

TEST REPORT

FCC Sub6 n26(Part90) Test for SM-F766U
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2504-FC022-R1

DATE OF ISSUE
May 23, 2025

Tested by
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TEST REPORT

REPORT NO.

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Additional Model

SM-F766U1

Applicant**SAMSUNG Electronics Co., Ltd.**

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

Product Name

Mobile Phone

Model Name

SM-F766U

Date of Test

February 24, 2025 ~ April 21, 2025

FCC ID

A3LSMF766U

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

FCC Classification:

PCS Licensed Transmitter Held to Ear (PCE)

Test Standard Used

FCC Rule Part: § 90, § 22

Test Results

PASS

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	April 22, 2025	Initial Release
1	May 23, 2025	Revised the Power Supply Voltage. (DC 3.88 V → DC 3.90 V)

Notice

Content

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)

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

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

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	SAMSUNG Electronics Co., Ltd.
Address:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
FCC ID:	A3LSMF766U
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§ 90, § 22
EUT Type:	Mobile phone
Model(s):	SM-F766U
Additional Model(s)	SM-F766U1
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:	816.5 MHz – 824.0 MHz (Sub6 n26 (5 MHz)) 819.0 MHz – 824.0 MHz (Sub6 n26 (10 MHz)) 821.5 MHz – 824.0 MHz (Sub6 n26 (15 MHz)) 824.0 MHz (Sub6 n26 (20 MHz))
Date(s) of Tests:	February 24, 2025 ~ April 21, 2025
Serial number:	Radiated : R3CY209A7NT(Main 1), R3CY20MAGN(Sub 1) Conducted : R3CY10XMRGA
Antenna Information	Please refer to the Antenna Specification document.

1.1 MAXIMUM OUTPUT POWER

Main 1 ANT

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n26 (5)	816.5 – 824.0	4M55G7D	PI/2 BPSK	0.254	24.05
		4M54G7D	QPSK	0.247	23.92
		4M59W7D	16QAM	0.193	22.86
		4M55W7D	64QAM	0.148	21.69
		4M56W7D	256QAM	0.093	19.70
Sub6 n26 (10)	819.0 – 824.0	8M98G7D	PI/2 BPSK	0.249	23.96
		9M01G7D	QPSK	0.254	24.05
		9M00W7D	16QAM	0.185	22.66
		9M00W7D	64QAM	0.129	21.11
		8M97W7D	256QAM	0.082	19.13
Sub6 n26 (15)	821.5 – 824.0	13M5G7D	PI/2 BPSK	0.242	23.84
		13M5G7D	QPSK	0.244	23.87
		13M5W7D	16QAM	0.205	23.12
		13M5W7D	64QAM	0.142	21.54
		13M5W7D	256QAM	0.089	19.50
Sub6 n26 (20)	824.0	17M9G7D	PI/2 BPSK	0.244	23.87
		18M0G7D	QPSK	0.249	23.96
		17M9W7D	16QAM	0.190	22.79
		18M0W7D	64QAM	0.144	21.57
		17M9W7D	256QAM	0.082	19.14

Sub 1 ANT

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n26 (5)	816.5 – 824.0	4M53G7D	PI/2 BPSK	0.191	22.82
		4M53G7D	QPSK	0.195	22.90
		4M52W7D	16QAM	0.153	21.83
		4M56W7D	64QAM	0.110	20.43
		4M52W7D	256QAM	0.062	17.92
Sub6 n26 (10)	819.0 – 824.0	9M02G7D	PI/2 BPSK	0.188	22.73
		9M00G7D	QPSK	0.192	22.83
		8M97W7D	16QAM	0.154	21.87
		8M99W7D	64QAM	0.104	20.18
		9M02W7D	256QAM	0.068	18.30
Sub6 n26 (15)	821.5 – 824.0	13M5G7D	PI/2 BPSK	0.186	22.69
		13M5G7D	QPSK	0.184	22.64
		13M4W7D	16QAM	0.138	21.40
		13M5W7D	64QAM	0.108	20.35
		13M5W7D	256QAM	0.070	18.44
Sub6 n26 (20)	824.0	17M9G7D	PI/2 BPSK	0.183	22.62
		17M9G7D	QPSK	0.184	22.64
		17M9W7D	16QAM	0.144	21.59
		17M9W7D	64QAM	0.102	20.10
		17M9W7D	256QAM	0.062	17.93

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

Please refer to the [2G3G] Test Report.

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, Republic 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	- KDB 971168 D01 v03r01 - Section 5.2.4 - ANSI C63.26-2015 - Section 5.2.1 & 5.2.4.2
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Radiated Power	- ANSI C63.26-2015 – Section 5.2.4.4 - KDB 971168 D01 v03r01 – Section 5.8
Radiated Spurious and Harmonic Emissions	- ANSI C63.26-2015 – Section 5.5.3 - KDB 971168 D01 v03r01 – Section 5.8

3.2 CONDUCTED OUTPUT POWER

Test Overview

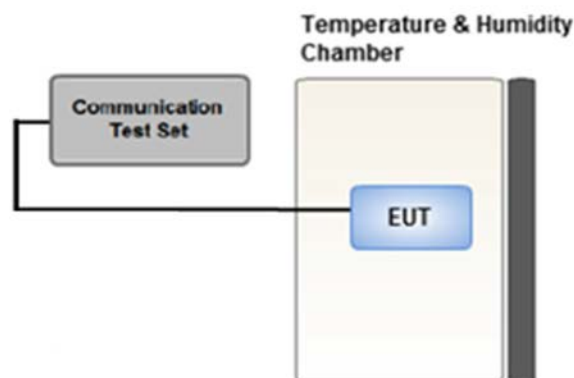
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base station emulator, communications test set, call box, or similar instrumentation that is capable of establishing a communications link with the EUT to enable control over variable parameters (e.g., output power, OBW, etc.).

In some cases, these instruments also include basic digital spectrum analyzer and/or power meter capabilities that can be utilized to measure the RF output power if the specified detectors and requirements can be realized and the measurement functions have been calibrated.

Test Procedure

1. The RF port of the EUT was connected to the Communication Tester via an RF cable.
2. Conducted average power was measured using a calibrated Radio Communication Tester.

Test setup



3.3 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.

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.

3.4 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method.

Test Settings

1. RBW = 100 kHz 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;

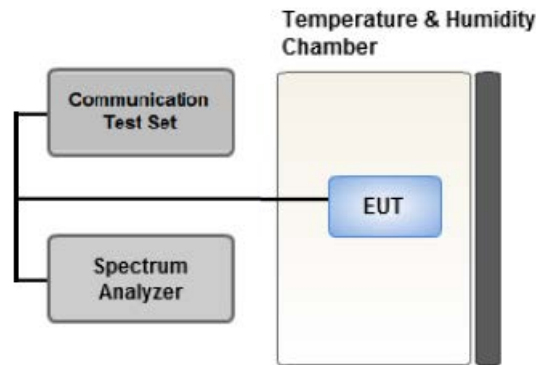
$$\text{Result}_{(\text{dBm})} = P_g_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

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.

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

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.

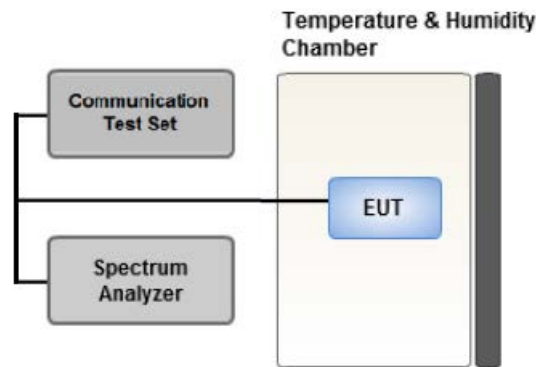
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

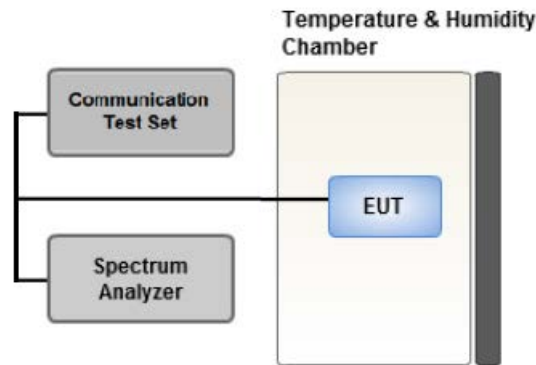
Test Overview

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 = Peak
4. Trace Mode = max hold
5. Sweep time = auto
6. Number of points in sweep $\geq$ 2 x Span / RBW

3.7 CHANNEL EDGE



Test setup

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum 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

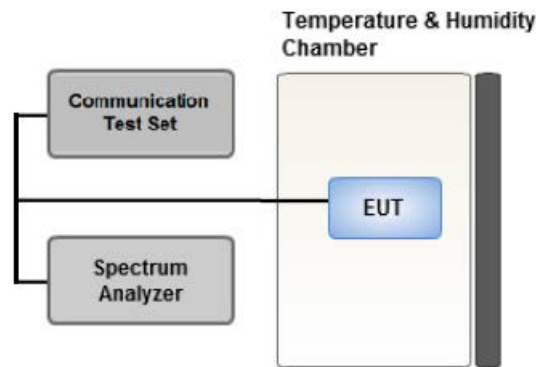
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW :
 - .- EA licensee's frequency block by up to and including 37.5 kHz : 300 Hz
 - .- EA licensee's frequency block greater than 37.5 kHz : 100 kHz
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points $\geq 2 \times \text{Span/RBW}$
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Notes

For 90.691(a), RBW=300 Hz for offset less than 37.5 kHz from channel edge and RBW=100 kHz for offsets greater than 37.5 kHz is allowed.

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.
- The EUT was tested in three modes(Open, Half-open, Closed), the worst case configuration results are reported.
- Worst case (Equivalent Isotropic Radiated Power)
: Main 1 ANT (Open), Sub 1 ANT (Open)
- Worst case (Radiated Spurious Emissions)
: Main 1 ANT (Open), Sub 1 ANT (Open)
- All modes of operation were investigated and the worst case configuration results are reported.
Mode: SA only
Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
Worst case : Stand alone
- All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed.
Therefore, only the worst case(stand-alone) results were 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 : 5 MHz(Main 1 ANT), 5 MHz(Sub 1 ANT))
- SM-F766U & additional models were tested and the worst case results are reported.
(Worst case : SM-F766U)

[Main 1 ANT Worst case]

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

[Sub 1 ANT Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Effective Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	See Section 9.1		X
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		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: SA Only.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- SM-F766U & additional models were tested and the worst case results are reported.
(Worst case : SM-F766U)

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	5	High	Full RB	0
	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20	Mid	Full RB	0
Channel Edge	PI/2 BPSK,	5	Low	1	0
			High	1	24
		10	Mid	1	0
				1	51
		15	Mid	1	0
				1	78
		20	Mid	1	0
				1	105
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK,	5	Low, High	Full RB	0
			Mid	Full RB	0
		10, 15, 20	Low, High	1	1
			Mid	1	1

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
RF Switching System	Switch box(1 G HPF+LNA)	HCT CO., LTD.,	F2L2	12/12/2025	Annual
RF Switching System	Switch box(3 G HPF+LNA)	HCT CO., LTD.,	F2L3	12/12/2025	Annual
RF Switching System	Switch box(LNA)	HCT CO., LTD.,	F2L5	12/12/2025	Annual
RF Switching System	Switch box(6 G HPF+LNA)	HCT CO., LTD.,	F2L14	12/12/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
Power Splitter(DC ~ 26.5 GHz)	11667B	Hewlett Packard	5001	04/10/2026	Annual
DC Power Supply	E3632A	Agilent	MY40010147	08/06/2025	Annual
Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Dipole Antenna	UHAP	Schwarzbeck	01288	08/07/2026	Biennial
Chamber	SU-642	ESPEC	93008124	02/11/2026	Annual
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	03197	11/28/2025	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	03201	11/28/2025	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
Signal Analyzer(10 Hz ~ 26.5 GHz)	N9020A	Agilent	MY52090906	04/14/2026	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/10/2026	Annual
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	ROHDE & SCHWARZ	101733	09/19/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Loop Antenna(9 kHz ~ 30 MHz)	FMZB1513	Schwarzbeck	1513-333	03/07/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	895	08/28/2026	Biennial
Trilog Broadband Antenna	VULB9168	Schwarzbeck	1135	08/19/2026	Biennial
Radio Communication Test Station	MT8000A	Anritsu Corp.	6272613402	08/28/2025	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	Annual
Signal Analyzer(5 Hz ~ 40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
Signal Analyzer(2 Hz ~ 50.0 GHz)	N9040B	KEYSIGHT	US55230216	12/09/2025	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/10/2025	Annual
UXM 5G Wireless Test Platform	E7515B	KEYSIGHT	MY60101126	02/10/2026	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

- Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
- 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 ($\pm$ kHz)
Occupied Bandwidth	95 (Confidence level about 95 %, $k=2$)
Frequency stability	28 (Confidence level about 95 %, $k=2$)

Parameter	Expanded Uncertainty ($\pm$ dB)
Block Edge	0.70 (Confidence level about 95 %, $k=2$)
Conducted Spurious Emissions	1.18 (Confidence level about 95 %, $k=2$)
Peak- to- Average Ratio	0.68 (Confidence level about 95 %, $k=2$)
Radiated Power	4.74 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.36 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.68 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.75 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.82 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (Above 40 GHz)	5.58 (Confidence level about 95 %, $k=2$)

6. SUMMARY OF TEST RESULTS

-. The decision rule applies 'simple acceptance'

6.1 Test Condition: Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§ 2.1049	N/A	PASS
Channel Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 90.691	< 50 + 10log ₁₀ (P[Watts]) at Band Edge and for all out-of-band emissions within 37.5 kHz of Block Edge	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 22.917(a)	< 43 + 10log ₁₀ (P[Watts]) at Band Edge and for all out-of-band emissions	PASS
Conducted Output Power	§ 2.1046 § 90.635	< 100 Watts	PASS
Frequency stability / variation of ambient temperature	§ 2.1055, § 90.213 § 22.355	< 2.5 ppm	PASS

6.2 Test Condition: Radiated Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Effective Radiated Power	§ 22.913(a)(5)	< 7 Watts max. ERP (Only 15,20 MHz B.W & Straddle C.H)	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1053, § 90.691 § 22.917(a)	< 43 + 10log ₁₀ (P[Watts]) for all out-of band emissions	PASS

7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

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

$$\text{ERP} = \text{Substitute LEVEL(dBm)} + \text{Ant. Gain} - \text{CL(Cable Loss)}$$

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

7.2 EIRP Sample Calculation

Ch./ Freq.		Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	EIRP	
channel	Freq.(MHz)						W	dBm
20175	1,732.50	-15.75	18.45	9.90	1.76	H	0.456	26.59

$$\text{EIRP} = \text{Substitute LEVEL(dBm)} + \text{Ant. Gain} - \text{CL(Cable Loss)}$$

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

7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW
GSM BW = 249 kHz
G = Phase Modulation
X = Cases not otherwise covered
W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W
GSM BW = 249 kHz
G = Phase Modulation
7 = Quantized/Digital Info
W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W
WCDMA BW = 4.17 MHz
F = Frequency Modulation
9 = Composite Digital Info
W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D
LTE BW = 4.48 MHz
G = Phase Modulation
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D
LTE BW = 4.48 MHz
W = Amplitude/Angle Modulated
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

8. TEST DATA(Main 1 ANT)

8.1 CONDUCTED OUTPUT POWER

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)						Limit (W)
				816.5 MHz		821.5 MHz		824 MHz		
				dBm	W	dBm	W	dBm	W	
5	BPSK	1	1	24.05	0.254	24.03	0.253	23.84	0.242	100
		1	13	23.69	0.234	24.02	0.252	23.76	0.238	100
		1	23	24.04	0.253	23.95	0.248	23.74	0.237	100
		12	0	23.26	0.212	23.11	0.205	23.19	0.208	100
		12	7	23.80	0.240	23.57	0.228	23.54	0.226	100
		12	13	23.17	0.208	23.16	0.207	23.06	0.202	100
		25	0	23.34	0.216	23.19	0.208	23.08	0.203	100
	QPSK	1	1	23.92	0.246	23.76	0.238	23.92	0.247	100
		1	13	23.91	0.246	23.73	0.236	23.91	0.246	100
		1	23	23.69	0.234	23.66	0.232	23.82	0.241	100
		12	0	22.79	0.190	22.59	0.182	22.63	0.183	100
		12	7	23.71	0.235	23.72	0.235	23.70	0.235	100
		12	13	22.65	0.184	22.64	0.184	22.53	0.179	100
		25	0	22.70	0.186	22.63	0.183	22.57	0.181	100
	16QAM	1	1	22.83	0.192	22.67	0.185	22.86	0.193	100
	64QAM	1	1	21.69	0.148	21.13	0.130	21.20	0.132	100
	256QAM	1	1	19.70	0.093	19.09	0.081	18.92	0.078	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)				Limit (W)
				819.0 MHz		824.0 MHz		
				dBm	W	dBm	W	
10	BPSK	1	1	23.96	0.249	23.73	0.236	100
		1	26	23.69	0.234	23.69	0.234	100
		1	50	23.51	0.225	23.50	0.224	100
		25	0	23.31	0.215	-7.78	0.000	100
		25	14	23.79	0.240	23.67	0.233	100
		25	27	23.32	0.215	23.09	0.203	100
		50	0	23.24	0.211	23.12	0.205	100
	QPSK	1	1	23.98	0.250	24.05	0.254	100
		1	26	23.97	0.249	24.04	0.254	100
		1	50	23.71	0.235	23.28	0.213	100
		25	0	22.86	0.193	22.63	0.183	100
		25	14	23.75	0.237	23.74	0.237	100
		25	27	22.75	0.188	22.52	0.179	100
		50	0	22.82	0.192	22.67	0.185	100
	16QAM	1	1	22.66	0.185	22.21	0.166	100
	64QAM	1	1	20.83	0.121	21.11	0.129	100
	256QAM	1	1	18.81	0.076	19.13	0.082	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)				Limit (W)
				821.5 MHz		824.0 MHz		
				dBm	W	dBm	W	
15	BPSK	1	1	23.83	0.241	23.84	0.242	100
		1	40	23.82	0.241	23.63	0.231	100
		1	77	23.79	0.239	23.52	0.225	100
		36	0	23.33	0.215	23.25	0.211	100
		36	22	23.76	0.238	23.69	0.234	100
		36	43	23.17	0.208	23.17	0.208	100
		75	0	23.22	0.210	23.15	0.207	100
	QPSK	1	1	23.80	0.240	23.87	0.244	100
		1	40	23.62	0.230	23.86	0.243	100
		1	77	23.60	0.229	23.67	0.233	100
		36	0	22.79	0.190	22.73	0.188	100
		36	22	23.79	0.239	23.62	0.230	100
		36	43	22.64	0.184	22.58	0.181	100
		75	0	22.77	0.189	22.62	0.183	100
	16QAM	1	1	22.91	0.196	23.12	0.205	100
	64QAM	1	1	21.32	0.136	21.54	0.142	100
	256QAM	1	1	19.50	0.089	19.40	0.087	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)		Limit (W)
				824.0 MHz		
				dBm	W	
20	BPSK	1	1	23.87	0.244	100
		1	53	23.67	0.233	100
		1	104	23.64	0.231	100
		50	0	23.25	0.211	100
		50	28	23.63	0.231	100
		50	56	23.08	0.203	100
		100	0	23.14	0.206	100
	QPSK	1	1	23.96	0.249	100
		1	53	23.71	0.235	100
		1	104	23.56	0.227	100
		50	0	22.82	0.191	100
		50	28	23.70	0.235	100
		50	56	22.60	0.182	100
		100	0	22.65	0.184	100
	16QAM	1	1	22.79	0.190	100
	64QAM	1	1	21.57	0.144	100
	256QAM	1	1	19.14	0.082	100

8.2 EFFECTIVE RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol	Limit	ERP		RB	
								W	W	dBm	Size	Offset
816.5	Sub6 n26 5 MHz [15 kHz]	PI/2 BPSK	-31.99	31.21	-10.05	1.44	H	< 7.00	0.094	19.72	1	12
		QPSK	-32.01	31.19	-10.05	1.44	H		0.093	19.70		
		16-QAM	-33.02	30.18	-10.05	1.44	H		0.074	18.69		
		64-QAM	-34.52	28.68	-10.05	1.44	H		0.052	17.19		
		256-QAM	-36.48	26.72	-10.05	1.44	H		0.033	15.23		
821.5		PI/2 BPSK	-32.23	30.87	-9.95	1.44	H		0.089	19.48	1	1
		QPSK	-32.25	30.85	-9.95	1.44	H		0.088	19.46		
		16-QAM	-33.19	29.91	-9.95	1.44	H		0.071	18.52		
		64-QAM	-34.74	28.36	-9.95	1.44	H		0.050	16.97		
		256-QAM	-36.79	11.39	-9.95	1.44	H		0.031	14.92		
824.0		PI/2 BPSK	-32.35	30.65	-9.95	1.44	H		0.084	19.26	1	1
		QPSK	-32.32	30.68	-9.95	1.44	H		0.085	19.29		
		16-QAM	-33.32	29.68	-9.95	1.44	H		0.067	18.29		
		64-QAM	-34.77	28.23	-9.95	1.44	H		0.048	16.84		
		256-QAM	-36.94	26.06	-9.95	1.44	H		0.029	14.67		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol	Limit	ERP		RB	
								W	W	dBm	Size	Offset
819.0	Sub6 n26 10 MHz [15 kHz]	PI/2 BPSK	-31.98	31.18	-10.05	1.44	H	< 7.00	0.093	19.69	1	1
		QPSK	-32.01	31.15	-10.05	1.44	H		0.092	19.66		
		16-QAM	-32.95	30.21	-10.05	1.44	H		0.074	18.72		
		64-QAM	-34.54	28.62	-10.05	1.44	H		0.052	17.13		
		256-QAM	-36.49	26.67	-10.05	1.44	H		0.033	15.18		
824.0		PI/2 BPSK	-32.14	30.86	-9.95	1.44	H		0.089	19.47	1	1
		QPSK	-32.16	30.84	-9.95	1.44	H		0.088	19.45		
		16-QAM	-33.18	29.82	-9.95	1.44	H		0.070	18.43		
		64-QAM	-34.76	28.24	-9.95	1.44	H		0.048	16.85		
		256-QAM	-36.64	26.36	-9.95	1.44	H		0.031	14.97		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol	Limit	ERP		RB	
								W	W	dBm	Size	Offset
821.5	Sub6 n26 15 MHz [15 kHz]	Pl/2 BPSK	-31.93	31.17	-9.95	1.44	H	< 7.00	0.095	19.78	1	1
		QPSK	-31.94	31.16	-9.95	1.44	H		0.095	19.77		
		16-QAM	-32.92	30.18	-9.95	1.44	H		0.076	18.79		
		64-QAM	-34.50	28.60	-9.95	1.44	H		0.053	17.21		
		256-QAM	-36.37	26.73	-9.95	1.44	H		0.034	15.34		
824.0		Pl/2 BPSK	-32.11	30.89	-9.95	1.44	H		0.089	19.50	1	1
		QPSK	-32.16	30.84	-9.95	1.44	H		0.088	19.45		
		16-QAM	-33.09	29.91	-9.95	1.44	H		0.071	18.52		
		64-QAM	-34.52	28.48	-9.95	1.44	H		0.051	17.09		
		256-QAM	-36.58	26.42	-9.95	1.44	H		0.032	15.03		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol	Limit	ERP		RB	
								W	W	dBm	Size	Offset
824.0	Sub6 n26 20 MHz [15 kHz]	PI/2 BPSK	-31.99	31.01	-9.95	1.44	H	< 7.00	0.092	19.62	1	1
		QPSK	-32.00	31.00	-9.95	1.44	H		0.091	19.61		
		16-QAM	-33.06	29.94	-9.95	1.44	H		0.072	18.55		
		64-QAM	-34.64	28.36	-9.95	1.44	H		0.050	16.97		
		256-QAM	-36.44	26.56	-9.95	1.44	H		0.033	15.17		

8.3 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N26</u>
Bandwidth:	<u>5 MHz</u>
Modulation:	<u>PI/2 BPSK</u>
Distance:	<u>3 meters</u>
SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
163300 (816.5)	1 633.00	-46.77	9.28	-61.38	1.98	V	-54.08	-13.00	1	12
	2 449.50	-36.80	10.41	-47.95	2.53	V	-40.07	-13.00		
	3 266.00	-54.16	10.84	-62.37	2.95	V	-54.48	-13.00		
164300 (821.5)	1 643.00	-48.21	9.39	-63.05	2.00	H	-55.66	-13.00	1	1
	2 464.50	-37.48	10.37	-48.64	2.59	H	-40.86	-13.00		
	3 286.00	-54.16	10.98	-62.27	2.95	V	-54.24	-13.00		

☐ NR Band: N26
☐ Bandwidth: 15 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
164300 (821.5)	1 643.00	-48.44	9.39	-63.28	2.00	V	-55.89	-13.00	1	1
	2 464.50	-38.43	10.37	-49.59	2.59	V	-41.81	-13.00		
	3 286.00	-53.48	10.98	-61.59	2.95	V	-53.56	-13.00		
164800 (824.0)	1 648.00	-48.64	9.44	-63.58	2.02	V	-56.16	-13.00	1	1
	2 472.00	-37.76	10.35	-48.96	2.59	H	-41.20	-13.00		
	3 296.00	-54.35	11.06	-62.51	2.95	V	-54.40	-13.00		

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Band 26	5 MHz	821.5	BPSK	25	0	4.5462
			QPSK			4.5437
			16QAM			4.5866
			64QAM			4.5486
			256QAM			4.5589
	10 MHz	819.0	BPSK	50		8.9817
			QPSK			9.0098
			16QAM			9.0005
			64QAM			9.0024
			256QAM			8.9706
	15 MHz	## 821.5	BPSK	75		13.486
			QPSK			13.448
			16QAM			13.479
			64QAM			13.476
			256QAM			13.459
	20 MHz	## 824.0	BPSK	100		17.919
			QPSK			17.960
			16QAM			17.869
			64QAM			17.976
			256QAM			17.934

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 60 ~ 79.
2. ##: Straddle Channel
3. Straddle channel does not exceed the Part22 and Part90 limits.

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)
26	5	816.5	5.9921	30.315	-62.290	-31.975	-13.00
		821.5	3.7787	29.722	-61.991	-32.269	
		## 824.0	4.7857	29.722	-62.127	-32.405	
	10	819.0	9.6112	30.315	-61.663	-31.348	
		## 824.0	5.2044	29.722	-60.690	-30.968	
	15	## 821.5	4.0080	30.200	-61.379	-31.179	
		## 824.0	5.1745	30.315	-61.570	-31.255	
	20	## 824.0	4.7358	29.722	-62.192	-32.470	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 106 ~ 113.
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

5. ##: Straddle Channel
6. Straddle channel does not exceed the Part22 and Part90 limit

8.6 CHANNEL EDGE (Part90)

- Test Channel : 164800(824.0MHz)
- Plots of the EUT's Band Edge are shown Page 80 ~ 95.

8.7 BAND EDGE(Part22)

- Test Channel : 164800(824.0 MHz)
- Plots of the EUT's Band Edge are shown Page 96 ~ 105.

8.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 5 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
821.5	100 %	+20(Ref)	821 499 997	0.0	0.000 000	0.000
	100 %	-30	821 499 994	-3.2	0.000 000	-0.004
	100 %	-20	821 499 994	-2.8	0.000 000	-0.003
	100 %	-10	821 499 994	-2.6	0.000 000	-0.003
	100 %	0	821 499 994	-2.6	0.000 000	-0.003
	100 %	+10	821 499 993	-4.0	0.000 000	-0.005
	100 %	+30	821 499 994	-3.3	0.000 000	-0.004
	100 %	+40	821 499 994	-2.9	0.000 000	-0.004
	100 %	+50	821 499 995	-2.2	0.000 000	-0.003
	Batt. Endpoint	+20	821 499 994	-2.7	0.000 000	-0.003

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
819.0	100 %	+20(Ref)	819 000 000	0.0	0.000 000	0.000
	100 %	-30	819 000 000	-0.5	0.000 000	-0.001
	100 %	-20	819 000 000	0.0	0.000 000	0.000
	100 %	-10	819 000 000	-0.3	0.000 000	0.000
	100 %	0	818 999 999	-1.0	0.000 000	-0.001
	100 %	+10	819 000 000	-0.1	0.000 000	0.000
	100 %	+30	819 000 000	-0.5	0.000 000	-0.001
	100 %	+40	819 000 000	-0.6	0.000 000	-0.001
	100 %	+50	819 000 000	0.2	0.000 000	0.000
	Batt. Endpoint	+20	819 000 000	-0.2	0.000 000	0.000

▣ BandWidth:	<u>15 MHz</u>
▣ Voltage(100 %):	<u>3.900 VDC</u>
▣ Batt. Endpoint:	<u>3.300 VDC</u>
▣ LIMIT:	<u>Emission must remain in band</u>

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
## 821.5	100 %	+20(Ref)	821 499 999	0.0	0.000 000	0.000
	100 %	-30	821 499 998	-1.1	0.000 000	-0.001
	100 %	-20	821 499 999	-0.5	0.000 000	-0.001
	100 %	-10	821 499 998	-1.0	0.000 000	-0.001
	100 %	0	821 499 997	-1.9	0.000 000	-0.002
	100 %	+10	821 499 999	-0.7	0.000 000	-0.001
	100 %	+30	821 499 998	-1.0	0.000 000	-0.001
	100 %	+40	821 499 998	-0.8	0.000 000	-0.001
	100 %	+50	821 499 998	-0.9	0.000 000	-0.001
	Batt. Endpoint	+20	821 499 999	-0.6	0.000 000	-0.001

Note:

1. ##: Straddle Channel
2. Straddle channel does not exceed the Part22 and Part90 limits.

▣ BandWidth:	<u>20 MHz</u>
▣ Voltage(100 %):	<u>3.900 VDC</u>
▣ Batt. Endpoint:	<u>3.300 VDC</u>
▣ LIMIT:	<u>Emission must remain in band</u>

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
## 824.0	100 %	+20(Ref)	823 999 999	0.0	0.000 000	0.000
	100 %	-30	823 999 999	-0.7	0.000 000	-0.001
	100 %	-20	823 999 999	-0.7	0.000 000	-0.001
	100 %	-10	823 999 998	-1.0	0.000 000	-0.001
	100 %	0	823 999 998	-0.8	0.000 000	-0.001
	100 %	+10	823 999 998	-1.3	0.000 000	-0.002
	100 %	+30	823 999 998	-0.8	0.000 000	-0.001
	100 %	+40	823 999 999	-0.4	0.000 000	0.000
	100 %	+50	823 999 999	-0.7	0.000 000	-0.001
	Batt. Endpoint	+20	823 999 999	-0.7	0.000 000	-0.001

Note:

1. ##: Straddle Channel
2. Straddle channel does not exceed the Part22 and Part90 limits.

