TEST REPORT

FCC LTE B41(38) Test for SM-X528U
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2502-FC011

DATE OF ISSUE
February 10, 2025

Tested by Jae Mun Do	
Technical Manager Jong Seok Lee	

HCT CO., LTD.
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

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-2502-FC011

DATE OF ISSUE
February 10, 2025

Applicant	**SAMSUNG Electronics Co., Ltd.** 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Product Name Model Name	Tablet SM-X528U
Date of Test	January 02, 2025 ~ February 07, 2025
FCC ID	A3LSMX528U
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 (PCB)
Test Standard Used	FCC Rule Part: § 27
Test Results	PASS

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	February 10, 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

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:	A3LSMX528U
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§ 27
EUT Type:	Tablet
Model(s):	SM-X528U
Tx Frequency:	2498.5 – 2687.5 : 5 MHz 2501.0 – 2685.0 : 10 MHz 2503.5 – 2682.5 : 15 MHz 2506.0 – 2680.0 : 20 MHz
Date(s) of Tests:	January 02, 2025 ~ February 07, 2025
Serial number:	Radiated : R32XC00A68K Conducted : R32XC00A9JV

1.1. MAXIMUM OUTPUT POWER

	Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
					Max. Power (W)	Max. Power (dBm)
Power Class 2	LTE – Band 41/38 (5)	2498.5 – 2687.5	4M52G7D	QPSK	0.351	25.46
			4M51W7D	16QAM	0.309	24.90
			4M51W7D	64QAM	0.239	23.79
			4M52W7D	256QAM	0.122	20.86
	LTE – Band 41/38 (10)	2501.0 – 2685.0	8M97G7D	QPSK	0.346	25.39
			9M00W7D	16QAM	0.305	24.84
			8M98W7D	64QAM	0.243	23.85
			8M98W7D	256QAM	0.122	20.87
	LTE – Band 41/38 (15)	2503.5 – 2682.5	13M5G7D	QPSK	0.382	25.82
			13M5W7D	16QAM	0.333	25.22
			13M5W7D	64QAM	0.259	24.14
			13M5W7D	256QAM	0.133	21.23
	LTE – Band 41/38 (20)	2506.0 – 2680.0	17M9G7D	QPSK	0.369	25.67
			17M9W7D	16QAM	0.324	25.10
			17M9W7D	64QAM	0.255	24.06
			17M9W7D	256QAM	0.129	21.11

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

Please refer to the [3G] 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	- N/A (See SAR Report)
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4
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 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 ≥ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points > 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

Test Note

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

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

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

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method.

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 10th harmonics from 9 kHz.

Test Note

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

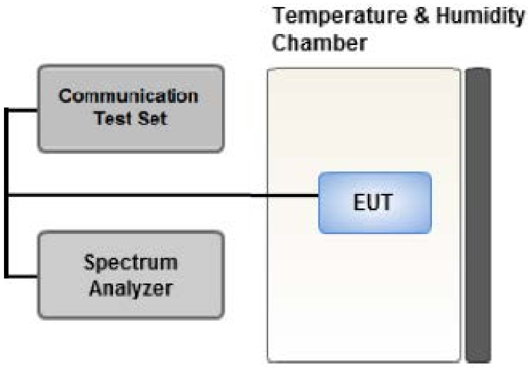
$$\text{Result}_{(dBm)} = Pg_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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

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

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

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

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

② Alternate Procedure for PAPR

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

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

Test Settings(Peak Power)

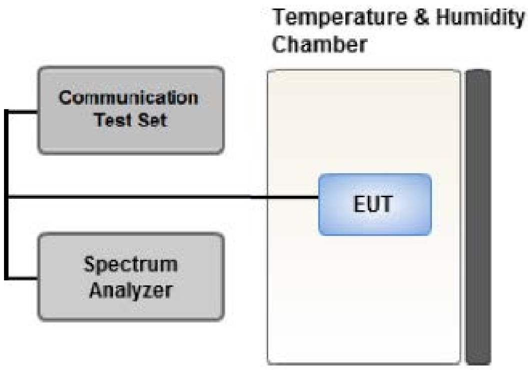
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW ≥ 3 × RBW.

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

Test Settings(Average Power)

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

3.5 OCCUPIED BANDWIDTH.



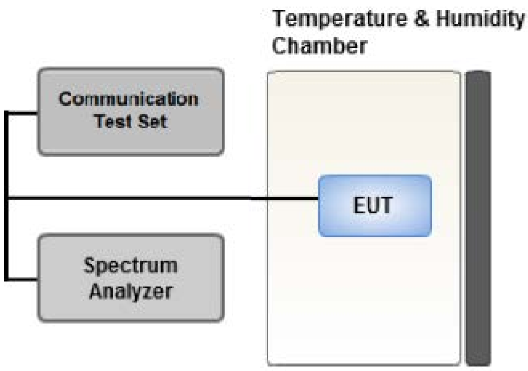
Test setup

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.
The EUT makes a call to the communication simulator.
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.
The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth

Test Settings

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

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

Test Overview

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

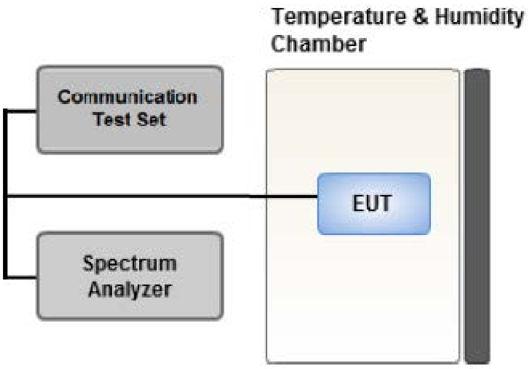
All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

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

Test Settings

1. RBW = 1 MHz
2. VBW ≥ 3 MHz
3. Detector = Peak
4. Trace Mode = max hold
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

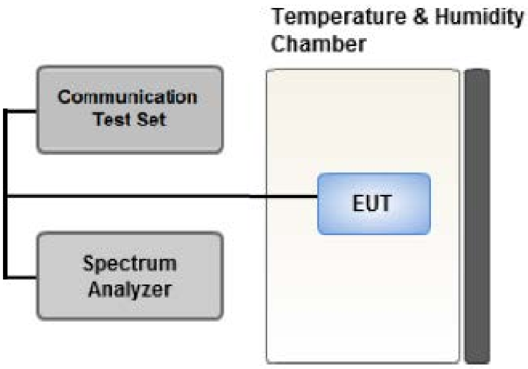
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. Within 1 MHz of the channel edge the RBW should be 2 % of EBW, then 1 MHz after that.
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points ≥ 2 x Span/RBW
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Notes

1. The attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge,
2. 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge.
3. 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge.
4. The attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz.
5. 55 + 10 log (P) dB at or below 2490.5 MHz.
6. X is the greater of 6 MHz or the actual emission bandwidth
7. The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer

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

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

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

The frequency stability of the transmitter is measured by:

1. Temperature:

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

2. Primary Supply Voltage:

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

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

Test Settings

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

3.9 WORST CASE(RADIATED TEST)

- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- All modes of operation were investigated and the worst case configuration results are reported.
  Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
  Worst case : Stand alone
- 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.
- The worst case is reported with the EUT positioning, modulations, and paging service configurations shown in the test data
- LTE Band 41 (5 M/10 M/15 M/20 M) overlaps the entire frequency range of LTE Band 38(5 M/10 M/15 M/20 M) and they have the same Tune-up power.
  Therefore, test data provided in this report covers Band38 as well as Band 41.
- All power classes were tested, and the results were reported for the worst case PC2.
- Please refer to the table below.

[Worst case]

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

3.10 WORST CASE(CONDUCTED TEST)

- All modes of operation were investigated and the worst case configuration results are reported.
- LTE Band 41 (5 M/10 M/15 M/20 M) overlaps the entire frequency range of LTE Band 38(5 M/10 M/15 M/20 M) and they have the same Tune-up power.
  Therefore, test data provided in this report covers Band38 as well as Band 41.
- All power classes were tested, and the results were reported for the worst case PC2.

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth	QPSK, 16QAM, 64QAM, 256QAM	5, 10, 15, 20	Mid	Full RB	0
Peak-To-Average Radio	QPSK, 16QAM, 64QAM, 256QAM	5, 10, 15, 20	Mid	Full RB	0
Channel Edge	QPSK	5	Low	1	0
			High	1	24
		10	Low	1	0
			High	1	49
		15	Low	1	0
			High	1	74
		20	Low	1	0
			High	1	99
		5, 10, 15, 20	Low, Mid, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	QPSK	5, 10, 15, 20	Low, Mid, High	1	0

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
RF Switching System	Switch box(1.2 G HPF+LNA)	HCT CO., LTD.,	F1L1	11/11/2025	Annual
RF Switching System	Switch box(3.3 G HPF+LNA)	HCT CO., LTD.,	F1L2	11/11/2025	Annual
RF Switching System	Switch box(LNA)	HCT CO., LTD.,	F1L4	11/11/2025	Annual
RF Switching System	Switch box(6 G HPF+LNA)	HCT CO., LTD.,	F1L7	11/11/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/26/2025	Annual
Power Splitter(DC ~ 26.5 GHz)	11667B	Hewlett Packard	5001	04/17/2025	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	02/19/2025	Annual
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	147	08/17/2025	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1298	09/11/2025	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Signal Analyzer(10 Hz ~ 26.5 GHz)	N9020A	Agilent	MY52090906	04/19/2025	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/17/2025	Annual
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	REOHDE & SCHWARZ	100931	08/06/2025	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
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262094331	11/13/2025	Annual
Radio Communication Test Station	MT8000A	Anritsu Corp.	6272613402	08/28/2025	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	Annual
Signal Analyzer(5 Hz ~ 40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	05/23/2025	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 (±kHz)
Occupied Bandwidth	95 (Confidence level about 95 %, k=2)
Frequency stability	28 (Confidence level about 95 %, k=2)

Parameter	Expanded Uncertainty (±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)	5.70 (Confidence level about 95 %, k=2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.52 (Confidence level about 95 %, k=2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.66 (Confidence level about 95 %, k=2)
Radiated Disturbance (Above 40 GHz)	5.58 (Confidence level about 95 %, k=2)

6. SUMMARY OF TEST RESULTS

6.1 Test Condition: Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§ 2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 27.53(m)(4)	■ < 40 + 10log10 (P[Watts]) at Channel edges ■ < 43 + 10log10 (P[Watts]) between 5 and X MHz from Channel edges ■ < 55 + 10log10 (P[Watts]) beyond X MHz beyond from Channel edges ■ < 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz	PASS
Conducted Output Power	§ 2.1046	N/A	See Note1
Frequency stability / variation of ambient temperature	§ 2.1055, § 27.54	Emission must remain in band	PASS

Note:

1. See SAR Report

6.2 Test Condition: Radiated Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Equivalent Isotropic Radiated Power	§ 27.50(h)(2)	< 2 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1053, § 27.53(m)(4)	< 55 + 10log10 (P[Watts])	PASS

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

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2498.5	LTE B41(38)/ 5 MHz	QPSK	-20.20	16.77	10.70	2.50	H	< 2.00	0.314	24.97	1	24
		16-QAM	-20.81	16.16	10.70	2.50	H		0.273	24.36		
		64-QAM	-21.81	15.16	10.70	2.50	H		0.217	23.36		
		256-QAM	-24.79	12.18	10.70	2.50	H		0.109	20.38		
2502.5		QPSK	-19.99	17.01	10.70	2.50	H		0.331	25.20	1	24
		16-QAM	-20.57	16.43	10.70	2.50	H		0.290	24.62		
		64-QAM	-21.65	15.35	10.70	2.50	H		0.226	23.54		
		256-QAM	-24.59	12.41	10.70	2.50	H		0.115	20.60		
2593.0		QPSK	-20.03	17.40	10.61	2.55	H		0.352	25.46	1	0
		16-QAM	-20.59	16.84	10.61	2.55	H		0.309	24.90		
		64-QAM	-21.70	15.73	10.61	2.55	H		0.239	23.79		
		256-QAM	-24.63	12.80	10.61	2.55	H		0.122	20.86		
2687.5		QPSK	-23.01	14.92	10.78	2.60	H		0.204	23.10	1	0
		16-QAM	-23.69	14.24	10.78	2.60	H		0.175	22.42		
		64-QAM	-24.77	13.16	10.78	2.60	H		0.136	21.34		
		256-QAM	-27.67	10.26	10.78	2.60	H		0.070	18.44		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2501.0	LTE B41(38)/ 10 MHz	QPSK	-20.06	16.91	10.70	2.50	H	< 2.00	0.324	25.11	1	49
		16-QAM	-20.62	16.35	10.70	2.50	H		0.285	24.55		
		64-QAM	-21.68	15.29	10.70	2.50	H		0.223	23.49		
		256-QAM	-24.63	12.34	10.70	2.50	H		0.113	20.54		
2505.0		QPSK	-20.09	16.93	10.70	2.51	H		0.325	25.12	1	49
		16-QAM	-20.69	16.33	10.70	2.51	H		0.283	24.52		
		64-QAM	-21.71	15.31	10.70	2.51	H		0.224	23.50		
		256-QAM	-24.68	12.34	10.70	2.51	H		0.113	20.53		
2593.0		QPSK	-20.10	17.33	10.61	2.55	H		0.346	25.39	1	0
		16-QAM	-20.65	16.78	10.61	2.55	H		0.305	24.84		
		64-QAM	-21.64	15.79	10.61	2.55	H		0.243	23.85		
		256-QAM	-24.62	12.81	10.61	2.55	H		0.122	20.87		
2685.0		QPSK	-23.11	14.85	10.77	2.61	H		0.200	23.01	1	0
		16-QAM	-23.68	14.28	10.77	2.61	H		0.175	22.44		
		64-QAM	-24.68	13.28	10.77	2.61	H		0.139	21.44		
		256-QAM	-27.62	10.34	10.77	2.61	H		0.071	18.50		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2503.5	LTE B41(38)/ 15 MHz	QPSK	-20.21	16.81	10.70	2.51	H	< 2.00	0.316	25.00	1	74
		16-QAM	-20.77	16.25	10.70	2.51	H		0.278	24.44		
		64-QAM	-21.81	15.21	10.70	2.51	H		0.219	23.40		
		256-QAM	-24.76	12.26	10.70	2.51	H		0.111	20.45		
2507.5		QPSK	-19.90	17.14	10.70	2.51	H		0.342	25.34	1	74
		16-QAM	-20.49	16.55	10.70	2.51	H		0.298	24.75		
		64-QAM	-21.50	15.54	10.70	2.51	H		0.236	23.74		
		256-QAM	-24.46	12.58	10.70	2.51	H		0.120	20.78		
2593.0		QPSK	-19.67	17.76	10.61	2.55	H		0.382	25.82	1	0
		16-QAM	-20.27	17.16	10.61	2.55	H		0.333	25.22		
		64-QAM	-21.35	16.08	10.61	2.55	H		0.259	24.14		
		256-QAM	-24.26	13.17	10.61	2.55	H		0.133	21.23		
2682.5		QPSK	-22.67	15.29	10.77	2.61	H		0.221	23.45	1	0
		16-QAM	-23.24	14.72	10.77	2.61	H		0.194	22.88		
		64-QAM	-24.29	13.67	10.77	2.61	H		0.152	21.83		
		256-QAM	-27.25	10.71	10.77	2.61	H		0.077	18.87		

Freq (MHz)	Mod/ Bandwidth	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2506.0	LTE B41(38)/ 20 MHz	QPSK	-19.81	17.21	10.70	2.51	H	< 2.00	0.347	25.40	1	99
		16-QAM	-20.37	16.65	10.70	2.51	H		0.305	24.84		
		64-QAM	-21.42	15.60	10.70	2.51	H		0.239	23.79		
		256-QAM	-24.38	12.64	10.70	2.51	H		0.121	20.83		
2510.0		QPSK	-19.88	17.19	10.70	2.51	H		0.345	25.38	1	99
		16-QAM	-20.45	16.62	10.70	2.51	H		0.302	24.81		
		64-QAM	-21.52	15.55	10.70	2.51	H		0.236	23.74		
		256-QAM	-24.48	12.59	10.70	2.51	H		0.120	20.78		
2593.0		QPSK	-19.82	17.61	10.61	2.55	H		0.369	25.67	1	0
		16-QAM	-20.39	17.04	10.61	2.55	H		0.324	25.10		
		64-QAM	-21.43	16.00	10.61	2.55	H		0.255	24.06		
		256-QAM	-24.38	13.05	10.61	2.55	H		0.129	21.11		
2680.0		QPSK	-22.90	15.08	10.76	2.61	H		0.210	23.23	1	0
		16-QAM	-23.47	14.51	10.76	2.61	H		0.185	22.66		
		64-QAM	-24.50	13.48	10.76	2.61	H		0.146	21.63		
		256-QAM	-27.44	10.54	10.76	2.61	H		0.074	18.69		

8.2 RADIATED SPURIOUS EMISSIONS

▣ MODE: LTE B41(38)

▣ MODULATION SIGNAL: 5 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = - 25 dBm

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	RB	
								Size	Offset
39715 (2502.5)	5 005.00	-42.78	12.55	-66.70	3.72	H	-57.87	1	24
	7 507.50	-39.89	10.98	-53.66	4.60	H	-47.28		
	10 010.00	-46.64	10.61	-57.13	5.47	V	-51.99		
39675 (2498.5)	4 997.00	-41.87	12.65	-65.13	3.70	H	-56.18	1	24
	7 495.50	-44.30	10.94	-58.39	4.61	V	-52.06		
	9 994.00	-46.05	10.57	-55.79	5.47	V	-50.69		
40620 (2593.0)	5 186.00	-41.66	12.45	-65.48	3.80	H	-56.83	1	0
	7 779.00	-44.14	11.55	-59.45	4.70	V	-52.60		
	10 372.00	-45.43	10.52	-53.92	5.55	H	-48.95		
41565 (2687.5)	5 375.00	-24.60	13.21	-48.42	3.91	H	-39.12	1	0
	8 062.50	-25.65	10.89	-38.61	4.82	H	-32.54		
	10 750.00	-40.88	10.60	-49.29	5.64	V	-44.33		

▣ MODE: LTE B41(38)

▣ MODULATION SIGNAL: 10 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = - 25 dBm

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	RB	
								Size	Offset
39740 (2505.0)	5 010.00	-42.55	12.55	-66.81	3.72	V	-57.98	1	49
	7 515.00	-43.97	10.98	-57.90	4.61	H	-51.52		
	10 020.00	-46.02	10.61	-56.84	5.47	V	-51.70		
39700 (2501.0)	5 002.00	-42.02	12.55	-65.61	3.71	H	-56.77	1	49
	7 503.00	-44.59	10.98	-58.37	4.60	V	-51.99		
	10 004.00	-45.88	10.61	-56.06	5.47	V	-50.92		
40620 (2593.0)	5 186.00	-38.95	12.45	-62.77	3.80	H	-54.12	1	0
	7 779.00	-43.54	11.55	-58.85	4.70	H	-52.00		
	10 372.00	-47.09	10.52	-55.58	5.55	V	-50.61		
41540 (2685.0)	5 370.00	-23.09	13.21	-46.94	3.92	H	-37.65	1	0
	8 055.00	-25.32	10.89	-38.35	4.81	H	-32.27		
	10 740.00	-36.28	10.67	-44.76	5.64	V	-39.73		

▣ MODE: LTE B41(38)

▣ MODULATION SIGNAL: 15 MHz QPSK

▣ DISTANCE: 1 meters

▣ LIMIT: 55 + 10 log10 (W) = - 25 dBm

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	RB	
								Size	Offset
39765 (2507.5)	5 015.00	-43.85	12.55	-68.19	3.71	V	-59.34	1	74
	7 522.50	-43.45	10.98	-57.54	4.61	H	-51.17		
	10 030.00	-46.56	10.61	-57.15	5.47	H	-52.01		
39725 (2503.5)	5 007.00	-41.91	12.55	-65.84	3.71	H	-57.00	1	74
	7 510.50	-39.34	10.98	-53.10	4.60	H	-46.72		
	10 014.00	-44.15	10.61	-54.80	5.47	V	-49.66		
40620 (2593.0)	5 186.00	-37.04	12.45	-60.86	3.80	V	-52.21	1	0
	7 779.00	-36.09	11.55	-51.40	4.70	V	-44.55		
	10 372.00	-45.97	10.52	-54.46	5.55	H	-49.49		
41515 (2682.5)	5 365.00	-18.65	13.21	-42.62	3.91	H	-33.32	1	0
	8 047.50	-22.63	10.89	-35.68	4.81	V	-29.60		
	10 730.00	-37.06	10.67	-45.68	5.65	V	-40.66		

■ MODE: LTE B41(38)

■ MODULATION SIGNAL: 20 MHz QPSK

■ DISTANCE: 1 meters

■ LIMIT: 55 + 10 log10 (W) = - 25 dBm

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	RB	
								Size	Offset
39790 (2510.0)	5 020.00	-39.97	12.55	-64.39	3.69	V	-55.53	1	99
	7 530.00	-35.77	10.98	-50.36	4.60	H	-43.98		
	10 040.00	-44.15	10.61	-54.33	5.49	V	-49.21		
39750 (2506.0)	5 012.00	-41.87	12.55	-66.12	3.72	H	-57.29	1	99
	7 518.00	-44.54	10.98	-58.63	4.61	H	-52.26		
	10 024.00	-44.86	10.61	-55.57	5.47	H	-50.43		
40620 (2593.0)	5 186.00	-42.13	12.45	-65.95	3.80	V	-57.30	1	0
	7 779.00	-43.22	11.55	-58.53	4.70	V	-51.68		
	10 372.00	-45.76	10.52	-54.25	5.55	H	-49.28		
41490 (2680.0)	5 360.00	-23.32	13.21	-47.42	3.90	H	-38.11	1	0
	8 040.00	-24.27	10.92	-37.34	4.80	H	-31.22		
	10 720.00	-41.44	10.67	-50.13	5.64	V	-45.10		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
41(38)	5 MHz	2593.0	QPSK	25	0	5.75
			16-QAM			6.49
			64-QAM			6.62
			256-QAM			6.49
	10 MHz		QPSK	50		6.10
			16-QAM			6.59
			64-QAM			6.75
			256-QAM			6.60
	15 MHz		QPSK	75		5.86
			16-QAM			6.53
			64-QAM			6.66
			256-QAM			6.52
	20 MHz		QPSK	100		5.82
			16-QAM			6.50
			64-QAM			6.70
			256-QAM			6.73

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 50 ~ 65.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
41(38)	5 MHz	2593.0	QPSK	25	0	4.5187
			16-QAM			4.5096
			64-QAM			4.5051
			256-QAM			4.5230
	10 MHz		QPSK	50		8.9706
			16-QAM			8.9983
			64-QAM			8.9818
			256-QAM			8.9832
	15 MHz		QPSK	75		13.454
			16-QAM			13.455
			64-QAM			13.501
			256-QAM			13.480
	20 MHz		QPSK	100		17.924
			16-QAM			17.933
			64-QAM			17.943
			256-QAM			17.938

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 66 ~ 81.

