

TEST REPORT

FCC Sub6 n41 Test for SM-S931B/DS
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2410-FC061

DATE OF ISSUE
October 29, 2024

Tested by
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TEST REPORT

REPORT NO.

HCT-RF-2410-FC061

DATE OF ISSUE

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Additional Model

SM-S931B

Applicant

SAMSUNG Electronics Co., Ltd.

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

Product Name

Mobile Phone

Model Name

SM-S931B/DS

Date of Test

August 21, 2024 ~ October 28, 2024

FCC ID

A3LSMS931B

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing

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

FCC Classification:

PCS Licensed Transmitter Held to Ear (PCE)

Test Standard Used

FCC Rule Part : § 27

Test Results

PASS

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	October 29, 2024	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).

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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:	A3LSMS931B
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§ 27
EUT Type:	Mobile phone
Model(s):	SM-S931B/DS
Additional Model(s)	SM-S931B
SCS(kHz):	30
Bandwidth(MHz):	5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
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:	2501.010 – 2685.000 : 10 MHz(Sub6 n41) 2503.500 – 2682.480 : 15 MHz(Sub6 n41) 2506.020 – 2679.990 : 20 MHz(Sub6 n41) 2511.000 – 2674.980 : 30 MHz(Sub6 n41) 2516.010 – 2670.000 : 40 MHz(Sub6 n41) 2521.020 – 2664.990 : 50 MHz(Sub6 n41) 2526.000 – 2659.980 : 60 MHz(Sub6 n41) 2531.010 – 2655.000 : 70 MHz(Sub6 n41) 2536.020 – 2649.990 : 80 MHz(Sub6 n41) 2541.000 – 2644.980 : 90 MHz(Sub6 n41) 2546.010 – 2640.000 : 100 MHz(Sub6 n41)
Date(s) of Tests:	August 21, 2024 ~ October 28, 2024
Serial number:	Radiated : R3CX80V3P0J Conducted : R3CX80PTSWA

1.1. MAXIMUM OUTPUT POWER

Main2

	Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
					Max. Power (W)	Max. Power (dBm)
Power Class 3	Sub6 n41 (10)	2501.010 – 2685.000	8M65G7D	PI/2 BPSK	0.159	22.01
			8M64G7D	QPSK	0.158	21.98
			8M70W7D	16QAM	0.122	20.88
			8M65W7D	64QAM	0.088	19.45
			8M67W7D	256QAM	0.053	17.22
	Sub6 n41 (15)	2503.500 – 2682.480	13M0G7D	PI/2 BPSK	0.157	21.96
			13M0G7D	QPSK	0.157	21.95
			12M9W7D	16QAM	0.124	20.94
			13M0W7D	64QAM	0.086	19.33
			13M0W7D	256QAM	0.052	17.16
	Sub6 n41 (20)	2506.020 – 2679.990	17M9G7D	PI/2 BPSK	0.167	22.22
			18M0G7D	QPSK	0.166	22.20
			18M0W7D	16QAM	0.128	21.07
			17M9W7D	64QAM	0.092	19.64
			18M0W7D	256QAM	0.054	17.32
	Sub6 n41 (30)	2511.000 – 2674.980	27M0G7D	PI/2 BPSK	0.172	22.36
			26M9G7D	QPSK	0.172	22.35
			27M0W7D	16QAM	0.133	21.24
			26M9W7D	64QAM	0.096	19.81
			26M9W7D	256QAM	0.057	17.58
	Sub6 n41 (40)	2516.010 – 2670.000	36M0G7D	PI/2 BPSK	0.183	22.62
			36M0G7D	QPSK	0.182	22.60
			35M9W7D	16QAM	0.143	21.56
			35M9W7D	64QAM	0.104	20.16
			35M8W7D	256QAM	0.063	17.97
	Sub6 n41 (50)	2521.020 – 2664.990	46M1G7D	PI/2 BPSK	0.190	22.78
			45M9G7D	QPSK	0.189	22.77
			45M9W7D	16QAM	0.150	21.76
			45M8W7D	64QAM	0.106	20.26
			45M9W7D	256QAM	0.065	18.10
	Sub6 n41 (60)	2526.000 – 2659.980	58M1G7D	PI/2 BPSK	0.171	22.33
			58M1G7D	QPSK	0.170	22.31
			58M1W7D	16QAM	0.136	21.32
			58M0W7D	64QAM	0.097	19.86
			58M2W7D	256QAM	0.058	17.63
	Sub6 n41 (70)	2531.010 – 2655.000	64M7G7D	PI/2 BPSK	0.164	22.14
			64M6G7D	QPSK	0.160	22.04
			64M6W7D	16QAM	0.129	21.11
			64M5W7D	64QAM	0.093	19.68
			64M7W7D	256QAM	0.056	17.49
	Sub6 n41 (80)	2536.020 – 2649.990	77M7G7D	PI/2 BPSK	0.169	22.29
			77M4G7D	QPSK	0.168	22.25
			77M5W7D	16QAM	0.133	21.24
			77M3W7D	64QAM	0.095	19.76
			77M5W7D	256QAM	0.057	17.59
	Sub6 n41 (90)	2541.000 – 2644.980	87M1G7D	PI/2 BPSK	0.182	22.61
			87M2G7D	QPSK	0.182	22.59
			86M9W7D	16QAM	0.140	21.45
			87M1W7D	64QAM	0.101	20.03
			87M1W7D	256QAM	0.061	17.87
	Sub6 n41 (100)	2546.010 – 2640.000	96M8G7D	PI/2 BPSK	0.178	22.50
			96M7G7D	QPSK	0.173	22.39
			96M8W7D	16QAM	0.135	21.31
			96M8W7D	64QAM	0.098	19.92
			96M8W7D	256QAM	0.059	17.69

Sub2

	Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
					Max. Power (W)	Max. Power (dBm)
Power Class 3	Sub6 n41 (10)	2501.010 – 2685.000	8M62G7D	PI/2 BPSK	0.252	24.01
			8M69G7D	QPSK	0.251	23.99
			8M69W7D	16QAM	0.196	22.92
			8M73W7D	64QAM	0.139	21.44
			8M60W7D	256QAM	0.083	19.20
	Sub6 n41 (15)	2503.500 – 2682.480	13M0G7D	PI/2 BPSK	0.261	24.16
			13M0G7D	QPSK	0.260	24.15
			13M0W7D	16QAM	0.198	22.96
			13M0W7D	64QAM	0.144	21.58
			13M0W7D	256QAM	0.087	19.41
	Sub6 n41 (20)	2506.020 – 2679.990	18M0G7D	PI/2 BPSK	0.275	24.39
			18M0G7D	QPSK	0.274	24.38
			18M0W7D	16QAM	0.214	23.30
			18M0W7D	64QAM	0.152	21.81
			17M9W7D	256QAM	0.091	19.61
	Sub6 n41 (30)	2511.000 – 2674.980	27M0G7D	PI/2 BPSK	0.274	24.38
			27M0G7D	QPSK	0.274	24.37
			27M0W7D	16QAM	0.213	23.29
			26M9W7D	64QAM	0.152	21.81
			27M1W7D	256QAM	0.091	19.59
	Sub6 n41 (40)	2516.010 – 2670.000	36M0G7D	PI/2 BPSK	0.270	24.32
			36M0G7D	QPSK	0.267	24.26
			36M0W7D	16QAM	0.210	23.22
			35M9W7D	64QAM	0.153	21.84
			36M0W7D	256QAM	0.092	19.66
	Sub6 n41 (50)	2521.020 – 2664.990	46M0G7D	PI/2 BPSK	0.270	24.31
			46M0G7D	QPSK	0.269	24.30
			45M9W7D	16QAM	0.213	23.29
			45M9W7D	64QAM	0.153	21.85
			45M9W7D	256QAM	0.092	19.65
	Sub6 n41 (60)	2526.000 – 2659.980	58M2G7D	PI/2 BPSK	0.237	23.75
			58M2G7D	QPSK	0.237	23.74
			58M2W7D	16QAM	0.188	22.75
			58M1W7D	64QAM	0.135	21.31
			58M3W7D	256QAM	0.081	19.10
	Sub6 n41 (70)	2531.010 – 2655.000	64M9G7D	PI/2 BPSK	0.215	23.32
			64M9G7D	QPSK	0.211	23.24
			64M7W7D	16QAM	0.169	22.28
			64M6W7D	64QAM	0.121	20.83
			64M6W7D	256QAM	0.073	18.64
	Sub6 n41 (80)	2536.020 – 2649.990	77M5G7D	PI/2 BPSK	0.224	23.50
			77M5G7D	QPSK	0.223	23.48
			77M6W7D	16QAM	0.177	22.48
			77M5W7D	64QAM	0.126	21.02
			77M5W7D	256QAM	0.076	18.82
	Sub6 n41 (90)	2541.000 – 2644.980	87M1G7D	PI/2 BPSK	0.242	23.83
			87M1G7D	QPSK	0.241	23.82
			87M3W7D	16QAM	0.186	22.70
			87M3W7D	64QAM	0.135	21.29
			87M1W7D	256QAM	0.081	19.09
	Sub6 n41 (100)	2546.010 – 2640.000	97M0G7D	PI/2 BPSK	0.238	23.77
			97M1G7D	QPSK	0.237	23.74
			96M8W7D	16QAM	0.185	22.67
			96M9W7D	64QAM	0.135	21.31
			97M3W7D	256QAM	0.082	19.12

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

The EUT was a Mobile Phone with GSM/GPRS/EGPRS/UMTS and LTE, Sub 6.
It also supports IEEE 802.11 a/b/g/n/ac/ax/be (20/40/80/160/320 MHz), Bluetooth(iPA, ePA), BT LE(iPA, ePA), NFC, WPT, WIFI 6E

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
Effective Radiated Power/ Effective Isotropic Radiated Power	- KDB 971168 D01 v03r01 – Section 5.2 & 5.8 - ANSI/TIA-603-E-2016 – Section 2.2.17
Radiated Spurious and Harmonic Emissions	- KDB 971168 D01 v03r01 – Section 6.2 - ANSI/TIA-603-E-2016 – Section 2.2.12

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

The power is calculated by the following formula;

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

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

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

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

The spurious emissions is calculated by the following formula;

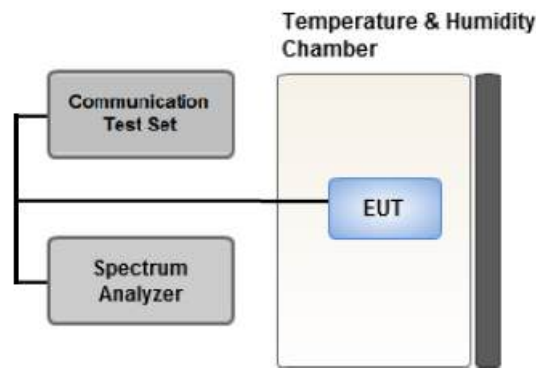
$$\text{Result}_{(\text{dBm})} = P_g_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

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

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

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

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

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

② Alternate Procedure for PAPR

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

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

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

Test Settings(Peak Power)

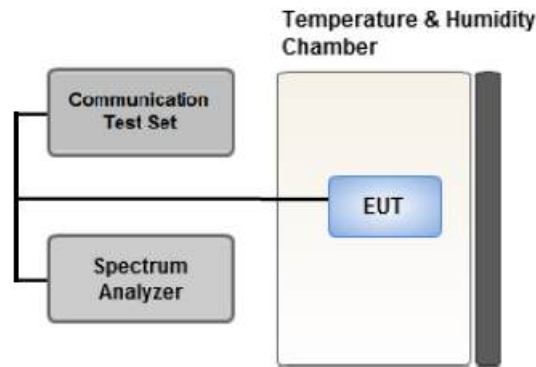
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

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

Test Settings(Average Power)

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

3.5 OCCUPIED BANDWIDTH.



Test setup

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

The EUT makes a call to the communication simulator.

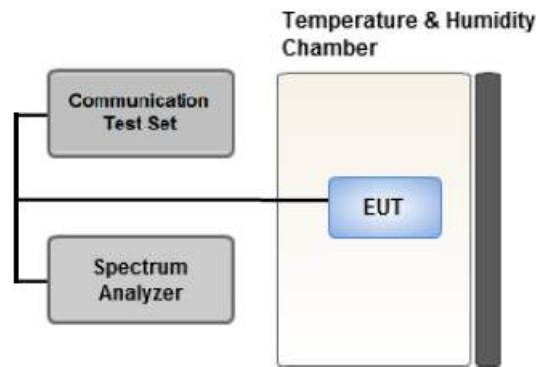
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

Test Settings

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

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

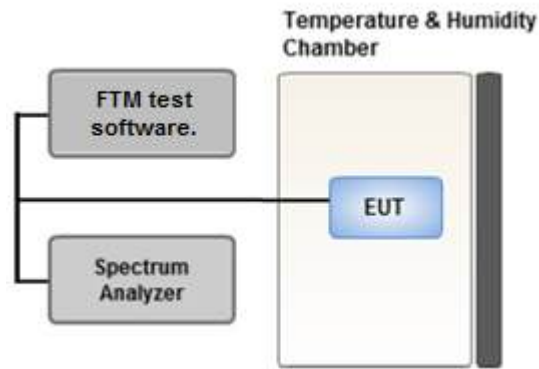
Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

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

3.7 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 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

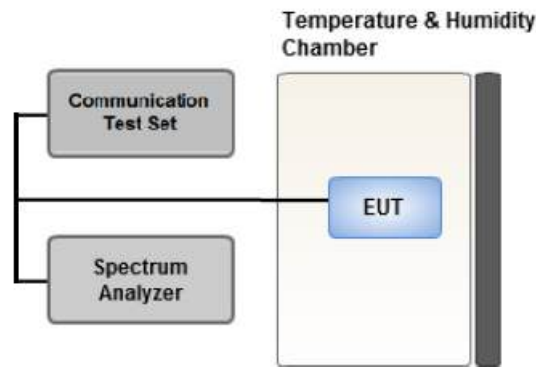
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. Within 1 MHz of the channel edge the RBW should be 2 % of EBW, then 1 MHz after that.
4. VBW > 3 x RBW
5.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

Test Notes

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 than $43 + 10 \log (P)$ 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 6MHz 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 $10 \log(1 \text{ MHz} / \text{RB})$ or the emission is integrated over a 1 MHz bandwidth to determine the final result. When using the integration method the integration window is either centered on the emission or, for emissions at the band edge, centered by an offset of 500 kHz from the block edge so that the integration window is the 1 MHz adjacent to the block edge.

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

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

The frequency stability of the transmitter is measured by:

1. Temperature:

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

2. Primary Supply Voltage:

- Unless otherwise specified, vary primary supply voltage from 85 % to 115 % of the nominal value for other than hand carried battery equipment.
- For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.

Test Settings

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

3.9 WORST CASE(RADIATED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
(Worst case: DFT-S-OFDM)
- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- All modes of operation were investigated and the worst case configuration results are reported.
Mode: SA, NSA, SRS
Worst case: SA
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.
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).
All EN-DC mode of operation (=anchor) were investigated and the test results were measured No Peak Found.
The test results which are attenuated more than 20 dB below the permissible value, so it was not reported.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
- Please refer to the table below.
- SM-S931B/DS & additional models were tested and the worst case results are reported.
(Worst case : SM-S931B/DS)

[Main2 Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic 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

[Sub2 Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	See Section 9.1		X
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		X

3.10 WORST CASE(CONDUCTED TEST)

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

(Worst case: DFT-S-OFDM)

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

(Worst case: PI/2 BPSK)

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

Mode: SA, NSA, SRS

Worst case: SA

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

Please refer to the table below.

- SM-S931B/DS & additional models were tested and the worst case results are reported.

(Worst case : SM-S931B/DS)

[Worst case]					
Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth, Peak-To-Average Ratio	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Channel Edge	PI/2 BPSK	10	Low	1	0
			High	1	23
		15	Low	1	0
			High	1	37
		20	Low	1	0
			High	1	50
		30	Low	1	0
			High	1	77
		40	Low	1	0
			High	1	105
		50	Low	1	0
			High	1	132
		60	Low	1	0
			High	1	161
		70	Low	1	0
			High	1	188
		80	Low	1	0
			High	1	216
		90	Low	1	0
			High	1	244
		100	Low	1	0
			High	1	272
		10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	Low, Mid, High	1	1

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/10/2026	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	02/14/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	04/27/2025	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	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	05/14/2025	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/14/2025	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/14/2025	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/14/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/17/2024	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/26/2025	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/22/2025	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	02/29/2025	Annual
Chamber	SU-642	ESPEC	93008124	02/19/2025	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/04/2025	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/17/2025	Annual
Spectrum Analyzer(10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/13/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/16/2025	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/14/2025	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/10/2025	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

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

5. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4:2014.

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

Parameter	Expanded Uncertainty ($\pm$ dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.98 (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)	■ $< 40 + 10\log_{10} (P[\text{Watts}])$ at Channel edges ■ $< 43 + 10\log_{10} (P[\text{Watts}])$ between 5 and X MHz from Channel edges ■ $< 55 + 10\log_{10} (P[\text{Watts}])$ 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	<u>See Note1</u>
Frequency stability / variation of ambient temperature	§ 2.1055, § 27.54	Emission must remain in band	PASS

Note:

1. See SAR Report
2. All conducted tests were tested using 5G Wireless Tester.

6.2 Test Condition: Radiated Test

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

Note:

1. Radiated tests were tested using 5G Wireless Tester.

7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

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

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

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

7.2 EIRP Sample Calculation

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

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

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

7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW

GSM BW = 249 kHz

G = Phase Modulation

X = Cases not otherwise covered

W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W

GSM BW = 249 kHz

G = Phase Modulation

7 = Quantized/Digital Info

W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W

WCDMA BW = 4.17 MHz

F = Frequency Modulation

9 = Composite Digital Info

W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D

LTE BW = 4.48 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D

LTE BW = 4.48 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

8. TEST DATA (Main2)

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2501.010	Sub6 n41 / 10 MHz [30 kHz]	PI/2 BPSK	-22.90	13.90	10.61	2.50	H	< 2.00	0.159	22.01	1	22
		QPSK	-22.93	13.87	10.61	2.50	H		0.158	21.98		
		16-QAM	-24.03	12.77	10.61	2.50	H		0.122	20.88		
		64-QAM	-25.46	11.34	10.61	2.50	H		0.088	19.45		
		256-QAM	-27.69	9.11	10.61	2.50	H		0.053	17.22		
2592.990		PI/2 BPSK	-23.38	13.33	11.00	2.55	H		0.151	21.78	1	1
		QPSK	-23.43	13.28	11.00	2.55	H		0.149	21.73		
		16-QAM	-24.54	12.17	11.00	2.55	H		0.115	20.62		
		64-QAM	-26.02	10.69	11.00	2.55	H		0.082	19.14		
		256-QAM	-28.19	8.52	11.00	2.55	H		0.050	16.97		
2685.000		PI/2 BPSK	-25.99	11.57	10.82	2.61	H		0.095	19.78	1	12
		QPSK	-26.00	11.56	10.82	2.61	H		0.095	19.77		
		16-QAM	-27.14	10.42	10.82	2.61	H		0.073	18.63		
		64-QAM	-28.58	8.98	10.82	2.61	H		0.052	17.19		
		256-QAM	-30.74	6.82	10.82	2.61	H		0.032	15.03		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2503.500		PI/2 BPSK	-23.03	13.83	10.58	2.51	H	< 2.00	0.155	21.90	1	19
		QPSK	-23.09	13.77	10.58	2.51	H		0.153	21.84		
		16-QAM	-23.99	12.87	10.58	2.51	H		0.124	20.94		
		64-QAM	-25.60	11.26	10.58	2.51	H		0.086	19.33		
		256-QAM	-27.80	9.06	10.58	2.51	H		0.052	17.13		
2592.990	Sub6 n41 / 15 MHz [30 kHz]	PI/2 BPSK	-23.20	13.51	11.00	2.55	H	< 2.00	0.157	21.96	1	1
		QPSK	-23.21	13.50	11.00	2.55	H		0.157	21.95		
		16-QAM	-24.31	12.40	11.00	2.55	H		0.122	20.85		
		64-QAM	-25.84	10.87	11.00	2.55	H		0.086	19.32		
		256-QAM	-28.00	8.71	11.00	2.55	H		0.052	17.16		
2682.480		PI/2 BPSK	-26.07	11.60	10.84	2.61	H	< 2.00	0.096	19.83	1	19
		QPSK	-26.09	11.58	10.84	2.61	H		0.096	19.81		
		16-QAM	-27.24	10.43	10.84	2.61	H		0.074	18.66		
		64-QAM	-28.65	9.02	10.84	2.61	H		0.053	17.25		
		256-QAM	-30.87	6.80	10.84	2.61	H		0.032	15.03		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2506.020	Sub6 n41 / 20 MHz [30 kHz]	PI/2 BPSK	-22.71	14.15	10.58	2.51	H	< 2.00	0.167	22.22	1	25
		QPSK	-22.73	14.13	10.58	2.51	H		0.166	22.20		
		16-QAM	-23.86	13.00	10.58	2.51	H		0.128	21.07		
		64-QAM	-25.29	11.57	10.58	2.51	H		0.092	19.64		
		256-QAM	-27.61	9.25	10.58	2.51	H		0.054	17.32		
2592.990		PI/2 BPSK	-23.40	13.31	11.00	2.55	H		0.150	21.76	1	1
		QPSK	-23.45	13.26	11.00	2.55	H		0.148	21.71		
		16-QAM	-24.51	12.20	11.00	2.55	H		0.116	20.65		
		64-QAM	-25.98	10.73	11.00	2.55	H		0.083	19.18		
		256-QAM	-28.14	8.57	11.00	2.55	H		0.050	17.02		
2679.990		PI/2 BPSK	-26.17	11.50	10.84	2.61	H	0.094	19.73	1	25	
		QPSK	-26.19	11.48	10.84	2.61	H	0.094	19.71			
		16-QAM	-27.33	10.34	10.84	2.61	H	0.072	18.57			
		64-QAM	-28.76	8.91	10.84	2.61	H	0.052	17.14			
		256-QAM	-30.90	6.77	10.84	2.61	H	0.032	15.00			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2511.000		PI/2 BPSK	-22.60	14.32	10.55	2.51	H	< 2.00	0.172	22.36	1	39
		QPSK	-22.61	14.31	10.55	2.51	H		0.172	22.35		
		16-QAM	-23.72	13.20	10.55	2.51	H		0.133	21.24		
		64-QAM	-25.15	11.77	10.55	2.51	H		0.096	19.81		
		256-QAM	-27.38	9.54	10.55	2.51	H		0.057	17.58		
2592.990	Sub6 n41 / 30 MHz [30 kHz]	PI/2 BPSK	-22.98	13.73	11.00	2.55	H	< 2.00	0.165	22.18	1	1
		QPSK	-23.00	13.71	11.00	2.55	H		0.164	22.16		
		16-QAM	-24.12	12.59	11.00	2.55	H		0.127	21.04		
		64-QAM	-25.60	11.11	11.00	2.55	H		0.090	19.56		
		256-QAM	-27.81	8.90	11.00	2.55	H		0.054	17.35		
2674.980		PI/2 BPSK	-25.91	11.38	10.85	2.62	H	< 2.00	0.091	19.61	1	1
		QPSK	-25.92	11.37	10.85	2.62	H		0.091	19.60		
		16-QAM	-26.98	10.31	10.85	2.62	H		0.071	18.54		
		64-QAM	-28.46	8.83	10.85	2.62	H		0.051	17.06		
		256-QAM	-30.69	6.60	10.85	2.62	H		0.030	14.83		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2516.010		PI/2 BPSK	-22.30	14.63	10.52	2.53	H	< 2.00	0.183	22.62	1	53
		QPSK	-22.32	14.61	10.52	2.53	H		0.182	22.60		
		16-QAM	-23.36	13.57	10.52	2.53	H		0.143	21.56		
		64-QAM	-24.76	12.17	10.52	2.53	H		0.104	20.16		
		256-QAM	-26.95	9.98	10.52	2.53	H		0.063	17.97		
2592.990	Sub6 n41 / 40 MHz [30 kHz]	PI/2 BPSK	-23.26	13.45	11.00	2.55	H	< 2.00	0.155	21.90	1	1
		QPSK	-23.30	13.41	11.00	2.55	H		0.154	21.86		
		16-QAM	-24.36	12.35	11.00	2.55	H		0.120	20.80		
		64-QAM	-25.78	10.93	11.00	2.55	H		0.087	19.38		
		256-QAM	-28.05	8.66	11.00	2.55	H		0.051	17.11		
2670.000		PI/2 BPSK	-25.64	11.26	10.87	2.62	H	< 2.00	0.089	19.51	1	1
		QPSK	-25.65	11.25	10.87	2.62	H		0.089	19.50		
		16-QAM	-26.82	10.08	10.87	2.62	H		0.068	18.33		
		64-QAM	-28.27	8.63	10.87	2.62	H		0.049	16.88		
		256-QAM	-30.48	6.42	10.87	2.62	H		0.029	14.67		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2521.020	Sub6 n41 / 50 MHz [30 kHz]	PI/2 BPSK	-22.10	14.83	10.49	2.54	H	< 2.00	0.190	22.78	1	66
		QPSK	-22.11	14.82	10.49	2.54	H		0.189	22.77		
		16-QAM	-23.12	13.81	10.49	2.54	H		0.150	21.76		
		64-QAM	-24.62	12.31	10.49	2.54	H		0.106	20.26		
		256-QAM	-26.78	10.15	10.49	2.54	H		0.065	18.10		
2592.990		PI/2 BPSK	-23.10	13.61	11.00	2.55	H		0.161	22.06	1	1
		QPSK	-23.11	13.60	11.00	2.55	H		0.160	22.05		
		16-QAM	-24.27	12.44	11.00	2.55	H		0.123	20.89		
		64-QAM	-25.75	10.96	11.00	2.55	H		0.087	19.41		
		256-QAM	-27.92	8.79	11.00	2.55	H		0.053	17.24		
2664.990		PI/2 BPSK	-25.33	11.62	10.88	2.64	H	0.097	19.86	1	1	
		QPSK	-25.45	11.50	10.88	2.64	H	0.094	19.74			
		16-QAM	-26.58	10.37	10.88	2.64	H	0.073	18.61			
		64-QAM	-27.98	8.97	10.88	2.64	H	0.053	17.21			
		256-QAM	-30.07	6.88	10.88	2.64	H	0.033	15.12			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2526.000	Sub6 41/ 60 MHz [30 kHz]	PI/2 BPSK	-22.28	14.35	10.52	2.54	H	< 2.00	0.171	22.33	1	82
		QPSK	-22.30	14.33	10.52	2.54	H		0.170	22.31		
		16-QAM	-23.29	13.34	10.52	2.54	H		0.136	21.32		
		64-QAM	-24.75	11.88	10.52	2.54	H		0.097	19.86		
		256-QAM	-26.98	9.65	10.52	2.54	H		0.058	17.63		
2592.990		PI/2 BPSK	-22.98	13.73	11.00	2.55	H		0.165	22.18	1	1
		QPSK	-23.00	13.71	11.00	2.55	H		0.164	22.16		
		16-QAM	-24.10	12.61	11.00	2.55	H		0.128	21.06		
		64-QAM	-25.59	11.12	11.00	2.55	H		0.091	19.57		
		256-QAM	-27.72	8.99	11.00	2.55	H		0.056	17.44		
2659.980		PI/2 BPSK	-25.03	11.98	10.90	2.67	H	0.105	20.21	1	1	
		QPSK	-25.05	11.96	10.90	2.67	H	0.105	20.19			
		16-QAM	-26.23	10.78	10.90	2.67	H	0.080	19.01			
		64-QAM	-27.62	9.39	10.90	2.67	H	0.058	17.62			
		256-QAM	-29.80	7.21	10.90	2.67	H	0.035	15.44			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2531.010	Sub6 41/ 70 MHz [30 kHz]	PI/2 BPSK	-22.38	13.95	10.56	2.54	H	< 2.00	0.157	21.97	1	94
		QPSK	-22.39	13.94	10.56	2.54	H		0.157	21.96		
		16-QAM	-23.49	12.84	10.56	2.54	H		0.122	20.86		
		64-QAM	-24.78	11.55	10.56	2.54	H		0.091	19.57		
		256-QAM	-26.96	9.37	10.56	2.54	H		0.055	17.39		
2592.990		PI/2 BPSK	-23.02	13.69	11.00	2.55	H		0.164	22.14	1	1
		QPSK	-23.12	13.59	11.00	2.55	H		0.160	22.04		
		16-QAM	-24.05	12.66	11.00	2.55	H		0.129	21.11		
		64-QAM	-25.48	11.23	11.00	2.55	H		0.093	19.68		
		256-QAM	-27.67	9.04	11.00	2.55	H		0.056	17.49		
2655.000		PI/2 BPSK	-24.42	12.49	10.91	2.68	H	0.118	20.72	1	1	
		QPSK	-24.45	12.46	10.91	2.68	H	0.117	20.69			
		16-QAM	-25.62	11.29	10.91	2.68	H	0.090	19.52			
		64-QAM	-26.90	10.01	10.91	2.68	H	0.067	18.24			
		256-QAM	-29.07	7.84	10.91	2.68	H	0.041	16.07			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2536.020	Sub6 41/ 80 MHz [30 kHz]	PI/2 BPSK	-22.32	14.14	10.59	2.54	H	< 2.00	0.166	22.19	1	108
		QPSK	-22.34	14.12	10.59	2.54	H		0.165	22.17		
		16-QAM	-23.30	13.16	10.59	2.54	H		0.132	21.21		
		64-QAM	-24.78	11.68	10.59	2.54	H		0.094	19.73		
		256-QAM	-26.97	9.49	10.59	2.54	H		0.057	17.54		
2592.990		PI/2 BPSK	-22.87	13.84	11.00	2.55	H		0.169	22.29	1	1
		QPSK	-22.91	13.80	11.00	2.55	H		0.168	22.25		
		16-QAM	-23.92	12.79	11.00	2.55	H		0.133	21.24		
		64-QAM	-25.40	11.31	11.00	2.55	H		0.095	19.76		
		256-QAM	-27.57	9.14	11.00	2.55	H		0.057	17.59		
2649.990		PI/2 BPSK	-23.92	12.87	10.93	2.69	H	0.129	21.11	1	1	
		QPSK	-23.97	12.82	10.93	2.69	H	0.128	21.06			
		16-QAM	-25.00	11.79	10.93	2.69	H	0.101	20.03			
		64-QAM	-26.55	10.24	10.93	2.69	H	0.071	18.48			
		256-QAM	-28.80	7.99	10.93	2.69	H	0.042	16.23			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2541.000	Sub6 41/ 90 MHz [30 kHz]	PI/2 BPSK	-22.23	14.35	10.62	2.53	H	< 2.00	0.175	22.44	1	122
		QPSK	-22.25	14.33	10.62	2.53	H		0.175	22.42		
		16-QAM	-23.26	13.32	10.62	2.53	H		0.138	21.41		
		64-QAM	-24.72	11.86	10.62	2.53	H		0.099	19.95		
		256-QAM	-26.94	9.64	10.62	2.53	H		0.059	17.73		
2592.990		PI/2 BPSK	-22.55	14.16	11.00	2.55	H		0.182	22.61	1	1
		QPSK	-22.57	14.14	11.00	2.55	H		0.182	22.59		
		16-QAM	-23.71	13.00	11.00	2.55	H		0.140	21.45		
		64-QAM	-25.13	11.58	11.00	2.55	H		0.101	20.03		
		256-QAM	-27.29	9.42	11.00	2.55	H		0.061	17.87		
2644.980		PI/2 BPSK	-23.74	13.37	10.95	2.68	H		0.146	21.64	1	1
		QPSK	-23.76	13.35	10.95	2.68	H		0.145	21.62		
		16-QAM	-24.85	12.26	10.95	2.68	H		0.113	20.53		
		64-QAM	-26.22	10.89	10.95	2.68	H		0.082	19.16		
		256-QAM	-28.45	8.66	10.95	2.68	H		0.049	16.93		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2546.010	Sub6 41/ 100 MHz [30 kHz]	PI/2 BPSK	-22.46	14.09	10.66	2.53	H	< 2.00	0.167	22.22	1	136
		QPSK	-22.50	14.05	10.66	2.53	H		0.165	22.18		
		16-QAM	-23.55	13.00	10.66	2.53	H		0.130	21.13		
		64-QAM	-24.91	11.64	10.66	2.53	H		0.095	19.77		
		256-QAM	-27.09	9.46	10.66	2.53	H		0.057	17.59		
2592.990		PI/2 BPSK	-22.66	14.05	11.00	2.55	H		0.178	22.50	1	1
		QPSK	-22.77	13.94	11.00	2.55	H		0.173	22.39		
		16-QAM	-23.85	12.86	11.00	2.55	H		0.135	21.31		
		64-QAM	-25.24	11.47	11.00	2.55	H		0.098	19.92		
		256-QAM	-27.47	9.24	11.00	2.55	H		0.059	17.69		
2640.000		PI/2 BPSK	-23.53	13.91	10.96	2.68	H	0.166	22.19	1	1	
		QPSK	-23.55	13.89	10.96	2.68	H	0.165	22.17			
		16-QAM	-24.48	12.96	10.96	2.68	H	0.133	21.24			
		64-QAM	-25.94	11.50	10.96	2.68	H	0.095	19.78			
		256-QAM	-28.16	9.28	10.96	2.68	H	0.057	17.56			

