

FCC Sub6 REPORT

Certification

Applicant Name:

SAMSUNG Electronics Co., Ltd.

Date of Issue:

May 16, 2022

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-2205-FC070

FCC ID:

A3LSMG736U

APPLICANT:

SAMSUNG Electronics Co., Ltd.

Model(s): SM-G736U
Additional Model(s): SM-G736U1
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 (20)	2506.020 – 2679.990	18M0G7D	PI/2 BPSK	0.348	25.42
		18M0G7D	QPSK	0.347	25.40
		18M0W7D	16QAM	0.284	24.54
		18M0W7D	64QAM	0.192	22.84
		18M0W7D	256QAM	0.115	20.62
Sub6 n41 (30)	2511.000 – 2674.980	26M9G7D	PI/2 BPSK	0.351	25.45
		26M9G7D	QPSK	0.336	25.26
		27M0W7D	16QAM	0.270	24.31
		26M9W7D	64QAM	0.189	22.77
		26M9W7D	256QAM	0.112	20.51
Sub6 n41 (40)	2516.010 – 2670.000	36M1G7D	PI/2 BPSK	0.333	25.23
		35M7G7D	QPSK	0.324	25.11
		35M9W7D	16QAM	0.259	24.13
		35M8W7D	64QAM	0.180	22.56
		35M8W7D	256QAM	0.108	20.32
Sub6 n41 (50)	2521.020 – 2664.990	46M0G7D	PI/2 BPSK	0.336	25.26
		45M7G7D	QPSK	0.330	25.19
		45M8W7D	16QAM	0.264	24.22
		45M8W7D	64QAM	0.185	22.68
		45M8W7D	256QAM	0.109	20.37
Sub6 n41 (60)	2526.000 – 2659.980	57M8G7D	PI/2 BPSK	0.339	25.30
		57M7G7D	QPSK	0.332	25.21
		57M8W7D	16QAM	0.267	24.27
		57M9W7D	64QAM	0.187	22.73
		57M8W7D	256QAM	0.111	20.47
Sub6 n41 (70)	2531.010 – 2655.000	64M2G7D	PI/2 BPSK	0.356	25.51
		64M2G7D	QPSK	0.355	25.50
		64M2W7D	16QAM	0.284	24.53
		64M4W7D	64QAM	0.201	23.03
		64M2W7D	256QAM	0.118	20.73
Sub6 n41 (80)	2536.020 – 2649.990	77M1G7D	PI/2 BPSK	0.333	25.23
		77M1G7D	QPSK	0.331	25.20
		76M9W7D	16QAM	0.271	24.33
		76M9W7D	64QAM	0.186	22.69
		76M9W7D	256QAM	0.111	20.44
Sub6 n41 (90)	2541.000 – 2644.980	86M5G7D	PI/2 BPSK	0.345	25.38
		86M6G7D	QPSK	0.343	25.35
		86M6W7D	16QAM	0.274	24.37
		86M5W7D	64QAM	0.187	22.72
		86M7W7D	256QAM	0.112	20.48
Sub6 n41 (100)	2546.010 – 2640.000	96M3G7D	PI/2 BPSK	0.330	25.18
		96M2G7D	QPSK	0.323	25.09
		96M1W7D	16QAM	0.262	24.19
		96M2W7D	64QAM	0.184	22.64
		96M1W7D	256QAM	0.108	20.35

Report No.: HCT-RF-2205-FC070

REVIEWED BY



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

Report approved by : Jong Seok Lee
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-2205-FC070	May 16, 2022	- 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:	A3LSMG736U
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-G736U
Additional Model(s):	SM-G736U1
SCS(kHz):	30
Bandwidth(MHz):	20, 30, 40, 50, 60, 70, 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):	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 2531.010 – 2655.000 : 70 MHz 2536.020 – 2649.990 : 80 MHz 2541.000 – 2644.980 : 90 MHz 2546.010 – 2640.000 : 100 MHz
Date(s) of Tests:	April 01, 2022 ~ May 13, 2022
Serial number:	Radiated: R3CT30RXMHR Conducted: 6179a36ca2197ece

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/ax (20/40/80/160), Bluetooth, BT LE, NFC, 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 $\geq 3 \times$ 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;

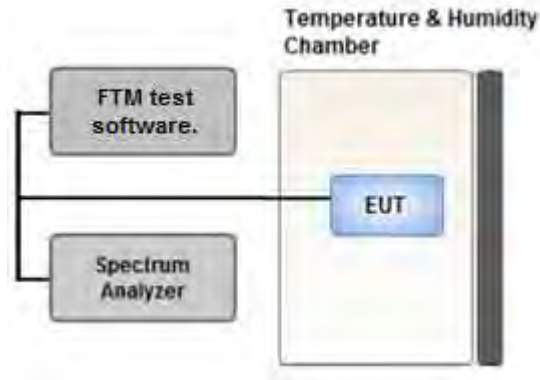
$$\text{Result}_{(dBm)} = P_g_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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)

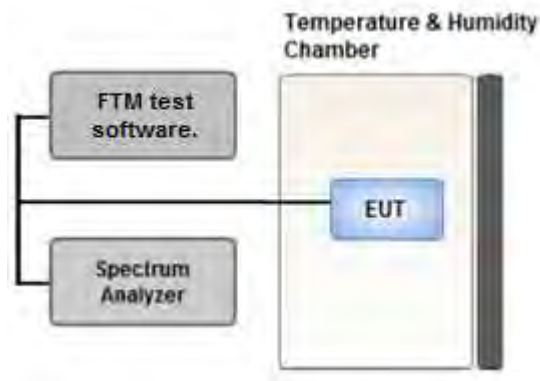
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

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.

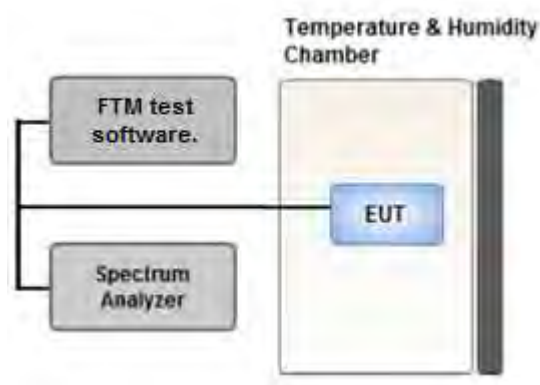
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

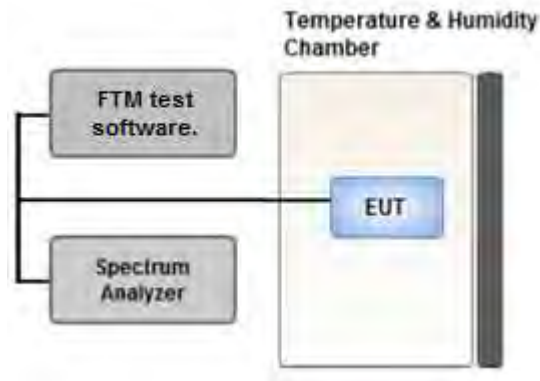
Test Overview

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.

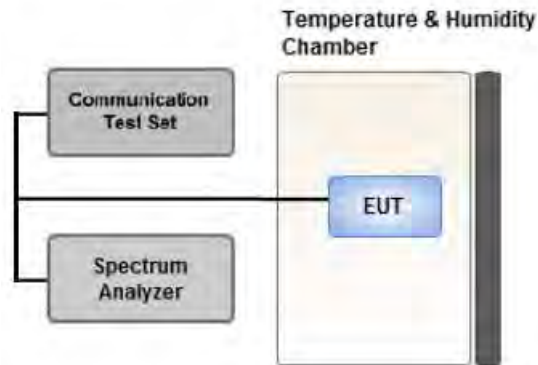
Test Settings

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

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(PC2, PC3), NSA(PC3)
Worst case: SA(PC2)
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. There has no significant emission raised.
Mode : WWAN + WLAN 5 GHz + BT (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 (10 MHz))
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- SM-G736U & additional models were tested and the worst case results are reported.
(Worst case : SM-G736U)

[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
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(PC2, PC3), NSA(PC3)
Worst case: SA(PC2)
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- SM-G736U & additional models were tested and the worst case results are reported.
(Worst case : SM-G736U)

[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	20, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0		
Channel Edge	PI/2 BPSK	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		
		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		
				20, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	Full RB	0
		Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	20, 30, 40, 50, 60, 70, 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	05/04/2023	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	10/13/2022	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	04/12/2023	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	06/04/2023	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/03/2023	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/22/2023	Biennial
High Pass Filter	WHKX10-900-1000-15000-40SS	Wainwright Instruments	15	06/15/2022	Annual
High Pass Filter	WHKX10-2700-3000-18000-40SS	Wainwright Instruments	145	06/15/2022	Annual
High Pass Filter	WHNX6-4740-6000-26500-40CC	Wainwright Instruments	11	06/15/2022	Annual
LOW NOISE AMP (100 MHz ~ 18 GHz)	CBLU1183540B-01	CERNEC	26822	06/15/2022	Annual
Power Amplifier	CBL18265035	CERNEC	22966	12/02/2022	Annual
Power Amplifier	CBL26405040	CERNEC	25956	03/11/2023	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	09/15/2022	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	03/11/2023	Annual
Chamber	SU-642	ESPEC	93008124	03/04/2023	Annual
Signal Analyzer(10 Hz~26.5GHz)	N9020A	Agilent	MY51110063	04/19/2023	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	06/01/2022	Annual
Spectrum Analyzer(10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/25/2023	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/18/2022	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287700	05/25/2022	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/26/2022	Annual
SIGNAL GENERATOR (100 kHz~40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/05/2022	Annual
Signal Analyzer(5Hz~40.0GHz)	N9030B	KEYSIGHT	MY55480167	06/02/2022	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/27/2022	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)	2.00 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.40 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.74 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.51 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.92 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (Above 40 GHz)	5.48 (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
2506.020	Sub6 41/ 20 MHz [30 kHz]	PI/2 BPSK	-19.67	16.88	10.24	2.50	H	< 2.00	0.290	24.62	1	25
		QPSK	-19.73	16.82	10.24	2.50	H		0.286	24.56		
		16-QAM	-20.71	15.84	10.24	2.50	H		0.228	23.58		
		64-QAM	-22.33	14.22	10.24	2.50	H		0.157	21.96		
		256-QAM	-24.57	11.98	10.24	2.50	H		0.094	19.72		
2592.990		PI/2 BPSK	-19.30	17.16	10.42	2.56	H		0.318	25.02	1	1
		QPSK	-19.32	17.14	10.42	2.56	H		0.316	25.00		
		16-QAM	-20.20	16.26	10.42	2.56	H		0.258	24.12		
		64-QAM	-21.78	14.68	10.42	2.56	H		0.180	22.54		
		256-QAM	-24.07	12.39	10.42	2.56	H		0.106	20.25		
2679.990	PI/2 BPSK	-20.07	17.71	10.34	2.63	H	0.348	25.42	1	1		
	QPSK	-20.09	17.69	10.34	2.63	H	0.347	25.40				
	16-QAM	-20.95	16.83	10.34	2.63	H	0.284	24.54				
	64-QAM	-22.65	15.13	10.34	2.63	H	0.192	22.84				
	256-QAM	-24.87	12.91	10.34	2.63	H	0.115	20.62				

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	Offset
2511.000	Sub6 41/ 30 MHz [30 kHz]	PI/2 BPSK	-19.61	17.08	10.20	2.51	H	< 2.00	0.300	24.77	1	39
		QPSK	-19.78	16.91	10.20	2.51	H		0.289	24.60		
		16-QAM	-20.75	15.94	10.20	2.51	H		0.231	23.63		
		64-QAM	-22.26	14.43	10.20	2.51	H		0.163	22.12		
		256-QAM	-24.59	12.10	10.20	2.51	H		0.095	19.79		
2592.990		PI/2 BPSK	-18.87	17.59	10.42	2.56	H		0.351	25.45	1	1
		QPSK	-19.06	17.40	10.42	2.56	H		0.336	25.26		
		16-QAM	-20.01	16.45	10.42	2.56	H		0.270	24.31		
		64-QAM	-21.55	14.91	10.42	2.56	H		0.189	22.77		
		256-QAM	-23.81	12.65	10.42	2.56	H		0.112	20.51		
2674.980	PI/2 BPSK	-19.87	17.46	10.30	2.62	H	0.327	25.14	1	1		
	QPSK	-20.00	17.33	10.30	2.62	H	0.317	25.01				
	16-QAM	-20.93	16.40	10.30	2.62	H	0.256	24.08				
	64-QAM	-22.46	14.87	10.30	2.62	H	0.180	22.55				
	256-QAM	-24.79	12.54	10.30	2.62	H	0.105	20.22				

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 41/ 40 MHz [30 kHz]	PI/2 BPSK	-19.23	17.35	10.32	2.53	H	< 2.00	0.327	25.14	1	53
		QPSK	-19.26	17.32	10.32	2.53	H		0.324	25.11		
		16-QAM	-20.26	16.32	10.32	2.53	H		0.258	24.11		
		64-QAM	-21.81	14.77	10.32	2.53	H		0.180	22.56		
		256-QAM	-24.12	12.46	10.32	2.53	H		0.106	20.25		
2592.990		PI/2 BPSK	-19.09	17.37	10.42	2.56	H		0.333	25.23	1	1
		QPSK	-19.27	17.19	10.42	2.56	H		0.320	25.05		
		16-QAM	-20.19	16.27	10.42	2.56	H		0.259	24.13		
		64-QAM	-21.77	14.69	10.42	2.56	H		0.180	22.55		
		256-QAM	-24.00	12.46	10.42	2.56	H		0.108	20.32		
2670.000	PI/2 BPSK	-19.78	17.09	10.26	2.60	H	0.298	24.75	1	1		
	QPSK	-19.94	16.93	10.26	2.60	H	0.288	24.59				
	16-QAM	-20.87	16.00	10.26	2.60	H	0.232	23.66				
	64-QAM	-22.34	14.53	10.26	2.60	H	0.165	22.19				
	256-QAM	-24.60	12.27	10.26	2.60	H	0.098	19.93				

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	Offset
2521.020	Sub6 41/ 50 MHz [30 kHz]	PI/2 BPSK	-19.09	17.45	10.36	2.55	H	< 2.00	0.336	25.26	1	66
		QPSK	-19.16	17.38	10.36	2.55	H		0.330	25.19		
		16-QAM	-20.13	16.41	10.36	2.55	H		0.264	24.22		
		64-QAM	-21.67	14.87	10.36	2.55	H		0.185	22.68		
		256-QAM	-23.98	12.56	10.36	2.55	H		0.109	20.37		
2592.990		PI/2 BPSK	-19.36	17.10	10.42	2.56	H		0.313	24.96	1	1
		QPSK	-19.40	17.06	10.42	2.56	H		0.310	24.92		
		16-QAM	-20.44	16.02	10.42	2.56	H		0.244	23.88		
		64-QAM	-22.06	14.40	10.42	2.56	H		0.168	22.26		
		256-QAM	-24.24	12.22	10.42	2.56	H		0.102	20.08		
2664.990	PI/2 BPSK	-19.99	16.85	10.22	2.60	H	0.280	24.47	1	1		
	QPSK	-20.03	16.81	10.22	2.60	H	0.277	24.43				
	16-QAM	-20.98	15.86	10.22	2.60	H	0.223	23.48				
	64-QAM	-22.45	14.39	10.22	2.60	H	0.159	22.01				
	256-QAM	-24.62	12.22	10.22	2.60	H	0.096	19.84				

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
2526.000	Sub6 41/ 60 MHz [30 kHz]	PI/2 BPSK	-18.90	17.46	10.40	2.56	H	< 2.00	0.339	25.30	1	82
		QPSK	-18.99	17.37	10.40	2.56	H		0.332	25.21		
		16-QAM	-19.93	16.43	10.40	2.56	H		0.267	24.27		
		64-QAM	-21.49	14.87	10.40	2.56	H		0.187	22.71		
		256-QAM	-23.89	12.47	10.40	2.56	H		0.107	20.31		
2592.990		PI/2 BPSK	-19.11	17.35	10.42	2.56	H		0.332	25.21	1	1
		QPSK	-19.52	16.94	10.42	2.56	H		0.302	24.80		
		16-QAM	-20.36	16.10	10.42	2.56	H		0.249	23.96		
		64-QAM	-21.59	14.87	10.42	2.56	H		0.187	22.73		
		256-QAM	-23.85	12.61	10.42	2.56	H		0.111	20.47		
2659.980	PI/2 BPSK	-19.57	17.24	10.18	2.60	H	0.304	24.82	1	1		
	QPSK	-19.62	17.19	10.18	2.60	H	0.300	24.77				
	16-QAM	-20.62	16.19	10.18	2.60	H	0.238	23.77				
	64-QAM	-22.08	14.73	10.18	2.60	H	0.170	22.31				
	256-QAM	-24.36	12.45	10.18	2.60	H	0.101	20.03				

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	-19.12	17.05	10.44	2.56	H	< 2.00	0.311	24.93	1	94
		QPSK	-19.18	16.99	10.44	2.56	H		0.307	24.87		
		16-QAM	-20.14	16.03	10.44	2.56	H		0.246	23.91		
		64-QAM	-21.69	14.48	10.44	2.56	H		0.172	22.36		
		256-QAM	-23.99	12.18	10.44	2.56	H		0.101	20.06		
2592.990		PI/2 BPSK	-19.36	17.10	10.42	2.56	H		0.313	24.96	1	94
		QPSK	-19.39	17.07	10.42	2.56	H		0.311	24.93		
		16-QAM	-20.33	16.13	10.42	2.56	H		0.251	23.99		
		64-QAM	-21.93	14.53	10.42	2.56	H		0.173	22.39		
		256-QAM	-24.18	12.28	10.42	2.56	H		0.103	20.14		
2655.000	PI/2 BPSK	-19.28	17.60	10.54	2.63	H	0.356	25.51	1	1		
	QPSK	-19.29	17.59	10.54	2.63	H	0.355	25.50				
	16-QAM	-20.26	16.62	10.54	2.63	H	0.284	24.53				
	64-QAM	-21.76	15.12	10.54	2.63	H	0.201	23.03				
	256-QAM	-24.06	12.82	10.54	2.63	H	0.118	20.73				

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	-19.11	17.26	10.52	2.55	H	< 2.00	0.333	25.23	1	108
		QPSK	-19.14	17.23	10.52	2.55	H		0.331	25.20		
		16-QAM	-20.01	16.36	10.52	2.55	H		0.271	24.33		
		64-QAM	-21.65	14.72	10.52	2.55	H		0.186	22.69		
		256-QAM	-23.90	12.47	10.52	2.55	H		0.111	20.44		
2592.990		PI/2 BPSK	-19.28	17.18	10.42	2.56	H		0.319	25.04	1	108
		QPSK	-19.32	17.14	10.42	2.56	H		0.316	25.00		
		16-QAM	-20.39	16.07	10.42	2.56	H		0.247	23.93		
		64-QAM	-21.94	14.52	10.42	2.56	H		0.173	22.38		
		256-QAM	-24.15	12.31	10.42	2.56	H		0.104	20.17		
2649.990	PI/2 BPSK	-19.19	17.44	10.13	2.62	H	0.313	24.95	1	1		
	QPSK	-19.27	17.36	10.13	2.62	H	0.307	24.87				
	16-QAM	-20.39	16.24	10.13	2.62	H	0.237	23.75				
	64-QAM	-21.81	14.82	10.13	2.62	H	0.171	22.33				
	256-QAM	-24.09	12.54	10.13	2.62	H	0.101	20.05				

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	-19.00	17.38	10.56	2.56	H	< 2.00	0.345	25.38	1	122
		QPSK	-19.03	17.35	10.56	2.56	H		0.343	25.35		
		16-QAM	-20.01	16.37	10.56	2.56	H		0.274	24.37		
		64-QAM	-21.66	14.72	10.56	2.56	H		0.187	22.72		
		256-QAM	-23.90	12.48	10.56	2.56	H		0.112	20.48		
2592.990		PI/2 BPSK	-19.29	17.17	10.42	2.56	H		0.318	25.03	1	122
		QPSK	-19.32	17.14	10.42	2.56	H		0.316	25.00		
		16-QAM	-20.38	16.08	10.42	2.56	H		0.248	23.94		
		64-QAM	-21.82	14.64	10.42	2.56	H		0.178	22.50		
		256-QAM	-24.12	12.34	10.42	2.56	H		0.105	20.20		
2644.980		PI/2 BPSK	-19.32	17.57	10.16	2.63	H		0.323	25.10	1	1
		QPSK	-19.34	17.55	10.16	2.63	H		0.322	25.08		
		16-QAM	-20.36	16.53	10.16	2.63	H		0.254	24.06		
		64-QAM	-21.80	15.09	10.16	2.63	H		0.183	22.62		
		256-QAM	-24.12	12.77	10.16	2.63	H		0.107	20.30		

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	-19.26	17.12	10.56	2.56	H	< 2.00	0.325	25.12	1	136
		QPSK	-19.29	17.09	10.56	2.56	H		0.323	25.09		
		16-QAM	-20.19	16.19	10.56	2.56	H		0.262	24.19		
		64-QAM	-21.74	14.64	10.56	2.56	H		0.184	22.64		
		256-QAM	-24.03	12.35	10.56	2.56	H		0.108	20.35		
2592.990		PI/2 BPSK	-19.26	17.20	10.42	2.56	H		0.321	25.06	1	136
		QPSK	-19.27	17.19	10.42	2.56	H		0.320	25.05		
		16-QAM	-20.37	16.09	10.42	2.56	H		0.248	23.95		
		64-QAM	-21.82	14.64	10.42	2.56	H		0.178	22.50		
		256-QAM	-24.09	12.37	10.42	2.56	H		0.105	20.23		
2640.000	PI/2 BPSK	-19.24	17.65	10.16	2.63	H	0.330	25.18	1	1		
	QPSK	-19.34	17.55	10.16	2.63	H	0.322	25.08				
	16-QAM	-20.36	16.53	10.16	2.63	H	0.254	24.06				
	64-QAM	-21.86	15.03	10.16	2.63	H	0.180	22.56				
	256-QAM	-24.16	12.73	10.16	2.63	H	0.106	20.26				

8.2 RADIATED SPURIOUS EMISSIONS

- 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	-56.56	10.92	-56.00	3.77	H	-48.85	-25.00	1	25
	7 518.06	-52.81	11.54	-43.45	4.51	V	-36.42	-25.00		
	10 024.08	-53.97	11.75	-43.18	5.30	H	-36.73	-25.00		
	12 530.10	-56.68	12.94	-45.03	6.10	V	-38.19	-25.00		
	15 036.12	-56.55	14.54	-47.65	6.72	V	-39.83	-25.00		
518598 (2592.990)	5 185.98	-53.58	11.47	-53.23	3.90	H	-45.65	-25.00	1	1
	7 778.97	-52.81	11.28	-43.39	4.66	V	-36.77	-25.00		
	10 371.96	-55.56	11.80	-42.86	5.41	H	-36.47	-25.00		
	12 964.95	-56.68	12.70	-44.40	6.26	V	-37.96	-25.00		
	15 557.94	-57.43	16.22	-49.00	6.86	V	-39.64	-25.00		
535998 (2679.990)	5 359.98	-49.11	11.82	-49.36	3.84	H	-41.38	-25.00	1	1
	8 039.97	-54.57	11.28	-45.33	4.71	V	-38.76	-25.00		
	10 719.96	-56.10	11.70	-42.10	5.48	V	-35.88	-25.00		
	13 399.95	-54.77	12.50	-41.33	6.33	V	-35.16	-25.00		
	16 079.94	-59.74	16.50	-48.29	7.00	H	-38.79	-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	-59.26	10.94	-59.10	3.72	V	-51.88	-25.00	1	39
	7 533.00	-52.96	11.56	-44.11	4.56	V	-37.10	-25.00		
	10 044.00	-55.63	11.71	-44.63	5.29	V	-38.21	-25.00		
	12 555.00	-55.88	12.90	-43.96	6.17	V	-37.23	-25.00		
	15 066.00	-57.49	14.66	-49.67	6.76	V	-41.77	-25.00		
518598 (2592.990)	5 185.98	-56.83	11.47	-56.48	3.90	V	-48.90	-25.00	1	1
	7 778.97	-55.99	11.28	-46.57	4.66	V	-39.95	-25.00		
	10 371.96	-55.00	11.80	-42.30	5.41	V	-35.91	-25.00		
	12 964.95	-55.40	12.70	-43.12	6.26	V	-36.68	-25.00		
	15 557.94	-60.71	16.22	-52.28	6.86	V	-42.92	-25.00		
534996 (2674.980)	5 349.96	-50.66	11.80	-50.65	3.79	V	-42.64	-25.00	1	1
	8 024.94	-53.79	11.25	-44.22	4.69	V	-37.66	-25.00		
	10 699.92	-56.74	11.70	-43.13	5.51	V	-36.94	-25.00		
	13 374.90	-57.41	12.60	-44.81	6.29	V	-38.50	-25.00		
	16 049.88	-60.24	16.50	-48.67	6.99	V	-39.16	-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	-59.81	10.96	-60.10	3.66	V	-52.80	-25.00	1	53
	7 548.03	-52.91	11.58	-43.81	4.63	V	-36.86	-25.00		
	10 064.04	-56.03	11.67	-45.18	5.31	V	-38.82	-25.00		
	12 580.05	-55.60	12.90	-44.41	6.12	V	-37.63	-25.00		
	15 096.06	-57.88	14.78	-48.89	6.81	V	-40.92	-25.00		
518598 (2592.990)	5 185.98	-57.76	11.47	-57.41	3.90	V	-49.83	-25.00	1	1
	7 778.97	-55.89	11.28	-46.47	4.66	V	-39.85	-25.00		
	10 371.96	-55.29	11.80	-42.59	5.41	V	-36.20	-25.00		
	12 964.95	-56.58	12.70	-44.30	6.26	V	-37.86	-25.00		
	15 557.94	-56.20	16.22	-47.77	6.86	V	-38.41	-25.00		
534000 (2670.000)	5 340.00	-52.03	11.78	-52.52	3.78	V	-44.52	-25.00	1	1
	8 010.00	-52.50	11.22	-42.74	4.66	V	-36.18	-25.00		
	10 680.00	-54.92	11.70	-40.66	5.56	V	-34.52	-25.00		
	13 350.00	-54.95	12.70	-41.60	6.30	V	-35.20	-25.00		
	16 020.00	-62.04	16.50	-51.63	6.96	V	-42.09	-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	-60.86	10.98	-61.62	3.65	V	-54.29	-25.00	1	66
	7 563.06	-55.59	11.60	-46.39	4.65	V	-39.43	-25.00		
	10 084.08	-55.06	11.63	-44.02	5.35	V	-37.73	-25.00		
	12 605.10	-57.75	12.90	-46.00	6.08	V	-39.18	-25.00		
	15 126.12	-58.77	14.85	-50.69	6.75	V	-42.59	-25.00		
518598 (2592.990)	5 185.98	-57.40	11.47	-57.05	3.90	V	-49.47	-25.00	1	1
	7 778.97	-57.50	11.28	-48.08	4.66	V	-41.46	-25.00		
	10 371.96	-56.24	11.80	-43.54	5.41	V	-37.15	-25.00		
	12 964.95	-55.15	12.70	-42.87	6.26	V	-36.43	-25.00		
	15 557.94	-54.87	16.22	-46.44	6.86	V	-37.08	-25.00		
532998 (2664.990)	5 329.98	-52.27	11.76	-52.66	3.76	V	-44.66	-25.00	1	1
	7 994.97	-53.92	11.19	-44.32	4.64	V	-37.76	-25.00		
	10 659.96	-57.53	11.70	-43.00	5.51	V	-36.81	-25.00		
	13 324.95	-56.77	12.75	-43.12	6.39	V	-36.75	-25.00		
	15 989.94	-62.28	16.50	-51.44	6.96	V	-41.90	-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	-60.93	11.00	-61.36	3.66	V	-54.02	-25.00	1	81
	7 578.00	-55.02	11.60	-46.17	4.60	V	-39.17	-25.00		
	10 104.00	-56.70	11.60	-45.61	5.34	V	-39.34	-25.00		
	12 630.00	-55.46	12.90	-44.35	6.19	V	-37.64	-25.00		
	15 156.00	-59.02	14.91	-50.15	6.76	V	-41.99	-25.00		
518598 (2592.990)	5 185.98	-58.27	11.47	-57.92	3.90	V	-50.34	-25.00	1	1
	7 778.97	-56.74	11.28	-47.32	4.66	V	-40.70	-25.00		
	10 371.96	-57.34	11.80	-44.64	5.41	V	-38.25	-25.00		
	12 964.95	-54.84	12.70	-42.56	6.26	V	-36.12	-25.00		
	15 557.94	-55.85	16.22	-47.42	6.86	V	-38.06	-25.00		
531996 (2659.980)	5 319.96	-53.54	11.74	-54.26	3.80	V	-46.32	-25.00	1	1
	7 979.94	-54.27	11.16	-44.89	4.66	V	-38.39	-25.00		
	10 639.92	-56.78	11.70	-42.93	5.44	V	-36.67	-25.00		
	13 299.90	-55.24	12.80	-42.16	6.31	V	-35.67	-25.00		
	15 959.88	-58.17	16.50	-48.10	6.97	V	-38.57	-25.00		

