

TEST REPORT

FCC Sub6 Test for SM-S731U
Certification

APPLICANT
SAMSUNG Electronics Co., Ltd.

REPORT NO.
HCT-RF-2507-FC034

DATE OF ISSUE
July 14, 2025

Tested by
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TEST REPORT

REPORT NO.

HCT-RF-2507-FC034

DATE OF ISSUE

July 14, 2025

Additional Model

SM-S731U1

Applicant

SAMSUNG Electronics Co., Ltd.

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

Product Name

Mobile Phone

Model Name

SM-S731U

Date of Test

May 13, 2025 ~ July 10, 2025

FCC ID

A3LSMS731U

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing

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

FCC Classification:

PCS Licensed Transmitter Held to Ear (PCE)

Test Standard Used

FCC Rule Part: § 27

Test Results

PASS

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	July 14, 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

Model(s):	SM-S731U
Additional Model(s)	SM-S731U1
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:	2502.5 MHz – 2567.5 MHz (Sub6 n7(5 MHz)) 2505.0 MHz – 2565.0 MHz (Sub6 n7(10 MHz)) 2507.5 MHz – 2562.5 MHz (Sub6 n7(15 MHz)) 2510.0 MHz – 2560.0 MHz (Sub6 n7(20 MHz)) 2512.5 MHz – 2557.5 MHz (Sub6 n7(25 MHz)) 2515.0 MHz – 2555.0 MHz (Sub6 n7(30 MHz)) 2517.5 MHz – 2552.5 MHz (Sub6 n7(35 MHz)) 2520.0 MHz – 2550.0 MHz (Sub6 n7(40 MHz))
Serial number:	Radiated : R3CY40DEG0B Conducted : R3CY40XC6MR
Antenna Information	Please refer to the Antenna Specification document.

1.1. MAXIMUM OUTPUT POWER

Main 2 ANT

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n7 (5)	2502.5 – 2567.5	4M54G7D	PI/2 BPSK	0.176	22.46
		4M53G7D	QPSK	0.174	22.41
		4M53W7D	16QAM	0.140	21.45
		4M53W7D	64QAM	0.100	19.99
		4M53W7D	256QAM	0.065	18.12
Sub6 n7 (10)	2505.0 – 2565.0	9M02G7D	PI/2 BPSK	0.191	22.80
		9M01G7D	QPSK	0.188	22.74
		9M00W7D	16QAM	0.146	21.65
		9M03W7D	64QAM	0.106	20.24
		9M00W7D	256QAM	0.066	18.21
Sub6 n7 (15)	2507.5 – 2562.5	13M5G7D	PI/2 BPSK	0.174	22.41
		13M5G7D	QPSK	0.169	22.27
		13M5W7D	16QAM	0.139	21.42
		13M5W7D	64QAM	0.099	19.96
		13M5W7D	256QAM	0.064	18.05
Sub6 n7 (20)	2510.0 – 2560.0	18M0G7D	PI/2 BPSK	0.182	22.60
		18M0G7D	QPSK	0.179	22.52
		18M0W7D	16QAM	0.142	21.51
		18M0W7D	64QAM	0.101	20.04
		18M0W7D	256QAM	0.065	18.14
Sub6 n7 (25)	2512.5 – 2557.5	23M1G7D	PI/2 BPSK	0.200	23.02
		23M2G7D	QPSK	0.195	22.91
		23M0W7D	16QAM	0.153	21.84
		23M1W7D	64QAM	0.112	20.49
		23M0W7D	256QAM	0.072	18.56
Sub6 n7 (30)	2515.0 – 2555.0	28M9G7D	PI/2 BPSK	0.177	22.48
		28M9G7D	QPSK	0.177	22.47
		28M9W7D	16QAM	0.137	21.36
		28M8W7D	64QAM	0.097	19.85
		28M9W7D	256QAM	0.065	18.10
Sub6 n7 (35)	2517.5 – 2552.5	32M5G7D	PI/2 BPSK	0.176	22.45
		32M4G7D	QPSK	0.168	22.25
		32M4W7D	16QAM	0.134	21.28
		32M5W7D	64QAM	0.094	19.74
		32M5W7D	256QAM	0.063	17.96
Sub6 n7 (40)	2520.0 – 2550.0	39M0G7D	PI/2 BPSK	0.179	22.52
		39M0G7D	QPSK	0.175	22.43
		38M9W7D	16QAM	0.141	21.49
		38M9W7D	64QAM	0.100	19.99
		38M9W7D	256QAM	0.066	18.19

Sub 2 ANT

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n7 (5)	2502.5 – 2567.5	4M52G7D	PI/2 BPSK	0.096	19.82
		4M54G7D	QPSK	0.096	19.81
		4M52W7D	16QAM	0.076	18.83
		4M54W7D	64QAM	0.055	17.38
		4M53W7D	256QAM	0.035	15.38
Sub6 n7 (10)	2505.0 – 2565.0	9M02G7D	PI/2 BPSK	0.105	20.22
		9M04G7D	QPSK	0.104	20.18
		9M03W7D	16QAM	0.081	19.11
		9M00W7D	64QAM	0.059	17.74
		9M00W7D	256QAM	0.038	15.83
Sub6 n7 (15)	2507.5 – 2562.5	13M5G7D	PI/2 BPSK	0.107	20.31
		13M5G7D	QPSK	0.105	20.20
		13M5W7D	16QAM	0.084	19.25
		13M5W7D	64QAM	0.059	17.70
		13M5W7D	256QAM	0.040	16.02
Sub6 n7 (20)	2510.0 – 2560.0	18M0G7D	PI/2 BPSK	0.109	20.37
		18M0G7D	QPSK	0.108	20.35
		18M0W7D	16QAM	0.088	19.43
		18M0W7D	64QAM	0.061	17.87
		18M0W7D	256QAM	0.040	16.07
Sub6 n7 (25)	2512.5 – 2557.5	23M2G7D	PI/2 BPSK	0.108	20.35
		23M1G7D	QPSK	0.108	20.34
		23M1W7D	16QAM	0.086	19.34
		23M0W7D	64QAM	0.062	17.95
		23M1W7D	256QAM	0.040	16.02
Sub6 n7 (30)	2515.0 – 2555.0	28M9G7D	PI/2 BPSK	0.105	20.23
		28M9G7D	QPSK	0.105	20.22
		28M9W7D	16QAM	0.086	19.33
		28M9W7D	64QAM	0.061	17.84
		28M9W7D	256QAM	0.039	15.95
Sub6 n7 (35)	2517.5 – 2552.5	32M6G7D	PI/2 BPSK	0.106	20.24
		32M5G7D	QPSK	0.103	20.11
		32M5W7D	16QAM	0.083	19.20
		32M5W7D	64QAM	0.060	17.78
		32M7W7D	256QAM	0.039	15.87
Sub6 n7 (40)	2520.0 – 2550.0	39M0G7D	PI/2 BPSK	0.105	20.21
		39M0G7D	QPSK	0.104	20.18
		38M9W7D	16QAM	0.084	19.26
		38M9W7D	64QAM	0.060	17.79
		39M0W7D	256QAM	0.038	15.85

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

Please refer to the [2G3G] Test Report.

2.2. MEASURING INSTRUMENT CALIBRATION

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

2.3. TEST FACILITY

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

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

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

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

The power is calculated by the following formula;

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

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

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

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method.

Test Settings

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

Test Note

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

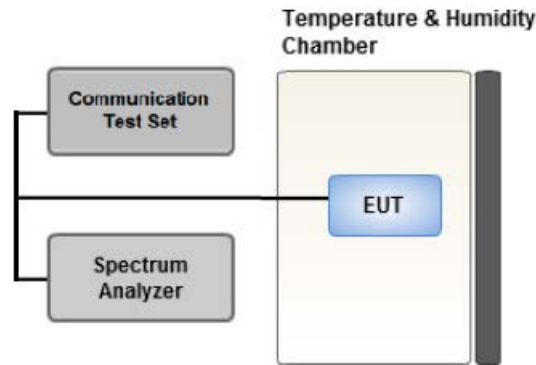
$$\text{Result}_{(\text{dBm})} = \text{Pg}_{(\text{dBm})} - \text{cable loss}_{(\text{dB})} + \text{antenna gain}_{(\text{dBi})}$$

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

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

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

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

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

② Alternate Procedure for PAPR

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

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

Test Settings(Peak Power)

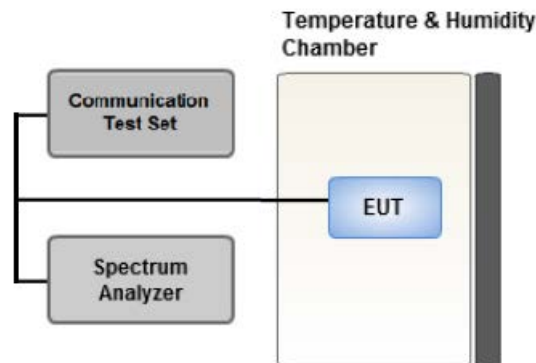
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW $\geq 3 \times$ RBW.

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

Test Settings(Average Power)

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

3.5 OCCUPIED BANDWIDTH.



Test setup

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

The EUT makes a call to the communication simulator.

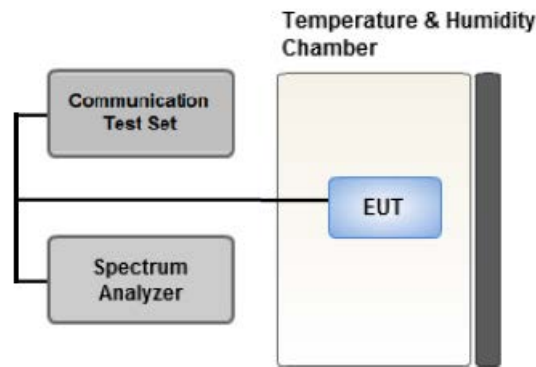
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

Test Settings

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

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

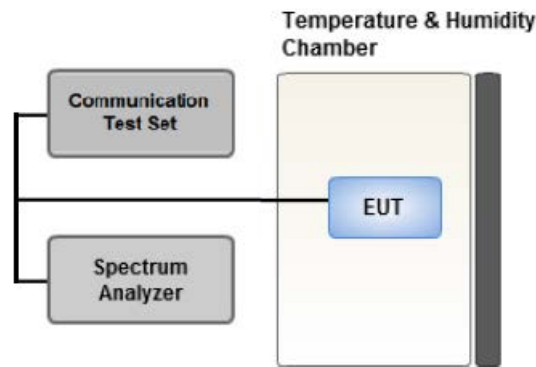
Test Overview

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

Test Settings

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

3.7 CHANNEL EDGE



Test setup

Test Overview

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

Test Settings

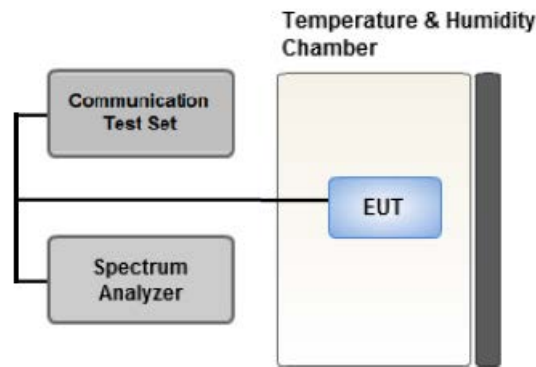
1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. Within 1MHz of the channel edge the RBW should be 2% of EBW, then 1 MHz after that.
4. VBW > 3 x RBW
5.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

Test Notes

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

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

3.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE



Test setup

Test Overview

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

The frequency stability of the transmitter is measured by:

1. Temperature:

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

2. Primary Supply Voltage:

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

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

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature

(20 °C to provide a reference).

2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter.

Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.

3. Frequency measurements are made at 10 °C intervals ranging from -30 °C to +50 °C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

3.9 WORST CASE(RADIATED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
(Worst case: DFT-S-OFDM)
- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- All modes of operation were investigated and the worst case configuration results are reported.
Mode: NSA, SA
Worst case: SA
Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
Worst case : Stand alone
- All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed.
Therefore, only the worst case(stand-alone) results were reported.
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).
All EN-DC mode of operation (=anchor) were investigated and the test results were measured No Peak Found.
The test results which are attenuated more than 20 dB below the permissible value, so it was not reported.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- SM-S731U & additional models were tested and the worst case results are reported.
(Worst case : SM-S731U)

[Main 2 ANT Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	See Section 8.1		Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		X

[Sub 2 ANT Worst case]

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

3.10 WORST CASE(CONDUCTED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
(Worst case: DFT-S-OFDM)
- Modulation : All Modulation of operation were investigated and the worst case configuration results are reported.
(Worst case: PI/2 BPSK)
- All modes of operation were investigated and the worst case configuration results are reported.
Mode: NSA, SA
Worst case: SA
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
Please refer to the table below.
- SM-S731U & additional models were tested and the worst case results are reported.
(Worst case : SM-S731U)

[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
Channel Edge	PI/2 BPSK	5	Low	1	0
			High	1	24
		10	Low	1	0
			High	1	51
		15	Low	1	0
			High	1	78
		20	Low	1	0
			High	1	105
		25	Low	1	0
			High	1	132
		30	Low	1	0
			High	1	159
		35	Low	1	0
			High	1	187
		40	Low	1	0
			High	1	215
		5, 10, 15, 20, 25, 30, 35, 40	Low, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	5, 10, 15, 20, 25, 30, 35, 40	Low, Mid, High	1	1

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/10/2026	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	02/14/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	04/17/2026	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	05/08/2026	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/08/2026	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/08/2026	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/08/2026	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	05/27/2026	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/14/2026	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/08/2026	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/14/2026	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
Automation Software	FCC 2G/3G/4G Conducted	HCT CO., LTD	-	-	-
Automation Software	FCC NR Conducted	HCT CO., LTD	-	-	-
Automation Software	FCC LTE Radiated	HCT CO., LTD	-	-	-
Automation Software	FCC NR Radiated	HCT CO., LTD	-	-	-

Note:

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

5. MEASUREMENT UNCERTAINTY

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

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

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

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

6. SUMMARY OF TEST RESULTS

-. The decision rule applies 'simple acceptance'

6.1 Test Condition: Conducted Test

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

Note:

1. Refer to the SAR report.
2. All conducted tests were tested using 5G Wireless Tester.

6.2 Test Condition: Radiated Test

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

Note:

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

7. SAMPLE CALCULATION

7.1 ERP Sample Calculation

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

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

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

7.2 EIRP Sample Calculation

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

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

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

7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW

GSM BW = 249 kHz

G = Phase Modulation

X = Cases not otherwise covered

W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W

GSM BW = 249 kHz

G = Phase Modulation

7 = Quantized/Digital Info

W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W

WCDMA BW = 4.17 MHz

F = Frequency Modulation

9 = Composite Digital Info

W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D

LTE BW = 4.48 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D

LTE BW = 4.48 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission; telemetry; telecommand

8. TEST DATA(Main 2 ANT)

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2502.5	Sub6 n7/ 5 MHz [15 kHz]	PI/2 BPSK	-24.20	12.66	10.58	2.51	H	< 2.00	0.118	20.73	1	12
		QPSK	-24.23	12.63	10.58	2.51	H		0.117	20.70		
		16-QAM	-25.23	11.63	10.58	2.51	H		0.093	19.70		
		64-QAM	-26.72	10.14	10.58	2.51	H		0.066	18.21		
		256-QAM	-28.64	8.22	10.58	2.51	H		0.043	16.29		
2535.0		PI/2 BPSK	-22.87	13.59	10.59	2.54	H		0.146	21.64	1	12
		QPSK	-22.89	13.57	10.59	2.54	H		0.145	21.62		
		16-QAM	-23.94	12.52	10.59	2.54	H		0.114	20.57		
		64-QAM	-25.37	11.09	10.59	2.54	H		0.082	19.14		
		256-QAM	-27.15	9.31	10.59	2.54	H		0.054	17.36		
2567.5		PI/2 BPSK	-22.81	14.28	10.83	2.65	H		0.176	22.46	1	1
		QPSK	-22.86	14.23	10.83	2.65	H		0.174	22.41		
		16-QAM	-23.82	13.27	10.83	2.65	H		0.140	21.45		
		64-QAM	-25.28	11.81	10.83	2.65	H		0.100	19.99		
		256-QAM	-27.15	9.94	10.83	2.65	H		0.065	18.12		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)					W	dBm	Size	Offset
2505.0		PI/2 BPSK	-24.08	12.78	10.58	2.51	H	< 2.00	0.122	20.85	1	50
		QPSK	-24.16	12.70	10.58	2.51	H		0.119	20.77		
		16-QAM	-25.14	11.72	10.58	2.51	H		0.095	19.79		
		64-QAM	-26.60	10.26	10.58	2.51	H		0.068	18.33		
		256-QAM	-28.59	8.27	10.58	2.51	H		0.043	16.34		
2535.0	Sub6 n7/ 10 MHz [15 kHz]	PI/2 BPSK	-22.72	13.74	10.59	2.54	H	< 2.00	0.151	21.79	1	26
		QPSK	-22.84	13.62	10.59	2.54	H		0.147	21.67		
		16-QAM	-23.81	12.65	10.59	2.54	H		0.118	20.70		
		64-QAM	-25.19	11.27	10.59	2.54	H		0.086	19.32		
		256-QAM	-27.24	9.22	10.59	2.54	H		0.053	17.27		
2565.0		PI/2 BPSK	-22.45	14.63	10.79	2.62	H	< 2.00	0.191	22.80	1	26
		QPSK	-22.51	14.57	10.79	2.62	H		0.188	22.74		
		16-QAM	-23.60	13.48	10.79	2.62	H		0.146	21.65		
		64-QAM	-25.01	12.07	10.79	2.62	H		0.106	20.24		
		256-QAM	-27.04	10.04	10.79	2.62	H		0.066	18.21		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)				W	W	dBm	Size
2507.5	Sub6 n7/ 15 MHz [15 kHz]	PI/2 BPSK	-23.87	13.05	10.55	2.51	H	< 2.00	0.129	21.09	1	39
		QPSK	-24.05	12.87	10.55	2.51	H		0.123	20.91		
		16-QAM	-24.86	12.06	10.55	2.51	H		0.102	20.10		
		64-QAM	-26.45	10.47	10.55	2.51	H		0.071	18.51		
		256-QAM	-28.26	8.66	10.55	2.51	H		0.047	16.70		
2535.0		PI/2 BPSK	-22.71	13.75	10.59	2.54	H		0.151	21.80	1	77
		QPSK	-22.74	13.72	10.59	2.54	H		0.150	21.77		
		16-QAM	-23.61	12.85	10.59	2.54	H		0.123	20.90		
		64-QAM	-25.14	11.32	10.59	2.54	H		0.086	19.37		
		256-QAM	-27.01	9.45	10.59	2.54	H		0.056	17.50		
2562.5	PI/2 BPSK	-22.84	14.24	10.79	2.62	H	0.174	22.41	1	39		
	QPSK	-22.98	14.10	10.79	2.62	H	0.169	22.27				
	16-QAM	-23.83	13.25	10.79	2.62	H	0.139	21.42				
	64-QAM	-25.29	11.79	10.79	2.62	H	0.099	19.96				
	256-QAM	-27.20	9.88	10.79	2.62	H	0.064	18.05				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)				W	W	dBm	Size
2510.0	Sub6 n7/ 20 MHz [15 kHz]	PI/2 BPSK	-23.34	13.58	10.55	2.51	H	< 2.00	0.145	21.62	1	104
		QPSK	-23.51	13.41	10.55	2.51	H		0.140	21.45		
		16-QAM	-24.33	12.59	10.55	2.51	H		0.116	20.63		
		64-QAM	-25.90	11.02	10.55	2.51	H		0.081	19.06		
		256-QAM	-27.77	9.15	10.55	2.51	H		0.052	17.19		
2535.0		PI/2 BPSK	-22.70	13.76	10.59	2.54	H		0.152	21.81	1	53
		QPSK	-22.71	13.75	10.59	2.54	H		0.151	21.80		
		16-QAM	-23.72	12.74	10.59	2.54	H		0.120	20.79		
		64-QAM	-25.06	11.40	10.59	2.54	H		0.088	19.45		
		256-QAM	-27.13	9.33	10.59	2.54	H		0.055	17.38		
2560.0	PI/2 BPSK	-22.63	14.43	10.76	2.59	H	0.182	22.60	1	53		
	QPSK	-22.71	14.35	10.76	2.59	H	0.179	22.52				
	16-QAM	-23.72	13.34	10.76	2.59	H	0.142	21.51				
	64-QAM	-25.19	11.87	10.76	2.59	H	0.101	20.04				
	256-QAM	-27.09	9.97	10.76	2.59	H	0.065	18.14				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)				W	W	dBm	Size
2512.5	Sub6 n7/ 25 MHz [15 kHz]	PI/2 BPSK	-23.04	13.89	10.52	2.53	H	< 2.00	0.154	21.88	1	131
		QPSK	-23.09	13.84	10.52	2.53	H		0.152	21.83		
		16-QAM	-24.01	12.92	10.52	2.53	H		0.123	20.91		
		64-QAM	-25.73	11.20	10.52	2.53	H		0.083	19.19		
		256-QAM	-27.45	9.48	10.52	2.53	H		0.056	17.47		
2535.0		PI/2 BPSK	-22.50	13.96	10.59	2.54	H		0.159	22.01	1	66
		QPSK	-22.72	13.74	10.59	2.54	H		0.151	21.79		
		16-QAM	-23.77	12.69	10.59	2.54	H		0.119	20.74		
		64-QAM	-25.09	11.37	10.59	2.54	H		0.087	19.42		
		256-QAM	-27.06	9.40	10.59	2.54	H		0.056	17.45		
2557.5	PI/2 BPSK	-22.21	14.85	10.76	2.59	H	0.200	23.02	1	66		
	QPSK	-22.32	14.74	10.76	2.59	H	0.195	22.91				
	16-QAM	-23.39	13.67	10.76	2.59	H	0.153	21.84				
	64-QAM	-24.74	12.32	10.76	2.59	H	0.112	20.49				
	256-QAM	-26.67	10.39	10.76	2.59	H	0.072	18.56				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)					W	dBm	Size	Offset
2515.0		PI/2 BPSK	-22.99	13.94	10.52	2.53	H	< 2.00	0.156	21.93	1	158
		QPSK	-23.03	13.90	10.52	2.53	H		0.155	21.89		
		16-QAM	-24.03	12.90	10.52	2.53	H		0.123	20.89		
		64-QAM	-25.38	11.55	10.52	2.53	H		0.090	19.54		
		256-QAM	-27.36	9.57	10.52	2.53	H		0.057	17.56		
2535.0	Sub6 n7/ 30 MHz [15 kHz]	PI/2 BPSK	-22.67	13.79	10.59	2.54	H	< 2.00	0.153	21.84	1	80
		QPSK	-22.71	13.75	10.59	2.54	H		0.151	21.80		
		16-QAM	-23.61	12.85	10.59	2.54	H		0.123	20.90		
		64-QAM	-24.99	11.47	10.59	2.54	H		0.090	19.52		
		256-QAM	-27.02	9.44	10.59	2.54	H		0.056	17.49		
2555.0		PI/2 BPSK	-22.48	14.32	10.72	2.56	H	< 2.00	0.177	22.48	1	1
		QPSK	-22.49	14.31	10.72	2.56	H		0.177	22.47		
		16-QAM	-23.60	13.20	10.72	2.56	H		0.137	21.36		
		64-QAM	-25.11	11.69	10.72	2.56	H		0.097	19.85		
		256-QAM	-26.86	9.94	10.72	2.56	H		0.065	18.10		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)					W	dBm	Size	Offset
2517.5		PI/2 BPSK	-22.85	14.08	10.49	2.54	H	< 2.00	0.160	22.03	1	186
		QPSK	-22.99	13.94	10.49	2.54	H		0.155	21.89		
		16-QAM	-23.60	13.33	10.49	2.54	H		0.134	21.28		
		64-QAM	-25.16	11.77	10.49	2.54	H		0.094	19.72		
		256-QAM	-27.13	9.80	10.49	2.54	H		0.060	17.75		
2535.0	Sub6 n7/ 35 MHz [15 kHz]	PI/2 BPSK	-22.47	13.99	10.59	2.54	H	< 2.00	0.160	22.04	1	94
		QPSK	-22.60	13.86	10.59	2.54	H		0.155	21.91		
		16-QAM	-23.65	12.81	10.59	2.54	H		0.122	20.86		
		64-QAM	-25.00	11.46	10.59	2.54	H		0.089	19.51		
		256-QAM	-27.03	9.43	10.59	2.54	H		0.056	17.48		
2552.5		PI/2 BPSK	-22.51	14.29	10.72	2.56	H	< 2.00	0.176	22.45	1	94
		QPSK	-22.71	14.09	10.72	2.56	H		0.168	22.25		
		16-QAM	-23.80	13.00	10.72	2.56	H		0.131	21.16		
		64-QAM	-25.22	11.58	10.72	2.56	H		0.094	19.74		
		256-QAM	-27.00	9.80	10.72	2.56	H		0.063	17.96		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)				W	W	dBm	Size
2520.0	Sub6 n7/ 40 MHz [15 kHz]	PI/2 BPSK	-22.75	14.18	10.49	2.54	H	< 2.00	0.163	22.13	1	214
		QPSK	-22.77	14.16	10.49	2.54	H		0.163	22.11		
		16-QAM	-23.72	13.21	10.49	2.54	H		0.131	21.16		
		64-QAM	-25.28	11.65	10.49	2.54	H		0.091	19.60		
		256-QAM	-27.07	9.86	10.49	2.54	H		0.060	17.81		
2535.0		PI/2 BPSK	-22.54	13.92	10.59	2.54	H		0.157	21.97	1	108
		QPSK	-22.65	13.81	10.59	2.54	H		0.154	21.86		
		16-QAM	-23.35	13.11	10.59	2.54	H		0.131	21.16		
		64-QAM	-24.98	11.48	10.59	2.54	H		0.090	19.53		
		256-QAM	-26.78	9.68	10.59	2.54	H		0.059	17.73		
2550.0	PI/2 BPSK	-22.17	14.36	10.69	2.53	H	0.179	22.52	1	108		
	QPSK	-22.26	14.27	10.69	2.53	H	0.175	22.43				
	16-QAM	-23.20	13.33	10.69	2.53	H	0.141	21.49				
	64-QAM	-24.70	11.83	10.69	2.53	H	0.100	19.99				
	256-QAM	-26.50	10.03	10.69	2.53	H	0.066	18.19				

