

FCC Sub6 REPORT

Certification

Applicant Name:

SAMSUNG Electronics Co., Ltd.

Date of Issue:

May 25, 2023

Address:

129, Samsung-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16677, Rep. of Korea

Location:

HCT CO., LTD.,
74, Seoicheon-ro 578beon-gil, Majang-myeon,
Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

Report No.: HCT-RF-2305-FC095

FCC ID:

A3LSMM346B

APPLICANT:

SAMSUNG Electronics Co., Ltd.

Model(s): SM-M346B/DS
EUT Type: Mobile phone
FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s): §27, §2

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)

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n41 (10)	2501.010 – 2685.000	8M71G7D	PI/2 BPSK	0.125	20.97
		8M68G7D	QPSK	0.123	20.90
		8M72W7D	16QAM	0.096	19.83
		8M74W7D	64QAM	0.070	18.42
		8M78W7D	256QAM	0.043	16.36
Sub6 n41 (15)	2503.500 – 2682.480	13M3G7D	PI/2 BPSK	0.153	21.86
		13M0G7D	QPSK	0.151	21.78
		13M1W7D	16QAM	0.121	20.83
		13M0W7D	64QAM	0.086	19.32
		13M0W7D	256QAM	0.052	17.13
Sub6 n41 (20)	2506.020 – 2679.990	18M1G7D	PI/2 BPSK	0.150	21.75
		18M0G7D	QPSK	0.148	21.70
		17M9W7D	16QAM	0.124	20.92
		17M9W7D	64QAM	0.082	19.14
Sub6 n41 (30)	2511.000 – 2674.980	17M9W7D	256QAM	0.052	17.20
		27M0G7D	PI/2 BPSK	0.152	21.82
		27M1G7D	QPSK	0.148	21.69
		27M0W7D	16QAM	0.120	20.79
Sub6 n41 (40)	2516.010 – 2670.000	27M0W7D	64QAM	0.085	19.29
		27M0W7D	256QAM	0.053	17.23
		36M0G7D	PI/2 BPSK	0.152	21.81
		36M0G7D	QPSK	0.149	21.73
Sub6 n41 (50)	2521.020 – 2664.990	36M0W7D	16QAM	0.119	20.77
		36M1W7D	64QAM	0.086	19.37
		36M0W7D	256QAM	0.052	17.14
		45M9G7D	PI/2 BPSK	0.150	21.75
		45M9G7D	QPSK	0.147	21.68
Sub6 n41 (60)	2526.000 – 2659.980	45M9W7D	16QAM	0.117	20.70
		45M8W7D	64QAM	0.085	19.27
		45M9W7D	256QAM	0.053	17.25
		58M2G7D	PI/2 BPSK	0.151	21.80
		58M0G7D	QPSK	0.149	21.72
Sub6 n41 (80)	2536.020 – 2649.990	58M1W7D	16QAM	0.120	20.80
		57M9W7D	64QAM	0.084	19.24
		58M2W7D	256QAM	0.051	17.09
		77M5G7D	PI/2 BPSK	0.148	21.71
		77M4G7D	QPSK	0.146	21.63
Sub6 n41 (90)	2541.000 – 2644.980	77M5W7D	16QAM	0.118	20.72
		77M5W7D	64QAM	0.084	19.24
		77M4W7D	256QAM	0.053	17.22
		87M2G7D	PI/2 BPSK	0.148	21.69
		87M0G7D	QPSK	0.147	21.66
Sub6 n41 (100)	2546.010 – 2640.000	87M0W7D	16QAM	0.117	20.68
		87M2W7D	64QAM	0.081	19.11
		87M0W7D	256QAM	0.051	17.04
		96M8G7D	PI/2 BPSK	0.148	21.70
		96M7G7D	QPSK	0.145	21.62
		97M0W7D	16QAM	0.111	20.44
		96M7W7D	64QAM	0.083	19.20
		97M0W7D	256QAM	0.052	17.12

Report No.: HCT-RF-2305-FC095

REVIEWED BY



Report prepared by : Jung Ki Lim
Engineer of Telecommunication Testing Center

Report approved by : Kwon Jeong
Manager of Telecommunication Testing Center

This test results were applied only to the test methods required by the standard.

This laboratory is not accredited for the test results marked *.

The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (HCT Accreditation No.: KT197)

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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2305-FC095	May 25, 2023	- First Approval Report

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

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MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	SAMSUNG Electronics Co., Ltd.
Address:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
FCC ID:	A3LSMM346B
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§27, §2
EUT Type:	Mobile phone
Model(s):	SM-M346B/DS
SCS(kHz):	30
Bandwidth(MHz):	10, 15, 20, 30, 40, 50, 60, 80, 90, 100
Waveform:	CP-OFDM, DFT-S-OFDM
Modulation:	DFT-S-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
Tx Frequency(SCS 30kHz):	2501.010 – 2685.000 : 10 MHz 2503.500 – 2682.480 : 15 MHz 2506.020 – 2679.990 : 20 MHz 2511.000 – 2674.980 : 30 MHz 2516.010 – 2670.000 : 40 MHz 2521.020 – 2664.990 : 50 MHz 2526.000 – 2659.980 : 60 MHz 2536.020 – 2649.990 : 80 MHz 2541.000 – 2644.980 : 90 MHz 2546.010 – 2640.000 : 100 MHz
Date(s) of Tests:	April 25, 2023 ~ May 18, 2023
Serial number:	Radiated: R3CW403A4FN Conducted: R3CW403A4ZL

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

The EUT was a Mobile Phone with GSM/GPRS/EGPRS/UMTS and LTE, Sub6.

It also supports IEEE 802.11 a/b/g/n/ac (20/40/80 MHz), Bluetooth, BT LE, NFC.

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 $\geq 3 \times$ RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $> 2 \times$ 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 10th 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;

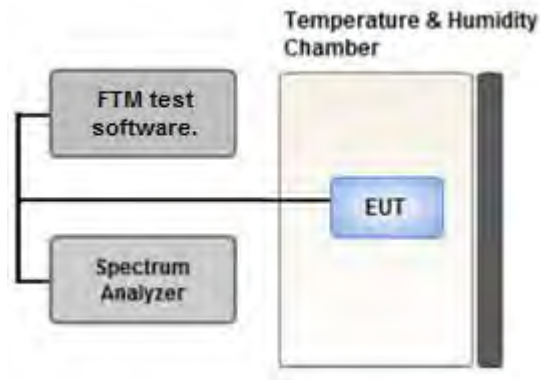
$$\text{Result}_{(dBm)} = P_g_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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)

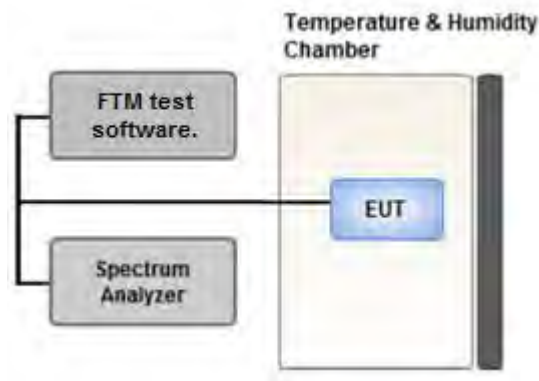
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

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 $[10 \log (1/0.25)] = 6 \text{ dB}$ 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.

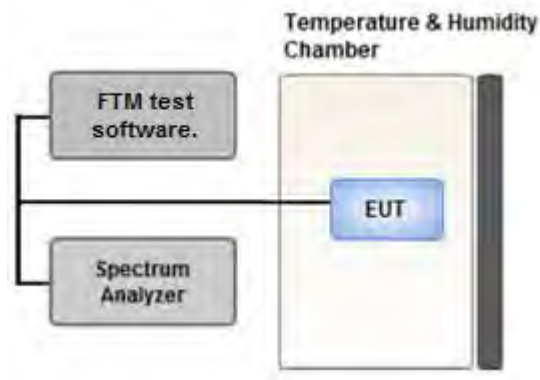
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

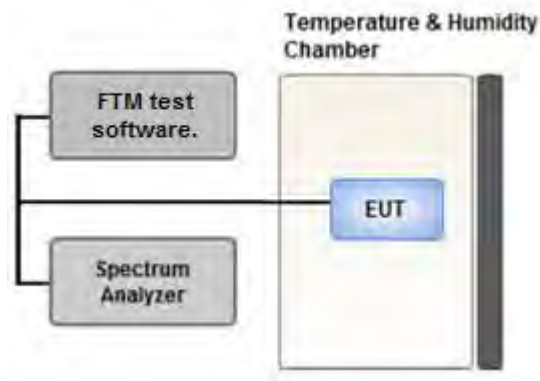
Test Overview

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

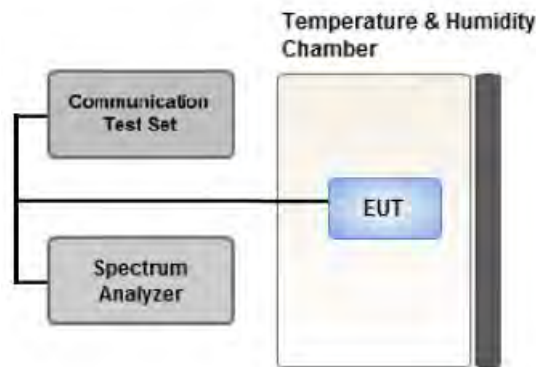
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. Within 1 MHz of the channel edge the RBW should be 2 % of EBW, then 1 MHz after that.
4. VBW > 3 x RBW
5. 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 $10 \log(1 \text{ MHz/ RB})$ 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: SA, NSA, SRS
Worst case: SA
Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
Worst case : Stand alone
- We were performed the RSE test in condition of co-location.
Mode : Stand alone, Simultaneous transmission scenarios
Worst case : Stand alone
- 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 were investigated and the worst case configuration results are reported.
(Worst case: 2A-n41A)
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.

[Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Effective Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	See Section 8.1		X, Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		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: SA, NSA, SRS

Worst case: SA

- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.

Please refer to the table below.

[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, 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
		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
		80	Low	1	0
			High	1	216
		90	Low	1	0
			High	1	244
		100	Low	1	0
			High	1	272
		10, 15, 20, 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, 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	03/27/2024	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/27/2024	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	03/21/2024	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	06/04/2023	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	05/22/2024	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/22/2024	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/22/2024	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/22/2024	Annual
Power Amplifier	CBL18265035	CERNEX	22966	12/01/2023	Annual
Power Amplifier	CBL26405040	CERNEX	25956	03/02/2024	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	09/05/2023	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	03/02/2024	Annual
Chamber	SU-642	ESPEC	93008124	02/22/2024	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/11/2024	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/19/2024	Annual
Spectrum Analyzer(10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/22/2024	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/18/2023	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/22/2024	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/23/2024	Annual
SIGNAL GENERATOR (100 kHz~40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/05/2023	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/24/2024	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/27/2023	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_{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)	1.90 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.14 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.16 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.57 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.76 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (Above 40 GHz)	5.52 (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"> ■ $< 40 + 10\log_{10} (P[\text{Watts}])$ at Channel edges ■ $< 43 + 10\log_{10} (P[\text{Watts}])$ between 5 and X MHz from Channel edges ■ $< 55 + 10\log_{10} (P[\text{Watts}])$ beyond X MHz beyond from Channel edges ■ $< 43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz 	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
518598	2593.0	-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

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	Offset
2501.010	Sub6 41/ 10 MHz [30 kHz]	PI/2 BPSK	-24.13	12.51	10.30	2.47	H	< 2.00	0.108	20.34	1	12
		QPSK	-24.15	12.49	10.30	2.47	H		0.108	20.32		
		16-QAM	-25.12	11.52	10.30	2.47	H		0.086	19.35		
		64-QAM	-26.70	9.94	10.30	2.47	H		0.060	17.77		
		256-QAM	-28.64	8.00	10.30	2.47	H		0.038	15.83		
2592.990		PI/2 BPSK	-22.88	13.42	10.05	2.50	H		0.125	20.97	1	1
		QPSK	-22.95	13.35	10.05	2.50	H		0.123	20.90		
		16-QAM	-24.02	12.28	10.05	2.50	H		0.096	19.83		
		64-QAM	-25.43	10.87	10.05	2.50	H		0.070	18.42		
		256-QAM	-27.49	8.81	10.05	2.50	H		0.043	16.36		
2685.000	PI/2 BPSK	-25.95	11.51	10.10	2.58	H	0.080	19.03	1	12		
	QPSK	-25.98	11.48	10.10	2.58	H	0.079	19.00				
	16-QAM	-27.00	10.46	10.10	2.58	H	0.063	17.98				
	64-QAM	-28.68	8.78	10.10	2.58	H	0.043	16.30				
	256-QAM	-30.39	7.07	10.10	2.58	H	0.029	14.59				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
									W	dBm	Size	Offset
2503.500	Sub6 41/ 15 MHz [30 kHz]	PI/2 BPSK	13.59	10.30	2.48	H	13.59	< 2.00	0.138	21.41	1	36
		QPSK	13.57	10.30	2.48	H	13.57		0.138	21.39		
		16-QAM	12.56	10.30	2.48	H	12.56		0.109	20.38		
		64-QAM	11.10	10.30	2.48	H	11.10		0.078	18.92		
		256-QAM	8.99	10.30	2.48	H	8.99		0.048	16.81		
2592.990		PI/2 BPSK	14.31	10.05	2.50	H	14.31		0.153	21.86	1	1
		QPSK	14.23	10.05	2.50	H	14.23		0.151	21.78		
		16-QAM	13.28	10.05	2.50	H	13.28		0.121	20.83		
		64-QAM	11.77	10.05	2.50	H	11.77		0.086	19.32		
		256-QAM	9.58	10.05	2.50	H	9.58		0.052	17.13		
2682.480		PI/2 BPSK	12.70	10.10	2.58	H	12.70		0.105	20.22	1	1
		QPSK	12.68	10.10	2.58	H	12.68		0.105	20.20		
		16-QAM	11.85	10.10	2.58	H	11.85		0.086	19.37		
		64-QAM	10.20	10.10	2.58	H	10.20		0.059	17.72		
		256-QAM	8.10	10.10	2.58	H	8.10		0.036	15.62		

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
2506.020	Sub6 41/ 20 MHz [30 kHz]	PI/2 BPSK	-22.77	13.86	10.30	2.48	H	< 2.00	0.147	21.68	1	49
		QPSK	-22.81	13.82	10.30	2.48	H		0.146	21.64		
		16-QAM	-23.53	13.10	10.30	2.48	H		0.124	20.92		
		64-QAM	-25.31	11.32	10.30	2.48	H		0.082	19.14		
		256-QAM	-27.33	9.30	10.30	2.48	H		0.052	17.12		
2592.990		PI/2 BPSK	-22.10	14.20	10.05	2.50	H		0.150	21.75	1	25
		QPSK	-22.15	14.15	10.05	2.50	H		0.148	21.70		
		16-QAM	-23.36	12.94	10.05	2.50	H		0.112	20.49		
		64-QAM	-24.82	11.48	10.05	2.50	H		0.080	19.03		
		256-QAM	-26.65	9.65	10.05	2.50	H		0.052	17.20		
2679.990		PI/2 BPSK	-25.05	12.66	10.10	2.58	H		0.104	20.18	1	1
		QPSK	-25.07	12.64	10.10	2.58	H		0.104	20.16		
		16-QAM	-26.05	11.66	10.10	2.58	H		0.083	19.18		
		64-QAM	-27.66	10.05	10.10	2.58	H		0.057	17.57		
		256-QAM	-29.55	8.16	10.10	2.58	H		0.037	15.68		

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	Offset
2511.000	Sub6 41/ 30 MHz [30 kHz]	PI/2 BPSK	-22.78	13.84	10.30	2.50	H	< 2.00	0.146	21.64	1	76
		QPSK	-22.83	13.79	10.30	2.50	H		0.144	21.59		
		16-QAM	-23.92	12.70	10.30	2.50	H		0.112	20.50		
		64-QAM	-25.27	11.35	10.30	2.50	H		0.082	19.15		
		256-QAM	-27.56	9.06	10.30	2.50	H		0.049	16.86		
2592.990		PI/2 BPSK	-22.03	14.27	10.05	2.50	H		0.152	21.82	1	39
		QPSK	-22.16	14.14	10.05	2.50	H		0.148	21.69		
		16-QAM	-23.06	13.24	10.05	2.50	H		0.120	20.79		
		64-QAM	-24.56	11.74	10.05	2.50	H		0.085	19.29		
		256-QAM	-26.62	9.68	10.05	2.50	H		0.053	17.23		
2674.980	PI/2 BPSK	-24.87	12.54	10.10	2.58	H	0.101	20.06	1	1		
	QPSK	-24.94	12.47	10.10	2.58	H	0.100	19.99				
	16-QAM	-25.78	11.63	10.10	2.58	H	0.082	19.15				
	64-QAM	-27.62	9.79	10.10	2.58	H	0.054	17.31				
	256-QAM	-29.61	7.80	10.10	2.58	H	0.034	15.32				

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	Offset
2516.010	Sub6 41/ 40 MHz [30 kHz]	PI/2 BPSK	-22.96	13.53	10.30	2.51	H	< 2.00	0.136	21.32	1	53
		QPSK	-22.98	13.51	10.30	2.51	H		0.135	21.30		
		16-QAM	-24.02	12.47	10.30	2.51	H		0.106	20.26		
		64-QAM	-25.34	11.15	10.30	2.51	H		0.078	18.94		
		256-QAM	-27.48	9.01	10.30	2.51	H		0.048	16.80		
2592.990		PI/2 BPSK	-22.04	14.26	10.05	2.50	H		0.152	21.81	1	53
		QPSK	-22.12	14.18	10.05	2.50	H		0.149	21.73		
		16-QAM	-23.08	13.22	10.05	2.50	H		0.119	20.77		
		64-QAM	-24.48	11.82	10.05	2.50	H		0.086	19.37		
		256-QAM	-26.71	9.59	10.05	2.50	H		0.052	17.14		
2670.000	PI/2 BPSK	-24.82	12.30	10.10	2.58	H	0.096	19.82	1	1		
	QPSK	-24.85	12.27	10.10	2.58	H	0.095	19.79				
	16-QAM	-25.86	11.26	10.10	2.58	H	0.076	18.78				
	64-QAM	-27.27	9.85	10.10	2.58	H	0.055	17.37				
	256-QAM	-29.41	7.71	10.10	2.58	H	0.033	15.23				

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 41/ 50 MHz [30 kHz]	PI/2 BPSK	-23.02	13.65	10.00	2.53	H	< 2.00	0.129	21.12	1	66
		QPSK	-23.07	13.60	10.00	2.53	H		0.128	21.07		
		16-QAM	-23.88	12.79	10.00	2.53	H		0.106	20.26		
		64-QAM	-25.51	11.16	10.00	2.53	H		0.073	18.63		
		256-QAM	-27.47	9.20	10.00	2.53	H		0.046	16.67		
2592.990		PI/2 BPSK	-22.10	14.20	10.05	2.50	H		0.150	21.75	1	66
		QPSK	-22.17	14.13	10.05	2.50	H		0.147	21.68		
		16-QAM	-23.15	13.15	10.05	2.50	H		0.117	20.70		
		64-QAM	-24.58	11.72	10.05	2.50	H		0.085	19.27		
		256-QAM	-26.60	9.70	10.05	2.50	H		0.053	17.25		
2664.990	PI/2 BPSK	-24.94	12.15	10.10	2.60	H	0.092	19.65	1	66		
	QPSK	-25.03	12.06	10.10	2.60	H	0.090	19.56				
	16-QAM	-26.17	10.92	10.10	2.60	H	0.070	18.42				
	64-QAM	-27.48	9.61	10.10	2.60	H	0.051	17.11				
	256-QAM	-29.66	7.43	10.10	2.60	H	0.031	14.93				

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	-23.35	12.91	10.30	2.53	H	< 2.00	0.117	20.68	1	81
		QPSK	-23.40	12.86	10.30	2.53	H		0.116	20.63		
		16-QAM	-24.31	11.95	10.30	2.53	H		0.094	19.72		
		64-QAM	-25.86	10.40	10.30	2.53	H		0.066	18.17		
		256-QAM	-28.07	8.19	10.30	2.53	H		0.039	15.96		
2592.990		PI/2 BPSK	-22.05	14.25	10.05	2.50	H		0.151	21.80	1	81
		QPSK	-22.13	14.17	10.05	2.50	H		0.149	21.72		
		16-QAM	-23.05	13.25	10.05	2.50	H		0.120	20.80		
		64-QAM	-24.61	11.69	10.05	2.50	H		0.084	19.24		
		256-QAM	-26.76	9.54	10.05	2.50	H		0.051	17.09		
2659.980	PI/2 BPSK	-25.17	11.68	10.10	2.61	H	0.083	19.17	1	81		
	QPSK	-25.19	11.66	10.10	2.61	H	0.082	19.15				
	16-QAM	-25.98	10.87	10.10	2.61	H	0.069	18.36				
	64-QAM	-27.70	9.15	10.10	2.61	H	0.046	16.64				
	256-QAM	-29.63	7.22	10.10	2.61	H	0.030	14.71				

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	Offset
2536.020	Sub6 41/ 80 MHz [30 kHz]	PI/2 BPSK	-23.64	12.60	10.30	2.52	H	< 2.00	0.109	20.38	1	108
		QPSK	-23.67	12.57	10.30	2.52	H		0.108	20.35		
		16-QAM	-24.73	11.51	10.30	2.52	H		0.085	19.29		
		64-QAM	-26.22	10.02	10.30	2.52	H		0.060	17.80		
		256-QAM	-28.30	7.94	10.30	2.52	H		0.037	15.72		
2592.990		PI/2 BPSK	-22.14	14.16	10.05	2.50	H		0.148	21.71	1	108
		QPSK	-22.22	14.08	10.05	2.50	H		0.146	21.63		
		16-QAM	-23.13	13.17	10.05	2.50	H		0.118	20.72		
		64-QAM	-24.61	11.69	10.05	2.50	H		0.084	19.24		
		256-QAM	-26.63	9.67	10.05	2.50	H		0.053	17.22		
2649.990	PI/2 BPSK	-25.24	11.43	10.10	2.65	H	0.077	18.88	1	1		
	QPSK	-25.29	11.38	10.10	2.65	H	0.076	18.83				
	16-QAM	-26.18	10.49	10.10	2.65	H	0.062	17.94				
	64-QAM	-27.79	8.88	10.10	2.65	H	0.043	16.33				
	256-QAM	-29.98	6.69	10.10	2.65	H	0.026	14.14				

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	Offset
2541.000	Sub6 41/ 90 MHz [30 kHz]	PI/2 BPSK	-23.63	12.73	10.30	2.52	H	< 2.00	0.112	20.51	1	122
		QPSK	-23.68	12.68	10.30	2.52	H		0.111	20.46		
		16-QAM	-24.64	11.72	10.30	2.52	H		0.089	19.50		
		64-QAM	-26.21	10.15	10.30	2.52	H		0.062	17.93		
		256-QAM	-28.13	8.23	10.30	2.52	H		0.040	16.01		
2592.990		PI/2 BPSK	-22.16	14.14	10.05	2.50	H		0.148	21.69	1	122
		QPSK	-22.19	14.11	10.05	2.50	H		0.147	21.66		
		16-QAM	-23.17	13.13	10.05	2.50	H		0.117	20.68		
		64-QAM	-24.74	11.56	10.05	2.50	H		0.081	19.11		
		256-QAM	-26.81	9.49	10.05	2.50	H		0.051	17.04		
2644.980	PI/2 BPSK	-24.91	11.90	10.00	2.66	H	0.084	19.24	1	1		
	QPSK	-24.94	11.87	10.00	2.66	H	0.083	19.21				
	16-QAM	-25.99	10.82	10.00	2.66	H	0.065	18.16				
	64-QAM	-27.29	9.52	10.00	2.66	H	0.049	16.86				
	256-QAM	-29.51	7.30	10.00	2.66	H	0.029	14.64				

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	Offset
2546.010	Sub6 41/ 100 MHz [30 kHz]	PI/2 BPSK	-23.54	12.83	10.25	2.54	H	< 2.00	0.113	20.54	1	136
		QPSK	-23.57	12.80	10.25	2.54	H		0.112	20.51		
		16-QAM	-24.61	11.76	10.25	2.54	H		0.089	19.47		
		64-QAM	-26.27	10.10	10.25	2.54	H		0.060	17.81		
		256-QAM	-28.08	8.29	10.25	2.54	H		0.040	16.00		
2592.990		PI/2 BPSK	-22.15	14.15	10.05	2.50	H		0.148	21.70	1	136
		QPSK	-22.23	14.07	10.05	2.50	H		0.145	21.62		
		16-QAM	-23.41	12.89	10.05	2.50	H		0.111	20.44		
		64-QAM	-24.65	11.65	10.05	2.50	H		0.083	19.20		
		256-QAM	-26.73	9.57	10.05	2.50	H		0.052	17.12		
2640.000	PI/2 BPSK	-24.68	12.27	9.90	2.67	H	0.089	19.50	1	1		
	QPSK	-24.70	12.25	9.90	2.67	H	0.089	19.48				
	16-QAM	-25.68	11.27	9.90	2.67	H	0.071	18.50				
	64-QAM	-27.20	9.75	9.90	2.67	H	0.050	16.98				
	256-QAM	-29.13	7.82	9.90	2.67	H	0.032	15.05				

8.2 RADIATED SPURIOUS EMISSIONS

- ▣ NR Band: N41
- ▣ Bandwidth: 10 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 1 meters
- ▣ 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	-36.64	10.70	-37.99	3.63	H	-30.92	-25.00	1	12
	7 503.03	-53.05	11.10	-46.04	4.50	V	-39.44	-25.00		
	10 004.04	-48.95	11.20	-40.49	5.26	H	-34.55	-25.00		
	12 505.05	-57.55	12.10	-48.21	6.04	H	-42.15	-25.00		
518598 (2592.990)	5 185.98	-46.67	11.00	-48.17	3.70	V	-40.87	-25.00	1	1
	7 778.97	-60.53	10.90	-53.15	4.61	V	-46.86	-25.00		
	10 371.96	-59.62	11.20	-48.92	5.41	H	-43.13	-25.00		
	12 964.95	-57.08	12.00	-47.15	6.11	H	-41.26	-25.00		
537000 (2685.000)	5 370.00	-57.90	11.50	-60.42	3.74	V	-52.66	-25.00	1	12
	8 055.00	-62.61	10.90	-55.40	4.71	V	-49.21	-25.00		
	10 740.00	-63.38	11.10	-52.78	5.50	V	-47.18	-25.00		

- NR Band: N41
- Bandwidth: 15 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-38.21	10.70	-39.49	3.61	H	-32.40	-25.00	1	36
	7 510.50	-55.66	11.10	-48.59	4.50	V	-41.99	-25.00		
	10 014.00	-47.52	11.20	-38.91	5.27	H	-32.98	-25.00		
	12 517.50	-56.51	12.10	-46.88	6.04	V	-40.82	-25.00		
	15 021.00	-55.79	13.80	-49.31	6.65	V	-42.16	-25.00		
518598 (2592.990)	5 185.98	-53.97	11.00	-55.47	3.70	V	-48.17	-25.00	1	1
	7 778.97	-63.32	10.90	-55.94	4.61	H	-49.65	-25.00		
	10 371.96	-63.11	11.20	-52.41	5.41	H	-46.62	-25.00		
	12 964.95	-57.72	12.00	-47.79	6.11	V	-41.90	-25.00		
536496 (2682.480)	5 364.96	-58.92	11.50	-61.21	3.75	H	-53.46	-25.00	1	1
	8 047.44	-61.72	10.85	-54.54	4.69	V	-48.38	-25.00		
	10 729.92	-63.60	11.10	-52.37	5.47	V	-46.74	-25.00		
	13 412.40	-57.51	11.80	-46.84	6.21	H	-41.25	-25.00		

- NR Band: N41
- Bandwidth: 20 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-40.69	10.70	-41.90	3.59	H	-34.79	-25.00	1	49
	7 518.06	-53.58	11.10	-46.47	4.51	V	-39.88	-25.00		
	10 024.08	-48.69	11.20	-39.87	5.27	H	-33.94	-25.00		
	12 530.10	-57.90	12.10	-48.08	6.01	H	-41.99	-25.00		
518598 (2592.990)	5 185.98	-52.46	11.00	-53.96	3.70	H	-46.66	-25.00	1	25
	7 778.97	-63.70	10.90	-56.32	4.61	V	-50.03	-25.00		
	10 371.96	-63.79	11.20	-53.09	5.41	V	-47.30	-25.00		
	12 964.95	-56.36	12.00	-46.43	6.11	H	-40.54	-25.00		
535998 (2679.990)	5 359.98	-55.64	11.50	-57.70	3.76	H	-49.96	-25.00	1	1
	8 039.97	-62.14	10.80	-54.97	4.68	H	-48.85	-25.00		
	10 719.96	-63.57	11.10	-51.94	5.46	H	-46.30	-25.00		

- NR Band: N41
- Bandwidth: 30 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-40.60	10.70	-42.13	3.55	H	-34.98	-25.00	1	76
	7 533.00	-55.10	11.10	-47.62	4.50	H	-41.02	-25.00		
	10 044.00	-47.00	11.15	-38.15	5.27	H	-32.27	-25.00		
	12 555.00	-55.90	12.10	-46.59	6.00	V	-40.49	-25.00		
	15 066.00	-56.35	14.00	-50.74	6.65	V	-43.39	-25.00		
518598 (2592.990)	5 185.98	-53.64	11.00	-55.14	3.70	H	-47.84	-25.00	1	39
	7 778.97	-63.16	10.90	-55.78	4.61	H	-49.49	-25.00		
	10 371.96	-63.74	11.20	-53.04	5.41	H	-47.25	-25.00		
	12 964.95	-56.14	12.00	-46.21	6.11	V	-40.32	-25.00		
	15 557.94	-57.28	15.40	-51.95	6.77	V	-43.32	-25.00		
534996 (2674.980)	5 349.96	-56.56	11.50	-58.21	3.75	H	-50.46	-25.00	1	1
	8 024.94	-62.04	10.80	-55.33	4.62	V	-49.15	-25.00		
	10 699.92	-58.57	11.10	-46.89	5.48	H	-41.27	-25.00		

