

# TEST REPORT

FCC Sub6 n41(38) Test for SM-S721U  
Certification

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

**REPORT NO.**  
HCT-RF-2407-FC039

**DATE OF ISSUE**  
July 23, 2024

**Tested by**  
Jae Ryang Do



**Technical Manager**  
Jong Seok Lee



**HCT CO., LTD.**  
*Bongjai Huh*  
BongJai Huh / CEO



**HCT CO.,LTD.**

2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA  
Tel. +82 31 645 6300 Fax. +82 31 645 6401

**TEST  
REPORT**

**REPORT NO.**  
HCT-RF-2407-FC039

**DATE OF ISSUE**  
July 23, 2024

**Additional Model**  
SM-S721U1

**Applicant** **SAMSUNG Electronics Co., Ltd.**  
129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

**Product Name** Mobile Phone  
**Model Name** SM-S721U

**Date of Test** May 21, 2024 ~ July 19, 2024

**FCC ID** A3LSMS721U

**Location of Test**  Permanent Testing Lab  On Site Testing  
(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 Republic of Korea)

**FCC Classification:** PCS Licensed Transmitter Held to Ear (PCE)

**Test Standard Used** FCC Rule Part: § 27

**Test Results** PASS

## REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	July 23, 2024	Initial Release

## Notice

---

### Content

---

The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998, 21 U.S. C. 853(a)

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked \*.

Information provided by the applicant Bs marked \*\*.

Test results provided by external providers are marked \*\*\*.

When confirmation of authenticity of this test report is required, please contact [www.hct.co.kr](http://www.hct.co.kr)

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

---

## CONTENTS

1. GENERAL INFORMATION .....	5
1.1. MAXIMUM OUTPUT POWER .....	6
2. INTRODUCTION .....	7
2.1. DESCRIPTION OF EUT .....	7
2.2. MEASURING INSTRUMENT CALIBRATION .....	7
2.3. TEST FACILITY .....	7
3. DESCRIPTION OF TESTS .....	8
3.1 TEST PROCEDURE .....	8
3.2 RADIATED POWER.....	9
3.3 RADIATED SPURIOUS EMISSIONS.....	10
3.4 PEAK- TO- AVERAGE RATIO .....	11
3.5 OCCUPIED BANDWIDTH.....	13
3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL.....	14
3.7 CHANNEL EDGE .....	15
3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE .....	17
3.9 WORST CASE(RADIATED TEST) .....	18
3.10 WORST CASE(CONDUCTED TEST).....	19
4. LIST OF TEST EQUIPMENT.....	21
5. MEASUREMENT UNCERTAINTY.....	22
6. SUMMARY OF TEST RESULTS.....	23
7. SAMPLE CALCULATION.....	24
8. TEST DATA(ANT B).....	26
8.1 EQUIVALENT ISOTROPIC RADIATED POWER.....	26
8.2 RADIATED SPURIOUS EMISSIONS.....	38
8.3 PEAK-TO-AVERAGE RATIO .....	50
8.4 OCCUPIED BANDWIDTH.....	52
8.5 CONDUCTED SPURIOUS EMISSIONS .....	54
8.6 CHANNEL EDGE .....	56
8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE .....	59
9. TEST PLOTS(ANT B).....	71
10. ANNEX A_ TEST SETUP PHOTO .....	420

## MEASUREMENT REPORT

### 1. GENERAL INFORMATION

<b>Applicant Name:</b>	SAMSUNG Electronics Co., Ltd.
<b>Address:</b>	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
<b>FCC ID:</b>	A3LSMS721U
<b>Application Type:</b>	Certification
<b>FCC Classification:</b>	PCS Licensed Transmitter Held to Ear (PCE)
<b>FCC Rule Part(s):</b>	§ 27
<b>EUT Type:</b>	Mobile phone
<b>Model(s):</b>	SM-S721U
<b>Additional Model(s)</b>	SM-S721U1
<b>SCS(kHz):</b>	30
<b>Bandwidth(MHz):</b>	Sub6 n41(38) : 10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
<b>Waveform:</b>	CP-OFDM, DFT-S-OFDM
<b>Modulation:</b>	DFT-S-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
<b>Tx Frequency:</b>	2501.010 – 2685.000 : 10 MHz(Sub6 n41(38)) 2503.500 – 2682.480 : 15 MHz(Sub6 n41(38)) 2506.020 – 2679.990 : 20 MHz(Sub6 n41(38)) 2508.510 – 2677.500 : 25 MHz(Sub6 n41(38)) 2511.000 – 2674.980 : 30 MHz(Sub6 n41(38)) 2516.010 – 2670.000 : 40 MHz(Sub6 n41(38)) 2521.020 – 2664.990 : 50 MHz(Sub6 n41) 2526.000 – 2659.980 : 60 MHz(Sub6 n41) 2531.010 – 2655.000 : 70 MHz(Sub6 n41) 2536.020 – 2649.990 : 80 MHz(Sub6 n41) 2541.000 – 2644.980 : 90 MHz(Sub6 n41) 2546.010 – 2640.000 : 100 MHz(Sub6 n41)
<b>Date(s) of Tests:</b>	May 21, 2024 ~ July 19, 2024
<b>Serial number:</b>	Radiated : 67d50ecc63197ece Conducted : R3CX40SV7PD

### 1.1. MAXIMUM OUTPUT POWER

#### ANT B

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n41(38) (10)	2501.010 – 2685.000	8M72G7D	PI/2 BPSK	0.256	24.09
		8M70G7D	QPSK	0.254	24.05
		8M71W7D	16QAM	0.204	23.09
		8M79W7D	64QAM	0.145	21.60
		8M66W7D	256QAM	0.091	19.59
Sub6 n41(38) (15)	2503.500 – 2682.480	13M0G7D	PI/2 BPSK	0.272	24.34
		13M0G7D	QPSK	0.269	24.30
		13M0W7D	16QAM	0.212	23.26
		13M0W7D	64QAM	0.153	21.86
		13M0W7D	256QAM	0.095	19.78
Sub6 n41(38) (20)	2506.020 – 2679.990	18M0G7D	PI/2 BPSK	0.277	24.43
		18M0G7D	QPSK	0.275	24.39
		18M0W7D	16QAM	0.218	23.38
		18M0W7D	64QAM	0.155	21.90
		17M9W7D	256QAM	0.096	19.83
Sub6 n41(38) (25)	2508.510 – 2677.500	23M1G7D	PI/2 BPSK	0.279	24.45
		23M0G7D	QPSK	0.272	24.35
		23M1W7D	16QAM	0.222	23.46
		23M0W7D	64QAM	0.158	21.99
		22M9W7D	256QAM	0.097	19.88
Sub6 n41(38) (30)	2511.000 – 2674.980	27M0G7D	PI/2 BPSK	0.276	24.41
		27M0G7D	QPSK	0.272	24.35
		27M1W7D	16QAM	0.218	23.39
		27M0W7D	64QAM	0.158	21.99
		27M0W7D	256QAM	0.100	20.00
Sub6 n41(38) (40)	2516.010 – 2670.000	36M0G7D	PI/2 BPSK	0.270	24.32
		36M0G7D	QPSK	0.269	24.29
		36M1W7D	16QAM	0.211	23.25
		36M0W7D	64QAM	0.155	21.90
		35M9W7D	256QAM	0.097	19.88
Sub6 n41 (50)	2521.020 – 2664.990	46M0G7D	PI/2 BPSK	0.265	24.23
		46M0G7D	QPSK	0.258	24.12
		46M0W7D	16QAM	0.203	23.07
		46M3W7D	64QAM	0.146	21.64
		45M9W7D	256QAM	0.094	19.74
Sub6 n41 (60)	2526.000 – 2659.980	58M3G7D	PI/2 BPSK	0.256	24.08
		58M3G7D	QPSK	0.250	23.98
		58M3W7D	16QAM	0.199	22.99
		58M2W7D	64QAM	0.136	21.34
		58M2W7D	256QAM	0.088	19.46
Sub6 n41 (70)	2531.010 – 2655.000	64M7G7D	PI/2 BPSK	0.262	24.18
		64M7G7D	QPSK	0.249	23.97
		64M8W7D	16QAM	0.206	23.14
		64M8W7D	64QAM	0.146	21.64
		64M4W7D	256QAM	0.090	19.52
Sub6 n41 (80)	2536.020 – 2649.990	77M5G7D	PI/2 BPSK	0.246	23.91
		77M5G7D	QPSK	0.242	23.83
		77M8W7D	16QAM	0.198	22.97
		77M8W7D	64QAM	0.134	21.27
		77M8W7D	256QAM	0.086	19.34
Sub6 n41 (90)	2541.000 – 2644.980	87M3G7D	PI/2 BPSK	0.258	24.12
		87M2G7D	QPSK	0.251	23.99
		87M5W7D	16QAM	0.203	23.08
		87M4W7D	64QAM	0.140	21.47
		87M1W7D	256QAM	0.090	19.52
Sub6 n41 (100)	2546.010 – 2640.000	96M7G7D	PI/2 BPSK	0.247	23.92
		96M7G7D	QPSK	0.237	23.75
		96M8W7D	16QAM	0.195	22.90
		97M0W7D	64QAM	0.137	21.36
		97M0W7D	256QAM	0.087	19.39

## 2. INTRODUCTION

### 2.1. DESCRIPTION OF EUT

The EUT was a Mobile Phone with GSM/GPRS/EGPRS/UMTS and LTE, Sub 6, mmWave. It also supports IEEE 802.11 a/b/g/n/ac/ax (20/40/80/160 MHz), Bluetooth(iPA, ePA), BT LE(iPA, ePA), NFC, WPT, WIFI 6E.

### 2.2. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

### 2.3. TEST FACILITY

The Fully-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.**

### 3. DESCRIPTION OF TESTS

#### 3.1 TEST PROCEDURE

Test Description	Test Procedure Used
Occupied Bandwidth	- KDB 971168 D01 v03r01 – Section 4.3 - ANSI C63.26-2015 – Section 5.4.4
Channel Edge	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Spurious and Harmonic Emissions at Antenna Terminal	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Conducted Output Power	- N/A (See SAR Report)
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4 - ANSI C63.26-2015 – Section 5.2.6(only GSM)
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Effective Radiated Power/ Effective Isotropic Radiated Power	- KDB 971168 D01 v03r01 – Section 5.2 & 5.8 - ANSI/TIA-603-E-2016 – Section 2.2.17
Radiated Spurious and Harmonic Emissions	- KDB 971168 D01 v03r01 – Section 6.2 - ANSI/TIA-603-E-2016 – Section 2.2.12



## 3.2 RADIATED POWER

### Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

The equipment under test is placed on a non-conductive table 3-meters away from the receive antenna in accordance with ANSI/TIA-603-E-2016 Clause 2.2.17.

### Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5 % of the expected OBW, not to exceed 1 MHz
3. VBW  $\geq$  3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points > 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

### Test Note

1. The turntable is rotated through 360 degrees, and the receiving antenna scans in order to determine the level of the maximized emission.
2. A half wave dipole is then substituted in place of the EUT. For emissions above 1 GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.

The power is calculated by the following formula;

$$P_d \text{ (dBm)} = P_g \text{ (dBm)} - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

Where:  $P_d$  is the dipole equivalent power and  $P_g$  is the generator output power into the substitution antenna.

3. The maximum value is calculated by adding the forward power to the calibrated source plus its appropriate gain value.

These steps are repeated with the receiving antenna in both vertical and horizontal polarization. the difference between the gain of the horn and an isotropic antenna are taken into consideration

4. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
5. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

### 3.3 RADIATED SPURIOUS EMISSIONS

#### Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method according to ANSI/TIA-603-E-2016.

#### Test Settings

1. RBW = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1 GHz
2. VBW  $\geq$  3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points > 2 x span / RBW
5. Detector = Peak
6. Trace mode = Max Hold
7. The trace was allowed to stabilize
8. Test channel : Low/ Middle/ High
9. Frequency range : We are performed all frequency to 10<sup>th</sup> harmonics from 9 kHz.

#### Test Note

1. Measurements value show only up to 3 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
2. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the test data
3. For spurious emissions above 1 GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated. The spurious emissions is calculated by the following formula;

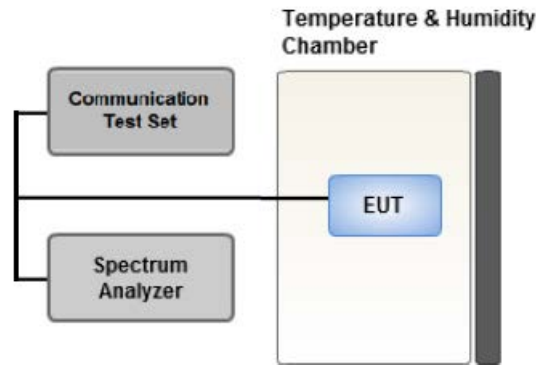
$$\text{Result}_{(dBm)} = P_g_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

Where:  $P_g$  is the generator output power into the substitution antenna.

If the fundamental frequency is below 1 GHz, RF output power has been converted to EIRP.

$$\text{EIRP}_{(dBm)} = \text{ERP}_{(dBm)} + 2.15$$

### 3.4 PEAK- TO- AVERAGE RATIO



Test setup

#### ① CCDF Procedure for PAPR

##### Test Settings

1. Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Set the measurement interval as follows:
  - .- for continuous transmissions, set to 1 ms,
  - .- or 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 and set the measurement interval to a time that is less than or equal to the burst duration.
4. Record the maximum PAPR level associated with a probability of 0.1 %.

#### ② Alternate Procedure for PAPR

Use one of the procedures presented in 5.2(ANSI C63.26-2015) to measure the total peak power and record as  $P_{Pk}$ . Use one of the applicable procedures presented 5.2(ANSI C63.26-2015) to measure the total average power and record as  $P_{Avg}$ . Determine the P.A.R. from:

$$P.A.R. (dB) = P_{Pk} (dBm) - P_{Avg} (dBm) \quad (P_{Avg} = \text{Average Power} + \text{Duty cycle Factor})$$

### Test Settings(Peak Power)

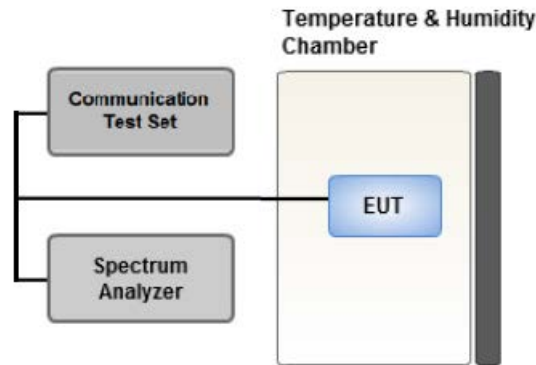
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW  $\geq 3 \times$  RBW.

1. Set the RBW  $\geq$  OBW.
2. Set VBW  $\geq 3 \times$  RBW.
3. Set span  $\geq 2 \times$  OBW.
4. Sweep time  $\geq 10 \times$  (number of points in sweep)  $\times$  (transmission symbol period).
5. Detector = peak.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the peak amplitude level.

### Test Settings(Average Power)

1. Set span to  $2 \times$  to  $3 \times$  the OBW.
2. Set RBW  $\geq$  OBW.
3. Set VBW  $\geq 3 \times$  RBW.
4. Set number of measurement points in sweep  $\geq 2 \times$  span / RBW.
5. Sweep time:  
Set  $\geq [10 \times$  (number of points in sweep)  $\times$  (transmission period)] for single sweep (automation-compatible) measurement. The transmission period is the (on + off) time.
6. Detector = power averaging (rms).
7. Set sweep trigger to “free run.”
8. 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 the on and off period of the transmitter, 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.)
9. Use the peak marker function to determine the maximum amplitude level.
10. Add  $[10 \log (1/\text{duty cycle})]$  to the measured maximum power level to compute the average power during continuous transmission. For example, add  $[10 \log (1/0.25)] = 6$  dB if the duty cycle is a constant 25 %.

### 3.5 OCCUPIED BANDWIDTH.



#### Test setup

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

The EUT makes a call to the communication simulator.

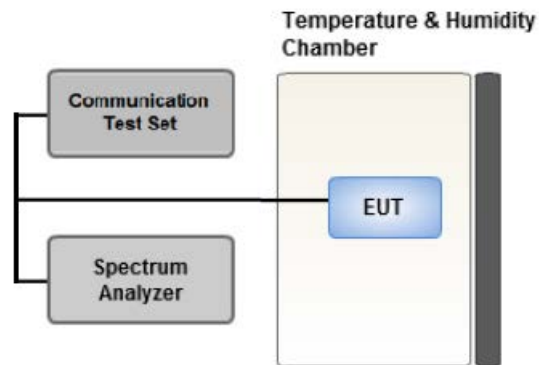
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth

#### Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99 % occupied bandwidth and the 26 dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5 % of the expected OBW
3. VBW  $\geq$  3 x RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5 % of the 99 % occupied bandwidth observed in Step 7

### 3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

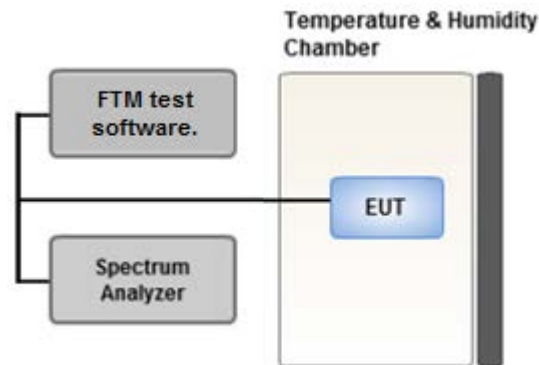
#### Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

#### Test Settings

1. RBW = 1 MHz
2. VBW  $\geq$  3 MHz
3. Detector = RMS
4. Trace Mode = trace average
5. Sweep time = auto
6. Number of points in sweep  $\geq$  2 x Span / RBW

### 3.7 CHANNEL EDGE



Test setup

#### Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum power and at the appropriate frequencies.

All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

#### Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. Within 1 MHz of the channel edge the RBW should be 2 % of EBW, then 1 MHz after that.
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points  $\geq 2 \times \text{Span}/\text{RBW}$
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

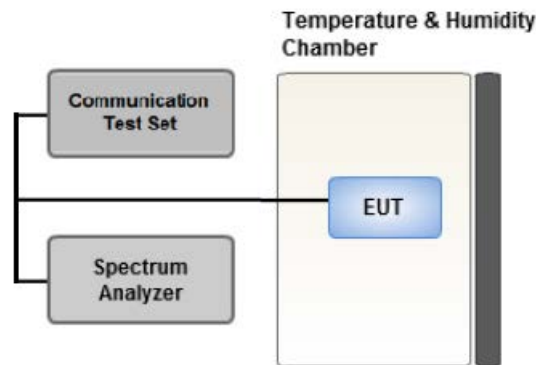
### Test Notes

1. The attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,
2.  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge.
3.  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge.
4. The attenuation factor shall not be less that  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz.
5.  $55 + 10 \log (P)$  dB at or below 2490.5 MHz.
6. X is the greater of 6MHz or the actual emission bandwidth
7. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer

Where Margin < 1 dB the emission level is either corrected by  $10 \log(1 \text{ MHz}/ \text{RB})$  or the emission is integrated over a 1 MHz bandwidth to determine the final result. When using the integration method the integration window is either centered on the emission or, for emissions at the band edge, centered by an offset of 500 kHz from the block edge so that the integration window is the 1 MHz adjacent to the block edge.



### 3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

#### Test Overview

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015.

The frequency stability of the transmitter is measured by:

1. Temperature:

The temperature is varied from -30 °C to +50 °C in 10 °C increments using an environmental chamber.

2. Primary Supply Voltage:

- Unless otherwise specified, vary primary supply voltage from 85 % to 115 % of the nominal value for other than hand carried battery equipment.
- For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.

#### Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20 °C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter.  
Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10 °C intervals ranging from -30 °C to +50 °C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

### 3.9 WORST CASE(RADIATED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.  
(Worst case: DFT-S-OFDM)
- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- All modes of operation were investigated and the worst case configuration results are reported.  
Mode: NSA, SA, SRS  
Worst case: Sub6 n41(38)\_SA  
Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)  
Worst case : Stand alone
- All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed.  
Therefore, only the worst case(stand-alone) results were reported.
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).  
All EN-DC mode of operation (=anchor) were investigated and the test results were measured No Peak Found.  
The test results which are attenuated more than 20 dB below the permissible value, so it was not reported.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.  
Please refer to the table below.
- Sub6 n41 (2 496 – 2 690 MHz, 10/15/20/25/30/40/50/60/80/90/100 MHz bandwidth) overlaps the entire frequency range of Sub6 n38 (2 570 - 2 620 MHz, 10/15/20/25/30/40 MHz bandwidth). (Only ANT B)  
Therefore, test data provided in this report covers Sub6 n38 as well as Sub6 n41.
- SM-S721U & additional models were tested and the worst case results are reported.  
(Worst case : SM-S721U)

[ ANT B Worst case ]

Test Description	Modulation	RB size	RB offset	Axis
Effective Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	See Section 9.1		X
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		Y

### 3.10 WORST CASE(CONDUCTED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.  
(Worst case: DFT-S-OFDM)
- Modulation : All Modulation of operation were investigated and the worst case configuration results are reported.  
(Worst case: PI/2 BPSK)
- All modes of operation were investigated and the worst case configuration results are reported.  
Mode: NSA, SA, SRS  
Worst case: Sub6 n41(38)\_SA
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.  
Please refer to the table below.
- SM-S721U & additional models were tested and the worst case results are reported.  
(Worst case : SM-S721U)
- Sub6 n41 (2 496 – 2 690 MHz, 10/15/20/25/30/40/50/60/80/90/100 MHz bandwidth) overlaps the entire frequency range of Sub6 n38 (2 570 - 2 620 MHz, 10/15/20/25/30/40 MHz bandwidth). (Only ANT B)  
Therefore, test data provided in this report covers Sub6 n38 as well as Sub6 n41.

[ ANT B Worst case ]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset		
Occupied Bandwidth, Peak-To-Average Ratio	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Mid	Full RB	0		
Channel Edge	PI/2 BPSK	10	Low	1	0		
			High	1	23		
		15	Low	1	0		
			High	1	37		
		20	Low	1	0		
			High	1	50		
		25	Low	1	0		
			High	1	64		
		30	Low	1	0		
			High	1	77		
		40	Low	1	0		
			High	1	105		
		50	Low	1	0		
			High	1	132		
		60	Low	1	0		
			High	1	161		
		70	Low	1	0		
			High	1	188		
		80	Low	1	0		
			High	1	216		
		90	Low	1	0		
			High	1	244		
		100	Low	1	0		
			High	1	272		
				10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Low, Mid, High	Full RB	0
		Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Low, Mid, High	1	1

#### 4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/10/2026	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	02/14/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	04/27/2025	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/29/2024	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	01/16/2025	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/09/2025	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/24/2025	Biennial
RF Switching System	FBSR-06B (1G HPF + LNA)	T&M SYSTEM	F3L1	05/14/2025	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/14/2025	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/14/2025	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/14/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/17/2024	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/26/2025	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/25/2024	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	02/29/2025	Annual
Chamber	SU-642	ESPEC	93008124	02/19/2025	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/04/2025	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/17/2025	Annual
Spectrum Analyzer(10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/13/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/10/2024	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/16/2025	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/14/2025	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/19/2024	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

**Note:**

1. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
2. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

## 5. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4:2014.

All measurement uncertainty values are shown with a coverage factor of  $k=2$  to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the  $U_{\text{CISPR}}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty ( $\pm$ dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.98 (Confidence level about 95 %, $k=2$ )
Radiated Disturbance (9 kHz ~ 30 MHz)	4.36 (Confidence level about 95 %, $k=2$ )
Radiated Disturbance (30 MHz ~ 1 GHz)	5.70 (Confidence level about 95 %, $k=2$ )
Radiated Disturbance (1 GHz ~ 18 GHz)	5.52 (Confidence level about 95 %, $k=2$ )
Radiated Disturbance (18 GHz ~ 40 GHz)	5.66 (Confidence level about 95 %, $k=2$ )
Radiated Disturbance (Above 40 GHz)	5.58 (Confidence level about 95 %, $k=2$ )

## 6. SUMMARY OF TEST RESULTS

### 6.1 Test Condition: Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§ 2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 27.53(m)(4)	<ul style="list-style-type: none"> <li>■ <math>&lt; 40 + 10\log_{10} (P[\text{Watts}])</math> at Channel edges</li> <li>■ <math>&lt; 43 + 10\log_{10} (P[\text{Watts}])</math> between 5 and X MHz from Channel edges</li> <li>■ <math>&lt; 55 + 10\log_{10} (P[\text{Watts}])</math> beyond X MHz beyond from Channel edges</li> <li>■ <math>&lt; 43 + 10 \log (P)</math> dB on all frequencies between 2490.5 MHz and 2496 MHz</li> </ul>	PASS
Conducted Output Power	§ 2.1046	N/A	<u>See Note1</u>
Frequency stability / variation of ambient temperature	§ 2.1055, § 27.54	Emission must remain in band	PASS

**Note:**

1. See SAR Report
2. All conducted tests were tested using 5G Wireless Tester.

### 6.2 Test Condition: Radiated Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Equivalent Isotropic Radiated Power	§ 27.50(h)(2)	$< 2$ Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1053, § 27.53(m)(4)	$< 55 + 10\log_{10} (P[\text{Watts}])$	PASS

**Note:**

1. Radiated tests were tested using 5G Wireless Tester.

## 7. SAMPLE CALCULATION

### 7.1 ERP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol.	ERP	
channel	Freq.(MHz)						W	dBm
128	824.20	-21.37	38.40	-10.61	0.95	H	0.483	26.84

$$\text{ERP} = \text{Substitute LEVEL(dBm)} + \text{Ant. Gain} - \text{CL(Cable Loss)}$$

- 1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.
- 2) During the test, the turn table is rotated until the maximum signal is found.
- 3) Record the field strength meter's level.
- 4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
- 5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
- 6) The signal generator output level with Ant. Gain and cable loss are the rating of effective radiated power.

### 7.2 EIRP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	EIRP	
channel	Freq.(MHz)						W	dBm
20175	1,732.50	-15.75	18.45	9.90	1.76	H	0.456	26.59

$$\text{EIRP} = \text{Substitute LEVEL(dBm)} + \text{Ant. Gain} - \text{CL(Cable Loss)}$$

- 1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.
- 2) During the test, the turn table is rotated until the maximum signal is found.
- 3) Record the field strength meter's level.
- 4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
- 5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
- 6) The signal generator output level with Ant. Gain and cable loss are the rating of equivalent isotropic radiated power.