8.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N7</u>
Bandwidth:	<u>5 MHz</u>
Modulation:	<u>PI/2 BPSK</u>
Distance:	<u>1 meters</u>
SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500500 (2502.5)	5 005.00	-58.82	11.20	-60.25	3.71	V	-52.76	-25.00	1	12
	7 507.50	-64.25	11.55	-56.71	4.60	V	-49.76			
	10 010.00	-62.33	11.47	-53.25	5.47	V	-47.25			
507000 (2535.0)	5 070.00	-56.76	11.25	-57.92	3.80	H	-50.47		1	12
	7 605.00	-63.12	11.60	-56.07	4.64	H	-49.11			
	10 140.00	-62.61	11.36	-52.67	5.48	H	-46.79			
513500 (2567.5)	5 135.00	-59.50	11.43	-60.43	3.81	H	-52.81		1	1
	7 702.50	-63.13	11.42	-55.60	4.66	V	-48.84			
	10 270.00	-63.49	11.51	-52.23	5.57	V	-46.29			

■ NR Band: N7
 ■ Bandwidth: 10 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 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
501000 (2505.0)	5 010.00	-60.51	11.18	-61.65	3.72	V	-54.19	-25.00	1	50
	7 515.00	-64.09	11.56	-56.51	4.60	V	-49.55			
	10 020.00	-62.42	11.46	-52.74	5.47	V	-46.75			
507000 (2535.0)	5 070.00	-57.84	11.25	-59.00	3.80	H	-51.55		1	26
	7 605.00	-63.25	11.60	-56.20	4.64	H	-49.24			
	10 140.00	-62.50	11.36	-52.56	5.48	H	-46.68			
513000 (2565.0)	5 130.00	-61.23	11.41	-62.20	3.81	V	-54.60		1	26
	7 695.00	-63.00	11.44	-55.27	4.66	V	-48.49			
	10 260.00	-63.40	11.49	-52.78	5.56	V	-46.85			

■ NR Band: N7
 ■ Bandwidth: 15 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 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
501500 (2507.5)	5 015.00	-60.45	11.17	-61.37	3.70	V	-53.90	-25.00	1	39
	7 522.50	-64.13	11.57	-56.48	4.61	V	-49.52			
	10 030.00	-62.33	11.45	-53.29	5.47	V	-47.31			
507000 (2535.0)	5 070.00	-58.15	11.25	-59.31	3.80	H	-51.86		1	77
	7 605.00	-63.05	11.60	-56.00	4.64	H	-49.04			
	10 140.00	-62.42	11.36	-52.48	5.48	H	-46.60			
512500 (2562.5)	5 125.00	-61.03	11.40	-62.20	3.81	V	-54.61		1	39
	7 687.50	-63.31	11.45	-55.55	4.66	V	-48.76			
	10 250.00	-63.68	11.47	-52.46	5.54	V	-46.53			

■ NR Band:	<u>N7</u>
■ Bandwidth:	<u>20 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502000 (2510.0)	5 020.00	-60.49	11.17	-61.19	3.69	V	-53.71	-25.00	1	104
	7 530.00	-64.05	11.57	-56.39	4.60	V	-49.42			
	10 040.00	-62.35	11.44	-52.89	5.49	V	-46.94			
507000 (2535.0)	5 070.00	-58.16	11.25	-59.32	3.80	H	-51.87		1	53
	7 605.00	-63.23	11.60	-56.18	4.64	H	-49.22			
	10 140.00	-62.56	11.36	-52.62	5.48	H	-46.74			
512000 (2560.0)	5 120.00	-61.18	11.38	-62.55	3.81	V	-54.98		1	53
	7 680.00	-63.33	11.47	-55.67	4.70	V	-48.90			
	10 240.00	-63.32	11.45	-52.65	5.54	V	-46.74			

■ NR Band:	<u>N7</u>
■ Bandwidth:	<u>25 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502500 (2512.5)	5 025.00	-60.14	11.18	-60.91	3.68	V	-53.41	-25.00	1	131
	7 537.50	-64.29	11.58	-56.76	4.61	V	-49.79			
	10 050.00	-62.34	11.43	-53.14	5.48	V	-47.19			
507000 (2535.0)	5 070.00	-58.13	11.25	-59.29	3.80	H	-51.84		1	66
	7 605.00	-63.06	11.60	-56.01	4.64	H	-49.05			
	10 140.00	-62.47	11.36	-52.53	5.48	H	-46.65			
511500 (2557.5)	5 115.00	-61.23	11.36	-62.61	3.80	V	-55.05		1	66
	7 672.50	-63.02	11.48	-55.45	4.70	V	-48.67			
	10 230.00	-63.54	11.43	-52.63	5.54	V	-46.74			

■ NR Band: N7
 ■ Bandwidth: 30 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 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
503000 (2515.0)	5 030.00	-60.13	11.19	-60.97	3.67	V	-53.45	-25.00	1	158
	7 545.00	-64.07	11.58	-56.61	4.62	V	-49.65			
	10 060.00	-62.45	11.42	-53.33	5.48	V	-47.39			
507000 (2535.0)	5 070.00	-57.98	11.25	-59.14	3.80	H	-51.69		1	80
	7 605.00	-63.28	11.60	-56.23	4.64	H	-49.27			
	10 140.00	-62.59	11.36	-52.65	5.48	H	-46.77			
511000 (2555.0)	5 110.00	-61.31	11.34	-62.70	3.79	V	-55.15		1	1
	7 665.00	-63.10	11.50	-55.81	4.70	V	-49.01			
	10 220.00	-63.58	11.42	-53.20	5.54	V	-47.32			

■ NR Band: N7
 ■ Bandwidth: 35 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 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
503500 (2517.5)	5 035.00	-60.38	11.19	-61.32	3.67	V	-53.80	-25.00	1	186
	7 552.50	-64.40	11.59	-56.94	4.63	V	-49.98			
	10 070.00	-62.13	11.42	-52.81	5.47	V	-46.86			
507000 (2535.0)	5 070.00	-58.07	11.25	-59.23	3.80	H	-51.78		1	94
	7 605.00	-63.20	11.60	-56.15	4.64	H	-49.19			
	10 140.00	-62.54	11.36	-52.60	5.48	H	-46.72			
510500 (2552.5)	5 105.00	-61.22	11.32	-62.50	3.79	V	-54.97		1	94
	7 657.50	-63.33	11.51	-56.25	4.69	V	-49.43			
	10 210.00	-63.55	11.40	-53.53	5.54	V	-47.67			

■ NR Band:	<u>N7</u>
■ Bandwidth:	<u>40 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
504000 (2520.0)	5 040.00	-60.47	11.20	-61.51	3.68	V	-53.99	-25.00	1	214
	7 560.00	-64.09	11.60	-56.55	4.64	V	-49.59			
	10 080.00	-62.31	11.41	-53.30	5.47	V	-47.36			
507000 (2535.0)	5 070.00	-57.86	11.25	-59.02	3.80	H	-51.57		1	108
	7 605.00	-63.20	11.60	-56.15	4.64	H	-49.19			
	10 140.00	-62.62	11.36	-52.68	5.48	H	-46.80			
510000 (2550.0)	5 100.00	-61.26	11.31	-62.45	3.78	V	-54.92		1	108
	7 650.00	-63.07	11.52	-55.94	4.68	V	-49.10			
	10 200.00	-63.58	11.38	-53.42	5.54	V	-47.58			

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)	Limit (dB)
Sub6 n7	5 MHz	2535.0	BPSK	25	0	4.95	13.00
			QPSK			6.21	
			16-QAM			6.77	
			64-QAM			6.96	
			256-QAM			6.75	
	10 MHz		BPSK	50		5.04	
			QPSK			6.20	
			16-QAM			6.71	
			64-QAM			6.93	
			256-QAM			6.94	
	15 MHz		BPSK	75		4.94	
			QPSK			6.22	
			16-QAM			6.69	
			64-QAM			6.86	
			256-QAM			6.73	
	20 MHz		BPSK	100		5.36	
			QPSK			6.14	
			16-QAM			6.60	
			64-QAM			6.82	
			256-QAM			6.69	
	25 MHz		BPSK	128		5.29	
			QPSK			6.21	
			16-QAM			6.61	
			64-QAM			6.70	
			256-QAM			6.69	
	30 MHz		BPSK	160		5.14	
			QPSK			6.26	
			16-QAM			6.66	
			64-QAM			6.79	
			256-QAM			6.72	

	35 MHz		BPSK	180		6.48	
			QPSK			6.66	
			16-QAM			6.74	
			64-QAM			6.87	
			256-QAM			6.69	
	40 MHz		BPSK	216		5.16	
			QPSK			6.20	
			16-QAM			6.59	
			64-QAM			6.73	
			256-QAM			6.69	

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 89 ~ 128
2. P.A.P.R is not required. These values are reported for information only.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n7	5 MHz	2535.0	BPSK	25	0	4.5426
			QPSK			4.5323
			16-QAM			4.5304
			64-QAM			4.5270
			256-QAM			4.5259
	10 MHz		BPSK	50		9.0149
			QPSK			9.0076
			16-QAM			8.9995
			64-QAM			9.0261
			256-QAM			9.0014
	15 MHz		BPSK	75		13.485
			QPSK			13.513
			16-QAM			13.467
			64-QAM			13.474
			256-QAM			13.513
	20 MHz		BPSK	100		17.977
			QPSK			17.969
			16-QAM			17.951
			64-QAM			18.020
			256-QAM			17.958
	25 MHz		BPSK	128		23.124
			QPSK			23.149
			16-QAM			23.017
			64-QAM			23.058
			256-QAM			22.996
	30 MHz		BPSK	160		28.910
			QPSK			28.926
			16-QAM			28.913
			64-QAM			28.836
			256-QAM			28.918

	35 MHz		BPSK	180		32.488
			QPSK			32.412
			16-QAM			32.422
			64-QAM			32.515
			256-QAM			32.512
	40 MHz		BPSK	216		38.959
			QPSK			38.947
			16-QAM			38.866
			64-QAM			38.938
			256-QAM			38.921

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 129 ~ 168.

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 n7	5	2502.500	4.0280	29.722	-63.181	-33.459	-25.00
		2535.000	5.7628	30.315	-62.909	-32.594	
		2567.500	6.0519	30.315	-62.794	-32.479	
	10	2505.000	3.7388	29.722	-63.551	-33.829	
		2535.000	9.7208	30.315	-61.932	-31.617	
		2565.000	4.0579	29.722	-63.119	-33.397	
	15	2507.500	9.7607	30.315	-62.978	-32.663	
		2535.000	8.8933	30.315	-63.134	-32.819	
		2562.500	9.1526	30.315	-62.783	-32.468	
	20	2510.000	4.0180	29.722	-63.347	-33.625	
		2535.000	4.9153	29.722	-62.787	-33.065	
		2560.000	9.7009	30.315	-63.388	-33.073	
	25	2512.500	8.2752	30.315	-62.521	-32.206	
		2535.000	4.0579	29.722	-62.880	-33.158	
		2557.500	9.7906	30.315	-63.646	-33.331	
	30	2515.000	4.9851	29.722	-63.047	-33.325	
		2535.000	7.1685	30.315	-62.972	-32.657	
		2555.000	8.9232	30.315	-63.356	-33.041	
	35	2517.500	9.6810	30.315	-62.307	-31.992	
		2535.000	7.9262	30.315	-63.386	-33.071	
		2552.500	8.9033	30.315	-63.171	-32.856	
	40	2520.000	3.7488	29.722	-62.391	-32.669	
		2535.000	5.0050	30.315	-63.287	-32.972	
		2550.000	9.9202	30.315	-63.589	-33.274	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 169 ~ 216
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 CHANNEL EDGE

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	2 500 MHz ~ 2 496 MHz	C.E ~ (C.E +1 MHz)	2 490.5 MHz ~ 2 496 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Upper
5	2502.500	BPSK	Full RB	-22.38	-22.60	-34.23	-28.50	-51.43	-37.39	-38.64
10	2505.000	BPSK	Full RB	-23.19	-31.07	-29.94	-28.68	-44.86	-33.43	-37.83
15	2507.500	BPSK	Full RB	-24.42	-34.77	-34.71	-31.12	-43.56	-31.34	-44.90
20	2510.000	BPSK	Full RB	-25.83	-34.32	-34.94	-31.55	-44.45	-31.98	-40.47
25	2512.500	BPSK	Full RB	-24.04	-33.13	-36.48	-35.18	-40.97	-36.65	-42.26
30	2515.000	BPSK	Full RB	-22.05	-23.36	-30.98	-29.15	-39.69	-33.38	-39.84
35	2517.500	BPSK	Full RB	-21.11	-32.65	-29.95	-33.97	-38.25	-33.29	-44.18
40	2520.000	BPSK	Full RB	-14.20	-16.33	-28.81	-26.04	-35.06	-30.29	-44.50
Limit(dBm)				-10.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
				Lower	Upper	Lower	Upper
5	2535.000	BPSK	Full RB	-19.46	-20.47	-17.56	-18.38
	2567.500	BPSK	Full RB	-20.98	-21.09	-22.27	-23.14
10	2535.000	BPSK	Full RB	-19.92	-24.50	-19.77	-21.09
	2565.000	BPSK	Full RB	-21.61	-28.54	-24.09	-25.76
15	2535.000	BPSK	Full RB	-21.14	-26.11	-21.04	-22.45
	2562.500	BPSK	Full RB	-23.40	-30.27	-24.46	-27.19
20	2535.000	BPSK	Full RB	-20.47	-26.35	-20.16	-22.74
	2560.000	BPSK	Full RB	-24.16	-30.32	-26.24	-27.74
25	2535.000	BPSK	Full RB	-20.11	-25.34	-20.93	-22.89
	2557.500	BPSK	Full RB	-23.20	-25.35	-24.66	-23.42
30	2535.000	BPSK	Full RB	-19.52	-20.11	-22.27	-24.12
	2555.000	BPSK	Full RB	-22.54	-21.18	-24.73	-22.91
35	2535.000	BPSK	Full RB	-19.61	-27.78	-22.66	-25.95
	2552.500	BPSK	Full RB	-21.54	-23.88	-23.87	-22.88
40	2535.000	BPSK	Full RB	-13.47	-14.74	-24.34	-23.38
	2550.000	BPSK	Full RB	-15.16	-15.08	-24.23	-22.54
Limi(dBm)				-10.0		-10.0	

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	(C.E $\pm$ 5 MHz) ~ (C.E $\pm$ X MHz)		Above (C.E $\pm$ X MHz)	
				Lower	Upper	Lower	Upper
5	2535.000	BPSK	Full RB	-32.88	-33.73	-34.75	-35.55
	2567.500	BPSK	Full RB	-35.60	-35.97	-36.25	-36.63
10	2535.000	BPSK	Full RB	-20.41	-21.73	-36.39	-37.58
	2565.000	BPSK	Full RB	-25.46	-26.78	-38.96	-38.91
15	2535.000	BPSK	Full RB	-20.13	-21.71	-38.46	-38.11
	2562.500	BPSK	Full RB	-27.10	-27.80	-40.48	-45.44
20	2535.000	BPSK	Full RB	-21.27	-22.71	-38.14	-36.78
	2560.000	BPSK	Full RB	-29.28	-27.84	-44.68	-51.21
25	2535.000	BPSK	Full RB	-23.71	-23.29	-40.56	-37.78
	2557.500	BPSK	Full RB	-27.17	-26.96	-40.06	-49.82
30	2535.000	BPSK	Full RB	-28.64	-28.49	-51.41	-43.00
	2555.000	BPSK	Full RB	-26.19	-24.31	-41.73	-61.56
35	2535.000	BPSK	Full RB	-24.77	-27.11	-60.08	-48.32
	2552.500	BPSK	Full RB	-26.81	-27.48	-43.63	-61.69
40	2535.000	BPSK	Full RB	-29.72	-28.94	-62.17	-53.11
	2550.000	BPSK	Full RB	-25.92	-25.50	-53.12	-61.68
Limit(dBm)				-13.0		-25.0	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth
3. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
4. Plots of the EUT's Channel Edge are shown Page 217 ~ 272.

