

TEST REPORT

FCC Sub6 n66 Test for SM-A566E/DS
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2412-FC073

DATE OF ISSUE
December 23, 2024

Tested by
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TEST REPORT

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Additional Model

SM-A566E

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-A566E/DS

Date of Test

November 08, 2024 ~ December 20, 2024

FCC ID

A3LSMA566E

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	December 23, 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:	A3LSMA566E
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§ 27
EUT Type:	Mobile phone
Model(s):	SM-A566E/DS
Additional Model(s)	SM-A566E
SCS(kHz):	15
Bandwidth(MHz):	5, 10, 15, 20, 25, 30, 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)) 1730.0 MHz – 1760.0 MHz (Sub6 n66(40 MHz))
Date(s) of Tests:	November 08, 2024 ~ December 20, 2024
Serial number:	Radiated : R3CXB08Q3NH Conducted : R3CX90M9MWN
Antenna Information	Please refer to the Antenna Approval 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	0.172	22.36
		4M53G7D	QPSK	0.169	22.28
		4M53W7D	16QAM	0.135	21.30
		4M52W7D	64QAM	0.102	20.09
		4M49W7D	256QAM	0.058	17.67
Sub6 n66 (10)	1715.0 – 1775.0	9M00G7D	PI/2 BPSK	0.171	22.34
		9M00G7D	QPSK	0.171	22.32
		9M00W7D	16QAM	0.137	21.36
		8M99W7D	64QAM	0.095	19.79
		8M98W7D	256QAM	0.065	18.10
Sub6 n66 (15)	1717.5 – 1772.5	13M4G7D	PI/2 BPSK	0.174	22.41
		13M5G7D	QPSK	0.172	22.36
		13M4W7D	16QAM	0.136	21.34
		13M5W7D	64QAM	0.097	19.86
		13M5W7D	256QAM	0.060	17.79
Sub6 n66 (20)	1720.0 – 1770.0	17M9G7D	PI/2 BPSK	0.182	22.59
		17M9G7D	QPSK	0.181	22.57
		17M9W7D	16QAM	0.143	21.56
		17M9W7D	64QAM	0.100	19.98
		17M9W7D	256QAM	0.060	17.81
Sub6 n66 (25)	1722.5 – 1767.5	23M0G7D	PI/2 BPSK	0.173	22.38
		23M0G7D	QPSK	0.171	22.34
		23M0W7D	16QAM	0.136	21.33
		23M0W7D	64QAM	0.094	19.74
		23M1W7D	256QAM	0.062	17.91
Sub6 n66 (30)	1725.0 – 1765.0	28M7G7D	PI/2 BPSK	0.176	22.45
		28M7G7D	QPSK	0.175	22.42
		28M8W7D	16QAM	0.137	21.37
		28M7W7D	64QAM	0.097	19.85
		28M8W7D	256QAM	0.060	17.80
Sub6 n66 (40)	1730.0 – 1760.0	38M8G7D	PI/2 BPSK	0.164	22.16
		38M8G7D	QPSK	0.163	22.12
		38M8W7D	16QAM	0.130	21.13
		38M9W7D	64QAM	0.092	19.64
		38M8W7D	256QAM	0.058	17.60

Sub 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	0.122	20.88
		4M54G7D	QPSK	0.120	20.78
		4M52W7D	16QAM	0.095	19.79
		4M54W7D	64QAM	0.066	18.22
		4M55W7D	256QAM	0.040	16.06
Sub6 n66 (10)	1715.0 – 1775.0	9M00G7D	PI/2 BPSK	0.121	20.82
		9M00G7D	QPSK	0.117	20.69
		9M02W7D	16QAM	0.092	19.66
		9M00W7D	64QAM	0.071	18.49
		8M99W7D	256QAM	0.045	16.57
Sub6 n66 (15)	1717.5 – 1772.5	13M4G7D	PI/2 BPSK	0.124	20.94
		13M5G7D	QPSK	0.119	20.75
		13M4W7D	16QAM	0.094	19.75
		13M5W7D	64QAM	0.069	18.39
		13M4W7D	256QAM	0.043	16.35
Sub6 n66 (20)	1720.0 – 1770.0	17M9G7D	PI/2 BPSK	0.125	20.96
		18M0G7D	QPSK	0.121	20.82
		17M9W7D	16QAM	0.094	19.74
		18M0W7D	64QAM	0.068	18.33
		17M9W7D	256QAM	0.042	16.27
Sub6 n66 (25)	1722.5 – 1767.5	23M1G7D	PI/2 BPSK	0.119	20.75
		23M0G7D	QPSK	0.117	20.69
		23M0W7D	16QAM	0.09	19.54
		23M0W7D	64QAM	0.064	18.06
		23M0W7D	256QAM	0.041	16.11
Sub6 n66 (30)	1725.0 – 1765.0	28M8G7D	PI/2 BPSK	0.126	21.00
		28M8G7D	QPSK	0.124	20.92
		28M8W7D	16QAM	0.093	19.70
		28M8W7D	64QAM	0.066	18.21
		28M8W7D	256QAM	0.042	16.26
Sub6 n66 (40)	1730.0 – 1760.0	38M8G7D	PI/2 BPSK	0.122	20.88
		38M8G7D	QPSK	0.121	20.83
		38M7W7D	16QAM	0.094	19.75
		38M8W7D	64QAM	0.068	18.32
		38M9W7D	256QAM	0.043	16.33

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 (20/40/80 MHz), Bluetooth, BT LE, NFC

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

Test Note

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

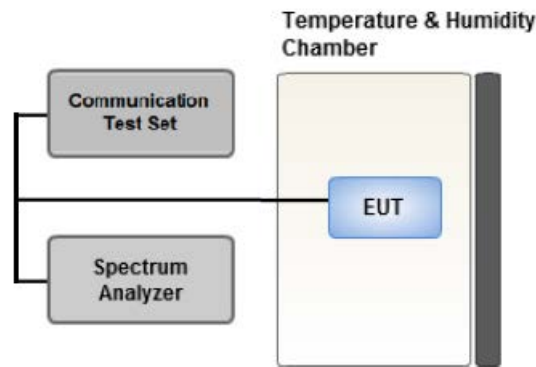
$$\text{Result}_{(\text{dBm})} = P_{\text{g}}_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

Where: P_{g} is the generator output power into the substitution antenna.

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

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

3.4 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)

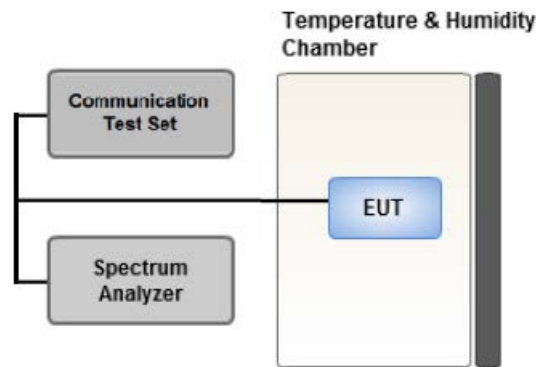
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

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.

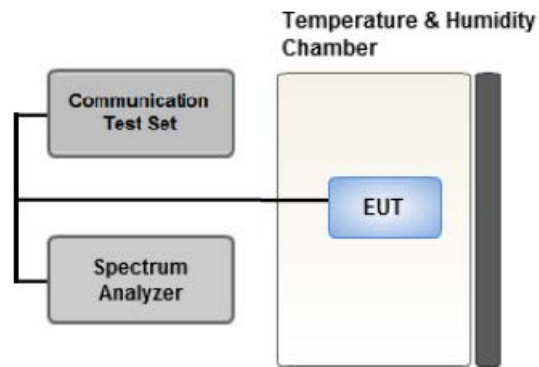
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

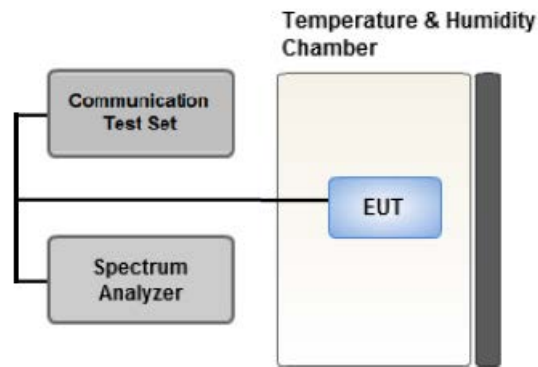
Test Overview

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

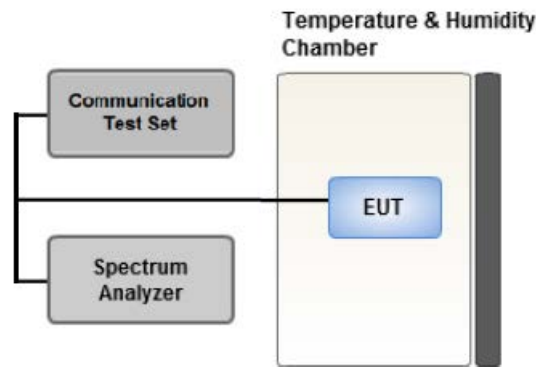
According to FCC 22.917, 24.238, 27.53 specified that power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block 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 $\text{Margin} < 1$ 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
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 : 20 MHz(Main 2 ANT), 30 MHz(Sub 2 ANT))
- SM-A566E/DS & additional models were tested and the worst case results are reported.
(Worst case : SM-A566E/DS)

[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		X
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		X

[Sub 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 9.1		Y
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
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-A566E/DS & additional models were tested and the worst case results are reported.
(Worst case : SM-A566E/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	5, 10, 15, 20, 25, 30, 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
		40	Low	1	0
			High	1	215
		5, 10, 15, 20, 25, 30, 40	Low, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	5, 10, 15, 20, 25, 30, 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	04/27/2025	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	11/07/2025	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 ($\pm$ 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)	5.70 (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(h)	$< 43 + 10\log_{10}(P[\text{Watts}])$ 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)	$< 13 \text{ dB}$	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)	$< 1 \text{ Watts max. EIRP}$	PASS
Radiated Spurious and Harmonic Emissions	§ 2.1053, § 27.53(h)	$< 43 + 10\log_{10}(P[\text{Watts}])$ 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	-21.35	11.73	10.12	2.06	H	< 1.00	0.095	19.79	1	23
		QPSK	-21.41	11.67	10.12	2.06	H		0.094	19.73		
		16-QAM	-22.40	10.68	10.12	2.06	H		0.075	18.74		
		64-QAM	-23.97	9.11	10.12	2.06	H		0.052	17.17		
		256-QAM	-26.06	7.02	10.12	2.06	H		0.032	15.08		
1745.0		PI/2 BPSK	-20.27	13.10	10.43	2.07	H		0.140	21.46	1	12
		QPSK	-20.31	13.06	10.43	2.07	H		0.139	21.42		
		16-QAM	-21.64	11.73	10.43	2.07	H		0.102	20.09		
		64-QAM	-23.05	10.32	10.43	2.07	H		0.074	18.68		
		256-QAM	-24.93	8.44	10.43	2.07	H		0.048	16.80		
1777.5		PI/2 BPSK	-19.41	13.95	10.50	2.09	H		0.172	22.36	1	23
		QPSK	-19.49	13.87	10.50	2.09	H		0.169	22.28		
		16-QAM	-20.47	12.89	10.50	2.09	H		0.135	21.30		
		64-QAM	-21.68	11.68	10.50	2.09	H		0.102	20.09		
		256-QAM	-24.10	9.26	10.50	2.09	H		0.059	17.67		

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	Sub6 n66/ 10 MHz [15 kHz]	Pl/2 BPSK	-20.92	12.16	10.12	2.06	H	< 1.00	0.105	20.22	1	50
		QPSK	-20.95	12.13	10.12	2.06	H		0.105	20.19		
		16-QAM	-21.99	11.09	10.12	2.06	H		0.082	19.15		
		64-QAM	-23.52	9.56	10.12	2.06	H		0.058	17.62		
		256-QAM	-25.67	7.41	10.12	2.06	H		0.035	15.47		
1745.0		Pl/2 BPSK	-19.88	13.49	10.43	2.07	H		0.153	21.85	1	50
		QPSK	-19.95	13.42	10.43	2.07	H		0.151	21.78		
		16-QAM	-21.01	12.36	10.43	2.07	H		0.118	20.72		
		64-QAM	-22.53	10.84	10.43	2.07	H		0.083	19.20		
		256-QAM	-24.82	8.55	10.43	2.07	H		0.049	16.91		
1775.0		Pl/2 BPSK	-19.46	13.94	10.49	2.09	H	0.171	22.34	1	50	
		QPSK	-19.48	13.92	10.49	2.09	H	0.171	22.32			
		16-QAM	-20.44	12.96	10.49	2.09	H	0.137	21.36			
		64-QAM	-22.01	11.39	10.49	2.09	H	0.095	19.79			
		256-QAM	-23.70	9.70	10.49	2.09	H	0.065	18.10			

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	Sub6 n66/ 15 MHz [15 kHz]	PI/2 BPSK	-20.55	12.61	10.18	2.06	H	< 1.00	0.118	20.73	1	77
		QPSK	-20.56	12.61	10.18	2.06	H		0.118	20.72		
		16-QAM	-21.63	11.53	10.18	2.06	H		0.092	19.65		
		64-QAM	-23.13	10.03	10.18	2.06	H		0.065	18.15		
		256-QAM	-25.28	7.88	10.18	2.06	H		0.040	16.00		
1745.0		PI/2 BPSK	-20.10	13.27	10.43	2.07	H		0.146	21.63	1	77
		QPSK	-20.16	13.21	10.43	2.07	H		0.144	21.57		
		16-QAM	-21.20	12.17	10.43	2.07	H		0.113	20.53		
		64-QAM	-22.64	10.73	10.43	2.07	H		0.081	19.09		
		256-QAM	-24.97	8.40	10.43	2.07	H		0.047	16.76		
1772.5		PI/2 BPSK	-19.39	14.01	10.49	2.09	H	0.174	22.41	1	77	
		QPSK	-19.44	13.96	10.49	2.09	H	0.172	22.36			
		16-QAM	-20.46	12.94	10.49	2.09	H	0.136	21.34			
		64-QAM	-21.94	11.46	10.49	2.09	H	0.097	19.86			
		256-QAM	-24.01	9.39	10.49	2.09	H	0.060	17.79			

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	Sub6 n66/ 20 MHz [15 kHz]	PI/2 BPSK	-20.49	12.67	10.18	2.06	H	< 1.00	0.120	20.79	1	104
		QPSK	-20.54	12.62	10.18	2.06	H		0.119	20.74		
		16-QAM	-21.52	11.64	10.18	2.06	H		0.095	19.76		
		64-QAM	-23.10	10.06	10.18	2.06	H		0.066	18.18		
		256-QAM	-25.12	8.04	10.18	2.06	H		0.041	16.16		
1745.0		PI/2 BPSK	-20.20	13.17	10.43	2.07	H		0.142	21.53	1	104
		QPSK	-20.23	13.14	10.43	2.07	H		0.141	21.50		
		16-QAM	-21.30	12.07	10.43	2.07	H		0.110	20.43		
		64-QAM	-22.83	10.54	10.43	2.07	H		0.078	18.90		
		256-QAM	-24.89	8.48	10.43	2.07	H		0.048	16.84		
1770.0		PI/2 BPSK	-19.23	14.19	10.49	2.09	H	0.182	22.59	1	104	
		QPSK	-19.25	14.17	10.49	2.09	H	0.181	22.57			
		16-QAM	-20.26	13.16	10.49	2.09	H	0.143	21.56			
		64-QAM	-21.84	11.58	10.49	2.09	H	0.100	19.98			
		256-QAM	-24.01	9.41	10.49	2.09	H	0.060	17.81			

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	Sub6 n66/ 25 MHz [15 kHz]	PI/2 BPSK	-20.16	13.12	10.23	2.07	H	< 1.00	0.134	21.28	1	131
		QPSK	-20.22	13.06	10.23	2.07	H		0.132	21.22		
		16-QAM	-21.21	12.07	10.23	2.07	H		0.105	20.23		
		64-QAM	-22.67	10.61	10.23	2.07	H		0.075	18.77		
		256-QAM	-24.76	8.52	10.23	2.07	H		0.047	16.68		
1745.0		PI/2 BPSK	-20.22	13.15	10.43	2.07	H		0.142	21.51	1	131
		QPSK	-20.25	13.12	10.43	2.07	H		0.141	21.48		
		16-QAM	-21.24	12.13	10.43	2.07	H		0.112	20.49		
		64-QAM	-22.69	10.68	10.43	2.07	H		0.080	19.04		
		256-QAM	-24.72	8.65	10.43	2.07	H		0.050	17.01		
1767.5		PI/2 BPSK	-19.44	13.98	10.49	2.09	H	0.173	22.38	1	131	
		QPSK	-19.48	13.94	10.49	2.09	H	0.171	22.34			
		16-QAM	-20.49	12.93	10.49	2.09	H	0.136	21.33			
		64-QAM	-22.08	11.34	10.49	2.09	H	0.094	19.74			
		256-QAM	-23.91	9.51	10.49	2.09	H	0.062	17.91			

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	Sub6 n66/ 30 MHz [15 kHz]	PI/2 BPSK	-20.10	13.18	10.23	2.07	H	< 1.00	0.136	21.34	1	158
		QPSK	-20.14	13.14	10.23	2.07	H		0.135	21.30		
		16-QAM	-21.20	12.08	10.23	2.07	H		0.106	20.24		
		64-QAM	-22.66	10.62	10.23	2.07	H		0.076	18.78		
		256-QAM	-24.85	8.43	10.23	2.07	H		0.046	16.59		
1745.0		PI/2 BPSK	-20.20	13.17	10.43	2.07	H		0.142	21.53	1	158
		QPSK	-20.25	13.12	10.43	2.07	H		0.141	21.48		
		16-QAM	-21.22	12.15	10.43	2.07	H		0.113	20.51		
		64-QAM	-22.74	10.63	10.43	2.07	H		0.079	18.99		
		256-QAM	-24.77	8.60	10.43	2.07	H		0.050	16.96		
1765.0		PI/2 BPSK	-19.27	14.06	10.48	2.09	H		0.176	22.45	1	158
		QPSK	-19.30	14.03	10.48	2.09	H		0.175	22.42		
		16-QAM	-20.35	12.98	10.48	2.09	H		0.137	21.37		
		64-QAM	-21.87	11.46	10.48	2.09	H		0.097	19.85		
		256-QAM	-23.92	9.41	10.48	2.09	H		0.060	17.80		