- NR Band: N41
- Bandwidth: 70 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
506202 (2531.010)	5 062.02	-59.75	11.04	-59.76	3.70	V	-52.42	-25.00	1	94
	7 593.03	-56.04	11.60	-47.40	4.58	V	-40.38	-25.00		
	10 124.04	-57.14	11.60	-45.75	5.32	V	-39.47	-25.00		
	12 655.05	-57.06	12.88	-44.81	6.22	V	-38.14	-25.00		
	15 186.06	-58.05	14.97	-49.90	6.78	V	-41.71	-25.00		
518598 (2592.990)	5 185.98	-56.70	11.47	-56.35	3.90	V	-48.77	-25.00	1	94
	7 778.97	-55.27	11.28	-45.85	4.66	V	-39.23	-25.00		
	10 371.96	-58.22	11.80	-45.52	5.41	V	-39.13	-25.00		
	12 964.95	-58.16	12.70	-45.88	6.26	V	-39.44	-25.00		
	15 557.94	-61.61	16.22	-53.18	6.86	V	-43.82	-25.00		
531000 (2655.000)	5 310.00	-55.00	11.72	-55.27	3.87	V	-47.42	-25.00	1	1
	7 965.00	-58.14	11.13	-48.35	4.73	V	-41.95	-25.00		
	10 620.00	-60.45	11.70	-46.83	5.47	V	-40.60	-25.00		
	13 275.00	-60.70	12.85	-47.66	6.29	V	-41.09	-25.00		
	15 930.00	-61.45	16.46	-51.14	6.91	V	-41.59	-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	-56.69	11.08	-56.30	3.73	V	-48.95	-25.00	1	108
	7 608.06	-54.85	11.60	-45.71	4.54	V	-38.65	-25.00		
	10 144.08	-57.24	11.60	-45.70	5.33	V	-39.42	-25.00		
	12 680.10	-57.97	12.78	-45.62	6.16	V	-39.00	-25.00		
	15 216.12	-59.40	15.03	-50.54	6.78	V	-42.29	-25.00		
518598 (2592.990)	5 185.98	-56.59	11.47	-56.24	3.90	V	-48.66	-25.00	1	108
	7 778.97	-56.91	11.28	-47.49	4.66	V	-40.87	-25.00		
	10 371.96	-58.79	11.80	-46.09	5.41	V	-39.70	-25.00		
	12 964.95	-59.25	12.70	-46.97	6.26	V	-40.53	-25.00		
	15 557.94	-59.02	16.22	-50.59	6.86	V	-41.23	-25.00		
529998 (2649.990)	5 299.98	-51.82	11.70	-51.98	3.91	V	-44.19	-25.00	1	1
	7 949.97	-56.81	11.10	-46.90	4.74	V	-40.54	-25.00		
	10 599.96	-56.87	11.70	-43.51	5.53	V	-37.34	-25.00		
	13 249.95	-55.40	12.90	-43.25	6.31	V	-36.66	-25.00		
	15 899.94	-61.48	16.40	-50.98	6.95	V	-41.53	-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	-60.10	11.12	-59.80	3.74	V	-52.42	-25.00	1	122
	7 623.00	-55.23	11.60	-45.78	4.55	V	-38.73	-25.00		
	10 164.00	-55.86	11.60	-44.12	5.35	V	-37.86	-25.00		
	12 705.00	-56.54	12.69	-43.28	6.17	V	-36.76	-25.00		
	15 246.00	-60.40	15.09	-52.07	6.76	V	-43.74	-25.00		
518598 (2592.990)	5 185.98	-55.57	11.47	-55.22	3.90	V	-47.64	-25.00	1	122
	7 778.97	-57.46	11.28	-48.04	4.66	V	-41.42	-25.00		
	10 371.96	-57.44	11.80	-44.74	5.41	V	-38.35	-25.00		
	12 964.95	-59.00	12.70	-46.72	6.26	V	-40.28	-25.00		
	15 557.94	-60.61	16.22	-52.18	6.86	V	-42.82	-25.00		
528996 (2644.980)	5 289.96	-55.18	11.68	-55.33	3.90	V	-47.55	-25.00	1	1
	7 934.94	-57.28	11.07	-48.07	4.69	V	-41.69	-25.00		
	10 579.92	-58.94	11.70	-46.14	5.51	V	-39.95	-25.00		
	13 224.90	-57.12	12.90	-43.90	6.32	V	-37.32	-25.00		
	15 869.88	-59.60	16.40	-50.30	6.95	V	-40.85	-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	-60.38	11.16	-60.47	3.79	V	-53.10	-25.00	1	136
	7 638.03	-54.61	11.60	-45.78	4.58	V	-38.76	-25.00		
	10 184.04	-55.97	11.60	-44.44	5.38	V	-38.21	-25.00		
	12 730.05	-55.23	12.64	-42.20	6.20	V	-35.76	-25.00		
	15 276.06	-59.81	15.20	-51.21	6.80	V	-42.81	-25.00		
518598 (2592.990)	5 185.98	-56.46	11.47	-56.11	3.90	V	-48.53	-25.00	1	136
	7 778.97	-58.35	11.28	-48.93	4.66	V	-42.31	-25.00		
	10 371.96	-58.08	11.80	-45.38	5.41	V	-38.99	-25.00		
	12 964.95	-59.48	12.70	-47.20	6.26	V	-40.76	-25.00		
	15 557.94	-61.62	16.22	-53.19	6.86	V	-43.83	-25.00		
528000 (2640.000)	5 280.00	-52.74	11.66	-53.44	3.84	V	-45.62	-25.00	1	1
	7 920.00	-56.77	11.04	-47.23	4.64	V	-40.83	-25.00		
	10 560.00	-57.12	11.70	-43.99	5.47	V	-37.76	-25.00		
	13 200.00	-57.41	12.90	-45.21	6.27	V	-38.58	-25.00		
	15 840.00	-53.17	16.40	-43.06	6.90	V	-33.56	-25.00		

- ENDC-Mode : 2A(10 MHz)-n41A(20 MHz)_PC3

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)
18900 (1880.0)	3760.00	-61.08	11.64	-61.31	3.16	V	-52.83	-13.00
	5640.00	-61.99	12.00	-55.81	3.93	V	-47.74	-13.00
	7520.00	-62.73	11.54	-48.28	4.51	V	-41.25	-13.00

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n41	20 MHz	2592.990	BPSK	50	0	4.03
			QPSK			5.35
			16-QAM			6.12
			64-QAM			6.43
			256-QAM			6.83
	30 MHz		BPSK	75		4.24
			QPSK			5.31
			16-QAM			6.18
			64-QAM			6.35
			256-QAM			6.73
	40 MHz		BPSK	100		4.16
			QPSK			5.34
			16-QAM			6.13
			64-QAM			6.42
			256-QAM			6.69
	50 MHz		BPSK	128		4.40
			QPSK			5.34
			16-QAM			6.12
			64-QAM			6.38
			256-QAM			6.66
	60 MHz		BPSK	162		3.93
			QPSK			5.20
			16-QAM			6.04
			64-QAM			6.35
			256-QAM			6.61
	70 MHz		BPSK	180		4.26
			QPSK			5.26
			16-QAM			6.05
			64-QAM			6.30
			256-QAM			6.60
	80 MHz		BPSK	216		3.95
			QPSK			5.02
			16-QAM			5.99
			64-QAM			6.22
			256-QAM			6.56
	90 MHz		BPSK	243		3.91
			QPSK			4.98
			16-QAM			5.97
			64-QAM			6.29
			256-QAM			6.62
100 MHz	BPSK	270	4.26			
	QPSK		5.12			
	16-QAM		5.97			
	64-QAM		6.23			
	256-QAM		6.60			

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 106 ~ 150.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n41	20 MHz	2592.990	BPSK	50	0	18.014
			QPSK			17.959
			16-QAM			17.954
			64-QAM			17.983
			256-QAM			18.004
	30 MHz		BPSK	75		26.904
			QPSK			26.919
			16-QAM			26.962
			64-QAM			26.937
			256-QAM			26.912
	40 MHz		BPSK	100		36.123
			QPSK			35.740
			16-QAM			35.889
			64-QAM			35.819
			256-QAM			35.843
	50 MHz		BPSK	128		45.980
			QPSK			45.738
			16-QAM			45.800
			64-QAM			45.801
			256-QAM			45.802
	60 MHz		BPSK	162		57.793
			QPSK			57.744
			16-QAM			57.823
			64-QAM			57.926
			256-QAM			57.755
	70 MHz		BPSK	180		64.243
			QPSK			64.162
			16-QAM			64.230
			64-QAM			64.400
			256-QAM			64.197
	80 MHz		BPSK	216		77.104
			QPSK			77.093
			16-QAM			76.855
			64-QAM			76.898
			256-QAM			76.939
	90 MHz		BPSK	243		86.471
			QPSK			86.642
			16-QAM			86.571
			64-QAM			86.527
			256-QAM			86.651
100 MHz	BPSK	270	96.338			
	QPSK		96.202			
	16-QAM		96.120			
	64-QAM		96.196			
	256-QAM		96.105			

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 61 ~ 105.

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	20	2506.020	5.2264	37.805	-70.396	-32.591	-25.00
		2592.990	8.2787	37.805	-69.658	-31.853	
		2679.990	3.7593	37.190	-69.590	-32.400	
	30	2511.000	9.3888	37.805	-70.251	-32.446	
		2592.990	4.9148	37.190	-69.648	-32.458	
		2674.980	4.0235	37.190	-70.400	-33.210	
	40	2516.010	3.7688	37.190	-70.426	-33.236	
		2592.990	9.9980	37.805	-70.772	-32.967	
		2670.000	4.0529	37.190	-70.241	-33.051	
	50	2521.020	4.0534	37.190	-70.351	-33.161	
		2592.990	9.6939	37.805	-71.087	-33.282	
		2664.990	9.7388	37.805	-70.793	-32.988	
	60	2526.000	4.8894	37.190	-71.071	-33.881	
		2592.990	9.7149	37.805	-71.551	-33.746	
		2659.980	8.0424	37.805	-70.890	-33.085	
	70	2531.010	3.7653	37.190	-70.481	-33.291	
		2592.990	4.0300	37.190	-69.545	-32.355	
		2655.000	8.8544	37.805	-70.060	-32.255	
	80	2536.020	3.8096	37.190	-69.868	-32.678	
		2592.990	8.8734	37.805	-69.876	-32.071	
		2649.990	3.7912	37.190	-70.159	-32.969	
	90	2541.000	4.0419	37.190	-69.361	-32.171	
		2592.990	7.4128	37.805	-69.983	-32.178	
		2644.980	8.8435	37.805	-69.658	-31.853	
	100	2546.010	8.2632	37.805	-69.842	-32.037	
		2592.990	7.1456	37.805	-70.221	-32.416	
		2640.000	8.2592	37.805	-70.180	-32.375	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 214 ~ 267.
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
20	2506.020	BPSK	Full RB	-23.50	-25.74	-24.87	-24.44	-27.01	-25.63	-38.60
30	2511.000	BPSK	Full RB	-25.40	-28.02	-26.37	-28.29	-30.48	-28.61	-39.62
40	2520.000	BPSK	Full RB	-25.77	-28.49	-27.20	-29.75	-31.34	-29.73	-40.36
50	2525.010	BPSK	Full RB	-25.65	-27.46	-27.94	-28.43	-28.59	-27.61	-37.04
60	2530.020	BPSK	Full RB	-18.16	-18.11	-28.18	-28.07	-31.89	-29.31	-42.44
70	2531.010	BPSK	Full RB	-25.41	-28.82	-28.69	-29.10	-30.05	-28.33	-41.07
80	2540.010	BPSK	Full RB	-26.37	-28.05	-30.60	-29.73	-31.98	-26.75	-41.91
90	2545.020	BPSK	Full RB	-23.95	-27.41	-30.54	-29.19	-31.42	-28.91	-40.37
100	2550.000	BPSK	Full RB	-23.27	-27.25	-30.35	-28.01	-31.35	-26.60	-40.45
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
20 MHz	2592.990	BPSK	Full RB	0	-23.75	-26.01	-24.22	-24.45
	2679.990	BPSK	Full RB	0	-21.98	-25.10	-21.90	-24.32
30 MHz	2592.990	BPSK	Full RB	0	-23.34	-27.47	-25.81	-27.68
	2679.990	BPSK	Full RB	0	-23.91	-27.36	-25.05	-26.90
40 MHz	2592.990	BPSK	Full RB	0	-24.89	-27.85	-26.61	-28.61
	2670.000	BPSK	Full RB	0	-22.17	-26.93	-22.33	-27.47
50 MHz	2592.990	BPSK	Full RB	0	-24.98	-26.85	-28.44	-27.05
	2664.990	BPSK	Full RB	0	-22.63	-24.19	-24.78	-24.26
60 MHz	2592.990	BPSK	Full RB	0	-18.18	-18.85	-28.31	-27.11
	2659.980	BPSK	Full RB	0	-15.59	-18.69	-25.27	-25.67
70 MHz	2592.990	BPSK	Full RB	0	-25.28	-27.48	-29.27	-29.90
	2655.000	BPSK	Full RB	0	-22.03	-27.15	-25.49	-28.30
80 MHz	2592.990	BPSK	Full RB	0	-24.66	-28.46	-30.80	-30.22
	2649.990	BPSK	Full RB	0	-20.70	-26.18	-26.36	-27.93
90 MHz	2592.990	BPSK	Full RB	0	-22.70	-28.15	-29.36	-29.00
	2644.980	BPSK	Full RB	0	-19.62	-26.62	-26.17	-28.83
100 MHz	2592.990	BPSK	Full RB	0	-20.92	-27.86	-30.29	-29.50
	2640.000	BPSK	Full RB	0	-18.23	-27.96	-26.87	-28.22
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
					20 MHz	2592.990	BPSK	Full RB
	2679.990	BPSK	Full RB	0	-25.18	-24.84	-35.03	-37.91
30 MHz	2592.990	BPSK	Full RB	0	-28.76	-26.64	-40.64	-39.69
	2679.990	BPSK	Full RB	0	-27.99	-27.59	-38.30	-39.61
40 MHz	2592.990	BPSK	Full RB	0	-30.37	-28.19	-40.83	-39.27
	2670.000	BPSK	Full RB	0	-28.32	-29.78	-37.69	-45.23
50 MHz	2592.990	BPSK	Full RB	0	-28.49	-26.85	-37.70	-37.40
	2664.990	BPSK	Full RB	0	-23.52	-23.60	-36.10	-47.49
60 MHz	2592.990	BPSK	Full RB	0	-31.28	-29.72	-43.50	-43.13
	2659.980	BPSK	Full RB	0	-24.67	-28.47	-42.16	-47.41
70 MHz	2592.990	BPSK	Full RB	0	-30.66	-29.73	-43.12	-44.49
	2655.000	BPSK	Full RB	0	-25.99	-28.68	-43.05	-47.33
80 MHz	2592.990	BPSK	Full RB	0	-29.98	-28.04	-47.01	-44.33
	2649.990	BPSK	Full RB	0	-23.30	-27.38	-43.58	-47.18
90 MHz	2592.990	BPSK	Full RB	0	-29.94	-30.34	-47.18	-46.86
	2644.980	BPSK	Full RB	0	-26.24	-30.16	-43.07	-47.13
100 MHz	2592.990	BPSK	Full RB	0	-29.41	-29.35	-47.22	-47.00
	2640.000	BPSK	Full RB	0	-26.86	-28.62	-41.75	-46.85
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 151 ~ 213. (1RB & Full RB)

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 3.860 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 020 015	0.0	0.000 000	0.000
	100 %	-30	2506 020 023	8.5	0.000 000	0.003
	100 %	-20	2506 020 024	9.3	0.000 000	0.004
	100 %	-10	2506 020 030	14.8	0.000 001	0.006
	100 %	0	2506 020 023	8.7	0.000 000	0.003
	100 %	+10	2506 020 027	12.6	0.000 001	0.005
	100 %	+30	2506 020 031	15.9	0.000 001	0.006
	100 %	+40	2506 020 026	11.1	0.000 000	0.004
	100 %	+50	2506 020 022	7.2	0.000 000	0.003
	Batt. Endpoint	+20	2506 020 020	5.0	0.000 000	0.002
2679.990	100 %	+20(Ref)	2679 990 013	0.0	0.000 000	0.000
	100 %	-30	2679 990 027	14.0	0.000 001	0.005
	100 %	-20	2679 990 022	9.3	0.000 000	0.003
	100 %	-10	2679 990 024	10.8	0.000 000	0.004
	100 %	0	2679 990 021	8.1	0.000 000	0.003
	100 %	+10	2679 990 027	13.5	0.000 001	0.005
	100 %	+30	2679 990 017	4.0	0.000 000	0.002
	100 %	+40	2679 990 024	10.7	0.000 000	0.004
	100 %	+50	2679 990 024	11.2	0.000 000	0.004
	Batt. Endpoint	+20	2679 990 016	3.4	0.000 000	0.001

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 3.860 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)	2511 000 012	0.0	0.000 000	0.000
	100 %	-30	2511 000 024	11.9	0.000 000	0.005
	100 %	-20	2511 000 022	9.6	0.000 000	0.004
	100 %	-10	2511 000 015	3.1	0.000 000	0.001
	100 %	0	2511 000 025	13.1	0.000 001	0.005
	100 %	+10	2511 000 025	13.2	0.000 001	0.005
	100 %	+30	2511 000 020	7.5	0.000 000	0.003
	100 %	+40	2511 000 016	3.9	0.000 000	0.002
	100 %	+50	2511 000 025	13.0	0.000 001	0.005
	Batt. Endpoint	+20	2511 000 020	8.3	0.000 000	0.003
2674.980	100 %	+20(Ref)	2674 980 008	0.0	0.000 000	0.000
	100 %	-30	2674 980 017	9.0	0.000 000	0.003
	100 %	-20	2674 980 021	12.4	0.000 000	0.005
	100 %	-10	2674 980 019	11.3	0.000 000	0.004
	100 %	0	2674 980 020	11.6	0.000 000	0.004
	100 %	+10	2674 980 018	9.4	0.000 000	0.004
	100 %	+30	2674 980 025	16.4	0.000 001	0.006
	100 %	+40	2674 980 020	11.7	0.000 000	0.004
	100 %	+50	2674 980 024	16.0	0.000 001	0.006
	Batt. Endpoint	+20	2674 980 015	6.4	0.000 000	0.002

- BandWidth: 40 MHz
- Voltage(100 %): 3.860 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 010 012	0.0	0.000 000	0.000
	100 %	-30	2516 010 022	9.7	0.000 000	0.004
	100 %	-20	2516 010 026	13.9	0.000 001	0.006
	100 %	-10	2516 010 019	7.2	0.000 000	0.003
	100 %	0	2516 010 016	3.7	0.000 000	0.001
	100 %	+10	2516 010 024	11.8	0.000 000	0.005
	100 %	+30	2516 010 024	11.6	0.000 000	0.005
	100 %	+40	2516 010 019	7.0	0.000 000	0.003
	100 %	+50	2516 010 024	11.4	0.000 000	0.005
	Batt. Endpoint	+20	2516 010 024	11.7	0.000 000	0.005
2670.000	100 %	+20(Ref)	2670 000 007	0.0	0.000 000	0.000
	100 %	-30	2670 000 018	10.2	0.000 000	0.004
	100 %	-20	2670 000 024	17.0	0.000 001	0.006
	100 %	-10	2670 000 011	3.2	0.000 000	0.001
	100 %	0	2670 000 021	13.3	0.000 000	0.005
	100 %	+10	2670 000 013	5.7	0.000 000	0.002
	100 %	+30	2670 000 021	13.4	0.000 001	0.005
	100 %	+40	2670 000 017	10.2	0.000 000	0.004
	100 %	+50	2670 000 022	14.2	0.000 001	0.005
	Batt. Endpoint	+20	2670 000 011	4.1	0.000 000	0.002

- ▣ BandWidth: 50 MHz
- ▣ Voltage(100 %): 3.860 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 020 011	0.0	0.000 000	0.000
	100 %	-30	2521 020 021	10.3	0.000 000	0.004
	100 %	-20	2521 020 015	4.0	0.000 000	0.002
	100 %	-10	2521 020 022	11.4	0.000 000	0.005
	100 %	0	2521 020 018	7.8	0.000 000	0.003
	100 %	+10	2521 020 015	4.8	0.000 000	0.002
	100 %	+30	2521 020 018	6.9	0.000 000	0.003
	100 %	+40	2521 020 015	4.1	0.000 000	0.002
	100 %	+50	2521 020 027	16.8	0.000 001	0.007
	Batt. Endpoint	+20	2521 020 023	12.7	0.000 001	0.005
2664.990	100 %	+20(Ref)	2664 990 015	0.0	0.000 000	0.000
	100 %	-30	2664 990 020	4.4	0.000 000	0.002
	100 %	-20	2664 990 026	10.7	0.000 000	0.004
	100 %	-10	2664 990 019	3.5	0.000 000	0.001
	100 %	0	2664 990 030	15.2	0.000 001	0.006
	100 %	+10	2664 990 028	12.4	0.000 000	0.005
	100 %	+30	2664 990 022	6.4	0.000 000	0.002
	100 %	+40	2664 990 024	9.0	0.000 000	0.003
	100 %	+50	2664 990 021	6.0	0.000 000	0.002
	Batt. Endpoint	+20	2664 990 021	5.5	0.000 000	0.002

- ▣ BandWidth: 60 MHz
- ▣ Voltage(100 %): 3.860 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)	2526 000 014	0.0	0.000 000	0.000
	100 %	-30	2526 000 022	8.2	0.000 000	0.003
	100 %	-20	2526 000 029	15.0	0.000 001	0.006
	100 %	-10	2526 000 030	15.6	0.000 001	0.006
	100 %	0	2526 000 024	9.8	0.000 000	0.004
	100 %	+10	2526 000 023	8.3	0.000 000	0.003
	100 %	+30	2526 000 028	13.6	0.000 001	0.005
	100 %	+40	2526 000 030	16.2	0.000 001	0.006
	100 %	+50	2526 000 024	10.2	0.000 000	0.004
	Batt. Endpoint	+20	2526 000 027	12.8	0.000 001	0.005
2659.980	100 %	+20(Ref)	2659 980 005	0.0	0.000 000	0.000
	100 %	-30	2659 980 013	8.7	0.000 000	0.003
	100 %	-20	2659 980 021	16.7	0.000 001	0.006
	100 %	-10	2659 980 011	6.8	0.000 000	0.003
	100 %	0	2659 980 020	15.2	0.000 001	0.006
	100 %	+10	2659 980 018	13.6	0.000 001	0.005
	100 %	+30	2659 980 010	5.4	0.000 000	0.002
	100 %	+40	2659 980 018	13.5	0.000 001	0.005
	100 %	+50	2659 980 021	16.1	0.000 001	0.006
	Batt. Endpoint	+20	2659 980 021	16.9	0.000 001	0.006

- ▣ BandWidth: 70 MHz
- ▣ Voltage(100 %): 3.860 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
2531.010	100 %	+20(Ref)	2531 010 008	0.0	0.000 000	0.000
	100 %	-30	2531 010 011	3.4	0.000 000	0.001
	100 %	-20	2531 010 013	4.6	0.000 000	0.002
	100 %	-10	2531 010 022	13.9	0.000 001	0.005
	100 %	0	2531 010 022	14.2	0.000 001	0.006
	100 %	+10	2531 010 025	16.9	0.000 001	0.007
	100 %	+30	2531 010 014	5.6	0.000 000	0.002
	100 %	+40	2531 010 012	3.9	0.000 000	0.002
	100 %	+50	2531 010 015	7.1	0.000 000	0.003
	Batt. Endpoint	+20	2531 010 023	15.4	0.000 001	0.006
2655.000	100 %	+20(Ref)	2655 000 005	0.0	0.000 000	0.000
	100 %	-30	2655 000 012	7.4	0.000 000	0.003
	100 %	-20	2655 000 019	14.3	0.000 001	0.005
	100 %	-10	2655 000 010	5.4	0.000 000	0.002
	100 %	0	2655 000 020	15.4	0.000 001	0.006
	100 %	+10	2655 000 021	16.6	0.000 001	0.006
	100 %	+30	2655 000 015	10.6	0.000 000	0.004
	100 %	+40	2655 000 011	6.0	0.000 000	0.002
	100 %	+50	2655 000 019	14.7	0.000 001	0.006
	Batt. Endpoint	+20	2655 000 009	4.8	0.000 000	0.002

- ▣ BandWidth: 80 MHz
- ▣ Voltage(100 %): 3.860 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 020 005	0.0	0.000 000	0.000
	100 %	-30	2536 020 017	11.3	0.000 000	0.004
	100 %	-20	2536 020 010	4.8	0.000 000	0.002
	100 %	-10	2536 020 011	5.9	0.000 000	0.002
	100 %	0	2536 020 013	7.4	0.000 000	0.003
	100 %	+10	2536 020 014	8.7	0.000 000	0.003
	100 %	+30	2536 020 011	5.1	0.000 000	0.002
	100 %	+40	2536 020 016	10.2	0.000 000	0.004
	100 %	+50	2536 020 010	4.3	0.000 000	0.002
	Batt. Endpoint	+20	2536 020 014	9.0	0.000 000	0.004
2649.990	100 %	+20(Ref)	2649 990 009	0.0	0.000 000	0.000
	100 %	-30	2649 990 018	9.5	0.000 000	0.004
	100 %	-20	2649 990 012	3.6	0.000 000	0.001
	100 %	-10	2649 990 018	9.7	0.000 000	0.004
	100 %	0	2649 990 024	15.3	0.000 001	0.006
	100 %	+10	2649 990 017	8.1	0.000 000	0.003
	100 %	+30	2649 990 024	15.3	0.000 001	0.006
	100 %	+40	2649 990 022	13.7	0.000 001	0.005
	100 %	+50	2649 990 015	6.7	0.000 000	0.003
	Batt. Endpoint	+20	2649 990 020	11.4	0.000 000	0.004

- ▣ BandWidth: 90 MHz
- ▣ Voltage(100 %): 3.860 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)	2541 000 011	0.0	0.000 000	0.000
	100 %	-30	2541 000 023	12.0	0.000 000	0.005
	100 %	-20	2541 000 016	4.9	0.000 000	0.002
	100 %	-10	2541 000 015	3.4	0.000 000	0.001
	100 %	0	2541 000 019	7.7	0.000 000	0.003
	100 %	+10	2541 000 022	11.3	0.000 000	0.004
	100 %	+30	2541 000 020	8.6	0.000 000	0.003
	100 %	+40	2541 000 021	9.5	0.000 000	0.004
	100 %	+50	2541 000 024	12.6	0.000 000	0.005
	Batt. Endpoint	+20	2541 000 024	13.1	0.000 001	0.005
2644.980	100 %	+20(Ref)	2644 980 005	0.0	0.000 000	0.000
	100 %	-30	2644 980 009	4.1	0.000 000	0.002
	100 %	-20	2644 980 014	9.8	0.000 000	0.004
	100 %	-10	2644 980 017	12.9	0.000 000	0.005
	100 %	0	2644 980 008	3.8	0.000 000	0.001
	100 %	+10	2644 980 016	11.0	0.000 000	0.004
	100 %	+30	2644 980 021	16.5	0.000 001	0.006
	100 %	+40	2644 980 014	9.2	0.000 000	0.003
	100 %	+50	2644 980 009	4.8	0.000 000	0.002
	Batt. Endpoint	+20	2644 980 021	16.3	0.000 001	0.006

- ▣ BandWidth: 100 MHz
- ▣ Voltage(100 %): 3.860 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 010 012	0.0	0.000 000	0.000
	100 %	-30	2546 010 020	8.1	0.000 000	0.003
	100 %	-20	2546 010 027	15.1	0.000 001	0.006
	100 %	-10	2546 010 025	13.0	0.000 001	0.005
	100 %	0	2546 010 016	4.4	0.000 000	0.002
	100 %	+10	2546 010 023	11.3	0.000 000	0.004
	100 %	+30	2546 010 018	6.0	0.000 000	0.002
	100 %	+40	2546 010 021	9.3	0.000 000	0.004
	100 %	+50	2546 010 026	14.4	0.000 001	0.006
	Batt. Endpoint	+20	2546 010 028	16.4	0.000 001	0.006
2640.000	100 %	+20(Ref)	2640 000 017	0.0	0.000 000	0.000
	100 %	-30	2640 000 025	8.4	0.000 000	0.003
	100 %	-20	2640 000 028	10.6	0.000 000	0.004
	100 %	-10	2640 000 021	4.1	0.000 000	0.002
	100 %	0	2640 000 033	15.8	0.000 001	0.006
	100 %	+10	2640 000 022	4.9	0.000 000	0.002
	100 %	+30	2640 000 030	13.0	0.000 000	0.005
	100 %	+40	2640 000 026	9.3	0.000 000	0.004
	100 %	+50	2640 000 030	13.4	0.000 001	0.005
	Batt. Endpoint	+20	2640 000 021	4.3	0.000 000	0.002

9. TEST PLOTS

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)



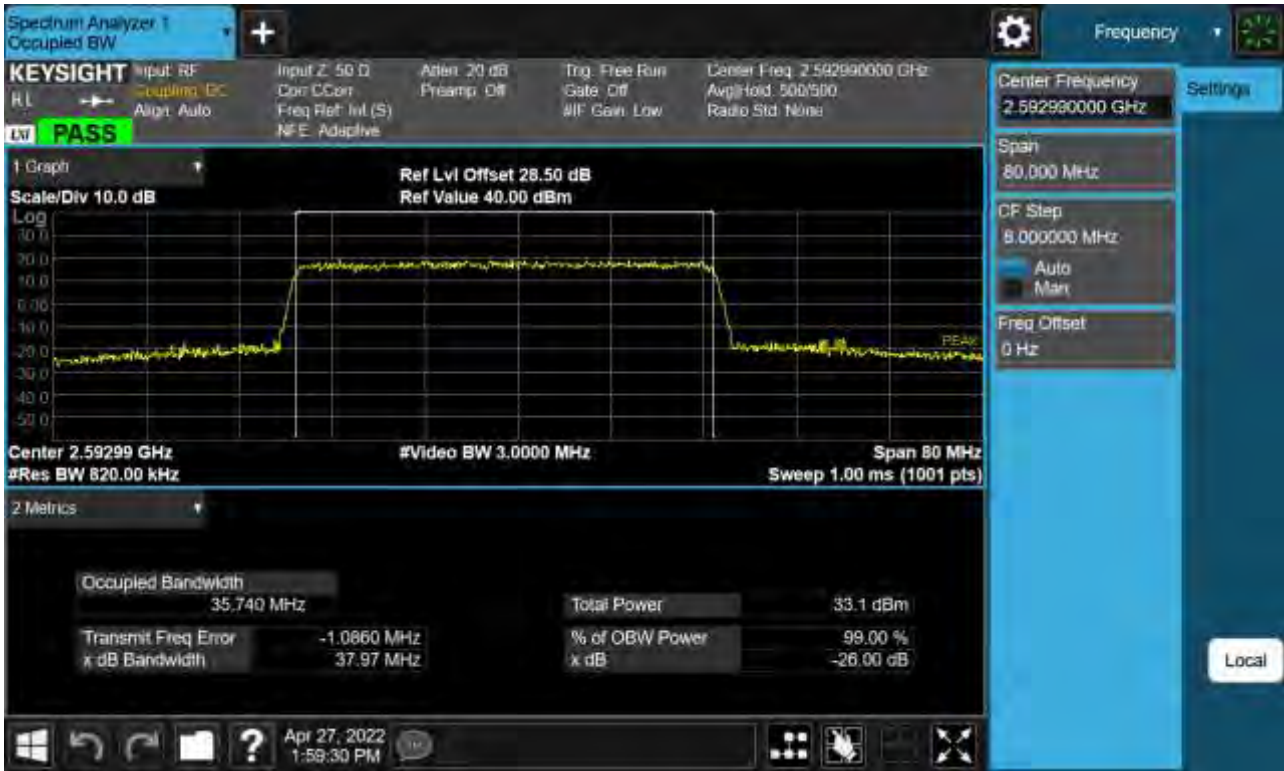
Sub6 n41. Occupied Bandwidth Plot (30 MHz Ch.518598 256-QAM)



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 (70 MHz Ch.518598 BPSK)



Sub6 n41. Occupied Bandwidth Plot (70 MHz Ch.518598 QPSK)



Sub6 n41. Occupied Bandwidth Plot (70 MHz Ch.518598 16-QAM)



Sub6 n41. Occupied Bandwidth Plot (70 MHz Ch.518598 64-QAM)



Sub6 n41. Occupied Bandwidth Plot (70 MHz Ch.518598 256-QAM)



