

TEST REPORT

FCC Sub6 Test for SM-S731U
Certification

APPLICANT

SAMSUNG Electronics Co., Ltd.

REPORT NO.

HCT-RF-2507-FC033

DATE OF ISSUE

July 14, 2025

Tested by
Jung Ki Lim



Technical Manager
Jong Seok Lee



HCT CO., LTD.
Bongjae Huh
BongJai Huh / CEO

**HCT CO.,LTD.**

2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Tel. +82 31 645 6300 Fax. +82 31 645 6401

TEST REPORT

REPORT NO.

HCT-RF-2507-FC033

DATE OF ISSUE

July 14, 2025

Additional Model

SM-S731U1

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-S731U

Date of Test

May 13, 2025 ~ July 10, 2025

FCC ID

A3LSMS731U

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	July 14, 2025	Initial Release

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).

CONTENTS

1. GENERAL INFORMATION	5
1.1. MAXIMUM OUTPUT POWER	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 CONDUCTED OUTPUT POWER.....	9
3.3 RADIATED POWER.....	10
3.4 RADIATED SPURIOUS EMISSIONS.....	11
3.5 OCCUPIED BANDWIDTH.....	12
3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL.....	13
3.7 CHANNEL EDGE	14
3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	16
3.9 WORST CASE(RADIATED TEST)	17
3.10 WORST CASE(CONDUCTED TEST).....	18
4. LIST OF TEST EQUIPMENT.....	19
5. MEASUREMENT UNCERTAINTY.....	20
6. SUMMARY OF TEST RESULTS	21
7. SAMPLE CALCULATION	22
8. TEST DATA(Main 1 ANT).....	24
8.1 CONDUCTED OUTPUT POWER.....	24
8.2 EFFECTIVE RADIATED POWER.....	28
8.3 RADIATED SPURIOUS EMISSIONS.....	32
8.4 OCCUPIED BANDWIDTH.....	34
8.5 CONDUCTED SPURIOUS EMISSIONS	35
8.6 CHANNEL EDGE (Part90)	35
8.7 BAND EDGE(Part22).....	35
8.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	36
9. TEST DATA(Sub 1 ANT)	40
9.1 CONDUCTED OUTPUT POWER.....	40
9.2 EFFECTIVE RADIATED POWER.....	44
9.3 RADIATED SPURIOUS EMISSIONS.....	48
9.4 OCCUPIED BANDWIDTH.....	49
9.5 CONDUCTED SPURIOUS EMISSIONS	50
9.6 CHANNEL EDGE (Part90)	50
9.7 BAND EDGE(Part22).....	50
9.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE	51
10. TEST PLOTS(Main 1 ANT).....	55
11. TEST PLOTS(Sub 1 ANT)	110
12. ANNEX A_ TEST SETUP PHOTO	165

MEASUREMENT REPORT

1. GENERAL INFORMATION

Model(s):	SM-S731U
Additional Model(s)	SM-S731U1
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))
Serial number:	Radiated : R3CY40DEGXL Conducted : R3CY40XC6MR
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	4M60G7D	PI/2 BPSK	0.294	24.69
		4M65G7D	QPSK	0.290	24.63
		4M65W7D	16QAM	0.233	23.68
		4M65W7D	64QAM	0.171	22.33
		4M57W7D	256QAM	0.113	20.51
Sub6 n26 (10)	819.0 – 824.0	9M01G7D	PI/2 BPSK	0.291	24.64
		9M02G7D	QPSK	0.290	24.62
		9M00W7D	16QAM	0.225	23.53
		9M02W7D	64QAM	0.159	22.02
		8M97W7D	256QAM	0.100	19.98
Sub6 n26 (15)	821.5 – 824.0	13M5G7D	PI/2 BPSK	0.324	25.10
		13M4G7D	QPSK	0.321	25.07
		13M4W7D	16QAM	0.248	23.95
		13M4W7D	64QAM	0.189	22.76
		13M4W7D	256QAM	0.112	20.49
Sub6 n26 (20)	824.0	17M9G7D	PI/2 BPSK	0.308	24.88
		17M9G7D	QPSK	0.299	24.76
		18M0W7D	16QAM	0.223	23.48
		18M0W7D	64QAM	0.151	21.79
		17M9W7D	256QAM	0.100	20.00

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	4M54G7D	PI/2 BPSK	0.279	24.46
		4M51G7D	QPSK	0.278	24.44
		4M50W7D	16QAM	0.221	23.45
		4M52W7D	64QAM	0.156	21.92
		4M54W7D	256QAM	0.098	19.92
Sub6 n26 (10)	819.0 – 824.0	9M00G7D	PI/2 BPSK	0.290	24.62
		9M02G7D	QPSK	0.288	24.59
		8M99W7D	16QAM	0.221	23.45
		8M99W7D	64QAM	0.148	21.69
		8M99W7D	256QAM	0.096	19.82
Sub6 n26 (15)	821.5 – 824.0	13M5G7D	PI/2 BPSK	0.276	24.41
		13M5G7D	QPSK	0.274	24.37
		13M5W7D	16QAM	0.217	23.37
		13M5W7D	64QAM	0.158	21.98
		13M5W7D	256QAM	0.097	19.87
Sub6 n26 (20)	824.0	17M9G7D	PI/2 BPSK	0.292	24.65
		18M0G7D	QPSK	0.285	24.55
		18M0W7D	16QAM	0.225	23.53
		18M0W7D	64QAM	0.154	21.88
		17M9W7D	256QAM	0.100	20.00

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

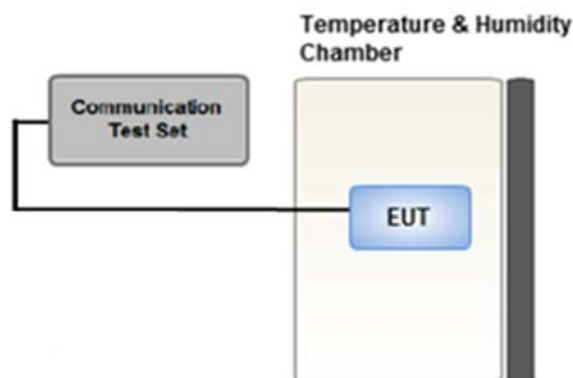
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base 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;

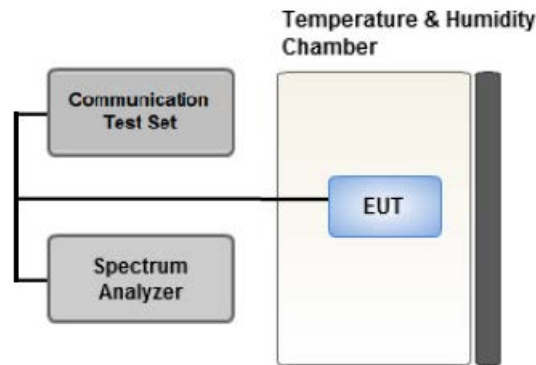
$$\text{Result}_{(\text{dBm})} = P_{\text{g}}_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

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.

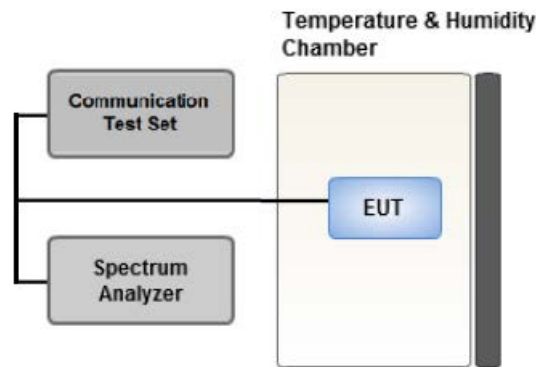
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

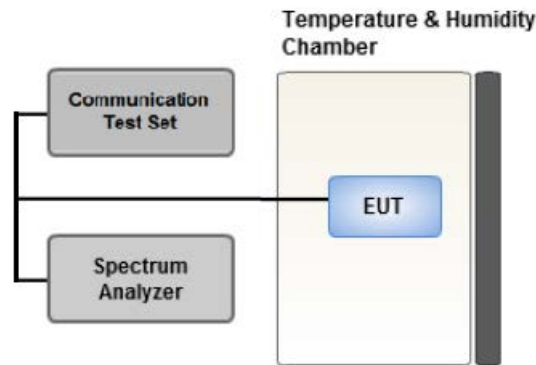
Test Overview

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

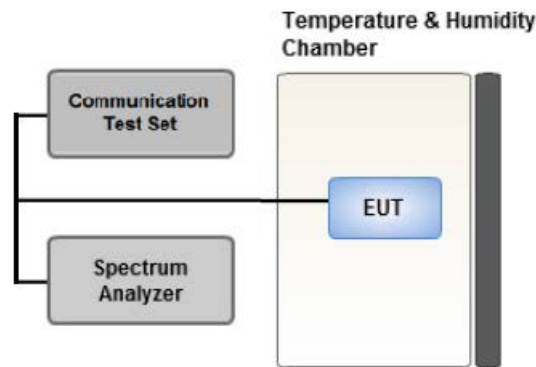
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW :
 - .- EA licensee's frequency block by up to and including 37.5 kHz : 300 Hz
 - .- EA licensee's frequency 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 > (Number of Points) (Symbol Period)
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.
- 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, 15 MHz (Main 1 ANT), 10 MHz(Sub 1 ANT))
- SM-S731U & additional models were tested and the worst case results are reported.
(Worst case : SM-S731U)

[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,Y

3.10 WORST CASE(CONDUCTED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
(Worst case: DFT-S-OFDM)
- Modulation : All Modulation of operation were investigated and the worst case configuration results are reported.
(Worst case: PI/2 BPSK)
- All modes of operation were investigated and the worst case configuration results are reported.
Mode: SA Only
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- SM-S731U & additional models were tested and the worst case results are reported.
(Worst case : SM-S731U)

[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	05/14/2026	Annual
Signal Analyzer(2 Hz ~ 50.0 GHz)	N9040B	KEYSIGHT	US55230216	12/09/2025	Annual
UXM 5G Wireless Test Platform	E7515B	KEYSIGHT	MY60101126	02/10/2026	Annual
Automation Software	FCC 2G/3G/4G Conducted	HCT CO., LTD	-	-	-
Automation Software	FCC NR Conducted	HCT CO., LTD	-	-	-
Automation Software	FCC LTE Radiated	HCT CO., LTD	-	-	-
Automation Software	FCC NR Radiated	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 + 10log10 (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 + 10log10 (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 + 10log10 (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	24.69	0.294	24.67	0.293	24.68	0.294	100
		1	13	24.52	0.283	24.36	0.273	24.62	0.290	100
		1	23	24.68	0.293	24.66	0.292	24.64	0.291	100
		12	0	24.10	0.257	24.08	0.256	24.11	0.258	100
		12	7	24.68	0.294	24.46	0.280	24.67	0.293	100
		12	13	24.10	0.257	24.00	0.251	24.00	0.251	100
		25	0	24.08	0.256	24.13	0.259	24.03	0.253	100
	QPSK	1	1	24.58	0.287	24.59	0.288	24.60	0.288	100
		1	13	24.46	0.279	24.52	0.283	24.63	0.290	100
		1	23	24.57	0.286	24.58	0.287	24.62	0.290	100
		12	0	23.59	0.229	23.50	0.224	23.57	0.227	100
		12	7	24.54	0.285	24.50	0.282	24.58	0.287	100
		12	13	23.54	0.226	23.63	0.230	23.56	0.227	100
		25	0	23.63	0.231	23.53	0.226	23.55	0.226	100
	16QAM	1	1	23.68	0.233	23.31	0.214	23.50	0.224	100
	64QAM	1	1	22.33	0.171	21.87	0.154	21.39	0.138	100
	256QAM	1	1	20.19	0.105	19.79	0.095	20.51	0.113	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	24.62	0.290	24.64	0.291	100
		1	26	24.52	0.283	24.59	0.288	100
		1	50	24.47	0.280	24.54	0.284	100
		25	0	24.10	0.257	24.12	0.258	100
		25	14	24.48	0.281	24.63	0.291	100
		25	27	23.96	0.249	24.13	0.259	100
		50	0	23.91	0.246	24.07	0.255	100
	QPSK	1	1	24.60	0.288	24.62	0.290	100
		1	26	24.59	0.287	24.51	0.282	100
		1	50	24.23	0.265	24.51	0.282	100
		25	0	23.49	0.224	23.64	0.231	100
		25	14	24.50	0.282	24.55	0.285	100
		25	27	23.47	0.222	23.56	0.227	100
		50	0	23.57	0.228	23.58	0.228	100
	16QAM	1	1	23.20	0.209	23.53	0.225	100
	64QAM	1	1	21.71	0.148	22.02	0.159	100
	256QAM	1	1	19.71	0.093	19.98	0.100	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	25.10	0.324	24.68	0.294	100
		1	40	24.86	0.307	24.50	0.282	100
		1	77	24.86	0.306	24.36	0.273	100
		36	0	24.25	0.266	24.04	0.254	100
		36	22	24.65	0.292	24.67	0.293	100
		36	43	24.12	0.258	24.11	0.258	100
		75	0	24.18	0.262	24.19	0.262	100
	QPSK	1	1	25.07	0.321	24.85	0.306	100
		1	40	25.00	0.316	24.84	0.305	100
		1	77	24.80	0.302	24.33	0.271	100
		36	0	23.69	0.234	23.63	0.231	100
		36	22	24.56	0.286	24.67	0.293	100
		36	43	23.63	0.231	23.59	0.229	100
		75	0	23.60	0.229	23.61	0.230	100
	16QAM	1	1	23.95	0.248	23.35	0.216	100
	64QAM	1	1	22.76	0.189	21.98	0.158	100
	256QAM	1	1	20.49	0.112	20.41	0.110	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)		Limit (W)
				824.0 MHz		
				dBm	W	
20	BPSK	1	1	24.88	0.308	100
		1	53	24.82	0.303	100
		1	104	24.56	0.286	100
		50	0	24.08	0.256	100
		50	28	24.61	0.289	100
		50	56	24.08	0.256	100
		100	0	24.13	0.259	100
	QPSK	1	1	24.76	0.299	100
		1	53	24.61	0.289	100
		1	104	24.48	0.280	100
		50	0	23.62	0.230	100
		50	28	24.67	0.293	100
		50	56	23.60	0.229	100
		100	0	23.67	0.233	100
	16QAM	1	1	23.48	0.223	100
	64QAM	1	1	21.79	0.151	100
	256QAM	1	1	20.00	0.100	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	-31.91	31.29	-10.05	1.44	H	< 7.00	0.095	19.80	1	23
		QPSK	-31.93	31.27	-10.05	1.44	H		0.095	19.78		
		16-QAM	-32.52	30.68	-10.05	1.44	H		0.083	19.19		
		64-QAM	-34.05	29.15	-10.05	1.44	H		0.058	17.66		
		256-QAM	-35.85	27.35	-10.05	1.44	H		0.039	15.86		
821.5		PI/2 BPSK	-31.30	31.80	-9.95	1.44	H		0.110	20.41	1	12
		QPSK	-31.35	31.75	-9.95	1.44	H		0.109	20.36		
		16-QAM	-32.24	30.86	-9.95	1.44	H		0.088	19.47		
		64-QAM	-33.89	29.21	-9.95	1.44	H		0.061	17.82		
		256-QAM	-35.78	11.39	-9.95	1.44	H		0.039	15.93		
824.0		PI/2 BPSK	-31.16	31.84	-9.95	1.44	H		0.111	20.45	1	12
		QPSK	-31.25	31.75	-9.95	1.44	H		0.109	20.36		
	16-QAM	-32.24	30.76	-9.95	1.44	H	0.086	19.37				
	64-QAM	-33.77	29.23	-9.95	1.44	H	0.061	17.84				
	256-QAM	-35.72	27.28	-9.95	1.44	H	0.039	15.89				

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	-31.36	31.80	-10.05	1.44	H	< 7.00	0.107	20.31	1	50
		QPSK	-31.44	31.72	-10.05	1.44	H		0.105	20.23		
		16-QAM	-32.41	30.75	-10.05	1.44	H		0.084	19.26		
		64-QAM	-33.83	29.33	-10.05	1.44	H		0.061	17.84		
		256-QAM	-35.97	27.19	-10.05	1.44	H		0.037	15.70		
824.0		PI/2 BPSK	-31.10	31.90	-9.95	1.44	H		0.112	20.51	1	26
		QPSK	-31.23	31.77	-9.95	1.44	H		0.109	20.38		
		16-QAM	-32.33	30.67	-9.95	1.44	H		0.085	19.28		
		64-QAM	-33.68	29.32	-9.95	1.44	H		0.062	17.93		
		256-QAM	-35.76	27.24	-9.95	1.44	H		0.038	15.85		

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]	PI/2 BPSK	-31.19	31.91	-9.95	1.44	H	< 7.00	0.113	20.52	1	77
		QPSK	-31.21	31.89	-9.95	1.44	H		0.112	20.50		
		16-QAM	-32.12	30.98	-9.95	1.44	H		0.091	19.59		
		64-QAM	-33.70	29.40	-9.95	1.44	H		0.063	18.01		
		256-QAM	-35.64	27.46	-9.95	1.44	H		0.040	16.07		
824.0		PI/2 BPSK	-31.11	31.89	-9.95	1.44	H		0.112	20.50	1	77
		QPSK	-31.18	31.82	-9.95	1.44	H		0.110	20.43		
		16-QAM	-32.08	30.92	-9.95	1.44	H		0.090	19.53		
		64-QAM	-33.61	29.39	-9.95	1.44	H		0.063	18.00		
		256-QAM	-35.55	27.45	-9.95	1.44	H		0.040	16.06		

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	-31.20	31.80	-9.95	1.44	H	< 7.00	0.110	20.41	1	53
		QPSK	-31.21	31.79	-9.95	1.44	H		0.110	20.40		
		16-QAM	-32.13	30.87	-9.95	1.44	H		0.089	19.48		
		64-QAM	-33.75	29.25	-9.95	1.44	H		0.061	17.86		
		256-QAM	-35.71	27.29	-9.95	1.44	H		0.039	15.90		

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	-50.03	9.28	-64.64	1.98	V	-57.34	-13.00	1	23
	2 449.50	-42.12	10.41	-53.27	2.53	H	-45.39	-13.00		
	3 266.00	-55.34	10.84	-63.55	2.95	V	-55.66	-13.00		
164300 (821.5)	1 643.00	-50.12	9.39	-64.96	2.00	V	-57.57	-13.00	1	12
	2 464.50	-41.61	10.37	-52.77	2.59	H	-44.99	-13.00		
	3 286.00	-54.72	10.98	-62.83	2.95	V	-54.80	-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	-49.20	9.39	-64.04	2.00	V	-56.65	-13.00	1	77
	2 464.50	-44.82	10.37	-55.98	2.59	V	-48.20	-13.00		
	3 286.00	-54.47	10.98	-62.58	2.95	H	-54.55	-13.00		
164800 (824.0)	1 648.00	-49.67	9.44	-64.61	2.02	V	-57.19	-13.00	1	77
	2 472.00	-45.39	10.35	-56.59	2.59	H	-48.83	-13.00		
	3 296.00	-54.36	11.06	-62.52	2.95	H	-54.41	-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	4.5967
			QPSK			4.6447
			16QAM			4.6468
			64QAM			4.6543
			256QAM			4.5725
	10 MHz	819.0	BPSK	50		9.0125
			QPSK			9.0233
			16QAM			9.0003
			64QAM			9.0209
			256QAM			8.9688
	15 MHz	## 821.5	BPSK	75		13.486
			QPSK			13.427
			16QAM			13.424
			64QAM			13.435
			256QAM			13.408
	20 MHz	## 824.0	BPSK	100		17.920
			QPSK			17.939
			16QAM			17.956
			64QAM			17.977
			256QAM			17.895

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 56 ~ 75.
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	4.0080	29.722	-63.331	-33.609	-13.00
		821.5	9.6909	30.315	-62.969	-32.654	
		## 824.0	8.8535	30.315	-63.274	-32.959	
	10	819.0	9.4018	30.315	-62.188	-31.873	
		## 824.0	3.7787	29.722	-62.790	-33.068	
	15	## 821.5	8.8734	30.315	-63.267	-32.952	
		## 824.0	8.2852	30.315	-62.528	-32.213	
	20	## 824.0	3.7388	29.722	-63.557	-33.835	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 76 ~ 83.
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

8.6 CHANNEL EDGE (Part90)

- Test Channel : 164800(824.0MHz)
- Plots of the EUT's Band Edge are shown Page 84 ~ 99.

8.7 BAND EDGE(Part22)

- Test Channel : 164800(824.0 MHz)
- Plots of the EUT's Band Edge are shown Page 100 ~ 109.

