74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA
TEL: +82-31-645-6300 FAX: +82-31-645-6401

FCC Sub6 REPORT

Certification

Applicant Name:
SAMSUNG Electronics Co., Ltd.

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

Date of Issue:
March 02, 2021

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

Report No.: HCT-RF-2102-FC028-R2

FCC ID:	**A3LSMA326U**
APPLICANT:	**SAMSUNG Electronics Co., Ltd.**

Model(s): SM-A326U
Additional Model(s): SM-A326U1/DS, SM-S326DL
EUT Type: Mobile Phone
FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s): §27, §2

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n41 (10)	2501.010 – 2685.000	8M63G7D	PI/2 BPSK	0.129	21.10
		8M65G7D	QPSK	0.126	21.00
		8M62W7D	16QAM	0.113	20.54
		8M62W7D	64QAM	0.084	19.22
		8M62W7D	256QAM	0.059	17.73
Sub6 n41 (15)	2503.500 – 2682.480	12M9G7D	PI/2 BPSK	0.131	21.16
		12M9G7D	QPSK	0.128	21.06
		12M9W7D	16QAM	0.119	20.75
		13M0W7D	64QAM	0.085	19.31
		13M0W7D	256QAM	0.059	17.68
Sub6 n41 (20)	2506.020 – 2679.990	18M0G7D	PI/2 BPSK	0.127	21.04
		18M0G7D	QPSK	0.126	20.99
		18M0W7D	16QAM	0.111	20.44
		17M9W7D	64QAM	0.082	19.14
		18M0W7D	256QAM	0.059	17.71
Sub6 n41 (30)	2511.000 – 2674.980	26M9G7D	PI/2 BPSK	0.117	20.70
		27M0G7D	QPSK	0.115	20.60
		26M9W7D	16QAM	0.104	20.18
		27M1W7D	64QAM	0.078	18.92
		27M0W7D	256QAM	0.055	17.42
Sub6 n41 (40)	2516.010 – 2670.000	35M9G7D	PI/2 BPSK	0.104	20.19
		35M8G7D	QPSK	0.103	20.12
		35M8W7D	16QAM	0.091	19.59
		35M8W7D	64QAM	0.077	18.84
		36M0W7D	256QAM	0.053	17.22
Sub6 n41 (50)	2521.020 – 2664.990	45M9G7D	PI/2 BPSK	0.112	20.48
		45M9G7D	QPSK	0.109	20.36
		45M9W7D	16QAM	0.096	19.84

		46M0W7D	64QAM	0.071	18.54
		46M0W7D	256QAM	0.052	17.14
Sub6 n41 (60)	2526.000 – 2659.980	58M1G7D	PI/2 BPSK	0.104	20.16
		58M1G7D	QPSK	0.101	20.05
		58M1W7D	16QAM	0.087	19.42
		57M9W7D	64QAM	0.067	18.23
		58M1W7D	256QAM	0.048	16.78
Sub6 n41 (80)	2536.020 – 2649.990	77M5G7D	PI/2 BPSK	0.081	19.10
		77M5G7D	QPSK	0.081	19.06
		77M4W7D	16QAM	0.067	18.23
		77M7W7D	64QAM	0.053	17.23
		77M5W7D	256QAM	0.038	15.78
Sub6 n41 (90)	2541.000 – 2644.980	87M0G7D	PI/2 BPSK	0.074	18.69
		87M3G7D	QPSK	0.074	18.67
		87M1W7D	16QAM	0.065	18.11
		87M4W7D	64QAM	0.048	16.79
		87M1W7D	256QAM	0.034	15.36
Sub6 n41 (100)	2546.010 – 2640.000	96M7G7D	PI/2 BPSK	0.068	18.35
		96M7G7D	QPSK	0.067	18.28
		96M8W7D	16QAM	0.056	17.45
		96M8W7D	64QAM	0.043	16.37
		96M6W7D	256QAM	0.032	15.02

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)

REVIEWED BY

Report prepared by : Jae Ryang Do **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)

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2102-FC028	February 10, 2021	- First Approval Report
HCT-RF-2102-FC028-R1	February 19, 2021	- Revised the E.I.R.P
HCT-RF-2102-FC028-R2	March 02, 2021	- Revised the E.I.R.P & Date of test

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

Table of Contents

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:	A3LSMA326U
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-A326U
Additional Model(s):	SM-A326U1/DS, SM-S326DL
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:	January 04, 2021 ~ February 26, 2021
Serial number:	Radiated: R3CR10A4ABM Conducted: 4C1B22D9E41C7ECE

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

The EUT was a Mobile Phone with GSM/GPRS/EGPRS/UMTS, CDMA(BC0, 1, 10) and LTE, Sub6.

It also supports IEEE 802.11 a/b/g/n/ac (HT20/40/80), 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 NormalHz
3. VBW ≥ 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 1GHz, 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;

   $$P_{d(dBm)} = Pg_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dB)}$$

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

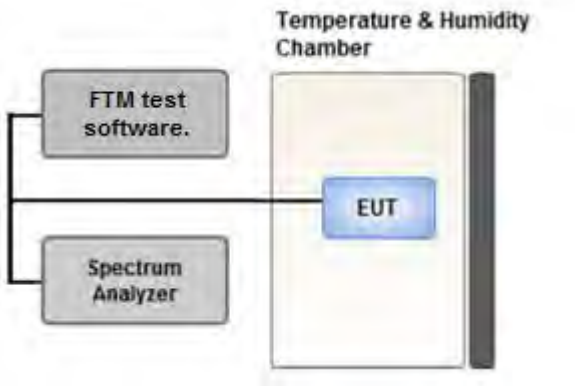
$$Result_{(dBm)} = Pg_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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

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

$$EIRP_{(dBm)} = ERP_{(dBm)} + 2.15$$

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

1. Set resolution/measurement bandwidth ≥ 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:

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

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 ≥ 3 × RBW.

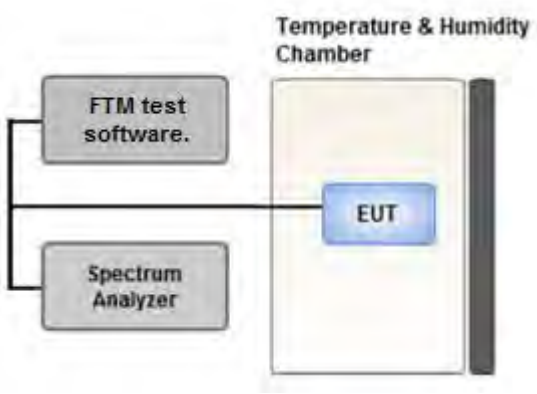
1. Set the RBW ≥ OBW.
2. Set VBW ≥ 3 × RBW.
3. Set span ≥ 2 × OBW.
4. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period).
5. Detector = peak.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the peak amplitude level.

Test Settings(Average Power)

1. Set span to 2 × to 3 × the OBW.
2. Set RBW ≥ OBW.
3. Set VBW ≥ 3 × RBW.
4. Set number of measurement points in sweep ≥ 2 × span / RBW.
5. Sweep time:

   Set ≥ [10 × (number of points in sweep) × (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/duty cycle)] to the measured maximum power level to compute the average power during continuous transmission. For example, add [10 log (1/0.25)] = 6 dB if the duty cycle is a constant 25%.

3.5 OCCUPIED BANDWIDTH.



Test setup

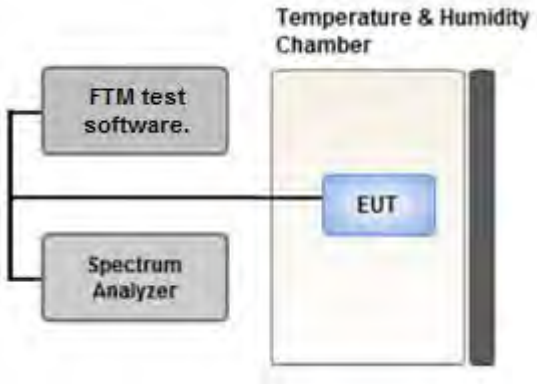
The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

The EUT makes a call to the communication simulator.
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth

Test Settings

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB 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 ≥ 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

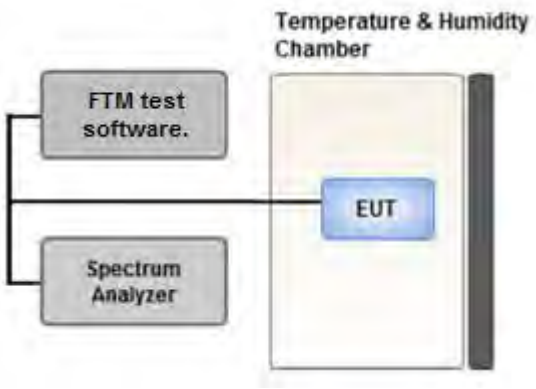
Test Overview

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 ≥ 3 MHz
3. Detector = RMS
4. Trace Mode = trace average
5. Sweep time = auto
6. Number of points in sweep ≥ 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.

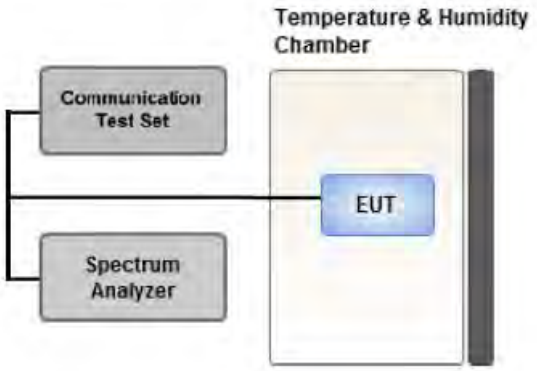
Test Settings

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 1MHz 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 ≥ 2 x Span/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.
- 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.
- SM-A326U & additional models were tested and the worst case results are reported.

(Worst case : SM-A326U)

[Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Effective Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	1	1	X
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	1	1	X

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 RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
  Please refer to the table below.
- SM-A326U & additional models were tested and the worst case results are reported.
  (Worst case : SM-A326U)

[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

Manufacture	Model/ Equipment	Serial Number	Calibration Date	Calibration Interval	Calibration Due
Wainwright Instruments	WHKX10-900-1000-15000-40SS/ High Pass Filter	5	07/13/2020	Annual	07/13/2021
Wainwright Instruments	WHKX10-2700-3000-18000-40SS/ High Pass Filter	145	09/03/2020	Annual	09/03/2021
Wainwright Instruments	WHNX6-4740-6000-26500-40CC/ High Pass Filter	11	09/03/2020	Annual	09/03/2021
Hewlett Packard	11667B / Power Splitter(DC~26.5 GHz)	11275	04/27/2020	Annual	04/27/2021
CERNEX	LOW NOISE AMP (100MHz ~ 18GHz)	26822	06/04/2020	Annual	06/04/2021
CERNEX	CBL18265035 / Power Amplifier	22966	12/04/2020	Annual	12/04/2021
CERNEX	CBL26405040 / Power Amplifier	25956	03/23/2020	Annual	03/23/2021
Hewlett Packard	E3632A/DC Power Supply	MY40004427	09/16/2020	Annual	09/16/2021
Schwarzbeck	UHAP / Precision Dipole Antenna	01273	05/30/2020	Biennial	05/30/2022
Schwarzbeck	UHAP / Precision Dipole Antenna	01274	05/30/2020	Biennial	05/30/2022
ESPEC	SU-642 / Chamber	93008124	03/18/2020	Annual	03/18/2021
Schwarzbeck	BBHA 9120D/ Horn Antenna(1~18GHz)	02289	05/08/2020	Biennial	05/08/2022
Schwarzbeck	BBHA 9120D/ Horn Antenna(1~18GHz)	9120D-1299	05/10/2019	Biennial	05/10/2021
Schwarzbeck	BBHA 9170/ Horn Antenna(15~40GHz)	BBHA9170342	04/29/2019	Biennial	04/29/2021
Schwarzbeck	BBHA 9170/ Horn Antenna(15~40GHz)	BBHA9170124	02/11/2020	Biennial	02/11/2022
Agilent	N9020A/Signal Analyzer(10Hz~26.5GHz)	MY51110063	04/27/2020	Annual	04/27/2021
Hewlett Packard	8493C/ATTENUATOR(20dB)	17280	06/04/2020	Annual	06/04/2021
REOHDE & SCHWARZ	FSV40/Spectrum Analyzer(10Hz~40GHz)	101436	03/16/2020	Annual	03/16/2021
Rohde & Schwarz	FMZB1513/ Loop Antenna(9kHz~30MHz)	1513-175	05/18/2020	Biennial	05/18/2022
Schwarzbeck	VULB9160/ Bilog Antenna	3150	03/12/2019	Biennial	03/12/2021
Schwarzbeck	VULB9160/ Hybrid Antenna	760	03/22/2019	Biennial	03/22/2021
Anritsu Corp.	MT8821C/Wideband Radio Communication Tester	6262116770	07/22/2020	Annual	07/22/2021
REOHDE & SCHWARZ	SMB100A/ SIGNAL GENERATOR (100kHz~40GHz)	177633	07/13/2020	Annual	07/13/2021
KEYSIGHT	N9030B / Signal Analyzer(5Hz~40.0GHz)	MY55480167	06/04/2020	Annual	06/04/2021
KEYSIGHT	E7515B / 5G Wireless Tester	MY60101126	05/28/2020	Annual	05/28/2021
Mini-Circuits	ZC4PD-K1844+ / 4-Way Divider	942907	09/14/2020	Annual	09/14/2021
HCT CO., LTD.,	FCC LTE Mobile Conducted RF Automation Test Software	-	-	-	-

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 (±dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.82
Radiated Disturbance (9 kHz ~ 30 MHz)	3.40
Radiated Disturbance (30 MHz ~ 1 GHz)	4.80
Radiated Disturbance (1 GHz ~ 18 GHz)	5.70
Radiated Disturbance (18 GHz ~ 40 GHz)	5.05

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)	■ < 40 + 10log10 (P[Watts]) at Channel edges ■ < 43 + 10log10 (P[Watts]) between 5 and X MHz from Channel edges ■ < 55 + 10log10 (P[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	See Note1
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 + 10log10 (P[Watts])	PASS

Note:

1. Radiateded 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

ERP = Substitute LEVEL(dBm) + Ant. Gain – 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

EIRP = Substitute LEVEL(dBm) + Ant. Gain – 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)

PSK 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	
								W	W	dBm
2501.010	Sub6 41/ 10 MHz [30 kHz]	PI/2 BPSK	-25.81	9.20	10.20	2.29	H	< 2.00	0.051	17.11
		QPSK	-25.85	9.16	10.20	2.29	H		0.051	17.07
		16-QAM	-26.23	8.78	10.20	2.29	H		0.047	16.69
		64-QAM	-27.37	7.64	10.20	2.29	H		0.036	15.55
		256-QAM	-28.85	6.16	10.20	2.29	H		0.026	14.07
2505.000		PI/2 BPSK	-25.77	9.24	10.24	2.30	H		0.052	17.19
		QPSK	-25.85	9.16	10.24	2.30	H		0.051	17.11
		16-QAM	-26.47	8.54	10.24	2.30	H		0.045	16.49
		64-QAM	-27.74	7.27	10.24	2.30	H		0.033	15.22
		256-QAM	-29.16	5.85	10.24	2.30	H		0.024	13.80
2592.990		PI/2 BPSK	-22.33	13.01	10.42	2.33	H		0.129	21.10
		QPSK	-22.43	12.91	10.42	2.33	H		0.126	21.00
		16-QAM	-22.89	12.45	10.42	2.33	H		0.113	20.54
		64-QAM	-24.21	11.13	10.42	2.33	H		0.084	19.22
		256-QAM	-25.70	9.64	10.42	2.33	H		0.059	17.73
2685.000		PI/2 BPSK	-26.58	8.65	10.38	2.39	H		0.046	16.64
		QPSK	-26.62	8.61	10.38	2.39	H		0.046	16.60
		16-QAM	-27.15	8.08	10.38	2.39	H		0.040	16.07
		64-QAM	-28.43	6.80	10.38	2.39	H		0.030	14.79
		256-QAM	-29.91	5.32	10.38	2.39	H		0.021	13.31

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2503.500	Sub6 41/ 15 MHz [30 kHz]	PI/2 BPSK	-25.92	9.10	10.24	2.30	H	< 2.00	0.051	17.04
		QPSK	-26.06	8.96	10.24	2.30	H		0.049	16.90
		16-QAM	-26.56	8.46	10.24	2.30	H		0.044	16.40
		64-QAM	-27.85	7.17	10.24	2.30	H		0.032	15.11
		256-QAM	-29.27	5.75	10.24	2.30	H		0.023	13.69
2507.500		PI/2 BPSK	-25.76	9.25	10.28	2.30	H		0.053	17.23
		QPSK	-25.85	9.16	10.28	2.30	H		0.052	17.14
		16-QAM	-26.38	8.63	10.28	2.30	H		0.046	16.61
		64-QAM	-27.73	7.28	10.28	2.30	H		0.034	15.26
		256-QAM	-29.14	5.87	10.28	2.30	H		0.024	13.85
2592.990		PI/2 BPSK	-22.27	13.07	10.42	2.33	H		0.131	21.16
		QPSK	-22.37	12.97	10.42	2.33	H		0.128	21.06
		16-QAM	-22.68	12.66	10.42	2.33	H		0.119	20.75
		64-QAM	-24.12	11.22	10.42	2.33	H		0.085	19.31
		256-QAM	-25.75	9.59	10.42	2.33	H		0.059	17.68
2682.480		PI/2 BPSK	-26.28	8.95	10.34	2.40	H		0.049	16.89
		QPSK	-26.40	8.83	10.34	2.40	H		0.048	16.77
		16-QAM	-26.84	8.39	10.34	2.40	H		0.043	16.33
		64-QAM	-28.13	7.10	10.34	2.40	H		0.032	15.04
		256-QAM	-29.59	5.64	10.34	2.40	H		0.023	13.58

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2506.020	Sub6 41/ 20 MHz [30 kHz]	PI/2 BPSK	-25.98	9.04	10.24	2.30	H	< 2.00	0.050	16.98
		QPSK	-26.11	8.91	10.24	2.30	H		0.048	16.85
		16-QAM	-26.75	8.27	10.24	2.30	H		0.042	16.21
		64-QAM	-27.79	7.23	10.24	2.30	H		0.033	15.17
		256-QAM	-29.35	5.67	10.24	2.30	H		0.023	13.61
2510.010		PI/2 BPSK	-25.82	9.19	10.28	2.30	H		0.052	17.17
		QPSK	-25.97	9.04	10.28	2.30	H		0.050	17.02
		16-QAM	-26.50	8.51	10.28	2.30	H		0.045	16.49
		64-QAM	-27.81	7.20	10.28	2.30	H		0.033	15.18
		256-QAM	-29.23	5.78	10.28	2.30	H		0.024	13.76
2592.990		PI/2 BPSK	-22.39	12.95	10.42	2.33	H		0.127	21.04
		QPSK	-22.44	12.90	10.42	2.33	H		0.126	20.99
		16-QAM	-22.99	12.35	10.42	2.33	H		0.111	20.44
		64-QAM	-24.29	11.05	10.42	2.33	H		0.082	19.14
		256-QAM	-25.72	9.62	10.42	2.33	H		0.059	17.71
2679.990		PI/2 BPSK	-26.01	9.22	10.34	2.40	H		0.052	17.16
		QPSK	-26.04	9.19	10.34	2.40	H		0.052	17.13
		16-QAM	-26.67	8.56	10.34	2.40	H		0.045	16.50
		64-QAM	-27.96	7.27	10.34	2.40	H		0.033	15.21
		256-QAM	-29.42	5.81	10.34	2.40	H		0.024	13.75

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2511.000	Sub6 41/ 30 MHz [30 kHz]	PI/2 BPSK	-26.25	8.84	10.20	2.30	H	< 2.00	0.047	16.74
		QPSK	-26.40	8.69	10.20	2.30	H		0.046	16.59
		16-QAM	-26.75	8.34	10.20	2.30	H		0.042	16.24
		64-QAM	-28.09	7.00	10.20	2.30	H		0.031	14.90
		256-QAM	-29.48	5.61	10.20	2.30	H		0.022	13.51
2515.020		PI/2 BPSK	-26.15	8.87	10.32	2.30	H		0.049	16.89
		QPSK	-26.20	8.82	10.32	2.30	H		0.048	16.84
		16-QAM	-26.57	8.45	10.32	2.30	H		0.044	16.47
		64-QAM	-27.88	7.14	10.32	2.30	H		0.033	15.16
		256-QAM	-29.32	5.70	10.32	2.30	H		0.024	13.72
2592.990		PI/2 BPSK	-22.73	12.61	10.42	2.33	H		0.117	20.70
		QPSK	-22.83	12.51	10.42	2.33	H		0.115	20.60
		16-QAM	-23.25	12.09	10.42	2.33	H		0.104	20.18
		64-QAM	-24.51	10.83	10.42	2.33	H		0.078	18.92
		256-QAM	-26.01	9.33	10.42	2.33	H		0.055	17.42
2674.980		PI/2 BPSK	-25.82	9.47	10.30	2.37	H		0.055	17.40
		QPSK	-25.87	9.42	10.30	2.37	H		0.054	17.35
		16-QAM	-26.39	8.90	10.30	2.37	H		0.048	16.83
		64-QAM	-27.75	7.54	10.30	2.37	H		0.035	15.47
		256-QAM	-29.24	6.05	10.30	2.37	H		0.025	13.98

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2516.010	Sub6 41/ 40 MHz [30 kHz]	PI/2 BPSK	-26.56	8.46	10.32	2.30	H	< 2.00	0.044	16.48
		QPSK	-26.64	8.38	10.32	2.30	H		0.044	16.40
		16-QAM	-27.32	7.70	10.32	2.30	H		0.037	15.72
		64-QAM	-28.26	6.76	10.32	2.30	H		0.030	14.78
		256-QAM	-29.70	5.32	10.32	2.30	H		0.022	13.34
2520.000		PI/2 BPSK	-26.37	8.66	10.36	2.30	H		0.047	16.72
		QPSK	-26.42	8.61	10.36	2.30	H		0.046	16.67
		16-QAM	-26.75	8.28	10.36	2.30	H		0.043	16.34
		64-QAM	-28.04	6.99	10.36	2.30	H		0.032	15.05
		256-QAM	-29.55	5.48	10.36	2.30	H		0.023	13.54
2592.990		PI/2 BPSK	-23.24	12.10	10.42	2.33	H		0.104	20.19
		QPSK	-23.31	12.03	10.42	2.33	H		0.103	20.12
		16-QAM	-23.84	11.50	10.42	2.33	H		0.091	19.59
		64-QAM	-24.59	10.75	10.42	2.33	H		0.077	18.84
		256-QAM	-26.21	9.13	10.42	2.33	H		0.053	17.22
2670.000		PI/2 BPSK	-25.61	9.79	10.26	2.37	H		0.059	17.68
		QPSK	-25.72	9.68	10.26	2.37	H		0.057	17.57
		16-QAM	-26.32	9.08	10.26	2.37	H		0.050	16.97
		64-QAM	-27.36	8.04	10.26	2.37	H		0.039	15.93
		256-QAM	-28.89	6.51	10.26	2.37	H		0.028	14.40

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2521.020	Sub6 41/ 50 MHz [30 kHz]	PI/2 BPSK	-26.40	8.63	10.36	2.30	H	< 2.00	0.047	16.69
		QPSK	-26.50	8.53	10.36	2.30	H		0.046	16.59
		16-QAM	-27.00	8.03	10.36	2.30	H		0.041	16.09
		64-QAM	-28.34	6.69	10.36	2.30	H		0.030	14.75
		256-QAM	-29.76	5.27	10.36	2.30	H		0.022	13.33
2525.010		PI/2 BPSK	-26.23	8.76	10.40	2.30	H		0.049	16.86
		QPSK	-26.31	8.68	10.40	2.30	H		0.048	16.78
		16-QAM	-26.88	8.11	10.40	2.30	H		0.042	16.21
		64-QAM	-28.16	6.83	10.40	2.30	H		0.031	14.93
		256-QAM	-29.65	5.34	10.40	2.30	H		0.022	13.44
2592.990		PI/2 BPSK	-22.95	12.39	10.42	2.33	H		0.112	20.48
		QPSK	-23.07	12.27	10.42	2.33	H		0.109	20.36
		16-QAM	-23.59	11.75	10.42	2.33	H		0.096	19.84
		64-QAM	-24.89	10.45	10.42	2.33	H		0.071	18.54
		256-QAM	-26.29	9.05	10.42	2.33	H		0.052	17.14
2664.990		PI/2 BPSK	-25.23	10.19	10.22	2.37	H		0.064	18.04
		QPSK	-25.27	10.15	10.22	2.37	H		0.063	18.00
		16-QAM	-25.73	9.69	10.22	2.37	H		0.057	17.54
		64-QAM	-27.04	8.38	10.22	2.37	H		0.042	16.23
		256-QAM	-28.44	6.98	10.22	2.37	H		0.030	14.83

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2526.000	Sub6 41/ 60 MHz [30 kHz]	PI/2 BPSK	-26.46	8.53	10.40	2.30	H	< 2.00	0.046	16.63
		QPSK	-26.51	8.48	10.40	2.30	H		0.046	16.58
		16-QAM	-27.14	7.85	10.40	2.30	H		0.039	15.95
		64-QAM	-28.30	6.69	10.40	2.30	H		0.030	14.79
		256-QAM	-29.87	5.12	10.40	2.30	H		0.021	13.22
2530.020		PI/2 BPSK	-26.31	8.65	10.44	2.30	H		0.048	16.79
		QPSK	-26.35	8.61	10.44	2.30	H		0.047	16.75
		16-QAM	-26.92	8.04	10.44	2.30	H		0.042	16.18
		64-QAM	-28.28	6.68	10.44	2.30	H		0.030	14.82
		256-QAM	-29.73	5.23	10.44	2.30	H		0.022	13.37
2592.990		PI/2 BPSK	-23.27	12.07	10.42	2.33	H		0.104	20.16
		QPSK	-23.38	11.96	10.42	2.33	H		0.101	20.05
		16-QAM	-24.01	11.33	10.42	2.33	H		0.087	19.42
		64-QAM	-25.20	10.14	10.42	2.33	H		0.067	18.23
		256-QAM	-26.65	8.69	10.42	2.33	H		0.048	16.78
2659.980		PI/2 BPSK	-25.13	10.30	10.18	2.37	H		0.065	18.11
		QPSK	-25.20	10.23	10.18	2.37	H		0.064	18.04
		16-QAM	-25.72	9.71	10.18	2.37	H		0.057	17.52
		64-QAM	-26.95	8.48	10.18	2.37	H		0.043	16.29
		256-QAM	-28.42	7.01	10.18	2.37	H		0.030	14.82

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2536.020	Sub6 41/ 80 MHz [30 kHz]	PI/2 BPSK	-26.70	8.24	10.48	2.31	H	< 2.00	0.044	16.41
		QPSK	-26.77	8.17	10.48	2.31	H		0.043	16.34
		16-QAM	-27.60	7.34	10.48	2.31	H		0.036	15.51
		64-QAM	-28.70	6.24	10.48	2.31	H		0.028	14.41
		256-QAM	-30.09	4.85	10.48	2.31	H		0.020	13.02
2540.010		PI/2 BPSK	-26.54	8.36	10.52	2.31	H		0.045	16.57
		QPSK	-26.58	8.32	10.52	2.31	H		0.045	16.53
		16-QAM	-27.21	7.69	10.52	2.31	H		0.039	15.90
		64-QAM	-28.54	6.36	10.52	2.31	H		0.029	14.57
		256-QAM	-29.98	4.92	10.52	2.31	H		0.021	13.13
2592.990		PI/2 BPSK	-24.33	11.01	10.42	2.33	H		0.081	19.10
		QPSK	-24.37	10.97	10.42	2.33	H		0.081	19.06
		16-QAM	-25.20	10.14	10.42	2.33	H		0.067	18.23
		64-QAM	-26.20	9.14	10.42	2.33	H		0.053	17.23
		256-QAM	-27.65	7.69	10.42	2.33	H		0.038	15.78
2649.990		PI/2 BPSK	-25.62	9.72	10.10	2.34	H		0.056	17.48
		QPSK	-25.74	9.60	10.10	2.34	H		0.054	17.36
		16-QAM	-26.37	8.97	10.10	2.34	H		0.047	16.73
		64-QAM	-27.36	7.98	10.10	2.34	H		0.037	15.74
		256-QAM	-28.98	6.36	10.10	2.34	H		0.026	14.12

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2541.000	Sub6 41/ 90 MHz [30 kHz]	PI/2 BPSK	-26.84	8.06	10.52	2.31	H	< 2.00	0.042	16.27
		QPSK	-26.99	7.91	10.52	2.31	H		0.041	16.12
		16-QAM	-27.53	7.37	10.52	2.31	H		0.036	15.58
		64-QAM	-28.88	6.02	10.52	2.31	H		0.026	14.23
		256-QAM	-30.31	4.59	10.52	2.31	H		0.019	12.80
2545.020		PI/2 BPSK	-26.51	8.46	10.56	2.31	H		0.047	16.71
		QPSK	-26.55	8.42	10.56	2.31	H		0.046	16.67
		16-QAM	-27.24	7.73	10.56	2.31	H		0.040	15.98
		64-QAM	-28.55	6.42	10.56	2.31	H		0.029	14.67
		256-QAM	-30.20	4.77	10.56	2.31	H		0.020	13.02
2592.990		PI/2 BPSK	-24.74	10.60	10.42	2.33	H		0.074	18.69
		QPSK	-24.76	10.58	10.42	2.33	H		0.074	18.67
		16-QAM	-25.32	10.02	10.42	2.33	H		0.065	18.11
		64-QAM	-26.64	8.70	10.42	2.33	H		0.048	16.79
		256-QAM	-28.07	7.27	10.42	2.33	H		0.034	15.36
2644.980		PI/2 BPSK	-25.34	10.05	10.13	2.33	H		0.061	17.85
		QPSK	-25.40	9.99	10.13	2.33	H		0.060	17.79
		16-QAM	-25.88	9.51	10.13	2.33	H		0.054	17.31
		64-QAM	-27.17	8.22	10.13	2.33	H		0.040	16.02
		256-QAM	-28.70	6.69	10.13	2.33	H		0.028	14.49

