TEST REPORT

FCC Sub6 n66 Test for SM-F761B
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2505-FC042

DATE OF ISSUE
May 8, 2025

Tested by
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TEST REPORT

REPORT NO.
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Applicant	**SAMSUNG Electronics Co., Ltd.** 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Product Name Model Name	Mobile Phone SM-F761B
Date of Test	February 26, 2025 ~ April 28, 2025
FCC ID	A3LSMF761B
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

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REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	May 8, 2025	Initial Release

Notice

Content
The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)
The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s).
The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***.
When confirmation of authenticity of this test report is required, please contact www.hct.co.kr
The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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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:	A3LSMF761B
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§ 27
EUT Type:	Mobile Phone
Model(s):	SM-F761B
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 26, 2025 ~ April 28, 2025
Serial number:	Radiated : R3CY20BS0BY Conducted : R3CY20BSA1L(Main 1 ANT), R3CY20BS3JL(Sub 5 ANT)
Antenna Information	Please refer to the Antenna Specification document.

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1.1. MAXIMUM OUTPUT POWER

Main 1 ANT

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n66 (5)	1712.5 – 1777.5	4M54G7D	PI/2 BPSK	0.219	23.40
		4M54G7D	QPSK	0.218	23.38
		4M55W7D	16QAM	0.168	22.26
		4M56W7D	64QAM	0.121	20.82
		4M55W7D	256QAM	0.073	18.65
Sub6 n66 (10)	1715.0 – 1775.0	8M99G7D	PI/2 BPSK	0.213	23.28
		9M02G7D	QPSK	0.212	23.26
		9M02W7D	16QAM	0.166	22.20
		9M01W7D	64QAM	0.119	20.76
		9M02W7D	256QAM	0.075	18.74
Sub6 n66 (15)	1717.5 – 1772.5	13M5G7D	PI/2 BPSK	0.219	23.40
		13M5G7D	QPSK	0.210	23.22
		13M4W7D	16QAM	0.168	22.25
		13M5W7D	64QAM	0.121	20.82
		13M5W7D	256QAM	0.074	18.72
Sub6 n66 (20)	1720.0 – 1770.0	17M9G7D	PI/2 BPSK	0.215	23.32
		17M9G7D	QPSK	0.214	23.31
		18M0W7D	16QAM	0.172	22.37
		18M0W7D	64QAM	0.115	20.62
		17M9W7D	256QAM	0.074	18.70
Sub6 n66 (25)	1722.5 – 1767.5	23M0G7D	PI/2 BPSK	0.213	23.28
		23M0G7D	QPSK	0.210	23.23
		22M9W7D	16QAM	0.165	22.17
		23M0W7D	64QAM	0.118	20.72
		23M0W7D	256QAM	0.074	18.71
Sub6 n66 (30)	1725.0 – 1765.0	28M8G7D	PI/2 BPSK	0.209	23.21
		28M8G7D	QPSK	0.208	23.18
		28M7W7D	16QAM	0.165	22.18
		28M7W7D	64QAM	0.112	20.50
		28M8W7D	256QAM	0.074	18.67
Sub6 n66 (35)	1727.5 – 1762.5	32M3G7D	PI/2 BPSK	0.208	23.19
		32M3G7D	QPSK	0.208	23.18
		32M3W7D	16QAM	0.171	22.32
		32M4W7D	64QAM	0.117	20.67
		32M3W7D	256QAM	0.073	18.63
Sub6 n66 (40)	1730.0 – 1760.0	38M8G7D	PI/2 BPSK	0.206	23.14
		38M8G7D	QPSK	0.206	23.13
		38M9W7D	16QAM	0.162	22.10
		38M9W7D	64QAM	0.116	20.63
		38M9W7D	256QAM	0.072	18.59

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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	4M53G7D	PI/2 BPSK	0.160	22.05
		4M52G7D	QPSK	0.155	21.89
		4M56W7D	16QAM	0.124	20.94
		4M53W7D	64QAM	0.090	19.52
		4M51W7D	256QAM	0.055	17.41
Sub6 n66 (10)	1715.0 – 1775.0	8M98G7D	PI/2 BPSK	0.156	21.94
		9M02G7D	QPSK	0.156	21.93
		8M99W7D	16QAM	0.126	20.99
		8M97W7D	64QAM	0.085	19.31
		9M00W7D	256QAM	0.056	17.45
Sub6 n66 (15)	1717.5 – 1772.5	13M5G7D	PI/2 BPSK	0.158	22.00
		13M4G7D	QPSK	0.155	21.90
		13M5W7D	16QAM	0.122	20.88
		13M5W7D	64QAM	0.087	19.42
		13M4W7D	256QAM	0.055	17.43
Sub6 n66 (20)	1720.0 – 1770.0	17M9G7D	PI/2 BPSK	0.157	21.96
		17M9G7D	QPSK	0.155	21.89
		17M9W7D	16QAM	0.124	20.93
		17M9W7D	64QAM	0.086	19.37
		17M9W7D	256QAM	0.055	17.38
Sub6 n66 (25)	1722.5 – 1767.5	23M0G7D	PI/2 BPSK	0.160	22.03
		23M0G7D	QPSK	0.158	21.98
		23M0W7D	16QAM	0.123	20.91
		23M0W7D	64QAM	0.088	19.43
		23M0W7D	256QAM	0.056	17.50
Sub6 n66 (30)	1725.0 – 1765.0	28M7G7D	PI/2 BPSK	0.156	21.93
		28M8G7D	QPSK	0.155	21.90
		28M7W7D	16QAM	0.122	20.87
		28M7W7D	64QAM	0.086	19.37
		28M7W7D	256QAM	0.057	17.54
Sub6 n66 (35)	1727.5 – 1762.5	32M3G7D	PI/2 BPSK	0.155	21.90
		32M4G7D	QPSK	0.153	21.85
		32M2W7D	16QAM	0.124	20.92
		32M3W7D	64QAM	0.086	19.36
		32M3W7D	256QAM	0.055	17.41
Sub6 n66 (40)	1730.0 – 1760.0	38M8G7D	PI/2 BPSK	0.152	21.83
		38M9G7D	QPSK	0.148	21.71
		38M7W7D	16QAM	0.121	20.84
		38M7W7D	64QAM	0.085	19.31
		38M6W7D	256QAM	0.055	17.37

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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.

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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

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3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.
The equipment under test is placed on a non-conductive table 3-meters away from the receive antenna.

Test Settings

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

Test Note

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

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

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

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3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method.

Test Settings

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

Test Note

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

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

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

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

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

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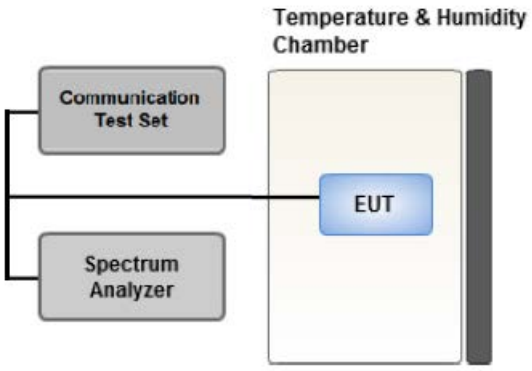
3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

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

② Alternate Procedure for PAPR

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

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

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Test Settings(Peak Power)

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

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

Test Settings(Average Power)

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

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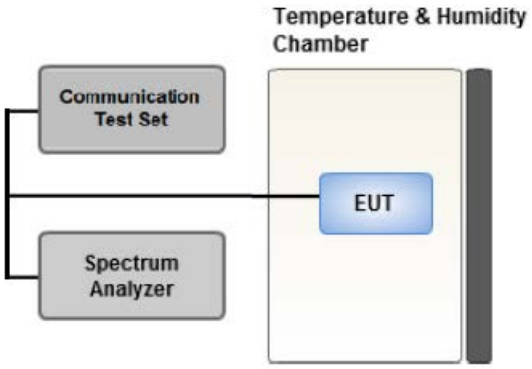
3.5 OCCUPIED BANDWIDTH.



Test setup

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

Test Settings

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

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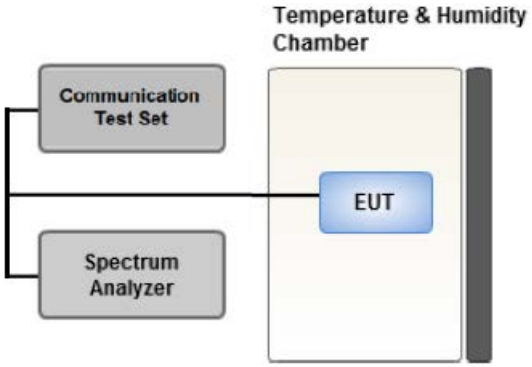
3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

Test Overview

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

Test Settings

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

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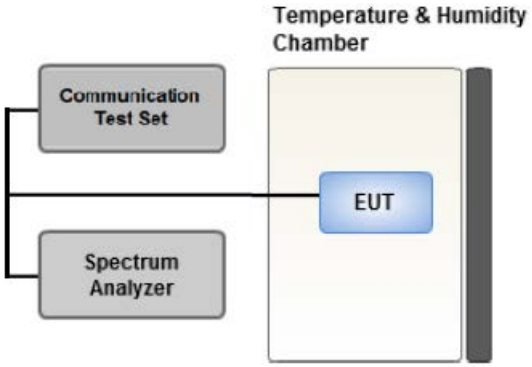
3.7 BAND EDGE



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 ≥ 2 x Span/RBW
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

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

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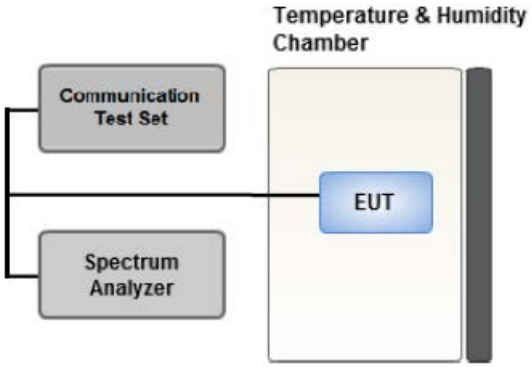
3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



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.

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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
- 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 1 ANT (Half Open), Sub 5 ANT (Half Open)
- Worst case (Radiated Spurious Emissions)
: Main 1 ANT (Open), Sub 5 ANT (Open)
- 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 1 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 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		Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		X

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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.

[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

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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:

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

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5. MEASUREMENT UNCERTAINTY

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

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

Parameter	Expanded Uncertainty (±kHz)
Occupied Bandwidth	95 (Confidence level about 95 %, k=2)
Frequency stability	28 (Confidence level about 95 %, k=2)

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

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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	See Note1
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.

6.3. Data Referencing

Rule Part	Test item	Data Referencing	Comments
§ 2.1049	Occupied Bandwidth	Y	Spot-check
§ 2.1051, § 27.53(h)	Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	Y	Spot-check
§ 27.50(d)(5)	Peak- to- Average Ratio	Y	Spot-check
§ 2.1055, § 27.54	Frequency stability / variation of ambient temperature	Y	Spot-check
§ 27.50(h)(2)	Effective Radiated Power Equivalent Isotropic Radiated Power	Y	Spot-check
§ 2.1053, § 27.53(m)(4)	Radiated Spurious and Harmonic Emissions	Y	Spot-check
§ 2.1046	Conducted Output Power	Y	-

Spot-Check Result
1. Data was leveraged from model SM-F761U for the certification of SM-F761B.
2. Please refer to the [FCC Evaluation] Report.

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7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

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

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

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

7.2 EIRP Sample Calculation

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

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

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

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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

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8. TEST DATA (Main 1 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	-20.38	12.70	10.12	2.06	H	< 1.00	0.119	20.76	1	12
		QPSK	-20.39	12.69	10.12	2.06	H		0.119	20.75		
		16-QAM	-21.54	11.54	10.12	2.06	H		0.091	19.60		
		64-QAM	-22.92	10.16	10.12	2.06	H		0.066	18.22		
		256-QAM	-25.00	8.08	10.12	2.06	H		0.041	16.14		
1745.0		PI/2 BPSK	-19.51	13.86	10.43	2.07	H		0.167	22.22	1	23
		QPSK	-19.52	13.85	10.43	2.07	H		0.166	22.21		
		16-QAM	-20.42	12.95	10.43	2.07	H		0.135	21.31		
		64-QAM	-22.05	11.32	10.43	2.07	H		0.093	19.68		
		256-QAM	-23.94	9.43	10.43	2.07	H		0.060	17.79		
1777.5		PI/2 BPSK	-18.37	14.99	10.50	2.09	H		0.219	23.40	1	12
		QPSK	-18.39	14.97	10.50	2.09	H		0.218	23.38		
		16-QAM	-19.51	13.85	10.50	2.09	H		0.168	22.26		
		64-QAM	-20.95	12.41	10.50	2.09	H		0.121	20.82		
		256-QAM	-23.12	10.24	10.50	2.09	H		0.073	18.65		

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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]	PI/2 BPSK	-20.29	12.79	10.12	2.06	H	< 1.00	0.122	20.85	1	50
		QPSK	-20.36	12.72	10.12	2.06	H		0.120	20.78		
		16-QAM	-21.38	11.70	10.12	2.06	H		0.095	19.76		
		64-QAM	-22.80	10.28	10.12	2.06	H		0.068	18.34		
		256-QAM	-24.89	8.19	10.12	2.06	H		0.042	16.25		
1745.0		PI/2 BPSK	-19.16	14.21	10.43	2.07	H		0.181	22.57	1	50
		QPSK	-19.25	14.12	10.43	2.07	H		0.177	22.48		
		16-QAM	-20.25	13.12	10.43	2.07	H		0.141	21.48		
		64-QAM	-21.60	11.77	10.43	2.07	H		0.103	20.13		
		256-QAM	-23.76	9.61	10.43	2.07	H		0.063	17.97		
1775.0		PI/2 BPSK	-18.52	14.88	10.49	2.09	H		0.213	23.28	1	50
		QPSK	-18.54	14.86	10.49	2.09	H		0.212	23.26		
		16-QAM	-19.60	13.80	10.49	2.09	H		0.166	22.20		
		64-QAM	-21.04	12.36	10.49	2.09	H		0.119	20.76		
		256-QAM	-23.06	10.34	10.49	2.09	H		0.075	18.74		

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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	-20.28	12.88	10.18	2.06	H	< 1.00	0.126	21.00	1	39
		QPSK	-20.30	12.86	10.18	2.06	H		0.125	20.98		
		16-QAM	-21.38	11.78	10.18	2.06	H		0.098	19.90		
		64-QAM	-22.88	10.28	10.18	2.06	H		0.069	18.40		
		256-QAM	-24.94	8.22	10.18	2.06	H		0.043	16.34		
1745.0		PI/2 BPSK	-19.37	14.00	10.43	2.07	H		0.172	22.36	1	77
		QPSK	-19.40	13.97	10.43	2.07	H		0.171	22.33		
		16-QAM	-20.43	12.94	10.43	2.07	H		0.135	21.30		
		64-QAM	-21.85	11.52	10.43	2.07	H		0.097	19.88		
		256-QAM	-23.91	9.46	10.43	2.07	H		0.061	17.82		
1772.5		PI/2 BPSK	-18.40	15.00	10.49	2.09	H		0.219	23.40	1	39
		QPSK	-18.58	14.82	10.49	2.09	H		0.210	23.22		
		16-QAM	-19.55	13.85	10.49	2.09	H		0.168	22.25		
		64-QAM	-20.98	12.42	10.49	2.09	H		0.121	20.82		
		256-QAM	-23.08	10.32	10.49	2.09	H		0.075	18.72		

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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	-20.21	12.95	10.18	2.06	H	< 1.00	0.128	21.07	1	53
		QPSK	-20.24	12.92	10.18	2.06	H		0.127	21.04		
		16-QAM	-21.35	11.81	10.18	2.06	H		0.099	19.93		
		64-QAM	-22.74	10.42	10.18	2.06	H		0.072	18.54		
		256-QAM	-24.82	8.34	10.18	2.06	H		0.044	16.46		
1745.0		PI/2 BPSK	-19.19	14.18	10.43	2.07	H		0.180	22.54	1	104
		QPSK	-19.23	14.14	10.43	2.07	H		0.178	22.50		
		16-QAM	-20.17	13.20	10.43	2.07	H		0.143	21.56		
		64-QAM	-21.59	11.78	10.43	2.07	H		0.103	20.14		
		256-QAM	-23.71	9.66	10.43	2.07	H		0.063	18.02		
1770.0		PI/2 BPSK	-18.50	14.92	10.49	2.09	H		0.215	23.32	1	53
		QPSK	-18.51	14.91	10.49	2.09	H		0.214	23.31		
		16-QAM	-19.45	13.97	10.49	2.09	H		0.173	22.37		
		64-QAM	-21.20	12.22	10.49	2.09	H		0.115	20.62		
		256-QAM	-23.12	10.30	10.49	2.09	H		0.074	18.70		