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	-19.95	13.45	10.29	2.08	H	< 1.00	0.147	21.66	1	214
		QPSK	-20.03	13.37	10.29	2.08	H		0.144	21.58		
		16-QAM	-21.07	12.33	10.29	2.08	H		0.113	20.54		
		64-QAM	-22.56	10.84	10.29	2.08	H		0.080	19.05		
		256-QAM	-24.77	8.63	10.29	2.08	H		0.048	16.84		
1745.0		PI/2 BPSK	-19.57	13.80	10.43	2.07	H		0.164	22.16	1	214
		QPSK	-19.66	13.71	10.43	2.07	H		0.161	22.07		
		16-QAM	-20.71	12.66	10.43	2.07	H		0.127	21.02		
		64-QAM	-22.15	11.22	10.43	2.07	H		0.091	19.58		
		256-QAM	-24.52	8.85	10.43	2.07	H		0.053	17.21		
1760.0	PI/2 BPSK	-19.46	13.76	10.48	2.09	H	0.164	22.15	1	214		
	QPSK	-19.49	13.73	10.48	2.09	H	0.163	22.12				
	16-QAM	-20.48	12.74	10.48	2.09	H	0.130	21.13				
	64-QAM	-21.97	11.25	10.48	2.09	H	0.092	19.64				
	256-QAM	-24.01	9.21	10.48	2.09	H	0.058	17.60				

8.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N66</u>
Bandwidth:	<u>20 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
344000 (1720.0)	3 440.00	-60.99	11.86	-61.72	3.04	V	-52.90	-13.00	1	104
	5 160.00	-62.53	11.52	-56.78	3.76	V	-49.02	-13.00		
	6 880.00	-63.99	11.11	-52.09	4.44	V	-45.42	-13.00		
349000 (1745.0)	3 490.00	-61.80	12.04	-62.54	3.04	V	-53.54	-13.00	1	104
	5 235.00	-61.78	11.76	-56.45	3.78	V	-48.47	-13.00		
	6 980.00	-65.03	11.16	-52.25	4.48	V	-45.57	-13.00		
354000 (1770.0)	3 540.00	-60.06	12.04	-61.40	3.06	V	-52.42	-13.00	1	104
	5 310.00	-61.96	11.91	-56.07	3.82	V	-47.98	-13.00		
	7 080.00	-62.65	10.89	-48.42	4.49	V	-42.02	-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	4.89
			QPSK			5.76
			16-QAM			6.41
			64-QAM			6.75
			256-QAM			6.68
	10 MHz		BPSK	50		4.76
			QPSK			5.58
			16-QAM			6.23
			64-QAM			6.37
			256-QAM			6.47
	15 MHz		BPSK	75		4.86
			QPSK			5.48
			16-QAM			6.23
			64-QAM			6.46
			256-QAM			6.34
	20 MHz		BPSK	100		4.30
			QPSK			5.54
			16-QAM			6.28
			64-QAM			6.35
			256-QAM			6.39
	25 MHz		BPSK	128		4.35
			QPSK			5.60
			16-QAM			6.34
			64-QAM			6.40
			256-QAM			6.39
	30 MHz		BPSK	160		4.34
			QPSK			5.55
			16-QAM			6.29
			64-QAM			6.51
			256-QAM			6.39
	40 MHz		BPSK	216		4.35
			QPSK			5.55
			16-QAM			6.31
			64-QAM			6.41
			256-QAM			6.46

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 63 ~ 97.

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	4.5299
			QPSK			4.5251
			16-QAM			4.5316
			64-QAM			4.5232
			256-QAM			4.4942
	10 MHz		BPSK	50		8.9973
			QPSK			8.9984
			16-QAM			8.9987
			64-QAM			8.9867
			256-QAM			8.9838
	15 MHz		BPSK	75		13.424
			QPSK			13.452
			16-QAM			13.429
			64-QAM			13.490
			256-QAM			13.459
	20 MHz		BPSK	100		17.908
			QPSK			17.938
			16-QAM			17.924
			64-QAM			17.931
			256-QAM			17.860
	25 MHz		BPSK	128		22.947
			QPSK			22.978
			16-QAM			23.040
			64-QAM			22.964
			256-QAM			23.079
	30 MHz		BPSK	160		28.726
			QPSK			28.729
			16-QAM			28.753
			64-QAM			28.707
			256-QAM			28.754
	40 MHz		BPSK	216		38.789
			QPSK			38.808
			16-QAM			38.778
			64-QAM			38.855
			256-QAM			38.781

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 98 ~ 132.

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	8.8933	30.815	-62.935	-32.120	-13.00
		1745.0	4.9652	30.200	-62.387	-32.187	
		1777.5	4.8555	30.200	-61.731	-31.531	
	10	1715.0	8.9033	30.815	-62.983	-32.168	
		1745.0	6.2912	30.815	-62.371	-31.556	
		1775.0	3.8485	30.200	-63.242	-33.042	
	15	1717.5	9.7109	30.815	-62.530	-31.715	
		1745.0	8.8335	30.815	-62.646	-31.831	
		1772.5	9.0828	30.815	-62.827	-32.012	
	20	1720.0	9.6909	30.815	-63.141	-32.326	
		1745.0	7.7169	30.815	-63.399	-32.584	
		1770.0	3.8286	30.200	-62.926	-32.726	
	25	1722.5	8.2154	30.815	-63.475	-32.660	
		1745.0	9.9003	30.815	-63.131	-32.316	
		1767.5	8.2951	30.815	-62.625	-31.810	
	30	1725.0	9.9601	30.815	-62.640	-31.825	
		1745.0	4.0180	30.200	-62.776	-32.576	
		1765.0	9.1226	30.815	-62.362	-31.547	
	40	1730.0	4.0479	30.200	-63.582	-33.382	
		1745.0	8.3051	30.815	-63.050	-32.235	
		1760.0	10.0000	30.815	-63.431	-32.616	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 133 ~ 174.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.494
1 – 5	30.200
5 – 10	30.815
10 – 15	31.340
15 – 20	31.713
Above 20	32.355

8.6 BAND EDGE

- Plots of the EUT's Band Edge are shown Page 175 ~ 216.

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 5 MHz
- ▣ Voltage(100 %): 4.200 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 499 997	0.0	0.000 000	0.000
	100 %	-30	1712 499 995	-2.2	0.000 000	-0.001
	100 %	-20	1712 499 996	-1.0	0.000 000	-0.001
	100 %	-10	1712 499 996	-1.1	0.000 000	-0.001
	100 %	0	1712 499 997	0.5	0.000 000	0.000
	100 %	+10	1712 499 997	-0.1	0.000 000	0.000
	100 %	+30	1712 499 998	1.6	0.000 000	0.001
	100 %	+40	1712 499 996	-0.4	0.000 000	0.000
	100 %	+50	1712 499 998	1.2	0.000 000	0.001
	Batt. Endpoint	+20	1712 499 995	-1.8	0.000 000	-0.001
1777.5	100 %	+20(Ref)	1777 499 997	0.0	0.000 000	0.000
	100 %	-30	1777 499 996	-1.6	0.000 000	-0.001
	100 %	-20	1777 500 000	2.7	0.000 000	0.002
	100 %	-10	1777 499 999	1.8	0.000 000	0.001
	100 %	0	1777 499 998	0.1	0.000 000	0.000
	100 %	+10	1777 499 999	2.0	0.000 000	0.001
	100 %	+30	1777 499 999	1.5	0.000 000	0.001
	100 %	+40	1777 499 994	-3.5	0.000 000	-0.002
	100 %	+50	1777 499 997	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	1777 499 999	1.2	0.000 000	0.001

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 4.200 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)	1714 999 999	0.0	0.000 000	0.000
	100 %	-30	1714 999 997	-2.4	0.000 000	-0.001
	100 %	-20	1714 999 998	-1.3	0.000 000	-0.001
	100 %	-10	1714 999 999	0.1	0.000 000	0.000
	100 %	0	1715 000 001	2.5	0.000 000	0.001
	100 %	+10	1715 000 001	1.8	0.000 000	0.001
	100 %	+30	1715 000 001	1.7	0.000 000	0.001
	100 %	+40	1715 000 001	1.7	0.000 000	0.001
	100 %	+50	1714 999 997	-1.6	0.000 000	-0.001
	Batt. Endpoint	+20	1714 999 998	-0.5	0.000 000	0.000
1775.0	100 %	+20(Ref)	1775 000 000	0.0	0.000 000	0.000
	100 %	-30	1775 000 001	0.5	0.000 000	0.000
	100 %	-20	1775 000 002	1.7	0.000 000	0.001
	100 %	-10	1774 999 999	-1.4	0.000 000	-0.001
	100 %	0	1775 000 000	-0.4	0.000 000	0.000
	100 %	+10	1774 999 999	-0.8	0.000 000	0.000
	100 %	+30	1774 999 999	-1.1	0.000 000	-0.001
	100 %	+40	1774 999 999	-1.2	0.000 000	-0.001
	100 %	+50	1775 000 002	1.3	0.000 000	0.001
	Batt. Endpoint	+20	1775 000 001	0.9	0.000 000	0.001

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 4.200 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 499 998	0.0	0.000 000	0.000
	100 %	-30	1717 499 998	-0.3	0.000 000	0.000
	100 %	-20	1717 499 996	-2.4	0.000 000	-0.001
	100 %	-10	1717 499 997	-1.8	0.000 000	-0.001
	100 %	0	1717 499 999	0.1	0.000 000	0.000
	100 %	+10	1717 499 998	-0.5	0.000 000	0.000
	100 %	+30	1717 500 000	1.9	0.000 000	0.001
	100 %	+40	1717 499 999	0.5	0.000 000	0.000
	100 %	+50	1717 499 999	0.3	0.000 000	0.000
	Batt. Endpoint	+20	1717 499 999	0.2	0.000 000	0.000
1772.5	100 %	+20(Ref)	1772 499 999	0.0	0.000 000	0.000
	100 %	-30	1772 499 999	-0.5	0.000 000	0.000
	100 %	-20	1772 500 000	0.9	0.000 000	0.001
	100 %	-10	1772 500 002	2.5	0.000 000	0.001
	100 %	0	1772 500 002	2.5	0.000 000	0.001
	100 %	+10	1772 499 999	0.0	0.000 000	0.000
	100 %	+30	1772 499 999	-0.4	0.000 000	0.000
	100 %	+40	1772 499 998	-1.8	0.000 000	-0.001
	100 %	+50	1772 499 999	-0.4	0.000 000	0.000
	Batt. Endpoint	+20	1772 500 001	2.0	0.000 000	0.001

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 4.200 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)	1720 000 000	0.0	0.000 000	0.000
	100 %	-30	1720 000 002	1.8	0.000 000	0.001
	100 %	-20	1719 999 998	-1.6	0.000 000	-0.001
	100 %	-10	1719 999 999	-0.7	0.000 000	0.000
	100 %	0	1719 999 999	-1.2	0.000 000	-0.001
	100 %	+10	1720 000 003	3.1	0.000 000	0.002
	100 %	+30	1719 999 999	-1.0	0.000 000	-0.001
	100 %	+40	1719 999 999	-0.8	0.000 000	0.000
	100 %	+50	1719 999 999	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	1720 000 000	0.6	0.000 000	0.000
1770.0	100 %	+20(Ref)	1770 000 002	0.0	0.000 000	0.000
	100 %	-30	1769 999 999	-2.3	0.000 000	-0.001
	100 %	-20	1770 000 001	-0.3	0.000 000	0.000
	100 %	-10	1770 000 004	1.9	0.000 000	0.001
	100 %	0	1769 999 999	-2.5	0.000 000	-0.001
	100 %	+10	1769 999 999	-2.4	0.000 000	-0.001
	100 %	+30	1770 000 002	0.5	0.000 000	0.000
	100 %	+40	1770 000 002	0.2	0.000 000	0.000
	100 %	+50	1770 000 000	-1.5	0.000 000	-0.001
	Batt. Endpoint	+20	1770 000 004	2.5	0.000 000	0.001

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 4.200 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 500 000	0.0	0.000 000	0.000
	100 %	-30	1722 499 999	-1.0	0.000 000	-0.001
	100 %	-20	1722 500 002	1.3	0.000 000	0.001
	100 %	-10	1722 499 999	-1.0	0.000 000	-0.001
	100 %	0	1722 499 998	-1.9	0.000 000	-0.001
	100 %	+10	1722 500 001	0.4	0.000 000	0.000
	100 %	+30	1722 500 000	-0.7	0.000 000	0.000
	100 %	+40	1722 500 000	0.0	0.000 000	0.000
	100 %	+50	1722 499 996	-4.9	0.000 000	-0.003
	Batt. Endpoint	+20	1722 499 999	-1.5	0.000 000	-0.001
1767.5	100 %	+20(Ref)	1767 500 002	0.0	0.000 000	0.000
	100 %	-30	1767 500 003	1.7	0.000 000	0.001
	100 %	-20	1767 500 004	2.6	0.000 000	0.001
	100 %	-10	1767 500 001	-0.5	0.000 000	0.000
	100 %	0	1767 500 003	0.9	0.000 000	0.001
	100 %	+10	1767 500 001	-0.5	0.000 000	0.000
	100 %	+30	1767 499 999	-2.6	0.000 000	-0.001
	100 %	+40	1767 500 002	0.4	0.000 000	0.000
	100 %	+50	1767 500 002	0.6	0.000 000	0.000
	Batt. Endpoint	+20	1767 500 001	-0.9	0.000 000	0.000

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 4.200 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	1724 999 998	-1.8	0.000 000	-0.001
	100 %	-20	1725 000 000	-0.3	0.000 000	0.000
	100 %	-10	1725 000 000	-0.4	0.000 000	0.000
	100 %	0	1724 999 997	-3.1	0.000 000	-0.002
	100 %	+10	1724 999 999	-0.8	0.000 000	0.000
	100 %	+30	1725 000 001	0.8	0.000 000	0.000
	100 %	+40	1725 000 001	1.4	0.000 000	0.001
	100 %	+50	1725 000 001	1.4	0.000 000	0.001
	Batt. Endpoint	+20	1725 000 000	0.0	0.000 000	0.000
1765.0	100 %	+20(Ref)	1765 000 000	0.0	0.000 000	0.000
	100 %	-30	1765 000 001	0.9	0.000 000	0.001
	100 %	-20	1765 000 000	0.6	0.000 000	0.000
	100 %	-10	1765 000 002	2.4	0.000 000	0.001
	100 %	0	1765 000 001	1.5	0.000 000	0.001
	100 %	+10	1765 000 000	0.3	0.000 000	0.000
	100 %	+30	1765 000 001	0.9	0.000 000	0.000
	100 %	+40	1764 999 999	-0.4	0.000 000	0.000
	100 %	+50	1764 999 999	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	1765 000 000	0.6	0.000 000	0.000

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 4.200 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 000 001	0.0	0.000 000	0.000
	100 %	-30	1730 000 000	-1.4	0.000 000	-0.001
	100 %	-20	1730 000 001	-0.4	0.000 000	0.000
	100 %	-10	1730 000 001	-0.2	0.000 000	0.000
	100 %	0	1730 000 001	0.3	0.000 000	0.000
	100 %	+10	1730 000 001	-0.1	0.000 000	0.000
	100 %	+30	1730 000 002	0.9	0.000 000	0.001
	100 %	+40	1730 000 000	-0.5	0.000 000	0.000
	100 %	+50	1730 000 001	0.4	0.000 000	0.000
	Batt. Endpoint	+20	1730 000 000	-1.5	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	-0.9	0.000 000	-0.001
	100 %	-20	1760 000 001	-0.8	0.000 000	0.000
	100 %	-10	1760 000 001	-0.1	0.000 000	0.000
	100 %	0	1759 999 999	-2.0	0.000 000	-0.001
	100 %	+10	1760 000 002	0.2	0.000 000	0.000
	100 %	+30	1760 000 002	0.6	0.000 000	0.000
	100 %	+40	1760 000 002	0.9	0.000 000	0.000
	100 %	+50	1760 000 003	1.2	0.000 000	0.001
	Batt. Endpoint	+20	1760 000 002	1.0	0.000 000	0.001

9. TEST DATA (Sub 2 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	-20.64	12.44	10.12	2.06	H	< 1.00	0.112	20.50	1	23
		QPSK	-20.80	12.28	10.12	2.06	H		0.108	20.34		
		16-QAM	-21.63	11.45	10.12	2.06	H		0.089	19.51		
		64-QAM	-23.06	10.02	10.12	2.06	H		0.064	18.08		
		256-QAM	-25.20	7.88	10.12	2.06	H		0.039	15.94		
1745.0		PI/2 BPSK	-20.85	12.52	10.43	2.07	H		0.123	20.88	1	1
		QPSK	-20.95	12.42	10.43	2.07	H		0.120	20.78		
		16-QAM	-21.94	11.43	10.43	2.07	H		0.095	19.79		
		64-QAM	-23.51	9.86	10.43	2.07	H		0.066	18.22		
		256-QAM	-25.67	7.70	10.43	2.07	H		0.040	16.06		
1777.5		PI/2 BPSK	-21.57	11.79	10.50	2.09	H		0.105	20.20	1	1
		QPSK	-21.90	11.46	10.50	2.09	H		0.097	19.87		
		16-QAM	-23.01	10.35	10.50	2.09	H		0.075	18.76		
		64-QAM	-24.44	8.92	10.50	2.09	H		0.054	17.33		
		256-QAM	-26.10	7.26	10.50	2.09	H		0.037	15.67		

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	Sub6 n66/ 10 MHz [15 kHz]	Pl/2 BPSK	-20.35	12.73	10.12	2.06	H	< 1.00	0.120	20.79	1	50
		QPSK	-20.45	12.63	10.12	2.06	H		0.117	20.69		
		16-QAM	-21.52	11.56	10.12	2.06	H		0.092	19.62		
		64-QAM	-23.03	10.05	10.12	2.06	H		0.065	18.11		
		256-QAM	-25.09	7.99	10.12	2.06	H		0.040	16.05		
1745.0		Pl/2 BPSK	-20.91	12.46	10.43	2.07	H		0.121	20.82	1	1
		QPSK	-21.08	12.29	10.43	2.07	H		0.116	20.65		
		16-QAM	-22.07	11.30	10.43	2.07	H		0.093	19.66		
		64-QAM	-23.24	10.13	10.43	2.07	H		0.071	18.49		
		256-QAM	-25.16	8.21	10.43	2.07	H		0.045	16.57		
1775.0		Pl/2 BPSK	-21.03	12.37	10.49	2.09	H	0.119	20.77	1	1	
		QPSK	-21.29	12.11	10.49	2.09	H	0.113	20.51			
		16-QAM	-22.34	11.06	10.49	2.09	H	0.088	19.46			
		64-QAM	-23.62	9.78	10.49	2.09	H	0.066	18.18			
		256-QAM	-25.61	7.79	10.49	2.09	H	0.042	16.19			