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
2546.010	Sub6 41/ 100 MHz [30 kHz]	PI/2 BPSK	-26.90	8.07	10.56	2.31	H	< 2.00	0.043	16.32
		QPSK	-27.00	7.97	10.56	2.31	H		0.042	16.22
		16-QAM	-27.96	7.01	10.56	2.31	H		0.034	15.26
		64-QAM	-28.95	6.02	10.56	2.31	H		0.027	14.27
		256-QAM	-30.42	4.55	10.56	2.31	H		0.019	12.80
2550.000		PI/2 BPSK	-26.81	8.25	10.58	2.32	H		0.045	16.51
		QPSK	-26.82	8.24	10.58	2.32	H		0.045	16.50
		16-QAM	-27.72	7.34	10.58	2.32	H		0.036	15.60
		64-QAM	-28.80	6.26	10.58	2.32	H		0.028	14.52
		256-QAM	-30.27	4.79	10.58	2.32	H		0.020	13.05
2592.990		PI/2 BPSK	-25.08	10.26	10.42	2.33	H		0.068	18.35
		QPSK	-25.15	10.19	10.42	2.33	H		0.067	18.28
		16-QAM	-25.98	9.36	10.42	2.33	H		0.056	17.45
		64-QAM	-27.06	8.28	10.42	2.33	H		0.043	16.37
		256-QAM	-28.41	6.93	10.42	2.33	H		0.032	15.02
2640.000		PI/2 BPSK	-25.52	9.95	10.16	2.33	H		0.060	17.78
		QPSK	-25.61	9.86	10.16	2.33	H		0.059	17.69
		16-QAM	-26.03	9.44	10.16	2.33	H		0.053	17.27
		64-QAM	-27.23	8.24	10.16	2.33	H		0.040	16.07
		256-QAM	-28.84	6.63	10.16	2.33	H		0.028	14.46

8.2 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
500202 (2501.010)	5 002.02	-49.28	10.90	-52.15	3.29	H	-44.54	-25.00	Peak
	7 503.03	-46.77	11.51	-39.89	4.11	H	-32.49	-25.00	Average
	10 004.04	-49.10	11.78	-40.93	4.75	H	-33.90	-25.00	Average
	12 505.05	-47.03	12.99	-38.42	5.45	V	-30.88	-25.00	Peak
	15 006.06	-47.48	14.42	-41.33	6.05	H	-32.96	-25.00	Peak
501000 (2505.000)	5 010.00	-49.97	10.92	-52.90	3.28	H	-45.26	-25.00	Peak
	7 515.00	-46.50	11.53	-39.54	4.12	V	-32.13	-25.00	Average
	10 020.00	-47.45	11.76	-38.77	4.76	V	-31.77	-25.00	Average
	12 525.00	-46.26	12.95	-37.03	5.27	V	-29.35	-25.00	Peak
	15 030.00	-44.66	14.52	-38.26	5.99	V	-29.73	-25.00	Peak
518598 (2592.990)	5 185.98	-49.52	11.47	-51.60	3.39	H	-43.52	-25.00	Peak
	7 778.97	-42.70	11.28	-35.70	4.21	H	-28.63	-25.00	Average
	10 371.96	-47.86	11.80	-38.03	4.95	V	-31.18	-25.00	Average
	12 964.95	-49.16	12.70	-39.12	5.41	V	-31.83	-25.00	Peak
	15 557.94	-56.13	16.22	-50.13	6.12	H	-40.03	-25.00	Peak
537000 (2685.000)	5 370.00	-54.05	11.84	-56.50	3.45	H	-48.11	-25.00	Peak
	8 055.00	-46.19	11.30	-38.74	4.31	V	-31.75	-25.00	Average
	10 740.00	-51.48	11.70	-40.68	4.99	V	-33.97	-25.00	Average
	13 425.00	-52.08	12.50	-41.90	5.55	V	-34.95	-25.00	Peak
	16 110.00	-62.44	16.50	-54.58	6.28	V	-44.36	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
500700 (2503.500)	5 007.00	-50.74	10.91	-53.65	3.28	H	-46.02	-25.00	Peak
	7 510.50	-48.33	11.52	-41.45	4.12	V	-34.05	-25.00	Average
	10 014.00	-49.67	11.77	-41.31	4.75	V	-34.29	-25.00	Average
	12 517.50	-49.42	12.97	-40.60	5.36	V	-32.99	-25.00	Peak
	15 021.00	-46.59	14.48	-40.20	6.03	V	-31.75	-25.00	Peak
501500 (2507.500)	5 015.00	-50.71	10.93	-53.31	3.29	H	-45.66	-25.00	Peak
	7 522.50	-47.10	11.54	-40.08	4.12	V	-32.66	-25.00	Average
	10 030.00	-48.11	11.74	-39.60	4.79	V	-32.65	-25.00	Average
	12 537.50	-47.87	12.92	-38.33	5.24	V	-30.65	-25.00	Peak
	15 045.00	-45.59	14.58	-39.63	5.96	V	-31.00	-25.00	Peak
518598 (2592.990)	5 185.98	-51.56	11.47	-53.64	3.39	V	-45.56	-25.00	Peak
	7 778.97	-42.82	11.28	-35.82	4.21	V	-28.75	-25.00	Average
	10 371.96	-46.89	11.80	-37.06	4.95	V	-30.21	-25.00	Average
	12 964.95	-49.21	12.70	-39.17	5.41	V	-31.88	-25.00	Peak
	15 557.94	-55.66	16.22	-49.66	6.12	V	-39.56	-25.00	Peak
536496 (2682.480)	5 364.96	-54.45	11.83	-56.90	3.45	V	-48.52	-25.00	Peak
	8 047.44	-45.55	11.30	-38.26	4.31	V	-31.27	-25.00	Average
	10 729.92	-51.78	11.70	-40.93	4.94	V	-34.17	-25.00	Average
	13 412.40	-50.90	12.50	-40.76	5.64	V	-33.90	-25.00	Peak
	16 094.88	-62.16	16.50	-54.40	6.28	H	-44.18	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
501204 (2506.020)	5 012.04	-50.81	10.92	-53.74	3.28	H	-46.10	-25.00	Peak
	7 518.06	-48.97	11.54	-42.02	4.12	V	-34.60	-25.00	Average
	10 024.08	-50.20	11.75	-41.60	4.78	V	-34.63	-25.00	Average
	12 530.10	-50.99	12.94	-41.50	5.23	H	-33.79	-25.00	Peak
	15 036.12	-48.57	14.54	-42.31	5.98	V	-33.75	-25.00	Peak
502002 (2510.010)	5 020.02	-49.73	10.94	-52.00	3.29	H	-44.35	-25.00	Peak
	7 530.03	-47.44	11.56	-40.38	4.15	V	-32.97	-25.00	Average
	10 040.04	-48.44	11.72	-39.45	4.85	V	-32.58	-25.00	Average
	12 550.05	-46.37	12.90	-36.78	5.30	V	-29.18	-25.00	Peak
	15 060.06	-46.14	14.64	-40.44	5.94	V	-31.74	-25.00	Peak
518598 (2592.990)	5 185.98	-51.31	11.47	-53.39	3.39	H	-45.31	-25.00	Peak
	7 778.97	-43.05	11.28	-36.05	4.21	V	-28.98	-25.00	Average
	10 371.96	-46.35	11.80	-36.52	4.95	V	-29.67	-25.00	Average
	12 964.95	-51.81	12.70	-41.77	5.41	V	-34.48	-25.00	Peak
	15 557.94	-54.66	16.22	-48.66	6.12	V	-38.56	-25.00	Peak
535998 (2679.990)	5 359.98	-53.48	11.82	-55.94	3.45	V	-47.57	-25.00	Peak
	8 039.97	-46.03	11.28	-38.83	4.31	V	-31.86	-25.00	Average
	10 719.96	-50.30	11.70	-39.36	4.91	V	-32.57	-25.00	Average
	13 399.95	-49.17	12.50	-38.99	5.67	H	-32.16	-25.00	Peak
	16 079.94	-59.34	16.50	-51.56	6.31	H	-41.37	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
502200 (2511.000)	5 022.00	-50.94	10.94	-53.21	3.29	H	-45.56	-25.00	Peak
	7 533.00	-49.49	11.56	-42.43	4.15	V	-35.02	-25.00	Average
	10 044.00	-51.41	11.71	-42.70	4.87	H	-35.86	-25.00	Average
	12 555.00	-50.88	12.90	-41.45	5.35	H	-33.90	-25.00	Peak
	15 066.00	-47.32	14.66	-41.47	5.95	V	-32.76	-25.00	Peak
503004 (2515.020)	5 030.04	-52.06	10.96	-54.17	3.33	H	-46.54	-25.00	Peak
	7 545.06	-47.79	11.59	-40.73	4.17	V	-33.31	-25.00	Average
	10 060.08	-48.70	11.68	-40.28	4.89	V	-33.49	-25.00	Average
	12 575.10	-49.44	12.90	-40.10	5.48	V	-32.67	-25.00	Peak
	15 090.12	-44.89	14.76	-38.09	6.04	V	-29.37	-25.00	Peak
518598 (2592.990)	5 185.98	-52.08	11.47	-54.16	3.39	H	-46.08	-25.00	Peak
	7 778.97	-42.43	11.28	-35.43	4.21	H	-28.36	-25.00	Average
	10 371.96	-46.65	11.80	-36.82	4.95	V	-29.97	-25.00	Average
	12 964.95	-50.01	12.70	-39.97	5.41	V	-32.68	-25.00	Peak
	15 557.94	-57.33	16.22	-51.33	6.12	V	-41.23	-25.00	Peak
534996 (2674.980)	5 349.96	-53.04	11.80	-55.33	3.44	V	-46.97	-25.00	Peak
	8 024.94	-45.25	11.25	-38.19	4.30	V	-31.23	-25.00	Average
	10 699.92	-50.25	11.70	-39.17	4.98	V	-32.45	-25.00	Average
	13 374.90	-50.19	12.60	-40.44	5.59	V	-33.43	-25.00	Peak
	16 049.88	-59.02	16.50	-51.41	6.29	V	-41.20	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
503202 (2516.010)	5 032.02	-50.13	10.96	-52.24	3.33	H	-44.61	-25.00	Peak
	7 548.03	-50.96	11.58	-43.89	4.17	V	-36.48	-25.00	Average
	10 064.04	-51.55	11.67	-43.32	4.89	V	-36.54	-25.00	Average
	12 580.05	-51.24	12.90	-41.98	5.49	V	-34.57	-25.00	Peak
	15 096.06	-47.73	14.78	-40.97	6.06	V	-32.25	-25.00	Peak
504000 (2520.000)	5 040.00	-50.58	10.98	-52.58	3.34	H	-44.94	-25.00	Peak
	7 560.00	-48.10	11.60	-41.33	4.16	V	-33.89	-25.00	Average
	10 080.00	-49.55	11.64	-41.36	4.85	V	-34.57	-25.00	Average
	12 600.00	-49.08	12.90	-39.50	5.51	V	-32.11	-25.00	Peak
	15 120.00	-45.78	14.84	-39.72	6.11	V	-30.99	-25.00	Peak
518598 (2592.990)	5 185.98	-52.93	11.47	-55.01	3.39	H	-46.93	-25.00	Peak
	7 778.97	-43.62	11.28	-36.62	4.21	V	-29.55	-25.00	Average
	10 371.96	-47.66	11.80	-37.83	4.95	V	-30.98	-25.00	Average
	12 964.95	-52.46	12.70	-42.42	5.41	V	-35.13	-25.00	Peak
	15 557.94	-54.52	16.22	-48.52	6.12	V	-38.42	-25.00	Peak
534000 (2670.000)	5 340.00	-53.24	11.78	-55.69	3.43	V	-47.34	-25.00	Peak
	8 010.00	-43.26	11.22	-36.07	4.26	V	-29.11	-25.00	Average
	10 680.00	-49.57	11.70	-38.84	5.02	V	-32.16	-25.00	Average
	13 350.00	-51.52	12.70	-40.96	5.52	V	-33.78	-25.00	Peak
	16 020.00	-56.42	16.50	-49.11	6.28	V	-38.89	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
504204 (2521.020)	5 042.04	-51.02	10.98	-53.02	3.34	H	-45.38	-25.00	Peak
	7 563.06	-49.55	11.60	-42.93	4.16	V	-35.49	-25.00	Average
	10 084.08	-50.90	11.63	-42.57	4.83	V	-35.77	-25.00	Average
	12 605.10	-49.03	12.90	-39.40	5.50	V	-32.00	-25.00	Peak
	15 126.12	-47.86	14.85	-41.85	6.10	V	-33.10	-25.00	Peak
505002 (2525.010)	5 050.02	-50.66	11.00	-52.82	3.34	H	-45.16	-25.00	Peak
	7 575.03	-48.18	11.60	-41.70	4.14	V	-34.24	-25.00	Average
	10 100.04	-48.77	11.60	-39.85	4.80	V	-33.05	-25.00	Average
	12 625.05	-47.01	12.90	-37.85	5.45	V	-30.40	-25.00	Peak
	15 150.06	-44.39	14.90	-37.93	6.04	V	-29.07	-25.00	Peak
518598 (2592.990)	5 185.98	-51.28	11.47	-53.36	3.39	H	-45.28	-25.00	Peak
	7 778.97	-43.37	11.28	-36.37	4.21	H	-29.30	-25.00	Average
	10 371.96	-47.40	11.80	-37.57	4.95	V	-30.72	-25.00	Average
	12 964.95	-50.33	12.70	-40.29	5.41	V	-33.00	-25.00	Peak
	15 557.94	-52.79	16.22	-46.79	6.12	V	-36.69	-25.00	Peak
532998 (2664.990)	5 329.98	-52.82	11.76	-55.20	3.42	V	-46.86	-25.00	Peak
	7 994.97	-42.48	11.19	-35.32	4.23	V	-28.36	-25.00	Average
	10 659.96	-48.62	11.70	-38.09	5.04	V	-31.43	-25.00	Average
	13 324.95	-51.26	12.75	-41.13	5.59	V	-33.97	-25.00	Peak
	15 989.94	-57.93	16.50	-50.82	6.23	V	-40.55	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
505200 (2526.000)	5 052.00	-51.15	11.00	-53.31	3.34	H	-45.65	-25.00	Peak
	7 578.00	-48.00	11.60	-41.50	4.13	H	-34.03	-25.00	Average
	10 104.00	-52.00	11.60	-43.17	4.79	H	-36.36	-25.00	Average
	12 630.00	-50.54	12.90	-41.40	5.44	V	-33.94	-25.00	Peak
	15 156.00	-46.17	14.91	-39.70	6.03	V	-30.82	-25.00	Peak
506004 (2530.020)	5 060.04	-50.11	11.04	-52.27	3.34	H	-44.57	-25.00	Peak
	7 590.06	-48.28	11.60	-41.44	4.14	V	-33.98	-25.00	Average
	10 120.08	-49.11	11.60	-40.75	4.77	V	-33.92	-25.00	Average
	12 650.10	-55.70	12.90	-45.96	5.40	V	-38.46	-25.00	Peak
	15 180.12	-45.91	14.96	-40.08	6.03	V	-31.15	-25.00	Peak
518598 (2592.990)	5 185.98	-52.67	11.47	-54.75	3.39	H	-46.67	-25.00	Peak
	7 778.97	-44.20	11.28	-37.20	4.21	H	-30.13	-25.00	Average
	10 371.96	-48.40	11.80	-38.57	4.95	V	-31.72	-25.00	Average
	12 964.95	-50.12	12.70	-40.08	5.41	V	-32.79	-25.00	Peak
	15 557.94	-52.55	16.22	-46.55	6.12	V	-36.45	-25.00	Peak
531996 (2659.980)	5 319.96	-51.91	11.74	-54.80	3.41	H	-46.47	-25.00	Peak
	7 979.94	-43.47	11.16	-36.08	4.23	V	-29.15	-25.00	Average
	10 639.92	-48.95	11.70	-38.53	4.96	V	-31.79	-25.00	Average
	13 299.90	-49.22	12.80	-39.26	5.66	V	-32.12	-25.00	Peak
	15 959.88	-58.51	16.50	-51.42	6.22	V	-41.14	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
507204 (2536.020)	5 072.04	-49.65	11.08	-51.92	3.34	H	-44.18	-25.00	Peak
	7 608.06	-42.44	11.60	-35.48	4.14	H	-28.02	-25.00	Peak
	10 144.08	-43.66	11.60	-34.86	4.85	V	-28.11	-25.00	Peak
	12 680.10	-49.51	12.78	-39.39	5.43	H	-32.04	-25.00	Peak
	15 216.12	-46.45	15.03	-40.18	6.12	V	-31.27	-25.00	Peak
508002 (2540.010)	5 080.02	-50.41	11.12	-52.70	3.34	H	-44.92	-25.00	Peak
	7 620.03	-47.81	11.60	-40.98	4.15	H	-33.53	-25.00	Average
	10 160.04	-49.55	11.60	-40.80	4.91	V	-34.11	-25.00	Average
	12 700.05	-48.62	12.70	-38.87	5.48	V	-31.65	-25.00	Peak
	15 240.06	-46.26	15.08	-40.38	6.11	V	-31.41	-25.00	Peak
518598 (2592.990)	5 185.98	-50.54	11.47	-52.62	3.39	H	-44.54	-25.00	Peak
	7 778.97	-45.40	11.28	-38.40	4.21	V	-31.33	-25.00	Average
	10 371.96	-48.44	11.80	-38.61	4.95	V	-31.76	-25.00	Average
	12 964.95	-53.01	12.70	-42.97	5.41	V	-35.68	-25.00	Peak
	15 557.94	-54.04	16.22	-48.04	6.12	V	-37.94	-25.00	Peak
529998 (2649.990)	5 299.98	-50.43	11.70	-53.31	3.41	H	-45.02	-25.00	Peak
	7 949.97	-42.36	11.10	-35.52	4.29	V	-28.71	-25.00	Average
	10 599.96	-49.60	11.70	-38.74	4.89	V	-31.93	-25.00	Average
	13 249.95	-49.14	12.90	-39.00	5.53	V	-31.63	-25.00	Peak
	15 899.94	-57.18	16.40	-49.52	6.25	V	-39.37	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
508200 (2541.000)	5 082.00	-50.66	11.12	-52.95	3.34	H	-45.17	-25.00	Peak
	7 623.00	-42.62	11.60	-35.93	4.16	V	-28.49	-25.00	Peak
	10 164.00	-51.88	11.60	-43.09	4.91	V	-36.40	-25.00	Average
	12 705.00	-50.21	12.69	-40.43	5.46	V	-33.20	-25.00	Peak
	15 246.00	-49.64	15.09	-43.85	6.10	V	-34.86	-25.00	Peak
509004 (2545.020)	5 090.04	-49.90	11.16	-52.05	3.33	H	-44.22	-25.00	Peak
	7 635.06	-49.25	11.60	-42.75	4.18	V	-35.33	-25.00	Average
	10 180.08	-50.30	11.60	-41.55	4.88	V	-34.83	-25.00	Average
	12 725.10	-49.88	12.65	-39.74	5.38	V	-32.47	-25.00	Peak
	15 270.12	-45.81	15.18	-39.76	6.03	V	-30.61	-25.00	Peak
518598 (2592.990)	5 185.98	-51.31	11.47	-53.39	3.39	H	-45.31	-25.00	Peak
	7 778.97	-45.00	11.28	-38.00	4.21	V	-30.93	-25.00	Average
	10 371.96	-47.63	11.80	-37.80	4.95	V	-30.95	-25.00	Average
	12 964.95	-52.38	12.70	-42.34	5.41	V	-35.05	-25.00	Peak
	15 557.94	-55.32	16.22	-49.32	6.12	V	-39.22	-25.00	Peak
528996 (2644.980)	5 289.96	-51.10	11.68	-53.62	3.40	V	-45.34	-25.00	Peak
	7 934.94	-45.00	11.07	-37.86	4.27	V	-31.06	-25.00	Average
	10 579.92	-51.17	11.70	-40.80	4.98	V	-34.08	-25.00	Average
	13 224.90	-49.90	12.90	-39.32	5.54	V	-31.96	-25.00	Peak
	15 869.88	-61.82	16.40	-54.98	6.18	H	-44.76	-25.00	Peak

▣ NR Band: N41

▣ LTE Band(Anchor): B2

▣ 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)	Detector
509202 (2546.010)	5 092.02	-49.91	11.16	-52.06	3.33	H	-44.23	-25.00	Peak
	7 638.03	-42.52	11.60	-36.07	4.19	V	-28.66	-25.00	Peak
	10 184.04	-43.90	11.60	-35.03	4.86	V	-28.29	-25.00	Peak
	12 730.05	-51.29	12.64	-41.10	5.36	H	-33.82	-25.00	Peak
	15 276.06	-50.78	15.20	-44.76	6.03	V	-35.59	-25.00	Peak
510000 (2555.000)	5 100.00	-50.34	11.20	-52.02	3.33	H	-44.15	-25.00	Peak
	7 650.00	-49.30	11.60	-42.89	4.20	V	-35.49	-25.00	Average
	10 200.00	-50.54	11.60	-42.04	4.81	V	-35.25	-25.00	Average
	12 750.00	-49.10	12.60	-39.19	5.37	V	-31.96	-25.00	Peak
	15 300.00	-47.03	15.30	-41.61	6.10	V	-32.41	-25.00	Peak
518598 (2592.990)	5 185.98	-50.36	11.47	-52.44	3.39	H	-44.36	-25.00	Peak
	7 778.97	-44.98	11.28	-37.98	4.21	V	-30.91	-25.00	Average
	10 371.96	-47.50	11.80	-37.67	4.95	V	-30.82	-25.00	Average
	12 964.95	-49.67	12.70	-39.63	5.41	V	-32.34	-25.00	Peak
	15 557.94	-52.34	16.22	-46.34	6.12	V	-36.24	-25.00	Peak
528000 (2640.000)	5 280.00	-52.41	11.66	-55.08	3.41	V	-46.83	-25.00	Peak
	7 920.00	-48.00	11.04	-40.49	4.26	V	-33.71	-25.00	Average
	10 560.00	-54.30	11.70	-43.92	5.00	V	-37.22	-25.00	Average
	13 200.00	-54.14	12.90	-43.90	5.60	V	-36.60	-25.00	Peak
	15 840.00	-59.65	16.40	-52.32	6.23	V	-42.15	-25.00	Peak

All ENDC of operation were investigated and the worst case configuration results are reported.

(Worst case: 2A(10MHz)-n41A(80MHz))

▣ NR Band: N41
▣ LTE Band(Anchor): B2
▣ Bandwidth: 10 MHz
▣ Modulation: PI/2 BPSK
▣ Distance: 1 meters
▣ SCS: 30 kHz

ENDC-Mode: 2A – n41A

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)
18900 (1880.0)	3,760.00	-52.72	11.64	-58.56	2.85	H	-49.77	-13.00
	5,640.00	-54.08	12.00	-54.40	3.54	V	-45.94	-13.00
	7,520.00	-58.17	11.54	-49.94	4.12	V	-42.52	-13.00

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	4.70
			QPSK			6.06
			16-QAM			6.72
			64-QAM			7.08
			256-QAM			7.07
	15 MHz		BPSK	38		4.77
			QPSK			5.84
			16-QAM			6.59
			64-QAM			6.96
			256-QAM			7.07
	20 MHz		BPSK	51		4.69
			QPSK			5.78
			16-QAM			6.85
			64-QAM			6.88
			256-QAM			6.99
	30 MHz		BPSK	78		4.61
			QPSK			5.89
			16-QAM			6.61
			64-QAM			6.94
			256-QAM			7.21
	40 MHz		BPSK	106		4.61
			QPSK			5.88
			16-QAM			6.66
			64-QAM			6.87
			256-QAM			6.90
	50 MHz		BPSK	133		4.99
			QPSK			5.83
			16-QAM			6.51
			64-QAM			6.77
			256-QAM			6.82
	60 MHz		BPSK	162		4.65
			QPSK			5.84
			16-QAM			6.56
			64-QAM			6.84
			256-QAM			7.01
	80 MHz		BPSK	217		5.23
			QPSK			5.92
			16-QAM			6.69
			64-QAM			6.91
			256-QAM			7.02
	90 MHz		BPSK	245		4.77
			QPSK			5.91
			16-QAM			6.65
			64-QAM			6.89
			256-QAM			7.08
	100 MHz		BPSK	273		5.20
			QPSK			5.90
			16-QAM			6.62
			64-QAM			6.85
			256-QAM			6.93

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 116 ~ 165.

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	8.6250
			QPSK			8.6538
			16-QAM			8.6224
			64-QAM			8.6228
			256-QAM			8.6183
	15 MHz		BPSK	38		12.930
			QPSK			12.925
			16-QAM			12.942
			64-QAM			12.976
			256-QAM			12.965
	20 MHz		BPSK	51		17.953
			QPSK			17.982
			16-QAM			17.945
			64-QAM			17.937
			256-QAM			17.953
	30 MHz		BPSK	78		26.919
			QPSK			26.946
			16-QAM			26.927
			64-QAM			27.073
			256-QAM			26.990
	40 MHz		BPSK	106		35.893
			QPSK			35.829
			16-QAM			35.828
			64-QAM			35.819
			256-QAM			35.969
	50 MHz		BPSK	133		45.919
			QPSK			45.876
			16-QAM			45.892
			64-QAM			46.032
			256-QAM			45.985
	60 MHz		BPSK	162		58.141
			QPSK			58.102
			16-QAM			58.142
			64-QAM			57.922
			256-QAM			58.083
	80 MHz		BPSK	217		77.492
			QPSK			77.445
			16-QAM			77.413
			64-QAM			77.679
			256-QAM			77.544
	90 MHz		BPSK	245		86.992
			QPSK			87.340
			16-QAM			87.103
			64-QAM			87.408
			256-QAM			87.054
	100 MHz		BPSK	273		96.715
			QPSK			96.698
			16-QAM			96.826
			64-QAM			96.841
			256-QAM			96.594

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 66 ~ 115.

8.5 CONDUCTED SPURIOUS EMISSIONS

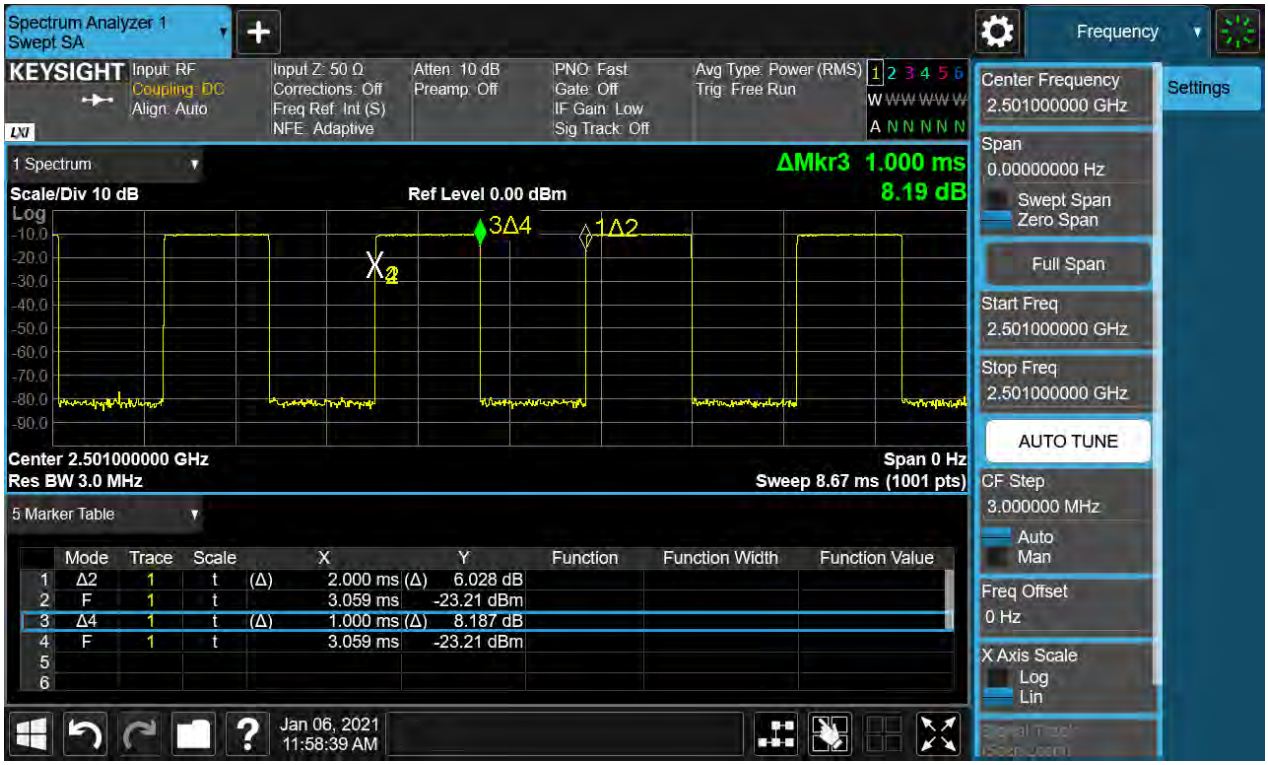
Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n41	10	2501.010	1.8799	32.111	-70.250	-38.139	-25.00
		2505.000	1.8769	32.111	-70.897	-39.911	
		2592.990	1.8759	32.111	-70.430	-38.319	
		2685.000	3.0011	32.111	-72.209	-40.098	
	15	2503.500	1.8764	32.111	-70.894	-38.783	
		2507.500	3.1646	32.111	-71.342	-40.356	
		2592.990	2.7393	32.111	-72.087	-39.976	
		2682.480	6.0205	32.721	-72.335	-39.614	
	20	2506.020	3.2015	32.111	-71.301	-39.190	
		2510.010	3.1127	32.111	-71.796	-40.810	
		2592.990	1.8794	32.111	-70.935	-38.824	
		2679.990	1.8769	32.111	-70.912	-38.801	
	30	2511.000	1.8784	32.111	-70.657	-38.546	
		2515.020	1.8774	32.111	-68.278	-68.278	
		2592.990	3.2458	32.111	-70.351	-38.240	
		2674.980	7.4661	32.721	-71.658	-38.937	
	40	2516.010	1.8804	32.111	-70.687	-38.576	
		2520.000	1.8769	32.111	-71.293	-40.307	
		2592.990	1.8769	32.111	-70.388	-38.277	
		2670.000	3.7877	32.111	-72.005	-39.894	
	50	2521.020	1.8764	32.111	-71.973	-39.862	
		2525.010	6.0240	32.721	-71.184	-39.583	
		2592.990	1.8774	32.111	-71.046	-38.935	
		2664.990	1.8769	32.111	-71.485	-39.374	
	60	2526.000	3.3007	32.111	-70.692	-38.581	
		2530.020	1.8779	32.111	-72.010	-41.024	
		2592.990	6.0260	32.721	-71.932	-39.211	
		2659.980	1.8794	32.111	-71.868	-39.757	
	80	2536.020	9.9781	32.721	-71.640	-38.919	
		2540.010	1.8784	32.111	-70.709	-39.723	
		2592.990	1.8779	32.111	-71.641	-39.530	
		2649.990	1.8789	32.111	-71.905	-39.794	
	90	2541.000	9.4816	32.721	-71.957	-39.236	
		2545.020	1.8789	32.111	-70.933	-39.947	
		2592.990	1.8804	32.111	-71.417	-39.306	
		2644.980	7.9930	32.721	-72.215	-39.494	
	100	2546.010	4.9018	32.111	-71.953	-39.842	
		2550.000	1.8764	32.111	-69.825	-38.839	
		2592.990	8.0035	32.721	-72.201	-39.480	
		2640.000	7.9691	32.721	-72.611	-39.890	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 276 ~ 355.