- NR Band: N41
- Bandwidth: 40 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-40.18	10.70	-42.28	3.56	H	-35.14	-25.00	1	53
	7 548.03	-53.84	11.10	-46.50	4.50	V	-39.90	-25.00		
	10 064.04	-47.30	11.10	-38.49	5.28	H	-32.67	-25.00		
	12 580.05	-56.88	12.10	-47.25	6.06	H	-41.21	-25.00		
518598 (2592.990)	5 185.98	-53.24	11.00	-54.74	3.70	H	-47.44	-25.00	1	53
	7 778.97	-63.09	10.90	-55.71	4.61	V	-49.42	-25.00		
	10 371.96	-62.46	11.20	-51.76	5.41	V	-45.97	-25.00		
	12 964.95	-56.88	12.00	-46.95	6.11	V	-41.06	-25.00		
534000 (2670.000)	5 340.00	-54.58	11.40	-56.28	3.75	H	-48.63	-25.00	1	1
	8 010.00	-62.55	10.80	-55.48	4.62	H	-49.30	-25.00		
	10 680.00	-57.48	11.10	-46.02	5.46	H	-40.38	-25.00		
	13 350.00	-58.74	11.90	-48.69	6.21	H	-43.00	-25.00		

- NR Band: N41
- Bandwidth: 50 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-42.65	10.70	-44.62	3.60	H	-37.52	-25.00	1	66
	7 563.06	-53.79	11.10	-46.97	4.52	V	-40.39	-25.00		
	10 084.08	-49.52	11.10	-40.30	5.30	H	-34.50	-25.00		
	12 605.10	-55.71	12.00	-46.21	6.05	V	-40.26	-25.00		
518598 (2592.990)	5 185.98	-50.07	11.00	-51.57	3.70	V	-44.27	-25.00	1	66
	7 778.97	-63.33	10.90	-55.95	4.61	H	-49.66	-25.00		
	10 371.96	-59.46	11.20	-48.76	5.41	H	-42.97	-25.00		
	12 964.95	-56.14	12.00	-46.21	6.11	H	-40.32	-25.00		
532998 (2664.990)	5 329.98	-61.55	11.40	-63.52	3.71	V	-55.83	-25.00	1	66
	7 994.97	-62.33	10.75	-54.92	4.66	V	-48.83	-25.00		
	10 659.96	-63.51	11.10	-51.35	5.49	V	-45.74	-25.00		

- NR Band: N41
- Bandwidth: 60 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-40.35	10.70	-42.00	3.63	H	-34.93	-25.00	1	81
	7 578.00	-53.77	11.10	-46.98	4.54	V	-40.42	-25.00		
	10 104.00	-48.83	11.10	-39.99	5.29	H	-34.18	-25.00		
	12 630.00	-54.25	12.00	-45.02	6.02	V	-39.04	-25.00		
518598 (2592.990)	5 185.98	-56.04	11.00	-57.54	3.70	V	-50.24	-25.00	1	81
	7 778.97	-63.33	10.90	-55.95	4.61	H	-49.66	-25.00		
	10 371.96	-58.71	11.20	-48.01	5.41	H	-42.22	-25.00		
	12 964.95	-54.78	12.00	-44.85	6.11	V	-38.96	-25.00		
	15 557.94	-56.63	15.40	-51.30	6.77	H	-42.67	-25.00		
531996 (2659.980)	5 319.96	-54.88	11.40	-57.62	3.66	H	-49.88	-25.00	1	81
	7 979.94	-62.36	10.70	-55.11	4.67	H	-49.08	-25.00		
	10 639.92	-58.36	11.20	-46.93	5.49	H	-41.22	-25.00		
	13 299.90	-58.16	12.00	-48.01	6.19	H	-42.20	-25.00		

- NR Band: N41
- Bandwidth: 80 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-40.09	10.70	-41.37	3.62	H	-34.29	-25.00	1	108
	7 608.06	-54.28	11.20	-47.27	4.52	V	-40.59	-25.00		
	10 144.08	-46.28	11.05	-36.81	5.32	H	-31.08	-25.00		
	12 680.10	-53.75	11.90	-43.54	6.06	V	-37.70	-25.00		
518598 (2592.990)	5 185.98	-49.19	11.00	-50.69	3.70	V	-43.39	-25.00	1	108
	7 778.97	-62.81	10.90	-55.43	4.61	V	-49.14	-25.00		
	10 371.96	-62.49	11.20	-51.79	5.41	V	-46.00	-25.00		
	12 964.95	-56.25	12.00	-46.32	6.11	V	-40.43	-25.00		
529998 (2649.990)	5 299.98	-51.86	11.40	-53.97	3.69	H	-46.26	-25.00	1	1
	7 949.97	-62.77	10.70	-55.46	4.64	H	-49.40	-25.00		
	10 599.96	-61.70	11.20	-50.51	5.41	H	-44.72	-25.00		
	13 249.95	-53.70	12.10	-43.64	6.18	V	-37.72	-25.00		

- NR Band: N41
- Bandwidth: 90 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-39.67	10.70	-41.31	3.61	H	-34.22	-25.00	1	122
	7 623.00	-53.80	11.20	-47.40	4.52	V	-40.72	-25.00		
	10 164.00	-52.20	11.00	-43.12	5.33	H	-37.45	-25.00		
518598 (2592.990)	5 185.98	-53.19	11.00	-54.69	3.70	H	-47.39	-25.00	1	122
	7 778.97	-63.93	10.90	-56.55	4.61	H	-50.26	-25.00		
	10 371.96	-59.44	11.20	-48.74	5.41	H	-42.95	-25.00		
	12 964.95	-58.14	12.00	-48.21	6.11	V	-42.32	-25.00		
528996 (2644.980)	5 289.96	-54.60	11.30	-56.07	3.73	H	-48.50	-25.00	1	1
	7 934.94	-63.02	10.70	-55.67	4.64	V	-49.61	-25.00		
	10 579.92	-60.94	11.20	-50.49	5.46	V	-44.75	-25.00		

- NR Band: N41
- Bandwidth: 100 MHz
- Modulation: PI/2 BPSK
- Distance: 1 meters
- 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	-39.09	10.70	-41.24	3.64	V	-34.18	-25.00	1	136
	7 638.03	-52.39	11.20	-46.00	4.53	H	-39.33	-25.00		
	10 184.04	-47.57	11.00	-38.11	5.33	V	-32.44	-25.00		
518598 (2592.990)	5 185.98	-54.10	11.00	-55.60	3.70	V	-48.30	-25.00	1	136
	7 778.97	-57.97	10.90	-50.59	4.61	V	-44.30	-25.00		
	10 371.96	-59.08	11.20	-48.38	5.41	H	-42.59	-25.00		
	12 964.95	-57.90	12.00	-47.97	6.11	V	-42.08	-25.00		
528000 (2640.000)	5 280.00	-52.87	11.30	-54.78	3.75	V	-47.23	-25.00	1	1
	7 920.00	-63.32	10.70	-56.14	4.63	H	-50.07	-25.00		
	10 560.00	-62.51	11.20	-52.60	5.45	H	-46.85	-25.00		
	5 280.00	-52.87	11.30	-54.78	3.75	V	-47.23	-25.00		

■ ENDC-Mode : 2A(10 MHz)-n41A(100 MHz)

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)
18900 (1880.0)	3760.00	-60.51	11.64	-60.74	3.16	V	-52.26	-13.00
	5640.00	-61.14	12.00	-54.96	3.93	V	-46.89	-13.00
	7520.00	-61.50	11.54	-47.05	4.51	V	-40.02	-13.00

2

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n41	10 MHz	2592.990	BPSK	24	0	4.59
			QPSK			5.86
			16-QAM			6.71
			64-QAM			6.85
			256-QAM			6.86
	15 MHz		BPSK	36		4.48
			QPSK			5.82
			16-QAM			6.61
			64-QAM			6.80
			256-QAM			6.79
	20 MHz		BPSK	50		4.42
			QPSK			5.75
			16-QAM			6.58
			64-QAM			6.73
			256-QAM			6.69
	30 MHz		BPSK	75		4.69
			QPSK			5.91
			16-QAM			6.66
			64-QAM			7.00
			256-QAM			6.81
	40 MHz		BPSK	100		5.21
			QPSK			5.94
			16-QAM			6.62
			64-QAM			6.89
			256-QAM			6.83
	50 MHz		BPSK	128		4.47
			QPSK			5.78
			16-QAM			6.63
			64-QAM			6.79
			256-QAM			6.83
	60 MHz		BPSK	162		4.65
			QPSK			5.76
			16-QAM			6.67
			64-QAM			6.78
			256-QAM			6.85
	80 MHz		BPSK	216		4.34
			QPSK			5.73
			16-QAM			6.50
			64-QAM			6.68
			256-QAM			6.79
90 MHz	BPSK	243	4.38			
	QPSK		5.69			
	16-QAM		6.57			
	64-QAM		6.68			
	256-QAM		6.80			
100 MHz	BPSK	270	4.76			
	QPSK		5.66			
	16-QAM		6.49			
	64-QAM		6.65			
	256-QAM		6.81			

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 114 ~ 163.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n41	10 MHz	2592.990	BPSK	24	0	8.7051
			QPSK			8.6798
			16-QAM			8.7145
			64-QAM			8.7366
			256-QAM			8.7772
	15 MHz		BPSK	36		13.290
			QPSK			13.024
			16-QAM			13.059
			64-QAM			12.970
			256-QAM			13.002
	20 MHz		BPSK	50		18.087
			QPSK			17.945
			16-QAM			17.937
			64-QAM			17.930
			256-QAM			17.920
	30 MHz		BPSK	75		26.983
			QPSK			27.105
			16-QAM			26.962
			64-QAM			26.973
			256-QAM			27.016
	40 MHz		BPSK	100		35.980
			QPSK			35.998
			16-QAM			35.965
			64-QAM			36.069
			256-QAM			35.955
	50 MHz		BPSK	128		45.903
			QPSK			45.889
			16-QAM			45.940
			64-QAM			45.798
			256-QAM			45.944
	60 MHz		BPSK	162		58.238
			QPSK			58.025
			16-QAM			58.090
			64-QAM			57.941
			256-QAM			58.160
	80 MHz		BPSK	216		77.483
			QPSK			77.368
			16-QAM			77.480
			64-QAM			77.451
			256-QAM			77.393
90 MHz	BPSK	243	87.145			
	QPSK		87.043			
	16-QAM		87.010			
	64-QAM		87.221			
	256-QAM		86.963			
100 MHz	BPSK	270	96.789			
	QPSK		96.695			
	16-QAM		96.988			
	64-QAM		96.682			
	256-QAM		97.009			

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 64 ~ 113.

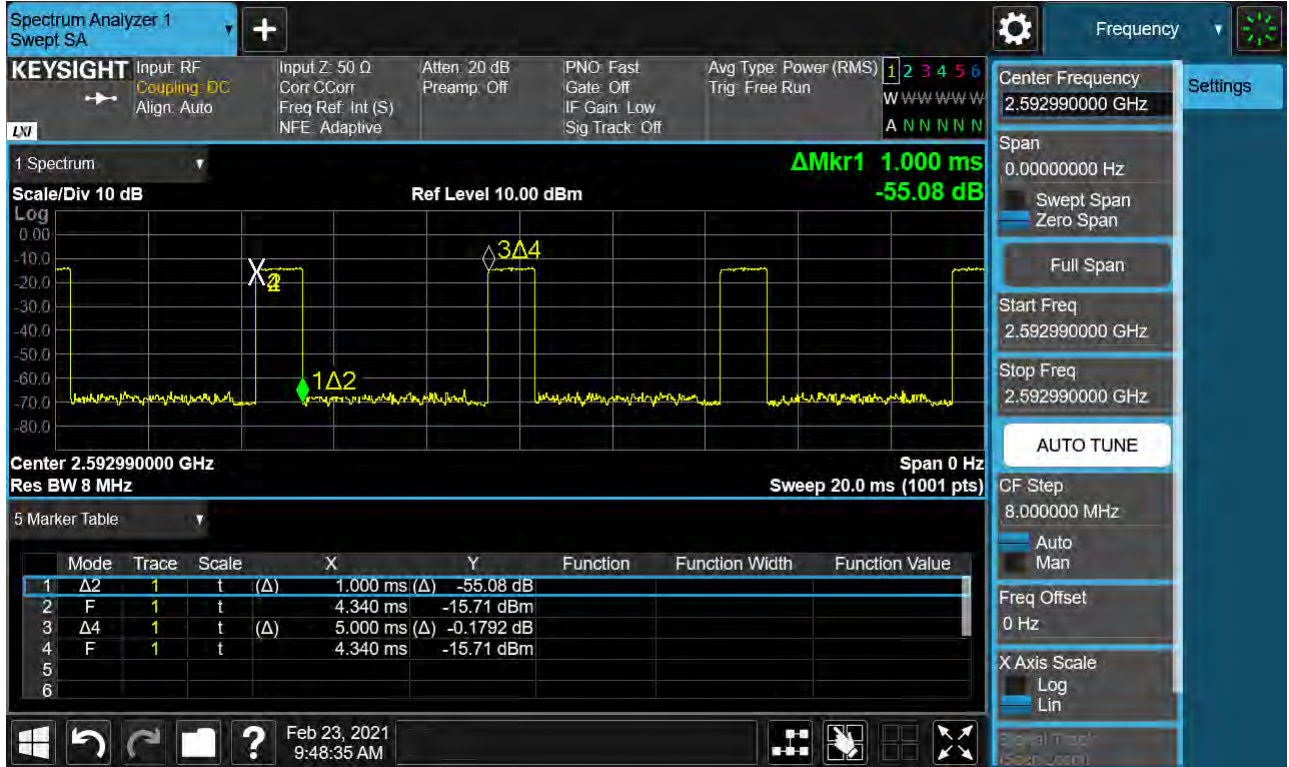
8.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n41	10	2501.010	3.8136	37.190	-70.770	-33.580	-25.00
		2592.990	8.3250	37.805	-70.687	-32.882	
		2685.000	4.9293	37.190	-70.551	-33.361	
	15	2503.500	8.3016	37.805	-70.836	-33.031	
		2592.990	9.7383	37.805	-71.046	-33.241	
		2682.480	9.7084	37.805	-70.853	-33.048	
	20	2506.020	4.9701	37.190	-70.591	-33.401	
		2592.990	9.9247	37.805	-71.185	-33.380	
		2679.990	8.2702	37.805	-70.168	-32.363	
	30	2511.000	9.4173	37.805	-70.482	-32.677	
		2592.990	3.7528	37.190	-71.104	-33.914	
		2674.980	4.0135	37.190	-70.985	-33.795	
	40	2516.010	9.0758	37.805	-70.681	-32.876	
		2592.990	8.8350	37.805	-71.032	-33.227	
		2670.000	9.4342	37.805	-70.916	-33.111	
	50	2521.020	4.8944	37.190	-70.336	-33.146	
		2592.990	4.9552	37.190	-70.338	-33.148	
		2664.990	8.3081	37.805	-70.762	-32.957	
	60	2526.000	3.8196	37.190	-70.707	-33.517	
		2592.990	8.2976	37.805	-71.338	-33.533	
		2659.980	8.8634	37.805	-70.059	-32.254	
	80	2536.020	4.0708	37.190	-70.158	-32.968	
		2592.990	9.7228	37.805	-70.570	-32.765	
		2649.990	5.4676	37.805	-70.747	-32.942	
	90	2541.000	8.8475	37.805	-70.454	-32.649	
		2592.990	9.7054	37.805	-71.014	-33.209	
		2644.980	3.8141	37.190	-71.748	-34.558	
	100	2546.010	9.7079	37.805	-71.301	-33.496	
		2592.990	7.4746	37.805	-71.334	-33.529	
		2640.000	8.2353	37.805	-71.001	-33.196	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 234 ~ 293.
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	34.484
1 – 5	37.190
5 – 10	37.805
10 – 15	38.330
15 – 20	38.703
Above 20	39.345

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	-23.45	-24.18	-25.40	-26.32	-30.16	-25.65	-36.85
15	2503.500	BPSK	Full RB	-17.79	-30.34	-23.98	-27.35	-27.61	-27.16	-37.14
20	2506.020	BPSK	Full RB	-22.46	-28.19	-26.24	-28.05	-27.97	-27.72	-37.77
30	2511.000	BPSK	Full RB	-24.67	-30.42	-26.69	-29.31	-30.98	-29.16	-37.37
40	2520.000	BPSK	Full RB	-24.17	-31.47	-27.56	-31.89	-30.52	-30.17	-41.46
50	2525.010	BPSK	Full RB	-23.04	-29.59	-27.08	-31.77	-32.63	-31.02	-41.43
60	2530.020	BPSK	Full RB	-18.61	-19.19	-26.12	-27.23	-29.71	-30.58	-40.97
80	2540.010	BPSK	Full RB	-21.49	-25.33	-26.14	-28.38	-29.58	-31.22	-42.10
90	2545.020	BPSK	Full RB	-22.17	-26.43	-26.87	-29.89	-31.47	-32.60	-42.13
100	2550.000	BPSK	Full RB	-21.71	-28.65	-27.23	-30.74	-30.92	-32.45	-45.02
Limit				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource 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	-23.05	-22.58	-22.98	-23.55
	2685.000	BPSK	Full RB	0	-23.18	-24.33	-23.71	-23.80
15 MHz	2592.990	BPSK	Full RB	0	-22.70	-27.06	-24.32	-25.53
	2682.480	BPSK	Full RB	0	-17.02	-29.50	-23.16	-25.69
20 MHz	2592.990	BPSK	Full RB	0	-23.82	-25.65	-25.37	-27.04
	2679.990	BPSK	Full RB	0	-23.39	-28.45	-21.66	-28.40
30 MHz	2592.990	BPSK	Full RB	0	-23.78	-27.00	-25.52	-29.40
	2679.990	BPSK	Full RB	0	-24.91	-28.69	-26.90	-29.00
40 MHz	2592.990	BPSK	Full RB	0	-23.23	-27.57	-26.26	-29.92
	2670.000	BPSK	Full RB	0	-24.88	-30.18	-27.37	-30.46
50 MHz	2592.990	BPSK	Full RB	0	-22.39	-28.41	-26.14	-30.11
	2664.990	BPSK	Full RB	0	-23.31	-28.87	-27.19	-30.62
60 MHz	2592.990	BPSK	Full RB	0	-18.67	-20.47	-25.22	-26.57
	2659.980	BPSK	Full RB	0	-18.45	-19.55	-25.26	-26.27
80 MHz	2592.990	BPSK	Full RB	0	-21.30	-25.60	-26.08	-29.15
	2649.990	BPSK	Full RB	0	-18.58	-25.11	-25.37	-28.71
90 MHz	2592.990	BPSK	Full RB	0	-21.92	-28.21	-26.37	-30.97
	2644.980	BPSK	Full RB	0	-20.36	-27.38	-24.91	-30.25
100 MHz	2592.990	BPSK	Full RB	0	-20.54	-28.92	-26.75	-32.40
	2640.000	BPSK	Full RB	0	-20.18	-28.83	-25.81	-31.67
Limit					-10.0		-10.0	

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	(C.E ± 5 MHz) ~ (C.E ± X MHz)		Above (C.E ± X MHz)	
					Lower	Upper	Lower	Upper
					10 MHz	2592.990	BPSK	Full RB
	2685.000	BPSK	Full RB	0	-25.81	-26.13	-37.79	-38.97
15 MHz	2592.990	BPSK	Full RB	0	-23.79	-24.71	-38.93	-39.02
	2682.480	BPSK	Full RB	0	-25.93	-25.22	-40.23	-42.76
20 MHz	2592.990	BPSK	Full RB	0	-25.50	-26.27	-39.87	-40.35
	2679.990	BPSK	Full RB	0	-26.72	-25.81	-39.12	-40.85
30 MHz	2592.990	BPSK	Full RB	0	-26.36	-28.69	-38.56	-40.29
	2679.990	BPSK	Full RB	0	-28.16	-28.70	-39.09	-40.71
40 MHz	2592.990	BPSK	Full RB	0	-27.30	-29.65	-39.16	-42.28
	2670.000	BPSK	Full RB	0	-28.39	-30.41	-41.78	-46.41
50 MHz	2592.990	BPSK	Full RB	0	-28.96	-32.60	-41.82	-42.25
	2664.990	BPSK	Full RB	0	-28.95	-34.26	-41.15	-47.50
60 MHz	2592.990	BPSK	Full RB	0	-26.23	-29.75	-42.98	-43.12
	2659.980	BPSK	Full RB	0	-25.55	-31.32	-43.36	-47.73
80 MHz	2592.990	BPSK	Full RB	0	-28.90	-32.53	-47.56	-43.28
	2649.990	BPSK	Full RB	0	-28.50	-31.79	-38.80	-47.35
90 MHz	2592.990	BPSK	Full RB	0	-27.46	-33.20	-48.25	-46.21
	2644.980	BPSK	Full RB	0	-28.03	-33.36	-39.97	-47.90
100 MHz	2592.990	BPSK	Full RB	0	-28.25	-34.38	-48.28	-48.07
	2640.000	BPSK	Full RB	0	-28.31	-35.00	-42.79	-47.93
Limit					-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 164 ~ 233. (1RB & Full RB)

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 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 009 989	0.0	0.000 000	0.000
	100 %	-30	2501 009 976	-13.6	-0.000 001	-0.005
	100 %	-20	2501 009 977	-12.4	0.000 000	-0.005
	100 %	-10	2501 009 978	-11.4	0.000 000	-0.005
	100 %	0	2501 009 977	-12.0	0.000 000	-0.005
	100 %	+10	2501 009 978	-11.4	0.000 000	-0.005
	100 %	+30	2501 009 977	-12.6	-0.000 001	-0.005
	100 %	+40	2501 009 975	-14.5	-0.000 001	-0.006
	100 %	+50	2501 009 976	-12.8	-0.000 001	-0.005
	Batt. Endpoint	+20	2501 009 977	-12.0	0.000 000	-0.005
2685.000	100 %	+20(Ref)	2684 999 995	0.0	0.000 000	0.000
	100 %	-30	2684 999 989	-6.4	0.000 000	-0.002
	100 %	-20	2684 999 990	-4.8	0.000 000	-0.002
	100 %	-10	2684 999 988	-6.6	0.000 000	-0.002
	100 %	0	2684 999 990	-5.2	0.000 000	-0.002
	100 %	+10	2684 999 986	-9.3	0.000 000	-0.003
	100 %	+30	2684 999 985	-9.7	0.000 000	-0.004
	100 %	+40	2684 999 987	-8.2	0.000 000	-0.003
	100 %	+50	2684 999 987	-8.0	0.000 000	-0.003
	Batt. Endpoint	+20	2684 999 987	-8.4	0.000 000	-0.003

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2503.500	100 %	+20(Ref)	2503 499 988	0.0	0.000 000	0.000
	100 %	-30	2503 499 976	-12.2	0.000 000	-0.005
	100 %	-20	2503 499 977	-11.1	0.000 000	-0.004
	100 %	-10	2503 499 977	-10.9	0.000 000	-0.004
	100 %	0	2503 499 977	-10.6	0.000 000	-0.004
	100 %	+10	2503 499 976	-12.3	0.000 000	-0.005
	100 %	+30	2503 499 978	-10.0	0.000 000	-0.004
	100 %	+40	2503 499 976	-12.0	0.000 000	-0.005
	100 %	+50	2503 499 978	-9.8	0.000 000	-0.004
	Batt. Endpoint	+20	2503 499 974	-13.7	-0.000 001	-0.005
2682.480	100 %	+20(Ref)	2682 479 993	0.0	0.000 000	0.000
	100 %	-30	2682 479 986	-6.9	0.000 000	-0.003
	100 %	-20	2682 479 982	-10.8	0.000 000	-0.004
	100 %	-10	2682 479 985	-7.9	0.000 000	-0.003
	100 %	0	2682 479 985	-7.8	0.000 000	-0.003
	100 %	+10	2682 479 985	-7.7	0.000 000	-0.003
	100 %	+30	2682 479 985	-7.8	0.000 000	-0.003
	100 %	+40	2682 479 986	-6.9	0.000 000	-0.003
	100 %	+50	2682 479 984	-8.4	0.000 000	-0.003
	Batt. Endpoint	+20	2682 479 982	-10.6	0.000 000	-0.004

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 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 019 987	0.0	0.000 000	0.000
	100 %	-30	2506 019 977	-9.8	0.000 000	-0.004
	100 %	-20	2506 019 975	-12.1	0.000 000	-0.005
	100 %	-10	2506 019 973	-13.8	-0.000 001	-0.006
	100 %	0	2506 019 976	-10.6	0.000 000	-0.004
	100 %	+10	2506 019 988	0.7	0.000 000	0.000
	100 %	+30	2506 019 975	-12.3	0.000 000	-0.005
	100 %	+40	2506 019 976	-11.3	0.000 000	-0.005
	100 %	+50	2506 019 974	-13.0	-0.000 001	-0.005
	Batt. Endpoint	+20	2506 019 974	-12.9	-0.000 001	-0.005
2679.990	100 %	+20(Ref)	2679 989 987	0.0	0.000 000	0.000
	100 %	-30	2679 989 975	-12.3	0.000 000	-0.005
	100 %	-20	2679 989 974	-13.2	0.000 000	-0.005
	100 %	-10	2679 989 976	-10.9	0.000 000	-0.004
	100 %	0	2679 989 977	-10.2	0.000 000	-0.004
	100 %	+10	2679 989 973	-13.9	-0.000 001	-0.005
	100 %	+30	2679 989 976	-11.0	0.000 000	-0.004
	100 %	+40	2679 989 975	-11.9	0.000 000	-0.004
	100 %	+50	2679 990 029	41.8	0.000 002	0.016
	Batt. Endpoint	+20	2679 989 514	-473.4	-0.000 018	-0.177

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 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 999 986	0.0	0.000 000	0.000
	100 %	-30	2510 999 976	-10.2	0.000 000	-0.004
	100 %	-20	2510 999 974	-12.1	0.000 000	-0.005
	100 %	-10	2510 999 976	-9.9	0.000 000	-0.004
	100 %	0	2510 999 974	-12.7	-0.000 001	-0.005
	100 %	+10	2510 999 974	-12.4	0.000 000	-0.005
	100 %	+30	2510 999 976	-9.8	0.000 000	-0.004
	100 %	+40	2510 999 974	-12.3	0.000 000	-0.005
	100 %	+50	2510 999 976	-10.0	0.000 000	-0.004
	Batt. Endpoint	+20	2510 999 976	-10.7	0.000 000	-0.004
2674.980	100 %	+20(Ref)	2674 979 988	0.0	0.000 000	0.000
	100 %	-30	2674 979 973	-15.6	-0.000 001	-0.006
	100 %	-20	2674 979 975	-13.9	-0.000 001	-0.005
	100 %	-10	2674 979 974	-14.1	-0.000 001	-0.005
	100 %	0	2674 979 974	-14.4	-0.000 001	-0.005
	100 %	+10	2674 979 974	-14.5	-0.000 001	-0.005
	100 %	+30	2674 979 974	-13.9	-0.000 001	-0.005
	100 %	+40	2674 979 972	-16.2	-0.000 001	-0.006
	100 %	+50	2674 979 975	-13.0	0.000 000	-0.005
	Batt. Endpoint	+20	2674 979 977	-11.5	0.000 000	-0.004

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2516.010	100 %	+20(Ref)	2516 009 991	0.0	0.000 000	0.000
	100 %	-30	2516 009 978	-12.4	0.000 000	-0.005
	100 %	-20	2516 009 978	-12.6	-0.000 001	-0.005
	100 %	-10	2516 009 979	-11.8	0.000 000	-0.005
	100 %	0	2516 009 979	-11.6	0.000 000	-0.005
	100 %	+10	2516 009 979	-11.6	0.000 000	-0.005
	100 %	+30	2516 009 978	-12.7	-0.000 001	-0.005
	100 %	+40	2516 009 978	-12.1	0.000 000	-0.005
	100 %	+50	2516 009 980	-10.3	0.000 000	-0.004
	Batt. Endpoint	+20	2516 009 978	-12.9	-0.000 001	-0.005
2670.000	100 %	+20(Ref)	2669 999 984	0.0	0.000 000	0.000
	100 %	-30	2669 999 967	-17.1	-0.000 001	-0.006
	100 %	-20	2669 999 968	-16.0	-0.000 001	-0.006
	100 %	-10	2669 999 970	-14.3	-0.000 001	-0.005
	100 %	0	2669 999 969	-14.9	-0.000 001	-0.006
	100 %	+10	2669 999 969	-14.6	-0.000 001	-0.005
	100 %	+30	2669 999 967	-16.8	-0.000 001	-0.006
	100 %	+40	2669 999 967	-16.5	-0.000 001	-0.006
	100 %	+50	2669 999 970	-13.8	-0.000 001	-0.005
	Batt. Endpoint	+20	2669 999 969	-15.1	-0.000 001	-0.006

- ▣ BandWidth: 50 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 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 019 989	0.0	0.000 000	0.000
	100 %	-30	2521 019 978	-10.9	0.000 000	-0.004
	100 %	-20	2521 019 977	-11.6	0.000 000	-0.005
	100 %	-10	2521 019 977	-11.7	0.000 000	-0.005
	100 %	0	2521 019 978	-10.9	0.000 000	-0.004
	100 %	+10	2521 019 977	-11.7	0.000 000	-0.005
	100 %	+30	2521 019 977	-11.4	0.000 000	-0.005
	100 %	+40	2521 019 978	-10.8	0.000 000	-0.004
	100 %	+50	2521 019 977	-11.8	0.000 000	-0.005
	Batt. Endpoint	+20	2521 019 977	-11.8	0.000 000	-0.005
2664.990	100 %	+20(Ref)	2664 989 985	0.0	0.000 000	0.000
	100 %	-30	2664 989 971	-13.7	-0.000 001	-0.005
	100 %	-20	2664 989 968	-16.3	-0.000 001	-0.006
	100 %	-10	2664 989 969	-15.5	-0.000 001	-0.006
	100 %	0	2664 989 971	-14.0	-0.000 001	-0.005
	100 %	+10	2664 989 969	-15.3	-0.000 001	-0.006
	100 %	+30	2664 989 969	-15.5	-0.000 001	-0.006
	100 %	+40	2664 989 969	-15.4	-0.000 001	-0.006
	100 %	+50	2664 989 971	-14.0	-0.000 001	-0.005
	Batt. Endpoint	+20	2664 989 970	-15.1	-0.000 001	-0.006