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



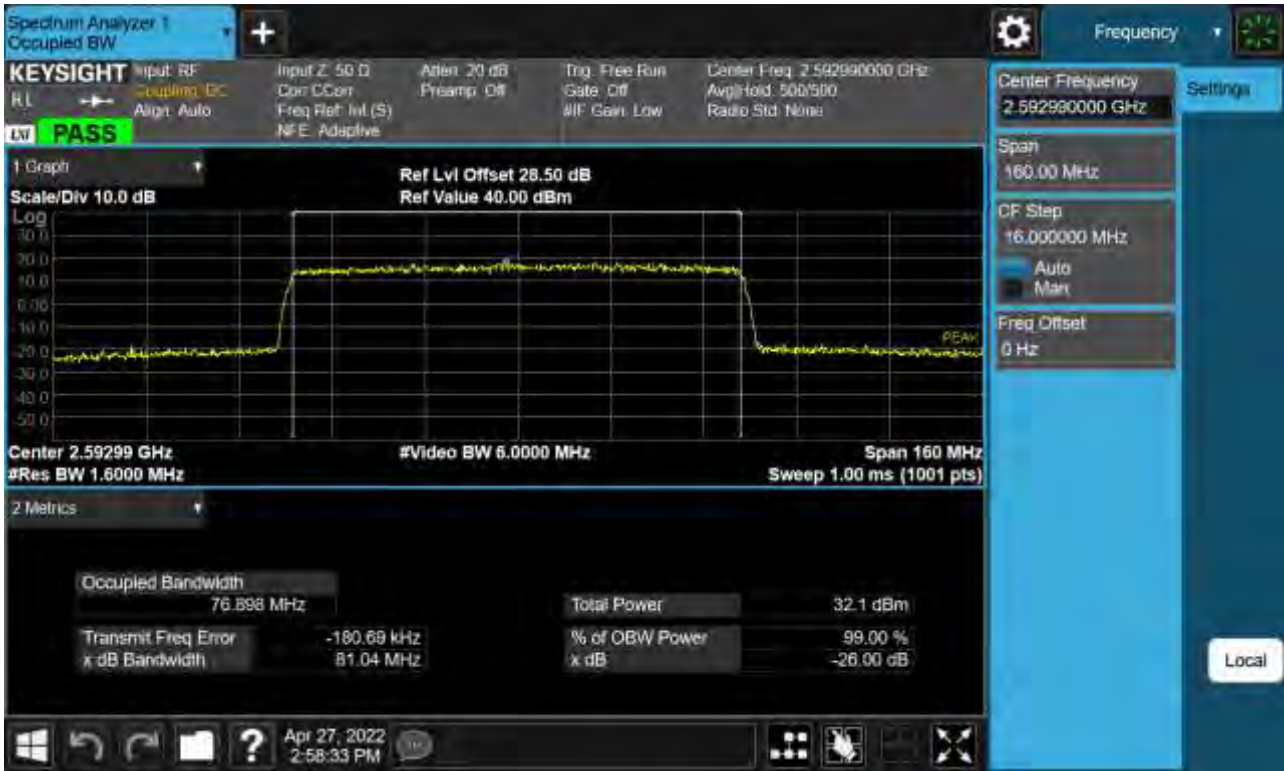
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 QPSK)



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



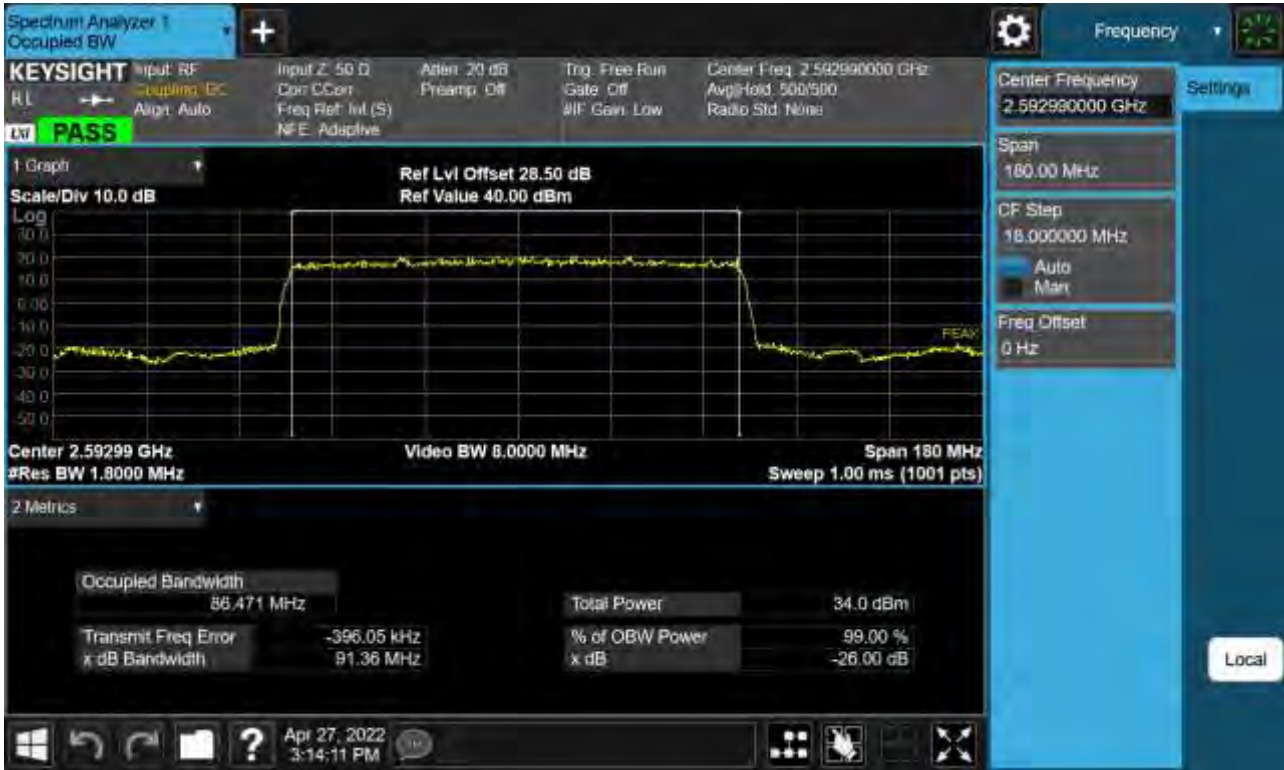
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 64-QAM)



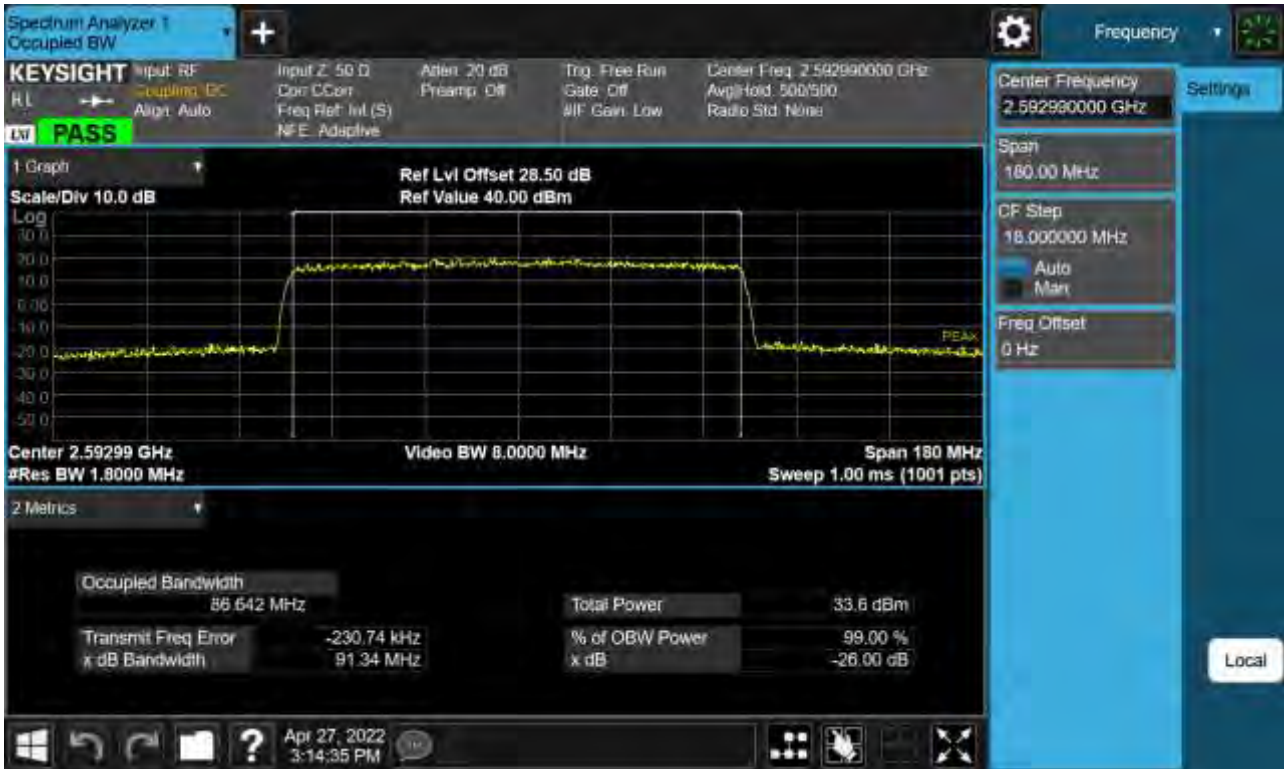
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 256-QAM)



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



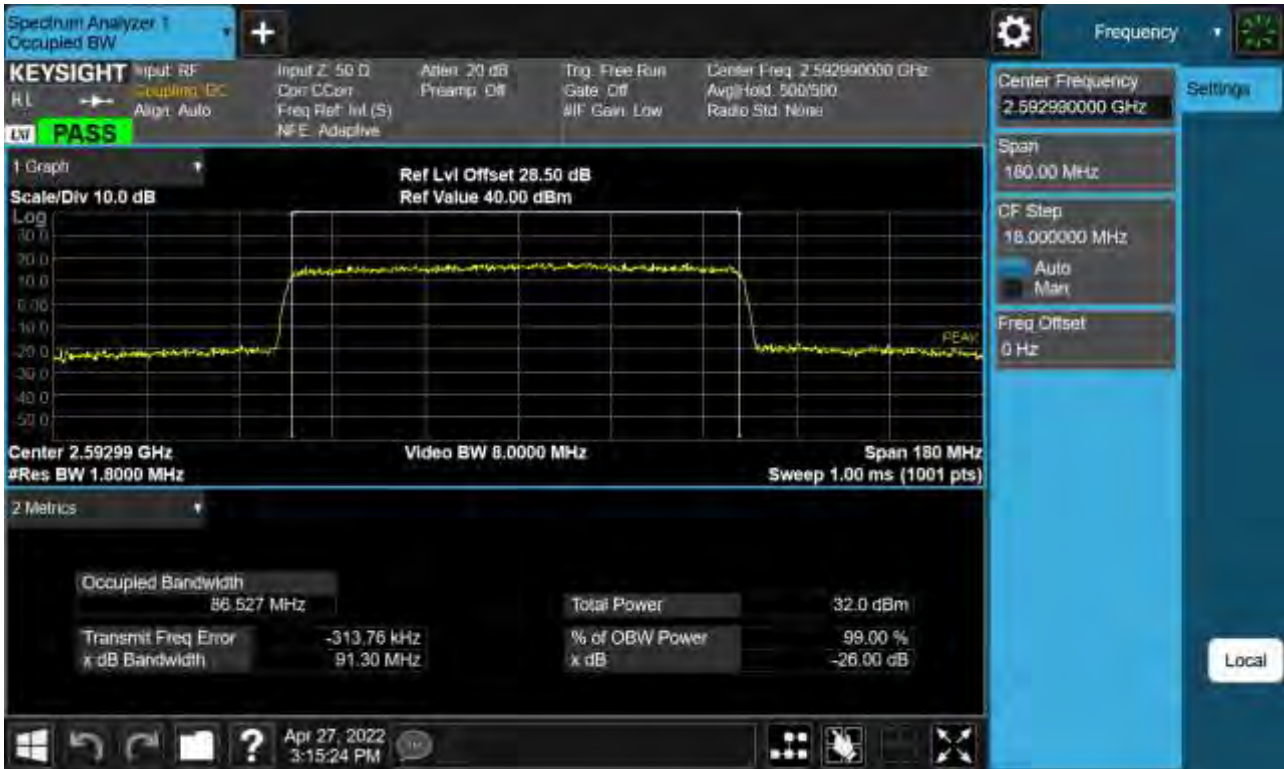
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 QPSK)



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)



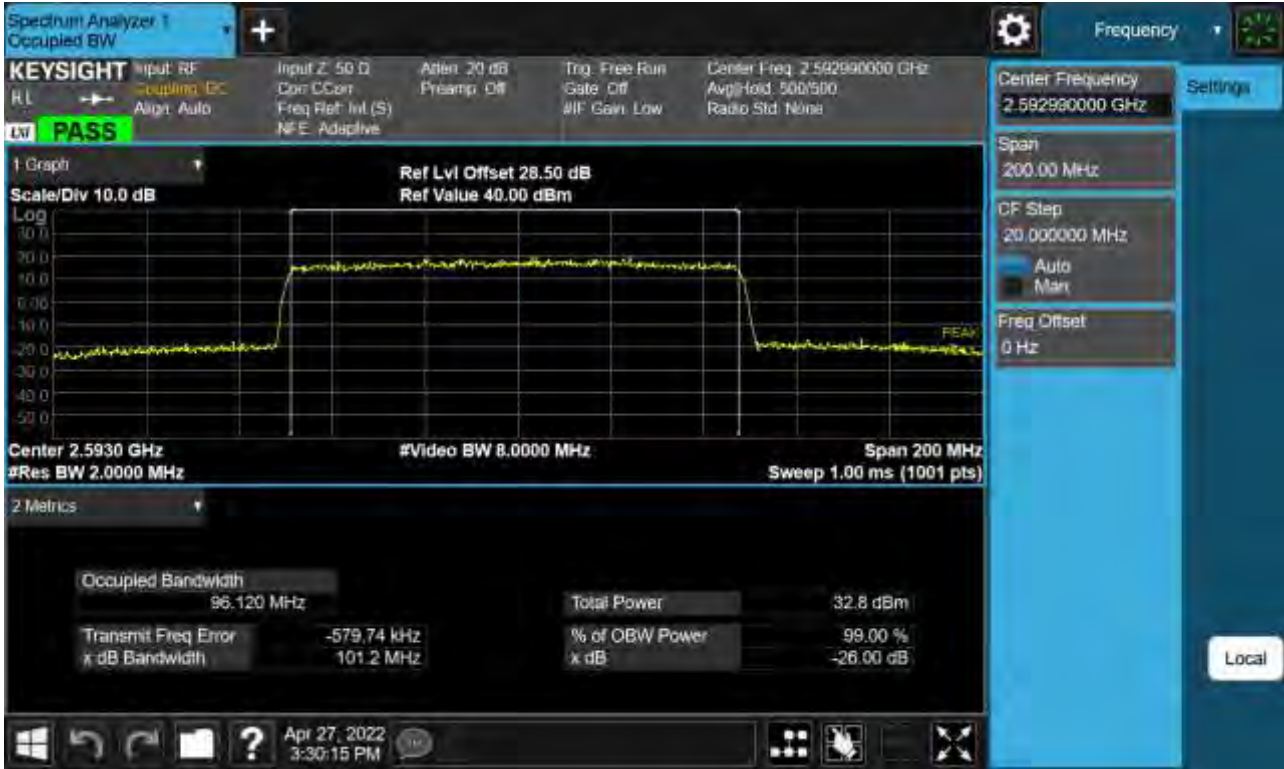
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 BPSK)



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



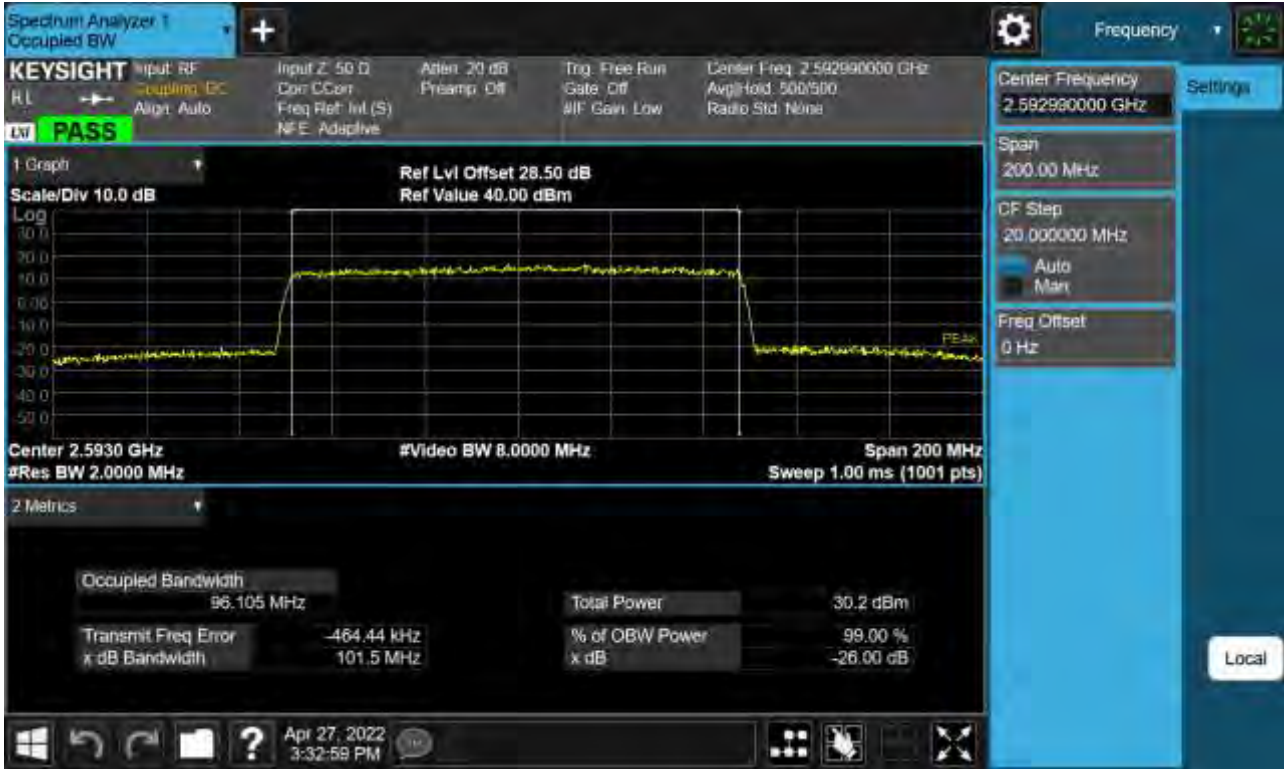
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 16-QAM)



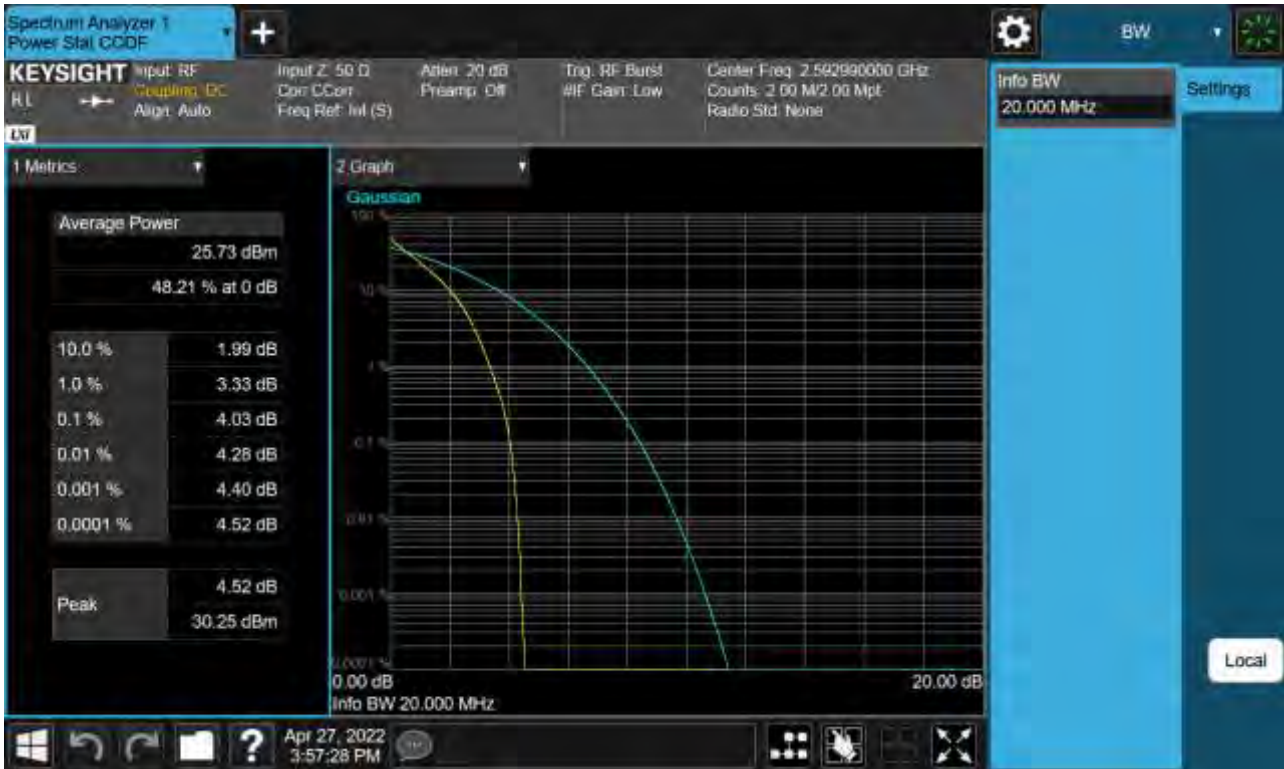
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 64-QAM)



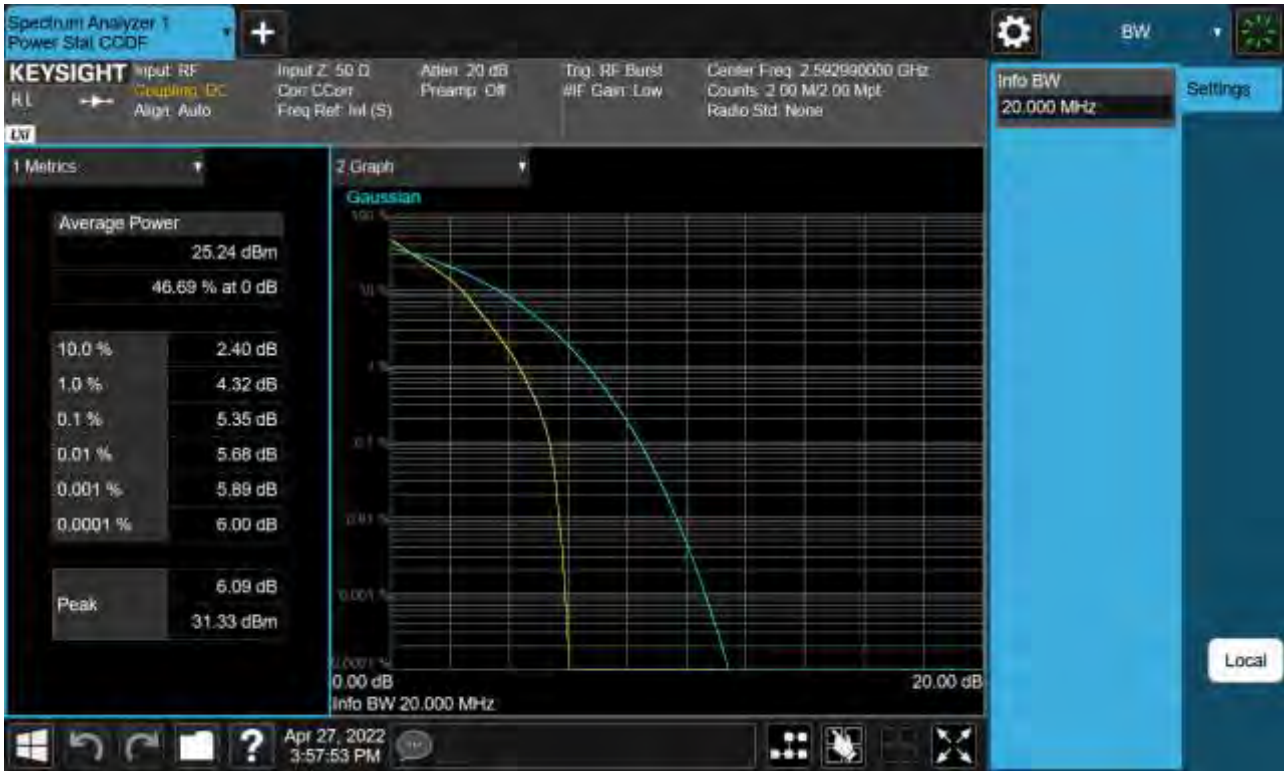
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 256-QAM)



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



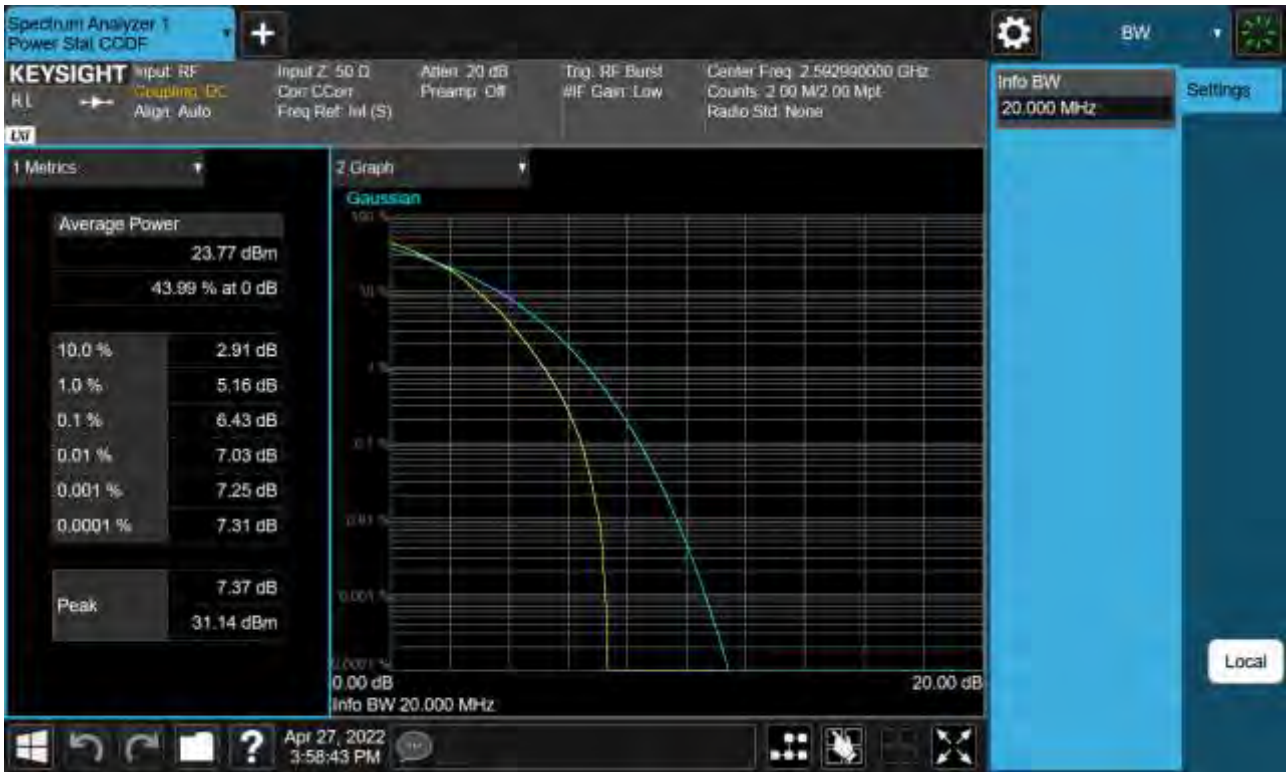
Sub6 n41. PAR Plot (20 M BW_Ch.518598_QPSK)



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



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



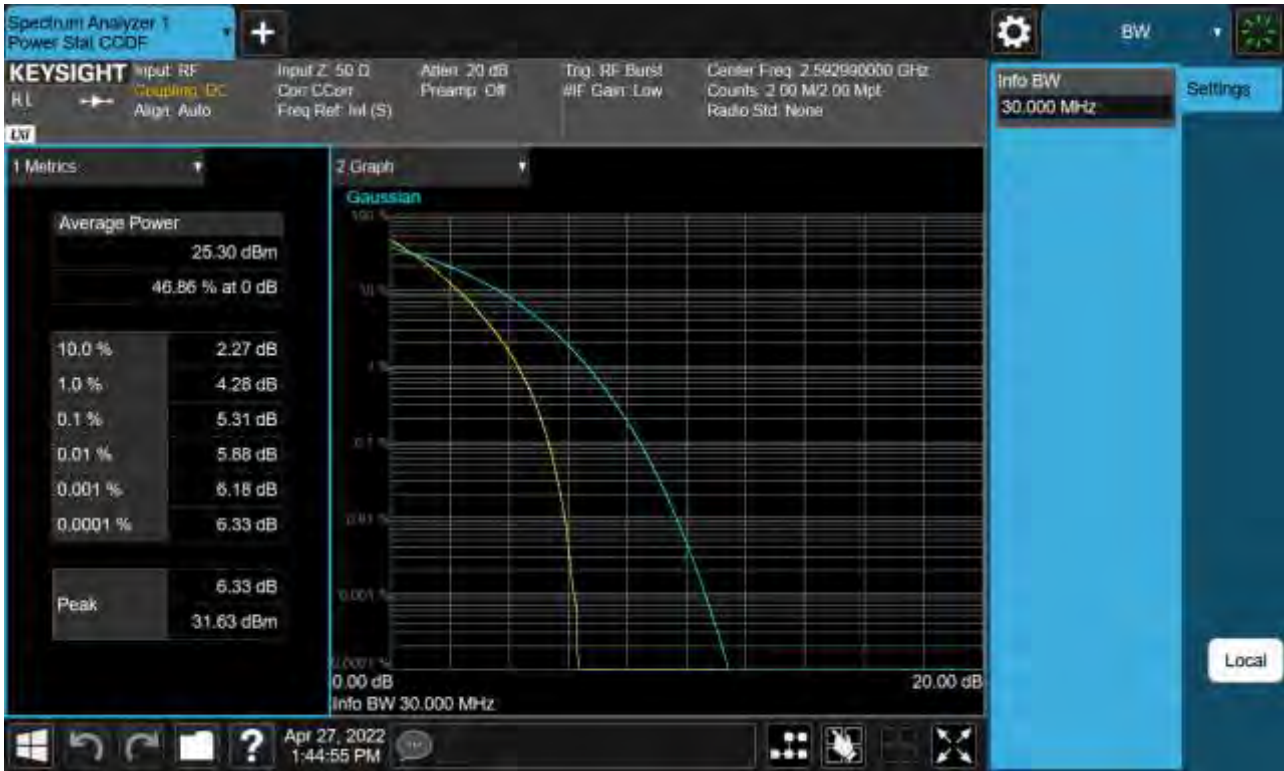
Sub6 n41. PAR Plot (20 M BW_Ch.518598_256QAM)