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	Sub6 n66/ 15 MHz [15 kHz]	PI/2 BPSK	-20.34	12.82	10.18	2.06	H	< 1.00	0.124	20.94	1	77
		QPSK	-20.53	12.63	10.18	2.06	H		0.119	20.75		
		16-QAM	-21.64	11.52	10.18	2.06	H		0.092	19.64		
		64-QAM	-22.93	10.23	10.18	2.06	H		0.068	18.35		
		256-QAM	-25.09	8.07	10.18	2.06	H		0.042	16.19		
1745.0		PI/2 BPSK	-20.94	12.43	10.43	2.07	H		0.120	20.79	1	39
		QPSK	-21.10	12.27	10.43	2.07	H		0.116	20.63		
		16-QAM	-21.98	11.39	10.43	2.07	H		0.094	19.75		
		64-QAM	-23.34	10.03	10.43	2.07	H		0.069	18.39		
		256-QAM	-25.38	7.99	10.43	2.07	H		0.043	16.35		
1772.5		PI/2 BPSK	-21.00	12.40	10.49	2.09	H	0.120	20.80	1	39	
		QPSK	-21.22	12.18	10.49	2.09	H	0.114	20.58			
		16-QAM	-22.35	11.05	10.49	2.09	H	0.088	19.45			
		64-QAM	-23.78	9.62	10.49	2.09	H	0.063	18.02			
		256-QAM	-25.82	7.58	10.49	2.09	H	0.040	15.98			

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	-20.32	12.84	10.18	2.06	H	< 1.00	0.125	20.96	1	53
		QPSK	-20.52	12.64	10.18	2.06	H		0.119	20.76		
		16-QAM	-21.69	11.47	10.18	2.06	H		0.091	19.59		
		64-QAM	-23.06	10.10	10.18	2.06	H		0.066	18.22		
		256-QAM	-25.08	8.08	10.18	2.06	H		0.042	16.20		
1745.0	Sub6 n66/ 20 MHz [15 kHz]	PI/2 BPSK	-20.85	12.52	10.43	2.07	H	< 1.00	0.123	20.88	1	80
		QPSK	-20.91	12.46	10.43	2.07	H		0.121	20.82		
		16-QAM	-21.99	11.38	10.43	2.07	H		0.094	19.74		
		64-QAM	-23.40	9.97	10.43	2.07	H		0.068	18.33		
		256-QAM	-25.46	7.91	10.43	2.07	H		0.042	16.27		
1770.0		PI/2 BPSK	-21.21	12.21	10.49	2.09	H	< 1.00	0.115	20.61	1	1
		QPSK	-21.43	11.99	10.49	2.09	H		0.109	20.39		
		16-QAM	-22.34	11.08	10.49	2.09	H		0.089	19.48		
		64-QAM	-23.67	9.75	10.49	2.09	H		0.065	18.15		
		256-QAM	-25.72	7.70	10.49	2.09	H		0.041	16.10		

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	Sub6 n66/ 25 MHz [15 kHz]	PI/2 BPSK	-20.93	12.35	10.23	2.07	H	< 1.00	0.113	20.51	1	131
		QPSK	-20.96	12.32	10.23	2.07	H		0.112	20.48		
		16-QAM	-22.00	11.28	10.23	2.07	H		0.088	19.44		
		64-QAM	-23.62	9.66	10.23	2.07	H		0.061	17.82		
		256-QAM	-25.72	7.56	10.23	2.07	H		0.037	15.72		
1745.0		PI/2 BPSK	-20.98	12.39	10.43	2.07	H		0.119	20.75	1	1
		QPSK	-21.04	12.33	10.43	2.07	H		0.117	20.69		
		16-QAM	-22.19	11.18	10.43	2.07	H		0.090	19.54		
		64-QAM	-23.67	9.70	10.43	2.07	H		0.064	18.06		
		256-QAM	-25.62	7.75	10.43	2.07	H		0.041	16.11		
1767.5		PI/2 BPSK	-21.48	11.94	10.49	2.09	H	0.108	20.34	1	66	
		QPSK	-21.59	11.83	10.49	2.09	H	0.105	20.23			
		16-QAM	-22.47	10.95	10.49	2.09	H	0.086	19.35			
		64-QAM	-24.17	9.25	10.49	2.09	H	0.058	17.65			
		256-QAM	-26.24	7.18	10.49	2.09	H	0.036	15.58			

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	Sub6 n66/ 30 MHz [15 kHz]	PI/2 BPSK	-20.67	12.61	10.23	2.07	H	< 1.00	0.119	20.77	1	80
		QPSK	-20.78	12.50	10.23	2.07	H		0.116	20.66		
		16-QAM	-21.88	11.40	10.23	2.07	H		0.090	19.56		
		64-QAM	-23.33	9.95	10.23	2.07	H		0.065	18.11		
		256-QAM	-25.18	8.10	10.23	2.07	H		0.042	16.26		
1745.0		PI/2 BPSK	-20.73	12.64	10.43	2.07	H		0.126	21.00	1	1
		QPSK	-20.81	12.56	10.43	2.07	H		0.124	20.92		
		16-QAM	-22.03	11.34	10.43	2.07	H		0.093	19.70		
		64-QAM	-23.52	9.85	10.43	2.07	H		0.066	18.21		
		256-QAM	-25.54	7.83	10.43	2.07	H		0.042	16.19		
1765.0		PI/2 BPSK	-21.02	12.31	10.48	2.09	H	0.118	20.70	1	80	
		QPSK	-21.11	12.22	10.48	2.09	H	0.115	20.61			
		16-QAM	-22.02	11.31	10.48	2.09	H	0.093	19.70			
		64-QAM	-23.58	9.75	10.48	2.09	H	0.065	18.14			
		256-QAM	-25.68	7.65	10.48	2.09	H	0.040	16.04			

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	-20.73	12.67	10.29	2.08	H	< 1.00	0.123	20.88	1	108
		QPSK	-20.78	12.62	10.29	2.08	H		0.121	20.83		
		16-QAM	-22.05	11.35	10.29	2.08	H		0.090	19.56		
		64-QAM	-23.34	10.06	10.29	2.08	H		0.067	18.27		
		256-QAM	-25.30	8.10	10.29	2.08	H		0.043	16.31		
1745.0	Sub6 n66/ 40 MHz [15 kHz]	PI/2 BPSK	-20.85	12.52	10.43	2.07	H		0.123	20.88	1	1
		QPSK	-20.91	12.46	10.43	2.07	H		0.121	20.82		
		16-QAM	-22.10	11.27	10.43	2.07	H		0.092	19.63		
		64-QAM	-23.41	9.96	10.43	2.07	H		0.068	18.32		
		256-QAM	-25.40	7.97	10.43	2.07	H		0.043	16.33		
1760.0		PI/2 BPSK	-20.76	12.46	10.48	2.09	H		0.122	20.85	1	1
		QPSK	-20.85	12.37	10.48	2.09	H		0.119	20.76		
		16-QAM	-21.86	11.36	10.48	2.09	H		0.094	19.75		
		64-QAM	-23.49	9.73	10.48	2.09	H		0.065	18.12		
		256-QAM	-25.43	7.79	10.48	2.09	H		0.042	16.18		

9.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N66</u>
Bandwidth:	<u>30 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
345000 (1725.0)	3 450.00	-61.34	11.93	-62.28	3.05	H	-53.40	-13.00	1	80
	5 175.00	-58.93	11.58	-53.30	3.79	H	-45.51	-13.00		
	6 900.00	-61.39	11.15	-49.16	4.41	H	-42.42	-13.00		
349000 (1745.0)	3 490.00	-59.26	12.04	-60.00	3.04	H	-51.00	-13.00	1	1
	5 235.00	-56.78	11.76	-51.45	3.78	V	-43.47	-13.00		
	6 980.00	-60.65	11.16	-47.87	4.48	H	-41.19	-13.00		
353000 (1765.0)	3 530.00	-57.94	12.04	-59.70	3.05	H	-50.71	-13.00	1	80
	5 295.00	-56.44	11.89	-50.76	3.83	V	-42.70	-13.00		
	7 060.00	-62.04	10.95	-47.48	4.49	H	-41.02	-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	4.51
			QPSK			5.71
			16-QAM			6.42
			64-QAM			6.77
			256-QAM			6.65
	10 MHz		BPSK	50		4.34
			QPSK			5.57
			16-QAM			6.28
			64-QAM			6.45
			256-QAM			6.40
	15 MHz		BPSK	75		4.58
			QPSK			5.47
			16-QAM			6.20
			64-QAM			6.33
			256-QAM			6.39
	20 MHz		BPSK	100		4.35
			QPSK			5.53
			16-QAM			6.16
			64-QAM			6.44
			256-QAM			6.48
	25 MHz		BPSK	128		4.98
			QPSK			5.56
			16-QAM			6.20
			64-QAM			6.44
			256-QAM			6.47
	30 MHz		BPSK	160		4.54
			QPSK			5.59
			16-QAM			6.31
			64-QAM			6.45
			256-QAM			6.51
	40 MHz		BPSK	216		4.56
			QPSK			5.56
			16-QAM			6.25
			64-QAM			6.46
			256-QAM			6.66

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 218 ~ 252.

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	4.5310
			QPSK			4.5369
			16-QAM			4.5202
			64-QAM			4.5366
			256-QAM			4.5453
	10 MHz		BPSK	50		9.0035
			QPSK			8.9956
			16-QAM			9.0177
			64-QAM			9.0022
			256-QAM			8.9931
	15 MHz		BPSK	75		13.417
			QPSK			13.462
			16-QAM			13.426
			64-QAM			13.459
			256-QAM			13.437
	20 MHz		BPSK	100		17.928
			QPSK			17.985
			16-QAM			17.909
			64-QAM			17.956
			256-QAM			17.932
	25 MHz		BPSK	128		23.045
			QPSK			23.036
			16-QAM			22.995
			64-QAM			22.994
			256-QAM			22.955
	30 MHz		BPSK	160		28.750
			QPSK			28.780
			16-QAM			28.825
			64-QAM			28.810
			256-QAM			28.797
	40 MHz		BPSK	216		38.774
			QPSK			38.841
			16-QAM			38.743
			64-QAM			38.833
			256-QAM			38.903

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 253 ~ 287.

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	8.8235	30.815	-62.770	-31.955	-13.00
		1745.0	3.8685	30.200	-63.192	-32.992	
		1777.5	9.6810	30.815	-62.770	-31.955	
	10	1715.0	9.1725	30.815	-61.409	-30.594	
		1745.0	7.6969	30.815	-63.135	-32.320	
		1775.0	9.1426	30.815	-62.717	-31.902	
	15	1717.5	1.6850	30.200	-61.156	-30.956	
		1745.0	5.2044	30.815	-61.987	-31.172	
		1772.5	9.9202	30.815	-62.913	-32.098	
	20	1720.0	9.0927	30.815	-62.625	-31.810	
		1745.0	7.8465	30.815	-63.100	-32.285	
		1770.0	9.7009	30.815	-63.273	-32.458	
	25	1722.5	1.6651	30.200	-61.764	-31.564	
		1745.0	9.1426	30.815	-62.576	-31.761	
		1767.5	8.3350	30.815	-62.790	-31.975	
	30	1725.0	4.0679	30.200	-62.918	-32.718	
		1745.0	1.6751	30.200	-59.354	-29.154	
		1765.0	3.8086	30.200	-62.796	-32.596	
	40	1730.0	1.6751	30.200	-60.254	-30.054	
		1745.0	1.6850	30.200	-55.507	-25.307	
		1760.0	9.8804	30.815	-63.419	-32.604	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 288 ~ 329.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	27.494
1 – 5	30.200
5 – 10	30.815
10 – 15	31.340
15 – 20	31.713
Above 20	32.355

9.6 BAND EDGE

- Plots of the EUT's Band Edge are shown Page 330 ~ 371.

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

- ▣ BandWidth: 5 MHz
- ▣ Voltage(100 %): 4.200 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 500 001	0.0	0.000 000	0.000
	100 %	-30	1712 500 001	0.2	0.000 000	0.000
	100 %	-20	1712 500 001	0.2	0.000 000	0.000
	100 %	-10	1712 499 997	-3.6	0.000 000	-0.002
	100 %	0	1712 500 000	-0.5	0.000 000	0.000
	100 %	+10	1712 500 001	-0.4	0.000 000	0.000
	100 %	+30	1712 500 001	-0.1	0.000 000	0.000
	100 %	+40	1712 500 001	0.4	0.000 000	0.000
	100 %	+50	1712 499 999	-2.1	0.000 000	-0.001
	Batt. Endpoint	+20	1712 500 000	-1.2	0.000 000	-0.001
1777.5	100 %	+20(Ref)	1777 499 997	0.0	0.000 000	0.000
	100 %	-30	1777 499 996	-0.3	0.000 000	0.000
	100 %	-20	1777 499 995	-1.4	0.000 000	-0.001
	100 %	-10	1777 499 996	-1.1	0.000 000	-0.001
	100 %	0	1777 499 997	0.2	0.000 000	0.000
	100 %	+10	1777 499 994	-2.9	0.000 000	-0.002
	100 %	+30	1777 499 998	0.8	0.000 000	0.000
	100 %	+40	1777 499 997	0.7	0.000 000	0.000
	100 %	+50	1777 499 997	0.4	0.000 000	0.000
	Batt. Endpoint	+20	1777 499 999	2.0	0.000 000	0.001

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 4.200 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 000 002	0.0	0.000 000	0.000
	100 %	-30	1715 000 000	-1.9	0.000 000	-0.001
	100 %	-20	1715 000 001	-0.5	0.000 000	0.000
	100 %	-10	1715 000 003	1.2	0.000 000	0.001
	100 %	0	1714 999 999	-2.3	0.000 000	-0.001
	100 %	+10	1715 000 002	0.7	0.000 000	0.000
	100 %	+30	1715 000 004	2.2	0.000 000	0.001
	100 %	+40	1715 000 005	2.9	0.000 000	0.002
	100 %	+50	1715 000 003	1.7	0.000 000	0.001
	Batt. Endpoint	+20	1715 000 000	-1.4	0.000 000	-0.001
1775.0	100 %	+20(Ref)	1775 000 001	0.0	0.000 000	0.000
	100 %	-30	1774 999 998	-2.5	0.000 000	-0.001
	100 %	-20	1774 999 998	-3.0	0.000 000	-0.002
	100 %	-10	1775 000 001	0.2	0.000 000	0.000
	100 %	0	1774 999 999	-2.0	0.000 000	-0.001
	100 %	+10	1774 999 999	-1.9	0.000 000	-0.001
	100 %	+30	1775 000 001	-0.1	0.000 000	0.000
	100 %	+40	1775 000 001	-0.2	0.000 000	0.000
	100 %	+50	1775 000 005	4.3	0.000 000	0.002
	Batt. Endpoint	+20	1775 000 001	-0.5	0.000 000	0.000

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 4.200 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 499 997	-2.1	0.000 000	-0.001
	100 %	-20	1717 499 998	-0.5	0.000 000	0.000
	100 %	-10	1717 499 997	-1.5	0.000 000	-0.001
	100 %	0	1717 499 996	-3.1	0.000 000	-0.002
	100 %	+10	1717 499 997	-2.2	0.000 000	-0.001
	100 %	+30	1717 500 000	1.5	0.000 000	0.001
	100 %	+40	1717 499 999	0.1	0.000 000	0.000
	100 %	+50	1717 499 999	-0.1	0.000 000	0.000
	Batt. Endpoint	+20	1717 499 996	-2.4	0.000 000	-0.001
1772.5	100 %	+20(Ref)	1772 500 001	0.0	0.000 000	0.000
	100 %	-30	1772 500 003	2.1	0.000 000	0.001
	100 %	-20	1772 500 000	-0.9	0.000 000	0.000
	100 %	-10	1772 500 000	-1.1	0.000 000	-0.001
	100 %	0	1772 499 999	-2.6	0.000 000	-0.001
	100 %	+10	1772 500 002	0.3	0.000 000	0.000
	100 %	+30	1772 500 003	1.7	0.000 000	0.001
	100 %	+40	1772 500 005	3.9	0.000 000	0.002
	100 %	+50	1772 500 004	2.8	0.000 000	0.002
	Batt. Endpoint	+20	1772 499 999	-2.2	0.000 000	-0.001

- ▣ BandWidth: 20 MHz
- ▣ Voltage(100 %): 4.200 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)	1720 000 002	0.0	0.000 000	0.000
	100 %	-30	1720 000 002	-0.4	0.000 000	0.000
	100 %	-20	1720 000 005	2.4	0.000 000	0.001
	100 %	-10	1720 000 003	0.7	0.000 000	0.000
	100 %	0	1720 000 002	0.1	0.000 000	0.000
	100 %	+10	1720 000 004	2.0	0.000 000	0.001
	100 %	+30	1720 000 004	1.8	0.000 000	0.001
	100 %	+40	1720 000 003	0.8	0.000 000	0.000
	100 %	+50	1720 000 002	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	1720 000 003	0.5	0.000 000	0.000
1770.0	100 %	+20(Ref)	1770 000 001	0.0	0.000 000	0.000
	100 %	-30	1770 000 001	0.2	0.000 000	0.000
	100 %	-20	1770 000 000	-0.6	0.000 000	0.000
	100 %	-10	1770 000 001	0.8	0.000 000	0.000
	100 %	0	1770 000 002	1.3	0.000 000	0.001
	100 %	+10	1770 000 002	1.4	0.000 000	0.001
	100 %	+30	1770 000 000	-0.5	0.000 000	0.000
	100 %	+40	1770 000 003	1.9	0.000 000	0.001
	100 %	+50	1770 000 001	0.3	0.000 000	0.000
	Batt. Endpoint	+20	1770 000 001	0.4	0.000 000	0.000

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 4.200 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 500 003	0.0	0.000 000	0.000
	100 %	-30	1722 500 006	3.3	0.000 000	0.002
	100 %	-20	1722 500 003	0.5	0.000 000	0.000
	100 %	-10	1722 500 004	0.9	0.000 000	0.001
	100 %	0	1722 500 002	-0.7	0.000 000	0.000
	100 %	+10	1722 500 004	1.0	0.000 000	0.001
	100 %	+30	1722 499 999	-3.3	0.000 000	-0.002
	100 %	+40	1722 500 001	-2.0	0.000 000	-0.001
	100 %	+50	1722 500 001	-2.1	0.000 000	-0.001
	Batt. Endpoint	+20	1722 500 003	0.2	0.000 000	0.000
1767.5	100 %	+20(Ref)	1767 500 000	0.0	0.000 000	0.000
	100 %	-30	1767 500 001	1.5	0.000 000	0.001
	100 %	-20	1767 499 998	-1.6	0.000 000	-0.001
	100 %	-10	1767 499 997	-2.4	0.000 000	-0.001
	100 %	0	1767 500 001	0.9	0.000 000	0.001
	100 %	+10	1767 499 997	-2.3	0.000 000	-0.001
	100 %	+30	1767 500 000	0.3	0.000 000	0.000
	100 %	+40	1767 500 002	1.7	0.000 000	0.001
	100 %	+50	1767 500 002	2.1	0.000 000	0.001
	Batt. Endpoint	+20	1767 499 997	-3.3	0.000 000	-0.002