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)
41(38)	5	2498.5	7.3580	28.591	-68.312	-39.721	-25.00
		2593.0	8.8435	28.591	-67.724	-39.133	
		2687.5	9.1326	28.591	-67.685	-39.094	
	10	2501.0	4.9951	27.976	-66.125	-38.149	
		2593.0	5.1745	28.591	-67.657	-39.066	
		2685.0	3.7887	27.976	-67.236	-39.260	
	15	2503.5	9.4716	28.591	-68.126	-39.535	
		2593.0	9.9502	28.591	-67.269	-38.678	
		2682.5	4.0579	27.976	-67.200	-39.224	
	20	2506.0	4.9951	27.976	-65.150	-37.174	
		2593.0	7.4377	28.591	-67.498	-38.907	
		2680.0	4.2772	27.976	-66.725	-38.749	

Note:

1. Plots of the EUT’s Conducted Spurious Emissions are shown Page 82 ~ 105.

2. Conducted Spurious Emissions was Tested QPSK Modulation, Resource Block Size 1 and Resource Block Offset 0

3. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)

4. Factor(dB) = Cable Loss + Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	25.270
1 – 5	27.976
5 – 10	28.591
10 – 15	29.116
15 – 20	29.489
Above 20(26.5)	30.131

8.6 CHANNEL EDGE

Band Width	Frequency (MHz)	Modulation	RB (Size/ Offset)	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +1 MHz)	2 490.5 MHz ~ 2 495 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Upper
5 MHz	2498.5	QPSK	25/0	-19.96	-20.47	-27.61	-28.14	-35.48	-34.24	-34.76
10 MHz	2501.0	QPSK	50/0	-24.69	-24.09	-29.83	-29.51	-35.12	-34.58	-38.39
15 MHz	2503.5	QPSK	75/0	-26.78	-26.40	-31.37	-31.40	-36.44	-35.69	-40.07
20 MHz	2506.0	QPSK	100/0	-30.01	-28.47	-33.25	-33.21	-36.57	-35.72	-41.88
Limit(dBm)				-13.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
					Lower	Upper	Lower	Upper
5 MHz	2593.0	QPSK	25	0	-19.95	-20.73	-27.46	-27.62
	2687.5	QPSK	25	0	-19.93	-21.02	-27.15	-27.54
10 MHz	2593.0	QPSK	50	0	-24.57	-24.52	-29.41	-29.30
	2685.0	QPSK	50	0	-24.33	-24.91	-28.84	-29.56
15 MHz	2593.0	QPSK	75	0	-26.41	-26.83	-30.77	-31.16
	2682.5	QPSK	75	0	-26.05	-27.43	-30.13	-31.50
20 MHz	2593.0	QPSK	100	0	-29.64	-28.89	-32.65	-32.81
	2680.0	QPSK	100	0	-29.07	-29.42	-31.57	-33.00
Limit(dBm)					-10.0		-10.0	

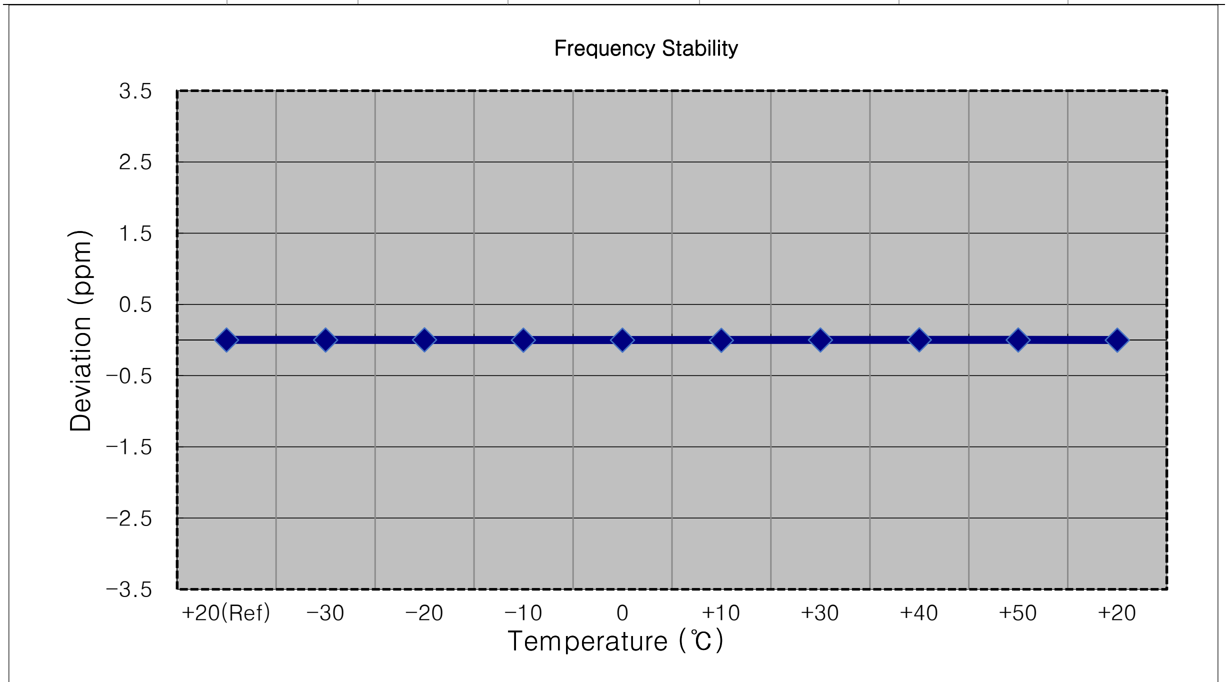
Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	(C.E ± 5 MHz) ~ (C.E ± X MHz)		Above (C.E ± X MHz)	
					Lower	Upper	Lower	Upper
5 MHz	2593.0	QPSK	25	0	-34.83	-34.64	-34.69	-35.36
	2687.5	QPSK	25	0	-34.44	-35.25	-34.24	-35.46
10 MHz	2593.0	QPSK	50	0	-32.96	-32.97	-39.07	-39.30
	2685.0	QPSK	50	0	-34.11	-35.61	-38.35	-39.82
15 MHz	2593.0	QPSK	75	0	-34.71	-35.10	-40.28	-41.08
	2682.5	QPSK	75	0	-34.36	-35.81	-39.57	-41.67
20 MHz	2593.0	QPSK	100	0	-34.87	-35.22	-42.25	-42.95
	2680.0	QPSK	100	0	-33.97	-35.64	-41.76	-43.94
Limit(dBm)					-13.0		-25.0	

Note:
1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth.
3. X = 6 MHz(5 MHz Bandwidth), 10 MHz(10 MHz Bandwidth), 15 MHz(15 MHz Bandwidth), 20 MHz(20 MHz Bandwidth)
4. RB = Resource Block
5. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 3.979
6. Plots of the EUT's Channel Edge are shown Page 106 ~ 133. (1RB & Full RB)

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ MODE: LTE 41(38)
- ▣ OPERATING FREQUENCY: 2498,500,000 Hz
- ▣ BANDWIDTH: 39675 (5 MHz)
- ▣ REFERENCE VOLTAGE: 3.860 VDC
- ▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2498 499 996	0.0	0.000 000	0.000
100 %		-30	2498 500 000	4.2	0.000 000	0.002
100 %		-20	2498 500 002	6.4	0.000 000	0.003
100 %		-10	2498 499 993	-3.3	0.000 000	-0.001
100 %		0	2498 499 992	-4.1	0.000 000	-0.002
100 %		+10	2498 499 990	-6.1	0.000 000	-0.002
100 %		+30	2498 500 000	3.7	0.000 000	0.001
100 %		+40	2498 500 002	6.2	0.000 000	0.002
100 %		+50	2498 500 001	5.2	0.000 000	0.002
Batt. Endpoint	3.400	+20	2498 499 992	-3.9	0.000 000	-0.002



▣ MODE: LTE 41(38)

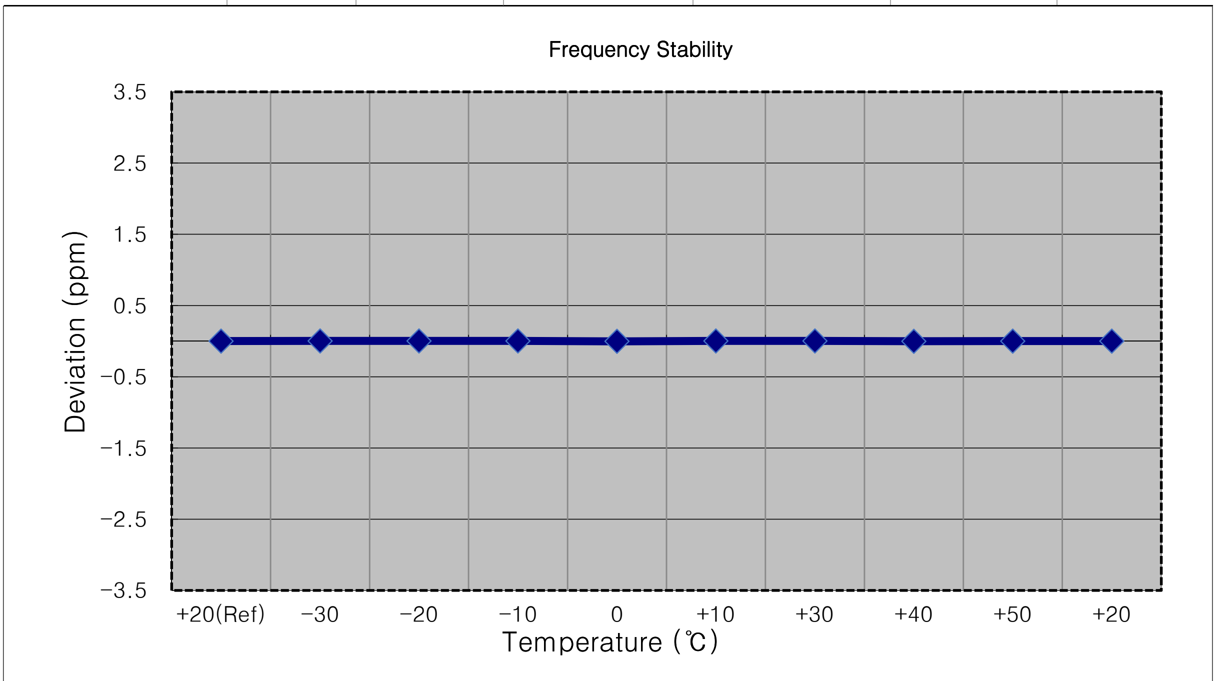
▣ OPERATING FREQUENCY: 2501,000,000 Hz

▣ BANDWIDTH: 39700 (10 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(℃)	(Hz)	(Hz)	(%)	
100 %	3.860	+20(Ref)	2501 000 005	0.0	0.000 000	0.000
100 %		-30	2501 000 012	7.3	0.000 000	0.003
100 %		-20	2501 000 012	7.4	0.000 000	0.003
100 %		-10	2501 000 009	4.1	0.000 000	0.002
100 %		0	2500 999 999	-5.5	0.000 000	-0.002
100 %		+10	2501 000 012	6.8	0.000 000	0.003
100 %		+30	2501 000 010	4.6	0.000 000	0.002
100 %		+40	2501 000 001	-3.9	0.000 000	-0.002
100 %		+50	2501 000 003	-1.6	0.000 000	-0.001
Batt. Endpoint	3.400	+20	2501 000 008	2.9	0.000 000	0.001



▣ MODE: LTE 41(38)

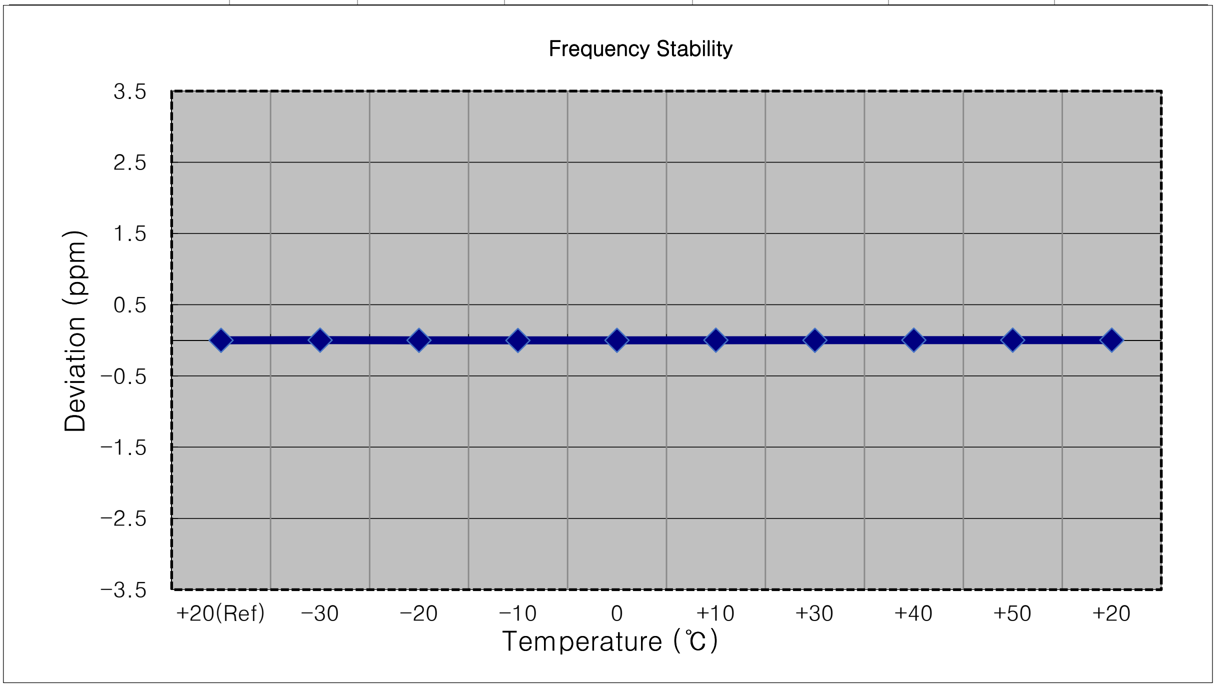
▣ OPERATING FREQUENCY: 2503,500,000 Hz

▣ BANDWIDTH: 39725 (15 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2503 500 004	0.0	0.000 000	0.000
100 %		-30	2503 500 006	2.8	0.000 000	0.001
100 %		-20	2503 500 000	-3.7	0.000 000	-0.001
100 %		-10	2503 499 999	-4.7	0.000 000	-0.002
100 %		0	2503 500 000	-3.6	0.000 000	-0.001
100 %		+10	2503 500 007	3.4	0.000 000	0.001
100 %		+30	2503 500 000	-3.3	0.000 000	-0.001
100 %		+40	2503 500 009	5.6	0.000 000	0.002
100 %		+50	2503 500 008	4.2	0.000 000	0.002
Batt. Endpoint	3.400	+20	2503 500 009	5.4	0.000 000	0.002



▣ MODE: LTE 41(38)

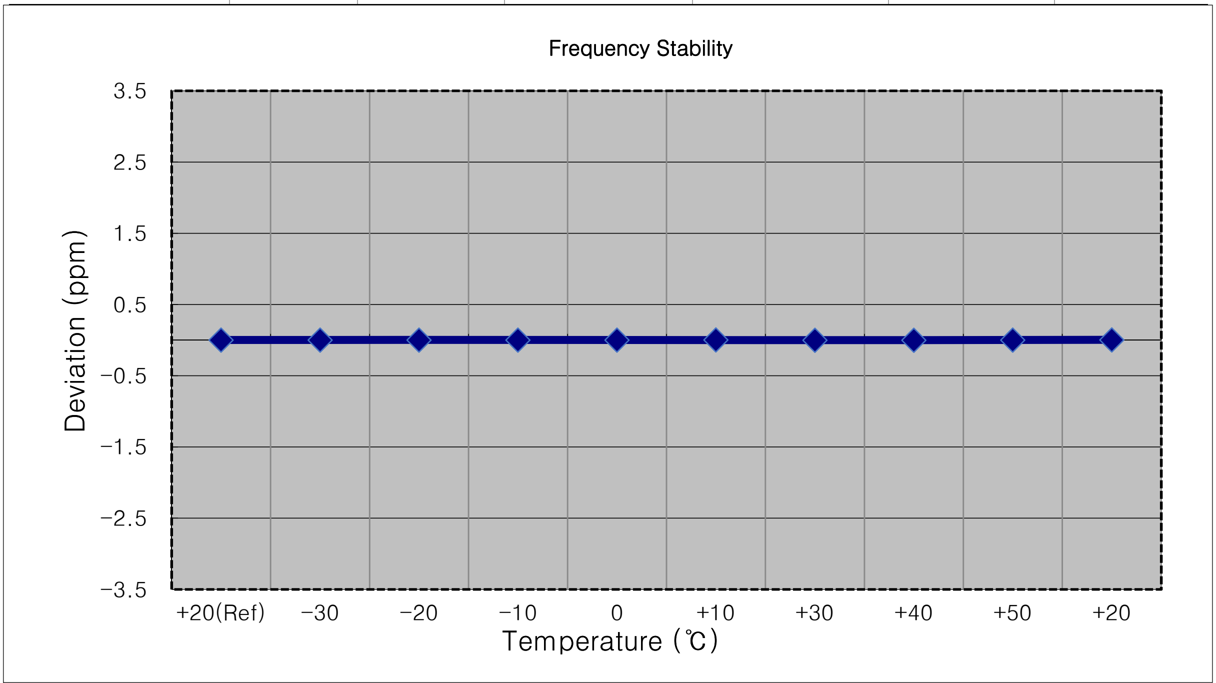
▣ OPERATING FREQUENCY: 2506,000,000 Hz

▣ BANDWIDTH: 39750 (20 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2506 000 003	0.0	0.000 000	0.000
100 %		-30	2506 000 007	3.8	0.000 000	0.002
100 %		-20	2506 000 006	3.6	0.000 000	0.001
100 %		-10	2506 000 008	5.0	0.000 000	0.002
100 %		0	2506 000 006	3.6	0.000 000	0.001
100 %		+10	2506 000 009	5.7	0.000 000	0.002
100 %		+30	2506 000 000	-2.8	0.000 000	-0.001
100 %		+40	2505 999 999	-4.1	0.000 000	-0.002
100 %		+50	2506 000 007	4.4	0.000 000	0.002
Batt. Endpoint	3.400	+20	2506 000 008	5.3	0.000 000	0.002



▣ MODE: LTE 41(38)

