

# TEST REPORT

FCC Test for RF4442d-13A  
Class II Permissive Change

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

**REPORT NO.**  
HCT-RF-2207-FC026-R1

**DATE OF ISSUE**  
August 26, 2022

**Tested by**  
Sang Su Lee



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REPORT**  
FCC Test for  
RF4442d-13A

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**Additional Model**  
-

<b>Applicant</b>	<b>SAMSUNG Electronics Co., Ltd.</b> 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
<b>EUT Type</b>	RRU (RF4442d)
<b>Model Name</b>	RF4442d-13A
<b>FCC ID</b>	A3LRF4442D-13A
<b>Date of Test</b>	May 30, 2022 ~ July 27, 2022
<b>FCC Rule Parts:</b>	CFR 47 Part 2, Part 22

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	July 27, 2022	Initial Release
1	August 26, 2022	Added notes on page 9 and 21. Modified additional descriptions about DSS mode on page 10. Corrected data tables of output power and PSD.

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](http://www.hct.co.kr)

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## 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, Rep. of Korea

### 1.2. PRODUCT INFORMATION

EUT Type	RRU (RF4442d)			
EUT Serial Number	S617640109			
Power Supply	-48 VDC			
Output Power	Band	Carrier	Bandwidth	Power
	5G NR n5	1	5 MHz	10 W/path, Total: 40 W
	5G NR n5	1	10 MHz	10 W/path, Total: 40 W
	B5 DSS + B5 DSS	2	10 MHz + 10 MHz	10 W/path, Total: 40 W
	5G NR n5 + 5G NR n5	2	5 MHz + 5 MHz	10 W/path, Total: 40 W
	5G NR n5 + 5G NR n5	2	10 MHz + 10 MHz	10 W/path, Total: 40 W
	5G NR n5 + LTE B5	2	5 MHz + 5 MHz	10 W/path, Total: 40 W
	B5 DSS + 5G NR n5	2	10 MHz + 5 MHz	10 W/path, Total: 40 W
	B5 DSS + 5G NR n5	2	10 MHz + 10 MHz	10 W/path, Total: 40 W
	B5 DSS + 5G NR n5 + LTE B5	3	10 MHz + 5 MHz + 5 MHz	10 W/path, Total: 40 W
	5G NR n5 + 5G NR n5 + LTE B5	3	10 MHz + 10 MHz + 5 MHz	10 W/path, Total: 40 W
B5 DSS + 5G NR n5 + LTE B5	3	10 MHz + 10 MHz + 5 MHz	10 W/path, Total: 40 W	
Frequency Range	Band 5 : 869 MHz ~ 894 MHz			

	Mode	Bandwidth	Emission Designator		
			QPSK (G7D)	Conducted (W)	16/64/256 QAM (W7D) Conducted (W)
Emission Designator	5G NR n5	5 MHz	4M48G7D	40.26	4M50W7D 40.34
	5G NR n5	10 MHz	9M33G7D	40.80	9M33W7D 40.99
	B5 DSS + B5 DSS (Contiguous)	10 MHz + 10 MHz	19M1G7D	39.84	19M1W7D 40.18
	5G NR n5 + 5G NR n5 (Contiguous)	5 MHz + 5 MHz	9M46G7D	40.13	9M50W7D 40.18
	5G NR n5 + 5G NR n5 (Contiguous)	10 MHz + 10 MHz	19M3G7D	39.95	19M3W7D 40.09
	5G NR n5 + LTE B5 (Contiguous)	5 MHz + 5 MHz	9M48G7D	39.98	9M51W7D 39.92
	B5 DSS + 5G NR n5 (Contiguous)	10 MHz + 5 MHz	14M3G7D	40.16	14M3W7D 40.33
	B5 DSS + 5G NR n5 (Contiguous)	10 MHz + 10 MHz	19M2G7D	40.13	19M2W7D 40.11
	B5 DSS + 5G NR n5 + LTE B5 (Contiguous)	10 MHz + 5 MHz + 5 MHz	19M3G7D	40.22	19M3W7D 39.86
	5G NR n5 + 5G NR n5 + LTE B5 (Contiguous)	10 MHz + 10 MHz + 5 MHz	24M3G7D	40.10	24M4W7D 40.07
	B5 DSS + 5G NR n5 + LTE B5 (Contiguous)	10 MHz + 10 MHz + 5 MHz	24M2G7D	39.50	24M2W7D 39.46
	B5 DSS + B5 DSS (Non-Contiguous)	10 MHz + 10 MHz	18M5G7D	38.46	18M5W7D 38.65
	5G NR n5 + 5G NR n5 (Non-Contiguous)	5 MHz + 5 MHz	8M95G7D	39.69	8M98W7D 39.64
	5G NR n5 + 5G NR n5 (Non-Contiguous)	10 MHz + 10 MHz	18M6G7D	39.71	18M6W7D 39.77
	5G NR n5 + LTE B5 (Non-Contiguous)	5 MHz + 5 MHz	8M96G7D	39.71	8M98W7D 39.89
	B5 DSS + 5G NR n5 (Non-Contiguous)	10 MHz + 5 MHz	13M7G7D	39.38	13M8W7D 39.24
	B5 DSS + 5G NR n5 (Non-Contiguous)	10 MHz + 10 MHz	18M5G7D	40.03	18M6W7D 39.64
	B5 DSS + 5G NR n5 + LTE B5 (1C+2C) (Non-Contiguous)	10 MHz + 5 MHz + 5 MHz	18M8G7D	39.35	18M8W7D 39.38
	B5 DSS + 5G NR n5 + LTE B5 (2C+1C) (Non-Contiguous)	10 MHz + 5 MHz + 5 MHz	18M8G7D	39.07	18M9W7D 39.36
	Modulation Type	QPSK, 16QAM, 64QAM, 256QAM			
SCS (Sub-carrier Spacing)	LTE: 15 kHz, NR: 15 kHz, DSS: 15 kHz				
Antenna Specification	Manufacturer does not provide an antenna				

### 1.3. TEST INFORMATION

FCC Rule Parts	CFR 47 Part 2, Part 22
Measurement standards	ANSI C63.26-2015, KDB 662911 D01 v02r01, KDB 971168 D01 v03r01
Place of Test	HCT CO., LTD. 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 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 22

Description	Reference	Results
RF Output Power	§ 2.1046, § 22.913	Compliant
PAPR	§ 22.913	Compliant
Occupied Bandwidth	§ 2.1049	Compliant
Out-of-band Unwanted Emissions	§ 2.1051, § 22.917	Compliant
Spurious Unwanted Emissions		Compliant
Radiated Emissions	§ 2.1053, § 22.917	Compliant
Frequency Stability	§ 2.1055	Compliant

**Note:** This device is reusing the test data of conducted test from the test report (HCT-RF-2207-FC027) since this device has the same HW and SW capabilities with the device referenced except DC power supply, and all radiated test has performed in this device.

### 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, LTE modulation types (16QAM, 64QAM, 256QAM) and NR modulation types (16QAM, 64QAM, 256QAM) have been tested.
- All mode of operation, supporting bandwidth and frequencies were investigated. The test plots shown in the following sections represent the worst case emissions.
- The measurement has been performed for each LTE, DSS and NR Carrier in the mode of full resource Block size as worst case to transmit maximum output power condition.
- Among the multi-carrier combination, only worst-case combination has been tested in this test report to cover all multi-carrier combination addressed in technical documents.
- In multi-carrier mode addressed in this report, the worst LTE:5G NR ratio (9:1) is applied based on test result of single carrier DSS mode.
- The dummy loads were connected to the RF output ports for radiated spurious emission testing.
- 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.

**ANTO****Correction factor table**

<b>Frequency (MHz)</b>	<b>Factor (dB)</b>	<b>Frequency (MHz)</b>	<b>Factor (dB)</b>
500	32.406	2 200	34.192
600	32.623	2 300	34.321
700	32.772	2 400	34.342
800	32.831	2 500	34.373
900	32.946	2 600	34.435
1 000	33.046	2 700	34.528
1 100	33.128	2 800	34.572
1 200	33.262	2 900	34.563
1 300	33.377	3 000	34.622
1 400	33.448	4 000	35.217
1 500	33.536	5 000	35.781
1 600	33.645	6 000	35.989
1 700	33.671	7 000	37.063
1 800	33.794	8 000	37.971
1 900	33.876	9 000	38.163
2 000	33.931	10 000	38.389
2 100	34.055	-	-

**ANT1****Correction factor table**

<b>Frequency (MHz)</b>	<b>Factor (dB)</b>	<b>Frequency (MHz)</b>	<b>Factor (dB)</b>
500	31.929	2 200	33.642
600	32.099	2 300	33.612
700	32.221	2 400	33.661
800	32.276	2 500	33.728
900	32.391	2 600	33.717
1 000	32.507	2 700	33.853
1 100	32.582	2 800	33.854
1 200	32.702	2 900	33.904
1 300	32.804	3 000	33.972
1 400	32.871	4 000	34.279
1 500	32.953	5 000	34.778
1 600	33.068	6 000	35.075
1 700	33.083	7 000	35.499
1 800	33.220	8 000	35.765
1 900	33.319	9 000	36.145
2 000	33.378	10 000	36.752
2 100	33.548	-	-

**ANT2****Correction factor table**

<b>Frequency (MHz)</b>	<b>Factor (dB)</b>	<b>Frequency (MHz)</b>	<b>Factor (dB)</b>
500	31.750	2 200	33.190
600	31.922	2 300	33.249
700	32.030	2 400	33.362
800	32.093	2 500	33.448
900	32.207	2 600	33.463
1 000	32.321	2 700	33.596
1 100	32.381	2 800	33.607
1 200	32.495	2 900	33.724
1 300	32.570	3 000	33.684
1 400	32.628	4 000	34.111
1 500	32.707	5 000	34.486
1 600	32.775	6 000	34.630
1 700	32.773	7 000	35.400
1 800	32.971	8 000	35.923
1 900	33.060	9 000	36.638
2 000	33.117	10 000	36.833
2 100	33.135	-	-

**ANT3****Correction factor table**

<b>Frequency (MHz)</b>	<b>Factor (dB)</b>	<b>Frequency (MHz)</b>	<b>Factor (dB)</b>
500	32.527	2 200	34.230
600	32.709	2 300	34.317
700	32.839	2 400	34.455
800	32.912	2 500	34.557
900	33.011	2 600	34.528
1 000	33.117	2 700	34.503
1 100	33.197	2 800	34.547
1 200	33.326	2 900	34.560
1 300	33.399	3 000	34.603
1 400	33.486	4 000	35.263
1 500	33.603	5 000	35.627
1 600	33.695	6 000	35.842
1 700	33.692	7 000	36.505
1 800	33.906	8 000	36.837
1 900	33.935	9 000	37.445
2 000	34.081	10 000	37.767
2 100	34.189	-	-

### 3.3. MAXIMUM MEASUREMENT UNCERTAINTY

Description	Condition	Uncertainty
Radiated Disturbance	9 kHz ~ 30 MHz	4.40 dB
	30 MHz ~ 1 GHz	5.74 dB
	1 GHz ~ 18 GHz	5.51 dB
	18 GHz ~ 40 GHz	5.92 dB

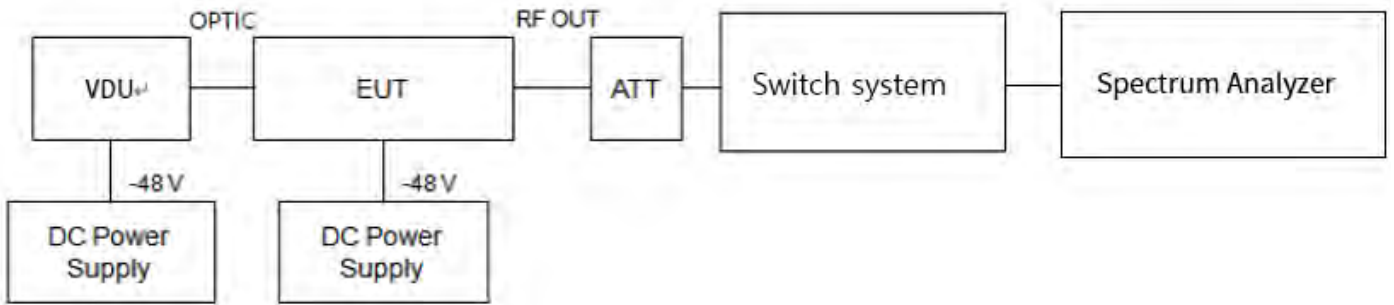
Coverage factor  $k=2$ , Confidence levels of 95 %

### 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

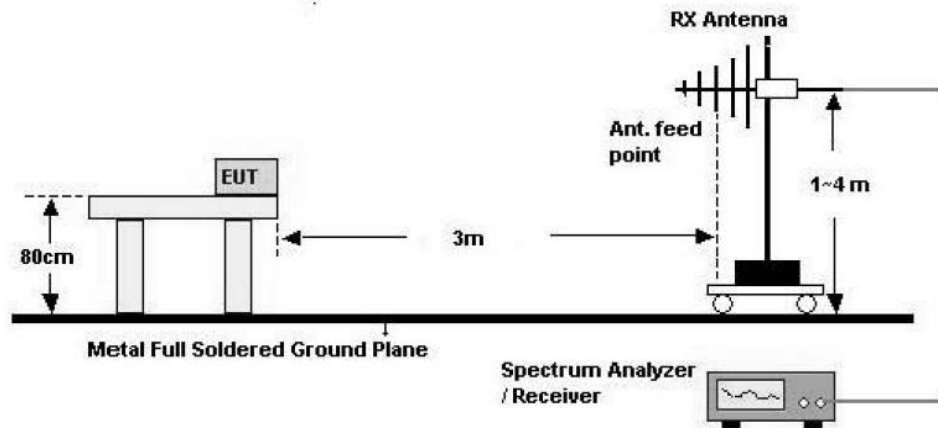
## 3.5. TEST DIAGRAMS

## Conducted Test

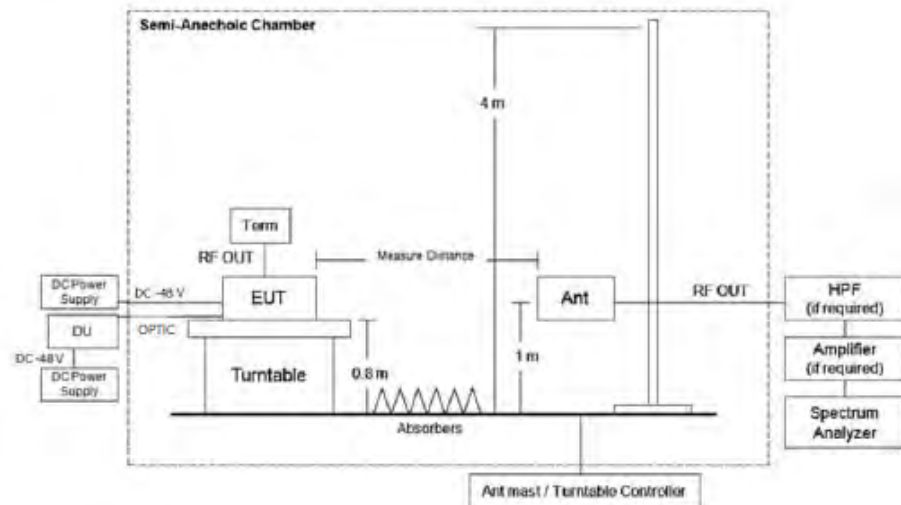


## Radiated Test

30 MHz ~ 1 GHz



Above 1 GHz



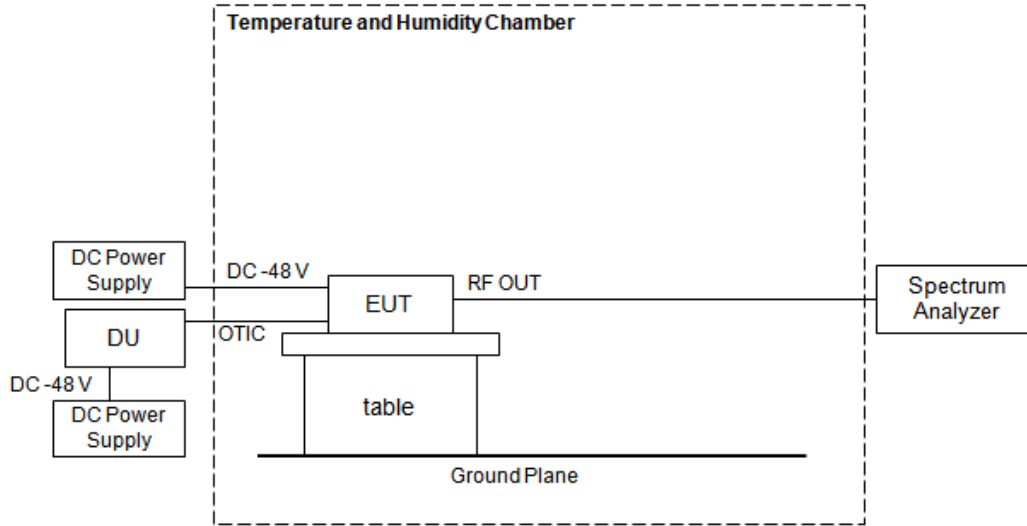
※ EUT position is adopted by placement of floor-standing refer to section 5.5.2.3.2 of ANSI C63.26-2015



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Frequency Stability

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

#### 4. TEST EQUIPMENTS

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
PXA Signal Analyzer	N9030A	Keysight	MY55410714	2023-02-14	Annual
RF Switch System	TMX0108	TNM System	TM20110001	N/A	N/A
*30 dB Attenuator	67-30-33	API Weinschel, Inc.	CL4336	2023-05-03	Annual
*50Ω Termination	908A	H.P.	N/A	N/A	N/A
Coaxial Attenuator	FAS-23-20	MCLI	103756	2023-01-03	Annual
DC Power Supply	PWR800L	KIKUSUI	LJ003448	2023-05-30	Annual
DC Power Supply	6674A	H.P.	3637A01843	2023-05-30	Annual
DC Power Supply	6674A	Agilent	MY41003340	2023-07-06	Annual
DC Power Supply	PWR1600L	KIKUSUI	RL002213	2022-09-29	Annual
Temperature and Humidity Chamber	NY-THR18750	NANGYEUL CO., LTD.	NY-200912201A	2023-02-10	Annual
Amp & Filter Bank Switch Controller	FBSM-01B	TNM system	TM20090002	N/A	N/A
Controller(Antenna mast & Turn Table)	CO3000	Innco systems	CO3000/1251/48920320/P	N/A	N/A
Antenna Position Tower	MA4640/800-XP-ET	Innco systems	N/A	N/A	N/A
Turn Table	DS2000-S	Innco systems	N/A	N/A	N/A
Turn Table	Turn Table	Ets	N/A	N/A	N/A
Loop Antenna	FMZB 1513	Schwarzbeck	1513-333	2024-03-17	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	9168-0895	2022-09-04	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	02296	2023-05-19	Biennial
Spectrum Analyzer	FSP40	Rohde & Schwarz	100843	2022-11-08	Annual
LNA(0.1 ~ 18 GHz)	FBSR-04C	TNM system	N/A	2022-09-16	Annual
High Pass Filter	WHKX10-900-1000-15000-40SS	Wainwright Instruments	16	2022-08-05	Annual
Low Noise Amplifier	LLAU1183540Q	LTC Microwave	100	2022-09-16	Annual

\* This equipment has been used to each port, but we only listed one equipment for simplicity.

**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.

##### § 22.913 Effective radiated power limits.

Licensees in the Cellular Radiotelephone Service are subject to the effective radiated power (ERP) limits and other requirements in this Section. *See also* § 22.169.

(a) *Maximum ERP.* The ERP of transmitters in the Cellular Radiotelephone Service must not exceed the limits in this section.

(1) Except as described in paragraphs (a)(2), (3), and (4) of this section, the ERP of base stations and repeaters must not exceed—

- (i) 500 watts per emission; or
- (ii) 400 watts/MHz (PSD) per sector.

(2) Except as described in paragraphs (a)(3) and (4) of this section, for systems operating in areas more than 72 kilometers (45 miles) from international borders that:

- (i) 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; or
- (ii) Extend coverage into Unserved Area on a secondary basis (*see* § 22.949), the ERP of base transmitters and repeaters must not exceed—

- (A) 1000 watts per emission; or
- (B) 800 watts/MHz (PSD) per sector.

(3) Provided that they also comply with paragraphs (b) and (c) of this section, licensees are permitted to operate their base transmitters and repeaters with an ERP greater than 400 watts/MHz (PSD) per sector, up to a maximum ERP of 1000 watts/MHz (PSD) per sector unless they meet the conditions in paragraph (a)(4) of this section.

(4) Provided that they also comply with paragraphs (b) and (c) of this section, licensees of systems operating in areas more than 72 kilometers (45 miles) from international borders that:

- (i) 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; or
- (ii) Extend coverage into Unserved Area on a secondary basis (*see* § 22.949), are permitted to operate base transmitters and repeaters with an ERP greater than 800 watts/MHz (PSD) per sector, up to a maximum of 2000 watts/MHz (PSD) per sector.

(5) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

(d) *Power measurement.* Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-to-average ratio (PAR) of the transmission must 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  $2 \times$  to  $3 \times$  the OBW.
- b) Set RBW = 1 % to 5 % of the OBW.
- c) Set VBW  $\geq 3 \times$  RBW.
- d) Set number of measurement points in sweep  $\geq 2 \times$  span / RBW.
- e) Sweep time:
  - 1) Set = auto-couple, or
  - 2) Set  $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission period})]$  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  $\leq \pm 2\%$ ) or non-constant (variations  $> \pm 2\%$ ), respectively.

**Note:**

1. Maximum Permissible Directional Gain is 17.41 dBi calculated back from the PSD results.

Sample Calculations:

- $11.89 \text{ W/MHz (Measured Value)} - 2.15 \text{ dB} = 7.25 \text{ W/MHz}$
- $400 \text{ W/MHz (E.R.P. Limit)} / 7.25 \text{ W/MHz} = 55.17 = 17.41 \text{ dB}$

2. 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**
**5G NR n5 5 MHz 1 Carrier**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	871.50	40.02	10.04
		Middle	881.50	39.97	9.94
		High	891.50	40.05	10.11
	16QAM	Low	871.50	40.05	10.12
		Middle	881.50	39.97	9.94
		High	891.50	39.99	9.99
	64QAM	Low	871.50	40.04	10.09
		Middle	881.50	39.96	9.92
		High	891.50	40.03	10.08
	256QAM	Low	871.50	39.92	9.82
		Middle	881.50	39.94	9.85
		High	891.50	40.15	10.35
1	QPSK	Low	871.50	39.98	9.96
		Middle	881.50	39.92	9.83
		High	891.50	40.02	10.05
	16QAM	Low	871.50	39.98	9.94
		Middle	881.50	40.01	10.01
		High	891.50	39.97	9.93
	64QAM	Low	871.50	40.00	10.01
		Middle	881.50	39.94	9.86
		High	891.50	39.98	9.95
	256QAM	Low	871.50	39.94	9.85
		Middle	881.50	39.93	9.84
		High	891.50	39.98	9.94

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	871.50	40.05	10.11
		Middle	881.50	39.96	9.92
		High	891.50	39.98	9.95
	16QAM	Low	871.50	39.84	9.63
		Middle	881.50	39.98	9.96
		High	891.50	39.89	9.75
	64QAM	Low	871.50	40.00	10.00
		Middle	881.50	39.94	9.87
		High	891.50	39.93	9.83
	256QAM	Low	871.50	39.91	9.80
		Middle	881.50	39.95	9.89
		High	891.50	40.00	9.99
3	QPSK	Low	871.50	40.06	10.14
		Middle	881.50	40.11	10.26
		High	891.50	40.06	10.14
	16QAM	Low	871.50	40.06	10.15
		Middle	881.50	39.99	9.97
		High	891.50	39.89	9.75
	64QAM	Low	871.50	40.01	10.01
		Middle	881.50	40.12	10.29
		High	891.50	40.12	10.28
	256QAM	Low	871.50	39.99	9.98
		Middle	881.50	40.02	10.05
		High	891.50	40.02	10.05

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
871.50	40.26	39.84	40.12	39.45
881.50	39.95	39.89	39.93	39.63
891.50	40.26	39.41	40.13	40.34

## 5G NR n5 10 MHz 1 Carrier

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	874.00	40.07	10.15
		Middle	881.50	40.10	10.24
		High	889.00	40.12	10.29
	16QAM	Low	874.00	40.10	10.24
		Middle	881.50	40.15	10.34
		High	889.00	40.15	10.35
	64QAM	Low	874.00	40.05	10.11
		Middle	881.50	40.11	10.26
		High	889.00	40.17	10.40
	256QAM	Low	874.00	39.95	9.87
		Middle	881.50	40.05	10.11
		High	889.00	40.14	10.33
1	QPSK	Low	874.00	39.93	9.85
		Middle	881.50	39.93	9.84
		High	889.00	40.02	10.03
	16QAM	Low	874.00	39.93	9.84
		Middle	881.50	39.96	9.90
		High	889.00	40.09	10.20
	64QAM	Low	874.00	40.00	9.99
		Middle	881.50	39.92	9.82
		High	889.00	40.03	10.07
	256QAM	Low	874.00	39.98	9.95
		Middle	881.50	39.93	9.84
		High	889.00	40.10	10.24



Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	874.00	40.07	10.17
		Middle	881.50	40.14	10.33
		High	889.00	40.05	10.11
	16QAM	Low	874.00	39.93	9.85
		Middle	881.50	40.09	10.21
		High	889.00	40.06	10.13
	64QAM	Low	874.00	39.83	9.61
		Middle	881.50	40.03	10.07
		High	889.00	39.98	9.96
	256QAM	Low	874.00	39.84	9.64
		Middle	881.50	39.86	9.68
		High	889.00	40.00	10.00
3	QPSK	Low	874.00	40.12	10.28
		Middle	881.50	40.08	10.17
		High	889.00	40.16	10.37
	16QAM	Low	874.00	40.06	10.15
		Middle	881.50	40.05	10.11
		High	889.00	40.13	10.31
	64QAM	Low	874.00	40.13	10.31
		Middle	881.50	40.09	10.21
		High	889.00	40.15	10.35
	256QAM	Low	874.00	40.04	10.09
		Middle	881.50	40.11	10.27
		High	889.00	40.15	10.34

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
874.00	40.45	40.07	40.02	39.54
881.50	40.57	40.56	40.36	39.89
889.00	40.80	40.99	40.79	40.91

**Tabular Data of RF Contiguous output power**
**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	879.00	40.00	9.99
		Middle	881.50	39.93	9.85
		High	884.00	39.88	9.72
	16QAM	Low	879.00	40.03	10.07
		Middle	881.50	40.04	10.09
		High	884.00	39.95	9.88
	64QAM	Low	879.00	40.02	10.04
		Middle	881.50	40.03	10.06
		High	884.00	39.98	9.96
	256QAM	Low	879.00	40.03	10.06
		Middle	881.50	40.02	10.04
		High	884.00	39.96	9.91
1	QPSK	Low	879.00	39.98	9.95
		Middle	881.50	40.00	10.01
		High	884.00	39.98	9.95
	16QAM	Low	879.00	39.97	9.93
		Middle	881.50	39.99	9.97
		High	884.00	39.97	9.92
	64QAM	Low	879.00	39.99	9.98
		Middle	881.50	40.02	10.04
		High	884.00	39.96	9.91
	256QAM	Low	879.00	39.97	9.92
		Middle	881.50	39.99	9.97
		High	884.00	40.01	10.03

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	879.00	39.99	9.97
		Middle	881.50	39.94	9.85
		High	884.00	39.92	9.81
	16QAM	Low	879.00	40.00	9.99
		Middle	881.50	40.00	10.00
		High	884.00	39.98	9.96
	64QAM	Low	879.00	40.01	10.03
		Middle	881.50	40.01	10.03
		High	884.00	39.94	9.86
256QAM	Low	879.00	40.04	10.09	
	Middle	881.50	40.02	10.04	
	High	884.00	39.97	9.92	
3	QPSK	Low	879.00	39.97	9.93
		Middle	881.50	40.00	10.00
		High	884.00	39.89	9.75
	16QAM	Low	879.00	39.98	9.94
		Middle	881.50	40.00	9.99
		High	884.00	39.95	9.88
	64QAM	Low	879.00	39.90	9.77
		Middle	881.50	40.02	10.05
		High	884.00	39.94	9.86
256QAM	Low	879.00	39.94	9.87	
	Middle	881.50	39.98	9.95	
	High	884.00	40.01	10.01	

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
879.00	39.84	39.93	39.82	39.94
881.50	39.71	40.05	40.18	40.01
884.00	39.22	39.64	39.59	39.88

**5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	874.00	40.02	10.04
		Middle	881.50	40.03	10.07
		High	889.00	40.01	10.02
	16QAM	Low	874.00	40.03	10.07
		Middle	881.50	40.02	10.05
		High	889.00	40.03	10.07
	64QAM	Low	874.00	39.93	9.83
		Middle	881.50	40.02	10.05
		High	889.00	40.02	10.05
	256QAM	Low	874.00	39.98	9.96
		Middle	881.50	40.00	10.01
		High	889.00	40.03	10.06
1	QPSK	Low	874.00	39.96	9.90
		Middle	881.50	40.00	10.00
		High	889.00	40.04	10.09
	16QAM	Low	874.00	39.98	9.95
		Middle	881.50	39.96	9.91
		High	889.00	40.00	10.01
	64QAM	Low	874.00	39.95	9.89
		Middle	881.50	39.96	9.92
		High	889.00	39.99	9.99
	256QAM	Low	874.00	39.98	9.96
		Middle	881.50	39.98	9.96
		High	889.00	39.99	9.97

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	874.00	39.96	9.92
		Middle	881.50	39.94	9.87
		High	889.00	40.04	10.08
	16QAM	Low	874.00	39.97	9.92
		Middle	881.50	39.99	9.99
		High	889.00	40.04	10.09
	64QAM	Low	874.00	40.02	10.04
		Middle	881.50	39.95	9.89
		High	889.00	40.02	10.06
	256QAM	Low	874.00	39.94	9.85
		Middle	881.50	39.98	9.95
		High	889.00	39.99	9.98
3	QPSK	Low	874.00	40.03	10.07
		Middle	881.50	40.04	10.09
		High	889.00	39.97	9.94
	16QAM	Low	874.00	40.04	10.09
		Middle	881.50	40.02	10.04
		High	889.00	40.00	10.01
	64QAM	Low	874.00	40.00	10.00
		Middle	881.50	40.02	10.04
		High	889.00	40.01	10.03
	256QAM	Low	874.00	40.01	10.03
		Middle	881.50	40.02	10.03
		High	889.00	40.00	10.00

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
874.00	39.93	40.04	39.76	39.80
881.50	40.03	39.99	39.90	39.96
889.00	40.13	40.18	40.12	40.01

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	879.00	40.00	10.01
		Middle	881.50	40.01	10.03
		High	884.00	39.98	9.96
	16QAM	Low	879.00	39.97	9.93
		Middle	881.50	40.01	10.03
		High	884.00	39.98	9.95
	64QAM	Low	879.00	39.96	9.91
		Middle	881.50	39.96	9.90
		High	884.00	39.99	9.98
	256QAM	Low	879.00	39.98	9.96
		Middle	881.50	40.00	9.99
		High	884.00	40.02	10.04
1	QPSK	Low	879.00	40.00	10.00
		Middle	881.50	40.01	10.01
		High	884.00	39.98	9.96
	16QAM	Low	879.00	40.02	10.04
		Middle	881.50	40.00	10.00
		High	884.00	40.02	10.05
	64QAM	Low	879.00	40.01	10.02
		Middle	881.50	40.01	10.02
		High	884.00	40.01	10.02
	256QAM	Low	879.00	40.01	10.03
		Middle	881.50	40.01	10.03
		High	884.00	40.02	10.04

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	879.00	39.97	9.93
		Middle	881.50	39.98	9.96
		High	884.00	40.00	10.01
	16QAM	Low	879.00	40.01	10.03
		Middle	881.50	40.01	10.02
		High	884.00	40.03	10.07
	64QAM	Low	879.00	40.00	10.00
		Middle	881.50	40.00	10.00
		High	884.00	39.96	9.90
	256QAM	Low	879.00	39.99	9.99
		Middle	881.50	40.04	10.10
		High	884.00	39.98	9.94
3	QPSK	Low	879.00	40.01	10.02
		Middle	881.50	39.97	9.94
		High	884.00	39.99	9.97
	16QAM	Low	879.00	40.00	10.01
		Middle	881.50	39.98	9.95
		High	884.00	40.01	10.02
	64QAM	Low	879.00	39.99	9.97
		Middle	881.50	39.99	9.98
		High	884.00	39.99	9.97
	256QAM	Low	879.00	40.02	10.05
		Middle	881.50	39.99	9.97
		High	884.00	39.97	9.94

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
879.00	39.95	40.01	39.90	40.02
881.50	39.94	40.00	39.89	40.09
884.00	39.90	40.09	39.88	39.96

**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	874.00	40.01	10.03
		Middle	881.50	40.01	10.01
		High	889.00	39.99	9.97
	16QAM	Low	874.00	39.97	9.92
		Middle	881.50	40.02	10.05
		High	889.00	39.99	9.98
	64QAM	Low	874.00	39.98	9.96
		Middle	881.50	39.94	9.87
		High	889.00	39.94	9.87
	256QAM	Low	874.00	39.97	9.94
		Middle	881.50	39.93	9.84
		High	889.00	39.93	9.85
1	QPSK	Low	874.00	39.98	9.94
		Middle	881.50	39.97	9.92
		High	889.00	39.95	9.88
	16QAM	Low	874.00	39.97	9.94
		Middle	881.50	39.98	9.95
		High	889.00	39.98	9.96
	64QAM	Low	874.00	39.97	9.93
		Middle	881.50	40.00	9.99
		High	889.00	39.98	9.96
	256QAM	Low	874.00	39.93	9.85
		Middle	881.50	39.92	9.81
		High	889.00	39.97	9.93



Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	874.00	39.99	9.99
		Middle	881.50	40.00	10.01
		High	889.00	39.96	9.92
	16QAM	Low	874.00	39.94	9.86
		Middle	881.50	39.98	9.95
		High	889.00	39.96	9.91
	64QAM	Low	874.00	39.98	9.95
		Middle	881.50	39.96	9.92
		High	889.00	39.97	9.94
	256QAM	Low	874.00	39.97	9.93
		Middle	881.50	39.95	9.88
		High	889.00	39.98	9.96
3	QPSK	Low	874.00	39.99	9.99
		Middle	881.50	40.01	10.03
		High	889.00	40.00	10.01
	16QAM	Low	874.00	40.00	10.00
		Middle	881.50	39.99	9.97
		High	889.00	40.01	10.01
	64QAM	Low	874.00	39.95	9.89
		Middle	881.50	39.99	9.97
		High	889.00	40.04	10.10
	256QAM	Low	874.00	40.01	10.03
		Middle	881.50	40.02	10.05
		High	889.00	40.03	10.06

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
874.00	39.94	39.72	39.73	39.75
881.50	39.98	39.92	39.74	39.58
889.00	39.78	39.87	39.86	39.80

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	876.50	40.02	10.05
		Middle	881.50	39.95	9.88
		High	886.50	39.96	9.91
	16QAM	Low	876.50	40.03	10.08
		Middle	881.50	39.99	9.97
		High	886.50	40.00	10.00
	64QAM	Low	876.50	40.05	10.11
		Middle	881.50	39.95	9.89
		High	886.50	39.99	9.98
	256QAM	Low	876.50	40.01	10.03
		Middle	881.50	40.00	10.00
		High	886.50	39.97	9.94
1	QPSK	Low	876.50	40.00	10.00
		Middle	881.50	39.99	9.97
		High	886.50	40.00	10.00
	16QAM	Low	876.50	40.04	10.09
		Middle	881.50	40.01	10.02
		High	886.50	39.98	9.96
	64QAM	Low	876.50	40.05	10.12
		Middle	881.50	40.02	10.04
		High	886.50	39.93	9.84
	256QAM	Low	876.50	40.03	10.06
		Middle	881.50	40.01	10.03
		High	886.50	39.95	9.89

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	876.50	40.03	10.06
		Middle	881.50	40.01	10.01
		High	886.50	40.03	10.08
	16QAM	Low	876.50	39.99	9.97
		Middle	881.50	40.01	10.03
		High	886.50	40.02	10.05
	64QAM	Low	876.50	40.04	10.08
		Middle	881.50	39.98	9.96
		High	886.50	39.99	9.97
	256QAM	Low	876.50	40.04	10.09
		Middle	881.50	40.04	10.10
		High	886.50	39.95	9.89
3	QPSK	Low	876.50	40.02	10.05
		Middle	881.50	40.02	10.05
		High	886.50	40.01	10.02
	16QAM	Low	876.50	40.00	10.00
		Middle	881.50	40.02	10.04
		High	886.50	40.03	10.07
	64QAM	Low	876.50	40.01	10.02
		Middle	881.50	40.02	10.04
		High	886.50	40.02	10.06
	256QAM	Low	876.50	40.01	10.01
		Middle	881.50	40.02	10.05
		High	886.50	39.99	9.98

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
876.50	40.16	40.14	40.33	40.20
881.50	39.91	40.06	39.92	40.17
886.50	40.01	40.08	39.84	39.70

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	879.00	39.99	9.99
		Middle	881.50	39.96	9.91
		High	884.00	40.02	10.04
	16QAM	Low	879.00	39.99	9.98
		Middle	881.50	40.03	10.06
		High	884.00	40.03	10.07
	64QAM	Low	879.00	40.02	10.04
		Middle	881.50	40.02	10.04
		High	884.00	40.00	9.99
	256QAM	Low	879.00	40.02	10.05
		Middle	881.50	40.00	10.00
		High	884.00	39.96	9.91
1	QPSK	Low	879.00	39.93	9.84
		Middle	881.50	39.99	9.98
		High	884.00	40.02	10.04
	16QAM	Low	879.00	39.93	9.84
		Middle	881.50	40.01	10.02
		High	884.00	39.97	9.94
	64QAM	Low	879.00	40.00	9.99
		Middle	881.50	40.02	10.05
		High	884.00	39.99	9.97
	256QAM	Low	879.00	39.98	9.97
		Middle	881.50	39.98	9.96
		High	884.00	39.98	9.94

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	879.00	39.97	9.93
		Middle	881.50	39.99	9.97
		High	884.00	40.01	10.02
	16QAM	Low	879.00	39.94	9.87
		Middle	881.50	39.98	9.96
		High	884.00	40.01	10.01
	64QAM	Low	879.00	39.99	9.98
		Middle	881.50	39.98	9.94
		High	884.00	39.99	9.98
	256QAM	Low	879.00	39.96	9.92
		Middle	881.50	39.95	9.89
		High	884.00	39.97	9.92
3	QPSK	Low	879.00	39.99	9.98
		Middle	881.50	40.00	10.01
		High	884.00	40.01	10.02
	16QAM	Low	879.00	40.00	9.99
		Middle	881.50	40.03	10.07
		High	884.00	39.97	9.92
	64QAM	Low	879.00	40.02	10.06
		Middle	881.50	40.00	10.01
		High	884.00	40.02	10.05
	256QAM	Low	879.00	40.03	10.07
		Middle	881.50	40.02	10.05
		High	884.00	40.03	10.07

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
879.00	39.74	39.67	40.07	40.01
881.50	39.86	40.11	40.04	39.89
884.00	40.13	39.95	39.99	39.84

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Low	879.00	39.91	9.79
		Middle	881.50	39.91	9.81
		High	884.00	40.02	10.05
	16QAM	Low	879.00	39.92	9.83
		Middle	881.50	39.93	9.84
		High	884.00	40.01	10.03
	64QAM	Low	879.00	39.94	9.86
		Middle	881.50	40.02	10.05
		High	884.00	40.00	9.99
	256QAM	Low	879.00	39.93	9.84
		Middle	881.50	39.95	9.89
		High	884.00	39.96	9.91
1	QPSK	Low	879.00	39.91	9.79
		Middle	881.50	39.95	9.87
		High	884.00	40.04	10.09
	16QAM	Low	879.00	39.90	9.77
		Middle	881.50	39.90	9.77
		High	884.00	39.92	9.83
	64QAM	Low	879.00	39.90	9.78
		Middle	881.50	39.92	9.82
		High	884.00	39.95	9.88
	256QAM	Low	879.00	39.94	9.87
		Middle	881.50	39.92	9.82
		High	884.00	39.92	9.82

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
2	QPSK	Low	879.00	39.94	9.87
		Middle	881.50	40.01	10.03
		High	884.00	40.01	10.01
	16QAM	Low	879.00	39.94	9.85
		Middle	881.50	39.94	9.85
		High	884.00	40.00	9.99
	64QAM	Low	879.00	39.91	9.79
		Middle	881.50	39.97	9.93
		High	884.00	39.94	9.86
	256QAM	Low	879.00	39.95	9.88
		Middle	881.50	39.93	9.85
		High	884.00	39.94	9.87
3	QPSK	Low	879.00	39.98	9.96
		Middle	881.50	40.01	10.03
		High	884.00	40.03	10.07
	16QAM	Low	879.00	39.96	9.90
		Middle	881.50	40.02	10.06
		High	884.00	40.01	10.02
	64QAM	Low	879.00	39.97	9.93
		Middle	881.50	40.02	10.05
		High	884.00	40.04	10.09
	256QAM	Low	879.00	39.99	9.98
		Middle	881.50	39.95	9.89
		High	884.00	39.96	9.92

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
879.00	39.41	39.35	39.36	39.57
881.50	39.73	39.51	39.85	39.46
884.00	40.22	39.86	39.82	39.50

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Middle	881.50	40.04	10.09
	16QAM	Middle	881.50	40.02	10.05
	64QAM	Middle	881.50	40.02	10.06
	256QAM	Middle	881.50	40.01	10.02
1	QPSK	Middle	881.50	39.95	9.88
	16QAM	Middle	881.50	39.96	9.91
	64QAM	Middle	881.50	39.96	9.91
	256QAM	Middle	881.50	39.98	9.95
2	QPSK	Middle	881.50	40.03	10.07
	16QAM	Middle	881.50	40.00	10.00
	64QAM	Middle	881.50	40.00	10.00
	256QAM	Middle	881.50	40.00	10.00
3	QPSK	Middle	881.50	40.03	10.06
	16QAM	Middle	881.50	40.03	10.07
	64QAM	Middle	881.50	40.04	10.10
	256QAM	Middle	881.50	40.04	10.10

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
881.50	40.10	40.03	40.07	40.07



**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm)	Calculated (W)
0	QPSK	Middle	881.50	39.94	9.86
	16QAM	Middle	881.50	39.93	9.84
	64QAM	Middle	881.50	39.94	9.87
	256QAM	Middle	881.50	39.95	9.90
1	QPSK	Middle	881.50	39.91	9.79
	16QAM	Middle	881.50	39.92	9.82
	64QAM	Middle	881.50	39.91	9.79
	256QAM	Middle	881.50	39.89	9.75
2	QPSK	Middle	881.50	39.94	9.86
	16QAM	Middle	881.50	39.91	9.78
	64QAM	Middle	881.50	39.87	9.70
	256QAM	Middle	881.50	39.92	9.81
3	QPSK	Middle	881.50	40.00	10.00
	16QAM	Middle	881.50	40.01	10.01
	64QAM	Middle	881.50	39.96	9.90
	256QAM	Middle	881.50	39.96	9.90

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
881.50	39.50	39.46	39.26	39.35

**Tabular Data of RF Non-Contiguous output power**
**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	B5 DSS 10 MHz		B5 DSS 10 MHz		Summation Value (dBm)	Calculated (W)
		Frequency (MHz)	Measured Value (dBm)	Frequency (MHz)	Measured Value (dBm)		
0	QPSK	874.00	36.86	889.00	36.84	39.86	9.68
	16QAM	874.00	36.89	889.00	36.93	39.92	9.82
	64QAM	874.00	36.86	889.00	36.88	39.88	9.73
	256QAM	874.00	36.82	889.00	36.89	39.86	9.69
1	QPSK	874.00	36.74	889.00	36.80	39.78	9.50
	16QAM	874.00	36.73	889.00	36.75	39.75	9.45
	64QAM	874.00	36.86	889.00	36.83	39.86	9.68
	256QAM	874.00	36.87	889.00	36.88	39.89	9.75
2	QPSK	874.00	36.75	889.00	36.78	39.78	9.50
	16QAM	874.00	36.73	889.00	36.76	39.75	9.45
	64QAM	874.00	36.78	889.00	36.80	39.80	9.56
	256QAM	874.00	36.76	889.00	36.77	39.77	9.49
3	QPSK	874.00	36.93	889.00	36.85	39.90	9.77
	16QAM	874.00	36.91	889.00	36.92	39.93	9.83
	64QAM	874.00	36.87	889.00	36.82	39.86	9.67
	256QAM	874.00	36.84	889.00	36.88	39.87	9.71

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
874.00 + 889.00	38.46	38.55	38.64	38.65

**5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	5G NR n5 5 MHz		5G NR n5 5 MHz		Summation Value (dBm)	Calculated (W)
		Frequency (MHz)	Measured Value (dBm)	Frequency (MHz)	Measured Value (dBm)		
0	QPSK	871.50	36.95	891.50	36.98	39.97	9.94
	16QAM	871.50	36.95	891.50	37.00	39.98	9.96
	64QAM	871.50	36.95	891.50	36.99	39.98	9.95
	256QAM	871.50	36.93	891.50	36.96	39.96	9.91
1	QPSK	871.50	36.95	891.50	36.96	39.97	9.92
	16QAM	871.50	36.97	891.50	36.99	39.99	9.98
	64QAM	871.50	36.98	891.50	36.95	39.97	9.94
	256QAM	871.50	36.95	891.50	36.93	39.95	9.89
2	QPSK	871.50	36.94	891.50	36.93	39.94	9.87
	16QAM	871.50	36.94	891.50	36.87	39.92	9.81
	64QAM	871.50	36.89	891.50	36.88	39.90	9.77
	256QAM	871.50	36.93	891.50	36.94	39.95	9.88
3	QPSK	871.50	36.97	891.50	36.97	39.98	9.95
	16QAM	871.50	36.92	891.50	36.96	39.95	9.89
	64QAM	871.50	36.91	891.50	36.95	39.94	9.86
	256QAM	871.50	36.96	891.50	36.96	39.97	9.92

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
871.50 + 891.50	39.69	39.64	39.53	39.60

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	5G NR n5 10 MHz		5G NR n5 10 MHz		Summation Value (dBm)	Calculated (W)
		Frequency (MHz)	Measured Value (dBm)	Frequency (MHz)	Measured Value (dBm)		
0	QPSK	874.00	36.86	889.00	36.86	39.87	9.71
	16QAM	874.00	36.98	889.00	36.98	39.99	9.98
	64QAM	874.00	36.92	889.00	36.94	39.94	9.86
	256QAM	874.00	36.96	889.00	36.96	39.97	9.93
1	QPSK	874.00	37.01	889.00	37.00	40.01	10.03
	16QAM	874.00	37.01	889.00	36.98	40.00	10.01
	64QAM	874.00	36.99	889.00	36.94	39.98	9.94
	256QAM	874.00	36.96	889.00	36.91	39.94	9.87
2	QPSK	874.00	37.00	889.00	36.96	39.99	9.98
	16QAM	874.00	36.93	889.00	36.94	39.95	9.87
	64QAM	874.00	36.98	889.00	36.98	39.99	9.98
	256QAM	874.00	36.96	889.00	36.93	39.95	9.89
3	QPSK	874.00	36.98	889.00	36.98	39.99	9.98
	16QAM	874.00	36.98	889.00	36.92	39.96	9.91
	64QAM	874.00	36.99	889.00	36.96	39.99	9.97
	256QAM	874.00	36.99	889.00	36.90	39.95	9.89

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
874.00 + 889.00	39.71	39.77	39.76	39.57

**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	5G NR n5 5 MHz		LTE B5 5 MHz		Summation Value (dBm)	Calculated (W)
		Frequency (MHz)	Measured Value (dBm)	Frequency (MHz)	Measured Value (dBm)		
0	QPSK	871.50	37.00	891.50	37.01	40.02	10.04
	16QAM	871.50	37.01	891.50	36.99	40.01	10.03
	64QAM	871.50	36.99	891.50	36.94	39.98	9.95
	256QAM	871.50	36.98	891.50	37.01	40.00	10.01
1	QPSK	871.50	36.98	891.50	36.93	39.96	9.92
	16QAM	871.50	36.95	891.50	36.93	39.95	9.88
	64QAM	871.50	36.98	891.50	36.94	39.97	9.93
	256QAM	871.50	37.01	891.50	37.00	40.02	10.04
2	QPSK	871.50	36.94	891.50	36.89	39.93	9.83
	16QAM	871.50	36.94	891.50	36.92	39.94	9.86
	64QAM	871.50	36.94	891.50	36.90	39.93	9.83
	256QAM	871.50	36.97	891.50	36.94	39.97	9.93
3	QPSK	871.50	36.99	891.50	36.92	39.97	9.92
	16QAM	871.50	36.99	891.50	36.96	39.99	9.97
	64QAM	871.50	36.99	891.50	36.94	39.98	9.94
	256QAM	871.50	36.98	891.50	36.92	39.96	9.91

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
871.50 + 891.50	39.71	39.74	39.66	39.89

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	B5 DSS 10 MHz		5G NR n5 5 MHz		Summation Value (dBm)	Calculated (W)
		Frequency (MHz)	Measured Value (dBm)	Frequency (MHz)	Measured Value (dBm)		
0	QPSK	874.00	38.19	891.50	35.12	39.93	9.84
	16QAM	874.00	38.19	891.50	35.14	39.94	9.87
	64QAM	874.00	38.14	891.50	35.14	39.91	9.79
	256QAM	874.00	38.10	891.50	35.13	39.87	9.71
1	QPSK	874.00	38.13	891.50	35.16	39.91	9.79
	16QAM	874.00	38.13	891.50	35.15	39.90	9.78
	64QAM	874.00	38.12	891.50	35.14	39.89	9.75
	256QAM	874.00	38.10	891.50	35.14	39.88	9.72
2	QPSK	874.00	38.18	891.50	35.10	39.92	9.81
	16QAM	874.00	38.13	891.50	35.10	39.88	9.73
	64QAM	874.00	38.14	891.50	35.10	39.89	9.76
	256QAM	874.00	38.11	891.50	35.15	39.89	9.74
3	QPSK	874.00	38.22	891.50	35.18	39.97	9.94
	16QAM	874.00	38.19	891.50	35.15	39.94	9.87
	64QAM	874.00	38.17	891.50	35.16	39.93	9.84
	256QAM	874.00	38.18	891.50	35.20	39.95	9.89

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
874.00 + 891.50	39.38	39.24	39.15	39.08

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	B5 DSS 10 MHz		5G NR n5 10 MHz		Summation Value (dBm)	Calculated (W)
		Frequency (MHz)	Measured Value (dBm)	Frequency (MHz)	Measured Value (dBm)		
0	QPSK	874.00	36.94	889.00	37.04	40.00	10.00
	16QAM	874.00	36.89	889.00	37.04	39.98	9.95
	64QAM	874.00	36.87	889.00	37.05	39.97	9.93
	256QAM	874.00	36.86	889.00	37.03	39.96	9.90
1	QPSK	874.00	36.93	889.00	37.03	39.99	9.98
	16QAM	874.00	36.84	889.00	37.03	39.95	9.88
	64QAM	874.00	36.85	889.00	37.04	39.96	9.90
	256QAM	874.00	36.87	889.00	37.04	39.97	9.92
2	QPSK	874.00	36.97	889.00	37.02	40.01	10.02
	16QAM	874.00	36.87	889.00	37.01	39.95	9.88
	64QAM	874.00	36.86	889.00	37.01	39.94	9.87
	256QAM	874.00	36.83	889.00	37.00	39.93	9.83
3	QPSK	874.00	36.96	889.00	37.04	40.01	10.03
	16QAM	874.00	36.87	889.00	37.00	39.95	9.89
	64QAM	874.00	36.89	889.00	37.03	39.97	9.93
	256QAM	874.00	36.87	889.00	37.03	39.96	9.91

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
874.00 + 889.00	40.03	39.60	39.64	39.58

**5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C)**

Ant.	Mod	5G NR n5 5 MHz		LTE B5 5 MHz + B5 DSS 10 MHz		Summation Value (dBm)	Calculated (W)
		Frequency (MHz)	Measured Value (dBm)	Frequency (MHz)	Measured Value (dBm)		
0	QPSK	871.50	33.93	886.50	38.74	39.98	9.96
	16QAM	871.50	33.94	886.50	38.69	39.95	9.88
	64QAM	871.50	33.92	886.50	38.65	39.91	9.80
	256QAM	871.50	33.94	886.50	38.61	39.89	9.74
1	QPSK	871.50	33.93	886.50	38.66	39.92	9.81
	16QAM	871.50	33.95	886.50	38.60	39.88	9.74
	64QAM	871.50	33.98	886.50	38.56	39.85	9.67
	256QAM	871.50	33.93	886.50	38.57	39.85	9.66
2	QPSK	871.50	33.94	886.50	38.61	39.89	9.74
	16QAM	871.50	33.96	886.50	38.68	39.94	9.87
	64QAM	871.50	33.94	886.50	38.61	39.88	9.74
	256QAM	871.50	33.93	886.50	38.60	39.87	9.71
3	QPSK	871.50	33.95	886.50	38.66	39.93	9.84
	16QAM	871.50	33.94	886.50	38.70	39.95	9.89
	64QAM	871.50	33.95	886.50	38.68	39.94	9.86
	256QAM	871.50	33.97	886.50	38.65	39.92	9.83

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

Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
871.50 + 886.50	39.35	39.38	39.07	38.94



