

TEST REPORT

FCC Sub6 n66 Test for SM-F766U
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2504-FC026-R1

DATE OF ISSUE
May 23, 2025

Tested by
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TEST REPORT

REPORT NO.

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May 23, 2025

Additional Model

SM-F766U1

Applicant

SAMSUNG Electronics Co., Ltd.

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

Product Name

Mobile Phone

Model Name

SM-F766U

Date of Test

February 24, 2025 ~ April 21, 2025

FCC ID

A3LSMF766U

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing

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

FCC Classification:

PCS Licensed Transmitter Held to Ear (PCE)

Test Standard Used

FCC Rule Part: § 27

Test Results

PASS

REVISION HISTORY

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

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

Notice

Content

The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998, 21 U.S. C. 853(a)

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

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

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

Information provided by the applicant is marked **.

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

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

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

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MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	SAMSUNG Electronics Co., Ltd.
Address:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
FCC ID:	A3LSMF766U
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§ 27
EUT Type:	Mobile Phone
Model(s):	SM-F766U
Additional Model	SM-F766U1
SCS(kHz):	15
Bandwidth(MHz):	5, 10, 15, 20, 25, 30, 35, 40
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:	1712.5 MHz – 1777.5 MHz (Sub6 n66(5 MHz)) 1715.0 MHz – 1775.0 MHz (Sub6 n66(10 MHz)) 1717.5 MHz – 1772.5 MHz (Sub6 n66(15 MHz)) 1720.0 MHz – 1770.0 MHz (Sub6 n66(20 MHz)) 1722.5 MHz – 1767.5 MHz (Sub6 n66(25 MHz)) 1725.0 MHz – 1765.0 MHz (Sub6 n66(30 MHz)) 1727.5 MHz – 1762.5 MHz (Sub6 n66(35 MHz)) 1730.0 MHz – 1760.0 MHz (Sub6 n66(40 MHz))
Date(s) of Tests:	February 24, 2025 ~ April 21, 2025
Serial number:	Radiated : R3CY209A81W(Main 2 ANT), R3CY30SANBY (Sub 5 ANT) Conducted : R3CY10XMRGA(Main 2 ANT), R3CY10XMX8T(Sub 5 ANT)
Antenna Information	Please refer to the Antenna Specification document.

1.1. MAXIMUM OUTPUT POWER

Main 2 ANT

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n66 (5)	1712.5 – 1777.5	4M53G7D	PI/2 BPSK	0.164	22.14
		4M54G7D	QPSK	0.160	22.04
		4M57W7D	16QAM	0.128	21.07
		4M57W7D	64QAM	0.086	19.37
		4M52W7D	256QAM	0.056	17.51
Sub6 n66 (10)	1715.0 – 1775.0	9M03G7D	PI/2 BPSK	0.159	22.01
		9M02G7D	QPSK	0.158	22.00
		9M01W7D	16QAM	0.124	20.95
		8M99W7D	64QAM	0.086	19.37
		8M96W7D	256QAM	0.055	17.41
Sub6 n66 (15)	1717.5 – 1772.5	13M5G7D	PI/2 BPSK	0.161	22.07
		13M5G7D	QPSK	0.160	22.05
		13M4W7D	16QAM	0.125	20.98
		13M5W7D	64QAM	0.089	19.51
		13M4W7D	256QAM	0.056	17.50
Sub6 n66 (20)	1720.0 – 1770.0	18M0G7D	PI/2 BPSK	0.164	22.14
		18M0G7D	QPSK	0.162	22.09
		17M9W7D	16QAM	0.127	21.04
		17M9W7D	64QAM	0.087	19.40
		18M0W7D	256QAM	0.056	17.51
Sub6 n66 (25)	1722.5 – 1767.5	23M0G7D	PI/2 BPSK	0.161	22.06
		22M9G7D	QPSK	0.160	22.04
		23M0W7D	16QAM	0.128	21.08
		23M0W7D	64QAM	0.089	19.48
		23M0W7D	256QAM	0.056	17.46
Sub6 n66 (30)	1725.0 – 1765.0	28M8G7D	PI/2 BPSK	0.162	22.09
		28M8G7D	QPSK	0.157	21.97
		28M7W7D	16QAM	0.122	20.88
		28M7W7D	64QAM	0.087	19.38
		28M7W7D	256QAM	0.055	17.38
Sub6 n66 (35)	1727.5 – 1762.5	32M3G7D	PI/2 BPSK	0.158	21.98
		32M4G7D	QPSK	0.156	21.93
		32M3W7D	16QAM	0.124	20.94
		32M4W7D	64QAM	0.087	19.42
		32M3W7D	256QAM	0.053	17.25
Sub6 n66 (40)	1730.0 – 1760.0	38M8G7D	PI/2 BPSK	0.156	21.92
		38M7G7D	QPSK	0.155	21.90
		38M6W7D	16QAM	0.123	20.89
		38M8W7D	64QAM	0.085	19.30
		38M7W7D	256QAM	0.054	17.34

Sub 5 ANT

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n66 (5)	1712.5 – 1777.5	4M51G7D	PI/2 BPSK	0.046	16.64
		4M54G7D	QPSK	0.046	16.59
		4M55W7D	16QAM	0.036	15.60
		4M52W7D	64QAM	0.025	14.01
		4M51W7D	256QAM	0.016	12.07
Sub6 n66 (10)	1715.0 – 1775.0	8M99G7D	PI/2 BPSK	0.047	16.73
		8M99G7D	QPSK	0.047	16.68
		8M98W7D	16QAM	0.037	15.64
		9M01W7D	64QAM	0.026	14.17
		8M98W7D	256QAM	0.016	12.07
Sub6 n66 (15)	1717.5 – 1772.5	13M5G7D	PI/2 BPSK	0.047	16.72
		13M5G7D	QPSK	0.046	16.65
		13M5W7D	16QAM	0.036	15.62
		13M5W7D	64QAM	0.026	14.10
		13M4W7D	256QAM	0.016	12.02
Sub6 n66 (20)	1720.0 – 1770.0	18M0G7D	PI/2 BPSK	0.048	16.83
		18M0G7D	QPSK	0.048	16.78
		17M9W7D	16QAM	0.038	15.78
		17M9W7D	64QAM	0.026	14.23
		18M0W7D	256QAM	0.017	12.26
Sub6 n66 (25)	1722.5 – 1767.5	23M0G7D	PI/2 BPSK	0.049	16.93
		23M0G7D	QPSK	0.049	16.90
		23M0W7D	16QAM	0.040	15.98
		23M0W7D	64QAM	0.028	14.41
		23M0W7D	256QAM	0.017	12.29
Sub6 n66 (30)	1725.0 – 1765.0	28M8G7D	PI/2 BPSK	0.047	16.73
		28M7G7D	QPSK	0.046	16.67
		28M7W7D	16QAM	0.036	15.60
		28M7W7D	64QAM	0.026	14.12
		28M7W7D	256QAM	0.016	12.13
Sub6 n66 (35)	1727.5 – 1762.5	32M3G7D	PI/2 BPSK	0.048	16.80
		32M3G7D	QPSK	0.047	16.71
		32M2W7D	16QAM	0.038	15.84
		32M4W7D	64QAM	0.027	14.25
		32M4W7D	256QAM	0.016	12.15
Sub6 n66 (40)	1730.0 – 1760.0	38M7G7D	PI/2 BPSK	0.047	16.69
		38M8G7D	QPSK	0.046	16.66
		38M7W7D	16QAM	0.038	15.75
		38M8W7D	64QAM	0.026	14.18
		38M8W7D	256QAM	0.016	12.12

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

Please refer to the [2G3G] Test Report.

2.2. MEASURING INSTRUMENT CALIBRATION

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

2.3. TEST FACILITY

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

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

Test Description	Test Procedure Used
Occupied Bandwidth	- KDB 971168 D01 v03r01 – Section 4.3 - ANSI C63.26-2015 – Section 5.4.4
Band Edge	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Spurious and Harmonic Emissions at Antenna Terminal	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Conducted Output Power	- N/A (See SAR Report)
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Radiated Power	- ANSI C63.26-2015 – Section 5.2.4.4 - KDB 971168 D01 v03r01 – Section 5.8
Radiated Spurious and Harmonic Emissions	- ANSI C63.26-2015 – Section 5.5.3 - KDB 971168 D01 v03r01 – Section 5.8

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

The equipment under test is placed on a non-conductive table 3-meters away from the receive antenna.

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5 % of the expected OBW, not to exceed 1 MHz
3. VBW $\geq$ 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.

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;

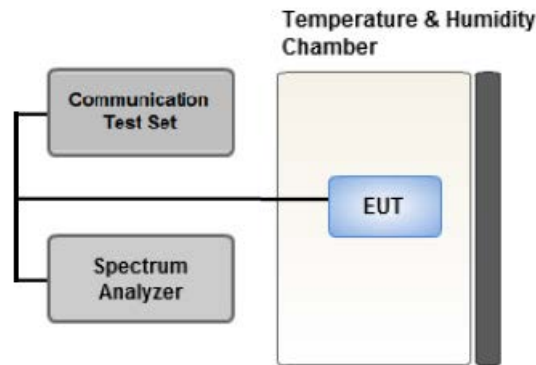
$$\text{Result}_{(\text{dBm})} = P_g_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

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)

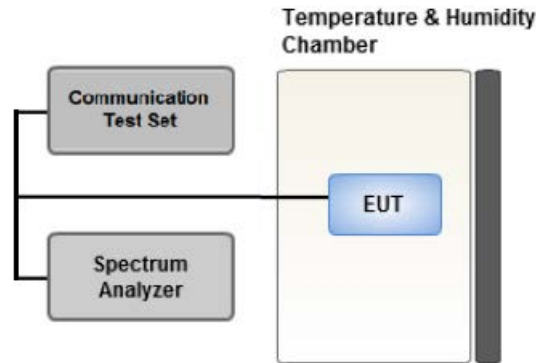
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

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.

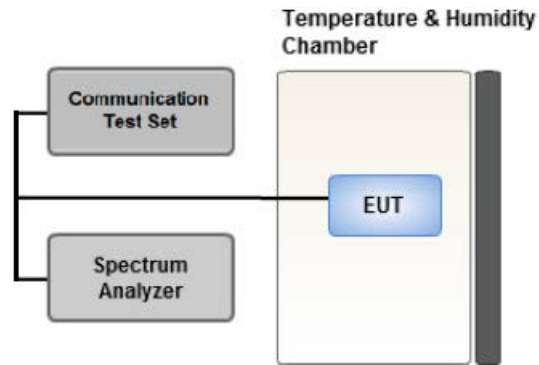
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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 x RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5 % of the 99 % occupied bandwidth observed in Step 7

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

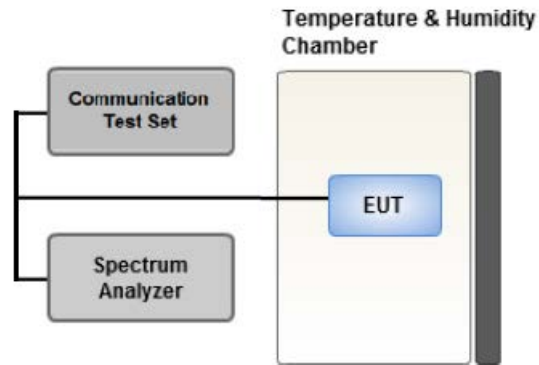
Test Overview

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

Test Settings

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

3.7 BAND EDGE



Test setup

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW > 1 % of the emission bandwidth
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

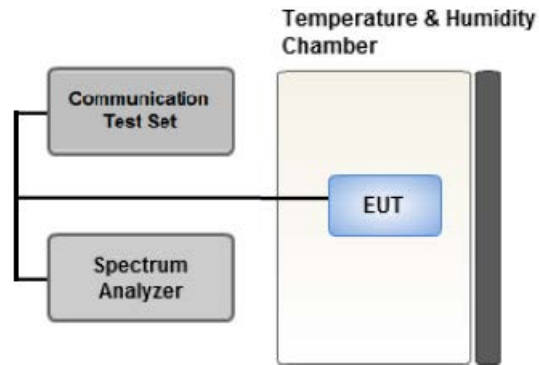
According to FCC 22.917, 24.238, 27.53 specified that power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

All measurements were done at 2 channels (low and high operational frequency range.)

The band edge measurement used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

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

The frequency stability of the transmitter is measured by:

1. Temperature:

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

2. Primary Supply Voltage:

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

Test Settings

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

3.9 WORST CASE(RADIATED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
(Worst case: DFT-S-OFDM)
- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- The EUT was tested in three modes(Open, Half-open, Closed), the worst case configuration results are reported.
- Worst case (Equivalent Isotropic Radiated Power)
: Main 2 ANT (Half Open), Sub 5 ANT (Open)
- Worst case (Radiated Spurious Emissions)
: Main 2 ANT (Open), Sub 5 ANT (Open)
- All modes of operation were investigated and the worst case configuration results are reported.
Mode: SA, NSA
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.
- In the case of radiated spurious emissions, all bandwidth of operation was investigated and the worst case bandwidth results are reported. (Worst case : 5 MHz(Main 2 ANT), 25 MHz(Sub 5 ANT))
- SM-F766U & additional models were tested and the worst case results are reported.
(Worst case : SM-F766U)

[Main 2 ANT 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		Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		Y

[Sub 5 ANT 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		Z
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		Y

3.10 WORST CASE(CONDUCTED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
(Worst case: DFT-S-OFDM)
- Modulation : All Modulation of operation were investigated and the worst case configuration results are reported.
(Worst case: PI/2 BPSK)
- All modes of operation were investigated and the worst case configuration results are reported.
Mode: SA, NSA
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-F766U & additional models were tested and the worst case results are reported.
(Worst case : SM-F766U)

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth, Peak-To-Average Ratio	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	5, 10, 15, 20, 25, 30, 35, 40	Mid	Full RB	0
Band Edge	PI/2 BPSK	5	Low	1	0
			High	1	24
		10	Low	1	0
			High	1	51
		15	Low	1	0
			High	1	78
		20	Low	1	0
			High	1	105
		25	Low	1	0
			High	1	132
		30	Low	1	0
			High	1	159
		35	Low	1	0
			High	1	187
		40	Low	1	0
			High	1	215
		5, 10, 15, 20, 25, 30, 35, 40	Low, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	5, 10, 15, 20, 25, 30, 35, 40	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	04/17/2027	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/23/2027	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	01/06/2027	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/05/2027	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/17/2027	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	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/22/2025	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	02/04/2026	Annual
Chamber	SU-642	ESPEC	93008124	02/11/2026	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	03/21/2026	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/10/2026	Annual
Spectrum Analyzer (10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/04/2026	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	05/23/2025	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
UXM 5G Wireless Test Platform	E7515B	KEYSIGHT	MY60101126	02/10/2026	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
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/26/2025	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 ($\pm$ kHz)
Occupied Bandwidth	95 (Confidence level about 95 %, $k=2$)
Frequency stability	28 (Confidence level about 95 %, $k=2$)

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

6. SUMMARY OF TEST RESULTS

-. The decision rule applies 'simple acceptance'

6.1 Test Condition: Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§ 2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§ 2.1051, § 27.53(h)	< 43 + 10log10 (P[Watts]) at Band Edge and for all out-of-band emissions	PASS
Conducted Output Power	§ 2.1046	N/A	<u>See Note1</u>
Peak- to- Average Ratio	§ 27.50(d)(5)	< 13 dB	PASS
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(d)(4)	< 1 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1053, § 27.53(h)	< 43 + 10log10 (P[Watts]) for all out-of band emissions	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 (Main 2 ANT)

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

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
1712.5	Sub6 n66/ 5 MHz [15 kHz]	PI/2 BPSK	-21.46	11.62	10.12	2.06	H	<1.00	0.093	19.68	1	12
		QPSK	-21.53	11.55	10.12	2.06	H		0.091	19.61		
		16-QAM	-22.50	10.58	10.12	2.06	H		0.073	18.64		
		64-QAM	-24.22	8.86	10.12	2.06	H		0.049	16.92		
		256-QAM	-26.08	7.00	10.12	2.06	H		0.032	15.06		
1745.0		PI/2 BPSK	-20.22	13.15	10.43	2.07	H		0.142	21.51	1	23
		QPSK	-20.31	13.06	10.43	2.07	H		0.139	21.42		
		16-QAM	-21.38	11.99	10.43	2.07	H		0.109	20.35		
		64-QAM	-22.80	10.57	10.43	2.07	H		0.078	18.93		
		256-QAM	-24.92	8.45	10.43	2.07	H		0.048	16.81		
1777.5		PI/2 BPSK	-19.63	13.73	10.50	2.09	H		0.164	22.14	1	12
		QPSK	-19.73	13.63	10.50	2.09	H		0.160	22.04		
		16-QAM	-20.70	12.66	10.50	2.09	H		0.128	21.07		
		64-QAM	-22.40	10.96	10.50	2.09	H		0.086	19.37		
		256-QAM	-24.26	9.10	10.50	2.09	H		0.056	17.51		

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
1715.0		PI/2 BPSK	-21.41	11.67	10.12	2.06	H	< 1.00	0.094	19.73	1	50
		QPSK	-21.47	11.61	10.12	2.06	H		0.093	19.67		
		16-QAM	-22.58	10.50	10.12	2.06	H		0.072	18.56		
		64-QAM	-24.12	8.96	10.12	2.06	H		0.050	17.02		
		256-QAM	-26.10	6.98	10.12	2.06	H		0.032	15.04		
1745.0	Sub6 n66/ 10 MHz [15 kHz]	PI/2 BPSK	-20.25	13.12	10.43	2.07	H	< 1.00	0.141	21.48	1	50
		QPSK	-20.25	13.12	10.43	2.07	H		0.141	21.48		
		16-QAM	-21.29	12.08	10.43	2.07	H		0.111	20.44		
		64-QAM	-22.93	10.44	10.43	2.07	H		0.076	18.80		
		256-QAM	-24.84	8.53	10.43	2.07	H		0.049	16.89		
1775.0		PI/2 BPSK	-19.79	13.61	10.49	2.09	H	< 1.00	0.159	22.01	1	50
		QPSK	-19.80	13.60	10.49	2.09	H		0.159	22.00		
		16-QAM	-20.85	12.55	10.49	2.09	H		0.124	20.95		
		64-QAM	-22.43	10.97	10.49	2.09	H		0.086	19.37		
		256-QAM	-24.39	9.01	10.49	2.09	H		0.055	17.41		

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
1717.5		PI/2 BPSK	-21.39	11.77	10.18	2.06	H	< 1.00	0.097	19.89	1	77
		QPSK	-21.43	11.73	10.18	2.06	H		0.097	19.85		
		16-QAM	-22.52	10.64	10.18	2.06	H		0.075	18.76		
		64-QAM	-24.08	9.08	10.18	2.06	H		0.052	17.20		
		256-QAM	-26.05	7.11	10.18	2.06	H		0.033	15.23		
1745.0	Sub6 n66/ 15 MHz [15 kHz]	PI/2 BPSK	-20.29	13.08	10.43	2.07	H	< 1.00	0.139	21.44	1	39
		QPSK	-20.43	12.94	10.43	2.07	H		0.135	21.30		
		16-QAM	-21.45	11.92	10.43	2.07	H		0.107	20.28		
		64-QAM	-23.16	10.21	10.43	2.07	H		0.072	18.57		
		256-QAM	-24.97	8.40	10.43	2.07	H		0.047	16.76		
1772.5		PI/2 BPSK	-19.73	13.67	10.49	2.09	H	< 1.00	0.161	22.07	1	39
		QPSK	-19.75	13.65	10.49	2.09	H		0.160	22.05		
		16-QAM	-20.82	12.58	10.49	2.09	H		0.125	20.98		
		64-QAM	-22.29	11.11	10.49	2.09	H		0.089	19.51		
		256-QAM	-24.30	9.10	10.49	2.09	H		0.056	17.50		

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
1720.0		PI/2 BPSK	-21.28	11.88	10.18	2.06	H	< 1.00	0.100	20.00	1	104
		QPSK	-21.29	11.87	10.18	2.06	H		0.100	19.99		
		16-QAM	-22.27	10.89	10.18	2.06	H		0.080	19.01		
		64-QAM	-23.92	9.24	10.18	2.06	H		0.054	17.36		
		256-QAM	-25.86	7.30	10.18	2.06	H		0.035	15.42		
1745.0	Sub6 n66/ 20 MHz [15 kHz]	PI/2 BPSK	-20.18	13.19	10.43	2.07	H	< 1.00	0.143	21.55	1	104
		QPSK	-20.20	13.17	10.43	2.07	H		0.142	21.53		
		16-QAM	-21.31	12.06	10.43	2.07	H		0.110	20.42		
		64-QAM	-22.84	10.53	10.43	2.07	H		0.078	18.89		
		256-QAM	-24.83	8.54	10.43	2.07	H		0.049	16.90		
1770.0		PI/2 BPSK	-19.68	13.74	10.49	2.09	H	< 1.00	0.164	22.14	1	53
		QPSK	-19.73	13.69	10.49	2.09	H		0.162	22.09		
		16-QAM	-20.78	12.64	10.49	2.09	H		0.127	21.04		
		64-QAM	-22.42	11.00	10.49	2.09	H		0.087	19.40		
		256-QAM	-24.31	9.11	10.49	2.09	H		0.056	17.51		