- ▣ BandWidth: 30 MHz
- ▣ Voltage(100 %): 4.200 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

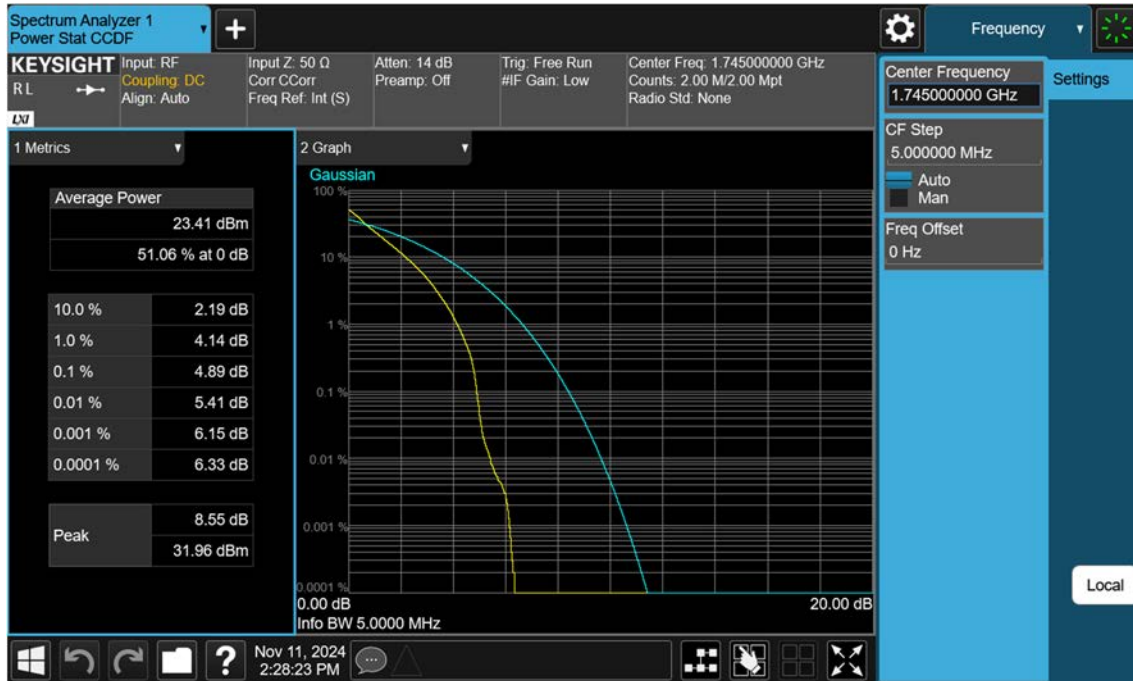
Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1725.0	100 %	+20(Ref)	1724 999 998	0.0	0.000 000	0.000
	100 %	-30	1724 999 999	0.8	0.000 000	0.000
	100 %	-20	1724 999 999	0.5	0.000 000	0.000
	100 %	-10	1724 999 998	-0.6	0.000 000	0.000
	100 %	0	1724 999 999	1.3	0.000 000	0.001
	100 %	+10	1724 999 998	0.1	0.000 000	0.000
	100 %	+30	1724 999 999	1.1	0.000 000	0.001
	100 %	+40	1724 999 999	0.9	0.000 000	0.001
	100 %	+50	1724 999 996	-2.6	0.000 000	-0.002
	Batt. Endpoint	+20	1724 999 996	-2.0	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	1.0	0.000 000	0.001
	100 %	-20	1765 000 000	-1.0	0.000 000	-0.001
	100 %	-10	1765 000 000	-1.1	0.000 000	-0.001
	100 %	0	1765 000 000	-1.3	0.000 000	-0.001
	100 %	+10	1764 999 998	-2.9	0.000 000	-0.002
	100 %	+30	1765 000 000	-0.9	0.000 000	-0.001
	100 %	+40	1765 000 001	0.1	0.000 000	0.000
	100 %	+50	1765 000 002	0.3	0.000 000	0.000
	Batt. Endpoint	+20	1765 000 001	0.0	0.000 000	0.000

- ▣ BandWidth: 40 MHz
- ▣ Voltage(100 %): 4.200 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	1.3	0.000 000	0.001
	100 %	-20	1730 000 003	0.9	0.000 000	0.000
	100 %	-10	1730 000 001	-0.6	0.000 000	0.000
	100 %	0	1730 000 003	1.3	0.000 000	0.001
	100 %	+10	1730 000 004	2.6	0.000 000	0.001
	100 %	+30	1730 000 004	2.4	0.000 000	0.001
	100 %	+40	1730 000 004	2.4	0.000 000	0.001
	100 %	+50	1730 000 002	-0.1	0.000 000	0.000
	Batt. Endpoint	+20	1730 000 003	1.5	0.000 000	0.001
1760.0	100 %	+20(Ref)	1760 000 000	0.0	0.000 000	0.000
	100 %	-30	1759 999 998	-1.2	0.000 000	-0.001
	100 %	-20	1759 999 997	-2.4	0.000 000	-0.001
	100 %	-10	1759 999 998	-1.2	0.000 000	-0.001
	100 %	0	1759 999 999	-0.6	0.000 000	0.000
	100 %	+10	1759 999 999	-0.5	0.000 000	0.000
	100 %	+30	1760 000 000	0.5	0.000 000	0.000
	100 %	+40	1759 999 997	-2.5	0.000 000	-0.001
	100 %	+50	1759 999 999	-0.3	0.000 000	0.000
	Batt. Endpoint	+20	1759 999 997	-2.1	0.000 000	-0.001