8.2 RADIATED SPURIOUS EMISSIONS

■ NR Band:	<u>n41</u>
■ Bandwidth:	<u>10 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meter</u>
■ SCS:	<u>30kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500202 (2501.010)	5 002.02	-62.40	11.22	-64.11	3.71	H	-56.60	-25.00	1	22
	7 503.03	-62.93	11.54	-55.50	4.60	H	-48.56	-25.00		
	10 004.04	-61.38	11.47	-51.98	5.47	H	-45.98	-25.00		
518598 (2592.990)	5 185.98	-62.35	11.61	-63.52	3.80	H	-55.71	-25.00	1	1
	7 778.97	-64.00	11.26	-56.93	4.70	H	-50.37	-25.00		
	10 371.96	-63.57	11.68	-52.48	5.55	H	-46.35	-25.00		
537000 (2685.000)	5 370.00	-63.21	11.96	-64.84	3.92	H	-56.80	-25.00	1	12
	8 055.00	-62.73	11.24	-55.45	4.81	H	-49.02	-25.00		
	10 740.00	-64.14	11.55	-52.12	5.64	H	-46.21	-25.00		

☐ NR Band: n41
☐ Bandwidth: 15 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500700 (2503.500)	5 007.00	-63.44	11.20	-64.87	3.71	H	-57.38	-25.00	1	19
	7 510.50	-63.31	11.55	-55.77	4.60	H	-48.82	-25.00		
	10 014.00	-62.21	11.46	-52.82	5.47	H	-46.83	-25.00		
518598 (2592.990)	5 185.98	-63.33	11.61	-64.50	3.80	H	-56.69	-25.00	1	1
	7 778.97	-63.70	11.26	-56.63	4.70	H	-50.07	-25.00		
	10 371.96	-64.41	11.68	-53.32	5.55	H	-47.19	-25.00		
536496 (2682.480)	5 364.96	-64.25	11.95	-65.77	3.91	H	-57.73	-25.00	1	19
	8 047.44	-63.35	11.23	-56.13	4.81	H	-49.71	-25.00		
	10 729.92	-65.50	11.56	-53.43	5.65	H	-47.52	-25.00		

☐ NR Band: n41
☐ Bandwidth: 20 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
501204 (2506.020)	5 012.04	-64.41	11.18	-65.55	3.72	H	-58.09	-25.00	1	26
	7 518.06	-63.25	11.56	-55.61	4.61	H	-48.66	-25.00		
	10 024.08	-61.15	11.46	-51.80	5.47	H	-45.81	-25.00		
518598 (2592.990)	5 185.98	-62.38	11.61	-63.55	3.80	H	-55.74	-25.00	1	1
	7 778.97	-63.71	11.26	-56.64	4.70	H	-50.08	-25.00		
	10 371.96	-64.54	11.68	-53.45	5.55	H	-47.32	-25.00		
535998 (2679.990)	5 359.98	-63.27	11.95	-64.70	3.90	H	-56.65	-25.00	1	25
	8 039.97	-64.47	11.22	-57.16	4.80	H	-50.74	-25.00		
	10 719.96	-66.15	11.56	-54.50	5.64	H	-48.58	-25.00		

☐ NR Band: n41
☐ Bandwidth: 30 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502200 (2511.000)	5 022.00	-63.73	11.17	-64.43	3.69	H	-56.95	-25.00	1	39
	7 533.00	-62.48	11.57	-54.88	4.61	H	-47.92	-25.00		
	10 044.00	-63.03	11.44	-53.71	5.48	H	-47.75	-25.00		
518598 (2592.990)	5 185.98	-63.38	11.61	-64.55	3.80	H	-56.74	-25.00	1	1
	7 778.97	-62.71	11.26	-55.64	4.70	H	-49.08	-25.00		
	10 371.96	-65.65	11.68	-54.56	5.55	H	-48.43	-25.00		
534996 (2674.980)	5 349.96	-64.11	11.94	-65.80	3.85	H	-57.71	-25.00	1	1
	8 024.94	-64.57	11.20	-57.32	4.79	H	-50.91	-25.00		
	10 699.92	-65.57	11.57	-53.57	5.67	H	-47.67	-25.00		

☐ NR Band: n41
☐ Bandwidth: 40 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
503202 (2516.010)	5 032.02	-64.28	11.19	-65.12	3.67	H	-57.60	-25.00	1	53
	7 548.03	-63.37	11.59	-56.00	4.63	H	-49.04	-25.00		
	10 064.04	-62.75	11.42	-53.53	5.47	H	-47.58	-25.00		
518598 (2592.990)	5 185.98	-64.04	11.61	-65.21	3.80	H	-57.40	-25.00	1	1
	7 778.97	-63.02	11.26	-55.95	4.70	H	-49.39	-25.00		
	10 371.96	-63.73	11.68	-52.64	5.55	H	-46.51	-25.00		
534000 (2670.000)	5 340.00	-63.77	11.93	-65.75	3.80	H	-57.62	-25.00	1	1
	8 010.00	-64.15	11.17	-56.83	4.77	H	-50.43	-25.00		
	10 680.00	-66.17	11.57	-53.59	5.71	H	-47.73	-25.00		

☐ NR Band: n41
☐ Bandwidth: 50 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
504204 (2521.020)	5 042.04	-63.37	11.20	-64.41	3.68	H	-56.89	-25.00	1	66
	7 563.06	-63.55	11.60	-56.02	4.64	H	-49.06	-25.00		
	10 084.08	-63.03	11.40	-53.80	5.46	H	-47.86	-25.00		
518598 (2592.990)	5 185.98	-64.01	11.61	-65.18	3.80	H	-57.37	-25.00	1	1
	7 778.97	-63.17	11.26	-56.10	4.70	H	-49.54	-25.00		
	10 371.96	-63.15	11.68	-52.06	5.55	H	-45.93	-25.00		
532998 (2664.990)	5 329.98	-62.17	11.92	-63.90	3.77	H	-55.75	-25.00	1	1
	7 994.97	-63.66	11.13	-56.11	4.77	H	-49.75	-25.00		
	10 659.96	-65.17	11.58	-52.77	5.67	H	-46.86	-25.00		

☐ NR Band: n41
☐ Bandwidth: 60 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
505200 (2526.000)	5 052.00	-63.15	11.22	-64.62	3.73	H	-57.13	-25.00	1	82
	7 578.00	-63.75	11.61	-56.09	4.65	H	-49.13	-25.00		
	10 104.00	-63.44	11.39	-53.88	5.46	H	-47.95	-25.00		
518598 (2592.990)	5 185.98	-63.77	11.61	-64.94	3.80	H	-57.13	-25.00	1	1
	7 778.97	-63.08	11.26	-56.01	4.70	H	-49.45	-25.00		
	10 371.96	-63.47	11.68	-52.38	5.55	H	-46.25	-25.00		
531996 (2659.980)	5 319.96	-63.02	11.91	-64.57	3.79	H	-56.45	-25.00	1	1
	7 979.94	-63.71	11.10	-56.01	4.79	H	-49.70	-25.00		
	10 639.92	-64.47	11.58	-52.09	5.61	H	-46.12	-25.00		

☐ NR Band: n41
☐ Bandwidth: 70 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
506202 (2531.010)	5 062.02	-63.33	11.24	-64.70	3.78	H	-57.24	-25.00	1	94
	7 593.03	-63.57	11.62	-56.29	4.64	H	-49.31	-25.00		
	10 124.04	-63.74	11.37	-54.05	5.47	H	-48.15	-25.00		
518598 (2592.990)	5 185.98	-63.71	11.61	-64.88	3.80	H	-57.07	-25.00	1	1
	7 778.97	-63.33	11.26	-56.26	4.70	H	-49.70	-25.00		
	10 371.96	-63.59	11.68	-52.50	5.55	H	-46.37	-25.00		
531000 (2655.000)	5 310.00	-62.87	11.91	-63.98	3.82	H	-55.89	-25.00	1	1
	7 965.00	-64.25	11.07	-56.43	4.80	H	-50.16	-25.00		
	10 620.00	-63.76	11.58	-51.72	5.65	H	-45.79	-25.00		

☐ NR Band: n41
☐ Bandwidth: 80 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
507204 (2536.020)	5 072.04	-63.74	11.25	-64.90	3.80	H	-57.45	-25.00	1	108
	7 608.06	-63.71	11.60	-56.83	4.64	H	-49.87	-25.00		
	10 144.08	-63.08	11.36	-53.47	5.48	H	-47.59	-25.00		
518598 (2592.990)	5 185.98	-62.25	11.61	-63.42	3.80	H	-55.61	-25.00	1	1
	7 778.97	-64.27	11.26	-57.20	4.70	H	-50.64	-25.00		
	10 371.96	-63.59	11.68	-52.50	5.55	H	-46.37	-25.00		
529998 (2649.990)	5 299.98	-63.33	11.90	-64.83	3.83	H	-56.76	-25.00	1	1
	7 949.97	-64.17	11.03	-56.52	4.78	H	-50.27	-25.00		
	10 599.96	-64.01	11.58	-52.72	5.67	H	-46.81	-25.00		

☐ NR Band: n41
☐ Bandwidth: 90 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
508200 (2541.000)	5 082.00	-63.94	11.27	-64.74	3.81	H	-57.28	-25.00	1	122
	7 623.00	-63.81	11.57	-56.87	4.65	H	-49.95	-25.00		
	10 164.00	-63.25	11.34	-53.39	5.50	H	-47.55	-25.00		
518598 (2592.990)	5 185.98	-63.01	11.61	-64.18	3.80	H	-56.37	-25.00	1	1
	7 778.97	-63.87	11.26	-56.80	4.70	H	-50.24	-25.00		
	10 371.96	-63.77	11.68	-52.68	5.55	H	-46.55	-25.00		
528996 (2644.980)	5 289.96	-63.55	11.89	-65.13	3.83	H	-57.07	-25.00	1	1
	7 934.94	-64.29	11.01	-56.91	4.77	H	-50.67	-25.00		
	10 579.92	-64.37	11.62	-53.22	5.65	H	-47.25	-25.00		

■ NR Band: n41
 ■ Bandwidth: 100 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 meter
 ■ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
509202 (2546.010)	5 092.02	-63.37	11.29	-64.25	3.78	H	-56.74	-25.00	1	136
	7 638.03	-63.59	11.54	-56.62	4.68	H	-49.76	-25.00		
	10 184.04	-63.53	11.35	-53.49	5.52	H	-47.66	-25.00		
518598 (2592.990)	5 185.98	-63.23	11.61	-64.40	3.80	H	-56.59	-25.00	1	1
	7 778.97	-63.75	11.26	-56.68	4.70	H	-50.12	-25.00		
	10 371.96	-63.99	11.68	-52.90	5.55	H	-46.77	-25.00		
528000 (2640.000)	5 280.00	-63.75	11.88	-65.77	3.80	H	-57.69	-25.00	1	1
	7 920.00	-64.01	11.02	-56.59	4.77	H	-50.34	-25.00		
	10 560.00	-64.64	11.65	-53.70	5.63	H	-47.68	-25.00		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n41	10 MHz	2592.990	BPSK	24	0	4.39
			QPSK			5.70
			16-QAM			6.48
			64-QAM			6.86
			256-QAM			6.58
	15 MHz		BPSK	36		4.41
			QPSK			5.71
			16-QAM			6.57
			64-QAM			6.77
			256-QAM			6.81
	20 MHz		BPSK	50		4.41
			QPSK			5.67
			16-QAM			6.67
			64-QAM			6.78
			256-QAM			6.84
	30 MHz		BPSK	75		4.54
			QPSK			5.68
			16-QAM			6.54
			64-QAM			6.83
			256-QAM			6.77
	40 MHz		BPSK	100		4.31
			QPSK			5.69
			16-QAM			6.52
			64-QAM			6.76
			256-QAM			6.75
	50 MHz		BPSK	128		4.43
			QPSK			5.75
			16-QAM			6.54
			64-QAM			6.72
			256-QAM			6.80

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n41	60 MHz	2592.990	BPSK	162	0	4.80
			QPSK			5.86
			16-QAM			6.57
			64-QAM			6.84
			256-QAM			6.82
	70 MHz		BPSK	180		4.51
			QPSK			5.72
			16-QAM			6.57
			64-QAM			6.80
			256-QAM			6.87
	80 MHz		BPSK	216		4.50
			QPSK			5.72
			16-QAM			6.57
			64-QAM			6.75
			256-QAM			6.89
	90 MHz		BPSK	243		4.42
			QPSK			5.66
			16-QAM			6.54
			64-QAM			6.72
			256-QAM			6.79
	100 MHz		BPSK	270		4.64
			QPSK			5.85
			16-QAM			6.57
			64-QAM			6.76
			256-QAM			6.87

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 113 ~ 167.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n41	10 MHz	2592.990	BPSK	24	0	8.6496
			QPSK			8.6386
			16-QAM			8.6975
			64-QAM			8.6489
			256-QAM			8.6727
	15 MHz		BPSK	36		12.965
			QPSK			13.026
			16-QAM			12.934
			64-QAM			13.000
			256-QAM			13.019
	20 MHz		BPSK	50		17.900
			QPSK			17.999
			16-QAM			18.015
			64-QAM			17.942
			256-QAM			17.956
	30 MHz		BPSK	75		26.968
			QPSK			26.924
			16-QAM			26.998
			64-QAM			26.923
			256-QAM			26.936
	40 MHz		BPSK	100		35.948
			QPSK			35.950
			16-QAM			35.849
			64-QAM			35.864
			256-QAM			35.818
	50 MHz		BPSK	128		46.078
			QPSK			45.856
			16-QAM			45.933
			64-QAM			45.837
			256-QAM			45.918

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n41	60 MHz	2592.990	BPSK	162	0	58.068
			QPSK			58.068
			16-QAM			58.130
			64-QAM			58.044
			256-QAM			58.196
	70 MHz		BPSK	180		64.700
			QPSK			64.564
			16-QAM			64.620
			64-QAM			64.540
			256-QAM			64.709
	80 MHz		BPSK	216		77.727
			QPSK			77.403
			16-QAM			77.451
			64-QAM			77.315
			256-QAM			77.511
	90 MHz		BPSK	243		87.081
			QPSK			87.174
			16-QAM			86.912
			64-QAM			87.126
			256-QAM			87.079
	100 MHz		BPSK	270		96.808
			QPSK			96.721
			16-QAM			96.835
			64-QAM			96.839
			256-QAM			96.780

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 168 ~ 222.

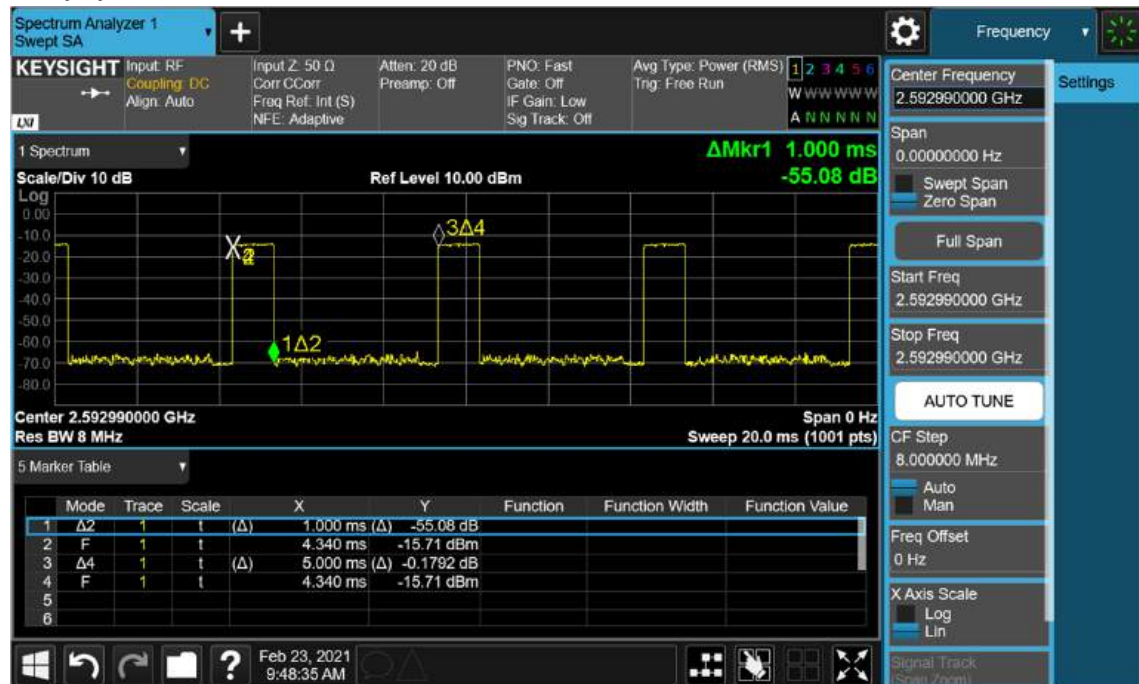
8.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n41	10	2501.010	3.7892	37.190	-80.699	-43.509	-25.00
		2592.990	8.3898	37.805	-80.104	-42.299	
		2685.000	3.8351	37.190	-80.607	-43.417	
	15	2503.500	5.4756	37.805	-80.322	-42.517	
		2592.990	8.2468	37.805	-80.539	-42.734	
		2682.480	4.9168	37.190	-80.249	-43.059	
	20	2506.020	4.0330	37.190	-80.716	-43.526	
		2592.990	8.2792	37.805	-80.465	-42.660	
		2679.990	8.3280	37.805	-80.598	-42.793	
	30	2511.000	8.2772	37.805	-80.420	-42.615	
		2592.990	9.7473	37.805	-80.546	-42.741	
		2674.980	4.0255	37.190	-80.729	-43.539	
	40	2516.010	6.0105	37.805	-80.550	-42.745	
		2592.990	5.2279	37.805	-79.535	-41.730	
		2670.000	9.1411	37.805	-80.142	-42.337	
	50	2521.020	9.0763	37.805	-80.173	-42.368	
		2592.990	9.4616	37.805	-80.522	-42.717	
		2664.990	9.1112	37.805	-79.569	-41.764	
	60	2526.000	6.0225	37.805	-79.826	-42.021	
		2592.990	9.1550	37.805	-80.735	-42.930	
		2659.980	3.7568	37.190	-79.902	-42.712	
	70	2531.010	5.2373	37.805	-80.836	-43.031	
		2592.990	6.0225	37.805	-79.864	-42.059	
		2655.000	9.1486	37.805	-80.567	-42.762	
	80	2536.020	9.4452	37.805	-80.232	-42.427	
		2592.990	8.2827	37.805	-80.056	-42.251	
		2649.990	9.7139	37.805	-79.942	-42.137	
	90	2541.000	4.0359	37.190	-80.147	-42.957	
		2592.990	9.4427	37.805	-80.473	-42.668	
		2644.980	8.8978	37.805	-80.422	-42.617	
	100	2546.010	8.2702	37.805	-80.339	-42.534	
		2592.990	8.8943	37.805	-80.340	-42.535	
		2640.000	9.1201	37.805	-80.664	-42.859	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 223 ~ 288.
2. Duty Cycle factor already applied on the factor.

- Duty Cycle Factor(dB) = 6.99



- Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter

- Result(dBm) = Reading + Factor

3. Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	34.484
1 – 5	37.190
5 – 10	37.805
10 – 15	38.330
15 – 20	38.703
Above 20	39.345

8.6 CHANNEL EDGE

BW	Test. Frequency (MHz)	Modulation	Resource Block Size	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +1MHz)	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
10 MHz	2501.010	BPSK	Full RB	-23.23	-24.01	-27.99	-27.79	-32.16	-29.90	-36.72
15 MHz	2503.500	BPSK	Full RB	-25.47	-32.95	-31.95	-33.94	-35.76	-33.72	-41.66
20 MHz	2506.020	BPSK	Full RB	-26.41	-29.15	-31.18	-29.50	-34.58	-32.17	-39.71
30 MHz	2511.000	BPSK	Full RB	-27.81	-35.20	-33.62	-35.22	-35.84	-31.42	-44.55
40 MHz	2516.010	BPSK	Full RB	-27.84	-32.42	-32.14	-31.51	-31.03	-31.51	-42.27
50 MHz	2521.020	BPSK	Full RB	-27.63	-29.52	-33.27	-31.94	-37.63	-32.37	-47.64
60 MHz	2526.000	BPSK	Full RB	-21.42	-21.16	-35.09	-33.08	-35.89	-31.14	-44.54
70 MHz	2531.010	BPSK	Full RB	-26.75	-33.14	-35.61	-33.53	-37.71	-33.32	-48.47
80 MHz	2536.020	BPSK	Full RB	-28.52	-30.53	-35.92	-32.08	-36.29	-30.51	-46.06
90 MHz	2541.000	BPSK	Full RB	-25.82	-32.74	-36.44	-33.23	-37.60	-31.82	-48.26
100 MHz	2546.010	BPSK	Full RB	-24.37	-34.02	-36.24	-34.01	-36.48	-31.53	-44.92
Limit (dBm)				-13.00	-10.00	-13.00	-10.00	-25.00	-13.0 0	-25.00

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resoure Block Offset	C.E ~ (C.E $\pm$ 1 MHz)		(C.E $\pm$ 1 MHz) ~ (C.E $\pm$ 5 MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-25.76	-26.31	-30.96	-31.69
	2685.000	BPSK	Full RB	0	-22.97	-26.16	-29.95	-31.83
15 MHz	2592.990	BPSK	Full RB	0	-25.01	-34.72	-30.20	-33.86
	2682.480	BPSK	Full RB	0	-25.20	-34.39	-31.31	-36.23
20 MHz	2592.990	BPSK	Full RB	0	-27.12	-31.25	-31.48	-33.03
	2679.990	BPSK	Full RB	0	-26.33	-32.65	-31.52	-35.54
30 MHz	2592.990	BPSK	Full RB	0	-26.07	-32.73	-30.35	-33.22
	2679.990	BPSK	Full RB	0	-27.52	-34.93	-30.99	-36.49
40 MHz	2592.990	BPSK	Full RB	0	-25.96	-34.73	-30.60	-34.63
	2670.000	BPSK	Full RB	0	-25.63	-34.25	-29.23	-33.92
50 MHz	2592.990	BPSK	Full RB	0	-27.06	-32.36	-30.26	-34.00
	2664.990	BPSK	Full RB	0	-26.40	-32.29	-31.86	-34.19
60 MHz	2592.990	BPSK	Full RB	0	-19.71	-22.03	-30.08	-30.71
	2659.980	BPSK	Full RB	0	-19.67	-22.10	-31.40	-34.08
70 MHz	2592.990	BPSK	Full RB	0	-26.68	-33.91	-33.21	-34.92
	2655.000	BPSK	Full RB	0	-26.52	-34.52	-32.86	-34.51
80 MHz	2592.990	BPSK	Full RB	0	-25.12	-30.89	-33.07	-32.11
	2649.990	BPSK	Full RB	0	-25.58	-32.09	-32.80	-34.45
90 MHz	2592.990	BPSK	Full RB	0	-23.79	-31.63	-34.06	-33.68
	2644.980	BPSK	Full RB	0	-25.08	-32.36	-34.19	-32.76
100 MHz	2592.990	BPSK	Full RB	0	-23.10	-32.09	-34.26	-32.53
	2640.000	BPSK	Full RB	0	-23.38	-32.83	-34.31	-32.60
Limit (dBm)					-10.00		-10.00	

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	(C.E $\pm$ 5 MHz) ~ (C.E $\pm$ X MHz)		Above (C.E $\pm$ X MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-32.83	-33.21	-44.89	-45.65
	2685.000	BPSK	Full RB	0	-32.05	-34.73	-43.23	-43.46
15 MHz	2592.990	BPSK	Full RB	0	-31.04	-32.94	-45.06	-46.22
	2682.480	BPSK	Full RB	0	-31.75	-34.85	-45.87	-44.11
20 MHz	2592.990	BPSK	Full RB	0	-29.65	-32.02	-42.05	-41.21
	2679.990	BPSK	Full RB	0	-31.82	-33.76	-44.27	-47.55
30 MHz	2592.990	BPSK	Full RB	0	-30.37	-31.16	-46.48	-45.94
	2679.990	BPSK	Full RB	0	-32.09	-34.29	-48.69	-51.54
40 MHz	2592.990	BPSK	Full RB	0	-31.64	-32.47	-49.66	-50.99
	2670.000	BPSK	Full RB	0	-30.01	-32.22	-45.48	-49.17
50 MHz	2592.990	BPSK	Full RB	0	-32.16	-32.07	-51.14	-50.28
	2664.990	BPSK	Full RB	0	-33.13	-34.29	-49.66	-54.96
60 MHz	2592.990	BPSK	Full RB	0	-29.88	-28.57	-48.01	-47.58
	2659.980	BPSK	Full RB	0	-32.00	-33.27	-48.71	-54.32
70 MHz	2592.990	BPSK	Full RB	0	-34.30	-34.04	-55.45	-53.58
	2655.000	BPSK	Full RB	0	-31.82	-33.56	-46.22	-58.49
80 MHz	2592.990	BPSK	Full RB	0	-32.42	-32.00	-58.03	-49.28
	2649.990	BPSK	Full RB	0	-31.76	-33.56	-47.35	-58.77
90 MHz	2592.990	BPSK	Full RB	0	-34.73	-33.90	-58.61	-54.38
	2644.980	BPSK	Full RB	0	-34.06	-32.58	-51.81	-58.69
100 MHz	2592.990	BPSK	Full RB	0	-35.07	-32.91	-58.75	-55.62
	2640.000	BPSK	Full RB	0	-33.73	-31.59	-49.00	-58.55
Limit (dBm)					-13.00		-25.00	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth
3. 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) = 6.99
4. Plots of the EUT's Channel Edge are shown Page 289 ~ 356. (1RB & Full RB)

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

■ BandWidth:	<u>10 MHz</u>
■ Voltage(100 %):	<u>3.880 VDC</u>
■ Batt. Endpoint:	<u>3.300 VDC</u>
■ LIMIT:	<u>Emission must remain in band</u>

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2501.010	100 %	+20(Ref)	2501 009 998	0.0	0.000 000	0.000
	100 %	-30	2501 009 995	-3.1	0.000 000	-0.001
	100 %	-20	2501 009 998	0.0	0.000 000	0.000
	100 %	-10	2501 009 995	-3.3	0.000 000	-0.001
	100 %	0	2501 009 997	-1.6	0.000 000	-0.001
	100 %	+10	2501 010 001	3.1	0.000 000	0.001
	100 %	+30	2501 009 996	-1.8	0.000 000	-0.001
	100 %	+40	2501 009 996	-2.2	0.000 000	-0.001
	100 %	+50	2501 009 998	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	2501 009 998	-0.1	0.000 000	0.000
2685.000	100 %	+20(Ref)	2684 999 998	0.0	0.000 000	0.000
	100 %	-30	2684 999 996	-1.7	0.000 000	-0.001
	100 %	-20	2684 999 995	-2.6	0.000 000	-0.001
	100 %	-10	2684 999 994	-3.8	0.000 000	-0.001
	100 %	0	2684 999 995	-3.1	0.000 000	-0.001
	100 %	+10	2684 999 995	-2.5	0.000 000	-0.001
	100 %	+30	2684 999 995	-2.4	0.000 000	-0.001
	100 %	+40	2684 999 996	-1.9	0.000 000	-0.001
	100 %	+50	2684 999 995	-3.0	0.000 000	-0.001
	Batt. Endpoint	+20	2684 999 994	-4.0	0.000 000	-0.001

■ BandWidth:	<u>15 MHz</u>
■ Voltage(100 %):	<u>3.880 VDC</u>
■ Batt. Endpoint:	<u>3.300 VDC</u>
■ LIMIT:	<u>Emission must remain in band</u>