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. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2502.500	100 %	+20(Ref)	2502 499 996	0.0	0.000 000	0.000
	100 %	-30	2502 499 992	-4.2	0.000 000	-0.002
	100 %	-20	2502 499 992	-3.9	0.000 000	-0.002
	100 %	-10	2502 499 993	-3.1	0.000 000	-0.001
	100 %	0	2502 499 991	-4.9	0.000 000	-0.002
	100 %	+10	2502 499 992	-3.9	0.000 000	-0.002
	100 %	+30	2502 499 992	-4.5	0.000 000	-0.002
	100 %	+40	2502 499 992	-3.9	0.000 000	-0.002
	100 %	+50	2502 499 993	-3.1	0.000 000	-0.001
	Batt. Endpoint	+20	2502 499 992	-4.1	0.000 000	-0.002
2567.500	100 %	+20(Ref)	2567 500 006	0.0	0.000 000	0.000
	100 %	-30	2567 500 011	4.4	0.000 000	0.002
	100 %	-20	2567 500 009	2.8	0.000 000	0.001
	100 %	-10	2567 500 008	1.4	0.000 000	0.001
	100 %	0	2567 500 008	1.9	0.000 000	0.001
	100 %	+10	2567 500 008	1.7	0.000 000	0.001
	100 %	+30	2567 500 006	-0.3	0.000 000	0.000
	100 %	+40	2567 500 010	3.6	0.000 000	0.001
	100 %	+50	2567 500 007	0.4	0.000 000	0.000
	Batt. Endpoint	+20	2567 500 007	0.8	0.000 000	0.000

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2505.000	100 %	+20(Ref)	2504 999 997	0.0	0.000 000	0.000
	100 %	-30	2504 999 996	-0.4	0.000 000	0.000
	100 %	-20	2504 999 996	-0.5	0.000 000	0.000
	100 %	-10	2504 999 995	-1.7	0.000 000	-0.001
	100 %	0	2504 999 994	-2.1	0.000 000	-0.001
	100 %	+10	2504 999 996	-0.3	0.000 000	0.000
	100 %	+30	2504 999 994	-3.0	0.000 000	-0.001
	100 %	+40	2504 999 993	-3.8	0.000 000	-0.002
	100 %	+50	2504 999 996	-0.9	0.000 000	0.000
	Batt. Endpoint	+20	2504 999 995	-1.8	0.000 000	-0.001
2565.000	100 %	+20(Ref)	2565 000 000	0.0	0.000 000	0.000
	100 %	-30	2564 999 999	-1.1	0.000 000	0.000
	100 %	-20	2565 000 002	1.6	0.000 000	0.001
	100 %	-10	2565 000 002	1.7	0.000 000	0.001
	100 %	0	2564 999 998	-1.7	0.000 000	-0.001
	100 %	+10	2565 000 000	0.3	0.000 000	0.000
	100 %	+30	2565 000 000	-0.3	0.000 000	0.000
	100 %	+40	2564 999 998	-2.1	0.000 000	-0.001
	100 %	+50	2564 999 996	-4.2	0.000 000	-0.002
	Batt. Endpoint	+20	2564 999 999	-0.8	0.000 000	0.000

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2507.500	100 %	+20(Ref)	2507 500 001	0.0	0.000 000	0.000
	100 %	-30	2507 500 002	1.0	0.000 000	0.000
	100 %	-20	2507 500 000	-1.6	0.000 000	-0.001
	100 %	-10	2507 500 003	1.6	0.000 000	0.001
	100 %	0	2507 500 000	-1.6	0.000 000	-0.001
	100 %	+10	2507 500 004	2.6	0.000 000	0.001
	100 %	+30	2507 500 001	0.0	0.000 000	0.000
	100 %	+40	2507 500 001	-0.6	0.000 000	0.000
	100 %	+50	2507 500 003	1.1	0.000 000	0.000
	Batt. Endpoint	+20	2507 500 004	2.2	0.000 000	0.001
2562.500	100 %	+20(Ref)	2562 499 997	0.0	0.000 000	0.000
	100 %	-30	2562 499 995	-2.0	0.000 000	-0.001
	100 %	-20	2562 499 993	-3.6	0.000 000	-0.001
	100 %	-10	2562 499 996	-0.7	0.000 000	0.000
	100 %	0	2562 499 994	-2.2	0.000 000	-0.001
	100 %	+10	2562 499 992	-4.9	0.000 000	-0.002
	100 %	+30	2562 499 994	-2.9	0.000 000	-0.001
	100 %	+40	2562 499 992	-4.3	0.000 000	-0.002
	100 %	+50	2562 499 995	-1.2	0.000 000	0.000
	Batt. Endpoint	+20	2562 499 994	-2.2	0.000 000	-0.001

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2510.000	100 %	+20(Ref)	2509 999 999	0.0	0.000 000	0.000
	100 %	-30	2509 999 997	-1.7	0.000 000	-0.001
	100 %	-20	2509 999 997	-1.7	0.000 000	-0.001
	100 %	-10	2509 999 998	-0.6	0.000 000	0.000
	100 %	0	2509 999 997	-1.3	0.000 000	-0.001
	100 %	+10	2509 999 996	-2.5	0.000 000	-0.001
	100 %	+30	2509 999 998	-0.8	0.000 000	0.000
	100 %	+40	2510 000 000	1.2	0.000 000	0.000
	100 %	+50	2509 999 999	0.4	0.000 000	0.000
	Batt. Endpoint	+20	2509 999 997	-1.9	0.000 000	-0.001
2560.000	100 %	+20(Ref)	2560 000 000	0.0	0.000 000	0.000
	100 %	-30	2560 000 000	0.3	0.000 000	0.000
	100 %	-20	2559 999 997	-2.2	0.000 000	-0.001
	100 %	-10	2559 999 998	-1.3	0.000 000	0.000
	100 %	0	2560 000 002	2.3	0.000 000	0.001
	100 %	+10	2560 000 000	0.8	0.000 000	0.000
	100 %	+30	2560 000 001	1.3	0.000 000	0.000
	100 %	+40	2559 999 998	-2.2	0.000 000	-0.001
	100 %	+50	2560 000 001	1.3	0.000 000	0.001
	Batt. Endpoint	+20	2559 999 999	-0.7	0.000 000	0.000

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2512.500	100 %	+20(Ref)	2512 500 000	0.0	0.000 000	0.000
	100 %	-30	2512 500 000	0.1	0.000 000	0.000
	100 %	-20	2512 500 000	0.8	0.000 000	0.000
	100 %	-10	2512 499 999	-0.7	0.000 000	0.000
	100 %	0	2512 500 001	1.3	0.000 000	0.001
	100 %	+10	2512 499 998	-1.9	0.000 000	-0.001
	100 %	+30	2512 500 000	0.3	0.000 000	0.000
	100 %	+40	2512 499 999	-0.1	0.000 000	0.000
	100 %	+50	2512 499 999	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	2512 499 999	-0.9	0.000 000	0.000
2557.500	100 %	+20(Ref)	2557 500 000	0.0	0.000 000	0.000
	100 %	-30	2557 500 002	1.6	0.000 000	0.001
	100 %	-20	2557 500 003	2.8	0.000 000	0.001
	100 %	-10	2557 500 000	-0.7	0.000 000	0.000
	100 %	0	2557 500 004	3.3	0.000 000	0.001
	100 %	+10	2557 500 003	2.4	0.000 000	0.001
	100 %	+30	2557 500 002	1.6	0.000 000	0.001
	100 %	+40	2557 500 001	0.6	0.000 000	0.000
	100 %	+50	2557 500 004	3.1	0.000 000	0.001
	Batt. Endpoint	+20	2557 500 003	2.1	0.000 000	0.001

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2515.000	100 %	+20(Ref)	2514 999 999	0.0	0.000 000	0.000
	100 %	-30	2514 999 999	0.3	0.000 000	0.000
	100 %	-20	2514 999 996	-2.8	0.000 000	-0.001
	100 %	-10	2514 999 998	-0.3	0.000 000	0.000
	100 %	0	2514 999 996	-2.3	0.000 000	-0.001
	100 %	+10	2514 999 998	-1.0	0.000 000	0.000
	100 %	+30	2514 999 998	-1.0	0.000 000	0.000
	100 %	+40	2514 999 999	0.3	0.000 000	0.000
	100 %	+50	2515 000 001	2.3	0.000 000	0.001
	Batt. Endpoint	+20	2514 999 999	0.8	0.000 000	0.000
2555.000	100 %	+20(Ref)	2555 000 001	0.0	0.000 000	0.000
	100 %	-30	2555 000 000	-1.0	0.000 000	0.000
	100 %	-20	2555 000 001	0.4	0.000 000	0.000
	100 %	-10	2554 999 999	-1.2	0.000 000	0.000
	100 %	0	2555 000 000	-0.9	0.000 000	0.000
	100 %	+10	2554 999 999	-1.7	0.000 000	-0.001
	100 %	+30	2554 999 999	-1.4	0.000 000	-0.001
	100 %	+40	2555 000 001	0.2	0.000 000	0.000
	100 %	+50	2555 000 000	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	2554 999 999	-1.5	0.000 000	-0.001

- ▣ BandWidth: 35 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2517.500	100 %	+20(Ref)	2517 500 000	0.0	0.000 000	0.000
	100 %	-30	2517 500 000	0.8	0.000 000	0.000
	100 %	-20	2517 500 001	0.9	0.000 000	0.000
	100 %	-10	2517 499 998	-1.9	0.000 000	-0.001
	100 %	0	2517 499 999	-1.1	0.000 000	0.000
	100 %	+10	2517 500 000	0.5	0.000 000	0.000
	100 %	+30	2517 500 000	-0.1	0.000 000	0.000
	100 %	+40	2517 499 998	-1.2	0.000 000	0.000
	100 %	+50	2517 500 001	1.2	0.000 000	0.000
	Batt. Endpoint	+20	2517 500 001	1.0	0.000 000	0.000
2552.500	100 %	+20(Ref)	2552 500 001	0.0	0.000 000	0.000
	100 %	-30	2552 500 002	1.4	0.000 000	0.001
	100 %	-20	2552 500 000	-0.6	0.000 000	0.000
	100 %	-10	2552 500 004	3.3	0.000 000	0.001
	100 %	0	2552 500 000	-0.9	0.000 000	0.000
	100 %	+10	2552 500 002	0.4	0.000 000	0.000
	100 %	+30	2552 500 003	2.1	0.000 000	0.001
	100 %	+40	2552 500 001	-0.5	0.000 000	0.000
	100 %	+50	2552 499 998	-2.7	0.000 000	-0.001
	Batt. Endpoint	+20	2552 500 002	0.4	0.000 000	0.000

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2520.000	100 %	+20(Ref)	2520 000 002	0.0	0.000 000	0.000
	100 %	-30	2520 000 000	-1.7	0.000 000	-0.001
	100 %	-20	2520 000 003	0.9	0.000 000	0.000
	100 %	-10	2520 000 001	-0.5	0.000 000	0.000
	100 %	0	2520 000 003	0.9	0.000 000	0.000
	100 %	+10	2520 000 000	-1.9	0.000 000	-0.001
	100 %	+30	2520 000 002	-0.2	0.000 000	0.000
	100 %	+40	2520 000 003	0.5	0.000 000	0.000
	100 %	+50	2520 000 002	-0.2	0.000 000	0.000
	Batt. Endpoint	+20	2520 000 003	1.5	0.000 000	0.001
2550.000	100 %	+20(Ref)	2549 999 998	0.0	0.000 000	0.000
	100 %	-30	2549 999 999	0.2	0.000 000	0.000
	100 %	-20	2550 000 000	1.2	0.000 000	0.000
	100 %	-10	2549 999 997	-1.1	0.000 000	0.000
	100 %	0	2549 999 998	-0.3	0.000 000	0.000
	100 %	+10	2550 000 000	1.6	0.000 000	0.001
	100 %	+30	2549 999 998	-0.3	0.000 000	0.000
	100 %	+40	2549 999 999	0.7	0.000 000	0.000
	100 %	+50	2549 999 998	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	2549 999 998	-0.1	0.000 000	0.000

9. TEST DATA(Sub 2 ANT)

9.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)			W	W	dBm	Size	Offset
2502.5	Sub6 n7/ 5 MHz [15 kHz]	PI/2 BPSK	-25.26	11.60	10.58	2.51	H	< 2.00	0.093	19.67	1	12
		QPSK	-25.28	11.58	10.58	2.51	H		0.092	19.65		
		16-QAM	-26.23	10.63	10.58	2.51	H		0.074	18.70		
		64-QAM	-27.70	9.16	10.58	2.51	H		0.053	17.23		
		256-QAM	-29.68	7.18	10.58	2.51	H		0.034	15.25		
2535.0		PI/2 BPSK	-25.00	11.46	10.59	2.54	H		0.089	19.51	1	12
		QPSK	-25.06	11.40	10.59	2.54	H		0.088	19.45		
		16-QAM	-26.00	10.46	10.59	2.54	H		0.071	18.51		
		64-QAM	-27.44	9.02	10.59	2.54	H		0.051	17.07		
		256-QAM	-29.40	7.06	10.59	2.54	H		0.032	15.11		
2567.5		PI/2 BPSK	-25.45	11.64	10.83	2.65	H		0.096	19.82	1	1
		QPSK	-25.46	11.63	10.83	2.65	H		0.096	19.81		
		16-QAM	-26.44	10.65	10.83	2.65	H		0.076	18.83		
		64-QAM	-27.89	9.20	10.83	2.65	H		0.055	17.38		
		256-QAM	-29.89	7.20	10.83	2.65	H		0.035	15.38		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)					W	dBm	Size	Offset
2505.0		PI/2 BPSK	-24.95	11.91	10.58	2.51	H	< 2.00	0.099	19.98	1	50
		QPSK	-24.96	11.90	10.58	2.51	H		0.099	19.97		
		16-QAM	-25.93	10.93	10.58	2.51	H		0.079	19.00		
		64-QAM	-27.33	9.53	10.58	2.51	H		0.058	17.60		
		256-QAM	-29.27	7.59	10.58	2.51	H		0.037	15.66		
2535.0	Sub6 n7/ 10 MHz [15 kHz]	PI/2 BPSK	-24.77	11.69	10.59	2.54	H	< 2.00	0.094	19.74	1	26
		QPSK	-24.84	11.62	10.59	2.54	H		0.093	19.67		
		16-QAM	-25.83	10.63	10.59	2.54	H		0.074	18.68		
		64-QAM	-27.27	9.19	10.59	2.54	H		0.053	17.24		
		256-QAM	-29.21	7.25	10.59	2.54	H		0.034	15.30		
2565.0		PI/2 BPSK	-25.03	12.05	10.79	2.62	H	< 2.00	0.105	20.22	1	26
		QPSK	-25.07	12.01	10.79	2.62	H		0.104	20.18		
		16-QAM	-26.14	10.94	10.79	2.62	H		0.081	19.11		
		64-QAM	-27.51	9.57	10.79	2.62	H		0.059	17.74		
		256-QAM	-29.42	7.66	10.79	2.62	H		0.038	15.83		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)				W	W	dBm	Size
2507.5	Sub6 n7/ 15 MHz [15 kHz]	PI/2 BPSK	-24.65	12.27	10.55	2.51	H	< 2.00	0.107	20.31	1	39
		QPSK	-24.76	12.16	10.55	2.51	H		0.105	20.20		
		16-QAM	-25.71	11.21	10.55	2.51	H		0.084	19.25		
		64-QAM	-27.26	9.66	10.55	2.51	H		0.059	17.70		
		256-QAM	-28.94	7.98	10.55	2.51	H		0.040	16.02		
2535.0		PI/2 BPSK	-24.69	11.77	10.59	2.54	H		0.096	19.82	1	77
		QPSK	-24.70	11.76	10.59	2.54	H		0.096	19.81		
		16-QAM	-25.65	10.81	10.59	2.54	H		0.077	18.86		
		64-QAM	-27.13	9.33	10.59	2.54	H		0.055	17.38		
		256-QAM	-29.00	7.46	10.59	2.54	H		0.036	15.51		
2562.5	PI/2 BPSK	-25.12	11.96	10.79	2.62	H	0.103	20.13	1	1		
	QPSK	-25.15	11.93	10.79	2.62	H	0.102	20.10				
	16-QAM	-26.16	10.92	10.79	2.62	H	0.081	19.09				
	64-QAM	-27.61	9.47	10.79	2.62	H	0.058	17.64				
	256-QAM	-29.50	7.58	10.79	2.62	H	0.038	15.75				