9. TEST DATA(Sub 1 ANT)

9.1 CONDUCTED OUTPUT POWER

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)						Limit (W)
				816.5 MHz		821.5 MHz		824 MHz		
				dBm	W	dBm	W	dBm	W	
5	BPSK	1	1	22.63	0.183	22.81	0.191	22.60	0.182	100
		1	13	22.74	0.188	22.64	0.184	22.42	0.175	100
		1	23	22.82	0.191	22.72	0.187	22.49	0.178	100
		12	0	22.17	0.165	22.18	0.165	22.09	0.162	100
		12	7	22.69	0.186	22.66	0.184	22.59	0.181	100
		12	13	22.18	0.165	22.06	0.161	22.09	0.162	100
		25	0	22.21	0.166	22.18	0.165	22.01	0.159	100
	QPSK	1	1	22.90	0.195	22.75	0.188	22.79	0.190	100
		1	13	22.89	0.195	22.57	0.181	22.38	0.173	100
		1	23	22.35	0.172	22.74	0.188	22.78	0.190	100
		12	0	21.80	0.151	21.61	0.145	21.66	0.146	100
		12	7	22.77	0.189	22.61	0.183	22.54	0.179	100
		12	13	21.70	0.148	21.63	0.146	21.59	0.144	100
		25	0	21.67	0.147	21.65	0.146	21.55	0.143	100
	16QAM	1	1	21.83	0.153	20.72	0.118	20.79	0.120	100
	64QAM	1	1	20.43	0.110	19.78	0.095	19.62	0.092	100
	256QAM	1	1	17.70	0.059	17.67	0.059	17.92	0.062	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)				Limit (W)
				819.0 MHz		824.0 MHz		
				dBm	W	dBm	W	
10	BPSK	1	1	22.50	0.178	22.67	0.185	100
		1	26	22.73	0.188	22.59	0.182	100
		1	50	22.59	0.182	22.55	0.180	100
		25	0	22.18	0.165	22.15	0.164	100
		25	14	22.65	0.184	22.63	0.183	100
		25	27	22.06	0.161	22.08	0.161	100
		50	0	22.17	0.165	22.11	0.162	100
	QPSK	1	1	22.81	0.191	22.83	0.192	100
		1	26	22.80	0.191	22.82	0.191	100
		1	50	22.74	0.188	22.70	0.186	100
		25	0	21.66	0.147	21.64	0.146	100
		25	14	22.67	0.185	22.64	0.184	100
		25	27	21.68	0.147	21.59	0.144	100
		50	0	21.61	0.145	21.56	0.143	100
	16QAM	1	1	21.29	0.134	21.87	0.154	100
	64QAM	1	1	19.71	0.094	20.18	0.104	100
	256QAM	1	1	18.17	0.066	18.30	0.068	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)				Limit (W)
				821.5 MHz		824.0 MHz		
				dBm	W	dBm	W	
15	BPSK	1	1	22.59	0.182	22.66	0.184	100
		1	40	22.68	0.185	22.45	0.176	100
		1	77	22.69	0.186	22.50	0.178	100
		36	0	22.20	0.166	22.10	0.162	100
		36	22	22.64	0.184	22.65	0.184	100
		36	43	22.06	0.161	22.09	0.162	100
		75	0	22.18	0.165	22.01	0.159	100
	QPSK	1	1	22.64	0.184	22.57	0.181	100
		1	40	22.56	0.180	22.23	0.167	100
		1	77	22.54	0.179	22.32	0.170	100
		36	0	21.67	0.147	21.54	0.143	100
		36	22	22.63	0.183	22.56	0.180	100
		36	43	21.54	0.143	21.55	0.143	100
		75	0	21.63	0.146	21.56	0.143	100
	16QAM	1	1	21.40	0.138	21.04	0.127	100
	64QAM	1	1	20.35	0.108	20.04	0.101	100
	256QAM	1	1	17.75	0.060	18.44	0.070	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)		Limit (W)
				824.0 MHz		
				dBm	W	
20	BPSK	1	1	22.37	0.172	100
		1	53	22.48	0.177	100
		1	104	22.42	0.175	100
		50	0	22.11	0.163	100
		50	28	22.62	0.183	100
		50	56	22.08	0.162	100
		100	0	22.11	0.162	100
	QPSK	1	1	22.64	0.184	100
		1	53	22.54	0.180	100
		1	104	22.47	0.176	100
		50	0	21.64	0.146	100
		50	28	22.63	0.183	100
		50	56	21.54	0.143	100
		100	0	21.60	0.144	100
	16QAM	1	1	21.59	0.144	100
	64QAM	1	1	20.10	0.102	100
	256QAM	1	1	17.93	0.062	100

9.2 EFFECTIVE RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol	Limit	ERP		RB	
								W	W	dBm	Size	Offset
816.5	Sub6 n26 5 MHz [15 kHz]	PI/2 BPSK	-35.39	27.81	-10.05	1.44	H	< 7.00	0.043	16.32	1	12
		QPSK	-35.45	27.75	-10.05	1.44	H		0.042	16.26		
		16-QAM	-36.47	26.73	-10.05	1.44	H		0.033	15.24		
		64-QAM	-38.11	25.09	-10.05	1.44	H		0.023	13.60		
		256-QAM	-39.86	23.34	-10.05	1.44	H		0.015	11.85		
821.5		PI/2 BPSK	-35.45	27.65	-9.95	1.44	H		0.042	16.26	1	12
		QPSK	-35.46	27.64	-9.95	1.44	H		0.042	16.25		
		16-QAM	-36.33	26.77	-9.95	1.44	H		0.035	15.38		
		64-QAM	-37.76	25.34	-9.95	1.44	H		0.025	13.95		
		256-QAM	-39.79	11.39	-9.95	1.44	H		0.016	11.92		
824.0		PI/2 BPSK	-35.72	27.28	-9.95	1.44	H		0.039	15.89	1	23
		QPSK	-35.73	27.27	-9.95	1.44	H		0.039	15.88		
		16-QAM	-36.60	26.40	-9.95	1.44	H		0.032	15.01		
		64-QAM	-38.03	24.97	-9.95	1.44	H		0.023	13.58		
		256-QAM	-40.13	22.87	-9.95	1.44	H		0.014	11.48		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol	Limit	ERP		RB	
								W	W	dBm	Size	Offset
819.0	Sub6 n26 10 MHz [15 kHz]	PI/2 BPSK	-35.37	27.79	-10.05	1.44	H	< 7.00	0.043	16.30	1	26
		QPSK	-35.38	27.78	-10.05	1.44	H		0.043	16.29		
		16-QAM	-36.47	26.69	-10.05	1.44	H		0.033	15.20		
		64-QAM	-37.88	25.28	-10.05	1.44	H		0.024	13.79		
		256-QAM	-39.88	23.28	-10.05	1.44	H		0.015	11.79		
824.0		PI/2 BPSK	-35.63	27.37	-9.95	1.44	H		0.040	15.98	1	26
		QPSK	-35.64	27.36	-9.95	1.44	H		0.040	15.97		
		16-QAM	-36.67	26.33	-9.95	1.44	H		0.031	14.94		
		64-QAM	-37.89	25.11	-9.95	1.44	H		0.024	13.72		
		256-QAM	-40.10	22.90	-9.95	1.44	H		0.014	11.51		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol	Limit	ERP		RB	
								W	W	dBm	Size	Offset
821.5	Sub6 n26 15 MHz [15 kHz]	Pl/2 BPSK	-35.72	27.38	-9.95	1.44	H	< 7.00	0.040	15.99	1	77
		QPSK	-35.78	27.32	-9.95	1.44	H		0.039	15.93		
		16-QAM	-36.80	26.30	-9.95	1.44	H		0.031	14.91		
		64-QAM	-38.19	24.91	-9.95	1.44	H		0.022	13.52		
		256-QAM	-40.21	22.89	-9.95	1.44	H		0.014	11.50		
824.0		Pl/2 BPSK	-35.57	27.43	-9.95	1.44	H		0.040	16.04	1	39
		QPSK	-35.59	27.41	-9.95	1.44	H		0.040	16.02		
		16-QAM	-36.64	26.36	-9.95	1.44	H		0.031	14.97		
		64-QAM	-38.09	24.91	-9.95	1.44	H		0.022	13.52		
		256-QAM	-39.98	23.02	-9.95	1.44	H		0.015	11.63		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBd)	C.L	Pol	Limit	ERP		RB	
								W	W	dBm	Size	Offset
824.0	Sub6 n26 20 MHz [15 kHz]	PI/2 BPSK	-35.47	27.53	-9.95	1.44	H	< 7.00	0.041	16.14	1	53
		QPSK	-35.48	27.52	-9.95	1.44	H		0.041	16.13		
		16-QAM	-36.55	26.45	-9.95	1.44	H		0.032	15.06		
		64-QAM	-37.96	25.04	-9.95	1.44	H		0.023	13.65		
		256-QAM	-40.09	22.91	-9.95	1.44	H		0.014	11.52		

9.3 RADIATED SPURIOUS EMISSIONS

- ▣ NR Band: N26
- ▣ Bandwidth: 5 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
163300 (816.5)	1 633.00	-36.63	9.28	-51.24	1.98	V	-43.94	-13.00	1	12
	2 449.50	-33.68	10.41	-44.83	2.53	H	-36.95	-13.00		
	3 266.00	-53.56	10.84	-61.77	2.95	H	-53.88	-13.00		
164300 (821.5)	1 643.00	-36.43	9.39	-51.27	2.00	V	-43.88	-13.00	1	12
	2 464.50	-27.99	10.37	-39.15	2.59	H	-31.37	-13.00		
	3 286.00	-53.73	10.98	-61.84	2.95	H	-53.81	-13.00		

☐ NR Band: N26
☐ 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
164800 (824.0)	1 648.00	-36.01	9.44	-50.95	2.02	H	-43.53	-13.00	1	53
	2 472.00	-30.43	10.35	-41.63	2.59	H	-33.87	-13.00		
	3 296.00	-52.83	11.06	-60.99	2.95	H	-52.88	-13.00		

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Band 26	5 MHz	821.5	BPSK	25	0	4.5317
			QPSK			4.5307
			16QAM			4.5182
			64QAM			4.5550
			256QAM			4.5224
	10 MHz	819.0	BPSK	50		9.0189
			QPSK			8.9967
			16QAM			8.9660
			64QAM			8.9895
			256QAM			9.0199
	15 MHz	## 821.5	BPSK	75		13.455
			QPSK			13.465
			16QAM			13.416
			64QAM			13.467
			256QAM			13.467
	20 MHz	## 824.0	BPSK	100		17.914
			QPSK			17.921
			16QAM			17.881
			64QAM			17.900
			256QAM			17.894

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 115 ~ 134.
2. ##: Straddle Channel
3. Straddle channel does not exceed the Part22 and Part90 limits.

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)
26	5	816.5	3.7787	29.722	-59.579	-29.857	-13.00
		821.5	3.7588	29.722	-59.966	-30.244	
		## 824.0	9.8006	30.315	-60.017	-29.702	
	10	819.0	5.1945	30.315	-59.628	-29.313	
		## 824.0	3.8086	29.722	-59.979	-30.257	
	15	## 821.5	4.0379	29.722	-59.149	-29.427	
		## 824.0	3.7588	29.722	-60.030	-30.308	
	20	## 824.0	3.7488	29.722	-59.180	-29.458	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 161 ~ 168.
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	27.012
1 – 5	29.722
5 – 10	30.315
10 – 15	30.840
15 – 20	31.213
Above 20	31.855

5. ##: Straddle Channel

6. Straddle channel does not exceed the Part22 and Part90 limit

9.6 CHANNEL EDGE (Part90)

- Test Channel : 164800(824.0MHz)
- Plots of the EUT's Band Edge are shown Page 135 ~ 150.

9.7 BAND EDGE(Part22)

- Test Channel : 164800(824.0 MHz)
- Plots of the EUT's Band Edge are shown Page 151 ~ 160.

9.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 5 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
821.5	100 %	+20(Ref)	821 499 997	0.0	0.000 000	0.000
	100 %	-30	821 499 995	-2.5	0.000 000	-0.003
	100 %	-20	821 499 994	-3.2	0.000 000	-0.004
	100 %	-10	821 499 994	-3.1	0.000 000	-0.004
	100 %	0	821 499 994	-3.4	0.000 000	-0.004
	100 %	+10	821 499 995	-2.1	0.000 000	-0.003
	100 %	+30	821 499 994	-3.0	0.000 000	-0.004
	100 %	+40	821 499 996	-1.8	0.000 000	-0.002
	100 %	+50	821 499 995	-2.4	0.000 000	-0.003
	Batt. Endpoint	+20	821 499 995	-2.6	0.000 000	-0.003

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
819.0	100 %	+20(Ref)	819 000 000	0.0	0.000 000	0.000
	100 %	-30	818 999 999	-0.1	0.000 000	0.000
	100 %	-20	819 000 000	0.4	0.000 000	0.000
	100 %	-10	819 000 000	0.4	0.000 000	0.001
	100 %	0	819 000 000	-0.1	0.000 000	0.000
	100 %	+10	818 999 999	-0.1	0.000 000	0.000
	100 %	+30	818 999 999	-0.9	0.000 000	-0.001
	100 %	+40	818 999 999	-0.6	0.000 000	-0.001
	100 %	+50	819 000 000	0.0	0.000 000	0.000
	Batt. Endpoint	+20	818 999 999	-0.3	0.000 000	0.000

▣ BandWidth:	<u>15 MHz</u>
▣ Voltage(100 %):	<u>3.900 VDC</u>
▣ Batt. Endpoint:	<u>3.300 VDC</u>
▣ LIMIT:	<u>Emission must remain in band</u>

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
## 821.5	100 %	+20(Ref)	821 499 996	0.0	0.000 000	0.000
	100 %	-30	821 499 994	-2.2	0.000 000	-0.003
	100 %	-20	821 499 994	-2.5	0.000 000	-0.003
	100 %	-10	821 499 993	-3.2	0.000 000	-0.004
	100 %	0	821 499 993	-3.1	0.000 000	-0.004
	100 %	+10	821 499 994	-2.5	0.000 000	-0.003
	100 %	+30	821 499 993	-3.6	0.000 000	-0.004
	100 %	+40	821 499 993	-3.3	0.000 000	-0.004
	100 %	+50	821 499 993	-3.2	0.000 000	-0.004
	Batt. Endpoint	+20	821 499 994	-2.7	0.000 000	-0.003

Note:

1. ##: Straddle Channel
2. Straddle channel does not exceed the Part22 and Part90 limits.

BandWidth:	<u>20 MHz</u>
Voltage(100 %):	<u>3.900 VDC</u>
Batt. Endpoint:	<u>3.300 VDC</u>
LIMIT:	<u>Emission must remain in band</u>

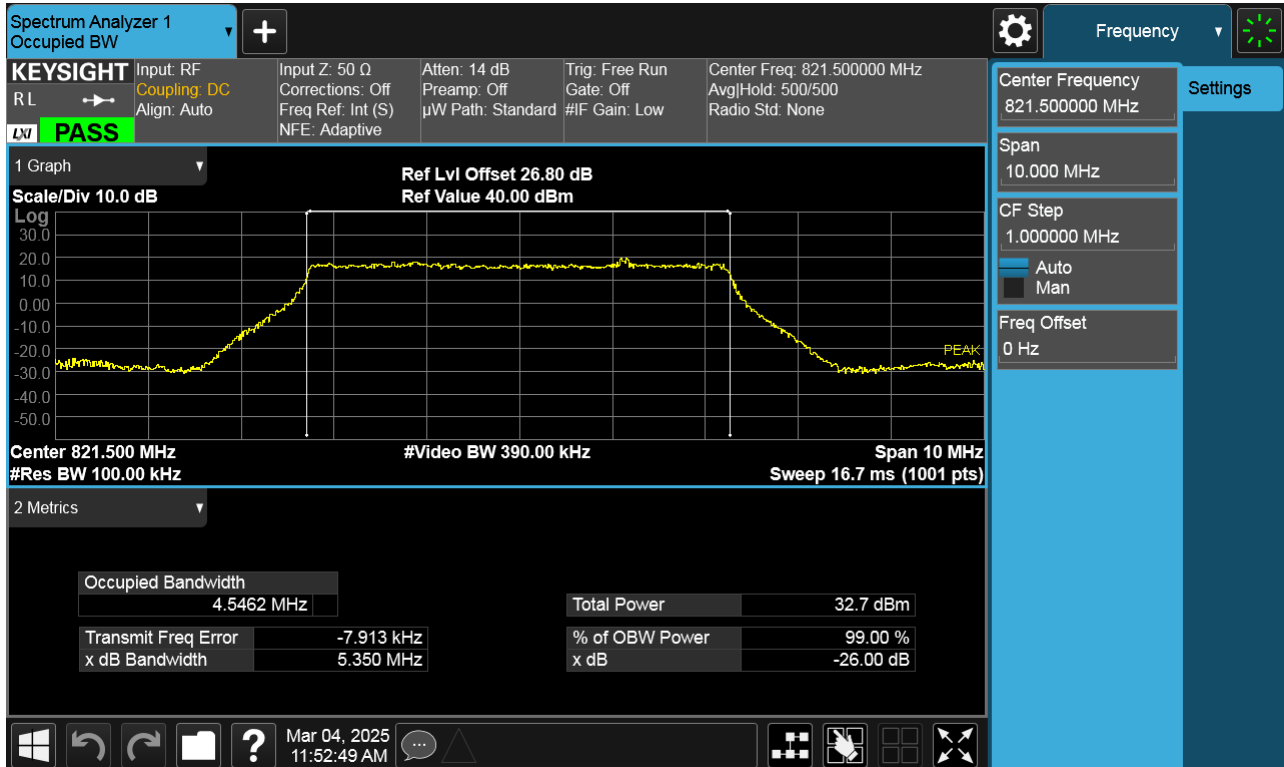
Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
## 824.0	100 %	+20(Ref)	824 000 000	0.0	0.000 000	0.000
	100 %	-30	824 000 001	1.3	0.000 000	0.002
	100 %	-20	824 000 002	1.6	0.000 000	0.002
	100 %	-10	824 000 001	0.8	0.000 000	0.001
	100 %	0	824 000 001	0.6	0.000 000	0.001
	100 %	+10	824 000 001	1.0	0.000 000	0.001
	100 %	+30	824 000 000	0.3	0.000 000	0.000
	100 %	+40	824 000 001	0.9	0.000 000	0.001
	100 %	+50	824 000 001	1.1	0.000 000	0.001
	Batt. Endpoint	+20	824 000 002	2.0	0.000 000	0.002

Note:

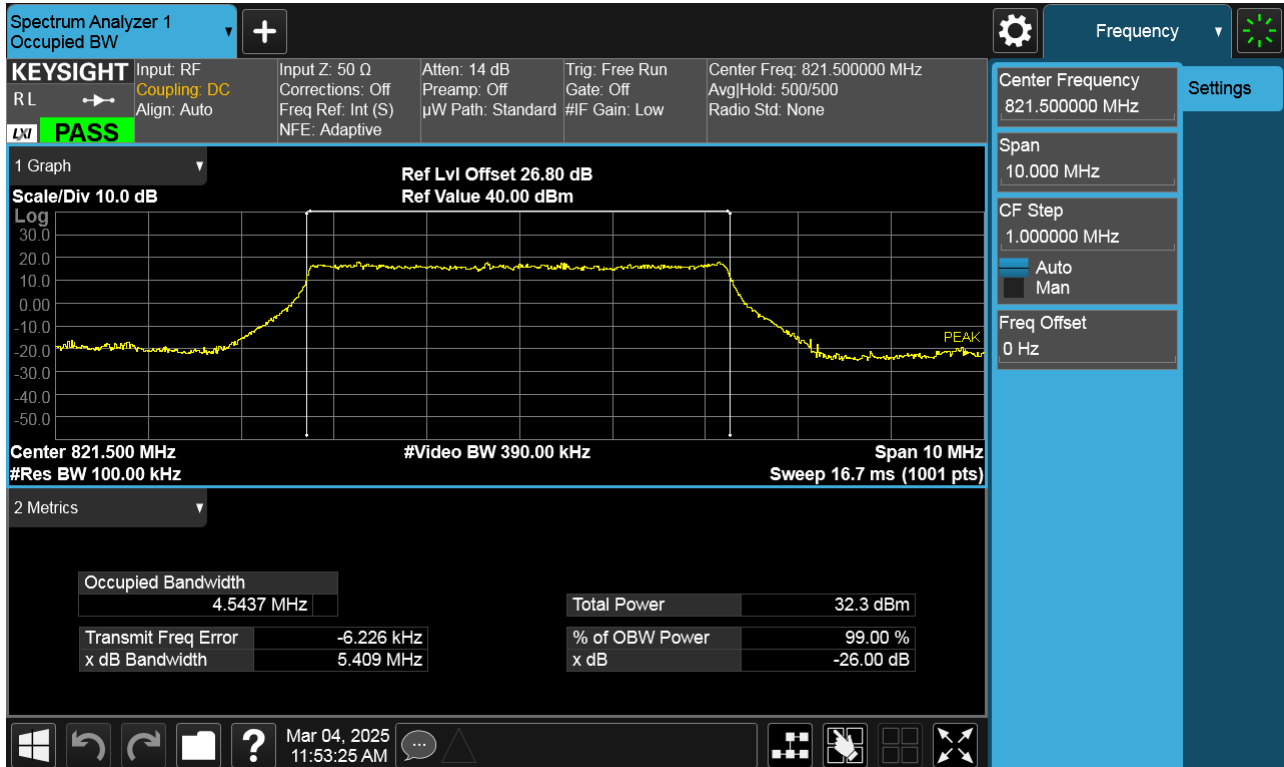
1. ##: Straddle Channel
2. Straddle channel does not exceed the Part22 and Part90 limits.

10. TEST PLOTS(Main 1 ANT)

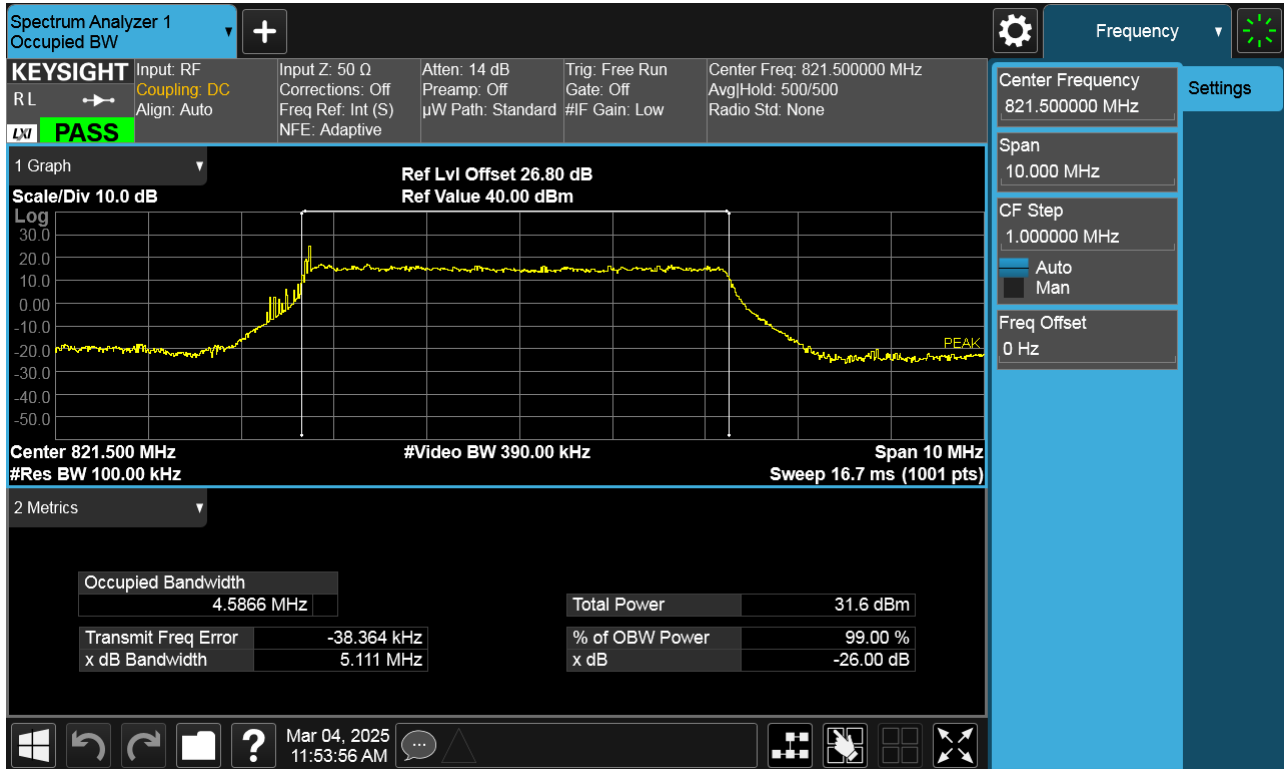
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 BPSK RB 25_0)



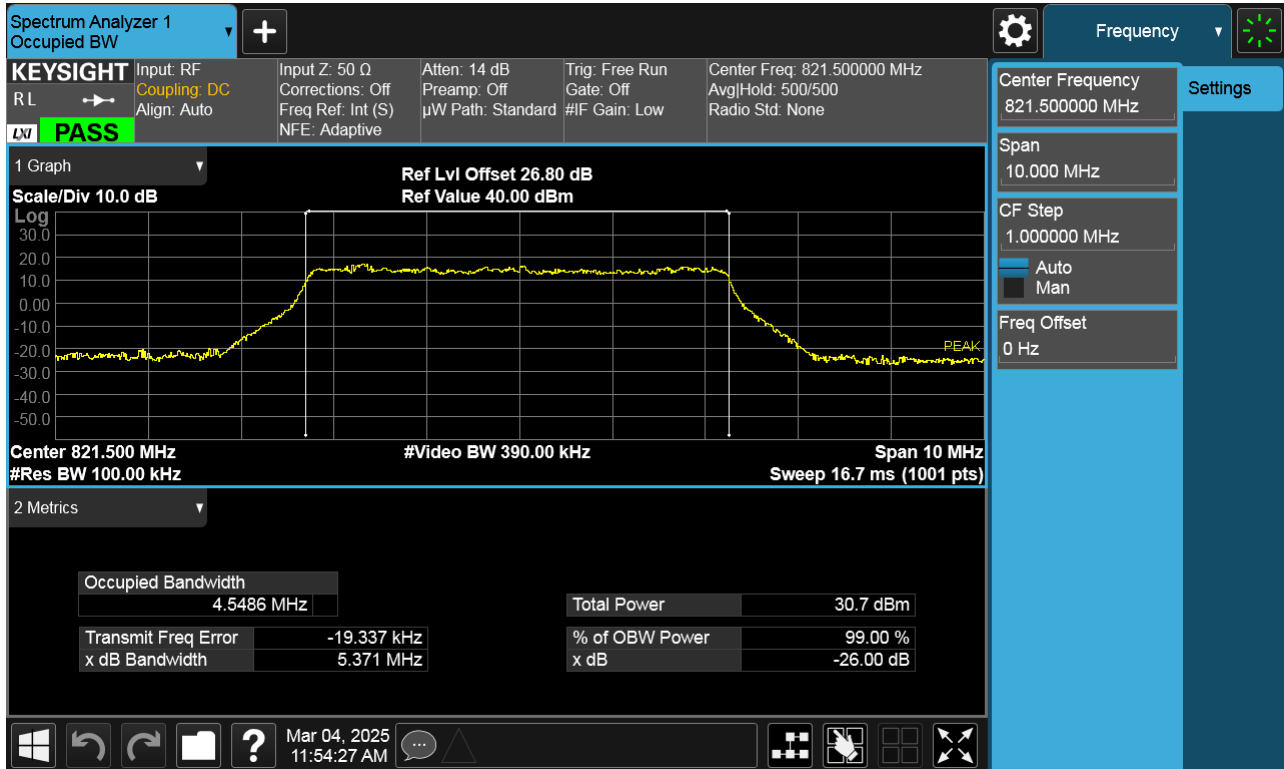
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 QPSK RB 25_0)



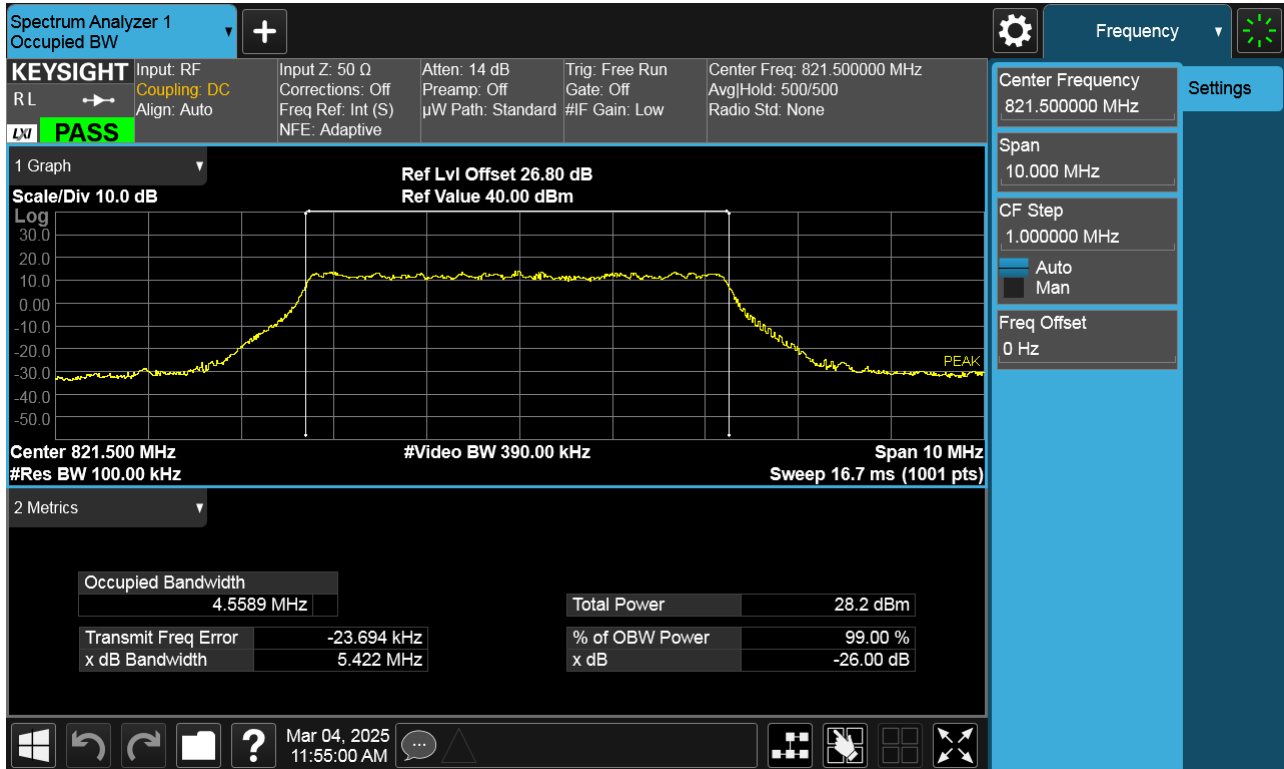
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 16QAM RB 25_0)



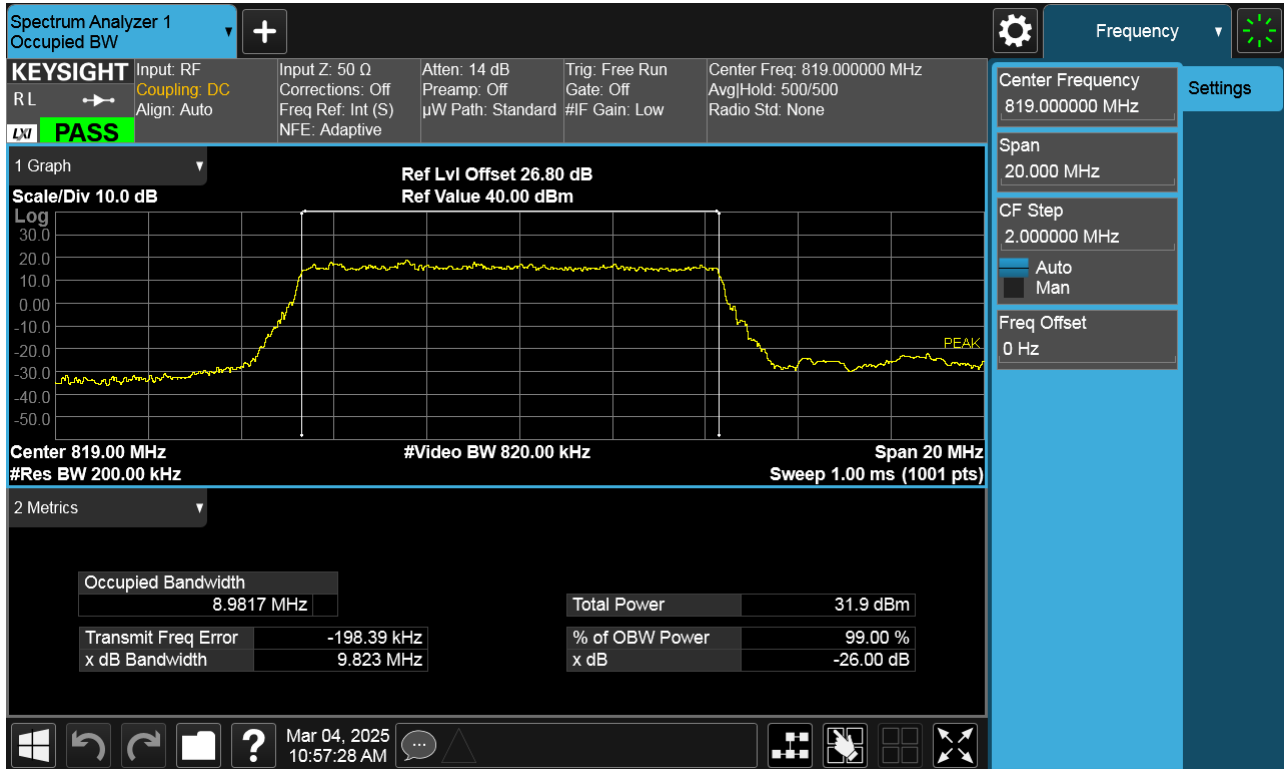
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 64QAM RB 25_0)



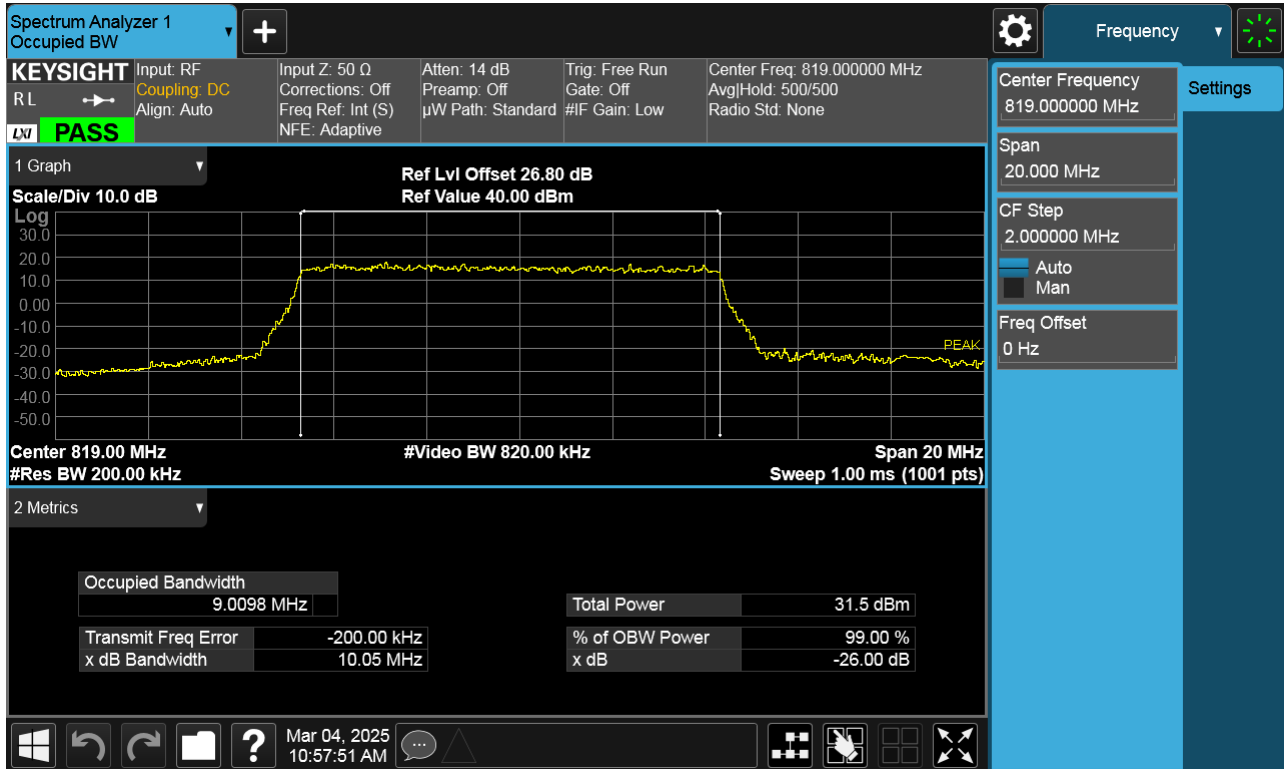
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 256QAM RB 25_0)



