74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA
TEL: +82-31-645-6300 FAX: +82-31-645-6401

FCC Sub6 REPORT

Certification

Applicant Name:
SAMSUNG Electronics Co., Ltd.

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

Date of Issue:
May 16, 2022

Location:
HCT CO., LTD.,
74, Seoicheon-ro 578beon-gil, Majang-myeon,
Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

Report No.: HCT-RF-2205-FC073

FCC ID:	**A3LSMG736U**
APPLICANT:	**SAMSUNG Electronics Co., Ltd.**

Model(s):	SM-G736U
Additional Model(s):	SM-G736U1
EUT Type:	Mobile Phone
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§27, §2

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)

1. 3450 MHz - 3550 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77 (20)	3460.02 – 3540.00	18M0G7D	PI/2 BPSK	0.483	26.84
		17M9G7D	QPSK	0.475	26.77
		18M0W7D	16QAM	0.389	25.90
		18M0W7D	64QAM	0.272	24.35
		18M9W7D	256QAM	0.159	22.02
Sub6 n77 (30)	3465.00 – 3534.99	26M9G7D	PI/2 BPSK	0.495	26.95
		27M0G7D	QPSK	0.491	26.91
		27M0W7D	16QAM	0.393	25.94
		27M0W7D	64QAM	0.277	24.43
		27M0W7D	256QAM	0.162	22.10
Sub6 n77 (40)	3470.01 – 3529.98	35M9G7D	PI/2 BPSK	0.504	27.02
		36M0G7D	QPSK	0.490	26.90
		36M0W7D	16QAM	0.395	25.97
		35M9W7D	64QAM	0.276	24.41
		35M9W7D	256QAM	0.163	22.13
Sub6 n77 (50)	3475.02 – 3525.00	45M9G7D	PI/2 BPSK	0.474	26.76
		45M9G7D	QPSK	0.473	26.75
		46M0W7D	16QAM	0.372	25.70
		45M9W7D	64QAM	0.267	24.26
		45M9W7D	256QAM	0.157	21.96
Sub6 n77 (60)	3480.00 – 3519.99	57M9G7D	PI/2 BPSK	0.479	26.80
		58M1G7D	QPSK	0.470	26.72
		57M9W7D	16QAM	0.383	25.83
		57M8W7D	64QAM	0.266	24.25
		57M8W7D	256QAM	0.158	21.98
Sub6 n77 (70)	3485.01 – 3514.98	64M6G7D	PI/2 BPSK	0.478	26.79
		64M7G7D	QPSK	0.467	26.70
		64M6W7D	16QAM	0.370	25.68
		64M4W7D	64QAM	0.265	24.23
		64M4W7D	256QAM	0.155	21.91
Sub6 n77 (80)	3490.02 – 3510.00	77M0G7D	PI/2 BPSK	0.482	26.83
		77M5G7D	QPSK	0.480	26.81
		77M3W7D	16QAM	0.382	25.82
		77M4W7D	64QAM	0.269	24.30
		77M1W7D	256QAM	0.160	22.03
Sub6 n77 (90)	3495.00 – 3504.99	87M0G7D	PI/2 BPSK	0.480	26.81
		86M9G7D	QPSK	0.467	26.69
		86M8W7D	16QAM	0.381	25.81
		87M0W7D	64QAM	0.270	24.32
		87M1W7D	256QAM	0.156	21.92
Sub6 n77 (100)	3500.01	96M1G7D	PI/2 BPSK	0.442	26.45
		96M3G7D	QPSK	0.439	26.42
		96M1W7D	16QAM	0.348	25.42
		96M1W7D	64QAM	0.247	23.92
		95M6W7D	256QAM	0.146	21.65

2. 3700 MHz - 3980 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77 (20)	3710.01 – 3969.99	18M0G7D	PI/2 BPSK	0.541	27.33
		17M9G7D	QPSK	0.535	27.28
		17M9W7D	16QAM	0.429	26.32
		17M9W7D	64QAM	0.309	24.90
		17M9W7D	256QAM	0.181	22.58
Sub6 n77 (30)	3715.02 – 3964.98	27M0G7D	PI/2 BPSK	0.589	27.70
		27M0G7D	QPSK	0.579	27.63
		26M9W7D	16QAM	0.471	26.73
		26M9W7D	64QAM	0.332	25.21
		27M0W7D	256QAM	0.195	22.91
Sub6 n77 (40)	3720.00 – 3960.00	36M0G7D	PI/2 BPSK	0.615	27.89
		36M0G7D	QPSK	0.610	27.85
		35M9W7D	16QAM	0.493	26.93
		35M8W7D	64QAM	0.350	25.44
		35M8W7D	256QAM	0.208	23.18
Sub6 n77 (50)	3725.10 – 3954.99	45M9G7D	PI/2 BPSK	0.548	27.39
		46M1G7D	QPSK	0.536	27.29
		45M8W7D	16QAM	0.424	26.27
		45M9W7D	64QAM	0.300	24.77
		45M8W7D	256QAM	0.178	22.51
Sub6 n77 (60)	3730.02 – 3949.98	57M8G7D	PI/2 BPSK	0.578	27.62
		57M9G7D	QPSK	0.564	27.51
		57M9W7D	16QAM	0.452	26.55
		58M1W7D	64QAM	0.321	25.06
		58M0W7D	256QAM	0.189	22.77
Sub6 n77 (70)	3735.00 – 3945.00	64M5G7D	PI/2 BPSK	0.558	27.47
		64M5G7D	QPSK	0.546	27.37
		64M7W7D	16QAM	0.443	26.46
		64M6W7D	64QAM	0.311	24.93
		64M3W7D	256QAM	0.185	22.66
Sub6 n77 (80)	3740.01 – 3939.99	77M4G7D	PI/2 BPSK	0.579	27.63
		77M3G7D	QPSK	0.564	27.51
		77M1W7D	16QAM	0.450	26.53
		77M3W7D	64QAM	0.318	25.02
		77M4W7D	256QAM	0.189	22.76
Sub6 n77 (90)	3745.02 – 3934.98	87M9G7D	PI/2 BPSK	0.552	27.42
		86M8G7D	QPSK	0.551	27.41
		86M0W7D	16QAM	0.433	26.36
		87M1W7D	64QAM	0.310	24.91
		87M0W7D	256QAM	0.184	22.65
Sub6 n77 (100)	3750.00 – 3930.00	96M6G7D	PI/2 BPSK	0.561	27.49
		97M1G7D	QPSK	0.553	27.43
		96M7W7D	16QAM	0.445	26.48
		96M7W7D	64QAM	0.316	25.00
		96M3W7D	256QAM	0.188	22.75

REVIEWED BY

Report prepared by : Jung Ki Lim
Engineer of Telecommunication Testing Center

Report approved by : Jong Seok Lee
Manager of Telecommunication Testing Center

This test results were applied only to the test methods required by the standard.

This laboratory is not accredited for the test results marked *.
The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (HCT Accreditation No.: KT197)

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2205-FC073	May 16, 2022	- First Approval Report

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

Table of Contents

MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	SAMSUNG Electronics Co., Ltd.
Address:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
FCC ID:	A3LSMG736U
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§27, §2
EUT Type:	Mobile phone
Model(s):	SM-G736U
Additional Model(s):	SM-G736U1
SCS(kHz):	30
Bandwidth(MHz):	20, 30, 40, 50, 60, 70, 80, 90, 100
Waveform:	CP-OFDM, DFT-S-OFDM
Modulation:	DFT-S-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
Tx Frequency: **(3450 MHz - 3550 MHz)**	3460.02 MHz – 3540.00 MHz (Sub6 n77(20 MHz)) 3465.00 MHz – 3534.99 MHz (Sub6 n77(30 MHz)) 3470.01 MHz – 3529.98 MHz (Sub6 n77(40 MHz)) 3475.02 MHz – 3525.00 MHz (Sub6 n77(50 MHz)) 3480.00 MHz – 3519.99 MHz (Sub6 n77(60 MHz)) 3485.01 MHz – 3514.98 MHz (Sub6 n77(70 MHz)) 3490.02 MHz – 3510.00 MHz (Sub6 n77(80 MHz)) 3495.00 MHz – 3504.99 MHz (Sub6 n77(90 MHz)) 3500.01 MHz (Sub6 n77(100 MHz))
Tx Frequency: **(3700 MHz - 3980 MHz)**	3710.01 MHz – 3969.99 MHz (Sub6 n77(20 MHz)) 3715.02 MHz – 3964.98 MHz (Sub6 n77(30 MHz)) 3720.00 MHz – 3960.00 MHz (Sub6 n77(40 MHz)) 3725.10 MHz – 3954.99 MHz (Sub6 n77(50 MHz)) 3730.02 MHz – 3949.98 MHz (Sub6 n77(60 MHz)) 3735.00 MHz – 3945.00 MHz (Sub6 n77(70 MHz)) 3740.01 MHz – 3939.99 MHz (Sub6 n77(80 MHz)) 3745.02 MHz – 3934.98 MHz (Sub6 n77(90 MHz)) 3750.00 MHz – 3930.00 MHz (Sub6 n77(100 MHz))
Date(s) of Tests:	April 01, 2022 ~ May 13, 2022
Serial number:	Radiated: R3CT307YHZE Conducted: R3CT30RXB9N

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

The EUT was a Mobile Phone with GSM/GPRS/EGPRS/UMTS and LTE, Sub6.

It also supports IEEE 802.11 a/b/g/n/ac/ax (20/40/80/160), Bluetooth, BT LE, NFC, WIFI 6E.

2.2. MEASURING INSTRUMENT CALIBRATION

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

2.3. TEST FACILITY

The Fully-anechoic chamber and conducted measurement facility used to collect the radiated data are located at the **74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA.**

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

Test Description	Test Procedure Used
Occupied Bandwidth	- KDB 971168 D01 v03r01 – Section 4.3 - ANSI C63.26-2015 – Section 5.4.4
Band Edge	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Spurious and Harmonic Emissions at Antenna Terminal	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Conducted Output Power	- N/A (See SAR Report)
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4 - ANSI C63.26-2015 – Section 5.2.6(only GSM)
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Effective Radiated Power/ Effective Isotropic Radiated Power	- KDB 971168 D01 v03r01 – Section 5.2 & 5.8 - ANSI/TIA-603-E-2016 – Section 2.2.17
Radiated Spurious and Harmonic Emissions	- KDB 971168 D01 v03r01 – Section 6.2 - ANSI/TIA-603-E-2016 – Section 2.2.12

3.2 RADIATED POWER

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

   The power is calculated by the following formula;

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

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

3.3 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

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

Test Settings

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

Test Note

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

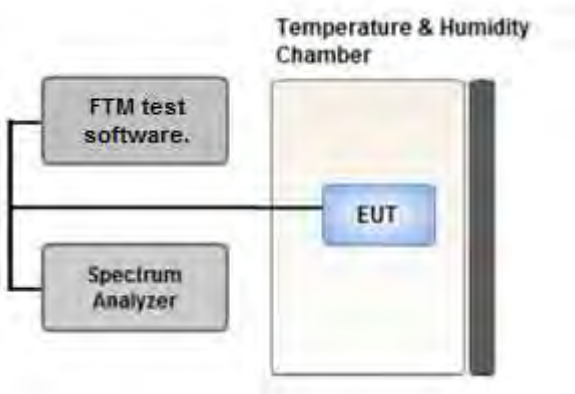
$$\text{Result}_{(dBm)} = \text{Pg}_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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

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

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

3.4 PEAK- TO- AVERAGE RATIO



Test setup

① CCDF Procedure for PAPR

Test Settings

1. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Set the measurement interval as follows:

.- for continuous transmissions, set to 1 ms,

.- or burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.

4. Record the maximum PAPR level associated with a probability of 0.1 %.

② **Alternate Procedure for PAPR**

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

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

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

Test Settings(Peak Power)

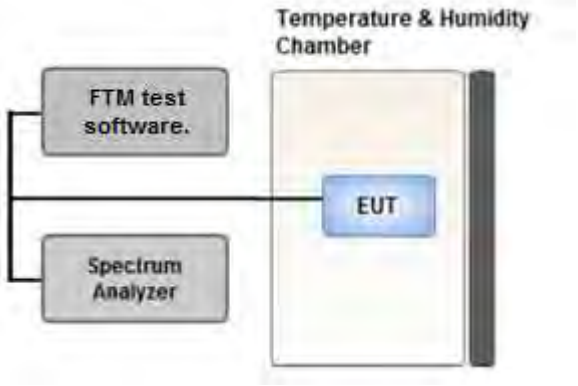
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW ≥ 3 × RBW.

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

Test Settings(Average Power)

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

3.5 OCCUPIED BANDWIDTH.



Test setup

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

The EUT makes a call to the communication simulator.

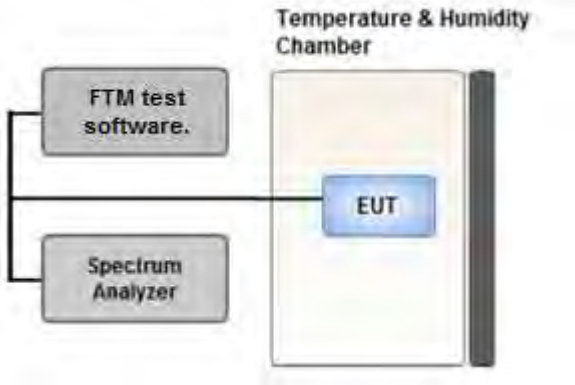
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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

Test Settings

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

3.6 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic.

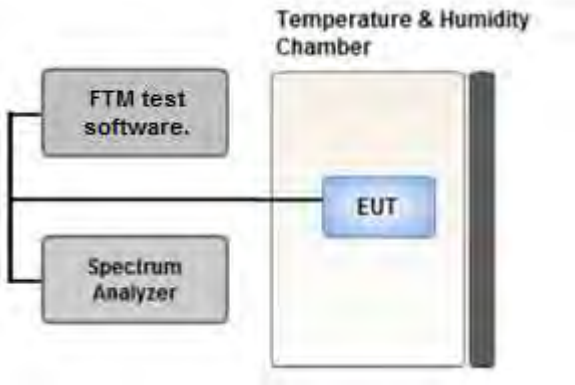
All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Settings

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

3.7 BAND EDGE



Test setup

Test Overview

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

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW > 1 % of the emission bandwidth
4. VBW > 3 x RBW
5. Detector = RMS
6. Number of sweep points ≥ 2 x Span/RBW
7. Trace mode = trace average
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Notes

For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

Compliance with this paragraph is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.

However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz.

In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

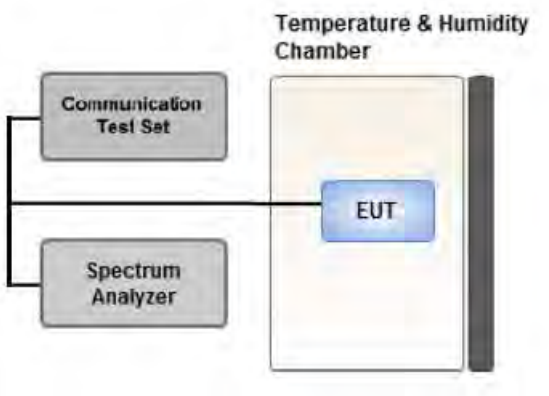
Measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater.

However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz.

In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. .

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 : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
  Worst case : Stand alone
  Mode: Power Class 2(SA/ NSA), Power Class 3(SA/ NSA), SRS
  Worst case: Power Class 2(SA)
- We were performed the RSE test in condition of co-location. There has no significant emission raised.
  Mode : WWAN + WLAN 5 GHz + BT (Worst case : Stand alone)
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).
  (Worst case: 2A - n77A(PC2)) (10 MHz))
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
  Please refer to the table below.

-In the case of radiated spurious emissions, all bandwidth of operation were investigated and the worst case bandwidth results are reported.
(Worst case : 40 MHz(3450 MHz – 3550 MHz), 40 MHz(3700 MHz – 3980 MHz))

- SM-G736U & additional models were tested and the worst case results are reported.
  (Worst case : SM-G736U)

[3450 MHz - 3550 MHz Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Effective Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	1	1	Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	1	1	X

[3700 MHz - 3980 MHz Worst case]

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

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: Power Class 2(SA), Power Class 3(SA/ NSA), SRS
  Worst case: Power Class 2(SA)
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
  Please refer to the table below.
- SM-G736U & additional models were tested and the worst case results are reported.
  (Worst case : SM-G736U)

[Worst case]

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

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/27/2024	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/27/2024	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	03/21/2024	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	05/04/2023	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	10/13/2022	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	04/12/2023	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	06/04/2023	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/03/2023	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/22/2023	Biennial
High Pass Filter	WHKX10-900-1000-15000-40SS	Wainwright Instruments	15	06/15/2022	Annual
High Pass Filter	WHKX10-2700-3000-18000-40SS	Wainwright Instruments	145	06/15/2022	Annual
High Pass Filter	WHNX6-4740-6000-26500-40CC	Wainwright Instruments	11	06/15/2022	Annual
LOW NOISE AMP (100 MHz ~ 18 GHz)	CBLU1183540B-01	CERNEX	26822	06/15/2022	Annual
Power Amplifier	CBL18265035	CERNEX	22966	12/02/2022	Annual
Power Amplifier	CBL26405040	CERNEX	25956	03/11/2023	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	09/15/2022	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	03/11/2023	Annual
Chamber	SU-642	ESPEC	93008124	03/04/2023	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/19/2023	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	06/01/2022	Annual
Spectrum Analyzer(10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/25/2023	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/18/2022	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287700	05/25/2022	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/26/2022	Annual
SIGNAL GENERATOR (100 kHz~40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/05/2022	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	06/02/2022	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/27/2022	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

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

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 (±dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	2.00 (Confidence level about 95 %, k=2)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.40 (Confidence level about 95 %, k=2)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.74 (Confidence level about 95 %, k=2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.51 (Confidence level about 95 %, k=2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.92 (Confidence level about 95 %, k=2)
Radiated Disturbance (Above 40 GHz)	5.48 (Confidence level about 95 %, k=2)

6. SUMMARY OF TEST RESULTS

6.1 Test Condition : Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§2.1051, §27.53(n)(2), §27.53(l)(2)	< -13 dBm	PASS
Conducted Output Power	§2.1046	N/A	**See Note1**
Peak- to- Average Ratio	§27.50(k)(4), §27.50(j)(4)	< 13 dB	PASS
Frequency stability / variation of ambient temperature	§2.1055, §27.54	Emission must remain in band	PASS

Note:

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

6.2 Test Condition : Radiated Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Equivalent Isotropic Radiated Power	§27.50(k)(3), §27.50(j)(3)	< 1 Watts max. EIRP	PASS
Radiated Spurious and Harmonic Emissions	§2.1051, §27.53(n)(2), §27.53(l)(2)	< -13 dBm	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

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

1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.

2) During the test , the turn table is rotated until the maximum signal is found.

3) Record the field strength meter's level.

4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.

5) Increase the signal generator output till the field strength meter's level is equal to the item (3).

6) The signal generator output level with Ant. Gain and cable loss are the rating of effective radiated power.

7.2 EIRP Sample Calculation

Ch./ Freq.		Measured Level(dBm)	Substitute Level(dBm)	Ant. Gain (dBi)	C.L	Pol.	EIRP	
channel	Freq.(MHz)						W	dBm
349000	1,732.50	-15.75	18.45	9.90	1.76	H	0.456	26.59

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

1) The EUT mounted on a non-conductive turntable is 2.5 meter above test site ground level.

2) During the test , the turn table is rotated until the maximum signal is found.

3) Record the field strength meter's level.

4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.

5) Increase the signal generator output till the field strength meter's level is equal to the item (3).

6) The signal generator output level with Ant. Gain and cable loss are the rating of equivalent isotropic radiated power.