### 7.3. Emission Designator

#### GSM Emission Designator

Emission Designator = 249KGXW  
GSM BW = 249 kHz  
G = Phase Modulation  
X = Cases not otherwise covered  
W = Combination (Audio/Data)

#### EDGE Emission Designator

Emission Designator = 249KG7W  
GSM BW = 249 kHz  
G = Phase Modulation  
7 = Quantized/Digital Info  
W = Combination (Audio/Data)

#### WCDMA Emission Designator

Emission Designator = 4M17F9W  
WCDMA BW = 4.17 MHz  
F = Frequency Modulation  
9 = Composite Digital Info  
W = Combination (Audio/Data)

#### QPSK Modulation

Emission Designator = 4M48G7D  
LTE BW = 4.48 MHz  
G = Phase Modulation  
7 = Quantized/Digital Info  
D = Data transmission; telemetry; telecommand

#### QAM Modulation

Emission Designator = 4M48W7D  
LTE BW = 4.48 MHz  
W = Amplitude/Angle Modulated  
7 = Quantized/Digital Info  
D = Data transmission; telemetry; telecommand

## 8. TEST DATA(ANT B)

### 8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2501.010		PI/2 BPSK	-20.42	16.22	10.30	2.47	H	< 2.00	0.254	24.05	1	22
		QPSK	-20.57	16.07	10.30	2.47	H		0.245	23.90		
		16-QAM	-21.60	15.04	10.30	2.47	H		0.194	22.87		
		64-QAM	-23.03	13.61	10.30	2.47	H		0.139	21.44		
		256-QAM	-25.02	11.62	10.30	2.47	H		0.088	19.45		
2505.000	Sub6 n41(38) / 10 MHz [30 kHz]	PI/2 BPSK	-20.36	16.27	10.30	2.48	H	0.256	24.09	1	22	
		QPSK	-20.40	16.23	10.30	2.48	H	0.254	24.05			
		16-QAM	-21.36	15.27	10.30	2.48	H	0.204	23.09			
		64-QAM	-22.85	13.78	10.30	2.48	H	0.145	21.60			
		256-QAM	-24.86	11.77	10.30	2.48	H	0.091	19.59			
2592.990		PI/2 BPSK	-20.81	15.49	10.05	2.50	H	0.201	23.04	1	1	
		QPSK	-20.90	15.40	10.05	2.50	H	0.197	22.95			
		16-QAM	-21.86	14.44	10.05	2.50	H	0.158	21.99			
		64-QAM	-23.36	12.94	10.05	2.50	H	0.112	20.49			
		256-QAM	-25.37	10.93	10.05	2.50	H	0.071	18.48			
2685.000		PI/2 BPSK	-21.36	16.10	10.10	2.58	H	0.230	23.62	1	12	
		QPSK	-21.51	15.95	10.10	2.58	H	0.222	23.47			
		16-QAM	-22.48	14.98	10.10	2.58	H	0.178	22.50			
		64-QAM	-24.08	13.38	10.10	2.58	H	0.123	20.90			
		256-QAM	-25.97	11.49	10.10	2.58	H	0.080	19.01			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2503.500	Sub6 n41(38) / 15 MHz [30 kHz]	PI/2 BPSK	-20.37	16.26	10.30	2.48	H	< 2.00	0.256	24.08	1	36
		QPSK	-20.39	16.24	10.30	2.48	H		0.255	24.06		
		16-QAM	-21.40	15.23	10.30	2.48	H		0.202	23.05		
		64-QAM	-22.88	13.75	10.30	2.48	H		0.144	21.57		
		256-QAM	-24.75	11.88	10.30	2.48	H		0.093	19.70		
2507.500		PI/2 BPSK	-20.11	16.52	10.30	2.48	H		0.272	24.34	1	36
		QPSK	-20.15	16.48	10.30	2.48	H		0.269	24.30		
		16-QAM	-21.19	15.44	10.30	2.48	H		0.212	23.26		
		64-QAM	-22.59	14.04	10.30	2.48	H		0.153	21.86		
		256-QAM	-24.67	11.96	10.30	2.48	H		0.095	19.78		
2592.990	PI/2 BPSK	-20.82	15.48	10.05	2.50	H	0.201	23.03	1	1		
	QPSK	-20.90	15.40	10.05	2.50	H	0.197	22.95				
	16-QAM	-21.83	14.47	10.05	2.50	H	0.159	22.02				
	64-QAM	-23.45	12.85	10.05	2.50	H	0.110	20.40				
	256-QAM	-25.34	10.96	10.05	2.50	H	0.071	18.51				
2682.480	PI/2 BPSK	-21.39	16.32	10.10	2.58	H	0.242	23.84	1	1		
	QPSK	-21.42	16.29	10.10	2.58	H	0.240	23.81				
	16-QAM	-22.31	15.40	10.10	2.58	H	0.196	22.92				
	64-QAM	-23.73	13.98	10.10	2.58	H	0.141	21.50				
	256-QAM	-25.82	11.89	10.10	2.58	H	0.087	19.41				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2506.020		PI/2 BPSK	-20.02	16.61	10.30	2.48	H	< 2.00	0.277	24.43	1	49
		QPSK	-20.06	16.57	10.30	2.48	H		0.275	24.39		
		16-QAM	-21.07	15.56	10.30	2.48	H		0.218	23.38		
		64-QAM	-22.55	14.08	10.30	2.48	H		0.155	21.90		
		256-QAM	-24.63	12.00	10.30	2.48	H		0.096	19.82		
2510.010	Sub6 n41(38) / 20 MHz [30 kHz]	PI/2 BPSK	-20.10	16.52	10.30	2.50	H	0.271	24.32	1	49	
		QPSK	-20.15	16.47	10.30	2.50	H	0.267	24.27			
		16-QAM	-21.25	15.37	10.30	2.50	H	0.208	23.17			
		64-QAM	-22.74	13.88	10.30	2.50	H	0.147	21.68			
		256-QAM	-24.59	12.03	10.30	2.50	H	0.096	19.83			
2592.990		PI/2 BPSK	-20.97	15.33	10.05	2.50	H	0.194	22.88	1	1	
		QPSK	-21.01	15.29	10.05	2.50	H	0.192	22.84			
		16-QAM	-22.02	14.28	10.05	2.50	H	0.152	21.83			
		64-QAM	-23.49	12.81	10.05	2.50	H	0.109	20.36			
		256-QAM	-25.36	10.94	10.05	2.50	H	0.071	18.49			
2679.990		PI/2 BPSK	-21.42	16.29	10.10	2.58	H	0.240	23.81	1	1	
		QPSK	-21.46	16.25	10.10	2.58	H	0.238	23.77			
		16-QAM	-22.48	15.23	10.10	2.58	H	0.188	22.75			
		64-QAM	-23.98	13.73	10.10	2.58	H	0.133	21.25			
		256-QAM	-25.90	11.81	10.10	2.58	H	0.086	19.33			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2508.510		PI/2 BPSK	-19.99	16.64	10.30	2.49	H	< 2.00	0.279	24.45	1	32
		QPSK	-20.09	16.54	10.30	2.49	H		0.272	24.35		
		16-QAM	-20.98	15.65	10.30	2.49	H		0.222	23.46		
		64-QAM	-22.45	14.18	10.30	2.49	H		0.158	21.99		
		256-QAM	-24.64	11.99	10.30	2.49	H		0.095	19.80		
2512.500	Sub6 n41(38) / 25 MHz [30 kHz]	PI/2 BPSK	-19.97	16.65	10.28	2.50	H	0.277	24.43	1	32	
		QPSK	-20.05	16.57	10.28	2.50	H	0.272	24.35			
		16-QAM	-20.96	15.66	10.28	2.50	H	0.221	23.44			
		64-QAM	-22.63	13.99	10.28	2.50	H	0.150	21.77			
		256-QAM	-24.52	12.10	10.28	2.50	H	0.097	19.88			
2592.990		PI/2 BPSK	-20.56	15.74	10.05	2.50	H	0.213	23.29	1	1	
		QPSK	-20.63	15.67	10.05	2.50	H	0.210	23.22			
		16-QAM	-21.72	14.58	10.05	2.50	H	0.163	22.13			
		64-QAM	-23.03	13.27	10.05	2.50	H	0.121	20.82			
		256-QAM	-24.99	11.31	10.05	2.50	H	0.077	18.86			
2677.500		PI/2 BPSK	-21.38	16.18	10.10	2.58	H	0.234	23.70	1	1	
		QPSK	-21.40	16.16	10.10	2.58	H	0.233	23.68			
		16-QAM	-22.42	15.14	10.10	2.58	H	0.185	22.66			
		64-QAM	-23.82	13.74	10.10	2.58	H	0.134	21.26			
		256-QAM	-25.80	11.76	10.10	2.58	H	0.085	19.28			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2511.000		PI/2 BPSK	-20.18	16.44	10.30	2.50	H	< 2.00	0.265	24.24	1	39
		QPSK	-20.23	16.39	10.30	2.50	H		0.262	24.19		
		16-QAM	-21.24	15.38	10.30	2.50	H		0.208	23.18		
		64-QAM	-22.72	13.90	10.30	2.50	H		0.148	21.70		
		256-QAM	-24.60	12.02	10.30	2.50	H		0.096	19.82		
2515.020	Sub6 n41(38) / 30 MHz [30 kHz]	PI/2 BPSK	-19.87	16.62	10.30	2.51	H	< 2.00	0.276	24.41	1	39
		QPSK	-19.93	16.56	10.30	2.51	H		0.272	24.35		
		16-QAM	-20.89	15.60	10.30	2.51	H		0.218	23.39		
		64-QAM	-22.29	14.20	10.30	2.51	H		0.158	21.99		
		256-QAM	-24.28	12.21	10.30	2.51	H		0.100	20.00		
2592.990		PI/2 BPSK	-20.46	15.84	10.05	2.50	H	< 2.00	0.218	23.39	1	1
		QPSK	-20.54	15.76	10.05	2.50	H		0.214	23.31		
		16-QAM	-21.51	14.79	10.05	2.50	H		0.171	22.34		
		64-QAM	-23.08	13.22	10.05	2.50	H		0.119	20.77		
		256-QAM	-25.01	11.29	10.05	2.50	H		0.077	18.84		
2674.980		PI/2 BPSK	-21.30	16.11	10.10	2.58	H	< 2.00	0.231	23.63	1	1
		QPSK	-21.36	16.05	10.10	2.58	H		0.228	23.57		
		16-QAM	-22.42	14.99	10.10	2.58	H		0.178	22.51		
		64-QAM	-23.97	13.44	10.10	2.58	H		0.125	20.96		
		256-QAM	-25.83	11.58	10.10	2.58	H		0.081	19.10		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2516.010	Sub6 n41(38) / 40 MHz [30 kHz]	PI/2 BPSK	-19.96	16.53	10.30	2.51	H	< 2.00	0.270	24.32	1	53
		QPSK	-19.99	16.50	10.30	2.51	H		0.269	24.29		
		16-QAM	-21.03	15.46	10.30	2.51	H		0.211	23.25		
		64-QAM	-22.38	14.11	10.30	2.51	H		0.155	21.90		
		256-QAM	-24.40	12.09	10.30	2.51	H		0.097	19.88		
2520.000		PI/2 BPSK	-19.91	16.76	10.00	2.53	H		0.265	24.23	1	53
		QPSK	-19.98	16.69	10.00	2.53	H		0.261	24.16		
		16-QAM	-21.03	15.64	10.00	2.53	H		0.205	23.11		
		64-QAM	-22.53	14.14	10.00	2.53	H		0.145	21.61		
		256-QAM	-24.50	12.17	10.00	2.53	H		0.092	19.64		
2592.990	PI/2 BPSK	-20.64	15.66	10.05	2.50	H	0.209	23.21	1	1		
	QPSK	-20.66	15.64	10.05	2.50	H	0.208	23.19				
	16-QAM	-21.65	14.65	10.05	2.50	H	0.166	22.20				
	64-QAM	-23.19	13.11	10.05	2.50	H	0.116	20.66				
	256-QAM	-25.19	11.11	10.05	2.50	H	0.074	18.66				
2670.000	PI/2 BPSK	-21.22	15.90	10.10	2.58	H	0.220	23.42	1	1		
	QPSK	-21.26	15.86	10.10	2.58	H	0.218	23.38				
	16-QAM	-22.35	14.77	10.10	2.58	H	0.169	22.29				
	64-QAM	-23.85	13.27	10.10	2.58	H	0.120	20.79				
	256-QAM	-25.65	11.47	10.10	2.58	H	0.079	18.99				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2521.020	Sub6 n41 / 50 MHz [30 kHz]	PI/2 BPSK	-19.91	16.76	10.00	2.53	H	< 2.00	0.265	24.23	1	66
		QPSK	-20.02	16.65	10.00	2.53	H		0.258	24.12		
		16-QAM	-21.08	15.59	10.00	2.53	H		0.202	23.06		
		64-QAM	-22.50	14.17	10.00	2.53	H		0.146	21.64		
		256-QAM	-24.40	12.27	10.00	2.53	H		0.094	19.74		
2525.010		PI/2 BPSK	-20.01	16.25	10.30	2.53	H		0.252	24.02	1	66
		QPSK	-20.06	16.20	10.30	2.53	H		0.249	23.97		
		16-QAM	-20.96	15.30	10.30	2.53	H		0.203	23.07		
		64-QAM	-22.57	13.69	10.30	2.53	H		0.140	21.46		
		256-QAM	-24.56	11.70	10.30	2.53	H		0.089	19.47		
2592.990	-20.43	-20.67	15.63	10.05	2.50	H	0.208	23.18	1	1		
	-20.50	-20.73	15.57	10.05	2.50	H	0.205	23.12				
	-21.70	-21.73	14.57	10.05	2.50	H	0.163	22.12				
	-22.96	-23.21	13.09	10.05	2.50	H	0.116	20.64				
	-25.24	-25.00	11.30	10.05	2.50	H	0.077	18.85				
2664.990	PI/2 BPSK	-21.38	15.71	10.10	2.60	H	0.209	23.21	1	1		
	QPSK	-21.44	15.65	10.10	2.60	H	0.207	23.15				
	16-QAM	-22.52	14.57	10.10	2.60	H	0.161	22.07				
	64-QAM	-23.91	13.18	10.10	2.60	H	0.117	20.68				
	256-QAM	-25.72	11.37	10.10	2.60	H	0.077	18.87				



Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2526.000	Sub6 41/ 60 MHz [30 kHz]	PI/2 BPSK	-19.95	16.31	10.30	2.53	H	< 2.00	0.256	24.08	1	81
		QPSK	-20.05	16.21	10.30	2.53	H		0.250	23.98		
		16-QAM	-21.04	15.22	10.30	2.53	H		0.199	22.99		
		64-QAM	-22.96	13.30	10.30	2.53	H		0.128	21.07		
		256-QAM	-24.57	11.69	10.30	2.53	H		0.088	19.46		
2530.020		PI/2 BPSK	-20.13	15.99	10.30	2.52	H		0.238	23.77	1	81
		QPSK	-20.17	15.95	10.30	2.52	H		0.236	23.73		
		16-QAM	-20.95	15.17	10.30	2.52	H		0.197	22.95		
		64-QAM	-22.56	13.56	10.30	2.52	H		0.136	21.34		
		256-QAM	-24.51	11.61	10.30	2.52	H		0.087	19.39		
2592.990	PI/2 BPSK	-20.31	15.99	10.05	2.50	H	0.226	23.54	1	1		
	QPSK	-20.34	15.96	10.05	2.50	H	0.224	23.51				
	16-QAM	-21.29	15.01	10.05	2.50	H	0.180	22.56				
	64-QAM	-22.74	13.56	10.05	2.50	H	0.129	21.11				
	256-QAM	-24.83	11.47	10.05	2.50	H	0.080	19.02				
2659.980	PI/2 BPSK	-21.24	15.61	10.10	2.61	H	0.204	23.10	1	1		
	QPSK	-21.26	15.59	10.10	2.61	H	0.203	23.08				
	16-QAM	-22.26	14.59	10.10	2.61	H	0.161	22.08				
	64-QAM	-23.72	13.13	10.10	2.61	H	0.115	20.62				
	256-QAM	-25.72	11.13	10.10	2.61	H	0.073	18.62				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2531.010	Sub6 41/ 70 MHz [30 kHz]	PI/2 BPSK	-20.16	15.96	10.30	2.52	H	< 2.00	0.237	23.74	1	94
		QPSK	-20.21	15.91	10.30	2.52	H		0.234	23.69		
		16-QAM	-21.13	14.99	10.30	2.52	H		0.189	22.77		
		64-QAM	-22.81	13.31	10.30	2.52	H		0.129	21.09		
		256-QAM	-24.68	11.44	10.30	2.52	H		0.084	19.22		
2535.000		PI/2 BPSK	-19.85	16.40	10.30	2.52	H		0.262	24.18	1	94
		QPSK	-20.06	16.19	10.30	2.52	H		0.249	23.97		
		16-QAM	-20.89	15.36	10.30	2.52	H		0.206	23.14		
		64-QAM	-22.39	13.86	10.30	2.52	H		0.146	21.64		
		256-QAM	-24.51	11.74	10.30	2.52	H		0.090	19.52		
2592.990	PI/2 BPSK	-20.51	15.79	10.05	2.50	H	0.216	23.34	1	1		
	QPSK	-20.58	15.72	10.05	2.50	H	0.212	23.27				
	16-QAM	-21.54	14.76	10.05	2.50	H	0.170	22.31				
	64-QAM	-23.09	13.21	10.05	2.50	H	0.119	20.76				
	256-QAM	-24.98	11.32	10.05	2.50	H	0.077	18.87				
2655.000	PI/2 BPSK	-21.04	15.72	10.10	2.63	H	0.208	23.19	1	1		
	QPSK	-21.11	15.65	10.10	2.63	H	0.205	23.12				
	16-QAM	-22.13	14.63	10.10	2.63	H	0.162	22.10				
	64-QAM	-23.53	13.23	10.10	2.63	H	0.118	20.70				
	256-QAM	-25.47	11.29	10.10	2.63	H	0.075	18.76				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2536.020	Sub6 41/ 80 MHz [30 kHz]	PI/2 BPSK	-20.11	16.13	10.30	2.52	H	< 2.00	0.246	23.91	1	108
		QPSK	-20.19	16.05	10.30	2.52	H		0.242	23.83		
		16-QAM	-21.05	15.19	10.30	2.52	H		0.198	22.97		
		64-QAM	-22.75	13.49	10.30	2.52	H		0.134	21.27		
		256-QAM	-24.68	11.56	10.30	2.52	H		0.086	19.34		
2540.010		PI/2 BPSK	-20.25	16.11	10.30	2.52	H		0.245	23.89	1	108
		QPSK	-20.36	16.00	10.30	2.52	H		0.239	23.78		
		16-QAM	-21.33	15.03	10.30	2.52	H		0.191	22.81		
		64-QAM	-22.94	13.42	10.30	2.52	H		0.132	21.20		
		256-QAM	-24.88	11.48	10.30	2.52	H		0.084	19.26		
2592.990	PI/2 BPSK	-20.58	15.72	10.05	2.50	H	0.212	23.27	1	1		
	QPSK	-20.61	15.69	10.05	2.50	H	0.211	23.24				
	16-QAM	-21.54	14.76	10.05	2.50	H	0.170	22.31				
	64-QAM	-23.09	13.21	10.05	2.50	H	0.119	20.76				
	256-QAM	-25.05	11.25	10.05	2.50	H	0.076	18.80				
2649.990	PI/2 BPSK	-21.41	15.26	10.10	2.65	H	0.187	22.71	1	1		
	QPSK	-21.51	15.16	10.10	2.65	H	0.182	22.61				
	16-QAM	-22.45	14.22	10.10	2.65	H	0.147	21.67				
	64-QAM	-23.95	12.72	10.10	2.65	H	0.104	20.17				
	256-QAM	-25.96	10.71	10.10	2.65	H	0.066	18.16				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2541.000	Sub6 41/ 90 MHz [30 kHz]	PI/2 BPSK	-20.02	16.34	10.30	2.52	H	< 2.00	0.258	24.12	1	122
		QPSK	-20.15	16.21	10.30	2.52	H		0.251	23.99		
		16-QAM	-21.06	15.30	10.30	2.52	H		0.203	23.08		
		64-QAM	-22.67	13.69	10.30	2.52	H		0.140	21.47		
		256-QAM	-24.62	11.74	10.30	2.52	H		0.090	19.52		
2545.020		PI/2 BPSK	-20.29	16.08	10.25	2.54	H		0.239	23.79	1	122
		QPSK	-20.34	16.03	10.25	2.54	H		0.237	23.74		
		16-QAM	-21.32	15.05	10.25	2.54	H		0.189	22.76		
		64-QAM	-22.88	13.49	10.25	2.54	H		0.132	21.20		
		256-QAM	-24.83	11.54	10.25	2.54	H		0.084	19.25		
2592.990	PI/2 BPSK	-20.11	16.19	10.05	2.50	H	0.237	23.74	1	1		
	QPSK	-20.16	16.14	10.05	2.50	H	0.234	23.69				
	16-QAM	-21.11	15.19	10.05	2.50	H	0.188	22.74				
	64-QAM	-22.58	13.72	10.05	2.50	H	0.134	21.27				
	256-QAM	-24.56	11.74	10.05	2.50	H	0.085	19.29				
2644.980	PI/2 BPSK	-21.23	15.58	10.00	2.66	H	0.196	22.92	1	122		
	QPSK	-21.26	15.55	10.00	2.66	H	0.195	22.89				
	16-QAM	-22.35	14.46	10.00	2.66	H	0.151	21.80				
	64-QAM	-23.68	13.13	10.00	2.66	H	0.111	20.47				
	256-QAM	-25.73	11.08	10.00	2.66	H	0.070	18.42				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
2546.010	Sub6 41/ 100 MHz [30 kHz]	PI/2 BPSK	-20.34	16.03	10.25	2.54	H	< 2.00	0.237	23.74	1	136
		QPSK	-20.43	15.94	10.25	2.54	H		0.232	23.65		
		16-QAM	-21.44	14.93	10.25	2.54	H		0.184	22.64		
		64-QAM	-22.81	13.56	10.25	2.54	H		0.134	21.27		
		256-QAM	-24.78	11.59	10.25	2.54	H		0.085	19.30		
2550.000		PI/2 BPSK	-20.10	16.27	10.20	2.55	H		0.247	23.92	1	136
		QPSK	-20.27	16.10	10.20	2.55	H		0.237	23.75		
		16-QAM	-21.12	15.25	10.20	2.55	H		0.195	22.90		
		64-QAM	-22.66	13.71	10.20	2.55	H		0.137	21.36		
		256-QAM	-24.63	11.74	10.20	2.55	H		0.087	19.39		
2592.990	PI/2 BPSK	-20.48	15.82	10.05	2.50	H	0.217	23.37	1	1		
	QPSK	-20.52	15.78	10.05	2.50	H	0.215	23.33				
	16-QAM	-21.59	14.71	10.05	2.50	H	0.168	22.26				
	64-QAM	-22.94	13.36	10.05	2.50	H	0.123	20.91				
	256-QAM	-24.98	11.32	10.05	2.50	H	0.077	18.87				
2640.000	PI/2 BPSK	-21.12	15.83	9.90	2.67	H	0.202	23.06	1	1		
	QPSK	-21.17	15.78	9.90	2.67	H	0.200	23.01				
	16-QAM	-21.94	15.01	9.90	2.67	H	0.168	22.24				
	64-QAM	-23.73	13.22	9.90	2.67	H	0.111	20.45				
	256-QAM	-25.56	11.39	9.90	2.67	H	0.073	18.62				

## 8.2 RADIATED SPURIOUS EMISSIONS

- ▣ NR Band: n41(38)
- ▣ Bandwidth: 10 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500202 (2501.010)	5 002.02	-44.06	10.70	-45.41	3.63	H	-38.34	-25.00	1	22
	7 503.03	-56.31	11.10	-49.30	4.50	H	-42.70	-25.00		
	10 004.04	-61.55	11.20	-53.09	5.26	H	-47.15	-25.00		
501000 (2505.000)	5 010.00	-42.62	10.70	-43.83	3.59	V	-36.72	-25.00	1	22
	7 515.00	-58.81	11.10	-51.70	4.51	H	-45.11	-25.00		
	10 020.00	-60.54	11.20	-51.45	5.28	H	-45.53	-25.00		
518598 (2592.990)	5 185.98	-42.45	11.00	-43.95	3.70	H	-36.65	-25.00	1	1
	7 778.97	-58.79	10.90	-51.41	4.61	V	-45.12	-25.00		
	10 371.96	-63.49	11.20	-52.79	5.41	V	-47.00	-25.00		
537000 (2685.000)	5 370.00	-33.60	11.50	-36.12	3.74	H	-28.36	-25.00	1	12
	8 055.00	-49.32	10.90	-42.11	4.71	H	-35.92	-25.00		
	10 740.00	-59.08	11.10	-48.48	5.50	H	-42.88	-25.00		

- ▣ NR Band: n41(38)
- ▣ Bandwidth: 15 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500700 (2503.500)	5 007.00	-44.28	10.70	-45.56	3.61	H	-38.47	-25.00	1	36
	7 510.50	-57.76	11.10	-50.69	4.50	H	-44.09	-25.00		
	10 014.00	-61.46	11.20	-52.85	5.27	H	-46.92	-25.00		
501504 (2507.500)	5 015.00	-45.12	10.70	-46.49	3.57	H	-39.36	-25.00	1	36
	7 522.50	-59.31	11.10	-52.00	4.51	H	-45.41	-25.00		
	10 030.00	-61.96	11.20	-53.40	5.27	H	-47.47	-25.00		
518598 (2592.990)	5 185.98	-42.82	11.00	-44.32	3.70	H	-37.02	-25.00	1	1
	7 778.97	-56.40	10.90	-49.02	4.61	H	-42.73	-25.00		
	10 371.96	-62.90	11.20	-52.20	5.41	H	-46.41	-25.00		
536496 (2682.480)	5 364.96	-33.49	11.50	-35.78	3.75	H	-28.03	-25.00	1	1
	8 047.44	-48.98	10.85	-41.80	4.69	H	-35.64	-25.00		
	10 729.92	-59.88	11.10	-48.65	5.47	H	-43.02	-25.00		

- ▣ NR Band: n41(38)
- ▣ Bandwidth: 20 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
501204 (2506.020)	5 012.04	-45.67	10.70	-46.88	3.59	H	-39.77	-25.00	1	49
	7 518.06	-60.39	11.10	-53.28	4.51	H	-46.69	-25.00		
	10 024.08	-61.38	11.20	-52.56	5.27	H	-46.63	-25.00		
502002 (2510.010)	5 020.02	-46.94	10.70	-48.51	3.55	H	-41.36	-25.00	1	49
	7 530.03	-61.33	11.10	-53.37	4.50	H	-46.77	-25.00		
	10 040.04	-63.13	11.20	-54.21	5.26	H	-48.27	-25.00		
518598 (2592.990)	5 185.98	-45.40	11.00	-46.90	3.70	H	-39.60	-25.00	1	1
	7 778.97	-57.96	10.90	-50.58	4.61	H	-44.29	-25.00		
	10 371.96	-63.36	11.20	-52.66	5.41	H	-46.87	-25.00		
535998 (2679.990)	5 359.98	-35.91	11.50	-37.97	3.76	H	-30.23	-25.00	1	1
	8 039.97	-53.74	10.80	-46.57	4.68	H	-40.45	-25.00		
	10 719.96	-63.72	11.10	-52.09	5.46	H	-46.45	-25.00		



- ▣ NR Band: n41(38)
- ▣ Bandwidth: 25 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
501702 (2508.510)	5 017.02	-45.35	10.70	-46.72	3.57	H	-39.59	-25.00	1	32
	7 525.53	-59.74	11.10	-52.43	4.51	H	-45.84	-25.00		
	10 034.04	-60.86	11.20	-51.95	5.27	H	-46.02	-25.00		
502500 (2512.500)	5 025.00	-48.35	10.95	-50.83	3.56	H	-43.44	-25.00	1	32
	7 537.50	-60.75	11.58	-54.77	4.50	H	-47.69	-25.00		
	10 050.00	-62.51	11.70	-53.65	5.27	H	-47.22	-25.00		
518598 (2592.990)	5 185.98	-45.68	11.00	-47.18	3.70	H	-39.88	-25.00	1	1
	7 778.97	-62.21	10.90	-54.83	4.61	H	-48.54	-25.00		
	10 371.96	-62.85	11.20	-52.15	5.41	H	-46.36	-25.00		
535500 (2677.500)	5 355.00	-34.82	11.50	-36.68	3.75	H	-28.93	-25.00	1	1
	8 032.50	-53.43	10.80	-46.43	4.65	H	-40.28	-25.00		
	10 710.00	-62.59	11.10	-50.71	5.47	H	-45.08	-25.00		

- ▣ NR Band: n41(38)
- ▣ Bandwidth: 30 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502200 (2511.000)	5 022.00	-44.77	10.70	-46.30	3.55	H	-39.15	-25.00	1	39
	7 533.00	-56.37	11.10	-48.89	4.50	H	-42.29	-25.00		
	10 044.00	-60.69	11.15	-51.84	5.27	H	-45.96	-25.00		
503004 (2515.020)	5 030.04	-47.81	10.70	-49.91	3.56	H	-42.77	-25.00	1	39
	7 545.06	-61.88	11.10	-54.54	4.50	H	-47.94	-25.00		
	10 060.08	-61.92	11.15	-53.18	5.27	H	-47.30	-25.00		
518598 (2592.990)	5 185.98	-45.24	11.00	-46.74	3.70	H	-39.44	-25.00	1	1
	7 778.97	-59.78	10.90	-52.40	4.61	H	-46.11	-25.00		
	10 371.96	-62.70	11.20	-52.00	5.41	H	-46.21	-25.00		
534996 (2674.980)	5 349.96	-37.64	11.50	-39.29	3.75	H	-31.54	-25.00	1	1
	8 024.94	-52.96	10.80	-46.25	4.62	H	-40.07	-25.00		
	10 699.92	-61.07	11.10	-49.39	5.48	H	-43.77	-25.00		

- ▣ NR Band: n41(38)
- ▣ Bandwidth: 40 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
503202 (2516.010)	5 032.02	-43.69	10.70	-45.79	3.56	H	-38.65	-25.00	1	53
	7 548.03	-59.49	11.10	-52.15	4.50	H	-45.55	-25.00		
	10 064.04	-60.51	11.10	-51.70	5.28	H	-45.88	-25.00		
504000 (2520.000)	5 040.00	-48.88	10.70	-50.85	3.60	H	-43.75	-25.00	1	53
	7 560.00	-63.23	11.10	-56.24	4.51	H	-49.65	-25.00		
	10 080.00	-63.31	11.10	-54.26	5.29	H	-48.45	-25.00		
518598 (2592.990)	5 185.98	-41.68	11.00	-43.18	3.70	H	-35.88	-25.00	1	1
	7 778.97	-57.31	10.90	-49.93	4.61	H	-43.64	-25.00		
	10 371.96	-61.95	11.20	-51.25	5.41	H	-45.46	-25.00		
534000 (2670.000)	5 340.00	-37.25	11.40	-38.95	3.75	H	-31.30	-25.00	1	1
	8 010.00	-54.74	10.80	-47.67	4.62	H	-41.49	-25.00		
	10 680.00	-60.36	11.10	-48.90	5.46	H	-43.26	-25.00		

