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:
May 23, 2023

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

Report No.: HCT-RF-2305-FC079-R1

FCC ID:	**A3LSMF946B**
APPLICANT:	**SAMSUNG Electronics Co., Ltd.**

Model(s):	SM-F946B/DS
Additional Model(s):	SM-F946B
EUT Type:	Mobile phone
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§27, §2

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

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

Main 2 Ant

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n41 (10)	2501.010 – 2685.000	8M67G7D	PI/2 BPSK	0.145	21.61
		8M70G7D	QPSK	0.143	21.54
		8M70W7D	16QAM	0.113	20.54
		8M65W7D	64QAM	0.083	19.19
		8M66W7D	256QAM	0.060	17.81
Sub6 n41 (15)	2503.500 – 2682.480	13M0G7D	PI/2 BPSK	0.145	21.61
		13M0G7D	QPSK	0.142	21.51
		13M0W7D	16QAM	0.115	20.59
		13M0W7D	64QAM	0.092	19.64
		13M0W7D	256QAM	0.061	17.88
Sub6 n41 (20)	2506.020 – 2679.990	18M0G7D	PI/2 BPSK	0.148	21.71
		18M0G7D	QPSK	0.145	21.62
		17M9W7D	16QAM	0.118	20.73
		18M0W7D	64QAM	0.099	19.95
		18M0W7D	256QAM	0.060	17.79
Sub6 n41 (30)	2511.000 – 2674.980	27M0G7D	PI/2 BPSK	0.165	22.18
		26M9G7D	QPSK	0.159	22.01
		27M0W7D	16QAM	0.137	21.36
		26M9W7D	64QAM	0.101	20.04
		27M0W7D	256QAM	0.064	18.04
Sub6 n41 (40)	2516.010 – 2670.000	35M9G7D	PI/2 BPSK	0.191	22.80
		35M9G7D	QPSK	0.183	22.62
		36M0W7D	16QAM	0.155	21.90
		35M9W7D	64QAM	0.109	20.39
		35M9W7D	256QAM	0.066	18.18
Sub6 n41 (50)	2521.020 – 2664.990	45M9G7D	PI/2 BPSK	0.160	22.05
		45M9G7D	QPSK	0.153	21.85
		46M0W7D	16QAM	0.131	21.18
		45M8W7D	64QAM	0.094	19.72
		45M9W7D	256QAM	0.057	17.57
Sub6 n41 (60)	2526.000 – 2659.980	58M0G7D	PI/2 BPSK	0.169	22.29
		58M0G7D	QPSK	0.165	22.17
		58M1W7D	16QAM	0.135	21.31
		58M1W7D	64QAM	0.094	19.72
		57M9W7D	256QAM	0.059	17.69
Sub6 n41 (70)	2531.010 – 2655.000	64M7G7D	PI/2 BPSK	0.174	22.41
		64M5G7D	QPSK	0.168	22.25
		64M5W7D	16QAM	0.136	21.33
		64M5W7D	64QAM	0.097	19.86
		64M3W7D	256QAM	0.060	17.81
Sub6 n41 (80)	2536.020 – 2649.990	77M3G7D	PI/2 BPSK	0.181	22.58
		77M4G7D	QPSK	0.173	22.39
		77M3W7D	16QAM	0.145	21.60
		77M2W7D	64QAM	0.100	20.01
		77M1W7D	256QAM	0.060	17.81
Sub6 n41 (90)	2541.000 – 2644.980	87M0G7D	PI/2 BPSK	0.183	22.63
		86M7G7D	QPSK	0.179	22.52
		87M2W7D	16QAM	0.146	21.63
		86M7W7D	64QAM	0.106	20.24
		86M9W7D	256QAM	0.064	18.08
Sub6 n41 (100)	2546.010 – 2640.000	96M9G7D	PI/2 BPSK	0.171	22.32
		96M7G7D	QPSK	0.167	22.22
		96M7W7D	16QAM	0.136	21.32
		96M7W7D	64QAM	0.098	19.93
		96M8W7D	256QAM	0.062	17.93

Sub 2 Ant

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n41 (10)	2501.010 – 2685.000	8M68G7D	PI/2 BPSK	0.146	21.65
		8M70G7D	QPSK	0.146	21.63
		8M70W7D	16QAM	0.118	20.73
		8M66W7D	64QAM	0.082	19.15
		8M67W7D	256QAM	0.051	17.09
Sub6 n41 (15)	2503.500 – 2682.480	13M0G7D	PI/2 BPSK	0.150	21.77
		13M0G7D	QPSK	0.150	21.75
		13M0W7D	16QAM	0.122	20.86
		13M0W7D	64QAM	0.085	19.30
		13M0W7D	256QAM	0.052	17.19
Sub6 n41 (20)	2506.020 – 2679.990	18M0G7D	PI/2 BPSK	0.157	21.96
		18M0G7D	QPSK	0.156	21.94
		18M0W7D	16QAM	0.129	21.09
		18M0W7D	64QAM	0.089	19.50
		18M0W7D	256QAM	0.055	17.37
Sub6 n41 (30)	2511.000 – 2674.980	27M0G7D	PI/2 BPSK	0.160	22.03
		26M9G7D	QPSK	0.159	22.02
		27M0W7D	16QAM	0.129	21.11
		27M0W7D	64QAM	0.090	19.56
		26M9W7D	256QAM	0.055	17.39
Sub6 n41 (40)	2516.010 – 2670.000	35M9G7D	PI/2 BPSK	0.161	22.08
		36M0G7D	QPSK	0.160	22.05
		36M0W7D	16QAM	0.130	21.15
		35M9W7D	64QAM	0.090	19.55
		35M9W7D	256QAM	0.055	17.41
Sub6 n41 (50)	2521.020 – 2664.990	46M0G7D	PI/2 BPSK	0.159	22.02
		45M9G7D	QPSK	0.158	21.99
		46M0W7D	16QAM	0.128	21.08
		45M9W7D	64QAM	0.090	19.52
		46M0W7D	256QAM	0.054	17.32
Sub6 n41 (60)	2526.000 – 2659.980	58M2G7D	PI/2 BPSK	0.157	21.96
		58M0G7D	QPSK	0.156	21.93
		58M0W7D	16QAM	0.129	21.10
		58M1W7D	64QAM	0.089	19.50
		58M1W7D	256QAM	0.054	17.31
Sub6 n41 (70)	2531.010 – 2655.000	64M6G7D	PI/2 BPSK	0.134	21.26
		64M6G7D	QPSK	0.132	21.22
		64M5W7D	16QAM	0.108	20.35
		64M6W7D	64QAM	0.075	18.76
		64M6W7D	256QAM	0.047	16.68
Sub6 n41 (80)	2536.020 – 2649.990	77M3G7D	PI/2 BPSK	0.140	21.45
		77M5G7D	QPSK	0.139	21.42
		77M4W7D	16QAM	0.115	20.59
		77M3W7D	64QAM	0.080	19.03
		77M3W7D	256QAM	0.048	16.80
Sub6 n41 (90)	2541.000 – 2644.980	87M3G7D	PI/2 BPSK	0.145	21.62
		87M1G7D	QPSK	0.144	21.57
		87M0W7D	16QAM	0.116	20.65
		86M8W7D	64QAM	0.083	19.17
		86M9W7D	256QAM	0.050	16.95
Sub6 n41 (100)	2546.010 – 2640.000	96M4G7D	PI/2 BPSK	0.137	21.38
		96M7G7D	QPSK	0.136	21.34
		97M0W7D	16QAM	0.111	20.45
		96M7W7D	64QAM	0.076	18.81
		96M9W7D	256QAM	0.047	16.68

REVIEWED BY

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

Report approved by : Kwon Jeong
Manager of Telecommunication Testing Center

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

This laboratory is not accredited for the test results marked *.
The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (HCT Accreditation No.: KT197)

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2305-FC079	May 19, 2023	- First Approval Report
HCT-RF-2305-FC079-R1	May 23, 2023	- Delete a plot (page 246)

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:	A3LSMF946B
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-F946B/DS
Additional Model(s):	SM-F946B
SCS(kHz):	30
Bandwidth(MHz):	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
Waveform:	CP-OFDM, DFT-S-OFDM
Modulation:	DFT-S-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
Tx Frequency(SCS 30kHz):	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 2531.010 – 2655.000 : 70 MHz 2536.020 – 2649.990 : 80 MHz 2541.000 – 2644.980 : 90 MHz 2546.010 – 2640.000 : 100 MHz
Date(s) of Tests:	March 24, 2023 ~ May 10, 2023
Serial number:	Radiated: R3CW30A39XN Conducted: R3CW30P0JHZ

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

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

It also supports IEEE 802.11 a/b/g/n/ac/ax (20/40/80/160 MHz), WIFI 6E, WPT, AIT, Bluetooth, BT LE, NFC.

2.2. MEASURING INSTRUMENT CALIBRATION

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

2.3. TEST FACILITY

The Fully-anechoic chamber and conducted measurement facility used to collect the radiated data are located at the **74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA.**

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

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

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

   The power is calculated by the following formula;

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

   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 = 100 kHz for emissions below 1 GHz and 1 MHz for emissions above 1 GHz
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 1 GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.
   The spurious emissions is calculated by the following formula;

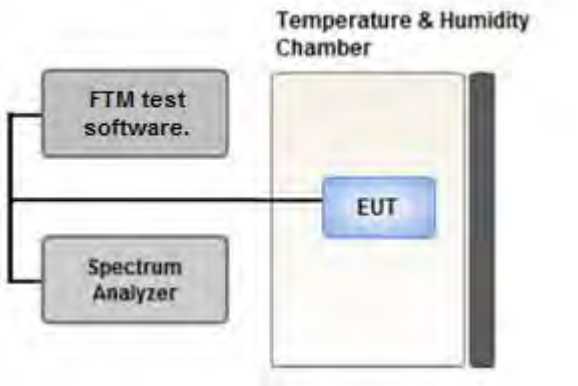
$$\text{Result}_{(dBm)} = \text{Pg}_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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

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

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

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

1. Set resolution/measurement bandwidth ≥ 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)

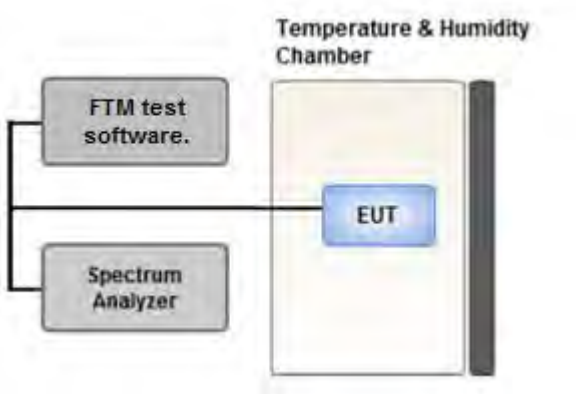
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW ≥ 3 × RBW.

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.

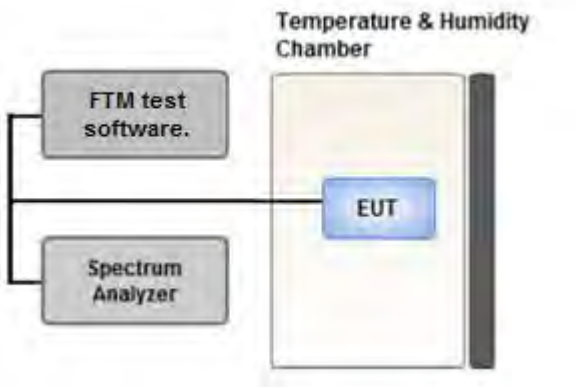
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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 26 dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5 % of the expected OBW
3. VBW ≥ 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

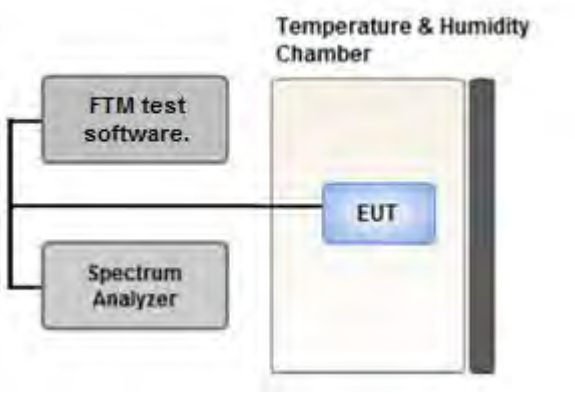
Test Overview

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

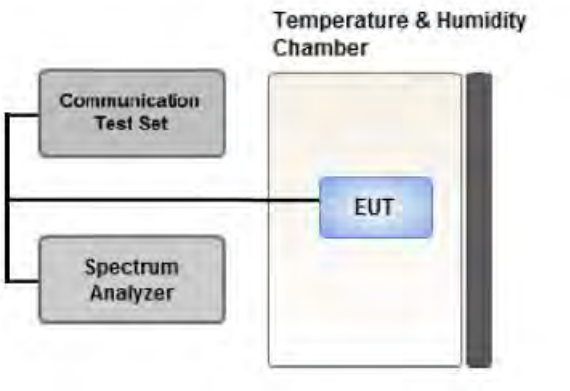
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. Within 1 MHz of the channel edge the RBW should be 2 % of EBW, then 1 MHz after that.
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points ≥ 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

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

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

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

The frequency stability of the transmitter is measured by:

1. Temperature:

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

2. Primary Supply Voltage:

   .- Unless otherwise specified, vary primary supply voltage from 85 % to 115 % of the nominal value for other than hand carried battery equipment.

   .- For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.

Test Settings

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

3.9 WORST CASE(RADIATED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
  (Worst case: DFT-S-OFDM)
- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- The EUT was tested in three modes(Open, Half-open, Closed), the worst case configuration results are reported.
  Worst case: Open mode.
- All modes of operation were investigated and the worst case configuration results are reported.
  Mode (Main 2 Ant) : SA, SRS
  Worst case (Main 2 Ant) : SA
  Mode (Sub 2 Ant) : SA, NSA, SRS
  Worst case (Sub 2 Ant) : NSA (66A-n41A)

  Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
  Worst case : Stand alone

- We were performed the RSE test in condition of co-location.
  Mode : Stand alone, Simultaneous transmission scenarios
  Worst case : Stand alone
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).
  All EN-DC mode of operation were investigated and the worst case configuration results are reported.
  (Worst case: 66A-n41A)
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
  Please refer to the table below.
- SM-F946B/DS & additional models were tested and the worst case results are reported.
  (Worst case : SM-F946B/DS)

[Main 2 Ant Worst case]

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

[Sub 2 Ant Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Effective Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	See Section 8.1		X,Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		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 modes of operation were investigated and the worst case configuration results are reported.
  Mode (Main 2 Ant) : SA, SRS
  Worst case (Main 2 Ant) : SA
  Mode (Sub 2 Ant) : SA, NSA, SRS
  Worst case (Sub2 Ant) : SA

- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
  Please refer to the table below.
- SM-F946B/DS & additional models were tested and the worst case results are reported.
  (Worst case : SM-F946B/DS)

[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, 70, 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
		70	Low	1	0
			High	1	188
		80	Low	1	0
			High	1	216
		90	Low	1	0
			High	1	244
		100	Low	1	0
			High	1	272
		10, 15, 20, 30, 40, 50, 60, 70, 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, 70, 80, 90, 100	Low, Mid, High	1	1

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/27/2024	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/27/2024	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	03/21/2024	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	04/27/2025	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/29/2024	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	06/04/2023	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/09/2025	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/24/2025	Biennial
High Pass Filter	WHKX10-900-1000-15000-40SS	Wainwright Instruments	15	05/18/2023	Annual
High Pass Filter	WHKX10-2700-3000-18000-40SS	Wainwright Instruments	145	05/18/2023	Annual
High Pass Filter	WHNX6-4740-6000-26500-40CC	Wainwright Instruments	11	05/18/2023	Annual
LOW NOISE AMP (100 MHz ~ 18 GHz)	CBLU1183540B-01	CERNEX	26822	05/18/2023	Annual
Power Amplifier	CBL18265035	CERNEX	22966	12/01/2023	Annual
Power Amplifier	CBL26405040	CERNEX	25956	03/02/2024	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	09/05/2023	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	03/02/2024	Annual
Chamber	SU-642	ESPEC	93008124	02/22/2024	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/11/2024	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/19/2024	Annual
Spectrum Analyzer(10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/22/2024	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/18/2023	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287700	05/19/2023	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/18/2023	Annual
SIGNAL GENERATOR (100 kHz~40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/05/2023	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/30/2023	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/27/2023	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

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

5. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4:2014. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty (±dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.90 (Confidence level about 95 %, k=2)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.14 (Confidence level about 95 %, k=2)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.16 (Confidence level about 95 %, k=2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.57 (Confidence level about 95 %, k=2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.76 (Confidence level about 95 %, k=2)
Radiated Disturbance (Above 40 GHz)	5.52 (Confidence level about 95 %, k=2)

6. SUMMARY OF TEST RESULTS

6.1 Test Condition : Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§2.1051, §27.53(m)(4)	■ < 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. Radiated tests were tested using 5G Wireless Tester.

7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

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

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)

QPSK Modulation

Emission Designator = 4M48G7D

LTE BW = 4.48 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D

LTE BW = 4.48 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

8. TEST DATA (Main 2 Ant)

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2501.010	Sub6 41/ 10 MHz [30 kHz]	PI/2 BPSK	-23.14	13.50	10.30	2.47	H	< 2.00	0.136	21.33	1	22
		QPSK	-23.28	13.36	10.30	2.47	H		0.132	21.19		
		16-QAM	-24.15	12.49	10.30	2.47	H		0.108	20.32		
		64-QAM	-25.42	11.22	10.30	2.47	H		0.080	19.05		
		256-QAM	-27.56	9.08	10.30	2.47	H		0.049	16.91		
2592.990		PI/2 BPSK	-22.24	14.06	10.05	2.50	H		0.145	21.61	1	22
		QPSK	-22.31	13.99	10.05	2.50	H		0.143	21.54		
		16-QAM	-23.31	12.99	10.05	2.50	H		0.113	20.54		
		64-QAM	-24.66	11.64	10.05	2.50	H		0.083	19.19		
		256-QAM	-26.04	10.26	10.05	2.50	H		0.060	17.81		
2685.000		PI/2 BPSK	-25.40	12.06	10.10	2.58	H		0.091	19.58	1	1
		QPSK	-25.61	11.85	10.10	2.58	H		0.087	19.37		
		16-QAM	-26.42	11.04	10.10	2.58	H		0.072	18.56		
		64-QAM	-27.05	10.41	10.10	2.58	H		0.062	17.93		
		256-QAM	-29.11	8.35	10.10	2.58	H		0.039	15.87		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2503.500	Sub6 41/ 15 MHz [30 kHz]	PI/2 BPSK	-23.32	13.31	10.30	2.48	H	< 2.00	0.130	21.13	1	36
		QPSK	-23.42	13.21	10.30	2.48	H		0.127	21.03		
		16-QAM	-24.36	12.27	10.30	2.48	H		0.102	20.09		
		64-QAM	-25.26	11.37	10.30	2.48	H		0.083	19.19		
		256-QAM	-27.39	9.24	10.30	2.48	H		0.051	17.06		
2592.990		PI/2 BPSK	-22.24	14.06	10.05	2.50	H		0.145	21.61	1	36
		QPSK	-22.34	13.96	10.05	2.50	H		0.142	21.51		
		16-QAM	-23.26	13.04	10.05	2.50	H		0.115	20.59		
		64-QAM	-24.21	12.09	10.05	2.50	H		0.092	19.64		
		256-QAM	-25.97	10.33	10.05	2.50	H		0.061	17.88		
2682.480		PI/2 BPSK	-25.20	12.51	10.10	2.58	H		0.101	20.03	1	1
		QPSK	-25.33	12.38	10.10	2.58	H		0.098	19.90		
		16-QAM	-26.23	11.48	10.10	2.58	H		0.079	19.00		
		64-QAM	-26.91	10.80	10.10	2.58	H		0.068	18.32		
		256-QAM	-28.56	9.15	10.10	2.58	H		0.046	16.67		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2506.020	Sub6 41/ 20 MHz [30 kHz]	PI/2 BPSK	-23.12	13.51	10.30	2.48	H	< 2.00	0.136	21.33	1	25
		QPSK	-23.21	13.42	10.30	2.48	H		0.133	21.24		
		16-QAM	-24.13	12.50	10.30	2.48	H		0.108	20.32		
		64-QAM	-24.98	11.65	10.30	2.48	H		0.089	19.47		
		256-QAM	-27.18	9.45	10.30	2.48	H		0.053	17.27		
2592.990		PI/2 BPSK	-22.14	14.16	10.05	2.50	H		0.148	21.71	1	49
		QPSK	-22.23	14.07	10.05	2.50	H		0.145	21.62		
		16-QAM	-23.12	13.18	10.05	2.50	H		0.118	20.73		
		64-QAM	-23.90	12.40	10.05	2.50	H		0.099	19.95		
		256-QAM	-26.06	10.24	10.05	2.50	H		0.060	17.79		
2679.990		PI/2 BPSK	-24.82	12.89	10.10	2.58	H		0.110	20.41	1	1
		QPSK	-24.91	12.80	10.10	2.58	H		0.108	20.32		
		16-QAM	-25.76	11.95	10.10	2.58	H		0.088	19.47		
		64-QAM	-26.49	11.22	10.10	2.58	H		0.075	18.74		
		256-QAM	-28.41	9.30	10.10	2.58	H		0.048	16.82		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2511.000	Sub6 41/ 30 MHz [30 kHz]	PI/2 BPSK	-22.24	14.38	10.30	2.50	H	< 2.00	0.165	22.18	1	1
		QPSK	-22.41	14.21	10.30	2.50	H		0.159	22.01		
		16-QAM	-23.06	13.56	10.30	2.50	H		0.137	21.36		
		64-QAM	-24.60	12.02	10.30	2.50	H		0.096	19.82		
		256-QAM	-26.78	9.84	10.30	2.50	H		0.058	17.64		
2592.990		PI/2 BPSK	-21.83	14.47	10.05	2.50	H		0.159	22.02	1	76
		QPSK	-22.01	14.29	10.05	2.50	H		0.153	21.84		
		16-QAM	-22.85	13.45	10.05	2.50	H		0.126	21.00		
		64-QAM	-23.81	12.49	10.05	2.50	H		0.101	20.04		
		256-QAM	-25.81	10.49	10.05	2.50	H		0.064	18.04		
2674.980		PI/2 BPSK	-23.93	13.48	10.10	2.58	H		0.126	21.00	1	1
		QPSK	-24.11	13.30	10.10	2.58	H		0.121	20.82		
		16-QAM	-24.91	12.50	10.10	2.58	H		0.101	20.02		
		64-QAM	-25.91	11.50	10.10	2.58	H		0.080	19.02		
		256-QAM	-28.07	9.34	10.10	2.58	H		0.049	16.86		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2516.010	Sub6 41/ 40 MHz [30 kHz]	PI/2 BPSK	-21.48	15.01	10.30	2.51	H	< 2.00	0.191	22.80	1	104
		QPSK	-21.66	14.83	10.30	2.51	H		0.183	22.62		
		16-QAM	-22.38	14.11	10.30	2.51	H		0.155	21.90		
		64-QAM	-23.89	12.60	10.30	2.51	H		0.109	20.39		
		256-QAM	-26.10	10.39	10.30	2.51	H		0.066	18.18		
2592.990		PI/2 BPSK	-21.94	14.36	10.05	2.50	H		0.155	21.91	1	104
		QPSK	-22.07	14.23	10.05	2.50	H		0.151	21.78		
		16-QAM	-22.91	13.39	10.05	2.50	H		0.124	20.94		
		64-QAM	-23.82	12.48	10.05	2.50	H		0.101	20.03		
		256-QAM	-25.95	10.35	10.05	2.50	H		0.062	17.90		
2670.000		PI/2 BPSK	-23.76	13.36	10.10	2.58	H		0.122	20.88	1	1
		QPSK	-23.91	13.21	10.10	2.58	H		0.118	20.73		
		16-QAM	-24.55	12.57	10.10	2.58	H		0.102	20.09		
		64-QAM	-25.41	11.71	10.10	2.58	H		0.084	19.23		
		256-QAM	-27.48	9.64	10.10	2.58	H		0.052	17.16		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2521.020	Sub6 41/ 50 MHz [30 kHz]	PI/2 BPSK	-22.09	14.58	10.00	2.53	H	< 2.00	0.160	22.05	1	131
		QPSK	-22.29	14.38	10.00	2.53	H		0.153	21.85		
		16-QAM	-22.96	13.71	10.00	2.53	H		0.131	21.18		
		64-QAM	-24.42	12.25	10.00	2.53	H		0.094	19.72		
		256-QAM	-26.61	10.06	10.00	2.53	H		0.057	17.53		
2592.990		PI/2 BPSK	-22.07	14.23	10.05	2.50	H		0.151	21.78	1	131
		QPSK	-22.24	14.06	10.05	2.50	H		0.145	21.61		
		16-QAM	-23.05	13.25	10.05	2.50	H		0.120	20.80		
		64-QAM	-24.21	12.09	10.05	2.50	H		0.092	19.64		
		256-QAM	-26.28	10.02	10.05	2.50	H		0.057	17.57		
2664.990		PI/2 BPSK	-23.75	13.34	10.10	2.60	H		0.121	20.84	1	1
		QPSK	-23.91	13.18	10.10	2.60	H		0.117	20.68		
		16-QAM	-24.43	12.66	10.10	2.60	H		0.104	20.16		
		64-QAM	-25.41	11.68	10.10	2.60	H		0.083	19.18		
		256-QAM	-27.46	9.63	10.10	2.60	H		0.052	17.13		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2526.000	Sub6 41/ 60 MHz [30 kHz]	PI/2 BPSK	-21.79	14.47	10.30	2.53	H	< 2.00	0.168	22.24	1	81
		QPSK	-21.92	14.34	10.30	2.53	H		0.163	22.11		
		16-QAM	-22.86	13.40	10.30	2.53	H		0.131	21.17		
		64-QAM	-24.39	11.87	10.30	2.53	H		0.092	19.64		
		256-QAM	-26.55	9.71	10.30	2.53	H		0.056	17.48		
2592.990		PI/2 BPSK	-21.56	14.74	10.05	2.50	H		0.169	22.29	1	160
		QPSK	-21.68	14.62	10.05	2.50	H		0.165	22.17		
		16-QAM	-22.54	13.76	10.05	2.50	H		0.135	21.31		
		64-QAM	-24.13	12.17	10.05	2.50	H		0.094	19.72		
		256-QAM	-26.16	10.14	10.05	2.50	H		0.059	17.69		
2659.980		PI/2 BPSK	-22.57	14.28	10.10	2.61	H		0.150	21.77	1	1
		QPSK	-22.71	14.14	10.10	2.61	H		0.146	21.63		
		16-QAM	-23.34	13.51	10.10	2.61	H		0.126	21.00		
		64-QAM	-24.68	12.17	10.10	2.61	H		0.093	19.66		
		256-QAM	-26.81	10.04	10.10	2.61	H		0.057	17.53		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2531.010	Sub6 41/ 70 MHz [30 kHz]	PI/2 BPSK	-21.84	14.28	10.30	2.52	H	< 2.00	0.161	22.06	1	94
		QPSK	-21.93	14.19	10.30	2.52	H		0.157	21.97		
		16-QAM	-22.90	13.22	10.30	2.52	H		0.126	21.00		
		64-QAM	-24.38	11.74	10.30	2.52	H		0.090	19.52		
		256-QAM	-26.54	9.58	10.30	2.52	H		0.055	17.36		
2592.990		PI/2 BPSK	-21.87	14.43	10.05	2.50	H		0.158	21.98	1	187
		QPSK	-22.04	14.26	10.05	2.50	H		0.152	21.81		
		16-QAM	-22.87	13.43	10.05	2.50	H		0.125	20.98		
		64-QAM	-24.42	11.88	10.05	2.50	H		0.088	19.43		
		256-QAM	-26.58	9.72	10.05	2.50	H		0.053	17.27		
2655.000		PI/2 BPSK	-21.82	14.94	10.10	2.63	H		0.174	22.41	1	1
		QPSK	-21.98	14.78	10.10	2.63	H		0.168	22.25		
		16-QAM	-22.90	13.86	10.10	2.63	H		0.136	21.33		
		64-QAM	-24.37	12.39	10.10	2.63	H		0.097	19.86		
		256-QAM	-26.42	10.34	10.10	2.63	H		0.060	17.81		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2536.020	Sub6 41/ 80 MHz [30 kHz]	PI/2 BPSK	-21.44	14.80	10.30	2.52	H	< 2.00	0.181	22.58	1	108
		QPSK	-21.65	14.59	10.30	2.52	H		0.173	22.37		
		16-QAM	-22.42	13.82	10.30	2.52	H		0.145	21.60		
		64-QAM	-24.01	12.23	10.30	2.52	H		0.100	20.01		
		256-QAM	-26.23	10.01	10.30	2.52	H		0.060	17.79		
2592.990		PI/2 BPSK	-22.12	14.18	10.05	2.50	H		0.149	21.73	1	108
		QPSK	-22.22	14.08	10.05	2.50	H		0.146	21.63		
		16-QAM	-23.16	13.14	10.05	2.50	H		0.117	20.69		
		64-QAM	-23.90	12.40	10.05	2.50	H		0.099	19.95		
		256-QAM	-26.06	10.24	10.05	2.50	H		0.060	17.79		
2649.990		PI/2 BPSK	-21.64	15.03	10.10	2.65	H		0.177	22.48	1	1
		QPSK	-21.73	14.94	10.10	2.65	H		0.173	22.39		
		16-QAM	-22.66	14.01	10.10	2.65	H		0.140	21.46		
		64-QAM	-24.16	12.51	10.10	2.65	H		0.099	19.96		
		256-QAM	-26.31	10.36	10.10	2.65	H		0.060	17.81		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2541.000	Sub6 41/ 90 MHz [30 kHz]	PI/2 BPSK	-21.54	14.82	10.30	2.52	H	< 2.00	0.182	22.60	1	122
		QPSK	-21.69	14.67	10.30	2.52	H		0.176	22.45		
		16-QAM	-22.62	13.74	10.30	2.52	H		0.142	21.52		
		64-QAM	-24.12	12.24	10.30	2.52	H		0.101	20.02		
		256-QAM	-26.28	10.08	10.30	2.52	H		0.061	17.86		
2592.990		PI/2 BPSK	-22.01	14.29	10.05	2.50	H		0.153	21.84	1	122
		QPSK	-22.11	14.19	10.05	2.50	H		0.149	21.74		
		16-QAM	-23.01	13.29	10.05	2.50	H		0.121	20.84		
		64-QAM	-24.16	12.14	10.05	2.50	H		0.093	19.69		
		256-QAM	-26.12	10.18	10.05	2.50	H		0.059	17.73		
2644.980		PI/2 BPSK	-21.52	15.29	10.00	2.66	H		0.183	22.63	1	1
		QPSK	-21.63	15.18	10.00	2.66	H		0.179	22.52		
		16-QAM	-22.52	14.29	10.00	2.66	H		0.146	21.63		
		64-QAM	-23.91	12.90	10.00	2.66	H		0.106	20.24		
		256-QAM	-26.07	10.74	10.00	2.66	H		0.064	18.08		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2546.010	Sub6 41/ 100 MHz [30 kHz]	PI/2 BPSK	-21.76	14.61	10.25	2.54	H	< 2.00	0.171	22.32	1	271
		QPSK	-21.86	14.51	10.25	2.54	H		0.167	22.22		
		16-QAM	-22.76	13.61	10.25	2.54	H		0.136	21.32		
		64-QAM	-24.25	12.12	10.25	2.54	H		0.096	19.83		
		256-QAM	-26.53	9.84	10.25	2.54	H		0.057	17.55		
2592.990		PI/2 BPSK	-22.42	13.88	10.05	2.50	H		0.139	21.43	1	136
		QPSK	-22.51	13.79	10.05	2.50	H		0.136	21.34		
		16-QAM	-23.44	12.86	10.05	2.50	H		0.110	20.41		
		64-QAM	-24.61	11.69	10.05	2.50	H		0.084	19.24		
		256-QAM	-26.06	10.24	10.05	2.50	H		0.060	17.79		
2640.000		PI/2 BPSK	-22.09	14.86	9.90	2.67	H		0.162	22.09	1	1
		QPSK	-22.21	14.74	9.90	2.67	H		0.157	21.97		
		16-QAM	-23.07	13.88	9.90	2.67	H		0.129	21.11		
		64-QAM	-24.25	12.70	9.90	2.67	H		0.098	19.93		
		256-QAM	-26.25	10.70	9.90	2.67	H		0.062	17.93		