8.8 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	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
821.5	100 %	+20(Ref)	821 500 000	0.0	0.000 000	0.000
	100 %	-30	821 500 000	-0.1	0.000 000	0.000
	100 %	-20	821 500 001	1.1	0.000 000	0.001
	100 %	-10	821 500 001	0.2	0.000 000	0.000
	100 %	0	821 500 001	1.1	0.000 000	0.001
	100 %	+10	821 500 001	0.6	0.000 000	0.001
	100 %	+30	821 500 001	1.0	0.000 000	0.001
	100 %	+40	821 500 001	0.2	0.000 000	0.000
	100 %	+50	821 500 001	0.4	0.000 000	0.000
	Batt. Endpoint	+20	821 500 001	1.1	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	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	-0.1	0.000 000	0.000
	100 %	-20	819 000 000	-0.2	0.000 000	0.000
	100 %	-10	819 000 000	0.1	0.000 000	0.000
	100 %	0	819 000 000	0.4	0.000 000	0.000
	100 %	+10	819 000 000	0.3	0.000 000	0.000
	100 %	+30	819 000 000	0.1	0.000 000	0.000
	100 %	+40	819 000 000	0.0	0.000 000	0.000
	100 %	+50	819 000 000	0.2	0.000 000	0.000
	Batt. Endpoint	+20	818 999 999	-0.5	0.000 000	-0.001

▣ BandWidth:	<u>15 MHz</u>
▣ Voltage(100 %):	<u>3.880 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	821 499 999	-0.7	0.000 000	-0.001
	100 %	-20	821 499 999	-0.3	0.000 000	0.000
	100 %	-10	821 500 000	0.5	0.000 000	0.001
	100 %	0	821 500 000	0.9	0.000 000	0.001
	100 %	+10	821 499 999	0.1	0.000 000	0.000
	100 %	+30	821 499 999	-0.1	0.000 000	0.000
	100 %	+40	821 500 000	0.6	0.000 000	0.001
	100 %	+50	821 499 999	0.0	0.000 000	0.000
	Batt. Endpoint	+20	821 500 000	0.5	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>3.880 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	823 999 999	-0.8	0.000 000	-0.001
	100 %	-20	824 000 000	-0.1	0.000 000	0.000
	100 %	-10	823 999 999	-0.8	0.000 000	-0.001
	100 %	0	823 999 999	-0.6	0.000 000	-0.001
	100 %	+10	824 000 000	-0.4	0.000 000	0.000
	100 %	+30	824 000 000	-0.2	0.000 000	0.000
	100 %	+40	823 999 999	-0.6	0.000 000	-0.001
	100 %	+50	824 000 000	-0.1	0.000 000	0.000
	Batt. Endpoint	+20	824 000 000	0.0	0.000 000	0.000

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	24.46	0.279	24.39	0.275	24.41	0.276	100
		1	13	24.28	0.268	24.19	0.262	24.10	0.257	100
		1	23	24.18	0.262	24.21	0.264	24.24	0.266	100
		12	0	23.89	0.245	23.79	0.239	23.81	0.241	100
		12	7	24.43	0.277	24.35	0.272	24.29	0.269	100
		12	13	23.83	0.242	23.70	0.234	23.78	0.239	100
		25	0	23.88	0.244	23.79	0.239	23.74	0.236	100
	QPSK	1	1	24.44	0.278	24.36	0.273	24.30	0.269	100
		1	13	24.21	0.264	24.08	0.256	24.24	0.266	100
		1	23	24.30	0.269	24.11	0.258	24.28	0.268	100
		12	0	23.33	0.215	23.24	0.211	23.22	0.210	100
		12	7	24.34	0.272	24.35	0.272	24.29	0.268	100
		12	13	23.33	0.215	23.25	0.211	23.29	0.214	100
		25	0	23.37	0.217	23.20	0.209	23.17	0.207	100
	16QAM	1	1	23.45	0.221	23.35	0.216	23.21	0.209	100
	64QAM	1	1	21.78	0.151	21.73	0.149	21.92	0.156	100
	256QAM	1	1	19.76	0.095	19.44	0.088	19.92	0.098	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	24.62	0.290	24.29	0.268	100
		1	26	24.45	0.279	24.28	0.268	100
		1	50	24.30	0.269	24.11	0.258	100
		25	0	23.93	0.247	23.76	0.238	100
		25	14	24.31	0.270	24.24	0.265	100
		25	27	23.85	0.243	23.67	0.233	100
		50	0	23.82	0.241	23.77	0.238	100
	QPSK	1	1	24.59	0.288	24.25	0.266	100
		1	26	24.53	0.284	24.16	0.260	100
		1	50	24.48	0.280	24.12	0.258	100
		25	0	23.35	0.216	23.28	0.213	100
		25	14	24.36	0.273	24.24	0.266	100
		25	27	23.28	0.213	23.17	0.207	100
		50	0	23.27	0.212	23.19	0.208	100
	16QAM	1	1	23.45	0.221	22.40	0.174	100
	64QAM	1	1	21.69	0.148	21.52	0.142	100
	256QAM	1	1	19.82	0.096	19.80	0.095	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	24.41	0.276	24.32	0.270	100
		1	40	24.05	0.254	23.95	0.248	100
		1	77	24.01	0.252	24.02	0.252	100
		36	0	23.84	0.242	23.79	0.239	100
		36	22	24.23	0.265	24.24	0.266	100
		36	43	23.76	0.238	23.77	0.238	100
		75	0	23.82	0.241	23.79	0.239	100
	QPSK	1	1	24.37	0.274	24.25	0.266	100
		1	40	23.89	0.245	23.79	0.239	100
		1	77	23.98	0.250	24.04	0.253	100
		36	0	23.35	0.216	23.24	0.211	100
		36	22	24.32	0.270	24.29	0.268	100
		36	43	23.18	0.208	23.35	0.216	100
		75	0	23.34	0.216	23.28	0.213	100
	16QAM	1	1	23.34	0.216	23.37	0.217	100
	64QAM	1	1	21.82	0.152	21.98	0.158	100
	256QAM	1	1	19.57	0.090	19.87	0.097	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)		Limit (W)
				824.0 MHz		
				dBm	W	
20	BPSK	1	1	24.65	0.292	100
		1	53	24.27	0.267	100
		1	104	24.29	0.268	100
		50	0	23.90	0.245	100
		50	28	24.24	0.265	100
		50	56	23.72	0.235	100
		100	0	23.74	0.237	100
	QPSK	1	1	24.55	0.285	100
		1	53	24.32	0.271	100
		1	104	24.16	0.261	100
		50	0	23.42	0.220	100
		50	28	24.27	0.267	100
		50	56	23.21	0.209	100
		100	0	23.26	0.212	100
	16QAM	1	1	23.53	0.225	100
	64QAM	1	1	21.88	0.154	100
	256QAM	1	1	20.00	0.100	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	-32.33	30.87	-10.05	1.44	H	< 7.00	0.087	19.38	1	23
		QPSK	-32.34	30.86	-10.05	1.44	H		0.086	19.37		
		16-QAM	-32.69	30.51	-10.05	1.44	H		0.080	19.02		
		64-QAM	-34.17	29.03	-10.05	1.44	H		0.057	17.54		
		256-QAM	-36.17	27.03	-10.05	1.44	H		0.036	15.54		
821.5		PI/2 BPSK	-31.73	31.37	-9.95	1.44	H		0.100	19.98	1	23
		QPSK	-31.74	31.36	-9.95	1.44	H		0.099	19.97		
		16-QAM	-32.48	30.62	-9.95	1.44	H		0.084	19.23		
		64-QAM	-34.01	29.09	-9.95	1.44	H		0.059	17.70		
		256-QAM	-35.97	11.39	-9.95	1.44	H		0.037	15.74		
824.0		PI/2 BPSK	-31.49	31.51	-9.95	1.44	H		0.103	20.12	1	23
		QPSK	-31.50	31.50	-9.95	1.44	H		0.103	20.11		
		16-QAM	-32.29	30.71	-9.95	1.44	H		0.086	19.32		
		64-QAM	-33.86	29.14	-9.95	1.44	H		0.060	17.75		
		256-QAM	-36.32	26.68	-9.95	1.44	H		0.034	15.29		

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	-31.64	31.52	-10.05	1.44	H	< 7.00	0.101	20.03	1	50
		QPSK	-31.66	31.50	-10.05	1.44	H		0.100	20.01		
		16-QAM	-32.49	30.67	-10.05	1.44	H		0.083	19.18		
		64-QAM	-33.97	29.19	-10.05	1.44	H		0.059	17.70		
		256-QAM	-35.96	27.20	-10.05	1.44	H		0.037	15.71		
824.0		PI/2 BPSK	-31.35	31.65	-9.95	1.44	H		0.106	20.26	1	50
		QPSK	-31.38	31.62	-9.95	1.44	H		0.105	20.23		
		16-QAM	-32.37	30.63	-9.95	1.44	H		0.084	19.24		
		64-QAM	-33.99	29.01	-9.95	1.44	H		0.058	17.62		
		256-QAM	-35.69	27.31	-9.95	1.44	H		0.039	15.92		

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]	PI/2 BPSK	-31.48	31.62	-9.95	1.44	H	< 7.00	0.105	20.23	1	77
		QPSK	-31.52	31.58	-9.95	1.44	H		0.104	20.19		
		16-QAM	-32.33	30.77	-9.95	1.44	H		0.087	19.38		
		64-QAM	-33.99	29.11	-9.95	1.44	H		0.059	17.72		
		256-QAM	-35.82	27.28	-9.95	1.44	H		0.039	15.89		
824.0		PI/2 BPSK	-31.43	31.57	-9.95	1.44	H		0.104	20.18	1	77
		QPSK	-31.46	31.54	-9.95	1.44	H		0.103	20.15		
		16-QAM	-32.40	30.60	-9.95	1.44	H		0.083	19.21		
		64-QAM	-33.89	29.11	-9.95	1.44	H		0.059	17.72		
		256-QAM	-35.75	27.25	-9.95	1.44	H		0.039	15.86		

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	-31.50	31.50	-9.95	1.44	H	< 7.00	0.102	20.11	1	104
		QPSK	-31.54	31.46	-9.95	1.44	H		0.102	20.07		
		16-QAM	-32.52	30.48	-9.95	1.44	H		0.081	19.09		
		64-QAM	-34.01	28.99	-9.95	1.44	H		0.058	17.60		
		256-QAM	-35.81	27.19	-9.95	1.44	H		0.038	15.80		

9.3 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N26</u>
Bandwidth:	<u>10 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
163800 (819.0)	1 638.00	-49.94	9.34	-64.68	1.98	H	-57.32	-13.00	1	50
	2 457.00	-33.17	10.40	-44.31	2.56	H	-36.47	-13.00		
	3 276.00	-54.68	10.91	-62.85	2.95	V	-54.89	-13.00		
164800 (824.0)	1 648.00	-47.43	9.44	-62.37	2.02	H	-54.95	-13.00	1	50
	2 472.00	-38.08	10.35	-49.28	2.59	H	-41.52	-13.00		
	3 296.00	-54.32	11.06	-62.48	2.95	H	-54.37	-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	4.5438
			QPSK			4.5138
			16QAM			4.5009
			64QAM			4.5227
			256QAM			4.5378
	10 MHz	819.0	BPSK	50		9.0041
			QPSK			9.0193
			16QAM			8.9852
			64QAM			8.9891
			256QAM			8.9857
	15 MHz	## 821.5	BPSK	75		13.491
			QPSK			13.462
			16QAM			13.489
			64QAM			13.480
			256QAM			13.451
	20 MHz	## 824.0	BPSK	100		17.934
			QPSK			17.972
			16QAM			17.946
			64QAM			17.969
			256QAM			17.910

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 111 ~ 130.
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	3.7688	29.722	-63.233	-33.511	-13.00
		821.5	4.8854	29.722	-63.852	-34.130	
		## 824.0	3.7388	29.722	-63.148	-33.426	
	10	819.0	9.3819	30.315	-63.367	-33.052	
		## 824.0	3.7289	29.722	-63.211	-33.489	
	15	## 821.5	3.7588	29.722	-63.986	-34.264	
		## 824.0	9.8903	30.315	-63.447	-33.132	
	20	## 824.0	4.0579	29.722	-63.667	-33.945	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 131 ~ 138.
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 139 ~ 154.

9.7 BAND EDGE(Part22)

- Test Channel : 164800(824.0 MHz)
- Plots of the EUT's Band Edge are shown Page 155 ~ 164.

9.8 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	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
821.5	100 %	+20(Ref)	821 499 995	0.0	0.000 000	0.000
	100 %	-30	821 499 993	-1.7	0.000 000	-0.002
	100 %	-20	821 499 991	-3.9	0.000 000	-0.005
	100 %	-10	821 499 993	-1.9	0.000 000	-0.002
	100 %	0	821 499 993	-1.4	0.000 000	-0.002
	100 %	+10	821 499 992	-2.3	0.000 000	-0.003
	100 %	+30	821 499 994	-1.0	0.000 000	-0.001
	100 %	+40	821 499 992	-2.4	0.000 000	-0.003
	100 %	+50	821 499 995	-0.2	0.000 000	0.000
	Batt. Endpoint	+20	821 499 992	-2.8	0.000 000	-0.003

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 3.880 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)	818 999 999	0.0	0.000 000	0.000
	100 %	-30	819 000 000	1.6	0.000 000	0.002
	100 %	-20	818 999 997	-1.6	0.000 000	-0.002
	100 %	-10	818 999 998	-1.2	0.000 000	-0.001
	100 %	0	818 999 998	-0.7	0.000 000	-0.001
	100 %	+10	818 999 997	-2.1	0.000 000	-0.003
	100 %	+30	818 999 997	-1.8	0.000 000	-0.002
	100 %	+40	818 999 997	-1.5	0.000 000	-0.002
	100 %	+50	818 999 997	-1.8	0.000 000	-0.002
	Batt. Endpoint	+20	818 999 998	-1.2	0.000 000	-0.001

▣ BandWidth:	<u>15 MHz</u>
▣ Voltage(100 %):	<u>3.880 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	-1.5	0.000 000	-0.002
	100 %	-20	821 499 993	-3.1	0.000 000	-0.004
	100 %	-10	821 499 992	-3.6	0.000 000	-0.004
	100 %	0	821 499 992	-3.5	0.000 000	-0.004
	100 %	+10	821 499 994	-2.0	0.000 000	-0.002
	100 %	+30	821 499 993	-2.4	0.000 000	-0.003
	100 %	+40	821 499 993	-2.5	0.000 000	-0.003
	100 %	+50	821 499 993	-2.8	0.000 000	-0.003
	Batt. Endpoint	+20	821 499 994	-2.0	0.000 000	-0.002

Note:

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

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

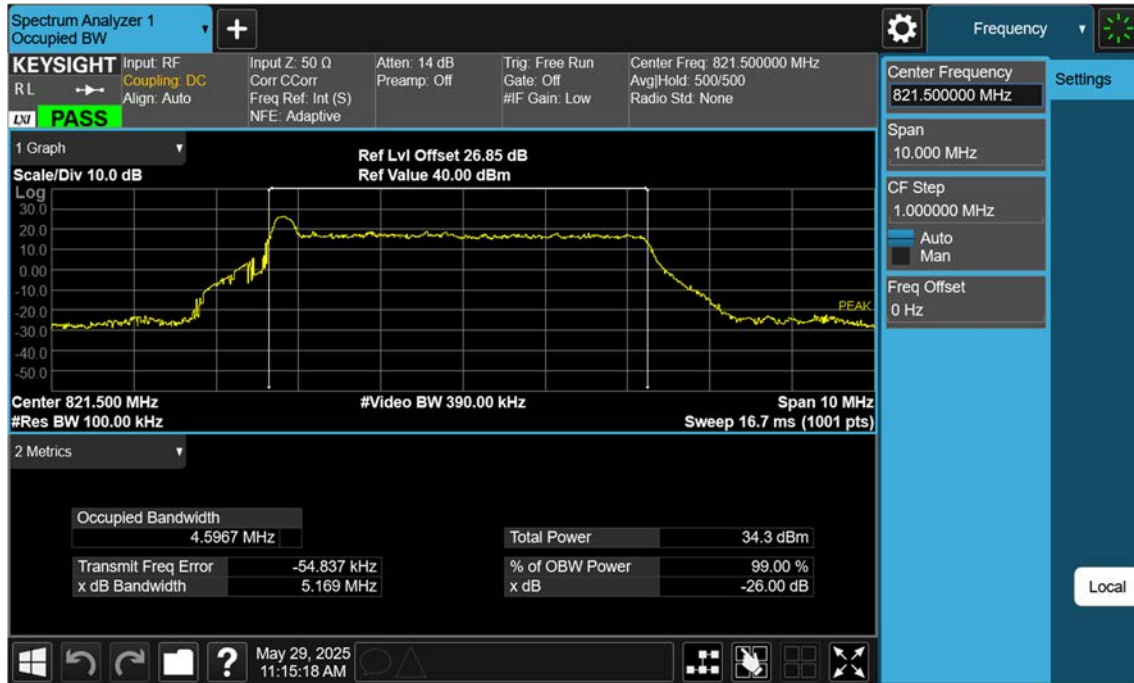
Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
## 824.0	100 %	+20(Ref)	824 000 001	0.0	0.000 000	0.000
	100 %	-30	824 000 002	0.9	0.000 000	0.001
	100 %	-20	824 000 001	-0.4	0.000 000	0.000
	100 %	-10	824 000 001	0.3	0.000 000	0.000
	100 %	0	824 000 002	0.5	0.000 000	0.001
	100 %	+10	824 000 001	0.0	0.000 000	0.000
	100 %	+30	824 000 001	0.1	0.000 000	0.000
	100 %	+40	824 000 002	0.7	0.000 000	0.001
	100 %	+50	824 000 001	0.3	0.000 000	0.000
	Batt. Endpoint	+20	824 000 003	1.6	0.000 000	0.002

Note:

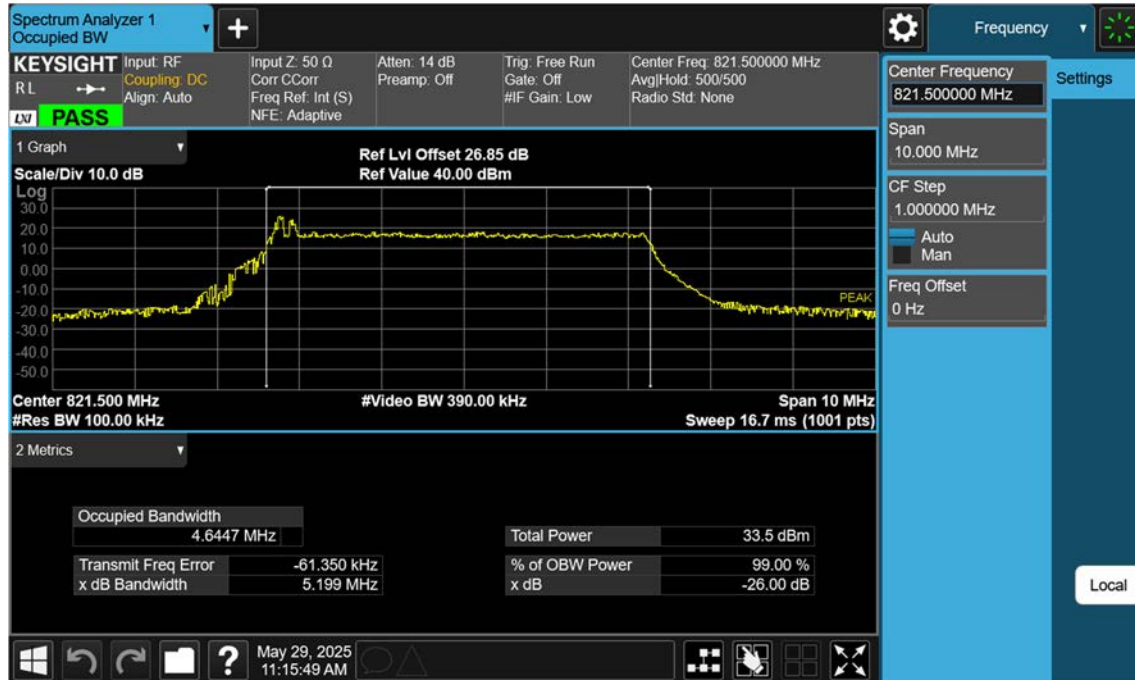
1. ##: Straddle Channel
2. Straddle channel does not exceed the Part22 and Part90 limits.