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2503.500	100 %	+20(Ref)	2503 499 998	0.0	0.000 000	0.000
	100 %	-30	2503 499 997	-0.6	0.000 000	0.000
	100 %	-20	2503 499 998	0.4	0.000 000	0.000
	100 %	-10	2503 499 995	-3.2	0.000 000	-0.001
	100 %	0	2503 499 991	-7.3	0.000 000	-0.003
	100 %	+10	2503 500 001	3.0	0.000 000	0.001
	100 %	+30	2503 499 996	-1.4	0.000 000	-0.001
	100 %	+40	2503 499 996	-1.7	0.000 000	-0.001
	100 %	+50	2503 499 995	-2.5	0.000 000	-0.001
	Batt. Endpoint	+20	2503 499 996	-2.2	0.000 000	-0.001
2682.480	100 %	+20(Ref)	2682 479 995	0.0	0.000 000	0.000
	100 %	-30	2682 479 991	-4.1	0.000 000	-0.002
	100 %	-20	2682 479 991	-4.0	0.000 000	-0.001
	100 %	-10	2682 479 990	-5.4	0.000 000	-0.002
	100 %	0	2682 479 995	0.3	0.000 000	0.000
	100 %	+10	2682 479 988	-6.6	0.000 000	-0.002
	100 %	+30	2682 479 991	-3.9	0.000 000	-0.001
	100 %	+40	2682 479 991	-4.4	0.000 000	-0.002
	100 %	+50	2682 479 988	-7.4	0.000 000	-0.003
	Batt. Endpoint	+20	2682 479 991	-4.4	0.000 000	-0.002

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2506.020	100 %	+20(Ref)	2506 020 000	0.0	0.000 000	0.000
	100 %	-30	2506 019 999	-0.9	0.000 000	0.000
	100 %	-20	2506 020 001	1.5	0.000 000	0.001
	100 %	-10	2506 019 999	-0.9	0.000 000	0.000
	100 %	0	2506 020 000	0.2	0.000 000	0.000
	100 %	+10	2506 020 000	0.1	0.000 000	0.000
	100 %	+30	2506 020 003	3.6	0.000 000	0.001
	100 %	+40	2506 020 000	0.1	0.000 000	0.000
	100 %	+50	2506 019 998	-1.4	0.000 000	-0.001
	Batt. Endpoint	+20	2506 019 999	-0.7	0.000 000	0.000
2679.990	100 %	+20(Ref)	2679 989 994	0.0	0.000 000	0.000
	100 %	-30	2679 989 992	-1.2	0.000 000	0.000
	100 %	-20	2679 989 989	-4.5	0.000 000	-0.002
	100 %	-10	2679 989 991	-2.6	0.000 000	-0.001
	100 %	0	2679 989 988	-5.3	0.000 000	-0.002
	100 %	+10	2679 989 989	-4.2	0.000 000	-0.002
	100 %	+30	2679 989 988	-5.1	0.000 000	-0.002
	100 %	+40	2679 989 990	-3.4	0.000 000	-0.001
	100 %	+50	2679 989 983	-10.3	0.000 000	-0.004
	Batt. Endpoint	+20	2679 989 985	-8.0	0.000 000	-0.003

■ BandWidth: 30 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2511.000	100 %	+20(Ref)	2510 999 998	0.0	0.000 000	0.000
	100 %	-30	2510 999 997	-1.2	0.000 000	0.000
	100 %	-20	2510 999 997	-0.7	0.000 000	0.000
	100 %	-10	2510 999 998	0.0	0.000 000	0.000
	100 %	0	2510 999 998	-0.3	0.000 000	0.000
	100 %	+10	2510 999 997	-0.6	0.000 000	0.000
	100 %	+30	2510 999 996	-1.6	0.000 000	-0.001
	100 %	+40	2510 999 998	0.5	0.000 000	0.000
	100 %	+50	2510 999 997	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	2510 999 999	1.2	0.000 000	0.000
2674.980	100 %	+20(Ref)	2674 979 997	0.0	0.000 000	0.000
	100 %	-30	2674 979 993	-3.7	0.000 000	-0.001
	100 %	-20	2674 979 994	-3.1	0.000 000	-0.001
	100 %	-10	2674 979 991	-6.1	0.000 000	-0.002
	100 %	0	2674 979 994	-3.1	0.000 000	-0.001
	100 %	+10	2674 979 993	-3.6	0.000 000	-0.001
	100 %	+30	2674 979 996	-1.3	0.000 000	0.000
	100 %	+40	2674 979 997	-0.3	0.000 000	0.000
	100 %	+50	2674 979 993	-3.7	0.000 000	-0.001
	Batt. Endpoint	+20	2674 979 991	-5.9	0.000 000	-0.002

■ BandWidth: 40MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2516.010	100 %	+20(Ref)	2516 009 997	0.0	0.000 000	0.000
	100 %	-30	2516 009 995	-2.1	0.000 000	-0.001
	100 %	-20	2516 009 999	1.2	0.000 000	0.000
	100 %	-10	2516 009 996	-1.8	0.000 000	-0.001
	100 %	0	2516 009 995	-2.2	0.000 000	-0.001
	100 %	+10	2516 009 996	-1.3	0.000 000	-0.001
	100 %	+30	2516 009 996	-1.0	0.000 000	0.000
	100 %	+40	2516 009 998	0.7	0.000 000	0.000
	100 %	+50	2516 009 994	-3.4	0.000 000	-0.001
	Batt. Endpoint	+20	2516 010 000	2.5	0.000 000	0.001
2670.000	100 %	+20(Ref)	2669 999 997	0.0	0.000 000	0.000
	100 %	-30	2669 999 993	-3.9	0.000 000	-0.001
	100 %	-20	2669 999 994	-2.6	0.000 000	-0.001
	100 %	-10	2669 999 998	0.6	0.000 000	0.000
	100 %	0	2669 999 993	-3.5	0.000 000	-0.001
	100 %	+10	2669 999 993	-3.7	0.000 000	-0.001
	100 %	+30	2669 999 996	-1.3	0.000 000	0.000
	100 %	+40	2669 999 993	-4.1	0.000 000	-0.002
	100 %	+50	2669 999 992	-4.5	0.000 000	-0.002
	Batt. Endpoint	+20	2669 999 996	-0.7	0.000 000	0.000

■ BandWidth:	<u>50 MHz</u>
■ Voltage(100 %):	<u>3.880 VDC</u>
■ Batt. Endpoint:	<u>3.300 VDC</u>
■ LIMIT:	<u>Emission must remain in band</u>

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2521.020	100 %	+20(Ref)	2521 019 999	0.0	0.000 000	0.000
	100 %	-30	2521 020 000	0.7	0.000 000	0.000
	100 %	-20	2521 020 002	2.2	0.000 000	0.001
	100 %	-10	2521 020 001	1.6	0.000 000	0.001
	100 %	0	2521 019 999	-0.5	0.000 000	0.000
	100 %	+10	2521 020 001	1.7	0.000 000	0.001
	100 %	+30	2521 019 998	-1.4	0.000 000	-0.001
	100 %	+40	2521 019 998	-1.7	0.000 000	-0.001
	100 %	+50	2521 019 999	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	2521 020 001	1.5	0.000 000	0.001
2664.990	100 %	+20(Ref)	2664 989 998	0.0	0.000 000	0.000
	100 %	-30	2664 989 995	-3.1	0.000 000	-0.001
	100 %	-20	2664 989 996	-2.8	0.000 000	-0.001
	100 %	-10	2664 989 998	-0.2	0.000 000	0.000
	100 %	0	2664 989 997	-1.2	0.000 000	0.000
	100 %	+10	2664 989 994	-4.4	0.000 000	-0.002
	100 %	+30	2664 989 995	-3.7	0.000 000	-0.001
	100 %	+40	2664 989 997	-1.6	0.000 000	-0.001
	100 %	+50	2664 989 996	-2.6	0.000 000	-0.001
	Batt. Endpoint	+20	2664 989 996	-2.3	0.000 000	-0.001

■ BandWidth: 60 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2526.000	100 %	+20(Ref)	2525 999 998	0.0	0.000 000	0.000
	100 %	-30	2525 999 998	-0.7	0.000 000	0.000
	100 %	-20	2525 999 998	-0.2	0.000 000	0.000
	100 %	-10	2525 999 995	-3.4	0.000 000	-0.001
	100 %	0	2525 999 997	-1.3	0.000 000	-0.001
	100 %	+10	2525 999 998	-0.7	0.000 000	0.000
	100 %	+30	2525 999 998	-0.6	0.000 000	0.000
	100 %	+40	2525 999 997	-1.3	0.000 000	0.000
	100 %	+50	2525 999 998	-0.4	0.000 000	0.000
	Batt. Endpoint	+20	2525 999 998	-0.4	0.000 000	0.000
2659.980	100 %	+20(Ref)	2659 979 994	0.0	0.000 000	0.000
	100 %	-30	2659 979 992	-2.1	0.000 000	-0.001
	100 %	-20	2659 979 990	-3.8	0.000 000	-0.001
	100 %	-10	2659 979 989	-4.8	0.000 000	-0.002
	100 %	0	2659 979 990	-4.0	0.000 000	-0.002
	100 %	+10	2659 979 989	-5.5	0.000 000	-0.002
	100 %	+30	2659 979 991	-3.2	0.000 000	-0.001
	100 %	+40	2659 979 991	-2.9	0.000 000	-0.001
	100 %	+50	2659 979 991	-3.0	0.000 000	-0.001
	Batt. Endpoint	+20	2659 979 987	-6.6	0.000 000	-0.002

■ BandWidth: 70 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2531.010	100 %	+20(Ref)	2531 010 000	0.0	0.000 000	0.000
	100 %	-30	2531 009 999	-0.8	0.000 000	0.000
	100 %	-20	2531 009 998	-1.7	0.000 000	-0.001
	100 %	-10	2531 009 999	-0.4	0.000 000	0.000
	100 %	0	2531 010 003	3.6	0.000 000	0.001
	100 %	+10	2531 009 998	-2.0	0.000 000	-0.001
	100 %	+30	2531 009 995	-4.6	0.000 000	-0.002
	100 %	+40	2531 009 999	-0.5	0.000 000	0.000
	100 %	+50	2531 010 001	1.5	0.000 000	0.001
	Batt. Endpoint	+20	2531 009 997	-2.5	0.000 000	-0.001
2655.000	100 %	+20(Ref)	2654 999 997	0.0	0.000 000	0.000
	100 %	-30	2654 999 994	-3.0	0.000 000	-0.001
	100 %	-20	2654 999 995	-2.0	0.000 000	-0.001
	100 %	-10	2654 999 995	-2.5	0.000 000	-0.001
	100 %	0	2654 999 996	-1.1	0.000 000	0.000
	100 %	+10	2654 999 995	-2.8	0.000 000	-0.001
	100 %	+30	2654 999 996	-1.7	0.000 000	-0.001
	100 %	+40	2654 999 991	-6.2	0.000 000	-0.002
	100 %	+50	2654 999 995	-2.0	0.000 000	-0.001
	Batt. Endpoint	+20	2654 999 997	-0.8	0.000 000	0.000

■ BandWidth: 80 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2536.020	100 %	+20(Ref)	2536 020 000	0.0	0.000 000	0.000
	100 %	-30	2536 020 000	0.0	0.000 000	0.000
	100 %	-20	2536 019 997	-3.3	0.000 000	-0.001
	100 %	-10	2536 020 000	0.0	0.000 000	0.000
	100 %	0	2536 020 001	1.4	0.000 000	0.001
	100 %	+10	2536 020 001	1.4	0.000 000	0.001
	100 %	+30	2536 019 999	-1.2	0.000 000	0.000
	100 %	+40	2536 020 001	1.2	0.000 000	0.000
	100 %	+50	2536 020 004	3.7	0.000 000	0.001
	Batt. Endpoint	+20	2536 020 004	3.7	0.000 000	0.001
2649.990	100 %	+20(Ref)	2649 989 996	0.0	0.000 000	0.000
	100 %	-30	2649 989 990	-6.1	0.000 000	-0.002
	100 %	-20	2649 989 991	-5.5	0.000 000	-0.002
	100 %	-10	2649 989 993	-2.8	0.000 000	-0.001
	100 %	0	2649 989 993	-2.8	0.000 000	-0.001
	100 %	+10	2649 989 989	-7.1	0.000 000	-0.003
	100 %	+30	2649 989 991	-5.6	0.000 000	-0.002
	100 %	+40	2649 989 991	-5.6	0.000 000	-0.002
	100 %	+50	2649 989 994	-2.4	0.000 000	-0.001
	Batt. Endpoint	+20	2649 989 989	-7.6	0.000 000	-0.003

■ BandWidth: 90 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2541.000	100 %	+20(Ref)	2540 999 996	0.0	0.000 000	0.000
	100 %	-30	2540 999 993	-3.6	0.000 000	-0.001
	100 %	-20	2540 999 993	-3.6	0.000 000	-0.001
	100 %	-10	2540 999 993	-3.4	0.000 000	-0.001
	100 %	0	2540 999 996	-0.1	0.000 000	0.000
	100 %	+10	2540 999 994	-2.2	0.000 000	-0.001
	100 %	+30	2540 999 995	-1.5	0.000 000	-0.001
	100 %	+40	2540 999 996	-0.4	0.000 000	0.000
	100 %	+50	2540 999 995	-1.0	0.000 000	0.000
	Batt. Endpoint	+20	2540 999 995	-1.5	0.000 000	-0.001
2644.980	100 %	+20(Ref)	2644 979 995	0.0	0.000 000	0.000
	100 %	-30	2644 979 991	-4.6	0.000 000	-0.002
	100 %	-20	2644 979 993	-2.5	0.000 000	-0.001
	100 %	-10	2644 979 991	-4.6	0.000 000	-0.002
	100 %	0	2644 979 992	-3.6	0.000 000	-0.001
	100 %	+10	2644 979 989	-6.4	0.000 000	-0.002
	100 %	+30	2644 979 987	-8.4	0.000 000	-0.003
	100 %	+40	2644 979 991	-4.4	0.000 000	-0.002
	100 %	+50	2644 979 991	-4.4	0.000 000	-0.002
	Batt. Endpoint	+20	2644 979 993	-2.6	0.000 000	-0.001

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2546.010	100 %	+20(Ref)	2546 009 995	0.0	0.000 000	0.000
	100 %	-30	2546 009 990	-5.2	0.000 000	-0.002
	100 %	-20	2546 009 997	1.7	0.000 000	0.001
	100 %	-10	2546 009 992	-3.1	0.000 000	-0.001
	100 %	0	2546 009 996	0.9	0.000 000	0.000
	100 %	+10	2546 009 993	-2.3	0.000 000	-0.001
	100 %	+30	2546 009 994	-1.2	0.000 000	0.000
	100 %	+40	2546 009 992	-3.2	0.000 000	-0.001
	100 %	+50	2546 009 992	-3.2	0.000 000	-0.001
	Batt. Endpoint	+20	2546 009 992	-2.4	0.000 000	-0.001
2640.000	100 %	+20(Ref)	2639 999 999	0.0	0.000 000	0.000
	100 %	-30	2639 999 994	-4.8	0.000 000	-0.002
	100 %	-20	2639 999 996	-2.9	0.000 000	-0.001
	100 %	-10	2639 999 995	-3.6	0.000 000	-0.001
	100 %	0	2639 999 994	-4.7	0.000 000	-0.002
	100 %	+10	2639 999 994	-5.1	0.000 000	-0.002
	100 %	+30	2639 999 996	-2.6	0.000 000	-0.001
	100 %	+40	2639 999 995	-4.0	0.000 000	-0.002
	100 %	+50	2639 999 995	-3.6	0.000 000	-0.001
	Batt. Endpoint	+20	2639 999 995	-3.6	0.000 000	-0.001

9. TEST DATA (Sub2)

9.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)				W	dBm	Size	Offset
2501.010	Sub6 n41 / 10 MHz [30 kHz]	PI/2 BPSK	-20.90	15.90	10.61	2.50	H	< 2.00	0.252	24.01	1	22
		QPSK	-20.92	15.88	10.61	2.50	H		0.251	23.99		
		16-QAM	-21.99	14.81	10.61	2.50	H		0.196	22.92		
		64-QAM	-23.47	13.33	10.61	2.50	H		0.139	21.44		
		256-QAM	-25.71	11.09	10.61	2.50	H		0.083	19.20		
2592.990		PI/2 BPSK	-22.63	14.08	11.00	2.55	H		0.179	22.53	1	1
		QPSK	-22.64	14.07	11.00	2.55	H		0.179	22.52		
		16-QAM	-23.89	12.82	11.00	2.55	H		0.134	21.27		
		64-QAM	-25.27	11.44	11.00	2.55	H		0.098	19.89		
		256-QAM	-27.45	9.26	11.00	2.55	H		0.059	17.71		
2685.000		PI/2 BPSK	-26.25	11.31	10.82	2.61	H		0.090	19.52	1	1
		QPSK	-26.26	11.30	10.82	2.61	H		0.089	19.51		
		16-QAM	-27.51	10.05	10.82	2.61	H		0.067	18.26		
		64-QAM	-28.71	8.85	10.82	2.61	H		0.051	17.06		
		256-QAM	-31.01	6.55	10.82	2.61	H		0.030	14.76		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2503.500		PI/2 BPSK	-20.77	16.09	10.58	2.51	H	< 2.00	0.261	24.16	1	36
		QPSK	-20.78	16.08	10.58	2.51	H		0.260	24.15		
		16-QAM	-21.97	14.89	10.58	2.51	H		0.198	22.96		
		64-QAM	-23.35	13.51	10.58	2.51	H		0.144	21.58		
		256-QAM	-25.52	11.34	10.58	2.51	H		0.087	19.41		
2592.990	Sub6 n41 / 15 MHz [30 kHz]	PI/2 BPSK	-22.39	14.32	11.00	2.55	H	< 2.00	0.189	22.77	1	1
		QPSK	-22.41	14.30	11.00	2.55	H		0.188	22.75		
		16-QAM	-23.57	13.14	11.00	2.55	H		0.144	21.59		
		64-QAM	-25.09	11.62	11.00	2.55	H		0.102	20.07		
		256-QAM	-27.23	9.48	11.00	2.55	H		0.062	17.93		
2682.480		PI/2 BPSK	-25.88	11.79	10.84	2.61	H	< 2.00	0.101	20.02	1	1
		QPSK	-25.90	11.77	10.84	2.61	H		0.100	20.00		
		16-QAM	-27.05	10.62	10.84	2.61	H		0.077	18.85		
		64-QAM	-28.43	9.24	10.84	2.61	H		0.056	17.47		
		256-QAM	-30.65	7.02	10.84	2.61	H		0.034	15.25		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2506.020	Sub6 n41 / 20 MHz [30 kHz]	PI/2 BPSK	-20.54	16.32	10.58	2.51	H	< 2.00	0.275	24.39	1	49
		QPSK	-20.55	16.31	10.58	2.51	H		0.274	24.38		
		16-QAM	-21.63	15.23	10.58	2.51	H		0.214	23.30		
		64-QAM	-23.12	13.74	10.58	2.51	H		0.152	21.81		
		256-QAM	-25.32	11.54	10.58	2.51	H		0.091	19.61		
2592.990		PI/2 BPSK	-22.71	14.00	11.00	2.55	H		0.176	22.45	1	1
		QPSK	-22.72	13.99	11.00	2.55	H		0.175	22.44		
		16-QAM	-23.82	12.89	11.00	2.55	H		0.136	21.34		
		64-QAM	-25.25	11.46	11.00	2.55	H		0.098	19.91		
		256-QAM	-27.46	9.25	11.00	2.55	H		0.059	17.70		
2679.990		PI/2 BPSK	-25.73	11.94	10.84	2.61	H	0.104	20.17	1	1	
		QPSK	-25.80	11.87	10.84	2.61	H	0.102	20.10			
		16-QAM	-26.84	10.83	10.84	2.61	H	0.081	19.06			
		64-QAM	-28.28	9.39	10.84	2.61	H	0.058	17.62			
		256-QAM	-30.58	7.09	10.84	2.61	H	0.034	15.32			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2511.000		PI/2 BPSK	-20.58	16.34	10.55	2.51	H	< 2.00	0.274	24.38	1	76
		QPSK	-20.59	16.33	10.55	2.51	H		0.274	24.37		
		16-QAM	-21.67	15.25	10.55	2.51	H		0.213	23.29		
		64-QAM	-23.15	13.77	10.55	2.51	H		0.152	21.81		
		256-QAM	-25.37	11.55	10.55	2.51	H		0.091	19.59		
2592.990	Sub6 n41 / 30 MHz [30 kHz]	PI/2 BPSK	-22.16	14.55	11.00	2.55	H	< 2.00	0.200	23.00	1	1
		QPSK	-22.17	14.54	11.00	2.55	H		0.199	22.99		
		16-QAM	-23.32	13.39	11.00	2.55	H		0.153	21.84		
		64-QAM	-24.74	11.97	11.00	2.55	H		0.110	20.42		
		256-QAM	-27.01	9.70	11.00	2.55	H		0.065	18.15		
2674.980		PI/2 BPSK	-25.00	12.29	10.85	2.62	H	< 2.00	0.113	20.52	1	1
		QPSK	-25.11	12.18	10.85	2.62	H		0.110	20.41		
		16-QAM	-26.18	11.11	10.85	2.62	H		0.086	19.34		
		64-QAM	-27.68	9.61	10.85	2.62	H		0.061	17.84		
		256-QAM	-29.86	7.43	10.85	2.62	H		0.037	15.66		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
2516.010		PI/2 BPSK	-20.60	16.33	10.52	2.53	H	< 2.00	0.270	24.32	1	53
		QPSK	-20.66	16.27	10.52	2.53	H		0.267	24.26		
		16-QAM	-21.70	15.23	10.52	2.53	H		0.210	23.22		
		64-QAM	-23.08	13.85	10.52	2.53	H		0.153	21.84		
		256-QAM	-25.26	11.67	10.52	2.53	H		0.092	19.66		
2592.990	Sub6 n41 / 40 MHz [30 kHz]	PI/2 BPSK	-22.46	14.25	11.00	2.55	H	< 2.00	0.186	22.70	1	1
		QPSK	-22.50	14.21	11.00	2.55	H		0.185	22.66		
		16-QAM	-23.54	13.17	11.00	2.55	H		0.145	21.62		
		64-QAM	-25.06	11.65	11.00	2.55	H		0.102	20.10		
		256-QAM	-27.23	9.48	11.00	2.55	H		0.062	17.93		
2670.000		PI/2 BPSK	-24.53	12.37	10.87	2.62	H	< 2.00	0.115	20.62	1	1
		QPSK	-24.62	12.28	10.87	2.62	H		0.113	20.53		
		16-QAM	-25.73	11.17	10.87	2.62	H		0.088	19.42		
		64-QAM	-27.17	9.73	10.87	2.62	H		0.063	17.98		
		256-QAM	-29.34	7.56	10.87	2.62	H		0.038	15.81		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2521.020	Sub6 n41 / 50 MHz [30 kHz]	PI/2 BPSK	-20.57	16.36	10.49	2.54	H	< 2.00	0.270	24.31	1	66
		QPSK	-20.58	16.35	10.49	2.54	H		0.269	24.30		
		16-QAM	-21.59	15.34	10.49	2.54	H		0.213	23.29		
		64-QAM	-23.03	13.90	10.49	2.54	H		0.153	21.85		
		256-QAM	-25.23	11.70	10.49	2.54	H		0.092	19.65		
2592.990		PI/2 BPSK	-22.27	14.44	11.00	2.55	H		0.195	22.89	1	1
		QPSK	-22.28	14.43	11.00	2.55	H		0.194	22.88		
		16-QAM	-23.39	13.32	11.00	2.55	H		0.150	21.77		
		64-QAM	-24.85	11.86	11.00	2.55	H		0.107	20.31		
		256-QAM	-27.10	9.61	11.00	2.55	H		0.064	18.06		
2664.990		PI/2 BPSK	-24.11	12.84	10.88	2.64	H	0.128	21.08	1	1	
		QPSK	-24.25	12.70	10.88	2.64	H	0.124	20.94			
		16-QAM	-25.31	11.64	10.88	2.64	H	0.097	19.88			
		64-QAM	-26.73	10.22	10.88	2.64	H	0.070	18.46			
		256-QAM	-28.89	8.06	10.88	2.64	H	0.043	16.30			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2526.000	Sub6 41/ 60 MHz [30 kHz]	PI/2 BPSK	-20.86	15.77	10.52	2.54	H	< 2.00	0.237	23.75	1	81
		QPSK	-20.87	15.76	10.52	2.54	H		0.237	23.74		
		16-QAM	-21.86	14.77	10.52	2.54	H		0.188	22.75		
		64-QAM	-23.30	13.33	10.52	2.54	H		0.135	21.31		
		256-QAM	-25.51	11.12	10.52	2.54	H		0.081	19.10		
2592.990		PI/2 BPSK	-22.02	14.69	11.00	2.55	H		0.206	23.14	1	1
		QPSK	-22.04	14.67	11.00	2.55	H		0.205	23.12		
		16-QAM	-23.21	13.50	11.00	2.55	H		0.157	21.95		
		64-QAM	-24.64	12.07	11.00	2.55	H		0.113	20.52		
		256-QAM	-26.85	9.86	11.00	2.55	H		0.068	18.31		
2659.980		PI/2 BPSK	-23.93	13.08	10.90	2.67	H		0.135	21.31	1	1
		QPSK	-23.96	13.05	10.90	2.67	H		0.134	21.28		
		16-QAM	-25.12	11.89	10.90	2.67	H		0.103	20.12		
		64-QAM	-26.52	10.49	10.90	2.67	H		0.075	18.72		
		256-QAM	-28.75	8.26	10.90	2.67	H		0.045	16.49		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2531.010	Sub6 41/ 70 MHz [30 kHz]	PI/2 BPSK	-21.03	15.30	10.56	2.54	H	< 2.00	0.215	23.32	1	94
		QPSK	-21.11	15.22	10.56	2.54	H		0.211	23.24		
		16-QAM	-22.07	14.26	10.56	2.54	H		0.169	22.28		
		64-QAM	-23.52	12.81	10.56	2.54	H		0.121	20.83		
		256-QAM	-25.71	10.62	10.56	2.54	H		0.073	18.64		
2592.990		PI/2 BPSK	-22.14	14.57	11.00	2.55	H		0.200	23.02	1	1
		QPSK	-22.18	14.53	11.00	2.55	H		0.199	22.98		
		16-QAM	-23.12	13.59	11.00	2.55	H		0.160	22.04		
		64-QAM	-24.63	12.08	11.00	2.55	H		0.113	20.53		
		256-QAM	-26.80	9.91	11.00	2.55	H		0.069	18.36		
2655.000		PI/2 BPSK	-23.52	13.39	10.91	2.68	H	0.145	21.62	1	1	
		QPSK	-23.56	13.35	10.91	2.68	H	0.144	21.58			
		16-QAM	-24.61	12.30	10.91	2.68	H	0.113	20.53			
		64-QAM	-26.00	10.91	10.91	2.68	H	0.082	19.14			
		256-QAM	-28.14	8.77	10.91	2.68	H	0.050	17.00			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2536.020	Sub6 41/ 80 MHz [30 kHz]	PI/2 BPSK	-21.01	15.45	10.59	2.54	H	< 2.00	0.224	23.50	1	108
		QPSK	-21.03	15.43	10.59	2.54	H		0.223	23.48		
		16-QAM	-22.03	14.43	10.59	2.54	H		0.177	22.48		
		64-QAM	-23.49	12.97	10.59	2.54	H		0.126	21.02		
		256-QAM	-25.69	10.77	10.59	2.54	H		0.076	18.82		
2592.990		PI/2 BPSK	-21.98	14.73	11.00	2.55	H		0.208	23.18	1	1
		QPSK	-22.00	14.71	11.00	2.55	H		0.207	23.16		
		16-QAM	-23.07	13.64	11.00	2.55	H		0.162	22.09		
		64-QAM	-24.51	12.20	11.00	2.55	H		0.116	20.65		
		256-QAM	-26.75	9.96	11.00	2.55	H		0.069	18.41		
2649.990		PI/2 BPSK	-23.28	13.51	10.93	2.69	H		0.150	21.75	1	1
		QPSK	-23.29	13.50	10.93	2.69	H		0.149	21.74		
		16-QAM	-24.37	12.42	10.93	2.69	H		0.116	20.66		
		64-QAM	-25.91	10.88	10.93	2.69	H		0.082	19.12		
		256-QAM	-28.18	8.61	10.93	2.69	H		0.048	16.85		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2541.000	Sub6 41/ 90 MHz [30 kHz]	PI/2 BPSK	-21.08	15.50	10.62	2.53	H	< 2.00	0.229	23.59	1	122
		QPSK	-21.09	15.49	10.62	2.53	H		0.228	23.58		
		16-QAM	-22.19	14.39	10.62	2.53	H		0.177	22.48		
		64-QAM	-23.67	12.91	10.62	2.53	H		0.126	21.00		
		256-QAM	-25.86	10.72	10.62	2.53	H		0.076	18.81		
2592.990		PI/2 BPSK	-21.33	15.38	11.00	2.55	H		0.242	23.83	1	1
		QPSK	-21.34	15.37	11.00	2.55	H		0.241	23.82		
		16-QAM	-22.46	14.25	11.00	2.55	H		0.186	22.70		
		64-QAM	-23.87	12.84	11.00	2.55	H		0.135	21.29		
		256-QAM	-26.07	10.64	11.00	2.55	H		0.081	19.09		
2644.980		PI/2 BPSK	-23.43	13.68	10.95	2.68	H	0.157	21.95	1	1	
		QPSK	-23.53	13.58	10.95	2.68	H	0.153	21.85			
		16-QAM	-24.49	12.62	10.95	2.68	H	0.123	20.89			
		64-QAM	-26.05	11.06	10.95	2.68	H	0.086	19.33			
		256-QAM	-28.20	8.91	10.95	2.68	H	0.052	17.18			

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2546.010	Sub6 41/ 100 MHz [30 kHz]	PI/2 BPSK	-21.61	14.94	10.66	2.53	H	< 2.00	0.203	23.07	1	136
		QPSK	-21.63	14.92	10.66	2.53	H		0.202	23.05		
		16-QAM	-22.76	13.79	10.66	2.53	H		0.156	21.92		
		64-QAM	-24.19	12.36	10.66	2.53	H		0.112	20.49		
		256-QAM	-26.26	10.29	10.66	2.53	H		0.070	18.42		
2592.990		PI/2 BPSK	-21.39	15.32	11.00	2.55	H		0.238	23.77	1	1
		QPSK	-21.42	15.29	11.00	2.55	H		0.237	23.74		
		16-QAM	-22.49	14.22	11.00	2.55	H		0.185	22.67		
		64-QAM	-23.85	12.86	11.00	2.55	H		0.135	21.31		
		256-QAM	-26.04	10.67	11.00	2.55	H		0.082	19.12		
2640.000		PI/2 BPSK	-23.74	13.70	10.96	2.68	H	0.158	21.98	1	1	
		QPSK	-23.82	13.62	10.96	2.68	H	0.155	21.90			
		16-QAM	-24.84	12.60	10.96	2.68	H	0.123	20.88			
		64-QAM	-26.31	11.13	10.96	2.68	H	0.087	19.41			
		256-QAM	-28.45	8.99	10.96	2.68	H	0.053	17.27			