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)					W	W dBm	Size	Offset
2510.0		PI/2 BPSK	-24.76	12.16	10.55	2.51	H	< 2.00	0.105	20.20	1	104
		QPSK	-24.78	12.14	10.55	2.51	H		0.104	20.18		
		16-QAM	-25.78	11.14	10.55	2.51	H		0.083	19.18		
		64-QAM	-27.14	9.78	10.55	2.51	H		0.061	17.82		
		256-QAM	-29.07	7.85	10.55	2.51	H		0.039	15.89		
2535.0	Sub6 n7/ 20 MHz [15 kHz]	PI/2 BPSK	-24.77	11.69	10.59	2.54	H		0.094	19.74	1	1
		QPSK	-24.82	11.64	10.59	2.54	H		0.093	19.69		
		16-QAM	-25.78	10.68	10.59	2.54	H		0.075	18.73		
		64-QAM	-27.26	9.20	10.59	2.54	H		0.053	17.25		
		256-QAM	-29.11	7.35	10.59	2.54	H		0.035	15.40		
2560.0		PI/2 BPSK	-24.86	12.20	10.76	2.59	H	< 2.00	0.109	20.37	1	1
		QPSK	-24.88	12.18	10.76	2.59	H		0.108	20.35		
		16-QAM	-25.80	11.26	10.76	2.59	H		0.088	19.43		
		64-QAM	-27.36	9.70	10.76	2.59	H		0.061	17.87		
		256-QAM	-29.16	7.90	10.76	2.59	H		0.040	16.07		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)					W	dBm	Size	Offset
2512.5		PI/2 BPSK	-24.67	12.26	10.52	2.53	H	< 2.00	0.106	20.25	1	131
		QPSK	-24.71	12.22	10.52	2.53	H		0.105	20.21		
		16-QAM	-25.60	11.33	10.52	2.53	H		0.085	19.32		
		64-QAM	-27.11	9.82	10.52	2.53	H		0.060	17.81		
		256-QAM	-29.07	7.86	10.52	2.53	H		0.038	15.85		
2535.0	Sub6 n7/ 25 MHz [15 kHz]	PI/2 BPSK	-24.61	11.85	10.59	2.54	H	< 2.00	0.098	19.90	1	1
		QPSK	-24.64	11.82	10.59	2.54	H		0.097	19.87		
		16-QAM	-25.56	10.90	10.59	2.54	H		0.079	18.95		
		64-QAM	-27.13	9.33	10.59	2.54	H		0.055	17.38		
		256-QAM	-29.00	7.46	10.59	2.54	H		0.036	15.51		
2557.5		PI/2 BPSK	-24.88	12.18	10.76	2.59	H	< 2.00	0.108	20.35	1	66
		QPSK	-24.89	12.17	10.76	2.59	H		0.108	20.34		
		16-QAM	-25.89	11.17	10.76	2.59	H		0.086	19.34		
		64-QAM	-27.28	9.78	10.76	2.59	H		0.062	17.95		
		256-QAM	-29.21	7.85	10.76	2.59	H		0.040	16.02		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)				W	W	dBm	Size	Offset
2515.0		PI/2 BPSK	-24.69	12.24	10.52	2.53	H	< 2.00	0.105	20.23	1	80
		QPSK	-24.70	12.23	10.52	2.53	H		0.105	20.22		
		16-QAM	-25.59	11.34	10.52	2.53	H		0.086	19.33		
		64-QAM	-27.08	9.85	10.52	2.53	H		0.061	17.84		
		256-QAM	-28.97	7.96	10.52	2.53	H		0.039	15.95		
2535.0	Sub6 n7/ 30 MHz [15 kHz]	PI/2 BPSK	-24.70	11.76	10.59	2.54	H	< 2.00	0.096	19.81	1	158
		QPSK	-24.75	11.71	10.59	2.54	H		0.095	19.76		
		16-QAM	-25.68	10.78	10.59	2.54	H		0.076	18.83		
		64-QAM	-27.17	9.29	10.59	2.54	H		0.054	17.34		
		256-QAM	-29.01	7.45	10.59	2.54	H		0.035	15.50		
2555.0		PI/2 BPSK	-24.82	11.98	10.72	2.56	H	< 2.00	0.103	20.14	1	1
		QPSK	-24.83	11.97	10.72	2.56	H		0.103	20.13		
		16-QAM	-25.89	10.91	10.72	2.56	H		0.081	19.07		
		64-QAM	-27.23	9.57	10.72	2.56	H		0.059	17.73		
		256-QAM	-29.12	7.68	10.72	2.56	H		0.038	15.84		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant. Gain (dBi)	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)					W	dBm	Size	Offset
2517.5		PI/2 BPSK	-24.64	12.29	10.49	2.54	H	< 2.00	0.106	20.24	1	94
		QPSK	-24.77	12.16	10.49	2.54	H		0.103	20.11		
		16-QAM	-25.68	11.25	10.49	2.54	H		0.083	19.20		
		64-QAM	-27.10	9.83	10.49	2.54	H		0.060	17.78		
		256-QAM	-29.03	7.90	10.49	2.54	H		0.038	15.85		
2535.0	Sub6 n7/ 35 MHz [15 kHz]	PI/2 BPSK	-24.72	11.74	10.59	2.54	H		0.095	19.79	1	1
		QPSK	-24.74	11.72	10.59	2.54	H		0.095	19.77		
		16-QAM	-25.64	10.82	10.59	2.54	H		0.077	18.87		
		64-QAM	-27.08	9.38	10.59	2.54	H		0.055	17.43		
		256-QAM	-29.05	7.41	10.59	2.54	H		0.035	15.46		
2552.5		PI/2 BPSK	-24.84	11.96	10.72	2.56	H		0.103	20.12	1	1
		QPSK	-24.90	11.90	10.72	2.56	H		0.101	20.06		
		16-QAM	-25.82	10.98	10.72	2.56	H		0.082	19.14		
		64-QAM	-27.25	9.55	10.72	2.56	H		0.059	17.71		
		256-QAM	-29.09	7.71	10.72	2.56	H		0.039	15.87		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured	Substitute	Ant.	C.L	Pol	Limit	EIRP		RB	
			Level (dBm)	Level (dBm)	Gain (dBi)				W	W	dBm	Size
2520.0	Sub6 n7/ 40 MHz [15 kHz]	PI/2 BPSK	-24.67	12.26	10.49	2.54	H	< 2.00	0.105	20.21	1	108
		QPSK	-24.70	12.23	10.49	2.54	H		0.104	20.18		
		16-QAM	-25.62	11.31	10.49	2.54	H		0.084	19.26		
		64-QAM	-27.09	9.84	10.49	2.54	H		0.060	17.79		
		256-QAM	-29.03	7.90	10.49	2.54	H		0.038	15.85		
2535.0		PI/2 BPSK	-24.62	11.84	10.59	2.54	H		0.097	19.89	1	108
		QPSK	-24.74	11.72	10.59	2.54	H		0.095	19.77		
		16-QAM	-25.71	10.75	10.59	2.54	H		0.076	18.80		
		64-QAM	-27.09	9.37	10.59	2.54	H		0.055	17.42		
		256-QAM	-29.00	7.46	10.59	2.54	H		0.036	15.51		
2550.0	PI/2 BPSK	-24.59	11.94	10.69	2.53	H	0.102		20.10	1	108	
	QPSK	-24.60	11.93	10.69	2.53	H	0.102		20.09			
	16-QAM	-25.57	10.96	10.69	2.53	H	0.082		19.12			
	64-QAM	-27.16	9.37	10.69	2.53	H	0.057		17.53			
	256-QAM	-28.89	7.64	10.69	2.53	H	0.038		15.80			

9.2 RADIATED SPURIOUS EMISSIONS

NR Band:	<u>N7</u>
Bandwidth:	<u>5 MHz</u>
Modulation:	<u>PI/2 BPSK</u>
Distance:	<u>1 meters</u>
SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
500500 (2502.5)	5 005.00	-58.19	11.20	-59.62	3.71	H	-52.13	-25.00	1	12
	7 507.50	-57.77	11.55	-50.23	4.60	V	-43.28			
	10 010.00	-61.55	11.47	-52.47	5.47	V	-46.47			
507000 (2535.0)	5 070.00	-56.74	11.25	-57.90	3.80	V	-50.45		1	12
	7 605.00	-56.96	11.60	-49.91	4.64	V	-42.95			
	10 140.00	-62.35	11.36	-52.41	5.48	V	-46.53			
513500 (2567.5)	5 135.00	-59.13	11.43	-60.06	3.81	H	-52.44		1	1
	7 702.50	-57.37	11.42	-49.84	4.66	V	-43.08			
	10 270.00	-61.71	11.51	-50.45	5.57	V	-44.51			

■ NR Band: N7
 ■ Bandwidth: 10 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 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
501000 (2505.0)	5 010.00	-59.91	11.18	-61.05	3.72	V	-53.59	-25.00	1	50
	7 515.00	-58.11	11.56	-50.53	4.60	V	-43.57			
	10 020.00	-61.73	11.46	-52.05	5.47	V	-46.06			
507000 (2535.0)	5 070.00	-58.70	11.25	-59.86	3.80	V	-52.41		1	26
	7 605.00	-57.43	11.60	-50.38	4.64	V	-43.42			
	10 140.00	-62.75	11.36	-52.81	5.48	V	-46.93			
513000 (2565.0)	5 130.00	-59.48	11.41	-60.45	3.81	V	-52.85		1	26
	7 695.00	-57.75	11.44	-50.02	4.66	V	-43.24			
	10 260.00	-61.58	11.49	-50.96	5.56	V	-45.03			

■ NR Band:	<u>N7</u>
■ Bandwidth:	<u>15 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
501500 (2507.5)	5 015.00	-60.44	11.17	-61.36	3.70	V	-53.89	-25.00	1	39
	7 522.50	-58.24	11.57	-50.59	4.61	V	-43.63			
	10 030.00	-61.31	11.45	-52.27	5.47	V	-46.29			
507000 (2535.0)	5 070.00	-59.27	11.25	-60.43	3.80	V	-52.98		1	77
	7 605.00	-57.33	11.60	-50.28	4.64	V	-43.32			
	10 140.00	-62.68	11.36	-52.74	5.48	V	-46.86			
512500 (2562.5)	5 125.00	-59.40	11.40	-60.57	3.81	V	-52.98		1	1
	7 687.50	-57.60	11.45	-49.84	4.66	V	-43.05			
	10 250.00	-61.99	11.47	-50.77	5.54	V	-44.84			

■ NR Band: N7
 ■ Bandwidth: 20 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 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
502000 (2510.0)	5 020.00	-59.99	11.17	-60.69	3.69	V	-53.21	-25.00	1	104
	7 530.00	-57.94	11.57	-50.28	4.60	V	-43.31			
	10 040.00	-61.42	11.44	-51.96	5.49	V	-46.01			
507000 (2535.0)	5 070.00	-58.97	11.25	-60.13	3.80	V	-52.68		1	1
	7 605.00	-57.32	11.60	-50.27	4.64	V	-43.31			
	10 140.00	-62.45	11.36	-52.51	5.48	V	-46.63			
512000 (2560.0)	5 120.00	-58.82	11.38	-60.19	3.81	V	-52.62		1	1
	7 680.00	-57.70	11.47	-50.04	4.70	V	-43.27			
	10 240.00	-61.56	11.45	-50.89	5.54	V	-44.98			

■ NR Band:	<u>N7</u>
■ Bandwidth:	<u>25 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
502500 (2512.5)	5 025.00	-60.36	11.18	-61.13	3.68	V	-53.63	-25.00	1	131
	7 537.50	-58.01	11.58	-50.48	4.61	V	-43.51			
	10 050.00	-61.69	11.43	-52.49	5.48	V	-46.54			
507000 (2535.0)	5 070.00	-59.39	11.25	-60.55	3.80	V	-53.10		1	1
	7 605.00	-57.21	11.60	-50.16	4.64	V	-43.20			
	10 140.00	-62.71	11.36	-52.77	5.48	V	-46.89			
511500 (2557.5)	5 115.00	-58.78	11.36	-60.16	3.80	V	-52.60		1	66
	7 672.50	-57.64	11.48	-50.07	4.70	V	-43.29			
	10 230.00	-61.70	11.43	-50.79	5.54	V	-44.90			

■ NR Band: N7
 ■ Bandwidth: 30 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 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
503000 (2515.0)	5 030.00	-59.75	11.19	-60.59	3.67	V	-53.07	-25.00	1	80
	7 545.00	-58.00	11.58	-50.54	4.62	V	-43.58			
	10 060.00	-61.48	11.42	-52.36	5.48	V	-46.42			
507000 (2535.0)	5 070.00	-59.42	11.25	-60.58	3.80	V	-53.13		1	158
	7 605.00	-57.46	11.60	-50.41	4.64	V	-43.45			
	10 140.00	-62.69	11.36	-52.75	5.48	V	-46.87			
511000 (2555.0)	5 110.00	-59.00	11.34	-60.39	3.79	V	-52.84		1	1
	7 665.00	-57.59	11.50	-50.30	4.70	V	-43.50			
	10 220.00	-61.58	11.42	-51.20	5.54	V	-45.32			

■ NR Band: N7
 ■ Bandwidth: 35 MHz
 ■ Modulation: PI/2 BPSK
 ■ Distance: 1 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
503500 (2517.5)	5 035.00	-59.62	11.19	-60.56	3.67	V	-53.04	-25.00	1	94
	7 552.50	-57.92	11.59	-50.46	4.63	V	-43.50			
	10 070.00	-61.78	11.42	-52.46	5.47	V	-46.51			
507000 (2535.0)	5 070.00	-59.15	11.25	-60.31	3.80	V	-52.86		1	1
	7 605.00	-57.36	11.60	-50.31	4.64	V	-43.35			
	10 140.00	-62.71	11.36	-52.77	5.48	V	-46.89			
510500 (2552.5)	5 105.00	-58.81	11.32	-60.09	3.79	V	-52.56		1	1
	7 657.50	-57.63	11.51	-50.55	4.69	V	-43.73			
	10 210.00	-61.65	11.40	-51.63	5.54	V	-45.77			

■ NR Band:	<u>N7</u>
■ Bandwidth:	<u>40 MHz</u>
■ Modulation:	<u>PI/2 BPSK</u>
■ Distance:	<u>1 meters</u>
■ SCS:	<u>15 kHz</u>

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
504000 (2520.0)	5 040.00	-59.89	11.20	-60.93	3.68	V	-53.41	-25.00	1	108
	7 560.00	-58.05	11.60	-50.51	4.64	V	-43.55			
	10 080.00	-61.46	11.41	-52.45	5.47	V	-46.51			
507000 (2535.0)	5 070.00	-59.41	11.25	-60.57	3.80	V	-53.12		1	108
	7 605.00	-57.24	11.60	-50.19	4.64	V	-43.23			
	10 140.00	-62.02	11.36	-52.08	5.48	V	-46.20			
510000 (2550.0)	5 100.00	-58.84	11.31	-60.03	3.78	V	-52.50		1	108
	7 650.00	-57.62	11.52	-50.49	4.68	V	-43.65			
	10 200.00	-61.68	11.38	-51.52	5.54	V	-45.68			

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)	Limit (dB)
Sub6 n7	5 MHz	2535.0	BPSK	25	0	6.51	13.00
			QPSK			6.65	
			16-QAM			6.86	
			64-QAM			7.00	
			256-QAM			6.91	
	10 MHz		BPSK	50		4.98	
			QPSK			6.15	
			16-QAM			6.77	
			64-QAM			6.83	
			256-QAM			6.74	
	15 MHz		BPSK	75		4.92	
			QPSK			6.12	
			16-QAM			6.72	
			64-QAM			7.02	
			256-QAM			6.80	
	20 MHz		BPSK	100		5.52	
			QPSK			6.15	
			16-QAM			6.57	
			64-QAM			6.81	
			256-QAM			6.68	
	25 MHz		BPSK	128		5.09	
			QPSK			6.22	
			16-QAM			6.71	
			64-QAM			6.81	
			256-QAM			6.71	
	30 MHz		BPSK	160		5.17	
			QPSK			6.17	
			16-QAM			6.67	
			64-QAM			6.81	
			256-QAM			6.72	

	35 MHz		BPSK	180		5.64	
			QPSK			6.18	
			16-QAM			6.63	
			64-QAM			6.71	
			256-QAM			6.65	
	40 MHz		BPSK	216		5.13	
			QPSK			6.23	
			16-QAM			6.63	
			64-QAM			6.77	
			256-QAM			6.66	

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 274 ~ 313.
2. P.A.P.R is not required. These values are reported for information only.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n7	5 MHz	2535.0	BPSK	25	0	4.5237
			QPSK			4.5371
			16-QAM			4.5212
			64-QAM			4.5380
			256-QAM			4.5279
	10 MHz		BPSK	50		9.0194
			QPSK			9.0431
			16-QAM			9.0306
			64-QAM			8.9992
			256-QAM			9.0043
	15 MHz		BPSK	75		13.494
			QPSK			13.511
			16-QAM			13.527
			64-QAM			13.473
			256-QAM			13.507
	20 MHz		BPSK	100		18.005
			QPSK			17.970
			16-QAM			17.954
			64-QAM			17.993
			256-QAM			17.969
	25 MHz		BPSK	128		23.146
			QPSK			23.140
			16-QAM			23.107
			64-QAM			23.042
			256-QAM			23.091
	30 MHz		BPSK	160		28.915
			QPSK			28.906
			16-QAM			28.868
			64-QAM			28.897
			256-QAM			28.935

	35 MHz		BPSK	180		32.562
			QPSK			32.523
			16-QAM			32.482
			64-QAM			32.513
			256-QAM			32.669
	40 MHz		BPSK	216		38.977
			QPSK			38.982
			16-QAM			38.900
			64-QAM			38.921
			256-QAM			38.967

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 314 ~ 353.

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 n7	5	2502.500	3.7787	29.722	-62.560	-32.838	-25.00
		2535.000	3.8086	29.722	-62.152	-32.430	
		2567.500	4.9352	29.722	-63.369	-33.647	
	10	2505.000	3.8086	0.000	-62.489	-62.489	
		2535.000	9.1625	0.000	-63.008	-63.008	
		2565.000	8.3051	0.000	-62.657	-62.657	
	15	2507.500	9.1027	30.315	-64.335	-34.020	
		2535.000	9.6810	30.315	-63.327	-33.012	
		2562.500	4.0280	29.722	-62.988	-33.266	
	20	2510.000	4.9153	29.722	-61.977	-32.255	
		2535.000	4.9652	29.722	-62.176	-32.454	
		2560.000	3.2902	29.722	-63.240	-33.518	
	25	2512.500	8.6341	30.315	-62.994	-32.679	
		2535.000	3.9582	29.722	-63.429	-33.707	
		2557.500	8.3350	30.315	-63.203	-32.888	
	30	2515.000	9.7308	30.315	-62.135	-31.820	
		2535.000	4.5464	29.722	-62.707	-32.985	
		2555.000	7.2383	30.315	-63.000	-32.685	
	35	2517.500	9.4217	30.315	-63.048	-32.733	
		2535.000	9.9900	30.315	-62.936	-32.621	
		2552.500	6.1117	30.315	-63.346	-33.031	
	40	2520.000	4.0479	29.722	-63.032	-33.310	
		2535.000	9.1526	30.315	-62.942	-32.627	
		2550.000	9.9003	30.315	-63.341	-33.026	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 354 ~ 401
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 CHANNEL EDGE

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	2 500 MHz ~ 2 496 MHz	C.E ~ (C.E +1 MHz)	2 490.5 MHz ~ 2 496 MHz	(C.E + 1 MHz) ~ (C.E + 5 MHz)	Below 2 490.5 MHz	(C.E + 5 MHz) ~ (C.E + X MHz)	Above (C.E + X MHz)
				Lower	Upper	Lower	Upper	Lower	Upper	Upper
5	2502.500	BPSK	Full RB	-22.79	-23.01	-34.52	-28.91	-52.27	-37.21	-38.66
10	2505.000	BPSK	Full RB	-23.63	-32.31	-30.23	-29.53	-47.29	-32.00	-37.12
15	2507.500	BPSK	Full RB	-25.71	-32.45	-34.27	-27.29	-46.75	-28.74	-43.52
20	2510.000	BPSK	Full RB	-25.97	-34.28	-37.79	-34.72	-44.19	-34.33	-46.61
25	2512.500	BPSK	Full RB	-24.35	-32.87	-32.41	-31.07	-37.23	-35.88	-43.27
30	2515.000	BPSK	Full RB	-22.06	-24.15	-30.55	-28.45	-36.67	-35.12	-42.35
35	2517.500	BPSK	Full RB	-21.49	-31.80	-30.49	-32.29	-38.76	-34.96	-46.30
40	2520.000	BPSK	Full RB	-15.12	-17.56	-29.64	-26.92	-40.87	-30.63	-45.30
Limit(dBm)				-10.0	-10.0	-13.0	-10.0	-25.0	-13.0	-25.0

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	C.E ~ (C.E ± 1 MHz)		(C.E ± 1 MHz) ~ (C.E ± 5 MHz)	
				Lower	Upper	Lower	Upper
5	2535.000	BPSK	Full RB	-21.31	-21.04	-19.68	-19.31
	2567.500	BPSK	Full RB	-22.31	-22.09	-24.31	-25.14
10	2535.000	BPSK	Full RB	-22.07	-25.35	-21.92	-20.79
	2565.000	BPSK	Full RB	-23.71	-27.42	-25.64	-24.54
15	2535.000	BPSK	Full RB	-22.20	-26.94	-22.67	-24.35
	2562.500	BPSK	Full RB	-24.46	-30.27	-26.25	-26.97
20	2535.000	BPSK	Full RB	-22.89	-26.47	-22.10	-22.36
	2560.000	BPSK	Full RB	-25.35	-34.18	-29.00	-32.23
25	2535.000	BPSK	Full RB	-21.48	-24.62	-24.24	-22.95
	2557.500	BPSK	Full RB	-23.77	-30.52	-28.11	-28.56
30	2535.000	BPSK	Full RB	-21.20	-21.76	-24.70	-25.23
	2555.000	BPSK	Full RB	-23.38	-21.94	-26.81	-25.08
35	2535.000	BPSK	Full RB	-20.64	-30.52	-25.27	-29.66
	2552.500	BPSK	Full RB	-22.55	-25.94	-25.74	-24.12
40	2535.000	BPSK	Full RB	-14.71	-15.61	-27.26	-25.33
	2550.000	BPSK	Full RB	-15.79	-15.31	-25.57	-22.79
Limi(dBm)				-10.0		-10.0	

BW (MHz)	Frequency (MHz)	Mod	RB (Size/ Offset)	(C.E $\pm$ 5 MHz)		Above (C.E $\pm$ X MHz)	
				~ (C.E $\pm$ X MHz)			
				Lower	Upper	Lower	Upper
5	2535.000	BPSK	Full RB	-30.46	-30.22	-33.12	-32.93
	2567.500	BPSK	Full RB	-37.84	-37.60	-38.69	-39.24
10	2535.000	BPSK	Full RB	-22.53	-22.07	-37.72	-38.47
	2565.000	BPSK	Full RB	-27.68	-27.27	-38.42	-39.82
15	2535.000	BPSK	Full RB	-24.26	-22.49	-41.47	-42.47
	2562.500	BPSK	Full RB	-29.97	-28.93	-41.66	-48.20
20	2535.000	BPSK	Full RB	-25.72	-23.06	-39.81	-40.56
	2560.000	BPSK	Full RB	-32.32	-31.75	-46.23	-56.85
25	2535.000	BPSK	Full RB	-30.38	-26.98	-43.10	-42.97
	2557.500	BPSK	Full RB	-31.48	-29.88	-42.38	-52.51
30	2535.000	BPSK	Full RB	-28.40	-27.03	-51.19	-43.91
	2555.000	BPSK	Full RB	-29.28	-29.25	-43.84	-61.63
35	2535.000	BPSK	Full RB	-28.93	-29.22	-61.57	-53.41
	2552.500	BPSK	Full RB	-26.77	-26.22	-43.77	-61.69
40	2535.000	BPSK	Full RB	-30.61	-28.53	-61.67	-54.77
	2550.000	BPSK	Full RB	-26.92	-26.90	-52.88	-61.41
Limit(dBm)				-13.0		-25.0	

Note:

1. C.E = Channel Edge
2. X = X is the greater of 6 MHz or the actual emission bandwidth
3. Duty Cycle factor already applied on the factor.
 - Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter
 - Result(dBm) = Reading + Factor
4. Plots of the EUT's Channel Edge are shown Page 402 ~ 457.