- ▣ NR Band: n41
- ▣ Bandwidth: 50 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
504204 (2521.020)	5 042.04	-45.48	10.70	-47.45	3.60	H	-40.35	-25.00	1	66
	7 563.06	-58.88	11.10	-52.06	4.52	H	-45.48	-25.00		
	10 084.08	-59.24	11.10	-50.02	5.30	H	-44.22	-25.00		
505002 (2525.010)	5 050.02	-50.41	10.70	-52.06	3.63	H	-44.99	-25.00	1	66
	7 575.03	-61.84	11.10	-55.12	4.54	H	-48.56	-25.00		
	10 100.04	-63.00	11.10	-54.14	5.29	H	-48.33	-25.00		
518598 (2592.990)	5 185.98	-46.13	11.00	-47.63	3.70	H	-40.33	-25.00	1	1
	7 778.97	-57.53	10.90	-50.15	4.61	H	-43.86	-25.00		
	10 371.96	-63.42	11.20	-52.72	5.41	H	-46.93	-25.00		
532998 (2664.990)	5 329.98	-39.88	11.40	-41.85	3.71	H	-34.16	-25.00	1	1
	7 994.97	-52.90	10.75	-45.49	4.66	H	-39.40	-25.00		
	10 659.96	-63.89	11.10	-51.73	5.49	H	-46.12	-25.00		

- ▣ NR Band: n41
- ▣ Bandwidth: 60 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
505200 (2526.000)	5 052.00	-45.69	10.70	-47.34	3.63	H	-40.27	-25.00	1	81
	7 578.00	-58.28	11.10	-51.49	4.54	H	-44.93	-25.00		
	10 104.00	-62.19	11.10	-53.35	5.29	H	-47.54	-25.00		
506004 (2530.020)	5 060.04	-47.74	10.70	-48.72	3.65	H	-41.67	-25.00	1	81
	7 590.06	-61.45	11.10	-54.55	4.54	H	-47.99	-25.00		
	10 120.08	-60.20	11.10	-51.59	5.29	H	-45.78	-25.00		
518598 (2592.990)	5 185.98	-45.53	11.00	-47.03	3.70	H	-39.73	-25.00	1	1
	7 778.97	-57.43	10.90	-50.05	4.61	H	-43.76	-25.00		
	10 371.96	-64.36	11.20	-53.66	5.41	H	-47.87	-25.00		
531996 (2659.980)	5 319.96	-40.30	11.40	-43.04	3.66	H	-35.30	-25.00	1	1
	7 979.94	-54.43	10.70	-47.18	4.67	H	-41.15	-25.00		
	10 639.92	-64.13	11.20	-52.70	5.49	H	-46.99	-25.00		

- ▣ NR Band: n41
- ▣ Bandwidth: 70 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
506202 (2531.010)	5 062.02	-46.14	10.70	-47.12	3.65	H	-40.07	-25.00	1	94
	7 593.03	-58.69	11.15	-51.65	4.53	H	-45.03	-25.00		
	10 124.04	-63.58	11.10	-54.70	5.30	H	-48.90	-25.00		
507000 (2535.000)	5 070.00	-48.15	10.70	-49.43	3.62	H	-42.35	-25.00	1	94
	7 605.00	-60.44	11.20	-53.43	4.52	H	-46.75	-25.00		
	10 140.00	-61.83	11.10	-52.17	5.31	H	-46.38	-25.00		
518598 (2592.990)	5 185.98	-45.33	11.00	-46.83	3.70	H	-39.53	-25.00	1	1
	7 778.97	-59.38	10.90	-52.00	4.61	H	-45.71	-25.00		
	10 371.96	-64.42	11.20	-53.72	5.41	H	-47.93	-25.00		
531000 (2655.000)	5 310.00	-40.91	11.40	-43.15	3.65	H	-35.40	-25.00	1	1
	7 965.00	-55.95	10.70	-48.78	4.65	H	-42.73	-25.00		
	10 620.00	-63.32	11.20	-52.63	5.41	H	-46.84	-25.00		

- ▣ NR Band: n41
- ▣ Bandwidth: 80 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
507204 (2536.020)	5 072.04	-46.21	10.70	-47.49	3.62	H	-40.41	-25.00	1	108
	7 608.06	-58.25	11.20	-51.24	4.52	H	-44.56	-25.00		
	10 144.08	-62.94	11.05	-53.47	5.32	H	-47.74	-25.00		
508002 (2540.010)	5 080.02	-49.24	10.70	-50.88	3.61	H	-43.79	-25.00	1	108
	7 620.03	-62.02	11.20	-55.55	4.52	H	-48.87	-25.00		
	10 160.04	-62.60	11.00	-53.14	5.33	H	-47.47	-25.00		
518598 (2592.990)	5 185.98	-44.46	11.00	-45.96	3.70	H	-38.66	-25.00	1	1
	7 778.97	-58.44	10.90	-51.06	4.61	H	-44.77	-25.00		
	10 371.96	-62.27	11.20	-51.57	5.41	H	-45.78	-25.00		
529998 (2649.990)	5 299.98	-43.78	11.40	-45.89	3.69	H	-38.18	-25.00	1	1
	7 949.97	-56.89	10.70	-49.58	4.64	H	-43.52	-25.00		
	10 599.96	-63.35	11.20	-52.16	5.41	H	-46.37	-25.00		

- ▣ NR Band: n41
- ▣ Bandwidth: 90 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
508200 (2541.000)	5 082.00	-45.50	10.70	-47.14	3.61	H	-40.05	-25.00	1	122
	7 623.00	-58.35	11.20	-51.95	4.52	H	-45.27	-25.00		
	10 164.00	-62.87	11.00	-53.79	5.33	H	-48.12	-25.00		
509004 (2545.020)	5 090.04	-48.59	10.70	-50.74	3.64	H	-43.68	-25.00	1	122
	7 635.06	-63.56	11.20	-57.17	4.53	H	-50.50	-25.00		
	10 180.08	-62.76	11.00	-53.14	5.33	H	-47.47	-25.00		
518598 (2592.990)	5 185.98	-45.51	11.00	-47.01	3.70	H	-39.71	-25.00	1	1
	7 778.97	-60.46	10.90	-53.08	4.61	H	-46.79	-25.00		
	10 371.96	-64.18	11.20	-53.48	5.41	H	-47.69	-25.00		
528996 (2644.980)	5 289.96	-39.65	11.30	-41.12	3.73	H	-33.55	-25.00	1	122
	7 934.94	-52.52	10.70	-45.17	4.64	H	-39.11	-25.00		
	10 579.92	-63.06	11.20	-52.61	5.46	H	-46.87	-25.00		



- ▣ NR Band: n41
- ▣ Bandwidth: 100 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meter
- ▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
509202 (2546.010)	5 092.02	-45.66	10.70	-47.81	3.64	H	-40.75	-25.00	1	136
	7 638.03	-61.56	11.20	-55.17	4.53	H	-48.50	-25.00		
	10 184.04	-63.61	11.00	-54.15	5.33	H	-48.48	-25.00		
510000 (2550.000)	5 100.00	-48.92	10.80	-50.82	3.66	H	-43.68	-25.00	1	136
	7 650.00	-63.42	11.10	-56.57	4.53	H	-50.00	-25.00		
	10 200.00	-62.97	11.00	-52.54	5.33	H	-46.87	-25.00		
518598 (2592.990)	5 185.98	-46.15	11.00	-47.65	3.70	H	-40.35	-25.00	1	1
	7 778.97	-59.73	10.90	-52.35	4.61	H	-46.06	-25.00		
	10 371.96	-62.93	11.20	-52.23	5.41	H	-46.44	-25.00		
528000 (2640.000)	5 280.00	-46.01	11.30	-47.92	3.75	H	-40.37	-25.00	1	1
	7 920.00	-57.69	10.70	-50.51	4.63	H	-44.44	-25.00		
	10 560.00	-63.00	11.20	-53.09	5.45	H	-47.34	-25.00		

## 8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data ( dB )
Sub6 n41(38)	10 MHz	2592.990	BPSK	24	0	4.06
			QPSK			4.99
			16-QAM			5.32
			64-QAM			5.69
			256-QAM			5.86
	15 MHz		BPSK	36		4.01
			QPSK			4.92
			16-QAM			5.17
			64-QAM			5.49
			256-QAM			5.88
	20 MHz		BPSK	50		4.27
			QPSK			4.94
			16-QAM			5.26
			64-QAM			5.53
			256-QAM			5.92
	25 MHz		BPSK	64		5.32
			QPSK			5.43
			16-QAM			5.51
			64-QAM			5.72
			256-QAM			6.03
	30 MHz		BPSK	75		4.21
			QPSK			4.99
			16-QAM			5.26
			64-QAM			5.51
			256-QAM			5.98
	40 MHz		BPSK	100		5.16
			QPSK			5.32
			16-QAM			5.41
			64-QAM			5.64
			256-QAM			6.05
50 MHz	BPSK	128	4.08			
	QPSK		4.90			
	16-QAM		5.20			
	64-QAM		5.46			
	256-QAM		5.86			

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data ( dB )
Sub6 n41	60 MHz	2592.990	BPSK	162	0	4.26
			QPSK			4.98
			16-QAM			5.28
			64-QAM			5.48
			256-QAM			5.86
	70 MHz		BPSK	180		4.23
			QPSK			4.90
			16-QAM			5.18
			64-QAM			5.43
			256-QAM			5.79
	80 MHz		BPSK	216		4.38
			QPSK			4.99
			16-QAM			5.26
			64-QAM			5.50
			256-QAM			5.88
	90 MHz		BPSK	243		4.47
			QPSK			4.99
			16-QAM			5.31
			64-QAM			5.56
			256-QAM			5.84
100 MHz	BPSK	270	4.67			
	QPSK		5.02			
	16-QAM		5.34			
	64-QAM		5.55			
	256-QAM		5.88			

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 72 ~ 131.

**8.4 OCCUPIED BANDWIDTH**

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data ( MHz )
Sub6 n41(38)	10 MHz	2592.990	BPSK	24	0	8.7196
			QPSK			8.7011
			16-QAM			8.7050
			64-QAM			8.7879
			256-QAM			8.6562
	15 MHz		BPSK	36		12.969
			QPSK			13.005
			16-QAM			13.010
			64-QAM			12.980
			256-QAM			13.045
	20 MHz		BPSK	50		17.994
			QPSK			17.966
			16-QAM			18.043
			64-QAM			17.947
			256-QAM			17.914
	25 MHz		BPSK	64		23.061
			QPSK			22.984
			16-QAM			23.071
			64-QAM			22.978
			256-QAM			22.930
	30 MHz		BPSK	75		27.002
			QPSK			27.023
			16-QAM			27.075
			64-QAM			26.962
			256-QAM			26.953
	40 MHz		BPSK	100		35.957
			QPSK			35.995
			16-QAM			36.065
64-QAM		35.986				
256-QAM		35.893				
50 MHz	BPSK	128	46.007			
	QPSK		45.964			
	16-QAM		46.026			
	64-QAM		46.253			
	256-QAM		45.874			

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data ( MHz )
Sub6 n41	60 MHz	2592.990	BPSK	162	0	58.331
			QPSK			58.252
			16-QAM			58.344
			64-QAM			58.222
			256-QAM			58.177
	70 MHz		BPSK	180		64.734
			QPSK			64.698
			16-QAM			64.831
			64-QAM			64.796
			256-QAM			64.372
	80 MHz		BPSK	216		77.476
			QPSK			77.525
			16-QAM			77.812
			64-QAM			77.789
			256-QAM			77.818
	90 MHz		BPSK	243		87.288
			QPSK			87.223
			16-QAM			87.466
			64-QAM			87.428
			256-QAM			87.077
100 MHz	BPSK	270	96.723			
	QPSK		96.689			
	16-QAM		96.773			
	64-QAM		97.035			
	256-QAM		96.977			

Note:

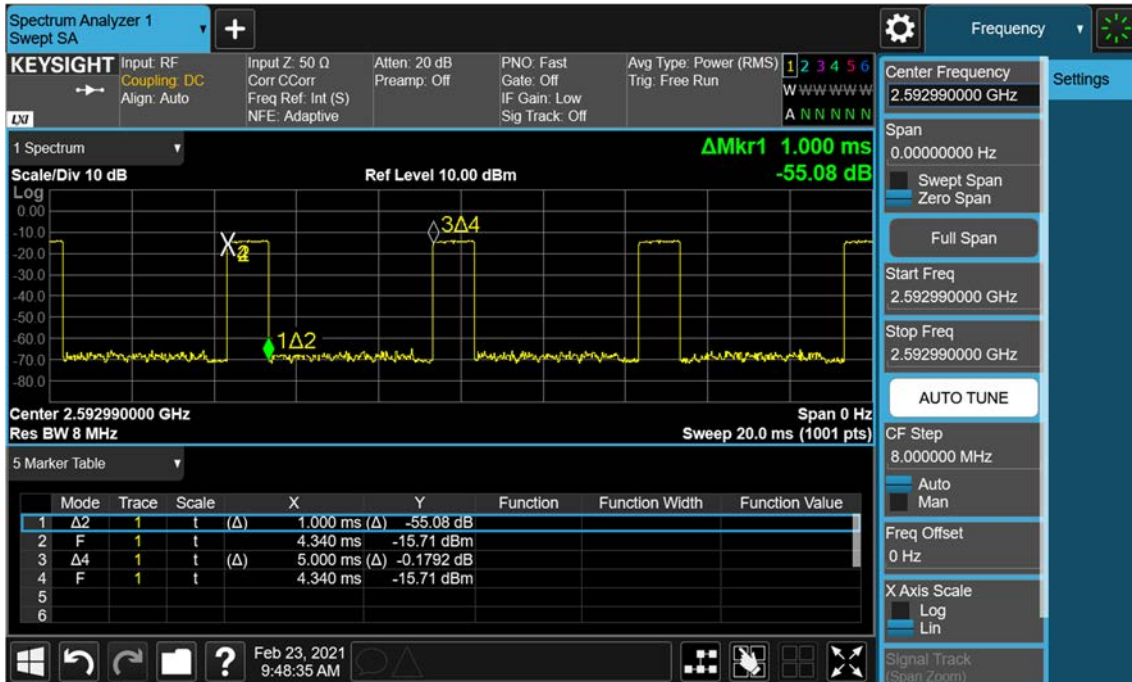
1. Plots of the EUT's Occupied Bandwidth are shown Page 132 ~ 191.

## 8.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n41(38)	10	2501.010	7.4711	37.005	-70.775	-33.770	-25.00
		2505.000	3.7842	37.190	-70.889	-33.699	
		2592.990	3.9936	36.390	-71.322	-34.932	
		2685.000	4.3370	36.390	-70.928	-34.538	
	15	2503.500	6.0424	37.005	-70.026	-33.021	
		2507.520	3.7962	37.190	-70.452	-33.262	
		2592.990	8.3634	37.005	-70.220	-33.215	
		2682.480	9.1271	37.005	-70.951	-33.946	
	20	2506.020	3.7782	36.390	-68.905	-32.515	
		2510.010	8.8520	37.805	-70.089	-32.284	
		2592.990	8.2777	37.005	-70.869	-33.864	
		2679.990	8.2448	37.005	-69.842	-32.837	
	25	2508.480	8.8425	37.005	-70.565	-33.560	
		2512.500	4.9108	37.190	-70.997	-33.807	
		2592.990	4.0185	36.390	-70.368	-33.978	
		2677.500	3.7762	36.390	-70.524	-34.134	
	30	2511.000	4.0105	36.390	-69.910	-33.520	
		2515.000	9.6919	37.805	-70.382	-32.577	
		2592.990	4.0479	36.390	-70.616	-34.226	
		2674.980	4.9183	36.390	-70.742	-34.352	
	40	2516.010	5.4951	37.005	-70.584	-33.579	
		2520.000	9.7084	37.805	-69.588	-31.783	
		2592.990	9.9467	37.005	-69.782	-32.777	
		2670.000	5.4856	37.005	-71.388	-34.383	
Sub6 n41	50	2521.020	4.9058	36.390	-69.810	-33.420	
		2525.010	3.7897	37.190	-69.372	-32.182	
		2592.990	3.7832	36.390	-70.225	-33.835	
		2664.990	4.9103	36.390	-70.236	-33.846	
	60	2526.000	3.7628	36.390	-70.844	-34.454	
		2530.020	9.1516	37.805	-70.457	-32.652	
		2592.990	9.1585	37.005	-69.757	-32.752	
		2659.980	4.0404	36.390	-69.659	-33.269	
	70	2531.010	4.0100	36.390	-71.105	-34.715	
		2535.000	9.7169	37.805	-70.253	-32.448	
		2592.990	6.0294	36.390	-70.456	-34.066	
		2655.000	3.2862	37.190	-70.820	-33.630	
	80	2536.020	3.7727	36.390	-71.102	-34.712	
		2540.010	9.4187	37.805	-70.957	-33.152	
		2592.990	8.0339	37.005	-70.556	-33.551	
		2649.990	3.8126	36.390	-70.281	-33.891	
	90	2541.000	8.2493	37.005	-71.238	-34.233	
		2545.020	8.8719	37.805	-70.502	-32.697	
		2592.990	4.8869	36.390	-69.720	-33.330	
		2644.980	5.9856	37.005	-70.836	-33.831	
	100	2546.010	9.9472	37.005	-70.537	-33.532	
		2550.000	4.0419	37.190	-70.269	-33.079	
		2592.990	8.2448	37.005	-70.171	-33.166	
		2640.000	9.1451	37.005	-70.370	-33.365	

**Note:**

1. Plots of the EUT’s Conducted Spurious Emissions are shown Page 192 ~ 287.
2. Duty Cycle factor already applied on the factor.
  - Duty Cycle Factor(dB) = 6.99



- Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter

- Result(dBm) = Reading + Factor

**3. Factor(dB)**

Frequency Range (GHz)	Factor [dB]
0.03 – 1	33.684
1 – 5	36.390
5 – 10	37.005
10 – 15	37.530
15 – 20	37.903
Above 20	38.545

## 8.6 CHANNEL EDGE

BW (MHz)	Frequency (MHz)	Mod	RB (Size/Offset)	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +1MHz)	2 490.5 MHz ~ 2 495 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Upper
10	2501.010	BPSK	Full RB	-20.80	-19.58	-24.26	-23.00	-29.39	-24.02	-37.65
	2505.000	BPSK	Full RB	-19.15	-22.37	-26.44	-25.49	-38.96	-30.60	-38.57
15	2503.500	BPSK	Full RB	-21.48	-27.41	-25.87	-30.12	-30.70	-28.05	-39.66
	2507.520	BPSK	Full RB	-21.45	-29.92	-29.03	-31.34	-34.47	-30.85	-40.77
20	2506.020	BPSK	Full RB	-23.32	-26.97	-27.81	-30.07	-30.93	-30.88	-38.53
	2510.010	BPSK	Full RB	-22.19	-27.57	-29.06	-27.13	-32.41	-30.52	-37.23
25	2508.480	BPSK	Full RB	-21.98	-25.78	-28.25	-30.70	-31.92	-31.83	-35.26
	2512.500	BPSK	Full RB	-20.73	-27.36	-30.49	-30.62	-30.97	-30.88	-34.83
30	2511.000	BPSK	Full RB	-22.74	-31.26	-28.99	-29.52	-29.51	-30.23	-34.82
	2515.000	BPSK	Full RB	-23.14	-32.25	-30.16	-32.82	-30.70	-30.15	-35.77
40	2516.010	BPSK	Full RB	-22.88	-32.45	-28.86	-31.32	-30.88	-30.11	-39.10
	2520.000	BPSK	Full RB	-22.65	-32.72	-32.04	-32.23	-34.01	-31.21	-39.94
50	2521.020	BPSK	Full RB	-20.06	-26.45	-25.36	-30.30	-30.50	-27.84	-35.90
	2525.010	BPSK	Full RB	-19.98	-29.01	-29.55	-31.16	-34.78	-31.91	-39.44
60	2526.000	BPSK	Full RB	-16.26	-13.51	-22.28	-20.71	-26.06	-19.77	-34.88
	2530.020	BPSK	Full RB	-16.44	-15.30	-29.50	-22.33	-32.94	-26.69	-38.34
70	2531.010	BPSK	Full RB	-19.81	-24.36	-23.79	-24.75	-29.16	-25.19	-37.66
	2535.000	BPSK	Full RB	-20.61	-24.58	-28.69	-26.25	-31.97	-27.71	-38.00
80	2536.020	BPSK	Full RB	-20.51	-18.37	-24.00	-21.61	-26.41	-22.48	-36.85
	2540.010	BPSK	Full RB	-21.42	-18.01	-28.76	-23.35	-33.57	-25.08	-37.62
90	2541.000	BPSK	Full RB	-20.23	-20.53	-23.83	-22.78	-26.05	-22.59	-37.56
	2545.020	BPSK	Full RB	-20.65	-23.72	-28.11	-25.61	-31.10	-27.36	-34.98
100	2546.010	BPSK	Full RB	-19.54	-23.19	-24.74	-24.21	-26.31	-23.98	-39.57
	2550.000	BPSK	Full RB	-19.70	-27.32	-33.57	-29.56	-35.04	-31.58	-41.27
Limit (dBm)				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0



Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resoure Block Offset	C.E ~		(C.E ± 1 MHz) ~	
					(C.E ± 1 MHz)		(C.E ± 5 MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-19.21	-20.74	-21.65	-23.45
	2685.000	BPSK	Full RB	0	-19.42	-20.74	-22.62	-23.74
15 MHz	2592.990	BPSK	Full RB	0	-20.20	-28.59	-23.12	-28.49
	2682.480	BPSK	Full RB	0	-19.48	-29.38	-22.54	-25.95
20 MHz	2592.990	BPSK	Full RB	0	-19.84	-25.41	-21.48	-23.44
	2679.990	BPSK	Full RB	0	-21.03	-27.49	-24.13	-29.55
25 MHz	2592.990	BPSK	Full RB	0	-18.12	-22.60	-19.55	-22.67
	2677.500	BPSK	Full RB	0	-19.96	-26.46	-23.62	-28.95
30 MHz	2592.990	BPSK	Full RB	0	-19.81	-28.37	-23.41	-27.52
	2679.990	BPSK	Full RB	0	-20.25	-27.89	-22.27	-24.84
40 MHz	2592.990	BPSK	Full RB	0	-18.64	-24.63	-18.95	-25.23
	2670.000	BPSK	Full RB	0	-22.39	-31.92	-25.87	-33.17
50 MHz	2592.990	BPSK	Full RB	0	-16.53	-26.62	-19.77	-27.90
	2664.990	BPSK	Full RB	0	-22.22	-31.85	-28.26	-34.27
60 MHz	2592.990	BPSK	Full RB	0	-12.66	-17.74	-18.75	-23.02
	2659.980	BPSK	Full RB	0	-16.84	-19.61	-25.97	-27.25
70 MHz	2592.990	BPSK	Full RB	0	-16.64	-24.32	-19.66	-24.88
	2655.000	BPSK	Full RB	0	-22.36	-34.01	-27.42	-35.99
80 MHz	2592.990	BPSK	Full RB	0	-16.37	-22.73	-19.78	-24.36
	2649.990	BPSK	Full RB	0	-20.87	-25.64	-27.04	-29.47
90 MHz	2592.990	BPSK	Full RB	0	-17.51	-21.20	-21.55	-22.33
	2644.980	BPSK	Full RB	0	-20.49	-25.77	-27.16	-30.36
100 MHz	2592.990	BPSK	Full RB	0	-18.32	-22.57	-22.76	-22.90
	2640.000	BPSK	Full RB	0	-18.21	-28.88	-25.87	-31.22
Limit (dBm)					-10.0		-10.0	

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	(C.E $\pm$ 5 MHz)		Above (C.E $\pm$ X MHz)	
					~			
					(C.E $\pm$ X MHz)		Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-22.92	-26.80	-36.34	-37.56
	2685.000	BPSK	Full RB	0	-24.49	-28.66	-37.26	-39.01
15 MHz	2592.990	BPSK	Full RB	0	-24.06	-28.73	-36.62	-38.94
	2682.480	BPSK	Full RB	0	-24.33	-29.64	-38.14	-36.65
20 MHz	2592.990	BPSK	Full RB	0	-23.27	-27.53	-34.36	-38.22
	2679.990	BPSK	Full RB	0	-26.60	-33.52	-39.47	-39.92
25 MHz	2592.990	BPSK	Full RB	0	-21.41	-23.97	-32.73	-36.71
	2677.500	BPSK	Full RB	0	-27.85	-32.75	-37.76	-39.89
30 MHz	2592.990	BPSK	Full RB	0	-24.68	-30.53	-36.45	-37.28
	2679.990	BPSK	Full RB	0	-23.81	-30.11	-36.53	-43.19
40 MHz	2592.990	BPSK	Full RB	0	-20.64	-26.19	-37.69	-37.77
	2670.000	BPSK	Full RB	0	-29.89	-33.95	-42.88	-48.55
50 MHz	2592.990	BPSK	Full RB	0	-22.72	-29.06	-39.23	-36.41
	2664.990	BPSK	Full RB	0	-34.10	-33.51	-35.77	-48.75
60 MHz	2592.990	BPSK	Full RB	0	-20.96	-22.81	-38.52	-38.71
	2659.980	BPSK	Full RB	0	-30.41	-30.73	-34.31	-48.60
70 MHz	2592.990	BPSK	Full RB	0	-20.79	-26.00	-41.43	-39.82
	2655.000	BPSK	Full RB	0	-35.32	-36.63	-36.20	-48.57
80 MHz	2592.990	BPSK	Full RB	0	-19.45	-25.04	-43.82	-39.52
	2649.990	BPSK	Full RB	0	-34.15	-33.02	-39.65	-48.71
90 MHz	2592.990	BPSK	Full RB	0	-21.59	-21.34	-48.69	-48.57
	2644.980	BPSK	Full RB	0	-33.53	-34.65	-40.46	-48.71
100 MHz	2592.990	BPSK	Full RB	0	-23.09	-21.38	-48.72	-48.61
	2640.000	BPSK	Full RB	0	-30.87	-32.18	-43.25	-48.82
Limit (dBm)					-13.0		-25.0	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth
3. Duty Cycle factor already applied on the factor.
  - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
  - Result(dBm) = Reading + Factor
  - Duty Cycle Factor(dB) = 6.99
4. Plots of the EUT's Channel Edge are shown Page 288 ~ 419. (1RB & Full RB)

**8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE**

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2501.010	100 %	+20(Ref)	2501 010 000	0.0	0.000 000	0.000
	100 %	-30	2501 010 000	-0.2	0.000 000	0.000
	100 %	-20	2501 010 000	0.6	0.000 000	0.000
	100 %	-10	2501 010 000	0.6	0.000 000	0.000
	100 %	0	2501 009 999	-0.9	0.000 000	0.000
	100 %	+10	2501 009 999	-0.9	0.000 000	0.000
	100 %	+30	2501 009 999	-0.9	0.000 000	0.000
	100 %	+40	2501 009 998	-2.1	0.000 000	-0.001
	100 %	+50	2501 009 998	-2.1	0.000 000	-0.001
	Batt. Endpoint	+20	2501 009 999	-0.7	0.000 000	0.000
2505.000	100 %	+20(Ref)	2505 000 001	0.0	0.000 000	0.000
	100 %	-30	2504 999 998	-2.3	0.000 000	-0.001
	100 %	-20	2505 000 000	-0.9	0.000 000	0.000
	100 %	-10	2504 999 999	-1.4	0.000 000	-0.001
	100 %	0	2504 999 999	-1.6	0.000 000	-0.001
	100 %	+10	2505 000 005	4.9	0.000 000	0.002
	100 %	+30	2504 999 998	-2.2	0.000 000	-0.001
	100 %	+40	2505 000 004	4.0	0.000 000	0.002
	100 %	+50	2505 000 000	0.0	0.000 000	0.000
	Batt. Endpoint	+20	2504 999 997	-3.1	0.000 000	-0.001
2685.000	100 %	+20(Ref)	2684 999 998	0.0	0.000 000	0.000
	100 %	-30	2684 999 997	-1.7	0.000 000	-0.001
	100 %	-20	2684 999 996	-2.0	0.000 000	-0.001
	100 %	-10	2684 999 996	-2.0	0.000 000	-0.001
	100 %	0	2684 999 997	-1.5	0.000 000	-0.001
	100 %	+10	2684 999 997	-1.5	0.000 000	-0.001
	100 %	+30	2684 999 997	-1.5	0.000 000	-0.001
	100 %	+40	2684 999 997	-1.6	0.000 000	-0.001
	100 %	+50	2684 999 997	-1.6	0.000 000	-0.001
	Batt. Endpoint	+20	2684 999 997	-1.6	0.000 000	-0.001