9.2 RADIATED SPURIOUS EMISSIONS

■ NR Band:	<u>n41</u>
■ Bandwidth:	<u>10 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meter</u>
■ SCS:	<u>30kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500202 (2501.010)	5 002.02	-62.77	11.22	-64.48	3.71	H	-56.97	-25.00	1	22
	7 503.03	-62.98	11.54	-55.55	4.60	H	-48.61	-25.00		
	10 004.04	-61.44	11.47	-52.04	5.47	H	-46.04	-25.00		
518598 (2592.990)	5 185.98	-62.43	11.61	-63.60	3.80	H	-55.79	-25.00	1	1
	7 778.97	-64.06	11.26	-56.99	4.70	H	-50.43	-25.00		
	10 371.96	-63.65	11.68	-52.56	5.55	H	-46.43	-25.00		
537000 (2685.000)	5 370.00	-63.25	11.96	-64.88	3.92	H	-56.84	-25.00	1	1
	8 055.00	-62.77	11.24	-55.49	4.81	H	-49.06	-25.00		
	10 740.00	-64.24	11.55	-52.22	5.64	H	-46.31	-25.00		

☐ NR Band: n41
☐ Bandwidth: 15 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500700 (2503.500)	5 007.00	-62.82	11.20	-64.25	3.71	H	-56.76	-25.00	1	36
	7 510.50	-63.00	11.55	-55.46	4.60	H	-48.51	-25.00		
	10 014.00	-61.46	11.46	-52.07	5.47	H	-46.08	-25.00		
518598 (2592.990)	5 185.98	-62.39	11.61	-63.56	3.80	H	-55.75	-25.00	1	1
	7 778.97	-64.06	11.26	-56.99	4.70	H	-50.43	-25.00		
	10 371.96	-63.62	11.68	-52.53	5.55	H	-46.40	-25.00		
536496 (2682.480)	5 364.96	-63.30	11.95	-64.82	3.91	H	-56.78	-25.00	1	1
	8 047.44	-62.81	11.23	-55.59	4.81	H	-49.17	-25.00		
	10 729.92	-64.21	11.56	-52.14	5.65	H	-46.23	-25.00		

☐ NR Band: n41
☐ Bandwidth: 20 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
501204 (2506.020)	5 012.04	-62.83	11.18	-63.97	3.72	H	-56.51	-25.00	1	49
	7 518.06	-63.02	11.56	-55.38	4.61	H	-48.43	-25.00		
	10 024.08	-61.39	11.46	-52.04	5.47	H	-46.05	-25.00		
518598 (2592.990)	5 185.98	-62.37	11.61	-63.54	3.80	H	-55.73	-25.00	1	1
	7 778.97	-64.06	11.26	-56.99	4.70	H	-50.43	-25.00		
	10 371.96	-63.65	11.68	-52.56	5.55	H	-46.43	-25.00		
535998 (2679.990)	5 359.98	-63.23	11.95	-64.66	3.90	H	-56.61	-25.00	1	1
	8 039.97	-62.75	11.22	-55.44	4.80	H	-49.02	-25.00		
	10 719.96	-64.17	11.56	-52.52	5.64	H	-46.60	-25.00		

☐ NR Band: n41
☐ Bandwidth: 30 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502200 (2511.000)	5 022.00	-62.75	11.17	-63.45	3.69	H	-55.97	-25.00	1	76
	7 533.00	-62.97	11.57	-55.37	4.61	H	-48.41	-25.00		
	10 044.00	-61.38	11.44	-52.06	5.48	H	-46.10	-25.00		
518598 (2592.990)	5 185.98	-62.45	11.61	-63.62	3.80	H	-55.81	-25.00	1	1
	7 778.97	-64.04	11.26	-56.97	4.70	H	-50.41	-25.00		
	10 371.96	-63.64	11.68	-52.55	5.55	H	-46.42	-25.00		
534996 (2674.980)	5 349.96	-63.24	11.94	-64.93	3.85	H	-56.84	-25.00	1	1
	8 024.94	-62.81	11.20	-55.56	4.79	H	-49.15	-25.00		
	10 699.92	-64.19	11.57	-52.19	5.67	H	-46.29	-25.00		

☐ NR Band: n41
☐ Bandwidth: 40 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
503202 (2516.010)	5 032.02	-62.81	11.19	-63.65	3.67	H	-56.13	-25.00	1	53
	7 548.03	-62.96	11.59	-55.59	4.63	H	-48.63	-25.00		
	10 064.04	-61.47	11.42	-52.25	5.47	H	-46.30	-25.00		
518598 (2592.990)	5 185.98	-62.41	11.61	-63.58	3.80	H	-55.77	-25.00	1	1
	7 778.97	-64.04	11.26	-56.97	4.70	H	-50.41	-25.00		
	10 371.96	-63.58	11.68	-52.49	5.55	H	-46.36	-25.00		
534000 (2670.000)	5 340.00	-63.29	11.93	-65.27	3.80	H	-57.14	-25.00	1	1
	8 010.00	-62.83	11.17	-55.51	4.77	H	-49.11	-25.00		
	10 680.00	-64.19	11.57	-51.61	5.71	H	-45.75	-25.00		

☐ NR Band: n41
☐ Bandwidth: 50 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
504204 (2521.020)	5 042.04	-62.75	11.20	-63.79	3.68	H	-56.27	-25.00	1	66
	7 563.06	-62.94	11.60	-55.41	4.64	H	-48.45	-25.00		
	10 084.08	-61.45	11.40	-52.22	5.46	H	-46.28	-25.00		
518598 (2592.990)	5 185.98	-62.38	11.61	-63.55	3.80	H	-55.74	-25.00	1	1
	7 778.97	-64.09	11.26	-57.02	4.70	H	-50.46	-25.00		
	10 371.96	-63.67	11.68	-52.58	5.55	H	-46.45	-25.00		
532998 (2664.990)	5 329.98	-63.30	11.92	-65.03	3.77	H	-56.88	-25.00	1	1
	7 994.97	-62.74	11.13	-55.19	4.77	H	-48.83	-25.00		
	10 659.96	-64.17	11.58	-51.77	5.67	H	-45.86	-25.00		

☐ NR Band: n41
☐ Bandwidth: 60 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
505200 (2526.000)	5 052.00	-62.74	11.22	-64.21	3.73	H	-56.72	-25.00	1	81
	7 578.00	-63.01	11.61	-55.35	4.65	H	-48.39	-25.00		
	10 104.00	-61.45	11.39	-51.89	5.46	H	-45.96	-25.00		
518598 (2592.990)	5 185.98	-62.44	11.61	-63.61	3.80	H	-55.80	-25.00	1	1
	7 778.97	-64.06	11.26	-56.99	4.70	H	-50.43	-25.00		
	10 371.96	-63.62	11.68	-52.53	5.55	H	-46.40	-25.00		
531996 (2659.980)	5 319.96	-63.27	11.91	-64.82	3.79	H	-56.70	-25.00	1	1
	7 979.94	-62.79	11.10	-55.09	4.79	H	-48.78	-25.00		
	10 639.92	-64.23	11.58	-51.85	5.61	H	-45.88	-25.00		

☐ NR Band: n41
☐ Bandwidth: 70 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
506202 (2531.010)	5 062.02	-62.74	11.24	-64.11	3.78	H	-56.65	-25.00	1	94
	7 593.03	-62.99	11.62	-55.71	4.64	H	-48.73	-25.00		
	10 124.04	-61.44	11.37	-51.75	5.47	H	-45.85	-25.00		
518598 (2592.990)	5 185.98	-62.38	11.61	-63.55	3.80	H	-55.74	-25.00	1	1
	7 778.97	-64.03	11.26	-56.96	4.70	H	-50.40	-25.00		
	10 371.96	-63.63	11.68	-52.54	5.55	H	-46.41	-25.00		
531000 (2655.000)	5 310.00	-63.22	11.91	-64.33	3.82	H	-56.24	-25.00	1	1
	7 965.00	-62.74	11.07	-54.92	4.80	H	-48.65	-25.00		
	10 620.00	-64.19	11.58	-52.15	5.65	H	-46.22	-25.00		

☐ NR Band: n41
☐ Bandwidth: 80 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
507204 (2536.020)	5 072.04	-62.78	11.25	-63.94	3.80	H	-56.49	-25.00	1	108
	7 608.06	-62.99	11.60	-56.11	4.64	H	-49.15	-25.00		
	10 144.08	-61.47	11.36	-51.86	5.48	H	-45.98	-25.00		
518598 (2592.990)	5 185.98	-62.40	11.61	-63.57	3.80	H	-55.76	-25.00	1	1
	7 778.97	-64.05	11.26	-56.98	4.70	H	-50.42	-25.00		
	10 371.96	-63.64	11.68	-52.55	5.55	H	-46.42	-25.00		
529998 (2649.990)	5 299.98	-63.29	11.90	-64.79	3.83	H	-56.72	-25.00	1	1
	7 949.97	-62.77	11.03	-55.12	4.78	H	-48.87	-25.00		
	10 599.96	-64.19	11.58	-52.90	5.67	H	-46.99	-25.00		

☐ NR Band: n41
☐ Bandwidth: 90 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
508200 (2541.000)	5 082.00	-62.65	11.27	-63.45	3.81	H	-55.99	-25.00	1	122
	7 623.00	-62.96	11.57	-56.02	4.65	H	-49.10	-25.00		
	10 164.00	-61.43	11.34	-51.57	5.50	H	-45.73	-25.00		
518598 (2592.990)	5 185.98	-62.44	11.61	-63.61	3.80	H	-55.80	-25.00	1	1
	7 778.97	-64.03	11.26	-56.96	4.70	H	-50.40	-25.00		
	10 371.96	-63.63	11.68	-52.54	5.55	H	-46.41	-25.00		
528996 (2644.980)	5 289.96	-63.28	11.89	-64.86	3.83	H	-56.80	-25.00	1	1
	7 934.94	-62.74	11.01	-55.36	4.77	H	-49.12	-25.00		
	10 579.92	-64.23	11.62	-53.08	5.65	H	-47.11	-25.00		

☐ NR Band: n41
☐ Bandwidth: 100 MHz
☐ Modulation: PI/2 BPSK
☐ Distance: 1 meter
☐ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
509202 (2546.010)	5 092.02	-62.72	11.29	-63.60	3.78	H	-56.09	-25.00	1	136
	7 638.03	-62.95	11.54	-55.98	4.68	H	-49.12	-25.00		
	10 184.04	-61.46	11.35	-51.42	5.52	H	-45.59	-25.00		
518598 (2592.990)	5 185.98	-62.39	11.61	-63.56	3.80	H	-55.75	-25.00	1	1
	7 778.97	-64.08	11.26	-57.01	4.70	H	-50.45	-25.00		
	10 371.96	-63.64	11.68	-52.55	5.55	H	-46.42	-25.00		
528000 (2640.000)	5 280.00	-63.22	11.88	-65.24	3.80	H	-57.16	-25.00	1	1
	7 920.00	-62.79	11.02	-55.37	4.77	H	-49.12	-25.00		
	10 560.00	-64.22	11.65	-53.28	5.63	H	-47.26	-25.00		

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n41	10 MHz	2592.990	BPSK	24	0	4.54
			QPSK			5.75
			16-QAM			6.62
			64-QAM			6.79
			256-QAM			6.83
	15 MHz		BPSK	36		5.08
			QPSK			5.82
			16-QAM			6.69
			64-QAM			6.89
			256-QAM			6.84
	20 MHz		BPSK	50		4.85
			QPSK			5.93
			16-QAM			6.56
			64-QAM			6.80
			256-QAM			6.87
	30 MHz		BPSK	75		4.61
			QPSK			5.91
			16-QAM			6.68
			64-QAM			6.88
			256-QAM			6.80
	40 MHz		BPSK	100		4.88
			QPSK			6.09
			16-QAM			6.76
			64-QAM			6.86
			256-QAM			6.95
	50 MHz		BPSK	128		4.64
			QPSK			5.95
			16-QAM			6.63
			64-QAM			6.91
			256-QAM			6.89

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n41	60 MHz	2592.990	BPSK	162	0	4.64
			QPSK			5.89
			16-QAM			6.67
			64-QAM			6.86
			256-QAM			6.98
	70 MHz		BPSK	180		4.36
			QPSK			5.99
			16-QAM			6.71
			64-QAM			6.85
			256-QAM			6.89
	80 MHz		BPSK	216		4.96
			QPSK			5.90
			16-QAM			6.67
			64-QAM			6.86
			256-QAM			6.92
	90 MHz		BPSK	243		4.89
			QPSK			5.93
			16-QAM			6.70
			64-QAM			6.87
			256-QAM			6.95
	100 MHz		BPSK	270		4.98
			QPSK			6.00
			16-QAM			6.67
			64-QAM			6.89
			256-QAM			6.96

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 367 ~ 421.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n41	10 MHz	2592.990	BPSK	24	0	8.6197
			QPSK			8.6909
			16-QAM			8.6941
			64-QAM			8.7278
			256-QAM			8.6034
	15 MHz		BPSK	36		13.000
			QPSK			13.017
			16-QAM			12.964
			64-QAM			12.987
			256-QAM			13.001
	20 MHz		BPSK	50		18.007
			QPSK			17.982
			16-QAM			17.974
			64-QAM			17.955
			256-QAM			17.919
	30 MHz		BPSK	75		26.959
			QPSK			27.015
			16-QAM			27.013
			64-QAM			26.938
			256-QAM			27.062
	40 MHz		BPSK	100		35.993
			QPSK			35.993
			16-QAM			35.964
			64-QAM			35.904
			256-QAM			35.971
	50 MHz		BPSK	128		46.009
			QPSK			45.947
			16-QAM			45.932
			64-QAM			45.926
			256-QAM			45.916

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n41	60 MHz	2592.990	BPSK	162	0	58.199
			QPSK			58.196
			16-QAM			58.188
			64-QAM			58.045
			256-QAM			58.269
	70 MHz		BPSK	180		64.929
			QPSK			64.897
			16-QAM			64.698
			64-QAM			64.554
			256-QAM			64.617
	80 MHz		BPSK	216		77.452
			QPSK			77.445
			16-QAM			77.558
			64-QAM			77.488
			256-QAM			77.513
	90 MHz		BPSK	243		87.121
			QPSK			87.140
			16-QAM			87.285
			64-QAM			87.293
			256-QAM			87.116
	100 MHz		BPSK	270		97.003
			QPSK			97.118
			16-QAM			96.837
			64-QAM			96.902
			256-QAM			97.262

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 422 ~ 476.

9.5 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n41	10	2501.010	8.8659	37.805	-80.023	-42.218	-25.00
		2592.990	8.3081	37.805	-80.516	-42.711	
		2685.000	3.7204	37.190	-80.581	-43.391	
	15	2503.500	4.0354	37.190	-80.189	-42.999	
		2592.990	8.2877	37.805	-80.718	-42.913	
		2682.480	8.6072	37.805	-80.877	-43.072	
	20	2506.020	8.9008	37.805	-80.313	-42.508	
		2592.990	9.9447	37.805	-79.843	-42.038	
		2679.990	8.8694	37.805	-80.476	-42.671	
	30	2511.000	8.3006	37.805	-80.703	-42.898	
		2592.990	9.1002	37.805	-79.605	-41.800	
		2674.980	8.2976	37.805	-80.603	-42.798	
	40	2516.010	4.0549	37.190	-80.144	-42.954	
		2592.990	3.8191	37.190	-80.517	-43.327	
		2670.000	8.0374	37.805	-80.264	-42.459	
	50	2521.020	9.7014	37.805	-80.288	-42.483	
		2592.990	4.0589	37.190	-80.730	-43.540	
		2664.990	4.9138	37.190	-80.722	-43.532	
	60	2526.000	3.7977	37.190	-80.642	-43.452	
		2592.990	4.0504	37.190	-79.890	-42.700	
		2659.980	6.0419	37.805	-80.894	-43.089	
	70	2531.010	8.2777	37.805	-80.201	-42.396	
		2592.990	9.1122	37.805	-80.758	-42.953	
		2655.000	8.0150	37.805	-80.607	-42.802	
	80	2536.020	7.1416	37.805	-80.377	-42.572	
		2592.990	9.1291	37.805	-80.413	-42.608	
		2649.990	9.4746	37.805	-80.111	-42.306	
	90	2541.000	9.7318	37.805	-80.302	-42.497	
		2592.990	9.4432	37.805	-79.772	-41.967	
		2644.980	4.8655	37.190	-80.834	-43.644	
	100	2546.010	9.7104	37.805	-80.352	-42.547	
		2592.990	4.0609	37.190	-79.772	-42.582	
		2640.000	9.9352	37.805	-80.829	-43.024	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 477 ~ 542.
2. Duty Cycle factor already applied on the factor.

- Duty Cycle Factor(dB) = 6.99



- Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter

- Result(dBm) = Reading + Factor

3. Factor(dB)

Frequency Range (GHz)	Factor [dB]
0.03 – 1	34.484
1 – 5	37.190
5 – 10	37.805
10 – 15	38.330
15 – 20	38.703
Above 20	39.345

9.6 CHANNEL EDGE

BW	Test. Frequency (MHz)	Modulation	Resource Block Size	2 495 MHz ~ 2 496 MHz	C.E ~ (C.E +1MHz)	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
10 MHz	2501.010	BPSK	Full RB	-24.60	-27.11	-29.15	-30.83	-36.31	-28.34	-40.54
15 MHz	2503.500	BPSK	Full RB	-24.85	-34.54	-30.97	-31.61	-34.55	-29.95	-40.24
20 MHz	2506.020	BPSK	Full RB	-27.06	-29.57	-30.84	-32.52	-35.00	-30.61	-43.52
30 MHz	2511.000	BPSK	Full RB	-28.05	-32.61	-32.26	-33.59	-34.11	-30.92	-46.39
40 MHz	2516.010	BPSK	Full RB	-27.62	-34.02	-32.15	-33.80	-36.12	-30.97	-44.72
50 MHz	2521.020	BPSK	Full RB	-28.84	-30.63	-33.49	-32.57	-35.33	-29.95	-49.16
60 MHz	2526.000	BPSK	Full RB	-21.45	-19.39	-32.88	-31.40	-36.03	-29.62	-48.88
70 MHz	2531.010	BPSK	Full RB	-28.15	-31.96	-35.55	-31.63	-35.64	-31.91	-46.95
80 MHz	2536.020	BPSK	Full RB	-26.61	-28.52	-36.34	-32.30	-37.47	-32.41	-49.33
90 MHz	2541.000	BPSK	Full RB	-25.63	-27.93	-31.93	-28.45	-35.78	-32.41	-43.63
100 MHz	2546.010	BPSK	Full RB	-25.45	-32.71	-33.62	-33.81	-35.03	-34.52	-51.02
Limit				-13.00	-10.00	-13.00	-10.00	-25.00	-13.0 0	-25.00

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resoure Block Offset	C.E ~ (C.E $\pm$ 1 MHz)		(C.E $\pm$ 1 MHz) ~ (C.E $\pm$ 5 MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-24.95	-28.72	-29.61	-30.35
	2685.000	BPSK	Full RB	0	-21.67	-24.74	-28.55	-30.13
15 MHz	2592.990	BPSK	Full RB	0	-24.89	-33.64	-29.21	-31.51
	2682.480	BPSK	Full RB	0	-24.52	-34.51	-31.79	-33.13
20 MHz	2592.990	BPSK	Full RB	0	-25.39	-29.93	-28.96	-31.23
	2679.990	BPSK	Full RB	0	-24.23	-30.98	-30.80	-34.40
30 MHz	2592.990	BPSK	Full RB	0	-25.68	-33.55	-30.31	-33.53
	2679.990	BPSK	Full RB	0	-25.12	-34.23	-29.16	-34.18
40 MHz	2592.990	BPSK	Full RB	0	-24.38	-31.04	-29.11	-30.65
	2670.000	BPSK	Full RB	0	-24.98	-31.93	-28.51	-31.44
50 MHz	2592.990	BPSK	Full RB	0	-24.57	-31.97	-28.51	-33.89
	2664.990	BPSK	Full RB	0	-23.91	-32.75	-30.24	-31.07
60 MHz	2592.990	BPSK	Full RB	0	-18.34	-19.92	-29.99	-31.14
	2659.980	BPSK	Full RB	0	-19.53	-21.82	-30.47	-32.18
70 MHz	2592.990	BPSK	Full RB	0	-24.48	-32.58	-29.24	-33.00
	2655.000	BPSK	Full RB	0	-24.62	-31.52	-29.05	-32.63
80 MHz	2592.990	BPSK	Full RB	0	-24.69	-29.65	-30.92	-33.35
	2649.990	BPSK	Full RB	0	-24.54	-30.23	-32.17	-31.70
90 MHz	2592.990	BPSK	Full RB	0	-24.03	-31.98	-30.52	-32.90
	2644.980	BPSK	Full RB	0	-24.38	-31.84	-32.25	-32.64
100 MHz	2592.990	BPSK	Full RB	0	-22.40	-33.42	-32.21	-33.79
	2640.000	BPSK	Full RB	0	-22.96	-31.27	-32.49	-32.26
Limit (dBm)					-10.00		-10.00	

Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	(C.E $\pm$ 5 MHz) ~ (C.E $\pm$ X MHz)		Above (C.E $\pm$ X MHz)	
					Lower	Upper	Lower	Upper
10 MHz	2592.990	BPSK	Full RB	0	-32.53	-31.89	-41.59	-44.03
	2685.000	BPSK	Full RB	0	-33.25	-34.87	-37.46	-39.55
15 MHz	2592.990	BPSK	Full RB	0	-30.48	-29.32	-41.78	-41.84
	2682.480	BPSK	Full RB	0	-30.01	-32.54	-40.67	-42.27
20 MHz	2592.990	BPSK	Full RB	0	-30.31	-30.15	-44.90	-47.02
	2679.990	BPSK	Full RB	0	-29.60	-31.43	-41.82	-45.97
30 MHz	2592.990	BPSK	Full RB	0	-30.24	-32.04	-48.53	-50.00
	2679.990	BPSK	Full RB	0	-27.96	-30.82	-43.00	-47.19
40 MHz	2592.990	BPSK	Full RB	0	-29.31	-30.44	-46.11	-46.16
	2670.000	BPSK	Full RB	0	-29.60	-30.70	-41.90	-47.21
50 MHz	2592.990	BPSK	Full RB	0	-30.18	-32.19	-51.70	-51.88
	2664.990	BPSK	Full RB	0	-30.39	-30.84	-40.71	-46.14
60 MHz	2592.990	BPSK	Full RB	0	-28.72	-31.03	-53.52	-53.71
	2659.980	BPSK	Full RB	0	-27.03	-31.86	-45.32	-57.24
70 MHz	2592.990	BPSK	Full RB	0	-28.75	-32.49	-52.51	-49.11
	2655.000	BPSK	Full RB	0	-31.33	-31.34	-44.32	-58.65
80 MHz	2592.990	BPSK	Full RB	0	-29.38	-31.54	-58.39	-51.96
	2649.990	BPSK	Full RB	0	-29.62	-31.21	-46.14	-58.80
90 MHz	2592.990	BPSK	Full RB	0	-31.27	-32.39	-58.68	-53.13
	2644.980	BPSK	Full RB	0	-29.56	-33.09	-46.11	-58.71
100 MHz	2592.990	BPSK	Full RB	0	-32.06	-33.67	-58.66	-54.33
	2640.000	BPSK	Full RB	0	-30.11	-31.91	-49.02	-58.66
Limit (dBm)					-13.00		-25.00	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth
3. 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) = 6.99
4. Plots of the EUT's Channel Edge are shown Page 543 ~ 619. (1RB & Full RB)

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

■ BandWidth:	<u>10 MHz</u>
■ Voltage(100 %):	<u>3.880 VDC</u>
■ Batt. Endpoint:	<u>3.300 VDC</u>
■ LIMIT:	<u>Emission must remain in band</u>

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2501.010	100 %	+20(Ref)	2501 009 995	0.0	0.000 000	0.000
	100 %	-30	2501 009 990	-5.2	0.000 000	-0.002
	100 %	-20	2501 009 991	-4.0	0.000 000	-0.002
	100 %	-10	2501 009 990	-4.5	0.000 000	-0.002
	100 %	0	2501 009 990	-5.0	0.000 000	-0.002
	100 %	+10	2501 009 988	-6.9	0.000 000	-0.003
	100 %	+30	2501 009 988	-6.4	0.000 000	-0.003
	100 %	+40	2501 009 989	-6.1	0.000 000	-0.002
	100 %	+50	2501 009 992	-2.9	0.000 000	-0.001
	Batt. Endpoint	+20	2501 009 990	-4.5	0.000 000	-0.002
2685.000	100 %	+20(Ref)	2684 999 997	0.0	0.000 000	0.000
	100 %	-30	2684 999 995	-1.5	0.000 000	-0.001
	100 %	-20	2684 999 992	-4.9	0.000 000	-0.002
	100 %	-10	2684 999 992	-5.1	0.000 000	-0.002
	100 %	0	2684 999 994	-2.5	0.000 000	-0.001
	100 %	+10	2684 999 993	-3.6	0.000 000	-0.001
	100 %	+30	2684 999 990	-6.3	0.000 000	-0.002
	100 %	+40	2684 999 991	-6.1	0.000 000	-0.002
	100 %	+50	2684 999 991	-5.7	0.000 000	-0.002
	Batt. Endpoint	+20	2684 999 995	-1.9	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. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2503.500	100 %	+20(Ref)	2503 499 999	0.0	0.000 000	0.000
	100 %	-30	2503 499 995	-3.4	0.000 000	-0.001
	100 %	-20	2503 499 997	-1.8	0.000 000	-0.001
	100 %	-10	2503 499 993	-5.8	0.000 000	-0.002
	100 %	0	2503 499 997	-1.5	0.000 000	-0.001
	100 %	+10	2503 499 997	-1.4	0.000 000	-0.001
	100 %	+30	2503 499 995	-3.6	0.000 000	-0.001
	100 %	+40	2503 499 994	-4.6	0.000 000	-0.002
	100 %	+50	2503 499 994	-4.5	0.000 000	-0.002
	Batt. Endpoint	+20	2503 500 000	1.3	0.000 000	0.001
2682.480	100 %	+20(Ref)	2682 479 993	0.0	0.000 000	0.000
	100 %	-30	2682 479 991	-2.1	0.000 000	-0.001
	100 %	-20	2682 479 986	-6.8	0.000 000	-0.003
	100 %	-10	2682 479 988	-4.6	0.000 000	-0.002
	100 %	0	2682 479 984	-9.1	0.000 000	-0.003
	100 %	+10	2682 479 987	-5.3	0.000 000	-0.002
	100 %	+30	2682 479 987	-5.8	0.000 000	-0.002
	100 %	+40	2682 479 988	-5.0	0.000 000	-0.002
	100 %	+50	2682 479 988	-4.2	0.000 000	-0.002
	Batt. Endpoint	+20	2682 479 988	-5.1	0.000 000	-0.002

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2506.020	100 %	+20(Ref)	2506 020 000	0.0	0.000 000	0.000
	100 %	-30	2506 019 998	-2.2	0.000 000	-0.001
	100 %	-20	2506 020 000	-0.1	0.000 000	0.000
	100 %	-10	2506 019 998	-2.2	0.000 000	-0.001
	100 %	0	2506 019 997	-3.4	0.000 000	-0.001
	100 %	+10	2506 020 002	1.8	0.000 000	0.001
	100 %	+30	2506 019 999	-1.4	0.000 000	-0.001
	100 %	+40	2506 020 002	1.8	0.000 000	0.001
	100 %	+50	2506 019 998	-1.9	0.000 000	-0.001
	Batt. Endpoint	+20	2506 019 998	-2.0	0.000 000	-0.001
2679.990	100 %	+20(Ref)	2679 989 994	0.0	0.000 000	0.000
	100 %	-30	2679 989 994	-0.8	0.000 000	0.000
	100 %	-20	2679 989 987	-7.2	0.000 000	-0.003
	100 %	-10	2679 989 992	-2.4	0.000 000	-0.001
	100 %	0	2679 989 992	-2.1	0.000 000	-0.001
	100 %	+10	2679 989 992	-2.5	0.000 000	-0.001
	100 %	+30	2679 989 988	-6.8	0.000 000	-0.003
	100 %	+40	2679 989 990	-4.5	0.000 000	-0.002
	100 %	+50	2679 989 989	-5.2	0.000 000	-0.002
	Batt. Endpoint	+20	2679 989 993	-1.9	0.000 000	-0.001

■ BandWidth: 30 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2511.000	100 %	+20(Ref)	2510 999 996	0.0	0.000 000	0.000
	100 %	-30	2510 999 991	-4.4	0.000 000	-0.002
	100 %	-20	2510 999 989	-7.3	0.000 000	-0.003
	100 %	-10	2510 999 995	-1.3	0.000 000	0.000
	100 %	0	2510 999 991	-4.8	0.000 000	-0.002
	100 %	+10	2510 999 994	-1.8	0.000 000	-0.001
	100 %	+30	2510 999 998	2.1	0.000 000	0.001
	100 %	+40	2510 999 992	-3.3	0.000 000	-0.001
	100 %	+50	2510 999 994	-1.3	0.000 000	-0.001
	Batt. Endpoint	+20	2510 999 996	-0.3	0.000 000	0.000
2674.980	100 %	+20(Ref)	2674 979 997	0.0	0.000 000	0.000
	100 %	-30	2674 979 989	-8.5	0.000 000	-0.003
	100 %	-20	2674 979 992	-4.9	0.000 000	-0.002
	100 %	-10	2674 979 992	-4.6	0.000 000	-0.002
	100 %	0	2674 979 992	-5.0	0.000 000	-0.002
	100 %	+10	2674 979 995	-2.5	0.000 000	-0.001
	100 %	+30	2674 979 991	-5.5	0.000 000	-0.002
	100 %	+40	2674 979 990	-6.6	0.000 000	-0.002
	100 %	+50	2674 979 990	-6.8	0.000 000	-0.003
	Batt. Endpoint	+20	2674 979 991	-5.8	0.000 000	-0.002