8.2 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N41

▣ Bandwidth: 10 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500202 (2501.010)	5 002.02	-62.98	10.70	-64.33	3.63	H	-57.26	-25.00	1	22
	7 503.03	-56.65	11.10	-49.64	4.50	V	-43.04	-25.00		
	10 004.04	-61.37	11.20	-52.91	5.26	H	-46.97	-25.00		
	12 505.05	-64.03	12.10	-54.69	6.04	H	-48.63	-25.00		
	15 006.06	-58.20	13.80	-51.60	6.65	H	-44.45	-25.00		
518598 (2592.990)	5 185.98	-61.06	11.00	-62.56	3.70	V	-55.26	-25.00	1	22
	7 778.97	-64.57	10.90	-57.19	4.61	V	-50.90	-25.00		
	10 371.96	-64.58	11.20	-53.88	5.41	V	-48.09	-25.00		
	12 964.95	-63.72	12.00	-53.79	6.11	V	-47.90	-25.00		
	15 557.94	-60.81	15.40	-55.48	6.77	V	-46.85	-25.00		
537000 (2685.000)	5 370.00	-63.85	11.50	-66.37	3.74	H	-58.61	-25.00	1	1
	8 055.00	-62.80	10.90	-55.59	4.71	H	-49.40	-25.00		
	10 740.00	-65.27	11.10	-54.67	5.50	H	-49.07	-25.00		
	13 425.00	-62.53	11.80	-51.68	6.22	H	-46.10	-25.00		
	16 110.00	-65.29	15.70	-56.15	6.91	H	-47.36	-25.00		

▣ NR Band: N41

▣ Bandwidth: 15 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500700 (2503.500)	5 007.00	-60.90	10.70	-62.18	3.61	V	-55.09	-25.00	1	36
	7 510.50	-59.88	11.10	-52.81	4.50	V	-46.21	-25.00		
	10 014.00	-63.42	11.20	-54.81	5.27	V	-48.88	-25.00		
	12 517.50	-64.21	12.10	-54.58	6.04	V	-48.52	-25.00		
	15 021.00	-59.84	13.80	-53.36	6.65	V	-46.21	-25.00		
518598 (2592.990)	5 185.98	-62.24	11.00	-63.74	3.70	V	-56.44	-25.00	1	36
	7 778.97	-61.01	10.90	-53.63	4.61	V	-47.34	-25.00		
	10 371.96	-64.78	11.20	-54.08	5.41	V	-48.29	-25.00		
	12 964.95	-63.31	12.00	-53.38	6.11	V	-47.49	-25.00		
	15 557.94	-61.50	15.40	-56.17	6.77	V	-47.54	-25.00		
536496 (2682.480)	5 364.96	-61.66	11.50	-63.95	3.75	V	-56.20	-25.00	1	1
	8 047.44	-63.61	10.85	-56.43	4.69	V	-50.27	-25.00		
	10 729.92	-63.33	11.10	-52.10	5.47	V	-46.47	-25.00		
	13 412.40	-62.89	11.80	-52.22	6.21	V	-46.63	-25.00		
	16 094.88	-63.44	15.60	-53.98	6.91	V	-45.29	-25.00		

▣ NR Band: N41

▣ Bandwidth: 20 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
501204 (2506.020)	5 012.04	-60.61	10.70	-61.82	3.59	H	-54.71	-25.00	1	25
	7 518.06	-57.29	11.10	-50.18	4.51	V	-43.59	-25.00		
	10 024.08	-62.63	11.20	-53.81	5.27	H	-47.88	-25.00		
	12 530.10	-63.03	12.10	-53.21	6.01	H	-47.12	-25.00		
	15 036.12	-56.82	13.80	-50.58	6.65	H	-43.43	-25.00		
518598 (2592.990)	5 185.98	-61.75	11.00	-63.25	3.70	H	-55.95	-25.00	1	49
	7 778.97	-61.10	10.90	-53.72	4.61	H	-47.43	-25.00		
	10 371.96	-65.01	11.20	-54.31	5.41	H	-48.52	-25.00		
	12 964.95	-63.28	12.00	-53.35	6.11	H	-47.46	-25.00		
	15 557.94	-62.33	15.40	-57.00	6.77	H	-48.37	-25.00		
535998 (2679.990)	5 359.98	-61.77	11.50	-63.83	3.76	H	-56.09	-25.00	1	1
	8 039.97	-61.16	10.80	-53.99	4.68	H	-47.87	-25.00		
	10 719.96	-65.65	11.10	-54.02	5.46	H	-48.38	-25.00		
	13 399.95	-63.34	11.80	-52.99	6.22	H	-47.41	-25.00		
	16 079.94	-63.87	15.50	-54.59	6.90	H	-45.99	-25.00		

▣ NR Band: N41

▣ Bandwidth: 30 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502200 (2511.000)	5 022.00	-60.82	10.70	-62.35	3.55	V	-55.20	-25.00	1	1
	7 533.00	-56.96	11.10	-49.48	4.50	H	-42.88	-25.00		
	10 044.00	-63.65	11.15	-54.80	5.27	V	-48.92	-25.00		
	12 555.00	-63.33	12.10	-54.02	6.00	V	-47.92	-25.00		
	15 066.00	-58.47	14.00	-52.86	6.65	V	-45.51	-25.00		
518598 (2592.990)	5 185.98	-61.73	11.00	-63.23	3.70	V	-55.93	-25.00	1	76
	7 778.97	-63.80	10.90	-56.42	4.61	V	-50.13	-25.00		
	10 371.96	-64.23	11.20	-53.53	5.41	V	-47.74	-25.00		
	12 964.95	-63.09	12.00	-53.16	6.11	V	-47.27	-25.00		
	15 557.94	-61.35	15.40	-56.02	6.77	V	-47.39	-25.00		
534996 (2674.980)	5 349.96	-63.77	11.50	-65.42	3.75	V	-57.67	-25.00	1	1
	8 024.94	-63.14	10.80	-56.43	4.62	V	-50.25	-25.00		
	10 699.92	-64.93	11.10	-53.25	5.48	V	-47.63	-25.00		
	13 374.90	-63.64	11.90	-53.58	6.23	V	-47.91	-25.00		
	16 049.88	-64.08	15.50	-55.23	6.90	V	-46.63	-25.00		

▣ NR Band: N41

▣ Bandwidth: 40 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
503202 (2516.010)	5 032.02	-62.52	10.70	-64.62	3.56	V	-57.48	-25.00	1	104
	7 548.03	-55.07	11.10	-47.73	4.50	V	-41.13	-25.00		
	10 064.04	-64.31	11.10	-55.50	5.28	V	-49.68	-25.00		
	12 580.05	-64.30	12.10	-54.67	6.06	V	-48.63	-25.00		
	15 096.06	-59.61	14.05	-54.28	6.67	V	-46.90	-25.00		
518598 (2592.990)	5 185.98	-61.71	11.00	-63.21	3.70	V	-55.91	-25.00	1	104
	7 778.97	-63.68	10.90	-56.30	4.61	V	-50.01	-25.00		
	10 371.96	-63.73	11.20	-53.03	5.41	V	-47.24	-25.00		
	12 964.95	-62.32	12.00	-52.39	6.11	V	-46.50	-25.00		
	15 557.94	-60.12	15.40	-54.79	6.77	V	-46.16	-25.00		
534000 (2670.000)	5 340.00	-60.43	11.40	-62.13	3.75	V	-54.48	-25.00	1	1
	8 010.00	-63.35	10.80	-56.28	4.62	V	-50.10	-25.00		
	10 680.00	-63.54	11.10	-52.08	5.46	V	-46.44	-25.00		
	13 350.00	-63.13	11.90	-53.08	6.21	V	-47.39	-25.00		
	16 020.00	-59.59	15.20	-51.24	6.68	V	-42.72	-25.00		

▣ NR Band: N41

▣ Bandwidth: 50 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
504204 (2521.020)	5 042.04	-62.82	10.70	-64.79	3.60	V	-57.69	-25.00	1	131
	7 563.06	-57.67	11.10	-50.85	4.52	V	-44.27	-25.00		
	10 084.08	-62.98	11.10	-53.76	5.30	V	-47.96	-25.00		
	12 605.10	-64.22	12.00	-54.72	6.05	V	-48.77	-25.00		
	15 126.12	-60.05	14.10	-54.09	6.67	V	-46.66	-25.00		
518598 (2592.990)	5 185.98	-62.28	11.00	-63.78	3.70	V	-56.48	-25.00	1	131
	7 778.97	-65.68	10.90	-58.30	4.61	V	-52.01	-25.00		
	10 371.96	-62.54	11.20	-51.84	5.41	V	-46.05	-25.00		
	12 964.95	-63.53	12.00	-53.60	6.11	V	-47.71	-25.00		
	15 557.94	-60.20	15.40	-54.87	6.77	V	-46.24	-25.00		
532998 (2664.990)	5 329.98	-61.14	11.40	-63.11	3.71	V	-55.42	-25.00	1	1
	7 994.97	-64.05	10.75	-56.64	4.66	V	-50.55	-25.00		
	10 659.96	-61.34	11.10	-49.18	5.49	V	-43.57	-25.00		
	13 324.95	-62.50	12.00	-51.79	6.19	V	-45.98	-25.00		
	15 989.94	-58.00	15.10	-50.18	6.88	V	-41.96	-25.00		

▣ NR Band: N41

▣ Bandwidth: 60 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
505200 (2526.000)	5 052.00	-61.53	10.70	-63.18	3.63	V	-56.11	-25.00	1	81
	7 578.00	-57.31	11.10	-50.52	4.54	H	-43.96	-25.00		
	10 104.00	-63.65	11.10	-54.81	5.29	V	-49.00	-25.00		
	12 630.00	-63.40	12.00	-54.17	6.02	V	-48.19	-25.00		
	15 156.00	-58.68	14.20	-53.19	6.67	V	-45.66	-25.00		
518598 (2592.990)	5 185.98	-58.40	11.00	-59.90	3.70	V	-52.60	-25.00	1	160
	7 778.97	-61.51	10.90	-54.13	4.61	V	-47.84	-25.00		
	10 371.96	-64.12	11.20	-53.42	5.41	V	-47.63	-25.00		
	12 964.95	-64.31	12.00	-54.38	6.11	V	-48.49	-25.00		
	15 557.94	-61.81	15.40	-56.48	6.77	V	-47.85	-25.00		
531996 (2659.980)	5 319.96	-62.90	11.40	-65.64	3.66	V	-57.90	-25.00	1	1
	7 979.94	-62.83	10.70	-55.58	4.67	V	-49.55	-25.00		
	10 639.92	-64.79	11.20	-53.36	5.49	V	-47.65	-25.00		
	13 299.90	-63.55	12.00	-53.40	6.19	V	-47.59	-25.00		
	15 959.88	-64.56	15.10	-55.90	6.87	V	-47.67	-25.00		

▣ NR Band: N41

▣ Bandwidth: 70 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
506202 (2531.010)	5 062.02	-61.17	10.70	-62.15	3.65	V	-55.10	-25.00	1	94
	7 593.03	-57.56	11.15	-50.52	4.53	V	-43.90	-25.00		
	10 124.04	-64.06	11.10	-55.18	5.30	V	-49.38	-25.00		
	12 655.05	-63.89	11.90	-54.38	6.03	V	-48.51	-25.00		
	15 186.06	-60.01	14.20	-54.76	6.67	V	-47.23	-25.00		
518598 (2592.990)	5 185.98	-62.56	11.00	-64.06	3.70	V	-56.76	-25.00	1	187
	7 778.97	-63.82	10.90	-56.44	4.61	V	-50.15	-25.00		
	10 371.96	-63.62	11.20	-52.92	5.41	V	-47.13	-25.00		
	12 964.95	-62.85	12.00	-52.92	6.11	V	-47.03	-25.00		
	15 557.94	-61.47	15.40	-56.14	6.77	V	-47.51	-25.00		
531000 (2655.000)	5 310.00	-62.50	11.40	-64.74	3.65	V	-56.99	-25.00	1	1
	7 965.00	-63.94	10.70	-56.77	4.65	V	-50.72	-25.00		
	10 620.00	-63.92	11.20	-53.23	5.41	V	-47.44	-25.00		
	13 275.00	-64.31	12.10	-53.98	6.22	V	-48.10	-25.00		
	15 930.00	-63.84	15.00	-55.57	6.88	V	-47.45	-25.00		

▣ NR Band: N41

▣ Bandwidth: 80 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
507204 (2536.020)	5 072.04	-62.69	10.70	-63.97	3.62	V	-56.89	-25.00	1	108
	7 608.06	-56.25	11.20	-49.24	4.52	V	-42.56	-25.00		
	10 144.08	-64.38	11.05	-54.91	5.32	V	-49.18	-25.00		
	12 680.10	-62.61	11.90	-52.40	6.06	V	-46.56	-25.00		
	15 216.12	-60.83	14.40	-55.87	6.69	V	-48.16	-25.00		
518598 (2592.990)	5 185.98	-62.71	11.00	-64.21	3.70	V	-56.91	-25.00	1	108
	7 778.97	-64.04	10.90	-56.66	4.61	V	-50.37	-25.00		
	10 371.96	-65.63	11.20	-54.93	5.41	V	-49.14	-25.00		
	12 964.95	-64.67	12.00	-54.74	6.11	V	-48.85	-25.00		
	15 557.94	-61.68	15.40	-56.35	6.77	V	-47.72	-25.00		
529998 (2649.990)	5 299.98	-63.06	11.40	-65.17	3.69	V	-57.46	-25.00	1	1
	7 949.97	-63.68	10.70	-56.37	4.64	V	-50.31	-25.00		
	10 599.96	-64.87	11.20	-53.68	5.41	V	-47.89	-25.00		
	13 249.95	-64.92	12.10	-54.86	6.18	V	-48.94	-25.00		
	15 899.94	-63.06	15.00	-55.23	6.87	V	-47.10	-25.00		

▣ NR Band: N41

▣ Bandwidth: 90 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
508200 (2541.000)	5 082.00	-61.50	10.70	-63.14	3.61	V	-56.05	-25.00	1	122
	7 623.00	-57.58	11.20	-51.18	4.52	V	-44.50	-25.00		
	10 164.00	-63.23	11.00	-54.15	5.33	V	-48.48	-25.00		
	12 705.00	-63.10	11.90	-52.58	6.06	V	-46.74	-25.00		
	15 246.00	-60.99	14.50	-55.11	6.73	V	-47.34	-25.00		
518598 (2592.990)	5 185.98	-60.66	11.00	-62.16	3.70	V	-54.86	-25.00	1	122
	7 778.97	-60.58	10.90	-53.20	4.61	H	-46.91	-25.00		
	10 371.96	-65.20	11.20	-54.50	5.41	V	-48.71	-25.00		
	12 964.95	-63.88	12.00	-53.95	6.11	V	-48.06	-25.00		
	15 557.94	-62.25	15.40	-56.92	6.77	V	-48.29	-25.00		
528996 (2644.980)	5 289.96	-62.83	11.30	-64.30	3.73	V	-56.73	-25.00	1	1
	7 934.94	-63.57	10.70	-56.22	4.64	V	-50.16	-25.00		
	10 579.92	-65.14	11.20	-54.69	5.46	V	-48.95	-25.00		
	13 224.90	-63.39	12.10	-53.36	6.16	V	-47.42	-25.00		
	15 869.88	-62.57	14.90	-55.82	6.85	V	-47.77	-25.00		

▣ NR Band: N41

▣ Bandwidth: 100 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
509202 (2546.010)	5 092.02	-62.76	10.70	-64.91	3.64	V	-57.85	-25.00	1	271
	7 638.03	-59.65	11.20	-53.26	4.53	H	-46.59	-25.00		
	10 184.04	-63.69	11.00	-54.23	5.33	V	-48.56	-25.00		
	12 730.05	-64.85	11.90	-54.40	6.02	V	-48.52	-25.00		
	15 276.06	-60.49	14.60	-54.62	6.71	V	-46.73	-25.00		
518598 (2592.990)	5 185.98	-61.55	11.00	-63.05	3.70	V	-55.75	-25.00	1	136
	7 778.97	-64.09	10.90	-56.71	4.61	V	-50.42	-25.00		
	10 371.96	-64.91	11.20	-54.21	5.41	V	-48.42	-25.00		
	12 964.95	-65.19	12.00	-55.26	6.11	V	-49.37	-25.00		
	15 557.94	-63.57	15.40	-58.24	6.77	V	-49.61	-25.00		
528000 (2640.000)	5 280.00	-63.24	11.30	-65.15	3.75	V	-57.60	-25.00	1	1
	7 920.00	-64.51	10.70	-57.33	4.63	V	-51.26	-25.00		
	10 560.00	-65.36	11.20	-55.45	5.45	V	-49.70	-25.00		
	13 200.00	-63.34	12.10	-52.90	6.19	V	-46.99	-25.00		
	15 840.00	-63.03	14.90	-55.92	6.84	V	-47.86	-25.00		

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	4.36
			QPSK			5.52
			16-QAM			6.37
			64-QAM			6.61
			256-QAM			6.48
	15 MHz		BPSK	36		4.57
			QPSK			5.64
			16-QAM			6.38
			64-QAM			6.68
			256-QAM			6.59
	20 MHz		BPSK	50		4.52
			QPSK			5.60
			16-QAM			6.39
			64-QAM			6.65
			256-QAM			6.87
	30 MHz		BPSK	75		4.33
			QPSK			5.50
			16-QAM			6.32
			64-QAM			6.63
			256-QAM			6.70
	40 MHz		BPSK	100		4.74
			QPSK			5.50
			16-QAM			6.39
			64-QAM			6.55
			256-QAM			6.66
	50 MHz		BPSK	128		4.65
			QPSK			5.50
			16-QAM			6.43
			64-QAM			6.58
			256-QAM			6.61
	60 MHz		BPSK	162		4.48
			QPSK			5.72
			16-QAM			6.47
			64-QAM			6.68
			256-QAM			6.62
	70 MHz		BPSK	180		5.47
			QPSK			5.93
			16-QAM			6.41
			64-QAM			6.52
			256-QAM			6.66
	80 MHz		BPSK	216		4.43
			QPSK			5.59
			16-QAM			6.59
			64-QAM			6.60
			256-QAM			6.61
	90 MHz		BPSK	243		4.47
			QPSK			5.62
			16-QAM			6.36
			64-QAM			6.53
			256-QAM			6.62
	100 MHz		BPSK	270		4.41
			QPSK			5.60
			16-QAM			6.36
			64-QAM			6.53
			256-QAM			6.54

Note:
1. Plots of the EUT's Peak- to- Average Ratio are shown Page 163 ~ 217.

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	8.6688
			QPSK			8.6992
			16-QAM			8.7000
			64-QAM			8.6509
			256-QAM			8.6616
	15 MHz		BPSK	36		12.992
			QPSK			12.972
			16-QAM			12.949
			64-QAM			13.000
			256-QAM			12.982
	20 MHz		BPSK	50		17.947
			QPSK			17.984
			16-QAM			17.889
			64-QAM			17.979
			256-QAM			17.986
	30 MHz		BPSK	75		26.995
			QPSK			26.927
			16-QAM			26.946
			64-QAM			26.896
			256-QAM			27.036
	40 MHz		BPSK	100		35.878
			QPSK			35.938
			16-QAM			35.954
			64-QAM			35.897
			256-QAM			35.864
	50 MHz		BPSK	128		45.922
			QPSK			45.880
			16-QAM			45.992
			64-QAM			45.815
			256-QAM			45.924
	60 MHz		BPSK	162		57.975
			QPSK			58.014
			16-QAM			58.051
			64-QAM			58.112
			256-QAM			57.923
	70 MHz		BPSK	180		64.689
			QPSK			64.470
			16-QAM			64.498
			64-QAM			64.469
			256-QAM			64.251
	80 MHz		BPSK	216		77.253
			QPSK			77.377
			16-QAM			77.264
			64-QAM			77.206
			256-QAM			77.130
	90 MHz		BPSK	243		87.014
			QPSK			86.737
			16-QAM			87.183
			64-QAM			86.722
			256-QAM			86.926
	100 MHz		BPSK	270		96.892
			QPSK			96.694
			16-QAM			96.680
			64-QAM			96.650
			256-QAM			96.835

Note:
1. Plots of the EUT's Occupied Bandwidth are shown Page 108 ~ 162.

8.5 CONDUCTED SPURIOUS EMISSIONS

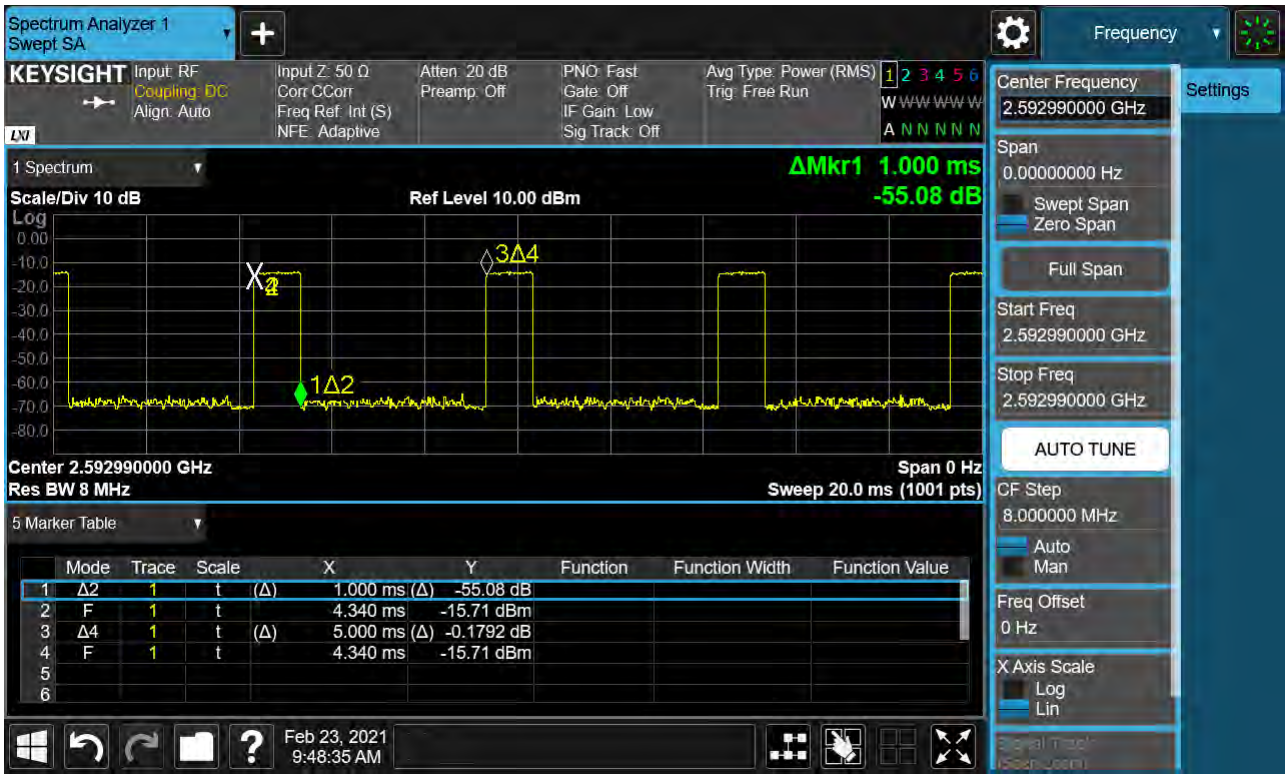
Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n41	10	2501.010	4.0075	37.190	-70.956	-33.766	-25.00
		2592.990	9.7183	37.805	-70.862	-33.057	
		2685.000	8.2787	37.805	-70.531	-32.726	
	15	2503.500	5.2024	37.805	-70.911	-33.106	
		2592.990	9.9995	37.805	-71.054	-33.249	
		2682.480	4.0723	37.190	-70.885	-33.695	
	20	2506.020	8.2647	37.805	-70.370	-32.565	
		2592.990	9.7258	37.805	-70.016	-32.211	
		2679.990	9.9606	37.805	-70.726	-32.921	
	30	2511.000	4.0145	37.190	-70.726	-33.536	
		2592.990	8.2533	37.805	-70.886	-33.081	
		2674.980	3.7927	37.190	-69.589	-32.399	
	40	2516.010	9.2014	37.805	-70.863	-33.058	
		2592.990	9.1017	37.805	-70.759	-32.954	
		2670.000	4.9377	37.190	-70.207	-33.017	
	50	2521.020	3.7992	37.190	-70.808	-33.618	
		2592.990	9.6441	37.805	-69.782	-31.977	
		2664.990	8.8445	37.805	-71.198	-33.393	
	60	2526.000	8.2393	37.805	-71.643	-33.838	
		2592.990	9.7124	37.805	-70.553	-32.748	
		2659.980	4.0659	37.190	-70.702	-33.512	
	70	2531.010	9.9556	37.805	-70.402	-32.597	
		2592.990	8.6062	37.805	-72.275	-34.470	
		2655.000	3.7782	37.190	-70.966	-33.776	
	80	2536.020	8.8564	37.805	-69.825	-32.020	
		2592.990	5.9821	37.805	-70.023	-32.218	
		2649.990	9.9631	37.805	-70.782	-32.977	
	90	2541.000	8.0339	37.805	-70.401	-32.596	
		2592.990	9.7333	37.805	-71.231	-33.426	
		2644.980	9.1735	37.805	-70.758	-32.953	
	100	2546.010	8.8839	37.805	-70.860	-33.055	
		2592.990	9.7223	37.805	-71.157	-33.352	
		2640.000	9.1675	37.805	-70.631	-32.826	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 295 ~ 360.

2. Duty Cycle factor already applied on the factor.

- Duty Cycle Factor(dB) = 6.99



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

- Result(dBm) = Reading + Factor

3. Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	34.484
1 – 5	37.190
5 – 10	37.805
10 – 15	38.330
15 – 20	38.703
Above 20	39.345

8.6 CHANNEL EDGE

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +1MHz)	2 490.5 MHz ~ 2 495 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Upper
10	2501.010	BPSK	Full RB	-24.55	-22.47	-26.96	-24.93	-28.33	-21.41	-31.34
15	2503.500	BPSK	Full RB	-25.07	-27.98	-27.44	-26.44	-30.34	-24.68	-34.48
20	2506.020	BPSK	Full RB	-24.50	-24.86	-27.52	-25.70	-30.33	-25.46	-34.32
30	2511.000	BPSK	Full RB	-27.99	-31.38	-31.93	-28.98	-31.82	-30.23	-37.06
40	2520.000	BPSK	Full RB	-28.14	-31.04	-32.81	-31.41	-35.96	-31.56	-36.29
50	2525.010	BPSK	Full RB	-26.53	-30.38	-31.80	-29.76	-30.85	-30.26	-37.86
60	2530.020	BPSK	Full RB	-20.14	-20.47	-27.49	-28.94	-27.62	-27.86	-43.32
70	2531.010	BPSK	Full RB	-26.56	-28.83	-31.65	-32.56	-33.63	-32.53	-45.49
80	2540.010	BPSK	Full RB	-27.18	-28.10	-31.77	-31.70	-30.78	-34.96	-43.56
90	2545.020	BPSK	Full RB	-25.21	-34.19	-32.14	-31.37	-35.79	-35.06	-41.48
100	2550.000	BPSK	Full RB	-23.42	-29.40	-32.62	-32.33	-36.51	-32.18	-42.36
Limit				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resoure Block Offset	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-25.34	-26.40	-30.74	-30.05
	2685.000	BPSK	Full RB	0	-23.65	-22.85	-26.25	-25.90
15 MHz	2592.990	BPSK	Full RB	0	-24.38	-33.55	-30.15	-30.59
	2682.480	BPSK	Full RB	0	-23.10	-32.52	-29.38	-31.52
20 MHz	2592.990	BPSK	Full RB	0	-27.06	-32.00	-32.98	-34.13
	2679.990	BPSK	Full RB	0	-24.52	-27.86	-27.94	-27.69
30 MHz	2592.990	BPSK	Full RB	0	-28.07	-33.24	-34.01	-35.72
	2679.990	BPSK	Full RB	0	-27.11	-33.27	-31.58	-33.21
40 MHz	2592.990	BPSK	Full RB	0	-26.85	-43.60	-40.02	-43.31
	2670.000	BPSK	Full RB	0	-27.27	-33.86	-30.87	-32.12
50 MHz	2592.990	BPSK	Full RB	0	-27.72	-42.69	-41.41	-43.99
	2664.990	BPSK	Full RB	0	-26.60	-32.73	-35.03	-31.92
60 MHz	2592.990	BPSK	Full RB	0	-19.42	-22.26	-32.61	-31.26
	2659.980	BPSK	Full RB	0	-20.15	-21.86	-34.94	-33.45
70 MHz	2592.990	BPSK	Full RB	0	-27.07	-33.90	-37.75	-34.96
	2655.000	BPSK	Full RB	0	-26.46	-28.64	-30.47	-32.34
80 MHz	2592.990	BPSK	Full RB	0	-25.29	-28.62	-33.95	-32.86
	2649.990	BPSK	Full RB	0	-23.05	-34.29	-30.72	-30.30
90 MHz	2592.990	BPSK	Full RB	0	-25.46	-27.79	-33.10	-31.80
	2644.980	BPSK	Full RB	0	-24.77	-27.64	-31.98	-31.60
100 MHz	2592.990	BPSK	Full RB	0	-23.77	-28.22	-32.89	-32.94
	2640.000	BPSK	Full RB	0	-22.72	-35.68	-37.51	-35.00
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	-34.13	-37.28	-42.70	-41.64
	2685.000	BPSK	Full RB	0	-25.28	-25.95	-35.73	-36.56
15 MHz	2592.990	BPSK	Full RB	0	-37.40	-31.81	-43.49	-43.76
	2682.480	BPSK	Full RB	0	-29.03	-29.24	-34.58	-34.13
20 MHz	2592.990	BPSK	Full RB	0	-39.12	-34.78	-43.15	-42.09
	2679.990	BPSK	Full RB	0	-29.88	-31.14	-35.32	-35.89
30 MHz	2592.990	BPSK	Full RB	0	-35.94	-36.29	-46.02	-45.36
	2679.990	BPSK	Full RB	0	-32.63	-31.92	-36.96	-43.11
40 MHz	2592.990	BPSK	Full RB	0	-38.73	-41.91	-44.72	-44.08
	2670.000	BPSK	Full RB	0	-29.65	-31.53	-34.24	-40.88
50 MHz	2592.990	BPSK	Full RB	0	-39.52	-41.31	-44.57	-43.78
	2664.990	BPSK	Full RB	0	-33.73	-32.44	-36.96	-47.73
60 MHz	2592.990	BPSK	Full RB	0	-36.57	-34.85	-45.69	-44.34
	2659.980	BPSK	Full RB	0	-32.46	-30.21	-41.72	-48.00
70 MHz	2592.990	BPSK	Full RB	0	-36.66	-34.15	-42.27	-40.15
	2655.000	BPSK	Full RB	0	-33.13	-32.17	-44.88	-47.56
80 MHz	2592.990	BPSK	Full RB	0	-37.81	-30.52	-47.35	-46.04
	2649.990	BPSK	Full RB	0	-33.69	-30.61	-44.82	-47.62
90 MHz	2592.990	BPSK	Full RB	0	-31.93	-31.38	-48.21	-47.44
	2644.980	BPSK	Full RB	0	-30.11	-37.37	-44.40	-47.75
100 MHz	2592.990	BPSK	Full RB	0	-34.85	-30.63	-48.20	-47.64
	2640.000	BPSK	Full RB	0	-36.86	-34.73	-43.27	-47.76
Limit					-13.0		-25.0	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth
3. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 6.99
4. Plots of the EUT's Channel Edge are shown Page 218 ~ 294. (1RB & Full RB)