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2503.500	100 %	+20(Ref)	2503 499 999	0.0	0.000 000	0.000
	100 %	-30	2503 499 998	-0.8	0.000 000	0.000
	100 %	-20	2503 499 998	-0.8	0.000 000	0.000
	100 %	-10	2503 499 999	-0.4	0.000 000	0.000
	100 %	0	2503 499 999	-0.4	0.000 000	0.000
	100 %	+10	2503 499 998	-0.7	0.000 000	0.000
	100 %	+30	2503 499 998	-0.7	0.000 000	0.000
	100 %	+40	2503 499 998	-0.7	0.000 000	0.000
	100 %	+50	2503 499 998	-1.1	0.000 000	0.000
	Batt. Endpoint	+20	2503 499 998	-1.1	0.000 000	0.000
2507.520	100 %	+20(Ref)	2507 519 996	0.0	0.000 000	0.000
	100 %	-30	2507 520 003	6.6	0.000 000	0.003
	100 %	-20	2507 519 992	-4.1	0.000 000	-0.002
	100 %	-10	2507 519 992	-4.0	0.000 000	-0.002
	100 %	0	2507 519 995	-1.7	0.000 000	-0.001
	100 %	+10	2507 519 998	1.5	0.000 000	0.001
	100 %	+30	2507 519 994	-2.5	0.000 000	-0.001
	100 %	+40	2507 519 993	-3.7	0.000 000	-0.001
	100 %	+50	2507 519 998	1.8	0.000 000	0.001
	Batt. Endpoint	+20	2507 519 996	-0.8	0.000 000	0.000
2682.480	100 %	+20(Ref)	2682 479 999	0.0	0.000 000	0.000
	100 %	-30	2682 479 998	-0.8	0.000 000	0.000
	100 %	-20	2682 479 998	-1.2	0.000 000	0.000
	100 %	-10	2682 479 998	-1.2	0.000 000	0.000
	100 %	0	2682 479 999	-0.5	0.000 000	0.000
	100 %	+10	2682 479 999	-0.5	0.000 000	0.000
	100 %	+30	2682 479 999	-0.5	0.000 000	0.000
	100 %	+40	2682 479 998	-1.0	0.000 000	0.000
	100 %	+50	2682 479 998	-1.0	0.000 000	0.000
	Batt. Endpoint	+20	2682 479 998	-1.2	0.000 000	0.000

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2506.020	100 %	+20(Ref)	2506 019 999	0.0	0.000 000	0.000
	100 %	-30	2506 019 998	-1.2	0.000 000	0.000
	100 %	-20	2506 019 998	-1.2	0.000 000	0.000
	100 %	-10	2506 019 998	-0.5	0.000 000	0.000
	100 %	0	2506 019 998	-0.5	0.000 000	0.000
	100 %	+10	2506 019 998	-0.5	0.000 000	0.000
	100 %	+30	2506 019 998	-0.9	0.000 000	0.000
	100 %	+40	2506 019 998	-0.9	0.000 000	0.000
	100 %	+50	2506 019 998	-0.3	0.000 000	0.000
	Batt. Endpoint	+20	2506 019 998	-0.3	0.000 000	0.000
2510.010	100 %	+20(Ref)	2510 009 997	0.0	0.000 000	0.000
	100 %	-30	2510 009 994	-3.4	0.000 000	-0.001
	100 %	-20	2510 009 996	-0.7	0.000 000	0.000
	100 %	-10	2510 009 995	-2.3	0.000 000	-0.001
	100 %	0	2510 010 001	4.3	0.000 000	0.002
	100 %	+10	2510 009 997	-0.3	0.000 000	0.000
	100 %	+30	2510 009 994	-3.6	0.000 000	-0.001
	100 %	+40	2510 009 995	-2.5	0.000 000	-0.001
	100 %	+50	2510 009 997	-0.1	0.000 000	0.000
	Batt. Endpoint	+20	2510 010 001	3.9	0.000 000	0.002
2679.990	100 %	+20(Ref)	2679 989 999	0.0	0.000 000	0.000
	100 %	-30	2679 990 000	0.2	0.000 000	0.000
	100 %	-20	2679 990 000	0.2	0.000 000	0.000
	100 %	-10	2679 990 000	0.2	0.000 000	0.000
	100 %	0	2679 989 999	0.0	0.000 000	0.000
	100 %	+10	2679 989 999	0.0	0.000 000	0.000
	100 %	+30	2679 989 999	0.0	0.000 000	0.000
	100 %	+40	2679 989 999	-0.6	0.000 000	0.000
	100 %	+50	2679 989 999	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	2679 989 999	-0.6	0.000 000	0.000

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2508.510	100 %	+20(Ref)	2508 509 999	0.0	0.000 000	0.000
	100 %	-30	2508 509 999	-0.7	0.000 000	0.000
	100 %	-20	2508 509 999	-0.7	0.000 000	0.000
	100 %	-10	2508 509 999	-0.3	0.000 000	0.000
	100 %	0	2508 509 999	-0.3	0.000 000	0.000
	100 %	+10	2508 509 999	-0.3	0.000 000	0.000
	100 %	+30	2508 509 999	0.1	0.000 000	0.000
	100 %	+40	2508 509 999	0.1	0.000 000	0.000
	100 %	+50	2508 509 999	0.1	0.000 000	0.000
	Batt. Endpoint	+20	2508 509 999	0.1	0.000 000	0.000
2512.500	100 %	+20(Ref)	2512 499 999	0.0	0.000 000	0.000
	100 %	-30	2512 499 998	-0.3	0.000 000	0.000
	100 %	-20	2512 499 998	-0.6	0.000 000	0.000
	100 %	-10	2512 499 997	-2.0	0.000 000	-0.001
	100 %	0	2512 499 998	-0.9	0.000 000	0.000
	100 %	+10	2512 500 003	4.7	0.000 000	0.002
	100 %	+30	2512 499 997	-1.5	0.000 000	-0.001
	100 %	+40	2512 499 999	0.1	0.000 000	0.000
	100 %	+50	2512 499 997	-1.7	0.000 000	-0.001
	Batt. Endpoint	+20	2512 499 991	-7.1	0.000 000	-0.003
2677.500	100 %	+20(Ref)	2677 499 998	0.0	0.000 000	0.000
	100 %	-30	2677 499 997	-1.3	0.000 000	0.000
	100 %	-20	2677 499 997	-1.3	0.000 000	0.000
	100 %	-10	2677 499 997	-1.3	0.000 000	0.000
	100 %	0	2677 499 997	-1.3	0.000 000	0.000
	100 %	+10	2677 499 997	-1.3	0.000 000	0.000
	100 %	+30	2677 499 997	-1.3	0.000 000	0.000
	100 %	+40	2677 499 997	-1.1	0.000 000	0.000
	100 %	+50	2677 499 997	-1.1	0.000 000	0.000
	Batt. Endpoint	+20	2677 499 997	-1.1	0.000 000	0.000

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2511.000	100 %	+20(Ref)	2510 999 999	0.0	0.000 000	0.000
	100 %	-30	2510 999 999	-0.6	0.000 000	0.000
	100 %	-20	2510 999 998	-1.6	0.000 000	-0.001
	100 %	-10	2510 999 998	-1.6	0.000 000	-0.001
	100 %	0	2510 999 998	-1.6	0.000 000	-0.001
	100 %	+10	2510 999 998	-1.6	0.000 000	-0.001
	100 %	+30	2510 999 998	-1.8	0.000 000	-0.001
	100 %	+40	2510 999 998	-1.8	0.000 000	-0.001
	100 %	+50	2510 999 998	-1.8	0.000 000	-0.001
		Batt. Endpoint	+20	2510 999 998	-1.6	0.000 000
2515.000	100 %	+20(Ref)	2515 000 002	0.0	0.000 000	0.000
	100 %	-30	2515 000 003	0.6	0.000 000	0.000
	100 %	-20	2515 000 004	2.2	0.000 000	0.001
	100 %	-10	2515 000 001	-0.8	0.000 000	0.000
	100 %	0	2515 000 000	-2.3	0.000 000	-0.001
	100 %	+10	2515 000 001	-1.2	0.000 000	0.000
	100 %	+30	2515 000 000	-2.4	0.000 000	-0.001
	100 %	+40	2515 000 001	-0.8	0.000 000	0.000
	100 %	+50	2515 000 000	-1.6	0.000 000	-0.001
		Batt. Endpoint	+20	2515 000 000	-2.1	0.000 000
2674.980	100 %	+20(Ref)	2674 979 998	0.0	0.000 000	0.000
	100 %	-30	2674 979 995	-2.4	0.000 000	-0.001
	100 %	-20	2674 979 996	-1.6	0.000 000	-0.001
	100 %	-10	2674 979 996	-1.6	0.000 000	-0.001
	100 %	0	2674 979 996	-1.6	0.000 000	-0.001
	100 %	+10	2674 979 996	-2.1	0.000 000	-0.001
	100 %	+30	2674 979 996	-2.1	0.000 000	-0.001
	100 %	+40	2674 979 996	-2.1	0.000 000	-0.001
	100 %	+50	2674 979 997	-0.8	0.000 000	0.000
		Batt. Endpoint	+20	2674 979 997	-0.8	0.000 000

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2516.010	100 %	+20(Ref)	2516 010 000	0.0	0.000 000	0.000
	100 %	-30	2516 009 999	-0.4	0.000 000	0.000
	100 %	-20	2516 009 998	-1.5	0.000 000	-0.001
	100 %	-10	2516 009 998	-1.5	0.000 000	-0.001
	100 %	0	2516 009 998	-1.5	0.000 000	-0.001
	100 %	+10	2516 009 998	-1.5	0.000 000	-0.001
	100 %	+30	2516 009 999	-1.0	0.000 000	0.000
	100 %	+40	2516 009 999	-1.0	0.000 000	0.000
	100 %	+50	2516 009 999	-1.0	0.000 000	0.000
	Batt. Endpoint	+20	2516 009 998	-1.6	0.000 000	-0.001
2520.000	100 %	+20(Ref)	2520 000 003	0.0	0.000 000	0.000
	100 %	-30	2520 000 001	-2.6	0.000 000	-0.001
	100 %	-20	2519 999 999	-4.1	0.000 000	-0.002
	100 %	-10	2520 000 003	-0.8	0.000 000	0.000
	100 %	0	2520 000 001	-2.8	0.000 000	-0.001
	100 %	+10	2520 000 002	-1.2	0.000 000	0.000
	100 %	+30	2520 000 001	-2.6	0.000 000	-0.001
	100 %	+40	2519 999 998	-5.1	0.000 000	-0.002
	100 %	+50	2520 000 004	0.4	0.000 000	0.000
	Batt. Endpoint	+20	2520 000 005	1.3	0.000 000	0.001
2670.000	100 %	+20(Ref)	2669 999 997	0.0	0.000 000	0.000
	100 %	-30	2669 999 994	-3.0	0.000 000	-0.001
	100 %	-20	2669 999 995	-2.0	0.000 000	-0.001
	100 %	-10	2669 999 995	-2.0	0.000 000	-0.001
	100 %	0	2669 999 995	-2.0	0.000 000	-0.001
	100 %	+10	2669 999 994	-3.4	0.000 000	-0.001
	100 %	+30	2669 999 994	-3.4	0.000 000	-0.001
	100 %	+40	2669 999 994	-3.4	0.000 000	-0.001
	100 %	+50	2669 999 994	-3.4	0.000 000	-0.001
	Batt. Endpoint	+20	2669 999 994	-2.7	0.000 000	-0.001



- ▣ BandWidth: 50 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2521.020	100 %	+20(Ref)	2521 020 000	0.0	0.000 000	0.000
	100 %	-30	2521 020 001	0.3	0.000 000	0.000
	100 %	-20	2521 020 001	0.3	0.000 000	0.000
	100 %	-10	2521 020 001	0.3	0.000 000	0.000
	100 %	0	2521 019 999	-1.3	0.000 000	-0.001
	100 %	+10	2521 019 999	-1.3	0.000 000	-0.001
	100 %	+30	2521 019 999	-1.3	0.000 000	-0.001
	100 %	+40	2521 019 999	-1.3	0.000 000	-0.001
	100 %	+50	2521 020 000	0.1	0.000 000	0.000
	Batt. Endpoint	+20	2521 020 000	0.1	0.000 000	0.000
2525.010	100 %	+20(Ref)	2525 009 999	0.0	0.000 000	0.000
	100 %	-30	2525 010 000	1.2	0.000 000	0.000
	100 %	-20	2525 010 000	0.8	0.000 000	0.000
	100 %	-10	2525 010 001	2.1	0.000 000	0.001
	100 %	0	2525 010 003	4.2	0.000 000	0.002
	100 %	+10	2525 010 001	2.3	0.000 000	0.001
	100 %	+30	2525 010 000	1.3	0.000 000	0.001
	100 %	+40	2525 010 001	1.9	0.000 000	0.001
	100 %	+50	2525 010 002	2.4	0.000 000	0.001
	Batt. Endpoint	+20	2525 010 000	0.7	0.000 000	0.000
2664.990	100 %	+20(Ref)	2664 989 997	0.0	0.000 000	0.000
	100 %	-30	2664 989 993	-4.7	0.000 000	-0.002
	100 %	-20	2664 989 993	-4.7	0.000 000	-0.002
	100 %	-10	2664 989 993	-4.7	0.000 000	-0.002
	100 %	0	2664 989 993	-4.7	0.000 000	-0.002
	100 %	+10	2664 989 994	-3.3	0.000 000	-0.001
	100 %	+30	2664 989 994	-3.3	0.000 000	-0.001
	100 %	+40	2664 989 994	-3.3	0.000 000	-0.001
	100 %	+50	2664 989 993	-4.0	0.000 000	-0.002
	Batt. Endpoint	+20	2664 989 993	-4.0	0.000 000	-0.002

- ▣ BandWidth: 60 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2526.000	100 %	+20(Ref)	2525 999 999	0.0	0.000 000	0.000
	100 %	-30	2525 999 998	-0.9	0.000 000	0.000
	100 %	-20	2525 999 998	-0.9	0.000 000	0.000
	100 %	-10	2525 999 998	-0.9	0.000 000	0.000
	100 %	0	2525 999 998	-0.9	0.000 000	0.000
	100 %	+10	2525 999 999	-0.4	0.000 000	0.000
	100 %	+30	2525 999 999	-0.4	0.000 000	0.000
	100 %	+40	2525 999 999	-0.4	0.000 000	0.000
	100 %	+50	2525 999 999	-0.4	0.000 000	0.000
	Batt. Endpoint	+20	2525 999 998	-0.8	0.000 000	0.000
2530.020	100 %	+20(Ref)	2530 019 999	0.0	0.000 000	0.000
	100 %	-30	2530 020 004	4.8	0.000 000	0.002
	100 %	-20	2530 020 003	3.4	0.000 000	0.001
	100 %	-10	2530 020 002	2.4	0.000 000	0.001
	100 %	0	2530 020 000	0.2	0.000 000	0.000
	100 %	+10	2530 019 998	-1.8	0.000 000	-0.001
	100 %	+30	2530 020 002	2.3	0.000 000	0.001
	100 %	+40	2530 020 001	1.6	0.000 000	0.001
	100 %	+50	2530 020 002	2.4	0.000 000	0.001
	Batt. Endpoint	+20	2530 020 002	2.4	0.000 000	0.001
2659.980	100 %	+20(Ref)	2659 979 996	0.0	0.000 000	0.000
	100 %	-30	2659 979 994	-2.1	0.000 000	-0.001
	100 %	-20	2659 979 992	-3.9	0.000 000	-0.001
	100 %	-10	2659 979 993	-3.2	0.000 000	-0.001
	100 %	0	2659 979 993	-2.4	0.000 000	-0.001
	100 %	+10	2659 979 993	-2.6	0.000 000	-0.001
	100 %	+30	2659 979 992	-4.1	0.000 000	-0.002
	100 %	+40	2659 979 992	-3.2	0.000 000	-0.001
	100 %	+50	2659 979 992	-3.4	0.000 000	-0.001
	Batt. Endpoint	+20	2659 979 992	-3.5	0.000 000	-0.001

- ▣ BandWidth: 70 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2531.010	100 %	+20(Ref)	2531 009 997	0.0	0.000 000	0.000
	100 %	-30	2531 009 995	-1.7	0.000 000	-0.001
	100 %	-20	2531 009 994	-3.2	0.000 000	-0.001
	100 %	-10	2531 009 996	-1.1	0.000 000	0.000
	100 %	0	2531 009 995	-2.0	0.000 000	-0.001
	100 %	+10	2531 009 997	0.4	0.000 000	0.000
	100 %	+30	2531 009 998	0.8	0.000 000	0.000
	100 %	+40	2531 009 998	0.8	0.000 000	0.000
	100 %	+50	2531 009 995	-1.4	0.000 000	-0.001
	Batt. Endpoint	+20	2531 009 996	-1.0	0.000 000	0.000
2535.000	100 %	+20(Ref)	2535 000 001	0.0	0.000 000	0.000
	100 %	-30	2535 000 000	-1.0	0.000 000	0.000
	100 %	-20	2535 000 000	-1.3	0.000 000	-0.001
	100 %	-10	2534 999 998	-2.9	0.000 000	-0.001
	100 %	0	2535 000 004	2.3	0.000 000	0.001
	100 %	+10	2535 000 004	2.3	0.000 000	0.001
	100 %	+30	2534 999 998	-3.8	0.000 000	-0.001
	100 %	+40	2535 000 000	-1.0	0.000 000	0.000
	100 %	+50	2534 999 997	-4.6	0.000 000	-0.002
	Batt. Endpoint	+20	2534 999 999	-2.1	0.000 000	-0.001
2655.000	100 %	+20(Ref)	2654 999 995	0.0	0.000 000	0.000
	100 %	-30	2654 999 992	-2.9	0.000 000	-0.001
	100 %	-20	2654 999 993	-2.4	0.000 000	-0.001
	100 %	-10	2654 999 995	-0.8	0.000 000	0.000
	100 %	0	2654 999 993	-2.0	0.000 000	-0.001
	100 %	+10	2654 999 993	-2.4	0.000 000	-0.001
	100 %	+30	2654 999 993	-2.4	0.000 000	-0.001
	100 %	+40	2654 999 992	-3.4	0.000 000	-0.001
	100 %	+50	2654 999 992	-3.0	0.000 000	-0.001
	Batt. Endpoint	+20	2654 999 993	-2.6	0.000 000	-0.001

- ▣ BandWidth: 80 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2536.020	100 %	+20(Ref)	2536 020 002	0.0	0.000 000	0.000
	100 %	-30	2536 020 002	0.4	0.000 000	0.000
	100 %	-20	2536 020 005	3.2	0.000 000	0.001
	100 %	-10	2536 020 005	2.9	0.000 000	0.001
	100 %	0	2536 020 004	2.2	0.000 000	0.001
	100 %	+10	2536 020 002	0.0	0.000 000	0.000
	100 %	+30	2536 020 003	1.3	0.000 000	0.001
	100 %	+40	2536 020 002	0.4	0.000 000	0.000
	100 %	+50	2536 020 004	2.1	0.000 000	0.001
	Batt. Endpoint	+20	2536 020 005	3.4	0.000 000	0.001
2540.010	100 %	+20(Ref)	2540 009 999	0.0	0.000 000	0.000
	100 %	-30	2540 009 997	-1.9	0.000 000	-0.001
	100 %	-20	2540 009 999	-0.1	0.000 000	0.000
	100 %	-10	2540 009 998	-0.9	0.000 000	0.000
	100 %	0	2540 009 995	-4.2	0.000 000	-0.002
	100 %	+10	2540 009 997	-1.9	0.000 000	-0.001
	100 %	+30	2540 009 996	-3.0	0.000 000	-0.001
	100 %	+40	2540 010 002	2.5	0.000 000	0.001
	100 %	+50	2540 010 002	2.5	0.000 000	0.001
	Batt. Endpoint	+20	2540 009 992	-7.5	0.000 000	-0.003
2649.990	100 %	+20(Ref)	2649 989 999	0.0	0.000 000	0.000
	100 %	-30	2649 990 001	2.1	0.000 000	0.001
	100 %	-20	2649 989 999	-0.1	0.000 000	0.000
	100 %	-10	2649 990 000	0.3	0.000 000	0.000
	100 %	0	2649 989 999	-0.4	0.000 000	0.000
	100 %	+10	2649 989 999	0.0	0.000 000	0.000
	100 %	+30	2649 989 998	-1.5	0.000 000	-0.001
	100 %	+40	2649 990 000	0.6	0.000 000	0.000
	100 %	+50	2649 989 998	-1.4	0.000 000	-0.001
	Batt. Endpoint	+20	2649 989 999	-0.3	0.000 000	0.000

- ▣ BandWidth: 90 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

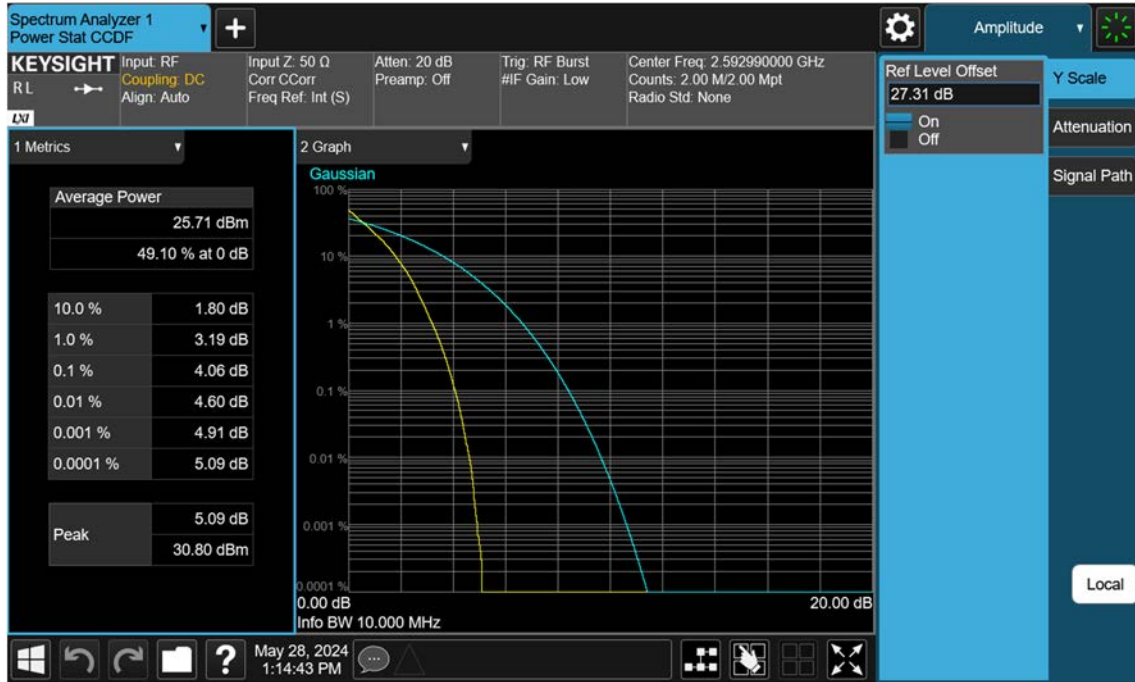
Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2541.000	100 %	+20(Ref)	2541 000 000	0.0	0.000 000	0.000
	100 %	-30	2540 999 999	-0.8	0.000 000	0.000
	100 %	-20	2540 999 999	-0.8	0.000 000	0.000
	100 %	-10	2541 000 000	-0.2	0.000 000	0.000
	100 %	0	2541 000 000	0.7	0.000 000	0.000
	100 %	+10	2541 000 000	0.8	0.000 000	0.000
	100 %	+30	2540 999 999	-0.4	0.000 000	0.000
	100 %	+40	2540 999 999	-0.5	0.000 000	0.000
	100 %	+50	2541 000 002	2.0	0.000 000	0.001
	Batt. Endpoint	+20	2541 000 000	-0.2	0.000 000	0.000
2545.020	100 %	+20(Ref)	2545 019 998	0.0	0.000 000	0.000
	100 %	-30	2545 019 993	-4.8	0.000 000	-0.002
	100 %	-20	2545 019 999	1.4	0.000 000	0.001
	100 %	-10	2545 020 000	2.6	0.000 000	0.001
	100 %	0	2545 019 993	-4.5	0.000 000	-0.002
	100 %	+10	2545 019 997	-1.0	0.000 000	0.000
	100 %	+30	2545 019 996	-1.6	0.000 000	-0.001
	100 %	+40	2545 019 996	-1.3	0.000 000	-0.001
	100 %	+50	2545 019 997	-1.0	0.000 000	0.000
	Batt. Endpoint	+20	2545 019 997	-1.2	0.000 000	0.000
2644.980	100 %	+20(Ref)	2644 979 999	0.0	0.000 000	0.000
	100 %	-30	2644 979 998	-1.2	0.000 000	0.000
	100 %	-20	2644 979 998	-0.7	0.000 000	0.000
	100 %	-10	2644 979 997	-1.8	0.000 000	-0.001
	100 %	0	2644 979 998	-0.5	0.000 000	0.000
	100 %	+10	2644 979 996	-2.7	0.000 000	-0.001
	100 %	+30	2644 979 999	0.7	0.000 000	0.000
	100 %	+40	2644 979 999	0.7	0.000 000	0.000
	100 %	+50	2644 979 998	-1.2	0.000 000	0.000
	Batt. Endpoint	+20	2644 979 998	-1.1	0.000 000	0.000

- ▣ BandWidth: 100 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2546.010	100 %	+20(Ref)	2546 010 002	0.0	0.000 000	0.000
	100 %	-30	2546 010 001	-1.4	0.000 000	-0.001
	100 %	-20	2546 010 002	0.0	0.000 000	0.000
	100 %	-10	2546 010 002	0.1	0.000 000	0.000
	100 %	0	2546 010 002	0.1	0.000 000	0.000
	100 %	+10	2546 010 003	0.6	0.000 000	0.000
	100 %	+30	2546 010 004	1.4	0.000 000	0.001
	100 %	+40	2546 010 001	-1.0	0.000 000	0.000
	100 %	+50	2546 010 001	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	2546 010 002	-0.3	0.000 000	0.000
2550.000	100 %	+20(Ref)	2549 999 995	0.0	0.000 000	0.000
	100 %	-30	2549 999 993	-2.3	0.000 000	-0.001
	100 %	-20	2549 999 993	-2.3	0.000 000	-0.001
	100 %	-10	2549 999 995	-1.0	0.000 000	0.000
	100 %	0	2549 999 997	1.4	0.000 000	0.001
	100 %	+10	2549 999 992	-3.0	0.000 000	-0.001
	100 %	+30	2549 999 992	-3.8	0.000 000	-0.002
	100 %	+40	2549 999 996	0.4	0.000 000	0.000
	100 %	+50	2549 999 991	-4.5	0.000 000	-0.002
	Batt. Endpoint	+20	2549 999 997	1.5	0.000 000	0.001
2640.000	100 %	+20(Ref)	2640 000 001	0.0	0.000 000	0.000
	100 %	-30	2639 999 999	-1.3	0.000 000	-0.001
	100 %	-20	2640 000 000	-0.7	0.000 000	0.000
	100 %	-10	2640 000 000	-0.7	0.000 000	0.000
	100 %	0	2640 000 001	0.3	0.000 000	0.000
	100 %	+10	2640 000 002	1.0	0.000 000	0.000
	100 %	+30	2639 999 998	-2.4	0.000 000	-0.001
	100 %	+40	2640 000 001	0.7	0.000 000	0.000
	100 %	+50	2640 000 002	1.6	0.000 000	0.001
	Batt. Endpoint	+20	2640 000 001	-0.3	0.000 000	0.000