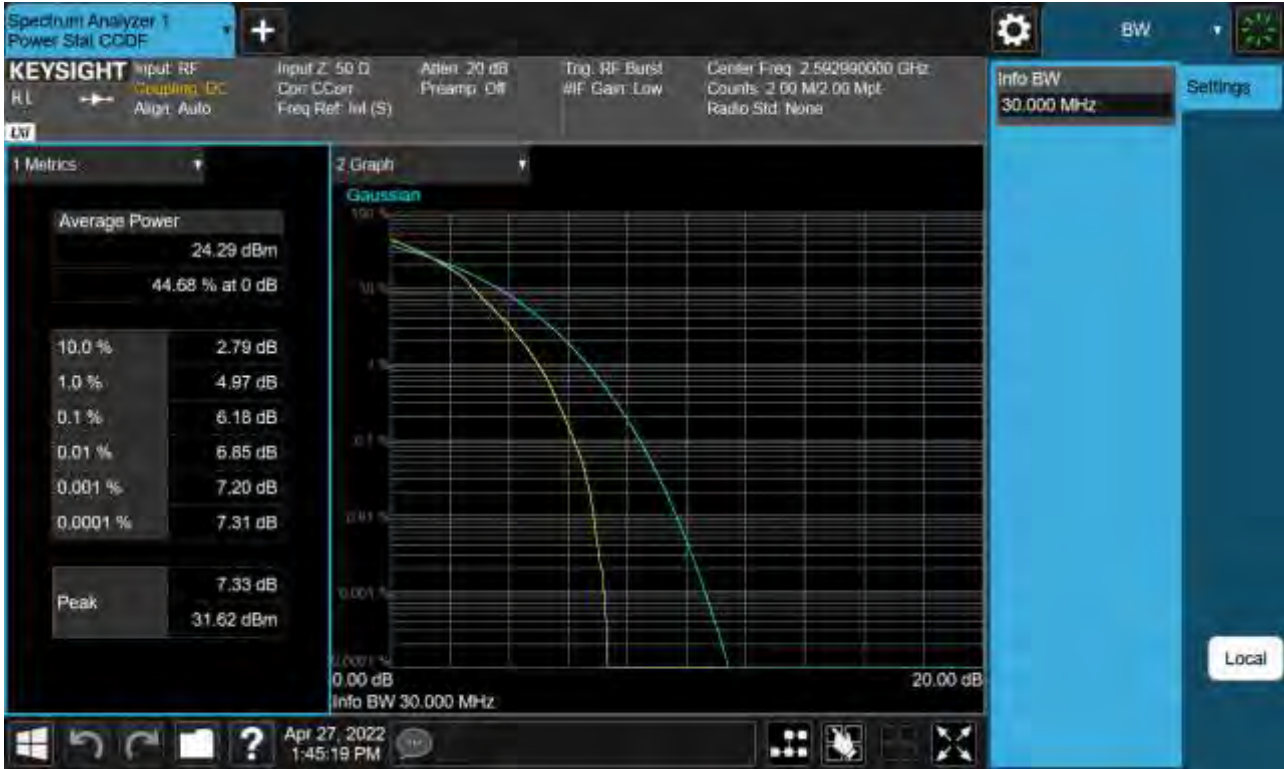
Sub6 n41. PAR Plot (30 M BW_Ch.518598_BPSK)



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



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



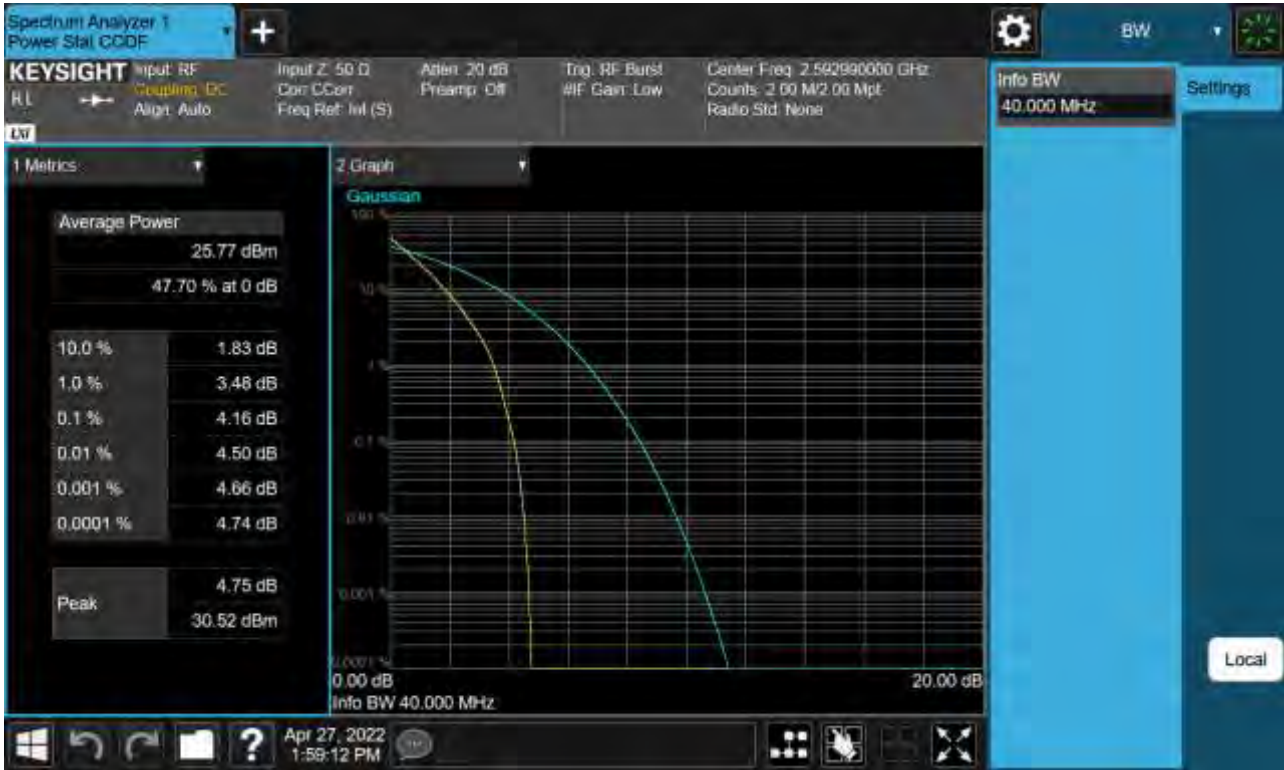
Sub6 n41. PAR Plot (30 M BW_Ch.518598_64QAM)



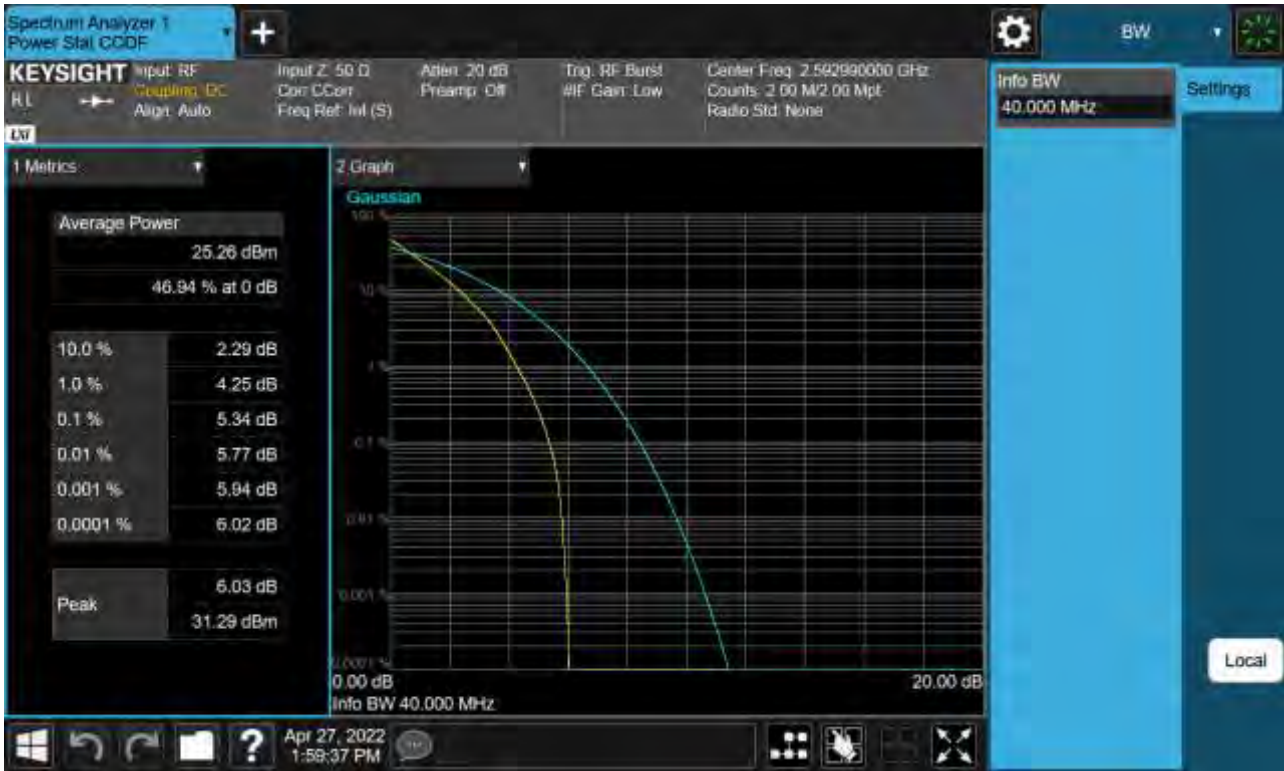
Sub6 n41. PAR Plot (30 M BW_Ch.518598_256QAM)



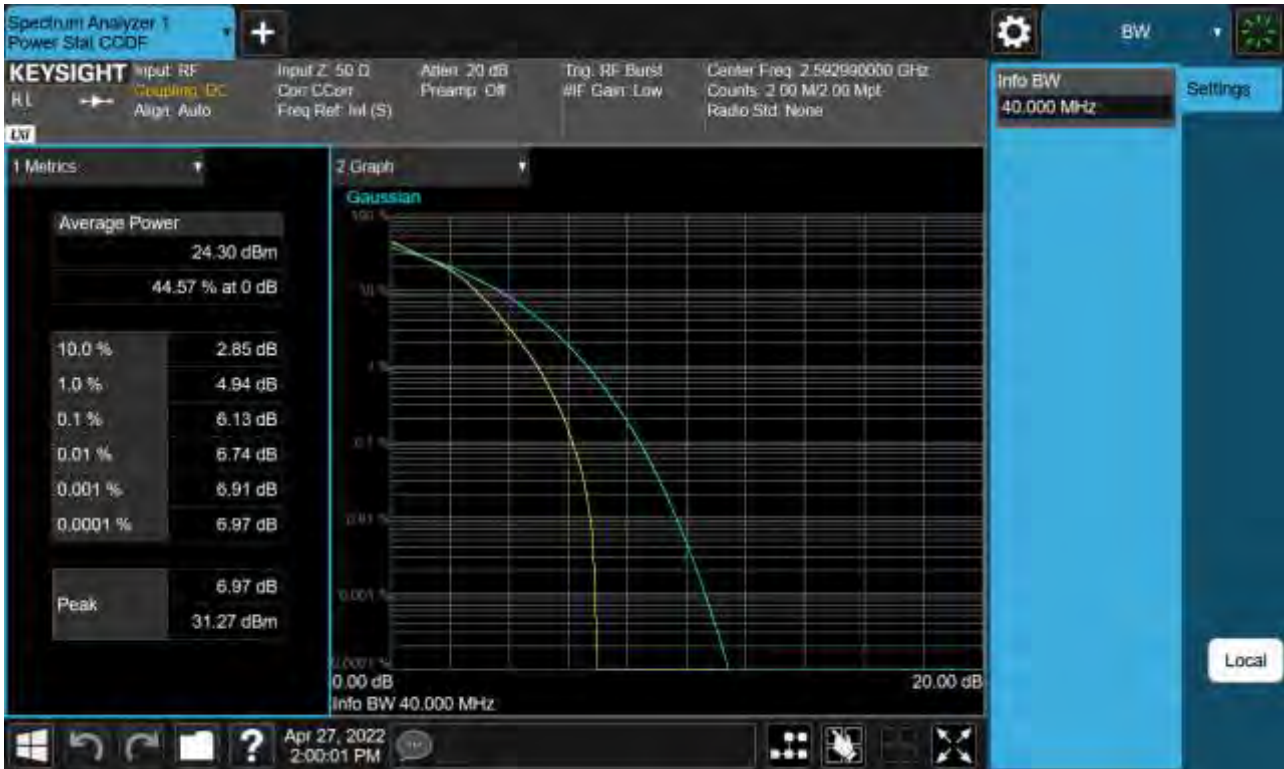
Sub6 n41. PAR Plot (40 M BW_Ch.518598_BPSK)



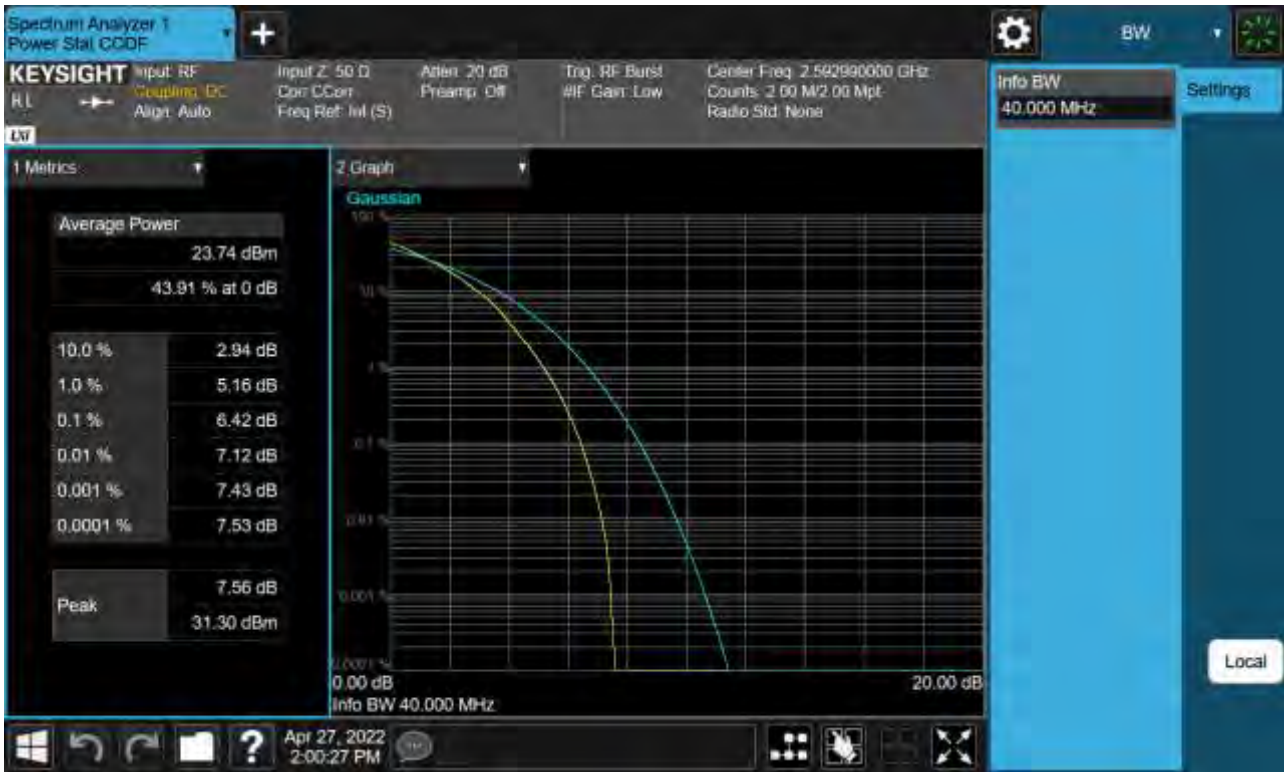
Sub6 n41. PAR Plot (40 M BW_Ch.518598_QPSK)



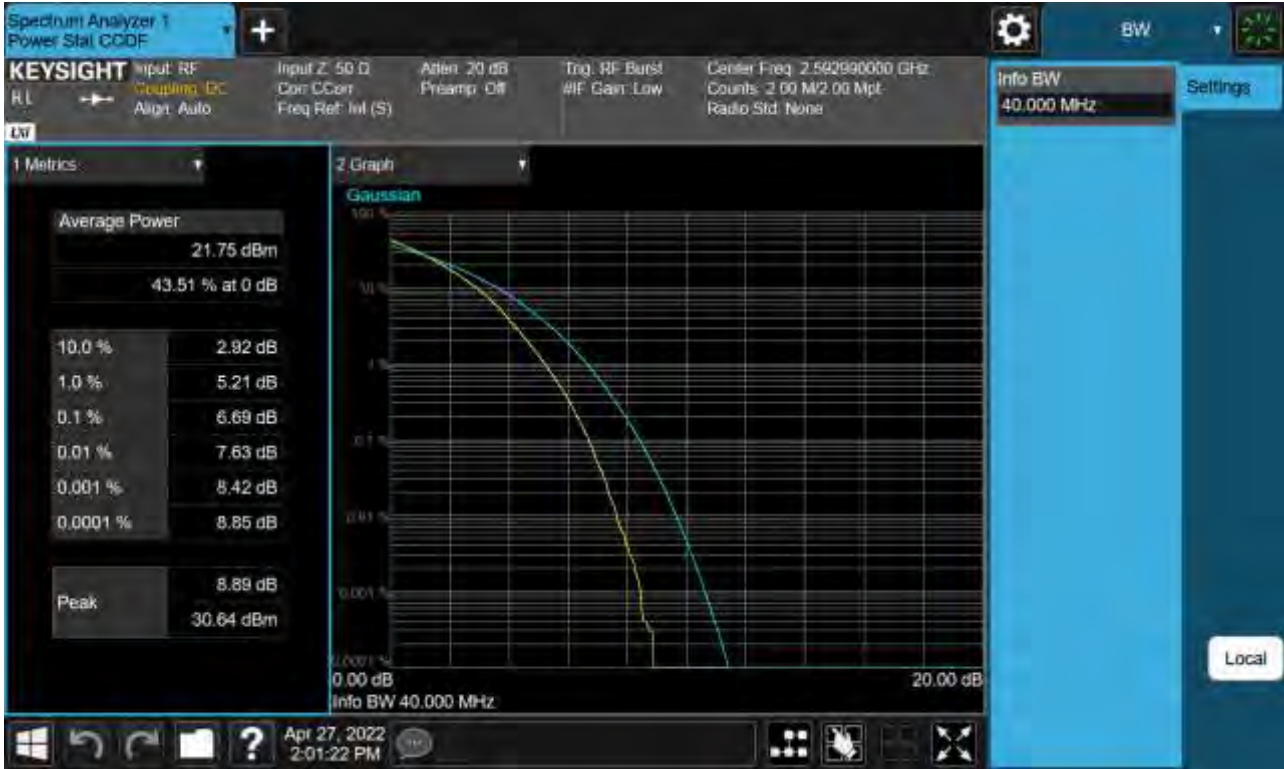
Sub6 n41. PAR Plot (40 M BW_Ch.518598_16QAM)



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



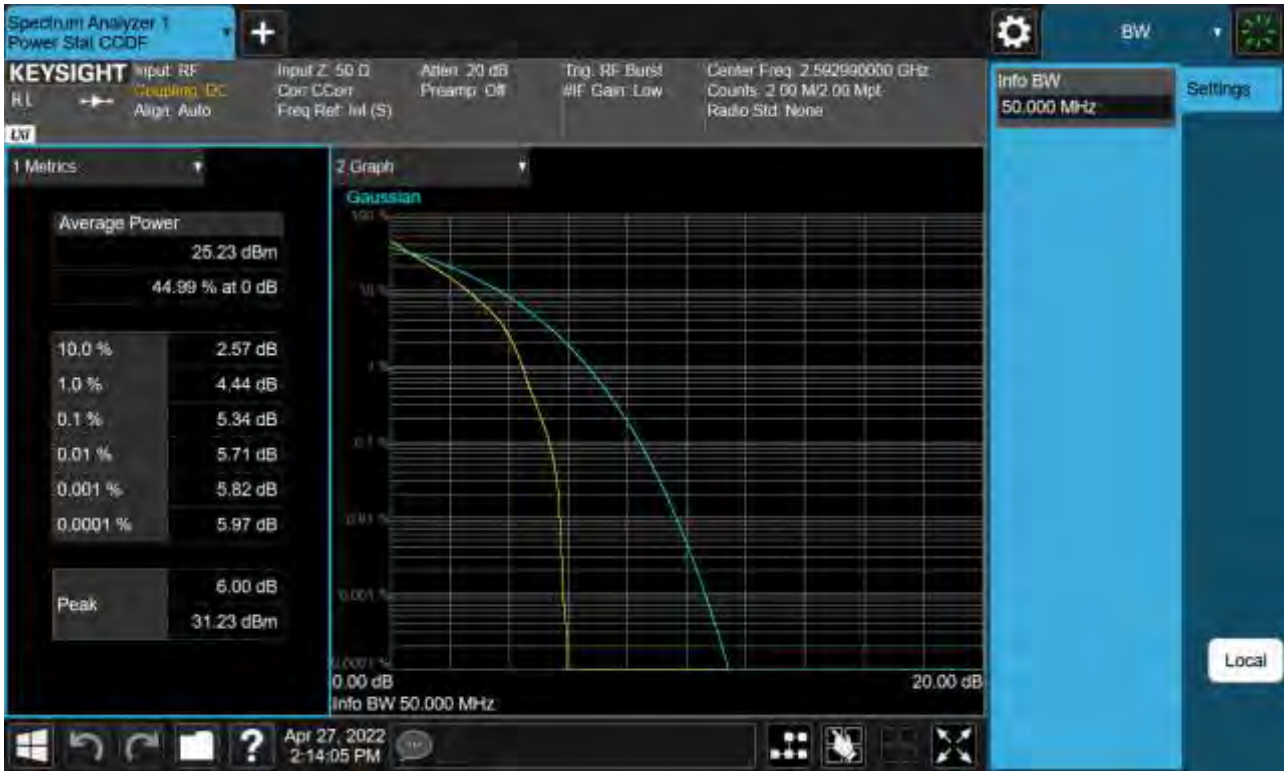
Sub6 n41. PAR Plot (40 M BW_Ch.518598_256QAM)



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



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



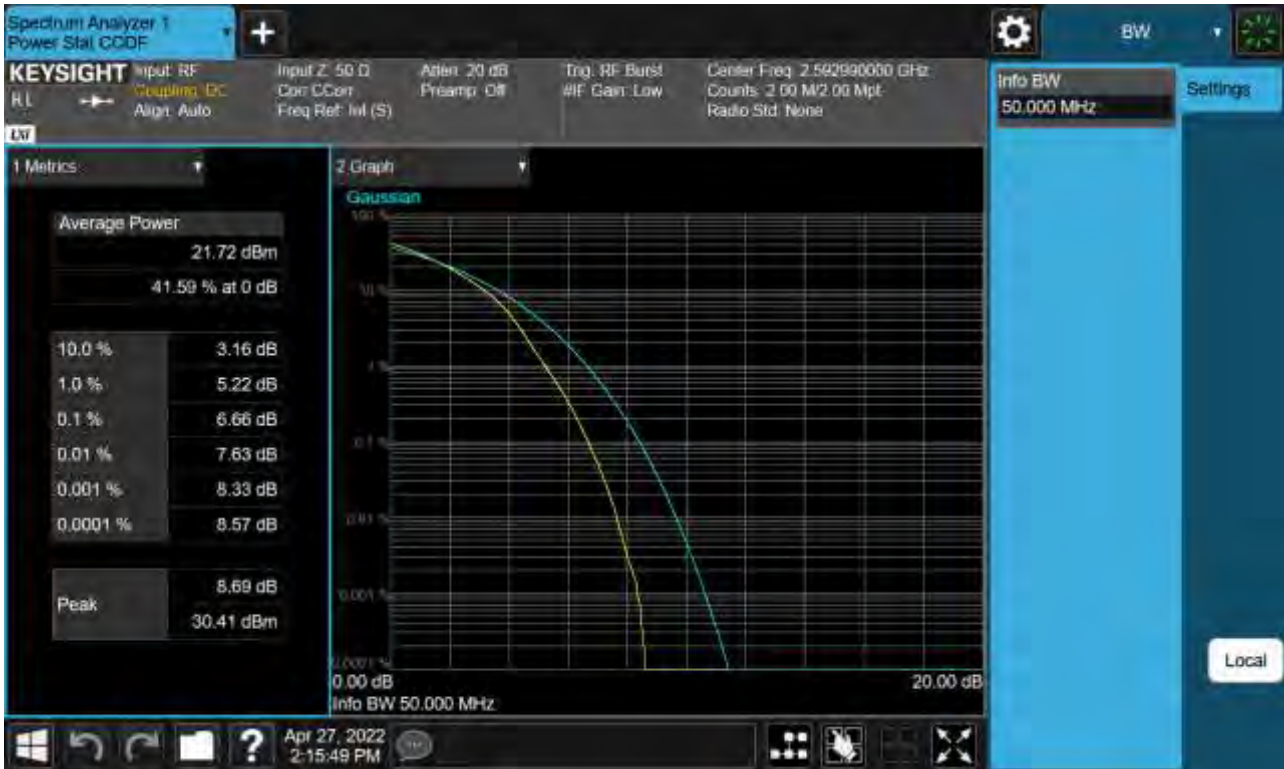
Sub6 n41. PAR Plot (50 M BW_Ch.518598_16QAM)



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



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



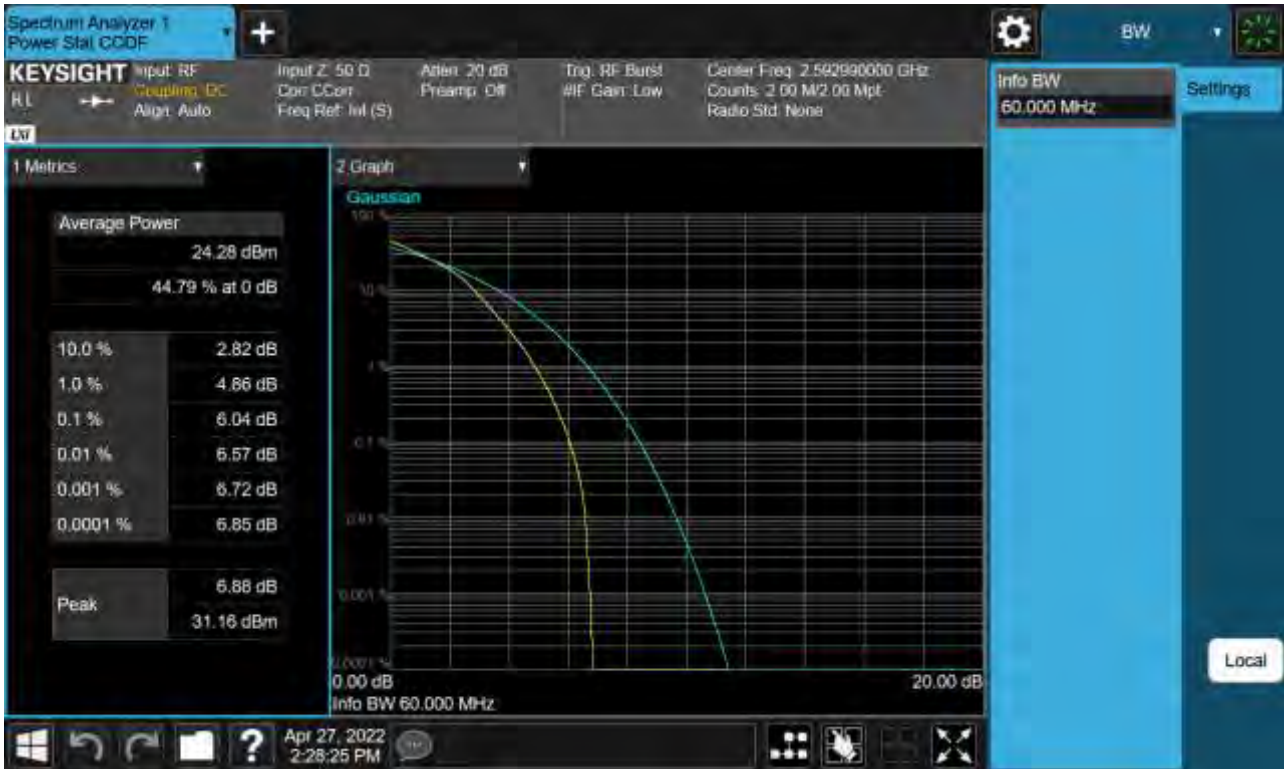
Sub6 n41. PAR Plot (60 M BW_Ch.518598_BPSK)



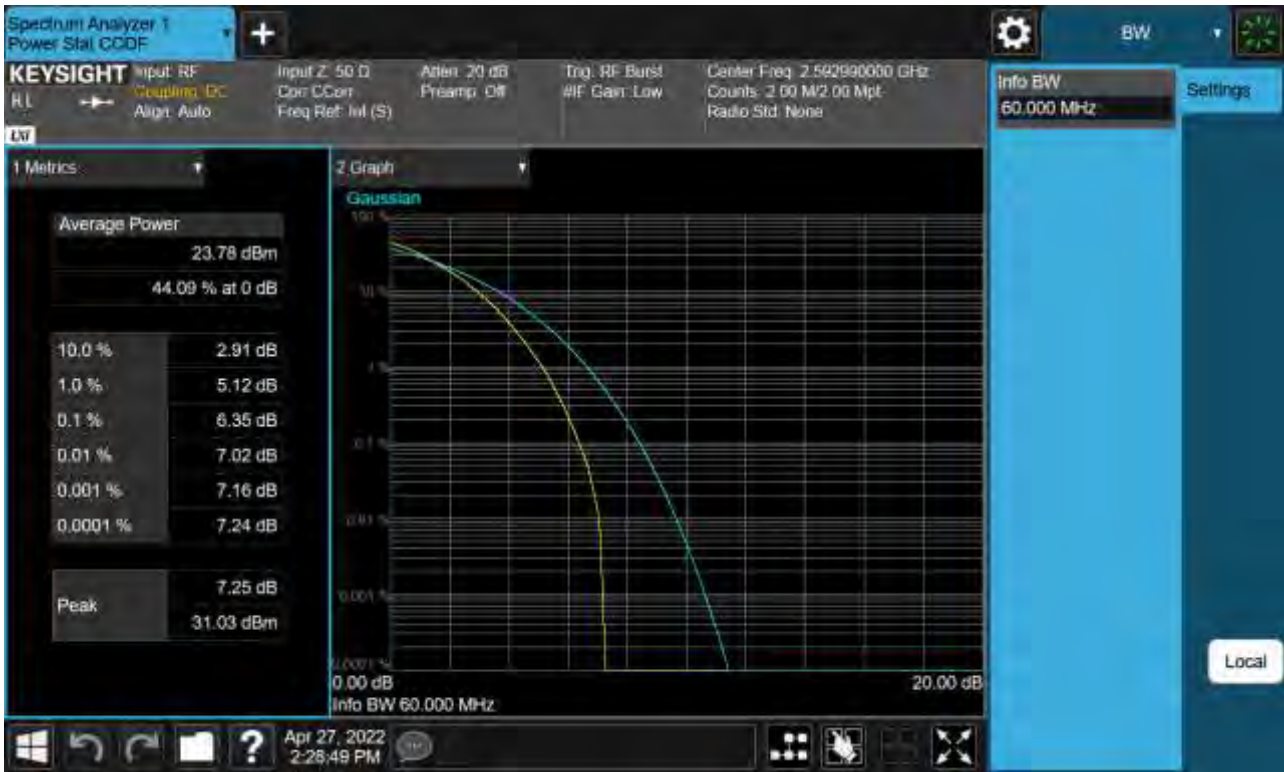
Sub6 n41. PAR Plot (60 M BW_Ch.518598_QPSK)