10. TEST PLOTS (Main 2 ANT)

NR66_5 M_PAR_Mid_BPSK_FullRB



NR66_5 M_PAR_Mid_QPSK_FullRB



NR66_5 M_PAR_Mid_16QAM_FullRB



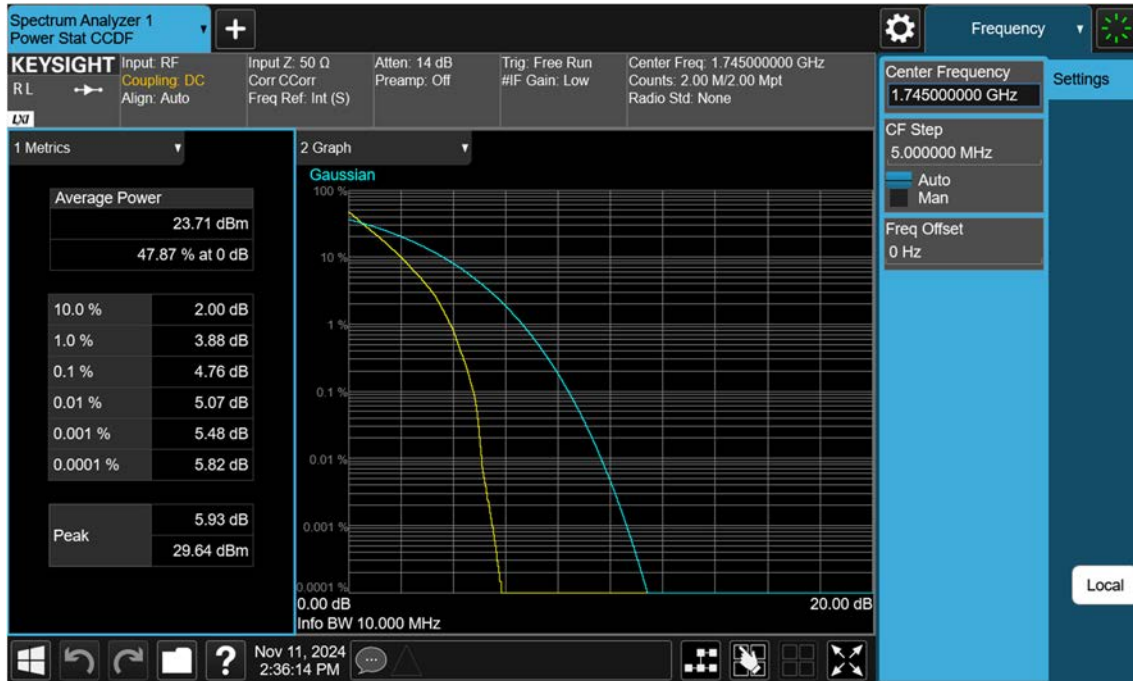
NR66_5 M_PAR_Mid_64QAM_FullRB



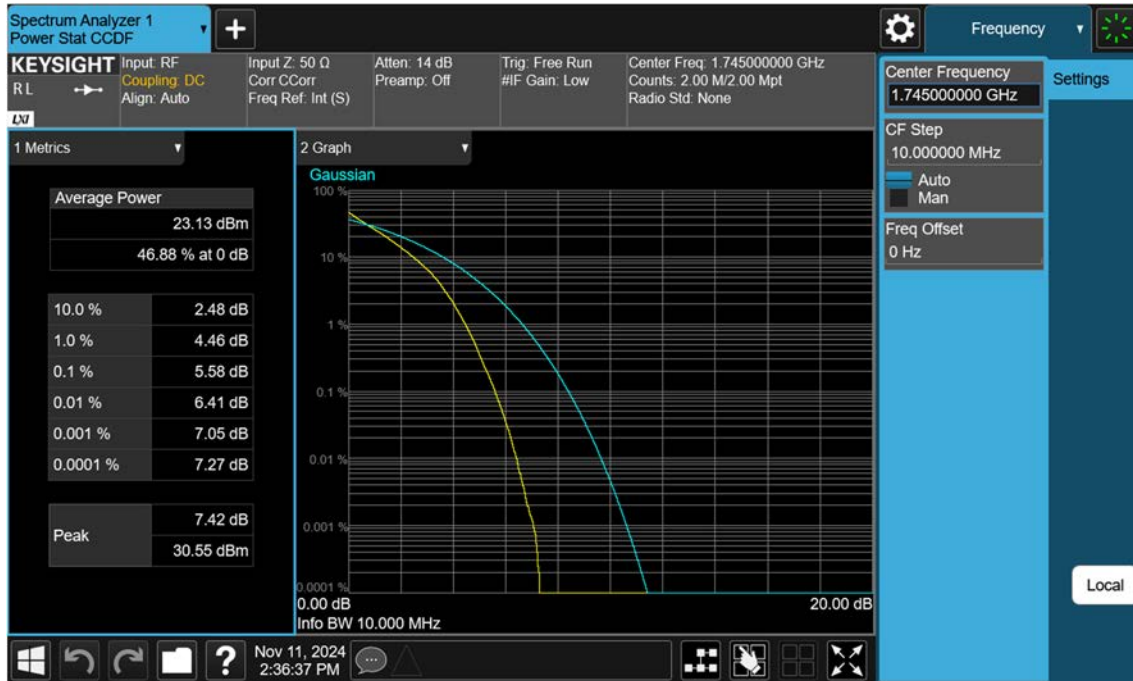
NR66_5 M_PAR_Mid_256QAM_FullRB



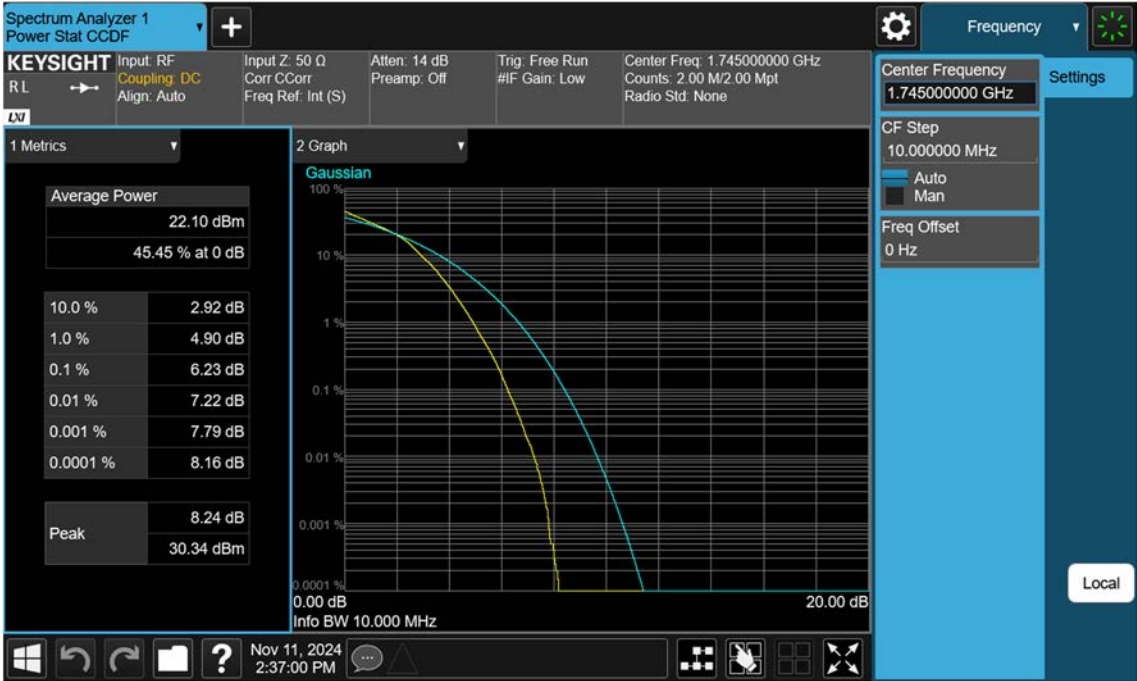
NR66_10 M_PAR_Mid_BPSK_FullIRB



NR66_10 M_PAR_Mid_QPSK_FullRB



NR66_10 M_PAR_Mid_16QAM_FullRB



NR66_10 M_PAR_Mid_64QAM_FullRB



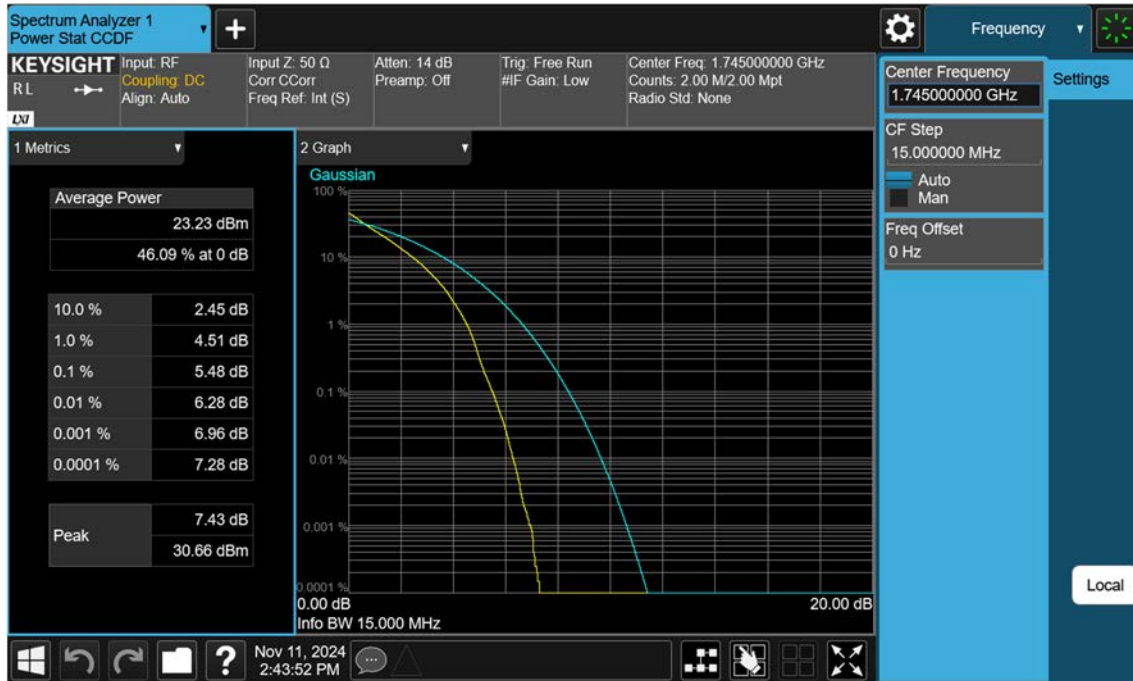
NR66_10 M_PAR_Mid_256QAM_FullRB



NR66_15 M_PAR_Mid_BPSK_FullIRB



NR66_15 M_PAR_Mid_QPSK_FullRB



NR66_15 M_PAR_Mid_16QAM_FullRB



NR66_15 M_PAR_Mid_64QAM_FullRB



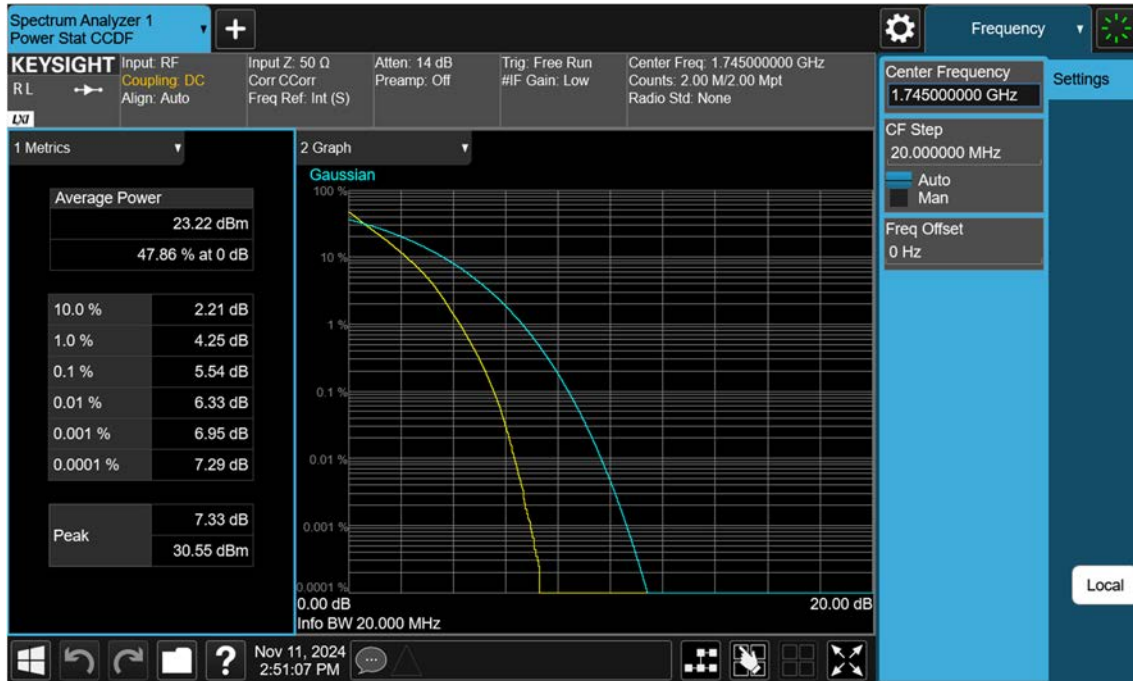
NR66_15 M_PAR_Mid_256QAM_FullRB



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



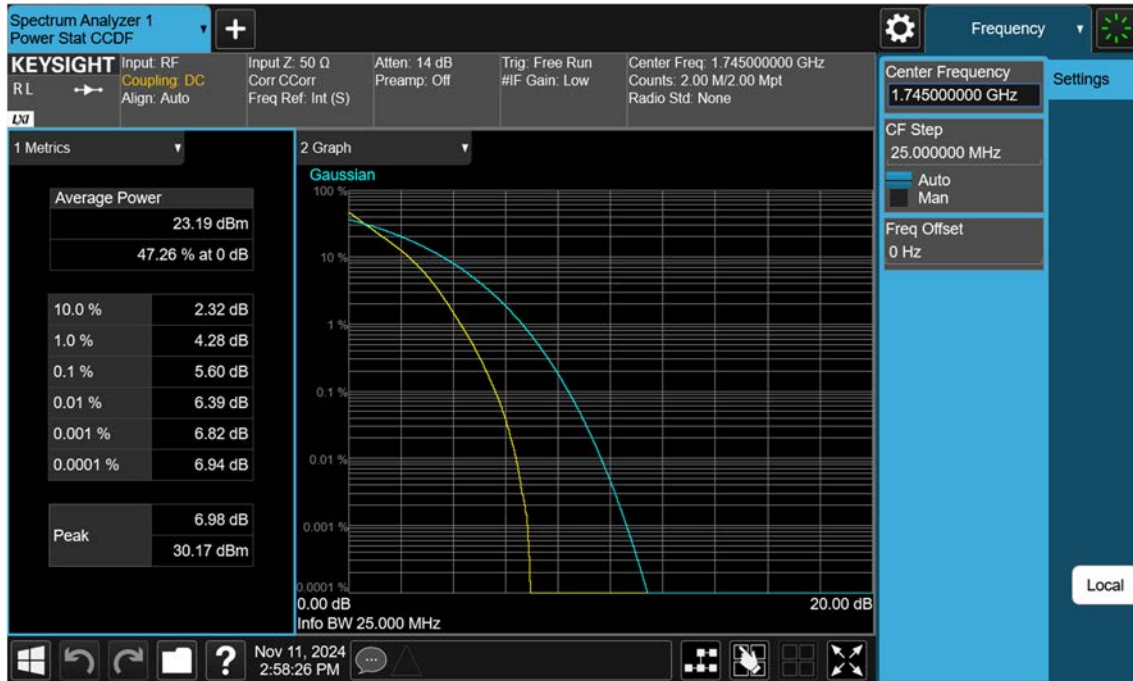
NR66_20 M_PAR_Mid_256QAM_FullRB



NR66_25 M_PAR_Mid_BPSK_FullIRB



NR66_25 M_PAR_Mid_QPSK_FullRB



NR66_25 M_PAR_Mid_16QAM_FullRB



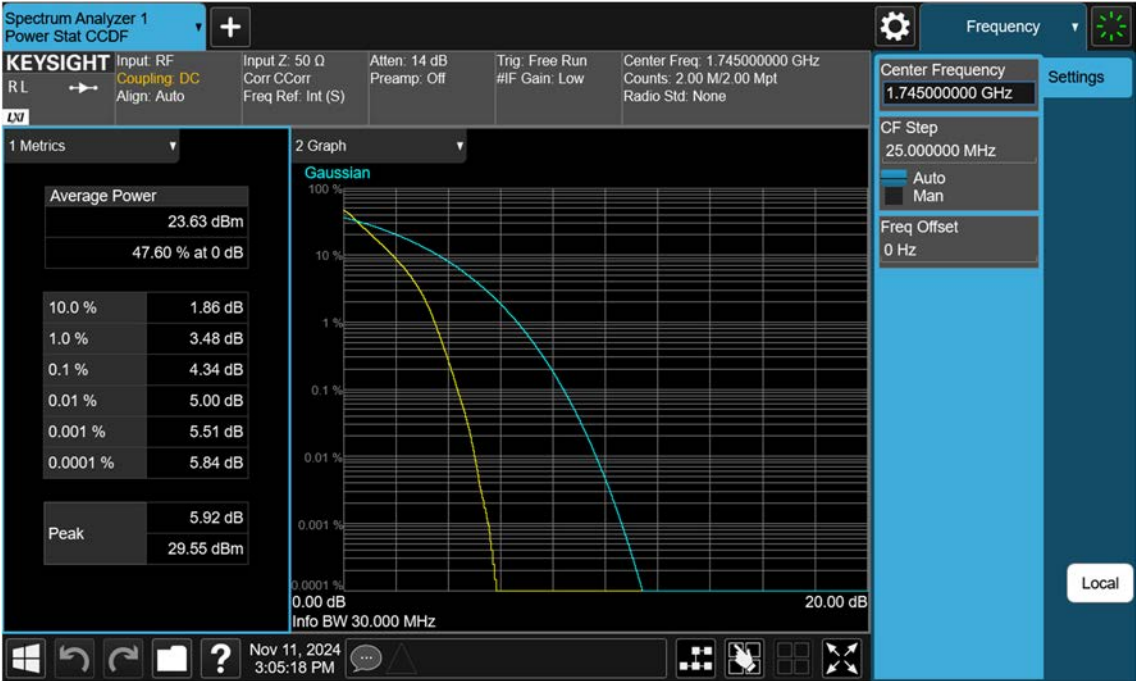
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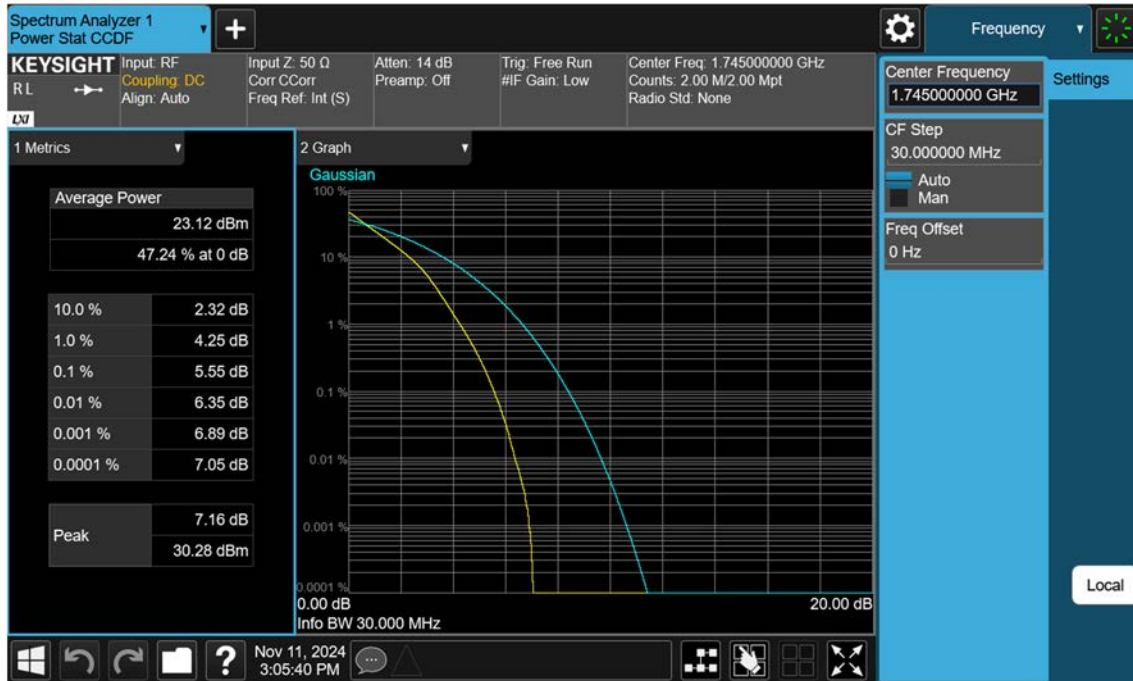
NR66_25 M_PAR_Mid_256QAM_FullRB



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



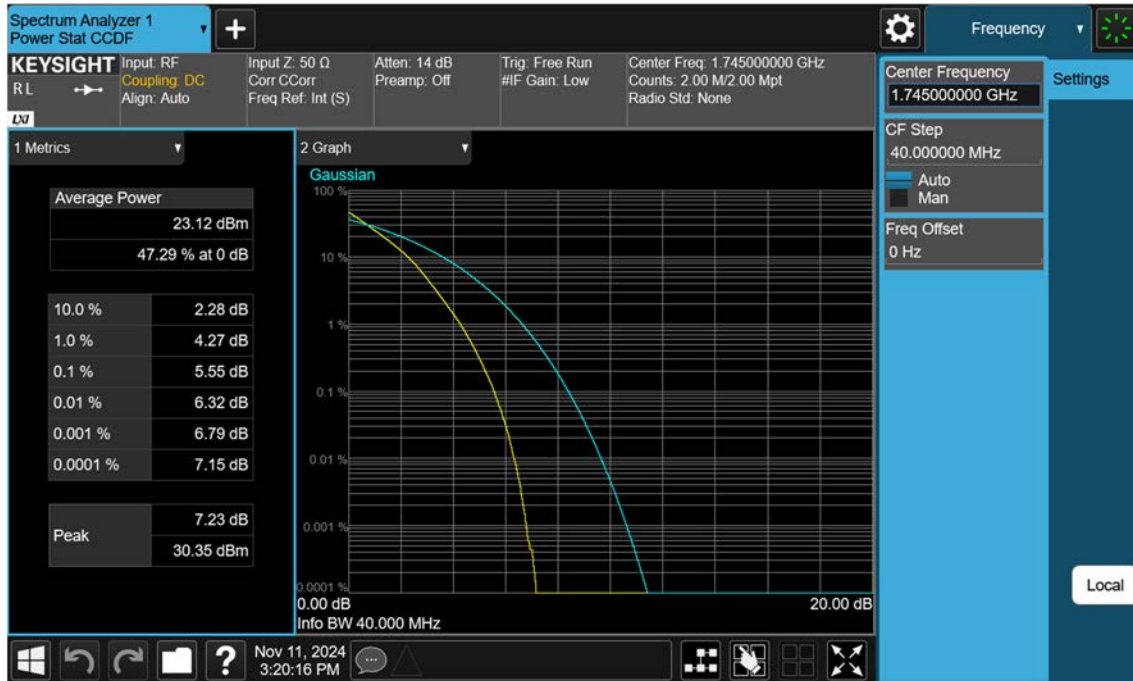
NR66_30 M_PAR_Mid_256QAM_FullRB



NR66_40 M_PAR_Mid_BPSK_FullIRB



NR66_40 M_PAR_Mid_QPSK_FullRB



NR66_40 M_PAR_Mid_16QAM_FullRB



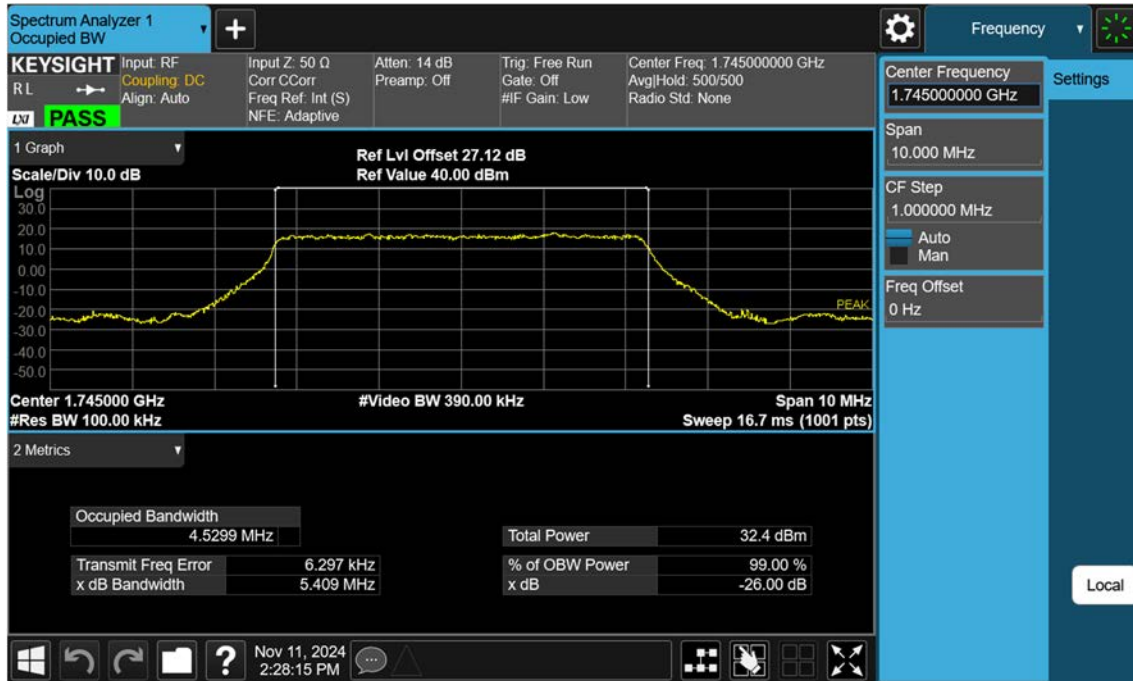
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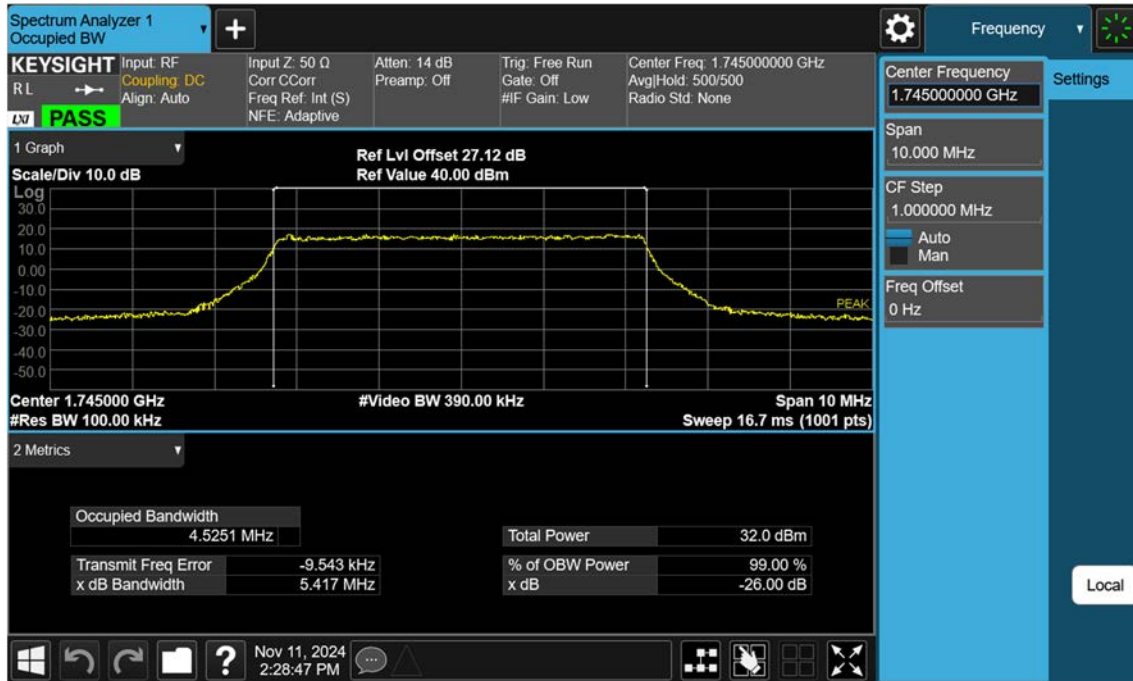
NR66_40 M_PAR_Mid_256QAM_FullRB



