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FCC Sub6 REPORT

Certification

Applicant Name:
SAMSUNG Electronics Co., Ltd.

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

Date of Issue:
October 16, 2023

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

Report No.: HCT-RF-2310-FC042

FCC ID:	**A3LSMS926U**
APPLICANT:	**SAMSUNG Electronics Co., Ltd.**

Model(s):	SM-S926U
Additional Model(s):	SM-S926U1
EUT Type:	Mobile phone
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§90, §22

Ant A

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	0.279	24.45
		4M56G7D	QPSK	0.277	24.42
		4M58W7D	16QAM	0.224	23.50
		4M60W7D	64QAM	0.139	21.44
		4M58W7D	256QAM	0.109	20.38
Sub6 n26 (10)	819.0 – 824.0	8M97G7D	PI/2 BPSK	0.267	24.26
		8M99G7D	QPSK	0.275	24.40
		8M99W7D	16QAM	0.211	23.25
		8M97W7D	64QAM	0.152	21.83
		8M99W7D	256QAM	0.094	19.75
Sub6 n26 (15)	821.5 – 824.0	13M5G7D	PI/2 BPSK	0.268	24.28
		13M5G7D	QPSK	0.261	24.16
		13M5W7D	16QAM	0.213	23.29
		13M5W7D	64QAM	0.155	21.89
		13M6W7D	256QAM	0.096	19.82
Sub6 n26 (20)	824.0	17M9G7D	PI/2 BPSK	0.264	24.21
		18M0G7D	QPSK	0.256	24.08
		17M9W7D	16QAM	0.214	23.30
		18M0W7D	64QAM	0.162	22.09
		17M9W7D	256QAM	0.095	19.77

Ant E

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n26 (5)	816.5 – 824.0	4M59G7D	PI/2 BPSK	0.308	24.89
		4M60G7D	QPSK	0.301	24.79
		4M60W7D	16QAM	0.232	23.65
		4M58W7D	64QAM	0.170	22.31
		4M58W7D	256QAM	0.116	20.63
Sub6 n26 (10)	819.0 – 824.0	8M98G7D	PI/2 BPSK	0.301	24.79
		9M01G7D	QPSK	0.306	24.86
		9M00W7D	16QAM	0.229	23.60
		8M96W7D	64QAM	0.198	22.97
		8M98W7D	256QAM	0.115	20.60
Sub6 n26 (15)	821.5 – 824.0	13M5G7D	PI/2 BPSK	0.299	24.76
		13M5G7D	QPSK	0.298	24.74
		13M5W7D	16QAM	0.237	23.75
		13M5W7D	64QAM	0.151	21.79
		13M5W7D	256QAM	0.161	22.08
Sub6 n26 (20)	824.0	17M9G7D	PI/2 BPSK	0.291	24.64
		17M9G7D	QPSK	0.306	24.86
		17M9W7D	16QAM	0.235	23.71
		17M9W7D	64QAM	0.147	21.67
		17M9W7D	256QAM	0.107	20.29

The measurements shown in this report were made in accordance with the procedures specified in CFR47 section §2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.
HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)

REVIEWED BY

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

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

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

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

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2310-FC042	October 16, 2023	- First Approval Report

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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:	A3LSMS926U
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-S926U
Additional Model(s):	SM-S926U1
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:	August 31, 2023 ~ October 11, 2023
Serial number:	Radiated: R3CW90B4EDB Conducted: 741c314dee0f7ece

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

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

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

2.2. MEASURING INSTRUMENT CALIBRATION

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

2.3. TEST FACILITY

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

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

Test Description	Test Procedure Used
Occupied Bandwidth	- KDB 971168 D01 v03r01 – Section 4.3 - ANSI C63.26-2015 – Section 5.4.4
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
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Effective Radiated Power/ Effective Isotropic Radiated Power	- KDB 971168 D01 v03r01 – Section 5.2 & 5.8 - ANSI/TIA-603-E-2016 – Section 2.2.17
Radiated Spurious and Harmonic Emissions	- KDB 971168 D01 v03r01 – Section 6.2 - ANSI/TIA-603-E-2016 – Section 2.2.12

3.2 CONDUCTED OUTPUT POWER

Test Overview

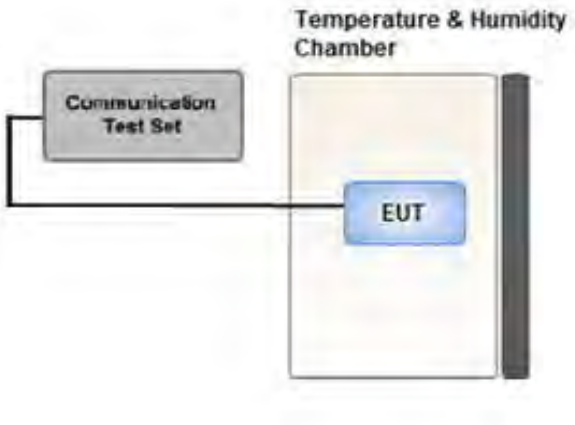
According to ANSI C63.26-2015 Section 5.2.1 when measuring the maximum RF output power from such devices, control over the EUT must be provided either through special test software (provided by manufacturer specifically for compliance testing, but not accessible by an end user) or through use of a base 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 in accordance with ANSI/TIA-603-E-2016 Clause 2.2.17.

Test Settings

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

Test Note

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

   The power is calculated by the following formula;

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

   Where: P_d is the dipole equivalent power and P_g is the generator output power into the substitution antenna.
3. The maximum value is calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps are repeated with the receiving antenna in both vertical and horizontal polarization. the difference between the gain of the horn and an isotropic antenna are taken into consideration
4. The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
5. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

3.4 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

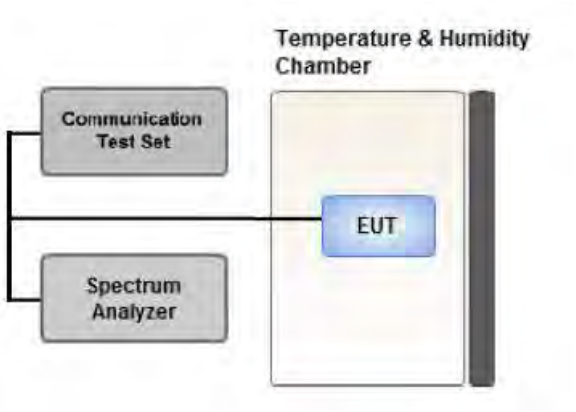
$$\text{Result}_{(dBm)} = \text{Pg}_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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

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

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

3.5 OCCUPIED BANDWIDTH.



Test setup

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

The EUT makes a call to the communication simulator.

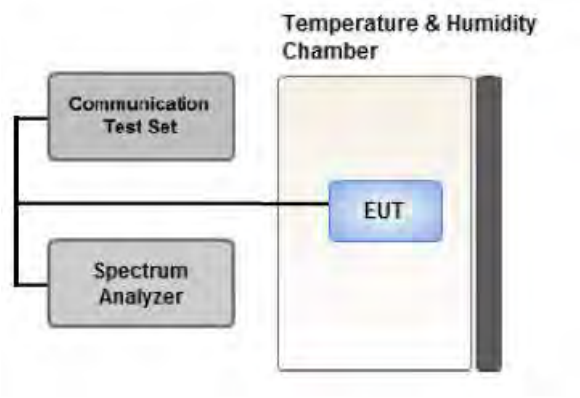
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

Test Settings

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

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

Test Overview

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

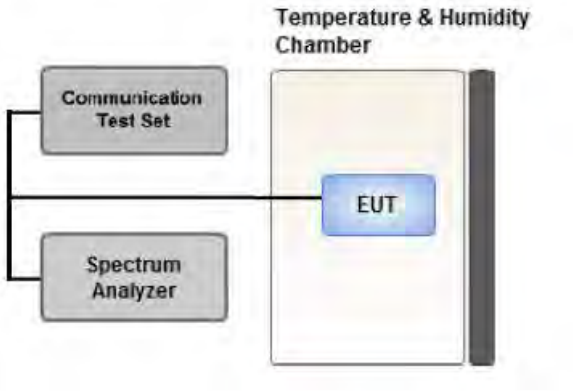
All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

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

Test Settings

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

3.7 CHANNEL EDGE



Test setup

Test Overview

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

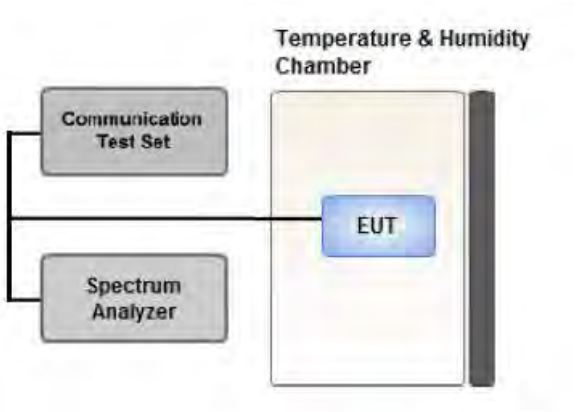
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW :
   .- EA licensee's frequency block by up to and including 37.5 kHz : 300 Hz
   .- EA licensee's frequency block greater than 37.5 kHz : 100 kHz
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points ≥ 2 x 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 MHz/ RB) or the emission is integrated over a 1 MHz bandwidth to determine the final result. When using the integration method the integration window is either centered on the emission or, for emissions at the band edge, centered by an offset of 500 kHz from the block edge so that the integration window is the 1 MHz adjacent to the block edge

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

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

The frequency stability of the transmitter is measured by:

1. Temperature:

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

2. Primary Supply Voltage:

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

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

Test Settings

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

3.9 WORST CASE(RADIATED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
  (Worst case: DFT-S-OFDM)
- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- 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
- We were performed the RSE test in condition of co-location.
  Mode : Stand alone, Simultaneous transmission scenarios
  Worst case : Stand alone
- 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(Ant A), 5 MHz(Ant E))
- SM-S926U & additional models were tested and the worst case results are reported.
  (Worst case : SM-S926U)

[Ant A 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		Z

[Ant E 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

3.10 WORST CASE(CONDUCTED TEST)

-Worst case : Of all modulation, We have tested modulation of the high Conducted Output Power.

- 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-S926U & additional models were tested and the worst case results are reported.
(Worst case : SM-S926U)

[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
		5	Low, High	Full RB	0
		10, 15, 20	Mid	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK,	5	Low, High	1	1
		10, 15, 20	Mid	1	1

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/27/2024	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/27/2024	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	03/21/2024	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	04/27/2025	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/29/2024	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	01/16/2025	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/09/2025	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/24/2025	Biennial
RF Switching System	FBSR-06B (1G HPF + LNA)	T&M SYSTEM	F3L1	05/22/2024	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/22/2024	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/22/2024	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/22/2024	Annual
Power Amplifier	CBL18265035	CERNEX	22966	12/01/2023	Annual
Power Amplifier	CBL26405040	CERNEX	25956	03/02/2024	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/25/2024	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	03/02/2024	Annual
Chamber	SU-642	ESPEC	93008124	02/22/2024	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/11/2024	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/19/2024	Annual
Spectrum Analyzer(10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/22/2024	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/10/2024	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/22/2024	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/23/2024	Annual
SIGNAL GENERATOR (100 kHz~40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	06/22/2024	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/24/2024	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/19/2024	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

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

5. MEASUREMENT UNCERTAINTY

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

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

6. SUMMARY OF TEST RESULTS

6.1 Test Condition: Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§2.1049	N/A	PASS
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

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

1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.

2) During the test , the turn table is rotated until the maximum signal is found.

3) Record the field strength meter's level.

4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.

5) Increase the signal generator output till the field strength meter's level is equal to the item (3).

6) The signal generator output level with Ant. Gain and cable loss are the rating of effective radiated power.

7.2 EIRP Sample Calculation

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

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

1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.

2) During the test , the turn table is rotated until the maximum signal is found.

3) Record the field strength meter's level.

4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.

5) Increase the signal generator output till the field strength meter's level is equal to the item (3).

6) The signal generator output level with Ant. Gain and cable loss are the rating of equivalent isotropic radiated power.

7.3. Emission Designator

GSM Emission Designator

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

EDGE Emission Designator

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

WCDMA Emission Designator

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

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(Ant A)

8.1 CONDUCTED OUTPUT POWER

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)						Limit (W)
				816.5 MHz		821.5 MHz		824.0 MHz		
				dBm	W	dBm	W	dBm	W	
5	BPSK	1	1	24.31	0.270	24.28	0.268	24.45	0.279	100
		1	13	24.23	0.265	24.21	0.264	24.44	0.278	100
		1	23	24.19	0.262	24.19	0.263	24.35	0.272	100
		12	0	23.79	0.240	23.71	0.235	23.66	0.232	100
		12	7	24.30	0.269	24.27	0.267	24.26	0.267	100
		12	13	23.73	0.236	23.71	0.235	23.67	0.233	100
		25	0	23.70	0.234	23.66	0.232	23.62	0.230	100
	QPSK	1	1	24.23	0.265	24.21	0.264	24.42	0.277	100
		1	13	24.00	0.251	23.99	0.250	24.41	0.276	100
		1	23	23.93	0.247	23.93	0.247	24.31	0.270	100
		12	0	23.26	0.212	23.16	0.207	23.13	0.206	100
		12	7	24.22	0.264	24.20	0.263	24.15	0.260	100
		12	13	23.21	0.209	23.17	0.207	23.14	0.206	100
		25	0	23.21	0.210	23.15	0.206	23.17	0.207	100
	16QAM	1	1	23.16	0.207	23.08	0.203	23.50	0.224	100
	64QAM	1	1	21.18	0.131	21.44	0.139	20.85	0.121	100
	256QAM	1	1	19.82	0.096	19.05	0.080	20.38	0.109	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	24.26	0.267	24.25	0.266	100
		1	26	24.18	0.262	24.09	0.256	100
		1	50	24.25	0.266	24.02	0.253	100
		25	0	23.72	0.236	23.73	0.236	100
		25	14	24.23	0.265	24.24	0.265	100
		25	27	23.68	0.233	23.68	0.233	100
		50	0	23.75	0.237	23.70	0.234	100
	QPSK	1	1	24.18	0.262	24.40	0.275	100
		1	26	24.10	0.257	24.32	0.270	100
		1	50	24.17	0.261	24.31	0.270	100
		25	0	23.23	0.210	23.20	0.209	100
		25	14	24.16	0.260	24.24	0.266	100
		25	27	23.24	0.211	23.23	0.210	100
		50	0	23.10	0.204	23.19	0.209	100
	16QAM	1	1	23.17	0.207	23.25	0.211	100
	64QAM	1	1	21.69	0.147	21.83	0.152	100
	256QAM	1	1	19.75	0.094	19.23	0.084	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	24.28	0.268	24.11	0.257	100
		1	40	24.27	0.267	24.02	0.252	100
		1	77	24.13	0.259	24.04	0.254	100
		36	0	23.58	0.228	23.57	0.228	100
		36	22	24.16	0.261	24.06	0.254	100
		36	43	23.57	0.228	23.68	0.233	100
		75	0	23.58	0.228	23.67	0.233	100
	QPSK	1	1	24.08	0.256	24.16	0.261	100
		1	40	23.67	0.233	24.10	0.257	100
		1	77	23.89	0.245	24.09	0.256	100
		36	0	23.07	0.203	23.19	0.209	100
		36	22	24.07	0.255	24.07	0.255	100
		36	43	23.16	0.207	23.16	0.207	100
		75	0	23.14	0.206	23.12	0.205	100
	16QAM	1	1	23.29	0.213	23.27	0.212	100
	64QAM	1	1	21.89	0.155	21.87	0.154	100
	256QAM	1	1	19.82	0.096	19.77	0.095	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)		Limit (W)
				824.0 MHz		
				dBm	W	
20	BPSK	1	1	24.21	0.264	100
		1	53	24.16	0.260	100
		1	104	24.20	0.263	100
		50	0	23.55	0.226	100
		50	28	24.15	0.260	100
		50	56	23.66	0.232	100
		100	0	23.72	0.235	100
	QPSK	1	1	24.08	0.256	100
		1	53	23.77	0.238	100
		1	104	23.75	0.237	100
		50	0	23.12	0.205	100
		50	28	24.07	0.255	100
		50	56	23.08	0.203	100
		100	0	23.23	0.211	100
	16QAM	1	1	23.30	0.214	100
	64QAM	1	1	22.09	0.162	100
	256QAM	1	1	19.77	0.095	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	-33.06	27.68	-10.05	1.38	H	< 100	0.042	16.25	1	1
		QPSK	-33.42	27.32	-10.05	1.38	H		0.039	15.89		
		16-QAM	-34.35	26.39	-10.05	1.38	H		0.031	14.96		
		64-QAM	-35.74	25.00	-10.05	1.38	H		0.023	13.57		
		256-QAM	-37.89	22.85	-10.05	1.38	H		0.014	11.42		
821.5		PI/2 BPSK	-33.15	27.77	-10.05	1.38	H		0.043	16.34	1	1
		QPSK	-33.18	27.74	-10.05	1.38	H		0.043	16.31		
		16-QAM	-34.25	26.67	-10.05	1.38	H		0.033	15.24		
		64-QAM	-35.64	25.28	-10.05	1.38	H		0.024	13.85		
		256-QAM	-38.30	22.62	-10.05	1.38	H		0.013	11.19		
824.0		PI/2 BPSK	-33.38	27.52	-10.05	1.38	H	< 7.00	0.041	16.09	1	1
		QPSK	-33.52	27.38	-10.05	1.38	H		0.039	15.95		
		16-QAM	-34.49	26.41	-10.05	1.38	H		0.032	14.98		
		64-QAM	-35.93	24.97	-10.05	1.38	H		0.023	13.54		
		256-QAM	-38.48	22.42	-10.05	1.38	H		0.013	10.99		

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	-33.17	27.57	-10.05	1.38	H	< 100	0.041	16.14	1	1
		QPSK	-33.29	27.45	-10.05	1.38	H		0.040	16.02		
		16-QAM	-34.22	26.52	-10.05	1.38	H		0.032	15.09		
		64-QAM	-35.58	25.16	-10.05	1.38	H		0.024	13.73		
		256-QAM	-38.00	22.74	-10.05	1.38	H		0.014	11.31		
824.0		PI/2 BPSK	-33.13	27.77	-10.05	1.38	H	< 7.00	0.043	16.34	1	1
		QPSK	-33.23	27.67	-10.05	1.38	H		0.042	16.24		
		16-QAM	-34.32	26.58	-10.05	1.38	H		0.033	15.15		
		64-QAM	-35.65	25.25	-10.05	1.38	H		0.024	13.82		
		256-QAM	-38.30	22.60	-10.05	1.38	H		0.013	11.17		

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	-32.82	28.10	-10.05	1.38	H	< 7.00	0.046	16.67	1	1
		QPSK	-32.84	28.08	-10.05	1.38	H		0.046	16.65		
		16-QAM	-34.08	26.84	-10.05	1.38	H		0.035	15.41		
		64-QAM	-35.30	25.62	-10.05	1.38	H		0.026	14.19		
		256-QAM	-37.94	22.98	-10.05	1.38	H		0.014	11.55		
824.0		PI/2 BPSK	-33.03	27.87	-10.05	1.38	H		0.044	16.44	1	1
		QPSK	-33.19	27.71	-10.05	1.38	H		0.043	16.28		
		16-QAM	-34.08	26.82	-10.05	1.38	H		0.035	15.39		
		64-QAM	-35.53	25.37	-10.05	1.38	H		0.025	13.94		
		256-QAM	-38.05	22.85	-10.05	1.38	H		0.014	11.42		

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	-33.06	27.84	-10.05	1.38	H	< 7.00	0.044	16.41	1	1
		QPSK	-33.24	27.66	-10.05	1.38	H		0.042	16.23		
		16-QAM	-34.15	26.75	-10.05	1.38	H		0.034	15.32		
		64-QAM	-35.43	25.47	-10.05	1.38	H		0.025	14.04		
		256-QAM	-37.97	22.93	-10.05	1.38	H		0.014	11.50		

