

FCC Sub6 REPORT

Certification

Applicant Name:
SAMSUNG Electronics Co., Ltd.

Date of Issue:
October 17, 2023

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

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

Report No.: HCT-RF-2310-FC074

FCC ID: A3LSMS926B

APPLICANT: SAMSUNG Electronics Co., Ltd.

Model(s): SM-S926B/DS
 Additional Model(s): SM-S926B
 EUT Type: Mobile phone
 FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
 FCC Rule Part(s): §27

Main 1 Ant

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n66 (5)	1712.5 – 1777.5	4M51G7D	PI/2 BPSK	0.172	22.35
		4M52G7D	QPSK	0.167	22.23
		4M51W7D	16QAM	0.135	21.30
		4M51W7D	64QAM	0.096	19.81
		4M51W7D	256QAM	0.060	17.80
Sub6 n66 (10)	1715.0 – 1775.0	9M01G7D	PI/2 BPSK	0.175	22.43
		9M02G7D	QPSK	0.174	22.41
		8M98W7D	16QAM	0.136	21.35
		9M01W7D	64QAM	0.097	19.88
		8M99W7D	256QAM	0.061	17.87
Sub6 n66 (15)	1717.5 – 1772.5	13M5G7D	PI/2 BPSK	0.172	22.36
		13M4G7D	QPSK	0.167	22.23
		13M5W7D	16QAM	0.133	21.25
		13M4W7D	64QAM	0.097	19.87
		13M4W7D	256QAM	0.061	17.82
Sub6 n66 (20)	1720.0 – 1770.0	17M9G7D	PI/2 BPSK	0.177	22.49
		17M9G7D	QPSK	0.172	22.35
		17M9W7D	16QAM	0.143	21.54
		17M9W7D	64QAM	0.100	19.99
		17M9W7D	256QAM	0.064	18.03

Sub 2 Ant

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n66 (5)	1712.5 – 1777.5	4M51G7D	PI/2 BPSK	0.114	20.56
		4M54G7D	QPSK	0.112	20.48
		4M50W7D	16QAM	0.092	19.63
		4M54W7D	64QAM	0.066	18.18
		4M59W7D	256QAM	0.042	16.28
Sub6 n66 (10)	1715.0 – 1775.0	9M00G7D	PI/2 BPSK	0.115	20.61
		9M00G7D	QPSK	0.112	20.50
		8M99W7D	16QAM	0.088	19.45
		9M00W7D	64QAM	0.062	17.93
		9M00W7D	256QAM	0.040	15.99
Sub6 n66 (15)	1717.5 – 1772.5	13M5G7D	PI/2 BPSK	0.114	20.55
		13M5G7D	QPSK	0.112	20.51
		13M5W7D	16QAM	0.091	19.61
		13M4W7D	64QAM	0.064	18.09
		13M4W7D	256QAM	0.042	16.22
Sub6 n66 (20)	1720.0 – 1770.0	18M0G7D	PI/2 BPSK	0.115	20.60
		17M9G7D	QPSK	0.115	20.59
		17M9W7D	16QAM	0.091	19.60
		17M9W7D	64QAM	0.065	18.10
		17M9W7D	256QAM	0.042	16.27

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)

Report No.: HCT-RF-2310-FC074

REVIEWED BY



Report prepared by : Jae Ryang Do
Engineer of Telecommunication Testing Center

Report approved by : Jong Seok Lee
Manager of Telecommunication Testing Center

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test results were applied only to the test methods required by the standard.

Test Report Statement:

The above Test Report is not related to the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA.

The report shall not be reproduced except in full(only partly) without approval of the laboratory.

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2310-FC074	October 17, 2023	- First Approval Report

Table of Contents

REVIEWED BY	3
1. GENERAL INFORMATION	6
2. INTRODUCTION.....	7
2.1. DESCRIPTION OF EUT	7
2.2. MEASURING INSTRUMENT CALIBRATION	7
2.3. TEST FACILITY	7
3. DESCRIPTION OF TESTS	8
3.1 TEST PROCEDURE	8
3.2 RADIATED POWER	9
3.3 RADIATED SPURIOUS EMISSIONS	10
3.4 PEAK- TO- AVERAGE RATIO	11
3.5 OCCUPIED BANDWIDTH.....	13
3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL	14
3.7 BAND EDGE	15
3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE.....	16
3.9 WORST CASE(RADIATED TEST).....	17
3.10 WORST CASE(CONDUCTED TEST).....	19
4. LIST OF TEST EQUIPMENT	20
5. MEASUREMENT UNCERTAINTY	21
6. SUMMARY OF TEST RESULTS	22
7. SAMPLE CALCULATION	23
8. TEST DATA(Main 1 Ant)	25
8.1 EQUIVALENT ISOTROPIC RADIATED POWER	25
8.2 RADIATED SPURIOUS EMISSIONS.....	29
8.3 PEAK-TO-AVERAGE RATIO	30
8.4 OCCUPIED BANDWIDTH.....	31
8.5 CONDUCTED SPURIOUS EMISSIONS	32
8.6 BAND EDGE	32
8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE.....	33
9. TEST DATA(Sub 2 Ant)	37
9.1 EQUIVALENT ISOTROPIC RADIATED POWER	37
9.2 RADIATED SPURIOUS EMISSIONS.....	41
9.3 PEAK-TO-AVERAGE RATIO	42
9.4 OCCUPIED BANDWIDTH.....	43
9.5 CONDUCTED SPURIOUS EMISSIONS	44
9.6 BAND EDGE	44
9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE.....	45
10. TEST PLOTS(Main 1 Ant)	49
11. TEST PLOTS(Sub 2 Ant)	138
12. ANNEX A_ TEST SETUP PHOTO	227

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:	A3LSMS926B
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§27
EUT Type:	Mobile phone
Model(s):	SM-S926B/DS
Additional Model(s):	SM-S926B
SCS(kHz):	15
Bandwidth(MHz):	5, 10, 15, 20
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:	1712.5 MHz – 1777.5 MHz (Sub6 n66(5 MHz)) 1715.0 MHz – 1775.0 MHz (Sub6 n66(10 MHz)) 1717.5 MHz – 1772.5 MHz (Sub6 n66(15 MHz)) 1720.0 MHz – 1770.0 MHz (Sub6 n66(20 MHz))
Date(s) of Tests:	August 31, 2023 ~ October 10, 2023
Serial number:	Radiated: R3CW70NE1JK Conducted: R3CW70NDTST(Main 1 ANT), R3CW70NDTRM(Sub 2 ANT)

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, Bluetooth, BT LE, NFC, UWB, WPT.

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

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

The power is calculated by the following formula;

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

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

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

These steps are repeated with the receiving antenna in both vertical and horizontal polarization. the difference

between the gain of the horn and an isotropic antenna are taken into consideration

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

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

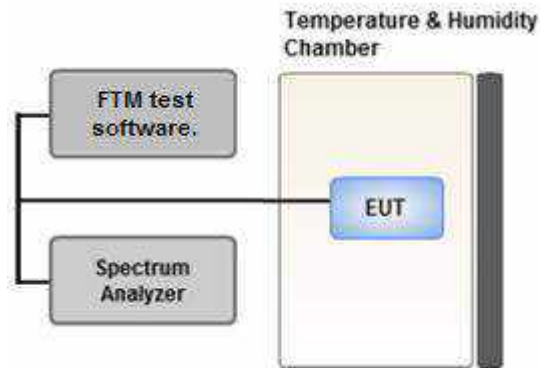
$$\text{Result}_{(dBm)} = P_g_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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

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

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

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

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

② Alternate Procedure for PAPR

Use one of the procedures presented in 5.2(ANSI C63.26-2015) to measure the total peak power and record as P_{Pk} .

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

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

Test Settings(Peak Power)

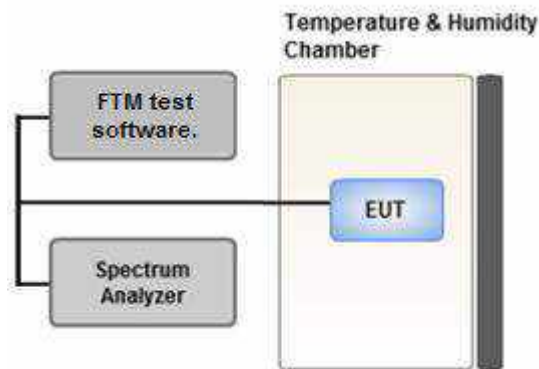
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

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

Test Settings(Average Power)

1. Set span to 2 \times to 3 \times the OBW.
2. Set RBW \geq OBW.
3. Set VBW $\geq 3 \times$ RBW.
4. Set number of measurement points in sweep $\geq 2 \times$ span / RBW.
5. Sweep time:
Set $\geq [10 \times (\text{number of points in sweep}) \times (\text{transmission period})]$ for single sweep (automation-compatible) measurement. The transmission period is the (on + off) time.
6. Detector = power averaging (rms).
7. Set sweep trigger to "free run."
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. (To accurately determine the average power over the on and off period of the transmitter, it can be necessary to increase the number of traces to be averaged above 100 or, if using a manually configured sweep time, increase the sweep time.)
9. Use the peak marker function to determine the maximum amplitude level.
10. Add $[10 \log (1/\text{duty cycle})]$ to the measured maximum power level to compute the average power during continuous transmission. For example, add $[10 \log (1/0.25)] = 6$ dB if the duty cycle is a constant 25 %.

3.5 OCCUPIED BANDWIDTH.



Test setup

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

The EUT makes a call to the communication simulator.

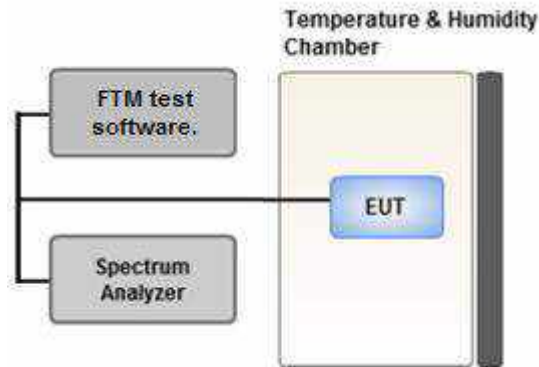
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

Test Settings

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

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic.

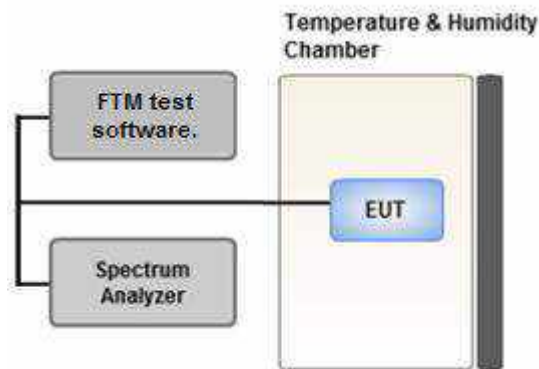
All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

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

Test Settings

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

3.7 BAND 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 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. 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. RBW > 1 % of the emission bandwidth
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points $\geq 2 \times \text{Span}/\text{RBW}$
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Notes

According to FCC 22.917, 24.238, 27.53 specified that power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

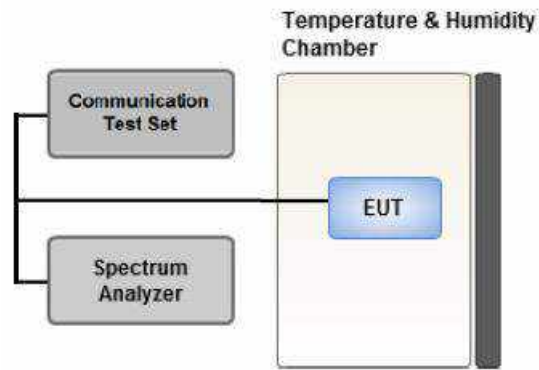
In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

All measurements were done at 2 channels (low and high operational frequency range).

The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

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

The frequency stability of the transmitter is measured by:

1. Temperature:

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

2. Primary Supply Voltage:

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

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

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature

(20 °C to provide a reference).

2. The equipment is turned on in a "standby" condition for fifteen minutes before applying power to the transmitter.

Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.

3. Frequency measurements are made at 10 °C intervals ranging from -30 °C to +50 °C. A period of at

least one half-hour is provided to allow stabilization of the equipment at each temperature level.

3.9 WORST CASE(RADIATED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.

(Worst case: DFT-S-OFDM)

- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.

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

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

Worst case : Stand alone

Mode : NSA, SA

Worst case: SA

- 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 (=anchor) were investigated and the test results were measured No Peak Found.

The test results which are attenuated more than 20 dB below the permissible value, so it was not reported.

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

Please refer to the table below.

-In the case of radiated spurious emissions, all bandwidth of operation was investigated and the worst case bandwidth results are reported.

(Worst case : 20 MHz(Main 1 Ant.), 10 MHz(Sub 2 Ant.))

- SM-S926B/DS & additional models were tested and the worst case results are reported.

(Worst case : SM-S926B/DS)

[Main 1 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		Z
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		Z

[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		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 : NSA, SA

Worst case: SA

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

Please refer to the table below.

- SM-S926B/DS & additional models were tested and the worst case results are reported.

(Worst case : SM-S926B/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	5, 10, 15, 20	Mid	Full RB	0
Band Edge	PI/2 BPSK	5	Low	1	0
			High	1	24
		10	Low	1	0
			High	1	51
		15	Low	1	0
			High	1	78
		20	Low	1	0
			High	1	105
		5, 10, 15, 20	Low, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	5, 10, 15, 20	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	01/16/2025	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/09/2025	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/24/2025	Biennial
RF Switching System	FBSR-06B (1G HPF + LNA)	T&M SYSTEM	F3L1	05/22/2024	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/22/2024	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/22/2024	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/22/2024	Annual
Power Amplifier	CBL18265035	CERNEK	22966	12/01/2023	Annual
Power Amplifier	CBL26405040	CERNEK	25956	03/02/2024	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/25/2024	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	08/10/2024	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/22/2024	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/23/2024	Annual
SIGNAL GENERATOR (100 kHz~40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	06/22/2024	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/24/2024	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/27/2023	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

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

5. MEASUREMENT UNCERTAINTY

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

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

6. SUMMARY OF TEST RESULTS

6.1 Test Condition: Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§2.1051, §27.53(h)	< 43 + 10log10 (P[Watts]) at Band Edge and for all out-of-band emissions	PASS
Conducted Output Power	§2.1046	N/A	<u>See Note1</u>
Peak- to- Average Ratio	§27.50(d)(5)	< 13 dB	PASS
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(d)(4)	< 1 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§2.1053, §27.53(h)	< 43 + 10log10 (P[Watts]) for all out-of band emissions	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
349000	1,732.50	-15.75	18.45	9.90	1.76	H	0.456	26.59

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

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

7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW

GSM BW = 249 kHz

G = Phase Modulation

X = Cases not otherwise covered

W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W

GSM BW = 249 kHz

G = Phase Modulation

7 = Quantized/Digital Info

W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W

WCDMA BW = 4.17 MHz

F = Frequency Modulation

9 = Composite Digital Info

W = Combination (Audio/Data)

PSK Modulation

Emission Designator = 4M48G7D

LTE BW = 4.48 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D

LTE BW = 4.48 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

8. TEST DATA(Main 1 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
1712.5	Sub6 n66/ 5 MHz [15 kHz]	PI/2 BPSK	-18.61	14.75	9.60	2.00	V	< 1.00	0.172	22.35	1	12
		QPSK	-18.73	14.63	9.60	2.00	V		0.167	22.23		
		16-QAM	-19.66	13.70	9.60	2.00	V		0.135	21.30		
		64-QAM	-21.15	12.21	9.60	2.00	V		0.096	19.81		
		256-QAM	-23.16	10.20	9.60	2.00	V		0.060	17.80		
1745.0		PI/2 BPSK	-19.08	14.52	9.75	2.04	V		0.167	22.23	1	23
		QPSK	-19.10	14.50	9.75	2.04	V		0.166	22.21		
		16-QAM	-20.13	13.47	9.75	2.04	V		0.131	21.18		
		64-QAM	-21.69	11.91	9.75	2.04	V		0.092	19.62		
		256-QAM	-23.55	10.05	9.75	2.04	V		0.060	17.76		
1777.5	PI/2 BPSK	-19.25	14.29	9.90	2.08	V	0.163	22.11	1	12		
	QPSK	-19.40	14.14	9.90	2.08	V	0.157	21.96				
	16-QAM	-20.35	13.19	9.90	2.08	V	0.126	21.01				
	64-QAM	-21.83	11.71	9.90	2.08	V	0.090	19.53				
	256-QAM	-23.81	9.73	9.90	2.08	V	0.057	17.55				

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
1715.0	Sub6 n66/ 10 MHz [15 kHz]	PI/2 BPSK	-18.76	14.60	9.60	2.00	V	< 1.00	0.166	22.20	1	1
		QPSK	-18.82	14.54	9.60	2.00	V		0.164	22.14		
		16-QAM	-19.84	13.52	9.60	2.00	V		0.129	21.12		
		64-QAM	-21.33	12.03	9.60	2.00	V		0.092	19.63		
		256-QAM	-23.26	10.10	9.60	2.00	V		0.059	17.70		
1745.0		PI/2 BPSK	-18.88	14.72	9.75	2.04	V		0.175	22.43	1	50
		QPSK	-18.90	14.70	9.75	2.04	V		0.174	22.41		
		16-QAM	-19.96	13.64	9.75	2.04	V		0.136	21.35		
		64-QAM	-21.43	12.17	9.75	2.04	V		0.097	19.88		
		256-QAM	-23.44	10.16	9.75	2.04	V		0.061	17.87		
1775.0	PI/2 BPSK	-19.30	14.24	9.90	2.08	V	0.161	22.06	1	50		
	QPSK	-19.33	14.21	9.90	2.08	V	0.160	22.03				
	16-QAM	-20.34	13.20	9.90	2.08	V	0.126	21.02				
	64-QAM	-21.86	11.68	9.90	2.08	V	0.089	19.50				
	256-QAM	-23.75	9.79	9.90	2.08	V	0.058	17.61				

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
1717.5	Sub6 n66/ 15 MHz [15 kHz]	PI/2 BPSK	-18.60	14.76	9.60	2.00	V	< 1.00	0.172	22.36	1	39
		QPSK	-18.77	14.59	9.60	2.00	V		0.166	22.19		
		16-QAM	-19.85	13.51	9.60	2.00	V		0.129	21.11		
		64-QAM	-21.09	12.27	9.60	2.00	V		0.097	19.87		
		256-QAM	-23.20	10.16	9.60	2.00	V		0.060	17.76		
1745.0		PI/2 BPSK	-19.00	14.60	9.75	2.04	V		0.170	22.31	1	39
		QPSK	-19.08	14.52	9.75	2.04	V		0.167	22.23		
		16-QAM	-20.12	13.48	9.75	2.04	V		0.132	21.19		
		64-QAM	-21.63	11.97	9.75	2.04	V		0.093	19.68		
		256-QAM	-23.56	10.04	9.75	2.04	V		0.060	17.75		
1772.5	PI/2 BPSK	-19.11	14.43	9.90	2.08	V	0.168	22.25	1	1		
	QPSK	-19.15	14.39	9.90	2.08	V	0.166	22.21				
	16-QAM	-20.11	13.43	9.90	2.08	V	0.133	21.25				
	64-QAM	-21.71	11.83	9.90	2.08	V	0.092	19.65				
	256-QAM	-23.54	10.00	9.90	2.08	V	0.061	17.82				

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
1720.0	Sub6 n66/ 20 MHz [15 kHz]	PI/2 BPSK	-18.61	14.89	9.60	2.00	V	< 1.00	0.178	22.49	1	53
		QPSK	-18.75	14.75	9.60	2.00	V		0.172	22.35		
		16-QAM	-19.56	13.94	9.60	2.00	V		0.143	21.54		
		64-QAM	-21.11	12.39	9.60	2.00	V		0.100	19.99		
		256-QAM	-23.07	10.43	9.60	2.00	V		0.064	18.03		
1745.0		PI/2 BPSK	-18.98	14.62	9.75	2.04	V		0.171	22.33	1	1
		QPSK	-19.06	14.54	9.75	2.04	V		0.168	22.25		
		16-QAM	-20.11	13.49	9.75	2.04	V		0.132	21.20		
		64-QAM	-21.44	12.16	9.75	2.04	V		0.097	19.87		
		256-QAM	-23.47	10.13	9.75	2.04	V		0.061	17.84		
1770.0	PI/2 BPSK	-19.07	14.57	9.90	2.09	V	0.173	22.38	1	1		
	QPSK	-19.10	14.54	9.90	2.09	V	0.172	22.35				
	16-QAM	-20.18	13.46	9.90	2.09	V	0.134	21.27				
	64-QAM	-21.58	12.06	9.90	2.09	V	0.097	19.87				
	256-QAM	-23.57	10.07	9.90	2.09	V	0.061	17.88				

8.2 RADIATED SPURIOUS EMISSIONS

- NR Band: N66
- Bandwidth: 20 MHz
- Modulation: PI/2 BPSK
- Distance: 3 meters
- SCS: 15 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
344000 (1720.0)	3 440.00	-57.48	11.10	-58.43	2.97	V	-50.30	-13.00	1	53
	5 160.00	-58.81	11.00	-53.98	3.69	V	-46.67	-13.00		
	6 880.00	-60.45	10.80	-48.76	4.28	V	-42.24	-13.00		
	8 600.00	-59.39	10.40	-45.84	4.80	V	-40.24	-13.00		
	10 320.00	-61.43	11.10	-43.66	5.34	V	-37.90	-13.00		
349000 (1745.0)	3 490.00	-60.18	11.20	-61.62	3.00	H	-53.42	-13.00	1	1
	5 235.00	-60.36	11.10	-55.43	3.70	H	-48.03	-13.00		
	6 980.00	-61.42	10.90	-48.71	4.30	H	-42.11	-13.00		
	8 725.00	-61.44	10.30	-47.08	4.88	H	-41.66	-13.00		
	10 470.00	-62.84	11.30	-45.11	5.43	H	-39.24	-13.00		
354000 (1770.0)	3 540.00	-57.48	11.30	-59.28	3.02	V	-51.00	-13.00	1	1
	5 310.00	-58.93	11.40	-54.57	3.65	V	-46.82	-13.00		
	7 080.00	-60.03	10.70	-46.15	4.34	V	-39.79	-13.00		
	8 850.00	-59.56	10.50	-45.47	4.95	V	-39.92	-13.00		
	10 620.00	-60.54	11.20	-42.02	5.41	V	-36.23	-13.00		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n66	5 MHz	1745.0	BPSK	25	0	4.43
			QPSK			5.69
			16-QAM			6.62
			64-QAM			6.73
			256-QAM			6.67
	10 MHz		BPSK	50		4.56
			QPSK			5.71
			16-QAM			6.48
			64-QAM			6.79
			256-QAM			6.92
	15 MHz		BPSK	75		4.43
			QPSK			5.68
			16-QAM			6.40
			64-QAM			6.64
			256-QAM			6.88
	20 MHz		BPSK	100		4.77
			QPSK			5.64
			16-QAM			6.41
			64-QAM			6.69
			256-QAM			6.68

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 70 ~ 89.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n66	5 MHz	1745.0	BPSK	25	0	4.5142
			QPSK			4.5152
			16-QAM			4.5084
			64-QAM			4.5064
			256-QAM			4.5056
	10 MHz		BPSK	50		9.0110
			QPSK			9.0223
			16-QAM			8.9818
			64-QAM			9.0058
			256-QAM			8.9935
	15 MHz		BPSK	75		13.465
			QPSK			13.442
			16-QAM			13.451
			64-QAM			13.444
			256-QAM			13.422
	20 MHz		BPSK	100		17.905
			QPSK			17.925
			16-QAM			17.910
			64-QAM			17.922
			256-QAM			17.910

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 50 ~ 69.