10. TEST PLOTS(Main 1 ANT)

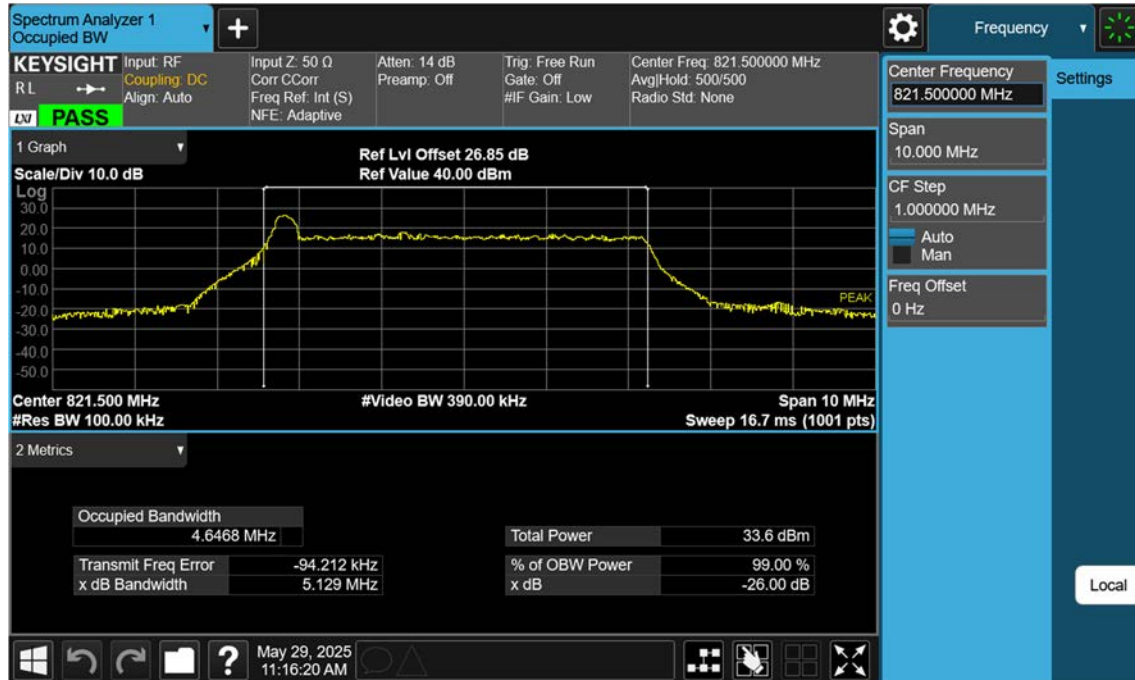
5 M_OBW_Mid_BPSK_FullRB



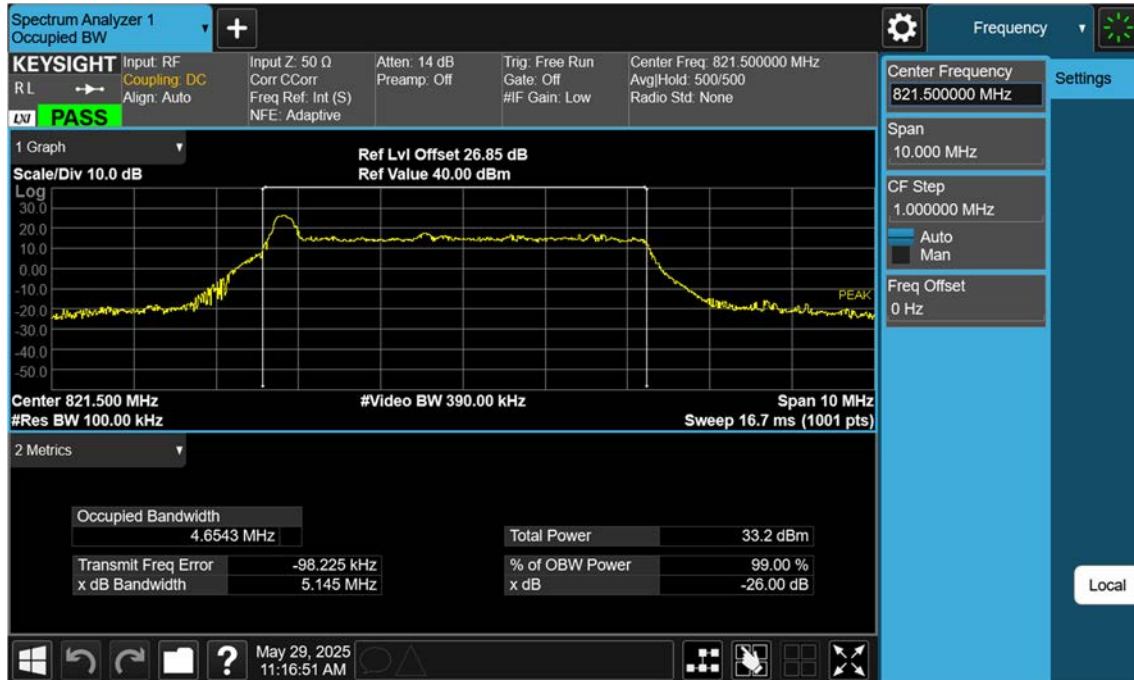
5 M_OBW_Mid_QPSK_FullRB



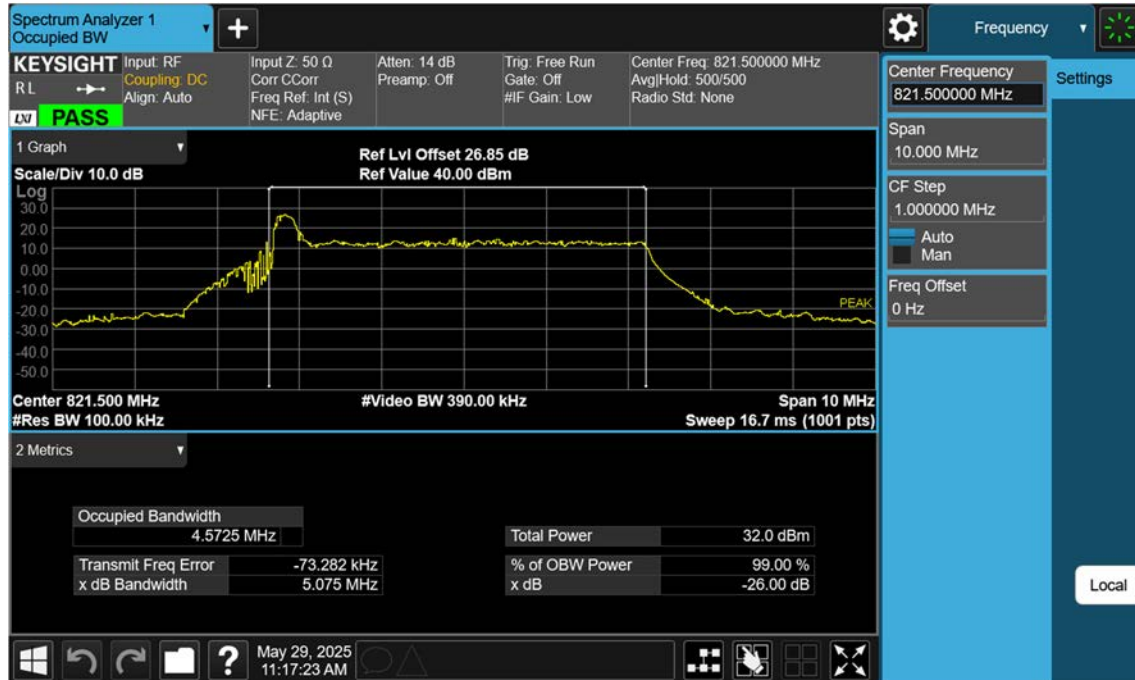
5 M_OBW_Mid_16QAM_FullRB



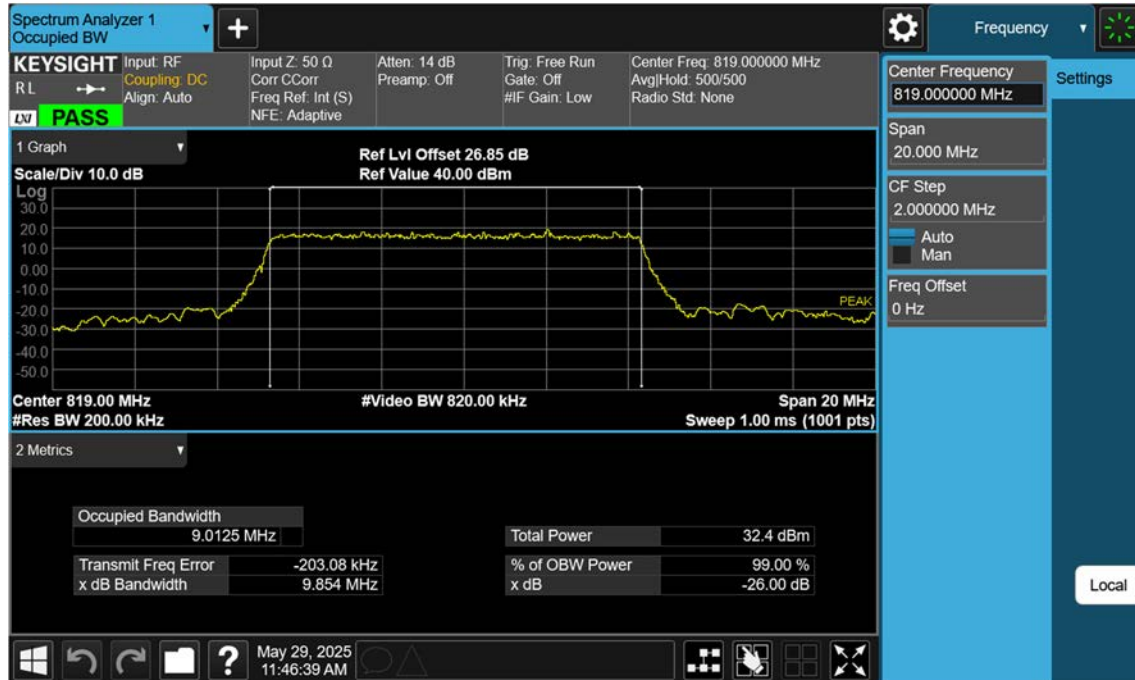
5 M_OBW_Mid_64QAM_FullRB



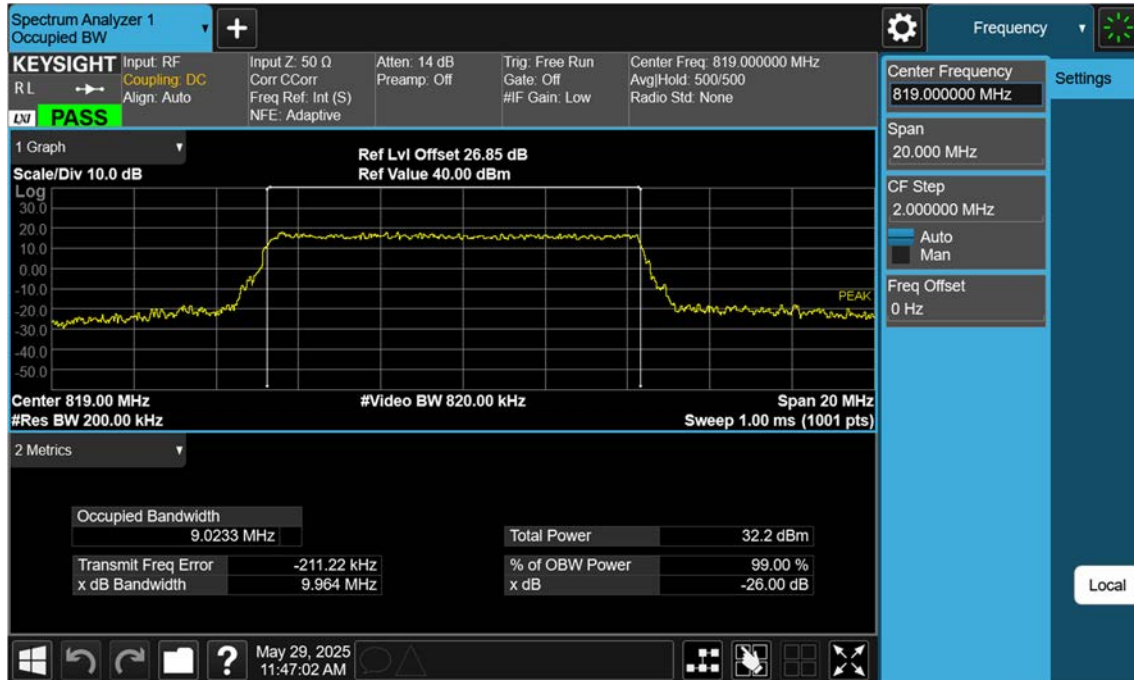
5 M_OBW_Mid_256QAM_FullRB



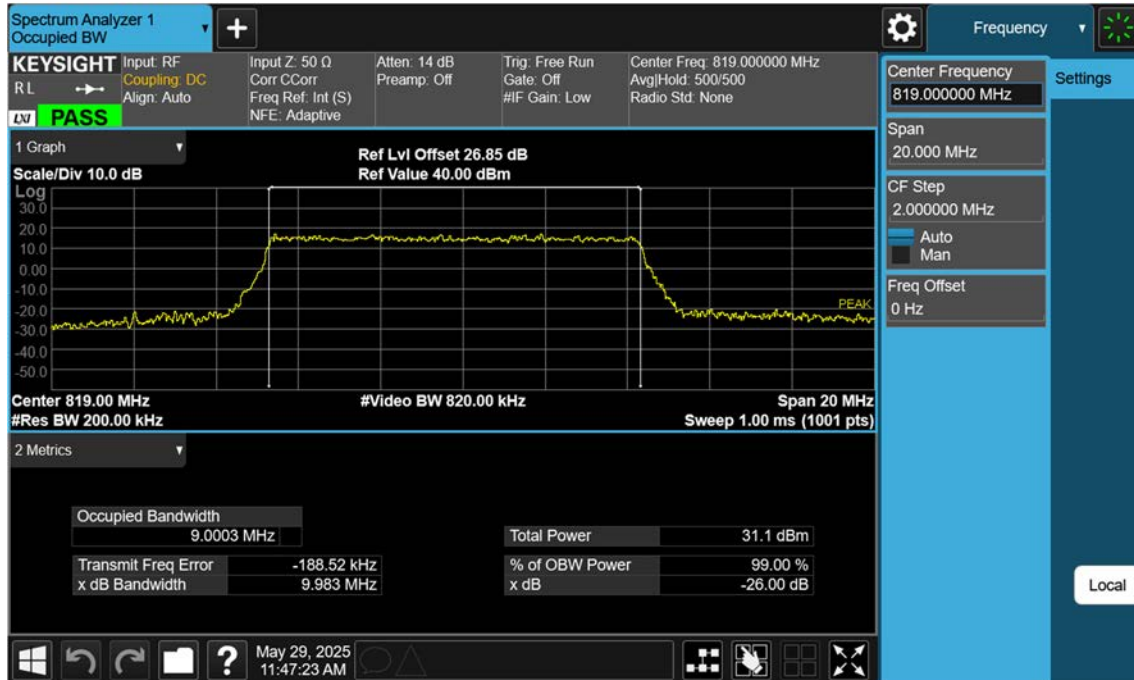
10 M_OBW_Low_BPSK_FullRB



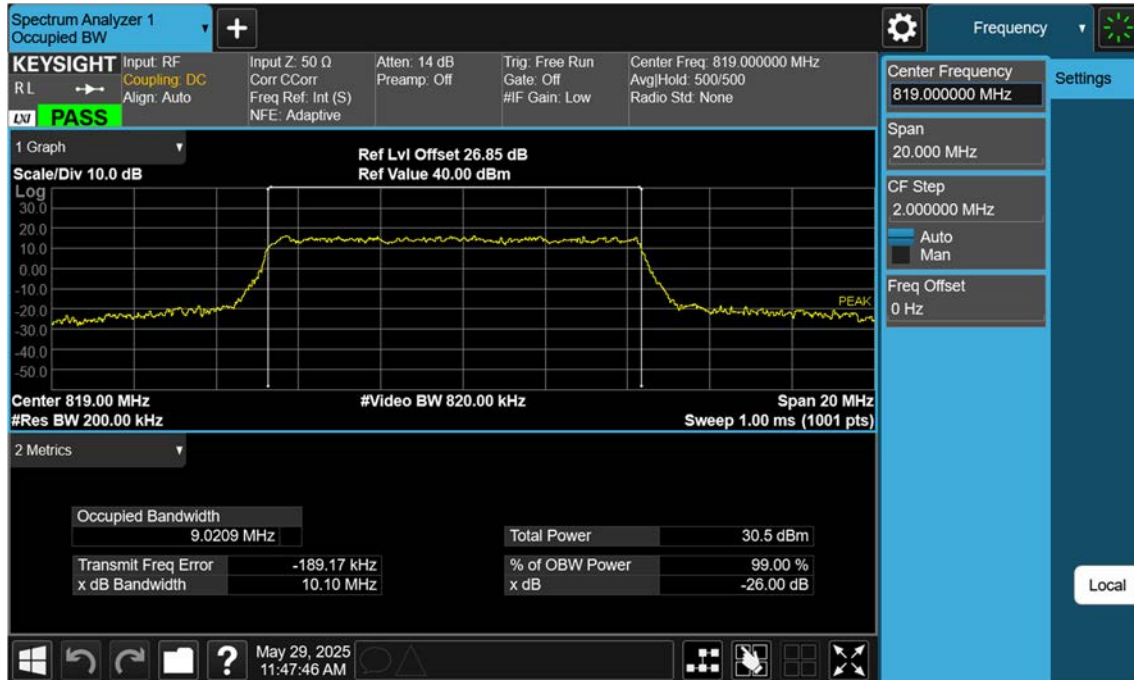
10 M_OBW_Low_QPSK_FullRB



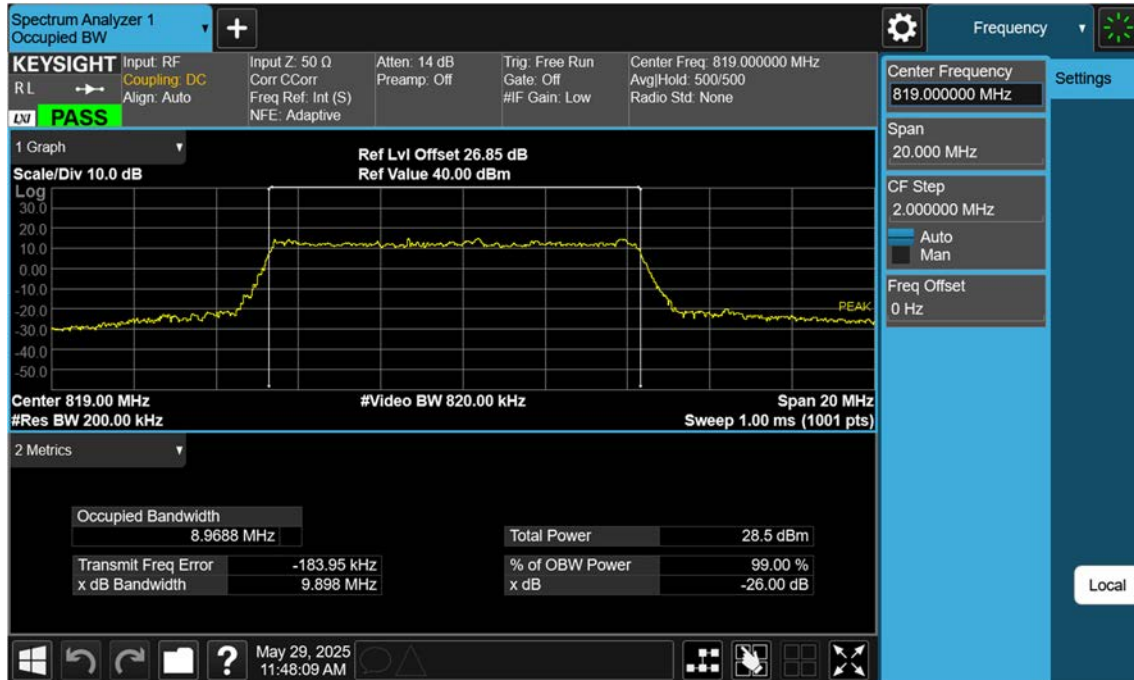
10 M_OBW_Low_16QAM_FullRB



10 M_OBW_Low_64QAM_FullRB



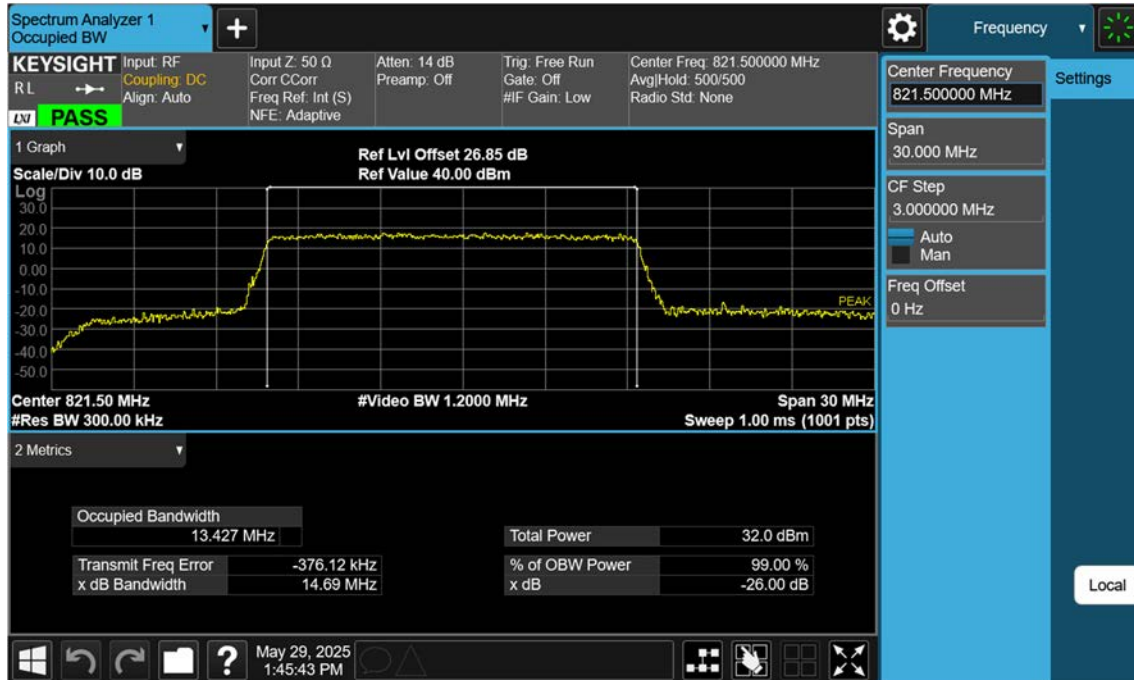
10 M_OBW_Low_256QAM_FullRB



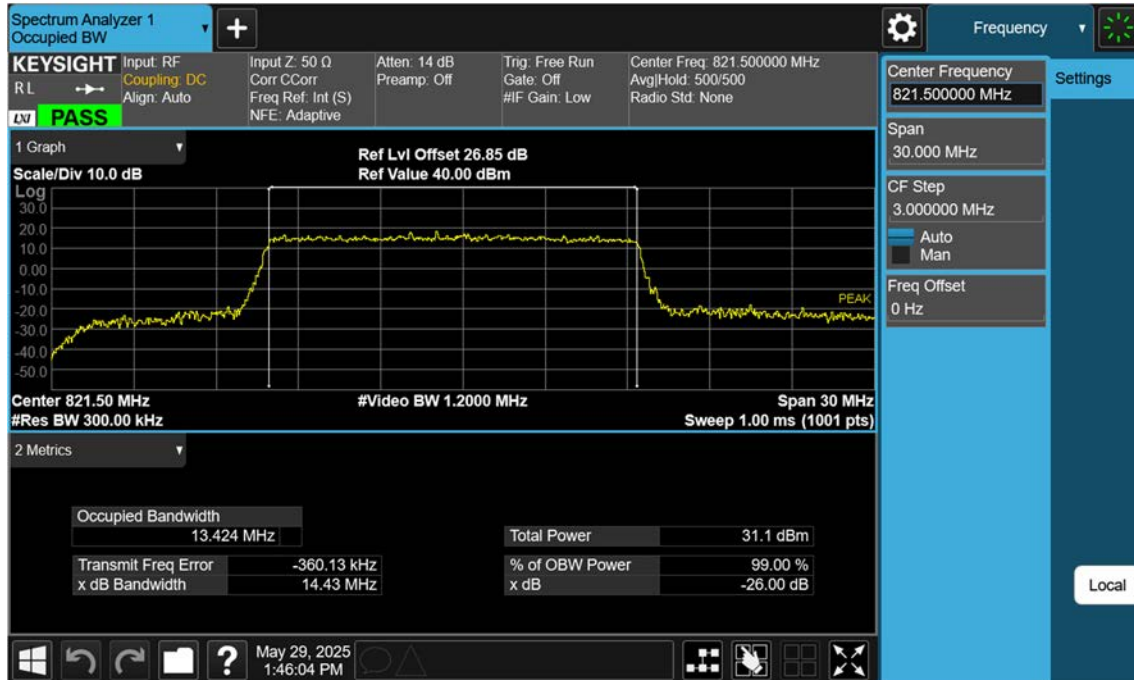
15 M_OBW_Low_BPSK_FullRB



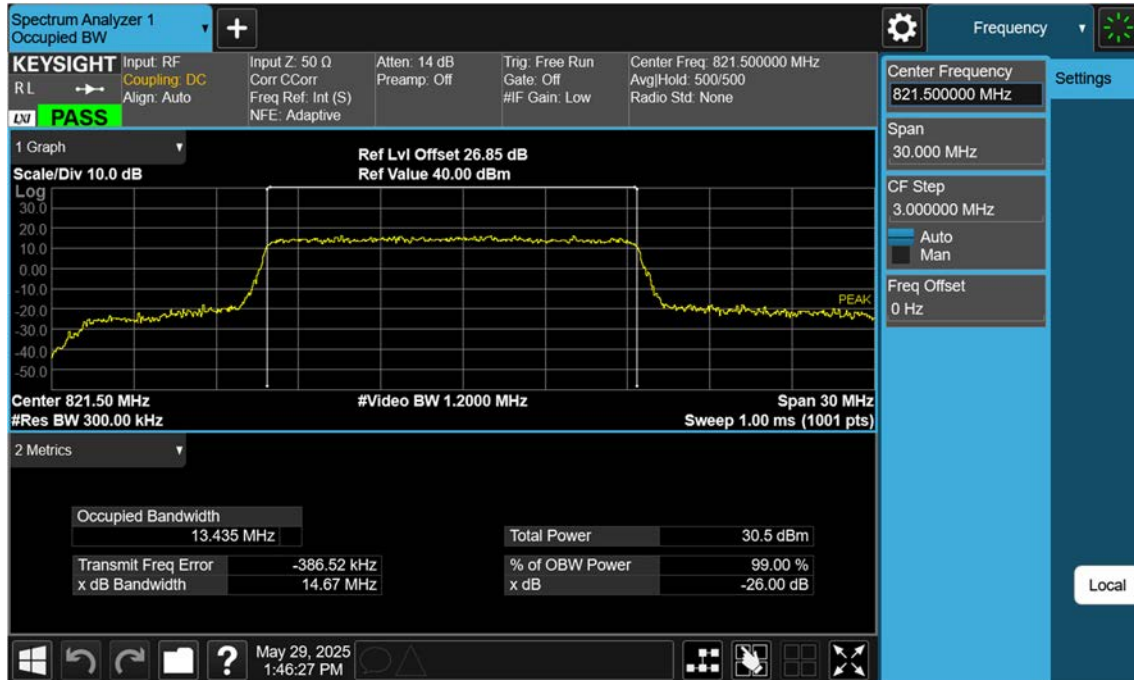