■ BandWidth: 40MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2516.010	100 %	+20(Ref)	2516 009 998	0.0	0.000 000	0.000
	100 %	-30	2516 009 997	-1.0	0.000 000	0.000
	100 %	-20	2516 009 994	-3.9	0.000 000	-0.002
	100 %	-10	2516 009 994	-4.3	0.000 000	-0.002
	100 %	0	2516 009 994	-3.6	0.000 000	-0.001
	100 %	+10	2516 009 994	-3.9	0.000 000	-0.002
	100 %	+30	2516 009 996	-1.7	0.000 000	-0.001
	100 %	+40	2516 009 996	-1.7	0.000 000	-0.001
	100 %	+50	2516 009 996	-1.5	0.000 000	-0.001
	Batt. Endpoint	+20	2516 009 993	-4.6	0.000 000	-0.002
2670.000	100 %	+20(Ref)	2669 999 995	0.0	0.000 000	0.000
	100 %	-30	2669 999 988	-6.7	0.000 000	-0.003
	100 %	-20	2669 999 993	-2.1	0.000 000	-0.001
	100 %	-10	2669 999 994	-1.2	0.000 000	0.000
	100 %	0	2669 999 993	-1.9	0.000 000	-0.001
	100 %	+10	2669 999 996	0.5	0.000 000	0.000
	100 %	+30	2669 999 990	-5.3	0.000 000	-0.002
	100 %	+40	2669 999 992	-3.2	0.000 000	-0.001
	100 %	+50	2669 999 992	-2.8	0.000 000	-0.001
	Batt. Endpoint	+20	2669 999 991	-3.9	0.000 000	-0.001

■ BandWidth: 50 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2521.020	100 %	+20(Ref)	2521 020 000	0.0	0.000 000	0.000
	100 %	-30	2521 019 998	-2.0	0.000 000	-0.001
	100 %	-20	2521 019 999	-0.3	0.000 000	0.000
	100 %	-10	2521 019 998	-1.8	0.000 000	-0.001
	100 %	0	2521 019 999	-0.4	0.000 000	0.000
	100 %	+10	2521 019 997	-3.0	0.000 000	-0.001
	100 %	+30	2521 020 000	0.0	0.000 000	0.000
	100 %	+40	2521 019 999	-0.3	0.000 000	0.000
	100 %	+50	2521 019 999	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	2521 019 999	-0.7	0.000 000	0.000
2664.990	100 %	+20(Ref)	2664 989 997	0.0	0.000 000	0.000
	100 %	-30	2664 989 988	-8.2	0.000 000	-0.003
	100 %	-20	2664 989 993	-3.1	0.000 000	-0.001
	100 %	-10	2664 989 990	-6.5	0.000 000	-0.002
	100 %	0	2664 989 992	-4.8	0.000 000	-0.002
	100 %	+10	2664 989 992	-4.7	0.000 000	-0.002
	100 %	+30	2664 989 991	-5.4	0.000 000	-0.002
	100 %	+40	2664 989 992	-4.8	0.000 000	-0.002
	100 %	+50	2664 989 994	-2.4	0.000 000	-0.001
	Batt. Endpoint	+20	2664 989 989	-7.9	0.000 000	-0.003

■ BandWidth: 60 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2526.000	100 %	+20(Ref)	2526 000 001	0.0	0.000 000	0.000
	100 %	-30	2526 000 001	0.2	0.000 000	0.000
	100 %	-20	2526 000 000	-1.2	0.000 000	0.000
	100 %	-10	2525 999 996	-5.4	0.000 000	-0.002
	100 %	0	2525 999 999	-2.1	0.000 000	-0.001
	100 %	+10	2525 999 997	-3.6	0.000 000	-0.001
	100 %	+30	2525 999 999	-1.9	0.000 000	-0.001
	100 %	+40	2526 000 001	-0.5	0.000 000	0.000
	100 %	+50	2526 000 002	1.0	0.000 000	0.000
	Batt. Endpoint	+20	2526 000 001	-0.1	0.000 000	0.000
2659.980	100 %	+20(Ref)	2659 979 994	0.0	0.000 000	0.000
	100 %	-30	2659 979 988	-5.7	0.000 000	-0.002
	100 %	-20	2659 979 990	-4.1	0.000 000	-0.002
	100 %	-10	2659 979 989	-5.0	0.000 000	-0.002
	100 %	0	2659 979 989	-5.2	0.000 000	-0.002
	100 %	+10	2659 979 987	-6.6	0.000 000	-0.002
	100 %	+30	2659 979 988	-6.2	0.000 000	-0.002
	100 %	+40	2659 979 990	-3.6	0.000 000	-0.001
	100 %	+50	2659 979 991	-2.5	0.000 000	-0.001
	Batt. Endpoint	+20	2659 979 987	-7.4	0.000 000	-0.003

■ BandWidth: 70 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2531.010	100 %	+20(Ref)	2531 010 002	0.0	0.000 000	0.000
	100 %	-30	2531 010 002	0.1	0.000 000	0.000
	100 %	-20	2531 010 003	1.7	0.000 000	0.001
	100 %	-10	2531 010 001	-0.9	0.000 000	0.000
	100 %	0	2531 009 999	-2.9	0.000 000	-0.001
	100 %	+10	2531 010 002	0.6	0.000 000	0.000
	100 %	+30	2531 010 000	-1.6	0.000 000	-0.001
	100 %	+40	2531 010 001	-0.4	0.000 000	0.000
	100 %	+50	2531 010 000	-1.2	0.000 000	0.000
	Batt. Endpoint	+20	2531 009 999	-3.1	0.000 000	-0.001
2655.000	100 %	+20(Ref)	2654 999 995	0.0	0.000 000	0.000
	100 %	-30	2654 999 991	-4.1	0.000 000	-0.002
	100 %	-20	2654 999 992	-3.2	0.000 000	-0.001
	100 %	-10	2654 999 992	-3.2	0.000 000	-0.001
	100 %	0	2654 999 990	-4.6	0.000 000	-0.002
	100 %	+10	2654 999 993	-2.2	0.000 000	-0.001
	100 %	+30	2654 999 994	-1.0	0.000 000	0.000
	100 %	+40	2654 999 992	-2.8	0.000 000	-0.001
	100 %	+50	2654 999 996	0.6	0.000 000	0.000
	Batt. Endpoint	+20	2654 999 992	-3.2	0.000 000	-0.001

■ BandWidth: 80 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2536.020	100 %	+20(Ref)	2536 020 000	0.0	0.000 000	0.000
	100 %	-30	2536 019 996	-4.1	0.000 000	-0.002
	100 %	-20	2536 019 999	-1.0	0.000 000	0.000
	100 %	-10	2536 019 998	-2.1	0.000 000	-0.001
	100 %	0	2536 019 999	-1.2	0.000 000	0.000
	100 %	+10	2536 020 004	4.7	0.000 000	0.002
	100 %	+30	2536 019 999	-0.4	0.000 000	0.000
	100 %	+40	2536 019 998	-2.1	0.000 000	-0.001
	100 %	+50	2536 019 996	-3.7	0.000 000	-0.001
	Batt. Endpoint	+20	2536 019 999	-0.8	0.000 000	0.000
2649.990	100 %	+20(Ref)	2649 989 993	0.0	0.000 000	0.000
	100 %	-30	2649 989 988	-4.3	0.000 000	-0.002
	100 %	-20	2649 989 986	-6.5	0.000 000	-0.002
	100 %	-10	2649 989 988	-4.1	0.000 000	-0.002
	100 %	0	2649 989 989	-3.1	0.000 000	-0.001
	100 %	+10	2649 989 985	-7.0	0.000 000	-0.003
	100 %	+30	2649 989 987	-5.7	0.000 000	-0.002
	100 %	+40	2649 989 985	-7.3	0.000 000	-0.003
	100 %	+50	2649 989 987	-5.9	0.000 000	-0.002
	Batt. Endpoint	+20	2649 989 987	-5.9	0.000 000	-0.002

■ BandWidth: 90 MHz
 ■ Voltage(100 %): 3.880 VDC
 ■ Batt. Endpoint: 3.300 VDC
 ■ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2541.000	100 %	+20(Ref)	2540 999 999	0.0	0.000 000	0.000
	100 %	-30	2540 999 998	-0.7	0.000 000	0.000
	100 %	-20	2540 999 998	-1.0	0.000 000	0.000
	100 %	-10	2540 999 996	-2.9	0.000 000	-0.001
	100 %	0	2540 999 996	-2.6	0.000 000	-0.001
	100 %	+10	2540 999 994	-5.2	0.000 000	-0.002
	100 %	+30	2540 999 994	-5.2	0.000 000	-0.002
	100 %	+40	2540 999 998	-1.3	0.000 000	-0.001
	100 %	+50	2540 999 993	-6.0	0.000 000	-0.002
	Batt. Endpoint	+20	2540 999 998	-1.2	0.000 000	0.000
2644.980	100 %	+20(Ref)	2644 979 997	0.0	0.000 000	0.000
	100 %	-30	2644 979 995	-2.1	0.000 000	0.000
	100 %	-20	2644 979 990	-7.0	0.000 000	0.000
	100 %	-10	2644 979 990	-7.0	0.000 000	0.000
	100 %	0	2644 979 991	-5.8	0.000 000	0.000
	100 %	+10	2644 979 991	-6.0	0.000 000	0.000
	100 %	+30	2644 979 990	-6.6	0.000 000	0.000
	100 %	+40	2644 979 992	-4.6	0.000 000	0.000
	100 %	+50	2644 979 991	-5.8	0.000 000	0.000
	Batt. Endpoint	+20	2644 979 994	-2.9	0.000 000	0.000

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency Error	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	(Hz)	(%)	
2546.010	100 %	+20(Ref)	2546 010 001	0.0	0.000 000	0.000
	100 %	-30	2546 010 002	0.9	0.000 000	0.000
	100 %	-20	2546 009 999	-2.6	0.000 000	-0.001
	100 %	-10	2546 010 003	1.4	0.000 000	0.001
	100 %	0	2546 009 996	-4.9	0.000 000	-0.002
	100 %	+10	2546 010 004	3.1	0.000 000	0.001
	100 %	+30	2546 010 002	0.3	0.000 000	0.000
	100 %	+40	2546 010 002	0.3	0.000 000	0.000
	100 %	+50	2546 010 000	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	2546 010 004	3.0	0.000 000	0.001
2640.000	100 %	+20(Ref)	2639 999 996	0.0	0.000 000	0.000
	100 %	-30	2639 999 995	-1.1	0.000 000	0.000
	100 %	-20	2639 999 992	-4.6	0.000 000	-0.002
	100 %	-10	2639 999 992	-4.2	0.000 000	-0.002
	100 %	0	2639 999 990	-5.7	0.000 000	-0.002
	100 %	+10	2639 999 989	-6.9	0.000 000	-0.003
	100 %	+30	2639 999 992	-4.3	0.000 000	-0.002
	100 %	+40	2639 999 992	-4.6	0.000 000	-0.002
	100 %	+50	2639 999 992	-4.6	0.000 000	-0.002
	Batt. Endpoint	+20	2639 999 990	-6.2	0.000 000	-0.002