- ▣ BandWidth: 60 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2526.000	100 %	+20(Ref)	2525 999 989	0.0	0.000 000	0.000
	100 %	-30	2525 999 977	-11.8	0.000 000	-0.005
	100 %	-20	2525 999 978	-10.5	0.000 000	-0.004
	100 %	-10	2525 999 979	-10.1	0.000 000	-0.004
	100 %	0	2525 999 979	-10.1	0.000 000	-0.004
	100 %	+10	2525 999 978	-11.3	0.000 000	-0.004
	100 %	+30	2525 999 975	-13.7	-0.000 001	-0.005
	100 %	+40	2525 999 978	-10.4	0.000 000	-0.004
	100 %	+50	2525 999 978	-10.8	0.000 000	-0.004
	Batt. Endpoint	+20	2525 999 978	-11.1	0.000 000	-0.004
2659.980	100 %	+20(Ref)	2659 979 985	0.0	0.000 000	0.000
	100 %	-30	2659 979 972	-12.9	0.000 000	-0.005
	100 %	-20	2659 979 972	-13.5	-0.000 001	-0.005
	100 %	-10	2659 979 971	-14.4	-0.000 001	-0.005
	100 %	0	2659 979 971	-13.9	-0.000 001	-0.005
	100 %	+10	2659 979 968	-17.4	-0.000 001	-0.007
	100 %	+30	2659 979 970	-15.3	-0.000 001	-0.006
	100 %	+40	2659 979 970	-15.7	-0.000 001	-0.006
	100 %	+50	2659 979 969	-16.3	-0.000 001	-0.006
	Batt. Endpoint	+20	2659 979 973	-12.6	0.000 000	-0.005

- ▣ BandWidth: 80 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2536.020	100 %	+20(Ref)	2536 019 990	0.0	0.000 000	0.000
	100 %	-30	2536 019 979	-11.1	0.000 000	-0.004
	100 %	-20	2536 019 979	-10.8	0.000 000	-0.004
	100 %	-10	2536 019 980	-9.9	0.000 000	-0.004
	100 %	0	2536 019 980	-10.0	0.000 000	-0.004
	100 %	+10	2536 019 978	-11.8	0.000 000	-0.005
	100 %	+30	2536 019 978	-11.3	0.000 000	-0.004
	100 %	+40	2536 019 979	-10.7	0.000 000	-0.004
	100 %	+50	2536 019 978	-11.4	0.000 000	-0.004
	Batt. Endpoint	+20	2536 019 979	-10.1	0.000 000	-0.004
2649.990	100 %	+20(Ref)	2649 989 991	0.0	0.000 000	0.000
	100 %	-30	2649 989 982	-9.0	0.000 000	-0.003
	100 %	-20	2649 989 981	-9.9	0.000 000	-0.004
	100 %	-10	2649 989 982	-8.6	0.000 000	-0.003
	100 %	0	2649 989 982	-8.8	0.000 000	-0.003
	100 %	+10	2649 989 982	-8.4	0.000 000	-0.003
	100 %	+30	2649 989 981	-10.1	0.000 000	-0.004
	100 %	+40	2649 989 981	-10.1	0.000 000	-0.004
	100 %	+50	2649 989 983	-8.2	0.000 000	-0.003
	Batt. Endpoint	+20	2649 989 980	-10.9	0.000 000	-0.004

- ▣ BandWidth: 90 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 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)	2540 999 990	0.0	0.000 000	0.000
	100 %	-30	2540 999 978	-11.5	0.000 000	-0.005
	100 %	-20	2540 999 977	-12.4	0.000 000	-0.005
	100 %	-10	2540 999 978	-11.7	0.000 000	-0.005
	100 %	0	2540 999 980	-10.0	0.000 000	-0.004
	100 %	+10	2540 999 978	-12.0	0.000 000	-0.005
	100 %	+30	2540 999 978	-12.0	0.000 000	-0.005
	100 %	+40	2540 999 979	-10.1	0.000 000	-0.004
	100 %	+50	2540 999 978	-11.3	0.000 000	-0.004
	Batt. Endpoint	+20	2540 999 978	-11.3	0.000 000	-0.004
2644.980	100 %	+20(Ref)	2644 979 992	0.0	0.000 000	0.000
	100 %	-30	2644 979 984	-8.0	0.000 000	-0.003
	100 %	-20	2644 979 984	-7.8	0.000 000	-0.003
	100 %	-10	2644 979 982	-9.2	0.000 000	-0.003
	100 %	0	2644 979 983	-8.6	0.000 000	-0.003
	100 %	+10	2644 979 984	-7.6	0.000 000	-0.003
	100 %	+30	2644 979 982	-9.7	0.000 000	-0.004
	100 %	+40	2644 979 984	-7.3	0.000 000	-0.003
	100 %	+50	2644 979 983	-9.0	0.000 000	-0.003
	Batt. Endpoint	+20	2644 979 982	-9.8	0.000 000	-0.004

- ▣ BandWidth: 100 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.400 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 009 991	0.0	0.000 000	0.000
	100 %	-30	2546 009 979	-11.7	0.000 000	-0.005
	100 %	-20	2546 009 980	-10.3	0.000 000	-0.004
	100 %	-10	2546 009 980	-10.2	0.000 000	-0.004
	100 %	0	2546 009 980	-11.1	0.000 000	-0.004
	100 %	+10	2546 009 980	-11.1	0.000 000	-0.004
	100 %	+30	2546 009 980	-10.7	0.000 000	-0.004
	100 %	+40	2546 009 980	-10.9	0.000 000	-0.004
	100 %	+50	2546 009 977	-13.4	-0.000 001	-0.005
	Batt. Endpoint	+20	2546 009 978	-13.0	-0.000 001	-0.005
2640.000	100 %	+20(Ref)	2639 999 988	0.0	0.000 000	0.000
	100 %	-30	2639 999 977	-11.1	0.000 000	-0.004
	100 %	-20	2639 999 978	-9.9	0.000 000	-0.004
	100 %	-10	2639 999 976	-11.9	0.000 000	-0.005
	100 %	0	2639 999 975	-12.8	0.000 000	-0.005
	100 %	+10	2639 999 978	-9.6	0.000 000	-0.004
	100 %	+30	2639 999 975	-13.1	0.000 000	-0.005
	100 %	+40	2639 999 977	-11.0	0.000 000	-0.004
	100 %	+50	2639 999 975	-12.6	0.000 000	-0.005
	Batt. Endpoint	+20	2639 999 976	-12.3	0.000 000	-0.005

9. TEST PLOTS

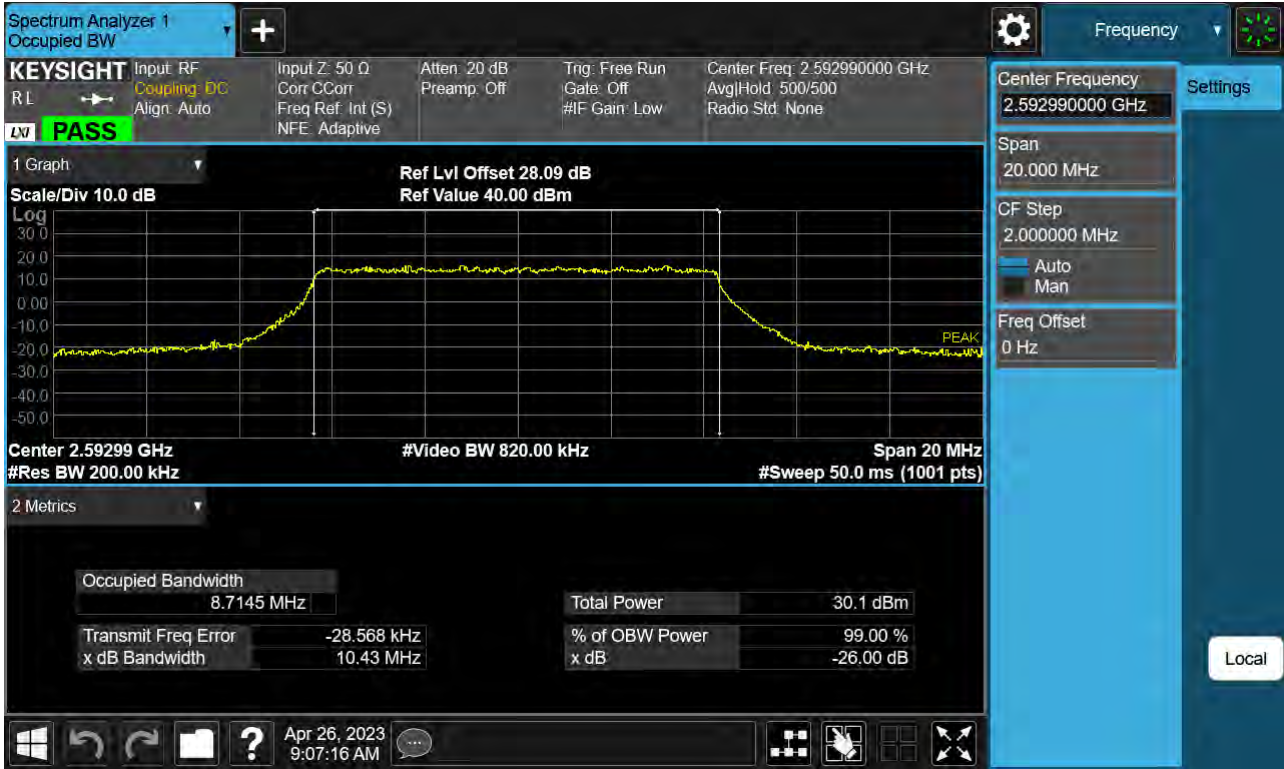
Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 BPSK)



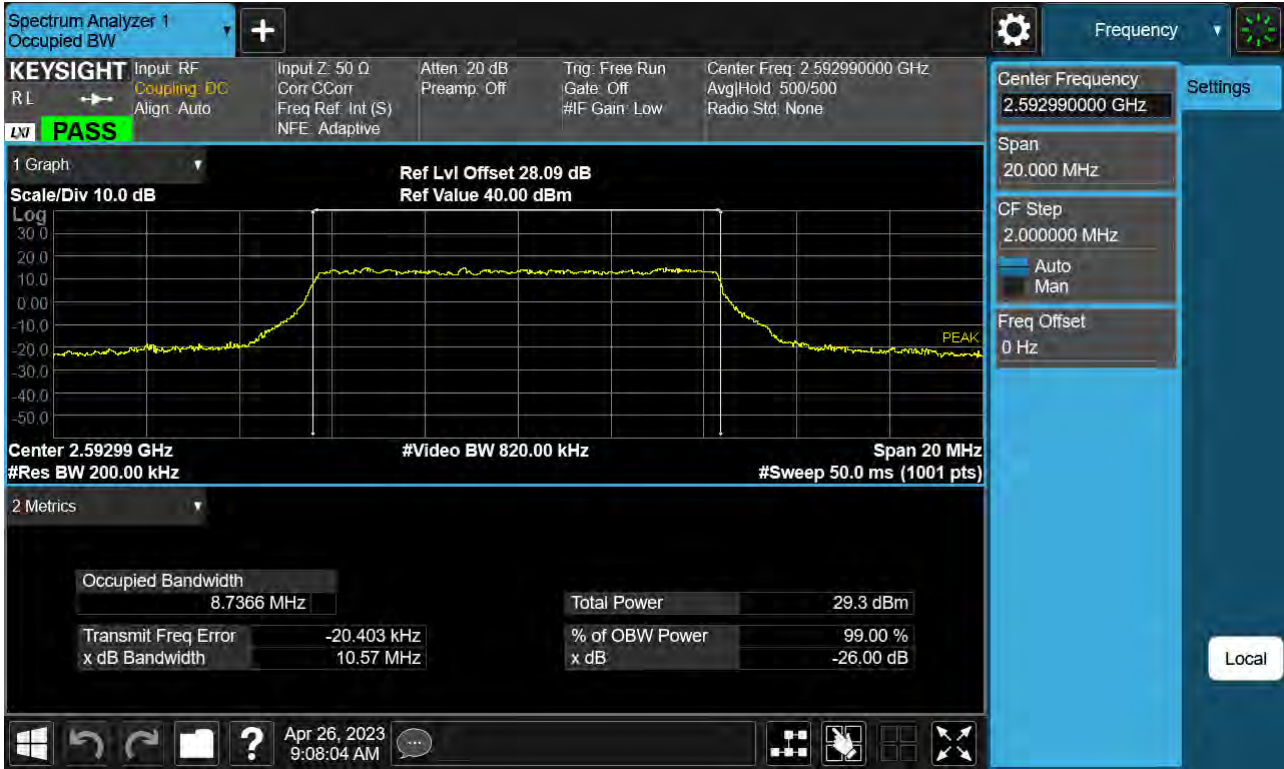
Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 QPSK)



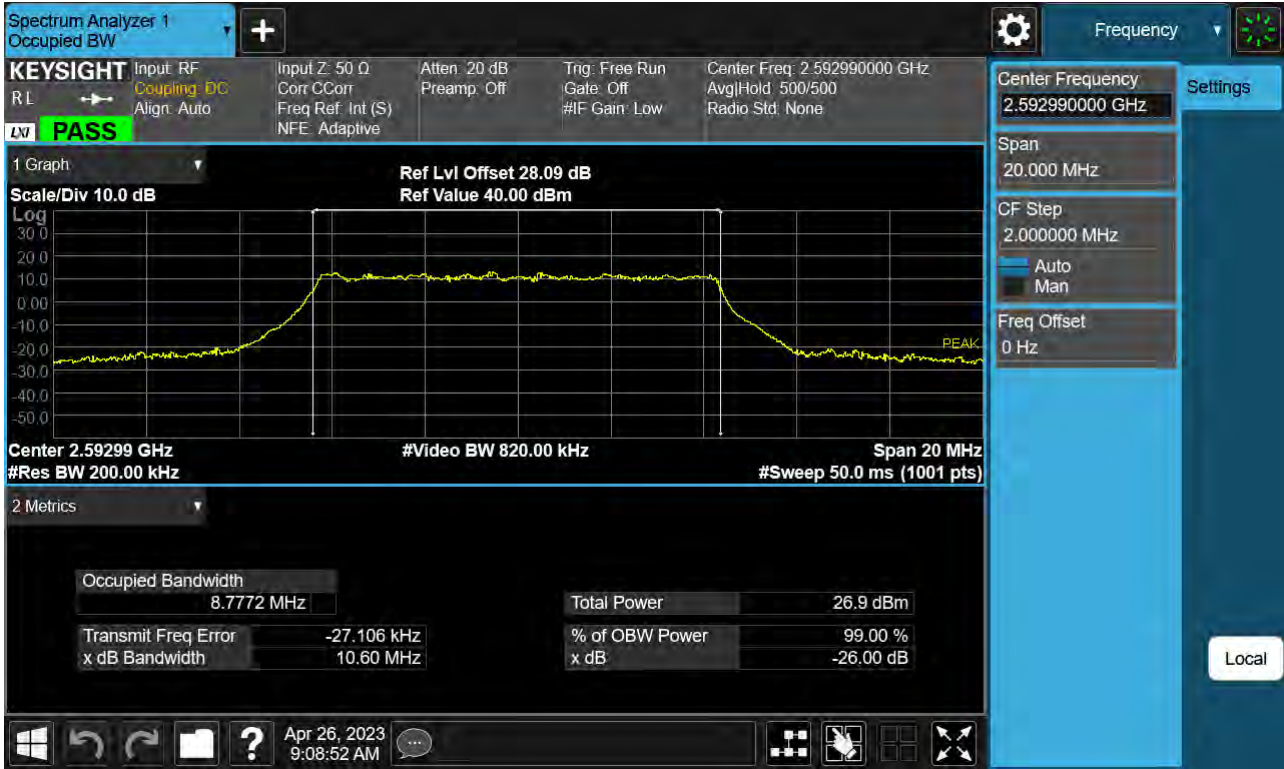
Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 16-QAM)



Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 64-QAM)



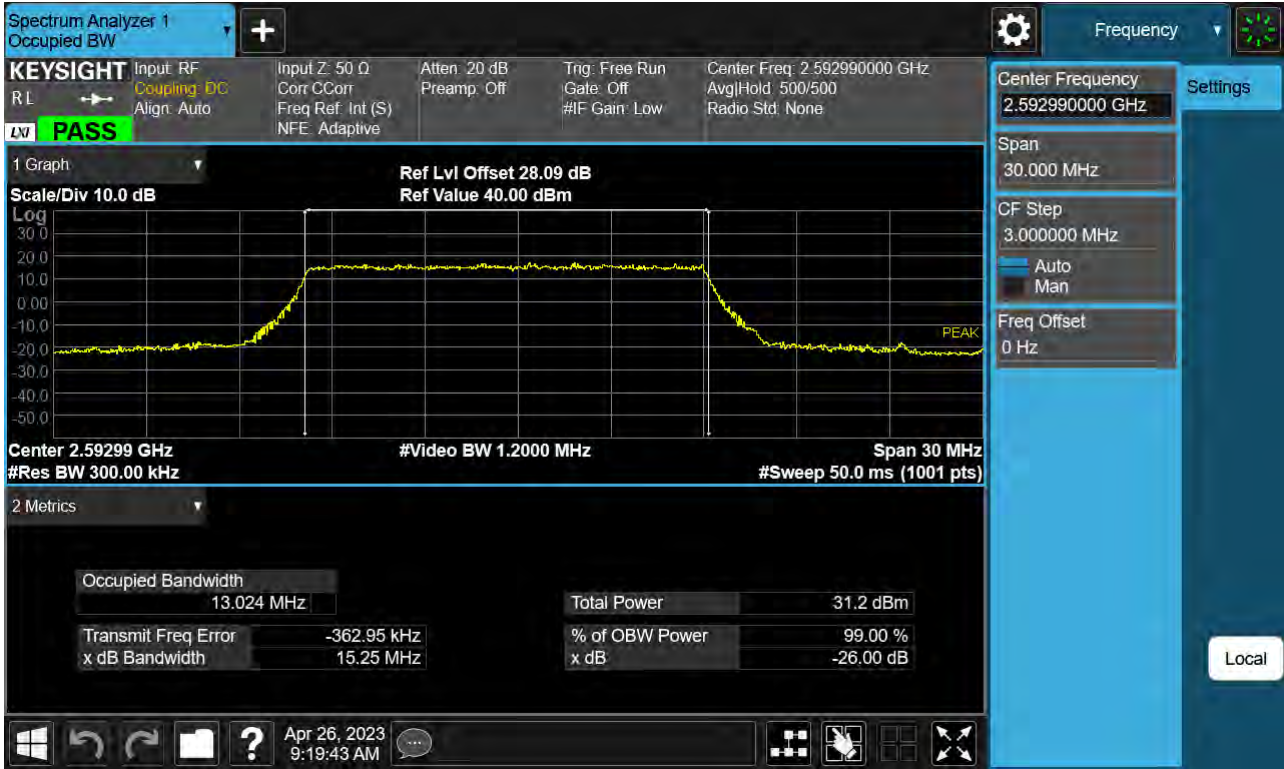
Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 256-QAM)



Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 BPSK)



Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 QPSK)



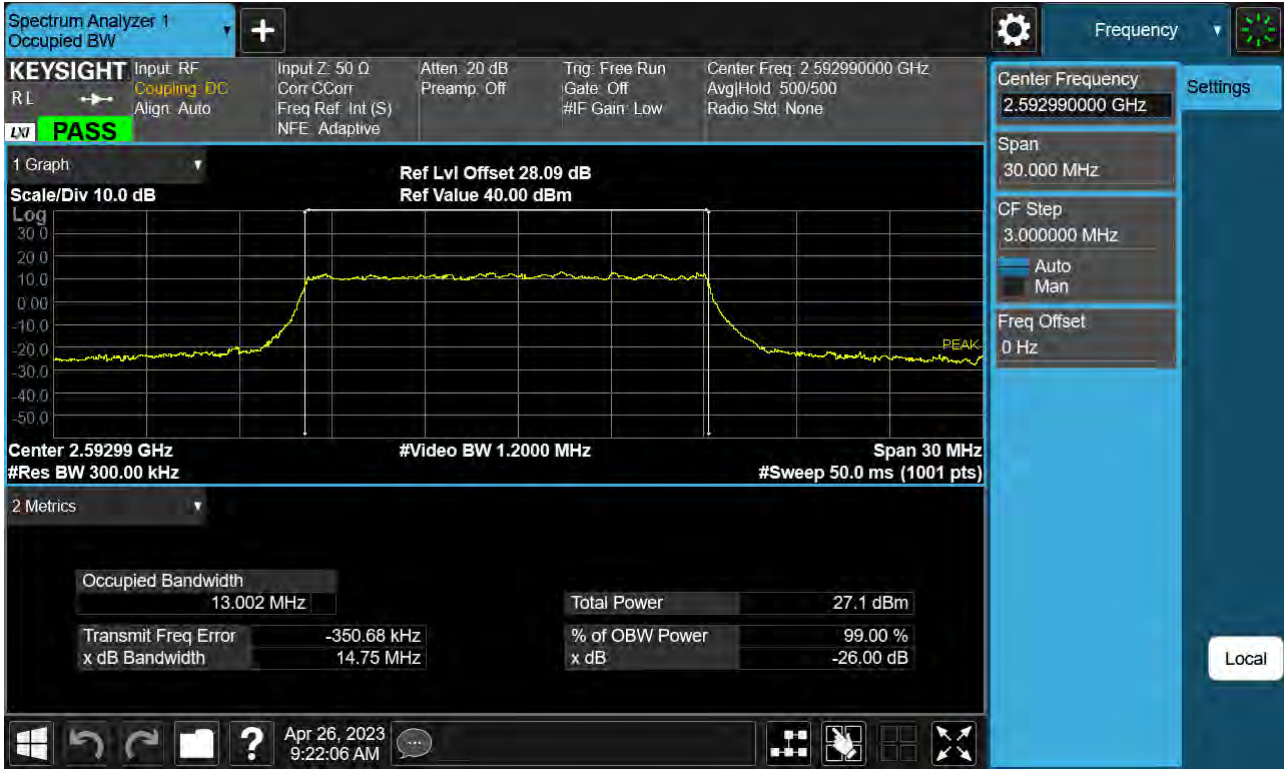
Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 16-QAM)



Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 64-QAM)



Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 256-QAM)



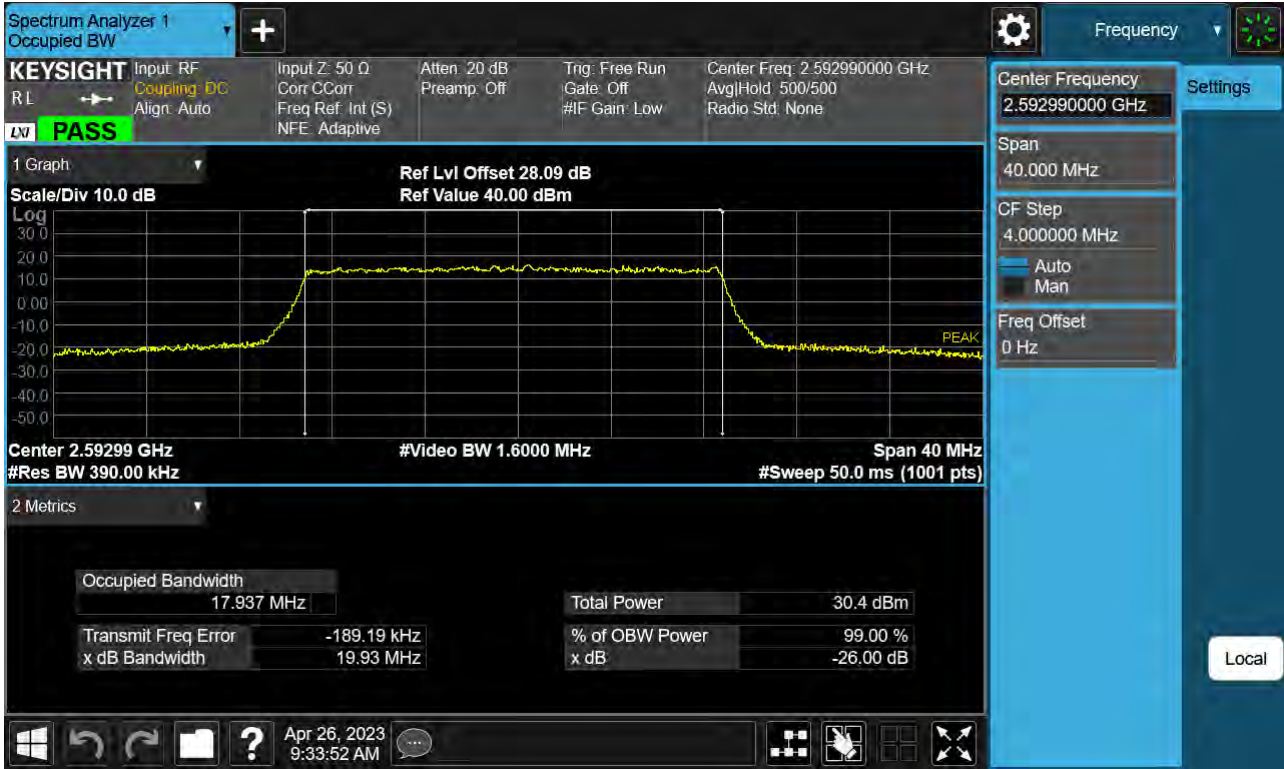
Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 BPSK)



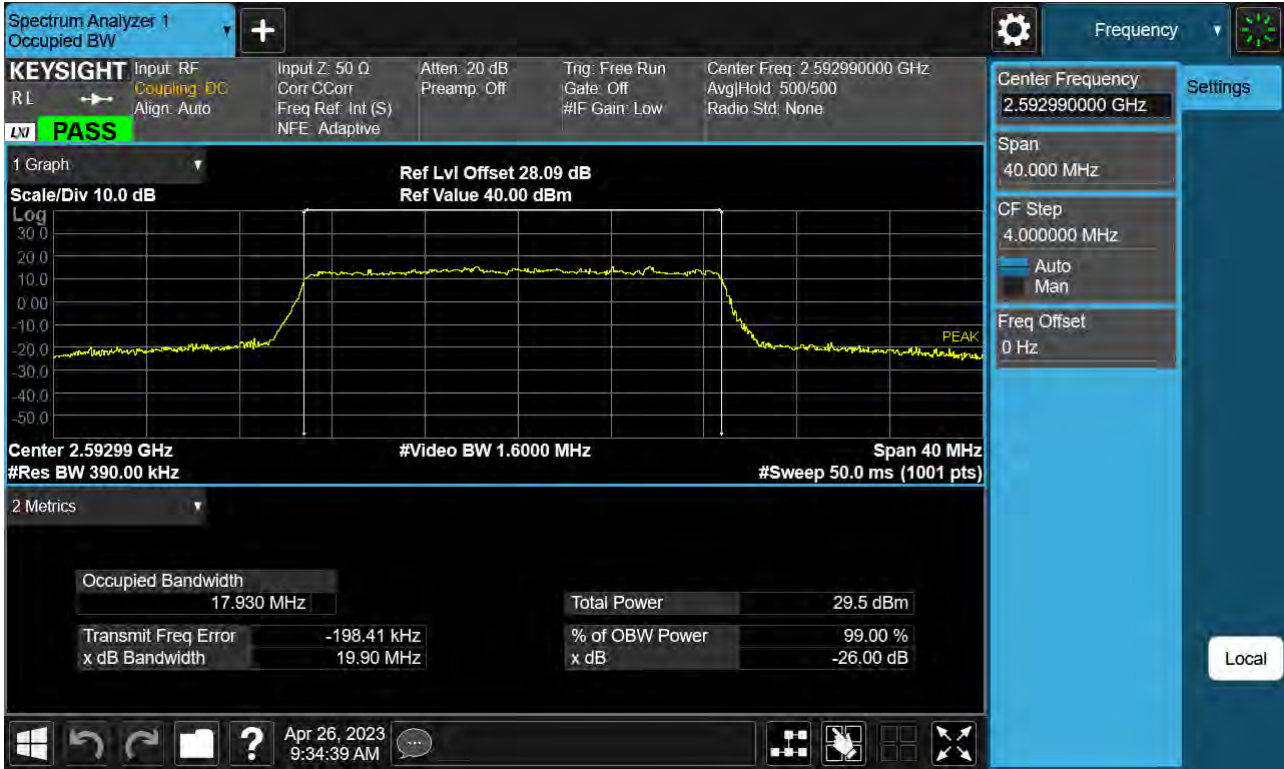
Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 QPSK)



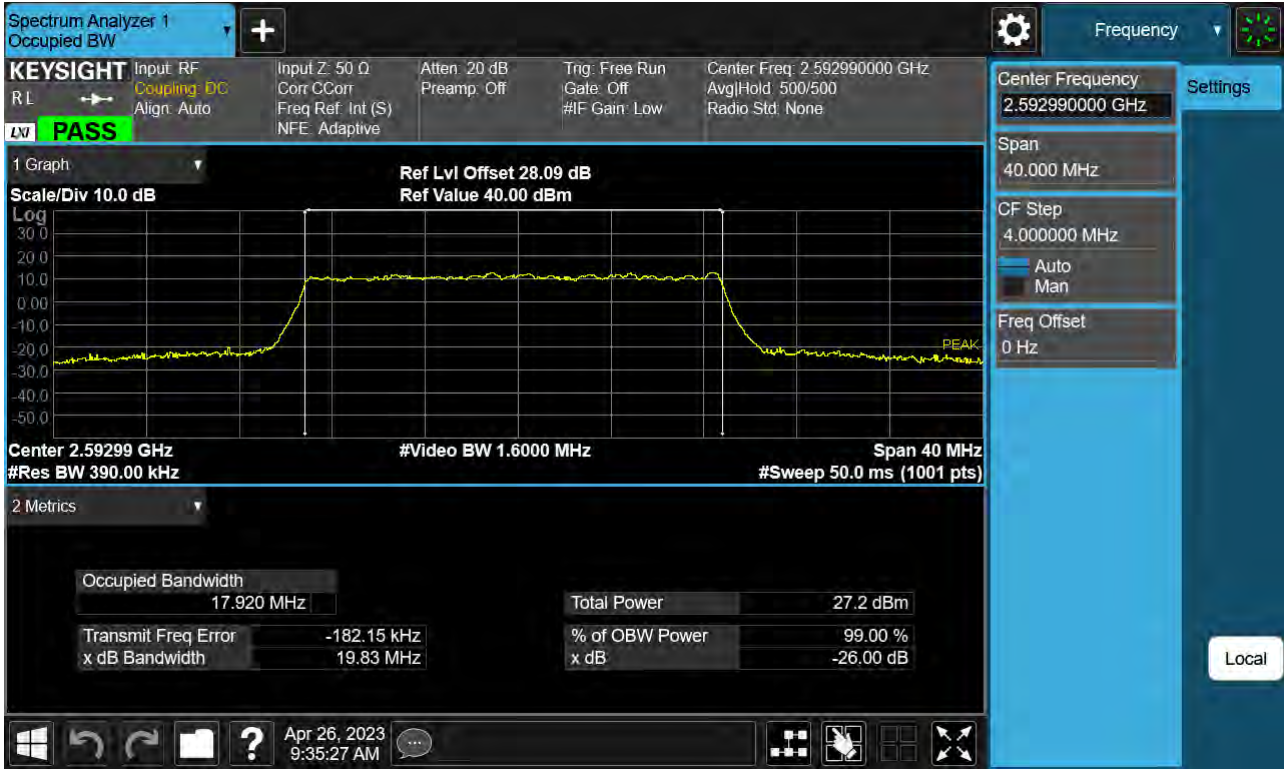
Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 16-QAM)