**(B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C)**

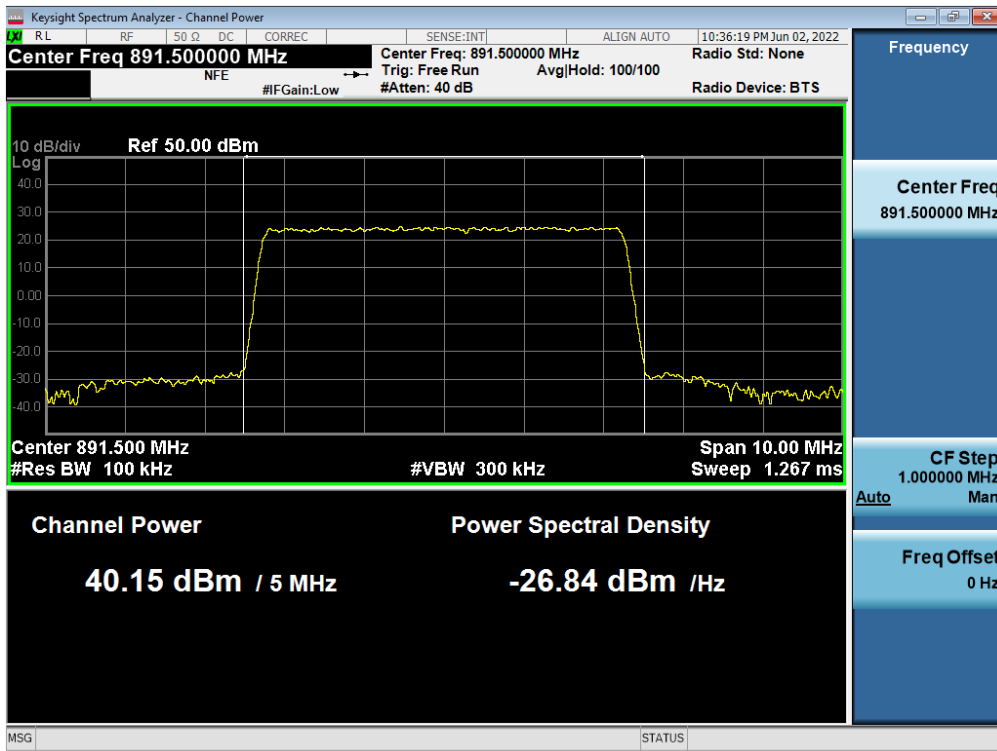
Ant.	Mod	B5 DSS 10 MHz + LTE B5 5 MHz		5G NR n5 5 MHz		Summation Value (dBm)	Calculated (W)
		Frequency (MHz)	Measured Value (dBm)	Frequency (MHz)	Measured Value (dBm)		
0	QPSK	876.50	38.60	891.50	33.96	39.89	9.74
	16QAM	876.50	38.68	891.50	33.96	39.94	9.86
	64QAM	876.50	38.60	891.50	33.95	39.88	9.73
	256QAM	876.50	38.60	891.50	33.99	39.89	9.75
1	QPSK	876.50	38.63	891.50	33.91	39.90	9.76
	16QAM	876.50	38.65	891.50	33.99	39.93	9.84
	64QAM	876.50	38.63	891.50	33.97	39.91	9.80
	256QAM	876.50	38.61	891.50	33.96	39.89	9.75
2	QPSK	876.50	38.62	891.50	33.98	39.90	9.77
	16QAM	876.50	38.61	891.50	33.92	39.88	9.73
	64QAM	876.50	38.63	891.50	33.96	39.90	9.78
	256QAM	876.50	38.64	891.50	33.93	39.91	9.79
3	QPSK	876.50	38.65	891.50	33.92	39.91	9.79
	16QAM	876.50	38.70	891.50	33.98	39.96	9.91
	64QAM	876.50	38.69	891.50	33.97	39.95	9.89
	256QAM	876.50	38.69	891.50	33.97	39.95	9.89

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

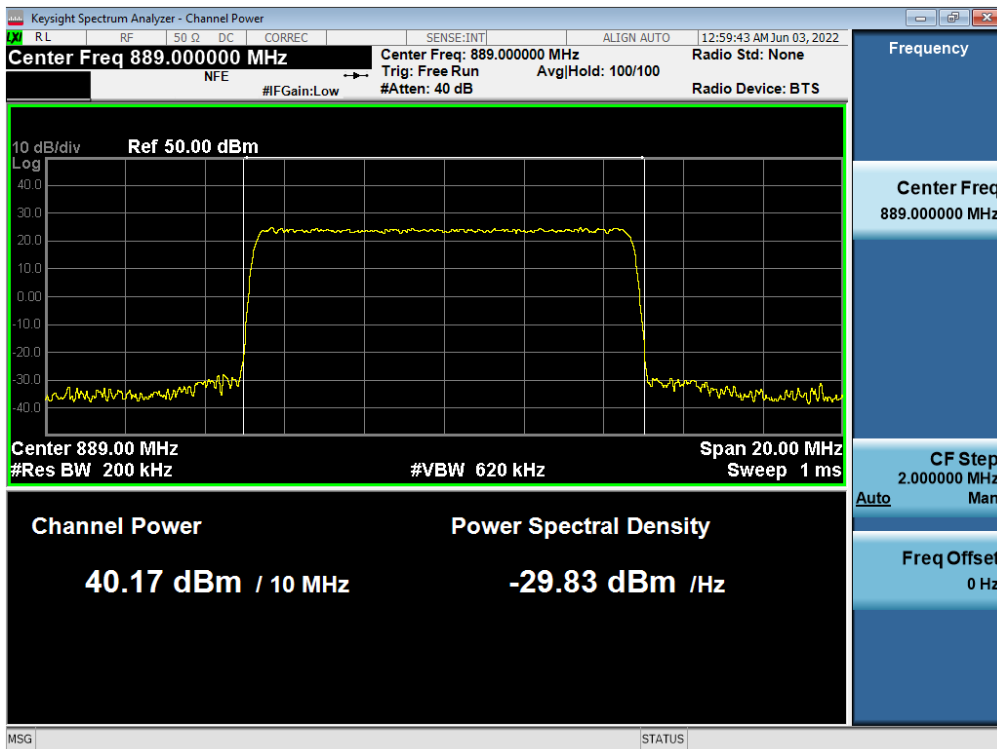
Frequency (MHz)	Output Power(Conducted)			
	QPSK	16QAM	64QAM	256QAM
	W			
876.50 + 891.50	39.07	39.36	39.20	39.18

Plot Data of RF Output Power

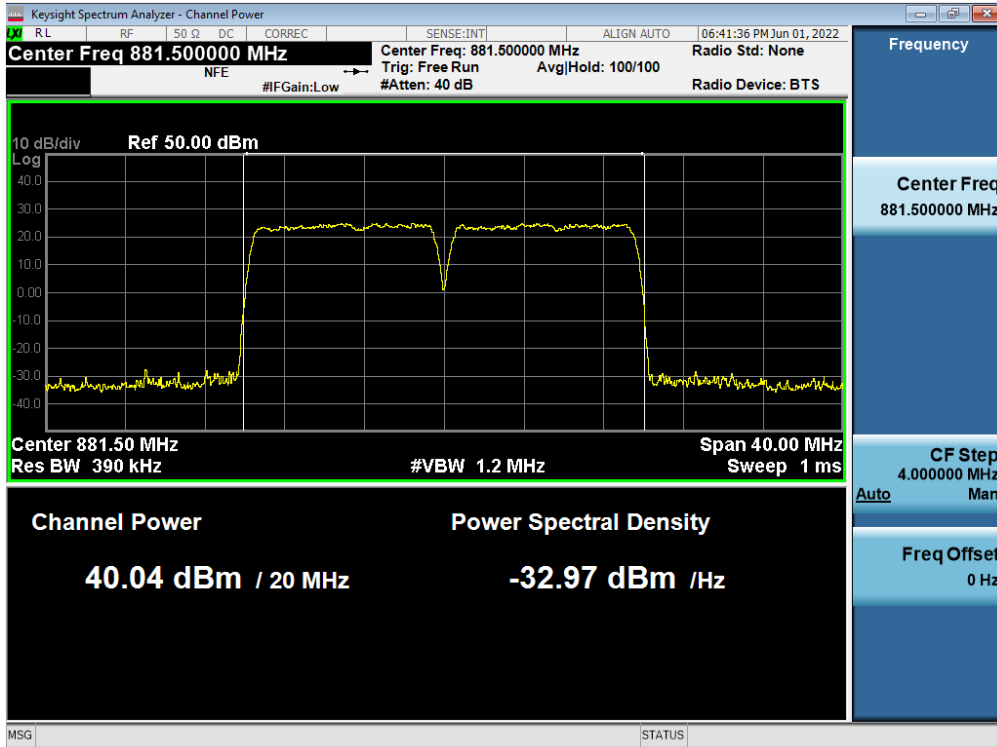
Antenna 0 / 5G NR n5 5 MHz 1 Carrier / 256QAM / High



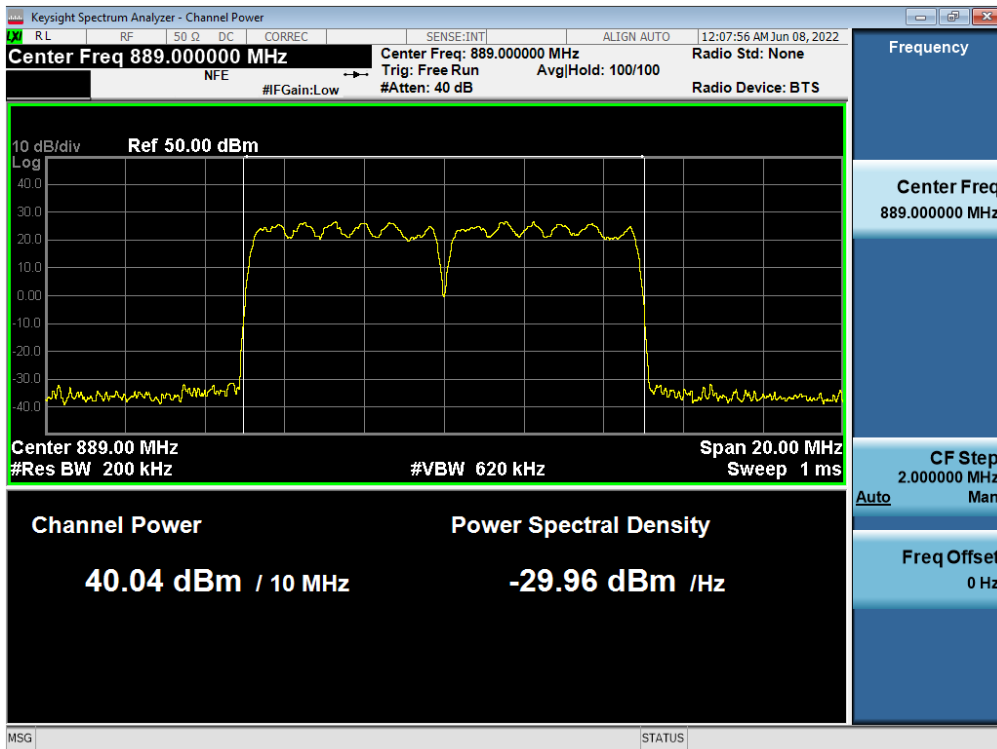
Antenna 0 / 5G NR n5 10 MHz 1 Carrier / 64QAM / High



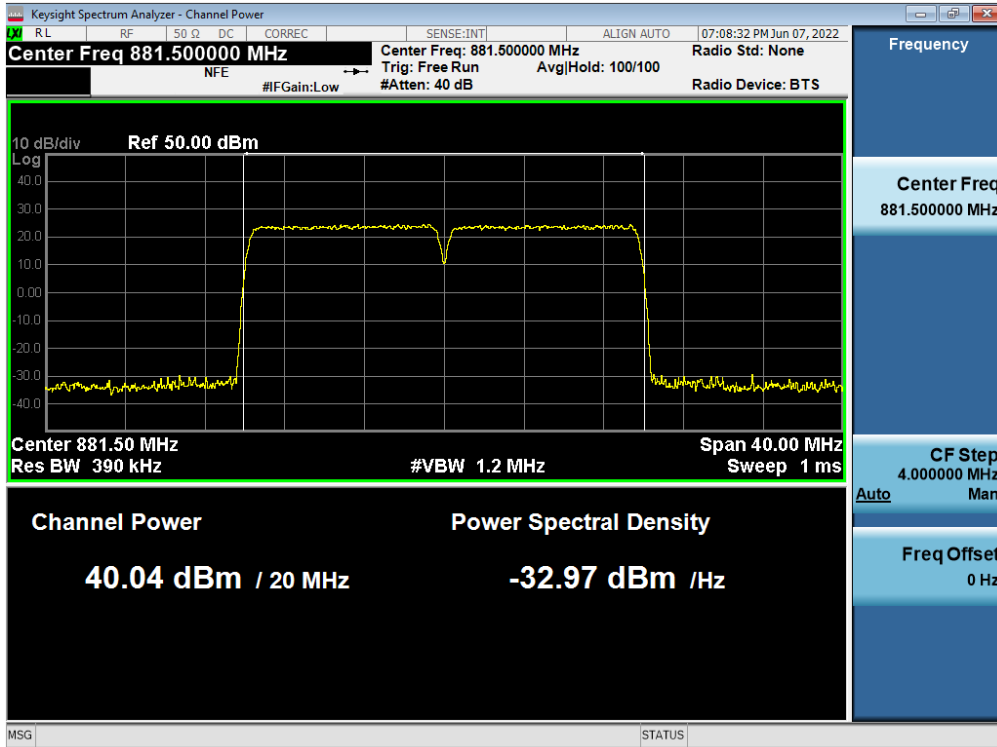
Antenna 0 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle



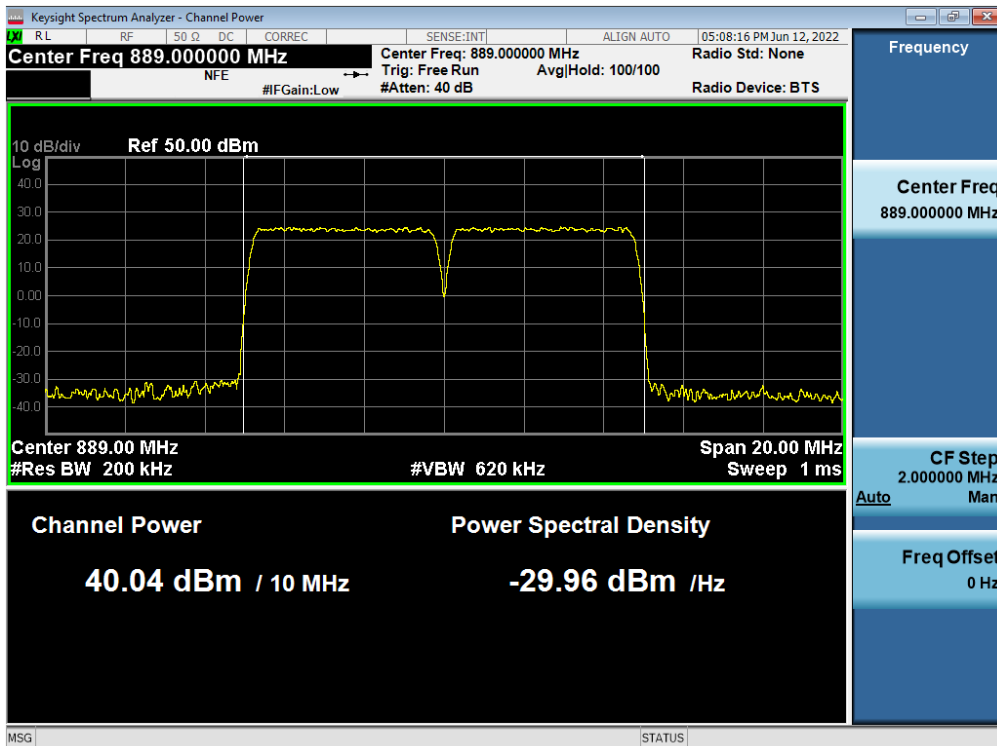
Antenna 2 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / High



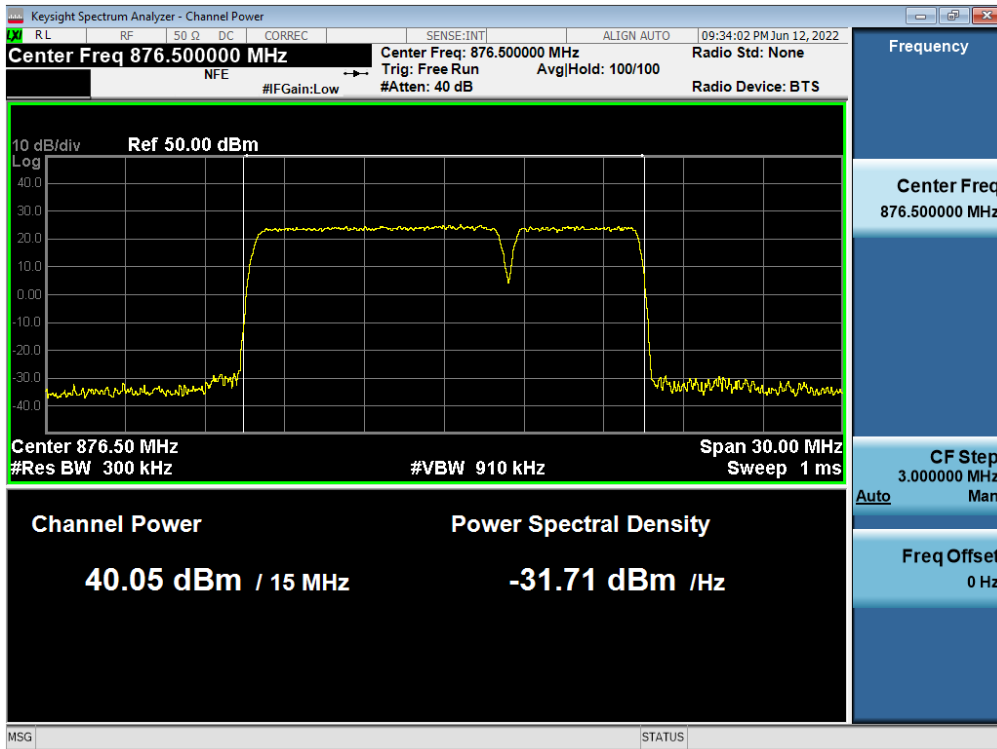
Antenna 2 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Middle



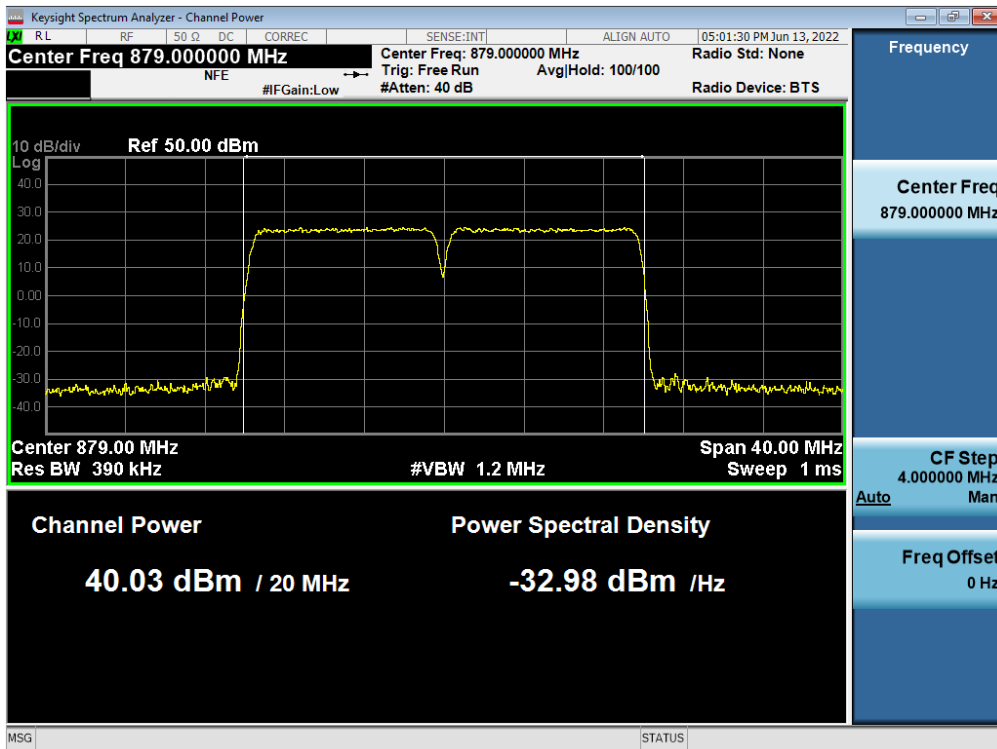
Antenna 3 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / High



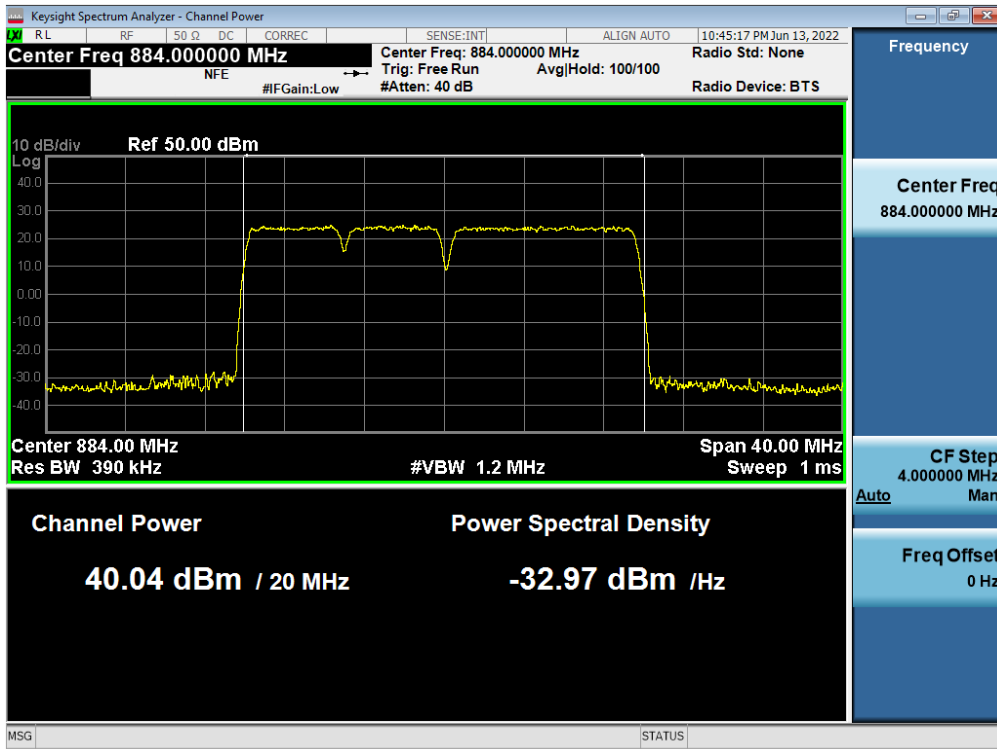
Antenna 1 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Low



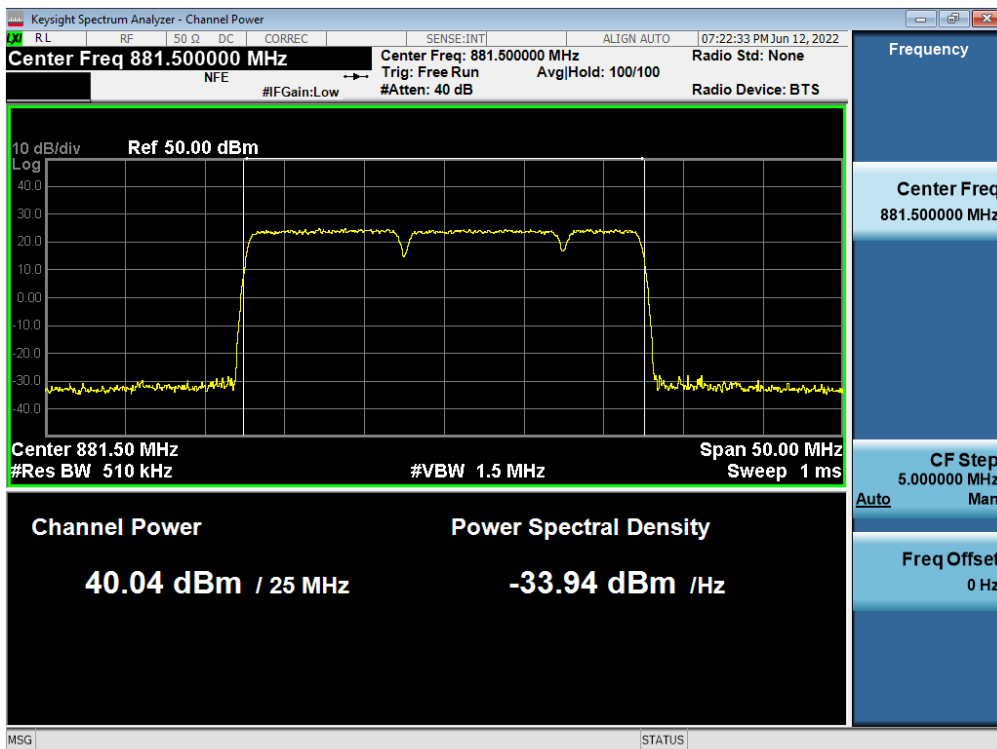
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low



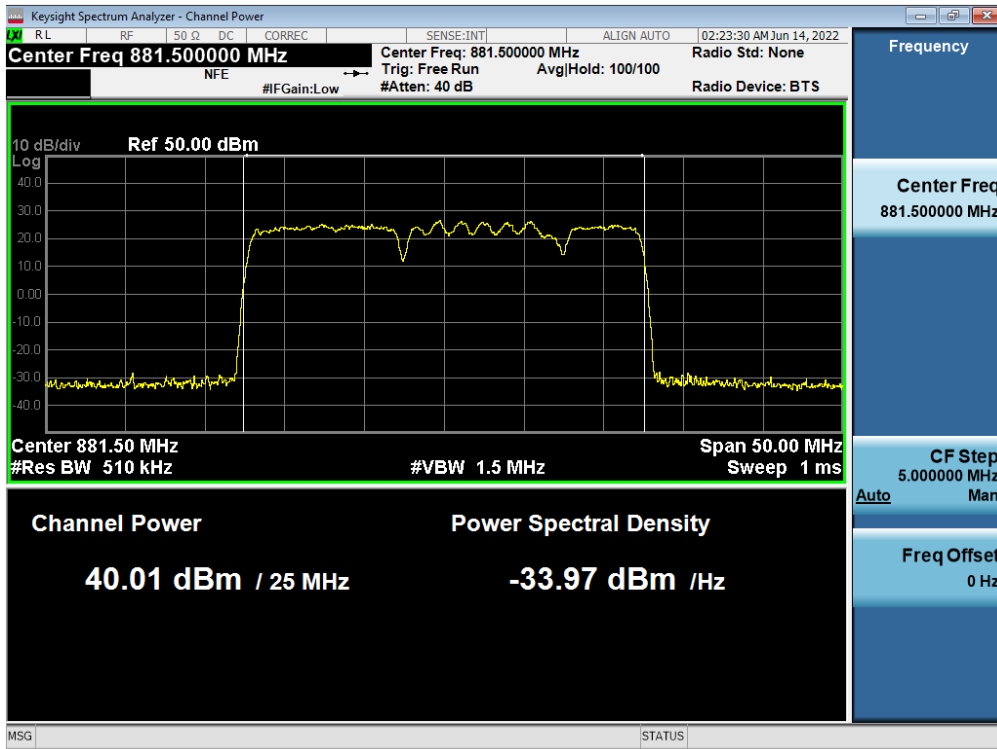
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 64QAM / High



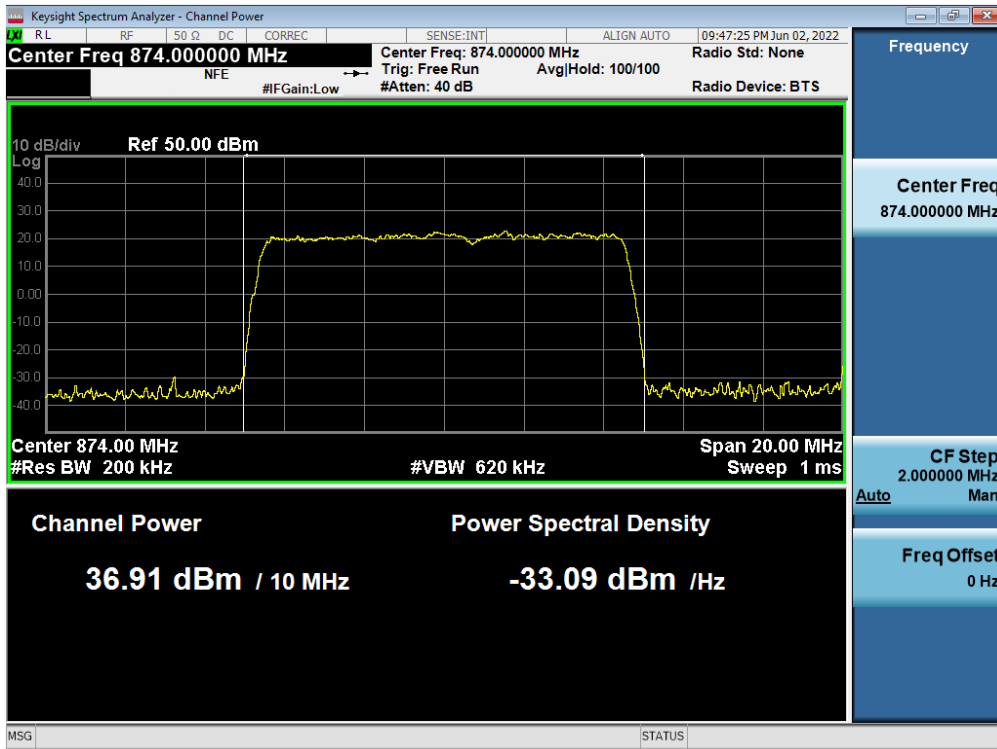
Antenna 3 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 256QAM / Middle



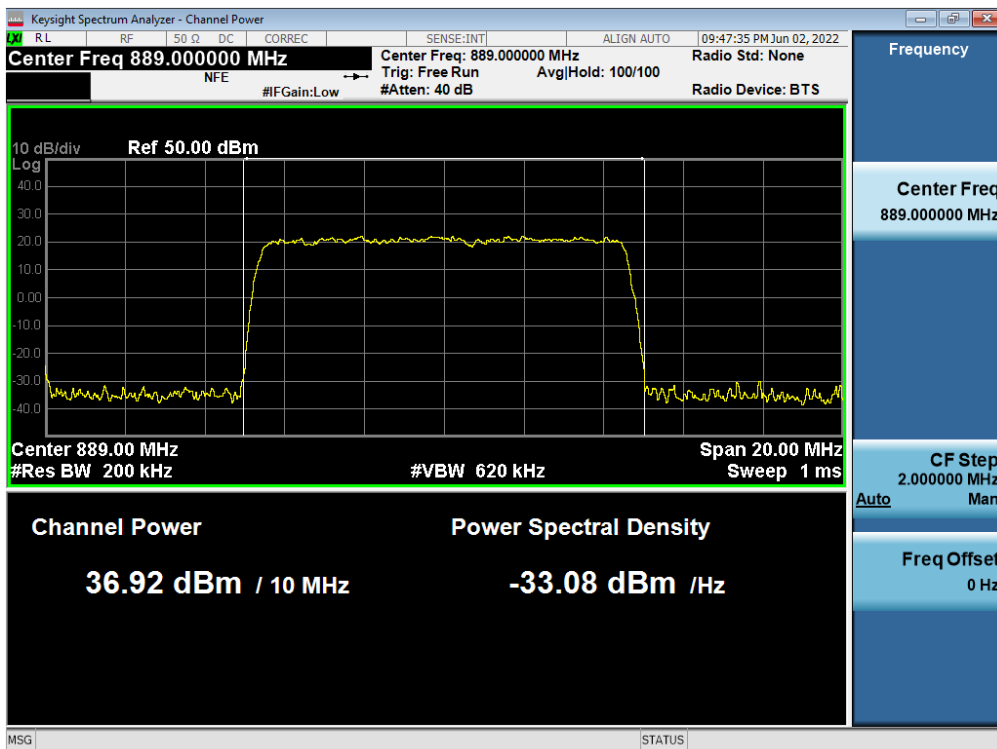
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle



Antenna 3 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low

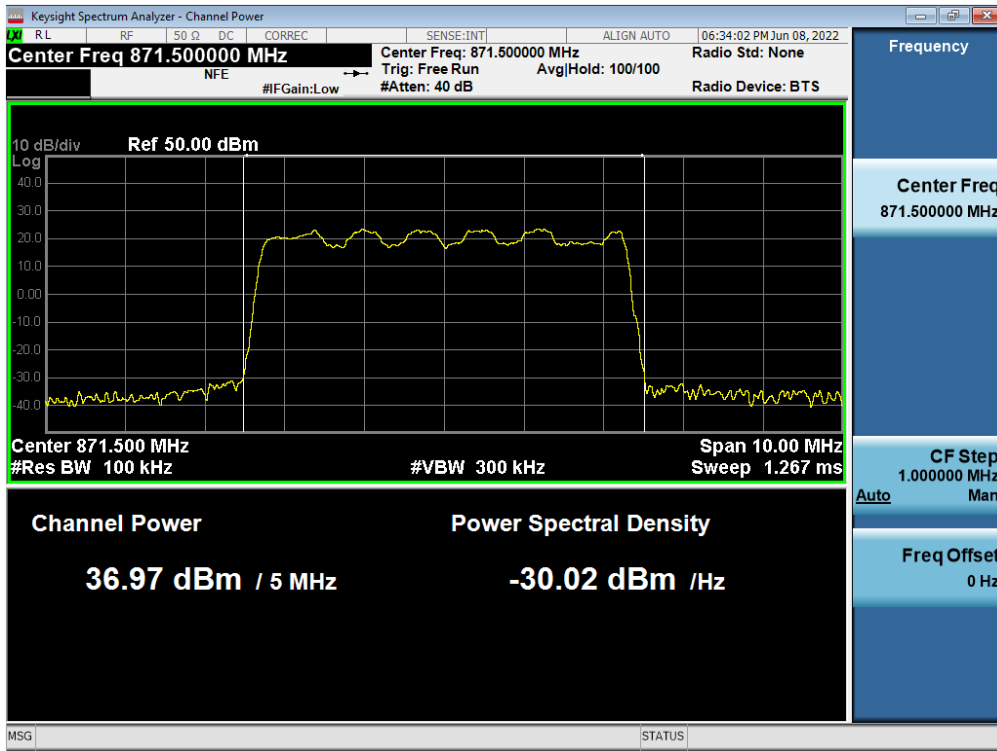


Antenna 3 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / High

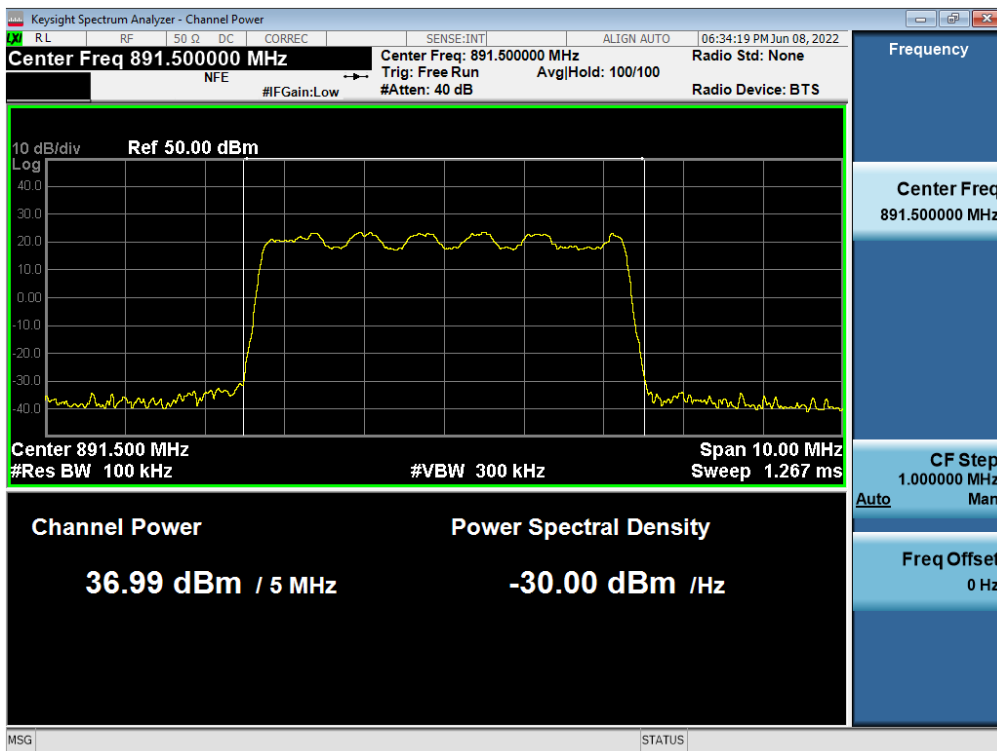




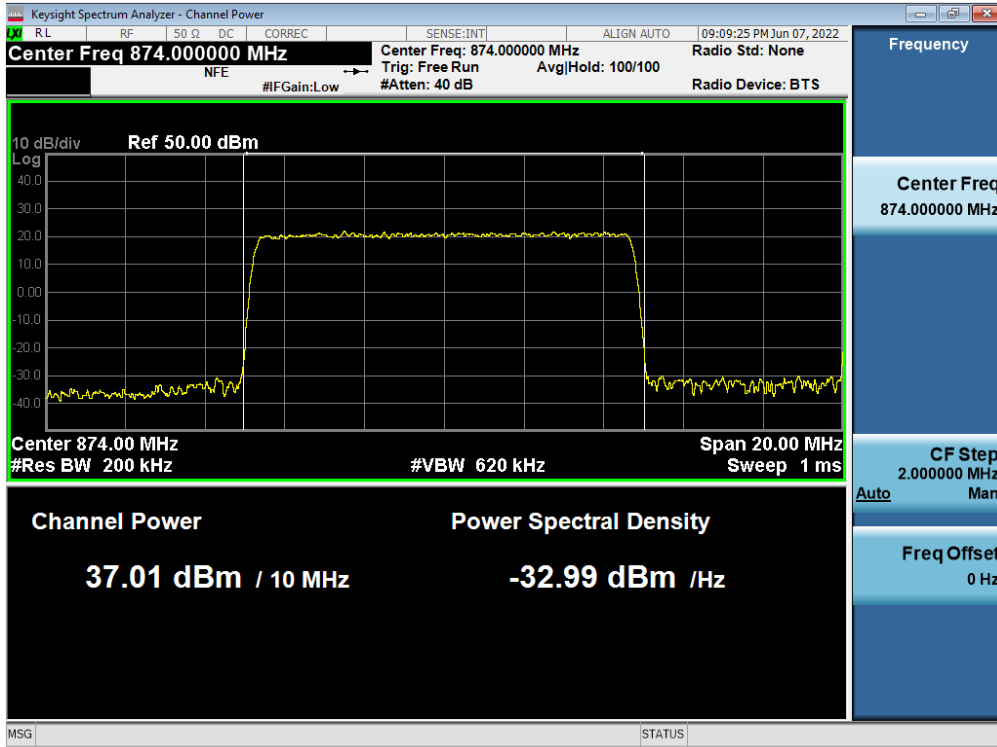
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / Low



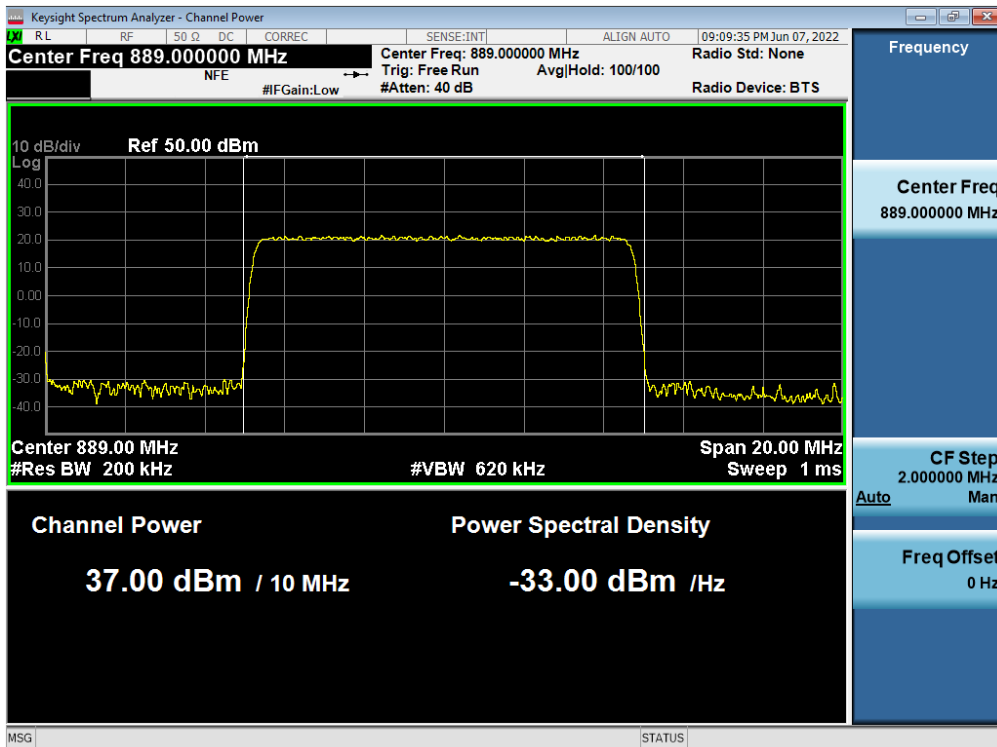
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High



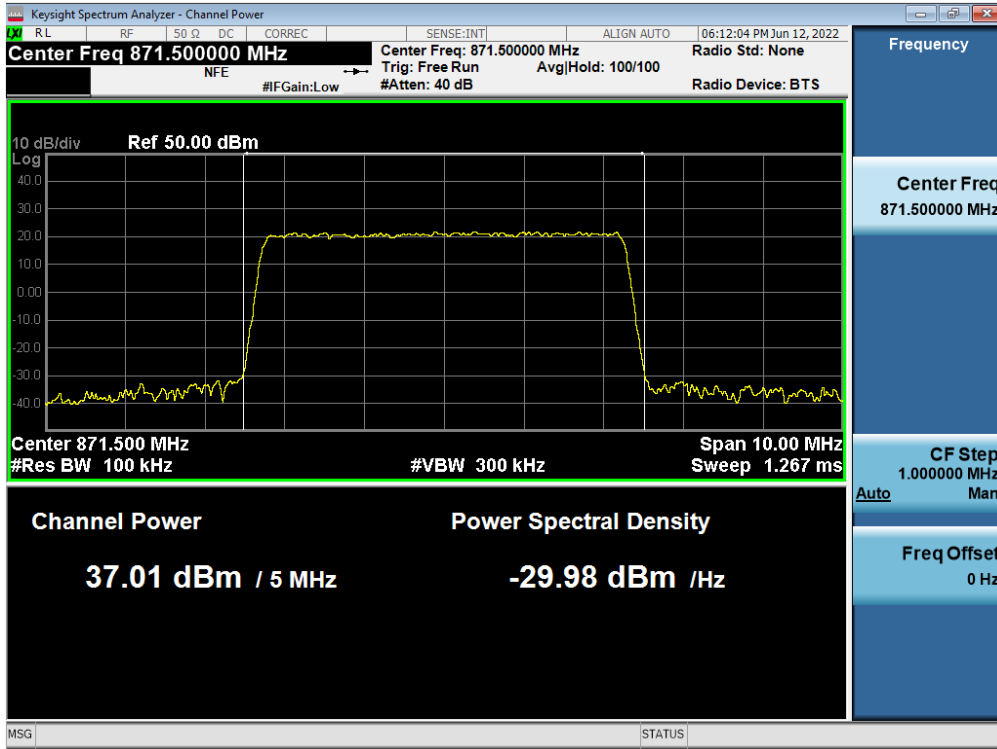
Antenna 1 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / Low



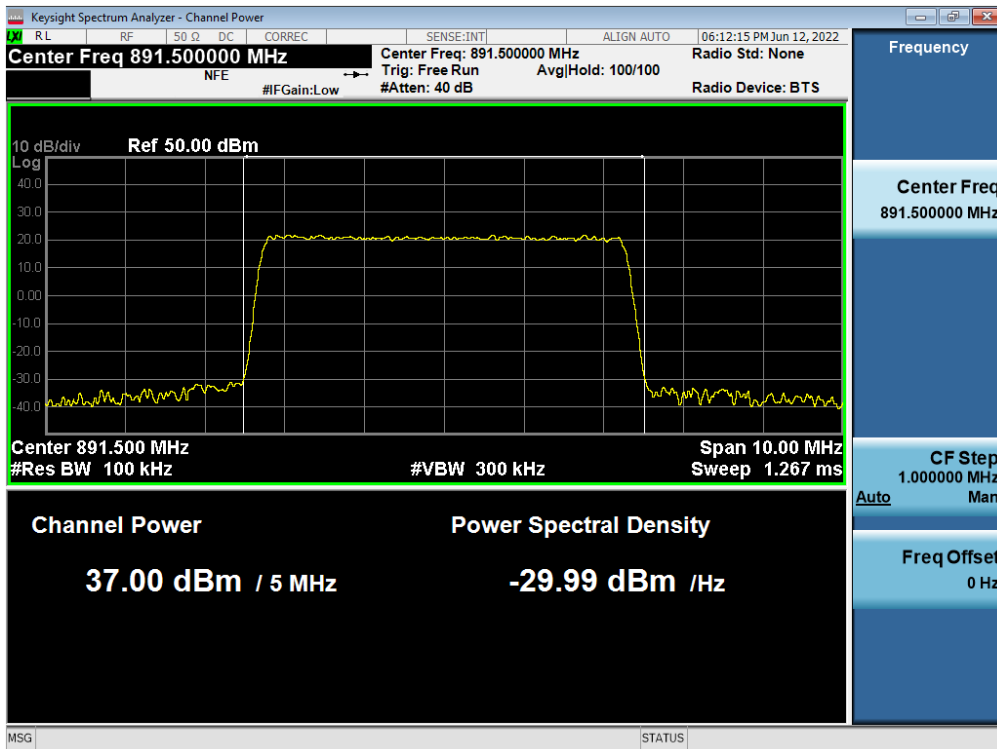
Antenna 1 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / High



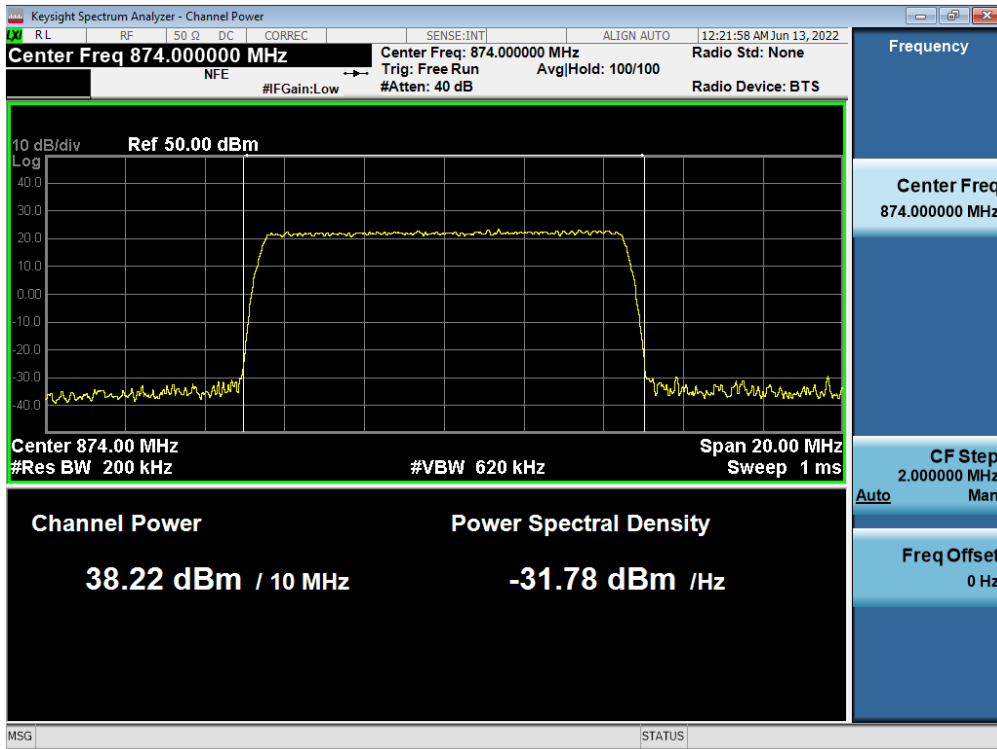
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 256QAM / Low



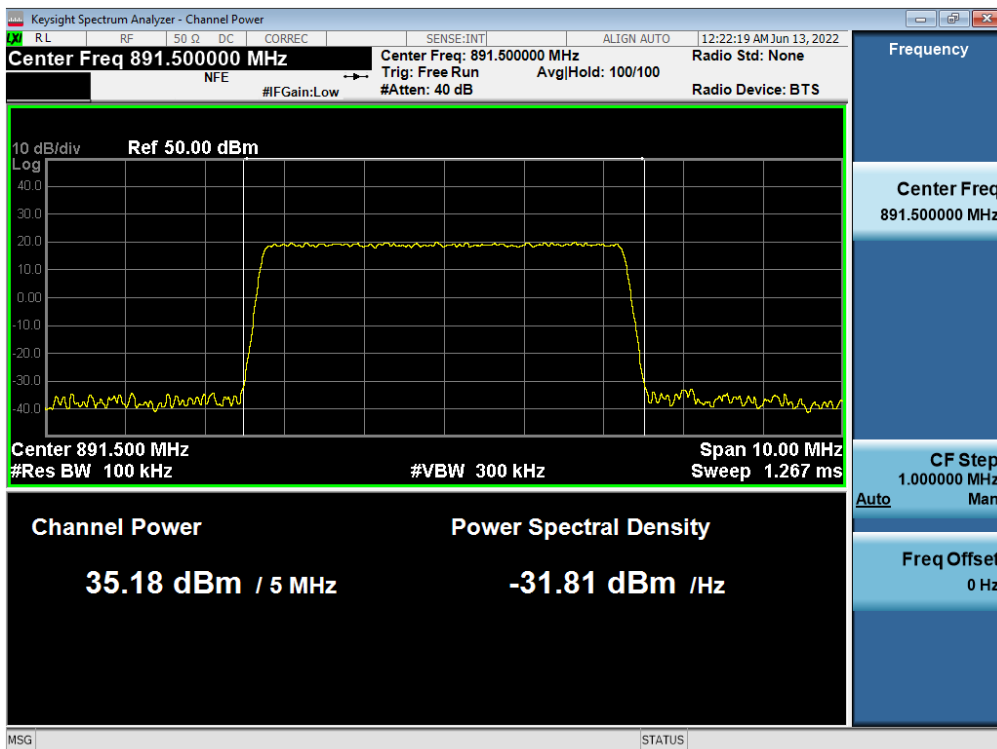
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / LTE B5 5 MHz / 256QAM / High



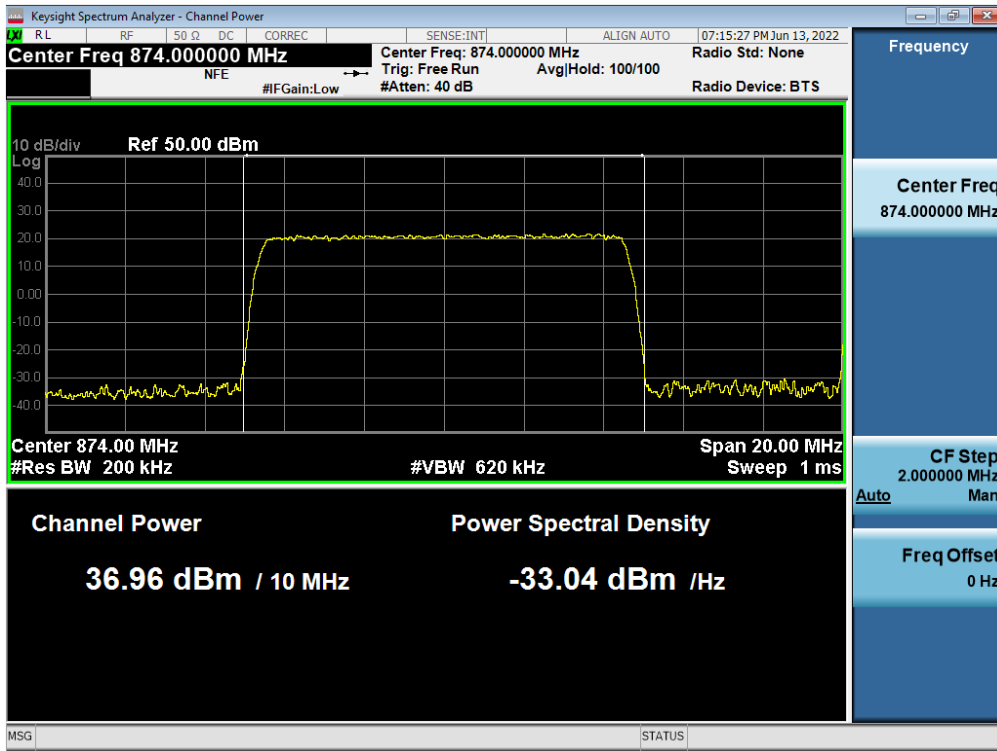
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



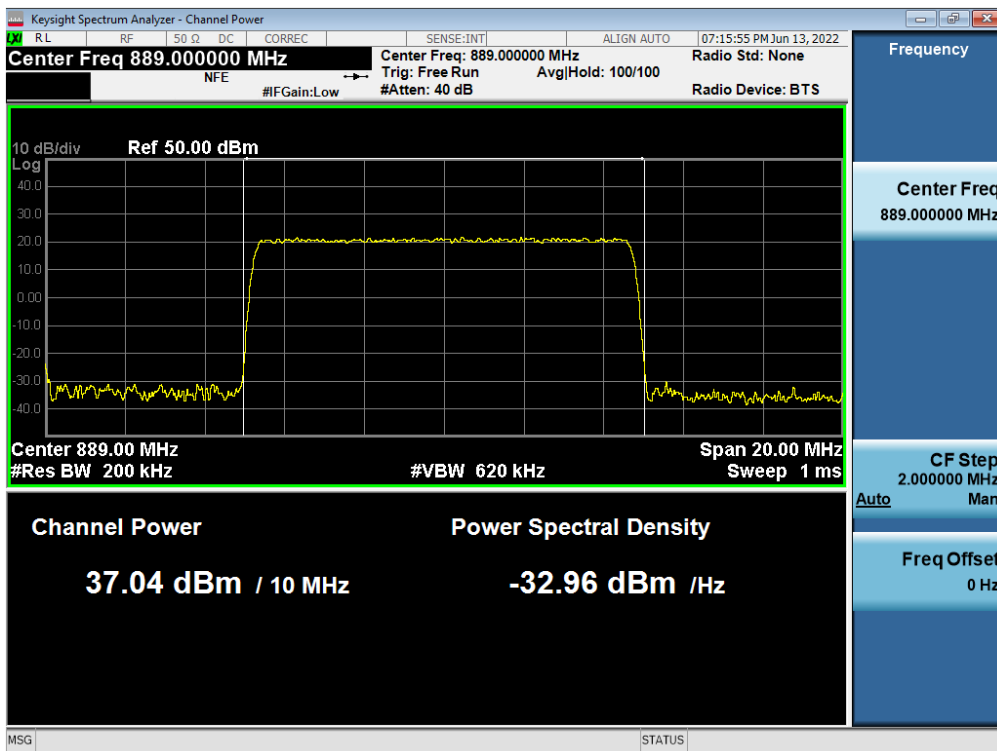
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / QPSK / High