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 10 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 010 002	0.0	0.000 000	0.000
	100 %	-30	2501 009 996	-6.8	0.000 000	-0.003
	100 %	-20	2501 009 989	-13.3	-0.000 001	-0.005
	100 %	-10	2501 010 002	-0.8	0.000 000	0.000
	100 %	0	2501 009 998	-4.4	0.000 000	-0.002
	100 %	+10	2501 009 996	-6.7	0.000 000	-0.003
	100 %	+30	2501 010 000	-2.1	0.000 000	-0.001
	100 %	+40	2501 010 000	-2.3	0.000 000	-0.001
	100 %	+50	2501 009 997	-5.8	0.000 000	-0.002
	Batt. Endpoint	+20	2501 009 994	-8.6	0.000 000	-0.003
2685.000	100 %	+20(Ref)	2684 999 996	0.0	0.000 000	0.000
	100 %	-30	2684 999 988	-7.6	0.000 000	-0.003
	100 %	-20	2684 999 992	-3.4	0.000 000	-0.001
	100 %	-10	2684 999 986	-10.0	0.000 000	-0.004
	100 %	0	2684 999 994	-1.7	0.000 000	-0.001
	100 %	+10	2684 999 992	-3.7	0.000 000	-0.001
	100 %	+30	2684 999 983	-12.3	0.000 000	-0.005
	100 %	+40	2684 999 990	-5.6	0.000 000	-0.002
	100 %	+50	2684 999 984	-12.0	0.000 000	-0.004
	Batt. Endpoint	+20	2684 999 990	-5.3	0.000 000	-0.002

▣ BandWidth: 15 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 499 998	0.0	0.000 000	0.000
	100 %	-30	2503 499 997	-0.9	0.000 000	0.000
	100 %	-20	2503 499 993	-4.6	0.000 000	-0.002
	100 %	-10	2503 499 997	-0.9	0.000 000	0.000
	100 %	0	2503 500 001	3.1	0.000 000	0.001
	100 %	+10	2503 499 993	-4.2	0.000 000	-0.002
	100 %	+30	2503 499 997	-0.6	0.000 000	0.000
	100 %	+40	2503 500 000	2.9	0.000 000	0.001
	100 %	+50	2503 499 996	-1.9	0.000 000	-0.001
	Batt. Endpoint	+20	2503 499 995	-2.9	0.000 000	-0.001
2682.480	100 %	+20(Ref)	2682 480 000	0.0	0.000 000	0.000
	100 %	-30	2682 479 993	-6.8	0.000 000	-0.003
	100 %	-20	2682 479 999	-0.5	0.000 000	0.000
	100 %	-10	2682 479 995	-4.9	0.000 000	-0.002
	100 %	0	2682 480 000	-0.2	0.000 000	0.000
	100 %	+10	2682 480 002	1.8	0.000 000	0.001
	100 %	+30	2682 479 997	-3.1	0.000 000	-0.001
	100 %	+40	2682 479 987	-13.4	0.000 000	-0.005
	100 %	+50	2682 479 997	-2.5	0.000 000	-0.001
	Batt. Endpoint	+20	2682 480 001	0.6	0.000 000	0.000

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 019 996	0.0	0.000 000	0.000
	100 %	-30	2506 019 993	-3.3	0.000 000	-0.001
	100 %	-20	2506 019 992	-3.6	0.000 000	-0.001
	100 %	-10	2506 019 990	-5.5	0.000 000	-0.002
	100 %	0	2506 019 990	-5.9	0.000 000	-0.002
	100 %	+10	2506 019 996	0.3	0.000 000	0.000
	100 %	+30	2506 019 988	-7.5	0.000 000	-0.003
	100 %	+40	2506 019 988	-8.2	0.000 000	-0.003
	100 %	+50	2506 019 991	-5.1	0.000 000	-0.002
	Batt. Endpoint	+20	2506 019 990	-6.2	0.000 000	-0.002
2679.990	100 %	+20(Ref)	2679 989 996	0.0	0.000 000	0.000
	100 %	-30	2679 989 999	3.1	0.000 000	0.001
	100 %	-20	2679 989 987	-9.1	0.000 000	-0.003
	100 %	-10	2679 989 989	-6.3	0.000 000	-0.002
	100 %	0	2679 989 982	-13.2	0.000 000	-0.005
	100 %	+10	2679 989 988	-7.3	0.000 000	-0.003
	100 %	+30	2679 989 991	-4.5	0.000 000	-0.002
	100 %	+40	2679 989 990	-5.5	0.000 000	-0.002
	100 %	+50	2679 990 000	4.1	0.000 000	0.002
	Batt. Endpoint	+20	2679 989 996	0.5	0.000 000	0.000

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2511.000	100 %	+20(Ref)	2510 999 992	0.0	0.000 000	0.000
	100 %	-30	2510 999 987	-5.4	0.000 000	-0.002
	100 %	-20	2510 999 986	-6.5	0.000 000	-0.003
	100 %	-10	2510 999 986	-6.6	0.000 000	-0.003
	100 %	0	2510 999 985	-7.6	0.000 000	-0.003
	100 %	+10	2510 999 987	-4.9	0.000 000	-0.002
	100 %	+30	2510 999 987	-5.1	0.000 000	-0.002
	100 %	+40	2510 999 989	-3.5	0.000 000	-0.001
	100 %	+50	2510 999 984	-8.1	0.000 000	-0.003
	Batt. Endpoint	+20	2510 999 989	-2.9	0.000 000	-0.001
2674.980	100 %	+20(Ref)	2674 979 994	0.0	0.000 000	0.000
	100 %	-30	2674 979 985	-9.3	0.000 000	-0.003
	100 %	-20	2674 979 985	-8.6	0.000 000	-0.003
	100 %	-10	2674 979 990	-3.5	0.000 000	-0.001
	100 %	0	2674 979 998	3.5	0.000 000	0.001
	100 %	+10	2674 979 993	-1.4	0.000 000	-0.001
	100 %	+30	2674 979 991	-3.3	0.000 000	-0.001
	100 %	+40	2674 979 985	-8.8	0.000 000	-0.003
	100 %	+50	2674 979 992	-2.1	0.000 000	-0.001
	Batt. Endpoint	+20	2674 979 990	-3.5	0.000 000	-0.001

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 009 994	0.0	0.000 000	0.000
	100 %	-30	2516 009 992	-1.1	0.000 000	0.000
	100 %	-20	2516 009 987	-6.3	0.000 000	-0.003
	100 %	-10	2516 009 989	-4.4	0.000 000	-0.002
	100 %	0	2516 009 993	-0.2	0.000 000	0.000
	100 %	+10	2516 009 988	-5.2	0.000 000	-0.002
	100 %	+30	2516 009 986	-7.1	0.000 000	-0.003
	100 %	+40	2516 009 992	-1.3	0.000 000	-0.001
	100 %	+50	2516 009 995	1.7	0.000 000	0.001
	Batt. Endpoint	+20	2516 009 980	-13.9	-0.000 001	-0.006
2670.000	100 %	+20(Ref)	2669 999 996	0.0	0.000 000	0.000
	100 %	-30	2669 999 989	-6.8	0.000 000	-0.003
	100 %	-20	2669 999 996	0.2	0.000 000	0.000
	100 %	-10	2669 999 988	-7.6	0.000 000	-0.003
	100 %	0	2669 999 987	-8.9	0.000 000	-0.003
	100 %	+10	2669 999 993	-3.2	0.000 000	-0.001
	100 %	+30	2669 999 988	-7.6	0.000 000	-0.003
	100 %	+40	2669 999 987	-9.4	0.000 000	-0.004
	100 %	+50	2669 999 988	-7.8	0.000 000	-0.003
	Batt. Endpoint	+20	2669 999 993	-3.1	0.000 000	-0.001

▣ BandWidth: 50 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 020 001	0.0	0.000 000	0.000
	100 %	-30	2521 019 996	-5.5	0.000 000	-0.002
	100 %	-20	2521 019 997	-4.7	0.000 000	-0.002
	100 %	-10	2521 019 999	-2.2	0.000 000	-0.001
	100 %	0	2521 020 001	-0.1	0.000 000	0.000
	100 %	+10	2521 019 995	-6.7	0.000 000	-0.003
	100 %	+30	2521 019 998	-3.3	0.000 000	-0.001
	100 %	+40	2521 020 000	-0.9	0.000 000	0.000
	100 %	+50	2521 019 998	-3.3	0.000 000	-0.001
	Batt. Endpoint	+20	2521 019 996	-5.1	0.000 000	-0.002
2664.990	100 %	+20(Ref)	2664 989 989	0.0	0.000 000	0.000
	100 %	-30	2664 989 984	-4.9	0.000 000	-0.002
	100 %	-20	2664 989 983	-6.1	0.000 000	-0.002
	100 %	-10	2664 989 983	-5.7	0.000 000	-0.002
	100 %	0	2664 989 983	-6.1	0.000 000	-0.002
	100 %	+10	2664 989 986	-3.4	0.000 000	-0.001
	100 %	+30	2664 989 987	-2.5	0.000 000	-0.001
	100 %	+40	2664 989 981	-8.2	0.000 000	-0.003
	100 %	+50	2664 989 981	-8.2	0.000 000	-0.003
	Batt. Endpoint	+20	2664 989 988	-1.3	0.000 000	0.000

▣ BandWidth: 60 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2526.000	100 %	+20(Ref)	2525 999 998	0.0	0.000 000	0.000
	100 %	-30	2525 999 991	-7.2	0.000 000	-0.003
	100 %	-20	2525 999 994	-4.0	0.000 000	-0.002
	100 %	-10	2525 999 994	-4.0	0.000 000	-0.002
	100 %	0	2525 999 992	-5.9	0.000 000	-0.002
	100 %	+10	2525 999 989	-8.7	0.000 000	-0.003
	100 %	+30	2525 999 991	-6.7	0.000 000	-0.003
	100 %	+40	2525 999 989	-8.4	0.000 000	-0.003
	100 %	+50	2525 999 988	-9.7	0.000 000	-0.004
	Batt. Endpoint	+20	2525 999 991	-6.9	0.000 000	-0.003
2659.980	100 %	+20(Ref)	2659 979 994	0.0	0.000 000	0.000
	100 %	-30	2659 979 990	-4.1	0.000 000	-0.002
	100 %	-20	2659 979 989	-4.5	0.000 000	-0.002
	100 %	-10	2659 979 987	-6.4	0.000 000	-0.002
	100 %	0	2659 979 984	-10.4	0.000 000	-0.004
	100 %	+10	2659 979 991	-2.9	0.000 000	-0.001
	100 %	+30	2659 979 990	-3.5	0.000 000	-0.001
	100 %	+40	2659 979 996	2.2	0.000 000	0.001
	100 %	+50	2659 979 990	-4.2	0.000 000	-0.002
	Batt. Endpoint	+20	2659 979 989	-4.7	0.000 000	-0.002

▣ BandWidth: 70 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2531.010	100 %	+20(Ref)	2531 009 990	0.0	0.000 000	0.000
	100 %	-30	2531 009 978	-11.7	0.000 000	-0.005
	100 %	-20	2531 009 984	-5.4	0.000 000	-0.002
	100 %	-10	2531 009 978	-12.0	0.000 000	-0.005
	100 %	0	2531 009 985	-4.9	0.000 000	-0.002
	100 %	+10	2531 009 985	-5.0	0.000 000	-0.002
	100 %	+30	2531 009 981	-8.2	0.000 000	-0.003
	100 %	+40	2531 009 978	-11.9	0.000 000	-0.005
	100 %	+50	2531 009 989	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	2531 009 982	-8.0	0.000 000	-0.003
2655.000	100 %	+20(Ref)	2654 999 990	0.0	0.000 000	0.000
	100 %	-30	2654 999 980	-9.9	0.000 000	-0.004
	100 %	-20	2654 999 983	-7.2	0.000 000	-0.003
	100 %	-10	2654 999 982	-8.3	0.000 000	-0.003
	100 %	0	2654 999 981	-9.2	0.000 000	-0.003
	100 %	+10	2654 999 985	-5.3	0.000 000	-0.002
	100 %	+30	2654 999 982	-8.4	0.000 000	-0.003
	100 %	+40	2654 999 983	-7.4	0.000 000	-0.003
	100 %	+50	2654 999 983	-7.2	0.000 000	-0.003
	Batt. Endpoint	+20	2654 999 981	-9.4	0.000 000	-0.004

▣ BandWidth: 80 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 019 991	0.0	0.000 000	0.000
	100 %	-30	2536 019 987	-4.4	0.000 000	-0.002
	100 %	-20	2536 019 979	-11.6	0.000 000	-0.005
	100 %	-10	2536 019 982	-9.5	0.000 000	-0.004
	100 %	0	2536 019 985	-6.5	0.000 000	-0.003
	100 %	+10	2536 019 986	-5.5	0.000 000	-0.002
	100 %	+30	2536 019 990	-0.6	0.000 000	0.000
	100 %	+40	2536 019 982	-8.9	0.000 000	-0.004
	100 %	+50	2536 019 983	-7.5	0.000 000	-0.003
	Batt. Endpoint	+20	2536 019 987	-3.5	0.000 000	-0.001
2649.990	100 %	+20(Ref)	2649 989 988	0.0	0.000 000	0.000
	100 %	-30	2649 989 979	-8.5	0.000 000	-0.003
	100 %	-20	2649 989 977	-11.0	0.000 000	-0.004
	100 %	-10	2649 989 980	-7.8	0.000 000	-0.003
	100 %	0	2649 989 976	-12.0	0.000 000	-0.005
	100 %	+10	2649 989 982	-5.4	0.000 000	-0.002
	100 %	+30	2649 989 982	-5.4	0.000 000	-0.002
	100 %	+40	2649 989 976	-11.6	0.000 000	-0.004
	100 %	+50	2649 989 976	-12.3	0.000 000	-0.005
	Batt. Endpoint	+20	2649 989 980	-7.6	0.000 000	-0.003

▣ BandWidth: 90 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2541.000	100 %	+20(Ref)	2540 999 988	0.0	0.000 000	0.000
	100 %	-30	2540 999 976	-12.1	0.000 000	-0.005
	100 %	-20	2540 999 977	-11.1	0.000 000	-0.004
	100 %	-10	2540 999 975	-13.0	-0.000 001	-0.005
	100 %	0	2540 999 975	-13.0	-0.000 001	-0.005
	100 %	+10	2540 999 982	-6.3	0.000 000	-0.002
	100 %	+30	2540 999 985	-2.5	0.000 000	-0.001
	100 %	+40	2540 999 980	-7.8	0.000 000	-0.003
	100 %	+50	2540 999 977	-10.5	0.000 000	-0.004
	Batt. Endpoint	+20	2540 999 981	-7.2	0.000 000	-0.003
2644.980	100 %	+20(Ref)	2644 979 994	0.0	0.000 000	0.000
	100 %	-30	2644 979 984	-10.2	0.000 000	-0.004
	100 %	-20	2644 979 988	-5.7	0.000 000	-0.002
	100 %	-10	2644 979 989	-4.8	0.000 000	-0.002
	100 %	0	2644 979 978	-15.5	-0.000 001	-0.006
	100 %	+10	2644 979 989	-5.2	0.000 000	-0.002
	100 %	+30	2644 979 989	-4.6	0.000 000	-0.002
	100 %	+40	2644 979 989	-4.6	0.000 000	-0.002
	100 %	+50	2644 979 984	-10.3	0.000 000	-0.004
	Batt. Endpoint	+20	2644 979 986	-8.2	0.000 000	-0.003

▣ BandWidth: 100 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 009 996	0.0	0.000 000	0.000
	100 %	-30	2546 009 986	-10.3	0.000 000	-0.004
	100 %	-20	2546 009 985	-11.4	0.000 000	-0.004
	100 %	-10	2546 009 985	-11.4	0.000 000	-0.004
	100 %	0	2546 009 988	-7.7	0.000 000	-0.003
	100 %	+10	2546 009 986	-9.6	0.000 000	-0.004
	100 %	+30	2546 009 984	-12.0	0.000 000	-0.005
	100 %	+40	2546 009 986	-9.7	0.000 000	-0.004
	100 %	+50	2546 009 989	-7.2	0.000 000	-0.003
	Batt. Endpoint	+20	2546 009 988	-8.2	0.000 000	-0.003
2640.000	100 %	+20(Ref)	2639 999 991	0.0	0.000 000	0.000
	100 %	-30	2639 999 985	-6.1	0.000 000	-0.002
	100 %	-20	2639 999 991	0.2	0.000 000	0.000
	100 %	-10	2639 999 991	0.2	0.000 000	0.000
	100 %	0	2639 999 978	-12.7	0.000 000	-0.005
	100 %	+10	2639 999 989	-2.6	0.000 000	-0.001
	100 %	+30	2639 999 984	-7.5	0.000 000	-0.003
	100 %	+40	2639 999 986	-5.4	0.000 000	-0.002
	100 %	+50	2639 999 987	-4.4	0.000 000	-0.002
	Batt. Endpoint	+20	2639 999 990	-1.3	0.000 000	0.000

9. TEST DATA (Sub 2 Ant)

9.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2501.010	Sub6 41/ 10 MHz [30 kHz]	PI/2 BPSK	-22.82	13.82	10.30	2.47	H	< 2.00	0.146	21.65	1	12
		QPSK	-22.84	13.80	10.30	2.47	H		0.146	21.63		
		16-QAM	-23.74	12.90	10.30	2.47	H		0.118	20.73		
		64-QAM	-25.32	11.32	10.30	2.47	H		0.082	19.15		
		256-QAM	-27.38	9.26	10.30	2.47	H		0.051	17.09		
2592.990		PI/2 BPSK	-22.66	13.64	10.05	2.50	H		0.132	21.19	1	22
		QPSK	-22.65	13.65	10.05	2.50	H		0.132	21.20		
		16-QAM	-23.59	12.71	10.05	2.50	H		0.106	20.26		
		64-QAM	-25.21	11.09	10.05	2.50	H		0.073	18.64		
		256-QAM	-27.29	9.01	10.05	2.50	H		0.045	16.56		
2685.000		PI/2 BPSK	-24.14	13.32	10.10	2.58	H		0.121	20.84	1	12
		QPSK	-24.20	13.26	10.10	2.58	H		0.120	20.78		
		16-QAM	-25.24	12.22	10.10	2.58	H		0.094	19.74		
		64-QAM	-26.73	10.73	10.10	2.58	H		0.067	18.25		
		256-QAM	-28.84	8.62	10.10	2.58	H		0.041	16.14		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2503.500	Sub6 41/ 15 MHz [30 kHz]	PI/2 BPSK	-22.68	13.95	10.30	2.48	H	< 2.00	0.150	21.77	1	36
		QPSK	-22.70	13.93	10.30	2.48	H		0.150	21.75		
		16-QAM	-23.59	13.04	10.30	2.48	H		0.122	20.86		
		64-QAM	-25.15	11.48	10.30	2.48	H		0.085	19.30		
		256-QAM	-27.26	9.37	10.30	2.48	H		0.052	17.19		
2592.990		PI/2 BPSK	-22.40	13.90	10.05	2.50	H		0.140	21.45	1	36
		QPSK	-22.46	13.84	10.05	2.50	H		0.138	21.39		
		16-QAM	-23.44	12.86	10.05	2.50	H		0.110	20.41		
		64-QAM	-24.98	11.32	10.05	2.50	H		0.077	18.87		
		256-QAM	-27.02	9.28	10.05	2.50	H		0.048	16.83		
2682.480		PI/2 BPSK	-23.99	13.72	10.10	2.58	H		0.133	21.24	1	1
		QPSK	-24.06	13.65	10.10	2.58	H		0.131	21.17		
		16-QAM	-24.93	12.78	10.10	2.58	H		0.107	20.30		
		64-QAM	-26.49	11.22	10.10	2.58	H		0.075	18.74		
		256-QAM	-28.61	9.10	10.10	2.58	H		0.046	16.62		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2506.020	Sub6 41/ 20 MHz [30 kHz]	PI/2 BPSK	-22.49	14.14	10.30	2.48	H	< 2.00	0.157	21.96	1	49
		QPSK	-22.51	14.12	10.30	2.48	H		0.156	21.94		
		16-QAM	-23.36	13.27	10.30	2.48	H		0.129	21.09		
		64-QAM	-24.95	11.68	10.30	2.48	H		0.089	19.50		
		256-QAM	-27.08	9.55	10.30	2.48	H		0.055	17.37		
2592.990		PI/2 BPSK	-22.57	13.73	10.05	2.50	H		0.134	21.28	1	49
		QPSK	-22.60	13.70	10.05	2.50	H		0.133	21.25		
		16-QAM	-23.53	12.77	10.05	2.50	H		0.108	20.32		
		64-QAM	-25.14	11.16	10.05	2.50	H		0.074	18.71		
		256-QAM	-27.22	9.08	10.05	2.50	H		0.046	16.63		
2679.990		PI/2 BPSK	-24.16	13.55	10.10	2.58	H		0.128	21.07	1	1
		QPSK	-24.19	13.52	10.10	2.58	H		0.127	21.04		
		16-QAM	-25.06	12.65	10.10	2.58	H		0.104	20.17		
		64-QAM	-26.63	11.08	10.10	2.58	H		0.072	18.60		
		256-QAM	-28.72	8.99	10.10	2.58	H		0.045	16.51		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2511.000	Sub6 41/ 30 MHz [30 kHz]	PI/2 BPSK	-22.39	14.23	10.30	2.50	H	< 2.00	0.160	22.03	1	76
		QPSK	-22.40	14.22	10.30	2.50	H		0.159	22.02		
		16-QAM	-23.31	13.31	10.30	2.50	H		0.129	21.11		
		64-QAM	-24.86	11.76	10.30	2.50	H		0.090	19.56		
		256-QAM	-27.03	9.59	10.30	2.50	H		0.055	17.39		
2592.990		PI/2 BPSK	-22.31	13.99	10.05	2.50	H		0.143	21.54	1	76
		QPSK	-22.36	13.94	10.05	2.50	H		0.141	21.49		
		16-QAM	-23.41	12.89	10.05	2.50	H		0.111	20.44		
		64-QAM	-24.82	11.48	10.05	2.50	H		0.080	19.03		
		256-QAM	-26.97	9.33	10.05	2.50	H		0.049	16.88		
2674.980		PI/2 BPSK	-23.80	13.61	10.10	2.58	H		0.130	21.13	1	39
		QPSK	-23.83	13.58	10.10	2.58	H		0.129	21.10		
		16-QAM	-24.71	12.70	10.10	2.58	H		0.105	20.22		
		64-QAM	-26.28	11.13	10.10	2.58	H		0.073	18.65		
		256-QAM	-28.43	8.98	10.10	2.58	H		0.045	16.50		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2516.010	Sub6 41/ 40 MHz [30 kHz]	PI/2 BPSK	-22.20	14.29	10.30	2.51	H	< 2.00	0.161	22.08	1	104
		QPSK	-22.23	14.26	10.30	2.51	H		0.160	22.05		
		16-QAM	-23.13	13.36	10.30	2.51	H		0.130	21.15		
		64-QAM	-24.73	11.76	10.30	2.51	H		0.090	19.55		
		256-QAM	-26.87	9.62	10.30	2.51	H		0.055	17.41		
2592.990		PI/2 BPSK	-22.45	13.85	10.05	2.50	H		0.138	21.40	1	1
		QPSK	-22.50	13.80	10.05	2.50	H		0.137	21.35		
		16-QAM	-23.36	12.94	10.05	2.50	H		0.112	20.49		
		64-QAM	-24.91	11.39	10.05	2.50	H		0.078	18.94		
		256-QAM	-27.10	9.20	10.05	2.50	H		0.047	16.75		
2670.000		PI/2 BPSK	-23.77	13.35	10.10	2.58	H		0.122	20.87	1	104
		QPSK	-23.83	13.29	10.10	2.58	H		0.121	20.81		
		16-QAM	-24.71	12.41	10.10	2.58	H		0.098	19.93		
		64-QAM	-26.30	10.82	10.10	2.58	H		0.068	18.34		
		256-QAM	-28.41	8.71	10.10	2.58	H		0.042	16.23		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2521.020	Sub6 41/ 50 MHz [30 kHz]	PI/2 BPSK	-22.12	14.55	10.00	2.53	H	< 2.00	0.159	22.02	1	66
		QPSK	-22.15	14.52	10.00	2.53	H		0.158	21.99		
		16-QAM	-23.06	13.61	10.00	2.53	H		0.128	21.08		
		64-QAM	-24.62	12.05	10.00	2.53	H		0.090	19.52		
		256-QAM	-26.82	9.85	10.00	2.53	H		0.054	17.32		
2592.990		PI/2 BPSK	-22.41	13.89	10.05	2.50	H		0.139	21.44	1	66
		QPSK	-22.47	13.83	10.05	2.50	H		0.137	21.38		
		16-QAM	-23.33	12.97	10.05	2.50	H		0.113	20.52		
		64-QAM	-24.92	11.38	10.05	2.50	H		0.078	18.93		
		256-QAM	-27.06	9.24	10.05	2.50	H		0.048	16.79		
2664.990		PI/2 BPSK	-23.90	13.19	10.10	2.60	H		0.117	20.69	1	131
		QPSK	-23.94	13.15	10.10	2.60	H		0.116	20.65		
		16-QAM	-24.78	12.31	10.10	2.60	H		0.096	19.81		
		64-QAM	-26.41	10.68	10.10	2.60	H		0.066	18.18		
		256-QAM	-28.52	8.57	10.10	2.60	H		0.041	16.07		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2526.000	Sub6 41/ 60 MHz [30 kHz]	PI/2 BPSK	-22.07	14.19	10.30	2.53	H	< 2.00	0.157	21.96	1	81
		QPSK	-22.10	14.16	10.30	2.53	H		0.156	21.93		
		16-QAM	-22.93	13.33	10.30	2.53	H		0.129	21.10		
		64-QAM	-24.53	11.73	10.30	2.53	H		0.089	19.50		
		256-QAM	-26.72	9.54	10.30	2.53	H		0.054	17.31		
2592.990		PI/2 BPSK	-22.19	14.11	10.05	2.50	H		0.147	21.66	1	1
		QPSK	-22.26	14.04	10.05	2.50	H		0.144	21.59		
		16-QAM	-23.15	13.15	10.05	2.50	H		0.118	20.70		
		64-QAM	-24.67	11.63	10.05	2.50	H		0.083	19.18		
		256-QAM	-26.80	9.50	10.05	2.50	H		0.051	17.05		
2659.980		PI/2 BPSK	-23.88	12.97	10.10	2.61	H		0.111	20.46	1	1
		QPSK	-23.91	12.94	10.10	2.61	H		0.110	20.43		
		16-QAM	-24.81	12.04	10.10	2.61	H		0.090	19.53		
		64-QAM	-26.37	10.48	10.10	2.61	H		0.063	17.97		
		256-QAM	-28.49	8.36	10.10	2.61	H		0.039	15.85		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2531.010	Sub6 41/ 70 MHz [30 kHz]	PI/2 BPSK	-22.71	13.41	10.30	2.52	H	< 2.00	0.132	21.19	1	94
		QPSK	-22.74	13.38	10.30	2.52	H		0.131	21.16		
		16-QAM	-23.61	12.51	10.30	2.52	H		0.107	20.29		
		64-QAM	-25.18	10.94	10.30	2.52	H		0.075	18.72		
		256-QAM	-27.33	8.79	10.30	2.52	H		0.045	16.57		
2592.990		PI/2 BPSK	-22.59	13.71	10.05	2.50	H		0.134	21.26	1	1
		QPSK	-22.63	13.67	10.05	2.50	H		0.132	21.22		
		16-QAM	-23.50	12.80	10.05	2.50	H		0.108	20.35		
		64-QAM	-25.09	11.21	10.05	2.50	H		0.075	18.76		
		256-QAM	-27.17	9.13	10.05	2.50	H		0.047	16.68		
2655.000		PI/2 BPSK	-23.28	13.48	10.10	2.63	H		0.125	20.95	1	1
		QPSK	-23.33	13.43	10.10	2.63	H		0.123	20.90		
		16-QAM	-24.21	12.55	10.10	2.63	H		0.101	20.02		
		64-QAM	-25.81	10.95	10.10	2.63	H		0.070	18.42		
		256-QAM	-27.90	8.86	10.10	2.63	H		0.043	16.33		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2536.020	Sub6 41/ 80 MHz [30 kHz]	PI/2 BPSK	-22.57	13.67	10.30	2.52	H	< 2.00	0.140	21.45	1	108
		QPSK	-22.60	13.64	10.30	2.52	H		0.139	21.42		
		16-QAM	-23.43	12.81	10.30	2.52	H		0.115	20.59		
		64-QAM	-24.99	11.25	10.30	2.52	H		0.080	19.03		
		256-QAM	-27.22	9.02	10.30	2.52	H		0.048	16.80		
2592.990		PI/2 BPSK	-22.65	13.65	10.05	2.50	H		0.132	21.20	1	108
		QPSK	-22.73	13.57	10.05	2.50	H		0.129	21.12		
		16-QAM	-23.61	12.69	10.05	2.50	H		0.106	20.24		
		64-QAM	-25.19	11.11	10.05	2.50	H		0.074	18.66		
		256-QAM	-27.31	8.99	10.05	2.50	H		0.045	16.54		
2649.990		PI/2 BPSK	-23.05	13.62	10.10	2.65	H		0.128	21.07	1	1
		QPSK	-23.07	13.60	10.10	2.65	H		0.127	21.05		
		16-QAM	-23.93	12.74	10.10	2.65	H		0.105	20.19		
		64-QAM	-25.57	11.10	10.10	2.65	H		0.072	18.55		
		256-QAM	-27.76	8.91	10.10	2.65	H		0.043	16.36		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2541.000	Sub6 41/ 90 MHz [30 kHz]	PI/2 BPSK	-22.52	13.84	10.30	2.52	H	< 2.00	0.145	21.62	1	122
		QPSK	-22.57	13.79	10.30	2.52	H		0.144	21.57		
		16-QAM	-23.49	12.87	10.30	2.52	H		0.116	20.65		
		64-QAM	-24.97	11.39	10.30	2.52	H		0.083	19.17		
		256-QAM	-27.20	9.16	10.30	2.52	H		0.049	16.94		
2592.990		PI/2 BPSK	-22.30	14.00	10.05	2.50	H		0.143	21.55	1	1
		QPSK	-22.37	13.93	10.05	2.50	H		0.141	21.48		
		16-QAM	-23.20	13.10	10.05	2.50	H		0.116	20.65		
		64-QAM	-24.80	11.50	10.05	2.50	H		0.080	19.05		
		256-QAM	-26.90	9.40	10.05	2.50	H		0.050	16.95		
2644.980		PI/2 BPSK	-22.78	14.03	10.00	2.66	H		0.137	21.37	1	1
		QPSK	-22.81	14.00	10.00	2.66	H		0.136	21.34		
		16-QAM	-23.75	13.06	10.00	2.66	H		0.110	20.40		
		64-QAM	-25.26	11.55	10.00	2.66	H		0.078	18.89		
		256-QAM	-27.40	9.41	10.00	2.66	H		0.047	16.75		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2546.010	Sub6 41/ 100 MHz [30 kHz]	PI/2 BPSK	-22.81	13.56	10.25	2.54	H	< 2.00	0.134	21.27	1	136
		QPSK	-22.86	13.51	10.25	2.54	H		0.132	21.22		
		16-QAM	-23.74	12.63	10.25	2.54	H		0.108	20.34		
		64-QAM	-25.28	11.09	10.25	2.54	H		0.076	18.80		
		256-QAM	-27.42	8.95	10.25	2.54	H		0.046	16.66		
2592.990		PI/2 BPSK	-22.55	13.75	10.05	2.50	H		0.135	21.30	1	1
		QPSK	-22.61	13.69	10.05	2.50	H		0.133	21.24		
		16-QAM	-23.53	12.77	10.05	2.50	H		0.108	20.32		
		64-QAM	-25.07	11.23	10.05	2.50	H		0.076	18.78		
		256-QAM	-27.17	9.13	10.05	2.50	H		0.047	16.68		
2640.000		PI/2 BPSK	-22.80	14.15	9.90	2.67	H		0.137	21.38	1	1
		QPSK	-22.84	14.11	9.90	2.67	H		0.136	21.34		
		16-QAM	-23.73	13.22	9.90	2.67	H		0.111	20.45		
		64-QAM	-25.37	11.58	9.90	2.67	H		0.076	18.81		
		256-QAM	-27.50	9.45	9.90	2.67	H		0.047	16.68		