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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	-19.96	13.32	10.23	2.07	H	< 1.00	0.141	21.48	1	131
		QPSK	-19.99	13.29	10.23	2.07	H		0.140	21.45		
		16-QAM	-20.97	12.31	10.23	2.07	H		0.111	20.47		
		64-QAM	-22.54	10.74	10.23	2.07	H		0.078	18.90		
		256-QAM	-24.53	8.75	10.23	2.07	H		0.049	16.91		
1745.0		PI/2 BPSK	-19.06	14.31	10.43	2.07	H		0.185	22.67	1	131
		QPSK	-19.08	14.29	10.43	2.07	H		0.184	22.65		
		16-QAM	-20.04	13.33	10.43	2.07	H		0.148	21.69		
		64-QAM	-21.51	11.86	10.43	2.07	H		0.105	20.22		
		256-QAM	-23.54	9.83	10.43	2.07	H		0.066	18.19		
1767.5		PI/2 BPSK	-18.54	14.88	10.49	2.09	H		0.213	23.28	1	131
		QPSK	-18.59	14.83	10.49	2.09	H		0.210	23.23		
		16-QAM	-19.65	13.77	10.49	2.09	H		0.165	22.17		
		64-QAM	-21.10	12.32	10.49	2.09	H		0.118	20.72		
		256-QAM	-23.11	10.31	10.49	2.09	H		0.074	18.71		

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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	-19.75	13.53	10.23	2.07	H	< 1.00	0.147	21.69	1	158
		QPSK	-19.81	13.47	10.23	2.07	H		0.145	21.63		
		16-QAM	-20.86	12.42	10.23	2.07	H		0.114	20.58		
		64-QAM	-22.28	11.00	10.23	2.07	H		0.083	19.16		
		256-QAM	-24.41	8.87	10.23	2.07	H		0.051	17.03		
1745.0		PI/2 BPSK	-19.14	14.23	10.43	2.07	H		0.182	22.59	1	158
		QPSK	-19.17	14.20	10.43	2.07	H		0.180	22.56		
		16-QAM	-20.10	13.27	10.43	2.07	H		0.146	21.63		
		64-QAM	-21.77	11.60	10.43	2.07	H		0.099	19.96		
		256-QAM	-23.69	9.68	10.43	2.07	H		0.064	18.04		
1765.0		PI/2 BPSK	-18.51	14.82	10.48	2.09	H		0.209	23.21	1	158
		QPSK	-18.54	14.79	10.48	2.09	H		0.208	23.18		
		16-QAM	-19.54	13.79	10.48	2.09	H		0.165	22.18		
		64-QAM	-21.22	12.11	10.48	2.09	H		0.112	20.50		
		256-QAM	-23.05	10.28	10.48	2.09	H		0.074	18.67		

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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	Sub6 n66/ 35 MHz [15 kHz]	PI/2 BPSK	-19.67	13.73	10.29	2.08	H	< 1.00	0.156	21.94	1	186
		QPSK	-19.73	13.67	10.29	2.08	H		0.154	21.88		
		16-QAM	-20.72	12.68	10.29	2.08	H		0.123	20.89		
		64-QAM	-22.28	11.12	10.29	2.08	H		0.086	19.33		
		256-QAM	-24.23	9.17	10.29	2.08	H		0.055	17.38		
1745.0		PI/2 BPSK	-18.97	14.40	10.43	2.07	H		0.189	22.76	1	186
		QPSK	-19.05	14.32	10.43	2.07	H		0.185	22.68		
		16-QAM	-20.01	13.36	10.43	2.07	H		0.149	21.72		
		64-QAM	-21.49	11.88	10.43	2.07	H		0.106	20.24		
		256-QAM	-23.62	9.75	10.43	2.07	H		0.065	18.11		
1762.5		PI/2 BPSK	-18.53	14.80	10.48	2.09	H		0.208	23.19	1	186
		QPSK	-18.54	14.79	10.48	2.09	H		0.208	23.18		
		16-QAM	-19.40	13.93	10.48	2.09	H		0.171	22.32		
		64-QAM	-21.05	12.28	10.48	2.09	H		0.117	20.67		
		256-QAM	-23.09	10.24	10.48	2.09	H		0.073	18.63		

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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	-19.09	14.31	10.29	2.08	H	< 1.00	0.179	22.52	1	214
		QPSK	-19.14	14.26	10.29	2.08	H		0.177	22.47		
		16-QAM	-20.23	13.17	10.29	2.08	H		0.137	21.38		
		64-QAM	-21.72	11.68	10.29	2.08	H		0.098	19.89		
		256-QAM	-23.66	9.74	10.29	2.08	H		0.062	17.95		
1745.0		PI/2 BPSK	-18.76	14.61	10.43	2.07	H		0.198	22.97	1	214
		QPSK	-18.81	14.56	10.43	2.07	H		0.196	22.92		
		16-QAM	-19.63	13.74	10.43	2.07	H		0.162	22.10		
		64-QAM	-21.36	12.01	10.43	2.07	H		0.109	20.37		
		256-QAM	-23.31	10.06	10.43	2.07	H		0.070	18.42		
1760.0		PI/2 BPSK	-18.47	14.75	10.48	2.09	H		0.206	23.14	1	214
		QPSK	-18.48	14.74	10.48	2.09	H		0.206	23.13		
		16-QAM	-19.53	13.69	10.48	2.09	H		0.161	22.08		
		64-QAM	-20.98	12.24	10.48	2.09	H		0.116	20.63		
		256-QAM	-23.02	10.20	10.48	2.09	H		0.072	18.59		

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8.2 RADIATED SPURIOUS EMISSIONS

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

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	-59.72	11.76	-60.94	2.99	V	-52.17	-13.00	1	12
	5 137.50	-60.73	11.45	-54.29	3.80	V	-46.64	-13.00		
	6 850.00	-63.24	11.04	-51.60	4.36	V	-44.92	-13.00		
349000 (1745.0)	3 490.00	-60.00	12.04	-60.74	3.04	V	-51.74	-13.00	1	23
	5 235.00	-60.10	11.76	-54.77	3.78	V	-46.79	-13.00		
	6 980.00	-62.85	11.16	-50.07	4.48	V	-43.39	-13.00		
355500 (1777.5)	3 555.00	-59.55	12.04	-60.44	3.09	V	-51.49	-13.00	1	12
	5 332.50	-61.37	11.92	-56.14	3.79	V	-48.01	-13.00		
	7 110.00	-62.50	10.80	-48.00	4.48	V	-41.68	-13.00		

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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	4.01
			QPSK			5.18
			16-QAM			5.80
			64-QAM			5.89
			256-QAM			6.12
	10 MHz		BPSK	50		4.10
			QPSK			4.95
			16-QAM			5.67
			64-QAM			5.73
			256-QAM			5.93
	15 MHz		BPSK	75		3.93
			QPSK			5.00
			16-QAM			5.74
			64-QAM			6.04
			256-QAM			5.91
	20 MHz		BPSK	100		3.90
			QPSK			4.96
			16-QAM			5.74
			64-QAM			5.96
			256-QAM			5.91
	25 MHz		BPSK	128		4.27
			QPSK			5.34
			16-QAM			6.10
			64-QAM			5.96
			256-QAM			5.95
	30 MHz		BPSK	160		4.27
			QPSK			5.29
			16-QAM			6.05
			64-QAM			5.89
			256-QAM			5.93
	35 MHz		BPSK	187		4.29
			QPSK			5.26
			16-QAM			6.01
			64-QAM			5.81
			256-QAM			5.87
	40 MHz		BPSK	216		4.41
			QPSK			5.30
			16-QAM			6.05
			64-QAM			5.83
			256-QAM			5.94

Note:

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

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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	4.5422
			QPSK			4.5398
			16-QAM			4.5537
			64-QAM			4.5629
			256-QAM			4.5464
	10 MHz		BPSK	50		8.9937
			QPSK			9.0233
			16-QAM			9.0185
			64-QAM			9.0079
			256-QAM			9.0153
	15 MHz		BPSK	75		13.482
			QPSK			13.456
			16-QAM			13.430
			64-QAM			13.461
			256-QAM			13.465
	20 MHz		BPSK	100		17.886
			QPSK			17.933
			16-QAM			17.948
			64-QAM			17.950
			256-QAM			17.922
	25 MHz		BPSK	128		22.986
			QPSK			23.002
			16-QAM			22.897
			64-QAM			22.988
			256-QAM			22.974
	30 MHz		BPSK	160		28.781
			QPSK			28.804
			16-QAM			28.729
			64-QAM			28.743
			256-QAM			28.756
	35 MHz		BPSK	187		32.338
			QPSK			32.313
			16-QAM			32.329
			64-QAM			32.390
			256-QAM			32.257
	40 MHz		BPSK	216		38.833
			QPSK			38.767
			16-QAM			38.907
			64-QAM			38.869
			256-QAM			38.871

Note:

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

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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	8.6241	30.315	-62.462	-32.147	-13.00
		1745.0	5.2144	30.315	-62.357	-32.042	
		1777.5	6.0220	30.315	-61.327	-31.012	
	10	1715.0	3.7688	29.722	-61.230	-31.508	
		1745.0	3.7887	29.722	-60.938	-31.216	
		1775.0	6.0120	30.315	-60.533	-30.218	
	15	1717.5	3.7887	29.722	-61.325	-31.603	
		1745.0	7.2283	30.315	-61.490	-31.175	
		1772.5	3.8086	29.722	-61.256	-31.534	
	20	1720.0	8.3550	30.315	-61.391	-31.076	
		1745.0	3.9881	29.722	-60.514	-30.792	
		1770.0	3.7089	29.722	-60.928	-31.206	
	25	1722.5	4.1177	29.722	-61.601	-31.879	
		1745.0	3.7688	29.722	-60.758	-31.036	
		1767.5	5.9721	30.315	-62.181	-31.866	
	30	1725.0	4.9053	29.722	-61.160	-31.438	
		1745.0	8.8535	30.315	-61.379	-31.064	
		1765.0	4.6661	29.722	-61.355	-31.633	
	35	1727.5	3.7787	29.722	-61.541	-31.819	
		1745.0	4.8954	29.722	-61.542	-31.820	
		1762.5	4.9352	29.722	-60.724	-31.002	
	40	1730.0	3.8784	29.722	-61.624	-31.902	
		1745.0	4.9053	30.315	-61.568	-31.253	
		1760.0	4.0379	29.722	-61.390	-31.668	

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.

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8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 5 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1712.5	100 %	+20(Ref)	1712 500 002	0.0	0.000 000	0.000
	100 %	-30	1712 500 003	1.2	0.000 000	0.001
	100 %	-20	1712 500 003	1.5	0.000 000	0.001
	100 %	-10	1712 500 002	0.6	0.000 000	0.000
	100 %	0	1712 500 002	-0.1	0.000 000	0.000
	100 %	+10	1712 500 002	0.0	0.000 000	0.000
	100 %	+30	1712 500 001	-0.8	0.000 000	0.000
	100 %	+40	1712 500 002	0.1	0.000 000	0.000
	100 %	+50	1712 500 002	0.2	0.000 000	0.000
	Batt. Endpoint	+20	1712 500 001	-0.5	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	-0.3	0.000 000	0.000
	100 %	-20	1777 500 000	0.3	0.000 000	0.000
	100 %	-10	1777 500 000	-0.5	0.000 000	0.000
	100 %	0	1777 500 000	-0.3	0.000 000	0.000
	100 %	+10	1777 500 000	-0.2	0.000 000	0.000
	100 %	+30	1777 500 000	0.1	0.000 000	0.000
	100 %	+40	1777 500 001	0.5	0.000 000	0.000
	100 %	+50	1777 499 999	-1.3	0.000 000	-0.001
	Batt. Endpoint	+20	1777 499 999	-0.8	0.000 000	0.000

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▣ BandWidth: 10 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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	-0.3	0.000 000	0.000
	100 %	-20	1715 000 000	0.7	0.000 000	0.000
	100 %	-10	1715 000 000	0.5	0.000 000	0.000
	100 %	0	1715 000 000	0.2	0.000 000	0.000
	100 %	+10	1715 000 000	0.0	0.000 000	0.000
	100 %	+30	1714 999 999	-0.3	0.000 000	0.000
	100 %	+40	1715 000 000	0.1	0.000 000	0.000
	100 %	+50	1715 000 000	0.5	0.000 000	0.000
	Batt. Endpoint	+20	1714 999 999	-0.4	0.000 000	0.000
1775.0	100 %	+20(Ref)	1775 000 001	0.0	0.000 000	0.000
	100 %	-30	1775 000 001	0.7	0.000 000	0.000
	100 %	-20	1775 000 000	-0.3	0.000 000	0.000
	100 %	-10	1775 000 001	0.2	0.000 000	0.000
	100 %	0	1775 000 001	0.3	0.000 000	0.000
	100 %	+10	1774 999 998	-2.2	0.000 000	-0.001
	100 %	+30	1775 000 001	0.6	0.000 000	0.000
	100 %	+40	1775 000 000	-1.0	0.000 000	-0.001
	100 %	+50	1775 000 001	0.1	0.000 000	0.000
	Batt. Endpoint	+20	1775 000 002	1.1	0.000 000	0.001

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▣ BandWidth: 15 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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	-0.3	0.000 000	0.000
	100 %	-20	1717 499 999	-0.7	0.000 000	0.000
	100 %	-10	1717 499 999	-0.7	0.000 000	0.000
	100 %	0	1717 499 999	-0.7	0.000 000	0.000
	100 %	+10	1717 500 000	0.2	0.000 000	0.000
	100 %	+30	1717 500 000	0.8	0.000 000	0.000
	100 %	+40	1717 499 999	-0.5	0.000 000	0.000
	100 %	+50	1717 500 000	0.2	0.000 000	0.000
	Batt. Endpoint	+20	1717 500 000	0.2	0.000 000	0.000
1772.5	100 %	+20(Ref)	1772 500 003	0.0	0.000 000	0.000
	100 %	-30	1772 500 006	2.4	0.000 000	0.001
	100 %	-20	1772 500 002	-1.6	0.000 000	-0.001
	100 %	-10	1772 500 003	0.1	0.000 000	0.000
	100 %	0	1772 500 009	5.4	0.000 000	0.003
	100 %	+10	1772 500 004	0.9	0.000 000	0.000
	100 %	+30	1772 500 003	-0.4	0.000 000	0.000
	100 %	+40	1772 500 001	-2.2	0.000 000	-0.001
	100 %	+50	1772 500 003	-0.1	0.000 000	0.000
	Batt. Endpoint	+20	1772 499 999	-3.7	0.000 000	-0.002

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▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1720.0	100 %	+20(Ref)	1720 000 001	0.0	0.000 000	0.000
	100 %	-30	1720 000 001	0.3	0.000 000	0.000
	100 %	-20	1720 000 001	0.4	0.000 000	0.000
	100 %	-10	1719 999 999	-1.4	0.000 000	-0.001
	100 %	0	1720 000 001	0.2	0.000 000	0.000
	100 %	+10	1720 000 000	-0.5	0.000 000	0.000
	100 %	+30	1720 000 001	-0.1	0.000 000	0.000
	100 %	+40	1720 000 001	-0.2	0.000 000	0.000
	100 %	+50	1720 000 001	0.5	0.000 000	0.000
	Batt. Endpoint	+20	1720 000 001	0.0	0.000 000	0.000
1770.0	100 %	+20(Ref)	1769 999 998	0.0	0.000 000	0.000
	100 %	-30	1769 999 997	-0.9	0.000 000	-0.001
	100 %	-20	1769 999 996	-1.6	0.000 000	-0.001
	100 %	-10	1769 999 998	0.2	0.000 000	0.000
	100 %	0	1769 999 997	-1.4	0.000 000	-0.001
	100 %	+10	1769 999 997	-1.2	0.000 000	-0.001
	100 %	+30	1769 999 997	-0.6	0.000 000	0.000
	100 %	+40	1769 999 996	-1.6	0.000 000	-0.001
	100 %	+50	1769 999 998	-0.2	0.000 000	0.000
	Batt. Endpoint	+20	1769 999 997	-0.7	0.000 000	0.000

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▣ BandWidth: 25 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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	-2.4	0.000 000	-0.001
	100 %	-20	1722 499 995	-2.6	0.000 000	-0.002
	100 %	-10	1722 499 996	-1.7	0.000 000	-0.001
	100 %	0	1722 499 995	-2.7	0.000 000	-0.002
	100 %	+10	1722 499 995	-2.1	0.000 000	-0.001
	100 %	+30	1722 499 996	-1.9	0.000 000	-0.001
	100 %	+40	1722 499 995	-2.3	0.000 000	-0.001
	100 %	+50	1722 499 995	-2.4	0.000 000	-0.001
	Batt. Endpoint	+20	1722 499 994	-3.1	0.000 000	-0.002
1767.5	100 %	+20(Ref)	1767 500 001	0.0	0.000 000	0.000
	100 %	-30	1767 500 000	-0.2	0.000 000	0.000
	100 %	-20	1767 500 001	0.6	0.000 000	0.000
	100 %	-10	1767 500 001	0.1	0.000 000	0.000
	100 %	0	1767 500 002	1.4	0.000 000	0.001
	100 %	+10	1767 500 000	-1.0	0.000 000	-0.001
	100 %	+30	1767 500 000	-0.3	0.000 000	0.000
	100 %	+40	1767 500 000	-0.7	0.000 000	0.000
	100 %	+50	1767 500 001	0.1	0.000 000	0.000
	Batt. Endpoint	+20	1767 500 001	0.3	0.000 000	0.000