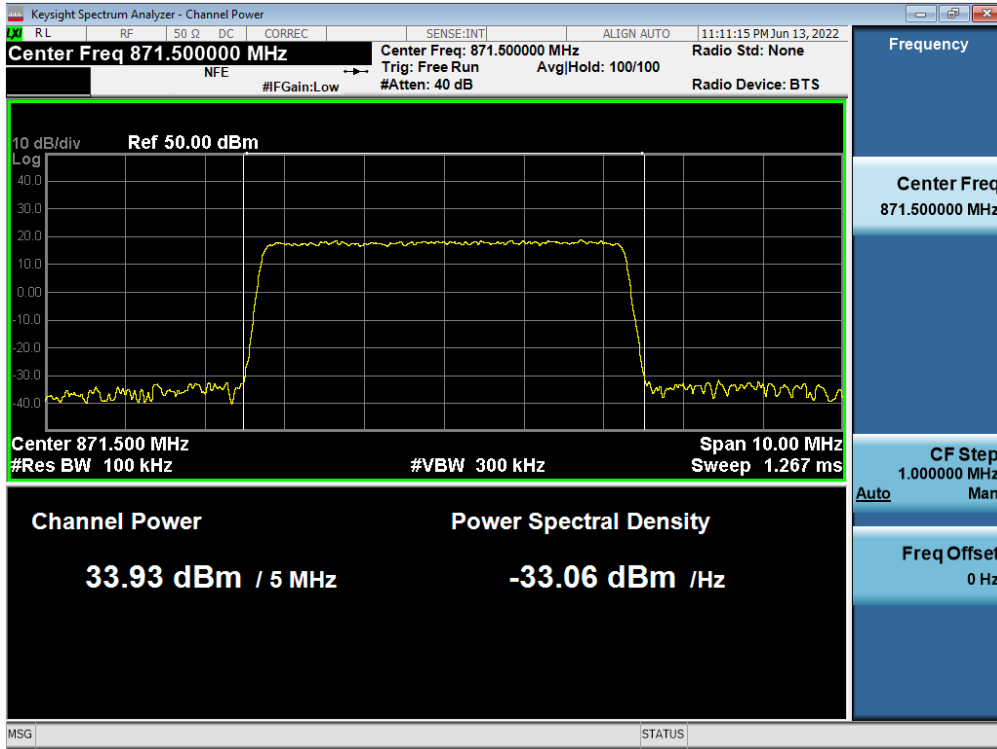
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



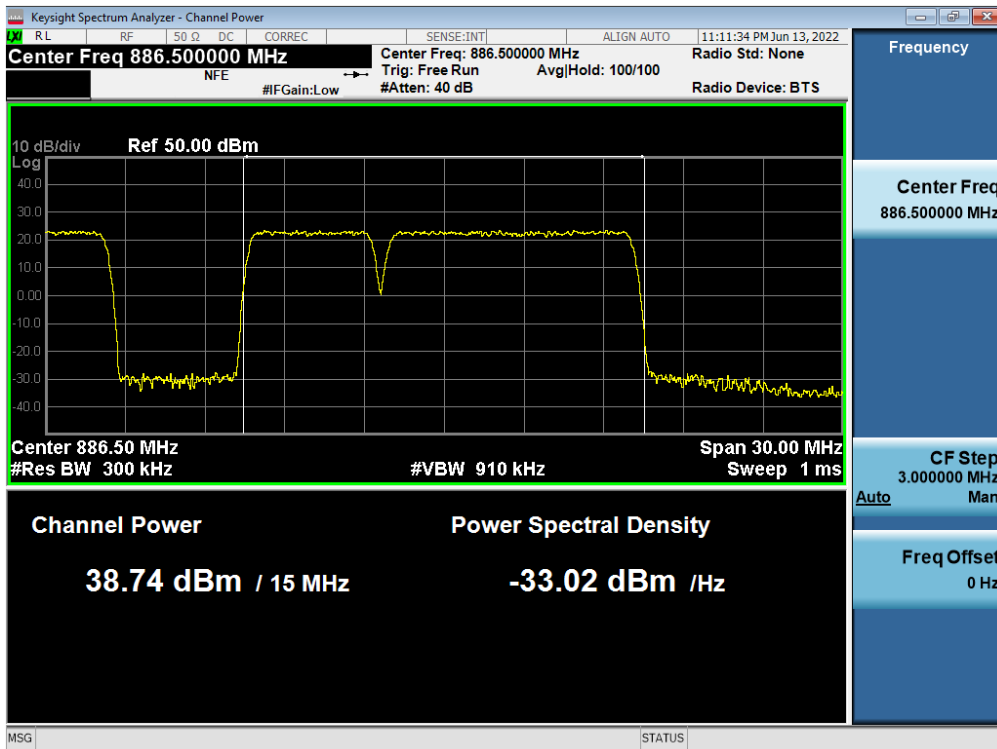
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / High



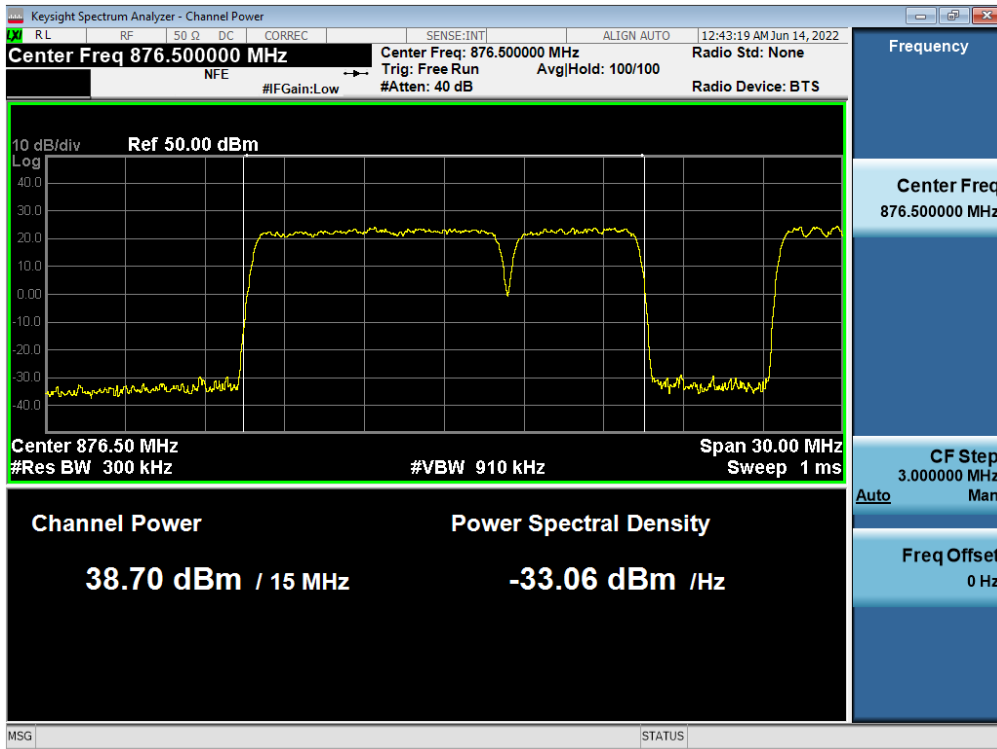
Antenna 0 / 5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C) / Non-Contiguous / 5G NR n5 5 MHz / QPSK / Low



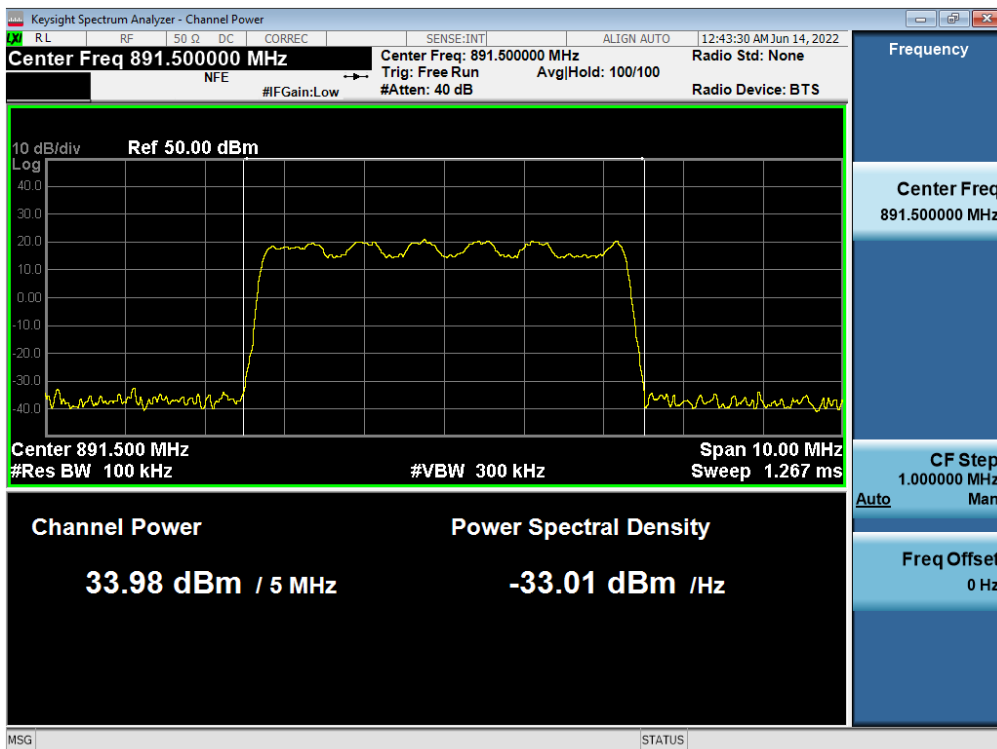
Antenna 0 / 5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C) / Non-Contiguous / LTE B5 5 MHz + B5 DSS 10 MHz / QPSK / High



Antenna 3 / (B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C) / Non-Contiguous / B5 DSS 10 MHz + LTE B5 5 MHz / 16QAM / Low



Antenna 3 / (B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C) / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High



## Tabular Data of PSD

## 5G NR n5 5 MHz 1 Carrier

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	871.50	34.57	2.86
		Middle	881.50	34.53	2.84
		High	891.50	34.83	3.04
	16QAM	Low	871.50	34.78	3.01
		Middle	881.50	34.56	2.86
		High	891.50	34.71	2.96
	64QAM	Low	871.50	34.66	2.92
		Middle	881.50	34.55	2.85
		High	891.50	34.59	2.88
	256QAM	Low	871.50	34.35	2.72
		Middle	881.50	34.37	2.73
		High	891.50	34.62	2.89
1	QPSK	Low	871.50	34.69	2.94
		Middle	881.50	34.50	2.82
		High	891.50	34.58	2.87
	16QAM	Low	871.50	34.81	3.02
		Middle	881.50	34.78	3.01
		High	891.50	34.70	2.95
	64QAM	Low	871.50	34.43	2.77
		Middle	881.50	34.45	2.78
		High	891.50	34.52	2.83
	256QAM	Low	871.50	34.74	2.98
		Middle	881.50	34.24	2.65
		High	891.50	34.48	2.81



Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	871.50	34.74	2.98
		Middle	881.50	34.46	2.79
		High	891.50	34.49	2.81
	16QAM	Low	871.50	34.35	2.72
		Middle	881.50	34.45	2.79
		High	891.50	34.67	2.93
	64QAM	Low	871.50	34.54	2.85
		Middle	881.50	34.45	2.78
		High	891.50	34.35	2.72
256QAM	Low	871.50	34.47	2.80	
	Middle	881.50	34.51	2.83	
	High	891.50	34.44	2.78	
3	QPSK	Low	871.50	34.62	2.90
		Middle	881.50	34.54	2.84
		High	891.50	34.44	2.78
	16QAM	Low	871.50	34.66	2.92
		Middle	881.50	34.69	2.94
		High	891.50	34.85	3.06
	64QAM	Low	871.50	34.64	2.91
		Middle	881.50	34.58	2.87
		High	891.50	34.57	2.86
256QAM	Low	871.50	34.64	2.91	
	Middle	881.50	34.46	2.79	
	High	891.50	34.57	2.87	

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
871.50	11.68	11.67	11.45	11.41
881.50	11.30	11.59	11.29	11.00
891.50	11.50	11.89	11.29	11.35

## 5G NR n5 10 MHz 1 Carrier

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	874.00	31.49	1.41
		Middle	881.50	31.50	1.41
		High	889.00	31.71	1.48
	16QAM	Low	874.00	32.28	1.69
		Middle	881.50	32.35	1.72
		High	889.00	32.39	1.73
	64QAM	Low	874.00	31.61	1.45
		Middle	881.50	31.45	1.40
		High	889.00	31.67	1.47
	256QAM	Low	874.00	31.61	1.45
		Middle	881.50	31.44	1.39
		High	889.00	31.53	1.42
1	QPSK	Low	874.00	31.31	1.35
		Middle	881.50	31.33	1.36
		High	889.00	31.38	1.37
	16QAM	Low	874.00	32.07	1.61
		Middle	881.50	31.92	1.56
		High	889.00	32.25	1.68
	64QAM	Low	874.00	31.41	1.38
		Middle	881.50	31.26	1.34
		High	889.00	31.40	1.38
	256QAM	Low	874.00	31.50	1.41
		Middle	881.50	31.38	1.37
		High	889.00	31.46	1.40

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	874.00	31.44	1.39
		Middle	881.50	31.49	1.41
		High	889.00	31.66	1.47
	16QAM	Low	874.00	32.11	1.62
		Middle	881.50	32.30	1.70
		High	889.00	31.96	1.57
	64QAM	Low	874.00	31.42	1.39
		Middle	881.50	31.38	1.38
		High	889.00	31.31	1.35
	256QAM	Low	874.00	31.30	1.35
		Middle	881.50	31.25	1.33
		High	889.00	31.31	1.35
3	QPSK	Low	874.00	31.83	1.52
		Middle	881.50	31.45	1.40
		High	889.00	31.52	1.42
	16QAM	Low	874.00	32.24	1.68
		Middle	881.50	32.23	1.67
		High	889.00	32.30	1.70
	64QAM	Low	874.00	31.42	1.39
		Middle	881.50	31.37	1.37
		High	889.00	31.62	1.45
	256QAM	Low	874.00	31.43	1.39
		Middle	881.50	31.68	1.47
		High	889.00	31.51	1.42

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
874.00	5.68	6.60	5.60	5.60
881.50	5.57	6.65	5.48	5.57
889.00	5.74	6.68	5.65	5.59

## Tabular Data of Contiguous PSD

**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	879.00	28.43	0.70
		Middle	881.50	28.53	0.71
		High	884.00	28.44	0.70
	16QAM	Low	879.00	28.71	0.74
		Middle	881.50	28.86	0.77
		High	884.00	28.74	0.75
	64QAM	Low	879.00	28.66	0.73
		Middle	881.50	28.44	0.70
		High	884.00	28.52	0.71
	256QAM	Low	879.00	28.60	0.72
		Middle	881.50	28.63	0.73
		High	884.00	28.54	0.72
1	QPSK	Low	879.00	28.33	0.68
		Middle	881.50	28.43	0.70
		High	884.00	28.46	0.70
	16QAM	Low	879.00	29.00	0.79
		Middle	881.50	28.85	0.77
		High	884.00	28.76	0.75
	64QAM	Low	879.00	28.54	0.71
		Middle	881.50	28.64	0.73
		High	884.00	28.42	0.70
	256QAM	Low	879.00	28.57	0.72
		Middle	881.50	28.63	0.73
		High	884.00	28.70	0.74

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	879.00	28.34	0.68
		Middle	881.50	28.51	0.71
		High	884.00	28.49	0.71
	16QAM	Low	879.00	29.24	0.84
		Middle	881.50	28.62	0.73
		High	884.00	28.94	0.78
	64QAM	Low	879.00	28.43	0.70
		Middle	881.50	28.44	0.70
		High	884.00	28.52	0.71
	256QAM	Low	879.00	28.46	0.70
		Middle	881.50	28.42	0.70
		High	884.00	28.76	0.75
3	QPSK	Low	879.00	28.36	0.69
		Middle	881.50	28.44	0.70
		High	884.00	28.56	0.72
	16QAM	Low	879.00	28.64	0.73
		Middle	881.50	28.96	0.79
		High	884.00	28.82	0.76
	64QAM	Low	879.00	28.37	0.69
		Middle	881.50	28.72	0.75
		High	884.00	28.44	0.70
	256QAM	Low	879.00	28.35	0.68
		Middle	881.50	28.56	0.72
		High	884.00	28.53	0.71

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
879.00	2.74	3.11	2.83	2.83
881.50	2.82	3.05	2.87	2.87
884.00	2.82	3.05	2.82	2.92

## 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	874.00	31.44	1.39
		Middle	881.50	31.73	1.49
		High	889.00	31.47	1.40
	16QAM	Low	874.00	31.60	1.45
		Middle	881.50	31.86	1.53
		High	889.00	31.70	1.48
	64QAM	Low	874.00	31.46	1.40
		Middle	881.50	31.43	1.39
		High	889.00	31.52	1.42
	256QAM	Low	874.00	31.50	1.41
		Middle	881.50	31.50	1.41
		High	889.00	31.40	1.38
1	QPSK	Low	874.00	31.71	1.48
		Middle	881.50	31.67	1.47
		High	889.00	31.47	1.40
	16QAM	Low	874.00	31.80	1.51
		Middle	881.50	31.63	1.46
		High	889.00	31.72	1.49
	64QAM	Low	874.00	31.39	1.38
		Middle	881.50	31.37	1.37
		High	889.00	31.41	1.38
	256QAM	Low	874.00	31.55	1.43
		Middle	881.50	31.46	1.40
		High	889.00	31.34	1.36

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	874.00	31.53	1.42
		Middle	881.50	31.47	1.40
		High	889.00	31.49	1.41
	16QAM	Low	874.00	31.58	1.44
		Middle	881.50	31.54	1.43
		High	889.00	31.55	1.43
	64QAM	Low	874.00	31.65	1.46
		Middle	881.50	31.30	1.35
		High	889.00	31.57	1.43
	256QAM	Low	874.00	31.63	1.46
		Middle	881.50	31.53	1.42
		High	889.00	31.48	1.41
3	QPSK	Low	874.00	31.57	1.43
		Middle	881.50	31.46	1.40
		High	889.00	31.31	1.35
	16QAM	Low	874.00	31.67	1.47
		Middle	881.50	31.79	1.51
		High	889.00	31.63	1.46
	64QAM	Low	874.00	31.68	1.47
		Middle	881.50	31.48	1.40
		High	889.00	31.69	1.48
	256QAM	Low	874.00	31.57	1.44
		Middle	881.50	31.55	1.43
		High	889.00	31.51	1.42

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
874.00	5.73	5.87	5.71	5.73
881.50	5.76	5.93	5.51	5.66
889.00	5.57	5.85	5.71	5.57

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	879.00	28.38	0.69
		Middle	881.50	28.26	0.67
		High	884.00	28.33	0.68
	16QAM	Low	879.00	29.06	0.81
		Middle	881.50	29.01	0.80
		High	884.00	29.07	0.81
	64QAM	Low	879.00	28.23	0.66
		Middle	881.50	28.53	0.71
		High	884.00	28.33	0.68
	256QAM	Low	879.00	28.55	0.72
		Middle	881.50	28.30	0.68
		High	884.00	28.50	0.71
1	QPSK	Low	879.00	28.42	0.70
		Middle	881.50	28.43	0.70
		High	884.00	28.28	0.67
	16QAM	Low	879.00	29.34	0.86
		Middle	881.50	28.95	0.79
		High	884.00	29.34	0.86
	64QAM	Low	879.00	28.48	0.70
		Middle	881.50	28.44	0.70
		High	884.00	28.35	0.68
	256QAM	Low	879.00	28.22	0.66
		Middle	881.50	28.39	0.69
		High	884.00	28.44	0.70



Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	879.00	28.31	0.68
		Middle	881.50	28.58	0.72
		High	884.00	28.56	0.72
	16QAM	Low	879.00	29.05	0.80
		Middle	881.50	29.09	0.81
		High	884.00	29.23	0.84
	64QAM	Low	879.00	28.39	0.69
		Middle	881.50	28.48	0.71
		High	884.00	28.43	0.70
	256QAM	Low	879.00	28.32	0.68
		Middle	881.50	28.37	0.69
		High	884.00	28.30	0.68
3	QPSK	Low	879.00	28.62	0.73
		Middle	881.50	28.30	0.68
		High	884.00	28.34	0.68
	16QAM	Low	879.00	29.20	0.83
		Middle	881.50	29.35	0.86
		High	884.00	29.17	0.83
	64QAM	Low	879.00	28.37	0.69
		Middle	881.50	28.23	0.67
		High	884.00	28.26	0.67
	256QAM	Low	879.00	28.49	0.71
		Middle	881.50	28.42	0.69
		High	884.00	28.41	0.69

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
879.00	2.79	3.30	2.75	2.77
881.50	2.76	3.25	2.78	2.75
884.00	2.75	3.33	2.73	2.77

**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	874.00	31.52	1.42
		Middle	881.50	31.53	1.42
		High	889.00	31.55	1.43
	16QAM	Low	874.00	31.87	1.54
		Middle	881.50	31.91	1.55
		High	889.00	31.63	1.46
	64QAM	Low	874.00	31.64	1.46
		Middle	881.50	31.51	1.42
		High	889.00	31.49	1.41
	256QAM	Low	874.00	31.41	1.38
		Middle	881.50	31.68	1.47
		High	889.00	31.52	1.42
1	QPSK	Low	874.00	31.63	1.46
		Middle	881.50	31.58	1.44
		High	889.00	31.41	1.38
	16QAM	Low	874.00	31.54	1.42
		Middle	881.50	31.55	1.43
		High	889.00	31.62	1.45
	64QAM	Low	874.00	31.33	1.36
		Middle	881.50	31.59	1.44
		High	889.00	31.51	1.42
	256QAM	Low	874.00	31.51	1.42
		Middle	881.50	31.36	1.37
		High	889.00	31.45	1.40

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	874.00	31.59	1.44
		Middle	881.50	31.57	1.44
		High	889.00	31.66	1.47
	16QAM	Low	874.00	31.83	1.53
		Middle	881.50	31.80	1.51
		High	889.00	31.62	1.45
	64QAM	Low	874.00	31.50	1.41
		Middle	881.50	31.46	1.40
		High	889.00	31.77	1.50
	256QAM	Low	874.00	31.43	1.39
		Middle	881.50	31.36	1.37
		High	889.00	31.36	1.37
3	QPSK	Low	874.00	31.39	1.38
		Middle	881.50	31.45	1.40
		High	889.00	31.54	1.42
	16QAM	Low	874.00	31.81	1.52
		Middle	881.50	31.68	1.47
		High	889.00	32.14	1.64
	64QAM	Low	874.00	31.54	1.42
		Middle	881.50	31.78	1.51
		High	889.00	31.73	1.49
	256QAM	Low	874.00	31.72	1.49
		Middle	881.50	31.48	1.41
		High	889.00	31.50	1.41

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
874.00	5.69	6.01	5.66	5.68
881.50	5.69	5.97	5.77	5.61
889.00	5.70	6.00	5.82	5.60

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	876.50	29.67	0.93
		Middle	881.50	29.62	0.92
		High	886.50	29.72	0.94
	16QAM	Low	876.50	30.11	1.03
		Middle	881.50	30.02	1.01
		High	886.50	29.78	0.95
	64QAM	Low	876.50	30.13	1.03
		Middle	881.50	29.76	0.95
		High	886.50	29.67	0.93
	256QAM	Low	876.50	29.88	0.97
		Middle	881.50	29.87	0.97
		High	886.50	29.84	0.96
1	QPSK	Low	876.50	29.88	0.97
		Middle	881.50	29.73	0.94
		High	886.50	29.75	0.94
	16QAM	Low	876.50	30.07	1.02
		Middle	881.50	30.05	1.01
		High	886.50	30.05	1.01
	64QAM	Low	876.50	29.96	0.99
		Middle	881.50	29.76	0.95
		High	886.50	29.56	0.90
	256QAM	Low	876.50	29.68	0.93
		Middle	881.50	29.80	0.96
		High	886.50	29.60	0.91

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	876.50	29.66	0.92
		Middle	881.50	30.06	1.01
		High	886.50	29.59	0.91
	16QAM	Low	876.50	29.99	1.00
		Middle	881.50	30.05	1.01
		High	886.50	30.11	1.03
	64QAM	Low	876.50	29.98	0.99
		Middle	881.50	29.75	0.94
		High	886.50	29.66	0.92
	256QAM	Low	876.50	29.78	0.95
		Middle	881.50	30.01	1.00
		High	886.50	29.75	0.94
3	QPSK	Low	876.50	29.93	0.98
		Middle	881.50	29.64	0.92
		High	886.50	29.70	0.93
	16QAM	Low	876.50	30.04	1.01
		Middle	881.50	30.03	1.01
		High	886.50	29.97	0.99
	64QAM	Low	876.50	29.62	0.92
		Middle	881.50	29.71	0.93
		High	886.50	29.70	0.93
	256QAM	Low	876.50	29.76	0.95
		Middle	881.50	29.83	0.96
		High	886.50	29.82	0.96

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
876.50	3.81	4.05	3.93	3.80
881.50	3.79	4.04	3.77	3.89
886.50	3.72	3.98	3.69	3.78

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	879.00	28.51	0.71
		Middle	881.50	28.57	0.72
		High	884.00	28.42	0.70
	16QAM	Low	879.00	29.17	0.83
		Middle	881.50	29.26	0.84
		High	884.00	29.01	0.80
	64QAM	Low	879.00	28.51	0.71
		Middle	881.50	28.40	0.69
		High	884.00	28.48	0.71
	256QAM	Low	879.00	28.48	0.70
		Middle	881.50	28.56	0.72
		High	884.00	28.28	0.67
1	QPSK	Low	879.00	28.48	0.71
		Middle	881.50	28.58	0.72
		High	884.00	28.67	0.74
	16QAM	Low	879.00	28.97	0.79
		Middle	881.50	29.00	0.79
		High	884.00	29.25	0.84
	64QAM	Low	879.00	28.60	0.72
		Middle	881.50	28.42	0.69
		High	884.00	28.65	0.73
	256QAM	Low	879.00	28.55	0.72
		Middle	881.50	28.69	0.74
		High	884.00	28.48	0.70

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	879.00	28.34	0.68
		Middle	881.50	28.35	0.68
		High	884.00	28.76	0.75
	16QAM	Low	879.00	28.83	0.76
		Middle	881.50	29.15	0.82
		High	884.00	28.94	0.78
	64QAM	Low	879.00	28.58	0.72
		Middle	881.50	28.33	0.68
		High	884.00	28.42	0.69
	256QAM	Low	879.00	28.35	0.68
		Middle	881.50	28.54	0.71
		High	884.00	28.40	0.69
3	QPSK	Low	879.00	28.50	0.71
		Middle	881.50	28.36	0.69
		High	884.00	28.49	0.71
	16QAM	Low	879.00	29.28	0.85
		Middle	881.50	28.82	0.76
		High	884.00	29.19	0.83
	64QAM	Low	879.00	28.49	0.71
		Middle	881.50	28.42	0.69
		High	884.00	28.33	0.68
	256QAM	Low	879.00	28.52	0.71
		Middle	881.50	28.54	0.71
		High	884.00	28.66	0.73

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
879.00	2.80	3.23	2.86	2.82
881.50	2.81	3.22	2.76	2.89
884.00	2.89	3.25	2.81	2.80

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Low	879.00	28.38	0.69
		Middle	881.50	28.33	0.68
		High	884.00	28.41	0.69
	16QAM	Low	879.00	28.70	0.74
		Middle	881.50	28.76	0.75
		High	884.00	29.02	0.80
	64QAM	Low	879.00	28.31	0.68
		Middle	881.50	28.37	0.69
		High	884.00	28.68	0.74
	256QAM	Low	879.00	28.73	0.75
		Middle	881.50	28.37	0.69
		High	884.00	28.41	0.69
1	QPSK	Low	879.00	28.37	0.69
		Middle	881.50	28.64	0.73
		High	884.00	28.48	0.70
	16QAM	Low	879.00	28.67	0.74
		Middle	881.50	28.54	0.71
		High	884.00	28.62	0.73
	64QAM	Low	879.00	28.45	0.70
		Middle	881.50	28.40	0.69
		High	884.00	28.63	0.73
	256QAM	Low	879.00	28.59	0.72
		Middle	881.50	28.43	0.70
		High	884.00	28.46	0.70



Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
2	QPSK	Low	879.00	28.40	0.69
		Middle	881.50	28.48	0.70
		High	884.00	28.43	0.70
	16QAM	Low	879.00	28.73	0.75
		Middle	881.50	28.81	0.76
		High	884.00	28.97	0.79
	64QAM	Low	879.00	28.40	0.69
		Middle	881.50	28.64	0.73
		High	884.00	28.60	0.72
	256QAM	Low	879.00	28.43	0.70
		Middle	881.50	28.52	0.71
		High	884.00	28.45	0.70
3	QPSK	Low	879.00	28.52	0.71
		Middle	881.50	28.57	0.72
		High	884.00	28.49	0.71
	16QAM	Low	879.00	28.74	0.75
		Middle	881.50	28.76	0.75
		High	884.00	28.85	0.77
	64QAM	Low	879.00	28.47	0.70
		Middle	881.50	28.37	0.69
		High	884.00	28.77	0.75
	256QAM	Low	879.00	28.56	0.72
		Middle	881.50	28.47	0.70
		High	884.00	28.56	0.72

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
879.00	2.78	2.97	2.77	2.88
881.50	2.83	2.98	2.80	2.80
884.00	2.80	3.08	2.95	2.81

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Middle	881.50	27.51	0.56
	16QAM	Middle	881.50	28.12	0.65
	64QAM	Middle	881.50	27.48	0.56
	256QAM	Middle	881.50	27.47	0.56
1	QPSK	Middle	881.50	27.30	0.54
	16QAM	Middle	881.50	28.18	0.66
	64QAM	Middle	881.50	27.30	0.54
	256QAM	Middle	881.50	27.57	0.57
2	QPSK	Middle	881.50	27.62	0.58
	16QAM	Middle	881.50	28.08	0.64
	64QAM	Middle	881.50	27.37	0.55
	256QAM	Middle	881.50	27.70	0.59
3	QPSK	Middle	881.50	27.59	0.57
	16QAM	Middle	881.50	28.04	0.64
	64QAM	Middle	881.50	27.36	0.54
	256QAM	Middle	881.50	27.47	0.56

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
881.50	2.25	2.58	2.19	2.28

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod	Ch	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	Middle	881.50	27.48	0.56
	16QAM	Middle	881.50	28.02	0.63
	64QAM	Middle	881.50	27.46	0.56
	256QAM	Middle	881.50	27.26	0.53
1	QPSK	Middle	881.50	27.35	0.54
	16QAM	Middle	881.50	27.78	0.60
	64QAM	Middle	881.50	27.33	0.54
	256QAM	Middle	881.50	27.33	0.54
2	QPSK	Middle	881.50	27.45	0.56
	16QAM	Middle	881.50	28.22	0.66
	64QAM	Middle	881.50	27.39	0.55
	256QAM	Middle	881.50	27.47	0.56
3	QPSK	Middle	881.50	27.55	0.57
	16QAM	Middle	881.50	28.02	0.63
	64QAM	Middle	881.50	27.48	0.56
	256QAM	Middle	881.50	27.40	0.55

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
881.50	2.23	2.53	2.21	2.18

**Tabular Data of Non-Contiguous PSD**
**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	874.00 + 889.00	28.48	0.70
	16QAM	874.00 + 889.00	28.67	0.74
	64QAM	874.00 + 889.00	28.53	0.71
	256QAM	874.00 + 889.00	28.72	0.74
1	QPSK	874.00 + 889.00	28.38	0.69
	16QAM	874.00 + 889.00	28.70	0.74
	64QAM	874.00 + 889.00	28.51	0.71
	256QAM	874.00 + 889.00	28.43	0.70
2	QPSK	874.00 + 889.00	28.45	0.70
	16QAM	874.00 + 889.00	28.65	0.73
	64QAM	874.00 + 889.00	28.60	0.72
	256QAM	874.00 + 889.00	28.59	0.72
3	QPSK	874.00 + 889.00	28.60	0.72
	16QAM	874.00 + 889.00	28.85	0.77
	64QAM	874.00 + 889.00	28.43	0.70
	256QAM	874.00 + 889.00	28.46	0.70

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
874.00 + 889.00	2.82	2.98	2.84	2.87

**5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	871.50 + 891.50	31.52	1.42
	16QAM	871.50 + 891.50	31.75	1.50
	64QAM	871.50 + 891.50	31.66	1.47
	256QAM	871.50 + 891.50	31.46	1.40
1	QPSK	871.50 + 891.50	31.73	1.49
	16QAM	871.50 + 891.50	31.65	1.46
	64QAM	871.50 + 891.50	31.53	1.42
	256QAM	871.50 + 891.50	31.69	1.48
2	QPSK	871.50 + 891.50	31.63	1.46
	16QAM	871.50 + 891.50	31.64	1.46
	64QAM	871.50 + 891.50	31.39	1.38
	256QAM	871.50 + 891.50	31.66	1.47
3	QPSK	871.50 + 891.50	31.81	1.52
	16QAM	871.50 + 891.50	31.93	1.56
	64QAM	871.50 + 891.50	31.77	1.50
	256QAM	871.50 + 891.50	31.65	1.46

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
871.50 + 891.50	5.88	5.98	5.77	5.81

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	874.00 + 889.00	28.30	0.68
	16QAM	874.00 + 889.00	29.17	0.83
	64QAM	874.00 + 889.00	28.38	0.69
	256QAM	874.00 + 889.00	28.29	0.67
1	QPSK	874.00 + 889.00	28.61	0.73
	16QAM	874.00 + 889.00	29.33	0.86
	64QAM	874.00 + 889.00	28.66	0.73
	256QAM	874.00 + 889.00	28.44	0.70
2	QPSK	874.00 + 889.00	28.39	0.69
	16QAM	874.00 + 889.00	29.27	0.84
	64QAM	874.00 + 889.00	28.42	0.69
	256QAM	874.00 + 889.00	28.39	0.69
3	QPSK	874.00 + 889.00	28.51	0.71
	16QAM	874.00 + 889.00	29.33	0.86
	64QAM	874.00 + 889.00	28.41	0.69
	256QAM	874.00 + 889.00	28.41	0.69

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
874.00 + 889.00	2.80	3.38	2.81	2.76

**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	871.50 + 891.50	31.68	1.47
	16QAM	871.50 + 891.50	31.81	1.52
	64QAM	871.50 + 891.50	31.70	1.48
	256QAM	871.50 + 891.50	31.48	1.41
1	QPSK	871.50 + 891.50	31.54	1.43
	16QAM	871.50 + 891.50	31.73	1.49
	64QAM	871.50 + 891.50	31.58	1.44
	256QAM	871.50 + 891.50	31.44	1.39
2	QPSK	871.50 + 891.50	31.55	1.43
	16QAM	871.50 + 891.50	31.95	1.57
	64QAM	871.50 + 891.50	31.52	1.42
	256QAM	871.50 + 891.50	31.44	1.39
3	QPSK	871.50 + 891.50	31.53	1.42
	16QAM	871.50 + 891.50	31.91	1.55
	64QAM	871.50 + 891.50	31.58	1.44
	256QAM	871.50 + 891.50	31.66	1.47

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
871.50 + 891.50	5.75	6.12	5.78	5.66

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	874.00 + 891.50	29.59	0.91
	16QAM	874.00 + 891.50	30.06	1.01
	64QAM	874.00 + 891.50	30.00	1.00
	256QAM	874.00 + 891.50	29.68	0.93
1	QPSK	874.00 + 891.50	29.76	0.95
	16QAM	874.00 + 891.50	30.00	1.00
	64QAM	874.00 + 891.50	29.77	0.95
	256QAM	874.00 + 891.50	29.80	0.96
2	QPSK	874.00 + 891.50	30.05	1.01
	16QAM	874.00 + 891.50	29.92	0.98
	64QAM	874.00 + 891.50	29.75	0.94
	256QAM	874.00 + 891.50	29.69	0.93
3	QPSK	874.00 + 891.50	30.06	1.01
	16QAM	874.00 + 891.50	30.00	1.00
	64QAM	874.00 + 891.50	29.76	0.95
	256QAM	874.00 + 891.50	29.72	0.94

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
874.00 + 891.50	3.88	3.99	3.84	3.75



**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	874.00 + 889.00	28.56	0.72
	16QAM	874.00 + 889.00	29.31	0.85
	64QAM	874.00 + 889.00	28.54	0.71
	256QAM	874.00 + 889.00	28.47	0.70
1	QPSK	874.00 + 889.00	28.48	0.70
	16QAM	874.00 + 889.00	28.93	0.78
	64QAM	874.00 + 889.00	28.62	0.73
	256QAM	874.00 + 889.00	28.72	0.74
2	QPSK	874.00 + 889.00	28.38	0.69
	16QAM	874.00 + 889.00	29.15	0.82
	64QAM	874.00 + 889.00	28.30	0.68
	256QAM	874.00 + 889.00	28.51	0.71
3	QPSK	874.00 + 889.00	28.43	0.70
	16QAM	874.00 + 889.00	28.98	0.79
	64QAM	874.00 + 889.00	28.41	0.69
	256QAM	874.00 + 889.00	28.52	0.71

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
874.00 + 889.00	2.81	3.25	2.81	2.87

**5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C)**

Ant.	Mod	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	871.50 + 886.50	28.71	0.74
	16QAM	871.50 + 886.50	28.93	0.78
	64QAM	871.50 + 886.50	28.64	0.73
	256QAM	871.50 + 886.50	28.74	0.75
1	QPSK	871.50 + 886.50	28.55	0.72
	16QAM	871.50 + 886.50	28.89	0.77
	64QAM	871.50 + 886.50	28.72	0.74
	256QAM	871.50 + 886.50	28.55	0.72
2	QPSK	871.50 + 886.50	28.57	0.72
	16QAM	871.50 + 886.50	28.91	0.78
	64QAM	871.50 + 886.50	28.69	0.74
	256QAM	871.50 + 886.50	28.46	0.70
3	QPSK	871.50 + 886.50	28.52	0.71
	16QAM	871.50 + 886.50	28.92	0.78
	64QAM	871.50 + 886.50	28.64	0.73
	256QAM	871.50 + 886.50	28.56	0.72

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

Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
871.50 + 886.50	2.89	3.11	2.95	2.88

**(B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C)**

Ant.	Mod	Frequency (MHz)	Measured Value (dBm/MHz)	Calculated (W/MHz)
0	QPSK	876.50 + 891.50	28.64	0.73
	16QAM	876.50 + 891.50	28.76	0.75
	64QAM	876.50 + 891.50	28.53	0.71
	256QAM	876.50 + 891.50	28.35	0.68
1	QPSK	876.50 + 891.50	28.41	0.69
	16QAM	876.50 + 891.50	28.88	0.77
	64QAM	876.50 + 891.50	28.48	0.71
	256QAM	876.50 + 891.50	28.54	0.72
2	QPSK	876.50 + 891.50	28.64	0.73
	16QAM	876.50 + 891.50	28.64	0.73
	64QAM	876.50 + 891.50	28.59	0.72
	256QAM	876.50 + 891.50	28.52	0.71
3	QPSK	876.50 + 891.50	28.53	0.71
	16QAM	876.50 + 891.50	28.90	0.78
	64QAM	876.50 + 891.50	28.48	0.71
	256QAM	876.50 + 891.50	28.53	0.71

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

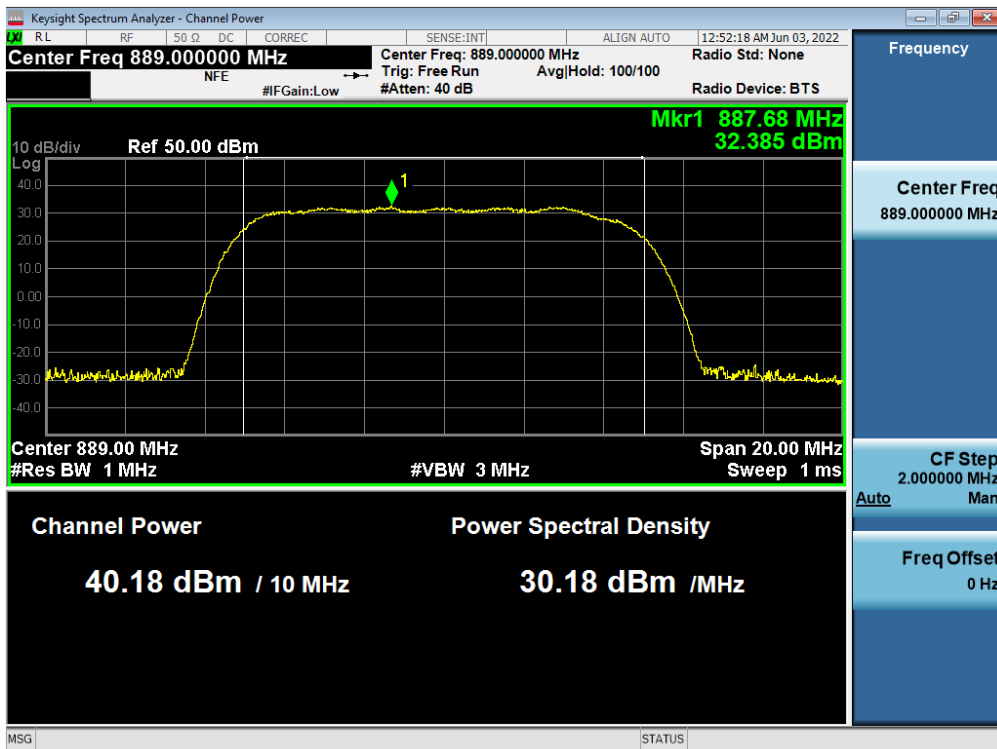
Frequency (MHz)	PSD			
	QPSK	16QAM	64QAM	256QAM
	W/MHz			
876.50 + 891.50	2.87	3.03	2.84	2.82

Plot Data of PSD

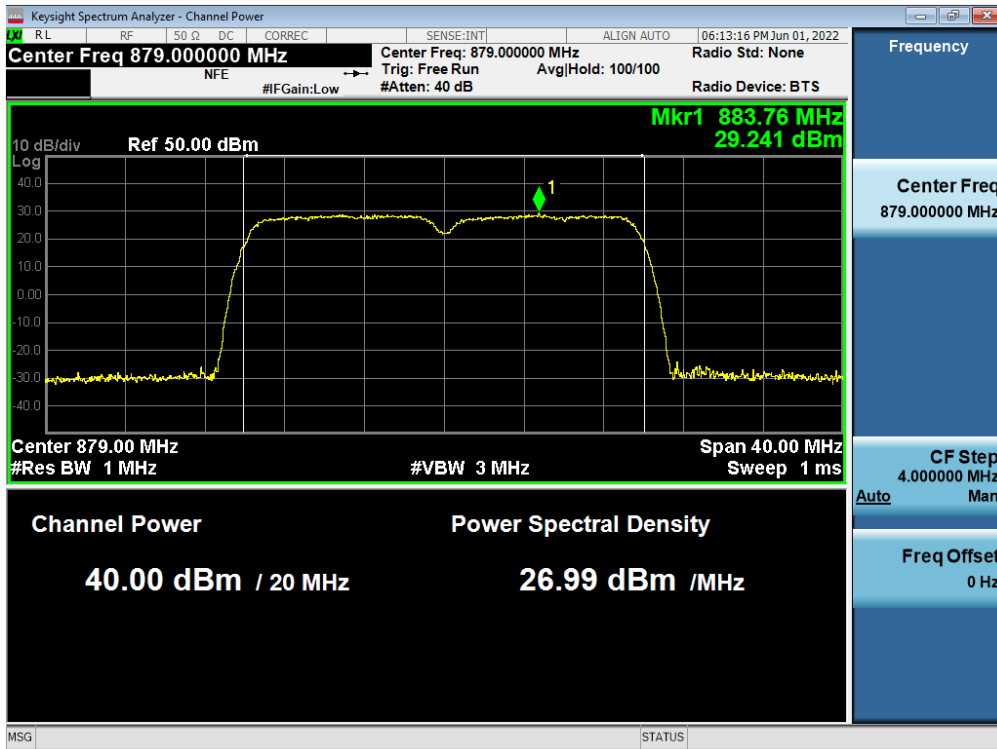
Antenna 3 / 5G NR n5 5 MHz 1 Carrier / 16QAM / High



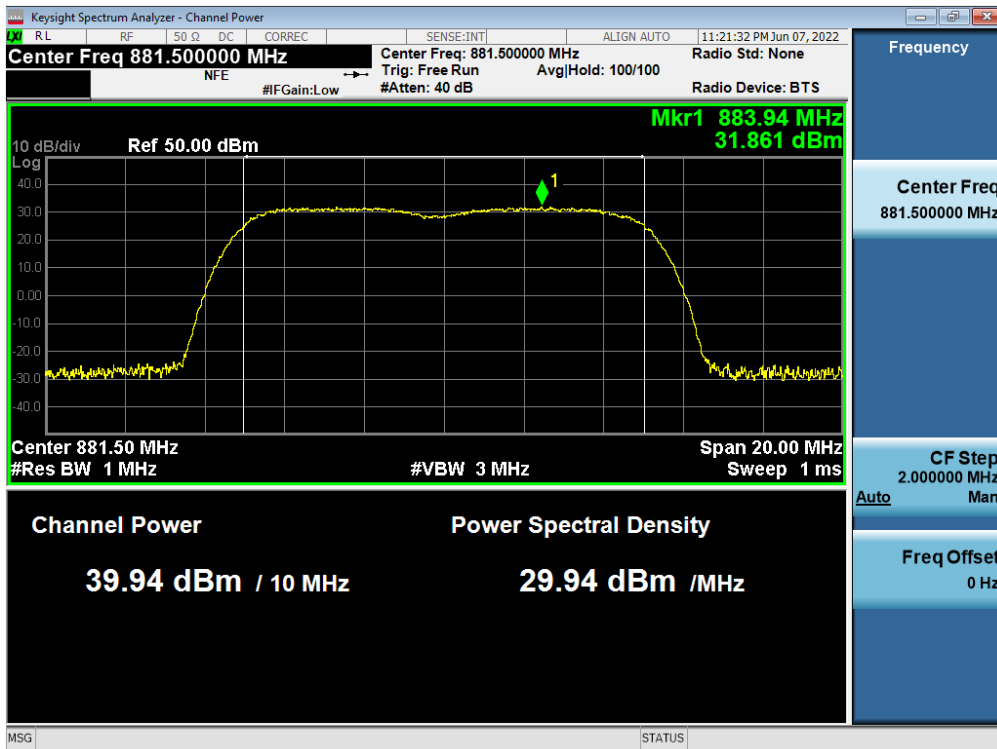
Antenna 0 / 5G NR n5 10 MHz 1 Carrier / 16QAM / High



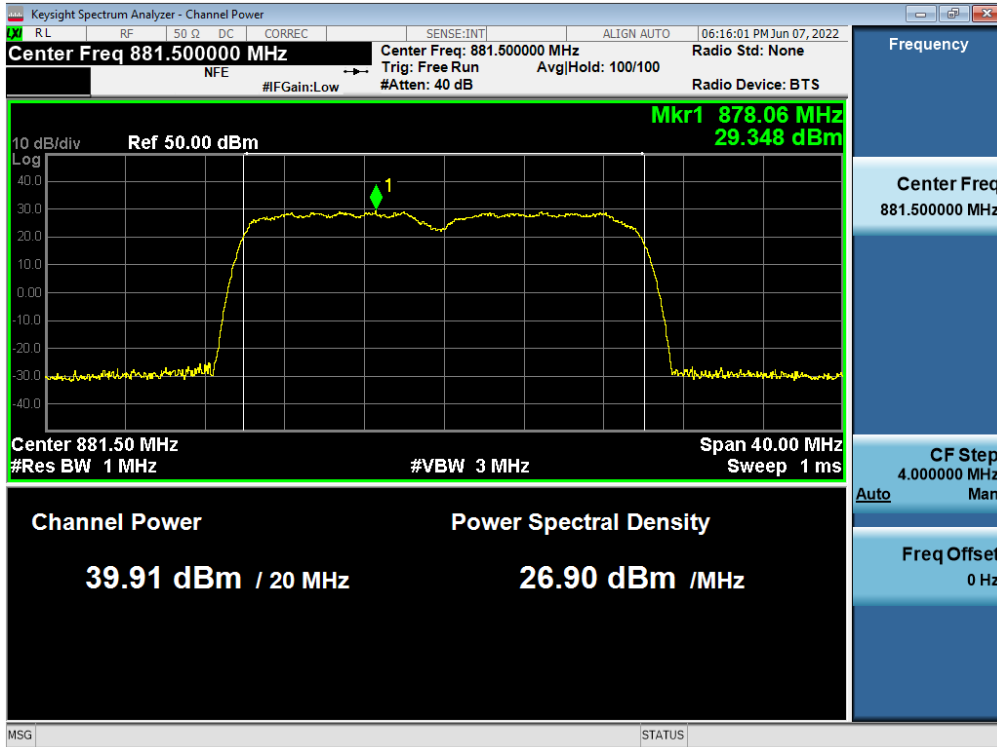
Antenna 2 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Low



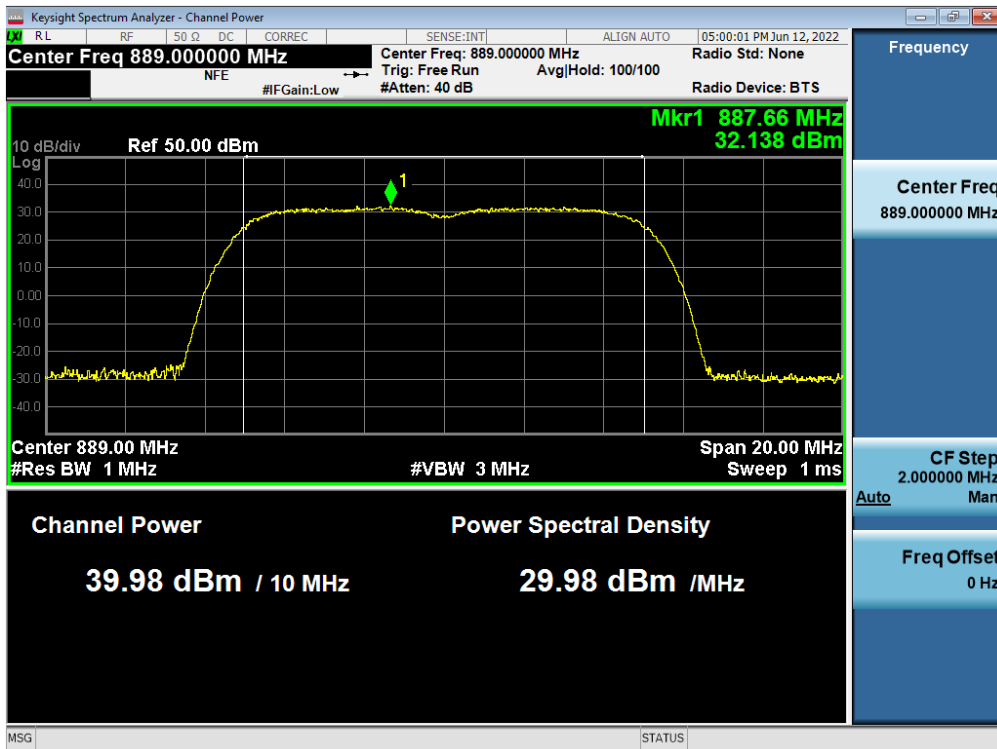
Antenna 0 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle

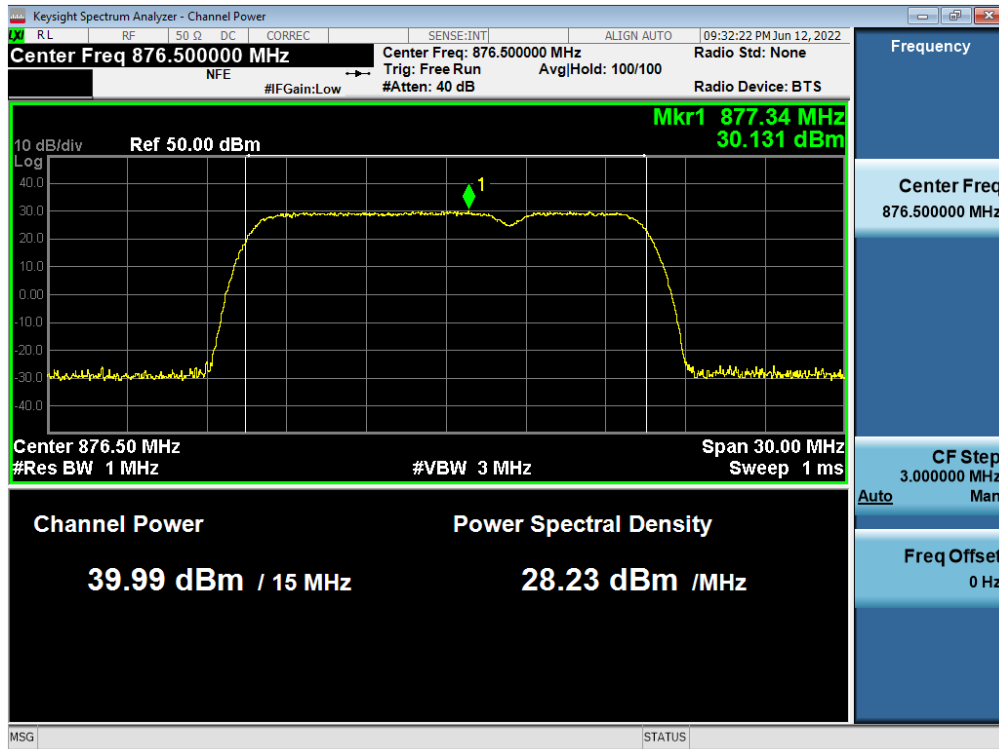
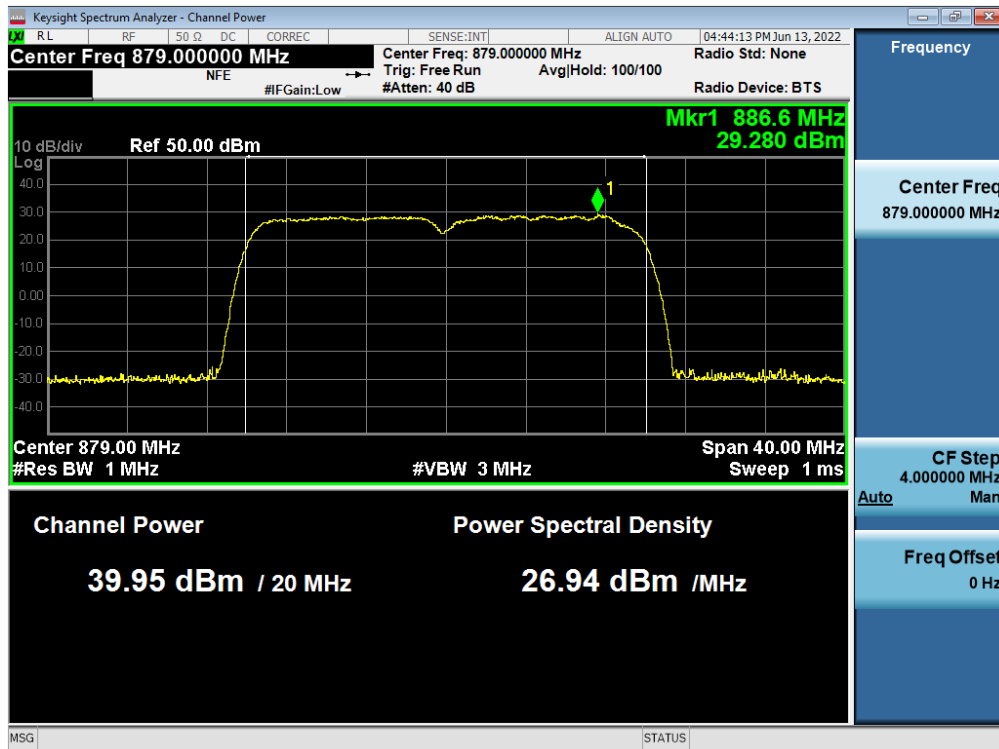