9.2 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N41

▣ Bandwidth: 10 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500202 (2501.010)	5 002.02	-62.41	10.70	-63.76	3.63	V	-56.69	-25.00	1	12
	7 503.03	-64.47	11.10	-57.46	4.50	V	-50.86	-25.00		
	10 004.04	-63.14	11.20	-54.68	5.26	V	-48.74	-25.00		
	12 505.05	-62.85	12.10	-53.51	6.04	V	-47.45	-25.00		
	15 006.06	-59.35	13.80	-52.75	6.65	V	-45.60	-25.00		
518598 (2592.990)	5 185.98	-62.78	11.00	-64.28	3.70	H	-56.98	-25.00	1	22
	7 778.97	-64.13	10.90	-56.75	4.61	H	-50.46	-25.00		
	10 371.96	-64.58	11.20	-53.88	5.41	H	-48.09	-25.00		
	12 964.95	-64.22	12.00	-54.29	6.11	H	-48.40	-25.00		
	15 557.94	-62.28	15.40	-56.95	6.77	H	-48.32	-25.00		
537000 (2685.000)	5 370.00	-64.08	11.50	-66.60	3.74	V	-58.84	-25.00	1	12
	8 055.00	-63.20	10.90	-55.99	4.71	V	-49.80	-25.00		
	10 740.00	-65.79	11.10	-55.19	5.50	V	-49.59	-25.00		
	13 425.00	-63.78	11.80	-52.93	6.22	V	-47.35	-25.00		
	16 110.00	-64.16	15.70	-55.02	6.91	V	-46.23	-25.00		

▣ NR Band: N41

▣ Bandwidth: 15 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500700 (2503.500)	5 007.00	-62.32	10.70	-63.60	3.61	V	-56.51	-25.00	1	36
	7 510.50	-64.21	11.10	-57.14	4.50	V	-50.54	-25.00		
	10 014.00	-62.14	11.20	-53.53	5.27	V	-47.60	-25.00		
	12 517.50	-64.30	12.10	-54.67	6.04	V	-48.61	-25.00		
	15 021.00	-60.26	13.80	-53.78	6.65	V	-46.63	-25.00		
518598 (2592.990)	5 185.98	-61.47	11.00	-62.97	3.70	V	-55.67	-25.00	1	36
	7 778.97	-64.22	10.90	-56.84	4.61	V	-50.55	-25.00		
	10 371.96	-64.44	11.20	-53.74	5.41	V	-47.95	-25.00		
	12 964.95	-63.90	12.00	-53.97	6.11	V	-48.08	-25.00		
	15 557.94	-60.89	15.40	-55.56	6.77	V	-46.93	-25.00		
536496 (2682.480)	5 364.96	-62.49	11.50	-64.78	3.75	V	-57.03	-25.00	1	1
	8 047.44	-59.94	10.85	-52.76	4.69	V	-46.60	-25.00		
	10 729.92	-64.65	11.10	-53.42	5.47	V	-47.79	-25.00		
	13 412.40	-63.45	11.80	-52.78	6.21	V	-47.19	-25.00		
	16 094.88	-63.74	15.60	-54.28	6.91	V	-45.59	-25.00		

▣ NR Band: N41

▣ Bandwidth: 20 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
501204 (2506.020)	5 012.04	-63.14	10.70	-64.35	3.59	V	-57.24	-25.00	1	49
	7 518.06	-64.23	11.10	-57.12	4.51	V	-50.53	-25.00		
	10 024.08	-63.14	11.20	-54.32	5.27	V	-48.39	-25.00		
	12 530.10	-64.15	12.10	-54.33	6.01	V	-48.24	-25.00		
	15 036.12	-59.18	13.80	-52.94	6.65	V	-45.79	-25.00		
518598 (2592.990)	5 185.98	-62.03	11.00	-63.53	3.70	V	-56.23	-25.00	1	49
	7 778.97	-64.81	10.90	-57.43	4.61	V	-51.14	-25.00		
	10 371.96	-64.01	11.20	-53.31	5.41	V	-47.52	-25.00		
	12 964.95	-64.26	12.00	-54.33	6.11	V	-48.44	-25.00		
	15 557.94	-60.62	15.40	-55.29	6.77	V	-46.66	-25.00		
535998 (2679.990)	5 359.98	-62.26	11.50	-64.32	3.76	V	-56.58	-25.00	1	1
	8 039.97	-60.38	10.80	-53.21	4.68	V	-47.09	-25.00		
	10 719.96	-64.57	11.10	-52.94	5.46	V	-47.30	-25.00		
	13 399.95	-63.55	11.80	-53.20	6.22	V	-47.62	-25.00		
	16 079.94	-64.12	15.50	-54.84	6.90	V	-46.24	-25.00		

▣ NR Band: N41

▣ Bandwidth: 30 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502200 (2511.000)	5 022.00	-62.55	10.70	-64.08	3.55	V	-56.93	-25.00	1	76
	7 533.00	-65.35	11.10	-57.87	4.50	V	-51.27	-25.00		
	10 044.00	-63.06	11.15	-54.21	5.27	V	-48.33	-25.00		
	12 555.00	-64.19	12.10	-54.88	6.00	V	-48.78	-25.00		
	15 066.00	-58.66	14.00	-53.05	6.65	V	-45.70	-25.00		
518598 (2592.990)	5 185.98	-61.95	11.00	-63.45	3.70	V	-56.15	-25.00	1	76
	7 778.97	-65.35	10.90	-57.97	4.61	V	-51.68	-25.00		
	10 371.96	-64.11	11.20	-53.41	5.41	V	-47.62	-25.00		
	12 964.95	-64.05	12.00	-54.12	6.11	V	-48.23	-25.00		
	15 557.94	-62.07	15.40	-56.74	6.77	V	-48.11	-25.00		
534996 (2674.980)	5 349.96	-62.31	11.50	-63.96	3.75	V	-56.21	-25.00	1	39
	8 024.94	-65.01	10.80	-58.30	4.62	V	-52.12	-25.00		
	10 699.92	-64.06	11.10	-52.38	5.48	V	-46.76	-25.00		
	13 374.90	-63.14	11.90	-53.08	6.23	V	-47.41	-25.00		
	16 049.88	-61.50	15.50	-52.65	6.90	V	-44.05	-25.00		

▣ NR Band: N41

▣ Bandwidth: 40 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
503202 (2516.010)	5 032.02	-63.29	10.70	-65.39	3.56	V	-58.25	-25.00	1	104
	7 548.03	-66.01	11.10	-58.67	4.50	V	-52.07	-25.00		
	10 064.04	-63.26	11.10	-54.45	5.28	V	-48.63	-25.00		
	12 580.05	-63.84	12.10	-54.21	6.06	V	-48.17	-25.00		
	15 096.06	-61.27	14.05	-55.94	6.67	V	-48.56	-25.00		
518598 (2592.990)	5 185.98	-62.27	11.00	-63.77	3.70	V	-56.47	-25.00	1	1
	7 778.97	-60.94	10.90	-53.56	4.61	V	-47.27	-25.00		
	10 371.96	-65.66	11.20	-54.96	5.41	V	-49.17	-25.00		
	12 964.95	-61.28	12.00	-51.35	6.11	V	-45.46	-25.00		
	15 557.94	-60.69	15.40	-55.36	6.77	V	-46.73	-25.00		
534000 (2670.000)	5 340.00	-61.64	11.40	-63.34	3.75	V	-55.69	-25.00	1	104
	8 010.00	-62.09	10.80	-55.02	4.62	V	-48.84	-25.00		
	10 680.00	-63.32	11.10	-51.86	5.46	V	-46.22	-25.00		
	13 350.00	-63.43	11.90	-53.38	6.21	V	-47.69	-25.00		
	16 020.00	-63.70	15.20	-55.35	6.68	V	-46.83	-25.00		

▣ NR Band: N41

▣ Bandwidth: 50 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
504204 (2521.020)	5 042.04	-62.39	10.70	-64.36	3.60	V	-57.26	-25.00	1	66
	7 563.06	-65.08	11.10	-58.26	4.52	V	-51.68	-25.00		
	10 084.08	-61.11	11.10	-51.89	5.30	V	-46.09	-25.00		
	12 605.10	-63.87	12.00	-54.37	6.05	V	-48.42	-25.00		
	15 126.12	-59.16	14.10	-53.20	6.67	V	-45.77	-25.00		
518598 (2592.990)	5 185.98	-62.16	11.00	-63.66	3.70	V	-56.36	-25.00	1	66
	7 778.97	-64.09	10.90	-56.71	4.61	V	-50.42	-25.00		
	10 371.96	-64.44	11.20	-53.74	5.41	V	-47.95	-25.00		
	12 964.95	-63.47	12.00	-53.54	6.11	V	-47.65	-25.00		
	15 557.94	-60.41	15.40	-55.08	6.77	V	-46.45	-25.00		
532998 (2664.990)	5 329.98	-61.58	11.40	-63.55	3.71	V	-55.86	-25.00	1	131
	7 994.97	-62.71	10.75	-55.30	4.66	V	-49.21	-25.00		
	10 659.96	-64.90	11.10	-52.74	5.49	V	-47.13	-25.00		
	13 324.95	-63.32	12.00	-52.61	6.19	V	-46.80	-25.00		
	15 989.94	-64.66	15.10	-56.84	6.88	V	-48.62	-25.00		

▣ NR Band: N41

▣ Bandwidth: 60 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
505200 (2526.000)	5 052.00	-61.23	10.70	-62.88	3.63	V	-55.81	-25.00	1	81
	7 578.00	-64.30	11.10	-57.51	4.54	V	-50.95	-25.00		
	10 104.00	-62.64	11.10	-53.80	5.29	V	-47.99	-25.00		
	12 630.00	-63.35	12.00	-54.12	6.02	V	-48.14	-25.00		
	15 156.00	-59.89	14.20	-54.40	6.67	V	-46.87	-25.00		
518598 (2592.990)	5 185.98	-62.09	11.00	-63.59	3.70	V	-56.29	-25.00	1	1
	7 778.97	-64.46	10.90	-57.08	4.61	V	-50.79	-25.00		
	10 371.96	-62.64	11.20	-51.94	5.41	V	-46.15	-25.00		
	12 964.95	-64.59	12.00	-54.66	6.11	V	-48.77	-25.00		
	15 557.94	-61.49	15.40	-56.16	6.77	V	-47.53	-25.00		
531996 (2659.980)	5 319.96	-62.68	11.40	-65.42	3.66	V	-57.68	-25.00	1	1
	7 979.94	-63.43	10.70	-56.18	4.67	V	-50.15	-25.00		
	10 639.92	-65.41	11.20	-53.98	5.49	V	-48.27	-25.00		
	13 299.90	-63.21	12.00	-53.06	6.19	V	-47.25	-25.00		
	15 959.88	-65.56	15.10	-56.90	6.87	V	-48.67	-25.00		

▣ NR Band: N41

▣ Bandwidth: 70 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
506202 (2531.010)	5 062.02	-61.59	10.70	-62.57	3.65	V	-55.52	-25.00	1	94
	7 593.03	-65.20	11.15	-58.16	4.53	V	-51.54	-25.00		
	10 124.04	-64.22	11.10	-55.34	5.30	V	-49.54	-25.00		
	12 655.05	-64.06	11.90	-54.55	6.03	V	-48.68	-25.00		
	15 186.06	-60.11	14.20	-54.86	6.67	V	-47.33	-25.00		
518598 (2592.990)	5 185.98	-62.46	11.00	-63.96	3.70	V	-56.66	-25.00	1	1
	7 778.97	-64.53	10.90	-57.15	4.61	V	-50.86	-25.00		
	10 371.96	-63.27	11.20	-52.57	5.41	V	-46.78	-25.00		
	12 964.95	-63.58	12.00	-53.65	6.11	V	-47.76	-25.00		
	15 557.94	-61.68	15.40	-56.35	6.77	V	-47.72	-25.00		
531000 (2655.000)	5 310.00	-61.87	11.40	-64.11	3.65	V	-56.36	-25.00	1	1
	7 965.00	-63.94	10.70	-56.77	4.65	V	-50.72	-25.00		
	10 620.00	-64.58	11.20	-53.89	5.41	V	-48.10	-25.00		
	13 275.00	-64.57	12.10	-54.24	6.22	V	-48.36	-25.00		
	15 930.00	-63.99	15.00	-55.72	6.88	V	-47.60	-25.00		

▣ NR Band: N41

▣ Bandwidth: 80 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
507204 (2536.020)	5 072.04	-61.22	10.70	-62.50	3.62	V	-55.42	-25.00	1	108
	7 608.06	-63.81	11.20	-56.80	4.52	V	-50.12	-25.00		
	10 144.08	-63.92	11.05	-54.45	5.32	V	-48.72	-25.00		
	12 680.10	-64.66	11.90	-54.45	6.06	V	-48.61	-25.00		
	15 216.12	-60.90	14.40	-55.94	6.69	V	-48.23	-25.00		
518598 (2592.990)	5 185.98	-62.60	11.00	-64.10	3.70	V	-56.80	-25.00	1	108
	7 778.97	-63.85	10.90	-56.47	4.61	V	-50.18	-25.00		
	10 371.96	-65.45	11.20	-54.75	5.41	V	-48.96	-25.00		
	12 964.95	-63.18	12.00	-53.25	6.11	V	-47.36	-25.00		
	15 557.94	-60.68	15.40	-55.35	6.77	V	-46.72	-25.00		
529998 (2649.990)	5 299.98	-63.14	11.40	-65.25	3.69	V	-57.54	-25.00	1	1
	7 949.97	-63.94	10.70	-56.63	4.64	V	-50.57	-25.00		
	10 599.96	-64.56	11.20	-53.37	5.41	V	-47.58	-25.00		
	13 249.95	-64.34	12.10	-54.28	6.18	V	-48.36	-25.00		
	15 899.94	-63.57	15.00	-55.74	6.87	V	-47.61	-25.00		

▣ NR Band: N41

▣ Bandwidth: 90 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
508200 (2541.000)	5 082.00	-61.30	10.70	-62.94	3.61	V	-55.85	-25.00	1	122
	7 623.00	-65.62	11.20	-59.22	4.52	V	-52.54	-25.00		
	10 164.00	-64.56	11.00	-55.48	5.33	V	-49.81	-25.00		
	12 705.00	-63.23	11.90	-52.71	6.06	V	-46.87	-25.00		
	15 246.00	-61.28	14.50	-55.40	6.73	V	-47.63	-25.00		
518598 (2592.990)	5 185.98	-62.87	11.00	-64.37	3.70	V	-57.07	-25.00	1	1
	7 778.97	-65.06	10.90	-57.68	4.61	V	-51.39	-25.00		
	10 371.96	-64.76	11.20	-54.06	5.41	V	-48.27	-25.00		
	12 964.95	-63.32	12.00	-53.39	6.11	V	-47.50	-25.00		
	15 557.94	-61.71	15.40	-56.38	6.77	V	-47.75	-25.00		
528996 (2644.980)	5 289.96	-63.46	11.30	-64.93	3.73	V	-57.36	-25.00	1	1
	7 934.94	-62.23	10.70	-54.88	4.64	V	-48.82	-25.00		
	10 579.92	-64.00	11.20	-53.55	5.46	V	-47.81	-25.00		
	13 224.90	-63.77	12.10	-53.74	6.16	V	-47.80	-25.00		
	15 869.88	-62.10	14.90	-55.35	6.85	V	-47.30	-25.00		

▣ NR Band: N41

▣ Bandwidth: 100 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
509202 (2546.010)	5 092.02	-61.22	10.70	-63.37	3.64	V	-56.31	-25.00	1	136
	7 638.03	-65.41	11.20	-59.02	4.53	V	-52.35	-25.00		
	10 184.04	-64.14	11.00	-54.68	5.33	V	-49.01	-25.00		
	12 730.05	-64.96	11.90	-54.51	6.02	V	-48.63	-25.00		
	15 276.06	-61.15	14.60	-55.28	6.71	V	-47.39	-25.00		
518598 (2592.990)	5 185.98	-62.31	11.00	-63.81	3.70	V	-56.51	-25.00	1	1
	7 778.97	-64.24	10.90	-56.86	4.61	V	-50.57	-25.00		
	10 371.96	-64.54	11.20	-53.84	5.41	V	-48.05	-25.00		
	12 964.95	-63.54	12.00	-53.61	6.11	V	-47.72	-25.00		
	15 557.94	-61.34	15.40	-56.01	6.77	V	-47.38	-25.00		
528000 (2640.000)	5 280.00	-63.66	11.30	-65.57	3.75	V	-58.02	-25.00	1	1
	7 920.00	-63.85	10.70	-56.67	4.63	V	-50.60	-25.00		
	10 560.00	-62.87	11.20	-52.96	5.45	V	-47.21	-25.00		
	13 200.00	-65.18	12.10	-54.74	6.19	V	-48.83	-25.00		
	15 840.00	-63.08	14.90	-55.97	6.84	V	-47.91	-25.00		

▣ ENDC-Mode : 66A(10 MHz)-n41A(100 MHz)

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)
132322 (1745.0)	3490.00	-61.10	11.46	-62.41	3.05	H	-54.00	-13.00
	5235.00	-61.66	11.57	-56.35	3.79	H	-48.57	-13.00
	6980.00	-62.16	11.16	-49.93	4.51	H	-43.28	-13.00

9.3 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	4.62
			QPSK			5.93
			16-QAM			6.68
			64-QAM			6.96
			256-QAM			6.89
	15 MHz		BPSK	36		4.59
			QPSK			5.87
			16-QAM			6.69
			64-QAM			6.92
			256-QAM			6.98
	20 MHz		BPSK	50		4.57
			QPSK			5.84
			16-QAM			6.76
			64-QAM			6.86
			256-QAM			7.05
	30 MHz		BPSK	75		4.42
			QPSK			5.73
			16-QAM			6.59
			64-QAM			6.84
			256-QAM			6.97
	40 MHz		BPSK	100		4.42
			QPSK			5.67
			16-QAM			6.54
			64-QAM			6.77
			256-QAM			6.91
	50 MHz		BPSK	128		4.51
			QPSK			5.80
			16-QAM			6.60
			64-QAM			6.91
			256-QAM			7.04
	60 MHz		BPSK	162		4.55
			QPSK			5.79
			16-QAM			6.66
			64-QAM			6.88
			256-QAM			6.92
	70 MHz		BPSK	180		4.76
			QPSK			5.90
			16-QAM			6.65
			64-QAM			6.87
			256-QAM			6.94
	80 MHz		BPSK	216		4.53
			QPSK			5.80
			16-QAM			6.58
			64-QAM			6.91
			256-QAM			6.96
	90 MHz		BPSK	243		4.68
			QPSK			6.00
			16-QAM			6.63
			64-QAM			6.83
			256-QAM			6.95
	100 MHz		BPSK	270		4.32
			QPSK			5.65
			16-QAM			6.55
			64-QAM			6.76
			256-QAM			6.88

Note:
1. Plots of the EUT's Peak- to- Average Ratio are shown Page 417 ~ 471.

9.4 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	8.6747
			QPSK			8.6989
			16-QAM			8.7074
			64-QAM			8.6612
			256-QAM			8.6673
	15 MHz		BPSK	36		12.997
			QPSK			12.989
			16-QAM			13.000
			64-QAM			12.964
			256-QAM			12.954
	20 MHz		BPSK	50		17.982
			QPSK			17.982
			16-QAM			18.009
			64-QAM			17.969
			256-QAM			18.004
	30 MHz		BPSK	75		26.955
			QPSK			26.903
			16-QAM			26.983
			64-QAM			26.992
			256-QAM			26.915
	40 MHz		BPSK	100		35.902
			QPSK			35.948
			16-QAM			35.985
			64-QAM			35.911
			256-QAM			35.866
	50 MHz		BPSK	128		45.987
			QPSK			45.926
			16-QAM			45.983
			64-QAM			45.835
			256-QAM			45.963
	60 MHz		BPSK	162		58.190
			QPSK			58.044
			16-QAM			57.964
			64-QAM			58.090
			256-QAM			58.119
	70 MHz		BPSK	180		64.545
			QPSK			64.631
			16-QAM			64.530
			64-QAM			64.641
			256-QAM			64.615
	80 MHz		BPSK	216		77.289
			QPSK			77.452
			16-QAM			77.360
			64-QAM			77.312
			256-QAM			77.283
	90 MHz		BPSK	243		87.325
			QPSK			87.050
			16-QAM			87.018
			64-QAM			86.804
			256-QAM			86.878
	100 MHz		BPSK	270		96.424
			QPSK			96.668
			16-QAM			96.972
			64-QAM			96.726
			256-QAM			96.877

Note:
1. Plots of the EUT's Occupied Bandwidth are shown Page 362 ~ 416.

9.5 CONDUCTED SPURIOUS EMISSIONS

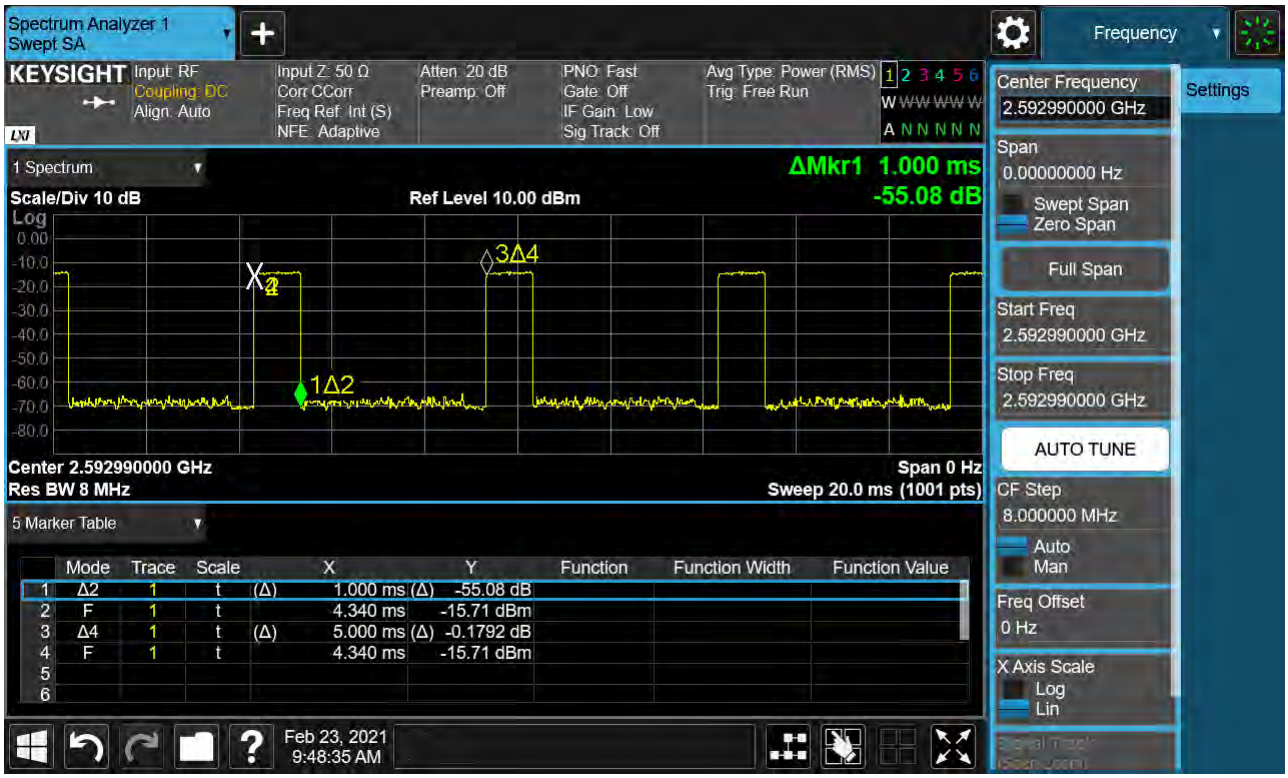
Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n41	10	2501.010	4.9567	37.190	-69.923	-32.733	-25.00
		2592.990	8.0299	37.805	-70.732	-32.927	
		2685.000	9.6849	37.805	-70.870	-33.065	
	15	2503.500	4.9517	37.190	-70.526	-33.336	
		2592.990	9.1057	37.805	-70.647	-32.842	
		2682.480	4.9652	37.190	-71.052	-33.862	
	20	2506.020	9.4292	37.805	-70.663	-32.858	
		2592.990	9.4307	37.805	-71.053	-33.248	
		2679.990	9.6770	37.805	-70.117	-32.312	
	30	2511.000	9.9377	37.805	-70.184	-32.379	
		2592.990	8.2862	37.805	-71.243	-33.438	
		2674.980	3.7807	37.190	-71.065	-33.875	
	40	2516.010	4.1127	37.190	-70.919	-33.729	
		2592.990	3.7917	37.190	-70.857	-33.667	
		2670.000	8.8530	37.805	-70.689	-32.884	
	50	2521.020	9.1356	37.805	-70.601	-32.796	
		2592.990	4.0105	37.190	-69.615	-32.425	
		2664.990	4.0115	37.190	-70.625	-33.435	
	60	2526.000	8.8714	37.805	-69.999	-32.194	
		2592.990	9.1560	37.805	-69.719	-31.914	
		2659.980	4.0773	37.190	-69.692	-32.502	
	70	2531.010	4.8704	37.190	-70.072	-32.882	
		2592.990	7.9985	37.805	-70.773	-32.968	
		2655.000	8.9058	37.805	-70.389	-32.584	
	80	2536.020	9.1695	37.805	-70.722	-32.917	
		2592.990	9.4063	37.805	-70.647	-32.842	
		2649.990	4.9632	37.190	-71.178	-33.988	
	90	2541.000	6.0000	37.805	-70.822	-33.017	
		2592.990	7.7029	37.805	-71.238	-33.433	
		2644.980	4.9053	37.190	-70.400	-33.210	
	100	2546.010	9.9442	37.805	-70.689	-32.884	
		2592.990	9.3839	37.805	-70.764	-32.959	
		2640.000	8.5882	37.805	-70.082	-32.277	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 549 ~ 614.