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. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2502.500	100 %	+20(Ref)	2502 500 000	0.0	0.000 000	0.000
	100 %	-30	2502 500 000	-0.1	0.000 000	0.000
	100 %	-20	2502 499 999	-0.6	0.000 000	0.000
	100 %	-10	2502 499 999	-0.8	0.000 000	0.000
	100 %	0	2502 499 998	-1.9	0.000 000	-0.001
	100 %	+10	2502 500 001	0.9	0.000 000	0.000
	100 %	+30	2502 499 997	-3.0	0.000 000	-0.001
	100 %	+40	2502 499 998	-1.7	0.000 000	-0.001
	100 %	+50	2502 500 001	1.0	0.000 000	0.000
	Batt. Endpoint	+20	2502 499 998	-2.0	0.000 000	-0.001
2567.500	100 %	+20(Ref)	2567 500 003	0.0	0.000 000	0.000
	100 %	-30	2567 500 005	1.8	0.000 000	0.001
	100 %	-20	2567 500 006	3.4	0.000 000	0.001
	100 %	-10	2567 500 007	3.9	0.000 000	0.002
	100 %	0	2567 500 005	2.3	0.000 000	0.001
	100 %	+10	2567 500 005	2.2	0.000 000	0.001
	100 %	+30	2567 500 004	1.5	0.000 000	0.001
	100 %	+40	2567 500 002	-0.8	0.000 000	0.000
	100 %	+50	2567 500 003	0.3	0.000 000	0.000
	Batt. Endpoint	+20	2567 500 005	1.9	0.000 000	0.001

- ▣ BandWidth: 10 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2505.000	100 %	+20(Ref)	2504 999 999	0.0	0.000 000	0.000
	100 %	-30	2504 999 999	-0.3	0.000 000	0.000
	100 %	-20	2504 999 999	-0.1	0.000 000	0.000
	100 %	-10	2504 999 999	-0.3	0.000 000	0.000
	100 %	0	2505 000 001	1.2	0.000 000	0.000
	100 %	+10	2504 999 998	-1.4	0.000 000	-0.001
	100 %	+30	2505 000 001	1.6	0.000 000	0.001
	100 %	+40	2505 000 000	0.2	0.000 000	0.000
	100 %	+50	2504 999 999	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	2505 000 001	1.9	0.000 000	0.001
2565.000	100 %	+20(Ref)	2564 999 997	0.0	0.000 000	0.000
	100 %	-30	2564 999 996	-0.7	0.000 000	0.000
	100 %	-20	2564 999 994	-2.8	0.000 000	-0.001
	100 %	-10	2565 000 002	4.9	0.000 000	0.002
	100 %	0	2564 999 996	-1.0	0.000 000	0.000
	100 %	+10	2564 999 994	-3.1	0.000 000	-0.001
	100 %	+30	2564 999 995	-1.9	0.000 000	-0.001
	100 %	+40	2564 999 996	-1.5	0.000 000	-0.001
	100 %	+50	2564 999 996	-1.2	0.000 000	0.000
	Batt. Endpoint	+20	2565 000 000	2.7	0.000 000	0.001

- ▣ BandWidth: 15 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2507.500	100 %	+20(Ref)	2507 499 999	0.0	0.000 000	0.000
	100 %	-30	2507 499 999	-0.1	0.000 000	0.000
	100 %	-20	2507 500 001	1.9	0.000 000	0.001
	100 %	-10	2507 499 999	-0.3	0.000 000	0.000
	100 %	0	2507 500 000	0.9	0.000 000	0.000
	100 %	+10	2507 500 001	1.0	0.000 000	0.000
	100 %	+30	2507 500 000	0.4	0.000 000	0.000
	100 %	+40	2507 499 999	-0.6	0.000 000	0.000
	100 %	+50	2507 499 998	-1.5	0.000 000	-0.001
	Batt. Endpoint	+20	2507 499 999	-0.8	0.000 000	0.000
2562.500	100 %	+20(Ref)	2562 499 996	0.0	0.000 000	0.000
	100 %	-30	2562 499 992	-4.0	0.000 000	-0.002
	100 %	-20	2562 499 993	-2.3	0.000 000	-0.001
	100 %	-10	2562 499 993	-3.0	0.000 000	-0.001
	100 %	0	2562 499 995	-1.2	0.000 000	0.000
	100 %	+10	2562 499 993	-2.7	0.000 000	-0.001
	100 %	+30	2562 499 992	-3.3	0.000 000	-0.001
	100 %	+40	2562 499 993	-2.6	0.000 000	-0.001
	100 %	+50	2562 499 991	-5.2	0.000 000	-0.002
	Batt. Endpoint	+20	2562 499 994	-1.6	0.000 000	-0.001

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2510.000	100 %	+20(Ref)	2510 000 000	0.0	0.000 000	0.000
	100 %	-30	2510 000 000	0.3	0.000 000	0.000
	100 %	-20	2509 999 999	-1.3	0.000 000	-0.001
	100 %	-10	2510 000 000	0.5	0.000 000	0.000
	100 %	0	2509 999 999	-0.5	0.000 000	0.000
	100 %	+10	2510 000 000	0.0	0.000 000	0.000
	100 %	+30	2510 000 001	1.3	0.000 000	0.001
	100 %	+40	2510 000 001	0.9	0.000 000	0.000
	100 %	+50	2509 999 999	-1.3	0.000 000	-0.001
	Batt. Endpoint	+20	2510 000 000	0.5	0.000 000	0.000
2560.000	100 %	+20(Ref)	2559 999 998	0.0	0.000 000	0.000
	100 %	-30	2560 000 000	1.4	0.000 000	0.001
	100 %	-20	2559 999 995	-3.5	0.000 000	-0.001
	100 %	-10	2559 999 999	0.2	0.000 000	0.000
	100 %	0	2559 999 999	0.6	0.000 000	0.000
	100 %	+10	2559 999 997	-1.4	0.000 000	-0.001
	100 %	+30	2559 999 996	-2.3	0.000 000	-0.001
	100 %	+40	2559 999 996	-2.4	0.000 000	-0.001
	100 %	+50	2559 999 999	0.9	0.000 000	0.000
	Batt. Endpoint	+20	2559 999 997	-1.8	0.000 000	-0.001

- ▣ BandWidth: 25 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2512.500	100 %	+20(Ref)	2512 499 998	0.0	0.000 000	0.000
	100 %	-30	2512 499 997	-0.6	0.000 000	0.000
	100 %	-20	2512 499 996	-1.6	0.000 000	-0.001
	100 %	-10	2512 500 000	1.7	0.000 000	0.001
	100 %	0	2512 499 996	-2.2	0.000 000	-0.001
	100 %	+10	2512 499 996	-2.1	0.000 000	-0.001
	100 %	+30	2512 499 998	-0.4	0.000 000	0.000
	100 %	+40	2512 499 996	-1.7	0.000 000	-0.001
	100 %	+50	2512 499 998	-0.1	0.000 000	0.000
	Batt. Endpoint	+20	2512 499 998	-0.1	0.000 000	0.000
2557.500	100 %	+20(Ref)	2557 500 002	0.0	0.000 000	0.000
	100 %	-30	2557 500 006	4.0	0.000 000	0.002
	100 %	-20	2557 500 006	4.2	0.000 000	0.002
	100 %	-10	2557 500 003	1.4	0.000 000	0.001
	100 %	0	2557 500 004	1.8	0.000 000	0.001
	100 %	+10	2557 500 004	2.4	0.000 000	0.001
	100 %	+30	2557 500 005	2.8	0.000 000	0.001
	100 %	+40	2557 500 004	1.8	0.000 000	0.001
	100 %	+50	2557 500 004	2.1	0.000 000	0.001
	Batt. Endpoint	+20	2557 500 005	2.7	0.000 000	0.001

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2515.000	100 %	+20(Ref)	2514 999 998	0.0	0.000 000	0.000
	100 %	-30	2514 999 996	-1.2	0.000 000	0.000
	100 %	-20	2514 999 996	-1.1	0.000 000	0.000
	100 %	-10	2514 999 995	-2.3	0.000 000	-0.001
	100 %	0	2514 999 994	-3.1	0.000 000	-0.001
	100 %	+10	2514 999 996	-1.5	0.000 000	-0.001
	100 %	+30	2514 999 995	-2.3	0.000 000	-0.001
	100 %	+40	2514 999 997	-1.0	0.000 000	0.000
	100 %	+50	2514 999 997	-0.6	0.000 000	0.000
	Batt. Endpoint	+20	2514 999 996	-1.9	0.000 000	-0.001
2555.000	100 %	+20(Ref)	2555 000 002	0.0	0.000 000	0.000
	100 %	-30	2555 000 001	-0.3	0.000 000	0.000
	100 %	-20	2555 000 000	-1.9	0.000 000	-0.001
	100 %	-10	2555 000 002	-0.2	0.000 000	0.000
	100 %	0	2555 000 002	-0.1	0.000 000	0.000
	100 %	+10	2555 000 004	2.3	0.000 000	0.001
	100 %	+30	2555 000 003	1.4	0.000 000	0.001
	100 %	+40	2555 000 005	3.1	0.000 000	0.001
	100 %	+50	2555 000 003	0.8	0.000 000	0.000
	Batt. Endpoint	+20	2555 000 001	-0.8	0.000 000	0.000

- ▣ BandWidth: 35 MHz
- ▣ Voltage(100 %): 3.880 VDC
- ▣ Batt. Endpoint: 3.300 VDC
- ▣ LIMIT: Emission must remain in band

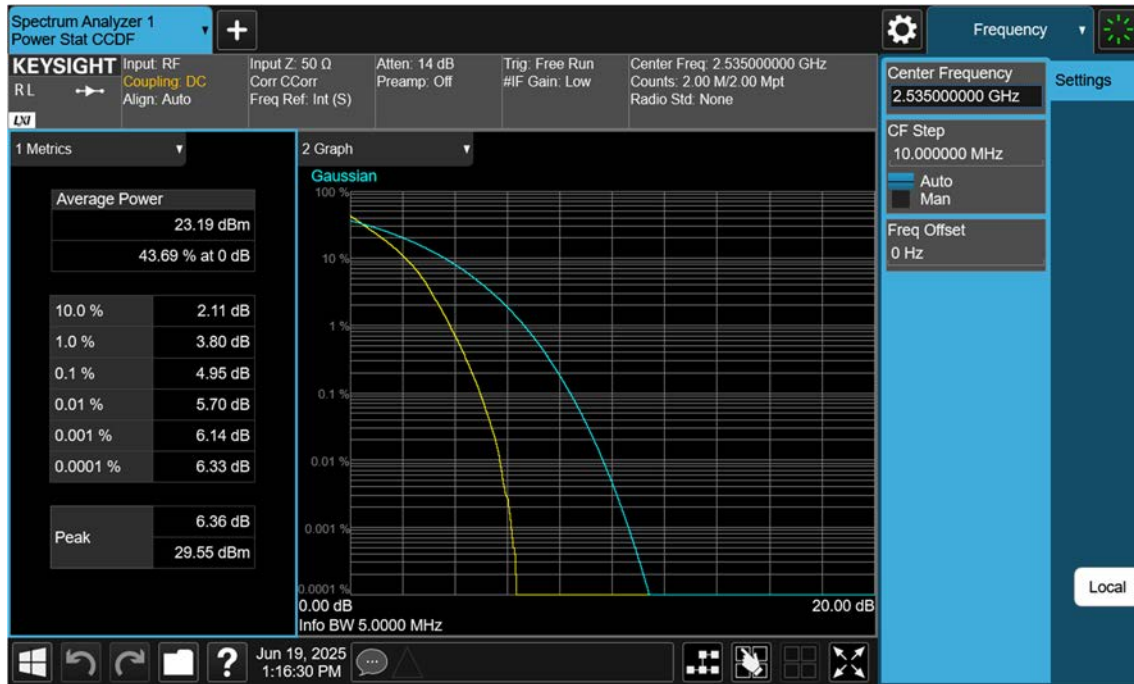
Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2517.500	100 %	+20(Ref)	2517 500 000	0.0	0.000 000	0.000
	100 %	-30	2517 500 002	1.7	0.000 000	0.001
	100 %	-20	2517 500 001	1.1	0.000 000	0.000
	100 %	-10	2517 500 000	0.0	0.000 000	0.000
	100 %	0	2517 500 001	0.9	0.000 000	0.000
	100 %	+10	2517 500 002	1.8	0.000 000	0.001
	100 %	+30	2517 499 998	-2.3	0.000 000	-0.001
	100 %	+40	2517 500 001	0.8	0.000 000	0.000
	100 %	+50	2517 500 001	0.5	0.000 000	0.000
	Batt. Endpoint	+20	2517 499 999	-1.2	0.000 000	0.000
2552.500	100 %	+20(Ref)	2552 499 998	0.0	0.000 000	0.000
	100 %	-30	2552 499 999	0.5	0.000 000	0.000
	100 %	-20	2552 499 997	-1.7	0.000 000	-0.001
	100 %	-10	2552 499 999	0.9	0.000 000	0.000
	100 %	0	2552 499 998	-0.4	0.000 000	0.000
	100 %	+10	2552 499 999	1.1	0.000 000	0.000
	100 %	+30	2552 500 001	2.3	0.000 000	0.001
	100 %	+40	2552 499 997	-1.0	0.000 000	0.000
	100 %	+50	2552 499 996	-2.6	0.000 000	-0.001
	Batt. Endpoint	+20	2552 499 997	-1.6	0.000 000	-0.001

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

Test. Frequency	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
2520.000	100 %	+20(Ref)	2519 999 997	0.0	0.000 000	0.000
	100 %	-30	2519 999 995	-1.9	0.000 000	-0.001
	100 %	-20	2519 999 996	-0.8	0.000 000	0.000
	100 %	-10	2519 999 996	-1.2	0.000 000	0.000
	100 %	0	2519 999 997	-0.2	0.000 000	0.000
	100 %	+10	2519 999 999	1.7	0.000 000	0.001
	100 %	+30	2519 999 997	0.1	0.000 000	0.000
	100 %	+40	2519 999 995	-1.8	0.000 000	-0.001
	100 %	+50	2519 999 999	1.5	0.000 000	0.001
	Batt. Endpoint	+20	2519 999 998	0.8	0.000 000	0.000
2550.000	100 %	+20(Ref)	2550 000 002	0.0	0.000 000	0.000
	100 %	-30	2550 000 004	2.4	0.000 000	0.001
	100 %	-20	2550 000 004	2.1	0.000 000	0.001
	100 %	-10	2550 000 005	2.8	0.000 000	0.001
	100 %	0	2550 000 004	1.7	0.000 000	0.001
	100 %	+10	2550 000 005	3.5	0.000 000	0.001
	100 %	+30	2550 000 001	-0.4	0.000 000	0.000
	100 %	+40	2550 000 002	0.6	0.000 000	0.000
	100 %	+50	2550 000 004	1.9	0.000 000	0.001
	Batt. Endpoint	+20	2550 000 002	0.0	0.000 000	0.000

10. TEST PLOTS(Main 2 ANT)

5 M_PAR_Mid_BPSK_FullRB



5 M_PAR_Mid_QPSK_FullRB



5 M_PAR_Mid_16QAM_FullRB



5 M_PAR_Mid_64QAM_FullRB



5 M_PAR_Mid_256QAM_FullRB



10 M_PAR_Mid_BPSK_FullIRB



10 M_PAR_Mid_QPSK_FullRB



10 M_PAR_Mid_16QAM_FullRB



10 M_PAR_Mid_64QAM_FullRB



10 M_PAR_Mid_256QAM_FullRB



15 M_PAR_Mid_BPSK_FullIRB



15 M_PAR_Mid_QPSK_FullRB



15 M_PAR_Mid_16QAM_FullRB



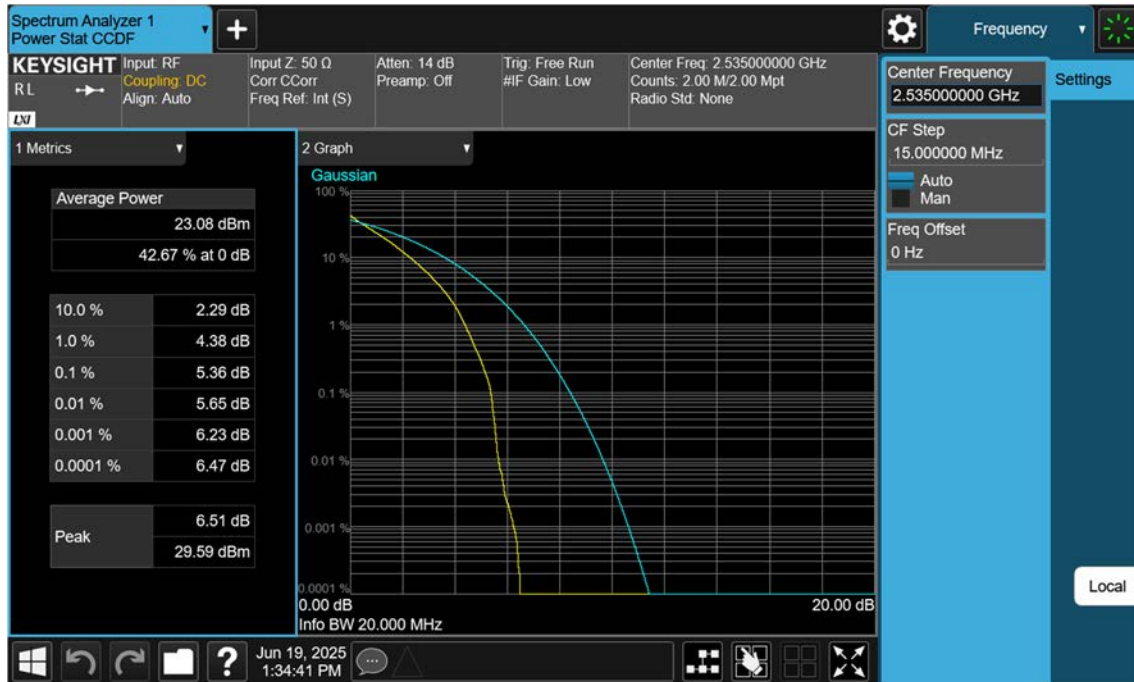
15 M_PAR_Mid_64QAM_FullRB



15 M_PAR_Mid_256QAM_FullRB



20 M_PAR_Mid_BPSK_FullRB



20 M_PAR_Mid_QPSK_FullRB



20 M_PAR_Mid_16QAM_FullRB



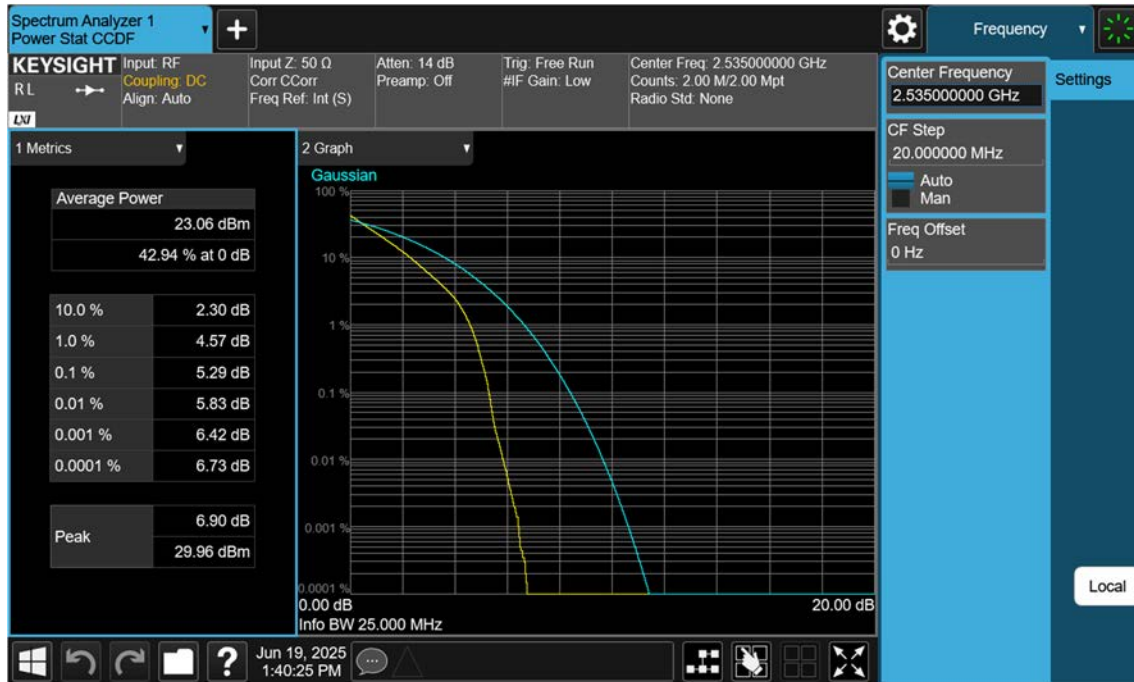
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20 M_PAR_Mid_256QAM_FullIRB