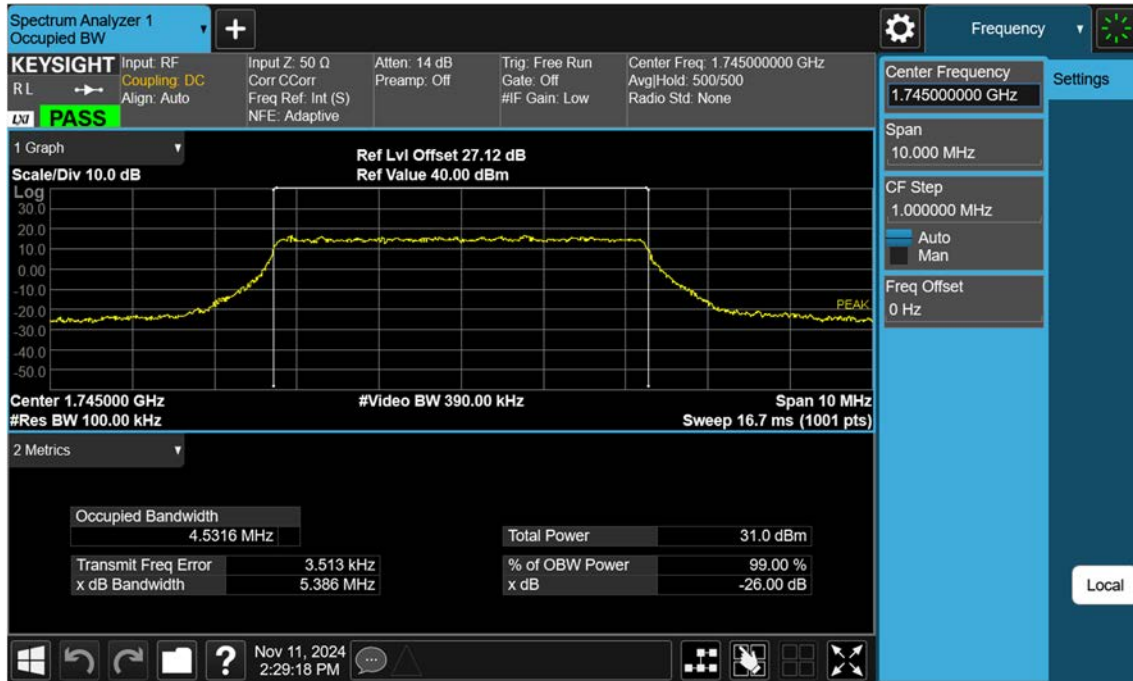
NR66_5 M_OBW_Mid_BPSK_FullRB



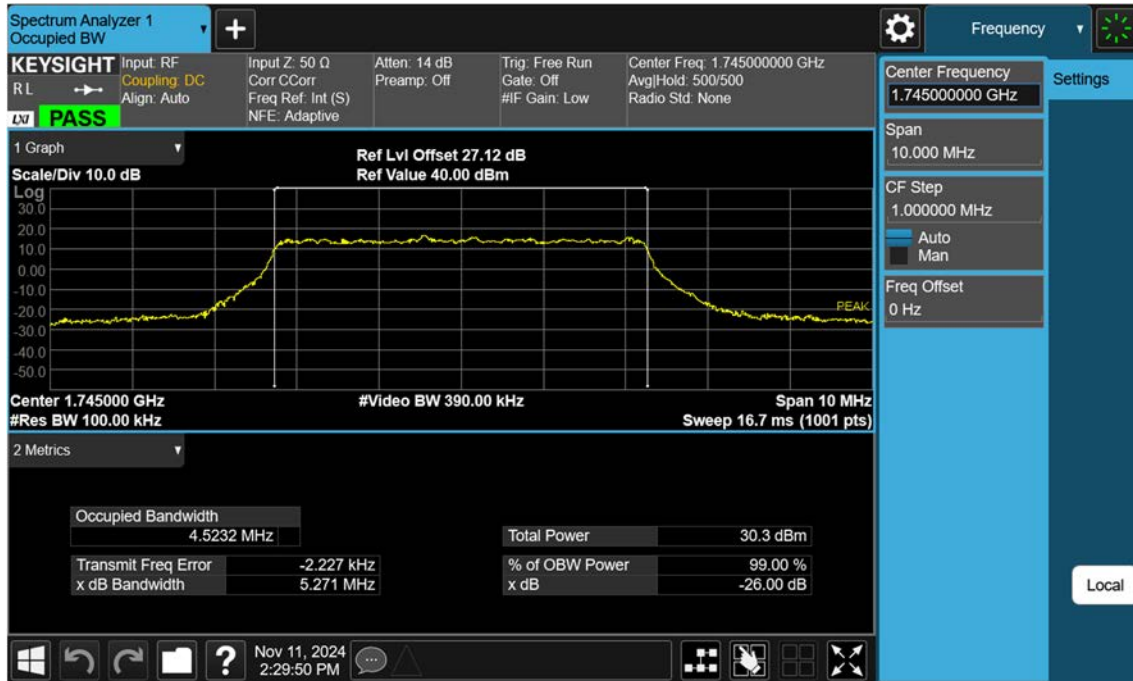
NR66_5 M_OBW_Mid_QPSK_FullRB



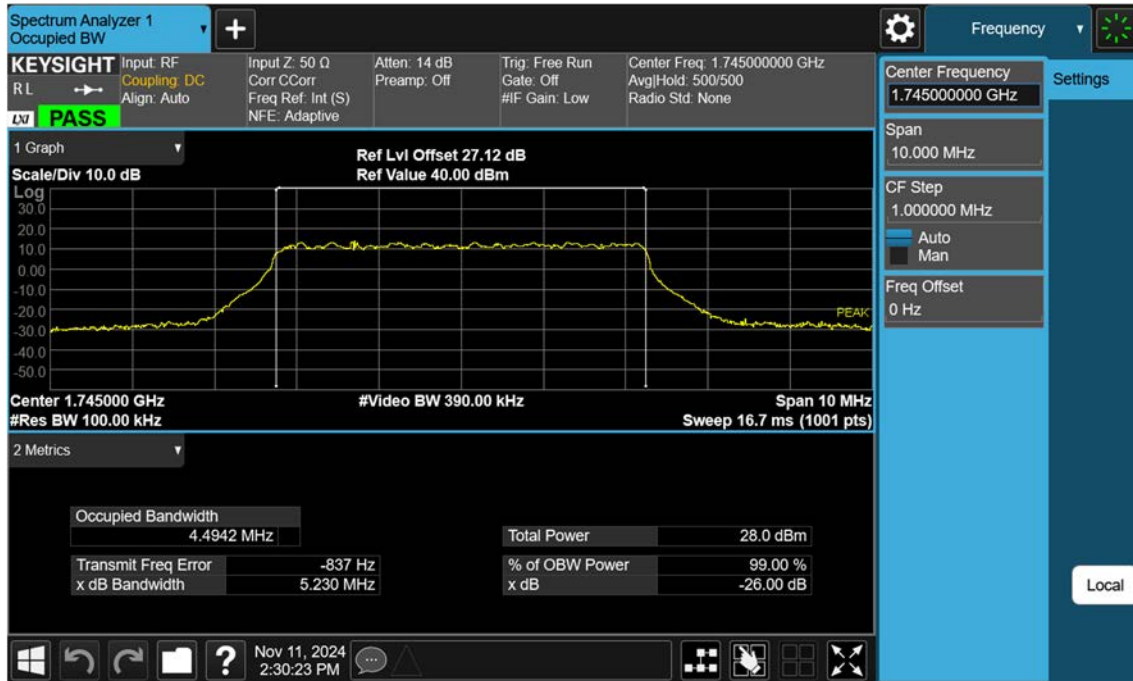
NR66_5 M_OBW_Mid_16QAM_FullRB



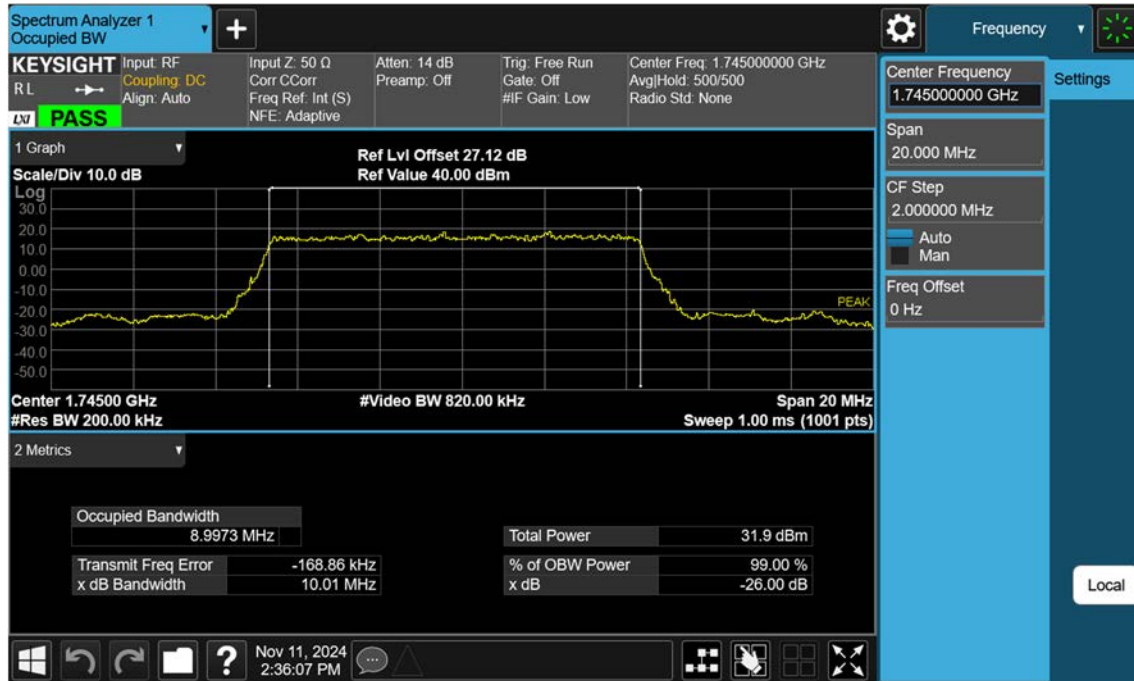
NR66_5 M_OBW_Mid_64QAM_FullRB



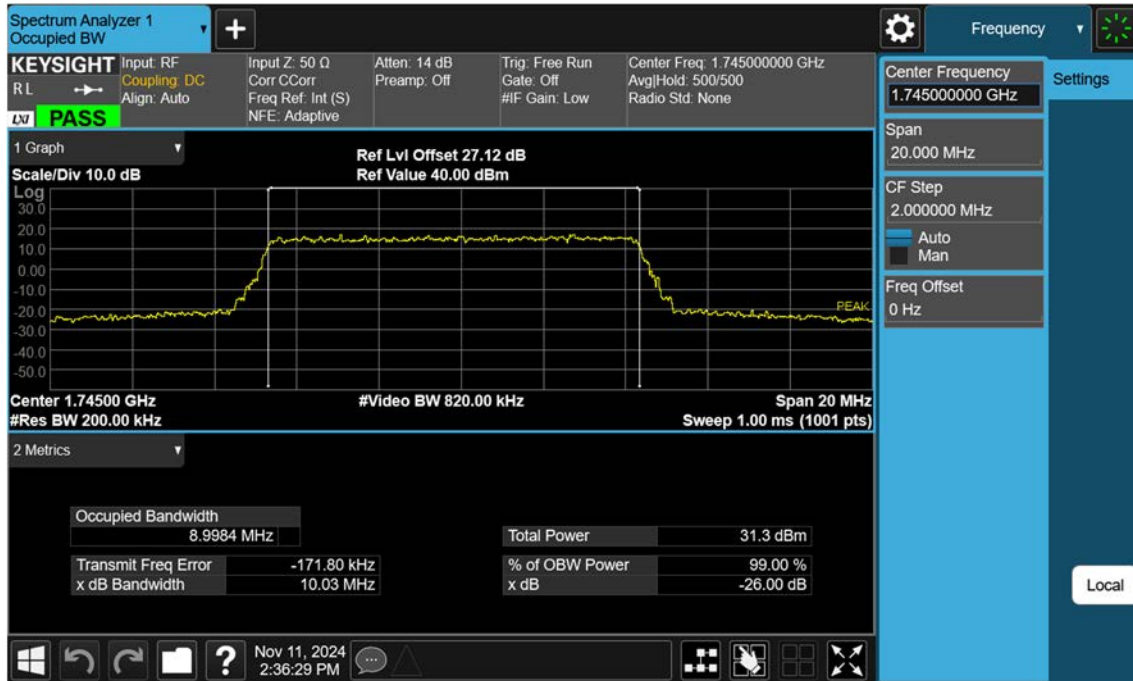
NR66_5 M_OBW_Mid_256QAM_FullRB



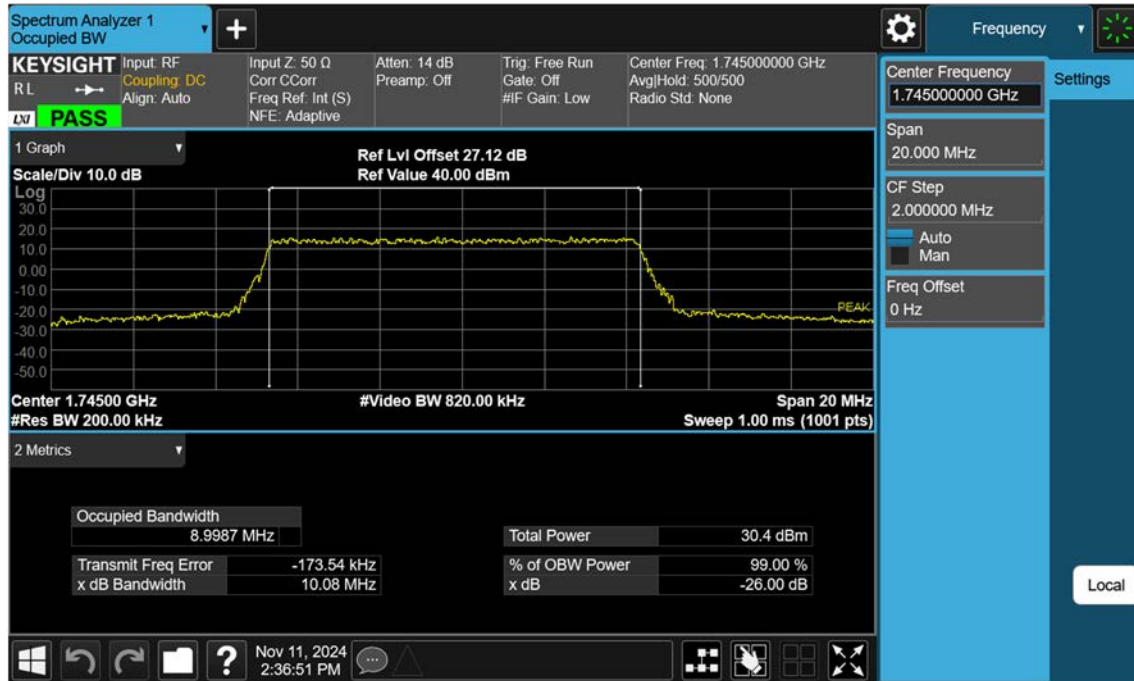
NR66_10 M_OBW_Mid_BPSK_FullRB



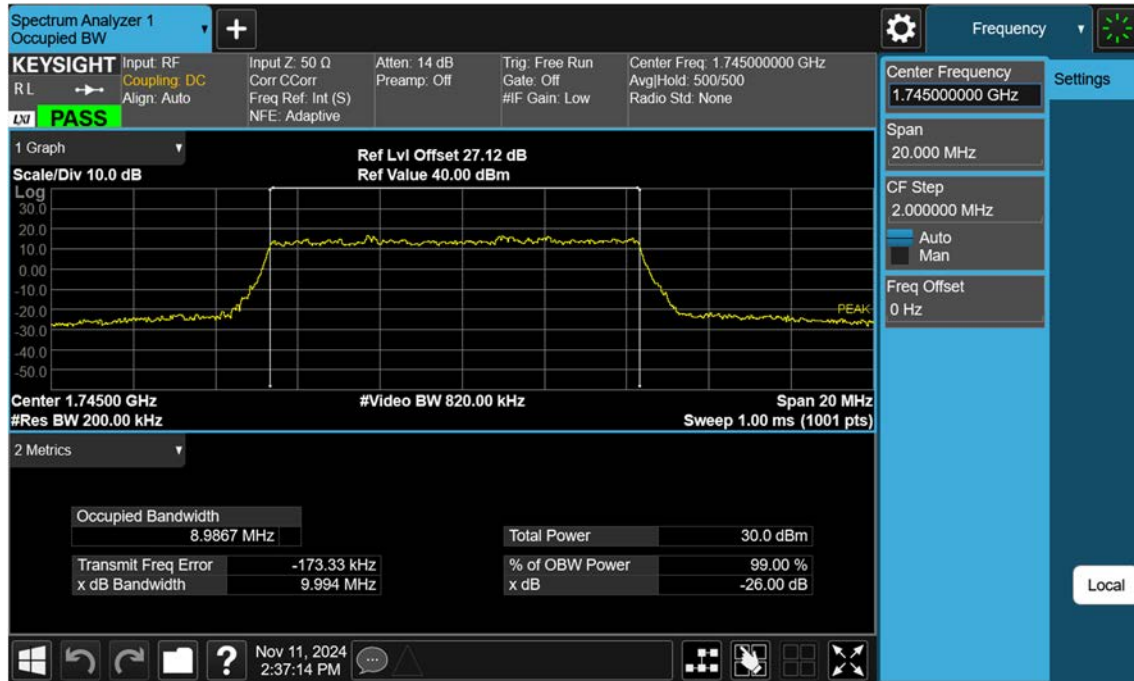
NR66_10 M_OBW_Mid_QPSK_FullRB



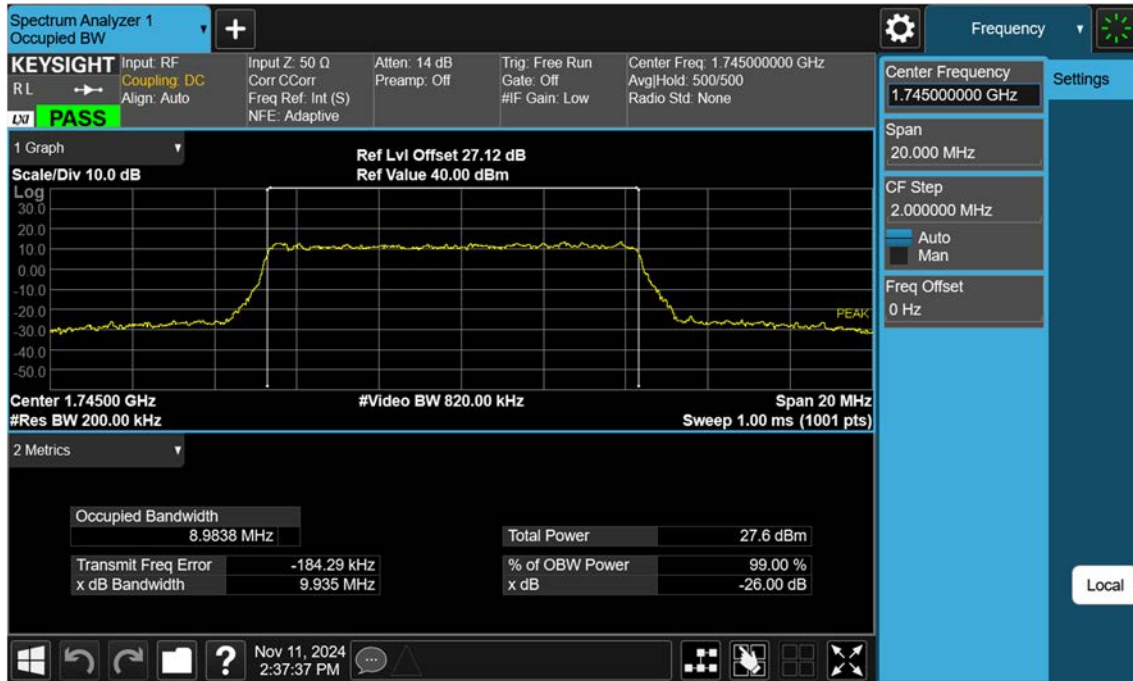
NR66_10 M_OBW_Mid_16QAM_FullRB



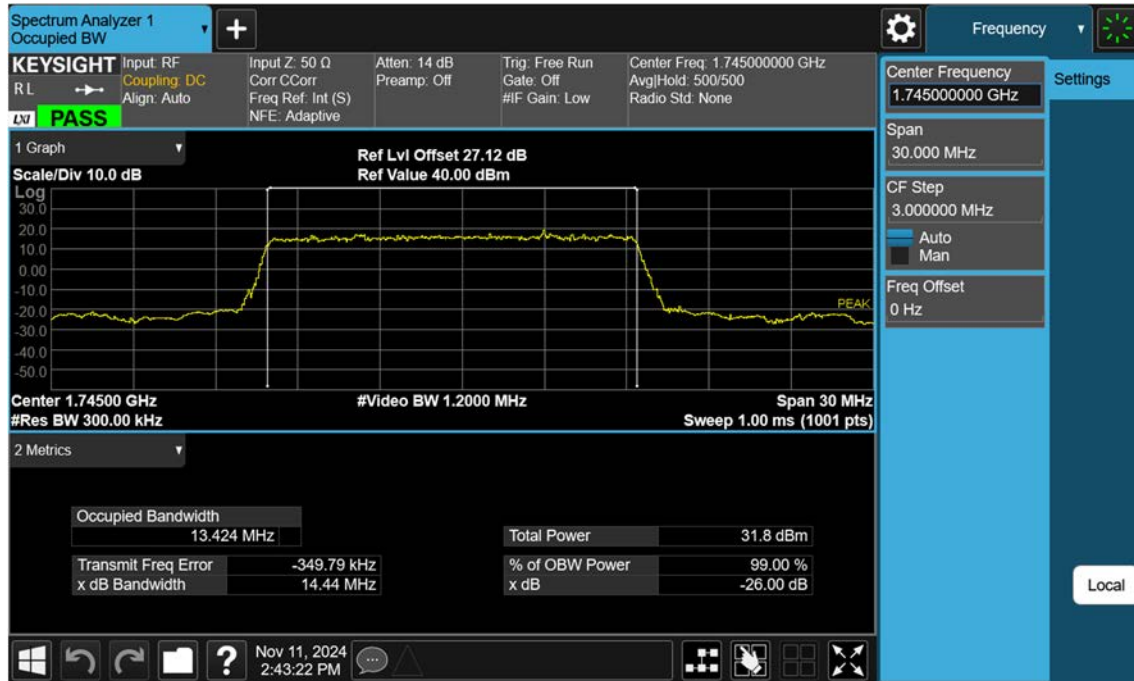
NR66_10 M_OBW_Mid_64QAM_FullRB



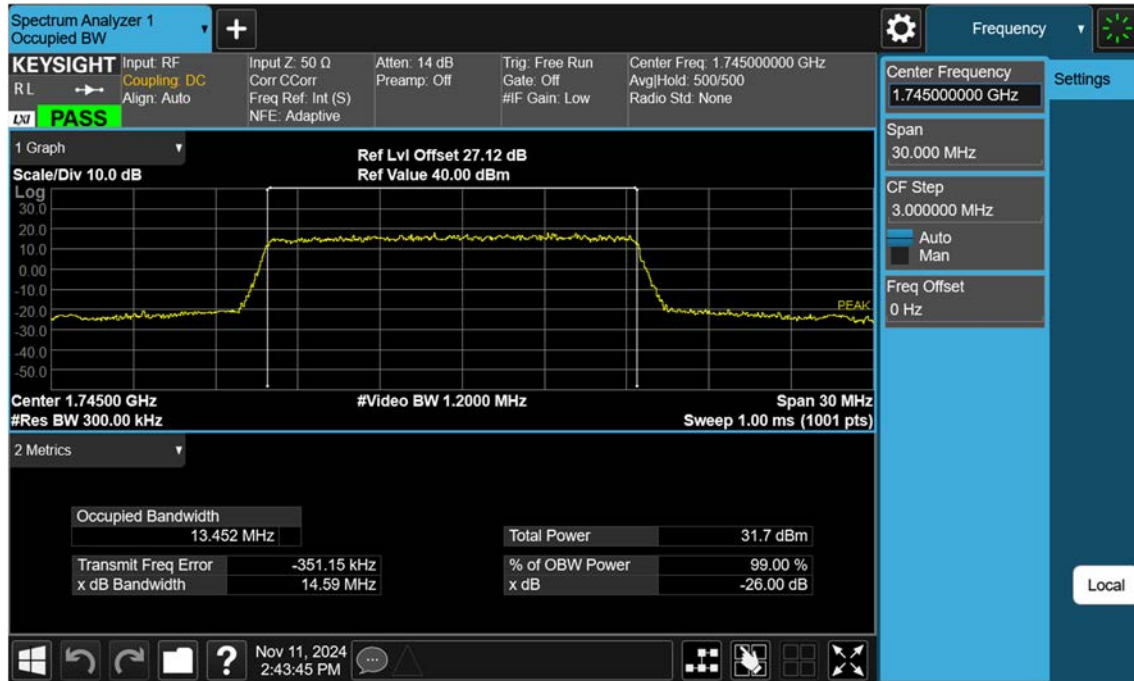
NR66_10 M_OBW_Mid_256QAM_FullRB



NR66_15 M_OBW_Mid_BPSK_FullRB



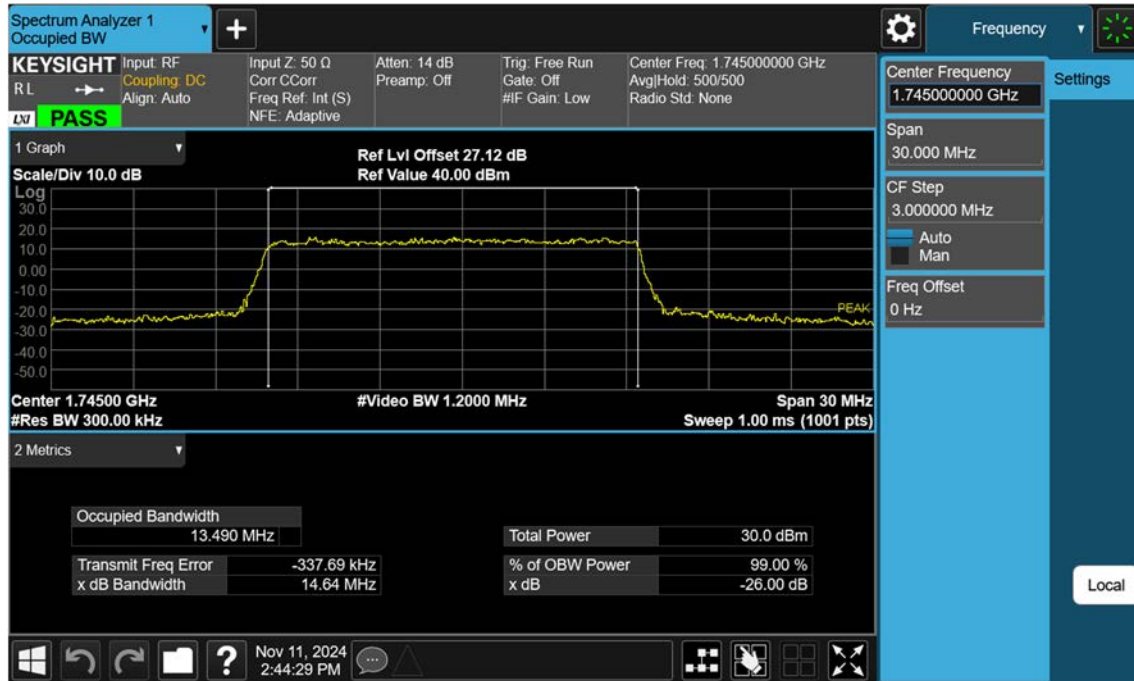
NR66_15 M_OBW_Mid_QPSK_FullRB



