788 | 2175.00 | 9.1071 | 13.586 |
| | 256QAM | 2112.50 | 4.4821 | 2175.00 | 9.1161 | 13.598 |

B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier]

| Ant | Mod | B66 LTE 20 MHz | | B66 DSS 10 MHz | | Total OBW (MHz) |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 2120.00 | 17.857 | 2175.00 | 9.2095 | 27.066 |
| | 16QAM | 2120.00 | 17.927 | 2175.00 | 9.0975 | 27.025 |
| | 64QAM | 2120.00 | 17.913 | 2175.00 | 9.1834 | 27.096 |
| | 256QAM | 2120.00 | 17.895 | 2175.00 | 9.1105 | 27.006 |
| 1 | QPSK | 2120.00 | 17.880 | 2175.00 | 9.1215 | 27.001 |
| | 16QAM | 2120.00 | 17.870 | 2175.00 | 9.0771 | 26.947 |
| | 64QAM | 2120.00 | 17.888 | 2175.00 | 9.1702 | 27.058 |
| | 256QAM | 2120.00 | 17.886 | 2175.00 | 9.0741 | 26.960 |
| 2 | QPSK | 2120.00 | 17.903 | 2175.00 | 9.1833 | 27.086 |
| | 16QAM | 2120.00 | 17.923 | 2175.00 | 9.1362 | 27.059 |
| | 64QAM | 2120.00 | 17.923 | 2175.00 | 9.1299 | 27.053 |
| | 256QAM | 2120.00 | 17.896 | 2175.00 | 9.1317 | 27.027 |
| 3 | QPSK | 2120.00 | 17.868 | 2175.00 | 9.1591 | 27.027 |
| | 16QAM | 2120.00 | 17.873 | 2175.00 | 9.0704 | 26.944 |
| | 64QAM | 2120.00 | 17.916 | 2175.00 | 9.1129 | 27.029 |
| | 256QAM | 2120.00 | 17.835 | 2175.00 | 9.0903 | 26.925 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier]**

| Ant | Mod | B66 LTE 5 MHz | | B66 DSS 10 MHz + B66 LTE 5 MHz | | Total OBW (MHz) |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 2112.50 | 4.4815 | 2172.50 | 14.245 | 18.727 |
| | 16QAM | 2112.50 | 4.4766 | 2172.50 | 14.228 | 18.704 |
| | 64QAM | 2112.50 | 4.4861 | 2172.50 | 14.259 | 18.745 |
| | 256QAM | 2112.50 | 4.4949 | 2172.50 | 14.200 | 18.695 |
| 1 | QPSK | 2112.50 | 4.4772 | 2172.50 | 14.274 | 18.752 |
| | 16QAM | 2112.50 | 4.4702 | 2172.50 | 14.199 | 18.669 |
| | 64QAM | 2112.50 | 4.4826 | 2172.50 | 14.210 | 18.693 |
| | 256QAM | 2112.50 | 4.4831 | 2172.50 | 14.192 | 18.675 |
| 2 | QPSK | 2112.50 | 4.4877 | 2172.50 | 14.313 | 18.801 |
| | 16QAM | 2112.50 | 4.4770 | 2172.50 | 14.199 | 18.676 |
| | 64QAM | 2112.50 | 4.4831 | 2172.50 | 14.199 | 18.682 |
| | 256QAM | 2112.50 | 4.4968 | 2172.50 | 14.230 | 18.727 |
| 3 | QPSK | 2112.50 | 4.4802 | 2172.50 | 14.246 | 18.726 |
| | 16QAM | 2112.50 | 4.4726 | 2172.50 | 14.199 | 18.672 |
| | 64QAM | 2112.50 | 4.4694 | 2172.50 | 14.271 | 18.740 |
| | 256QAM | 2112.50 | 4.4870 | 2172.50 | 14.224 | 18.711 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier]**

| Ant | Mod | B66 LTE 5 MHz + B66 LTE 5 MHz | | B66 DSS 10 MHz | | Total OBW (MHz) |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 2115.00 | 9.4147 | 2175.00 | 9.1070 | 18.522 |
| | 16QAM | 2115.00 | 9.3921 | 2175.00 | 9.0353 | 18.427 |
| | 64QAM | 2115.00 | 9.4216 | 2175.00 | 9.1062 | 18.528 |
| | 256QAM | 2115.00 | 9.4796 | 2175.00 | 9.0365 | 18.516 |
| 1 | QPSK | 2115.00 | 9.4488 | 2175.00 | 9.1384 | 18.587 |
| | 16QAM | 2115.00 | 9.4217 | 2175.00 | 9.1340 | 18.556 |
| | 64QAM | 2115.00 | 9.4599 | 2175.00 | 9.1320 | 18.592 |
| | 256QAM | 2115.00 | 9.4834 | 2175.00 | 9.0996 | 18.583 |
| 2 | QPSK | 2115.00 | 9.4426 | 2175.00 | 9.1963 | 18.639 |
| | 16QAM | 2115.00 | 9.4379 | 2175.00 | 9.0856 | 18.524 |
| | 64QAM | 2115.00 | 9.4174 | 2175.00 | 9.1814 | 18.599 |
| | 256QAM | 2115.00 | 9.4862 | 2175.00 | 9.0367 | 18.523 |
| 3 | QPSK | 2115.00 | 9.4442 | 2175.00 | 9.1747 | 18.619 |
| | 16QAM | 2115.00 | 9.4234 | 2175.00 | 9.0563 | 18.480 |
| | 64QAM | 2115.00 | 9.4646 | 2175.00 | 9.1297 | 18.594 |
| | 256QAM | 2115.00 | 9.4376 | 2175.00 | 9.0880 | 18.526 |

**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier]**

| Ant | Mod | B66 LTE 5 MHz | | B66 LTE 15 MHz + B66 DSS 10 MHz | | Total OBW (MHz) |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 2112.50 | 4.4936 | 2167.50 | 23.672 | 28.166 |
| | 16QAM | 2112.50 | 4.4786 | 2167.50 | 23.680 | 28.158 |
| | 64QAM | 2112.50 | 4.4889 | 2167.50 | 23.677 | 28.166 |
| | 256QAM | 2112.50 | 4.4857 | 2167.50 | 23.704 | 28.189 |
| 1 | QPSK | 2112.50 | 4.4809 | 2167.50 | 23.706 | 28.187 |
| | 16QAM | 2112.50 | 4.4666 | 2167.50 | 23.674 | 28.141 |
| | 64QAM | 2112.50 | 4.4892 | 2167.50 | 23.699 | 28.188 |
| | 256QAM | 2112.50 | 4.4917 | 2167.50 | 23.631 | 28.123 |
| 2 | QPSK | 2112.50 | 4.4832 | 2167.50 | 23.633 | 28.116 |
| | 16QAM | 2112.50 | 4.4659 | 2167.50 | 23.683 | 28.149 |
| | 64QAM | 2112.50 | 4.4848 | 2167.50 | 23.698 | 28.183 |
| | 256QAM | 2112.50 | 4.4894 | 2167.50 | 23.642 | 28.132 |
| 3 | QPSK | 2112.50 | 4.4833 | 2167.50 | 23.702 | 28.186 |
| | 16QAM | 2112.50 | 4.4496 | 2167.50 | 23.643 | 28.092 |
| | 64QAM | 2112.50 | 4.4813 | 2167.50 | 23.658 | 28.139 |
| | 256QAM | 2112.50 | 4.4803 | 2167.50 | 23.649 | 28.129 |