Antenna 3 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle

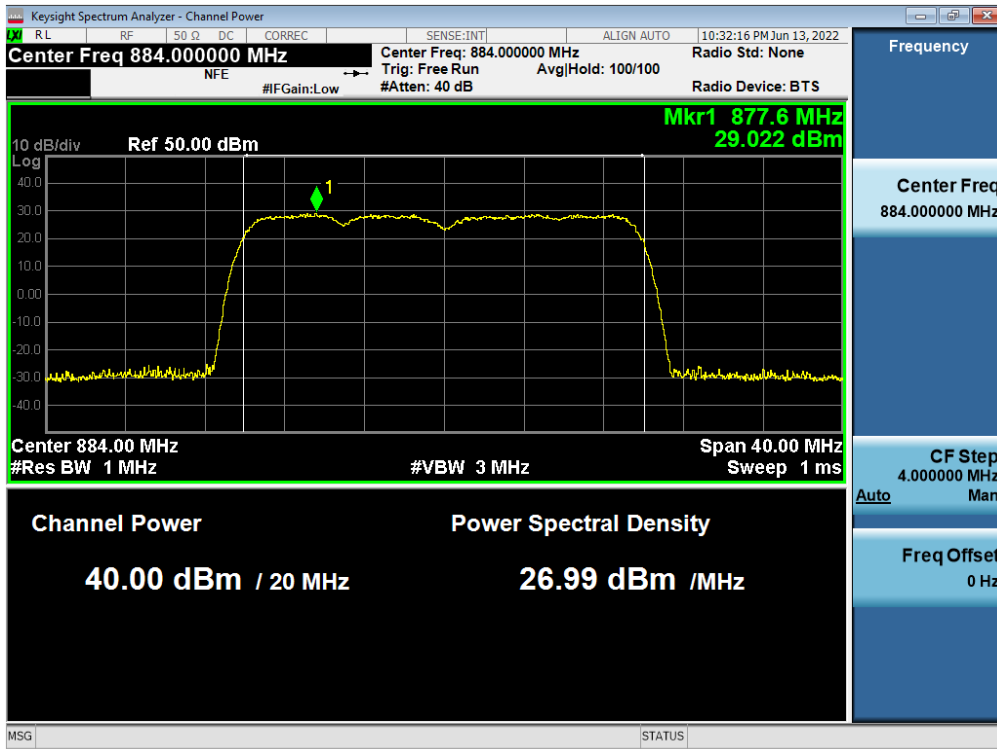


Antenna 3 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / High

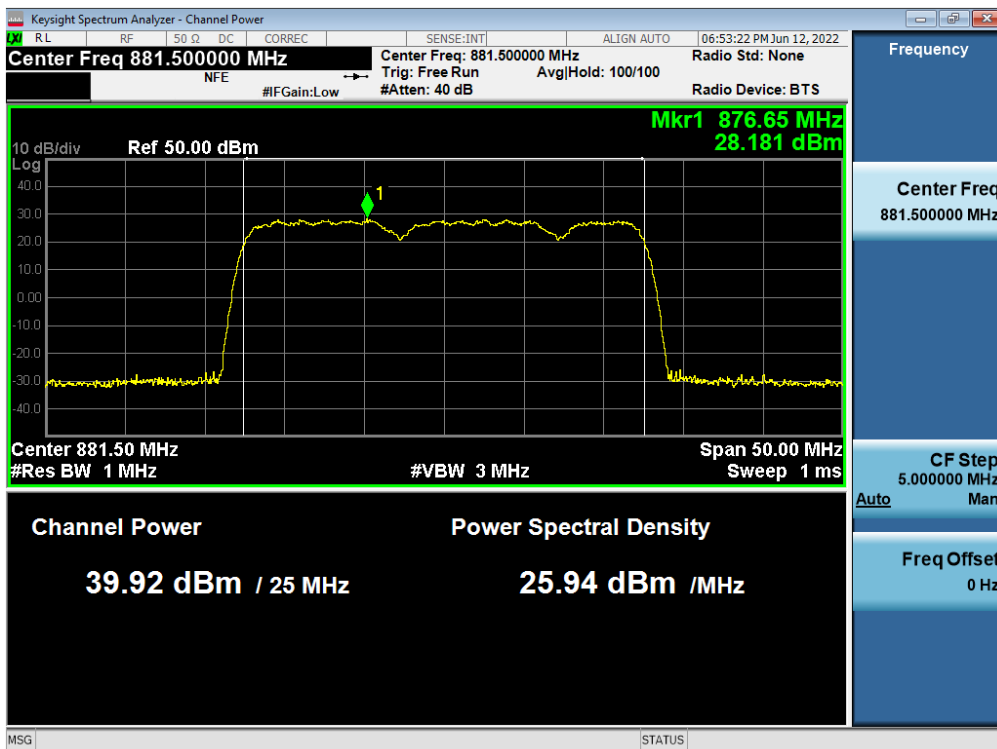


**Antenna 0 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Low**

**Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Low**


Antenna 0 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / High

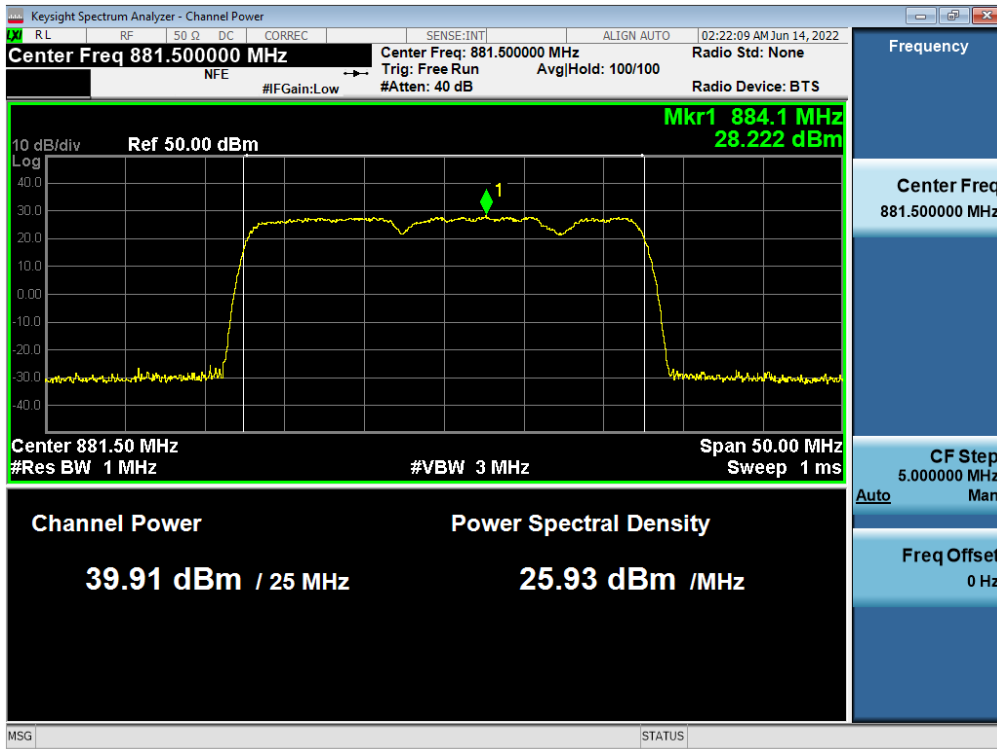


Antenna 1 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle

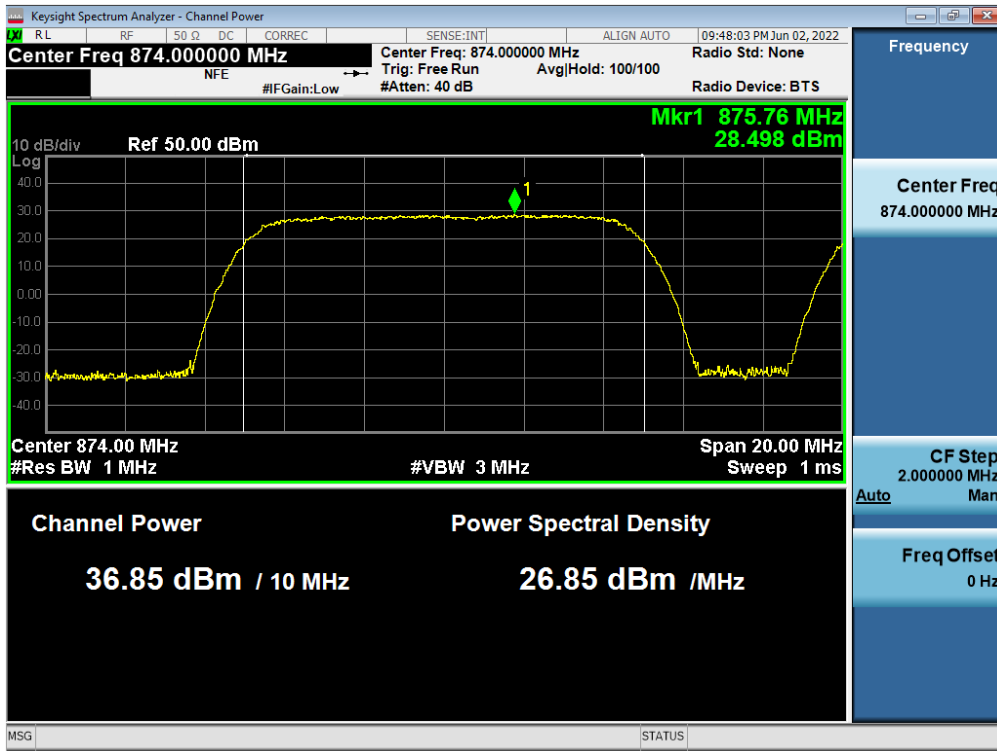




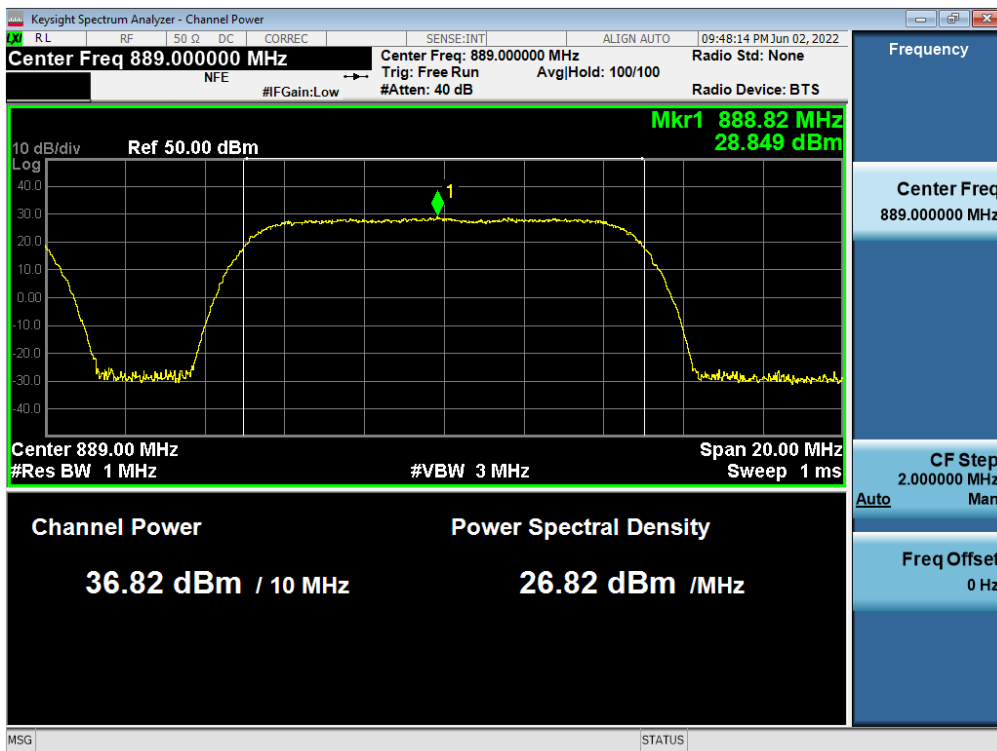
Antenna 2 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle



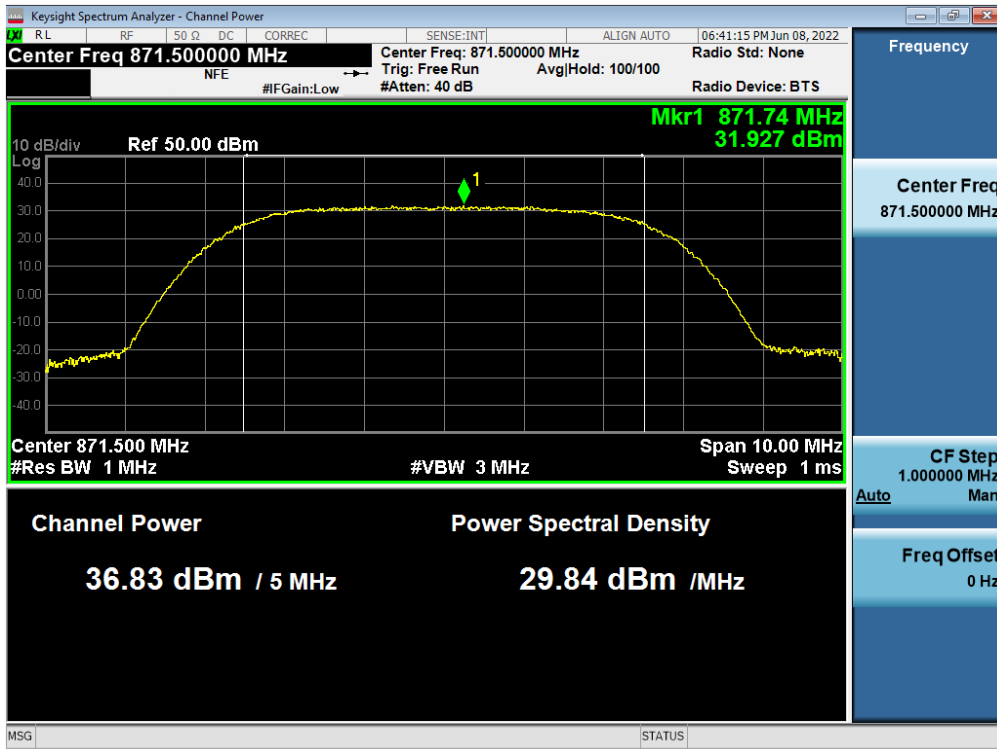
Antenna 3 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



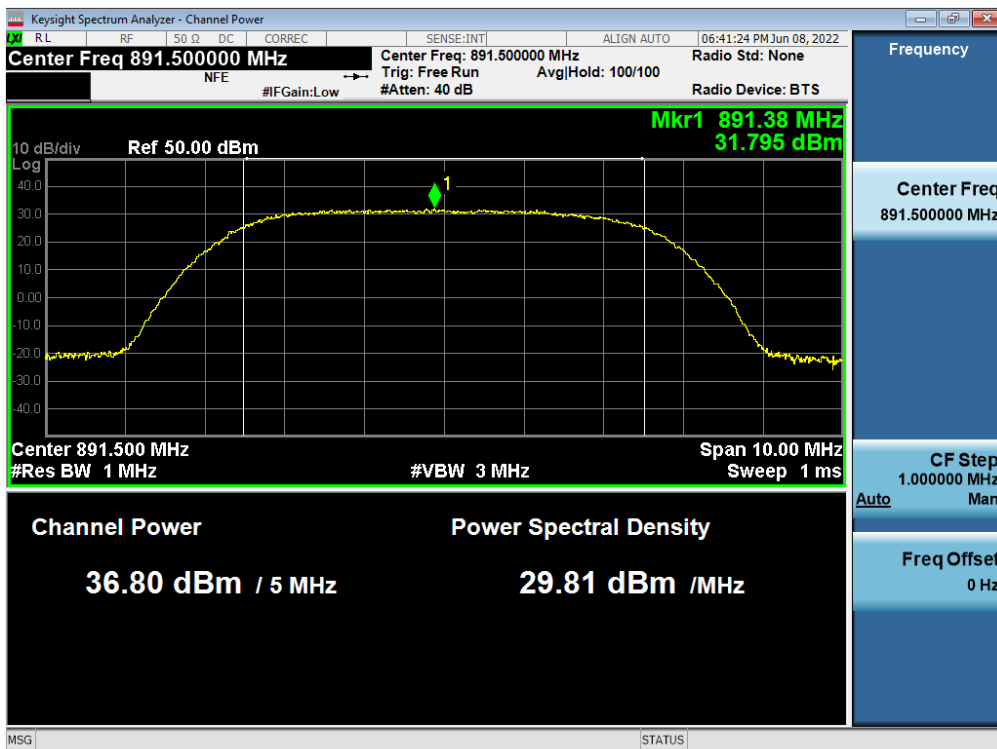
Antenna 3 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / High



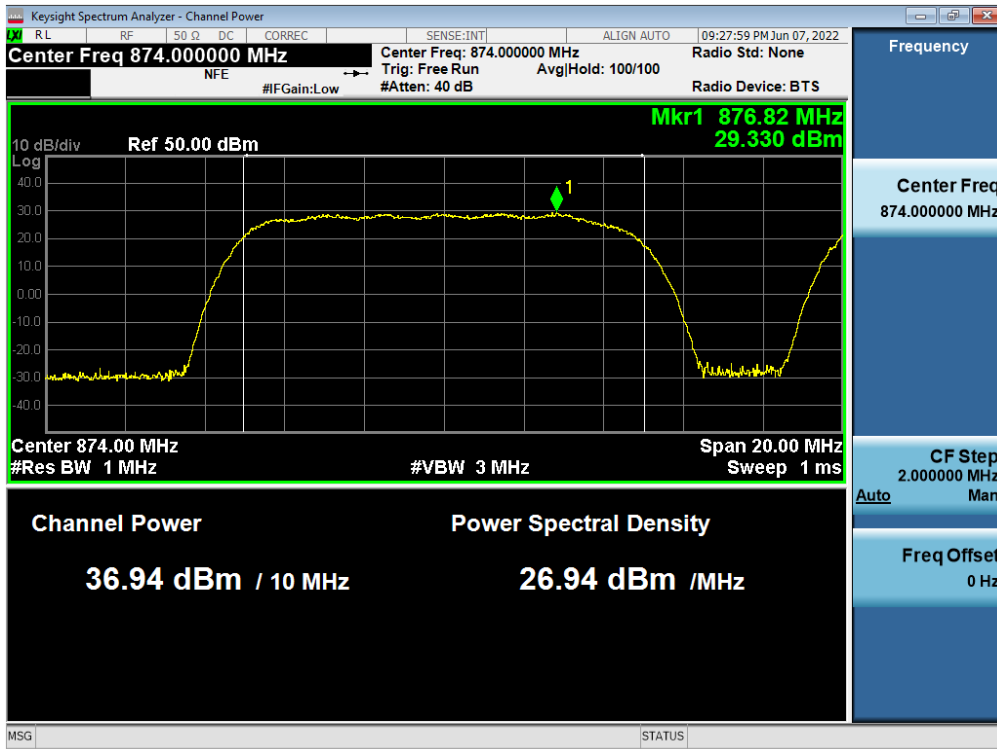
Antenna 3 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / Low



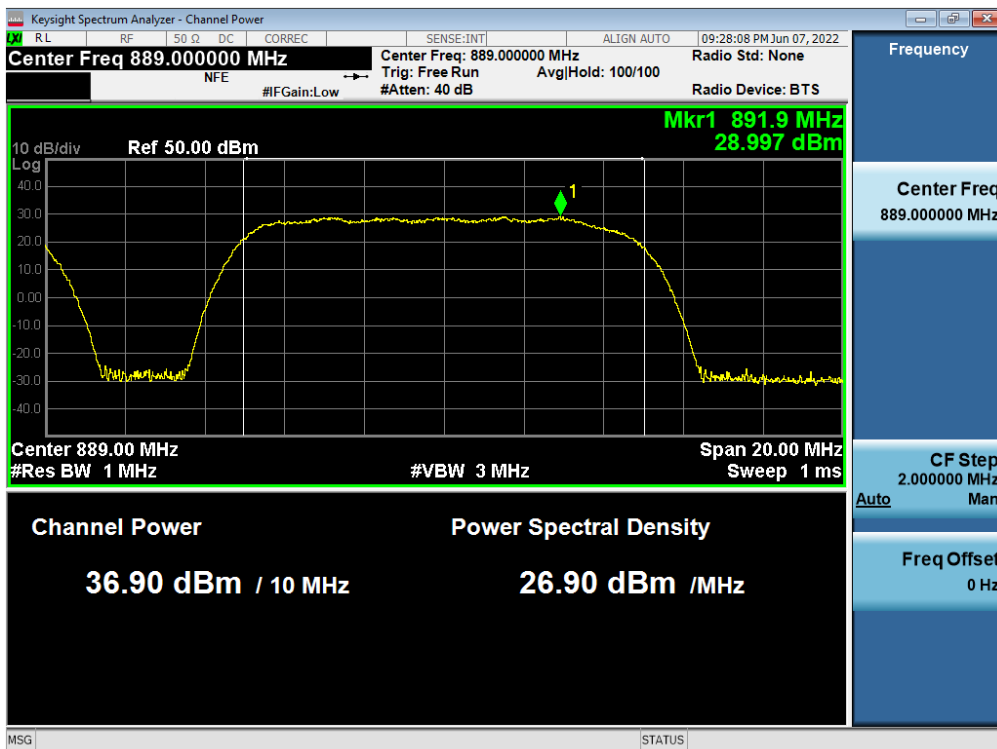
Antenna 3 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High



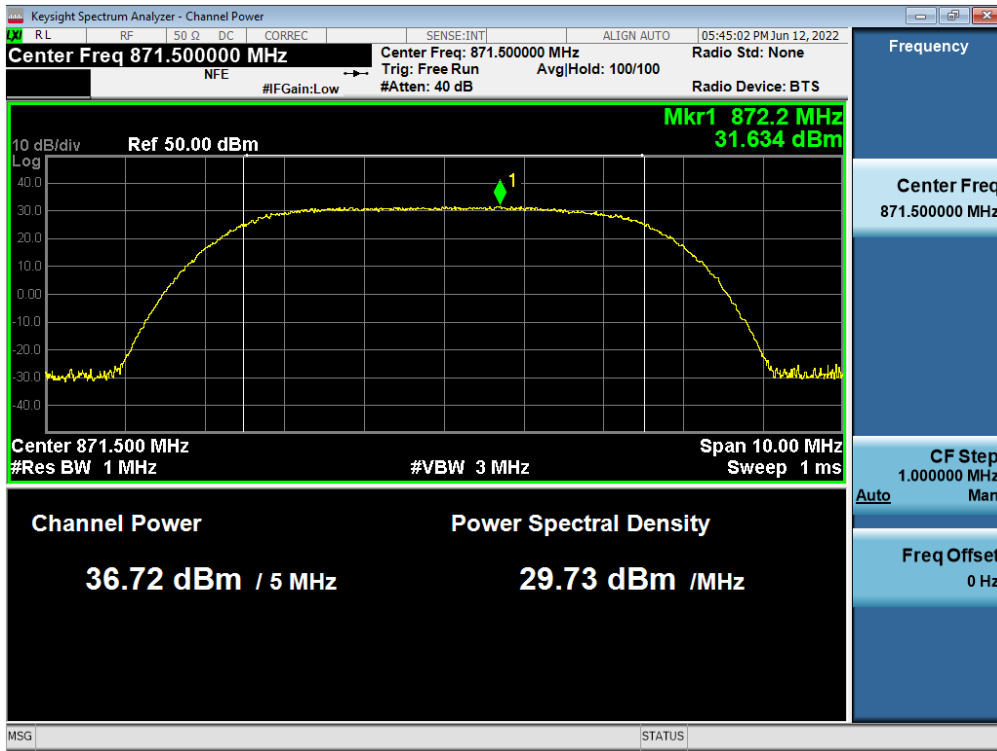
Antenna 3 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 16QAM / Low



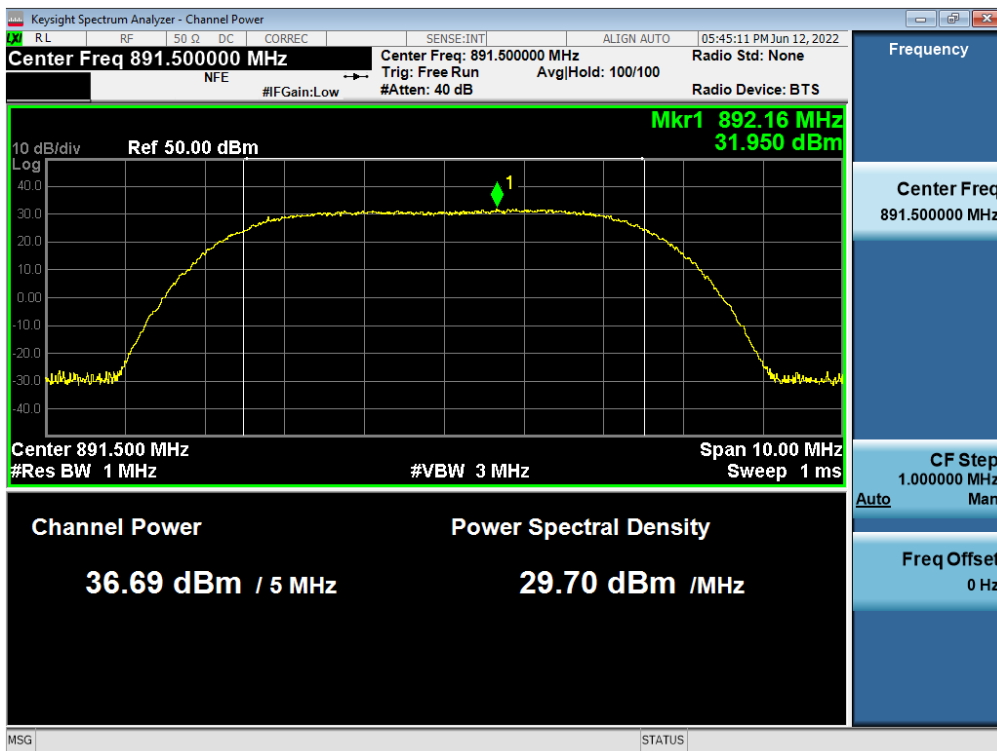
Antenna 3 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 16QAM / High



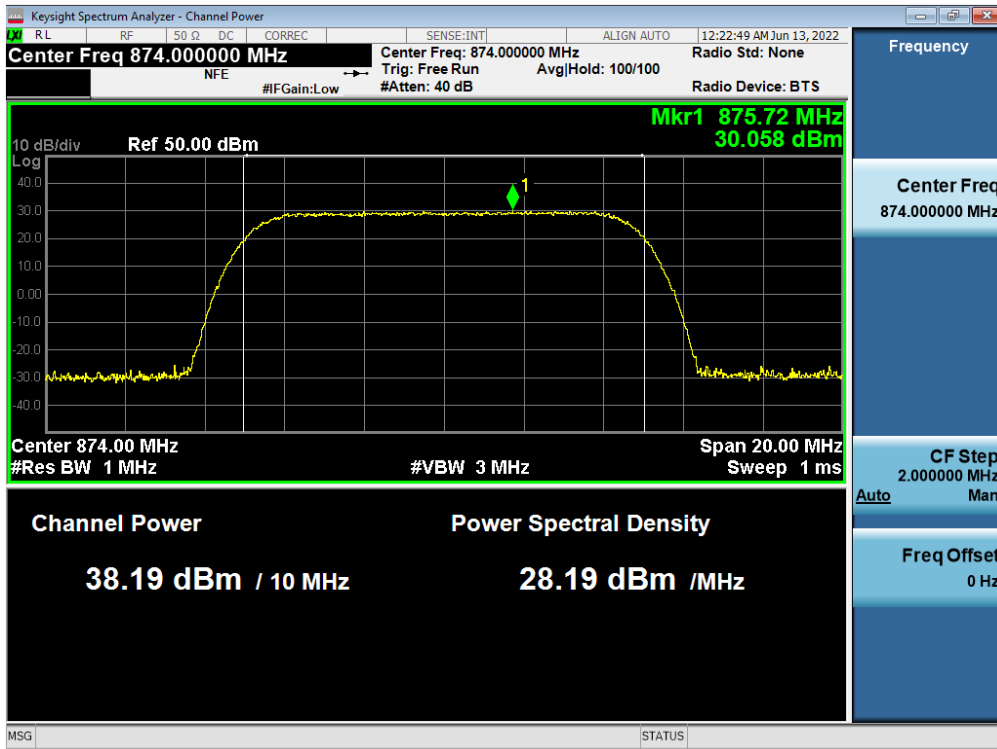
Antenna 2 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / Low



Antenna 2 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / LTE B5 5 MHz / 16QAM / High



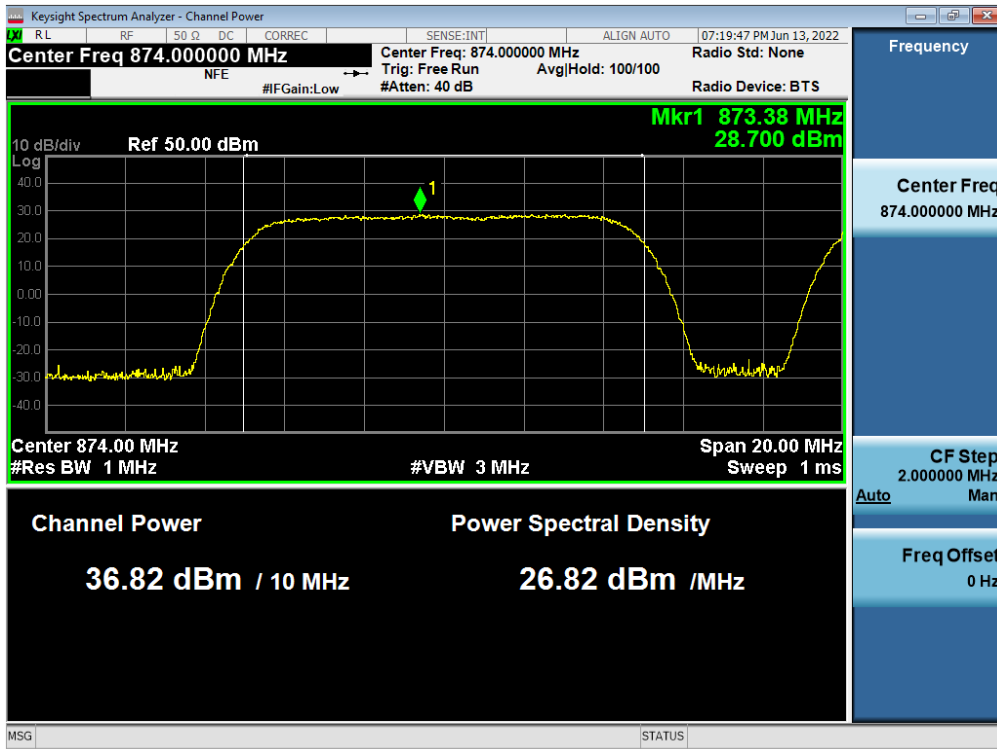
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



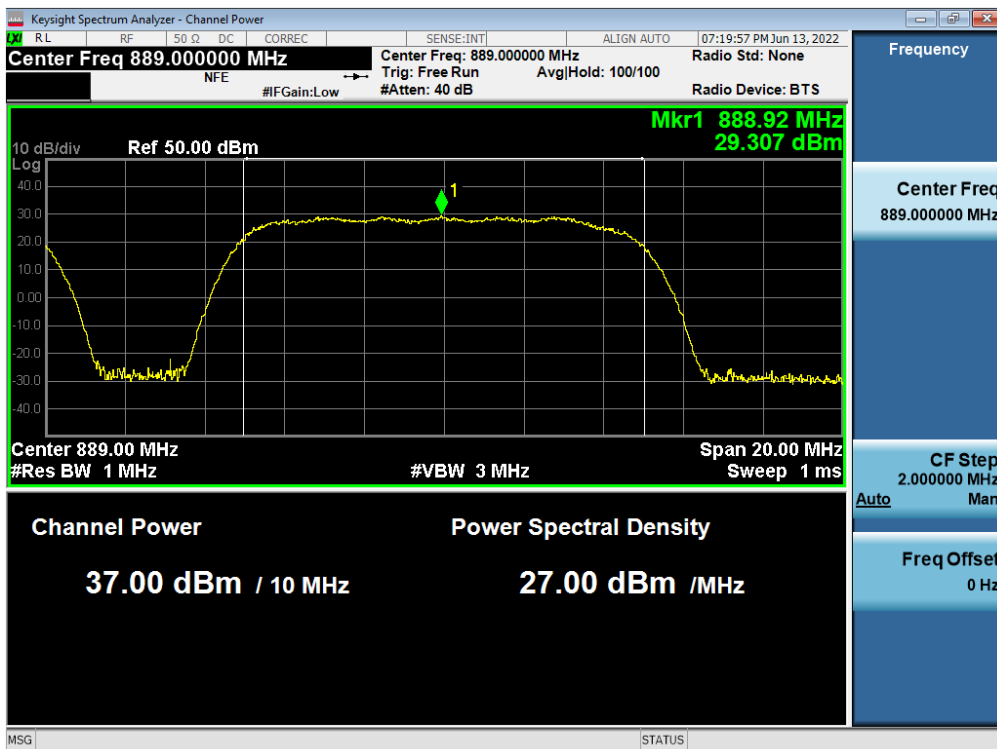
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / QPSK / High



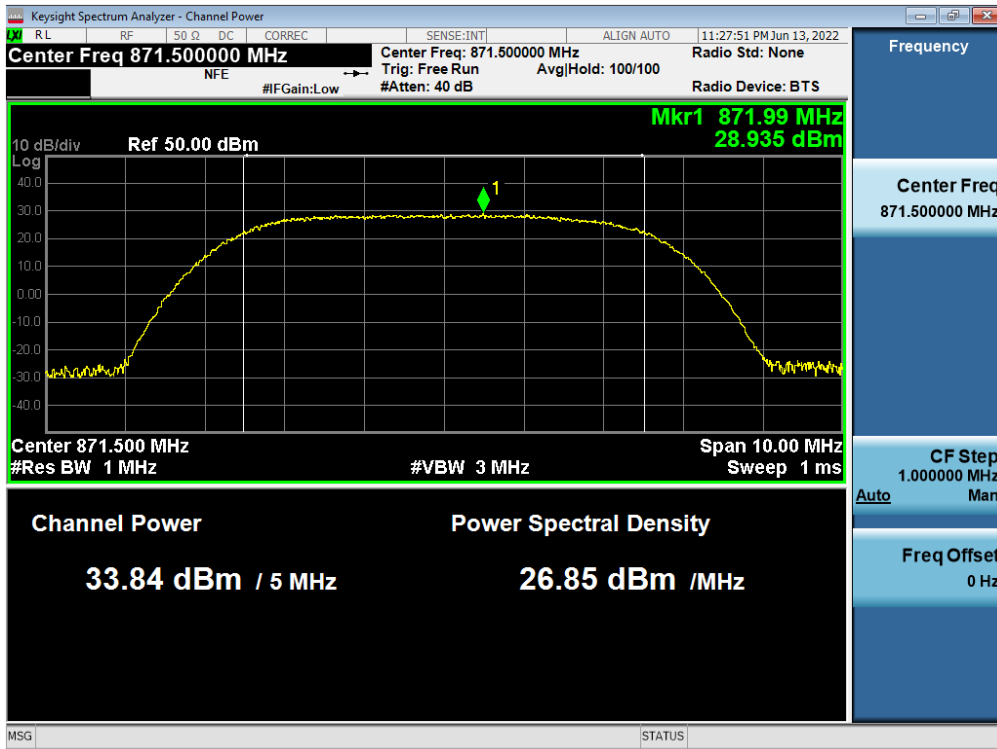
Antenna 0 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



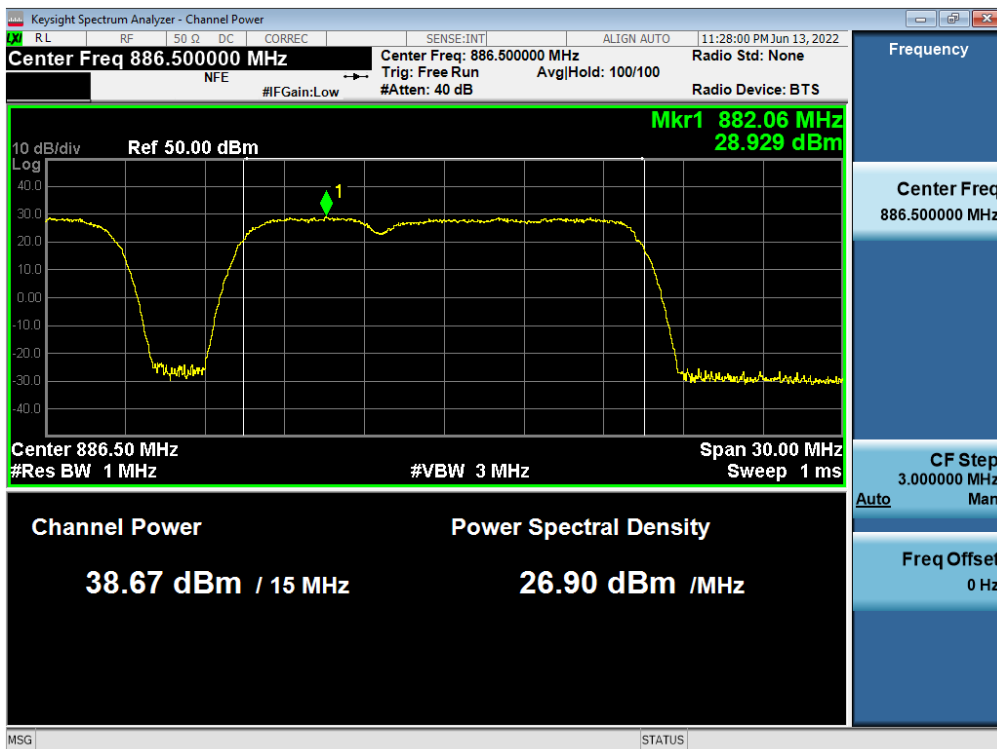
Antenna 0 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / 16QAM / High



Antenna 0 / 5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C) / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / Low

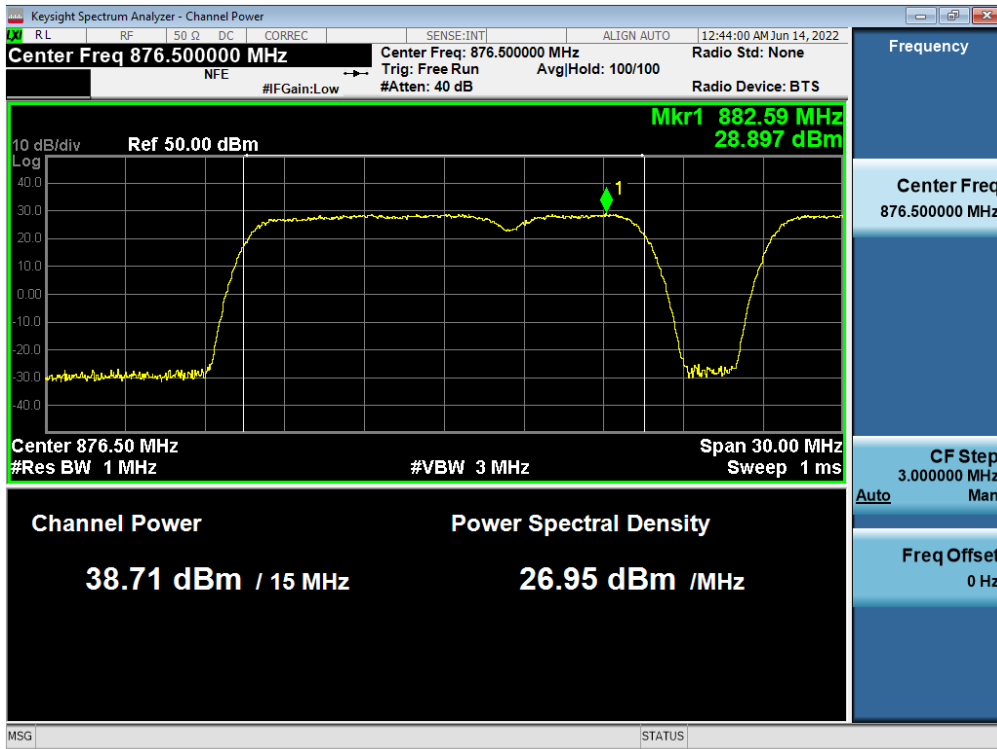


Antenna 0 / 5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C) / Non-Contiguous / LTE B5 5 MHz + B5 DSS 10 MHz / 16QAM / High

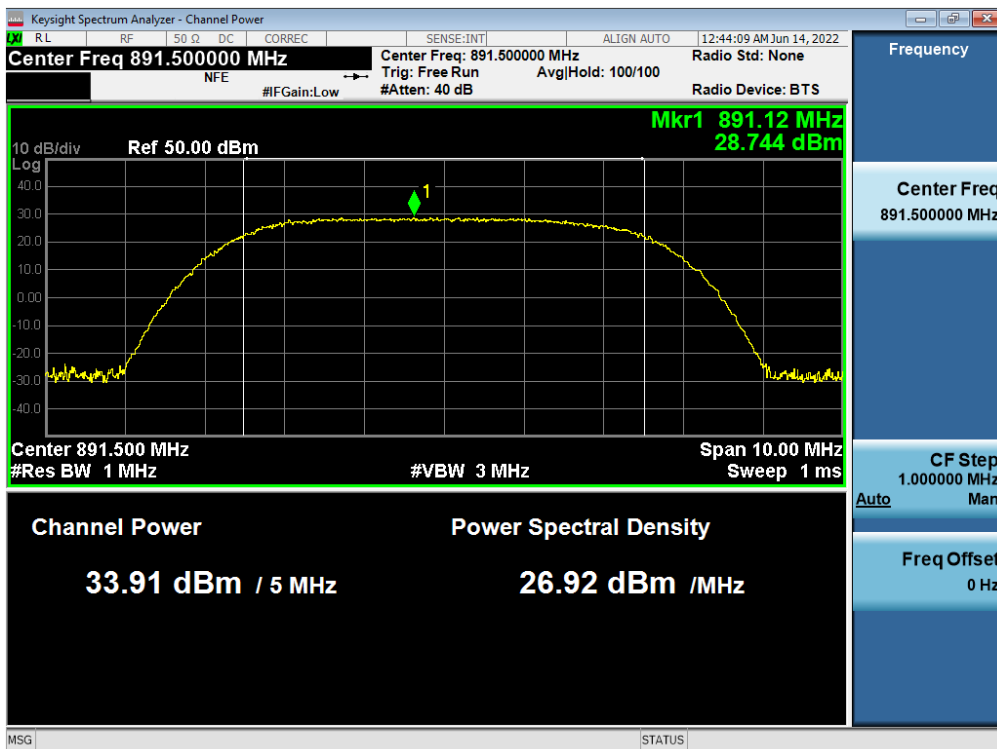




Antenna 3 / (B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C) / Non-Contiguous / B5 DSS 10 MHz + LTE B5 5 MHz / 16QAM / Low



Antenna 3 / (B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C) / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High



## 5.2. PAPR

### Test Requirements:

#### § 22.913 Effective radiated power limits.

(d) *Power measurement.* Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-to-average ratio (PAR) of the transmission must 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  $\geq$  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  $[10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})]$  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 from 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

## 5G NR n5 5 MHz 1 Carrier

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	871.50	8.06
		Middle	881.50	8.16
		High	891.50	8.20
	16QAM	Low	871.50	8.02
		Middle	881.50	8.06
		High	891.50	8.04
	64QAM	Low	871.50	8.12
		Middle	881.50	8.12
		High	891.50	8.25
	256QAM	Low	871.50	8.07
		Middle	881.50	8.09
		High	891.50	8.10
1	QPSK	Low	871.50	8.11
		Middle	881.50	8.15
		High	891.50	8.15
	16QAM	Low	871.50	8.16
		Middle	881.50	8.04
		High	891.50	8.21
	64QAM	Low	871.50	8.17
		Middle	881.50	8.09
		High	891.50	8.24
	256QAM	Low	871.50	8.10
		Middle	881.50	8.09
		High	891.50	8.13

2	QPSK	Low	871.50	8.14
		Middle	881.50	8.16
		High	891.50	8.16
	16QAM	Low	871.50	8.08
		Middle	881.50	8.12
		High	891.50	8.16
	64QAM	Low	871.50	8.21
		Middle	881.50	8.22
		High	891.50	8.23
256QAM	Low	871.50	8.07	
	Middle	881.50	8.07	
	High	891.50	8.09	
3	QPSK	Low	871.50	8.14
		Middle	881.50	8.16
		High	891.50	8.14
	16QAM	Low	871.50	8.07
		Middle	881.50	8.15
		High	891.50	8.12
	64QAM	Low	871.50	8.19
		Middle	881.50	8.23
		High	891.50	8.22
256QAM	Low	871.50	8.08	
	Middle	881.50	8.11	
	High	891.50	8.07	

## 5G NR n5 10 MHz 1 Carrier

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	874.00	8.13
		Middle	881.50	8.14
		High	889.00	8.12
	16QAM	Low	874.00	8.08
		Middle	881.50	8.14
		High	889.00	8.15
	64QAM	Low	874.00	8.17
		Middle	881.50	8.13
		High	889.00	8.17
	256QAM	Low	874.00	8.10
		Middle	881.50	8.12
		High	889.00	8.15
1	QPSK	Low	874.00	8.14
		Middle	881.50	8.15
		High	889.00	8.17
	16QAM	Low	874.00	8.13
		Middle	881.50	8.13
		High	889.00	8.14
	64QAM	Low	874.00	8.09
		Middle	881.50	8.12
		High	889.00	8.14
	256QAM	Low	874.00	8.07
		Middle	881.50	8.18
		High	889.00	8.11

2	QPSK	Low	874.00	8.09
		Middle	881.50	8.12
		High	889.00	8.18
	16QAM	Low	874.00	8.10
		Middle	881.50	8.12
		High	889.00	8.12
	64QAM	Low	874.00	8.08
		Middle	881.50	8.15
		High	889.00	8.14
	256QAM	Low	874.00	8.12
		Middle	881.50	8.13
		High	889.00	8.18
3	QPSK	Low	874.00	8.06
		Middle	881.50	8.18
		High	889.00	8.13
	16QAM	Low	874.00	8.20
		Middle	881.50	8.12
		High	889.00	8.13
	64QAM	Low	874.00	8.11
		Middle	881.50	8.13
		High	889.00	8.17
	256QAM	Low	874.00	8.12
		Middle	881.50	8.12
		High	889.00	8.14

## Tabular data of Contiguous PAPR

## B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	879.00	8.23
		Middle	881.50	8.23
		High	884.00	8.18
	16QAM	Low	879.00	8.16
		Middle	881.50	8.19
		High	884.00	8.23
	64QAM	Low	879.00	8.23
		Middle	881.50	8.21
		High	884.00	8.24
	256QAM	Low	879.00	8.19
		Middle	881.50	8.22
		High	884.00	8.17
1	QPSK	Low	879.00	8.19
		Middle	881.50	8.26
		High	884.00	8.24
	16QAM	Low	879.00	8.18
		Middle	881.50	8.19
		High	884.00	8.21
	64QAM	Low	879.00	8.17
		Middle	881.50	8.22
		High	884.00	8.23
	256QAM	Low	879.00	8.16
		Middle	881.50	8.21
		High	884.00	8.18

2	QPSK	Low	879.00	8.24
		Middle	881.50	8.21
		High	884.00	8.27
	16QAM	Low	879.00	8.20
		Middle	881.50	8.20
		High	884.00	8.22
	64QAM	Low	879.00	8.18
		Middle	881.50	8.19
		High	884.00	8.24
	256QAM	Low	879.00	8.21
		Middle	881.50	8.20
		High	884.00	8.27
3	QPSK	Low	879.00	8.14
		Middle	881.50	8.24
		High	884.00	8.24
	16QAM	Low	879.00	8.21
		Middle	881.50	8.28
		High	884.00	8.22
	64QAM	Low	879.00	8.15
		Middle	881.50	8.17
		High	884.00	8.25
	256QAM	Low	879.00	8.21
		Middle	881.50	8.23
		High	884.00	8.23



## 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	874.00	8.15
		Middle	881.50	8.25
		High	889.00	8.21
	16QAM	Low	874.00	8.22
		Middle	881.50	8.23
		High	889.00	8.20
	64QAM	Low	874.00	8.15
		Middle	881.50	8.17
		High	889.00	8.20
	256QAM	Low	874.00	8.14
		Middle	881.50	8.10
		High	889.00	8.14
1	QPSK	Low	874.00	8.20
		Middle	881.50	8.20
		High	889.00	8.26
	16QAM	Low	874.00	8.19
		Middle	881.50	8.14
		High	889.00	8.17
	64QAM	Low	874.00	8.16
		Middle	881.50	8.17
		High	889.00	8.19
	256QAM	Low	874.00	8.09
		Middle	881.50	8.19
		High	889.00	8.19

2	QPSK	Low	874.00	8.19
		Middle	881.50	8.20
		High	889.00	8.24
	16QAM	Low	874.00	8.14
		Middle	881.50	8.15
		High	889.00	8.16
	64QAM	Low	874.00	8.19
		Middle	881.50	8.19
		High	889.00	8.14
	256QAM	Low	874.00	8.08
		Middle	881.50	8.13
		High	889.00	8.13
3	QPSK	Low	874.00	8.21
		Middle	881.50	8.18
		High	889.00	8.23
	16QAM	Low	874.00	8.11
		Middle	881.50	8.22
		High	889.00	8.18
	64QAM	Low	874.00	8.21
		Middle	881.50	8.20
		High	889.00	8.17
	256QAM	Low	874.00	8.10
		Middle	881.50	8.14
		High	889.00	8.14

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	879.00	8.16
		Middle	881.50	8.11
		High	884.00	8.15
	16QAM	Low	879.00	8.13
		Middle	881.50	8.11
		High	884.00	8.15
	64QAM	Low	879.00	8.15
		Middle	881.50	8.13
		High	884.00	8.17
	256QAM	Low	879.00	8.17
		Middle	881.50	8.13
		High	884.00	8.12
1	QPSK	Low	879.00	8.10
		Middle	881.50	8.08
		High	884.00	8.13
	16QAM	Low	879.00	8.11
		Middle	881.50	8.14
		High	884.00	8.14
	64QAM	Low	879.00	8.12
		Middle	881.50	8.15
		High	884.00	8.17
	256QAM	Low	879.00	8.14
		Middle	881.50	8.16
		High	884.00	8.20

2	QPSK	Low	879.00	8.16
		Middle	881.50	8.16
		High	884.00	8.16
	16QAM	Low	879.00	8.13
		Middle	881.50	8.15
		High	884.00	8.14
	64QAM	Low	879.00	8.13
		Middle	881.50	8.17
		High	884.00	8.15
	256QAM	Low	879.00	8.10
		Middle	881.50	8.18
		High	884.00	8.18
3	QPSK	Low	879.00	8.18
		Middle	881.50	8.18
		High	884.00	8.16
	16QAM	Low	879.00	8.15
		Middle	881.50	8.13
		High	884.00	8.16
	64QAM	Low	879.00	8.10
		Middle	881.50	8.12
		High	884.00	8.12
	256QAM	Low	879.00	8.09
		Middle	881.50	8.17
		High	884.00	8.19

**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	874.00	8.11
		Middle	881.50	8.22
		High	889.00	8.23
	16QAM	Low	874.00	8.14
		Middle	881.50	8.20
		High	889.00	8.14
	64QAM	Low	874.00	8.14
		Middle	881.50	8.14
		High	889.00	8.19
	256QAM	Low	874.00	8.16
		Middle	881.50	8.16
		High	889.00	8.18
1	QPSK	Low	874.00	8.17
		Middle	881.50	8.16
		High	889.00	8.16
	16QAM	Low	874.00	8.11
		Middle	881.50	8.16
		High	889.00	8.18
	64QAM	Low	874.00	8.12
		Middle	881.50	8.24
		High	889.00	8.19
	256QAM	Low	874.00	8.18
		Middle	881.50	8.19
		High	889.00	8.22

2	QPSK	Low	874.00	8.08
		Middle	881.50	8.18
		High	889.00	8.16
	16QAM	Low	874.00	8.12
		Middle	881.50	8.12
		High	889.00	8.18
	64QAM	Low	874.00	8.18
		Middle	881.50	8.16
		High	889.00	8.21
	256QAM	Low	874.00	8.14
		Middle	881.50	8.17
		High	889.00	8.19
3	QPSK	Low	874.00	8.15
		Middle	881.50	8.17
		High	889.00	8.20
	16QAM	Low	874.00	8.18
		Middle	881.50	8.17
		High	889.00	8.15
	64QAM	Low	874.00	8.22
		Middle	881.50	8.13
		High	889.00	8.15
	256QAM	Low	874.00	8.19
		Middle	881.50	8.14
		High	889.00	8.17

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	876.50	8.27
		Middle	881.50	8.23
		High	886.50	8.24
	16QAM	Low	876.50	8.17
		Middle	881.50	8.20
		High	886.50	8.23
	64QAM	Low	876.50	8.19
		Middle	881.50	8.22
		High	886.50	8.18
	256QAM	Low	876.50	8.19
		Middle	881.50	8.23
		High	886.50	8.21
1	QPSK	Low	876.50	8.30
		Middle	881.50	8.25
		High	886.50	8.09
	16QAM	Low	876.50	8.19
		Middle	881.50	8.20
		High	886.50	8.24
	64QAM	Low	876.50	8.25
		Middle	881.50	8.23
		High	886.50	8.27
	256QAM	Low	876.50	8.22
		Middle	881.50	8.25
		High	886.50	8.22

2	QPSK	Low	876.50	8.21
		Middle	881.50	8.31
		High	886.50	8.17
	16QAM	Low	876.50	8.22
		Middle	881.50	8.23
		High	886.50	8.26
	64QAM	Low	876.50	8.19
		Middle	881.50	8.21
		High	886.50	8.22
	256QAM	Low	876.50	8.21
		Middle	881.50	8.19
		High	886.50	8.21
3	QPSK	Low	876.50	8.21
		Middle	881.50	8.31
		High	886.50	8.22
	16QAM	Low	876.50	8.21
		Middle	881.50	8.26
		High	886.50	8.22
	64QAM	Low	876.50	8.16
		Middle	881.50	8.20
		High	886.50	8.27
	256QAM	Low	876.50	8.22
		Middle	881.50	8.27
		High	886.50	8.21



**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	879.00	8.18
		Middle	881.50	8.15
		High	884.00	8.17
	16QAM	Low	879.00	8.17
		Middle	881.50	8.19
		High	884.00	8.18
	64QAM	Low	879.00	8.18
		Middle	881.50	8.19
		High	884.00	8.24
	256QAM	Low	879.00	8.14
		Middle	881.50	8.19
		High	884.00	8.21
1	QPSK	Low	879.00	8.13
		Middle	881.50	8.18
		High	884.00	8.22
	16QAM	Low	879.00	8.17
		Middle	881.50	8.16
		High	884.00	8.18
	64QAM	Low	879.00	8.21
		Middle	881.50	8.23
		High	884.00	8.20
	256QAM	Low	879.00	8.18
		Middle	881.50	8.16
		High	884.00	8.22