15 M_OBW_Low_QPSK_FullRB



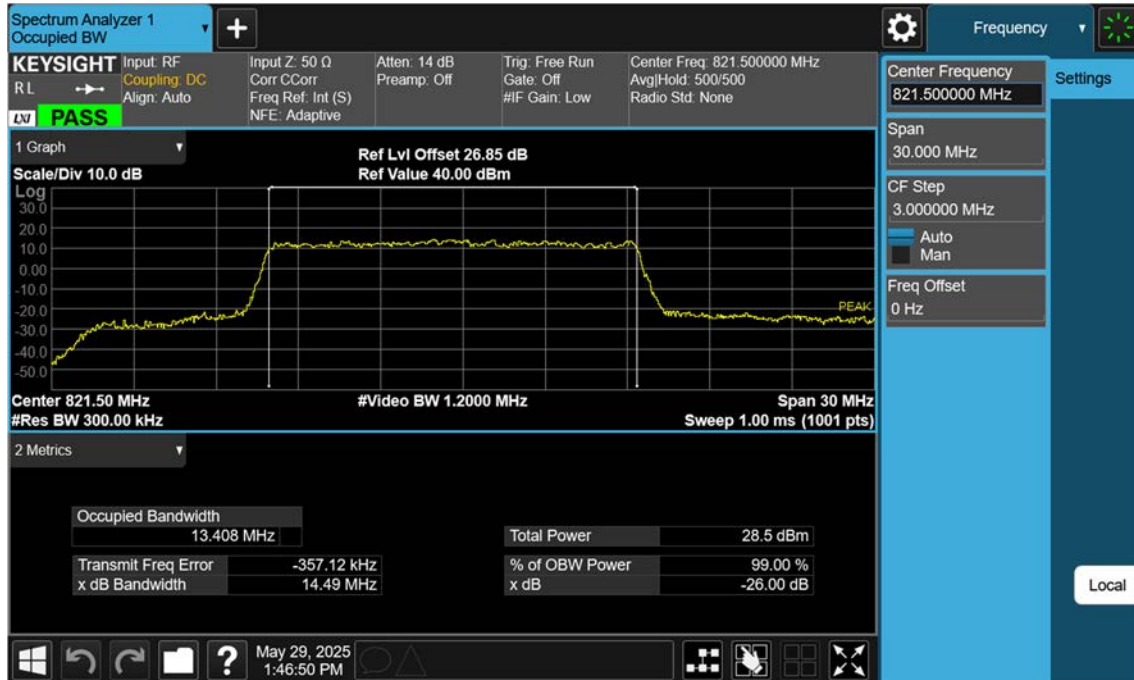
15 M_OBW_Low_16QAM_FullRB



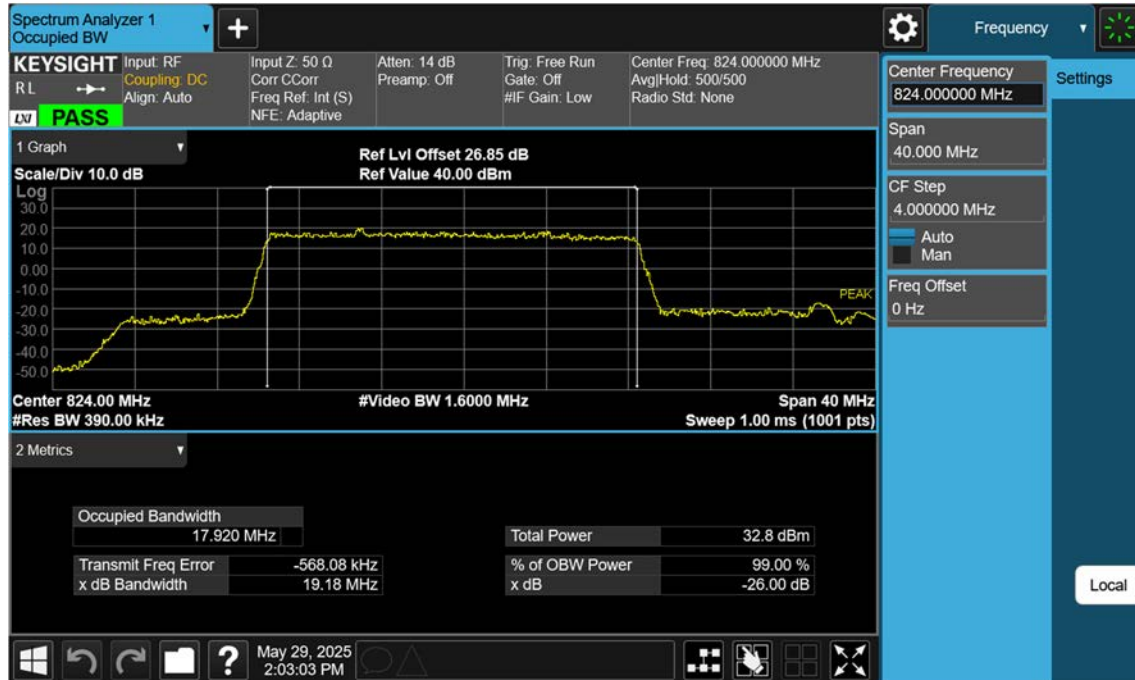
15 M_OBW_Low_64QAM_FullRB



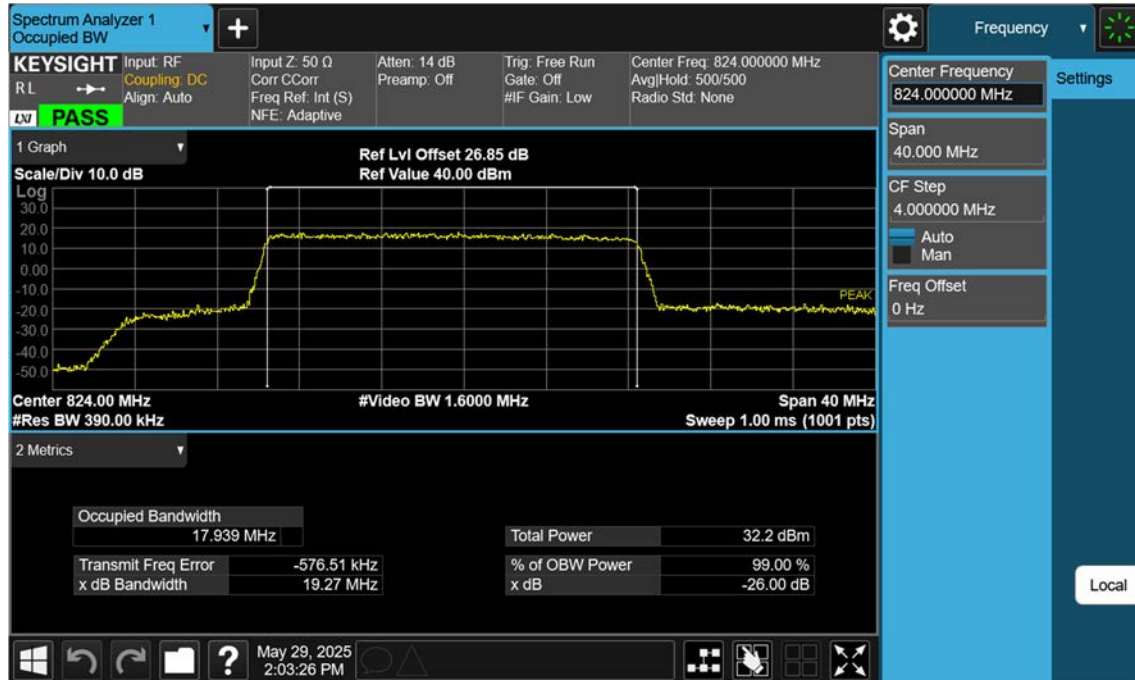
15 M_OBW_Low_256QAM_FullRB



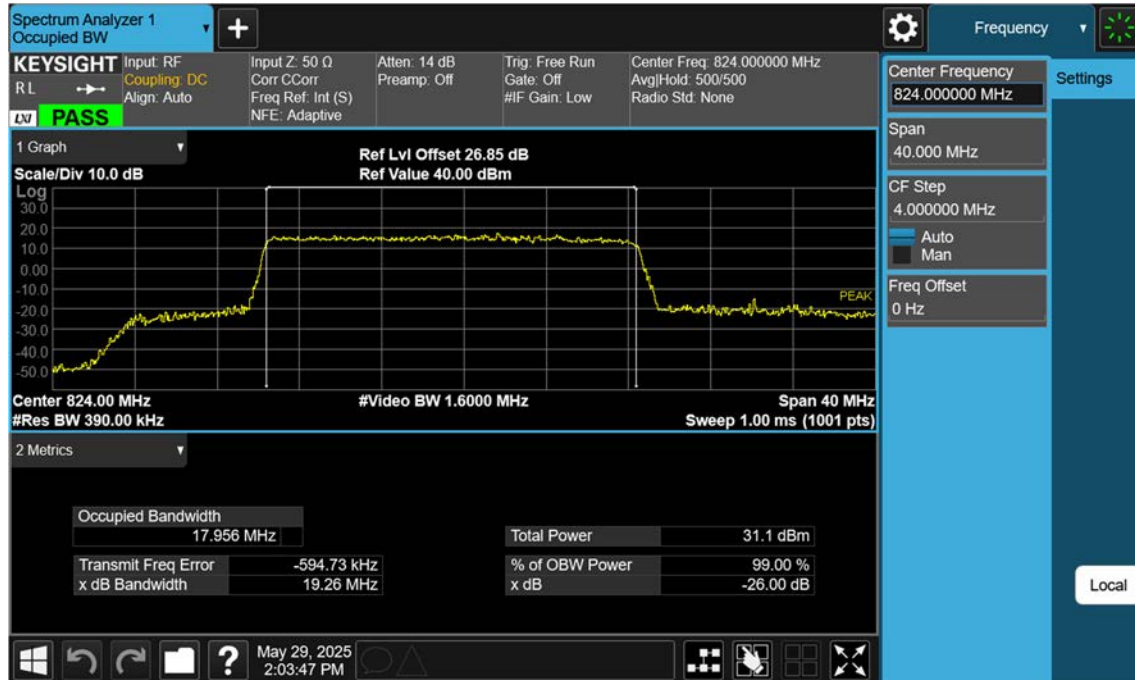
20 M_OBW_Mid_BPSK_FullRB



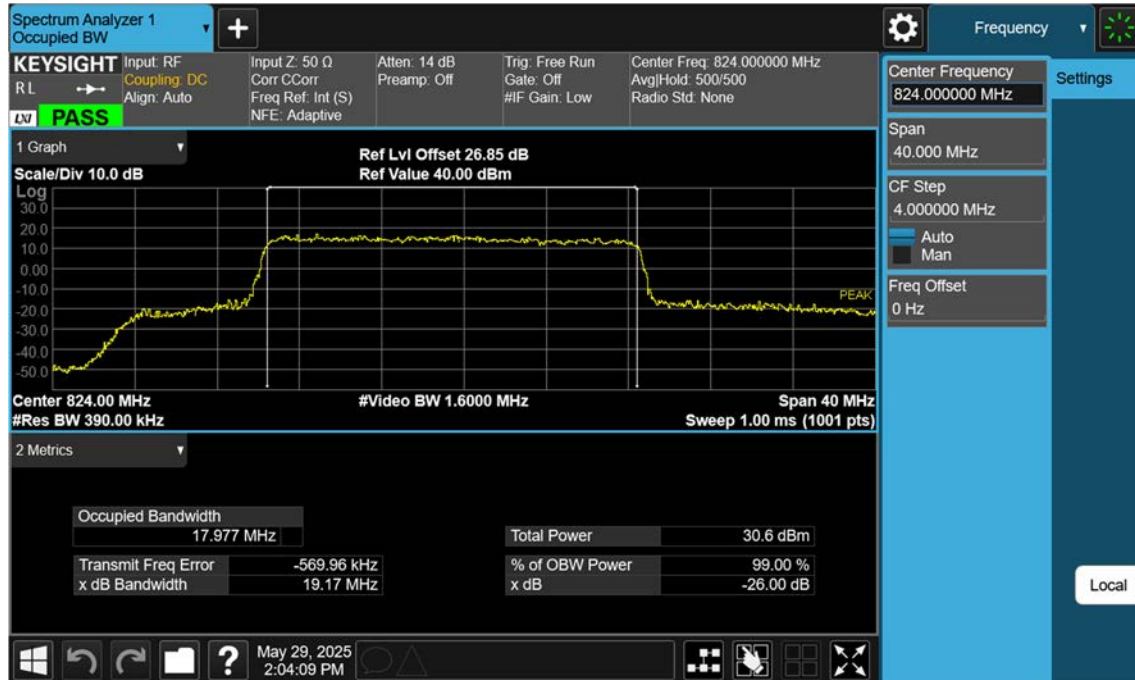
20 M_OBW_Mid_QPSK_FullRB



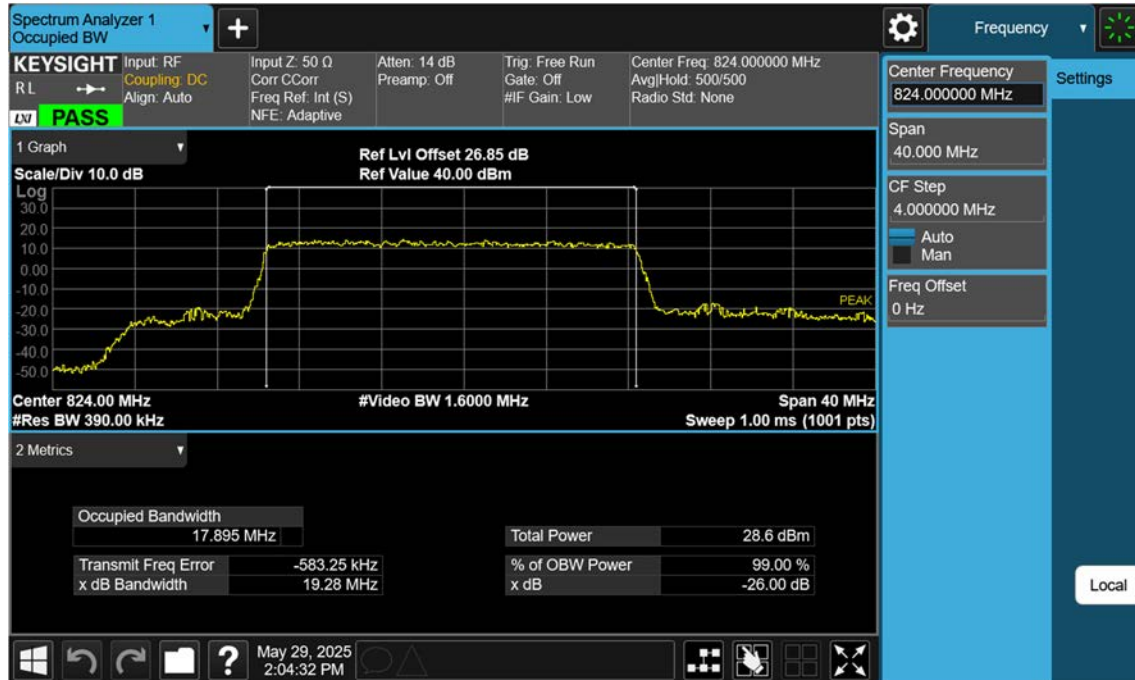
20 M_OBW_Mid_16QAM_FullRB



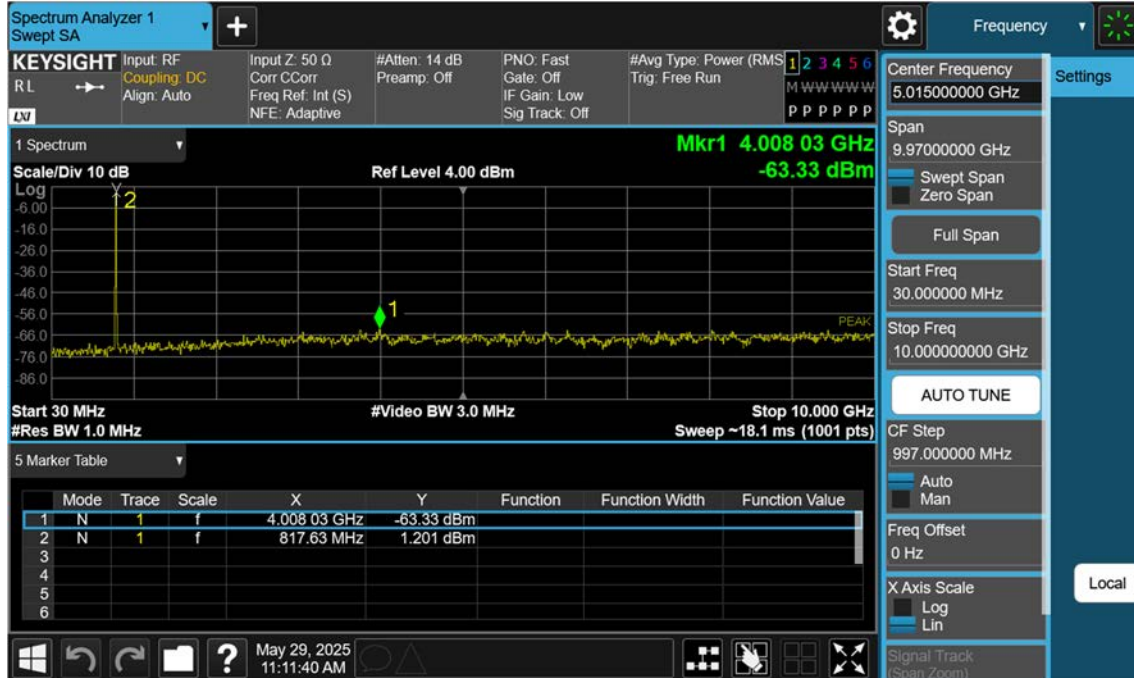
20 M_OBW_Mid_64QAM_FullRB



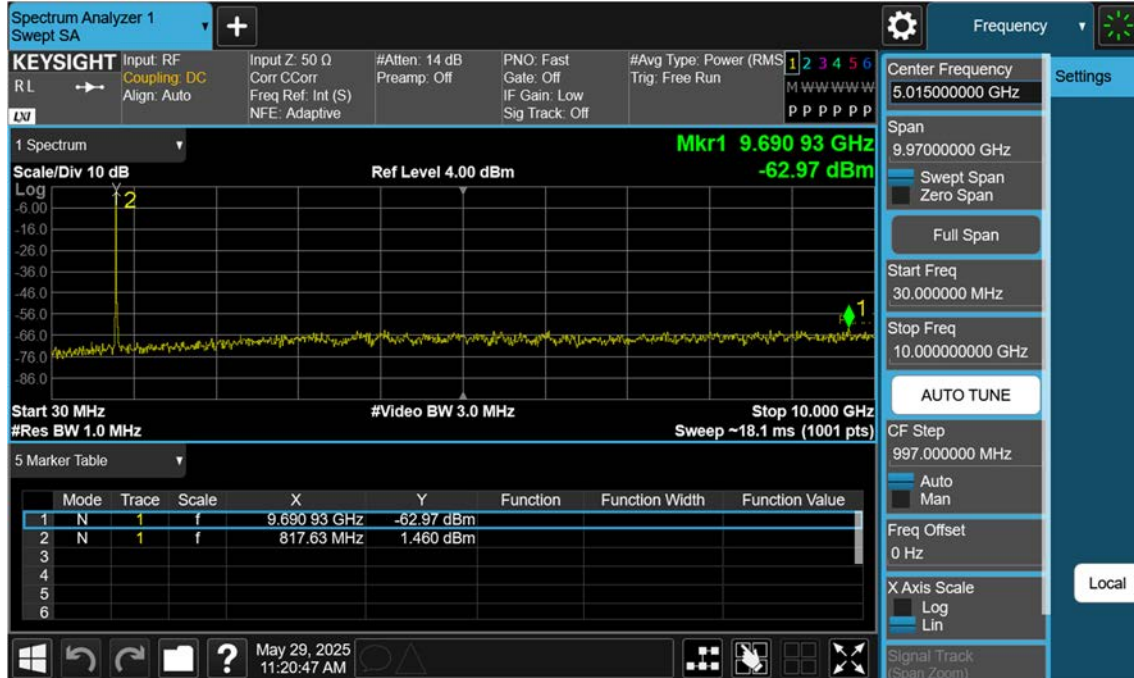
20 M_OBW_Mid_256QAM_FullRB



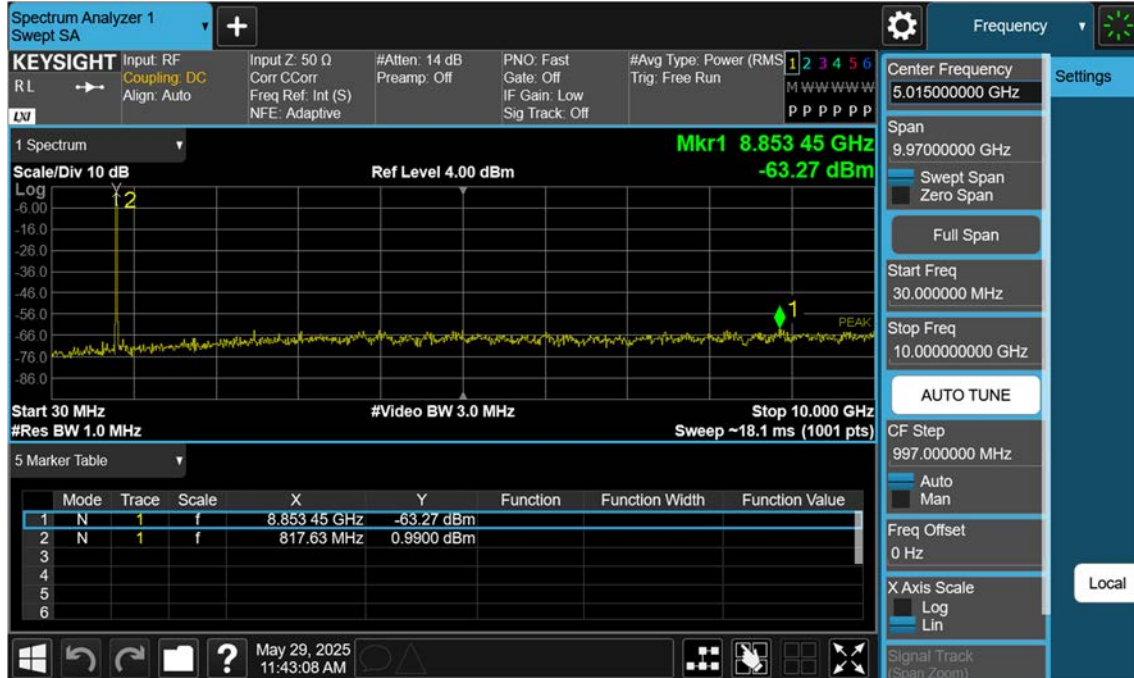
5 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB



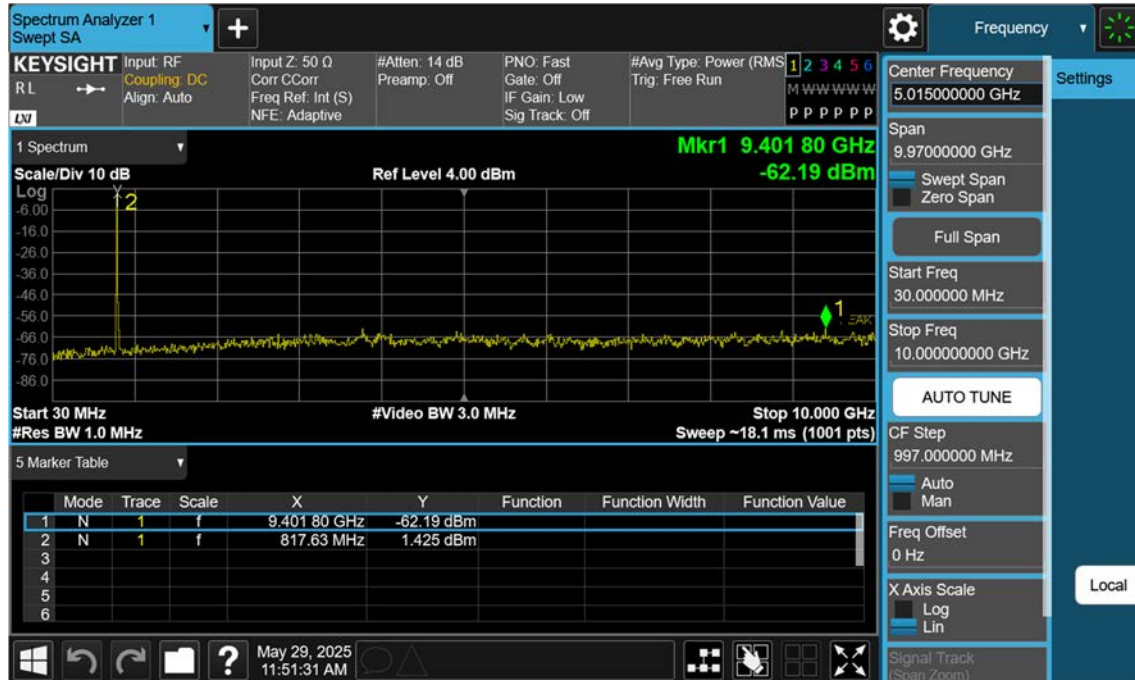
5 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB



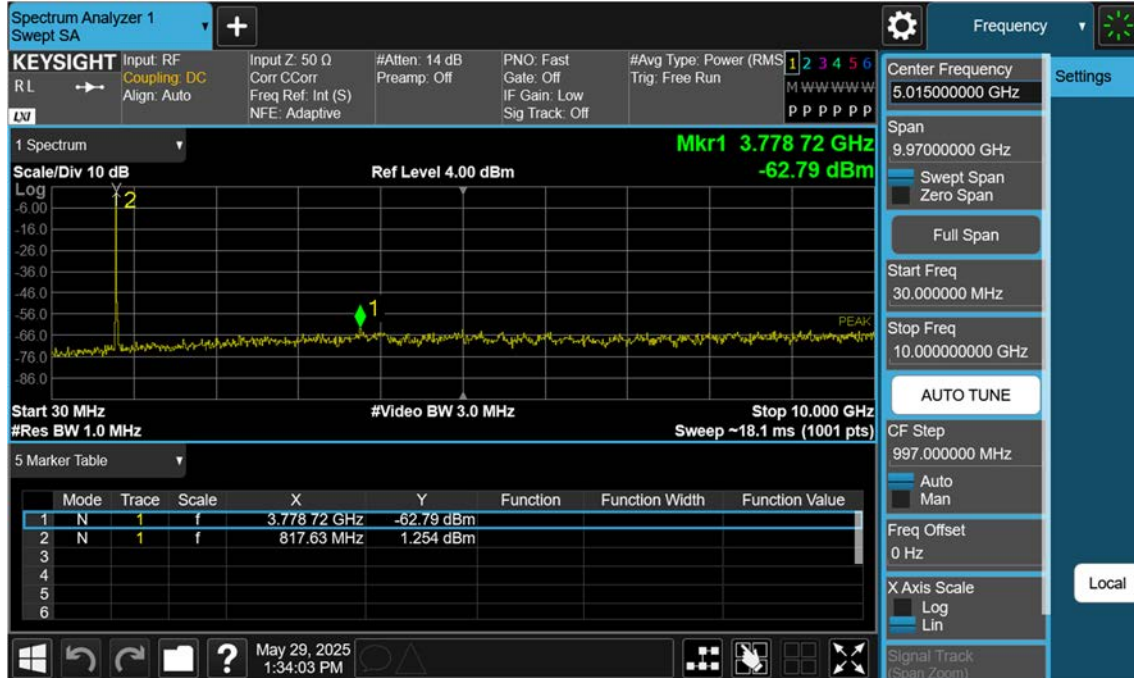
5 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB



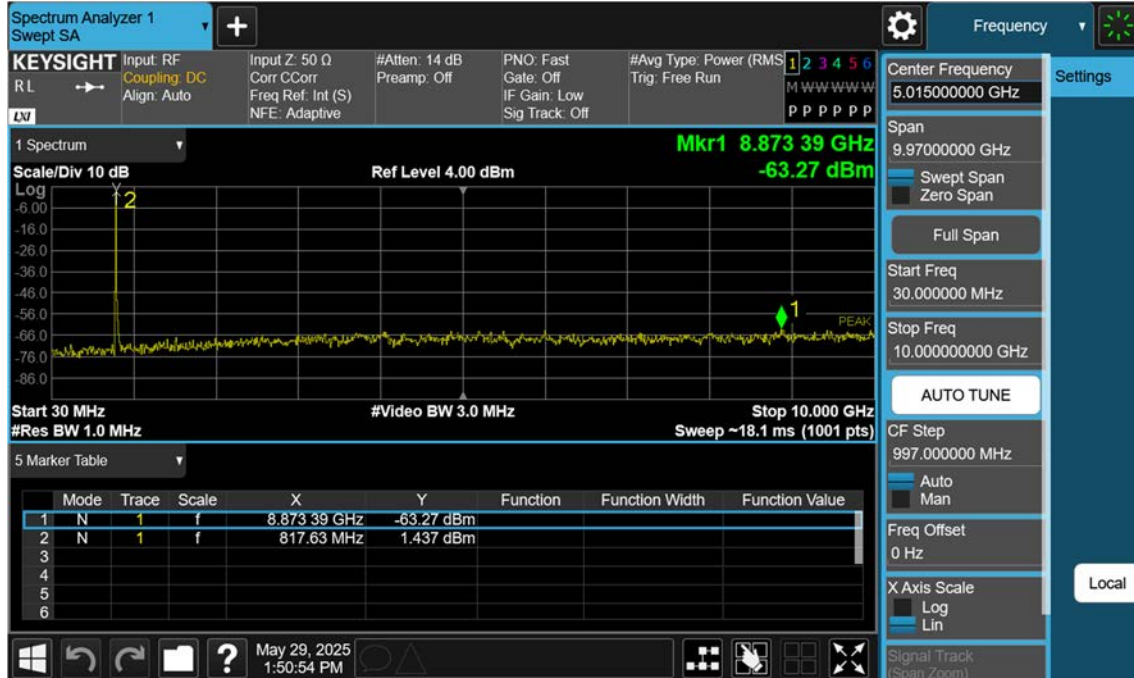
10 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB



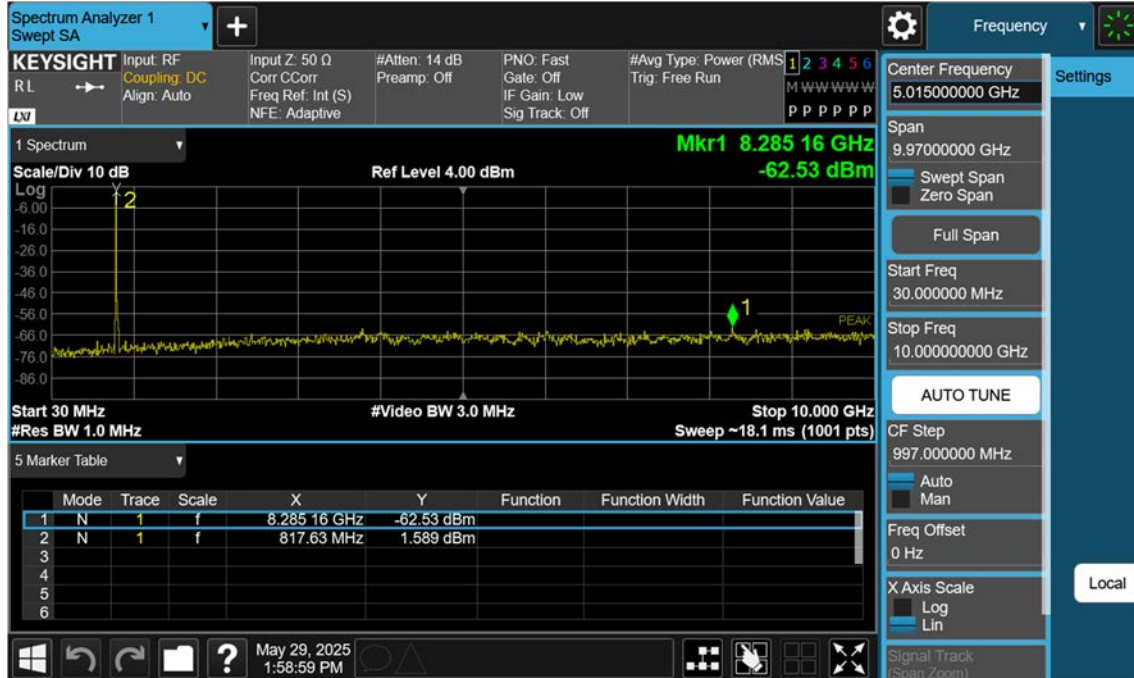
10 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB



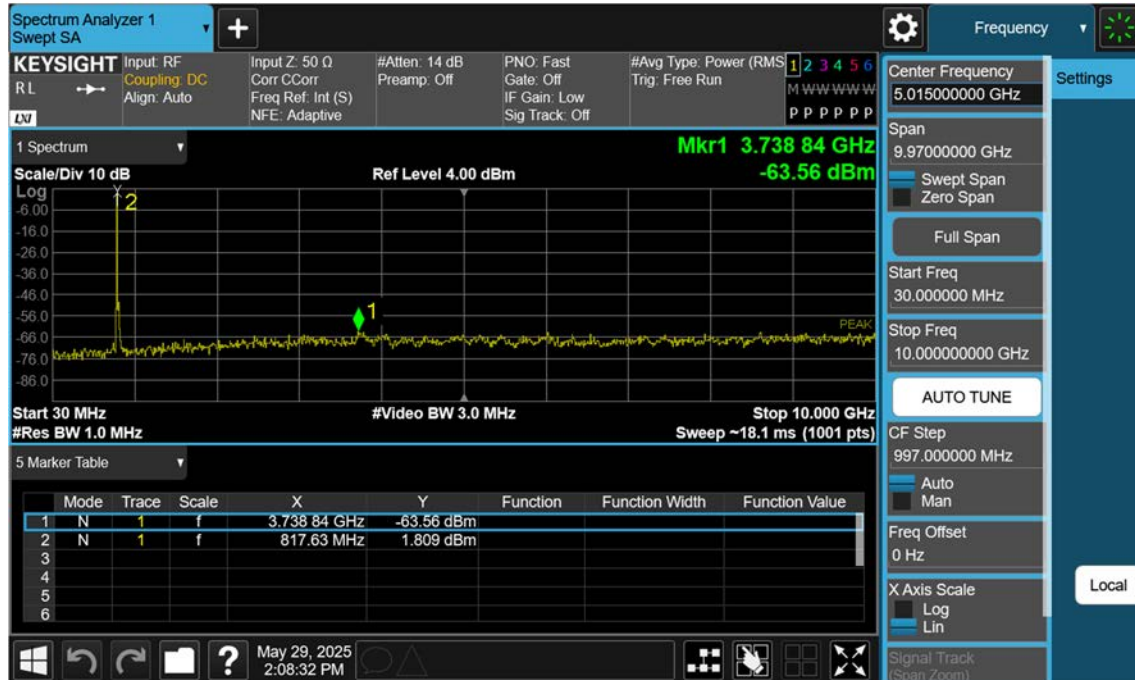
15 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB



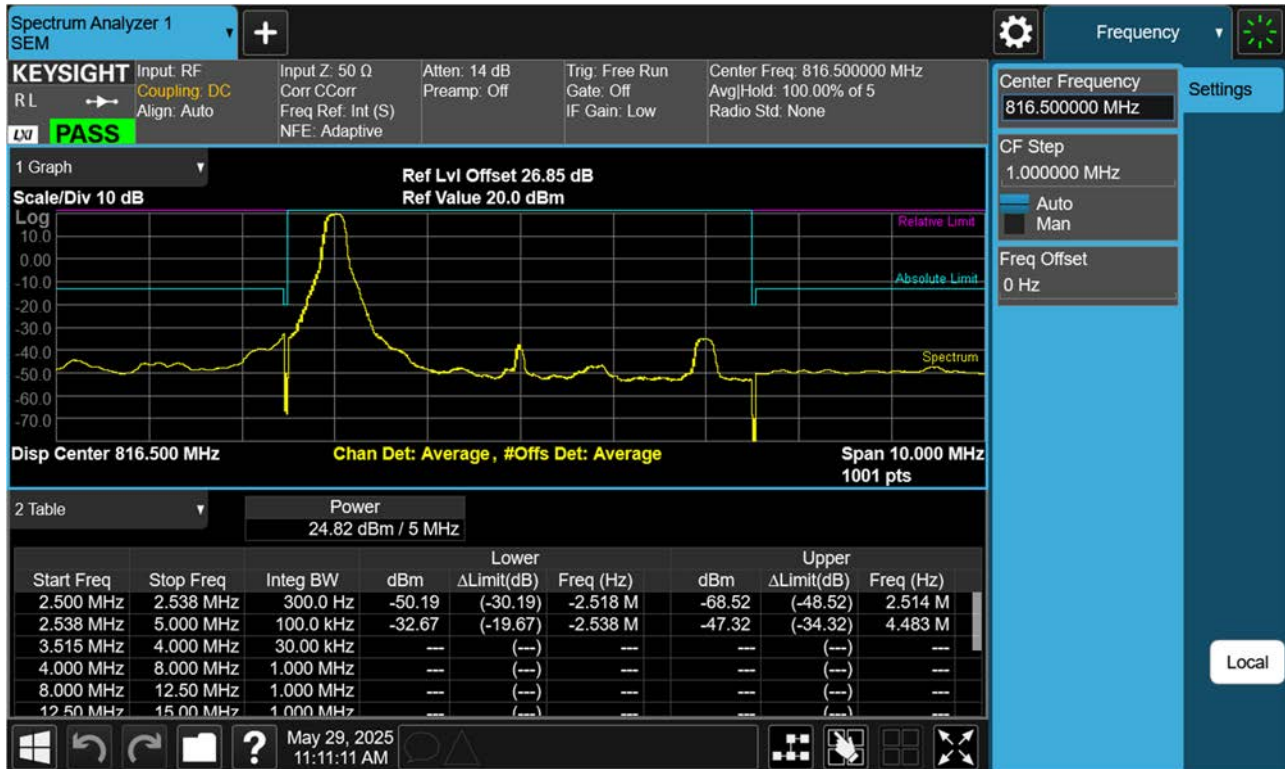
15 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB



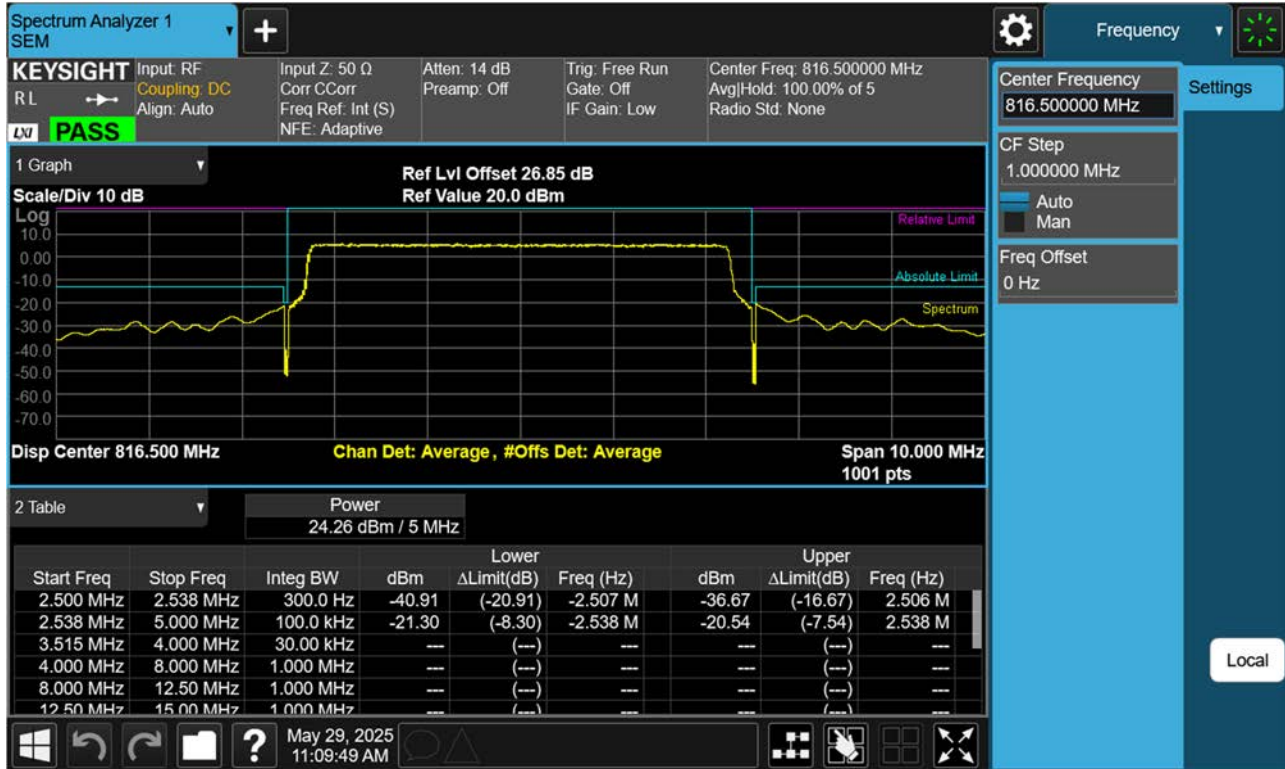
20 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB



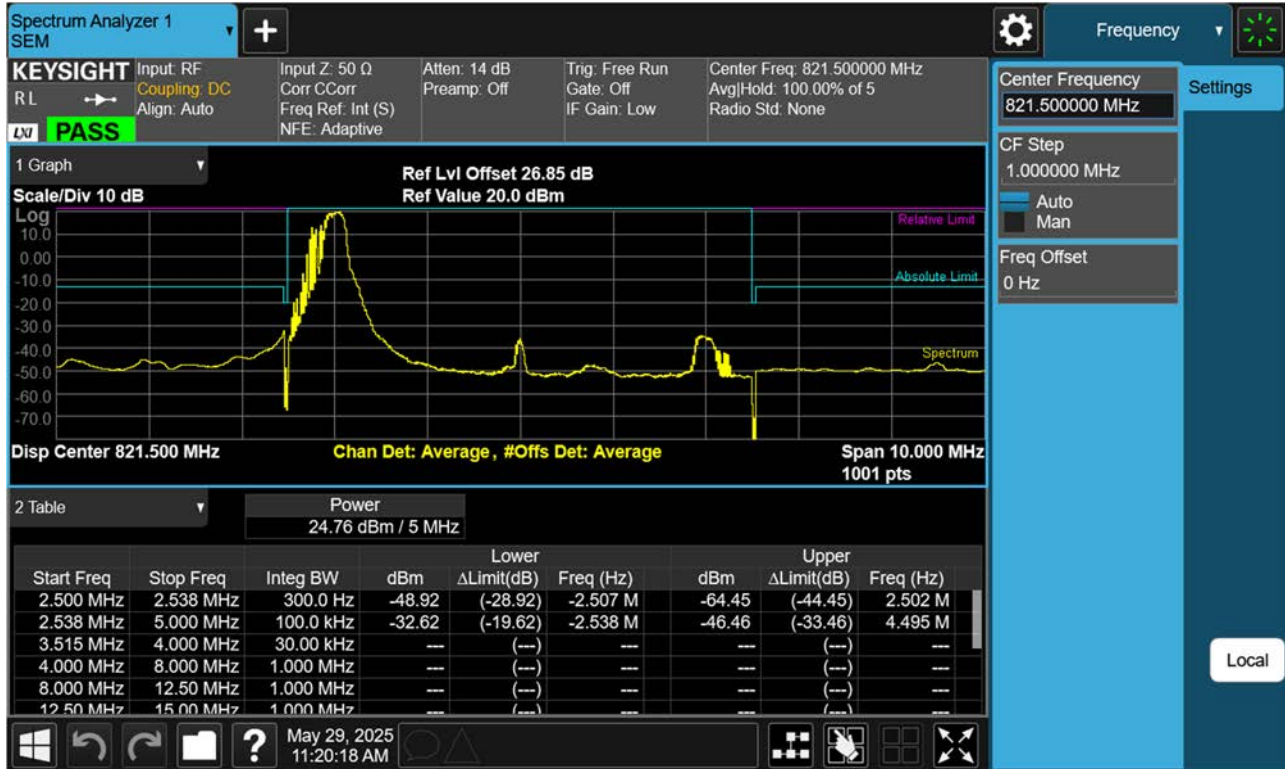
Lower Channel Edge Plot (5 M BW Ch.163300 BPSK RB 1, Offset 0)



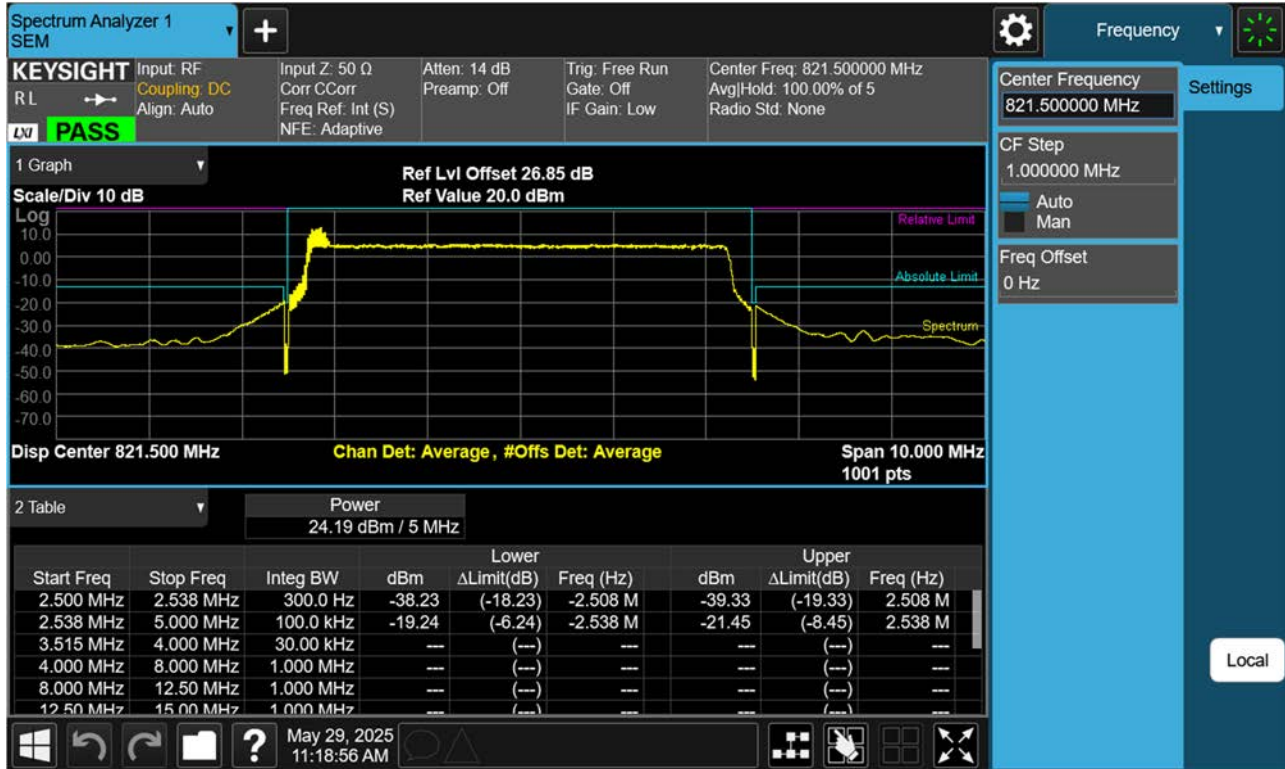
Lower Channel Edge Plot (5 M BW Ch.163300 BPSK_RB25_Offset 0)