## 9. TEST PLOTS(ANT B)

10 M\_PAR\_Mid\_BPSK\_FullIRB

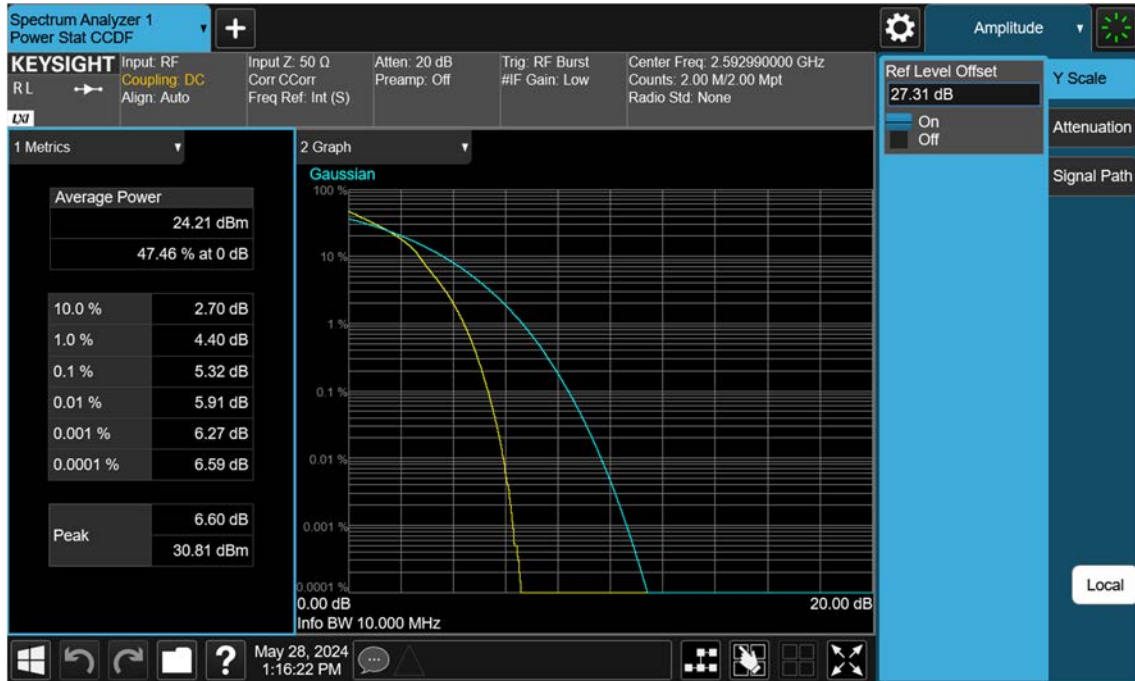




10 M\_PAR\_Mid\_QPSK\_FullRB



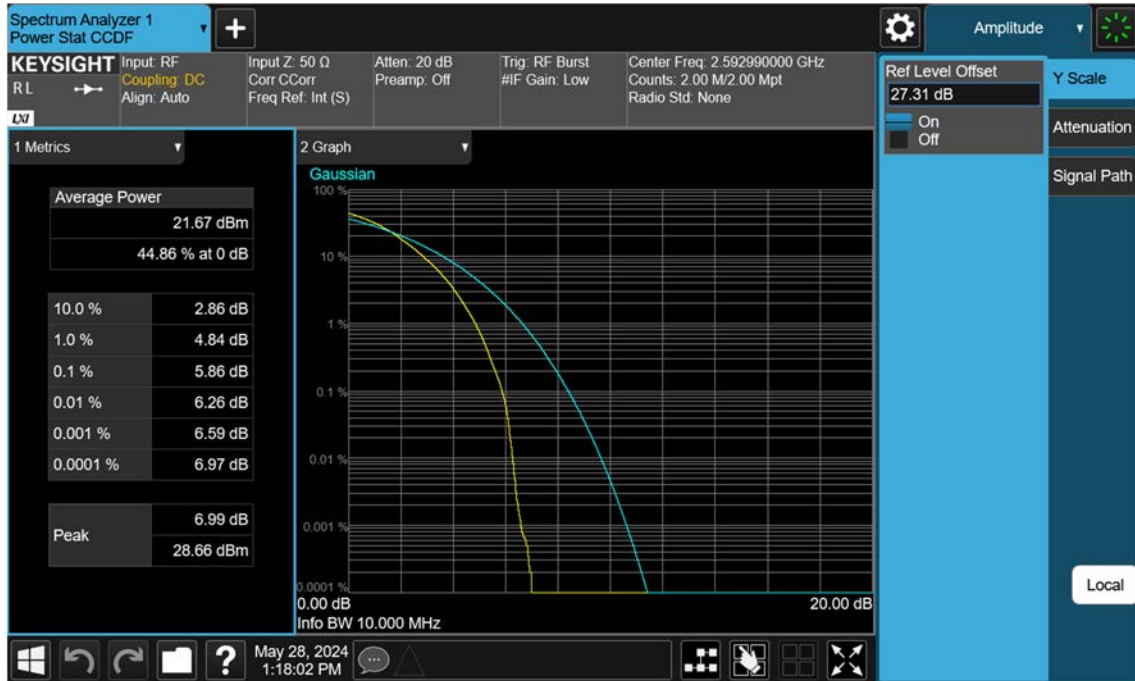
10 M\_PAR\_Mid\_16QAM\_FullRB



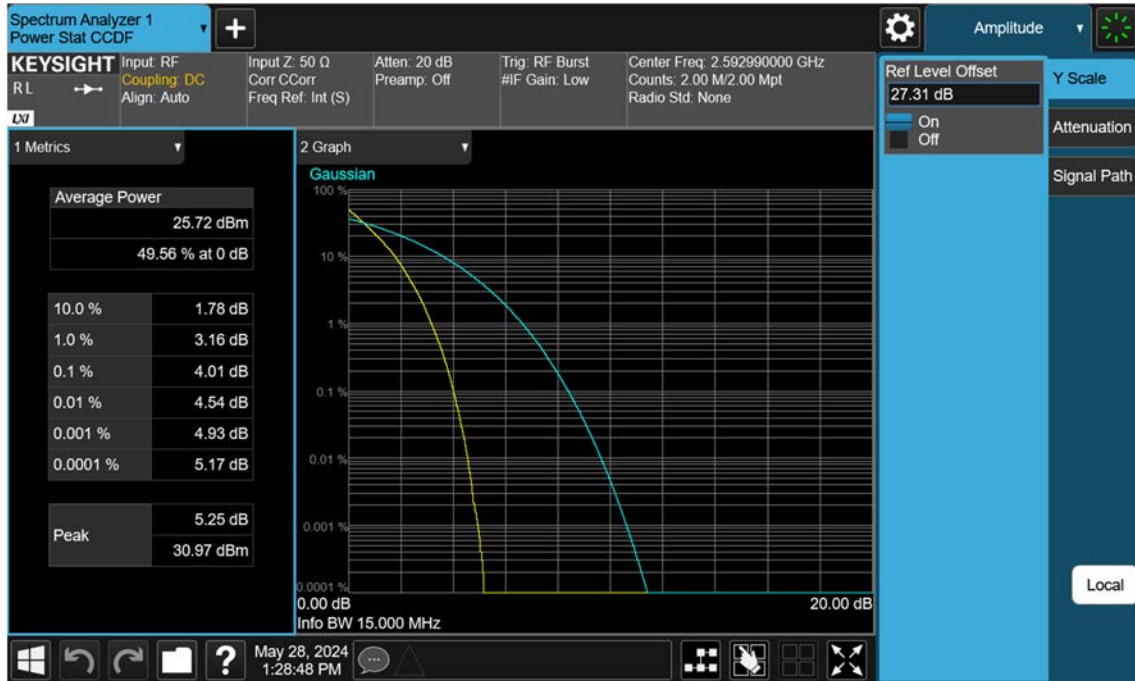
10 M\_PAR\_Mid\_64QAM\_FullRB



10 M\_PAR\_Mid\_256QAM\_FullRB



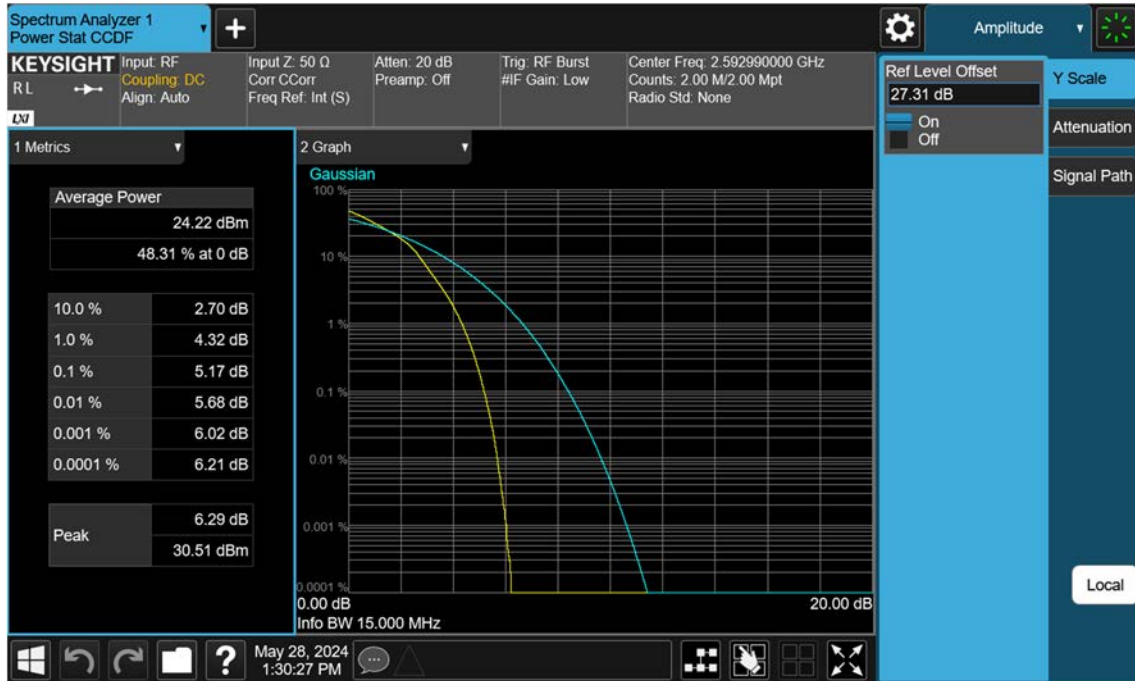
15 M\_PAR\_Mid\_BPSK\_FullRB



15 M\_PAR\_Mid\_QPSK\_FullRB



15 M\_PAR\_Mid\_16QAM\_FullRB



15 M\_PAR\_Mid\_64QAM\_FullRB





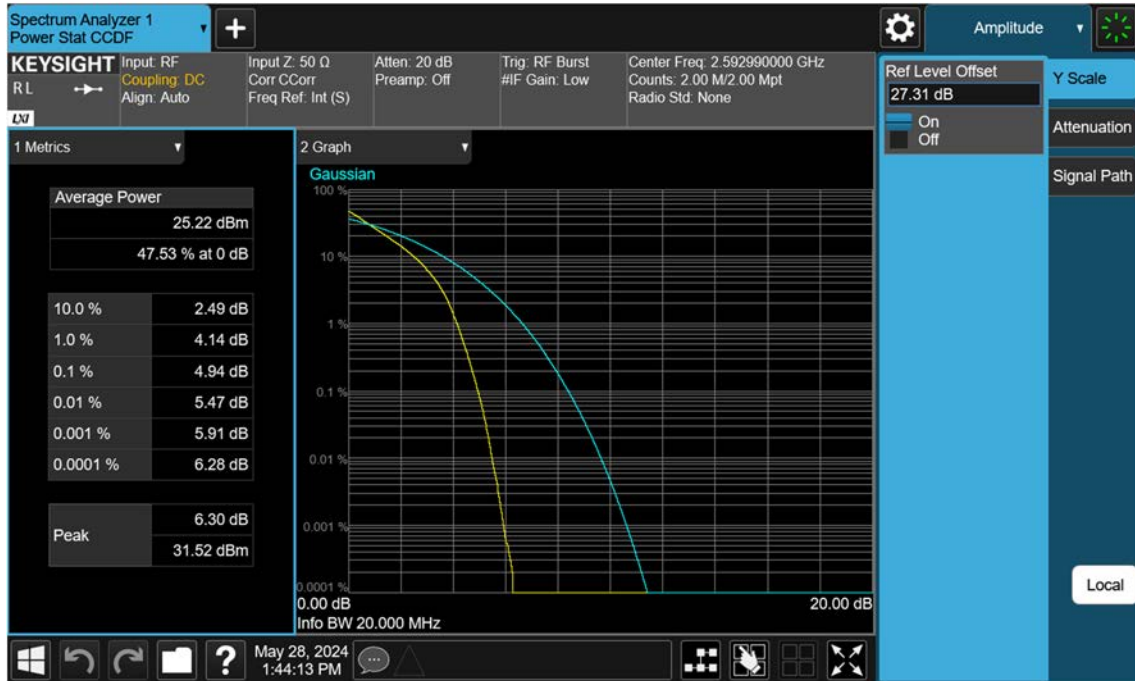
15 M\_PAR\_Mid\_256QAM\_FullRB



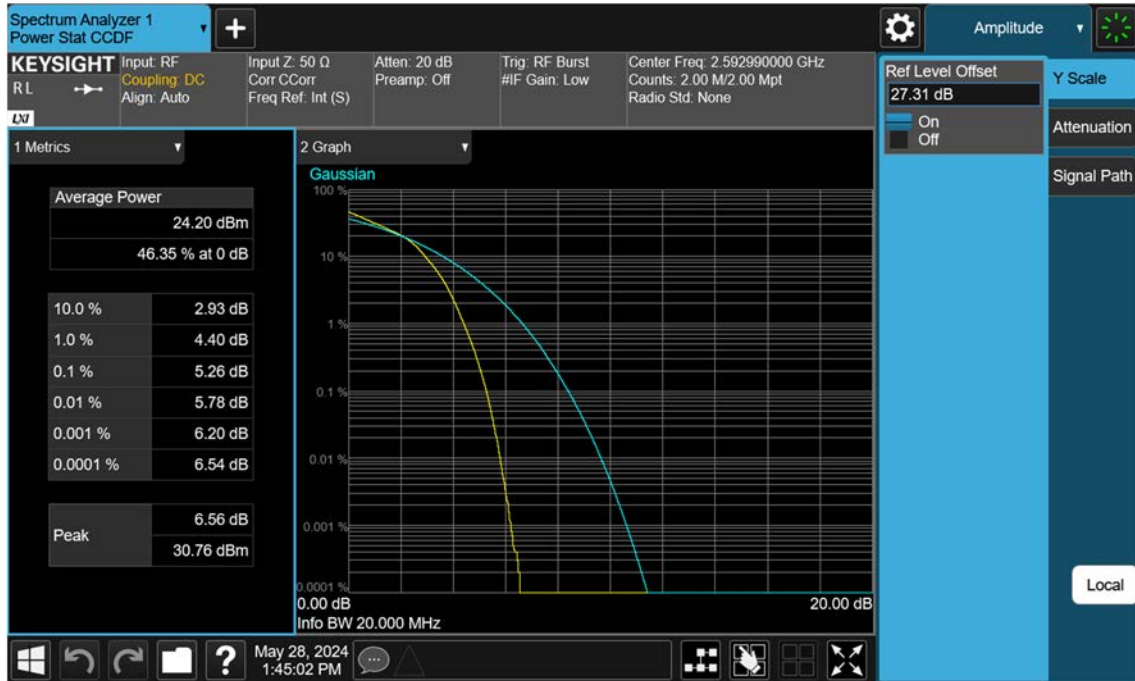
20 M\_PAR\_Mid\_BPSK\_FullRB



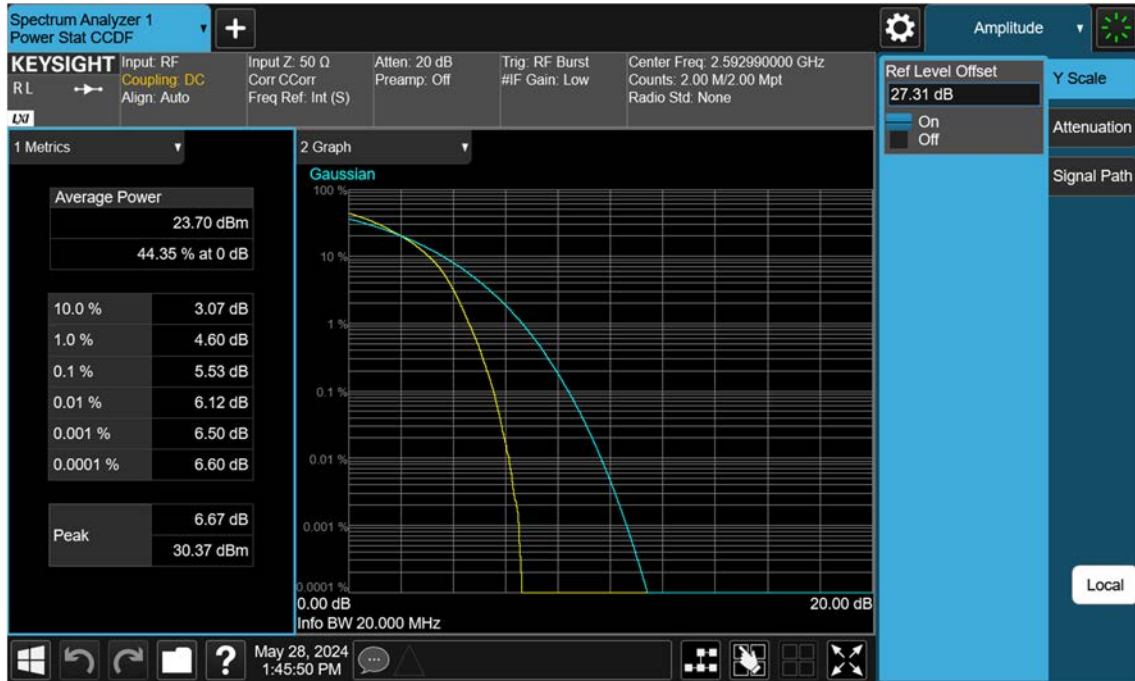
20 M\_PAR\_Mid\_QPSK\_FullRB



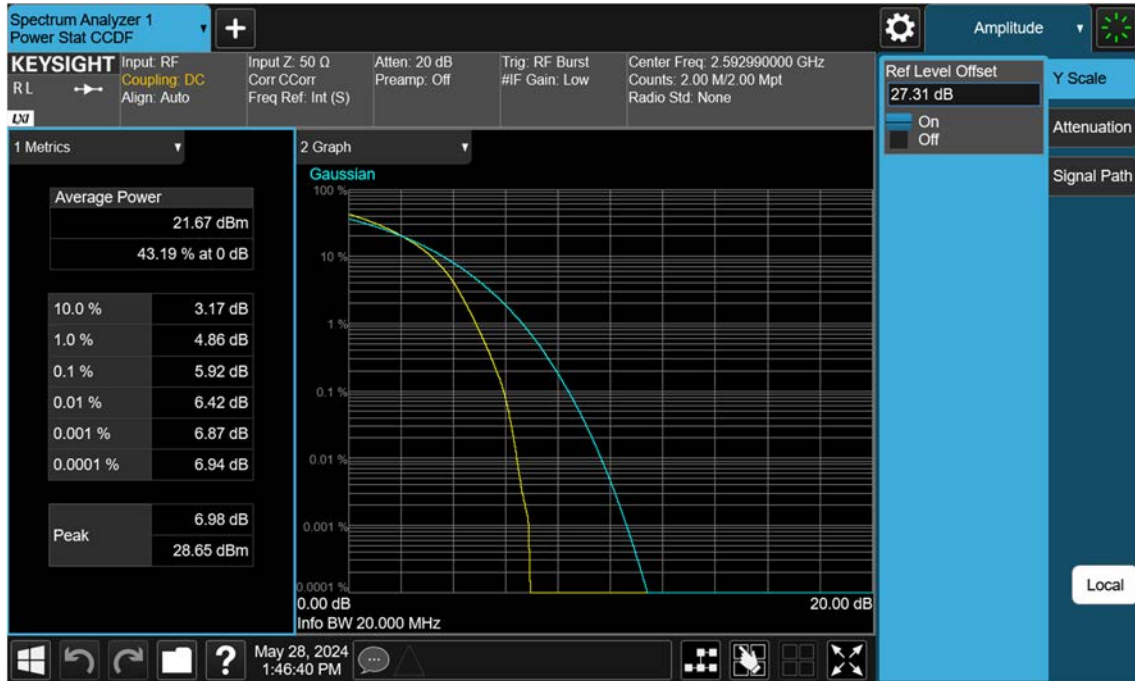
20 M\_PAR\_Mid\_16QAM\_FullRB



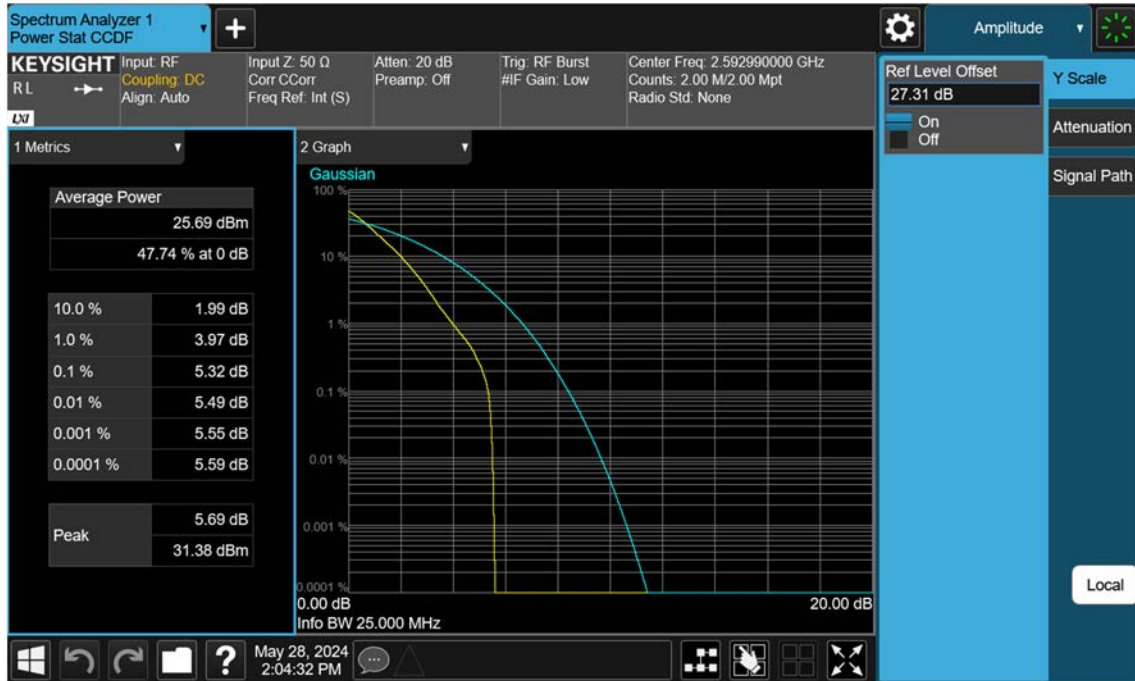
20 M\_PAR\_Mid\_64QAM\_FullRB



20 M\_PAR\_Mid\_256QAM\_FullRB



25 M\_PAR\_Mid\_BPSK\_FullRB

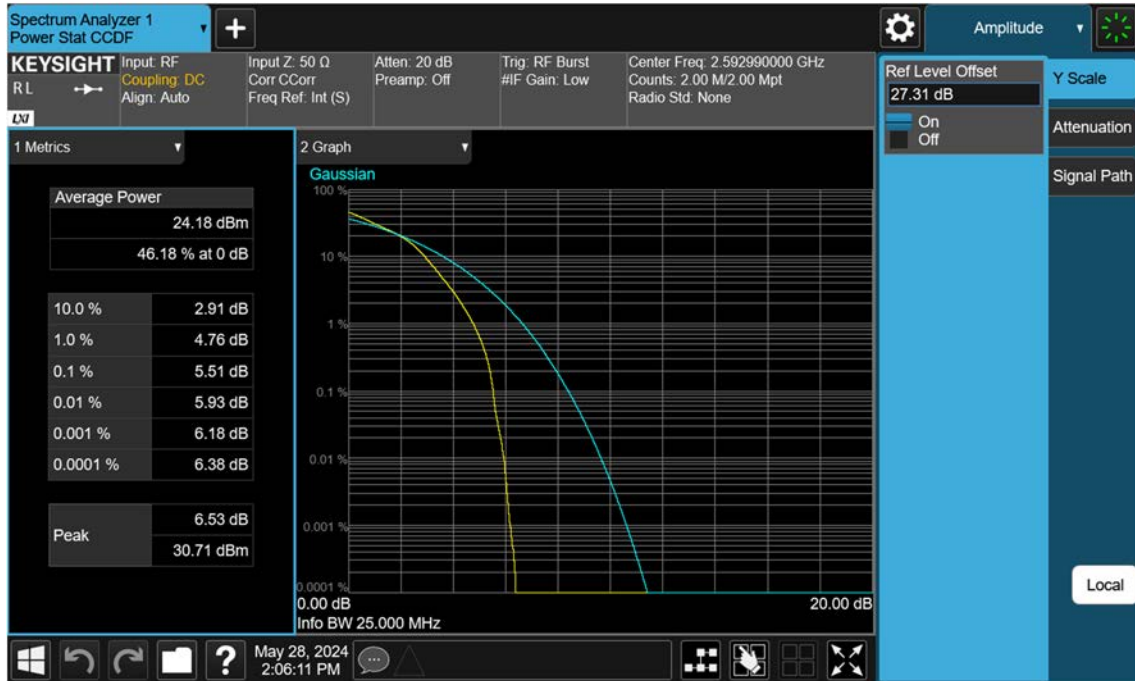


25 M\_PAR\_Mid\_QPSK\_FullRB

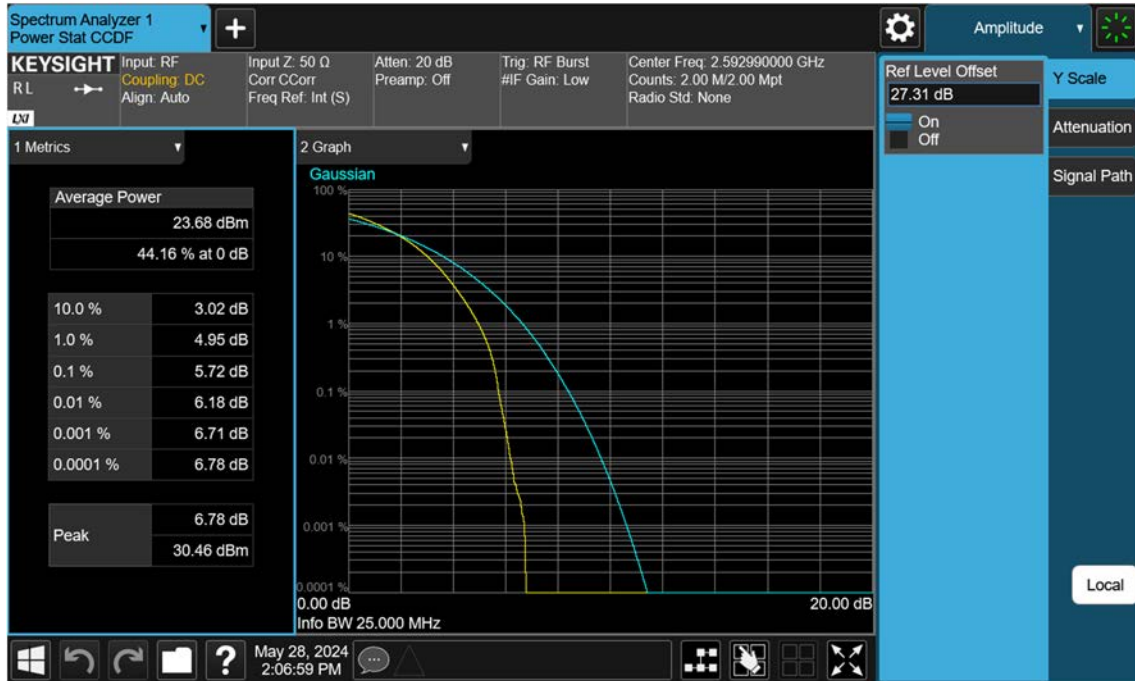