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 n66	5	1712.5	4.9422	30.200	-71.016	-40.816	-13.00
		1745.0	6.0294	30.815	-71.053	-40.238	
		1777.5	4.0345	30.200	-70.606	-40.406	
	10	1715.0	8.2837	30.815	-70.823	-40.008	
		1745.0	6.0569	30.815	-71.044	-40.229	
		1775.0	3.7972	30.200	-70.969	-40.769	
	15	1717.5	8.2557	30.815	-71.164	-40.349	
		1745.0	4.1102	30.200	-71.166	-40.966	
		1772.5	9.7044	30.815	-71.584	-40.769	
	20	1720.0	9.1246	30.815	-70.969	-40.154	
		1745.0	8.2847	30.815	-70.752	-39.937	
		1770.0	8.0234	30.815	-71.000	-40.185	

Note:

1. Plots of the EUT’s Conducted Spurious Emissions are shown Page 114 ~ 137.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.494
1 – 5	30.200
5 – 10	30.815
10 – 15	31.340
15 – 20	31.713
Above 20	32.355

8.6 BAND EDGE

- Plots of the EUT’s Band Edge are shown Page 90 ~ 113.

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 5 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
1712.5	100 %	+20(Ref)	1712 499 998	0.0	0.000 000	0.000
	100 %	-30	1712 500 000	1.6	0.000 000	0.001
	100 %	-20	1712 499 997	-1.2	0.000 000	-0.001
	100 %	-10	1712 499 996	-1.9	0.000 000	-0.001
	100 %	0	1712 499 997	-1.5	0.000 000	-0.001
	100 %	+10	1712 500 000	1.9	0.000 000	0.001
	100 %	+30	1712 499 996	-2.3	0.000 000	-0.001
	100 %	+40	1712 499 999	0.6	0.000 000	0.000
	100 %	+50	1712 500 000	1.7	0.000 000	0.001
	Batt. Endpoint	+20	1712 499 998	0.0	0.000 000	0.000
1777.5	100 %	+20(Ref)	1777 500 000	0.0	0.000 000	0.000
	100 %	-30	1777 499 999	-1.6	0.000 000	-0.001
	100 %	-20	1777 500 004	3.1	0.000 000	0.002
	100 %	-10	1777 500 001	1.0	0.000 000	0.001
	100 %	0	1777 500 003	2.2	0.000 000	0.001
	100 %	+10	1777 500 002	1.2	0.000 000	0.001
	100 %	+30	1777 500 001	0.5	0.000 000	0.000
	100 %	+40	1777 500 001	0.1	0.000 000	0.000
	100 %	+50	1777 500 001	0.8	0.000 000	0.000
	Batt. Endpoint	+20	1777 500 001	0.2	0.000 000	0.000

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

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
1715.0	100 %	+20(Ref)	1715 000 003	0.0	0.000 000	0.000
	100 %	-30	1715 000 004	0.9	0.000 000	0.001
	100 %	-20	1715 000 003	0.6	0.000 000	0.000
	100 %	-10	1715 000 001	-1.9	0.000 000	-0.001
	100 %	0	1715 000 003	0.3	0.000 000	0.000
	100 %	+10	1715 000 002	-1.0	0.000 000	-0.001
	100 %	+30	1715 000 003	0.5	0.000 000	0.000
	100 %	+40	1715 000 004	1.3	0.000 000	0.001
	100 %	+50	1715 000 005	1.9	0.000 000	0.001
	Batt. Endpoint	+20	1715 000 003	0.1	0.000 000	0.000
1775.0	100 %	+20(Ref)	1775 000 002	0.0	0.000 000	0.000
	100 %	-30	1775 000 000	-2.0	0.000 000	-0.001
	100 %	-20	1775 000 002	0.0	0.000 000	0.000
	100 %	-10	1775 000 002	0.3	0.000 000	0.000
	100 %	0	1774 999 999	-2.4	0.000 000	-0.001
	100 %	+10	1775 000 003	1.5	0.000 000	0.001
	100 %	+30	1775 000 003	1.5	0.000 000	0.001
	100 %	+40	1775 000 001	-0.2	0.000 000	0.000
	100 %	+50	1775 000 002	-0.1	0.000 000	0.000
	Batt. Endpoint	+20	1775 000 002	0.4	0.000 000	0.000

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

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
1717.5	100 %	+20(Ref)	1717 500 000	0.0	0.000 000	0.000
	100 %	-30	1717 499 999	-0.5	0.000 000	0.000
	100 %	-20	1717 499 999	-0.4	0.000 000	0.000
	100 %	-10	1717 500 002	1.9	0.000 000	0.001
	100 %	0	1717 500 000	0.5	0.000 000	0.000
	100 %	+10	1717 499 999	-0.6	0.000 000	0.000
	100 %	+30	1717 500 001	1.3	0.000 000	0.001
	100 %	+40	1717 500 000	0.5	0.000 000	0.000
	100 %	+50	1717 500 003	2.6	0.000 000	0.002
	Batt. Endpoint	+20	1717 499 999	-0.6	0.000 000	0.000
1772.5	100 %	+20(Ref)	1772 500 001	0.0	0.000 000	0.000
	100 %	-30	1772 500 000	-0.3	0.000 000	0.000
	100 %	-20	1772 499 999	-1.3	0.000 000	-0.001
	100 %	-10	1772 500 000	-1.0	0.000 000	-0.001
	100 %	0	1772 500 003	2.0	0.000 000	0.001
	100 %	+10	1772 500 002	1.0	0.000 000	0.001
	100 %	+30	1772 500 002	1.2	0.000 000	0.001
	100 %	+40	1772 500 002	0.9	0.000 000	0.000
	100 %	+50	1772 500 000	-1.2	0.000 000	-0.001
	Batt. Endpoint	+20	1772 500 001	0.5	0.000 000	0.000

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

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
1720.0	100 %	+20(Ref)	1719 999 999	0.0	0.000 000	0.000
	100 %	-30	1719 999 999	0.2	0.000 000	0.000
	100 %	-20	1720 000 000	0.3	0.000 000	0.000
	100 %	-10	1719 999 997	-1.8	0.000 000	-0.001
	100 %	0	1719 999 998	-1.0	0.000 000	-0.001
	100 %	+10	1719 999 999	-0.5	0.000 000	0.000
	100 %	+30	1719 999 999	-0.1	0.000 000	0.000
	100 %	+40	1719 999 996	-2.8	0.000 000	-0.002
	100 %	+50	1719 999 999	0.2	0.000 000	0.000
	Batt. Endpoint	+20	1719 999 996	-3.0	0.000 000	-0.002
1770.0	100 %	+20(Ref)	1770 000 001	0.0	0.000 000	0.000
	100 %	-30	1770 000 002	0.7	0.000 000	0.000
	100 %	-20	1770 000 000	-0.8	0.000 000	0.000
	100 %	-10	1770 000 001	0.0	0.000 000	0.000
	100 %	0	1769 999 999	-2.4	0.000 000	-0.001
	100 %	+10	1770 000 001	-0.5	0.000 000	0.000
	100 %	+30	1770 000 000	-1.0	0.000 000	-0.001
	100 %	+40	1770 000 002	0.8	0.000 000	0.000
	100 %	+50	1770 000 003	1.8	0.000 000	0.001
	Batt. Endpoint	+20	1770 000 000	-1.0	0.000 000	-0.001

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
1712.5		PI/2 BPSK	-22.25	11.11	9.60	2.00	H	< 1.00	0.074	18.71	1	12
		QPSK	-22.28	11.08	9.60	2.00	H		0.074	18.68		
		16-QAM	-23.25	10.11	9.60	2.00	H		0.059	17.71		
		64-QAM	-24.73	8.63	9.60	2.00	H		0.042	16.23		
		256-QAM	-26.76	6.60	9.60	2.00	H		0.026	14.20		
1745.0	Sub6 n66/ 5 MHz [15 kHz]	PI/2 BPSK	-21.36	12.24	9.75	2.04	H	< 1.00	0.099	19.95	1	23
		QPSK	-21.40	12.20	9.75	2.04	H		0.098	19.91		
		16-QAM	-22.40	11.20	9.75	2.04	H		0.078	18.91		
		64-QAM	-23.78	9.82	9.75	2.04	H		0.057	17.53		
		256-QAM	-25.77	7.83	9.75	2.04	H		0.036	15.54		
1777.5		PI/2 BPSK	-20.80	12.74	9.90	2.08	H	< 1.00	0.114	20.56	1	12
		QPSK	-20.88	12.66	9.90	2.08	H		0.112	20.48		
		16-QAM	-21.73	11.81	9.90	2.08	H		0.092	19.63		
		64-QAM	-23.18	10.36	9.90	2.08	H		0.066	18.18		
		256-QAM	-25.08	8.46	9.90	2.08	H		0.042	16.28		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
1715.0	Sub6 n66/ 10 MHz [15 kHz]	PI/2 BPSK	-22.05	11.31	9.60	2.00	H	< 1.00	0.078	18.91	1	50
		QPSK	-22.08	11.28	9.60	2.00	H		0.077	18.88		
		16-QAM	-23.09	10.27	9.60	2.00	H		0.061	17.87		
		64-QAM	-24.50	8.86	9.60	2.00	H		0.044	16.46		
		256-QAM	-26.56	6.80	9.60	2.00	H		0.028	14.40		
1745.0		PI/2 BPSK	-21.15	12.45	9.75	2.04	H		0.104	20.16	1	50
		QPSK	-21.19	12.41	9.75	2.04	H		0.103	20.12		
		16-QAM	-22.19	11.41	9.75	2.04	H		0.082	19.12		
		64-QAM	-23.78	9.82	9.75	2.04	H		0.057	17.53		
		256-QAM	-25.60	8.00	9.75	2.04	H		0.037	15.71		
1775.0	PI/2 BPSK	-20.75	12.79	9.90	2.08	H	0.115	20.61	1	1		
	QPSK	-20.86	12.68	9.90	2.08	H	0.112	20.50				
	16-QAM	-21.91	11.63	9.90	2.08	H	0.088	19.45				
	64-QAM	-23.43	10.11	9.90	2.08	H	0.062	17.93				
	256-QAM	-25.37	8.17	9.90	2.08	H	0.040	15.99				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
1717.5	Sub6 n66/ 15 MHz [15 kHz]	PI/2 BPSK	-21.99	11.37	9.60	2.00	H	< 1.00	0.079	18.97	1	77
		QPSK	-22.01	11.35	9.60	2.00	H		0.079	18.95		
		16-QAM	-23.01	10.35	9.60	2.00	H		0.062	17.95		
		64-QAM	-24.56	8.80	9.60	2.00	H		0.044	16.40		
		256-QAM	-26.46	6.90	9.60	2.00	H		0.028	14.50		
1745.0		PI/2 BPSK	-21.36	12.24	9.75	2.04	H		0.099	19.95	1	39
		QPSK	-21.39	12.21	9.75	2.04	H		0.098	19.92		
		16-QAM	-22.30	11.30	9.75	2.04	H		0.080	19.01		
		64-QAM	-23.94	9.66	9.75	2.04	H		0.055	17.37		
		256-QAM	-25.82	7.78	9.75	2.04	H		0.035	15.49		
1772.5	PI/2 BPSK	-20.81	12.73	9.90	2.08	H	0.114	20.55	1	77		
	QPSK	-20.85	12.69	9.90	2.08	H	0.112	20.51				
	16-QAM	-21.75	11.79	9.90	2.08	H	0.091	19.61				
	64-QAM	-23.27	10.27	9.90	2.08	H	0.064	18.09				
	256-QAM	-25.14	8.40	9.90	2.08	H	0.042	16.22				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
									W	W	dBm	Size
1720.0	Sub6 n66/ 20 MHz [15 kHz]	PI/2 BPSK	-21.85	11.65	9.60	2.00	H	< 1.00	0.084	19.25	1	104
		QPSK	-21.91	11.59	9.60	2.00	H		0.083	19.19		
		16-QAM	-22.82	10.68	9.60	2.00	H		0.067	18.28		
		64-QAM	-24.38	9.12	9.60	2.00	H		0.047	16.72		
		256-QAM	-26.33	7.17	9.60	2.00	H		0.030	14.77		
1745.0		PI/2 BPSK	-21.27	12.33	9.75	2.04	H		0.101	20.04	1	53
		QPSK	-21.38	12.22	9.75	2.04	H		0.098	19.93		
		16-QAM	-22.44	11.16	9.75	2.04	H		0.077	18.87		
		64-QAM	-23.85	9.75	9.75	2.04	H		0.056	17.46		
		256-QAM	-25.77	7.83	9.75	2.04	H		0.036	15.54		
1770.0	PI/2 BPSK	-20.85	12.79	9.90	2.09	H	0.115	20.60	1	53		
	QPSK	-20.86	12.78	9.90	2.09	H	0.115	20.59				
	16-QAM	-21.85	11.79	9.90	2.09	H	0.091	19.60				
	64-QAM	-23.35	10.29	9.90	2.09	H	0.065	18.10				
	256-QAM	-25.18	8.46	9.90	2.09	H	0.042	16.27				

9.2 RADIATED SPURIOUS EMISSIONS

- NR Band: N66
- Bandwidth: 10 MHz
- Modulation: PI/2 BPSK
- Distance: 3 meters
- SCS: 15 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
343000 (1715.0)	3 430.00	-58.92	11.10	-59.64	2.97	H	-51.51	-13.00	1	50
	5 145.00	-46.53	10.90	-41.71	3.63	V	-34.44	-13.00		
	6 860.00	-63.54	10.80	-52.19	4.31	V	-45.70	-13.00		
	8 575.00	-61.91	10.50	-48.35	4.88	V	-42.73	-13.00		
	10 290.00	-63.44	11.00	-46.28	5.34	V	-40.62	-13.00		
349000 (1745.0)	3 490.00	-59.33	11.20	-60.77	3.00	H	-52.57	-13.00	1	50
	5 235.00	-46.52	11.10	-41.59	3.70	H	-34.19	-13.00		
	6 980.00	-59.33	10.90	-46.62	4.30	V	-40.02	-13.00		
	8 725.00	-60.97	10.30	-46.61	4.88	H	-41.19	-13.00		
	10 470.00	-63.05	11.30	-45.32	5.43	H	-39.45	-13.00		
355000 (1775.0)	3 550.00	-59.68	11.40	-61.49	3.02	H	-53.11	-13.00	1	1
	5 325.00	-46.28	11.40	-41.59	3.69	H	-33.88	-13.00		
	7 100.00	-62.84	10.50	-48.68	4.35	H	-42.53	-13.00		
	8 875.00	-62.27	10.50	-48.52	4.94	H	-42.96	-13.00		
	10 650.00	-63.54	11.10	-43.77	5.50	H	-38.17	-13.00		

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n66	5 MHz	1745.0	BPSK	25	0	4.50
			QPSK			5.85
			16-QAM			6.46
			64-QAM			6.70
			256-QAM			6.57
	10 MHz		BPSK	50		4.61
			QPSK			5.82
			16-QAM			6.61
			64-QAM			6.83
			256-QAM			6.66
	15 MHz		BPSK	75		4.70
			QPSK			5.66
			16-QAM			6.42
			64-QAM			6.58
			256-QAM			6.50
	20 MHz		BPSK	100		4.39
			QPSK			5.65
			16-QAM			6.44
			64-QAM			6.68
			256-QAM			6.52

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 159 ~ 178.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n66	5 MHz	1745.0	BPSK	25	0	4.5097
			QPSK			4.5424
			16-QAM			4.4996
			64-QAM			4.5407
			256-QAM			4.5919
	10 MHz		BPSK	50		8.9997
			QPSK			9.0023
			16-QAM			8.9933
			64-QAM			8.9952
			256-QAM			9.0003
	15 MHz		BPSK	75		13.503
			QPSK			13.480
			16-QAM			13.456
			64-QAM			13.442
			256-QAM			13.441
	20 MHz		BPSK	100		17.946
			QPSK			17.897
			16-QAM			17.891
			64-QAM			17.922
			256-QAM			17.933

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 139 ~ 158.

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 n66	5	1712.5	8.2817	30.815	-71.233	-40.418	-13.00
		1745.0	9.9885	30.815	-70.912	-40.097	
		1777.5	9.9661	30.815	-70.852	-40.037	
	10	1715.0	8.0160	30.815	-70.774	-39.959	
		1745.0	3.8061	30.200	-70.283	-40.083	
		1775.0	9.6869	30.815	-71.119	-40.304	
	15	1717.5	4.0379	30.200	-70.898	-40.698	
		1745.0	4.6675	30.200	-71.206	-41.006	
		1772.5	8.0060	30.815	-70.733	-39.918	
	20	1720.0	8.2453	30.815	-70.829	-40.014	
		1745.0	7.9990	30.815	-70.997	-40.182	
		1770.0	5.7797	30.815	-71.049	-40.234	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 203 ~ 226.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.494
1 – 5	30.200
5 – 10	30.815
10 – 15	31.340
15 – 20	31.713
Above 20	32.355

9.6 BAND EDGE

- Plots of the EUT's Band Edge are shown Page 179 ~ 202.