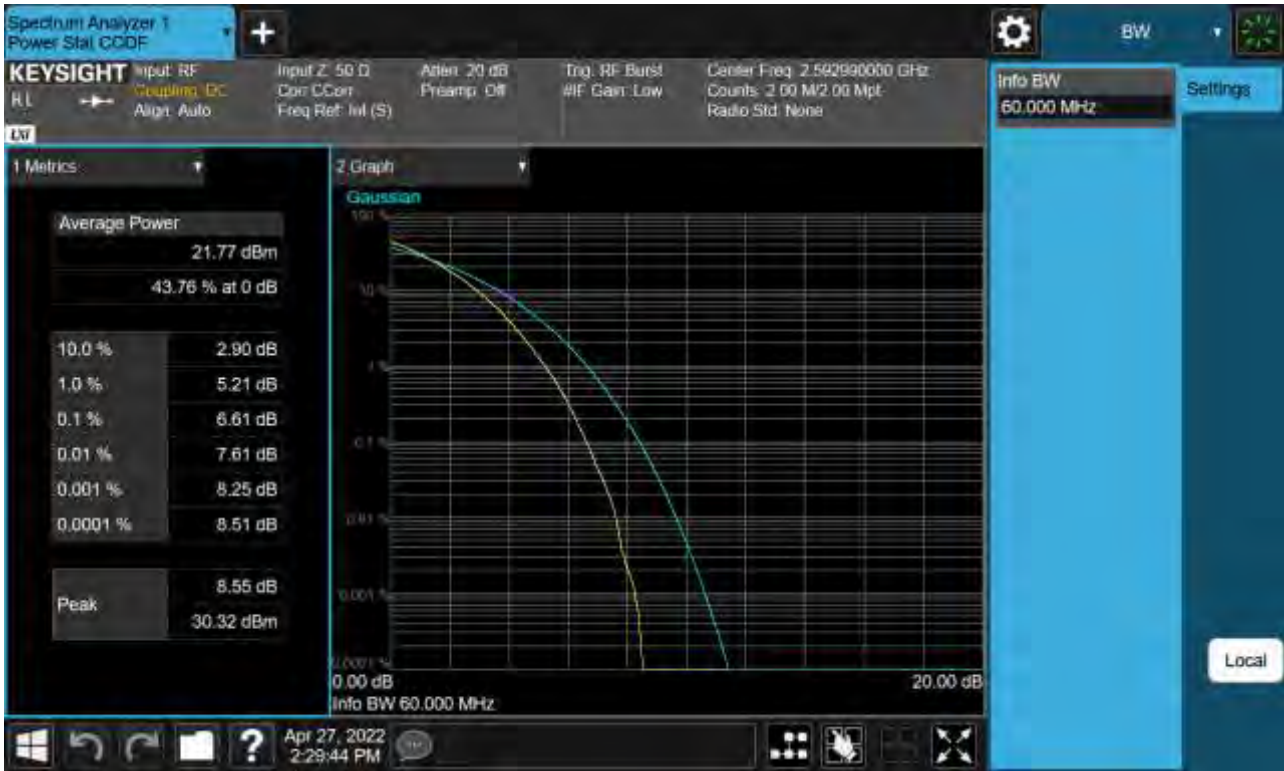
Sub6 n41. PAR Plot (60 M BW_Ch.518598_16QAM)



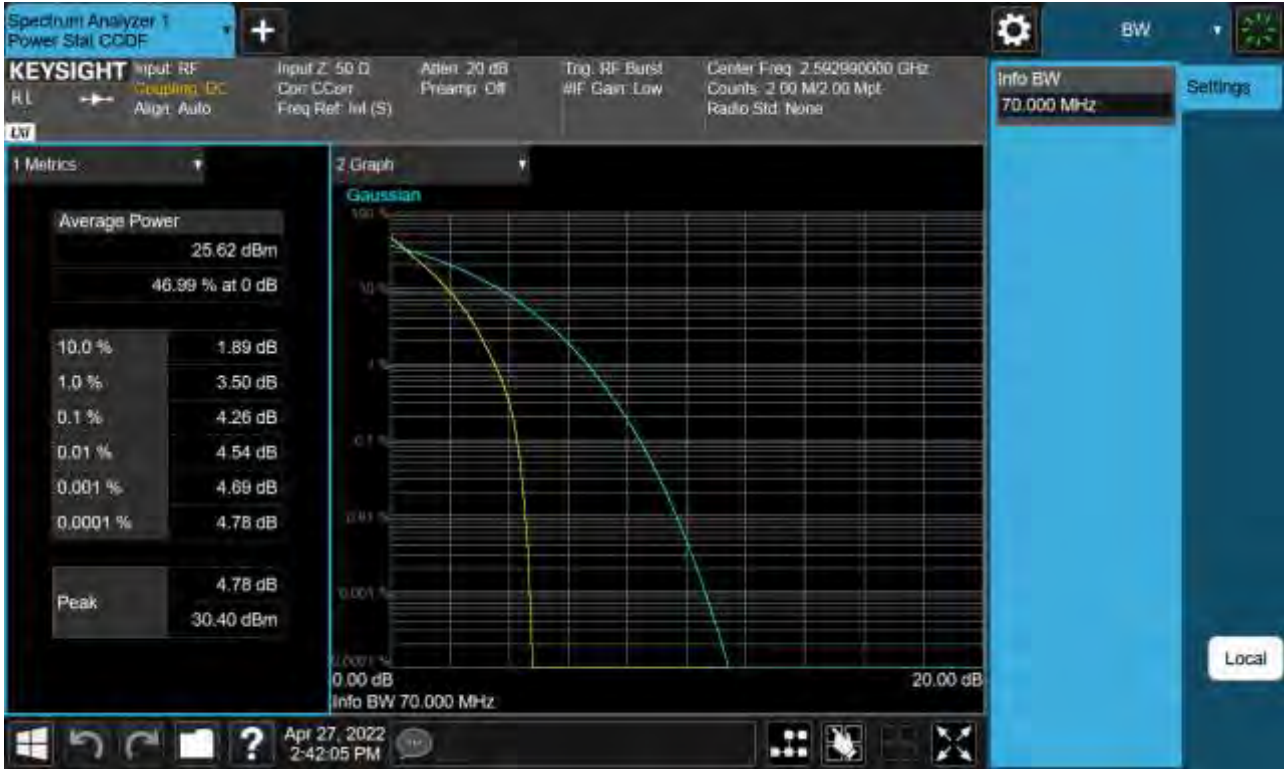
Sub6 n41. PAR Plot (60 M BW_Ch.518598_64QAM)



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



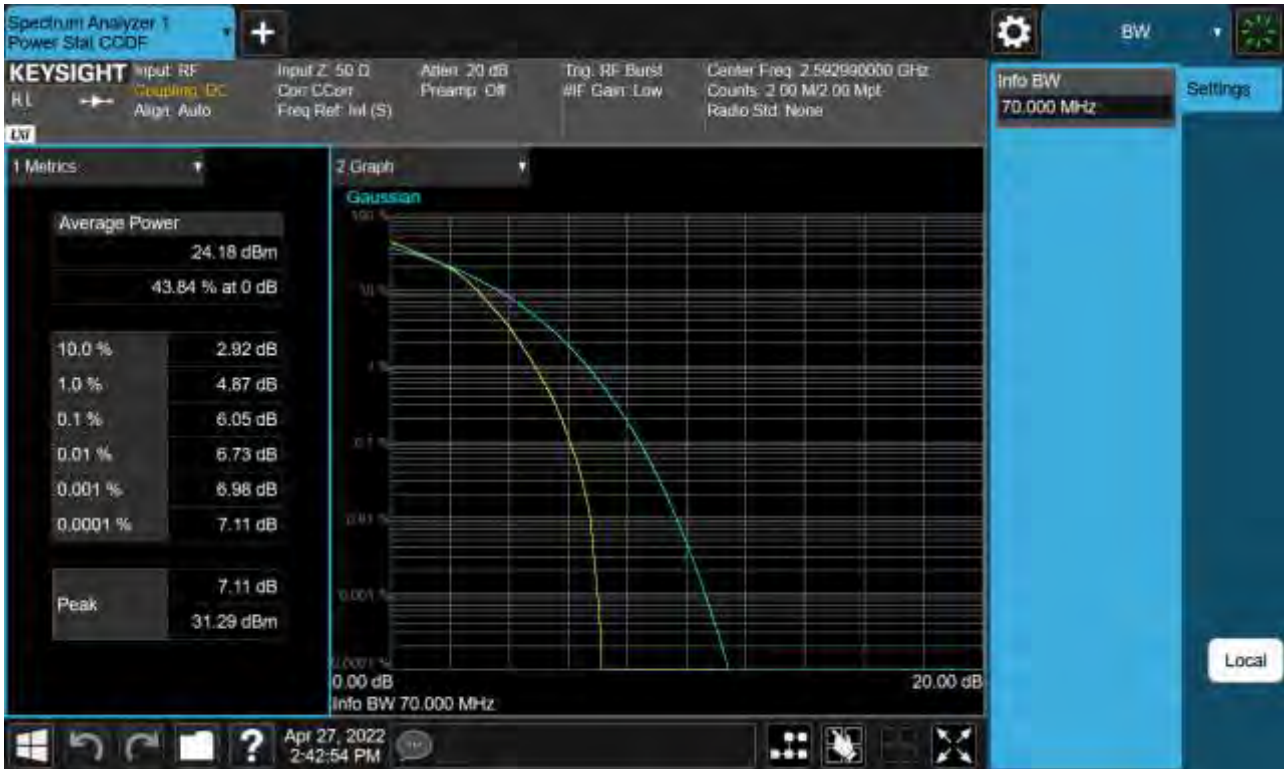
Sub6 n41. PAR Plot (70 M BW_Ch.518598_BPSK)



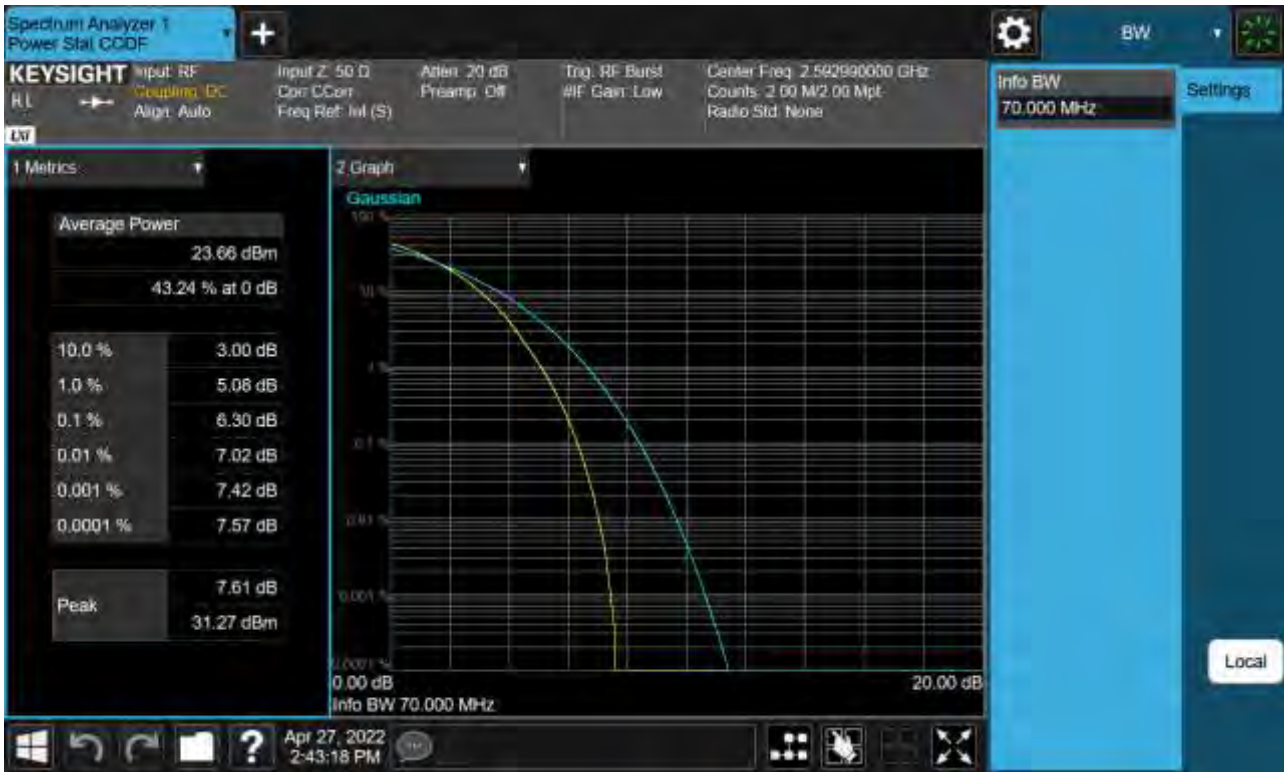
Sub6 n41. PAR Plot (70 M BW_Ch.518598_QPSK)



Sub6 n41. PAR Plot (70 M BW_Ch.518598_16QAM)



Sub6 n41. PAR Plot (70 M BW_Ch.518598_64QAM)



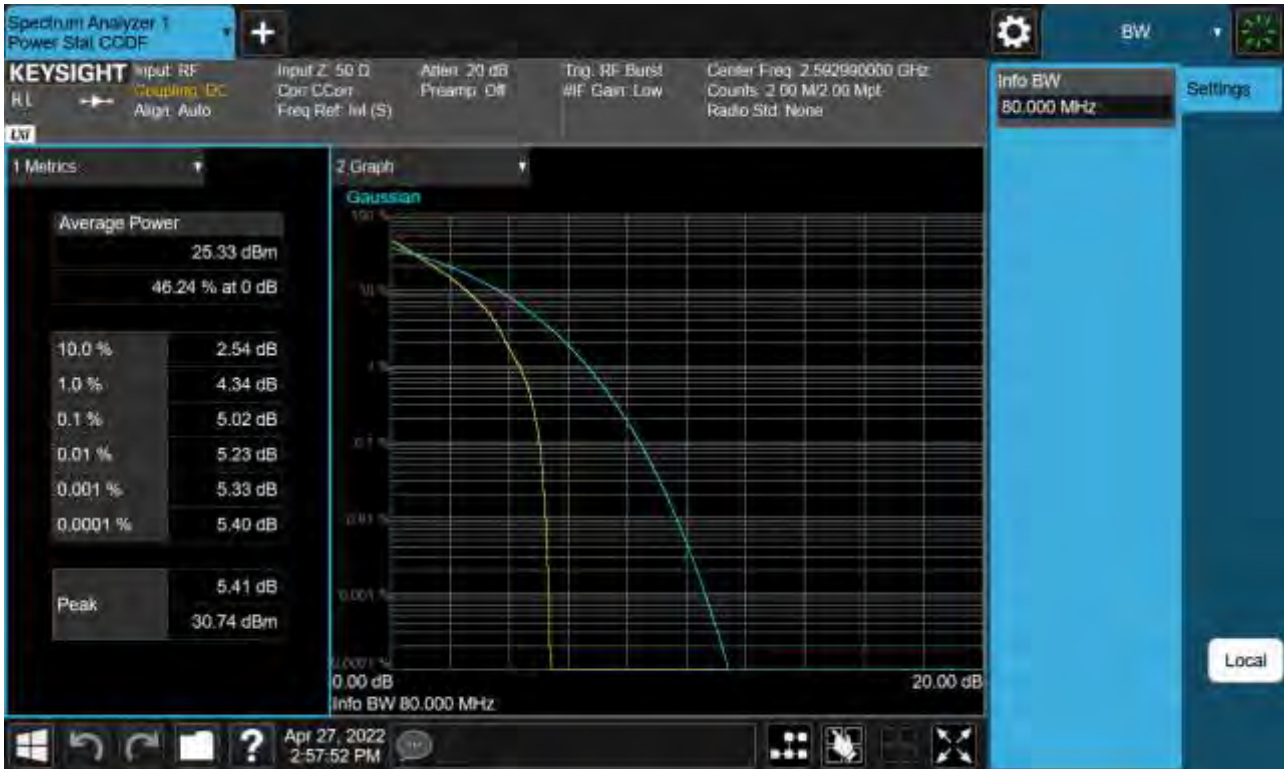
Sub6 n41. PAR Plot (70 M BW_Ch.518598_256QAM)



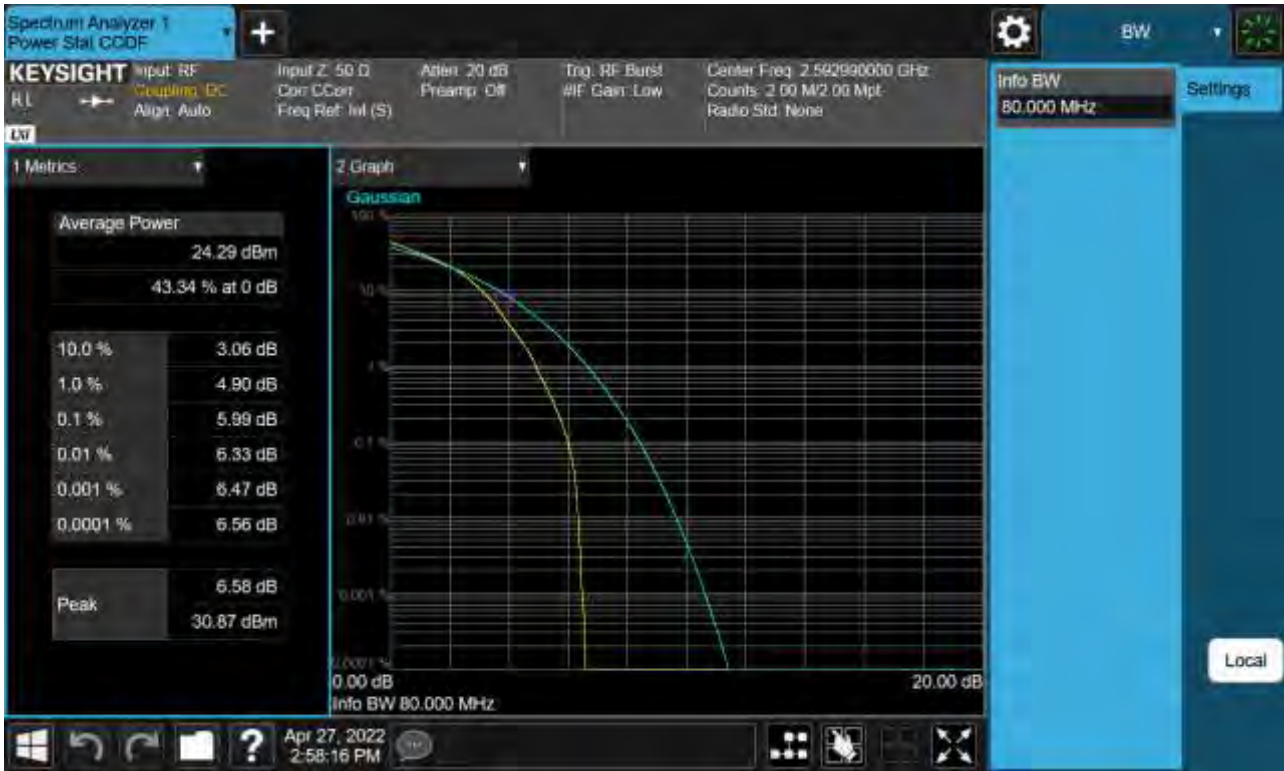
Sub6 n41. PAR Plot (80 M BW_Ch.518598_BPSK)



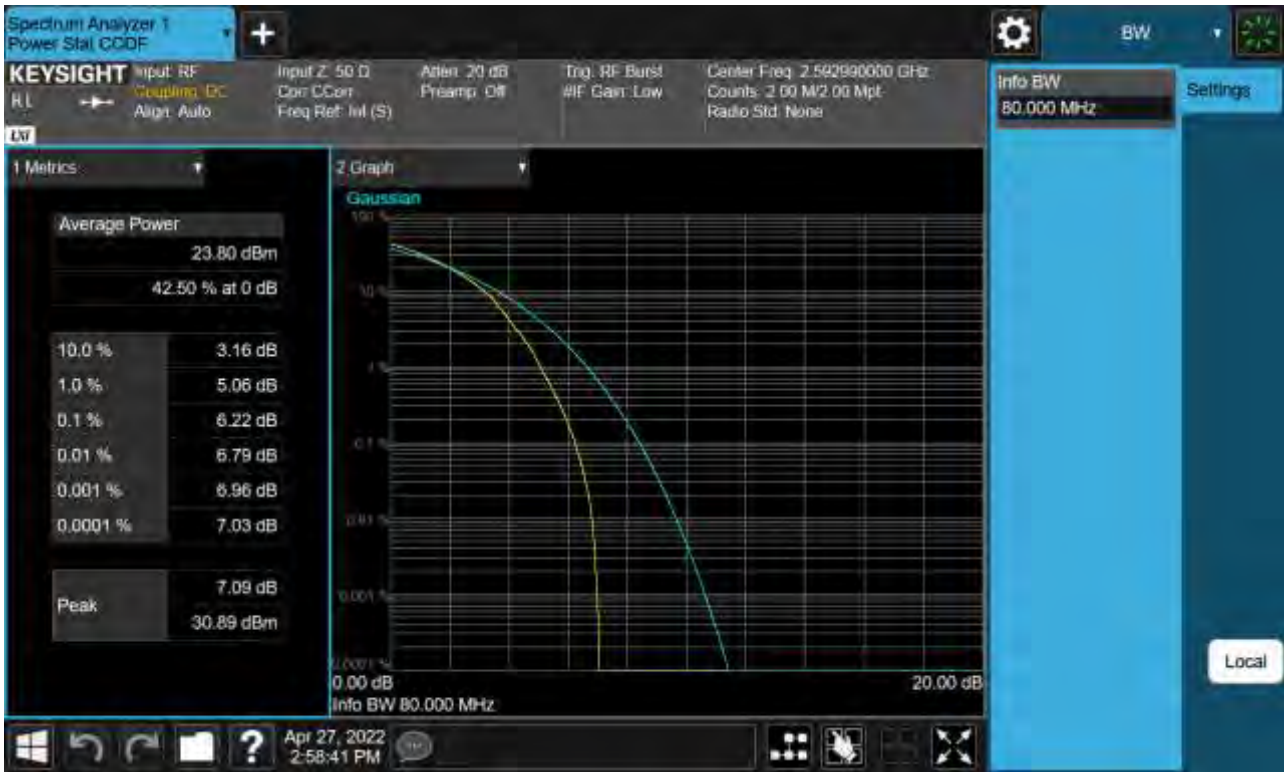
Sub6 n41. PAR Plot (80 M BW_Ch.518598_QPSK)



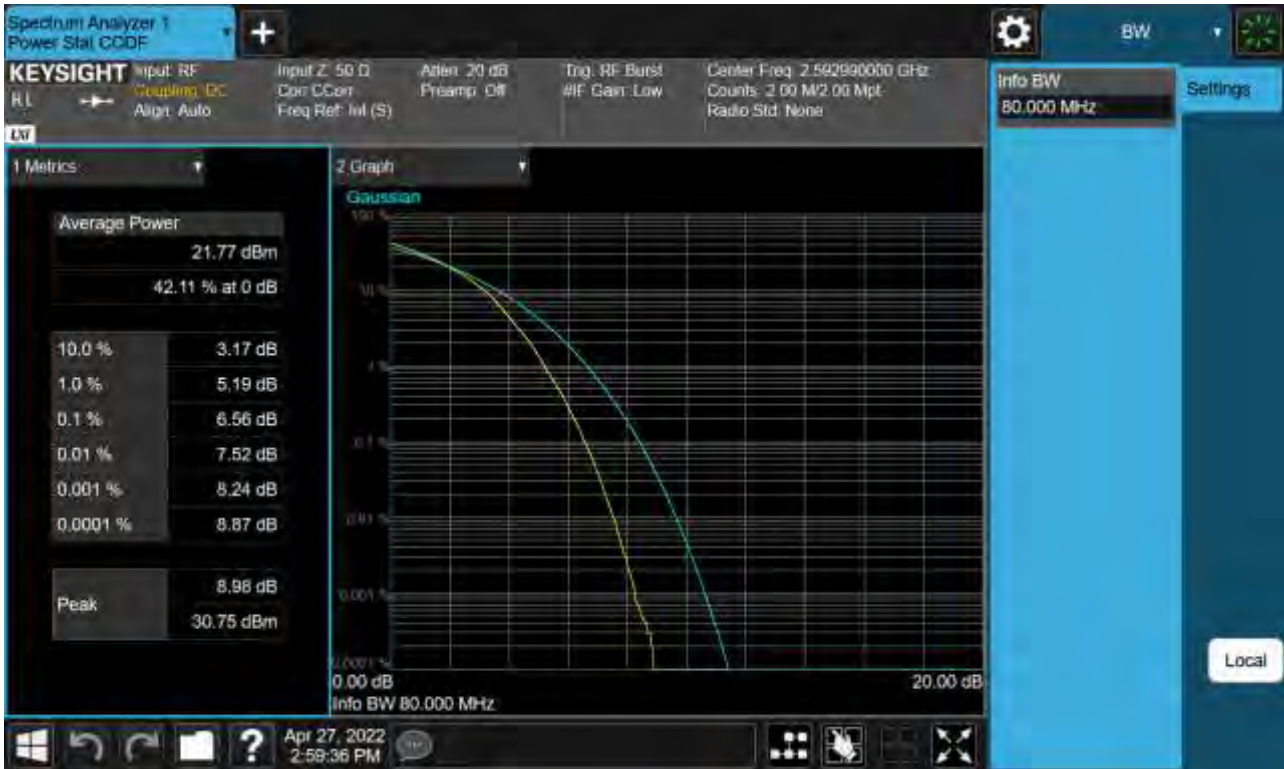
Sub6 n41. PAR Plot (80 M BW_Ch.518598_16QAM)



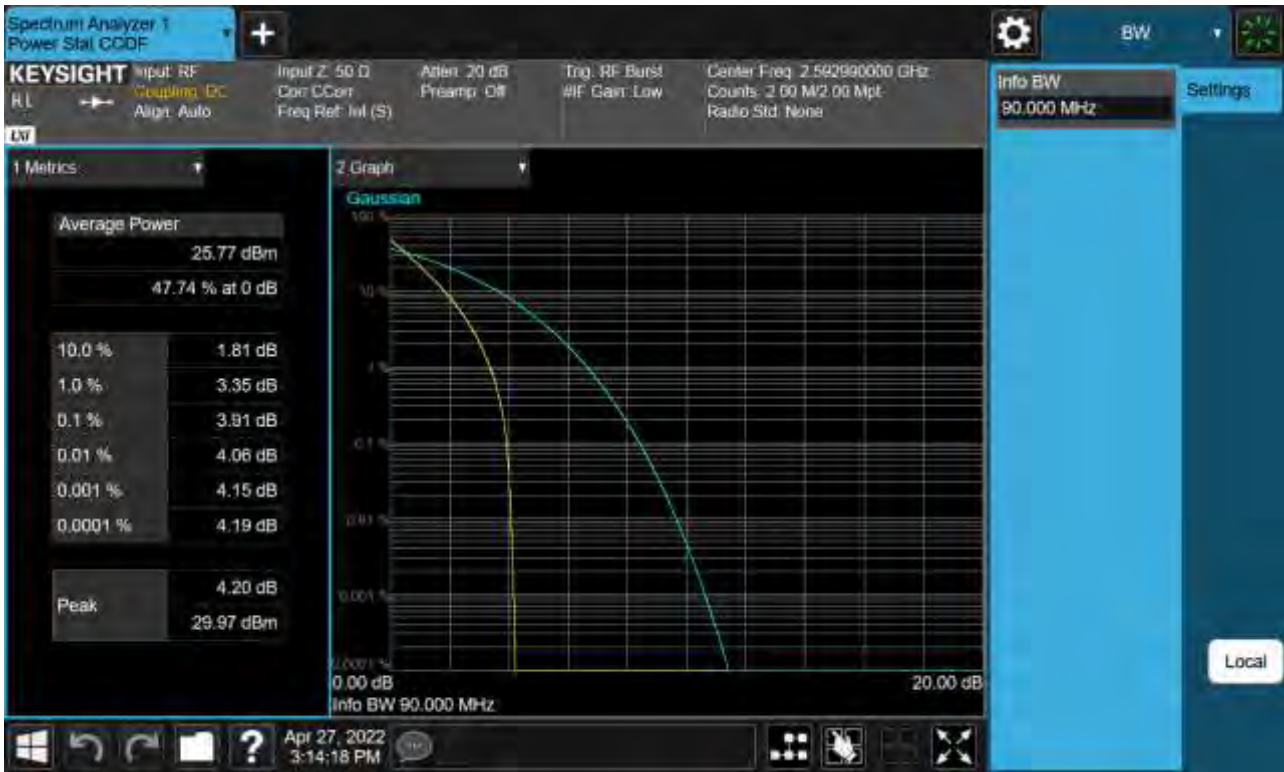
Sub6 n41. PAR Plot (80 M BW_Ch.518598_64QAM)



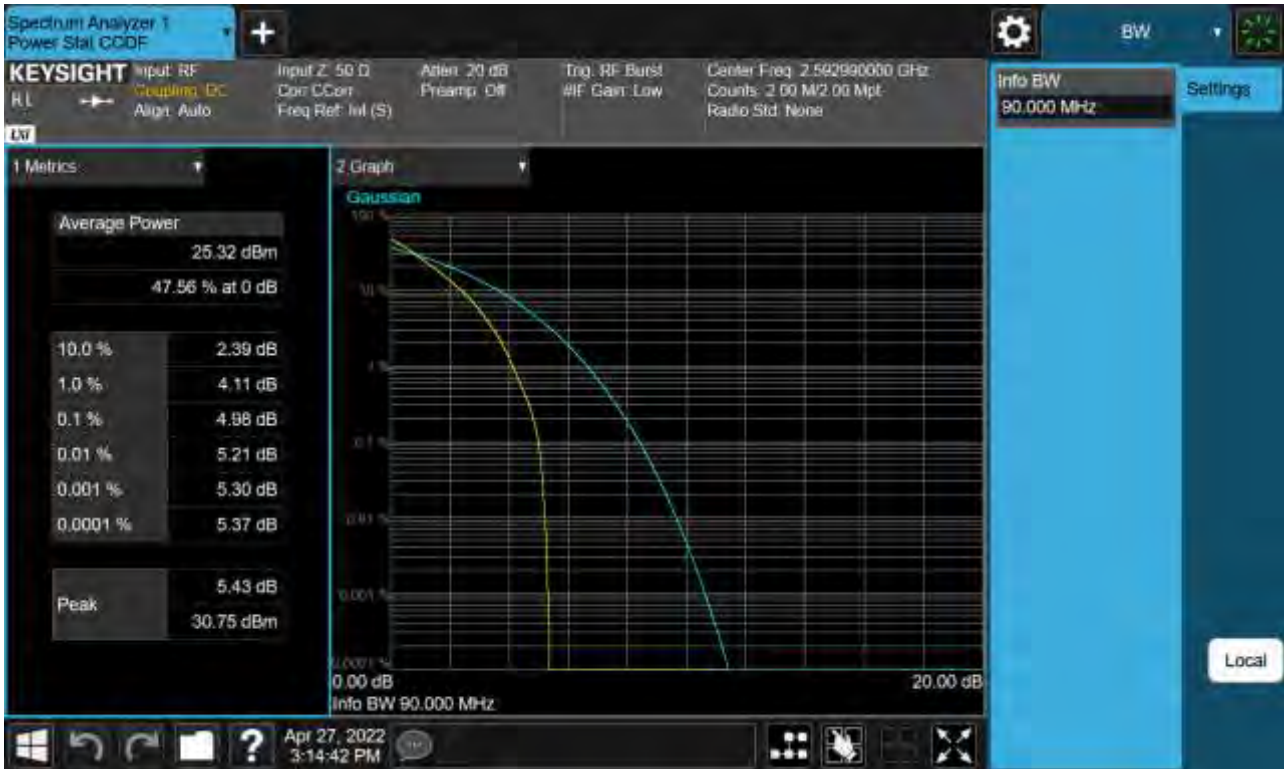
Sub6 n41. PAR Plot (80 M BW_Ch.518598_256QAM)