2	QPSK	Low	879.00	8.15
		Middle	881.50	8.18
		High	884.00	8.19
	16QAM	Low	879.00	8.17
		Middle	881.50	8.19
		High	884.00	8.20
	64QAM	Low	879.00	8.19
		Middle	881.50	8.23
		High	884.00	8.21
	256QAM	Low	879.00	8.18
		Middle	881.50	8.18
		High	884.00	8.20
3	QPSK	Low	879.00	8.11
		Middle	881.50	8.16
		High	884.00	8.18
	16QAM	Low	879.00	8.15
		Middle	881.50	8.15
		High	884.00	8.19
	64QAM	Low	879.00	8.19
		Middle	881.50	8.22
		High	884.00	8.18
	256QAM	Low	879.00	8.19
		Middle	881.50	8.20
		High	884.00	8.19

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Low	879.00	8.17
		Middle	881.50	8.17
		High	884.00	8.19
	16QAM	Low	879.00	8.16
		Middle	881.50	8.21
		High	884.00	8.19
	64QAM	Low	879.00	8.20
		Middle	881.50	8.18
		High	884.00	8.22
	256QAM	Low	879.00	8.14
		Middle	881.50	8.16
		High	884.00	8.21
1	QPSK	Low	879.00	8.14
		Middle	881.50	8.20
		High	884.00	8.22
	16QAM	Low	879.00	8.16
		Middle	881.50	8.16
		High	884.00	8.19
	64QAM	Low	879.00	8.18
		Middle	881.50	8.16
		High	884.00	8.18
	256QAM	Low	879.00	8.23
		Middle	881.50	8.18
		High	884.00	8.17

2	QPSK	Low	879.00	8.18
		Middle	881.50	8.14
		High	884.00	8.20
	16QAM	Low	879.00	8.13
		Middle	881.50	8.19
		High	884.00	8.21
	64QAM	Low	879.00	8.17
		Middle	881.50	8.18
		High	884.00	8.20
	256QAM	Low	879.00	8.17
		Middle	881.50	8.18
		High	884.00	8.18
3	QPSK	Low	879.00	8.18
		Middle	881.50	8.18
		High	884.00	8.23
	16QAM	Low	879.00	8.22
		Middle	881.50	8.16
		High	884.00	8.21
	64QAM	Low	879.00	8.16
		Middle	881.50	8.20
		High	884.00	8.19
	256QAM	Low	879.00	8.17
		Middle	881.50	8.18
		High	884.00	8.20

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Middle	881.50	8.15
	16QAM	Middle	881.50	8.13
	64QAM	Middle	881.50	8.16
	256QAM	Middle	881.50	8.16
1	QPSK	Middle	881.50	8.16
	16QAM	Middle	881.50	8.13
	64QAM	Middle	881.50	8.16
	256QAM	Middle	881.50	8.15
2	QPSK	Middle	881.50	8.13
	16QAM	Middle	881.50	8.12
	64QAM	Middle	881.50	8.17
	256QAM	Middle	881.50	8.13
3	QPSK	Middle	881.50	8.13
	16QAM	Middle	881.50	8.16
	64QAM	Middle	881.50	8.15
	256QAM	Middle	881.50	8.17

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Modulation	Channel	Frequency (MHz)	0.1 % PAPR (dB)
0	QPSK	Middle	881.50	8.16
	16QAM	Middle	881.50	8.16
	64QAM	Middle	881.50	8.18
	256QAM	Middle	881.50	8.13
1	QPSK	Middle	881.50	8.16
	16QAM	Middle	881.50	8.15
	64QAM	Middle	881.50	8.20
	256QAM	Middle	881.50	8.19
2	QPSK	Middle	881.50	8.19
	16QAM	Middle	881.50	8.12
	64QAM	Middle	881.50	8.20
	256QAM	Middle	881.50	8.18
3	QPSK	Middle	881.50	8.17
	16QAM	Middle	881.50	8.15
	64QAM	Middle	881.50	8.51
	256QAM	Middle	881.50	8.18

**Tabular data of Non-Contiguous PAPR**
**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	B5 DSS 10 MHz		B5 DSS 10 MHz	
		Frequency (MHz)	Measured Value (dB)	Frequency (MHz)	Measured Value (dB)
0	QPSK	874.00	8.30	889.00	8.30
	16QAM	874.00	8.30	889.00	8.25
	64QAM	874.00	8.36	889.00	8.24
	256QAM	874.00	8.27	889.00	8.26
1	QPSK	874.00	8.26	889.00	8.34
	16QAM	874.00	8.35	889.00	8.27
	64QAM	874.00	8.35	889.00	8.27
	256QAM	874.00	8.26	889.00	8.26
2	QPSK	874.00	8.29	889.00	8.37
	16QAM	874.00	8.33	889.00	8.23
	64QAM	874.00	8.30	889.00	8.36
	256QAM	874.00	8.24	889.00	8.27
3	QPSK	874.00	8.34	889.00	8.36
	16QAM	874.00	8.35	889.00	8.22
	64QAM	874.00	8.31	889.00	8.31
	256QAM	874.00	8.22	889.00	8.25

**5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	5G NR n5 5 MHz		5G NR n5 5 MHz	
		Frequency (MHz)	Measured Value (dB)	Frequency (MHz)	Measured Value (dB)
0	QPSK	871.50	8.21	891.50	8.25
	16QAM	871.50	8.21	891.50	8.21
	64QAM	871.50	8.16	891.50	8.23
	256QAM	871.50	8.13	891.50	8.28
1	QPSK	871.50	8.20	891.50	8.27
	16QAM	871.50	8.15	891.50	8.20
	64QAM	871.50	8.23	891.50	8.26
	256QAM	871.50	8.10	891.50	8.31
2	QPSK	871.50	8.16	891.50	8.15
	16QAM	871.50	8.19	891.50	8.19
	64QAM	871.50	8.17	891.50	8.28
	256QAM	871.50	8.13	891.50	8.20
3	QPSK	871.50	8.16	891.50	8.16
	16QAM	871.50	8.11	891.50	8.23
	64QAM	871.50	8.16	891.50	8.27
	256QAM	871.50	8.14	891.50	8.20



**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	5G NR n5 10 MHz		5G NR n5 10 MHz	
		Frequency (MHz)	Measured Value (dB)	Frequency (MHz)	Measured Value (dB)
0	QPSK	874.00	8.27	889.00	8.26
	16QAM	874.00	8.29	889.00	8.26
	64QAM	874.00	8.24	889.00	8.21
	256QAM	874.00	8.30	889.00	8.25
1	QPSK	874.00	8.28	889.00	8.26
	16QAM	874.00	8.26	889.00	8.25
	64QAM	874.00	8.25	889.00	8.18
	256QAM	874.00	8.31	889.00	8.22
2	QPSK	874.00	8.29	889.00	8.26
	16QAM	874.00	8.29	889.00	8.27
	64QAM	874.00	8.29	889.00	8.19
	256QAM	874.00	8.33	889.00	8.21
3	QPSK	874.00	8.28	889.00	8.31
	16QAM	874.00	8.28	889.00	8.26
	64QAM	874.00	8.27	889.00	8.19
	256QAM	874.00	8.23	889.00	8.21

**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	5G NR n5 5 MHz		LTE B5 5 MHz	
		Frequency (MHz)	Measured Value (dB)	Frequency (MHz)	Measured Value (dB)
0	QPSK	871.50	8.18	891.50	8.24
	16QAM	871.50	8.14	891.50	8.14
	64QAM	871.50	8.27	891.50	8.32
	256QAM	871.50	8.10	891.50	8.23
1	QPSK	871.50	8.18	891.50	8.23
	16QAM	871.50	8.18	891.50	8.10
	64QAM	871.50	8.19	891.50	8.27
	256QAM	871.50	8.10	891.50	8.21
2	QPSK	871.50	8.10	891.50	8.19
	16QAM	871.50	8.21	891.50	8.05
	64QAM	871.50	8.24	891.50	8.32
	256QAM	871.50	8.11	891.50	8.21
3	QPSK	871.50	8.17	891.50	8.21
	16QAM	871.50	8.17	891.50	8.11
	64QAM	871.50	8.17	891.50	8.26
	256QAM	871.50	8.10	891.50	8.18

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	B5 DSS 10 MHz		5G NR n5 5 MHz	
		Frequency (MHz)	Measured Value (dB)	Frequency (MHz)	Measured Value (dB)
0	QPSK	874.00	8.29	891.50	8.40
	16QAM	874.00	8.27	891.50	8.37
	64QAM	874.00	8.27	891.50	8.30
	256QAM	874.00	8.21	891.50	8.32
1	QPSK	874.00	8.21	891.50	8.26
	16QAM	874.00	8.21	891.50	8.36
	64QAM	874.00	8.26	891.50	8.33
	256QAM	874.00	8.12	891.50	8.32
2	QPSK	874.00	8.24	891.50	8.34
	16QAM	874.00	8.28	891.50	8.33
	64QAM	874.00	8.27	891.50	8.26
	256QAM	874.00	8.15	891.50	8.29
3	QPSK	874.00	8.23	891.50	8.25
	16QAM	874.00	8.23	891.50	8.33
	64QAM	874.00	8.26	891.50	8.33
	256QAM	874.00	8.13	891.50	8.31

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Modulation	B5 DSS 10 MHz		5G NR n5 10 MHz	
		Frequency (MHz)	Measured Value (dB)	Frequency (MHz)	Measured Value (dB)
0	QPSK	874.00	8.27	889.00	8.37
	16QAM	874.00	8.34	889.00	8.26
	64QAM	874.00	8.40	889.00	8.21
	256QAM	874.00	8.30	889.00	8.24
1	QPSK	874.00	8.30	889.00	8.38
	16QAM	874.00	8.33	889.00	8.25
	64QAM	874.00	8.32	889.00	8.25
	256QAM	874.00	8.25	889.00	8.28
2	QPSK	874.00	8.37	889.00	8.28
	16QAM	874.00	8.37	889.00	8.23
	64QAM	874.00	8.34	889.00	8.27
	256QAM	874.00	8.23	889.00	8.26
3	QPSK	874.00	8.36	889.00	8.34
	16QAM	874.00	8.31	889.00	8.23
	64QAM	874.00	8.35	889.00	8.23
	256QAM	874.00	8.28	889.00	8.22

**5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C)**

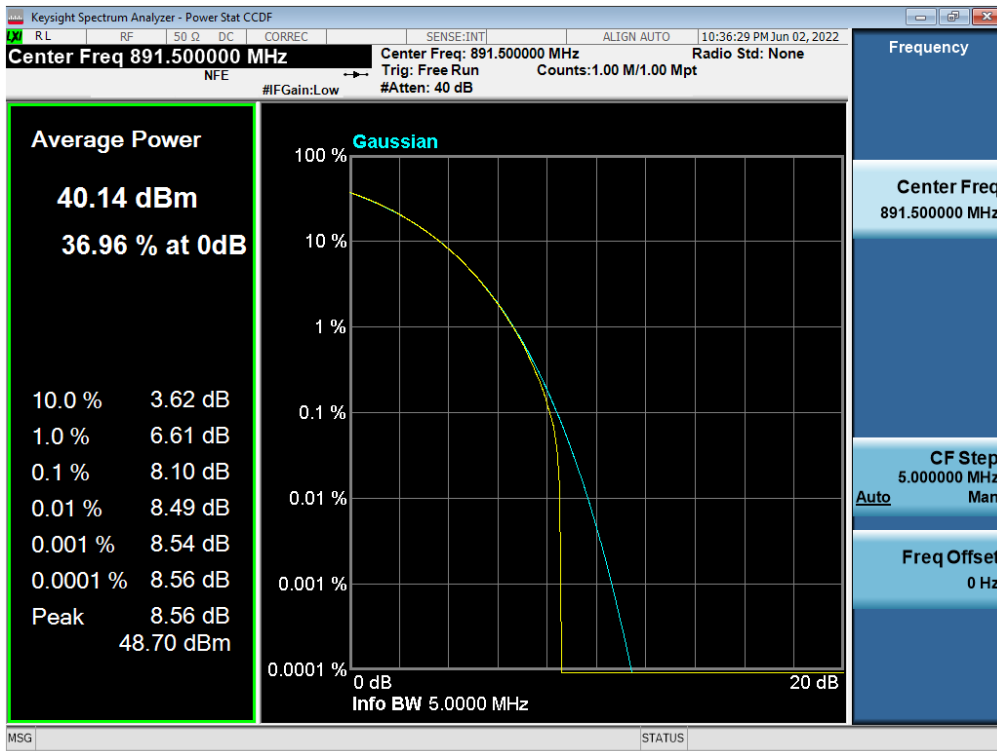
Ant.	Modulation	5G NR n5 5 MHz		LTE B5 5 MHz + B5 DSS 10 MHz	
		Frequency (MHz)	Measured Value (dB)	Frequency (MHz)	Measured Value (dB)
0	QPSK	871.50	8.35	886.50	8.17
	16QAM	871.50	8.33	886.50	8.22
	64QAM	871.50	8.36	886.50	8.15
	256QAM	871.50	8.31	886.50	8.20
1	QPSK	871.50	8.39	886.50	8.19
	16QAM	871.50	8.29	886.50	8.19
	64QAM	871.50	8.35	886.50	8.28
	256QAM	871.50	8.35	886.50	8.29
2	QPSK	871.50	8.31	886.50	8.23
	16QAM	871.50	8.32	886.50	8.22
	64QAM	871.50	8.36	886.50	8.27
	256QAM	871.50	8.29	886.50	8.16
3	QPSK	871.50	8.29	886.50	8.24
	16QAM	871.50	8.32	886.50	8.23
	64QAM	871.50	8.38	886.50	8.25
	256QAM	871.50	8.25	886.50	8.22

**(B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C)**

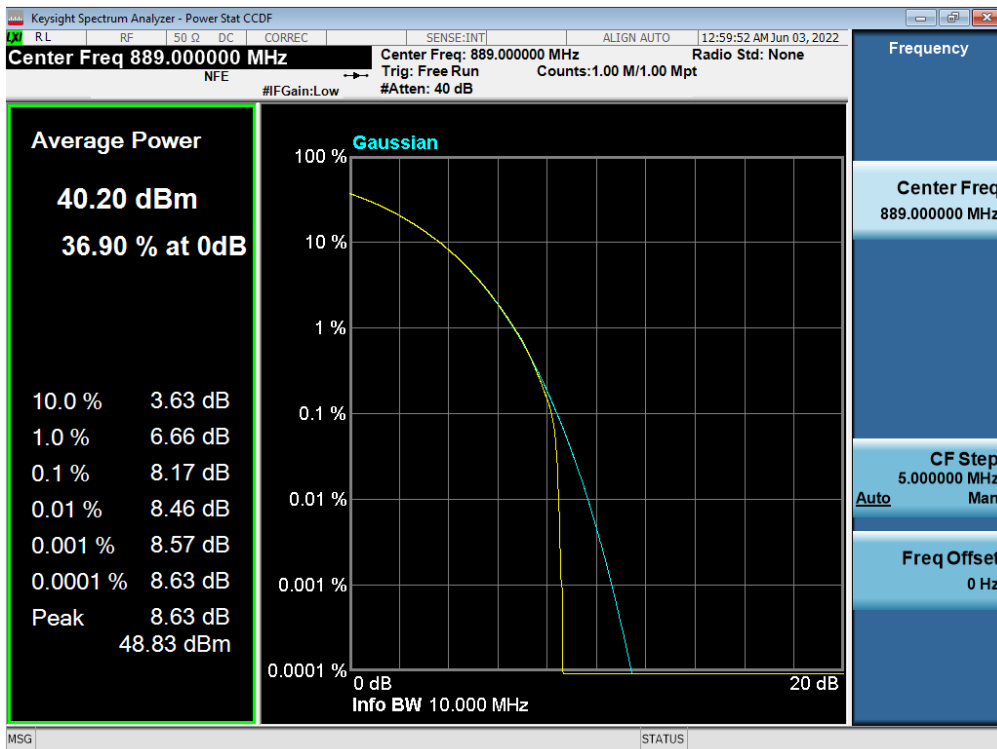
Ant.	Modulation	B5 DSS 10 MHz + LTE B5 5 MHz		5G NR n5 5 MHz	
		Frequency (MHz)	Measured Value (dB)	Frequency (MHz)	Measured Value (dB)
0	QPSK	876.50	8.18	891.50	8.44
	16QAM	876.50	8.22	891.50	8.36
	64QAM	876.50	8.23	891.50	8.30
	256QAM	876.50	8.26	891.50	8.40
1	QPSK	876.50	8.19	891.50	8.41
	16QAM	876.50	8.21	891.50	8.38
	64QAM	876.50	8.19	891.50	8.25
	256QAM	876.50	8.23	891.50	8.38
2	QPSK	876.50	8.22	891.50	8.25
	16QAM	876.50	8.19	891.50	8.39
	64QAM	876.50	8.15	891.50	8.37
	256QAM	876.50	8.20	891.50	8.34
3	QPSK	876.50	8.21	891.50	8.38
	16QAM	876.50	8.23	891.50	8.36
	64QAM	876.50	8.13	891.50	8.31
	256QAM	876.50	8.22	891.50	8.37

Plot Data of PAPR

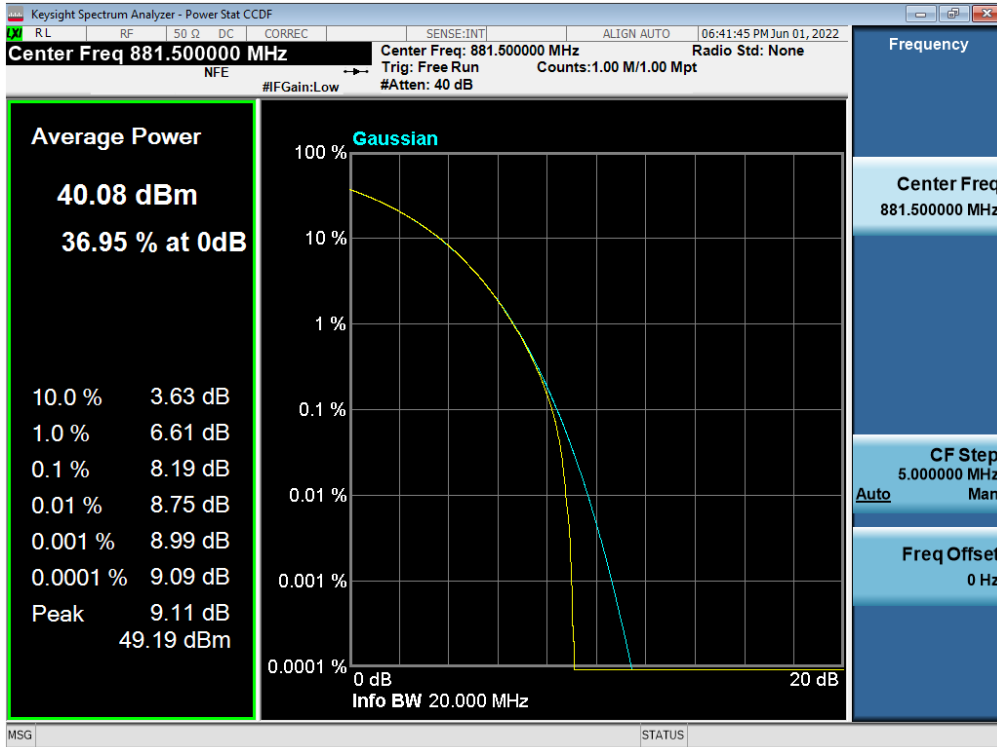
Antenna 0 / 5G NR n5 5 MHz 1 Carrier / 256QAM / High



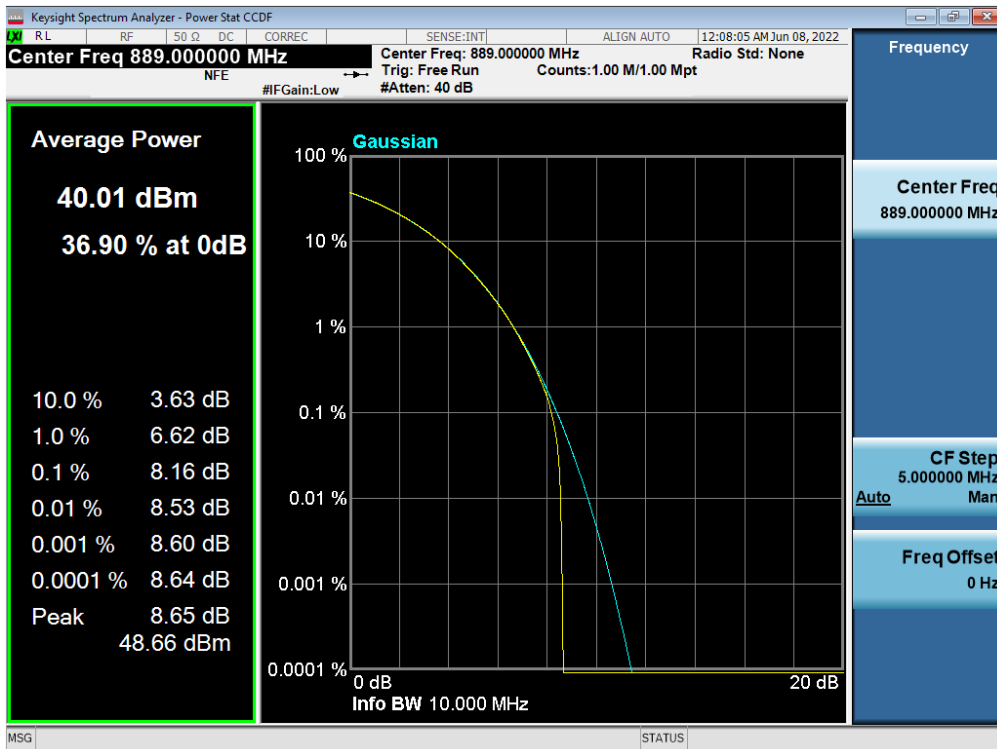
Antenna 0 / 5G NR n5 10 MHz 1 Carrier / 64QAM / High



Antenna 0 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle

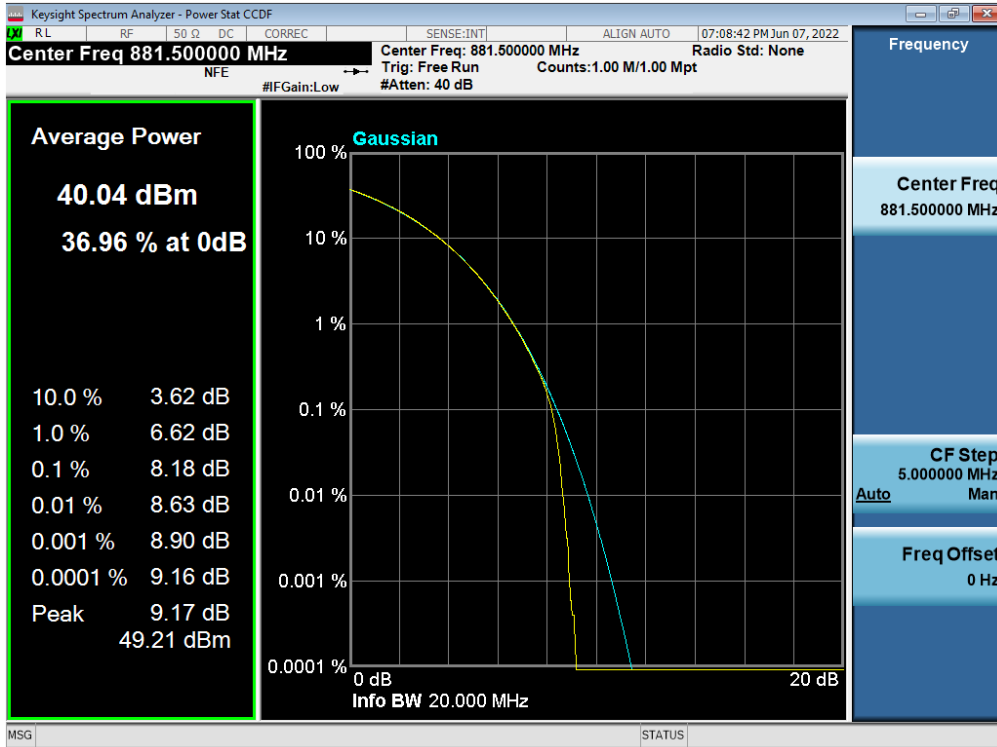


Antenna 2 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / High

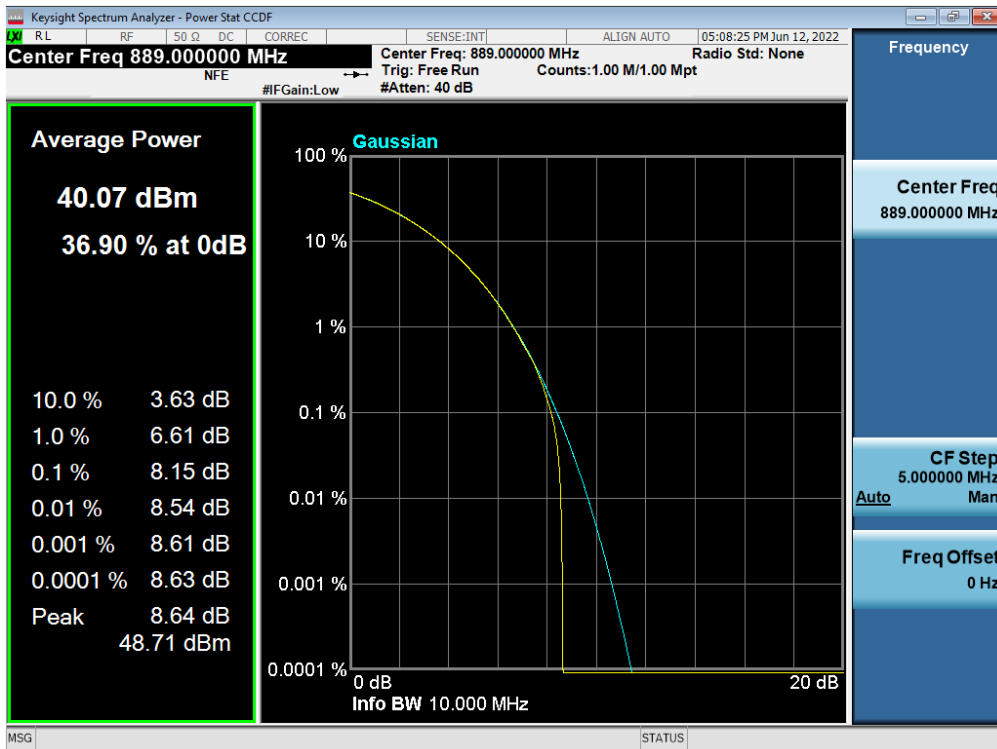




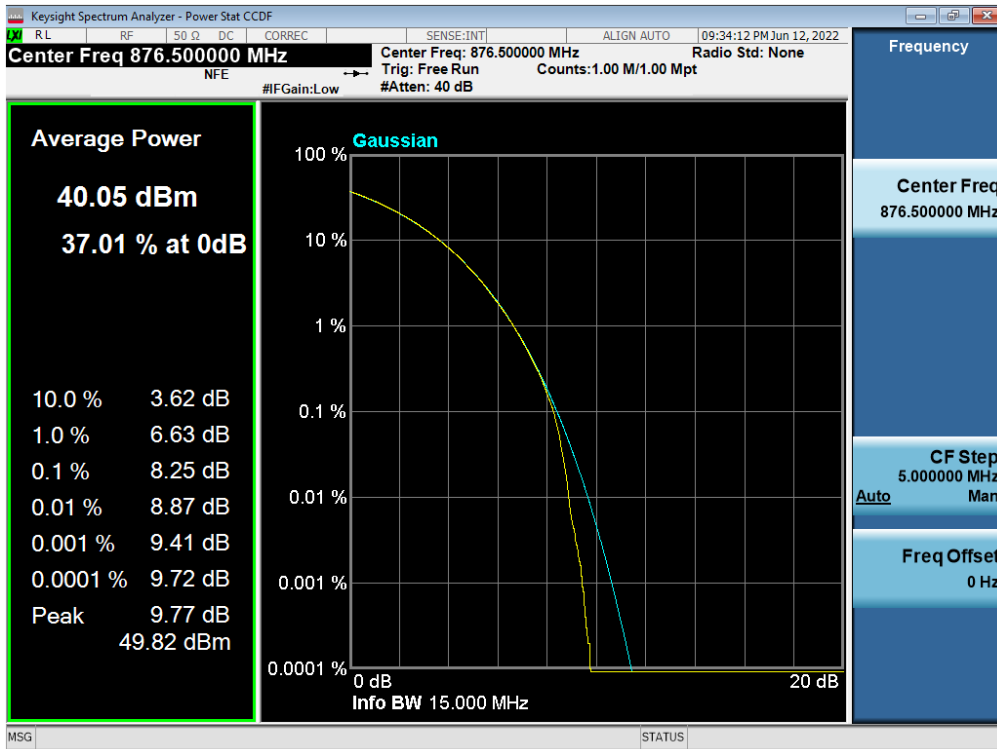
Antenna 2 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Middle



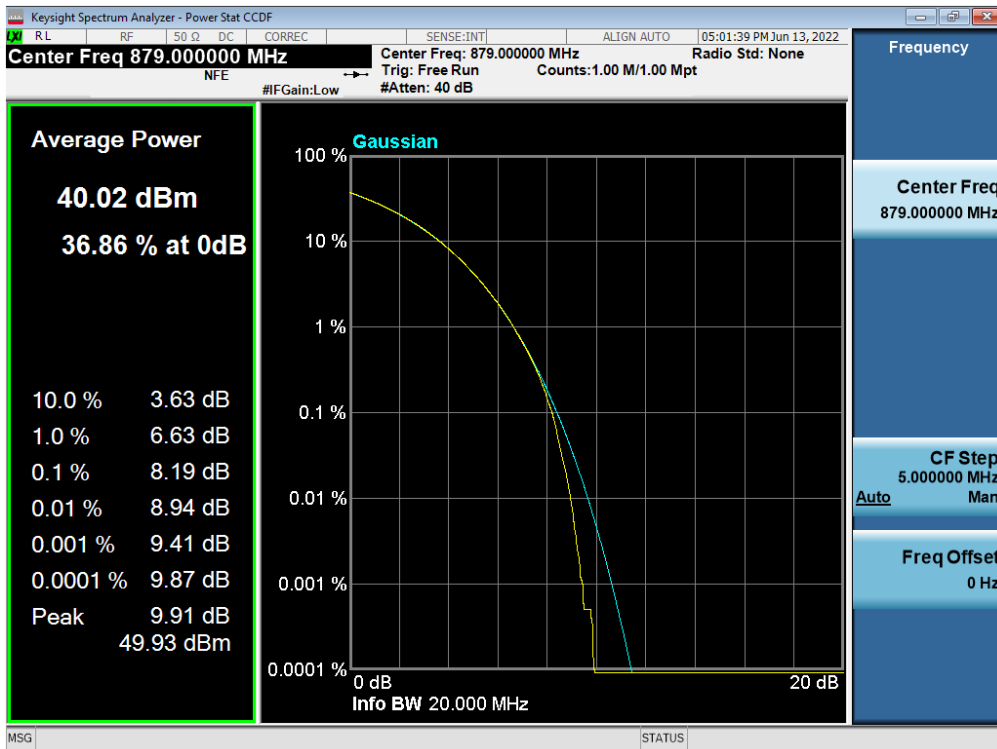
Antenna 3 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / High



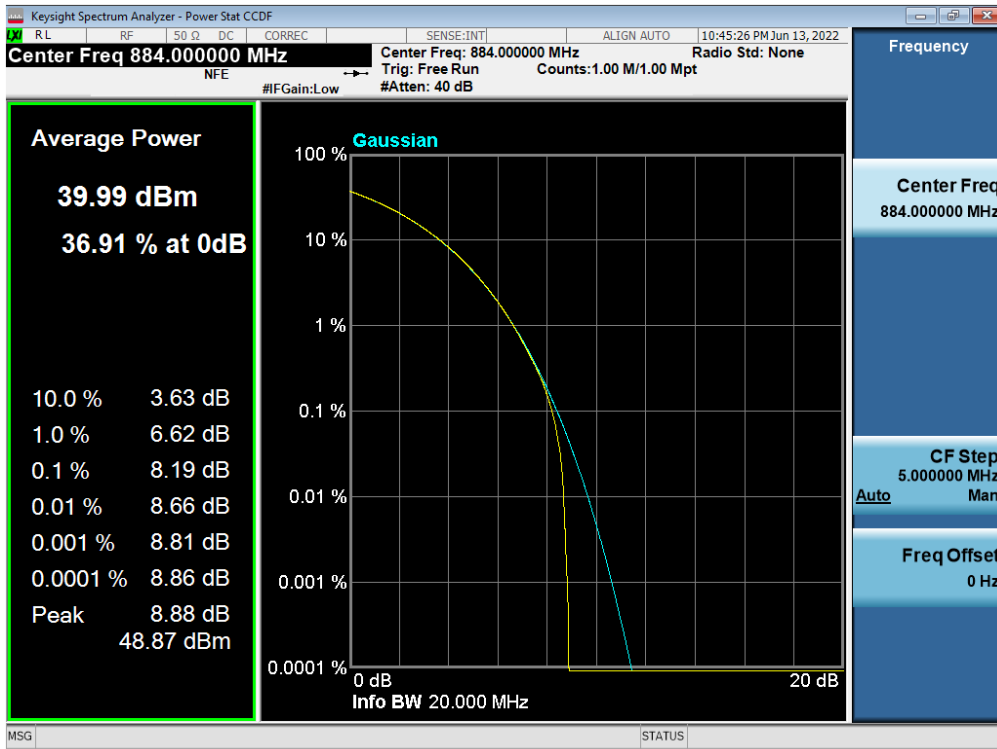
Antenna 1 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Low



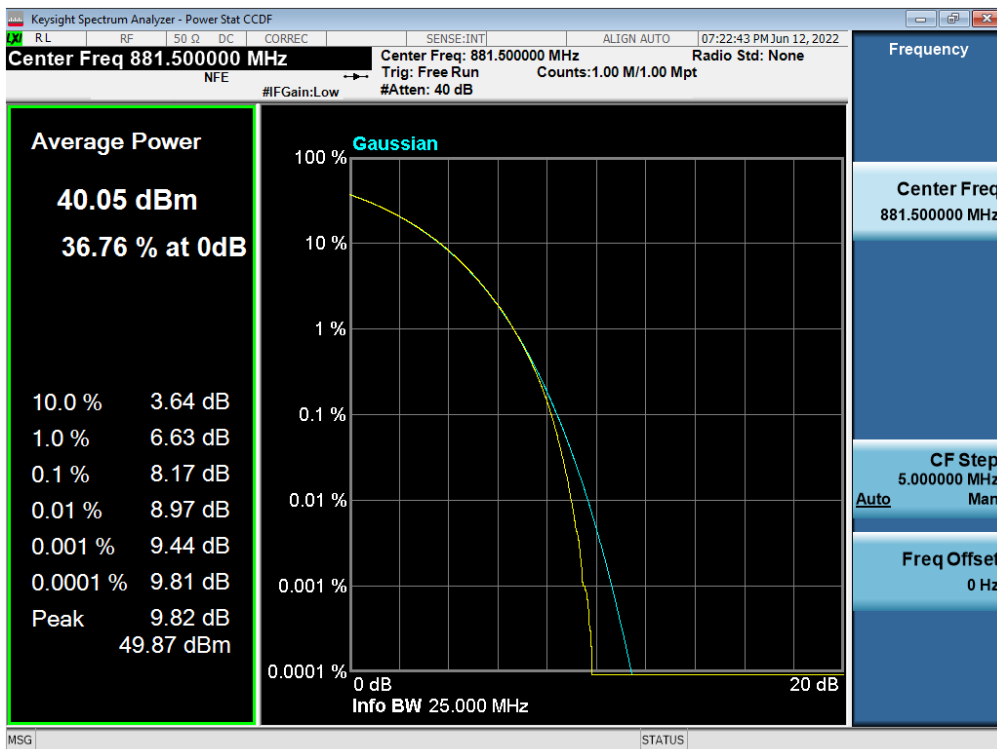
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low



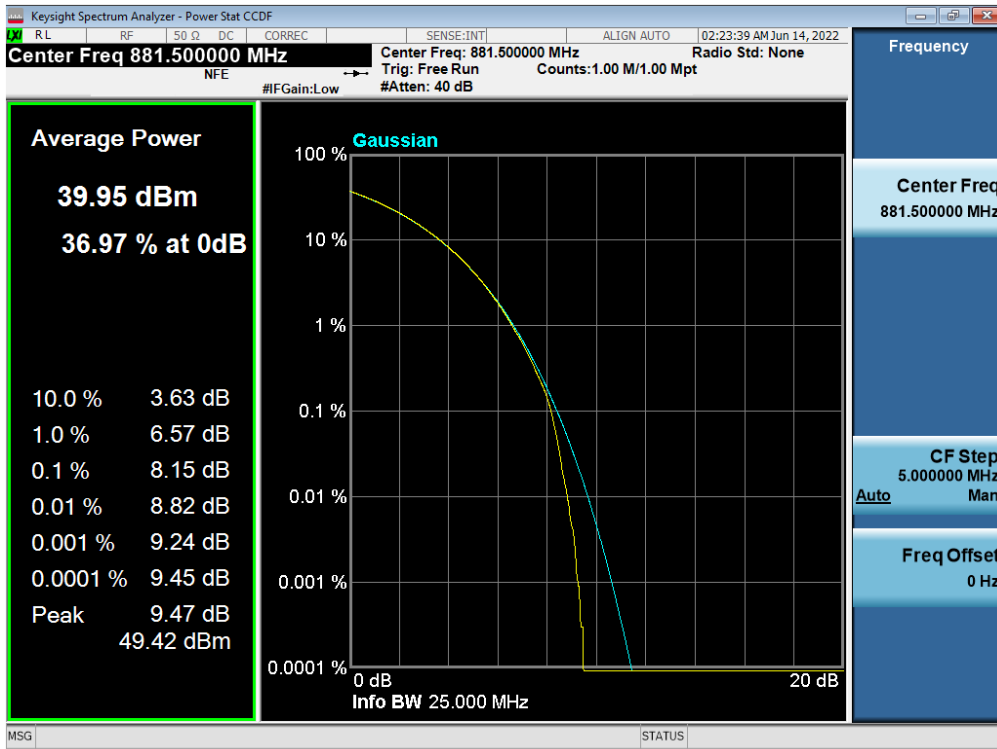
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 64QAM / High



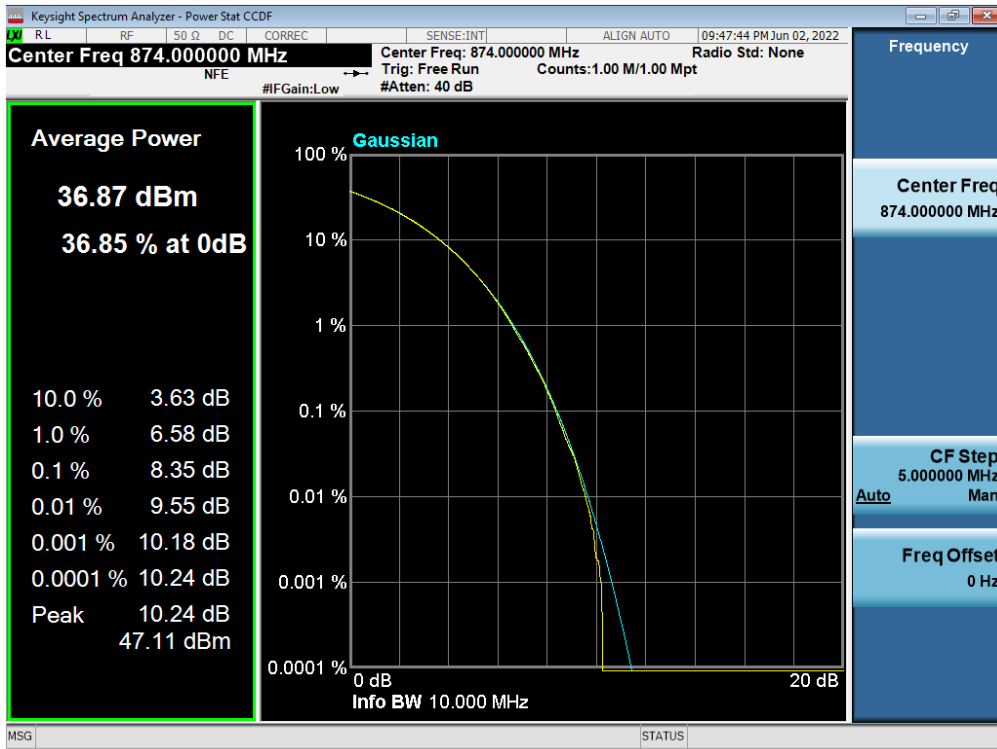
Antenna 3 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 256QAM / Middle



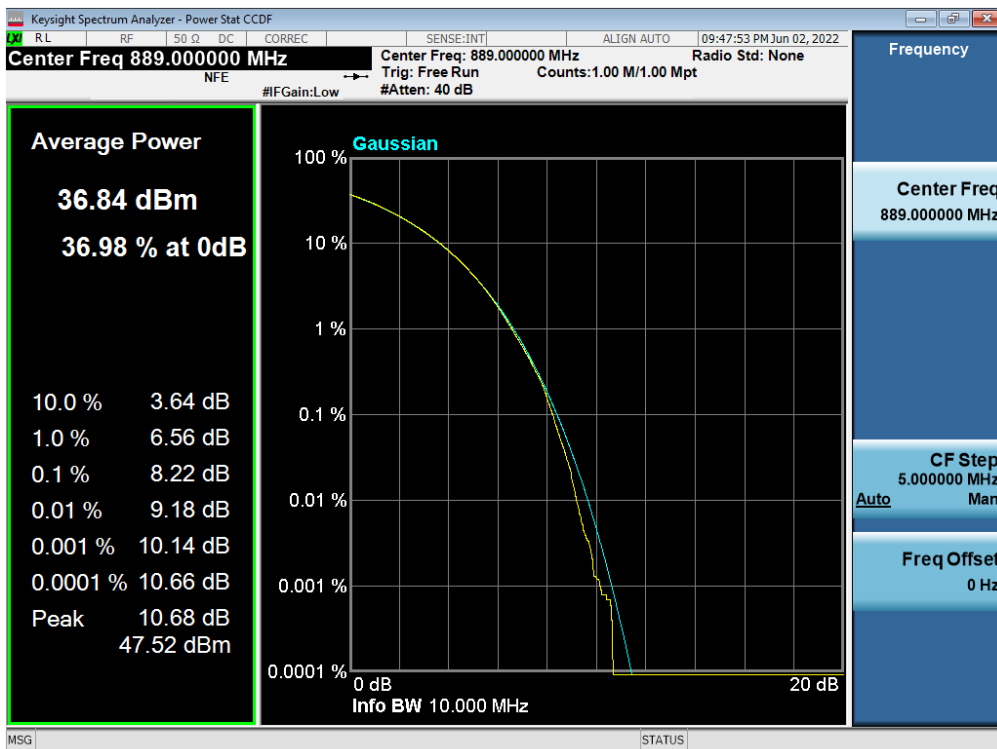
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle



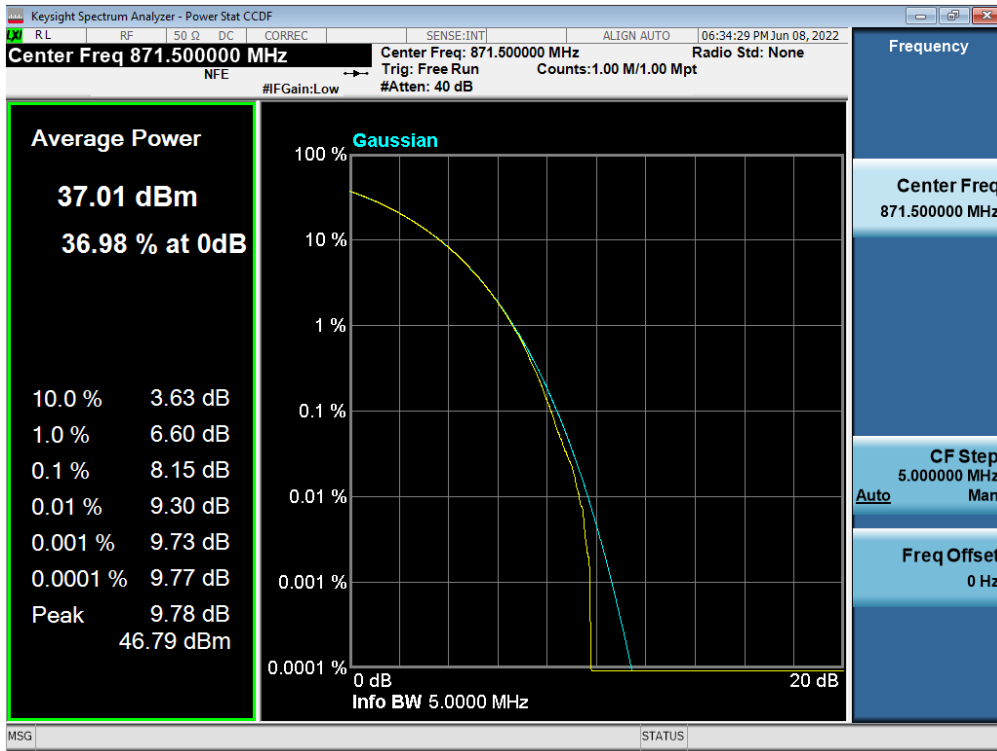
Antenna 3 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



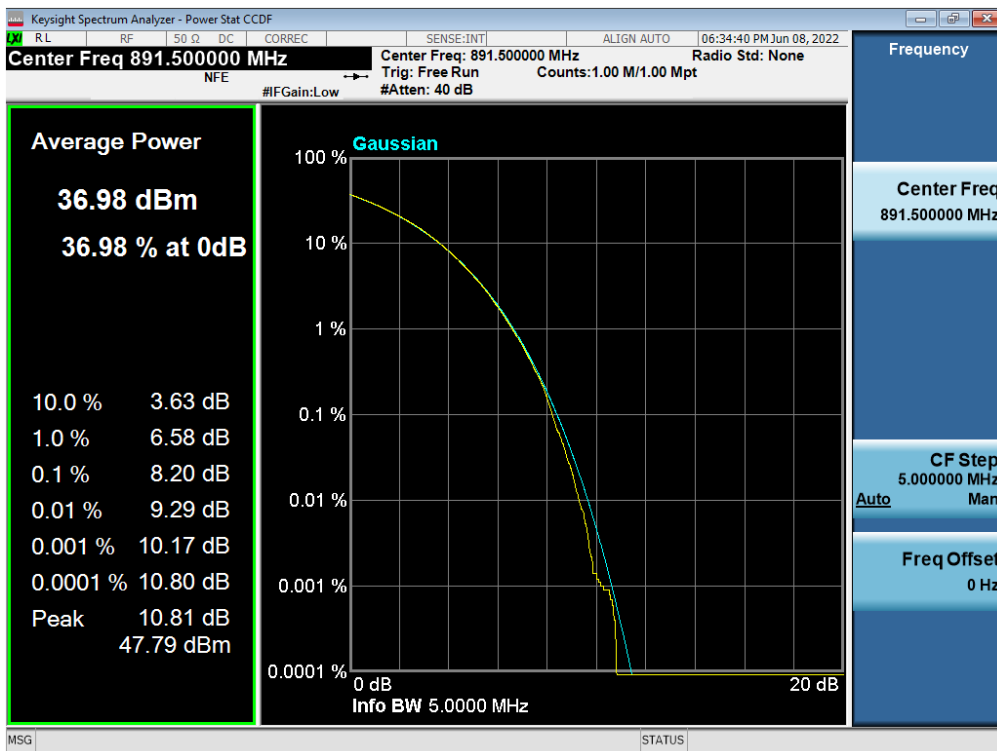
Antenna 3 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / High



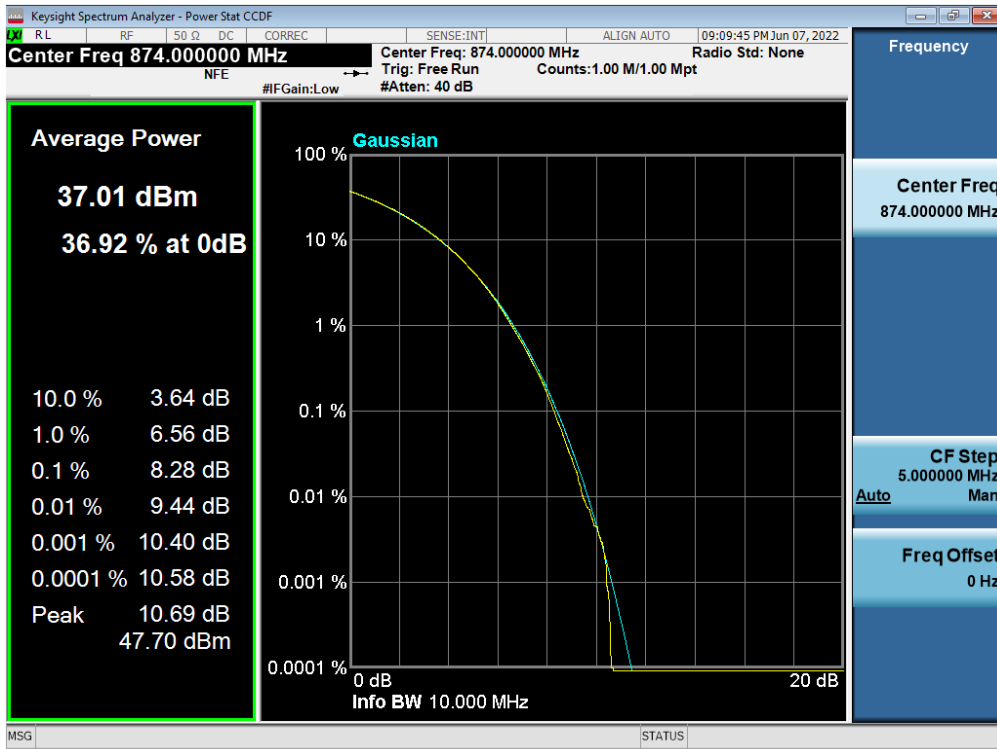
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / Low



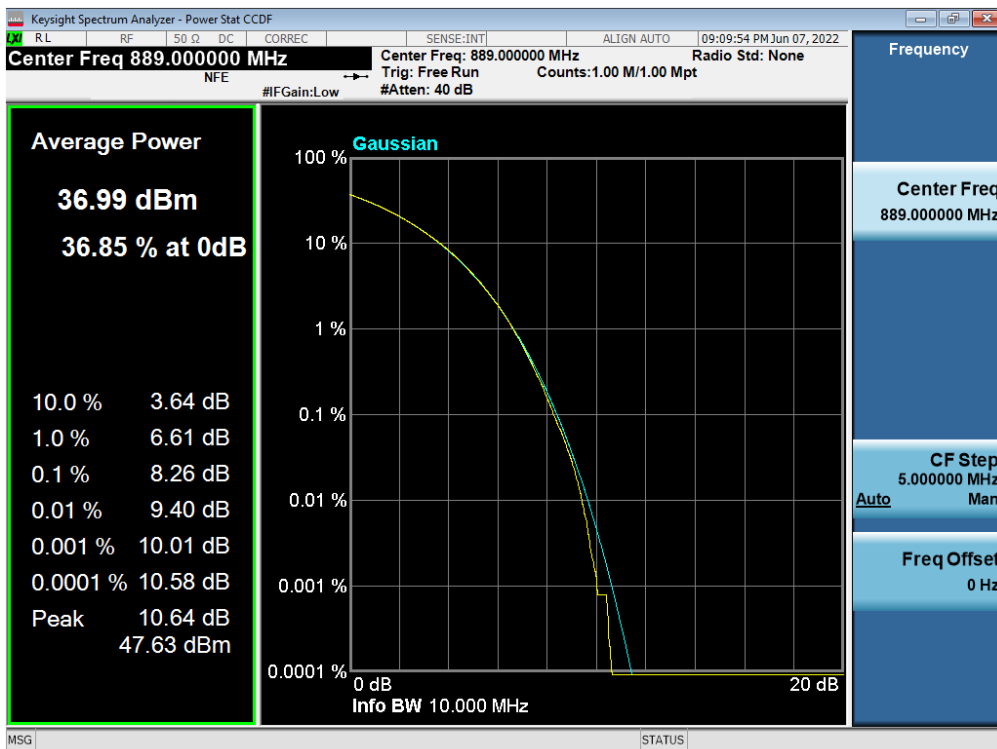
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High



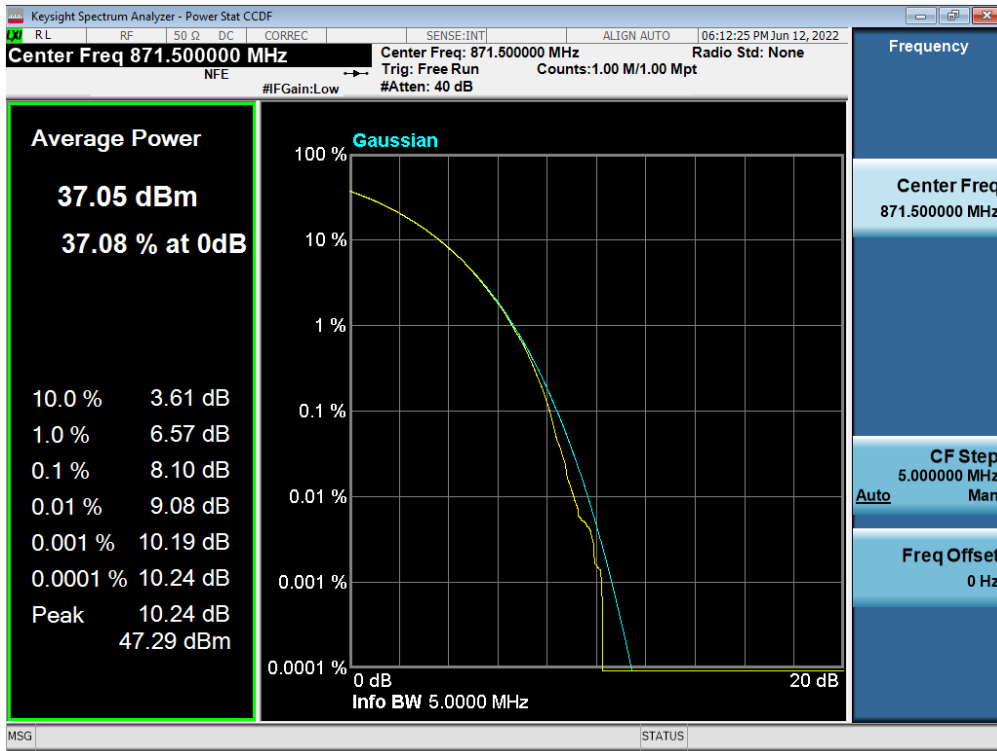
Antenna 1 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / Low