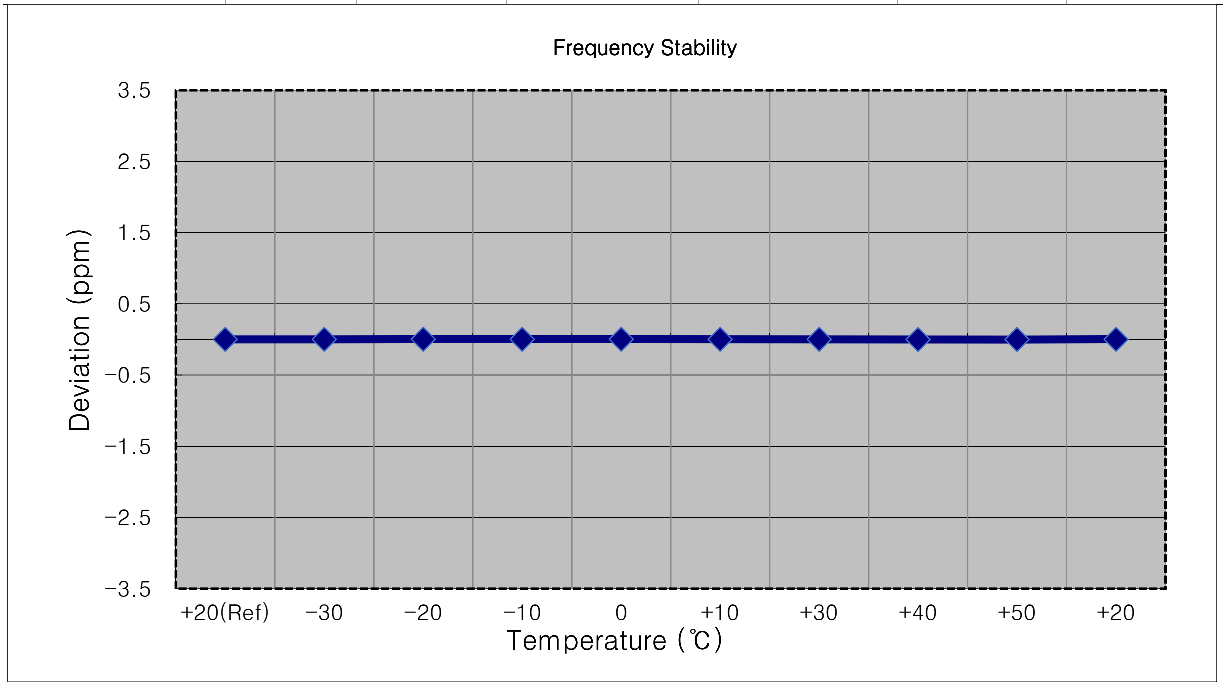
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (5 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2592 999 995	0.0	0.000 000	0.000
100 %		-30	2592 999 991	-3.9	0.000 000	-0.002
100 %		-20	2592 999 998	2.8	0.000 000	0.001
100 %		-10	2593 000 002	7.4	0.000 000	0.003
100 %		0	2592 999 997	2.4	0.000 000	0.001
100 %		+10	2592 999 999	3.7	0.000 000	0.001
100 %		+30	2593 000 000	5.1	0.000 000	0.002
100 %		+40	2592 999 987	-7.7	0.000 000	-0.003
100 %		+50	2592 999 991	-4.0	0.000 000	-0.002
Batt. Endpoint	3.400	+20	2592 999 998	2.8	0.000 000	0.001



▣ MODE: LTE 41(38)

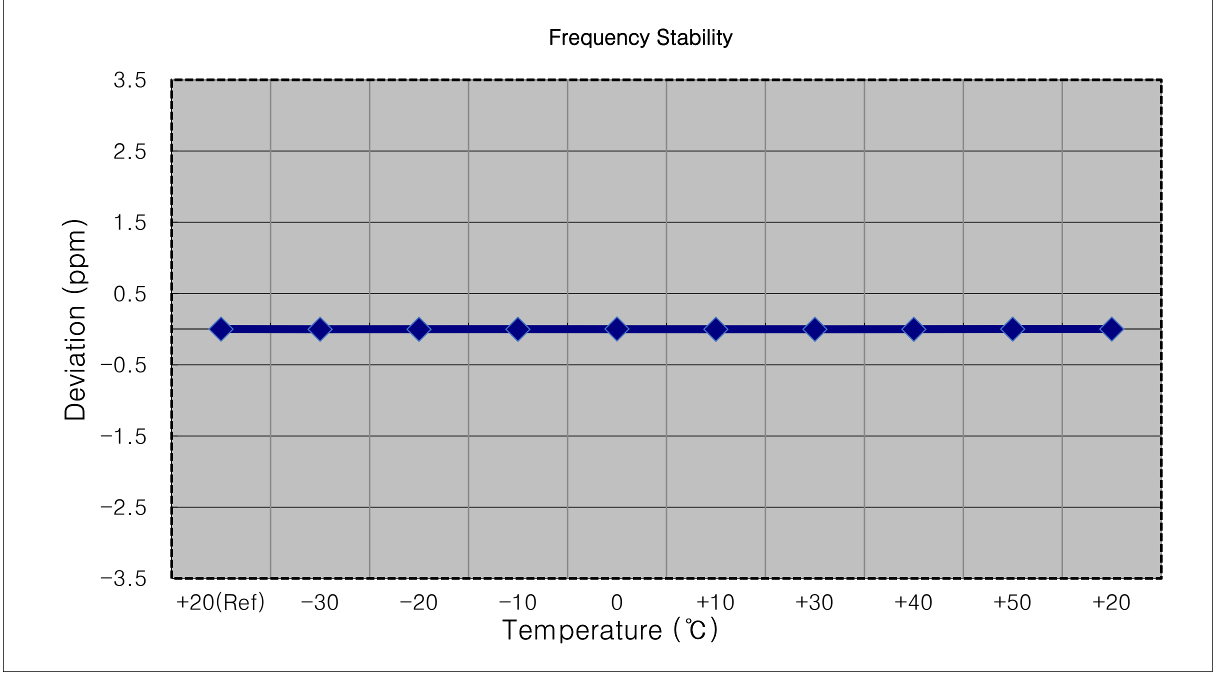
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (10 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2593 000 005	0.0	0.000 000	0.000
100 %		-30	2593 000 001	-3.8	0.000 000	-0.001
100 %		-20	2593 000 002	-2.8	0.000 000	-0.001
100 %		-10	2593 000 001	-3.9	0.000 000	-0.002
100 %		0	2593 000 008	3.9	0.000 000	0.002
100 %		+10	2593 000 002	-3.0	0.000 000	-0.001
100 %		+30	2593 000 002	-2.7	0.000 000	-0.001
100 %		+40	2593 000 001	-3.7	0.000 000	-0.001
100 %		+50	2593 000 003	-1.9	0.000 000	-0.001
Batt. Endpoint	3.400	+20	2593 000 008	3.5	0.000 000	0.001



▣ MODE: LTE 41(38)

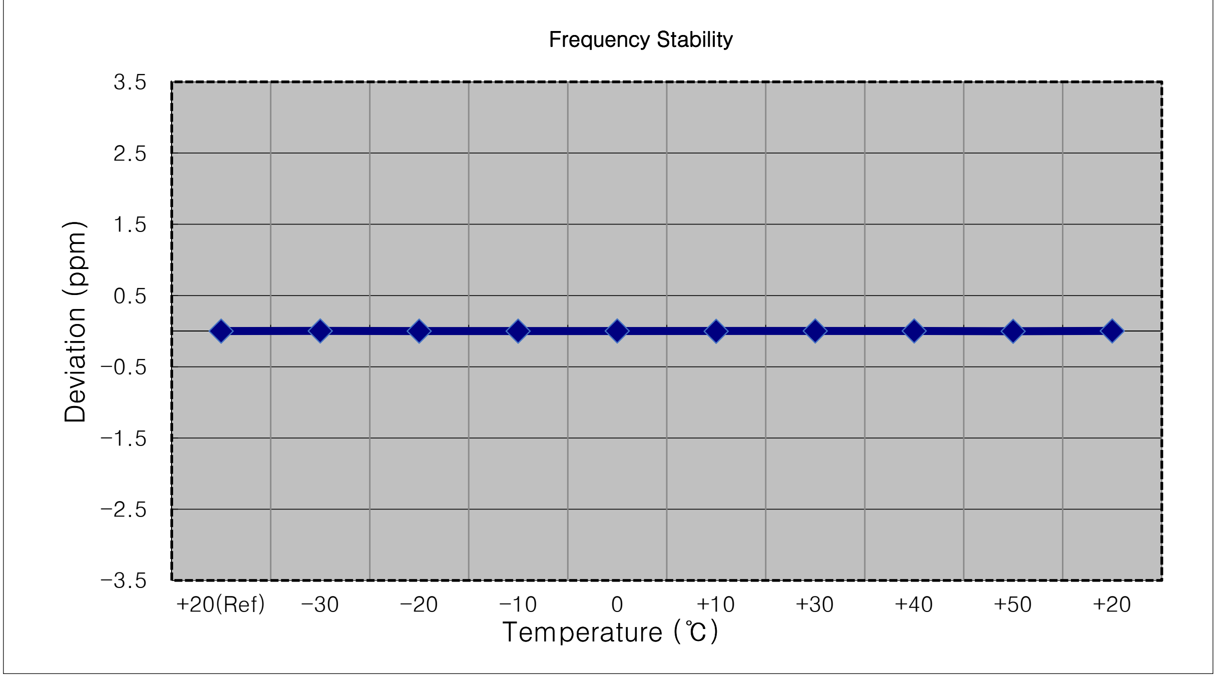
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (15 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2592 999 993	0.0	0.000 000	0.000
100 %		-30	2592 999 999	5.5	0.000 000	0.002
100 %		-20	2592 999 996	2.5	0.000 000	0.001
100 %		-10	2592 999 997	3.8	0.000 000	0.001
100 %		0	2592 999 998	4.8	0.000 000	0.002
100 %		+10	2592 999 990	-2.9	0.000 000	-0.001
100 %		+30	2593 000 000	7.1	0.000 000	0.003
100 %		+40	2592 999 998	4.6	0.000 000	0.002
100 %		+50	2592 999 990	-3.4	0.000 000	-0.001
Batt. Endpoint	3.400	+20	2593 000 001	7.7	0.000 000	0.003



▣ MODE: LTE 41(38)

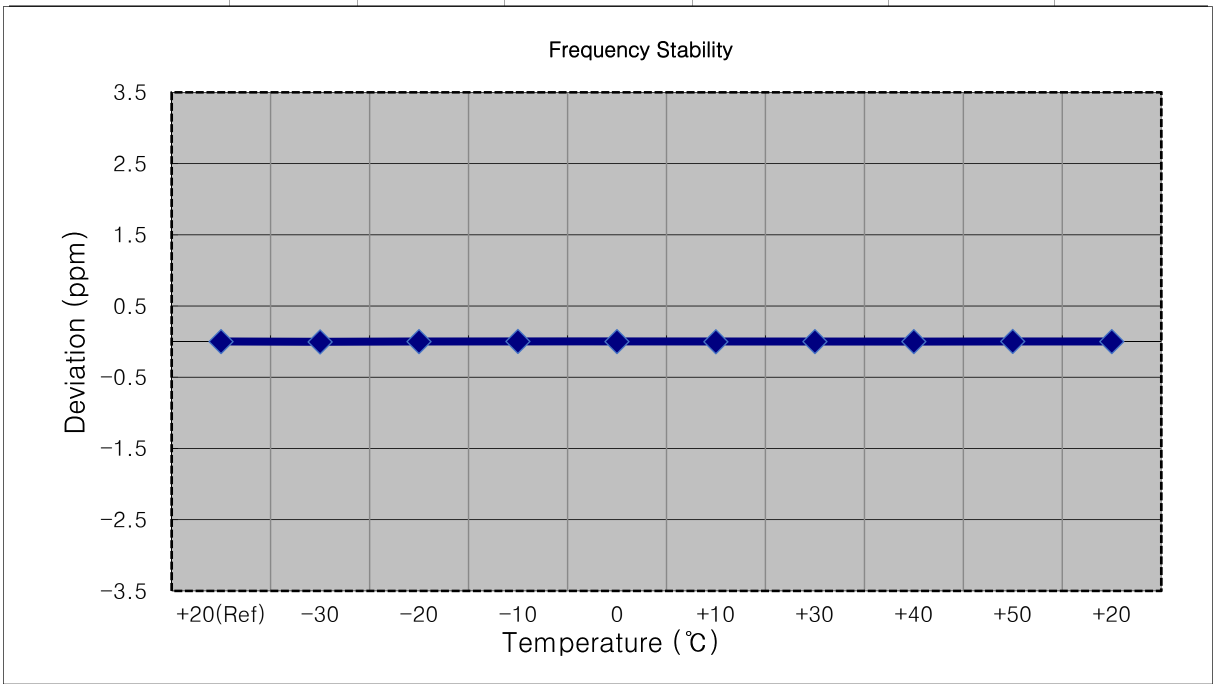
▣ OPERATING FREQUENCY: 2593,000,000 Hz

▣ BANDWIDTH: 40620 (20 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2592 999 996	0.0	0.000 000	0.000
100 %		-30	2592 999 988	-7.5	0.000 000	-0.003
100 %		-20	2592 999 999	2.9	0.000 000	0.001
100 %		-10	2593 000 001	5.4	0.000 000	0.002
100 %		0	2593 000 000	4.6	0.000 000	0.002
100 %		+10	2592 999 992	-4.2	0.000 000	-0.002
100 %		+30	2593 000 000	3.8	0.000 000	0.001
100 %		+40	2593 000 001	4.8	0.000 000	0.002
100 %		+50	2593 000 003	7.0	0.000 000	0.003
Batt. Endpoint	3.400	+20	2593 000 000	4.5	0.000 000	0.002



▣ MODE: LTE 41(38)

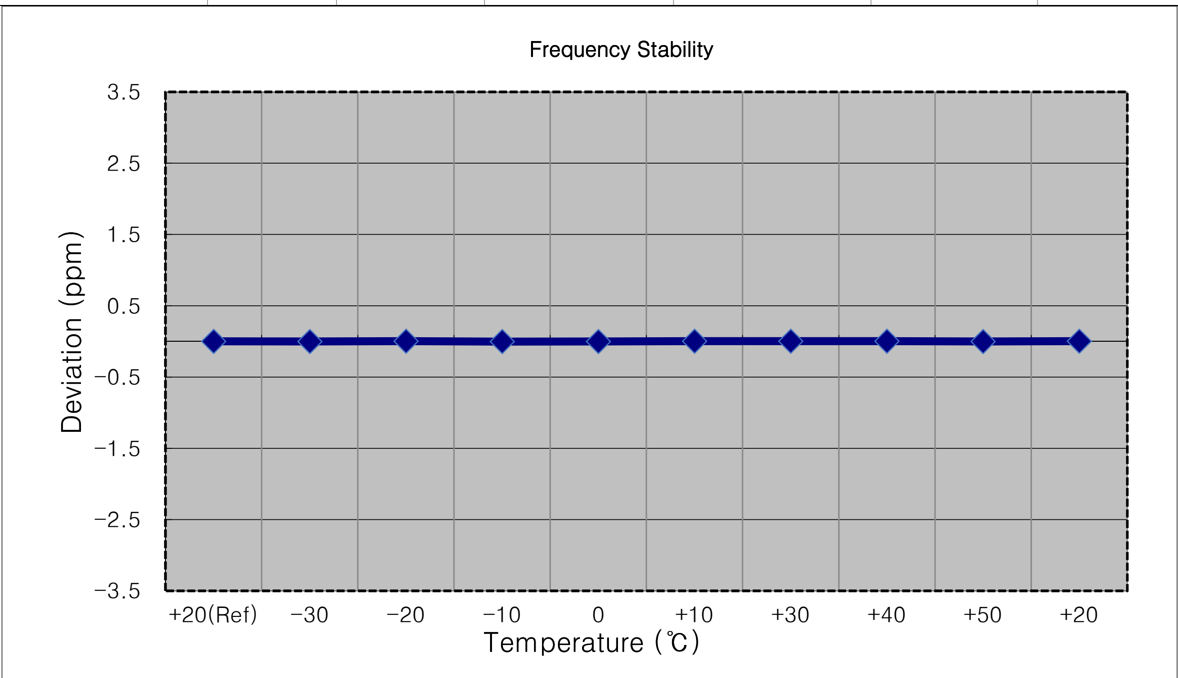
▣ OPERATING FREQUENCY: 2687,500,000 Hz

▣ BANDWIDTH: 41565 (5 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage	Power	Temp.	Frequency	Frequency Error	Deviation	ppm
(%)	(VDC)	(°C)	(Hz)	(Hz)	(%)	
100 %	3.860	+20(Ref)	2687 500 010	0.0	0.000 000	0.000
100 %		-30	2687 500 003	-6.3	0.000 000	-0.002
100 %		-20	2687 500 017	7.3	0.000 000	0.003
100 %		-10	2687 500 003	-6.8	0.000 000	-0.003
100 %		0	2687 500 005	-4.2	0.000 000	-0.002
100 %		+10	2687 500 016	6.5	0.000 000	0.002
100 %		+30	2687 500 014	4.4	0.000 000	0.002
100 %		+40	2687 500 019	9.5	0.000 000	0.004
100 %		+50	2687 500 004	-5.6	0.000 000	-0.002
Batt. Endpoint	3.400	+20	2687 500 016	6.6	0.000 000	0.002



▣ MODE: LTE 41(38)

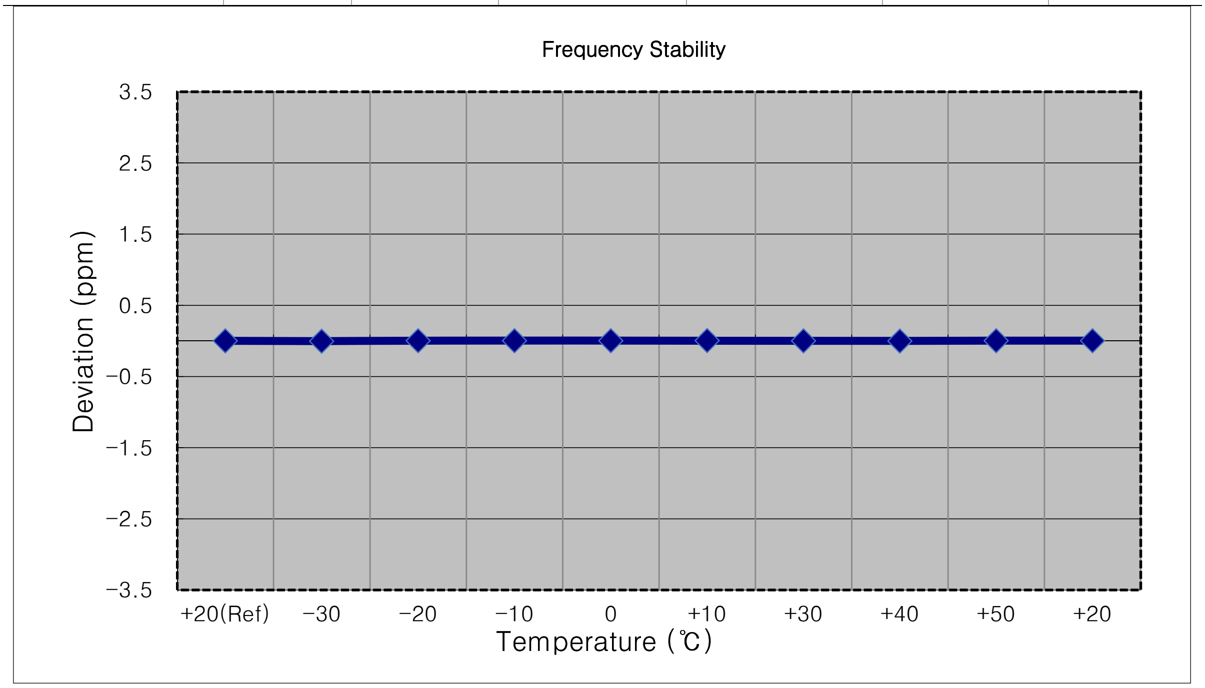
▣ OPERATING FREQUENCY: 2685,000,000 Hz

▣ BANDWIDTH: 41540 (10 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2685 000 010	0.0	0.000 000	0.000
100 %		-30	2685 000 001	-8.9	0.000 000	-0.003
100 %		-20	2685 000 016	6.0	0.000 000	0.002
100 %		-10	2685 000 017	7.4	0.000 000	0.003
100 %		0	2685 000 017	7.6	0.000 000	0.003
100 %		+10	2685 000 020	10.1	0.000 000	0.004
100 %		+30	2685 000 014	3.8	0.000 000	0.001
100 %		+40	2685 000 004	-5.7	0.000 000	-0.002
100 %		+50	2685 000 020	9.9	0.000 000	0.004
Batt. Endpoint	3.400	+20	2685 000 017	7.4	0.000 000	0.003