2. Duty Cycle factor already applied on the factor.

- Duty Cycle Factor(dB) = 6.99



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

- Result(dBm) = Reading + Factor

3. Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	34.484
1 – 5	37.190
5 – 10	37.805
10 – 15	38.330
15 – 20	38.703
Above 20	39.345

9.6 CHANNEL EDGE

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +1MHz)	2 490.5 MHz ~ 2 495 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Upper
10	2501.010	BPSK	Full RB	-24.29	-24.72	-25.82	-25.73	-28.89	-25.00	-39.97
15	2503.500	BPSK	Full RB	-23.02	-29.99	-25.77	-26.53	-26.95	-25.01	-40.86
20	2506.020	BPSK	Full RB	-25.41	-27.59	-26.79	-26.67	-27.51	-27.10	-37.61
30	2511.000	BPSK	Full RB	-25.26	-29.15	-27.96	-28.12	-30.70	-27.86	-39.50
40	2520.000	BPSK	Full RB	-25.59	-28.79	-28.96	-29.98	-31.71	-29.28	-44.89
50	2525.010	BPSK	Full RB	-26.49	-27.41	-29.96	-29.35	-33.85	-29.86	-44.82
60	2530.020	BPSK	Full RB	-20.11	-20.09	-31.04	-28.53	-32.79	-28.89	-40.76
70	2531.010	BPSK	Full RB	-27.01	-29.67	-31.91	-31.17	-34.39	-31.81	-46.03
80	2540.010	BPSK	Full RB	-26.39	-26.99	-32.26	-29.35	-33.18	-27.83	-45.93
90	2545.020	BPSK	Full RB	-24.84	-28.66	-32.96	-30.53	-34.99	-30.67	-46.41
100	2550.000	BPSK	Full RB	-24.15	-29.27	-32.79	-29.79	-34.28	-30.57	-46.93
Limit				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resoure Block Offset	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-24.51	-24.10	-25.73	-25.67
	2685.000	BPSK	Full RB	0	-22.90	-23.68	-26.17	-25.69
15 MHz	2592.990	BPSK	Full RB	0	-23.62	-28.72	-26.45	-26.75
	2682.480	BPSK	Full RB	0	-23.78	-29.80	-27.73	-26.54
20 MHz	2592.990	BPSK	Full RB	0	-25.35	-27.17	-27.54	-27.85
	2679.990	BPSK	Full RB	0	-24.05	-27.96	-27.14	-25.96
30 MHz	2592.990	BPSK	Full RB	0	-25.03	-27.48	-28.15	-29.63
	2679.990	BPSK	Full RB	0	-25.08	-29.47	-28.81	-29.33
40 MHz	2592.990	BPSK	Full RB	0	-24.23	-29.01	-28.51	-28.89
	2670.000	BPSK	Full RB	0	-24.96	-30.77	-29.13	-31.31
50 MHz	2592.990	BPSK	Full RB	0	-25.10	-28.09	-29.72	-30.16
	2664.990	BPSK	Full RB	0	-24.44	-30.69	-29.49	-31.63
60 MHz	2592.990	BPSK	Full RB	0	-19.24	-18.95	-30.32	-28.58
	2659.980	BPSK	Full RB	0	-16.35	-20.29	-29.26	-30.22
70 MHz	2592.990	BPSK	Full RB	0	-26.02	-27.91	-31.81	-29.81
	2655.000	BPSK	Full RB	0	-24.34	-31.64	-30.51	-32.52
80 MHz	2592.990	BPSK	Full RB	0	-25.18	-28.34	-32.78	-30.30
	2649.990	BPSK	Full RB	0	-24.35	-30.07	-31.46	-31.35
90 MHz	2592.990	BPSK	Full RB	0	-24.81	-29.87	-32.34	-30.29
	2644.980	BPSK	Full RB	0	-23.38	-30.82	-31.90	-32.04
100 MHz	2592.990	BPSK	Full RB	0	-23.91	-31.08	-33.93	-31.21
	2640.000	BPSK	Full RB	0	-22.17	-31.64	-32.97	-32.26
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	-27.00	-24.73	-40.73	-41.08
	2685.000	BPSK	Full RB	0	-28.10	-27.74	-37.36	-36.90
15 MHz	2592.990	BPSK	Full RB	0	-25.62	-25.33	-42.72	-44.29
	2682.480	BPSK	Full RB	0	-26.96	-26.71	-39.81	-38.12
20 MHz	2592.990	BPSK	Full RB	0	-28.11	-27.49	-43.71	-42.22
	2679.990	BPSK	Full RB	0	-27.93	-26.45	-38.29	-39.34
30 MHz	2592.990	BPSK	Full RB	0	-30.21	-29.08	-46.09	-46.27
	2679.990	BPSK	Full RB	0	-29.20	-28.59	-41.83	-46.72
40 MHz	2592.990	BPSK	Full RB	0	-30.47	-29.42	-44.51	-45.64
	2670.000	BPSK	Full RB	0	-30.43	-30.76	-44.49	-48.08
50 MHz	2592.990	BPSK	Full RB	0	-33.82	-31.35	-47.04	-47.15
	2664.990	BPSK	Full RB	0	-31.84	-32.20	-45.13	-47.87
60 MHz	2592.990	BPSK	Full RB	0	-31.42	-26.90	-46.59	-47.20
	2659.980	BPSK	Full RB	0	-30.96	-30.07	-45.20	-47.60
70 MHz	2592.990	BPSK	Full RB	0	-31.89	-30.38	-44.90	-46.08
	2655.000	BPSK	Full RB	0	-31.81	-33.44	-44.91	-47.68
80 MHz	2592.990	BPSK	Full RB	0	-33.39	-31.09	-47.53	-47.14
	2649.990	BPSK	Full RB	0	-32.06	-32.44	-45.98	-47.58
90 MHz	2592.990	BPSK	Full RB	0	-33.17	-31.08	-47.61	-47.45
	2644.980	BPSK	Full RB	0	-32.12	-31.13	-42.95	-47.51
100 MHz	2592.990	BPSK	Full RB	0	-33.61	-30.59	-47.75	-47.52
	2640.000	BPSK	Full RB	0	-32.52	-31.91	-46.41	-47.49
Limit					-13.0		-25.0	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth
3. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 6.99
4. Plots of the EUT's Channel Edge are shown Page 472 ~ 548. (1RB & Full RB)

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 10 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 009 997	0.0	0.000 000	0.000
	100 %	-30	2501 009 991	-6.4	0.000 000	-0.003
	100 %	-20	2501 009 990	-7.2	0.000 000	-0.003
	100 %	-10	2501 009 987	-10.3	0.000 000	-0.004
	100 %	0	2501 009 983	-14.4	-0.000 001	-0.006
	100 %	+10	2501 009 989	-8.1	0.000 000	-0.003
	100 %	+30	2501 009 986	-11.4	0.000 000	-0.005
	100 %	+40	2501 009 985	-12.3	0.000 000	-0.005
	100 %	+50	2501 009 980	-16.8	-0.000 001	-0.007
	Batt. Endpoint	+20	2501 009 979	-18.1	-0.000 001	-0.007
2685.000	100 %	+20(Ref)	2684 999 984	0.0	0.000 000	0.000
	100 %	-30	2684 999 962	-21.6	-0.000 001	-0.008
	100 %	-20	2684 999 976	-8.2	0.000 000	-0.003
	100 %	-10	2684 999 968	-16.0	-0.000 001	-0.006
	100 %	0	2684 999 970	-14.4	-0.000 001	-0.005
	100 %	+10	2684 999 967	-17.3	-0.000 001	-0.006
	100 %	+30	2684 999 965	-18.9	-0.000 001	-0.007
	100 %	+40	2684 999 965	-19.4	-0.000 001	-0.007
	100 %	+50	2684 999 972	-12.0	0.000 000	-0.004
	Batt. Endpoint	+20	2684 999 965	-19.0	-0.000 001	-0.007

▣ BandWidth: 15 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 499 992	0.0	0.000 000	0.000
	100 %	-30	2503 499 981	-10.8	0.000 000	-0.004
	100 %	-20	2503 499 981	-10.5	0.000 000	-0.004
	100 %	-10	2503 499 983	-9.0	0.000 000	-0.004
	100 %	0	2503 499 982	-9.1	0.000 000	-0.004
	100 %	+10	2503 499 986	-5.2	0.000 000	-0.002
	100 %	+30	2503 499 978	-13.6	-0.000 001	-0.005
	100 %	+40	2503 499 980	-11.9	0.000 000	-0.005
	100 %	+50	2503 499 983	-8.1	0.000 000	-0.003
	Batt. Endpoint	+20	2503 499 984	-7.4	0.000 000	-0.003
2682.480	100 %	+20(Ref)	2682 479 989	0.0	0.000 000	0.000
	100 %	-30	2682 479 976	-13.2	0.000 000	-0.005
	100 %	-20	2682 479 974	-15.3	-0.000 001	-0.006
	100 %	-10	2682 479 977	-12.1	0.000 000	-0.005
	100 %	0	2682 479 974	-15.1	-0.000 001	-0.006
	100 %	+10	2682 479 973	-15.8	-0.000 001	-0.006
	100 %	+30	2682 479 980	-8.8	0.000 000	-0.003
	100 %	+40	2682 479 978	-10.3	0.000 000	-0.004
	100 %	+50	2682 479 975	-14.1	-0.000 001	-0.005
	Batt. Endpoint	+20	2682 479 979	-9.8	0.000 000	-0.004

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 019 989	0.0	0.000 000	0.000
	100 %	-30	2506 019 979	-10.7	0.000 000	-0.004
	100 %	-20	2506 019 980	-8.9	0.000 000	-0.004
	100 %	-10	2506 019 977	-12.5	0.000 000	-0.005
	100 %	0	2506 019 973	-15.8	-0.000 001	-0.006
	100 %	+10	2506 019 974	-15.6	-0.000 001	-0.006
	100 %	+30	2506 019 981	-8.2	0.000 000	-0.003
	100 %	+40	2506 019 971	-18.0	-0.000 001	-0.007
	100 %	+50	2506 019 981	-8.5	0.000 000	-0.003
	Batt. Endpoint	+20	2506 019 971	-18.5	-0.000 001	-0.007
2679.990	100 %	+20(Ref)	2679 989 986	0.0	0.000 000	0.000
	100 %	-30	2679 989 965	-20.9	-0.000 001	-0.008
	100 %	-20	2679 989 967	-18.6	-0.000 001	-0.007
	100 %	-10	2679 989 969	-16.3	-0.000 001	-0.006
	100 %	0	2679 989 972	-13.4	0.000 000	-0.005
	100 %	+10	2679 989 971	-14.7	-0.000 001	-0.005
	100 %	+30	2679 989 970	-15.5	-0.000 001	-0.006
	100 %	+40	2679 989 964	-21.8	-0.000 001	-0.008
	100 %	+50	2679 989 971	-14.4	-0.000 001	-0.005
	Batt. Endpoint	+20	2679 989 962	-24.2	-0.000 001	-0.009

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2511.000	100 %	+20(Ref)	2510 999 985	0.0	0.000 000	0.000
	100 %	-30	2510 999 972	-12.5	0.000 000	-0.005
	100 %	-20	2510 999 973	-12.1	0.000 000	-0.005
	100 %	-10	2510 999 967	-17.3	-0.000 001	-0.007
	100 %	0	2510 999 967	-17.7	-0.000 001	-0.007
	100 %	+10	2510 999 973	-11.5	0.000 000	-0.005
	100 %	+30	2510 999 976	-8.3	0.000 000	-0.003
	100 %	+40	2510 999 970	-14.2	-0.000 001	-0.006
	100 %	+50	2510 999 976	-8.6	0.000 000	-0.003
	Batt. Endpoint	+20	2510 999 967	-17.4	-0.000 001	-0.007
2674.980	100 %	+20(Ref)	2674 979 985	0.0	0.000 000	0.000
	100 %	-30	2674 979 973	-11.3	0.000 000	-0.004
	100 %	-20	2674 979 969	-15.5	-0.000 001	-0.006
	100 %	-10	2674 979 971	-13.7	-0.000 001	-0.005
	100 %	0	2674 979 963	-22.1	-0.000 001	-0.008
	100 %	+10	2674 979 970	-15.0	-0.000 001	-0.006
	100 %	+30	2674 979 968	-17.0	-0.000 001	-0.006
	100 %	+40	2674 979 969	-16.2	-0.000 001	-0.006
	100 %	+50	2674 979 970	-14.6	-0.000 001	-0.005
	Batt. Endpoint	+20	2674 979 967	-17.5	-0.000 001	-0.007

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 009 985	0.0	0.000 000	0.000
	100 %	-30	2516 009 976	-8.8	0.000 000	-0.003
	100 %	-20	2516 009 971	-14.5	-0.000 001	-0.006
	100 %	-10	2516 009 968	-17.4	-0.000 001	-0.007
	100 %	0	2516 009 977	-8.4	0.000 000	-0.003
	100 %	+10	2516 009 968	-17.5	-0.000 001	-0.007
	100 %	+30	2516 009 967	-18.4	-0.000 001	-0.007
	100 %	+40	2516 009 975	-10.5	0.000 000	-0.004
	100 %	+50	2516 009 972	-12.8	-0.000 001	-0.005
	Batt. Endpoint	+20	2516 009 972	-13.1	-0.000 001	-0.005
2670.000	100 %	+20(Ref)	2669 999 986	0.0	0.000 000	0.000
	100 %	-30	2669 999 976	-9.3	0.000 000	-0.003
	100 %	-20	2669 999 974	-12.0	0.000 000	-0.004
	100 %	-10	2669 999 972	-14.0	-0.000 001	-0.005
	100 %	0	2669 999 975	-10.6	0.000 000	-0.004
	100 %	+10	2669 999 965	-20.1	-0.000 001	-0.008
	100 %	+30	2669 999 969	-16.9	-0.000 001	-0.006
	100 %	+40	2669 999 970	-15.9	-0.000 001	-0.006
	100 %	+50	2669 999 975	-10.1	0.000 000	-0.004
	Batt. Endpoint	+20	2669 999 962	-23.3	-0.000 001	-0.009

▣ BandWidth: 50 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 019 987	0.0	0.000 000	0.000
	100 %	-30	2521 019 966	-20.9	-0.000 001	-0.008
	100 %	-20	2521 019 968	-18.3	-0.000 001	-0.007
	100 %	-10	2521 019 976	-10.4	0.000 000	-0.004
	100 %	0	2521 019 973	-13.4	-0.000 001	-0.005
	100 %	+10	2521 019 974	-12.6	0.000 000	-0.005
	100 %	+30	2521 019 975	-11.5	0.000 000	-0.005
	100 %	+40	2521 019 972	-14.1	-0.000 001	-0.006
	100 %	+50	2521 019 970	-16.5	-0.000 001	-0.007
	Batt. Endpoint	+20	2521 019 970	-16.1	-0.000 001	-0.006
2664.990	100 %	+20(Ref)	2664 989 981	0.0	0.000 000	0.000
	100 %	-30	2664 989 963	-17.4	-0.000 001	-0.007
	100 %	-20	2664 989 964	-16.8	-0.000 001	-0.006
	100 %	-10	2664 989 964	-16.5	-0.000 001	-0.006
	100 %	0	2664 989 967	-13.3	0.000 000	-0.005
	100 %	+10	2664 989 970	-10.5	0.000 000	-0.004
	100 %	+30	2664 989 964	-17.0	-0.000 001	-0.006
	100 %	+40	2664 989 966	-14.4	-0.000 001	-0.005
	100 %	+50	2664 989 970	-10.3	0.000 000	-0.004
	Batt. Endpoint	+20	2664 989 967	-14.0	-0.000 001	-0.005

▣ BandWidth: 60 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2526.000	100 %	+20(Ref)	2525 999 977	0.0	0.000 000	0.000
	100 %	-30	2525 999 963	-13.5	-0.000 001	-0.005
	100 %	-20	2525 999 953	-23.6	-0.000 001	-0.009
	100 %	-10	2525 999 959	-17.5	-0.000 001	-0.007
	100 %	0	2525 999 957	-20.1	-0.000 001	-0.008
	100 %	+10	2525 999 962	-14.9	-0.000 001	-0.006
	100 %	+30	2525 999 962	-14.2	-0.000 001	-0.006
	100 %	+40	2525 999 957	-19.3	-0.000 001	-0.008
	100 %	+50	2525 999 957	-20.1	-0.000 001	-0.008
	Batt. Endpoint	+20	2525 999 962	-14.3	-0.000 001	-0.006
2659.980	100 %	+20(Ref)	2659 979 986	0.0	0.000 000	0.000
	100 %	-30	2659 979 974	-11.8	0.000 000	-0.004
	100 %	-20	2659 979 975	-11.0	0.000 000	-0.004
	100 %	-10	2659 979 974	-11.8	0.000 000	-0.004
	100 %	0	2659 979 972	-13.5	-0.000 001	-0.005
	100 %	+10	2659 979 976	-10.2	0.000 000	-0.004
	100 %	+30	2659 979 973	-12.5	0.000 000	-0.005
	100 %	+40	2659 979 970	-15.5	-0.000 001	-0.006
	100 %	+50	2659 979 971	-15.4	-0.000 001	-0.006
	Batt. Endpoint	+20	2659 979 976	-10.0	0.000 000	-0.004

▣ BandWidth: 70 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2531.010	100 %	+20(Ref)	2531 009 987	0.0	0.000 000	0.000
	100 %	-30	2531 009 977	-10.4	0.000 000	-0.004
	100 %	-20	2531 009 968	-19.7	-0.000 001	-0.008
	100 %	-10	2531 009 975	-12.7	-0.000 001	-0.005
	100 %	0	2531 009 973	-14.1	-0.000 001	-0.006
	100 %	+10	2531 009 978	-8.8	0.000 000	-0.003
	100 %	+30	2531 009 977	-10.7	0.000 000	-0.004
	100 %	+40	2531 009 970	-17.5	-0.000 001	-0.007
	100 %	+50	2531 009 976	-11.5	0.000 000	-0.005
	Batt. Endpoint	+20	2531 009 974	-13.0	-0.000 001	-0.005
2655.000	100 %	+20(Ref)	2654 999 985	0.0	0.000 000	0.000
	100 %	-30	2654 999 967	-18.5	-0.000 001	-0.007
	100 %	-20	2654 999 973	-11.9	0.000 000	-0.004
	100 %	-10	2654 999 966	-19.4	-0.000 001	-0.007
	100 %	0	2654 999 970	-14.8	-0.000 001	-0.006
	100 %	+10	2654 999 974	-10.8	0.000 000	-0.004
	100 %	+30	2654 999 977	-7.7	0.000 000	-0.003
	100 %	+40	2654 999 970	-15.3	-0.000 001	-0.006
	100 %	+50	2654 999 964	-21.1	-0.000 001	-0.008
	Batt. Endpoint	+20	2654 999 963	-22.2	-0.000 001	-0.008

▣ BandWidth: 80 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 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 019 983	0.0	0.000 000	0.000
	100 %	-30	2536 019 963	-19.9	-0.000 001	-0.008
	100 %	-20	2536 019 966	-16.7	-0.000 001	-0.007
	100 %	-10	2536 019 971	-11.7	0.000 000	-0.005
	100 %	0	2536 019 967	-16.3	-0.000 001	-0.006
	100 %	+10	2536 019 970	-13.3	-0.000 001	-0.005
	100 %	+30	2536 019 965	-17.6	-0.000 001	-0.007
	100 %	+40	2536 019 971	-11.9	0.000 000	-0.005
	100 %	+50	2536 019 971	-11.6	0.000 000	-0.005
	Batt. Endpoint	+20	2536 019 968	-14.6	-0.000 001	-0.006
2649.990	100 %	+20(Ref)	2649 989 983	0.0	0.000 000	0.000
	100 %	-30	2649 989 961	-22.3	-0.000 001	-0.008
	100 %	-20	2649 989 961	-22.3	-0.000 001	-0.008
	100 %	-10	2649 989 968	-15.0	-0.000 001	-0.006
	100 %	0	2649 989 960	-23.8	-0.000 001	-0.009
	100 %	+10	2649 989 967	-15.9	-0.000 001	-0.006
	100 %	+30	2649 989 962	-20.9	-0.000 001	-0.008
	100 %	+40	2649 989 969	-14.8	-0.000 001	-0.006
	100 %	+50	2649 989 963	-19.9	-0.000 001	-0.008
	Batt. Endpoint	+20	2649 989 970	-13.1	0.000 000	-0.005

▣ BandWidth: 90 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2541.000	100 %	+20(Ref)	2540 999 986	0.0	0.000 000	0.000
	100 %	-30	2540 999 969	-17.1	-0.000 001	-0.007
	100 %	-20	2540 999 976	-10.0	0.000 000	-0.004
	100 %	-10	2540 999 977	-9.2	0.000 000	-0.004
	100 %	0	2540 999 975	-11.3	0.000 000	-0.004
	100 %	+10	2540 999 976	-10.1	0.000 000	-0.004
	100 %	+30	2540 999 971	-15.0	-0.000 001	-0.006
	100 %	+40	2540 999 972	-14.8	-0.000 001	-0.006
	100 %	+50	2540 999 976	-10.7	0.000 000	-0.004
	Batt. Endpoint	+20	2540 999 972	-14.0	-0.000 001	-0.006
2644.980	100 %	+20(Ref)	2644 979 993	0.0	0.000 000	0.000
	100 %	-30	2644 979 978	-14.9	-0.000 001	-0.006
	100 %	-20	2644 979 971	-22.2	-0.000 001	-0.008
	100 %	-10	2644 979 976	-16.7	-0.000 001	-0.006
	100 %	0	2644 979 974	-19.2	-0.000 001	-0.007
	100 %	+10	2644 979 977	-15.8	-0.000 001	-0.006
	100 %	+30	2644 979 972	-20.8	-0.000 001	-0.008
	100 %	+40	2644 979 975	-17.4	-0.000 001	-0.007
	100 %	+50	2644 979 975	-17.4	-0.000 001	-0.007
	Batt. Endpoint	+20	2644 979 974	-18.9	-0.000 001	-0.007

▣ BandWidth: 100 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.350 VDC

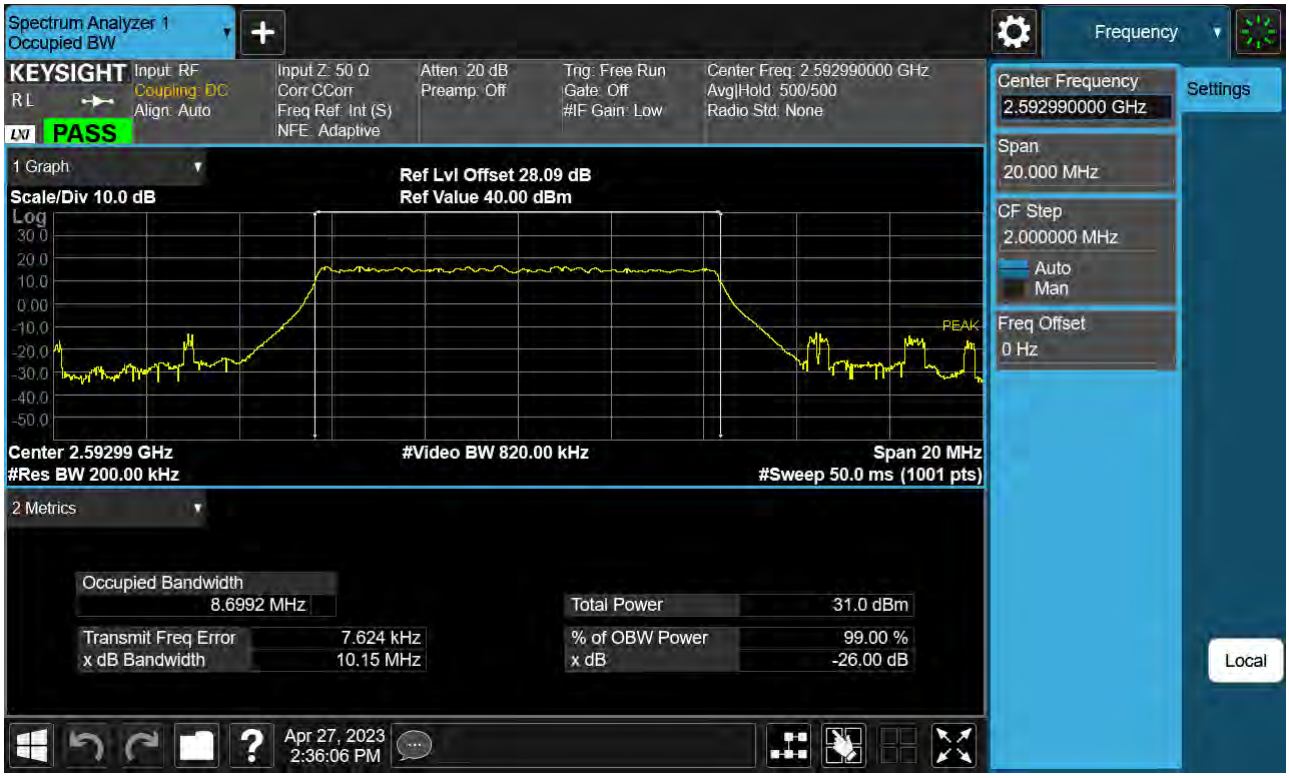
▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
2546.010	100 %	+20(Ref)	2546 009 986	0.0	0.000 000	0.000
	100 %	-30	2546 009 971	-15.3	-0.000 001	-0.006
	100 %	-20	2546 009 971	-15.1	-0.000 001	-0.006
	100 %	-10	2546 009 974	-12.3	0.000 000	-0.005
	100 %	0	2546 009 971	-15.1	-0.000 001	-0.006
	100 %	+10	2546 009 973	-13.2	-0.000 001	-0.005
	100 %	+30	2546 009 971	-15.8	-0.000 001	-0.006
	100 %	+40	2546 009 977	-9.1	0.000 000	-0.004
	100 %	+50	2546 009 975	-11.5	0.000 000	-0.005
	Batt. Endpoint	+20	2546 009 978	-8.2	0.000 000	-0.003
2640.000	100 %	+20(Ref)	2639 999 990	0.0	0.000 000	0.000
	100 %	-30	2639 999 977	-13.5	-0.000 001	-0.005
	100 %	-20	2639 999 979	-11.4	0.000 000	-0.004
	100 %	-10	2639 999 982	-8.6	0.000 000	-0.003
	100 %	0	2639 999 979	-11.6	0.000 000	-0.004
	100 %	+10	2639 999 973	-17.8	-0.000 001	-0.007
	100 %	+30	2639 999 975	-15.6	-0.000 001	-0.006
	100 %	+40	2639 999 978	-12.6	0.000 000	-0.005
	100 %	+50	2639 999 982	-8.2	0.000 000	-0.003
	Batt. Endpoint	+20	2639 999 975	-15.2	-0.000 001	-0.006

10. TEST PLOTS (Main 2 Ant)

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)

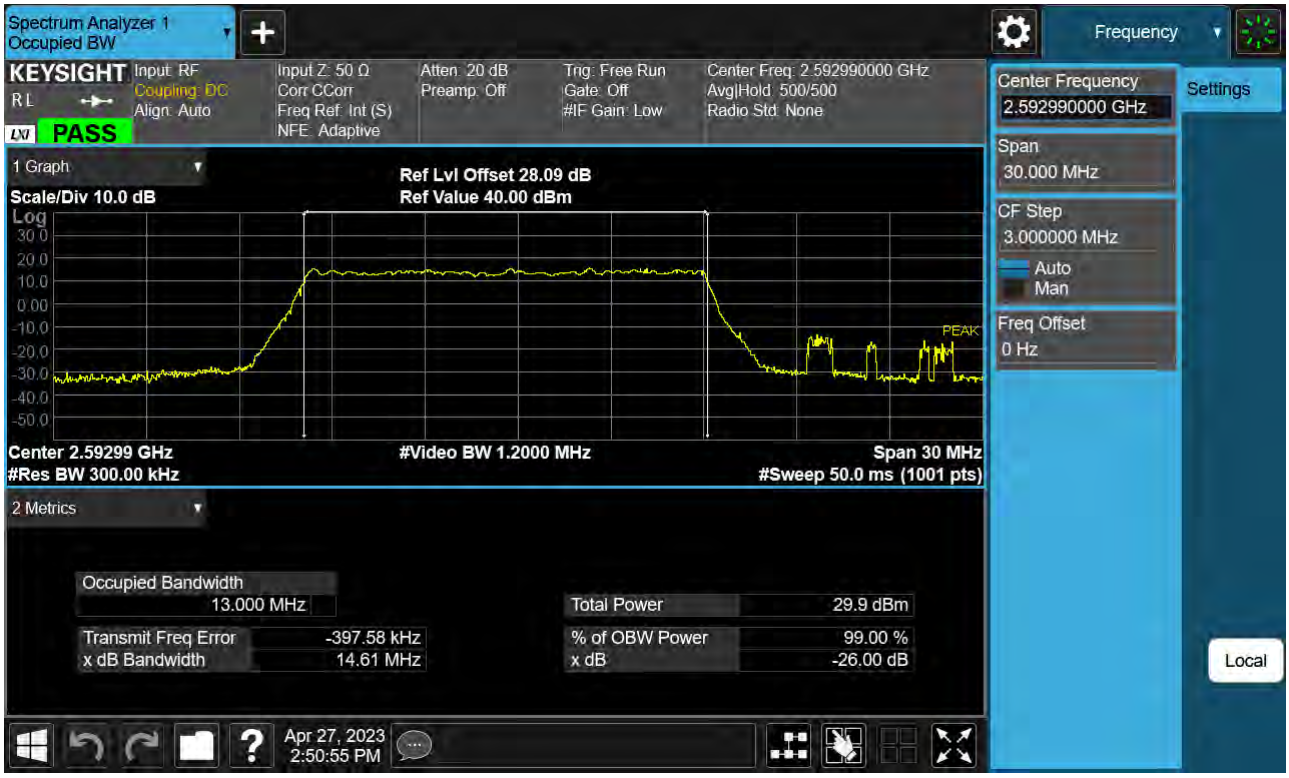
Sub6 n41. Occupied Bandwidth Plot (10 MHz Ch.518598 256-QAM)

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)



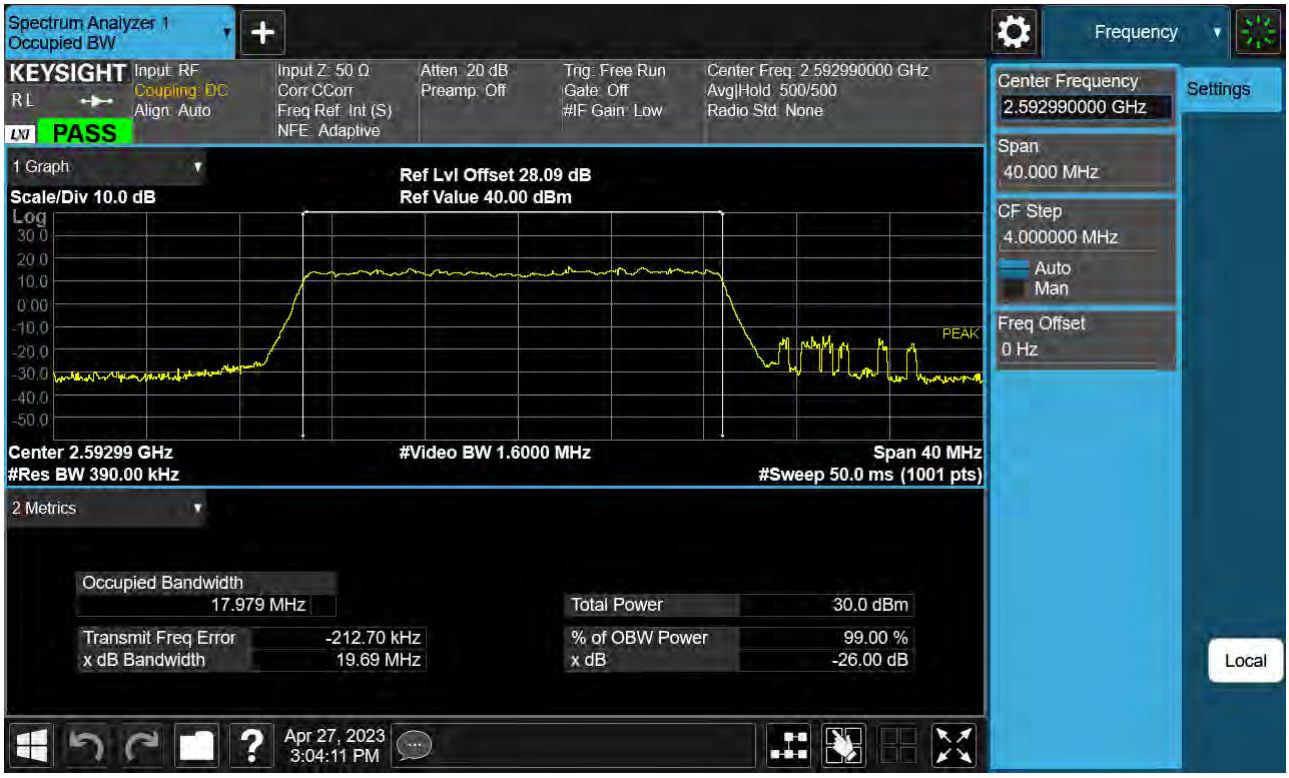
Sub6 n41. Occupied Bandwidth Plot (15 MHz Ch.518598 256-QAM)

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

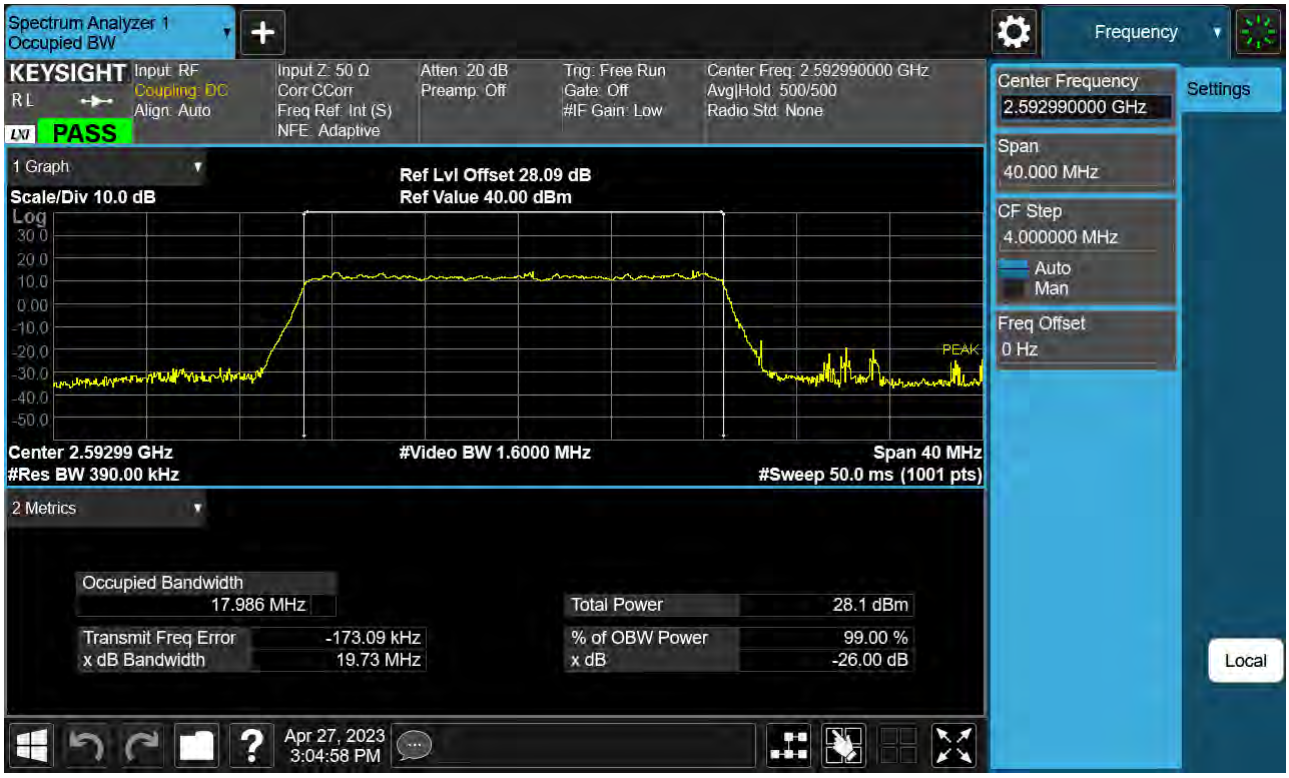
Sub6 n41. Occupied Bandwidth Plot (20 MHz Ch.518598 QPSK)