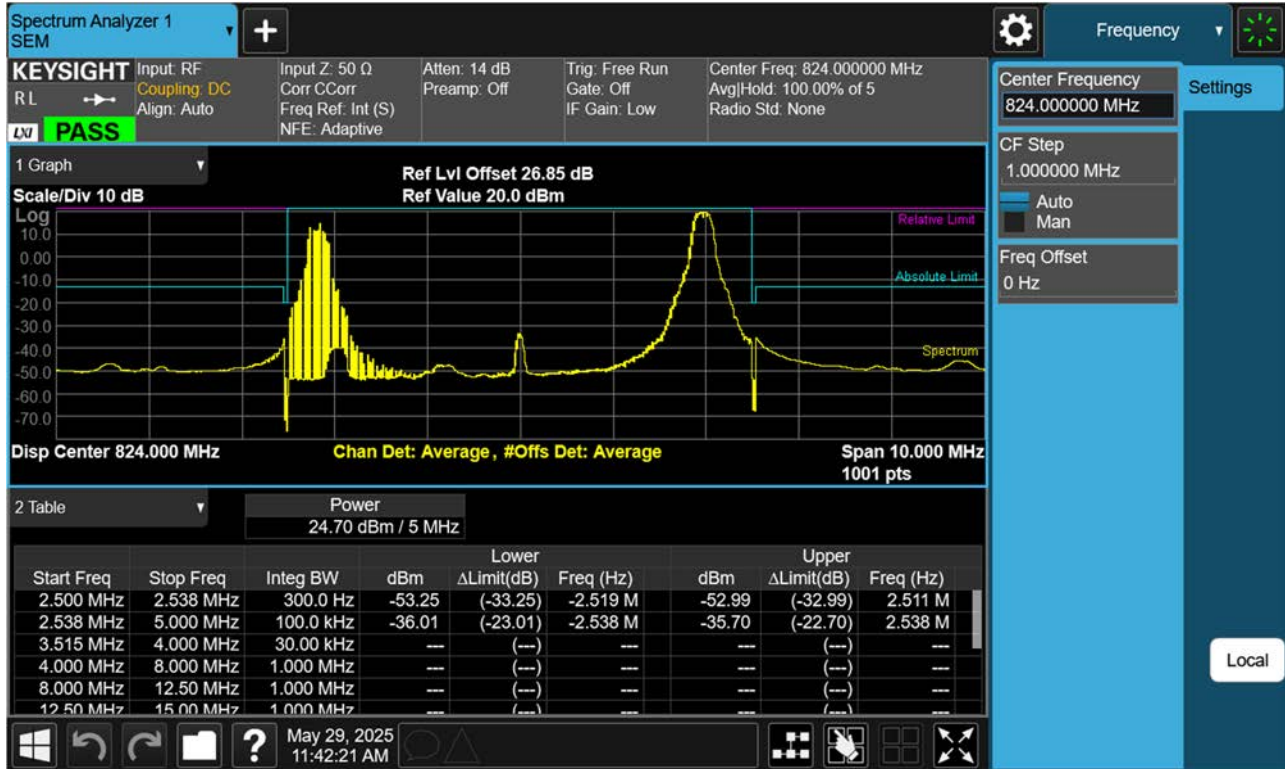
Mid Channel Edge Plot (5 M BW Ch.164300 BPSK_RB1_Offset 0)



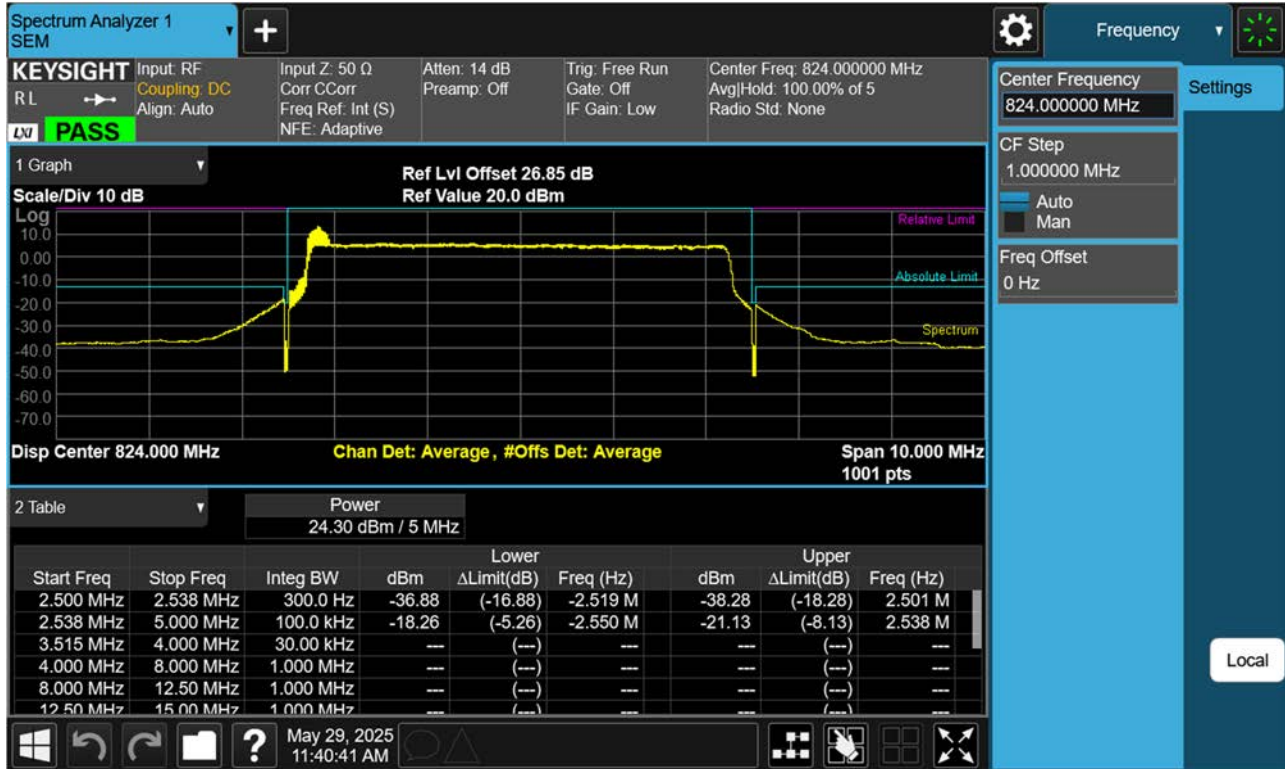
Mid Channel Edge Plot (5 M BW Ch.164300 BPSK_ RB25_Offset 0)



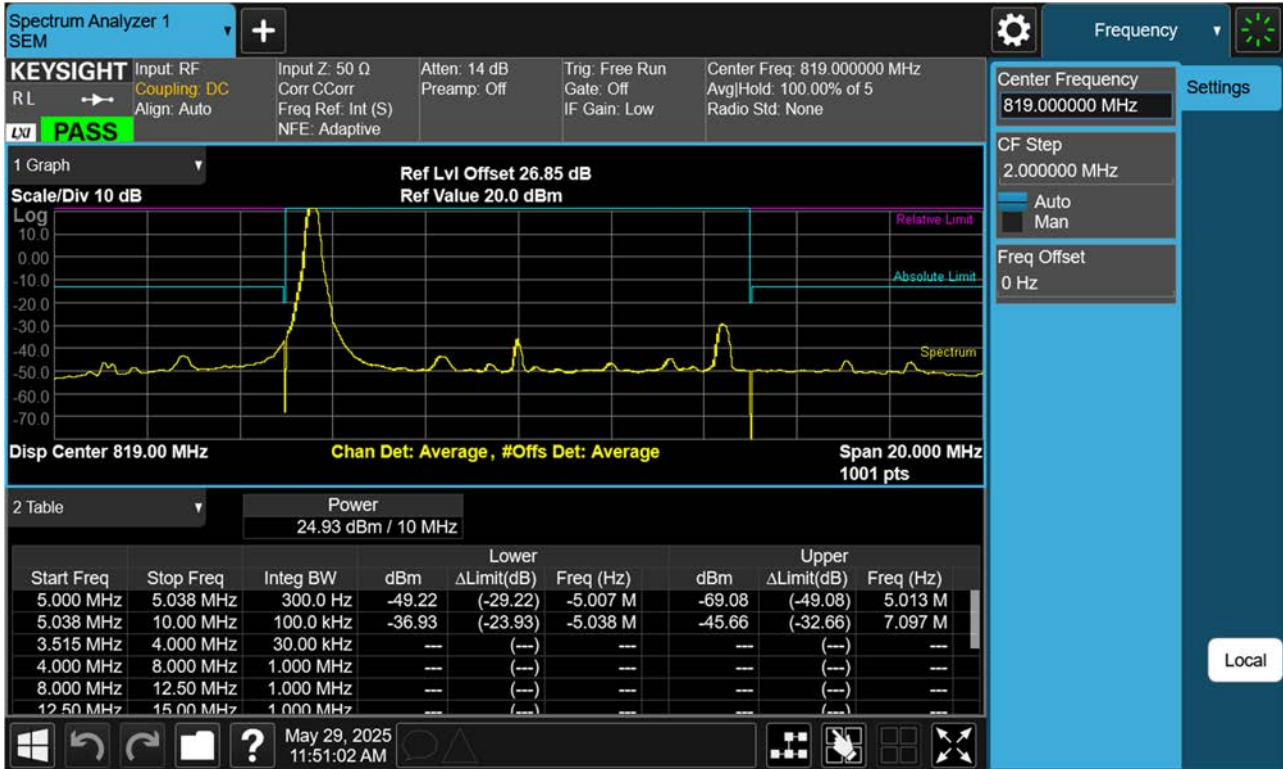
Upper Channel Edge Plot (5 M BW Ch.164800 BPSK_RB1_Offset 24)



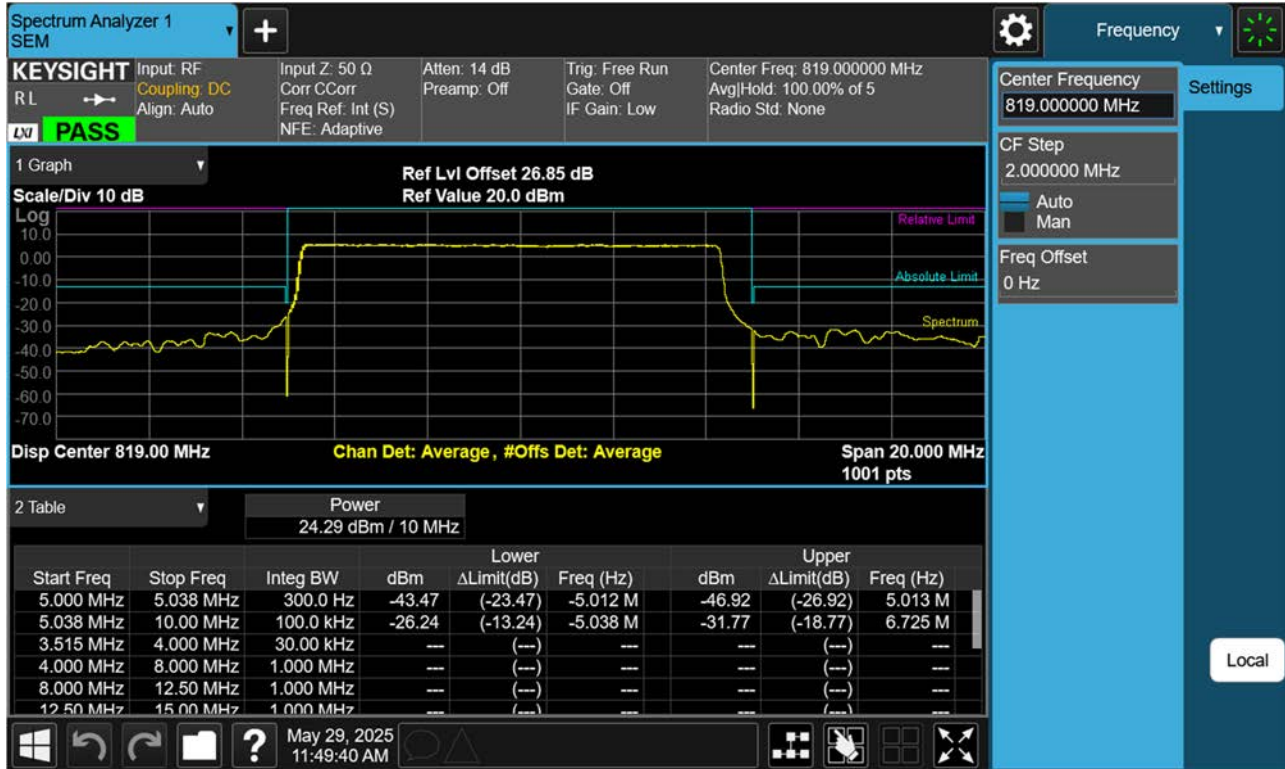
Upper Channel Edge Plot (5 M BW Ch.164800 BPSK_RB25_Offset 0)



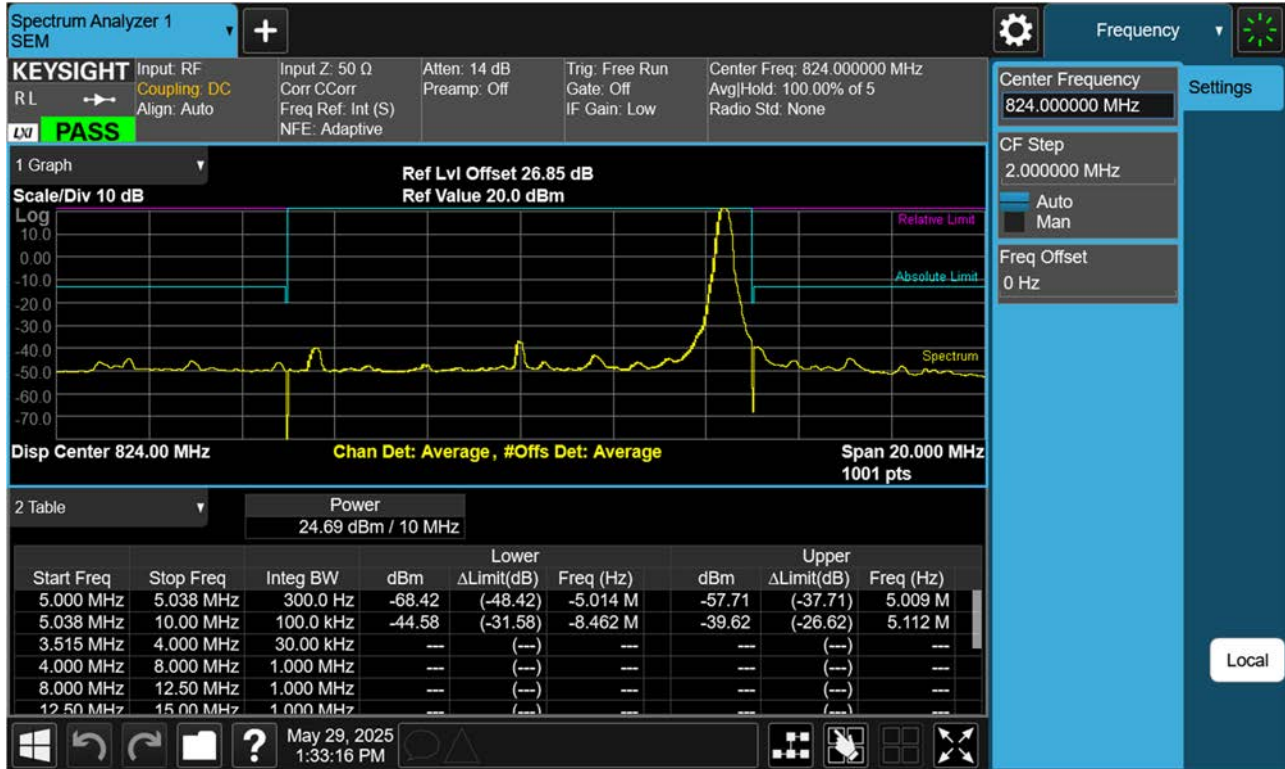
Low Channel Edge Plot (10 M BW Ch.163800 BPSK RB 1, Offset 0)



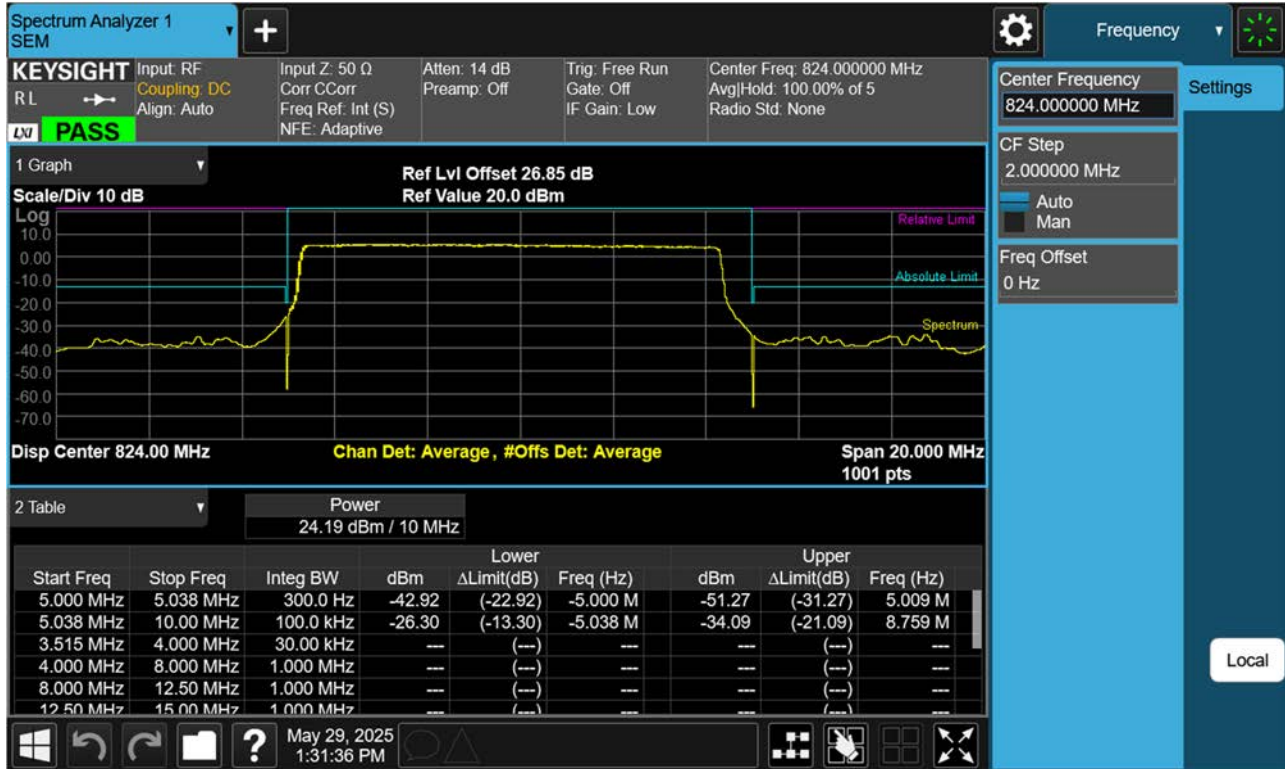
Low Channel Edge Plot (10 M BW Ch.163800 BPSK_RB50_Offset 0)



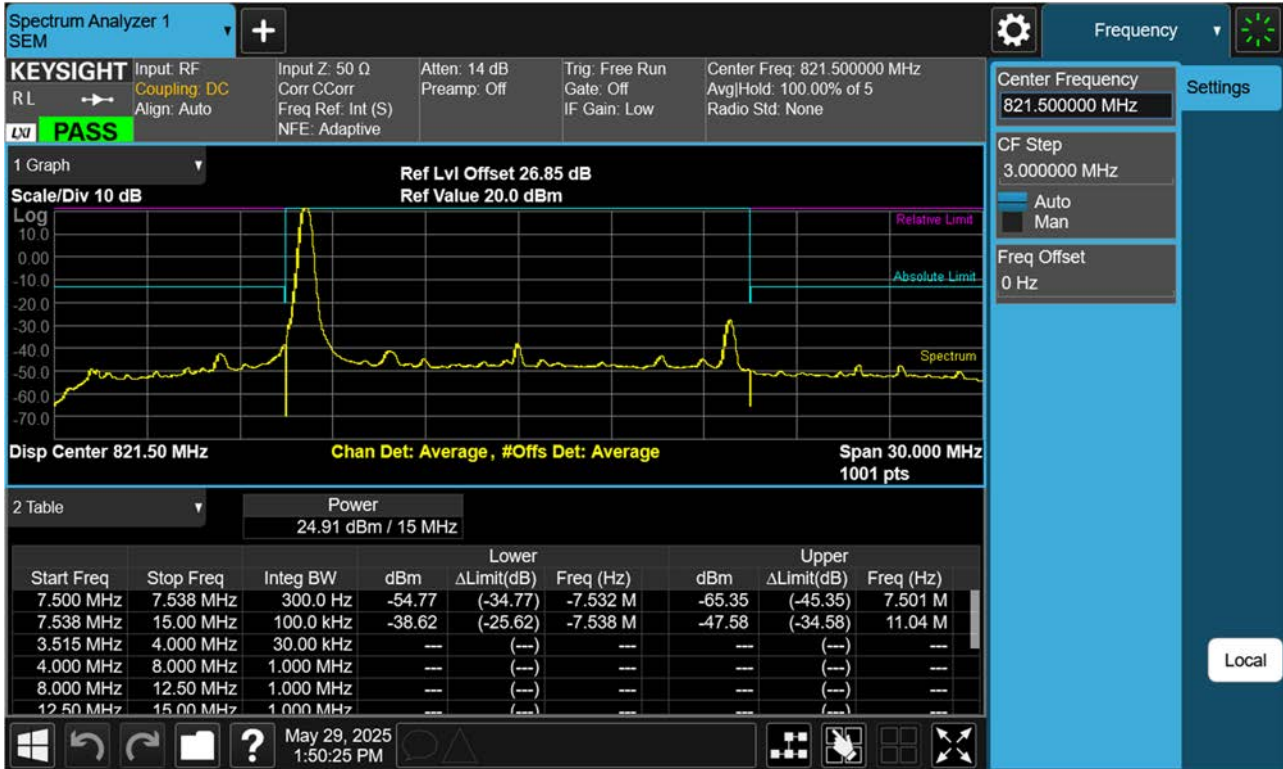
Upper Channel Edge Plot (10 M BW Ch.164800 BPSK_RB1_Offset 51)