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 5 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
1712.5	100 %	+20(Ref)	1712 500 002	0.0	0.000 000	0.000
	100 %	-30	1712 500 003	1.0	0.000 000	0.001
	100 %	-20	1712 500 003	0.2	0.000 000	0.000
	100 %	-10	1712 500 004	1.7	0.000 000	0.001
	100 %	0	1712 500 002	0.2	0.000 000	0.000
	100 %	+10	1712 500 003	0.7	0.000 000	0.000
	100 %	+30	1712 500 004	1.6	0.000 000	0.001
	100 %	+40	1712 500 003	0.3	0.000 000	0.000
	100 %	+50	1712 500 002	0.0	0.000 000	0.000
	Batt. Endpoint	+20	1712 500 001	-1.0	0.000 000	-0.001
1777.5	100 %	+20(Ref)	1777 499 999	0.0	0.000 000	0.000
	100 %	-30	1777 500 000	1.1	0.000 000	0.001
	100 %	-20	1777 499 998	-0.9	0.000 000	0.000
	100 %	-10	1777 499 999	0.6	0.000 000	0.000
	100 %	0	1777 500 000	1.5	0.000 000	0.001
	100 %	+10	1777 499 997	-1.5	0.000 000	-0.001
	100 %	+30	1777 500 001	2.5	0.000 000	0.001
	100 %	+40	1777 499 999	0.5	0.000 000	0.000
	100 %	+50	1777 499 996	-2.3	0.000 000	-0.001
	Batt. Endpoint	+20	1777 500 001	2.5	0.000 000	0.001

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

Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
1715.0	100 %	+20(Ref)	1714 999 998	0.0	0.000 000	0.000
	100 %	-30	1714 999 998	0.4	0.000 000	0.000
	100 %	-20	1714 999 999	1.1	0.000 000	0.001
	100 %	-10	1715 000 000	1.8	0.000 000	0.001
	100 %	0	1714 999 999	0.5	0.000 000	0.000
	100 %	+10	1714 999 998	0.0	0.000 000	0.000
	100 %	+30	1714 999 998	0.2	0.000 000	0.000
	100 %	+40	1714 999 999	0.5	0.000 000	0.000
	100 %	+50	1714 999 997	-1.1	0.000 000	-0.001
	Batt. Endpoint	+20	1714 999 997	-0.6	0.000 000	0.000
1775.0	100 %	+20(Ref)	1775 000 000	0.0	0.000 000	0.000
	100 %	-30	1775 000 001	1.2	0.000 000	0.001
	100 %	-20	1775 000 001	0.5	0.000 000	0.000
	100 %	-10	1775 000 000	-0.4	0.000 000	0.000
	100 %	0	1775 000 000	0.2	0.000 000	0.000
	100 %	+10	1775 000 000	-0.1	0.000 000	0.000
	100 %	+30	1775 000 001	0.4	0.000 000	0.000
	100 %	+40	1775 000 000	-0.6	0.000 000	0.000
	100 %	+50	1775 000 002	2.3	0.000 000	0.001
	Batt. Endpoint	+20	1775 000 000	-0.3	0.000 000	0.000

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

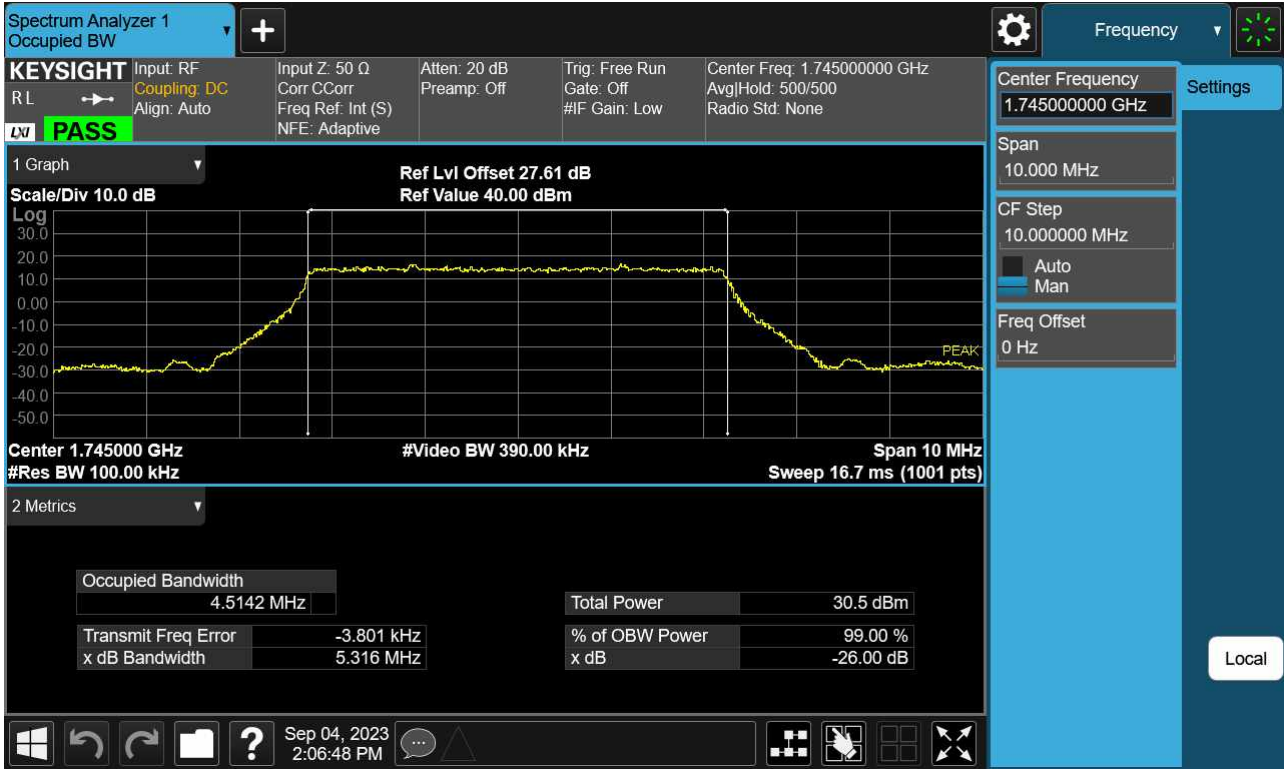
Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
1717.5	100 %	+20(Ref)	1717 500 001	0.0	0.000 000	0.000
	100 %	-30	1717 500 000	-0.9	0.000 000	-0.001
	100 %	-20	1717 500 002	0.9	0.000 000	0.001
	100 %	-10	1717 500 000	-1.2	0.000 000	-0.001
	100 %	0	1717 499 999	-1.8	0.000 000	-0.001
	100 %	+10	1717 500 003	1.4	0.000 000	0.001
	100 %	+30	1717 500 000	-1.3	0.000 000	-0.001
	100 %	+40	1717 500 001	0.3	0.000 000	0.000
	100 %	+50	1717 500 001	0.3	0.000 000	0.000
	Batt. Endpoint	+20	1717 500 001	-0.3	0.000 000	0.000
1772.5	100 %	+20(Ref)	1772 499 999	0.0	0.000 000	0.000
	100 %	-30	1772 500 001	1.3	0.000 000	0.001
	100 %	-20	1772 499 998	-1.3	0.000 000	-0.001
	100 %	-10	1772 499 999	-0.6	0.000 000	0.000
	100 %	0	1772 500 000	0.5	0.000 000	0.000
	100 %	+10	1772 499 998	-1.6	0.000 000	-0.001
	100 %	+30	1772 499 999	0.0	0.000 000	0.000
	100 %	+40	1772 500 000	0.6	0.000 000	0.000
	100 %	+50	1772 499 998	-1.4	0.000 000	-0.001
	Batt. Endpoint	+20	1772 500 002	2.9	0.000 000	0.002

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

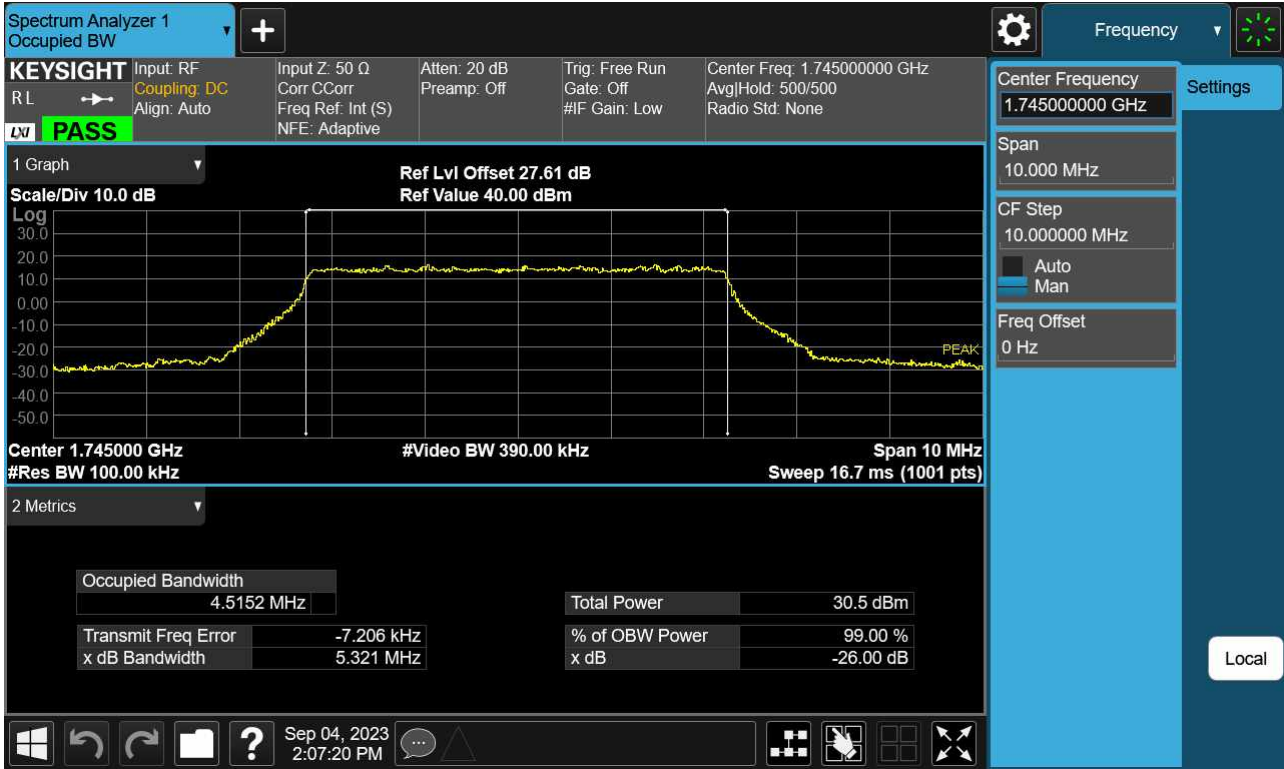
Test. Frequency (MHz)	Voltage (%)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
1720.0	100 %	+20(Ref)	1719 999 998	0.0	0.000 000	0.000
	100 %	-30	1720 000 001	2.5	0.000 000	0.001
	100 %	-20	1719 999 998	-0.2	0.000 000	0.000
	100 %	-10	1719 999 996	-1.7	0.000 000	-0.001
	100 %	0	1719 999 997	-0.7	0.000 000	0.000
	100 %	+10	1719 999 995	-2.9	0.000 000	-0.002
	100 %	+30	1720 000 000	1.5	0.000 000	0.001
	100 %	+40	1720 000 000	1.8	0.000 000	0.001
	100 %	+50	1720 000 001	2.8	0.000 000	0.002
	Batt. Endpoint	+20	1719 999 998	-0.2	0.000 000	0.000
1770.0	100 %	+20(Ref)	1770 000 001	0.0	0.000 000	0.000
	100 %	-30	1770 000 003	2.2	0.000 000	0.001
	100 %	-20	1770 000 002	1.6	0.000 000	0.001
	100 %	-10	1770 000 001	0.0	0.000 000	0.000
	100 %	0	1770 000 000	-1.3	0.000 000	-0.001
	100 %	+10	1770 000 000	-0.4	0.000 000	0.000
	100 %	+30	1770 000 001	0.0	0.000 000	0.000
	100 %	+40	1770 000 002	1.3	0.000 000	0.001
	100 %	+50	1770 000 003	1.7	0.000 000	0.001
	Batt. Endpoint	+20	1770 000 000	-1.1	0.000 000	-0.001

10. TEST PLOTS(Main 1 Ant)

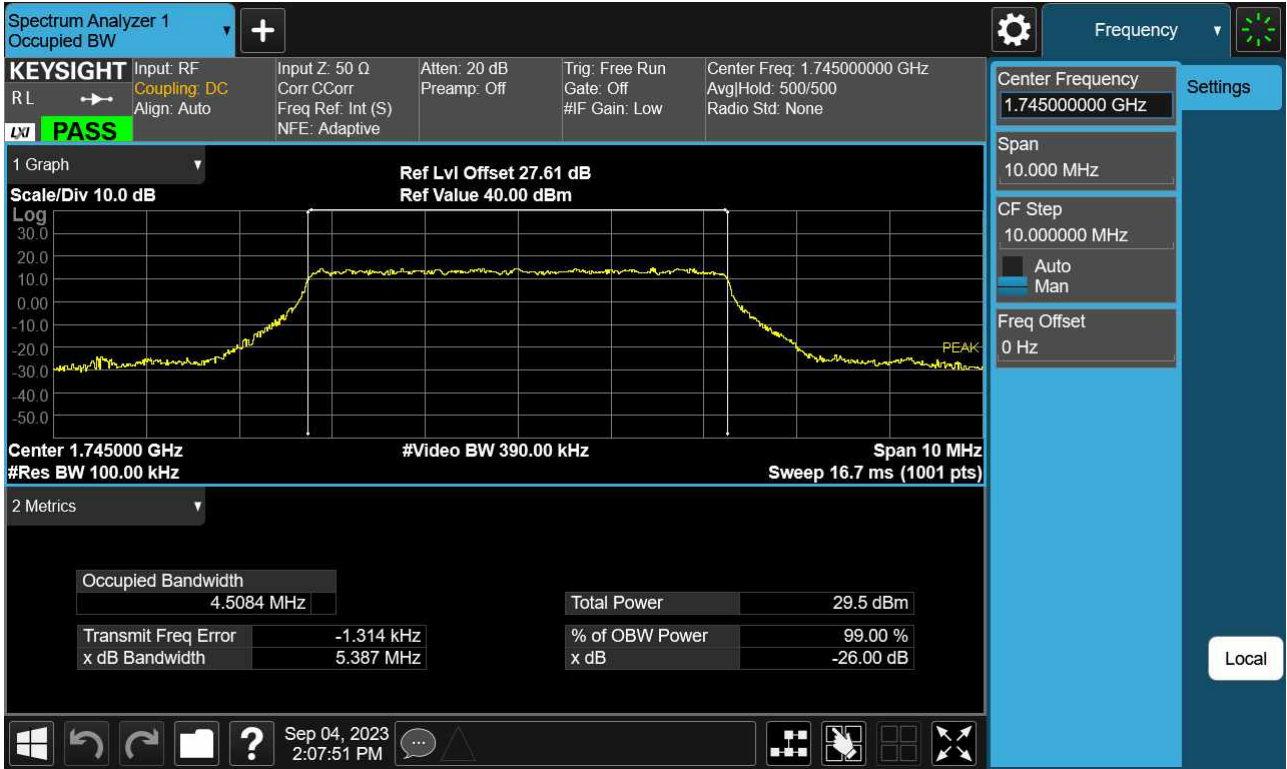
Sub6 n66. Occupied Bandwidth Plot (5 M BW Ch.349000 BPSK Full RB)



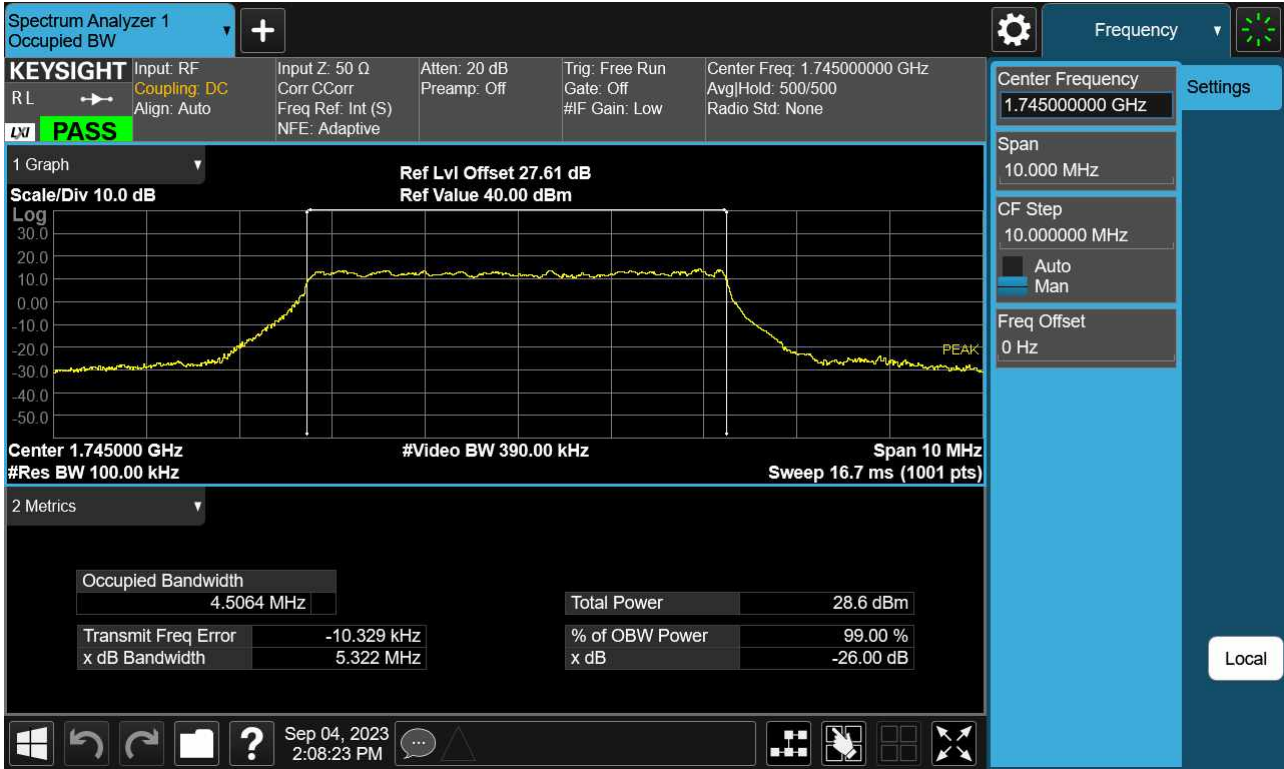
Sub6 n66. Occupied Bandwidth Plot (5 M BW Ch.349000 QPSK Full RB)



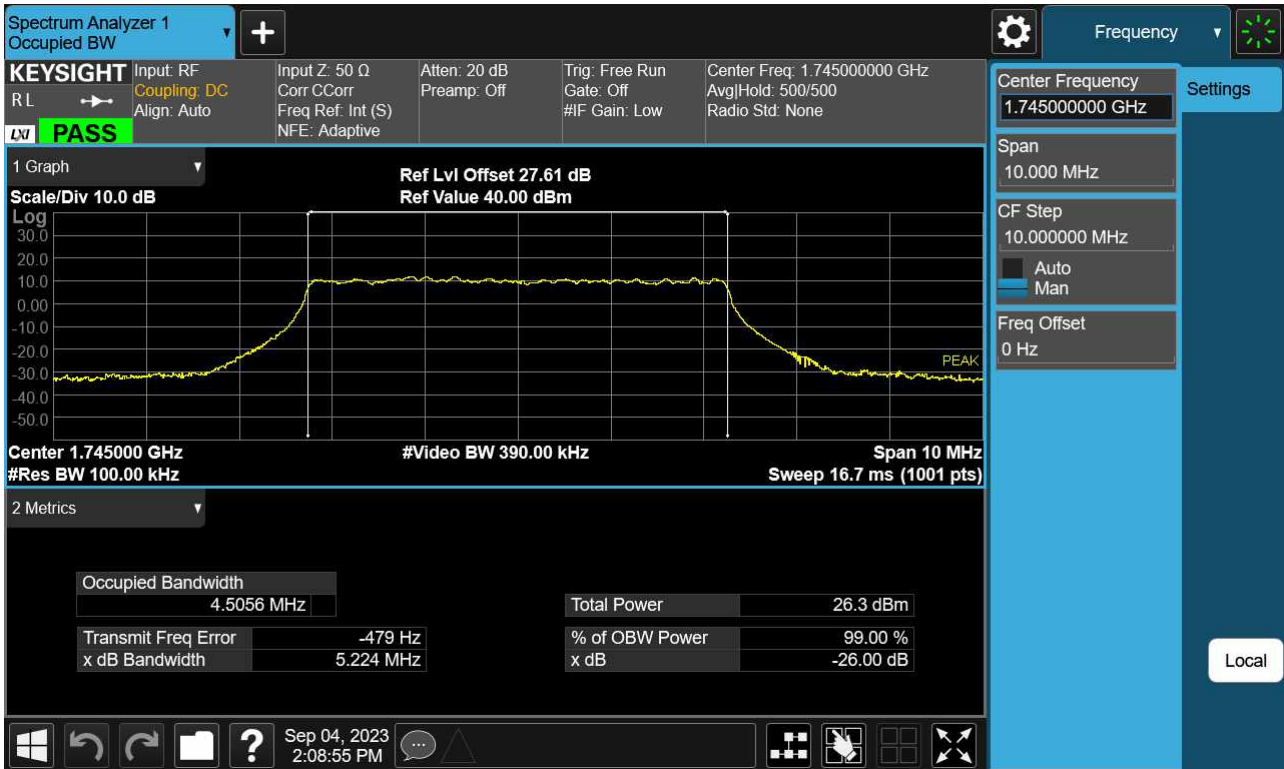
Sub6 n66. Occupied Bandwidth Plot (5 M BW Ch.349000 16QAM Full RB)