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
1722.5		PI/2 BPSK	-20.88	12.40	10.23	2.07	H	< 1.00	0.114	20.56	1	131
		QPSK	-20.99	12.29	10.23	2.07	H		0.111	20.45		
		16-QAM	-21.94	11.34	10.23	2.07	H		0.089	19.50		
		64-QAM	-23.59	9.69	10.23	2.07	H		0.061	17.85		
		256-QAM	-25.46	7.82	10.23	2.07	H		0.040	15.98		
1745.0	Sub6 n66/ 25 MHz [15 kHz]	PI/2 BPSK	-20.03	13.34	10.43	2.07	H	< 1.00	0.148	21.70	1	131
		QPSK	-20.09	13.28	10.43	2.07	H		0.146	21.64		
		16-QAM	-21.08	12.29	10.43	2.07	H		0.116	20.65		
		64-QAM	-22.68	10.69	10.43	2.07	H		0.080	19.05		
		256-QAM	-24.63	8.74	10.43	2.07	H		0.051	17.10		
1767.5		PI/2 BPSK	-19.76	13.66	10.49	2.09	H	< 1.00	0.161	22.06	1	131
		QPSK	-19.78	13.64	10.49	2.09	H		0.160	22.04		
		16-QAM	-20.74	12.68	10.49	2.09	H		0.128	21.08		
		64-QAM	-22.34	11.08	10.49	2.09	H		0.089	19.48		
		256-QAM	-24.36	9.06	10.49	2.09	H		0.056	17.46		

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
1725.0		PI/2 BPSK	-20.68	12.60	10.23	2.07	H	< 1.00	0.119	20.76	1	158
		QPSK	-20.70	12.58	10.23	2.07	H		0.119	20.74		
		16-QAM	-21.73	11.55	10.23	2.07	H		0.094	19.71		
		64-QAM	-23.46	9.82	10.23	2.07	H		0.063	17.98		
		256-QAM	-25.30	7.98	10.23	2.07	H		0.041	16.14		
1745.0	Sub6 n66/ 30 MHz [15 kHz]	PI/2 BPSK	-20.16	13.21	10.43	2.07	H	< 1.00	0.144	21.57	1	158
		QPSK	-20.19	13.18	10.43	2.07	H		0.143	21.54		
		16-QAM	-21.21	12.16	10.43	2.07	H		0.113	20.52		
		64-QAM	-22.93	10.44	10.43	2.07	H		0.076	18.80		
		256-QAM	-24.78	8.59	10.43	2.07	H		0.050	16.95		
1765.0		PI/2 BPSK	-19.63	13.70	10.48	2.09	H	< 1.00	0.162	22.09	1	158
		QPSK	-19.75	13.58	10.48	2.09	H		0.157	21.97		
		16-QAM	-20.84	12.49	10.48	2.09	H		0.123	20.88		
		64-QAM	-22.34	10.99	10.48	2.09	H		0.087	19.38		
		256-QAM	-24.34	8.99	10.48	2.09	H		0.055	17.38		

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
1727.5		PI/2 BPSK	-20.46	12.94	10.29	2.08	H	< 1.00	0.130	21.15	1	186
		QPSK	-20.49	12.91	10.29	2.08	H		0.129	21.12		
		16-QAM	-21.55	11.85	10.29	2.08	H		0.102	20.06		
		64-QAM	-23.04	10.36	10.29	2.08	H		0.072	18.57		
		256-QAM	-25.04	8.36	10.29	2.08	H		0.045	16.57		
1745.0	Sub6 n66/ 35 MHz [15 kHz]	PI/2 BPSK	-20.04	13.33	10.43	2.07	H	< 1.00	0.148	21.69	1	186
		QPSK	-20.10	13.27	10.43	2.07	H		0.146	21.63		
		16-QAM	-21.10	12.27	10.43	2.07	H		0.116	20.63		
		64-QAM	-22.66	10.71	10.43	2.07	H		0.081	19.07		
		256-QAM	-24.67	8.70	10.43	2.07	H		0.051	17.06		
1762.5		PI/2 BPSK	-19.74	13.59	10.48	2.09	H	< 1.00	0.158	21.98	1	186
		QPSK	-19.79	13.54	10.48	2.09	H		0.156	21.93		
		16-QAM	-20.78	12.55	10.48	2.09	H		0.124	20.94		
		64-QAM	-22.30	11.03	10.48	2.09	H		0.087	19.42		
		256-QAM	-24.47	8.86	10.48	2.09	H		0.053	17.25		

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
1730.0	Sub6 n66/ 40 MHz [15 kHz]	PI/2 BPSK	-20.08	13.32	10.29	2.08	H	<1.00	0.142	21.53	1	214
		QPSK	-20.19	13.21	10.29	2.08	H		0.139	21.42		
		16-QAM	-21.37	12.03	10.29	2.08	H		0.106	20.24		
		64-QAM	-22.81	10.59	10.29	2.08	H		0.076	18.80		
		256-QAM	-24.66	8.74	10.29	2.08	H		0.050	16.95		
1745.0		PI/2 BPSK	-19.81	13.56	10.43	2.07	H		0.156	21.92	1	214
		QPSK	-19.83	13.54	10.43	2.07	H		0.155	21.90		
		16-QAM	-20.92	12.45	10.43	2.07	H		0.121	20.81		
		64-QAM	-22.43	10.94	10.43	2.07	H		0.085	19.30		
		256-QAM	-24.52	8.85	10.43	2.07	H		0.053	17.21		
1760.0		PI/2 BPSK	-19.72	13.50	10.48	2.09	H		0.155	21.89	1	214
		QPSK	-19.76	13.46	10.48	2.09	H		0.153	21.85		
		16-QAM	-20.72	12.50	10.48	2.09	H		0.123	20.89		
		64-QAM	-22.43	10.79	10.48	2.09	H		0.083	19.18		
		256-QAM	-24.27	8.95	10.48	2.09	H		0.054	17.34		

8.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N66</u>
Bandwidth:	<u>5 MHz</u>
Modulation:	<u>PI/2 BPSK</u>
Distance:	<u>3 meters</u>
SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
342500 (1712.5)	3 425.00	-60.02	11.76	-61.24	2.99	V	-52.47	-13.00	1	12
	5 137.50	-60.93	11.45	-54.49	3.80	V	-46.84	-13.00		
	6 850.00	-63.39	11.04	-51.75	4.36	V	-45.07	-13.00		
349000 (1745.0)	3 490.00	-59.20	12.04	-59.94	3.04	V	-50.94	-13.00	1	23
	5 235.00	-60.94	11.76	-55.61	3.78	V	-47.63	-13.00		
	6 980.00	-61.47	11.16	-48.69	4.48	V	-42.01	-13.00		
355500 (1777.5)	3 555.00	-60.76	12.04	-61.65	3.09	V	-52.70	-13.00	1	12
	5 332.50	-62.74	11.92	-57.51	3.79	V	-49.38	-13.00		
	7 110.00	-63.81	10.80	-49.31	4.48	V	-42.99	-13.00		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n66	5 MHz	1745.0	BPSK	25	0	4.74
			QPSK			5.45
			16-QAM			6.15
			64-QAM			6.10
			256-QAM			6.27
	10 MHz		BPSK	50		4.98
			QPSK			5.30
			16-QAM			5.93
			64-QAM			6.01
			256-QAM			6.18
	15 MHz		BPSK	75		4.16
			QPSK			5.21
			16-QAM			5.99
			64-QAM			5.97
			256-QAM			6.10
	20 MHz		BPSK	100		5.31
			QPSK			5.55
			16-QAM			6.17
			64-QAM			6.04
			256-QAM			6.26
	25 MHz		BPSK	128		4.35
			QPSK			5.52
			16-QAM			6.26
			64-QAM			6.14
			256-QAM			6.24
	30 MHz		BPSK	160		5.21
			QPSK			5.53
			16-QAM			6.18
			64-QAM			6.08
			256-QAM			6.25
	35 MHz		BPSK	187		4.60
			QPSK			5.44
			16-QAM			6.15
			64-QAM			6.10
			256-QAM			6.14
	40 MHz		BPSK	216		4.91
			QPSK			5.38
			16-QAM			6.16
			64-QAM			6.03
			256-QAM			6.15

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 67 ~ 106.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n66	5 MHz	1745.0	BPSK	25	0	4.5252
			QPSK			4.5425
			16-QAM			4.5653
			64-QAM			4.5701
			256-QAM			4.5201
	10 MHz		BPSK	50		9.0338
			QPSK			9.0165
			16-QAM			9.0052
			64-QAM			8.9917
			256-QAM			8.9607
	15 MHz		BPSK	75		13.493
			QPSK			13.495
			16-QAM			13.438
			64-QAM			13.460
			256-QAM			13.418
	20 MHz		BPSK	100		17.978
			QPSK			17.950
			16-QAM			17.927
			64-QAM			17.912
			256-QAM			17.960
	25 MHz		BPSK	128		23.003
			QPSK			22.930
			16-QAM			22.957
			64-QAM			23.013
			256-QAM			22.994
	30 MHz		BPSK	160		28.764
			QPSK			28.759
			16-QAM			28.708
			64-QAM			28.704
			256-QAM			28.739
	35 MHz		BPSK	187		32.329
			QPSK			32.371
			16-QAM			32.325
			64-QAM			32.354
			256-QAM			32.315
	40 MHz		BPSK	216		38.780
			QPSK			38.713
			16-QAM			38.606
			64-QAM			38.770
			256-QAM			38.651

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 107 ~ 146.

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 n66	5	1712.5	3.7787	29.722	-61.038	-31.316	-13.00
		1745.0	3.8286	29.722	-60.655	-30.933	
		1777.5	4.9352	29.722	-60.956	-31.234	
	10	1715.0	5.2144	30.315	-60.429	-30.114	
		1745.0	9.1725	30.315	-62.008	-31.693	
		1775.0	4.8754	29.722	-61.553	-31.831	
	15	1717.5	4.9552	29.722	-60.843	-31.121	
		1745.0	4.0379	29.722	-61.654	-31.932	
		1772.5	3.7688	29.722	-61.012	-31.290	
	20	1720.0	4.0180	29.722	-61.365	-31.643	
		1745.0	3.7987	29.722	-60.970	-31.248	
		1770.0	9.7508	30.315	-61.105	-30.790	
	25	1722.5	4.0280	29.722	-60.960	-31.238	
		1745.0	4.9153	29.722	-61.539	-31.817	
		1767.5	4.8854	29.722	-61.270	-31.548	
	30	1725.0	6.4108	30.315	-61.192	-30.877	
		1745.0	3.7787	29.722	-61.408	-31.686	
		1765.0	8.9033	30.315	-60.626	-30.311	
	35	1727.5	3.9781	29.722	-61.942	-32.220	
		1745.0	5.2343	30.315	-61.477	-31.162	
		1762.5	9.2223	30.315	-62.008	-31.693	
	40	1730.0	3.9682	30.315	-60.613	-30.298	
		1745.0	1.6850	29.722	-59.887	-30.165	
		1760.0	3.8086	30.315	-60.434	-30.119	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 147 ~ 194.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.012
1 – 5	29.722
5 – 10	30.315
10 – 15	30.840
15 – 20	31.213
Above 20	31.855

8.6 BAND EDGE

- Plots of the EUT's Band Edge are shown Page 195 ~ 242.

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1712.5	100 %	+20(Ref)	1712 499 999	0.0	0.000 000	0.000
	100 %	-30	1712 499 998	-0.8	0.000 000	0.000
	100 %	-20	1712 499 998	-1.1	0.000 000	-0.001
	100 %	-10	1712 499 998	-1.0	0.000 000	-0.001
	100 %	0	1712 499 998	-1.1	0.000 000	-0.001
	100 %	+10	1712 499 997	-1.8	0.000 000	-0.001
	100 %	+30	1712 499 998	-1.3	0.000 000	-0.001
	100 %	+40	1712 499 999	-0.6	0.000 000	0.000
	100 %	+50	1712 499 998	-0.7	0.000 000	0.000
	Batt. Endpoint	+20	1712 499 998	-0.6	0.000 000	0.000
1777.5	100 %	+20(Ref)	1777 500 000	0.0	0.000 000	0.000
	100 %	-30	1777 500 000	0.0	0.000 000	0.000
	100 %	-20	1777 499 999	-0.3	0.000 000	0.000
	100 %	-10	1777 499 999	-0.8	0.000 000	0.000
	100 %	0	1777 500 000	0.0	0.000 000	0.000
	100 %	+10	1777 499 999	-0.9	0.000 000	-0.001
	100 %	+30	1777 500 001	1.2	0.000 000	0.001
	100 %	+40	1777 500 000	0.4	0.000 000	0.000
	100 %	+50	1777 499 999	-0.7	0.000 000	0.000
	Batt. Endpoint	+20	1777 500 000	0.5	0.000 000	0.000

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1715.0	100 %	+20(Ref)	1715 000 001	0.0	0.000 000	0.000
	100 %	-30	1715 000 000	-0.9	0.000 000	-0.001
	100 %	-20	1715 000 000	-0.5	0.000 000	0.000
	100 %	-10	1714 999 999	-1.6	0.000 000	-0.001
	100 %	0	1715 000 000	-0.2	0.000 000	0.000
	100 %	+10	1715 000 000	-0.9	0.000 000	-0.001
	100 %	+30	1715 000 000	-0.2	0.000 000	0.000
	100 %	+40	1715 000 000	-0.9	0.000 000	-0.001
	100 %	+50	1715 000 000	-0.4	0.000 000	0.000
	Batt. Endpoint	+20	1714 999 999	-2.0	0.000 000	-0.001
1775.0	100 %	+20(Ref)	1775 000 000	0.0	0.000 000	0.000
	100 %	-30	1775 000 003	2.5	0.000 000	0.001
	100 %	-20	1775 000 002	2.2	0.000 000	0.001
	100 %	-10	1775 000 001	1.1	0.000 000	0.001
	100 %	0	1774 999 999	-0.7	0.000 000	0.000
	100 %	+10	1775 000 001	1.4	0.000 000	0.001
	100 %	+30	1775 000 000	0.1	0.000 000	0.000
	100 %	+40	1775 000 002	1.5	0.000 000	0.001
	100 %	+50	1775 000 000	0.2	0.000 000	0.000
	Batt. Endpoint	+20	1775 000 000	0.2	0.000 000	0.000

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1717.5	100 %	+20(Ref)	1717 500 000	0.0	0.000 000	0.000
	100 %	-30	1717 500 001	0.3	0.000 000	0.000
	100 %	-20	1717 500 002	1.3	0.000 000	0.001
	100 %	-10	1717 500 001	0.8	0.000 000	0.000
	100 %	0	1717 500 001	0.4	0.000 000	0.000
	100 %	+10	1717 500 000	0.1	0.000 000	0.000
	100 %	+30	1717 500 000	0.0	0.000 000	0.000
	100 %	+40	1717 499 999	-1.0	0.000 000	-0.001
	100 %	+50	1717 500 000	-0.4	0.000 000	0.000
	Batt. Endpoint	+20	1717 500 000	-0.4	0.000 000	0.000
1772.5	100 %	+20(Ref)	1772 500 000	0.0	0.000 000	0.000
	100 %	-30	1772 499 999	-0.2	0.000 000	0.000
	100 %	-20	1772 499 999	-0.8	0.000 000	0.000
	100 %	-10	1772 499 999	0.0	0.000 000	0.000
	100 %	0	1772 499 999	-0.5	0.000 000	0.000
	100 %	+10	1772 500 000	0.1	0.000 000	0.000
	100 %	+30	1772 499 998	-1.8	0.000 000	-0.001
	100 %	+40	1772 500 000	0.0	0.000 000	0.000
	100 %	+50	1772 499 999	-1.0	0.000 000	-0.001
	Batt. Endpoint	+20	1772 499 996	-3.5	0.000 000	-0.002

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1720.0	100 %	+20(Ref)	1719 999 999	0.0	0.000 000	0.000
	100 %	-30	1719 999 997	-1.3	0.000 000	-0.001
	100 %	-20	1719 999 999	0.0	0.000 000	0.000
	100 %	-10	1719 999 997	-1.7	0.000 000	-0.001
	100 %	0	1719 999 998	-1.0	0.000 000	-0.001
	100 %	+10	1719 999 997	-1.7	0.000 000	-0.001
	100 %	+30	1719 999 999	0.1	0.000 000	0.000
	100 %	+40	1719 999 998	-1.0	0.000 000	-0.001
	100 %	+50	1719 999 998	-1.0	0.000 000	-0.001
	Batt. Endpoint	+20	1719 999 997	-1.8	0.000 000	-0.001
1770.0	100 %	+20(Ref)	1769 999 997	0.0	0.000 000	0.000
	100 %	-30	1769 999 996	-1.7	0.000 000	-0.001
	100 %	-20	1769 999 996	-1.7	0.000 000	-0.001
	100 %	-10	1769 999 996	-1.4	0.000 000	-0.001
	100 %	0	1769 999 995	-2.9	0.000 000	-0.002
	100 %	+10	1769 999 995	-2.0	0.000 000	-0.001
	100 %	+30	1769 999 996	-1.2	0.000 000	-0.001
	100 %	+40	1769 999 994	-2.9	0.000 000	-0.002
	100 %	+50	1769 999 995	-2.5	0.000 000	-0.001
	Batt. Endpoint	+20	1769 999 994	-3.2	0.000 000	-0.002

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1722.5	100 %	+20(Ref)	1722 499 997	0.0	0.000 000	0.000
	100 %	-30	1722 499 995	-2.3	0.000 000	-0.001
	100 %	-20	1722 499 995	-1.9	0.000 000	-0.001
	100 %	-10	1722 499 994	-3.2	0.000 000	-0.002
	100 %	0	1722 499 995	-1.8	0.000 000	-0.001
	100 %	+10	1722 499 995	-2.4	0.000 000	-0.001
	100 %	+30	1722 499 995	-2.5	0.000 000	-0.001
	100 %	+40	1722 499 995	-2.2	0.000 000	-0.001
	100 %	+50	1722 499 994	-3.0	0.000 000	-0.002
	Batt. Endpoint	+20	1722 499 995	-2.5	0.000 000	-0.001
1767.5	100 %	+20(Ref)	1767 499 999	0.0	0.000 000	0.000
	100 %	-30	1767 499 996	-2.2	0.000 000	-0.001
	100 %	-20	1767 499 997	-1.2	0.000 000	-0.001
	100 %	-10	1767 499 997	-1.3	0.000 000	-0.001
	100 %	0	1767 499 997	-1.9	0.000 000	-0.001
	100 %	+10	1767 499 998	-0.3	0.000 000	0.000
	100 %	+30	1767 499 997	-1.9	0.000 000	-0.001
	100 %	+40	1767 499 997	-2.1	0.000 000	-0.001
	100 %	+50	1767 499 997	-1.5	0.000 000	-0.001
	Batt. Endpoint	+20	1767 499 997	-1.2	0.000 000	-0.001

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1725.0	100 %	+20(Ref)	1724 999 999	0.0	0.000 000	0.000
	100 %	-30	1724 999 999	-0.2	0.000 000	0.000
	100 %	-20	1724 999 998	-1.1	0.000 000	-0.001
	100 %	-10	1724 999 999	-0.1	0.000 000	0.000
	100 %	0	1724 999 998	-1.0	0.000 000	-0.001
	100 %	+10	1724 999 998	-0.7	0.000 000	0.000
	100 %	+30	1725 000 000	0.4	0.000 000	0.000
	100 %	+40	1724 999 997	-2.5	0.000 000	-0.001
	100 %	+50	1724 999 998	-1.6	0.000 000	-0.001
	Batt. Endpoint	+20	1724 999 998	-1.2	0.000 000	-0.001
1765.0	100 %	+20(Ref)	1765 000 001	0.0	0.000 000	0.000
	100 %	-30	1765 000 002	0.4	0.000 000	0.000
	100 %	-20	1765 000 001	0.0	0.000 000	0.000
	100 %	-10	1765 000 001	-0.2	0.000 000	0.000
	100 %	0	1765 000 004	2.5	0.000 000	0.001
	100 %	+10	1765 000 001	-0.6	0.000 000	0.000
	100 %	+30	1765 000 002	0.6	0.000 000	0.000
	100 %	+40	1765 000 002	1.1	0.000 000	0.001
	100 %	+50	1765 000 002	0.9	0.000 000	0.000
	Batt. Endpoint	+20	1765 000 002	1.0	0.000 000	0.001

- ▣ BandWidth: 35 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1727.5	100 %	+20(Ref)	1727 499 999	0.0	0.000 000	0.000
	100 %	-30	1727 499 999	0.4	0.000 000	0.000
	100 %	-20	1727 499 999	0.0	0.000 000	0.000
	100 %	-10	1727 499 999	0.3	0.000 000	0.000
	100 %	0	1727 499 998	-0.8	0.000 000	0.000
	100 %	+10	1727 499 998	-0.8	0.000 000	0.000
	100 %	+30	1727 499 998	-1.0	0.000 000	-0.001
	100 %	+40	1727 499 999	0.3	0.000 000	0.000
	100 %	+50	1727 499 998	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	1727 499 997	-1.8	0.000 000	-0.001
1762.5	100 %	+20(Ref)	1762 499 998	0.0	0.000 000	0.000
	100 %	-30	1762 499 995	-2.6	0.000 000	-0.001
	100 %	-20	1762 499 995	-2.5	0.000 000	-0.001
	100 %	-10	1762 499 997	-1.3	0.000 000	-0.001
	100 %	0	1762 499 996	-2.3	0.000 000	-0.001
	100 %	+10	1762 499 997	-0.7	0.000 000	0.000
	100 %	+30	1762 499 998	0.1	0.000 000	0.000
	100 %	+40	1762 499 996	-2.2	0.000 000	-0.001
	100 %	+50	1762 499 996	-2.3	0.000 000	-0.001
	Batt. Endpoint	+20	1762 499 996	-2.0	0.000 000	-0.001