10. TEST PLOTS (Main2)

NR41_10 M_PAR_Mid_BPSK_FullIRB



NR41_10 M_PAR_Mid_QPSK_FullRB



NR41_10 M_PAR_Mid_16QAM_FullRB



NR41_10 M_PAR_Mid_64QAM_FullRB



NR41_10 M_PAR_Mid_256QAM_FullRB



NR41_15 M_PAR_Mid_BPSK_FullIRB



NR41_15 M_PAR_Mid_QPSK_FullRB



NR41_15 M_PAR_Mid_16QAM_FullRB



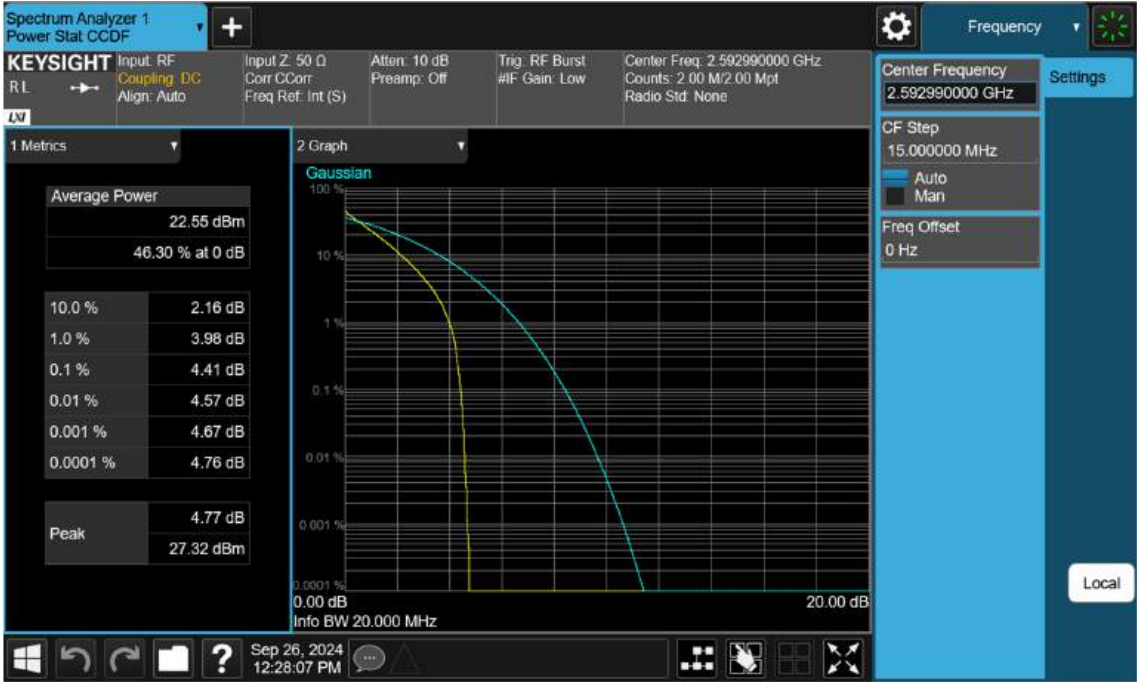
NR41_15 M_PAR_Mid_64QAM_FullRB



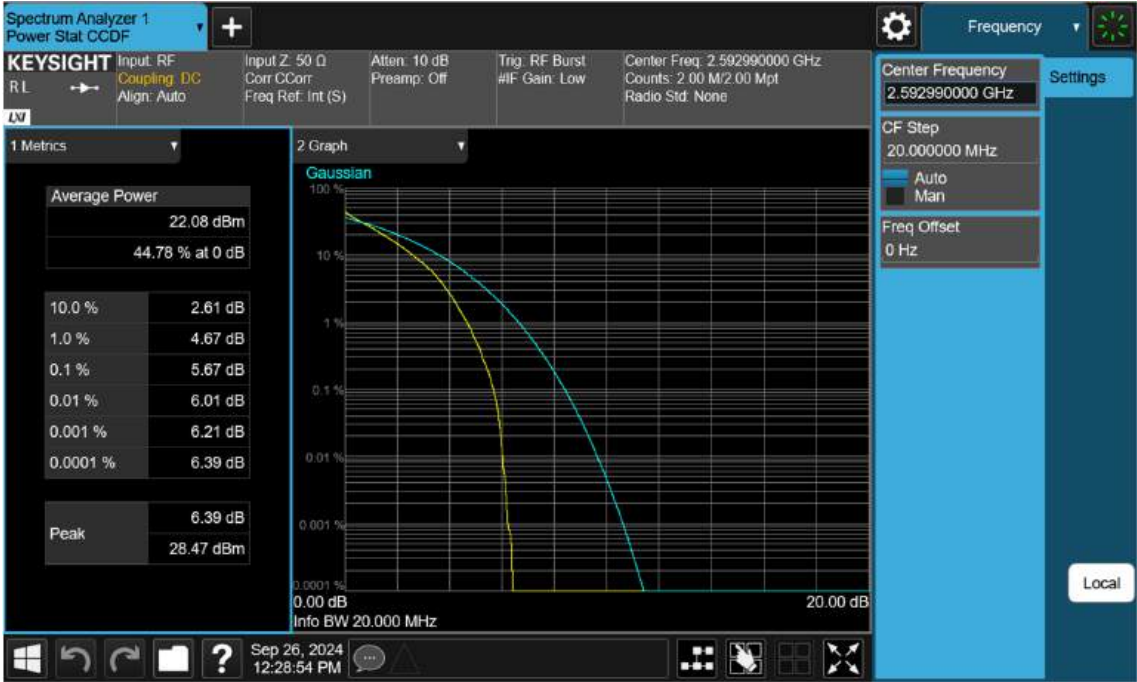
NR41_15 M_PAR_Mid_256QAM_FullRB



NR41_20 M_PAR_Mid_BPSK_FullIRB



NR41_20 M_PAR_Mid_QPSK_FullRB



NR41_20 M_PAR_Mid_16QAM_FullRB



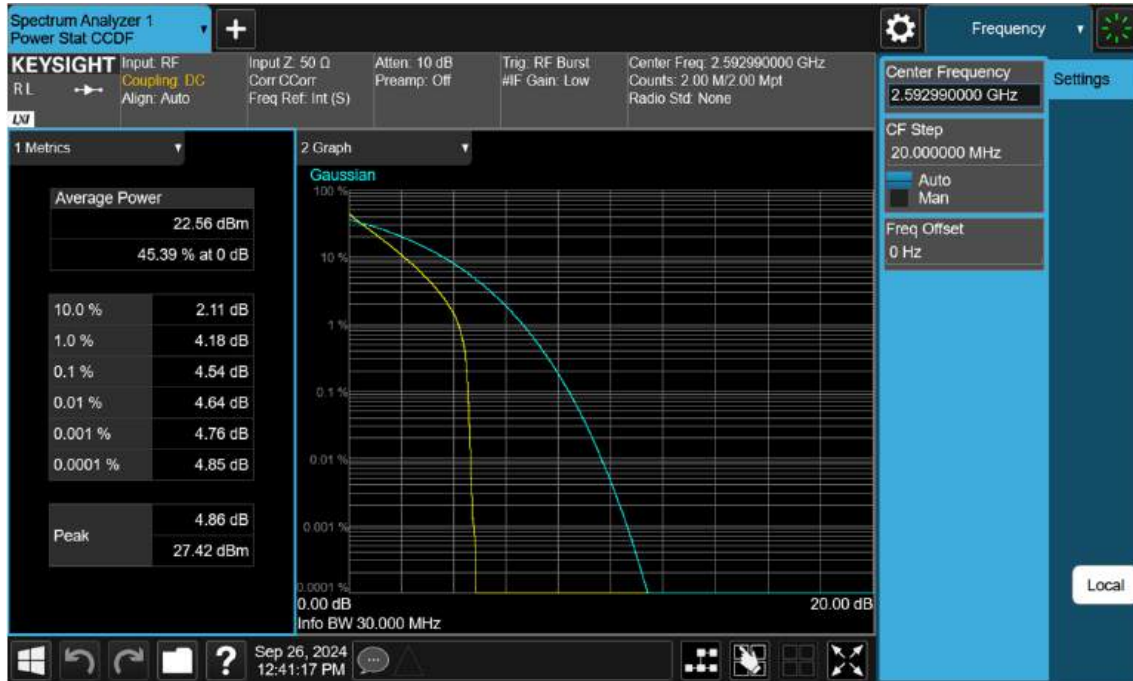
NR41_20 M_PAR_Mid_64QAM_FullRB



NR41_20 M_PAR_Mid_256QAM_FullRB



NR41_30 M_PAR_Mid_BPSK_FullIRB



NR41_30 M_PAR_Mid_QPSK_FullRB



NR41_30 M_PAR_Mid_16QAM_FullRB



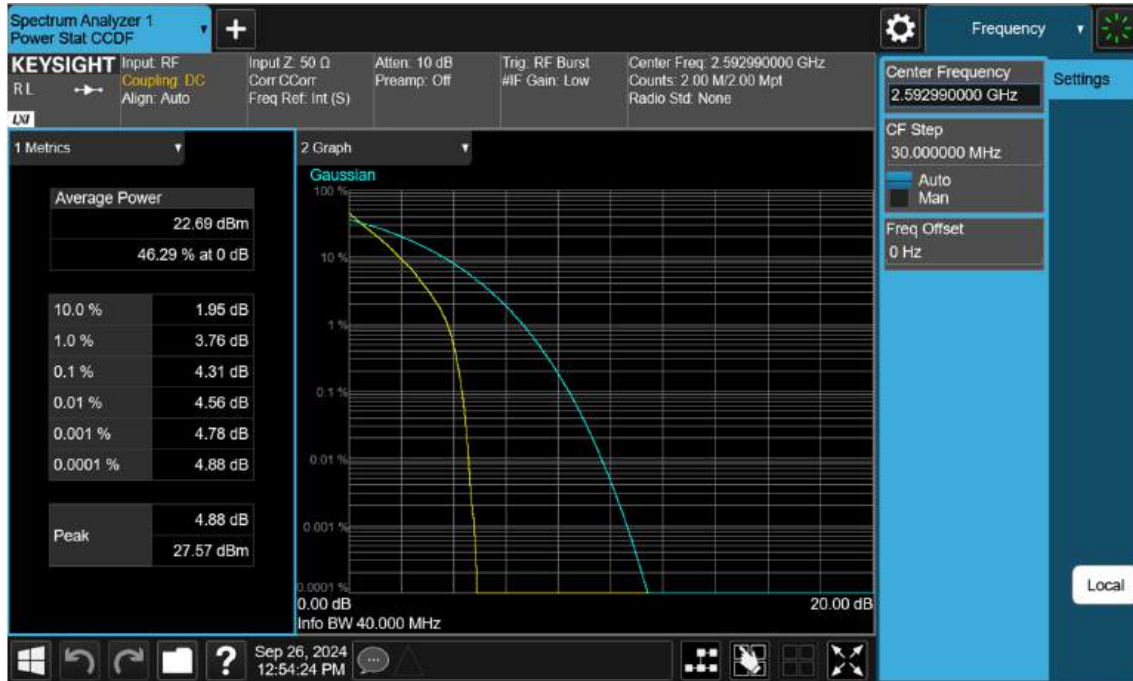
NR41_30 M_PAR_Mid_64QAM_FullRB



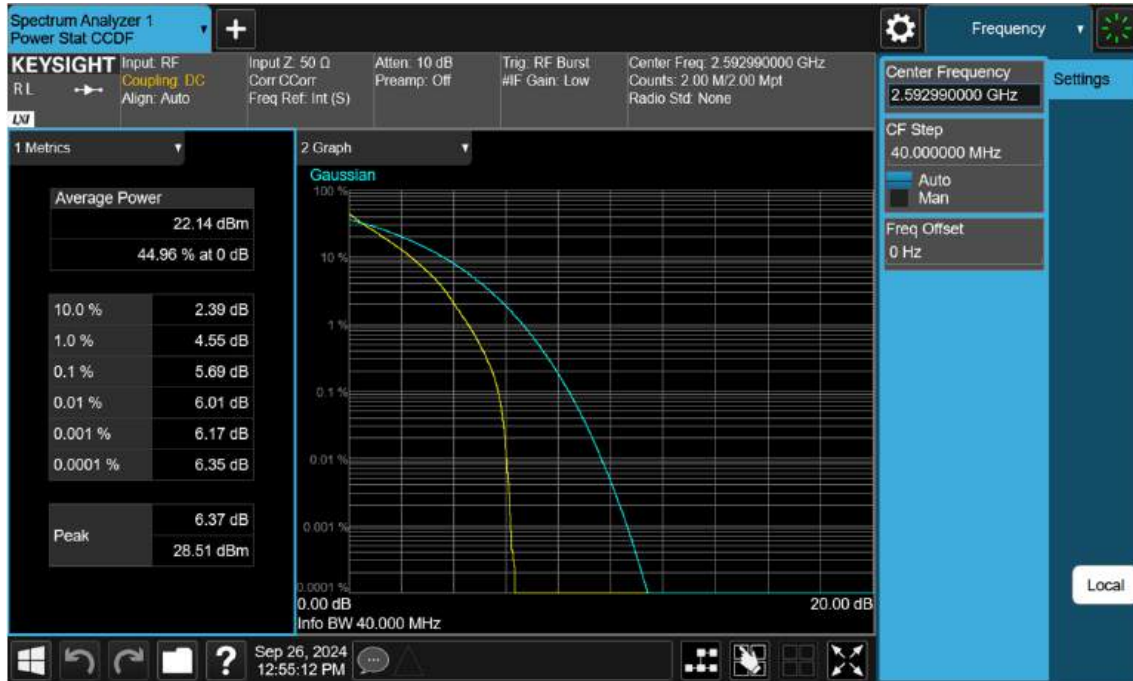
NR41_30 M_PAR_Mid_256QAM_FullRB



NR41_40 M_PAR_Mid_BPSK_FullIRB



NR41_40 M_PAR_Mid_QPSK_FullRB



NR41_40 M_PAR_Mid_16QAM_FullRB



NR41_40 M_PAR_Mid_64QAM_FullRB



NR41_40 M_PAR_Mid_256QAM_FullRB



NR41_50 M_PAR_Mid_BPSK_FullIRB



NR41_50 M_PAR_Mid_QPSK_FullRB



NR41_50 M_PAR_Mid_16QAM_FullRB



NR41_50 M_PAR_Mid_64QAM_FullRB



NR41_50 M_PAR_Mid_256QAM_FullRB



NR41_60 M_PAR_Mid_BPSK_FullIRB



NR41_60 M_PAR_Mid_QPSK_FullRB



NR41_60 M_PAR_Mid_16QAM_FullRB



NR41_60 M_PAR_Mid_64QAM_FullRB



NR41_60 M_PAR_Mid_256QAM_FullRB



NR41_70 M_PAR_Mid_BPSK_FullIRB



NR41_70 M_PAR_Mid_QPSK_FullRB



NR41_70 M_PAR_Mid_16QAM_FullRB



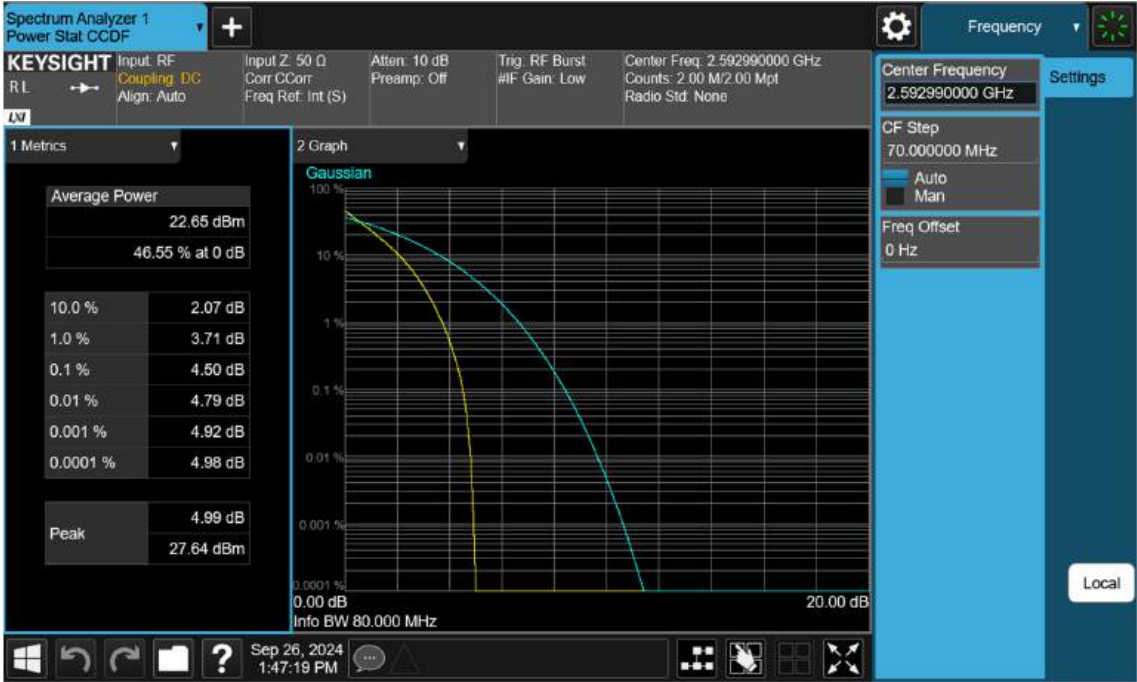
NR41_70 M_PAR_Mid_64QAM_FullRB



NR41_70 M_PAR_Mid_256QAM_FullRB



NR41_80 M_PAR_Mid_BPSK_FullIRB



NR41_80 M_PAR_Mid_QPSK_FullRB



NR41_80 M_PAR_Mid_16QAM_FullRB



NR41_80 M_PAR_Mid_64QAM_FullRB



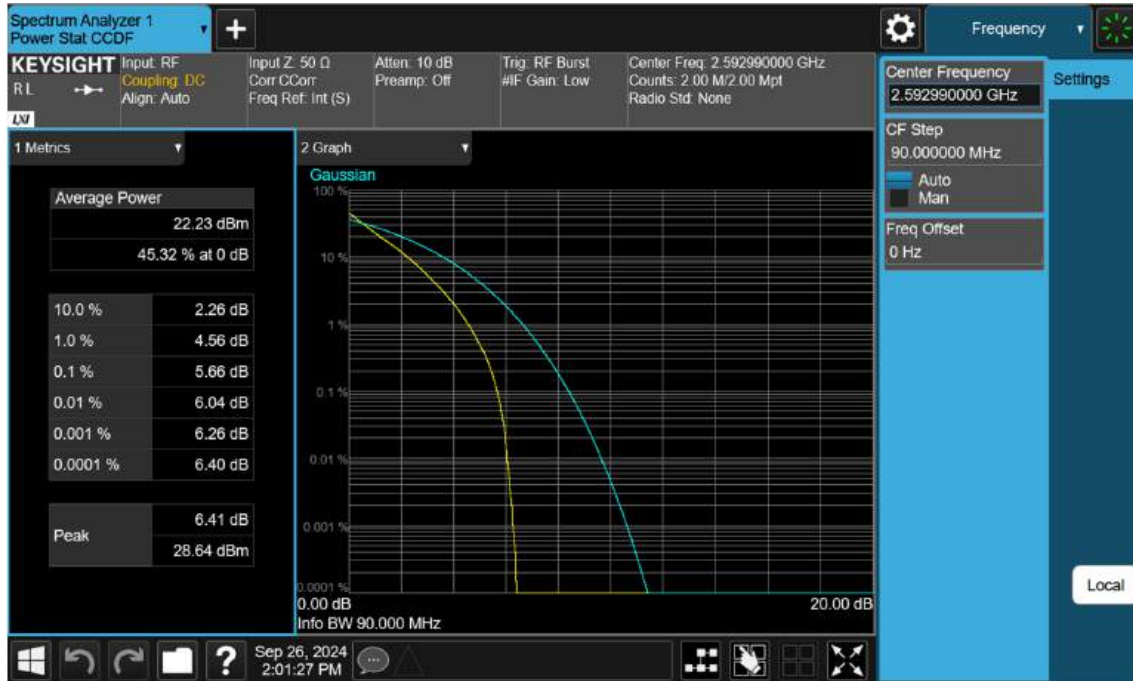
NR41_80 M_PAR_Mid_256QAM_FullRB



NR41_90 M_PAR_Mid_BPSK_FullIRB



NR41_90 M_PAR_Mid_QPSK_FullRB



NR41_90 M_PAR_Mid_16QAM_FullRB



NR41_90 M_PAR_Mid_64QAM_FullRB



NR41_90 M_PAR_Mid_256QAM_FullRB



NR41_100 M_PAR_Mid_BPSK_FullRB



NR41_100 M_PAR_Mid_QPSK_FullIRB



NR41_100 M_PAR_Mid_16QAM_FullRB



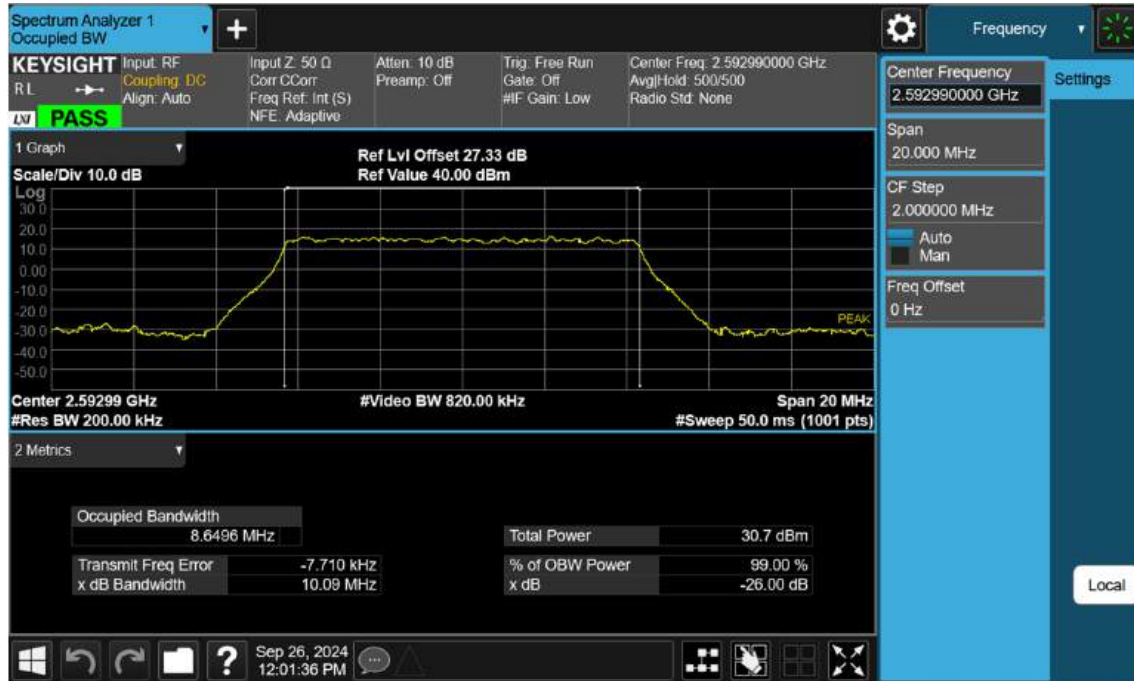
NR41_100 M_PAR_Mid_64QAM_FullRB



NR41_100 M_PAR_Mid_256QAM_FullRB



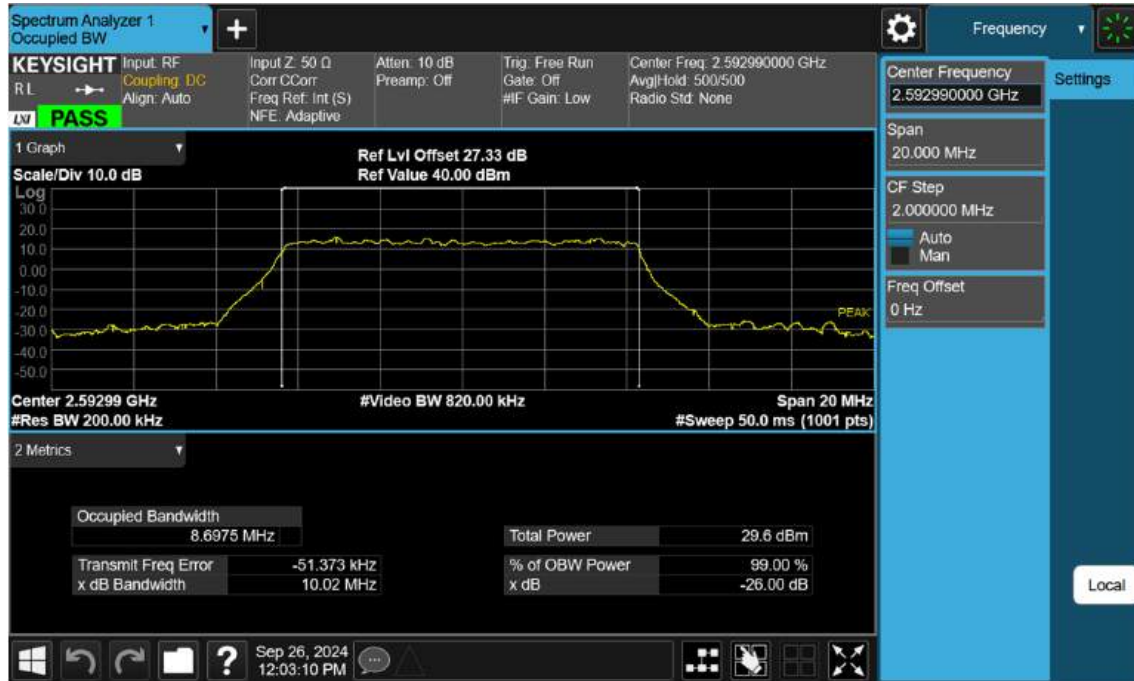
NR41_10 M_OBW_Mid_BPSK_FullRB



NR41_10 M_OBW_Mid_QPSK_FullRB



NR41_10 M_OBW_Mid_16QAM_FullRB



NR41_10 M_OBW_Mid_64QAM_FullRB



NR41_10 M_OBW_Mid_256QAM_FullRB



NR41_15 M_OBW_Mid_BPSK_FullRB



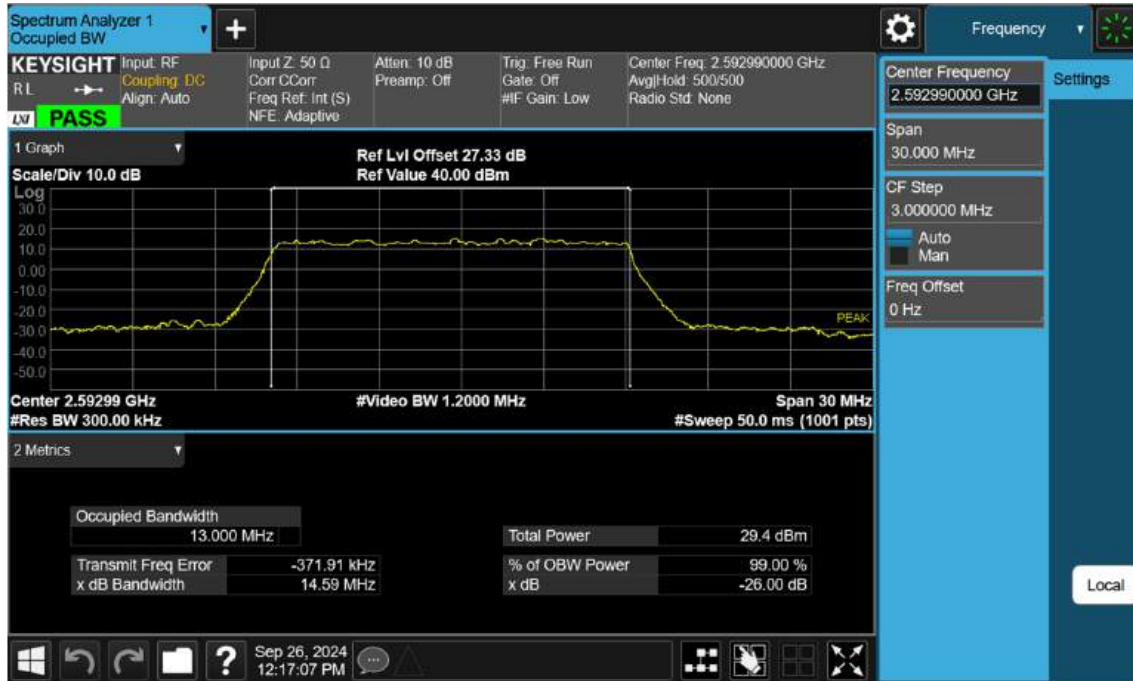
NR41_15 M_OBW_Mid_QPSK_FullRB



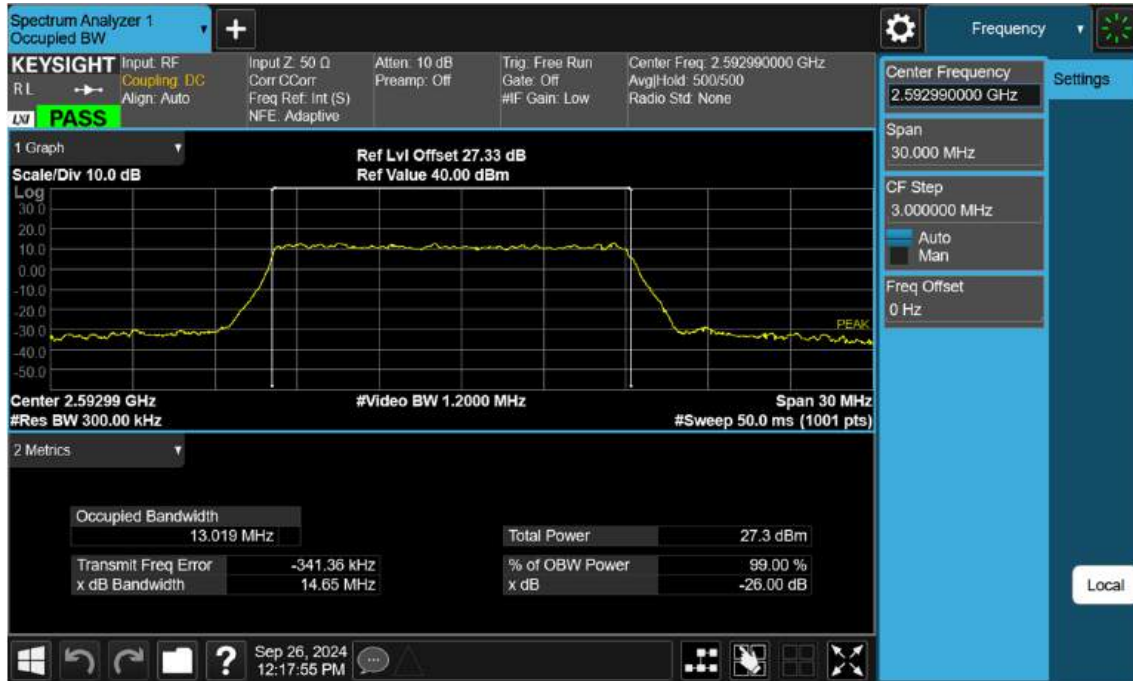
NR41_15 M_OBW_Mid_16QAM_FullRB



NR41_15 M_OBW_Mid_64QAM_FullRB



NR41_15 M_OBW_Mid_256QAM_FullRB



NR41_20 M_OBW_Mid_BPSK_FullRB



NR41_20 M_OBW_Mid_QPSK_FullIRB



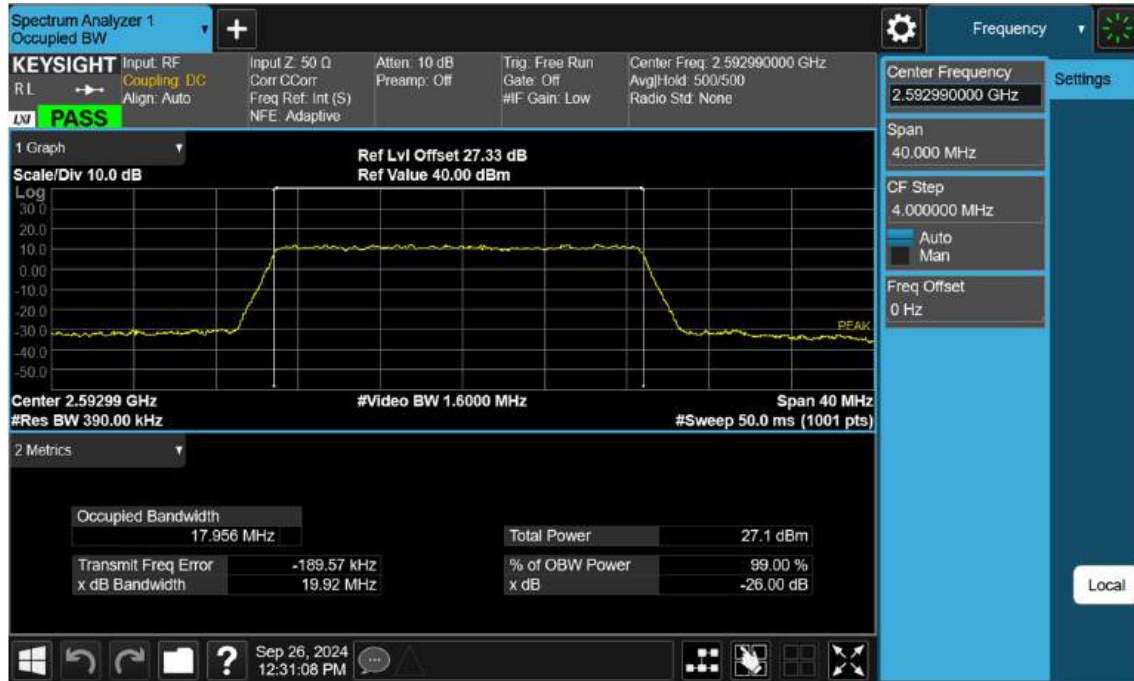
NR41_20 M_OBW_Mid_16QAM_FullRB



NR41_20 M_OBW_Mid_64QAM_FullRB



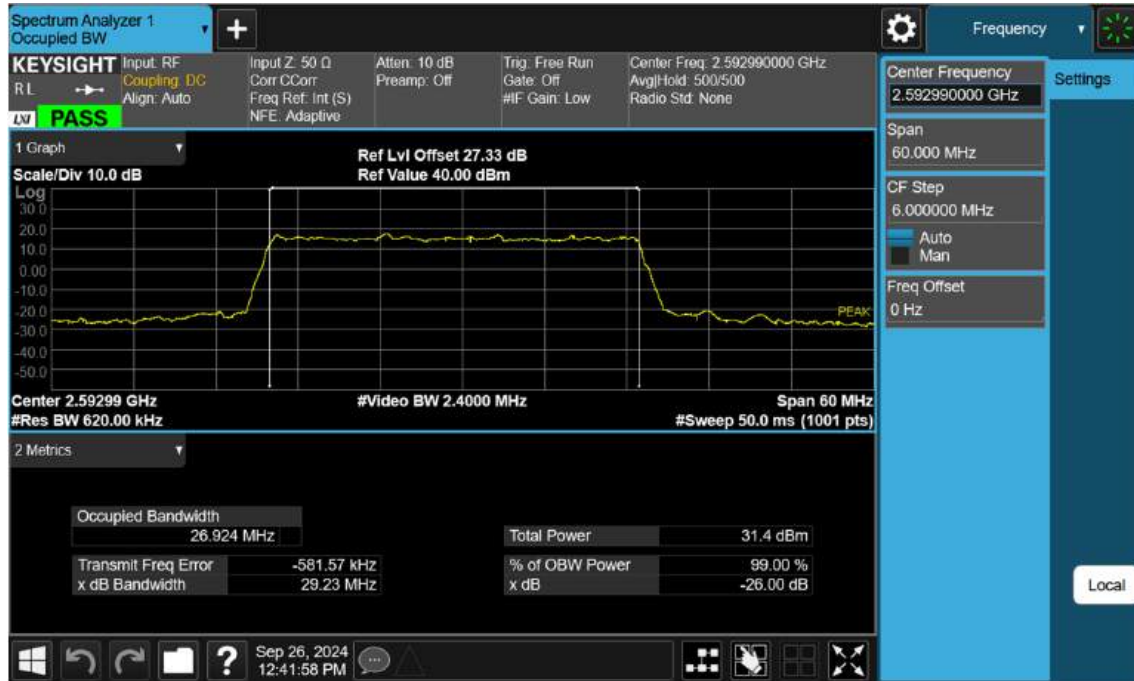
NR41_20 M_OBW_Mid_256QAM_FullRB



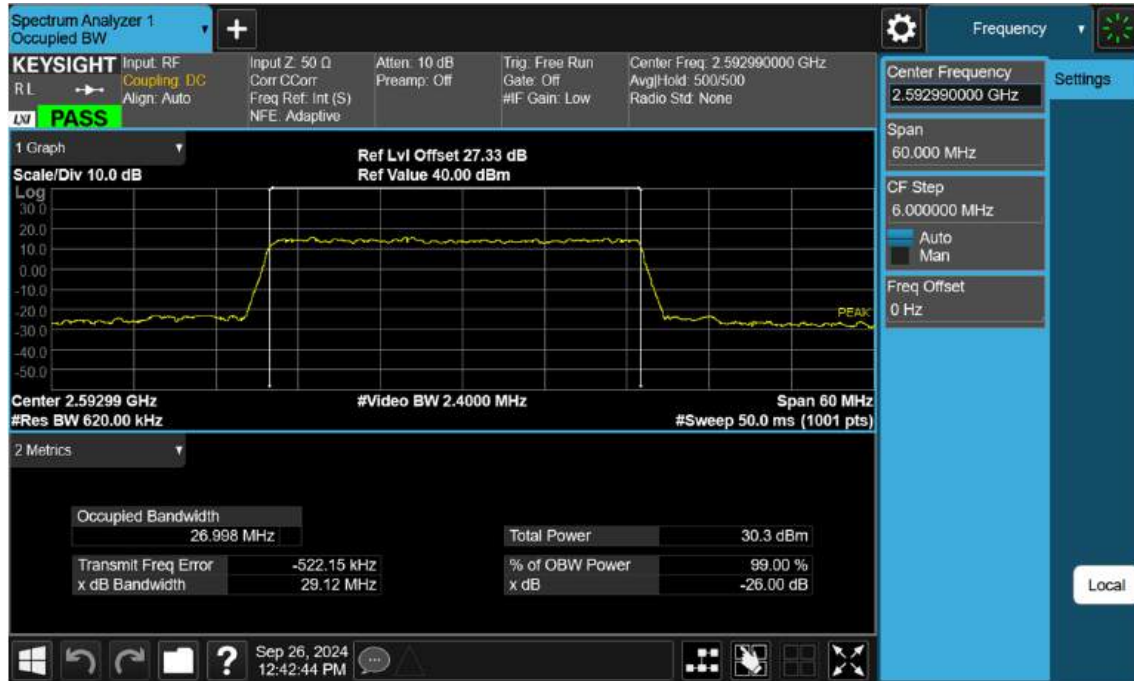
NR41_30 M_OBW_Mid_BPSK_FullRB



NR41_30 M_OBW_Mid_QPSK_FullRB



NR41_30 M_OBW_Mid_16QAM_FullRB



Spectrum Analyzer 1
Occupied BW

KEYSIGHT Input: RF
R.L. → Coupling: DC
Align: Auto

Input Z: 50 Ω
Corr CCorr:
Freq Ref: Int (S)
NFE: Adaptive

Atten: 10 dB
Preamp: Off

Trig: Free Run
Gate: Off
#IF Gain: Low

Center Freq: 2.592990000 GHz
Avg/Hold: 500/500
Radio Std: None

1 Graph
Scale/Div 10.0 dB
Log
Ref Lvl Offset 27.33 dB
Ref Value 40.00 dBm

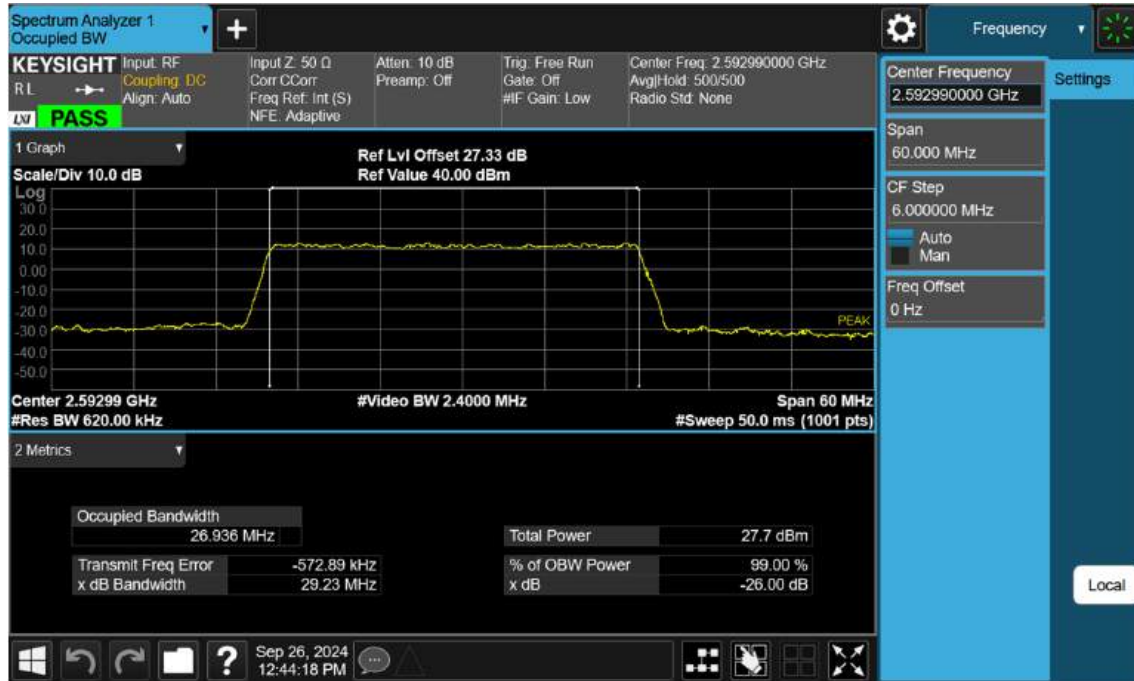
Center 2.59299 GHz
#Res BW 620.0 kHz
#Video BW 2.4000 MHz
Span 60 MHz
#Sweep 50.0 ms (1001 pts)

2 Metrics

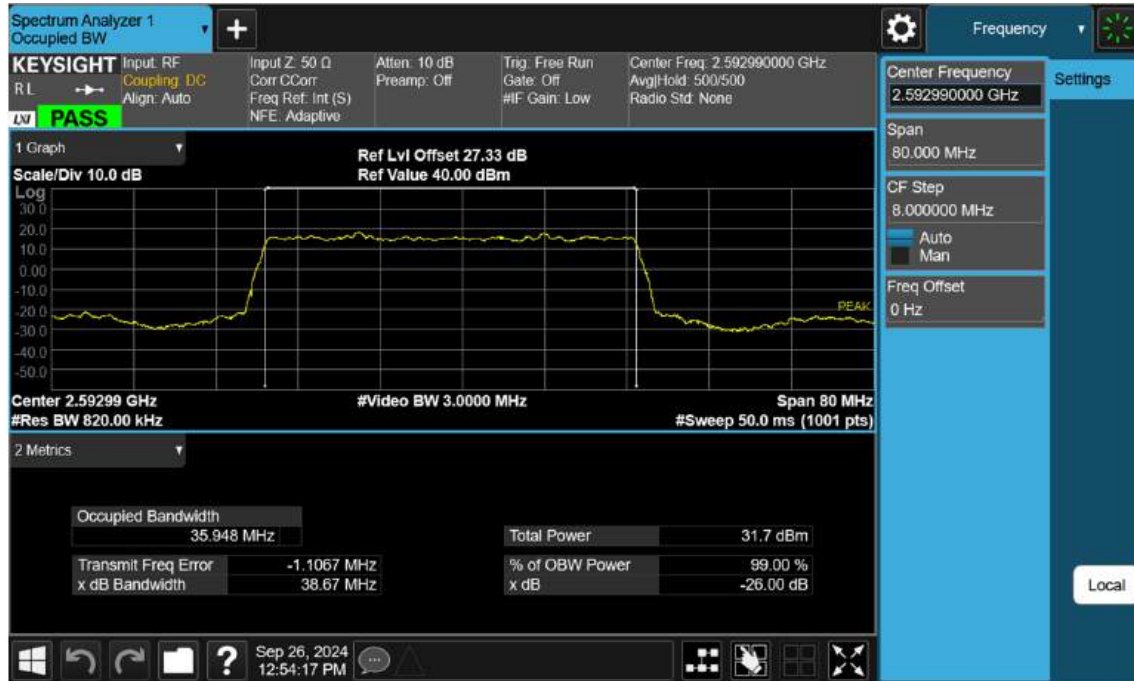
Occupied Bandwidth		Total Power	
26.923 MHz		29.8 dBm	
Transmit Freq Error		% of OBW Power	
x dB Bandwidth		x dB	
-552.92 kHz	29.19 MHz	99.00 %	-26.00 dB