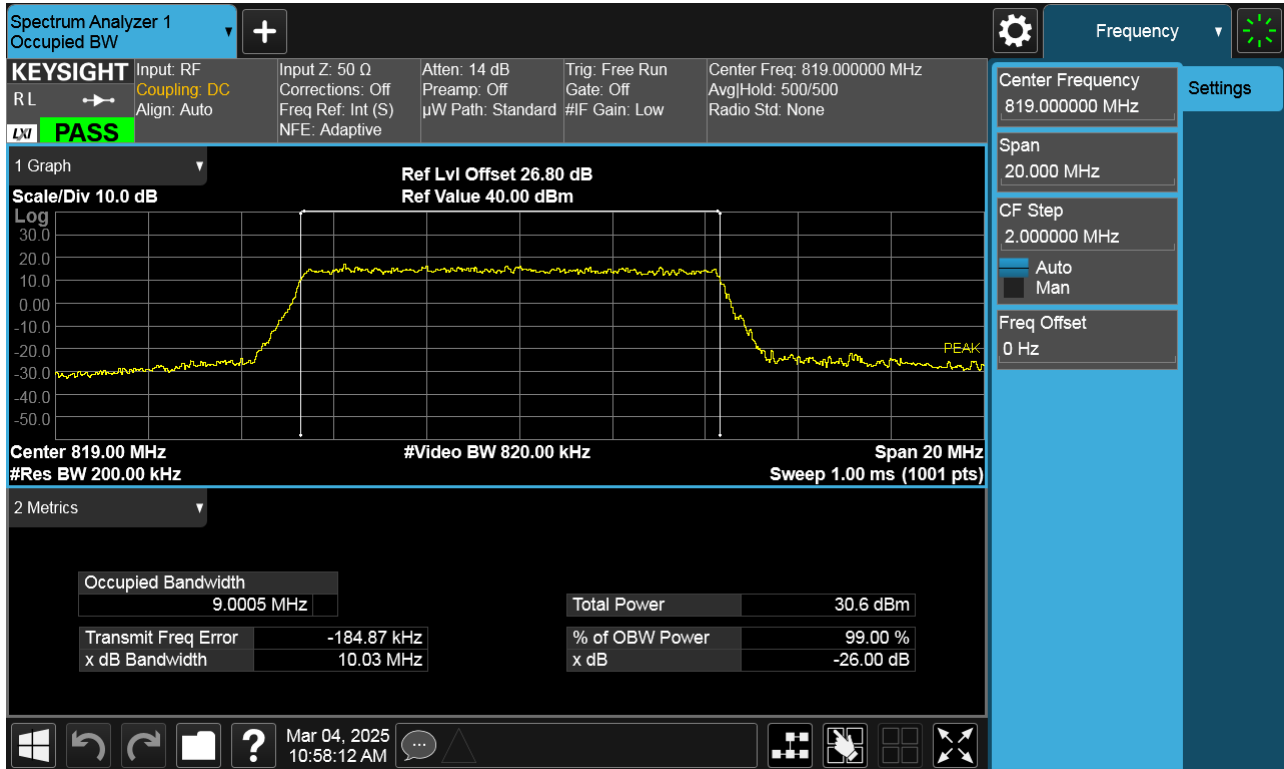
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 BPSK RB 50_0)



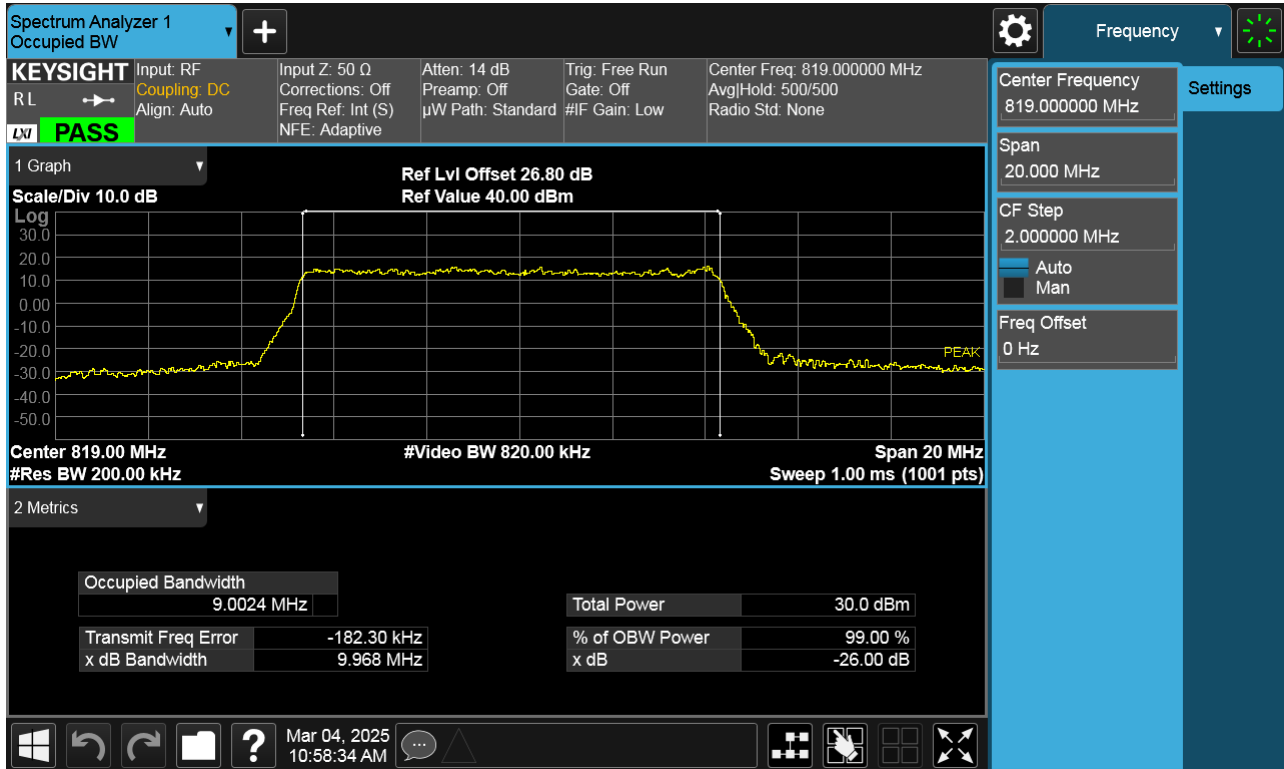
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 QPSK RB 50_0)



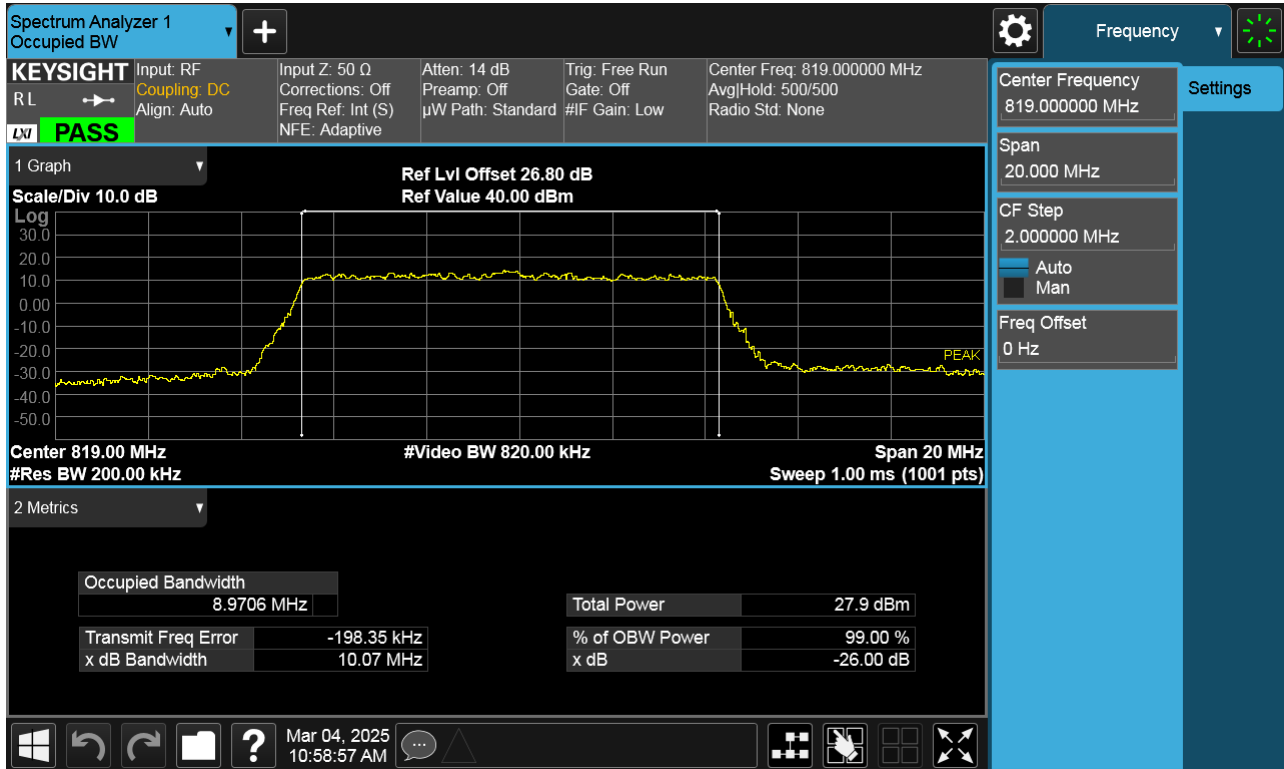
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 16QAM RB 50_0)



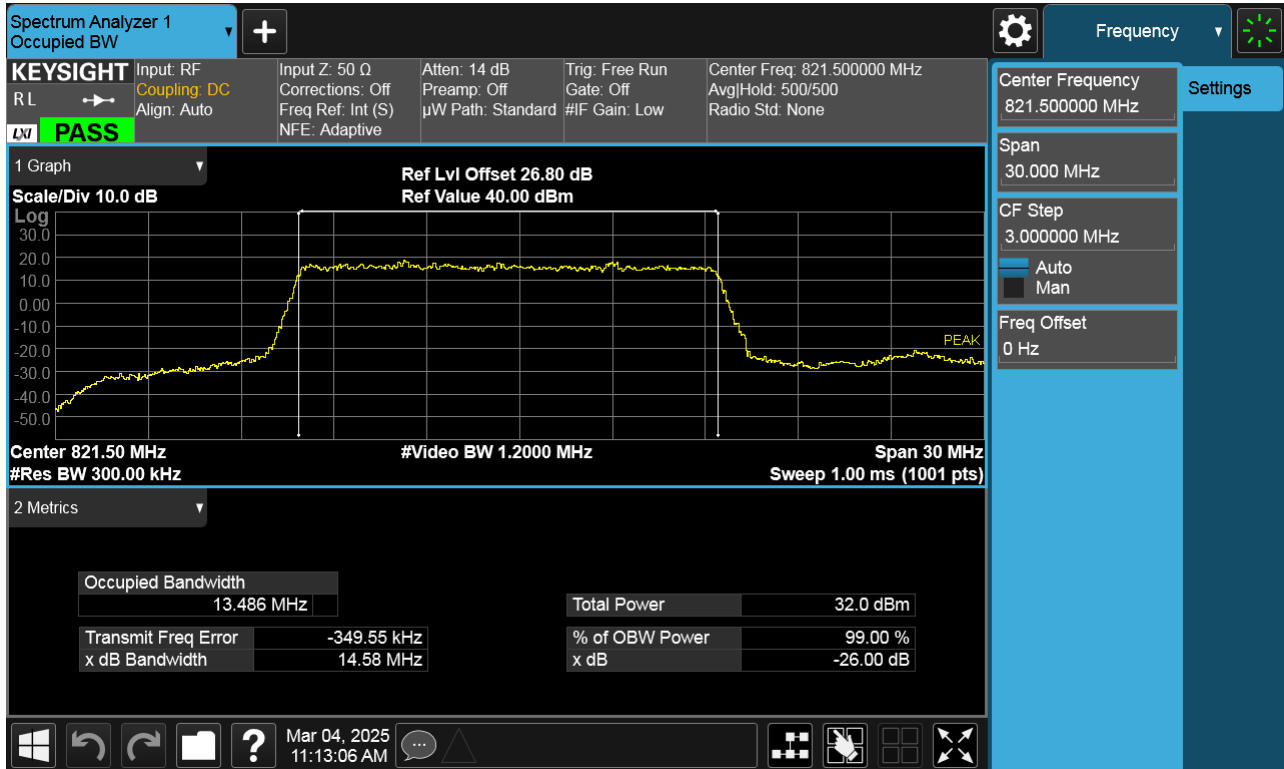
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 64QAM RB 50_0)



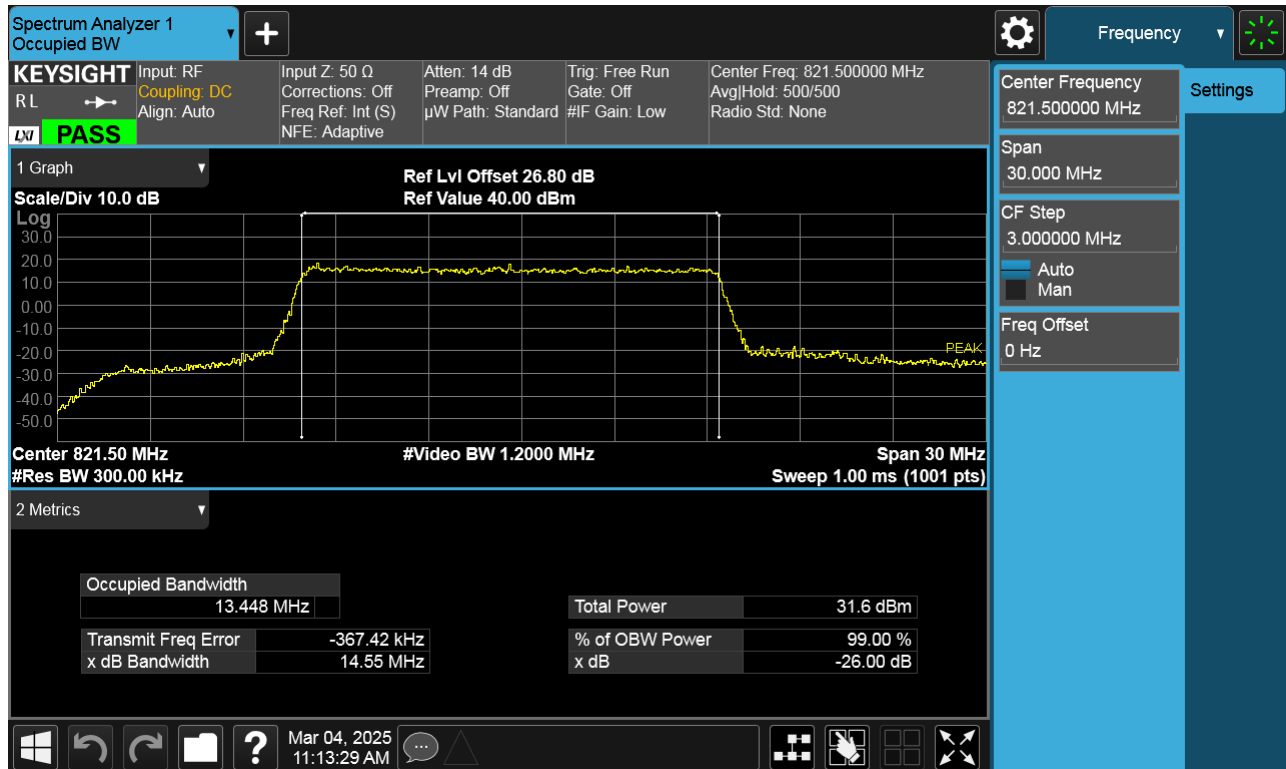
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 256QAM RB 50_0)



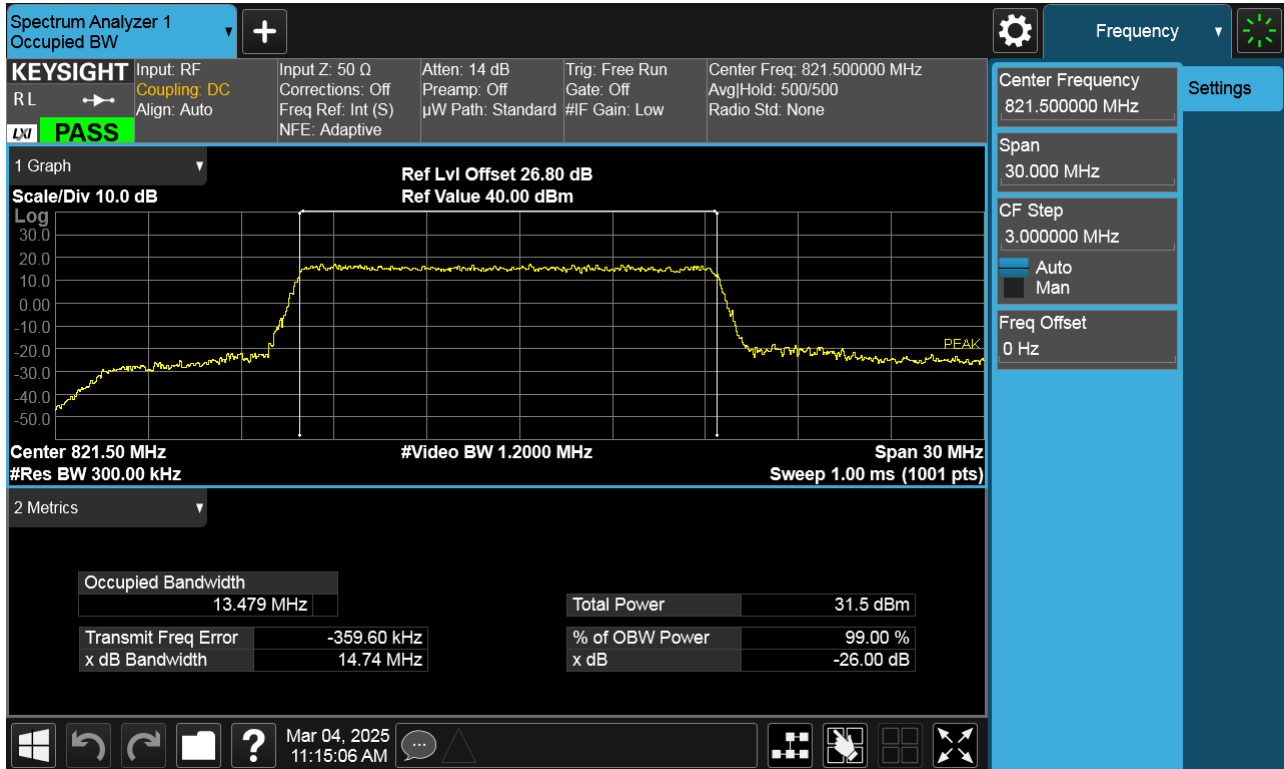
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 BPSK RB 75_0)



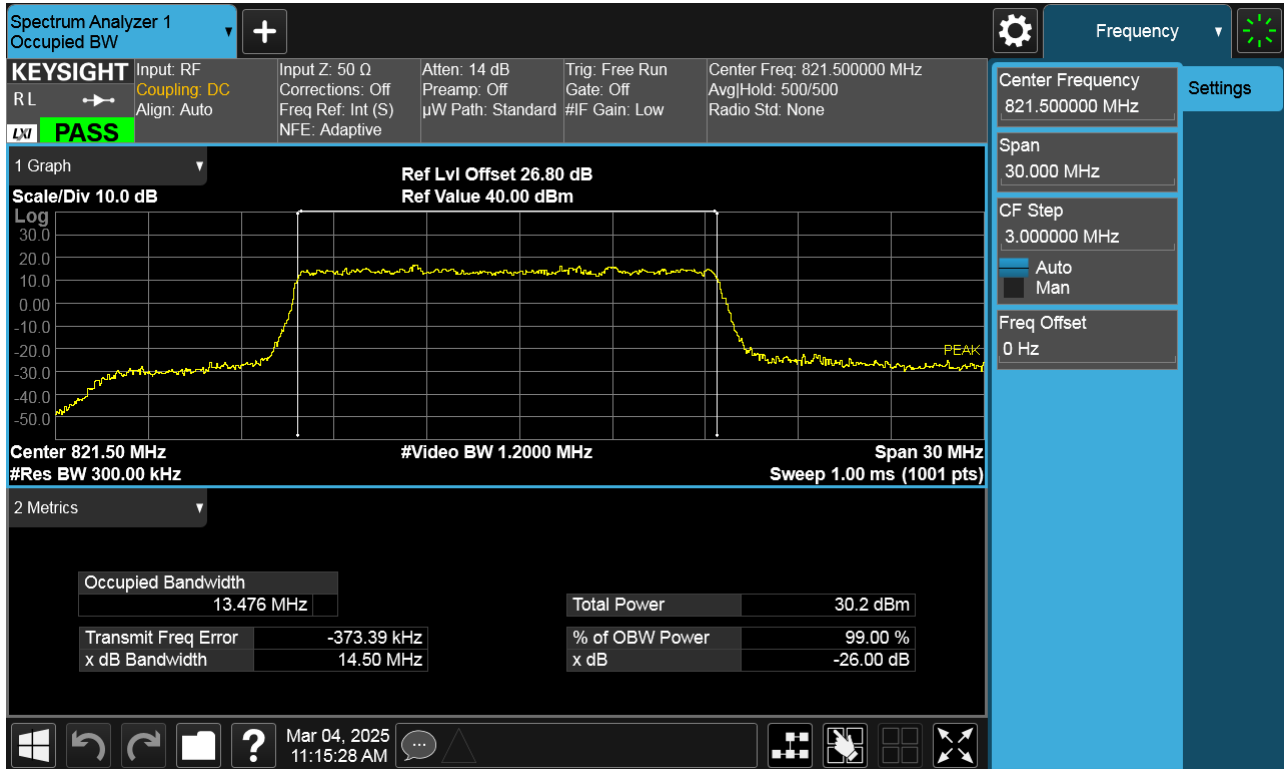
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 QPSK RB 75_0)



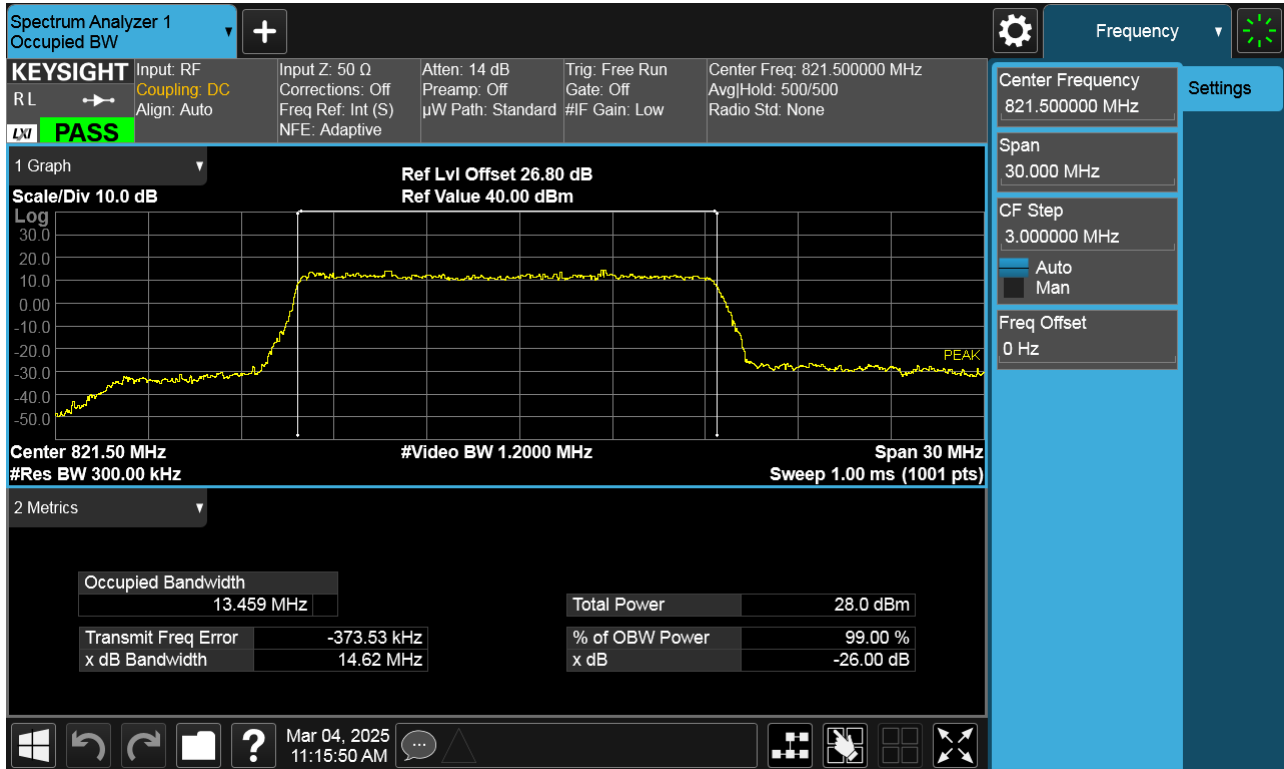
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 16QAM RB 75_0)



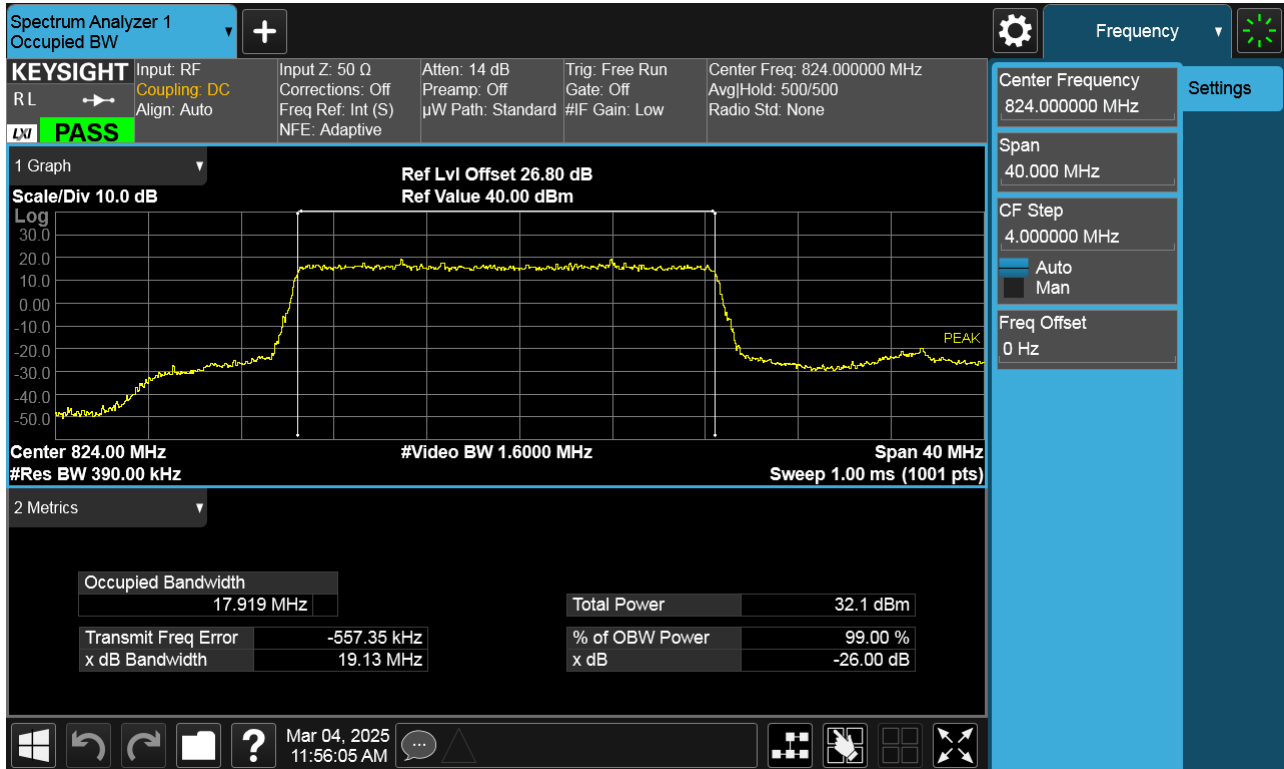
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 64QAM RB 75_0)



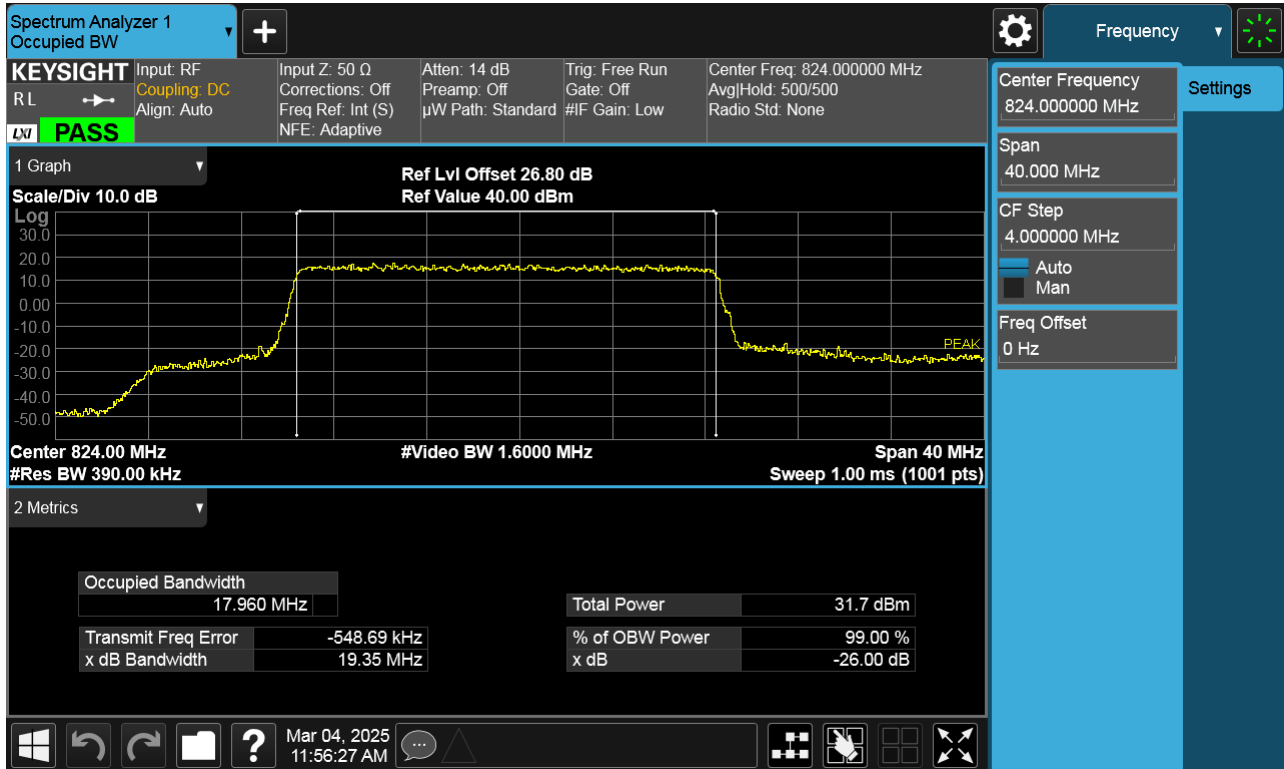
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 256QAM RB 100_0)



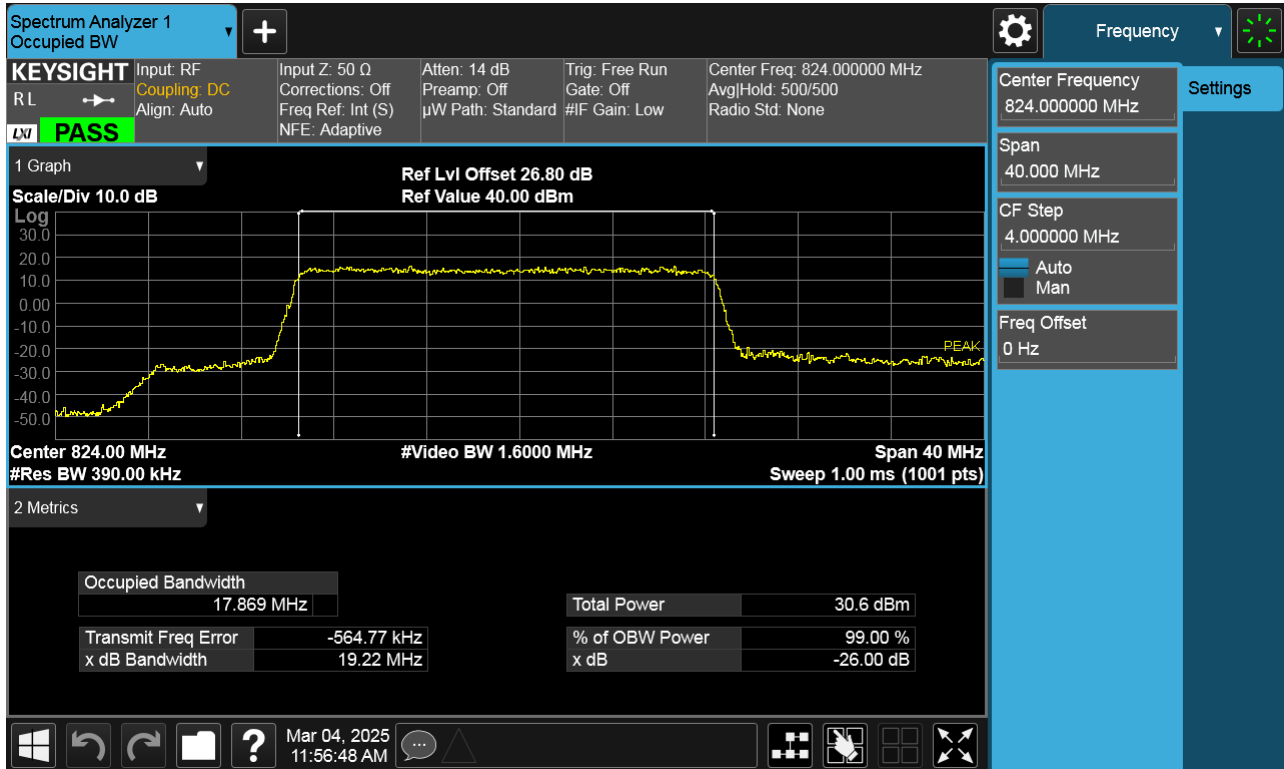
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 BPSK RB 100_0)