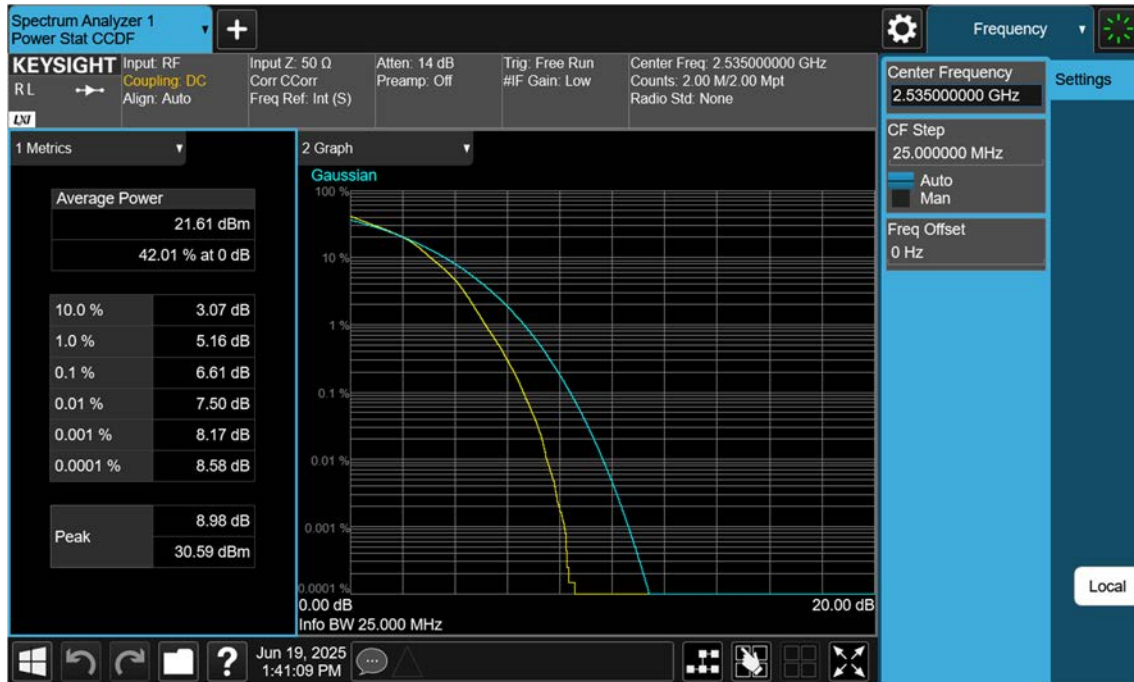
25 M_PAR_Mid_BPSK_FullRB



25 M_PAR_Mid_QPSK_FullRB



25 M_PAR_Mid_16QAM_FullRB



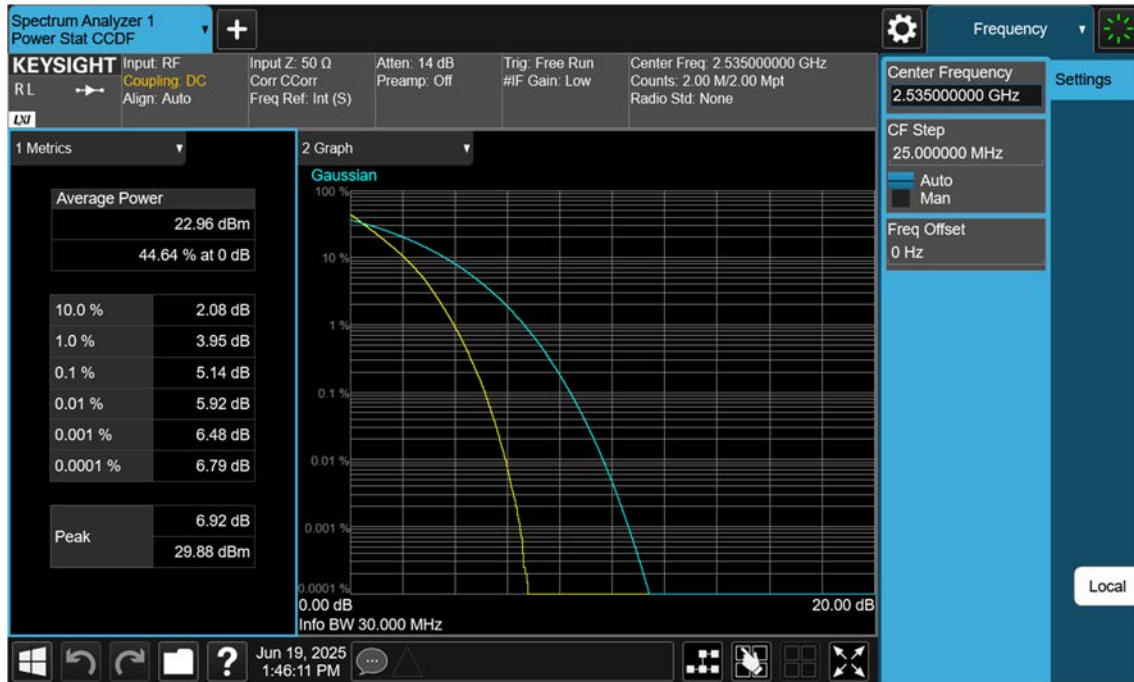
25 M_PAR_Mid_64QAM_FullRB



25 M_PAR_Mid_256QAM_FullRB



30 M_PAR_Mid_BPSK_FullIRB



30 M_PAR_Mid_QPSK_FullRB



30 M_PAR_Mid_16QAM_FullRB



30 M_PAR_Mid_64QAM_FullRB



30 M_PAR_Mid_256QAM_FullRB



35 M_PAR_Mid_BPSK_FullIRB



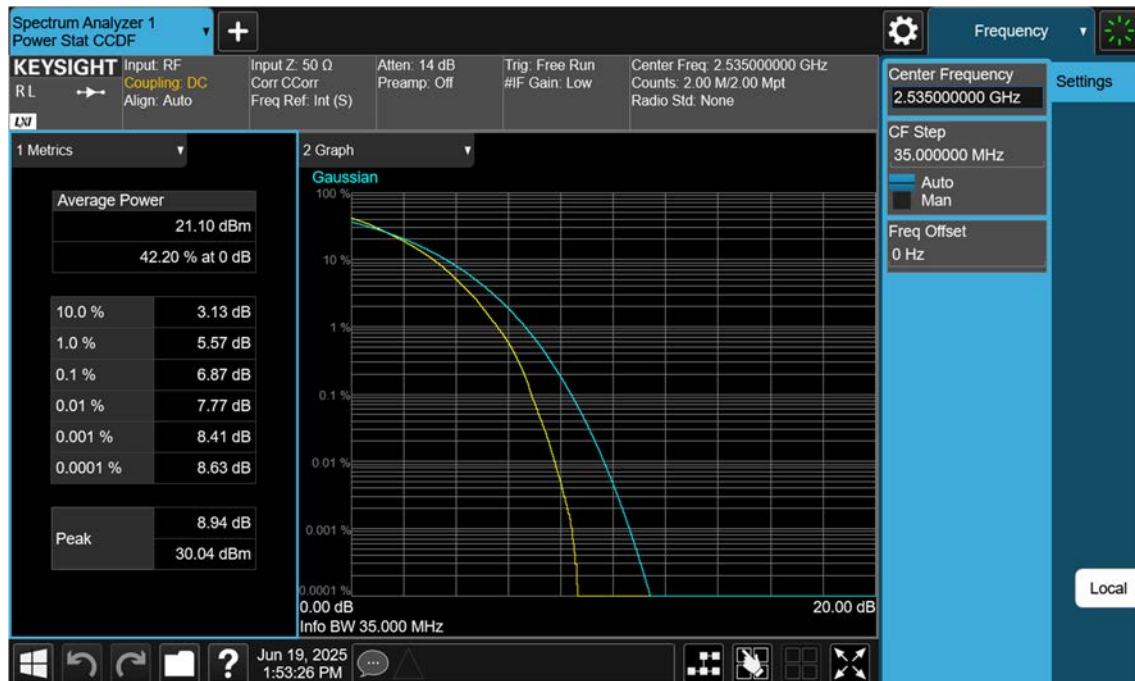
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35 M_PAR_Mid_16QAM_FullRB



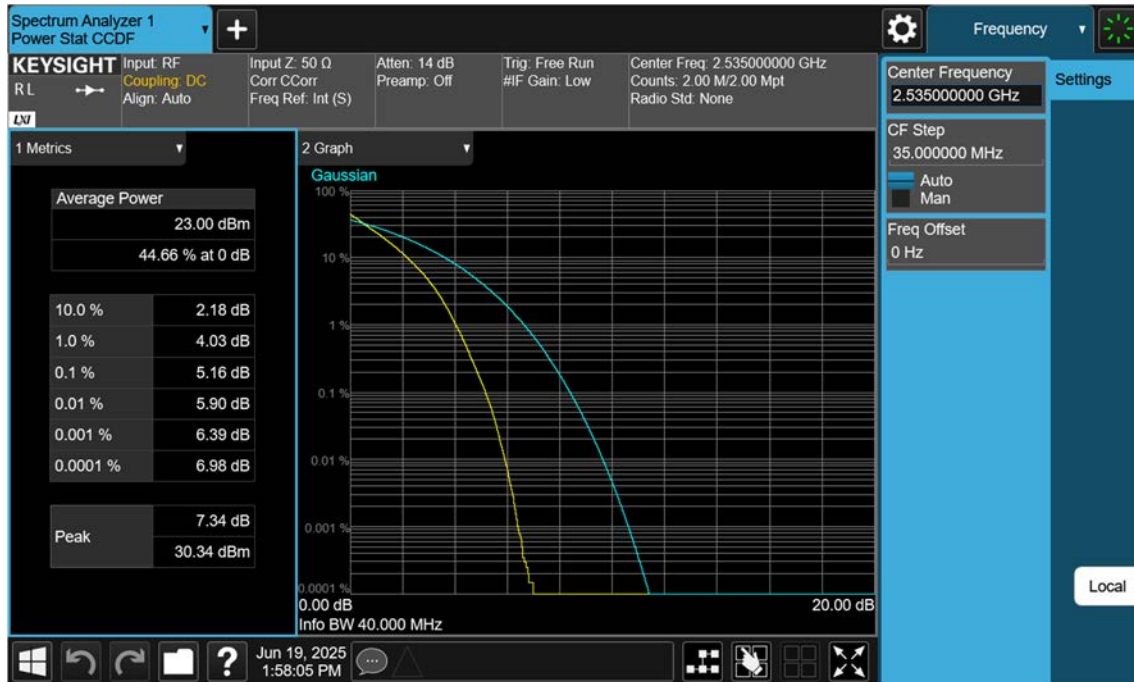
35 M_PAR_Mid_64QAM_FullRB



35 M_PAR_Mid_256QAM_FullIRB



40 M_PAR_Mid_BPSK_FullIRB



40 M_PAR_Mid_QPSK_FullRB



40 M_PAR_Mid_16QAM_FullRB



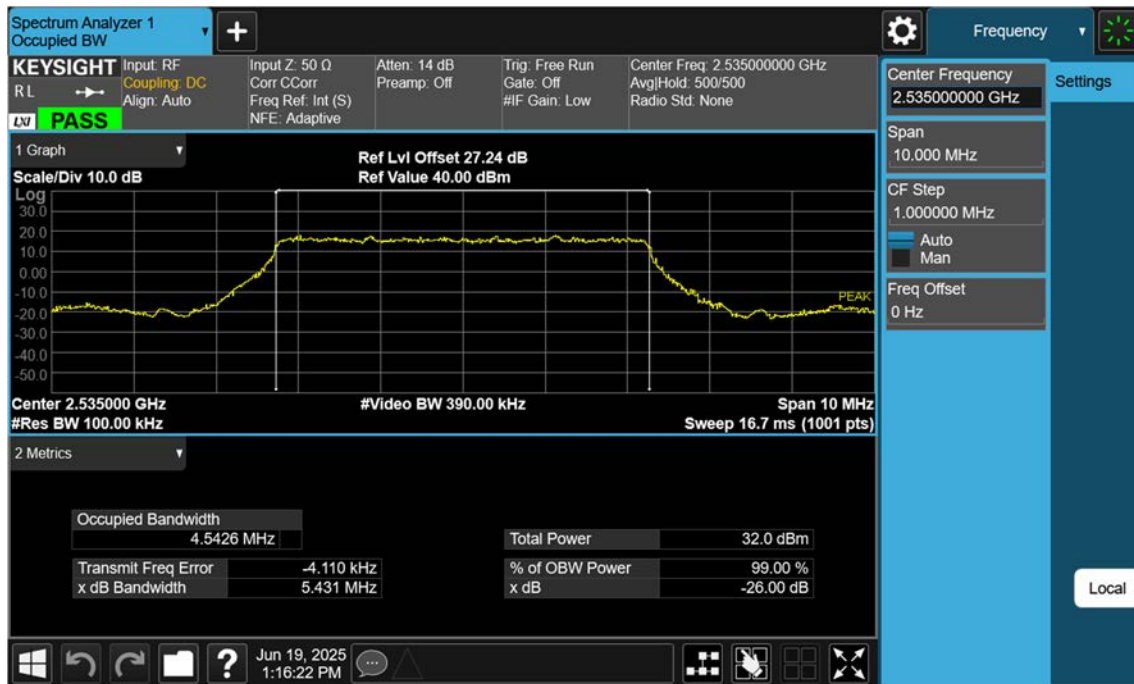
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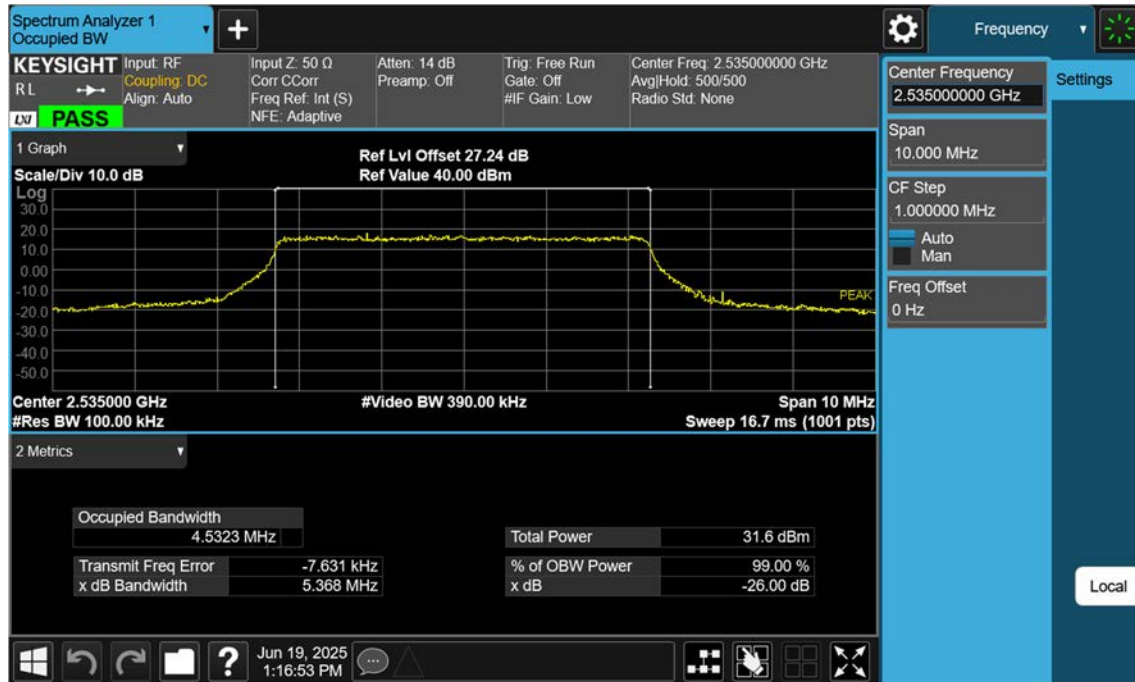
40 M_PAR_Mid_256QAM_FullRB