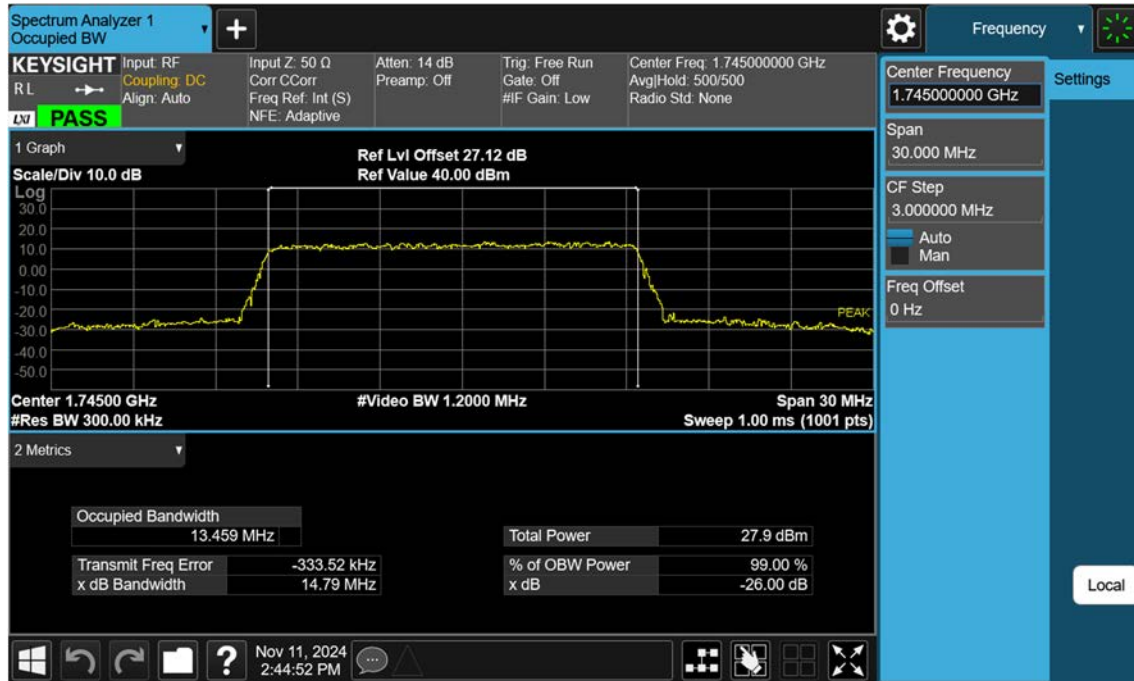
NR66_15 M_OBW_Mid_16QAM_FullRB



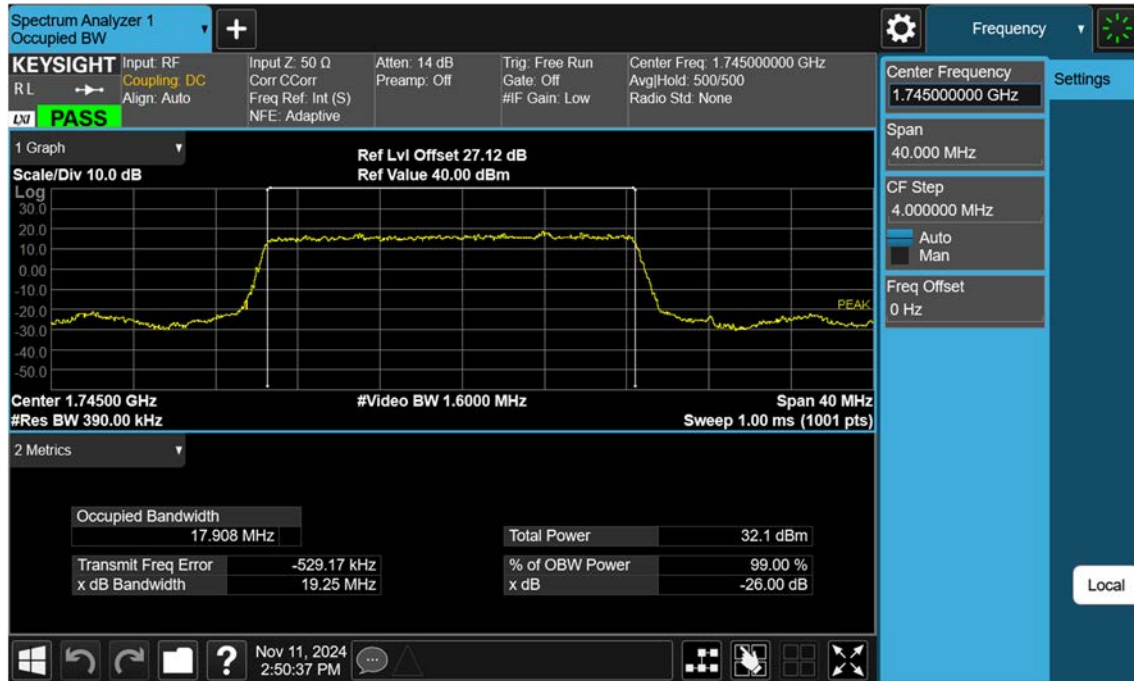
NR66_15 M_OBW_Mid_64QAM_FullRB



NR66_15 M_OBW_Mid_256QAM_FullRB



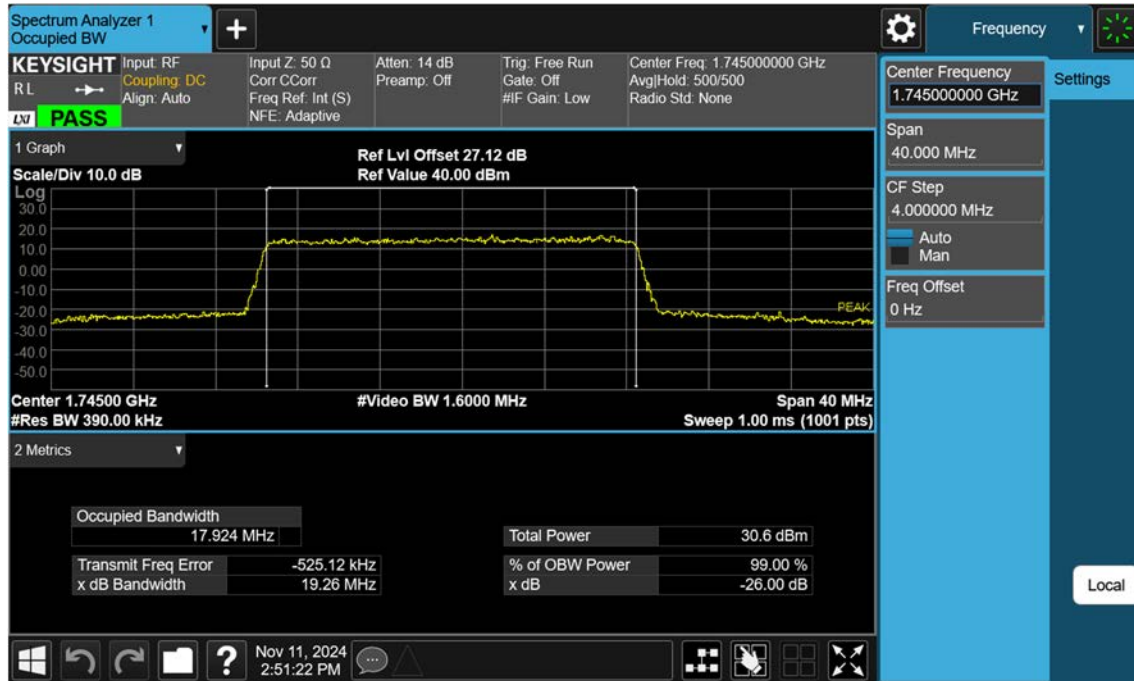
NR66_20 M_OBW_Mid_BPSK_FullRB



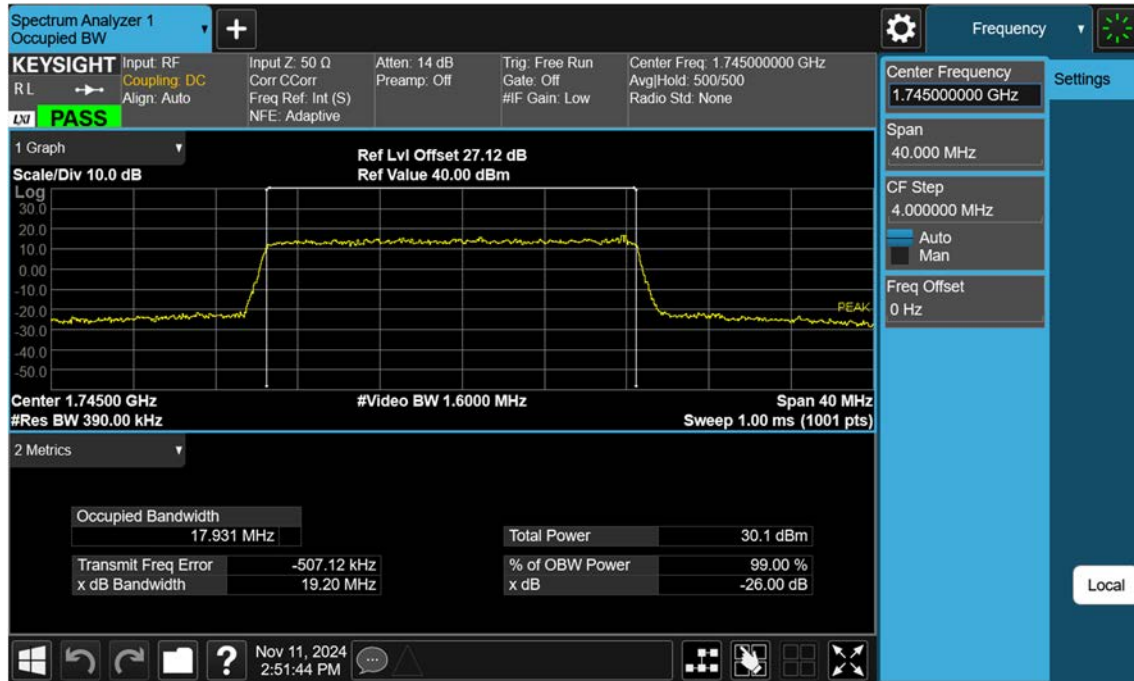
NR66_20 M_OBW_Mid_QPSK_FullRB



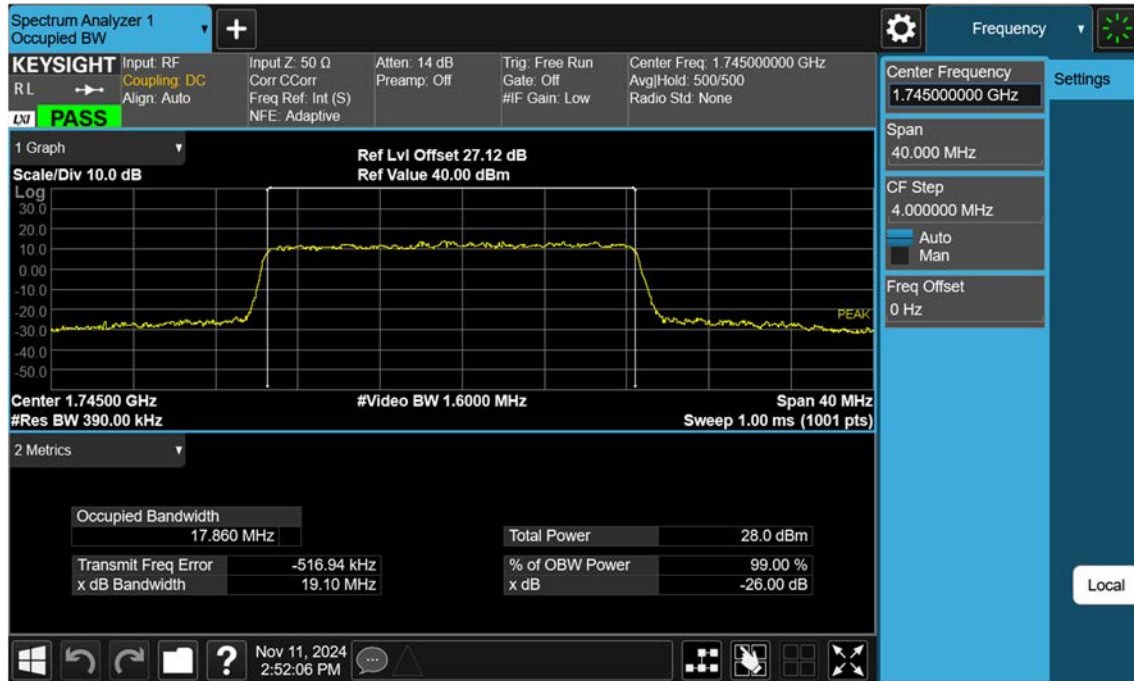
NR66_20 M_OBW_Mid_16QAM_FullRB



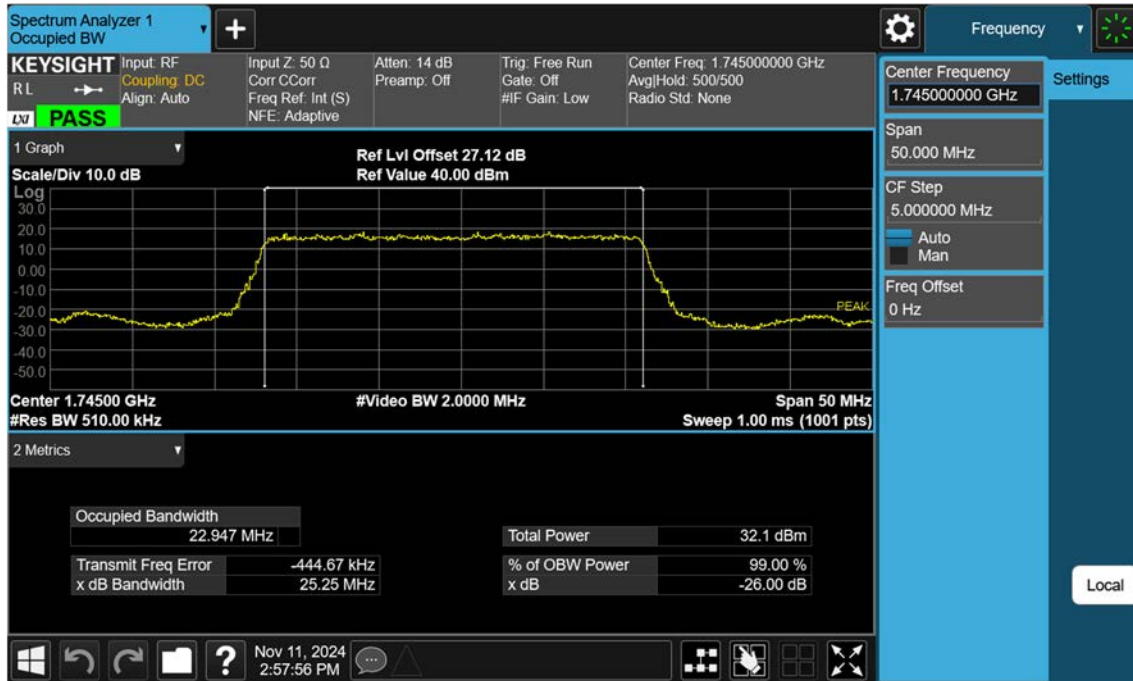
NR66_20 M_OBW_Mid_64QAM_FullRB



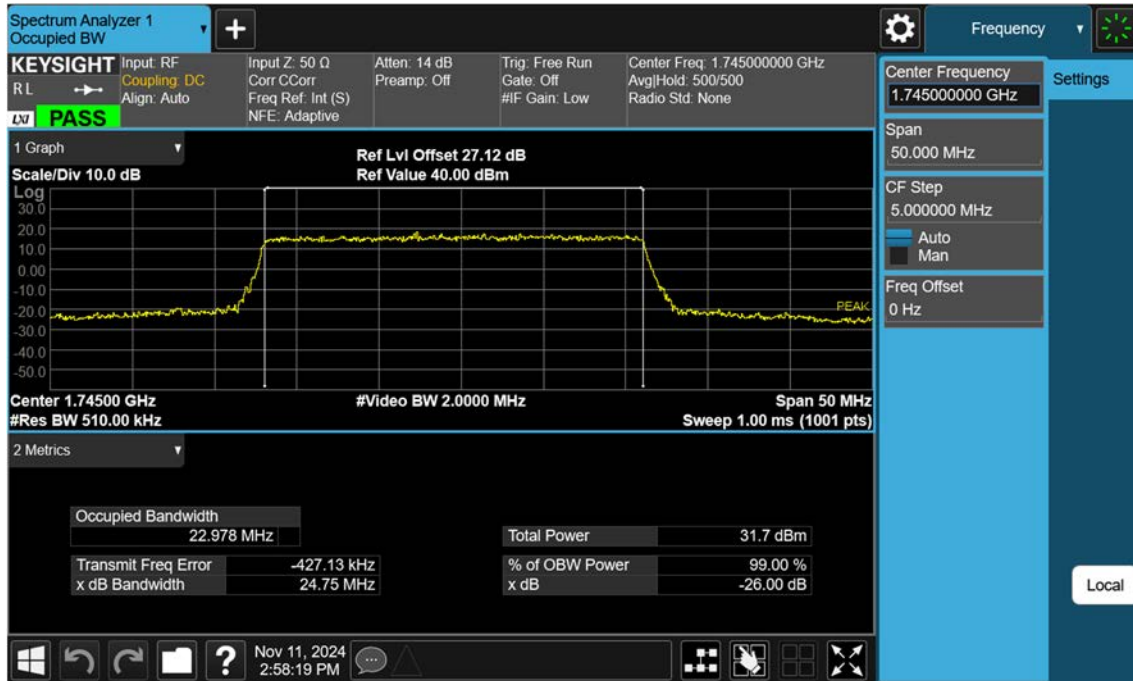
NR66_20 M_OBW_Mid_256QAM_FullRB



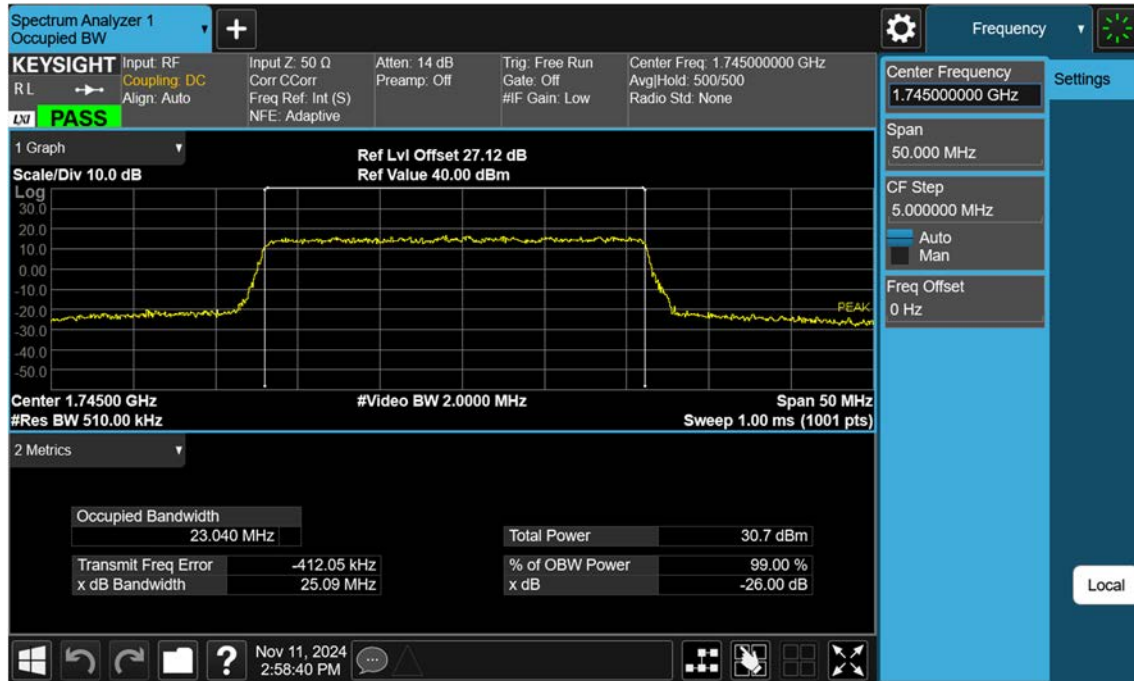
NR66_25 M_OBW_Mid_BPSK_FullRB



NR66_25 M_OBW_Mid_QPSK_FullRB



NR66_25 M_OBW_Mid_16QAM_FullRB



Spectrum Analyzer 1
Occupied BW

Input: RF
Coupling: DC
Align: Auto

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

Atten: 14 dB
Preamp: Off