2. Duty Cycle factor already applied on the factor.

- Duty Cycle Factor(dB) = 3.01



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

- Result(dBm) = Reading + Factor

3. Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	29.623
1 – 5	32.111
5 – 10	32.721
10 – 15	33.246
15 – 20	33.619
Above 20	34.261

8.6 CHANNEL EDGE

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +NormalHz)	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	-29.90	-28.61	-28.91	-28.88	-32.54	-30.23	-40.25
15	2503.500	BPSK	Full RB	-27.19	-32.01	-29.78	-30.06	-30.78	-29.56	-43.01
20	2506.020	BPSK	Full RB	-28.95	-30.98	-30.75	-31.98	-31.83	-29.48	-42.29
30	2511.000	BPSK	Full RB	-27.13	-33.01	-31.08	-32.44	-34.98	-33.30	-45.36
40	2520.000	BPSK	Full RB	-27.26	-33.09	-31.31	-34.38	-35.93	-34.40	-46.30
50	2525.010	BPSK	Full RB	-26.78	-32.36	-31.59	-32.65	-34.58	-34.83	-44.22
60	2530.020	BPSK	Full RB	-19.49	-20.60	-31.97	-31.50	-35.33	-34.90	-47.85
80	2540.010	BPSK	Full RB	-26.39	-31.35	-31.88	-33.57	-33.97	-33.79	-48.06
90	2545.020	BPSK	Full RB	-24.87	-33.09	-31.78	-33.81	-33.55	-34.75	-49.23
100	2550.000	BPSK	Full RB	-23.51	-34.95	-32.55	-34.39	-33.41	-35.85	-47.86
Limit				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	2 500 MHz ~ 2 496 MHz	C.E ~ (C.E +1MHz)	2 490.5 MHz ~ 2 496 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	2505.000	BPSK	Full RB	-27.91	-27.52	-29.08	-27.29	-39.89	-29.61	-39.24
15	2507.500	BPSK	Full RB	-27.52	-33.27	-29.65	-29.43	-35.92	-28.63	-42.10
20	2510.010	BPSK	Full RB	-28.14	-29.93	-30.80	-32.06	-34.44	-29.73	-42.44
30	2515.000	BPSK	Full RB	-28.74	-32.55	-35.31	-32.52	-34.04	-33.35	-45.52
40	2520.000	BPSK	Full RB	-26.56	-33.64	-34.24	-34.18	-34.62	-34.43	-46.53
50	2525.010	BPSK	Full RB	-25.59	-32.48	-32.54	-32.73	-36.71	-34.71	-44.11
60	2530.020	BPSK	Full RB	-19.35	-19.70	-33.76	-31.77	-38.13	-34.94	-48.43
80	2540.010	BPSK	Full RB	-25.36	-30.72	-32.65	-33.56	-35.05	-33.70	-48.39
90	2545.020	BPSK	Full RB	-23.81	-33.10	-32.64	-33.49	-35.04	-34.09	-49.48
100	2550.000	BPSK	Full RB	-22.43	-34.41	-32.30	-34.30	-34.53	-35.94	-48.14
Limit				-10.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resoure Block Offset	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-28.89	-28.05	-26.59	-27.89
	2685.000	BPSK	Full RB	0	-29.42	-27.30	-26.70	-25.72
15 MHz	2592.990	BPSK	Full RB	0	-25.77	-32.49	-27.24	-28.70
	2682.480	BPSK	Full RB	0	-26.95	-31.09	-27.02	-26.89
20 MHz	2592.990	BPSK	Full RB	0	-27.30	-30.30	-28.54	-31.70
	2679.990	BPSK	Full RB	0	-27.74	-29.23	-28.44	-29.68
30 MHz	2592.990	BPSK	Full RB	0	-26.30	-32.62	-28.57	-32.12
	2679.990	BPSK	Full RB	0	-26.74	-31.75	-28.97	-30.95
40 MHz	2592.990	BPSK	Full RB	0	-25.16	-33.57	-29.23	-34.35
	2670.000	BPSK	Full RB	0	-24.97	-32.01	-28.73	-32.87
50 MHz	2592.990	BPSK	Full RB	0	-25.63	-33.06	-29.18	-32.93
	2664.990	BPSK	Full RB	0	-24.46	-32.05	-28.42	-32.23
60 MHz	2592.990	BPSK	Full RB	0	-18.04	-20.65	-29.76	-32.05
	2659.980	BPSK	Full RB	0	-18.06	-21.07	-29.10	-31.73
80 MHz	2592.990	BPSK	Full RB	0	-23.79	-30.38	-30.16	-32.63
	2649.990	BPSK	Full RB	0	-24.61	-31.24	-30.07	-32.61
90 MHz	2592.990	BPSK	Full RB	0	-22.99	-33.04	-29.57	-32.51
	2644.980	BPSK	Full RB	0	-23.77	-33.16	-29.90	-33.23
100 MHz	2592.990	BPSK	Full RB	0	-19.32	-34.29	-30.60	-33.67
	2640.000	BPSK	Full RB	0	-21.48	-34.67	-30.85	-33.95
Limit					-10.0		-10.0	

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resoure 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	0	-27.90	-29.37	-37.49	-38.14
	2685.000	BPSK	Full RB	0	-28.58	-26.67	-35.80	-35.01
15 MHz	2592.990	BPSK	Full RB	0	-27.25	-28.18	-38.79	-39.56
	2682.480	BPSK	Full RB	0	-26.97	-26.49	-37.19	-36.79
20 MHz	2592.990	BPSK	Full RB	0	-28.48	-29.32	-38.75	-40.34
	2679.990	BPSK	Full RB	0	-28.10	-27.36	-37.36	-38.19
30 MHz	2592.990	BPSK	Full RB	0	-31.21	-33.29	-43.81	-44.10
	2679.990	BPSK	Full RB	0	-30.15	-30.54	-42.24	-46.12
40 MHz	2592.990	BPSK	Full RB	0	-30.85	-33.94	-43.66	-45.21
	2670.000	BPSK	Full RB	0	-29.75	-31.73	-41.85	-48.20
50 MHz	2592.990	BPSK	Full RB	0	-30.44	-34.41	-40.48	-42.86
	2664.990	BPSK	Full RB	0	-30.40	-32.25	-38.27	-50.09
60 MHz	2592.990	BPSK	Full RB	0	-31.70	-33.97	-45.44	-47.50
	2659.980	BPSK	Full RB	0	-31.77	-33.78	-43.63	-50.55
80 MHz	2592.990	BPSK	Full RB	0	-31.07	-33.09	-50.74	-47.19
	2649.990	BPSK	Full RB	0	-30.01	-32.68	-42.53	-50.56
90 MHz	2592.990	BPSK	Full RB	0	-30.36	-34.87	-50.92	-50.15
	2644.980	BPSK	Full RB	0	-30.13	-33.92	-46.16	-50.51
100 MHz	2592.990	BPSK	Full RB	0	-31.21	-35.41	-51.03	-50.62
	2640.000	BPSK	Full RB	0	-31.32	-34.22	-44.04	-50.51
Limit					-13.0		-25.0	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6MHz or the actual emission bandwidth
3. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Power Splitter + Ext. Attenuator
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 3.01
4. Plots of the EUT's Channel Edge are shown Page 166 ~ 275. (1RB & Full RB)

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 10 MHz

▣ Voltage(100%): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2501.010	100%	+20(Ref)	2501 010 009	0.0	0.000 000	0.000
	100%	-30	2501 010 019	10.3	0.000 000	0.004
	100%	-20	2501 010 022	13.1	0.000 001	0.005
	100%	-10	2501 010 012	3.7	0.000 000	0.001
	100%	0	2501 010 013	4.4	0.000 000	0.002
	100%	+10	2501 010 025	15.8	0.000 001	0.006
	100%	+30	2501 010 023	13.8	0.000 001	0.006
	100%	+40	2501 010 015	6.4	0.000 000	0.003
	100%	+50	2501 010 018	9.2	0.000 000	0.004
	Batt. Endpoint	+20	2501 010 015	6.5	0.000 000	0.003
2505.000	100%	+20(Ref)	2505 000 015	0.0	0.000 000	0.000
	100%	-30	2505 000 030	14.3	0.000 001	0.006
	100%	-20	2505 000 032	16.3	0.000 001	0.007
	100%	-10	2505 000 022	6.4	0.000 000	0.003
	100%	0	2505 000 027	11.2	0.000 000	0.004
	100%	+10	2505 000 024	8.0	0.000 000	0.003
	100%	+30	2505 000 029	13.6	0.000 001	0.005
	100%	+40	2505 000 025	9.1	0.000 000	0.004
	100%	+50	2505 000 021	5.2	0.000 000	0.002
	Batt. Endpoint	+20	2505 000 020	4.9	0.000 000	0.002
2685.000	100%	+20(Ref)	2685 000 007	0.0	0.000 000	0.000
	100%	-30	2685 000 013	5.7	0.000 000	0.002
	100%	-20	2685 000 020	13.3	0.000 000	0.005
	100%	-10	2685 000 023	15.7	0.000 001	0.006
	100%	0	2685 000 022	15.1	0.000 001	0.006
	100%	+10	2685 000 018	11.4	0.000 000	0.004
	100%	+30	2685 000 011	4.3	0.000 000	0.002
	100%	+40	2685 000 017	9.6	0.000 000	0.004
	100%	+50	2685 000 015	7.7	0.000 000	0.003
	Batt. Endpoint	+20	2685 000 016	9.1	0.000 000	0.003

▣ BandWidth: 15 MHz

▣ Voltage(100%): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2503.500	100%	+20(Ref)	2503 500 008	0.0	0.000 000	0.000
	100%	-30	2503 500 016	8.1	0.000 000	0.003
	100%	-20	2503 500 025	16.6	0.000 001	0.007
	100%	-10	2503 500 012	3.3	0.000 000	0.001
	100%	0	2503 500 012	3.5	0.000 000	0.001
	100%	+10	2503 500 021	12.5	0.000 000	0.005
	100%	+30	2503 500 020	12.2	0.000 000	0.005
	100%	+40	2503 500 019	10.8	0.000 000	0.004
	100%	+50	2503 500 014	5.5	0.000 000	0.002
	Batt. Endpoint	+20	2503 500 016	7.5	0.000 000	0.003
2507.500	100%	+20(Ref)	2507 500 017	0.0	0.000 000	0.000
	100%	-30	2507 500 020	3.1	0.000 000	0.001
	100%	-20	2507 500 023	6.3	0.000 000	0.003
	100%	-10	2507 500 021	3.9	0.000 000	0.002
	100%	0	2507 500 033	16.3	0.000 001	0.007
	100%	+10	2507 500 033	16.3	0.000 001	0.006
	100%	+30	2507 500 023	6.2	0.000 000	0.002
	100%	+40	2507 500 024	7.6	0.000 000	0.003
	100%	+50	2507 500 026	9.5	0.000 000	0.004
	Batt. Endpoint	+20	2507 500 027	10.6	0.000 000	0.004
2682.480	100%	+20(Ref)	2682 480 009	0.0	0.000 000	0.000
	100%	-30	2682 480 013	4.0	0.000 000	0.002
	100%	-20	2682 480 023	13.6	0.000 001	0.005
	100%	-10	2682 480 025	15.4	0.000 001	0.006
	100%	0	2682 480 024	14.7	0.000 001	0.005
	100%	+10	2682 480 024	14.7	0.000 001	0.005
	100%	+30	2682 480 014	5.2	0.000 000	0.002
	100%	+40	2682 480 014	5.2	0.000 000	0.002
	100%	+50	2682 480 013	3.5	0.000 000	0.001
	Batt. Endpoint	+20	2682 480 026	16.9	0.000 001	0.006

▣ BandWidth: 20 MHz

▣ Voltage(100%): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2506.020	100%	+20(Ref)	2506 020 005	0.0	0.000 000	0.000
	100%	-30	2506 020 019	14.8	0.000 001	0.006
	100%	-20	2506 020 017	12.7	0.000 001	0.005
	100%	-10	2506 020 018	13.2	0.000 001	0.005
	100%	0	2506 020 010	5.9	0.000 000	0.002
	100%	+10	2506 020 013	8.8	0.000 000	0.003
	100%	+30	2506 020 011	6.9	0.000 000	0.003
	100%	+40	2506 020 015	10.3	0.000 000	0.004
	100%	+50	2506 020 019	14.8	0.000 001	0.006
	Batt. Endpoint	+20	2506 020 015	10.6	0.000 000	0.004
2510.010	100%	+20(Ref)	2510 010 017	0.0	0.000 000	0.000
	100%	-30	2510 010 031	14.0	0.000 001	0.006
	100%	-20	2510 010 023	6.4	0.000 000	0.003
	100%	-10	2510 010 021	4.7	0.000 000	0.002
	100%	0	2510 010 025	8.6	0.000 000	0.003
	100%	+10	2510 010 025	8.5	0.000 000	0.003
	100%	+30	2510 010 029	12.1	0.000 000	0.005
	100%	+40	2510 010 025	8.7	0.000 000	0.003
	100%	+50	2510 010 024	7.4	0.000 000	0.003
	Batt. Endpoint	+20	2510 010 023	6.7	0.000 000	0.003
2679.990	100%	+20(Ref)	2679 990 012	0.0	0.000 000	0.000
	100%	-30	2679 990 027	15.2	0.000 001	0.006
	100%	-20	2679 990 015	3.6	0.000 000	0.001
	100%	-10	2679 990 016	4.3	0.000 000	0.002
	100%	0	2679 990 026	13.8	0.000 001	0.005
	100%	+10	2679 990 016	4.4	0.000 000	0.002
	100%	+30	2679 990 027	15.5	0.000 001	0.006
	100%	+40	2679 990 017	5.8	0.000 000	0.002
	100%	+50	2679 990 025	13.6	0.000 001	0.005
	Batt. Endpoint	+20	2679 990 021	9.8	0.000 000	0.004

▣ BandWidth: 30 MHz

▣ Voltage(100%): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2511.000	100%	+20(Ref)	2511 000 017	0.0	0.000 000	0.000
	100%	-30	2511 000 023	6.7	0.000 000	0.003
	100%	-20	2511 000 024	7.2	0.000 000	0.003
	100%	-10	2511 000 026	9.8	0.000 000	0.004
	100%	0	2511 000 029	12.4	0.000 000	0.005
	100%	+10	2511 000 027	10.5	0.000 000	0.004
	100%	+30	2511 000 021	4.3	0.000 000	0.002
	100%	+40	2511 000 022	5.4	0.000 000	0.002
	100%	+50	2511 000 028	11.5	0.000 000	0.005
	Batt. Endpoint	+20	2511 000 020	3.6	0.000 000	0.001
2515.000	100%	+20(Ref)	2515 000 008	0.0	0.000 000	0.000
	100%	-30	2515 000 011	3.3	0.000 000	0.001
	100%	-20	2515 000 022	14.6	0.000 001	0.006
	100%	-10	2515 000 020	12.5	0.000 000	0.005
	100%	0	2515 000 012	4.7	0.000 000	0.002
	100%	+10	2515 000 011	3.0	0.000 000	0.001
	100%	+30	2515 000 020	12.0	0.000 000	0.005
	100%	+40	2515 000 019	11.8	0.000 000	0.005
	100%	+50	2515 000 013	5.5	0.000 000	0.002
	Batt. Endpoint	+20	2515 000 023	15.1	0.000 001	0.006
2674.980	100%	+20(Ref)	2674 980 015	0.0	0.000 000	0.000
	100%	-30	2674 980 028	13.0	0.000 000	0.005
	100%	-20	2674 980 020	5.2	0.000 000	0.002
	100%	-10	2674 980 024	9.6	0.000 000	0.004
	100%	0	2674 980 023	8.6	0.000 000	0.003
	100%	+10	2674 980 018	3.5	0.000 000	0.001
	100%	+30	2674 980 022	7.7	0.000 000	0.003
	100%	+40	2674 980 031	16.6	0.000 001	0.006
	100%	+50	2674 980 024	9.4	0.000 000	0.004
	Batt. Endpoint	+20	2674 980 024	8.9	0.000 000	0.003

▣ BandWidth: 40 MHz

▣ Voltage(100%): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2516.010	100%	+20(Ref)	2516 010 015	0.0	0.000 000	0.000
	100%	-30	2516 010 021	5.6	0.000 000	0.002
	100%	-20	2516 010 018	3.6	0.000 000	0.001
	100%	-10	2516 010 021	6.5	0.000 000	0.003
	100%	0	2516 010 029	14.1	0.000 001	0.006
	100%	+10	2516 010 029	13.8	0.000 001	0.005
	100%	+30	2516 010 019	4.2	0.000 000	0.002
	100%	+40	2516 010 026	11.2	0.000 000	0.004
	100%	+50	2516 010 027	12.2	0.000 000	0.005
	Batt. Endpoint	+20	2516 010 026	10.6	0.000 000	0.004
2520.000	100%	+20(Ref)	2520 000 013	0.0	0.000 000	0.000
	100%	-30	2520 000 020	6.9	0.000 000	0.003
	100%	-20	2520 000 024	11.1	0.000 000	0.004
	100%	-10	2520 000 019	5.9	0.000 000	0.002
	100%	0	2520 000 020	7.1	0.000 000	0.003
	100%	+10	2520 000 029	16.2	0.000 001	0.006
	100%	+30	2520 000 019	6.3	0.000 000	0.002
	100%	+40	2520 000 019	6.5	0.000 000	0.003
	100%	+50	2520 000 020	7.5	0.000 000	0.003
	Batt. Endpoint	+20	2520 000 027	14.3	0.000 001	0.006
2670.000	100%	+20(Ref)	2670 000 013	0.0	0.000 000	0.000
	100%	-30	2670 000 029	15.8	0.000 001	0.006
	100%	-20	2670 000 018	5.2	0.000 000	0.002
	100%	-10	2670 000 023	9.6	0.000 000	0.004
	100%	0	2670 000 018	4.8	0.000 000	0.002
	100%	+10	2670 000 024	11.2	0.000 000	0.004
	100%	+30	2670 000 024	11.5	0.000 000	0.004
	100%	+40	2670 000 028	15.5	0.000 001	0.006
	100%	+50	2670 000 030	16.7	0.000 001	0.006
	Batt. Endpoint	+20	2670 000 021	8.2	0.000 000	0.003

▣ BandWidth: 50 MHz

▣ Voltage(100%): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2521.020	100%	+20(Ref)	2521 020 007	0.0	0.000 000	0.000
	100%	-30	2521 020 022	15.3	0.000 001	0.006
	100%	-20	2521 020 024	16.9	0.000 001	0.007
	100%	-10	2521 020 019	12.6	0.000 001	0.005
	100%	0	2521 020 016	9.4	0.000 000	0.004
	100%	+10	2521 020 014	7.1	0.000 000	0.003
	100%	+30	2521 020 020	13.4	0.000 001	0.005
	100%	+40	2521 020 021	14.7	0.000 001	0.006
	100%	+50	2521 020 020	13.4	0.000 001	0.005
	Batt. Endpoint	+20	2521 020 016	9.6	0.000 000	0.004
2525.010	100%	+20(Ref)	2525 010 011	0.0	0.000 000	0.000
	100%	-30	2525 010 018	7.9	0.000 000	0.003
	100%	-20	2525 010 022	11.4	0.000 000	0.005
	100%	-10	2525 010 017	6.0	0.000 000	0.002
	100%	0	2525 010 021	10.4	0.000 000	0.004
	100%	+10	2525 010 026	15.6	0.000 001	0.006
	100%	+30	2525 010 015	4.0	0.000 000	0.002
	100%	+40	2525 010 022	11.0	0.000 000	0.004
	100%	+50	2525 010 026	15.2	0.000 001	0.006
	Batt. Endpoint	+20	2525 010 022	11.7	0.000 000	0.005
2664.990	100%	+20(Ref)	2664 990 009	0.0	0.000 000	0.000
	100%	-30	2664 990 025	15.3	0.000 001	0.006
	100%	-20	2664 990 015	5.5	0.000 000	0.002
	100%	-10	2664 990 013	3.2	0.000 000	0.001
	100%	0	2664 990 020	10.8	0.000 000	0.004
	100%	+10	2664 990 018	9.0	0.000 000	0.003
	100%	+30	2664 990 024	14.4	0.000 001	0.005
	100%	+40	2664 990 021	11.8	0.000 000	0.004
	100%	+50	2664 990 026	16.6	0.000 001	0.006
	Batt. Endpoint	+20	2664 990 014	4.1	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. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2526.000	100%	+20(Ref)	2526 000 007	0.0	0.000 000	0.000
	100%	-30	2526 000 018	10.2	0.000 000	0.004
	100%	-20	2526 000 022	14.8	0.000 001	0.006
	100%	-10	2526 000 019	11.3	0.000 000	0.004
	100%	0	2526 000 013	5.6	0.000 000	0.002
	100%	+10	2526 000 014	6.8	0.000 000	0.003
	100%	+30	2526 000 021	13.4	0.000 001	0.005
	100%	+40	2526 000 021	13.4	0.000 001	0.005
	100%	+50	2526 000 013	5.9	0.000 000	0.002
	Batt. Endpoint	+20	2526 000 021	13.3	0.000 001	0.005
2530.020	100%	+20(Ref)	2530 020 013	0.0	0.000 000	0.000
	100%	-30	2530 020 027	13.3	0.000 001	0.005
	100%	-20	2530 020 026	12.3	0.000 000	0.005
	100%	-10	2530 020 026	12.8	0.000 001	0.005
	100%	0	2530 020 019	6.0	0.000 000	0.002
	100%	+10	2530 020 017	3.8	0.000 000	0.001
	100%	+30	2530 020 019	5.8	0.000 000	0.002
	100%	+40	2530 020 027	13.6	0.000 001	0.005
	100%	+50	2530 020 024	10.9	0.000 000	0.004
	Batt. Endpoint	+20	2530 020 027	13.5	0.000 001	0.005
2659.980	100%	+20(Ref)	2659 980 016	0.0	0.000 000	0.000
	100%	-30	2659 980 031	14.7	0.000 001	0.006
	100%	-20	2659 980 029	12.5	0.000 000	0.005
	100%	-10	2659 980 031	14.7	0.000 001	0.006
	100%	0	2659 980 030	14.1	0.000 001	0.005
	100%	+10	2659 980 030	14.3	0.000 001	0.005
	100%	+30	2659 980 020	4.3	0.000 000	0.002
	100%	+40	2659 980 030	13.8	0.000 001	0.005
	100%	+50	2659 980 020	3.7	0.000 000	0.001
	Batt. Endpoint	+20	2659 980 032	15.9	0.000 001	0.006

▣ BandWidth: 80 MHz

▣ Voltage(100%): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2536.020	100%	+20(Ref)	2536 020 014	0.0	0.000 000	0.000
	100%	-30	2536 020 026	12.3	0.000 000	0.005
	100%	-20	2536 020 028	14.4	0.000 001	0.006
	100%	-10	2536 020 017	3.5	0.000 000	0.001
	100%	0	2536 020 018	4.3	0.000 000	0.002
	100%	+10	2536 020 030	16.4	0.000 001	0.006
	100%	+30	2536 020 018	4.6	0.000 000	0.002
	100%	+40	2536 020 022	8.2	0.000 000	0.003
	100%	+50	2536 020 030	16.8	0.000 001	0.007
	Batt. Endpoint	+20	2536 020 027	13.3	0.000 001	0.005
2540.010	100%	+20(Ref)	2540 010 013	0.0	0.000 000	0.000
	100%	-30	2540 010 017	4.6	0.000 000	0.002
	100%	-20	2540 010 024	11.4	0.000 000	0.004
	100%	-10	2540 010 028	15.1	0.000 001	0.006
	100%	0	2540 010 018	5.9	0.000 000	0.002
	100%	+10	2540 010 019	6.3	0.000 000	0.002
	100%	+30	2540 010 018	5.0	0.000 000	0.002
	100%	+40	2540 010 024	11.2	0.000 000	0.004
	100%	+50	2540 010 026	13.8	0.000 001	0.005
	Batt. Endpoint	+20	2540 010 016	3.3	0.000 000	0.001
2649.990	100%	+20(Ref)	2649 990 016	0.0	0.000 000	0.000
	100%	-30	2649 990 030	13.6	0.000 001	0.005
	100%	-20	2649 990 020	4.0	0.000 000	0.002
	100%	-10	2649 990 023	6.8	0.000 000	0.003
	100%	0	2649 990 026	9.4	0.000 000	0.004
	100%	+10	2649 990 024	8.3	0.000 000	0.003
	100%	+30	2649 990 023	6.8	0.000 000	0.003
	100%	+40	2649 990 031	14.4	0.000 001	0.005
	100%	+50	2649 990 025	8.6	0.000 000	0.003
	Batt. Endpoint	+20	2649 990 032	15.7	0.000 001	0.006

▣ BandWidth: 90 MHz

▣ Voltage(100%): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2541.000	100%	+20(Ref)	2541 000 008	0.0	0.000 000	0.000
	100%	-30	2541 000 013	5.3	0.000 000	0.002
	100%	-20	2541 000 016	8.2	0.000 000	0.003
	100%	-10	2541 000 012	4.1	0.000 000	0.002
	100%	0	2541 000 012	4.1	0.000 000	0.002
	100%	+10	2541 000 024	15.5	0.000 001	0.006
	100%	+30	2541 000 025	16.9	0.000 001	0.007
	100%	+40	2541 000 019	10.6	0.000 000	0.004
	100%	+50	2541 000 016	8.3	0.000 000	0.003
	Batt. Endpoint	+20	2541 000 021	13.3	0.000 001	0.005
2545.020	100%	+20(Ref)	2545 020 007	0.0	0.000 000	0.000
	100%	-30	2545 020 024	17.0	0.000 001	0.007
	100%	-20	2545 020 021	14.2	0.000 001	0.006
	100%	-10	2545 020 019	12.7	0.000 001	0.005
	100%	0	2545 020 014	7.9	0.000 000	0.003
	100%	+10	2545 020 011	4.8	0.000 000	0.002
	100%	+30	2545 020 022	15.4	0.000 001	0.006
	100%	+40	2545 020 022	15.5	0.000 001	0.006
	100%	+50	2545 020 021	14.3	0.000 001	0.006
	Batt. Endpoint	+20	2545 020 016	9.5	0.000 000	0.004
2644.980	100%	+20(Ref)	2644 980 011	0.0	0.000 000	0.000
	100%	-30	2644 980 017	5.8	0.000 000	0.002
	100%	-20	2644 980 021	9.3	0.000 000	0.004
	100%	-10	2644 980 016	4.7	0.000 000	0.002
	100%	0	2644 980 022	10.2	0.000 000	0.004
	100%	+10	2644 980 024	12.2	0.000 000	0.005
	100%	+30	2644 980 015	4.1	0.000 000	0.002
	100%	+40	2644 980 018	7.2	0.000 000	0.003
	100%	+50	2644 980 023	11.4	0.000 000	0.004
	Batt. Endpoint	+20	2644 980 016	4.7	0.000 000	0.002

▣ BandWidth: 100 MHz

▣ Voltage(100%): 3.860 VDC

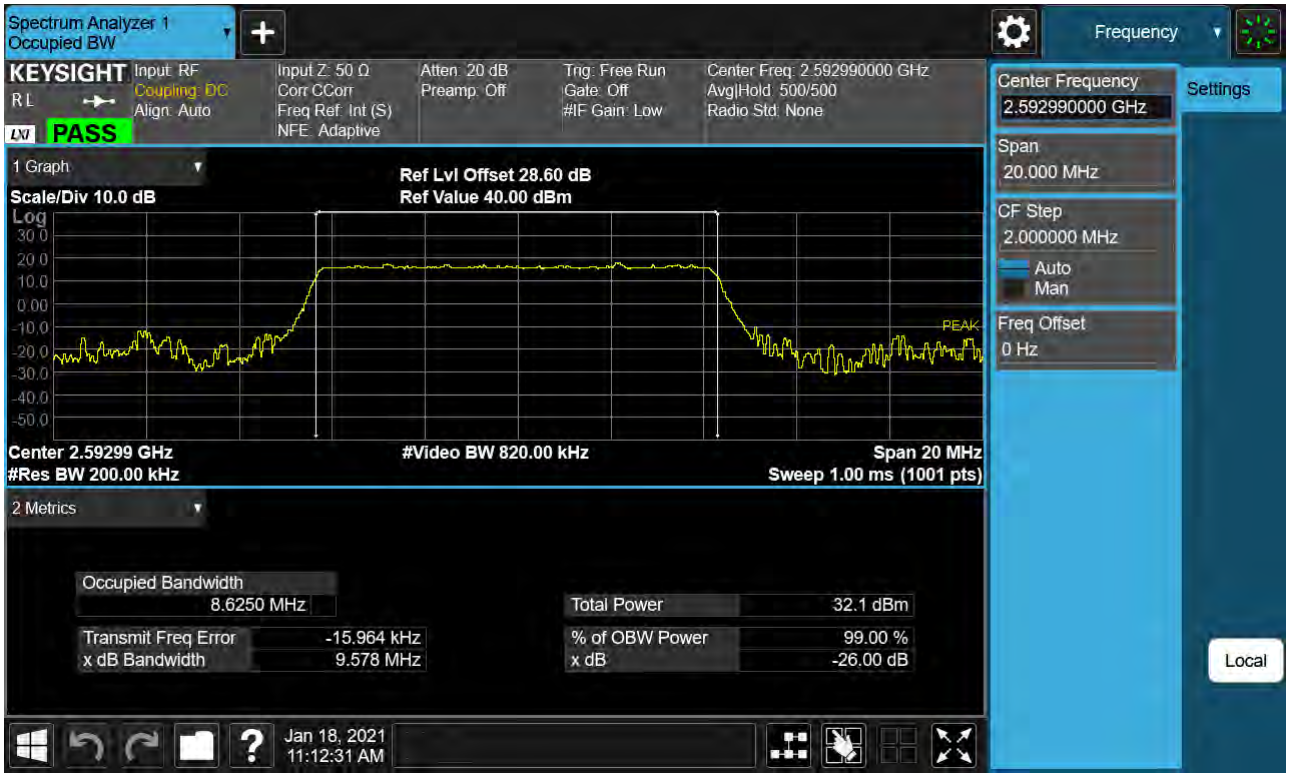
▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2546.010	100%	+20(Ref)	2546 010 016	0.0	0.000 000	0.000
	100%	-30	2546 010 019	3.3	0.000 000	0.001
	100%	-20	2546 010 033	16.9	0.000 001	0.007
	100%	-10	2546 010 024	8.5	0.000 000	0.003
	100%	0	2546 010 024	7.8	0.000 000	0.003
	100%	+10	2546 010 023	7.1	0.000 000	0.003
	100%	+30	2546 010 030	14.4	0.000 001	0.006
	100%	+40	2546 010 022	6.0	0.000 000	0.002
	100%	+50	2546 010 023	7.5	0.000 000	0.003
	Batt. Endpoint	+20	2546 010 020	4.5	0.000 000	0.002
2550.000	100%	+20(Ref)	2550 000 005	0.0	0.000 000	0.000
	100%	-30	2550 000 021	15.2	0.000 001	0.006
	100%	-20	2550 000 011	6.1	0.000 000	0.002
	100%	-10	2550 000 017	11.6	0.000 000	0.005
	100%	0	2550 000 011	6.0	0.000 000	0.002
	100%	+10	2550 000 013	7.7	0.000 000	0.003
	100%	+30	2550 000 020	14.5	0.000 001	0.006
	100%	+40	2550 000 013	8.0	0.000 000	0.003
	100%	+50	2550 000 018	12.4	0.000 000	0.005
	Batt. Endpoint	+20	2550 000 020	14.3	0.000 001	0.006
2640.000	100%	+20(Ref)	2640 000 015	0.0	0.000 000	0.000
	100%	-30	2640 000 026	11.9	0.000 000	0.004
	100%	-20	2640 000 020	5.4	0.000 000	0.002
	100%	-10	2640 000 027	11.9	0.000 000	0.005
	100%	0	2640 000 027	12.6	0.000 000	0.005
	100%	+10	2640 000 027	12.5	0.000 000	0.005
	100%	+30	2640 000 024	9.2	0.000 000	0.003
	100%	+40	2640 000 030	15.6	0.000 001	0.006
	100%	+50	2640 000 029	14.5	0.000 001	0.005
	Batt. Endpoint	+20	2640 000 031	16.8	0.000 001	0.006