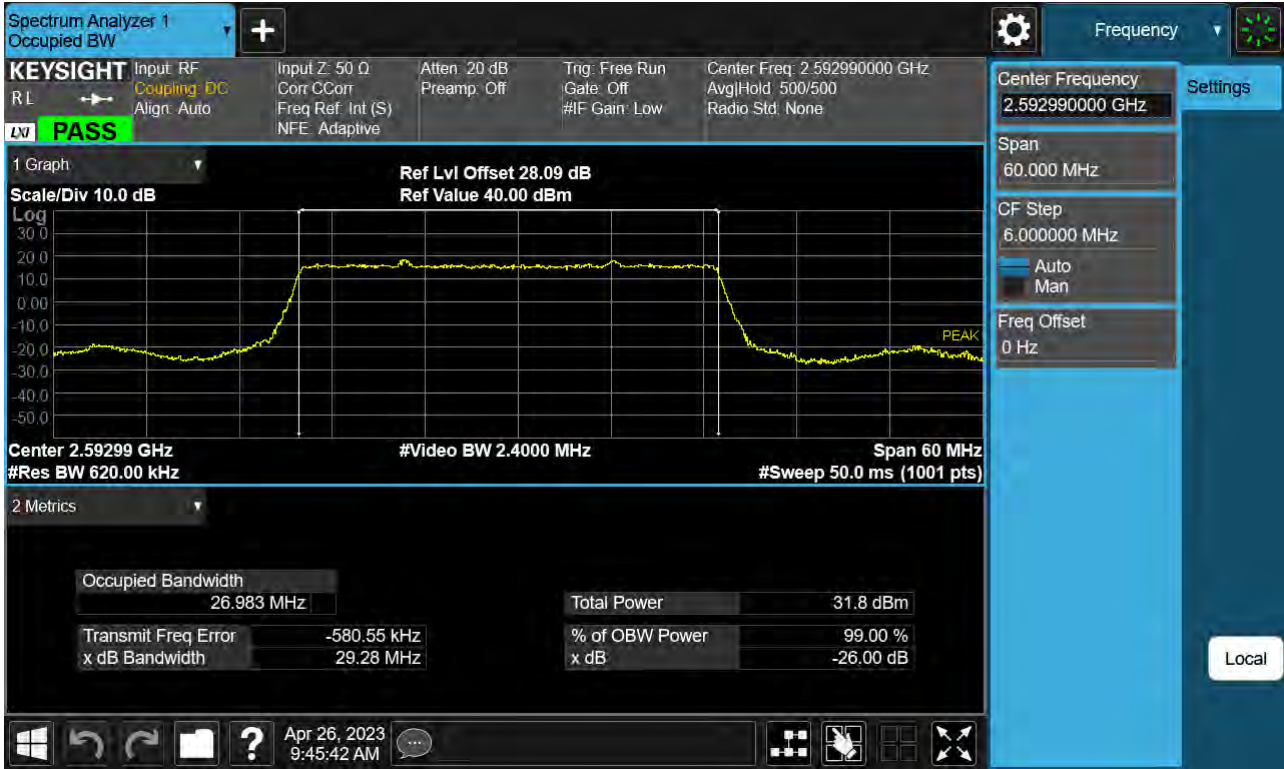
Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 64-QAM)



Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 256-QAM)



Sub6 n41. Occupied Bandwidth Plot (30 MHz Ch.518598 BPSK)



Sub6 n41. Occupied Bandwidth Plot (30 MHz Ch.518598 QPSK)



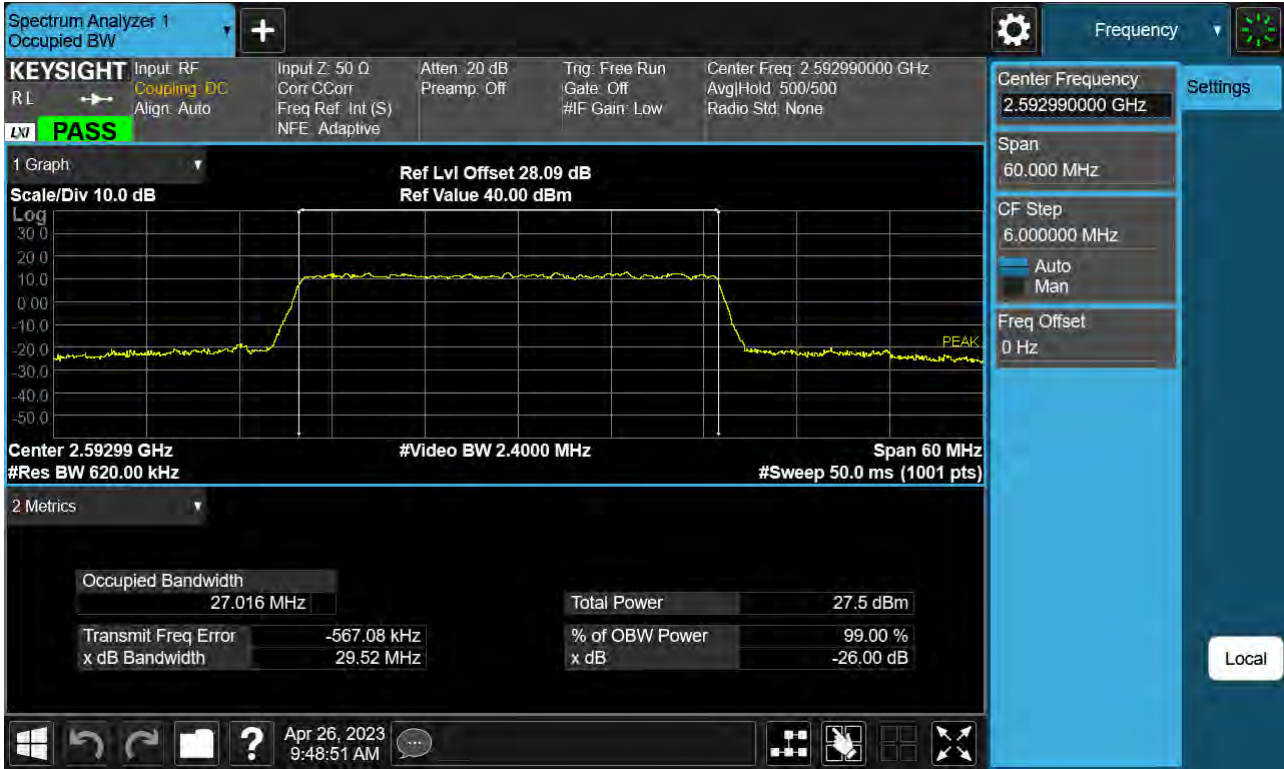
Sub6 n41. Occupied Bandwidth Plot (30 MHz Ch.518598 16-QAM)



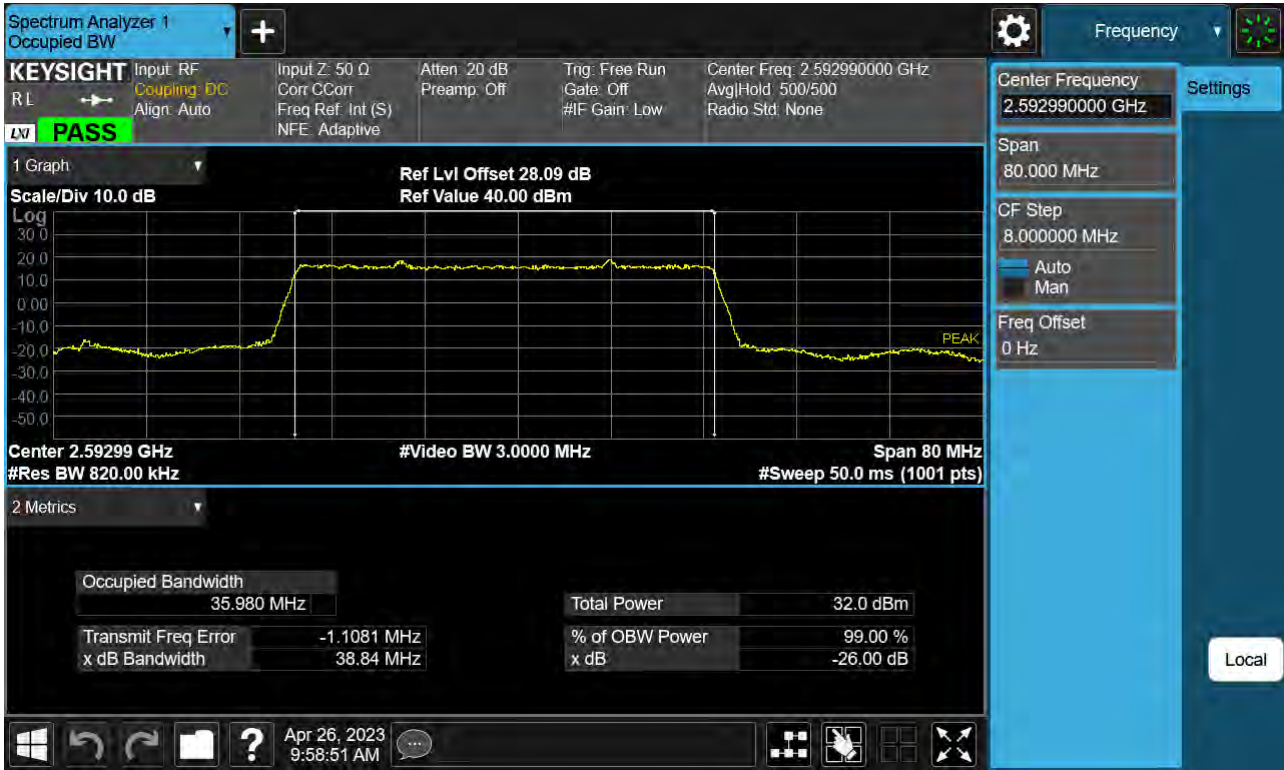
Sub6 n41. Occupied Bandwidth Plot (30 MHz Ch.518598 64-QAM)



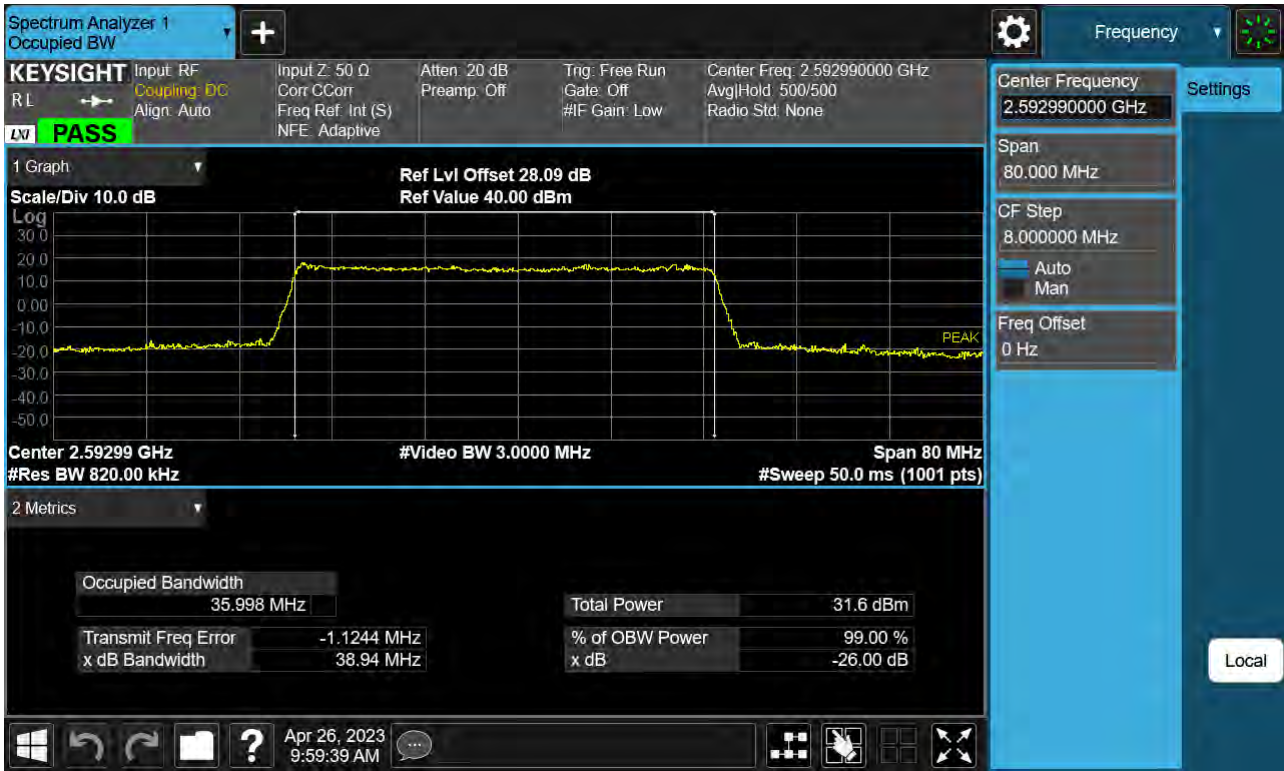
Sub6 n41. Occupied Bandwidth Plot (30 MHz Ch.518598 256-QAM)



Sub6 n41. Occupied Bandwidth Plot (40 MHz Ch.518598 BPSK)



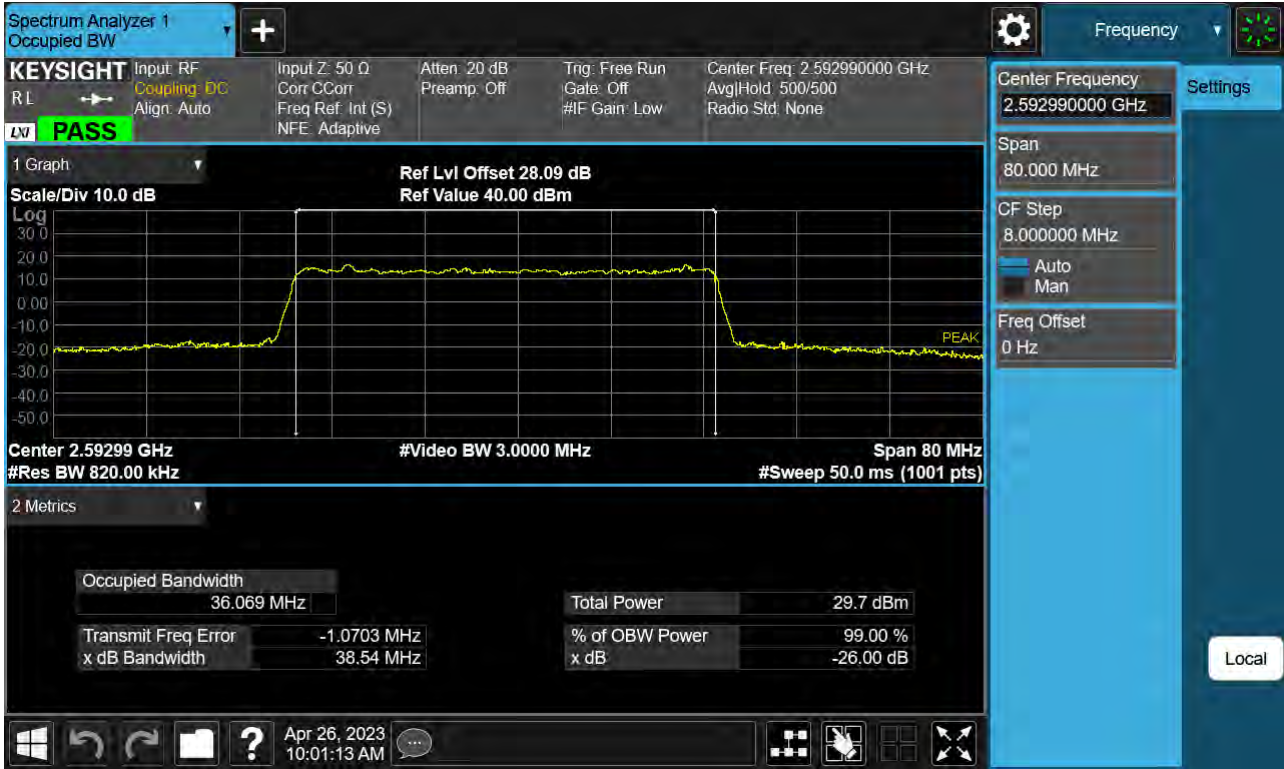
Sub6 n41. Occupied Bandwidth Plot (40 MHz Ch.518598 QPSK)



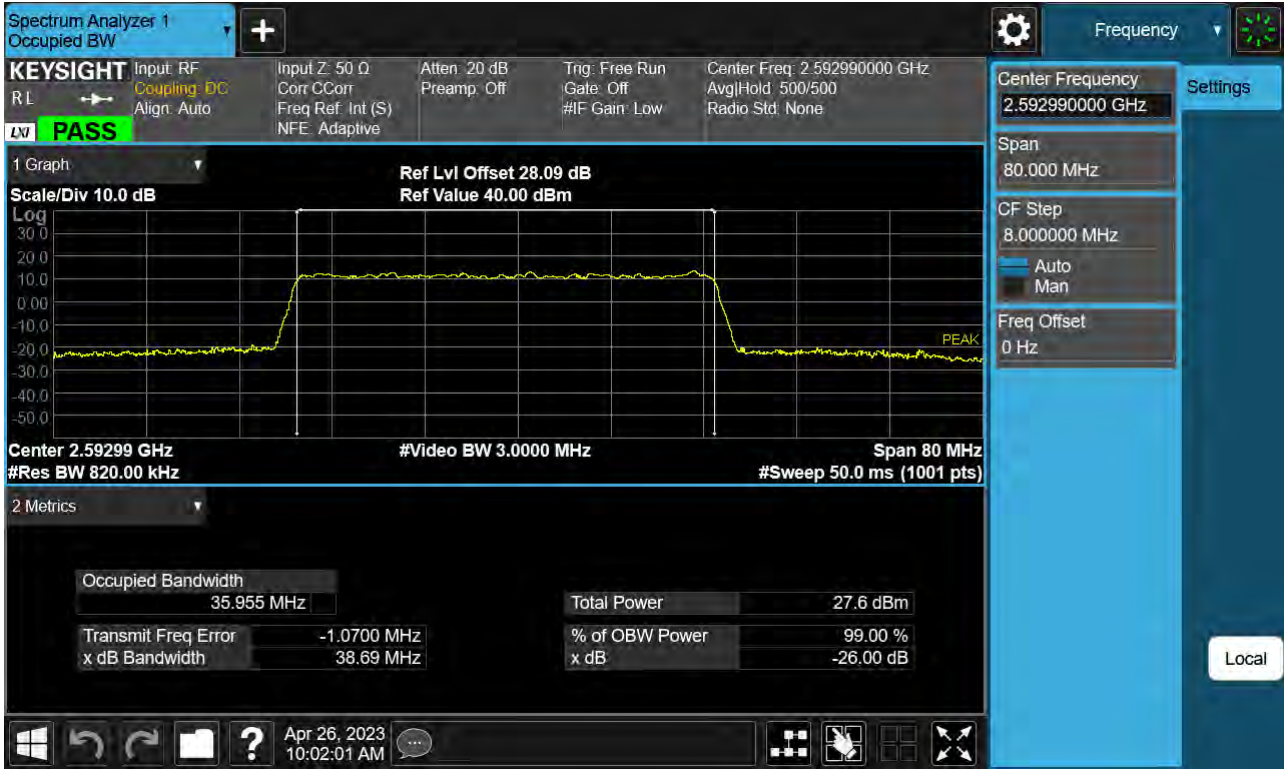
Sub6 n41. Occupied Bandwidth Plot (40 MHz Ch.518598 16-QAM)



Sub6 n41. Occupied Bandwidth Plot (40 MHz Ch.518598 64-QAM)



Sub6 n41. Occupied Bandwidth Plot (40 MHz Ch.518598 256-QAM)



Sub6 n41. Occupied Bandwidth Plot (50 MHz Ch.518598 BPSK)



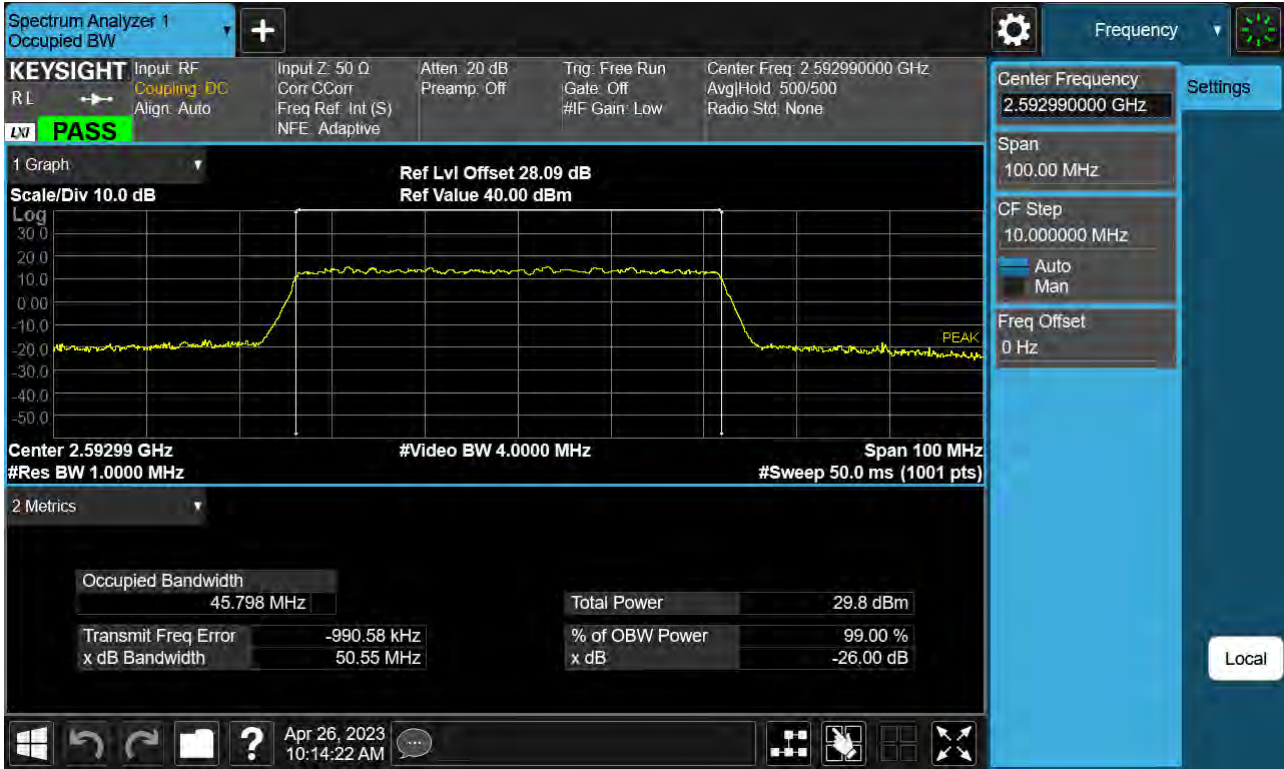
Sub6 n41. Occupied Bandwidth Plot (50 MHz Ch.518598 QPSK)



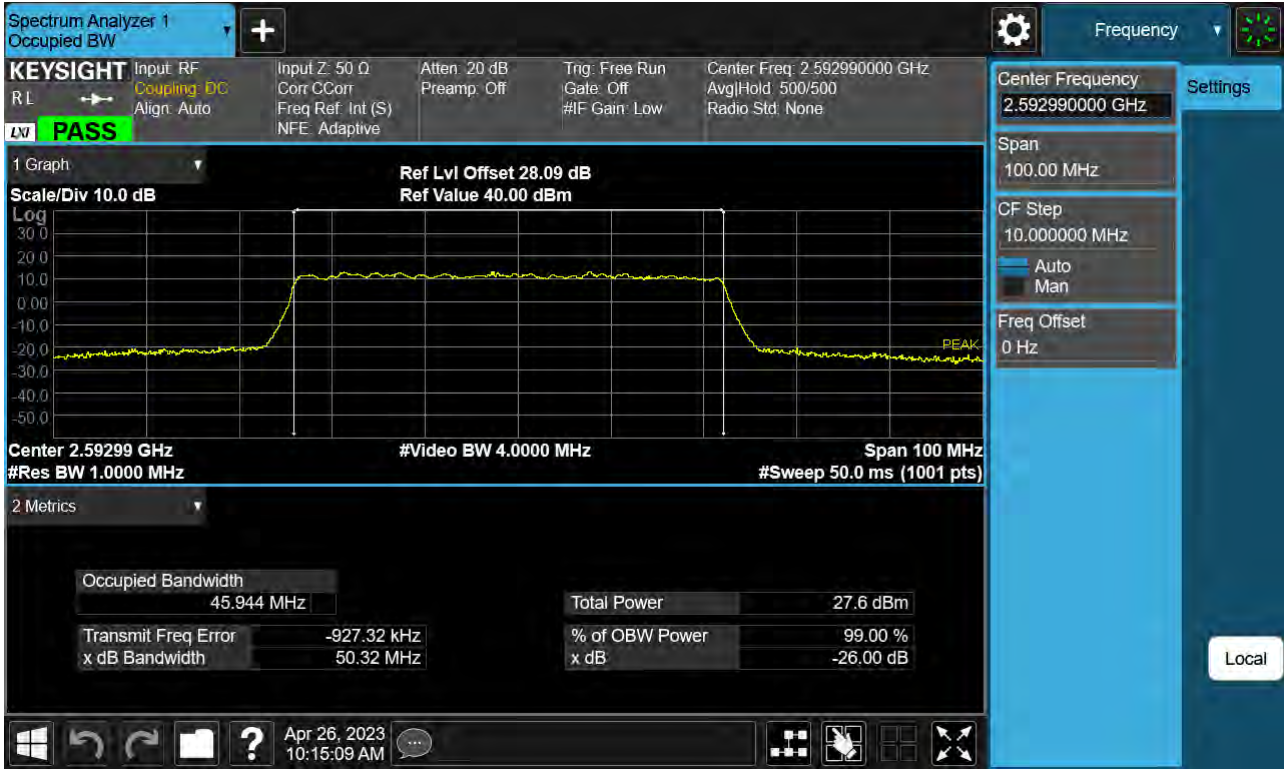
Sub6 n41. Occupied Bandwidth Plot (50 MHz Ch.518598 16-QAM)



Sub6 n41. Occupied Bandwidth Plot (50 MHz Ch.518598 64-QAM)



Sub6 n41. Occupied Bandwidth Plot (50 MHz Ch.518598 256-QAM)



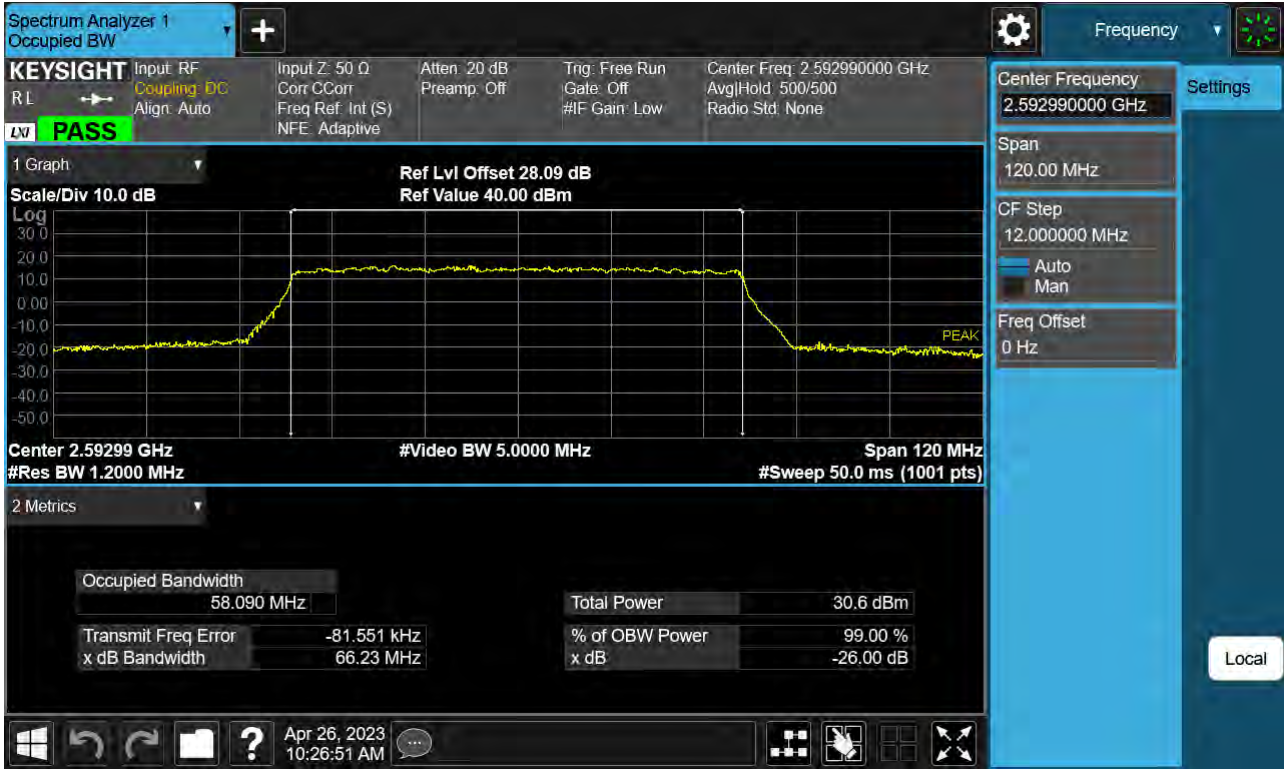
Sub6 n41. Occupied Bandwidth Plot (60 MHz Ch.518598 BPSK)