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)

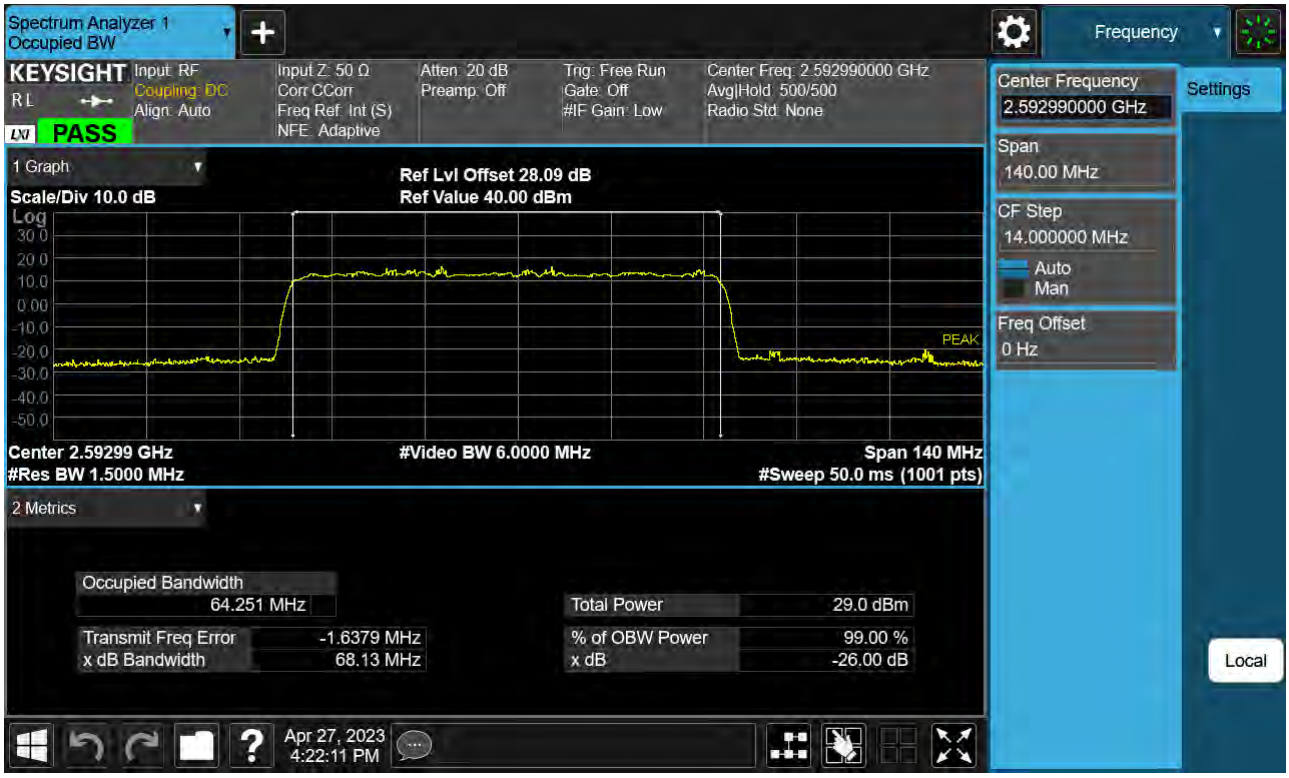
Sub6 n41. Occupied Bandwidth Plot (70 MHz Ch.518598 BPSK)

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

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

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

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

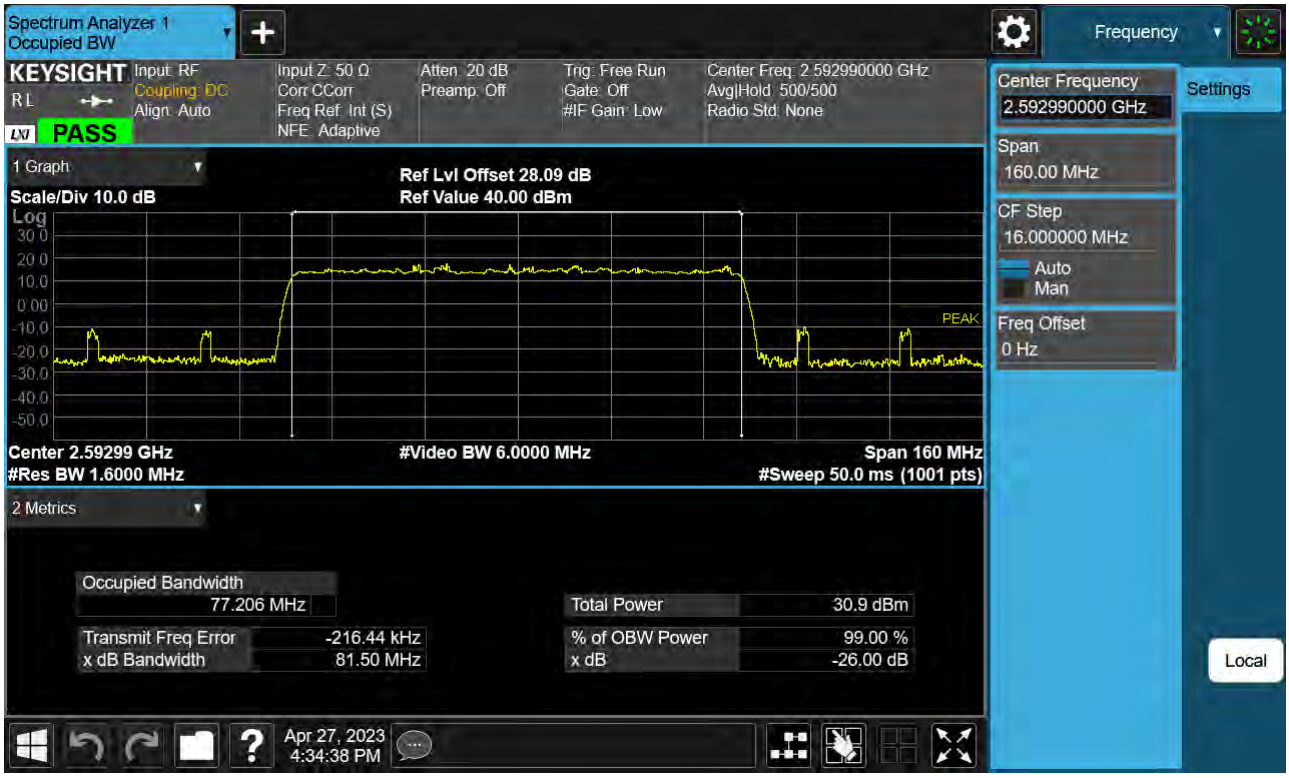


Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 BPSK)

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

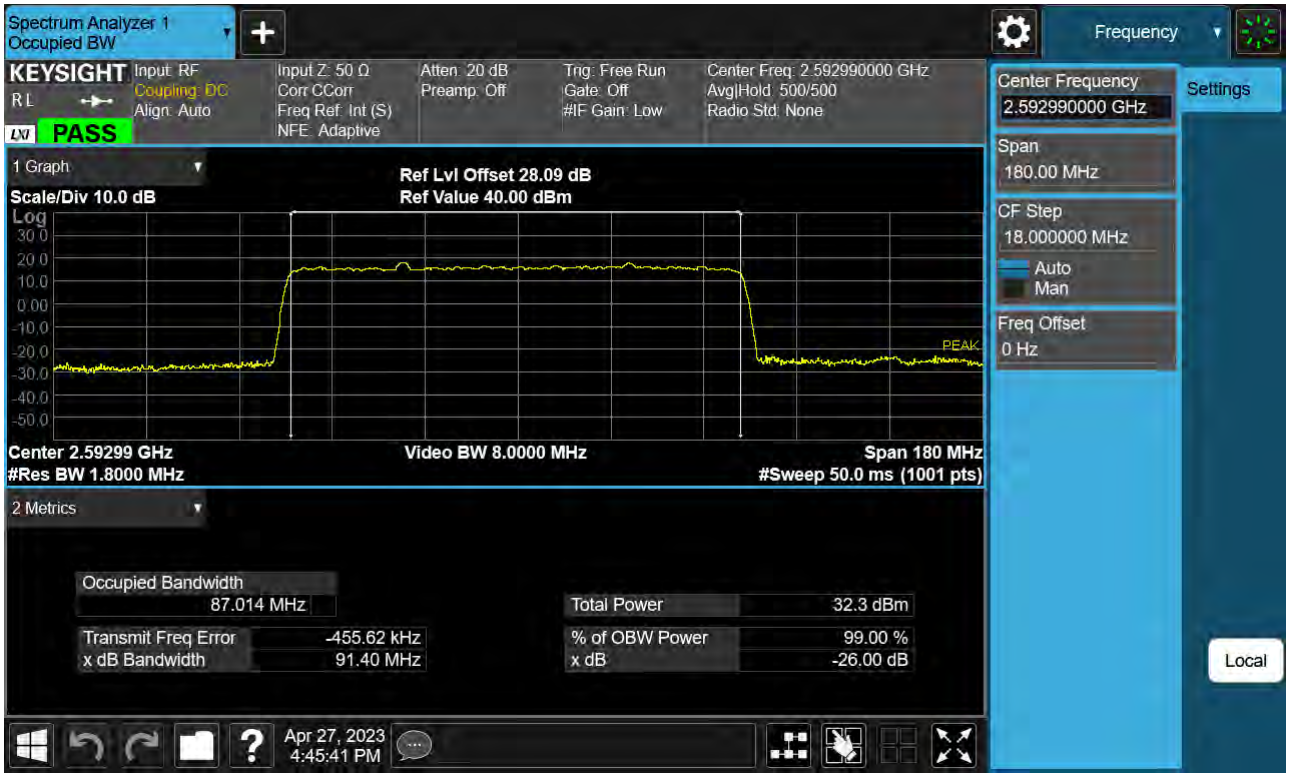
Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 16-QAM)

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

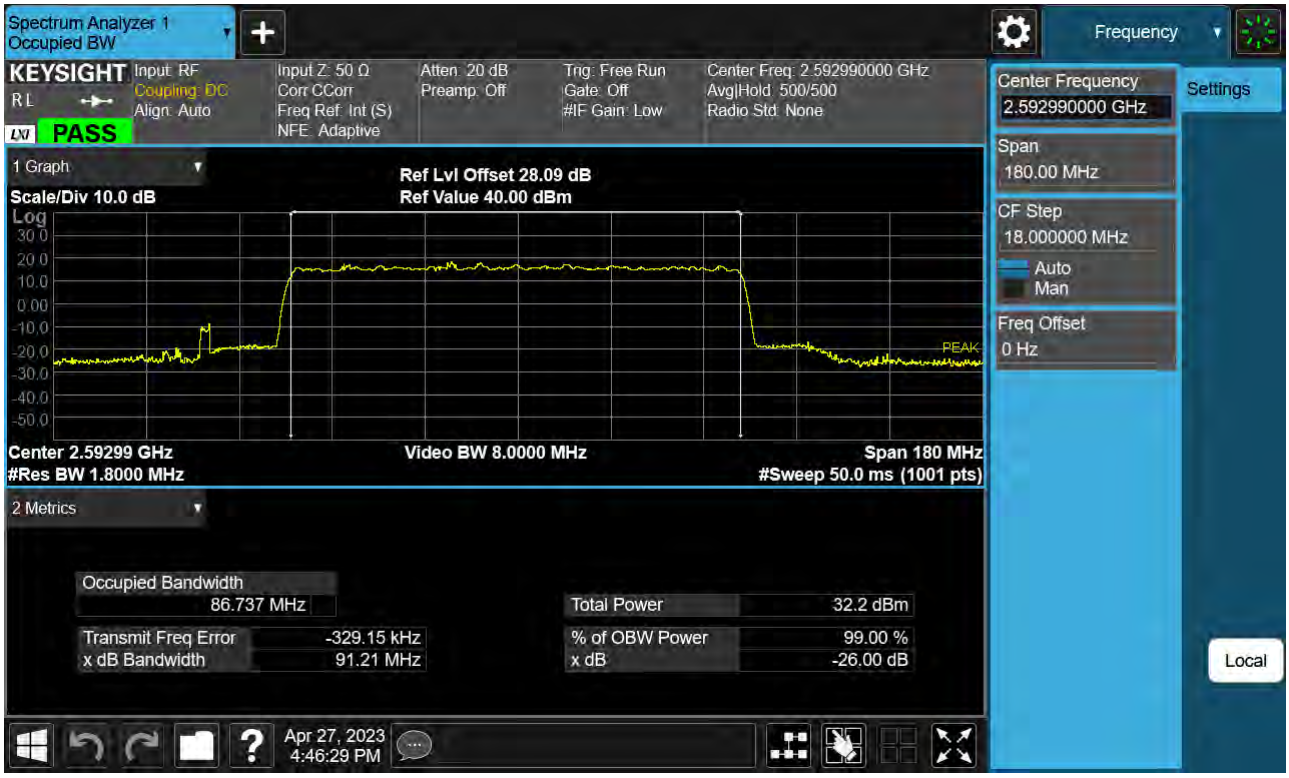


Sub6 n41. Occupied Bandwidth Plot (80 MHz Ch.518598 256-QAM)

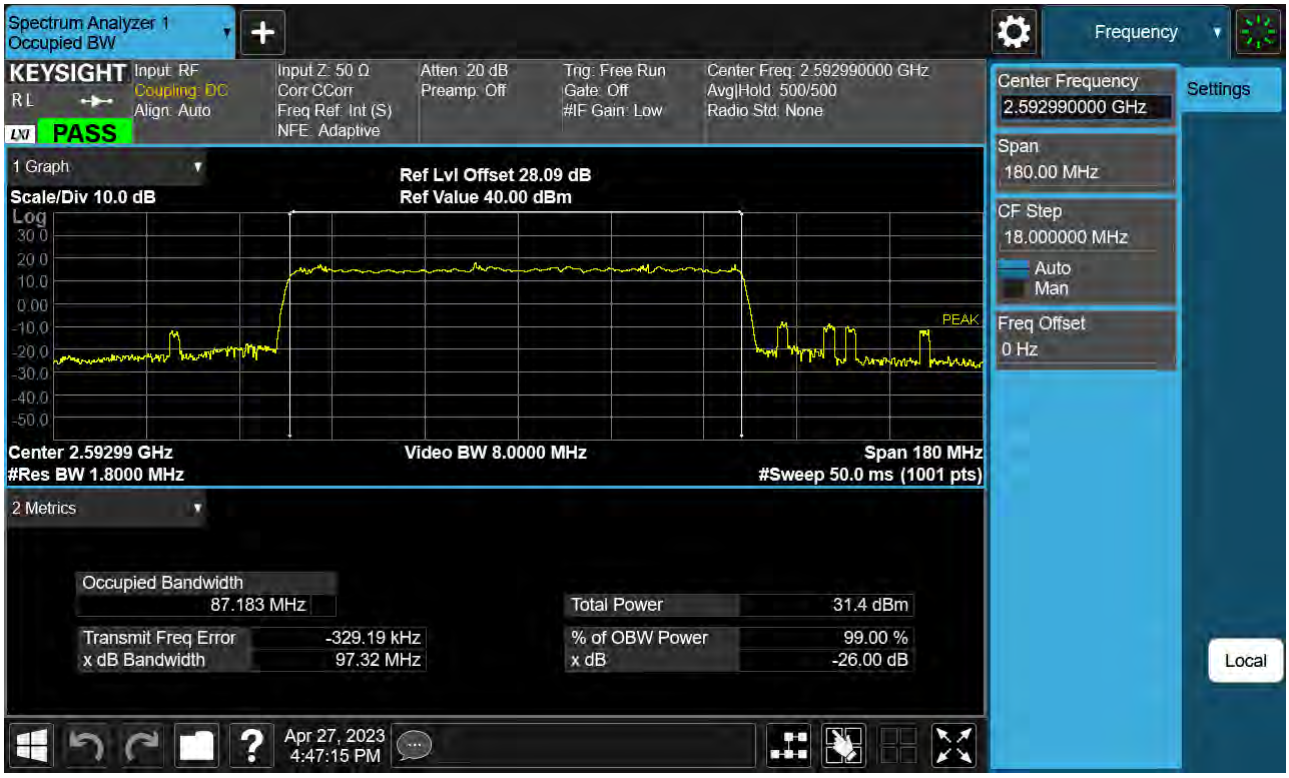
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 BPSK)



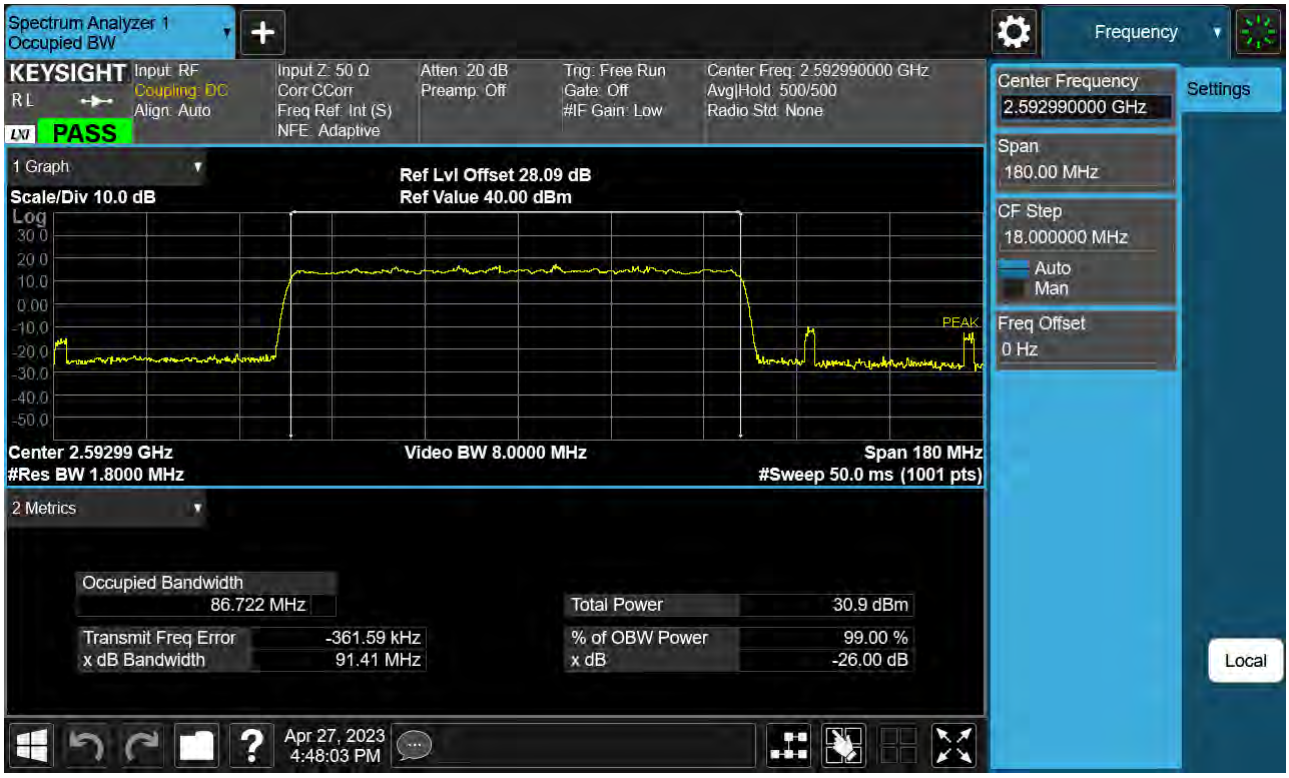
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 QPSK)



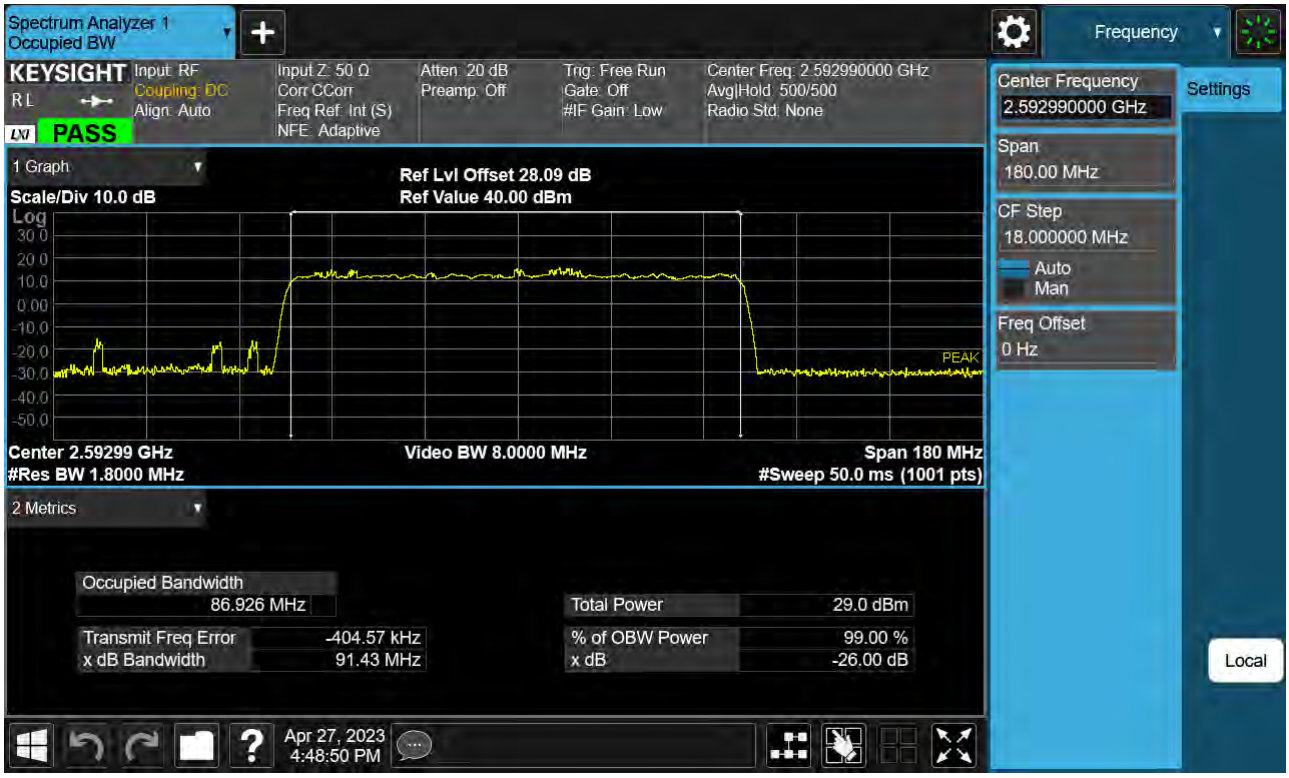
Sub6 n41. Occupied Bandwidth Plot (90 MHz Ch.518598 16-QAM)



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



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



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

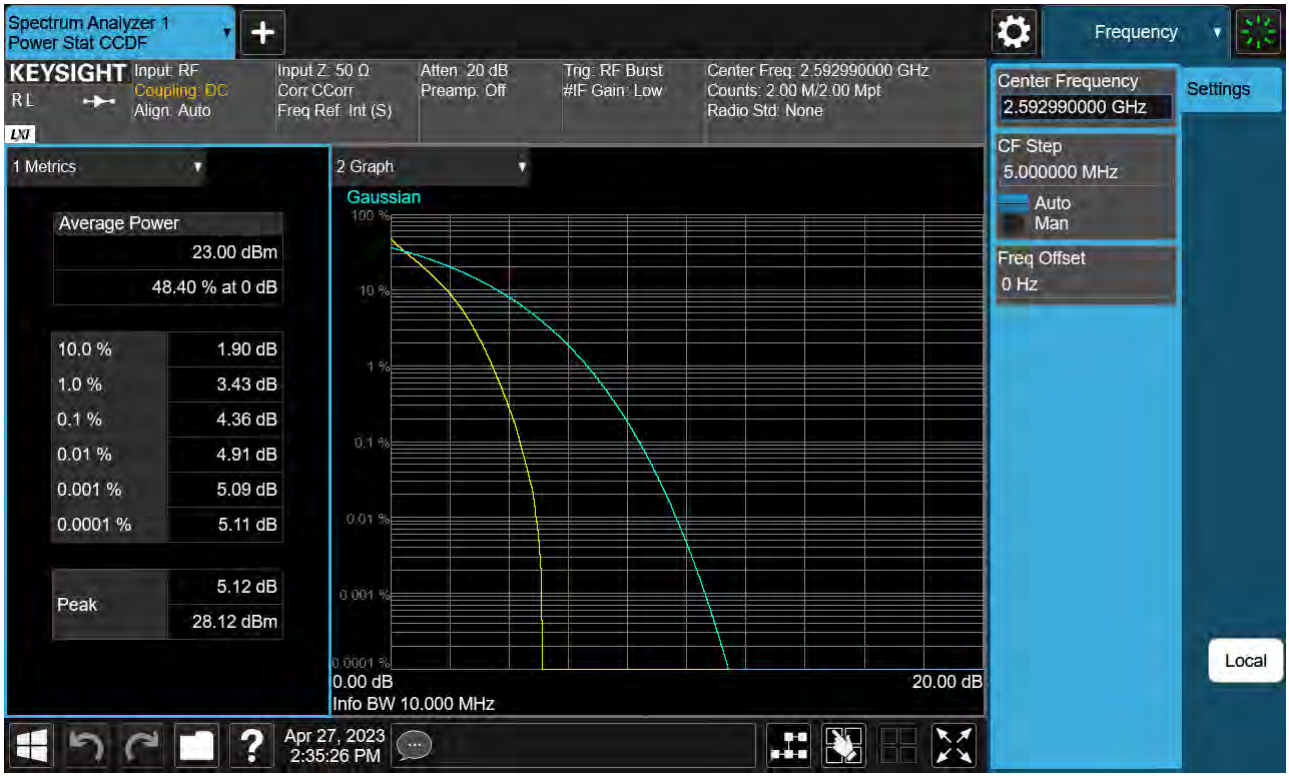
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 QPSK)

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

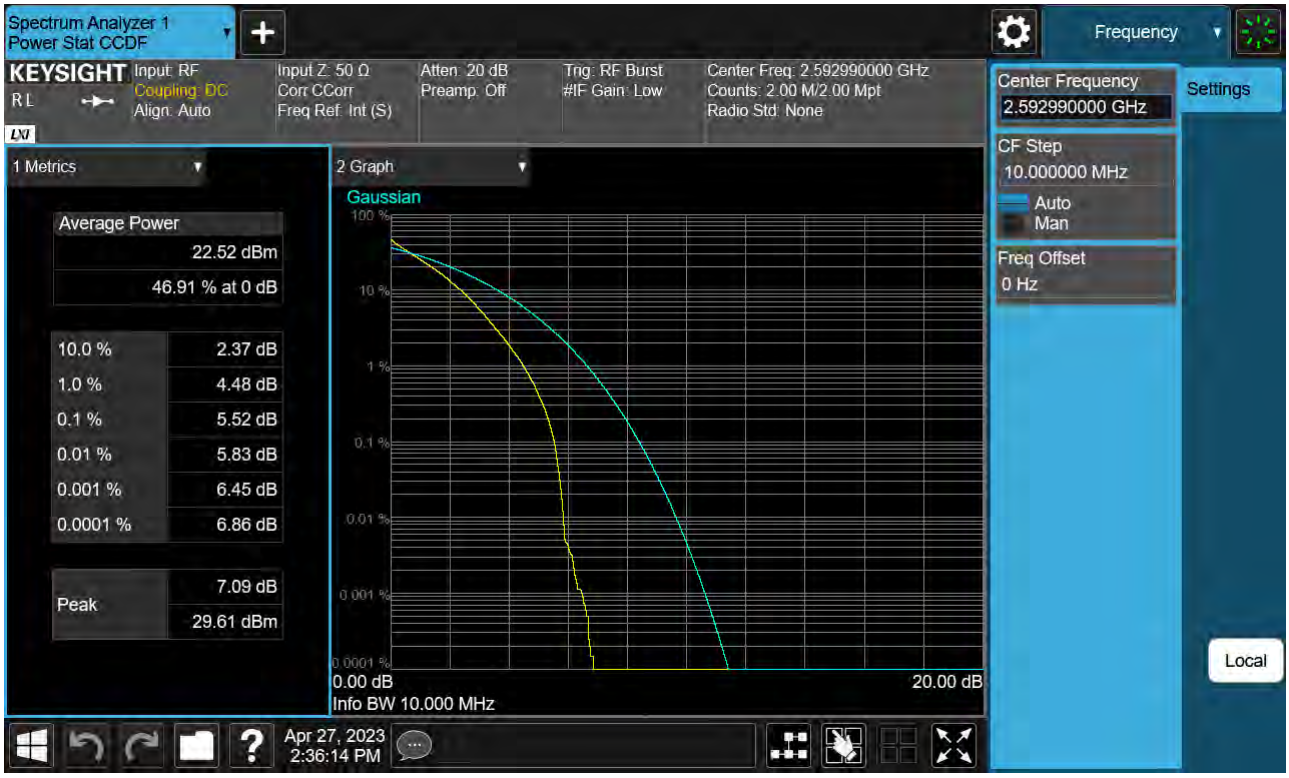
Sub6 n41. Occupied Bandwidth Plot (100 MHz Ch.518598 64-QAM)

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

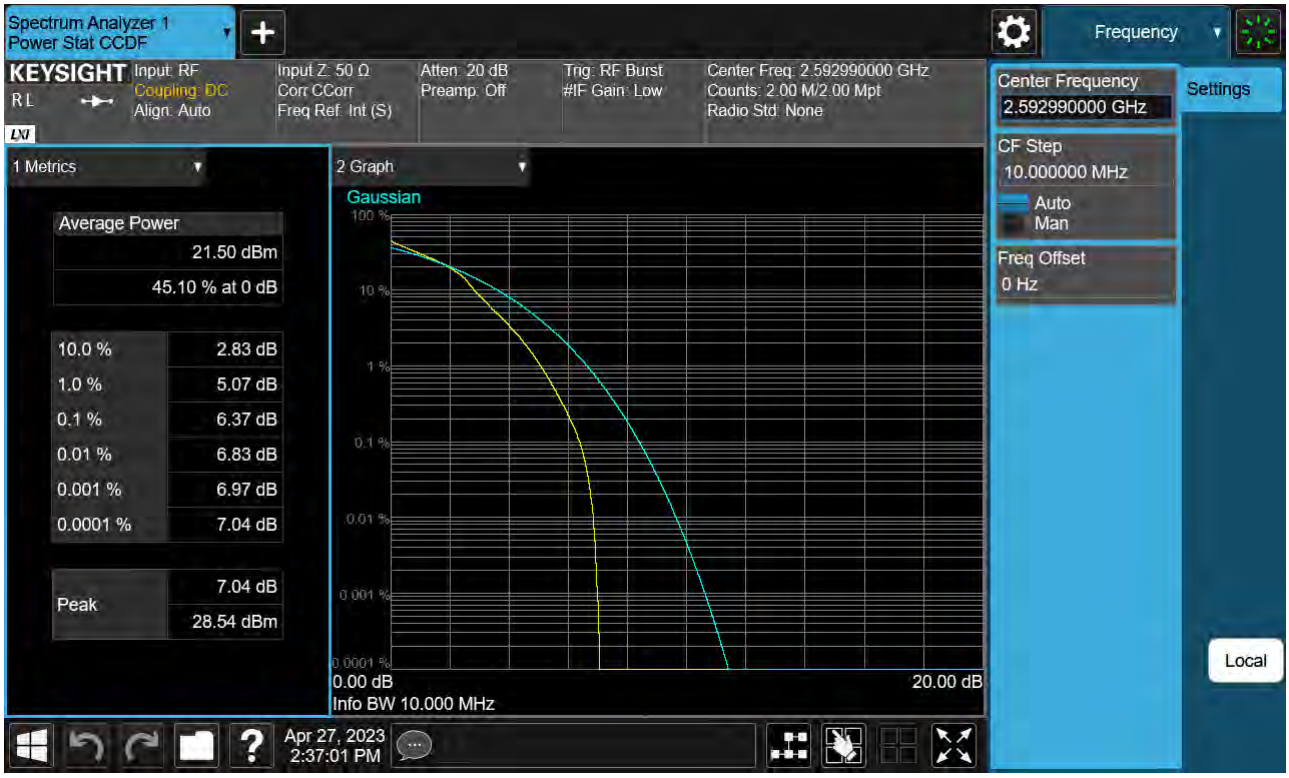
Sub6 n41. PAR Plot (10 M BW_Ch.518598_BPSK)