8.3 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N26

▣ Bandwidth: 5 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 3 meters

▣ SCS: 15 kHz

▣ Limit: -13 dBm

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	-57.32	9.20	-66.23	2.03	H	-59.06	-13.00	1	1
	2 449.50	-59.15	10.20	-62.40	2.45	H	-54.65	-13.00		
	3 266.00	-59.76	10.90	-61.80	2.92	H	-53.82	-13.00		
	4 082.50	-61.87	11.30	-61.72	3.25	H	-53.67	-13.00		
	4 899.00	-61.18	10.90	-56.89	3.58	H	-49.57	-13.00		
164300 (821.5)	1 643.00	-58.21	9.40	-66.83	2.00	H	-59.43	-13.00	1	1
	2 464.50	-59.78	10.30	-64.61	2.52	H	-56.83	-13.00		
	3 286.00	-60.35	11.00	-62.83	2.94	H	-54.77	-13.00		
	4 107.50	-62.54	11.20	-61.62	3.28	H	-53.70	-13.00		
	4 929.00	-61.97	10.70	-56.81	3.61	H	-49.72	-13.00		

▣ NR Band: N26

▣ Bandwidth: 15 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 3 meters

▣ SCS: 15 kHz

▣ Limit: -13 dBm

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	-59.69	9.40	-68.31	2.00	H	-60.91	-13.00	1	1
	2 464.50	-59.56	10.30	-64.39	2.52	H	-56.61	-13.00		
	3 286.00	-61.14	11.00	-63.62	2.94	H	-55.56	-13.00		
	4 107.50	-61.91	11.20	-60.99	3.28	H	-53.07	-13.00		
	4 929.00	-61.84	10.70	-56.68	3.61	H	-49.59	-13.00		
164800 (824.0)	1 648.00	-56.95	9.20	-65.94	2.02	H	-58.76	-13.00	1	1
	2 472.00	-60.55	10.20	-64.69	2.49	H	-56.98	-13.00		
	3 296.00	-60.15	10.75	-62.50	2.91	H	-54.66	-13.00		
	4 120.00	-63.96	11.30	-63.25	3.22	H	-55.17	-13.00		
	4 944.00	-61.35	11.00	-56.87	3.60	H	-49.47	-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	4.6041
			QPSK			4.5582
			16QAM			4.5751
			64QAM			4.5952
			256QAM			4.5777
	10 MHz	819.0	BPSK	50		8.9728
			QPSK			8.9922
			16QAM			8.9905
			64QAM			8.9661
			256QAM			8.9914
	15 MHz	** 821.5	BPSK	75		13.448
			QPSK			13.494
			16QAM			13.482
			64QAM			13.473
			256QAM			13.549
	20 MHz	** 824.0	BPSK	100		17.929
			QPSK			17.947
			16QAM			17.873
			64QAM			17.970
			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	8.2687	30.815	-74.028	-43.213	-13.00
		821.5	6.2981	30.815	-75.416	-44.601	
		** 824.0	9.1979	30.815	-74.951	-44.136	
	10	819.0	3.7837	30.200	-74.755	-44.555	
		** 824.0	3.7787	30.200	-74.935	-44.735	
	15	** 821.5	9.1196	30.815	-75.461	-44.646	
		** 824.0	9.9826	30.815	-74.981	-44.166	
	20	** 824.0	9.0997	30.815	-74.282	-43.467	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 102 ~ 109.

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 76 ~ 91.

8.7 BAND EDGE(Part22)

- Test Channel : 164800(824.0 MHz)

- Plots of the EUT's Band Edge are shown Page 92 ~ 101.

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. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
821.5	100 %	+20(Ref)	821 499 998	0.0	0.000 000	0.000
	100 %	-30	821 499 996	-2.0	0.000 000	-0.002
	100 %	-20	821 499 996	-1.9	0.000 000	-0.002
	100 %	-10	821 499 994	-3.9	0.000 000	-0.005
	100 %	0	821 499 994	-3.8	0.000 000	-0.005
	100 %	+10	821 499 994	-3.6	0.000 000	-0.004
	100 %	+30	821 499 994	-3.6	0.000 000	-0.004
	100 %	+40	821 499 996	-1.3	0.000 000	-0.002
	100 %	+50	821 499 997	-1.1	0.000 000	-0.001
	Batt. Endpoint	+20	821 499 994	-3.5	0.000 000	-0.004

▣ BandWidth: 10 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
819.0	100 %	+20(Ref)	819 000 002	0.0	0.000 000	0.000
	100 %	-30	819 000 004	1.6	0.000 000	0.002
	100 %	-20	819 000 003	1.1	0.000 000	0.001
	100 %	-10	819 000 003	0.6	0.000 000	0.001
	100 %	0	819 000 003	0.2	0.000 000	0.000
	100 %	+10	819 000 002	-0.4	0.000 000	0.000
	100 %	+30	819 000 004	1.6	0.000 000	0.002
	100 %	+40	819 000 003	1.1	0.000 000	0.001
	100 %	+50	819 000 003	0.3	0.000 000	0.000
	Batt. Endpoint	+20	819 000 002	-0.2	0.000 000	0.000

▣ BandWidth: 15 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
** 821.5	100 %	+20(Ref)	821 500 001	0.0	0.000 000	0.000
	100 %	-30	821 500 002	0.9	0.000 000	0.001
	100 %	-20	821 500 002	0.5	0.000 000	0.001
	100 %	-10	821 500 001	0.0	0.000 000	0.000
	100 %	0	821 500 003	1.7	0.000 000	0.002
	100 %	+10	821 500 003	1.6	0.000 000	0.002
	100 %	+30	821 500 003	1.3	0.000 000	0.002
	100 %	+40	821 500 004	3.0	0.000 000	0.004
	100 %	+50	821 500 002	0.8	0.000 000	0.001
	Batt. Endpoint	+20	821 500 002	0.6	0.000 000	0.001

Note:

1. **: Straddle Channel

2. Straddle channel does not exceed the Part22 and Part90 limits.

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
** 824.0	100 %	+20(Ref)	824 000 001	0.0	0.000 000	0.000
	100 %	-30	824 000 001	0.2	0.000 000	0.000
	100 %	-20	824 000 001	0.3	0.000 000	0.000
	100 %	-10	824 000 000	-0.5	0.000 000	-0.001
	100 %	0	824 000 001	0.5	0.000 000	0.001
	100 %	+10	824 000 002	1.2	0.000 000	0.001
	100 %	+30	824 000 002	0.8	0.000 000	0.001
	100 %	+40	824 000 003	2.4	0.000 000	0.003
	100 %	+50	824 000 000	-0.8	0.000 000	-0.001
	Batt. Endpoint	+20	824 000 001	0.5	0.000 000	0.001

Note:

1. **: Straddle Channel

2. Straddle channel does not exceed the Part22 and Part90 limits.

9. TEST DATA(Ant E)

9.1 CONDUCTED OUTPUT POWER

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)						Limit (W)
				816.5 MHz		821.5 MHz		824.0 MHz		
				dBm	W	dBm	W	dBm	W	
5	BPSK	1	1	24.82	0.304	24.78	0.300	24.89	0.308	100
		1	13	24.73	0.297	24.56	0.286	24.88	0.308	100
		1	23	24.70	0.295	24.50	0.282	24.84	0.305	100
		12	0	24.12	0.258	24.16	0.261	24.14	0.260	100
		12	7	24.81	0.303	24.77	0.300	24.70	0.295	100
		12	13	24.14	0.260	24.14	0.260	24.19	0.262	100
		25	0	24.10	0.257	24.12	0.258	24.18	0.262	100
	QPSK	1	1	24.63	0.290	24.69	0.295	24.79	0.301	100
		1	13	24.54	0.285	24.58	0.287	24.78	0.301	100
		1	23	24.55	0.285	24.53	0.284	24.72	0.296	100
		12	0	23.57	0.228	23.63	0.231	23.63	0.231	100
		12	7	24.62	0.290	24.68	0.294	24.72	0.297	100
		12	13	23.64	0.231	23.65	0.232	23.60	0.229	100
		25	0	23.53	0.225	23.60	0.229	23.67	0.233	100
	16QAM	1	1	23.65	0.232	23.44	0.221	23.64	0.231	100
	64QAM	1	1	22.22	0.167	22.31	0.170	21.99	0.158	100
	256QAM	1	1	20.43	0.110	20.20	0.105	20.63	0.116	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	24.73	0.297	24.79	0.301	100
		1	26	24.52	0.283	24.77	0.300	100
		1	50	24.65	0.292	24.70	0.295	100
		25	0	24.15	0.260	24.12	0.258	100
		25	14	24.72	0.296	24.73	0.297	100
		25	27	24.22	0.264	24.19	0.262	100
		50	0	24.06	0.255	24.16	0.260	100
	QPSK	1	1	24.82	0.303	24.86	0.306	100
		1	26	24.70	0.295	24.85	0.305	100
		1	50	24.81	0.303	24.73	0.297	100
		25	0	23.60	0.229	23.61	0.229	100
		25	14	24.61	0.289	24.57	0.287	100
		25	27	23.57	0.228	23.58	0.228	100
		50	0	23.58	0.228	23.62	0.230	100
	16QAM	1	1	23.43	0.220	23.60	0.229	100
	64QAM	1	1	22.06	0.161	22.97	0.198	100
	256QAM	1	1	19.98	0.099	20.60	0.115	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	24.69	0.294	24.76	0.299	100
		1	40	24.68	0.294	24.43	0.278	100
		1	77	24.61	0.289	24.34	0.272	100
		36	0	24.10	0.257	24.04	0.254	100
		36	22	24.68	0.294	24.75	0.299	100
		36	43	24.11	0.258	24.13	0.259	100
		75	0	24.09	0.257	24.04	0.254	100
	QPSK	1	1	24.68	0.294	24.74	0.298	100
		1	40	24.42	0.277	24.73	0.297	100
		1	77	24.67	0.293	24.62	0.290	100
		36	0	23.65	0.232	23.63	0.231	100
		36	22	24.61	0.289	24.54	0.284	100
		36	43	23.64	0.231	23.61	0.229	100
		75	0	23.61	0.229	23.47	0.222	100
	16QAM	1	1	23.75	0.237	23.68	0.233	100
	64QAM	1	1	21.79	0.151	21.57	0.144	100
	256QAM	1	1	20.24	0.106	22.08	0.161	100

Band Width	Modulation	RB Size	RB Offset	Max. output power(dBm)		Limit (W)
				824.0 MHz		
				dBm	W	
20	BPSK	1	1	24.64	0.291	100
		1	53	24.61	0.289	100
		1	104	24.58	0.287	100
		50	0	24.07	0.255	100
		50	28	24.53	0.283	100
		50	56	23.99	0.250	100
		100	0	24.13	0.259	100
	QPSK	1	1	24.86	0.306	100
		1	53	24.85	0.305	100
		1	104	24.83	0.304	100
		50	0	23.58	0.228	100
		50	28	24.56	0.285	100
		50	56	23.50	0.224	100
		100	0	23.63	0.231	100
	16QAM	1	1	23.71	0.235	100
	64QAM	1	1	21.67	0.147	100
	256QAM	1	1	20.29	0.107	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	-30.78	29.96	-10.05	1.38	H	< 100	0.071	18.53	1	1
		QPSK	-30.84	29.90	-10.05	1.38	H		0.070	18.47		
		16-QAM	-32.02	28.72	-10.05	1.38	H		0.054	17.29		
		64-QAM	-33.25	27.49	-10.05	1.38	H		0.040	16.06		
		256-QAM	-35.91	24.83	-10.05	1.38	H		0.022	13.40		
821.5		PI/2 BPSK	-30.56	30.36	-10.05	1.38	H		0.078	18.93	1	12
		QPSK	-30.77	30.15	-10.05	1.38	H		0.074	18.72		
		16-QAM	-31.88	29.04	-10.05	1.38	H		0.058	17.61		
		64-QAM	-33.20	27.72	-10.05	1.38	H		0.043	16.29		
		256-QAM	-35.84	25.08	-10.05	1.38	H		0.023	13.65		
824.0		PI/2 BPSK	-30.56	30.34	-10.05	1.38	H	< 7.00	0.078	18.91	1	12
		QPSK	-30.73	30.17	-10.05	1.38	H		0.075	18.74		
		16-QAM	-31.92	28.98	-10.05	1.38	H		0.057	17.55		
		64-QAM	-32.89	28.01	-10.05	1.38	H		0.046	16.58		
		256-QAM	-35.84	25.06	-10.05	1.38	H		0.023	13.63		

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
819.0	Sub6 n26 10 MHz [15 kHz]	PI/2 BPSK	-30.61	30.13	-10.05	1.38	H	< 100	0.074	18.70	1	50
		QPSK	-30.78	29.96	-10.05	1.38	H		0.071	18.53		
		16-QAM	-31.88	28.86	-10.05	1.38	H		0.055	17.43		
		64-QAM	-33.31	27.43	-10.05	1.38	H		0.040	16.00		
		256-QAM	-35.87	24.87	-10.05	1.38	H		0.022	13.44		
824.0		PI/2 BPSK	-30.71	30.19	-10.05	1.38	H	< 7.00	0.075	18.76	1	26
		QPSK	-30.93	29.97	-10.05	1.38	H		0.072	18.54		
		16-QAM	-31.92	28.98	-10.05	1.38	H		0.057	17.55		
		64-QAM	-33.29	27.61	-10.05	1.38	H		0.042	16.18		
		256-QAM	-35.95	24.95	-10.05	1.38	H		0.023	13.52		

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	-30.60	30.32	-10.05	1.38	H	< 7.00	0.077	18.89	1	39
		QPSK	-30.72	30.20	-10.05	1.38	H		0.075	18.77		
		16-QAM	-31.72	29.20	-10.05	1.38	H		0.060	17.77		
		64-QAM	-33.18	27.74	-10.05	1.38	H		0.043	16.31		
		256-QAM	-35.78	25.14	-10.05	1.38	H		0.024	13.71		
824.0		PI/2 BPSK	-30.57	30.33	-10.05	1.38	H		0.078	18.90	1	1
		QPSK	-30.77	30.13	-10.05	1.38	H		0.074	18.70		
		16-QAM	-31.84	29.06	-10.05	1.38	H		0.058	17.63		
		64-QAM	-33.25	27.65	-10.05	1.38	H		0.042	16.22		
		256-QAM	-35.78	25.12	-10.05	1.38	H		0.023	13.69		

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	-30.58	30.32	-10.05	1.38	H	< 7.00	0.078	18.89	1	104
		QPSK	-30.69	30.21	-10.05	1.38	H		0.076	18.78		
		16-QAM	-31.76	29.14	-10.05	1.38	H		0.059	17.71		
		64-QAM	-33.20	27.70	-10.05	1.38	H		0.042	16.27		
		256-QAM	-35.93	24.97	-10.05	1.38	H		0.023	13.54		

9.3 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N26

▣ Bandwidth: 5 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 3 meters

▣ SCS: 15 kHz

▣ Limit: -13 dBm

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	-57.60	9.20	-66.51	2.03	H	-59.34	-13.00	1	1
	2 449.50	-60.30	10.20	-63.55	2.45	H	-55.80	-13.00		
	3 266.00	-60.33	10.90	-62.37	2.92	H	-54.39	-13.00		
	4 082.50	-63.34	11.30	-63.19	3.25	H	-55.14	-13.00		
	4 899.00	-61.33	10.90	-57.04	3.58	H	-49.72	-13.00		
164300 (821.5)	1 643.00	-57.48	9.40	-66.10	2.00	V	-58.70	-13.00	1	12
	2 464.50	-60.50	10.30	-65.33	2.52	V	-57.55	-13.00		
	3 286.00	-60.88	11.00	-63.36	2.94	V	-55.30	-13.00		
	4 107.50	-62.53	11.20	-61.61	3.28	V	-53.69	-13.00		
	4 929.00	-62.09	10.70	-56.93	3.61	V	-49.84	-13.00		

▣ NR Band: N26

▣ Bandwidth: 5 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 3 meters

▣ SCS: 15 kHz

▣ Limit: -13 dBm

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	-58.66	9.20	-67.65	2.02	H	-60.47	-13.00	1	12
	2 472.00	-58.53	10.20	-62.67	2.49	H	-54.96	-13.00		
	3 296.00	-60.25	10.75	-62.60	2.91	H	-54.76	-13.00		
	4 120.00	-61.60	11.30	-60.89	3.22	H	-52.81	-13.00		
	4 944.00	-62.15	11.00	-57.67	3.60	H	-50.27	-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	4.5865
			QPSK			4.5958
			16QAM			4.5976
			64QAM			4.5802
			256QAM			4.5793
	10 MHz	819.0	BPSK	50		8.9756
			QPSK			9.0127
			16QAM			9.0043
			64QAM			8.9578
			256QAM			8.9825
	15 MHz	** 821.5	BPSK	75		13.472
			QPSK			13.472
			16QAM			13.484
			64QAM			13.468
			256QAM			13.500
	20 MHz	** 824.0	BPSK	100		17.907
			QPSK			17.901
			16QAM			17.885
			64QAM			17.914
			256QAM			17.879

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	7.4213	30.815	-74.719	-43.904	-13.00
		821.5	4.0444	30.200	-75.172	-44.972	
		** 824.0	8.5573	30.815	-75.334	-44.519	
	10	819.0	9.6929	30.815	-74.665	-43.850	
		** 824.0	4.0644	30.200	-74.469	-44.269	
	15	** 821.5	4.0250	30.200	-73.635	-43.435	
		** 824.0	4.8301	30.200	-74.601	-44.401	
	20	** 824.0	3.7533	30.200	-75.032	-44.832	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 157 ~ 164.

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

9.6 CHANNEL EDGE (Part90)

- Test Channel : 164800(824.0MHz)

- Plots of the EUT's Band Edge are shown Page 131 ~ 146.

9.7 BAND EDGE(Part22)

- Test Channel : 164800(824.0 MHz)

- Plots of the EUT's Band Edge are shown Page 147 ~ 156.