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

Center Freq: 1.745000000 GHz
Avg/Hold: 500/500
Radio Std: None

Center Frequency
1.745000000 GHz

Span
50.000 MHz

CF Step
5.000000 MHz

Auto
Man

Freq Offset
0 Hz

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 27.12 dB
Ref Value 40.00 dBm

Center 1.74500 GHz
#Res BW 510.00 kHz
#Video BW 2.0000 MHz
Span 50 MHz
Sweep 1.00 ms (1001 pts)

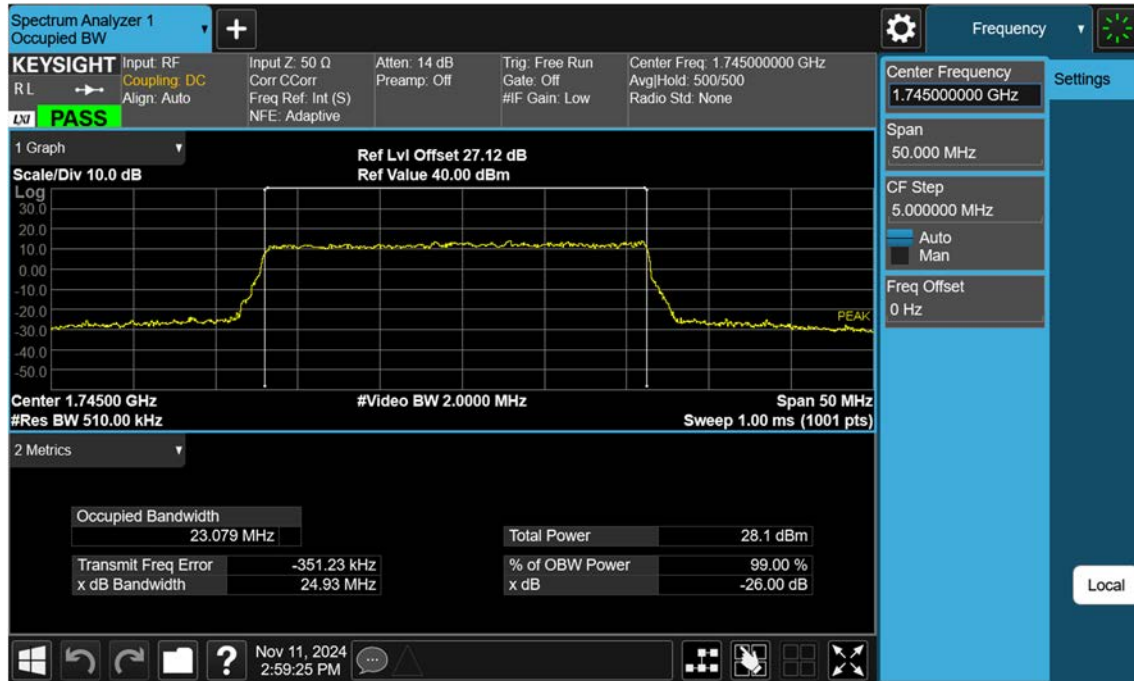
2 Metrics

Occupied Bandwidth		Total Power	
	22.964 MHz		30.1 dBm
Transmit Freq Error		% of OBW Power	
x dB Bandwidth	-470.44 kHz	x dB	99.00 %
	25.33 MHz		-26.00 dB

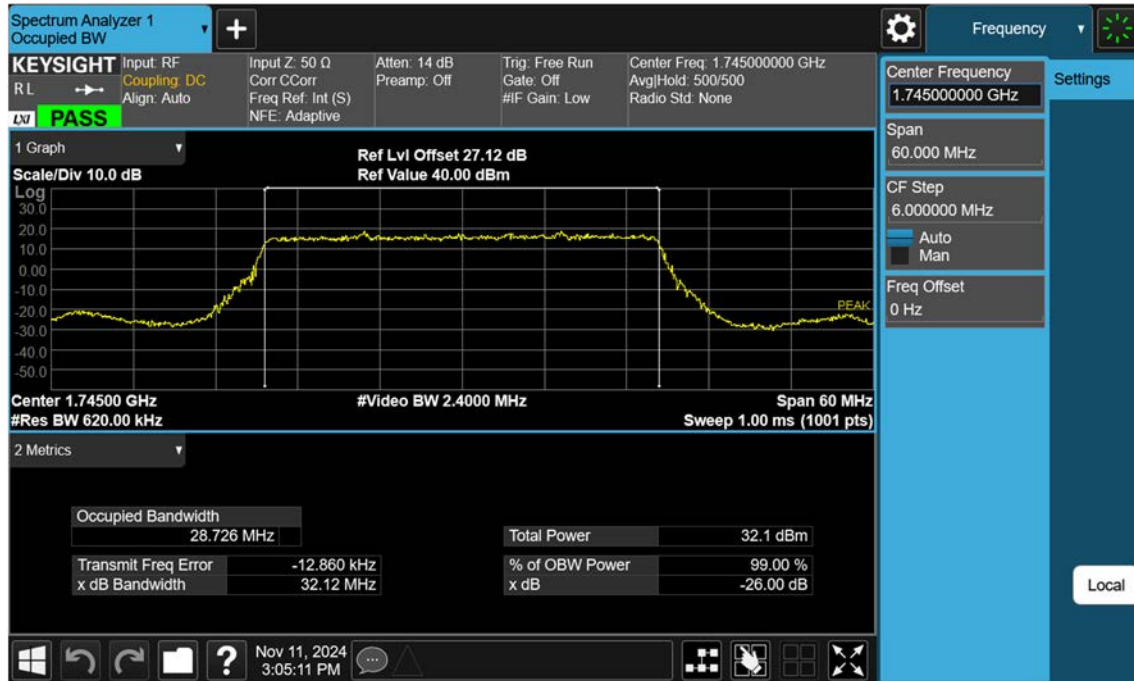
Nov 11, 2024
2:59:03 PM

Local

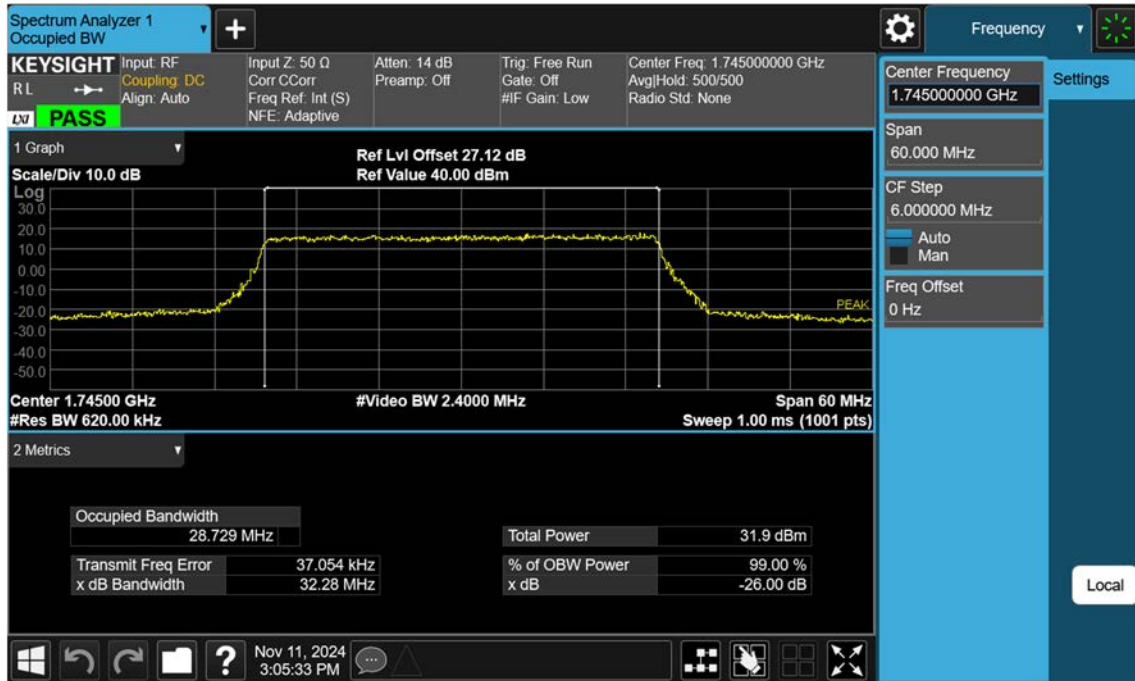
NR66_25 M_OBW_Mid_256QAM_FullRB



NR66_30 M_OBW_Mid_BPSK_FullRB



NR66_30 M_OBW_Mid_QPSK_FullRB



NR66_30 M_OBW_Mid_16QAM_FullRB



NR66_30 M_OBW_Mid_64QAM_FullRB