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▣ BandWidth: 30 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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 999 998	-0.9	0.000 000	-0.001
	100 %	-20	1724 999 998	-1.0	0.000 000	-0.001
	100 %	-10	1724 999 997	-1.7	0.000 000	-0.001
	100 %	0	1724 999 999	0.2	0.000 000	0.000
	100 %	+10	1724 999 999	-0.2	0.000 000	0.000
	100 %	+30	1724 999 998	-0.4	0.000 000	0.000
	100 %	+40	1724 999 999	0.4	0.000 000	0.000
	100 %	+50	1724 999 998	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	1724 999 998	-0.6	0.000 000	0.000
1765.0	100 %	+20(Ref)	1765 000 001	0.0	0.000 000	0.000
	100 %	-30	1765 000 004	2.9	0.000 000	0.002
	100 %	-20	1765 000 003	1.6	0.000 000	0.001
	100 %	-10	1765 000 001	0.0	0.000 000	0.000
	100 %	0	1765 000 003	1.5	0.000 000	0.001
	100 %	+10	1765 000 000	-0.7	0.000 000	0.000
	100 %	+30	1765 000 001	0.0	0.000 000	0.000
	100 %	+40	1765 000 004	2.8	0.000 000	0.002
	100 %	+50	1765 000 003	1.6	0.000 000	0.001
	Batt. Endpoint	+20	1765 000 002	1.4	0.000 000	0.001

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▣ BandWidth: 35 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1727.5	100 %	+20(Ref)	1727 500 001	0.0	0.000 000	0.000
	100 %	-30	1727 500 002	1.0	0.000 000	0.001
	100 %	-20	1727 500 002	0.4	0.000 000	0.000
	100 %	-10	1727 500 001	-0.7	0.000 000	0.000
	100 %	0	1727 500 002	1.0	0.000 000	0.001
	100 %	+10	1727 500 002	1.0	0.000 000	0.001
	100 %	+30	1727 500 002	1.1	0.000 000	0.001
	100 %	+40	1727 500 001	0.0	0.000 000	0.000
	100 %	+50	1727 500 003	1.3	0.000 000	0.001
	Batt. Endpoint	+20	1727 500 002	0.1	0.000 000	0.000
1762.5	100 %	+20(Ref)	1762 500 000	0.0	0.000 000	0.000
	100 %	-30	1762 499 999	-0.6	0.000 000	0.000
	100 %	-20	1762 499 999	-0.8	0.000 000	0.000
	100 %	-10	1762 500 001	1.0	0.000 000	0.001
	100 %	0	1762 499 999	-0.7	0.000 000	0.000
	100 %	+10	1762 500 001	0.8	0.000 000	0.000
	100 %	+30	1762 499 998	-1.7	0.000 000	-0.001
	100 %	+40	1762 499 999	-0.9	0.000 000	-0.001
	100 %	+50	1762 499 999	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	1762 499 999	-0.4	0.000 000	0.000

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▣ BandWidth: 40 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1730.0	100 %	+20(Ref)	1730 000 003	0.0	0.000 000	0.000
	100 %	-30	1730 000 004	0.8	0.000 000	0.000
	100 %	-20	1730 000 005	2.5	0.000 000	0.001
	100 %	-10	1730 000 005	2.0	0.000 000	0.001
	100 %	0	1730 000 004	1.3	0.000 000	0.001
	100 %	+10	1730 000 007	3.7	0.000 000	0.002
	100 %	+30	1730 000 006	2.7	0.000 000	0.002
	100 %	+40	1730 000 004	1.5	0.000 000	0.001
	100 %	+50	1730 000 004	0.6	0.000 000	0.000
	Batt. Endpoint	+20	1730 000 005	2.4	0.000 000	0.001
1760.0	100 %	+20(Ref)	1760 000 001	0.0	0.000 000	0.000
	100 %	-30	1760 000 003	1.6	0.000 000	0.001
	100 %	-20	1760 000 003	2.2	0.000 000	0.001
	100 %	-10	1760 000 003	2.1	0.000 000	0.001
	100 %	0	1760 000 003	1.8	0.000 000	0.001
	100 %	+10	1760 000 003	1.4	0.000 000	0.001
	100 %	+30	1760 000 004	2.6	0.000 000	0.001
	100 %	+40	1760 000 005	3.6	0.000 000	0.002
	100 %	+50	1760 000 003	2.0	0.000 000	0.001
	Batt. Endpoint	+20	1760 000 003	1.9	0.000 000	0.001

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9. TEST DATA (Sub 5 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	-20.36	12.72	10.12	2.06	H	< 1.00	0.120	20.78	1	12
		QPSK	-20.62	12.46	10.12	2.06	H		0.113	20.52		
		16-QAM	-21.50	11.58	10.12	2.06	H		0.092	19.64		
		64-QAM	-23.02	10.06	10.12	2.06	H		0.065	18.12		
		256-QAM	-24.96	8.12	10.12	2.06	H		0.042	16.18		
1745.0		PI/2 BPSK	-20.37	13.00	10.43	2.07	H		0.137	21.36	1	12
		QPSK	-20.38	12.99	10.43	2.07	H		0.137	21.35		
		16-QAM	-21.46	11.91	10.43	2.07	H		0.107	20.27		
		64-QAM	-22.94	10.43	10.43	2.07	H		0.076	18.79		
		256-QAM	-24.85	8.52	10.43	2.07	H		0.049	16.88		
1777.5		PI/2 BPSK	-19.72	13.64	10.50	2.09	H		0.160	22.05	1	12
		QPSK	-19.88	13.48	10.50	2.09	H		0.155	21.89		
		16-QAM	-20.83	12.53	10.50	2.09	H		0.124	20.94		
		64-QAM	-22.25	11.11	10.50	2.09	H		0.090	19.52		
		256-QAM	-24.36	9.00	10.50	2.09	H		0.055	17.41		

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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]	PI/2 BPSK	-20.48	12.60	10.12	2.06	H	< 1.00	0.116	20.66	1	26
		QPSK	-20.50	12.58	10.12	2.06	H		0.116	20.64		
		16-QAM	-21.49	11.59	10.12	2.06	H		0.092	19.65		
		64-QAM	-22.95	10.13	10.12	2.06	H		0.066	18.19		
		256-QAM	-25.07	8.01	10.12	2.06	H		0.041	16.07		
1745.0		PI/2 BPSK	-20.22	13.15	10.43	2.07	H		0.142	21.51	1	50
		QPSK	-20.33	13.04	10.43	2.07	H		0.138	21.40		
		16-QAM	-21.30	12.07	10.43	2.07	H		0.110	20.43		
		64-QAM	-22.76	10.61	10.43	2.07	H		0.079	18.97		
		256-QAM	-24.79	8.58	10.43	2.07	H		0.050	16.94		
1775.0		PI/2 BPSK	-19.86	13.54	10.49	2.09	H		0.156	21.94	1	50
		QPSK	-19.87	13.53	10.49	2.09	H		0.156	21.93		
		16-QAM	-20.81	12.59	10.49	2.09	H		0.126	20.99		
		64-QAM	-22.49	10.91	10.49	2.09	H		0.085	19.31		
		256-QAM	-24.35	9.05	10.49	2.09	H		0.056	17.45		

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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	-20.63	12.53	10.18	2.06	H	< 1.00	0.116	20.65	1	39
		QPSK	-20.70	12.46	10.18	2.06	H		0.114	20.58		
		16-QAM	-21.69	11.47	10.18	2.06	H		0.091	19.59		
		64-QAM	-23.21	9.95	10.18	2.06	H		0.064	18.07		
		256-QAM	-25.02	8.14	10.18	2.06	H		0.042	16.26		
1745.0		PI/2 BPSK	-20.27	13.10	10.43	2.07	H		0.140	21.46	1	39
		QPSK	-20.44	12.93	10.43	2.07	H		0.135	21.29		
		16-QAM	-21.32	12.05	10.43	2.07	H		0.110	20.41		
		64-QAM	-22.92	10.45	10.43	2.07	H		0.076	18.81		
		256-QAM	-24.90	8.47	10.43	2.07	H		0.048	16.83		
1772.5		PI/2 BPSK	-19.80	13.60	10.49	2.09	H		0.158	22.00	1	39
		QPSK	-19.90	13.50	10.49	2.09	H		0.155	21.90		
		16-QAM	-20.92	12.48	10.49	2.09	H		0.122	20.88		
		64-QAM	-22.38	11.02	10.49	2.09	H		0.087	19.42		
		256-QAM	-24.37	9.03	10.49	2.09	H		0.055	17.43		

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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	-20.56	12.60	10.18	2.06	H	< 1.00	0.118	20.72	1	53
		QPSK	-20.60	12.56	10.18	2.06	H		0.117	20.68		
		16-QAM	-21.64	11.52	10.18	2.06	H		0.092	19.64		
		64-QAM	-23.08	10.08	10.18	2.06	H		0.066	18.20		
		256-QAM	-25.09	8.07	10.18	2.06	H		0.042	16.19		
1745.0		PI/2 BPSK	-20.33	13.04	10.43	2.07	H		0.138	21.40	1	104
		QPSK	-20.40	12.97	10.43	2.07	H		0.136	21.33		
		16-QAM	-21.22	12.15	10.43	2.07	H		0.112	20.51		
		64-QAM	-22.87	10.50	10.43	2.07	H		0.077	18.86		
		256-QAM	-24.79	8.58	10.43	2.07	H		0.049	16.94		
1770.0		PI/2 BPSK	-19.86	13.56	10.49	2.09	H		0.157	21.96	1	53
		QPSK	-19.93	13.49	10.49	2.09	H		0.155	21.89		
		16-QAM	-20.89	12.53	10.49	2.09	H		0.124	20.93		
		64-QAM	-22.45	10.97	10.49	2.09	H		0.087	19.37		
		256-QAM	-24.44	8.98	10.49	2.09	H		0.055	17.38		

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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	-20.46	12.82	10.23	2.07	H	< 1.00	0.125	20.98	1	66
		QPSK	-20.59	12.69	10.23	2.07	H		0.122	20.85		
		16-QAM	-21.68	11.60	10.23	2.07	H		0.095	19.76		
		64-QAM	-23.20	10.08	10.23	2.07	H		0.067	18.24		
		256-QAM	-25.09	8.19	10.23	2.07	H		0.043	16.35		
1745.0		PI/2 BPSK	-20.08	13.29	10.43	2.07	H		0.146	21.65	1	131
		QPSK	-20.13	13.24	10.43	2.07	H		0.145	21.60		
		16-QAM	-21.05	12.32	10.43	2.07	H		0.117	20.68		
		64-QAM	-22.62	10.75	10.43	2.07	H		0.082	19.11		
		256-QAM	-24.57	8.80	10.43	2.07	H		0.052	17.16		
1767.5		PI/2 BPSK	-19.79	13.63	10.49	2.09	H		0.160	22.03	1	131
		QPSK	-19.84	13.58	10.49	2.09	H		0.158	21.98		
		16-QAM	-20.91	12.51	10.49	2.09	H		0.123	20.91		
		64-QAM	-22.39	11.03	10.49	2.09	H		0.088	19.43		
		256-QAM	-24.32	9.10	10.49	2.09	H		0.056	17.50		

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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	-20.43	12.85	10.23	2.07	H	< 1.00	0.126	21.01	1	158
		QPSK	-20.52	12.76	10.23	2.07	H		0.124	20.92		
		16-QAM	-21.52	11.76	10.23	2.07	H		0.098	19.92		
		64-QAM	-23.00	10.28	10.23	2.07	H		0.070	18.44		
		256-QAM	-24.96	8.32	10.23	2.07	H		0.045	16.48		
1745.0		PI/2 BPSK	-20.37	13.00	10.43	2.07	H		0.137	21.36	1	158
		QPSK	-20.38	12.99	10.43	2.07	H		0.137	21.35		
		16-QAM	-21.35	12.02	10.43	2.07	H		0.109	20.38		
		64-QAM	-22.88	10.49	10.43	2.07	H		0.077	18.85		
		256-QAM	-24.85	8.52	10.43	2.07	H		0.049	16.88		
1765.0		PI/2 BPSK	-19.79	13.54	10.48	2.09	H		0.156	21.93	1	158
		QPSK	-19.82	13.51	10.48	2.09	H		0.155	21.90		
		16-QAM	-20.85	12.48	10.48	2.09	H		0.122	20.87		
		64-QAM	-22.35	10.98	10.48	2.09	H		0.086	19.37		
		256-QAM	-24.18	9.15	10.48	2.09	H		0.057	17.54		

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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	Sub6 n66/ 35 MHz [15 kHz]	PI/2 BPSK	-20.41	12.99	10.29	2.08	H	< 1.00	0.132	21.20	1	94
		QPSK	-20.46	12.94	10.29	2.08	H		0.130	21.15		
		16-QAM	-21.50	11.90	10.29	2.08	H		0.103	20.11		
		64-QAM	-22.97	10.43	10.29	2.08	H		0.073	18.64		
		256-QAM	-25.07	8.33	10.29	2.08	H		0.045	16.54		
1745.0		PI/2 BPSK	-20.13	13.24	10.43	2.07	H		0.145	21.60	1	186
		QPSK	-20.14	13.23	10.43	2.07	H		0.144	21.59		
		16-QAM	-21.14	12.23	10.43	2.07	H		0.115	20.59		
		64-QAM	-22.72	10.65	10.43	2.07	H		0.080	19.01		
		256-QAM	-24.65	8.72	10.43	2.07	H		0.051	17.08		
1762.5		PI/2 BPSK	-19.82	13.51	10.48	2.09	H		0.155	21.90	1	186
		QPSK	-19.87	13.46	10.48	2.09	H		0.153	21.85		
		16-QAM	-20.80	12.53	10.48	2.09	H		0.124	20.92		
		64-QAM	-22.36	10.97	10.48	2.09	H		0.086	19.36		
		256-QAM	-24.31	9.02	10.48	2.09	H		0.055	17.41		

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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	-21.26	12.14	10.29	2.08	H		0.109	20.35		
		64-QAM	-22.71	10.69	10.29	2.08	H		0.078	18.90		
		256-QAM	-24.68	8.72	10.29	2.08	H		0.049	16.93		
1745.0		PI/2 BPSK	-20.01	13.36	10.43	2.07	H		0.149	21.72	1	214
		QPSK	-20.03	13.34	10.43	2.07	H		0.148	21.70		
		16-QAM	-20.99	12.38	10.43	2.07	H		0.119	20.74		
		64-QAM	-22.51	10.86	10.43	2.07	H		0.084	19.22		
		256-QAM	-24.43	8.94	10.43	2.07	H		0.054	17.30		
1760.0		PI/2 BPSK	-19.78	13.44	10.48	2.09	H		0.152	21.83	1	214
		QPSK	-19.90	13.32	10.48	2.09	H		0.148	21.71		
		16-QAM	-20.77	12.45	10.48	2.09	H		0.121	20.84		
		64-QAM	-22.30	10.92	10.48	2.09	H		0.085	19.31		
		256-QAM	-24.24	8.98	10.48	2.09	H		0.055	17.37		

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9.2 RADIATED SPURIOUS EMISSIONS

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

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	-58.42	11.76	-59.64	2.99	V	-50.87	-13.00	1	12
	5 137.50	-61.44	11.45	-55.00	3.80	V	-47.35	-13.00		
	6 850.00	-63.78	11.04	-52.14	4.36	V	-45.46	-13.00		
349000 (1745.0)	3 490.00	-59.70	12.04	-60.44	3.04	V	-51.44	-13.00	1	12
	5 235.00	-61.03	11.76	-55.70	3.78	V	-47.72	-13.00		
	6 980.00	-64.00	11.16	-51.22	4.48	V	-44.54	-13.00		
355500 (1777.5)	3 555.00	-58.85	12.04	-59.74	3.09	V	-50.79	-13.00	1	12
	5 332.50	-61.89	11.92	-56.66	3.79	V	-48.53	-13.00		
	7 110.00	-63.51	10.80	-49.01	4.48	V	-42.69	-13.00		

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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	5.10
			QPSK			5.56
			16-QAM			6.33
			64-QAM			6.48
			256-QAM			6.63
	10 MHz		BPSK	50		5.40
			QPSK			5.50
			16-QAM			6.10
			64-QAM			6.32
			256-QAM			6.61
	15 MHz		BPSK	75		4.20
			QPSK			5.49
			16-QAM			6.18
			64-QAM			6.41
			256-QAM			6.52
	20 MHz		BPSK	100		5.66
			QPSK			5.81
			16-QAM			6.37
			64-QAM			6.45
			256-QAM			6.63
	25 MHz		BPSK	128		4.32
			QPSK			5.45
			16-QAM			6.22
			64-QAM			6.29
			256-QAM			6.70
	30 MHz		BPSK	160		5.34
			QPSK			5.59
			16-QAM			6.13
			64-QAM			6.26
			256-QAM			6.74
	35 MHz		BPSK	187		4.59
			QPSK			5.49
			16-QAM			6.17
			64-QAM			6.32
			256-QAM			6.63
	40 MHz		BPSK	216		4.95
			QPSK			5.47
			16-QAM			6.21
			64-QAM			6.26
			256-QAM			6.65