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. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
821.5	100 %	+20(Ref)	821 499 997	0.0	0.000 000	0.000
	100 %	-30	821 499 994	-2.7	0.000 000	-0.003
	100 %	-20	821 499 994	-2.6	0.000 000	-0.003
	100 %	-10	821 499 994	-2.5	0.000 000	-0.003
	100 %	0	821 499 995	-2.3	0.000 000	-0.003
	100 %	+10	821 499 995	-1.9	0.000 000	-0.002
	100 %	+30	821 499 995	-2.1	0.000 000	-0.003
	100 %	+40	821 499 995	-1.5	0.000 000	-0.002
	100 %	+50	821 499 993	-3.7	0.000 000	-0.005
	Batt. Endpoint	+20	821 499 994	-3.3	0.000 000	-0.004

▣ BandWidth: 10 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
819.0	100 %	+20(Ref)	819 000 001	0.0	0.000 000	0.000
	100 %	-30	819 000 001	-0.3	0.000 000	0.000
	100 %	-20	819 000 001	0.2	0.000 000	0.000
	100 %	-10	819 000 001	0.6	0.000 000	0.001
	100 %	0	819 000 002	1.1	0.000 000	0.001
	100 %	+10	819 000 002	1.2	0.000 000	0.002
	100 %	+30	819 000 002	0.8	0.000 000	0.001
	100 %	+40	819 000 002	1.6	0.000 000	0.002
	100 %	+50	819 000 003	2.1	0.000 000	0.003
	Batt. Endpoint	+20	819 000 001	0.4	0.000 000	0.001

▣ BandWidth: 15 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
** 821.5	100 %	+20(Ref)	821 500 002	0.0	0.000 000	0.000
	100 %	-30	821 500 005	2.4	0.000 000	0.003
	100 %	-20	821 500 005	2.4	0.000 000	0.003
	100 %	-10	821 500 005	2.4	0.000 000	0.003
	100 %	0	821 500 005	2.1	0.000 000	0.003
	100 %	+10	821 500 004	1.8	0.000 000	0.002
	100 %	+30	821 500 004	1.8	0.000 000	0.002
	100 %	+40	821 500 004	1.6	0.000 000	0.002
	100 %	+50	821 500 006	3.4	0.000 000	0.004
	Batt. Endpoint	+20	821 500 005	3.0	0.000 000	0.004

Note:

1. **: Straddle Channel

2. Straddle channel does not exceed the Part22 and Part90 limits.

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
** 824.0	100 %	+20(Ref)	824 000 002	0.0	0.000 000	0.000
	100 %	-30	824 000 003	1.3	0.000 000	0.002
	100 %	-20	824 000 002	0.0	0.000 000	0.000
	100 %	-10	824 000 001	-0.9	0.000 000	-0.001
	100 %	0	824 000 003	1.2	0.000 000	0.001
	100 %	+10	824 000 002	0.2	0.000 000	0.000
	100 %	+30	824 000 004	1.6	0.000 000	0.002
	100 %	+40	824 000 003	0.6	0.000 000	0.001
	100 %	+50	824 000 002	0.1	0.000 000	0.000
	Batt. Endpoint	+20	824 000 002	-0.6	0.000 000	-0.001

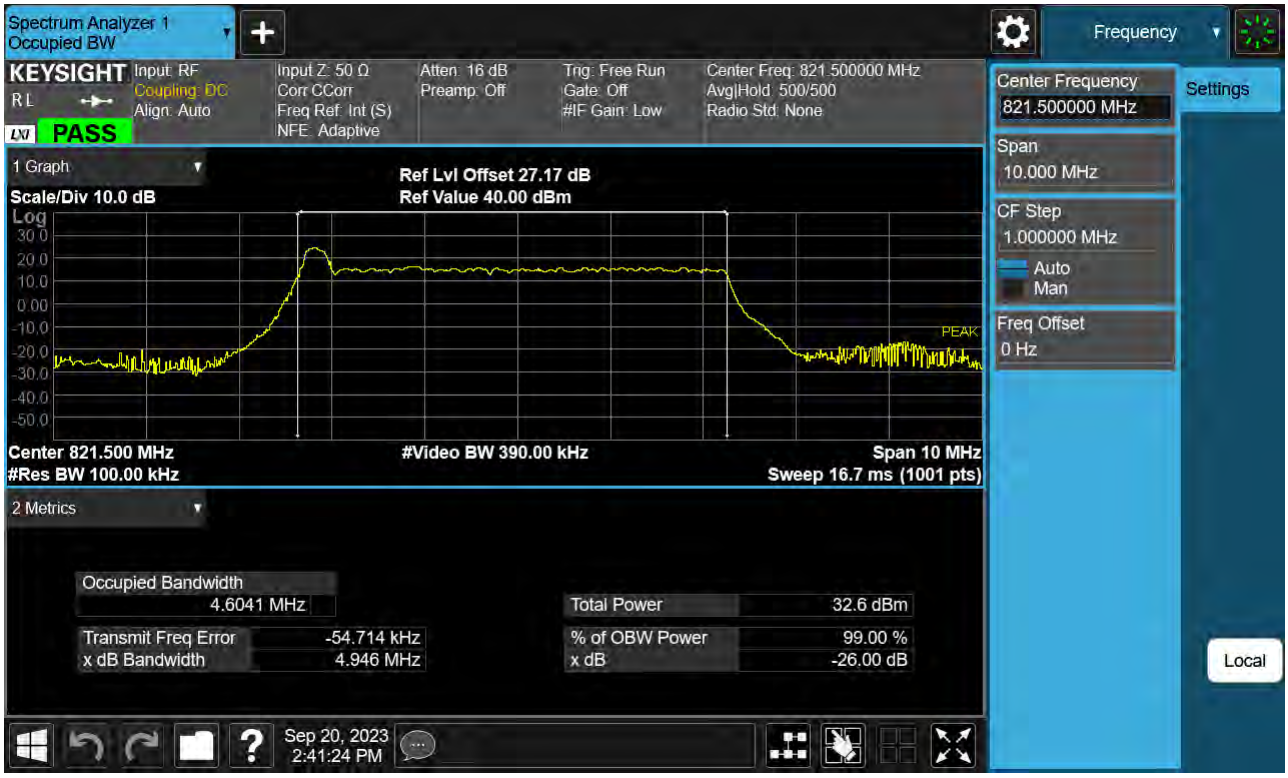
Note:

1. **: Straddle Channel

2. Straddle channel does not exceed the Part22 and Part90 limits.

10. TEST PLOTS(Ant A)

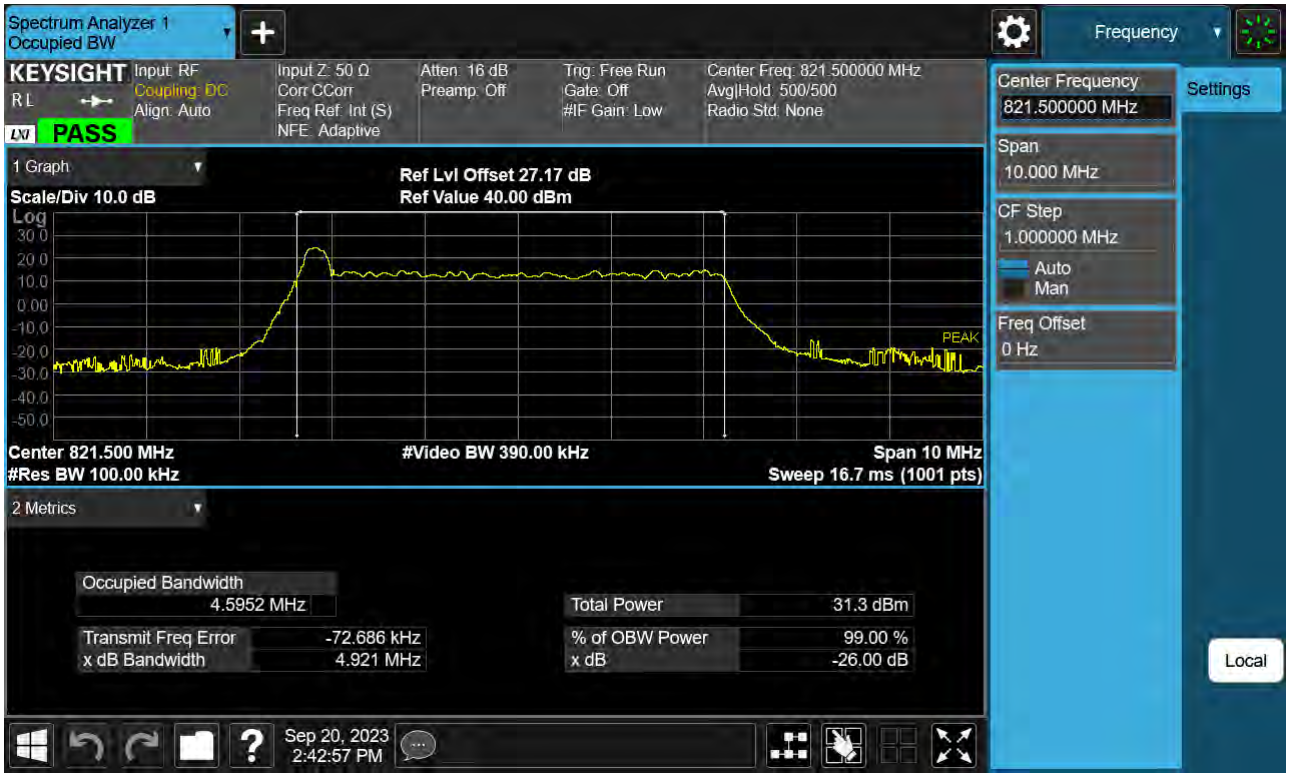
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 BPSK RB 25_0)



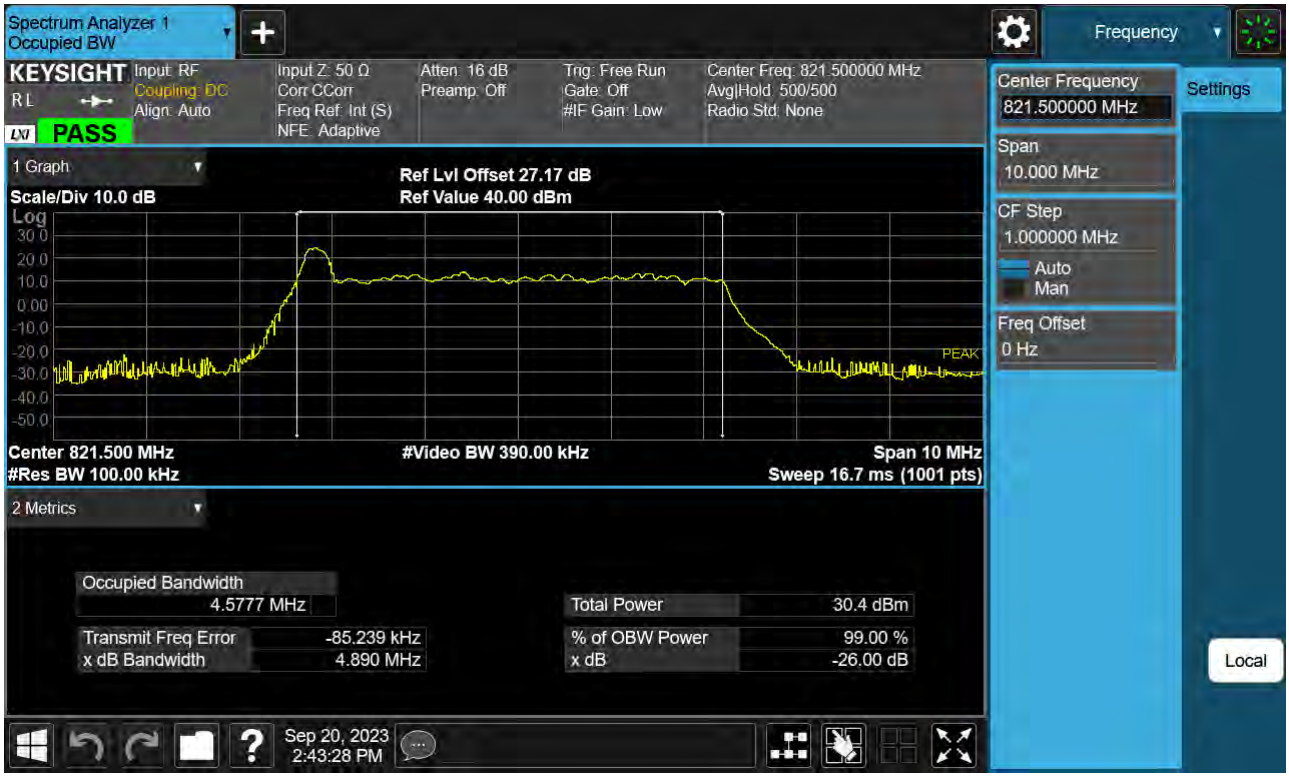
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 QPSK RB 25_0)

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)

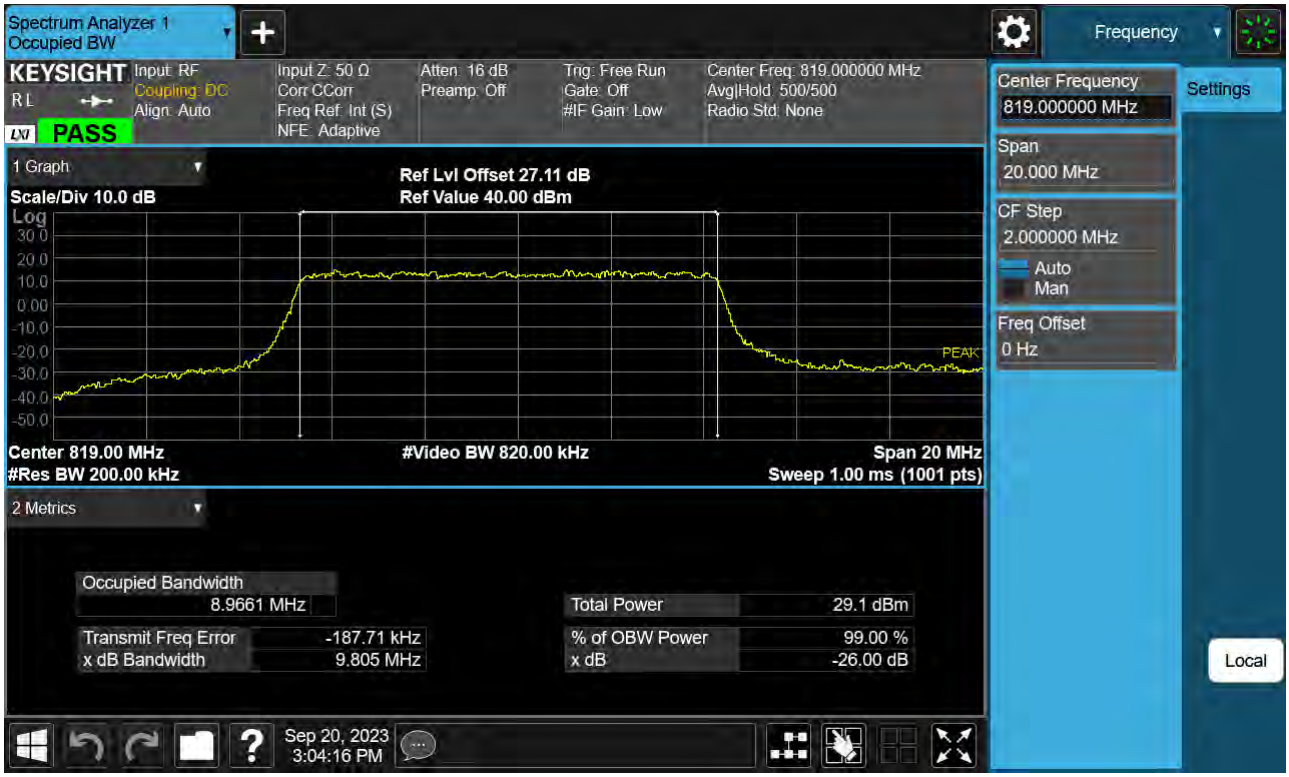


Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 BPSK RB 50_0)

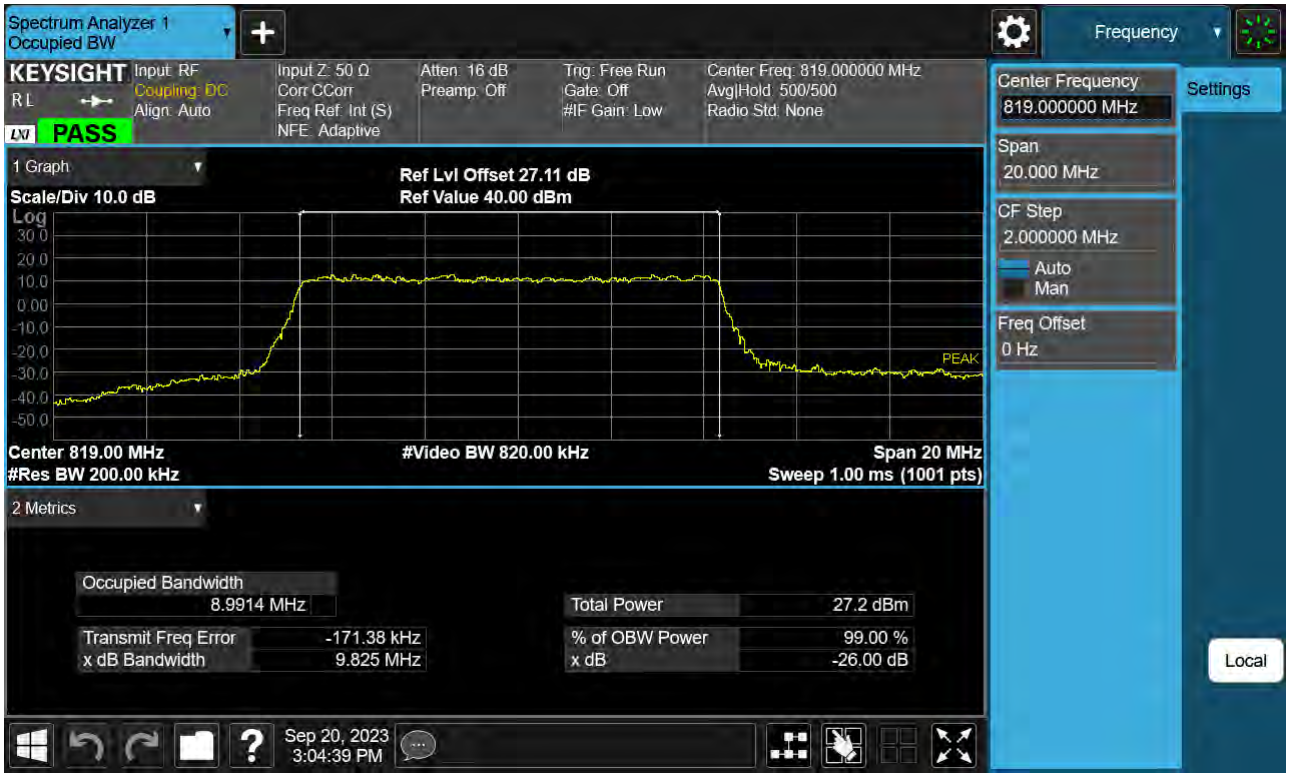
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 QPSK RB 50_0)

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)



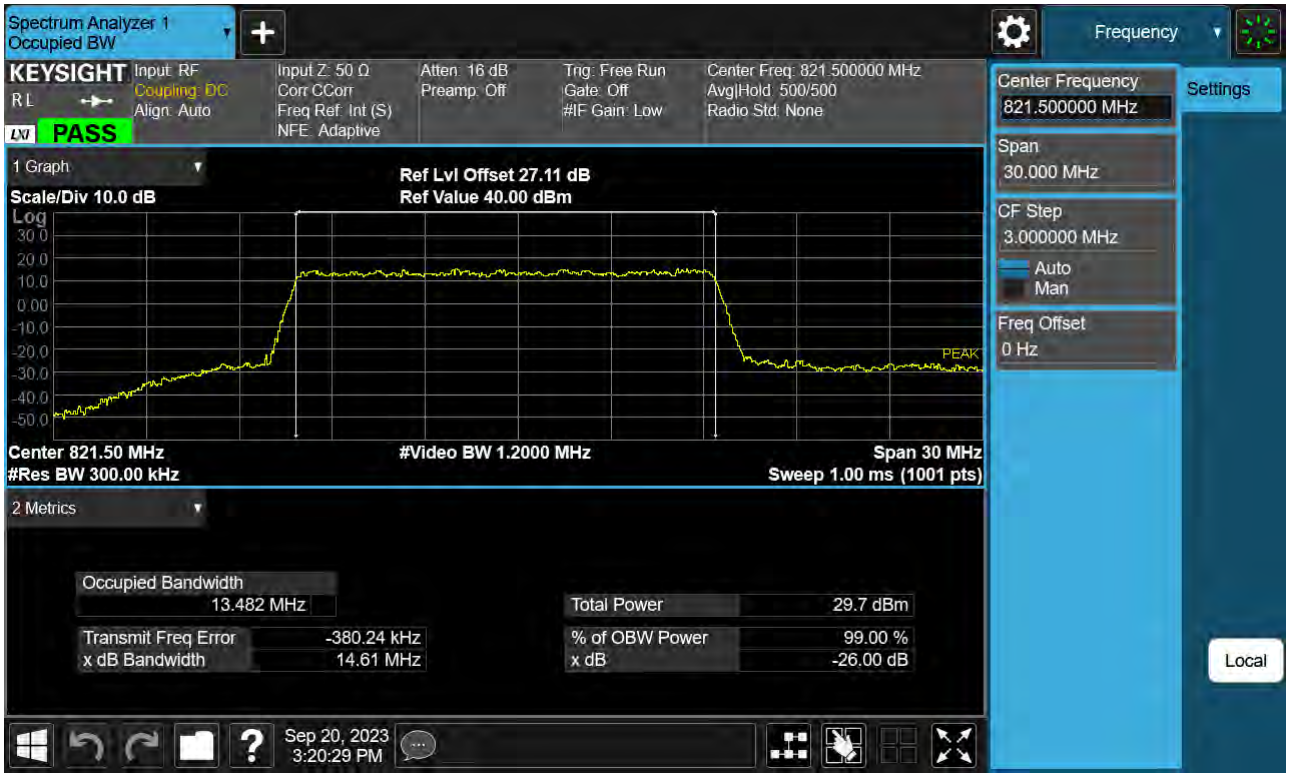
Sub6 n26. Occupied Bandwidth Plot (10 M BW Ch.163800 256QAM RB 50_0)