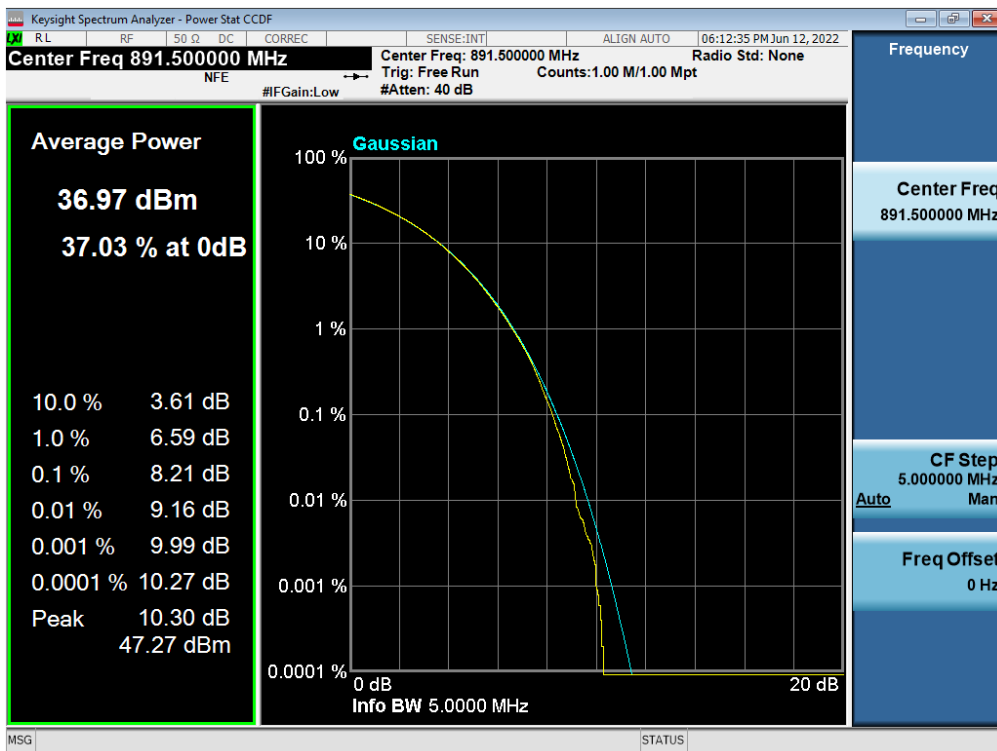
Antenna 1 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / High



Antenna 1 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 256QAM / Low

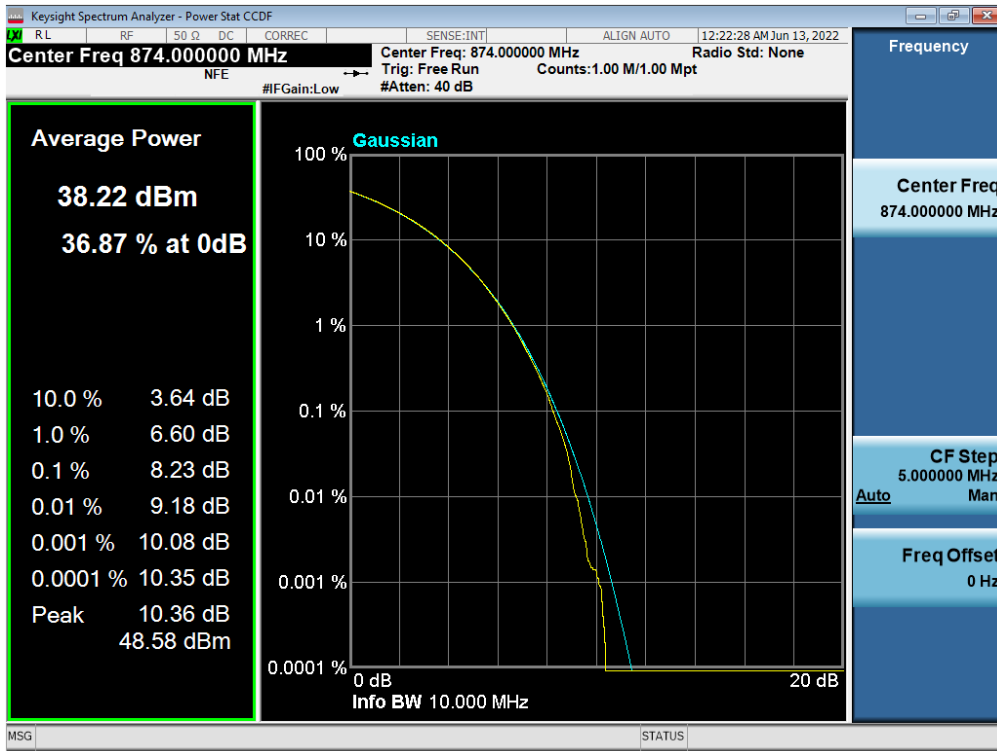


Antenna 1 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / LTE B5 5 MHz / 256QAM / High

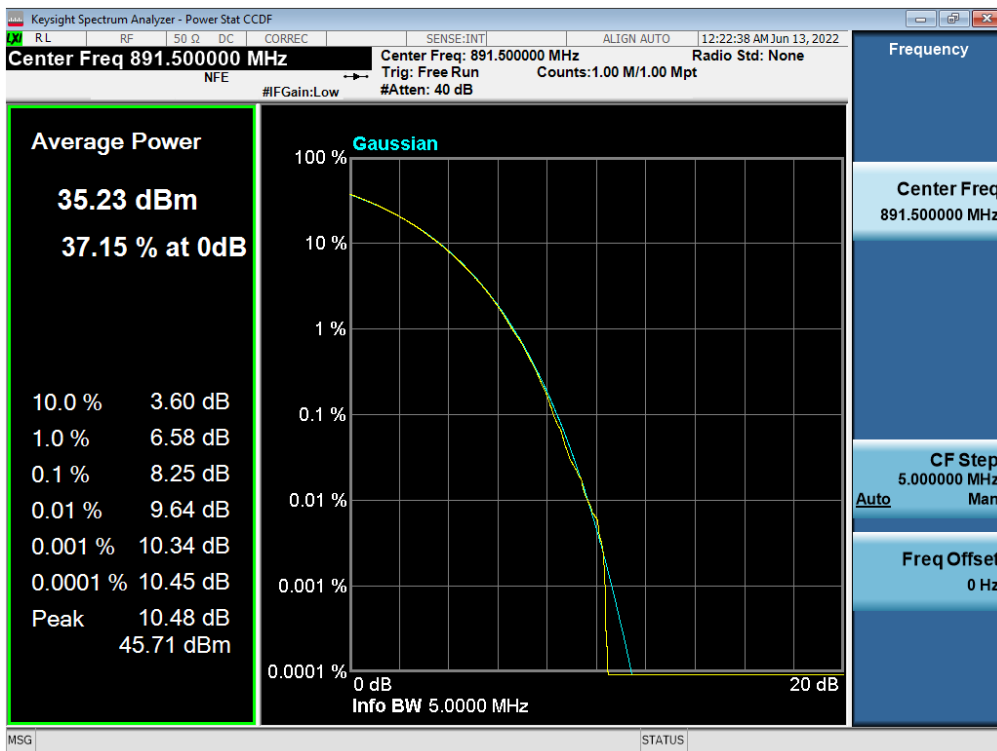




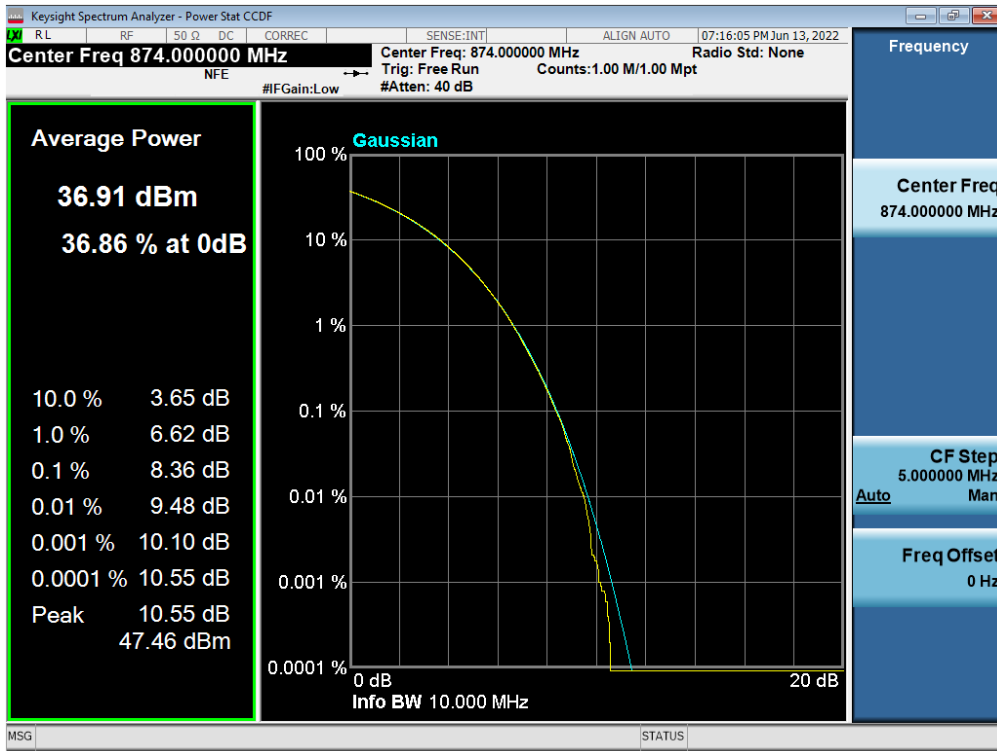
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



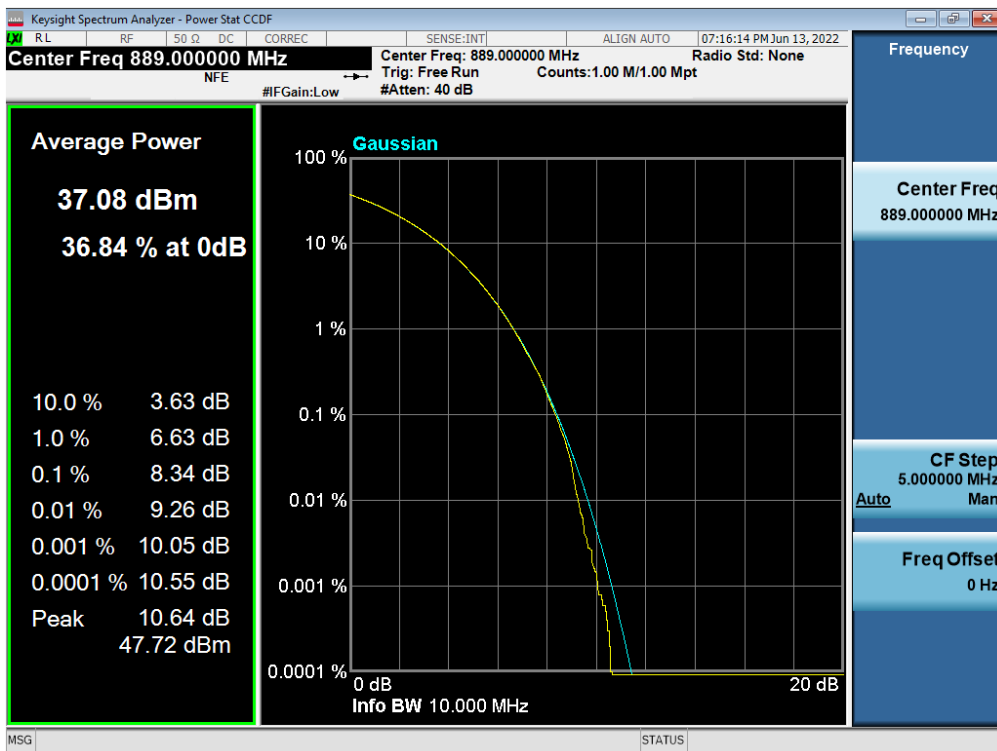
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / QPSK / High



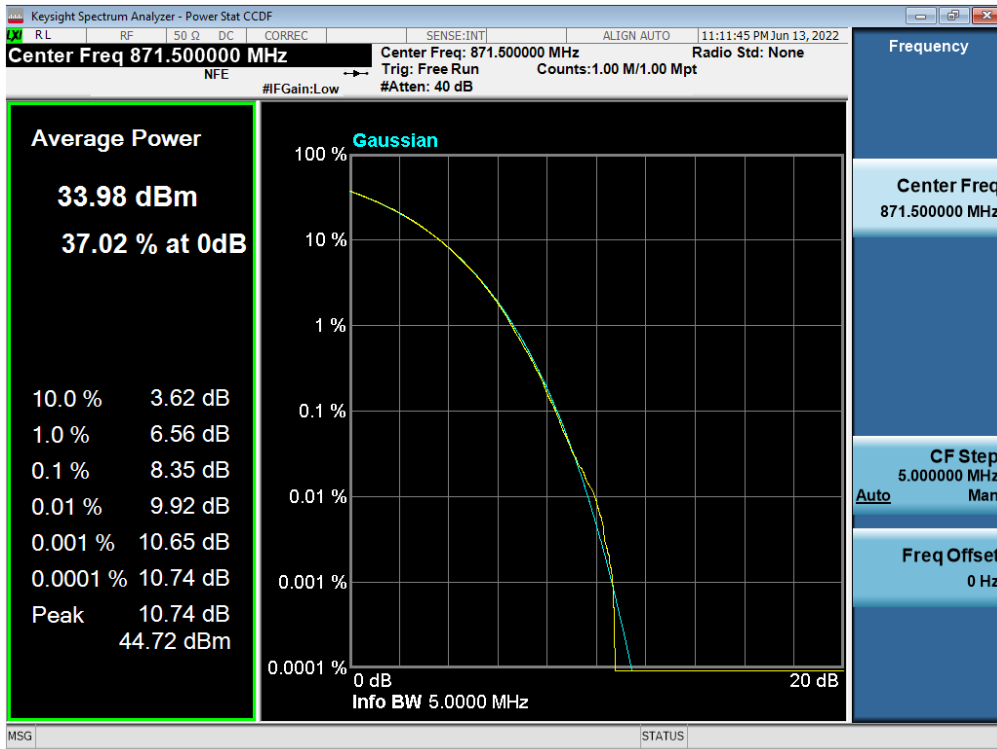
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



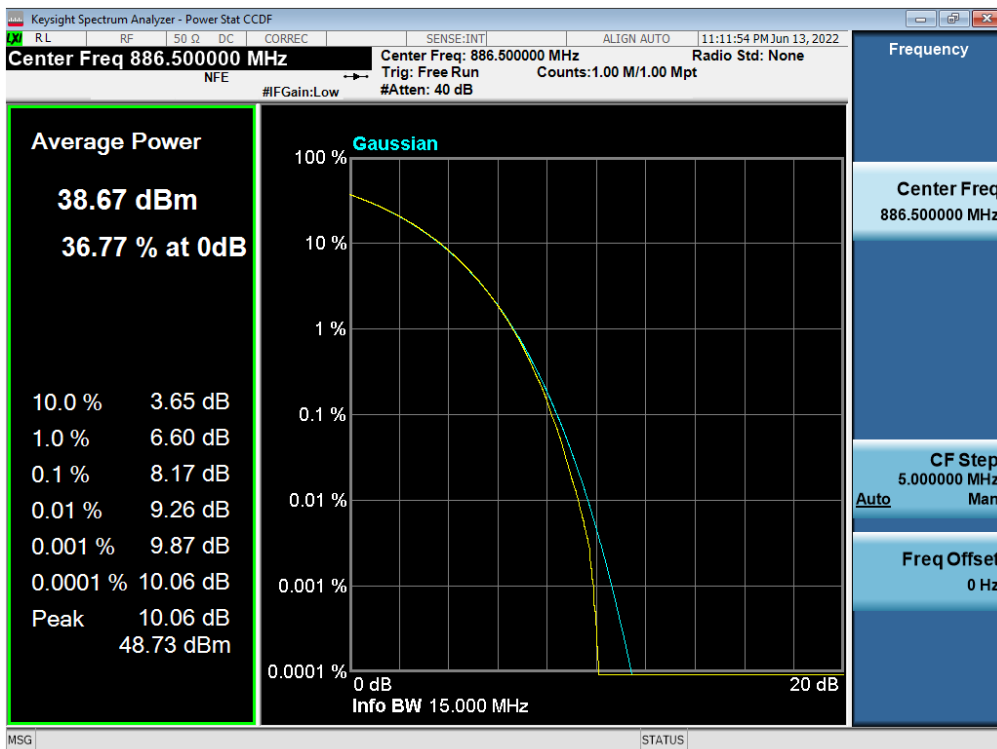
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / High



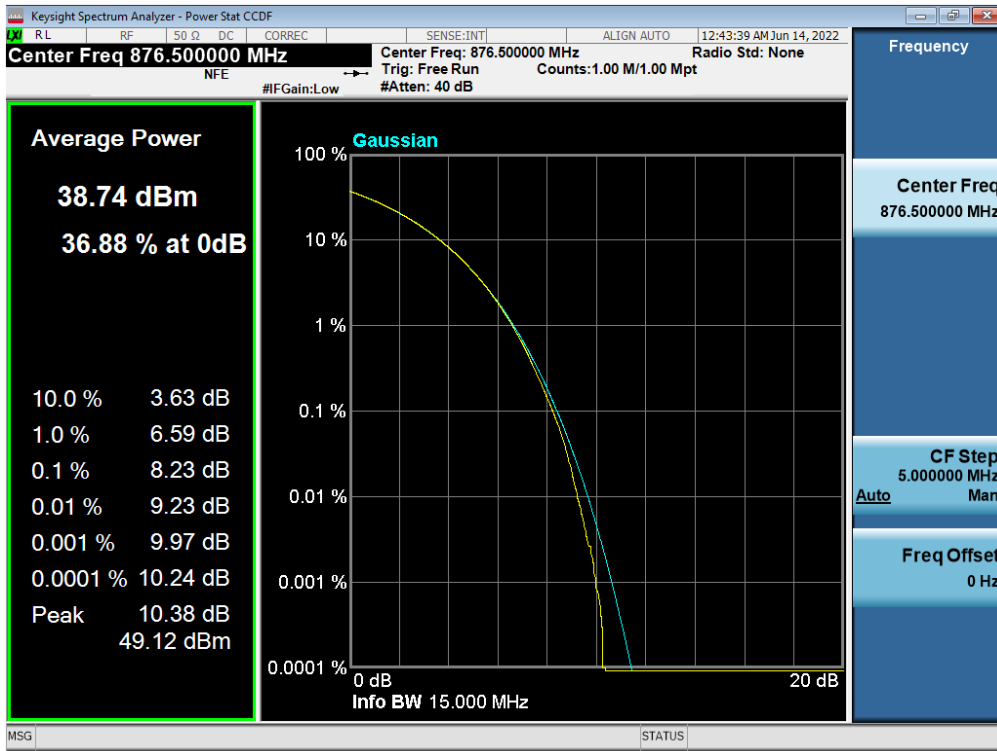
Antenna 0 / 5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C) / Non-Contiguous / 5G NR n5 5 MHz / QPSK / Low



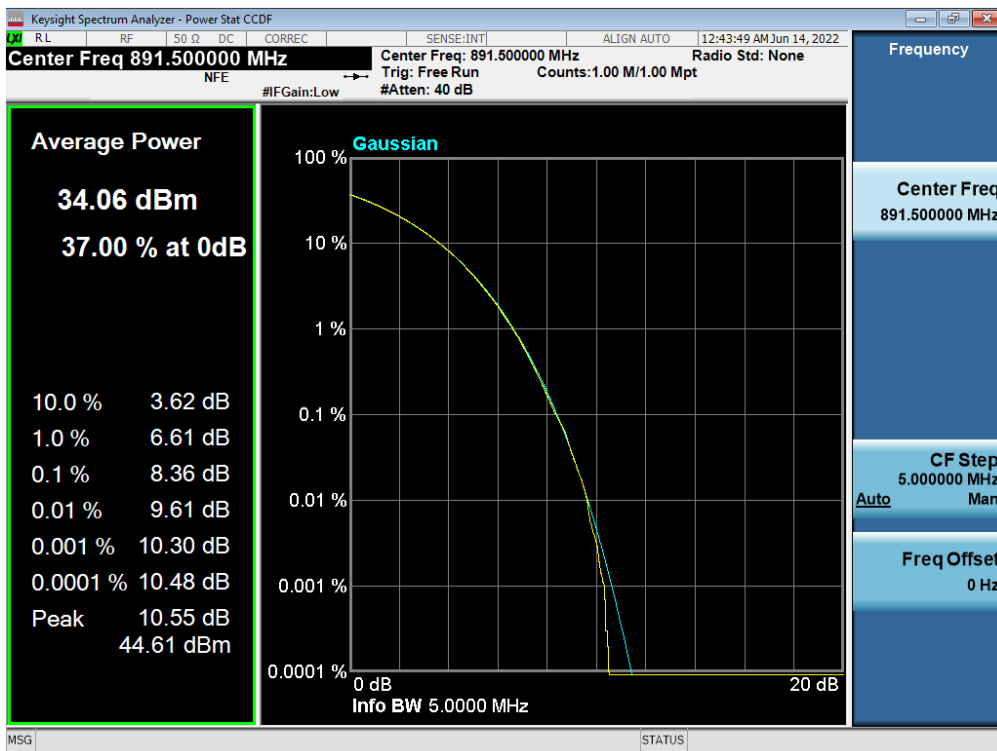
Antenna 0 / 5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C) / Non-Contiguous / LTE B5 5 MHz + B5 DSS 10 MHz / QPSK / High



Antenna 3 / (B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C) / Non-Contiguous / B5 DSS 10 MHz + LTE B5 5 MHz / 16QAM / Low



Antenna 3 / (B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C) / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / 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  $\geq 3 \times$  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  $1.5 \times \text{OBW}$  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  $\geq 3 \times \text{RBW}$ .
- 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**
**5G NR n5 5 MHz 1 Carrier**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	871.50	4.4713
		Middle	881.50	4.4785
		High	891.50	4.4759
	16QAM	Low	871.50	4.4894
		Middle	881.50	4.4931
		High	891.50	4.4877
	64QAM	Low	871.50	4.4785
		Middle	881.50	4.4831
		High	891.50	4.4767
	256QAM	Low	871.50	4.4876
		Middle	881.50	4.4932
		High	891.50	4.4851
1	QPSK	Low	871.50	4.4734
		Middle	881.50	4.4715
		High	891.50	4.4707
	16QAM	Low	871.50	4.4876
		Middle	881.50	4.4905
		High	891.50	4.4938
	64QAM	Low	871.50	4.4801
		Middle	881.50	4.4802
		High	891.50	4.4832
	256QAM	Low	871.50	4.4871
		Middle	881.50	4.4894
		High	891.50	4.4856

2	QPSK	Low	871.50	4.4705
		Middle	881.50	4.4717
		High	891.50	4.4752
	16QAM	Low	871.50	4.4965
		Middle	881.50	4.4868
		High	891.50	4.4910
	64QAM	Low	871.50	4.4728
		Middle	881.50	4.4810
		High	891.50	4.4784
	256QAM	Low	871.50	4.4872
		Middle	881.50	4.4859
		High	891.50	4.4786
3	QPSK	Low	871.50	4.4742
		Middle	881.50	4.4795
		High	891.50	4.4714
	16QAM	Low	871.50	4.4860
		Middle	881.50	4.4890
		High	891.50	4.4905
	64QAM	Low	871.50	4.4805
		Middle	881.50	4.4820
		High	891.50	4.4791
	256QAM	Low	871.50	4.4851
		Middle	881.50	4.4837
		High	891.50	4.4858



## 5G NR n5 10 MHz 1 Carrier

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	874.00	9.3149
		Middle	881.50	9.3235
		High	889.00	9.2749
	16QAM	Low	874.00	9.2522
		Middle	881.50	9.2403
		High	889.00	9.2382
	64QAM	Low	874.00	9.3077
		Middle	881.50	9.3175
		High	889.00	9.3186
	256QAM	Low	874.00	9.3021
		Middle	881.50	9.3159
		High	889.00	9.3303
1	QPSK	Low	874.00	9.2966
		Middle	881.50	9.3069
		High	889.00	9.2762
	16QAM	Low	874.00	9.2320
		Middle	881.50	9.2566
		High	889.00	9.2431
	64QAM	Low	874.00	9.3303
		Middle	881.50	9.2997
		High	889.00	9.3127
	256QAM	Low	874.00	9.3228
		Middle	881.50	9.3020
		High	889.00	9.3122

2	QPSK	Low	874.00	9.2999
		Middle	881.50	9.3309
		High	889.00	9.3180
	16QAM	Low	874.00	9.2279
		Middle	881.50	9.2650
		High	889.00	9.2828
	64QAM	Low	874.00	9.3198
		Middle	881.50	9.2957
		High	889.00	9.3123
	256QAM	Low	874.00	9.3186
		Middle	881.50	9.3137
		High	889.00	9.3060
3	QPSK	Low	874.00	9.3174
		Middle	881.50	9.2929
		High	889.00	9.3034
	16QAM	Low	874.00	9.2298
		Middle	881.50	9.2628
		High	889.00	9.2512
	64QAM	Low	874.00	9.3098
		Middle	881.50	9.3066
		High	889.00	9.3168
	256QAM	Low	874.00	9.3124
		Middle	881.50	9.3065
		High	889.00	9.2981

**Tabular Data of Contiguous Occupied Bandwidth**
**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	879.00	19.003
		Middle	881.50	19.140
		High	884.00	19.068
	16QAM	Low	879.00	19.026
		Middle	881.50	18.994
		High	884.00	18.953
	64QAM	Low	879.00	19.120
		Middle	881.50	19.105
		High	884.00	19.126
	256QAM	Low	879.00	18.981
		Middle	881.50	18.997
		High	884.00	18.993
1	QPSK	Low	879.00	19.040
		Middle	881.50	19.116
		High	884.00	18.995
	16QAM	Low	879.00	18.917
		Middle	881.50	18.975
		High	884.00	18.969
	64QAM	Low	879.00	19.034
		Middle	881.50	19.111
		High	884.00	19.058
	256QAM	Low	879.00	19.082
		Middle	881.50	19.054
		High	884.00	19.067

2	QPSK	Low	879.00	18.959
		Middle	881.50	19.057
		High	884.00	19.086
	16QAM	Low	879.00	19.006
		Middle	881.50	19.017
		High	884.00	19.045
	64QAM	Low	879.00	19.038
		Middle	881.50	19.069
		High	884.00	19.137
	256QAM	Low	879.00	19.108
		Middle	881.50	19.143
		High	884.00	19.099
3	QPSK	Low	879.00	19.122
		Middle	881.50	19.017
		High	884.00	18.944
	16QAM	Low	879.00	18.974
		Middle	881.50	18.953
		High	884.00	18.973
	64QAM	Low	879.00	19.120
		Middle	881.50	19.007
		High	884.00	19.085
	256QAM	Low	879.00	19.123
		Middle	881.50	18.989
		High	884.00	18.985

## 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	874.00	9.4600
		Middle	881.50	9.4324
		High	889.00	9.4541
	16QAM	Low	874.00	9.4856
		Middle	881.50	9.4779
		High	889.00	9.4826
	64QAM	Low	874.00	9.4703
		Middle	881.50	9.4652
		High	889.00	9.4590
	256QAM	Low	874.00	9.4403
		Middle	881.50	9.4500
		High	889.00	9.4547
1	QPSK	Low	874.00	9.4313
		Middle	881.50	9.4288
		High	889.00	9.4308
	16QAM	Low	874.00	9.5032
		Middle	881.50	9.4665
		High	889.00	9.4680
	64QAM	Low	874.00	9.4646
		Middle	881.50	9.4571
		High	889.00	9.4644
	256QAM	Low	874.00	9.4377
		Middle	881.50	9.4723
		High	889.00	9.4266

2	QPSK	Low	874.00	9.4554
		Middle	881.50	9.4637
		High	889.00	9.4309
	16QAM	Low	874.00	9.4917
		Middle	881.50	9.4794
		High	889.00	9.4879
	64QAM	Low	874.00	9.4621
		Middle	881.50	9.4695
		High	889.00	9.4680
	256QAM	Low	874.00	9.4552
		Middle	881.50	9.4637
		High	889.00	9.4592
3	QPSK	Low	874.00	9.4526
		Middle	881.50	9.4575
		High	889.00	9.4391
	16QAM	Low	874.00	9.4974
		Middle	881.50	9.4761
		High	889.00	9.4865
	64QAM	Low	874.00	9.4441
		Middle	881.50	9.4535
		High	889.00	9.4439
	256QAM	Low	874.00	9.4668
		Middle	881.50	9.4404
		High	889.00	9.4451

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	879.00	19.237
		Middle	881.50	19.246
		High	884.00	19.216
	16QAM	Low	879.00	19.132
		Middle	881.50	19.086
		High	884.00	19.099
	64QAM	Low	879.00	19.246
		Middle	881.50	19.264
		High	884.00	19.236
	256QAM	Low	879.00	19.235
		Middle	881.50	19.268
		High	884.00	19.214
1	QPSK	Low	879.00	19.276
		Middle	881.50	19.265
		High	884.00	19.245
	16QAM	Low	879.00	19.104
		Middle	881.50	19.141
		High	884.00	19.134
	64QAM	Low	879.00	19.243
		Middle	881.50	19.258
		High	884.00	19.235
	256QAM	Low	879.00	19.252
		Middle	881.50	19.262
		High	884.00	19.227

2	QPSK	Low	879.00	19.238
		Middle	881.50	19.249
		High	884.00	19.235
	16QAM	Low	879.00	19.091
		Middle	881.50	19.134
		High	884.00	19.131
	64QAM	Low	879.00	19.247
		Middle	881.50	19.225
		High	884.00	19.269
	256QAM	Low	879.00	19.264
		Middle	881.50	19.262
		High	884.00	19.198
3	QPSK	Low	879.00	19.258
		Middle	881.50	19.228
		High	884.00	19.224
	16QAM	Low	879.00	19.090
		Middle	881.50	19.131
		High	884.00	19.149
	64QAM	Low	879.00	19.244
		Middle	881.50	19.243
		High	884.00	19.267
	256QAM	Low	879.00	19.234
		Middle	881.50	19.227
		High	884.00	19.231



**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	874.00	9.4526
		Middle	881.50	9.4787
		High	889.00	9.4488
	16QAM	Low	874.00	9.4484
		Middle	881.50	9.4465
		High	889.00	9.4852
	64QAM	Low	874.00	9.4887
		Middle	881.50	9.4521
		High	889.00	9.4553
256QAM	Low	874.00	9.4610	
	Middle	881.50	9.4720	
	High	889.00	9.4578	
1	QPSK	Low	874.00	9.4552
		Middle	881.50	9.4585
		High	889.00	9.4535
	16QAM	Low	874.00	9.4256
		Middle	881.50	9.4289
		High	889.00	9.5125
	64QAM	Low	874.00	9.4804
		Middle	881.50	9.4829
		High	889.00	9.4609
256QAM	Low	874.00	9.4465	
	Middle	881.50	9.4641	
	High	889.00	9.4592	

2	QPSK	Low	874.00	9.4694
		Middle	881.50	9.4688
		High	889.00	9.4569
	16QAM	Low	874.00	9.4585
		Middle	881.50	9.4651
		High	889.00	9.4878
	64QAM	Low	874.00	9.4650
		Middle	881.50	9.4842
		High	889.00	9.4561
	256QAM	Low	874.00	9.4572
		Middle	881.50	9.4547
		High	889.00	9.4538
3	QPSK	Low	874.00	9.4600
		Middle	881.50	9.4665
		High	889.00	9.4610
	16QAM	Low	874.00	9.4472
		Middle	881.50	9.4162
		High	889.00	9.4848
	64QAM	Low	874.00	9.4825
		Middle	881.50	9.4564
		High	889.00	9.4474
	256QAM	Low	874.00	9.4605
		Middle	881.50	9.4491
		High	889.00	9.4581

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	876.50	14.301
		Middle	881.50	14.312
		High	886.50	14.260
	16QAM	Low	876.50	14.326
		Middle	881.50	14.321
		High	886.50	14.233
	64QAM	Low	876.50	14.259
		Middle	881.50	14.249
		High	886.50	14.288
	256QAM	Low	876.50	14.298
		Middle	881.50	14.316
		High	886.50	14.310
1	QPSK	Low	876.50	14.310
		Middle	881.50	14.321
		High	886.50	14.222
	16QAM	Low	876.50	14.330
		Middle	881.50	14.251
		High	886.50	14.205
	64QAM	Low	876.50	14.268
		Middle	881.50	14.230
		High	886.50	14.300
	256QAM	Low	876.50	14.229
		Middle	881.50	14.279
		High	886.50	14.296

2	QPSK	Low	876.50	14.235
		Middle	881.50	14.225
		High	886.50	14.262
	16QAM	Low	876.50	14.275
		Middle	881.50	14.269
		High	886.50	14.217
	64QAM	Low	876.50	14.297
		Middle	881.50	14.274
		High	886.50	14.259
	256QAM	Low	876.50	14.244
		Middle	881.50	14.221
		High	886.50	14.336
3	QPSK	Low	876.50	14.198
		Middle	881.50	14.259
		High	886.50	14.314
	16QAM	Low	876.50	14.334
		Middle	881.50	14.333
		High	886.50	14.184
	64QAM	Low	876.50	14.230
		Middle	881.50	14.274
		High	886.50	14.288
	256QAM	Low	876.50	14.304
		Middle	881.50	14.268
		High	886.50	14.308

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	879.00	19.153
		Middle	881.50	19.195
		High	884.00	19.110
	16QAM	Low	879.00	19.043
		Middle	881.50	19.034
		High	884.00	19.112
	64QAM	Low	879.00	19.168
		Middle	881.50	19.146
		High	884.00	19.148
	256QAM	Low	879.00	19.083
		Middle	881.50	19.100
		High	884.00	19.138
1	QPSK	Low	879.00	19.023
		Middle	881.50	19.227
		High	884.00	19.101
	16QAM	Low	879.00	19.050
		Middle	881.50	19.076
		High	884.00	19.076
	64QAM	Low	879.00	19.126
		Middle	881.50	19.191
		High	884.00	19.203
	256QAM	Low	879.00	19.175
		Middle	881.50	19.138
		High	884.00	19.143

2	QPSK	Low	879.00	19.045
		Middle	881.50	19.193
		High	884.00	19.187
	16QAM	Low	879.00	19.006
		Middle	881.50	19.067
		High	884.00	19.088
	64QAM	Low	879.00	19.138
		Middle	881.50	19.161
		High	884.00	19.179
	256QAM	Low	879.00	19.124
		Middle	881.50	19.168
		High	884.00	19.175
3	QPSK	Low	879.00	19.108
		Middle	881.50	19.091
		High	884.00	19.155
	16QAM	Low	879.00	19.087
		Middle	881.50	19.045
		High	884.00	19.100
	64QAM	Low	879.00	19.170
		Middle	881.50	19.131
		High	884.00	19.134
	256QAM	Low	879.00	19.167
		Middle	881.50	19.086
		High	884.00	19.141

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Low	879.00	19.174
		Middle	881.50	19.230
		High	884.00	19.209
	16QAM	Low	879.00	19.199
		Middle	881.50	19.211
		High	884.00	19.171
	64QAM	Low	879.00	19.303
		Middle	881.50	19.300
		High	884.00	19.240
	256QAM	Low	879.00	19.221
		Middle	881.50	19.231
		High	884.00	19.245
1	QPSK	Low	879.00	19.216
		Middle	881.50	19.273
		High	884.00	19.201
	16QAM	Low	879.00	19.146
		Middle	881.50	19.137
		High	884.00	19.119
	64QAM	Low	879.00	19.240
		Middle	881.50	19.203
		High	884.00	19.185
	256QAM	Low	879.00	19.197
		Middle	881.50	19.188
		High	884.00	19.180

2	QPSK	Low	879.00	19.232
		Middle	881.50	19.288
		High	884.00	19.218
	16QAM	Low	879.00	19.193
		Middle	881.50	19.170
		High	884.00	19.157
	64QAM	Low	879.00	19.227
		Middle	881.50	19.341
		High	884.00	19.231
	256QAM	Low	879.00	19.253
		Middle	881.50	19.245
		High	884.00	19.197
3	QPSK	Low	879.00	19.290
		Middle	881.50	19.298
		High	884.00	19.226
	16QAM	Low	879.00	19.193
		Middle	881.50	19.179
		High	884.00	19.183
	64QAM	Low	879.00	19.147
		Middle	881.50	19.228
		High	884.00	19.208
	256QAM	Low	879.00	19.182
		Middle	881.50	19.308
		High	884.00	19.176



**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Middle	881.50	24.226
	16QAM	Middle	881.50	24.361
	64QAM	Middle	881.50	24.302
	256QAM	Middle	881.50	24.303
1	QPSK	Middle	881.50	24.241
	16QAM	Middle	881.50	24.326
	64QAM	Middle	881.50	24.293
	256QAM	Middle	881.50	24.248
2	QPSK	Middle	881.50	24.262
	16QAM	Middle	881.50	24.321
	64QAM	Middle	881.50	24.293
	256QAM	Middle	881.50	24.277
3	QPSK	Middle	881.50	24.299
	16QAM	Middle	881.50	24.228
	64QAM	Middle	881.50	24.299
	256QAM	Middle	881.50	24.342

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant	Mod	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
0	QPSK	Middle	881.50	24.235
	16QAM	Middle	881.50	24.179
	64QAM	Middle	881.50	24.180
	256QAM	Middle	881.50	24.174
1	QPSK	Middle	881.50	24.159
	16QAM	Middle	881.50	24.243
	64QAM	Middle	881.50	24.169
	256QAM	Middle	881.50	24.187
2	QPSK	Middle	881.50	24.145
	16QAM	Middle	881.50	24.144
	64QAM	Middle	881.50	24.177
	256QAM	Middle	881.50	24.228
3	QPSK	Middle	881.50	24.192
	16QAM	Middle	881.50	24.112
	64QAM	Middle	881.50	24.127
	256QAM	Middle	881.50	24.207

**Tabular Data of Non-Contiguous Occupied Bandwidth**
**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant	Mod	B5 DSS 10 MHz		B5 DSS 10 MHz		Total OBW (MHz)
		Frequency (MHz)	Measured Value (MHz)	Frequency (MHz)	Measured Value (MHz)	
0	QPSK	874.00	9.2173	889.00	9.2384	18.456
	16QAM	874.00	9.0786	889.00	9.1133	18.192
	64QAM	874.00	9.1974	889.00	9.2833	18.481
	256QAM	874.00	9.2113	889.00	9.1385	18.350
1	QPSK	874.00	9.2128	889.00	9.2013	18.414
	16QAM	874.00	9.1091	889.00	9.1263	18.235
	64QAM	874.00	9.1873	889.00	9.2598	18.447
	256QAM	874.00	9.1955	889.00	9.2049	18.400
2	QPSK	874.00	9.2359	889.00	9.1681	18.404
	16QAM	874.00	9.1398	889.00	9.1496	18.289
	64QAM	874.00	9.2466	889.00	9.2796	18.526
	256QAM	874.00	9.1890	889.00	9.1868	18.376
3	QPSK	874.00	9.1758	889.00	9.2069	18.383
	16QAM	874.00	9.0526	889.00	9.0315	18.084
	64QAM	874.00	9.2104	889.00	9.2060	18.416
	256QAM	874.00	9.1806	889.00	9.2921	18.473

**5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant	Mod	5G NR n5 5 MHz		5G NR n5 5 MHz		Total OBW (MHz)
		Frequency (MHz)	Measured Value (MHz)	Frequency (MHz)	Measured Value (MHz)	
0	QPSK	871.50	4.4737	891.50	4.4782	8.9519
	16QAM	871.50	4.4920	891.50	4.4904	8.9824
	64QAM	871.50	4.4816	891.50	4.4753	8.9568
	256QAM	871.50	4.4860	891.50	4.4729	8.9588
1	QPSK	871.50	4.4733	891.50	4.4785	8.9519
	16QAM	871.50	4.4904	891.50	4.4890	8.9794
	64QAM	871.50	4.4837	891.50	4.4842	8.9679
	256QAM	871.50	4.4867	891.50	4.4766	8.9633
2	QPSK	871.50	4.4716	891.50	4.4764	8.9480
	16QAM	871.50	4.4907	891.50	4.4919	8.9827
	64QAM	871.50	4.4844	891.50	4.4766	8.9610
	256QAM	871.50	4.4819	891.50	4.4712	8.9531
3	QPSK	871.50	4.4719	891.50	4.4773	8.9493
	16QAM	871.50	4.4915	891.50	4.4876	8.9790
	64QAM	871.50	4.4747	891.50	4.4755	8.9502
	256QAM	871.50	4.4860	891.50	4.4800	8.9661

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant	Mod	5G NR n5 10 MHz		5G NR n5 10 MHz		Total OBW (MHz)
		Frequency (MHz)	Measured Value (MHz)	Frequency (MHz)	Measured Value (MHz)	
0	QPSK	874.00	9.2900	889.00	9.3133	18.603
	16QAM	874.00	9.2460	889.00	9.2582	18.504
	64QAM	874.00	9.3227	889.00	9.2901	18.613
	256QAM	874.00	9.2969	889.00	9.2971	18.594
1	QPSK	874.00	9.2951	889.00	9.3313	18.626
	16QAM	874.00	9.2625	889.00	9.2612	18.524
	64QAM	874.00	9.2945	889.00	9.3152	18.610
	256QAM	874.00	9.2943	889.00	9.3134	18.608
2	QPSK	874.00	9.3128	889.00	9.3066	18.619
	16QAM	874.00	9.2526	889.00	9.2352	18.488
	64QAM	874.00	9.3176	889.00	9.3150	18.633
	256QAM	874.00	9.2993	889.00	9.2961	18.595
3	QPSK	874.00	9.3175	889.00	9.2996	18.617
	16QAM	874.00	9.2506	889.00	9.2524	18.503
	64QAM	874.00	9.3015	889.00	9.3169	18.618
	256QAM	874.00	9.3226	889.00	9.2959	18.619

**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant	Mod	5G NR n5 5 MHz		LTE B5 5 MHz		Total OBW (MHz)
		Frequency (MHz)	Measured Value (MHz)	Frequency (MHz)	Measured Value (MHz)	
0	QPSK	871.50	4.4721	891.50	4.4838	8.9559
	16QAM	871.50	4.4932	891.50	4.4776	8.9708
	64QAM	871.50	4.4832	891.50	4.4900	8.9733
	256QAM	871.50	4.4780	891.50	4.5012	8.9792
1	QPSK	871.50	4.4669	891.50	4.4853	8.9522
	16QAM	871.50	4.4906	891.50	4.4788	8.9693
	64QAM	871.50	4.4773	891.50	4.4912	8.9686
	256QAM	871.50	4.4800	891.50	4.5032	8.9832
2	QPSK	871.50	4.4726	891.50	4.4834	8.9561
	16QAM	871.50	4.4869	891.50	4.4868	8.9737
	64QAM	871.50	4.4865	891.50	4.4846	8.9712
	256QAM	871.50	4.4783	891.50	4.4929	8.9712
3	QPSK	871.50	4.4703	891.50	4.4857	8.9561
	16QAM	871.50	4.4929	891.50	4.4757	8.9686
	64QAM	871.50	4.4769	891.50	4.4938	8.9707
	256QAM	871.50	4.4792	891.50	4.4919	8.9711

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant	Mod	B5 DSS 10 MHz		5G NR n5 5 MHz		Total OBW (MHz)
		Frequency (MHz)	Measured Value (MHz)	Frequency (MHz)	Measured Value (MHz)	
0	QPSK	874.00	9.1711	891.50	4.4779	13.649
	16QAM	874.00	9.1546	891.50	4.4859	13.640
	64QAM	874.00	9.2151	891.50	4.4835	13.699
	256QAM	874.00	9.1822	891.50	4.4728	13.655
1	QPSK	874.00	9.2303	891.50	4.4785	13.709
	16QAM	874.00	9.0295	891.50	4.4897	13.519
	64QAM	874.00	9.1755	891.50	4.4788	13.654
	256QAM	874.00	9.2706	891.50	4.4794	13.750
2	QPSK	874.00	9.1856	891.50	4.4759	13.662
	16QAM	874.00	9.0898	891.50	4.4926	13.582
	64QAM	874.00	9.1459	891.50	4.4824	13.628
	256QAM	874.00	9.1577	891.50	4.4792	13.637
3	QPSK	874.00	9.1783	891.50	4.4765	13.655
	16QAM	874.00	9.0881	891.50	4.4878	13.576
	64QAM	874.00	9.2219	891.50	4.4780	13.700
	256QAM	874.00	9.2081	891.50	4.4835	13.692

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant	Mod	B5 DSS 10 MHz		5G NR n5 10 MHz		Total OBW (MHz)
		Frequency (MHz)	Measured Value (MHz)	Frequency (MHz)	Measured Value (MHz)	
0	QPSK	874.00	9.2292	889.00	9.3016	18.531
	16QAM	874.00	9.0964	889.00	9.2380	18.334
	64QAM	874.00	9.2327	889.00	9.3052	18.538
	256QAM	874.00	9.1761	889.00	9.3268	18.503
1	QPSK	874.00	9.1061	889.00	9.3070	18.413
	16QAM	874.00	9.1479	889.00	9.2564	18.404
	64QAM	874.00	9.2709	889.00	9.3031	18.574
	256QAM	874.00	9.1881	889.00	9.3108	18.499
2	QPSK	874.00	9.1987	889.00	9.3072	18.506
	16QAM	874.00	9.1311	889.00	9.2592	18.390
	64QAM	874.00	9.1680	889.00	9.3407	18.509
	256QAM	874.00	9.1941	889.00	9.3012	18.495
3	QPSK	874.00	9.1962	889.00	9.3024	18.499
	16QAM	874.00	9.0339	889.00	9.2608	18.295
	64QAM	874.00	9.1499	889.00	9.3025	18.452
	256QAM	874.00	9.1970	889.00	9.3098	18.507



**5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C)**

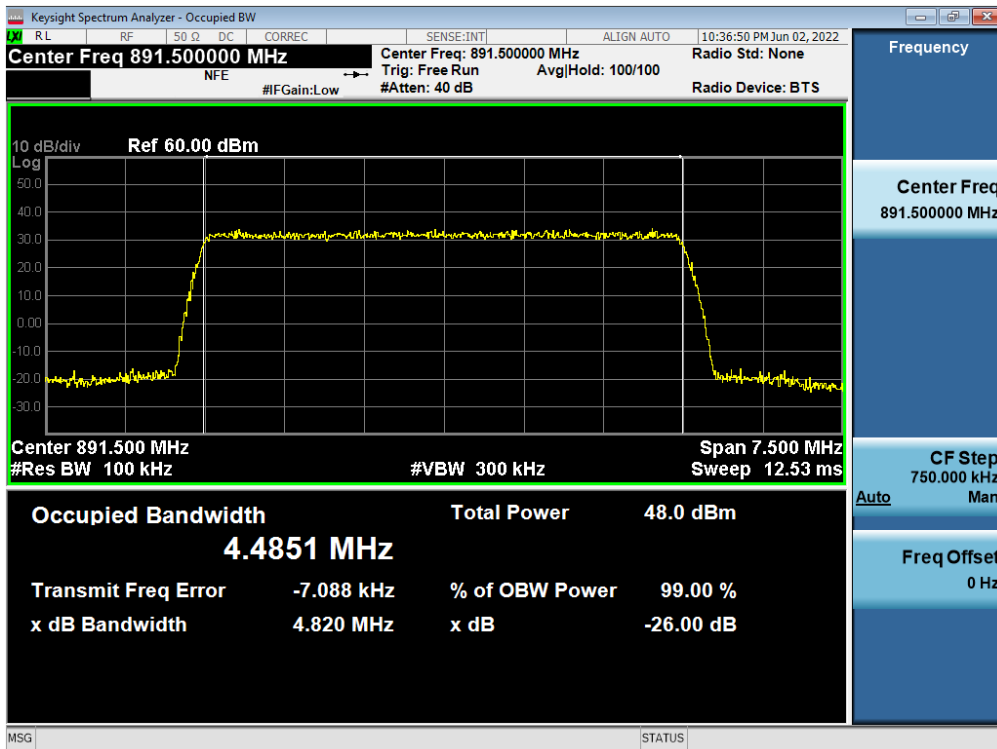
Ant	Mod	B5 DSS 10 MHz		5G NR n5 5 MHz + LTE B5 5 MHz		Total OBW (MHz)
		Frequency (MHz)	Measured Value (MHz)	Frequency (MHz)	Measured Value (MHz)	
0	QPSK	871.50	4.4751	886.50	14.307	18.782
	16QAM	871.50	4.4915	886.50	14.275	18.766
	64QAM	871.50	4.4789	886.50	14.325	18.804
	256QAM	871.50	4.4723	886.50	14.282	18.754
1	QPSK	871.50	4.4763	886.50	14.287	18.763
	16QAM	871.50	4.4919	886.50	14.229	18.721
	64QAM	871.50	4.4768	886.50	14.306	18.783
	256QAM	871.50	4.4786	886.50	14.259	18.738
2	QPSK	871.50	4.4779	886.50	14.259	18.737
	16QAM	871.50	4.4861	886.50	14.253	18.739
	64QAM	871.50	4.4749	886.50	14.345	18.820
	256QAM	871.50	4.4819	886.50	14.297	18.779
3	QPSK	871.50	4.4804	886.50	14.246	18.726
	16QAM	871.50	4.4883	886.50	14.177	18.665
	64QAM	871.50	4.4791	886.50	14.268	18.747
	256QAM	871.50	4.4751	886.50	14.281	18.756

**(B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C)**

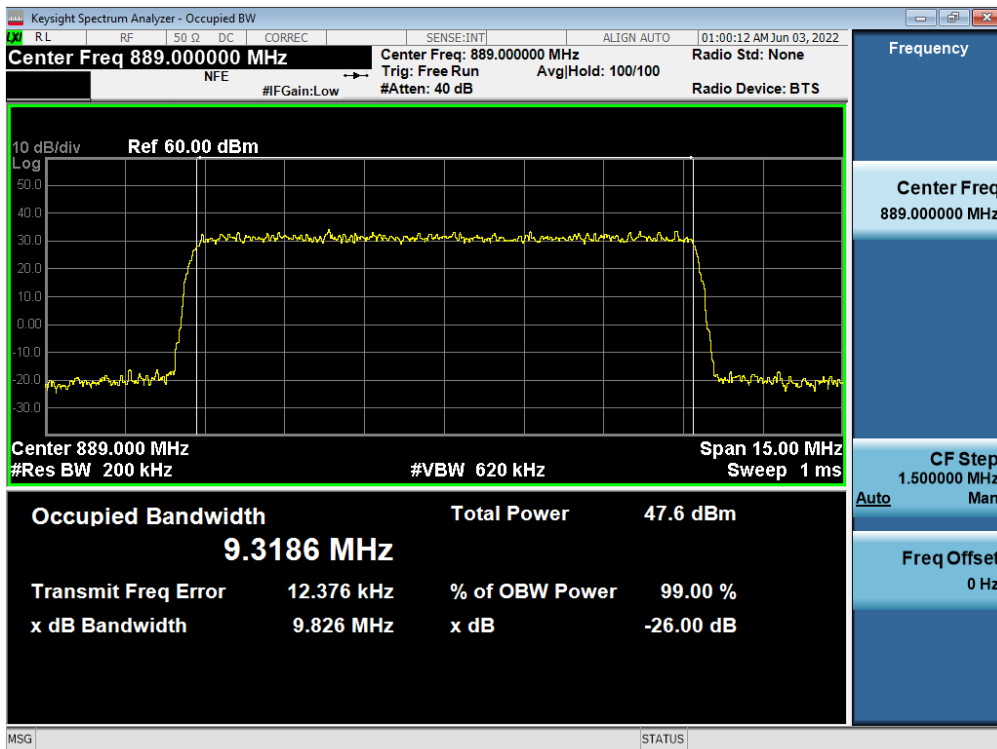
Ant	Mod	B5 DSS 10 MHz + 5G NR n5 5 MHz		LTE B5 5 MHz		Total OBW (MHz)
		Frequency (MHz)	Measured Value (MHz)	Frequency (MHz)	Measured Value (MHz)	
0	QPSK	876.50	14.229	891.50	4.4780	18.707
	16QAM	876.50	14.220	891.50	4.4913	18.711
	64QAM	876.50	14.266	891.50	4.4757	18.742
	256QAM	876.50	14.255	891.50	4.4805	18.735
1	QPSK	876.50	14.243	891.50	4.4794	18.722
	16QAM	876.50	14.268	891.50	4.4902	18.758
	64QAM	876.50	14.370	891.50	4.4859	18.856
	256QAM	876.50	14.313	891.50	4.4807	18.794
2	QPSK	876.50	14.269	891.50	4.4783	18.747
	16QAM	876.50	14.276	891.50	4.4889	18.765
	64QAM	876.50	14.249	891.50	4.4828	18.732
	256QAM	876.50	14.270	891.50	4.4844	18.755
3	QPSK	876.50	14.302	891.50	4.4769	18.778
	16QAM	876.50	14.196	891.50	4.4873	18.683
	64QAM	876.50	14.267	891.50	4.4791	18.746
	256QAM	876.50	14.310	891.50	4.4781	18.788

Plot Data of Occupied bandwidth

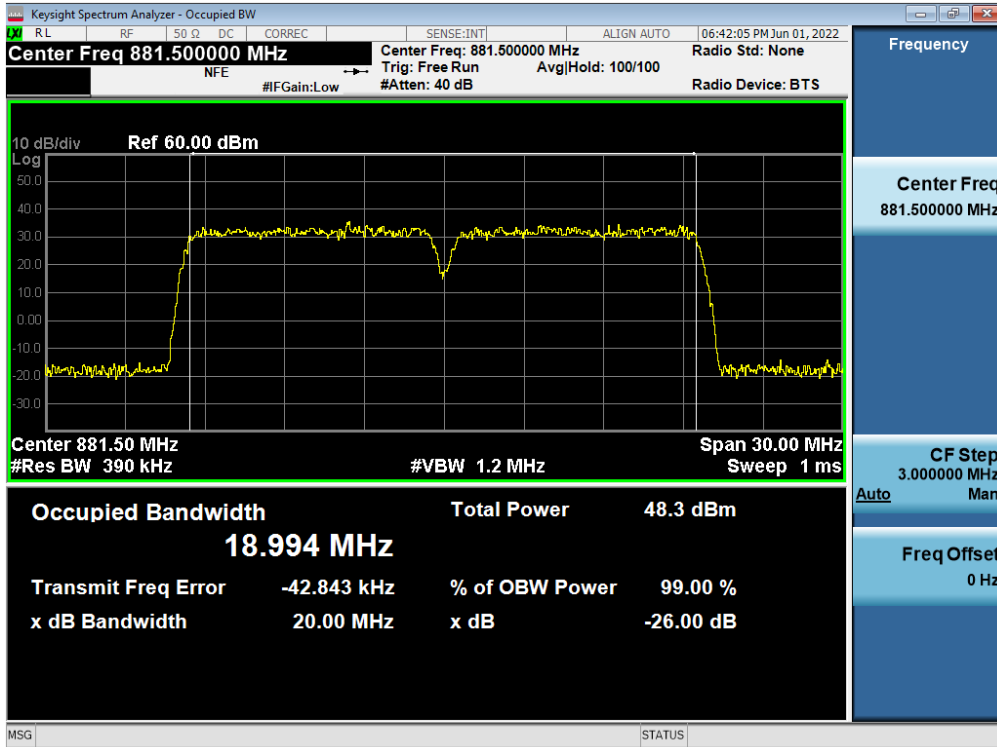
Antenna 0 / 5G NR n5 5 MHz 1 Carrier / 256QAM / High