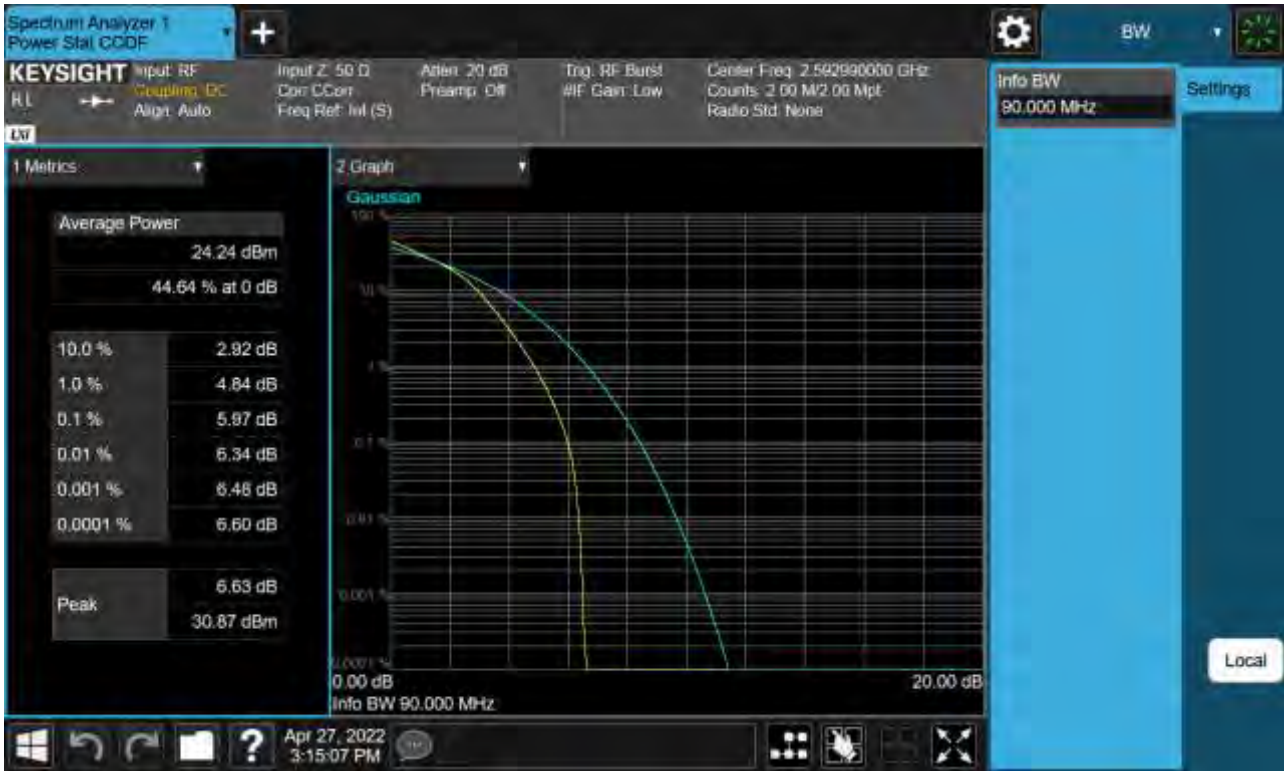
Sub6 n41. PAR Plot (90 M BW_Ch.518598_BPSK)



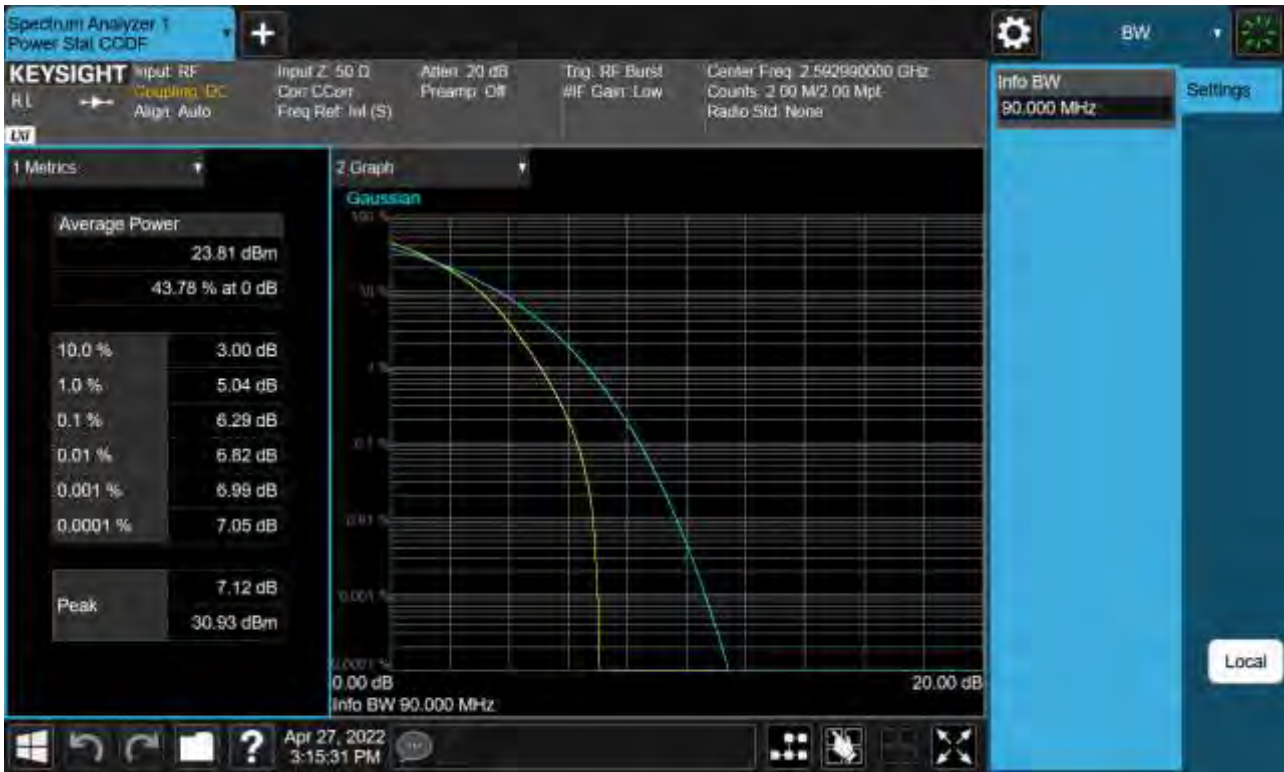
Sub6 n41. PAR Plot (90 M BW_Ch.518598_QPSK)



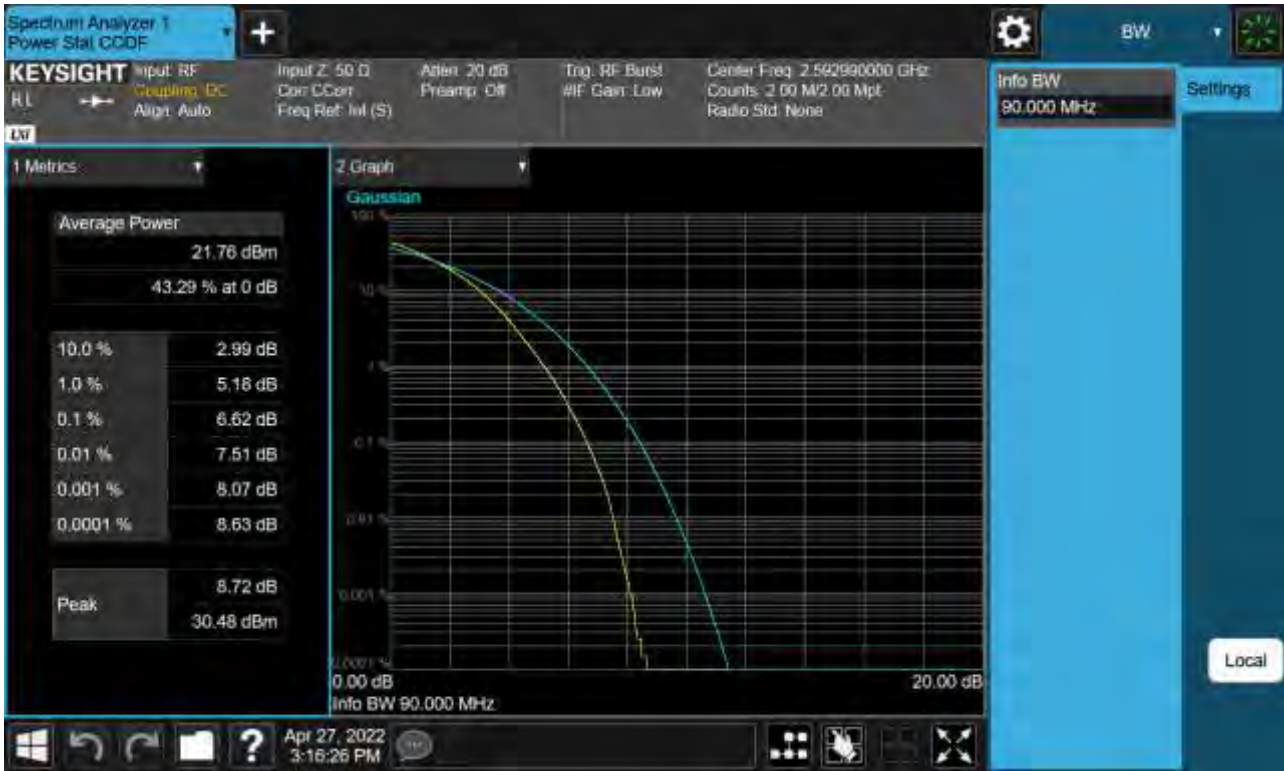
Sub6 n41. PAR Plot (90 M BW_Ch.518598_16QAM)



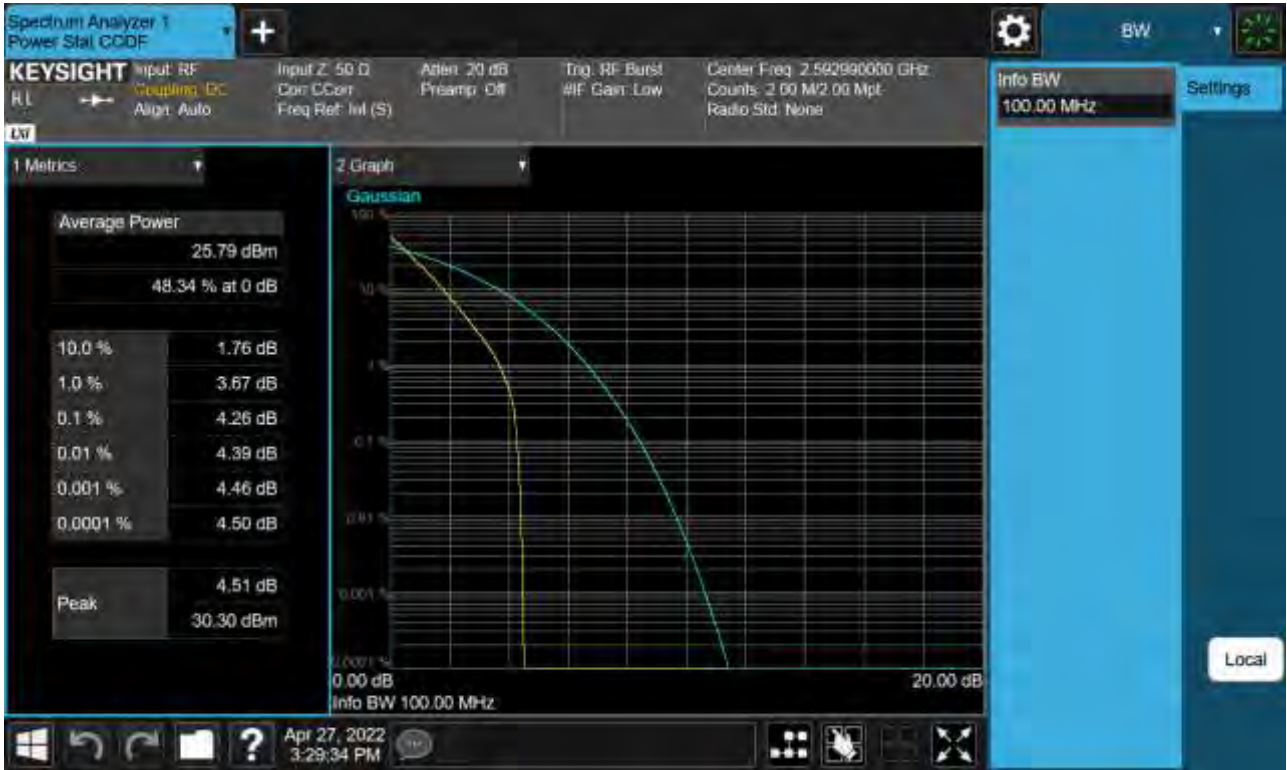
Sub6 n41. PAR Plot (90 M BW_Ch.518598_64QAM)



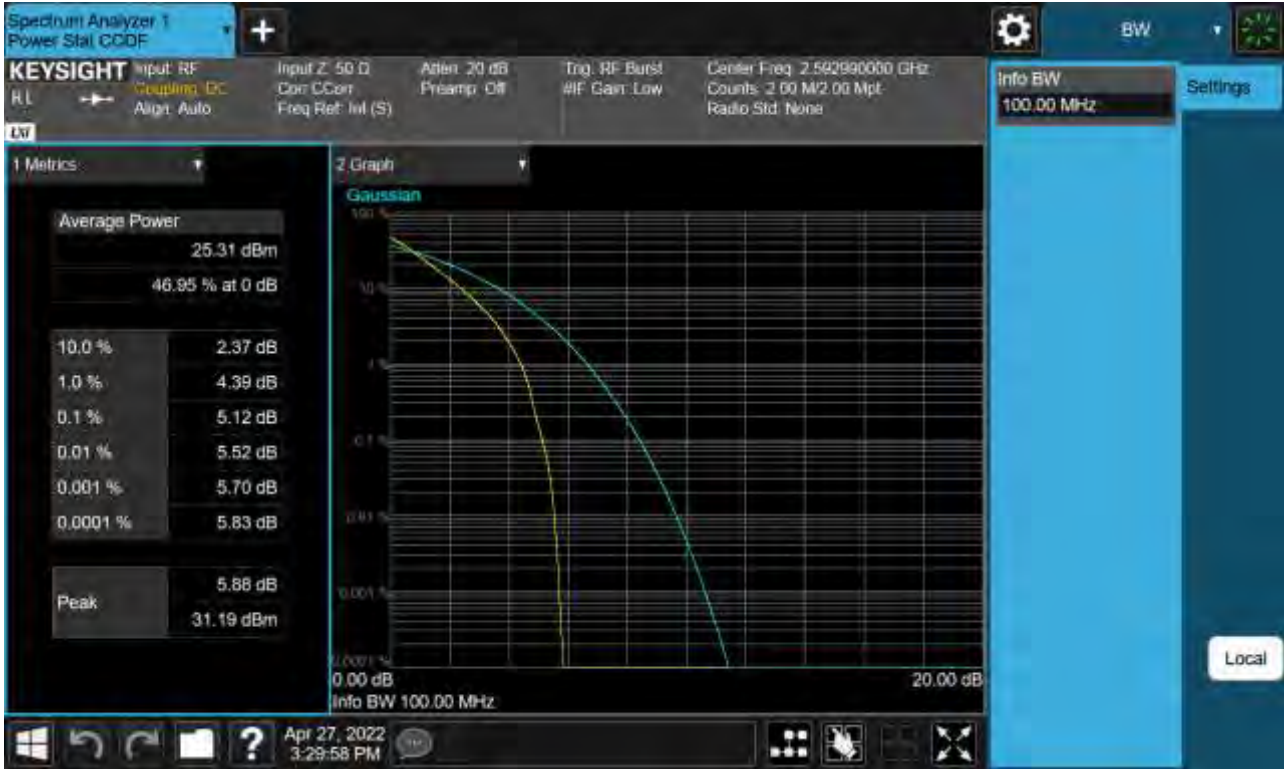
Sub6 n41. PAR Plot (90 M BW_Ch.518598_256QAM)



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



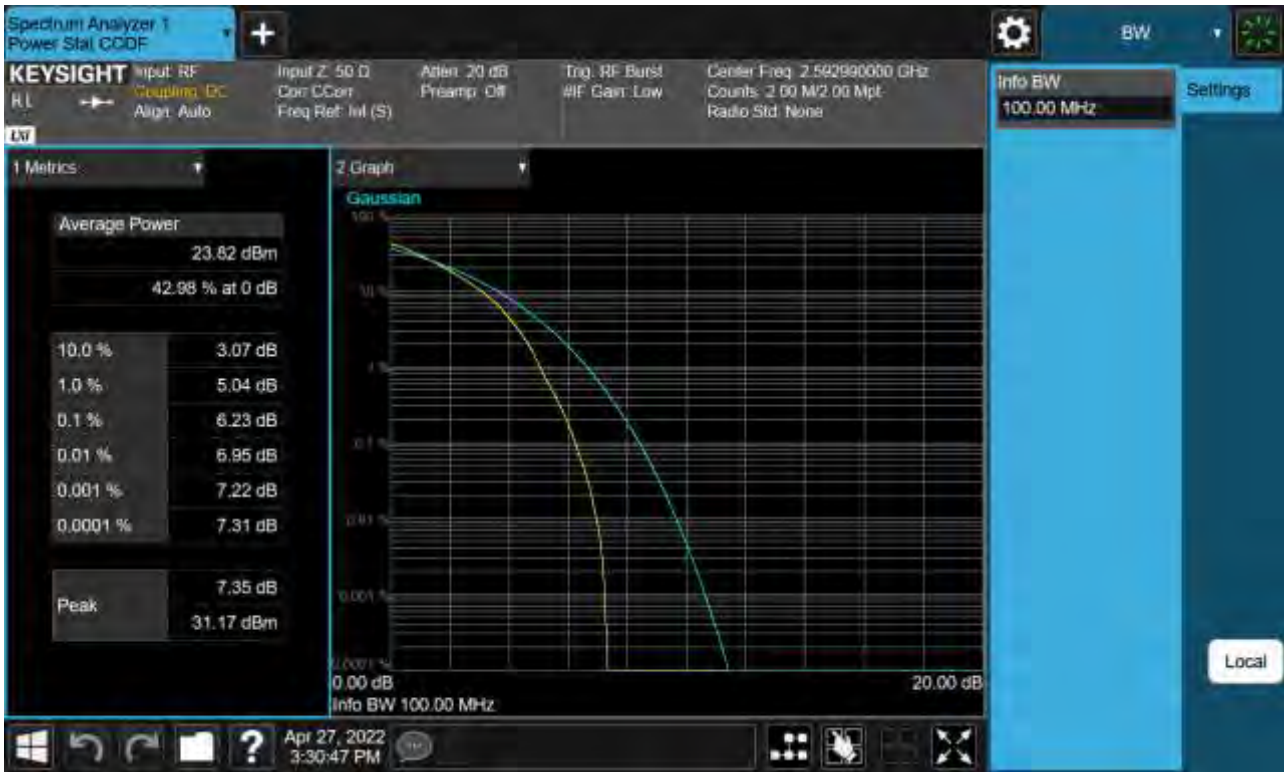
Sub6 n41. PAR Plot (100 M BW_Ch.518598_QPSK)



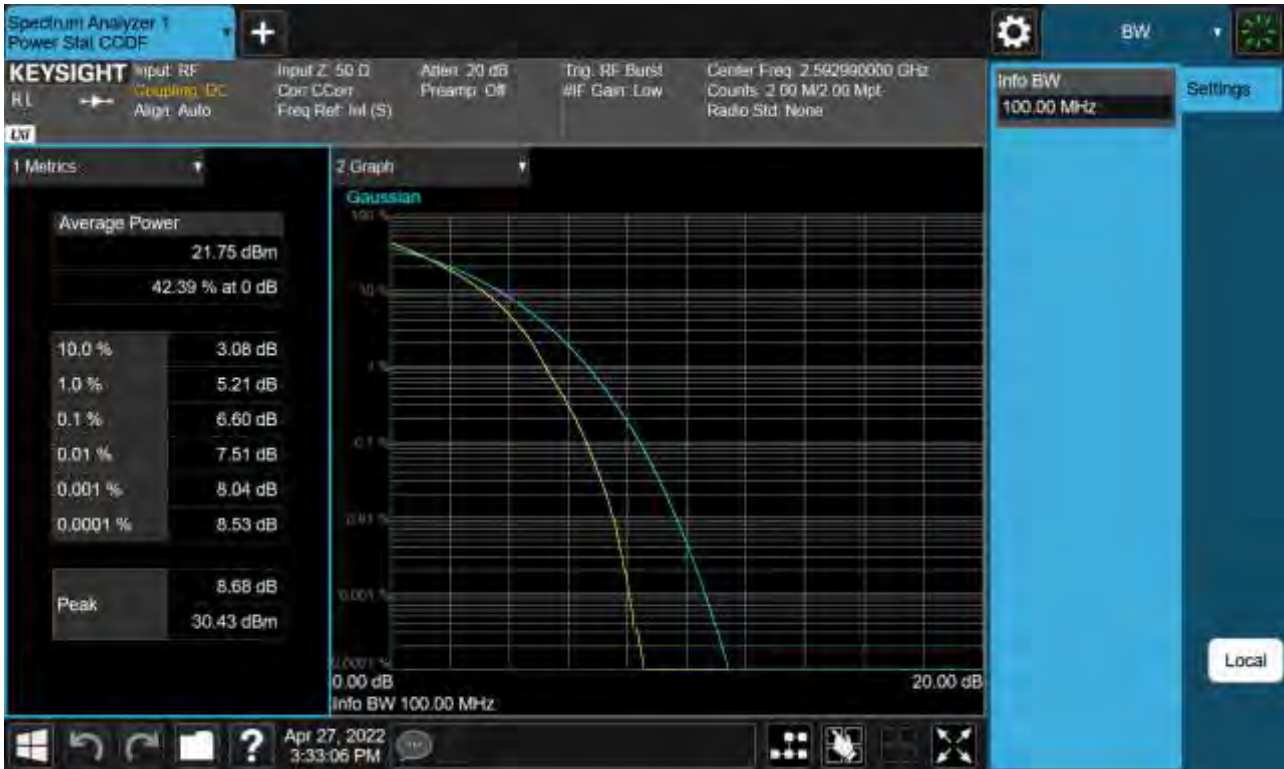
Sub6 n41. PAR Plot (100 M BW_Ch.518598_16QAM)



Sub6 n41. PAR Plot (100 M BW_Ch.518598_64QAM)



Sub6 n41. PAR Plot (100 M BW_Ch.518598_256QAM)



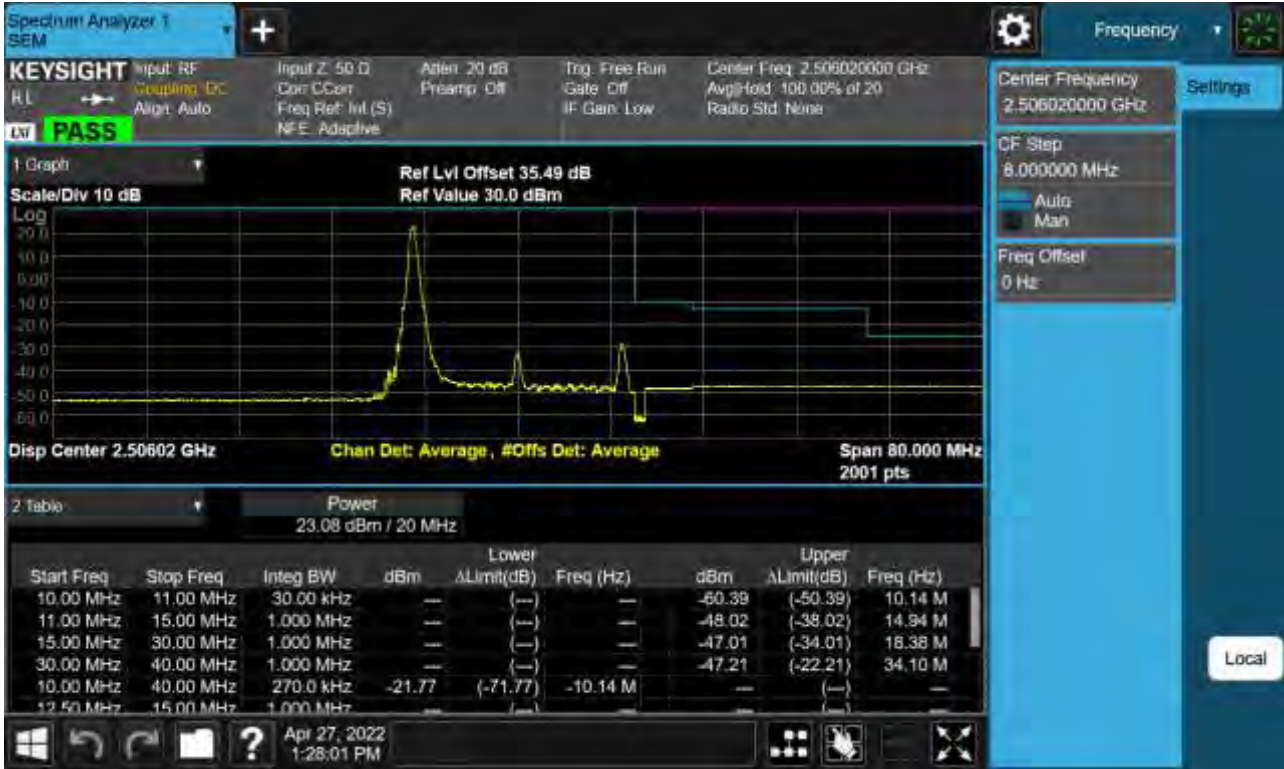
Sub6 n41. Low Channel Edge Plot (20 MHz Ch.501204 BPSK RB 1)-1



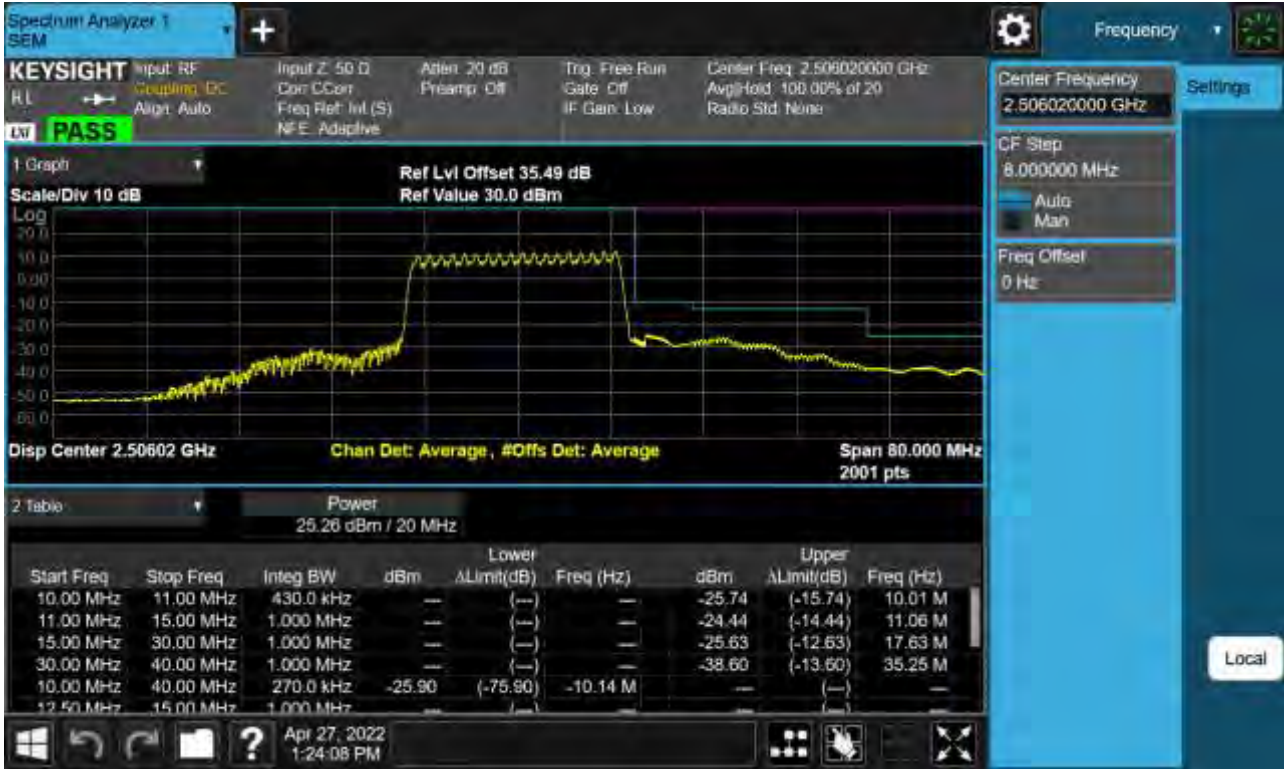
Sub6 n41. Low Channel Edge Plot (20 MHz Ch.501204 BPSK)-1



Sub6 n41. Low Channel Edge Plot (20 MHz Ch.501204 BPSK_RB1)-2



Sub6 n41. Low Channel Edge Plot (20 MHz Ch.501204 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (20 MHz Ch.518598 BPSK)



Sub6 n41. High Channel Edge Plot (20 MHz Ch.535998 BPSK RB 1)



Sub6 n41. High Channel Edge Plot (20 MHz Ch.535998 BPSK)



Sub6 n41. Low Channel Edge Plot (30 MHz Ch.502200 BPSK RB 1)-1



Sub6 n41. Low Channel Edge Plot (30 MHz Ch.502200 BPSK)-1



Sub6 n41. Low Channel Edge Plot (30 MHz Ch.502200 BPSK_RB1)-2



Sub6 n41. Low Channel Edge Plot (30 MHz Ch.502200 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (30 MHz Ch.518598 BPSK)



Sub6 n41. High Channel Edge Plot (30 MHz Ch.534996 BPSK RB 1)