Sub6 n66. Occupied Bandwidth Plot (5 M BW Ch.349000 64QAM Full RB)



Sub6 n66. Occupied Bandwidth Plot (5 M BW Ch.349000 256QAM Full RB)



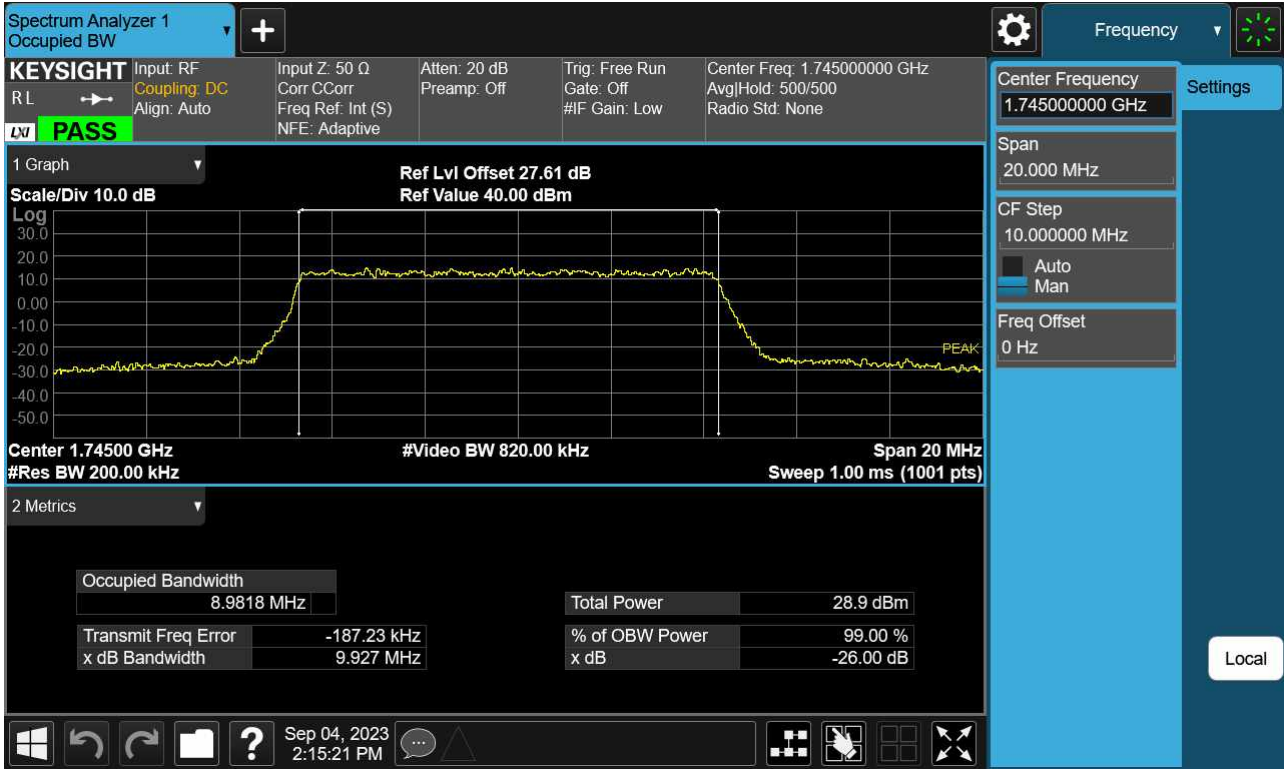
Sub6 n66. Occupied Bandwidth Plot (10 M BW Ch.349000 BPSK Full RB)



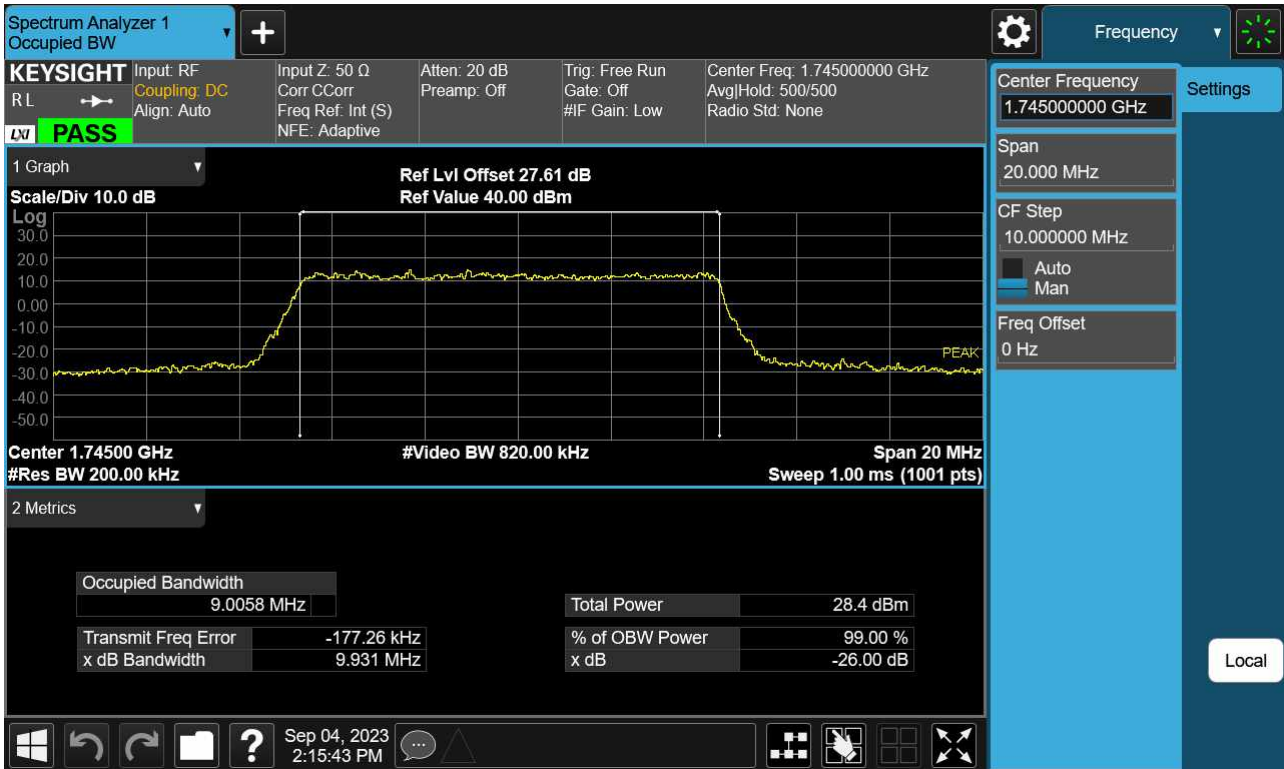
Sub6 n66. Occupied Bandwidth Plot (10 M BW Ch.349000 QPSK Full RB)



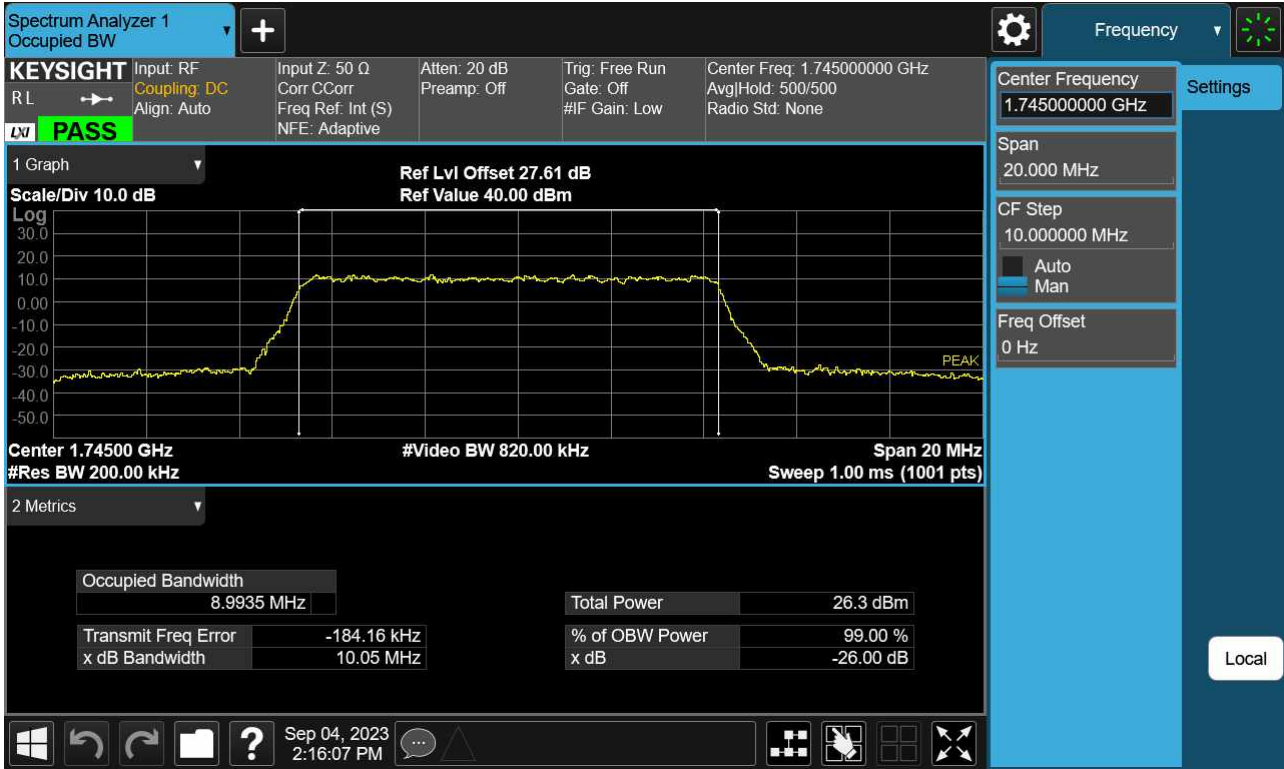
Sub6 n66. Occupied Bandwidth Plot (10 M BW Ch.349000 16QAM Full RB)



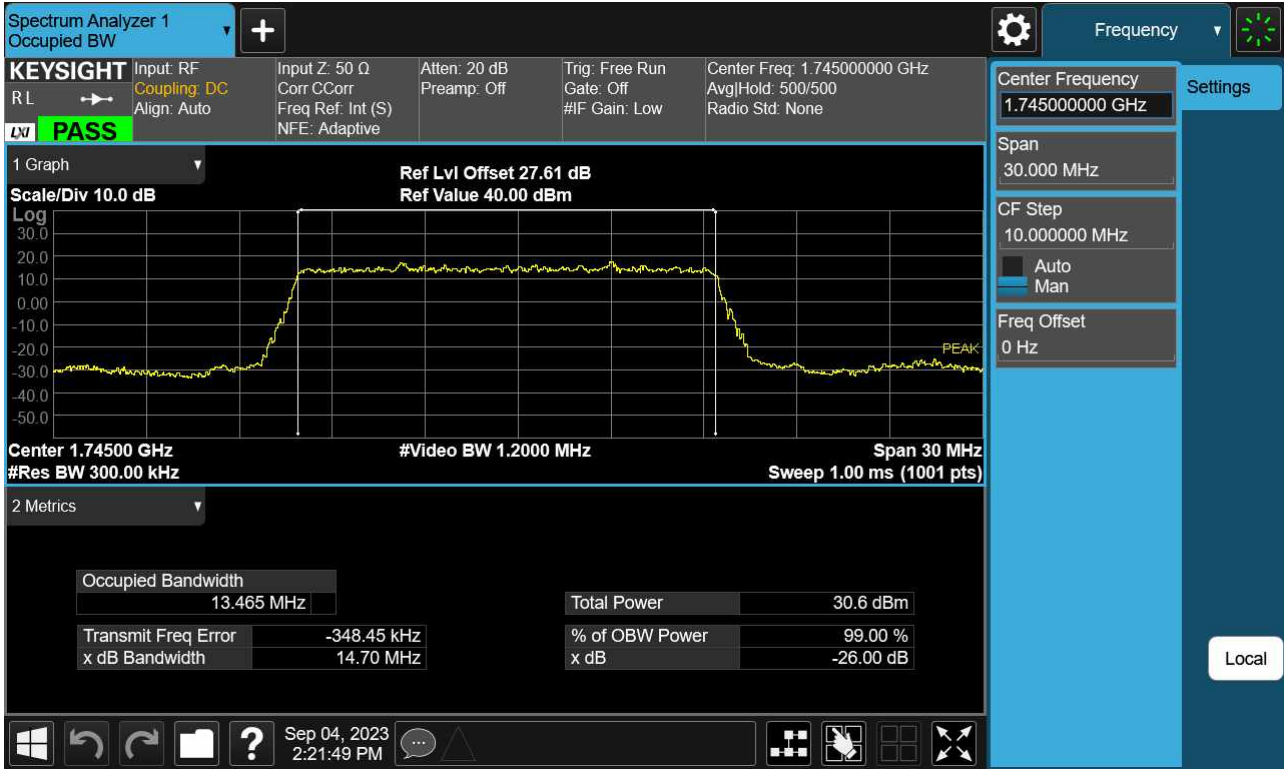
Sub6 n66. Occupied Bandwidth Plot (10 M BW Ch.349000 64QAM Full RB)



Sub6 n66. Occupied Bandwidth Plot (10 M BW Ch.349000 256QAM Full RB)



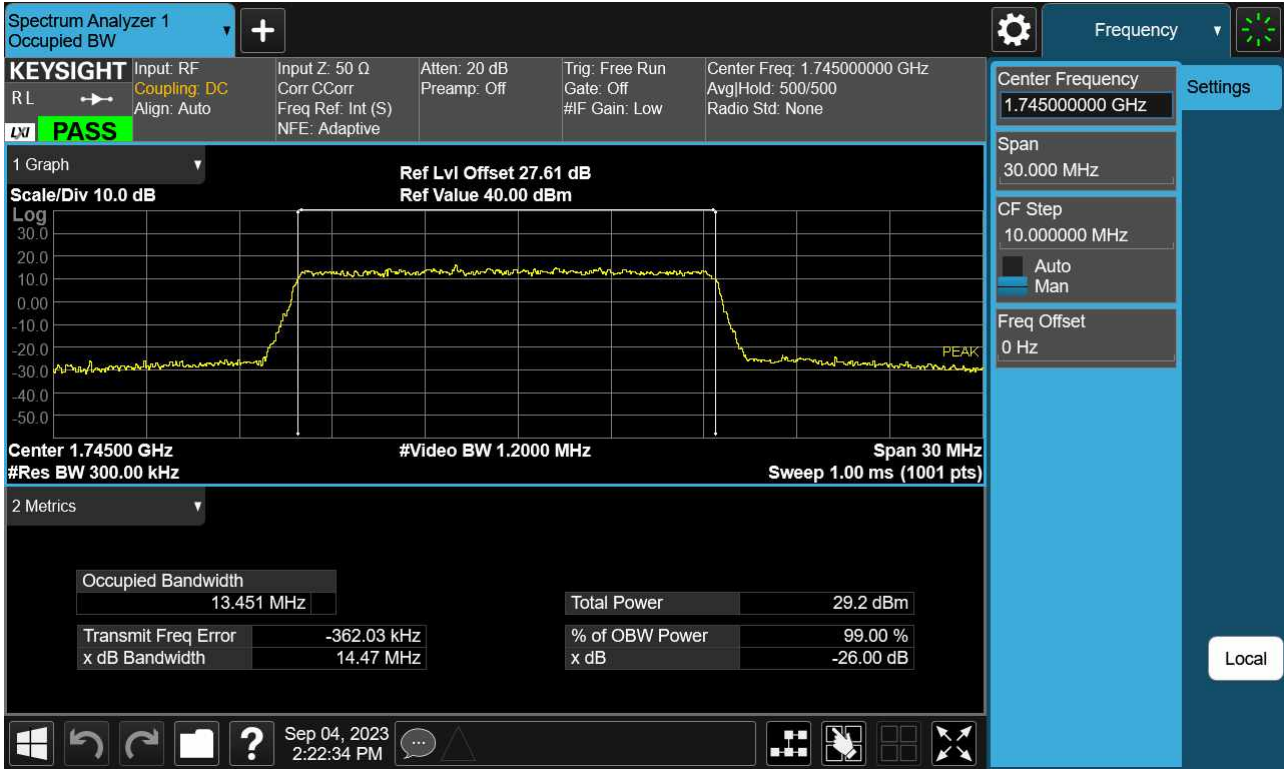
Sub6 n66. Occupied Bandwidth Plot (15 M BW Ch.349000 BPSK Full RB)



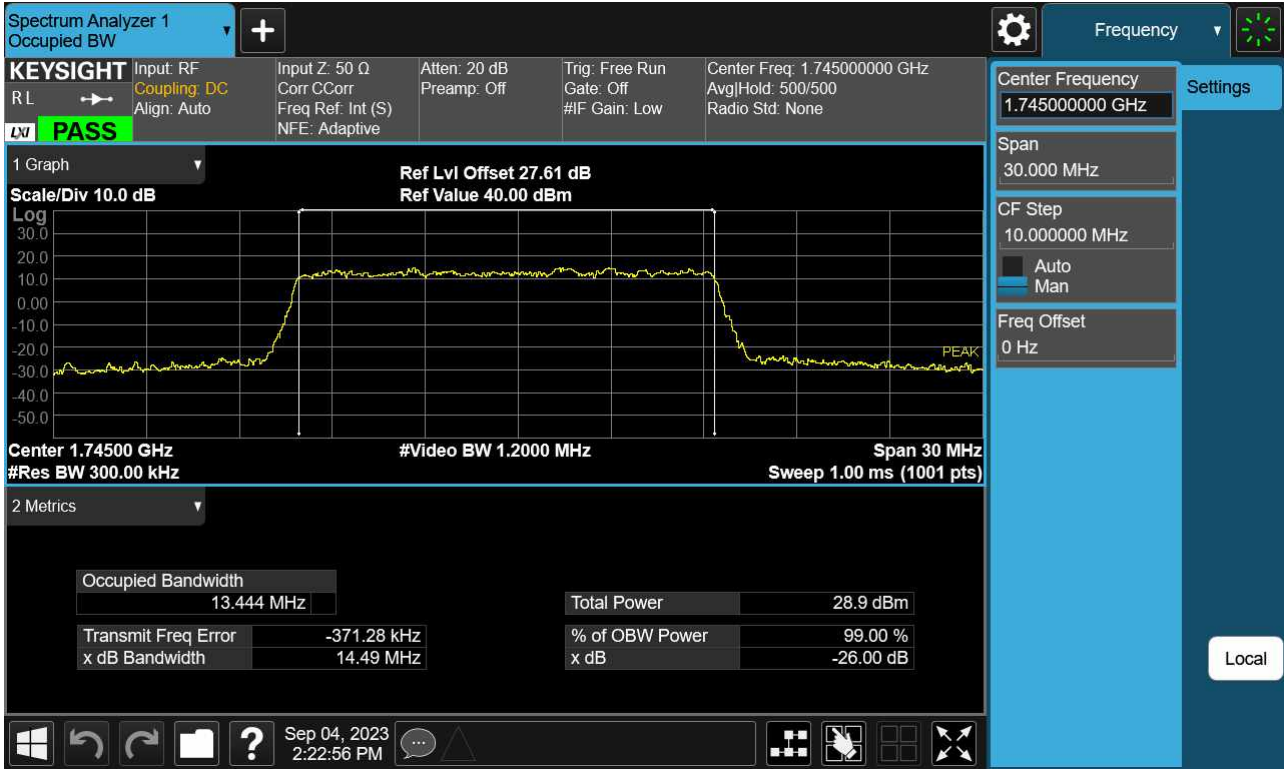
Sub6 n66. Occupied Bandwidth Plot (15 M BW Ch.349000 QPSK Full RB)



Sub6 n66. Occupied Bandwidth Plot (15 M BW Ch.349000 16QAM Full RB)