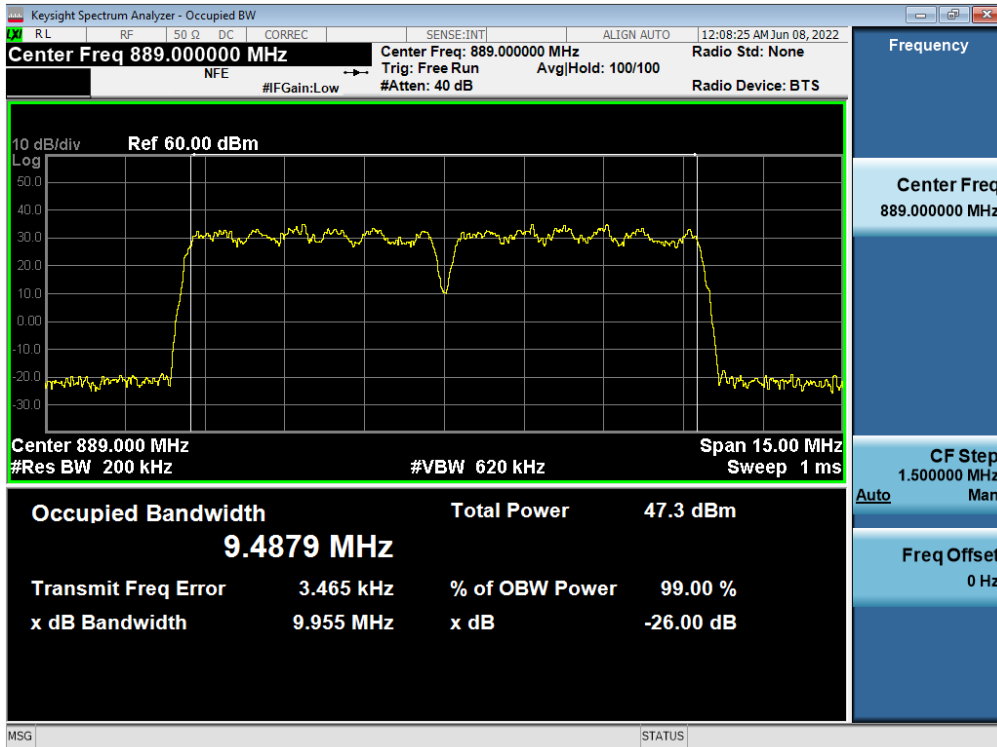
Antenna 0 / 5G NR n5 10 MHz 1 Carrier / 64QAM / High

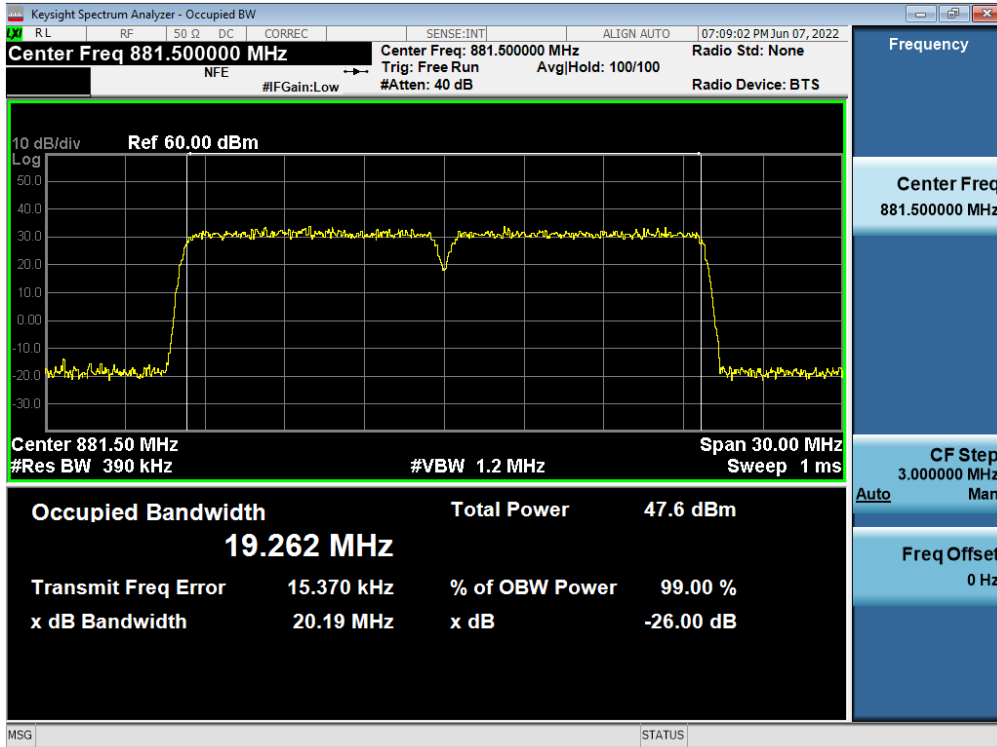
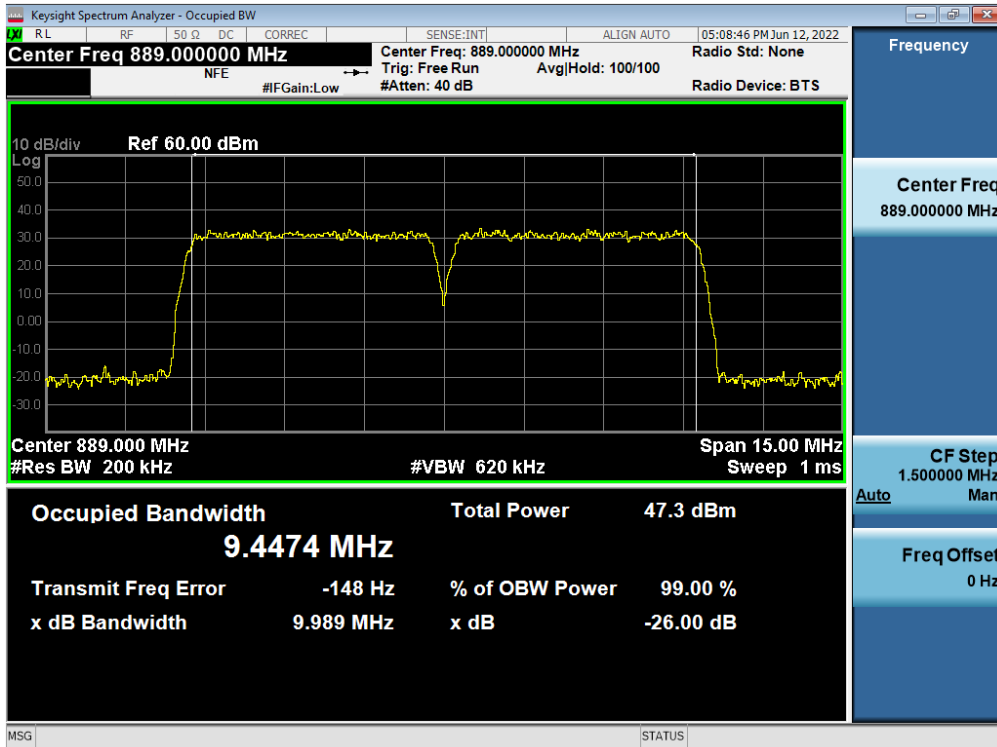


Antenna 0 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Middle

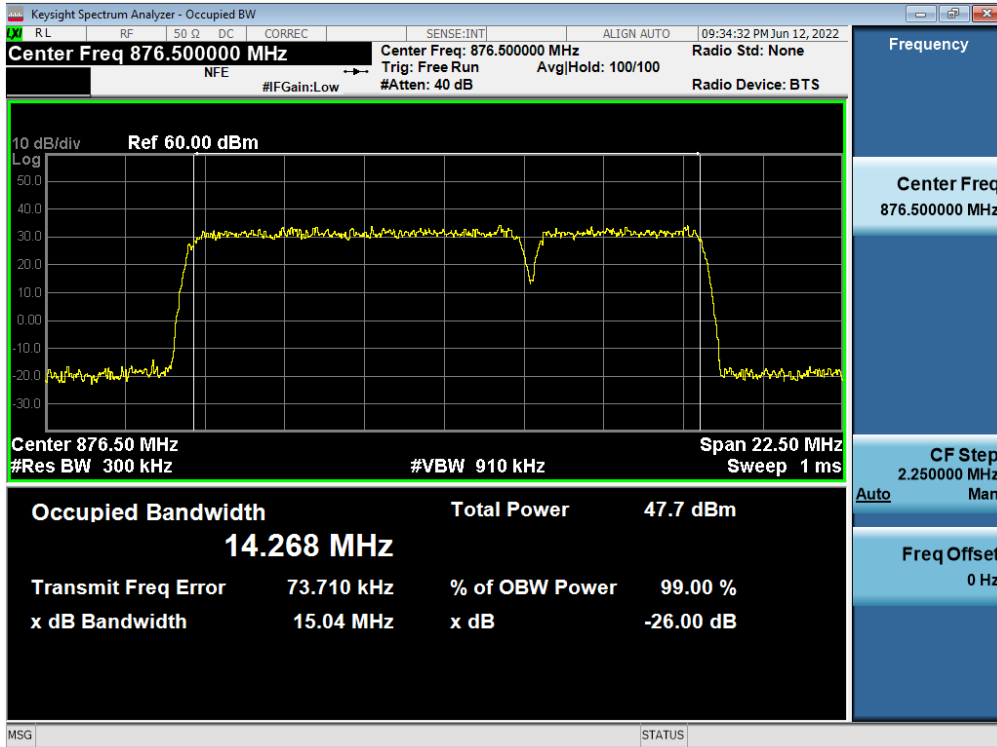


Antenna 2 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / High

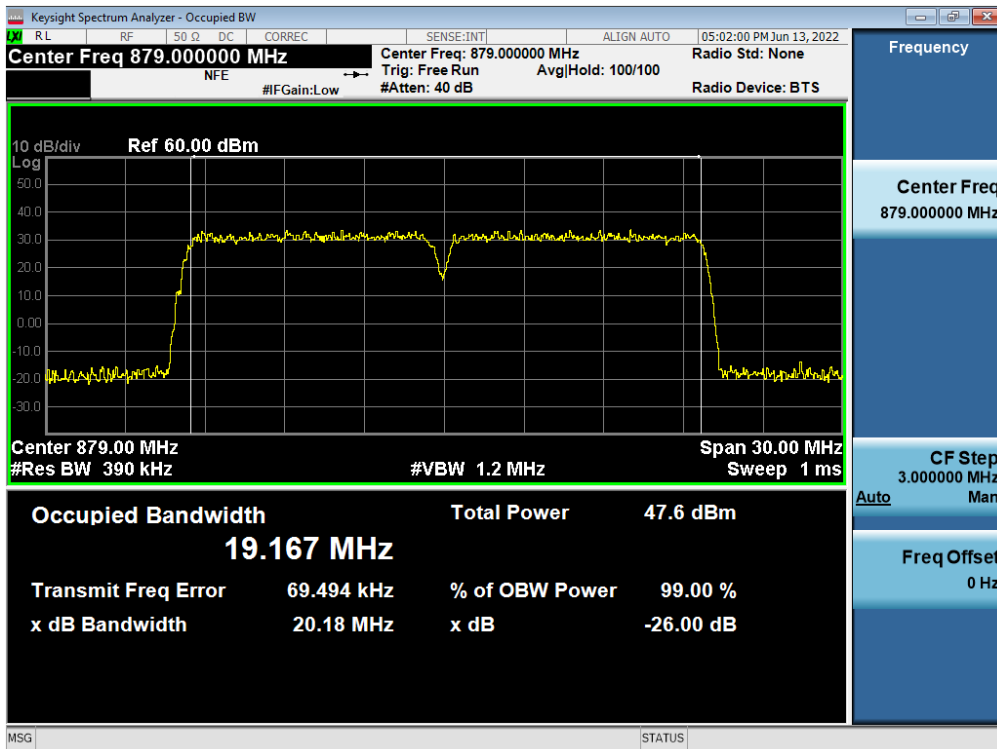


**Antenna 2 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Middle**

**Antenna 3 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / High**


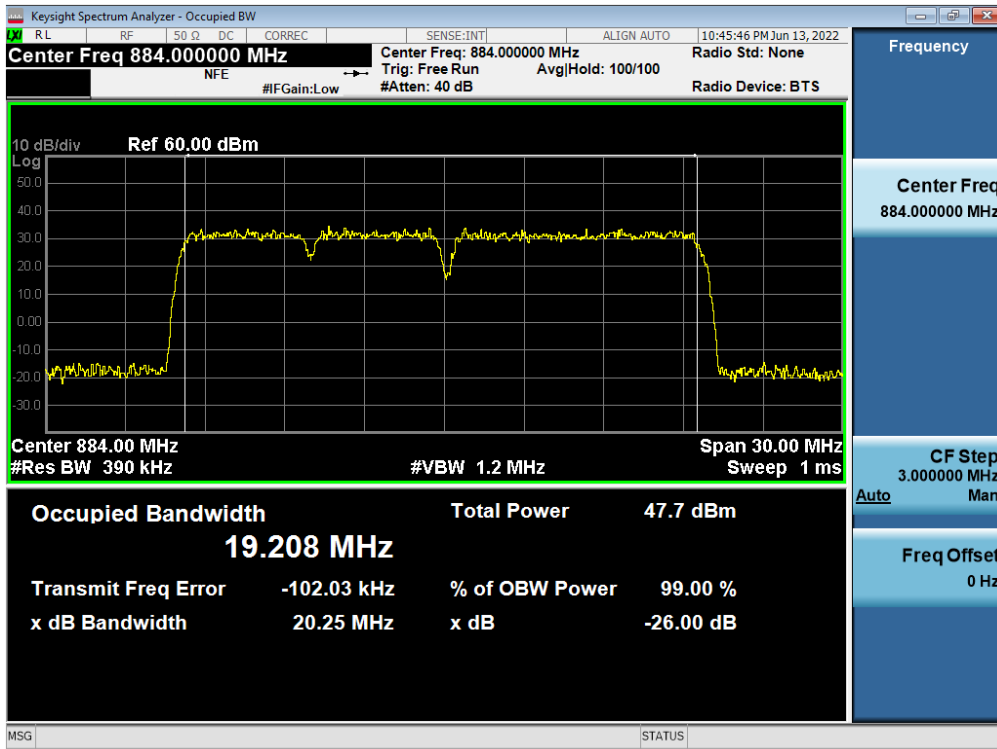
Antenna 1 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 64QAM / Low



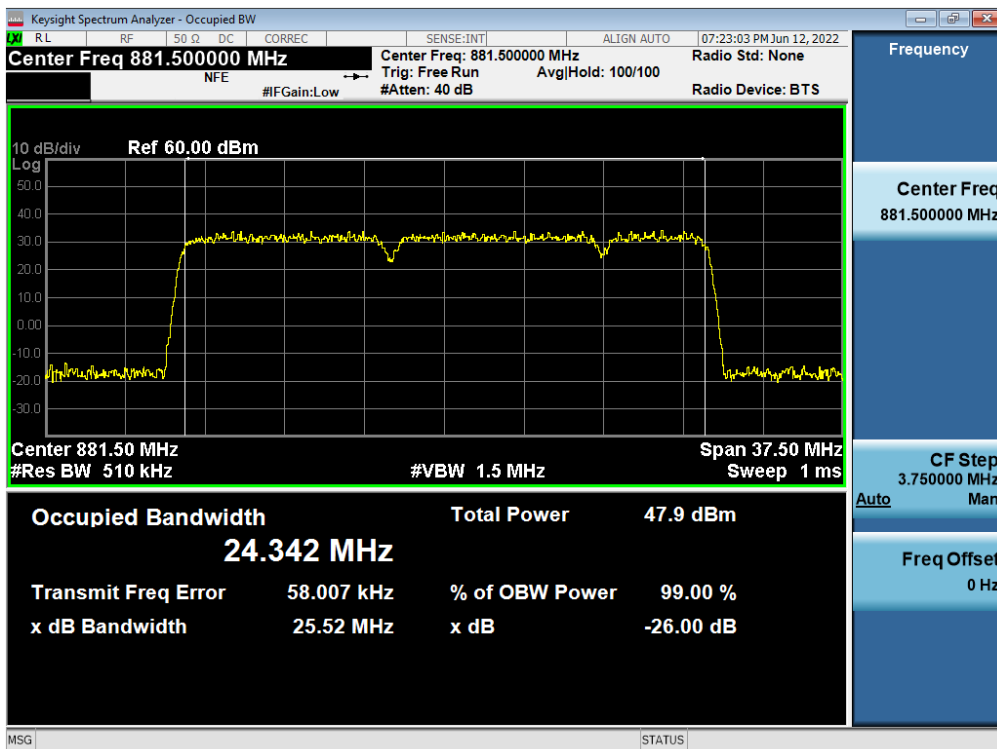
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low



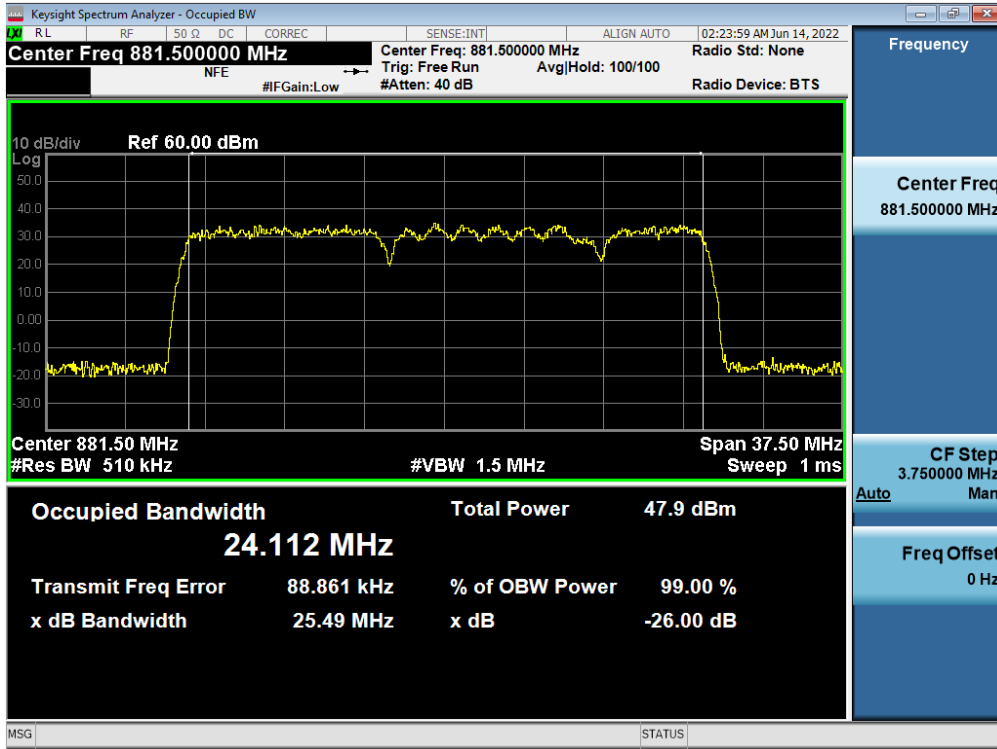
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 64QAM / High



Antenna 3 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 256QAM / Middle

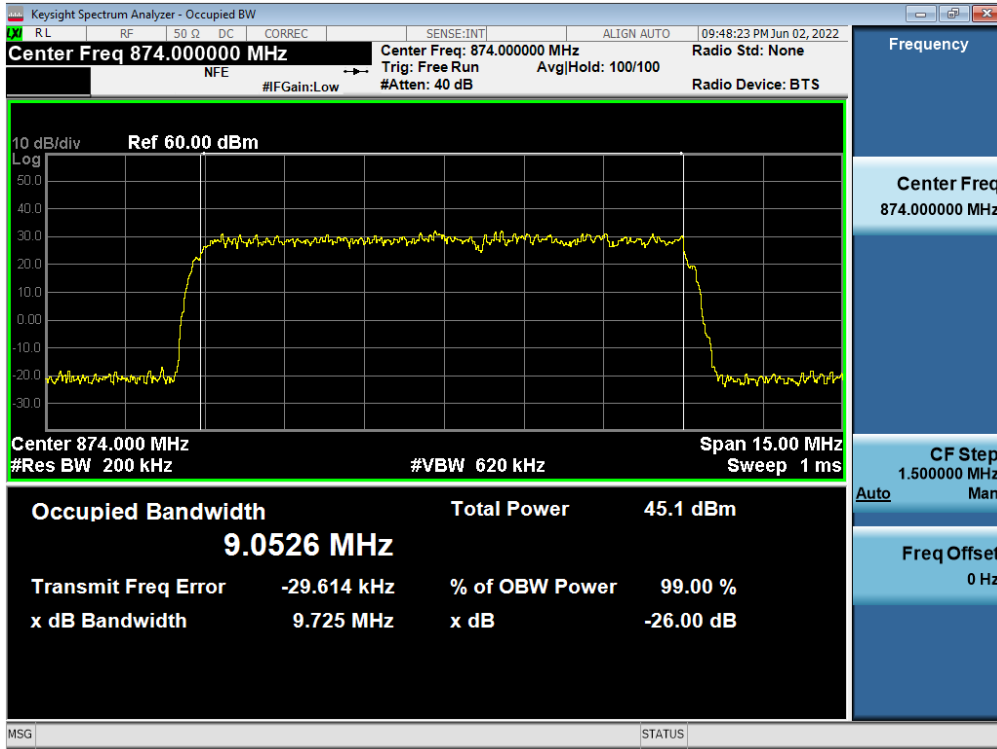


Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier] / Contiguous / 16QAM / Middle

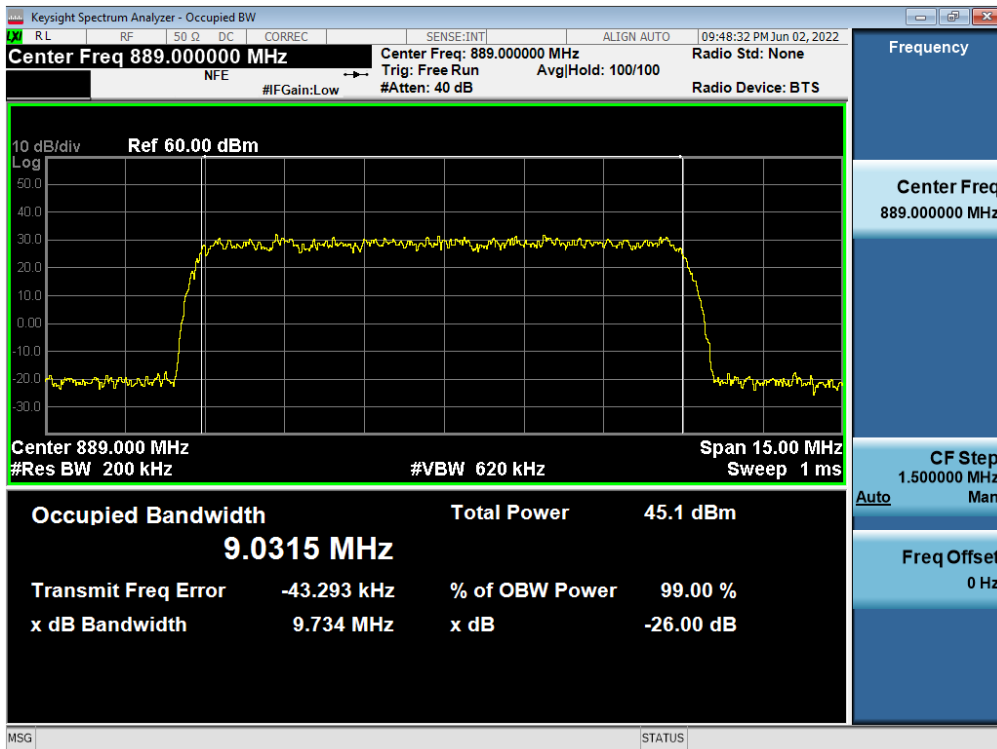




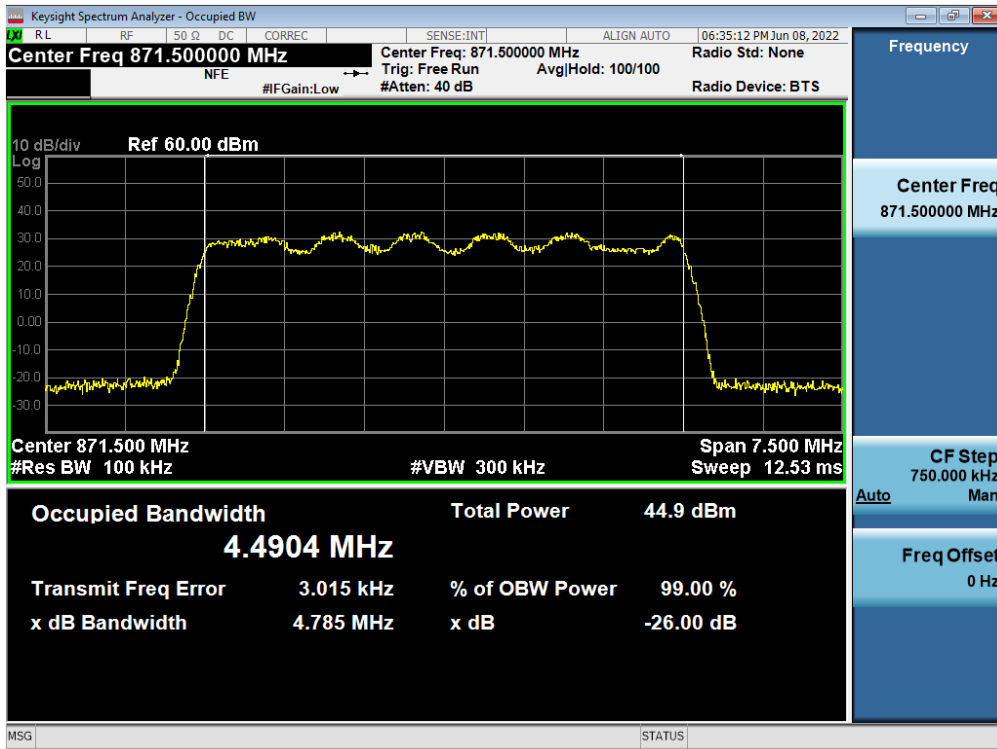
Antenna 3 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / Low



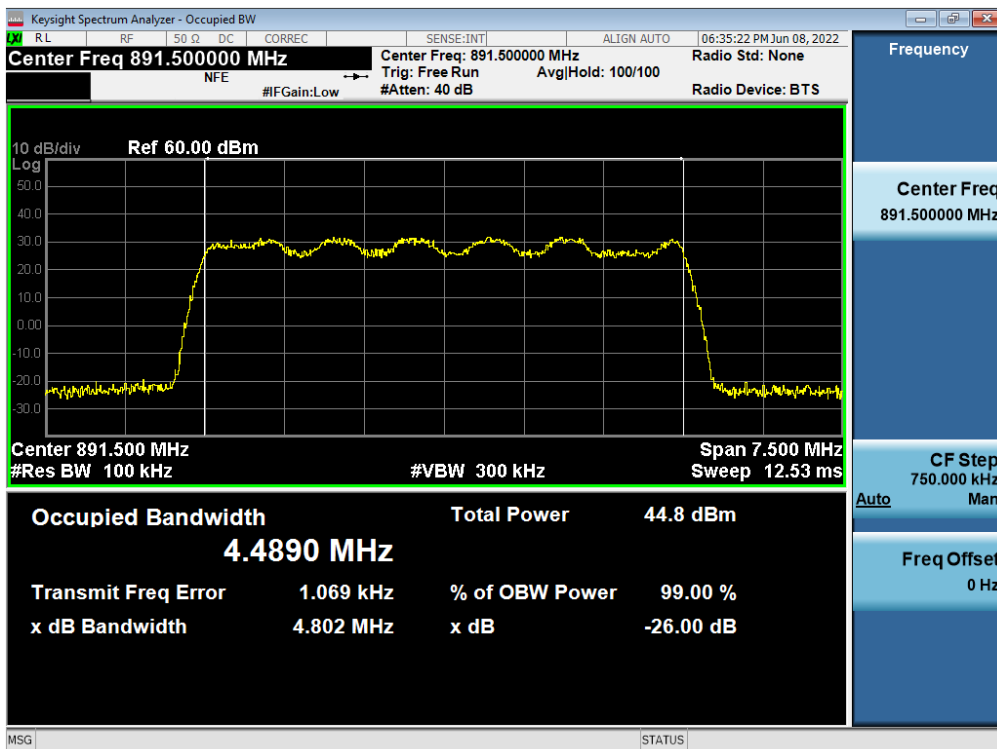
Antenna 3 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / 16QAM / High



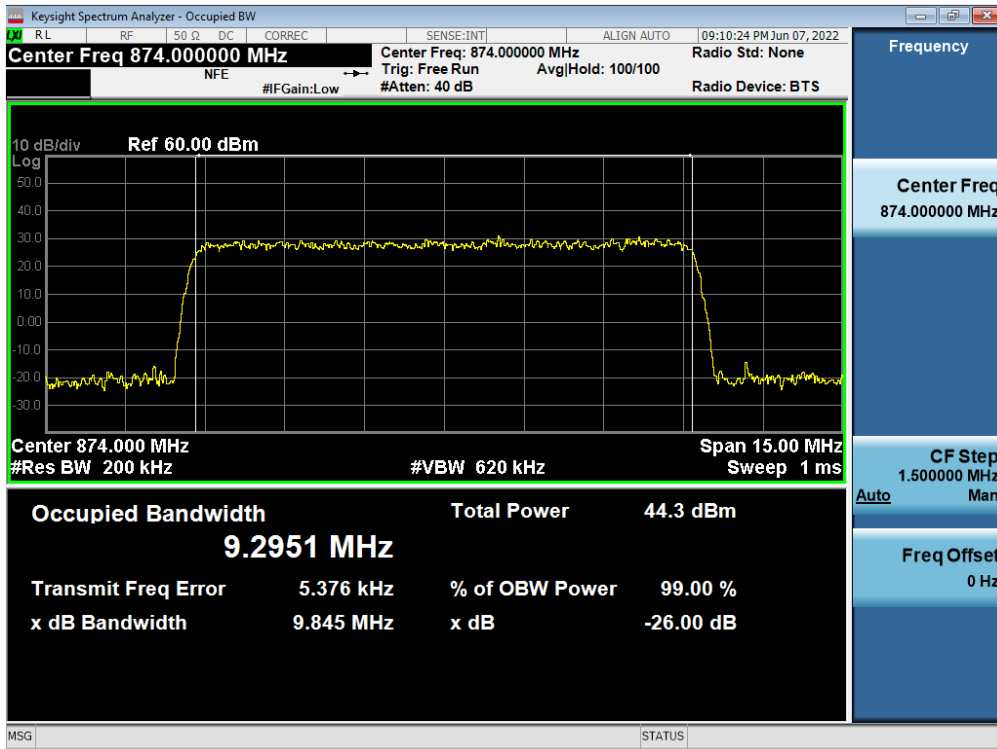
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / Low



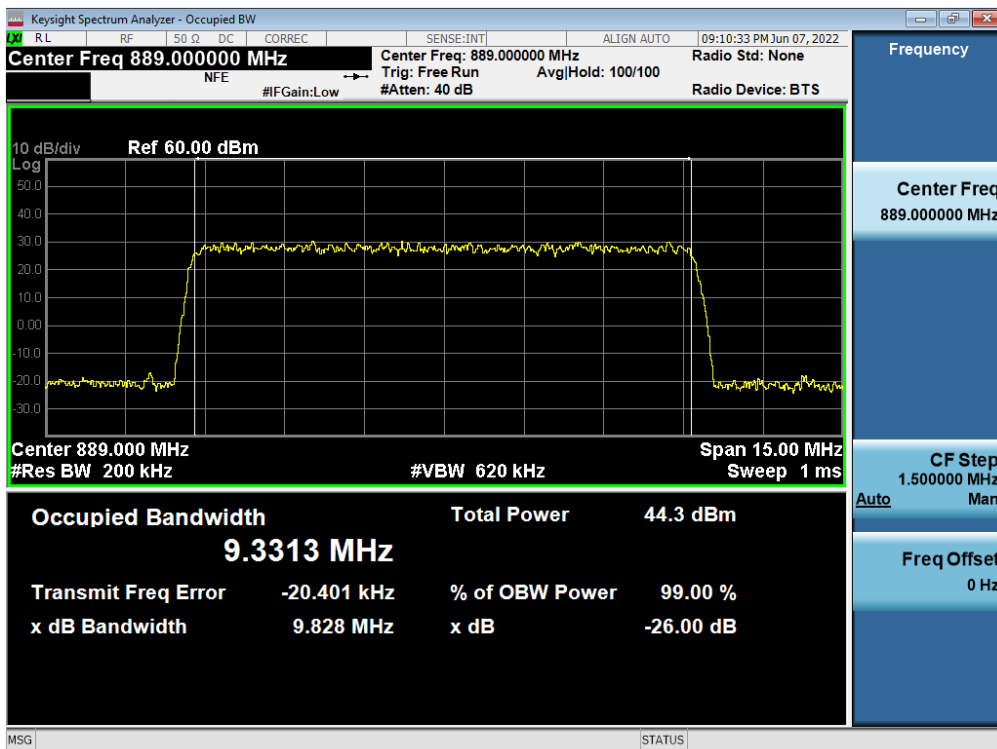
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High



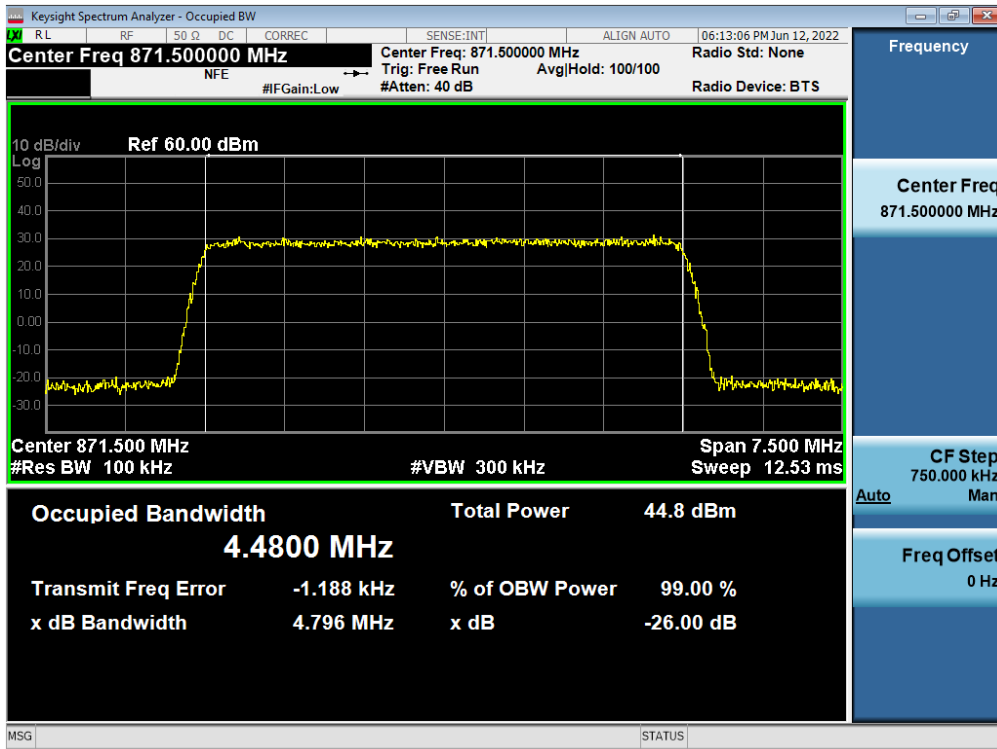
Antenna 1 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / Low



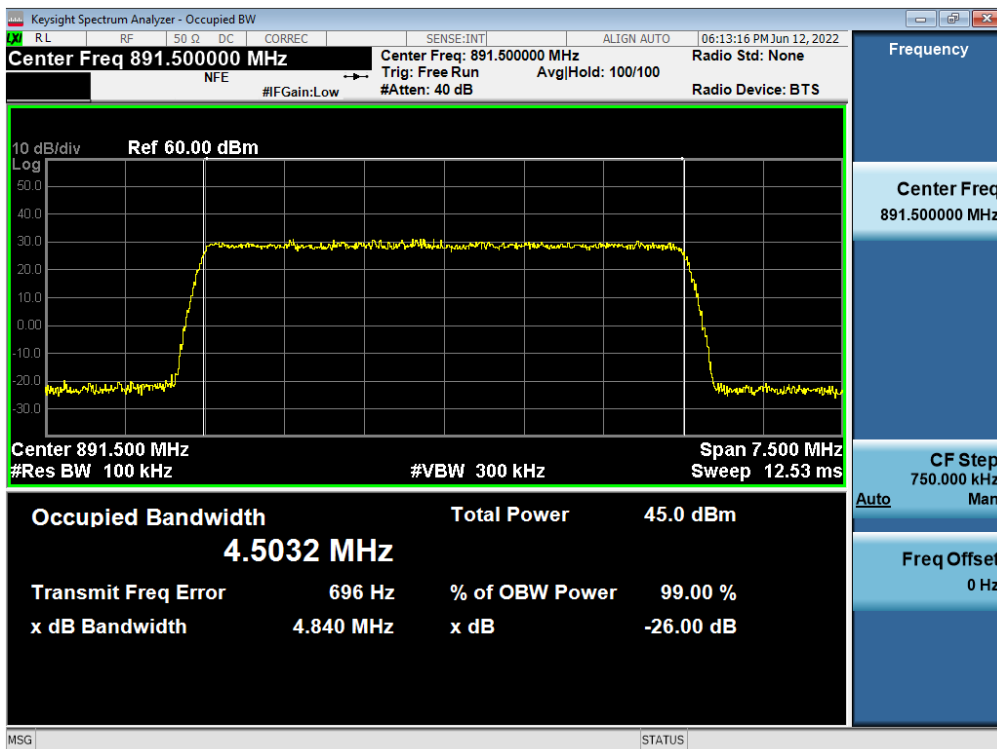
Antenna 1 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / High



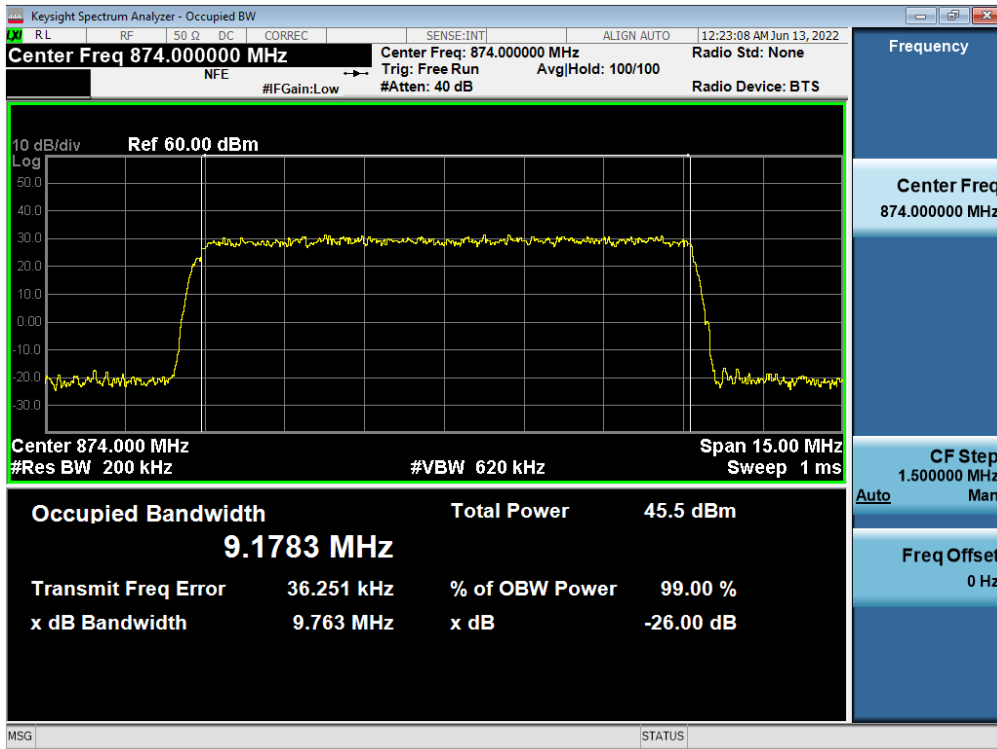
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / 256QAM / Low



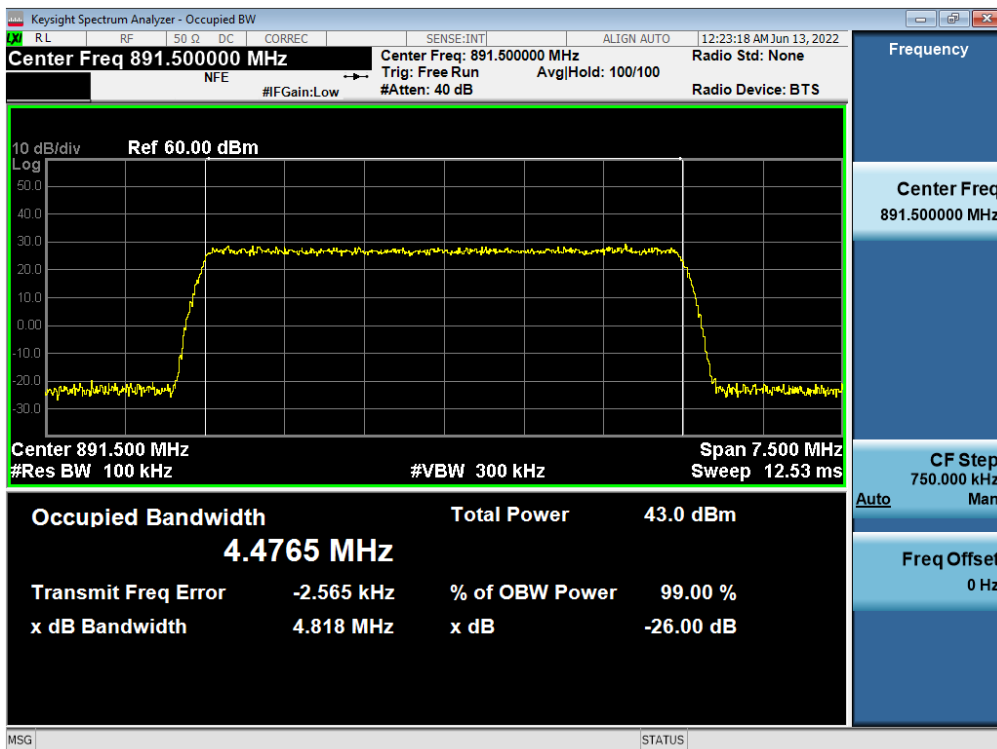
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / LTE B5 5 MHz / 256QAM / High



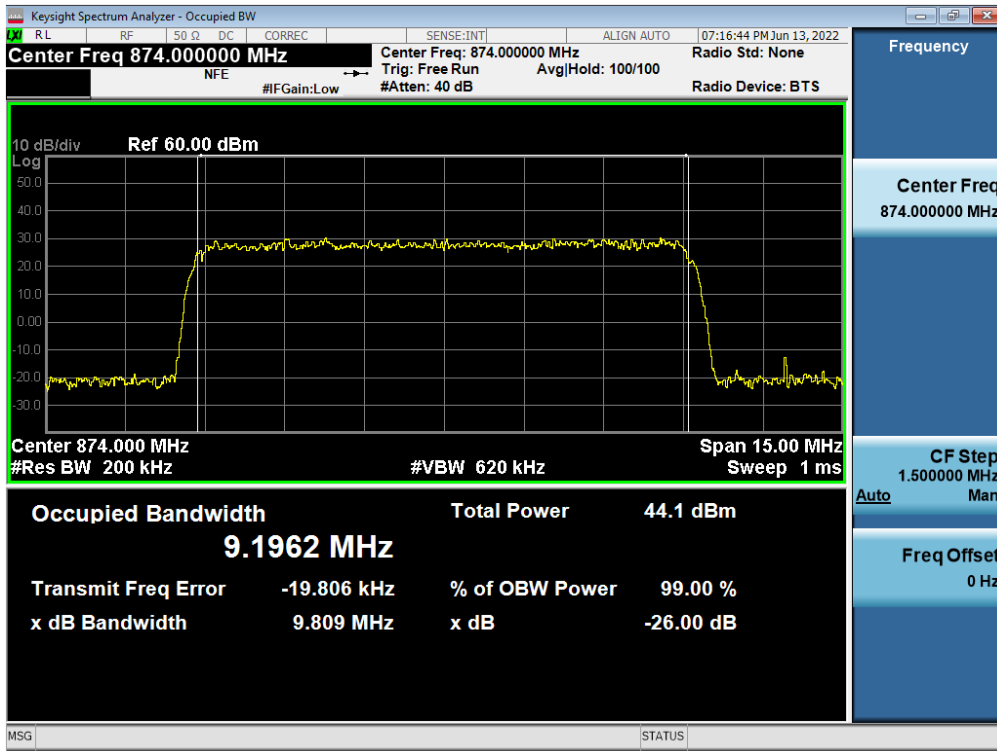
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



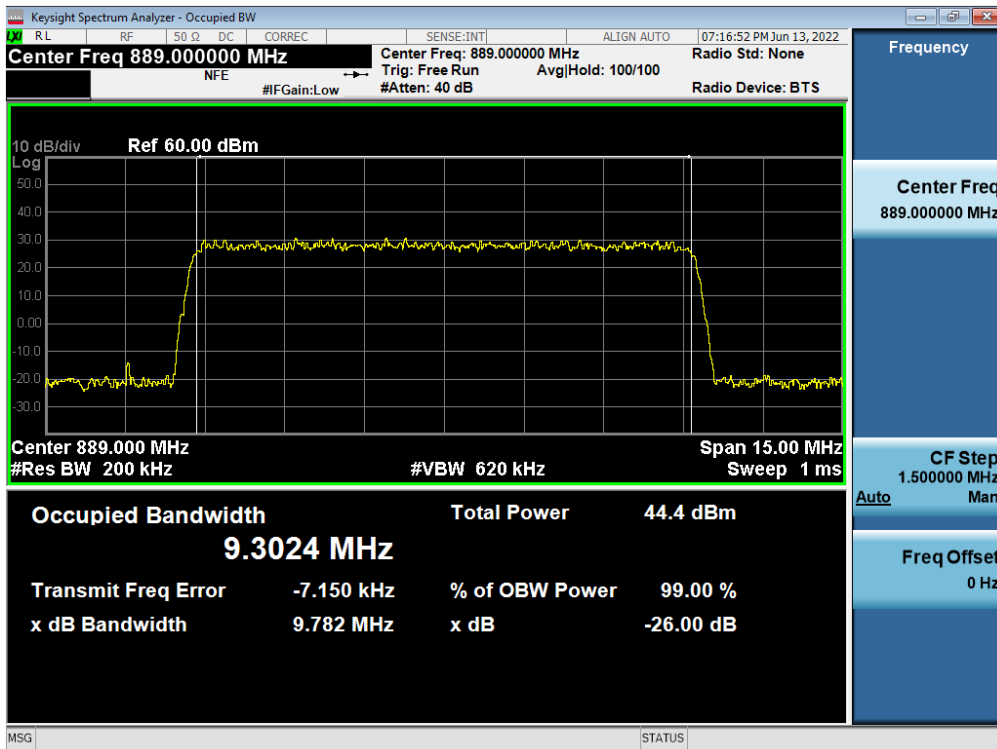
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 5 MHz / QPSK / High



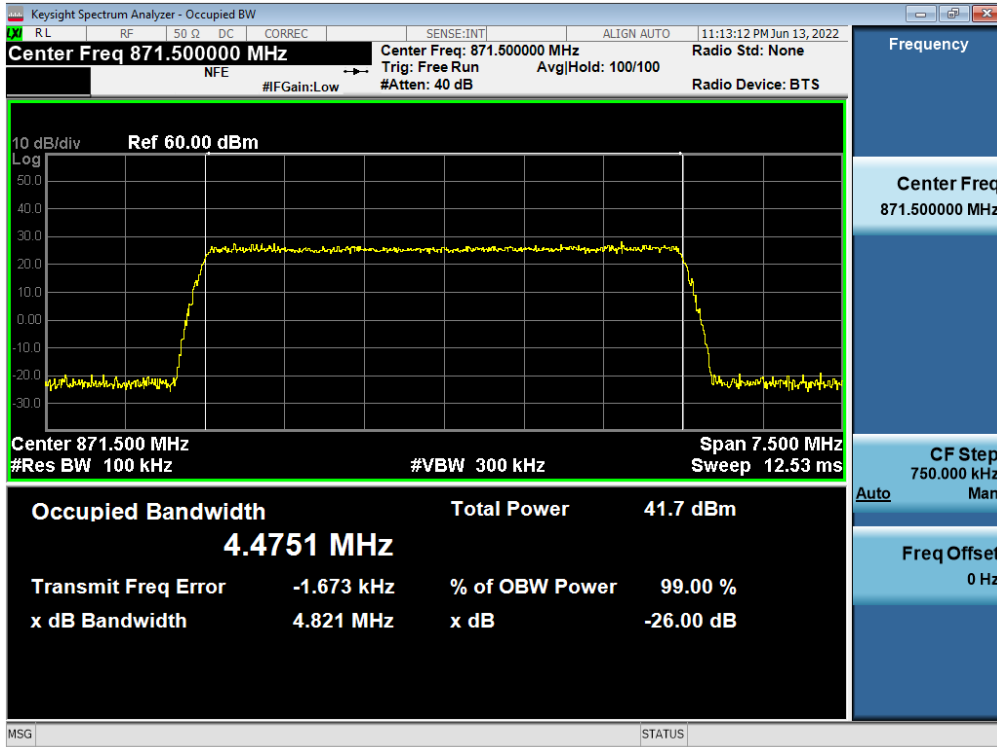
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / B5 DSS 10 MHz / QPSK / Low



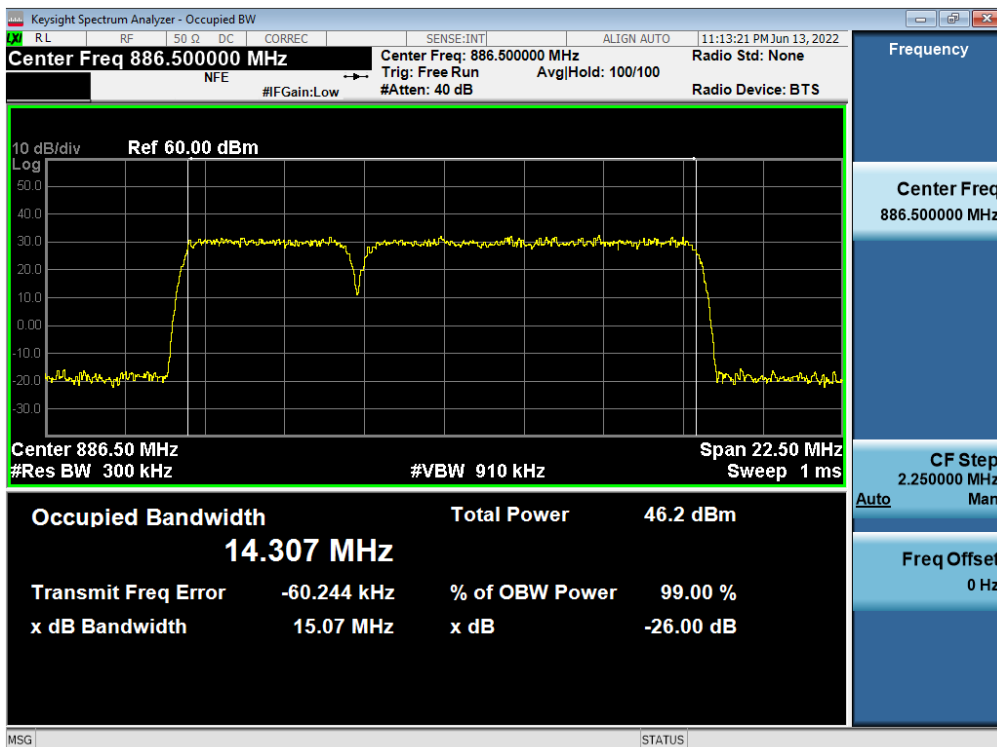
Antenna 3 / B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Non-Contiguous / 5G NR n5 10 MHz / QPSK / High



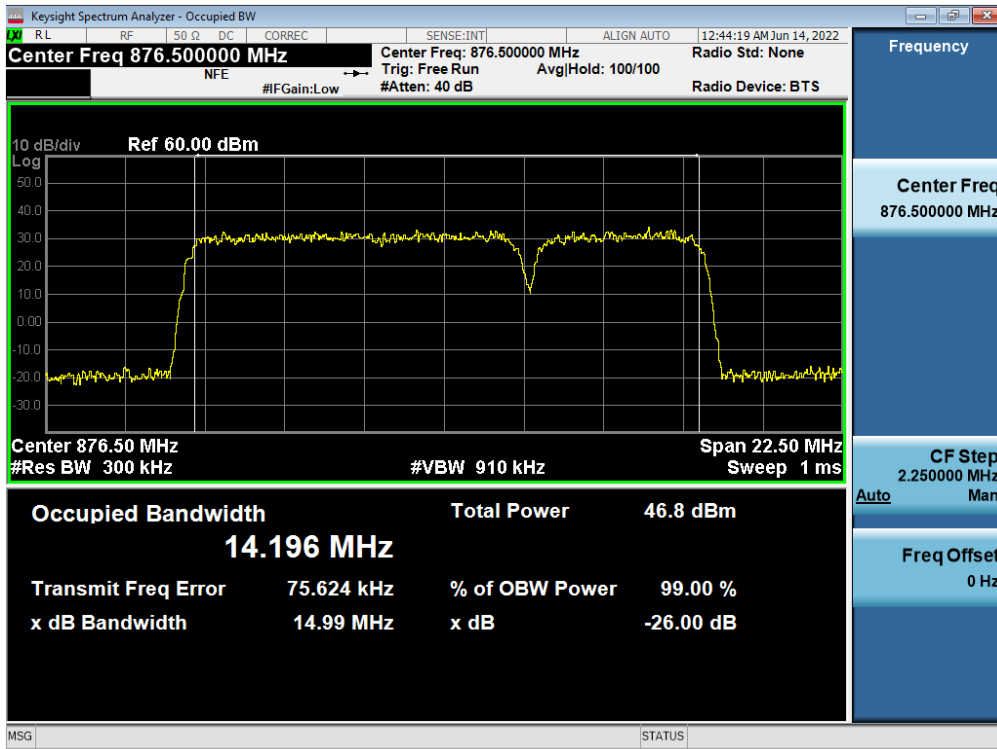
Antenna 0 / 5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C) / Non-Contiguous / 5G NR n5 5 MHz / QPSK / Low



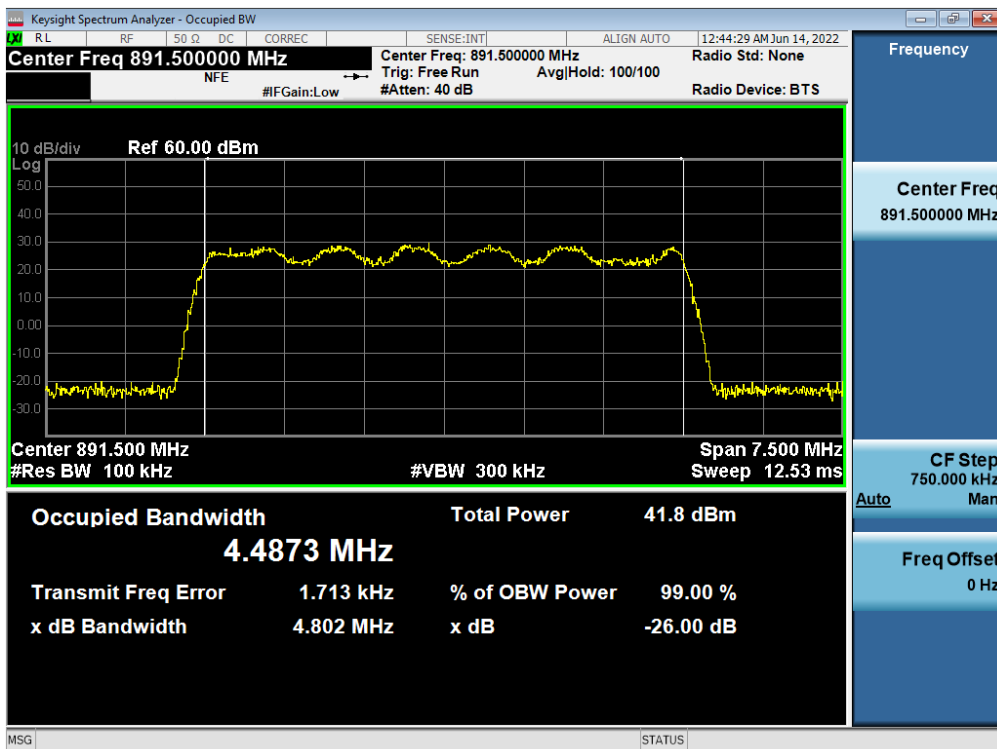
Antenna 0 / 5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C) / Non-Contiguous / LTE B5 5 MHz + B5 DSS 10 MHz / QPSK / High



Antenna 3 / (B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C) / Non-Contiguous / B5 DSS 10 MHz + LTE B5 5 MHz / 16QAM / Low



Antenna 3 / (B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C) / Non-Contiguous / 5G NR n5 5 MHz / 16QAM / High





## 5.4. OUT-OF-BAND UNWANTED EMISSIONS

### Test Requirements:

#### § 2.1051 Measurements required: Spurious emissions at antenna terminals.

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in § 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

#### § 22.917 Emission limitations for cellular equipment.

The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

(a) *Out of band emissions.* The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a reference bandwidth as follows:

(1) In the spectrum below 1 GHz, instrumentation should employ a reference bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy, provided that the measured power is integrated over the full required reference bandwidth (i.e., 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

(2) In the spectrum above 1 GHz, instrumentation should employ a reference bandwidth of 1 MHz.