▣ MODE: LTE 41(38)

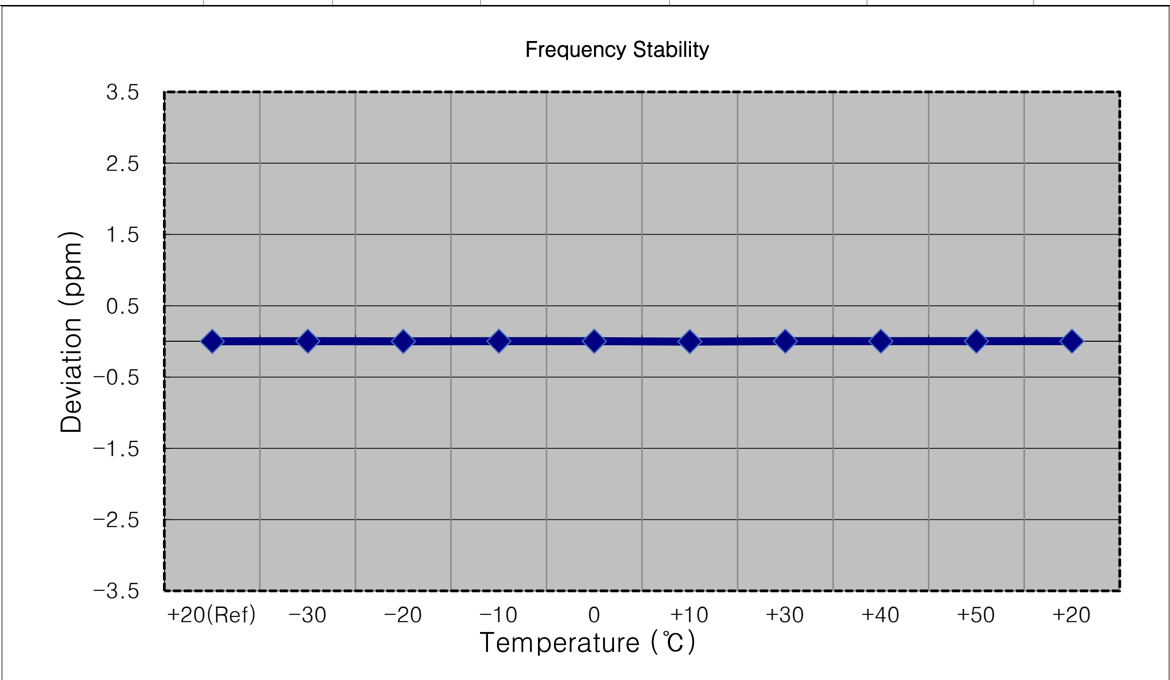
▣ OPERATING FREQUENCY: 2682,500,000 Hz

▣ BANDWIDTH: 41515 (15 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (°C)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2682 500 006	0.0	0.000 000	0.000
100 %		-30	2682 500 012	5.9	0.000 000	0.002
100 %		-20	2682 500 010	3.6	0.000 000	0.001
100 %		-10	2682 500 011	4.9	0.000 000	0.002
100 %		0	2682 500 012	5.7	0.000 000	0.002
100 %		+10	2682 500 000	-6.0	0.000 000	-0.002
100 %		+30	2682 500 015	9.0	0.000 000	0.003
100 %		+40	2682 500 013	6.5	0.000 000	0.002
100 %		+50	2682 500 013	7.0	0.000 000	0.003
Batt. Endpoint	3.400	+20	2682 500 012	5.1	0.000 000	0.002



▣ MODE: LTE 41(38)

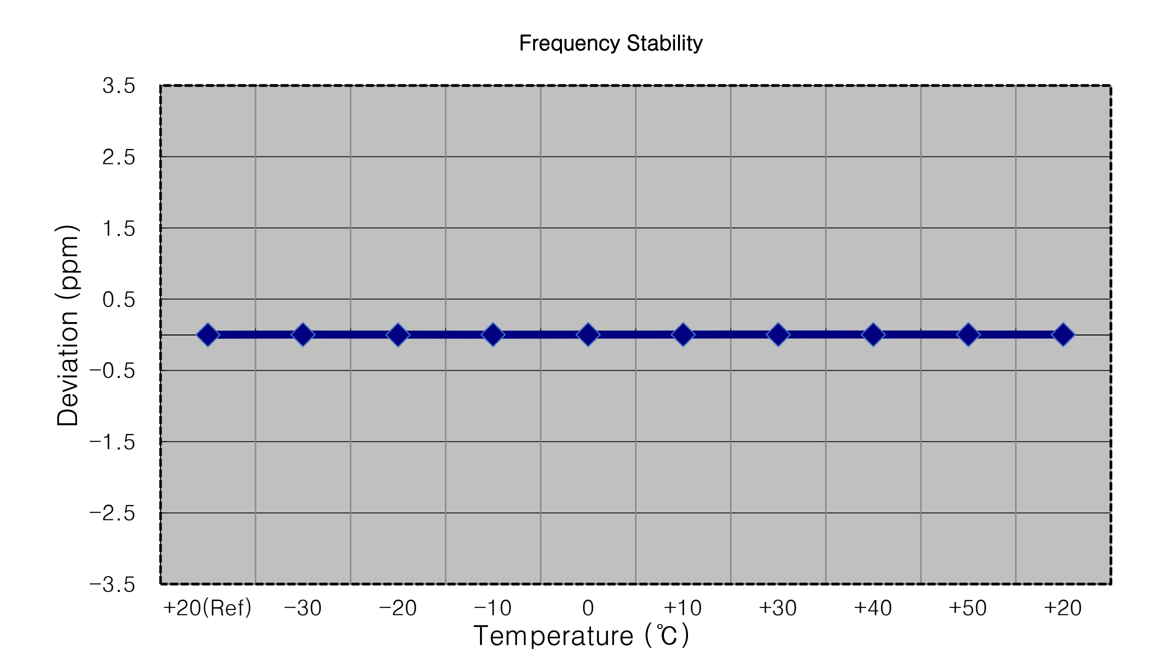
▣ OPERATING FREQUENCY: 2680,000,000 Hz

▣ BANDWIDTH: 41490 (20 MHz)

▣ REFERENCE VOLTAGE: 3.860 VDC

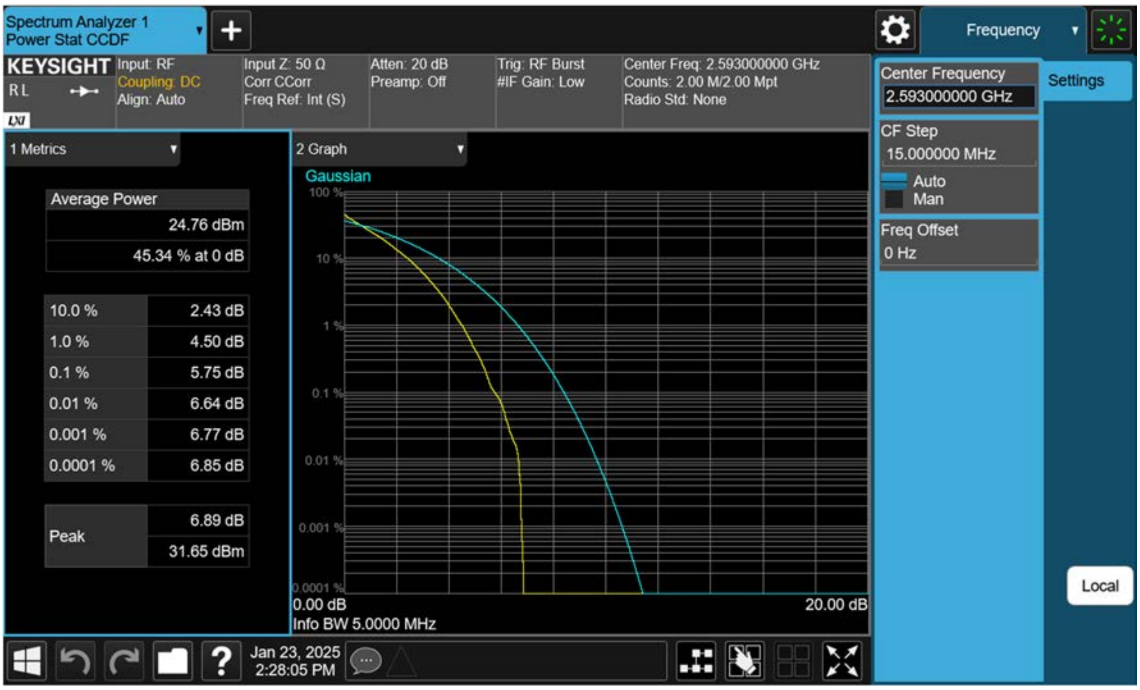
▣ DEVIATION LIMIT: Emission must remain in band

Voltage (%)	Power (VDC)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
100 %	3.860	+20(Ref)	2680 000 004	0.0	0.000 000	0.000
100 %		-30	2680 000 009	4.8	0.000 000	0.002
100 %		-20	2680 000 000	-4.7	0.000 000	-0.002
100 %		-10	2680 000 010	5.4	0.000 000	0.002
100 %		0	2680 000 012	7.7	0.000 000	0.003
100 %		+10	2680 000 011	6.5	0.000 000	0.002
100 %		+30	2680 000 011	6.3	0.000 000	0.002
100 %		+40	2680 000 011	6.2	0.000 000	0.002
100 %		+50	2680 000 010	6.0	0.000 000	0.002
Batt. Endpoint	3.400	+20	2680 000 010	5.7	0.000 000	0.002