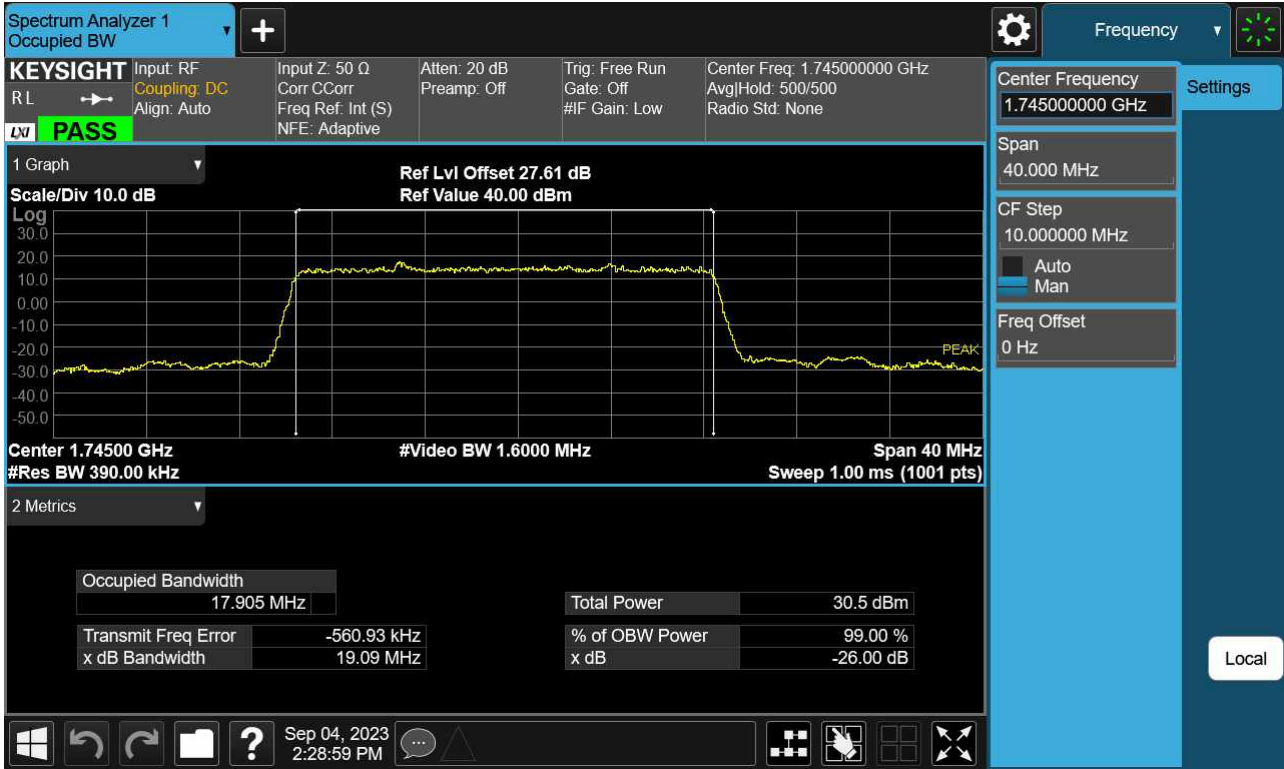
Sub6 n66. Occupied Bandwidth Plot (15 M BW Ch.349000 64QAM Full RB)



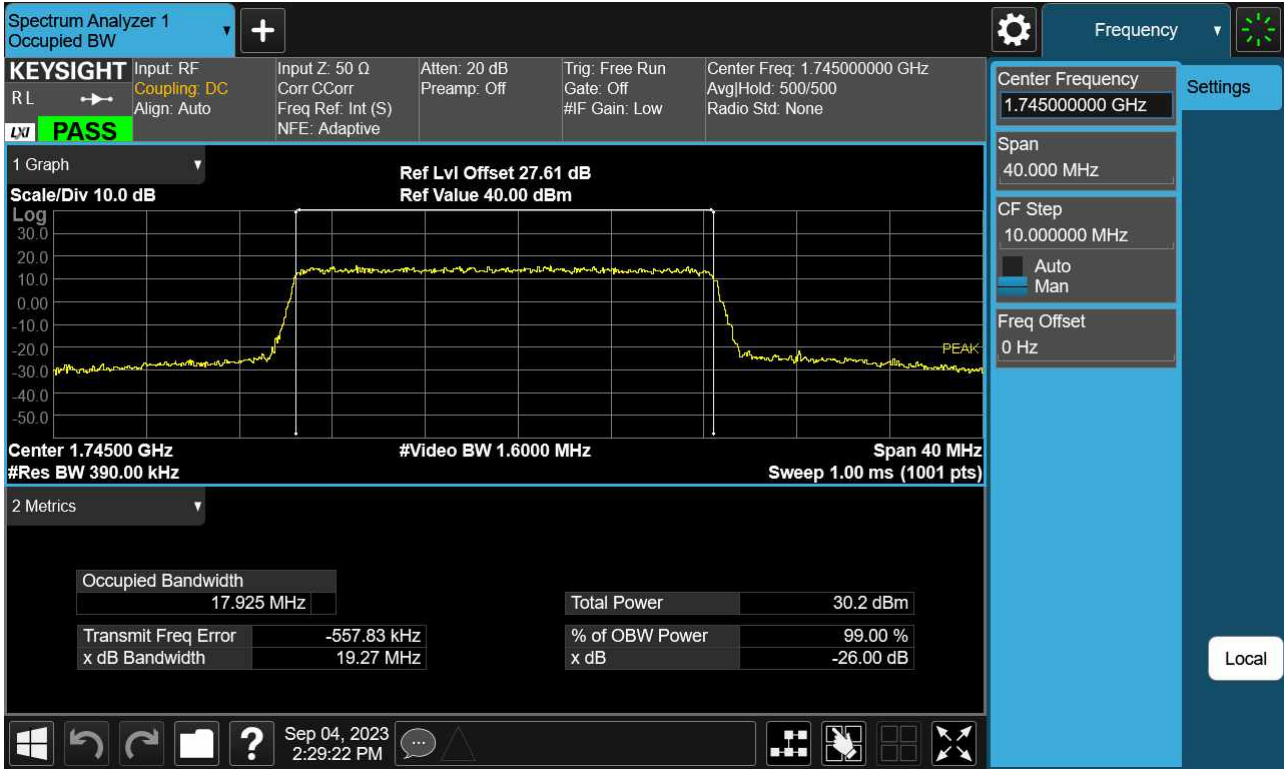
Sub6 n66. Occupied Bandwidth Plot (15 M BW Ch.349000 256QAM Full RB)



Sub6 n66. Occupied Bandwidth Plot (20 M BW Ch.349000 BPSK Full RB)



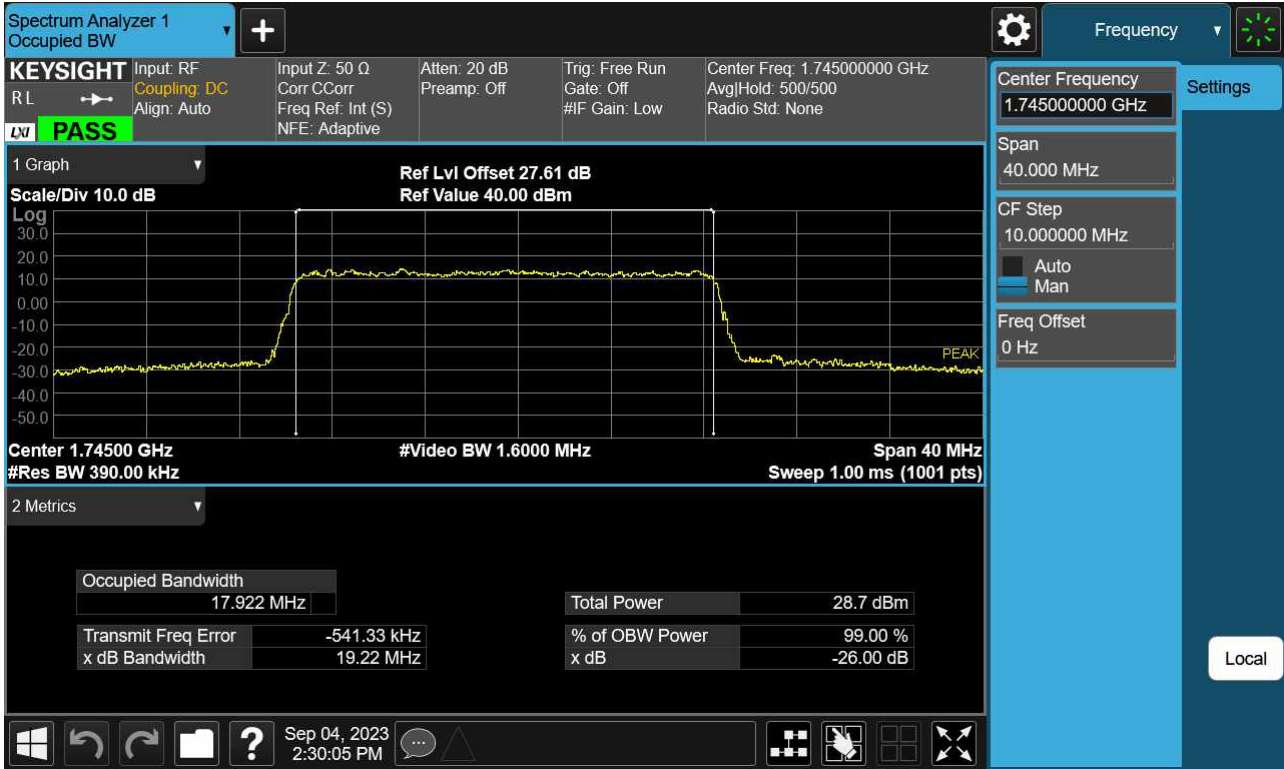
Sub6 n66. Occupied Bandwidth Plot (20 M BW Ch.349000 QPSK Full RB)



Sub6 n66. Occupied Bandwidth Plot (20 M BW Ch.349000 16QAM Full RB)



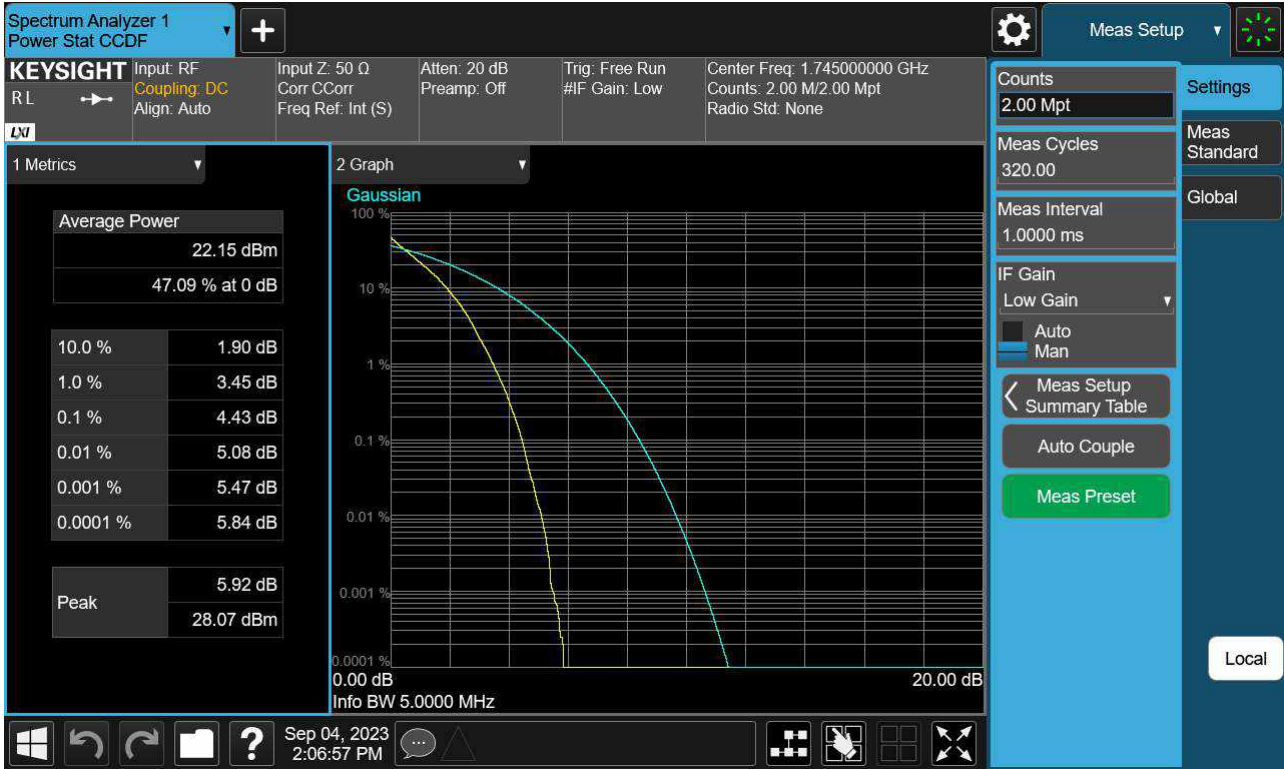
Sub6 n66. Occupied Bandwidth Plot (20 M BW Ch.349000 64QAM Full RB)



Sub6 n66. Occupied Bandwidth Plot (20 M BW Ch.349000 256QAM Full RB)



Sub6 n66. PAR Plot (5 M BW_Ch.349000_ BPSK_ Full RB)



Sub6 n66. PAR Plot (5 M BW_Ch.349000_QPSK_Full RB)



Sub6 n66. PAR Plot (5 M BW_Ch.349000_16QAM_Full RB)



Sub6 n66. PAR Plot (5 M BW_Ch.349000_64QAM_Full RB)



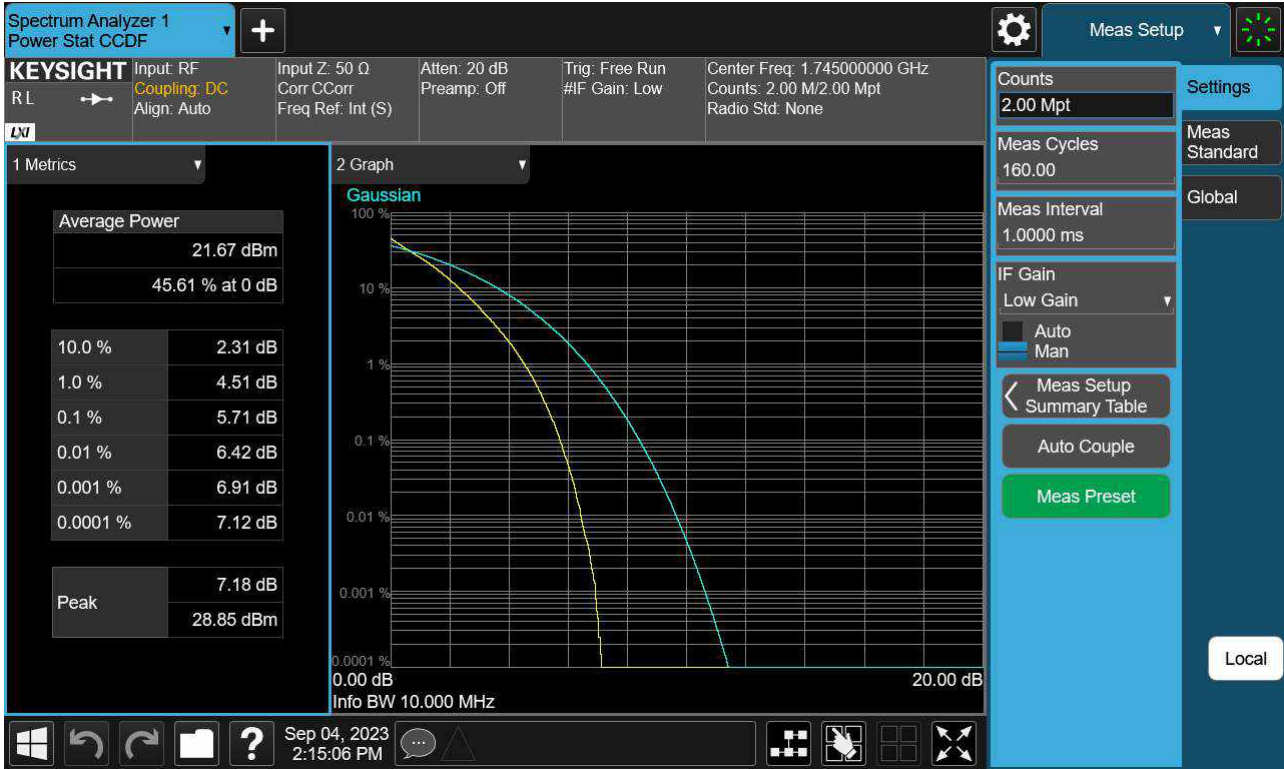
Sub6 n66. PAR Plot (5 M BW_Ch.349000_256QAM_Full RB)



Sub6 n66. PAR Plot (10 M BW_Ch.349000_ BPSK_ Full RB)



Sub6 n66. PAR Plot (10 M BW_Ch.349000_QPSK_Full RB)



Sub6 n66. PAR Plot (10 M BW_Ch.349000_16QAM_Full RB)



Sub6 n66. PAR Plot (10 M BW_Ch.349000_64QAM_Full RB)



Sub6 n66. PAR Plot (10 M BW_Ch.349000_256QAM_Full RB)



Sub6 n66. PAR Plot (15 M BW_Ch.349000_ BPSK_ Full RB)



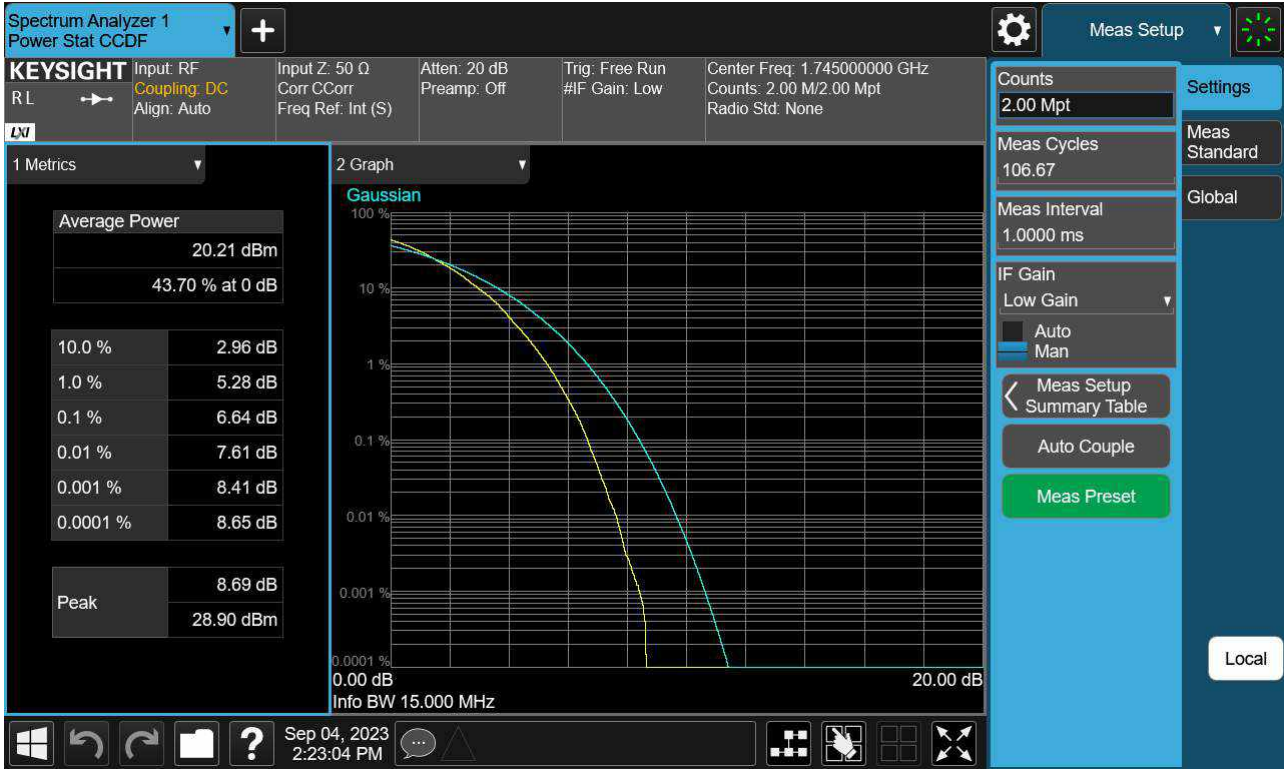
Sub6 n66. PAR Plot (15 M BW_Ch.349000_QPSK_Full RB)