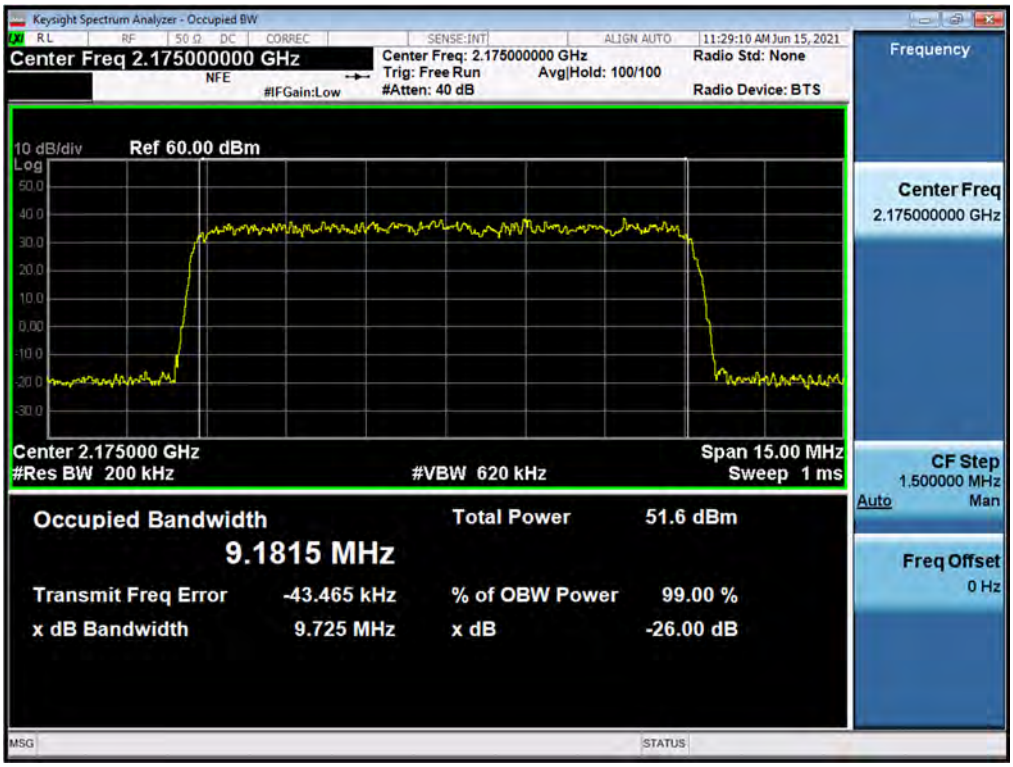
**B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier]**

| Ant | Mod | B66 LTE 5 MHz + B66 LTE 15 MHz | | B66 DSS 10 MHz | | Total OBW (MHz) |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Measured Value (MHz) | Frequency (MHz) | Measured Value (MHz) | |
| 0 | QPSK | 2120.00 | 18.855 | 2175.00 | 9.2063 | 28.061 |
| | 16QAM | 2120.00 | 18.898 | 2175.00 | 9.0997 | 27.998 |
| | 64QAM | 2120.00 | 18.864 | 2175.00 | 9.0744 | 27.939 |
| | 256QAM | 2120.00 | 18.857 | 2175.00 | 9.1327 | 27.989 |
| 1 | QPSK | 2120.00 | 18.857 | 2175.00 | 9.2078 | 28.065 |
| | 16QAM | 2120.00 | 18.837 | 2175.00 | 9.0963 | 27.933 |
| | 64QAM | 2120.00 | 18.908 | 2175.00 | 9.0795 | 27.988 |
| | 256QAM | 2120.00 | 18.863 | 2175.00 | 9.0596 | 27.923 |
| 2 | QPSK | 2120.00 | 18.864 | 2175.00 | 9.1651 | 28.029 |
| | 16QAM | 2120.00 | 18.880 | 2175.00 | 9.1331 | 28.014 |
| | 64QAM | 2120.00 | 18.868 | 2175.00 | 9.1046 | 27.973 |
| | 256QAM | 2120.00 | 18.883 | 2175.00 | 9.1048 | 27.988 |
| 3 | QPSK | 2120.00 | 18.858 | 2175.00 | 9.1793 | 28.037 |
| | 16QAM | 2120.00 | 18.866 | 2175.00 | 9.0691 | 27.935 |
| | 64QAM | 2120.00 | 18.844 | 2175.00 | 9.1377 | 27.982 |
| | 256QAM | 2120.00 | 18.834 | 2175.00 | 9.0999 | 27.934 |