9. TEST PLOTS

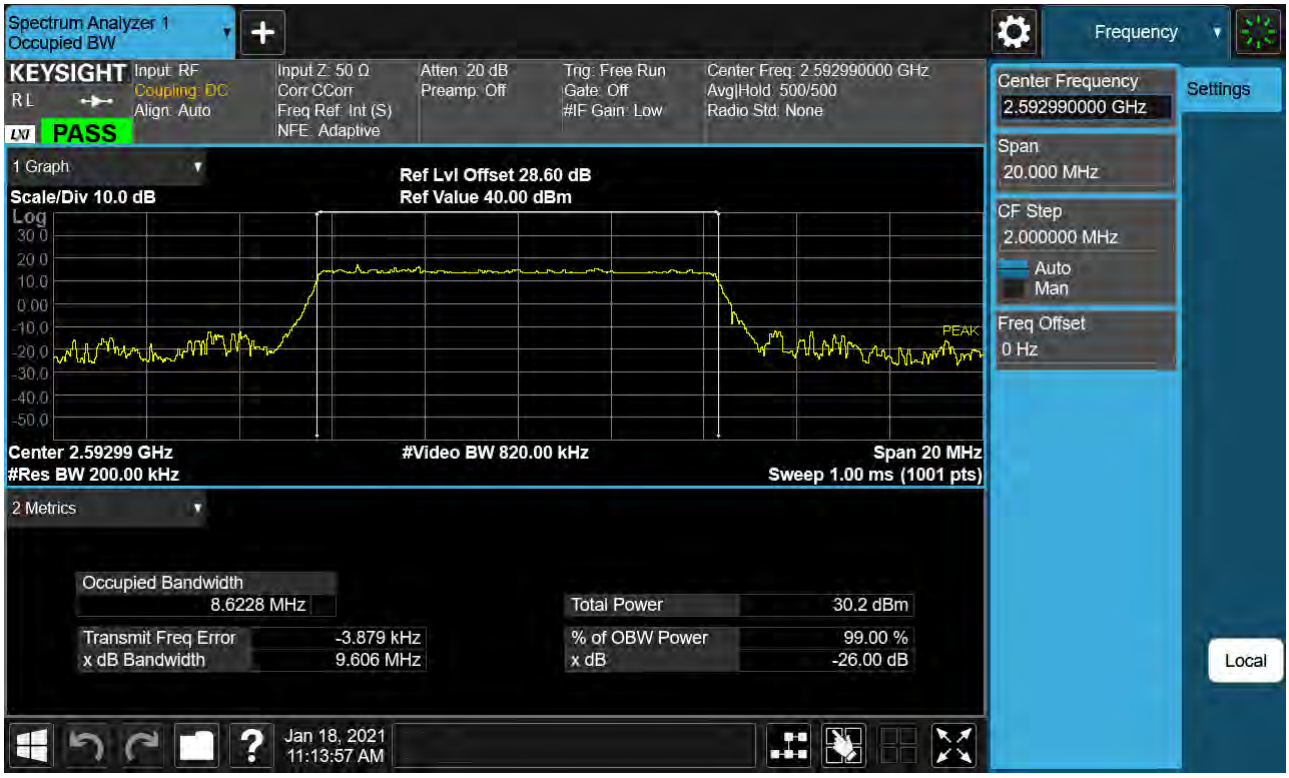
Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 BPSK)



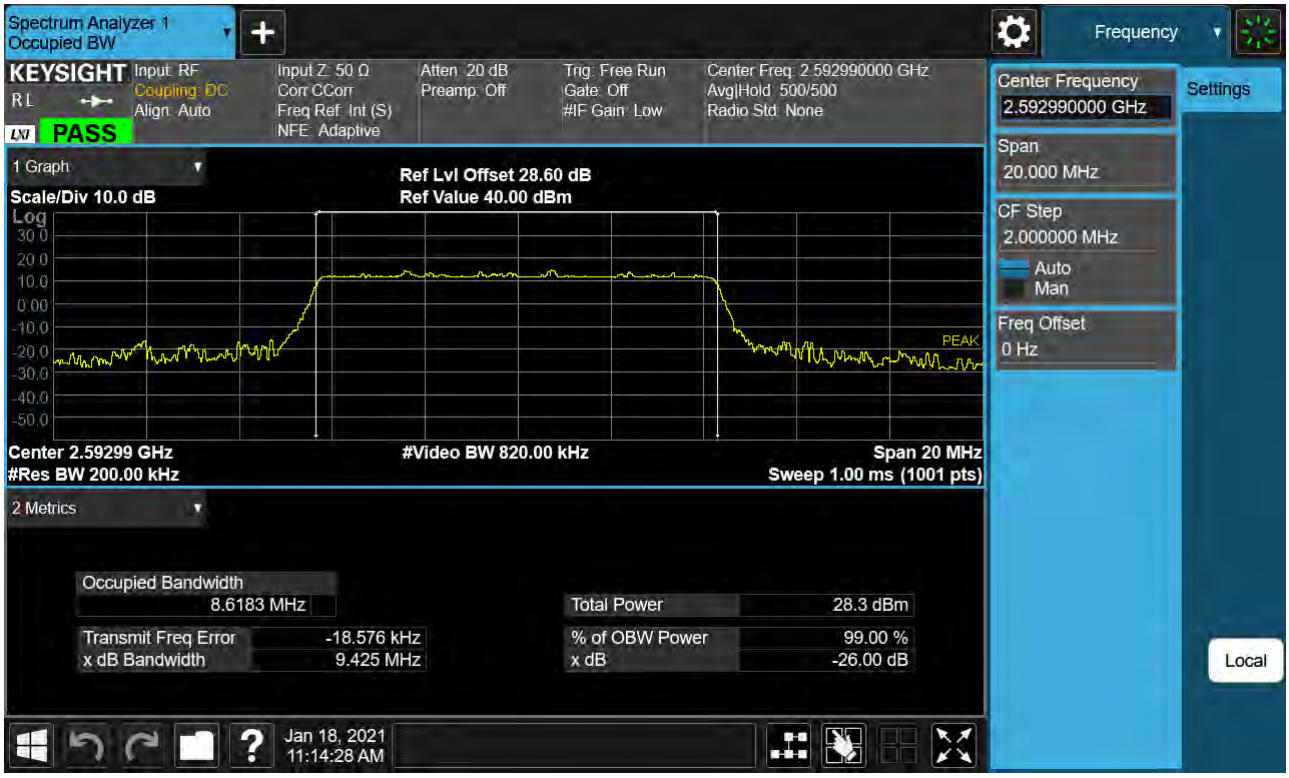
Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 QPSK)

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

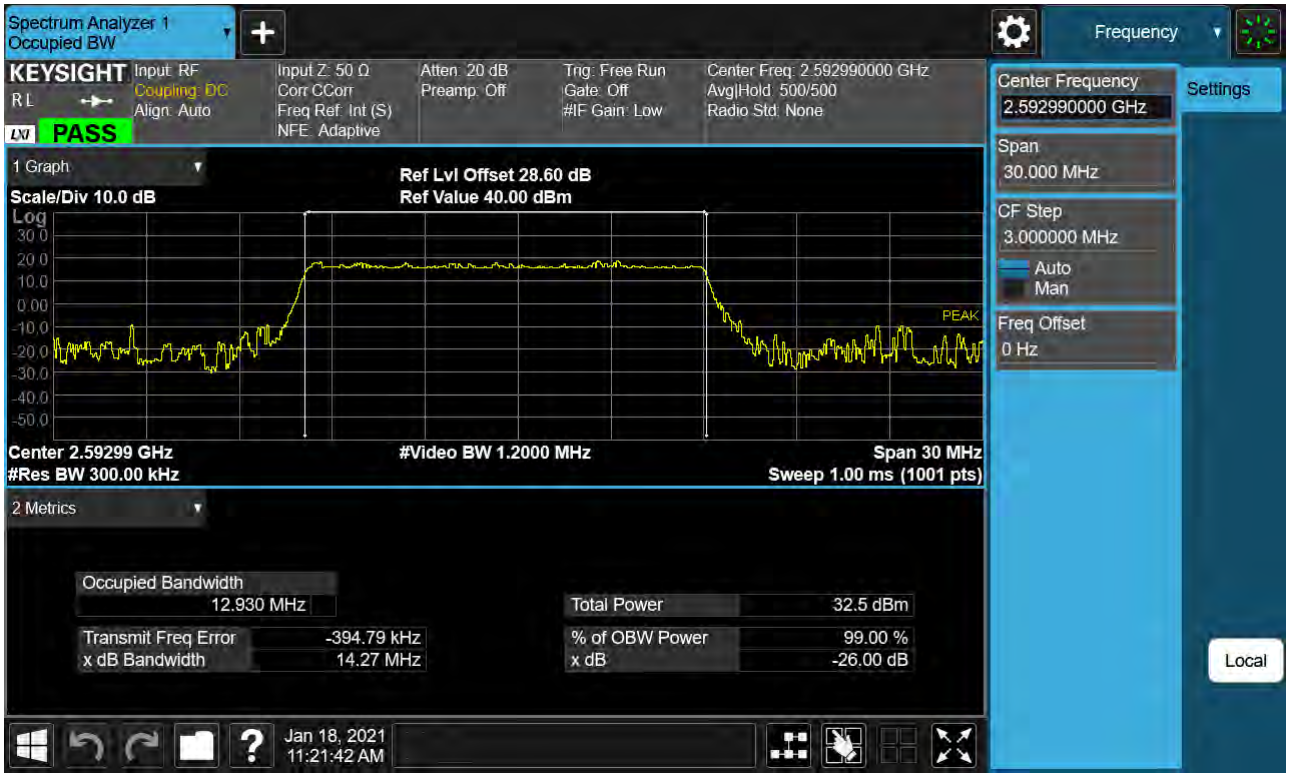
Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 64-QAM)



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



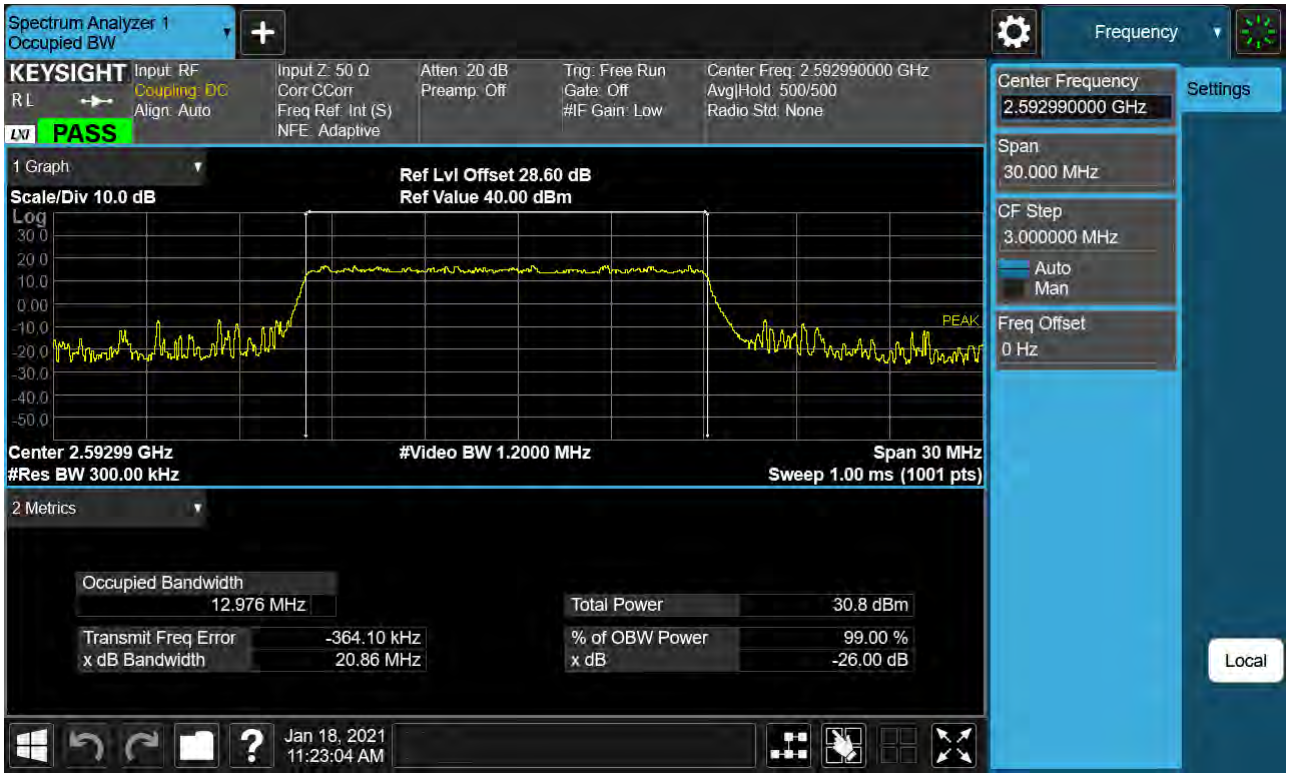
Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 BPSK)



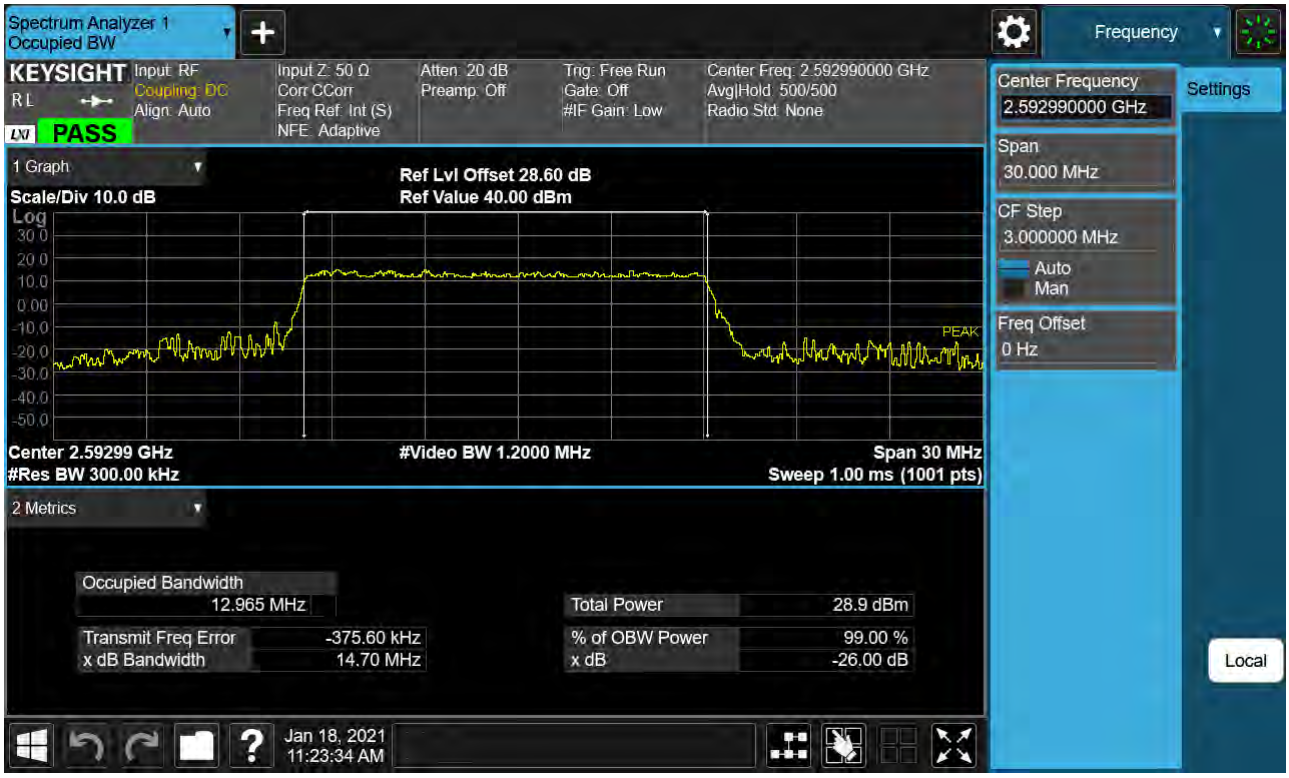
Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 QPSK)

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

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

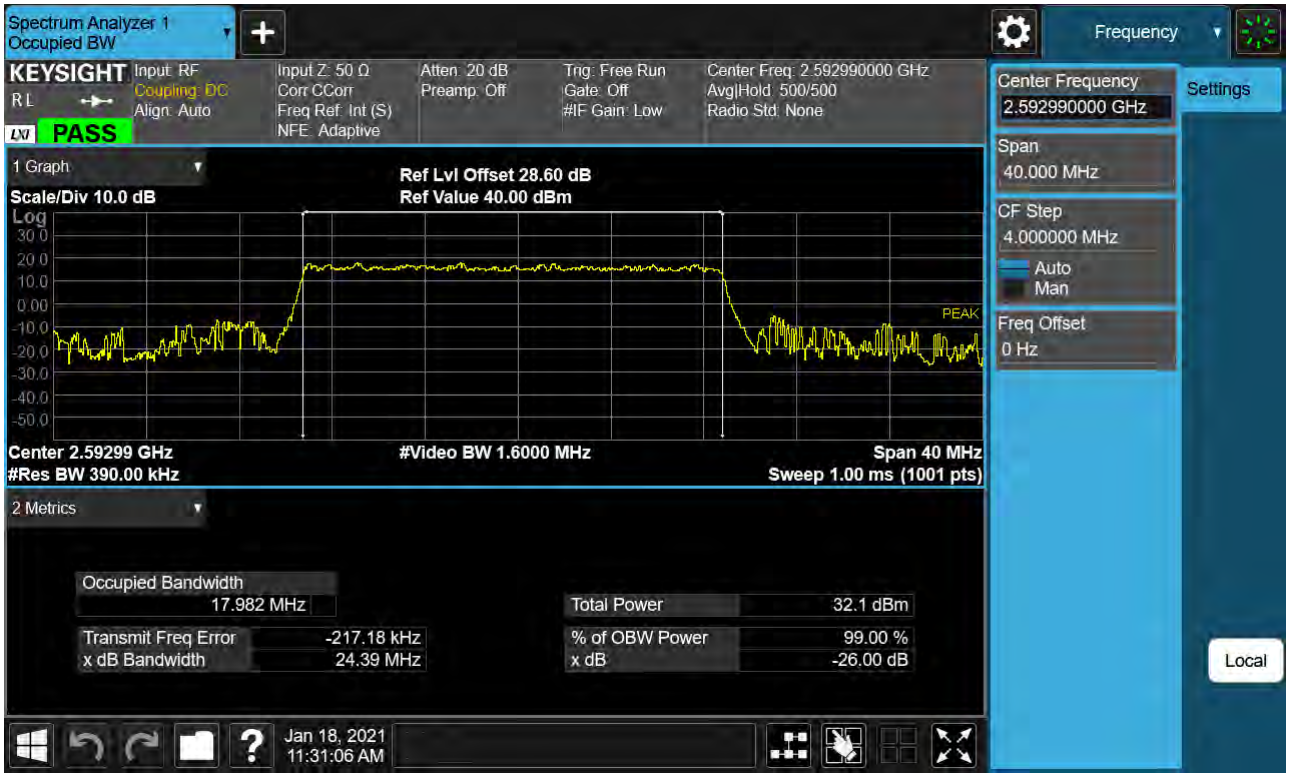


Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 256-QAM)

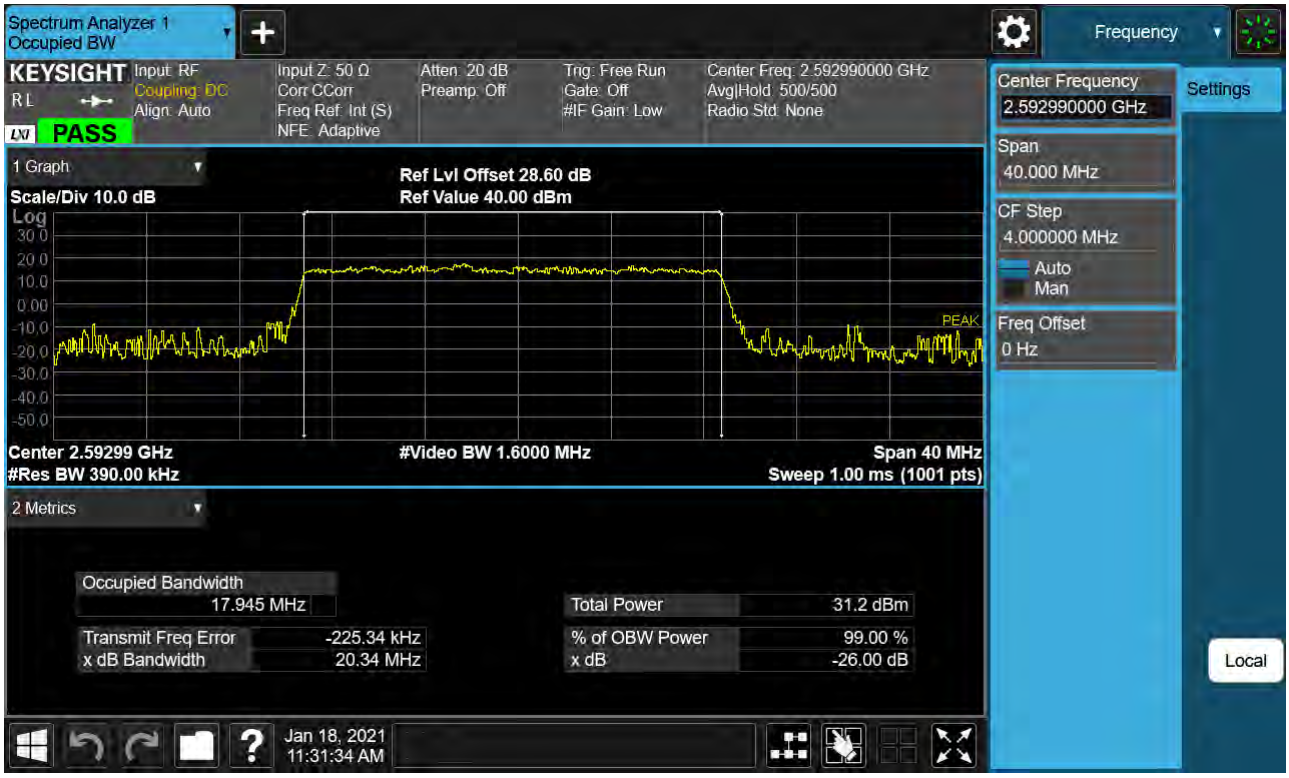


Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 BPSK)

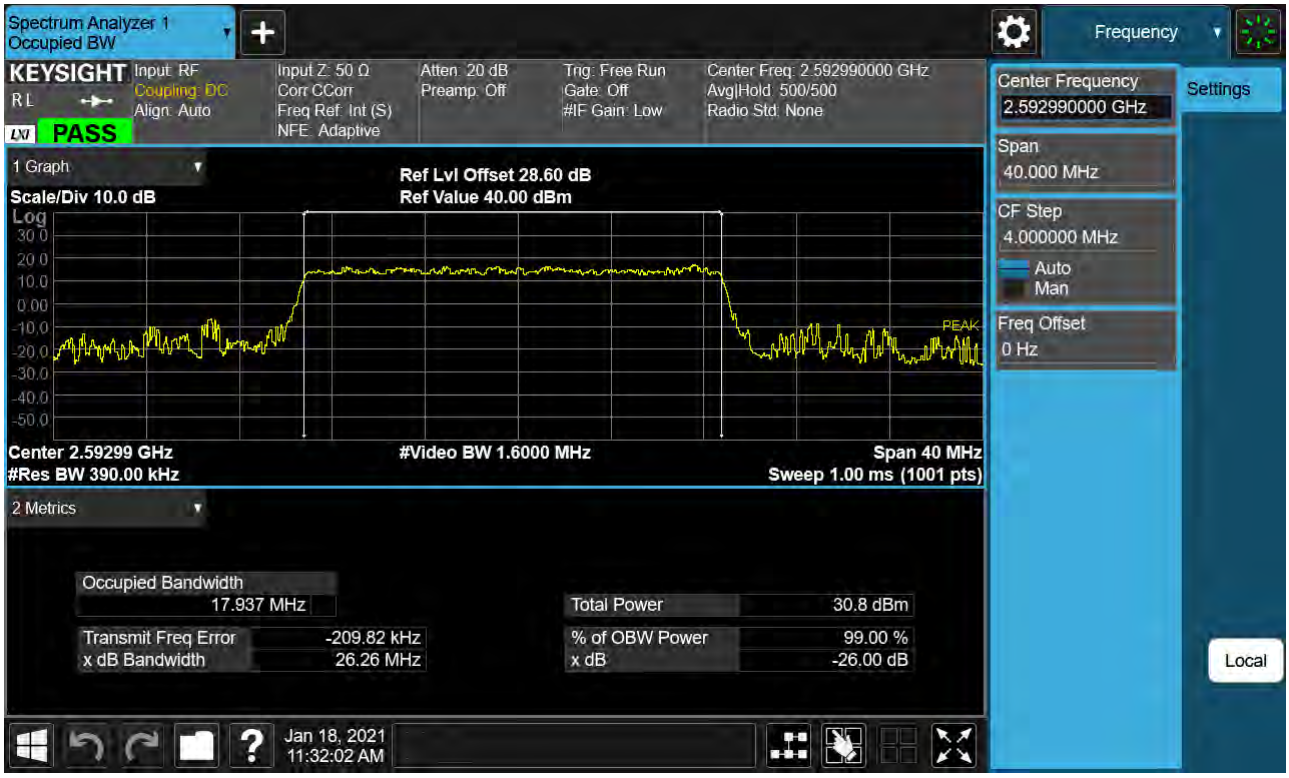
Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 QPSK)



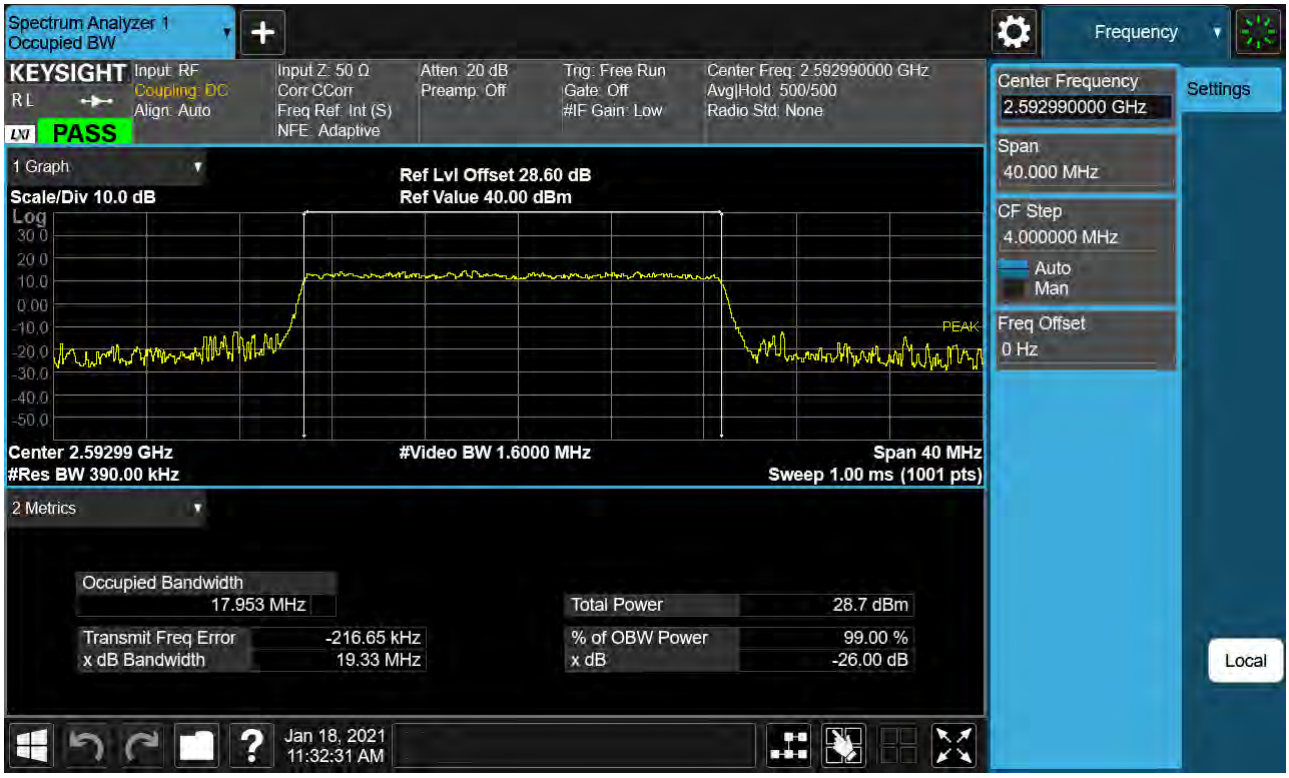
Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 16-QAM)