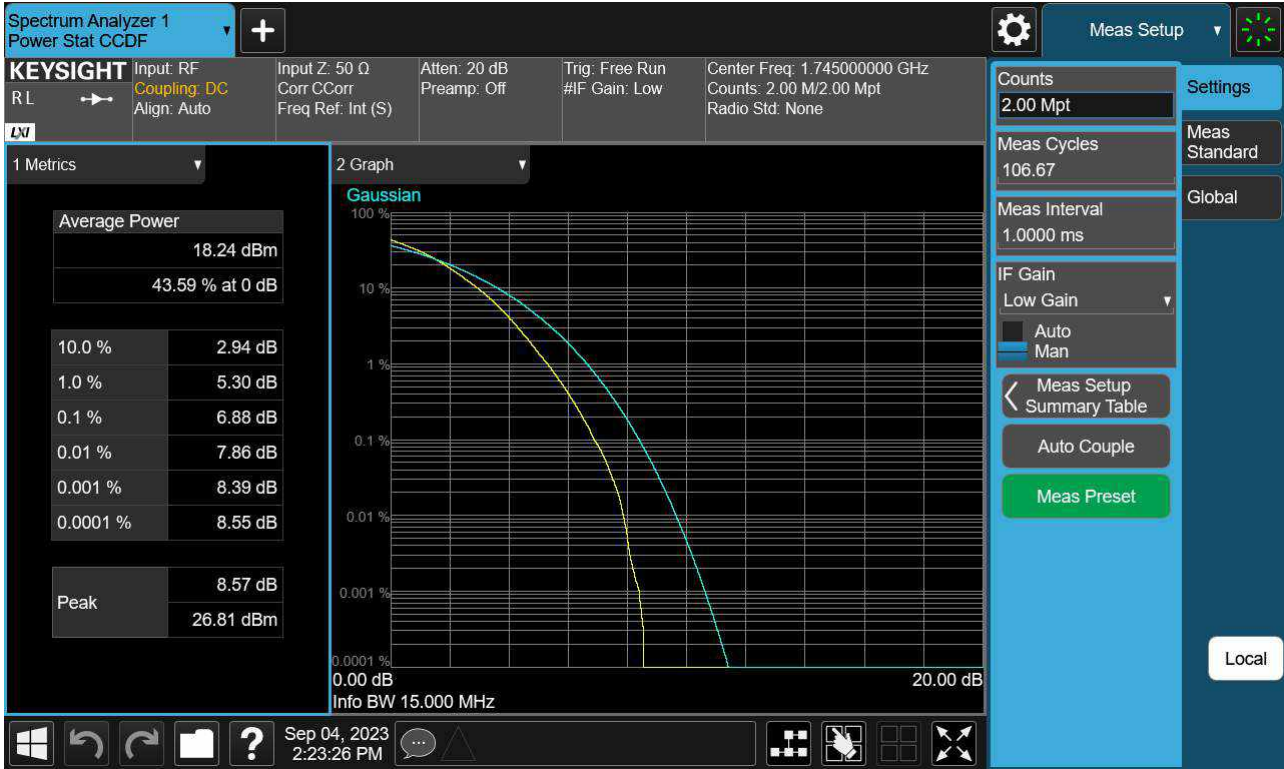
Sub6 n66. PAR Plot (15 M BW_Ch.349000_16QAM_Full RB)



Sub6 n66. PAR Plot (15 M BW_Ch.349000_64QAM_Full RB)



Sub6 n66. PAR Plot (15 M BW_Ch.349000_256QAM_Full RB)



Sub6 n66. PAR Plot (20 M BW_Ch.349000_ BPSK_ Full RB)



Sub6 n66. PAR Plot (20 M BW_Ch.349000_QPSK_Full RB)



Sub6 n66. PAR Plot (20 M BW_Ch.349000_16QAM_Full RB)



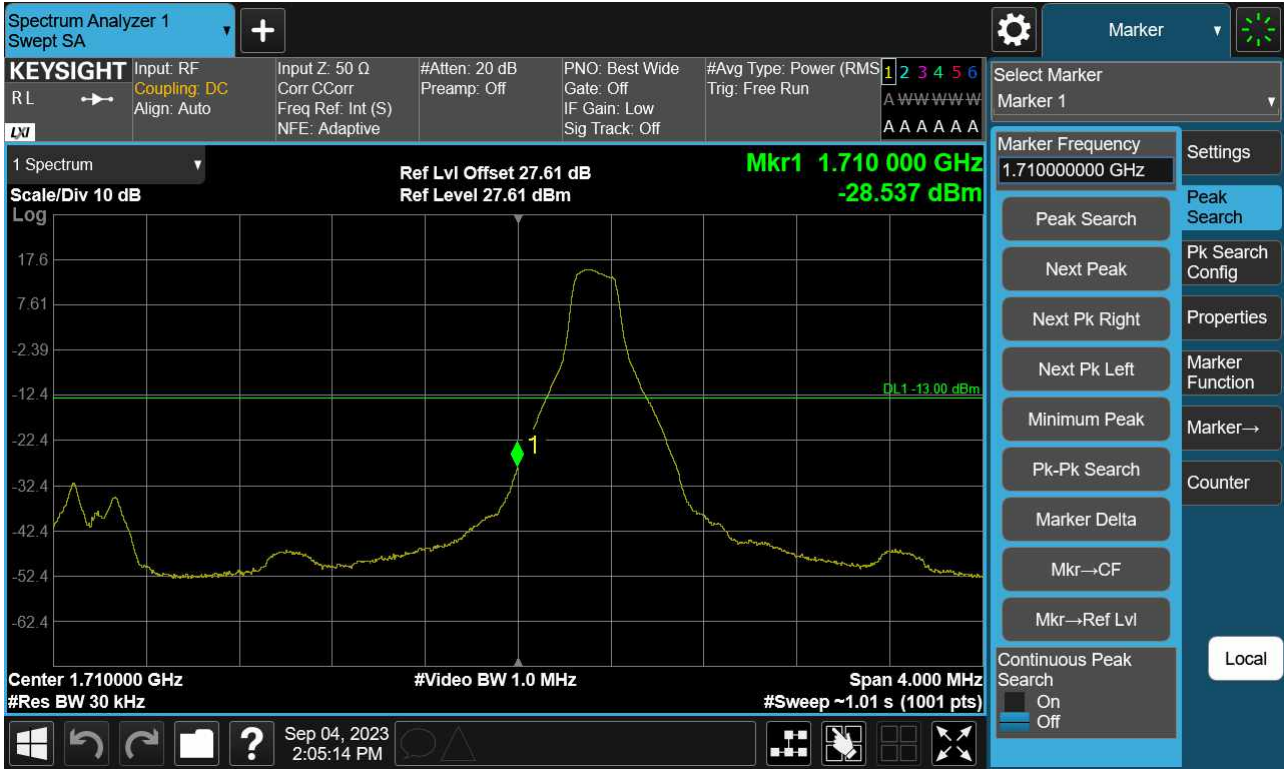
Sub6 n66. PAR Plot (20 M BW_Ch.349000_64QAM_Full RB)



Sub6 n66. PAR Plot (20 M BW_Ch.349000_256QAM_Full RB)



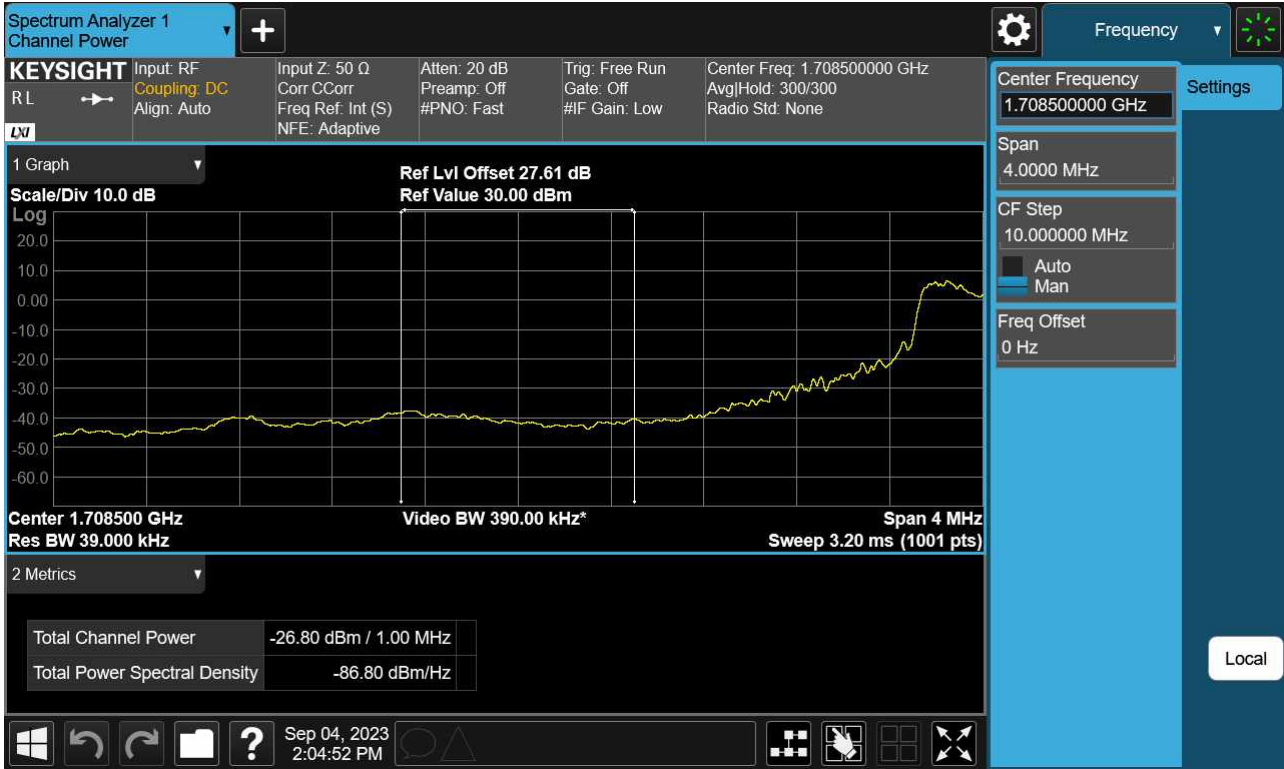
Sub6 n66. Lower Band Edge Plot (5 M BW Ch.342500 BPSK RB 1, Offset 0) -1



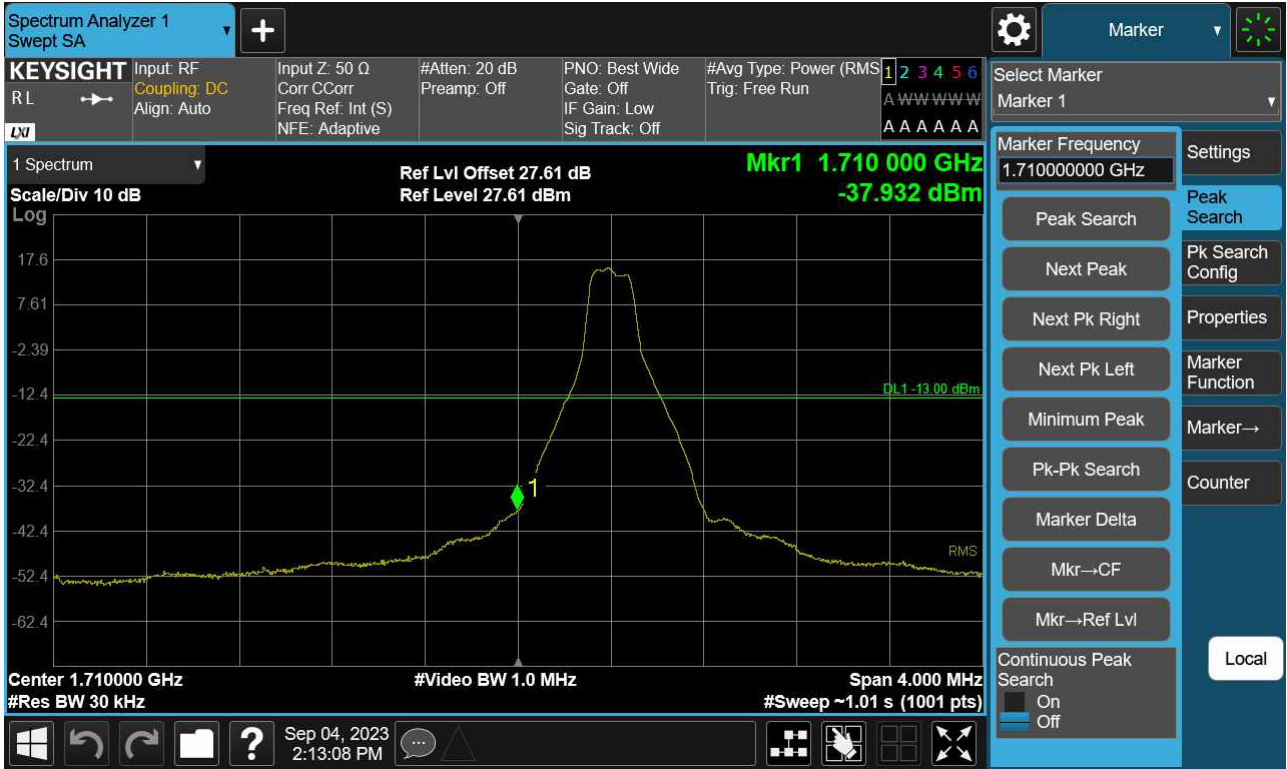
Sub6 n66. Lower Band Edge Plot (5 M BW Ch.342500 BPSK Full RB) -2



Sub6 n66. Lower Extended Band Edge Plot (5 M BW Ch.342500 BPSK_ Full RB) -3



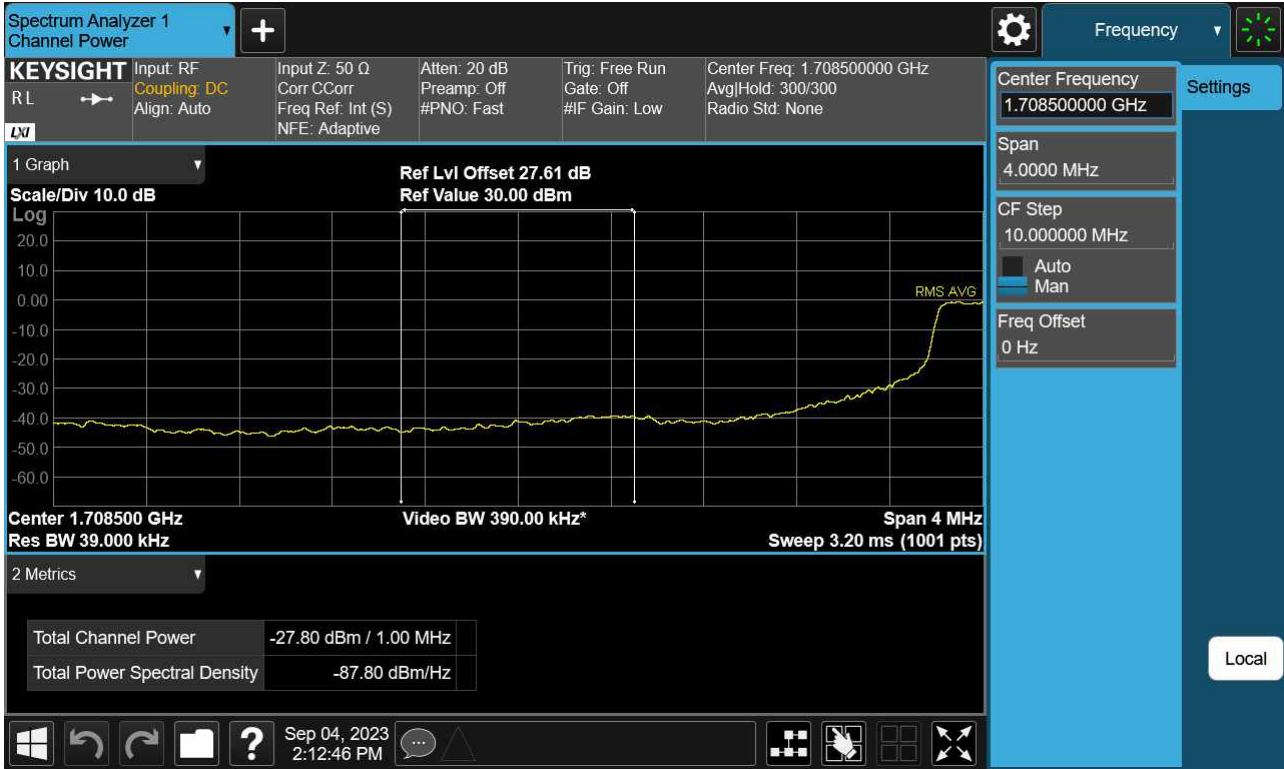
Sub6 n66. Lower Band Edge Plot (10 M BW Ch.343000 BPSK RB 1, Offset 0) -1



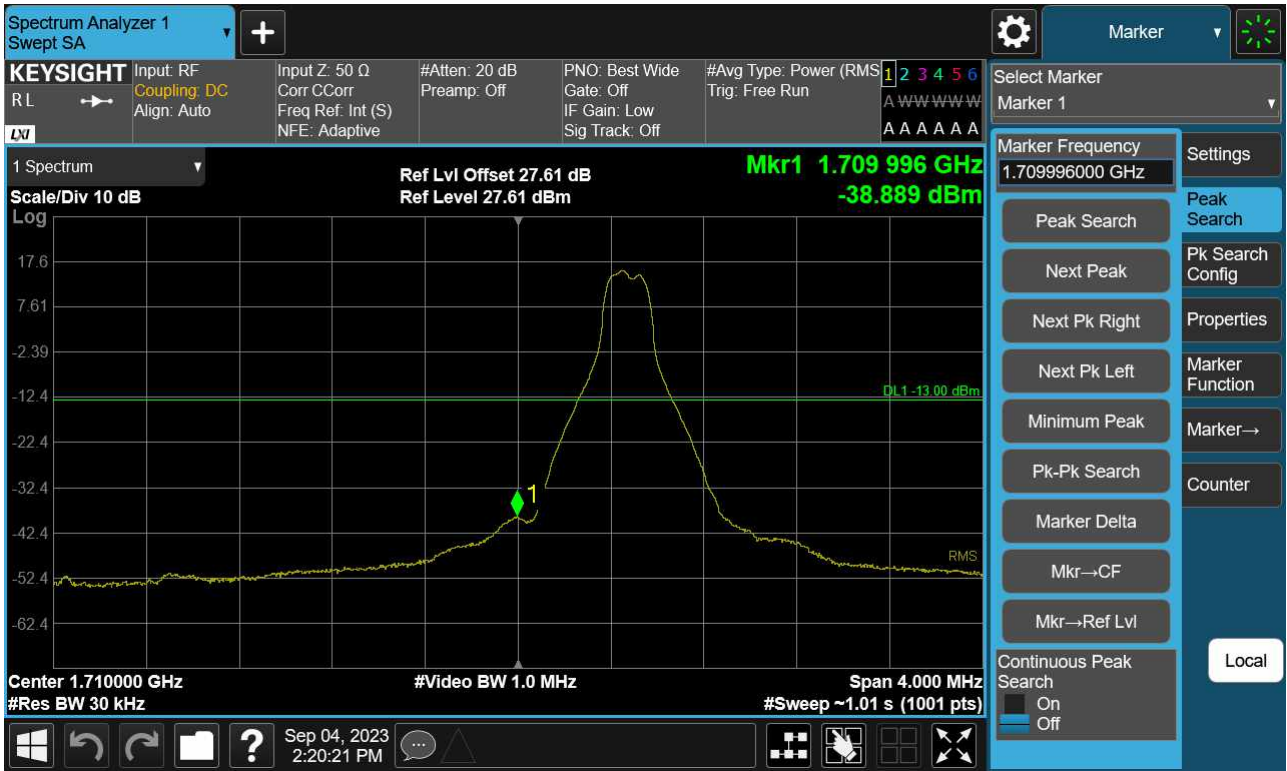
Sub6 n66. Lower Band Edge Plot (10 M BW Ch.343000 BPSK Full RB) -2



Sub6 n66. Lower Extended Band Edge Plot (10 M BW Ch.343000 BPSK_ Full RB) -3



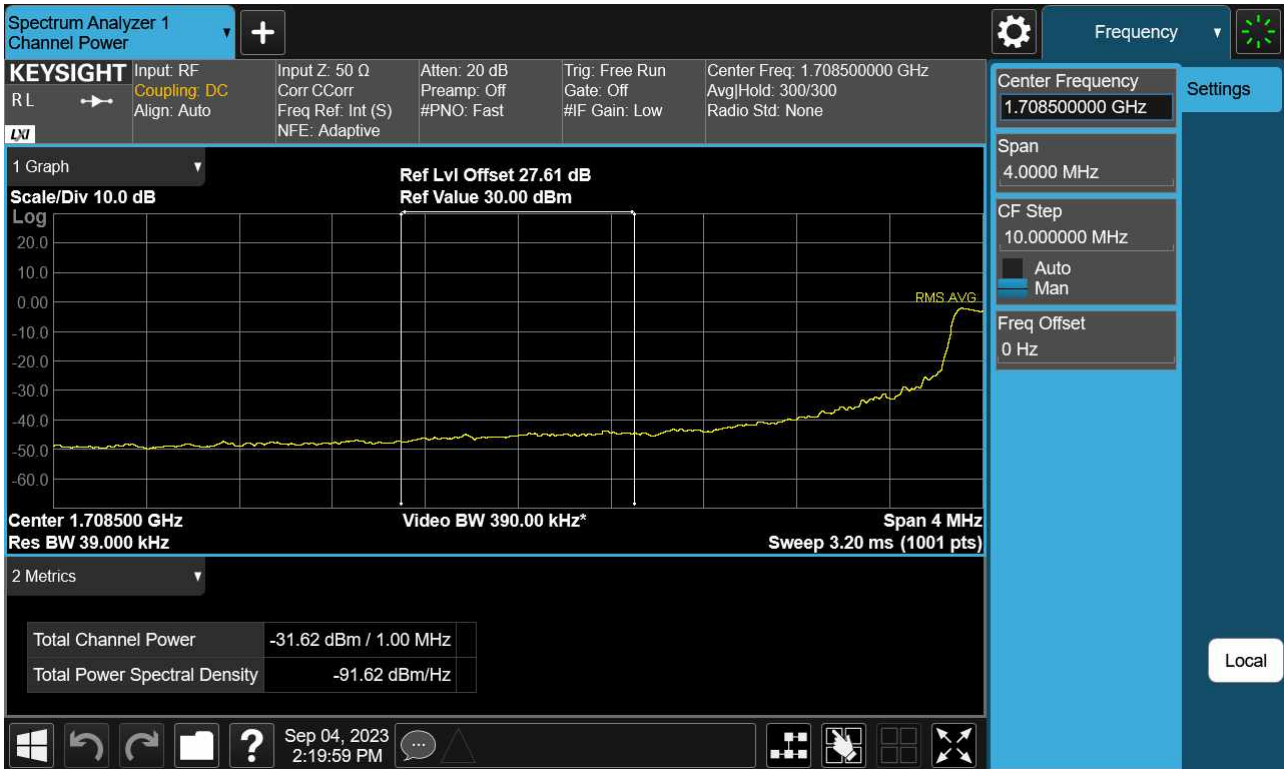
Sub6 n66. Lower Band Edge Plot (15 M BW Ch.343500 BPSK RB 1, Offset 0) -1