Sub6 n41. Occupied Bandwidth Plot (60 MHz Ch.518598 QPSK)



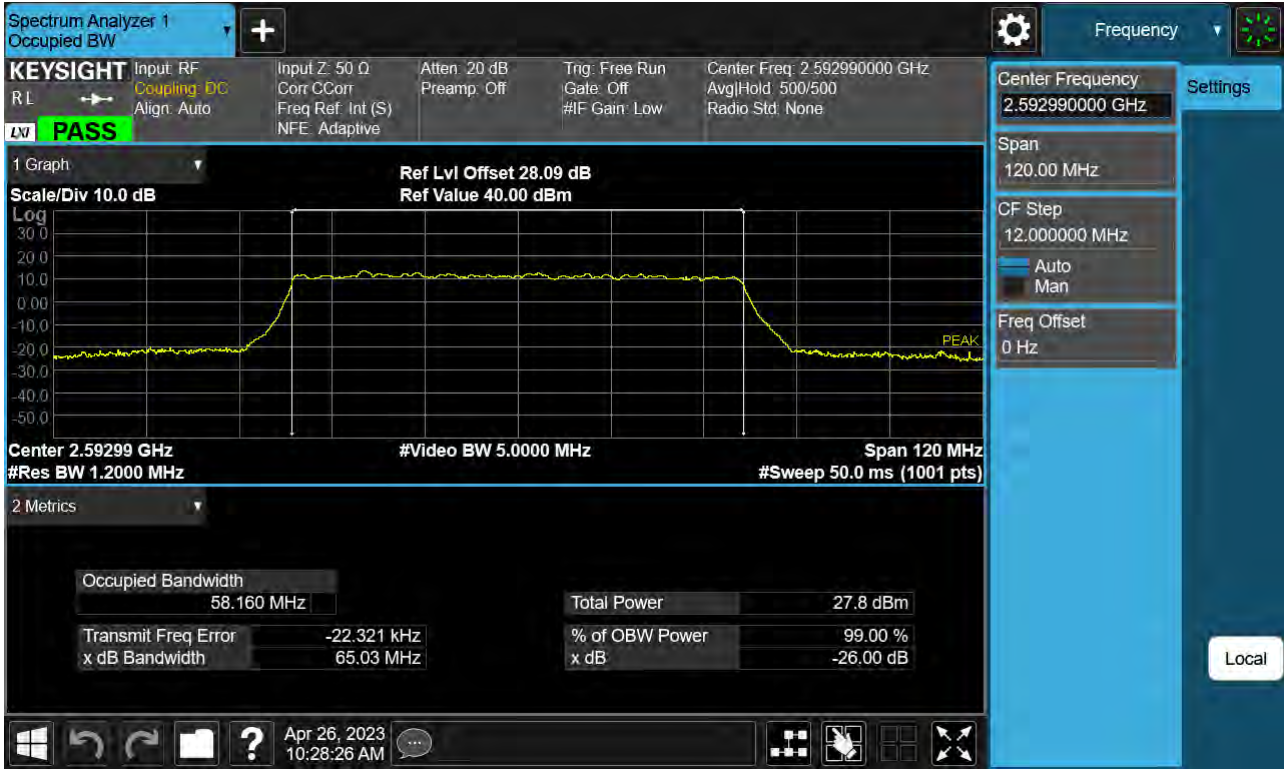
Sub6 n41. Occupied Bandwidth Plot (60 MHz Ch.518598 16-QAM)



Sub6 n41. Occupied Bandwidth Plot (60 MHz Ch.518598 64-QAM)



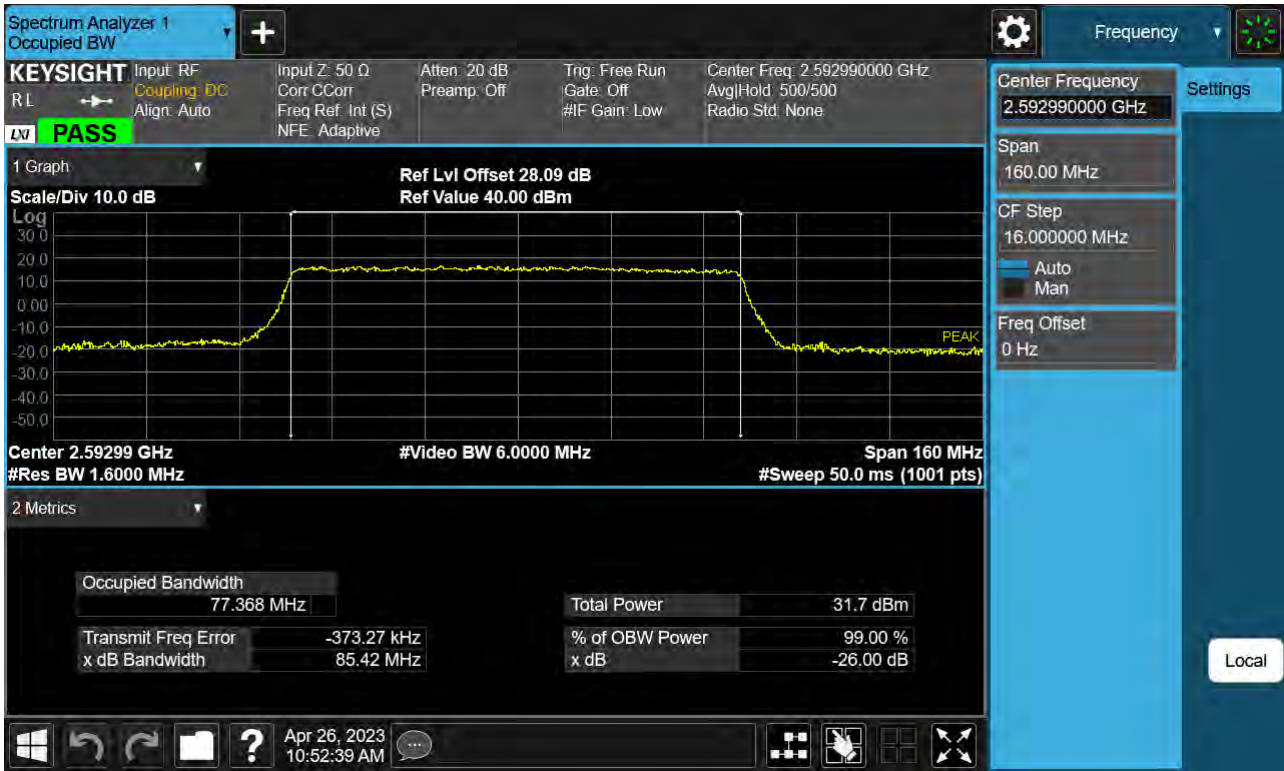
Sub6 n41. Occupied Bandwidth Plot (60 MHz Ch.518598 256-QAM)



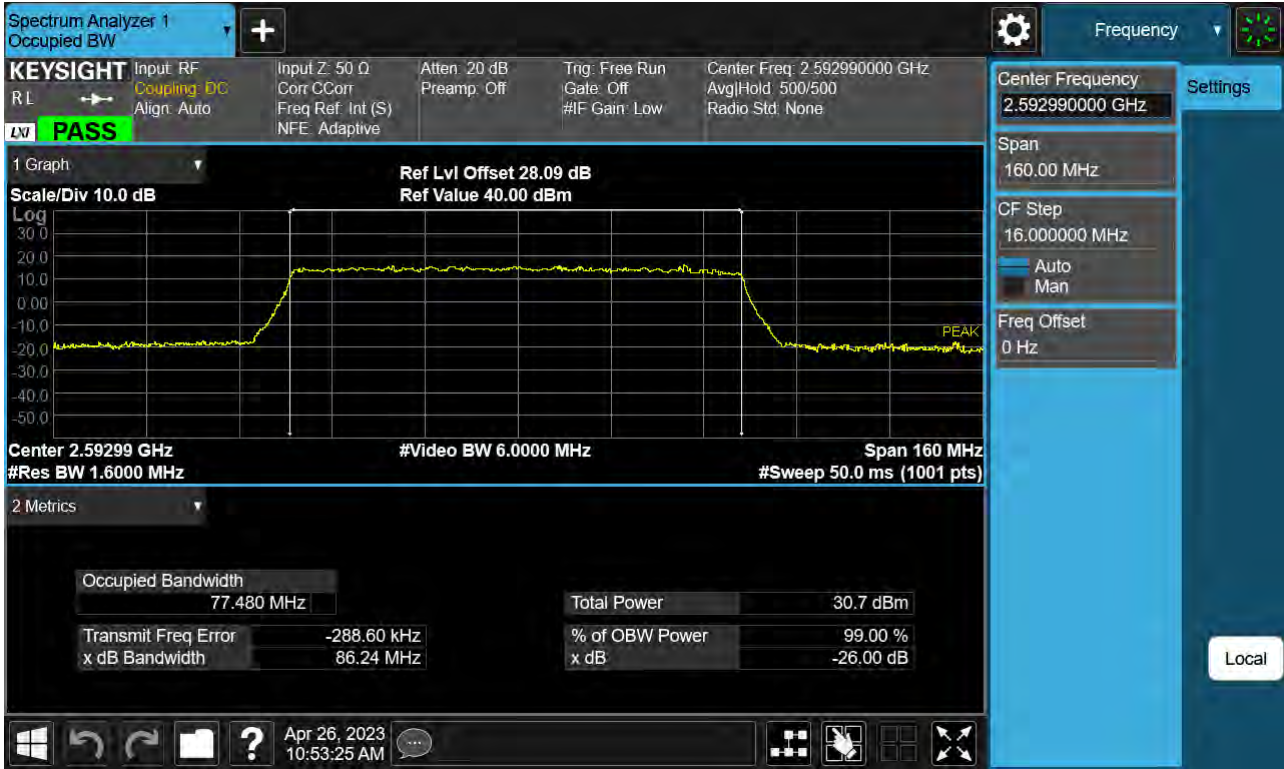
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 BPSK)



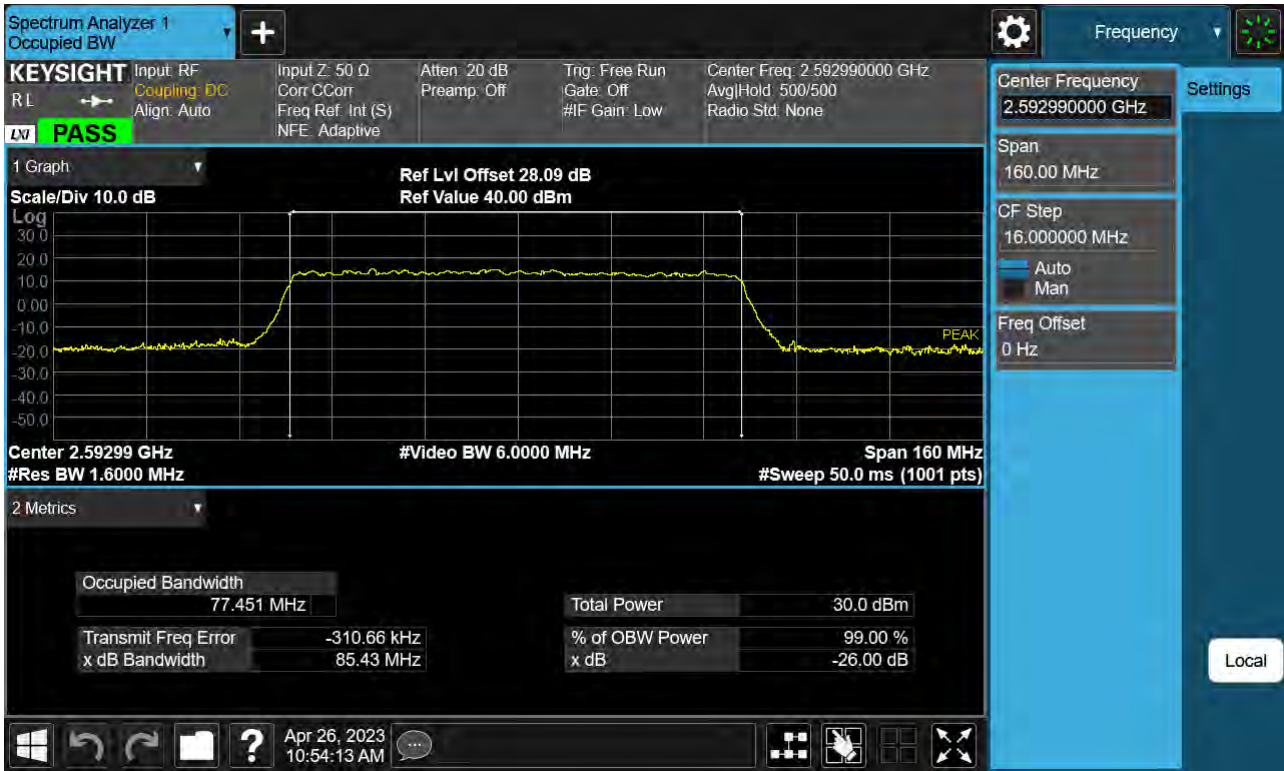
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 QPSK)



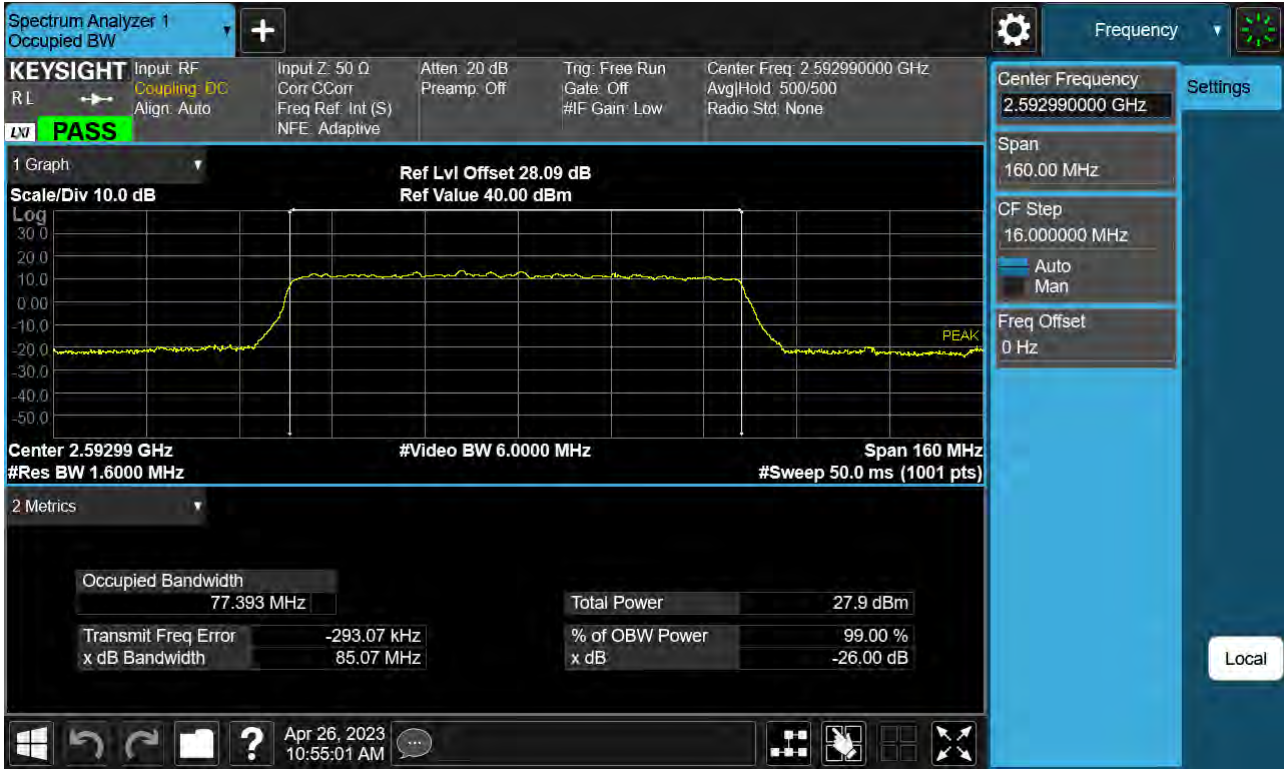
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 16-QAM)



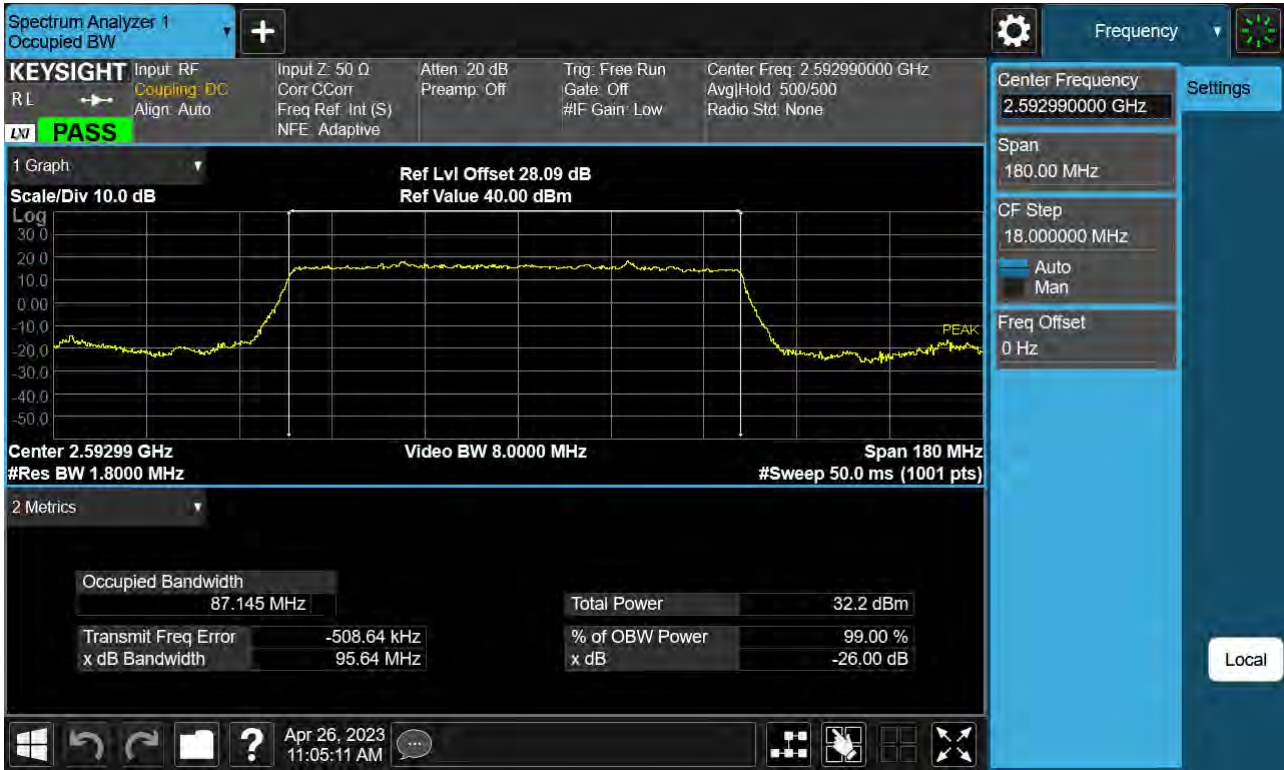
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 64-QAM)



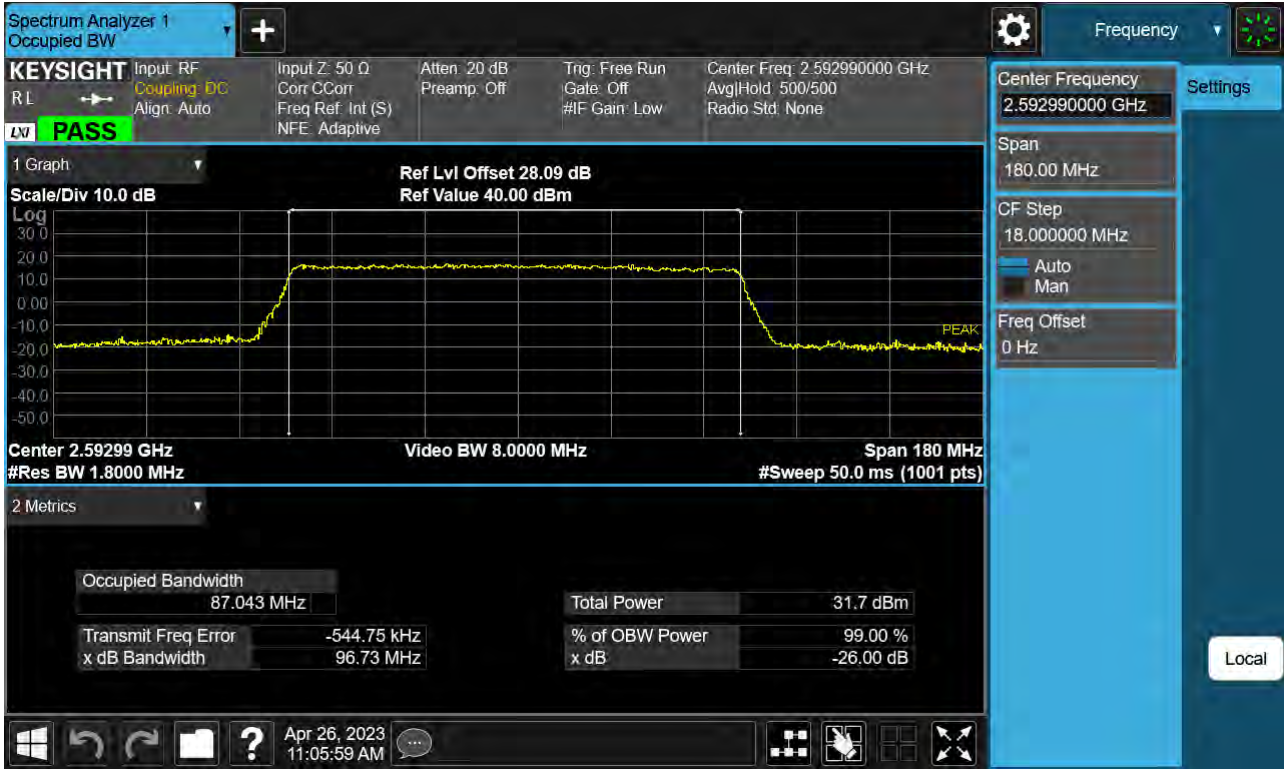
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 256-QAM)



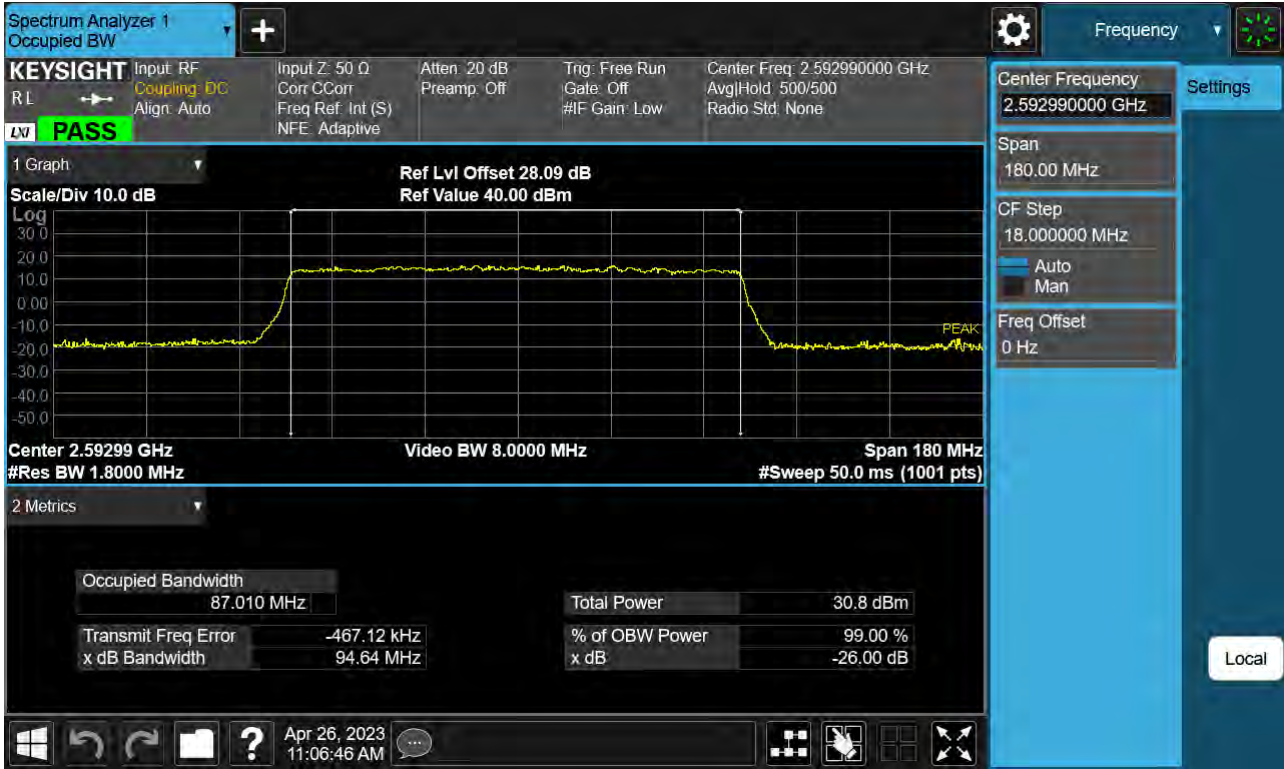
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 BPSK)



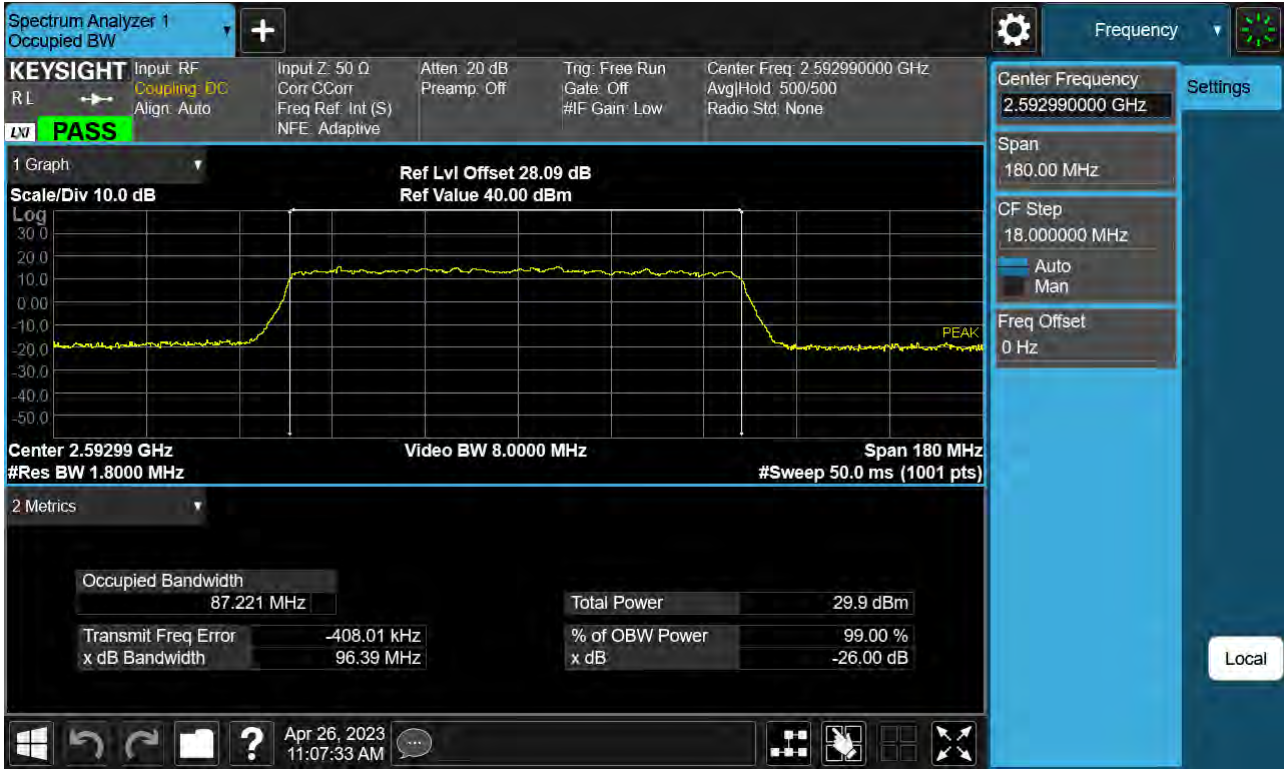
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 QPSK)