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)

PSK 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 (3450 MHz - 3550 MHz)

8.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3460.02	Sub6 n77/ 20 MHz [30 kHz]	PI/2 BPSK	-19.62	18.34	11.34	3.03	V	< 1.00	0.462	26.65
		QPSK	-19.68	18.28	11.34	3.03	V		0.456	26.59
		16-QAM	-20.59	17.37	11.34	3.03	V		0.370	25.68
		64-QAM	-22.09	15.87	11.34	3.03	V		0.262	24.18
		256-QAM	-24.41	13.55	11.34	3.03	V		0.153	21.86
3500.01		PI/2 BPSK	-19.81	18.36	11.50	3.06	V		0.479	26.80
		QPSK	-19.84	18.33	11.50	3.06	V		0.475	26.77
		16-QAM	-20.71	17.46	11.50	3.06	V		0.389	25.90
		64-QAM	-22.26	15.91	11.50	3.06	V		0.272	24.35
		256-QAM	-24.59	13.58	11.50	3.06	V		0.159	22.02
3540.00		PI/2 BPSK	-19.81	18.25	11.66	3.07	V		0.483	26.84
		QPSK	-19.93	18.13	11.66	3.07	V		0.470	26.72
		16-QAM	-20.80	17.26	11.66	3.07	V		0.385	25.85
		64-QAM	-22.31	15.75	11.66	3.07	V		0.272	24.34
		256-QAM	-24.67	13.39	11.66	3.07	V		0.158	21.98

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3465.00	Sub6 n77/ 30 MHz [30 kHz]	PI/2 BPSK	-19.69	18.18	11.36	3.02	H	< 1.00	0.449	26.52
		QPSK	-19.76	18.11	11.36	3.02	H		0.442	26.45
		16-QAM	-20.77	17.10	11.36	3.02	H		0.350	25.44
		64-QAM	-22.26	15.61	11.36	3.02	H		0.248	23.95
		256-QAM	-24.53	13.34	11.36	3.02	H		0.147	21.68
3500.01		PI/2 BPSK	-19.77	18.40	11.50	3.06	H		0.483	26.84
		QPSK	-19.78	18.39	11.50	3.06	H		0.482	26.83
		16-QAM	-20.90	17.27	11.50	3.06	H		0.372	25.71
		64-QAM	-22.31	15.86	11.50	3.06	H		0.269	24.30
		256-QAM	-24.64	13.53	11.50	3.06	H		0.157	21.97
3534.99		PI/2 BPSK	-19.69	18.36	11.64	3.06	H		0.495	26.95
		QPSK	-19.73	18.32	11.64	3.06	H		0.491	26.91
		16-QAM	-20.70	17.35	11.64	3.06	H		0.393	25.94
		64-QAM	-22.21	15.84	11.64	3.06	H		0.277	24.43
		256-QAM	-24.54	13.51	11.64	3.06	H		0.162	22.10

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3470.01	Sub6 n77/ 40 MHz [30 kHz]	PI/2 BPSK	-19.68	18.09	11.38	3.00	V	< 1.00	0.444	26.47
		QPSK	-19.72	18.05	11.38	3.00	V		0.440	26.43
		16-QAM	-20.79	16.98	11.38	3.00	V		0.344	25.36
		64-QAM	-22.19	15.58	11.38	3.00	V		0.249	23.96
		256-QAM	-24.49	13.28	11.38	3.00	V		0.147	21.66
3500.01		PI/2 BPSK	-19.59	18.58	11.50	3.06	V		0.504	27.02
		QPSK	-19.71	18.46	11.50	3.06	V		0.490	26.90
		16-QAM	-20.64	17.53	11.50	3.06	V		0.395	25.97
		64-QAM	-22.20	15.97	11.50	3.06	V		0.276	24.41
		256-QAM	-24.48	13.69	11.50	3.06	V		0.163	22.13
3529.98		PI/2 BPSK	-19.73	18.32	11.62	3.04	V		0.490	26.90
		QPSK	-19.80	18.25	11.62	3.04	V		0.482	26.83
		16-QAM	-20.74	17.31	11.62	3.04	V		0.388	25.89
		64-QAM	-22.27	15.78	11.62	3.04	V		0.273	24.36
		256-QAM	-24.55	13.50	11.62	3.04	V		0.161	22.08

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3475.02	Sub6 n77/ 50 MHz [30 kHz]	PI/2 BPSK	-19.92	17.83	11.40	3.01	V	< 1.00	0.419	26.22
		QPSK	-20.03	17.72	11.40	3.01	V		0.408	26.11
		16-QAM	-20.93	16.82	11.40	3.01	V		0.332	25.21
		64-QAM	-22.51	15.24	11.40	3.01	V		0.231	23.63
		256-QAM	-24.80	12.95	11.40	3.01	V		0.136	21.34
3500.01		PI/2 BPSK	-19.85	18.32	11.50	3.06	V		0.474	26.76
		QPSK	-19.86	18.31	11.50	3.06	V		0.473	26.75
		16-QAM	-20.91	17.26	11.50	3.06	V		0.372	25.70
		64-QAM	-22.35	15.82	11.50	3.06	V		0.267	24.26
		256-QAM	-24.65	13.52	11.50	3.06	V		0.157	21.96
3525.00		PI/2 BPSK	-19.96	18.15	11.60	3.05	V		0.468	26.70
		QPSK	-20.09	18.02	11.60	3.05	V		0.454	26.57
		16-QAM	-21.02	17.09	11.60	3.05	V		0.366	25.64
		64-QAM	-22.51	15.60	11.60	3.05	V		0.260	24.15
		256-QAM	-24.86	13.25	11.60	3.05	V		0.151	21.80

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3480.00	Sub6 n77/ 60 MHz [30 kHz]	PI/2 BPSK	-20.02	17.70	11.42	3.02	V	< 1.00	0.407	26.10
		QPSK	-20.03	17.69	11.42	3.02	V		0.406	26.09
		16-QAM	-21.09	16.63	11.42	3.02	V		0.318	25.03
		64-QAM	-22.45	15.27	11.42	3.02	V		0.233	23.67
		256-QAM	-24.79	12.93	11.42	3.02	V		0.136	21.33
3500.01		PI/2 BPSK	-19.87	18.30	11.50	3.06	V		0.472	26.74
		QPSK	-19.89	18.28	11.50	3.06	V		0.470	26.72
		16-QAM	-20.87	17.30	11.50	3.06	V		0.375	25.74
		64-QAM	-22.37	15.80	11.50	3.06	V		0.265	24.24
		256-QAM	-24.63	13.54	11.50	3.06	V		0.158	21.98
3519.99		PI/2 BPSK	-19.90	18.27	11.58	3.05	V		0.479	26.80
		QPSK	-20.00	18.17	11.58	3.05	V		0.468	26.70
		16-QAM	-20.87	17.30	11.58	3.05	V		0.383	25.83
		64-QAM	-22.45	15.72	11.58	3.05	V		0.266	24.25
		256-QAM	-24.73	13.44	11.58	3.05	V		0.157	21.97

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3485.01	Sub6 n77/ 70 MHz [30 kHz]	PI/2 BPSK	-20.11	17.71	11.44	3.04	H	< 1.00	0.409	26.12
		QPSK	-20.18	17.64	11.44	3.04	H		0.403	26.05
		16-QAM	-21.16	16.66	11.44	3.04	H		0.321	25.07
		64-QAM	-22.71	15.11	11.44	3.04	H		0.225	23.52
		256-QAM	-24.99	12.83	11.44	3.04	H		0.133	21.24
3500.01		PI/2 BPSK	-19.87	18.30	11.50	3.06	H		0.472	26.74
		QPSK	-20.00	18.17	11.50	3.06	H		0.458	26.61
		16-QAM	-20.95	17.22	11.50	3.06	H		0.368	25.66
		64-QAM	-22.51	15.66	11.50	3.06	H		0.257	24.10
		256-QAM	-24.81	13.36	11.50	3.06	H		0.151	21.80
3514.98		PI/2 BPSK	-20.00	18.32	11.52	3.06	H		0.478	26.79
		QPSK	-20.09	18.23	11.52	3.06	H		0.468	26.70
		16-QAM	-21.11	17.21	11.52	3.06	H		0.370	25.68
		64-QAM	-22.56	15.76	11.52	3.06	H		0.265	24.23
		256-QAM	-24.88	13.44	11.52	3.06	H		0.155	21.91

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3490.02	Sub6 n77/ 80 MHz [30 kHz]	PI/2 BPSK	-20.16	17.76	11.46	3.05	V	< 1.00	0.414	26.17
		QPSK	-20.20	17.72	11.46	3.05	V		0.410	26.13
		16-QAM	-21.31	16.61	11.46	3.05	V		0.318	25.02
		64-QAM	-22.69	15.23	11.46	3.05	V		0.231	23.64
		256-QAM	-24.97	12.95	11.46	3.05	V		0.137	21.36
3500.01		PI/2 BPSK	-20.01	18.16	11.50	3.06	V		0.457	26.60
		QPSK	-20.06	18.11	11.50	3.06	V		0.452	26.55
		16-QAM	-20.96	17.21	11.50	3.06	V		0.367	25.65
		64-QAM	-22.45	15.72	11.50	3.06	V		0.261	24.16
		256-QAM	-24.83	13.34	11.50	3.06	V		0.151	21.78
3510.00		PI/2 BPSK	-20.04	18.35	11.54	3.06	V		0.482	26.83
		QPSK	-20.06	18.33	11.54	3.06	V		0.480	26.81
		16-QAM	-21.05	17.34	11.54	3.06	V		0.382	25.82
		64-QAM	-22.57	15.82	11.54	3.06	V		0.269	24.30
		256-QAM	-24.84	13.55	11.54	3.06	V		0.160	22.03

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3495.00	Sub6 n77/ 90 MHz [30 kHz]	PI/2 BPSK	-20.15	17.90	11.48	3.06	V	< 1.00	0.429	26.32
		QPSK	-20.19	17.86	11.48	3.06	V		0.425	26.28
		16-QAM	-21.17	16.88	11.48	3.06	V		0.339	25.30
		64-QAM	-22.69	15.36	11.48	3.06	V		0.239	23.78
		256-QAM	-24.91	13.14	11.48	3.06	V		0.143	21.56
3500.01		PI/2 BPSK	-20.05	18.12	11.50	3.06	V		0.453	26.56
		QPSK	-20.08	18.09	11.50	3.06	V		0.450	26.53
		16-QAM	-20.99	17.18	11.50	3.06	V		0.365	25.62
		64-QAM	-22.42	15.75	11.50	3.06	V		0.262	24.19
		256-QAM	-24.84	13.33	11.50	3.06	V		0.150	21.77
3504.99		PI/2 BPSK	-19.93	18.35	11.52	3.06	V		0.480	26.81
		QPSK	-20.05	18.23	11.52	3.06	V		0.467	26.69
		16-QAM	-20.93	17.35	11.52	3.06	V		0.381	25.81
		64-QAM	-22.42	15.86	11.52	3.06	V		0.270	24.32
		256-QAM	-24.82	13.46	11.52	3.06	V		0.156	21.92

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP	
								W	W	dBm
3500.01	Sub6 n77/ 100 MHz [30 kHz]	PI/2 BPSK	-20.16	18.01	11.50	3.06	V	< 1.00	0.442	26.45
		QPSK	-20.19	17.98	11.50	3.06	V		0.439	26.42
		16-QAM	-21.19	16.98	11.50	3.06	V		0.348	25.42
		64-QAM	-22.69	15.48	11.50	3.06	V		0.247	23.92
		256-QAM	-24.96	13.21	11.50	3.06	V		0.146	21.65

8.2 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N77(PC2)

▣ Bandwidth: 40 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)
631334 (3470.01)	6 940.02	-61.78	11.10	-54.04	4.34	V	-47.28	-13.00
	10 410.03	-62.78	11.80	-50.53	5.42	V	-44.15	-13.00
	13 880.04	-52.47	13.00	-39.05	6.42	V	-32.47	-13.00
	17 350.05	-64.09	16.40	-42.67	7.34	V	-33.61	-13.00
633334 (3500.01)	7 000.02	-63.73	11.20	-55.11	4.38	V	-48.29	-13.00
	10 500.03	-64.06	11.80	-50.64	5.49	V	-44.33	-13.00
	14 000.04	-47.09	12.90	-34.65	6.48	V	-28.23	-13.00
	17 500.05	-66.06	16.10	-45.02	7.30	V	-36.22	-13.00
635332 (3529.98)	7 059.96	-64.17	11.16	-54.90	4.42	V	-48.16	-13.00
	10 589.94	-64.34	11.70	-51.21	5.52	V	-45.03	-13.00
	14 119.92	-42.14	12.84	-30.75	6.51	V	-24.42	-13.00
	17 649.90	-65.89	15.60	-40.39	7.42	V	-32.21	-13.00

▣ ENDC-Mode : 2A(10 MHz)-n77A_DoD(40 MHz) , PC2

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)
18900 (1880.0)	3760.00	-60.29	11.64	-60.52	3.16	V	-52.04	-13.00
	5640.00	-61.12	12.00	-54.94	3.93	V	-46.87	-13.00
	7520.00	-61.35	11.54	-46.90	4.51	V	-39.87	-13.00

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77	20 MHz	3500.01	BPSK	Full RB	0	3.66
			QPSK			4.53
			16-QAM			5.33
			64-QAM			5.69
			256-QAM			6.48
	30 MHz		BPSK			3.65
			QPSK			4.49
			16-QAM			5.32
			64-QAM			5.61
			256-QAM			6.39
	40 MHz		BPSK			3.65
			QPSK			4.54
			16-QAM			5.34
			64-QAM			5.66
			256-QAM			6.38
	50 MHz		BPSK			3.85
			QPSK			4.68
			16-QAM			5.45
			64-QAM			5.77
			256-QAM			6.43
	60 MHz		BPSK			3.86
			QPSK			4.75
			16-QAM			5.48
			64-QAM			5.79
			256-QAM			6.45
	70 MHz		BPSK			4.41
			QPSK			4.96
			16-QAM			5.60
			64-QAM			5.87
			256-QAM			6.49

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
	80 MHz		BPSK			3.85
			QPSK			4.80
			16-QAM			5.50
			64-QAM			5.83
			256-QAM			6.51
	90 MHz		BPSK			4.07
			QPSK			4.86
			16-QAM			5.54
			64-QAM			5.87
			256-QAM			6.54
	100 MHz		BPSK			3.34
			QPSK			4.08
			16-QAM			4.72
			64-QAM			4.96
			256-QAM			5.87

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 125 ~ 169.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77	20 MHz	3500.01	BPSK	Full RB	0	17.949
			QPSK			17.944
			16-QAM			17.958
			64-QAM			17.954
			256-QAM			17.918
	30 MHz		BPSK			26.943
			QPSK			26.980
			16-QAM			26.970
			64-QAM			27.011
			256-QAM			26.986
	40 MHz		BPSK			35.851
			QPSK			35.975
			16-QAM			35.984
			64-QAM			35.891
			256-QAM			35.858
	50 MHz		BPSK			45.919
			QPSK			45.850
			16-QAM			46.010
			64-QAM			45.925
			256-QAM			45.851
	60 MHz		BPSK			57.856
			QPSK			58.050
			16-QAM			57.940
			64-QAM			57.772
			256-QAM			57.837
	70 MHz		BPSK			64.592
			QPSK			64.727
			16-QAM			64.561
			64-QAM			64.396
			256-QAM			64.421

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
	80 MHz		BPSK			77.026
			QPSK			77.449
			16-QAM			77.267
			64-QAM			77.423
			256-QAM			77.122
	90 MHz		BPSK			86.847
			QPSK			87.258
			16-QAM			87.136
			64-QAM			86.917
			256-QAM			86.838
	100 MHz		BPSK			97.077
			QPSK			97.280
			16-QAM			97.132
			64-QAM			97.057
			256-QAM			96.549

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 80 ~ 124.

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 n77	20	3460.02	8.8609	37.805	-69.694	-31.889	-13.00
		3500.01	7.9876	37.805	-70.115	-32.310	
		3540.00	9.6989	37.805	-69.473	-31.668	
	30	3465.00	9.1526	37.805	-70.050	-32.245	
		3500.01	8.8844	37.805	-68.994	-31.189	
		3534.99	8.3141	37.805	-69.814	-32.009	
	40	3470.01	4.2882	37.190	-70.656	-33.466	
		3500.01	6.0698	37.805	-70.275	-32.470	
		3529.98	8.3031	37.805	-70.060	-32.255	
	50	3475.02	8.0519	37.805	-70.411	-32.606	
		3500.01	9.9850	37.805	-70.423	-32.618	
		3525.00	9.7313	37.805	-70.734	-32.929	
	60	3480.00	9.6580	37.805	-70.283	-32.478	
		3500.01	4.8231	37.190	-70.229	-33.039	
		3519.99	7.9831	37.805	-70.092	-32.287	
	70	3485.01	5.2239	37.805	-70.327	-32.522	
		3500.01	6.0070	37.805	-70.569	-32.764	
		3514.98	8.2772	37.805	-69.669	-31.864	
	80	3490.02	8.8664	37.805	-70.376	-32.571	
		3500.01	9.7253	37.805	-70.425	-32.620	
		3510.00	9.1780	37.805	-70.120	-32.315	
	90	3495.00	8.2617	37.805	-70.303	-32.498	
		3500.01	8.6157	37.805	-70.314	-32.509	
		3504.99	9.6994	37.805	-70.106	-32.301	
	100	3500.01	8.8370	37.805	-70.094	-32.289	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 281 ~ 330.
2. Duty Cycle factor already applied on the factor.
   - Duty Cycle Factor(dB) = 6.990

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

3. Factor(dB)

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

8.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 170 ~ 280.
2. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Divider
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 6.990

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3460.020	100 %	+20(Ref)	3460 020 014	0.0	0.000 000	0.000
	100 %	-30	3460 020 024	9.3	0.000 000	0.003
	100 %	-20	3460 020 020	5.4	0.000 000	0.002
	100 %	-10	3460 020 023	8.1	0.000 000	0.002
	100 %	0	3460 020 026	11.3	0.000 000	0.003
	100 %	+10	3460 020 022	7.8	0.000 000	0.002
	100 %	+30	3460 020 027	12.1	0.000 000	0.003
	100 %	+40	3460 020 018	3.6	0.000 000	0.001
	100 %	+50	3460 020 024	9.9	0.000 000	0.003
	Batt. Endpoint	+20	3460 020 031	16.6	0.000 000	0.005
3540.000	100 %	+20(Ref)	3540 000 009	0.0	0.000 000	0.000
	100 %	-30	3540 000 020	10.4	0.000 000	0.003
	100 %	-20	3540 000 015	5.7	0.000 000	0.002
	100 %	-10	3540 000 023	13.7	0.000 000	0.004
	100 %	0	3540 000 018	8.8	0.000 000	0.002
	100 %	+10	3540 000 022	12.8	0.000 000	0.004
	100 %	+30	3540 000 021	11.2	0.000 000	0.003
	100 %	+40	3540 000 025	15.9	0.000 000	0.004
	100 %	+50	3540 000 023	13.6	0.000 000	0.004
	Batt. Endpoint	+20	3540 000 023	13.1	0.000 000	0.004

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3465.000	100 %	+20(Ref)	3465 000 016	0.0	0.000 000	0.000
	100 %	-30	3465 000 030	13.8	0.000 000	0.004
	100 %	-20	3465 000 027	10.6	0.000 000	0.003
	100 %	-10	3465 000 030	14.0	0.000 000	0.004
	100 %	0	3465 000 021	5.1	0.000 000	0.001
	100 %	+10	3465 000 020	3.4	0.000 000	0.001
	100 %	+30	3465 000 023	6.4	0.000 000	0.002
	100 %	+40	3465 000 022	5.9	0.000 000	0.002
	100 %	+50	3465 000 027	11.1	0.000 000	0.003
	Batt. Endpoint	+20	3465 000 031	14.7	0.000 000	0.004
3534.990	100 %	+20(Ref)	3534 990 016	0.0	0.000 000	0.000
	100 %	-30	3534 990 028	12.1	0.000 000	0.003
	100 %	-20	3534 990 020	3.7	0.000 000	0.001
	100 %	-10	3534 990 032	16.2	0.000 000	0.005
	100 %	0	3534 990 022	6.0	0.000 000	0.002
	100 %	+10	3534 990 024	7.6	0.000 000	0.002
	100 %	+30	3534 990 025	8.8	0.000 000	0.002
	100 %	+40	3534 990 031	14.7	0.000 000	0.004
	100 %	+50	3534 990 021	5.1	0.000 000	0.001
	Batt. Endpoint	+20	3534 990 033	17.0	0.000 000	0.005

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3470.010	100 %	+20(Ref)	3470 010 017	0.0	0.000 000	0.000
	100 %	-30	3470 010 022	5.5	0.000 000	0.002
	100 %	-20	3470 010 024	7.5	0.000 000	0.002
	100 %	-10	3470 010 030	13.3	0.000 000	0.004
	100 %	0	3470 010 030	12.7	0.000 000	0.004
	100 %	+10	3470 010 026	8.7	0.000 000	0.003
	100 %	+30	3470 010 025	8.3	0.000 000	0.002
	100 %	+40	3470 010 021	3.9	0.000 000	0.001
	100 %	+50	3470 010 033	16.1	0.000 000	0.005
	Batt. Endpoint	+20	3470 010 032	14.9	0.000 000	0.004
3529.980	100 %	+20(Ref)	3529 980 005	0.0	0.000 000	0.000
	100 %	-30	3529 980 016	11.2	0.000 000	0.003
	100 %	-20	3529 980 010	4.5	0.000 000	0.001
	100 %	-10	3529 980 010	5.2	0.000 000	0.001
	100 %	0	3529 980 018	13.0	0.000 000	0.004
	100 %	+10	3529 980 018	12.8	0.000 000	0.004
	100 %	+30	3529 980 020	14.8	0.000 000	0.004
	100 %	+40	3529 980 014	8.8	0.000 000	0.002
	100 %	+50	3529 980 013	7.4	0.000 000	0.002
	Batt. Endpoint	+20	3529 980 015	9.8	0.000 000	0.003

▣ BandWidth: 50 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3475.020	100 %	+20(Ref)	3475 020 014	0.0	0.000 000	0.000
	100 %	-30	3475 020 028	14.2	0.000 000	0.004
	100 %	-20	3475 020 029	15.0	0.000 000	0.004
	100 %	-10	3475 020 021	7.6	0.000 000	0.002
	100 %	0	3475 020 029	15.3	0.000 000	0.004
	100 %	+10	3475 020 019	5.0	0.000 000	0.001
	100 %	+30	3475 020 026	12.5	0.000 000	0.004
	100 %	+40	3475 020 023	9.1	0.000 000	0.003
	100 %	+50	3475 020 024	10.6	0.000 000	0.003
	Batt. Endpoint	+20	3475 020 018	4.6	0.000 000	0.001
3525.000	100 %	+20(Ref)	3525 000 005	0.0	0.000 000	0.000
	100 %	-30	3525 000 019	13.7	0.000 000	0.004
	100 %	-20	3525 000 021	15.7	0.000 000	0.004
	100 %	-10	3525 000 017	11.2	0.000 000	0.003
	100 %	0	3525 000 012	6.6	0.000 000	0.002
	100 %	+10	3525 000 016	10.7	0.000 000	0.003
	100 %	+30	3525 000 020	14.6	0.000 000	0.004
	100 %	+40	3525 000 020	14.3	0.000 000	0.004
	100 %	+50	3525 000 010	4.7	0.000 000	0.001
	Batt. Endpoint	+20	3525 000 021	15.8	0.000 000	0.004