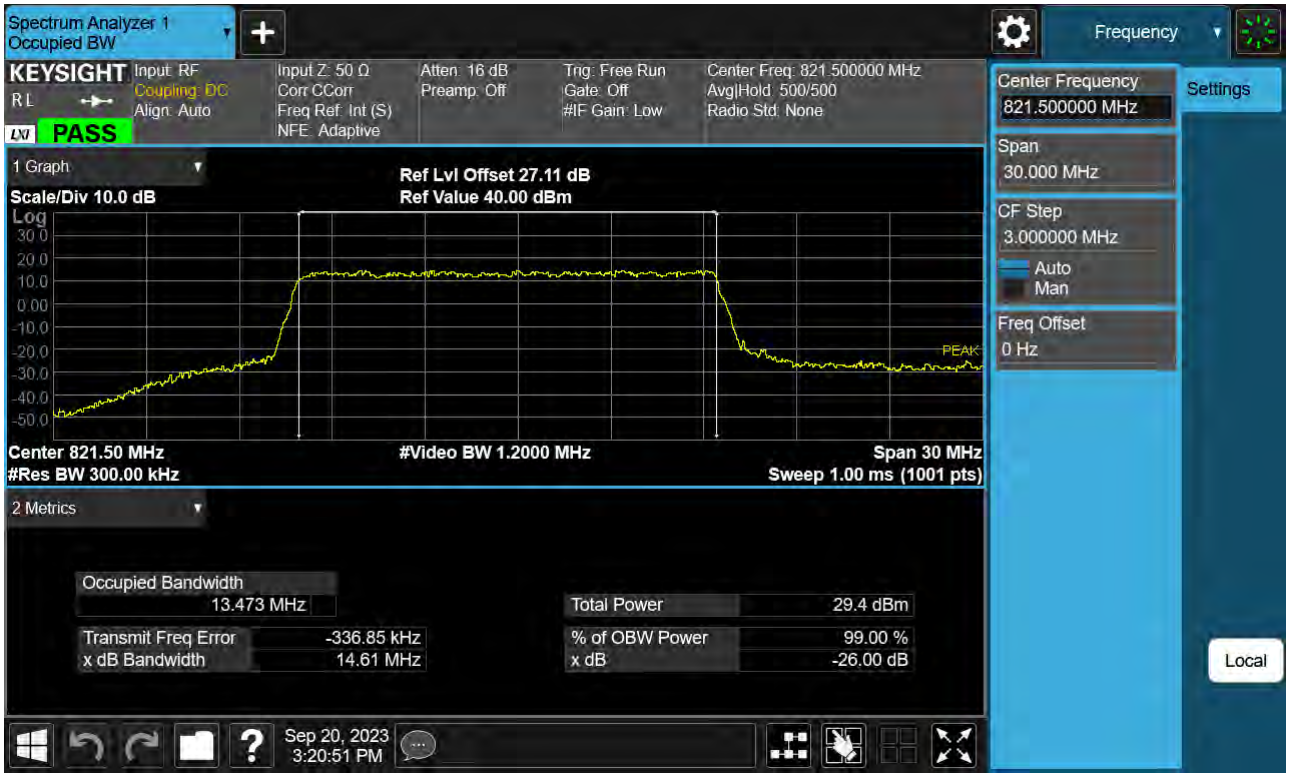
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 BPSK RB 75_0)

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

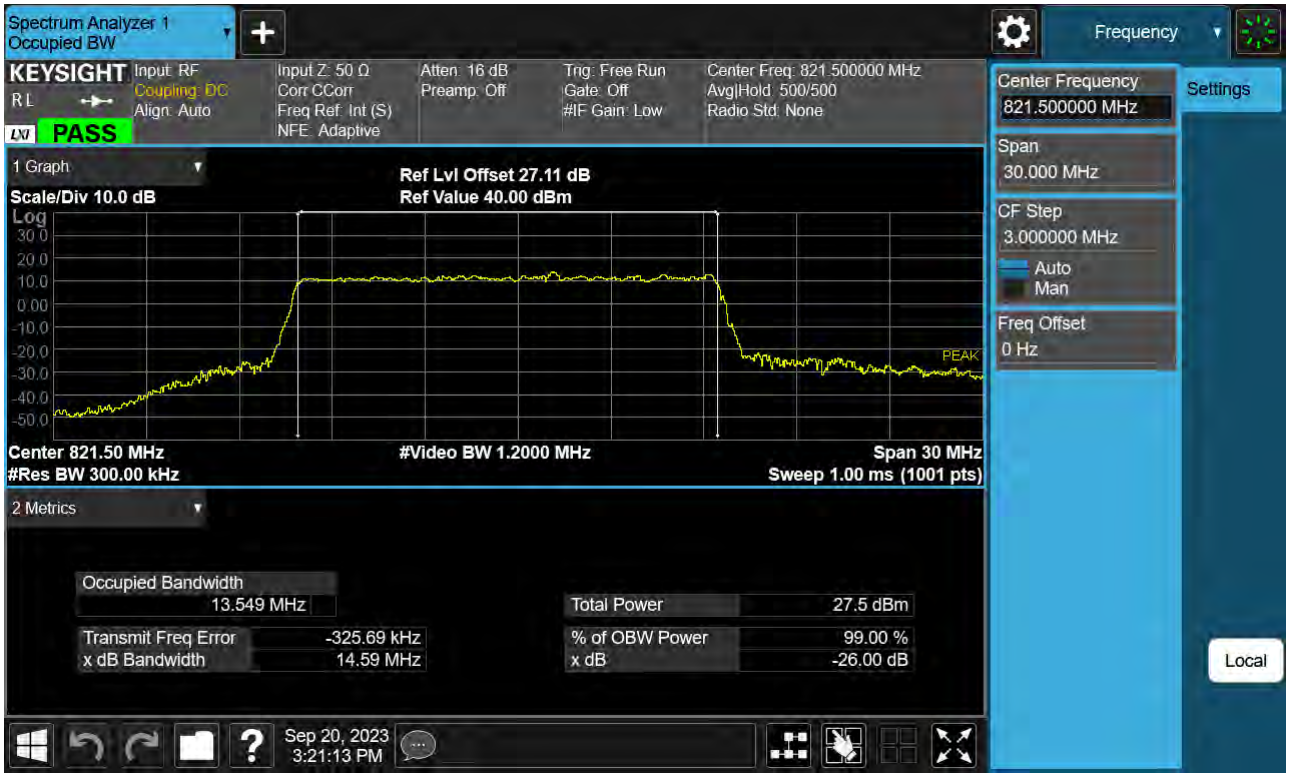
Sub6 n26. Occupied Bandwidth Plot (15 M BW Ch.164300 16QAM RB 75_0)



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)

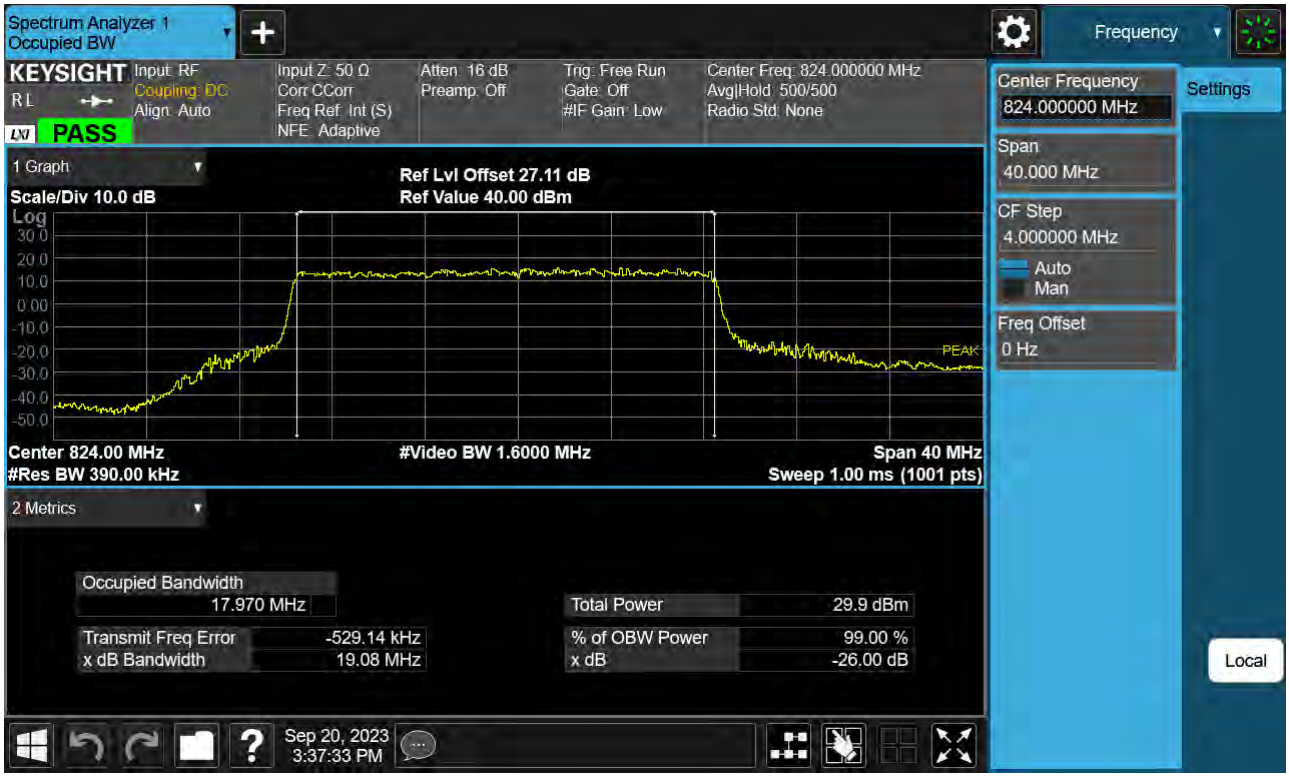


Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 BPSK RB 100_0)

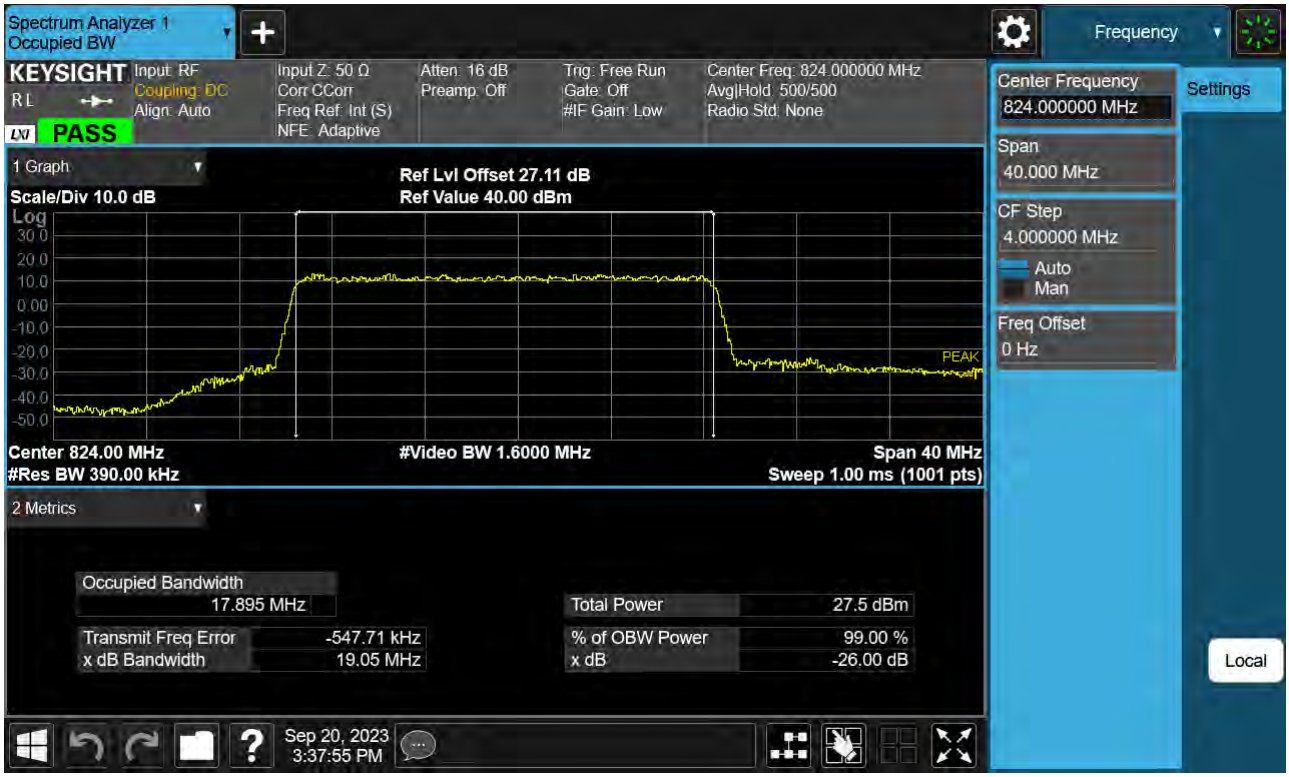
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 QPSK RB 100_0)

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)

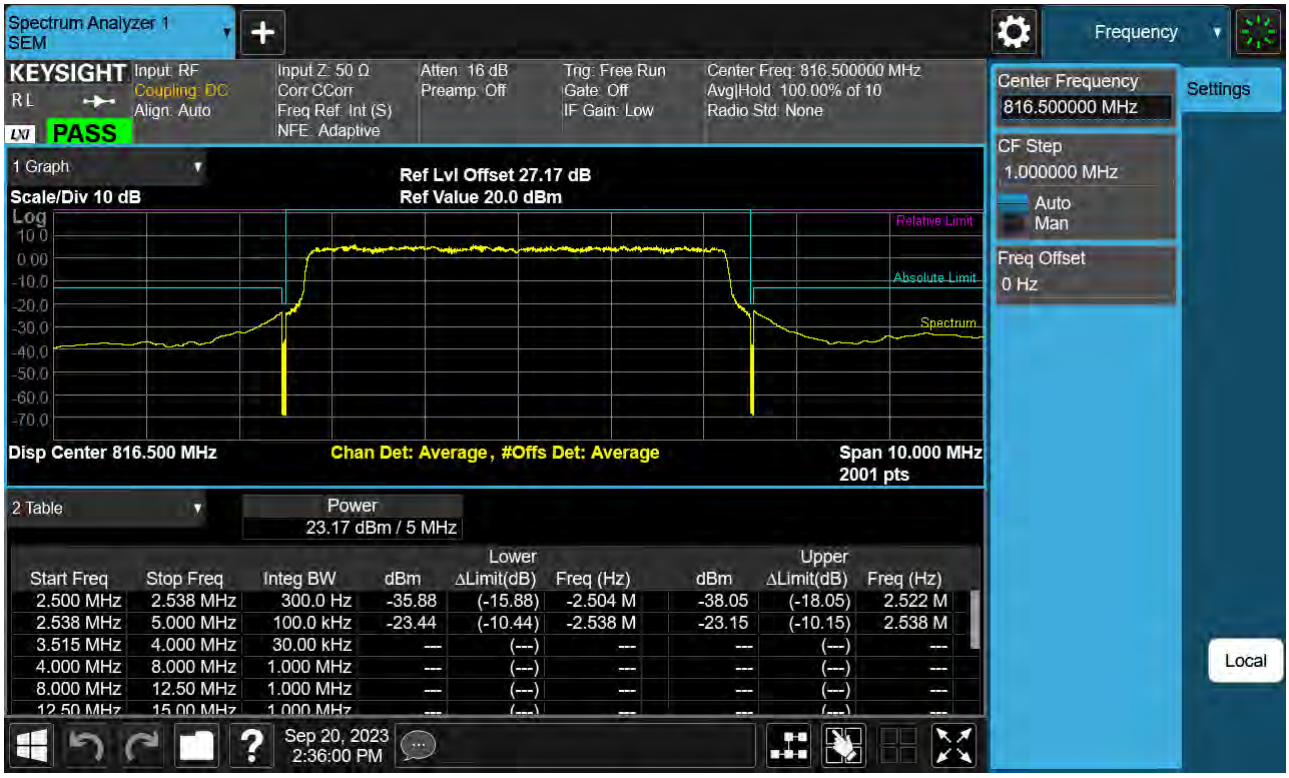


Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 256QAM RB 100_0)



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

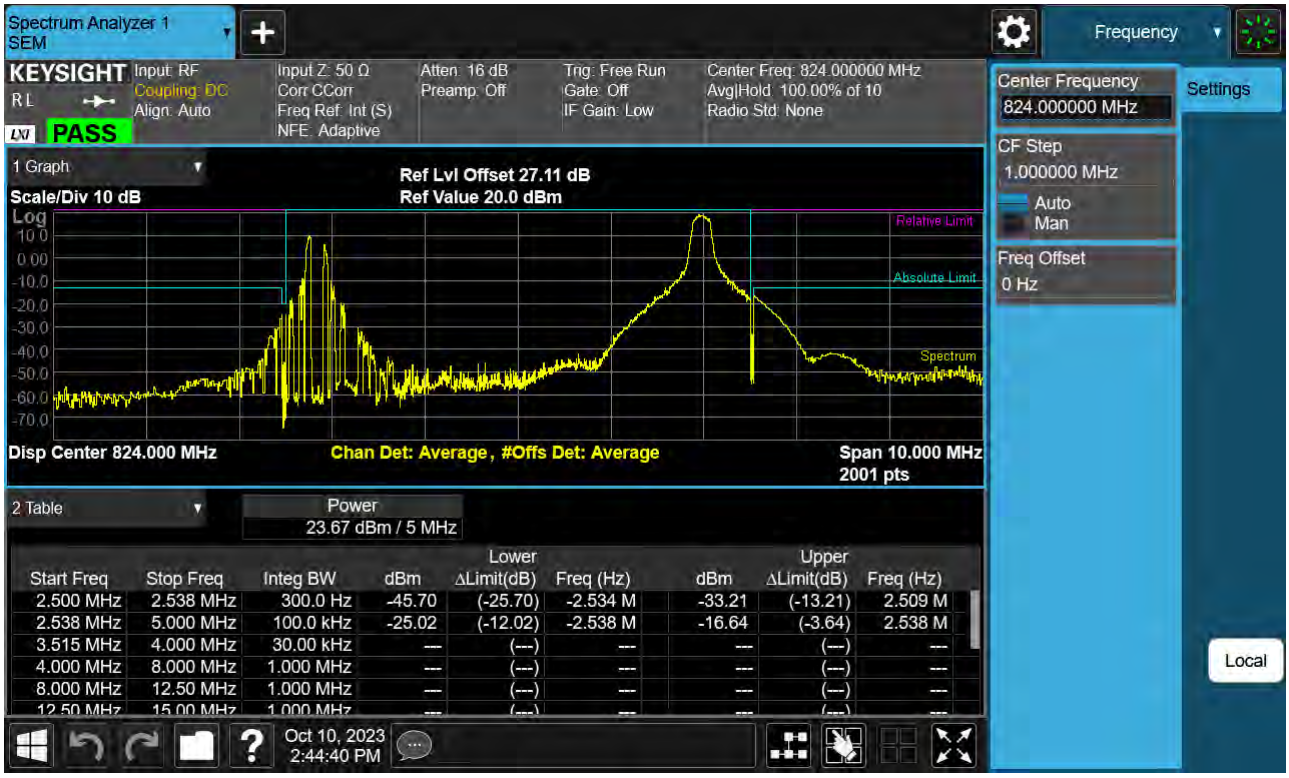
Sub6 n26. Lower Channel Edge Plot (5 M BW Ch.163300 BPSK_RB25_Offset 0)