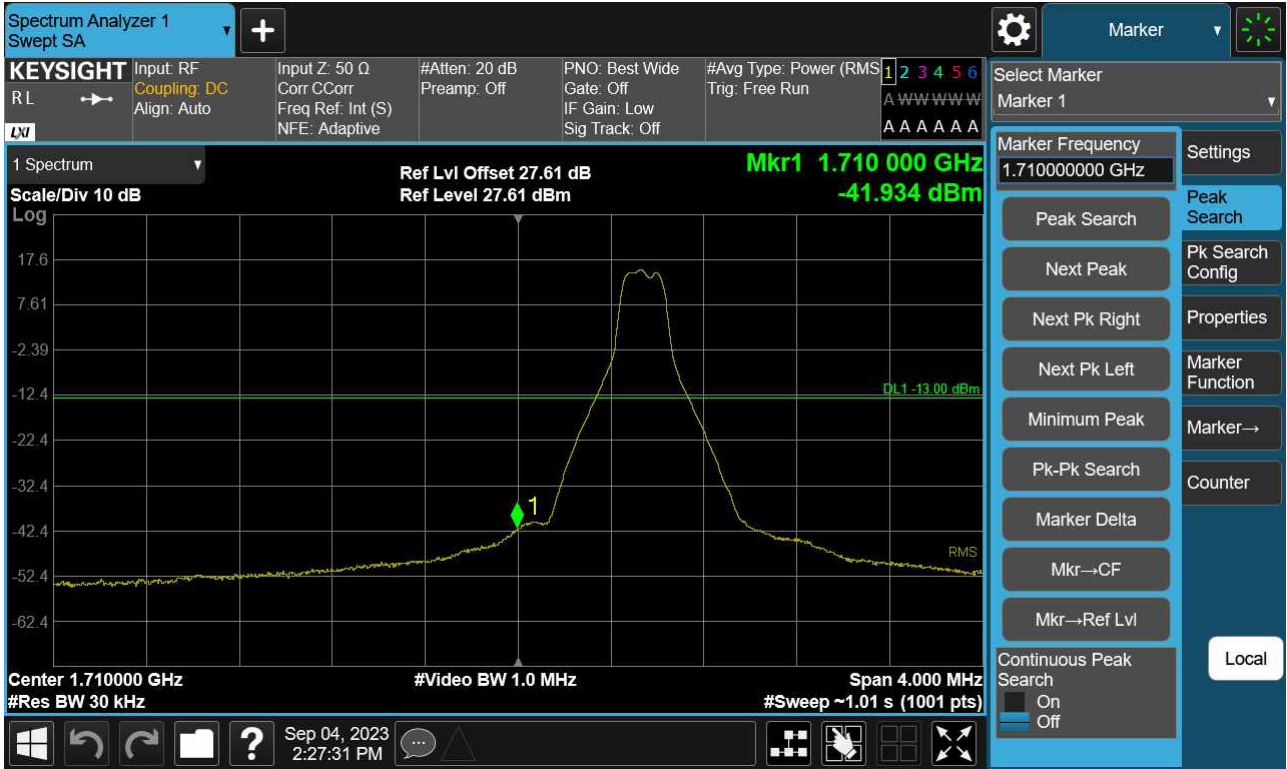
Sub6 n66. Lower Band Edge Plot (15 M BW Ch.343500 BPSK Full RB) -2



Sub6 n66. Lower Extended Band Edge Plot (15 M BW Ch.343500 BPSK_ Full RB) -3



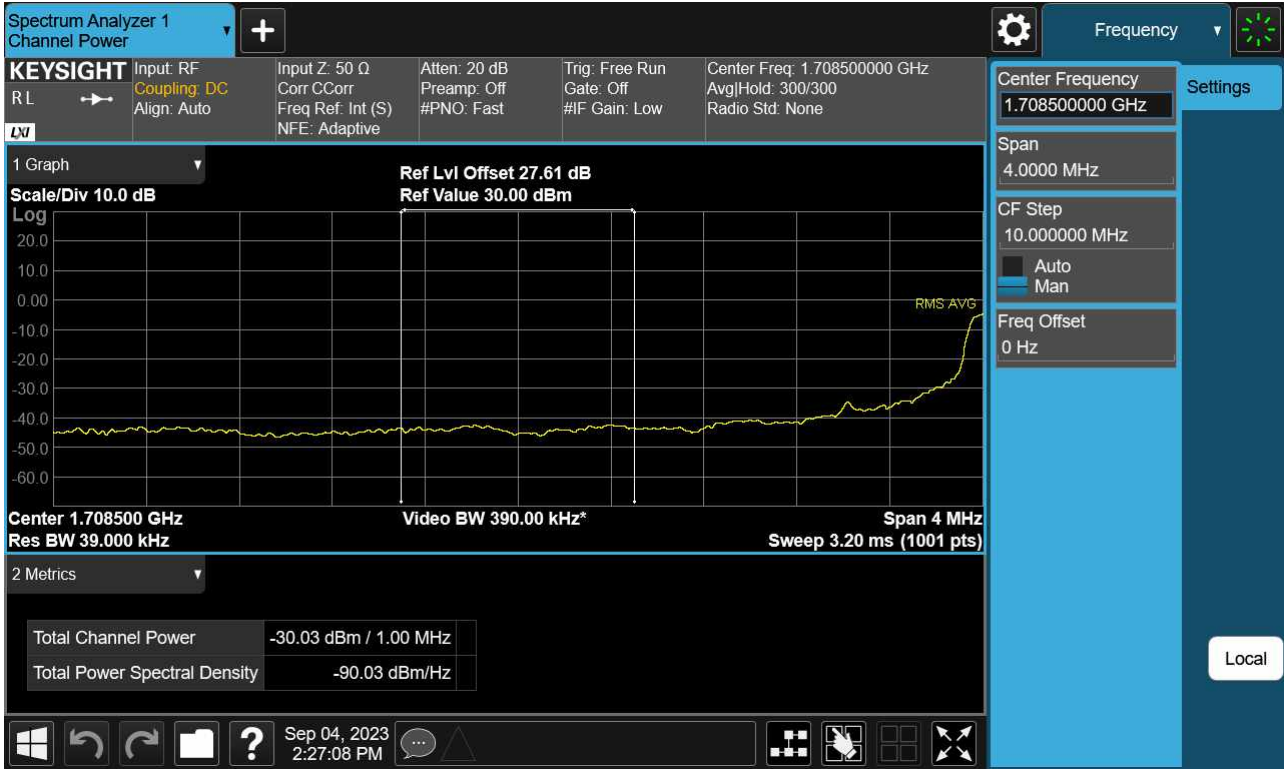
Sub6 n66. Lower Band Edge Plot (20 M BW Ch.344000 BPSK RB 1, Offset 0) -1



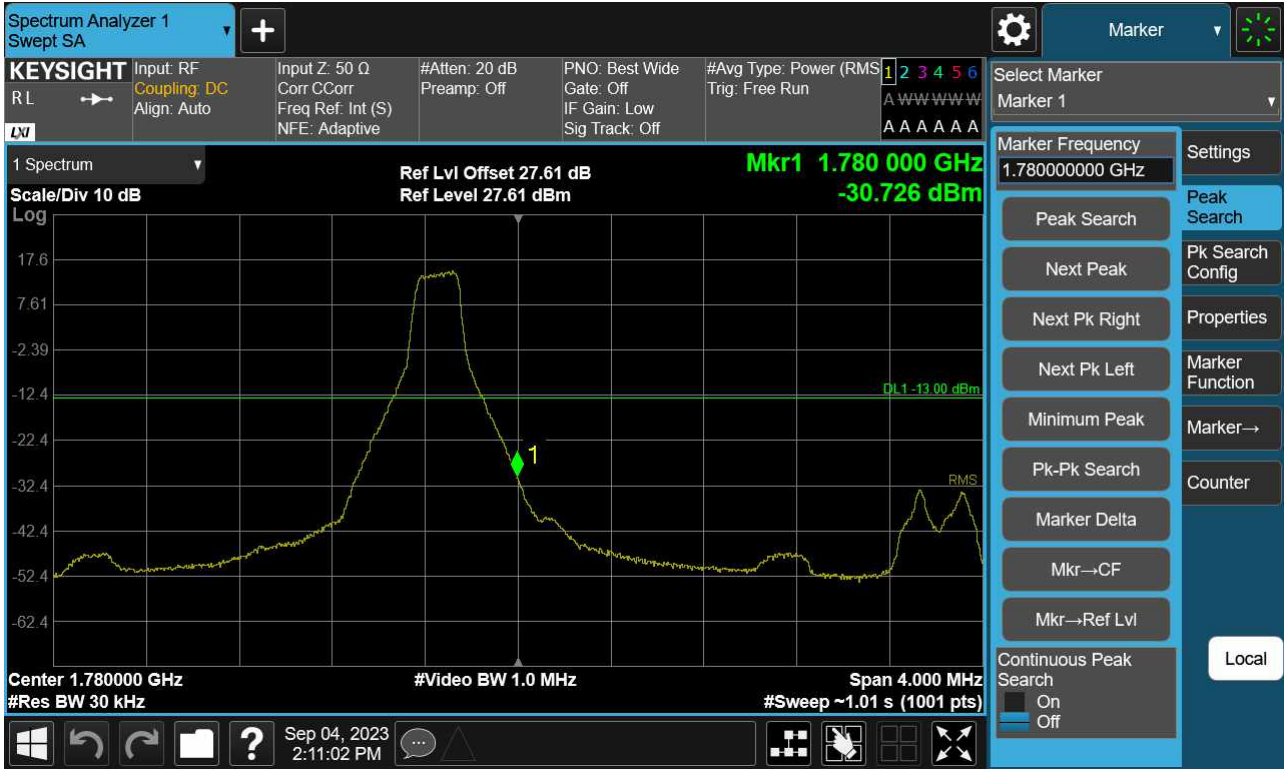
Sub6 n66. Lower Band Edge Plot (20 M BW Ch.344000 BPSK Full RB) -2



Sub6 n66. Lower Extended Band Edge Plot (20 M BW Ch.344000 BPSK_ Full RB) -3



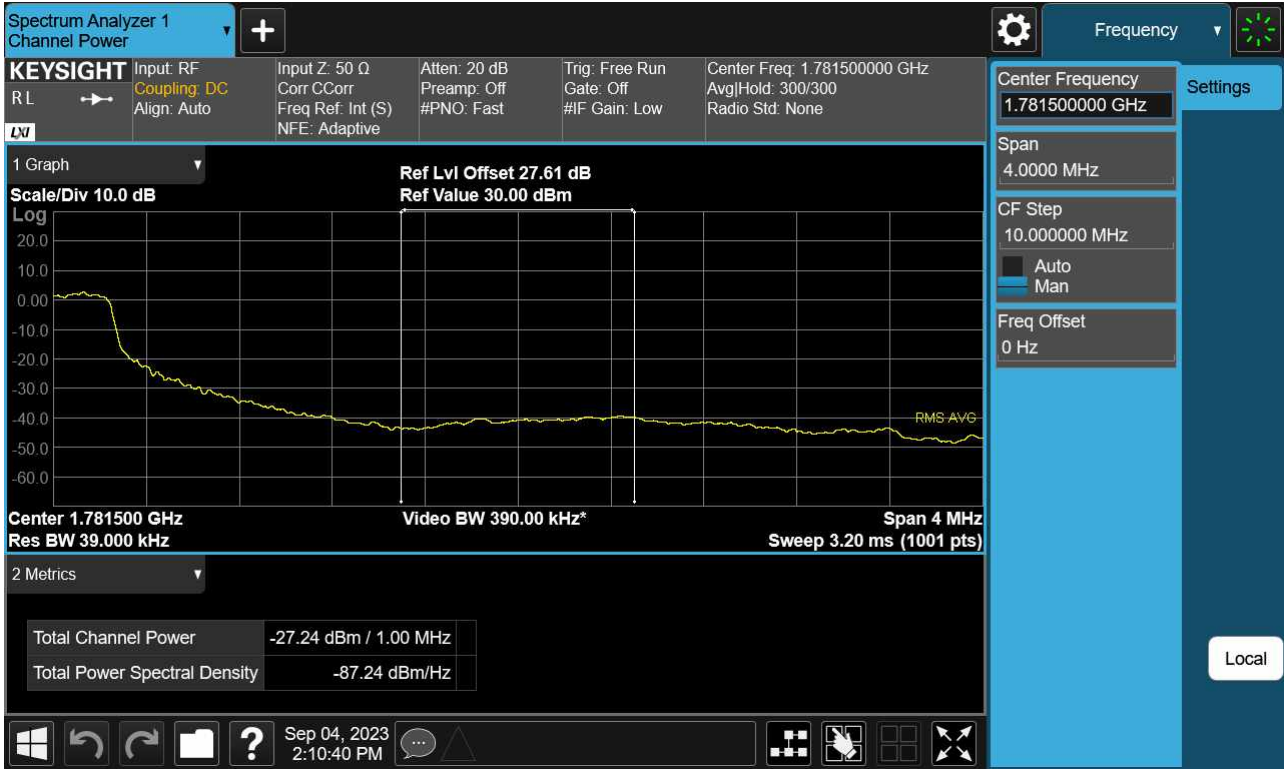
Sub6 n66. Upper Band Edge Plot (5 M BW Ch.355500 BPSK_RB1_Offset 24) -1



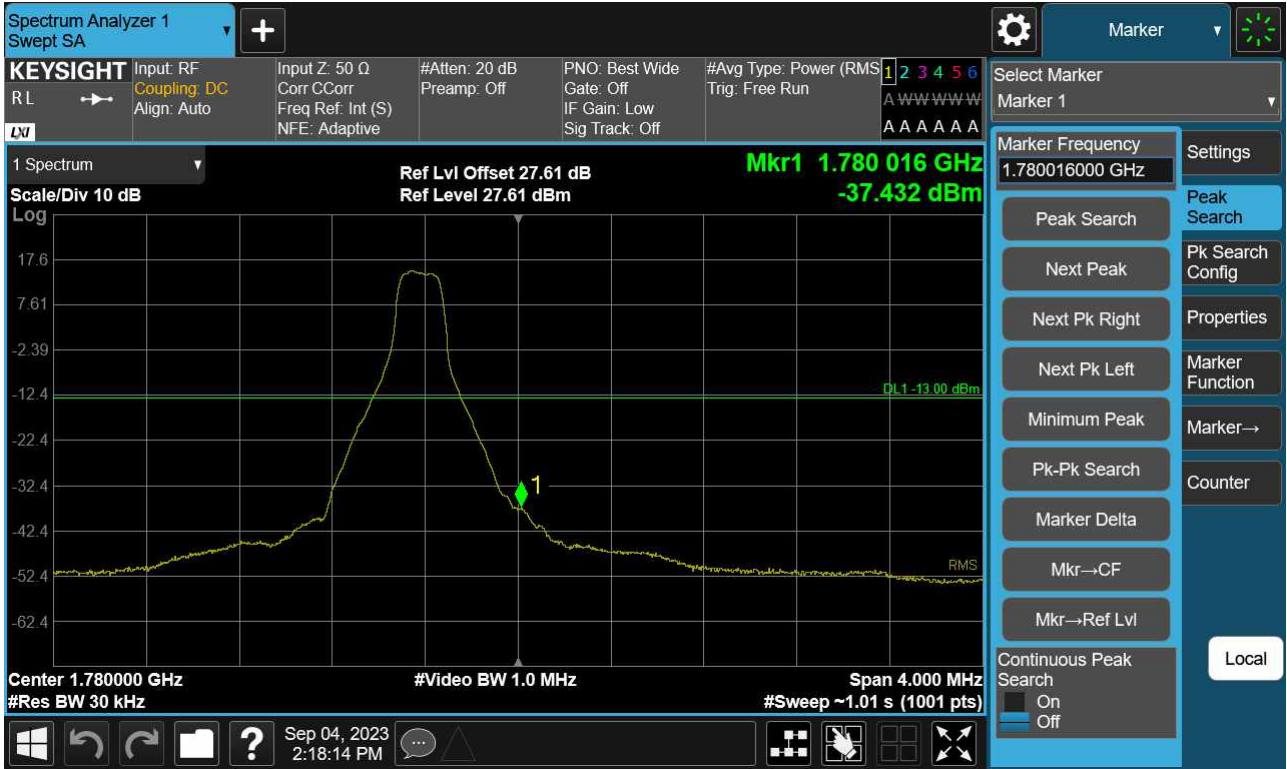
Sub6 n66. Upper Band Edge Plot (5 M BW Ch.355500 BPSK_ Full RB) -2



Sub6 n66. Upper Extended Band Edge Plot (5 M BW Ch.355500 BPSK_ Full RB) -3



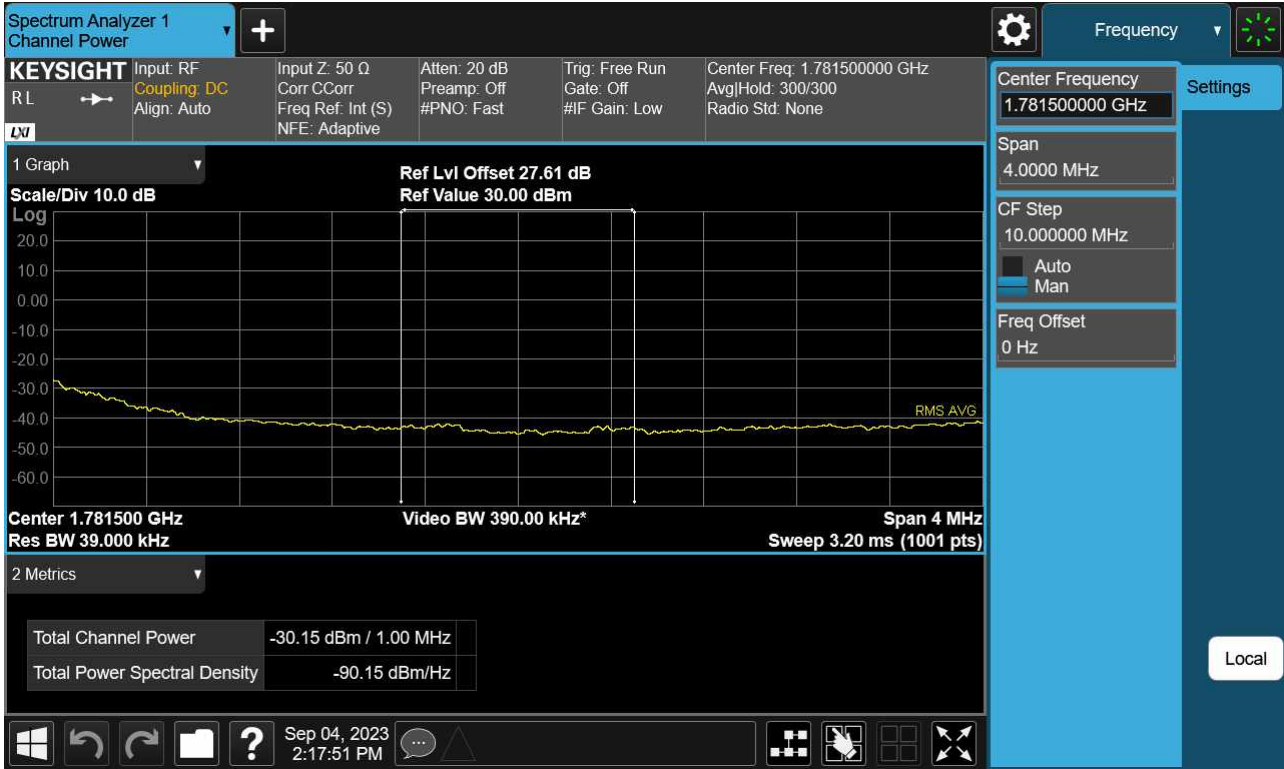
Sub6 n66. Upper Band Edge Plot (10 M BW Ch.355000 BPSK_RB1_Offset 51) -1