Note:

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

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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	4.5334
			QPSK			4.5189
			16-QAM			4.5596
			64-QAM			4.5250
			256-QAM			4.5110
	10 MHz		BPSK	50		8.9778
			QPSK			9.0148
			16-QAM			8.9897
			64-QAM			8.9735
			256-QAM			8.9979
	15 MHz		BPSK	75		13.492
			QPSK			13.413
			16-QAM			13.490
			64-QAM			13.486
			256-QAM			13.440
	20 MHz		BPSK	100		17.907
			QPSK			17.908
			16-QAM			17.900
			64-QAM			17.864
			256-QAM			17.935
	25 MHz		BPSK	128		22.992
			QPSK			23.006
			16-QAM			22.954
			64-QAM			22.955
			256-QAM			22.971
	30 MHz		BPSK	160		28.727
			QPSK			28.747
			16-QAM			28.720
			64-QAM			28.713
			256-QAM			28.694
	35 MHz		BPSK	187		32.288
			QPSK			32.373
			16-QAM			32.244
			64-QAM			32.301
			256-QAM			32.259
	40 MHz		BPSK	216		38.756
			QPSK			38.859
			16-QAM			38.738
			64-QAM			38.727
			256-QAM			38.632

Note:

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

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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	3.8186	29.722	-61.457	-31.735	-13.00
		1745.0	5.1745	30.315	-61.389	-31.074	
		1777.5	7.1386	30.315	-61.698	-31.383	
	10	1715.0	8.0658	30.315	-60.398	-30.083	
		1745.0	3.8585	29.722	-60.590	-30.868	
		1775.0	3.8186	29.722	-61.074	-31.352	
	15	1717.5	4.9652	29.722	-61.624	-31.902	
		1745.0	5.9223	30.315	-61.266	-30.951	
		1772.5	3.7488	29.722	-60.432	-30.710	
	20	1720.0	4.9153	29.722	-60.410	-30.688	
		1745.0	3.8086	29.722	-60.802	-31.080	
		1770.0	5.2543	30.315	-61.459	-31.144	
	25	1722.5	4.9552	29.722	-61.238	-31.516	
		1745.0	3.7588	29.722	-61.145	-31.423	
		1767.5	4.7458	29.722	-60.782	-31.060	
	30	1725.0	4.9751	29.722	-61.065	-31.343	
		1745.0	4.0180	29.722	-60.996	-31.274	
		1765.0	9.7308	30.315	-61.203	-30.888	
	35	1727.5	4.9053	29.722	-61.532	-31.810	
		1745.0	3.7488	29.722	-61.526	-31.804	
		1762.5	1.8146	29.722	-59.210	-29.488	
	40	1730.0	9.7408	29.722	-61.483	-31.761	
		1745.0	5.0050	29.722	-62.184	-32.462	
		1760.0	1.8146	30.315	-59.522	-29.207	

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.

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9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 5 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(℃)	(Hz)	Error (Hz)	(%)	
1712.5	100 %	+20(Ref)	1712 499 995	0.0	0.000 000	0.000
	100 %	-30	1712 499 991	-3.9	0.000 000	-0.002
	100 %	-20	1712 499 989	-5.7	0.000 000	-0.003
	100 %	-10	1712 499 990	-4.5	0.000 000	-0.003
	100 %	0	1712 499 989	-6.2	0.000 000	-0.004
	100 %	+10	1712 499 988	-6.7	0.000 000	-0.004
	100 %	+30	1712 499 988	-6.3	0.000 000	-0.004
	100 %	+40	1712 499 989	-5.9	0.000 000	-0.003
	100 %	+50	1712 499 989	-5.4	0.000 000	-0.003
	Batt. Endpoint	+20	1712 499 989	-5.5	0.000 000	-0.003
1777.5	100 %	+20(Ref)	1777 499 999	0.0	0.000 000	0.000
	100 %	-30	1777 499 999	-0.6	0.000 000	0.000
	100 %	-20	1777 499 999	-0.3	0.000 000	0.000
	100 %	-10	1777 499 999	-0.5	0.000 000	0.000
	100 %	0	1777 499 998	-1.5	0.000 000	-0.001
	100 %	+10	1777 500 001	1.3	0.000 000	0.001
	100 %	+30	1777 499 998	-1.1	0.000 000	-0.001
	100 %	+40	1777 499 996	-3.0	0.000 000	-0.002
	100 %	+50	1777 500 000	0.6	0.000 000	0.000
	Batt. Endpoint	+20	1777 499 998	-1.0	0.000 000	-0.001

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▣ BandWidth: 10 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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 999 999	-0.2	0.000 000	0.000
	100 %	-20	1714 999 997	-1.9	0.000 000	-0.001
	100 %	-10	1714 999 999	-0.1	0.000 000	0.000
	100 %	0	1714 999 998	-1.3	0.000 000	-0.001
	100 %	+10	1714 999 998	-1.3	0.000 000	-0.001
	100 %	+30	1715 000 000	1.1	0.000 000	0.001
	100 %	+40	1715 000 000	0.7	0.000 000	0.000
	100 %	+50	1714 999 998	-1.2	0.000 000	-0.001
	Batt. Endpoint	+20	1714 999 998	-1.1	0.000 000	-0.001
1775.0	100 %	+20(Ref)	1775 000 000	0.0	0.000 000	0.000
	100 %	-30	1775 000 000	0.4	0.000 000	0.000
	100 %	-20	1774 999 972	-27.9	-0.000 002	-0.016
	100 %	-10	1774 999 998	-1.5	0.000 000	-0.001
	100 %	0	1775 000 000	-0.1	0.000 000	0.000
	100 %	+10	1775 000 000	-0.1	0.000 000	0.000
	100 %	+30	1775 000 000	-0.2	0.000 000	0.000
	100 %	+40	1775 000 000	0.2	0.000 000	0.000
	100 %	+50	1775 000 001	1.5	0.000 000	0.001
	Batt. Endpoint	+20	1775 000 000	0.5	0.000 000	0.000

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▣ BandWidth: 15 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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 499 997	-1.0	0.000 000	-0.001
	100 %	-20	1717 499 998	-0.3	0.000 000	0.000
	100 %	-10	1717 499 998	-0.5	0.000 000	0.000
	100 %	0	1717 499 997	-0.9	0.000 000	-0.001
	100 %	+10	1717 499 998	0.3	0.000 000	0.000
	100 %	+30	1717 499 998	-0.3	0.000 000	0.000
	100 %	+40	1717 499 998	0.0	0.000 000	0.000
	100 %	+50	1717 499 998	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	1717 499 996	-2.4	0.000 000	-0.001
1772.5	100 %	+20(Ref)	1772 500 002	0.0	0.000 000	0.000
	100 %	-30	1772 500 000	-1.3	0.000 000	-0.001
	100 %	-20	1772 499 998	-3.7	0.000 000	-0.002
	100 %	-10	1772 499 999	-2.2	0.000 000	-0.001
	100 %	0	1772 500 002	0.4	0.000 000	0.000
	100 %	+10	1772 500 000	-1.4	0.000 000	-0.001
	100 %	+30	1772 499 998	-4.0	0.000 000	-0.002
	100 %	+40	1772 500 002	0.9	0.000 000	0.000
	100 %	+50	1772 500 001	-1.0	0.000 000	-0.001
	Batt. Endpoint	+20	1772 500 000	-1.8	0.000 000	-0.001

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▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
1720.0	100 %	+20(Ref)	1720 000 001	0.0	0.000 000	0.000
	100 %	-30	1720 000 000	-0.6	0.000 000	0.000
	100 %	-20	1720 000 001	0.5	0.000 000	0.000
	100 %	-10	1719 999 999	-1.8	0.000 000	-0.001
	100 %	0	1720 000 001	0.3	0.000 000	0.000
	100 %	+10	1720 000 001	-0.1	0.000 000	0.000
	100 %	+30	1720 000 000	-0.6	0.000 000	0.000
	100 %	+40	1720 000 001	0.1	0.000 000	0.000
	100 %	+50	1720 000 001	0.5	0.000 000	0.000
	Batt. Endpoint	+20	1720 000 001	0.4	0.000 000	0.000
1770.0	100 %	+20(Ref)	1769 999 999	0.0	0.000 000	0.000
	100 %	-30	1769 999 997	-2.0	0.000 000	-0.001
	100 %	-20	1769 999 997	-2.0	0.000 000	-0.001
	100 %	-10	1769 999 996	-2.9	0.000 000	-0.002
	100 %	0	1769 999 999	-0.6	0.000 000	0.000
	100 %	+10	1769 999 997	-2.0	0.000 000	-0.001
	100 %	+30	1769 999 999	-0.6	0.000 000	0.000
	100 %	+40	1769 999 997	-1.7	0.000 000	-0.001
	100 %	+50	1769 999 998	-1.4	0.000 000	-0.001
	Batt. Endpoint	+20	1769 999 998	-1.6	0.000 000	-0.001

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▣ BandWidth: 25 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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 499 998	-1.5	0.000 000	-0.001
	100 %	-20	1722 499 998	-1.6	0.000 000	-0.001
	100 %	-10	1722 499 999	-1.2	0.000 000	-0.001
	100 %	0	1722 499 999	-1.3	0.000 000	-0.001
	100 %	+10	1722 499 999	-1.3	0.000 000	-0.001
	100 %	+30	1722 499 997	-2.9	0.000 000	-0.002
	100 %	+40	1722 499 999	-1.1	0.000 000	-0.001
	100 %	+50	1722 499 998	-1.6	0.000 000	-0.001
	Batt. Endpoint	+20	1722 499 998	-2.0	0.000 000	-0.001
1767.5	100 %	+20(Ref)	1767 500 001	0.0	0.000 000	0.000
	100 %	-30	1767 500 002	1.3	0.000 000	0.001
	100 %	-20	1767 500 001	-0.1	0.000 000	0.000
	100 %	-10	1767 500 000	-0.9	0.000 000	-0.001
	100 %	0	1767 500 001	0.5	0.000 000	0.000
	100 %	+10	1767 500 001	0.2	0.000 000	0.000
	100 %	+30	1767 500 002	1.6	0.000 000	0.001
	100 %	+40	1767 500 000	-0.6	0.000 000	0.000
	100 %	+50	1767 500 002	0.9	0.000 000	0.001
	Batt. Endpoint	+20	1767 500 002	0.7	0.000 000	0.000

The report shall not be (partly) reproduced except in full without approval of the laboratory.

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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	0.5	0.000 000	0.000
	100 %	-20	1725 000 000	0.0	0.000 000	0.000
	100 %	-10	1724 999 999	-1.0	0.000 000	-0.001
	100 %	0	1724 999 997	-2.9	0.000 000	-0.002
	100 %	+10	1725 000 000	0.0	0.000 000	0.000
	100 %	+30	1724 999 999	-0.7	0.000 000	0.000
	100 %	+40	1724 999 999	-0.4	0.000 000	0.000
	100 %	+50	1724 999 998	-1.4	0.000 000	-0.001
	Batt. Endpoint	+20	1724 999 997	-2.4	0.000 000	-0.001
1765.0	100 %	+20(Ref)	1765 000 000	0.0	0.000 000	0.000
	100 %	-30	1765 000 000	0.5	0.000 000	0.000
	100 %	-20	1765 000 001	1.4	0.000 000	0.001
	100 %	-10	1765 000 001	1.5	0.000 000	0.001
	100 %	0	1765 000 000	0.1	0.000 000	0.000
	100 %	+10	1765 000 000	0.5	0.000 000	0.000
	100 %	+30	1764 999 999	-0.5	0.000 000	0.000
	100 %	+40	1765 000 002	1.9	0.000 000	0.001
	100 %	+50	1765 000 000	0.0	0.000 000	0.000
	Batt. Endpoint	+20	1765 000 000	0.3	0.000 000	0.000

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▣ BandWidth: 35 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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	0.0	0.000 000	0.000
	100 %	-20	1727 499 999	0.6	0.000 000	0.000
	100 %	-10	1727 499 999	-0.2	0.000 000	0.000
	100 %	0	1727 499 999	0.6	0.000 000	0.000
	100 %	+10	1727 499 999	0.2	0.000 000	0.000
	100 %	+30	1727 499 999	0.1	0.000 000	0.000
	100 %	+40	1727 499 999	0.6	0.000 000	0.000
	100 %	+50	1727 500 000	1.6	0.000 000	0.001
	Batt. Endpoint	+20	1727 500 000	1.5	0.000 000	0.001
1762.5	100 %	+20(Ref)	1762 499 999	0.0	0.000 000	0.000
	100 %	-30	1762 499 999	-0.4	0.000 000	0.000
	100 %	-20	1762 499 997	-1.9	0.000 000	-0.001
	100 %	-10	1762 499 998	-1.6	0.000 000	-0.001
	100 %	0	1762 499 998	-1.6	0.000 000	-0.001
	100 %	+10	1762 499 998	-1.4	0.000 000	-0.001
	100 %	+30	1762 499 997	-2.5	0.000 000	-0.001
	100 %	+40	1762 499 998	-1.3	0.000 000	-0.001
	100 %	+50	1762 499 997	-1.9	0.000 000	-0.001
	Batt. Endpoint	+20	1762 499 997	-2.3	0.000 000	-0.001

The report shall not be (partly) reproduced except in full without approval of the laboratory.

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	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 000 001	0.5	0.000 000	0.000
	100 %	-20	1730 000 000	-0.1	0.000 000	0.000
	100 %	-10	1730 000 001	0.5	0.000 000	0.000
	100 %	0	1730 000 001	0.2	0.000 000	0.000
	100 %	+10	1730 000 002	1.9	0.000 000	0.001
	100 %	+30	1730 000 001	0.2	0.000 000	0.000
	100 %	+40	1730 000 002	1.1	0.000 000	0.001
	100 %	+50	1730 000 000	-0.2	0.000 000	0.000
	Batt. Endpoint	+20	1730 000 000	-0.9	0.000 000	-0.001
1760.0	100 %	+20(Ref)	1760 000 004	0.0	0.000 000	0.000
	100 %	-30	1760 000 007	2.7	0.000 000	0.002
	100 %	-20	1760 000 005	1.2	0.000 000	0.001
	100 %	-10	1760 000 005	1.2	0.000 000	0.001
	100 %	0	1760 000 007	3.0	0.000 000	0.002
	100 %	+10	1760 000 007	3.2	0.000 000	0.002
	100 %	+30	1760 000 007	3.1	0.000 000	0.002
	100 %	+40	1760 000 007	2.3	0.000 000	0.001
	100 %	+50	1760 000 008	3.3	0.000 000	0.002
	Batt. Endpoint	+20	1760 000 008	3.3	0.000 000	0.002

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10. TEST PLOTS(Main 1 ANT)

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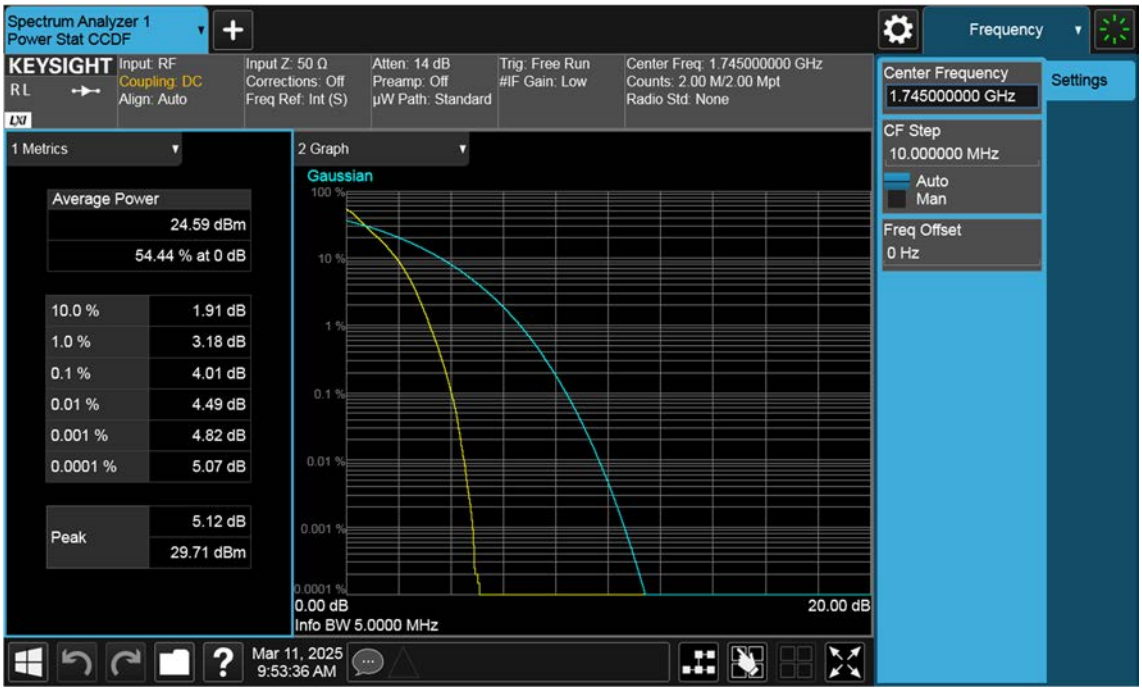
NR66_5 M_PAR_Mid_BPSK_FullRB