(c) *Alternative out of band emission limit.* Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) *Interference caused by out of band emissions.* If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

**Test Procedures:**

The measurement is performed in accordance with Section 5.7.3 of ANSI C63.26.

**5.7.3 Out-of-band unwanted emissions measurements**

- a) Set the spectrum analyzer center frequency to the block, band, or channel edge frequency.
- b) Set the span wide enough to capture the fundamental emission closest to the authorized block or band edge, and to include all modulation products that spill into the immediately adjacent frequency band. In some cases, it may be possible to set the center frequency and span so as to encompass the fundamental emission and the unwanted out-of-band (band-edge) emissions on either side of the authorized block, band, or channel. This can be accomplished with a single (slow) sweep, if adequate overload protection and sufficient dynamic range can be maintained.
- c) Set the number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ .
- d) Sweep time should be auto for peak detection. For rms detection the sweep time should be set as follows:
  - 1) If the device can be configured to transmit continuously (duty cycle  $\geq 98\%$ ), set the (sweep time)  $>$  (number of points in sweep)  $\times$  (symbol period) (e.g., by a factor of  $10 \times \text{symbol period} \times \text{number of points}$ ). Increasing the sweep time (i.e., slowing the sweep speed) will allow for averaging over multiple symbols
  - 2) If the device cannot be configured to transmit continuously (duty cycle  $< 98\%$ ) and a freerunning sweep must be used, set the sweep time so that the averaging is performed over multiple on/off cycles by setting the sweep time  $>$  (number of points in sweep)  $\times$  (transmitter period) (i.e., the transmit on-time + the off-time). The spectrum analyzer readings shall subsequently be corrected by  $[10 \log (1/\text{duty cycle})]$ . This assumes that the transmission period and duty cycle is relatively constant (duty cycle variation  $\leq \pm 2\%$ ).
  - 3) If the device cannot be configured to transmit continuously (duty cycle  $< 98\%$ ) and a freerunning sweep must be used, set the sweep time so that the averaging is performed over multiple on/off cycles by setting the sweep time  $>$  (number of points in sweep)  $\times$  (transmitter period) (i.e., the transmit on-time + the off-time). The spectrum analyzer readings shall subsequently be corrected by  $[10 \log (1/\text{duty cycle})]$ . This assumes that the transmission period and duty cycle is relatively constant (duty cycle variation  $\leq \pm 2\%$ ).
  - 4) If the device cannot be configured to transmit continuously and a free-running sweep must be used, and if the transmissions exhibit a non-constant duty cycle (duty cycle variations  $> \pm 2\%$ ), set the sweep time so that the averaging is performed over the on-period by setting the sweep time  $>$  (symbol period)  $\times$  (number of points), while also maintaining the sweep time  $<$  (transmitter on-time). The trace mode shall be set to max hold, since not every display point will be averaged only over just the on-time. Thus, multiple sweeps (e.g., 100) in maximum hold are necessary to ensure that the maximum power is measured.
- e) The test report shall include the plots of the measuring instrument display and the measured data.
- f) See Annex I for example emission mask plots.

**Note:**

1. Due to MIMO operations, a correction has been added to the limit according to KDB 662911 D01 v02r01.
  - 4Tx MIMO correction:  $10 \log(N_{\text{ANT}}) = 10 \log(4) = 6.02 \text{ dB}$  //  $-13 \text{ dBm} - 10 \cdot \log(4) = -19.02 \text{ dBm}$
2. The results of the Out-of-band Unwanted Emissions 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 Out-of-band Unwanted Emissions**
**5G NR n5 5 MHz 1 Carrier**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.97	-32.10
		High	894.13	-30.89
	16QAM	Low	868.91	-31.41
		High	894.58	-31.16
	64QAM	Low	868.98	-29.16
		High	894.34	-31.29
	256QAM	Low	868.94	-31.51
		High	894.14	-31.04
1	QPSK	Low	868.94	-31.28
		High	894.16	-33.47
	16QAM	Low	868.88	-31.62
		High	894.20	-34.13
	64QAM	Low	868.94	-31.18
		High	894.33	-33.13
	256QAM	Low	868.98	-31.97
		High	894.32	-32.85
2	QPSK	Low	868.94	-31.67
		High	894.41	-32.85
	16QAM	Low	868.92	-32.14
		High	894.17	-31.61
	64QAM	Low	868.98	-31.25
		High	894.35	-32.90
	256QAM	Low	868.92	-31.64
		High	894.21	-30.95
3	QPSK	Low	868.89	-31.99
		High	894.15	-33.27
	16QAM	Low	868.84	-32.21
		High	894.38	-33.77
	64QAM	Low	868.86	-32.41
		High	894.41	-33.91
	256QAM	Low	868.95	-32.14
		High	894.04	-31.56

## 5G NR n5 10 MHz 1 Carrier

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.65	-29.44
		High	894.11	-30.73
	16QAM	Low	868.52	-30.42
		High	894.22	-32.55
	64QAM	Low	868.87	-30.61
		High	894.42	-32.37
	256QAM	Low	868.67	-31.77
		High	894.25	-31.51
1	QPSK	Low	868.81	-30.66
		High	894.18	-33.69
	16QAM	Low	868.95	-30.14
		High	894.43	-36.16
	64QAM	Low	868.95	-29.89
		High	894.59	-35.18
	256QAM	Low	868.68	-30.84
		High	894.11	-33.66
2	QPSK	Low	868.57	-33.06
		High	894.32	-34.15
	16QAM	Low	868.84	-32.79
		High	894.30	-34.98
	64QAM	Low	868.70	-33.72
		High	894.56	-34.20
	256QAM	Low	868.79	-31.76
		High	894.58	-34.01
3	QPSK	Low	868.88	-30.32
		High	894.29	-33.61
	16QAM	Low	868.61	-32.14
		High	894.86	-35.34
	64QAM	Low	868.75	-31.66
		High	894.05	-34.51
	256QAM	Low	868.81	-31.85
		High	894.68	-32.93

**Tabular Data of Contiguous Out-of-band Unwanted Emissions**
**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.81	-33.46
		High	894.11	-29.66
	16QAM	Low	868.95	-33.51
		High	894.78	-34.97
	64QAM	Low	868.91	-33.66
		High	894.11	-34.66
256QAM	Low	868.95	-34.73	
	High	894.53	-34.29	
1	QPSK	Low	868.90	-30.71
		High	894.18	-35.56
	16QAM	Low	868.36	-30.75
		High	894.40	-35.15
	64QAM	Low	868.02	-31.30
		High	894.73	-33.73
256QAM	Low	868.73	-30.98	
	High	894.23	-34.91	
2	QPSK	Low	868.89	-34.84
		High	894.14	-33.60
	16QAM	Low	868.95	-34.76
		High	894.56	-34.79
	64QAM	Low	868.92	-33.54
		High	894.48	-34.52
256QAM	Low	868.89	-33.73	
	High	894.47	-33.92	
3	QPSK	Low	868.83	-32.96
		High	894.20	-35.52
	16QAM	Low	868.68	-33.01
		High	894.05	-33.83
	64QAM	Low	868.23	-33.81
		High	894.20	-36.58
256QAM	Low	868.13	-33.77	
	High	894.81	-35.35	

## 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.80	-35.10
		High	894.40	-34.64
	16QAM	Low	868.76	-35.59
		High	894.06	-34.53
	64QAM	Low	868.80	-34.95
		High	894.21	-34.36
	256QAM	Low	868.95	-34.89
		High	894.23	-34.38
1	QPSK	Low	868.92	-33.43
		High	894.04	-32.31
	16QAM	Low	868.94	-32.26
		High	894.24	-36.97
	64QAM	Low	868.98	-32.62
		High	894.31	-36.87
	256QAM	Low	868.96	-33.59
		High	894.14	-36.75
2	QPSK	Low	868.67	-37.54
		High	894.03	-35.90
	16QAM	Low	868.98	-35.76
		High	894.05	-36.40
	64QAM	Low	868.72	-35.87
		High	894.36	-37.02
	256QAM	Low	868.97	-35.88
		High	894.45	-36.34
3	QPSK	Low	868.97	-34.09
		High	894.04	-35.65
	16QAM	Low	868.81	-33.70
		High	894.24	-37.65
	64QAM	Low	868.85	-35.70
		High	894.51	-36.02
	256QAM	Low	868.79	-34.49
		High	894.20	-36.06

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.24	-33.05
		High	894.33	-32.89
	16QAM	Low	868.88	-33.84
		High	894.73	-33.52
	64QAM	Low	868.70	-32.85
		High	894.88	-33.78
	256QAM	Low	868.12	-34.21
		High	894.54	-33.66
1	QPSK	Low	868.54	-33.91
		High	894.32	-35.24
	16QAM	Low	868.63	-33.88
		High	894.42	-35.97
	64QAM	Low	868.77	-32.83
		High	894.34	-35.88
	256QAM	Low	868.88	-33.17
		High	894.88	-35.06
2	QPSK	Low	868.08	-32.26
		High	894.34	-34.47
	16QAM	Low	868.84	-36.26
		High	894.07	-37.08
	64QAM	Low	868.69	-35.80
		High	894.05	-35.97
	256QAM	Low	868.79	-37.07
		High	894.91	-35.46
3	QPSK	Low	868.74	-33.80
		High	894.37	-35.18
	16QAM	Low	868.87	-34.48
		High	894.85	-34.07
	64QAM	Low	868.46	-33.84
		High	894.32	-32.99
	256QAM	Low	868.95	-34.85
		High	894.62	-33.46



**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.96	-34.06
		High	894.51	-34.13
	16QAM	Low	868.95	-35.12
		High	894.24	-35.23
	64QAM	Low	868.97	-33.53
		High	894.32	-35.76
	256QAM	Low	868.62	-34.54
		High	894.15	-33.48
1	QPSK	Low	868.92	-32.54
		High	894.30	-35.85
	16QAM	Low	868.93	-32.50
		High	894.26	-33.57
	64QAM	Low	868.98	-33.41
		High	894.22	-36.84
	256QAM	Low	868.94	-32.46
		High	894.64	-34.75
2	QPSK	Low	868.84	-36.22
		High	894.05	-36.60
	16QAM	Low	868.98	-36.48
		High	894.07	-38.20
	64QAM	Low	868.97	-36.58
		High	894.03	-37.00
	256QAM	Low	868.80	-35.81
		High	894.32	-36.30
3	QPSK	Low	868.64	-35.08
		High	894.04	-36.69
	16QAM	Low	868.57	-34.82
		High	894.06	-36.17
	64QAM	Low	868.71	-34.86
		High	894.16	-36.15
	256QAM	Low	868.95	-34.39
		High	894.03	-36.71

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.52	-32.78
		High	894.09	-33.54
	16QAM	Low	868.86	-32.35
		High	894.05	-33.84
	64QAM	Low	868.90	-33.69
		High	894.69	-32.33
	256QAM	Low	868.65	-32.86
		High	894.30	-34.15
1	QPSK	Low	868.88	-31.94
		High	894.07	-34.05
	16QAM	Low	868.13	-33.25
		High	894.77	-34.80
	64QAM	Low	868.59	-32.61
		High	894.66	-34.96
	256QAM	Low	868.28	-33.23
		High	894.08	-35.26
2	QPSK	Low	868.43	-34.76
		High	894.08	-34.09
	16QAM	Low	868.31	-32.54
		High	894.21	-34.70
	64QAM	Low	868.74	-34.09
		High	894.33	-35.27
	256QAM	Low	868.20	-35.17
		High	894.15	-33.29
3	QPSK	Low	868.54	-33.73
		High	894.51	-33.10
	16QAM	Low	868.47	-33.88
		High	894.89	-35.25
	64QAM	Low	868.77	-33.45
		High	894.64	-35.08
	256QAM	Low	868.18	-34.07
		High	894.22	-34.17

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.35	-33.18
		High	894.44	-33.51
	16QAM	Low	868.39	-33.57
		High	894.18	-34.05
	64QAM	Low	868.36	-33.56
		High	894.05	-33.15
	256QAM	Low	868.00	-33.00
		High	894.20	-33.60
1	QPSK	Low	868.11	-33.80
		High	894.25	-35.17
	16QAM	Low	868.77	-34.21
		High	894.37	-34.50
	64QAM	Low	868.75	-33.82
		High	894.62	-34.61
	256QAM	Low	868.91	-33.23
		High	894.27	-33.83
2	QPSK	Low	868.73	-35.44
		High	894.10	-35.59
	16QAM	Low	868.95	-36.48
		High	894.59	-35.44
	64QAM	Low	868.84	-34.14
		High	894.91	-35.68
	256QAM	Low	868.76	-34.99
		High	894.71	-34.27
3	QPSK	Low	868.83	-35.20
		High	894.71	-34.25
	16QAM	Low	868.36	-33.76
		High	894.84	-35.38
	64QAM	Low	868.84	-34.42
		High	894.33	-34.81
	256QAM	Low	868.75	-33.97
		High	894.70	-35.25

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.73	-32.37
		High	894.11	-33.56
	16QAM	Low	868.73	-34.78
		High	894.08	-34.02
	64QAM	Low	868.69	-35.35
		High	894.90	-34.51
	256QAM	Low	868.30	-33.12
		High	894.62	-34.19
1	QPSK	Low	868.90	-32.44
		High	894.99	-32.36
	16QAM	Low	868.89	-33.71
		High	894.47	-34.79
	64QAM	Low	868.01	-33.82
		High	894.55	-34.52
	256QAM	Low	868.00	-33.68
		High	894.14	-34.84
2	QPSK	Low	868.89	-34.96
		High	894.42	-33.54
	16QAM	Low	868.66	-35.59
		High	894.98	-34.47
	64QAM	Low	868.87	-35.45
		High	894.79	-34.67
	256QAM	Low	868.35	-34.51
		High	894.12	-35.73
3	QPSK	Low	868.91	-35.77
		High	894.12	-34.46
	16QAM	Low	868.90	-34.05
		High	894.92	-35.25
	64QAM	Low	868.75	-35.12
		High	894.05	-34.11
	256QAM	Low	868.22	-33.28
		High	894.93	-34.89

**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.14	-33.96
		High	894.96	-37.39
	16QAM	Low	868.04	-34.58
		High	894.94	-37.33
	64QAM	Low	868.59	-35.00
		High	894.14	-37.24
	256QAM	Low	868.21	-34.34
		High	894.15	-36.46
1	QPSK	Low	868.57	-32.94
		High	894.35	-37.43
	16QAM	Low	868.92	-34.16
		High	894.07	-37.88
	64QAM	Low	868.80	-35.03
		High	894.31	-37.53
	256QAM	Low	868.70	-34.35
		High	894.16	-38.06
2	QPSK	Low	868.56	-35.64
		High	894.55	-39.01
	16QAM	Low	868.30	-36.66
		High	894.27	-38.62
	64QAM	Low	868.01	-35.00
		High	894.32	-38.00
	256QAM	Low	868.33	-35.06
		High	894.38	-38.59
3	QPSK	Low	868.75	-35.56
		High	894.38	-37.95
	16QAM	Low	868.00	-34.19
		High	894.09	-37.22
	64QAM	Low	868.42	-34.21
		High	894.52	-37.31
	256QAM	Low	868.54	-33.36
		High	894.42	-37.88

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [3 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.85	-34.20
		High	894.81	-37.19
	16QAM	Low	868.81	-35.25
		High	894.37	-37.75
	64QAM	Low	868.67	-34.13
		High	894.45	-37.51
	256QAM	Low	868.55	-33.02
		High	894.23	-37.44
1	QPSK	Low	868.36	-34.37
		High	894.17	-37.63
	16QAM	Low	868.36	-34.10
		High	894.34	-38.31
	64QAM	Low	868.29	-33.81
		High	894.51	-37.64
	256QAM	Low	868.35	-34.44
		High	894.95	-37.93
2	QPSK	Low	868.66	-34.93
		High	894.92	-37.53
	16QAM	Low	868.76	-36.52
		High	894.82	-38.98
	64QAM	Low	868.56	-34.47
		High	894.06	-38.17
	256QAM	Low	868.92	-36.33
		High	894.59	-38.47
3	QPSK	Low	868.64	-33.60
		High	894.92	-37.35
	16QAM	Low	868.76	-34.47
		High	894.42	-37.20
	64QAM	Low	868.79	-35.11
		High	894.23	-37.46
	256QAM	Low	868.65	-34.57
		High	894.52	-38.95

**Tabular Data of Non-Contiguous Out-of-band Unwanted Emissions**
**B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.28	-33.36
		High	894.37	-33.68
	16QAM	Low	868.51	-35.29
		High	894.15	-34.76
	64QAM	Low	868.01	-34.93
		High	894.21	-33.92
256QAM	Low	868.95	-33.86	
	High	895.00	-34.36	
1	QPSK	Low	868.64	-33.71
		High	894.19	-34.64
	16QAM	Low	868.86	-33.83
		High	894.18	-35.50
	64QAM	Low	868.86	-34.52
		High	894.10	-33.26
256QAM	Low	868.66	-34.04	
	High	894.90	-33.69	
2	QPSK	Low	868.62	-36.38
		High	894.55	-35.07
	16QAM	Low	868.14	-36.01
		High	894.43	-35.01
	64QAM	Low	868.66	-34.38
		High	894.75	-32.82
256QAM	Low	868.95	-36.63	
	High	894.51	-34.67	
3	QPSK	Low	868.65	-33.15
		High	894.43	-35.55
	16QAM	Low	868.48	-34.45
		High	894.23	-35.00
	64QAM	Low	868.95	-34.78
		High	894.11	-34.04
256QAM	Low	868.29	-34.07	
	High	894.37	-34.09	

## 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.98	-33.22
		High	894.06	-34.67
	16QAM	Low	868.79	-35.74
		High	894.98	-36.62
	64QAM	Low	868.80	-33.79
		High	894.12	-33.96
	256QAM	Low	868.98	-35.30
		High	894.05	-34.27
1	QPSK	Low	868.91	-34.28
		High	894.41	-35.72
	16QAM	Low	868.98	-33.57
		High	894.81	-37.18
	64QAM	Low	868.98	-34.46
		High	894.07	-36.17
	256QAM	Low	868.92	-34.80
		High	894.35	-36.35
2	QPSK	Low	868.98	-36.85
		High	894.06	-35.88
	16QAM	Low	868.69	-36.89
		High	894.15	-37.14
	64QAM	Low	868.98	-35.01
		High	894.33	-34.48
	256QAM	Low	868.46	-35.83
		High	894.04	-35.53
3	QPSK	Low	868.98	-36.01
		High	894.56	-35.83
	16QAM	Low	868.89	-29.99
		High	894.06	-27.82
	64QAM	Low	868.89	-36.22
		High	894.71	-35.84
	256QAM	Low	868.93	-35.70
		High	894.67	-34.78



**5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.91	-34.25
		High	894.27	-34.53
	16QAM	Low	868.42	-34.00
		High	894.36	-34.16
	64QAM	Low	868.23	-33.45
		High	894.05	-33.99
	256QAM	Low	868.79	-33.44
		High	894.53	-33.52
1	QPSK	Low	868.87	-34.15
		High	894.76	-35.45
	16QAM	Low	868.29	-35.15
		High	894.60	-33.47
	64QAM	Low	868.87	-33.03
		High	894.44	-34.55
	256QAM	Low	868.18	-33.44
		High	894.30	-35.09
2	QPSK	Low	868.02	-36.64
		High	894.58	-35.44
	16QAM	Low	868.37	-35.43
		High	894.99	-35.66
	64QAM	Low	868.95	-34.97
		High	894.29	-36.55
	256QAM	Low	868.44	-35.12
		High	894.20	-36.51
3	QPSK	Low	868.56	-34.60
		High	894.10	-34.78
	16QAM	Low	868.17	-34.51
		High	894.38	-33.87
	64QAM	Low	868.94	-35.03
		High	894.29	-35.09
	256QAM	Low	868.35	-34.50
		High	894.34	-33.88

**5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.85	-34.46
		High	894.04	-34.45
	16QAM	Low	868.98	-35.02
		High	894.46	-35.11
	64QAM	Low	868.97	-34.34
		High	894.04	-35.28
	256QAM	Low	868.92	-34.22
		High	894.03	-34.29
1	QPSK	Low	868.95	-35.22
		High	894.23	-37.36
	16QAM	Low	868.89	-35.15
		High	894.95	-35.64
	64QAM	Low	868.85	-35.33
		High	894.44	-37.06
	256QAM	Low	868.92	-34.75
		High	894.33	-36.24
2	QPSK	Low	868.29	-37.15
		High	894.22	-36.59
	16QAM	Low	868.54	-36.48
		High	894.44	-36.05
	64QAM	Low	868.96	-36.81
		High	894.06	-35.97
	256QAM	Low	868.67	-36.03
		High	894.03	-34.77
3	QPSK	Low	868.97	-36.03
		High	894.33	-36.78
	16QAM	Low	868.92	-35.66
		High	894.32	-35.95
	64QAM	Low	868.95	-35.29
		High	894.69	-35.52
	256QAM	Low	868.47	-35.69
		High	894.06	-36.58

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.83	-31.66
		High	894.24	-35.87
	16QAM	Low	868.13	-34.07
		High	894.05	-35.98
	64QAM	Low	868.79	-33.76
		High	894.05	-36.20
	256QAM	Low	868.66	-33.98
		High	894.91	-36.28
1	QPSK	Low	868.95	-33.58
		High	894.13	-36.94
	16QAM	Low	868.95	-33.96
		High	894.95	-37.31
	64QAM	Low	868.72	-33.71
		High	894.23	-37.41
	256QAM	Low	868.91	-33.27
		High	894.03	-37.16
2	QPSK	Low	868.72	-34.68
		High	894.28	-35.65
	16QAM	Low	868.95	-34.73
		High	894.33	-37.39
	64QAM	Low	868.78	-34.87
		High	894.70	-37.71
	256QAM	Low	868.25	-35.20
		High	894.25	-36.86
3	QPSK	Low	868.89	-33.10
		High	894.11	-36.62
	16QAM	Low	868.54	-33.69
		High	894.03	-36.93
	64QAM	Low	868.25	-34.09
		High	894.42	-36.33
	256QAM	Low	868.76	-34.06
		High	894.63	-36.49

**B5 DSS 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier]**

Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.95	-33.67
		High	894.08	-32.26
	16QAM	Low	868.50	-34.55
		High	894.53	-34.73
	64QAM	Low	868.81	-32.81
		High	894.48	-33.61
	256QAM	Low	868.95	-33.27
		High	894.98	-32.43
1	QPSK	Low	868.14	-34.51
		High	894.26	-34.54
	16QAM	Low	868.73	-34.36
		High	894.88	-34.20
	64QAM	Low	868.94	-34.37
		High	894.19	-34.16
	256QAM	Low	868.53	-32.88
		High	894.34	-34.58
2	QPSK	Low	868.86	-35.85
		High	894.56	-35.83
	16QAM	Low	868.32	-34.48
		High	894.05	-36.23
	64QAM	Low	868.74	-35.80
		High	894.05	-35.65
	256QAM	Low	868.89	-34.74
		High	894.38	-35.22
3	QPSK	Low	868.78	-35.14
		High	894.97	-34.18
	16QAM	Low	868.85	-35.08
		High	894.33	-32.69
	64QAM	Low	868.95	-32.72
		High	894.52	-34.21
	256QAM	Low	868.72	-34.49
		High	894.33	-34.48

**5G NR n5 5 MHz 1 Carrier + (LTE B5 5 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier) [3 Carrier] (1C+2C)**

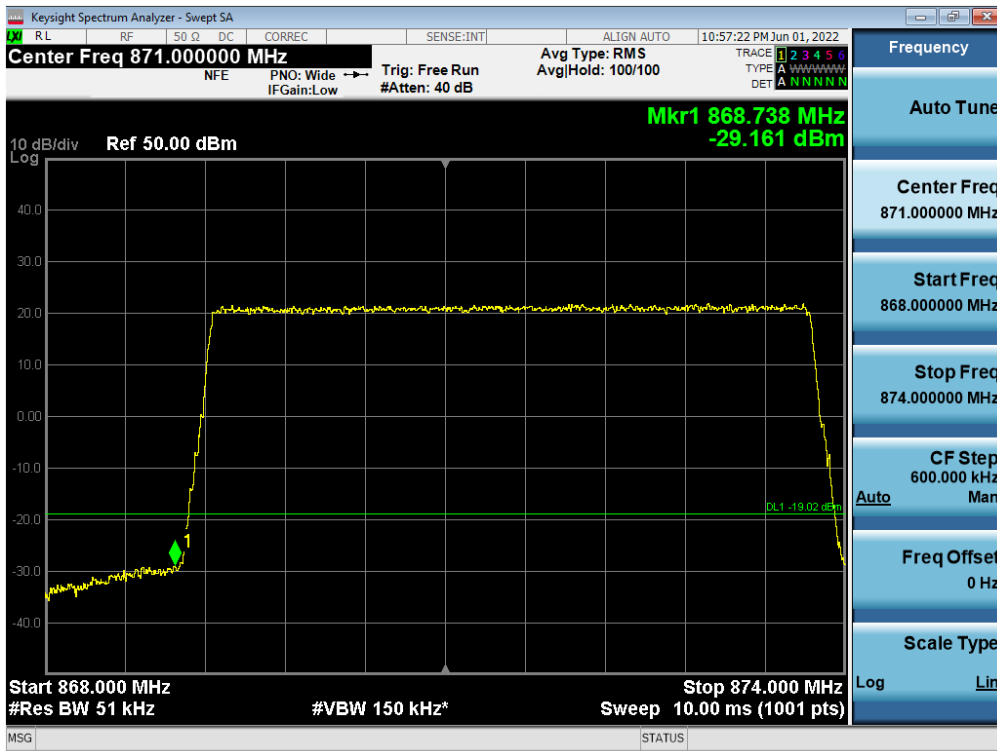
Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.28	-36.39
		High	894.54	-34.32
	16QAM	Low	868.87	-35.87
		High	894.98	-34.78
	64QAM	Low	868.95	-36.47
		High	894.42	-34.62
	256QAM	Low	868.11	-36.23
		High	894.34	-34.41
1	QPSK	Low	868.97	-36.43
		High	894.15	-37.03
	16QAM	Low	868.86	-35.90
		High	894.26	-36.45
	64QAM	Low	868.97	-35.92
		High	894.21	-33.91
	256QAM	Low	868.89	-36.72
		High	894.24	-34.65
2	QPSK	Low	868.69	-37.09
		High	894.60	-34.32
	16QAM	Low	868.25	-38.31
		High	894.68	-34.36
	64QAM	Low	868.83	-38.48
		High	894.67	-35.62
	256QAM	Low	868.29	-37.66
		High	894.48	-33.91
3	QPSK	Low	868.65	-36.85
		High	894.36	-34.46
	16QAM	Low	868.29	-37.60
		High	894.75	-36.10
	64QAM	Low	868.70	-36.70
		High	894.47	-34.14
	256QAM	Low	868.43	-36.83
		High	894.36	-34.75

**(B5 DSS 10 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier) + 5G NR n5 5 MHz 1 Carrier [3 Carrier] (2C+1C)**

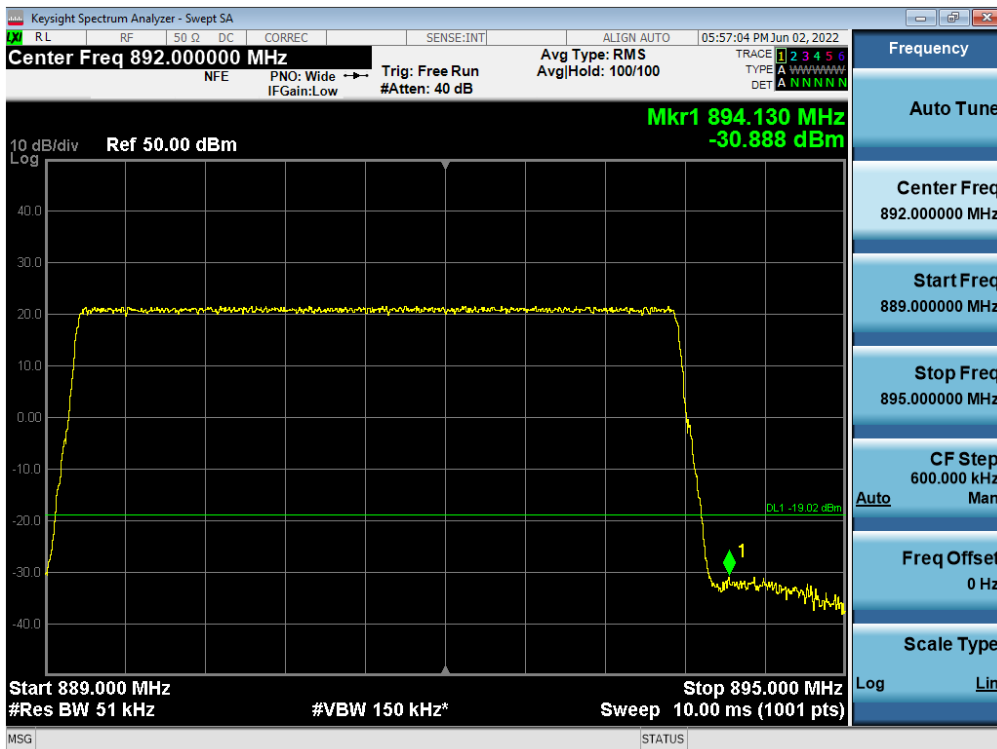
Ant.	Mod.	Channel	Frequency (MHz)	Measured Value (dBm)
0	QPSK	Low	868.68	-33.24
		High	894.41	-36.39
	16QAM	Low	868.80	-33.95
		High	894.66	-36.71
	64QAM	Low	868.32	-33.96
		High	894.71	-36.40
	256QAM	Low	868.61	-34.79
		High	894.97	-36.85
1	QPSK	Low	868.86	-34.41
		High	894.73	-37.82
	16QAM	Low	868.55	-34.04
		High	894.10	-36.65
	64QAM	Low	868.87	-33.62
		High	894.19	-38.11
	256QAM	Low	868.30	-33.89
		High	894.86	-36.96
2	QPSK	Low	868.81	-35.09
		High	894.45	-37.24
	16QAM	Low	868.10	-34.10
		High	894.07	-38.02
	64QAM	Low	868.58	-33.92
		High	894.41	-37.05
	256QAM	Low	868.09	-35.81
		High	894.74	-37.96
3	QPSK	Low	868.39	-35.07
		High	894.58	-37.67
	16QAM	Low	868.69	-33.70
		High	894.03	-37.68
	64QAM	Low	868.70	-34.03
		High	894.87	-37.68
	256QAM	Low	868.72	-34.11
		High	894.03	-37.65

Plot Data of Out-of-band Unwanted Emissions

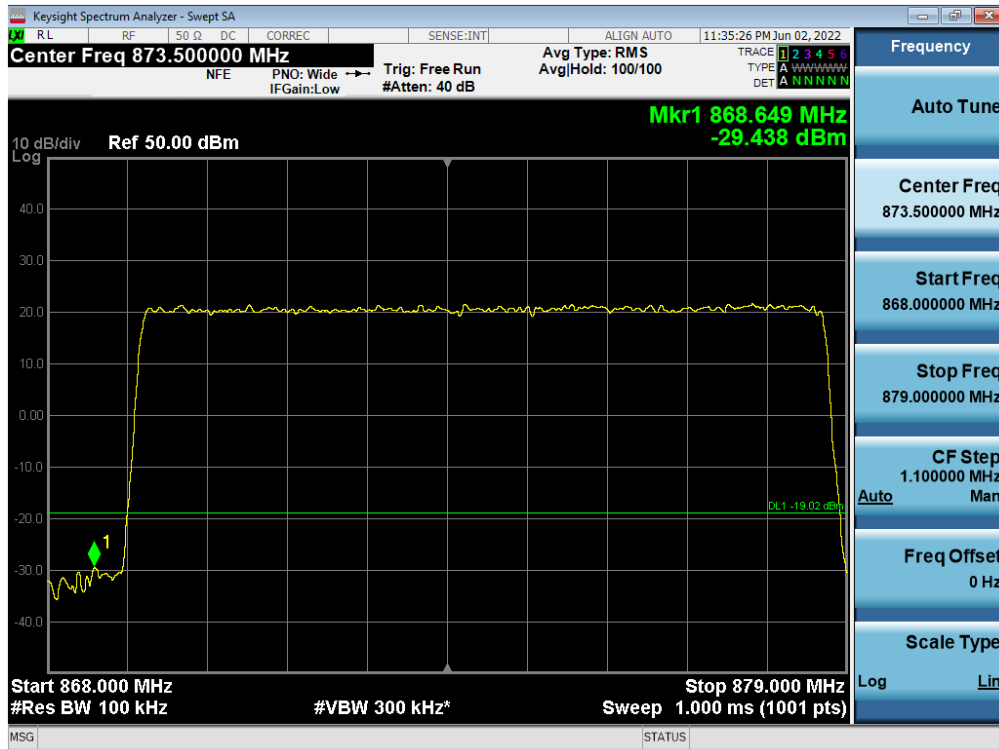
Antenna 0 / 5G NR n5 5 MHz 1 Carrier / 64QAM / Low



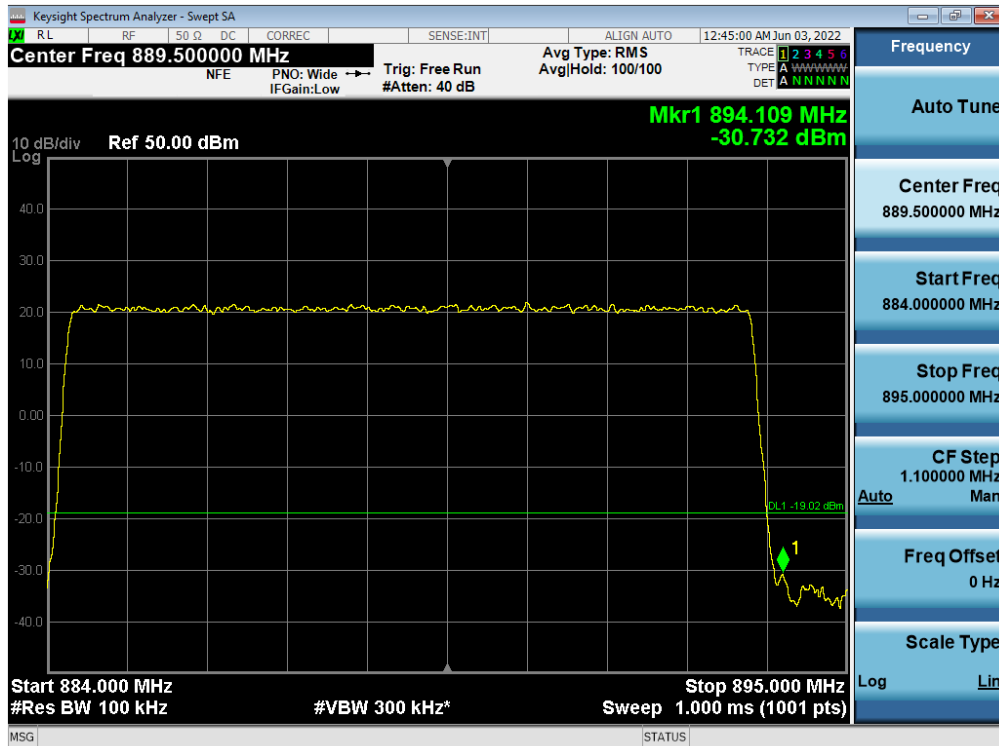
Antenna 0 / 5G NR n5 5 MHz 1 Carrier / QPSK / High



Antenna 0 / 5G NR n5 10 MHz 1 Carrier / QPSK / Low

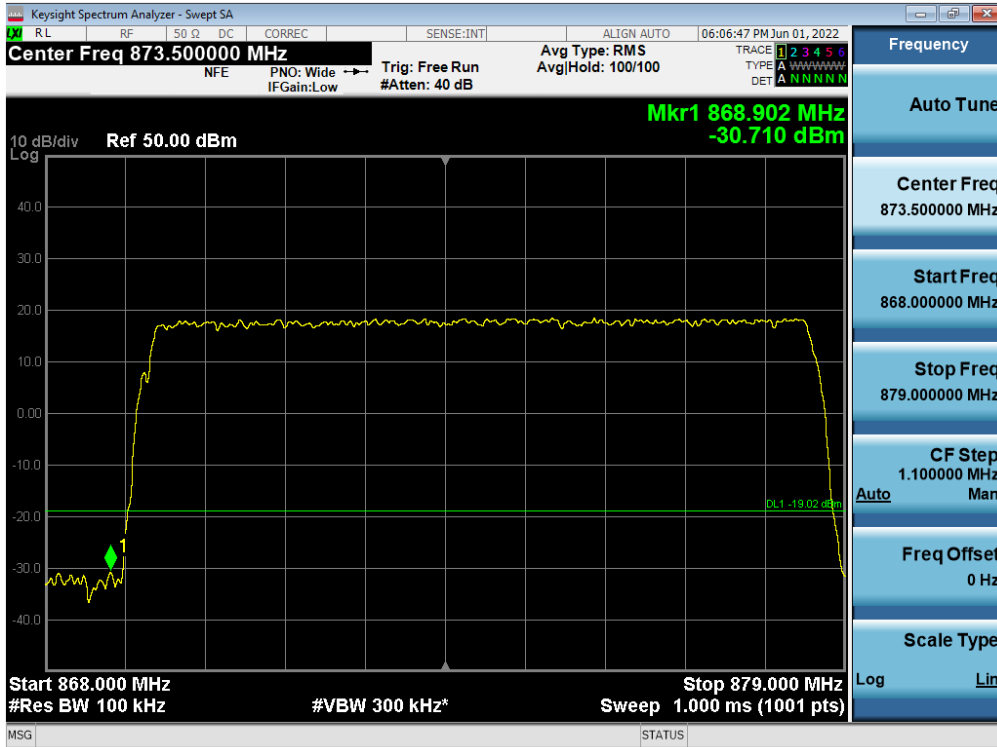


Antenna 0 / 5G NR n5 10 MHz 1 Carrier / QPSK / High

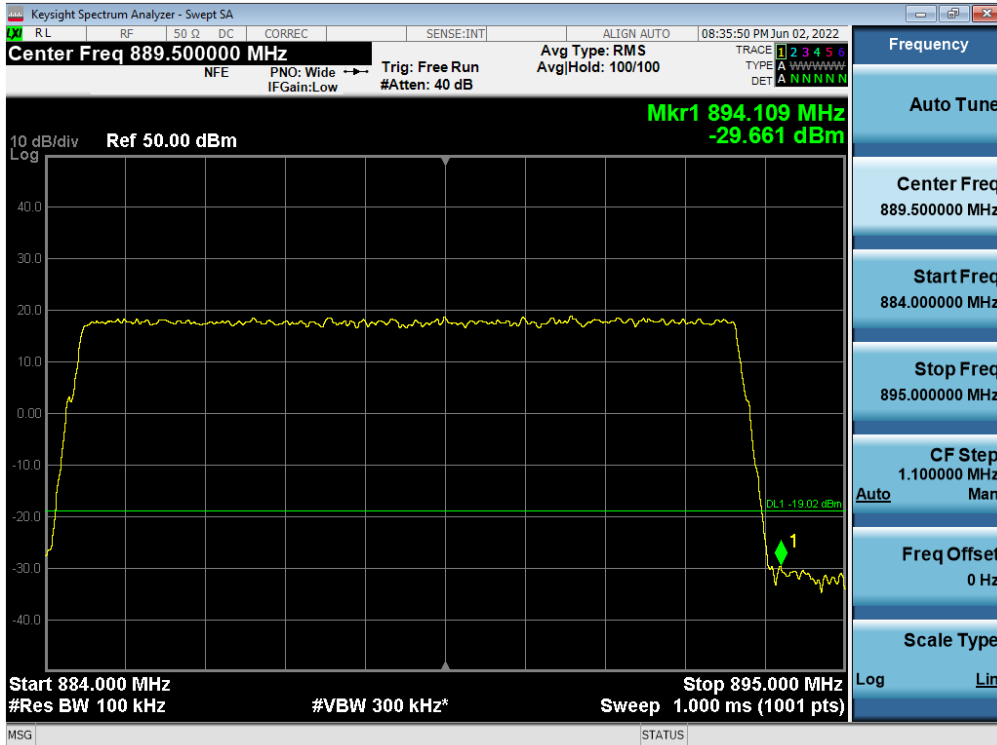




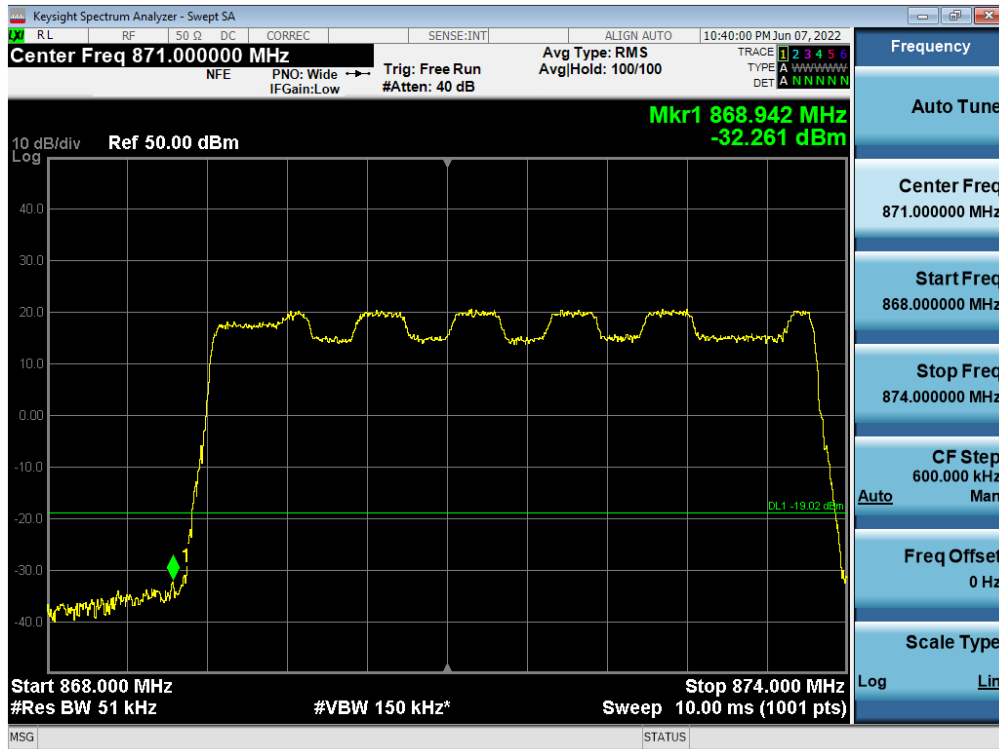
Antenna 1 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Low



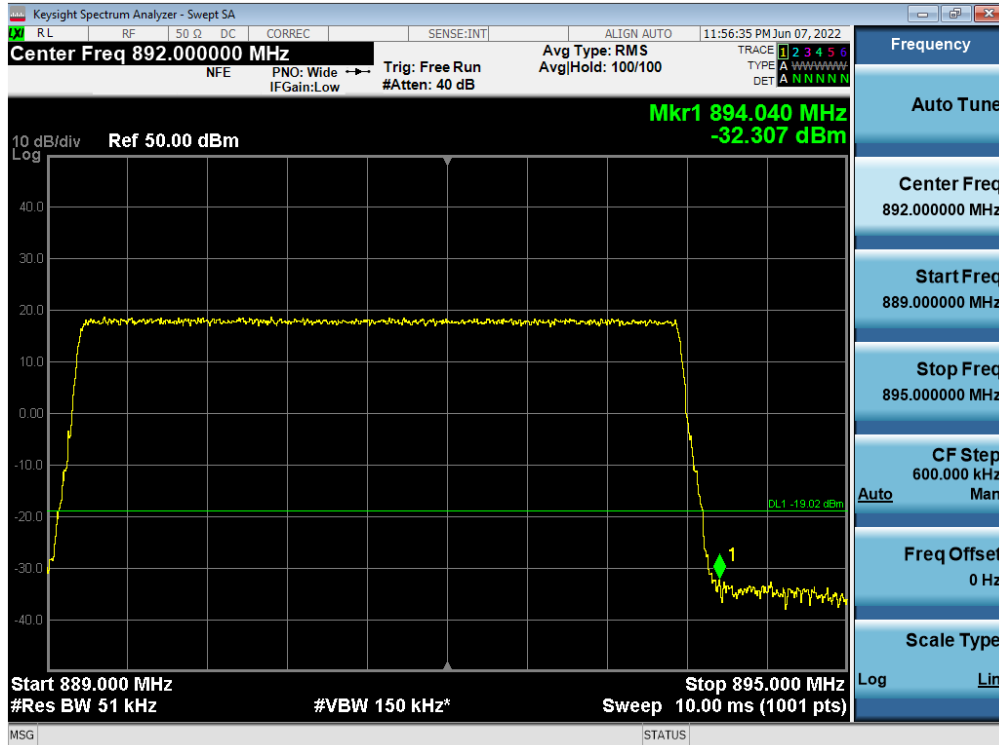
Antenna 0 / B5 DSS 10 MHz 1 Carrier + B5 DSS 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High



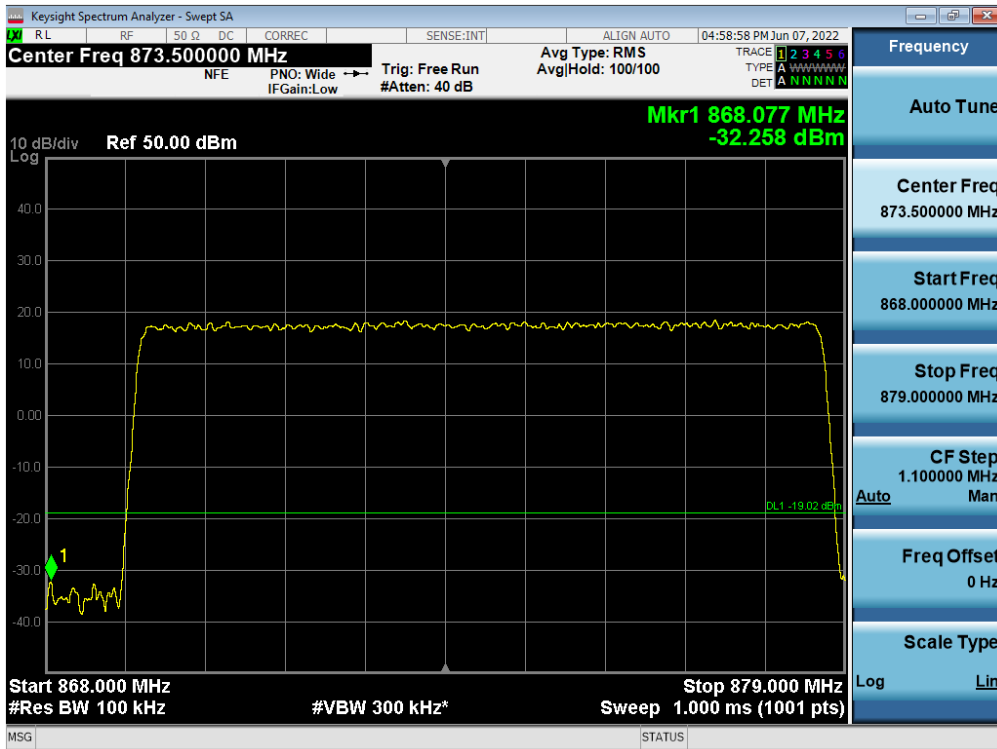
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 16QAM / Low



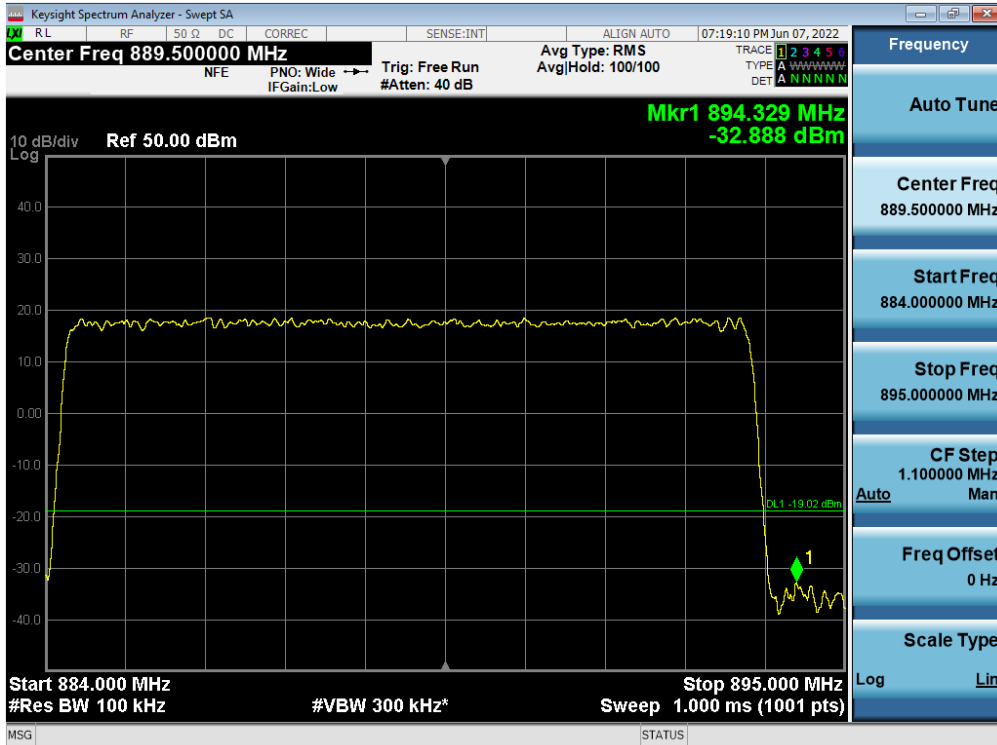
Antenna 1 / 5G NR n5 5 MHz 1 Carrier + 5G NR n5 5 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High



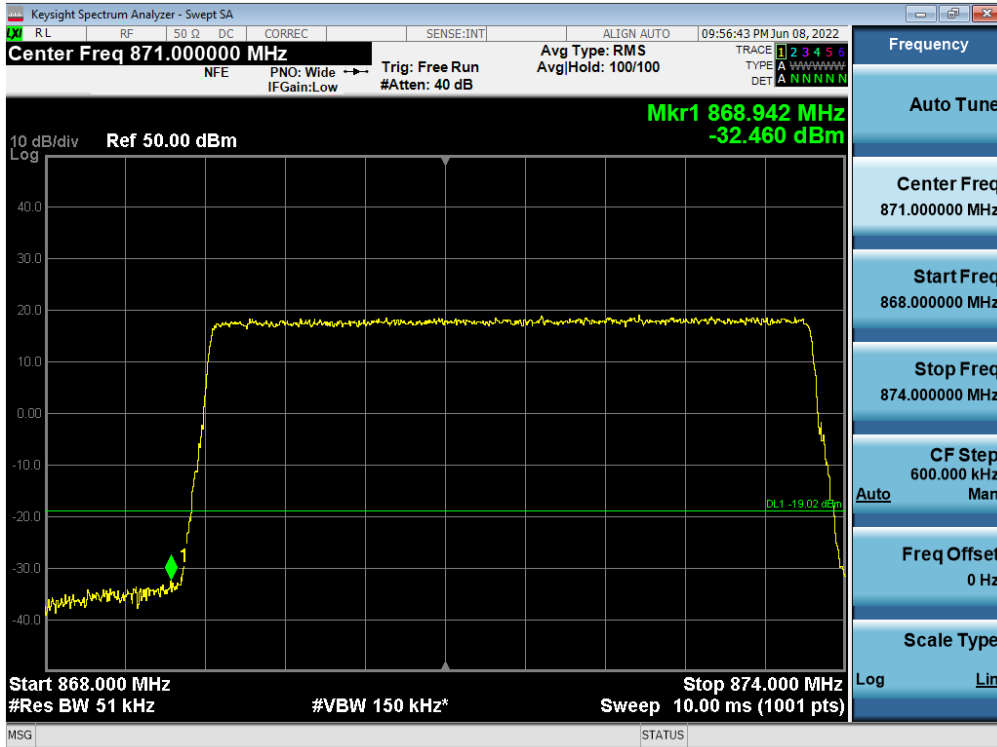
Antenna 2 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / Low



Antenna 0 / 5G NR n5 10 MHz 1 Carrier + 5G NR n5 10 MHz 1 Carrier [2 Carrier] / Contiguous / QPSK / High



Antenna 1 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / Low



Antenna 0 / 5G NR n5 5 MHz 1 Carrier + LTE B5 5 MHz 1 Carrier [2 Carrier] / Contiguous / 256QAM / High