25 M\_PAR\_Mid\_16QAM\_FullRB



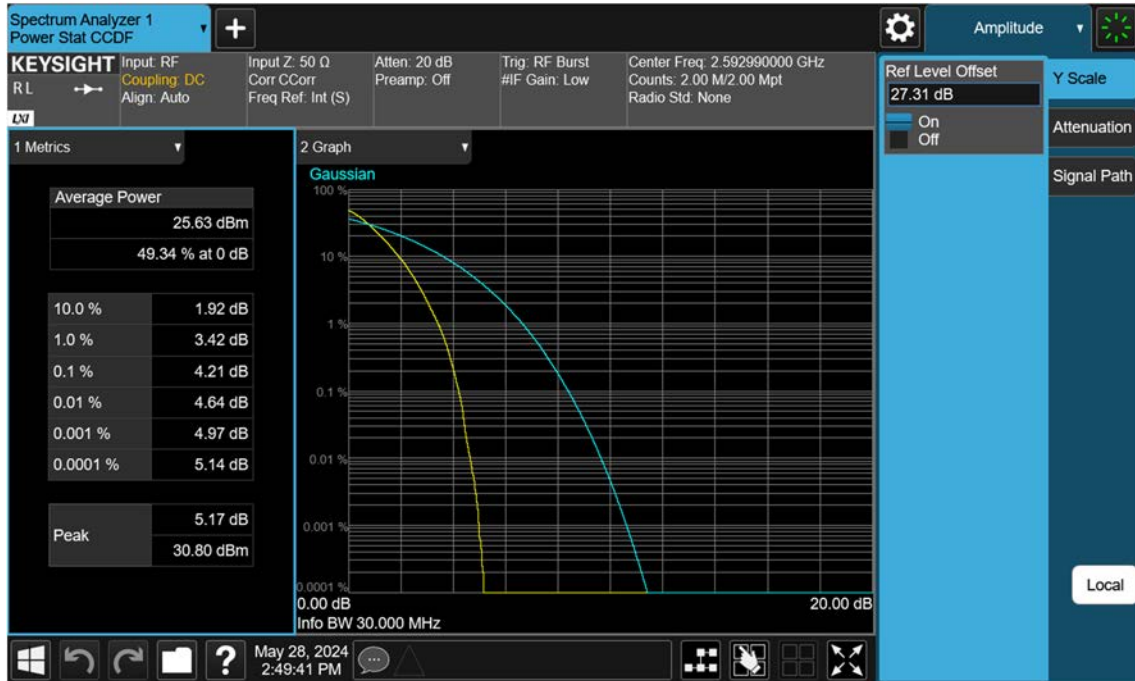
25 M\_PAR\_Mid\_64QAM\_FullRB



25 M\_PAR\_Mid\_256QAM\_FullRB



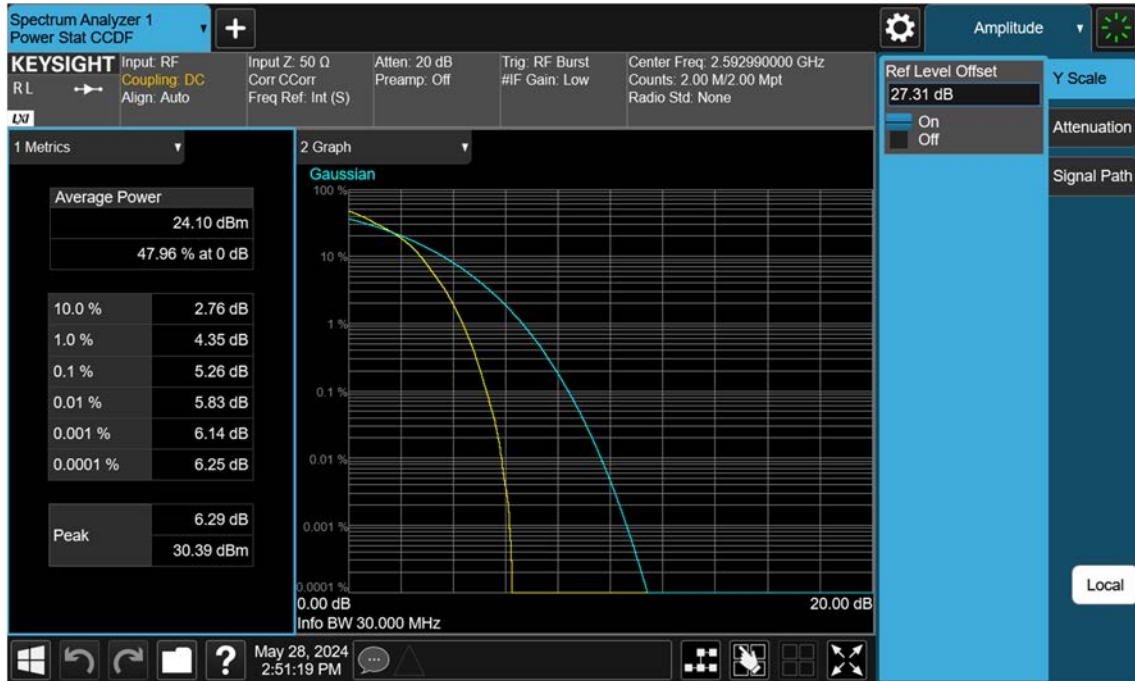
30 M\_PAR\_Mid\_BPSK\_FullRB



30 M\_PAR\_Mid\_QPSK\_FullRB



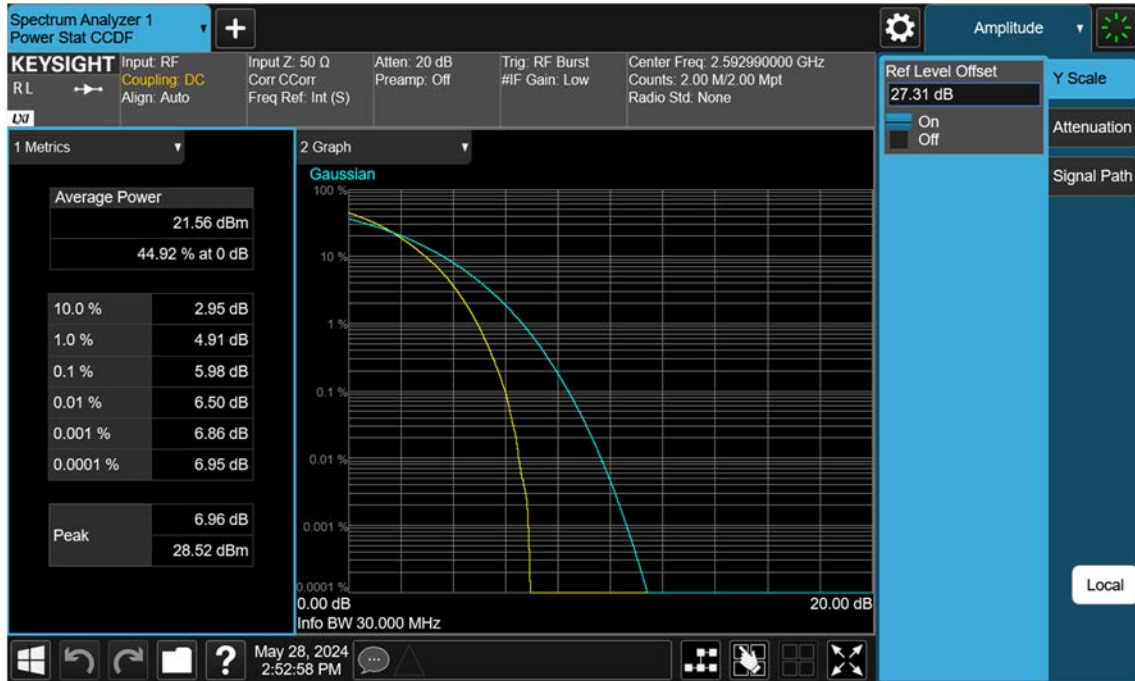
30 M\_PAR\_Mid\_16QAM\_FullRB



30 M\_PAR\_Mid\_64QAM\_FullRB

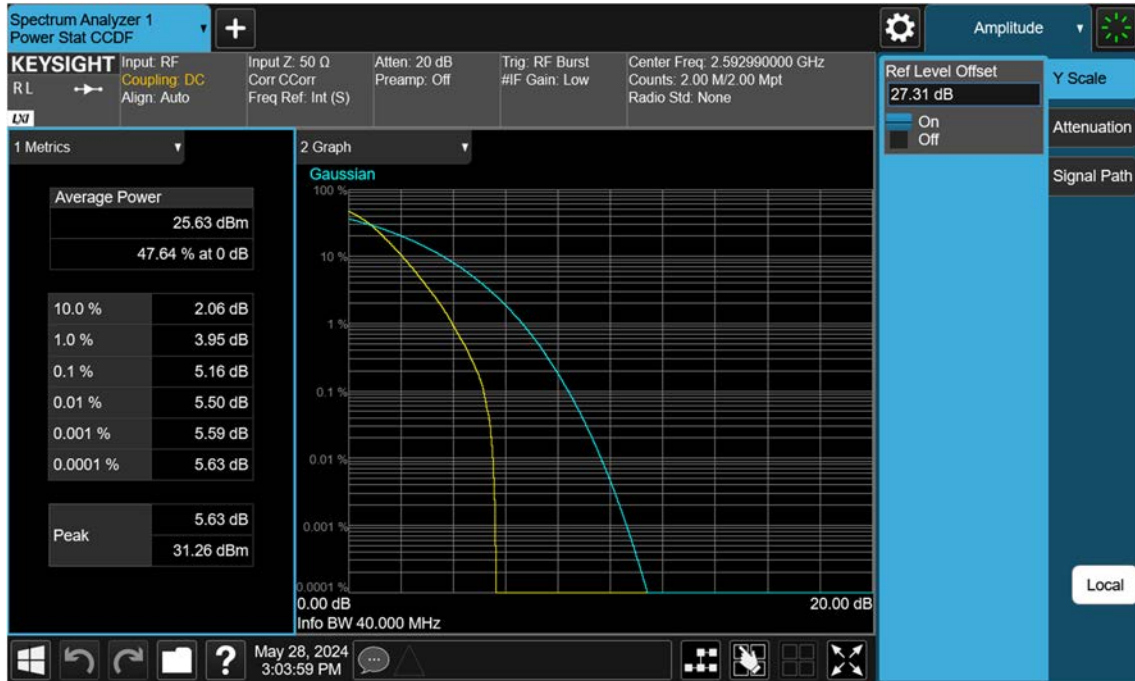


30 M\_PAR\_Mid\_256QAM\_FullRB

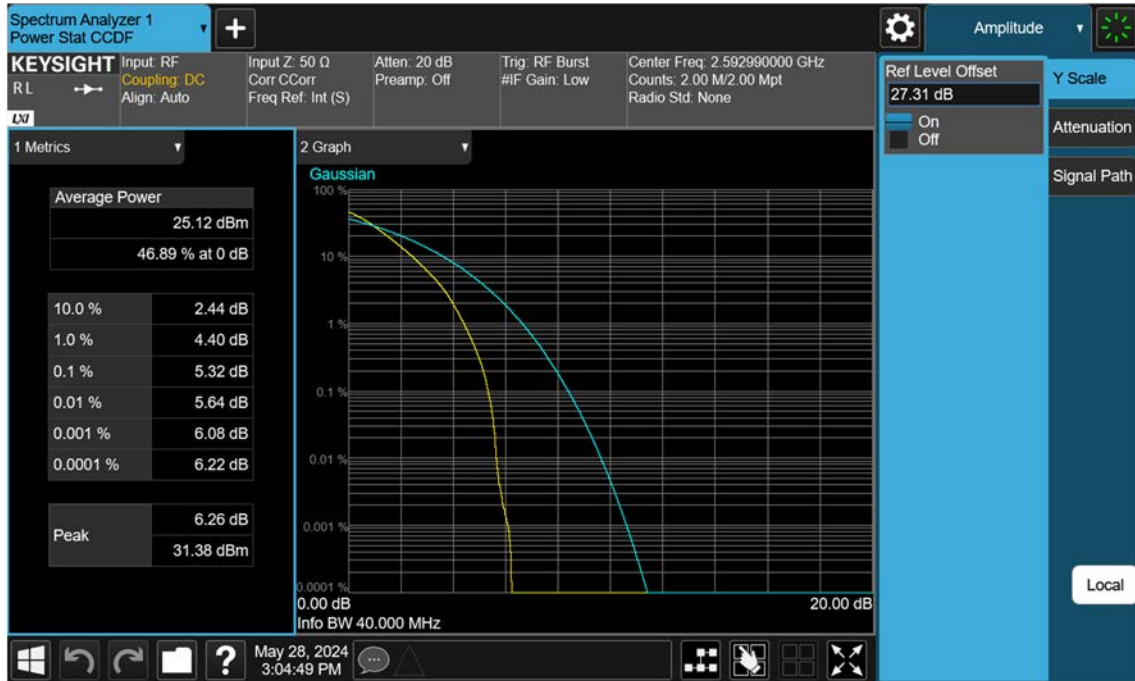




40 M\_PAR\_Mid\_BPSK\_FullRB



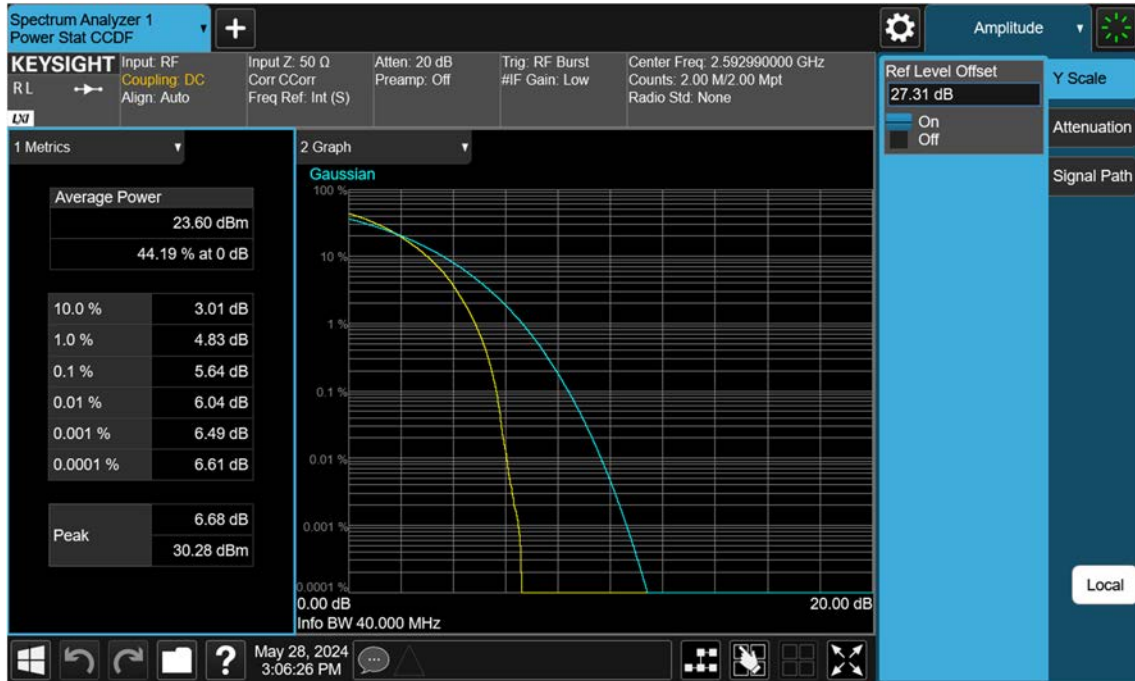
40 M\_PAR\_Mid\_QPSK\_FullRB



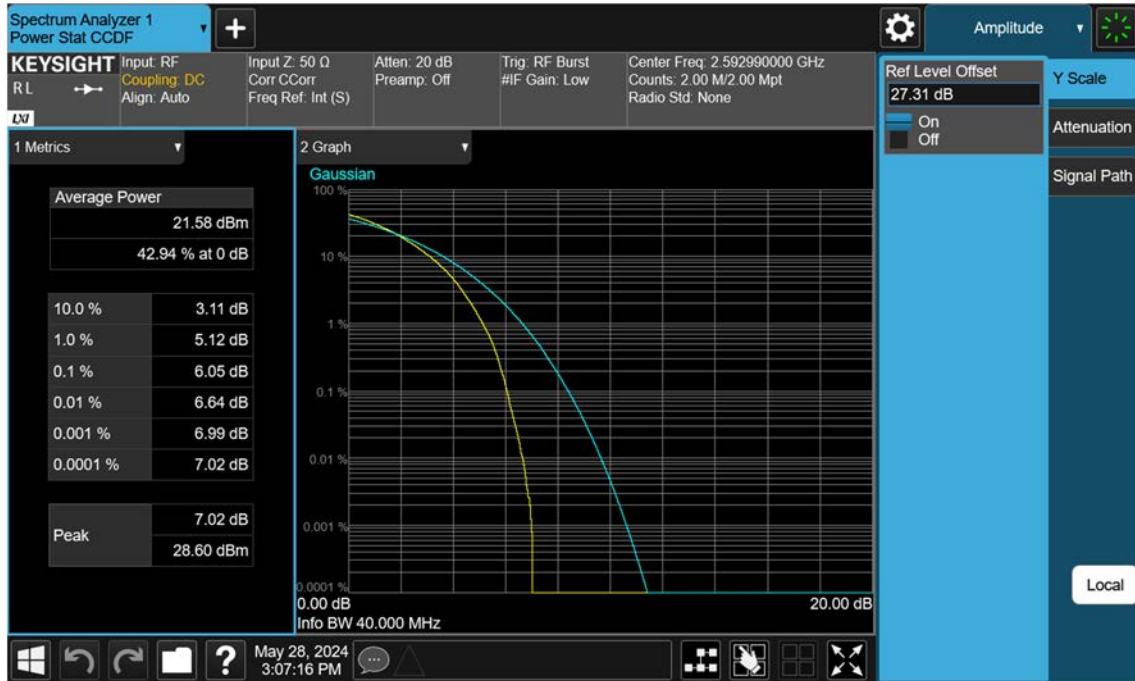
40 M\_PAR\_Mid\_16QAM\_FullRB



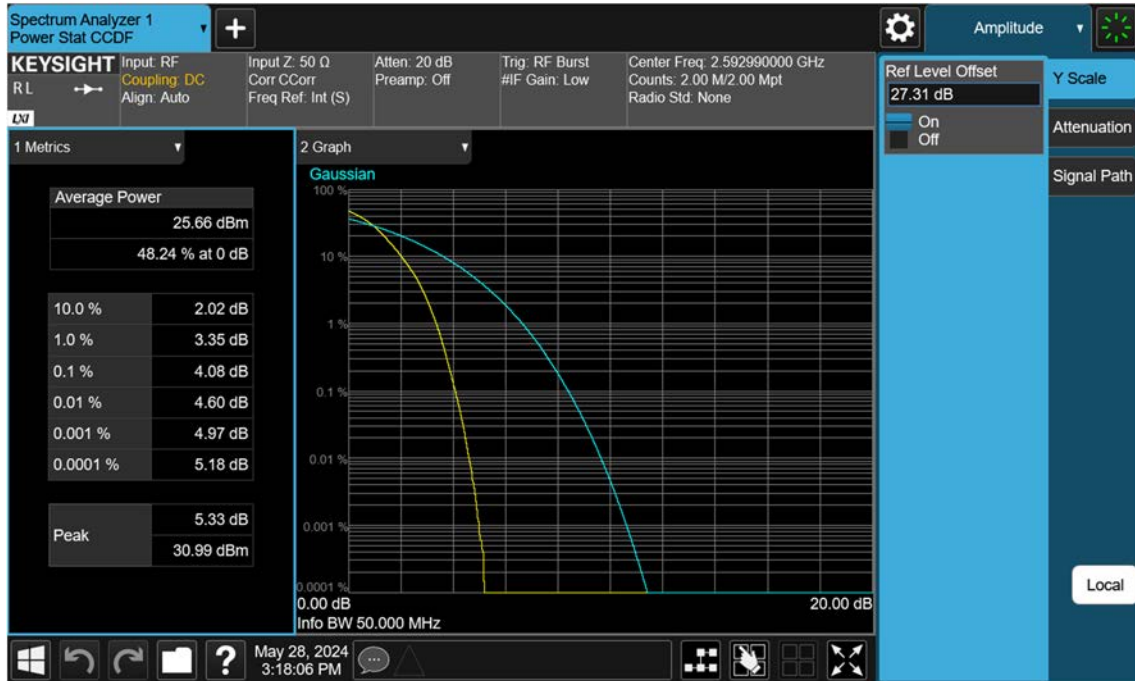
40 M\_PAR\_Mid\_64QAM\_FullRB



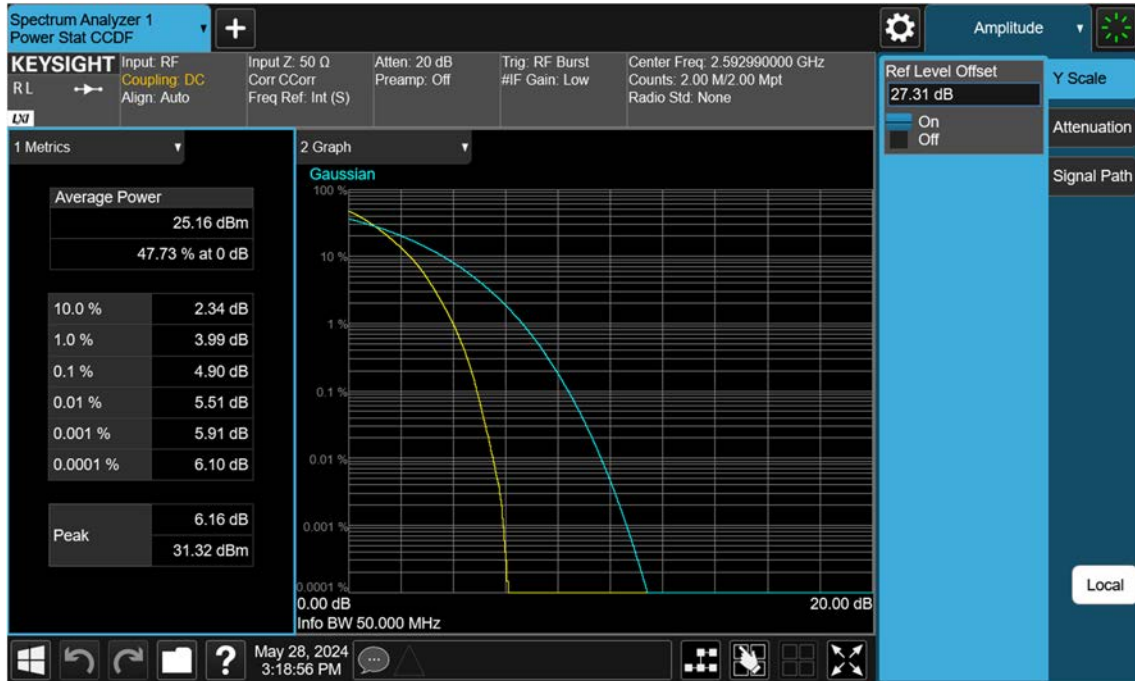
40 M\_PAR\_Mid\_256QAM\_FullRB



50 M\_PAR\_Mid\_BPSK\_FullRB



50 M\_PAR\_Mid\_QPSK\_FullRB

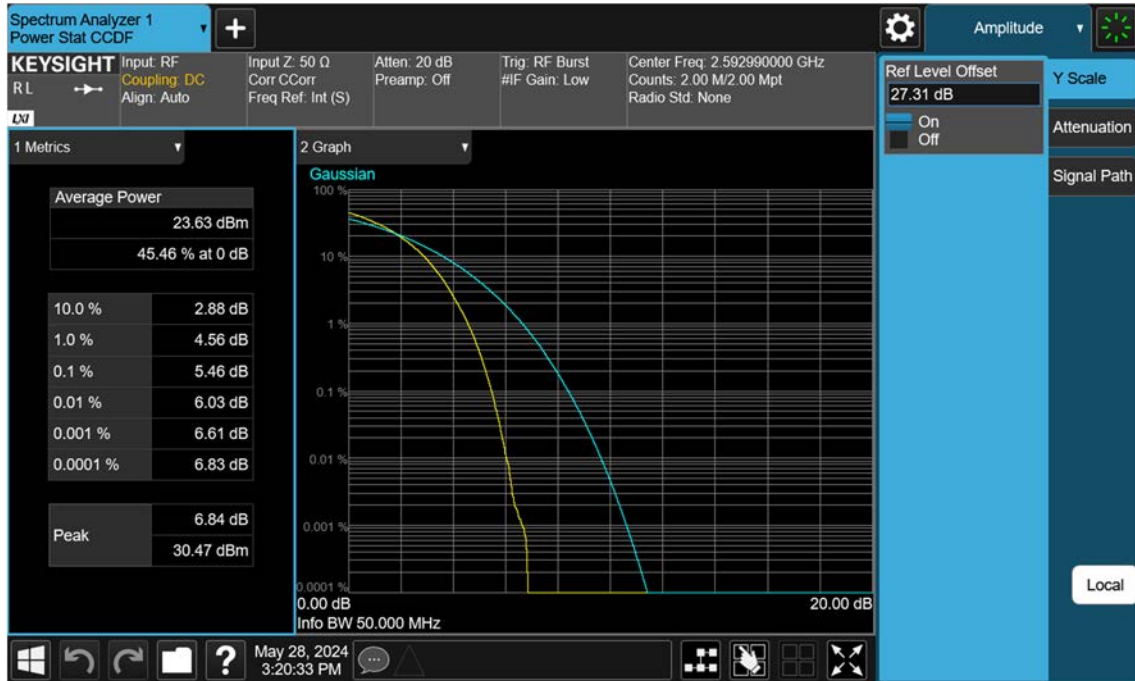


50 M\_PAR\_Mid\_16QAM\_FullRB

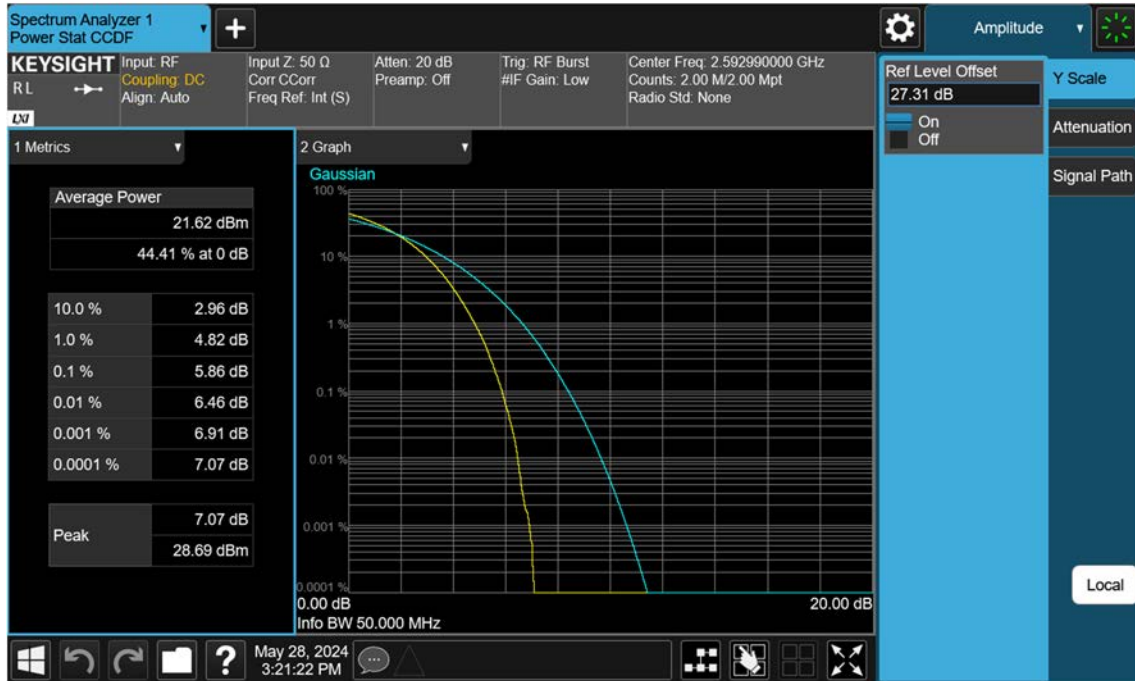




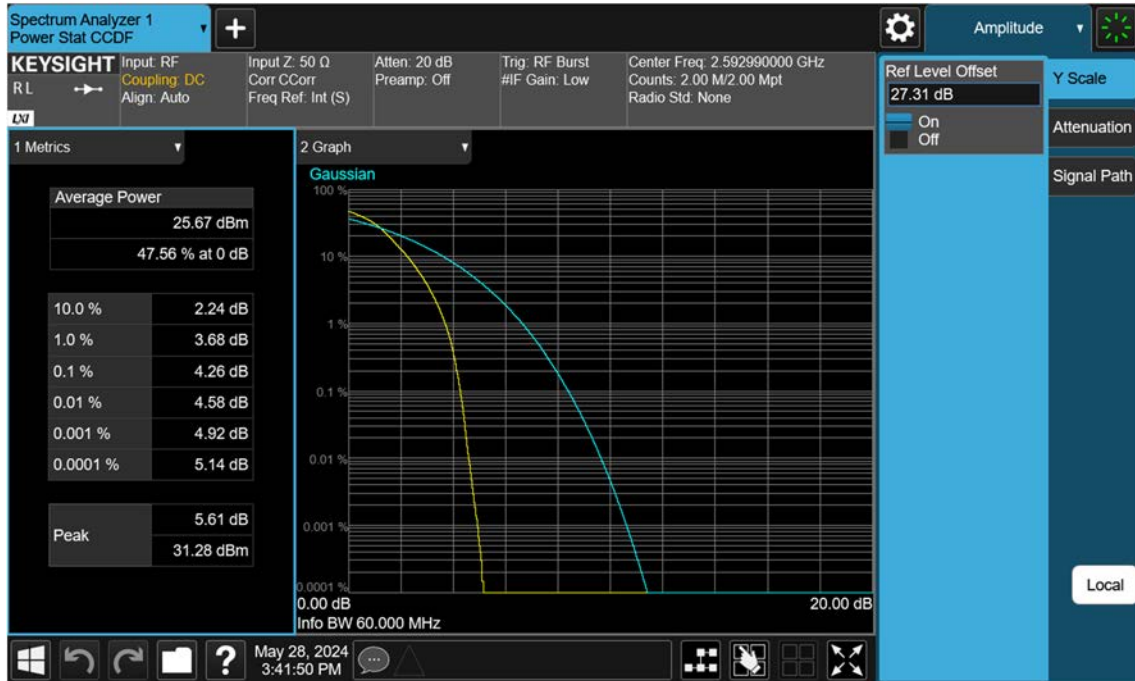
50 M\_PAR\_Mid\_64QAM\_FullRB