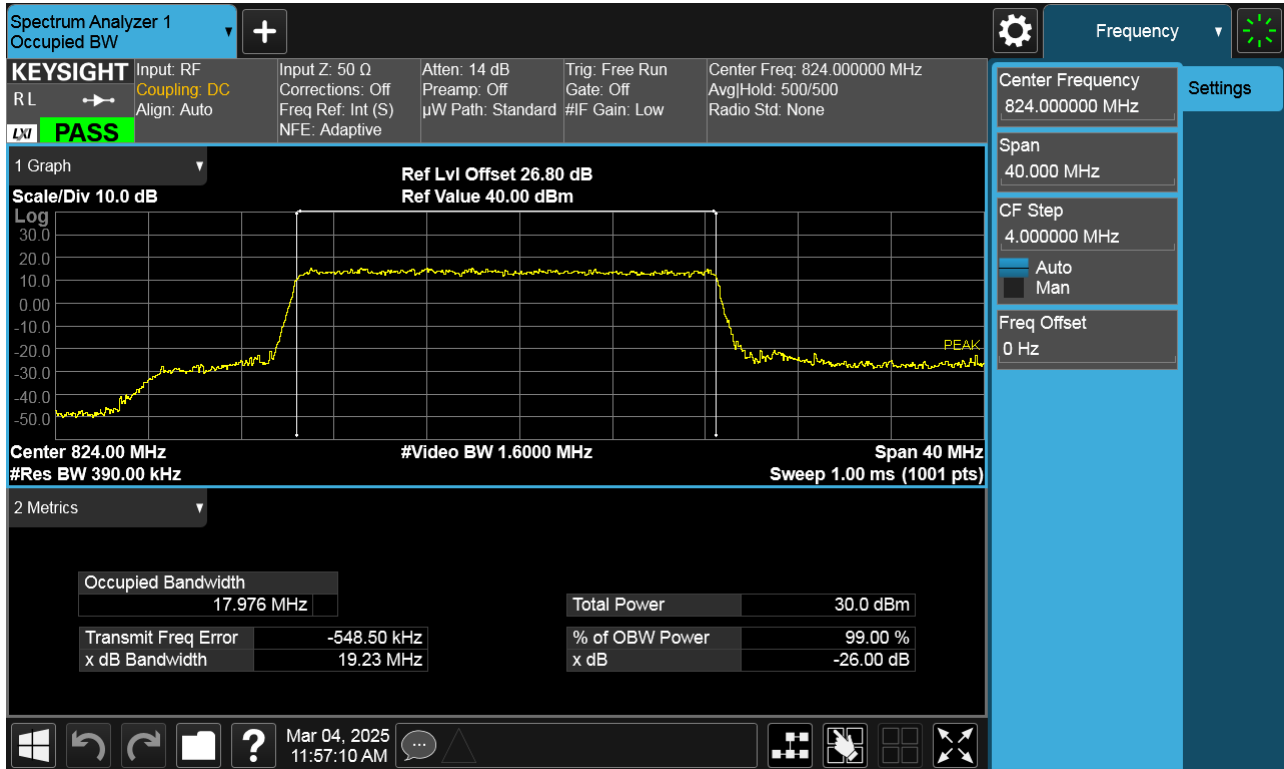
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 QPSK RB 100_0)



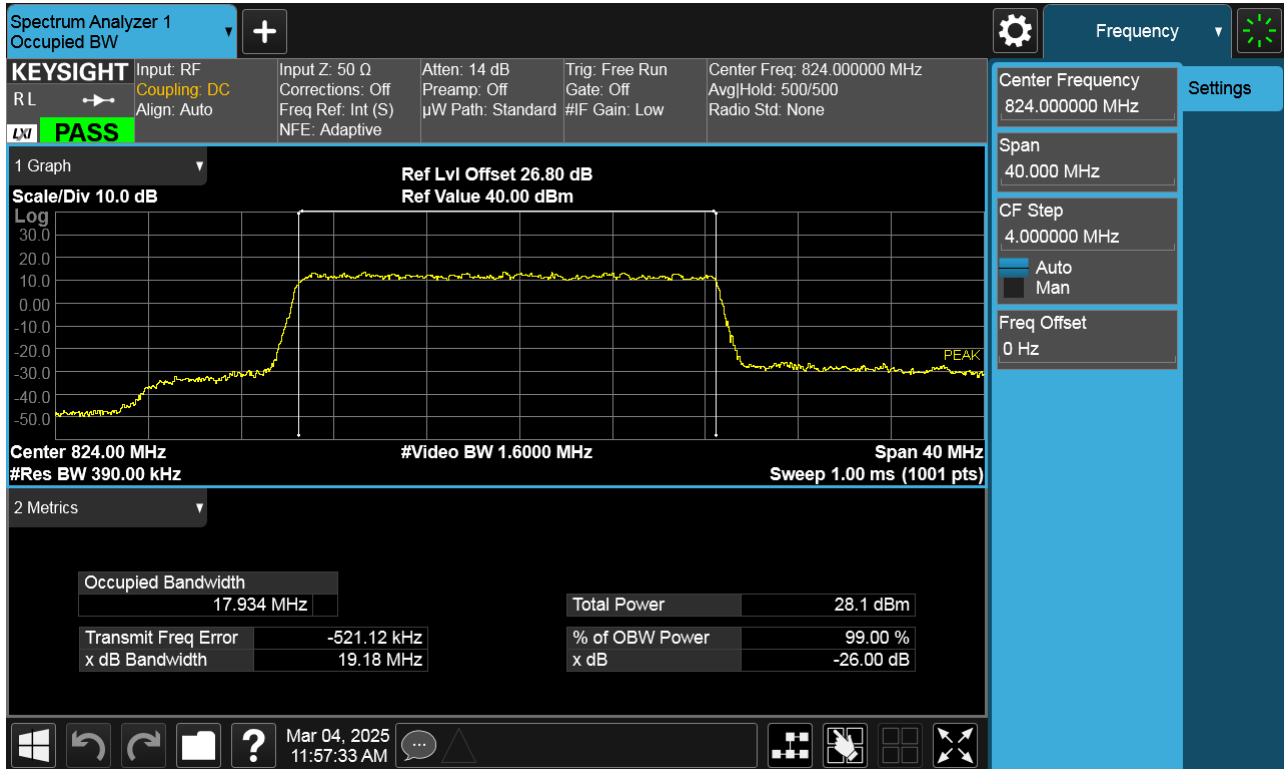
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 16QAM RB 100_0)



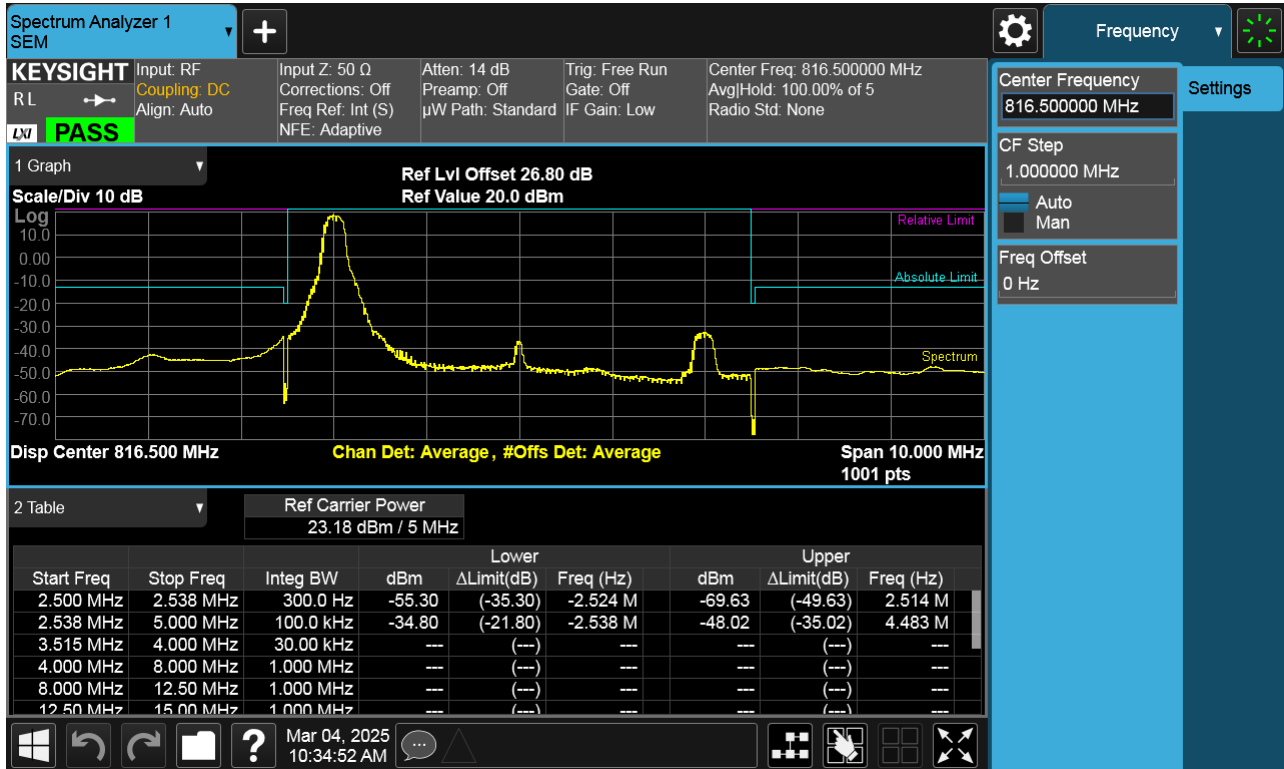
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 64QAM RB 100_0)



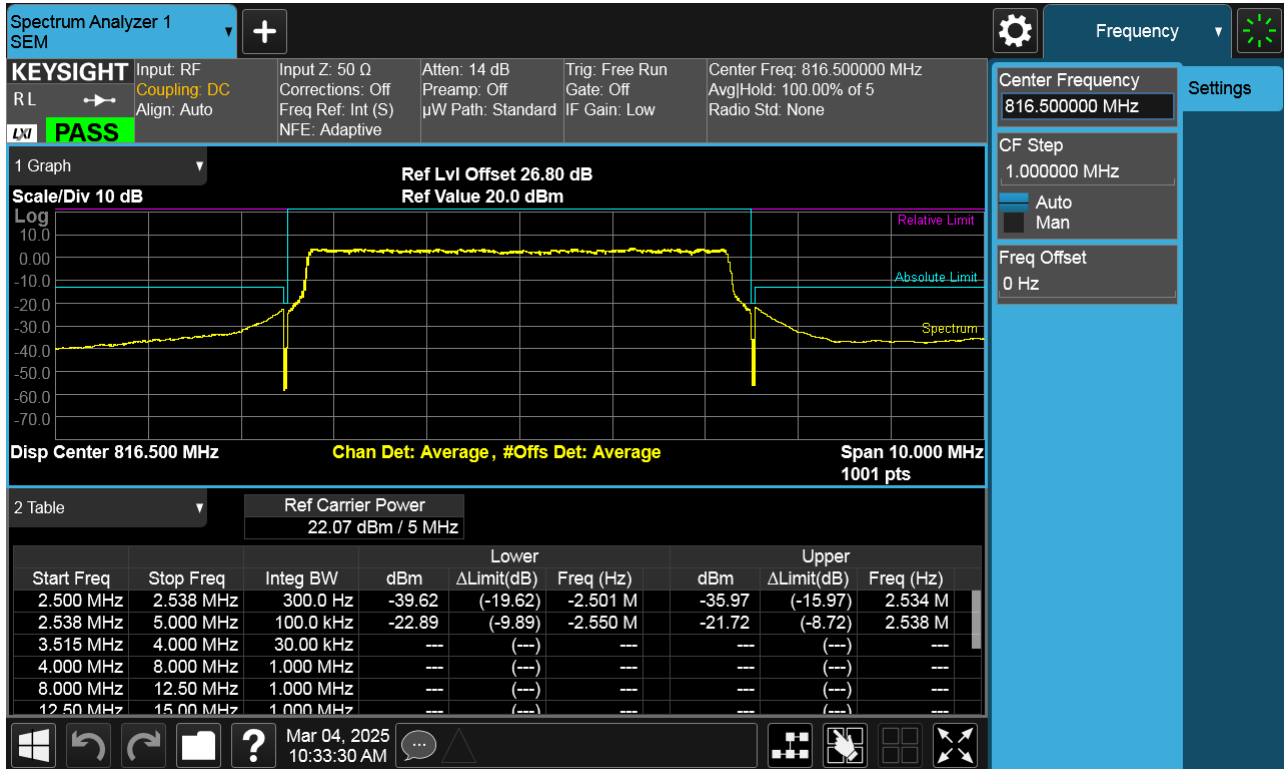
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 256QAM RB 100_0)



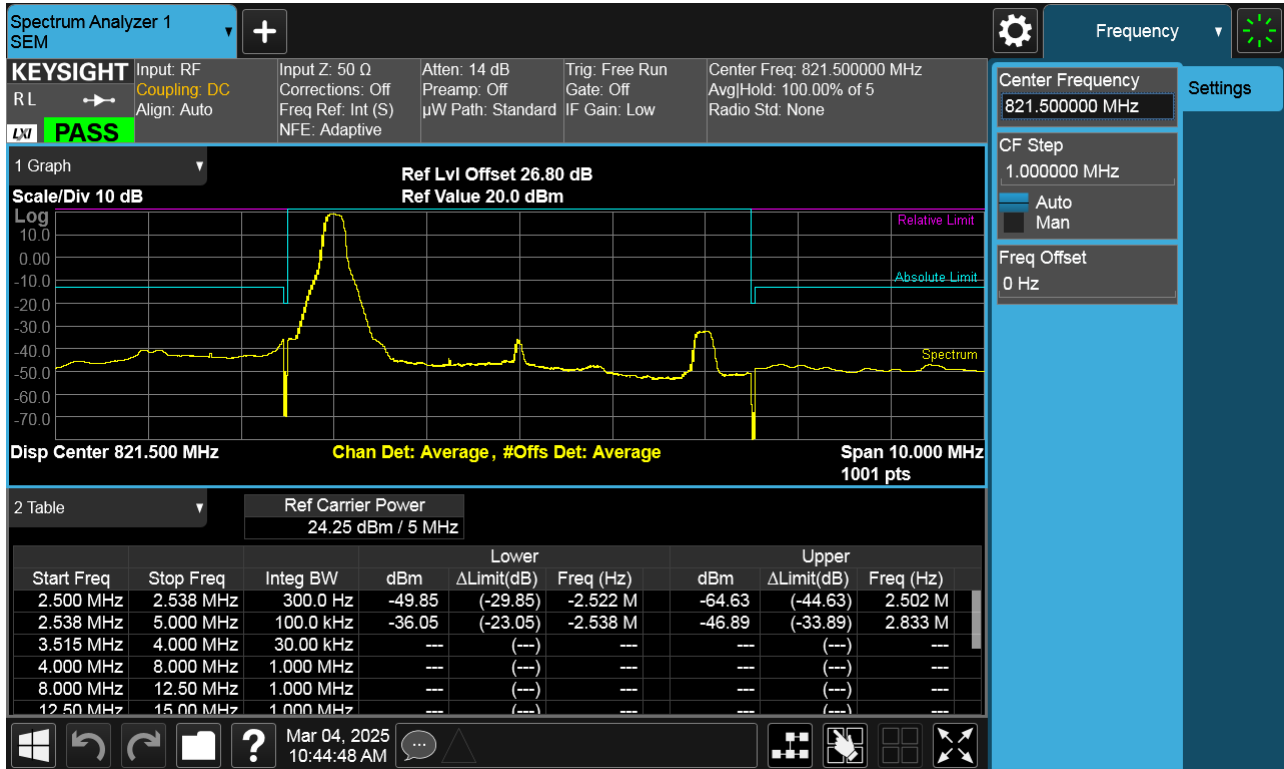
Sub6 n26. Lower Channel Edge Plot (5 M BW Ch.163300 BPSK RB 1, Offset 0)



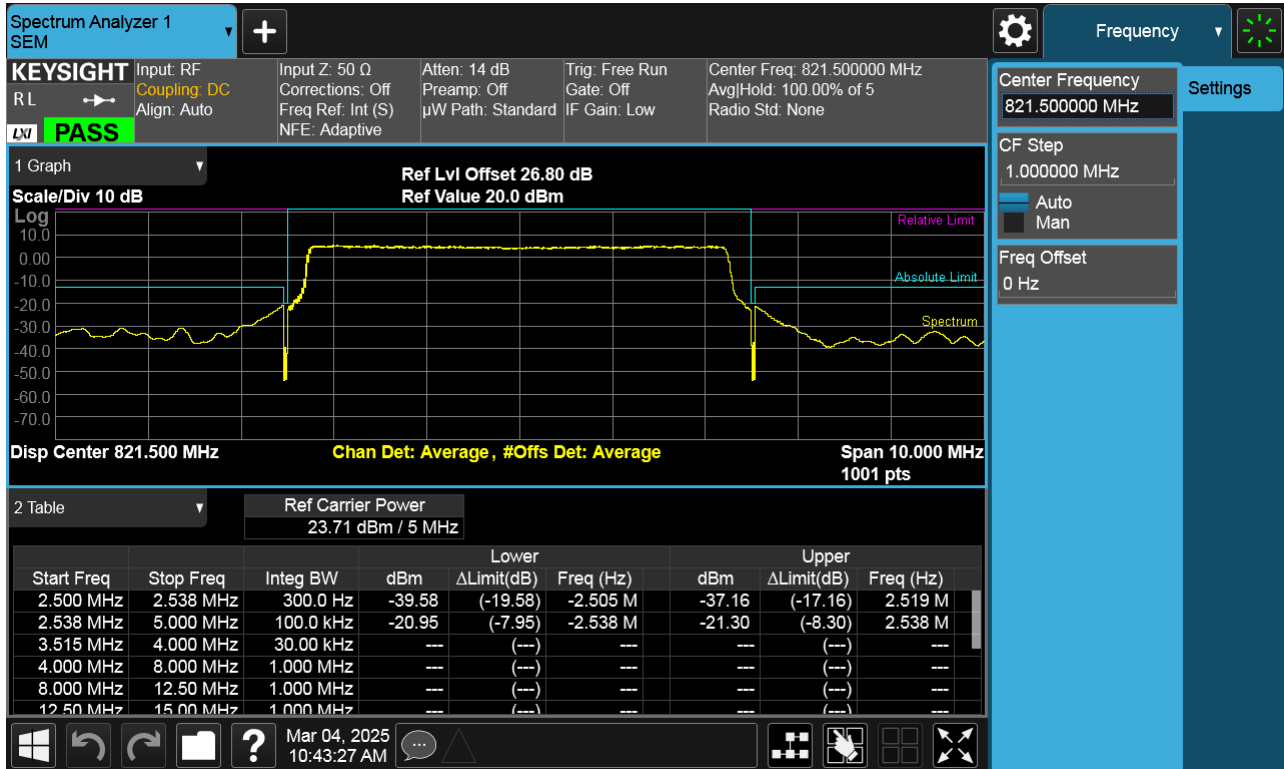
Sub6 n26. Lower Channel Edge Plot (5 M BW Ch.163300 BPSK_RB25_Offset 0)



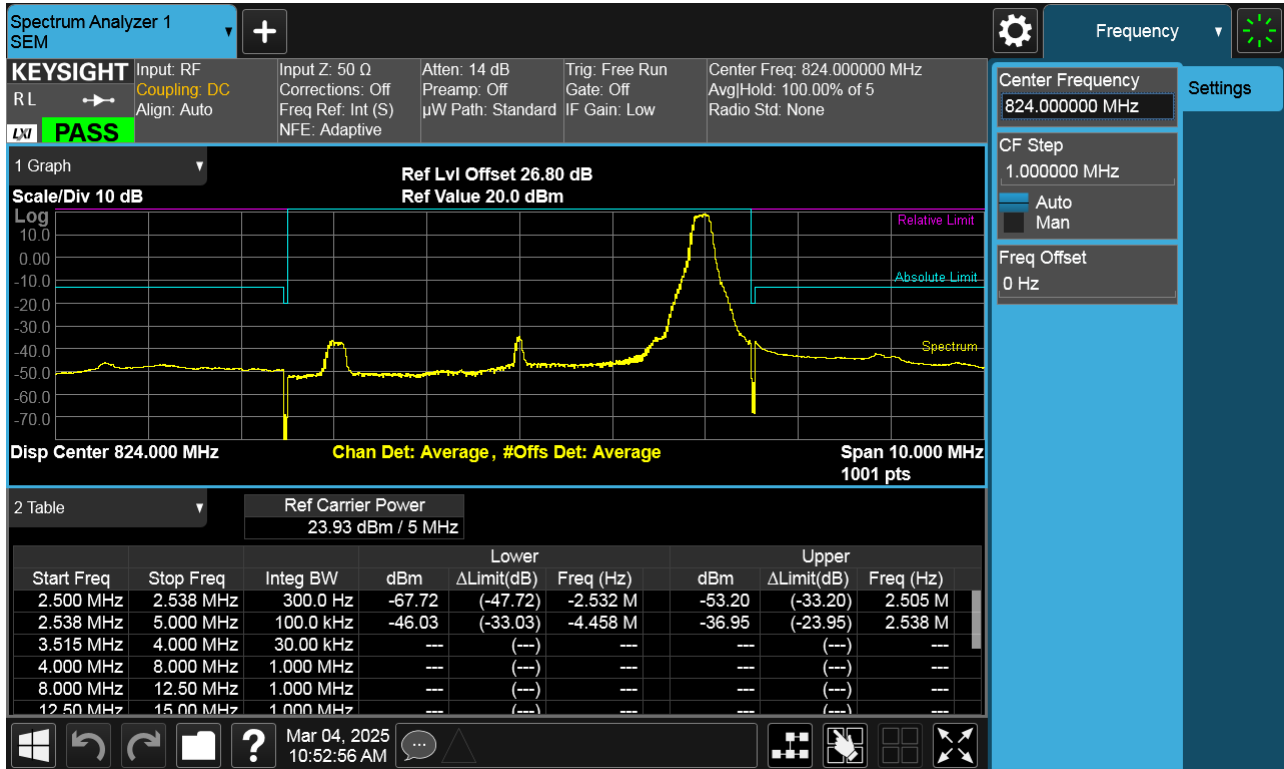
Sub6 n26. Mid Channel Edge Plot (5 M BW Ch.164300 BPSK_RB1_Offset 0)



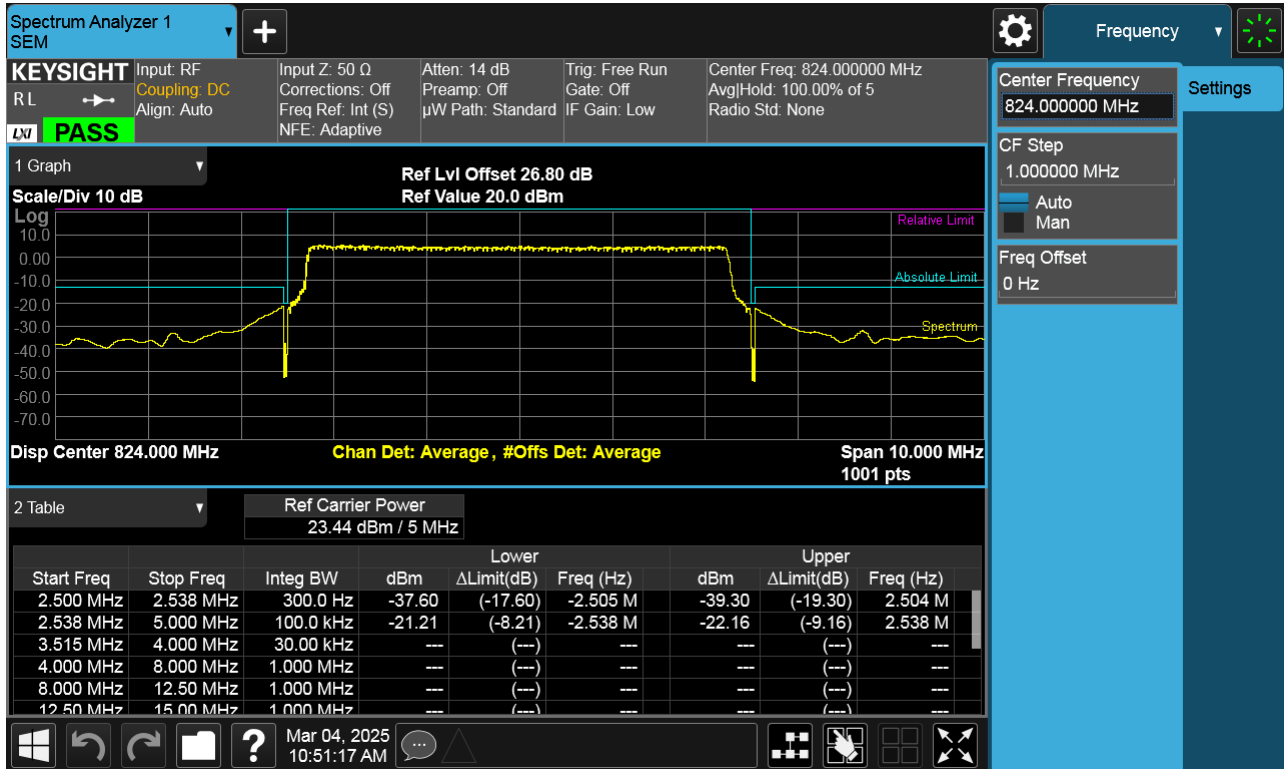
Sub6 n26. Mid Channel Edge Plot (5 M BW Ch.164300 BPSK_ RB25_Offset 0)



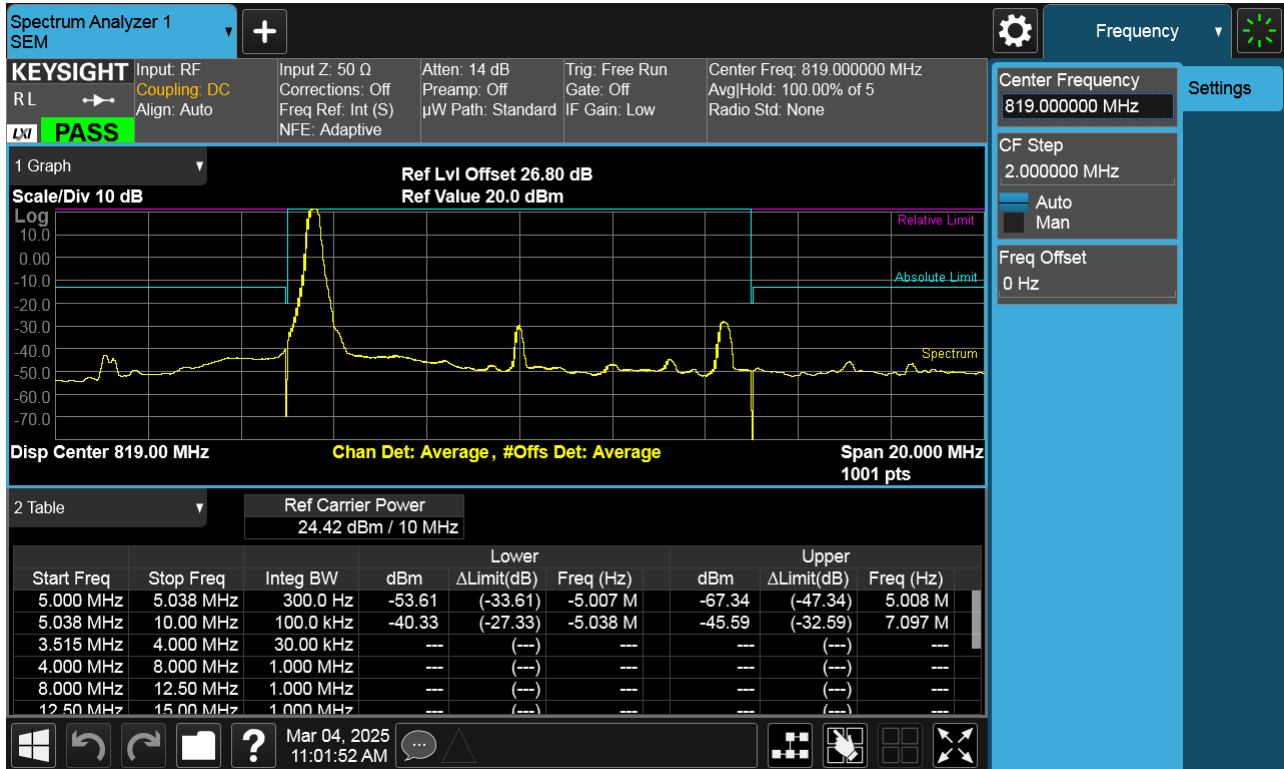
Sub6 n26. Upper Channel Edge Plot (5 M BW Ch.164800 BPSK_RB1_Offset 24)



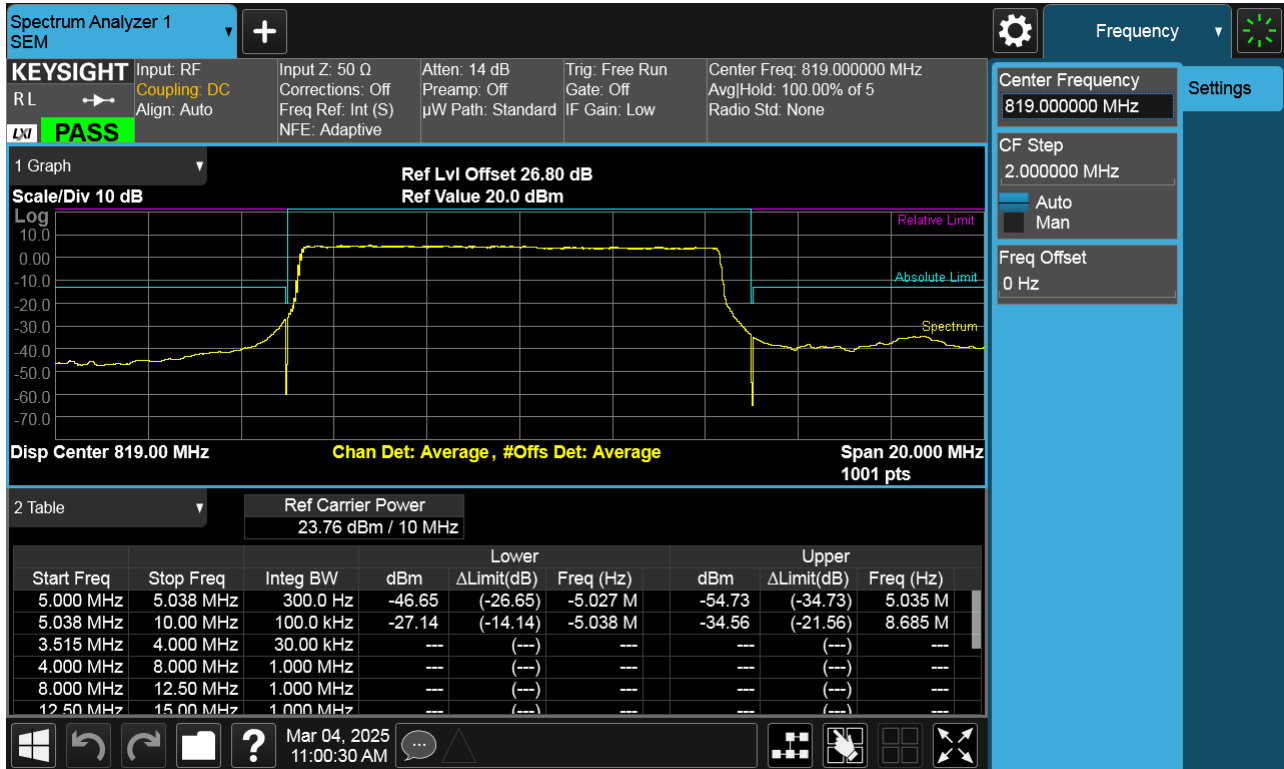
Sub6 n26. Upper Channel Edge Plot (5 M BW Ch.164800 BPSK_RB25_Offset 0)



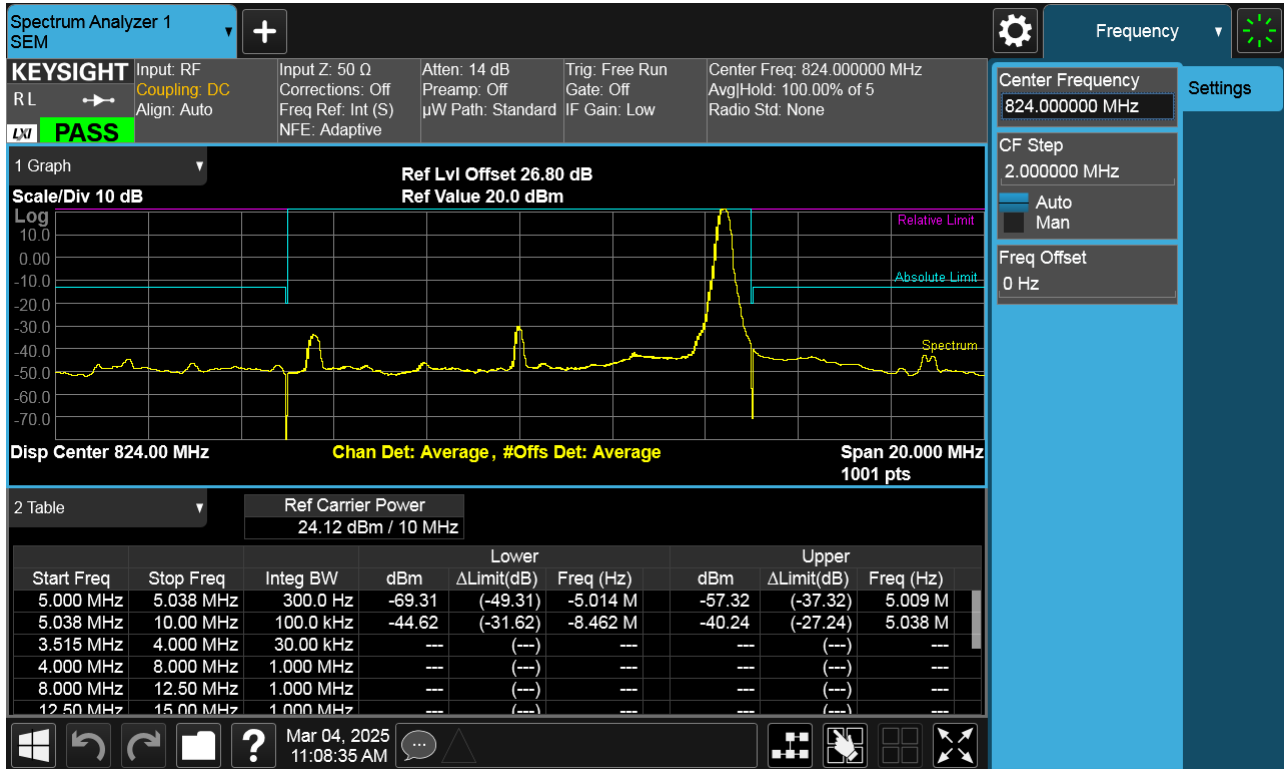
Sub6 n26. Low Channel Edge Plot (10 M BW Ch.163800 BPSK RB 1, Offset 0)