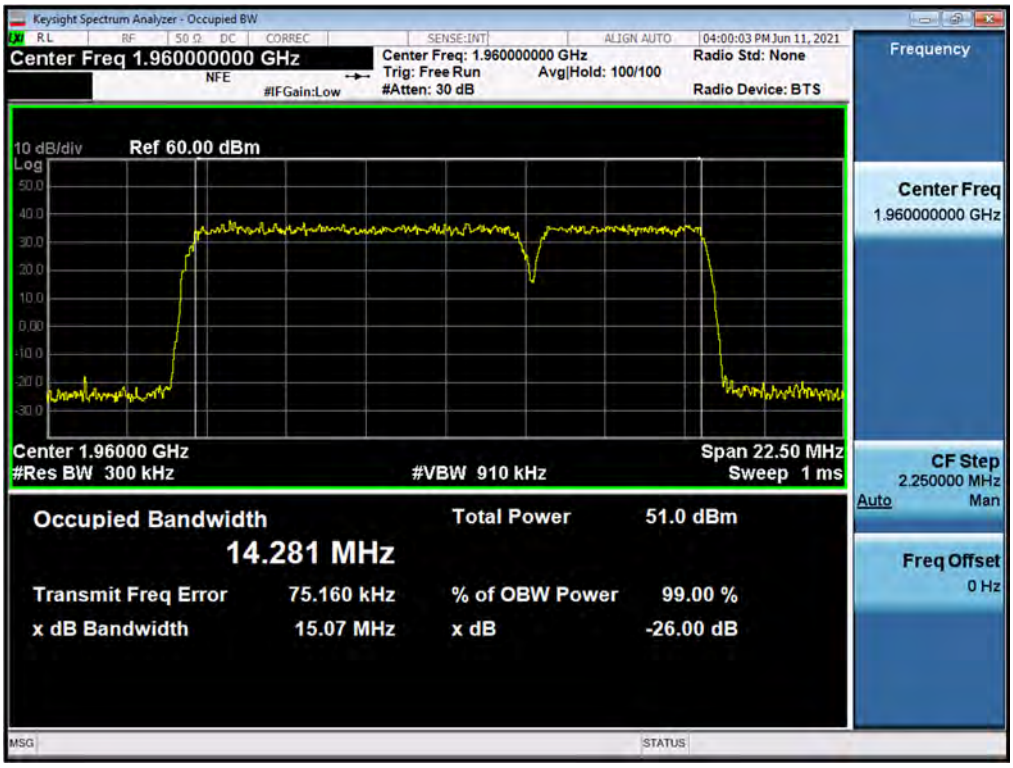
## Plot Data of Occupied bandwidth

### Antenna 0 / B2 DSS 10 MHz 1 Carrier / 16QAM / Middle

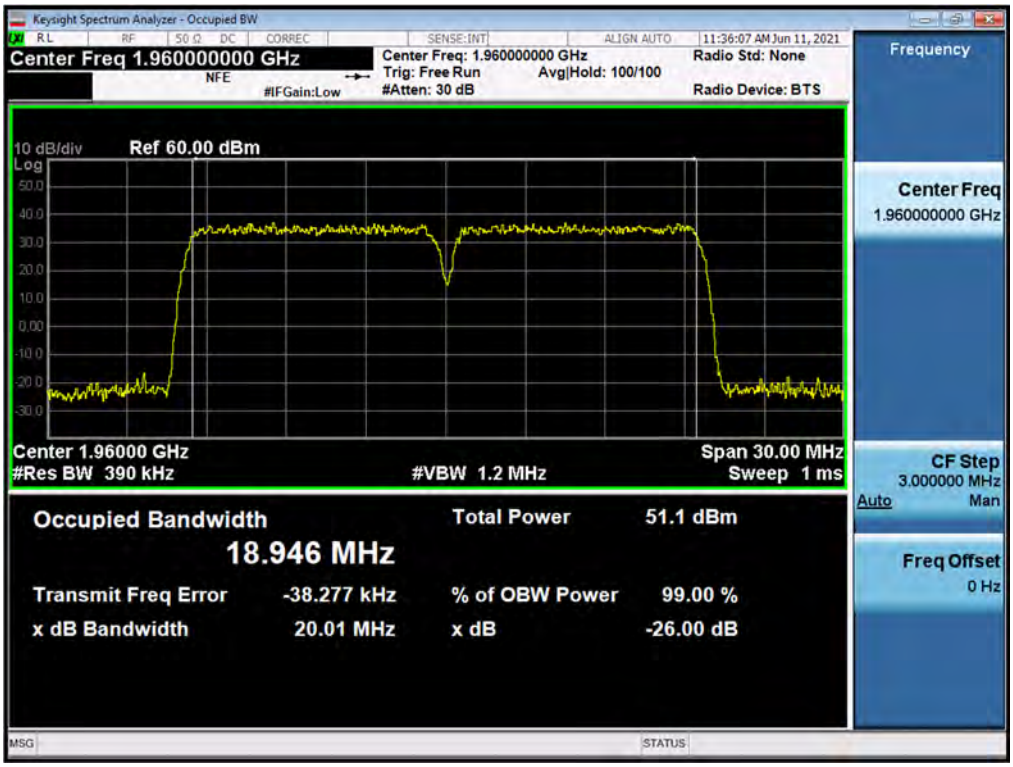

### Antenna 0 / B66 DSS 10 MHz 1 Carrier / 64QAM / High



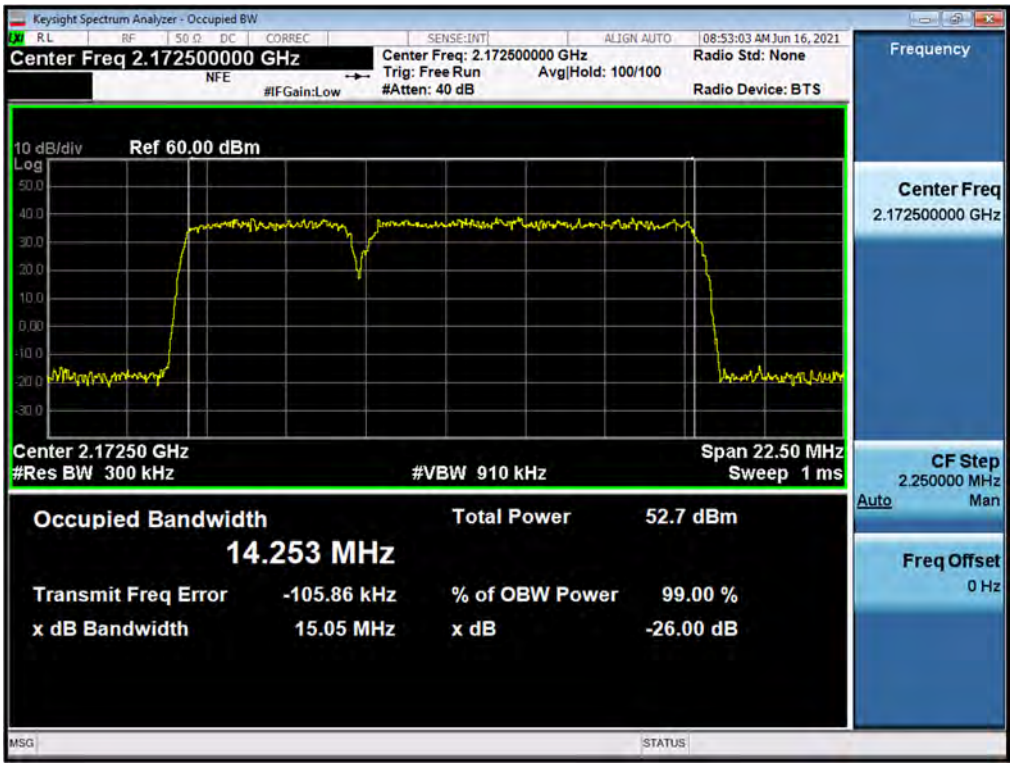
Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Middle