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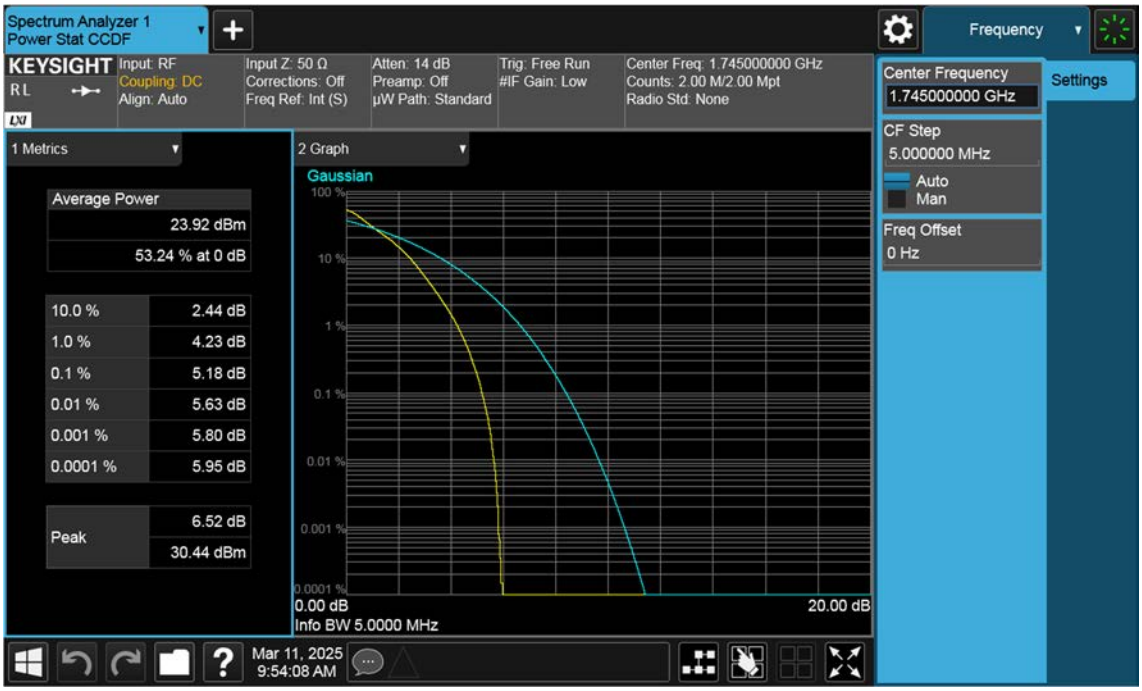
NR66_5 M_PAR_Mid_QPSK_FullRB

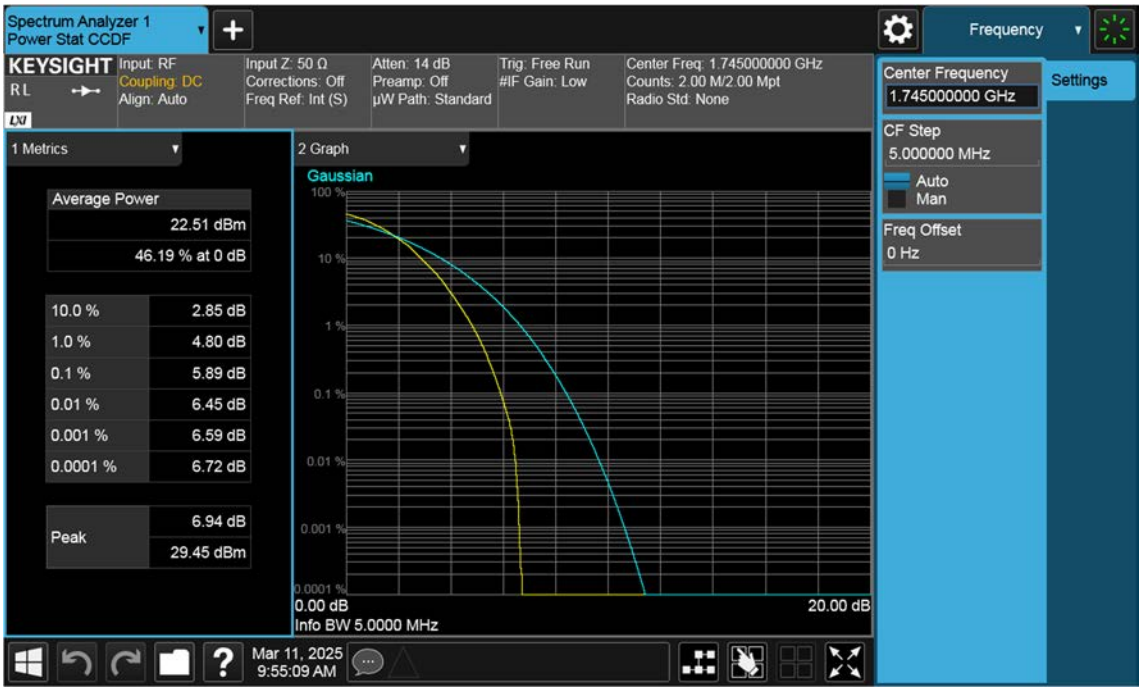


The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_5 M_PAR_Mid_16QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_5 M_PAR_Mid_64QAM_FullRB



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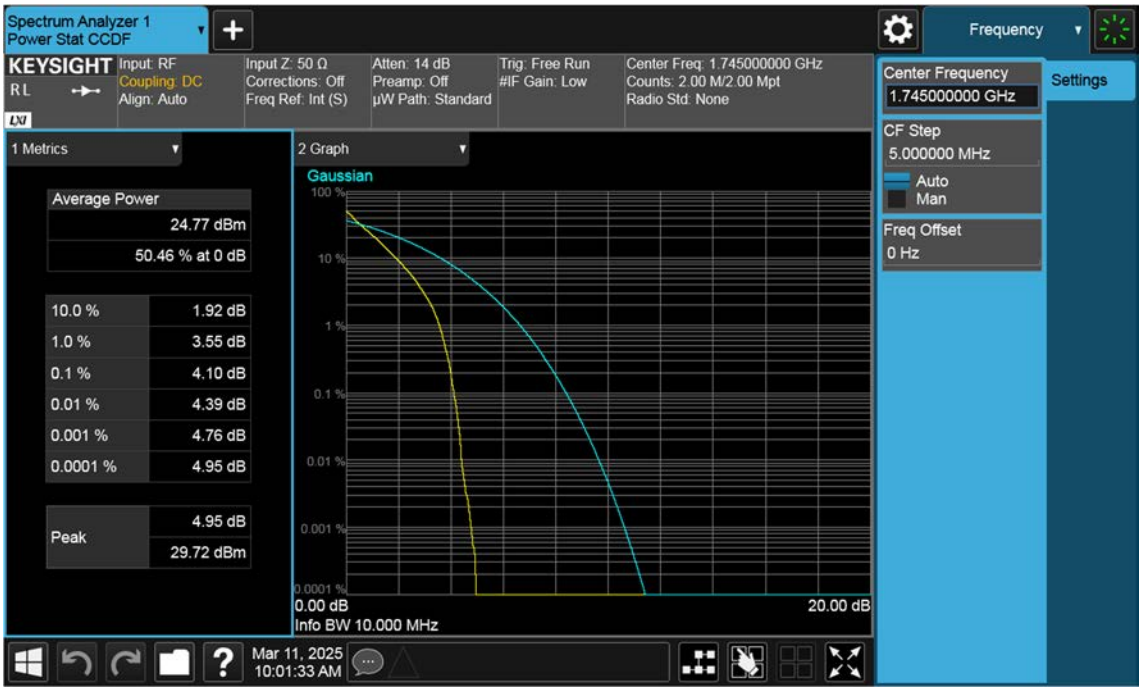
NR66_5 M_PAR_Mid_256QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_10 M_PAR_Mid_BPSK_FullRB



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NR66_10 M_PAR_Mid_QPSK_FullRB

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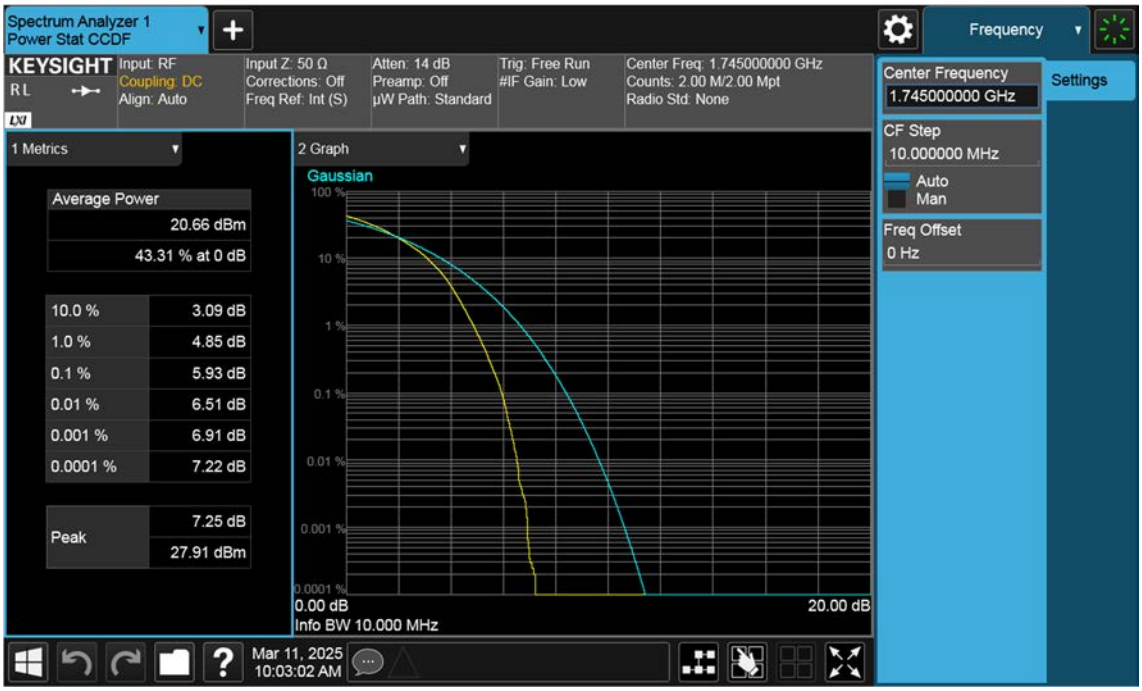
NR66_10 M_PAR_Mid_16QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_10 M_PAR_Mid_64QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_10 M_PAR_Mid_256QAM_FullRB



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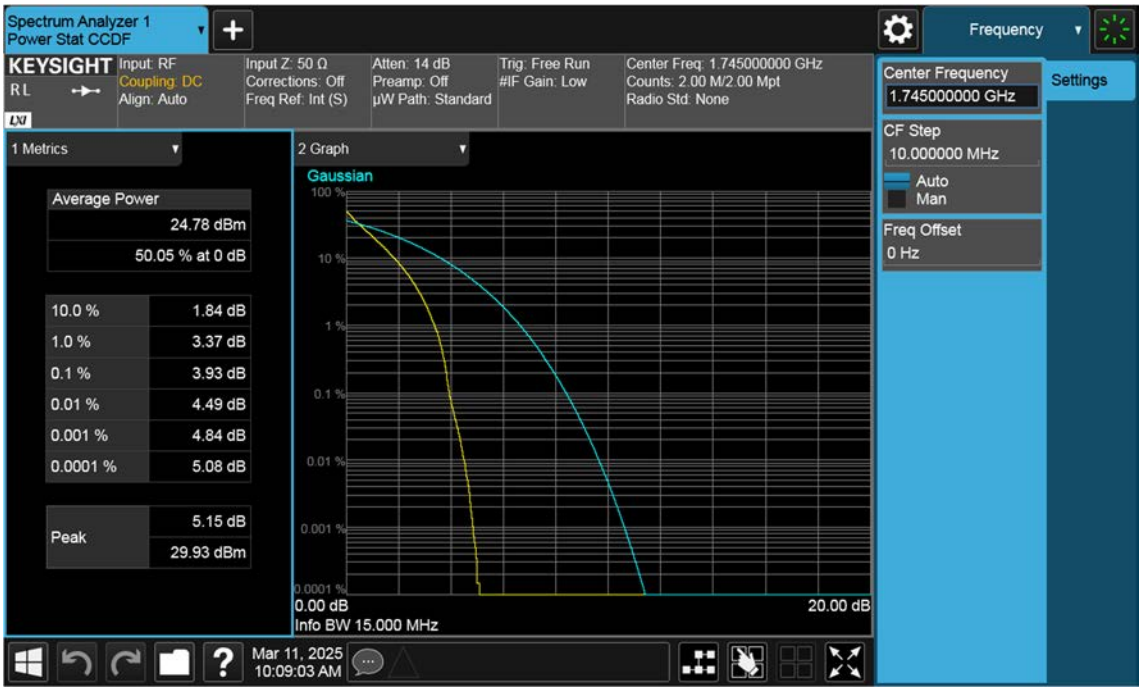
NR66_15 M_PAR_Mid_BPSK_FullRB



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NR66_15 M_PAR_Mid_QPSK_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_15 M_PAR_Mid_16QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

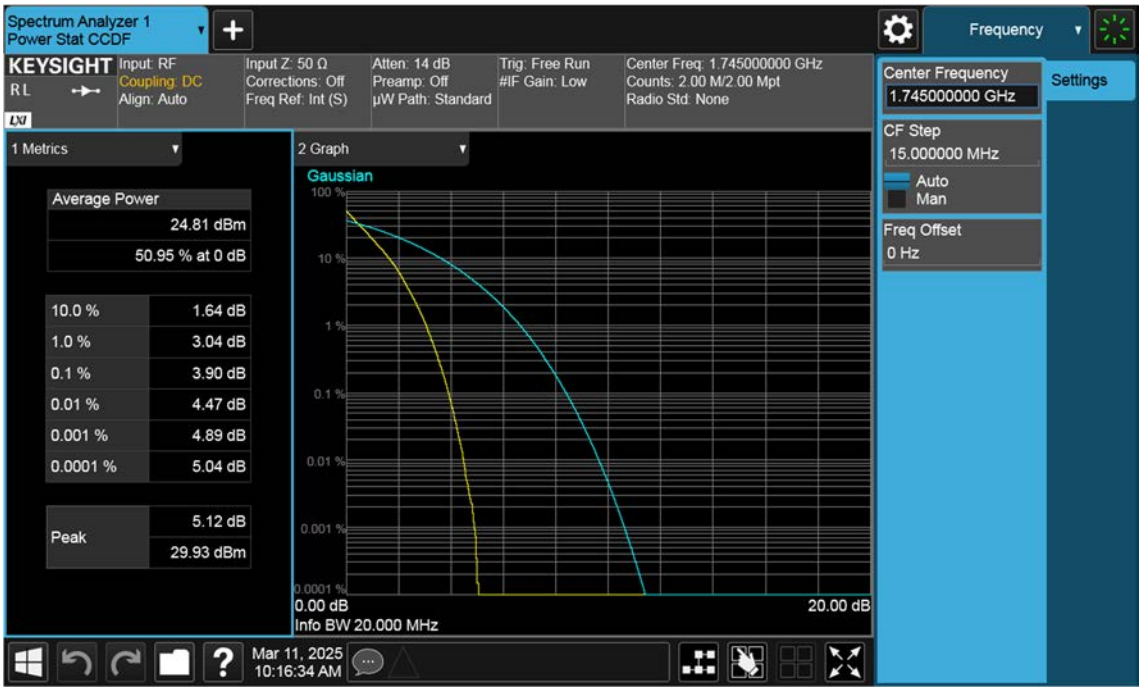
NR66_15 M_PAR_Mid_64QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_15 M_PAR_Mid_256QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_20 M_PAR_Mid_BPSK_FullRB



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NR66_20 M_PAR_Mid_QPSK_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