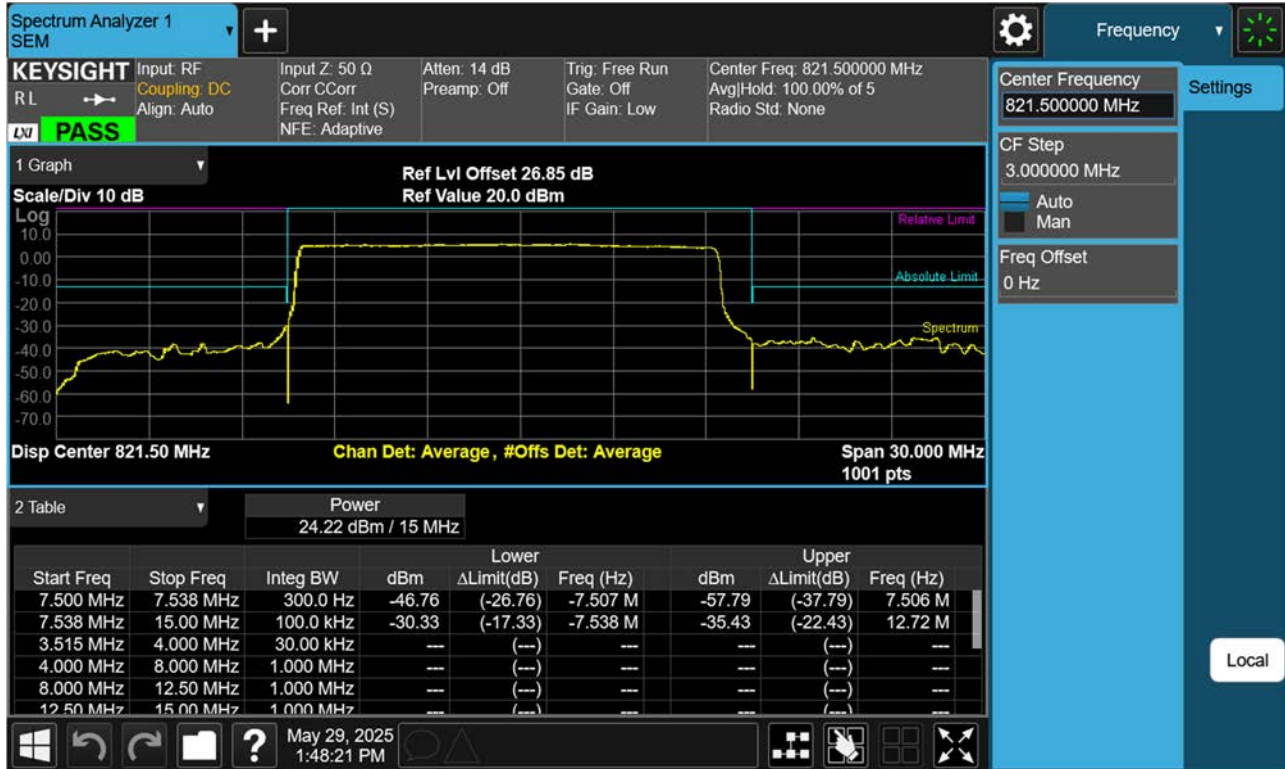
Upper Channel Edge Plot (10 M BW Ch.164800 BPSK_RB50_Offset 0)



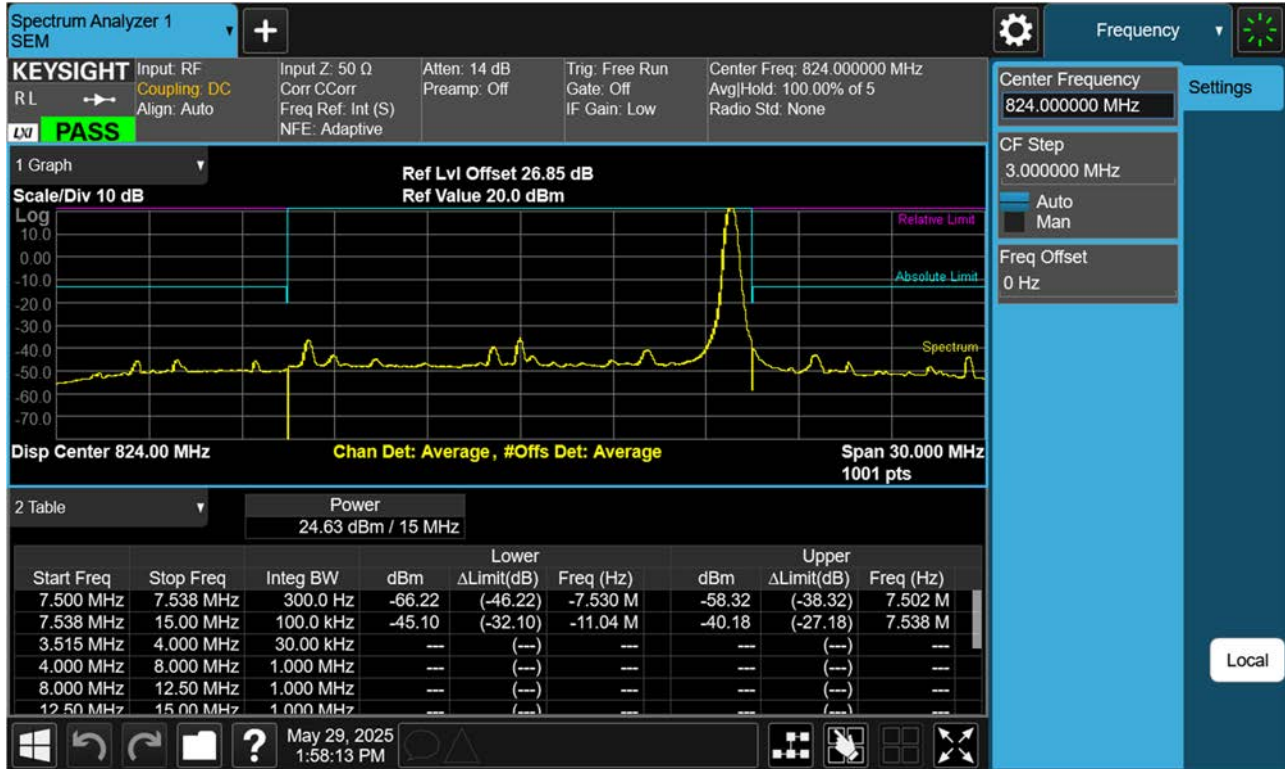
Low Channel Edge Plot (15 M BW Ch.164300 BPSK RB 1, Offset 0)



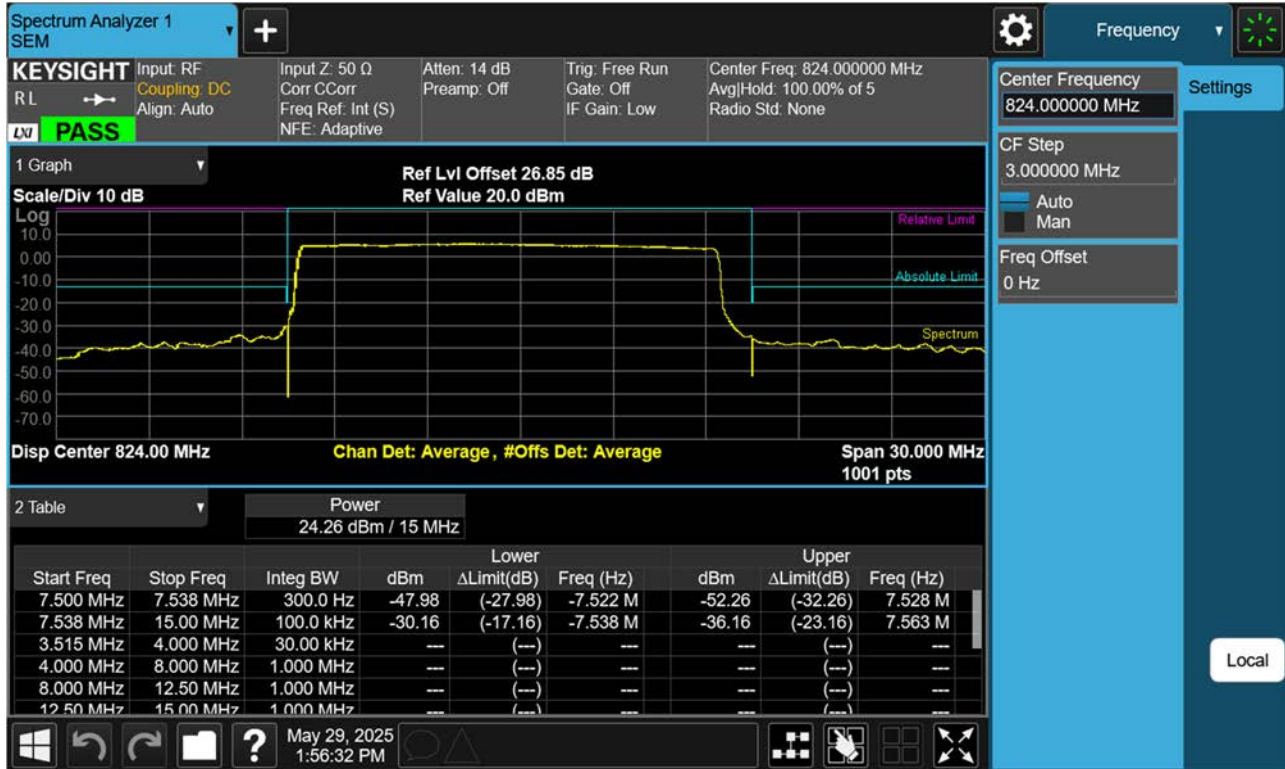
Low Channel Edge Plot (15 M BW Ch.164300 BPSK_RB75_Offset 0)



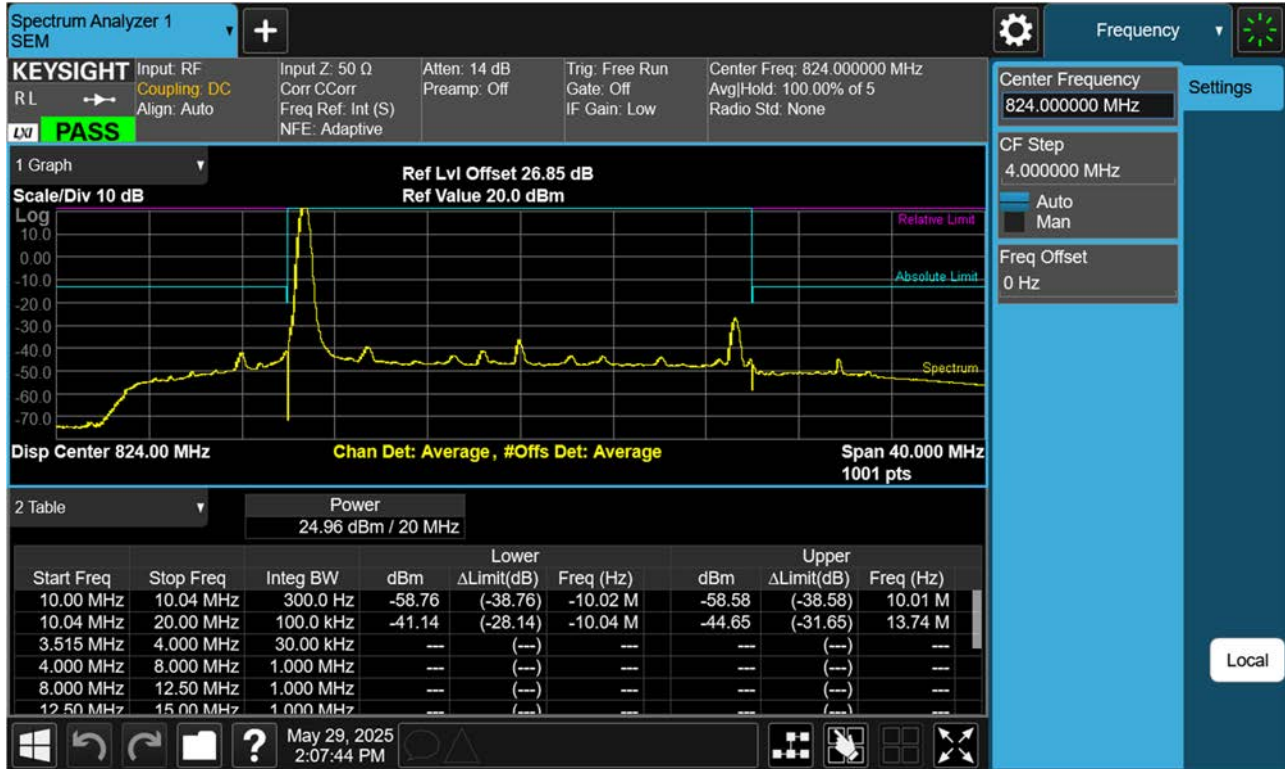
Upper Channel Edge Plot (15 M BW Ch.164800 BPSK_RB1_Offset 78)



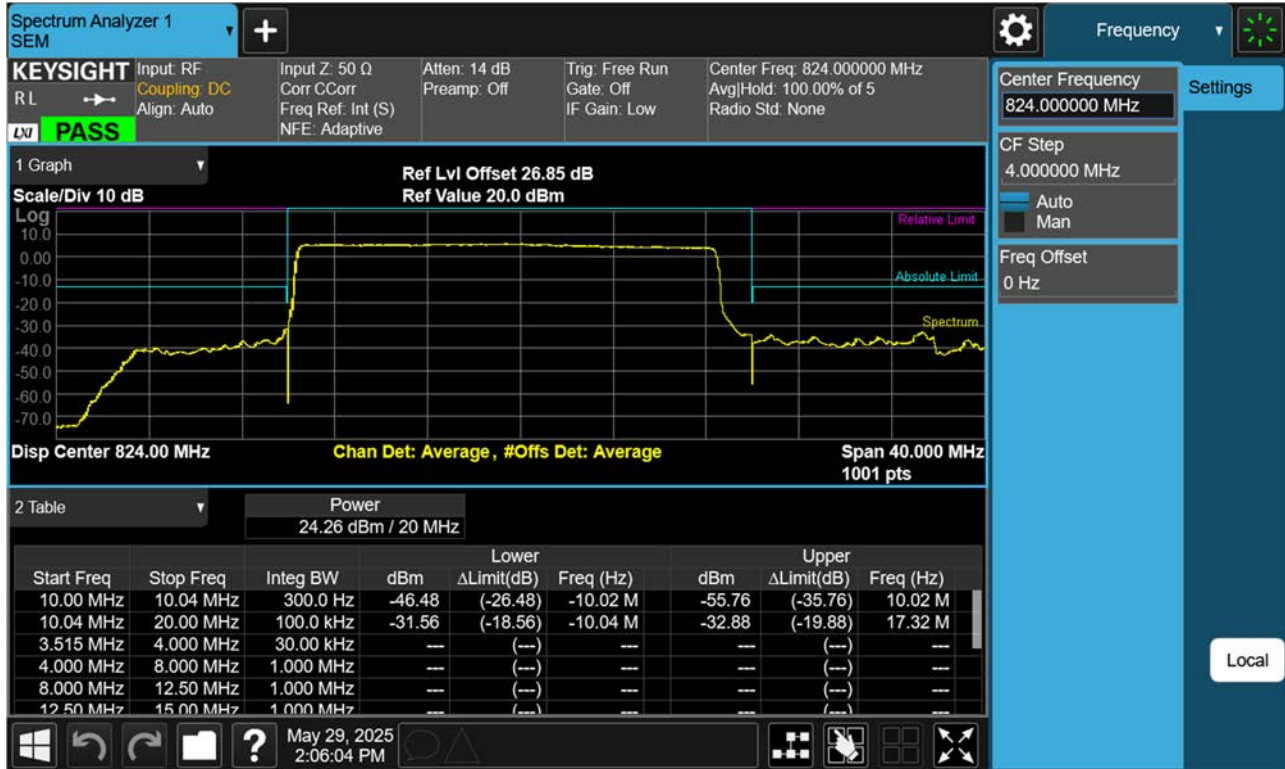
Upper Channel Edge Plot (15 M BW Ch.164800 BPSK_RB75_Offset 0)



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



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



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



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



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



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



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



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



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



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



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

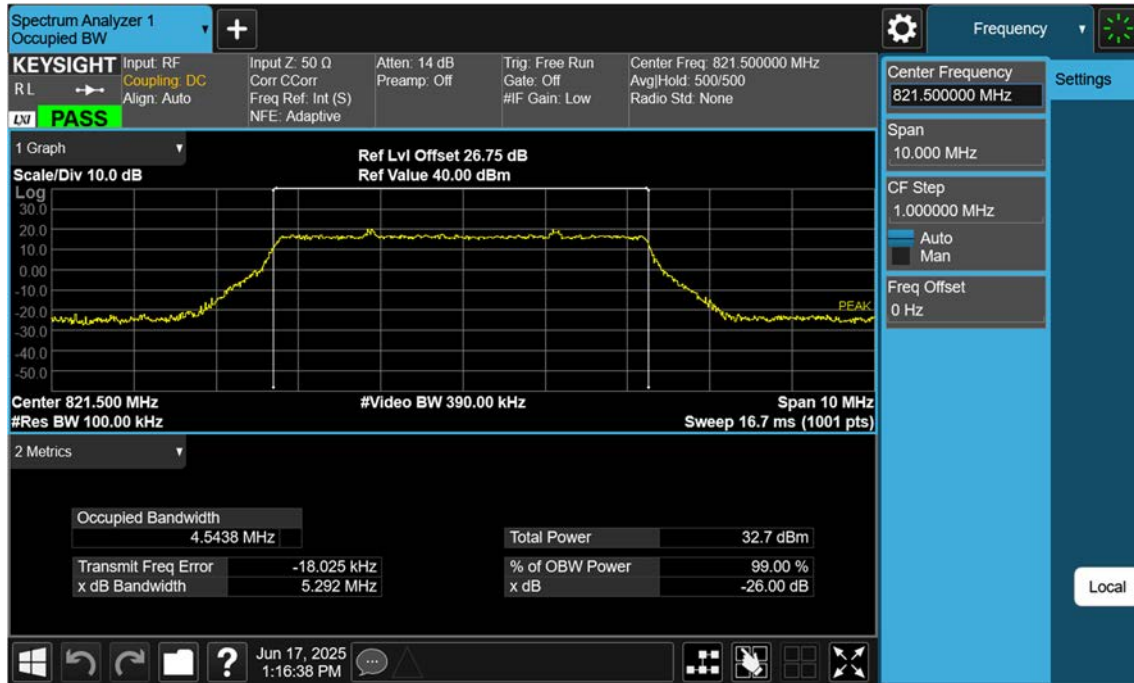


Mid Band Edge Plot (20 M BW Ch.164800 BPSK_RB100_Offset 0)