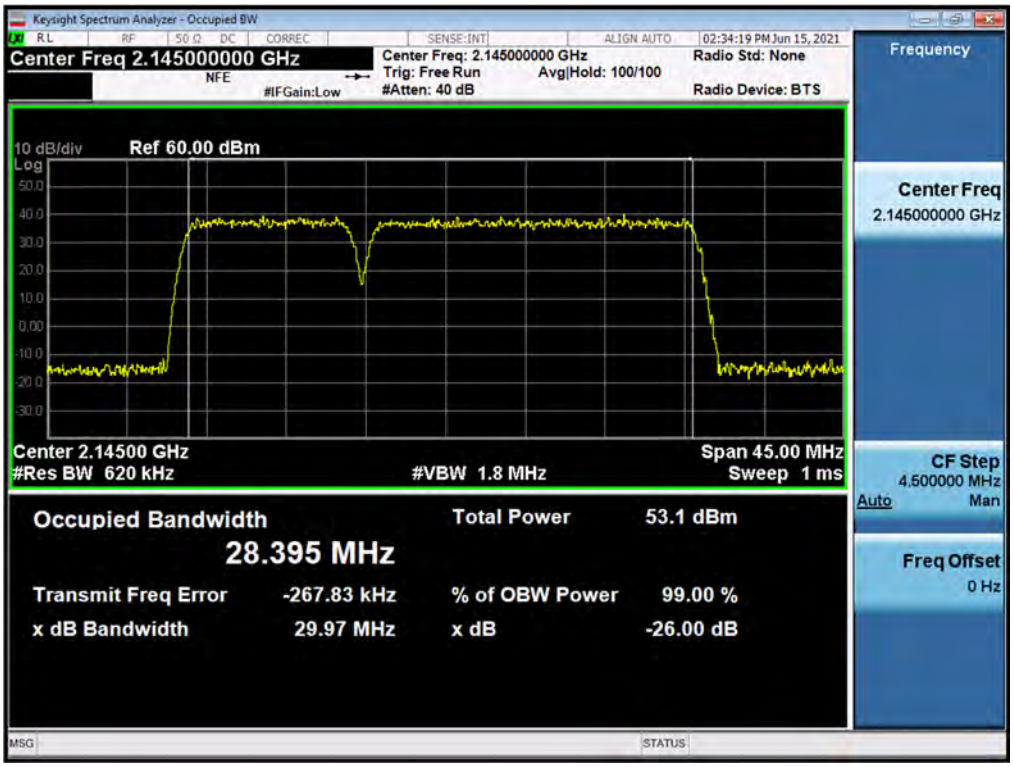

Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle



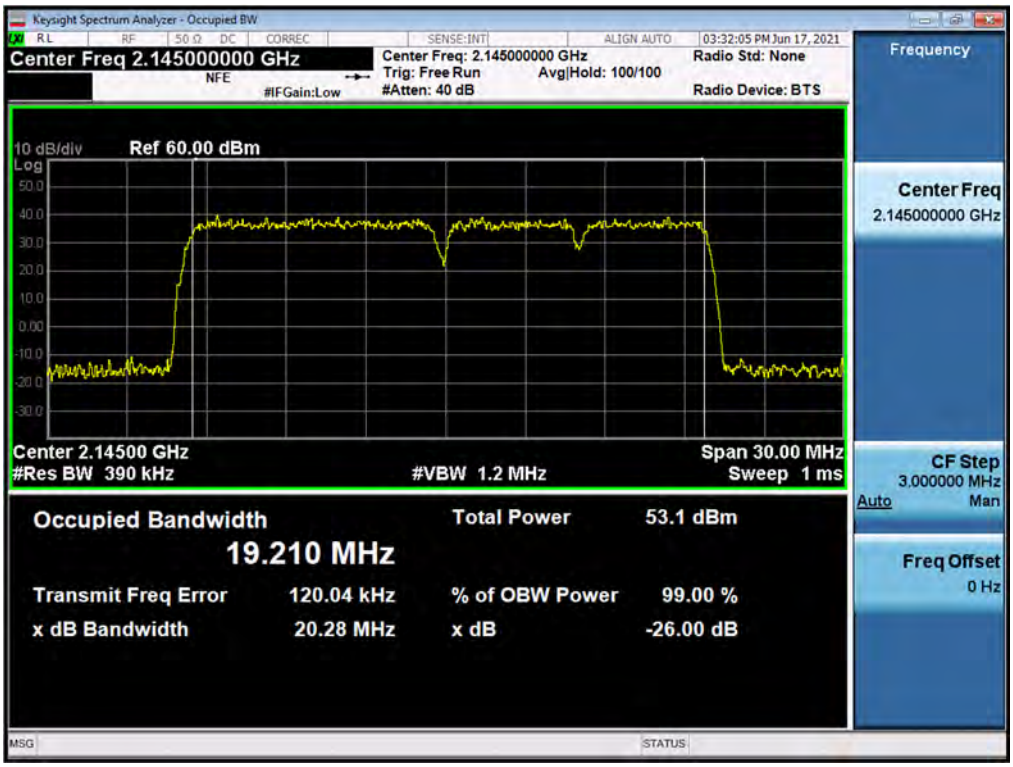
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High



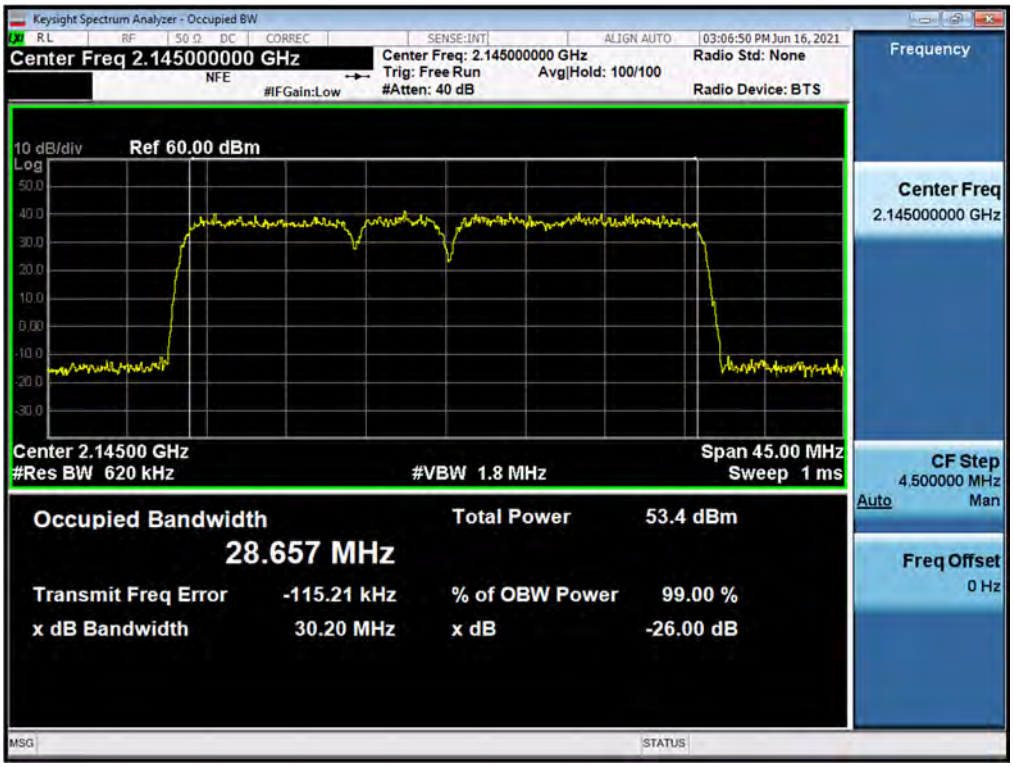

Antenna 0 / B66 DSS 10 MHz 1 Carrier + B66 LTE 20 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Middle



Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier [3 Carrier] / Contiguous / QPSK / Middle



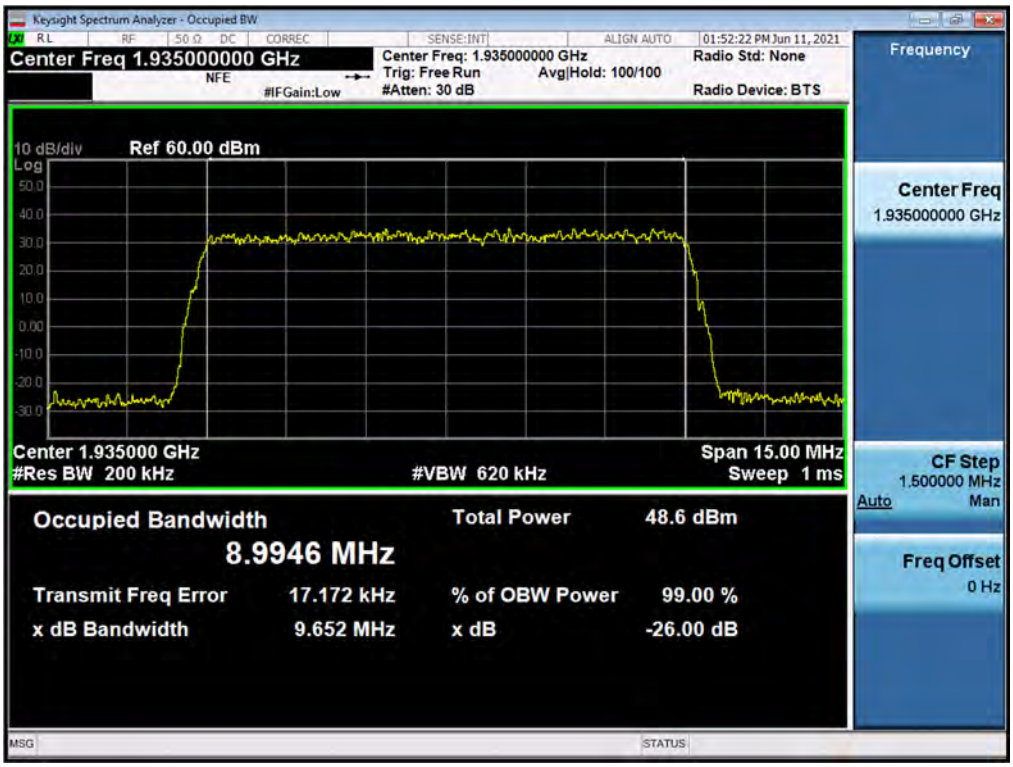

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle



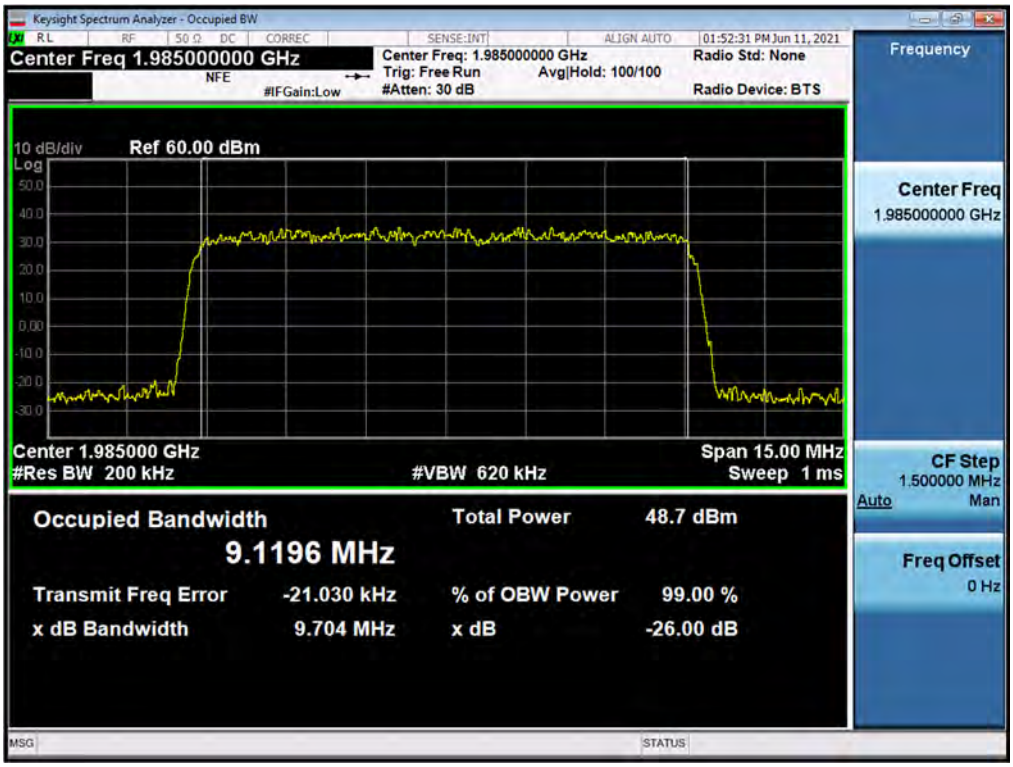
Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 LTE 5 MHz / Non-Contiguous / QPSK / Low


Antenna 0 / B2 LTE 5 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 DSS 10 MHz / Non-Contiguous / QPSK / High