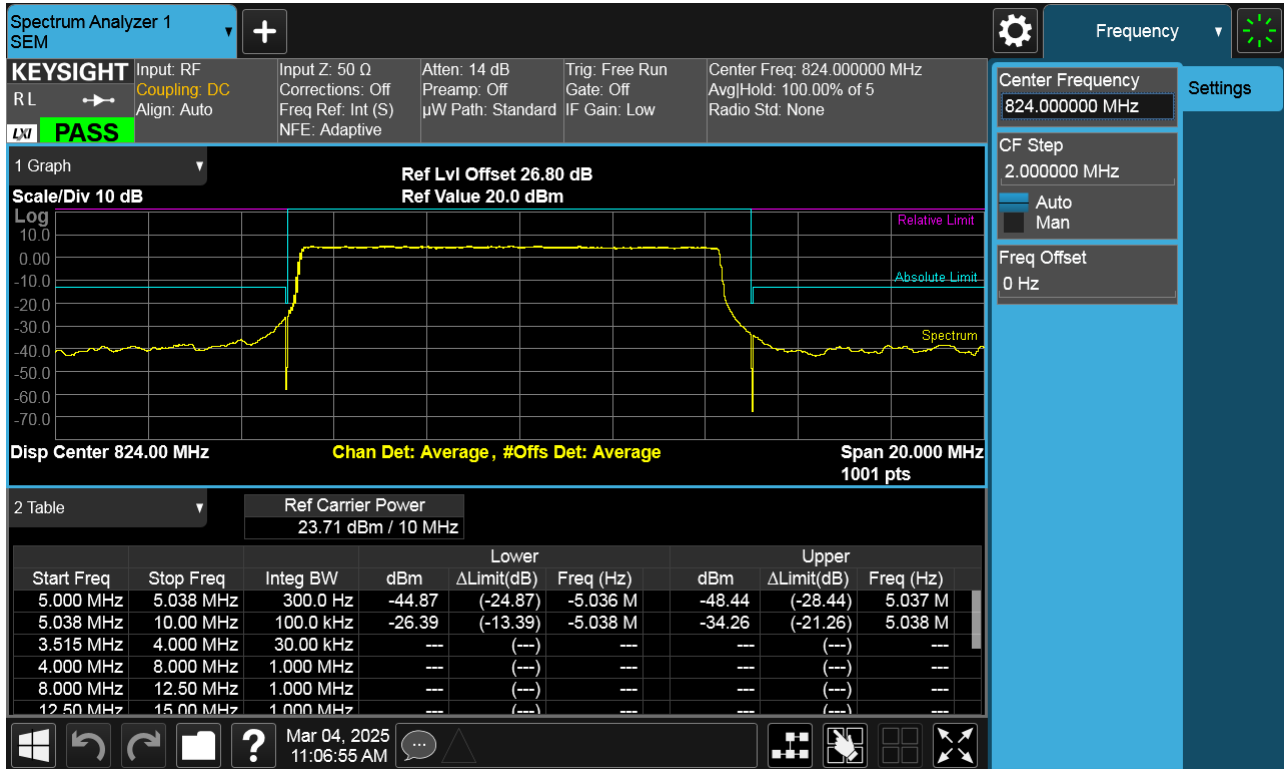
Sub6 n26. Low Channel Edge Plot (10 M BW Ch.163800 BPSK_RB50_Offset 0)



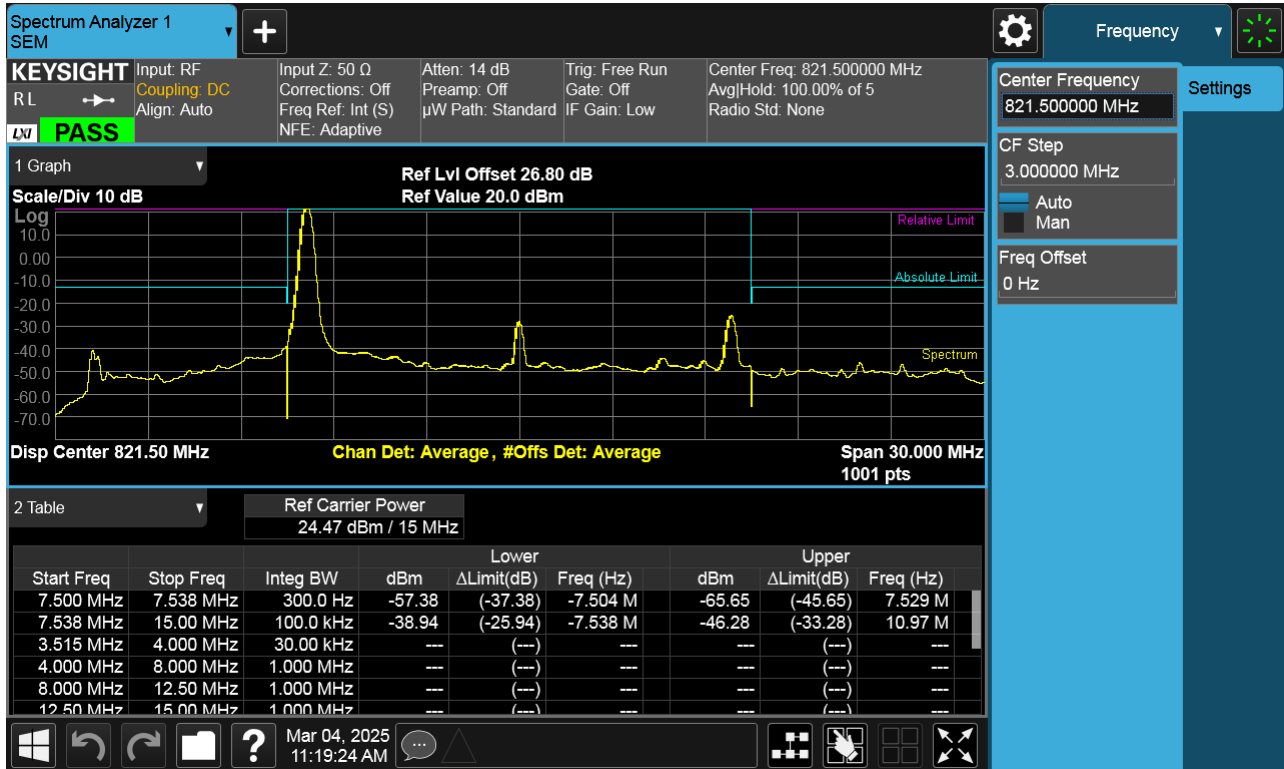
Sub6 n26. Upper Channel Edge Plot (10 M BW Ch.164800 BPSK_RB1_Offset 51)



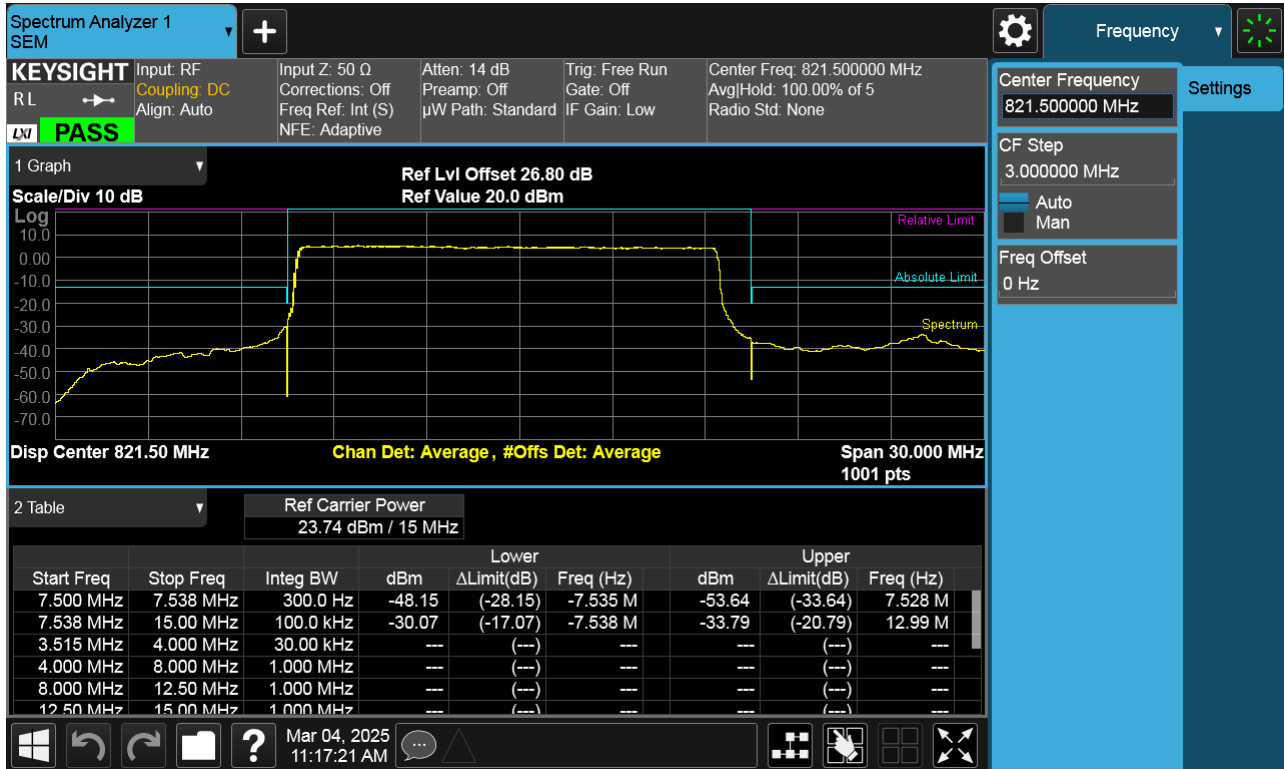
Sub6 n26. Upper Channel Edge Plot (10 M BW Ch.164800 BPSK_RB50_Offset 0)



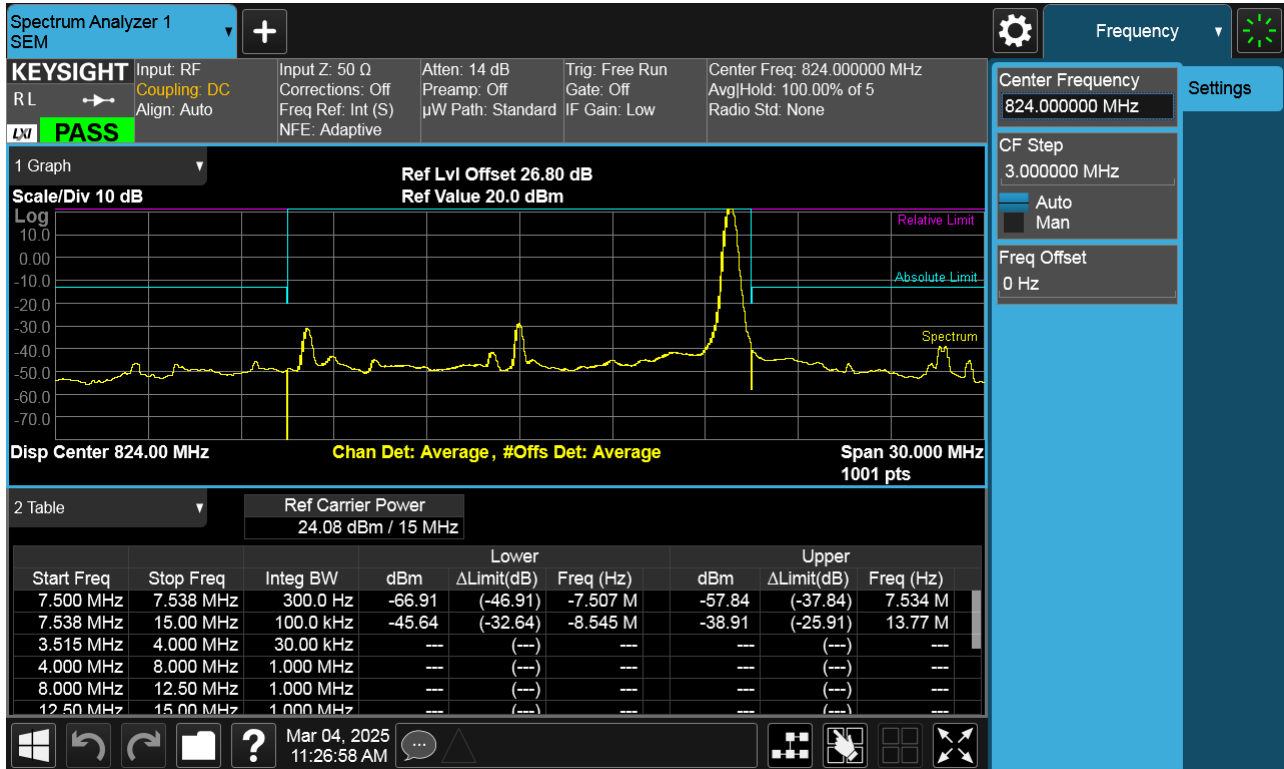
Sub6 n26. Low Channel Edge Plot (15 M BW Ch.164300 BPSK RB 1, Offset 0)



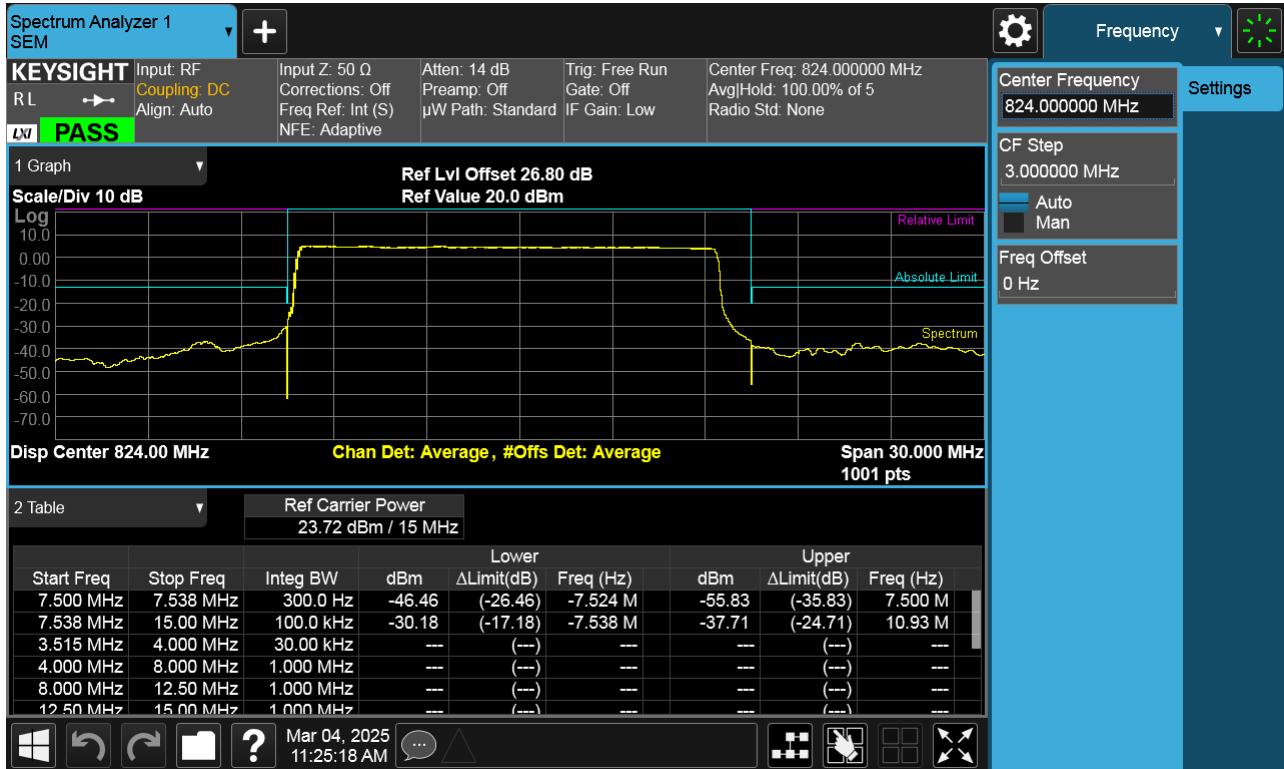
Sub6 n26. Low Channel Edge Plot (15 M BW Ch.164300 BPSK_RB75_Offset 0)



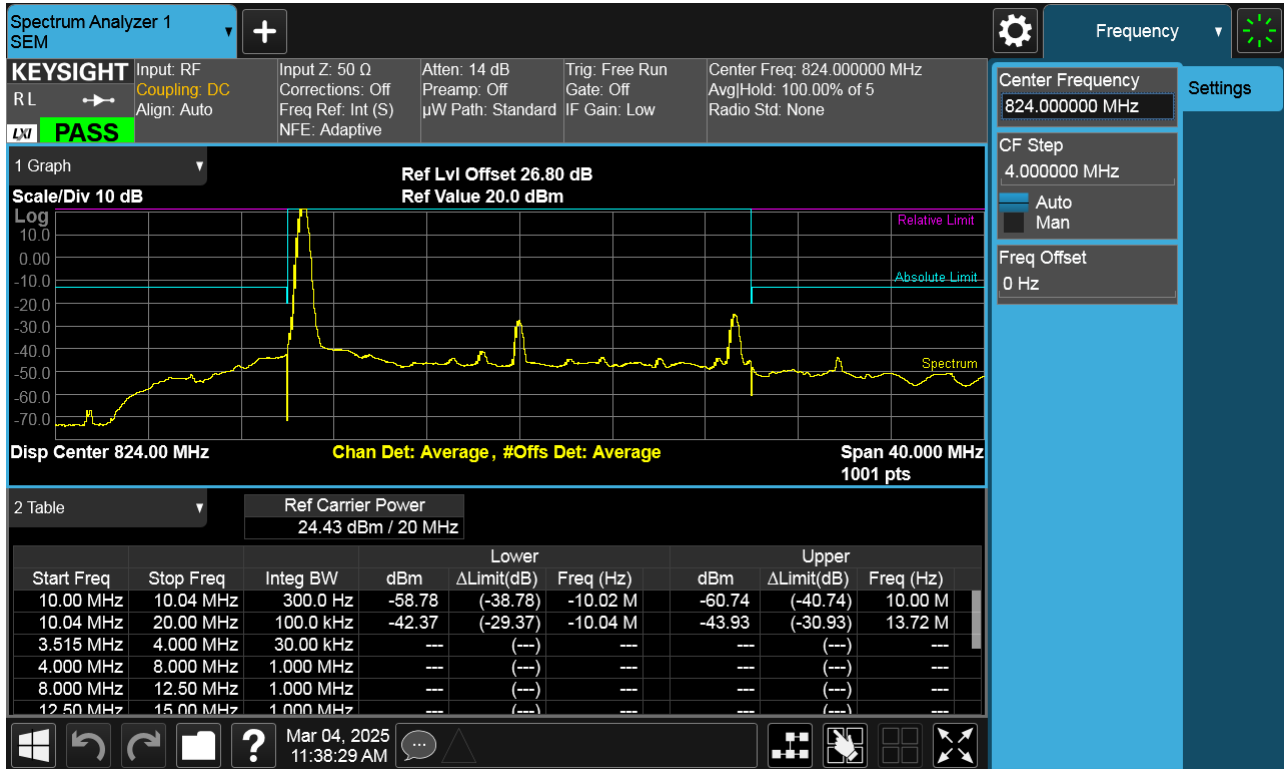
Sub6 n26. Upper Channel Edge Plot (15 M BW Ch.164800 BPSK_RB1_Offset 78)



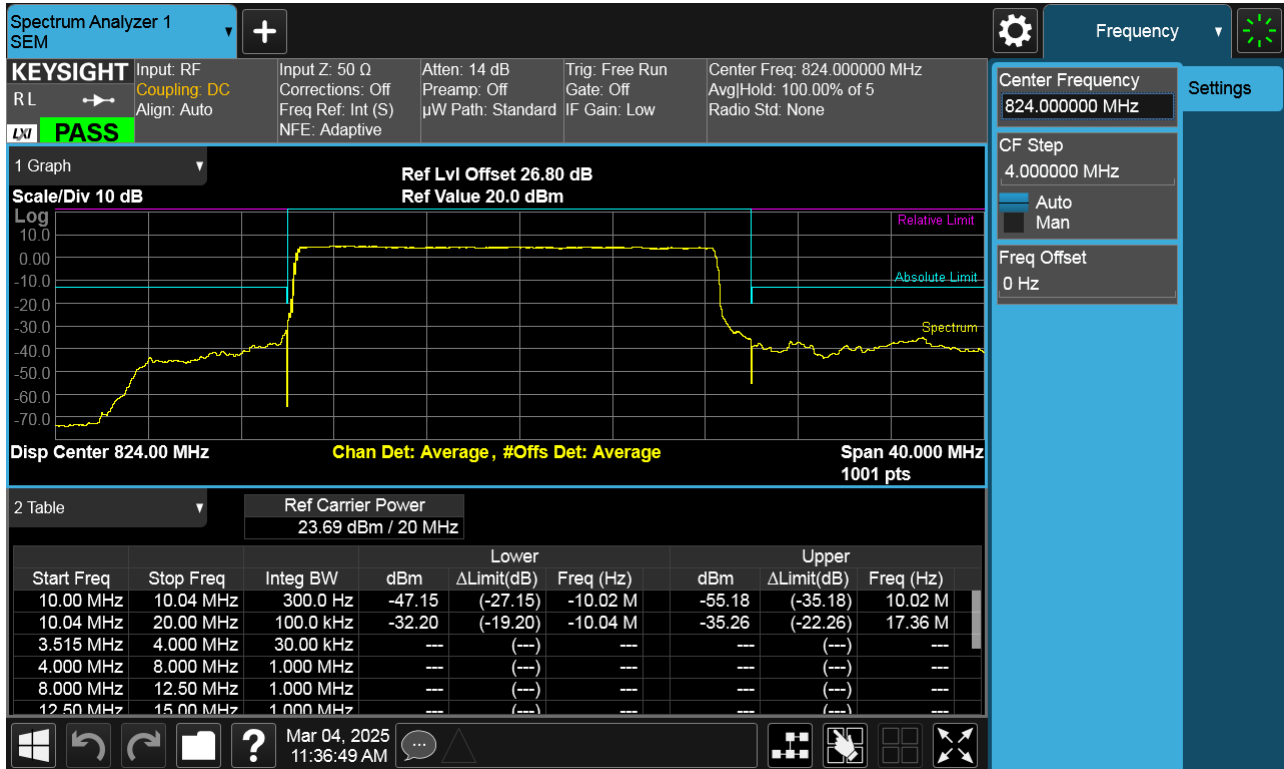
Sub6 n26. Upper Channel Edge Plot (15 M BW Ch.164800 BPSK_RB75_Offset 0)



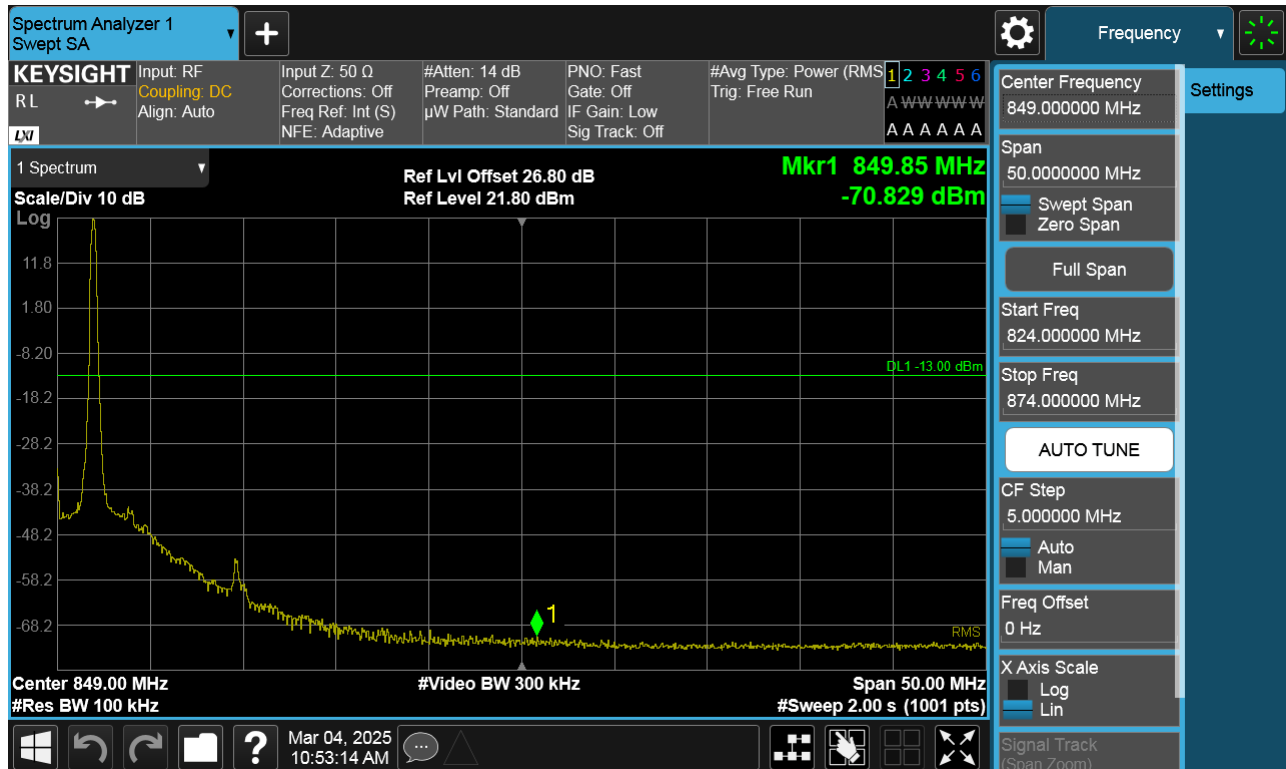
Sub6 n26. Mid Channel Edge Plot (20 M BW Ch.164800 QPSK_ RB1_Offset 105)



Sub6 n26. Mid Channel Edge Plot (20 M BW Ch.164800 BPSK_ RB100_Offset 0)



Sub6 n26. Upper Band Edge Plot (5 M BW Ch.164800 BPSK_RB1_Offset 24)



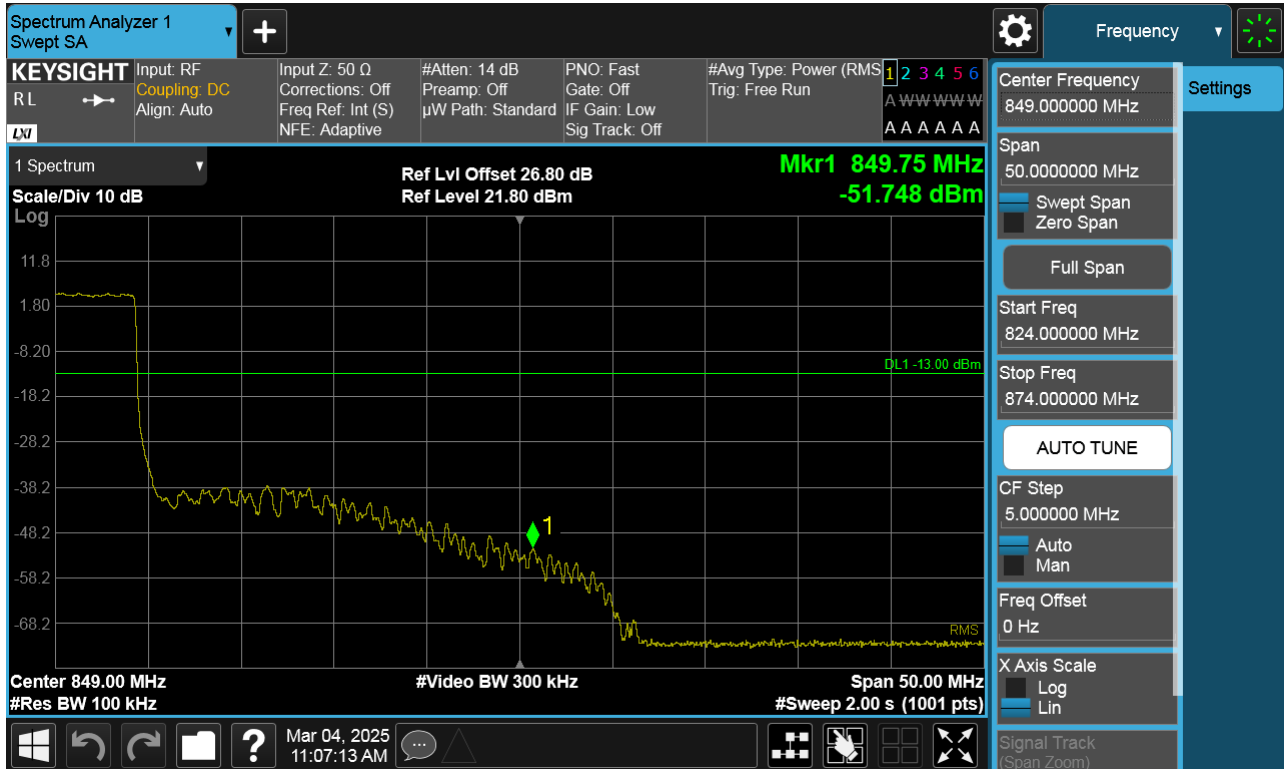
Sub6 n26. Upper Band Edge Plot (5 M BW Ch.164800 BPSK_RB25_Offset 0)



Sub6 n26. Upper Band Edge Plot (10 M BW Ch.164800 BPSK_RB1_Offset 51)



Sub6 n26. Upper Band Edge Plot (10 M BW Ch.164800 BPSK_RB50_Offset 0)



Sub6 n26. Lower Band Edge Plot (15 M BW Ch.164300 BPSK_RB1_Offset 78)



Sub6 n26. Lower Band Edge Plot (15 M BW Ch.164300 BPSK_RB75_Offset 0)



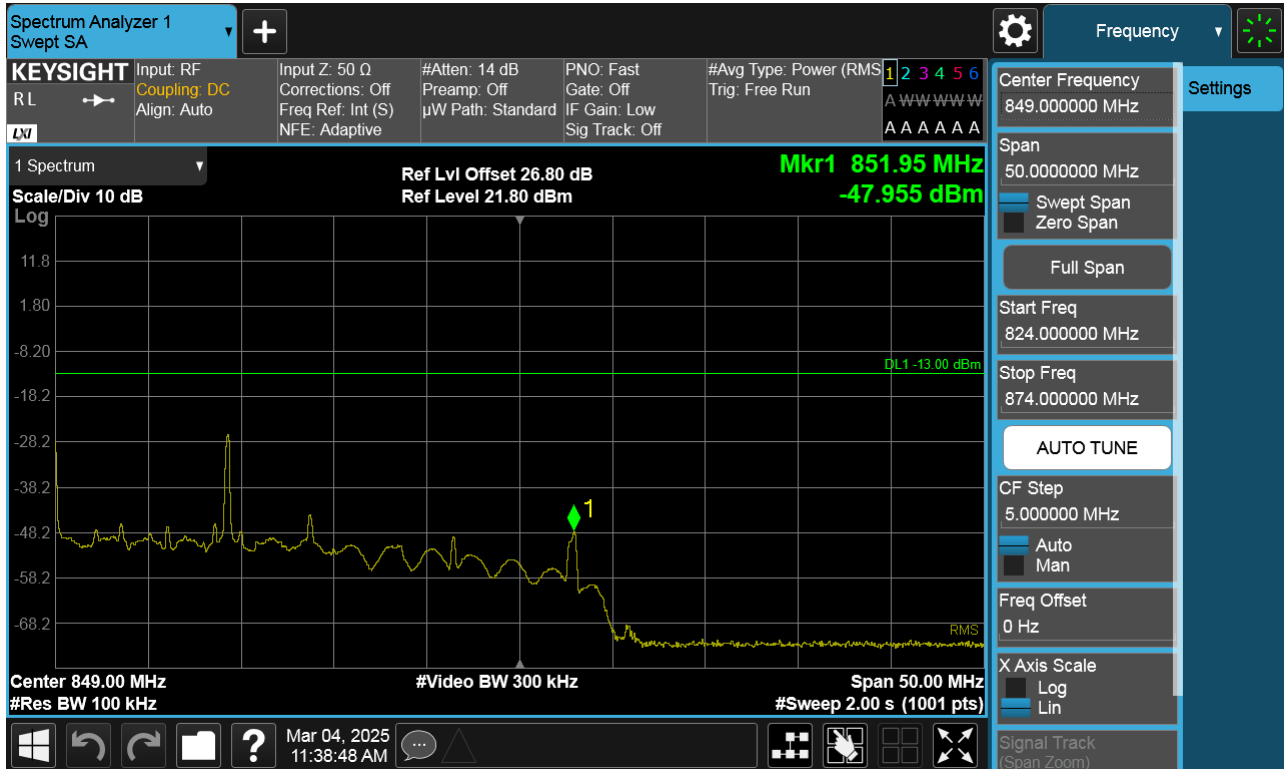
Sub6 n26. Upper Band Edge Plot (15 M BW Ch.164800 BPSK_RB1_Offset 78)