9. TEST PLOTS

LTE B41_5 M_PAR_Mid_QPSK_FullRB

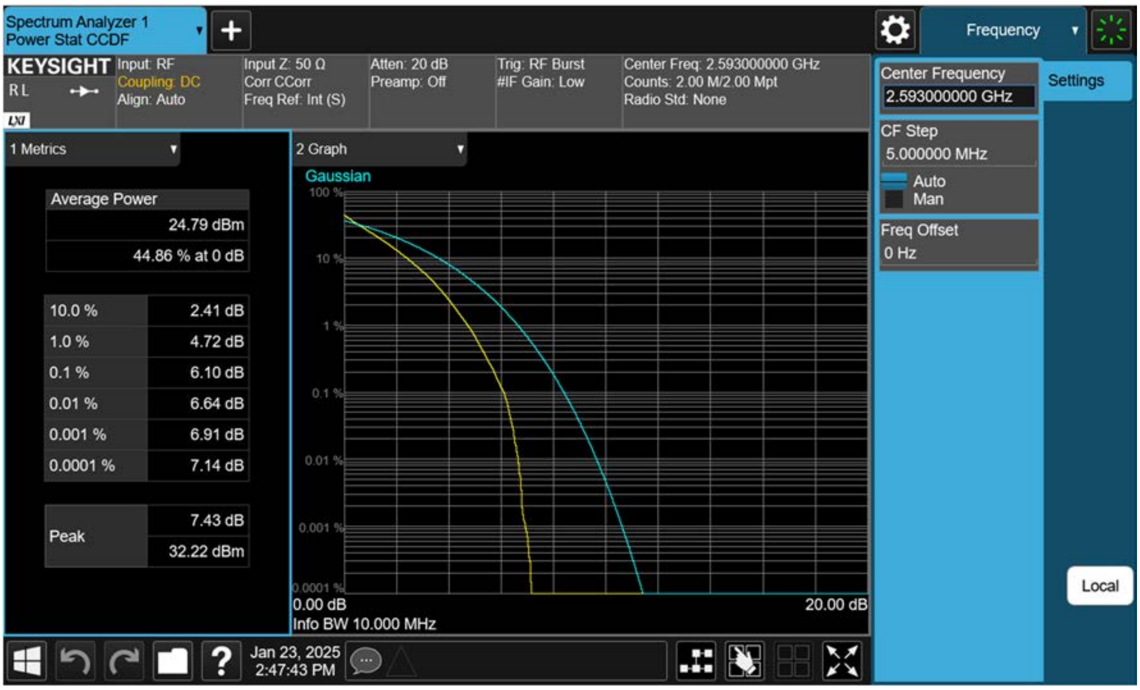


LTE B41_5 M_PAR_Mid_16QAM_FullRB

LTE B41_5 M_PAR_Mid_64QAM_FullRB

LTE B41_5 M_PAR_Mid_256QAM_FullRB

LTE B41_10 M_PAR_Mid_QPSK_FullRB

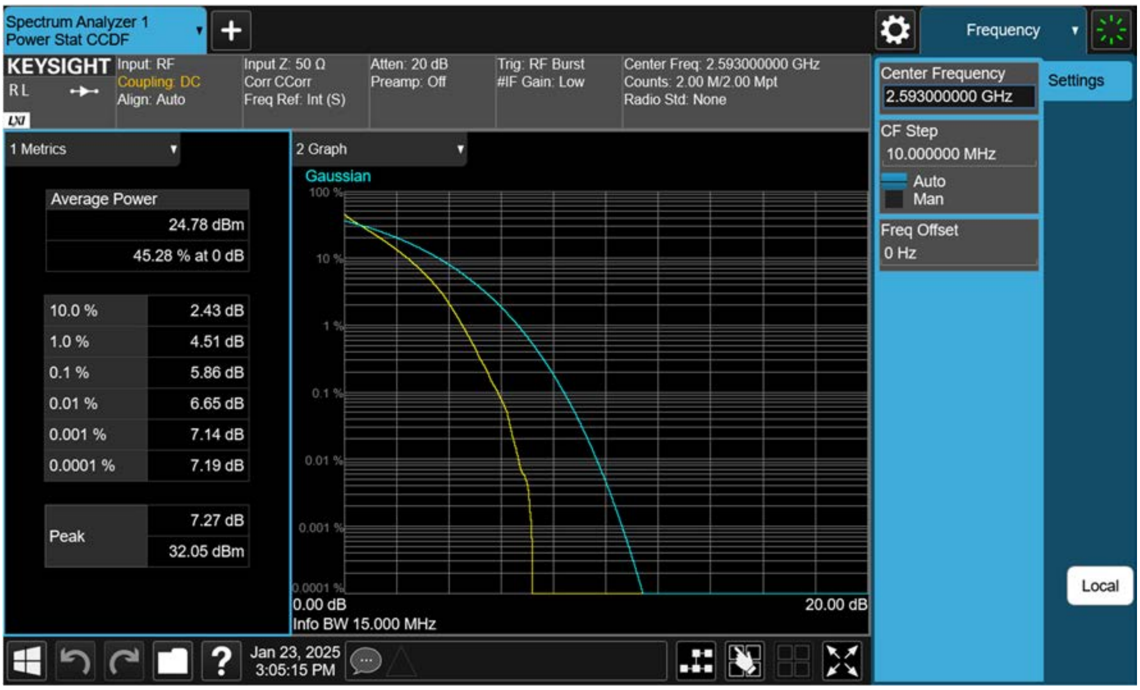


LTE B41_10 M_PAR_Mid_16QAM_FullRB

LTE B41_10 M_PAR_Mid_64QAM_FullRB

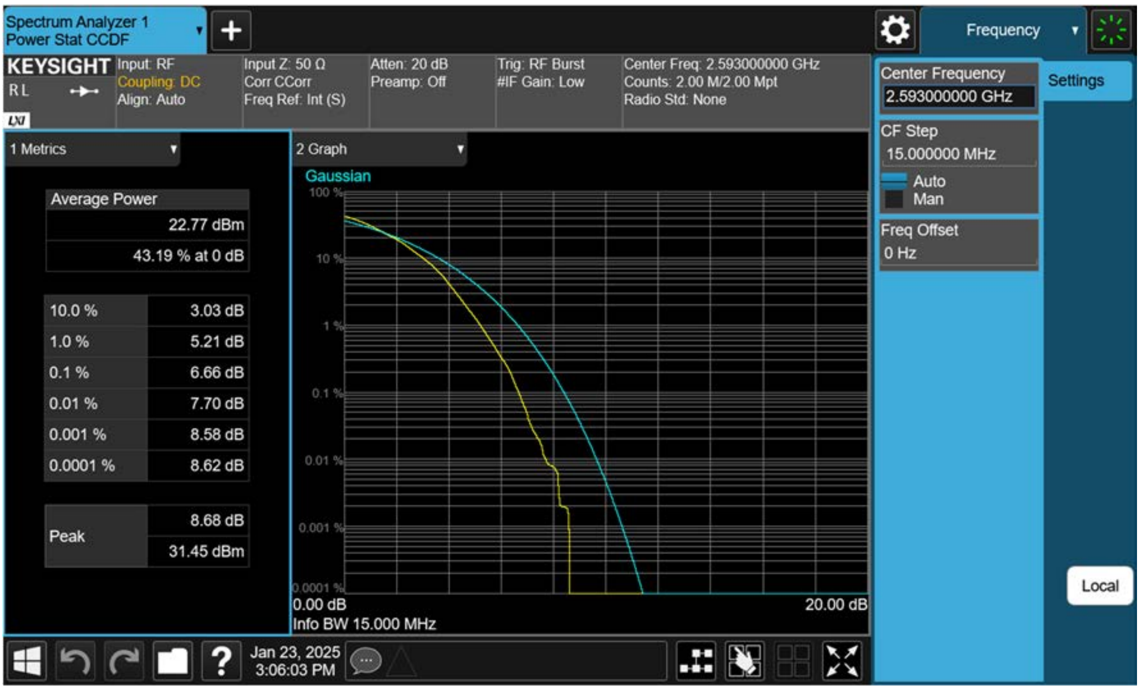
LTE B41_10 M_PAR_Mid_256QAM_FullRB

LTE B41_15 M_PAR_Mid_QPSK_FullRB



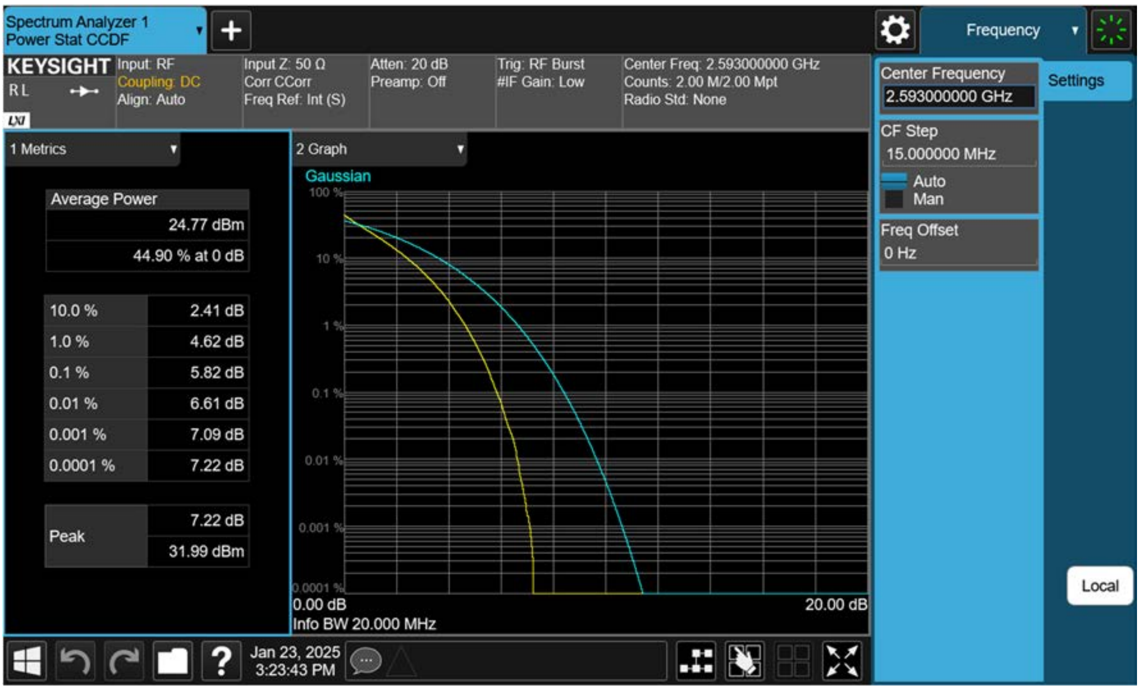
LTE B41_15 M_PAR_Mid_16QAM_FullRB

LTE B41_15 M_PAR_Mid_64QAM_FullRB



LTE B41_15 M_PAR_Mid_256QAM_FullRB

LTE B41_20 M_PAR_Mid_QPSK_FullRB



LTE B41_20 M_PAR_Mid_16QAM_FullRB

LTE B41_20 M_PAR_Mid_64QAM_FullRB

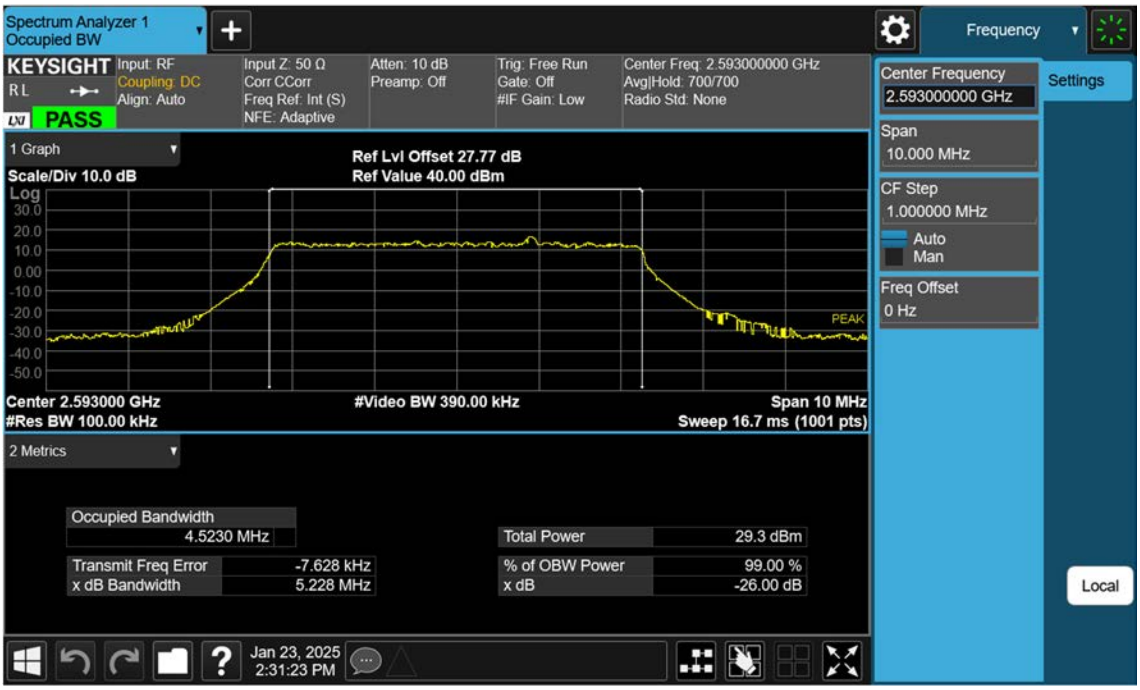
LTE B41_20 M_PAR_Mid_256QAM_FullRB

LTE B41_5 M_OBW_Mid_QPSK_FullRB

LTE B41_5 M_OBW_Mid_16QAM_FullRB

LTE B41_5 M_OBW_Mid_64QAM_FullRB

LTE B41_5 M_OBW_Mid_256QAM_FullRB



LTE B41_10 M_OBW_Mid_QPSK_FullRB

LTE B41_10 M_OBW_Mid_16QAM_FullRB

LTE B41_10 M_OBW_Mid_64QAM_FullRB

LTE B41_10 M_OBW_Mid_256QAM_FullRB

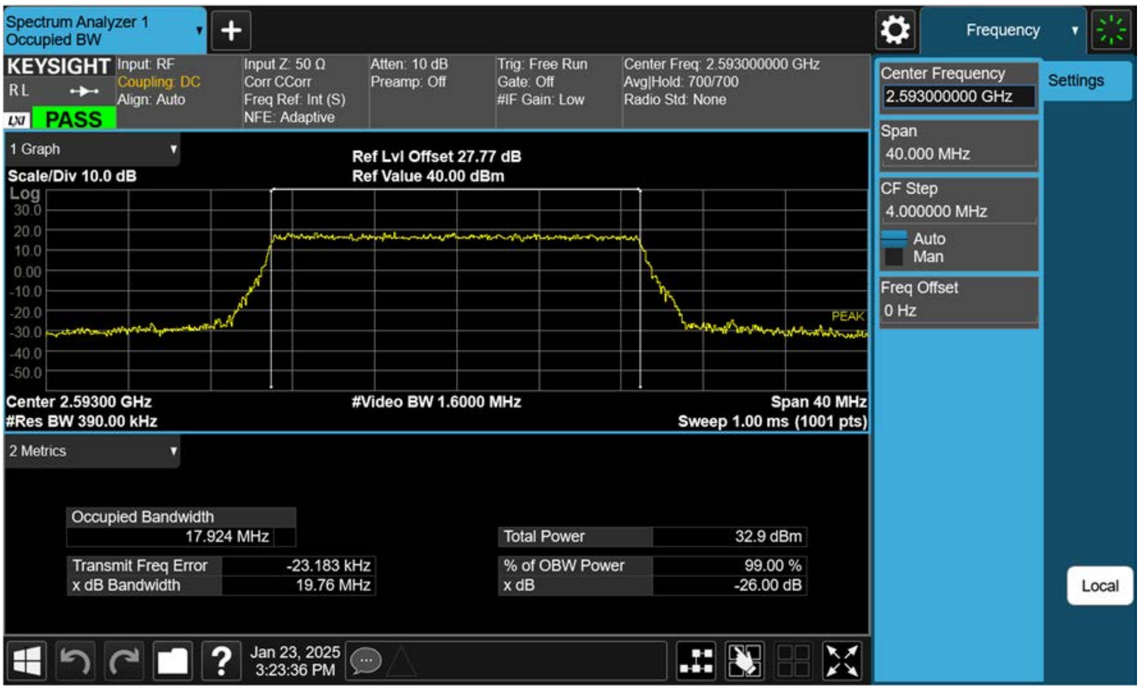
LTE B41_15 M_OBW_Mid_QPSK_FullRB

LTE B41_15 M_OBW_Mid_16QAM_FullRB

LTE B41_15 M_OBW_Mid_64QAM_FullRB

LTE B41_15 M_OBW_Mid_256QAM_FullRB

LTE B41_20 M_OBW_Mid_QPSK_FullRB

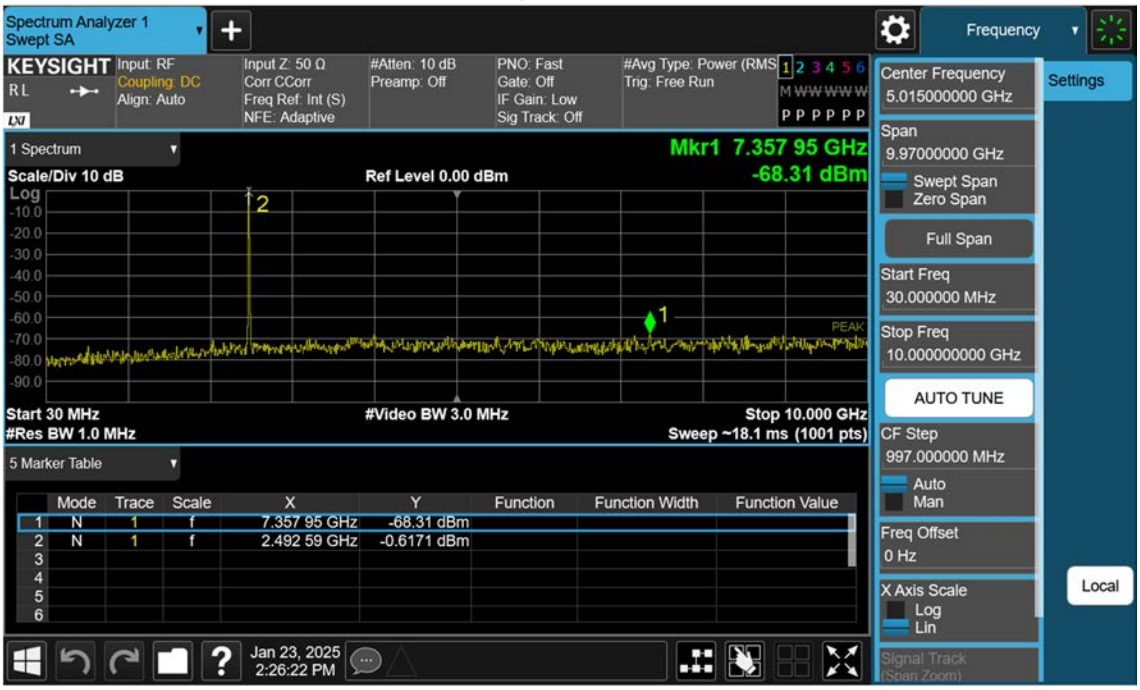


LTE B41_20 M_OBW_Mid_16QAM_FullRB

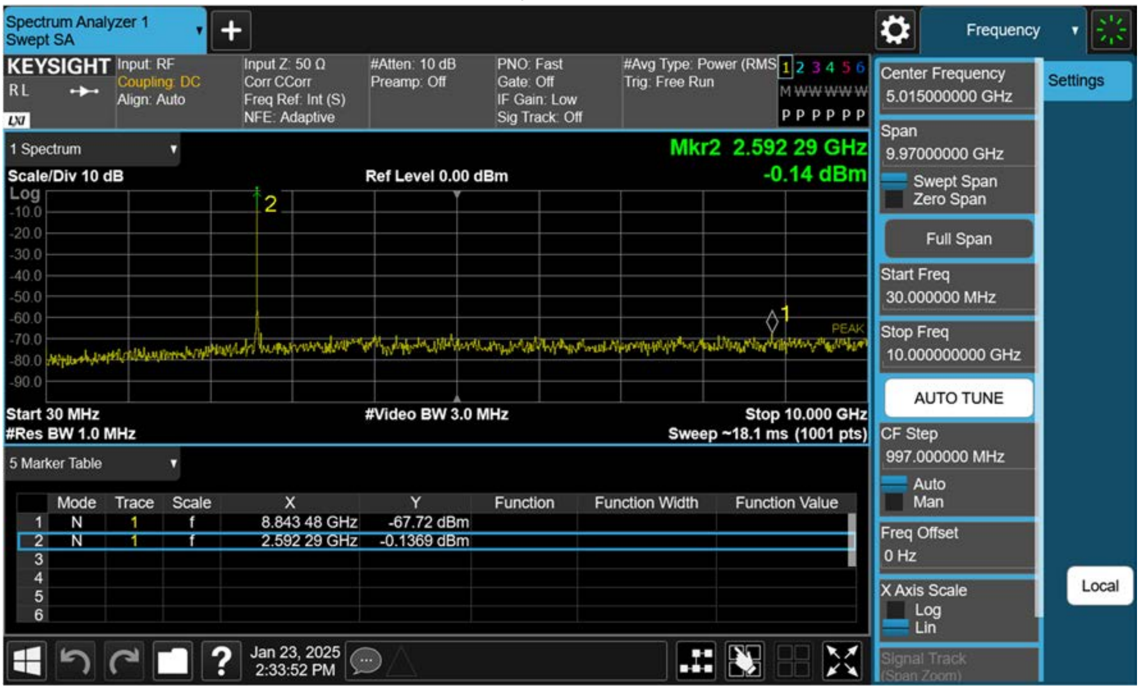
LTE B41_20 M_OBW_Mid_64QAM_FullRB

LTE B41_20 M_OBW_Mid_256QAM_FullRB

LTE B41_5 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB

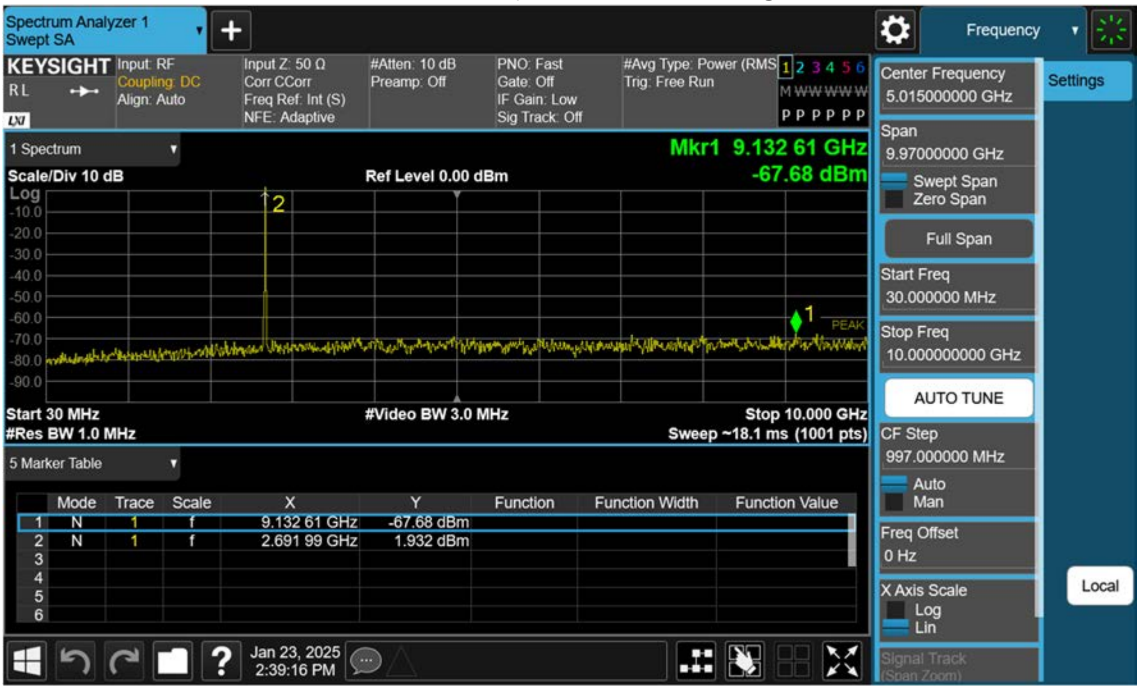


LTE B41_5 M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB

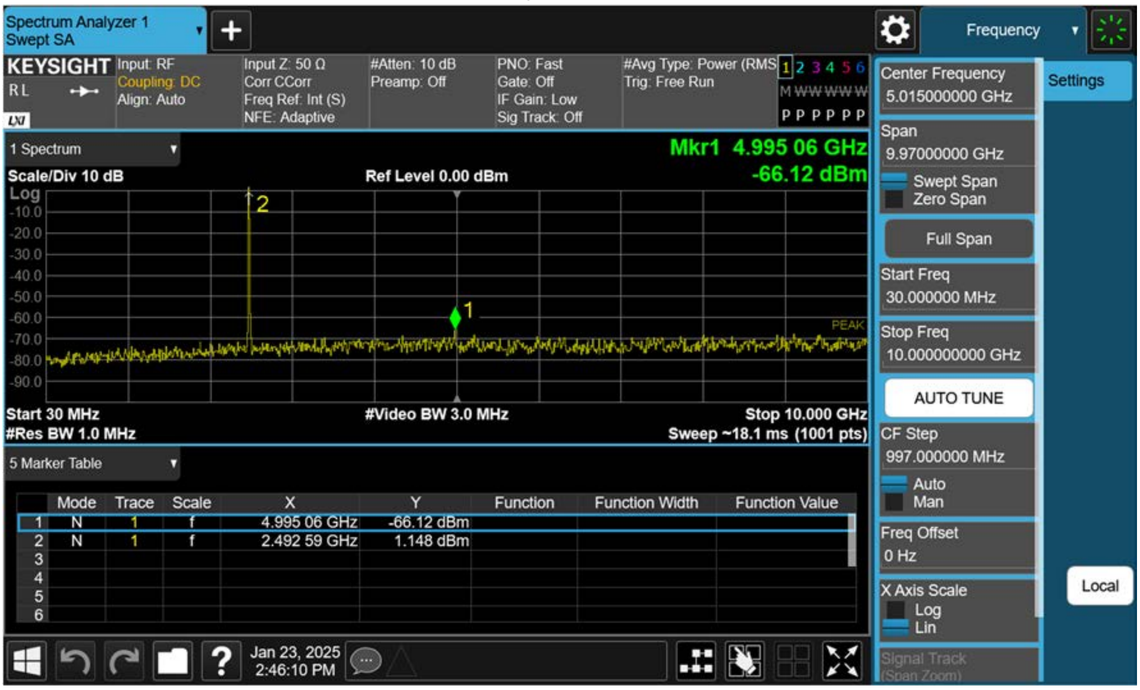


	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	8.843 48 GHz	-67.72 dBm			
2	N	1	f	2.592 29 GHz	-0.1369 dBm			
3								
4								
5								
6								

LTE B41_5 M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB

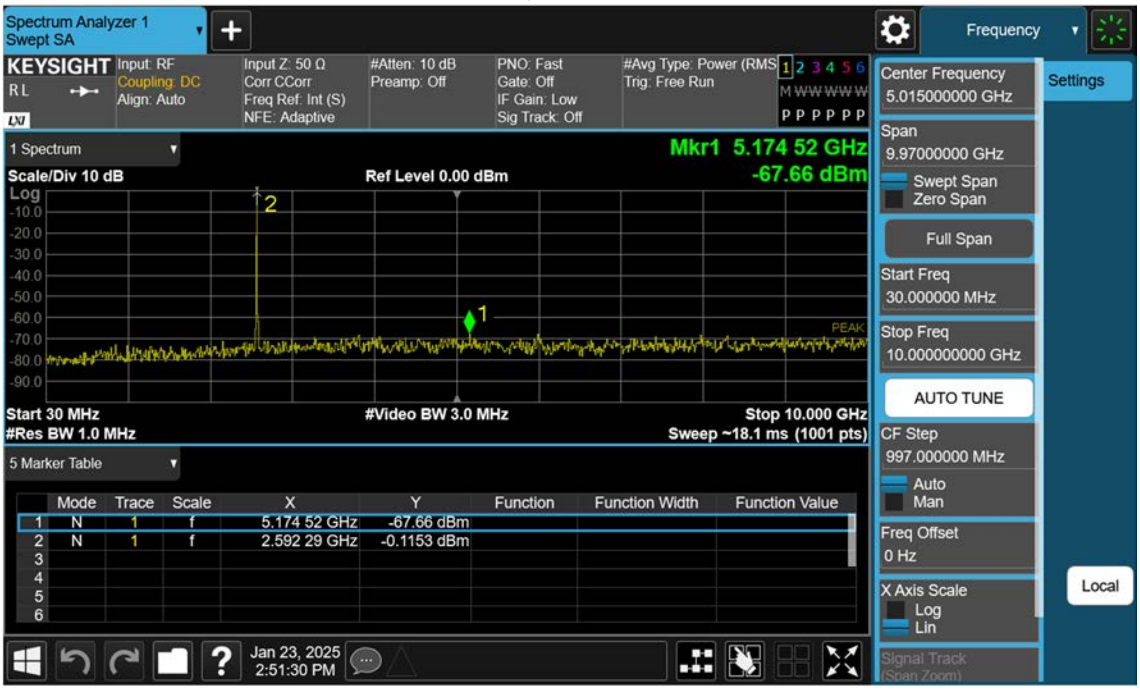


LTE B41_10 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB

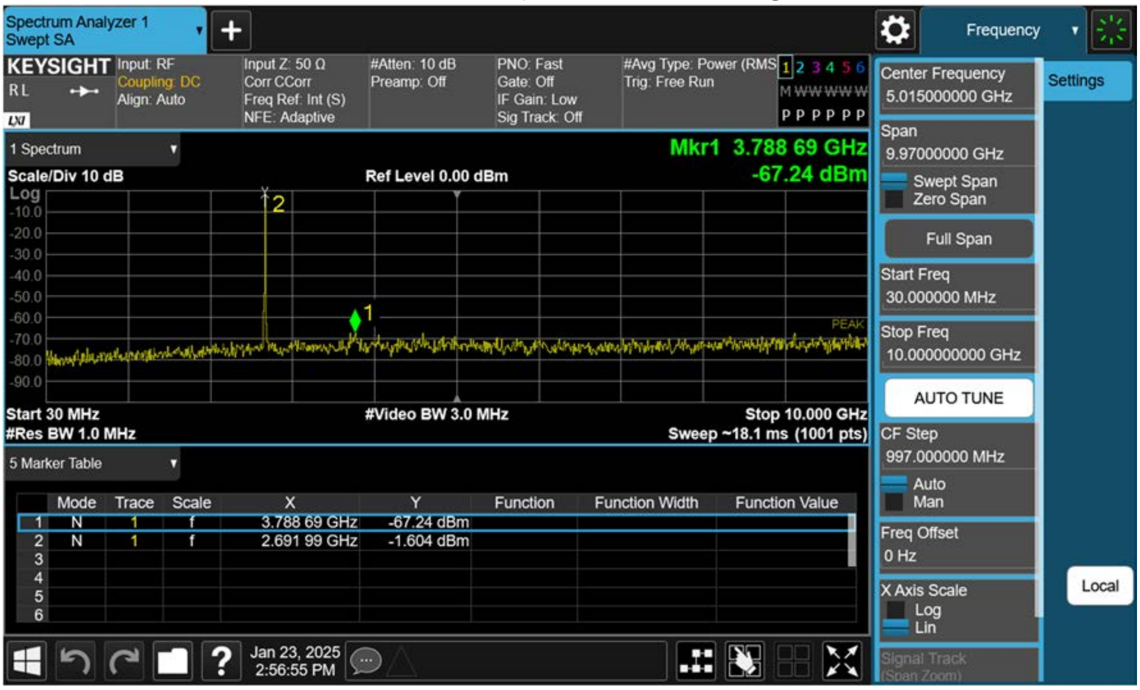


	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	4.995 06 GHz	-66.12 dBm			
2	N	1	f	2.492 59 GHz	1.148 dBm			
3								
4								
5								
6								