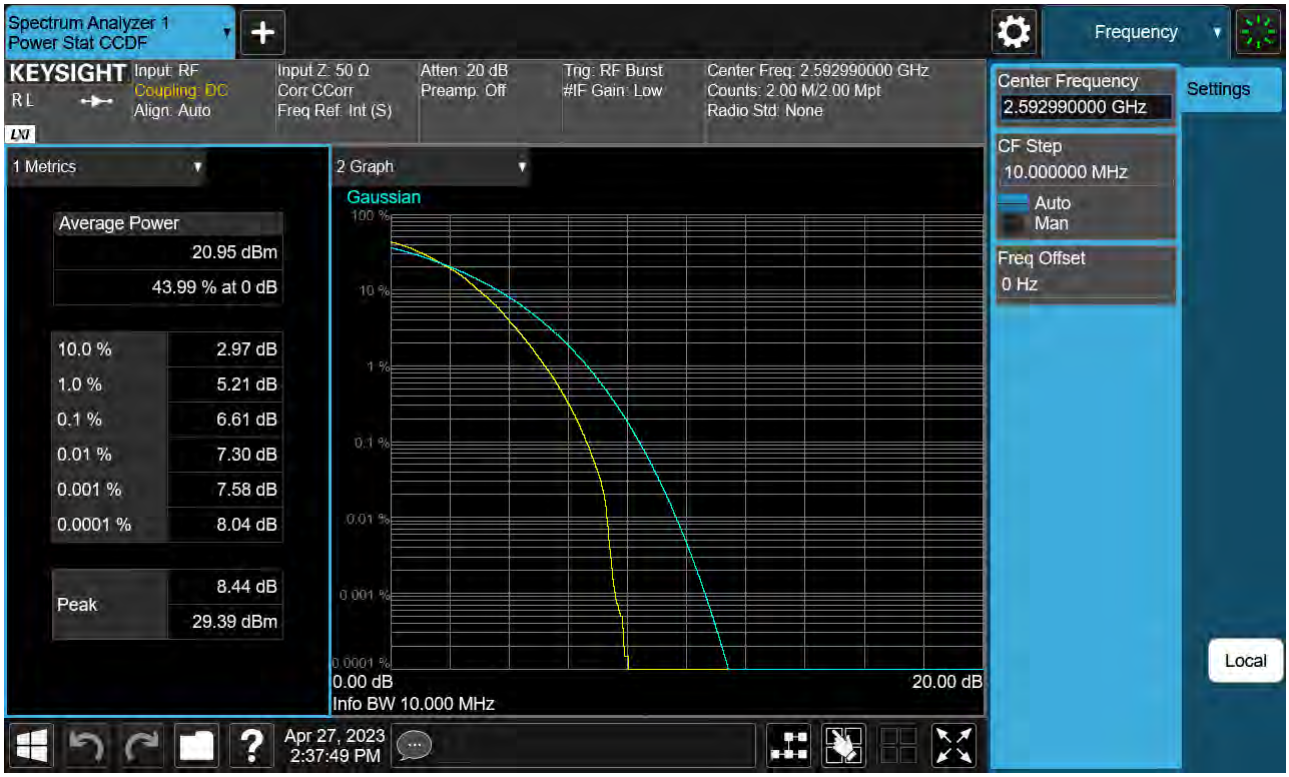
Sub6 n41. PAR Plot (10 M BW_Ch.518598_QPSK)



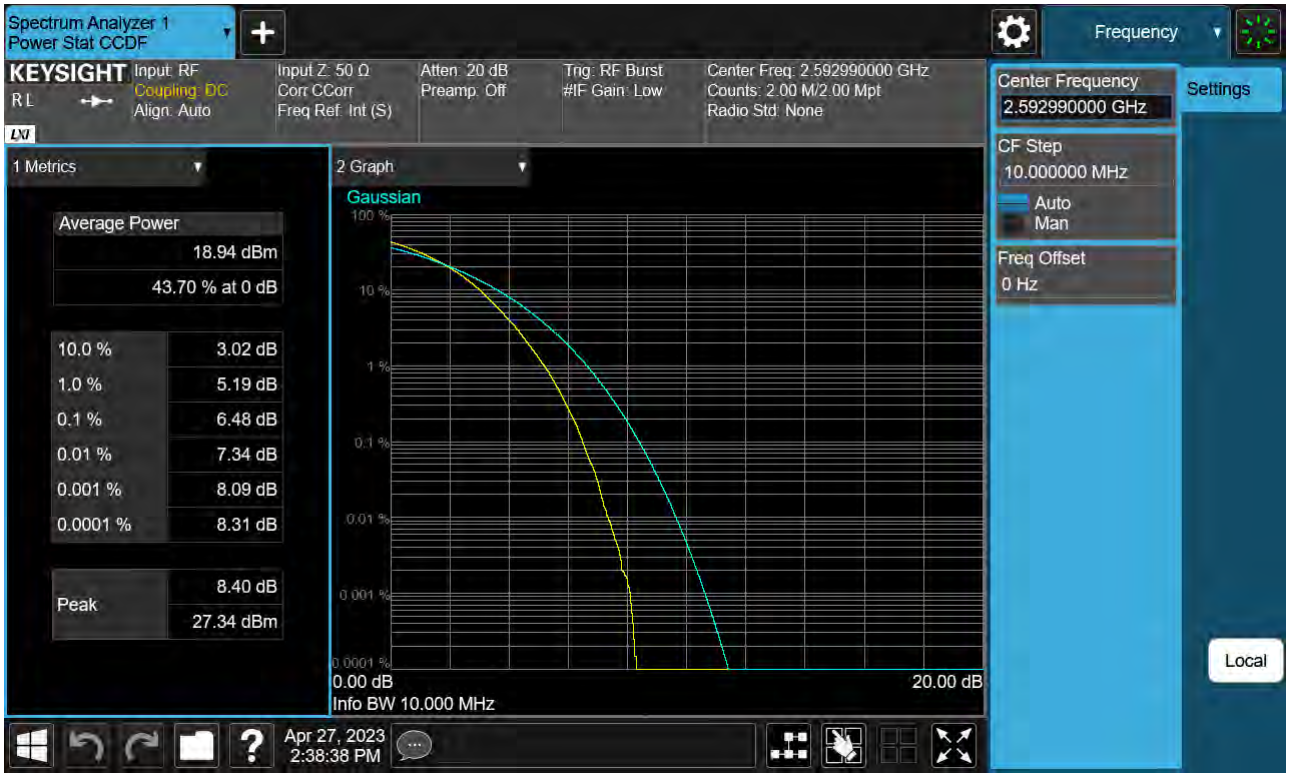
Sub6 n41. PAR Plot (10 M BW_Ch.518598_16QAM)



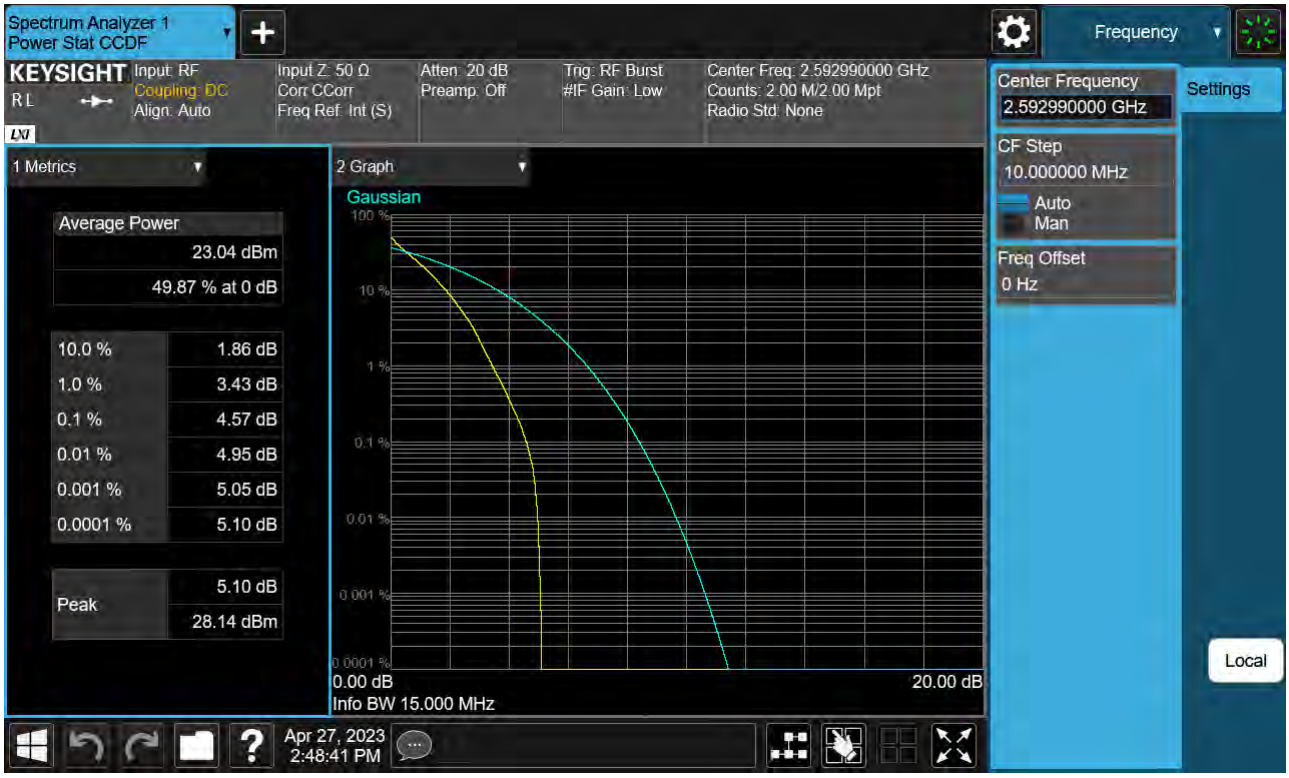
Sub6 n41. PAR Plot (10 M BW_Ch.518598_64QAM)



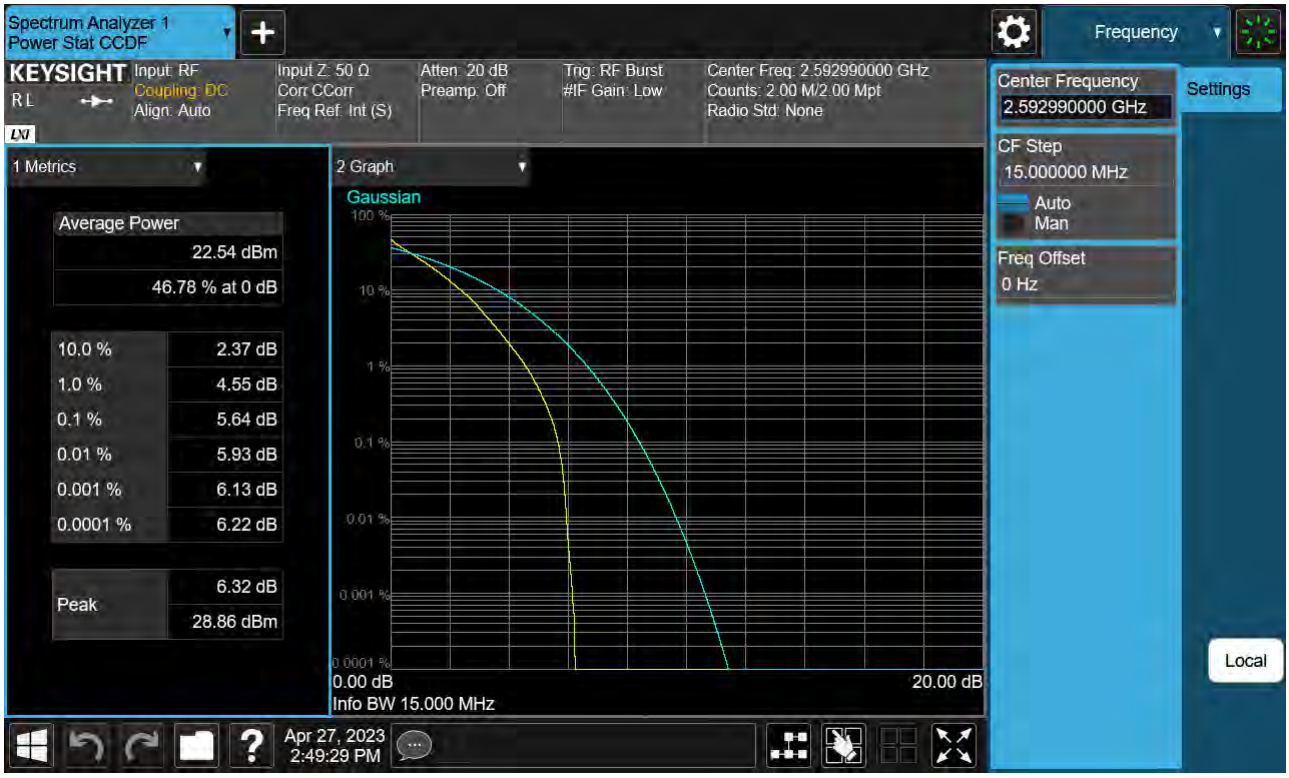
Sub6 n41. PAR Plot (10 M BW_Ch.518598_256QAM)



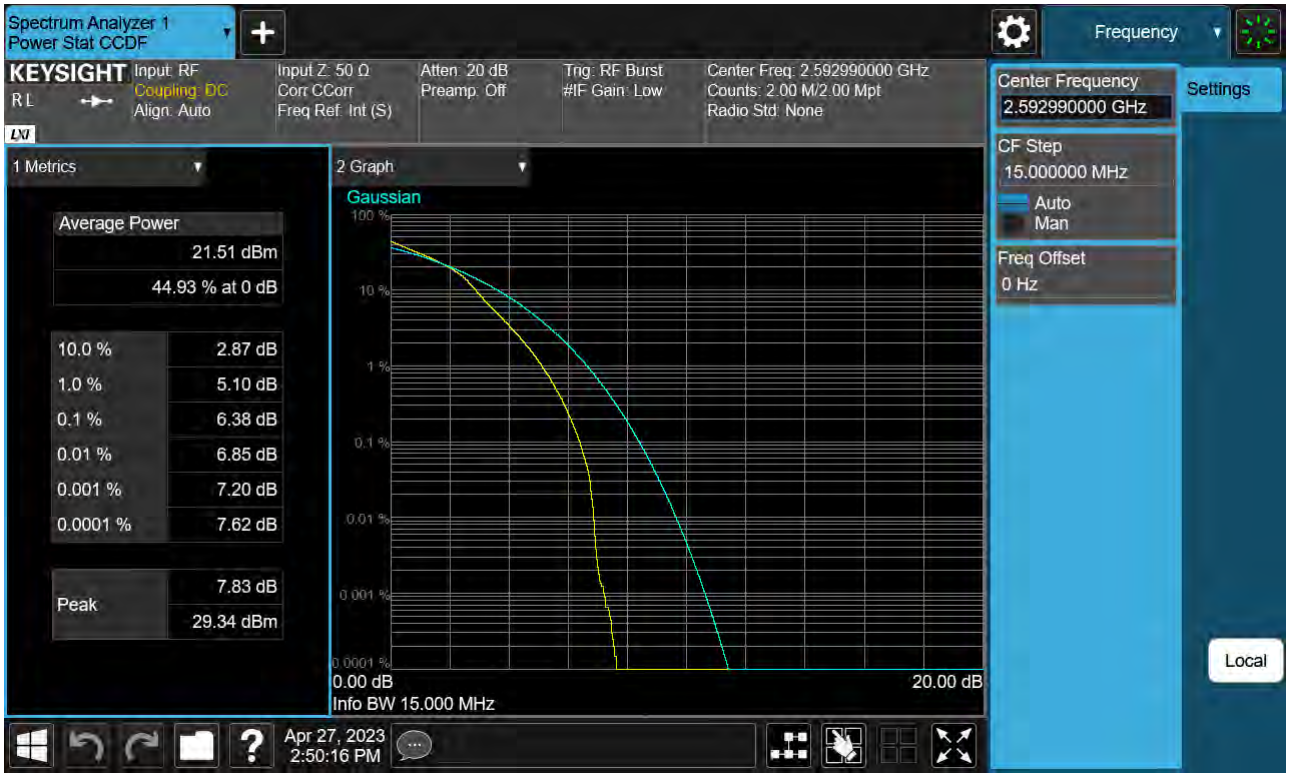
Sub6 n41. PAR Plot (15 M BW_Ch.518598_BPSK)



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



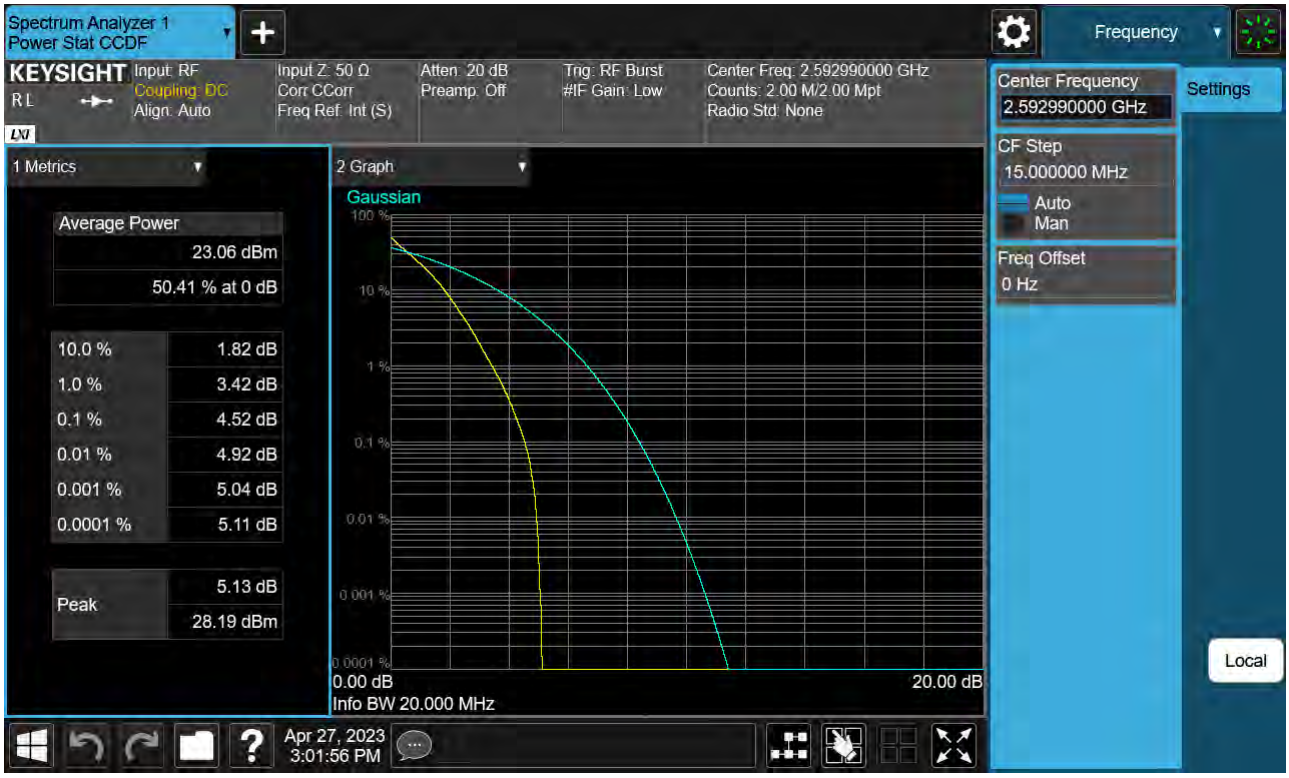
Sub6 n41. PAR Plot (15 M BW_Ch.518598_16QAM)



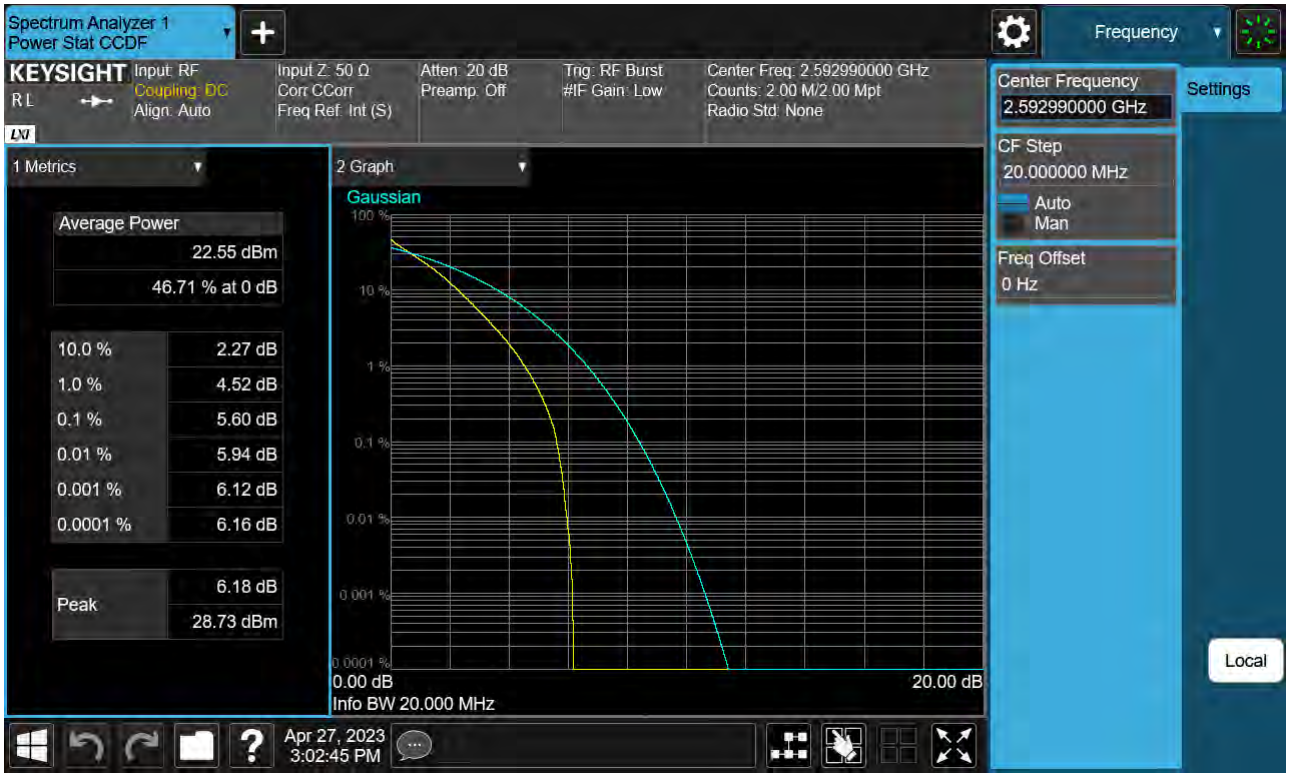
Sub6 n41. PAR Plot (15 M BW_Ch.518598_64QAM)

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

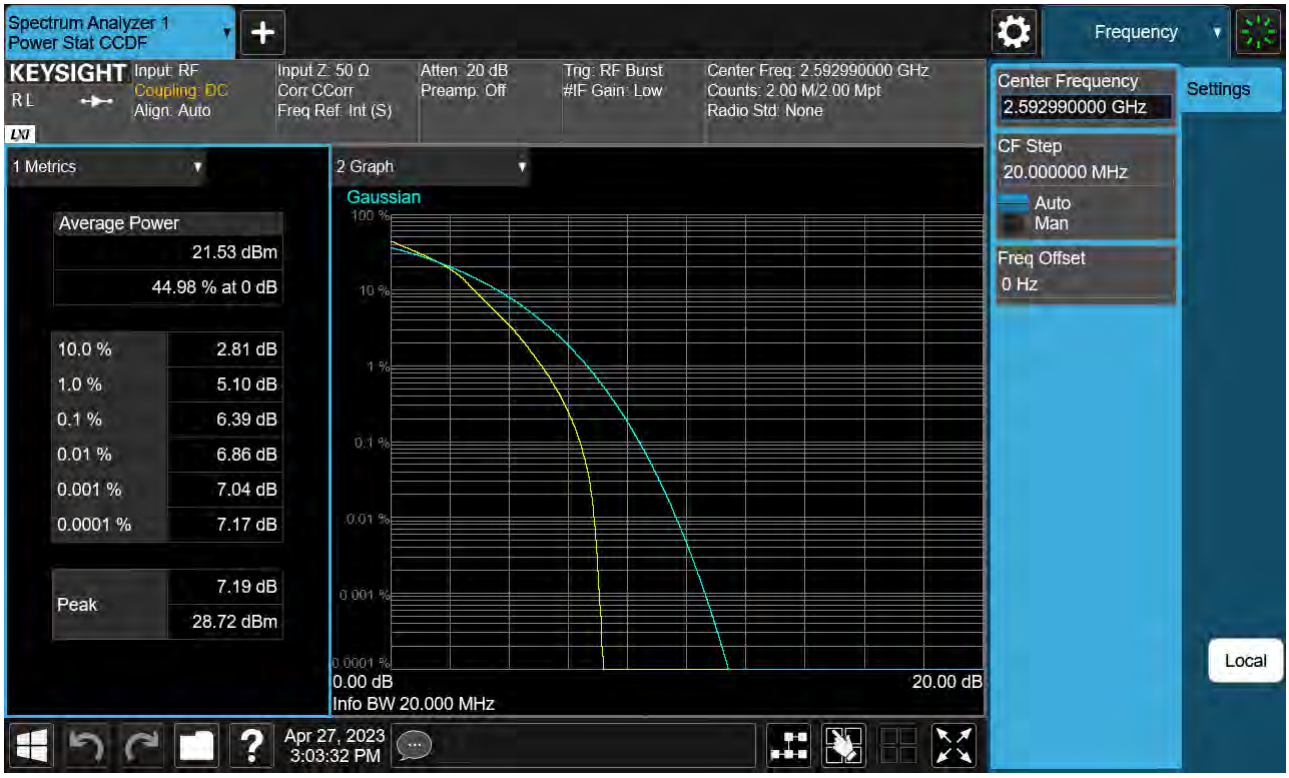
Sub6 n41. PAR Plot (20 M BW_Ch.518598_BPSK)



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



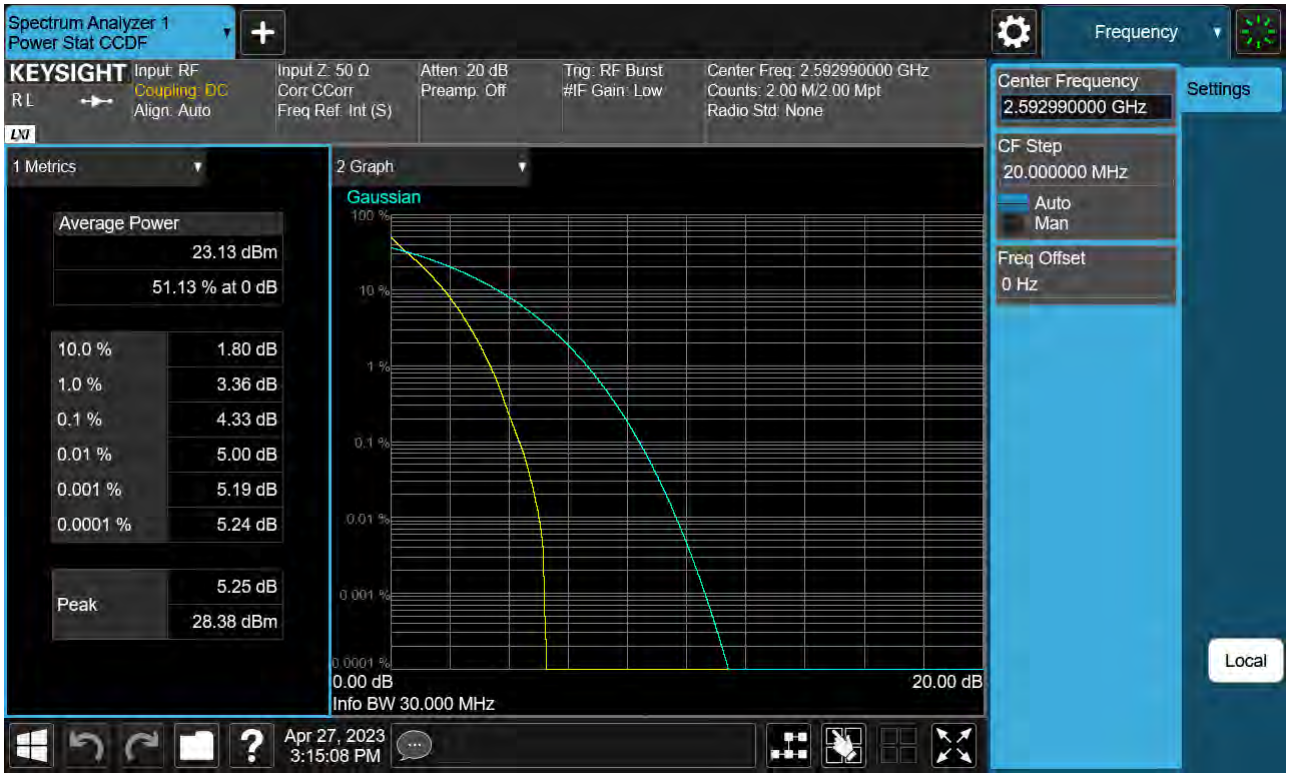
Sub6 n41. PAR Plot (20 M BW_Ch.518598_16QAM)