Windows taskbar: Sep 26, 2024 12:43:31 PM

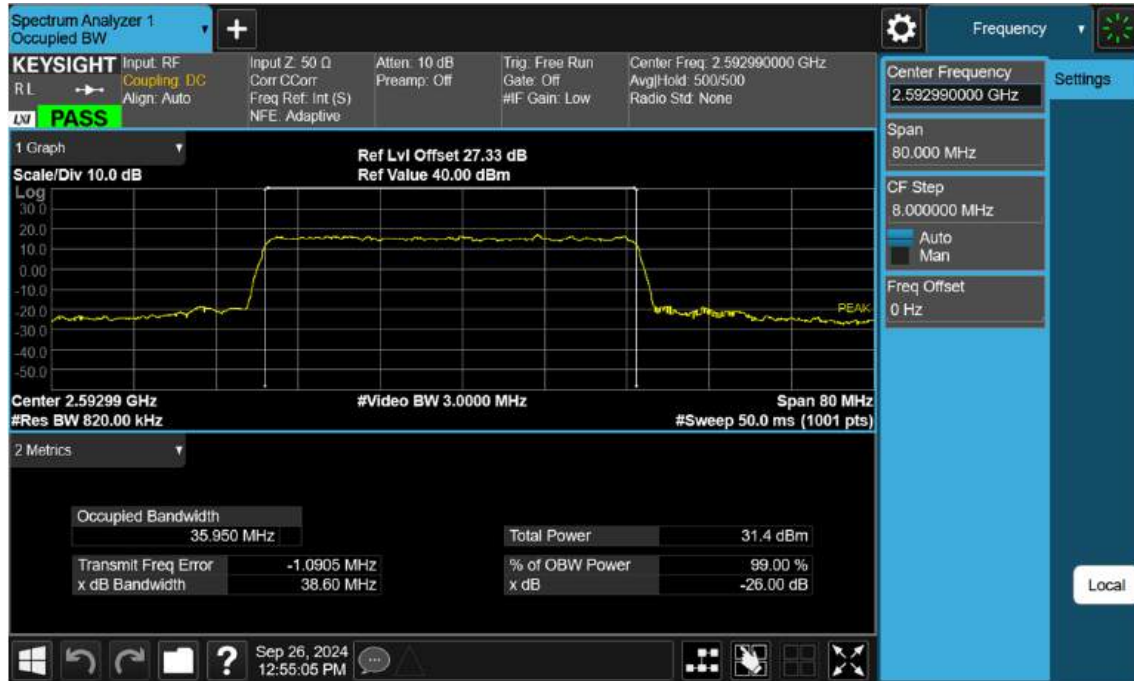
NR41_30 M_OBW_Mid_256QAM_FullRB



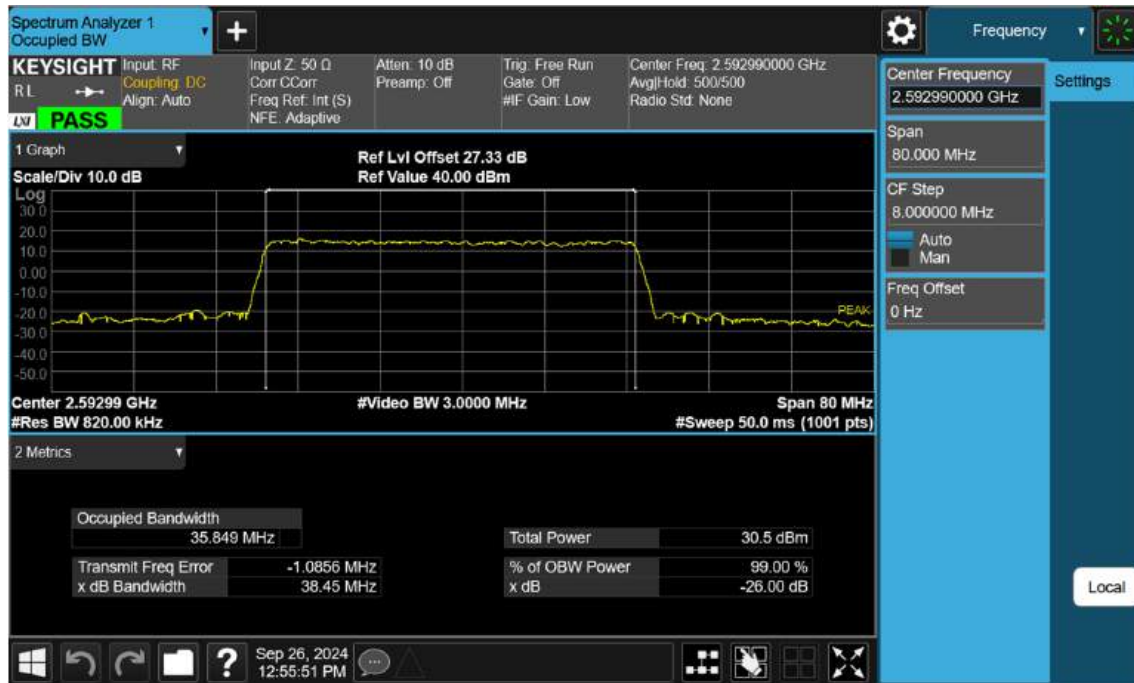
NR41_40 M_OBW_Mid_BPSK_FullRB



NR41_40 M_OBW_Mid_QPSK_FullIRB



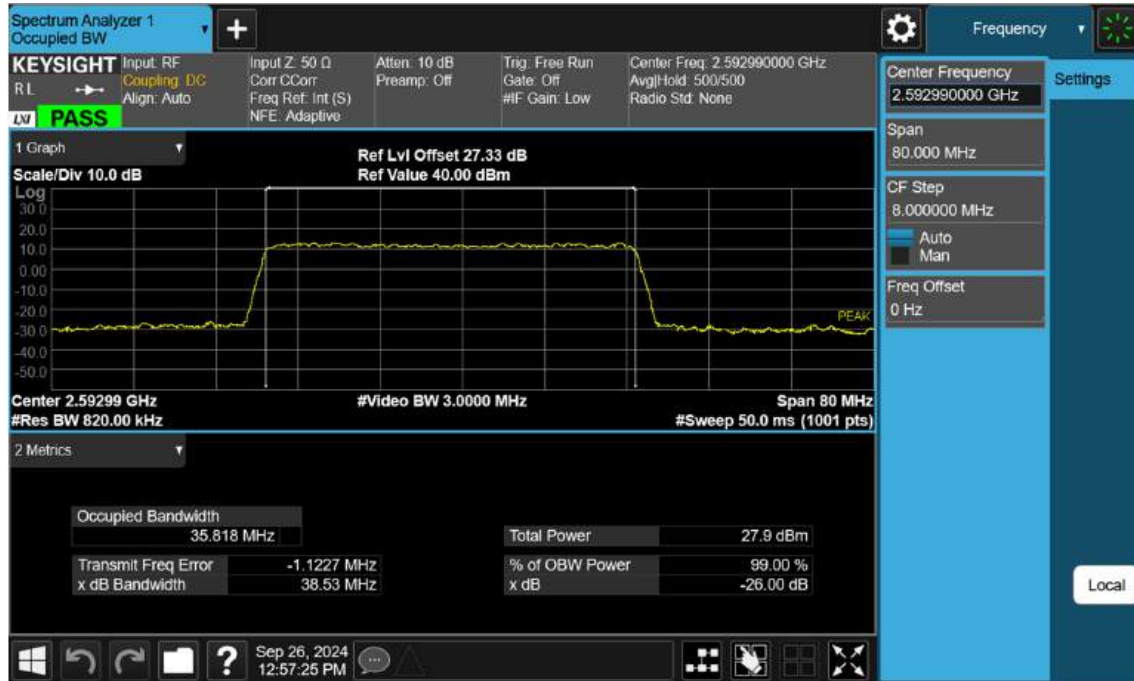
NR41_40 M_OBW_Mid_16QAM_FullRB



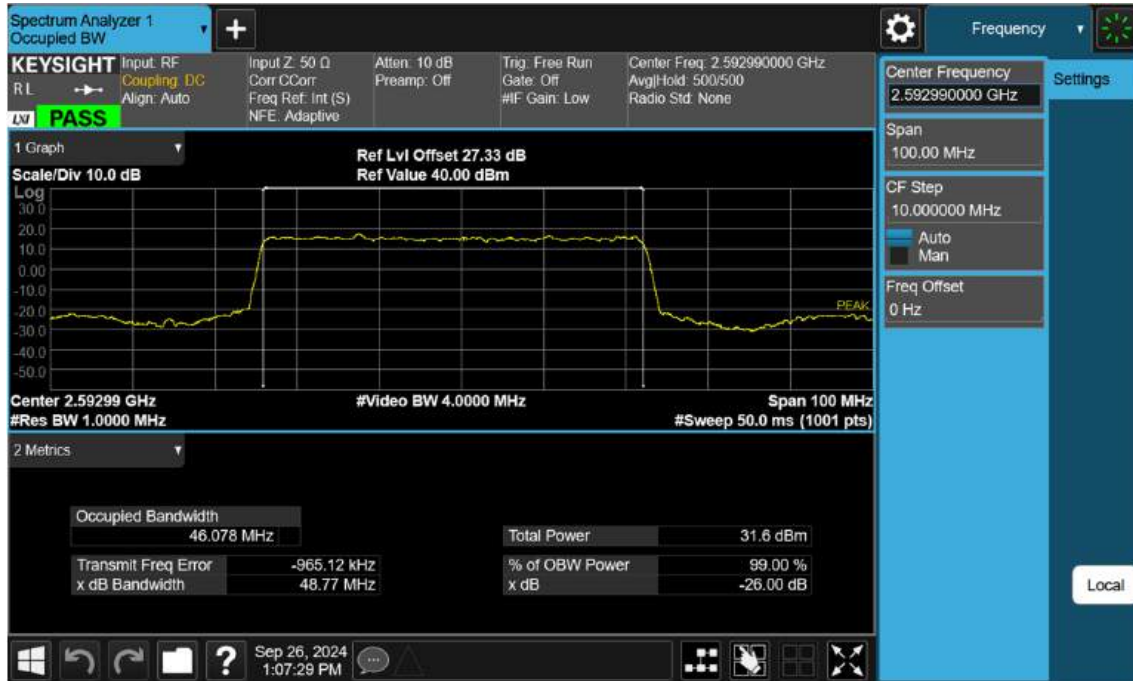
NR41_40 M_OBW_Mid_64QAM_FullRB



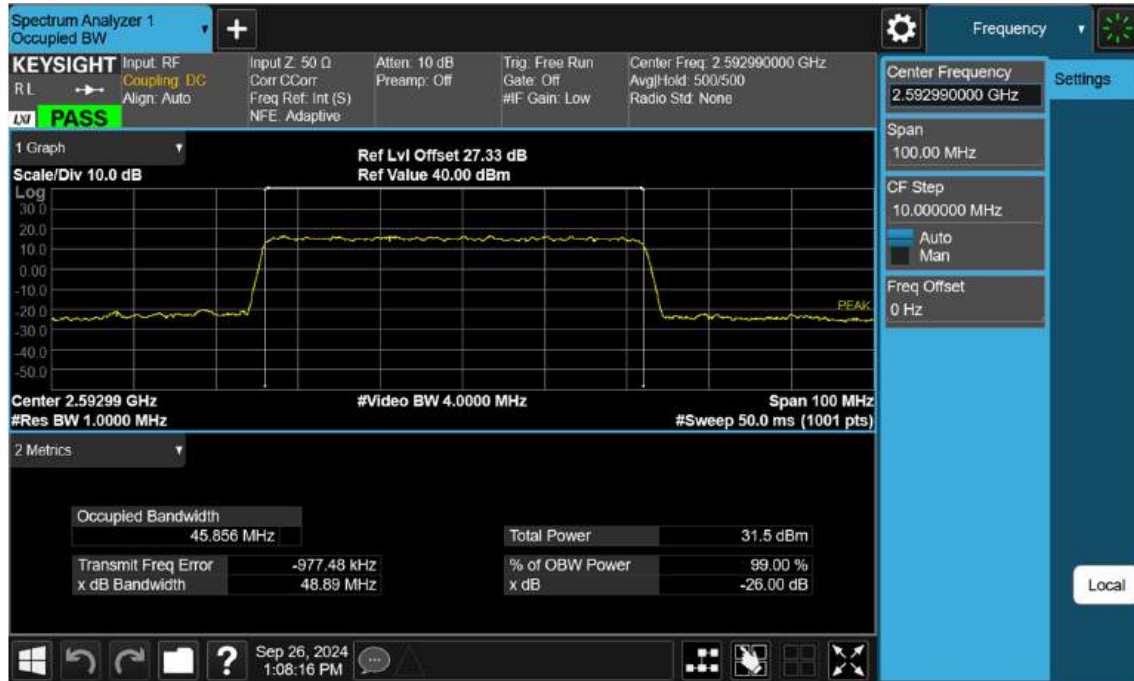
NR41_40 M_OBW_Mid_256QAM_FullRB



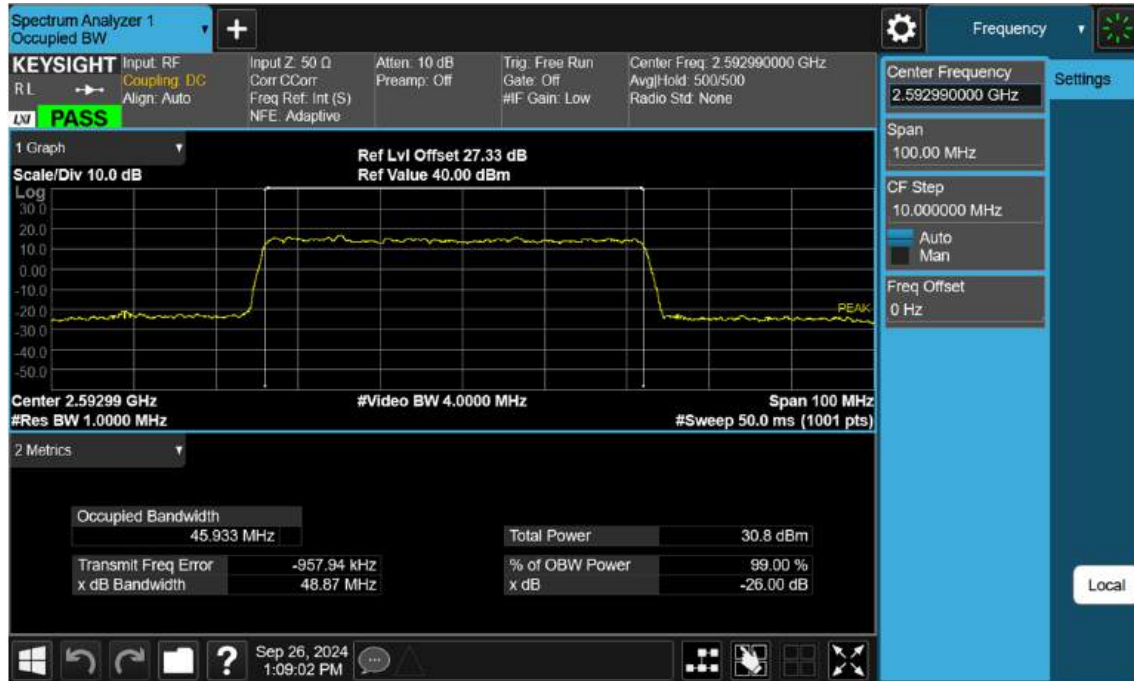
NR41_50 M_OBW_Mid_BPSK_FullRB



NR41_50 M_OBW_Mid_QPSK_FullIRB



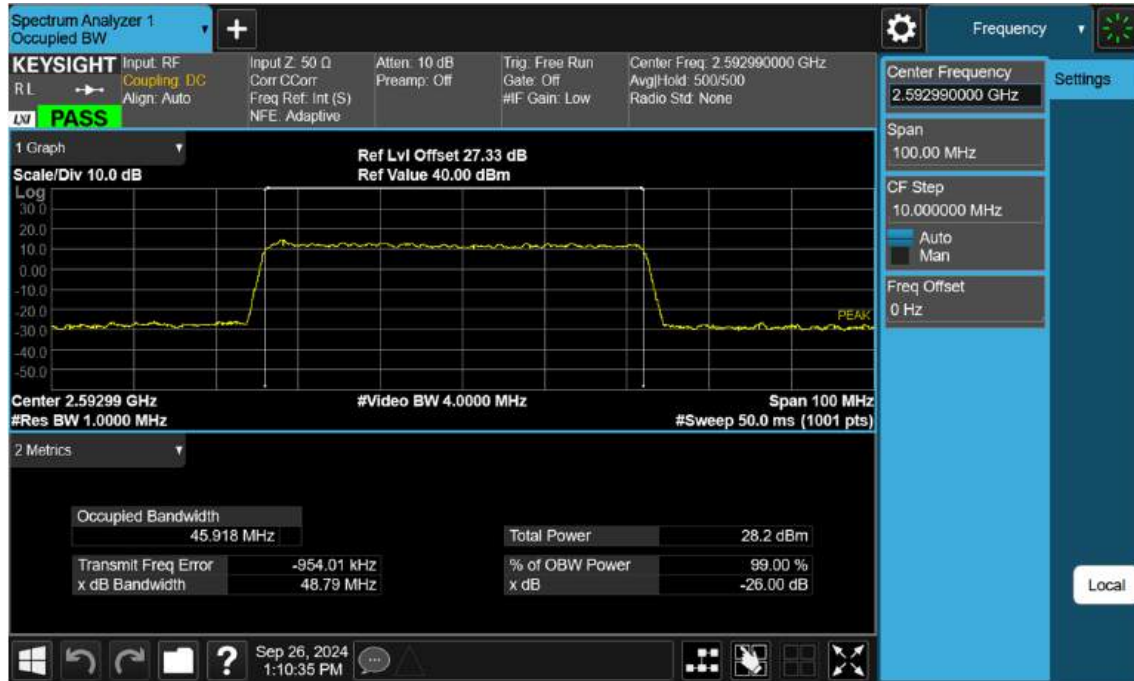
NR41_50 M_OBW_Mid_16QAM_FullRB



NR41_50 M_OBW_Mid_64QAM_FullRB



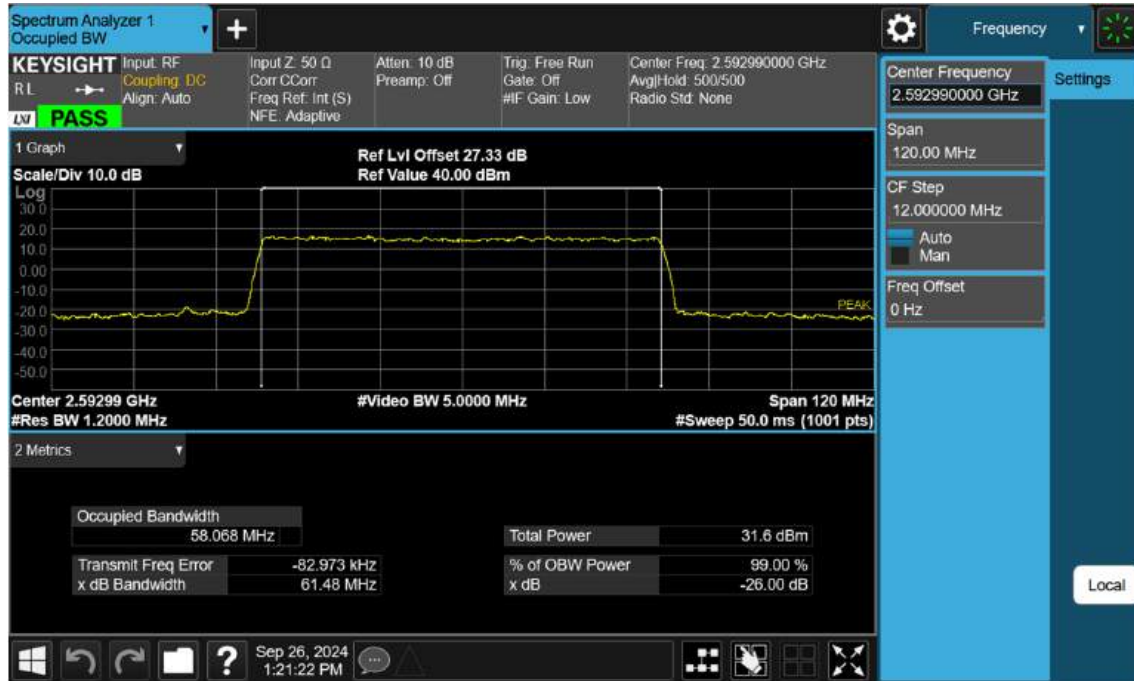
NR41_50 M_OBW_Mid_256QAM_FullRB



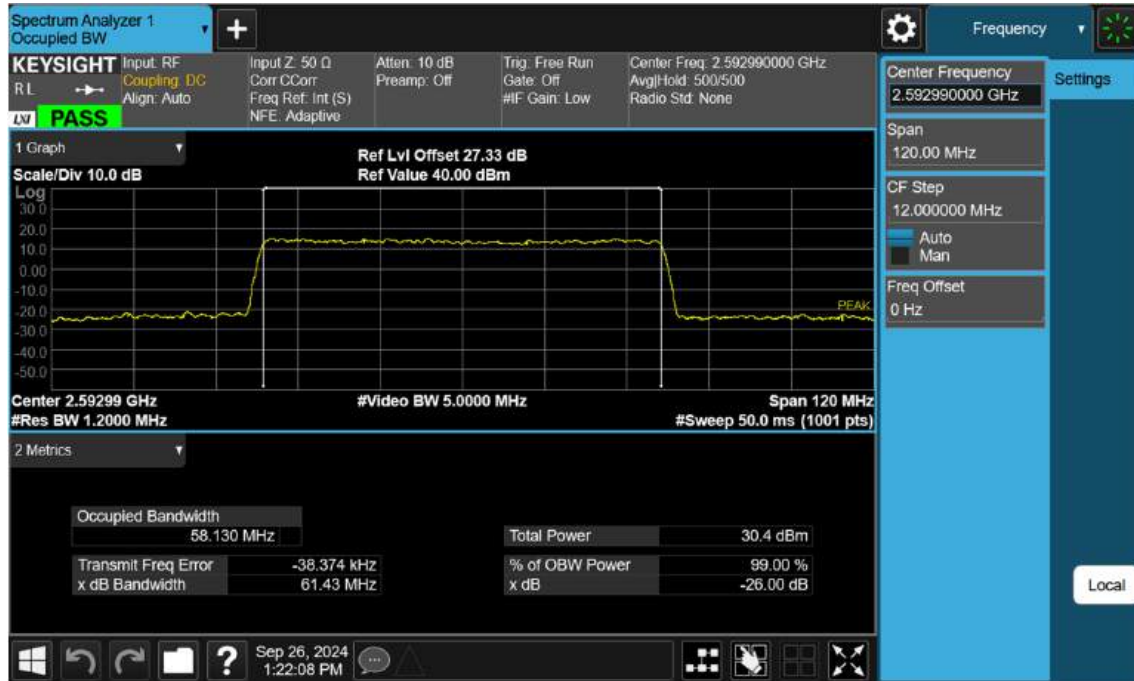
NR41_60 M_OBW_Mid_BPSK_FullRB



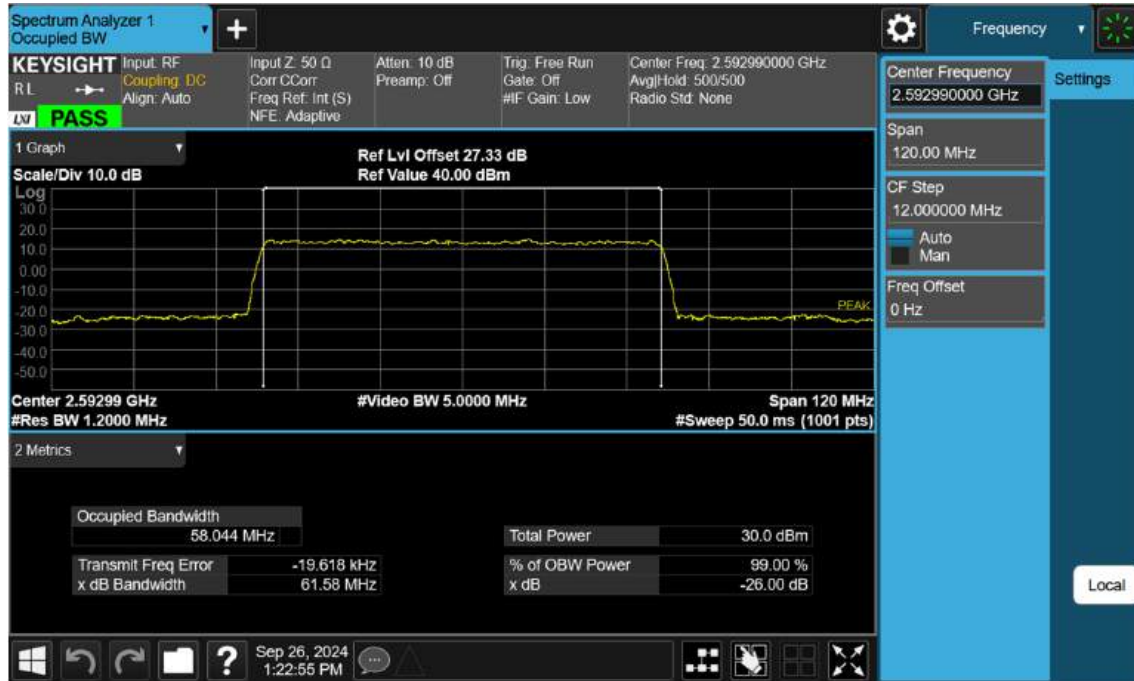
NR41_60 M_OBW_Mid_QPSK_FullIRB



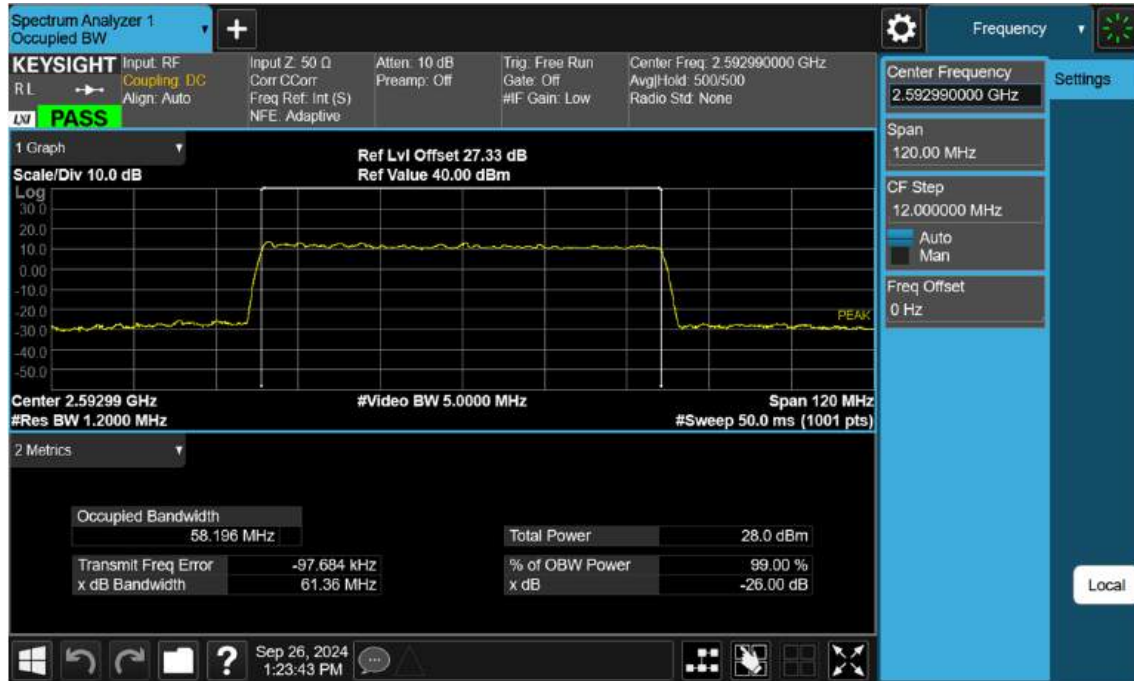
NR41_60 M_OBW_Mid_16QAM_FullRB



NR41_60 M_OBW_Mid_64QAM_FullRB



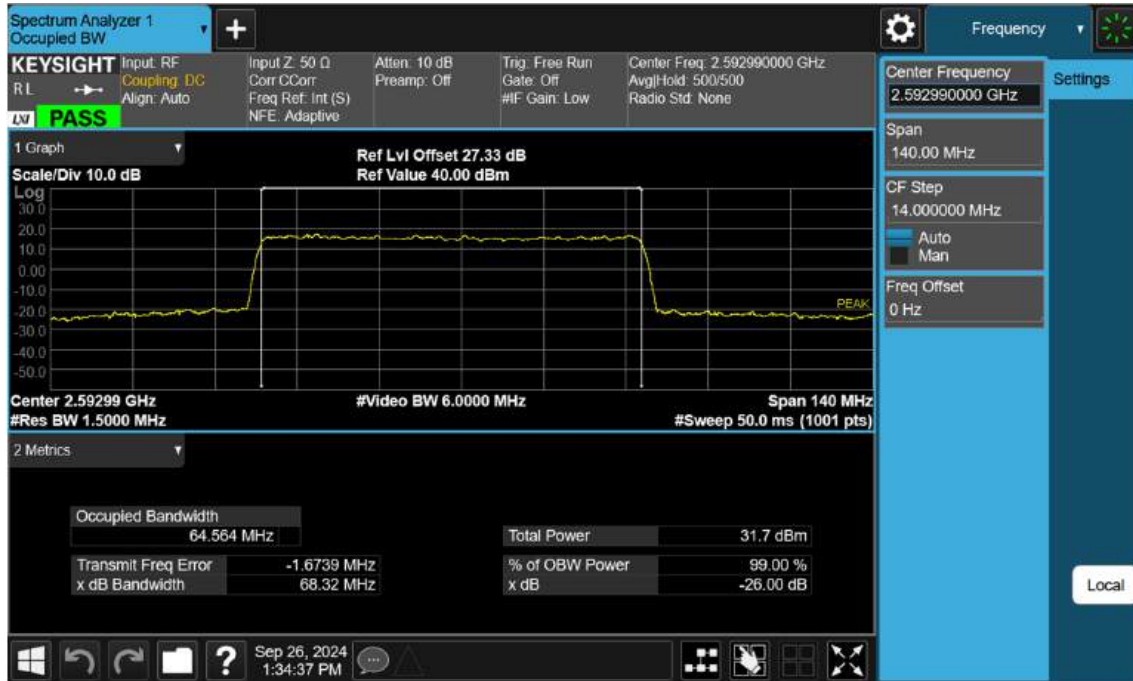
NR41_60 M_OBW_Mid_256QAM_FullRB



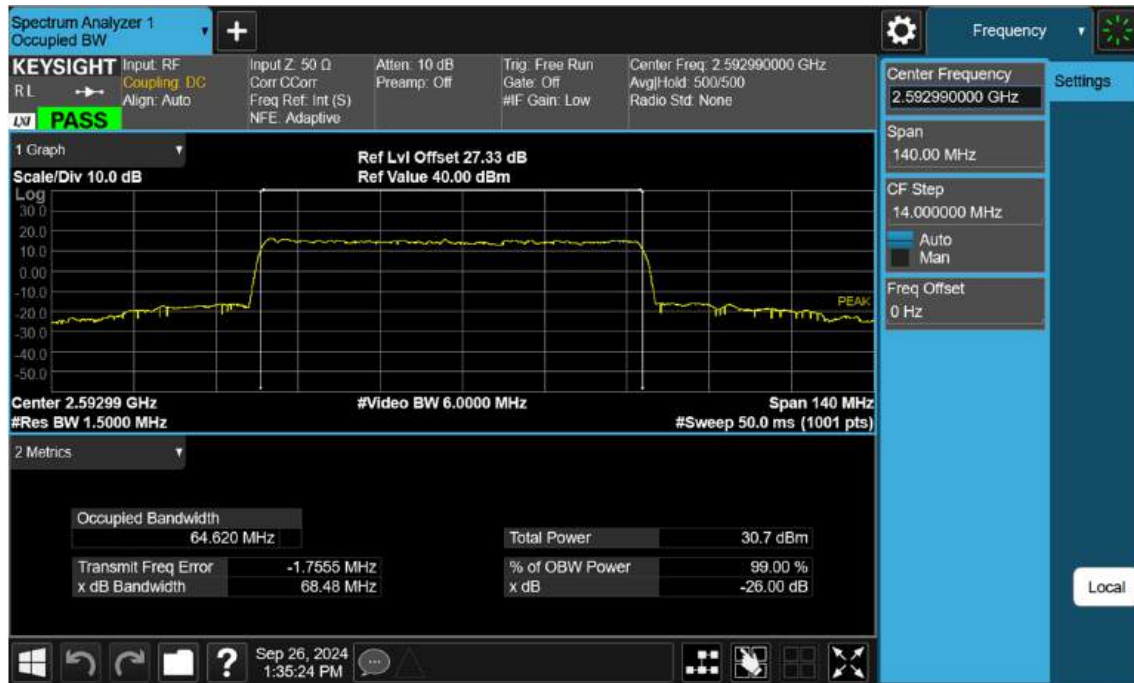