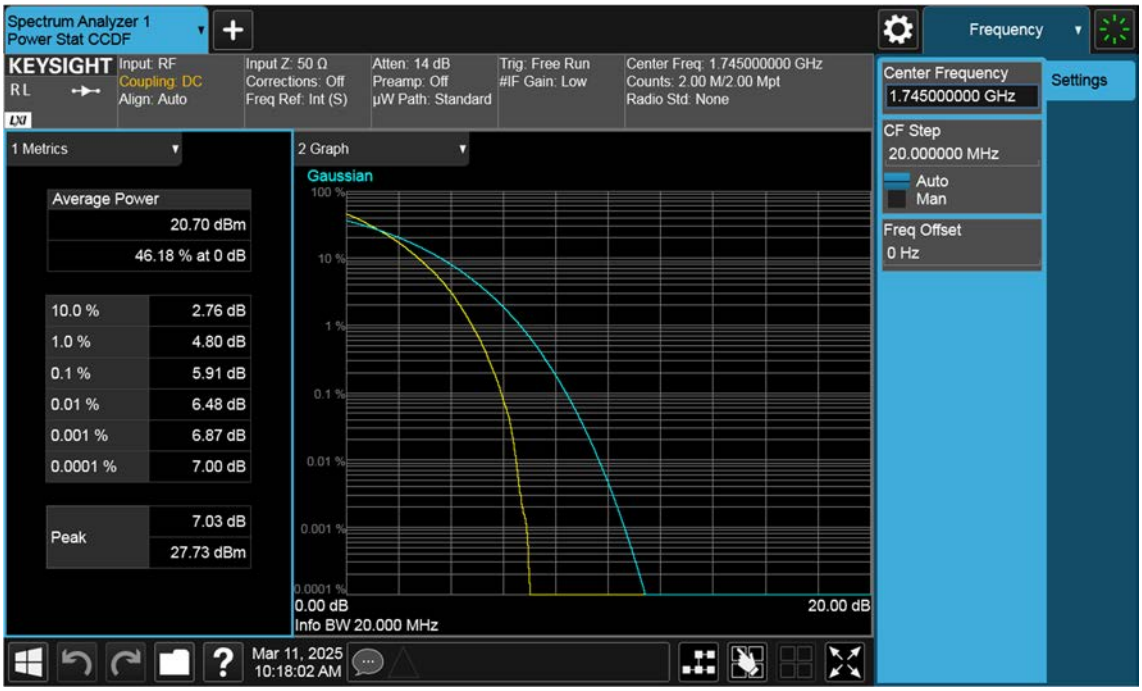
NR66_20 M_PAR_Mid_16QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_20 M_PAR_Mid_64QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_20 M_PAR_Mid_256QAM_FullRB



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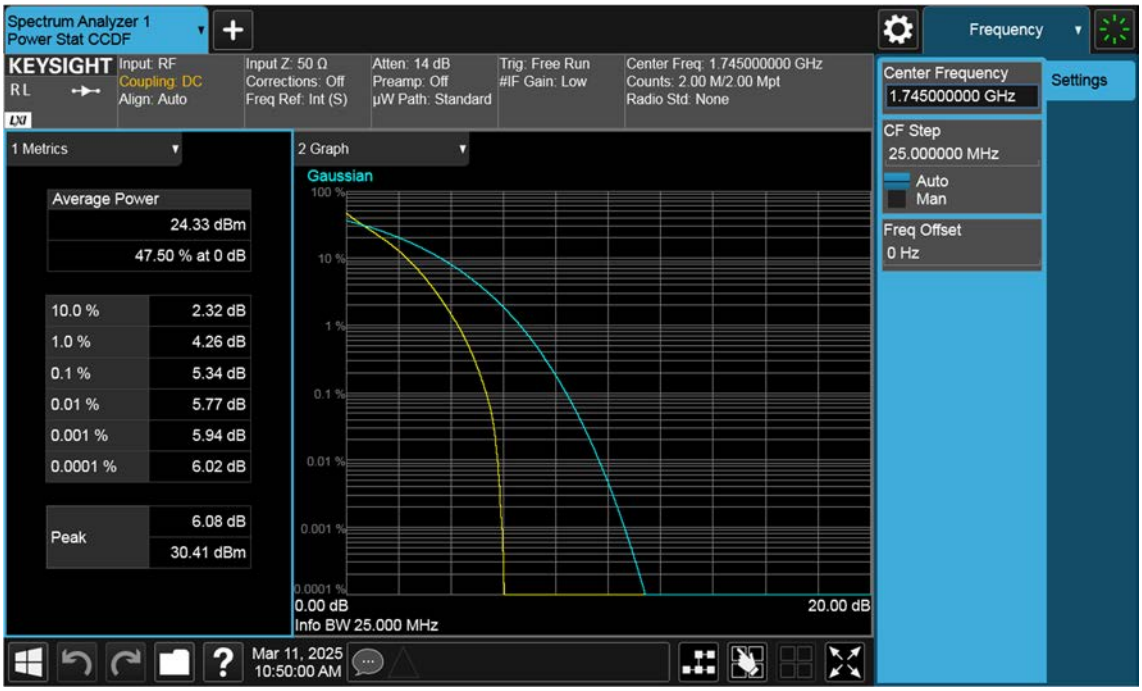
NR66_25 M_PAR_Mid_BPSK_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_25 M_PAR_Mid_QPSK_FullRB



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NR66_25 M_PAR_Mid_16QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_25 M_PAR_Mid_64QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_25 M_PAR_Mid_256QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_30 M_PAR_Mid_BPSK_FullRB

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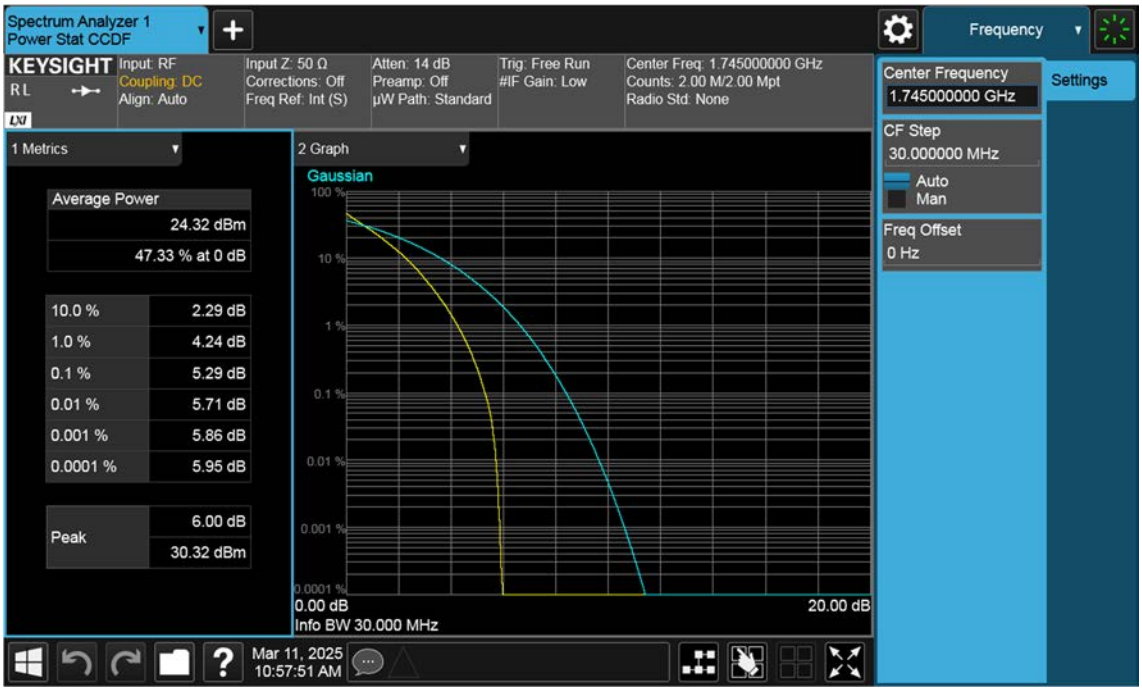
NR66_30 M_PAR_Mid_QPSK_FullRB



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NR66_30 M_PAR_Mid_16QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_30 M_PAR_Mid_64QAM_FullRB

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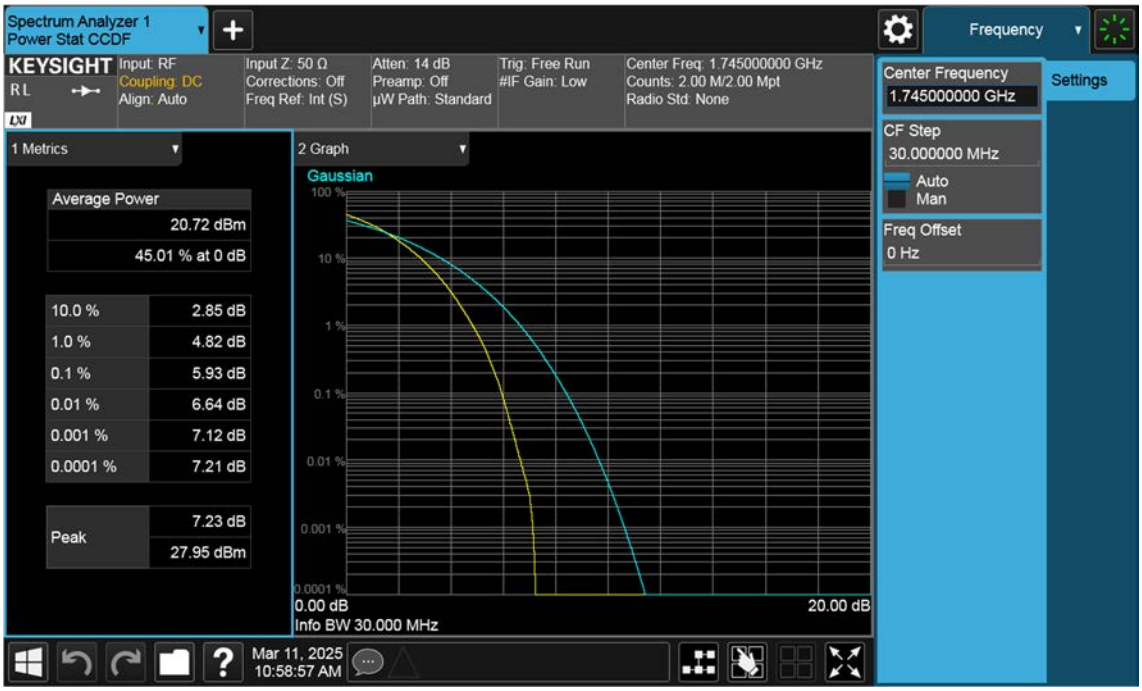
NR66_30 M_PAR_Mid_256QAM_FullRB



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NR66_35 M_PAR_Mid_BPSK_FullRB

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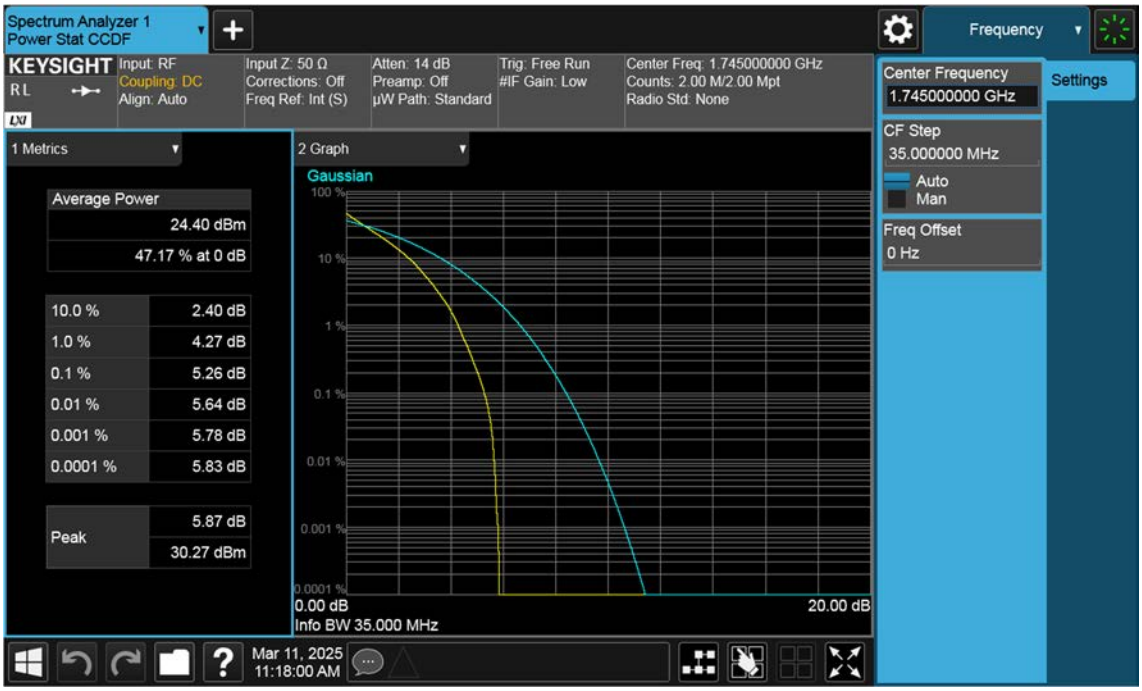
NR66_35 M_PAR_Mid_QPSK_FullRB



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NR66_35 M_PAR_Mid_64QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_35 M_PAR_Mid_256QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_40 M_PAR_Mid_BPSK_FullRB

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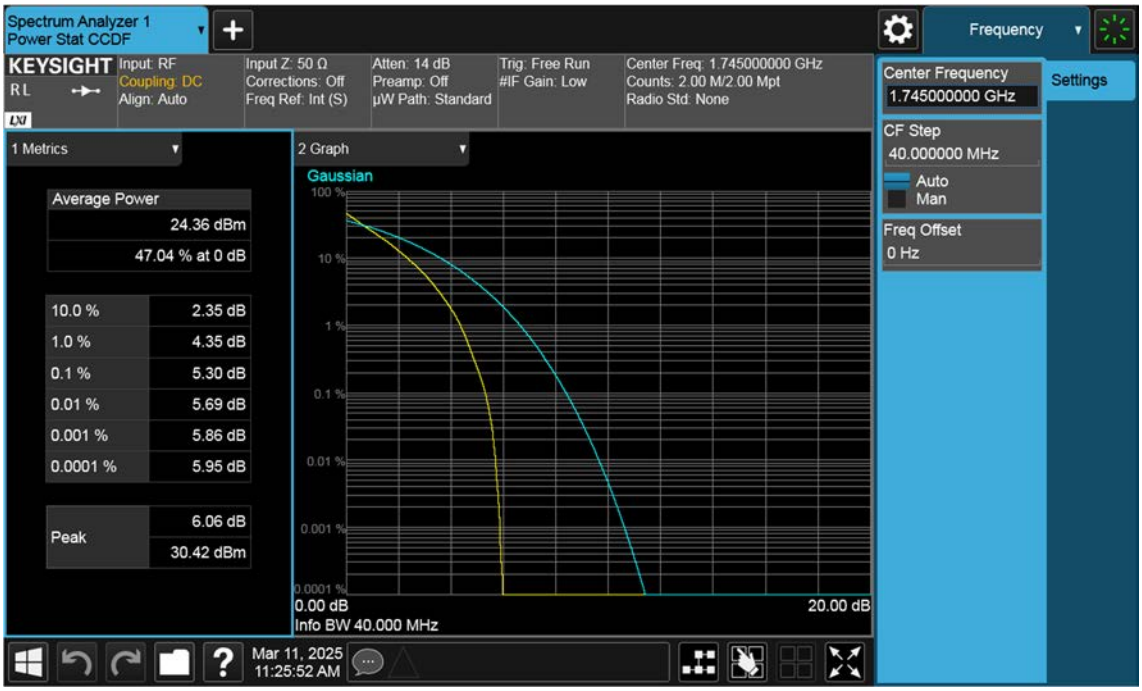
NR66_40 M_PAR_Mid_QPSK_FullRB



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NR66_40 M_PAR_Mid_16QAM_FullRB

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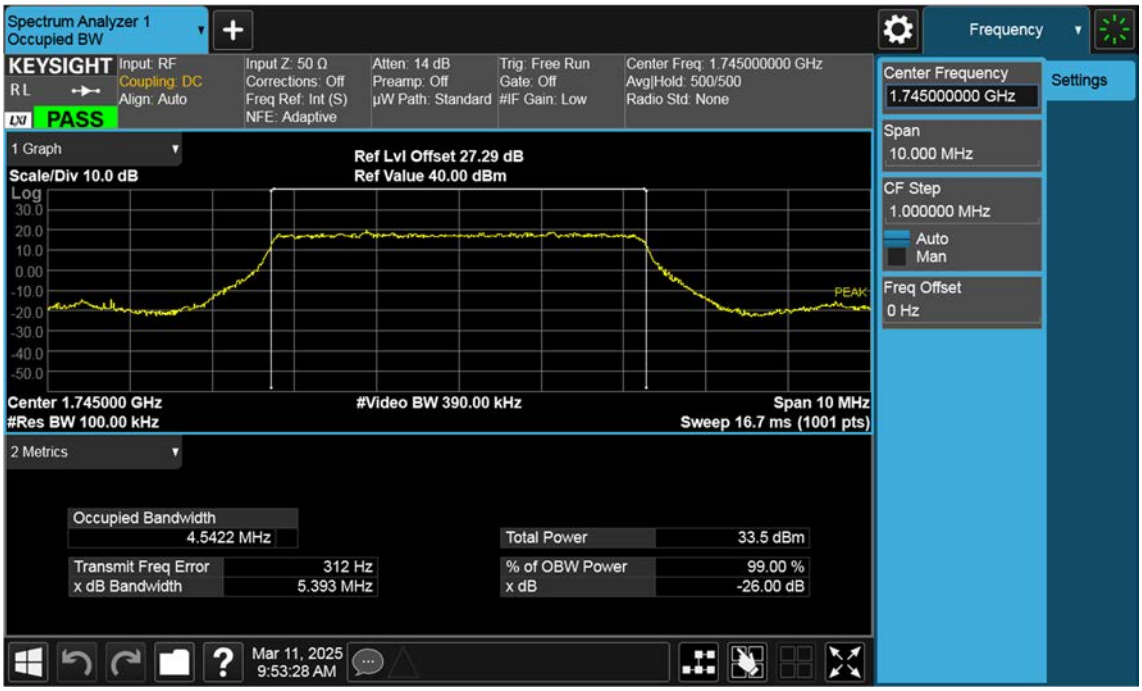
NR66_40 M_PAR_Mid_64QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_40 M_PAR_Mid_256QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_5 M_OBW_Mid_BPSK_FullRB