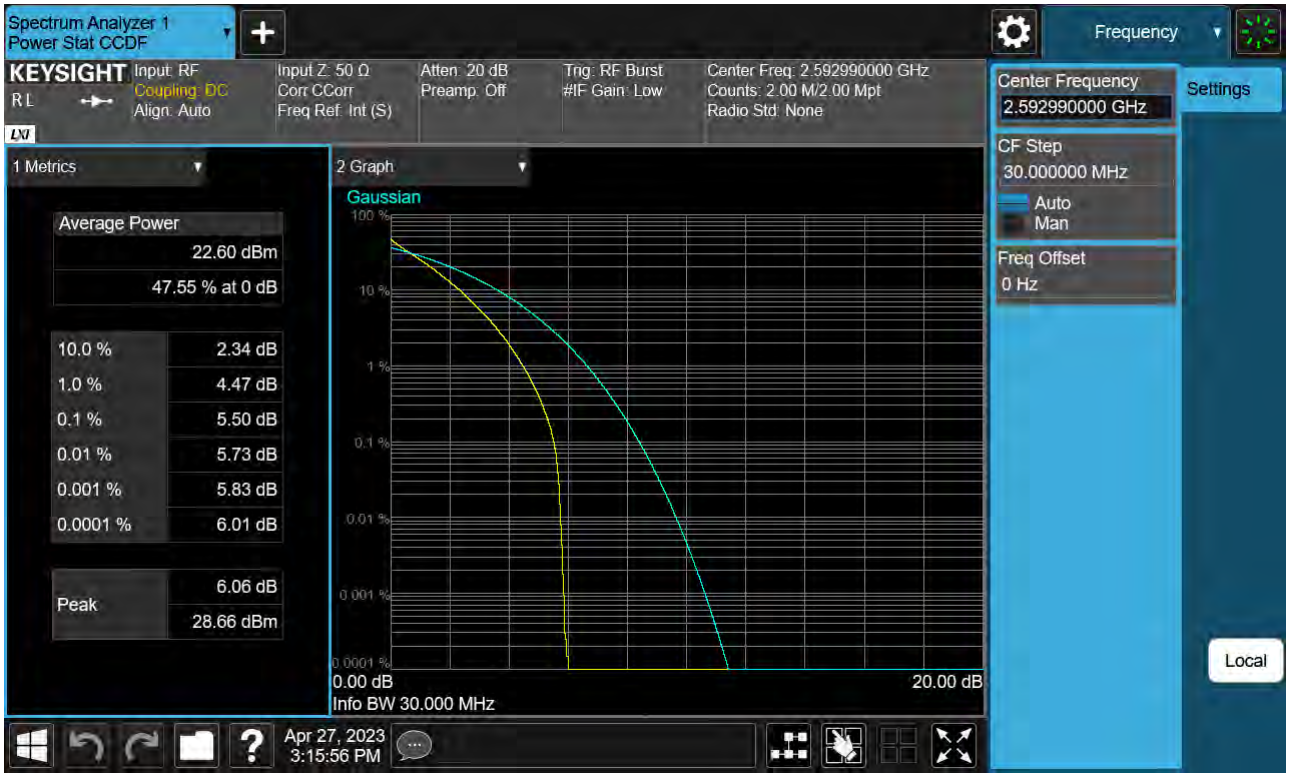
Sub6 n41. PAR Plot (20 M BW_Ch.518598_64QAM)

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

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

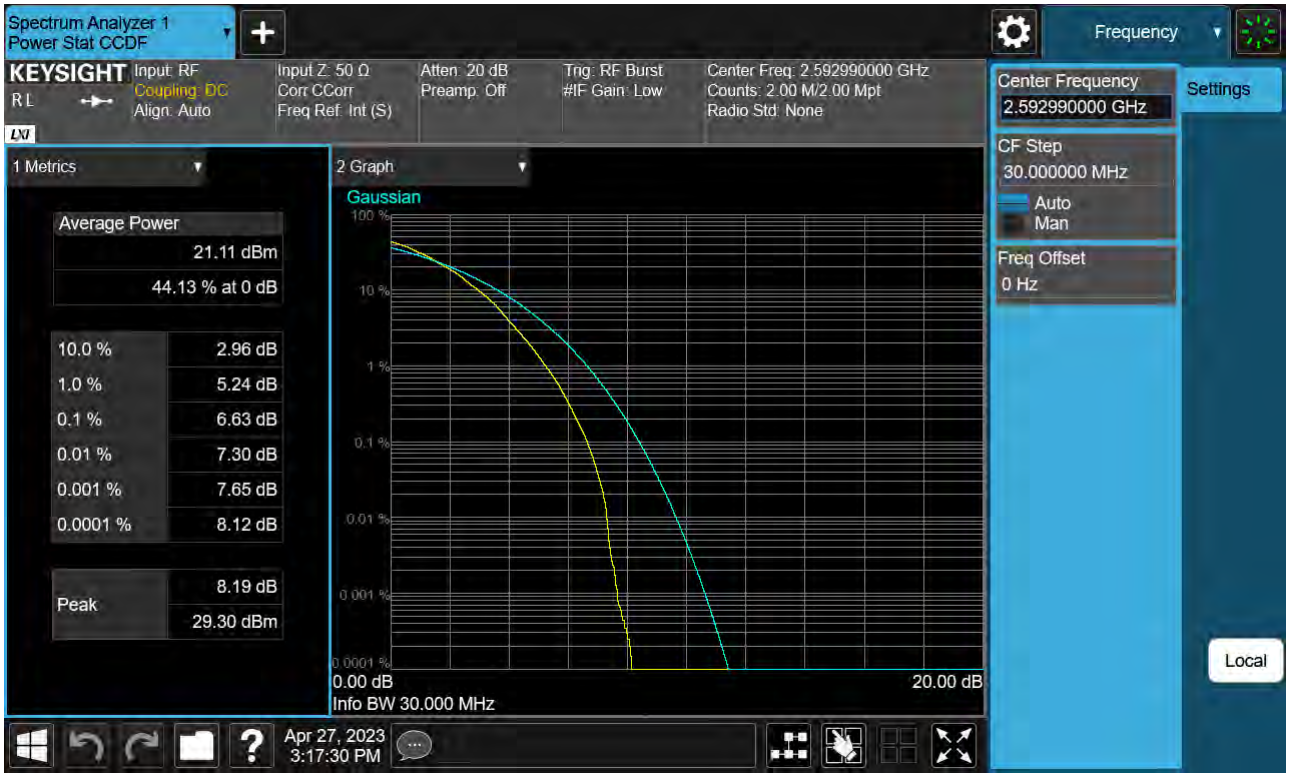


Sub6 n41. PAR Plot (30 M BW_Ch.518598_QPSK)

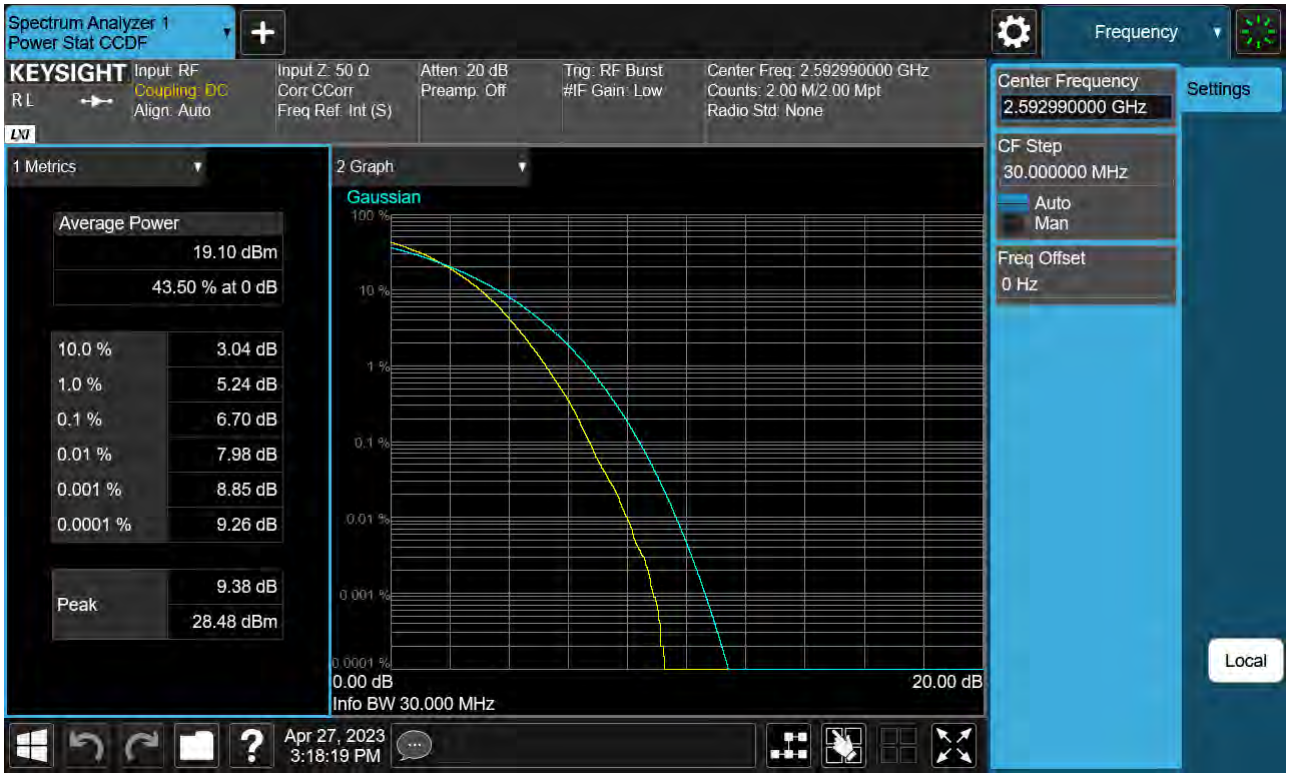


Sub6 n41. PAR Plot (30 M BW_Ch.518598_16QAM)

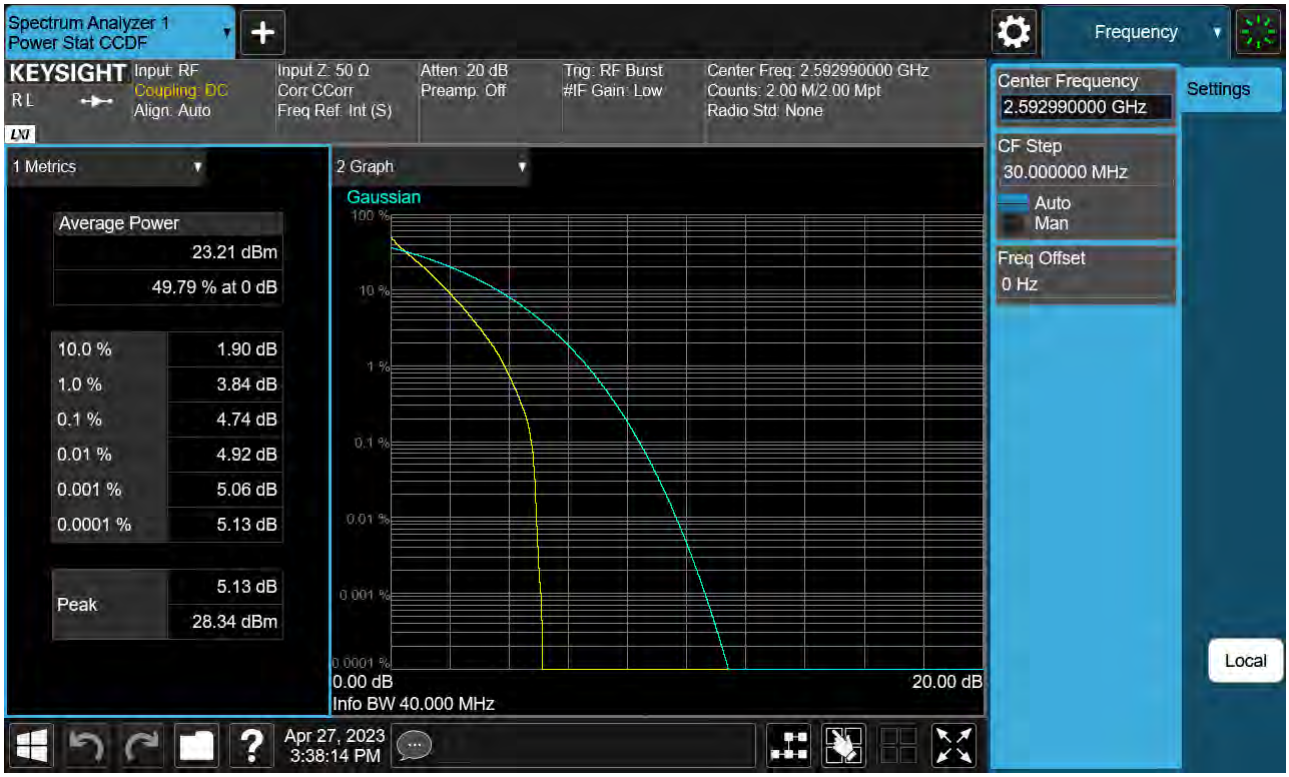
Sub6 n41. PAR Plot (30 M BW_Ch.518598_64QAM)



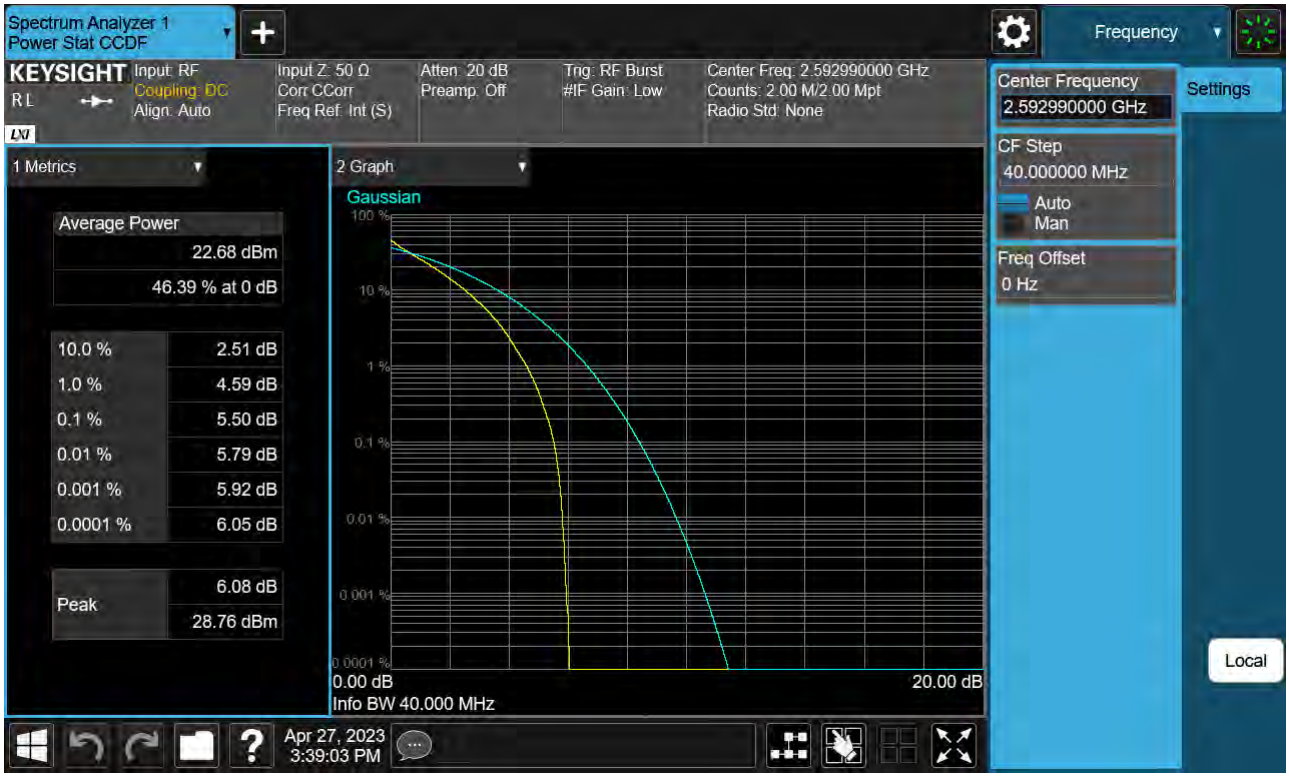
Sub6 n41. PAR Plot (30 M BW_Ch.518598_256QAM)



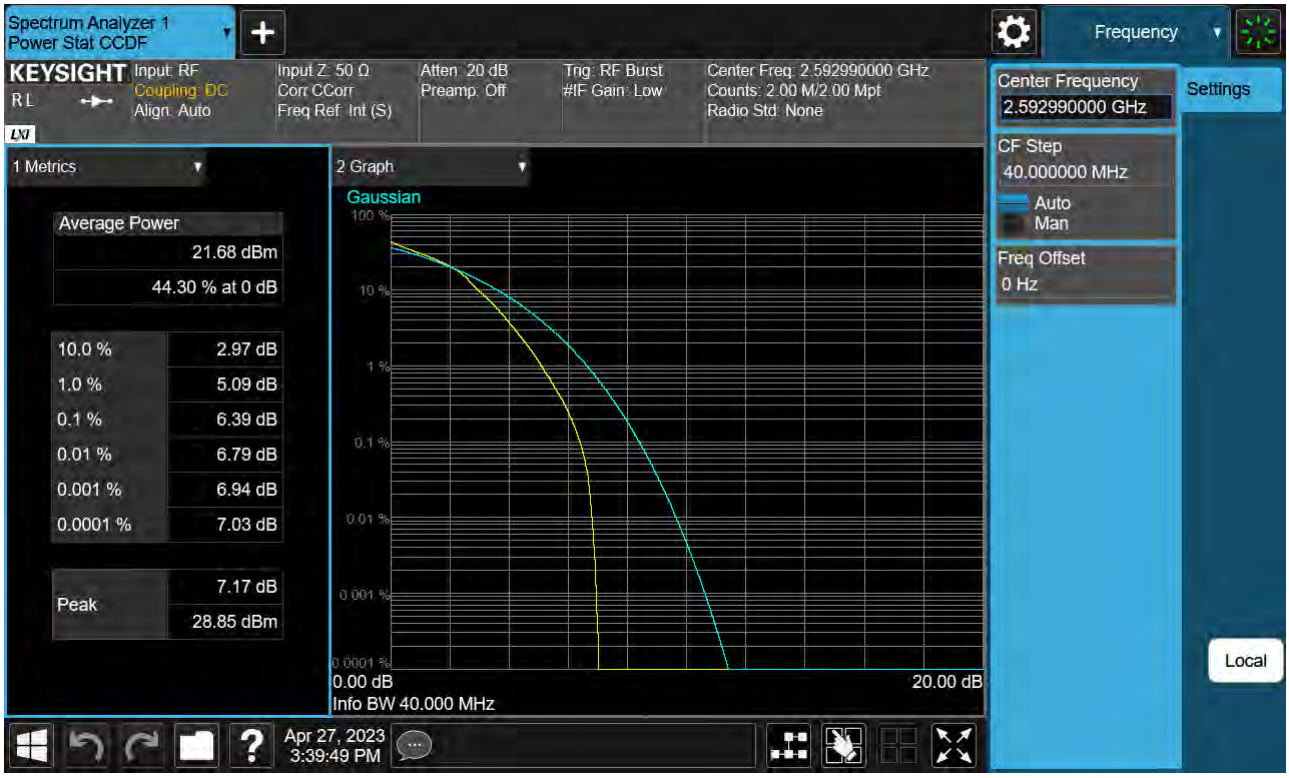
Sub6 n41. PAR Plot (40 M BW_Ch.518598_BPSK)



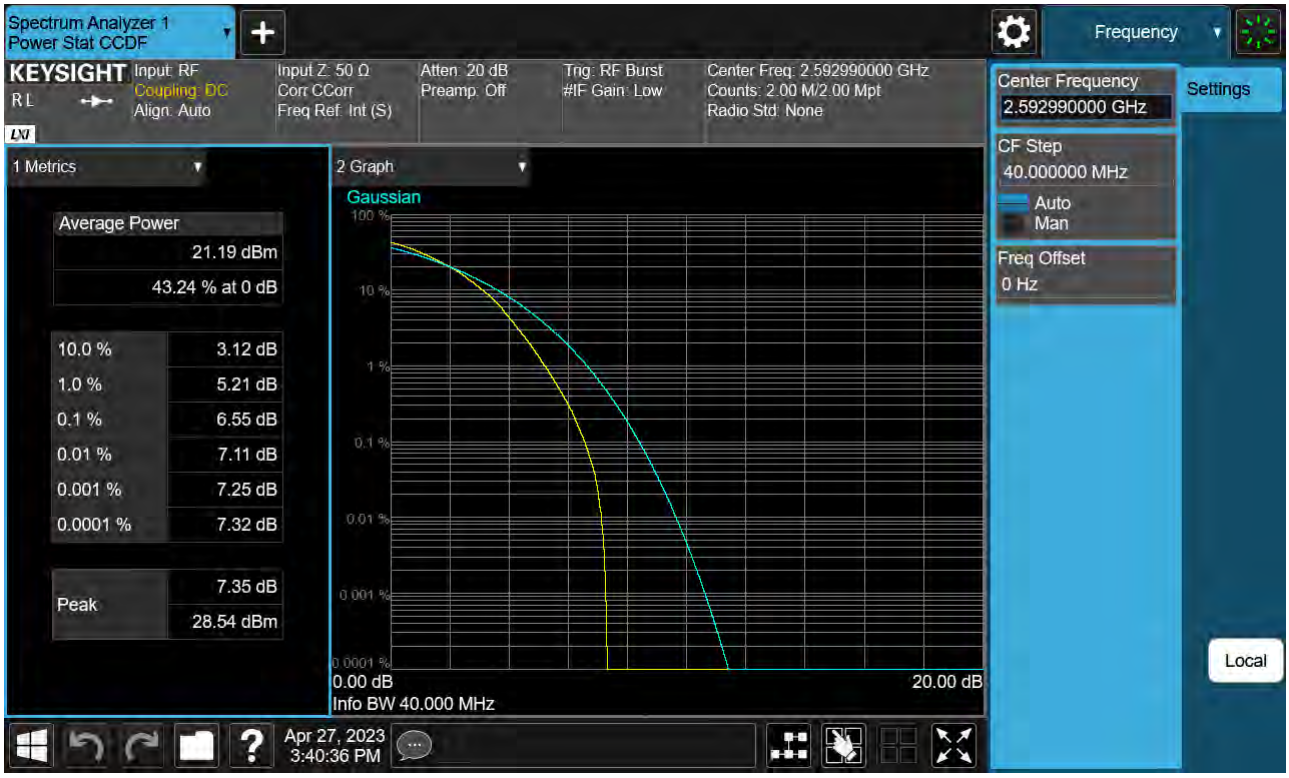
Sub6 n41. PAR Plot (40 M BW_Ch.518598_QPSK)



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

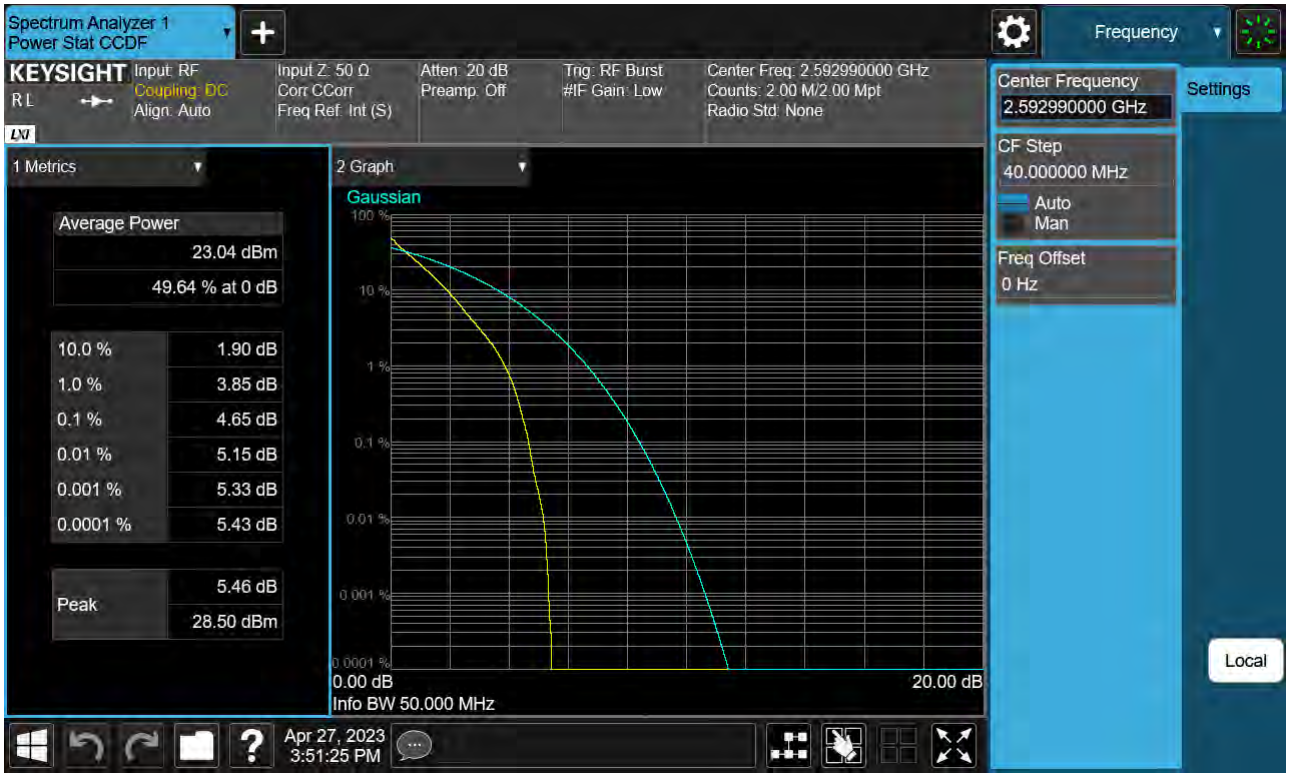


Sub6 n41. PAR Plot (40 M BW_Ch.518598_64QAM)

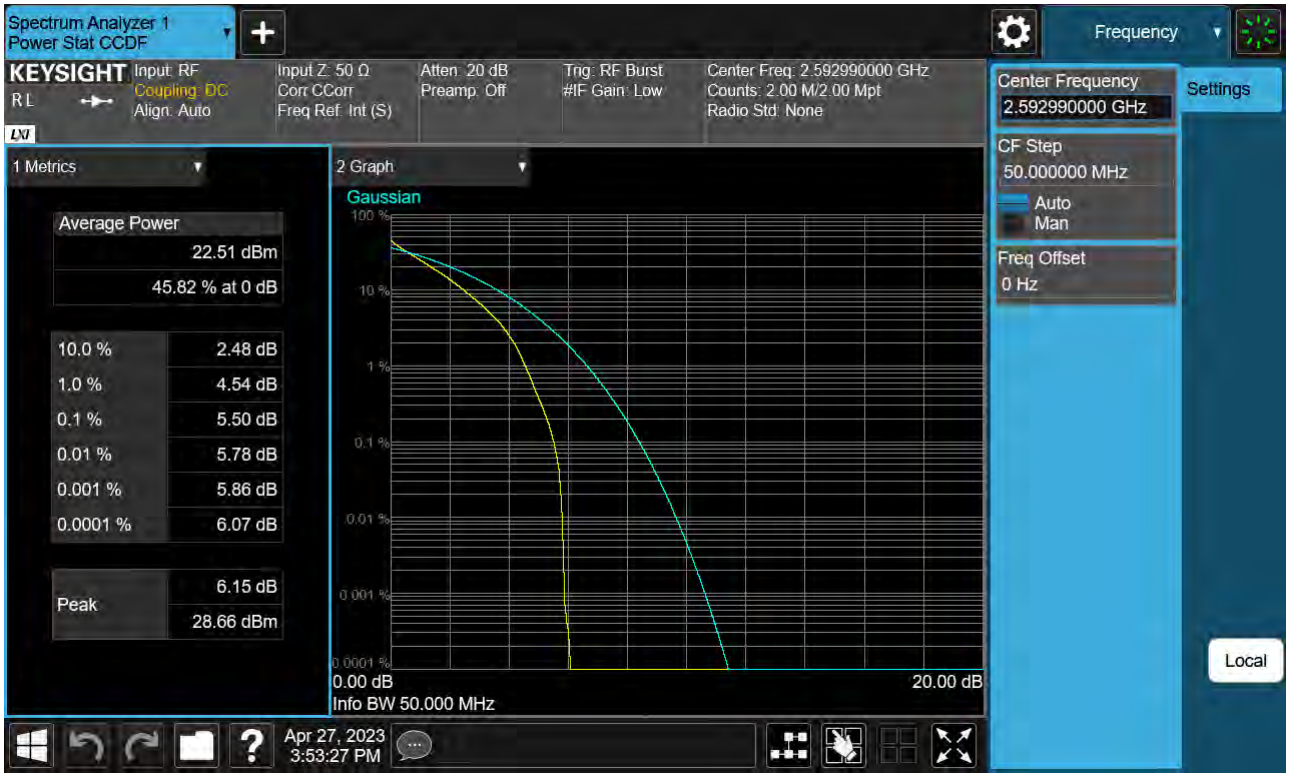


Sub6 n41. PAR Plot (40 M BW_Ch.518598_256QAM)

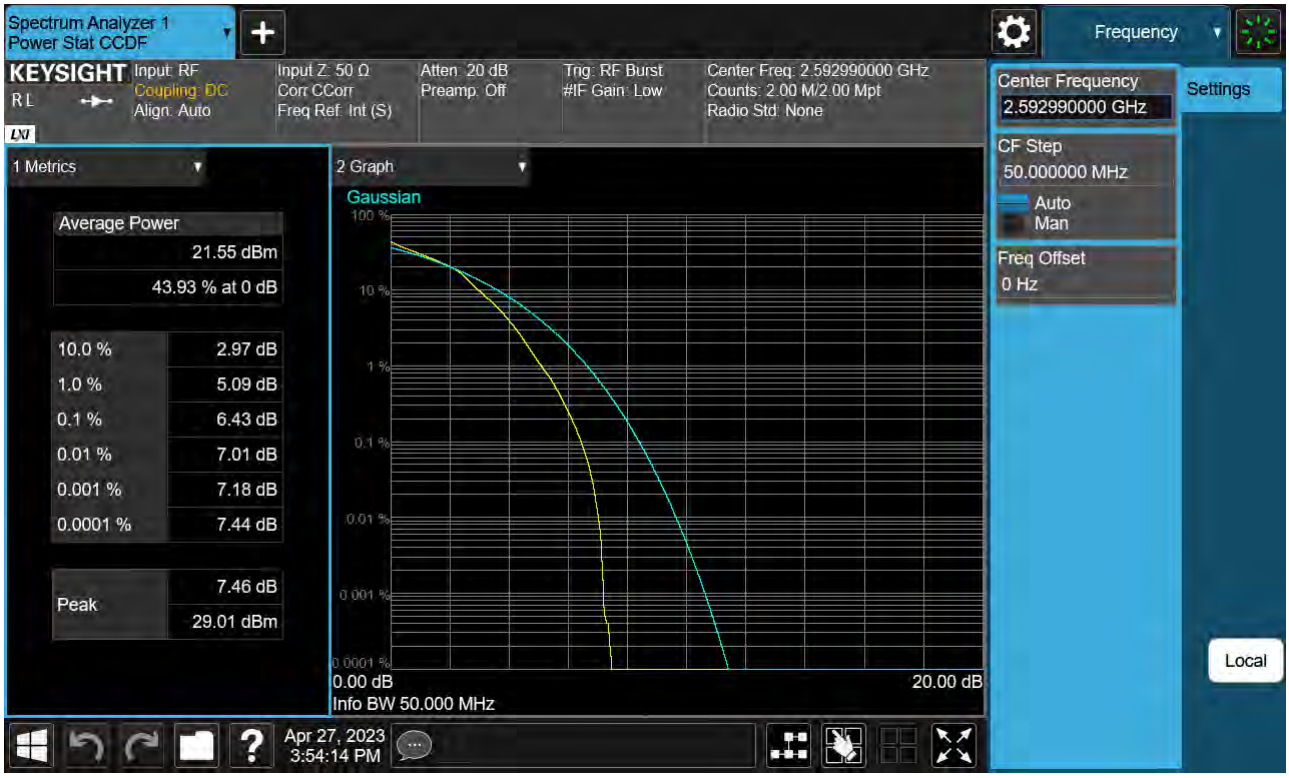
Sub6 n41. PAR Plot (50 M BW_Ch.518598_BPSK)



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



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



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

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

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