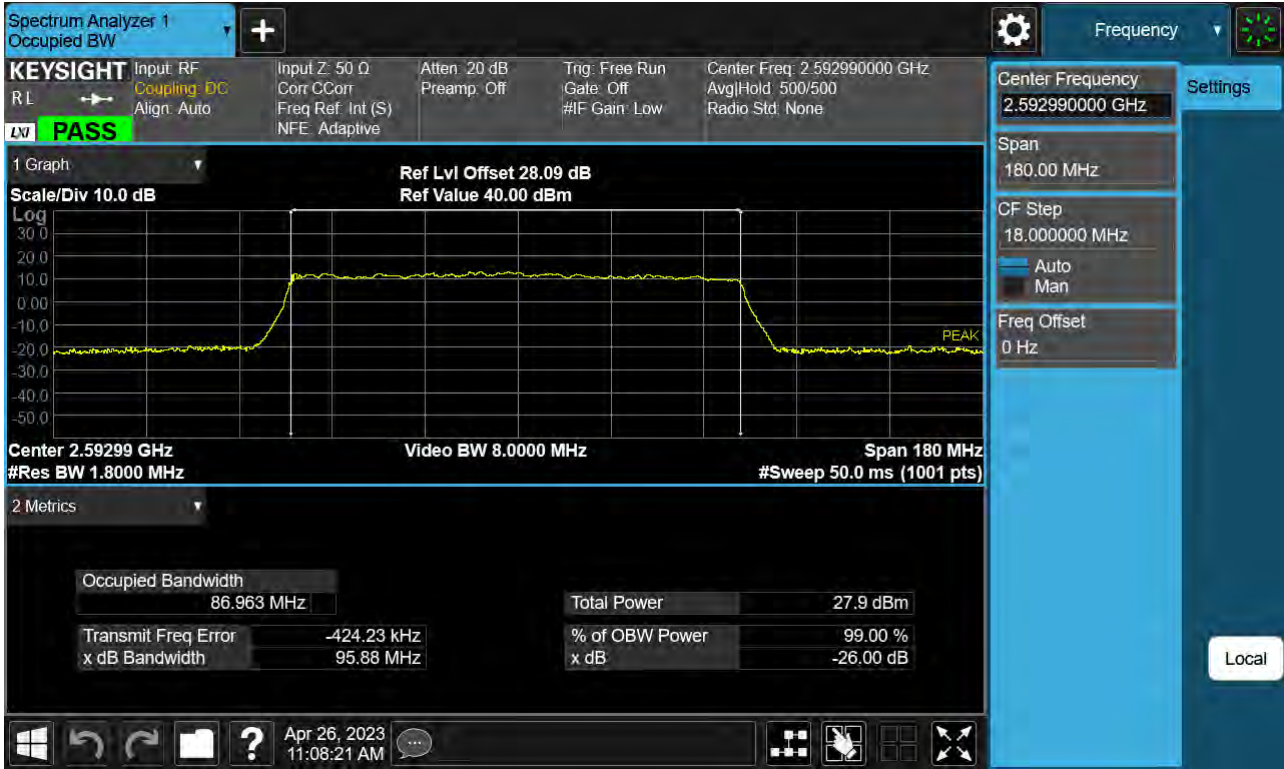
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 16-QAM)



Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 64-QAM)



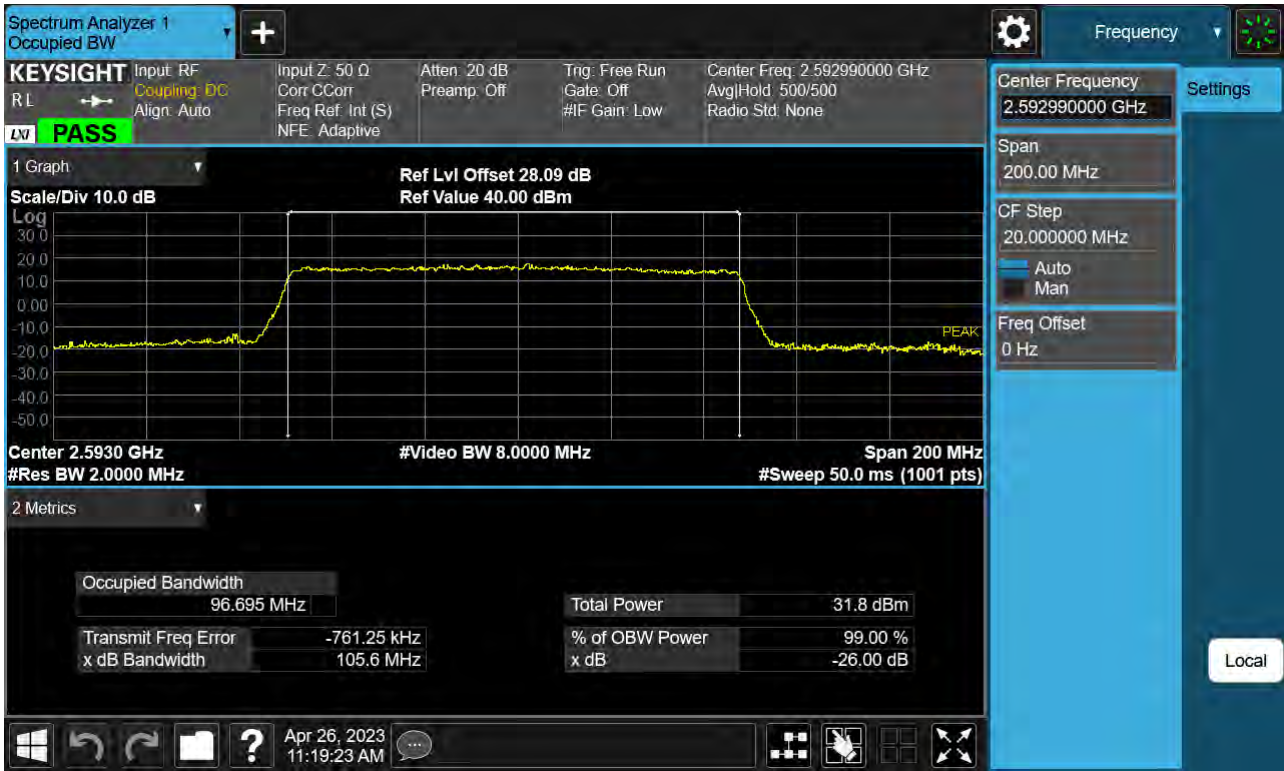
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 256-QAM)



Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 BPSK)



Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 QPSK)



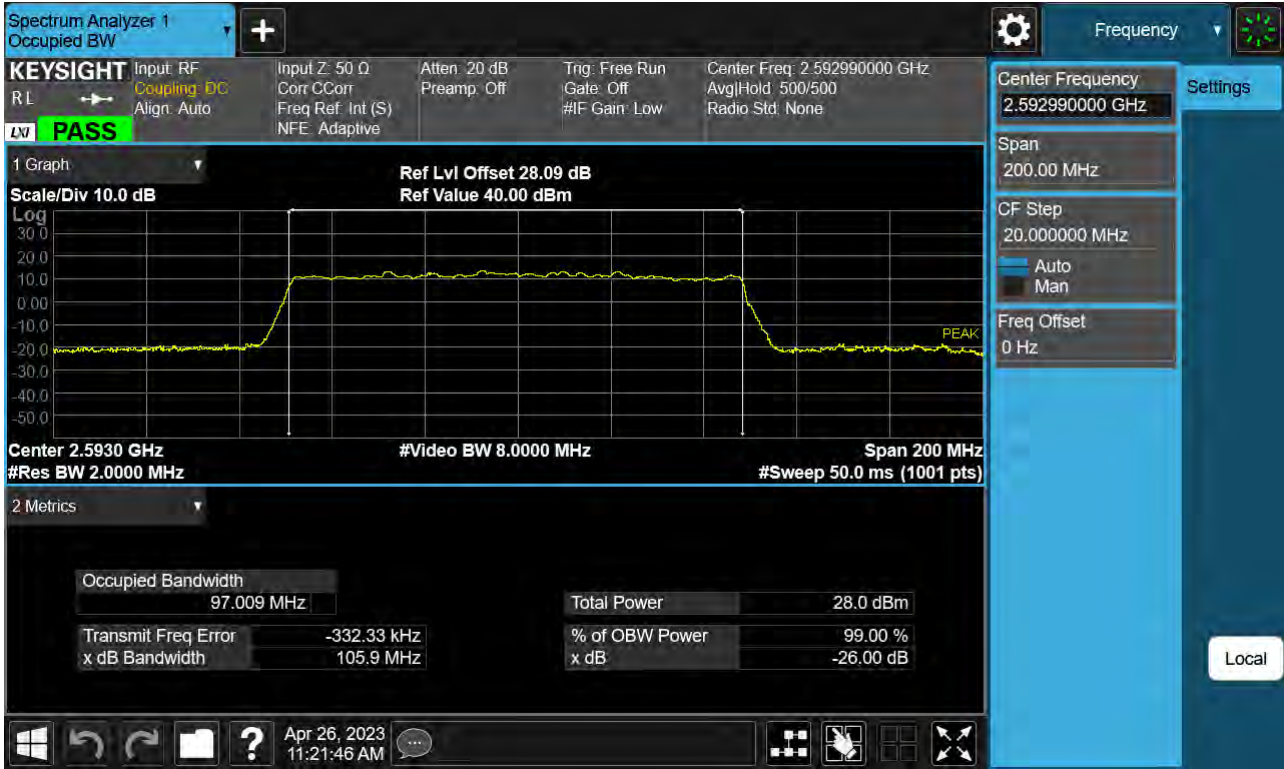
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 16-QAM)



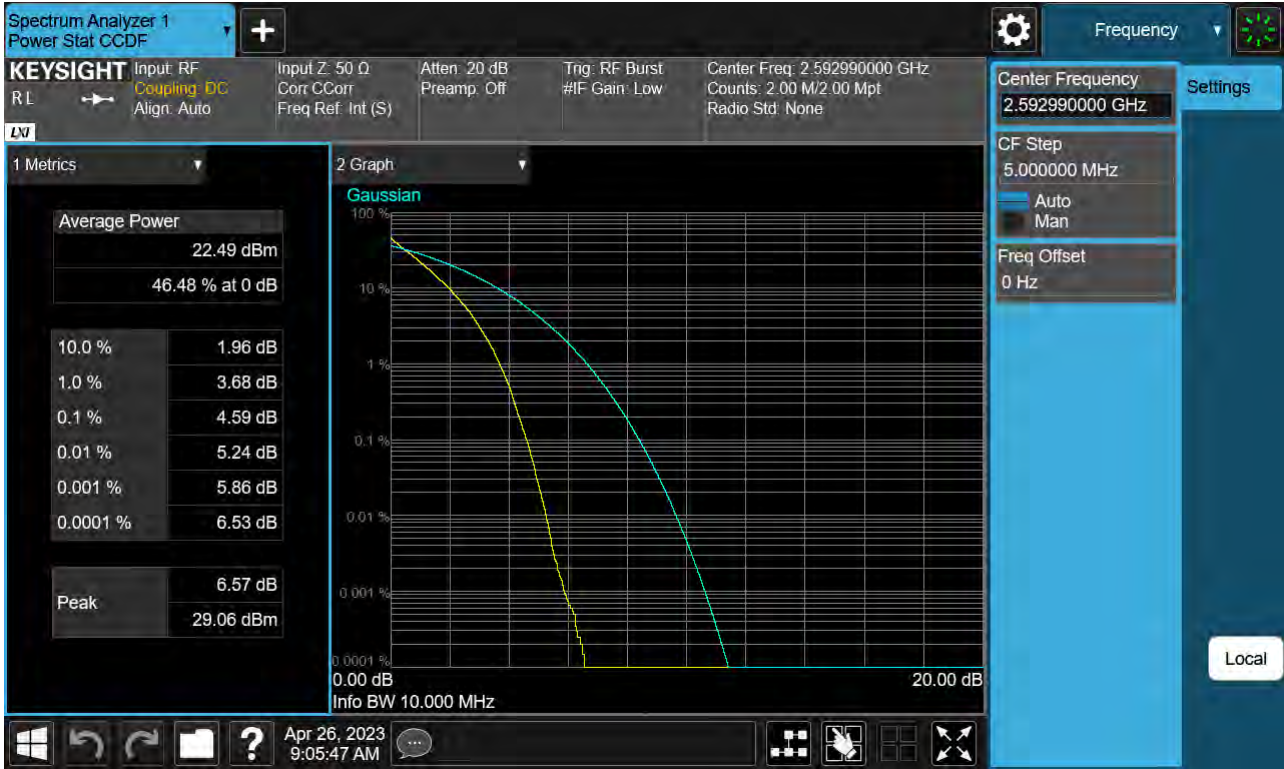
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 64-QAM)



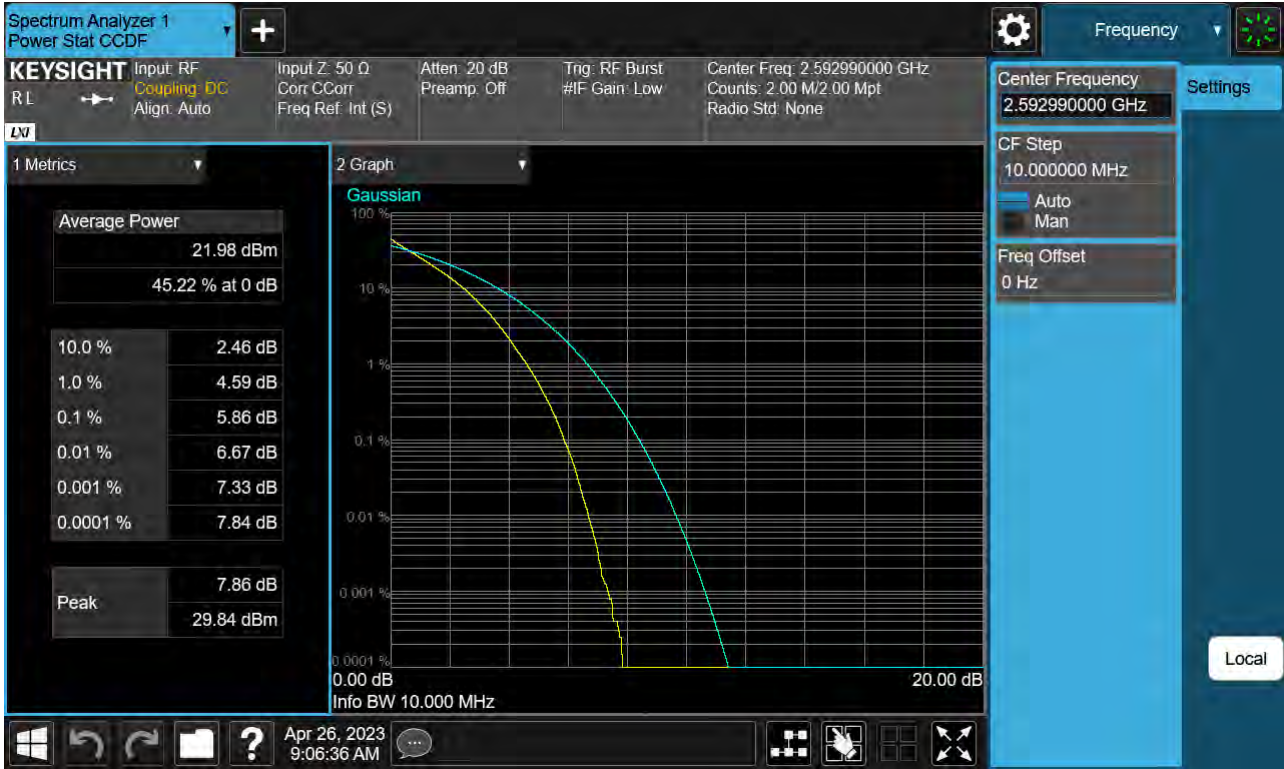
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 256-QAM)



Sub6 n41. PAR Plot (10 M BW_Ch.518598_BPSK)



Sub6 n41. PAR Plot (10 M BW_Ch.518598_QPSK)



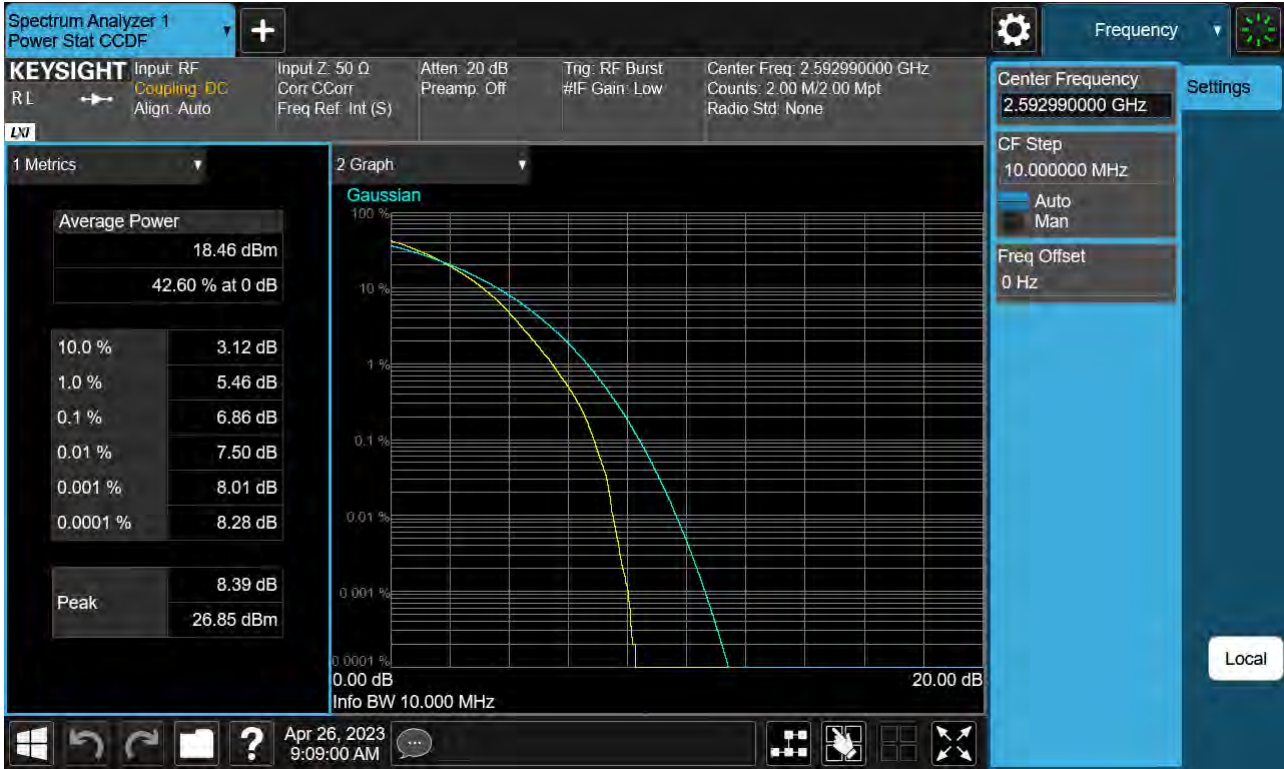
Sub6 n41. PAR Plot (10 M BW_Ch.518598_16QAM)



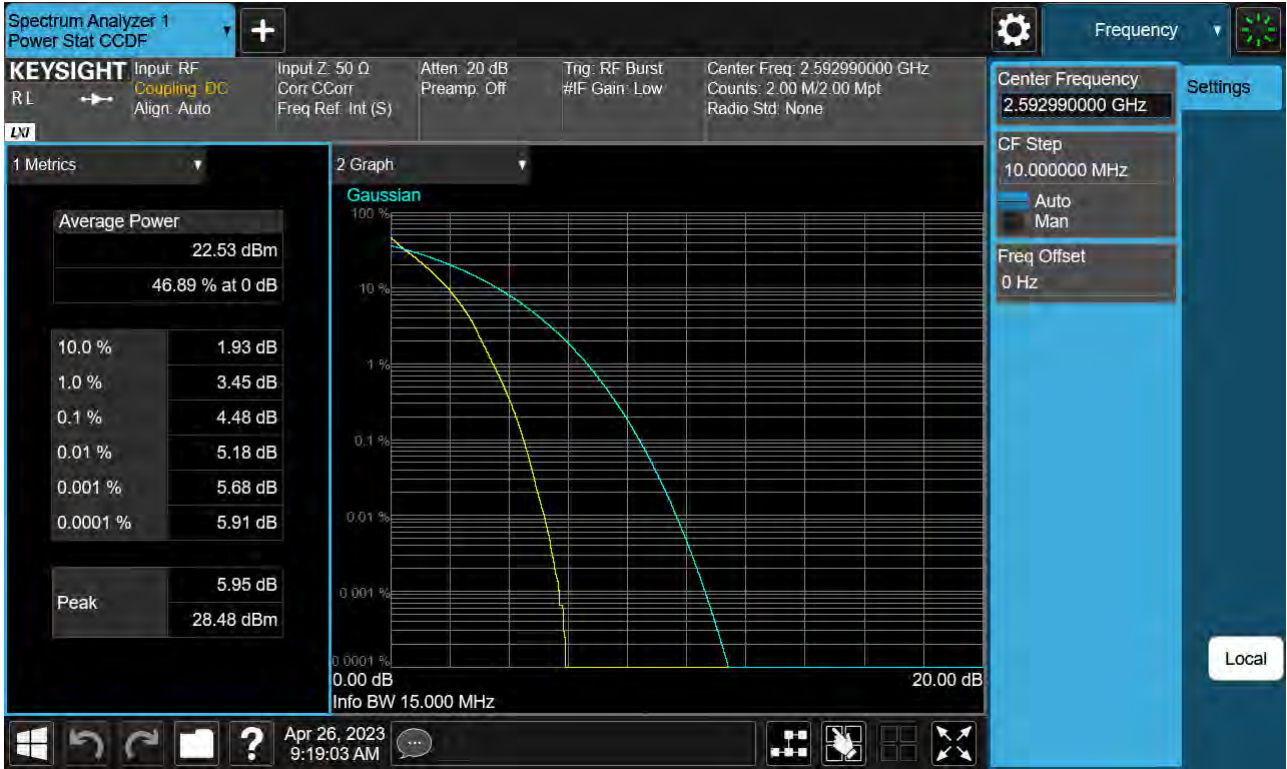
Sub6 n41. PAR Plot (10 M BW_Ch.518598_64QAM)



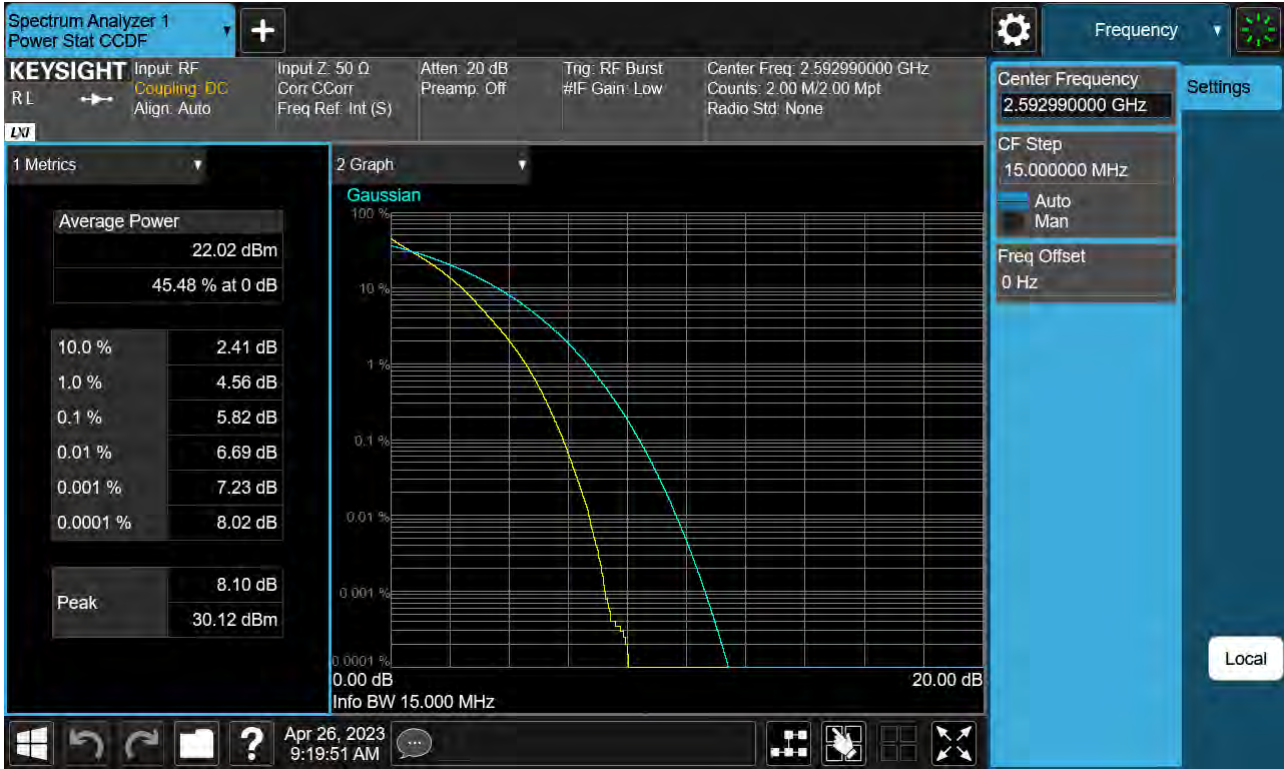
Sub6 n41. PAR Plot (10 M BW_Ch.518598_256QAM)



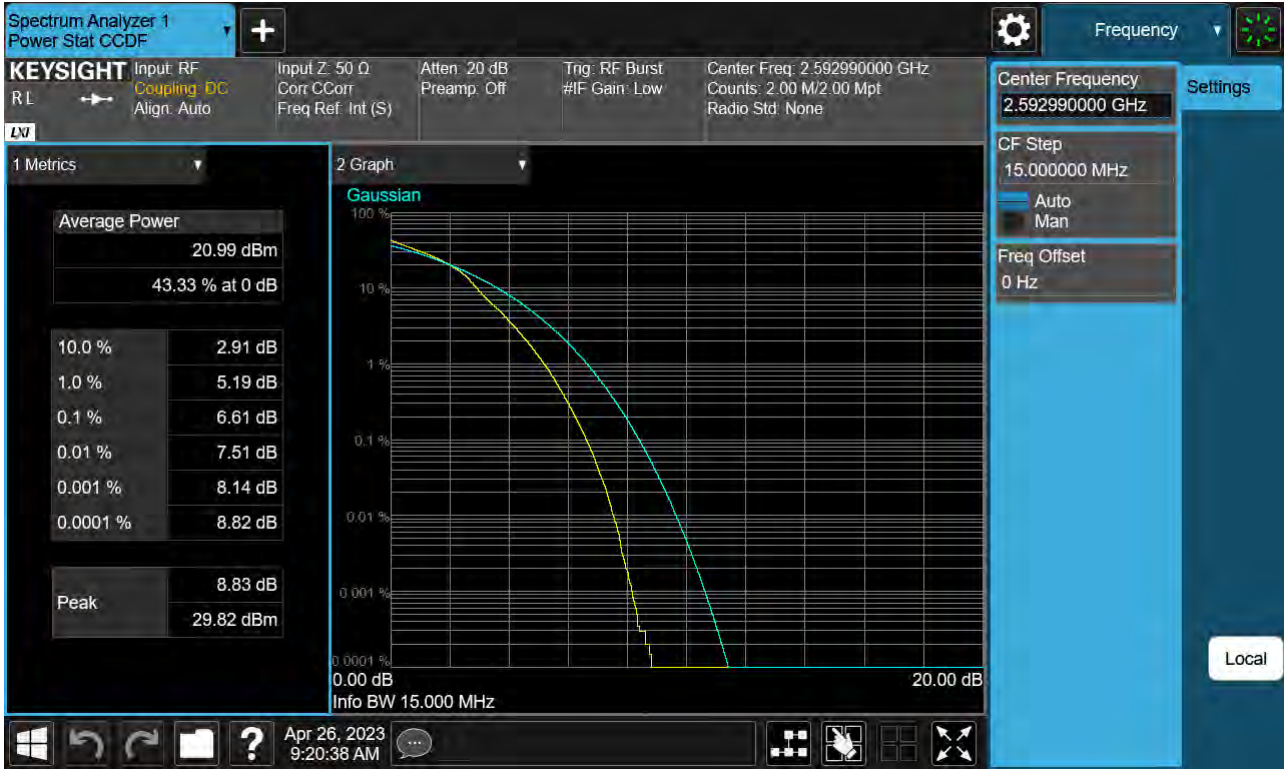
Sub6 n41. PAR Plot (15 M BW_Ch.518598_BPSK)



Sub6 n41. PAR Plot (15 M BW_Ch.518598_QPSK)



Sub6 n41. PAR Plot (15 M BW_Ch.518598_16QAM)



Sub6 n41. PAR Plot (15 M BW_Ch.518598_64QAM)



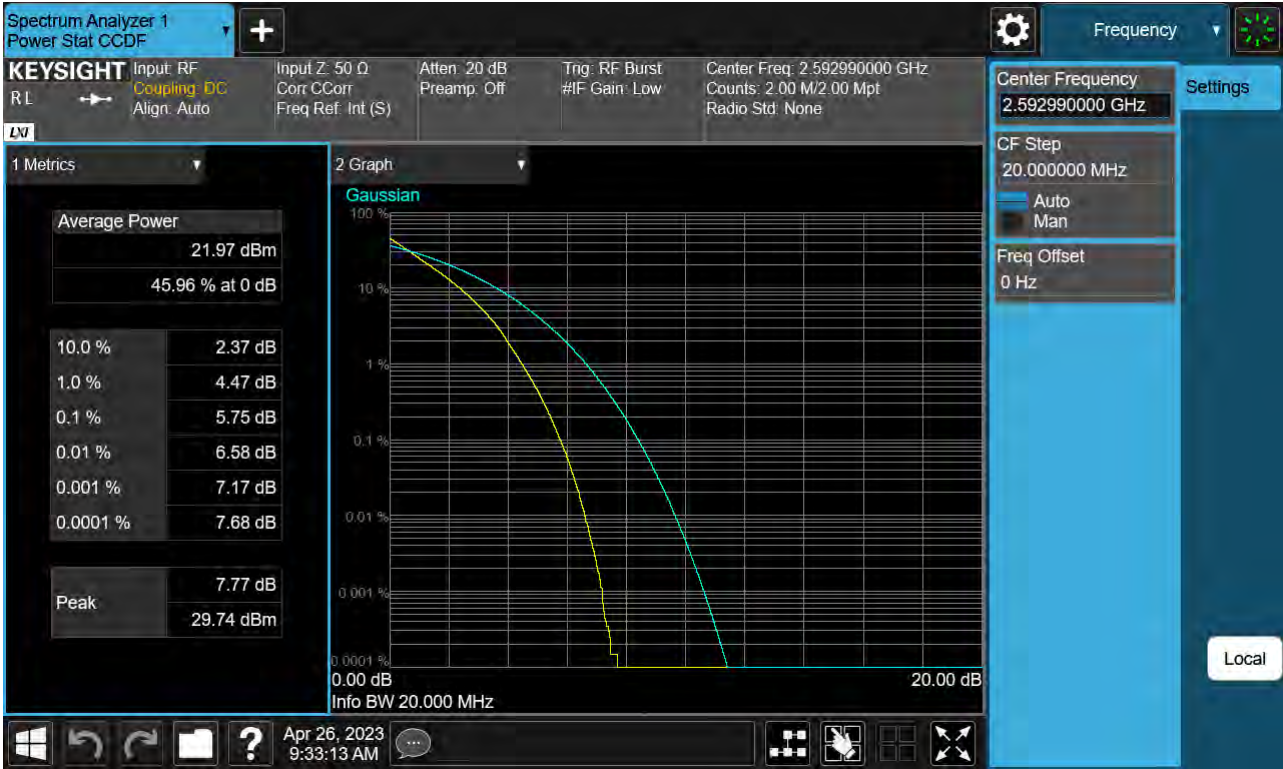
Sub6 n41. PAR Plot (15 M BW_Ch.518598_256QAM)