Sub6 n26. Upper Band Edge Plot (15 M BW Ch.164800 BPSK_RB75_Offset 0)



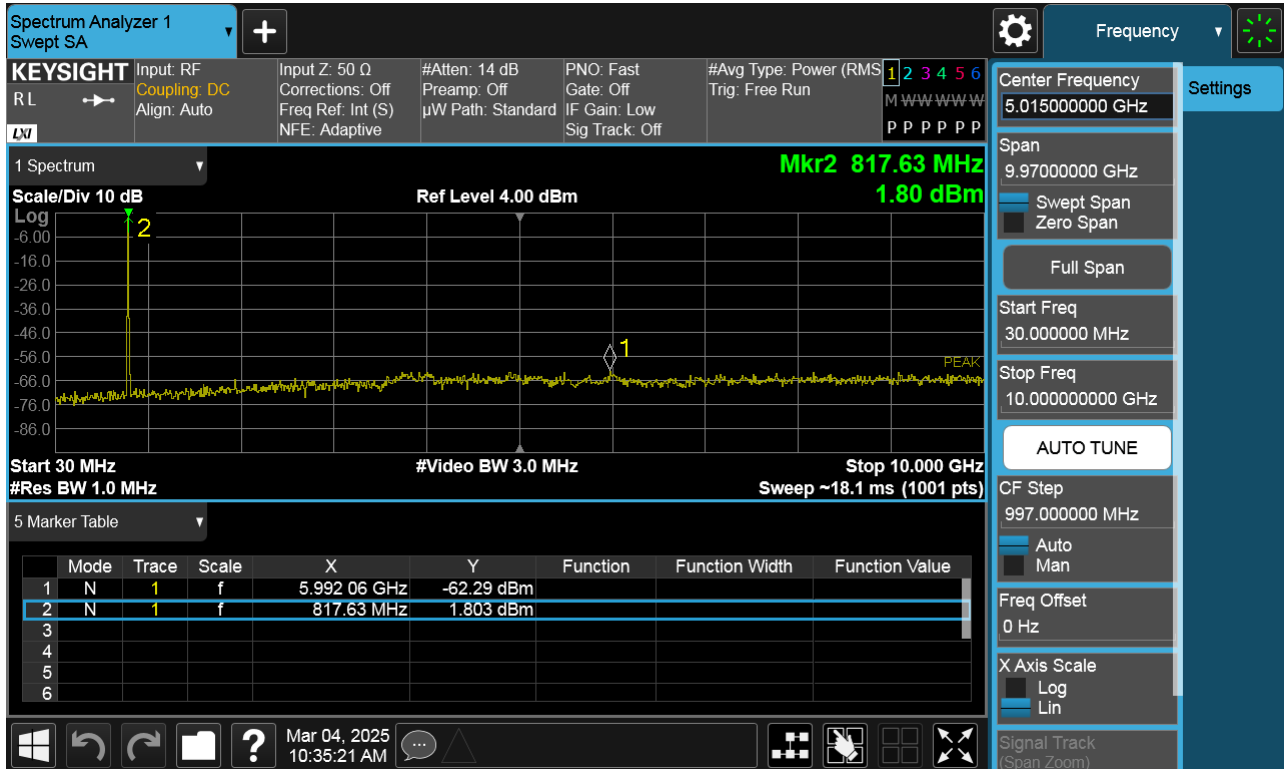
Sub6 n26. Mid Band Edge Plot (20 M BW Ch.164800 BPSK_RB1_Offset 105)



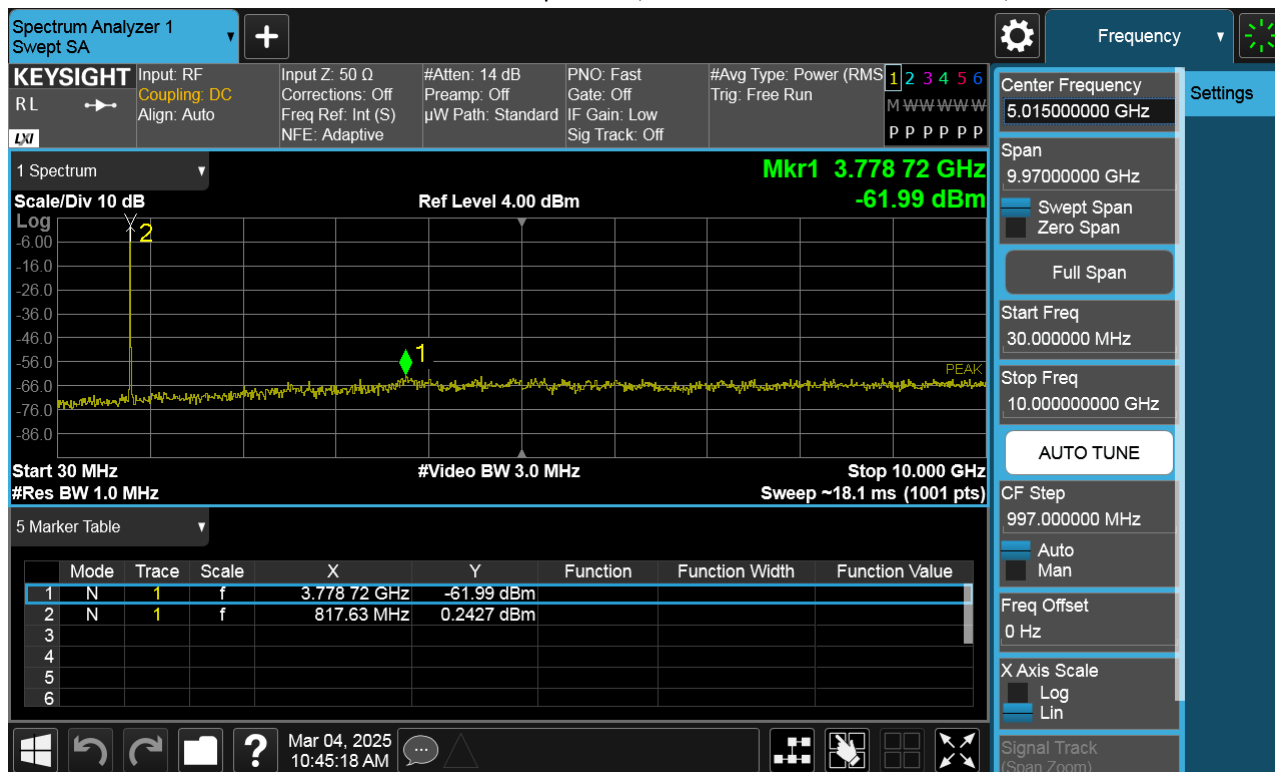
Sub6 n26. Mid Band Edge Plot (20 M BW Ch.164800 BPSK_RB100_Offset 0)



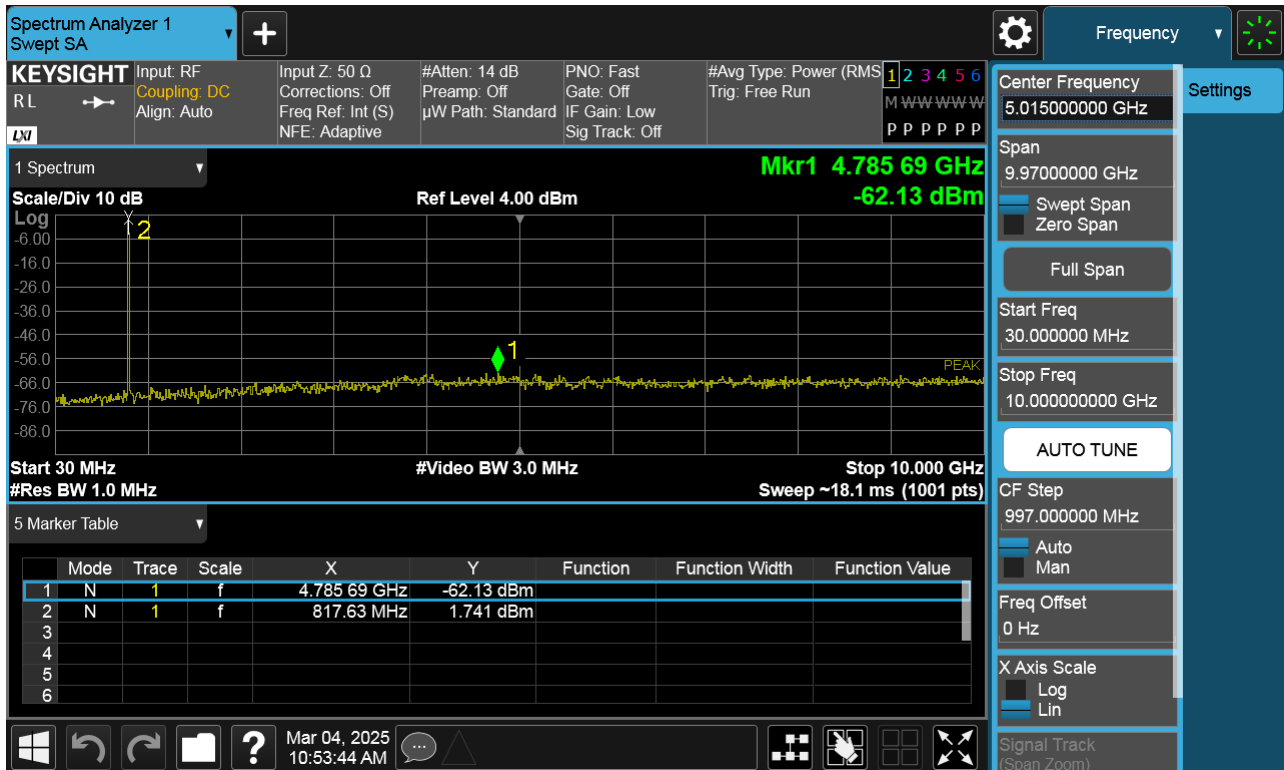
Sub6 n26. Conducted Spurious (163300 ch_5 MHz_ BPSK_RB 1_1)



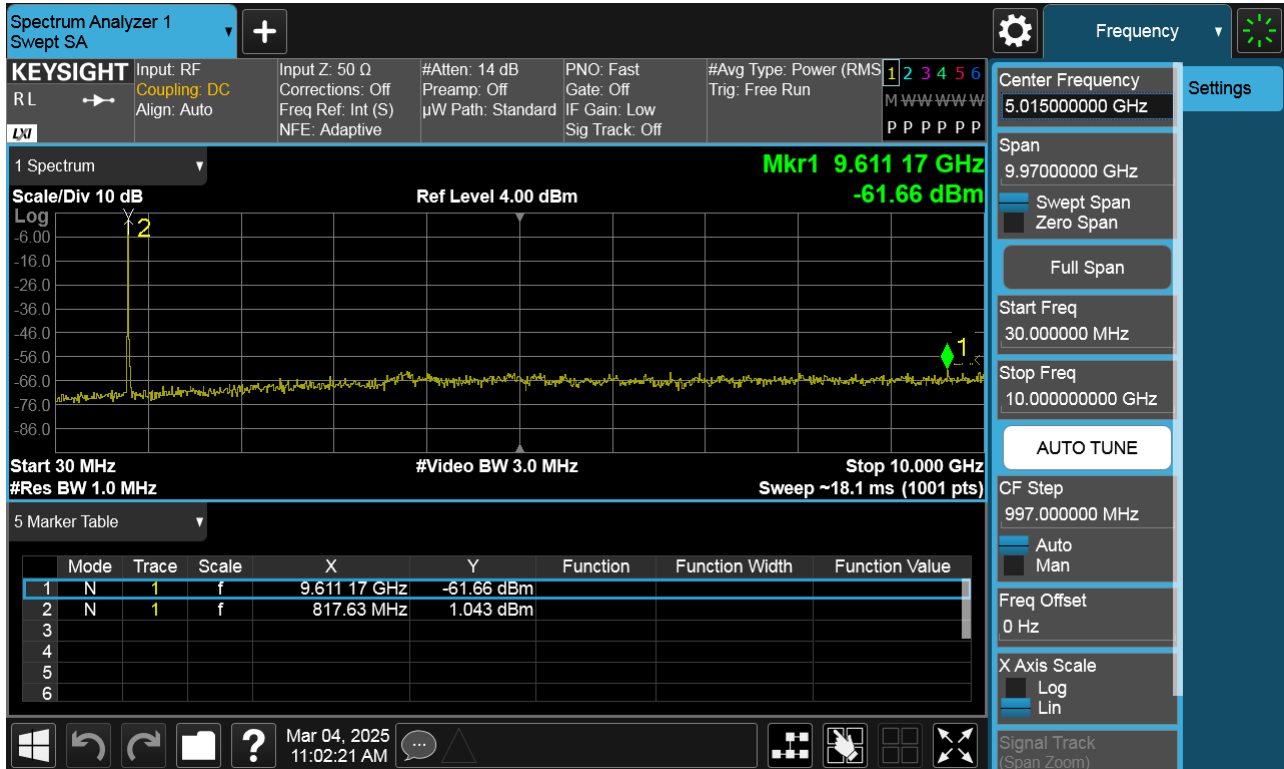
Sub6 n26. Conducted Spurious (164300 ch_5 MHz_ BPSK_RB 1_1)



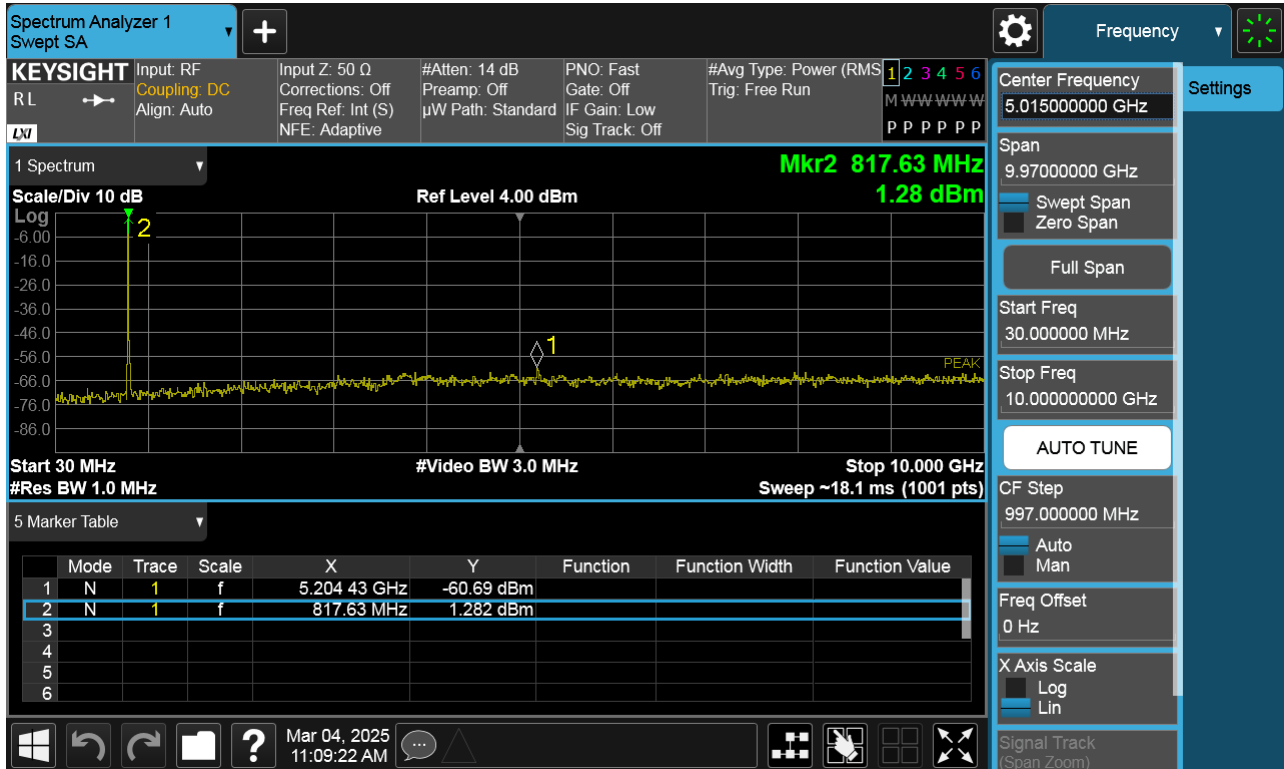
Sub6 n26. Conducted Spurious (164800 ch_5 MHz_ BPSK_RB 1_1)



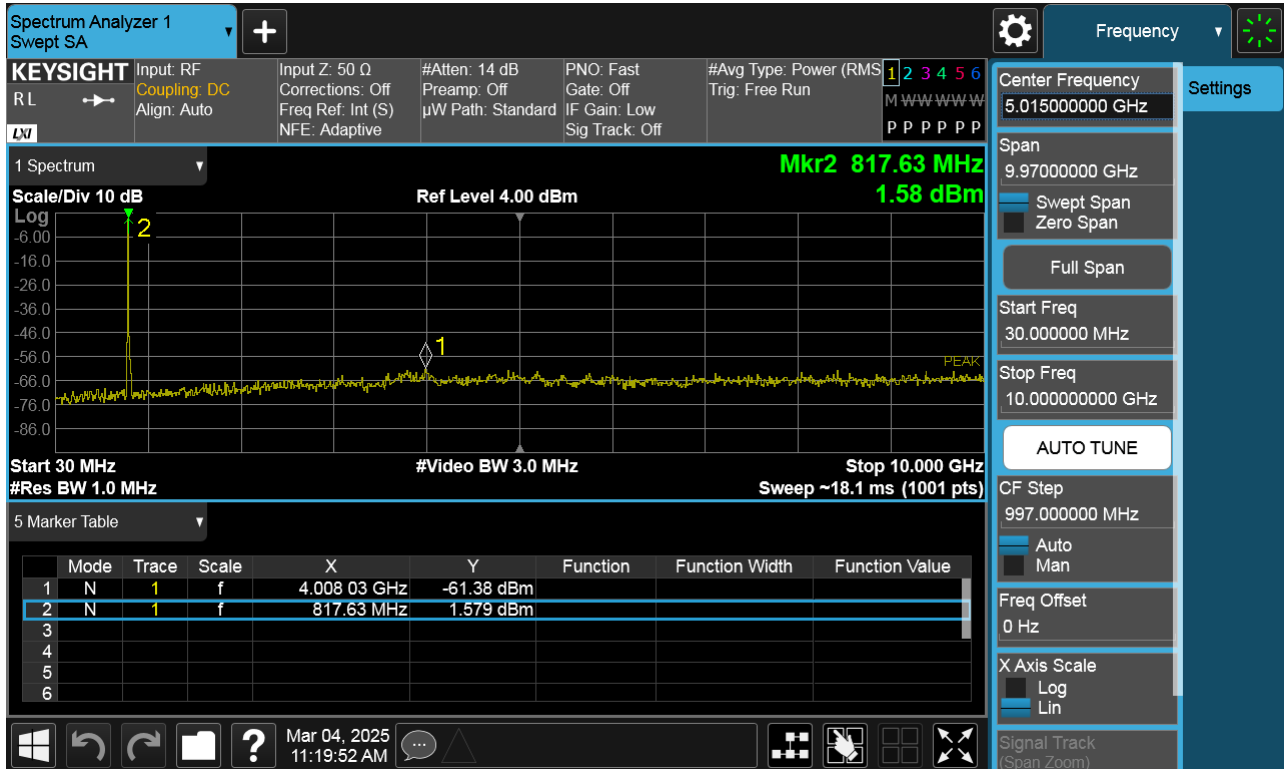
Sub6 n26. Conducted Spurious (163800 ch_10 MHz_ BPSK_RB 1_1)



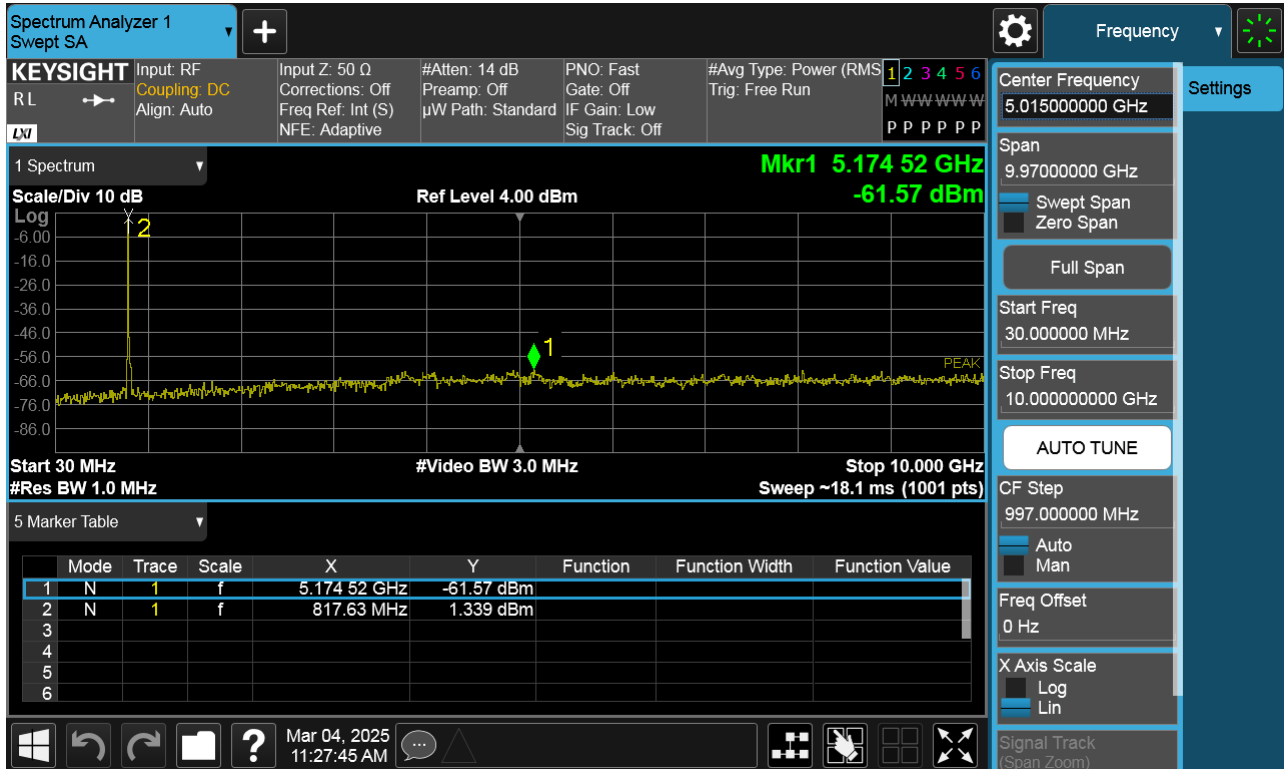
Sub6 n26. Conducted Spurious (164800 ch_10 MHz_BPSK_RB 1_1)



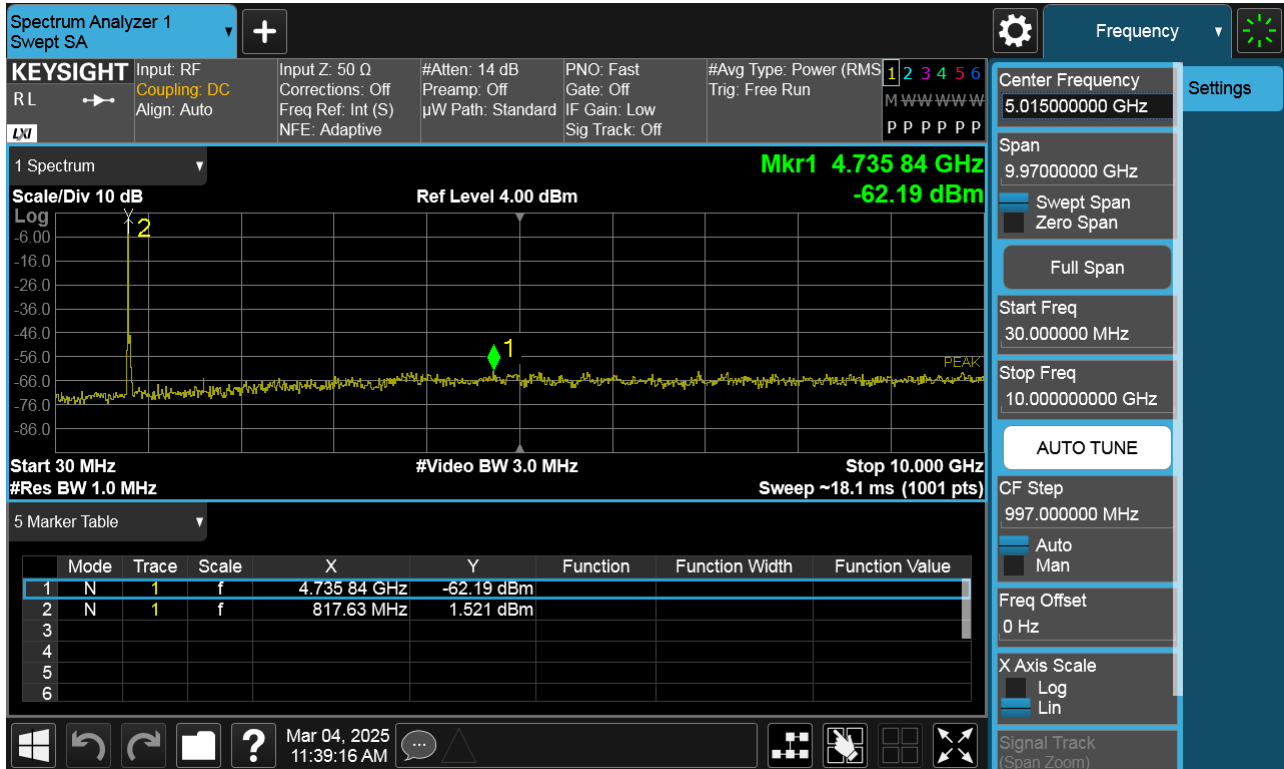
Sub6 n26. Conducted Spurious (164300 ch_15 MHz_BPSK_RB 1_1)



Sub6 n26. Conducted Spurious (164800 ch_15 MHz_ BPSK_RB 1_1)

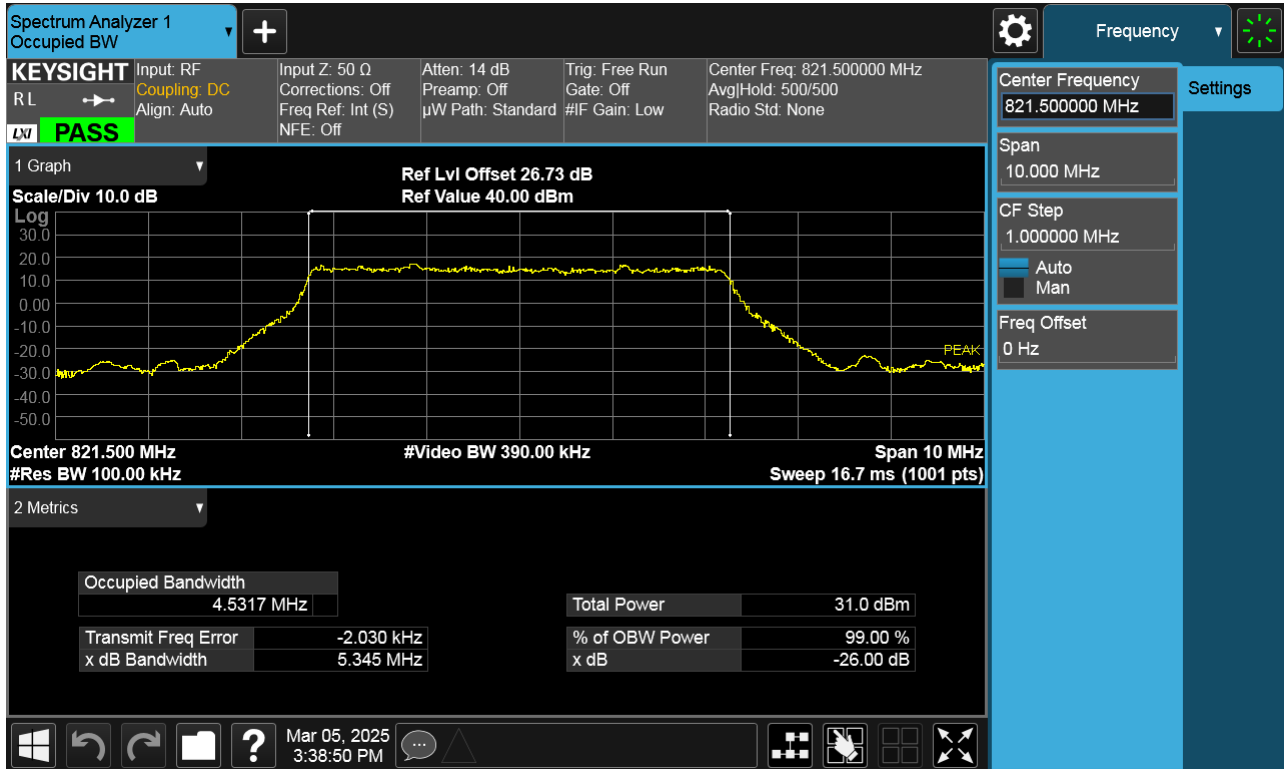


Sub6 n26. Conducted Spurious (164800 ch_20 MHz_ BPSK_RB 1_1)

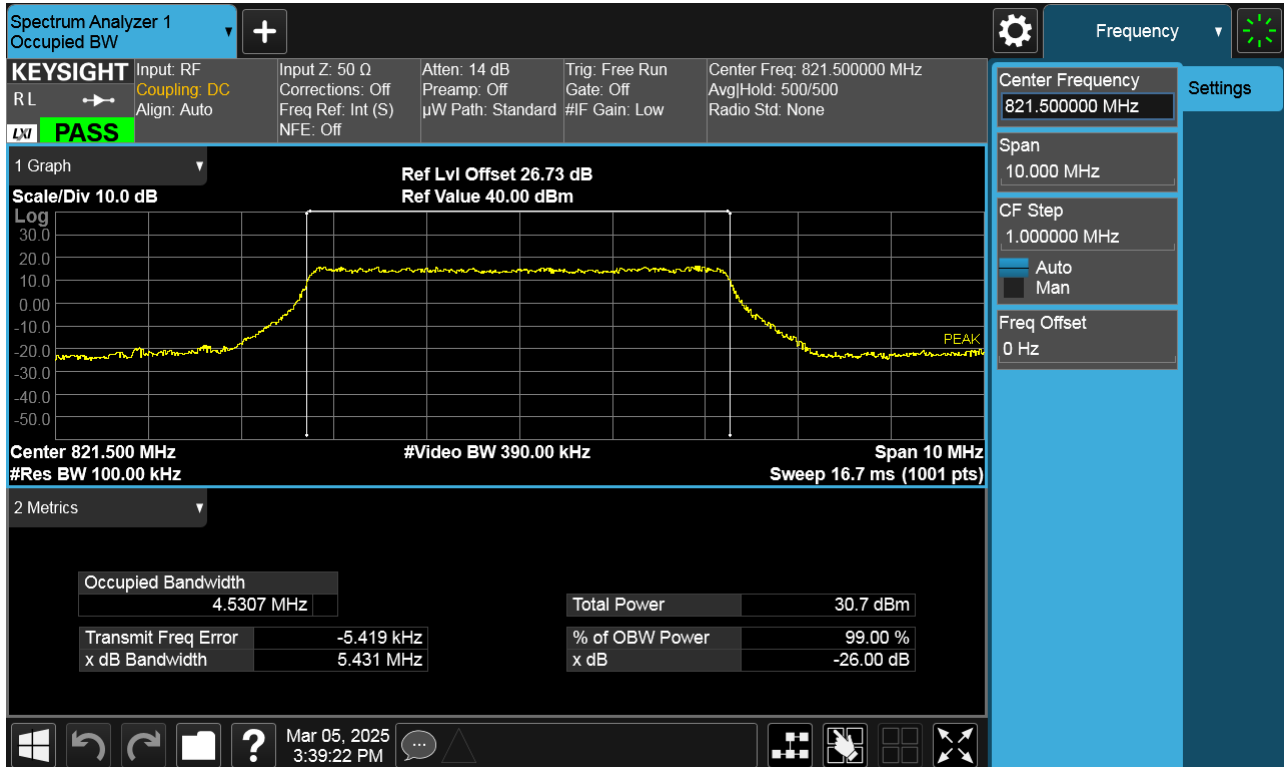


11. TEST PLOTS(Sub 1 ANT)

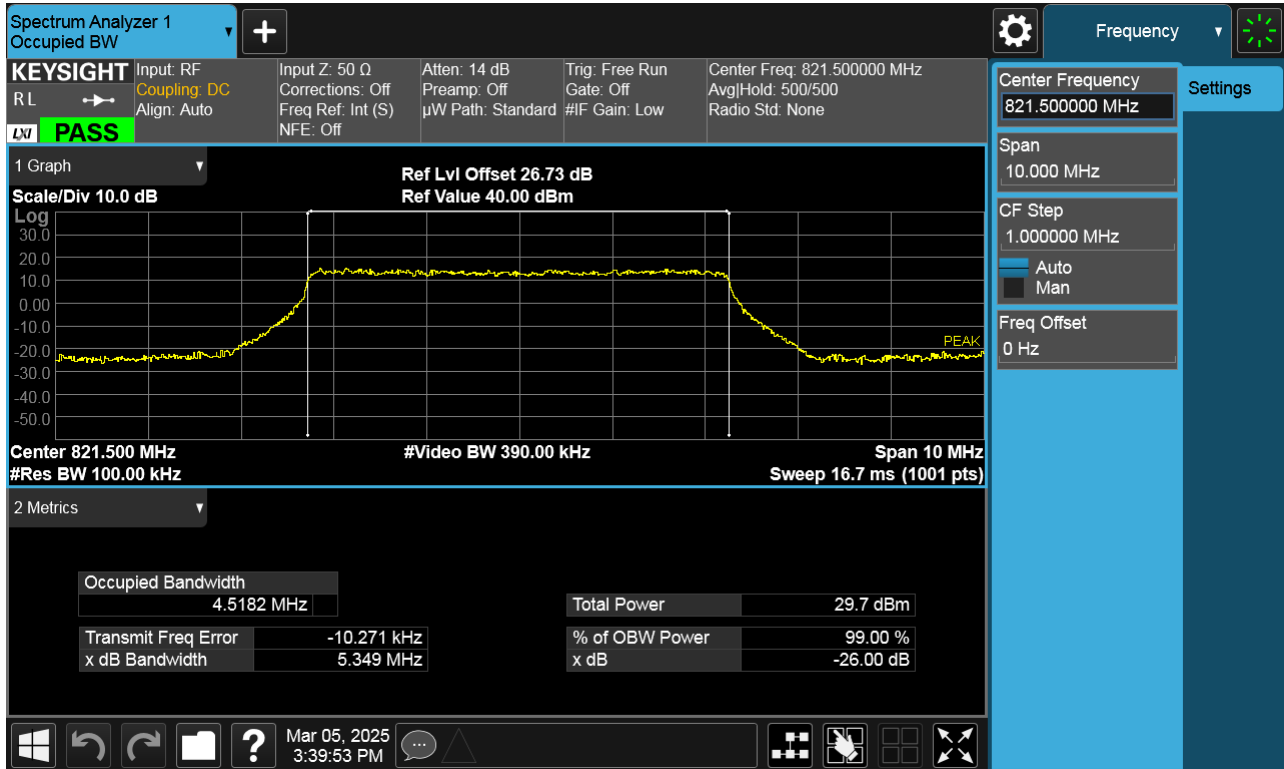
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 BPSK RB 25_0)