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1730.0	100 %	+20(Ref)	1730 000 002	0.0	0.000 000	0.000
	100 %	-30	1730 000 003	1.5	0.000 000	0.001
	100 %	-20	1730 000 005	2.5	0.000 000	0.001
	100 %	-10	1730 000 003	0.7	0.000 000	0.000
	100 %	0	1730 000 004	1.9	0.000 000	0.001
	100 %	+10	1730 000 003	0.7	0.000 000	0.000
	100 %	+30	1730 000 003	1.0	0.000 000	0.001
	100 %	+40	1730 000 005	2.6	0.000 000	0.001
	100 %	+50	1730 000 005	2.6	0.000 000	0.002
	Batt. Endpoint	+20	1730 000 004	1.9	0.000 000	0.001
1760.0	100 %	+20(Ref)	1760 000 001	0.0	0.000 000	0.000
	100 %	-30	1760 000 002	1.0	0.000 000	0.001
	100 %	-20	1760 000 004	2.9	0.000 000	0.002
	100 %	-10	1760 000 003	2.4	0.000 000	0.001
	100 %	0	1760 000 001	0.4	0.000 000	0.000
	100 %	+10	1760 000 002	1.0	0.000 000	0.001
	100 %	+30	1760 000 002	1.6	0.000 000	0.001
	100 %	+40	1760 000 002	1.7	0.000 000	0.001
	100 %	+50	1760 000 001	-0.1	0.000 000	0.000
	Batt. Endpoint	+20	1760 000 002	1.1	0.000 000	0.001

9. TEST DATA (Sub 1 ANT)

9.1 EQUIVALENT ISOTROPIC RADIATED POWER

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
1712.5	Sub6 n66/ 5 MHz [15 kHz]	PI/2 BPSK	-25.52	7.56	10.12	2.06	H	<1.00	0.036	15.62	1	12
		QPSK	-25.55	7.53	10.12	2.06	H		0.036	15.59		
		16-QAM	-26.58	6.50	10.12	2.06	H		0.029	14.56		
		64-QAM	-28.09	4.99	10.12	2.06	H		0.020	13.05		
		256-QAM	-30.07	3.01	10.12	2.06	H		0.013	11.07		
1745.0		PI/2 BPSK	-25.14	8.23	10.43	2.07	H		0.046	16.59	1	12
		QPSK	-25.22	8.15	10.43	2.07	H		0.045	16.51		
		16-QAM	-26.13	7.24	10.43	2.07	H		0.036	15.60		
		64-QAM	-27.77	5.60	10.43	2.07	H		0.025	13.96		
		256-QAM	-29.66	3.71	10.43	2.07	H		0.016	12.07		
1777.5		PI/2 BPSK	-25.13	8.23	10.50	2.09	H		0.046	16.64	1	12
		QPSK	-25.18	8.18	10.50	2.09	H		0.046	16.59		
		16-QAM	-26.19	7.17	10.50	2.09	H		0.036	15.58		
		64-QAM	-27.76	5.60	10.50	2.09	H		0.025	14.01		
		256-QAM	-29.85	3.51	10.50	2.09	H		0.016	11.92		

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
1715.0		PI/2 BPSK	-25.62	7.46	10.12	2.06	H	< 1.00	0.036	15.52	1	26
		QPSK	-25.66	7.42	10.12	2.06	H		0.035	15.48		
		16-QAM	-26.70	6.38	10.12	2.06	H		0.028	14.44		
		64-QAM	-28.26	4.82	10.12	2.06	H		0.019	12.88		
		256-QAM	-30.32	2.76	10.12	2.06	H		0.012	10.82		
1745.0	Sub6 n66/ 10 MHz [15 kHz]	PI/2 BPSK	-25.05	8.32	10.43	2.07	H	< 1.00	0.047	16.68	1	50
		QPSK	-25.06	8.31	10.43	2.07	H		0.046	16.67		
		16-QAM	-26.09	7.28	10.43	2.07	H		0.037	15.64		
		64-QAM	-27.56	5.81	10.43	2.07	H		0.026	14.17		
		256-QAM	-29.68	3.69	10.43	2.07	H		0.016	12.05		
1775.0		PI/2 BPSK	-25.07	8.33	10.49	2.09	H	< 1.00	0.047	16.73	1	1
		QPSK	-25.12	8.28	10.49	2.09	H		0.047	16.68		
		16-QAM	-26.19	7.21	10.49	2.09	H		0.036	15.61		
		64-QAM	-27.66	5.74	10.49	2.09	H		0.026	14.14		
		256-QAM	-29.73	3.67	10.49	2.09	H		0.016	12.07		

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
1717.5		PI/2 BPSK	-25.70	7.46	10.18	2.06	H	< 1.00	0.036	15.58	1	77
		QPSK	-25.71	7.45	10.18	2.06	H		0.036	15.57		
		16-QAM	-26.70	6.46	10.18	2.06	H		0.029	14.58		
		64-QAM	-28.30	4.86	10.18	2.06	H		0.020	12.98		
		256-QAM	-30.24	2.92	10.18	2.06	H		0.013	11.04		
1745.0	Sub6 n66/ 15 MHz [15 kHz]	PI/2 BPSK	-25.17	8.20	10.43	2.07	H	< 1.00	0.045	16.56	1	39
		QPSK	-25.25	8.12	10.43	2.07	H		0.044	16.48		
		16-QAM	-26.25	7.12	10.43	2.07	H		0.035	15.48		
		64-QAM	-27.76	5.61	10.43	2.07	H		0.025	13.97		
		256-QAM	-29.79	3.58	10.43	2.07	H		0.016	11.94		
1772.5		PI/2 BPSK	-25.08	8.32	10.49	2.09	H	< 1.00	0.047	16.72	1	39
		QPSK	-25.15	8.25	10.49	2.09	H		0.046	16.65		
		16-QAM	-26.18	7.22	10.49	2.09	H		0.036	15.62		
		64-QAM	-27.70	5.70	10.49	2.09	H		0.026	14.10		
		256-QAM	-29.78	3.62	10.49	2.09	H		0.016	12.02		

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
1720.0		PI/2 BPSK	-25.64	7.52	10.18	2.06	H	< 1.00	0.037	15.64	1	53
		QPSK	-25.69	7.47	10.18	2.06	H		0.036	15.59		
		16-QAM	-26.72	6.44	10.18	2.06	H		0.029	14.56		
		64-QAM	-28.15	5.01	10.18	2.06	H		0.021	13.13		
		256-QAM	-30.19	2.97	10.18	2.06	H		0.013	11.09		
1745.0	Sub6 n66/ 20 MHz [15 kHz]	PI/2 BPSK	-25.13	8.24	10.43	2.07	H	< 1.00	0.046	16.60	1	104
		QPSK	-25.17	8.20	10.43	2.07	H		0.045	16.56		
		16-QAM	-26.15	7.22	10.43	2.07	H		0.036	15.58		
		64-QAM	-27.71	5.66	10.43	2.07	H		0.025	14.02		
		256-QAM	-29.75	3.62	10.43	2.07	H		0.016	11.98		
1770.0		PI/2 BPSK	-24.99	8.43	10.49	2.09	H	< 1.00	0.048	16.83	1	53
		QPSK	-25.04	8.38	10.49	2.09	H		0.048	16.78		
		16-QAM	-26.04	7.38	10.49	2.09	H		0.038	15.78		
		64-QAM	-27.59	5.83	10.49	2.09	H		0.026	14.23		
		256-QAM	-29.56	3.86	10.49	2.09	H		0.017	12.26		

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
1722.5		PI/2 BPSK	-25.36	7.92	10.23	2.07	H	< 1.00	0.041	16.08	1	131
		QPSK	-25.40	7.88	10.23	2.07	H		0.040	16.04		
		16-QAM	-26.39	6.89	10.23	2.07	H		0.032	15.05		
		64-QAM	-27.93	5.35	10.23	2.07	H		0.022	13.51		
		256-QAM	-29.95	3.33	10.23	2.07	H		0.014	11.49		
1745.0	Sub6 n66/ 25 MHz [15 kHz]	PI/2 BPSK	-25.05	8.32	10.43	2.07	H	< 1.00	0.047	16.68	1	131
		QPSK	-25.06	8.31	10.43	2.07	H		0.046	16.67		
		16-QAM	-26.09	7.28	10.43	2.07	H		0.037	15.64		
		64-QAM	-27.55	5.82	10.43	2.07	H		0.026	14.18		
		256-QAM	-29.63	3.74	10.43	2.07	H		0.016	12.10		
1767.5		PI/2 BPSK	-24.89	8.53	10.49	2.09	H	< 1.00	0.049	16.93	1	1
		QPSK	-24.92	8.50	10.49	2.09	H		0.049	16.90		
		16-QAM	-25.84	7.58	10.49	2.09	H		0.040	15.98		
		64-QAM	-27.41	6.01	10.49	2.09	H		0.028	14.41		
		256-QAM	-29.53	3.89	10.49	2.09	H		0.017	12.29		

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
1725.0		PI/2 BPSK	-25.32	7.96	10.23	2.07	H	< 1.00	0.041	16.12	1	158
		QPSK	-25.33	7.95	10.23	2.07	H		0.041	16.11		
		16-QAM	-26.36	6.92	10.23	2.07	H		0.032	15.08		
		64-QAM	-27.91	5.37	10.23	2.07	H		0.023	13.53		
		256-QAM	-29.78	3.50	10.23	2.07	H		0.015	11.66		
1745.0	Sub6 n66/ 30 MHz [15 kHz]	PI/2 BPSK	-25.24	8.13	10.43	2.07	H	< 1.00	0.045	16.49	1	80
		QPSK	-25.26	8.11	10.43	2.07	H		0.044	16.47		
		16-QAM	-26.19	7.18	10.43	2.07	H		0.036	15.54		
		64-QAM	-27.83	5.54	10.43	2.07	H		0.025	13.90		
		256-QAM	-29.80	3.57	10.43	2.07	H		0.016	11.93		
1765.0		PI/2 BPSK	-24.99	8.34	10.48	2.09	H	< 1.00	0.047	16.73	1	80
		QPSK	-25.05	8.28	10.48	2.09	H		0.046	16.67		
		16-QAM	-26.12	7.21	10.48	2.09	H		0.036	15.60		
		64-QAM	-27.60	5.73	10.48	2.09	H		0.026	14.12		
		256-QAM	-29.59	3.74	10.48	2.09	H		0.016	12.13		

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
1727.5		PI/2 BPSK	-25.21	8.19	10.29	2.08	H	< 1.00	0.044	16.40	1	186
		QPSK	-25.26	8.14	10.29	2.08	H		0.043	16.35		
		16-QAM	-26.25	7.15	10.29	2.08	H		0.034	15.36		
		64-QAM	-27.80	5.60	10.29	2.08	H		0.024	13.81		
		256-QAM	-29.69	3.71	10.29	2.08	H		0.016	11.92		
1745.0	Sub6 n66/ 35 MHz [15 kHz]	PI/2 BPSK	-25.20	8.17	10.43	2.07	H	< 1.00	0.045	16.53	1	186
		QPSK	-25.23	8.14	10.43	2.07	H		0.045	16.50		
		16-QAM	-26.30	7.07	10.43	2.07	H		0.035	15.43		
		64-QAM	-27.82	5.55	10.43	2.07	H		0.025	13.91		
		256-QAM	-29.84	3.53	10.43	2.07	H		0.015	11.89		
1762.5		PI/2 BPSK	-24.92	8.41	10.48	2.09	H	< 1.00	0.048	16.80	1	94
		QPSK	-25.01	8.32	10.48	2.09	H		0.047	16.71		
		16-QAM	-25.88	7.45	10.48	2.09	H		0.038	15.84		
		64-QAM	-27.47	5.86	10.48	2.09	H		0.027	14.25		
		256-QAM	-29.57	3.76	10.48	2.09	H		0.016	12.15		

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
1730.0		PI/2 BPSK	-24.95	8.45	10.29	2.08	H	< 1.00	0.046	16.66	1	214
		QPSK	-25.02	8.38	10.29	2.08	H		0.046	16.59		
		16-QAM	-26.03	7.37	10.29	2.08	H		0.036	15.58		
		64-QAM	-27.53	5.87	10.29	2.08	H		0.026	14.08		
		256-QAM	-29.49	3.91	10.29	2.08	H		0.016	12.12		
1745.0	Sub6 n66/ 40 MHz [15 kHz]	PI/2 BPSK	-25.05	8.32	10.43	2.07	H		0.047	16.68	1	214
		QPSK	-25.07	8.30	10.43	2.07	H		0.046	16.66		
		16-QAM	-26.09	7.28	10.43	2.07	H		0.037	15.64		
		64-QAM	-27.72	5.65	10.43	2.07	H		0.025	14.01		
		256-QAM	-29.71	3.66	10.43	2.07	H		0.016	12.02		
1760.0		PI/2 BPSK	-24.92	8.30	10.48	2.09	H		0.047	16.69	1	1
		QPSK	-24.97	8.25	10.48	2.09	H		0.046	16.64		
		16-QAM	-25.86	7.36	10.48	2.09	H		0.038	15.75		
		64-QAM	-27.43	5.79	10.48	2.09	H		0.026	14.18		
		256-QAM	-29.51	3.71	10.48	2.09	H		0.016	12.10		

9.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N66</u>
Bandwidth:	<u>25 MHz</u>
Modulation:	<u>PI/2 BPSK</u>
Distance:	<u>3 meters</u>
SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
344500 (1722.5)	3 445.00	-51.36	11.90	-52.20	3.05	H	-43.35	-13.00	1	131
	5 167.50	-62.50	11.56	-56.96	3.78	V	-49.18	-13.00		
	6 890.00	-65.15	11.13	-53.02	4.42	V	-46.31	-13.00		
349000 (1745.0)	3 490.00	-49.53	12.04	-50.27	3.04	H	-41.27	-13.00	1	131
	5 235.00	-61.33	11.76	-56.00	3.78	V	-48.02	-13.00		
	6 980.00	-64.71	11.16	-51.93	4.48	V	-45.25	-13.00		
353500 (1767.5)	3 535.00	-50.43	12.04	-51.98	3.05	H	-42.99	-13.00	1	1
	5 302.50	-63.05	11.90	-57.17	3.83	V	-49.10	-13.00		
	7 070.00	-64.39	10.92	-49.94	4.50	V	-43.52	-13.00		

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n66	5 MHz	1745.0	BPSK	25	0	5.44
			QPSK			5.72
			16-QAM			6.44
			64-QAM			6.65
			256-QAM			6.66
	10 MHz		BPSK	50		5.80
			QPSK			5.56
			16-QAM			6.18
			64-QAM			6.51
			256-QAM			6.49
	15 MHz		BPSK	75		4.55
			QPSK			5.55
			16-QAM			6.23
			64-QAM			6.45
			256-QAM			6.43
	20 MHz		BPSK	100		6.01
			QPSK			5.86
			16-QAM			6.42
			64-QAM			6.53
			256-QAM			6.59
	25 MHz		BPSK	128		4.60
			QPSK			5.58
			16-QAM			6.33
			64-QAM			6.51
			256-QAM			6.58
	30 MHz		BPSK	160		5.64
			QPSK			5.59
			16-QAM			6.24
			64-QAM			6.38
			256-QAM			6.61
	35 MHz		BPSK	187		4.55
			QPSK			5.53
			16-QAM			6.36
			64-QAM			6.45
			256-QAM			6.58
	40 MHz		BPSK	216		4.68
			QPSK			5.49
			16-QAM			6.26
			64-QAM			6.42
			256-QAM			6.58

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 244 ~ 283.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n66	5 MHz	1745.0	BPSK	25	0	4.5117
			QPSK			4.5363
			16-QAM			4.5496
			64-QAM			4.5238
			256-QAM			4.5078
	10 MHz		BPSK	50		8.9911
			QPSK			8.9861
			16-QAM			8.9839
			64-QAM			9.0055
			256-QAM			8.9792
	15 MHz		BPSK	75		13.487
			QPSK			13.483
			16-QAM			13.486
			64-QAM			13.446
			256-QAM			13.410
	20 MHz		BPSK	100		17.970
			QPSK			17.999
			16-QAM			17.909
			64-QAM			17.941
			256-QAM			17.973
	25 MHz		BPSK	128		23.019
			QPSK			22.972
			16-QAM			22.989
			64-QAM			22.967
			256-QAM			22.994
	30 MHz		BPSK	160		28.778
			QPSK			28.730
			16-QAM			28.667
			64-QAM			28.662
			256-QAM			28.696
	35 MHz		BPSK	187		32.276
			QPSK			32.334
			16-QAM			32.206
			64-QAM			32.368
			256-QAM			32.349
	40 MHz		BPSK	216		38.741
			QPSK			38.768
			16-QAM			38.692
			64-QAM			38.760
			256-QAM			38.813

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 284 ~ 323.

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 n66	5	1712.5	4.9153	29.722	-59.757	-30.035	-13.00
		1745.0	3.7887	29.722	-61.126	-31.404	
		1777.5	3.8086	29.722	-61.478	-31.756	
	10	1715.0	5.9921	30.315	-62.017	-31.702	
		1745.0	3.8086	29.722	-61.369	-31.647	
		1775.0	5.2244	30.315	-60.188	-29.873	
	15	1717.5	3.7688	29.722	-61.247	-31.525	
		1745.0	4.2772	29.722	-61.019	-31.297	
		1772.5	3.7588	29.722	-61.171	-31.449	
	20	1720.0	5.1945	30.315	-61.893	-31.578	
		1745.0	9.7308	30.315	-61.679	-31.364	
		1770.0	3.7388	29.722	-61.577	-31.855	
	25	1722.5	4.9652	29.722	-61.552	-31.830	
		1745.0	1.6850	29.722	-61.236	-31.514	
		1767.5	4.9552	29.722	-60.428	-30.706	
	30	1725.0	5.1845	30.315	-61.919	-31.604	
		1745.0	4.9652	29.722	-61.585	-31.863	
		1765.0	4.9253	29.722	-60.619	-30.897	
	35	1727.5	5.2044	30.315	-61.900	-31.585	
		1745.0	8.6341	30.315	-60.747	-30.432	
		1762.5	1.8146	29.722	-58.489	-28.767	
	40	1730.0	5.2244	30.315	-60.773	-30.458	
		1745.0	4.9352	29.722	-61.113	-31.391	
		1760.0	1.8146	29.722	-55.516	-25.794	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 324 ~ 371.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.012
1 – 5	29.722
5 – 10	30.315
10 – 15	30.840
15 – 20	31.213
Above 20	31.855

9.6 BAND EDGE

- Plots of the EUT's Band Edge are shown Page 372 ~ 419.