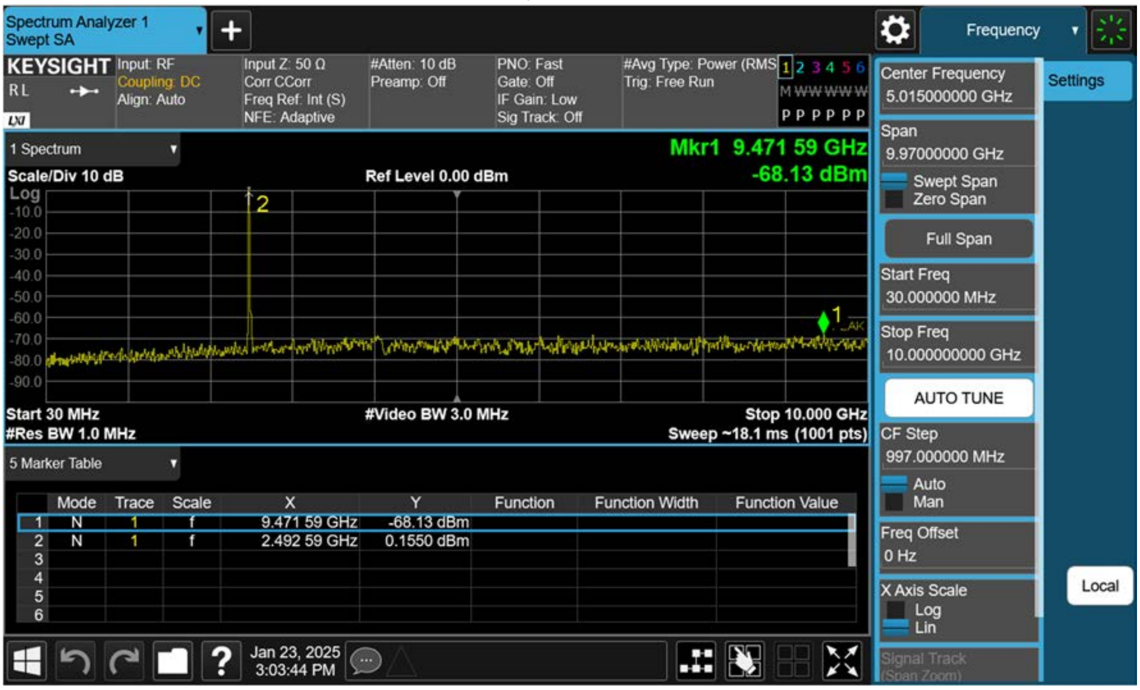
LTE B41_10 M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB



LTE B41_10 M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB

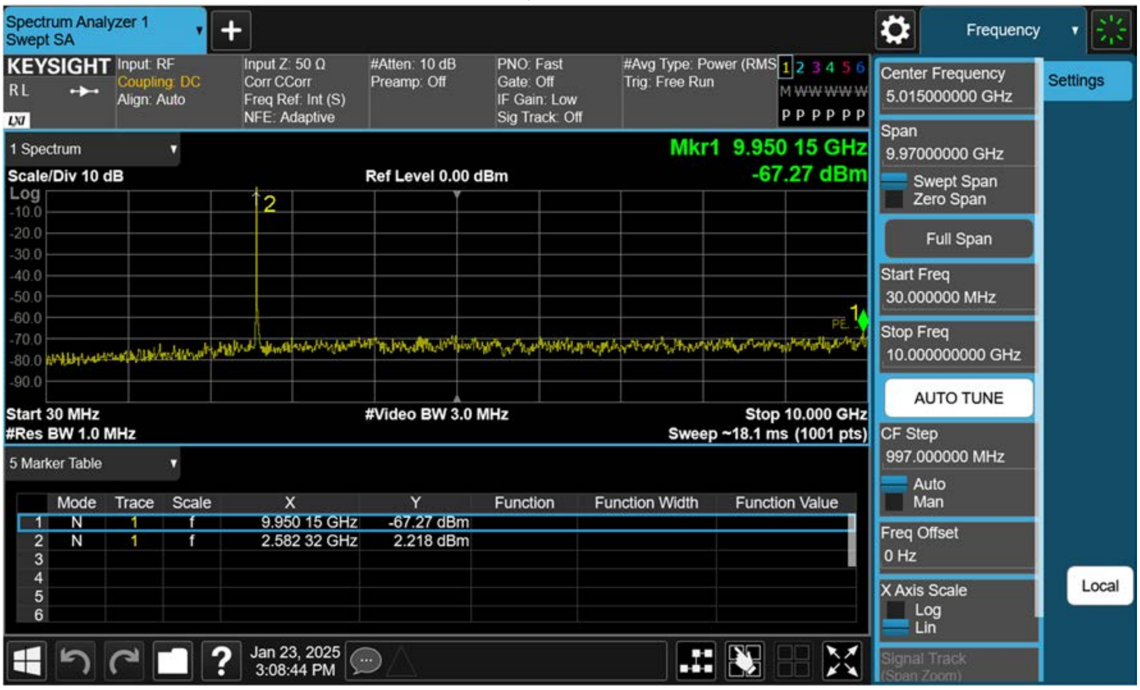


LTE B41_15 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB

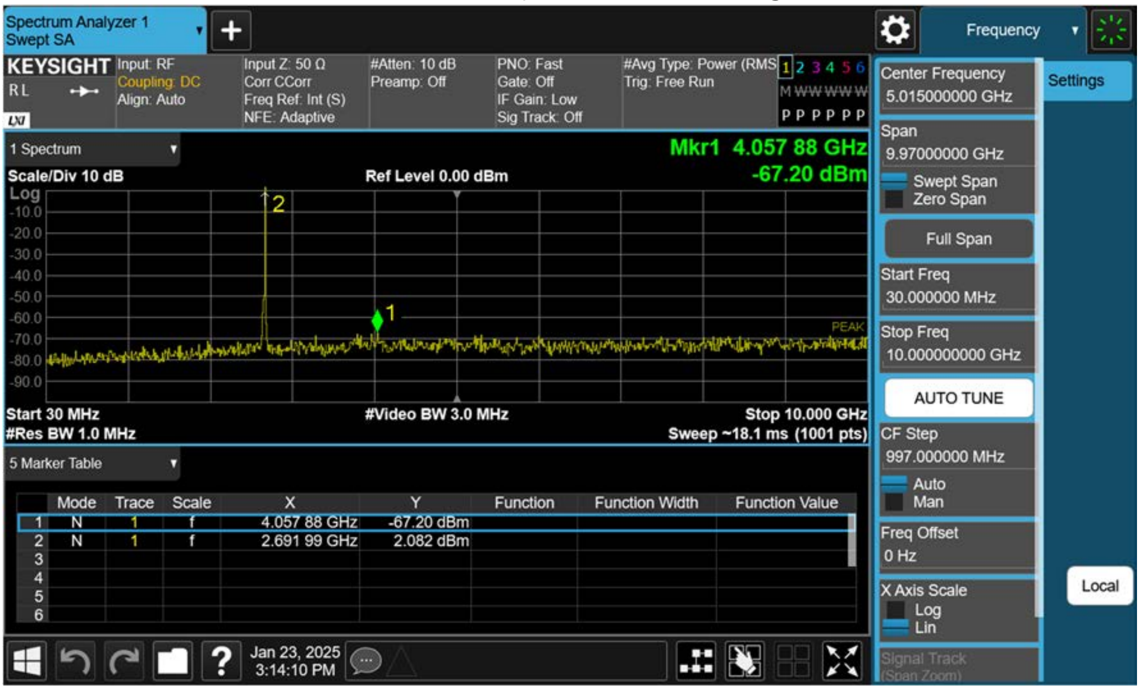


	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	9.471 59 GHz	-68.13 dBm			
2	N	1	f	2.492 59 GHz	0.1550 dBm			
3								
4								
5								
6								

LTE B41_15 M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB

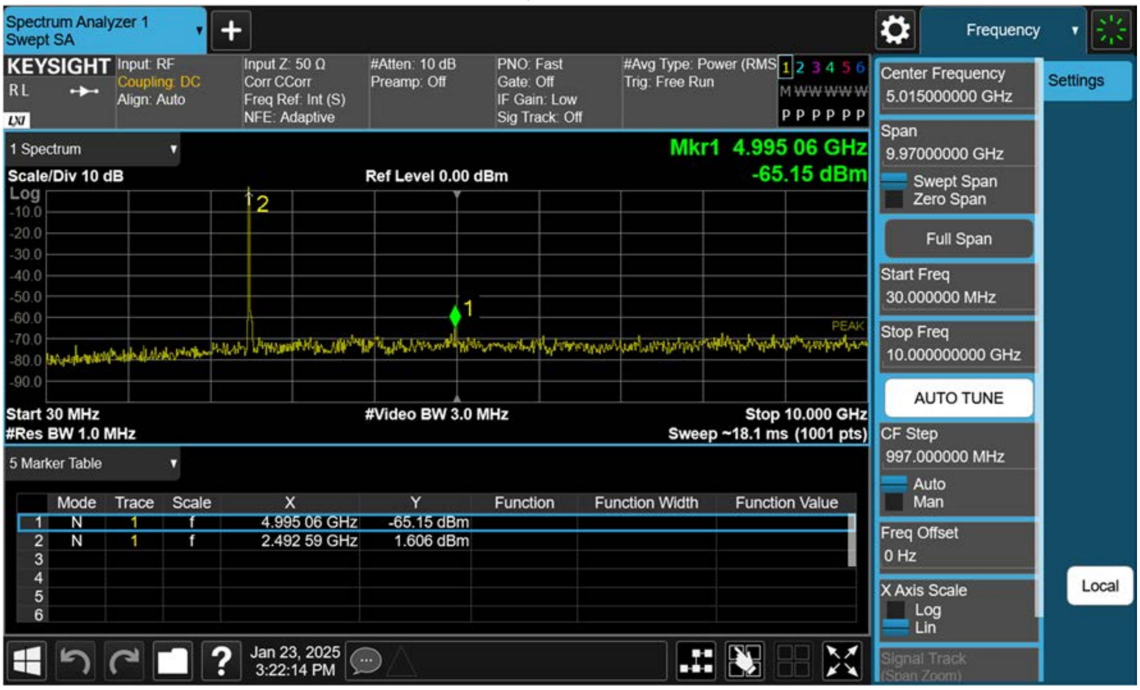


LTE B41_15 M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB

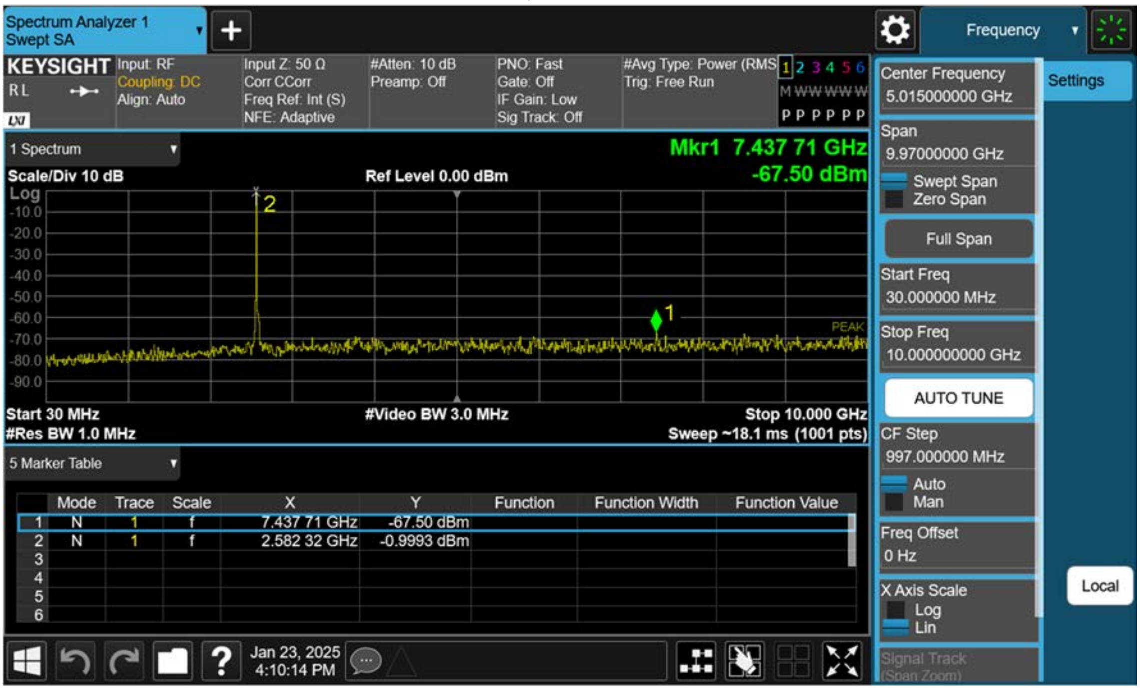


	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	4.057 88 GHz	-67.20 dBm			
2	N	1	f	2.691 99 GHz	2.082 dBm			
3								
4								
5								
6								

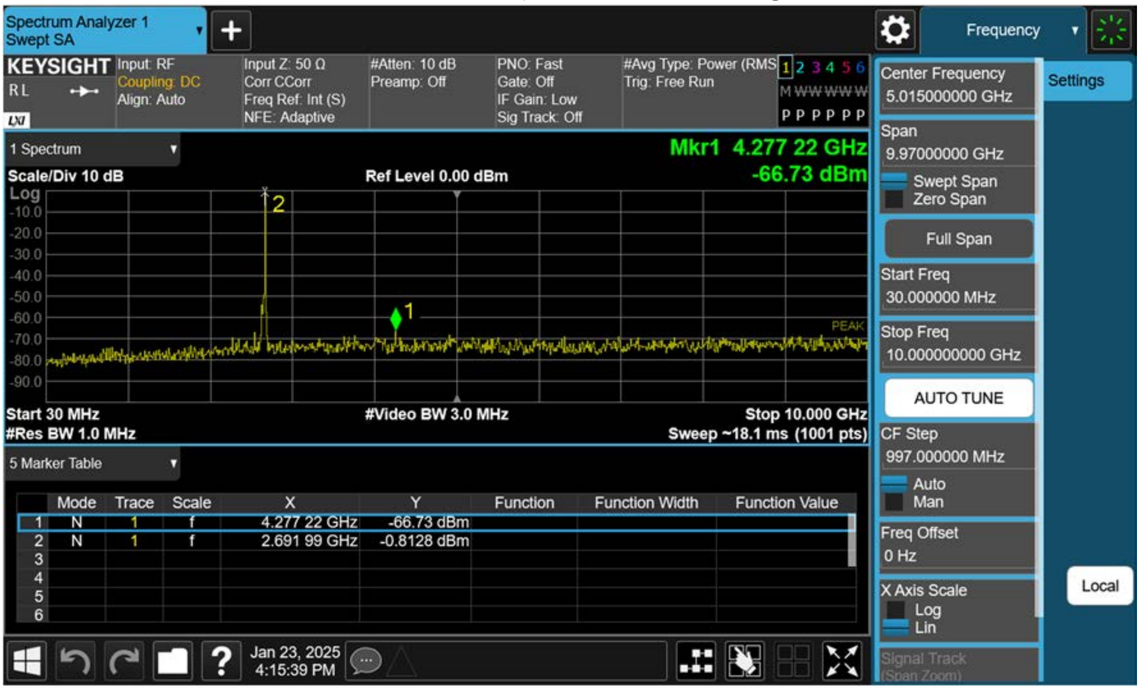
LTE B41_20 M_Conducted Spurious(30 M-10 G)_Low_QPSK_1RB



LTE B41_20 M_Conducted Spurious(30 M-10 G)_Mid_QPSK_1RB

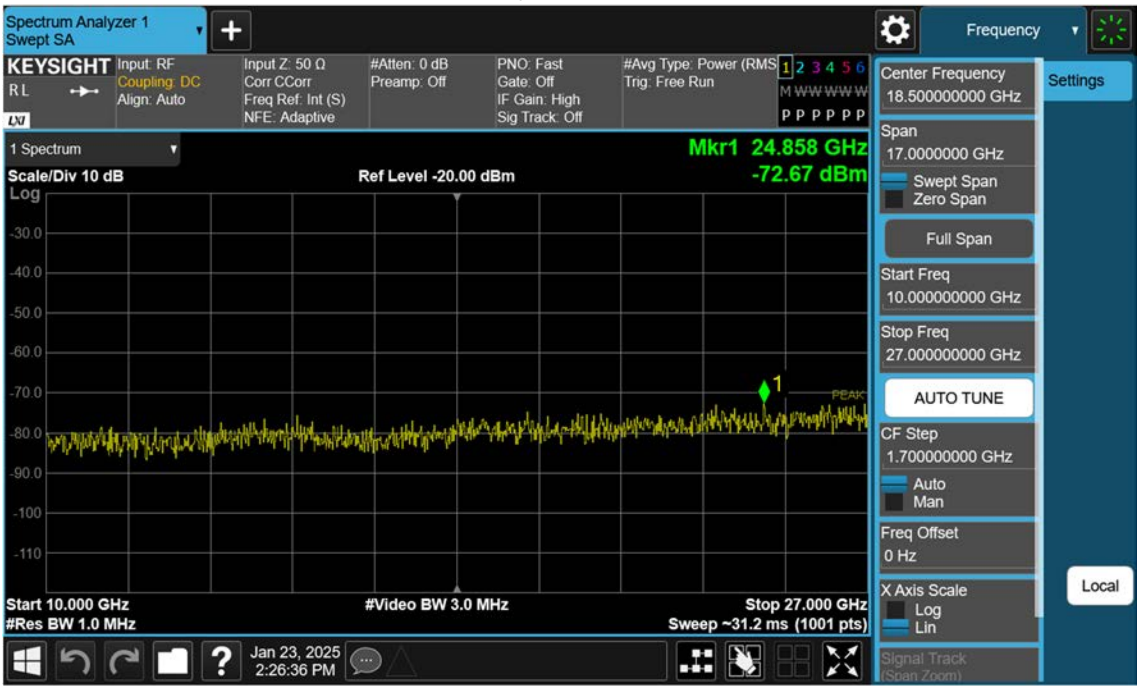


LTE B41_20 M_Conducted Spurious(30 M-10 G)_High_QPSK_1RB

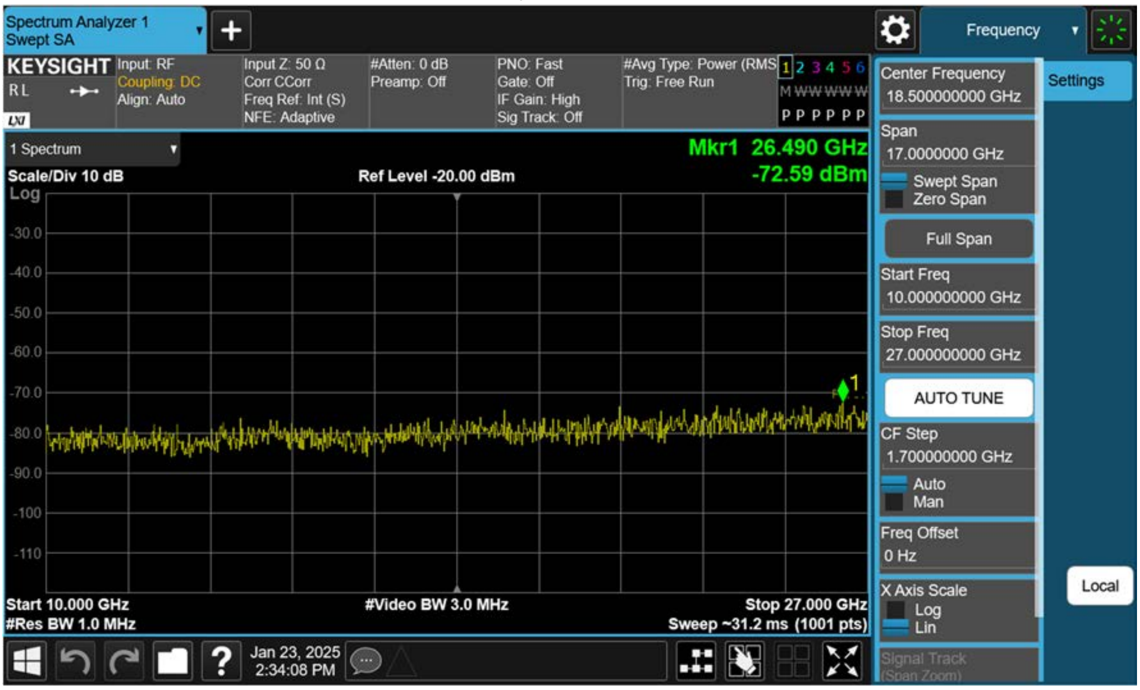


	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	f	4.277 22 GHz	-66.73 dBm			
2	N	1	f	2.691 99 GHz	-0.8128 dBm			
3								
4								
5								
6								