Sub6 n41. PAR Plot (20 M BW_Ch.518598_BPSK)



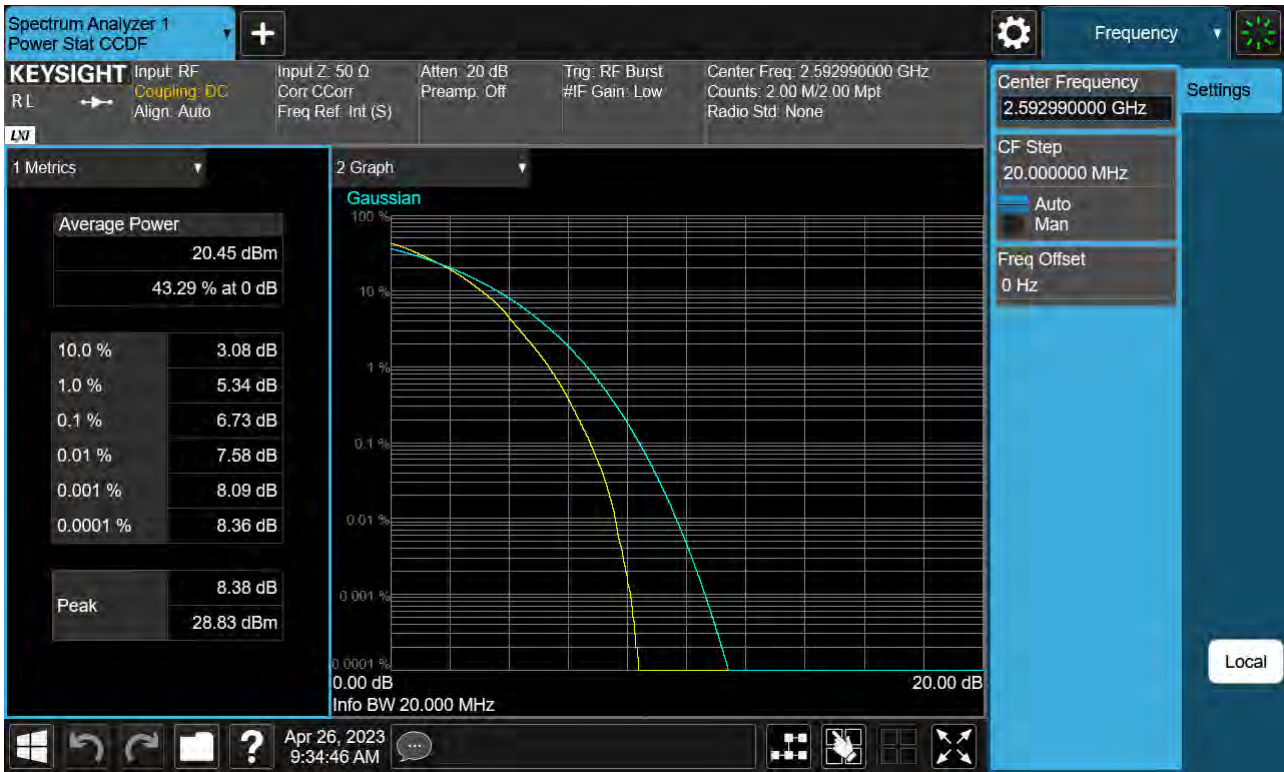
Sub6 n41. PAR Plot (20 M BW_Ch.518598_QPSK)



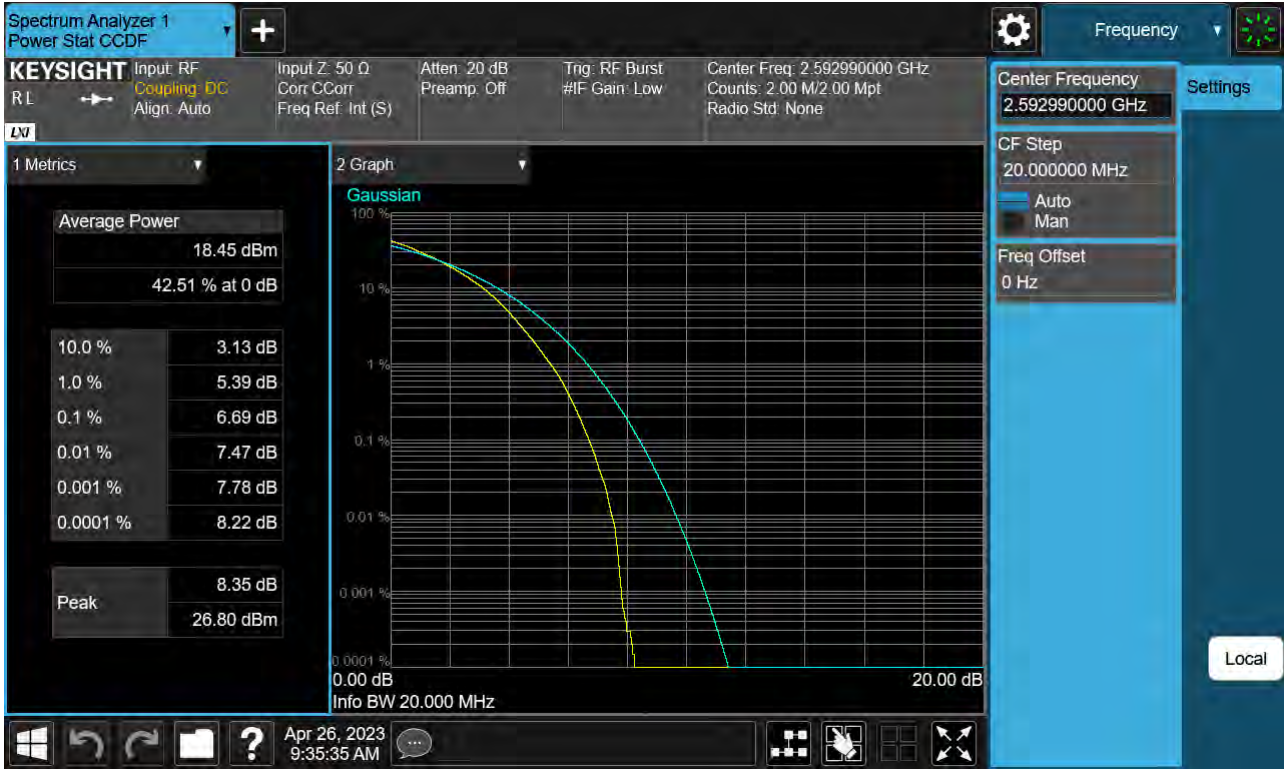
Sub6 n41. PAR Plot (20 M BW_Ch.518598_16QAM)



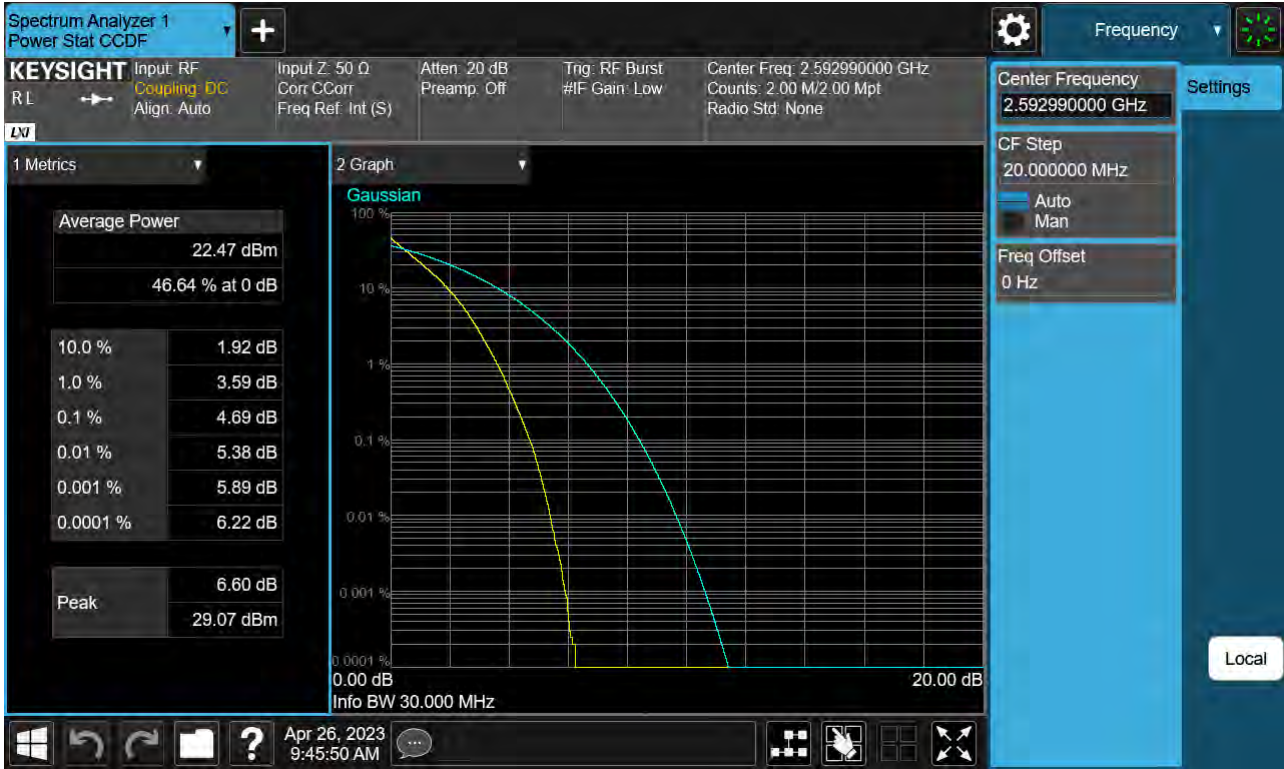
Sub6 n41. PAR Plot (20 M BW_Ch.518598_64QAM)



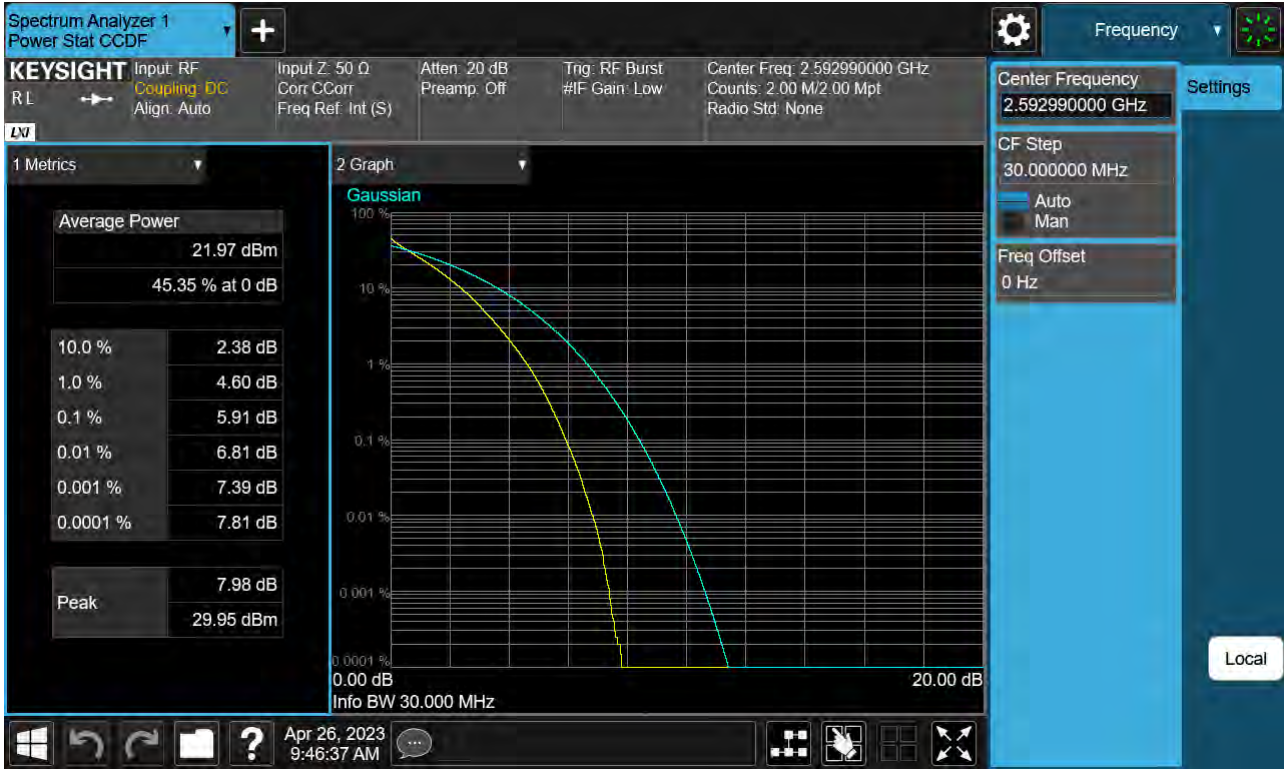
Sub6 n41. PAR Plot (20 M BW_Ch.518598_256QAM)



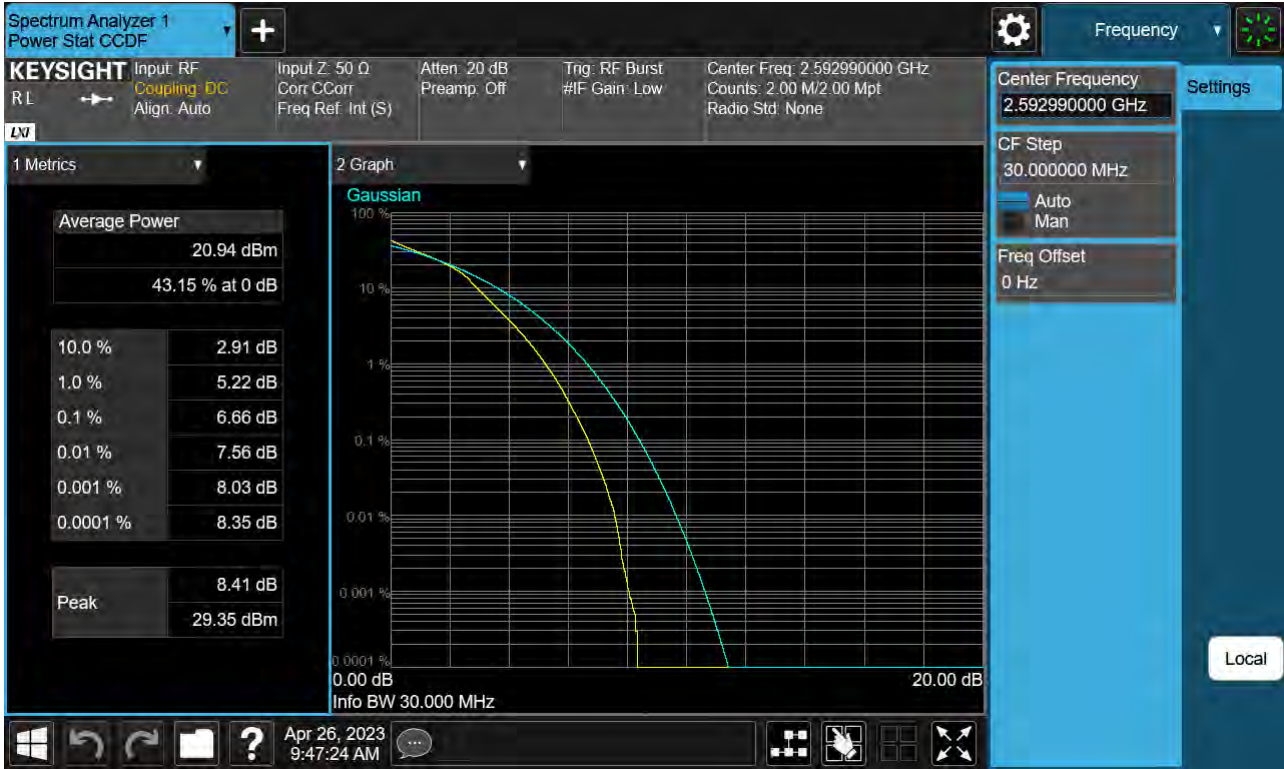
Sub6 n41. PAR Plot (30 M BW_Ch.518598_BPSK)



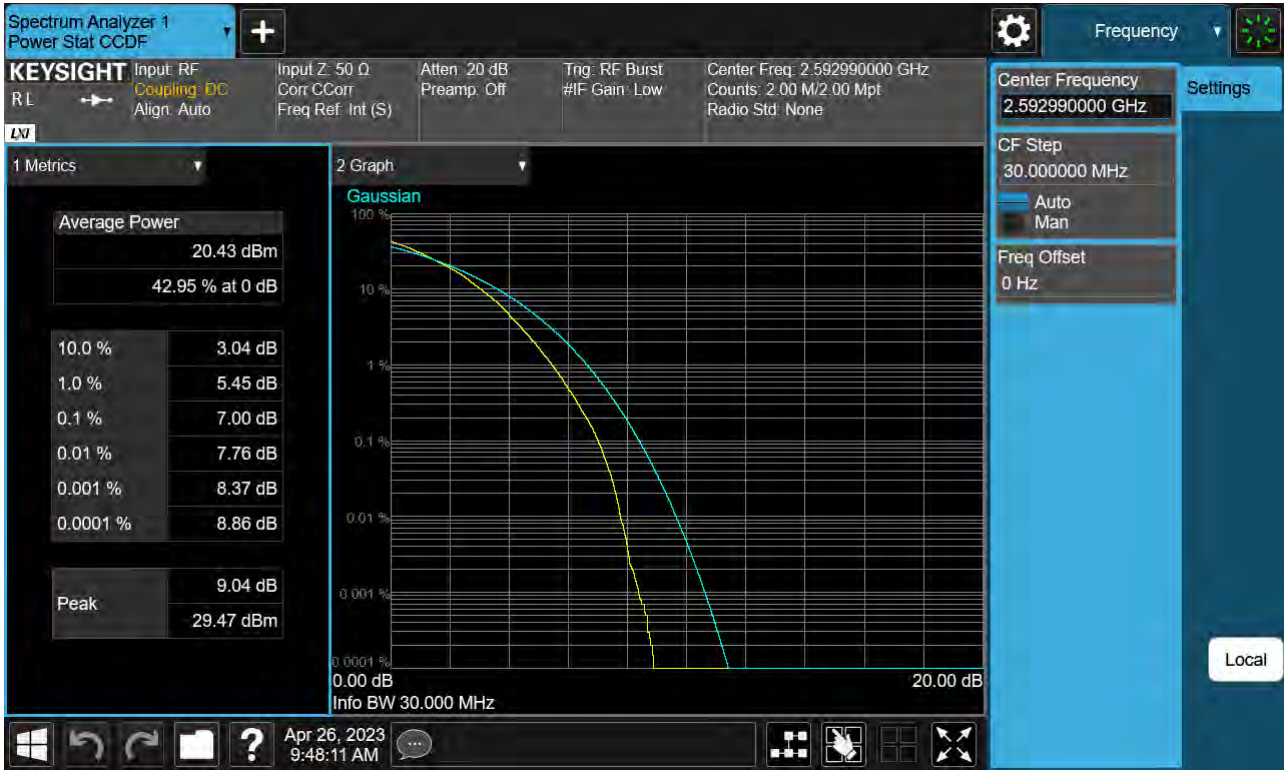
Sub6 n41. PAR Plot (30 M BW_Ch.518598_QPSK)



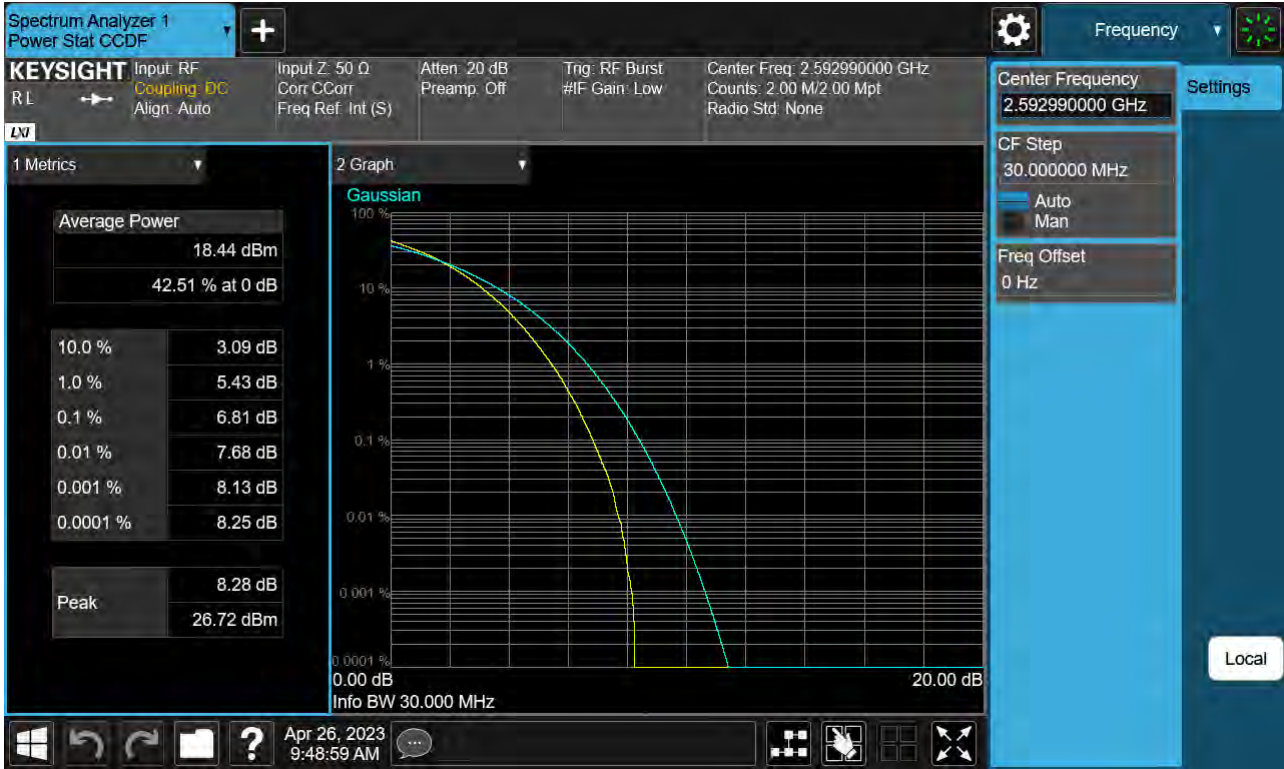
Sub6 n41. PAR Plot (30 M BW_Ch.518598_16QAM)



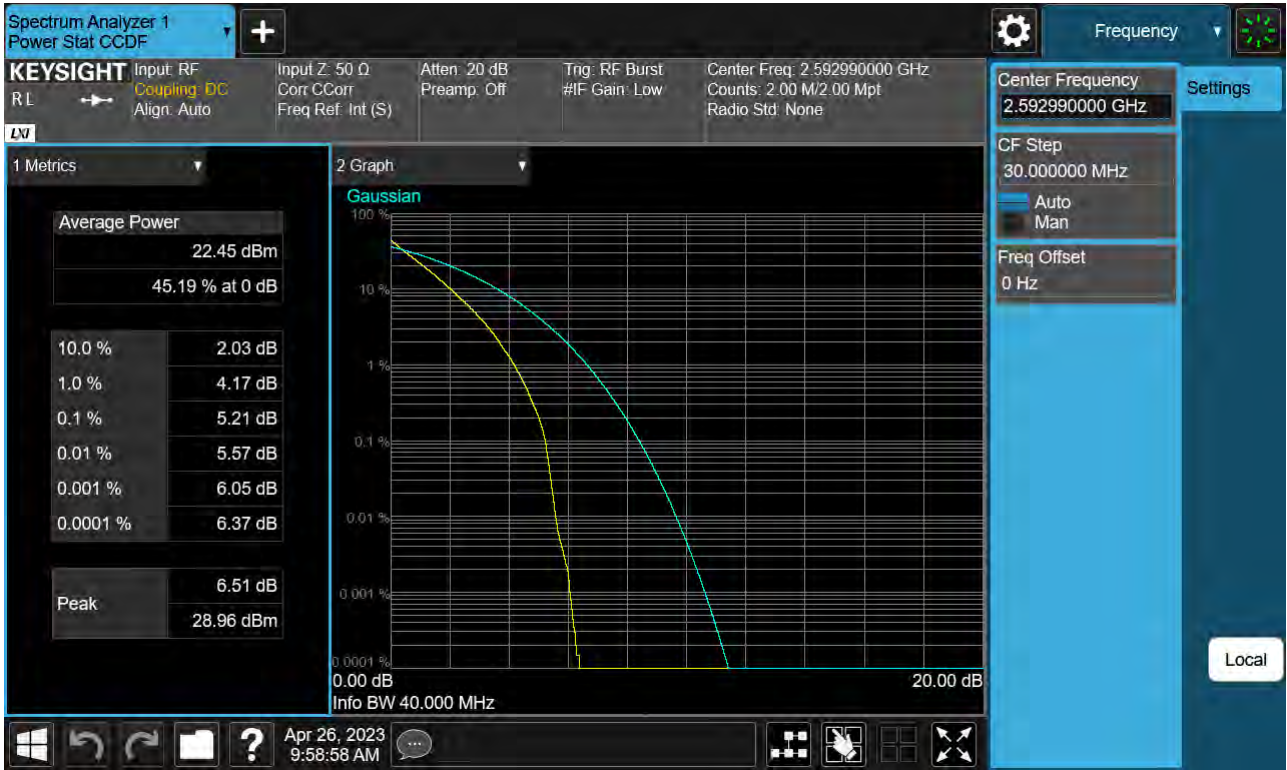
Sub6 n41. PAR Plot (30 M BW_Ch.518598_64QAM)



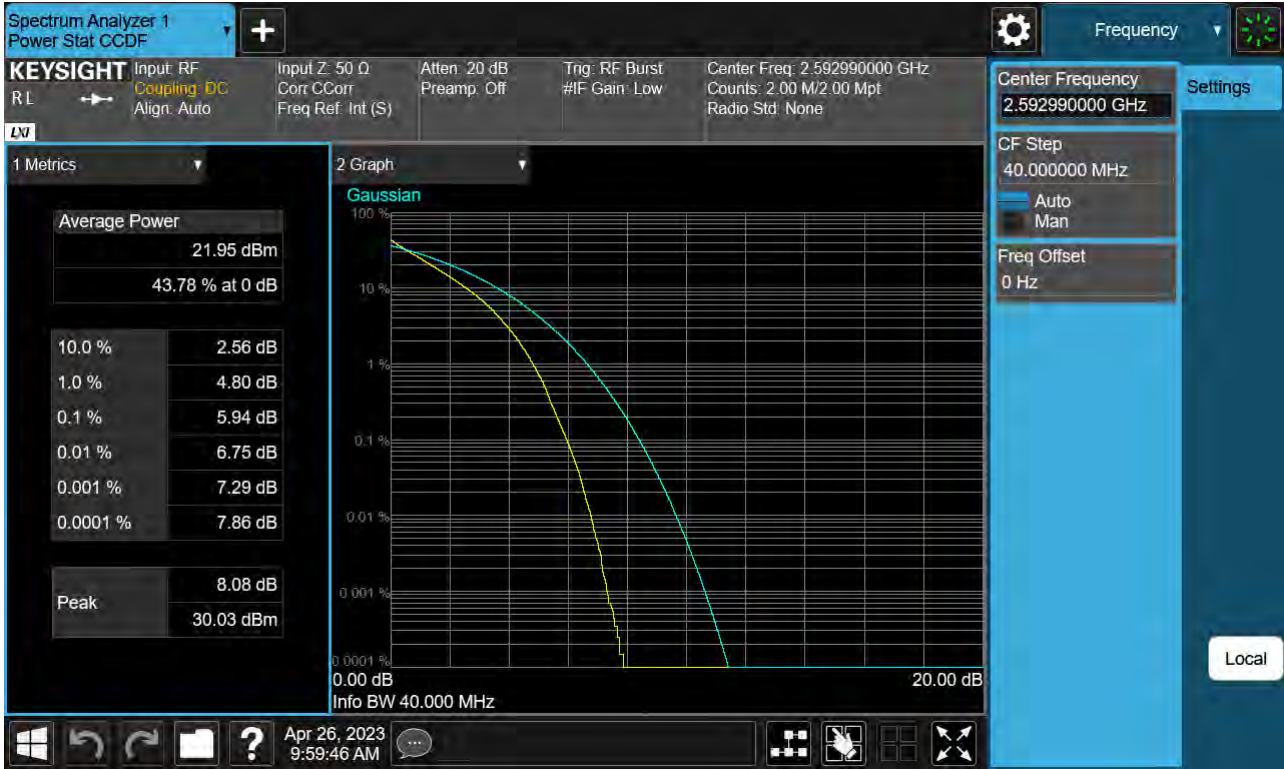
Sub6 n41. PAR Plot (30 M BW_Ch.518598_256QAM)



Sub6 n41. PAR Plot (40 M BW_Ch.518598_BPSK)