NR41_70 M_OBW_Mid_BPSK_FullRB



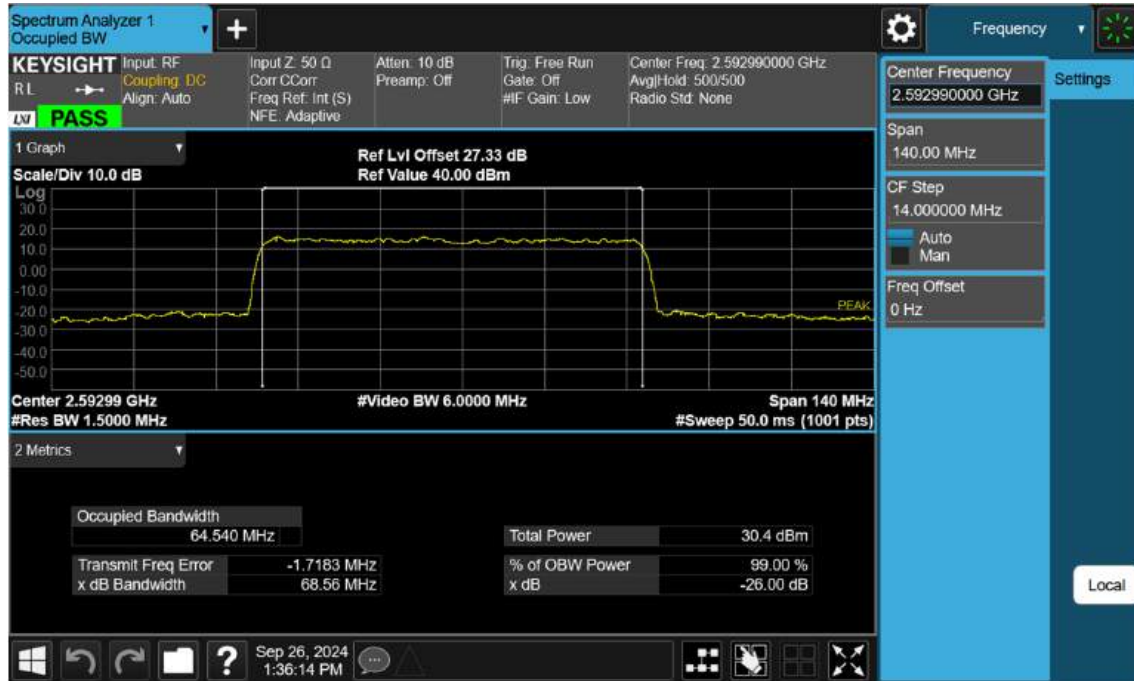
NR41_70 M_OBW_Mid_QPSK_FullIRB



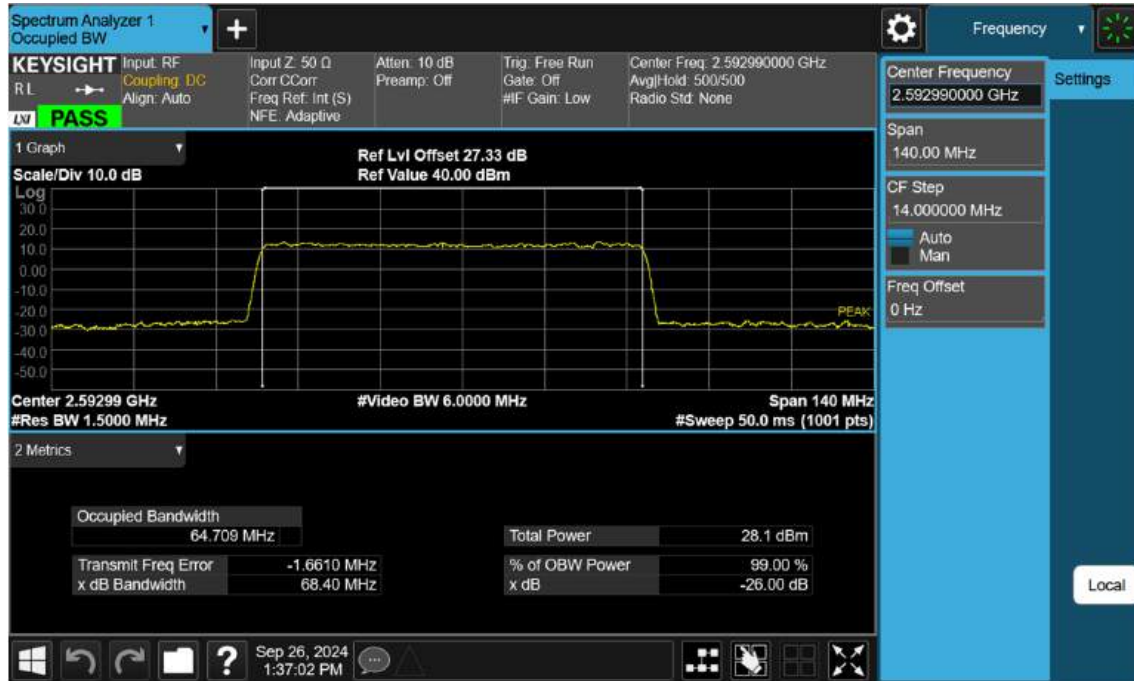
NR41_70 M_OBW_Mid_16QAM_FullRB



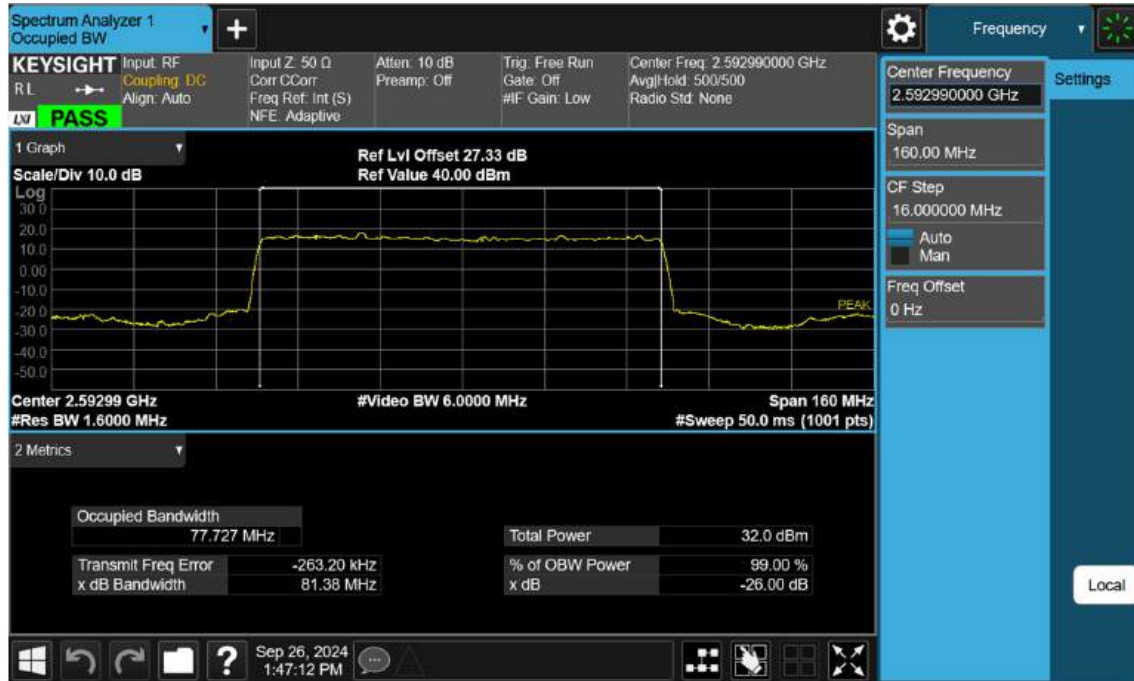
NR41_70 M_OBW_Mid_64QAM_FullRB



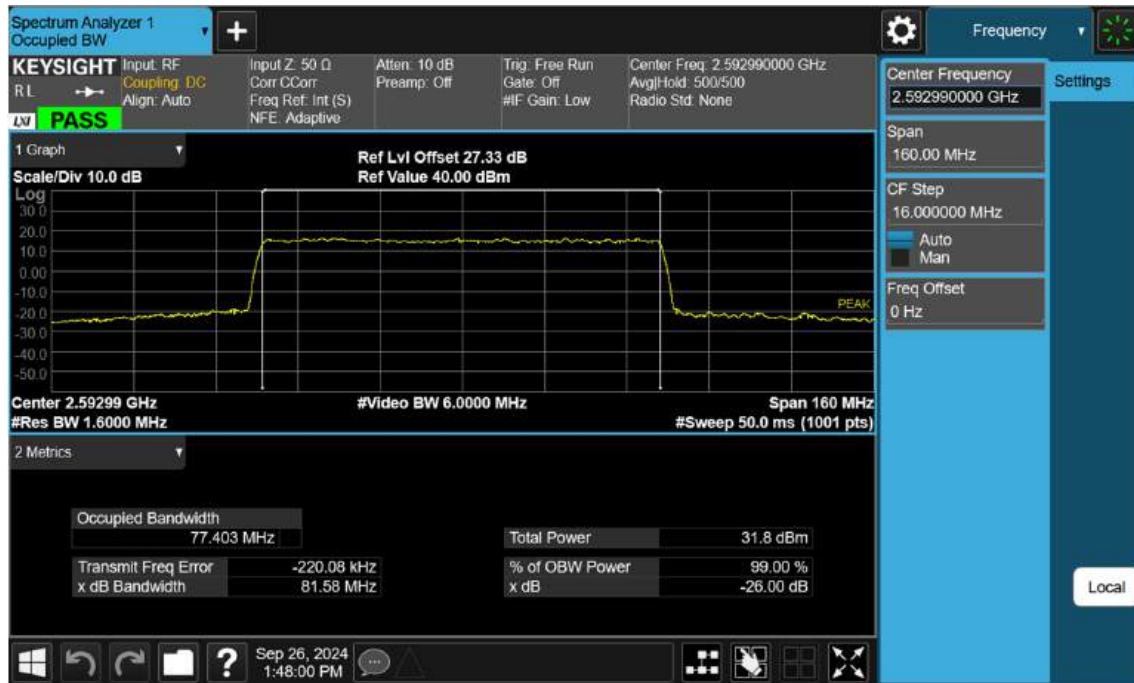
NR41_70 M_OBW_Mid_256QAM_FullRB



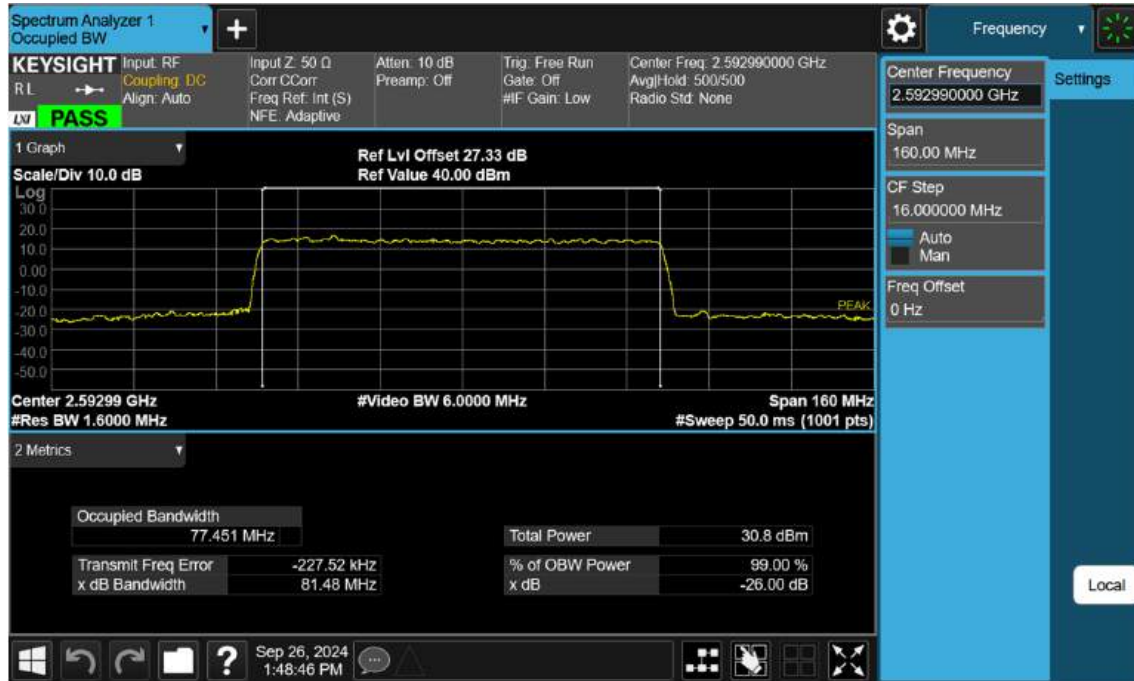
NR41_80 M_OBW_Mid_BPSK_FullRB



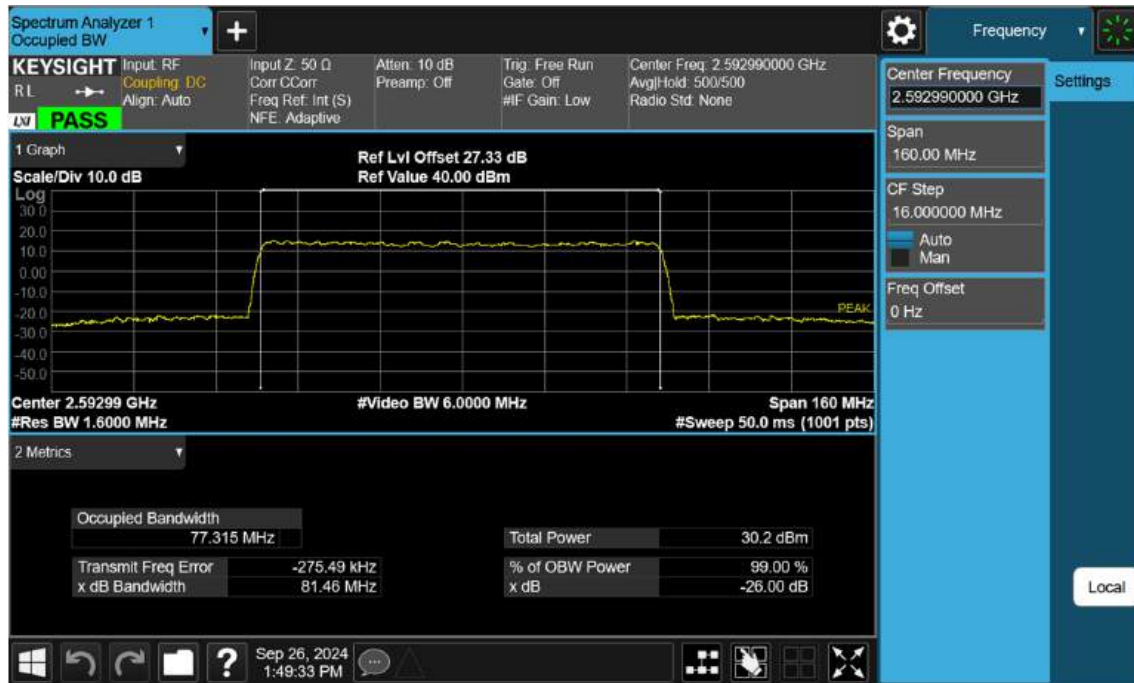
NR41_80 M_OBW_Mid_QPSK_FullRB



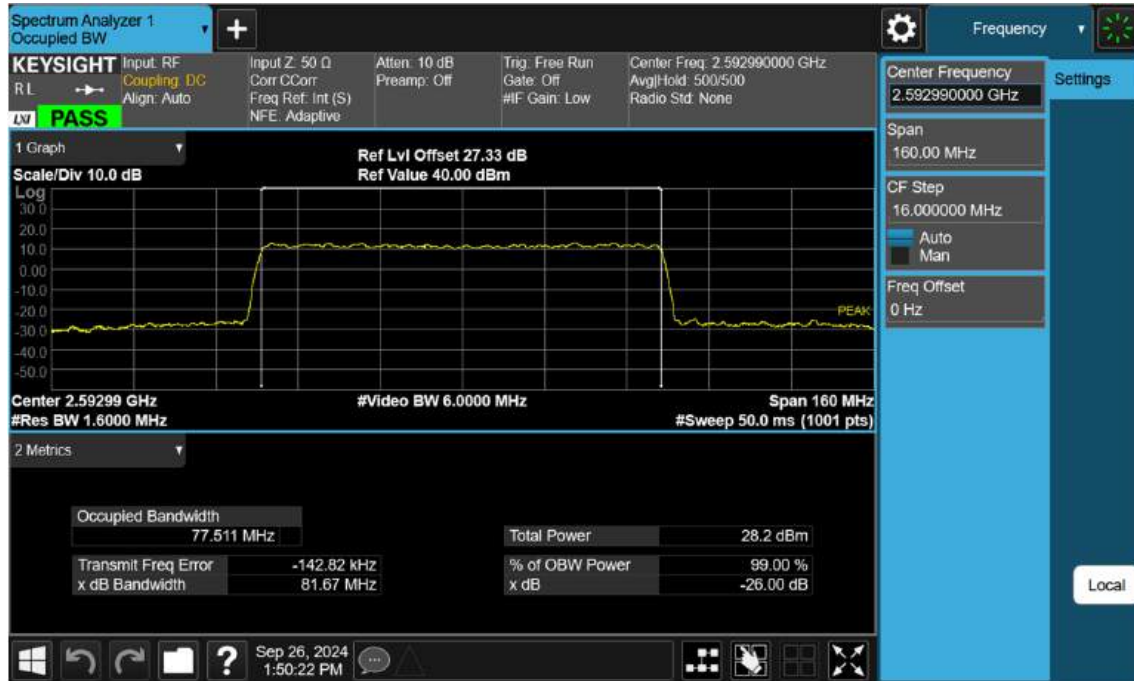
NR41_80 M_OBW_Mid_16QAM_FullRB



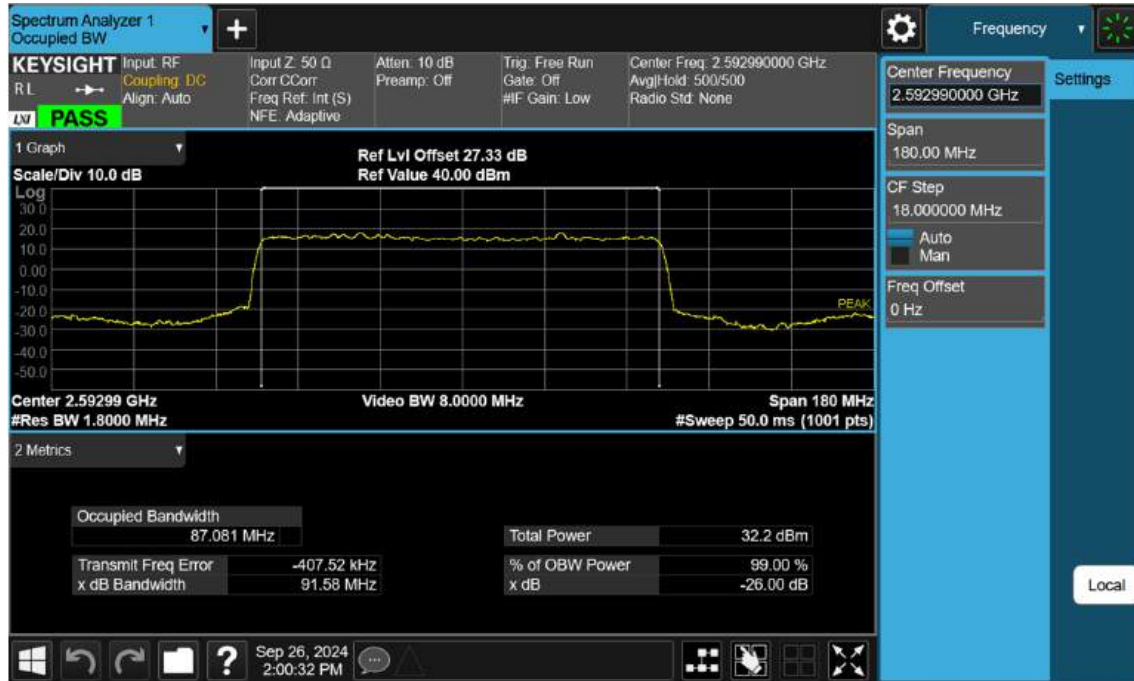
NR41_80 M_OBW_Mid_64QAM_FullRB



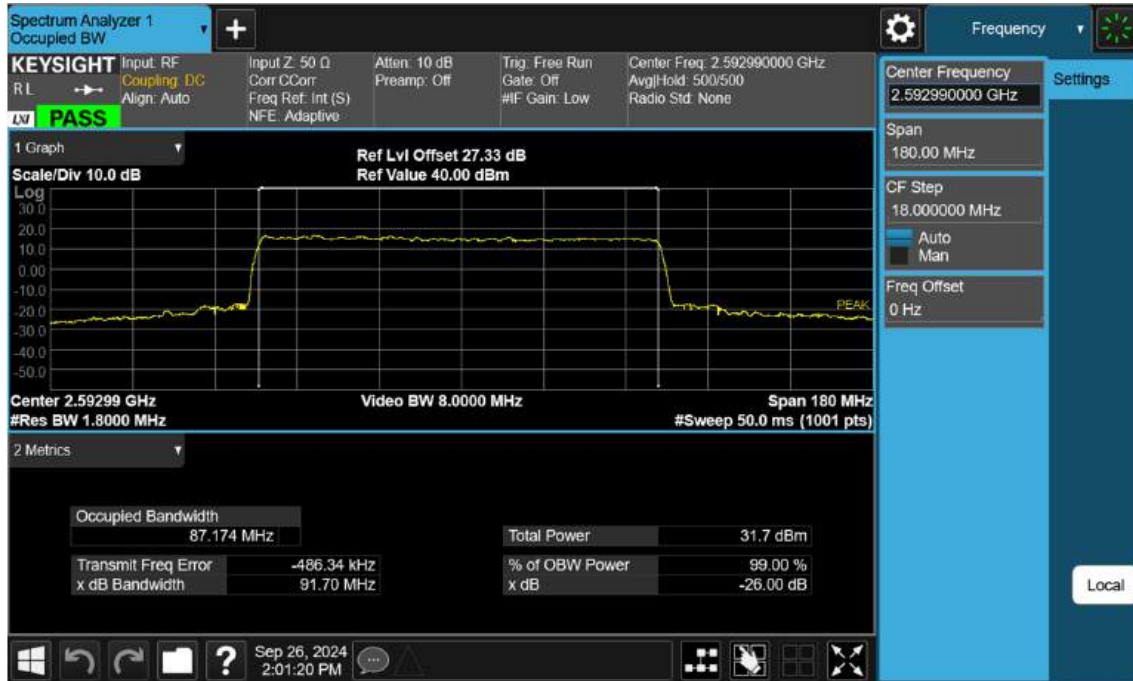
NR41_80 M_OBW_Mid_256QAM_FullRB



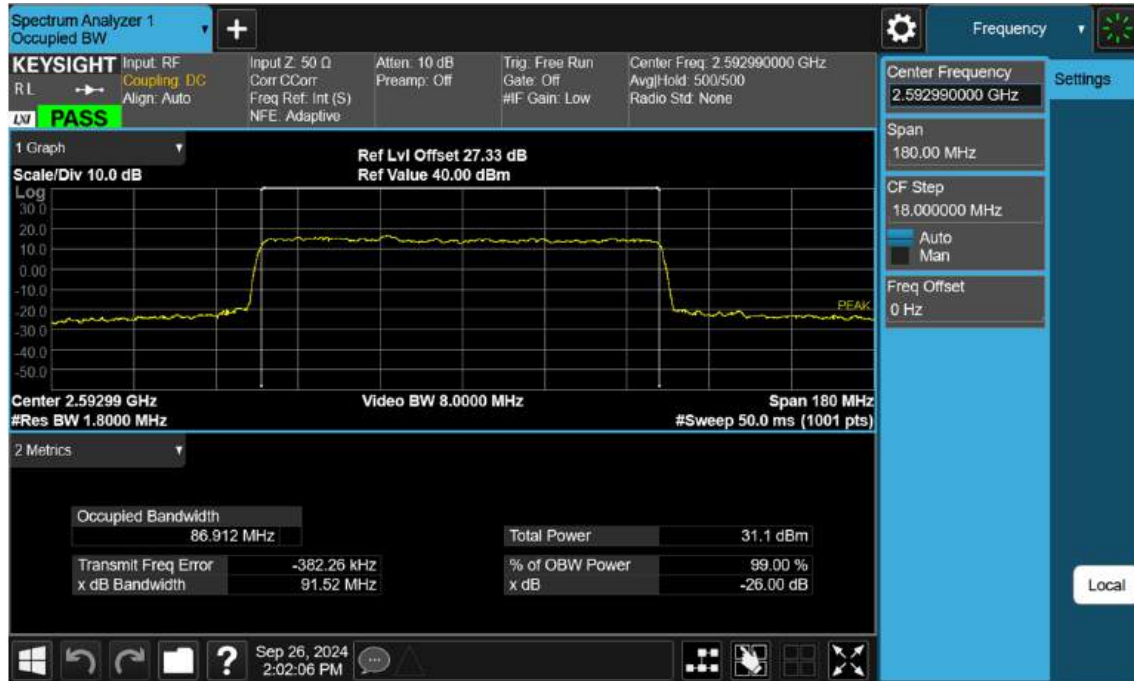
NR41_90 M_OBW_Mid_BPSK_FullRB



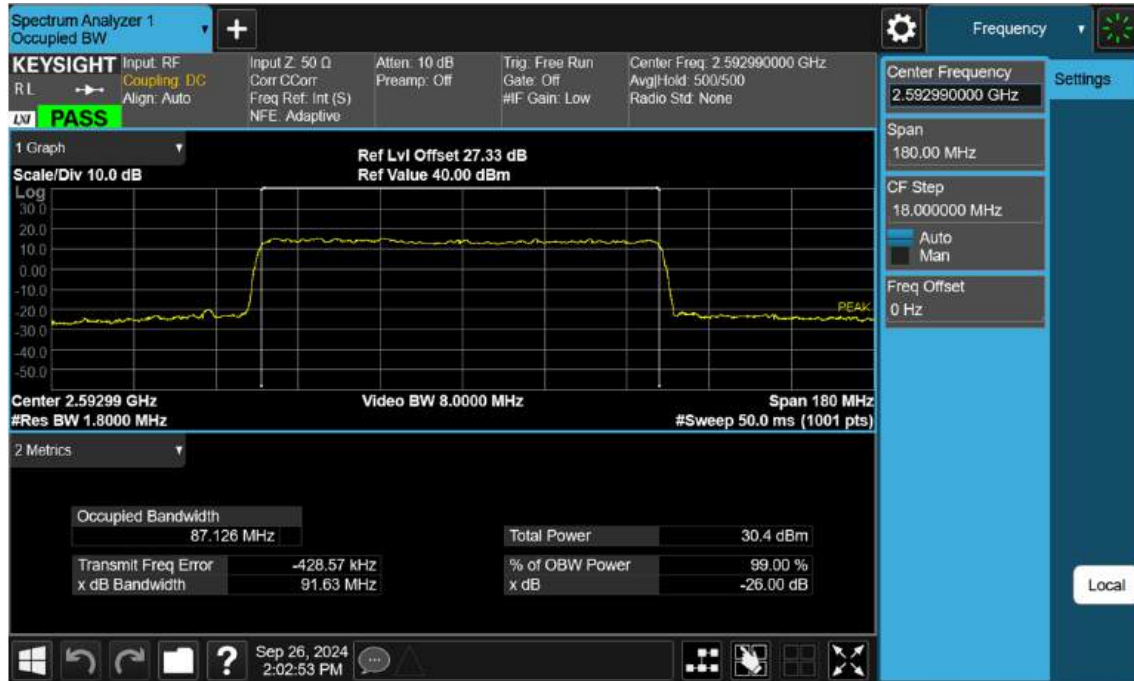
NR41_90 M_OBW_Mid_QPSK_FullIRB



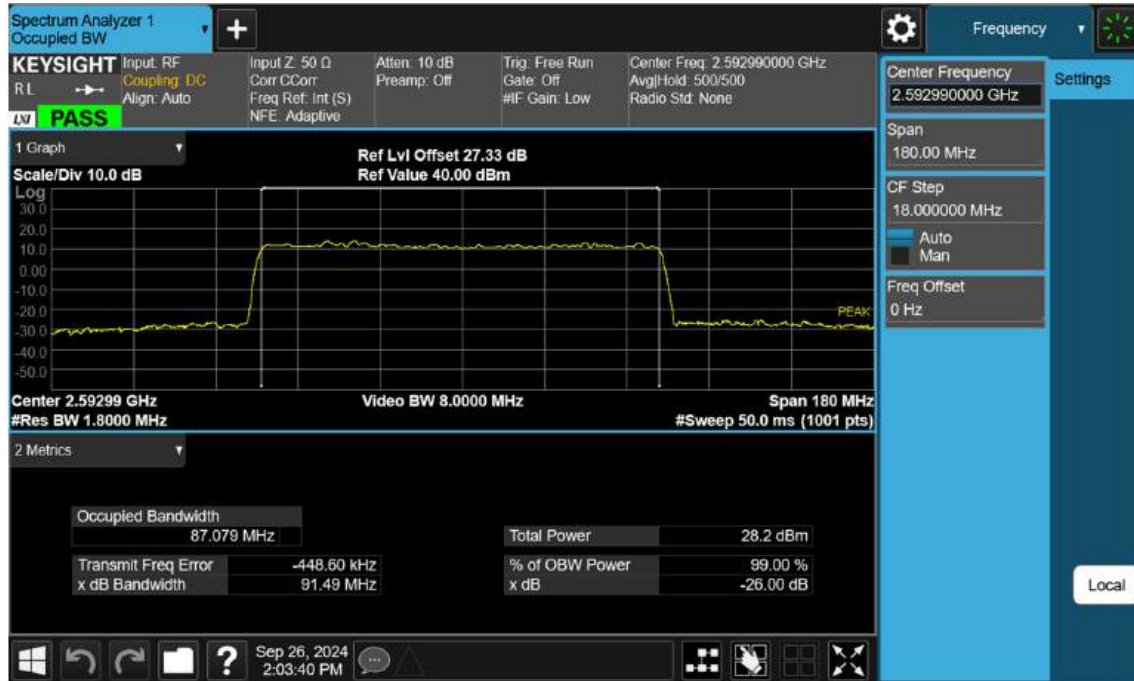
NR41_90 M_OBW_Mid_16QAM_FullRB



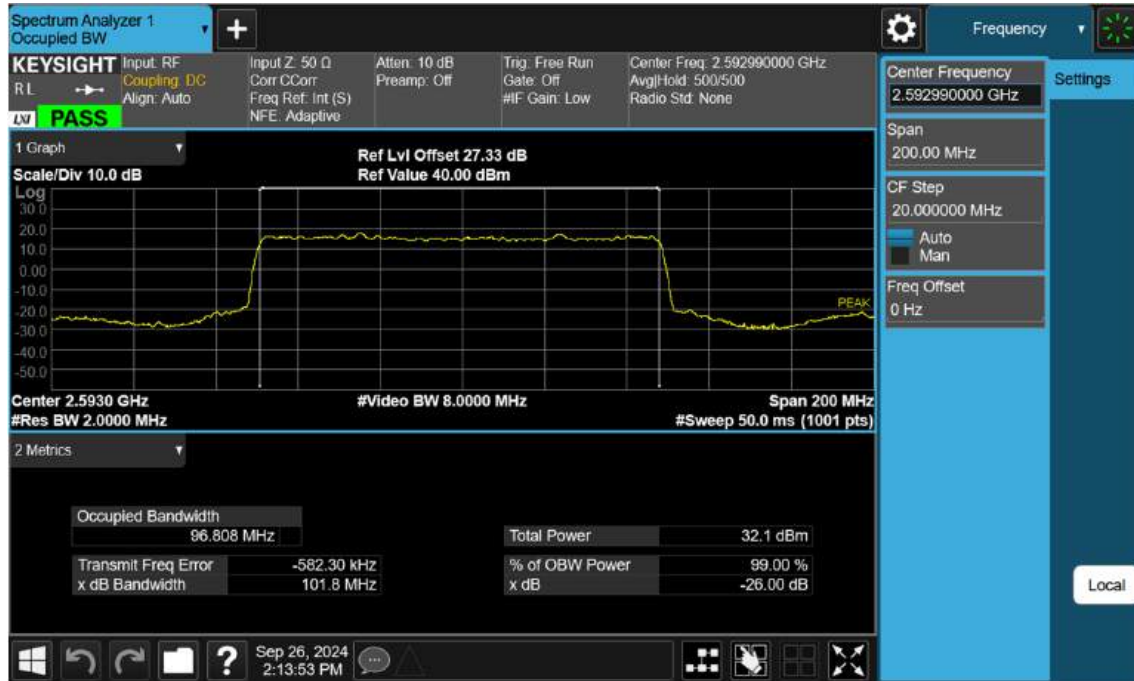
NR41_90 M_OBW_Mid_64QAM_FullRB



NR41_90 M_OBW_Mid_256QAM_FullRB



NR41_100 M_OBW_Mid_BPSK_FullRB



NR41_100 M_OBW_Mid_QPSK_FullRB



NR41_100 M_OBW_Mid_16QAM_FullRB