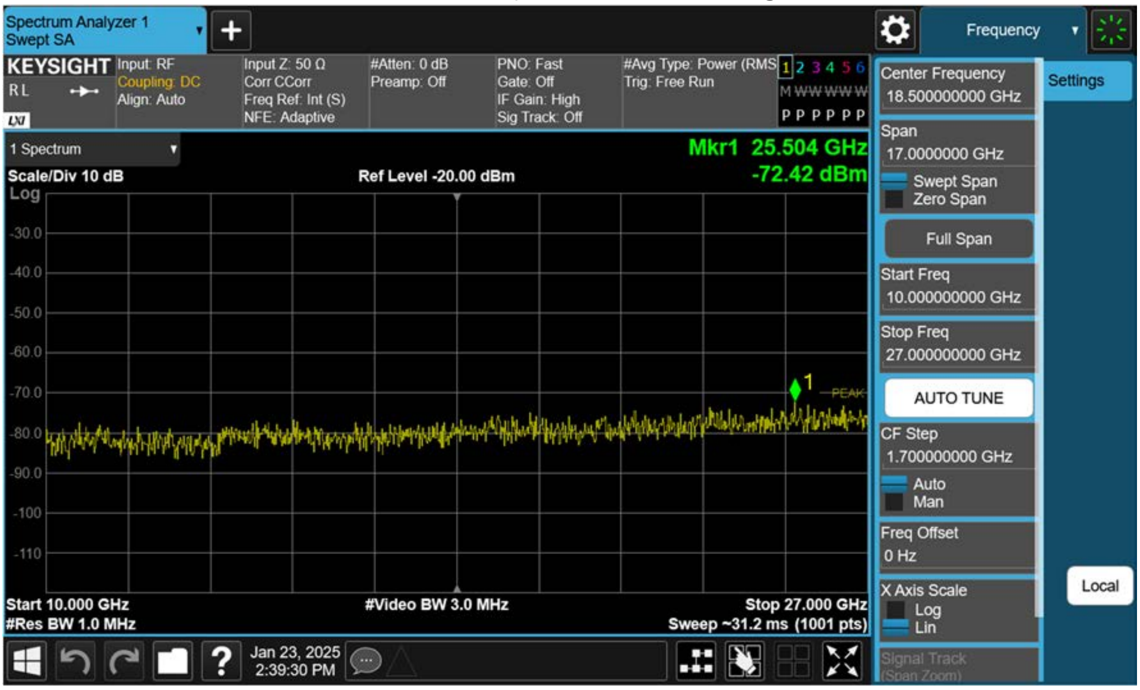
LTE B41_5 M_Conducted Spurious(Above10 G)_Low_QPSK_1RB



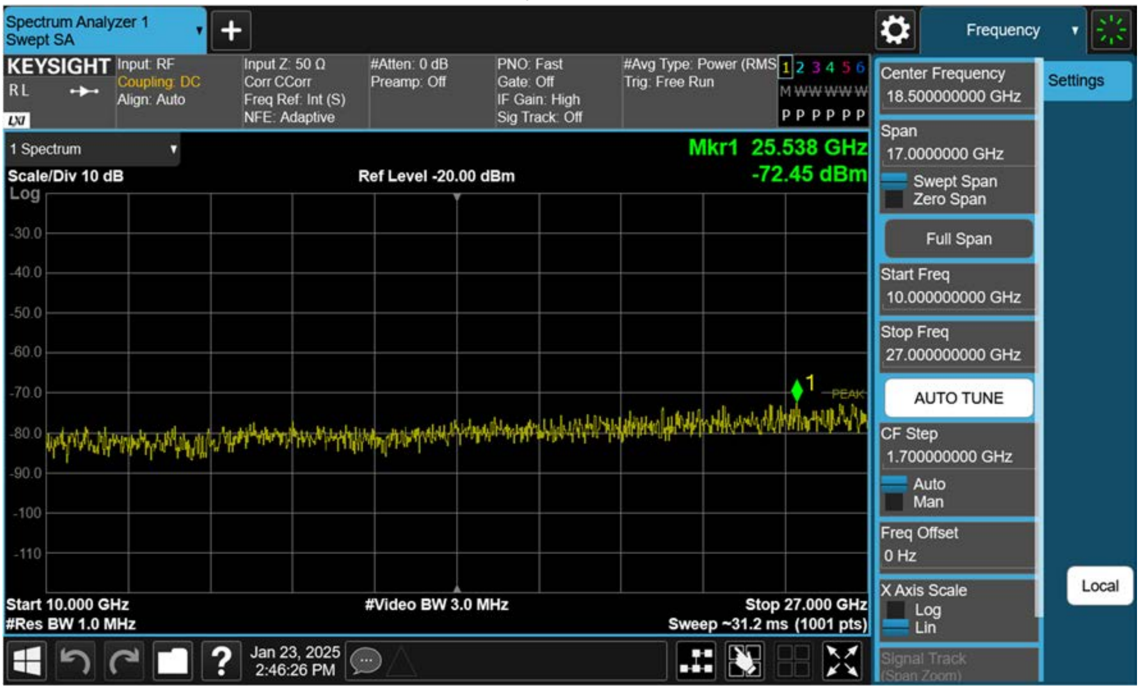
LTE B41_5 M_Conducted Spurious(Above10 G)_Mid_QPSK_1RB



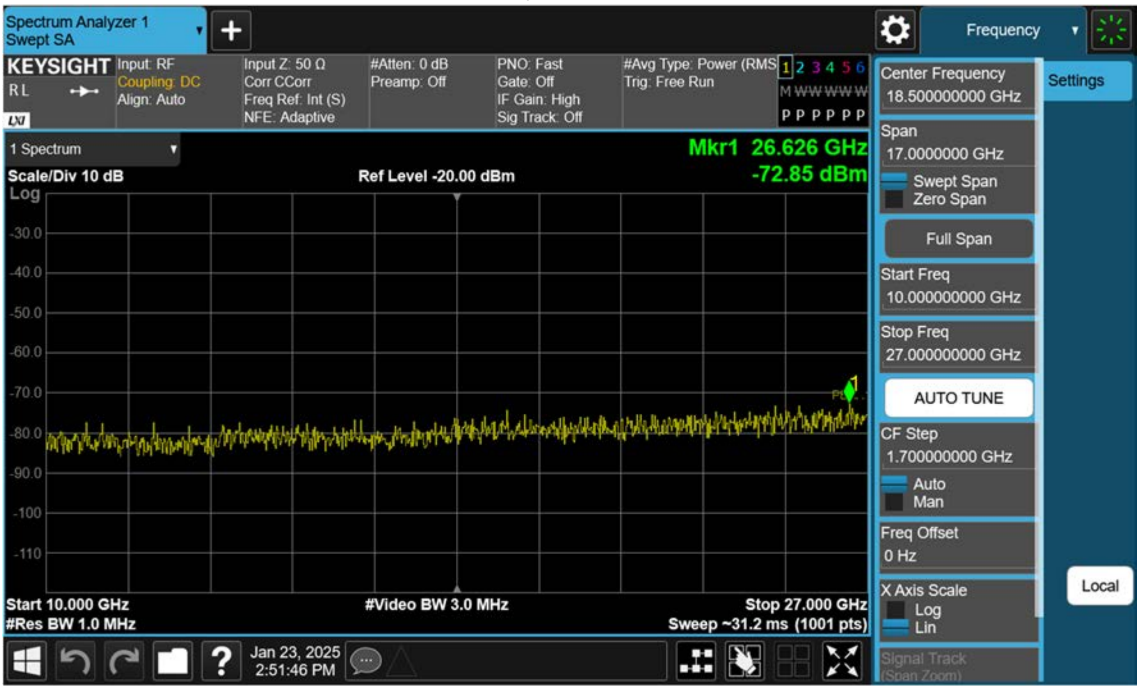
LTE B41_5 M_Conducted Spurious(Above10 G)_High_QPSK_1RB



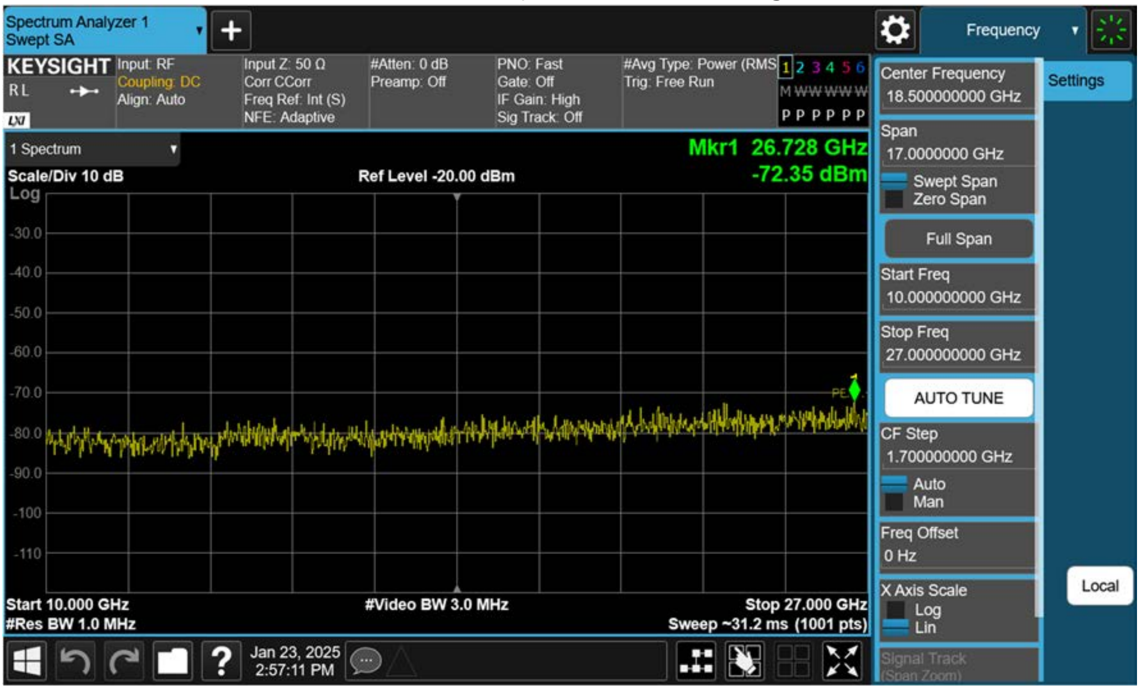
LTE B41_10 M_Conducted Spurious(Above10 G)_Low_QPSK_1RB



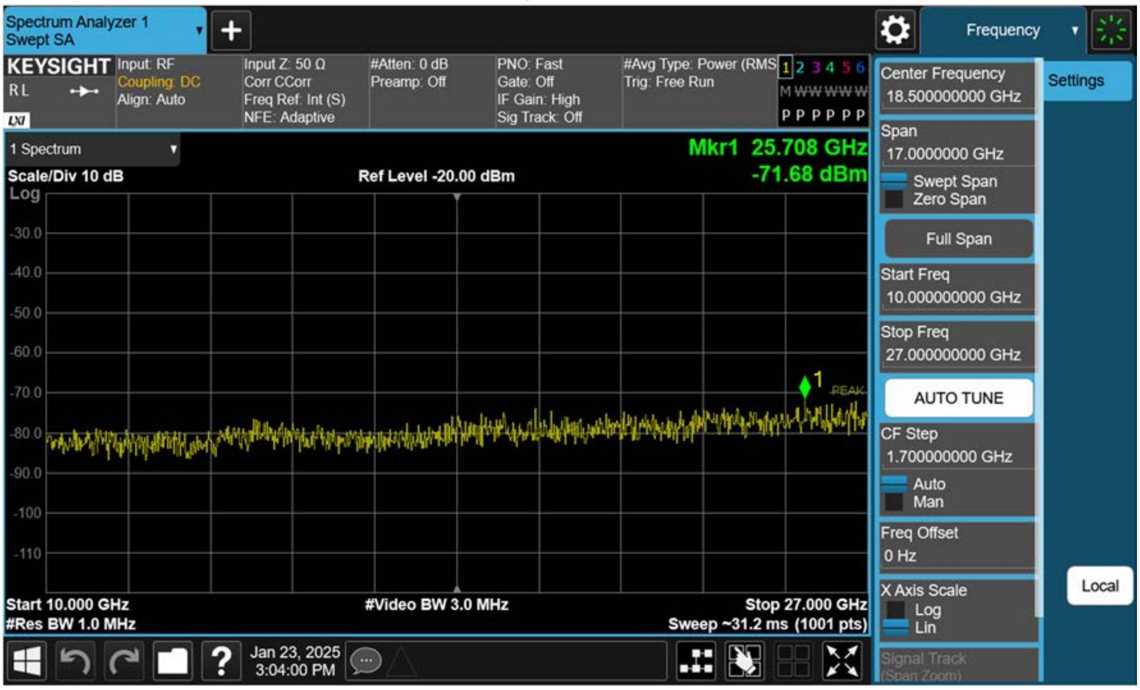
LTE B41_10 M_Conducted Spurious(Above10 G)_Mid_QPSK_1RB



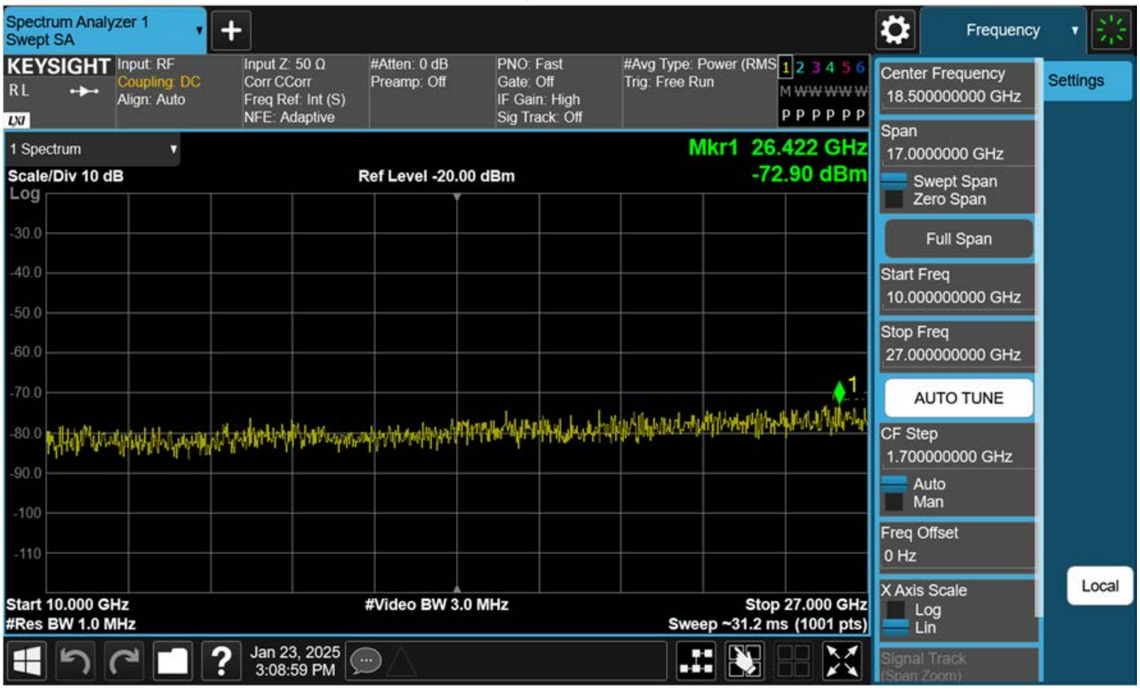
LTE B41_10 M_Conducted Spurious(Above10 G)_High_QPSK_1RB



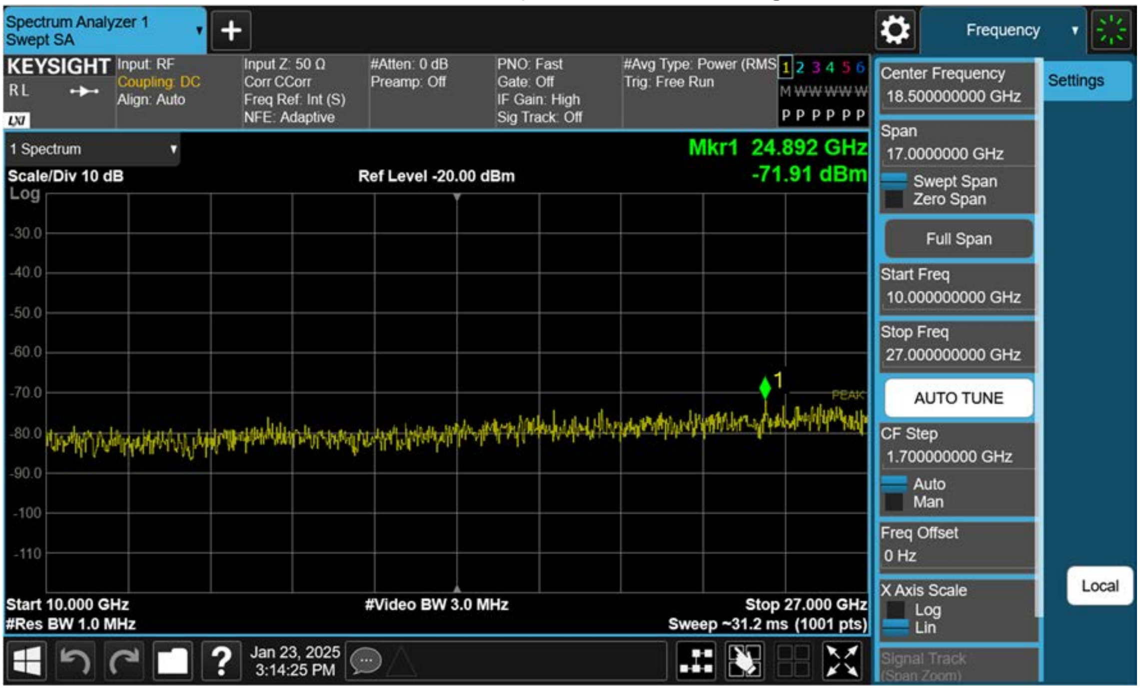
LTE B41_15 M_Conducted Spurious(Above10 G)_Low_QPSK_1RB



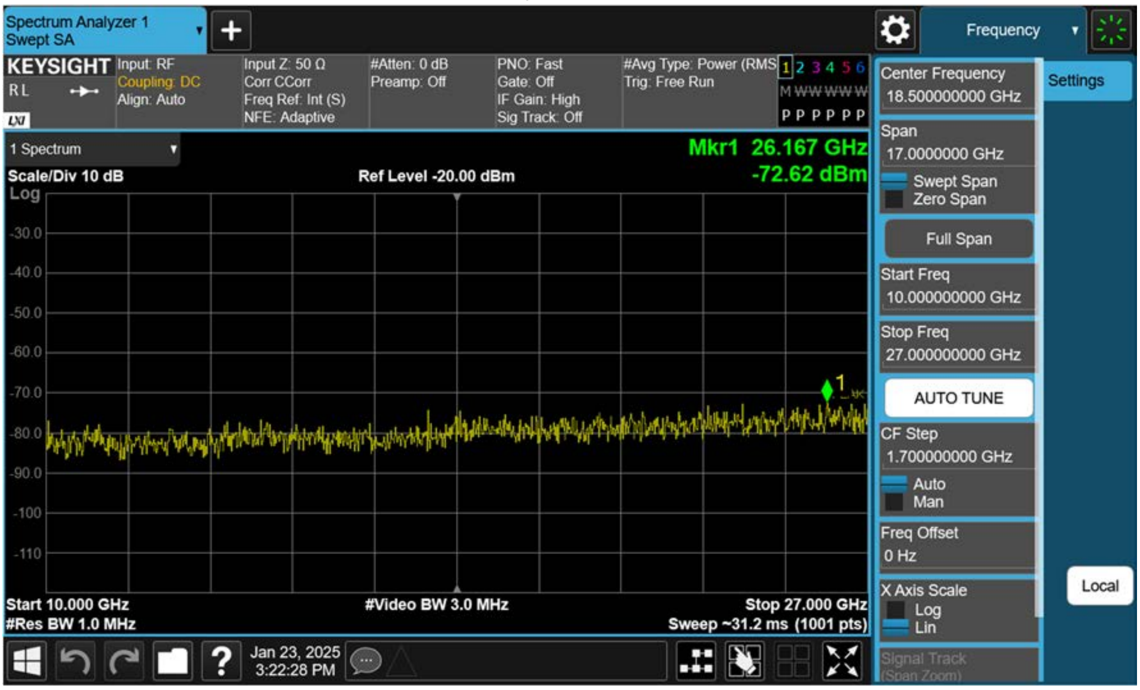
LTE B41_15 M_Conducted Spurious(Above10 G)_Mid_QPSK_1RB