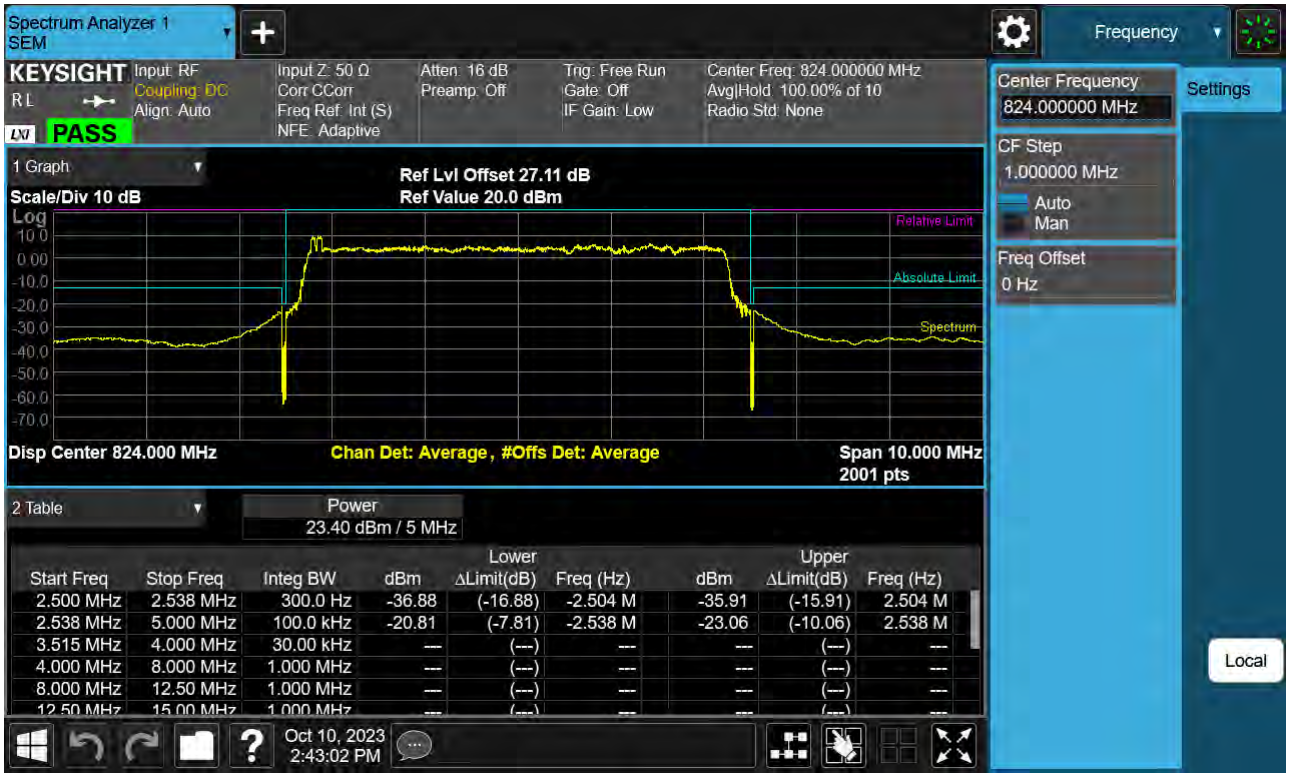
Sub6 n26. Mid Channel Edge Plot (5 M BW Ch.164300 BPSK_RB1_Offset 24)

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)

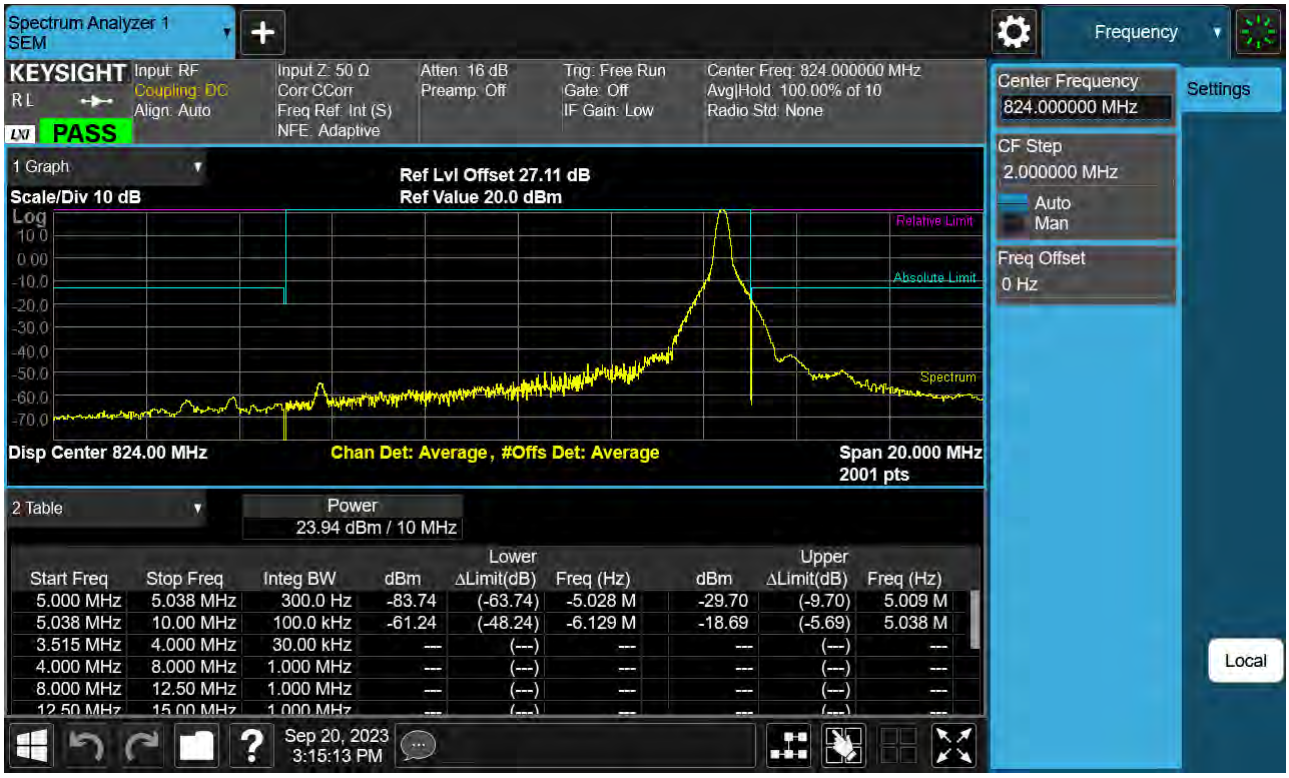


			Lower			Upper		
Start Freq	Stop Freq	Integ BW	dBm	ΔLimit(dB)	Freq (Hz)	dBm	ΔLimit(dB)	Freq (Hz)
2.500 MHz	2.538 MHz	300.0 Hz	-36.88	(-16.88)	-2.504 M	-35.91	(-15.91)	2.504 M
2.538 MHz	5.000 MHz	100.0 kHz	-20.81	(-7.81)	-2.538 M	-23.06	(-10.06)	2.538 M
3.515 MHz	4.000 MHz	30.00 kHz	---	(---)	---	---	(---)	---
4.000 MHz	8.000 MHz	1.000 MHz	---	(---)	---	---	(---)	---
8.000 MHz	12.50 MHz	1.000 MHz	---	(---)	---	---	(---)	---
12.50 MHz	15.00 MHz	1.000 MHz	---	(---)	---	---	(---)	---

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)

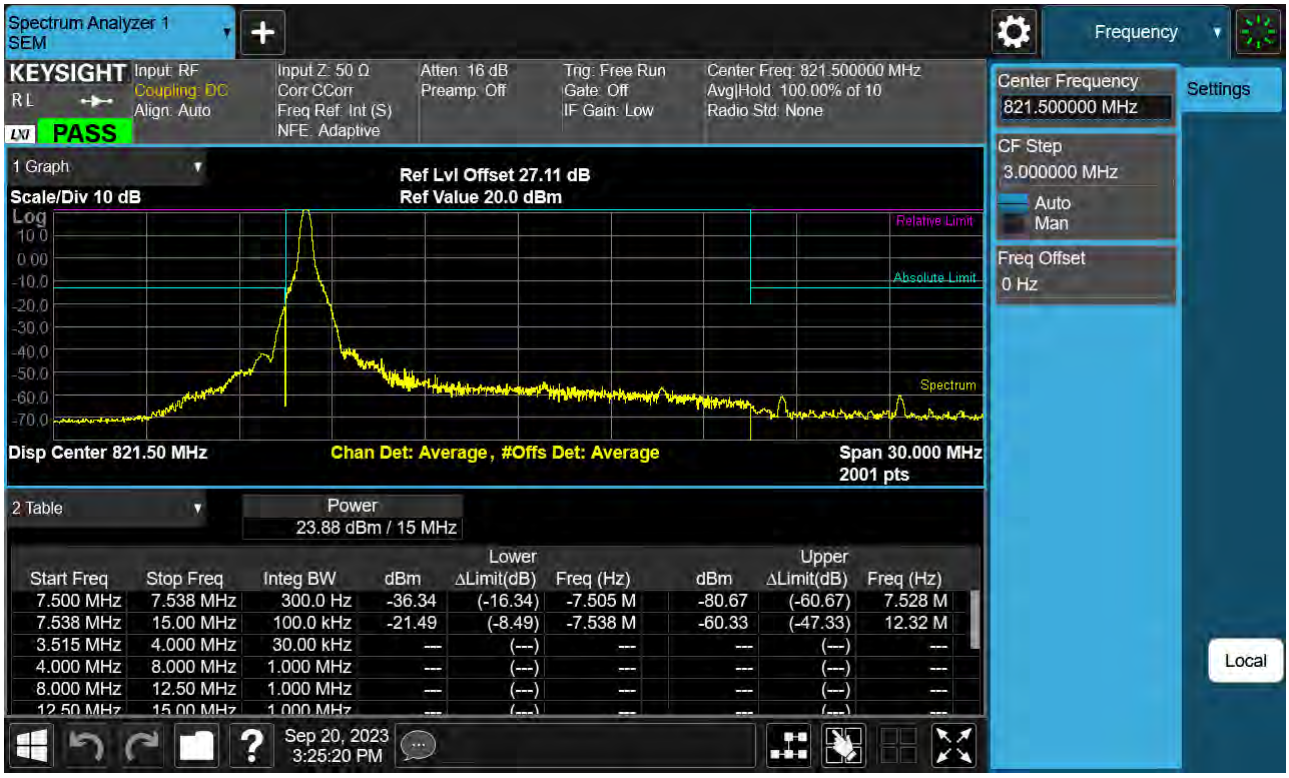
Sub6 n26. Upper Channel Edge Plot (10 M BW Ch.164800 BPSK_RB1_Offset 51)



			Lower			Upper		
Start Freq	Stop Freq	Integ BW	dBm	ΔLimit(dB)	Freq (Hz)	dBm	ΔLimit(dB)	Freq (Hz)
5.000 MHz	5.038 MHz	300.0 Hz	-83.74	(-63.74)	-5.028 M	-29.70	(-9.70)	5.009 M
5.038 MHz	10.00 MHz	100.0 kHz	-61.24	(-48.24)	-6.129 M	-18.69	(-5.69)	5.038 M
3.515 MHz	4.000 MHz	30.00 kHz	---	(---)	---	---	(---)	---
4.000 MHz	8.000 MHz	1.000 MHz	---	(---)	---	---	(---)	---
8.000 MHz	12.50 MHz	1.000 MHz	---	(---)	---	---	(---)	---
12.50 MHz	15.00 MHz	1.000 MHz	---	(---)	---	---	(---)	---

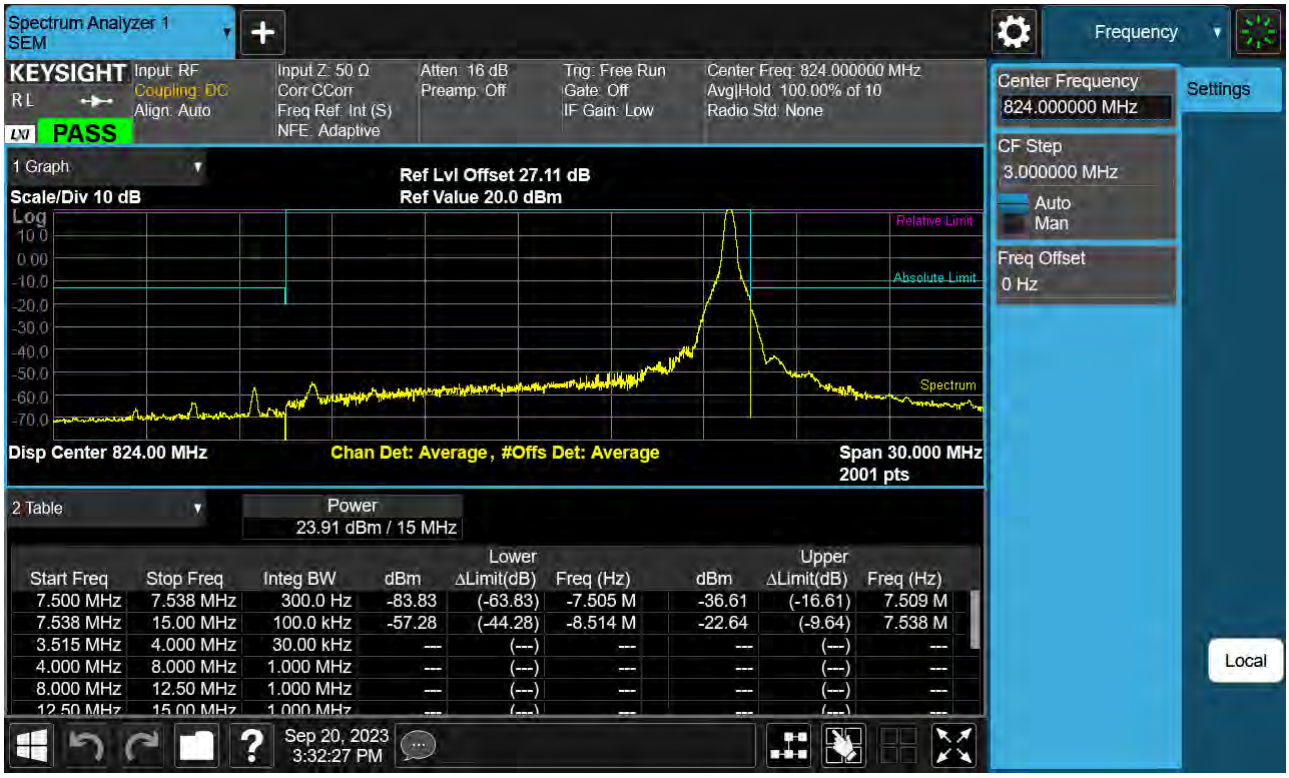
Sub6 n26. Upper Channel Edge Plot (10 M BW Ch.164800 BPSK_RB50_Offset 0)

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

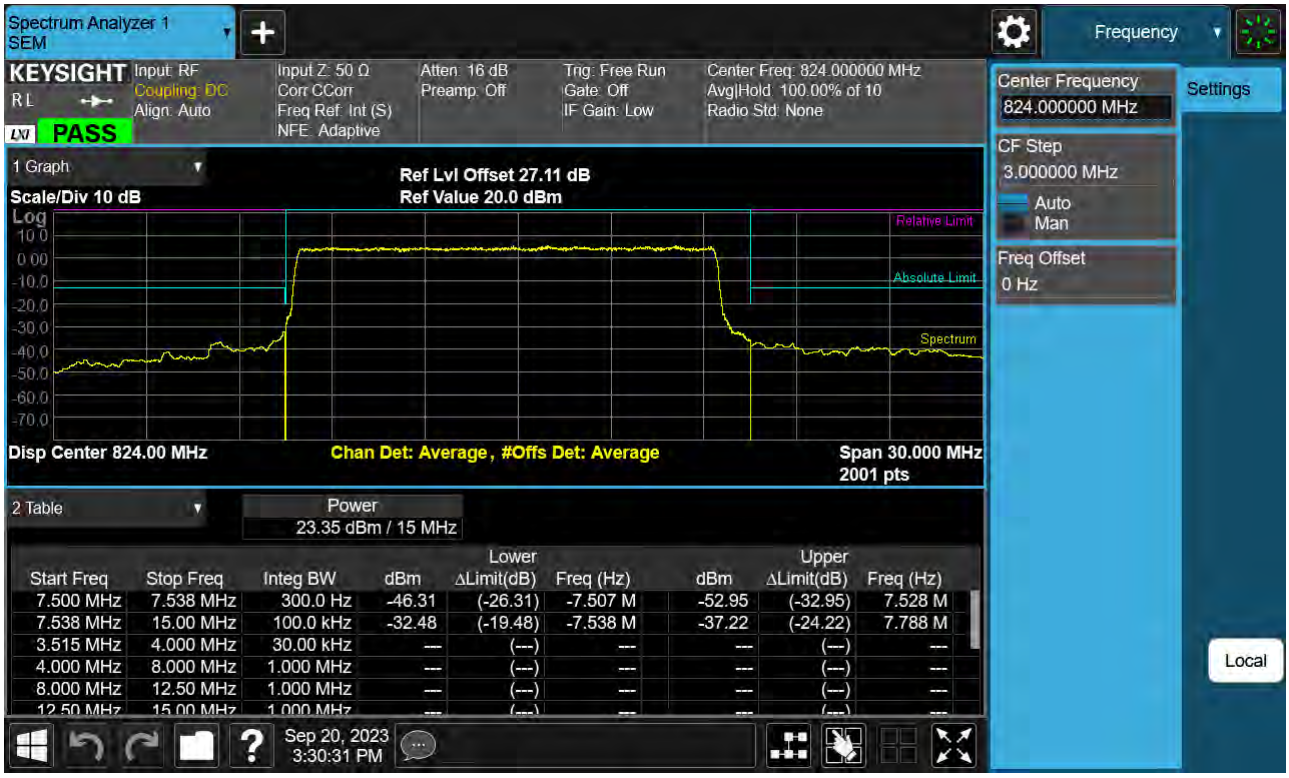


Sub6 n26. Low Channel Edge Plot (15 M BW Ch.164300 BPSK_RB75_Offset 0)

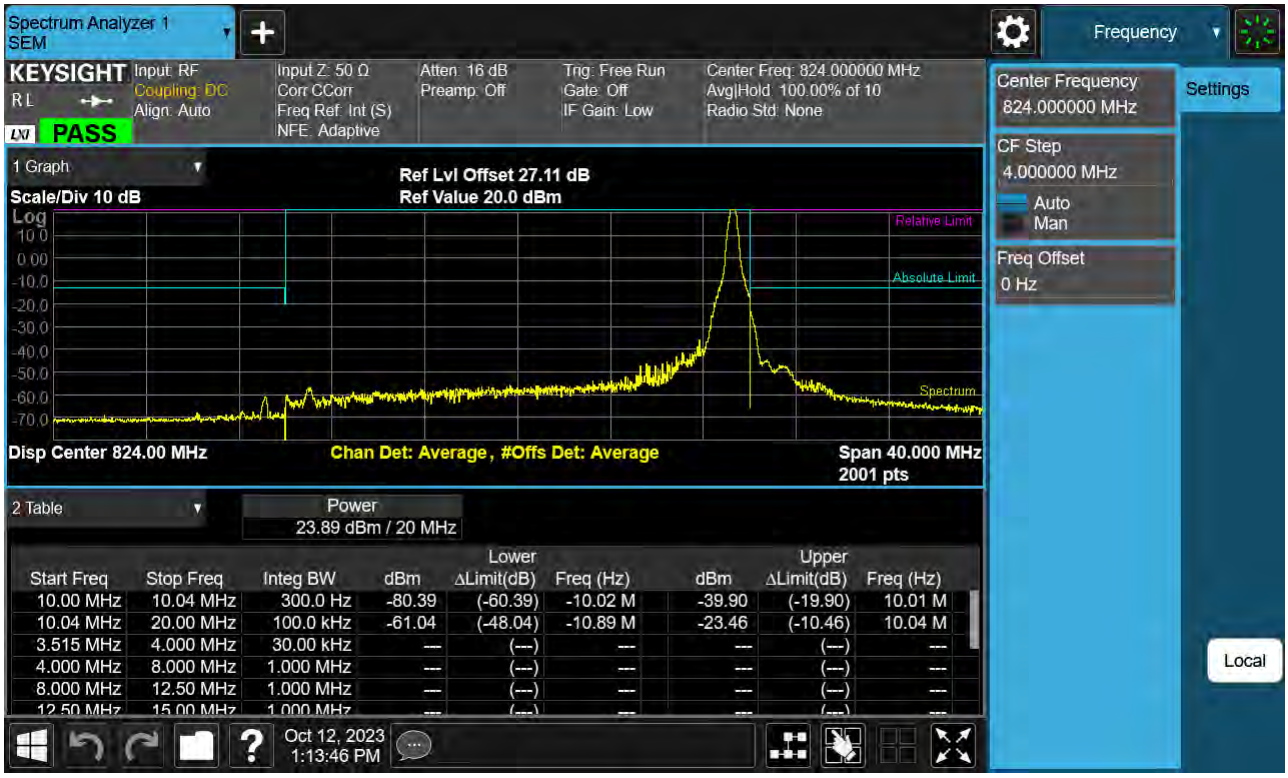
Sub6 n26. Upper Channel Edge Plot (15 M BW Ch.164800 BPSK_RB1_Offset 78)