Sub6 n41. High Channel Edge Plot (30 MHz Ch.534996 BPSK)



Sub6 n41. Low Channel Edge Plot (40 MHz Ch.503202 BPSK RB 1)-1



Sub6 n41. Low Channel Edge Plot (40 MHz Ch.503202 BPSK)-1



Sub6 n41. Low Channel Edge Plot (40 MHz Ch.503202 BPSK_RB1)-2



Sub6 n41. Low Channel Edge Plot (40 MHz Ch.503202 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (40 MHz Ch.518598 BPSK)



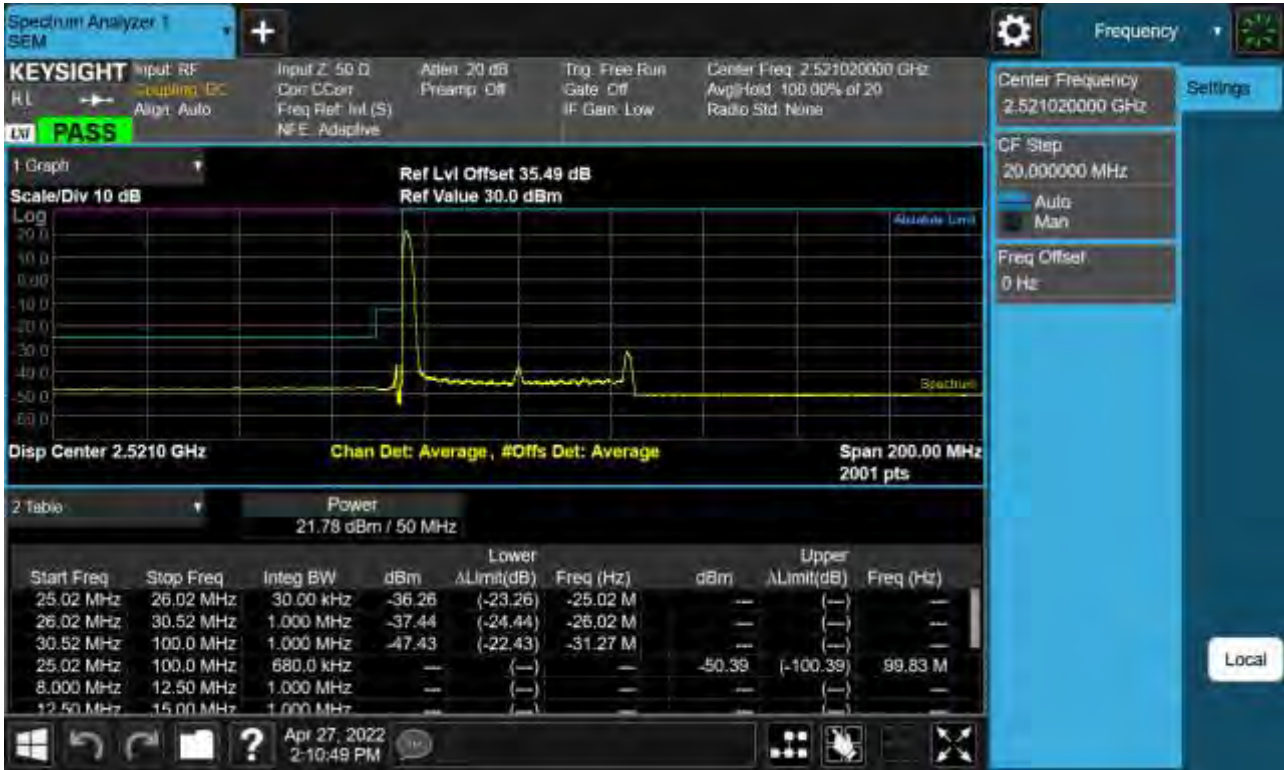
Sub6 n41. High Channel Edge Plot (40 MHz Ch.534000 BPSK RB 1)



Sub6 n41. High Channel Edge Plot (40 MHz Ch.534000 BPSK)



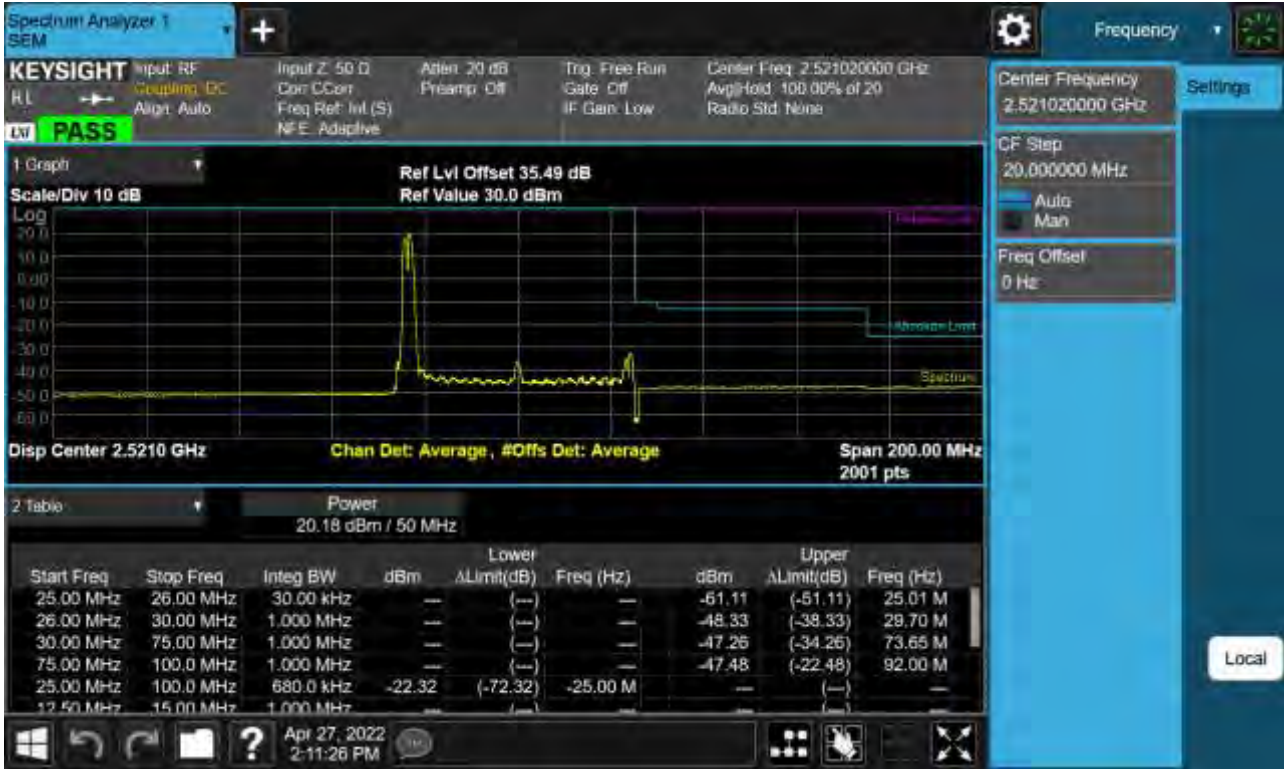
Sub6 n41. Low Channel Edge Plot (50 MHz Ch.504204 BPSK RB 1)-1



Sub6 n41. Low Channel Edge Plot (50 MHz Ch.504204 BPSK)-1



Sub6 n41. Low Channel Edge Plot (50 MHz Ch.504204 BPSK_RB1)-2



Sub6 n41. Low Channel Edge Plot (50 MHz Ch.504204 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (50 MHz Ch.518598 BPSK)



Sub6 n41. High Channel Edge Plot (50 MHz Ch.532998 BPSK RB 1)



Sub6 n41. High Channel Edge Plot (50 MHz Ch.532998 BPSK)



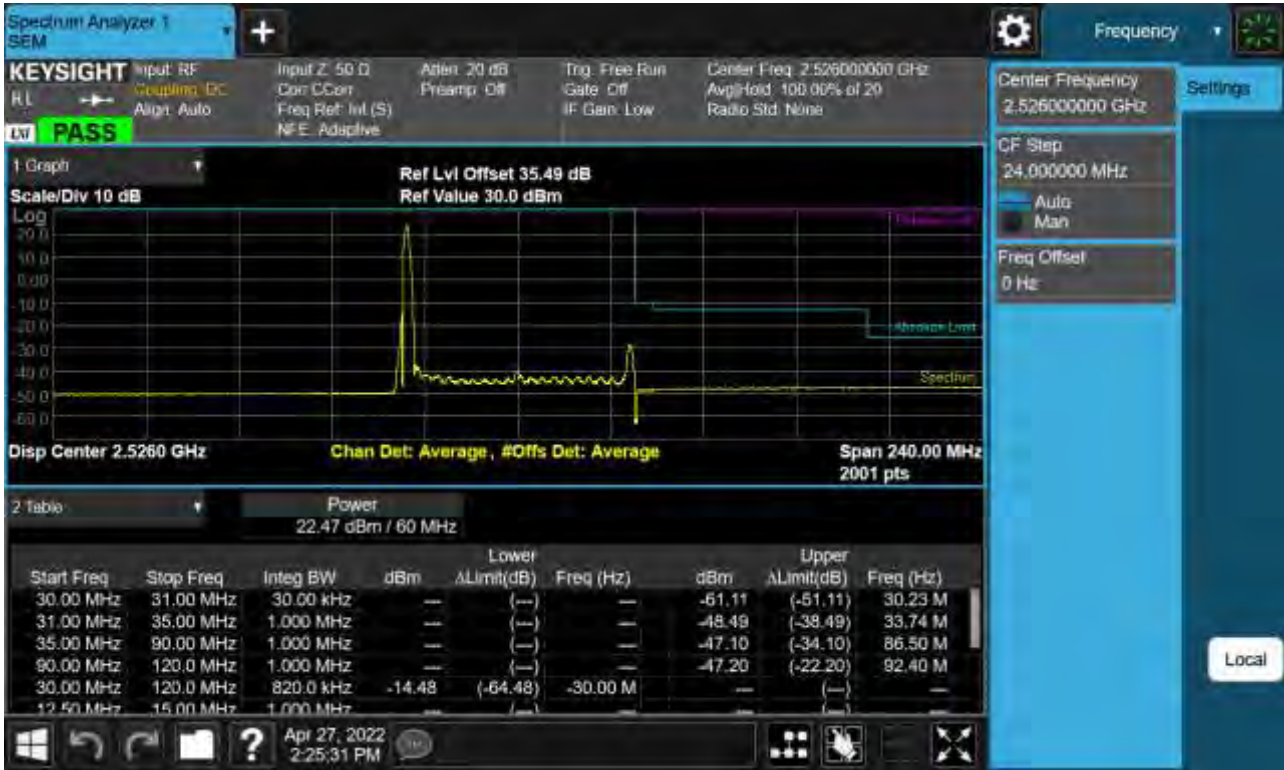
Sub6 n41. Low Channel Edge Plot (60 MHz Ch.505200 BPSK RB 1)-1



Sub6 n41. Low Channel Edge Plot (60 MHz Ch.505200 BPSK)-1



Sub6 n41. Low Channel Edge Plot (60 MHz Ch.505200 BPSK_RB1)-2



Sub6 n41. Low Channel Edge Plot (60 MHz Ch.505200 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (60 MHz Ch.518598 BPSK)



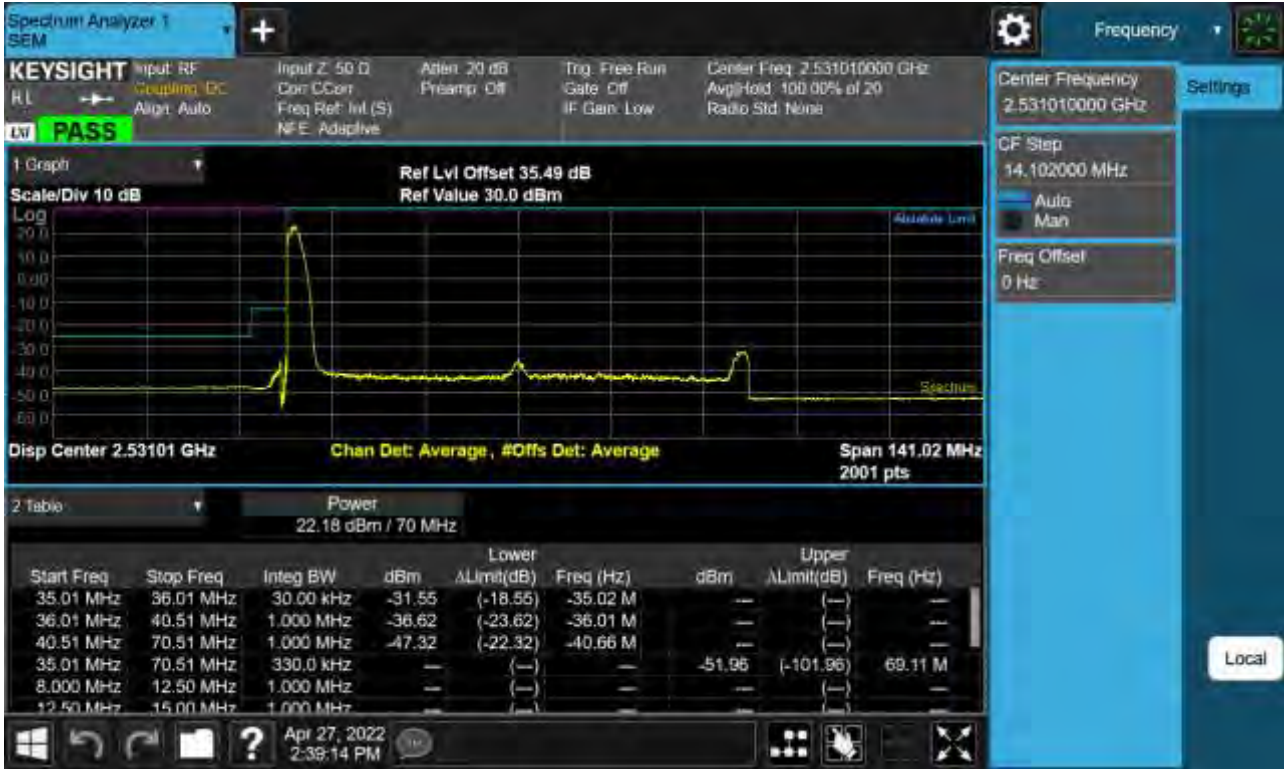
Sub6 n41. High Channel Edge Plot (60 MHz Ch.531996 BPSK RB 1)



Sub6 n41. High Channel Edge Plot (60 MHz Ch.531996 BPSK)



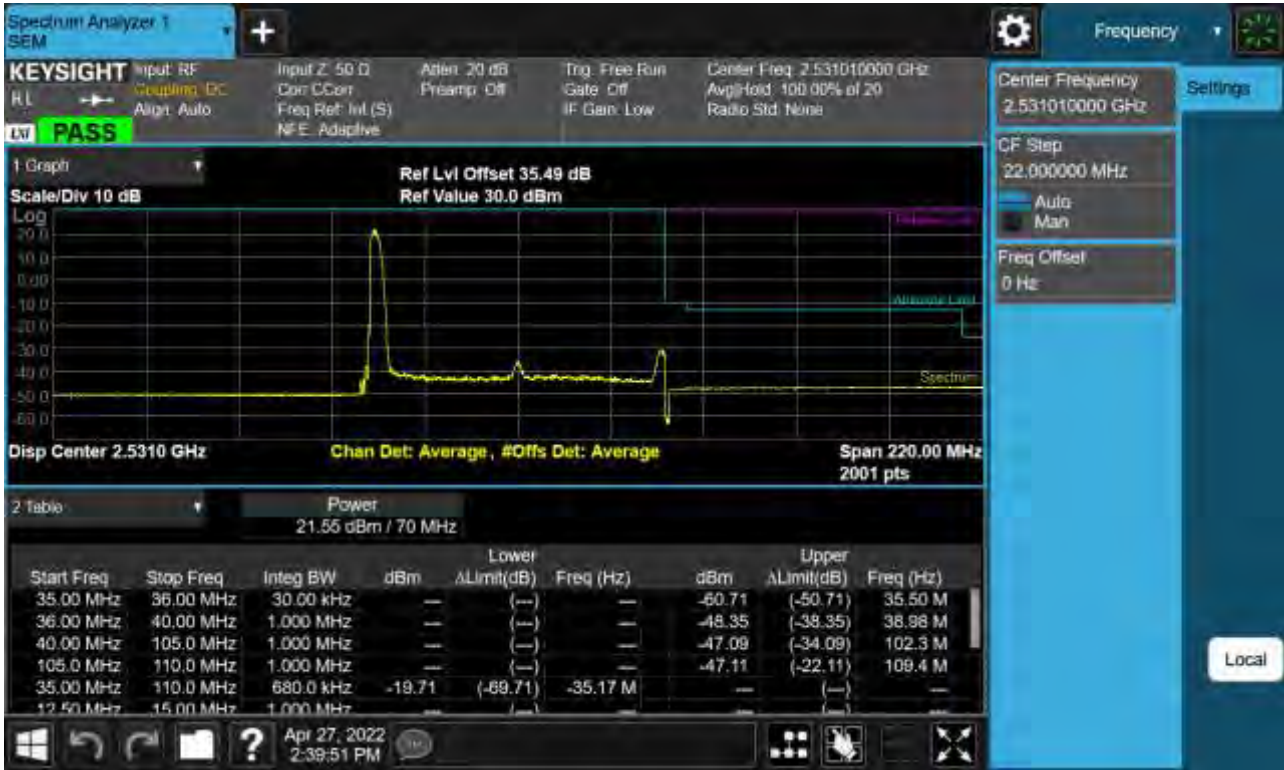
Sub6 n41. Low Channel Edge Plot (70 MHz Ch.506202 BPSK RB 1)-1



Sub6 n41. Low Channel Edge Plot (70 MHz Ch.506202 BPSK)-1



Sub6 n41. Low Channel Edge Plot (70 MHz Ch.506202 BPSK_RB1)-2



Sub6 n41. Low Channel Edge Plot (70 MHz Ch.506202 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (70 MHz Ch.518598 BPSK)



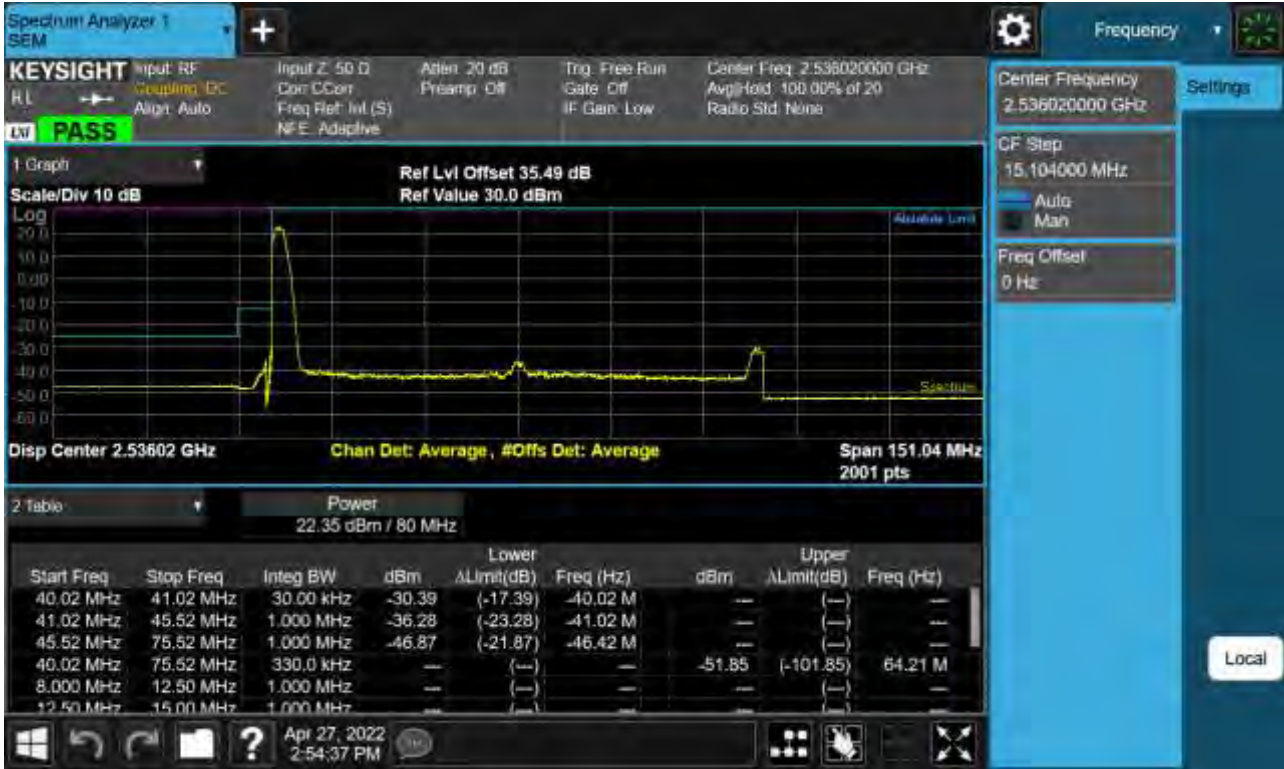
Sub6 n41. High Channel Edge Plot (70 MHz Ch.531000 BPSK RB 1)



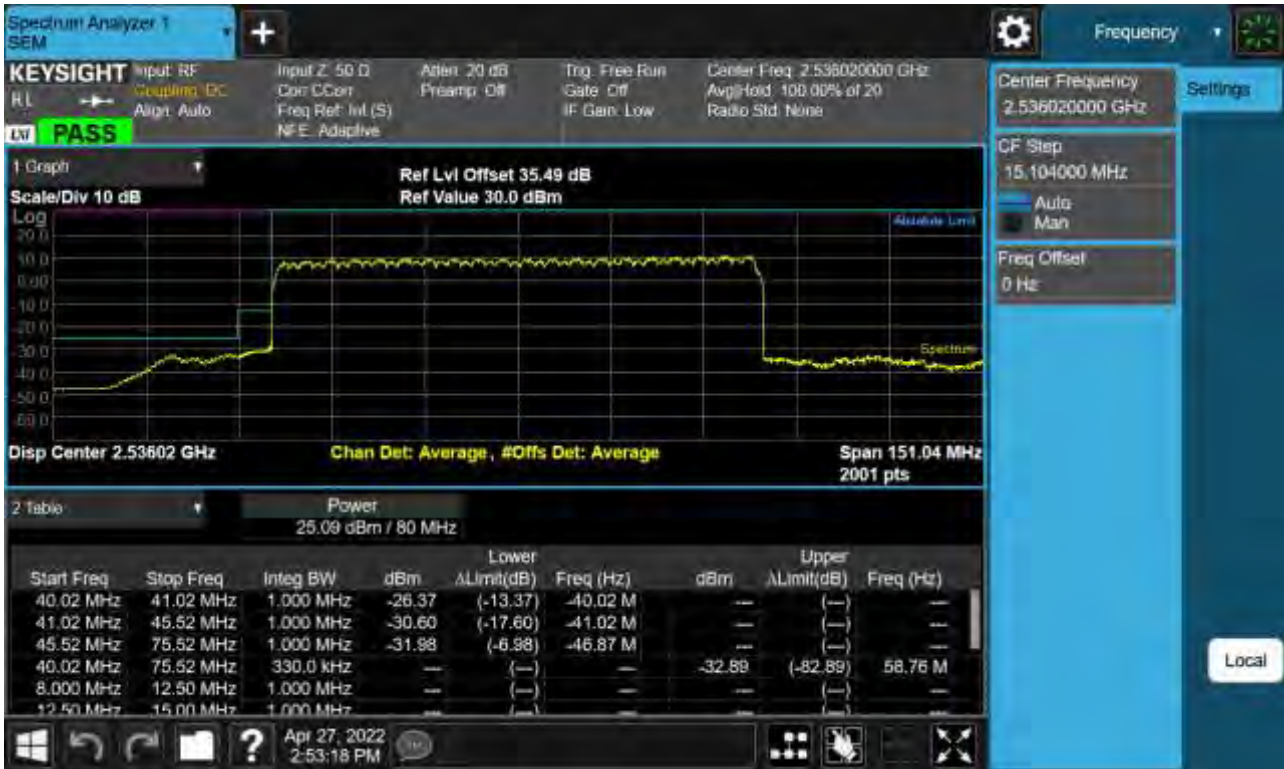
Sub6 n41. High Channel Edge Plot (70 MHz Ch.531000 BPSK)



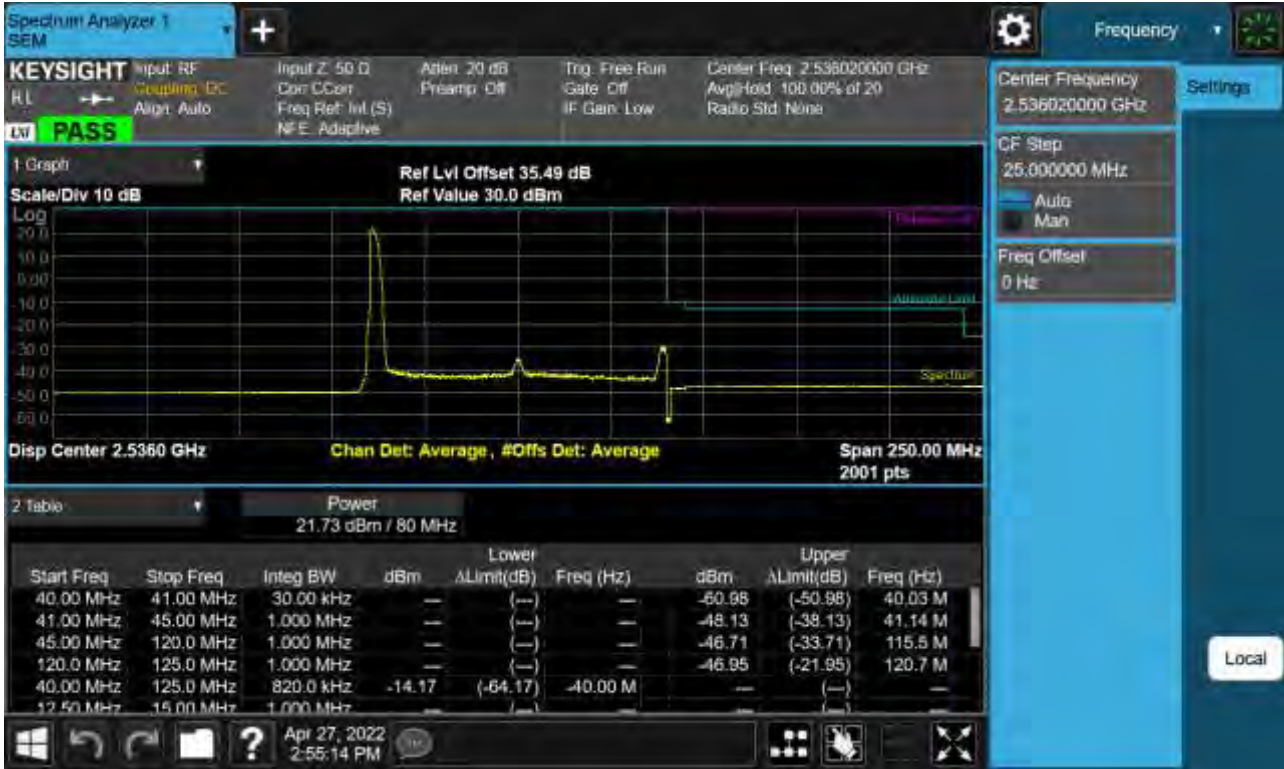
Sub6 n41. Low Channel Edge Plot (80 MHz Ch.507204 BPSK RB 1)-1



Sub6 n41. Low Channel Edge Plot (80 MHz Ch.507204 BPSK)-1



Sub6 n41. Low Channel Edge Plot (80 MHz Ch.507204 BPSK_RB1)-2



Sub6 n41. Low Channel Edge Plot (80 MHz Ch.507204 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (80 MHz Ch.518598 BPSK)



Sub6 n41. High Channel Edge Plot (80 MHz Ch.52998 BPSK RB 1)



Sub6 n41. High Channel Edge Plot (80 MHz Ch.52998 BPSK)



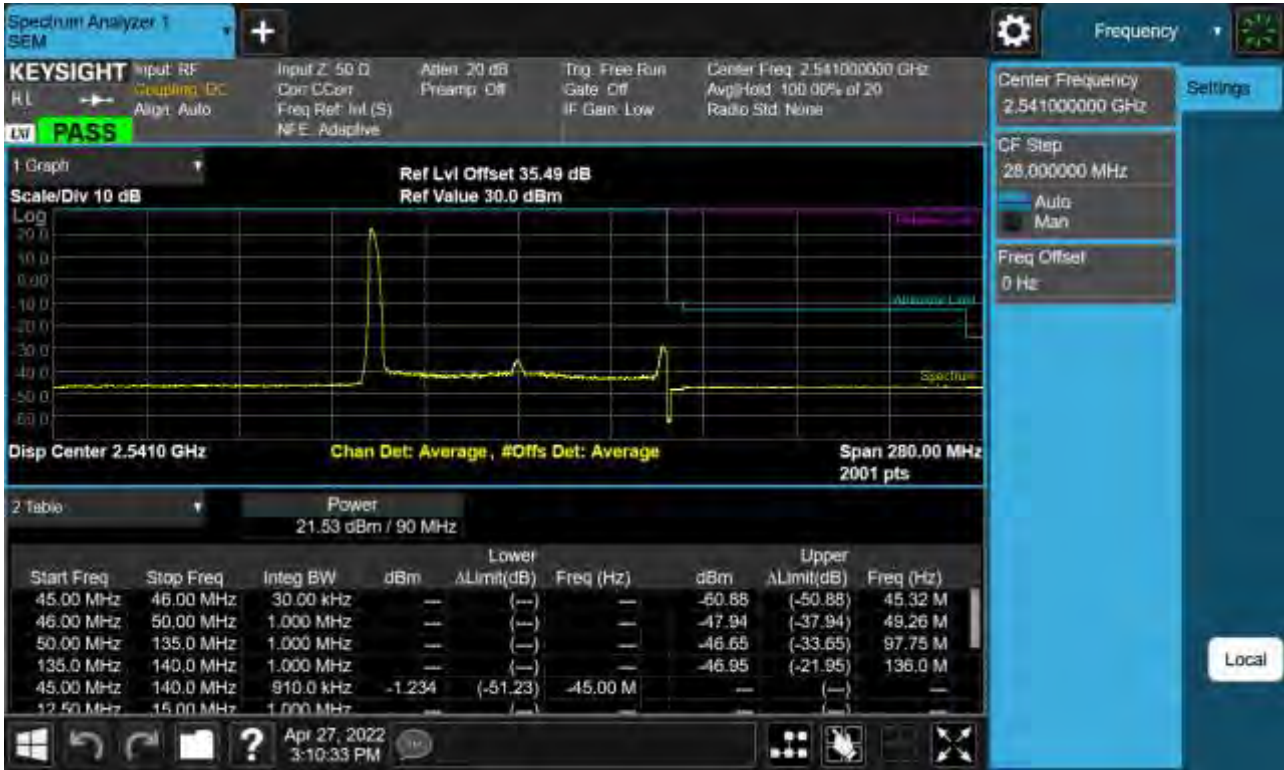
Sub6 n41. Low Channel Edge Plot (90 MHz Ch.508200 BPSK RB 1)-1