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1712.5	100 %	+20(Ref)	1712 499 999	0.0	0.000 000	0.000
	100 %	-30	1712 499 998	-0.6	0.000 000	0.000
	100 %	-20	1712 499 998	-0.3	0.000 000	0.000
	100 %	-10	1712 499 997	-1.3	0.000 000	-0.001
	100 %	0	1712 499 999	0.4	0.000 000	0.000
	100 %	+10	1712 499 999	0.1	0.000 000	0.000
	100 %	+30	1712 499 998	-0.4	0.000 000	0.000
	100 %	+40	1712 499 998	-0.3	0.000 000	0.000
	100 %	+50	1712 499 998	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	1712 499 999	-0.2	0.000 000	0.000
1777.5	100 %	+20(Ref)	1777 500 000	0.0	0.000 000	0.000
	100 %	-30	1777 499 999	-0.7	0.000 000	0.000
	100 %	-20	1777 499 998	-1.3	0.000 000	-0.001
	100 %	-10	1777 499 998	-1.5	0.000 000	-0.001
	100 %	0	1777 500 000	0.2	0.000 000	0.000
	100 %	+10	1777 499 998	-1.4	0.000 000	-0.001
	100 %	+30	1777 499 999	-1.1	0.000 000	-0.001
	100 %	+40	1777 499 999	-0.6	0.000 000	0.000
	100 %	+50	1777 499 999	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	1777 499 999	-1.1	0.000 000	-0.001

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1715.0	100 %	+20(Ref)	1715 000 000	0.0	0.000 000	0.000
	100 %	-30	1714 999 999	-0.6	0.000 000	0.000
	100 %	-20	1714 999 999	-1.0	0.000 000	-0.001
	100 %	-10	1714 999 999	-0.6	0.000 000	0.000
	100 %	0	1715 000 000	-0.1	0.000 000	0.000
	100 %	+10	1715 000 000	-0.1	0.000 000	0.000
	100 %	+30	1714 999 999	-0.8	0.000 000	0.000
	100 %	+40	1714 999 999	-0.9	0.000 000	-0.001
	100 %	+50	1715 000 000	-0.3	0.000 000	0.000
	Batt. Endpoint	+20	1715 000 000	-0.3	0.000 000	0.000
1775.0	100 %	+20(Ref)	1775 000 001	0.0	0.000 000	0.000
	100 %	-30	1775 000 000	-0.7	0.000 000	0.000
	100 %	-20	1774 999 999	-1.2	0.000 000	-0.001
	100 %	-10	1775 000 001	0.6	0.000 000	0.000
	100 %	0	1775 000 000	-0.5	0.000 000	0.000
	100 %	+10	1775 000 003	2.0	0.000 000	0.001
	100 %	+30	1775 000 001	0.0	0.000 000	0.000
	100 %	+40	1775 000 000	-0.9	0.000 000	-0.001
	100 %	+50	1775 000 000	-0.9	0.000 000	0.000
	Batt. Endpoint	+20	1775 000 000	-0.5	0.000 000	0.000

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1717.5	100 %	+20(Ref)	1717 499 999	0.0	0.000 000	0.000
	100 %	-30	1717 499 999	0.0	0.000 000	0.000
	100 %	-20	1717 499 998	-1.7	0.000 000	-0.001
	100 %	-10	1717 499 998	-0.8	0.000 000	0.000
	100 %	0	1717 500 000	0.4	0.000 000	0.000
	100 %	+10	1717 499 999	-0.3	0.000 000	0.000
	100 %	+30	1717 500 000	0.8	0.000 000	0.000
	100 %	+40	1717 499 999	0.1	0.000 000	0.000
	100 %	+50	1717 499 998	-1.0	0.000 000	-0.001
	Batt. Endpoint	+20	1717 499 998	-1.6	0.000 000	-0.001
1772.5	100 %	+20(Ref)	1772 499 999	0.0	0.000 000	0.000
	100 %	-30	1772 499 997	-2.0	0.000 000	-0.001
	100 %	-20	1772 499 998	-0.7	0.000 000	0.000
	100 %	-10	1772 499 999	0.7	0.000 000	0.000
	100 %	0	1772 499 998	-0.1	0.000 000	0.000
	100 %	+10	1772 499 998	-0.4	0.000 000	0.000
	100 %	+30	1772 499 995	-3.6	0.000 000	-0.002
	100 %	+40	1772 499 996	-2.5	0.000 000	-0.001
	100 %	+50	1772 499 998	-0.3	0.000 000	0.000
	Batt. Endpoint	+20	1772 499 998	-0.8	0.000 000	0.000

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1720.0	100 %	+20(Ref)	1719 999 999	0.0	0.000 000	0.000
	100 %	-30	1719 999 999	0.3	0.000 000	0.000
	100 %	-20	1719 999 999	0.7	0.000 000	0.000
	100 %	-10	1719 999 999	0.6	0.000 000	0.000
	100 %	0	1720 000 000	0.8	0.000 000	0.000
	100 %	+10	1720 000 000	1.0	0.000 000	0.001
	100 %	+30	1720 000 000	1.0	0.000 000	0.001
	100 %	+40	1719 999 997	-1.6	0.000 000	-0.001
	100 %	+50	1720 000 000	0.8	0.000 000	0.000
	Batt. Endpoint	+20	1719 999 999	-0.2	0.000 000	0.000
1770.0	100 %	+20(Ref)	1769 999 999	0.0	0.000 000	0.000
	100 %	-30	1769 999 998	-1.4	0.000 000	-0.001
	100 %	-20	1769 999 997	-1.7	0.000 000	-0.001
	100 %	-10	1769 999 998	-0.8	0.000 000	0.000
	100 %	0	1769 999 996	-3.4	0.000 000	-0.002
	100 %	+10	1769 999 998	-0.9	0.000 000	-0.001
	100 %	+30	1769 999 997	-1.7	0.000 000	-0.001
	100 %	+40	1769 999 999	-0.1	0.000 000	0.000
	100 %	+50	1769 999 997	-1.5	0.000 000	-0.001
	Batt. Endpoint	+20	1769 999 998	-1.3	0.000 000	-0.001

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1722.5	100 %	+20(Ref)	1722 499 999	0.0	0.000 000	0.000
	100 %	-30	1722 499 997	-1.9	0.000 000	-0.001
	100 %	-20	1722 499 996	-2.8	0.000 000	-0.002
	100 %	-10	1722 499 997	-2.2	0.000 000	-0.001
	100 %	0	1722 499 996	-3.1	0.000 000	-0.002
	100 %	+10	1722 499 996	-2.3	0.000 000	-0.001
	100 %	+30	1722 499 997	-1.7	0.000 000	-0.001
	100 %	+40	1722 499 996	-2.9	0.000 000	-0.002
	100 %	+50	1722 499 997	-1.6	0.000 000	-0.001
	Batt. Endpoint	+20	1722 499 997	-1.5	0.000 000	-0.001
1767.5	100 %	+20(Ref)	1767 500 001	0.0	0.000 000	0.000
	100 %	-30	1767 500 003	1.8	0.000 000	0.001
	100 %	-20	1767 500 001	-0.2	0.000 000	0.000
	100 %	-10	1767 500 003	2.2	0.000 000	0.001
	100 %	0	1767 500 002	1.3	0.000 000	0.001
	100 %	+10	1767 500 002	0.6	0.000 000	0.000
	100 %	+30	1767 500 002	0.4	0.000 000	0.000
	100 %	+40	1767 500 002	1.3	0.000 000	0.001
	100 %	+50	1767 500 001	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	1767 500 002	0.9	0.000 000	0.001

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1725.0	100 %	+20(Ref)	1725 000 000	0.0	0.000 000	0.000
	100 %	-30	1725 000 000	0.1	0.000 000	0.000
	100 %	-20	1725 000 000	0.2	0.000 000	0.000
	100 %	-10	1725 000 001	0.5	0.000 000	0.000
	100 %	0	1725 000 001	0.3	0.000 000	0.000
	100 %	+10	1725 000 001	0.4	0.000 000	0.000
	100 %	+30	1725 000 002	1.8	0.000 000	0.001
	100 %	+40	1725 000 000	-0.7	0.000 000	0.000
	100 %	+50	1725 000 001	0.6	0.000 000	0.000
	Batt. Endpoint	+20	1725 000 000	-0.3	0.000 000	0.000
1765.0	100 %	+20(Ref)	1765 000 002	0.0	0.000 000	0.000
	100 %	-30	1765 000 001	-0.5	0.000 000	0.000
	100 %	-20	1765 000 003	1.6	0.000 000	0.001
	100 %	-10	1765 000 003	1.3	0.000 000	0.001
	100 %	0	1765 000 003	1.2	0.000 000	0.001
	100 %	+10	1765 000 003	1.2	0.000 000	0.001
	100 %	+30	1765 000 004	1.9	0.000 000	0.001
	100 %	+40	1765 000 005	2.9	0.000 000	0.002
	100 %	+50	1765 000 003	1.2	0.000 000	0.001
	Batt. Endpoint	+20	1765 000 002	0.5	0.000 000	0.000

- ▣ BandWidth: 35 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

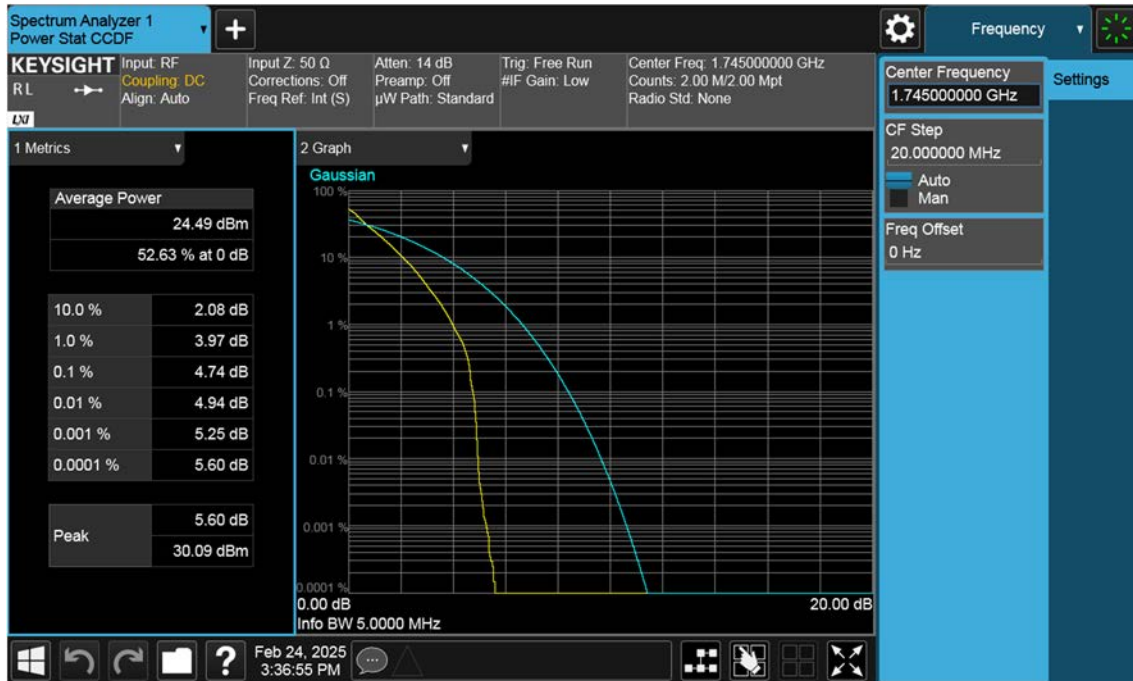
Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1727.5	100 %	+20(Ref)	1727 500 000	0.0	0.000 000	0.000
	100 %	-30	1727 499 999	-0.9	0.000 000	0.000
	100 %	-20	1727 500 000	-0.3	0.000 000	0.000
	100 %	-10	1727 500 000	-0.1	0.000 000	0.000
	100 %	0	1727 500 000	0.0	0.000 000	0.000
	100 %	+10	1727 500 000	-0.3	0.000 000	0.000
	100 %	+30	1727 500 000	-0.4	0.000 000	0.000
	100 %	+40	1727 499 998	-1.7	0.000 000	-0.001
	100 %	+50	1727 499 999	-1.0	0.000 000	-0.001
	Batt. Endpoint	+20	1727 499 999	-1.0	0.000 000	-0.001
1762.5	100 %	+20(Ref)	1762 499 998	0.0	0.000 000	0.000
	100 %	-30	1762 499 996	-1.8	0.000 000	-0.001
	100 %	-20	1762 499 996	-2.2	0.000 000	-0.001
	100 %	-10	1762 499 996	-2.1	0.000 000	-0.001
	100 %	0	1762 499 996	-1.5	0.000 000	-0.001
	100 %	+10	1762 499 995	-2.5	0.000 000	-0.001
	100 %	+30	1762 499 996	-2.3	0.000 000	-0.001
	100 %	+40	1762 499 994	-3.5	0.000 000	-0.002
	100 %	+50	1762 499 995	-2.6	0.000 000	-0.001
	Batt. Endpoint	+20	1762 499 996	-2.1	0.000 000	-0.001

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 3.900 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

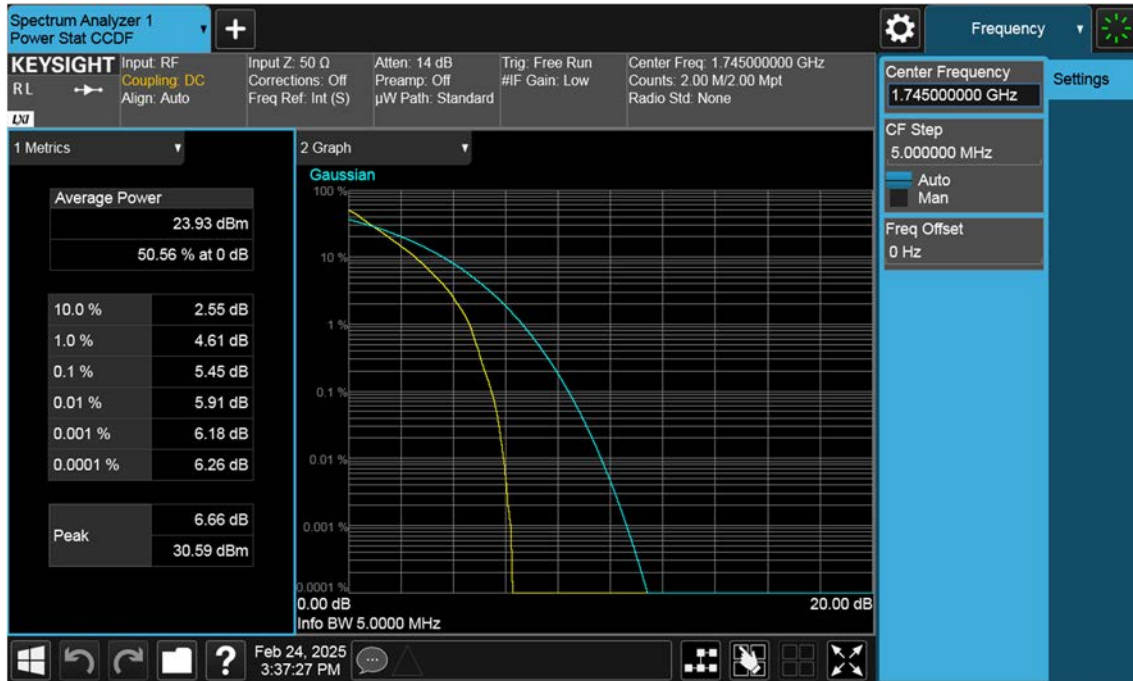
Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1730.0	100 %	+20(Ref)	1729 999 999	0.0	0.000 000	0.000
	100 %	-30	1729 999 999	0.0	0.000 000	0.000
	100 %	-20	1729 999 997	-1.9	0.000 000	-0.001
	100 %	-10	1729 999 998	-0.8	0.000 000	0.000
	100 %	0	1729 999 997	-1.8	0.000 000	-0.001
	100 %	+10	1729 999 997	-1.7	0.000 000	-0.001
	100 %	+30	1729 999 998	-0.7	0.000 000	0.000
	100 %	+40	1729 999 998	-1.1	0.000 000	-0.001
	100 %	+50	1729 999 998	-0.4	0.000 000	0.000
	Batt. Endpoint	+20	1729 999 997	-1.3	0.000 000	-0.001
1760.0	100 %	+20(Ref)	1760 000 001	0.0	0.000 000	0.000
	100 %	-30	1760 000 001	0.5	0.000 000	0.000
	100 %	-20	1760 000 000	-0.6	0.000 000	0.000
	100 %	-10	1760 000 001	0.1	0.000 000	0.000
	100 %	0	1759 999 999	-1.4	0.000 000	-0.001
	100 %	+10	1759 999 999	-1.8	0.000 000	-0.001
	100 %	+30	1760 000 001	-0.1	0.000 000	0.000
	100 %	+40	1760 000 001	-0.2	0.000 000	0.000
	100 %	+50	1760 000 000	-0.7	0.000 000	0.000
	Batt. Endpoint	+20	1760 000 001	0.4	0.000 000	0.000