5 M_OBW_Mid_BPSK_FullIRB



5 M_OBW_Mid_QPSK_FullRB



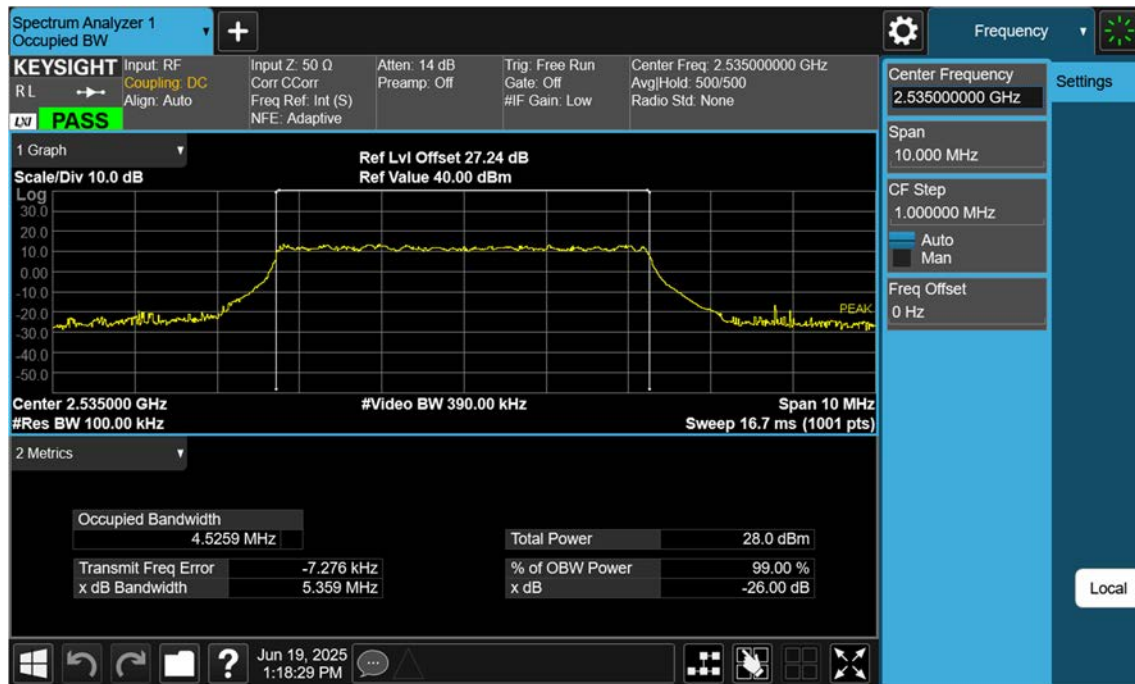
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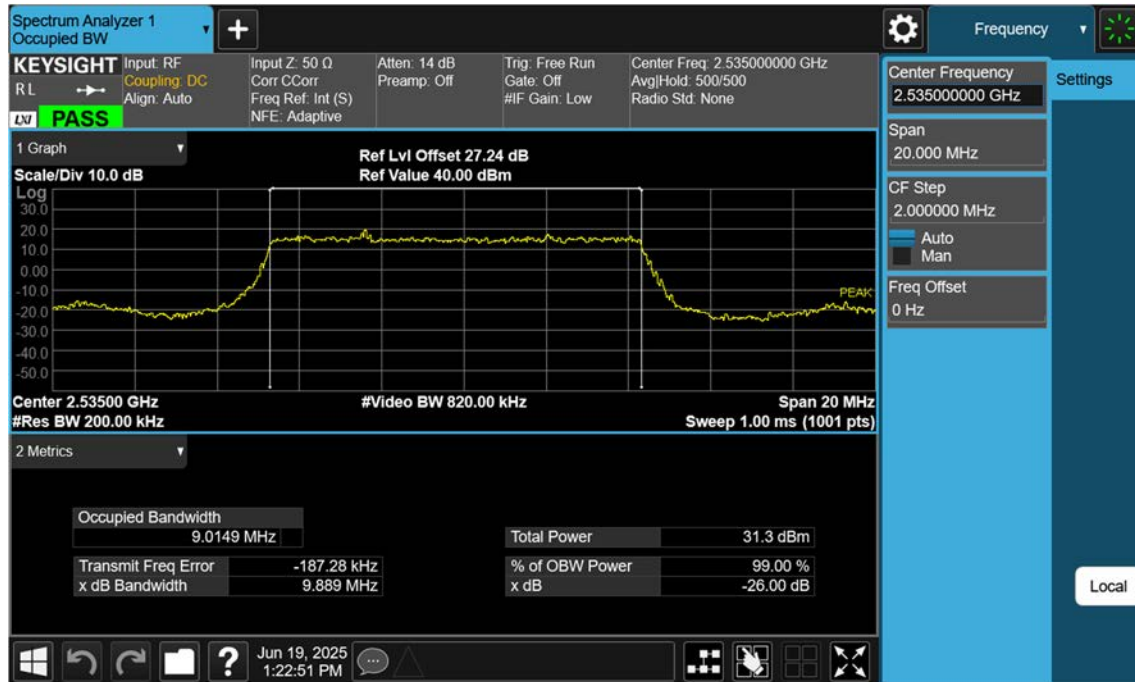
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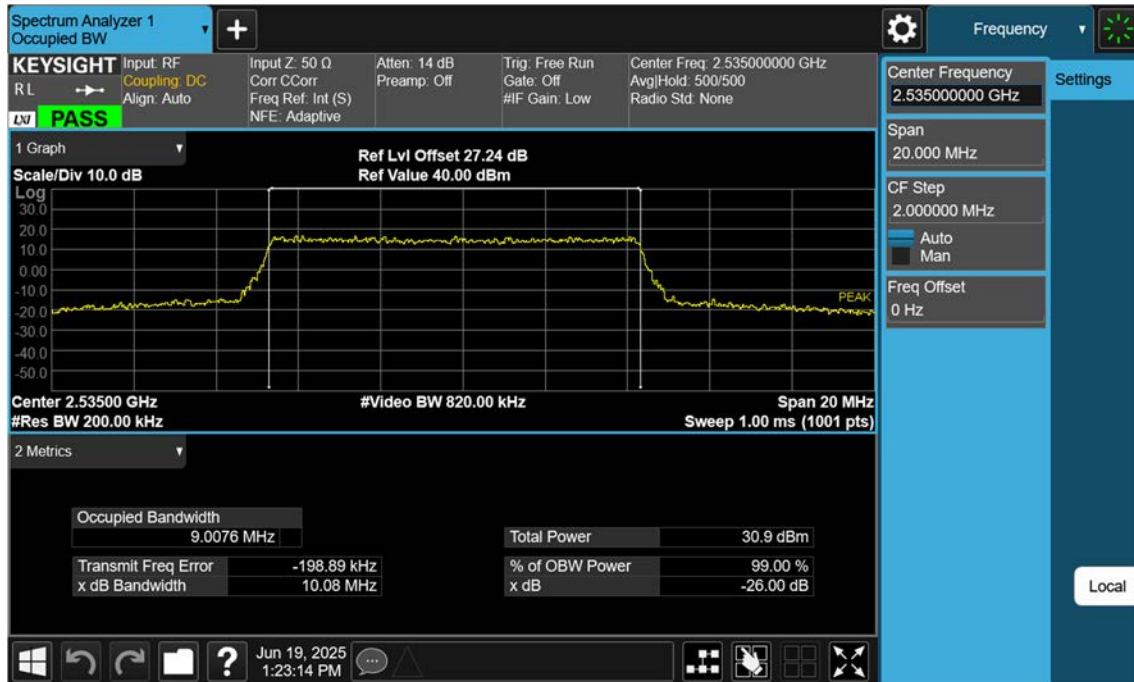
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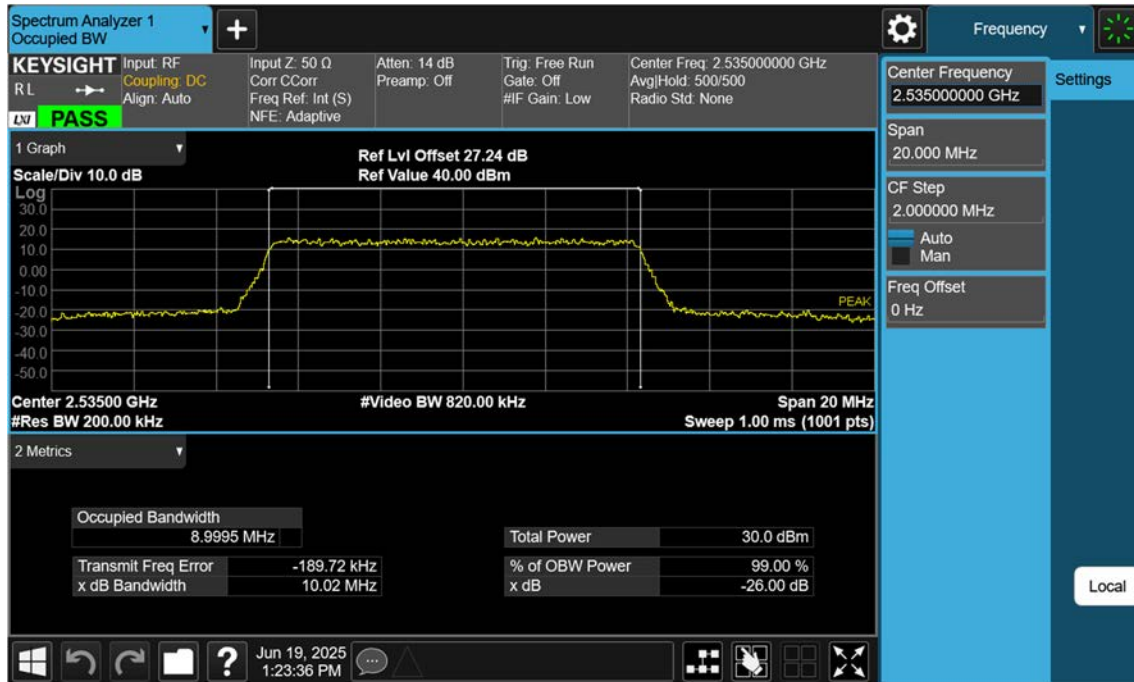
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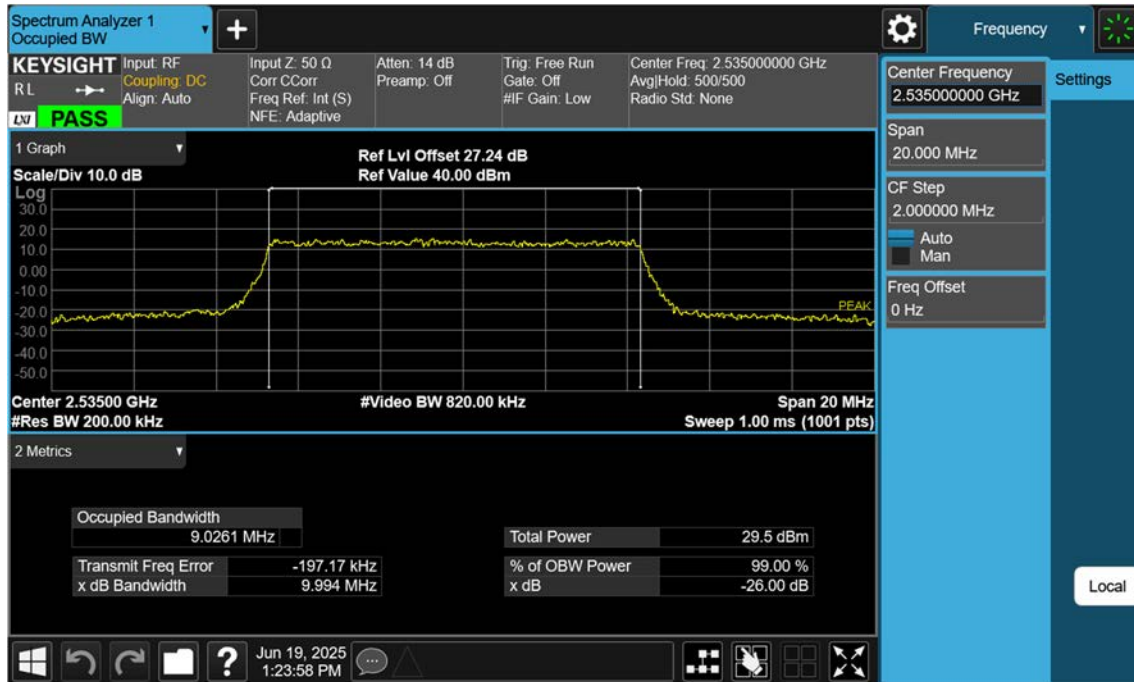
10 M_OBW_Mid_QPSK_FullRB



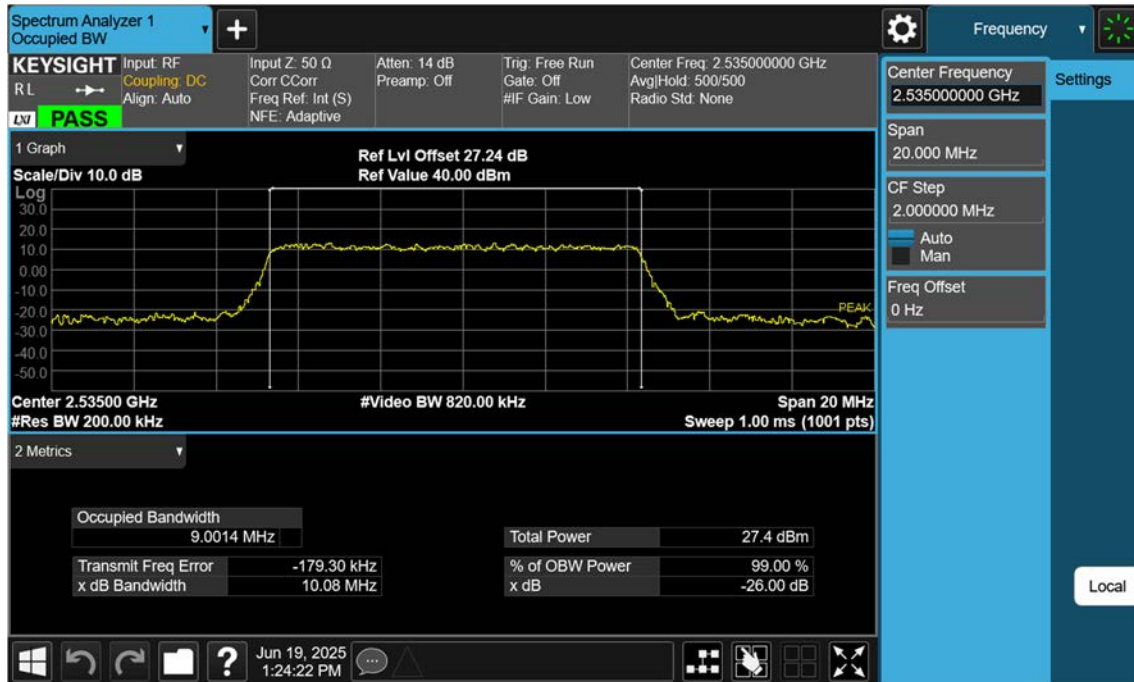
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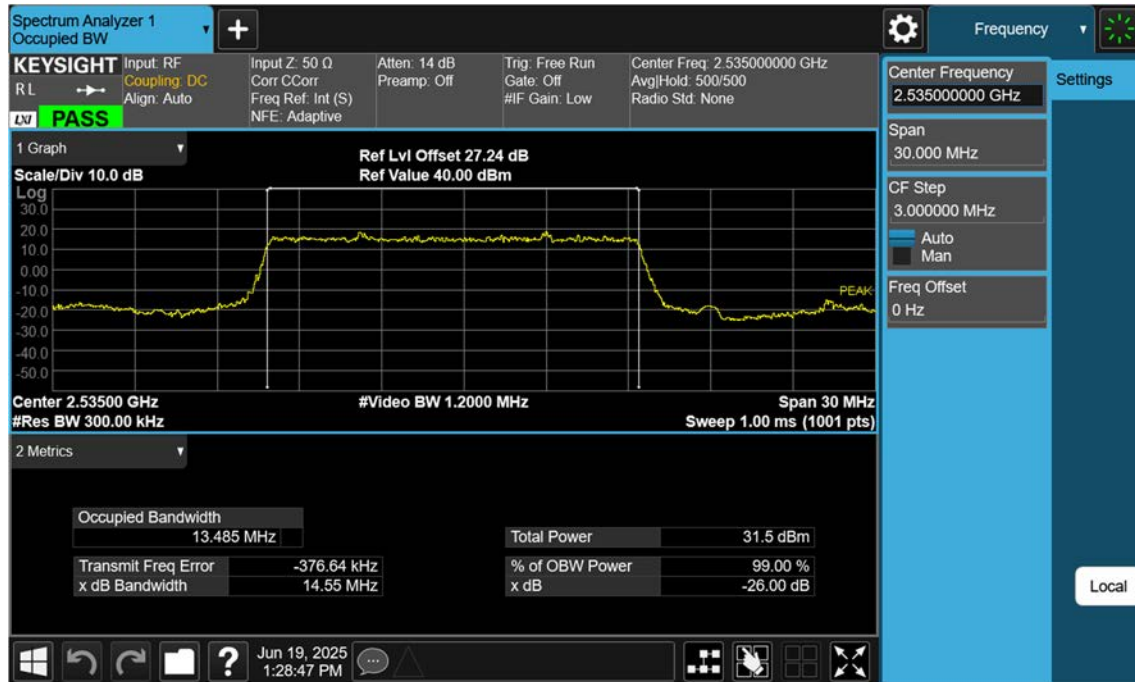
10 M_OBW_Mid_64QAM_FullRB



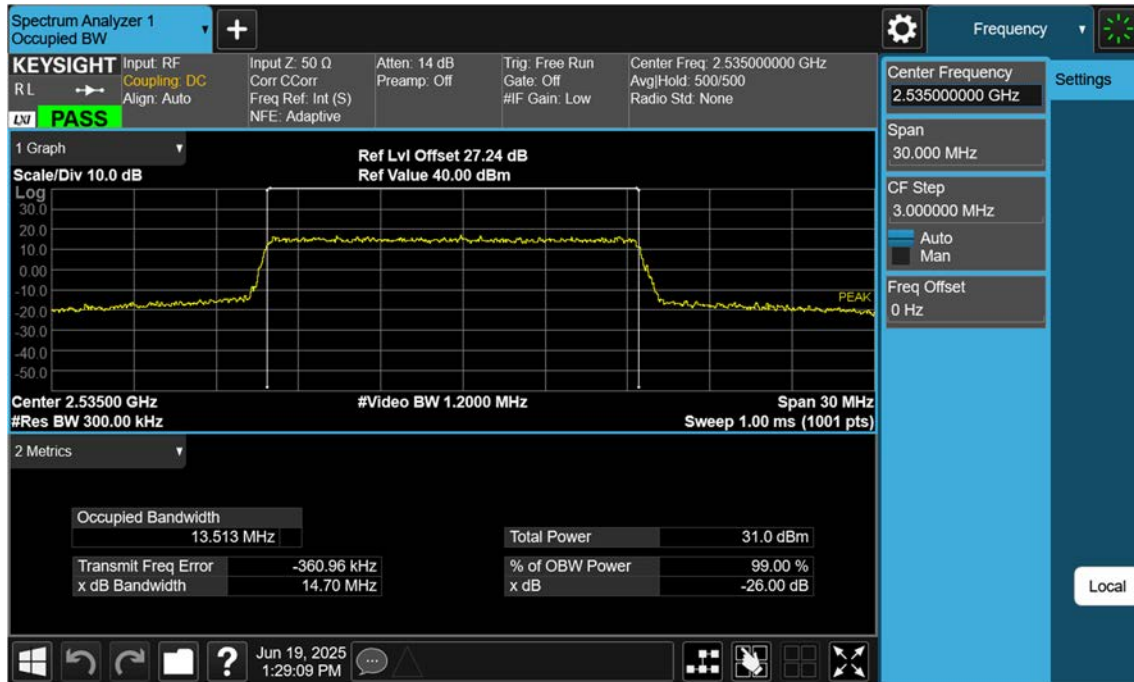
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15 M_OBW_Mid_BPSK_FullRB