▣ BandWidth: 60 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3480.000	100 %	+20(Ref)	3480 000 008	0.0	0.000 000	0.000
	100 %	-30	3480 000 023	15.0	0.000 000	0.004
	100 %	-20	3480 000 015	6.3	0.000 000	0.002
	100 %	-10	3480 000 021	13.1	0.000 000	0.004
	100 %	0	3480 000 019	10.8	0.000 000	0.003
	100 %	+10	3480 000 015	6.3	0.000 000	0.002
	100 %	+30	3480 000 012	3.9	0.000 000	0.001
	100 %	+40	3480 000 016	7.6	0.000 000	0.002
	100 %	+50	3480 000 020	12.0	0.000 000	0.003
	Batt. Endpoint	+20	3480 000 022	14.0	0.000 000	0.004
3519.990	100 %	+20(Ref)	3519 990 010	0.0	0.000 000	0.000
	100 %	-30	3519 990 015	4.7	0.000 000	0.001
	100 %	-20	3519 990 023	12.7	0.000 000	0.004
	100 %	-10	3519 990 013	3.3	0.000 000	0.001
	100 %	0	3519 990 019	9.3	0.000 000	0.003
	100 %	+10	3519 990 023	12.7	0.000 000	0.004
	100 %	+30	3519 990 021	11.1	0.000 000	0.003
	100 %	+40	3519 990 027	16.6	0.000 000	0.005
	100 %	+50	3519 990 020	10.4	0.000 000	0.003
	Batt. Endpoint	+20	3519 990 021	11.0	0.000 000	0.003

▣ BandWidth: 70 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3485.010	100 %	+20(Ref)	3485 010 005	0.0	0.000 000	0.000
	100 %	-30	3485 010 015	10.6	0.000 000	0.003
	100 %	-20	3485 010 013	8.3	0.000 000	0.002
	100 %	-10	3485 010 009	4.8	0.000 000	0.001
	100 %	0	3485 010 017	12.0	0.000 000	0.003
	100 %	+10	3485 010 017	12.8	0.000 000	0.004
	100 %	+30	3485 010 016	11.0	0.000 000	0.003
	100 %	+40	3485 010 019	14.8	0.000 000	0.004
	100 %	+50	3485 010 018	13.4	0.000 000	0.004
	Batt. Endpoint	+20	3485 010 011	6.7	0.000 000	0.002
3514.980	100 %	+20(Ref)	3514 980 010	0.0	0.000 000	0.000
	100 %	-30	3514 980 019	8.4	0.000 000	0.002
	100 %	-20	3514 980 017	6.3	0.000 000	0.002
	100 %	-10	3514 980 024	13.3	0.000 000	0.004
	100 %	0	3514 980 018	8.1	0.000 000	0.002
	100 %	+10	3514 980 024	13.6	0.000 000	0.004
	100 %	+30	3514 980 016	6.2	0.000 000	0.002
	100 %	+40	3514 980 027	16.6	0.000 000	0.005
	100 %	+50	3514 980 019	9.0	0.000 000	0.003
	Batt. Endpoint	+20	3514 980 026	15.9	0.000 000	0.005

▣ BandWidth: 80 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3490.020	100 %	+20(Ref)	3490 020 010	0.0	0.000 000	0.000
	100 %	-30	3490 020 027	16.9	0.000 000	0.005
	100 %	-20	3490 020 014	3.6	0.000 000	0.001
	100 %	-10	3490 020 016	5.9	0.000 000	0.002
	100 %	0	3490 020 025	14.7	0.000 000	0.004
	100 %	+10	3490 020 026	15.6	0.000 000	0.004
	100 %	+30	3490 020 017	6.6	0.000 000	0.002
	100 %	+40	3490 020 025	15.2	0.000 000	0.004
	100 %	+50	3490 020 020	10.2	0.000 000	0.003
	Batt. Endpoint	+20	3490 020 014	4.2	0.000 000	0.001
3510.000	100 %	+20(Ref)	3510 000 011	0.0	0.000 000	0.000
	100 %	-30	3510 000 015	4.1	0.000 000	0.001
	100 %	-20	3510 000 025	14.7	0.000 000	0.004
	100 %	-10	3510 000 024	12.8	0.000 000	0.004
	100 %	0	3510 000 024	13.7	0.000 000	0.004
	100 %	+10	3510 000 025	14.6	0.000 000	0.004
	100 %	+30	3510 000 024	13.1	0.000 000	0.004
	100 %	+40	3510 000 024	12.9	0.000 000	0.004
	100 %	+50	3510 000 019	8.7	0.000 000	0.002
	Batt. Endpoint	+20	3510 000 027	16.1	0.000 000	0.005

▣ BandWidth: 90 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3495.000	100 %	+20(Ref)	3495 000 006	0.0	0.000 000	0.000
	100 %	-30	3495 000 013	7.0	0.000 000	0.002
	100 %	-20	3495 000 019	13.8	0.000 000	0.004
	100 %	-10	3495 000 017	11.4	0.000 000	0.003
	100 %	0	3495 000 022	15.9	0.000 000	0.005
	100 %	+10	3495 000 022	16.8	0.000 000	0.005
	100 %	+30	3495 000 019	13.7	0.000 000	0.004
	100 %	+40	3495 000 019	13.5	0.000 000	0.004
	100 %	+50	3495 000 018	12.1	0.000 000	0.003
	Batt. Endpoint	+20	3495 000 016	10.9	0.000 000	0.003
3504.990	100 %	+20(Ref)	3504 990 017	0.0	0.000 000	0.000
	100 %	-30	3504 990 030	13.1	0.000 000	0.004
	100 %	-20	3504 990 027	10.2	0.000 000	0.003
	100 %	-10	3504 990 028	11.4	0.000 000	0.003
	100 %	0	3504 990 033	16.6	0.000 000	0.005
	100 %	+10	3504 990 024	7.6	0.000 000	0.002
	100 %	+30	3504 990 023	6.2	0.000 000	0.002
	100 %	+40	3504 990 021	3.9	0.000 000	0.001
	100 %	+50	3504 990 022	5.2	0.000 000	0.001
	Batt. Endpoint	+20	3504 990 033	16.4	0.000 000	0.005

▣ BandWidth: 100 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3500.010	100 %	+20(Ref)	3500 010 005	0.0	0.000 000	0.000
	100 %	-30	3500 010 020	14.9	0.000 000	0.004
	100 %	-20	3500 010 014	8.7	0.000 000	0.002
	100 %	-10	3500 010 019	13.6	0.000 000	0.004
	100 %	0	3500 010 009	3.5	0.000 000	0.001
	100 %	+10	3500 010 014	8.5	0.000 000	0.002
	100 %	+30	3500 010 017	12.4	0.000 000	0.004
	100 %	+40	3500 010 016	11.2	0.000 000	0.003
	100 %	+50	3500 010 019	13.5	0.000 000	0.004
	Batt. Endpoint	+20	3500 010 016	10.6	0.000 000	0.003

9. TEST DATA (3700 MHz - 3980 MHz)

9.1 EQUIVALENT ISOTROPIC RADIATED POWER

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3710.01	Sub6 n77/ 20 MHz [30 kHz]	PI/2 BPSK	-19.51	18.78	11.70	3.15	H	< 1.00	0.541	27.33	1	25
		QPSK	-19.56	18.73	11.70	3.15	H		0.535	27.28		
		16-QAM	-20.52	17.77	11.70	3.15	H		0.429	26.32		
		64-QAM	-21.94	16.35	11.70	3.15	H		0.309	24.90		
		256-QAM	-24.26	14.03	11.70	3.15	H		0.181	22.58		
3840.00		PI/2 BPSK	-21.99	17.93	11.24	3.21	H		0.396	25.98	1	1
		QPSK	-21.97	17.95	11.24	3.21	H		0.394	25.96		
		16-QAM	-22.95	16.97	11.24	3.21	H		0.316	25.00		
		64-QAM	-24.48	15.44	11.24	3.21	H		0.222	23.47		
		256-QAM	-26.78	13.14	11.24	3.21	H		0.131	21.17		
3969.99		PI/2 BPSK	-20.67	18.98	11.18	3.23	H		0.493	26.93	1	1
		QPSK	-20.76	18.89	11.18	3.23	H		0.483	26.84		
		16-QAM	-21.77	17.88	11.18	3.23	H		0.383	25.83		
		64-QAM	-23.14	16.51	11.18	3.23	H		0.279	24.46		
		256-QAM	-25.48	14.17	11.18	3.23	H		0.163	22.12		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3715.02	Sub6 n77/ 30 MHz [30 kHz]	PI/2 BPSK	-19.24	19.18	11.70	3.18	H	< 1.00	0.589	27.70	1	39
		QPSK	-19.31	19.11	11.70	3.18	H		0.579	27.63		
		16-QAM	-20.21	18.21	11.70	3.18	H		0.471	26.73		
		64-QAM	-21.73	16.69	11.70	3.18	H		0.332	25.21		
		256-QAM	-24.03	14.39	11.70	3.18	H		0.195	22.91		
3840.00		PI/2 BPSK	-21.61	18.31	11.24	3.21	H		0.431	26.34	1	1
		QPSK	-21.63	18.29	11.24	3.21	H		0.429	26.32		
		16-QAM	-22.64	17.28	11.24	3.21	H		0.340	25.31		
		64-QAM	-24.08	15.84	11.24	3.21	H		0.244	23.87		
		256-QAM	-26.43	13.49	11.24	3.21	H		0.142	21.52		
3964.98		PI/2 BPSK	-20.29	19.38	11.16	3.23	H		0.538	27.31	1	1
		QPSK	-20.33	19.34	11.16	3.23	H		0.533	27.27		
		16-QAM	-21.30	18.37	11.16	3.23	H		0.427	26.30		
		64-QAM	-22.76	16.91	11.16	3.23	H		0.305	24.84		
		256-QAM	-25.03	14.64	11.16	3.23	H		0.181	22.57		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3720.00	Sub6 n77/ 40 MHz [30 kHz]	PI/2 BPSK	-19.15	19.39	11.70	3.20	H	< 1.00	0.615	27.89	1	53
		QPSK	-19.19	19.35	11.70	3.20	H		0.610	27.85		
		16-QAM	-20.11	18.43	11.70	3.20	H		0.493	26.93		
		64-QAM	-21.60	16.94	11.70	3.20	H		0.350	25.44		
		256-QAM	-23.86	14.68	11.70	3.20	H		0.208	23.18		
3840.00		PI/2 BPSK	-21.09	18.83	11.24	3.21	H		0.485	26.86	1	1
		QPSK	-21.13	18.79	11.24	3.21	H		0.481	26.82		
		16-QAM	-22.19	17.73	11.24	3.21	H		0.377	25.76		
		64-QAM	-23.69	16.23	11.24	3.21	H		0.267	24.26		
		256-QAM	-25.93	13.99	11.24	3.21	H		0.159	22.02		
3960.00		PI/2 BPSK	-19.99	19.70	11.14	3.23	H		0.577	27.61	1	1
		QPSK	-20.19	19.50	11.14	3.23	H		0.551	27.41		
		16-QAM	-21.15	18.54	11.14	3.23	H		0.442	26.45		
		64-QAM	-22.61	17.08	11.14	3.23	H		0.316	24.99		
		256-QAM	-24.99	14.70	11.14	3.23	H		0.182	22.61		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3725.10	Sub6 n77/ 50 MHz [30 kHz]	PI/2 BPSK	-19.71	18.91	11.70	3.22	H	< 1.00	0.548	27.39	1	66
		QPSK	-19.81	18.81	11.70	3.22	H		0.536	27.29		
		16-QAM	-20.83	17.79	11.70	3.22	H		0.424	26.27		
		64-QAM	-22.33	16.29	11.70	3.22	H		0.300	24.77		
		256-QAM	-24.59	14.03	11.70	3.22	H		0.178	22.51		
3840.00		PI/2 BPSK	-21.60	18.32	11.24	3.21	H		0.432	26.35	1	1
		QPSK	-21.61	18.31	11.24	3.21	H		0.431	26.34		
		16-QAM	-22.58	17.34	11.24	3.21	H		0.344	25.37		
		64-QAM	-24.01	15.91	11.24	3.21	H		0.248	23.94		
		256-QAM	-26.26	13.66	11.24	3.21	H		0.148	21.69		
3954.99		PI/2 BPSK	-20.51	19.20	11.12	3.23	H		0.512	27.09	1	1
		QPSK	-20.69	19.02	11.12	3.23	H		0.491	26.91		
		16-QAM	-21.61	18.10	11.12	3.23	H		0.397	25.99		
		64-QAM	-23.07	16.64	11.12	3.23	H		0.284	24.53		
		256-QAM	-25.39	14.32	11.12	3.23	H		0.166	22.21		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3730.02	Sub6 n77/ 60 MHz [30 kHz]	PI/2 BPSK	-19.54	19.16	11.70	3.24	H	< 1.00	0.578	27.62	1	81
		QPSK	-19.65	19.05	11.70	3.24	H		0.564	27.51		
		16-QAM	-20.61	18.09	11.70	3.24	H		0.452	26.55		
		64-QAM	-22.10	16.60	11.70	3.24	H		0.321	25.06		
		256-QAM	-24.39	14.31	11.70	3.24	H		0.189	22.77		
3840.00		PI/2 BPSK	-21.33	18.59	11.24	3.21	H		0.459	26.62	1	1
		QPSK	-21.46	18.46	11.24	3.21	H		0.446	26.49		
		16-QAM	-22.36	17.56	11.24	3.21	H		0.362	25.59		
		64-QAM	-23.83	16.09	11.24	3.21	H		0.258	24.12		
		256-QAM	-26.15	13.77	11.24	3.21	H		0.151	21.80		
3949.98		PI/2 BPSK	-20.20	19.53	11.10	3.23	H		0.550	27.40	1	81
		QPSK	-20.27	19.46	11.10	3.23	H		0.541	27.33		
		16-QAM	-21.30	18.43	11.10	3.23	H		0.427	26.30		
		64-QAM	-22.73	17.00	11.10	3.23	H		0.307	24.87		
		256-QAM	-24.95	14.78	11.10	3.23	H		0.184	22.65		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3735.00	Sub6 n77/ 70 MHz [30 kHz]	PI/2 BPSK	-19.75	19.01	11.70	3.24	H	< 1.00	0.558	27.47	1	94
		QPSK	-19.85	18.91	11.70	3.24	H		0.546	27.37		
		16-QAM	-20.76	18.00	11.70	3.24	H		0.443	26.46		
		64-QAM	-22.29	16.47	11.70	3.24	H		0.311	24.93		
		256-QAM	-24.56	14.20	11.70	3.24	H		0.185	22.66		
3840.00		PI/2 BPSK	-21.32	18.60	11.24	3.21	H		0.460	26.63	1	1
		QPSK	-21.38	18.54	11.24	3.21	H		0.454	26.57		
		16-QAM	-22.44	17.48	11.24	3.21	H		0.356	25.51		
		64-QAM	-23.89	16.03	11.24	3.21	H		0.255	24.06		
		256-QAM	-26.12	13.80	11.24	3.21	H		0.152	21.83		
3945.00		PI/2 BPSK	-20.35	19.39	11.09	3.23	H		0.531	27.25	1	94
		QPSK	-20.43	19.31	11.09	3.23	H		0.521	27.17		
		16-QAM	-21.42	18.32	11.09	3.23	H		0.415	26.18		
		64-QAM	-22.87	16.87	11.09	3.23	H		0.297	24.73		
		256-QAM	-25.09	14.65	11.09	3.23	H		0.178	22.51		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3740.01	Sub6 n77/ 80 MHz [30 kHz]	PI/2 BPSK	-19.66	19.16	11.70	3.23	H	< 1.00	0.579	27.63	1	108
		QPSK	-19.78	19.04	11.70	3.23	H		0.564	27.51		
		16-QAM	-20.76	18.06	11.70	3.23	H		0.450	26.53		
		64-QAM	-22.27	16.55	11.70	3.23	H		0.318	25.02		
		256-QAM	-24.53	14.29	11.70	3.23	H		0.189	22.76		
3840.00		PI/2 BPSK	-21.26	18.66	11.24	3.21	H		0.467	26.69	1	1
		QPSK	-21.38	18.54	11.24	3.21	H		0.454	26.57		
		16-QAM	-22.37	17.55	11.24	3.21	H		0.361	25.58		
		64-QAM	-23.83	16.09	11.24	3.21	H		0.258	24.12		
		256-QAM	-26.14	13.78	11.24	3.21	H		0.152	21.81		
3939.99		PI/2 BPSK	-20.42	19.33	11.08	3.23	H		0.522	27.18	1	108
		QPSK	-20.46	19.29	11.08	3.23	H		0.518	27.14		
		16-QAM	-21.52	18.23	11.08	3.23	H		0.406	26.08		
		64-QAM	-23.00	16.75	11.08	3.23	H		0.288	24.60		
		256-QAM	-25.21	14.54	11.08	3.23	H		0.173	22.39		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3745.02	Sub6 n77/ 90 MHz [30 kHz]	PI/2 BPSK	-19.90	18.94	11.70	3.22	H	< 1.00	0.552	27.42	1	122
		QPSK	-19.91	18.93	11.70	3.22	H		0.551	27.41		
		16-QAM	-20.96	17.88	11.70	3.22	H		0.433	26.36		
		64-QAM	-22.41	16.43	11.70	3.22	H		0.310	24.91		
		256-QAM	-24.67	14.17	11.70	3.22	H		0.184	22.65		
3840.00		PI/2 BPSK	-21.29	18.63	11.24	3.21	H		0.463	26.66	1	1
		QPSK	-21.33	18.59	11.24	3.21	H		0.459	26.62		
		16-QAM	-22.31	17.61	11.24	3.21	H		0.366	25.64		
		64-QAM	-23.74	16.18	11.24	3.21	H		0.264	24.21		
		256-QAM	-26.06	13.86	11.24	3.21	H		0.155	21.89		
3934.98		PI/2 BPSK	-20.46	19.30	11.07	3.23	H		0.518	27.14	1	122
		QPSK	-20.61	19.15	11.07	3.23	H		0.500	26.99		
		16-QAM	-21.66	18.10	11.07	3.23	H		0.393	25.94		
		64-QAM	-23.13	16.63	11.07	3.23	H		0.280	24.47		
		256-QAM	-25.36	14.40	11.07	3.23	H		0.167	22.24		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3750.00	Sub6 n77/ 100 MHz [30 kHz]	PI/2 BPSK	-19.87	18.99	11.70	3.20	H	< 1.00	0.561	27.49	1	136
		QPSK	-19.93	18.93	11.70	3.20	H		0.553	27.43		
		16-QAM	-20.88	17.98	11.70	3.20	H		0.445	26.48		
		64-QAM	-22.36	16.50	11.70	3.20	H		0.316	25.00		
		256-QAM	-24.61	14.25	11.70	3.20	H		0.188	22.75		
3840.00		PI/2 BPSK	-21.27	18.65	11.24	3.21	H		0.466	26.68	1	1
		QPSK	-21.28	18.64	11.24	3.21	H		0.465	26.67		
		16-QAM	-22.22	17.70	11.24	3.21	H		0.374	25.73		
		64-QAM	-23.73	16.19	11.24	3.21	H		0.264	24.22		
		256-QAM	-25.94	13.98	11.24	3.21	H		0.159	22.01		
3930.00		PI/2 BPSK	-20.76	18.83	11.24	3.23	H		0.483	26.84	1	136
		QPSK	-20.83	18.76	11.24	3.23	H		0.475	26.77		
		16-QAM	-21.75	17.84	11.24	3.23	H		0.385	25.85		
		64-QAM	-23.25	16.34	11.24	3.23	H		0.272	24.35		
		256-QAM	-25.47	14.12	11.24	3.23	H		0.163	22.13		

9.2 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N77(PC2)

▣ Bandwidth: 40 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meters

▣ SCS: 30 kHz

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
68000 (3720.00)	7 440.00	-62.29	11.36	-52.43	4.51	V	-45.58	-13.00	1	53
	11 160.00	-63.98	12.30	-49.75	5.70	V	-43.15	-13.00		
	14 880.00	-36.72	14.02	-28.17	6.70	V	-20.85	-13.00		
656000 (3840.00)	7 680.00	-62.25	11.54	-52.48	4.60	V	-45.54	-13.00	1	1
	11 520.00	-65.64	12.44	-51.70	5.72	V	-44.98	-13.00		
	15 360.00	-35.91	15.54	-27.78	6.81	V	-19.05	-13.00		
664000 (3960.00)	7 920.00	-59.01	11.04	-49.01	4.64	H	-42.61	-13.00	1	1
	11 880.00	-63.73	12.80	-50.53	5.94	V	-43.67	-13.00		
	15 840.00	-41.17	16.40	-30.86	6.90	V	-21.36	-13.00		

▣ ENDC-Mode : 2A(10 MHz)-n77A(40 MHz) , PC2

Ch	Freq (MHz)	Measured Level (dBm)	Ant. Gain (dBi)	Substitute Level (dBm)	C.L	Pol	Result (dBm)	Limit (dBm)
18900 (1880.0)	3760.00	-60.55	11.64	-60.78	3.16	V	-52.30	-13.00
	5640.00	-60.97	12.00	-54.79	3.93	V	-46.72	-13.00
	7520.00	-61.29	11.54	-46.84	4.51	V	-39.81	-13.00

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77	20 MHz	3840.00	BPSK	Full RB	0	3.23
			QPSK			4.17
			16-QAM			4.94
			64-QAM			5.28
			256-QAM			6.25
	30 MHz		BPSK			3.22
			QPSK			4.21
			16-QAM			4.99
			64-QAM			5.37
			256-QAM			6.21
	40 MHz		BPSK			3.46
			QPSK			4.17
			16-QAM			4.99
			64-QAM			5.35
			256-QAM			6.22
	50 MHz		BPSK			3.35
			QPSK			4.26
			16-QAM			5.04
			64-QAM			5.39
			256-QAM			6.30
	60 MHz		BPSK			3.20
			QPSK			4.36
			16-QAM			5.14
			64-QAM			5.44
			256-QAM			6.31
	70 MHz		BPSK			3.81
			QPSK			4.54
			16-QAM			5.22
			64-QAM			5.49
			256-QAM			6.31

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
	80 MHz		BPSK			3.46
			QPSK			4.41
			16-QAM			5.24
			64-QAM			5.55
			256-QAM			6.38
	90 MHz		BPSK			3.46
			QPSK			4.43
			16-QAM			5.26
			64-QAM			5.54
			256-QAM			6.35
	100 MHz		BPSK			3.48
			QPSK			4.11
			16-QAM			4.68
			64-QAM			4.89
			256-QAM			5.84

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 377 ~ 421.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77	20 MHz	3840.00	BPSK	Full RB	0	17.946
			QPSK			17.862
			16-QAM			17.875
			64-QAM			17.941
			256-QAM			17.858
	30 MHz		BPSK			26.984
			QPSK			26.958
			16-QAM			26.906
			64-QAM			26.903
			256-QAM			26.999
	40 MHz		BPSK			35.970
			QPSK			35.973
			16-QAM			35.845
			64-QAM			35.801
			256-QAM			35.823
	50 MHz		BPSK			45.879
			QPSK			46.127
			16-QAM			45.794
			64-QAM			45.902
			256-QAM			45.805
	60 MHz		BPSK			57.763
			QPSK			57.943
			16-QAM			57.876
			64-QAM			58.079
			256-QAM			57.999
	70 MHz		BPSK			64.493
			QPSK			64.484
			16-QAM			64.654
			64-QAM			64.561
			256-QAM			64.326

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
	80 MHz		BPSK			77.380
			QPSK			77.289
			16-QAM			77.140
			64-QAM			77.260
			256-QAM			77.383
	90 MHz		BPSK			87.021
			QPSK			86.890
			16-QAM			86.823
			64-QAM			86.986
			256-QAM			87.085
	100 MHz		BPSK			96.582
			QPSK			97.133
			16-QAM			96.690
			64-QAM			96.692
			256-QAM			96.307

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 332 ~ 376.