Sub6 n41. Low Channel Edge Plot (90 MHz Ch.508200 BPSK)-1



Sub6 n41. Low Channel Edge Plot (90 MHz Ch.508200 BPSK_RB1)-2



Sub6 n41. Low Channel Edge Plot (90 MHz Ch.508200 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (90 MHz Ch.518598 BPSK)



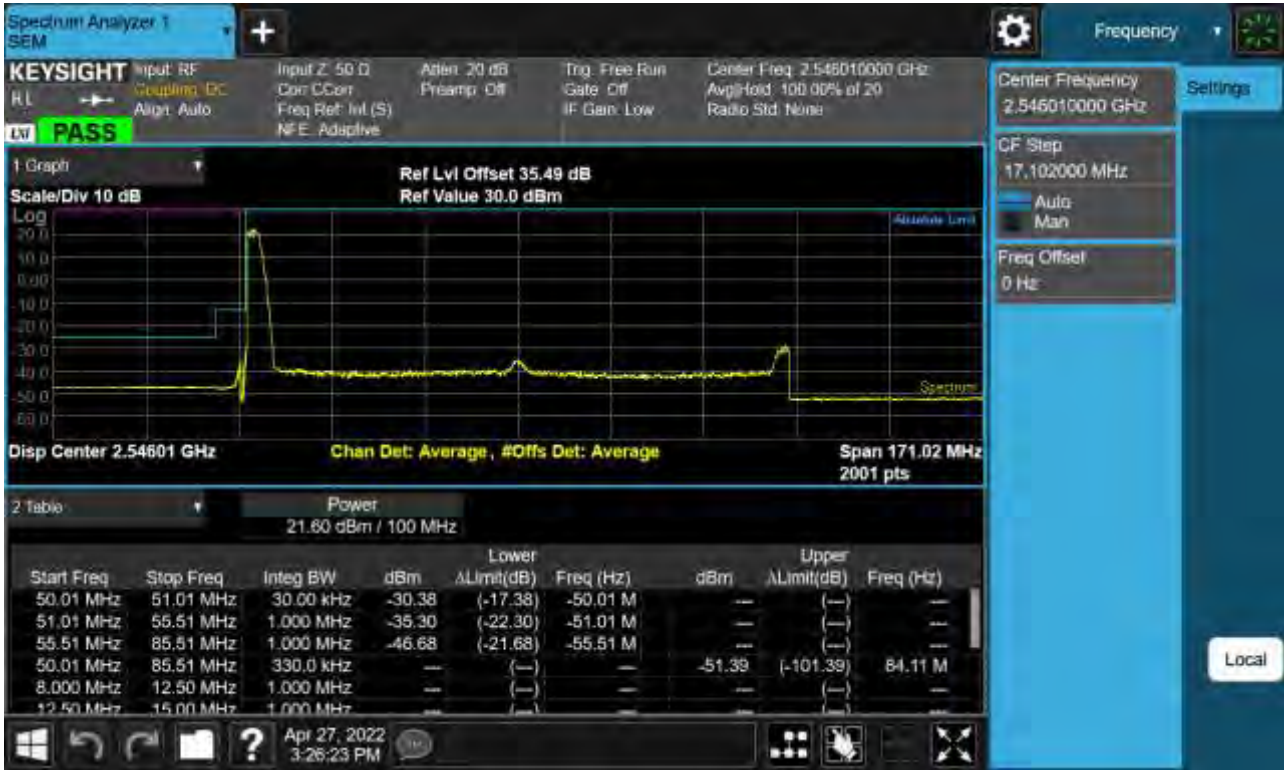
Sub6 n41. High Channel Edge Plot (90 MHz Ch.528996 BPSK RB 1)



Sub6 n41. High Channel Edge Plot (90 MHz Ch.528996 BPSK)



Sub6 n41. Low Channel Edge Plot (100 MHz Ch.509202 BPSK RB 1)-1



Sub6 n41. Low Channel Edge Plot (100 MHz Ch.509202 BPSK)-1



Sub6 n41. Low Channel Edge Plot (100 MHz Ch.509202 BPSK_RB1)-2



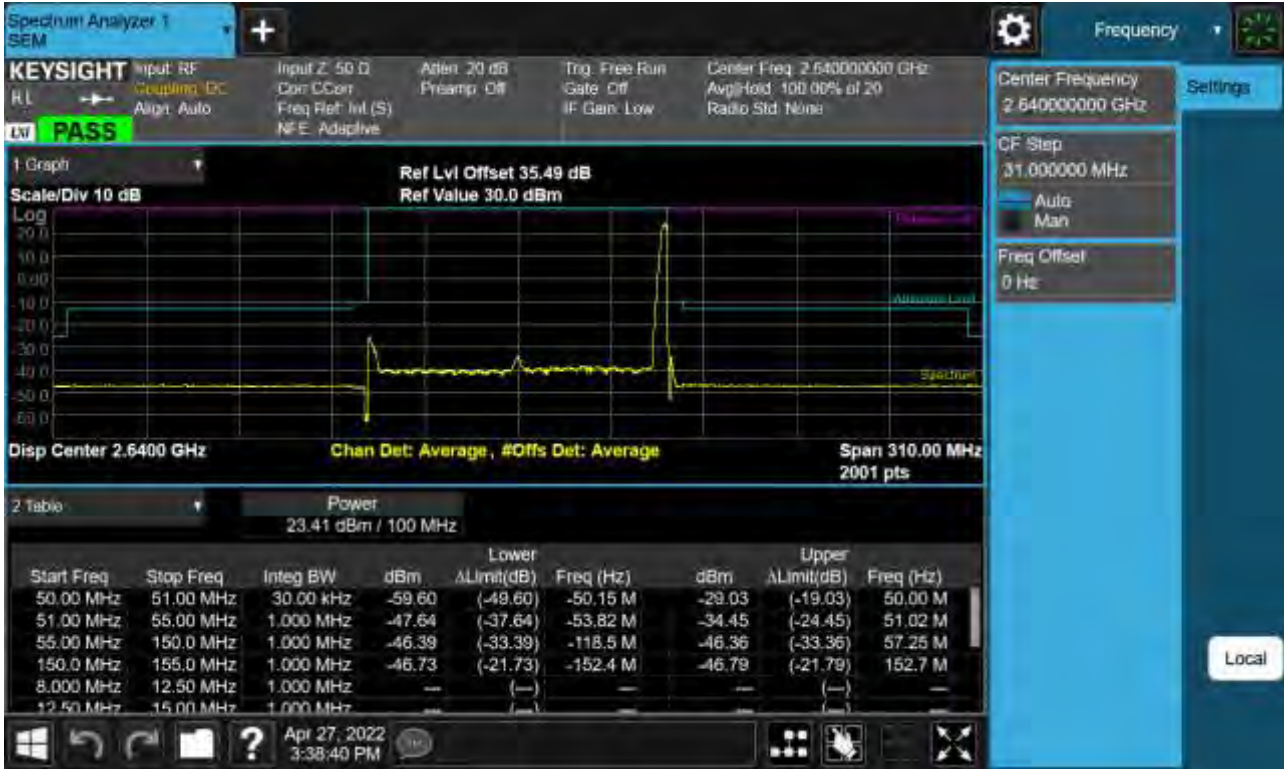
Sub6 n41. Low Channel Edge Plot (100 MHz Ch.509202 BPSK)-2



Sub6 n41. Mid Channel Edge Plot (100 MHz Ch.518598 BPSK)



Sub6 n41. High Channel Edge Plot (100 MHz Ch.528000 BPSK RB 1)



Sub6 n41. High Channel Edge Plot (100 MHz Ch.528000 BPSK)



Sub6 n41. Conducted Spurious Plot 1 (20 MHz Ch.501204 BPSK RB 1)



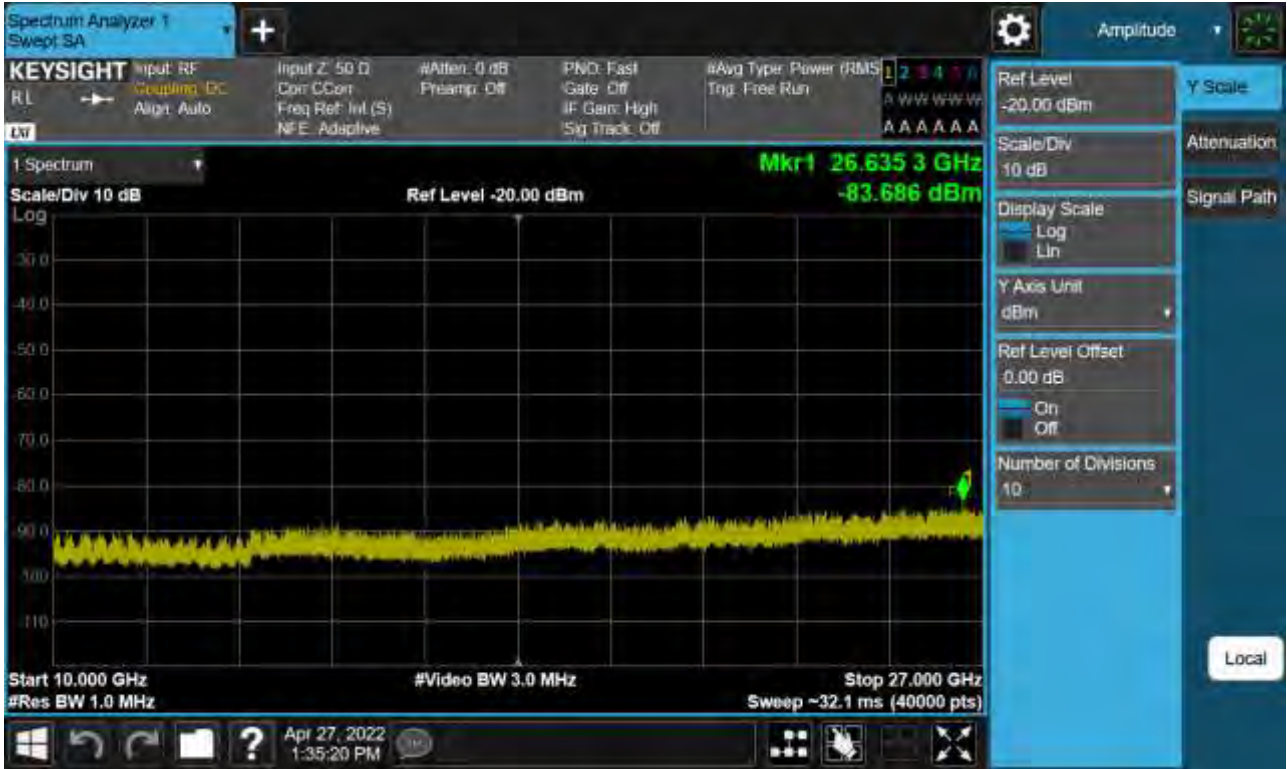
Sub6 n41. Conducted Spurious Plot 2 (20 MHz Ch.501204 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (20 MHz Ch.518598 BPSK RB 1)



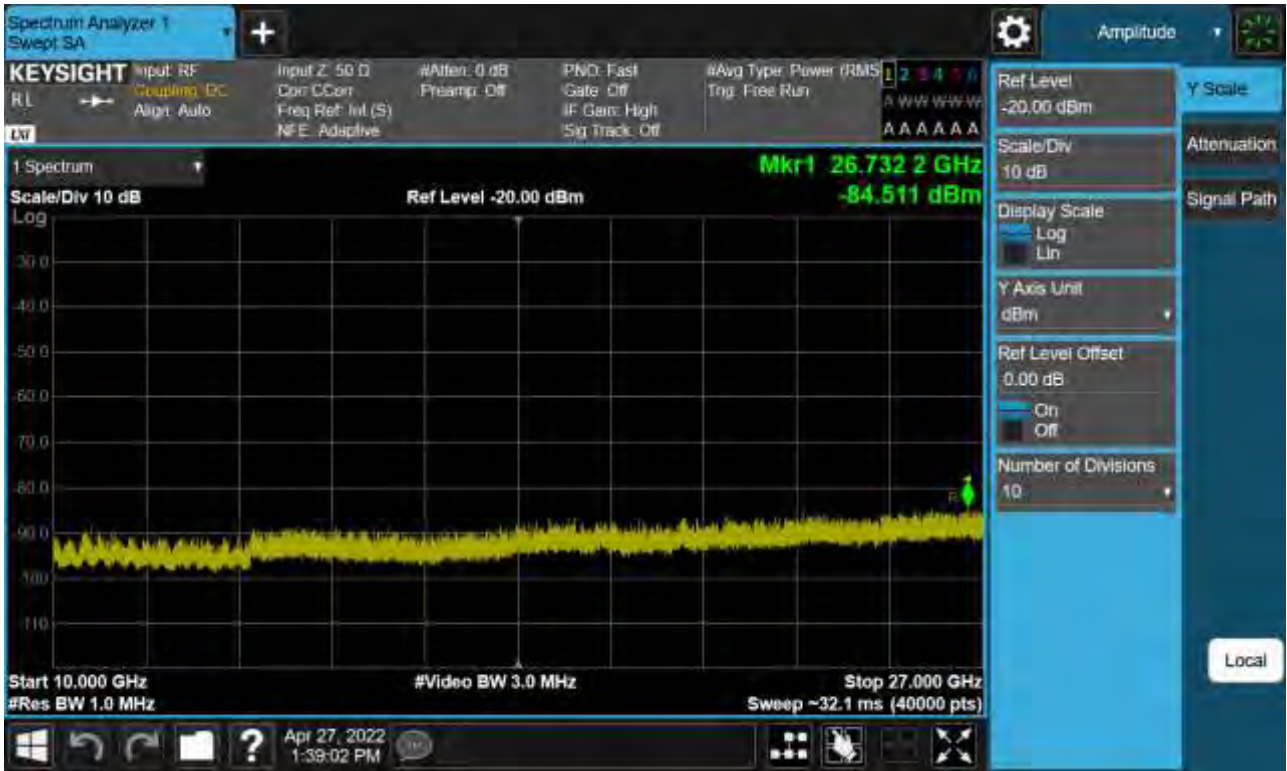
Sub6 n41. Conducted Spurious Plot 2 (20 MHz Ch. 518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (20 MHz Ch.535998 BPSK RB 1)



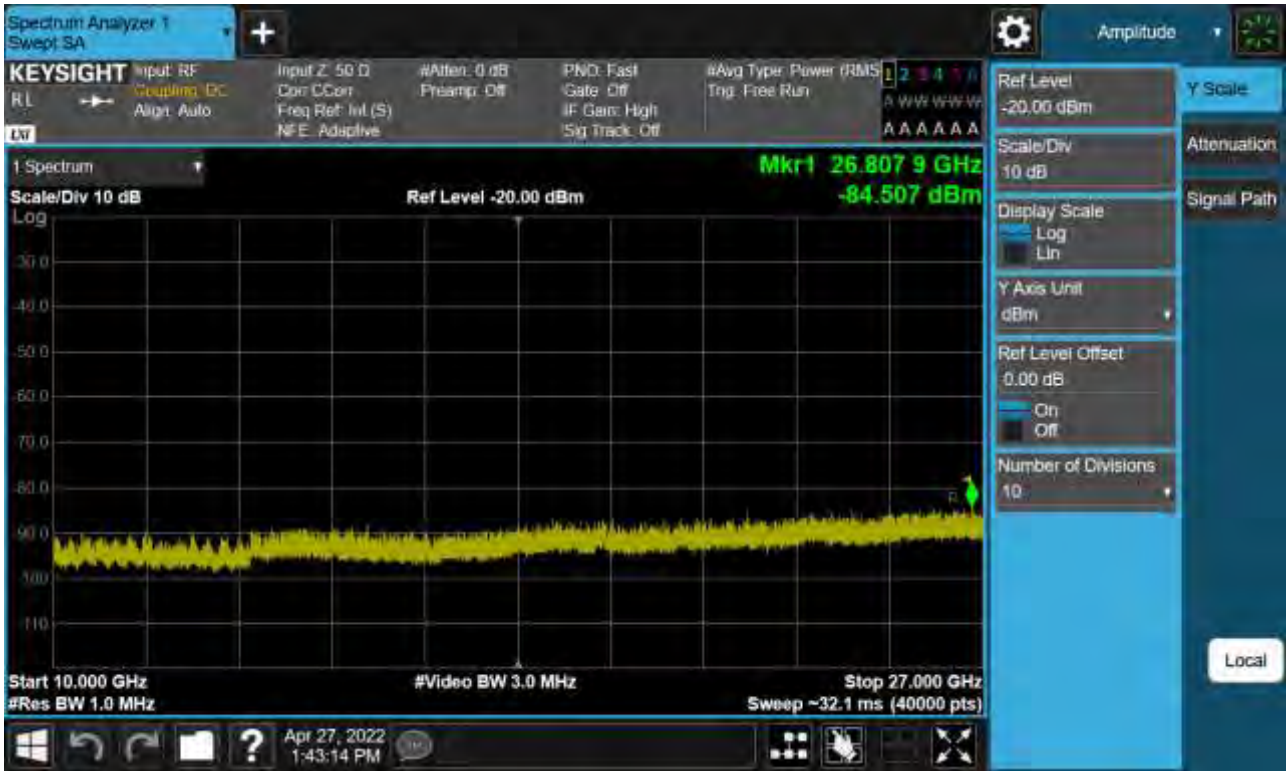
Sub6 n41. Conducted Spurious Plot 2 (20 MHz Ch.535998 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (30 MHz Ch.502200 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (30 MHz Ch.502200 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (30 MHz Ch.518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (30 MHz Ch. 518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (30 MHz Ch.534996 BPSK RB 1)



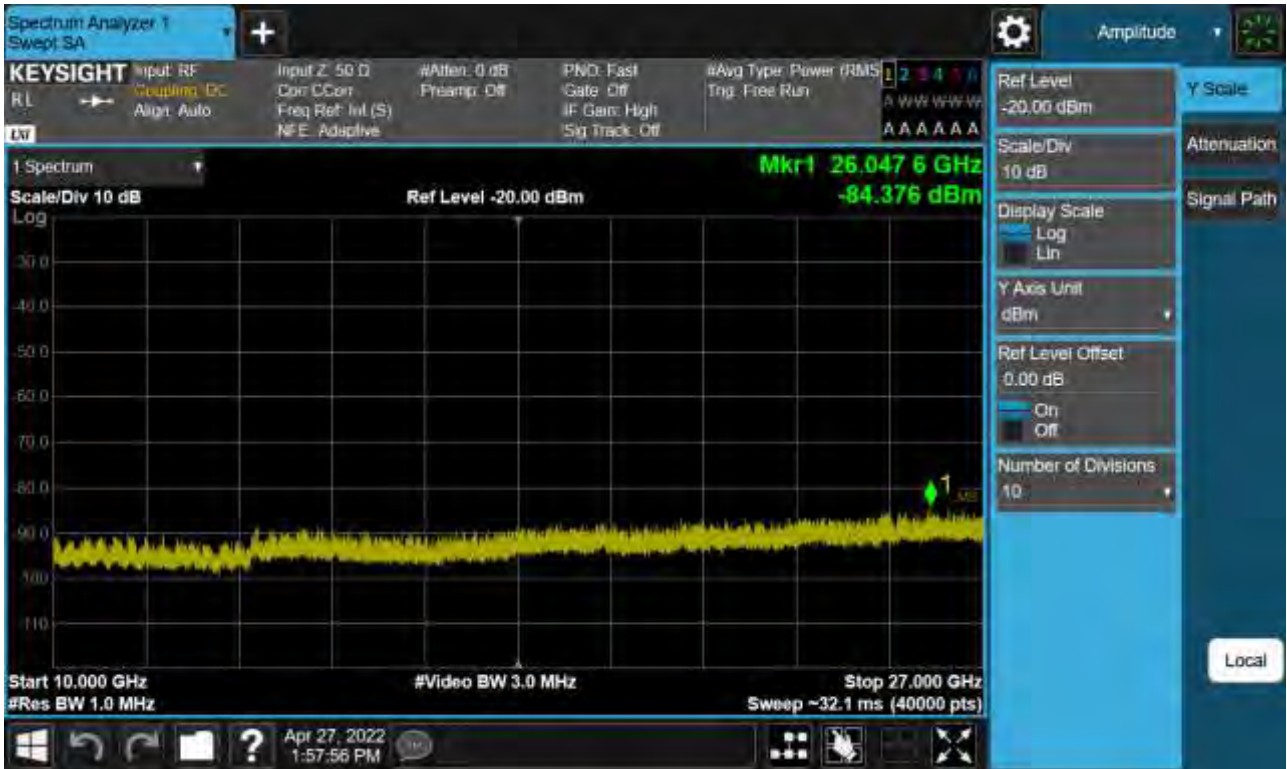
Sub6 n41. Conducted Spurious Plot 2 (30 MHz Ch.534996 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (40 MHz Ch.503202 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (40 MHz Ch.503202 BPSK RB 1)



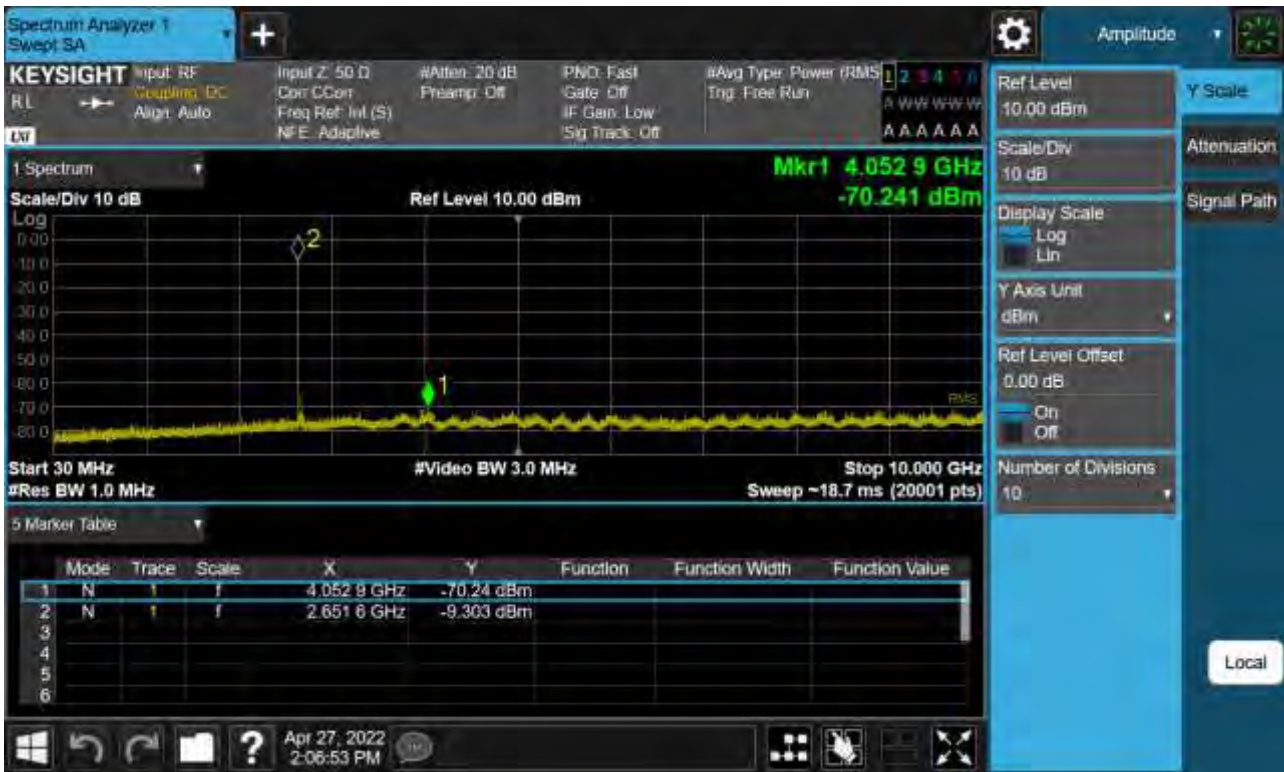
Sub6 n41. Conducted Spurious Plot 1 (40 MHz Ch.518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (40 MHz Ch.518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (40 MHz Ch.534000 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (40 MHz Ch.534000 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (50 MHz Ch.504204 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (50 MHz Ch.504204 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (50 MHz Ch.518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (50 MHz Ch. 518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (50 MHz Ch.532998 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (50 MHz Ch.532998 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (60 MHz Ch.505200 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (60 MHz Ch.505200 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (60 MHz Ch.518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (60 MHz Ch. 518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (60 MHz Ch.531996 BPSK RB 1)



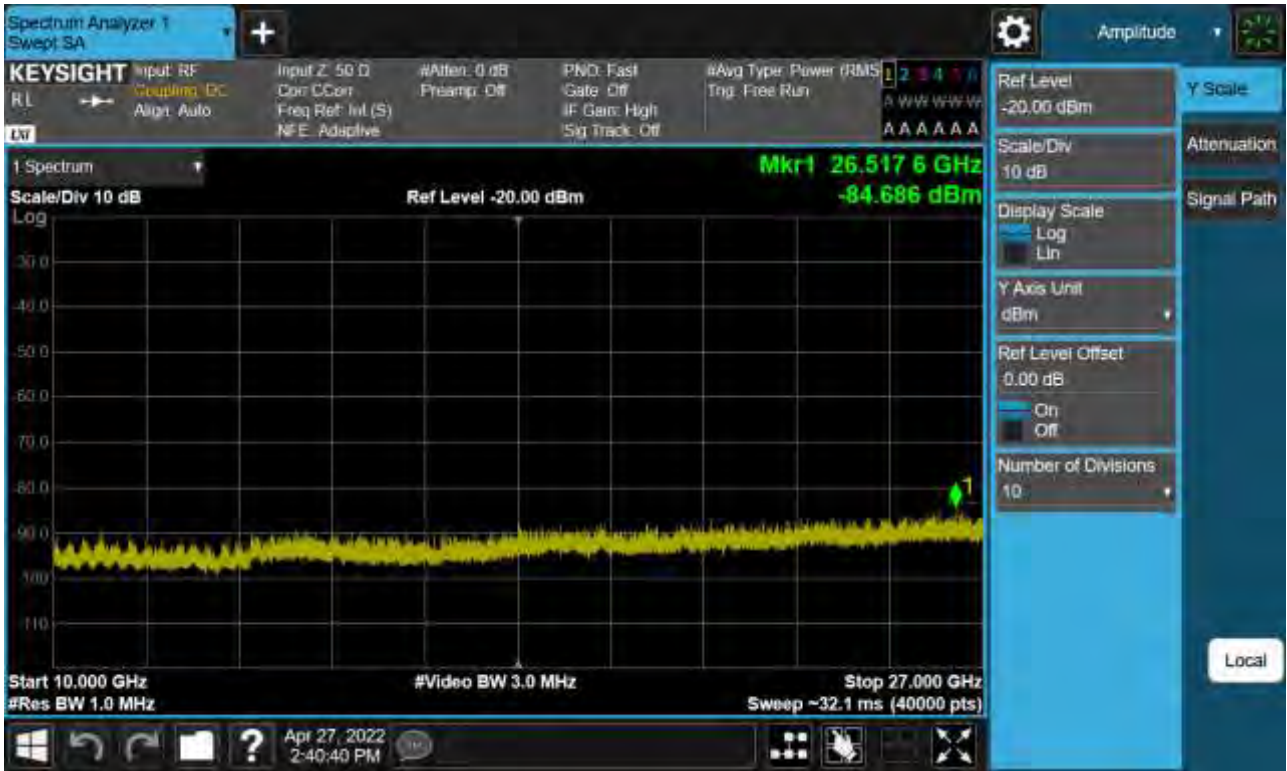
Sub6 n41. Conducted Spurious Plot 2 (60 MHz Ch.531996 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (70 MHz Ch.506202 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (70 MHz Ch.506202 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (70 MHz Ch.518598 BPSK RB 1)



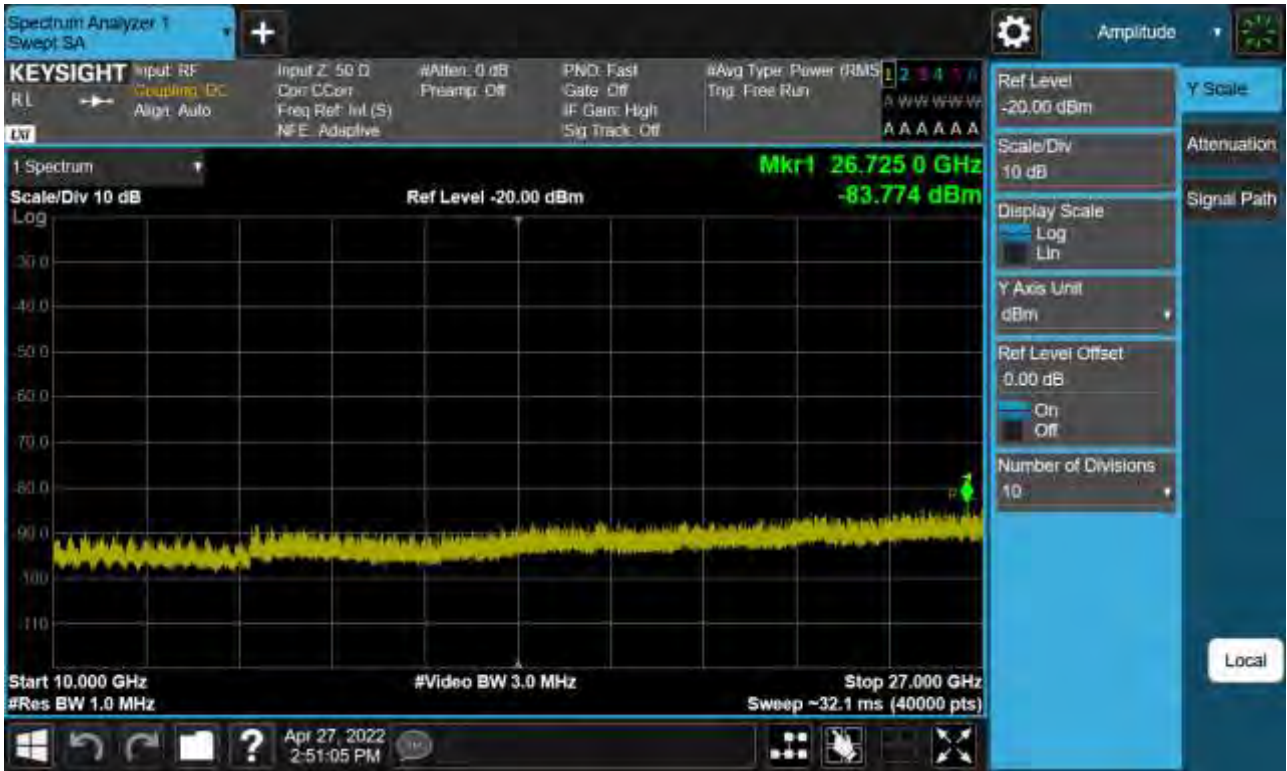
Sub6 n41. Conducted Spurious Plot 2 (70 MHz Ch. 518598 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (70 MHz Ch.531000 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 2 (70 MHz Ch.531000 BPSK RB 1)



Sub6 n41. Conducted Spurious Plot 1 (80 MHz Ch.507204 BPSK RB 1)