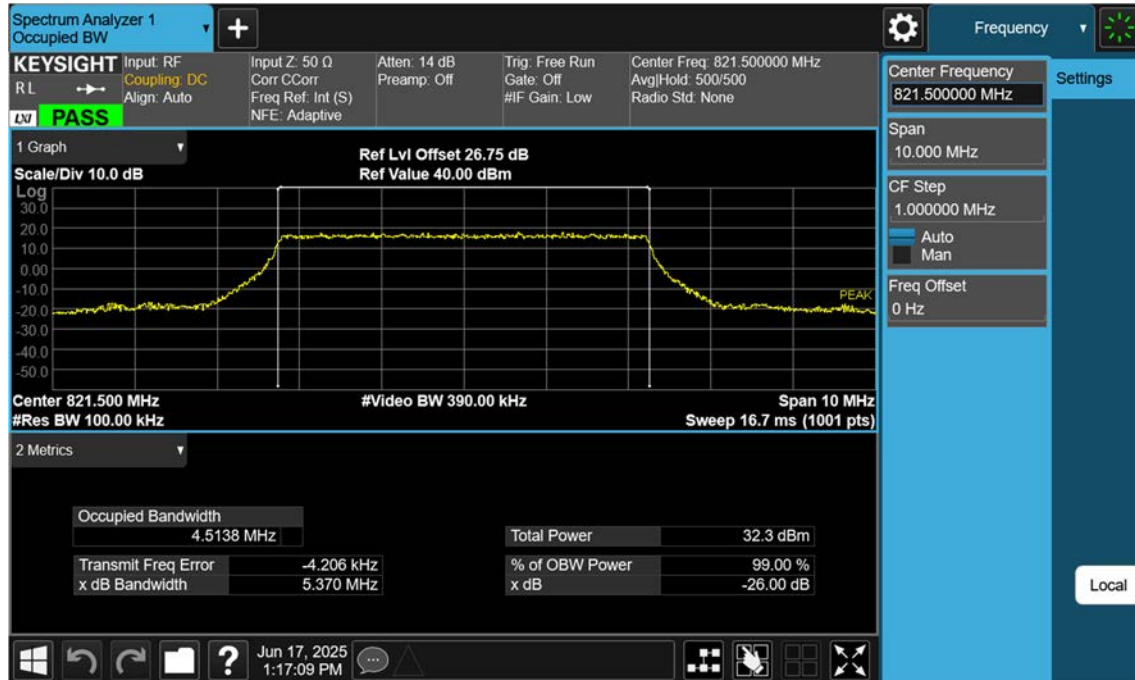


11. TEST PLOTS(Sub 1 ANT)

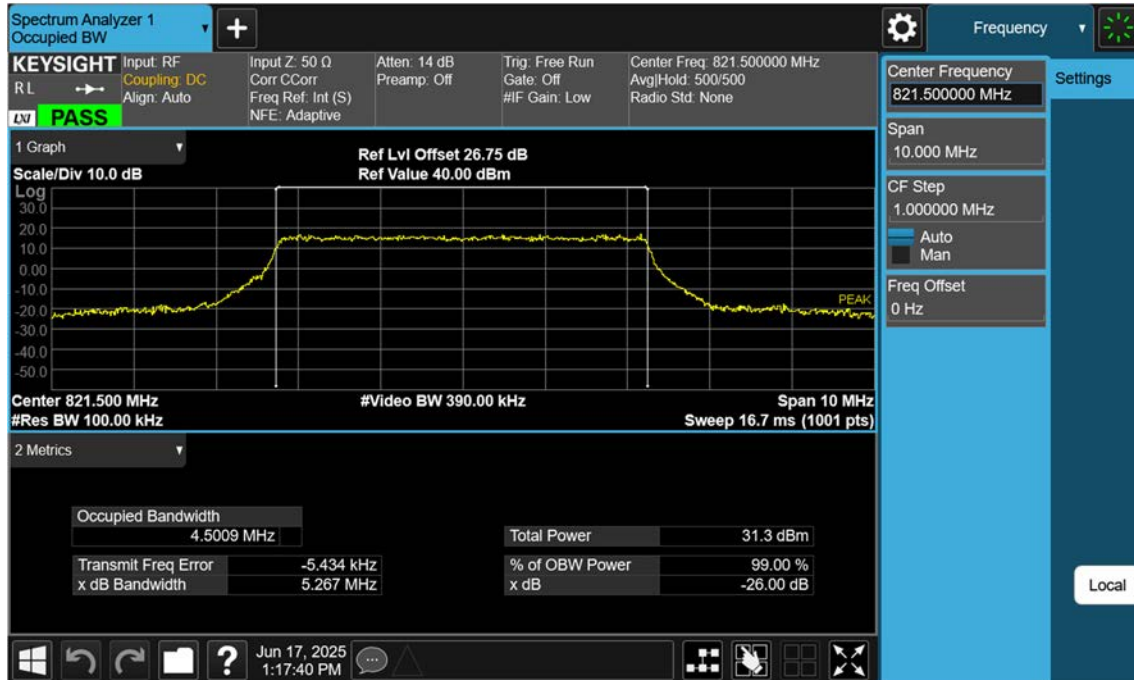
5 M_OBW_Mid_BPSK_FullRB



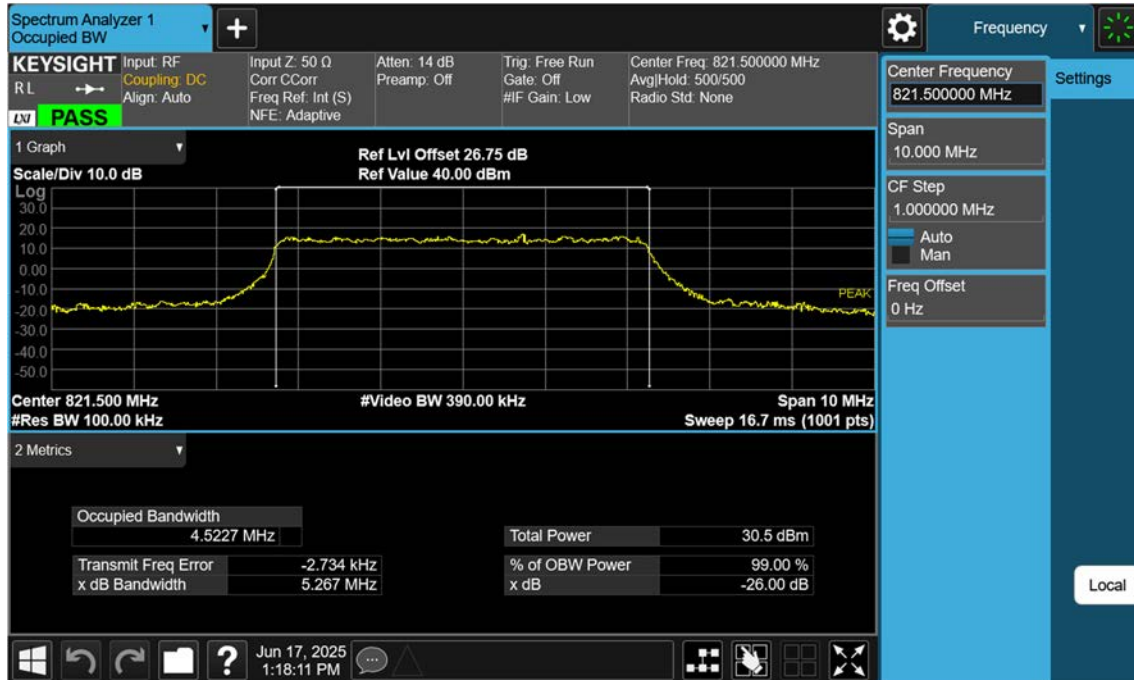
5 M_OBW_Mid_QPSK_FullRB



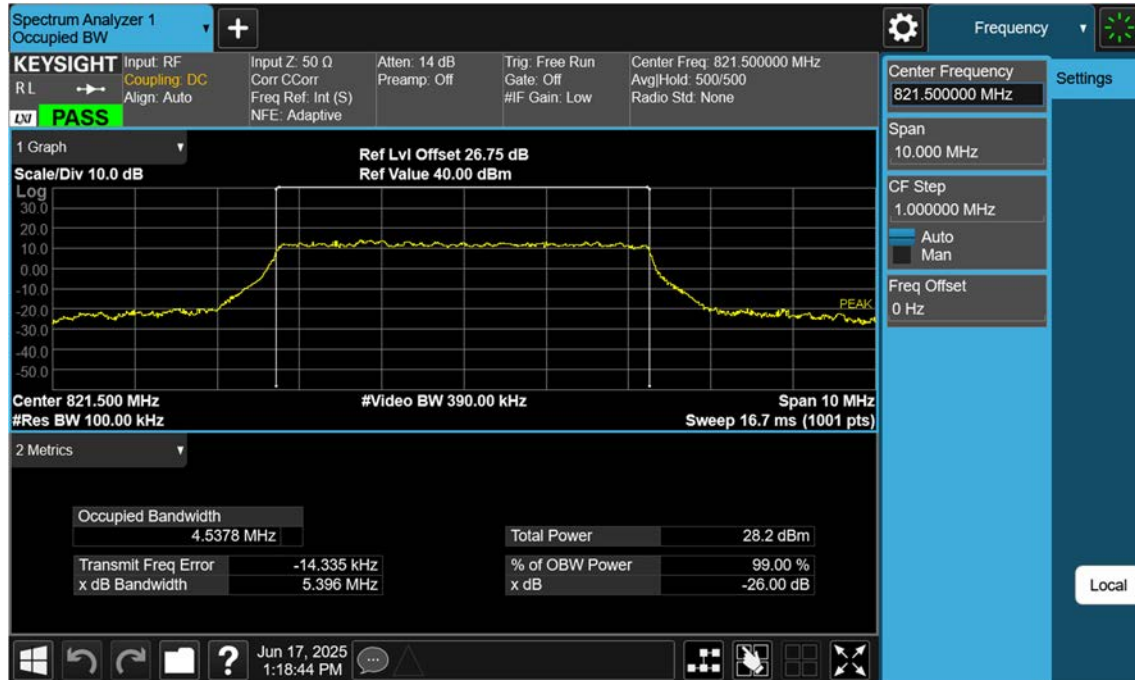
5 M_OBW_Mid_16QAM_FullRB



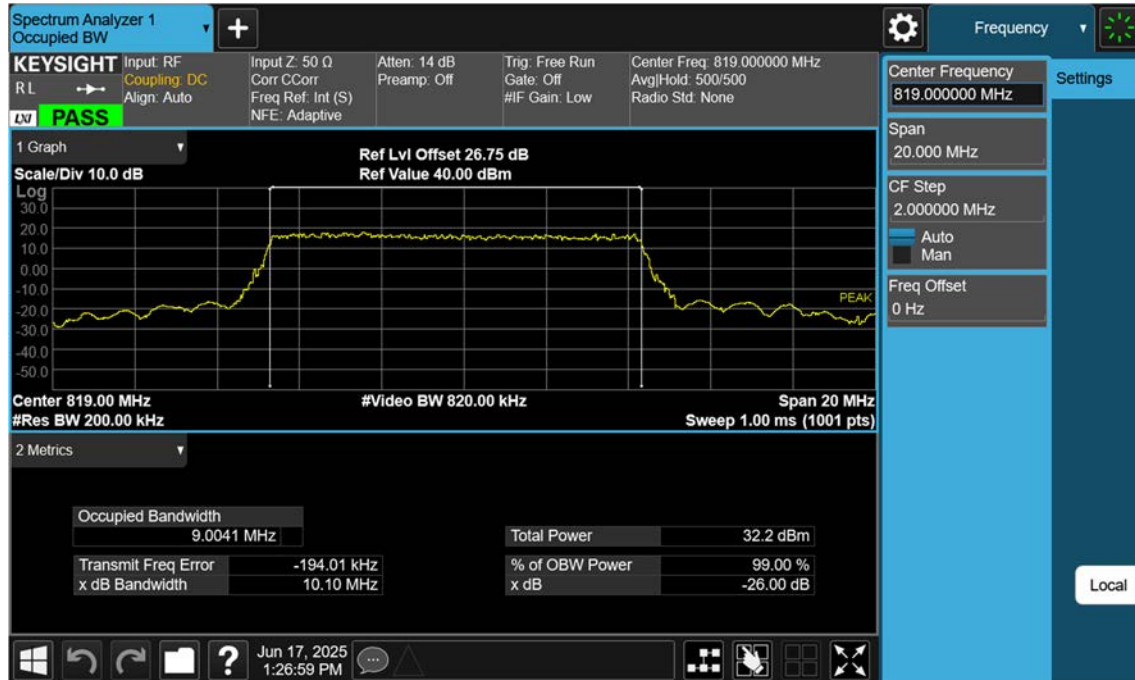
5 M_OBW_Mid_64QAM_FullRB



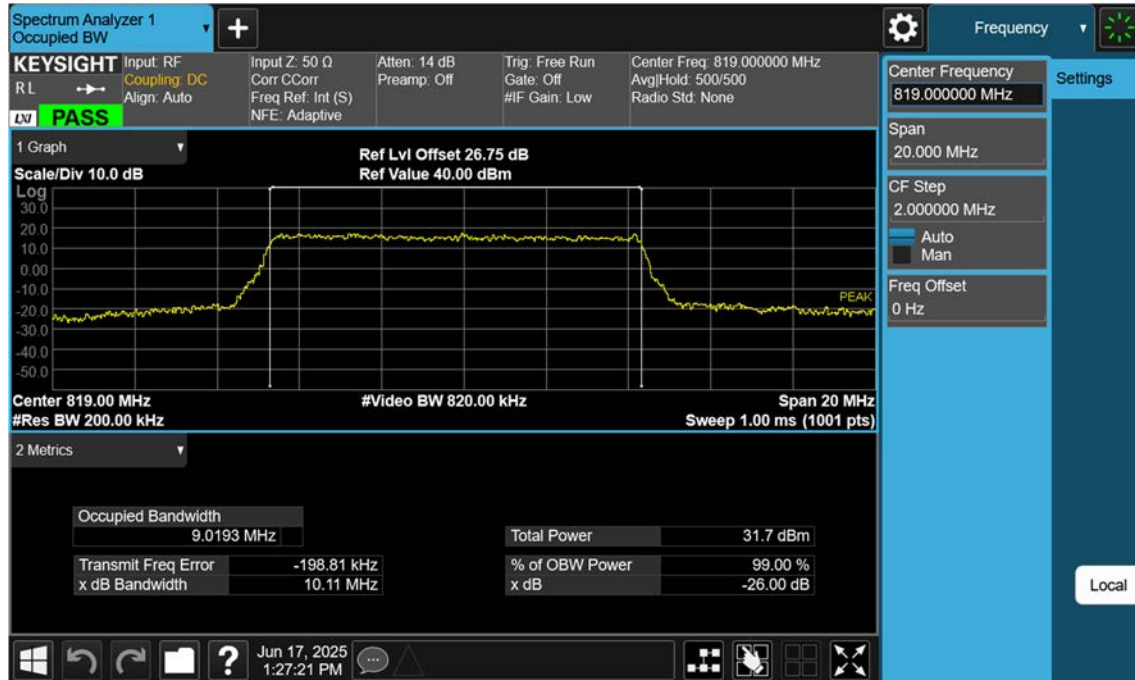
5 M_OBW_Mid_256QAM_FullRB



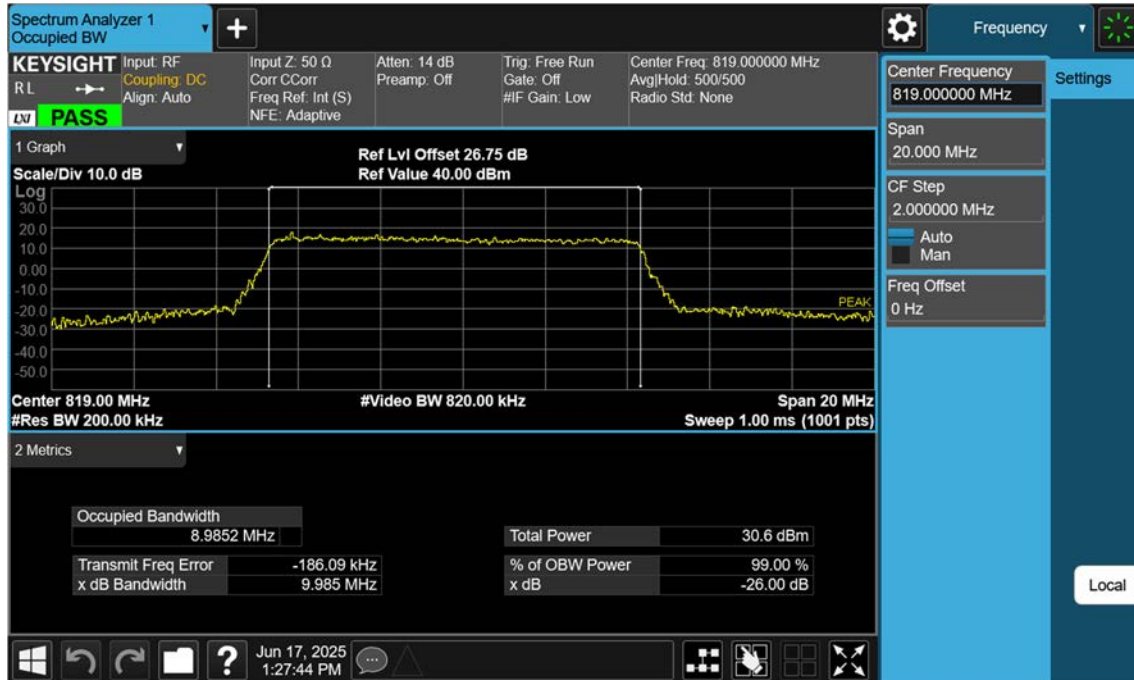
10 M_OBW_Low_BPSK_FullRB



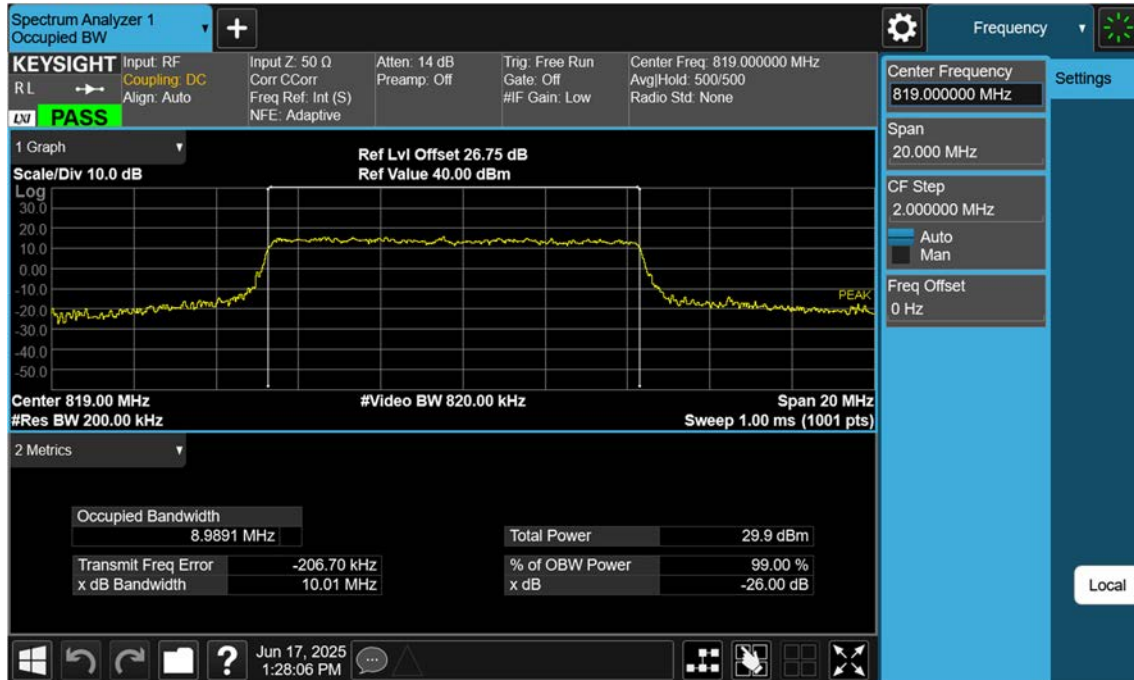
10 M_OBW_Low_QPSK_FullRB



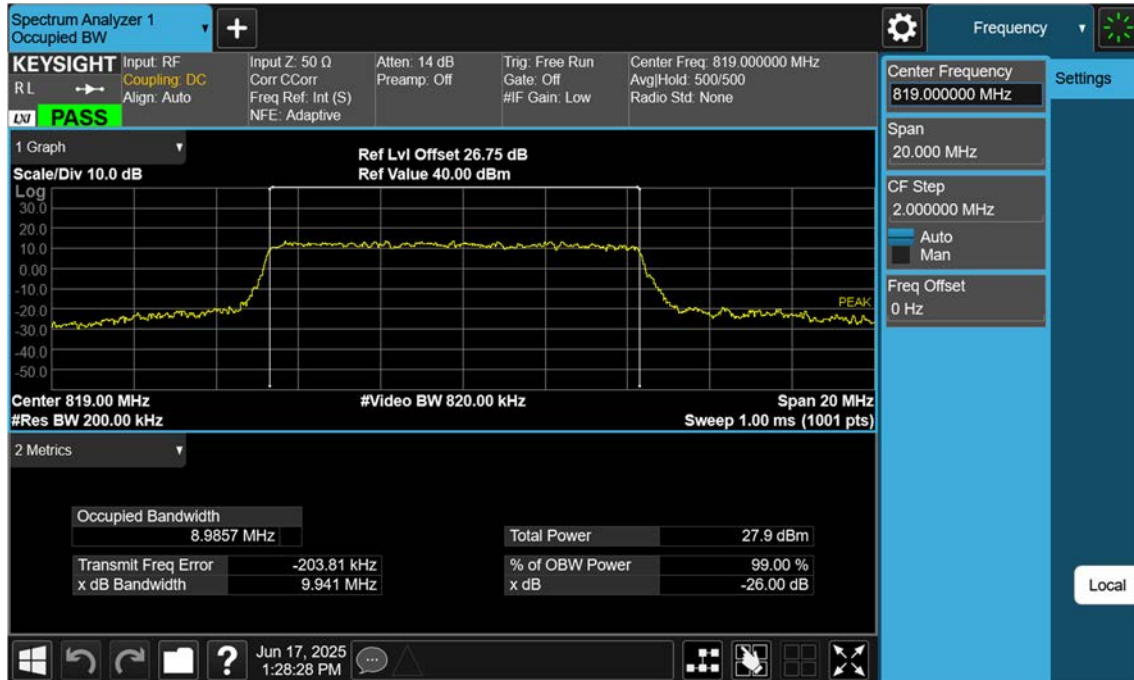
10 M_OBW_Low_16QAM_FullRB



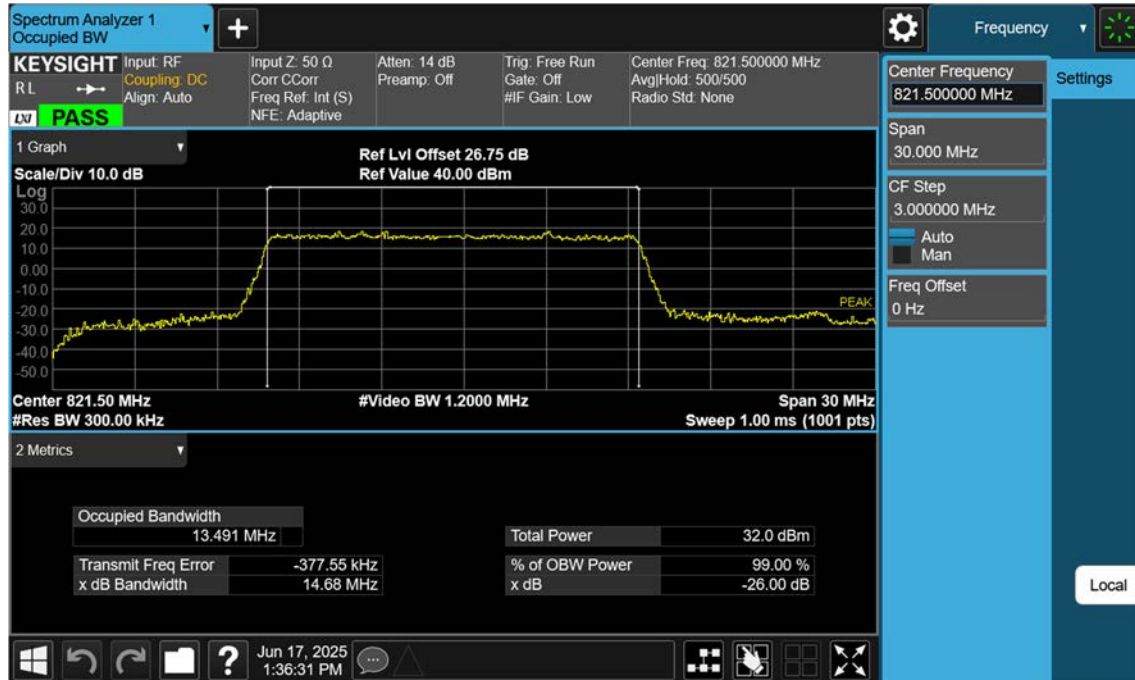
10 M_OBW_Low_64QAM_FullRB



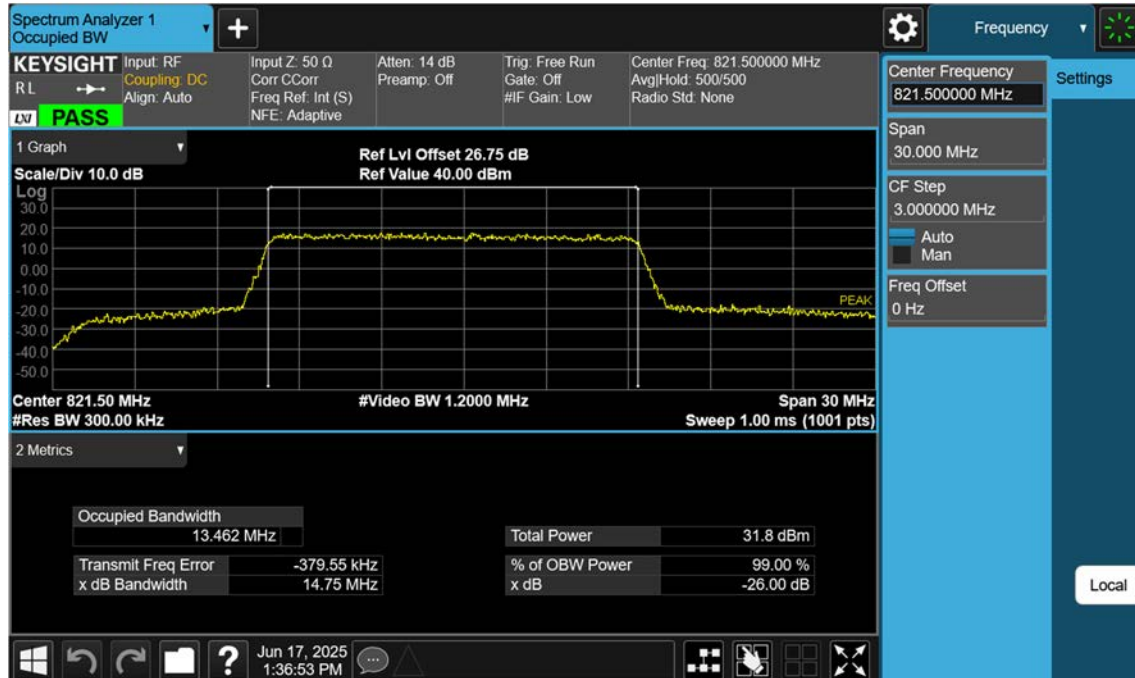
10 M_OBW_Low_256QAM_FullRB



15 M_OBW_Low_BPSK_FullRB



15 M_OBW_Low_QPSK_FullRB



15 M_OBW_Low_16QAM_FullRB