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 n77	20	3710.01	9.9950	37.805	-70.094	-32.289	-13.00
		3840.00	8.2991	37.805	-70.410	-32.605	
		3969.99	7.1595	37.805	-70.057	-32.252	
	30	3715.02	8.2702	37.805	-70.037	-32.232	
		3840.00	8.0344	37.805	-70.634	-32.829	
		3964.98	8.8719	37.805	-70.581	-32.776	
	40	3720.00	9.1535	37.805	-70.393	-32.588	
		3840.00	5.4961	37.805	-70.625	-32.820	
		3960.00	8.2837	37.805	-70.323	-32.518	
	50	3725.10	8.2508	37.805	-70.188	-32.383	
		3840.00	8.2612	37.805	-69.944	-32.139	
		3954.99	5.4681	37.805	-70.721	-32.916	
	60	3730.02	4.9642	37.190	-70.635	-33.445	
		3840.00	9.9651	37.805	-70.652	-32.847	
		3949.98	8.8769	37.805	-70.977	-33.172	
	70	3735.00	8.8554	37.805	-70.072	-32.267	
		3840.00	5.2279	37.805	-70.268	-32.463	
		3945.00	5.1955	37.805	-70.432	-32.627	
	80	3740.01	9.1391	37.805	-70.274	-32.469	
		3840.00	8.2752	37.805	-70.639	-32.834	
		3939.99	9.1516	37.805	-69.989	-32.184	
	90	3745.02	5.2333	37.805	-70.260	-32.455	
		3840.00	9.7333	37.805	-70.757	-32.952	
		3934.98	8.2747	37.805	-70.812	-33.007	
	100	3750.00	6.0609	37.805	-70.587	-32.782	
		3840.00	4.9472	37.190	-70.547	-33.357	
		3930.00	8.8520	37.805	-70.358	-32.553	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 530 ~ 583.

2. Duty Cycle factor already applied on the factor.

- Duty Cycle Factor(dB) = 6.990

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

- Result(dBm) = Reading + Factor

3. Factor(dB)

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

9.6 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 422 ~ 529.
2. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Divider
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 6.990

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3710.010	100 %	+20(Ref)	3710 010 013	0.0	0.000 000	0.000
	100 %	-30	3710 010 025	12.1	0.000 000	0.003
	100 %	-20	3710 010 023	9.9	0.000 000	0.003
	100 %	-10	3710 010 025	11.4	0.000 000	0.003
	100 %	0	3710 010 022	9.1	0.000 000	0.002
	100 %	+10	3710 010 025	11.8	0.000 000	0.003
	100 %	+30	3710 010 029	16.2	0.000 000	0.004
	100 %	+40	3710 010 028	14.8	0.000 000	0.004
	100 %	+50	3710 010 023	10.1	0.000 000	0.003
	Batt. Endpoint	+20	3710 010 020	6.5	0.000 000	0.002
3969.990	100 %	+20(Ref)	3969 990 016	0.0	0.000 000	0.000
	100 %	-30	3969 990 025	8.9	0.000 000	0.002
	100 %	-20	3969 990 022	6.3	0.000 000	0.002
	100 %	-10	3969 990 032	15.8	0.000 000	0.004
	100 %	0	3969 990 030	14.3	0.000 000	0.004
	100 %	+10	3969 990 031	15.4	0.000 000	0.004
	100 %	+30	3969 990 022	5.9	0.000 000	0.001
	100 %	+40	3969 990 026	10.1	0.000 000	0.003
	100 %	+50	3969 990 026	10.0	0.000 000	0.003
	Batt. Endpoint	+20	3969 990 024	7.8	0.000 000	0.002

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3715.020	100 %	+20(Ref)	3715 020 008	0.0	0.000 000	0.000
	100 %	-30	3715 020 012	3.1	0.000 000	0.001
	100 %	-20	3715 020 012	3.4	0.000 000	0.001
	100 %	-10	3715 020 016	7.9	0.000 000	0.002
	100 %	0	3715 020 019	11.1	0.000 000	0.003
	100 %	+10	3715 020 024	15.6	0.000 000	0.004
	100 %	+30	3715 020 020	11.7	0.000 000	0.003
	100 %	+40	3715 020 020	11.9	0.000 000	0.003
	100 %	+50	3715 020 023	14.1	0.000 000	0.004
	Batt. Endpoint	+20	3715 020 012	4.0	0.000 000	0.001
3964.980	100 %	+20(Ref)	3964 980 009	0.0	0.000 000	0.000
	100 %	-30	3964 980 024	14.8	0.000 000	0.004
	100 %	-20	3964 980 017	8.3	0.000 000	0.002
	100 %	-10	3964 980 015	6.4	0.000 000	0.002
	100 %	0	3964 980 021	11.4	0.000 000	0.003
	100 %	+10	3964 980 014	5.4	0.000 000	0.001
	100 %	+30	3964 980 018	8.9	0.000 000	0.002
	100 %	+40	3964 980 020	10.4	0.000 000	0.003
	100 %	+50	3964 980 025	15.7	0.000 000	0.004
	Batt. Endpoint	+20	3964 980 016	6.5	0.000 000	0.002

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3720.000	100 %	+20(Ref)	3720 000 010	0.0	0.000 000	0.000
	100 %	-30	3720 000 017	7.0	0.000 000	0.002
	100 %	-20	3720 000 024	13.6	0.000 000	0.004
	100 %	-10	3720 000 015	5.4	0.000 000	0.001
	100 %	0	3720 000 014	3.7	0.000 000	0.001
	100 %	+10	3720 000 022	12.4	0.000 000	0.003
	100 %	+30	3720 000 022	12.0	0.000 000	0.003
	100 %	+40	3720 000 025	15.0	0.000 000	0.004
	100 %	+50	3720 000 020	9.9	0.000 000	0.003
	Batt. Endpoint	+20	3720 000 017	6.6	0.000 000	0.002
3960.000	100 %	+20(Ref)	3960 000 015	0.0	0.000 000	0.000
	100 %	-30	3960 000 030	14.2	0.000 000	0.004
	100 %	-20	3960 000 025	10.0	0.000 000	0.003
	100 %	-10	3960 000 019	4.0	0.000 000	0.001
	100 %	0	3960 000 030	14.3	0.000 000	0.004
	100 %	+10	3960 000 024	8.5	0.000 000	0.002
	100 %	+30	3960 000 024	8.6	0.000 000	0.002
	100 %	+40	3960 000 022	6.5	0.000 000	0.002
	100 %	+50	3960 000 020	4.4	0.000 000	0.001
	Batt. Endpoint	+20	3960 000 028	12.4	0.000 000	0.003

▣ BandWidth: 50 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3725.010	100 %	+20(Ref)	3725 010 005	0.0	0.000 000	0.000
	100 %	-30	3725 010 022	16.2	0.000 000	0.004
	100 %	-20	3725 010 016	11.0	0.000 000	0.003
	100 %	-10	3725 010 022	16.6	0.000 000	0.004
	100 %	0	3725 010 009	3.2	0.000 000	0.001
	100 %	+10	3725 010 015	9.4	0.000 000	0.003
	100 %	+30	3725 010 009	3.5	0.000 000	0.001
	100 %	+40	3725 010 011	5.2	0.000 000	0.001
	100 %	+50	3725 010 022	16.5	0.000 000	0.004
	Batt. Endpoint	+20	3725 010 013	7.5	0.000 000	0.002
3954.990	100 %	+20(Ref)	3954 990 010	0.0	0.000 000	0.000
	100 %	-30	3954 990 025	15.3	0.000 000	0.004
	100 %	-20	3954 990 020	10.1	0.000 000	0.003
	100 %	-10	3954 990 018	7.5	0.000 000	0.002
	100 %	0	3954 990 020	9.4	0.000 000	0.002
	100 %	+10	3954 990 022	12.3	0.000 000	0.003
	100 %	+30	3954 990 022	11.9	0.000 000	0.003
	100 %	+40	3954 990 015	4.8	0.000 000	0.001
	100 %	+50	3954 990 018	8.1	0.000 000	0.002
	Batt. Endpoint	+20	3954 990 016	6.1	0.000 000	0.002

▣ BandWidth: 60 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3730.020	100 %	+20(Ref)	3730 020 013	0.0	0.000 000	0.000
	100 %	-30	3730 020 019	5.8	0.000 000	0.002
	100 %	-20	3730 020 022	9.4	0.000 000	0.003
	100 %	-10	3730 020 025	11.9	0.000 000	0.003
	100 %	0	3730 020 019	6.3	0.000 000	0.002
	100 %	+10	3730 020 023	10.3	0.000 000	0.003
	100 %	+30	3730 020 021	7.7	0.000 000	0.002
	100 %	+40	3730 020 026	12.8	0.000 000	0.003
	100 %	+50	3730 020 019	6.4	0.000 000	0.002
	Batt. Endpoint	+20	3730 020 029	16.4	0.000 000	0.004
3949.995	100 %	+20(Ref)	3949 995 012	0.0	0.000 000	0.000
	100 %	-30	3949 995 017	5.3	0.000 000	0.001
	100 %	-20	3949 995 018	5.7	0.000 000	0.001
	100 %	-10	3949 995 026	14.1	0.000 000	0.004
	100 %	0	3949 995 026	14.1	0.000 000	0.004
	100 %	+10	3949 995 020	7.8	0.000 000	0.002
	100 %	+30	3949 995 025	13.4	0.000 000	0.003
	100 %	+40	3949 995 027	15.1	0.000 000	0.004
	100 %	+50	3949 995 022	10.5	0.000 000	0.003
	Batt. Endpoint	+20	3949 995 027	15.6	0.000 000	0.004

▣ BandWidth: 70 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3735.000	100 %	+20(Ref)	3735 000 015	0.0	0.000 000	0.000
	100 %	-30	3735 000 018	3.1	0.000 000	0.001
	100 %	-20	3735 000 030	14.9	0.000 000	0.004
	100 %	-10	3735 000 029	14.2	0.000 000	0.004
	100 %	0	3735 000 021	6.6	0.000 000	0.002
	100 %	+10	3735 000 021	6.7	0.000 000	0.002
	100 %	+30	3735 000 029	14.7	0.000 000	0.004
	100 %	+40	3735 000 027	12.7	0.000 000	0.003
	100 %	+50	3735 000 030	15.3	0.000 000	0.004
	Batt. Endpoint	+20	3735 000 019	4.5	0.000 000	0.001
3945.000	100 %	+20(Ref)	3945 000 007	0.0	0.000 000	0.000
	100 %	-30	3945 000 022	14.7	0.000 000	0.004
	100 %	-20	3945 000 013	6.1	0.000 000	0.002
	100 %	-10	3945 000 019	11.5	0.000 000	0.003
	100 %	0	3945 000 021	13.5	0.000 000	0.003
	100 %	+10	3945 000 013	5.5	0.000 000	0.001
	100 %	+30	3945 000 019	11.4	0.000 000	0.003
	100 %	+40	3945 000 021	14.1	0.000 000	0.004
	100 %	+50	3945 000 018	10.6	0.000 000	0.003
	Batt. Endpoint	+20	3945 000 019	12.3	0.000 000	0.003

▣ BandWidth: 80 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3740.010	100 %	+20(Ref)	3740 010 011	0.0	0.000 000	0.000
	100 %	-30	3740 010 017	5.6	0.000 000	0.001
	100 %	-20	3740 010 026	14.7	0.000 000	0.004
	100 %	-10	3740 010 019	7.8	0.000 000	0.002
	100 %	0	3740 010 016	4.1	0.000 000	0.001
	100 %	+10	3740 010 024	12.5	0.000 000	0.003
	100 %	+30	3740 010 016	5.0	0.000 000	0.001
	100 %	+40	3740 010 021	9.5	0.000 000	0.003
	100 %	+50	3740 010 019	7.8	0.000 000	0.002
	Batt. Endpoint	+20	3740 010 025	13.6	0.000 000	0.004
3939.990	100 %	+20(Ref)	3939 990 005	0.0	0.000 000	0.000
	100 %	-30	3939 990 022	16.7	0.000 000	0.004
	100 %	-20	3939 990 021	15.3	0.000 000	0.004
	100 %	-10	3939 990 013	7.6	0.000 000	0.002
	100 %	0	3939 990 018	12.2	0.000 000	0.003
	100 %	+10	3939 990 019	13.8	0.000 000	0.003
	100 %	+30	3939 990 011	5.6	0.000 000	0.001
	100 %	+40	3939 990 022	17.0	0.000 000	0.004
	100 %	+50	3939 990 021	15.9	0.000 000	0.004
	Batt. Endpoint	+20	3939 990 022	16.8	0.000 000	0.004

▣ BandWidth: 90 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3745.020	100 %	+20(Ref)	3745 020 004	0.0	0.000 000	0.000
	100 %	-30	3745 020 009	5.6	0.000 000	0.001
	100 %	-20	3745 020 019	15.6	0.000 000	0.004
	100 %	-10	3745 020 017	13.3	0.000 000	0.004
	100 %	0	3745 020 020	15.8	0.000 000	0.004
	100 %	+10	3745 020 019	15.2	0.000 000	0.004
	100 %	+30	3745 020 010	6.7	0.000 000	0.002
	100 %	+40	3745 020 015	11.6	0.000 000	0.003
	100 %	+50	3745 020 015	11.0	0.000 000	0.003
	Batt. Endpoint	+20	3745 020 012	7.9	0.000 000	0.002
3934.980	100 %	+20(Ref)	3934 980 011	0.0	0.000 000	0.000
	100 %	-30	3934 980 017	6.7	0.000 000	0.002
	100 %	-20	3934 980 027	16.1	0.000 000	0.004
	100 %	-10	3934 980 026	14.9	0.000 000	0.004
	100 %	0	3934 980 024	13.0	0.000 000	0.003
	100 %	+10	3934 980 020	9.7	0.000 000	0.002
	100 %	+30	3934 980 015	4.0	0.000 000	0.001
	100 %	+40	3934 980 018	6.9	0.000 000	0.002
	100 %	+50	3934 980 016	5.5	0.000 000	0.001
	Batt. Endpoint	+20	3934 980 014	3.1	0.000 000	0.001

▣ BandWidth: 100 MHz

▣ Voltage(100 %): 3.860 VDC

▣ Batt. Endpoint: 3.400 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3750.000	100 %	+20(Ref)	3750 000 006	0.0	0.000 000	0.000
	100 %	-30	3750 000 010	3.8	0.000 000	0.001
	100 %	-20	3750 000 020	13.9	0.000 000	0.004
	100 %	-10	3750 000 017	11.1	0.000 000	0.003
	100 %	0	3750 000 010	3.5	0.000 000	0.001
	100 %	+10	3750 000 013	7.0	0.000 000	0.002
	100 %	+30	3750 000 017	11.1	0.000 000	0.003
	100 %	+40	3750 000 013	7.2	0.000 000	0.002
	100 %	+50	3750 000 019	12.9	0.000 000	0.003
	Batt. Endpoint	+20	3750 000 012	5.5	0.000 000	0.001
3930.000	100 %	+20(Ref)	3930 000 004	0.0	0.000 000	0.000
	100 %	-30	3930 000 007	3.7	0.000 000	0.001
	100 %	-20	3930 000 011	7.1	0.000 000	0.002
	100 %	-10	3930 000 020	16.8	0.000 000	0.004
	100 %	0	3930 000 014	10.5	0.000 000	0.003
	100 %	+10	3930 000 019	15.0	0.000 000	0.004
	100 %	+30	3930 000 019	15.7	0.000 000	0.004
	100 %	+40	3930 000 012	8.4	0.000 000	0.002
	100 %	+50	3930 000 015	11.3	0.000 000	0.003
	Batt. Endpoint	+20	3930 000 020	16.0	0.000 000	0.004

10. TEST PLOTS(3450 MHz - 3550 MHz)

Sub6 n77. Occupied Bandwidth Plot (20 M BW Ch.633334 BPSK)

Sub6 n77. Occupied Bandwidth Plot (20 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (20 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (20 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (20 M BW Ch.633334 256QAM)

Sub6 n77. Occupied Bandwidth Plot (30 M BW Ch.633334 BPSK)

Sub6 n77. Occupied Bandwidth Plot (30 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (30 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (30 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (30 M BW Ch.633334 256QAM)

Sub6 n77. Occupied Bandwidth Plot (40 M BW Ch.633334 BPSK)

Sub6 n77. Occupied Bandwidth Plot (40 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (40 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (40 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (40 M BW Ch.633334 256QAM)

Sub6 n77. Occupied Bandwidth Plot (50 M BW Ch.633334 BPSK)

Sub6 n77. Occupied Bandwidth Plot (50 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (50 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (50 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (50 M BW Ch.633334 256QAM)

Sub6 n77. Occupied Bandwidth Plot (60 M BW Ch.633334 BPSK)

Sub6 n77. Occupied Bandwidth Plot (60 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (60 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (60 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (60 M BW Ch.633334 256QAM)

Sub6 n77. Occupied Bandwidth Plot (70 M BW Ch.633334 BPSK)

Sub6 n77. Occupied Bandwidth Plot (70 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (70 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (70 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (70 M BW Ch.633334 256QAM)

Sub6 n77. Occupied Bandwidth Plot (80 M BW Ch.633334 BPSK)

Sub6 n77. Occupied Bandwidth Plot (80 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (80 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (80 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (80 M BW Ch.633334 256QAM)

Sub6 n77. Occupied Bandwidth Plot (90 M BW Ch.633334 BPSK)

Sub6 n77. Occupied Bandwidth Plot (90 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (90 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (90 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (90 M BW Ch.633334 256QAM)

Sub6 n77. Occupied Bandwidth Plot (100 M BW Ch.633334 BPSK)