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



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



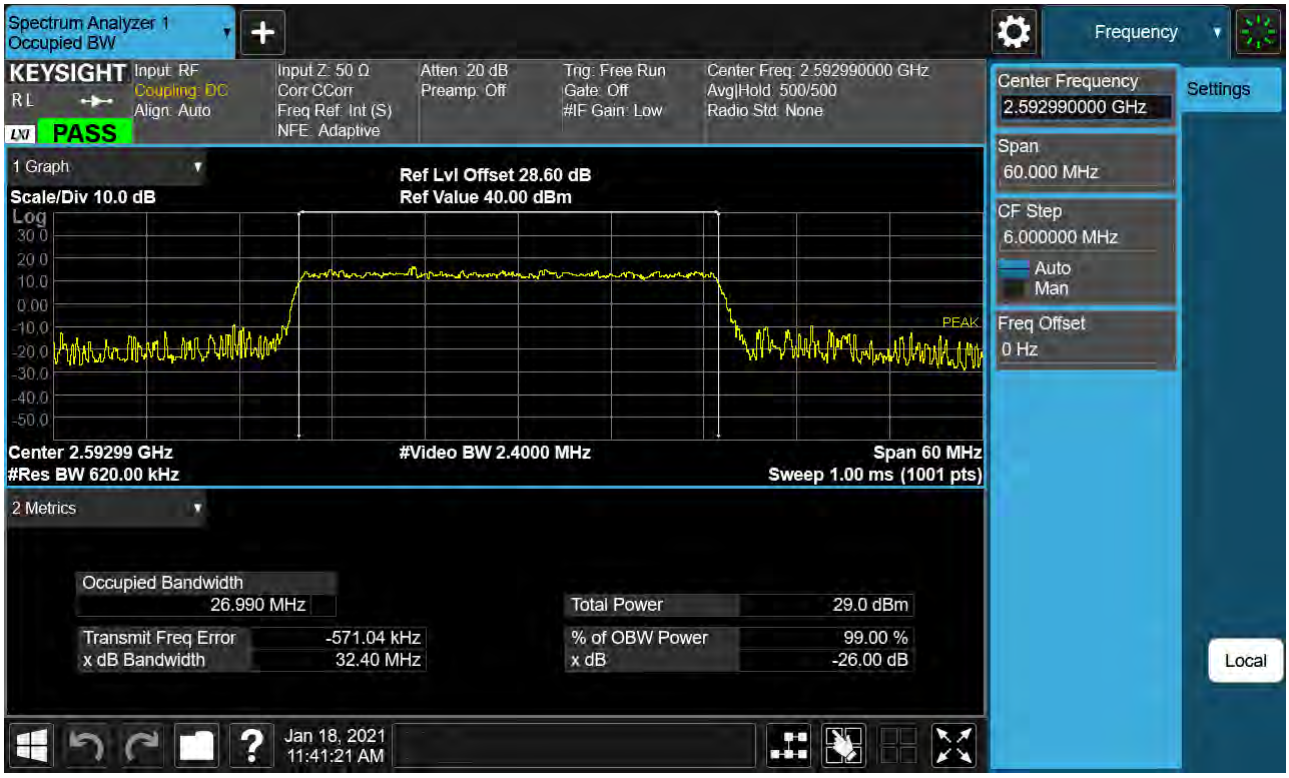
Sub6 n41. Occupied Bandwidth Plot (30 MHz Ch.518598 BPSK)

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)

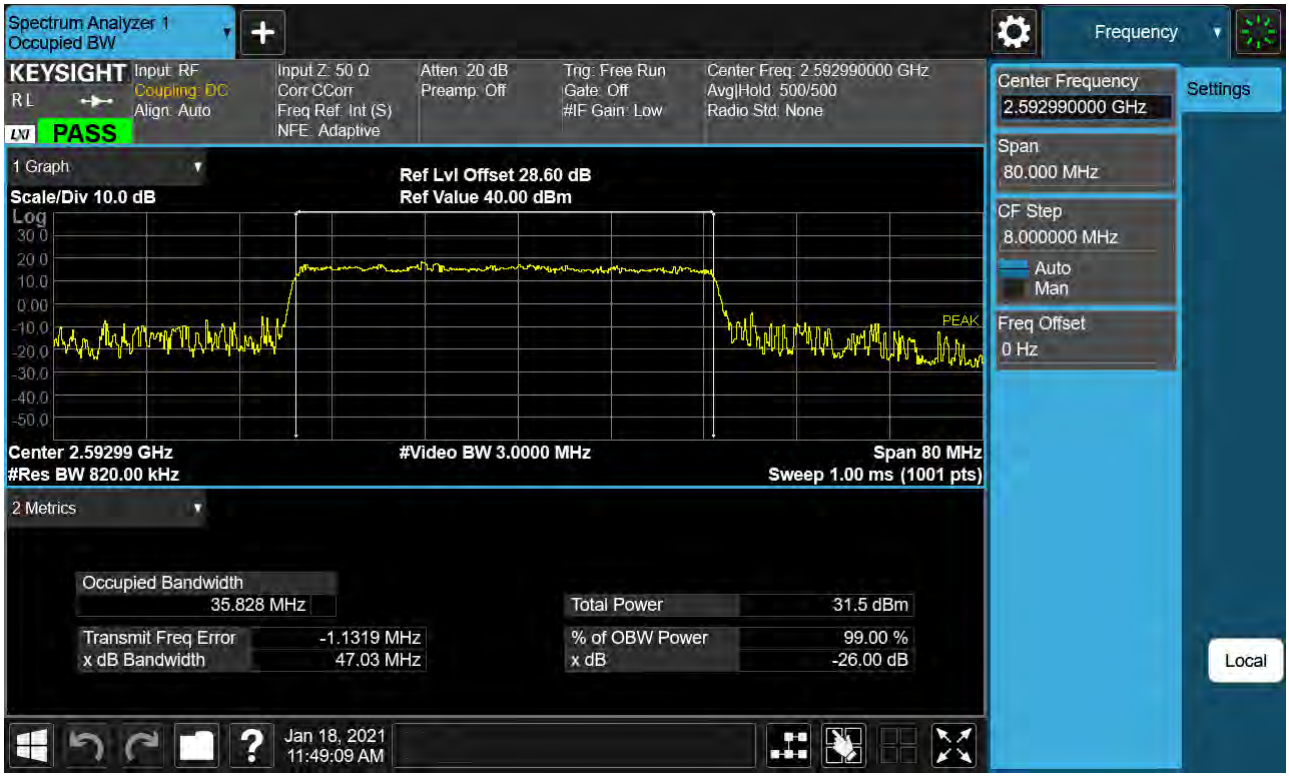
Sub6 n41. Occupied Bandwidth Plot (30 MHz Ch.518598 256-QAM)



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

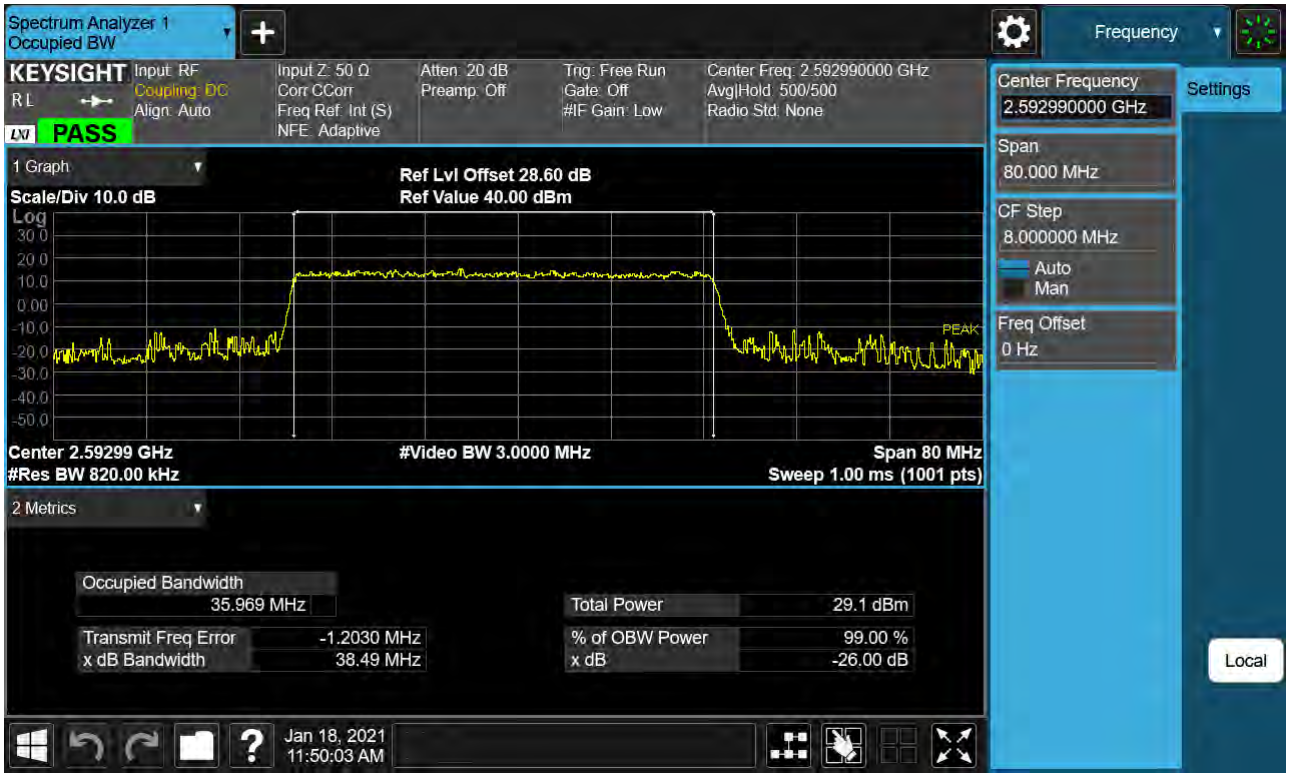
Sub6 n41. Occupied Bandwidth Plot (40 MHz Ch.518598 QPSK)

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

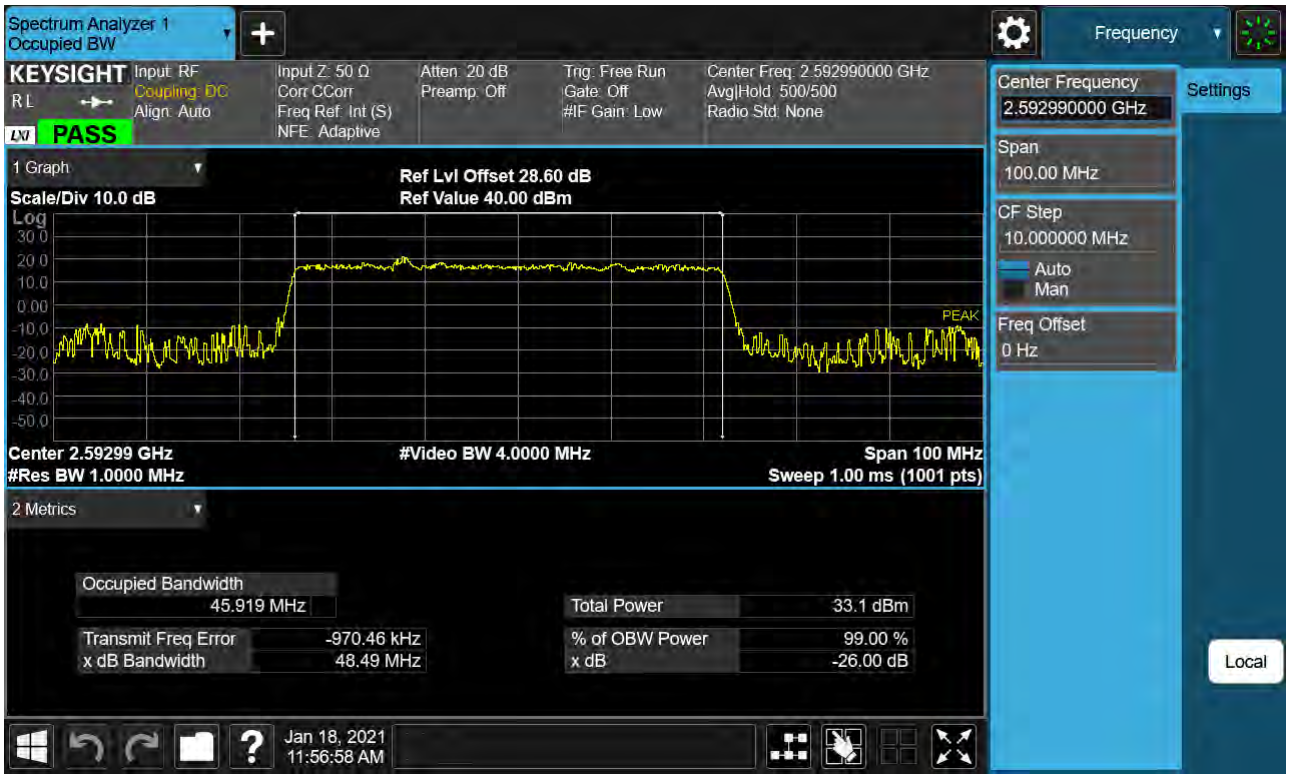


Sub6 n41. Occupied Bandwidth Plot (40 MHz Ch.518598 64-QAM)

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



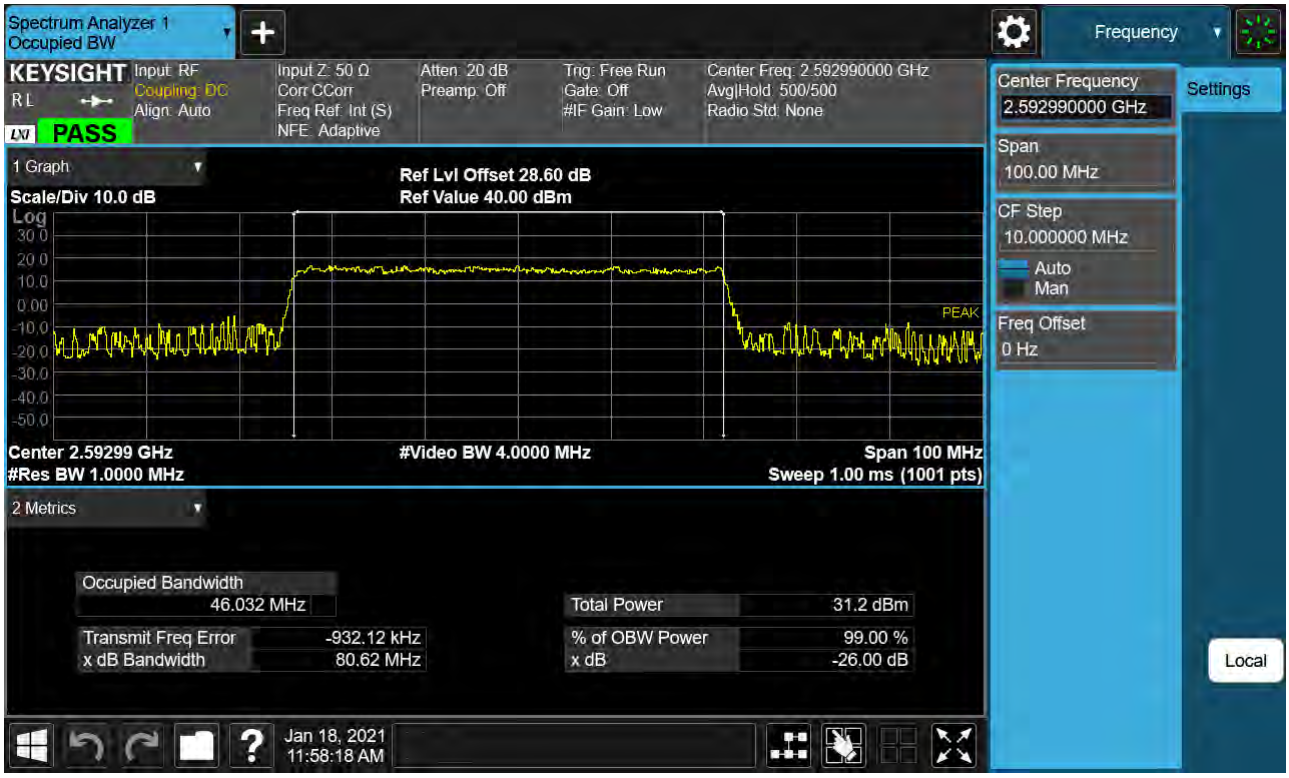
Sub6 n41. Occupied Bandwidth Plot (50 MHz Ch.518598 BPSK)



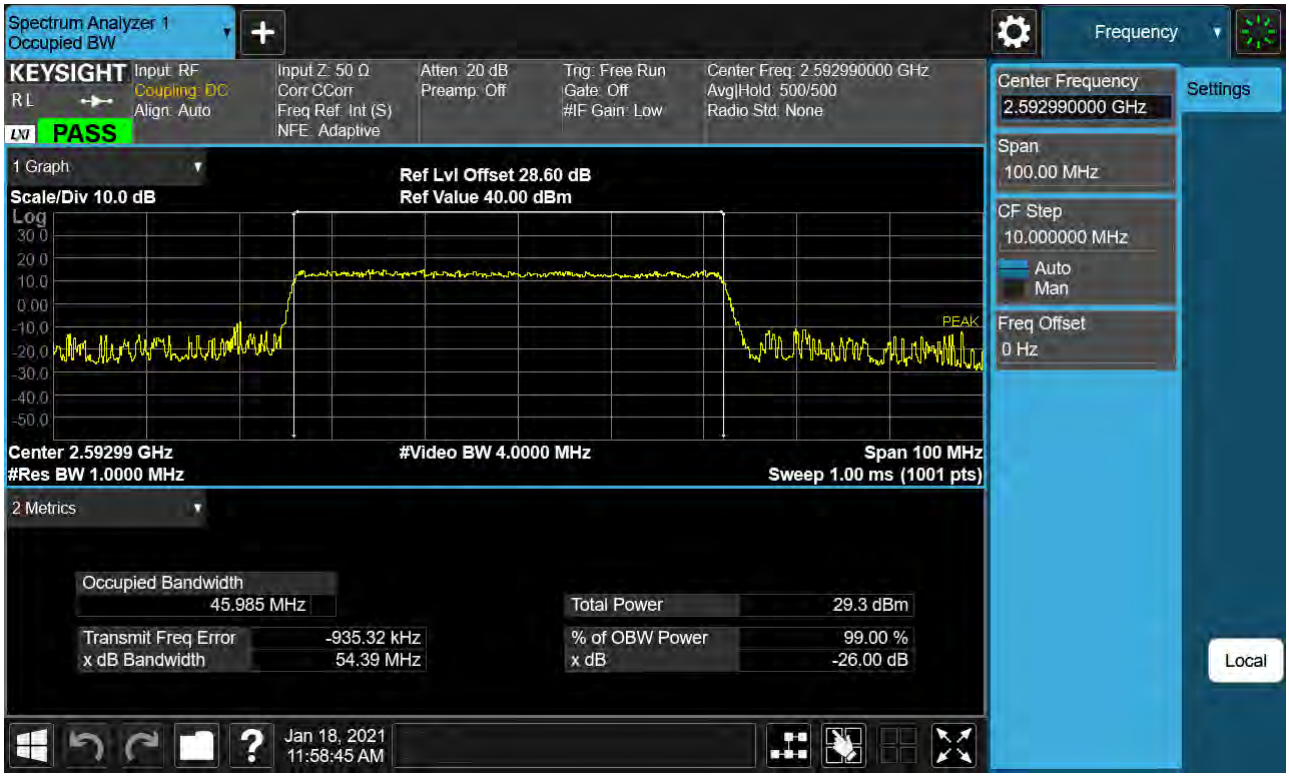
Sub6 n41. Occupied Bandwidth Plot (50 MHz Ch.518598 QPSK)

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

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

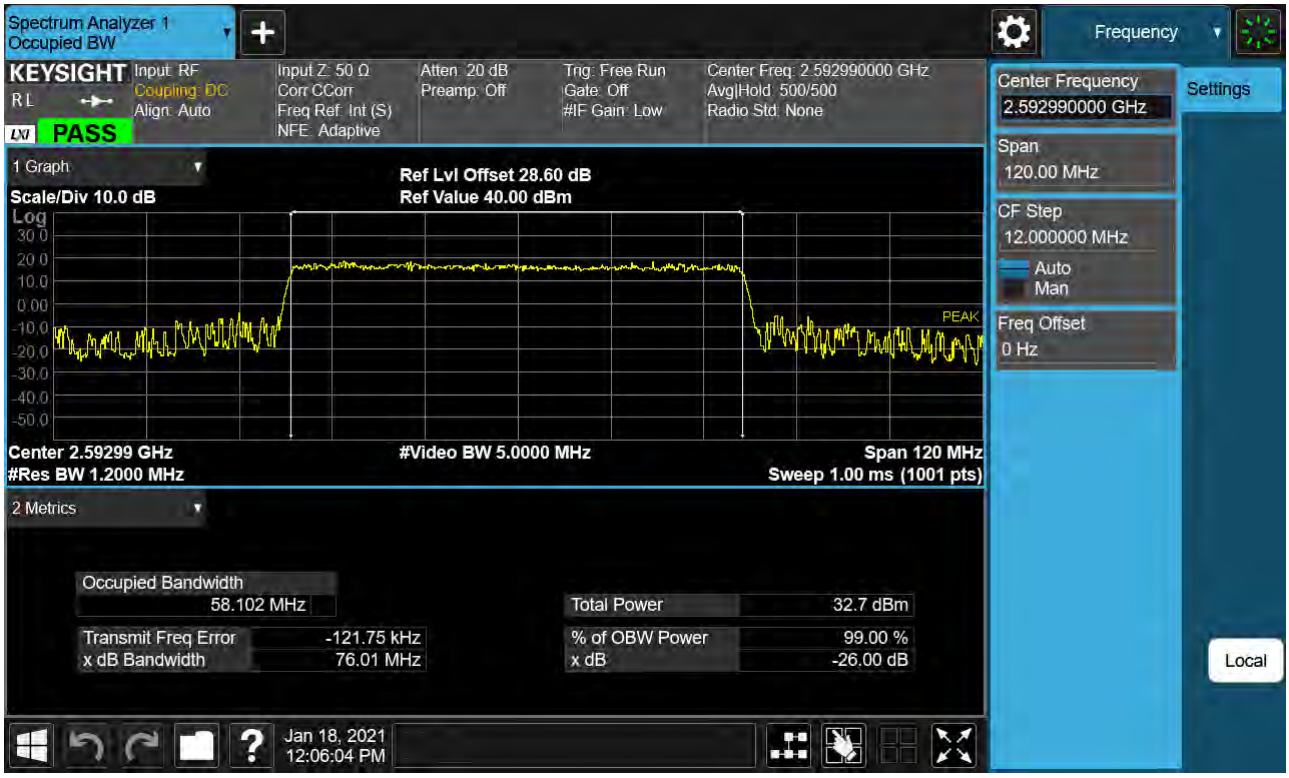


Sub6 n41. Occupied Bandwidth Plot (50 MHz Ch.518598 256-QAM)



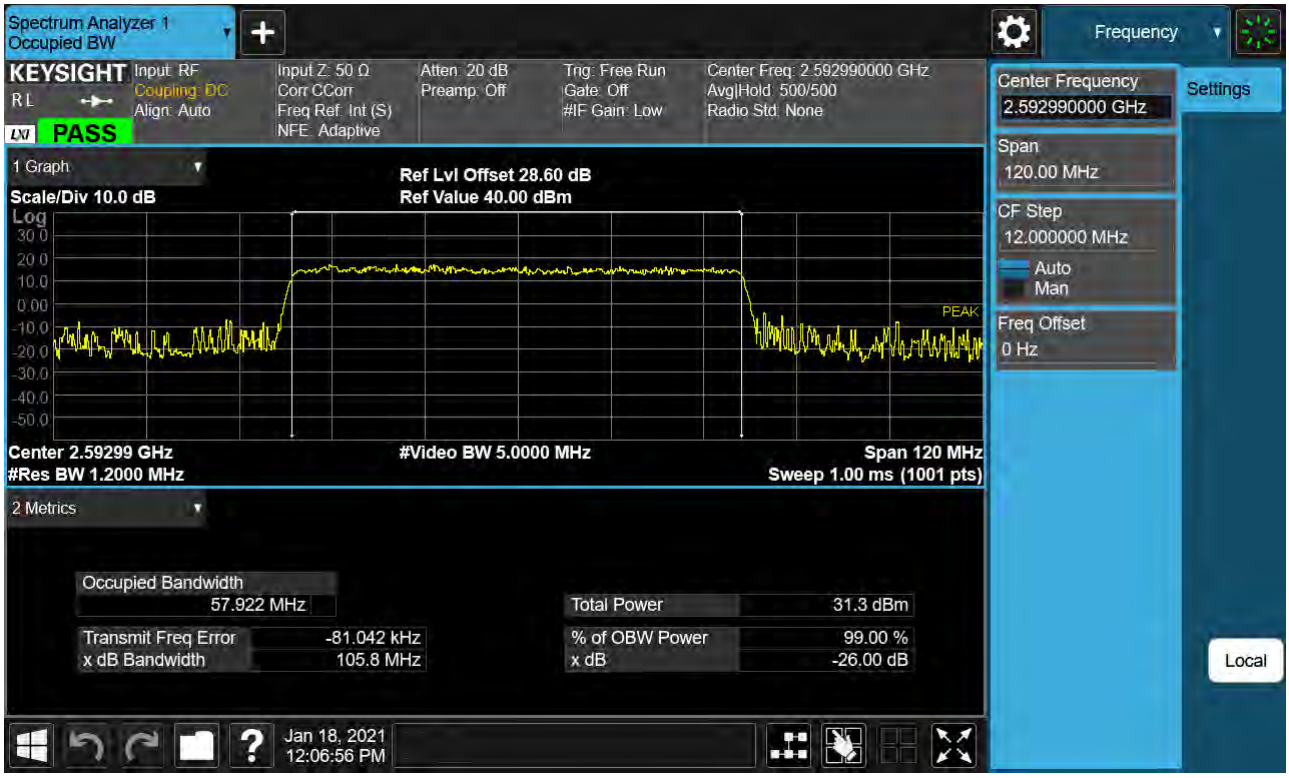
Sub6 n41. Occupied Bandwidth Plot (60 MHz Ch.518598 BPSK)

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

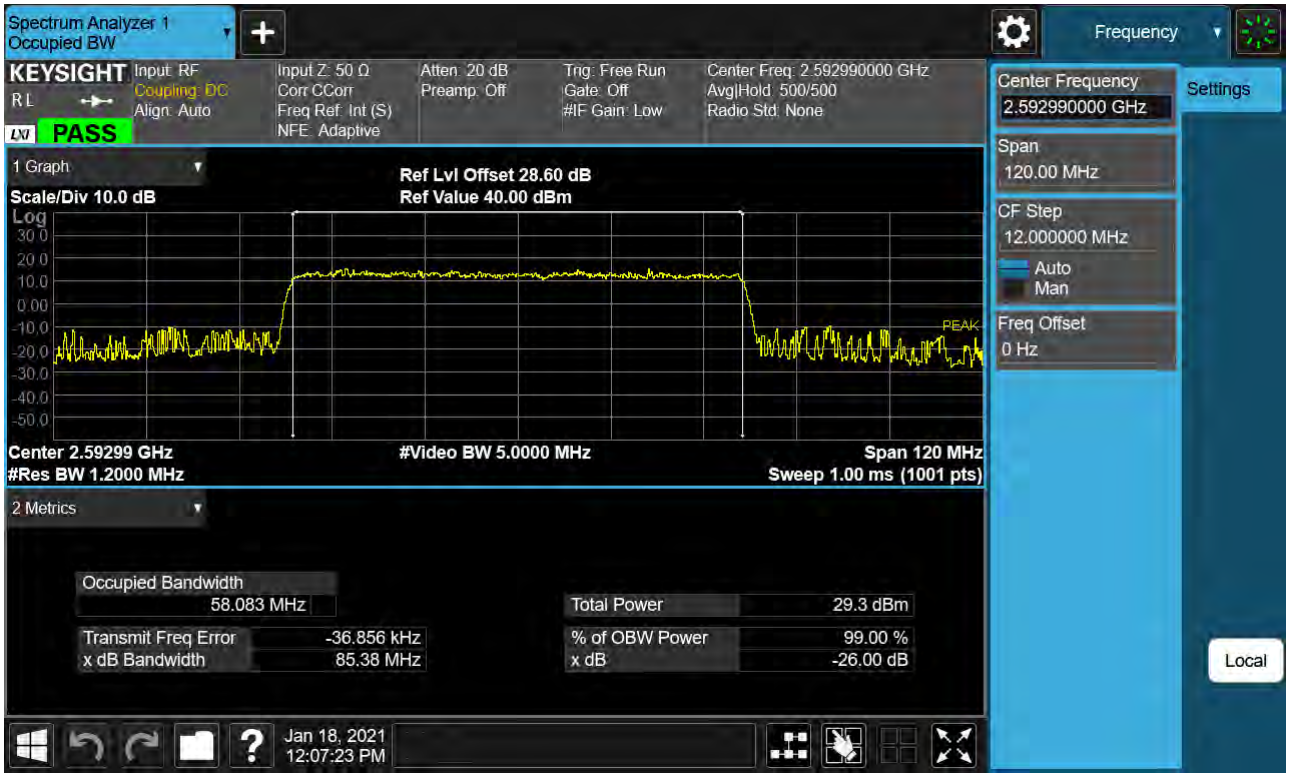


Sub6 n41. Occupied Bandwidth Plot (60 MHz Ch.518598 16-QAM)

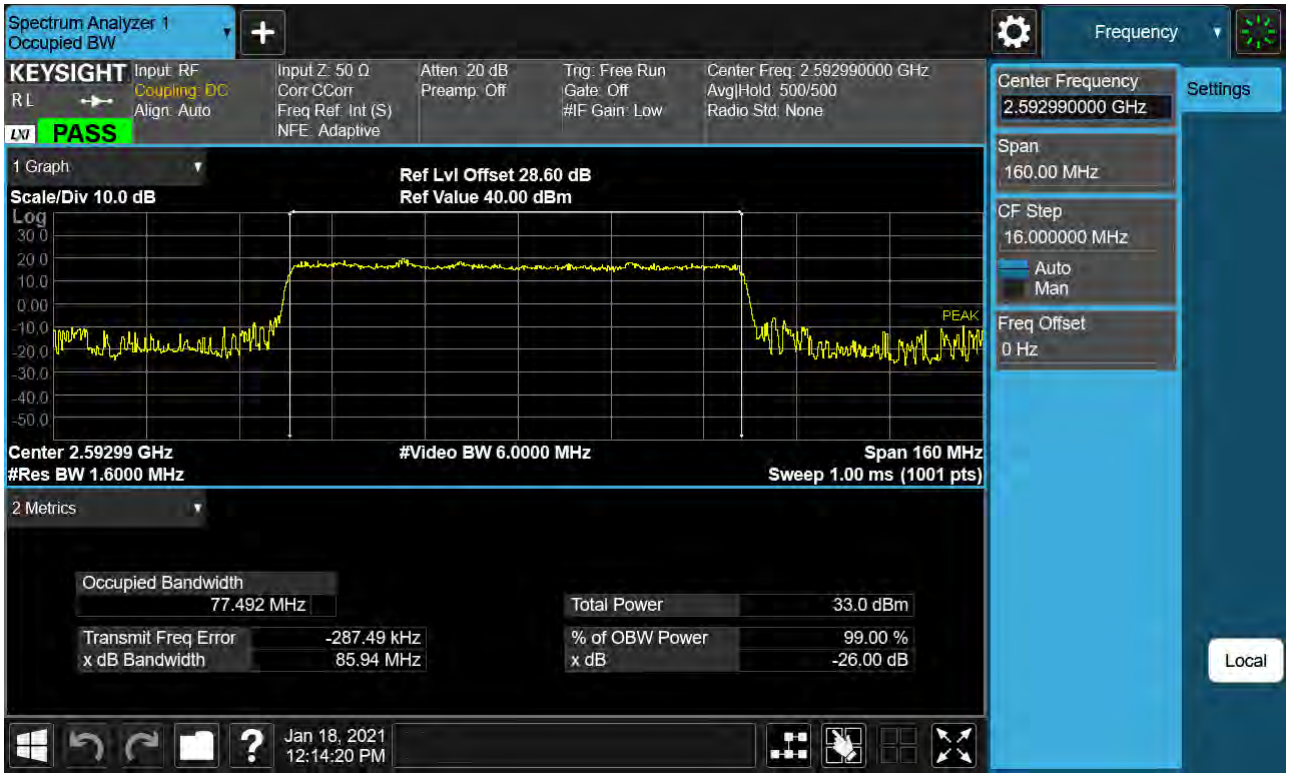
Sub6 n41. Occupied Bandwidth Plot (60 MHz Ch.518598 64-QAM)