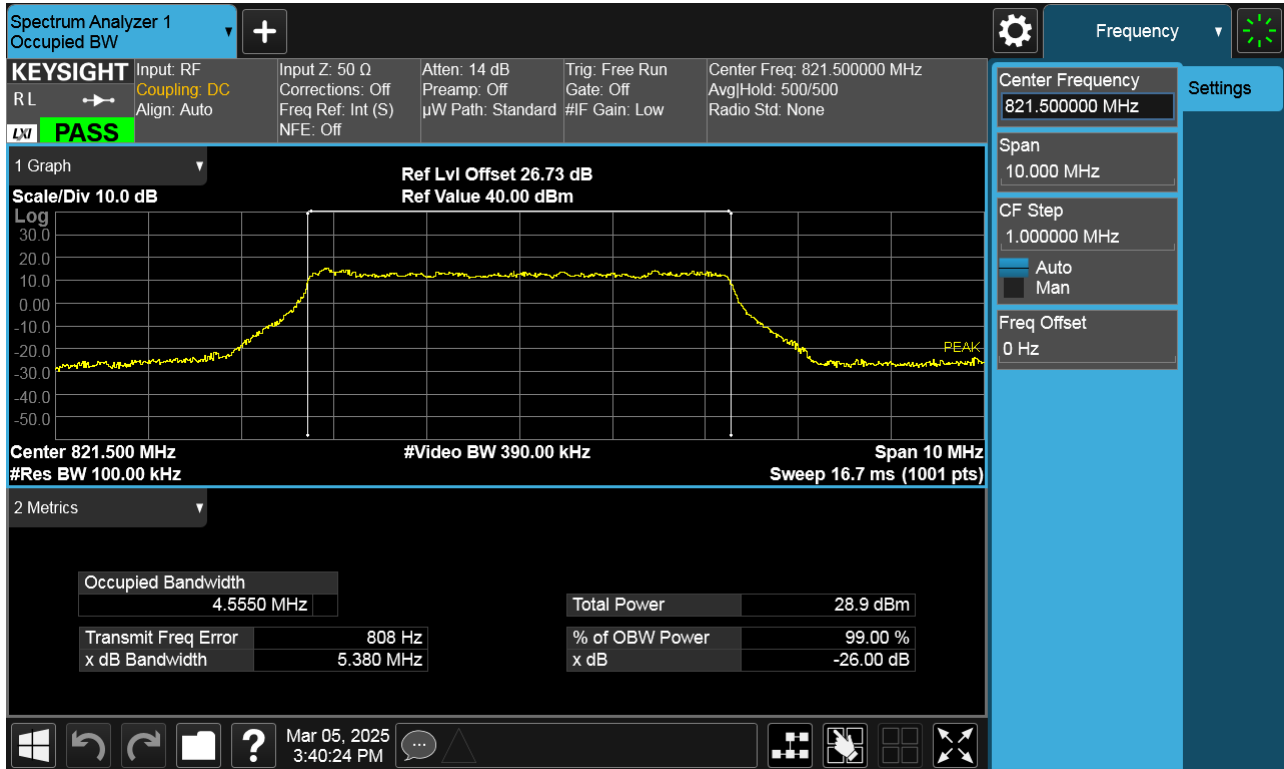
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 QPSK RB 25_0)



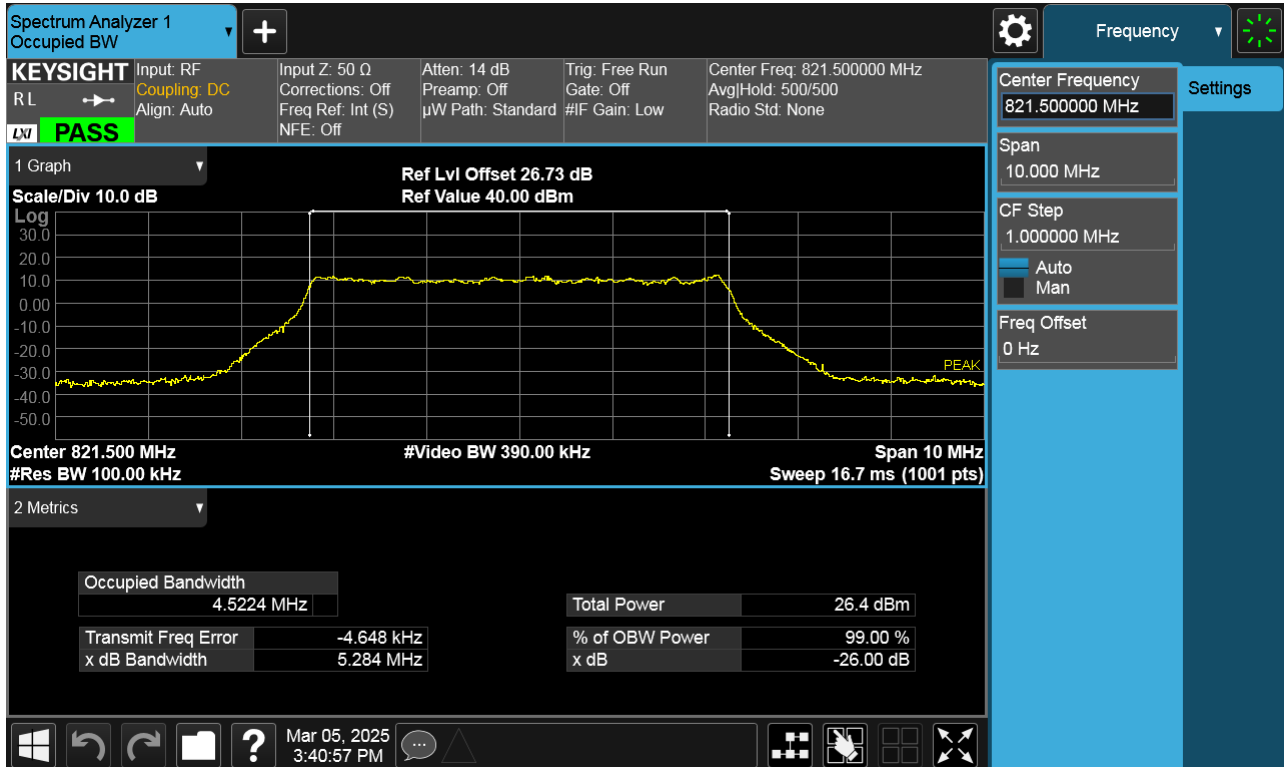
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 16QAM RB 25_0)



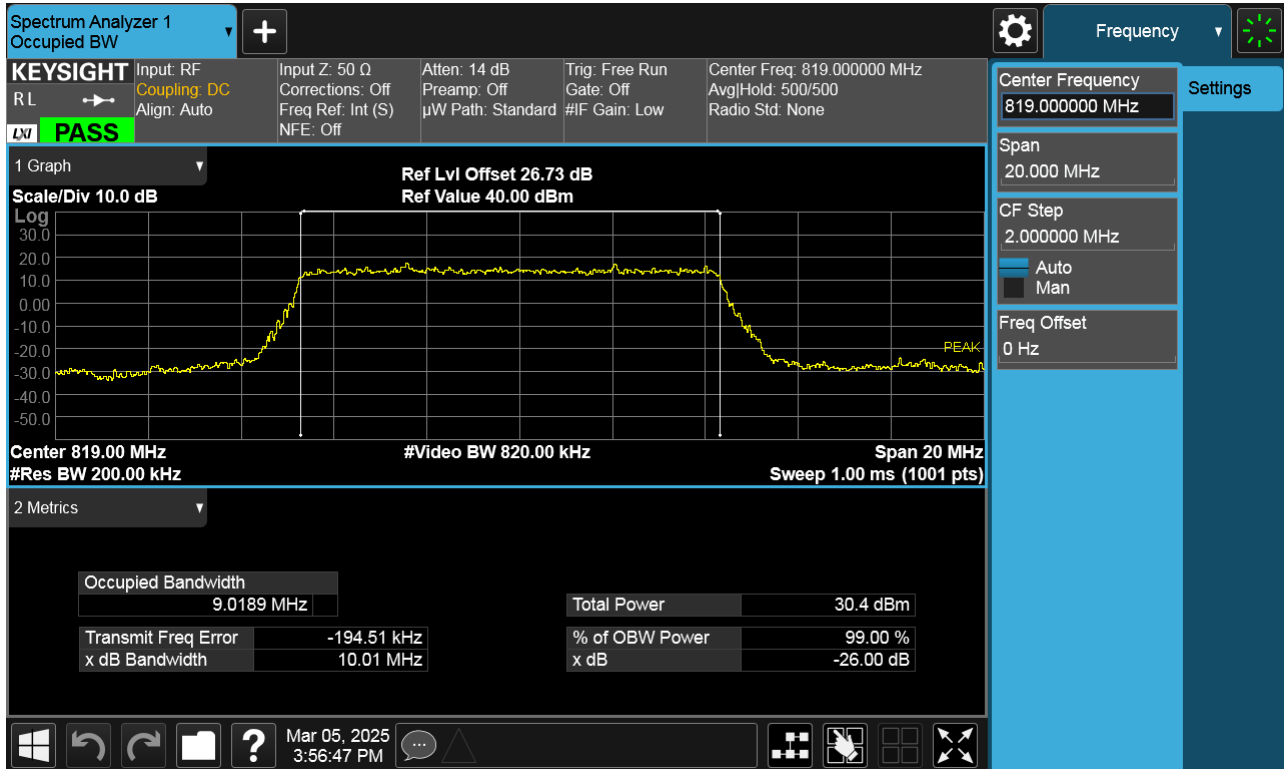
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 64QAM RB 25_0)



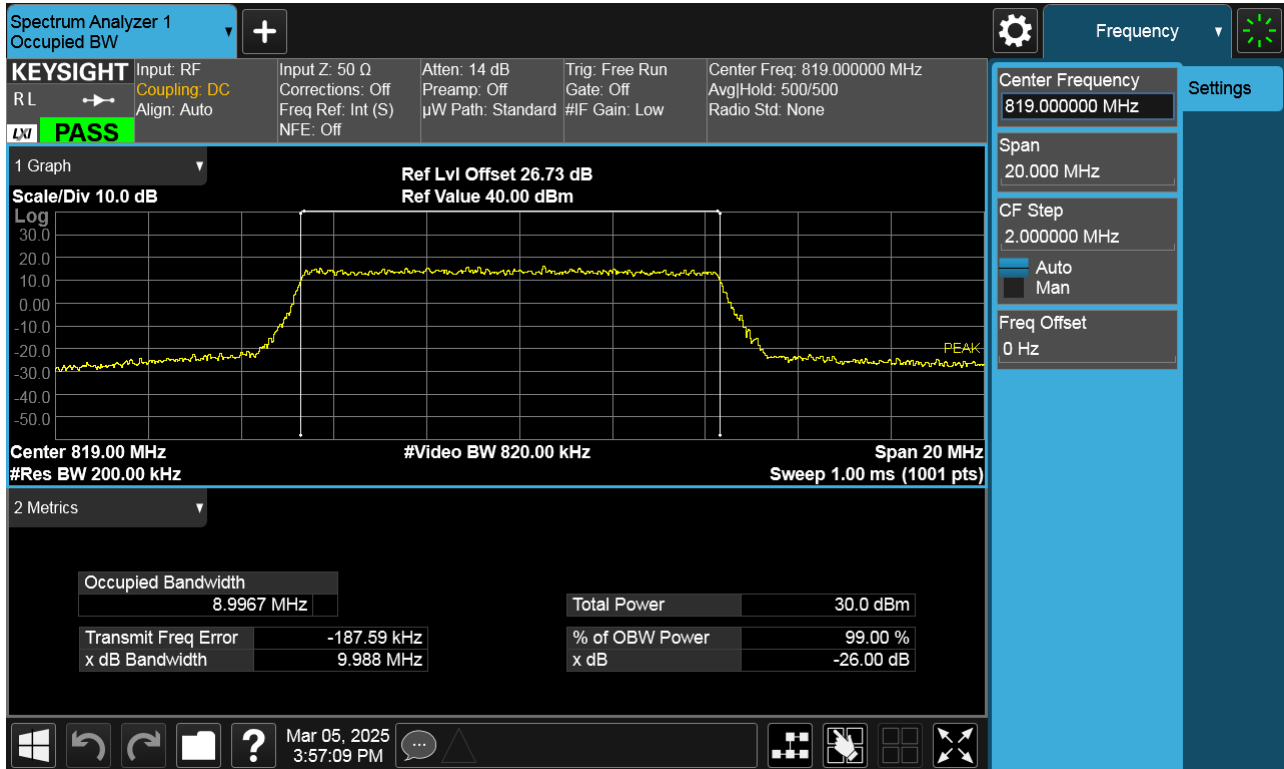
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 256QAM RB 25_0)



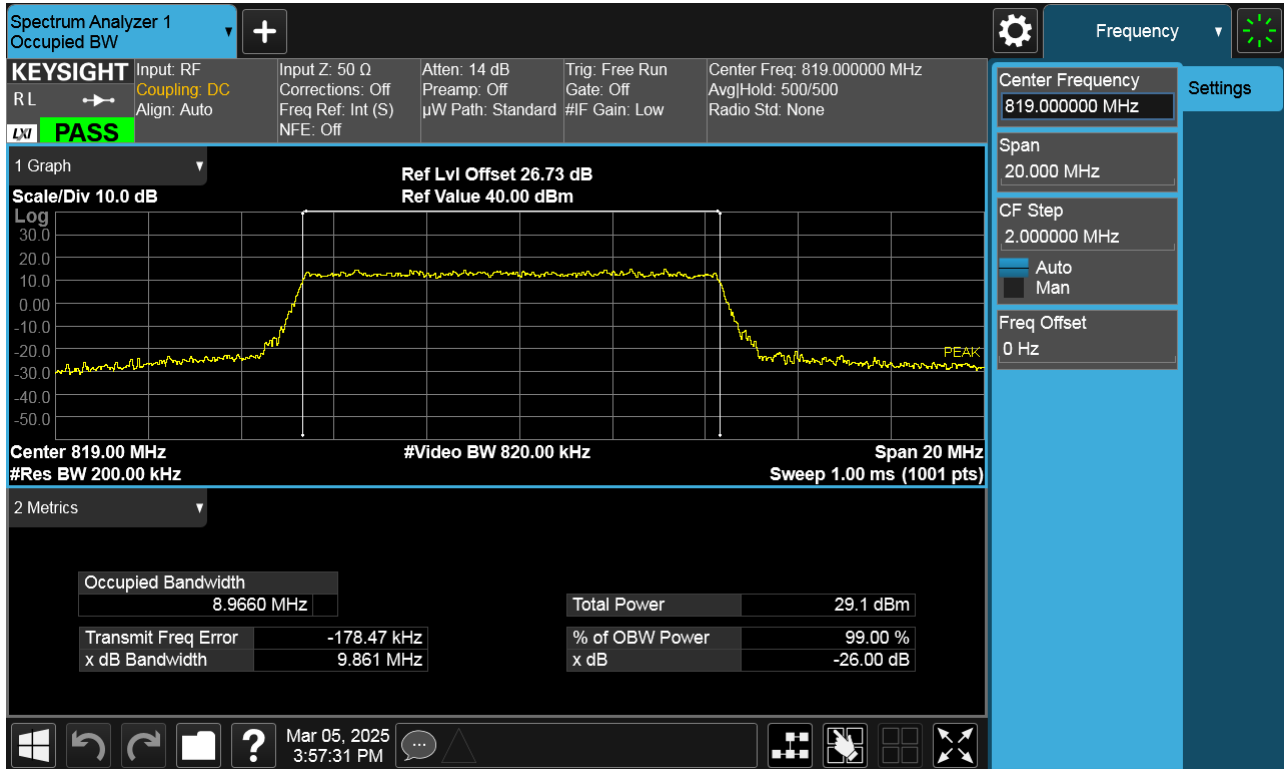
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 BPSK RB 50_0)



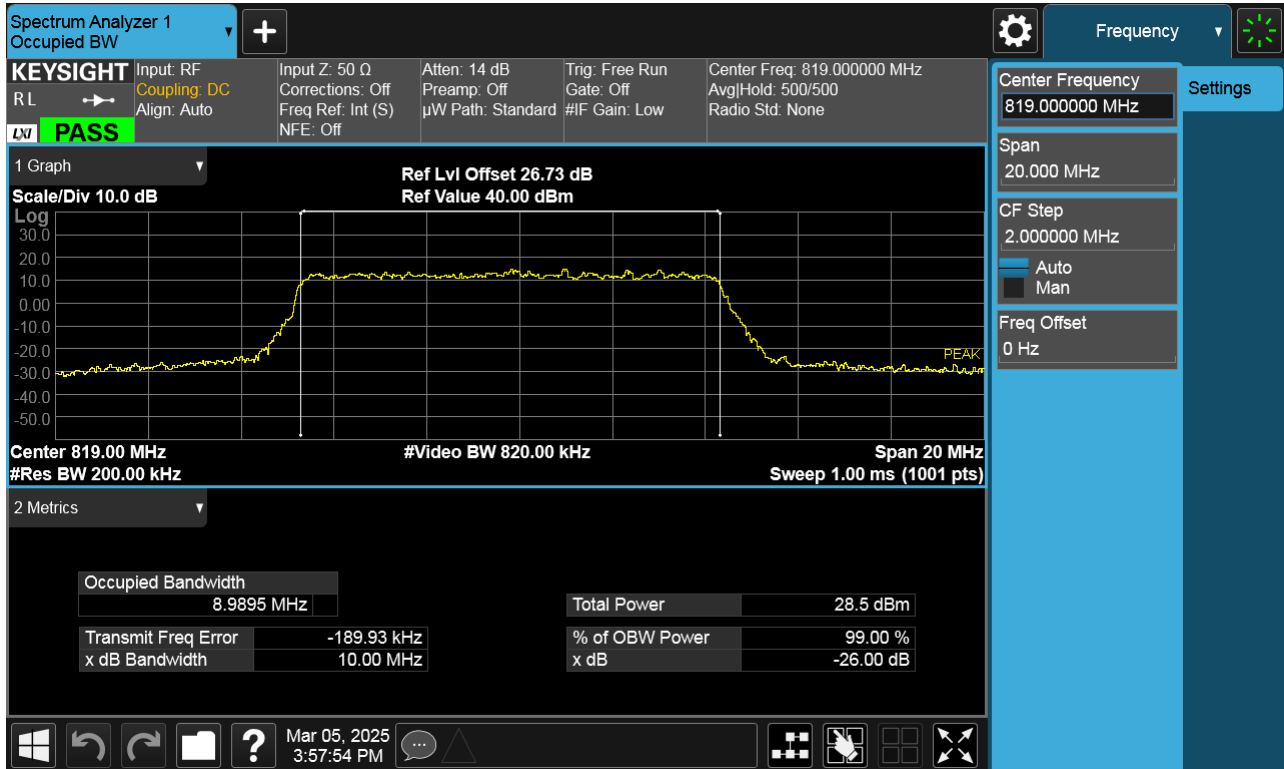
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 QPSK RB 50_0)



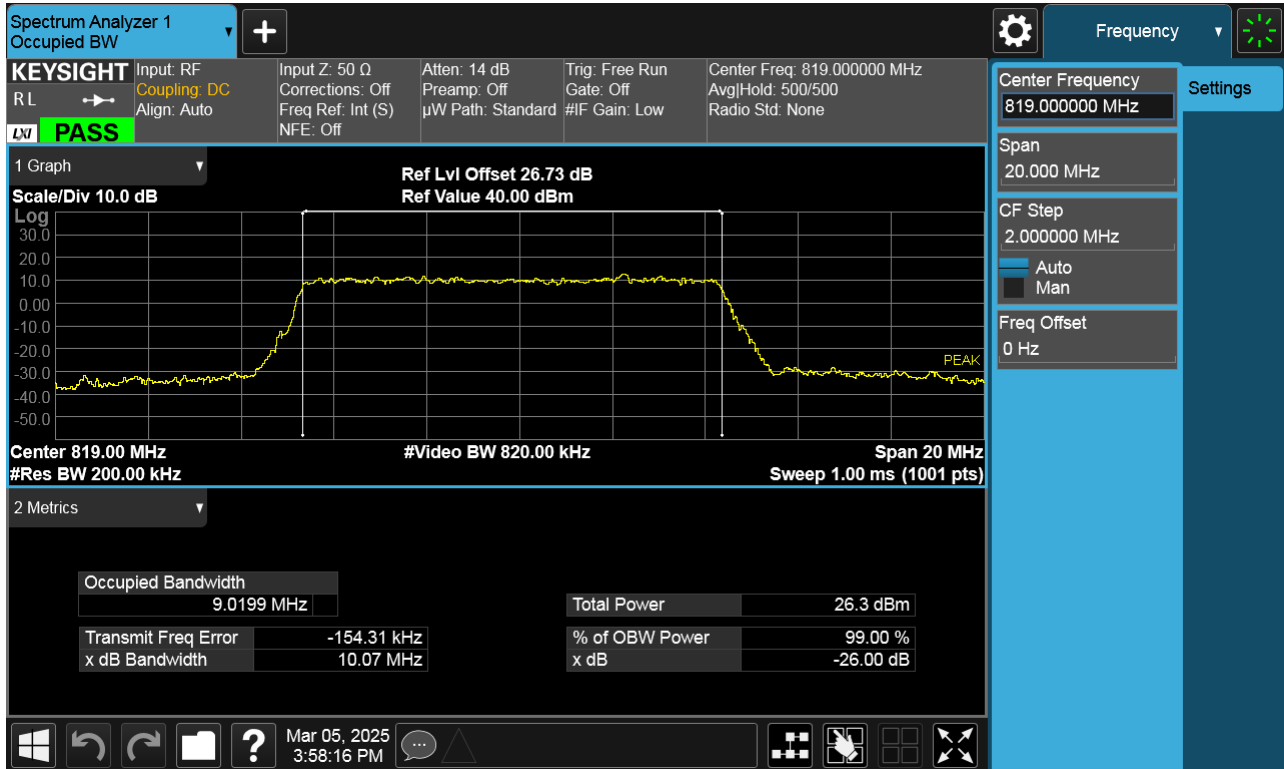
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 16QAM RB 50_0)



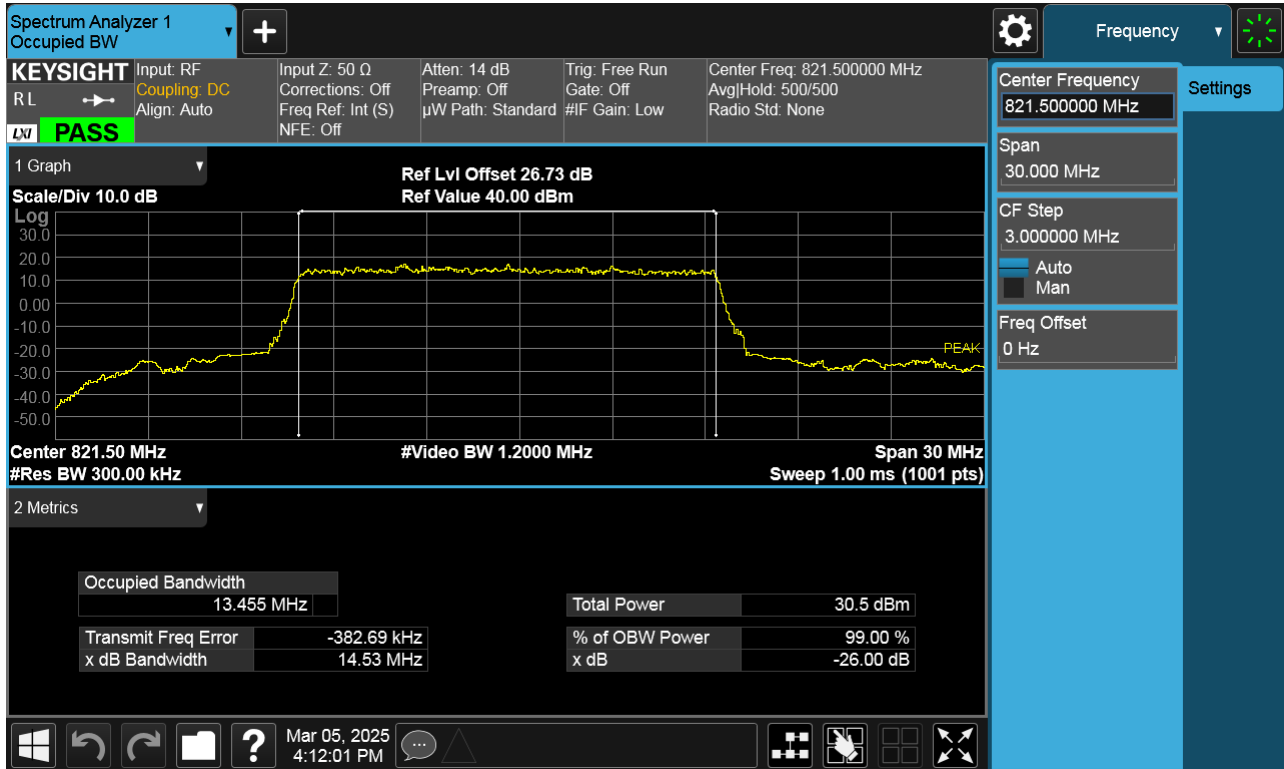
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 64QAM RB 50_0)



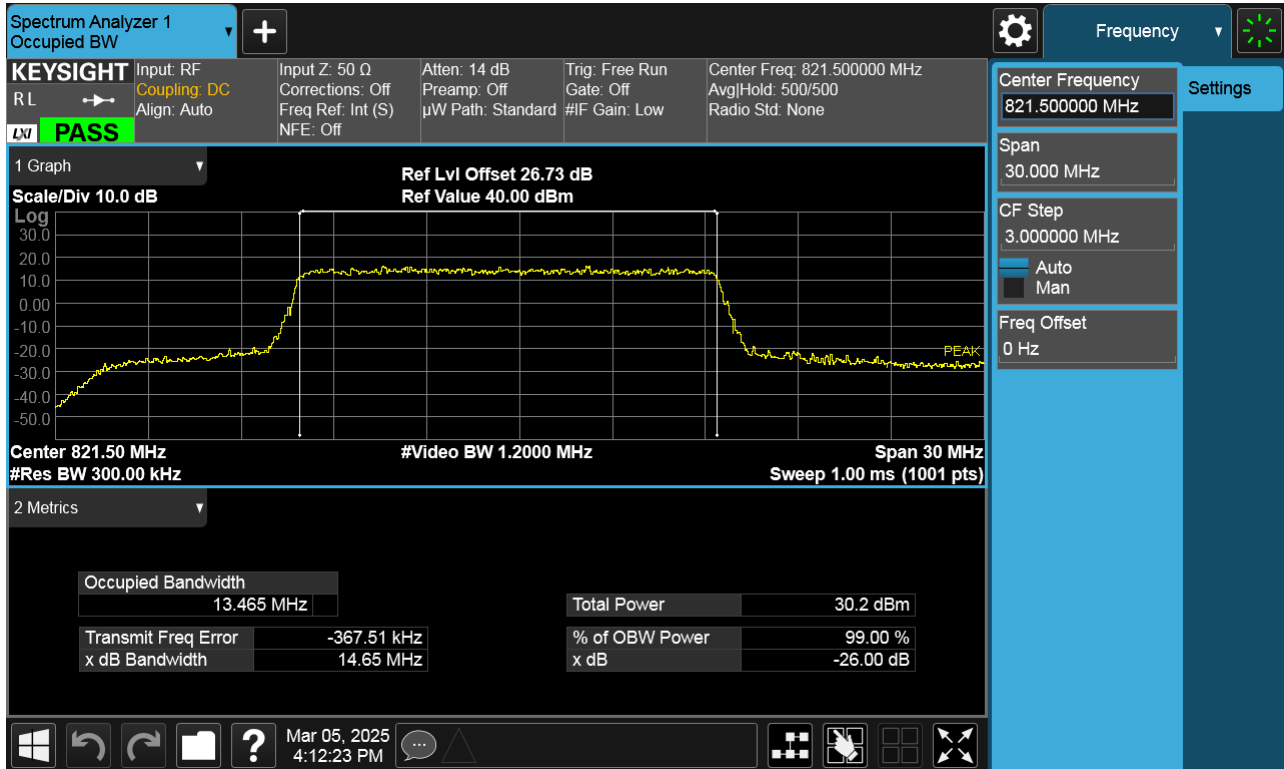
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 256QAM RB 50_0)



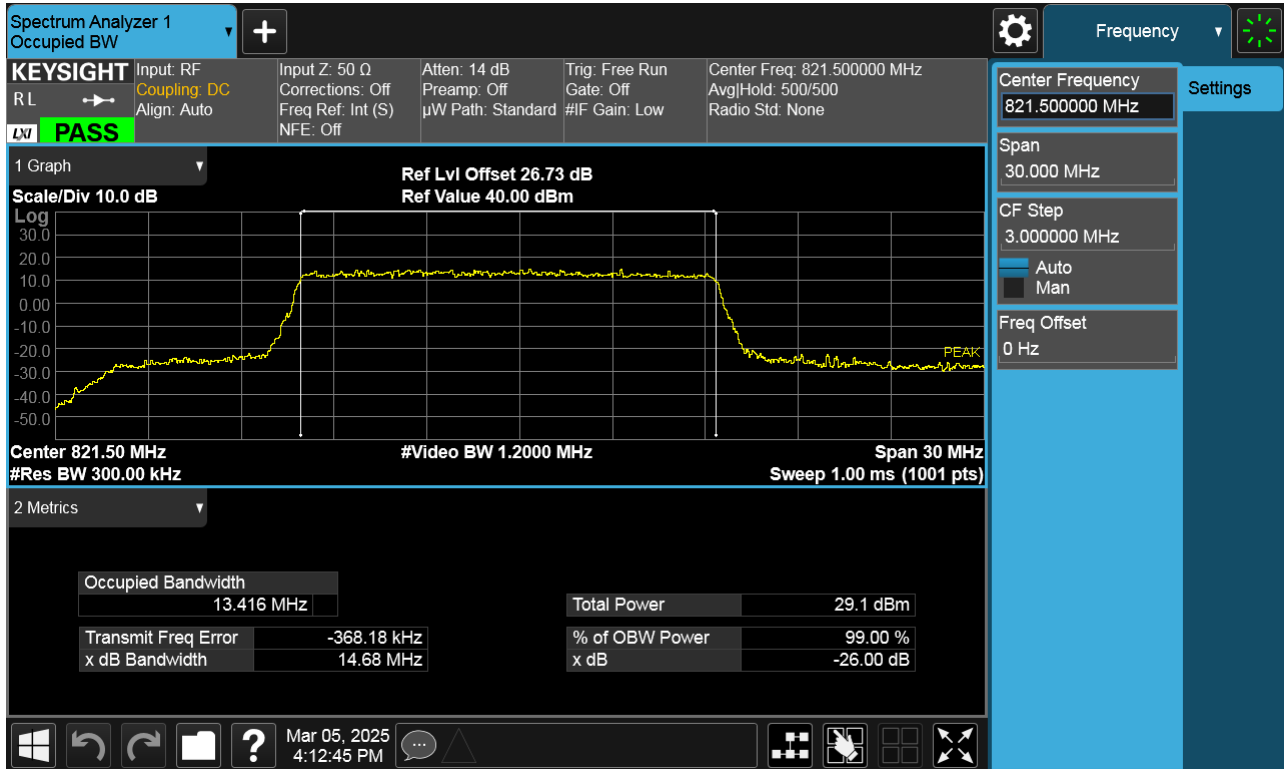
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 BPSK RB 75_0)