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

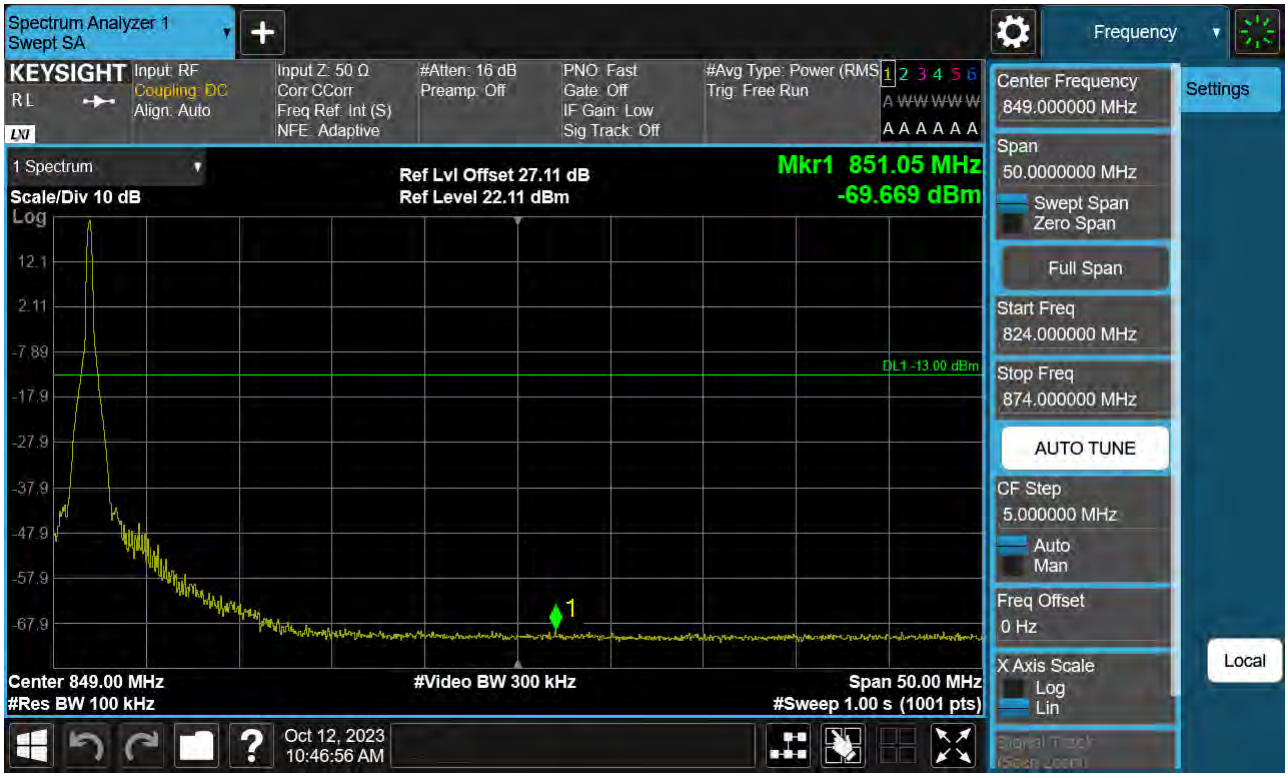


Sub6 n26. Mid Channel Edge Plot (20 M BW Ch.164800 QPSK_ RB1_Offset 105)

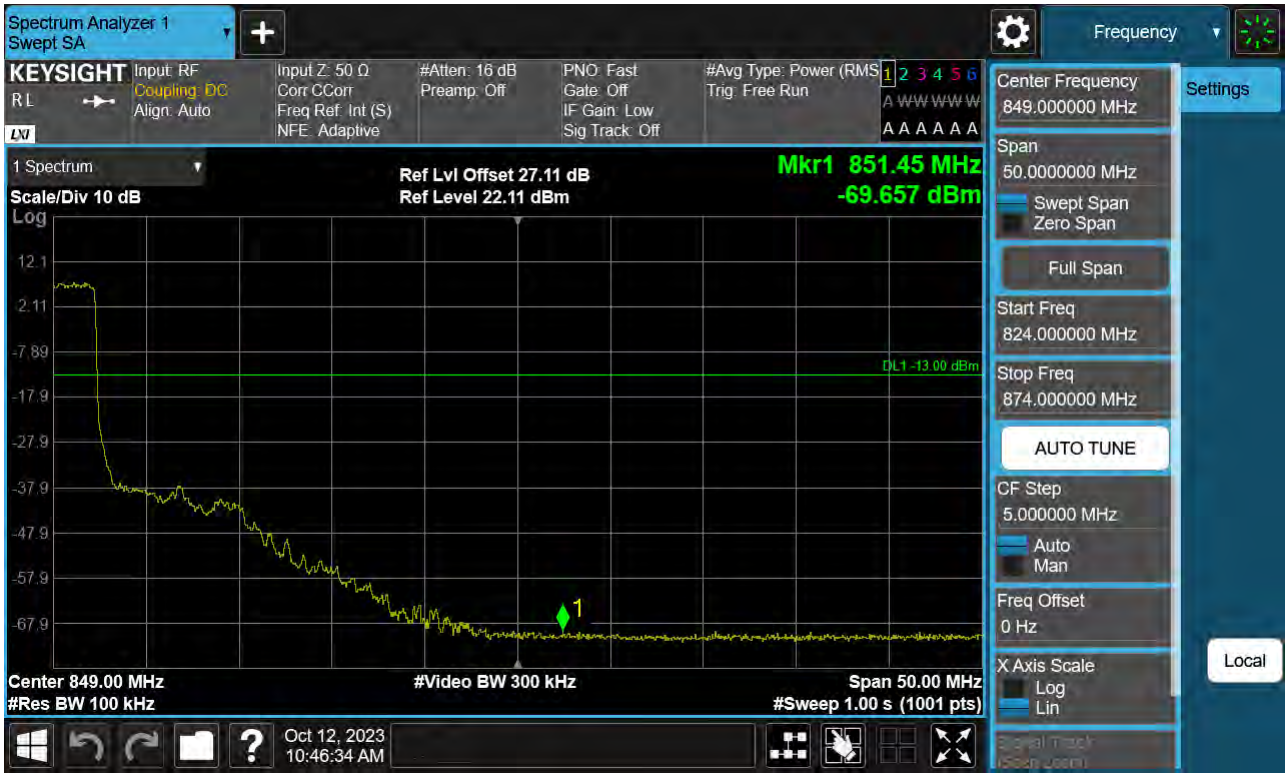


Sub6 n26. Mid Channel Edge Plot (20 M BW Ch.164800 BPSK_ RB100_Offset 0)

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)

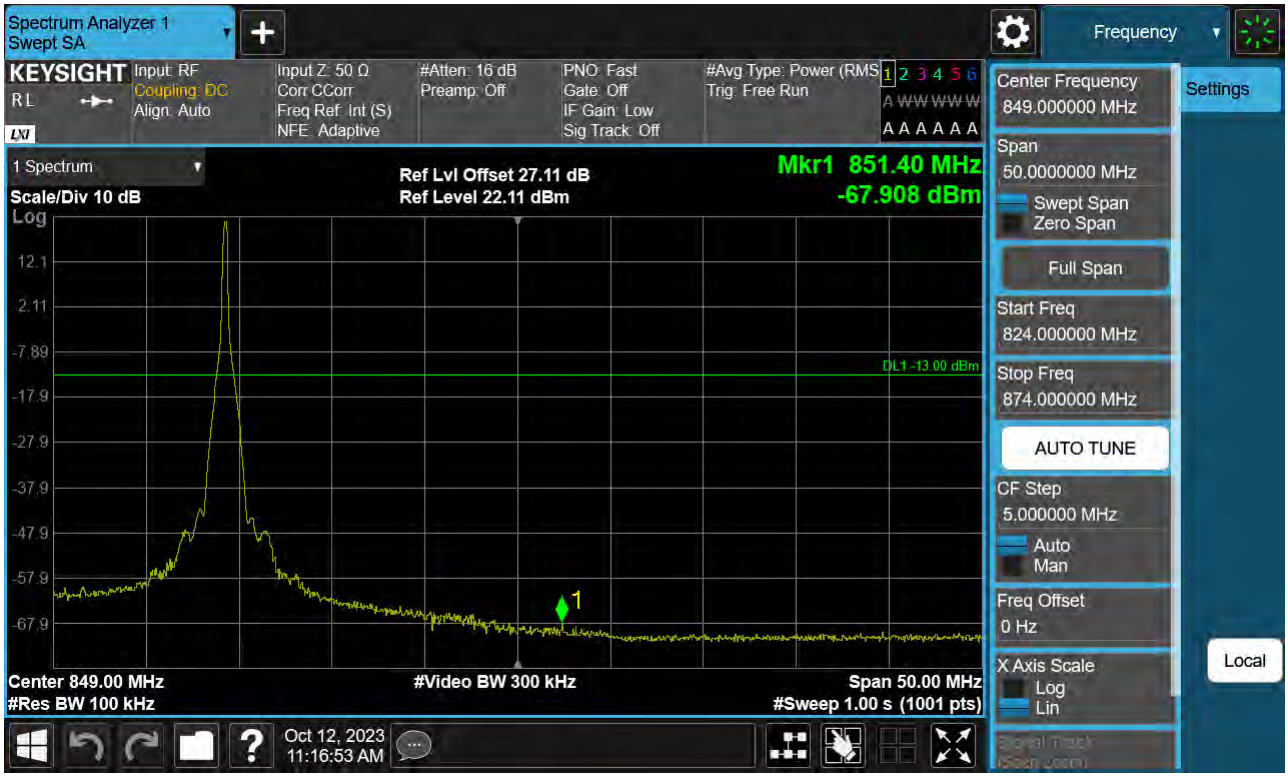
Sub6 n26. Lower Band Edge Plot (15 M BW Ch.164300 BPSK_RB1_Offset 0)

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)

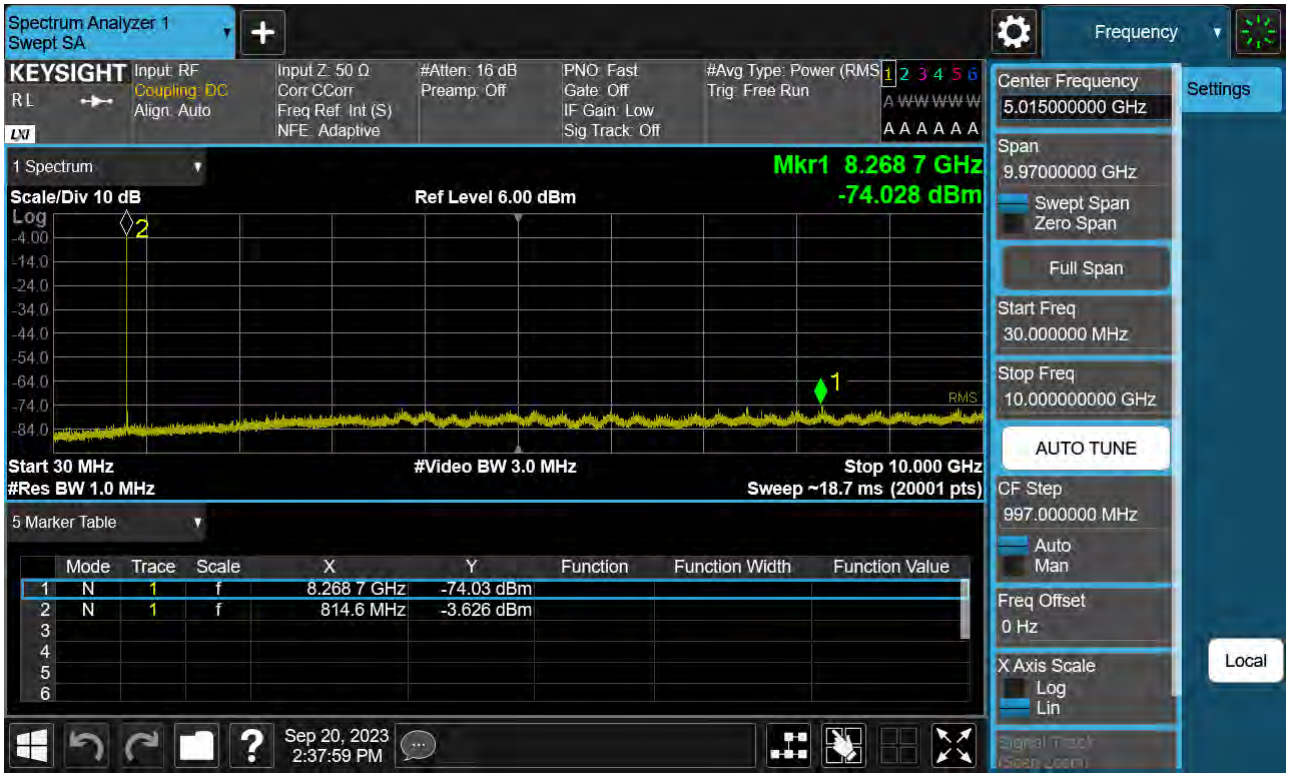
Sub6 n26. Upper Band Edge Plot (15 M BW Ch.164800 BPSK_RB75_Offset 0)

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

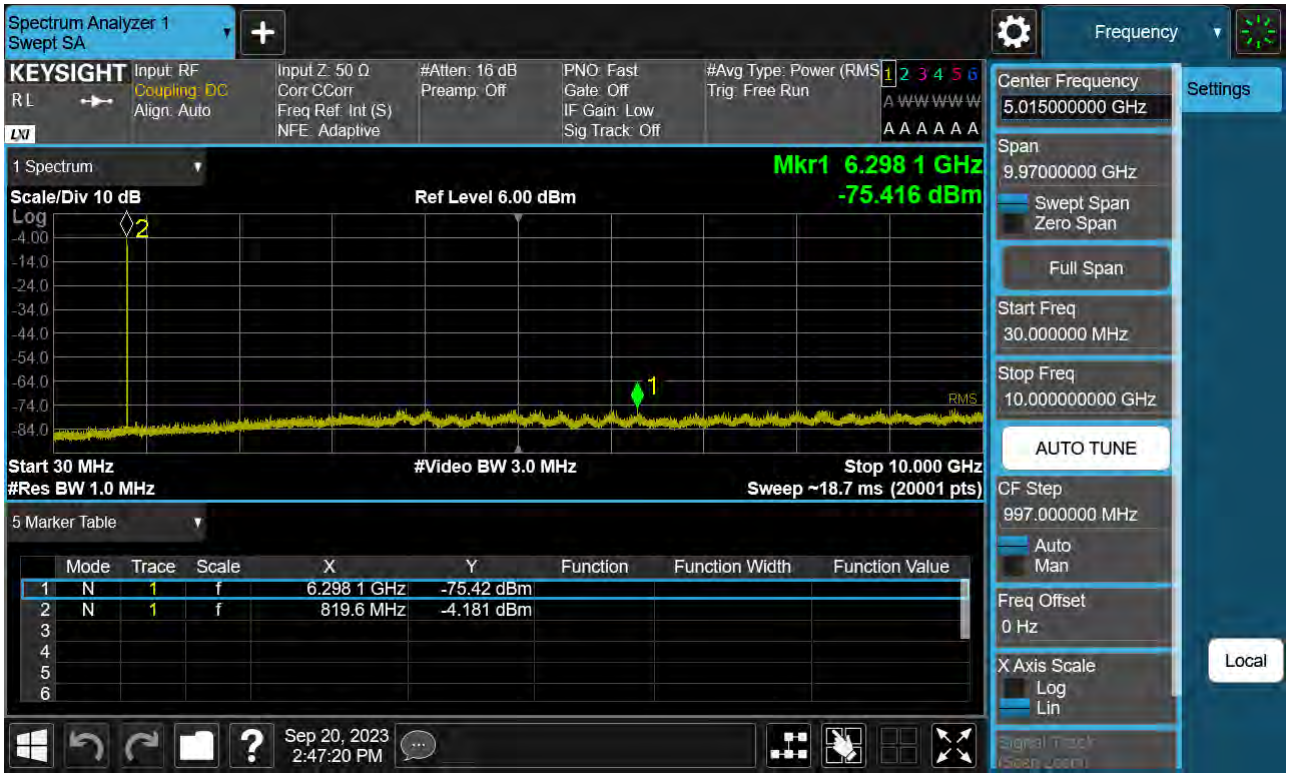


Sub6 n26. Mid Band Edge Plot (20 M BW Ch.164800 BPSK_RB100_Offset 0)

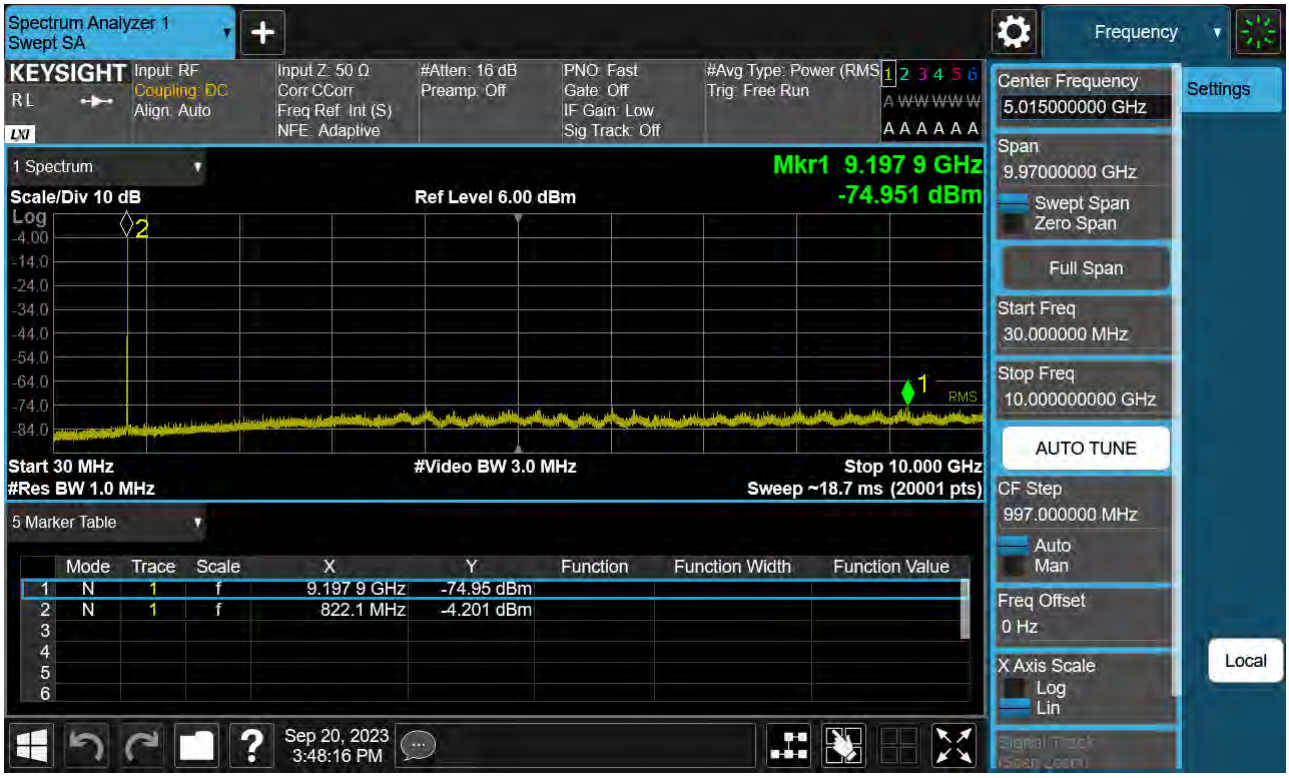
Sub6 n26. Conducted Spurious (163300 ch_5 MHz_ BPSK_RB 1_1)