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



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

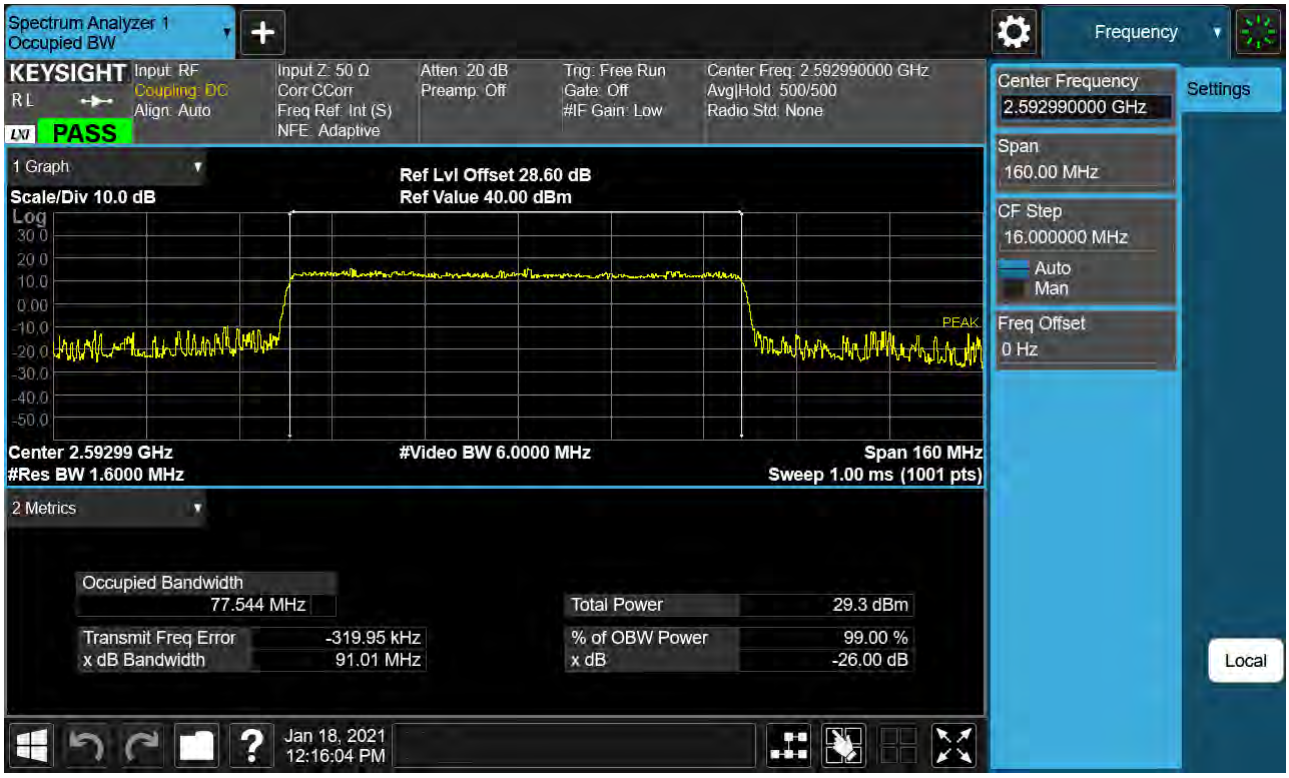


Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 QPSK)

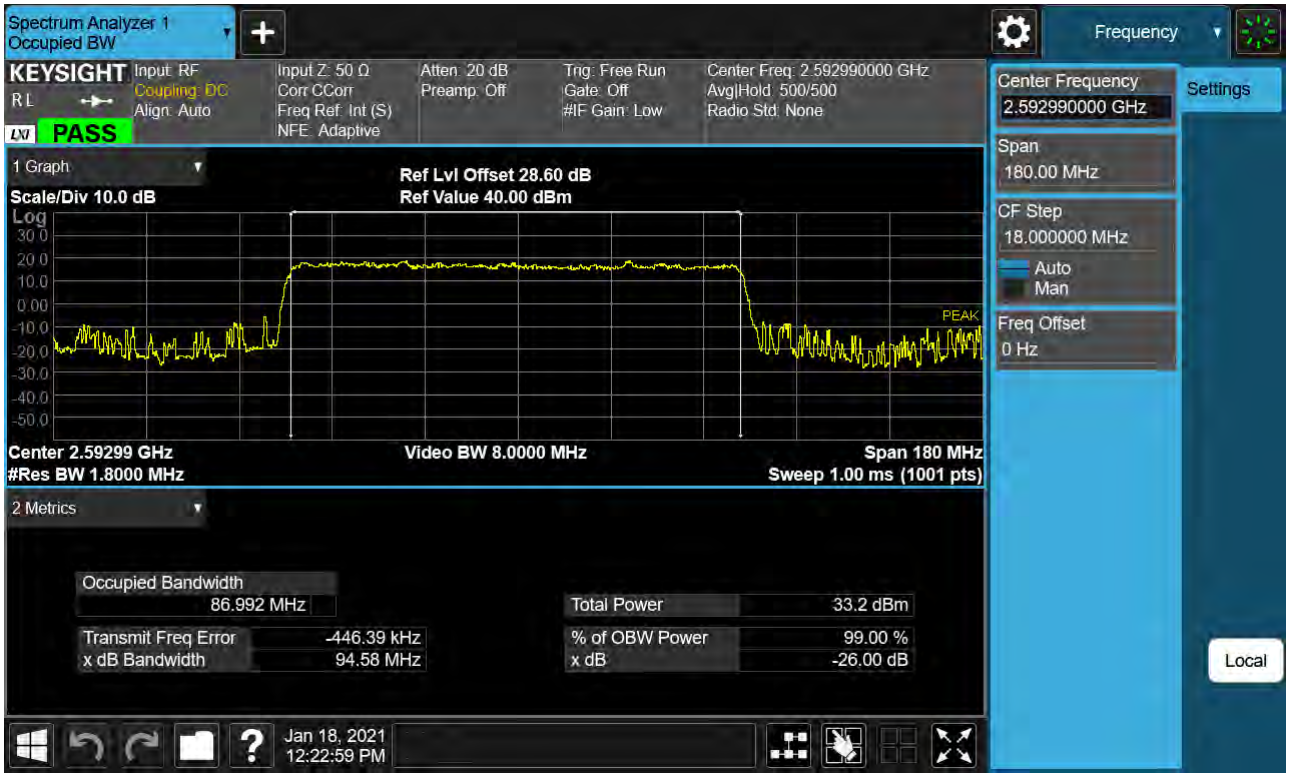
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 16-QAM)

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

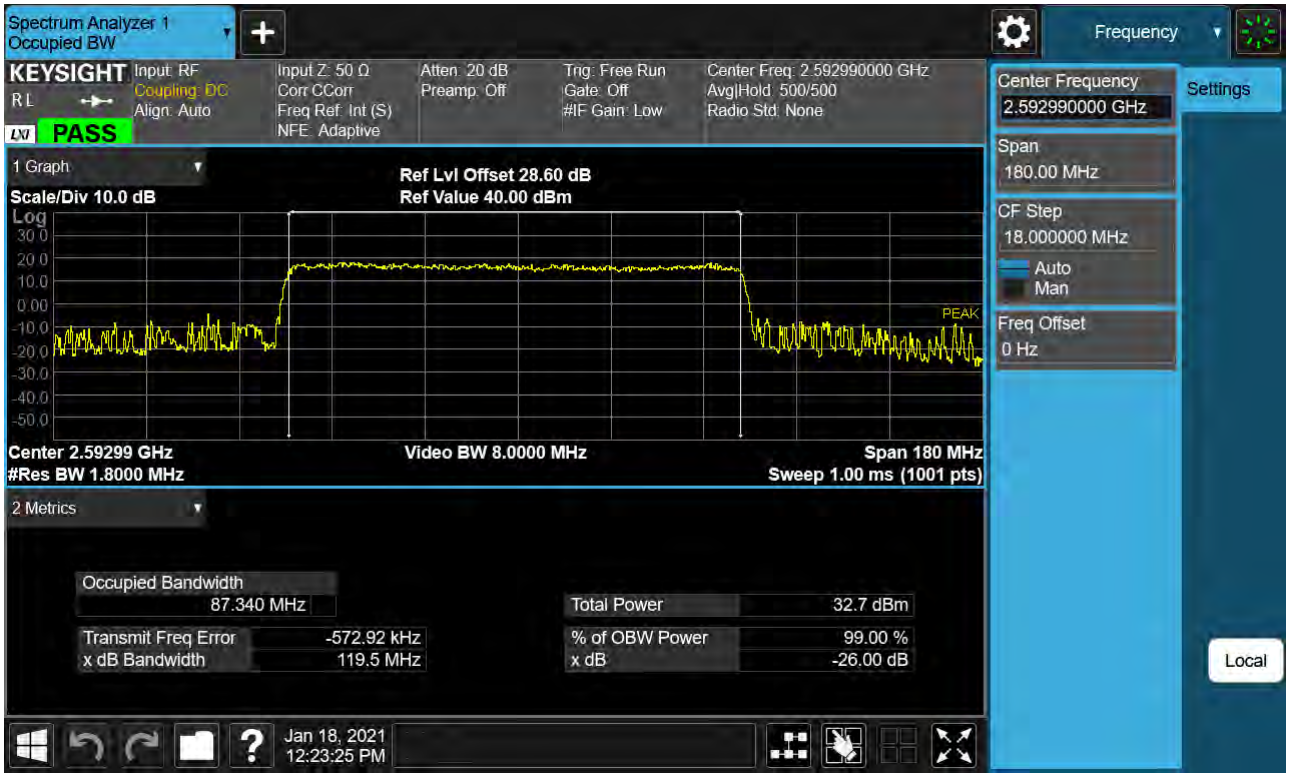
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 256-QAM)



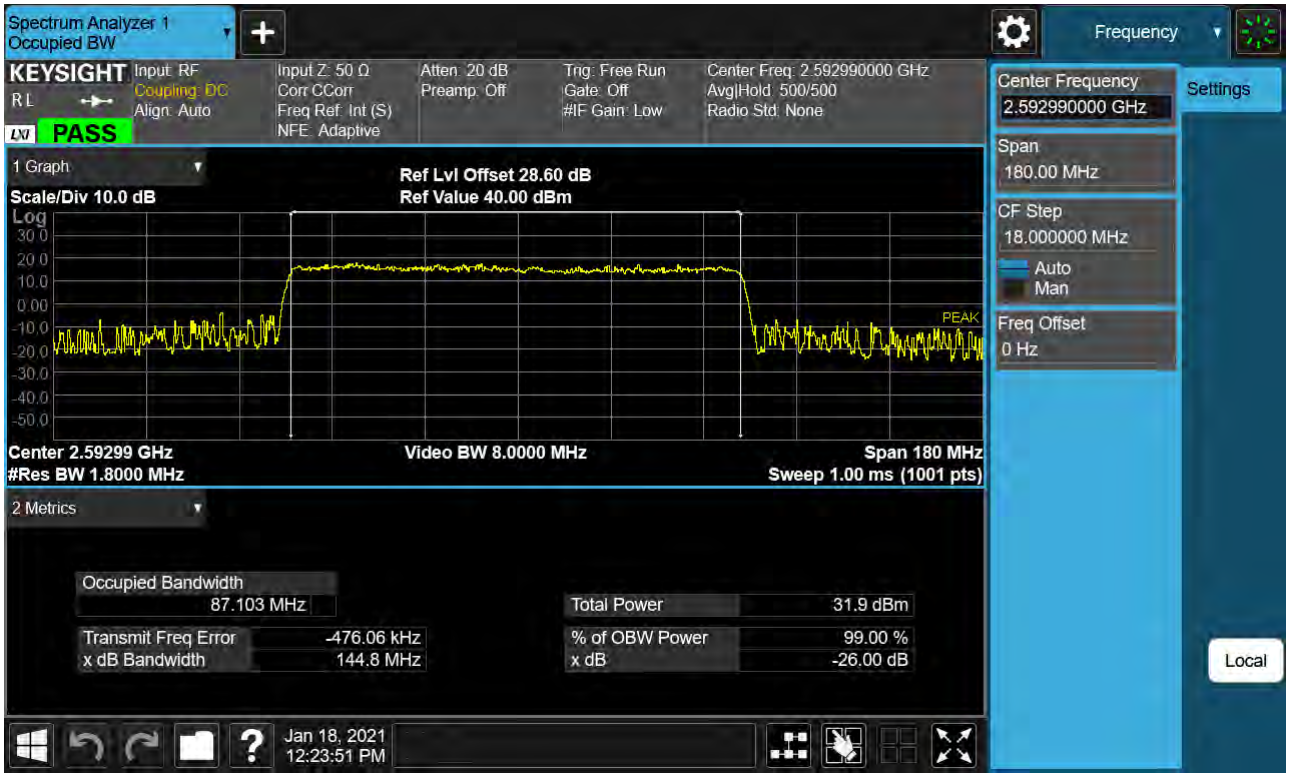
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 BPSK)



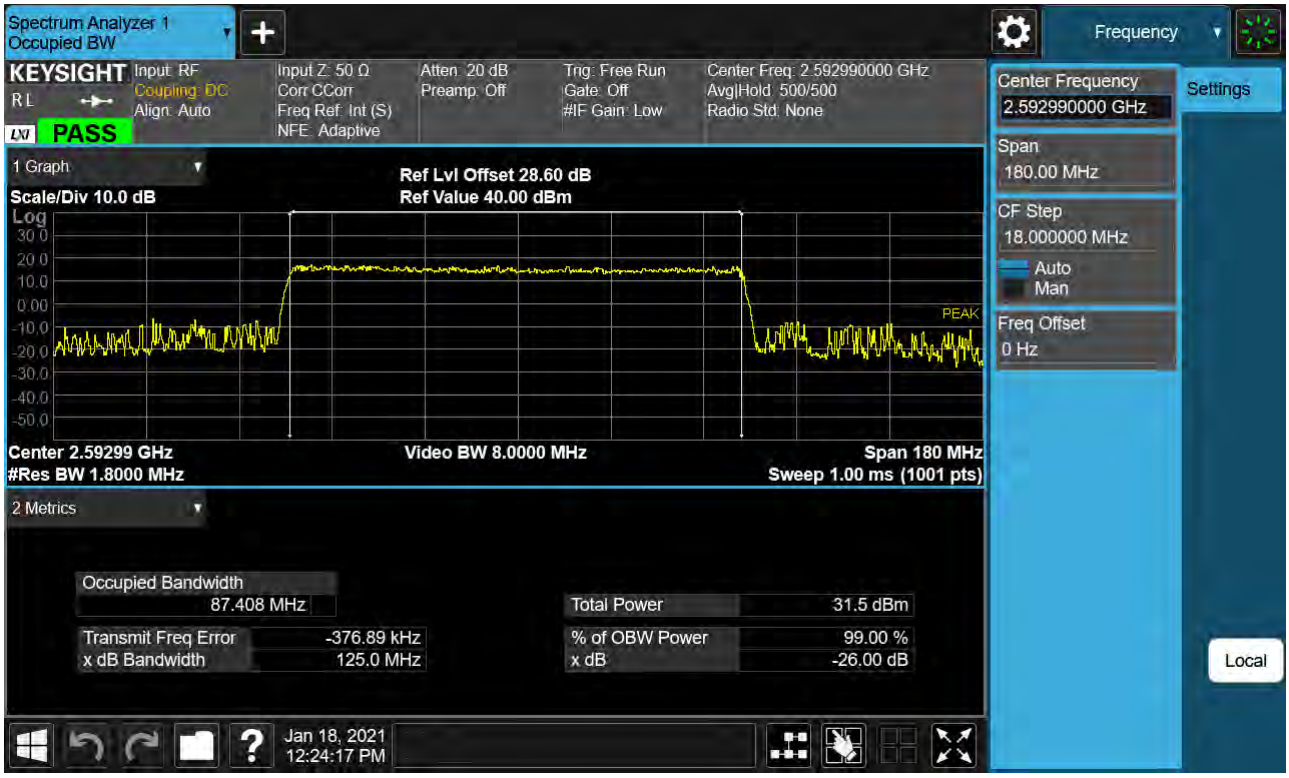
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 QPSK)



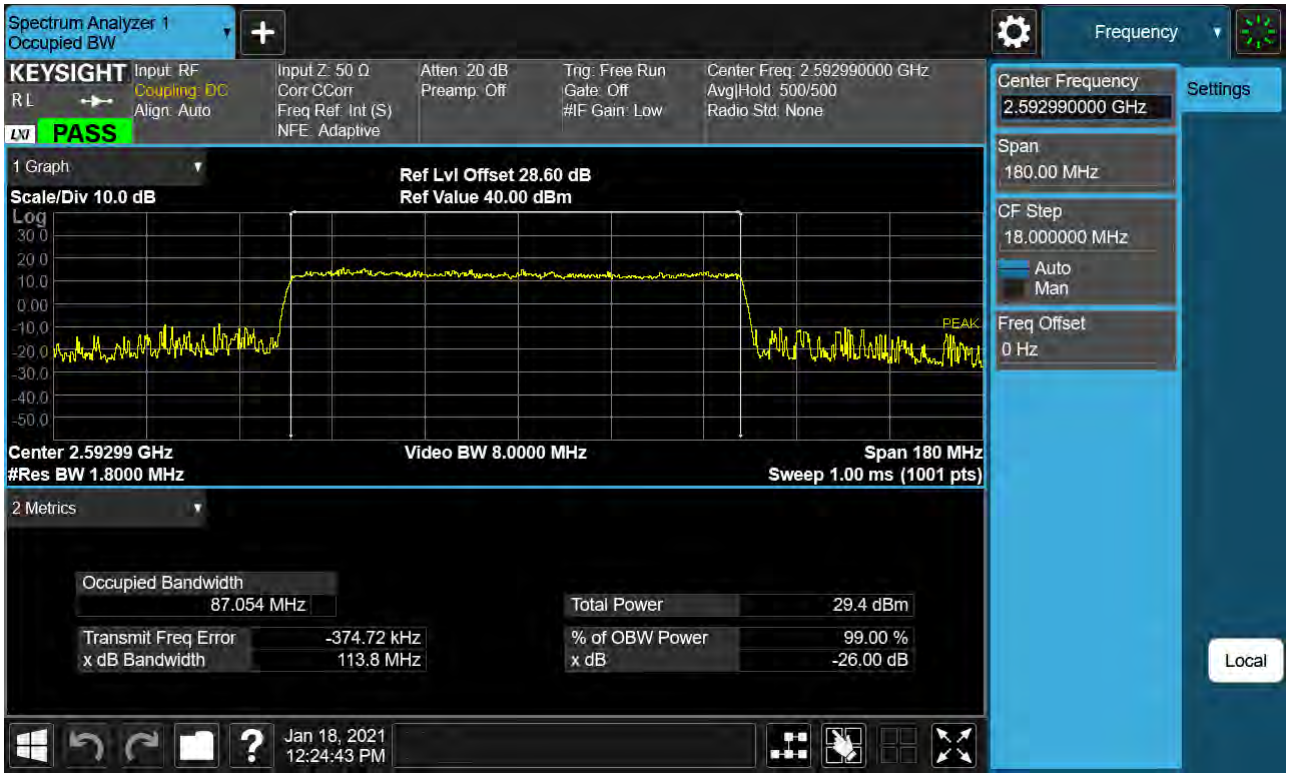
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 16-QAM)



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



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

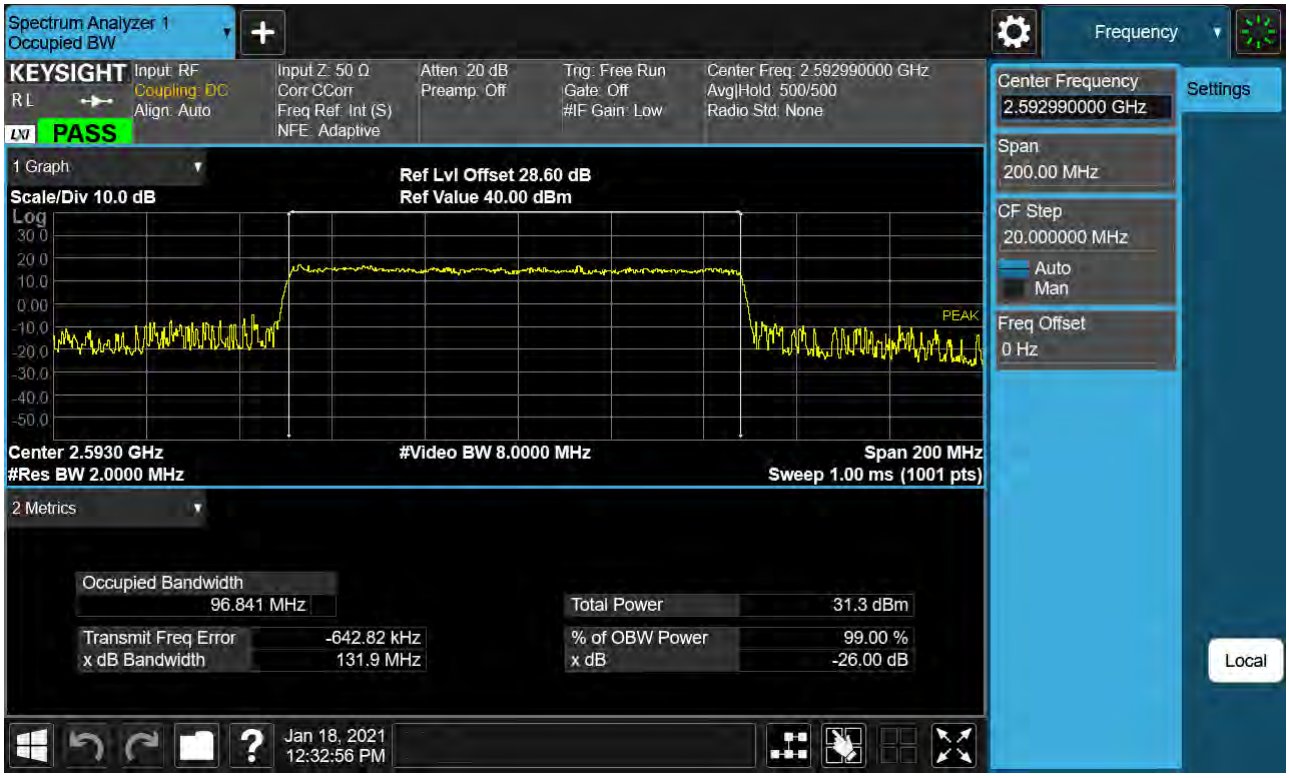


Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 BPSK)

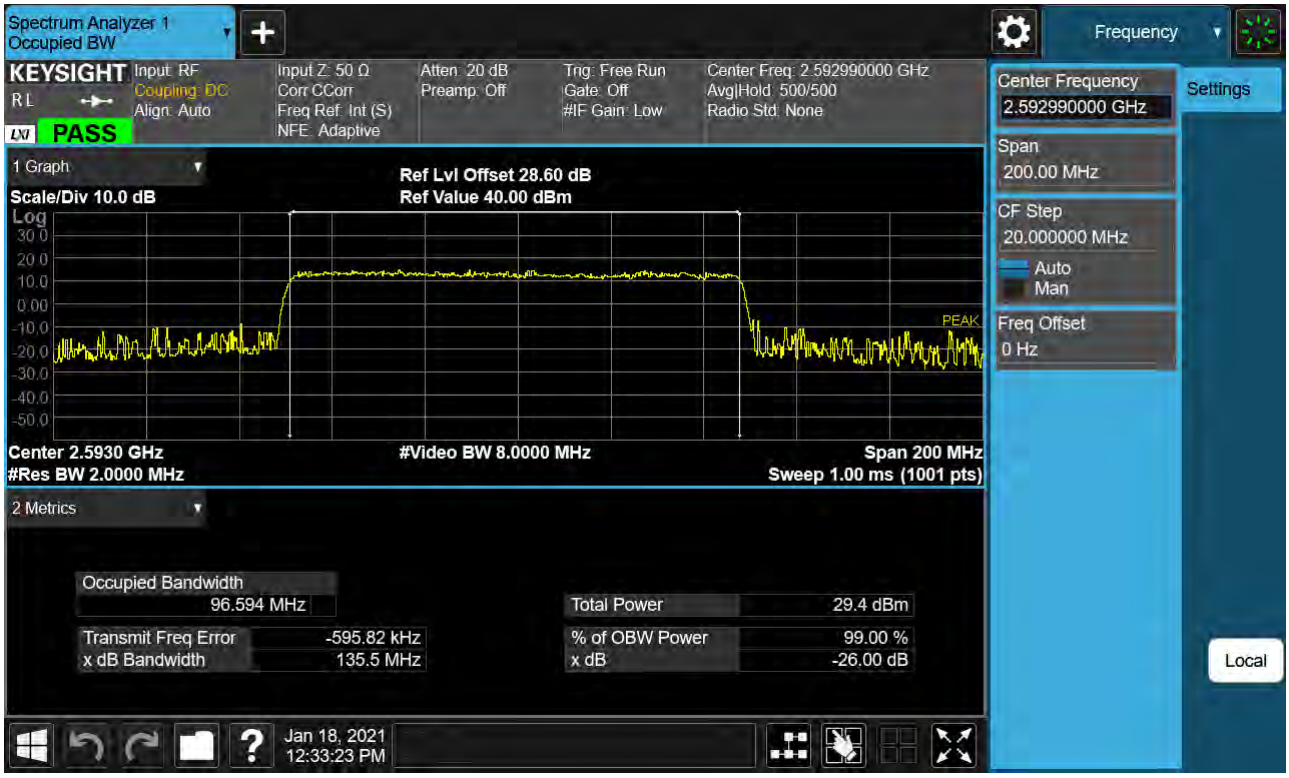
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 QPSK)

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

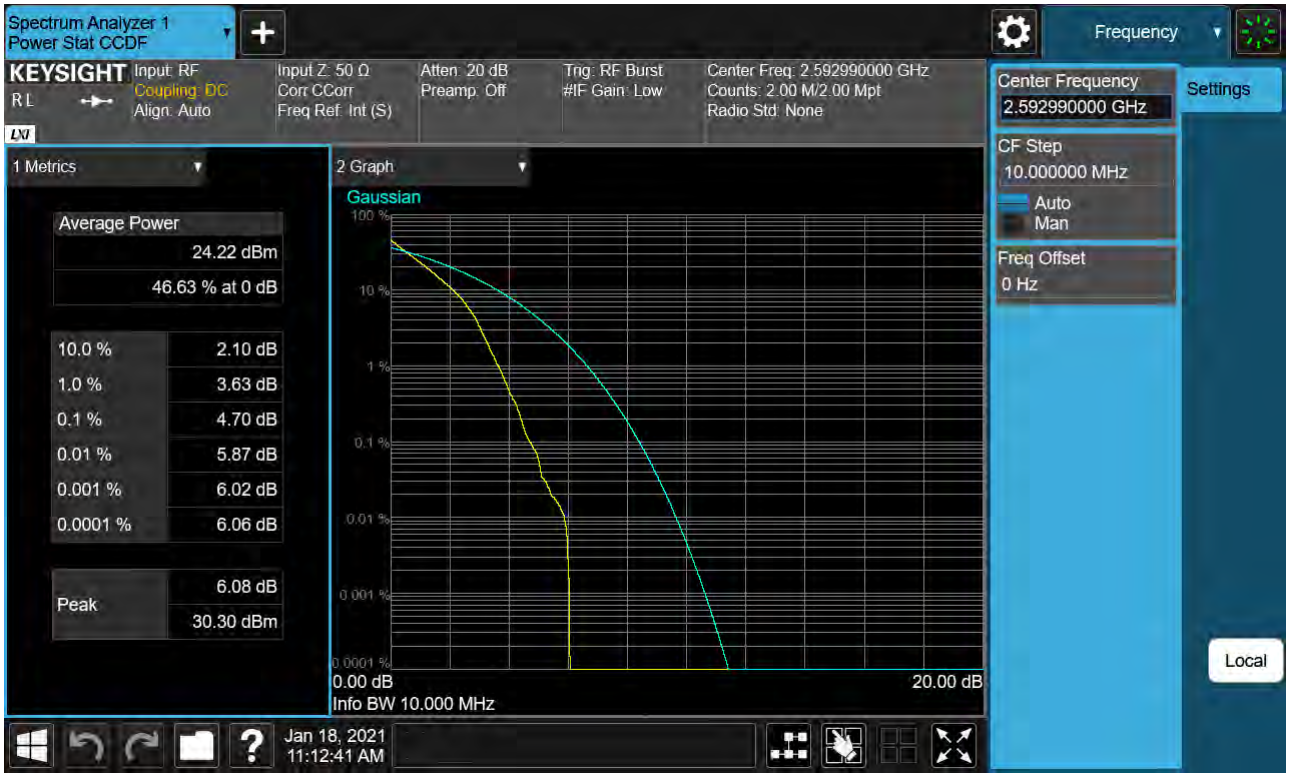
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 64-QAM)