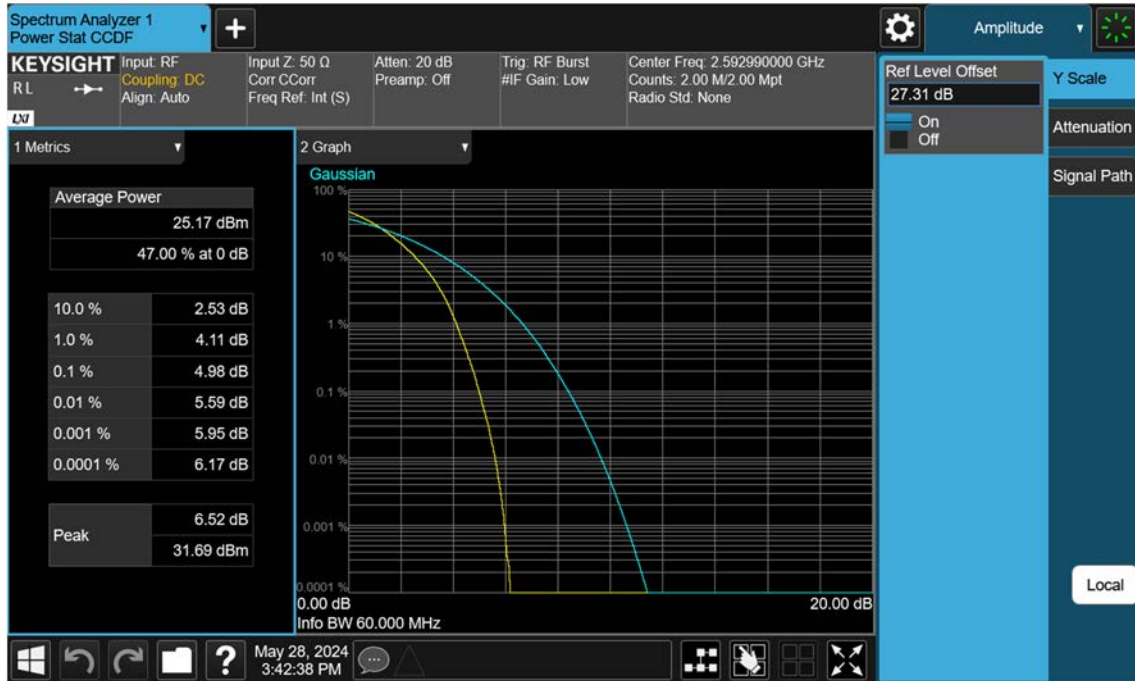
50 M\_PAR\_Mid\_256QAM\_FullRB



60 M\_PAR\_Mid\_BPSK\_FullRB



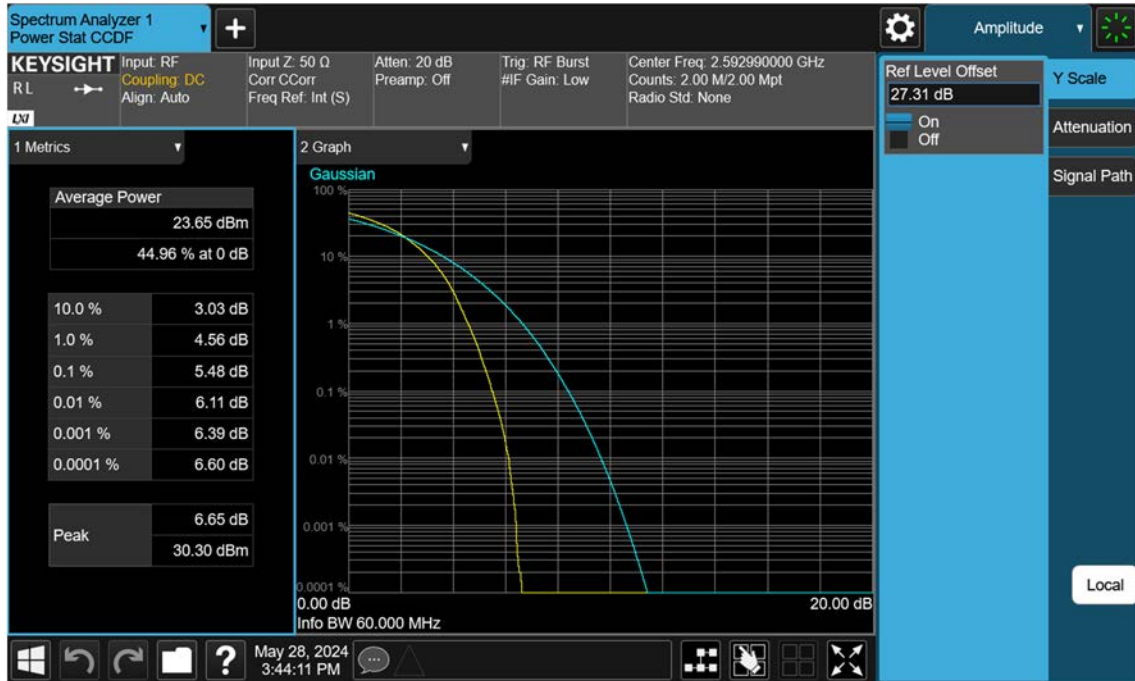
60 M\_PAR\_Mid\_QPSK\_FullRB



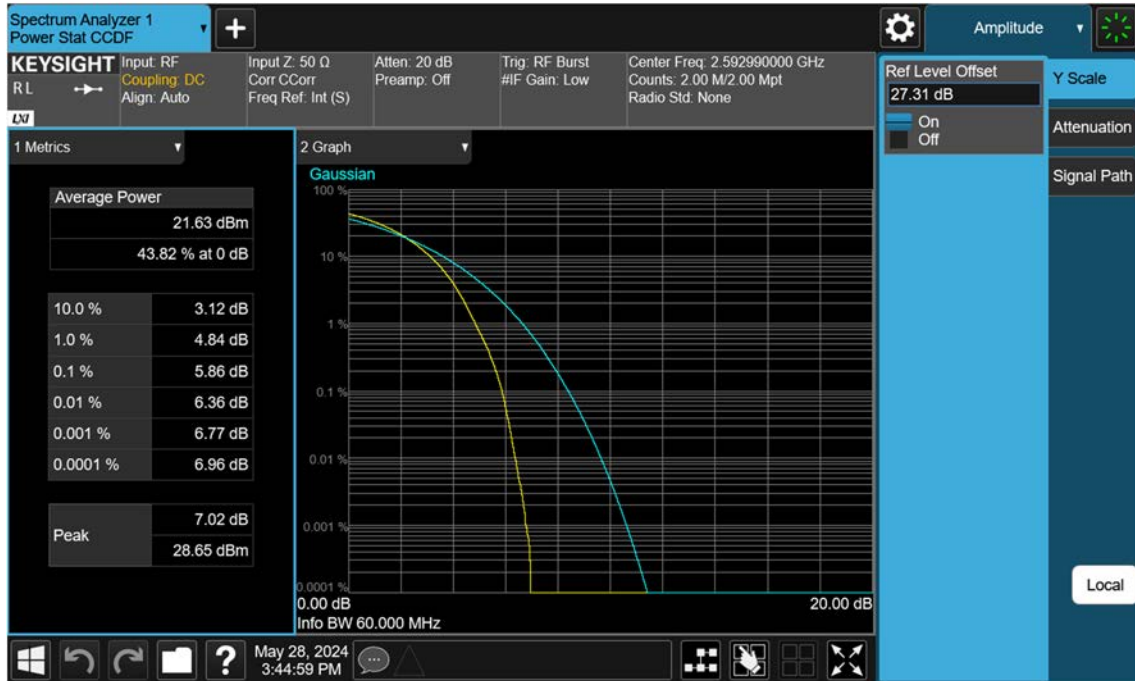
60 M\_PAR\_Mid\_16QAM\_FullRB



60 M\_PAR\_Mid\_64QAM\_FullRB



60 M\_PAR\_Mid\_256QAM\_FullRB

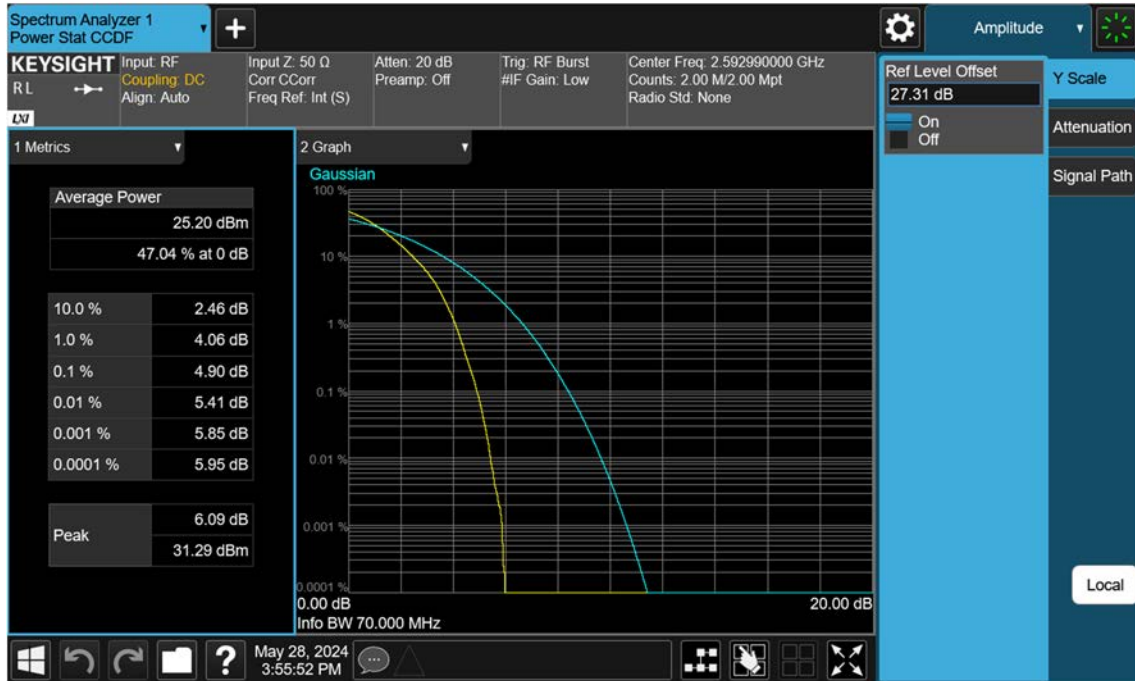


70 M\_PAR\_Mid\_BPSK\_FullRB

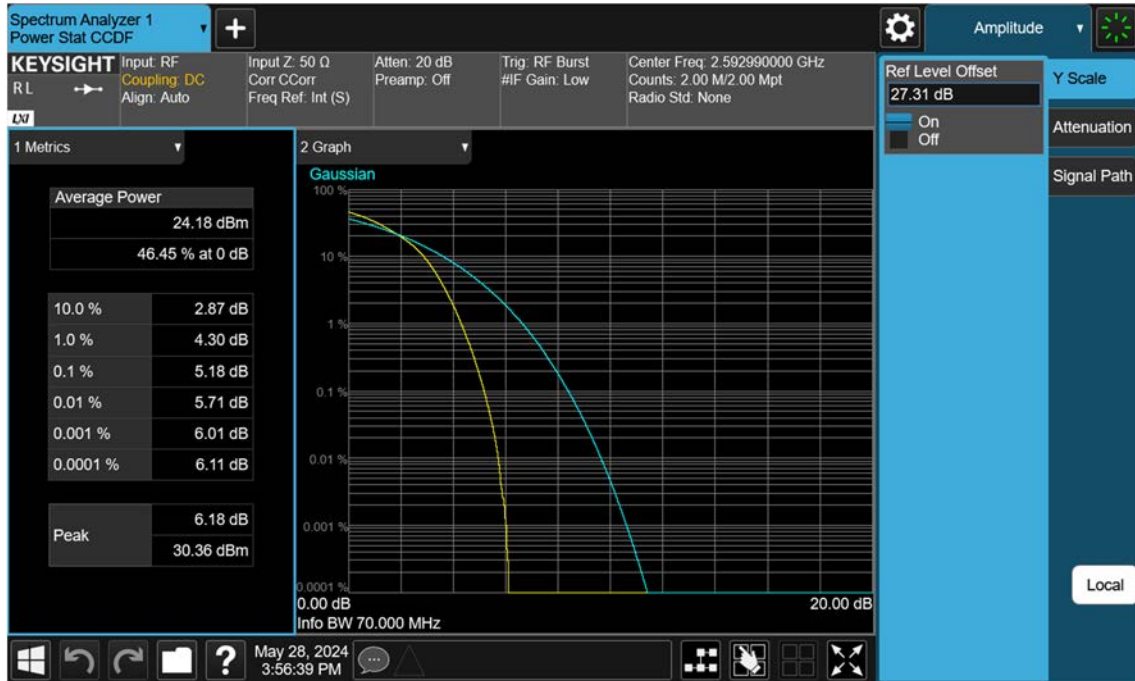




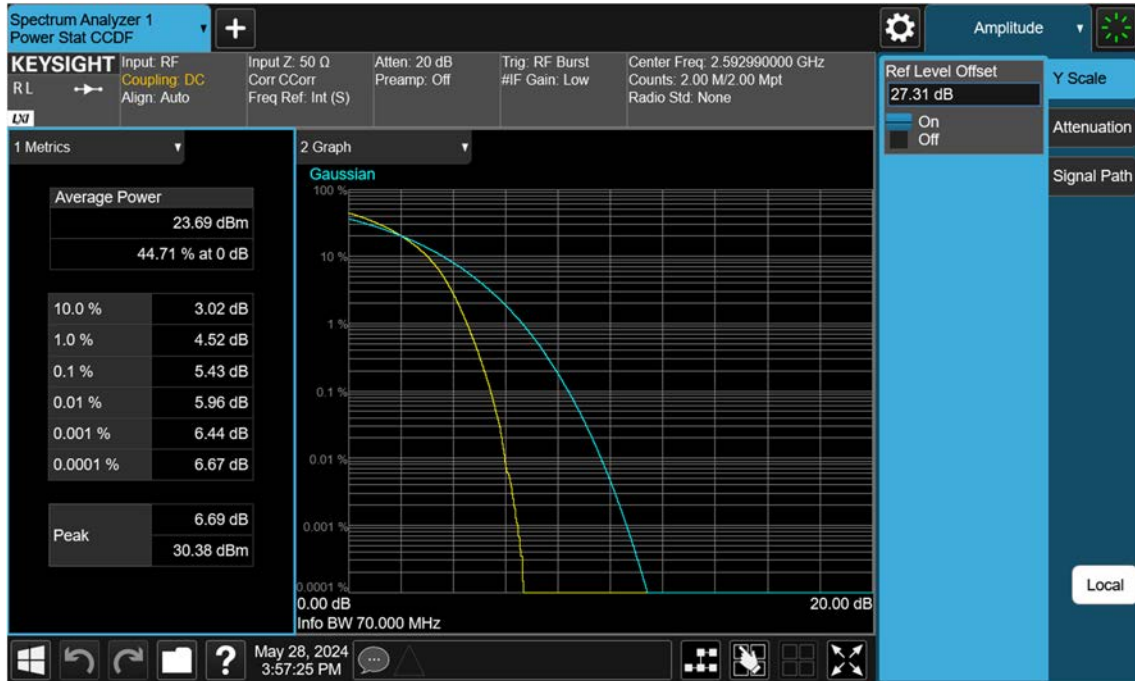
70 M\_PAR\_Mid\_QPSK\_FullRB



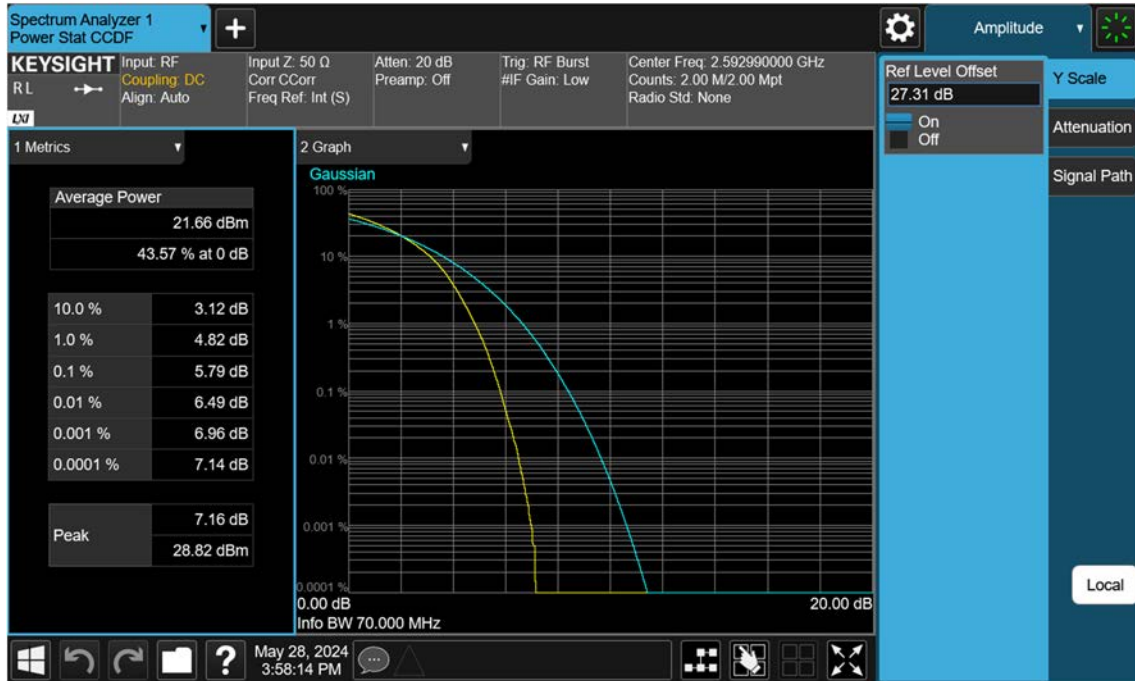
70 M\_PAR\_Mid\_16QAM\_FullRB



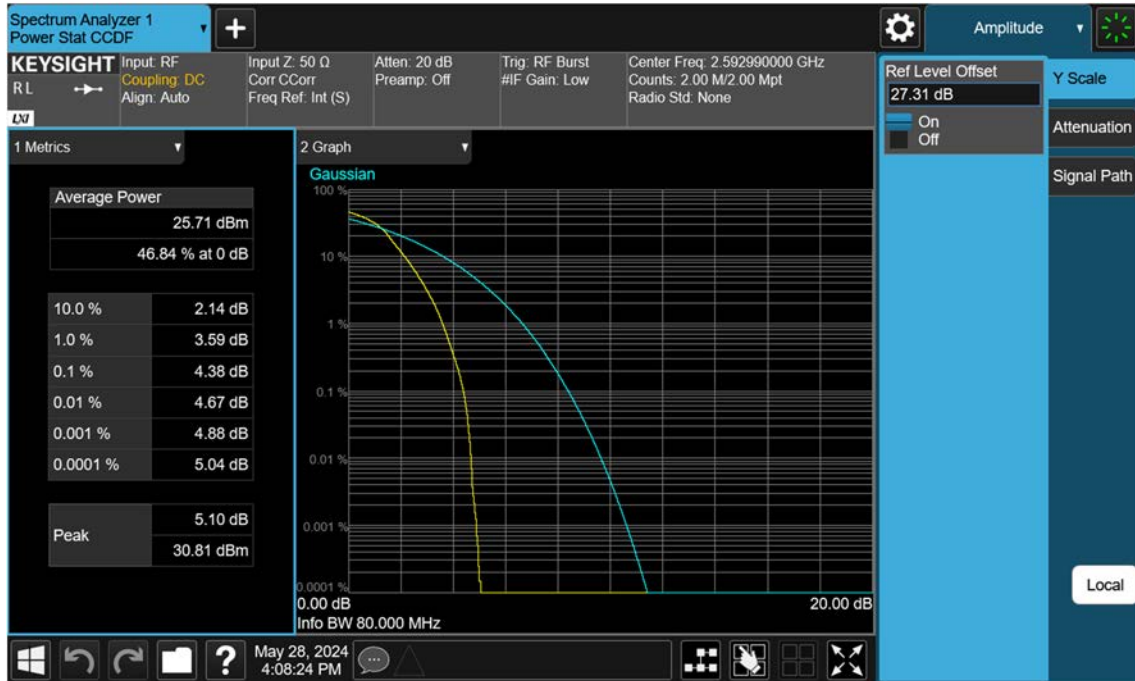
70 M\_PAR\_Mid\_64QAM\_FullRB



70 M\_PAR\_Mid\_256QAM\_FullRB



80 M\_PAR\_Mid\_BPSK\_FullRB



80 M\_PAR\_Mid\_QPSK\_FullRB



80 M\_PAR\_Mid\_16QAM\_FullRB

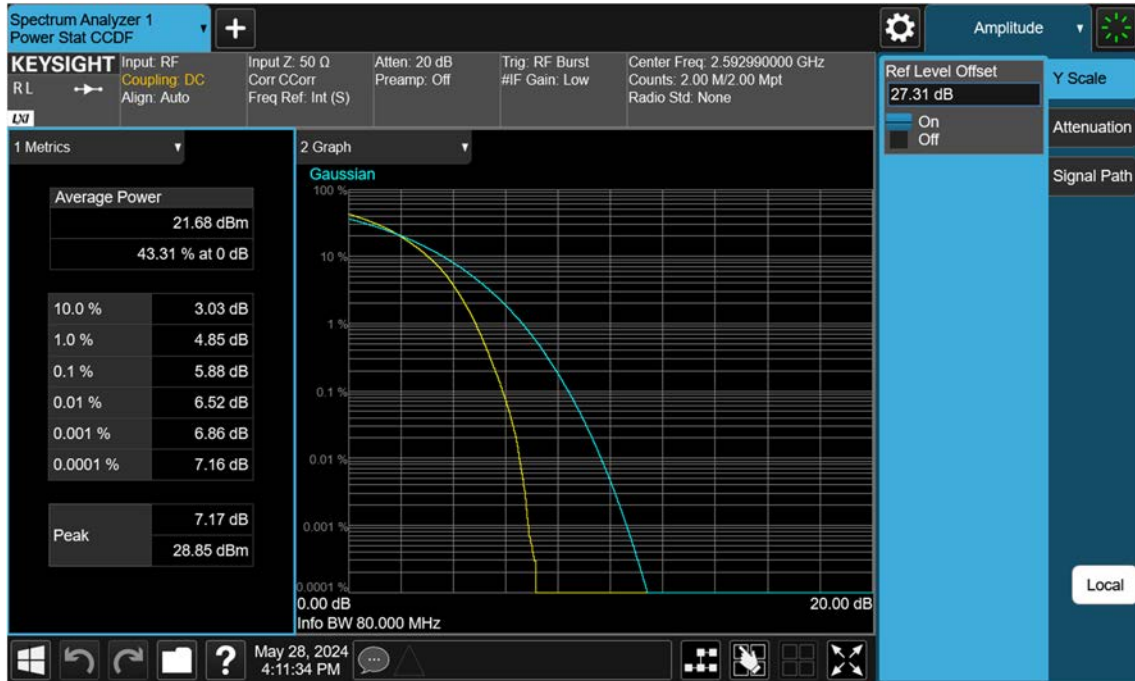


80 M\_PAR\_Mid\_64QAM\_FullRB

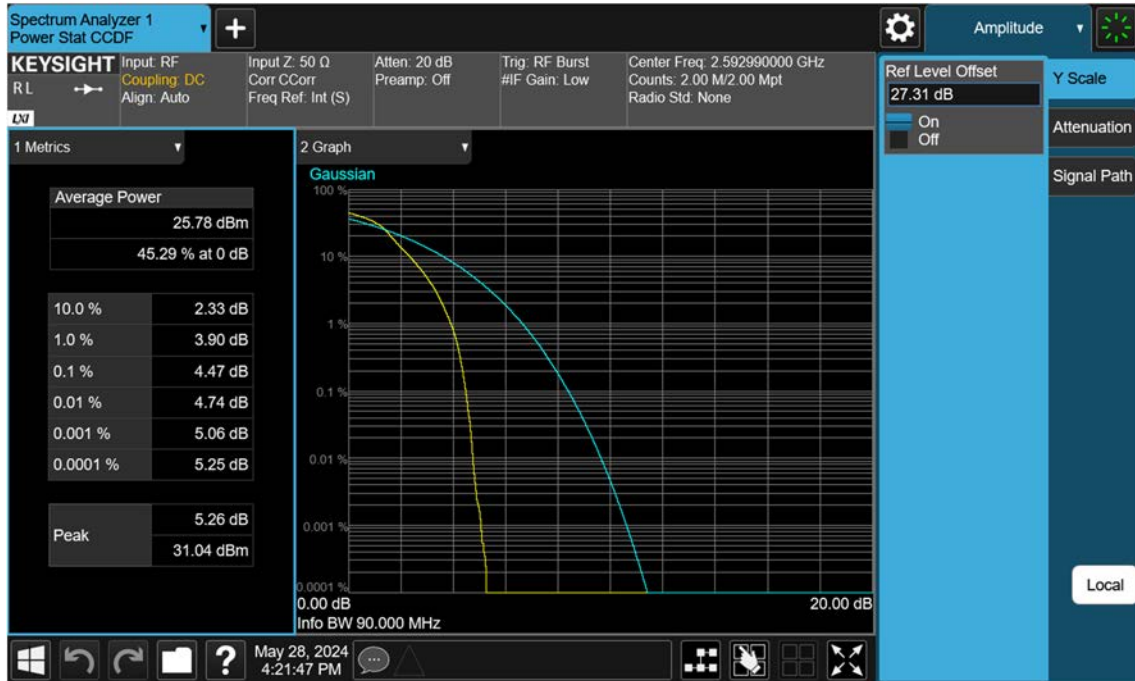




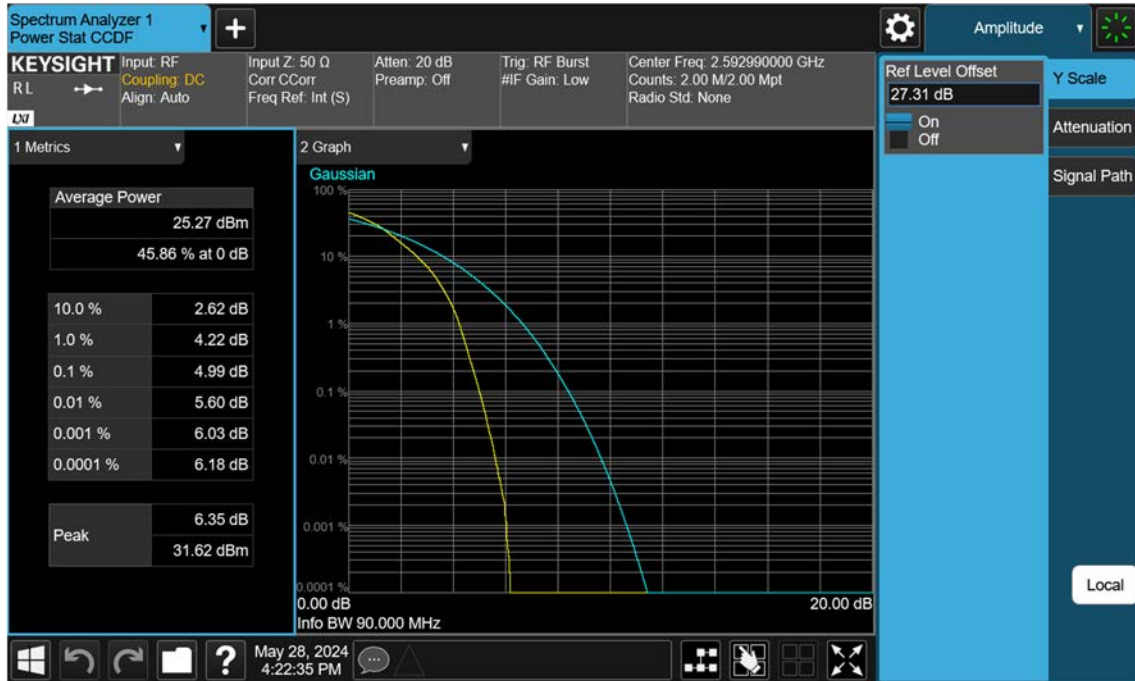
80 M\_PAR\_Mid\_256QAM\_FullRB



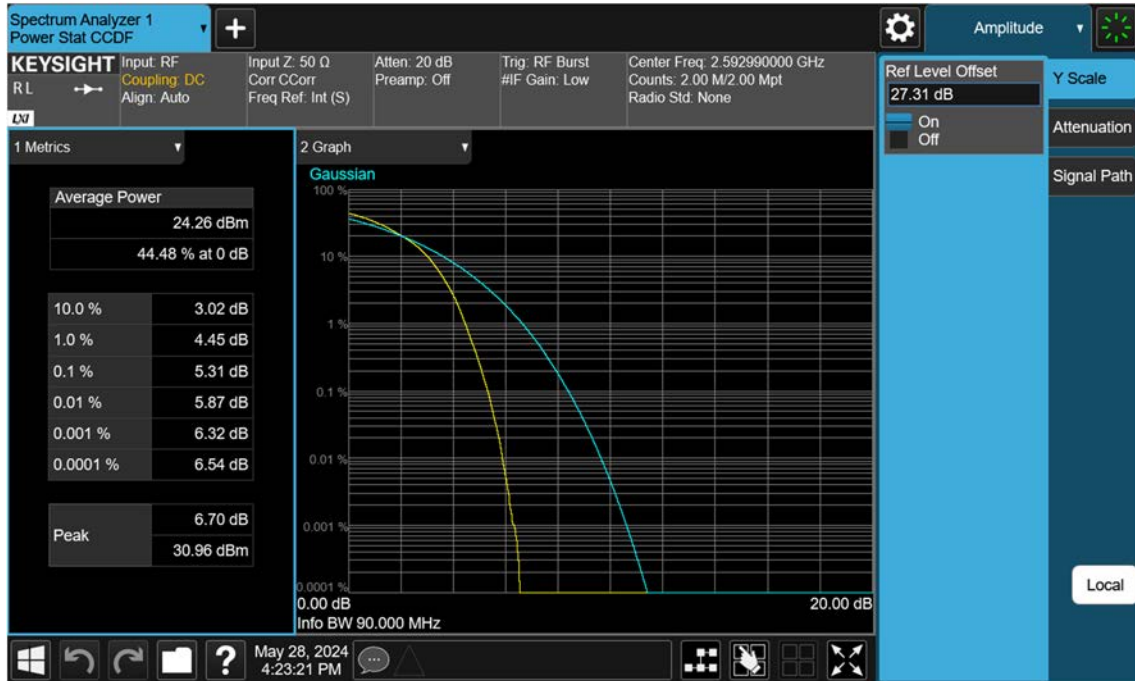