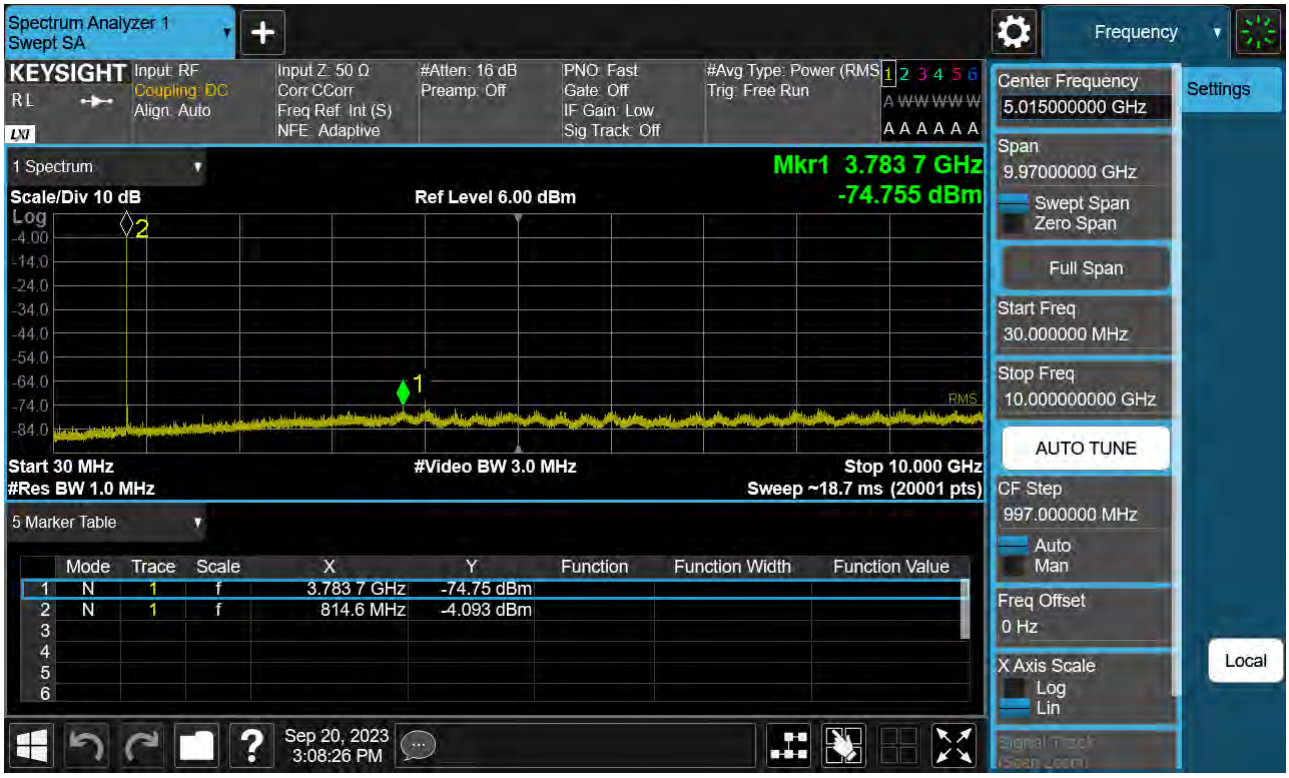
Sub6 n26. Conducted Spurious (164300 ch_5 MHz_ BPSK_RB 1_1)



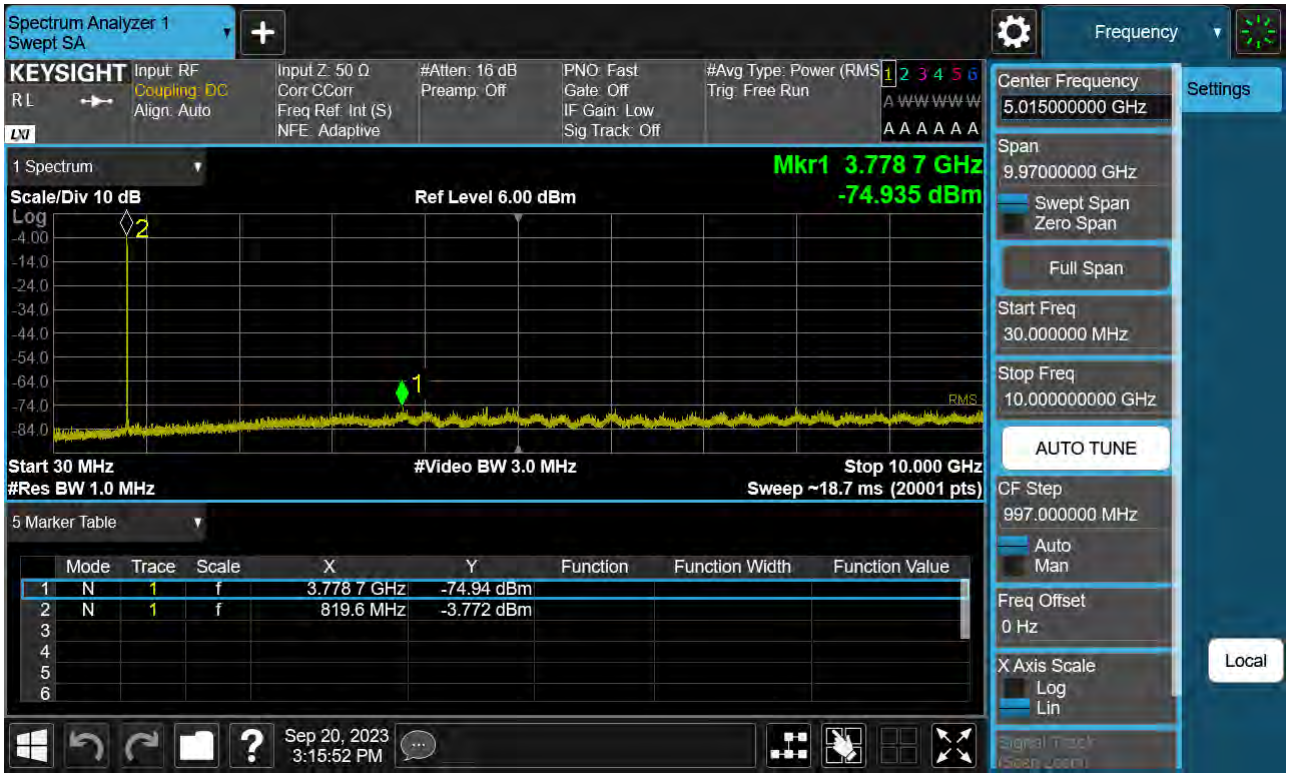
Sub6 n26. Conducted Spurious (164800 ch_5 MHz_ BPSK_RB 1_1)



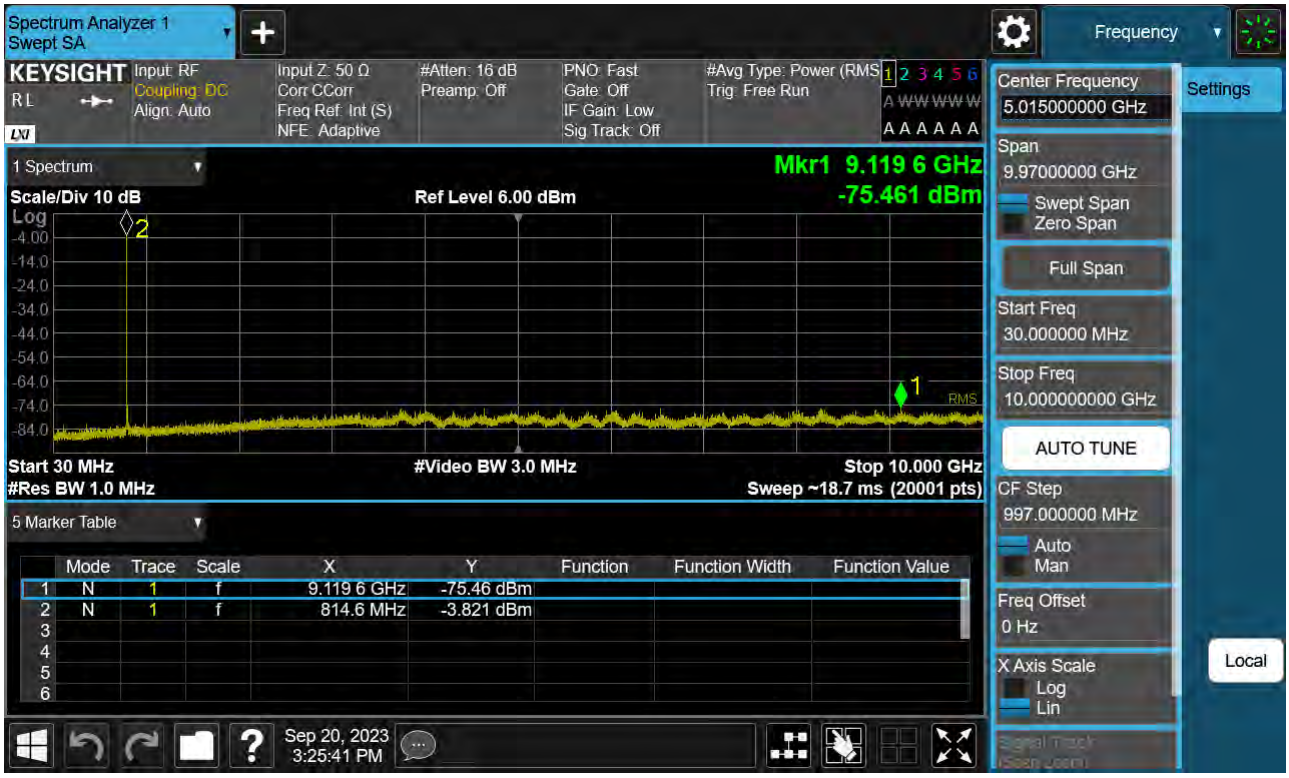
Sub6 n26. Conducted Spurious (163800 ch_10 MHz_ BPSK_RB 1_1)



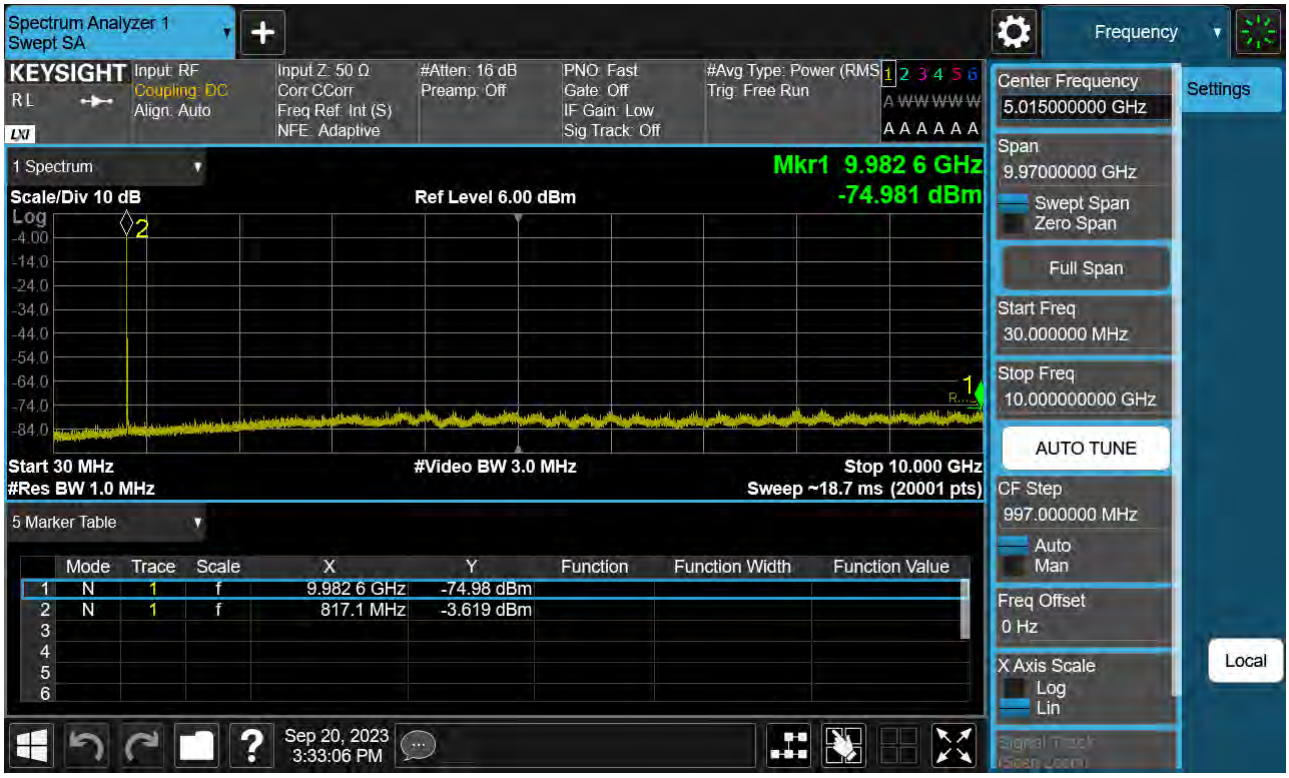
Sub6 n26. Conducted Spurious (164800 ch_10 MHz_ BPSK_RB 1_1)



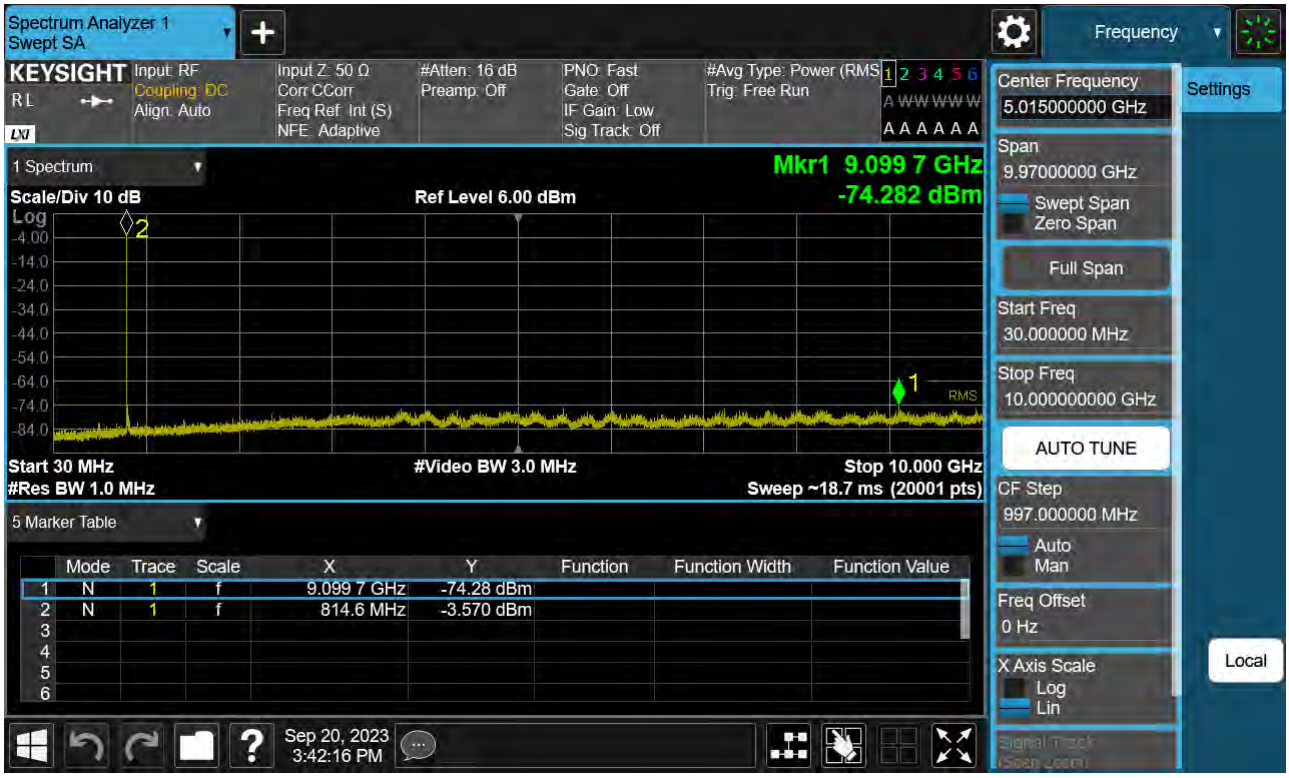
Sub6 n26. Conducted Spurious (164300 ch_15 MHz_ BPSK_RB 1_1)



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



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

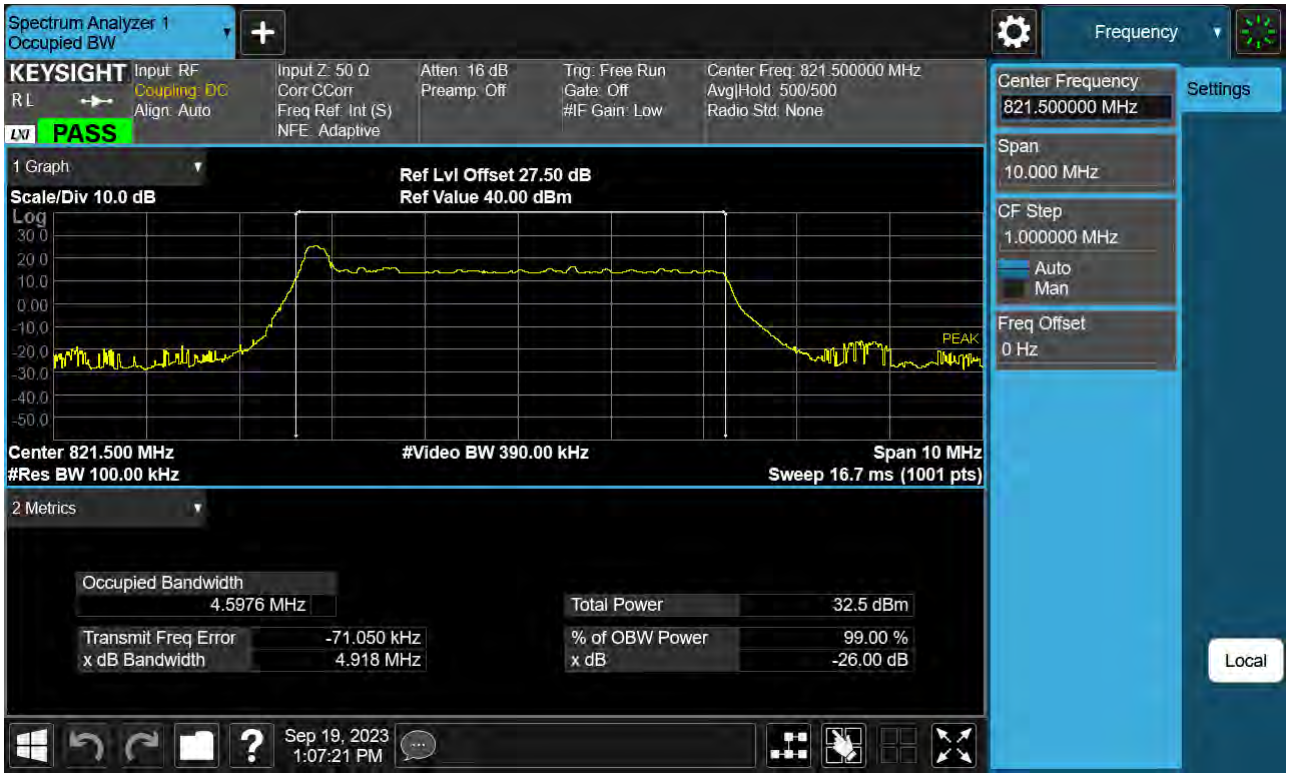


11. TEST PLOTS(Ant E)

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

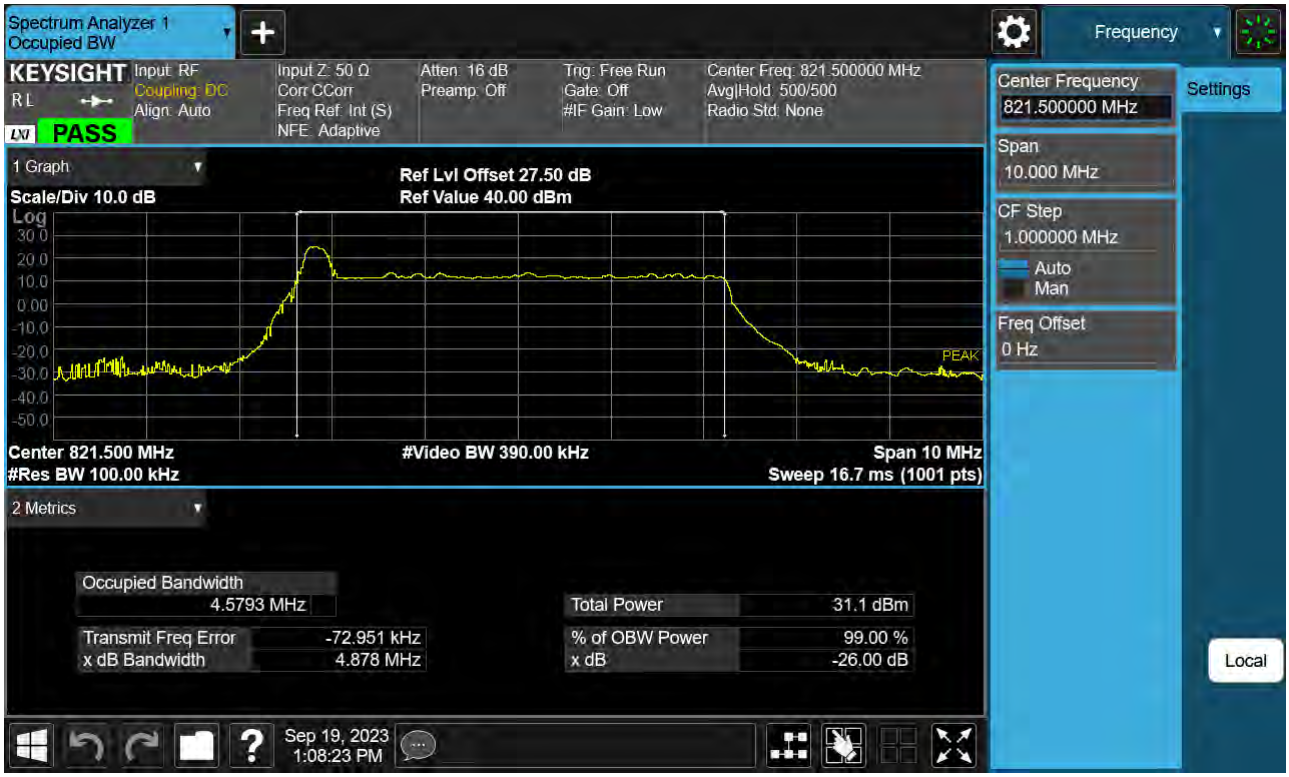
Sub6 n26. Occupied Bandwidth Plot (5 M BW Ch.164300 QPSK RB 25_0)