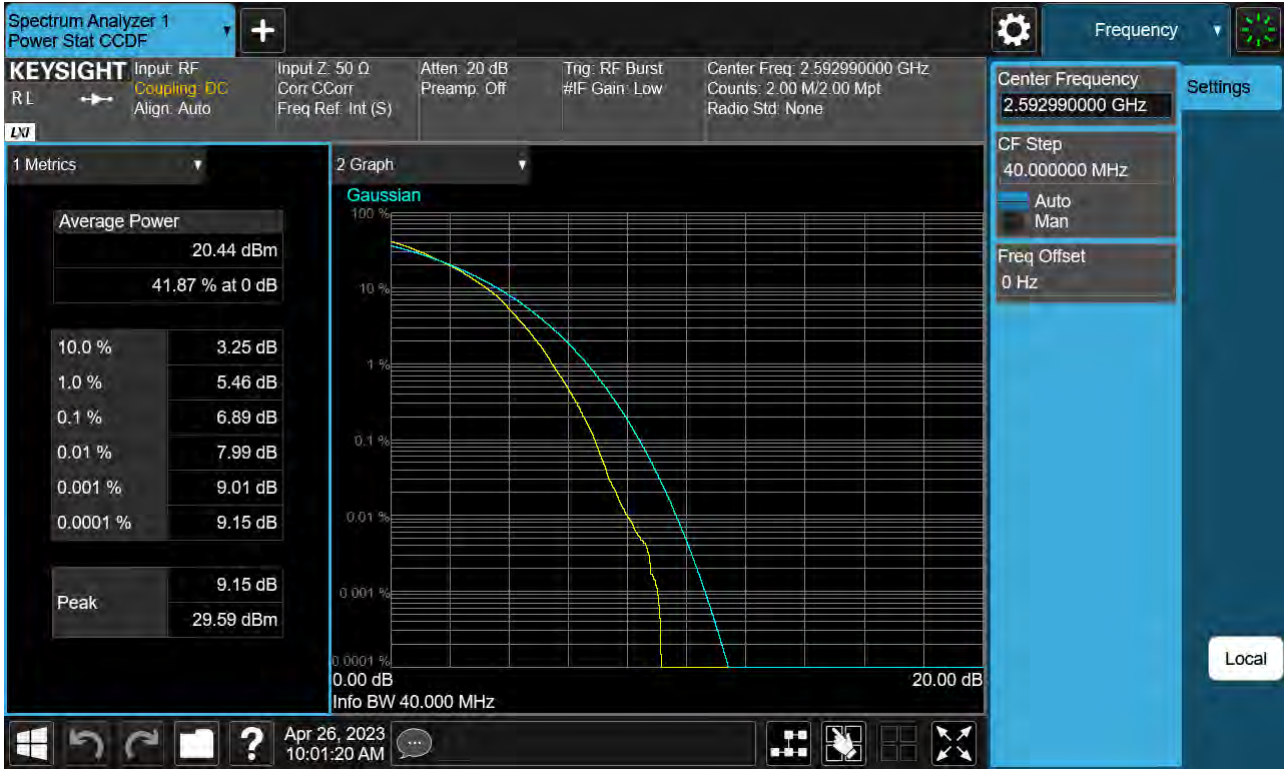
Sub6 n41. PAR Plot (40 M BW_Ch.518598_QPSK)



Sub6 n41. PAR Plot (40 M BW_Ch.518598_16QAM)



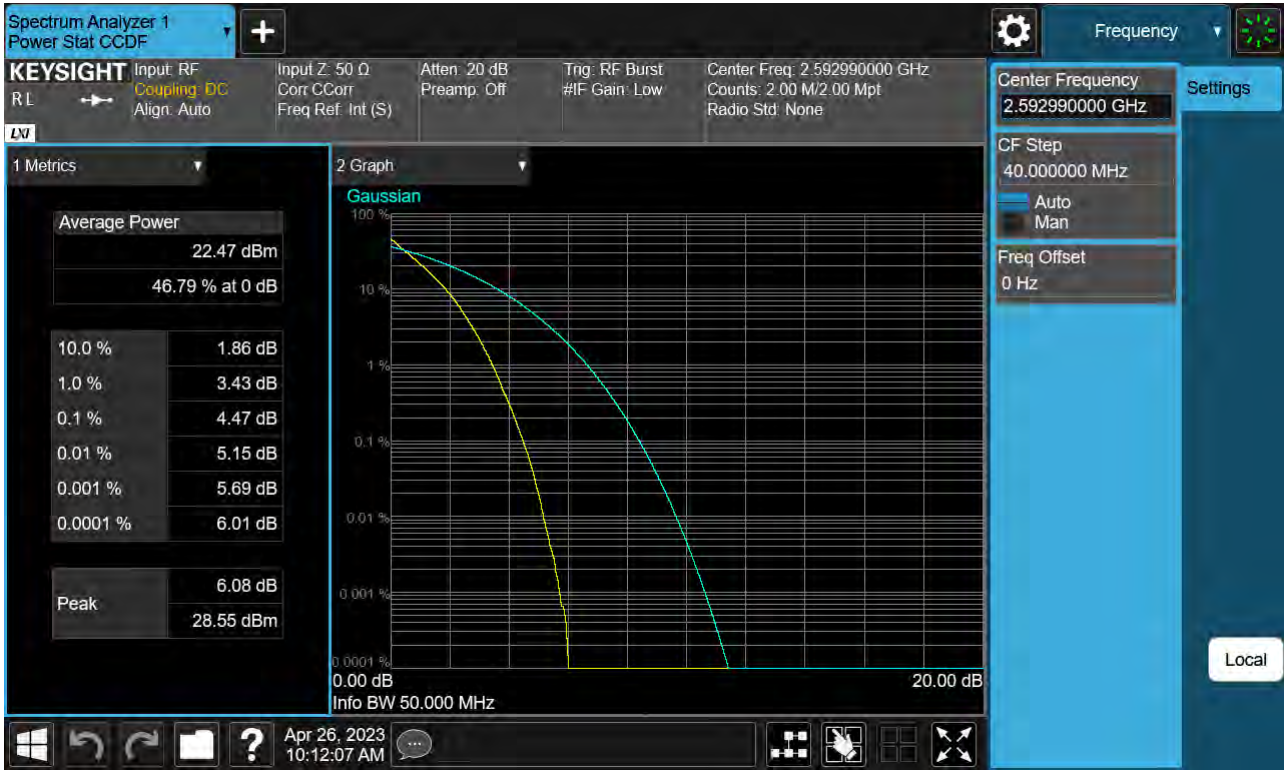
Sub6 n41. PAR Plot (40 M BW_Ch.518598_64QAM)



Sub6 n41. PAR Plot (40 M BW_Ch.518598_256QAM)



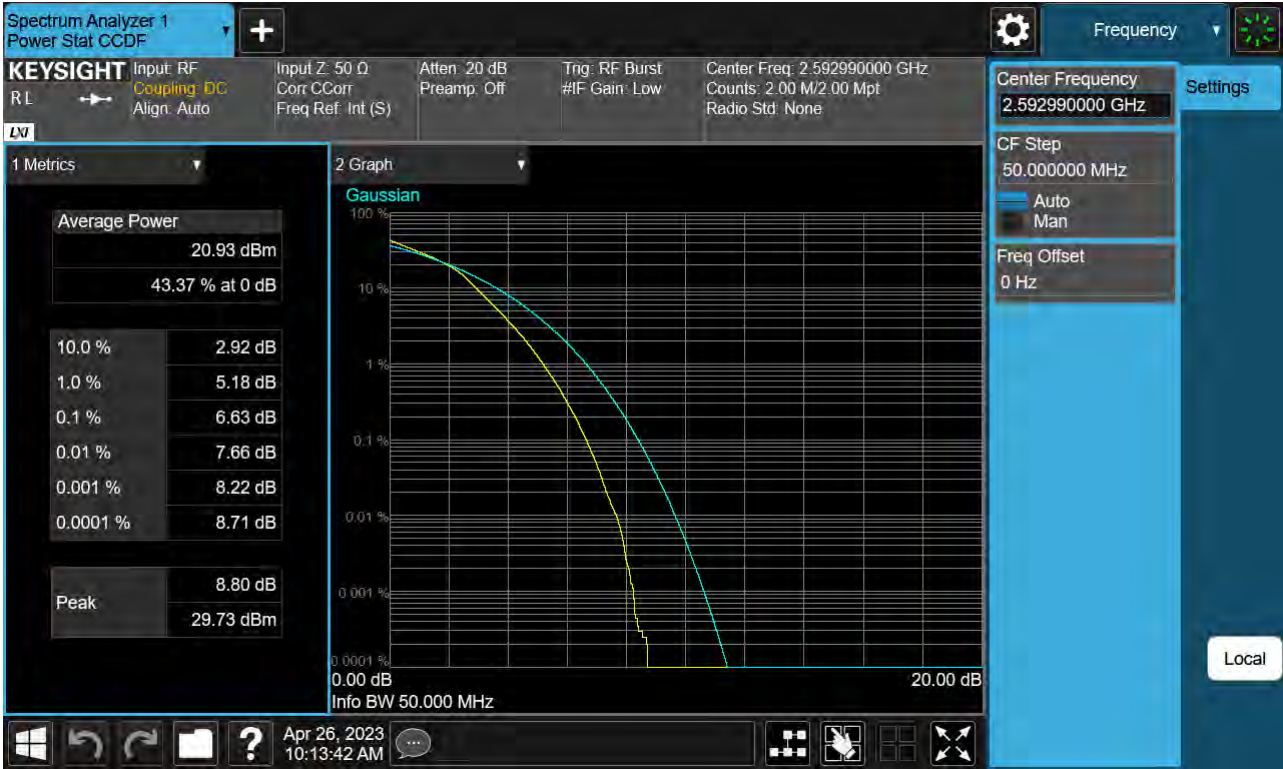
Sub6 n41. PAR Plot (50 M BW_Ch.518598_BPSK)



Sub6 n41. PAR Plot (50 M BW_Ch.518598_QPSK)



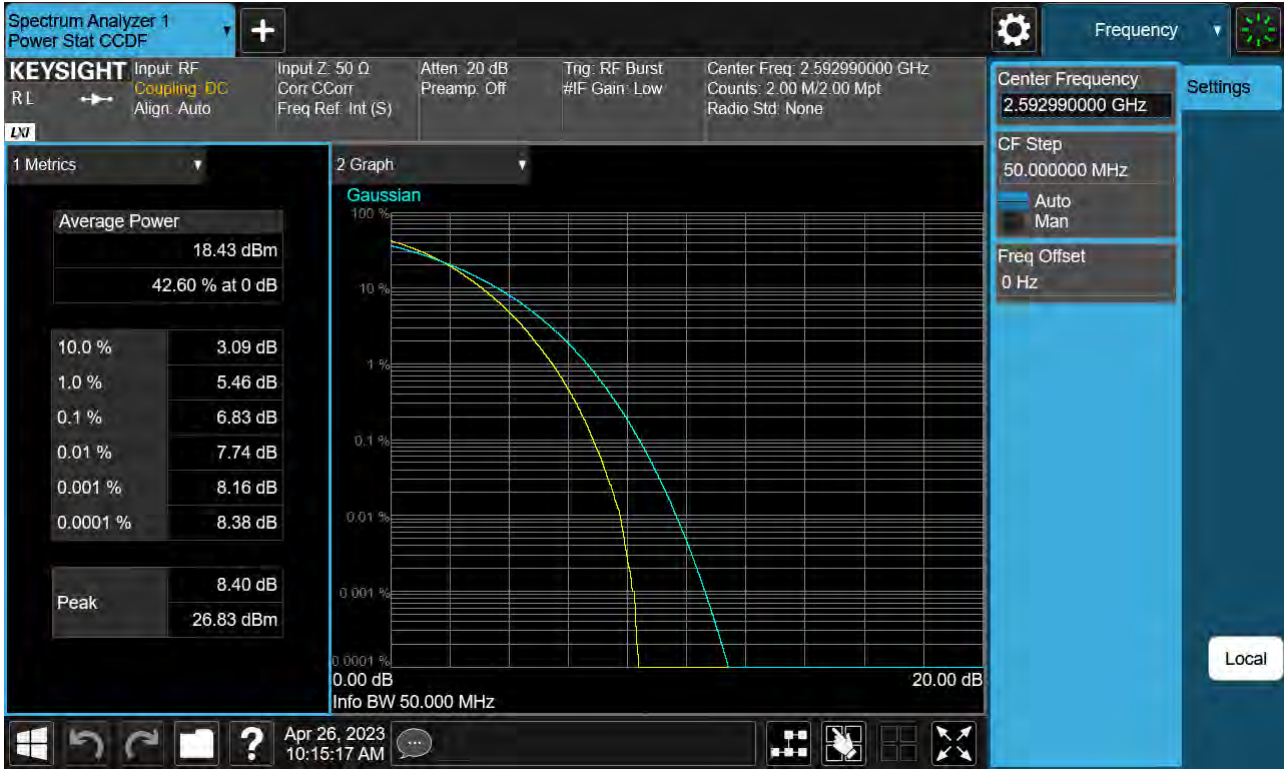
Sub6 n41. PAR Plot (50 M BW_Ch.518598_16QAM)



Sub6 n41. PAR Plot (50 M BW_Ch.518598_64QAM)



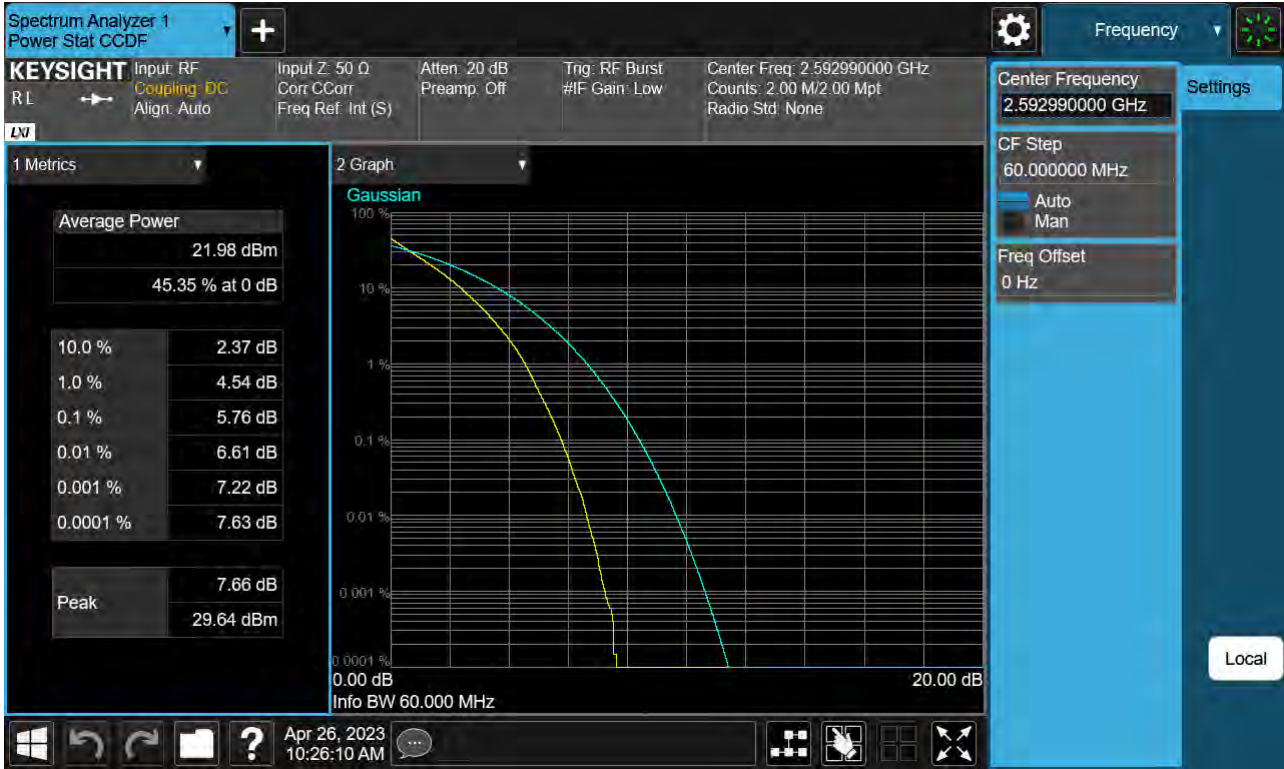
Sub6 n41. PAR Plot (50 M BW_Ch.518598_256QAM)



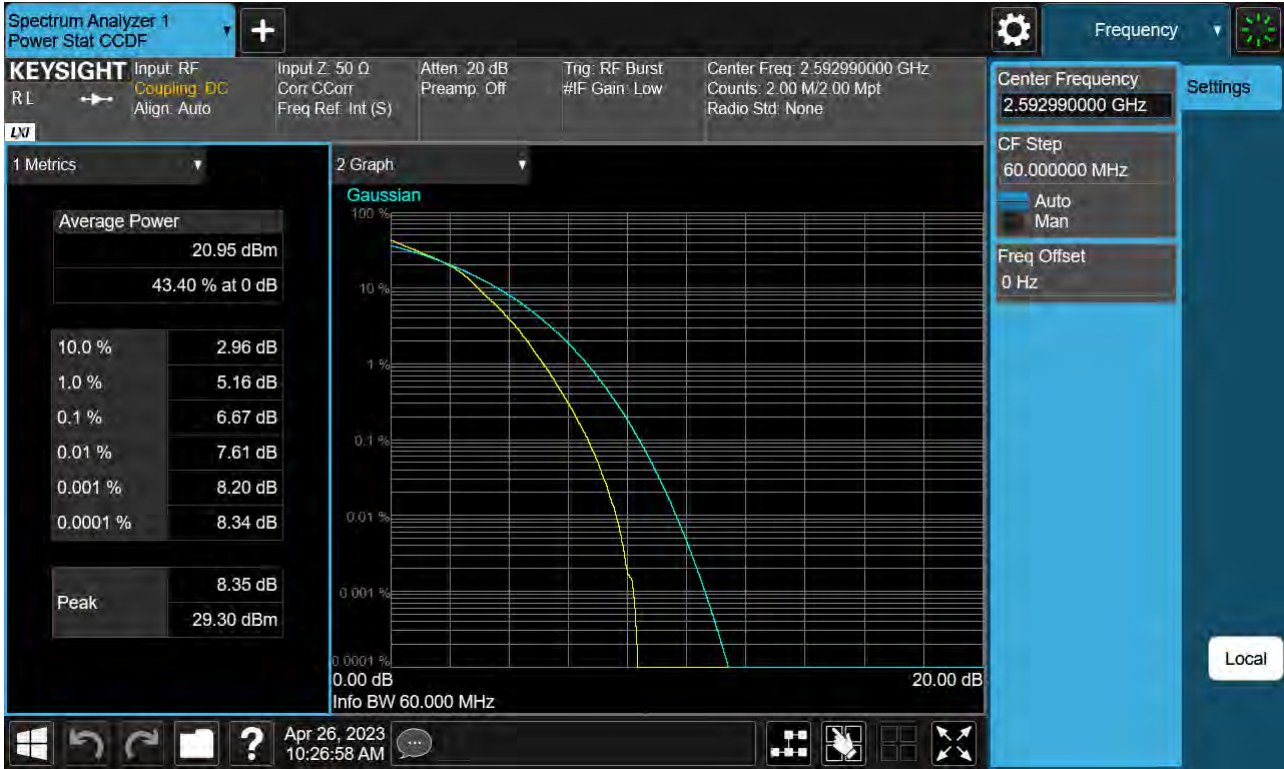
Sub6 n41. PAR Plot (60 M BW_Ch.518598_BPSK)



Sub6 n41. PAR Plot (60 M BW_Ch.518598_QPSK)



Sub6 n41. PAR Plot (60 M BW_Ch.518598_16QAM)



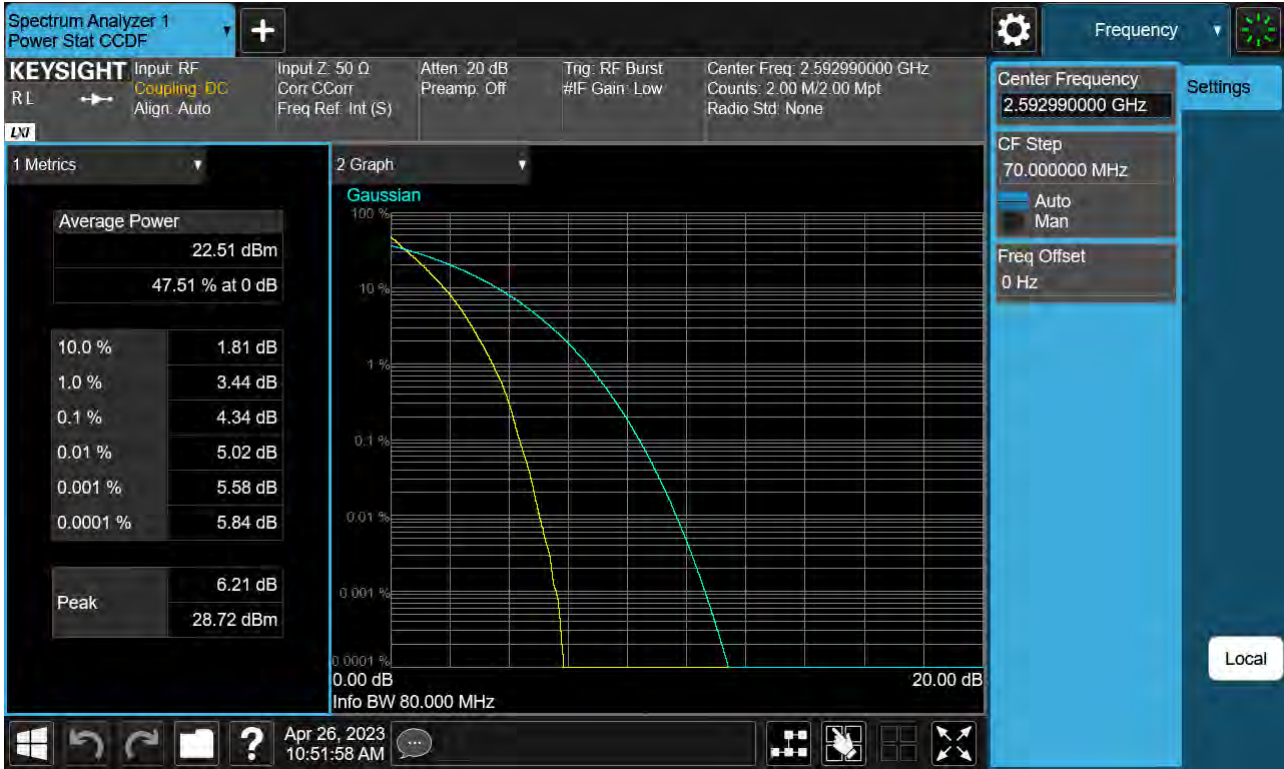
Sub6 n41. PAR Plot (60 M BW_Ch.518598_64QAM)



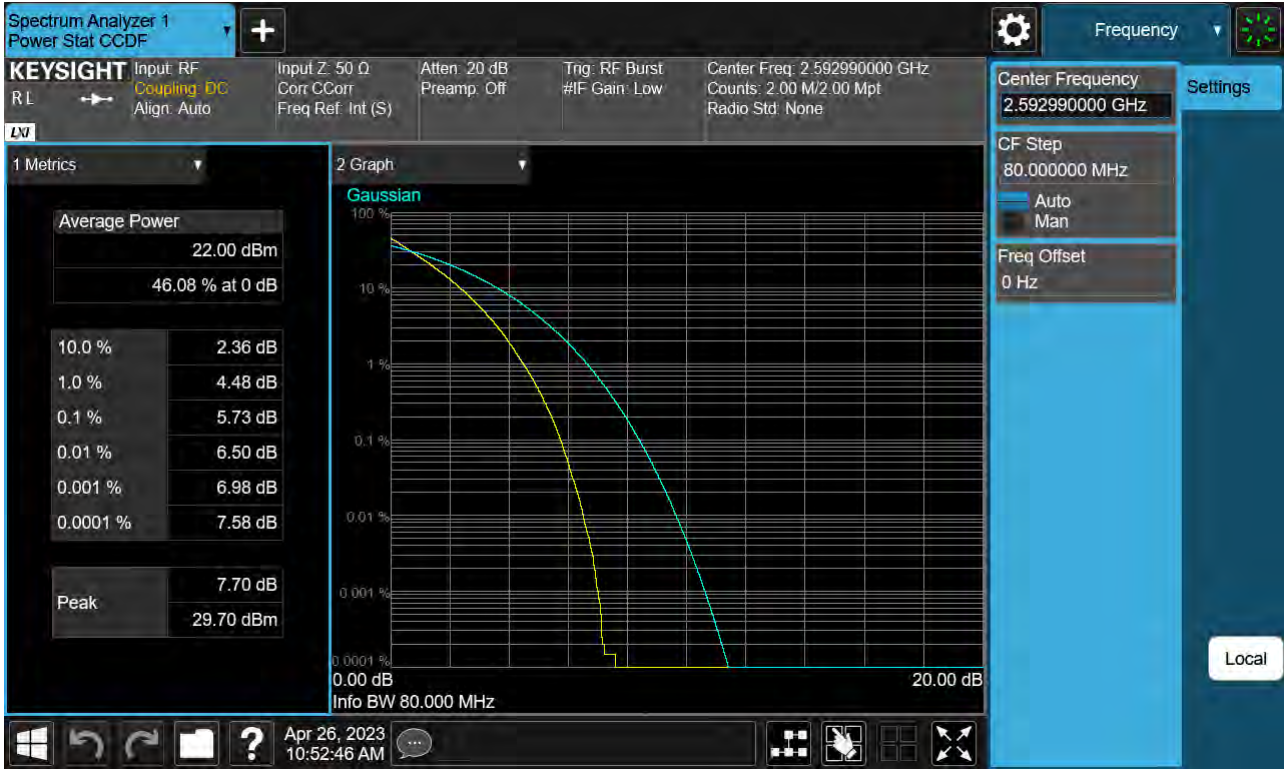
Sub6 n41. PAR Plot (60 M BW_Ch.518598_256QAM)



Sub6 n41. PAR Plot (80 M BW_Ch.518598_BPSK)



Sub6 n41. PAR Plot (80 M BW_Ch.518598_QPSK)



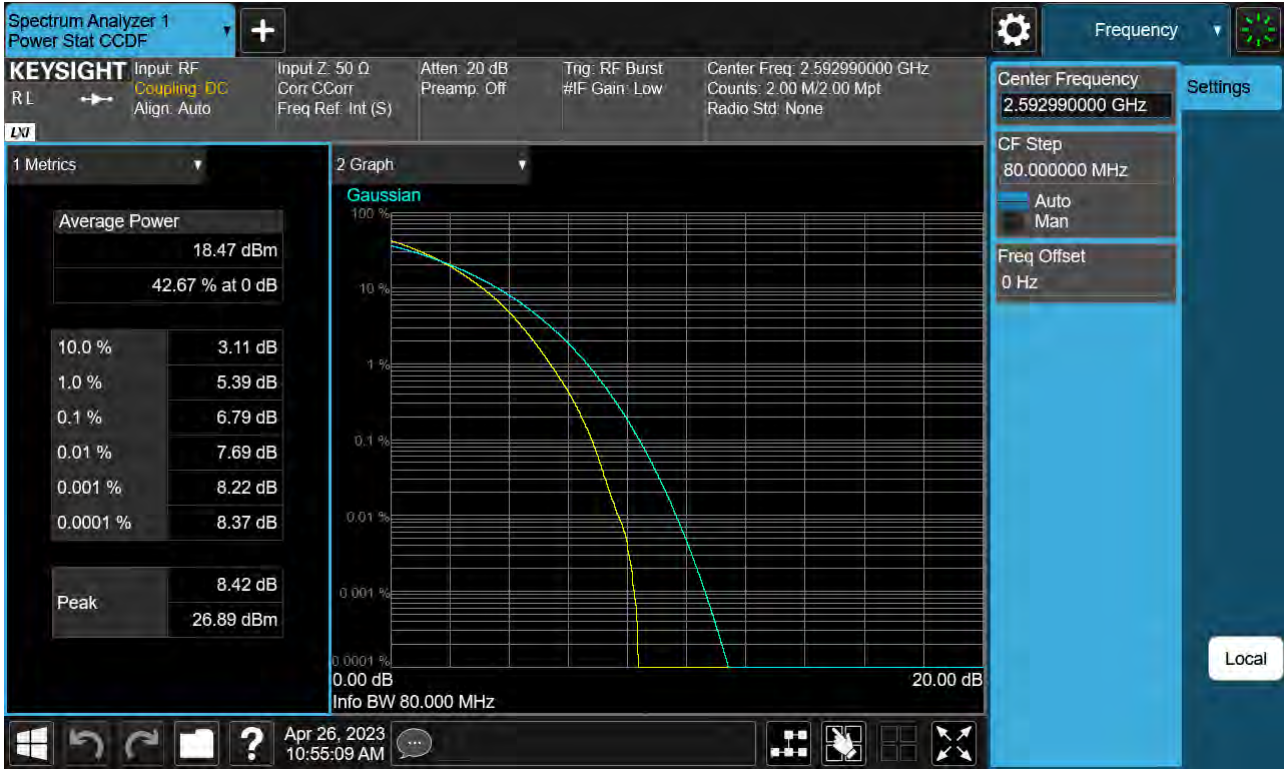
Sub6 n41. PAR Plot (80 M BW_Ch.518598_16QAM)



Sub6 n41. PAR Plot (80 M BW_Ch.518598_64QAM)



Sub6 n41. PAR Plot (80 M BW_Ch.518598_256QAM)



Sub6 n41. PAR Plot (90 M BW_Ch.518598_BPSK)



Sub6 n41. PAR Plot (90 M BW_Ch.518598_QPSK)



Sub6 n41. PAR Plot (90 M BW_Ch.518598_16QAM)



Sub6 n41. PAR Plot (90 M BW_Ch.518598_64QAM)



Sub6 n41. PAR Plot (90 M BW_Ch.518598_256QAM)



Sub6 n41. PAR Plot (100 M BW_Ch.518598_BPSK)



Sub6 n41. PAR Plot (100 M BW_Ch.518598_QPSK)