90 M\_PAR\_Mid\_BPSK\_FullRB



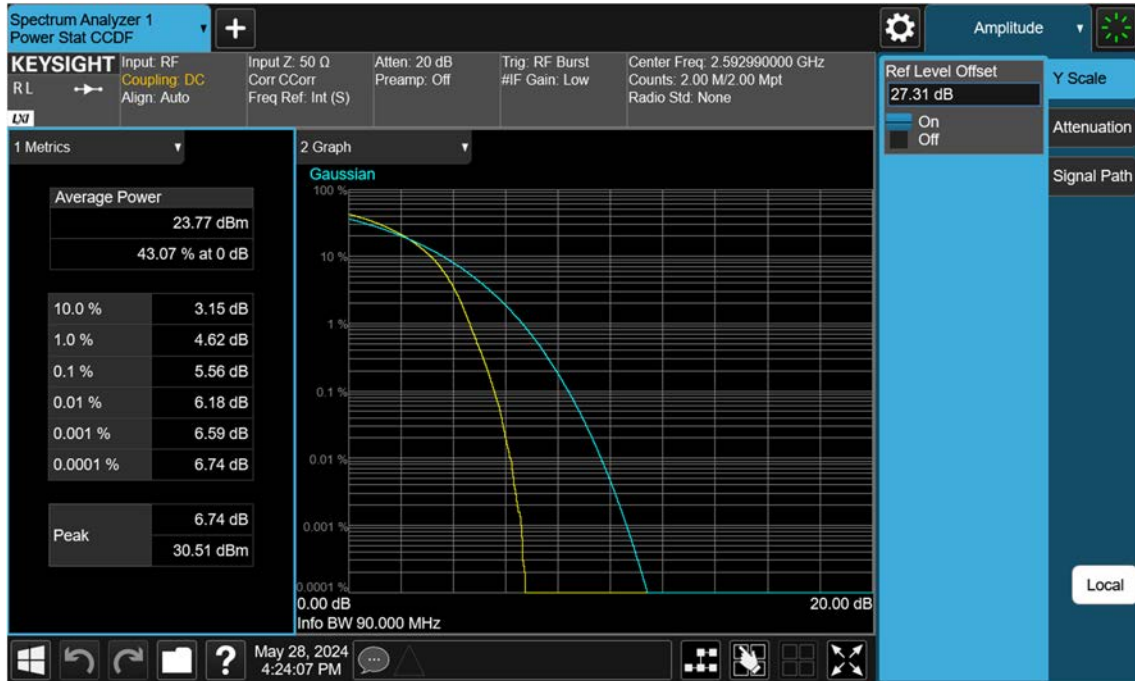
90 M\_PAR\_Mid\_QPSK\_FullRB



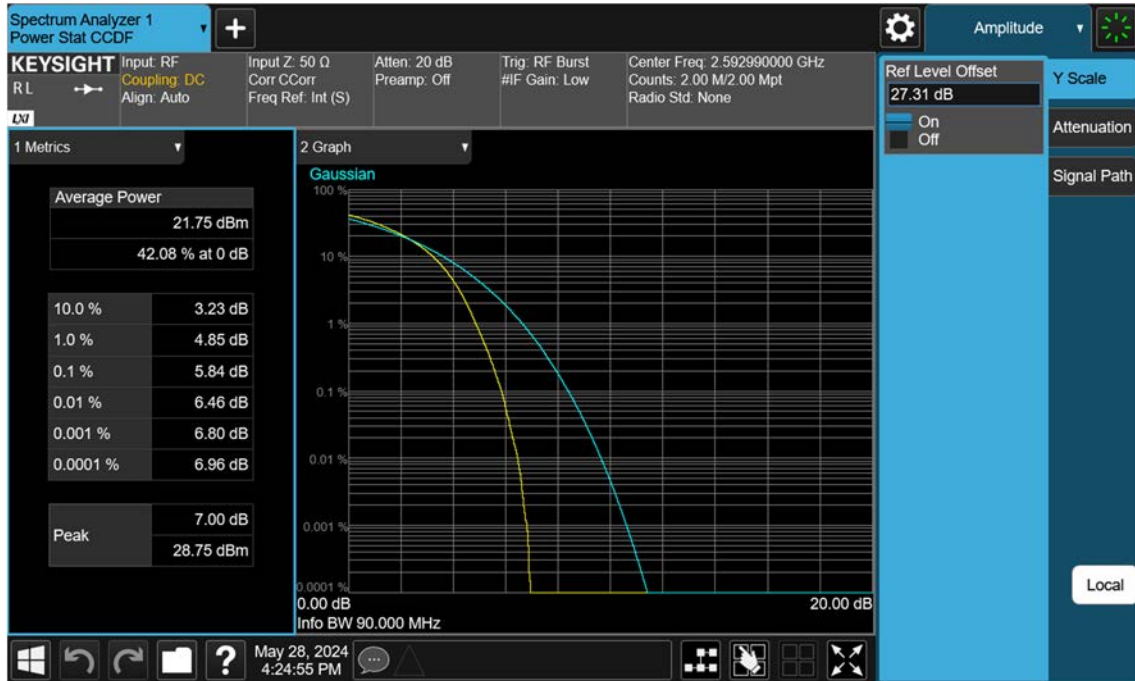
90 M\_PAR\_Mid\_16QAM\_FullRB



90 M\_PAR\_Mid\_64QAM\_FullRB



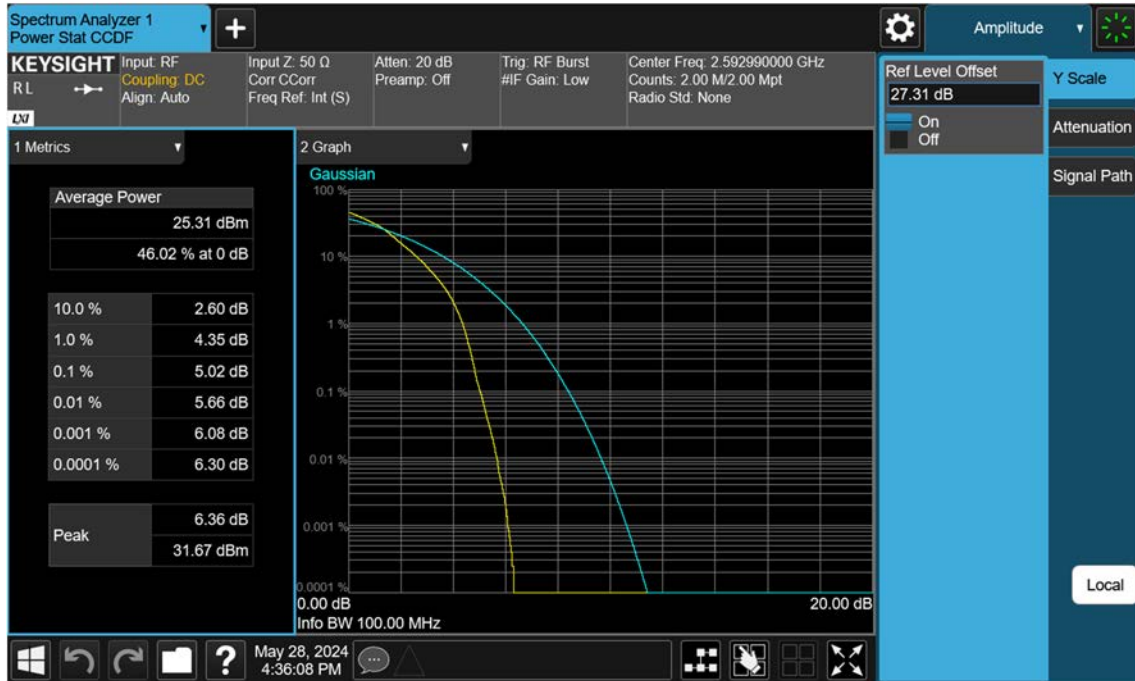
90 M\_PAR\_Mid\_256QAM\_FullRB



100 M\_PAR\_Mid\_BPSK\_FullRB

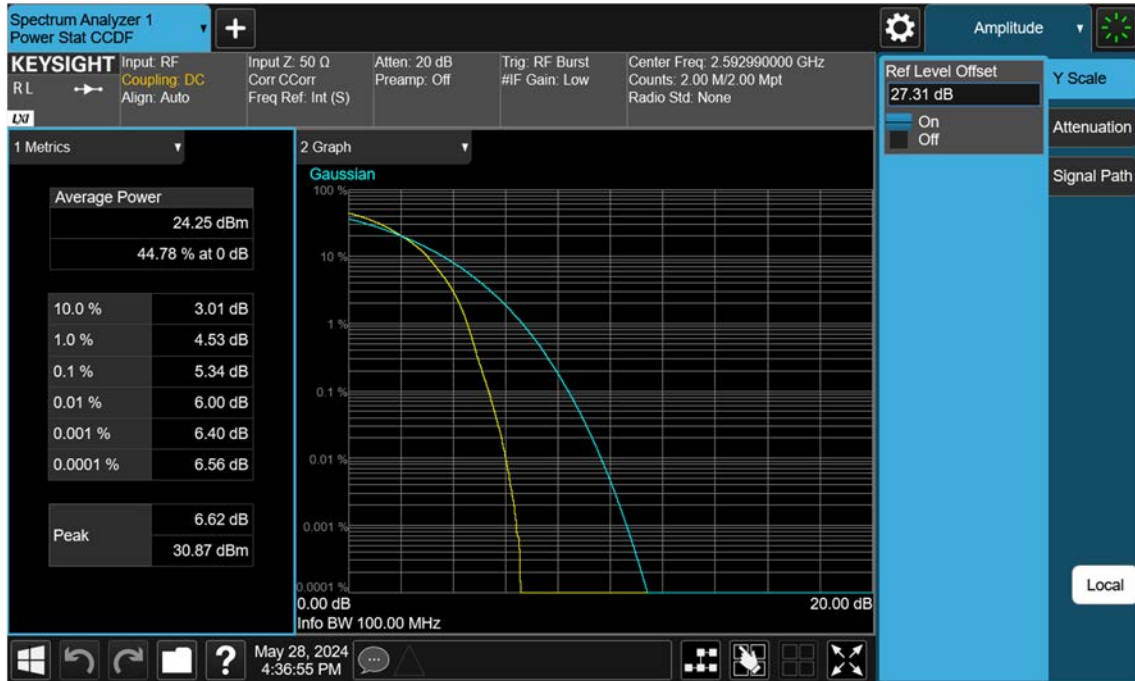


100 M\_PAR\_Mid\_QPSK\_FullRB

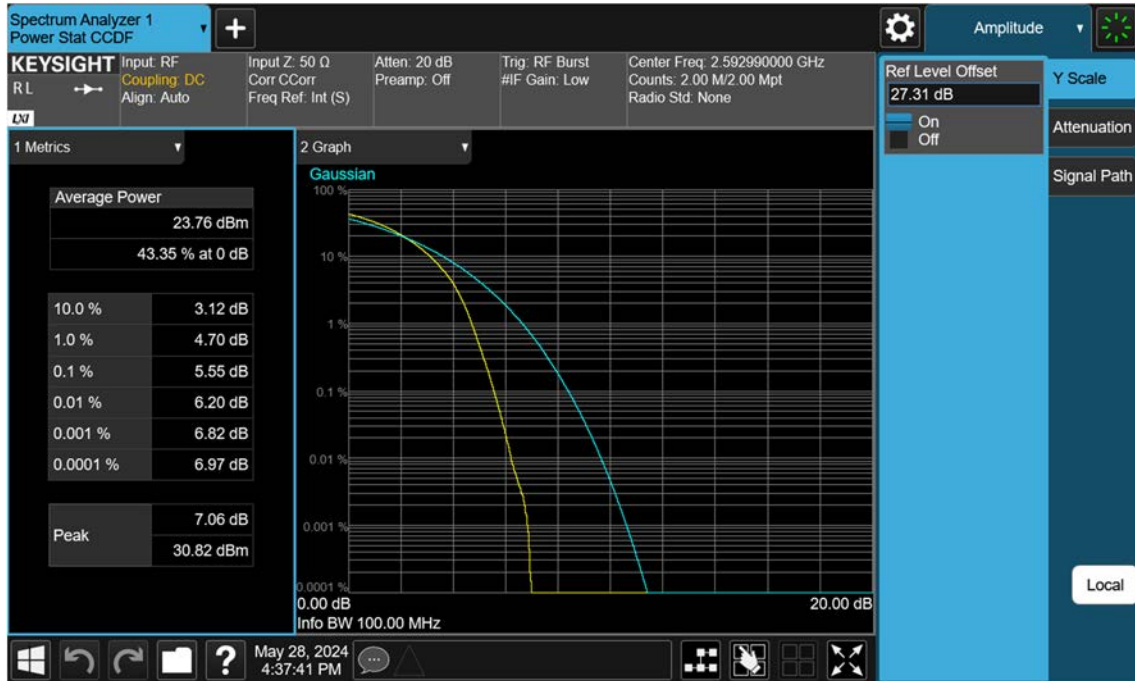




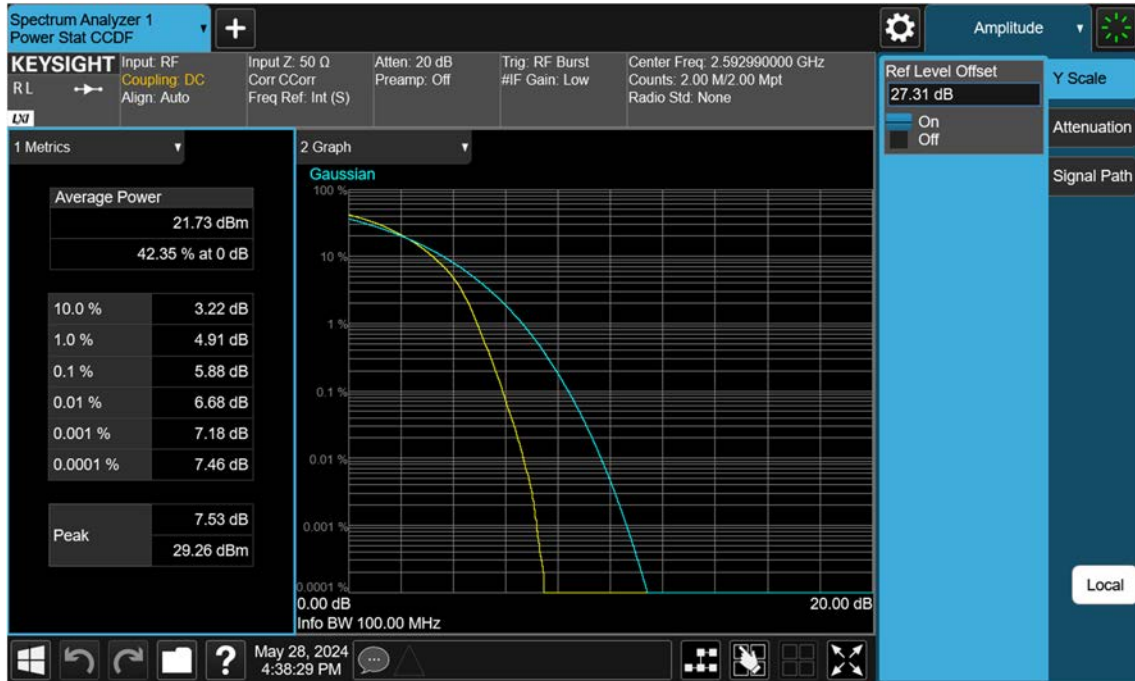
100 M\_PAR\_Mid\_16QAM\_FullRB



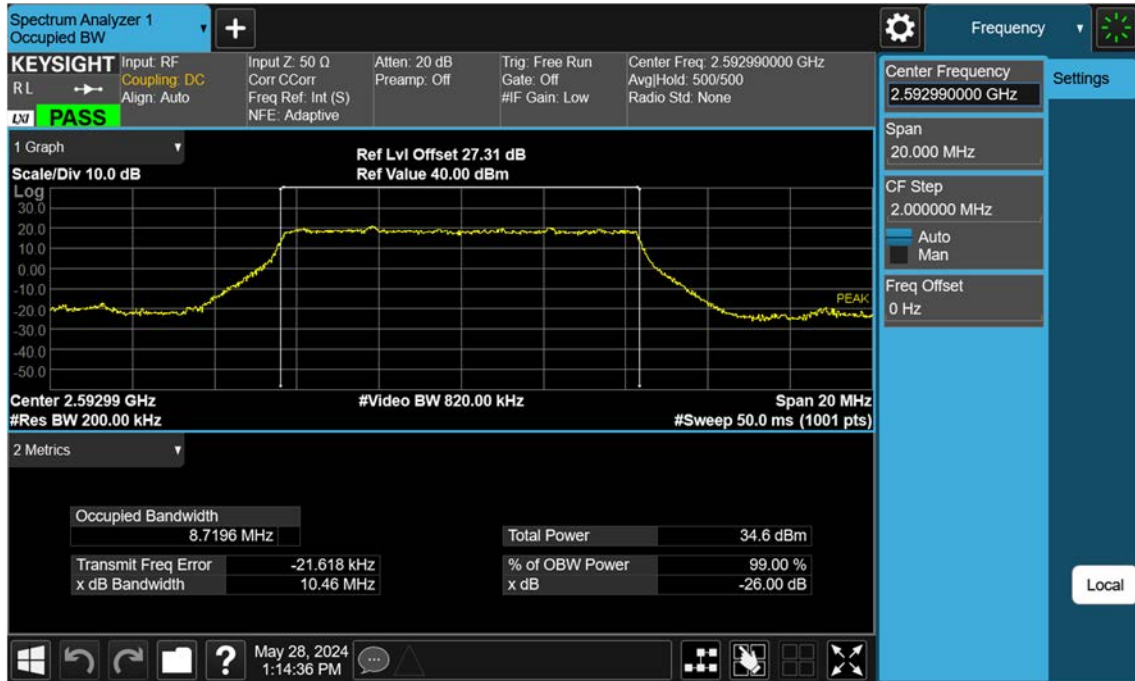
100 M\_PAR\_Mid\_64QAM\_FullRB



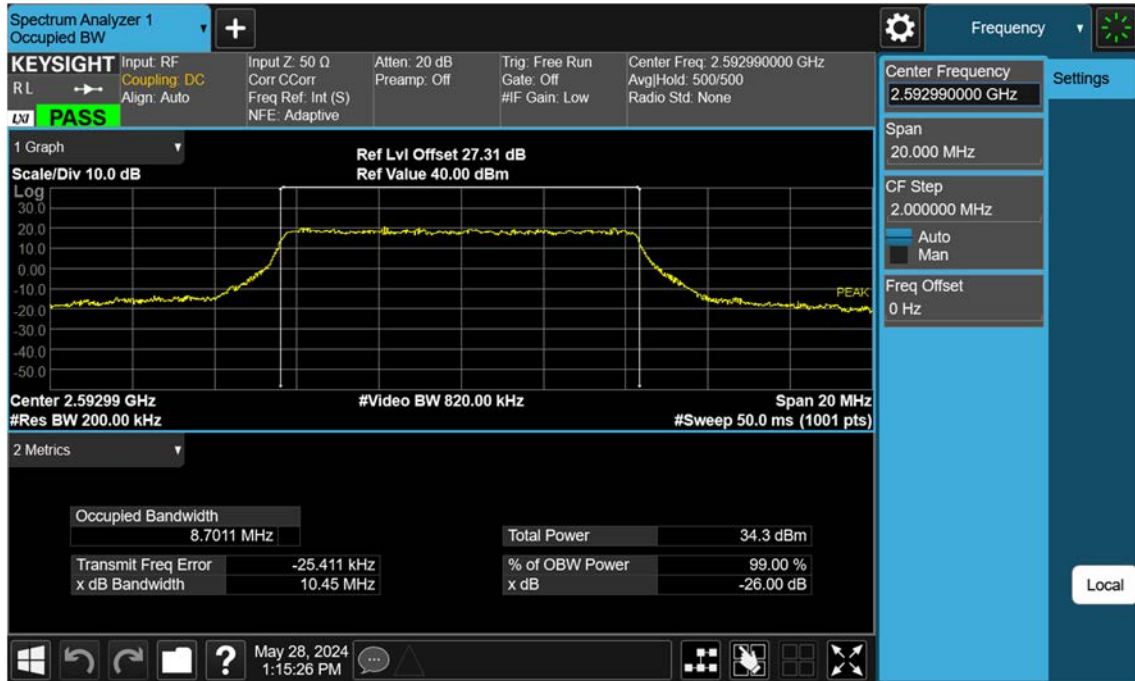
100 M\_PAR\_Mid\_256QAM\_FullRB



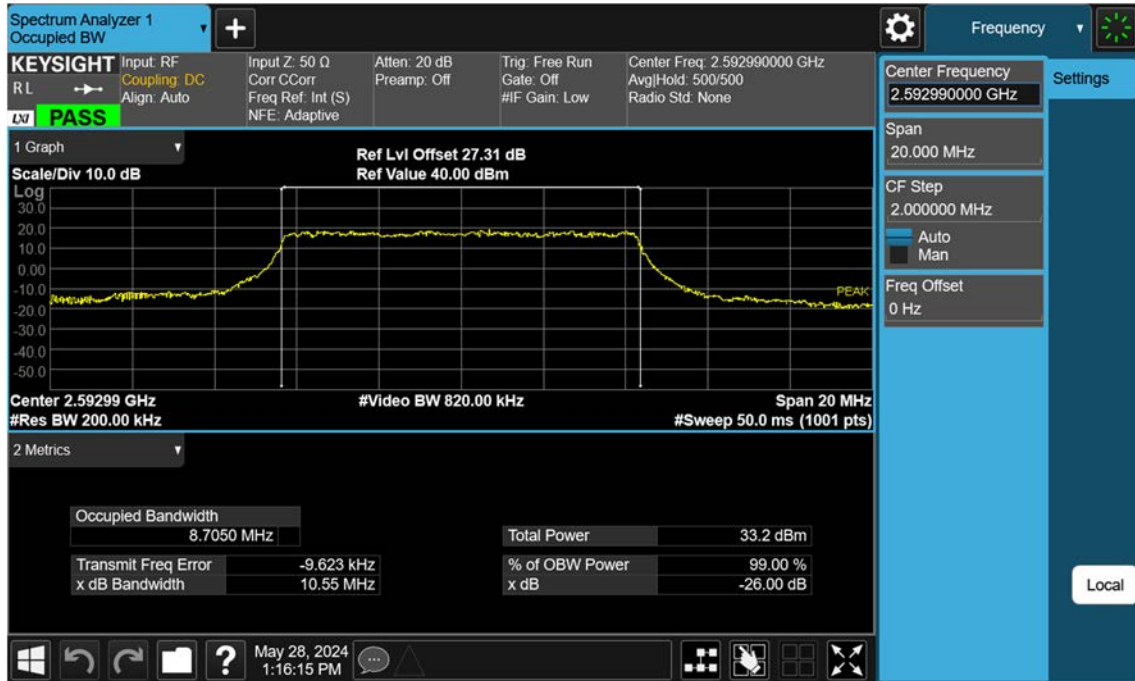
10 M\_OBW\_Mid\_BPSK\_FullRB



10 M\_OBW\_Mid\_QPSK\_FullRB



10 M\_OBW\_Mid\_16QAM\_FullRB



10 M\_OBW\_Mid\_64QAM\_FullRB

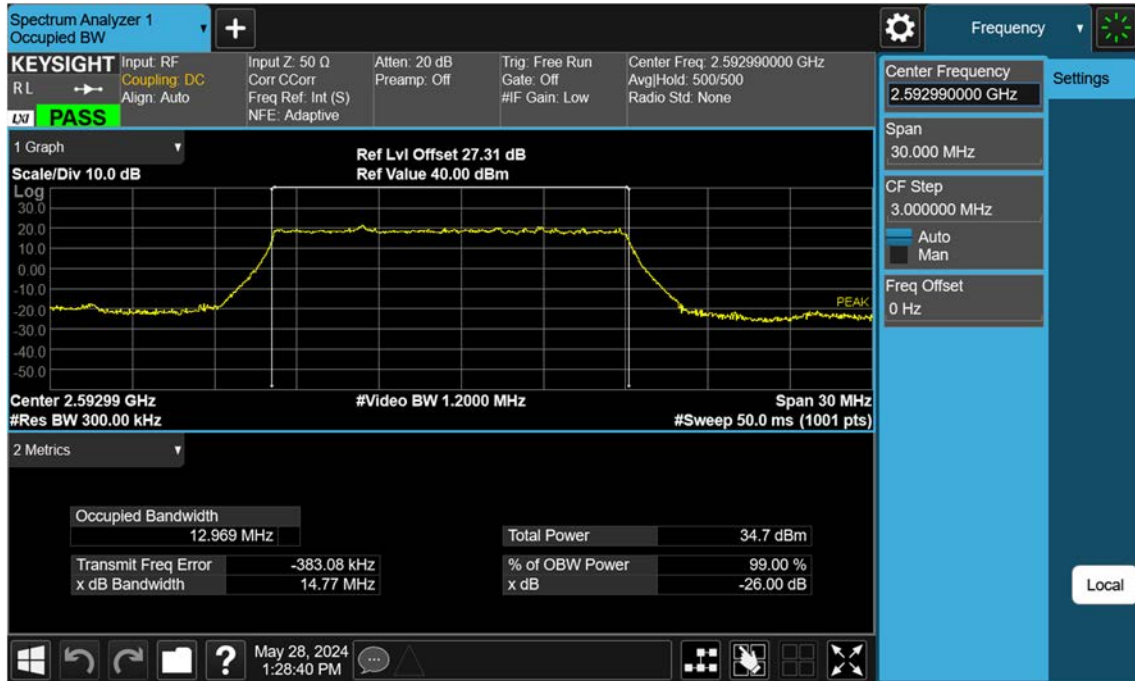


10 M\_OBW\_Mid\_256QAM\_FullRB

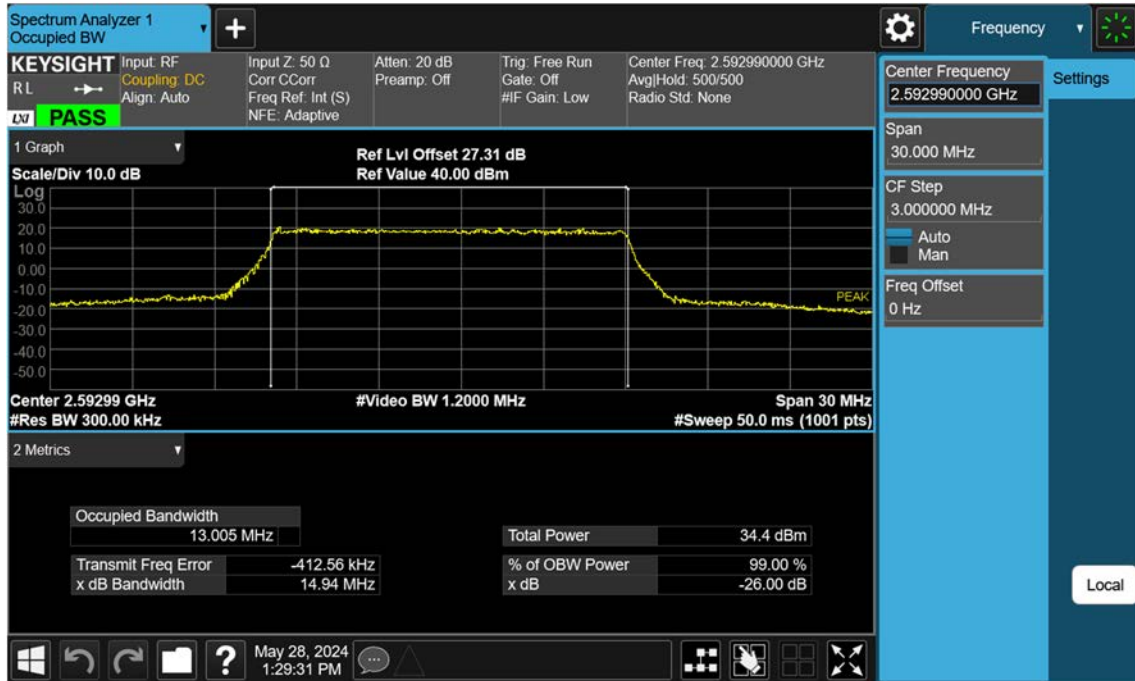




15 M\_OBW\_Mid\_BPSK\_FullRB



15 M\_OBW\_Mid\_QPSK\_FullRB



15 M\_OBW\_Mid\_16QAM\_FullIRB