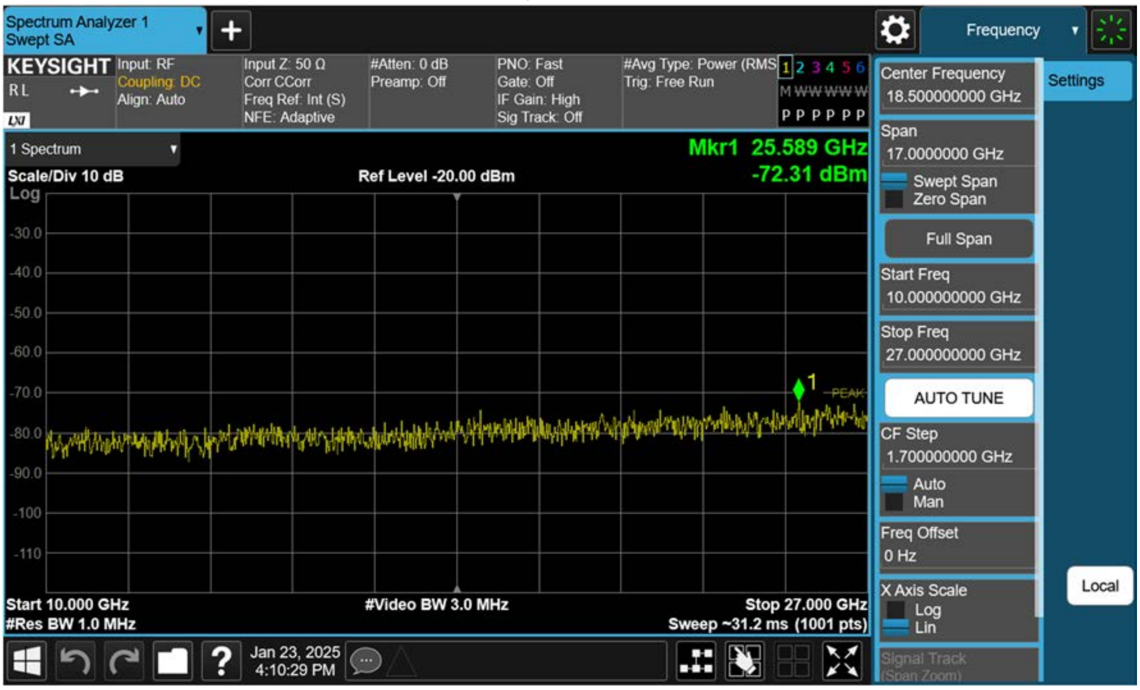
LTE B41_15 M_Conducted Spurious(Above10 G)_High_QPSK_1RB



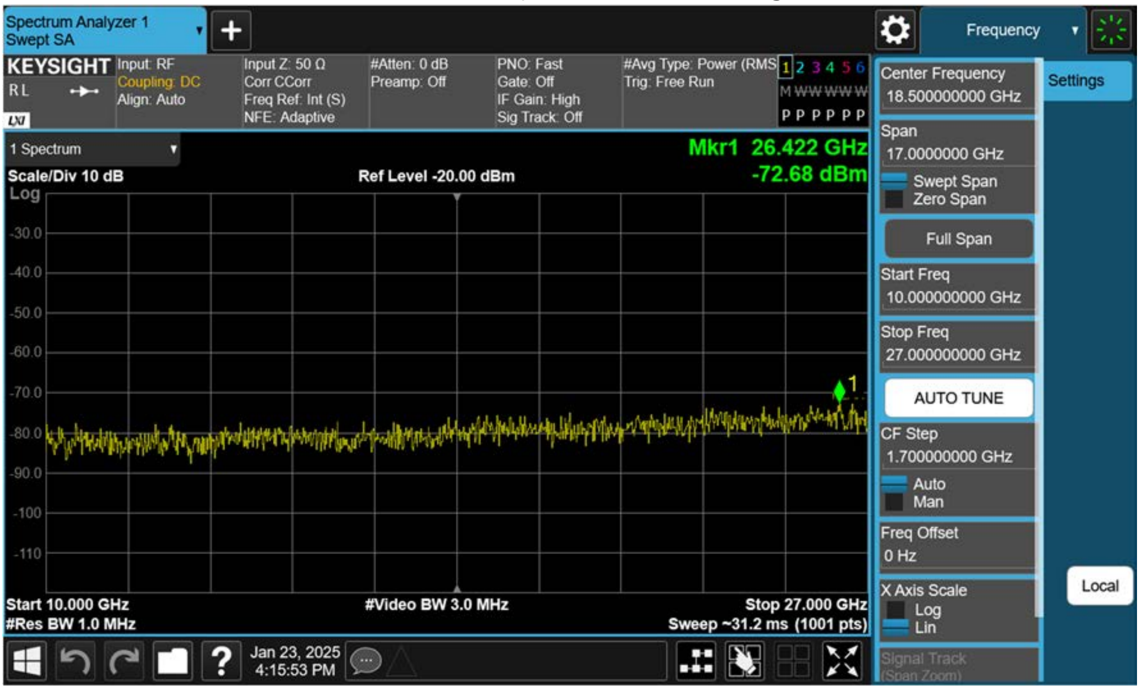
LTE B41_20 M_Conducted Spurious(Above10 G)_Low_QPSK_1RB



LTE B41_20 M_Conducted Spurious(Above10 G)_Mid_QPSK_1RB



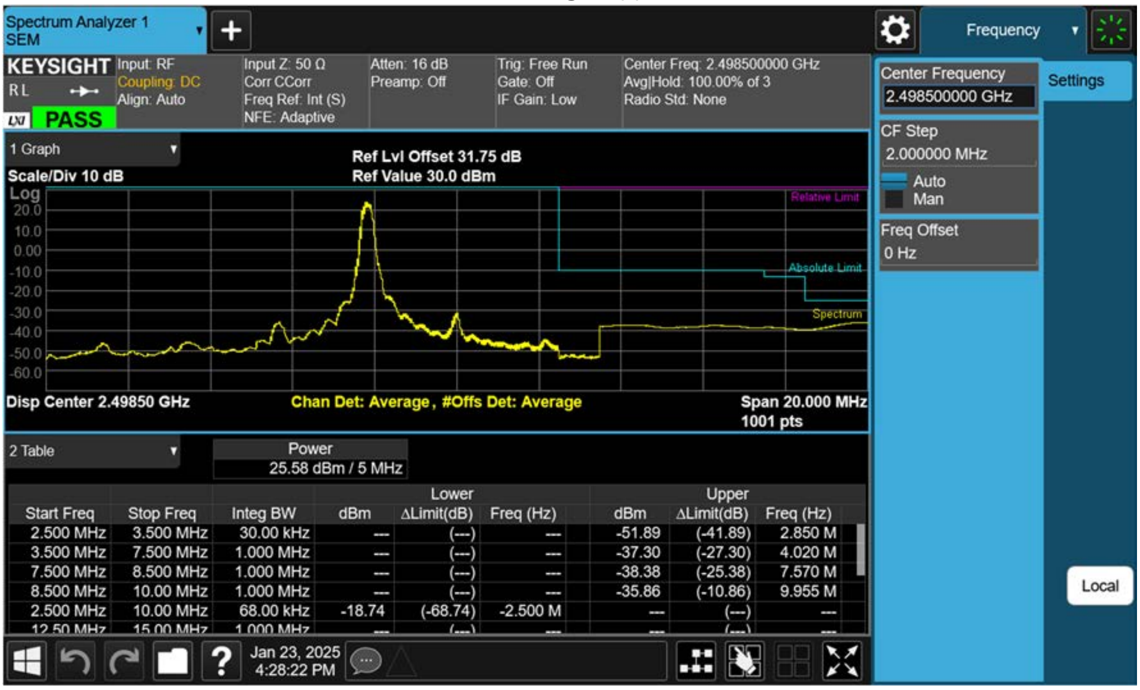
LTE B41_20 M_Conducted Spurious(Above10 G)_High_QPSK_1RB



LTE B41_5 M_Channel Edge_Lower_Low_QPSK_1RB

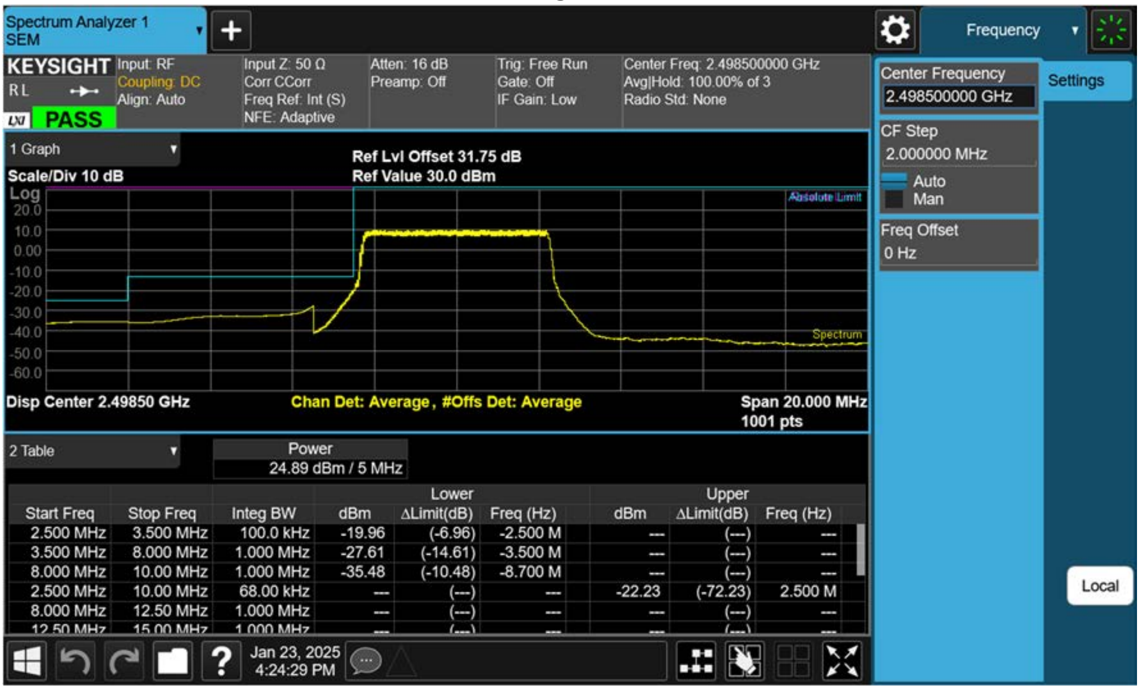
Start Freq	Stop Freq	Integ BW	Lower dBm	Lower ΔLimit(dB)	Lower Freq (Hz)	Upper dBm	Upper ΔLimit(dB)	Upper Freq (Hz)
2.500 MHz	3.500 MHz	30.00 kHz	-22.63	(-9.63)	-2.500 M	---	(---)	---
3.500 MHz	8.000 MHz	1.000 MHz	-26.51	(-13.51)	-3.500 M	---	(---)	---
8.000 MHz	10.00 MHz	1.000 MHz	-37.89	(-12.89)	-8.610 M	---	(---)	---
2.500 MHz	10.00 MHz	68.00 kHz	---	(---)	---	-43.13	(-93.13)	9.932 M
8.000 MHz	12.50 MHz	1.000 MHz	---	(---)	---	---	(---)	---
12.50 MHz	15.00 MHz	1.000 MHz	---	(---)	---	---	(---)	---

LTE B41_5 M_Channel Edge_Upper_Low_QPSK_1RB



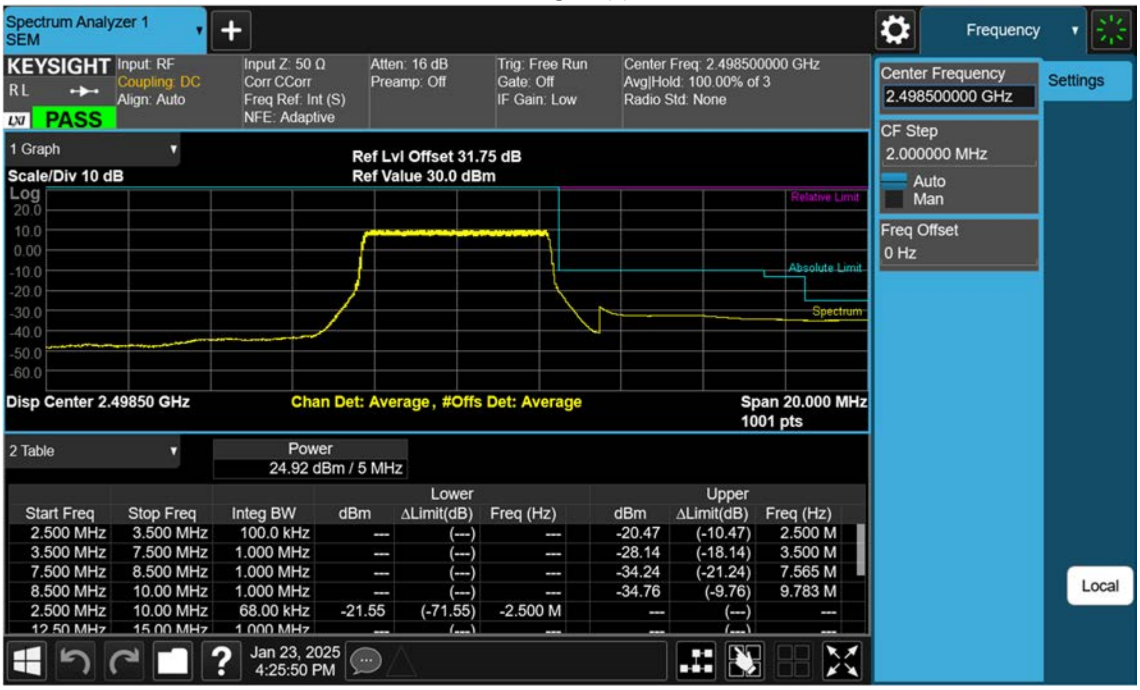
			Lower			Upper		
Start Freq	Stop Freq	Integ BW	dBm	ΔLimit(dB)	Freq (Hz)	dBm	ΔLimit(dB)	Freq (Hz)
2.500 MHz	3.500 MHz	30.00 kHz	---	(---)	---	-51.89	(-41.89)	2.850 M
3.500 MHz	7.500 MHz	1.000 MHz	---	(---)	---	-37.30	(-27.30)	4.020 M
7.500 MHz	8.500 MHz	1.000 MHz	---	(---)	---	-38.38	(-25.38)	7.570 M
8.500 MHz	10.00 MHz	1.000 MHz	---	(---)	---	-35.86	(-10.86)	9.955 M
2.500 MHz	10.00 MHz	68.00 kHz	-18.74	(-68.74)	-2.500 M	---	(---)	---
12.50 MHz	15.00 MHz	1.000 MHz	---	(---)	---	---	(---)	---

LTE B41_5 M_Channel Edge_Lower_Low_QPSK_FullRB



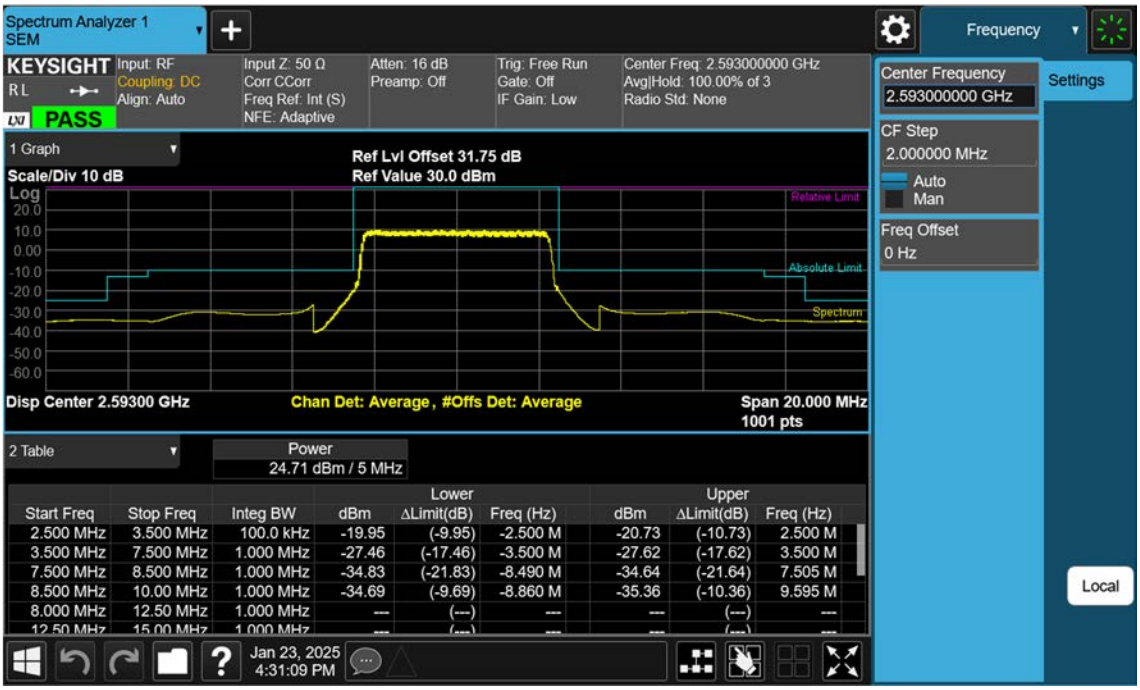
Start Freq	Stop Freq	Integ BW	Lower dBm	Lower ΔLimit(dB)	Lower Freq (Hz)	Upper dBm	Upper ΔLimit(dB)	Upper Freq (Hz)
2.500 MHz	3.500 MHz	100.0 kHz	-19.96	(-6.96)	-2.500 M	---	(---)	---
3.500 MHz	8.000 MHz	1.000 MHz	-27.61	(-14.61)	-3.500 M	---	(---)	---
8.000 MHz	10.00 MHz	1.000 MHz	-35.48	(-10.48)	-8.700 M	---	(---)	---
2.500 MHz	10.00 MHz	68.00 kHz	---	(---)	---	-22.23	(-72.23)	2.500 M
8.000 MHz	12.50 MHz	1.000 MHz	---	(---)	---	---	(---)	---
12.50 MHz	15.00 MHz	1.000 MHz	---	(---)	---	---	(---)	---

LTE B41_5 M_Channel Edge_Upper_Low_QPSK_FullRB



Start Freq	Stop Freq	Integ BW	Lower dBm	Lower ΔLimit(dB)	Lower Freq (Hz)	Upper dBm	Upper ΔLimit(dB)	Upper Freq (Hz)
2.500 MHz	3.500 MHz	100.0 kHz	---	(---)	---	-20.47	(-10.47)	2.500 M
3.500 MHz	7.500 MHz	1.000 MHz	---	(---)	---	-28.14	(-18.14)	3.500 M
7.500 MHz	8.500 MHz	1.000 MHz	---	(---)	---	-34.24	(-21.24)	7.565 M
8.500 MHz	10.00 MHz	1.000 MHz	---	(---)	---	-34.76	(-9.76)	9.783 M
2.500 MHz	10.00 MHz	68.00 kHz	-21.55	(-71.55)	-2.500 M	---	(---)	---
12.50 MHz	15.00 MHz	1.000 MHz	---	(---)	---	---	(---)	---

LTE B41_5 M_Channel Edge_Mid_QPSK_FullRB



Start Freq	Stop Freq	Integ BW	Lower dBm	Lower ΔLimit(dB)	Lower Freq (Hz)	Upper dBm	Upper ΔLimit(dB)	Upper Freq (Hz)
2.500 MHz	3.500 MHz	100.0 kHz	-19.95	(-9.95)	-2.500 M	-20.73	(-10.73)	2.500 M
3.500 MHz	7.500 MHz	1.000 MHz	-27.46	(-17.46)	-3.500 M	-27.62	(-17.62)	3.500 M
7.500 MHz	8.500 MHz	1.000 MHz	-34.83	(-21.83)	-8.490 M	-34.64	(-21.64)	7.505 M
8.500 MHz	10.00 MHz	1.000 MHz	-34.69	(-9.69)	-8.860 M	-35.36	(-10.36)	9.595 M
8.000 MHz	12.50 MHz	1.000 MHz	---	(---)	---	---	(---)	---
12.50 MHz	15.00 MHz	1.000 MHz	---	(---)	---	---	(---)	---