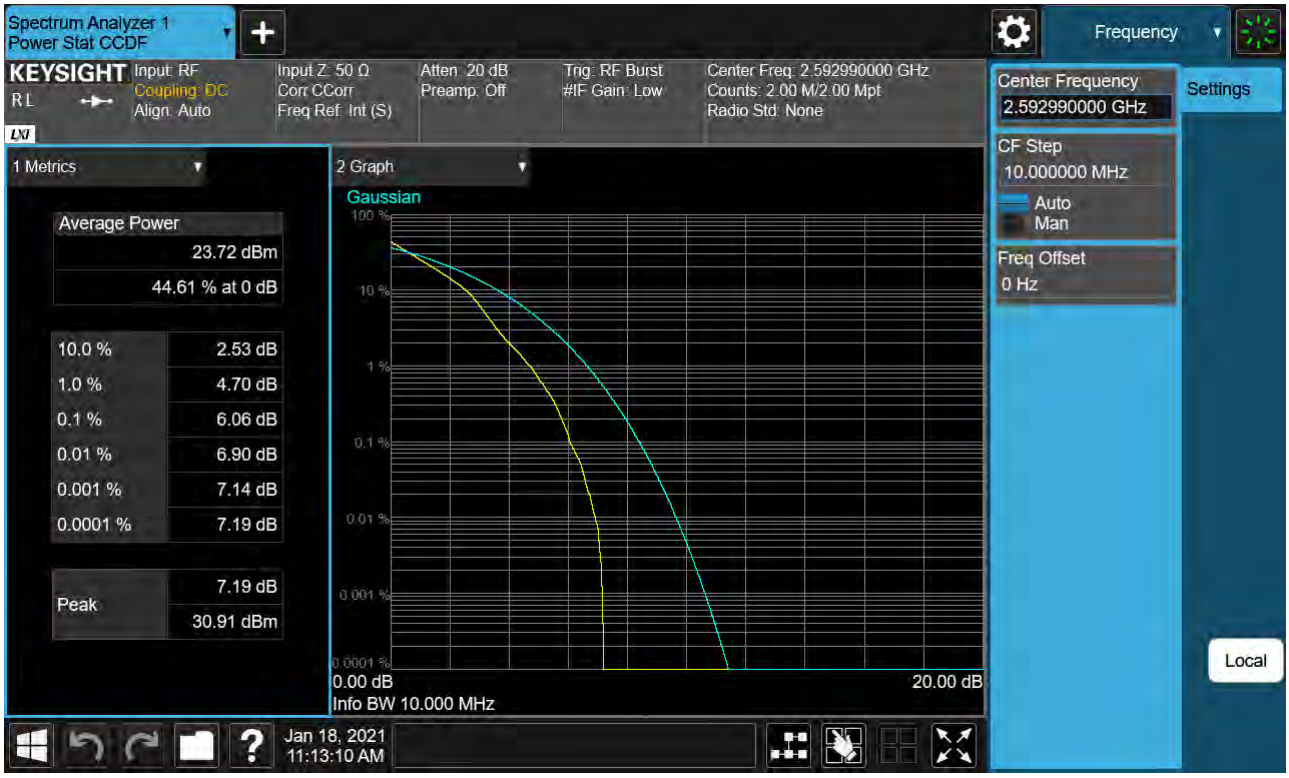
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 256-QAM)



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



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

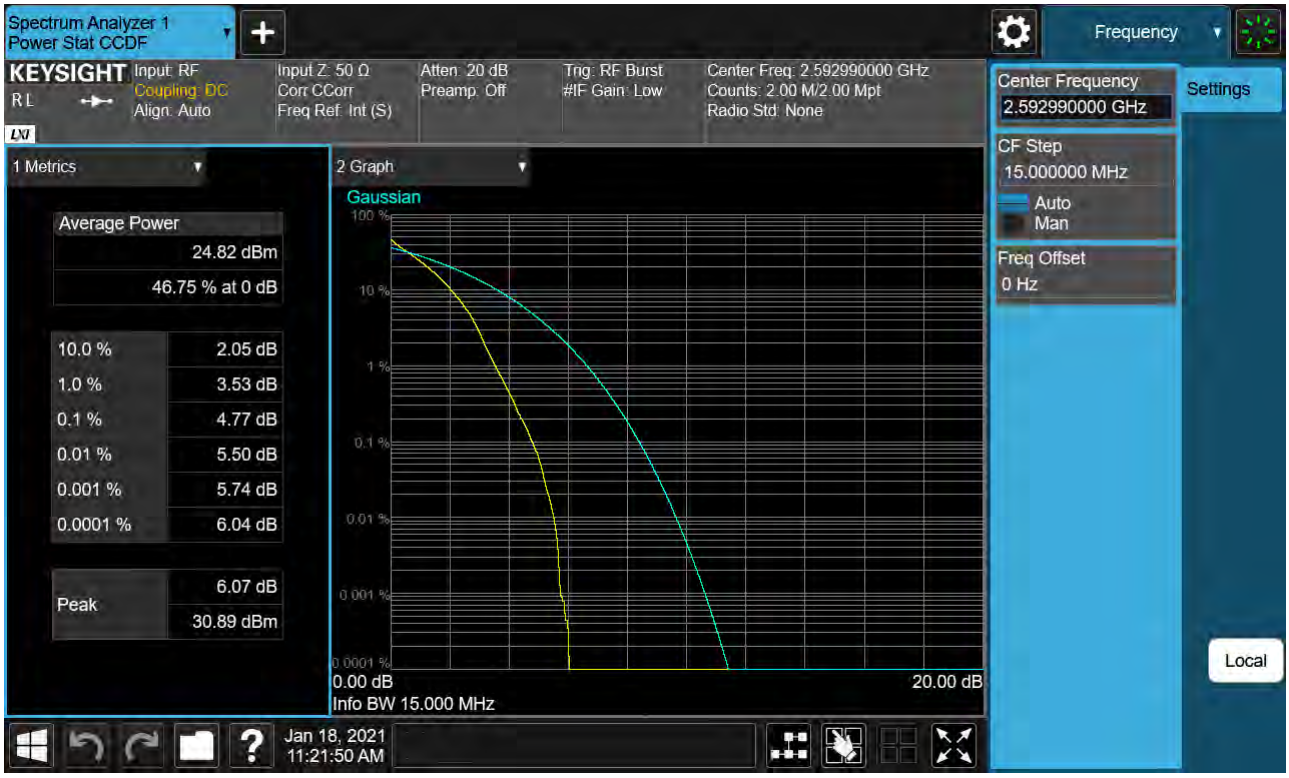


Sub6 n41. PAR Plot (10M BW_Ch.518598_16QAM)

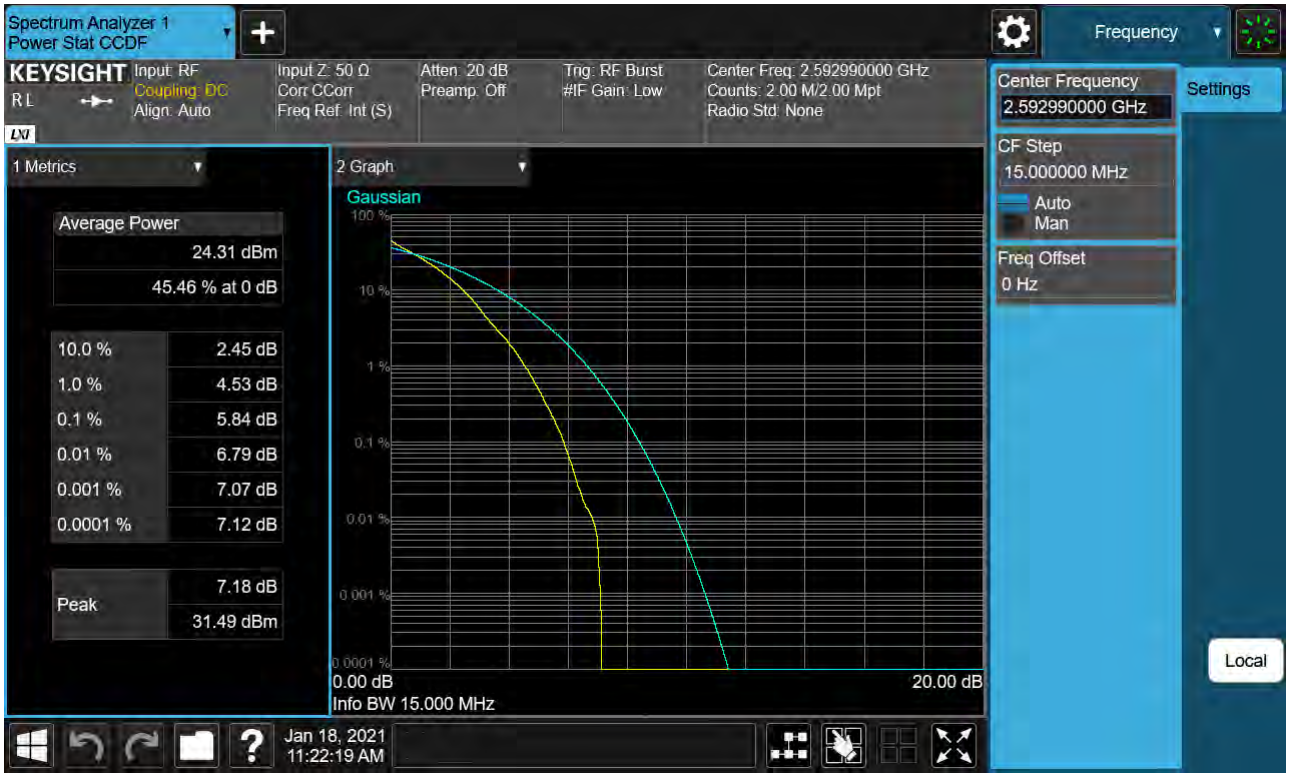
Sub6 n41. PAR Plot (10M BW_Ch.518598_64QAM)

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

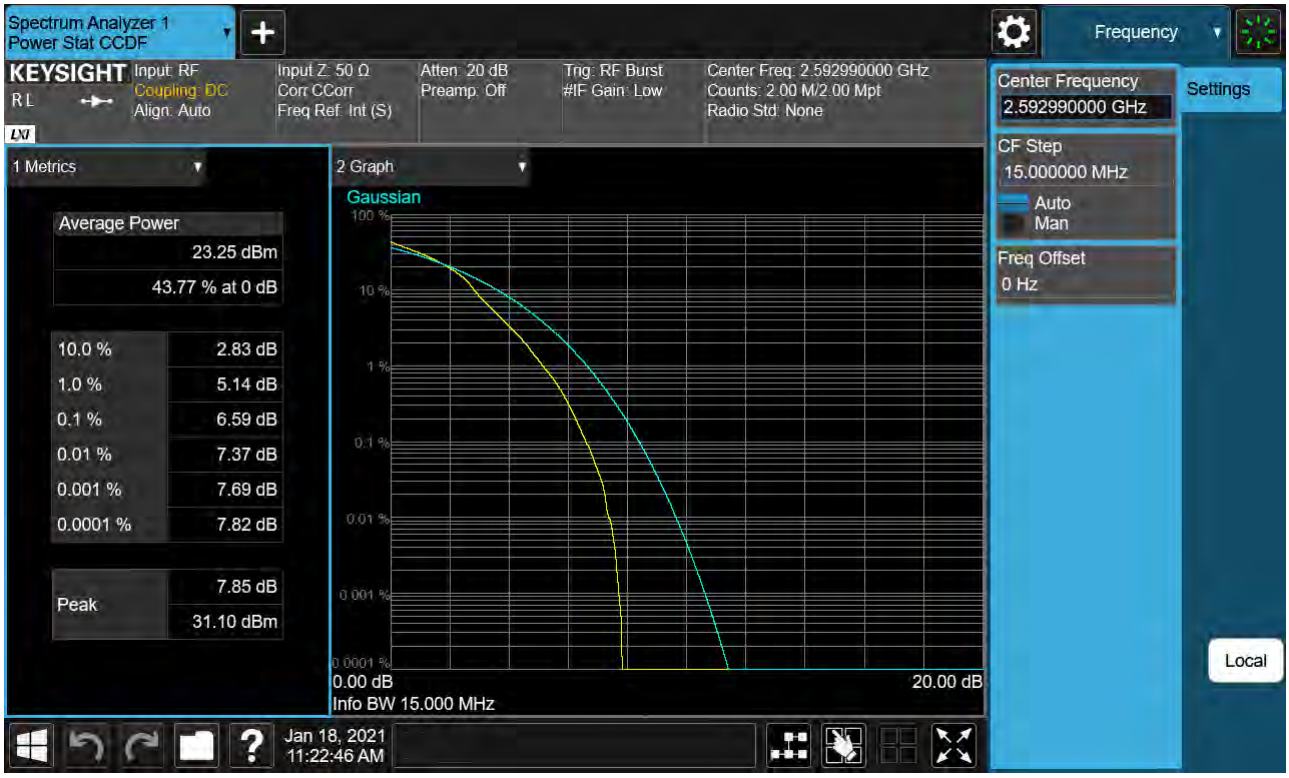
Sub6 n41. PAR Plot (15M BW_Ch.518598_BPSK)



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



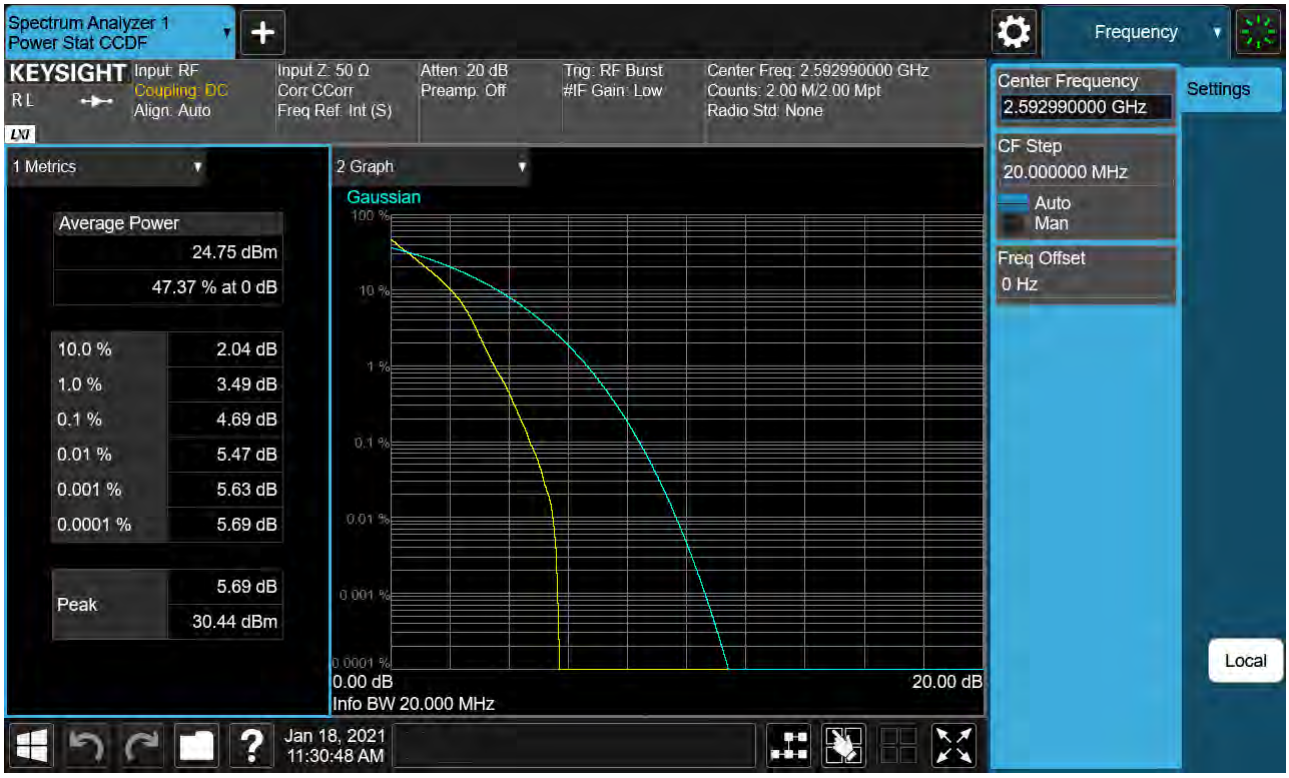
Sub6 n41. PAR Plot (15M BW_Ch.518598_16QAM)



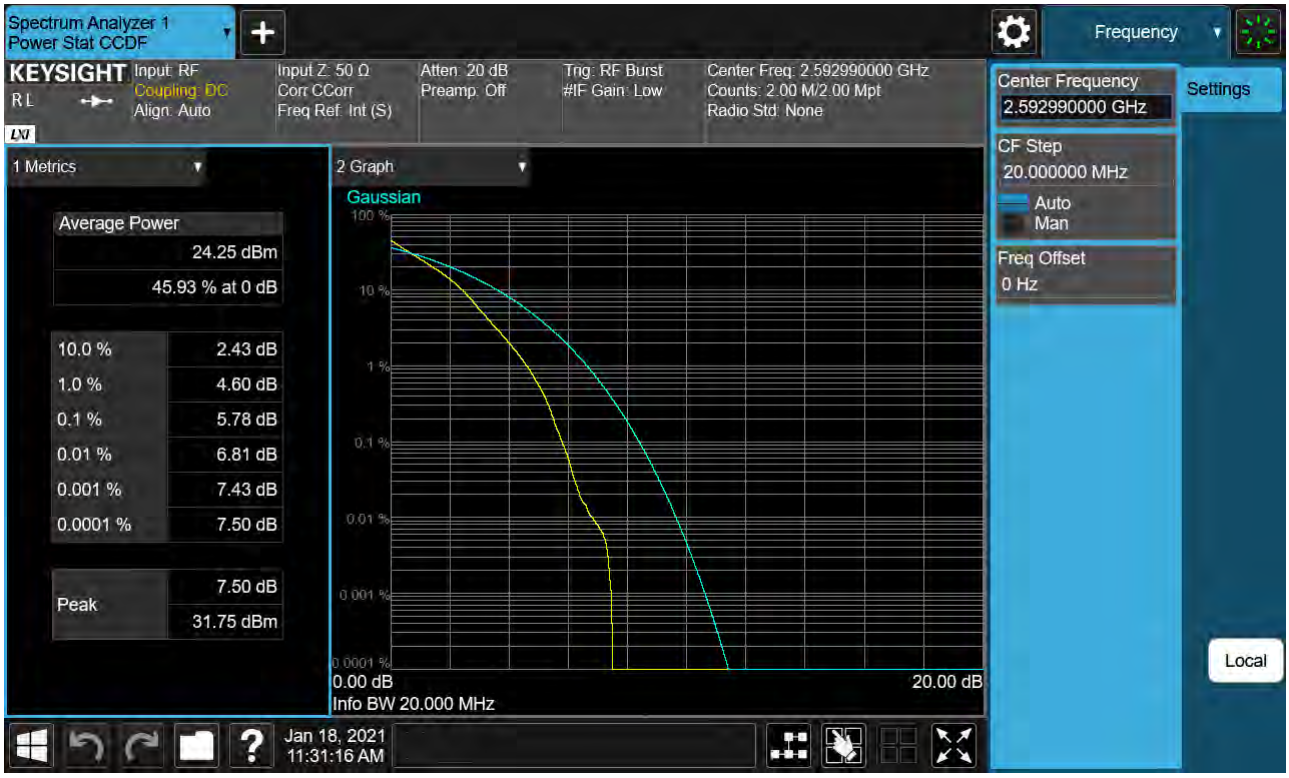
Sub6 n41. PAR Plot (15M BW_Ch.518598_64QAM)

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

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



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

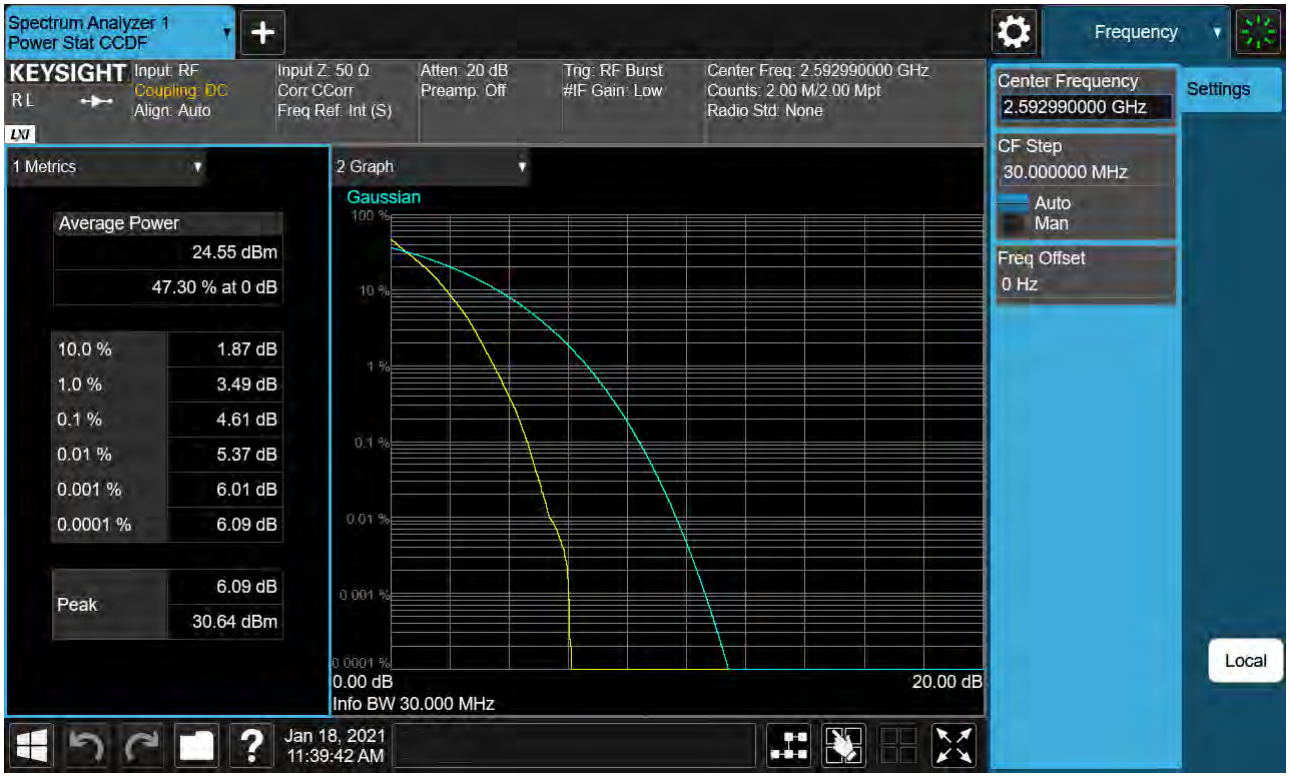


Sub6 n41. PAR Plot (20M BW_Ch.518598_16QAM)

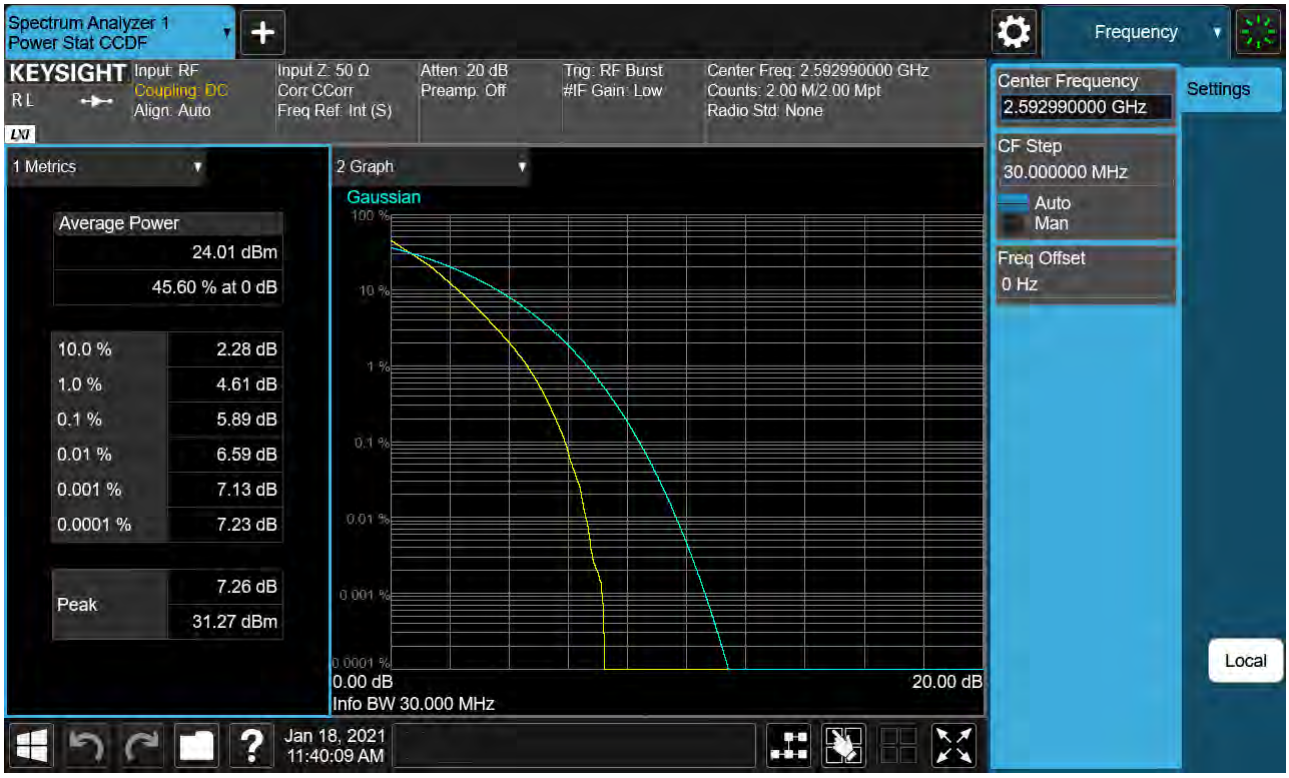
Sub6 n41. PAR Plot (20M BW_Ch.518598_64QAM)

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

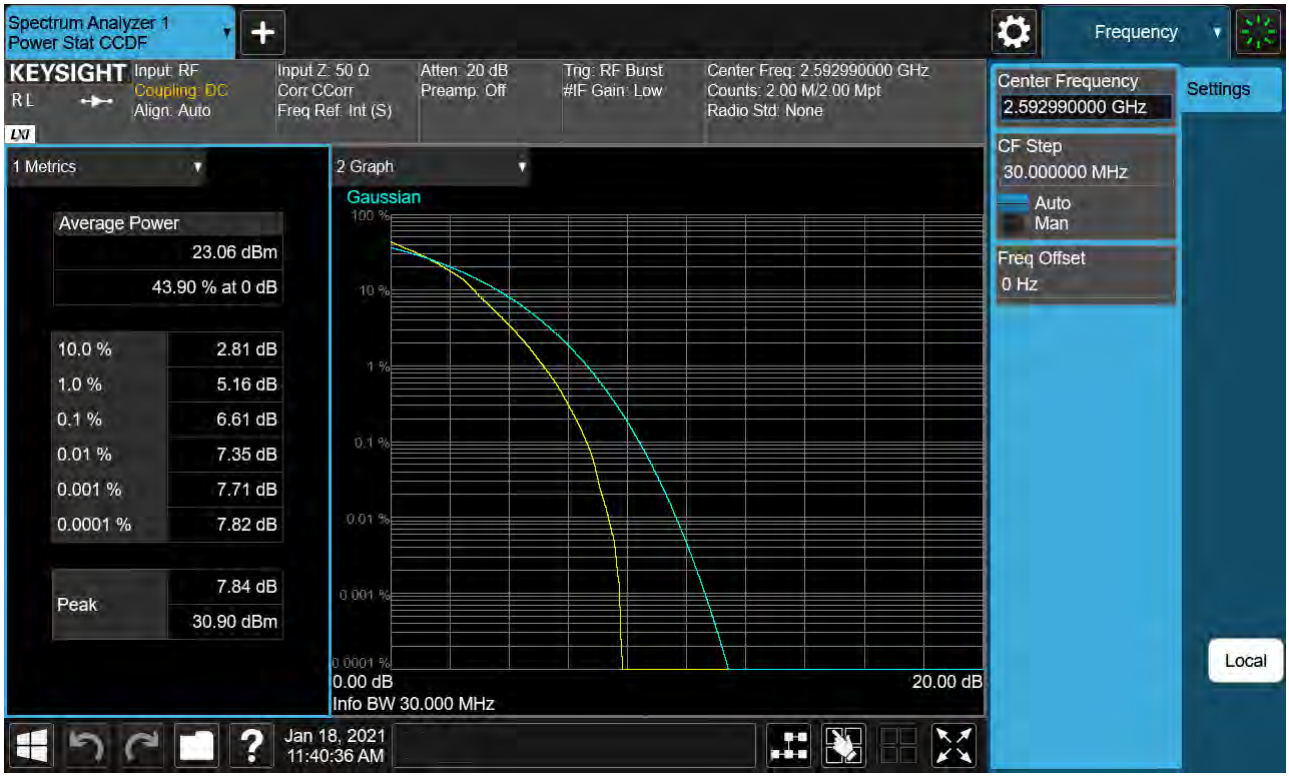
Sub6 n41. PAR Plot (30M BW_Ch.518598_BPSK)



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



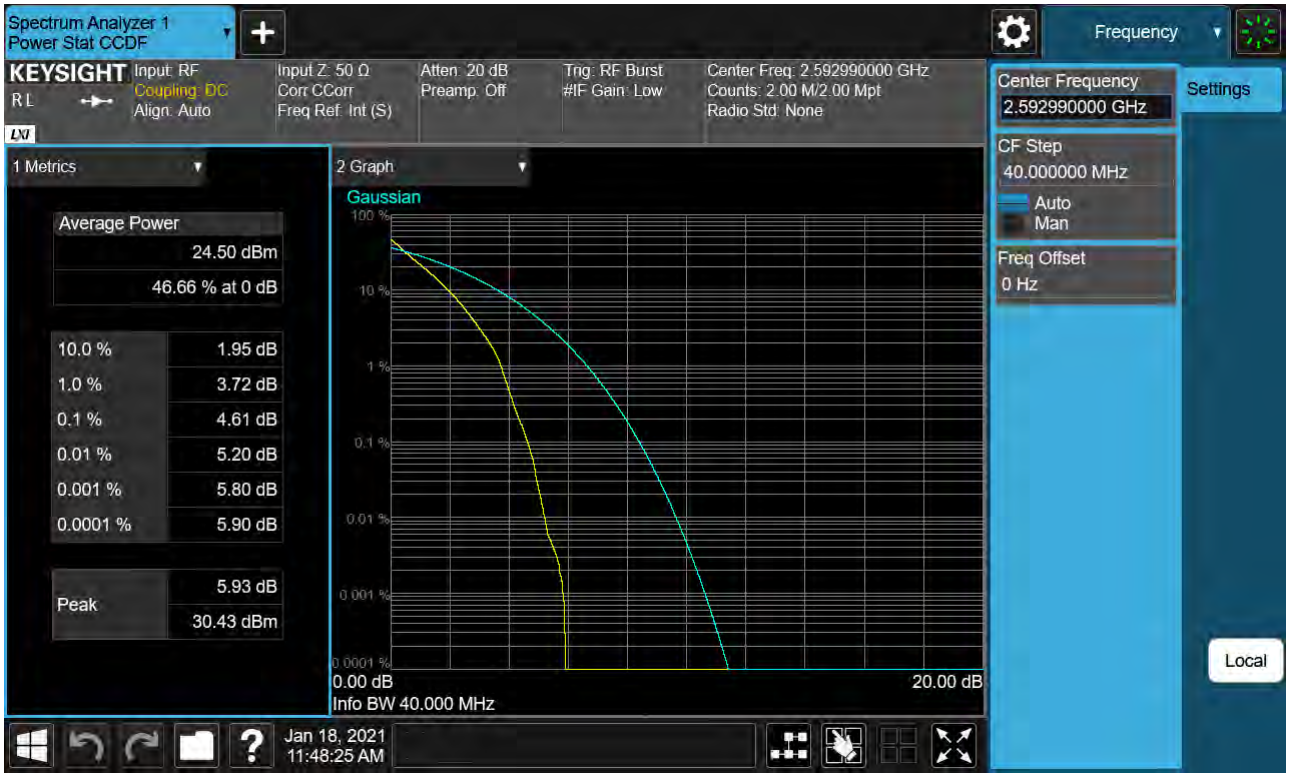
Sub6 n41. PAR Plot (30M BW_Ch.518598_16QAM)