10. TEST PLOTS(Main 2 ANT)

NR66_5 M_PAR_Mid_BPSK_FullIRB



NR66_5 M_PAR_Mid_QPSK_FullRB



NR66_5 M_PAR_Mid_16QAM_FullRB



NR66_5 M_PAR_Mid_64QAM_FullRB



NR66_5 M_PAR_Mid_256QAM_FullRB



NR66_10 M_PAR_Mid_BPSK_FullRB



NR66_10 M_PAR_Mid_QPSK_FullRB



NR66_10 M_PAR_Mid_16QAM_FullRB



NR66_10 M_PAR_Mid_64QAM_FullRB



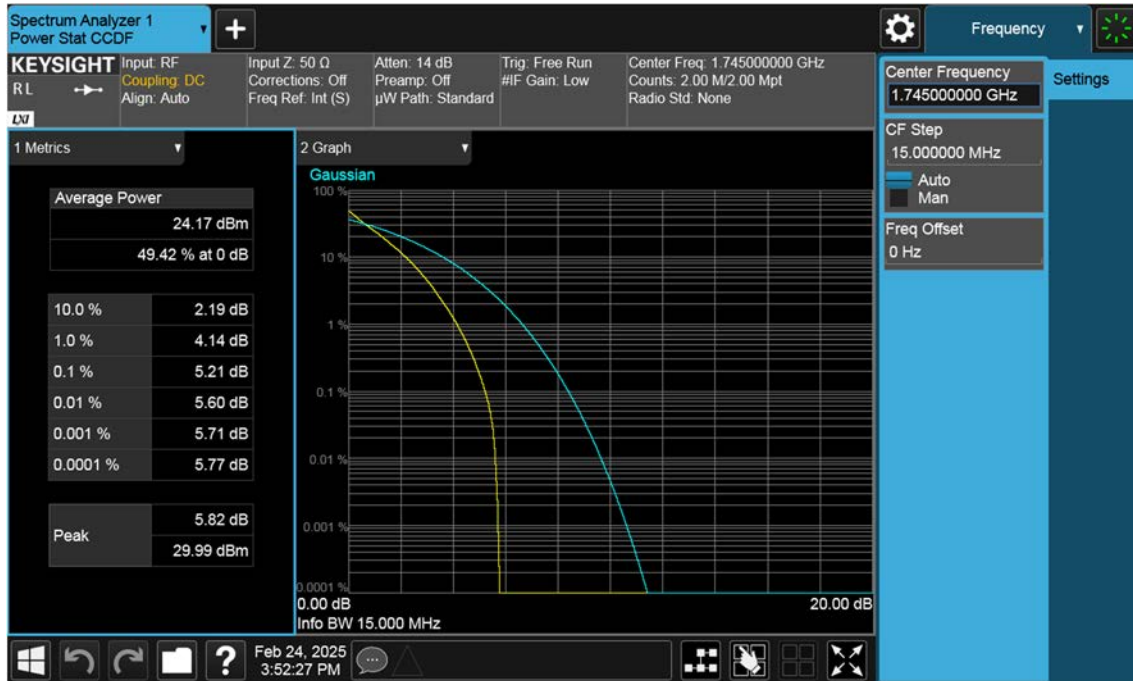
NR66_10 M_PAR_Mid_256QAM_FullRB



NR66_15 M_PAR_Mid_BPSK_FullRB



NR66_15 M_PAR_Mid_QPSK_FullRB



NR66_15 M_PAR_Mid_16QAM_FullRB



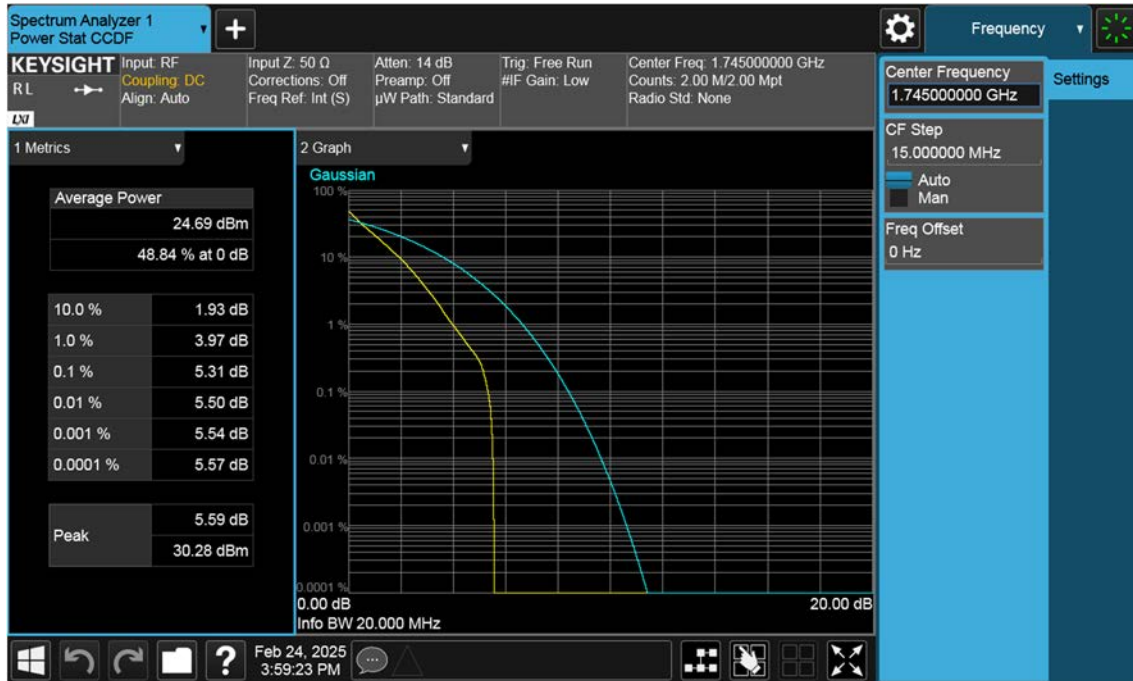
NR66_15 M_PAR_Mid_64QAM_FullRB



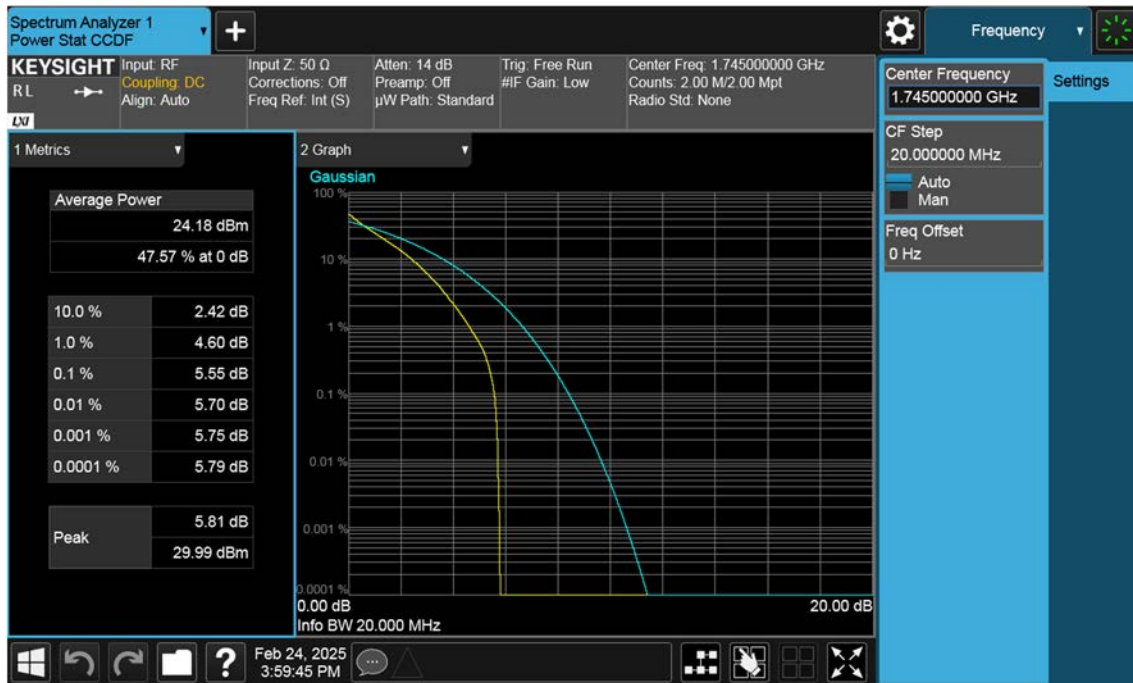
NR66_15 M_PAR_Mid_256QAM_FullRB



NR66_20 M_PAR_Mid_BPSK_FullRB



NR66_20 M_PAR_Mid_QPSK_FullRB



NR66_20 M_PAR_Mid_16QAM_FullRB



NR66_20 M_PAR_Mid_64QAM_FullRB



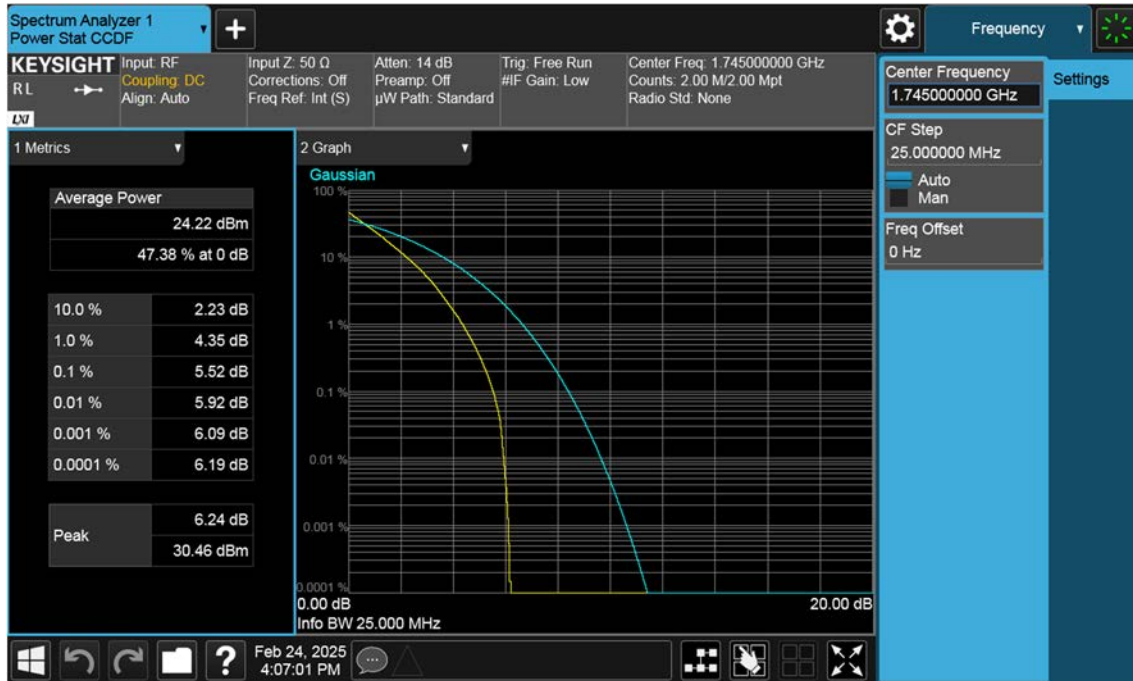
NR66_20 M_PAR_Mid_256QAM_FullRB



NR66_25 M_PAR_Mid_BPSK_FullRB



NR66_25 M_PAR_Mid_QPSK_FullRB



NR66_25 M_PAR_Mid_16QAM_FullRB



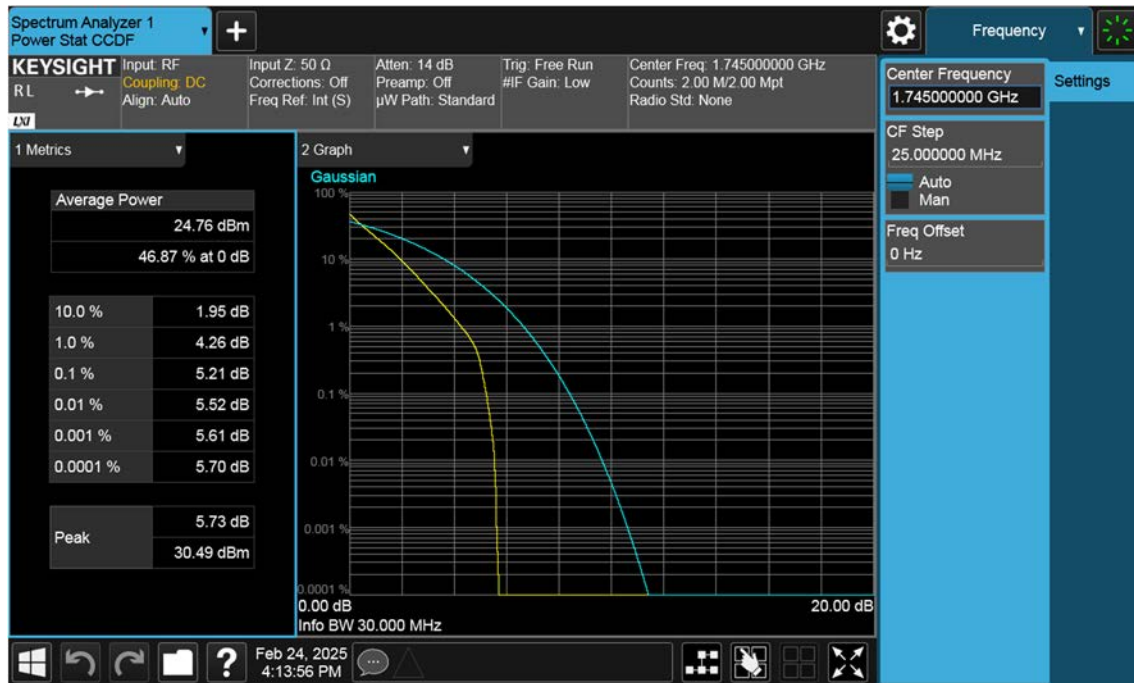
NR66_25 M_PAR_Mid_64QAM_FullRB



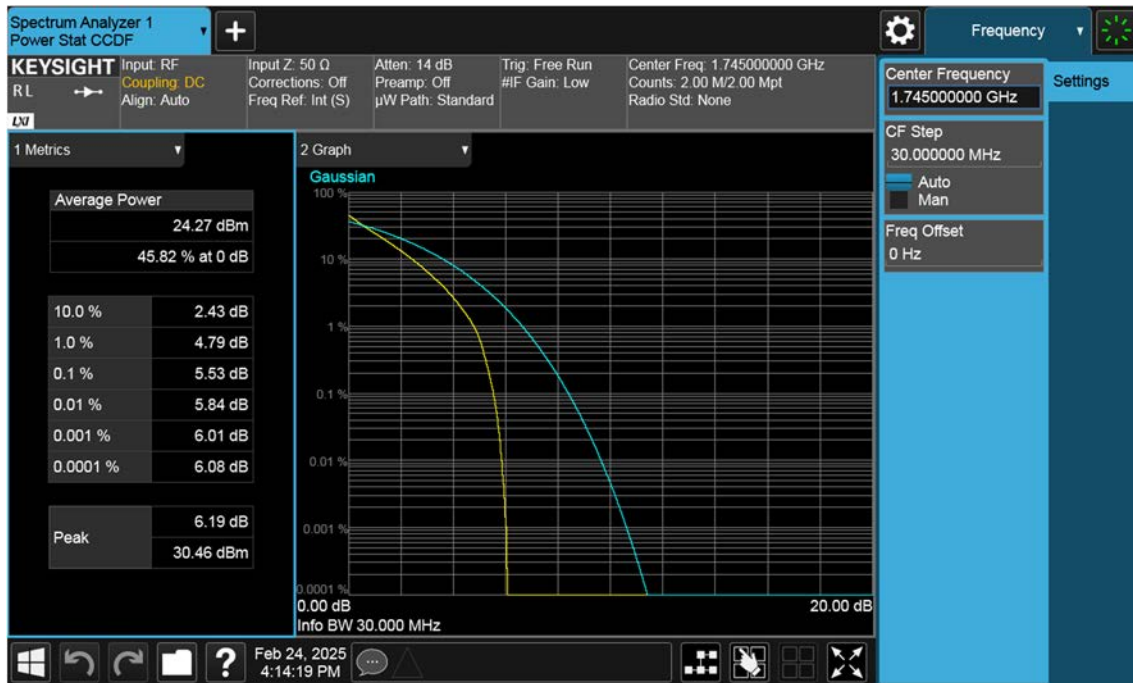
NR66_25 M_PAR_Mid_256QAM_FullRB



NR66_30 M_PAR_Mid_BPSK_FullRB



NR66_30 M_PAR_Mid_QPSK_FullRB



NR66_30 M_PAR_Mid_16QAM_FullRB



NR66_30 M_PAR_Mid_64QAM_FullRB



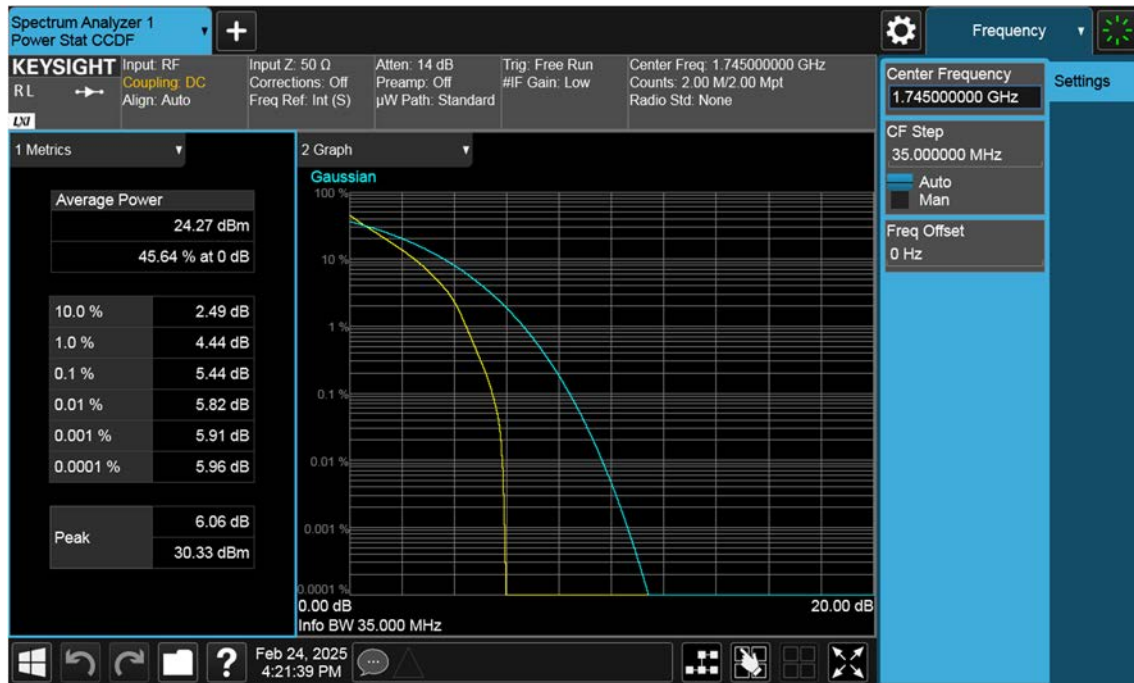
NR66_30 M_PAR_Mid_256QAM_FullRB



NR66_35 M_PAR_Mid_BPSK_FullRB



NR66_35 M_PAR_Mid_QPSK_FullRB



NR66_35 M_PAR_Mid_16QAM_FullRB



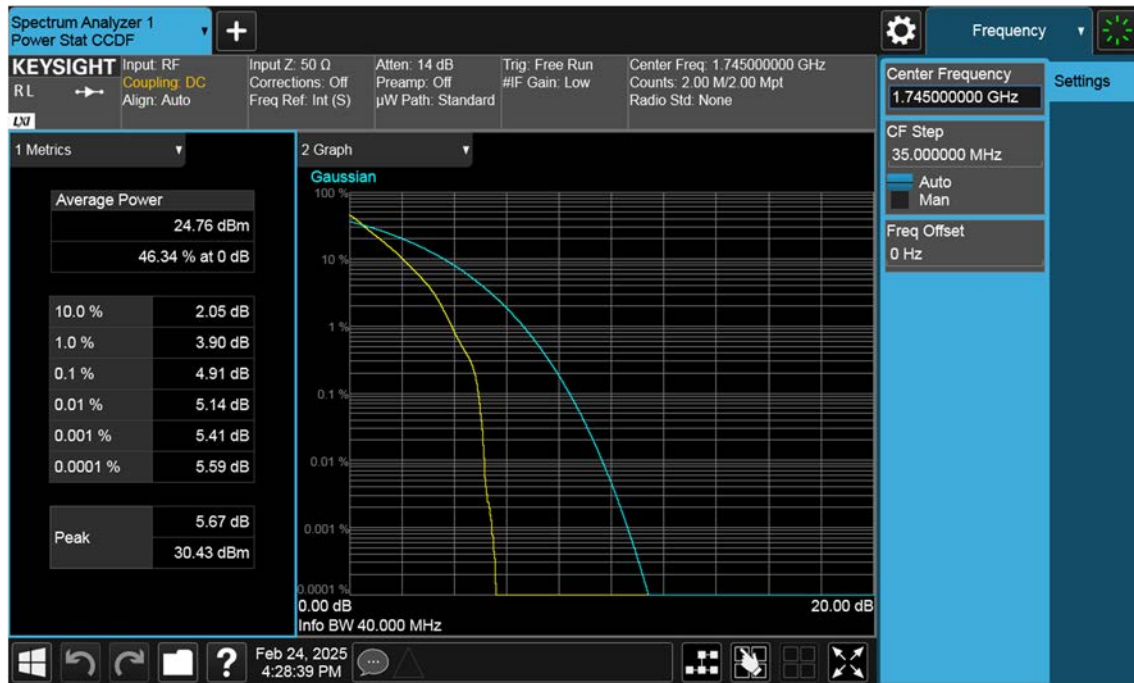
NR66_35 M_PAR_Mid_64QAM_FullRB



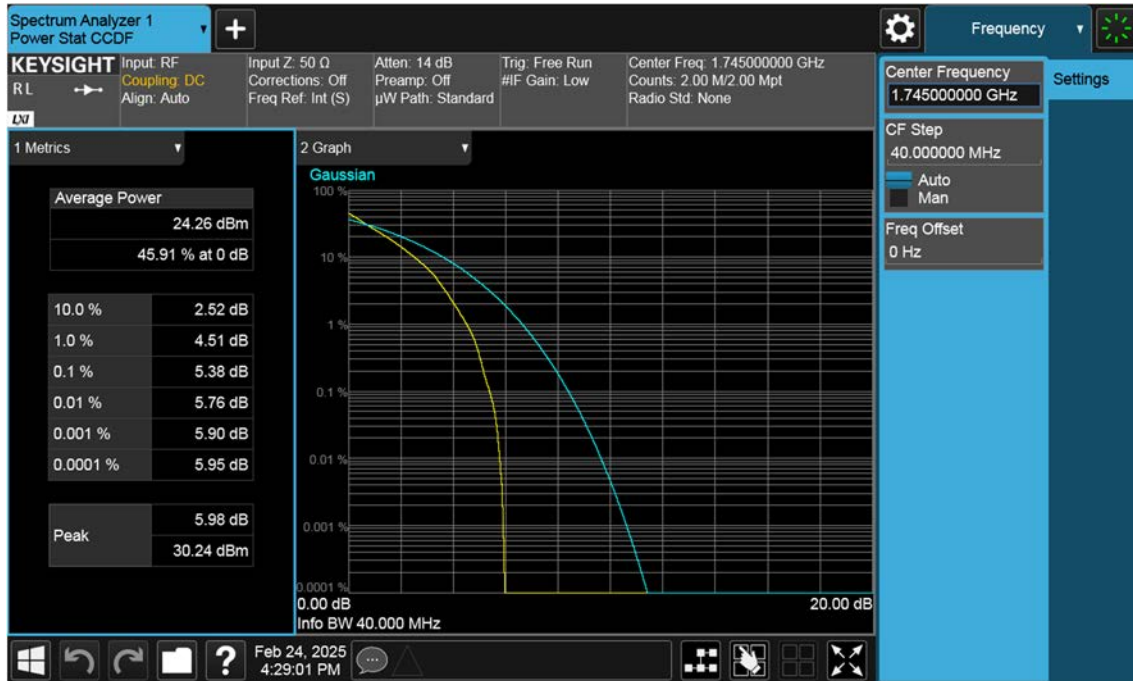
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NR66_40 M_PAR_Mid_BPSK_FullRB