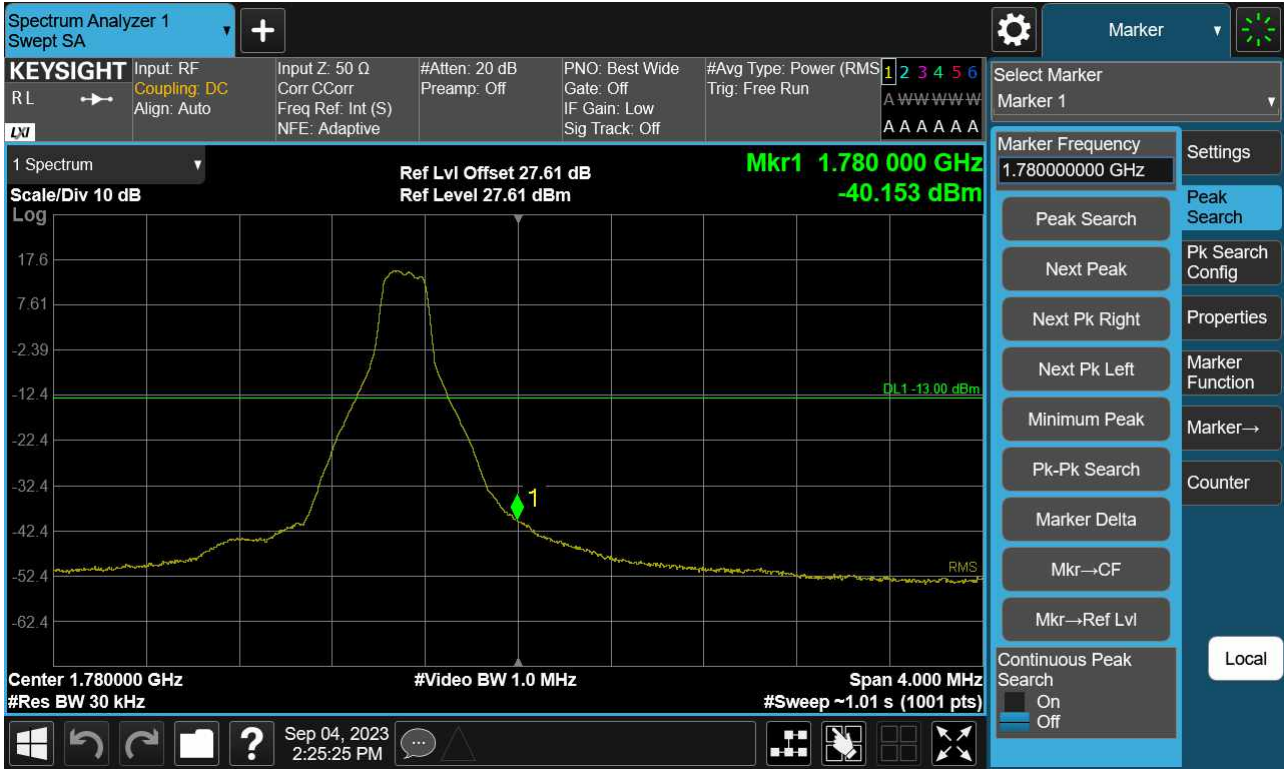
Sub6 n66. Upper Band Edge Plot (10 M BW Ch.355000 BPSK_ Full RB) -2



Sub6 n66. Upper Extended Band Edge Plot (10 M BW Ch.355000 BPSK_ Full RB) -3



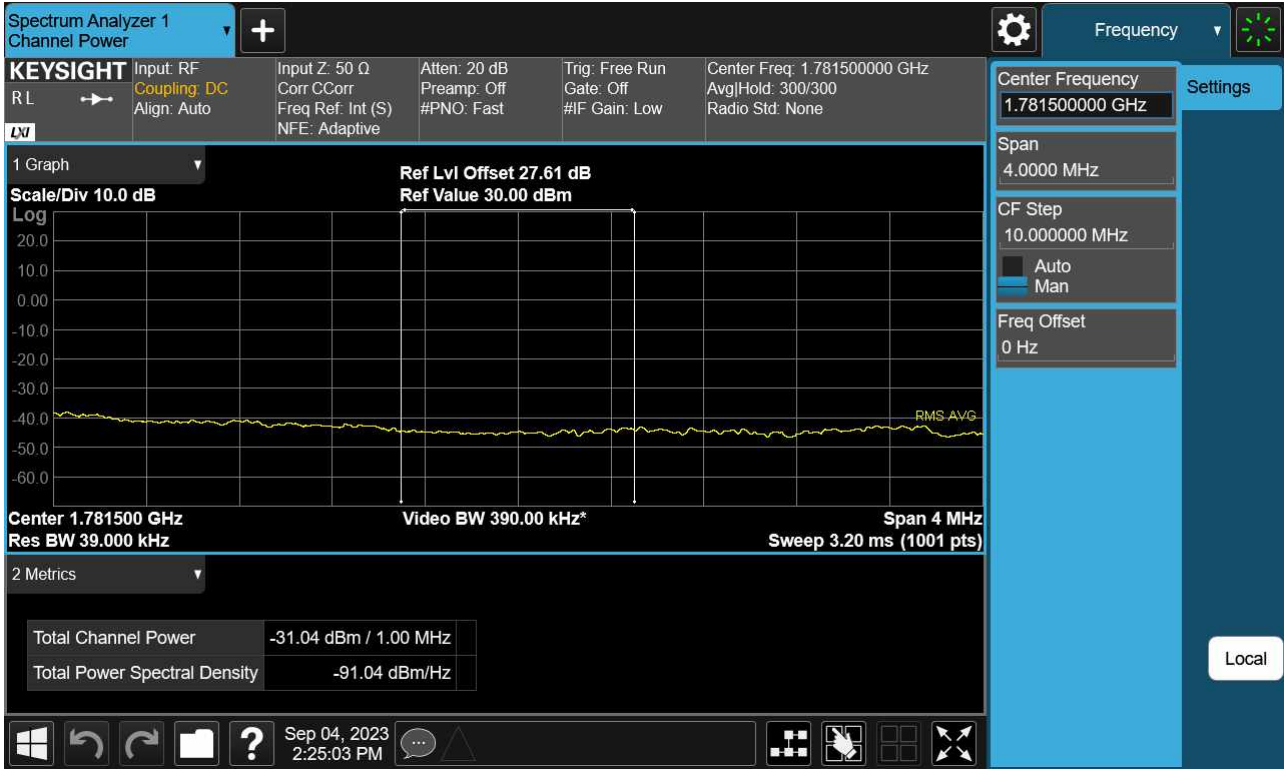
Sub6 n66. Upper Band Edge Plot (15 M BW Ch.354500 BPSK_RB1_Offset 78) -1



Sub6 n66. Upper Band Edge Plot (15 M BW Ch.354500 BPSK_ Full RB) -2



Sub6 n66. Upper Extended Band Edge Plot (15 M BW Ch.354500 BPSK_ Full RB) -3



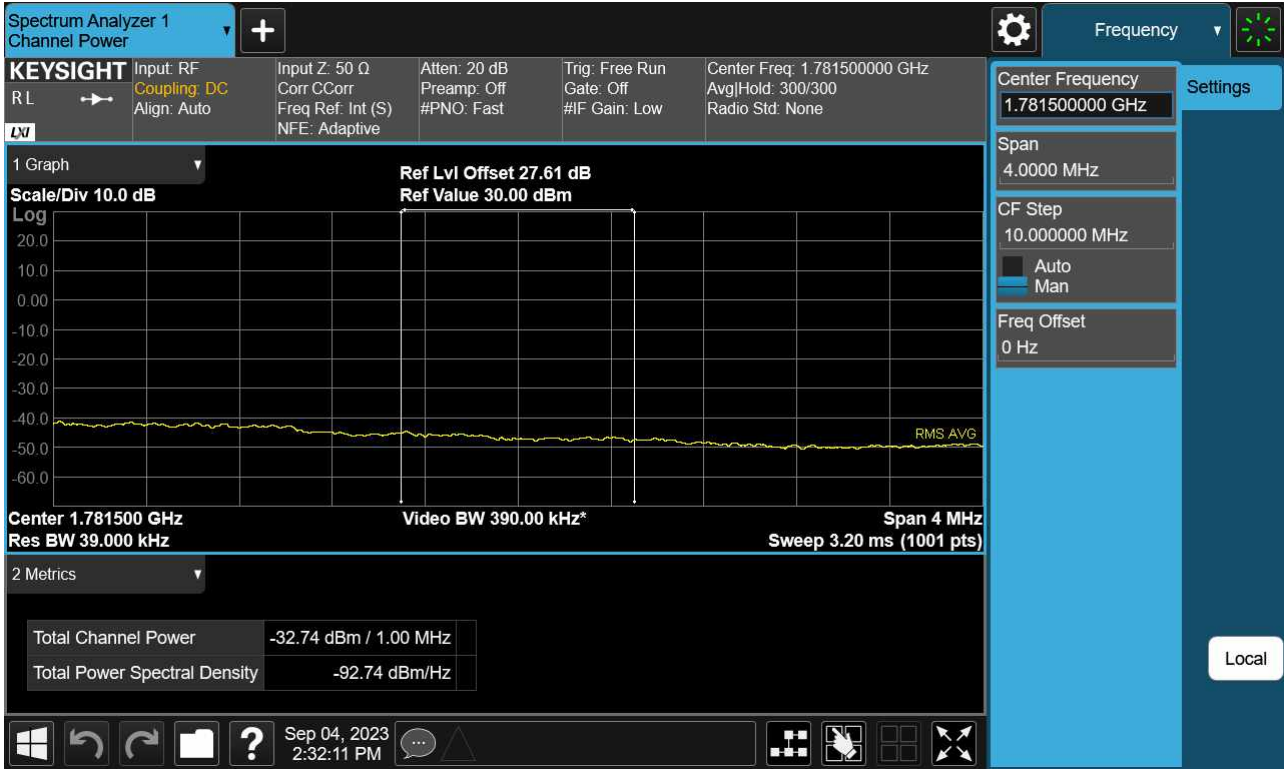
Sub6 n66. Upper Band Edge Plot (20 M BW Ch.354000 BPSK_RB1_Offset 105) -1



Sub6 n66. Upper Band Edge Plot (20 M BW Ch.354000 BPSK_ Full RB) -2



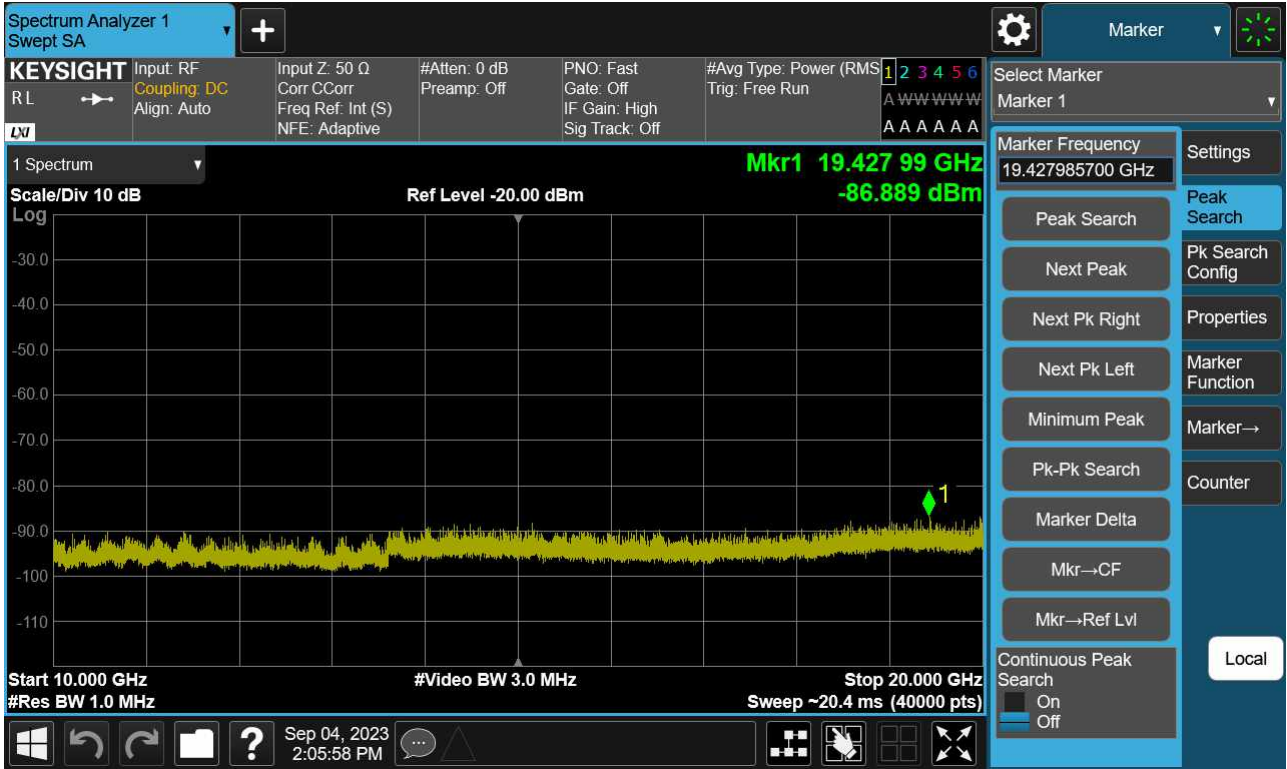
Sub6 n66. Upper Extended Band Edge Plot (20 M BW Ch.354000 BPSK_ Full RB) -3



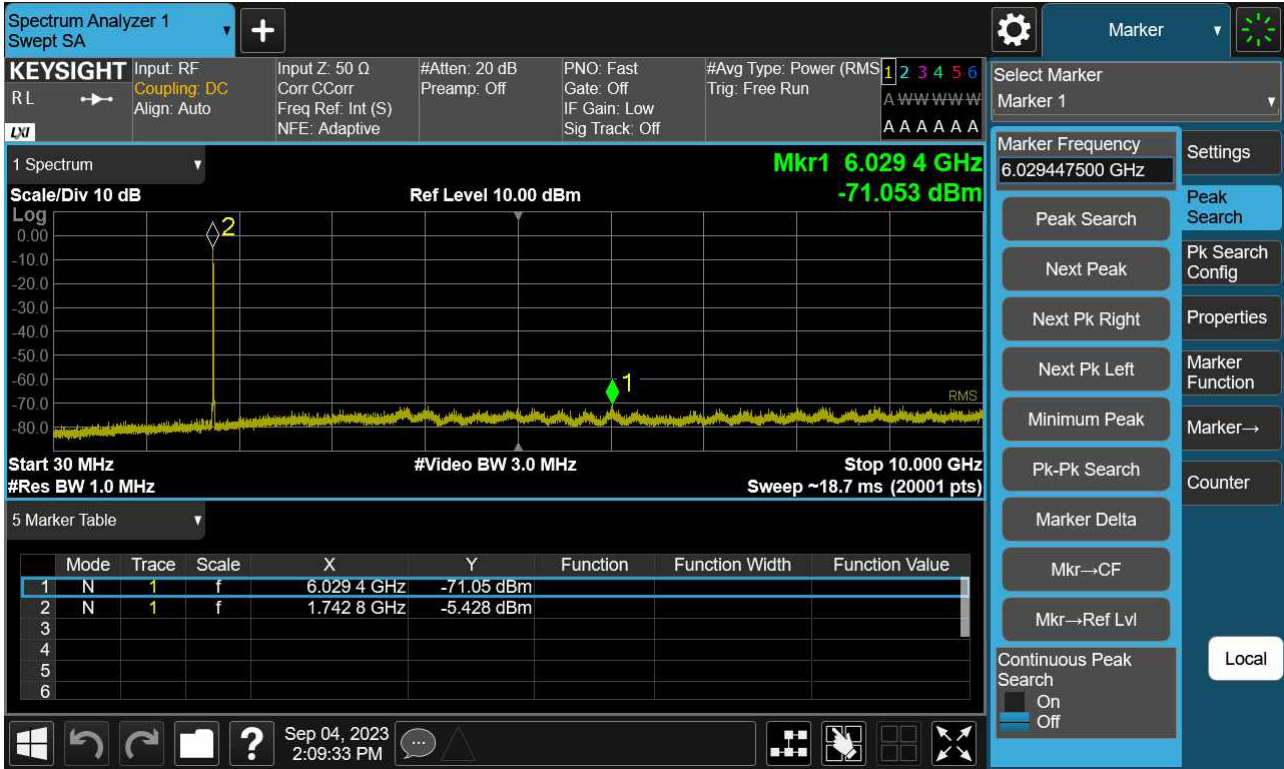
Sub6 n66. Conducted Spurious Plot_1 (342500ch_5 MHz_BPSK_RB 1_1)



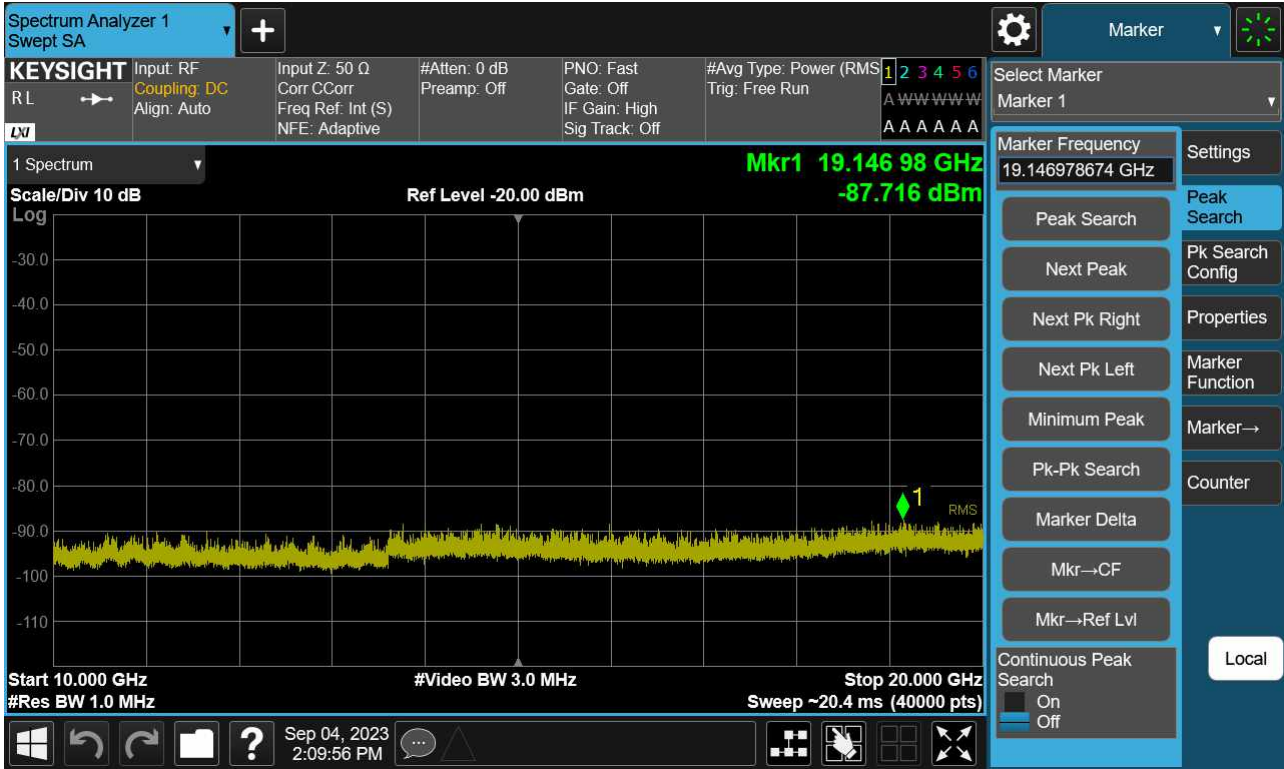
Sub6 n66. Conducted Spurious Plot_2 (342500ch_5 MHz_BPSK_RB 1_1)



Sub6 n66. Conducted Spurious Plot_1 (349000ch_5 MHz_BPSK_RB 1_1)



Sub6 n66. Conducted Spurious Plot_2 (349000ch_5 MHz_BPSK_RB 1_1)



Sub6 n66. Conducted Spurious Plot_1 (355500ch_5 MHz_BPSK_RB 1_1)