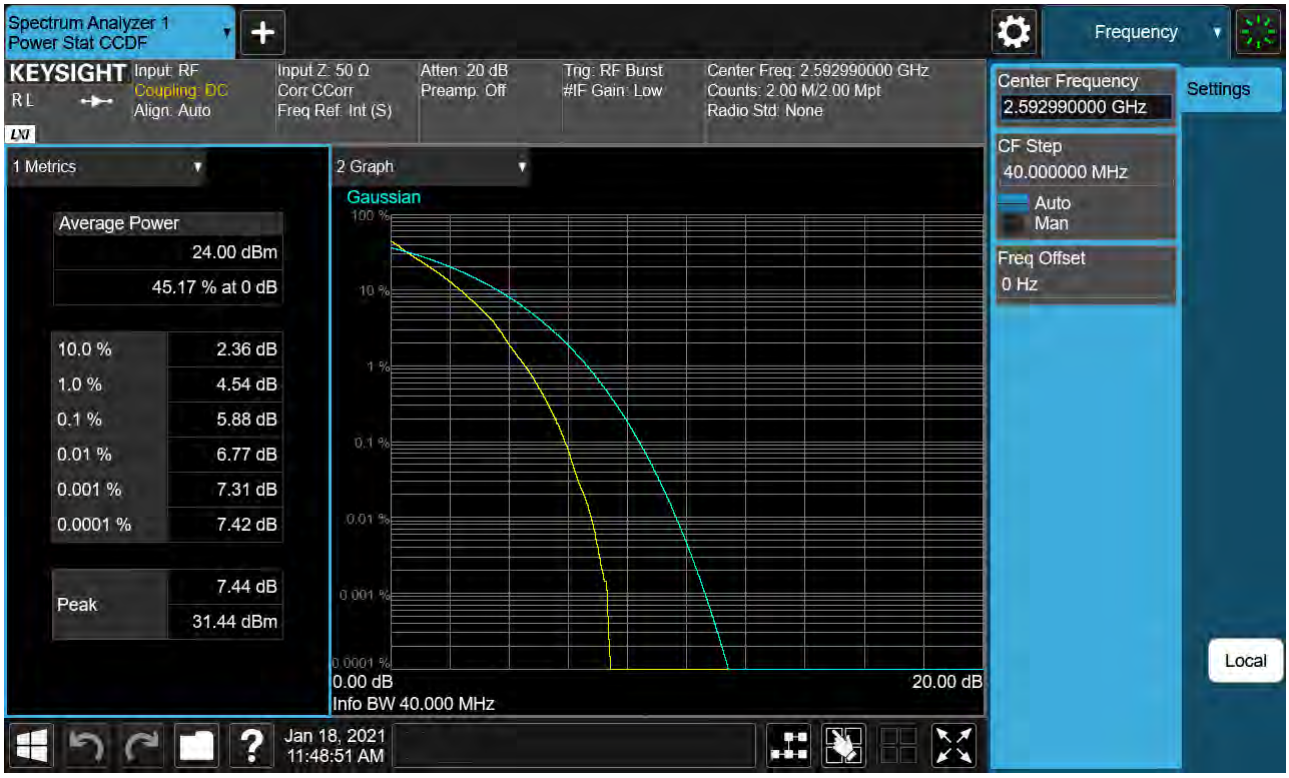
Sub6 n41. PAR Plot (30M BW_Ch.518598_64QAM)

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

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



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

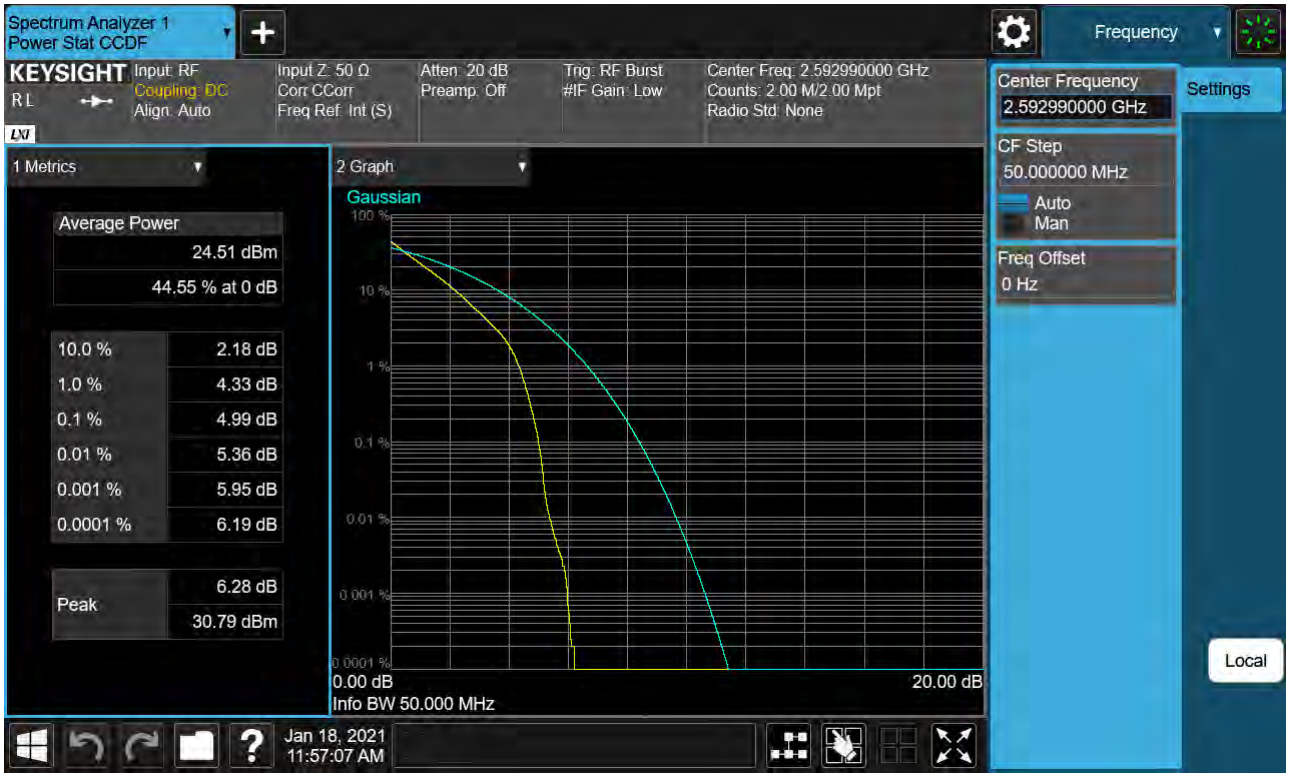


Sub6 n41. PAR Plot (40M BW_Ch.518598_16QAM)

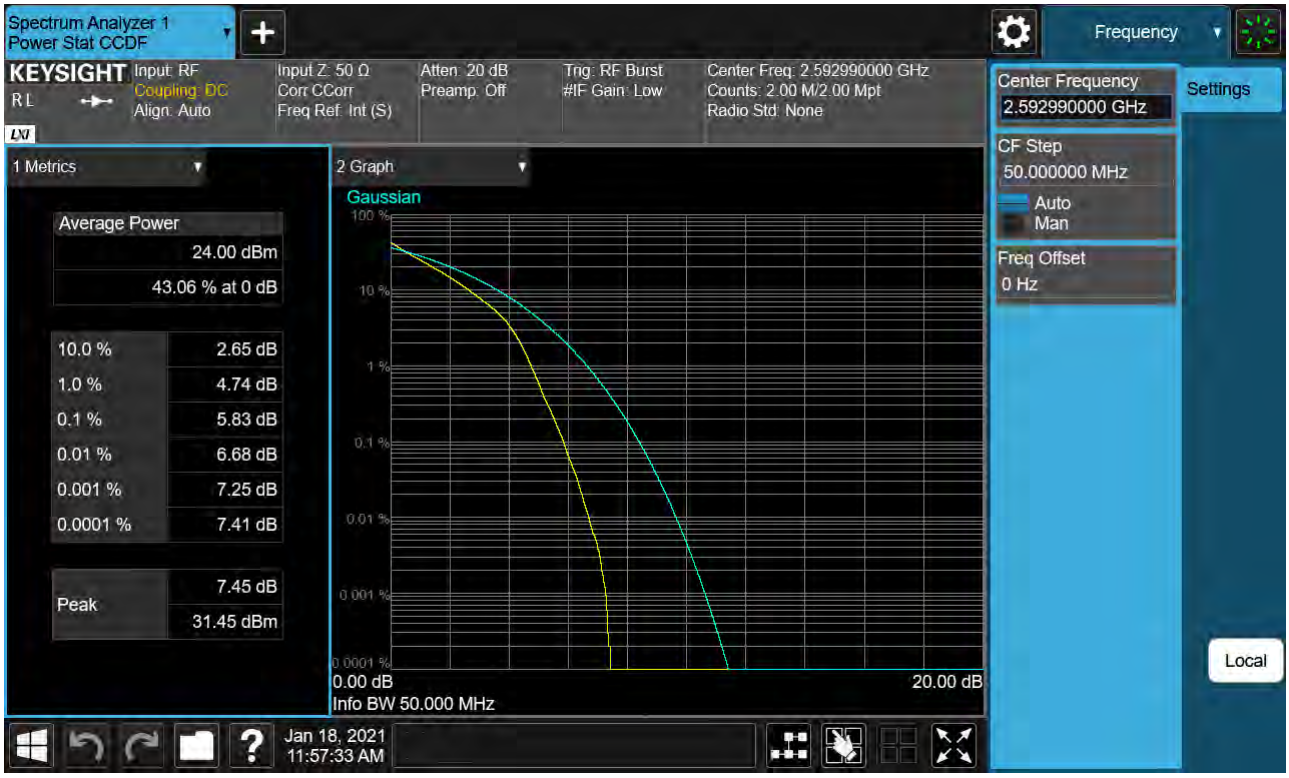
Sub6 n41. PAR Plot (40M BW_Ch.518598_64QAM)

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

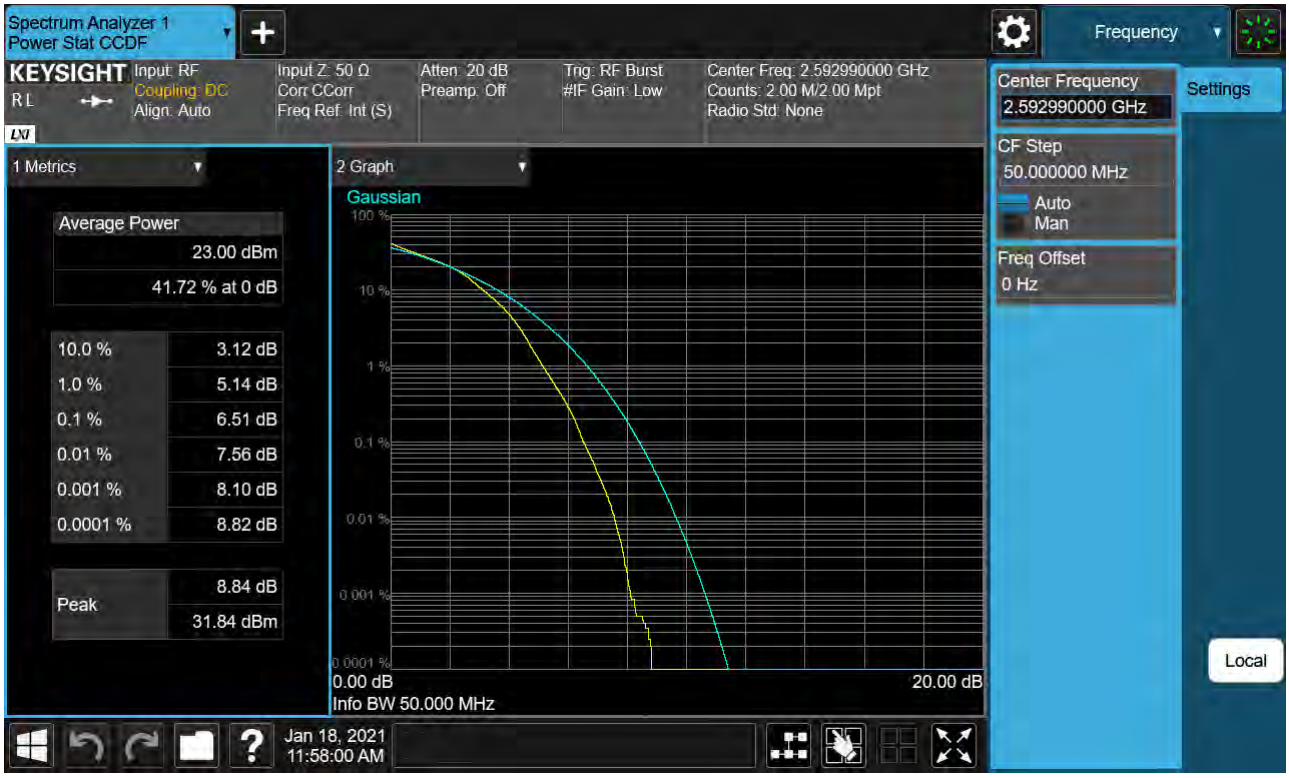
Sub6 n41. PAR Plot (50M BW_Ch.518598_BPSK)



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



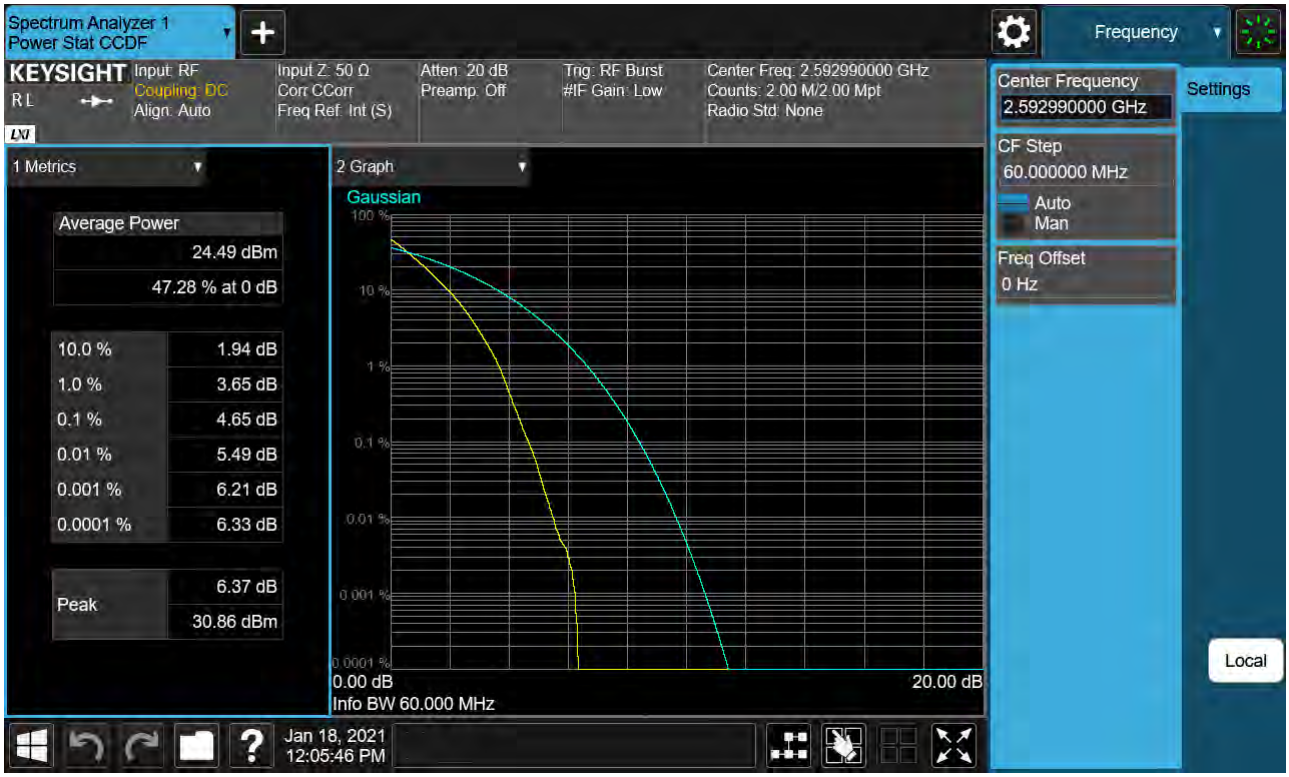
Sub6 n41. PAR Plot (50M BW_Ch.518598_16QAM)



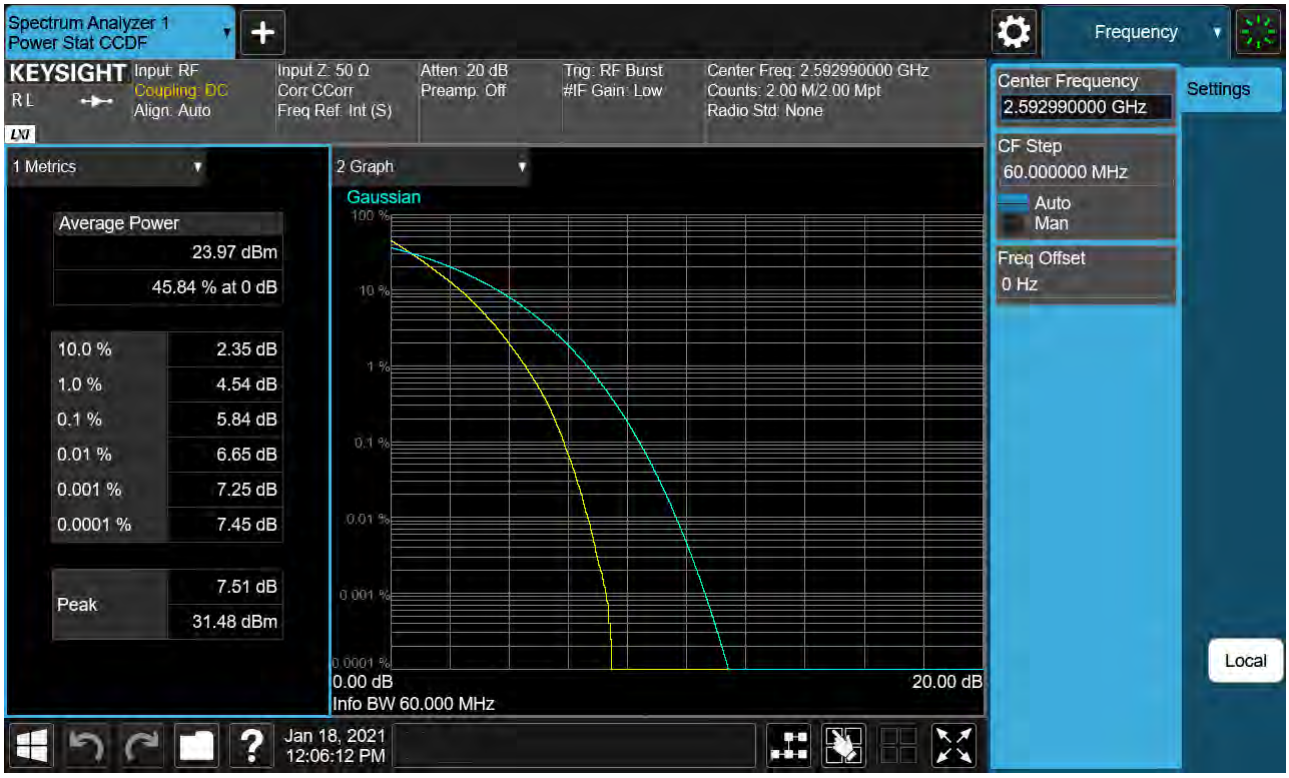
Sub6 n41. PAR Plot (50M BW_Ch.518598_64QAM)

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

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



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

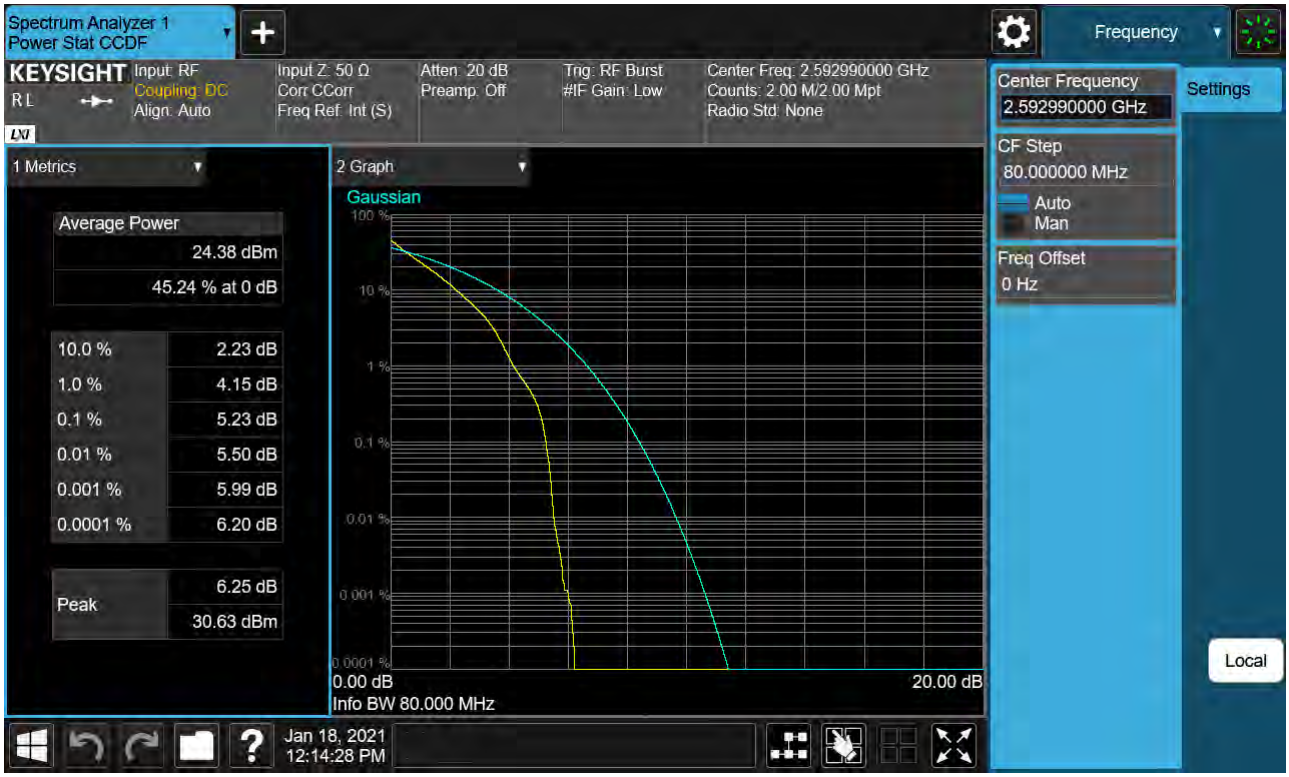


Sub6 n41. PAR Plot (60M BW_Ch.518598_16QAM)

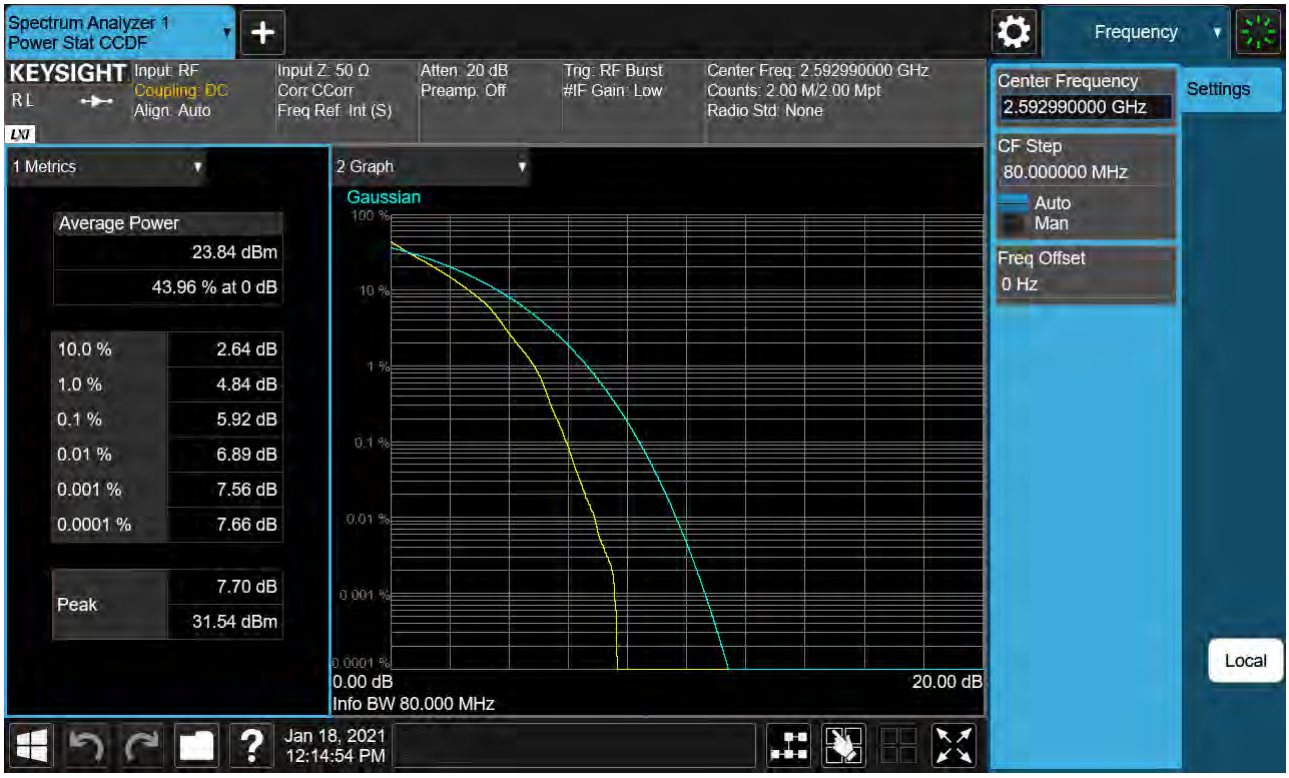
Sub6 n41. PAR Plot (60M BW_Ch.518598_64QAM)

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

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



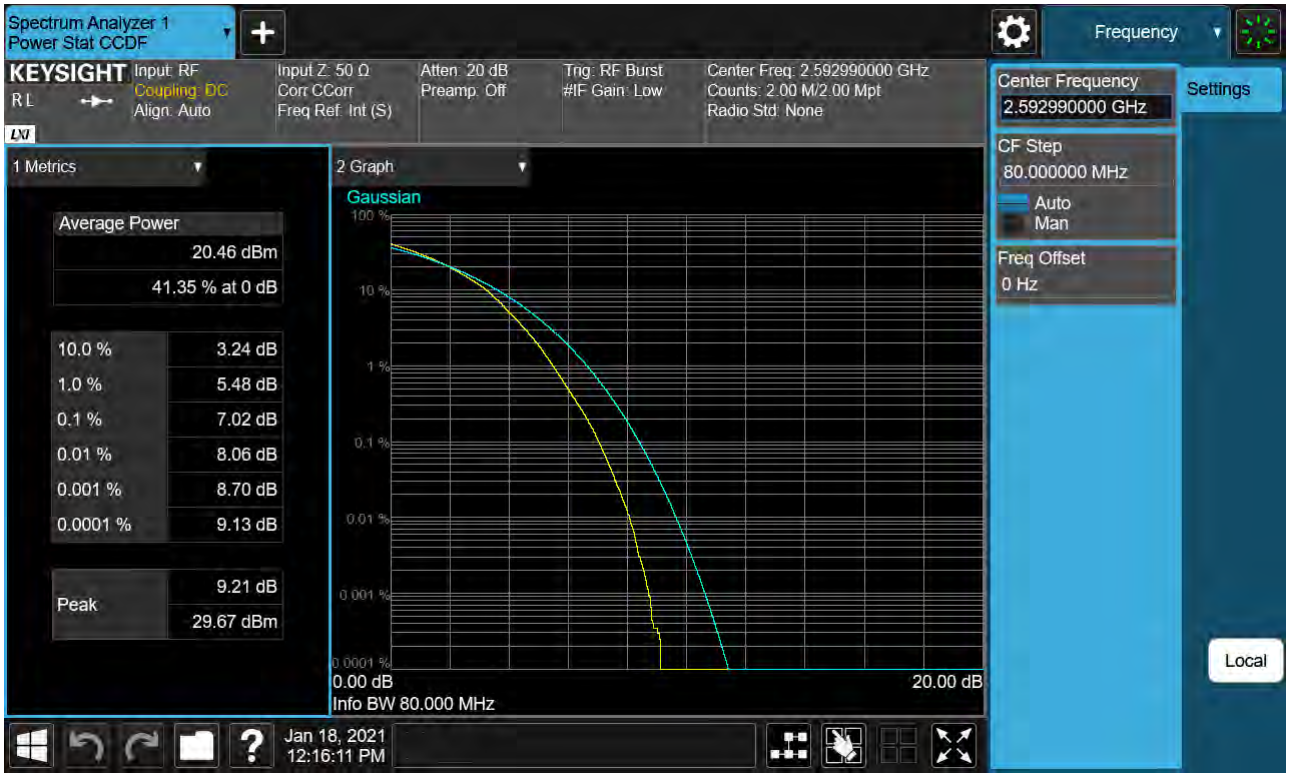
Sub6 n41. PAR Plot (80M BW_Ch.518598_QPSK)



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

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

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



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