NR66_40 M_PAR_Mid_QPSK_FullRB



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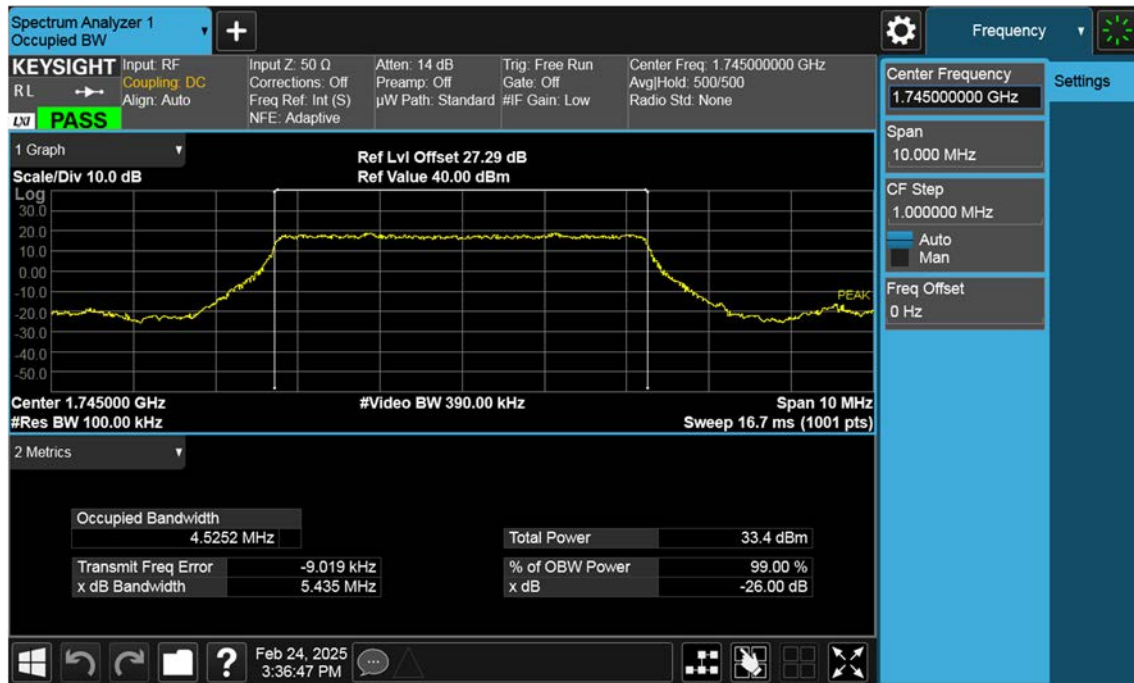
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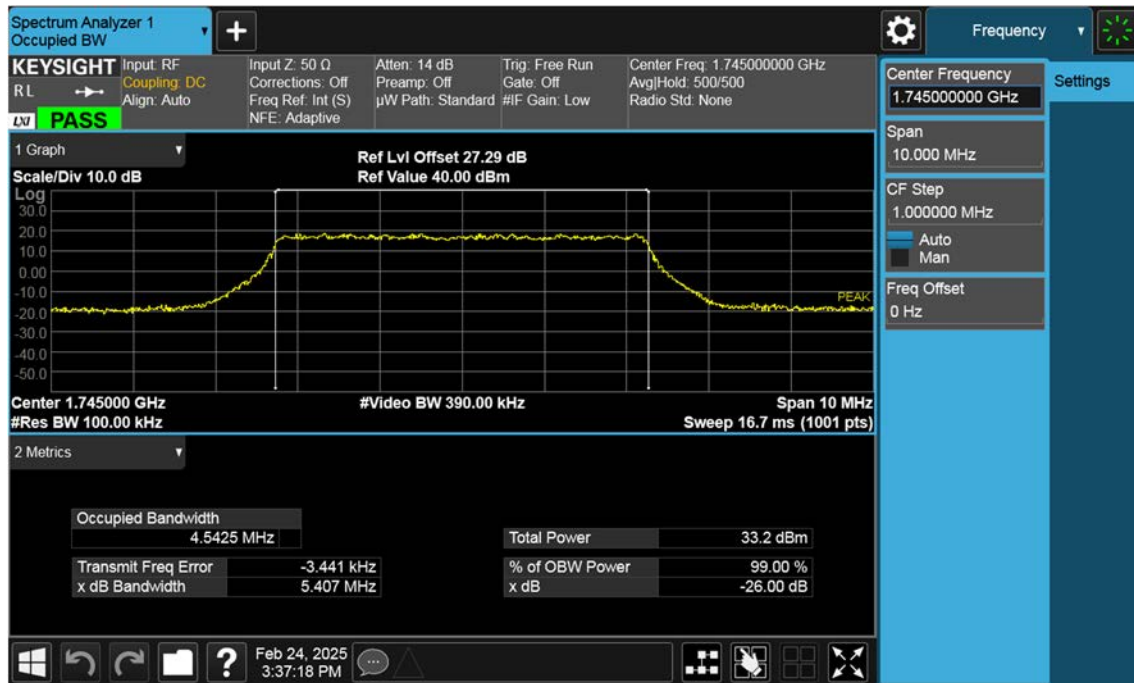
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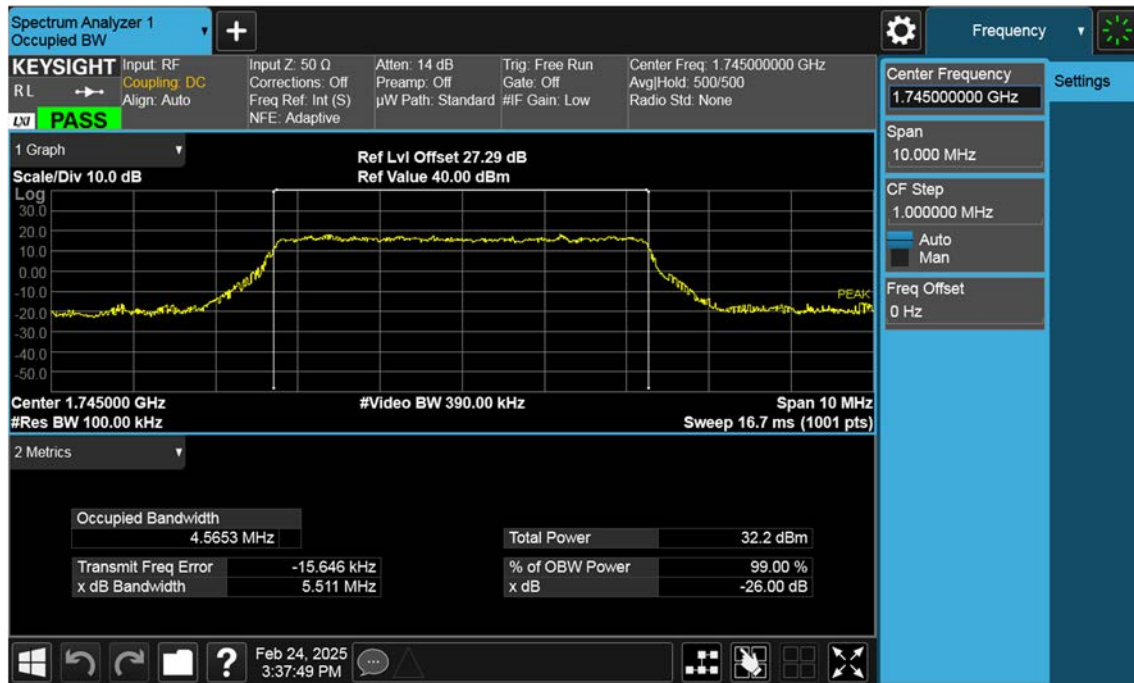
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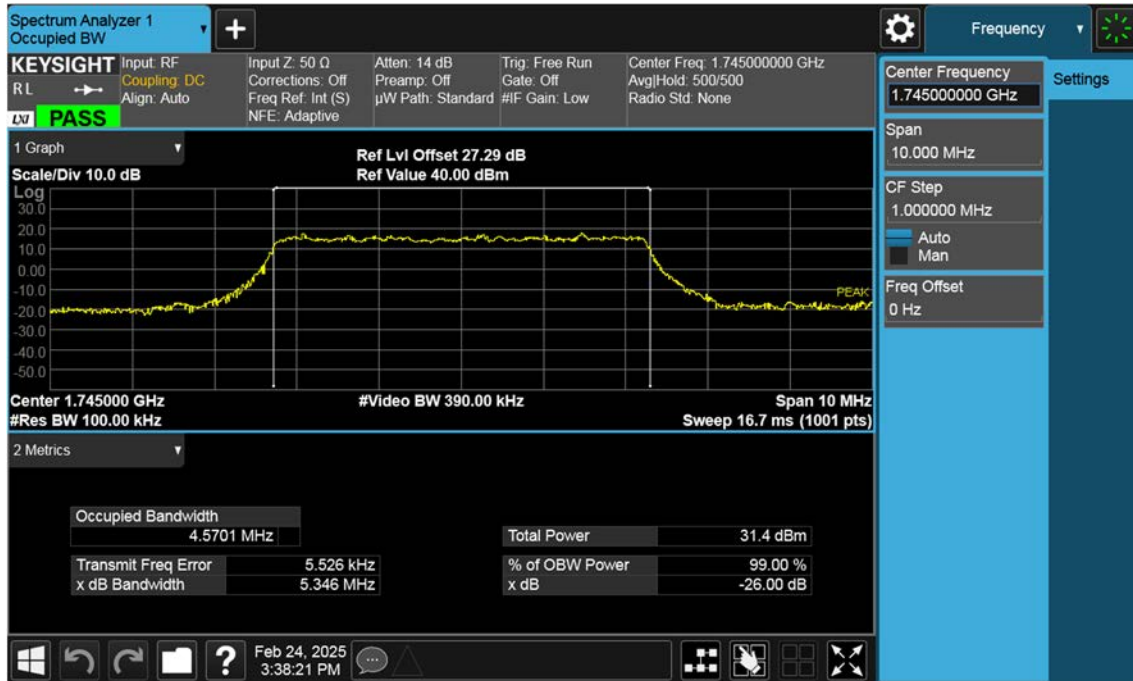
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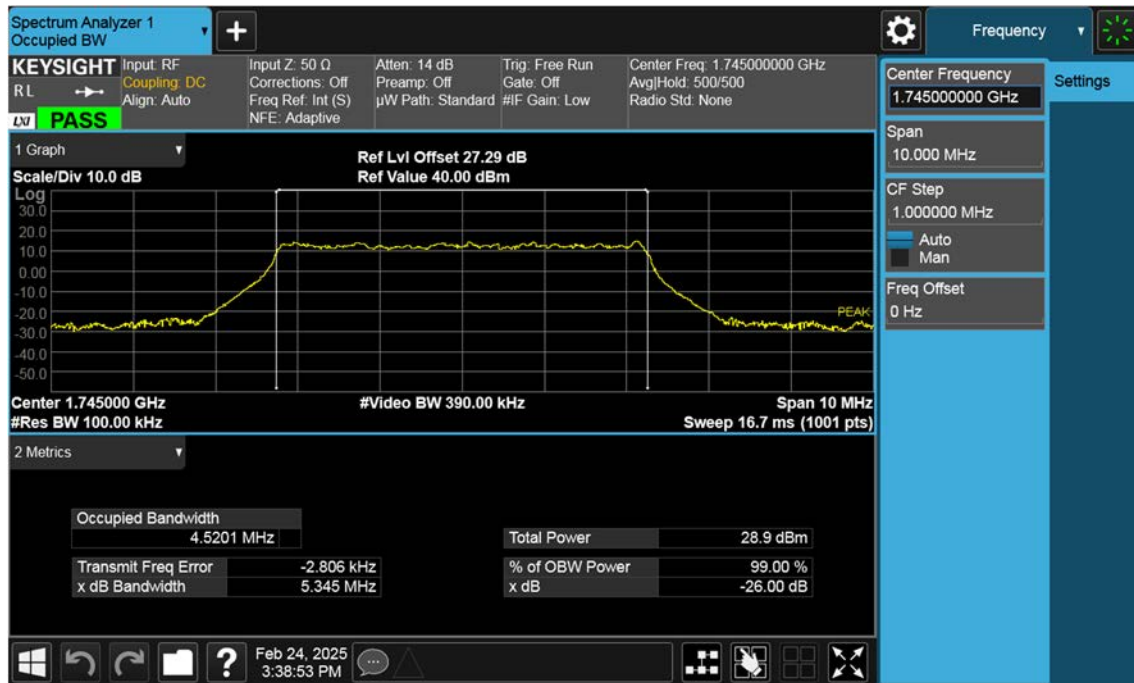
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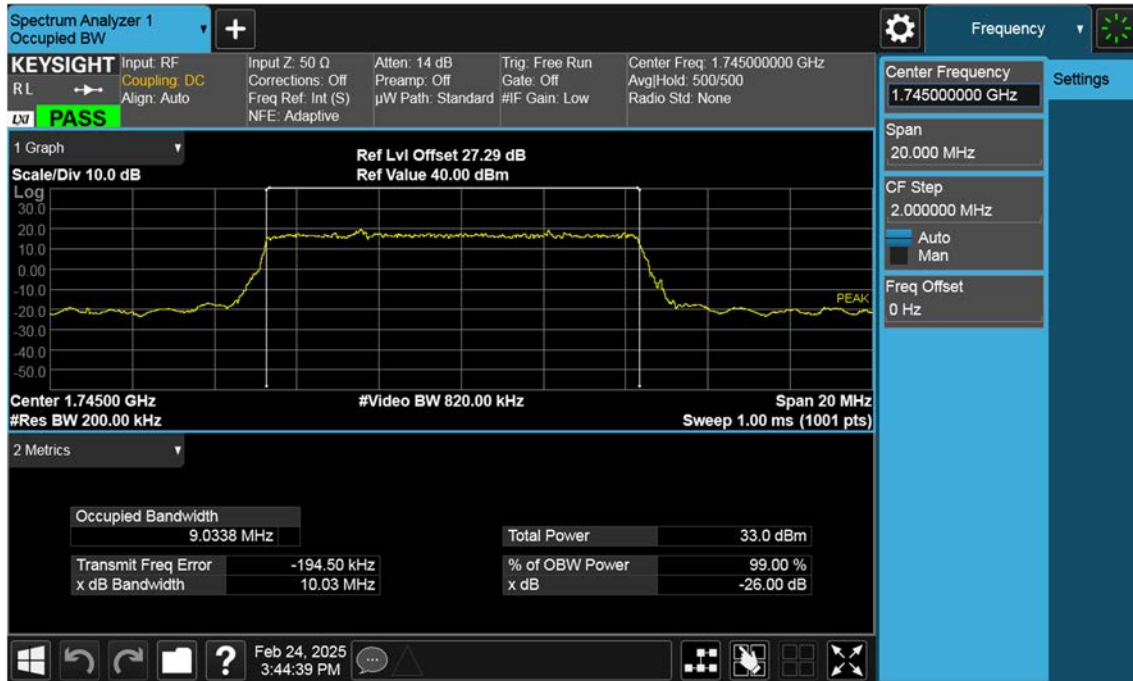
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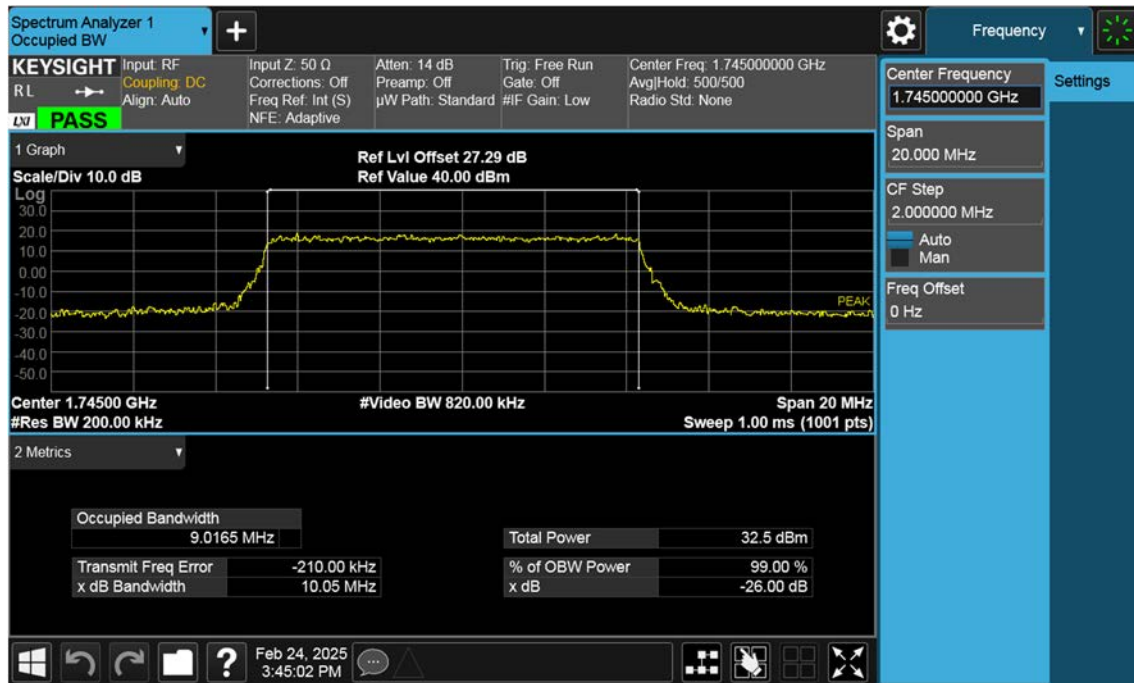
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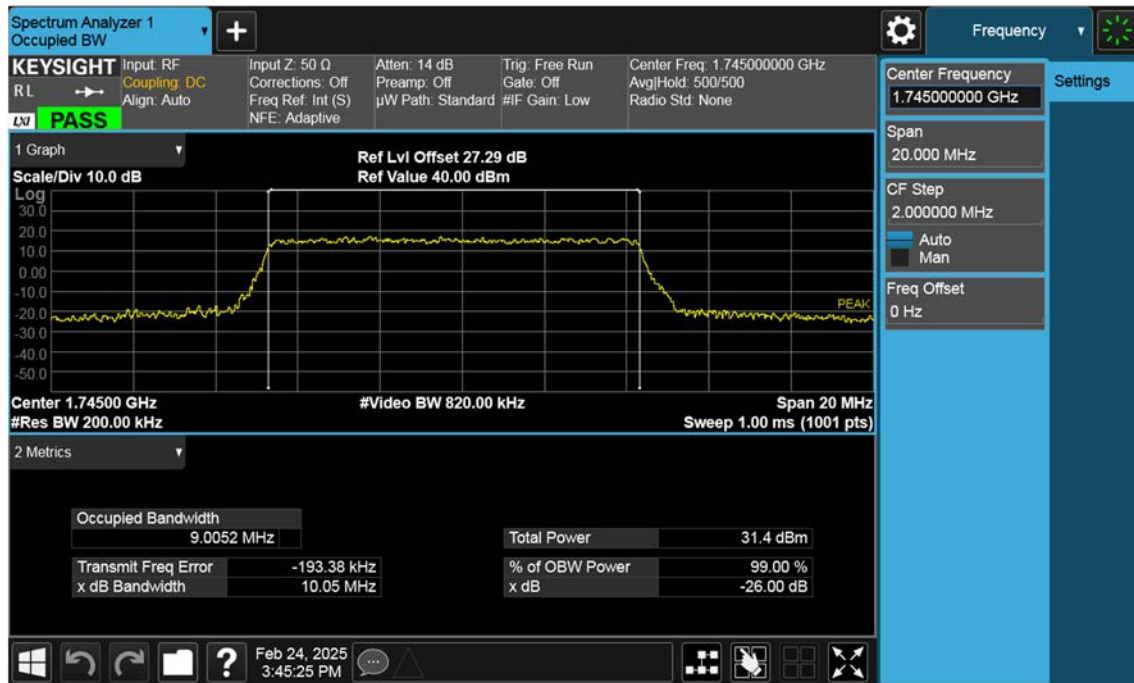
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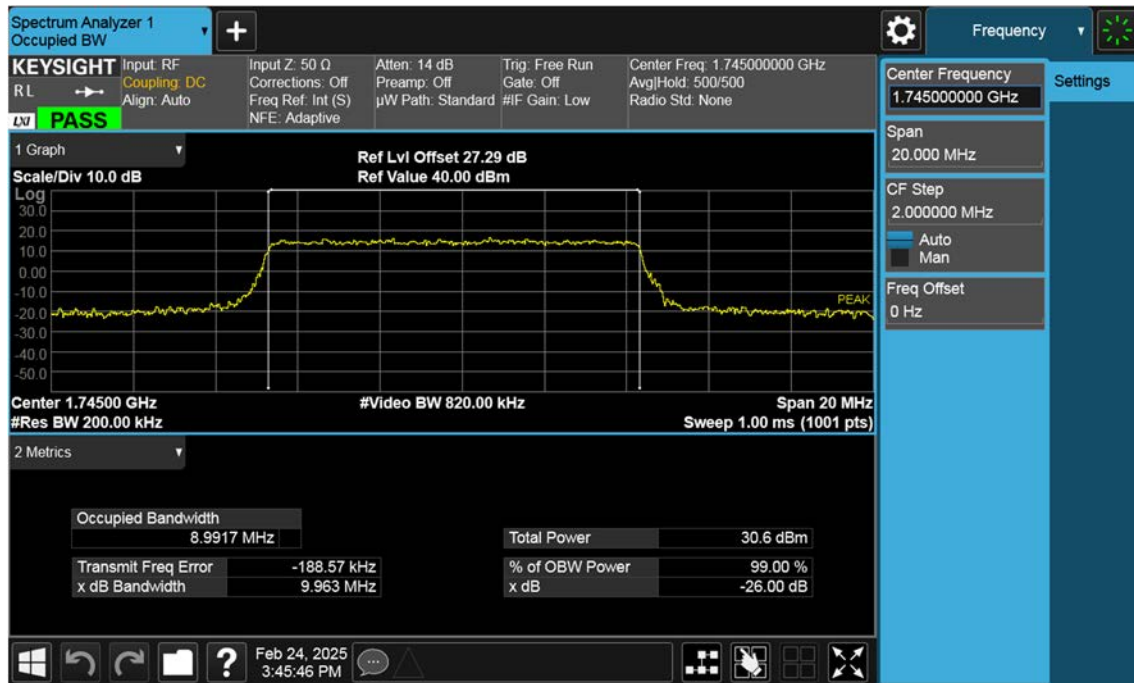