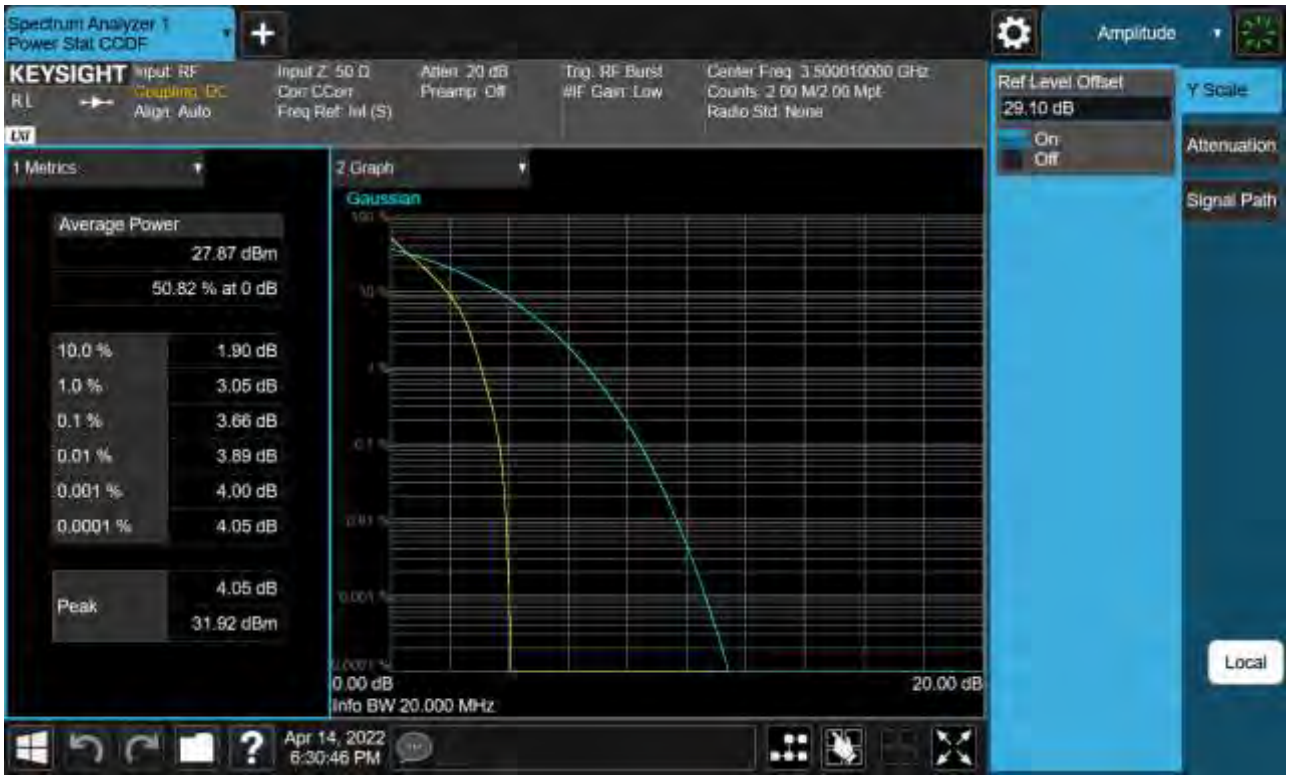
Sub6 n77. Occupied Bandwidth Plot (100 M BW Ch.633334 QPSK)

Sub6 n77. Occupied Bandwidth Plot (100 M BW Ch.633334 16QAM)

Sub6 n77. Occupied Bandwidth Plot (100 M BW Ch.633334 64QAM)

Sub6 n77. Occupied Bandwidth Plot (100 M BW Ch.633334 256QAM)

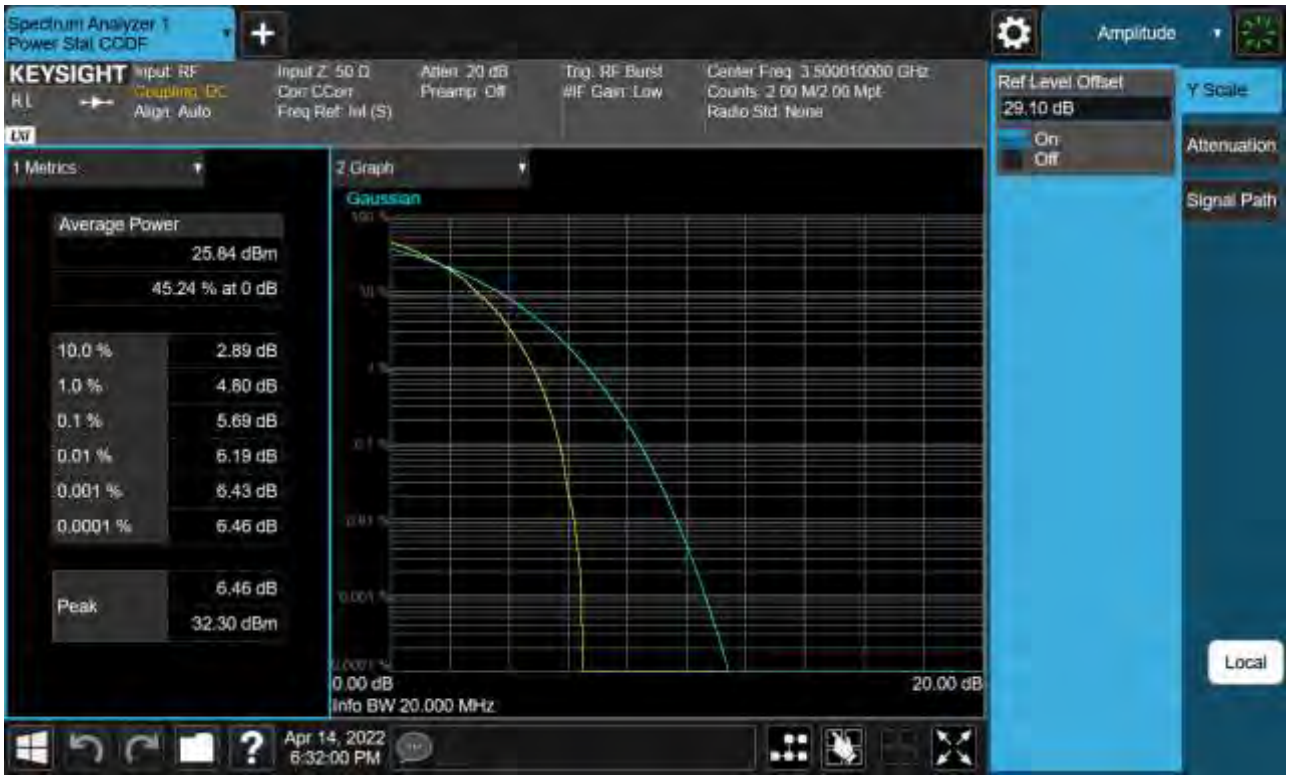
Sub6 n77. PAR Plot (20 M BW_Ch.633334_ BPSK)



Sub6 n77. PAR Plot (20 M BW_Ch.633334_QPSK)

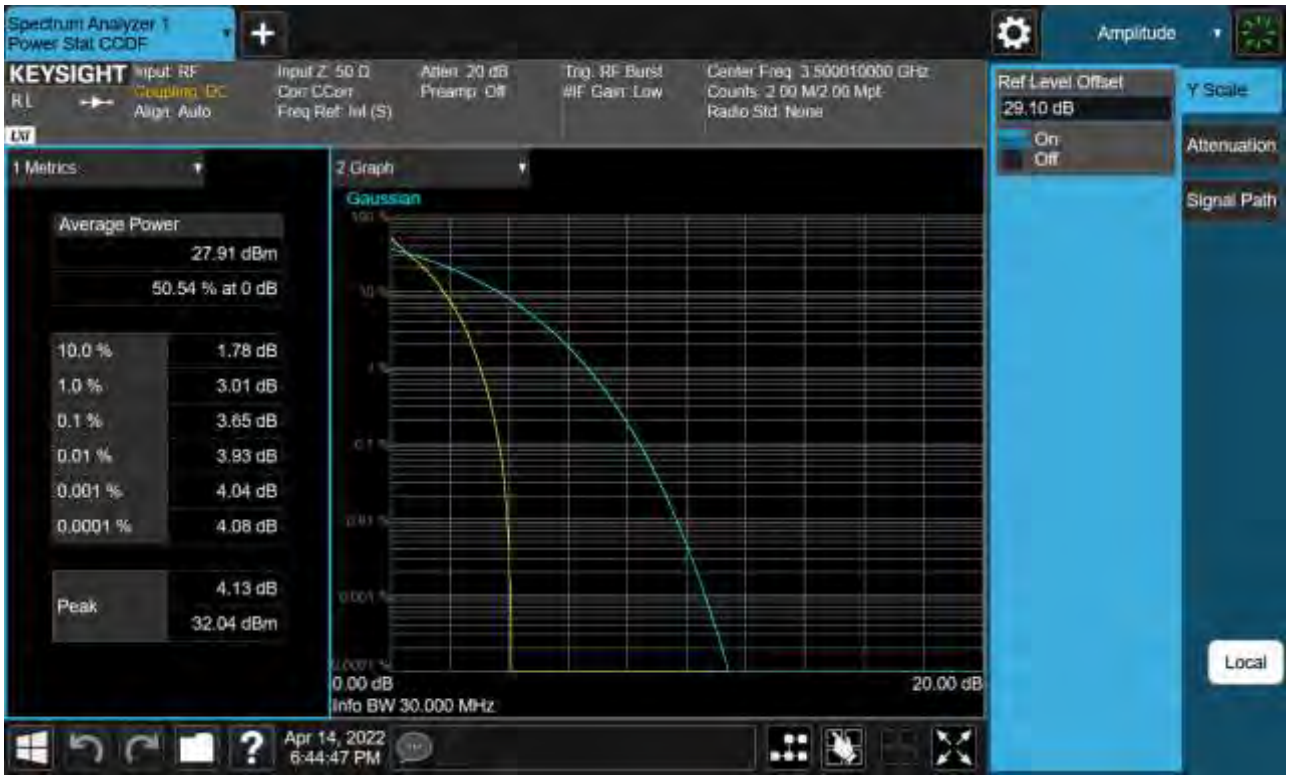
Sub6 n77. PAR Plot (20 M BW_Ch.633334_16QAM)

Sub6 n77. PAR Plot (20 M BW_Ch.633334_64QAM)

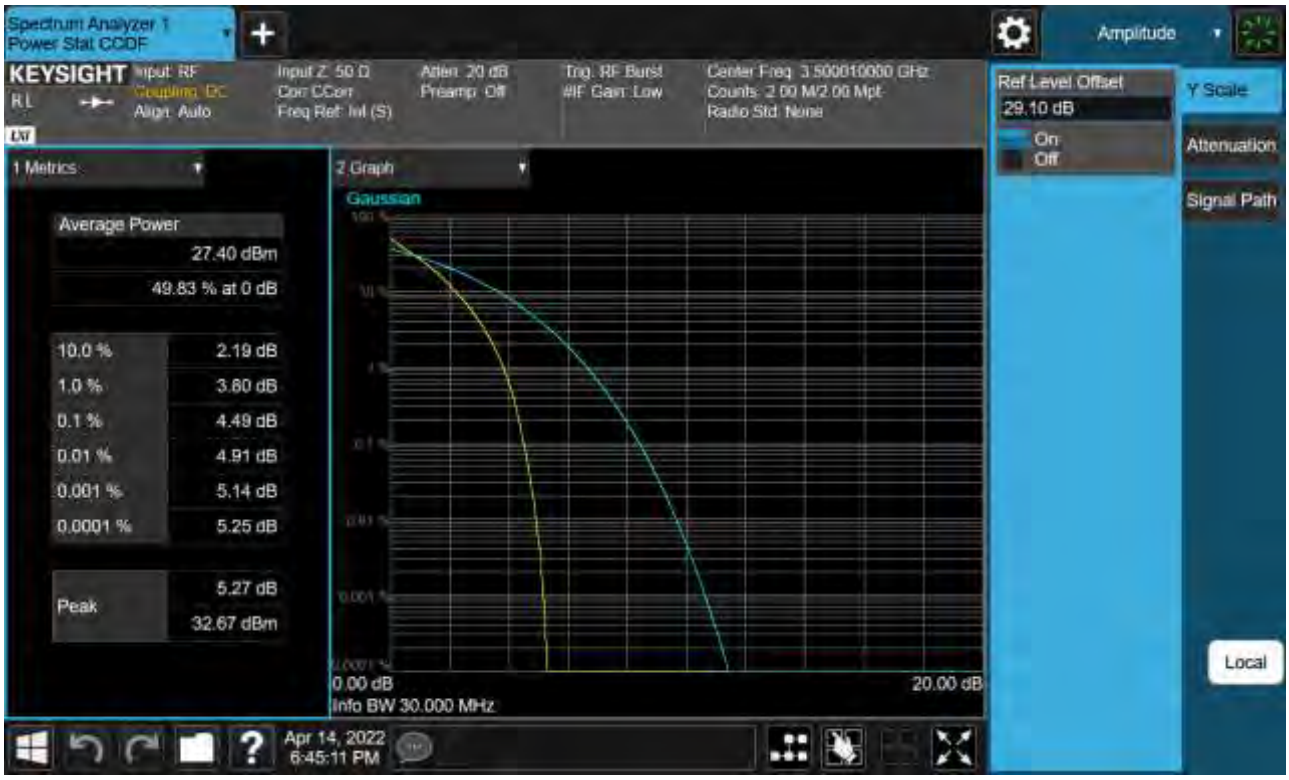


Sub6 n77. PAR Plot (20 M BW_Ch.633334_256QAM)

Sub6 n77. PAR Plot (30 M BW_Ch.633334_ BPSK)

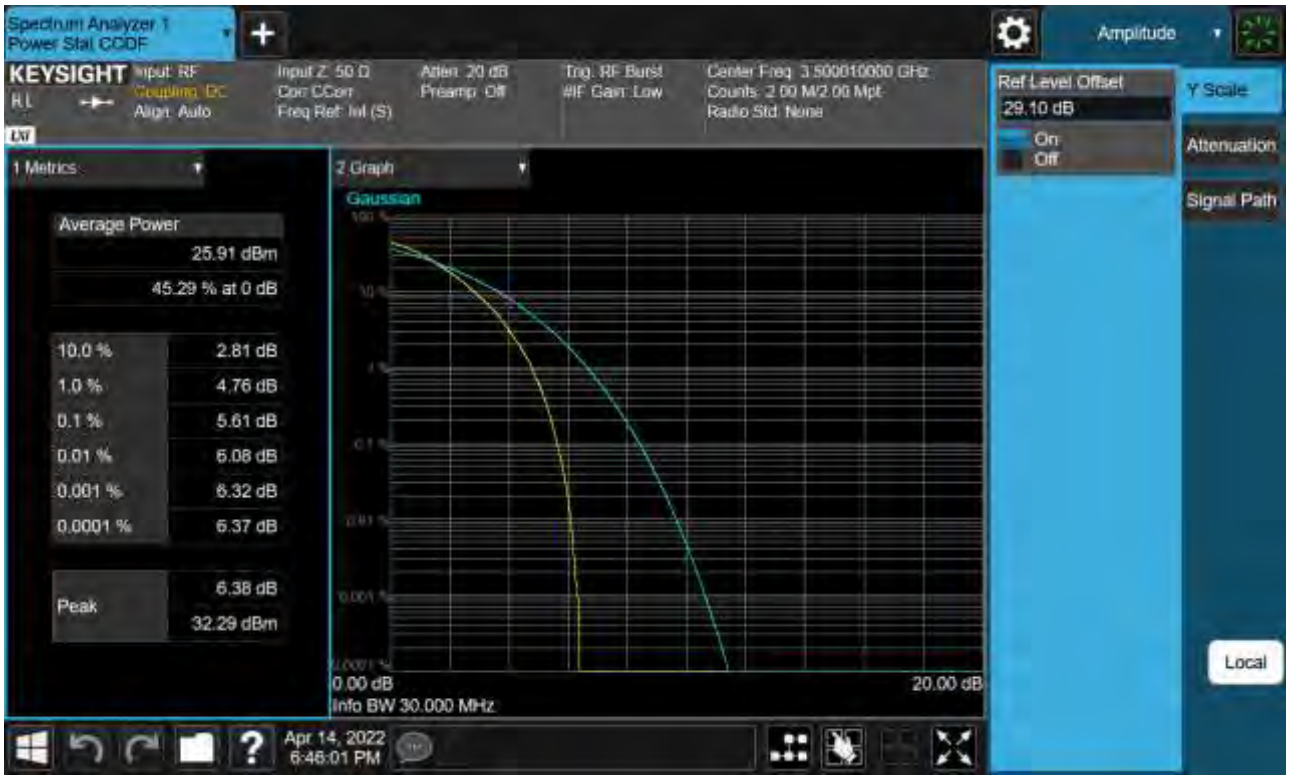


Sub6 n77. PAR Plot (30 M BW_Ch.633334_QPSK)

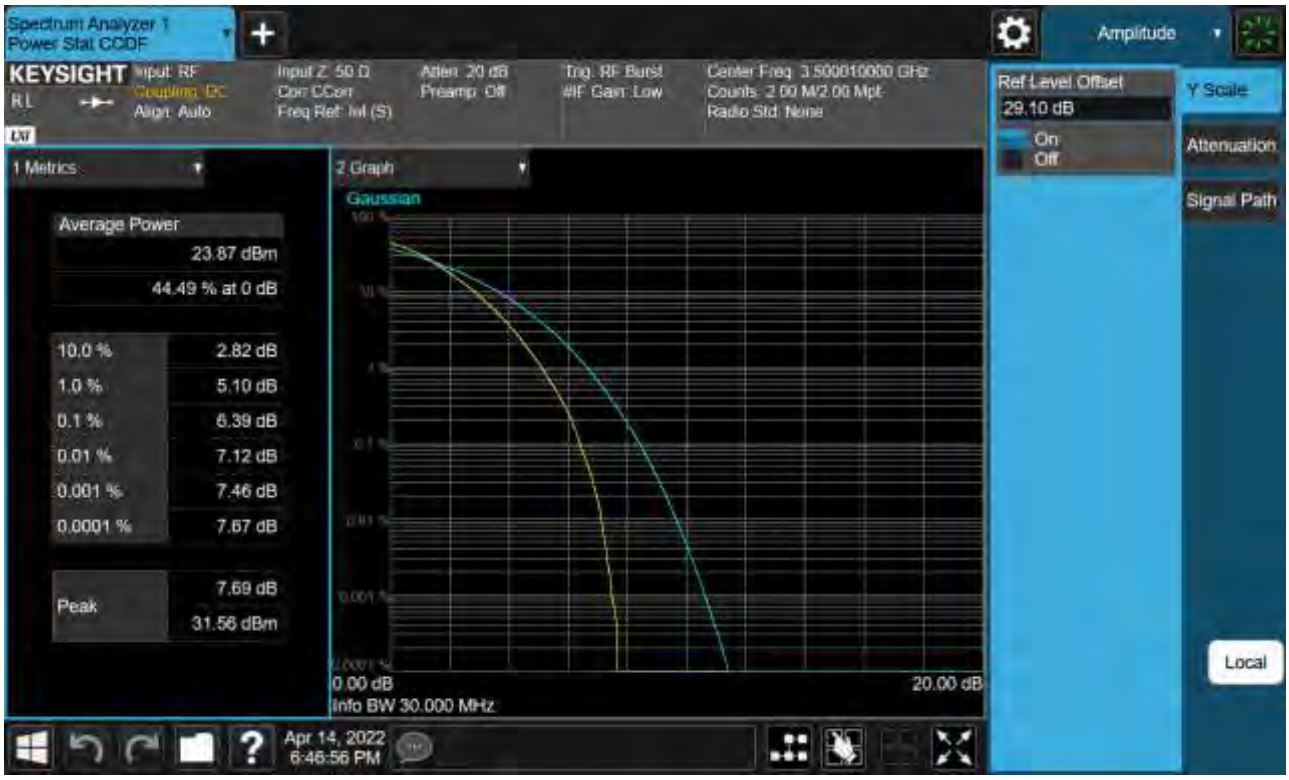


Sub6 n77. PAR Plot (30 M BW_Ch.633334_16QAM)

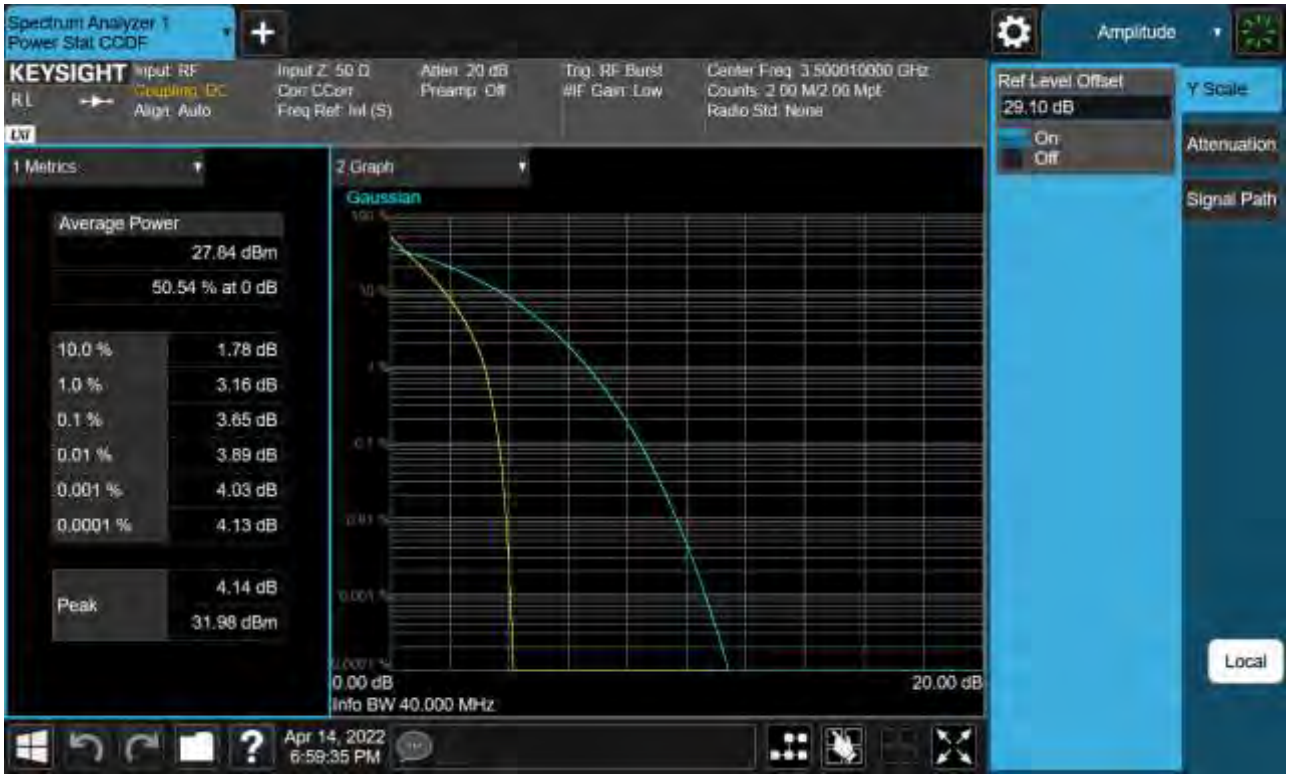
Sub6 n77. PAR Plot (30 M BW_Ch.633334_64QAM)