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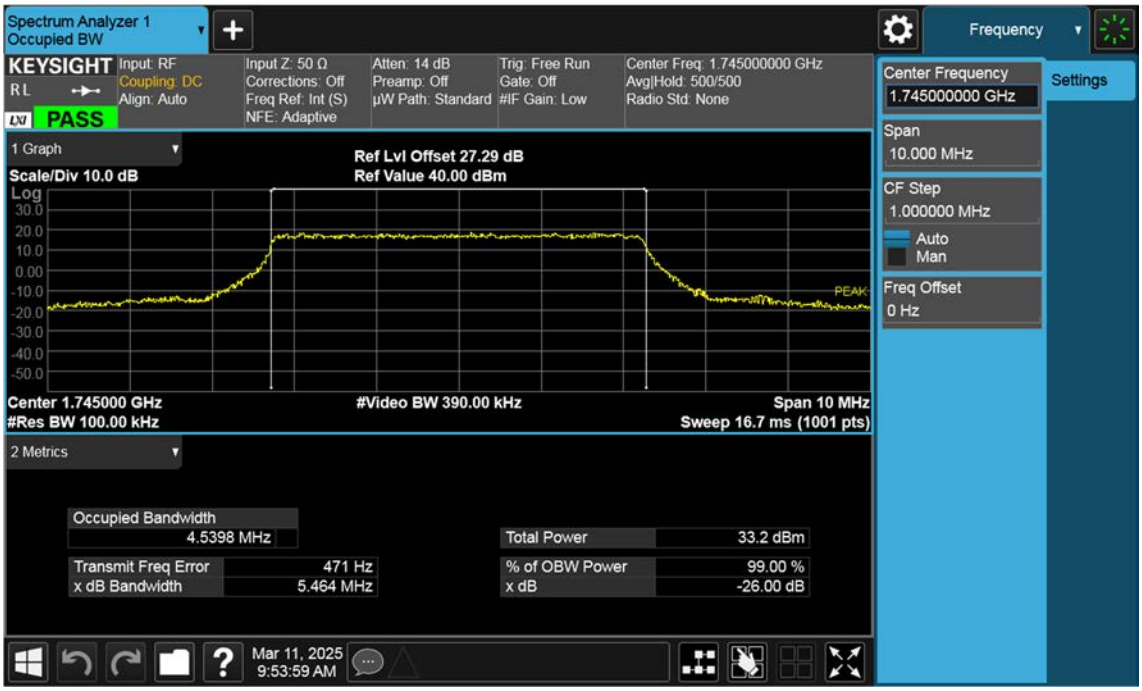

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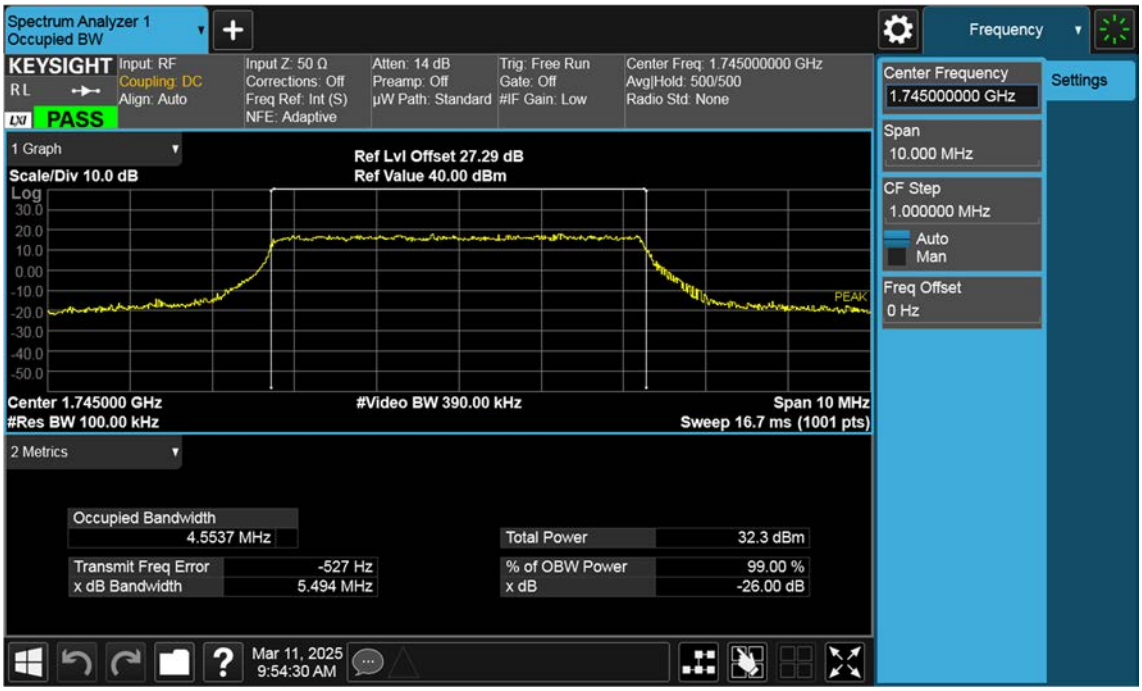

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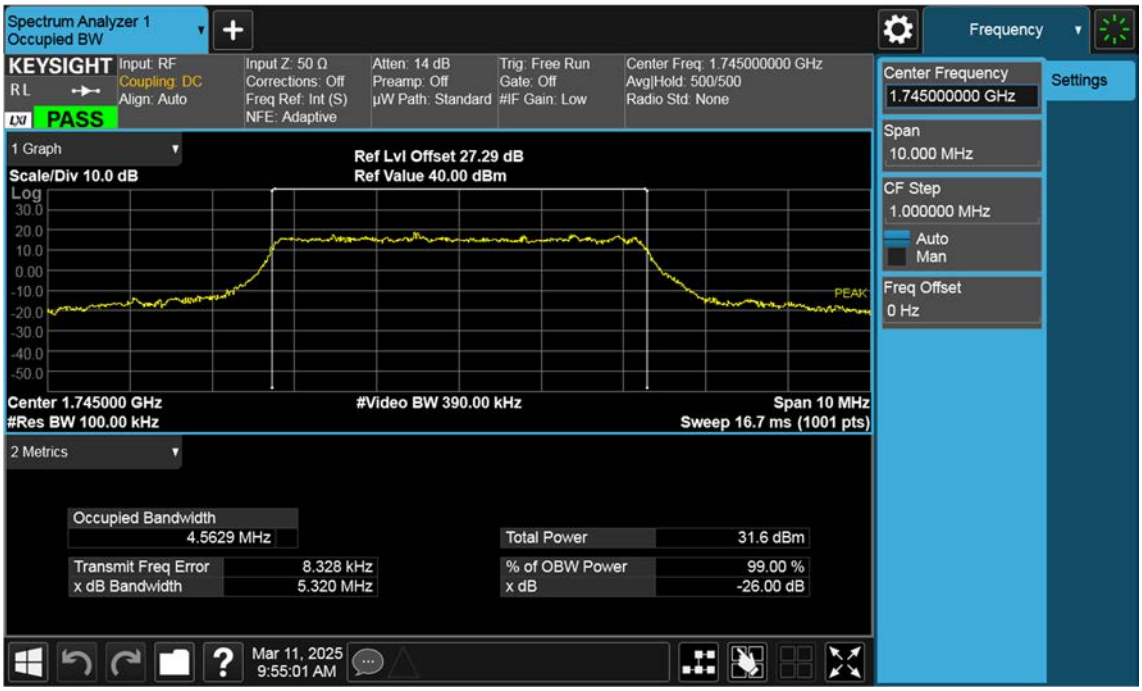

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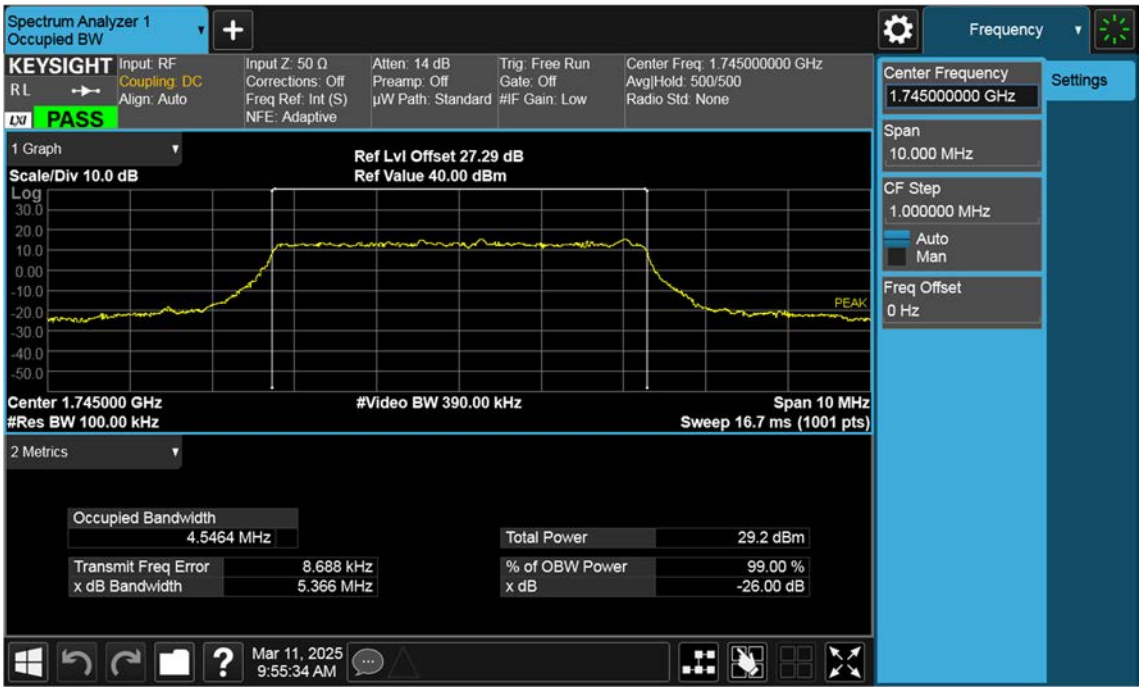

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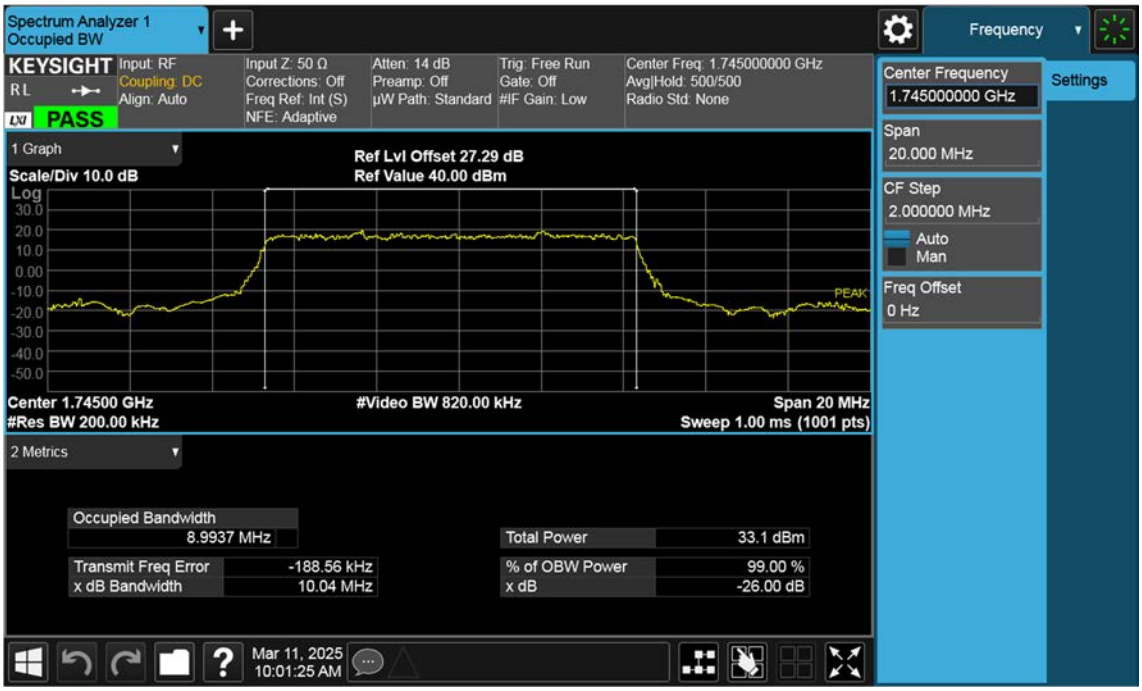

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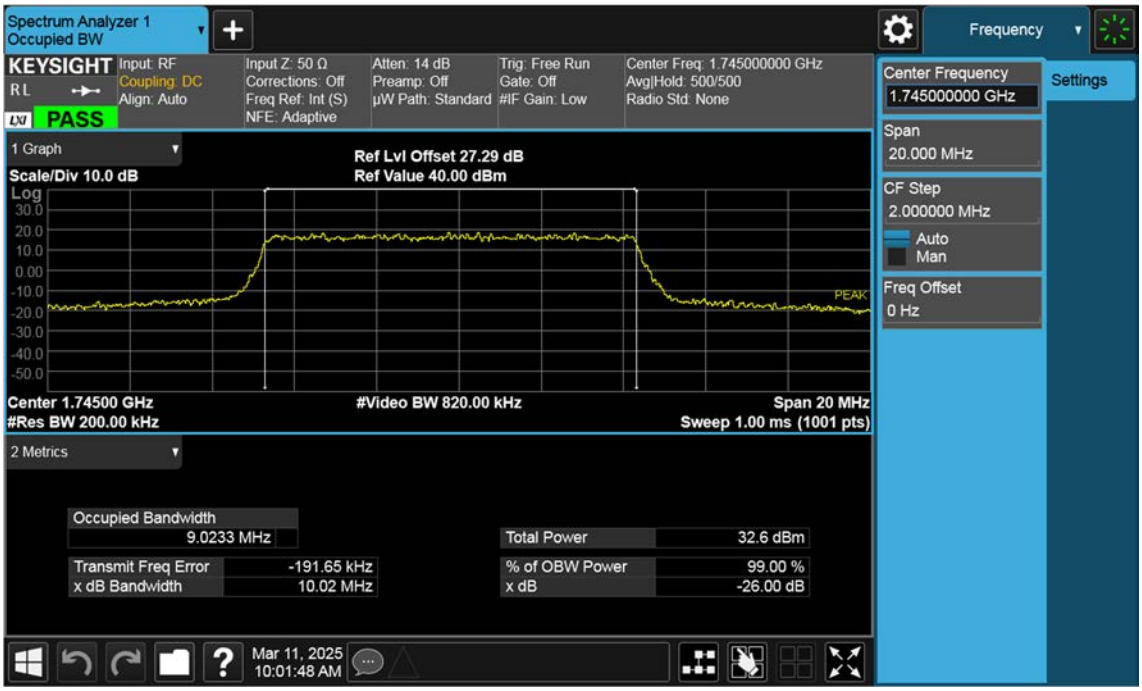

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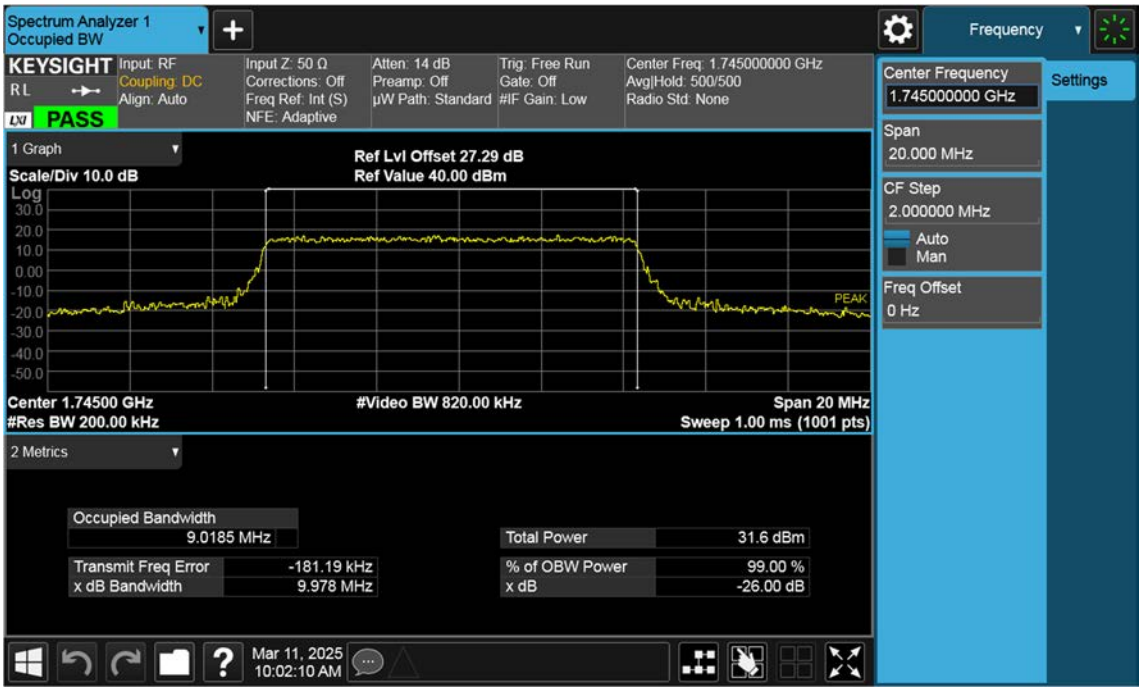