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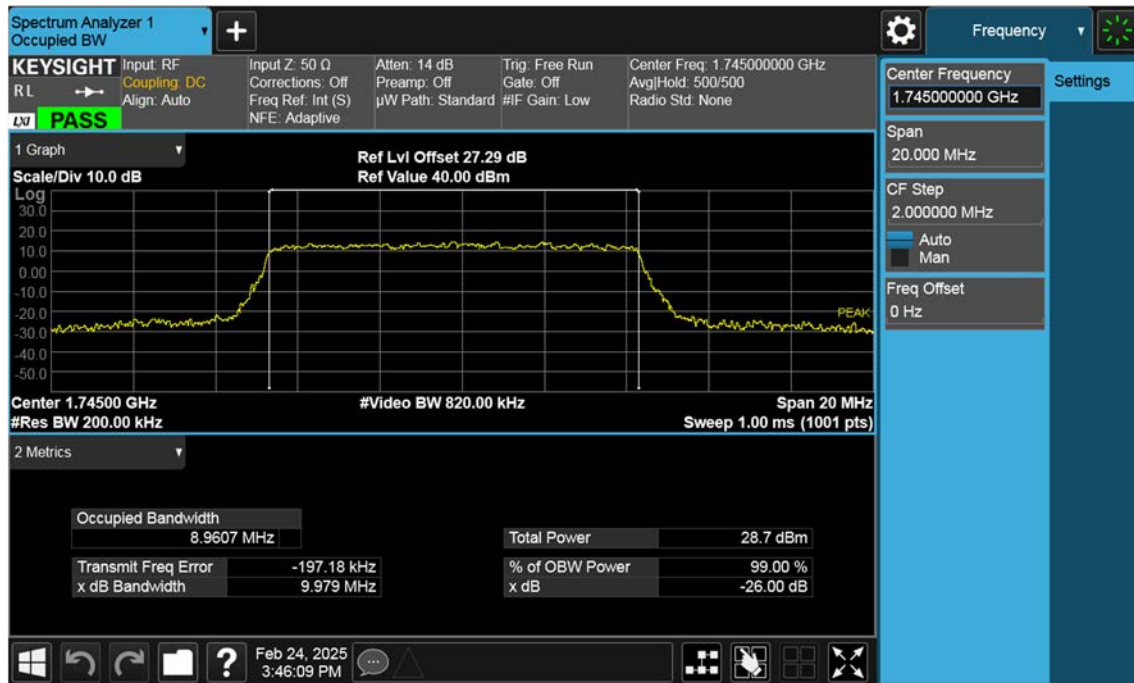
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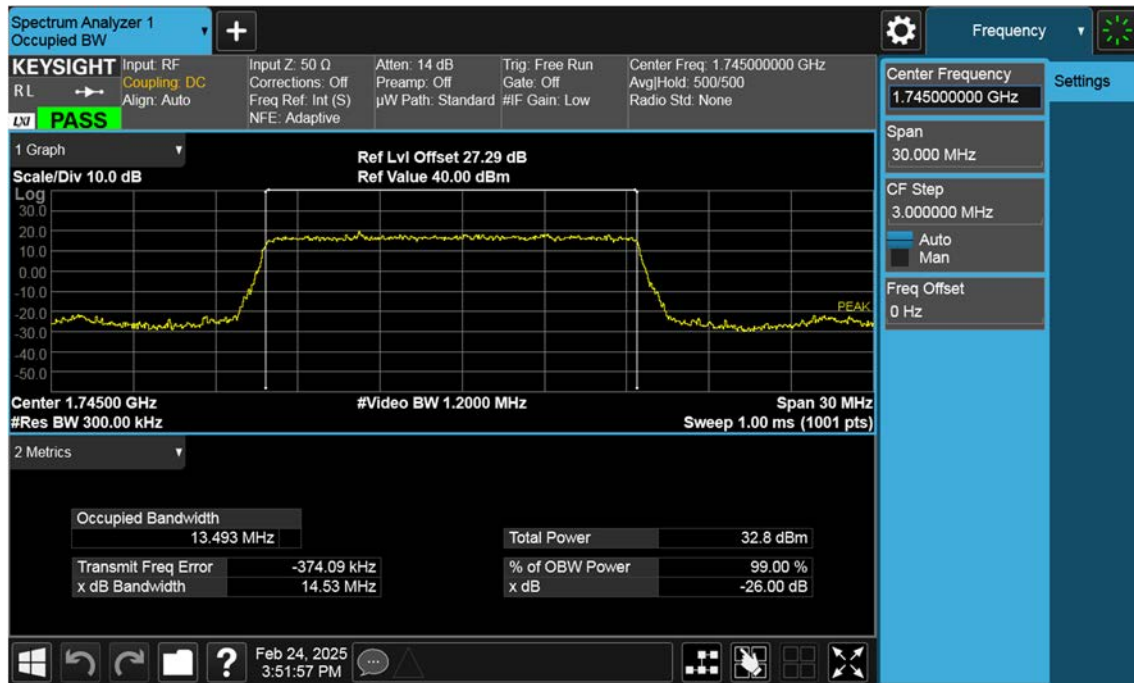
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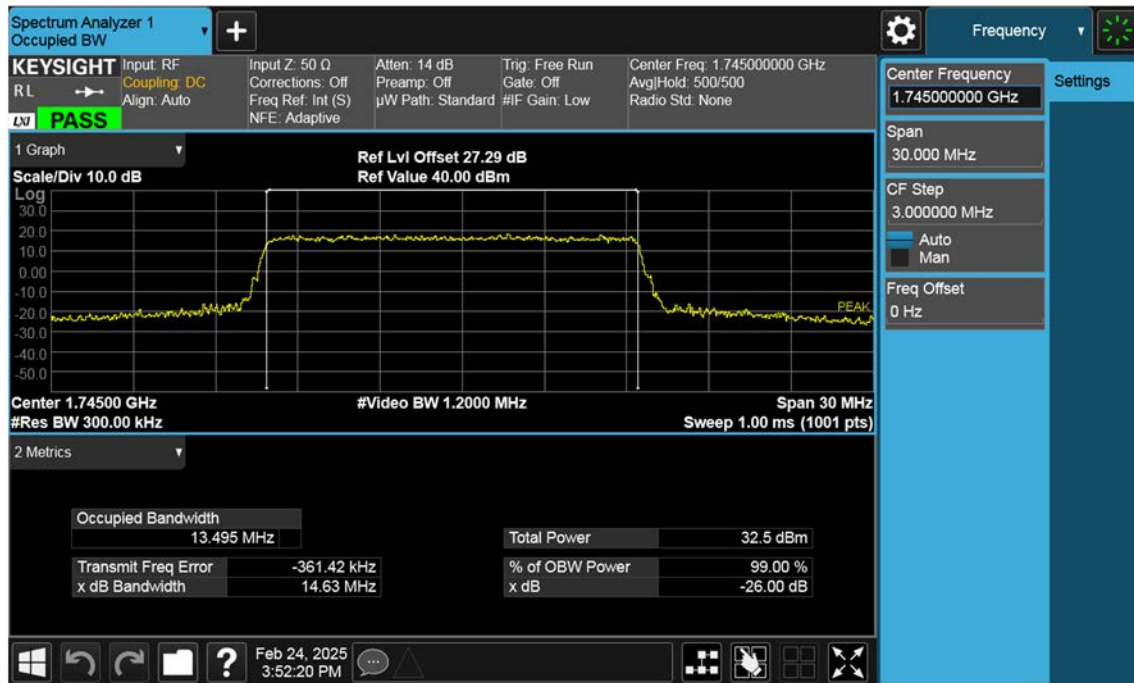
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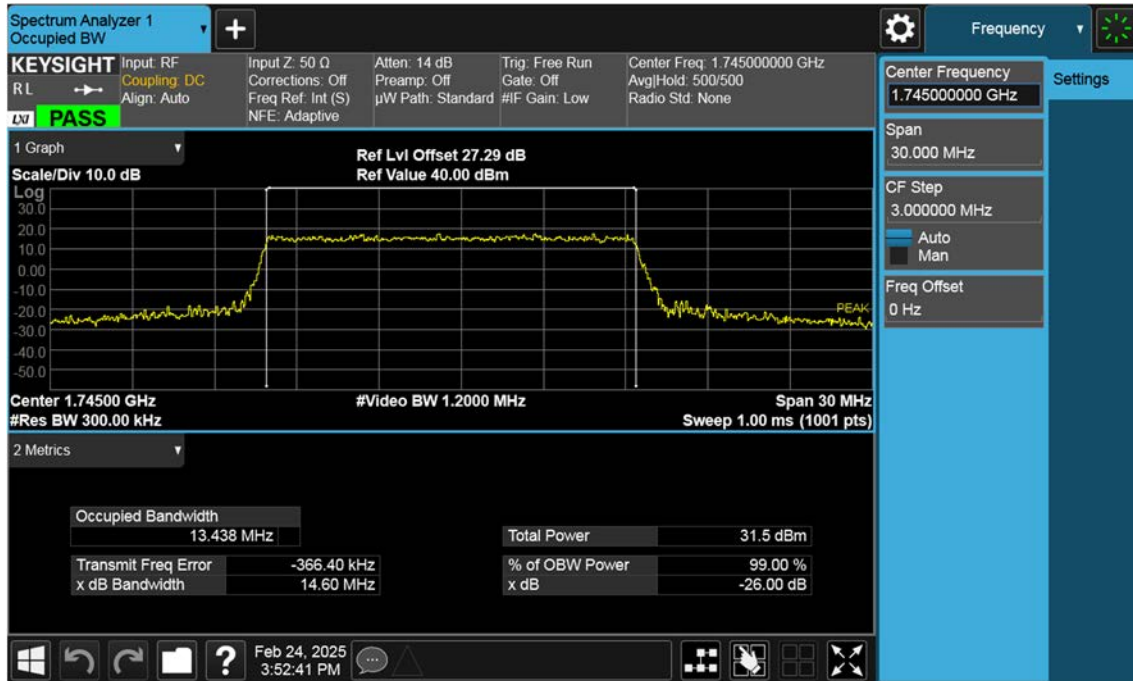
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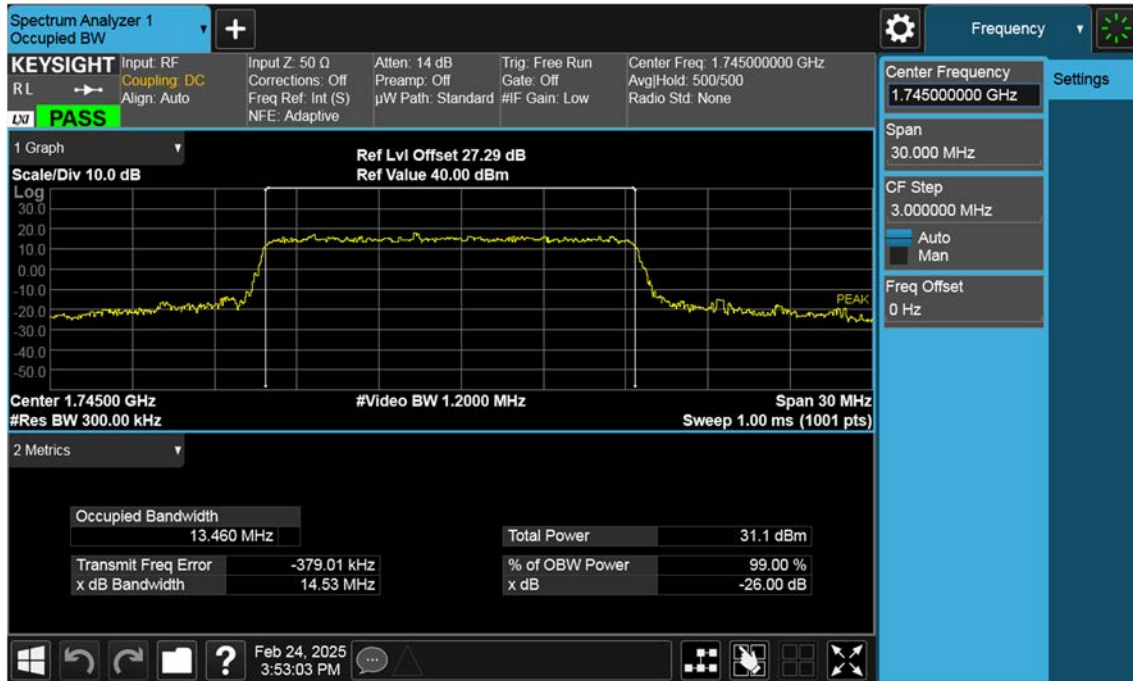
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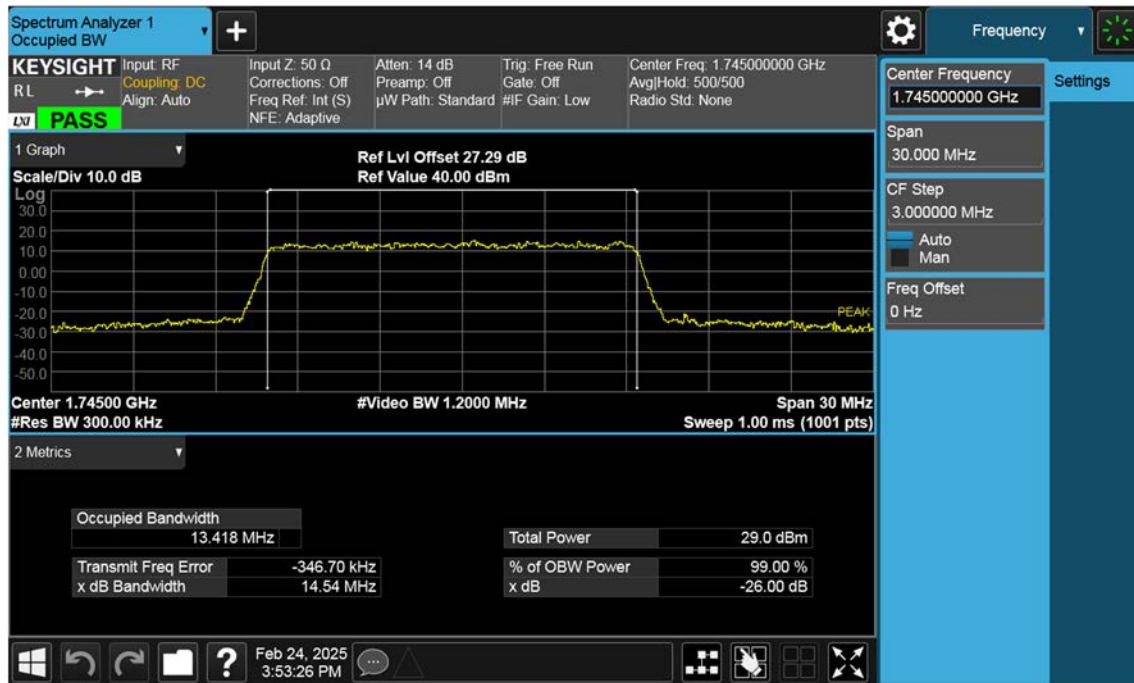
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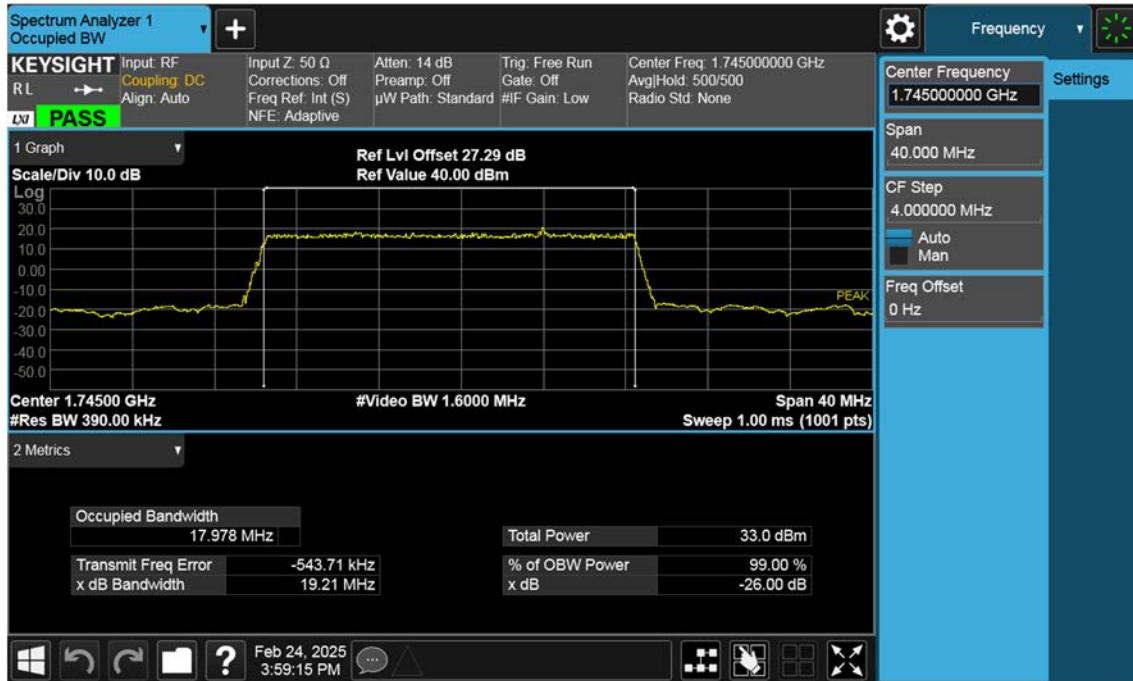
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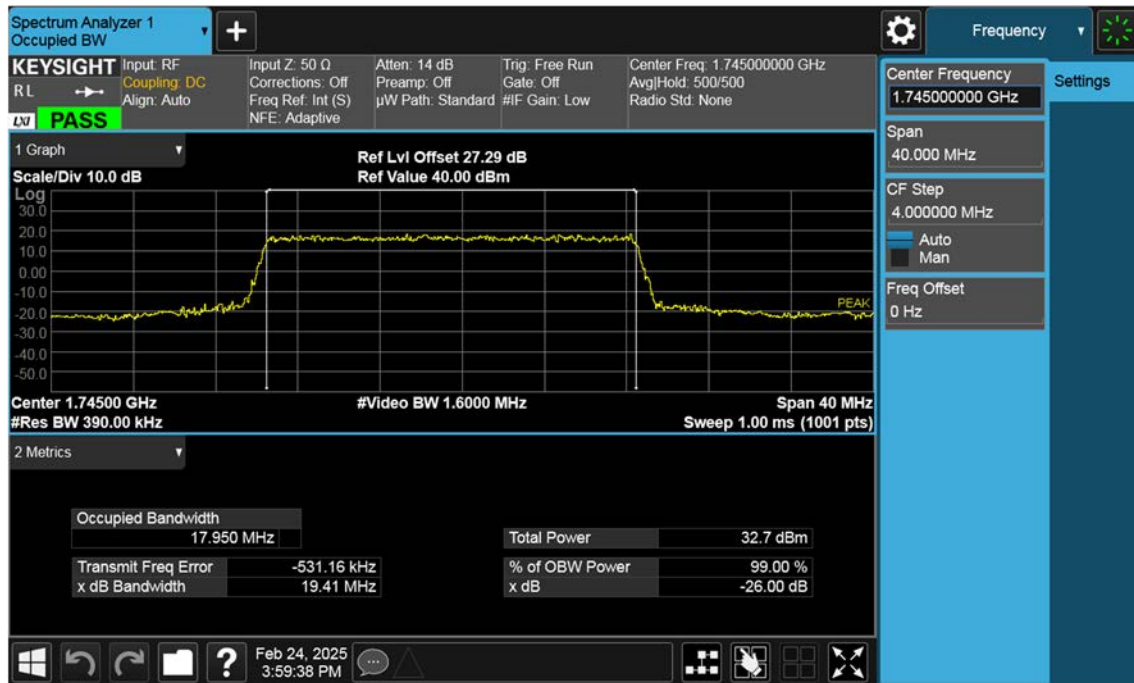
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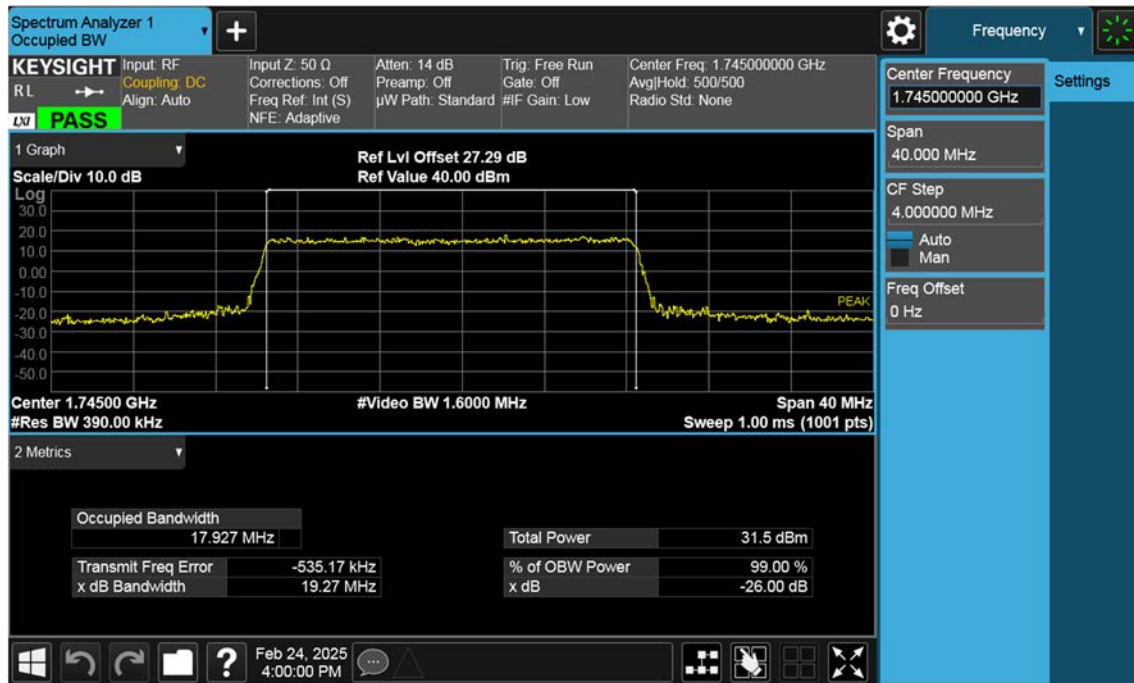
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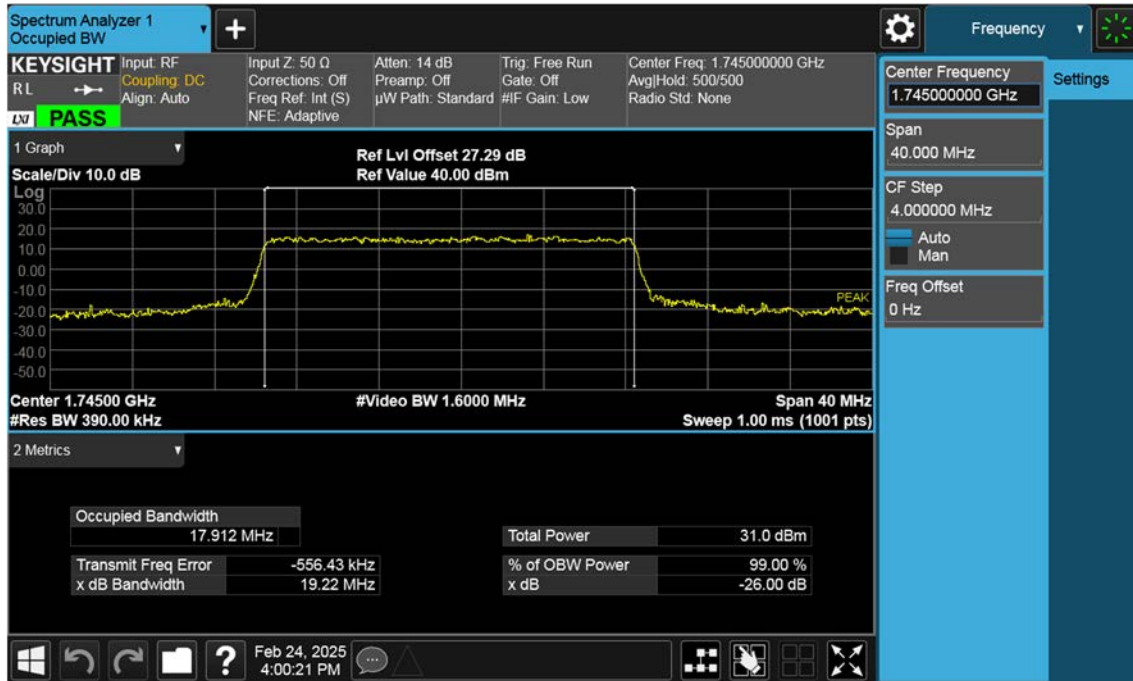