Sub6 n77. PAR Plot (30 M BW_Ch.633334_256QAM)



Sub6 n77. PAR Plot (40 M BW_Ch.633334_ BPSK)

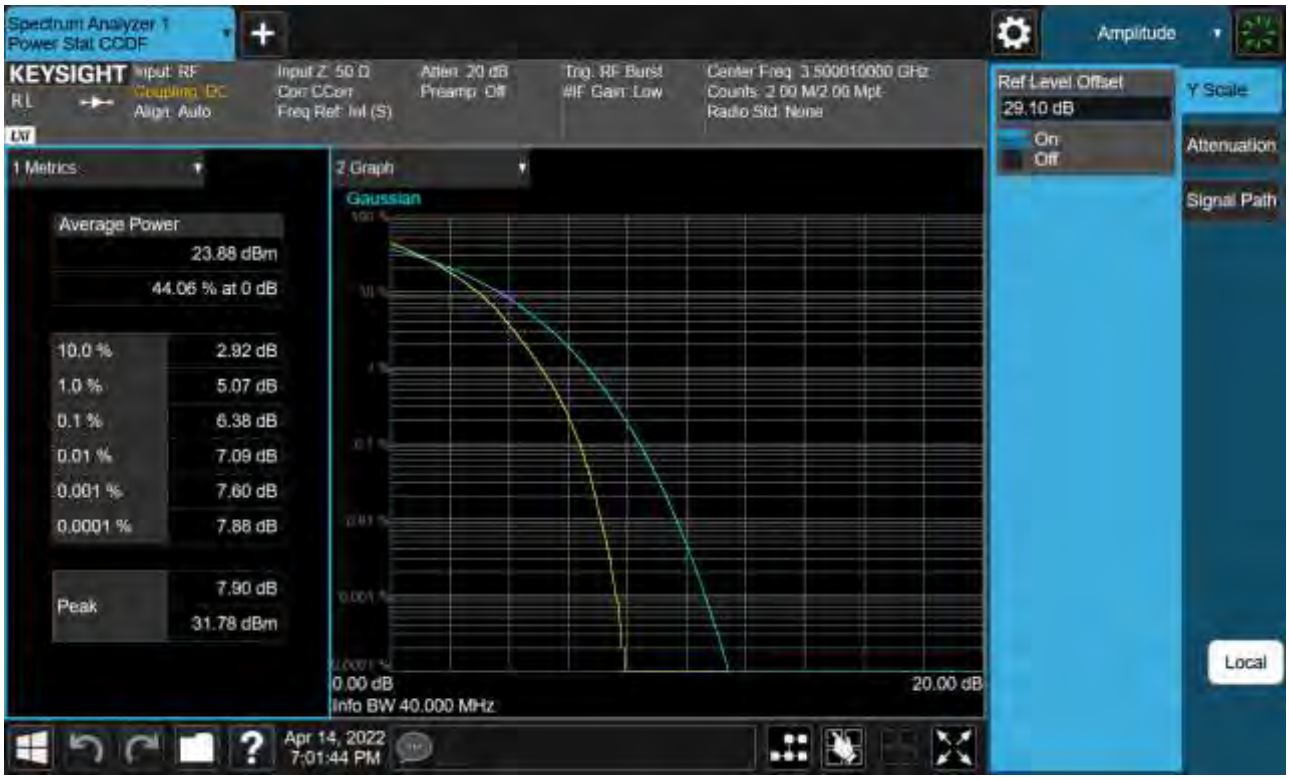


Sub6 n77. PAR Plot (40 M BW_Ch.633334_QPSK)

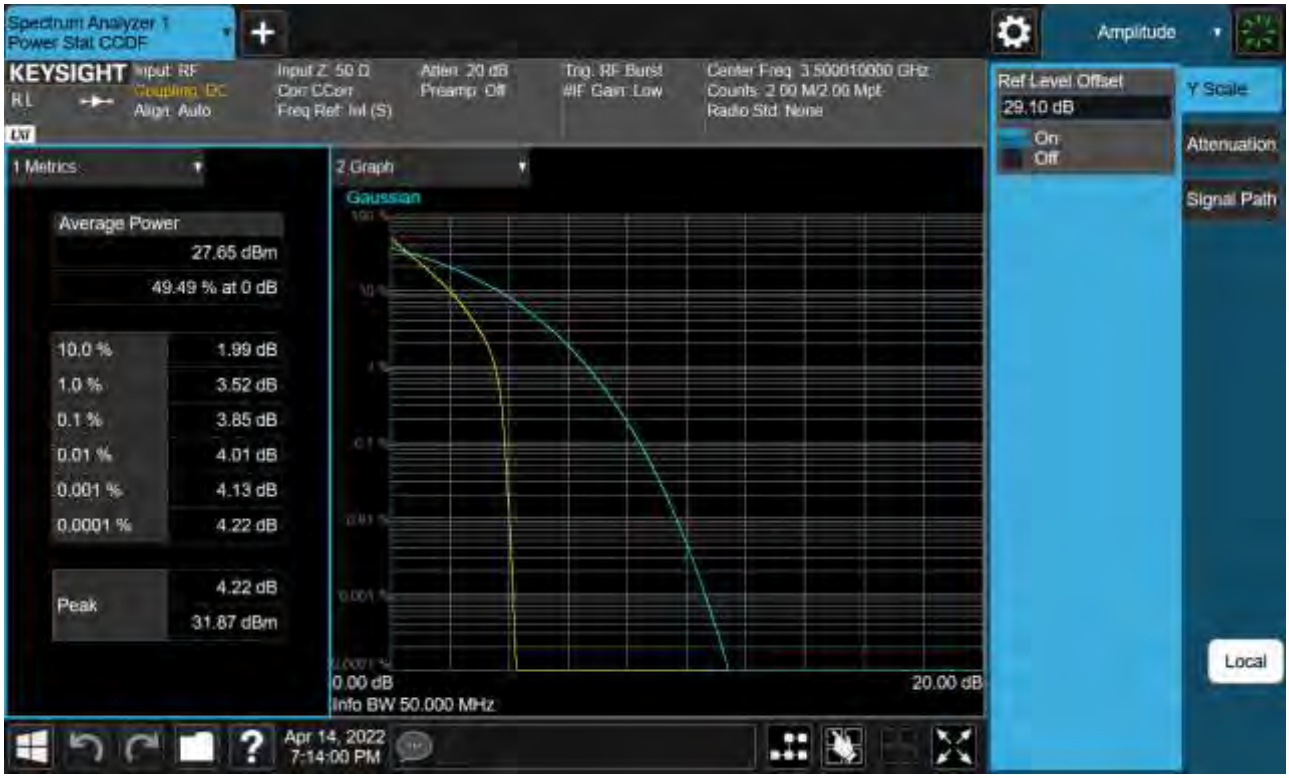
Sub6 n77. PAR Plot (40 M BW_Ch.633334_16QAM)

Sub6 n77. PAR Plot (40 M BW_Ch.633334_64QAM)

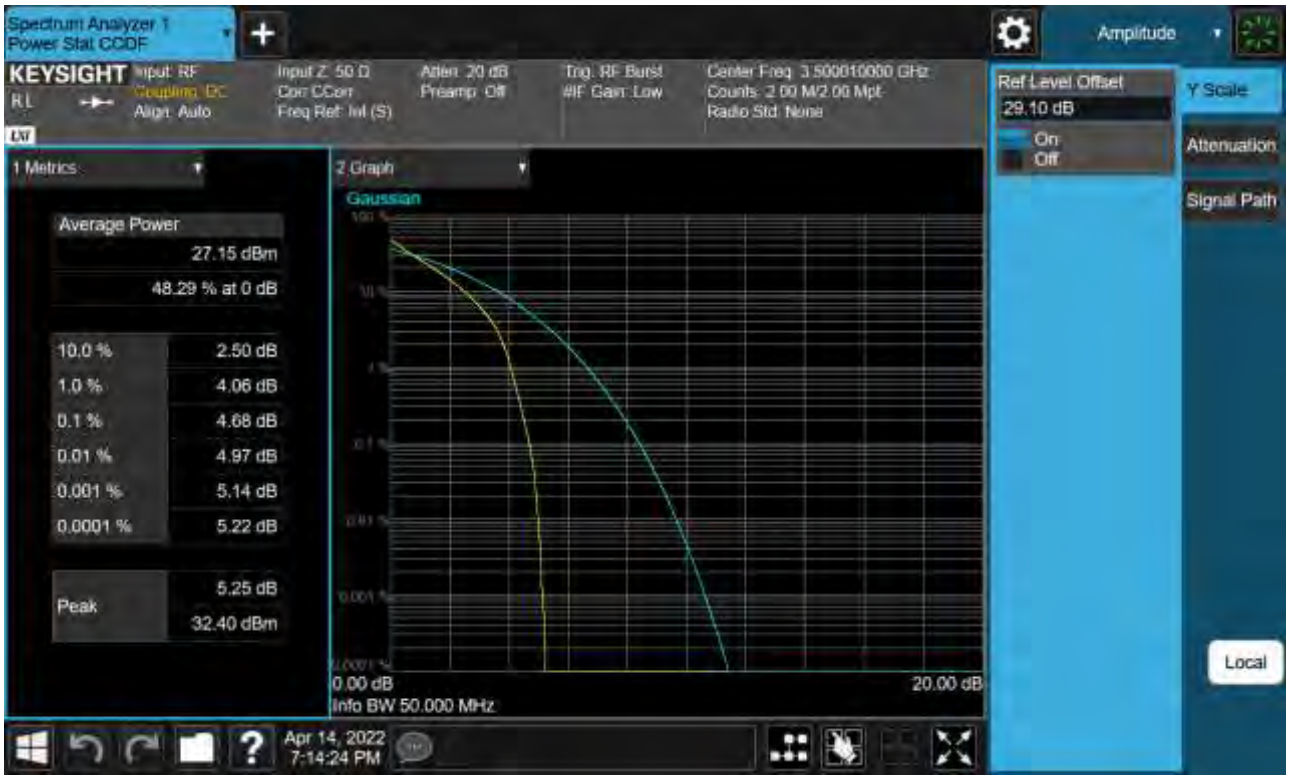
Sub6 n77. PAR Plot (40 M BW_Ch.633334_256QAM)



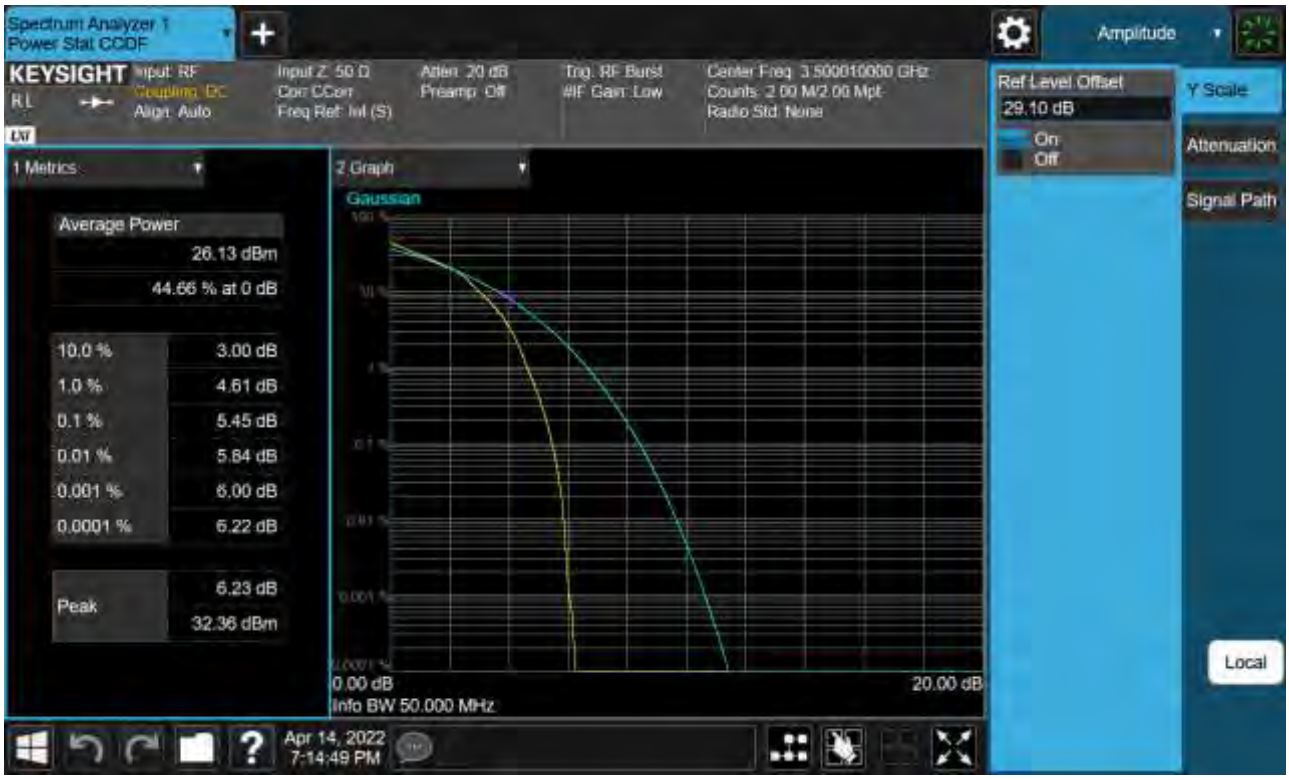
Sub6 n77. PAR Plot (50 M BW_Ch.633334_ BPSK)



Sub6 n77. PAR Plot (50 M BW_Ch.633334_QPSK)



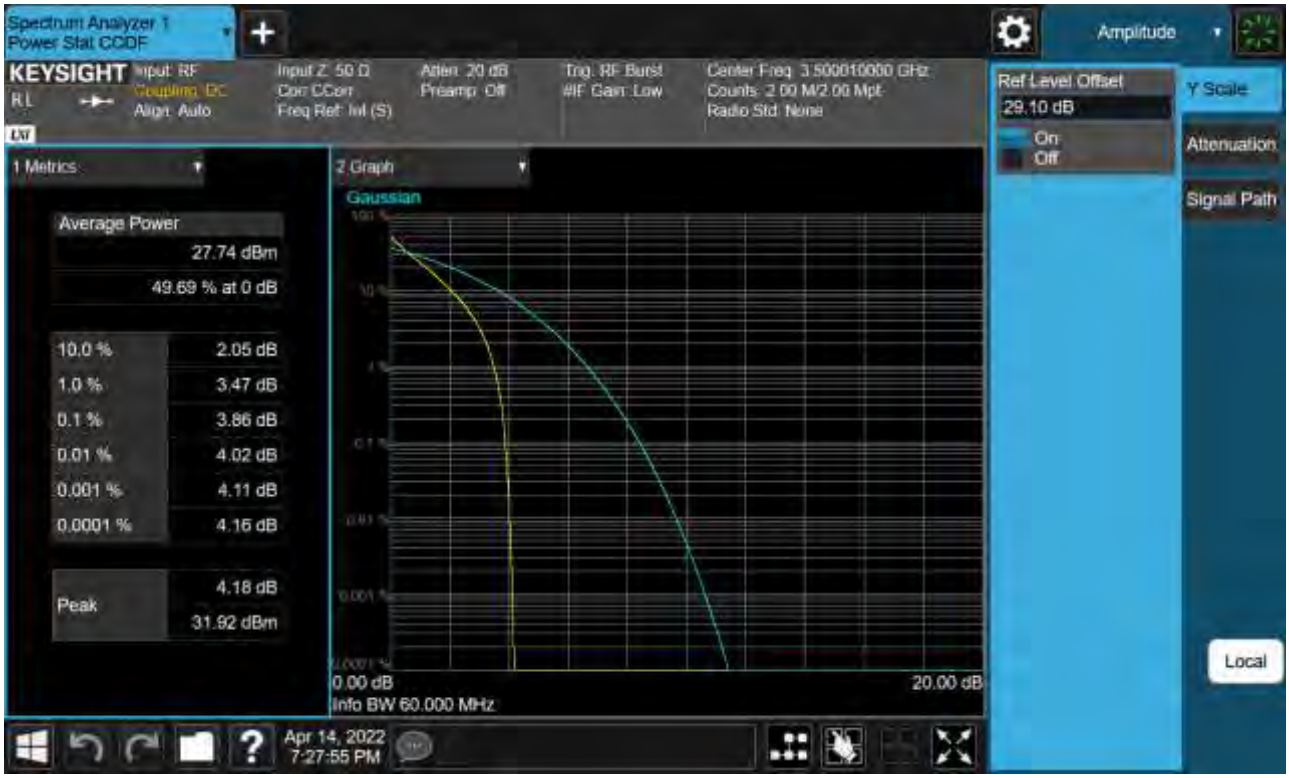
Sub6 n77. PAR Plot (50 M BW_Ch.633334_16QAM)



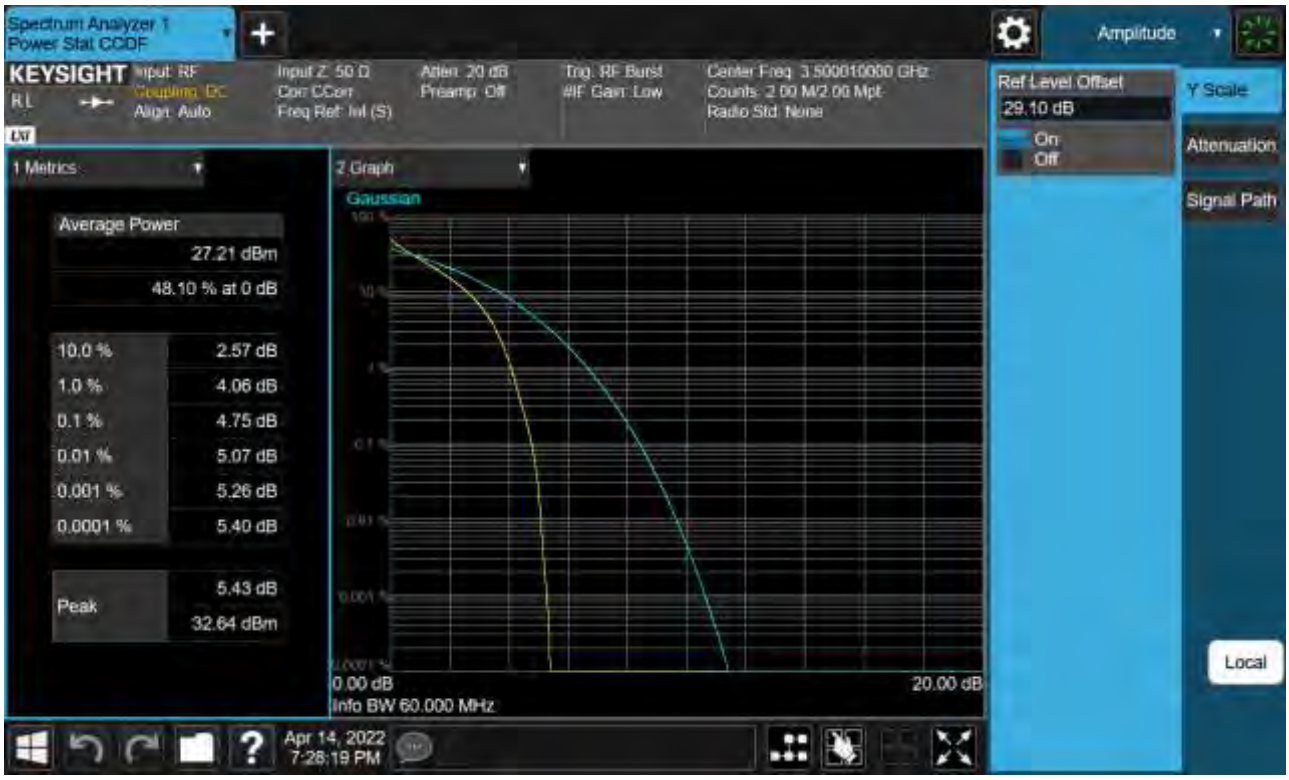
Sub6 n77. PAR Plot (50 M BW_Ch.633334_64QAM)

Sub6 n77. PAR Plot (50 M BW_Ch.633334_256QAM)

Sub6 n77. PAR Plot (60 M BW_Ch.633334_ BPSK)



Sub6 n77. PAR Plot (60 M BW_Ch.633334_QPSK)