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)

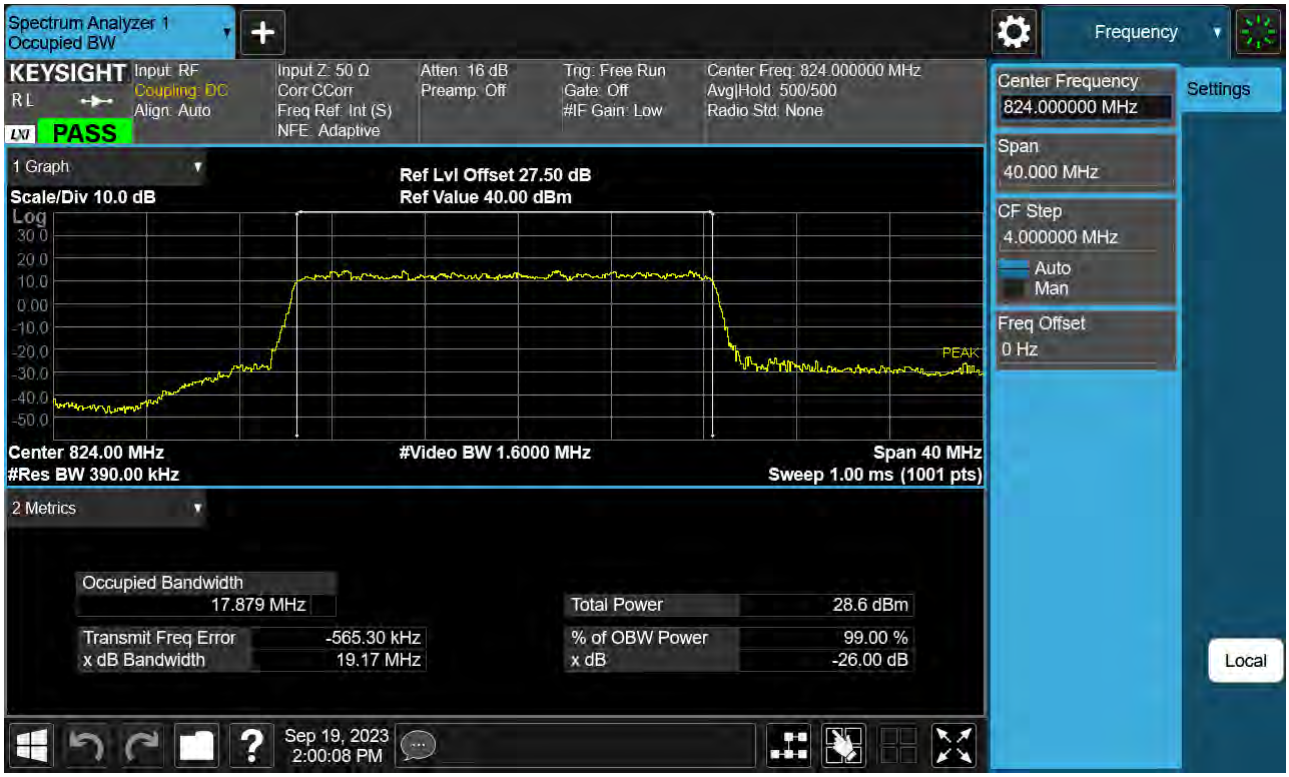
Sub6 n26. Occupied Bandwidth Plot (20 M BW Ch.164800 BPSK RB 100_0)

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 24)

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

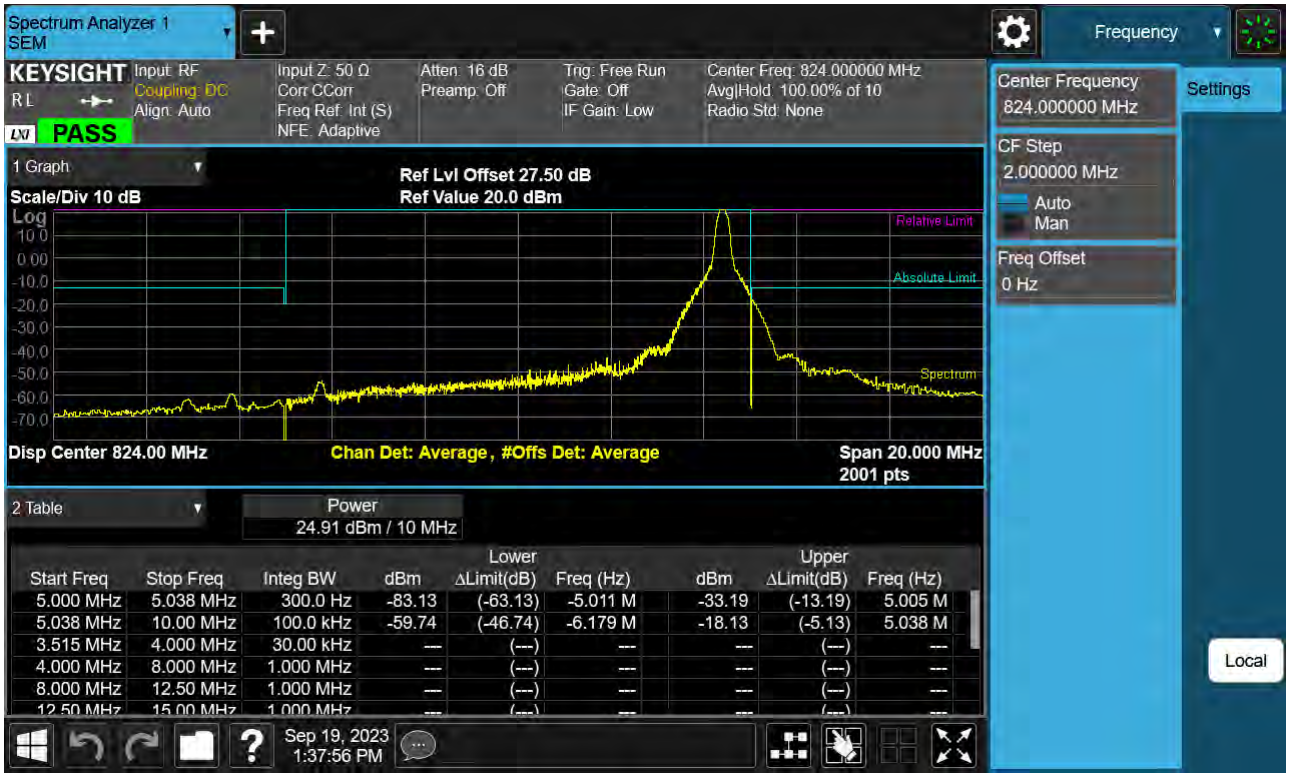
Sub6 n26. Upper Channel Edge Plot (5 M BW Ch.164800 BPSK_RB1_Offset 24)

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)

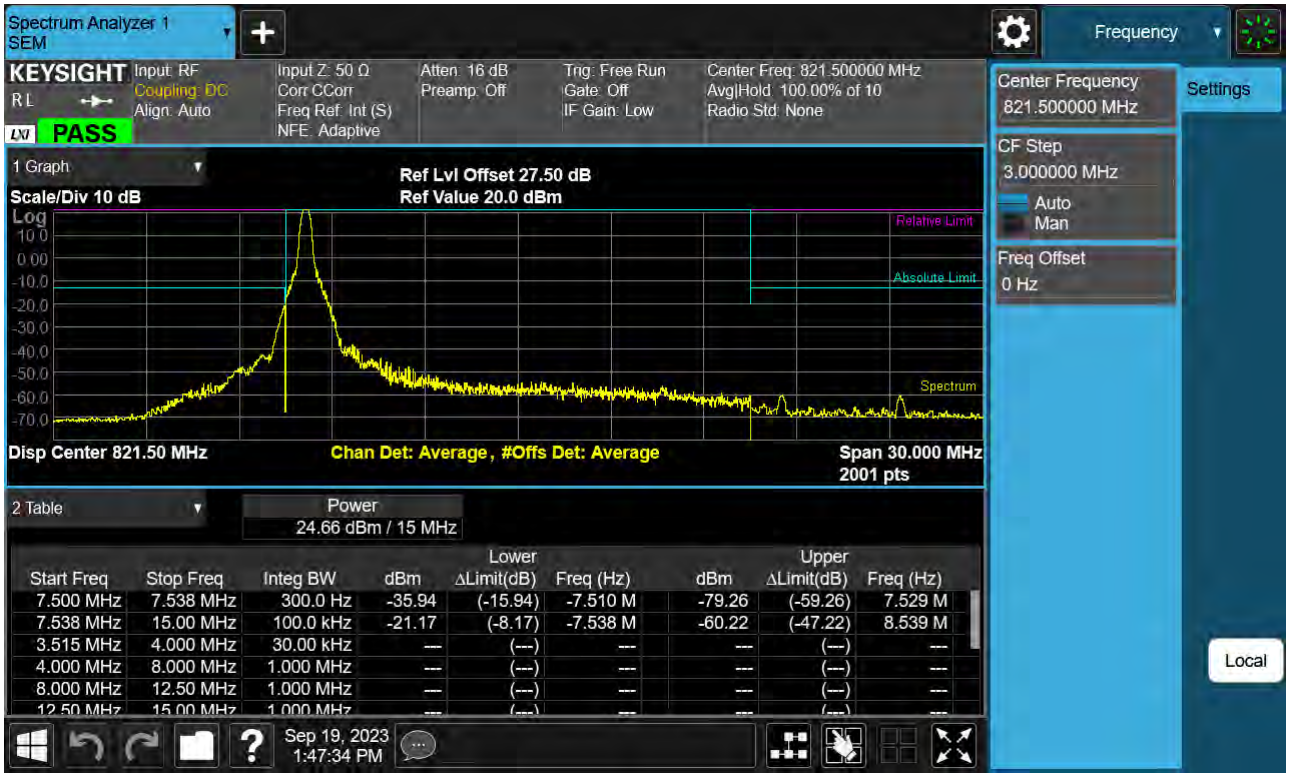
Sub6 n26. Low Channel Edge Plot (10 M BW Ch.163800 BPSK_RB50_Offset 0)

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)

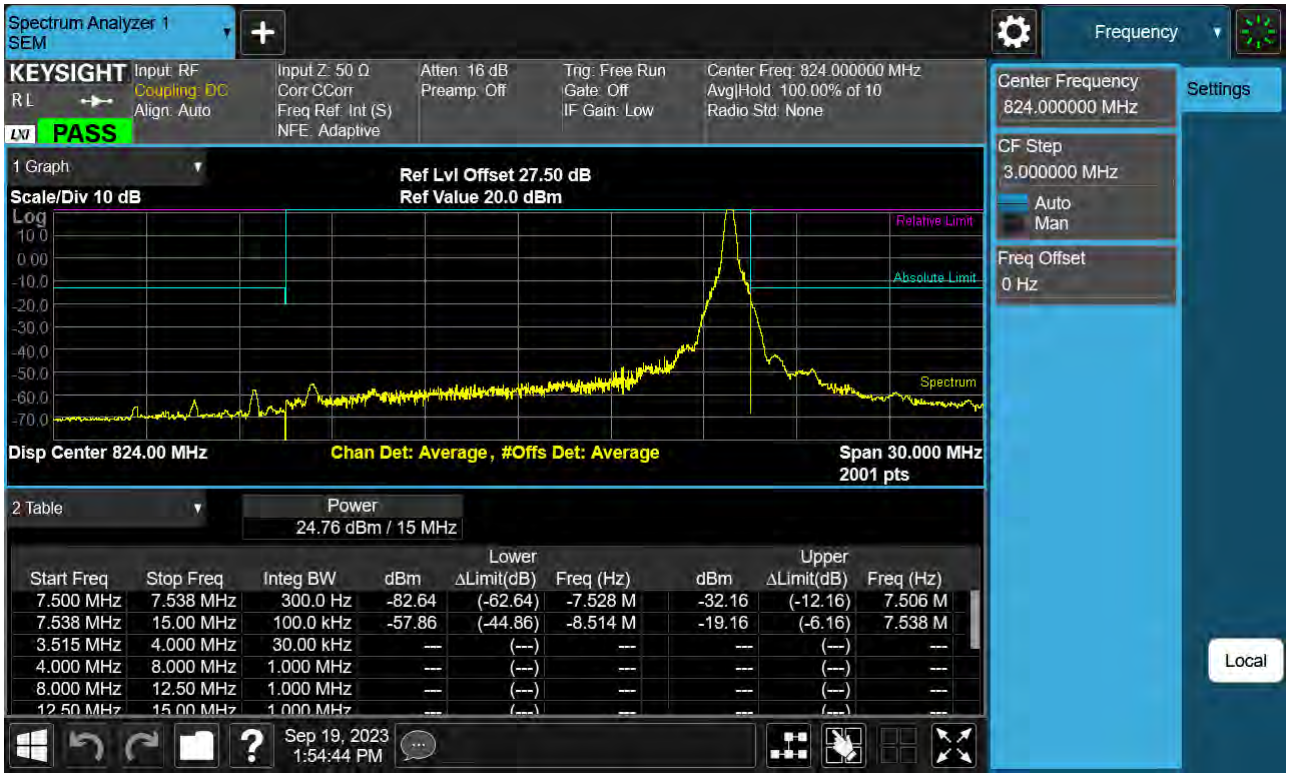
Sub6 n26. Low Channel Edge Plot (15 M BW Ch.164300 BPSK RB 1, Offset 0)



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

Start Freq	Stop Freq	Integ BW	Lower dBm	Lower ΔLimit(dB)	Lower Freq (Hz)	Upper dBm	Upper ΔLimit(dB)	Upper Freq (Hz)
7.500 MHz	7.538 MHz	300.0 Hz	-43.03	(-23.03)	-7.509 M	-52.28	(-32.28)	7.506 M
7.538 MHz	15.00 MHz	100.0 kHz	-29.63	(-16.63)	-7.538 M	-36.88	(-23.88)	13.20 M
3.515 MHz	4.000 MHz	30.00 kHz	---	(---)	---	---	(---)	---
4.000 MHz	8.000 MHz	1.000 MHz	---	(---)	---	---	(---)	---
8.000 MHz	12.50 MHz	1.000 MHz	---	(---)	---	---	(---)	---
12.50 MHz	15.00 MHz	1.000 MHz	---	(---)	---	---	(---)	---

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



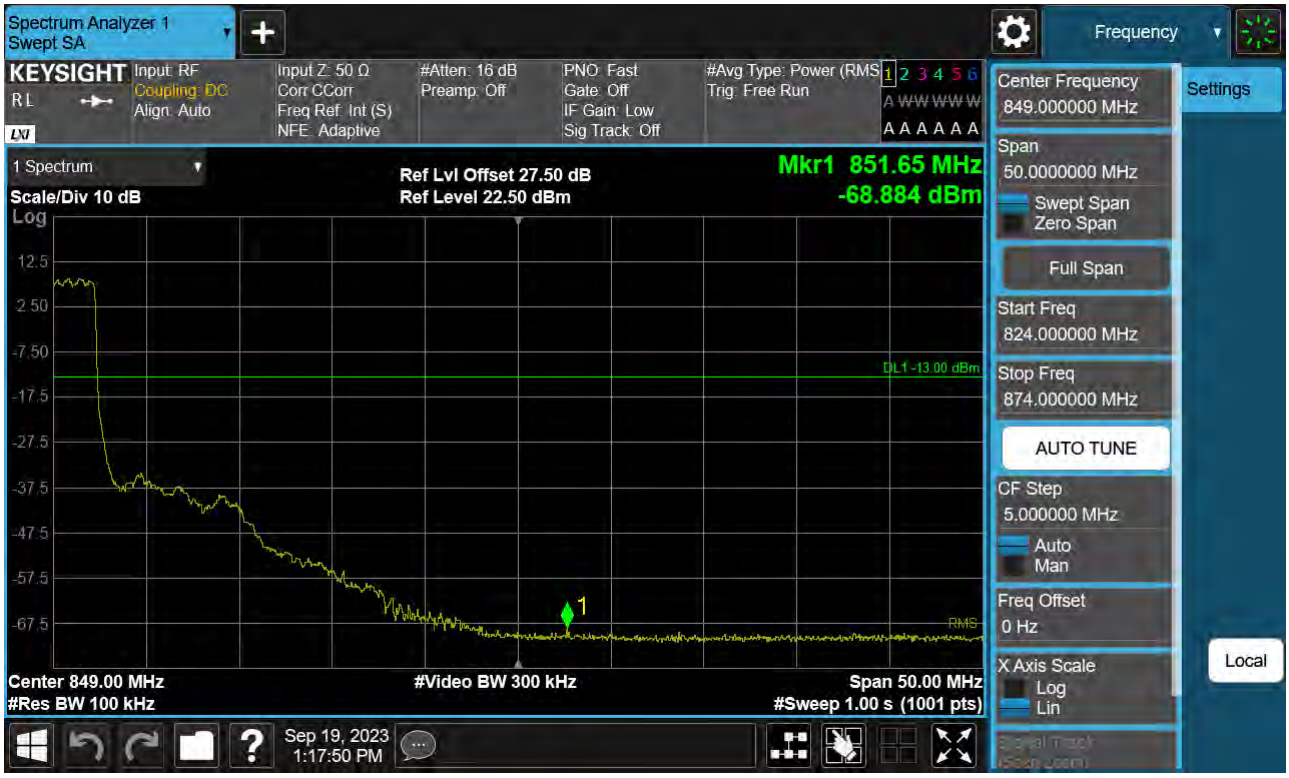
Sub6 n26. Upper Channel Edge Plot (15 M BW Ch.164800 BPSK_RB75_Offset 0)

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)