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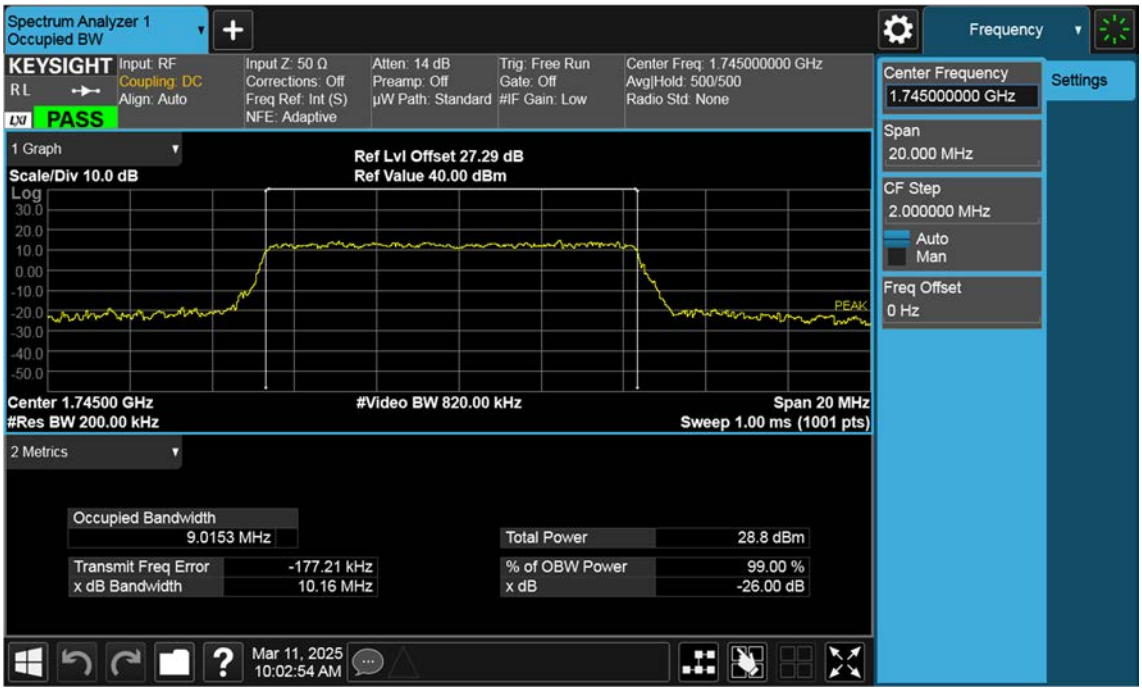
NR66_10 M_OBW_Mid_64QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_10 M_OBW_Mid_256QAM_FullRB



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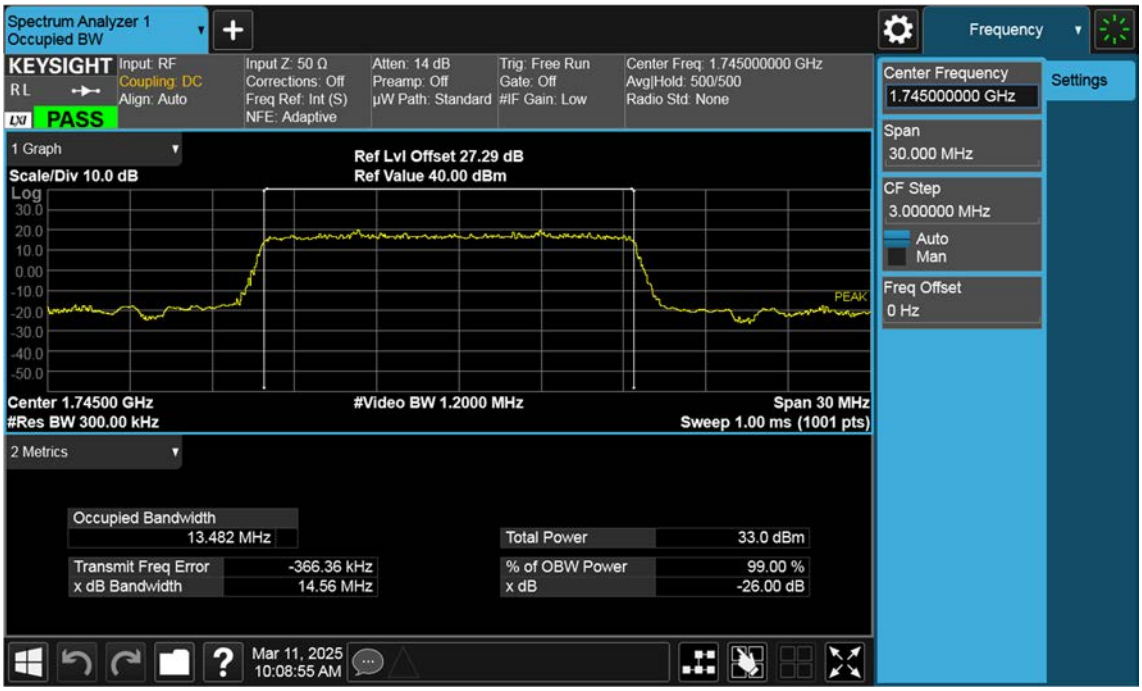

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NR66_15 M_OBW_Mid_QPSK_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_15 M_OBW_Mid_16QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_15 M_OBW_Mid_64QAM_FullRB

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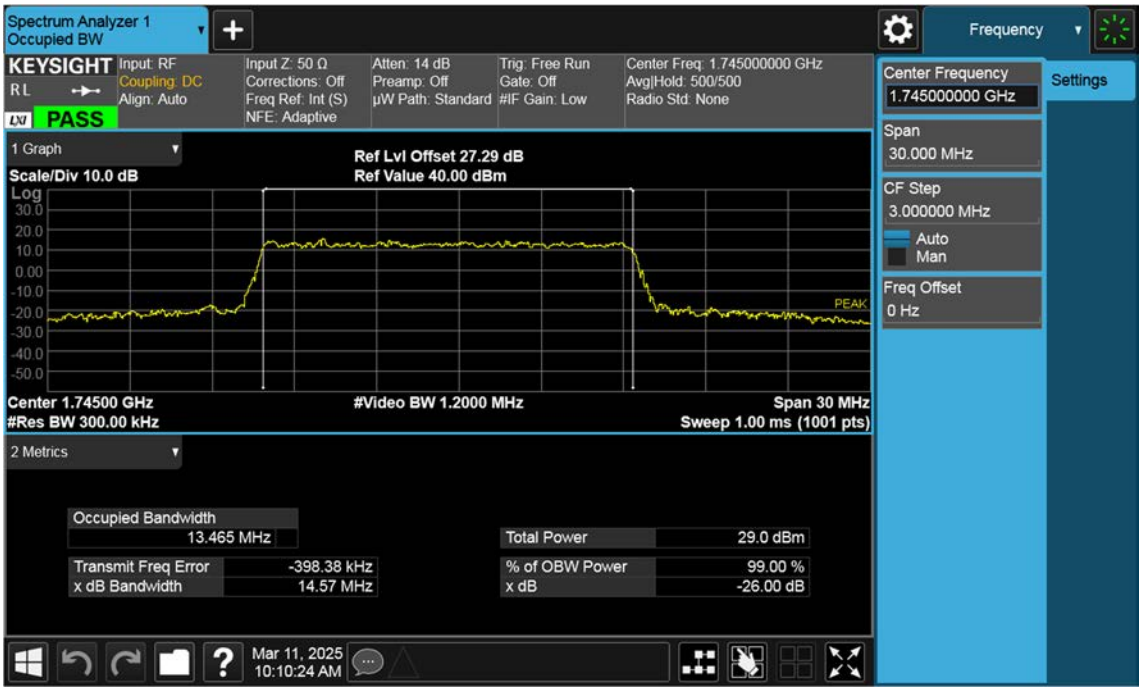
NR66_15 M_OBW_Mid_256QAM_FullRB



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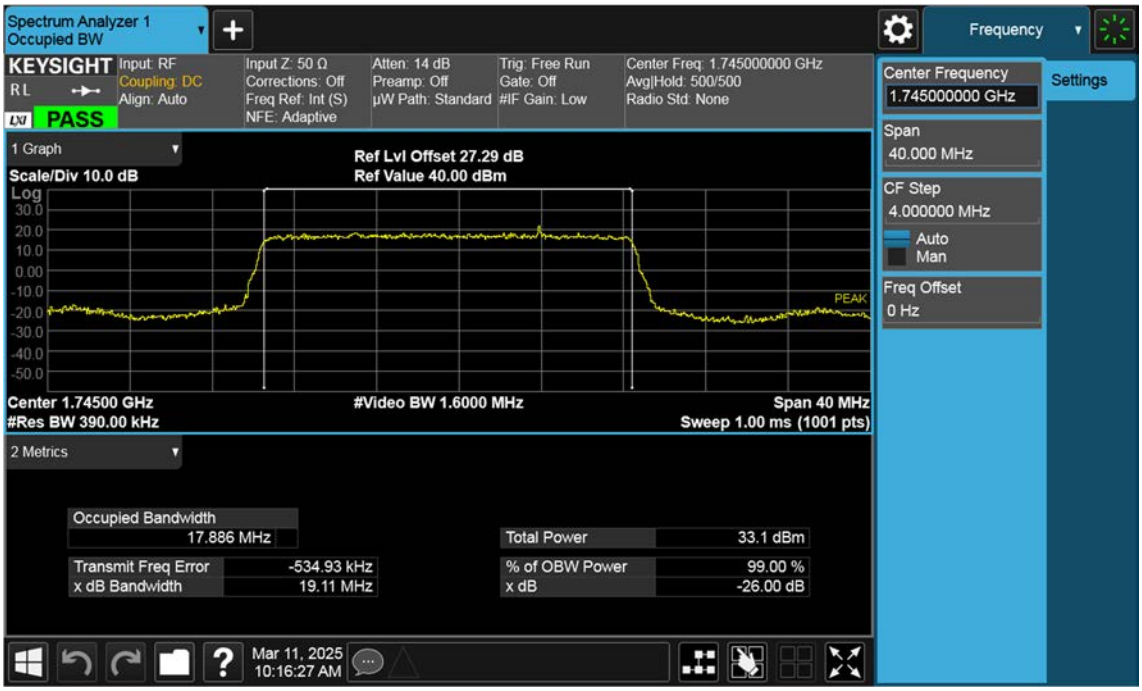
NR66_20 M_OBW_Mid_BPSK_FullRB



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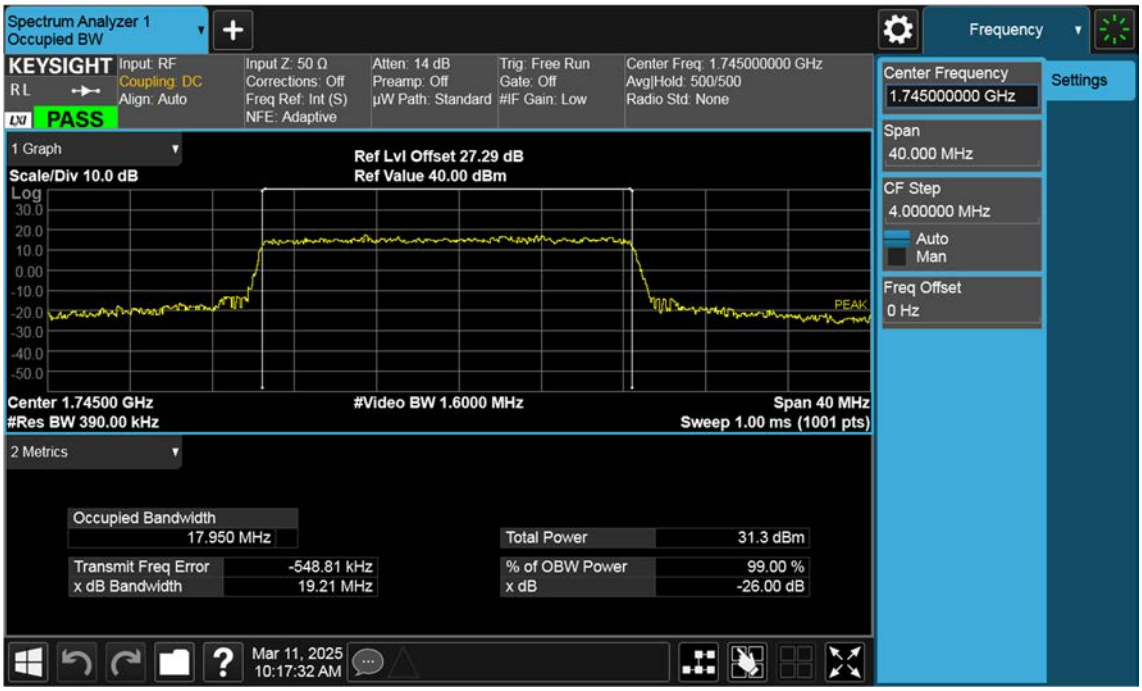
NR66_20 M_OBW_Mid_QPSK_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_20 M_OBW_Mid_16QAM_FullRB

The report shall not be (partly) reproduced except in full without approval of the laboratory.

NR66_20 M_OBW_Mid_64QAM_FullRB



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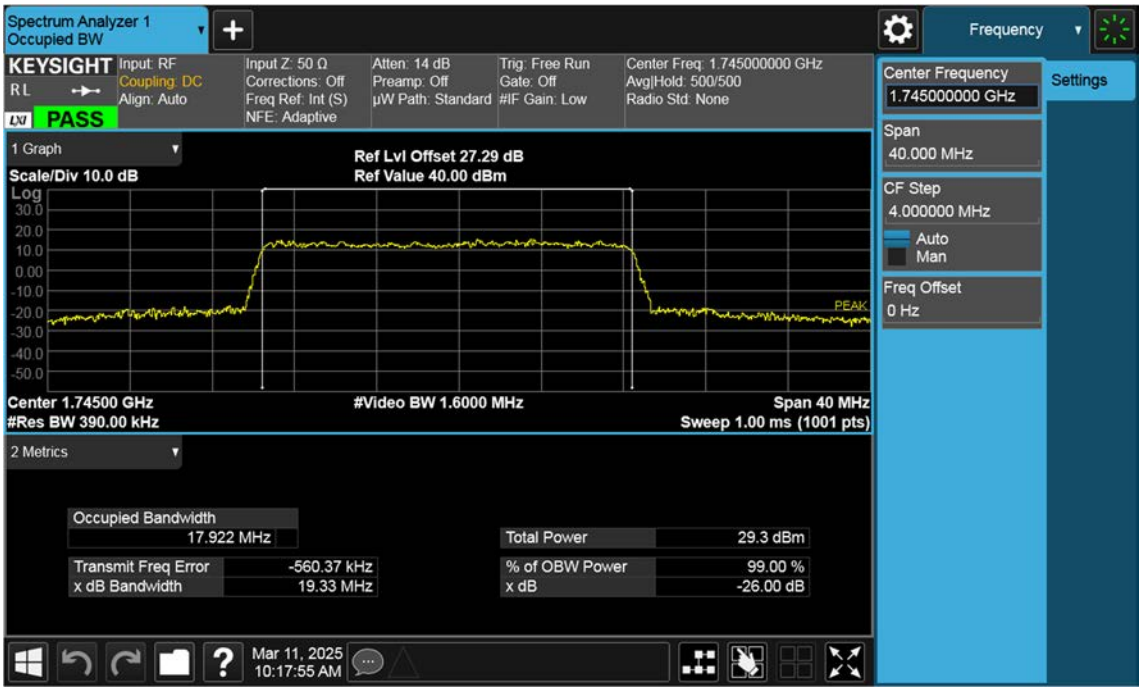
NR66_20 M_OBW_Mid_256QAM_FullRB



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NR66_25 M_OBW_Mid_BPSK_FullRB

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NR66_25 M_OBW_Mid_QPSK_FullRB

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