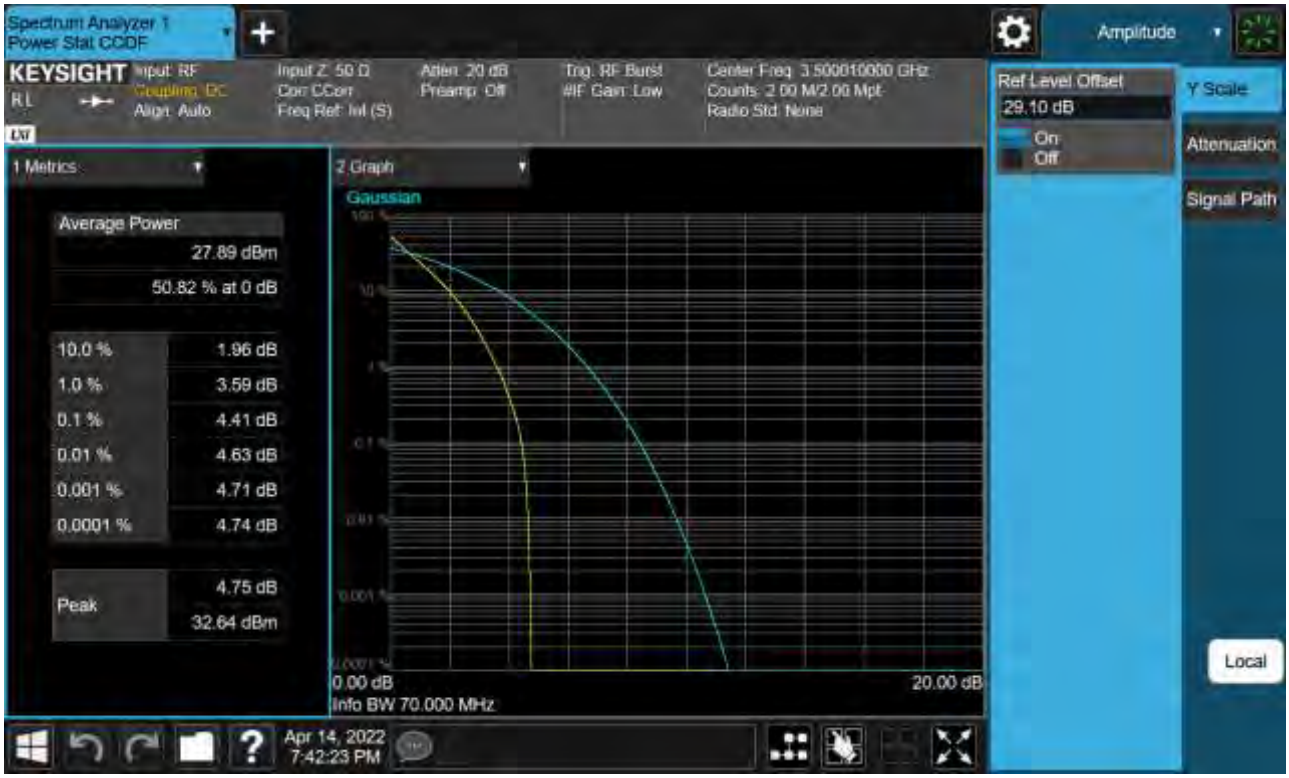


Sub6 n77. PAR Plot (60 M BW_Ch.633334_16QAM)

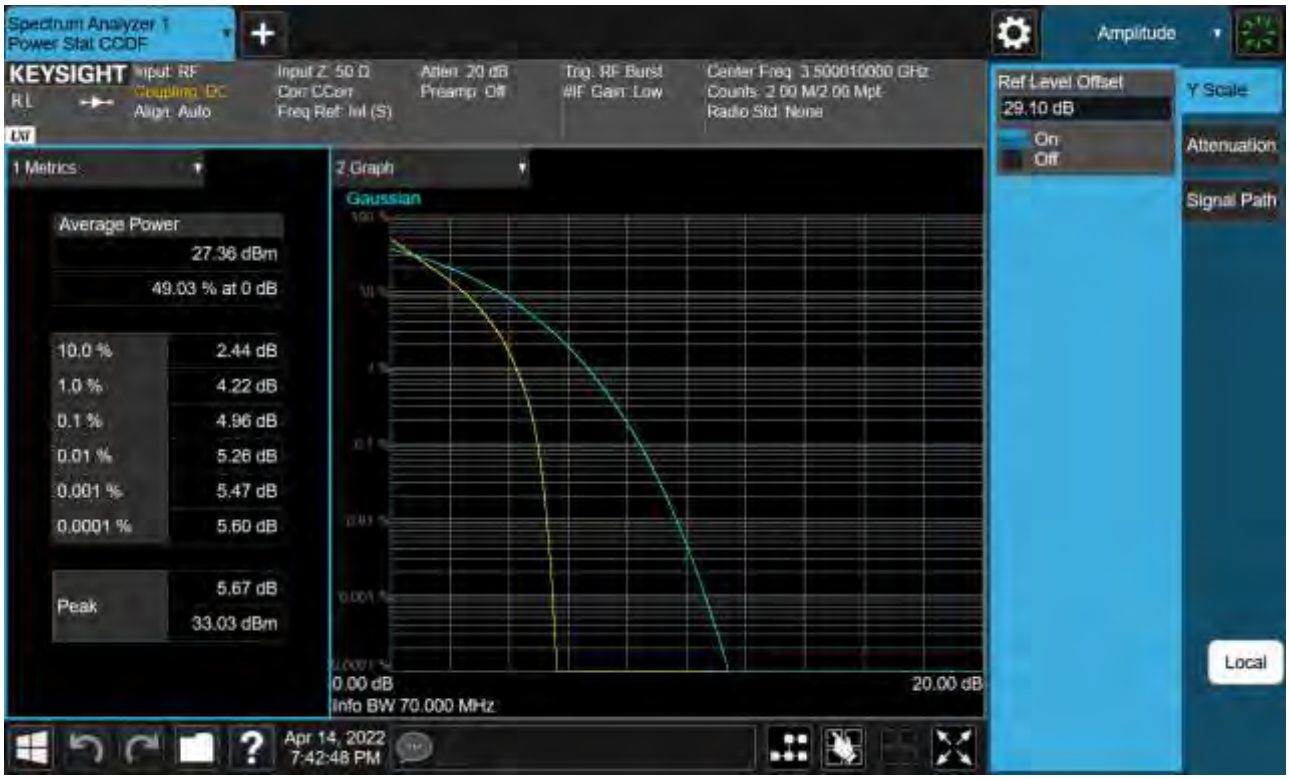
Sub6 n77. PAR Plot (60 M BW_Ch.633334_64QAM)

Sub6 n77. PAR Plot (60 M BW_Ch.633334_256QAM)

Sub6 n77. PAR Plot (70 M BW_Ch.633334_ BPSK)

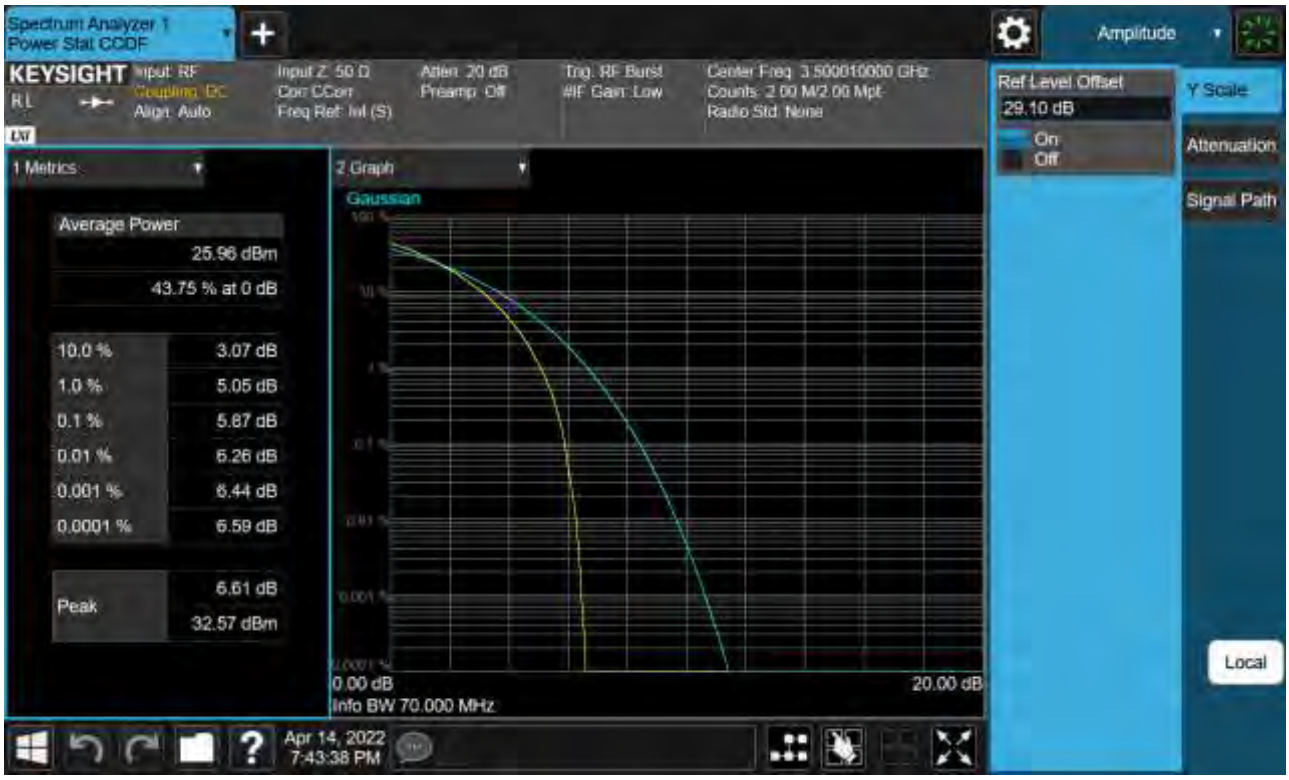


Sub6 n77. PAR Plot (70 M BW_Ch.633334_QPSK)



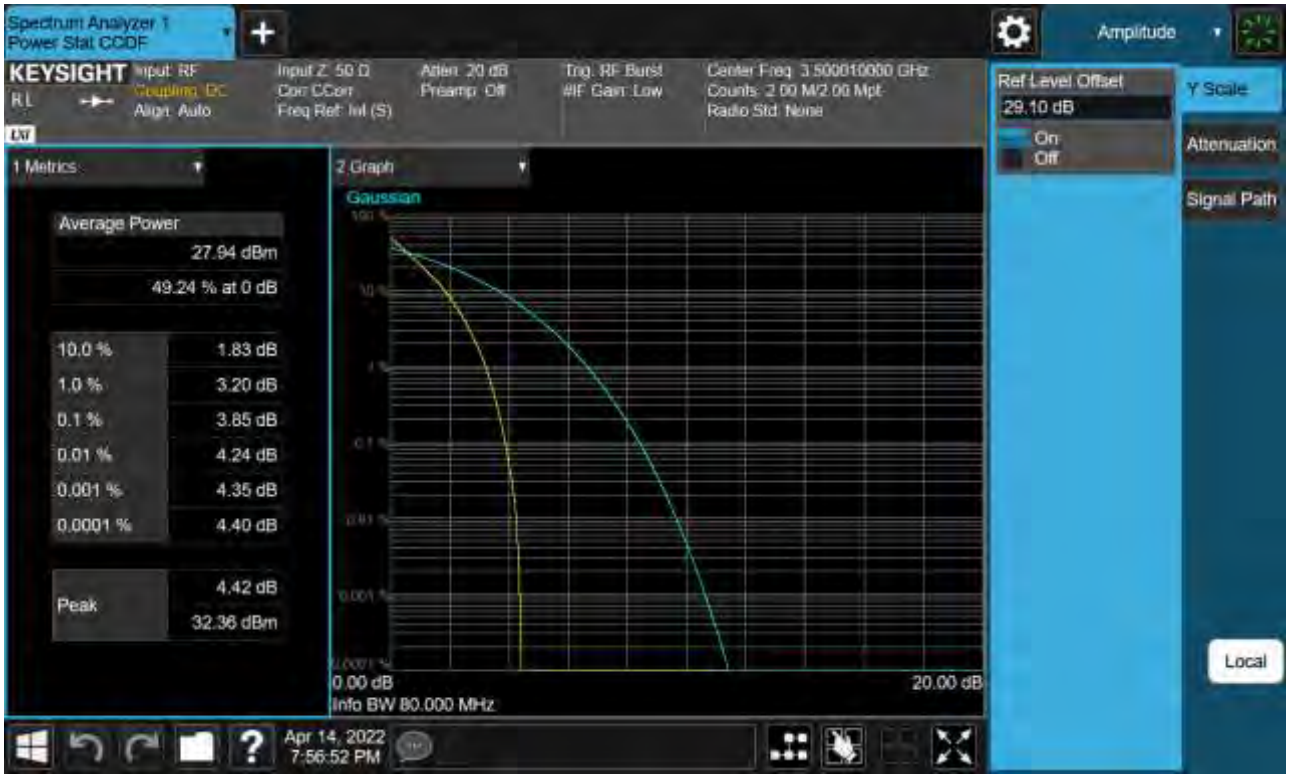
Sub6 n77. PAR Plot (70 M BW_Ch.633334_16QAM)

Sub6 n77. PAR Plot (70 M BW_Ch.633334_64QAM)

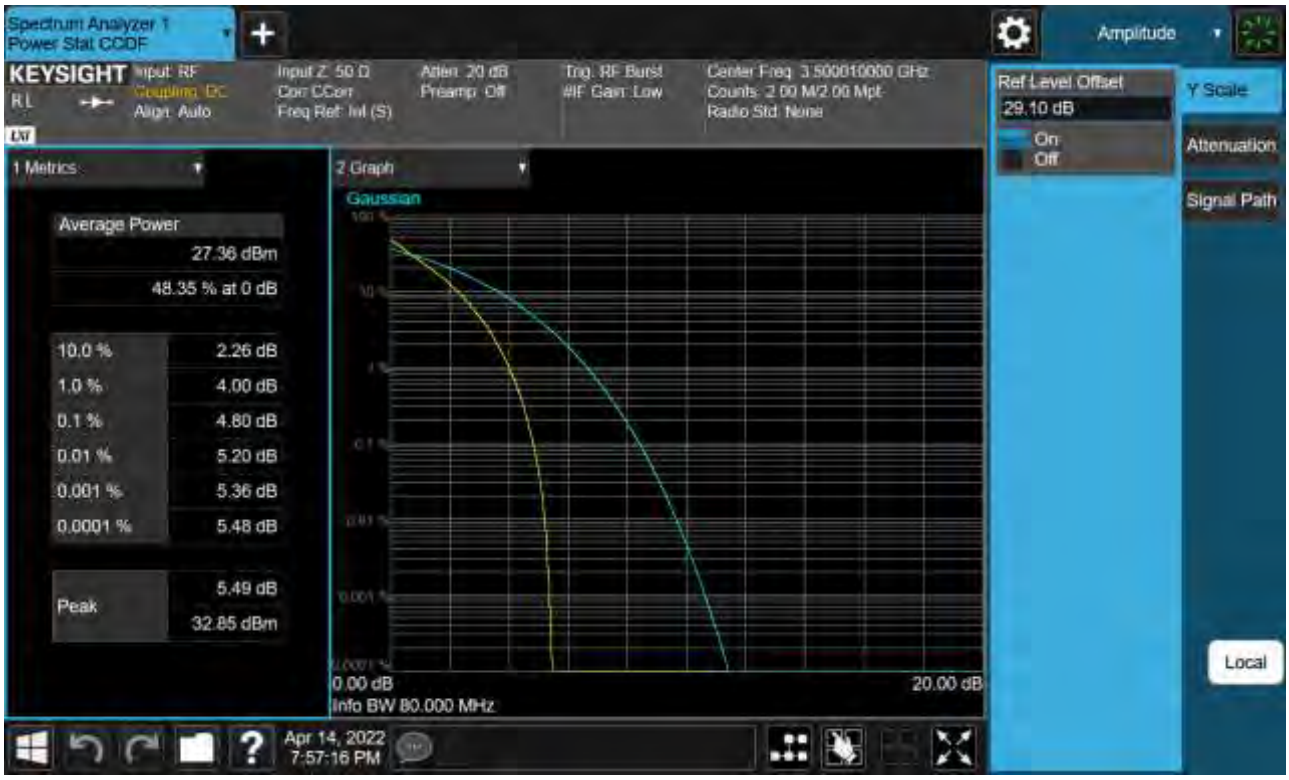


Sub6 n77. PAR Plot (70 M BW_Ch.633334_256QAM)

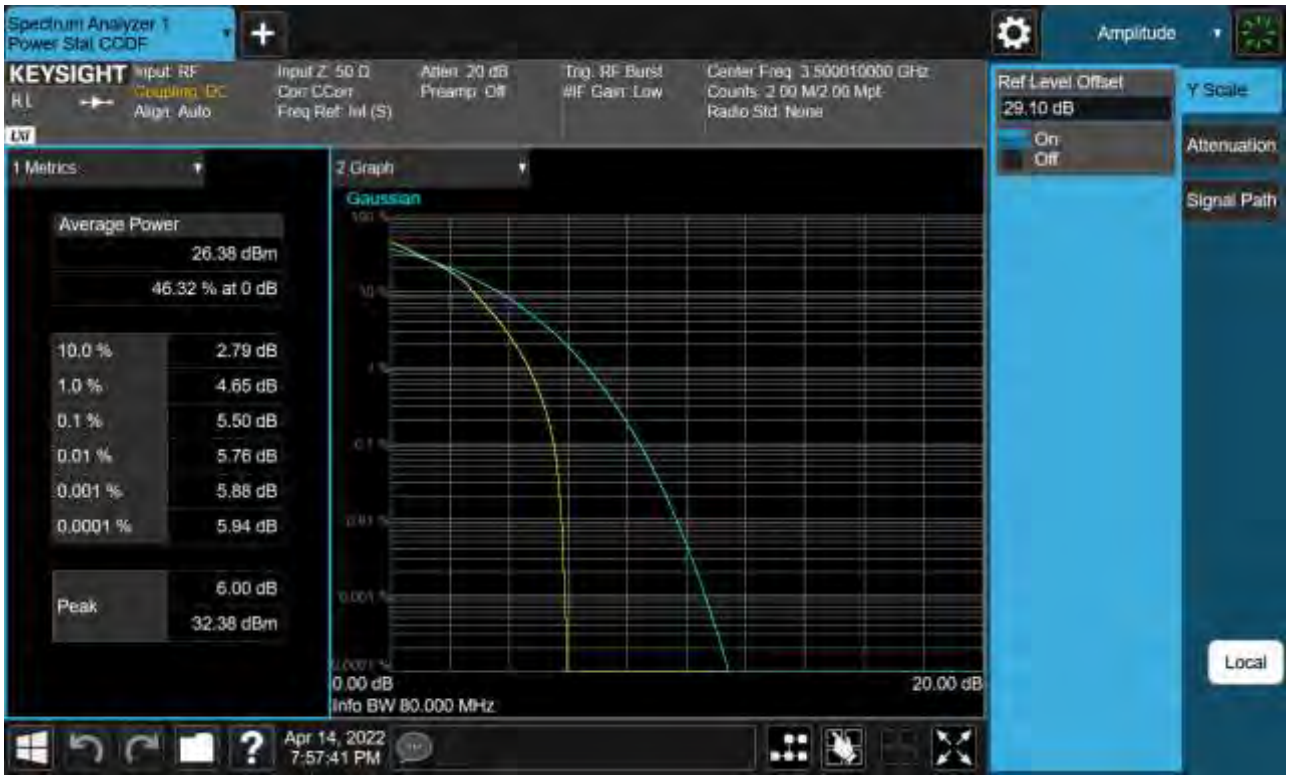
Sub6 n77. PAR Plot (80 M BW_Ch.633334_ BPSK)



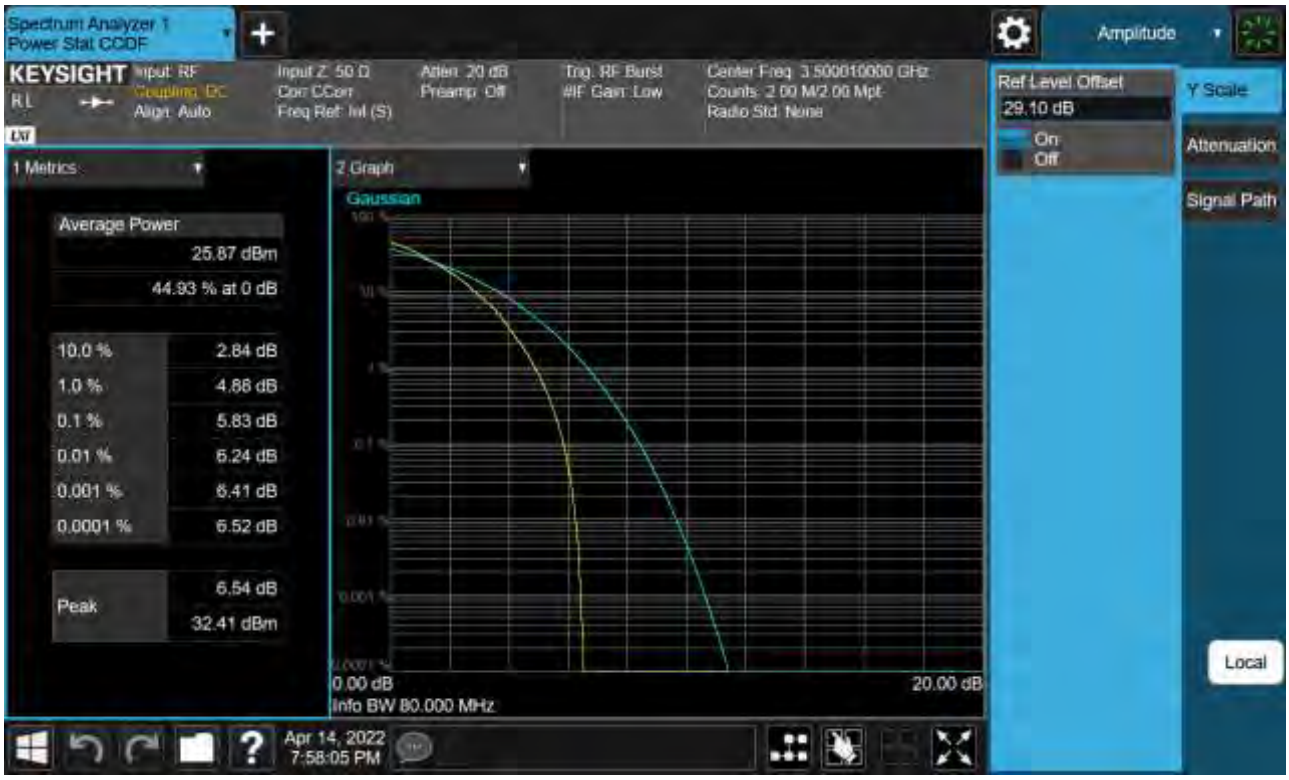
Sub6 n77. PAR Plot (80 M BW_Ch.633334_QPSK)