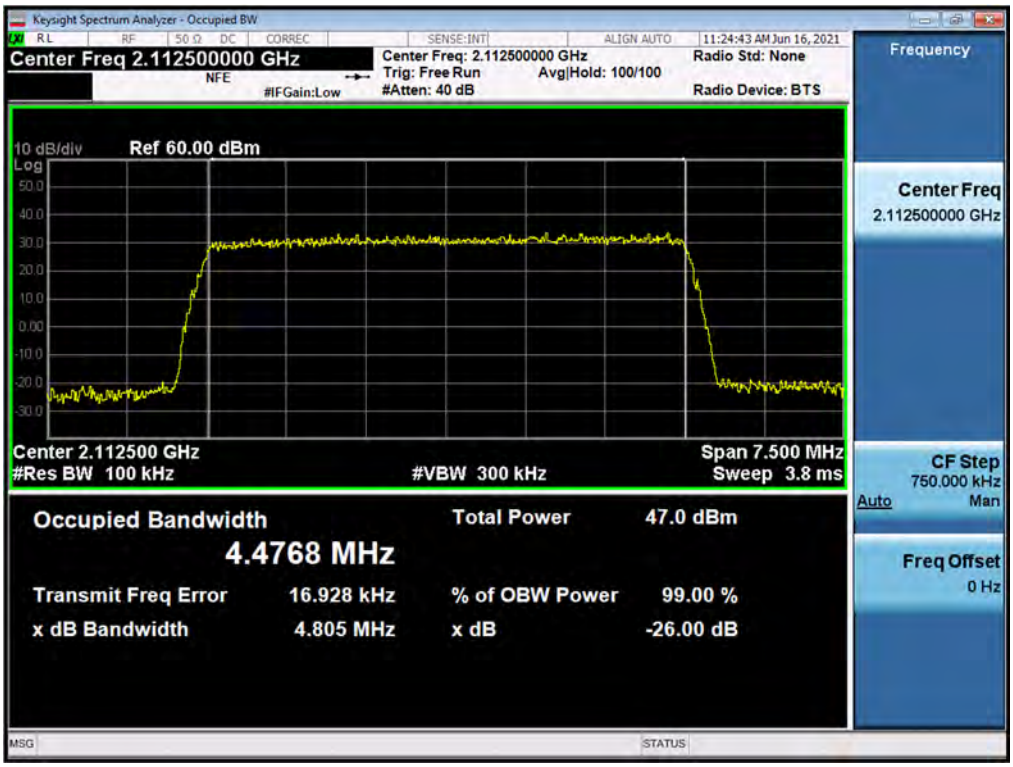
Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 LTE 10 MHz / Non-Contiguous / 16QAM / Low



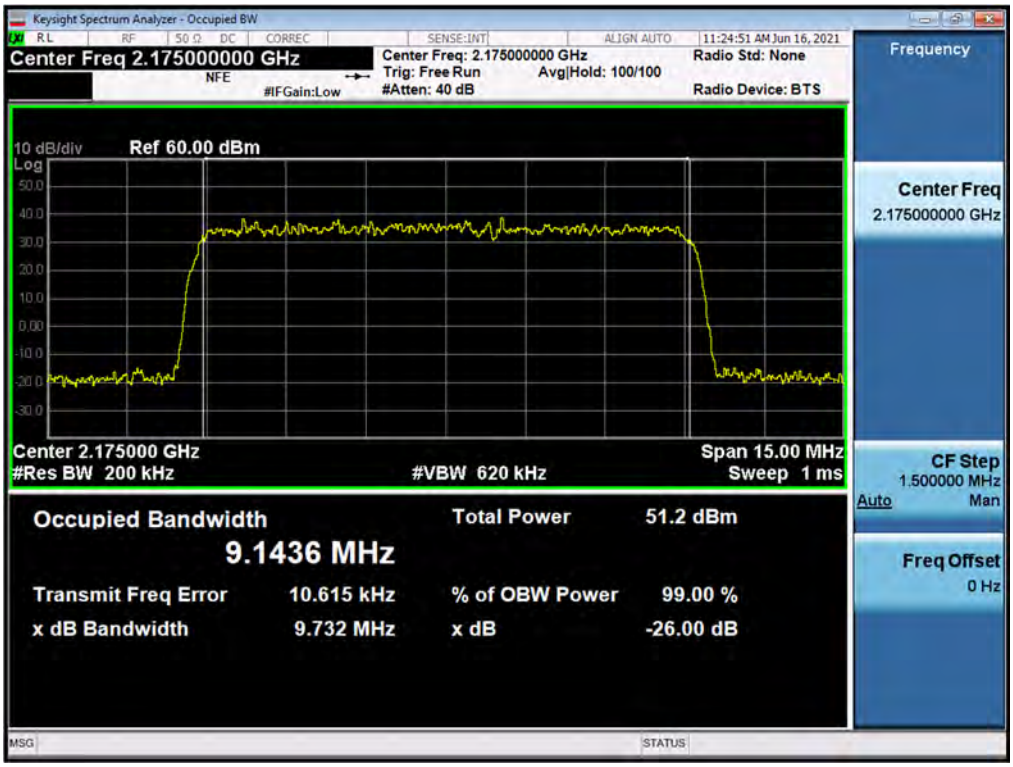

Antenna 0 / B2 LTE 10 MHz 1 Carrier + B2 DSS 10 MHz 1 Carrier [2 Carrier] / B2 DSS 10 MHz / Non-Contiguous / 16QAM / High



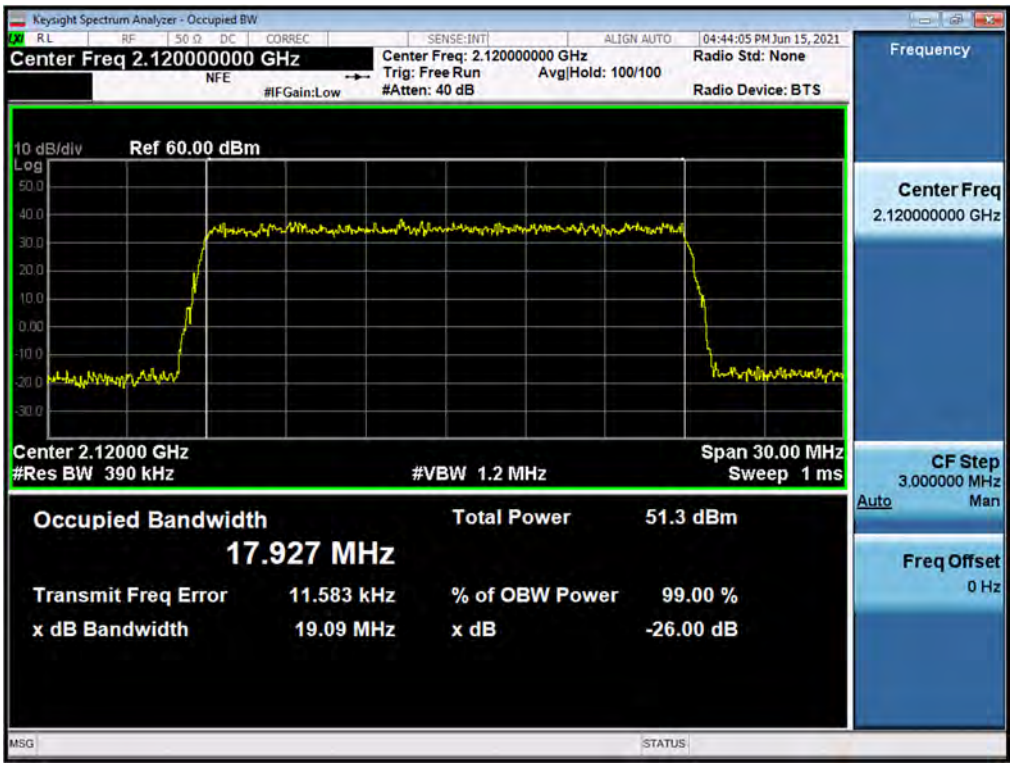
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 LTE 5 MHz / Non-Contiguous / 64QAM / Low