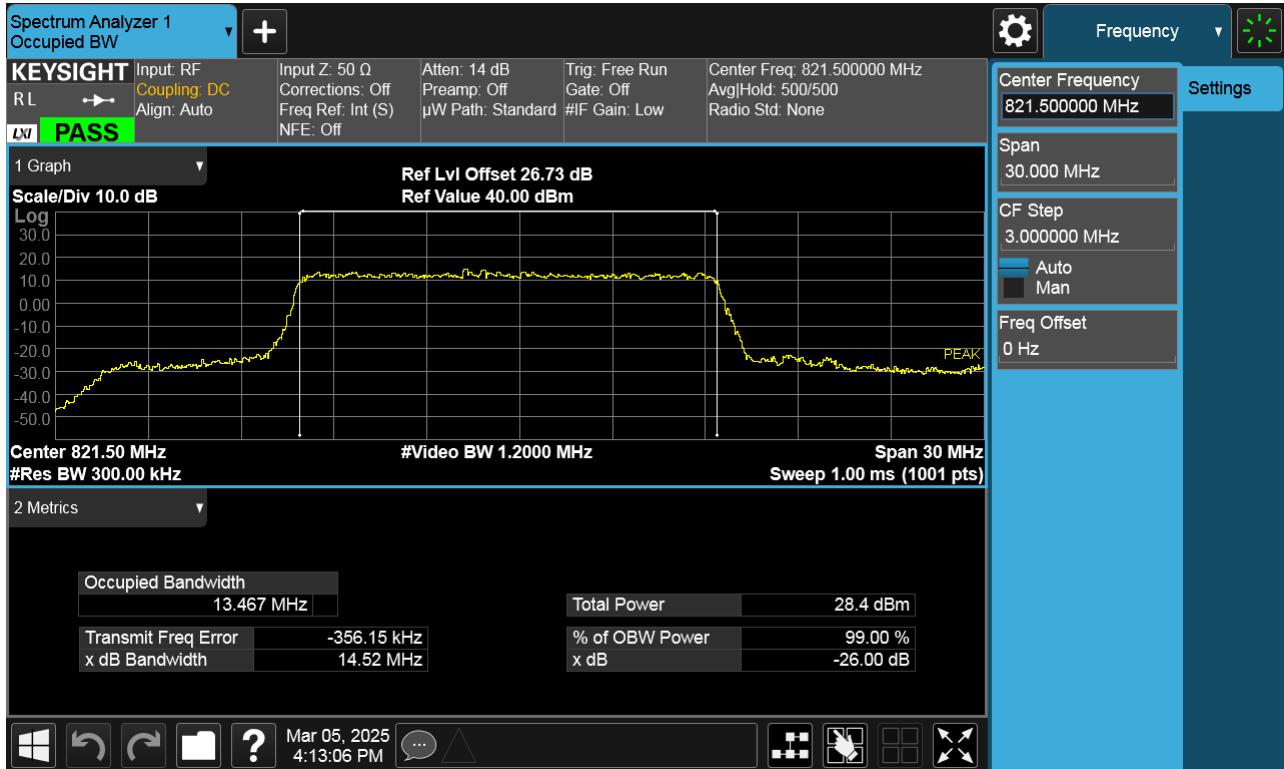
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 QPSK RB 75_0)



Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 16QAM RB 75_0)



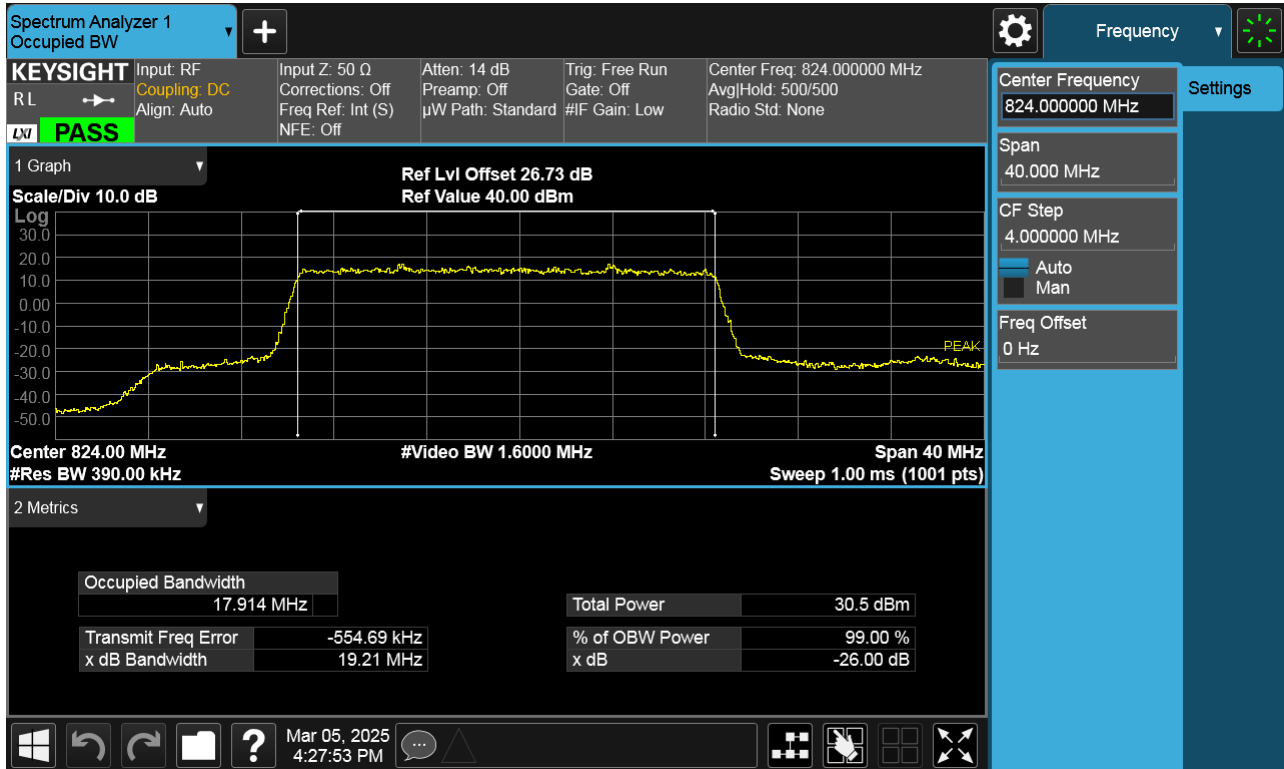
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 64QAM RB 75_0)



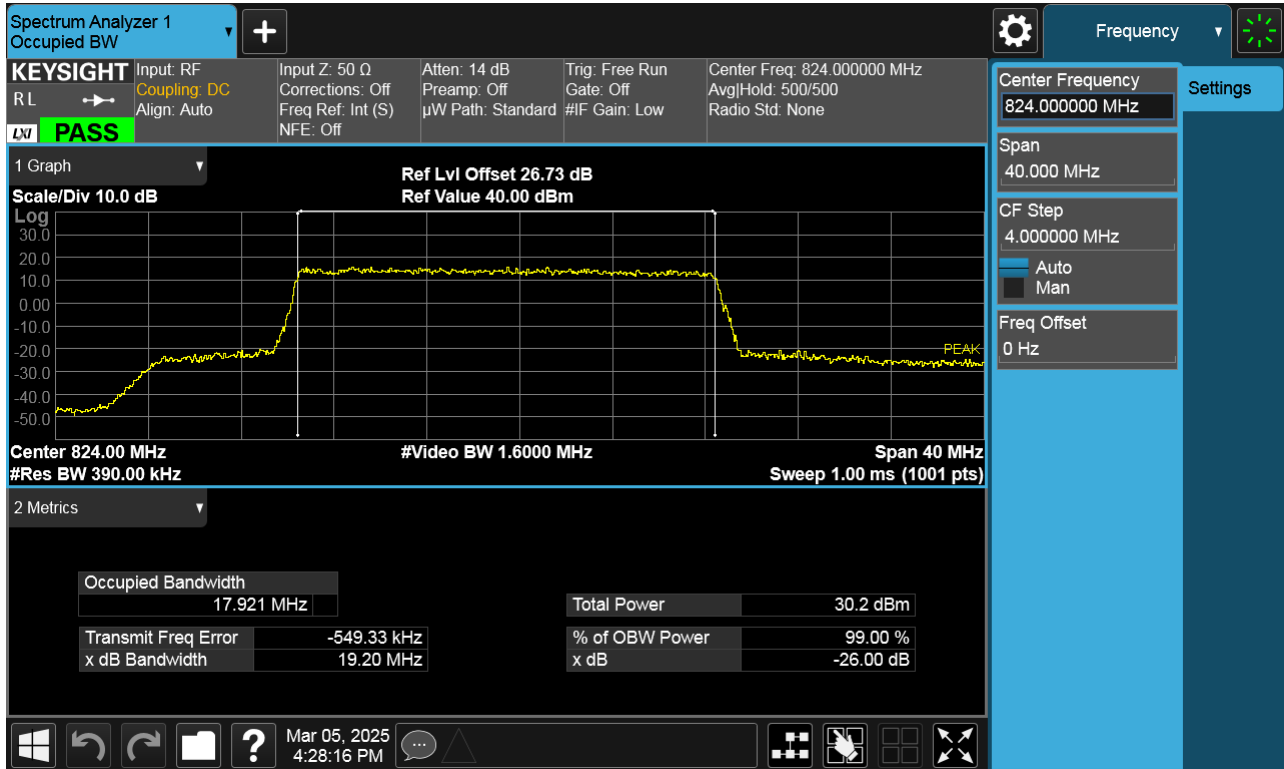
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 256QAM RB 100_0)



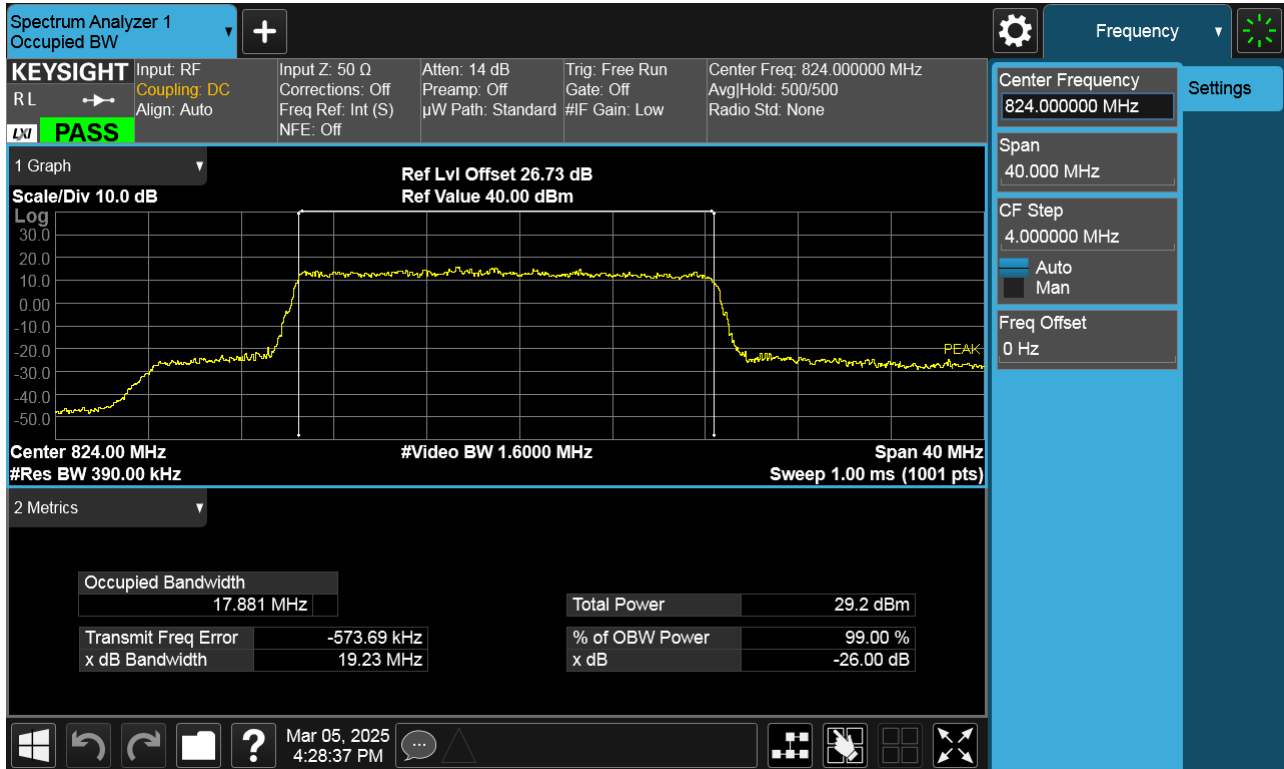
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 BPSK RB 100_0)



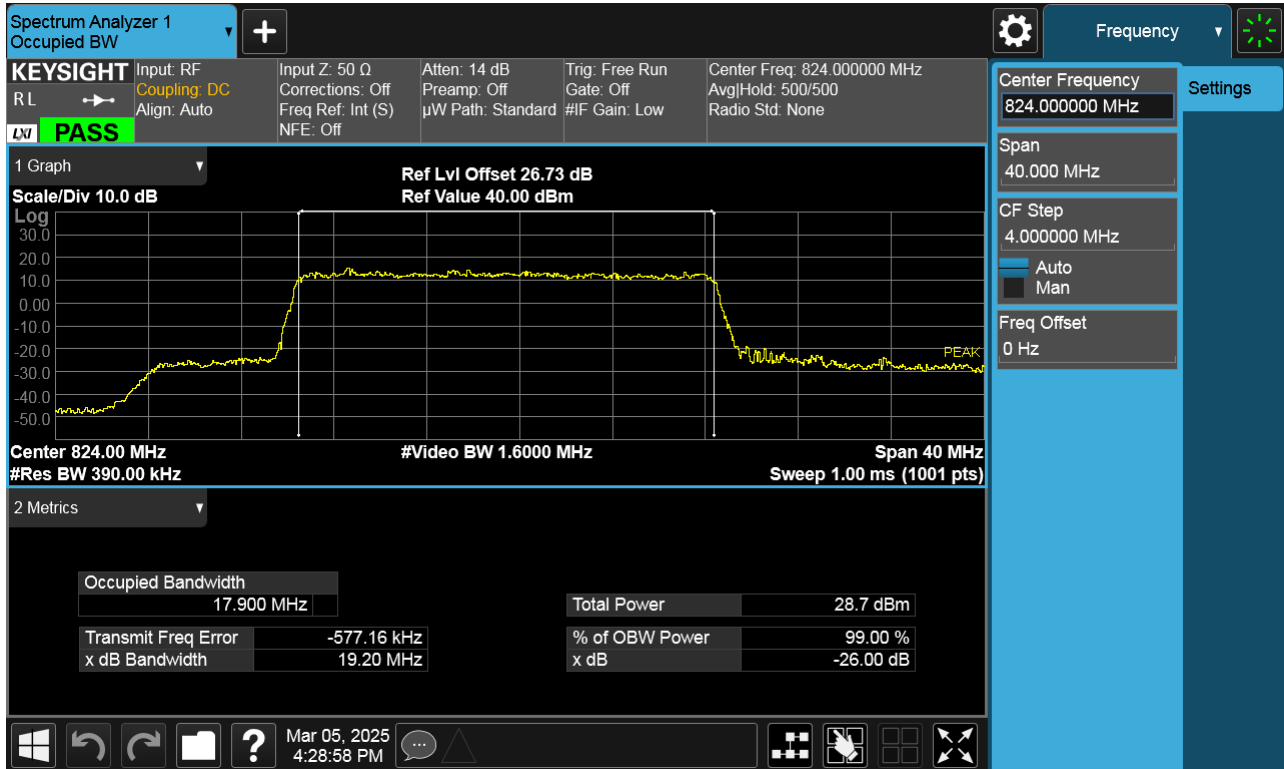
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 QPSK RB 100_0)



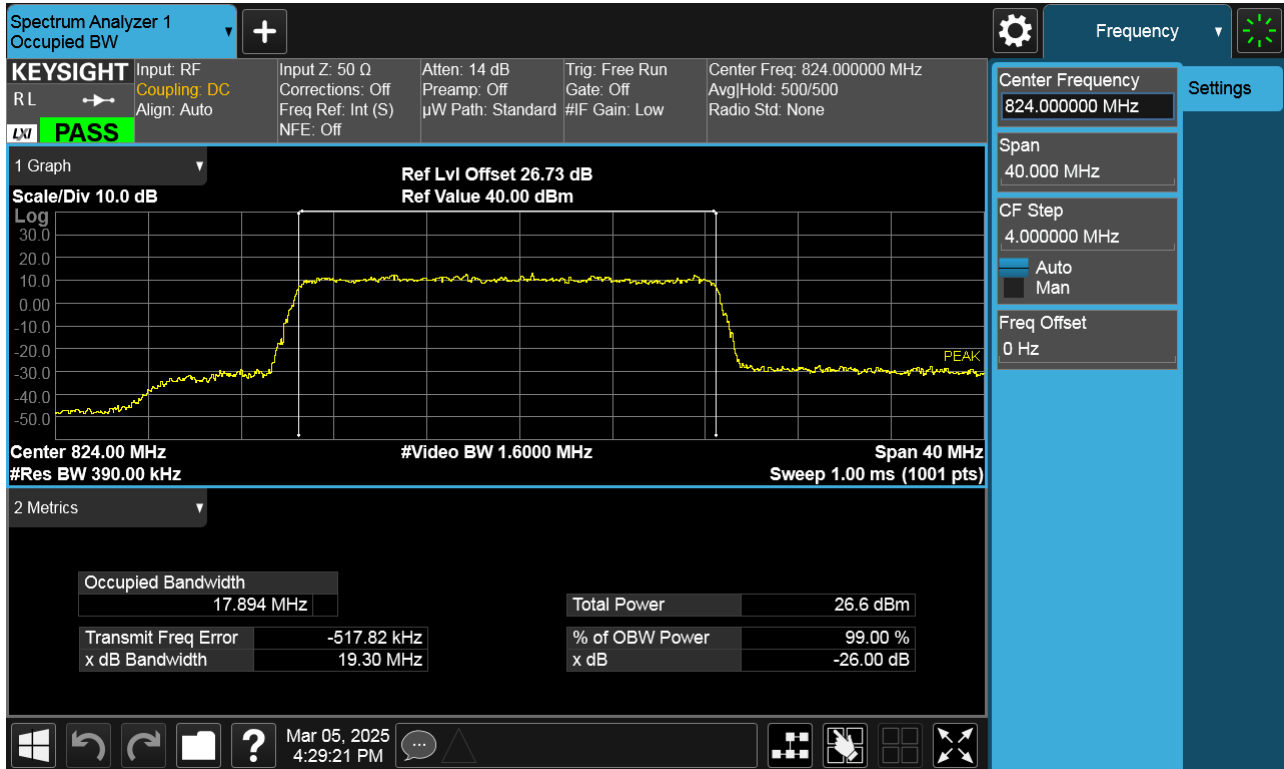
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 16QAM RB 100_0)



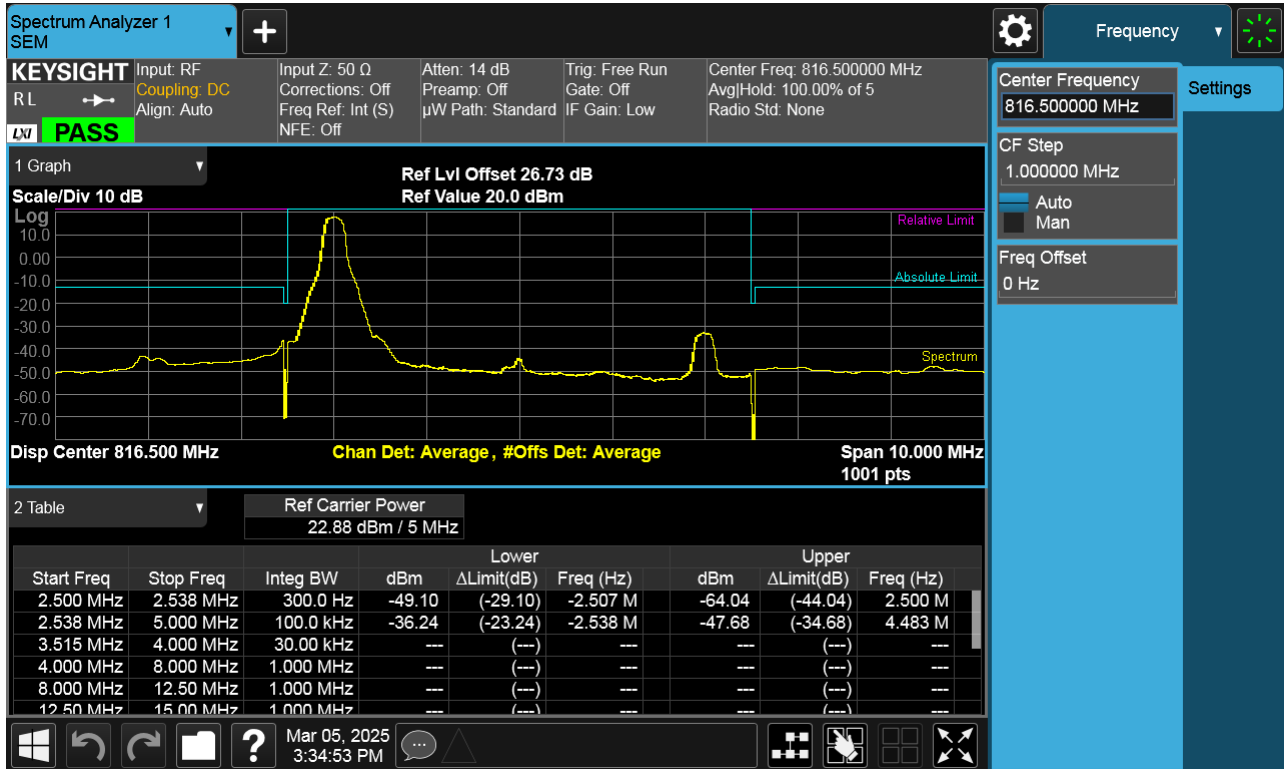
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 64QAM RB 100_0)



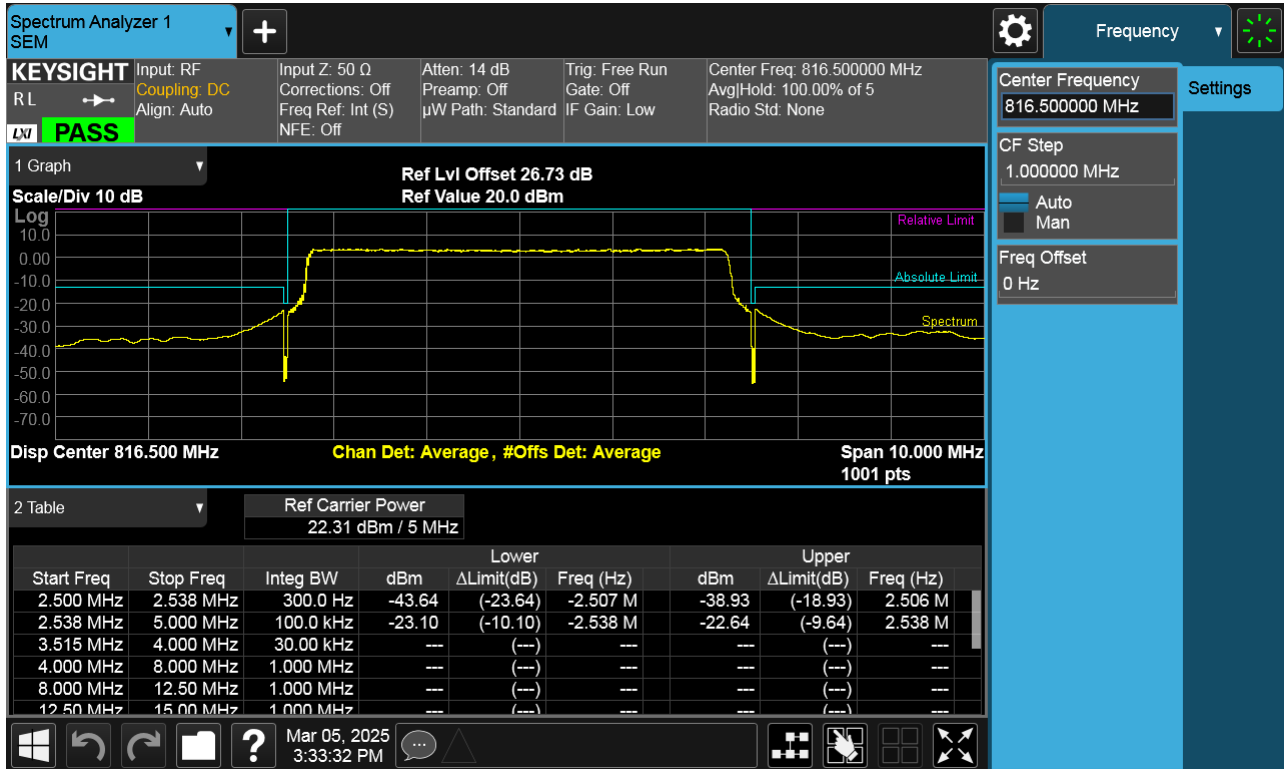
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 256QAM RB 100_0)



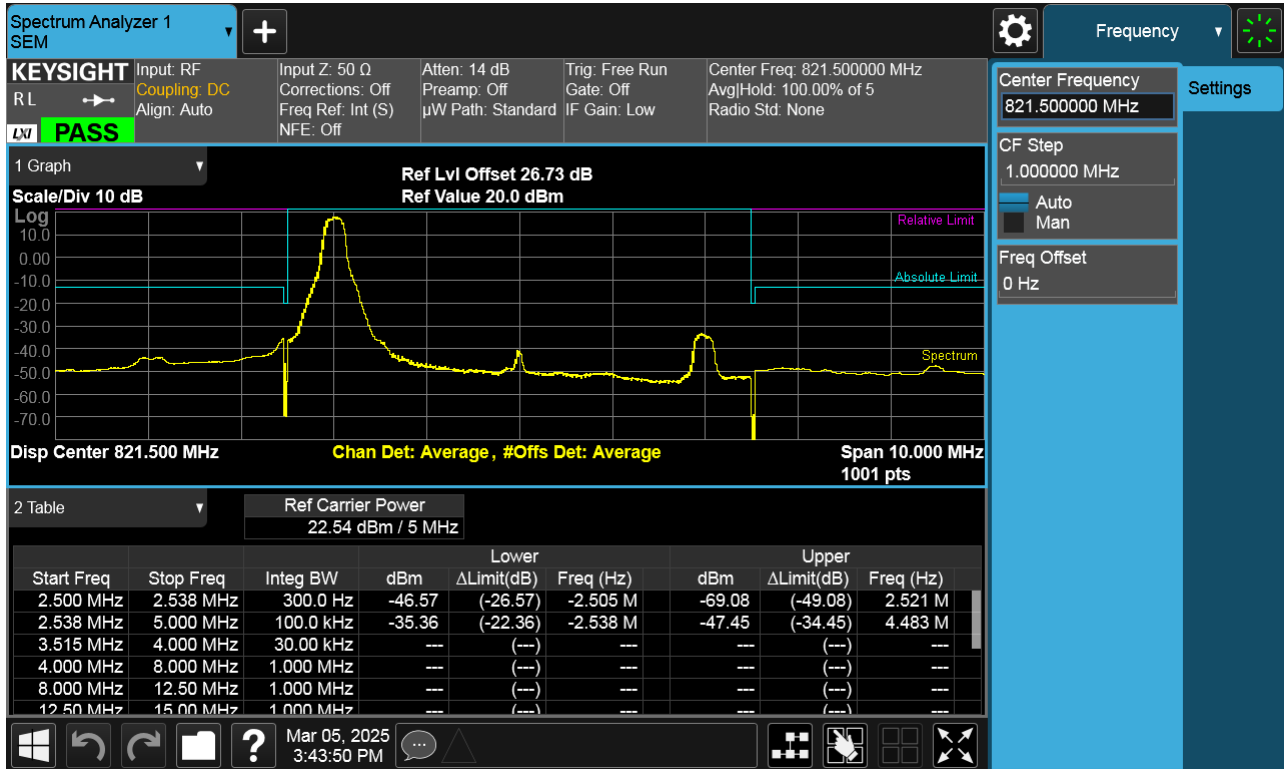
Sub6 n26. Lower Channel Edge Plot (5 M BW Ch.163300 BPSK RB 1, Offset 0)



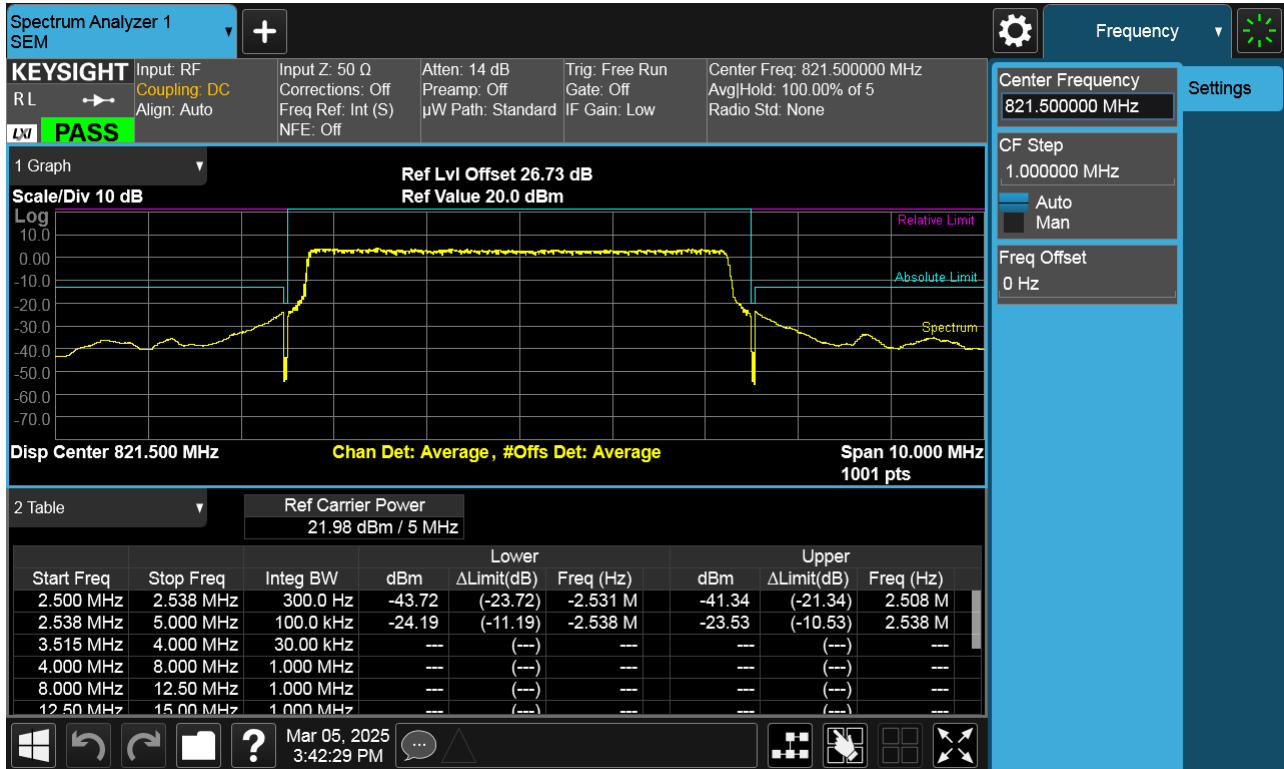
Sub6 n26. Lower Channel Edge Plot (5 M BW Ch.163300 BPSK_RB25_Offset 0)



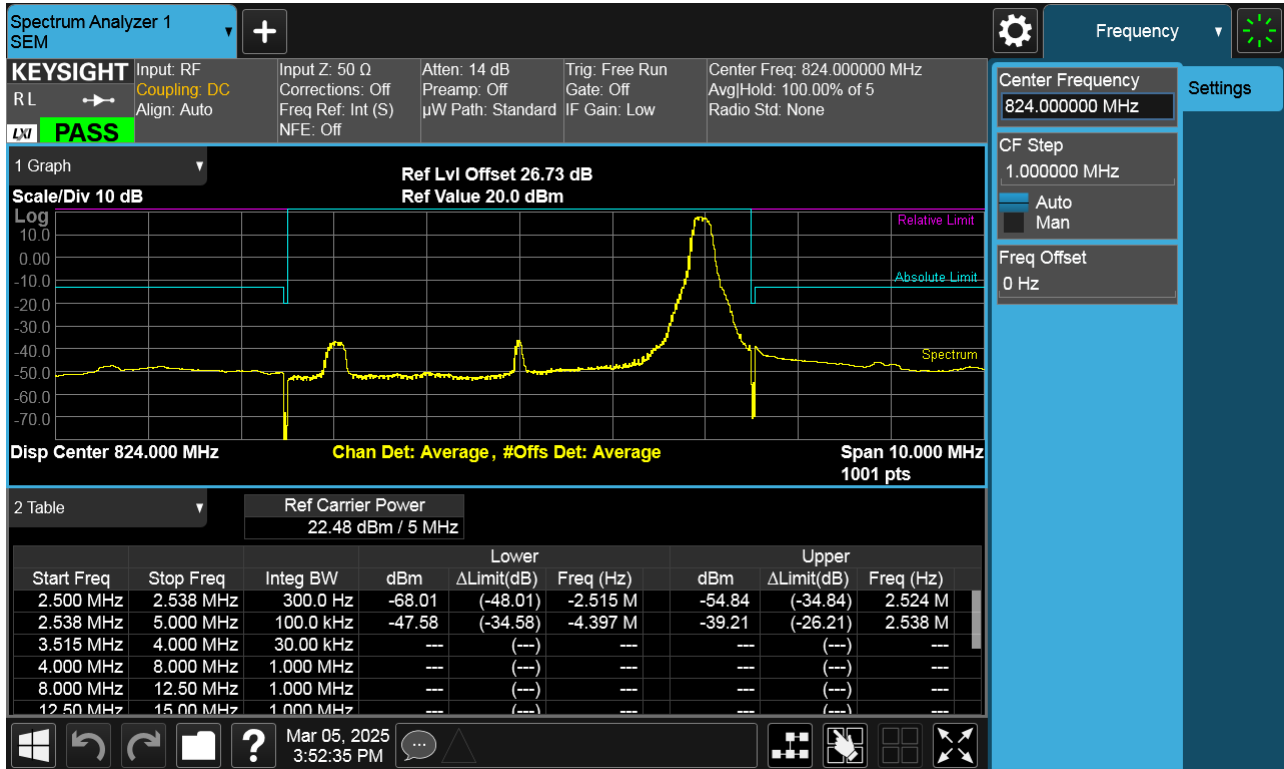
Sub6 n26. Mid Channel Edge Plot (5 M BW Ch.164300 BPSK_RB1_Offset 0)



Sub6 n26. Mid Channel Edge Plot (5 M BW Ch.164300 BPSK_ RB25_Offset 0)



Sub6 n26. Upper Channel Edge Plot (5 M BW Ch.164800 BPSK_RB1_Offset 24)



Sub6 n26. Upper Channel Edge Plot (5 M BW Ch.164800 BPSK_RB25_Offset 0)