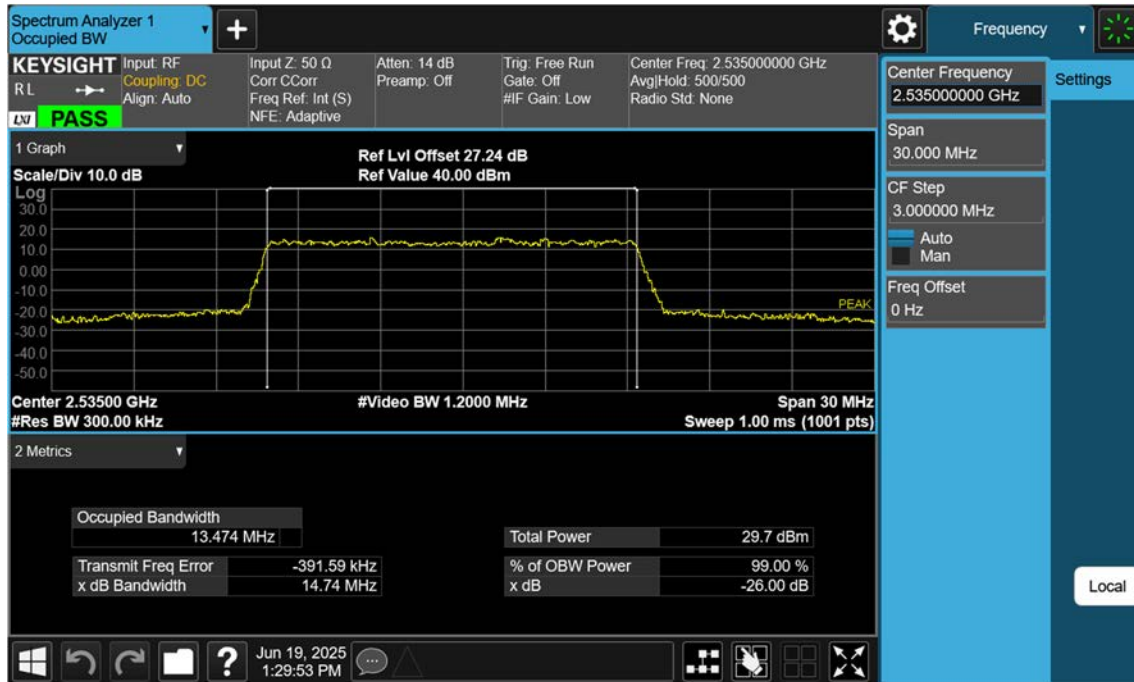
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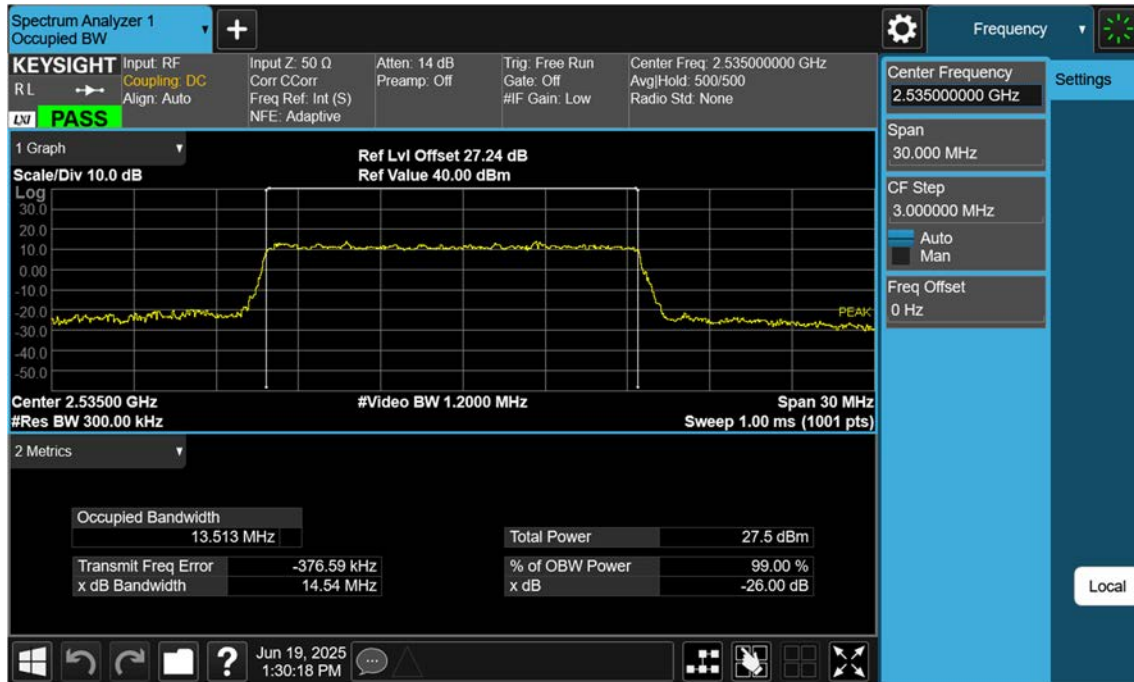
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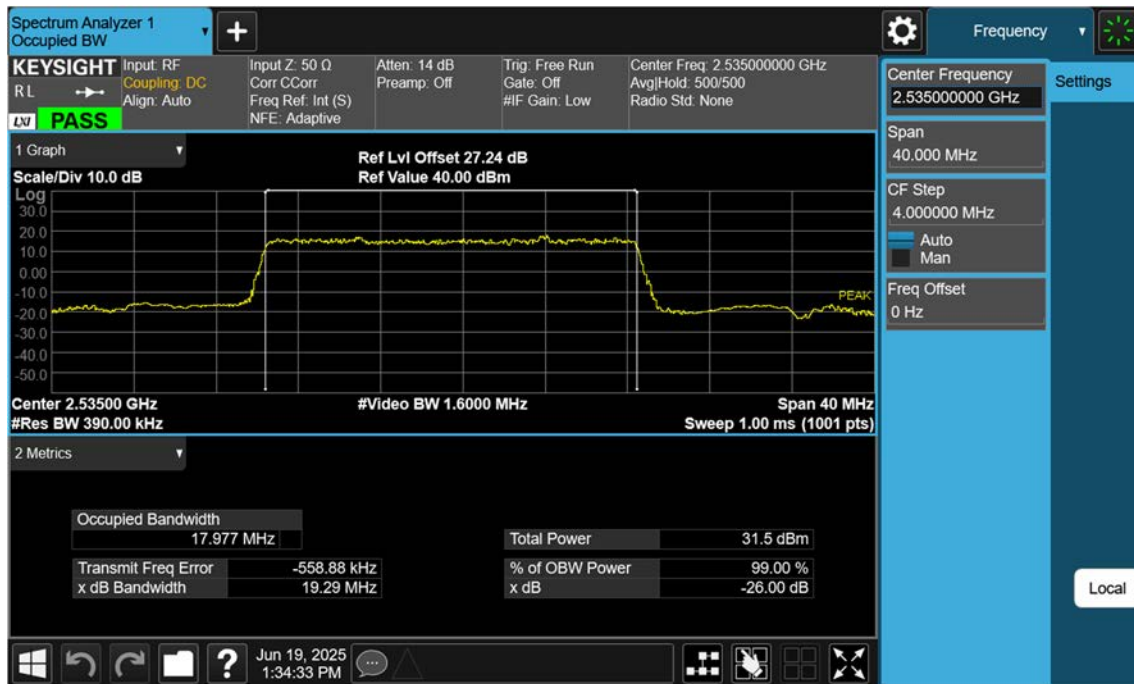
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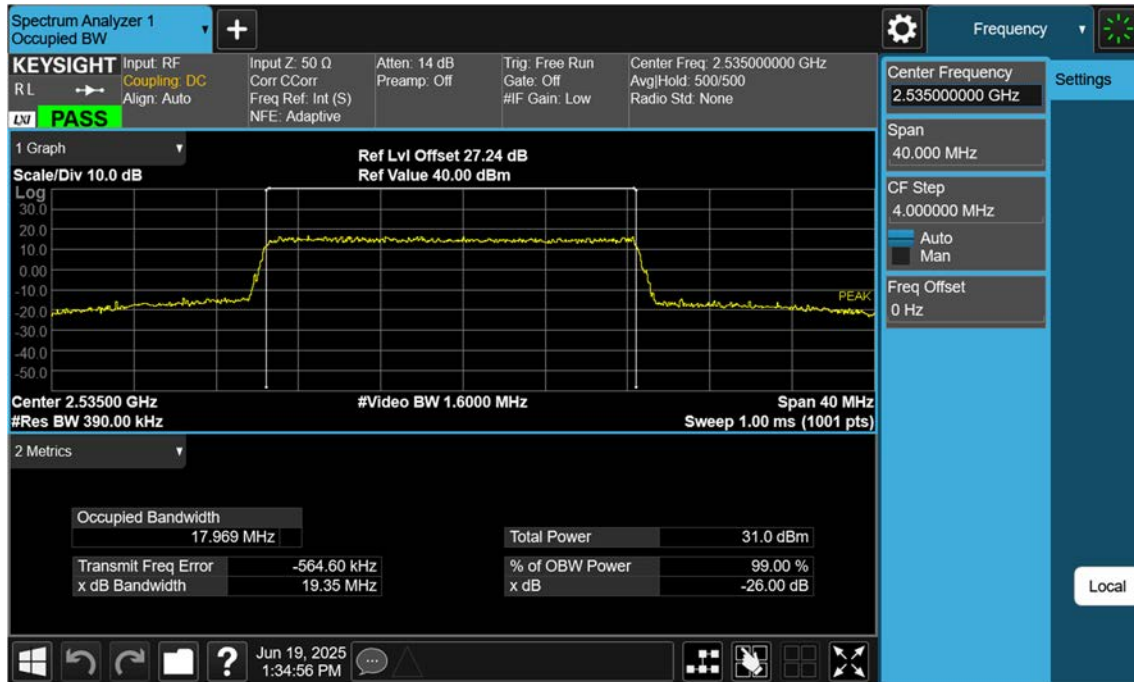
15 M_OBW_Mid_256QAM_FullRB



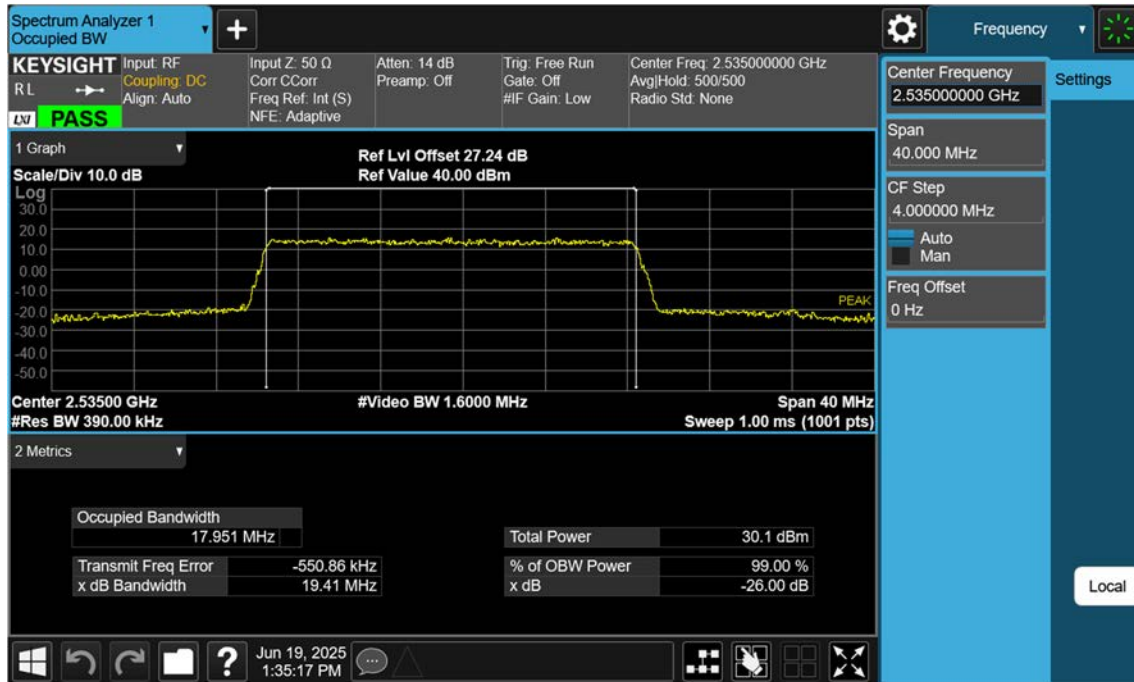
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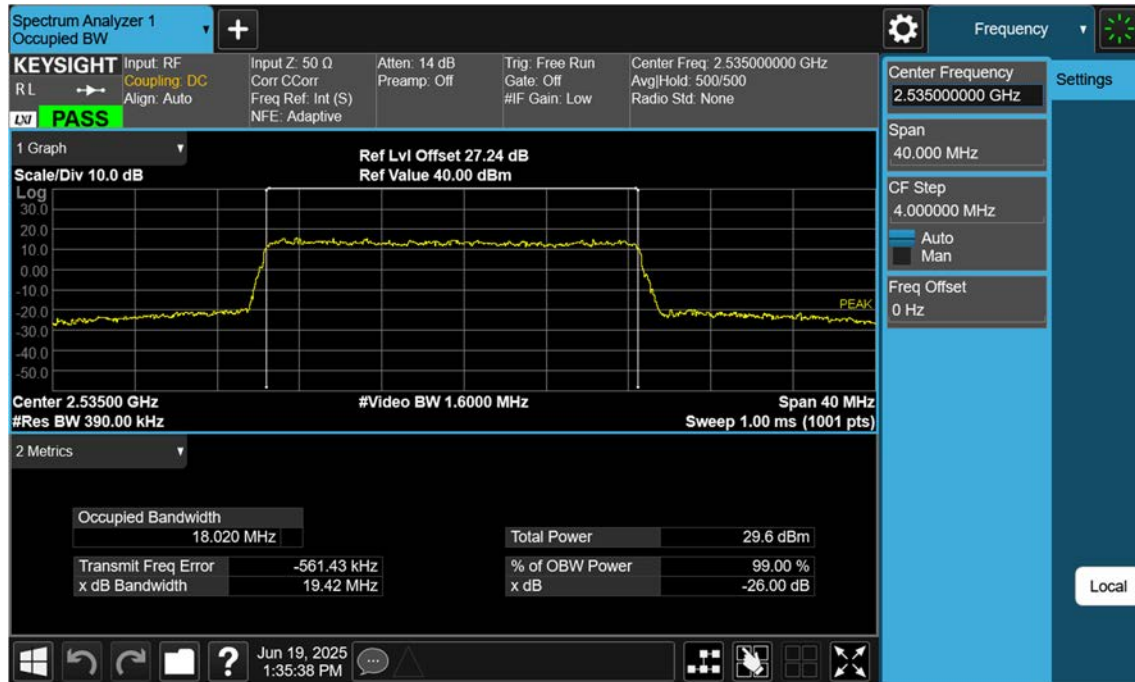
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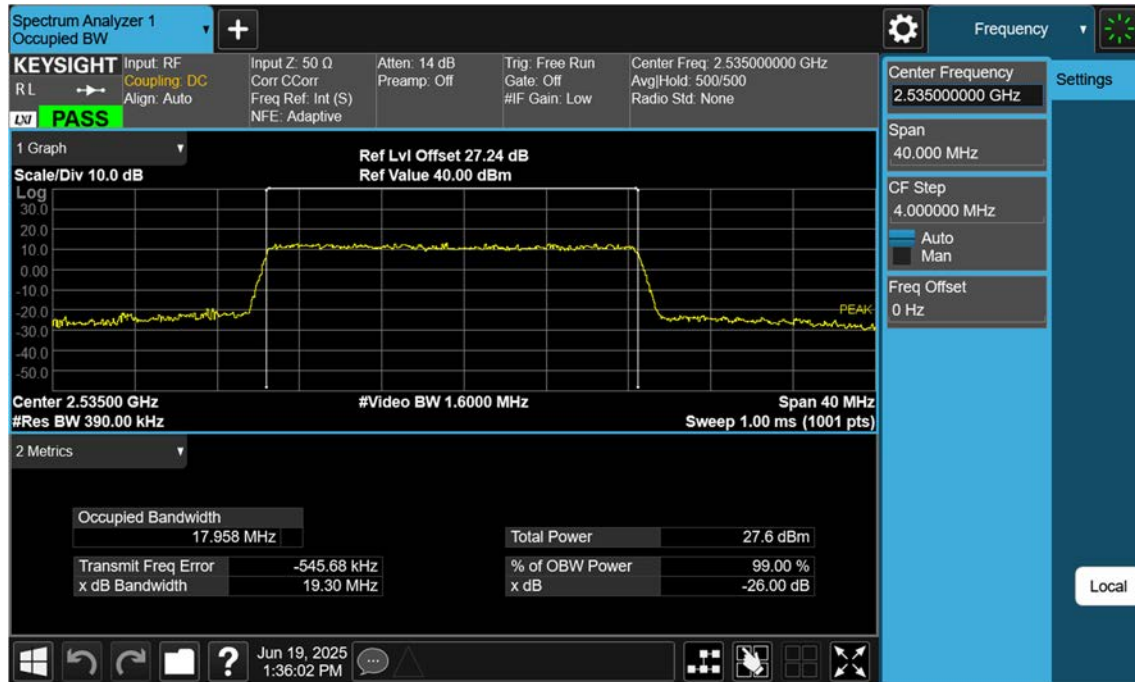
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20 M_OBW_Mid_64QAM_FullRB



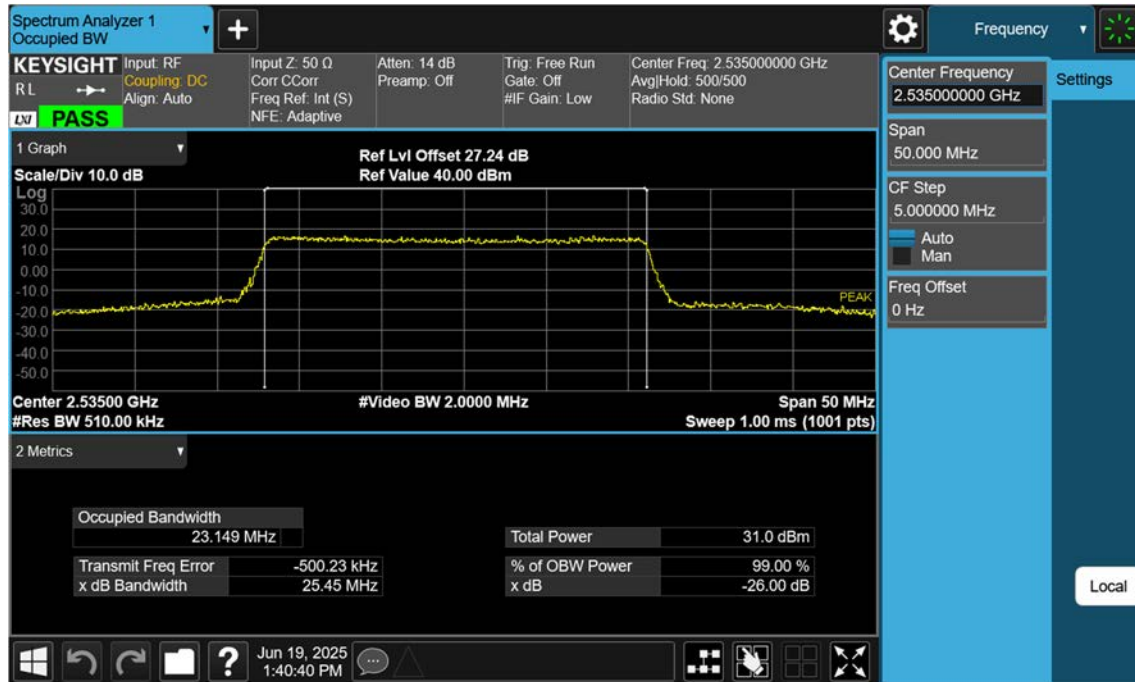
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25 M_OBW_Mid_BPSK_FullRB



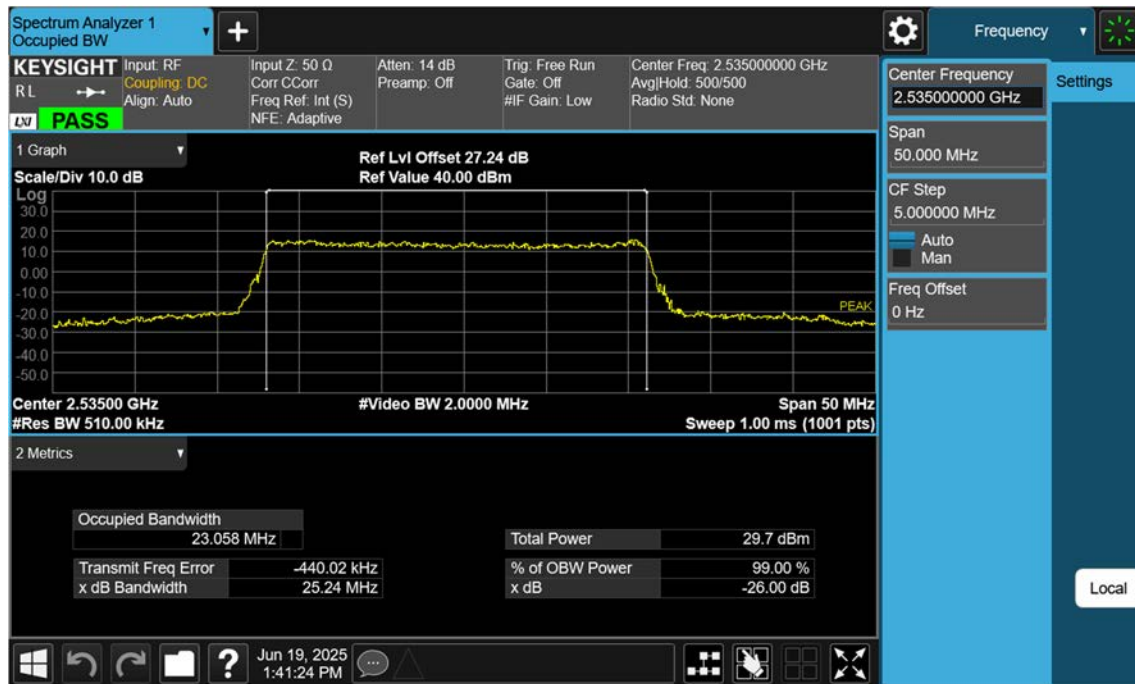
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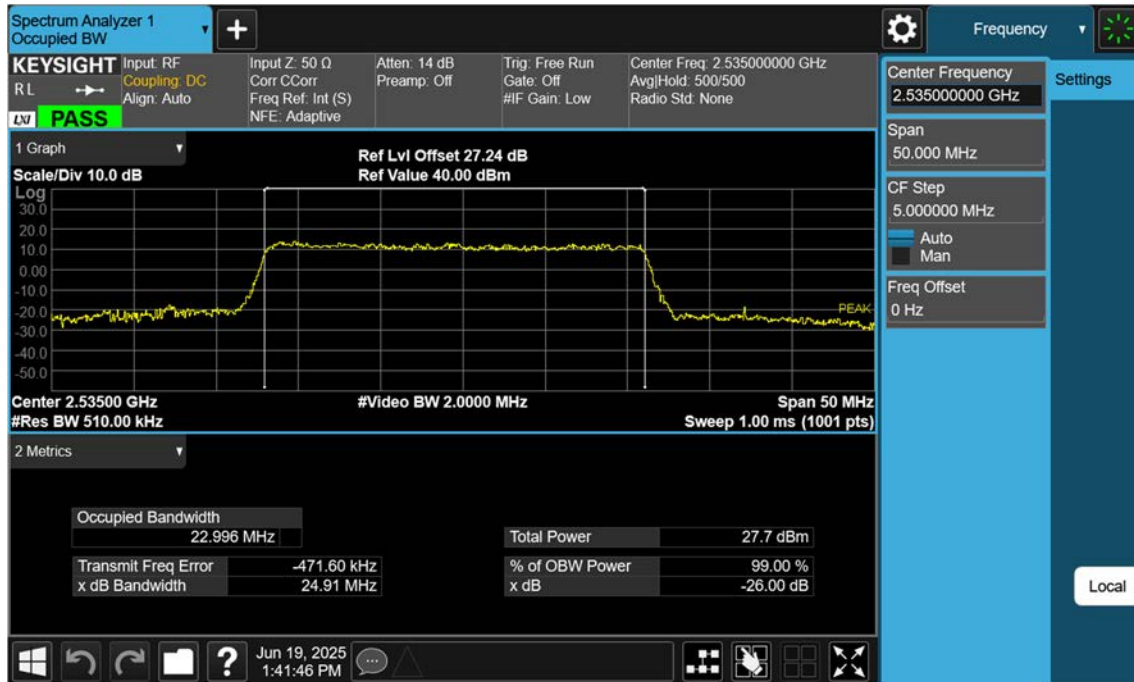
25 M_OBW_Mid_16QAM_FullRB



25 M_OBW_Mid_64QAM_FullRB



25 M_OBW_Mid_256QAM_FullRB



30 M_OBW_Mid_BPSK_FullRB



30 M_OBW_Mid_QPSK_FullRB



30 M_OBW_Mid_16QAM_FullRB



30 M_OBW_Mid_64QAM_FullRB



30 M_OBW_Mid_256QAM_FullRB