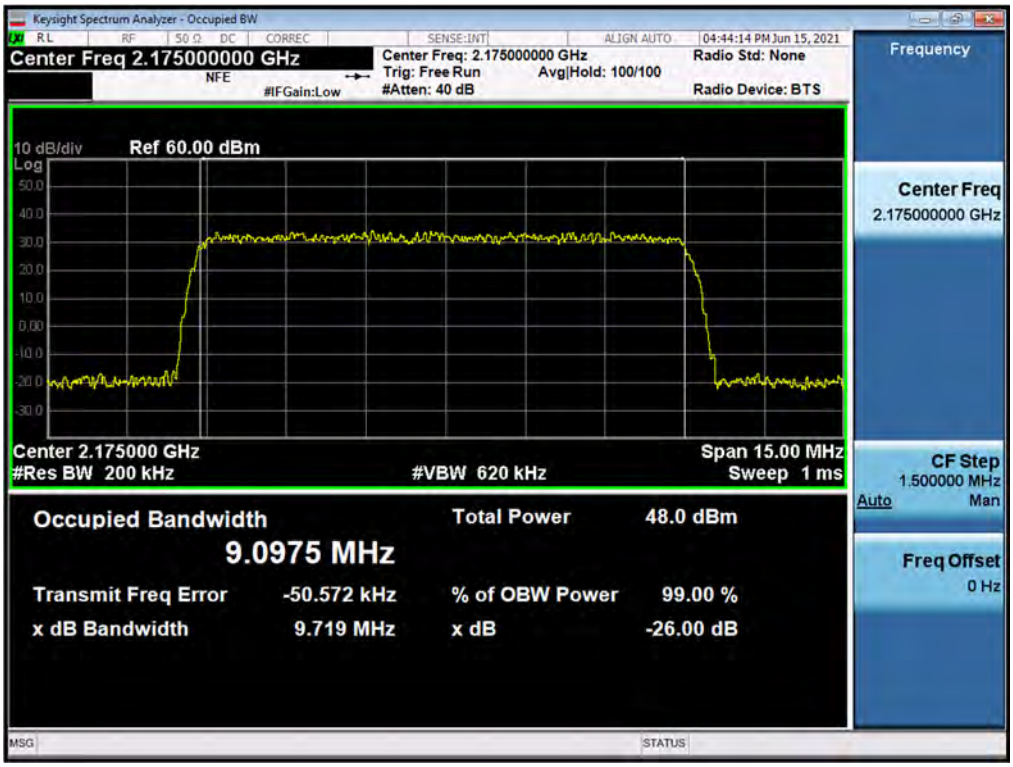

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 64QAM / High



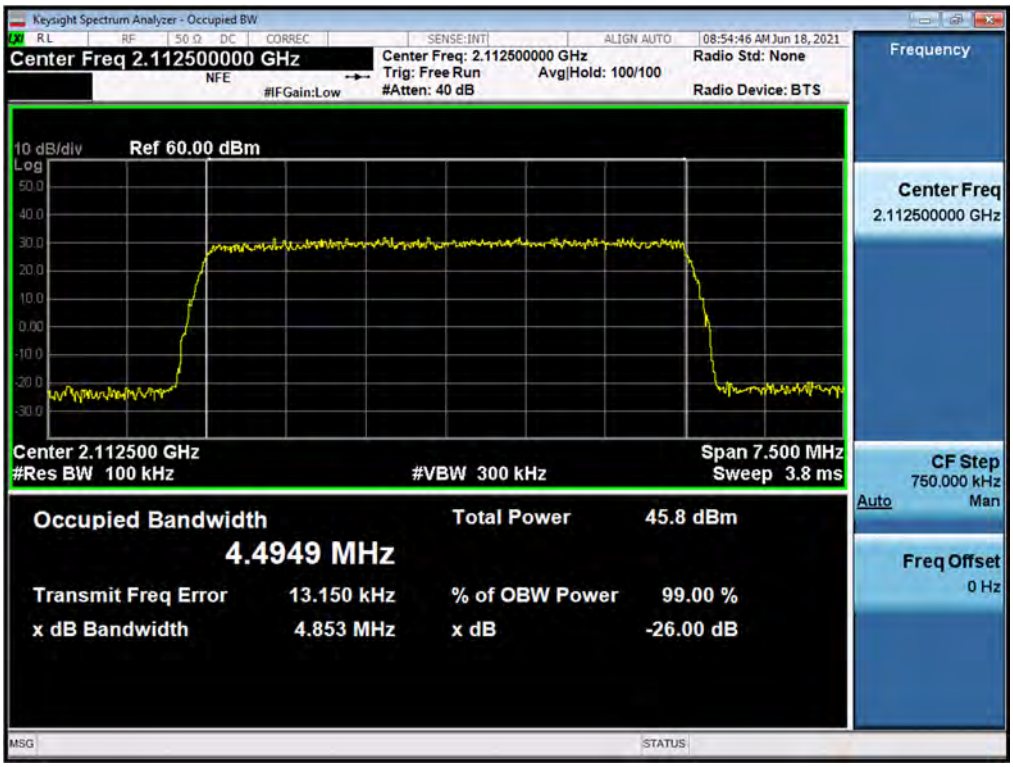
Antenna 0 / B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 LTE 20 MHz / Non-Contiguous / 16QAM / Low



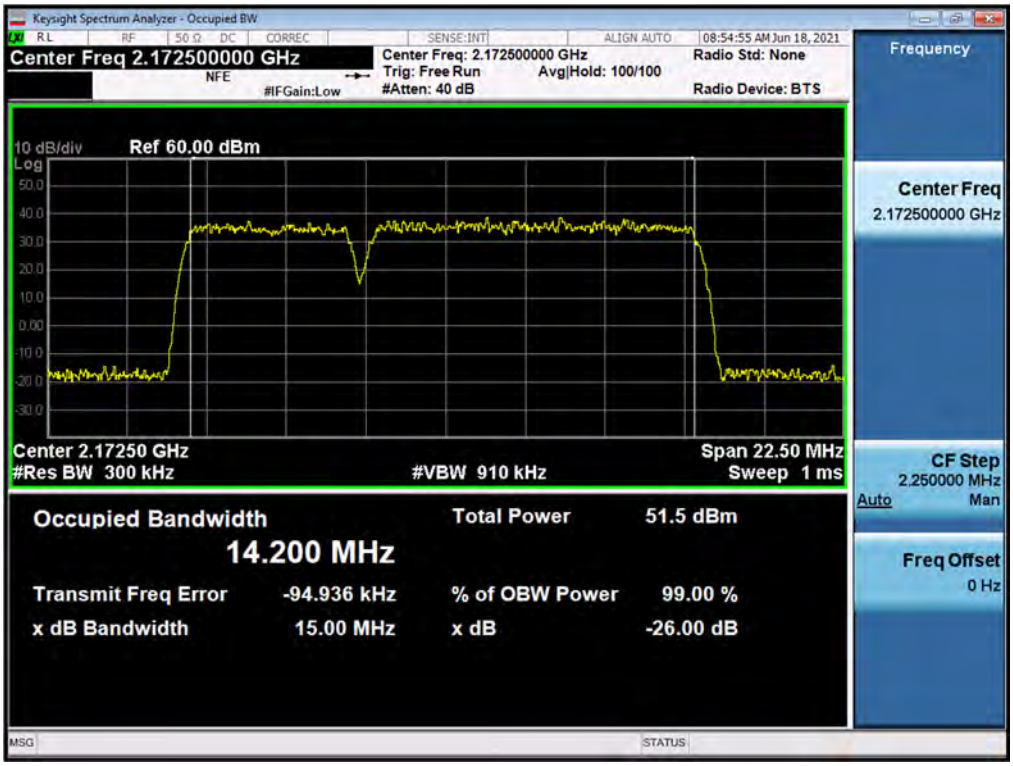

Antenna 0 / B66 LTE 20 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier [2 Carrier] / B66 DSS 10 MHz / Non-Contiguous / 16QAM / High