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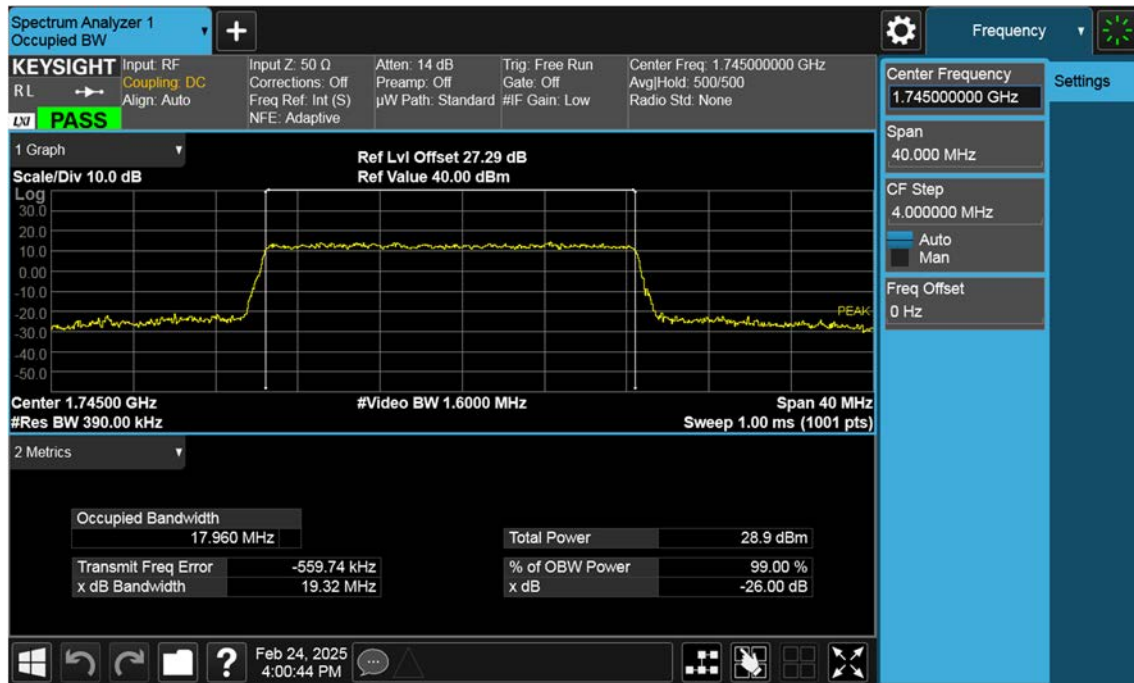
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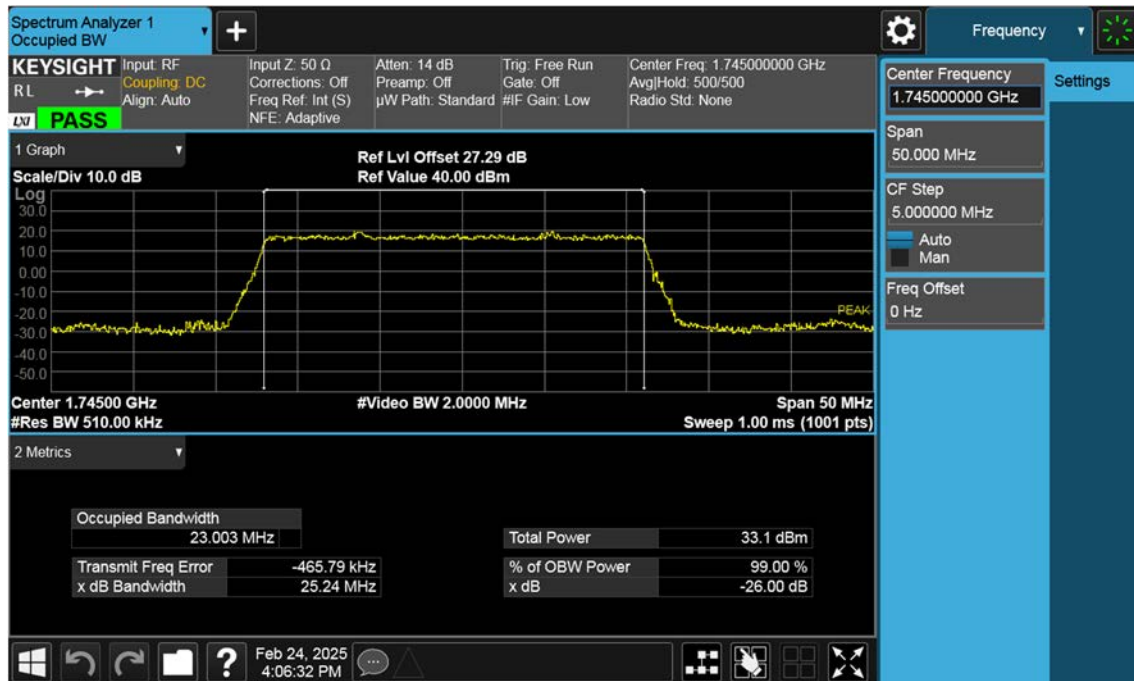
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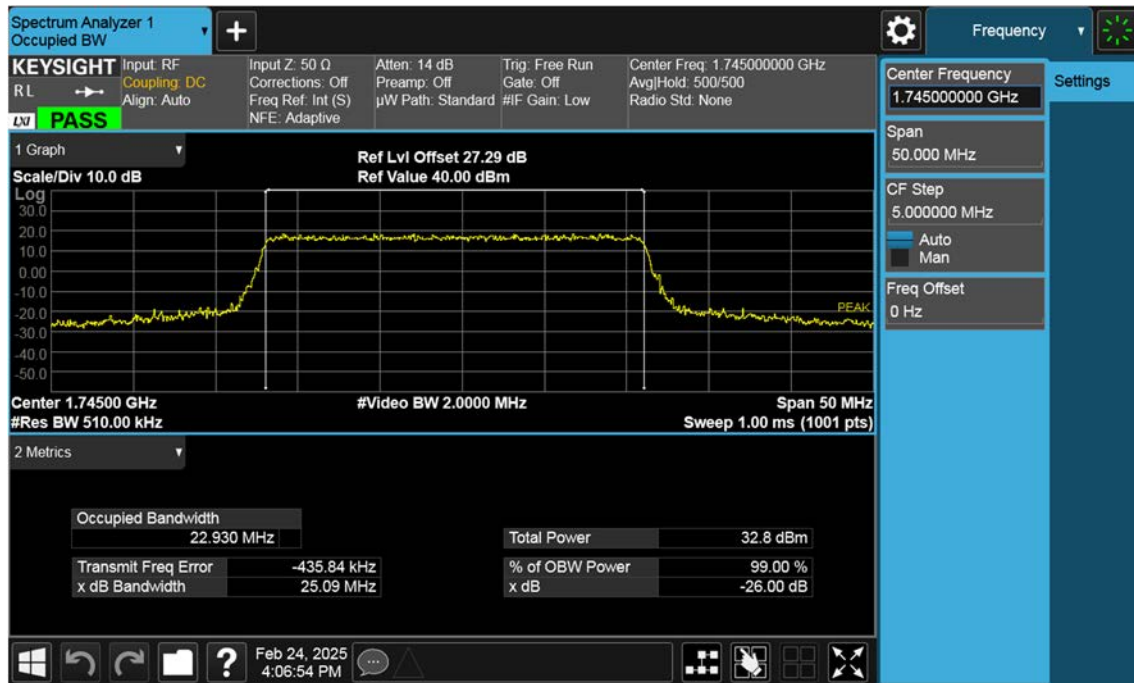
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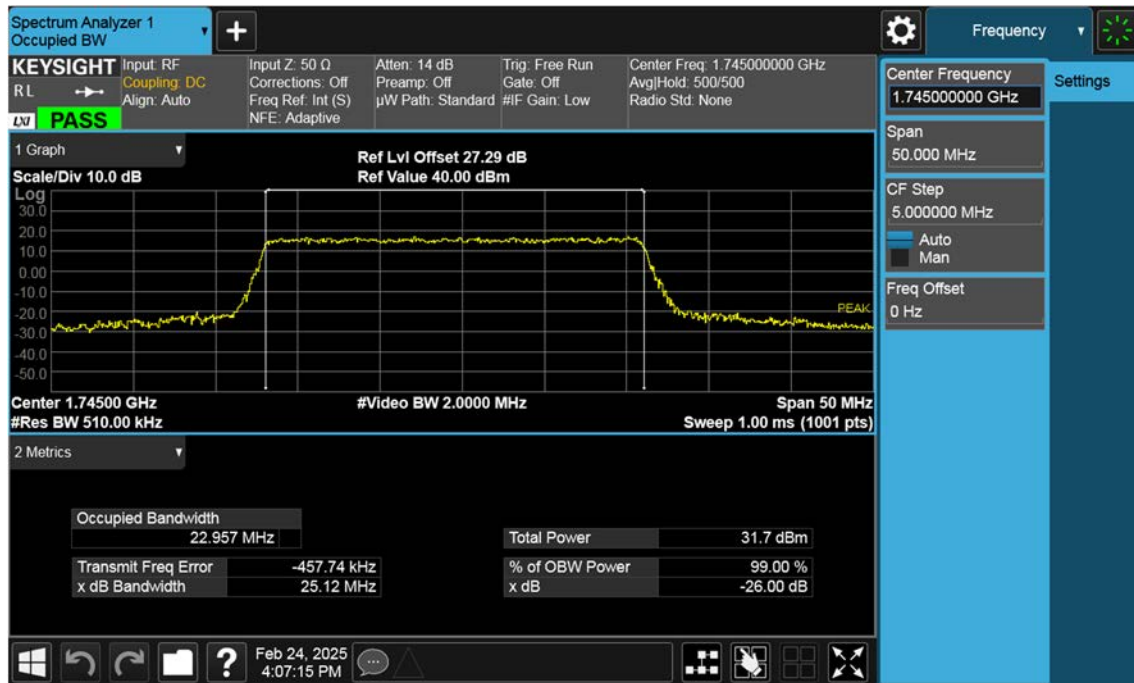
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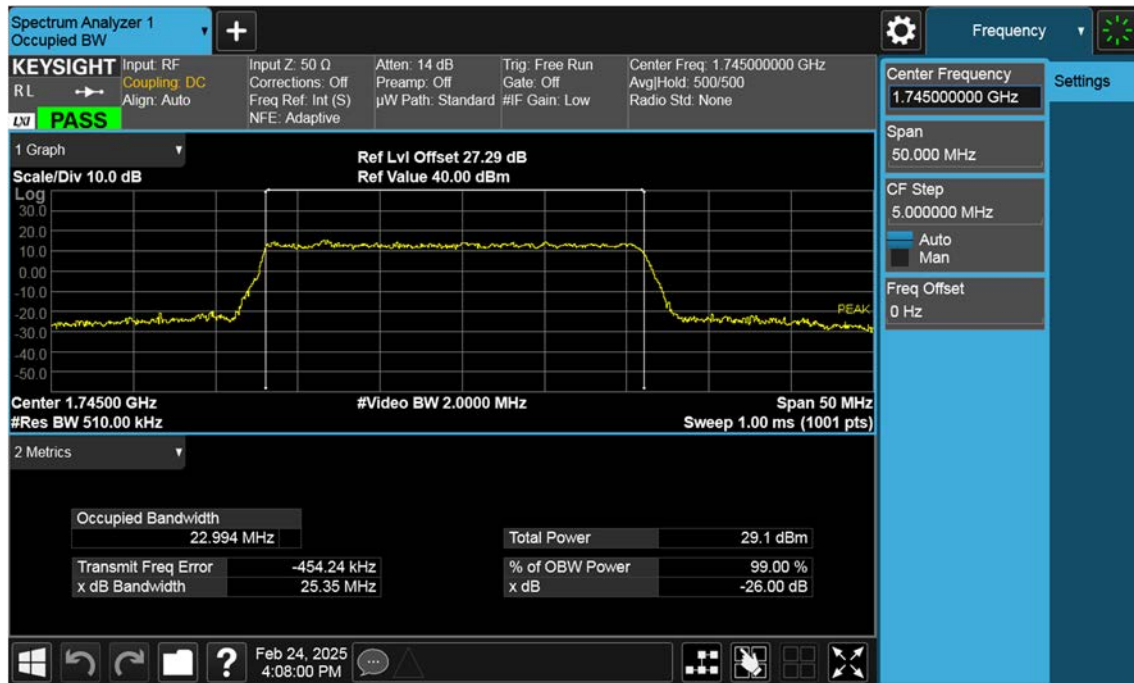
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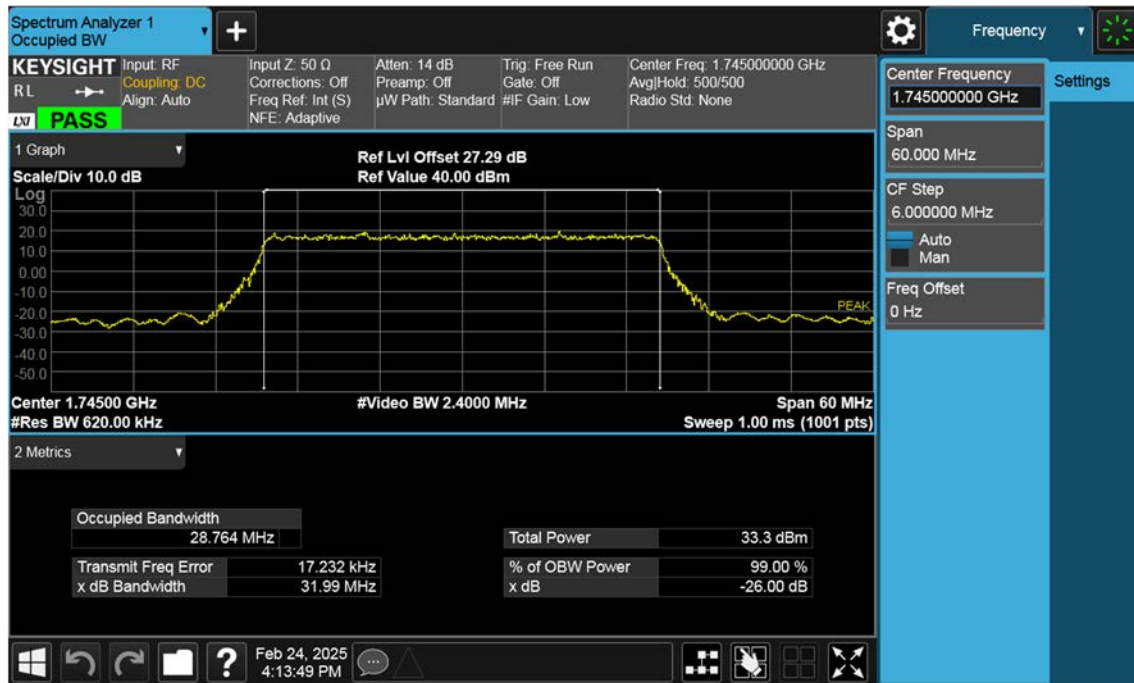
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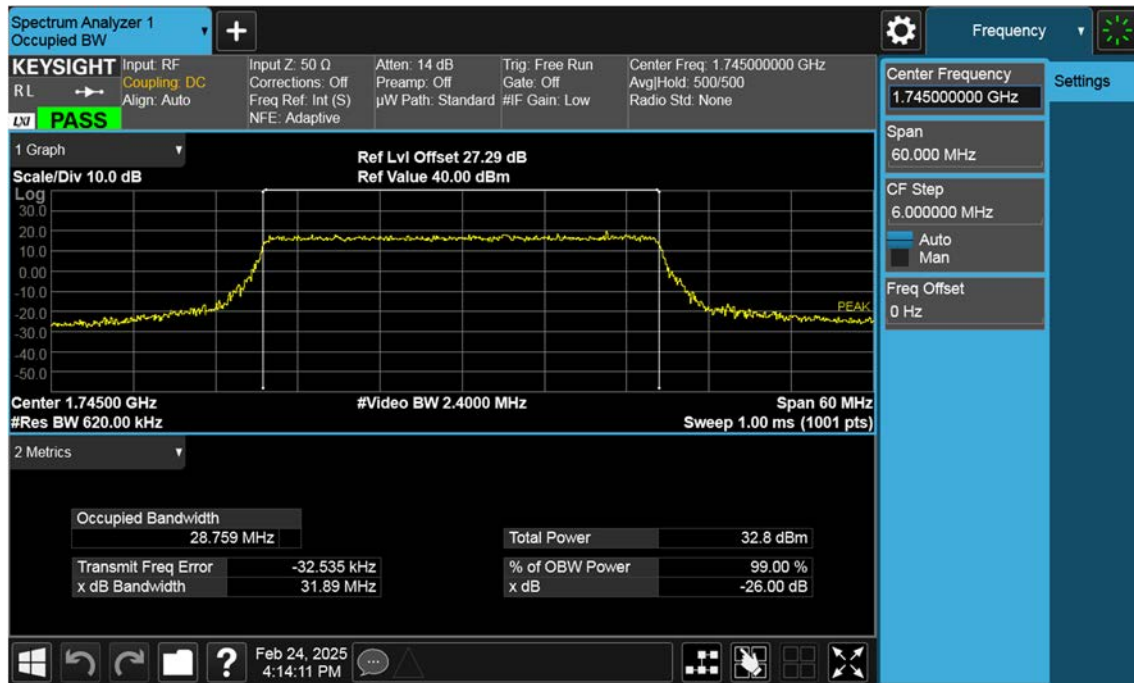
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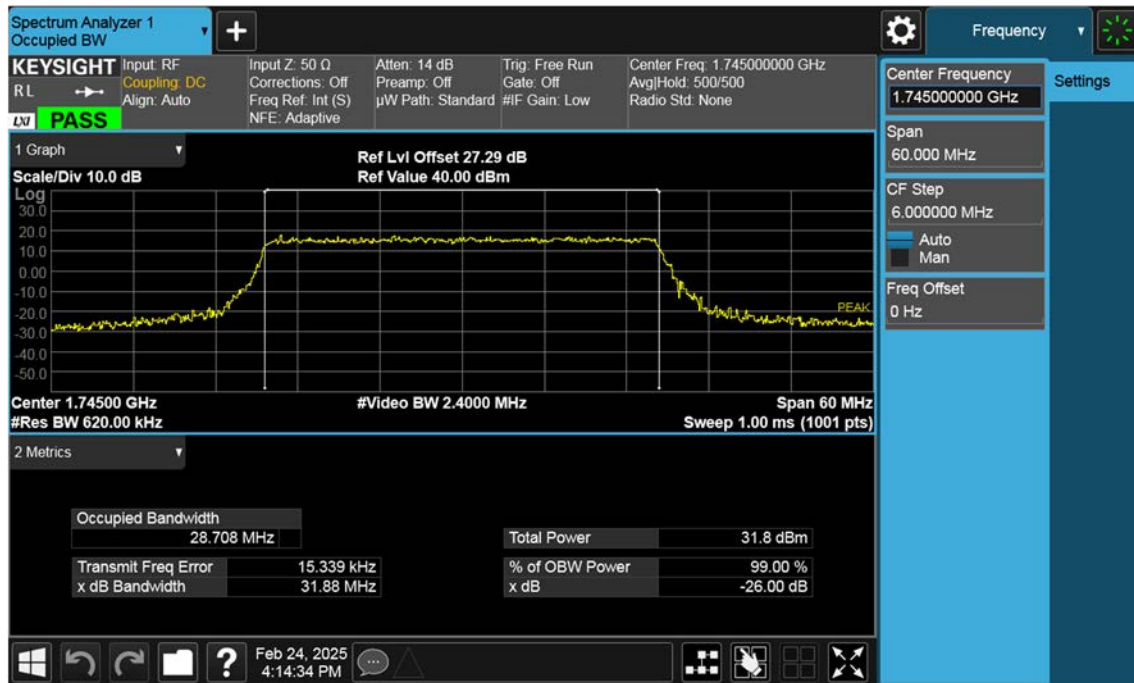
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NR66_30 M_OBW_Mid_QPSK_FullRB



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