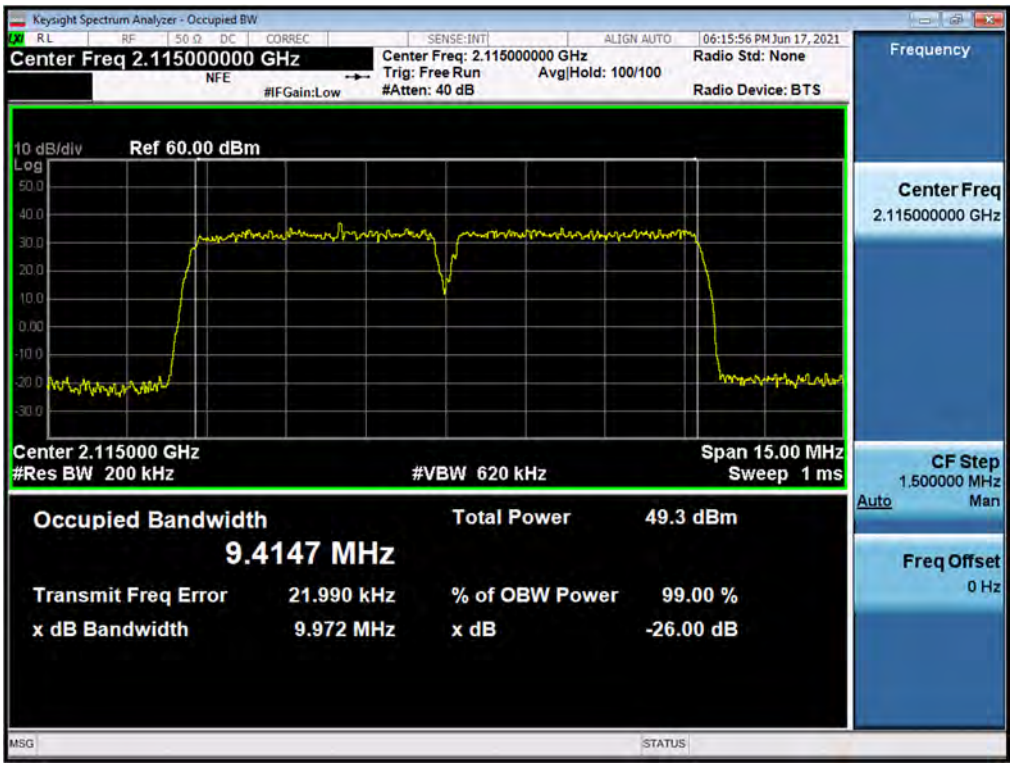
Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz / Non-Contiguous / 256QAM / Low



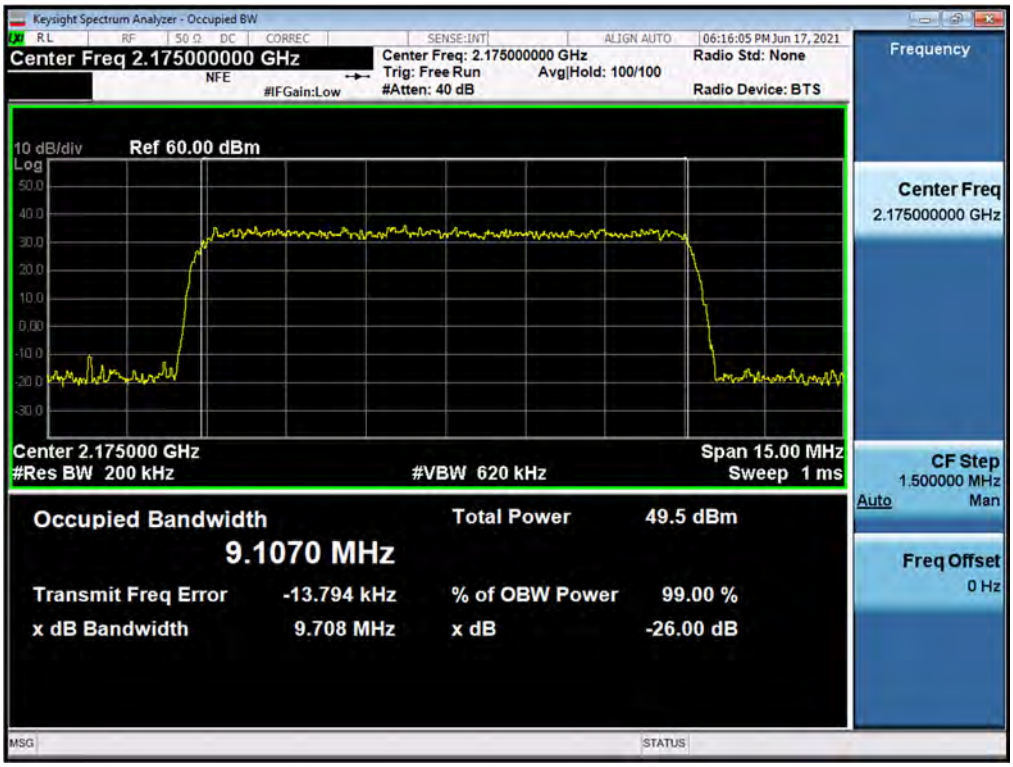

Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz + B66 DSS 10 MHz / Non-Contiguous / 256QAM / High



Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 LTE 5 MHz + B66 LTE 5 MHz / Non-Contiguous / QPSK / Low




Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 5 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (2C +1C) [3 Carrier] / B66 DSS 10 MHz / Non-Contiguous / QPSK / High



Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 5 MHz / Non-Contiguous / QPSK / Low


Antenna 0 / B66 LTE 5 MHz 1 Carrier + B66 LTE 15 MHz 1 Carrier + B66 DSS 10 MHz 1 Carrier (1C +2C) [3 Carrier] / B66 LTE 15 MHz + B66 DSS 10 MHz / Non-Contiguous / QPSK / High