Sub6 n77. PAR Plot (80 M BW_Ch.633334_16QAM)

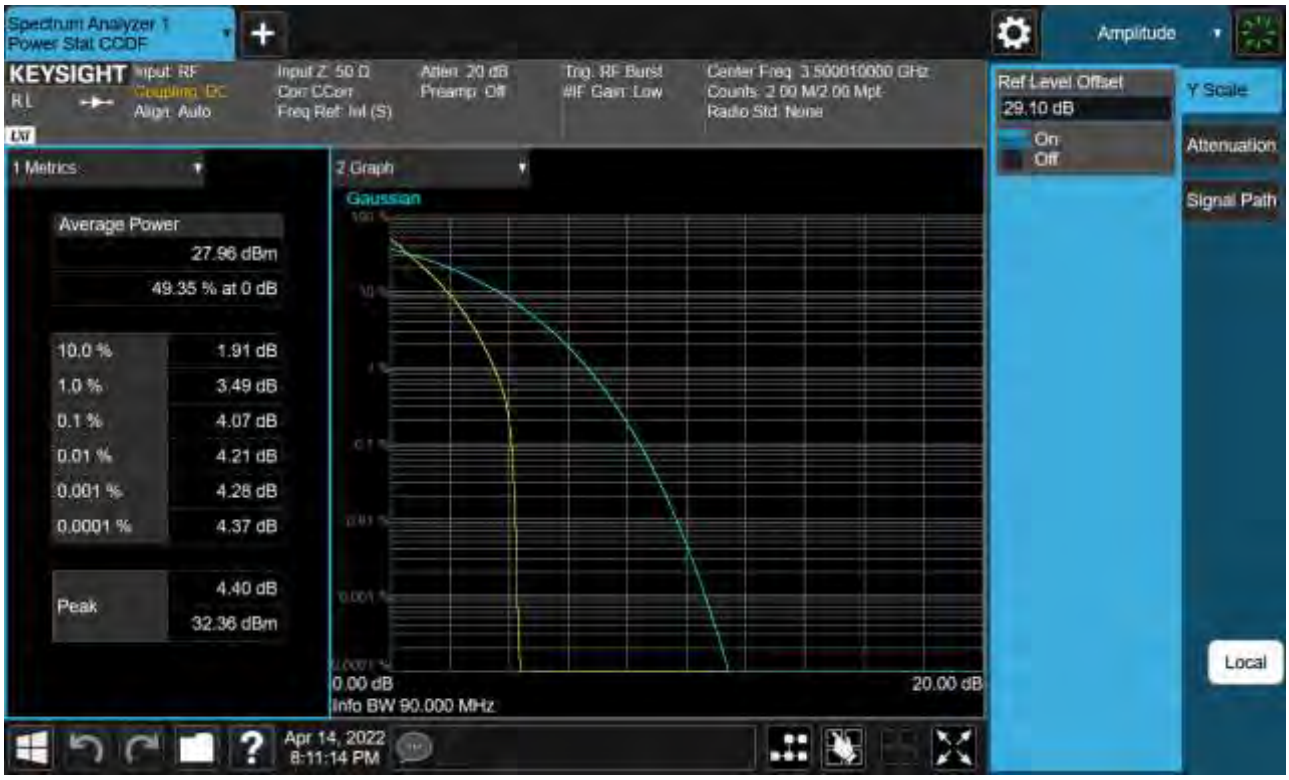


Sub6 n77. PAR Plot (80 M BW_Ch.633334_64QAM)

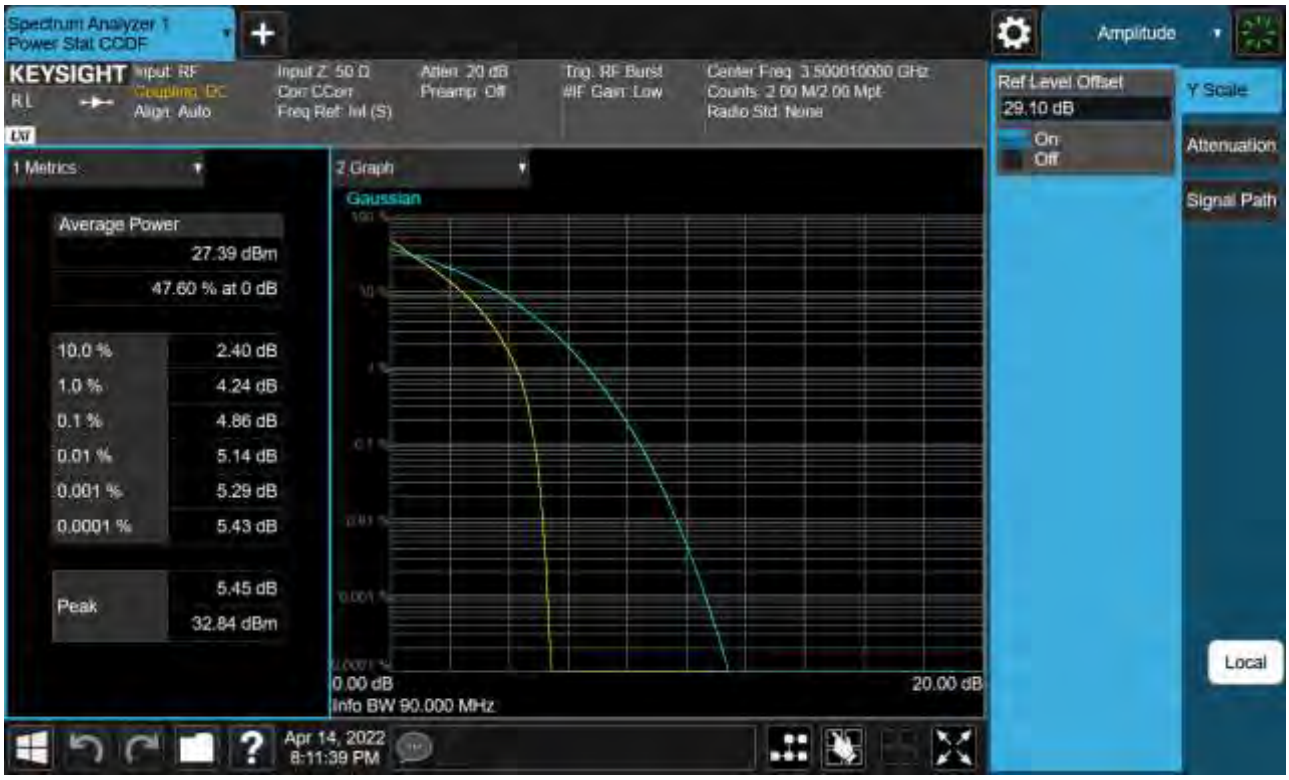


Sub6 n77. PAR Plot (80 M BW_Ch.633334_256QAM)

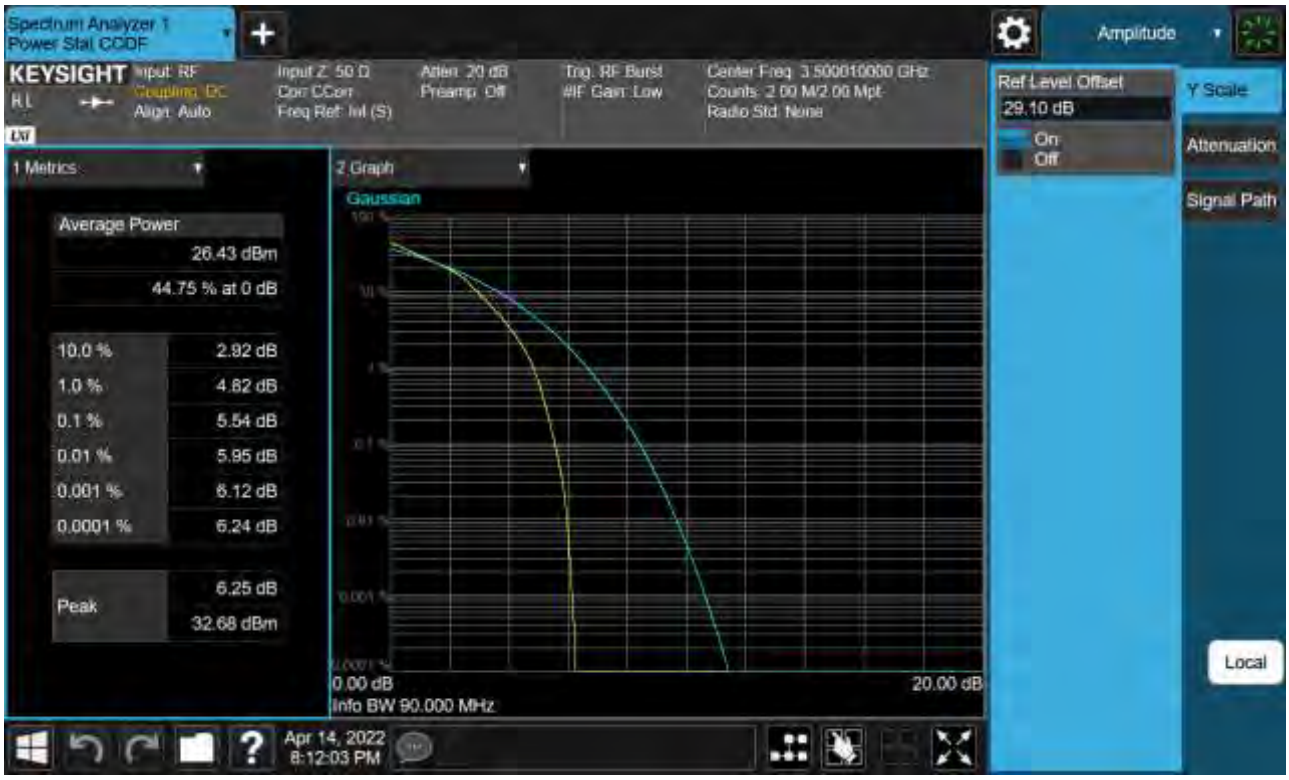
Sub6 n77. PAR Plot (90 M BW_Ch.633334_ BPSK)



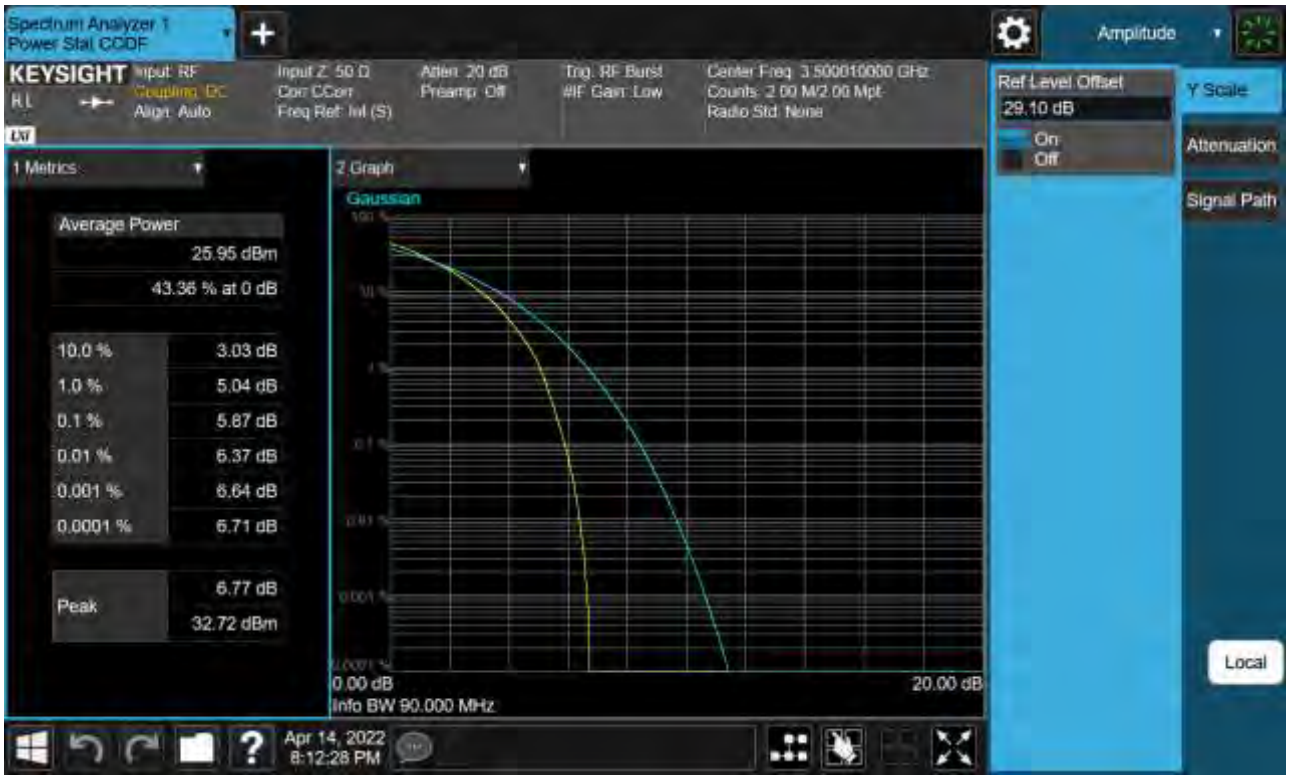
Sub6 n77. PAR Plot (90 M BW_Ch.633334_QPSK)



Sub6 n77. PAR Plot (90 M BW_Ch.633334_16QAM)

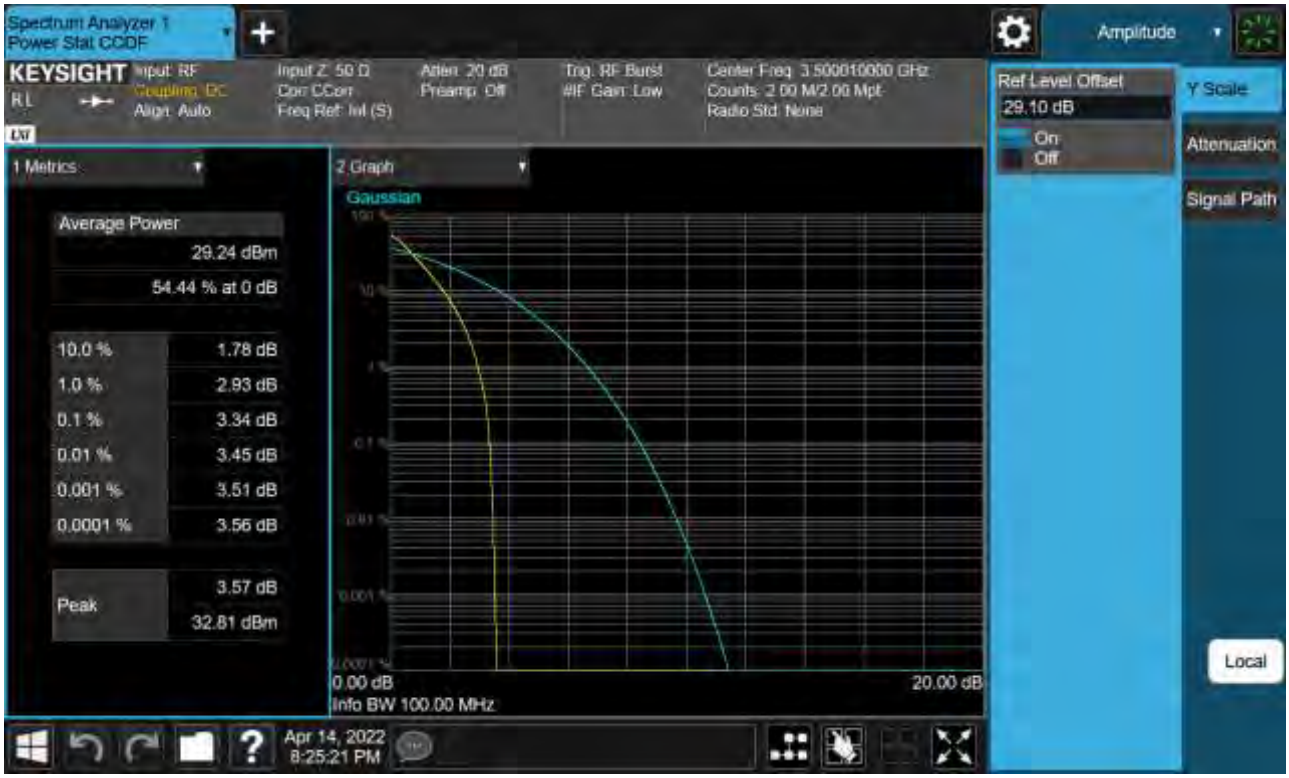


Sub6 n77. PAR Plot (90 M BW_Ch.633334_64QAM)

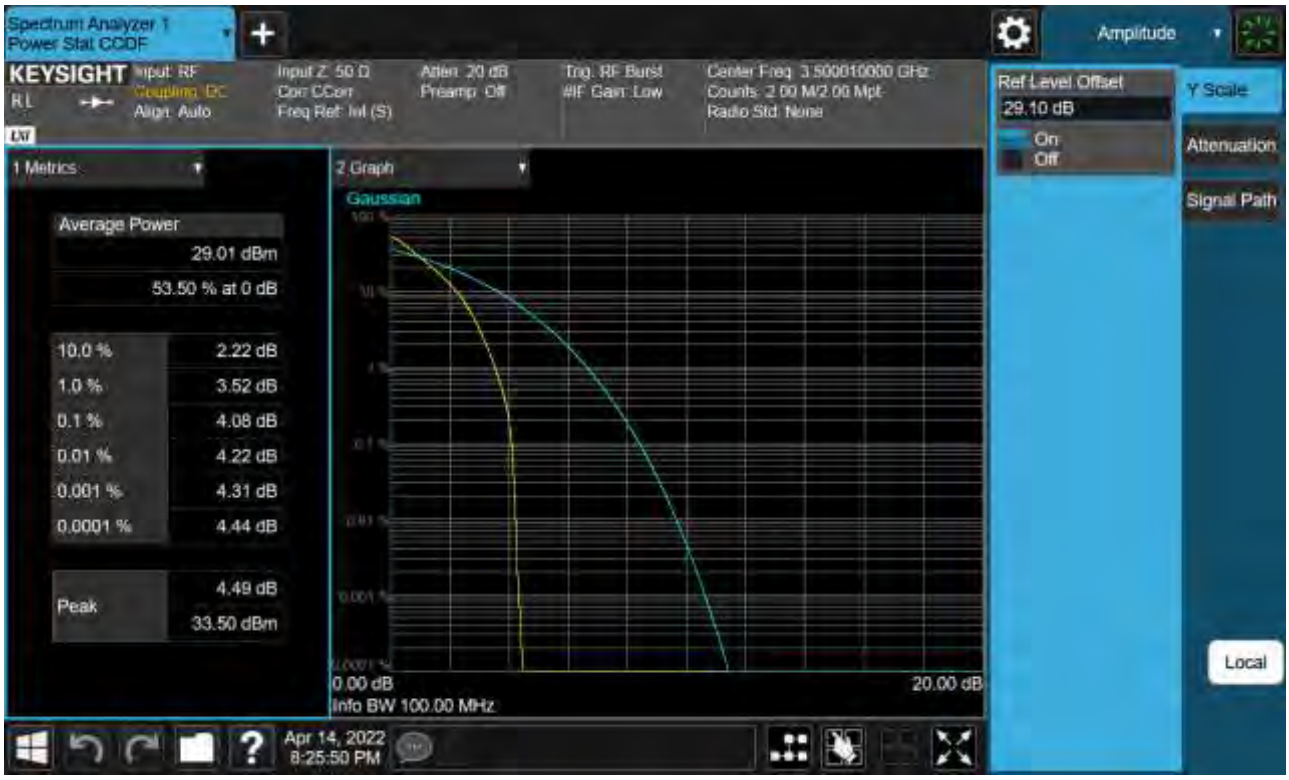


Sub6 n77. PAR Plot (90 M BW_Ch.633334_256QAM)

Sub6 n77. PAR Plot (100 M BW_Ch.633334_ BPSK)



Sub6 n77. PAR Plot (100 M BW_Ch.633334_QPSK)



Sub6 n77. PAR Plot (100 M BW_Ch.633334_16QAM)

Sub6 n77. PAR Plot (100 M BW_Ch.633334_64QAM)

Sub6 n77. PAR Plot (100 M BW_Ch.633334_256QAM)

Sub6 n77. Low Band Edge Plot (20 M BW Ch.630668 BPSK 1RB)(1)

Sub6 n77. Low Band Edge Plot (20 M BW Ch.630668 BPSK FullRB)(1)

Sub6 n77. Low Band Edge Plot (20 M BW Ch.630668 BPSK 1RB)(2)

Sub6 n77. Low Band Edge Plot (20 M BW Ch.630668 BPSK FullRB)(2)

Sub6 n77. Low Band Edge Plot (20 M BW Ch.630668 BPSK 1RB)(3)

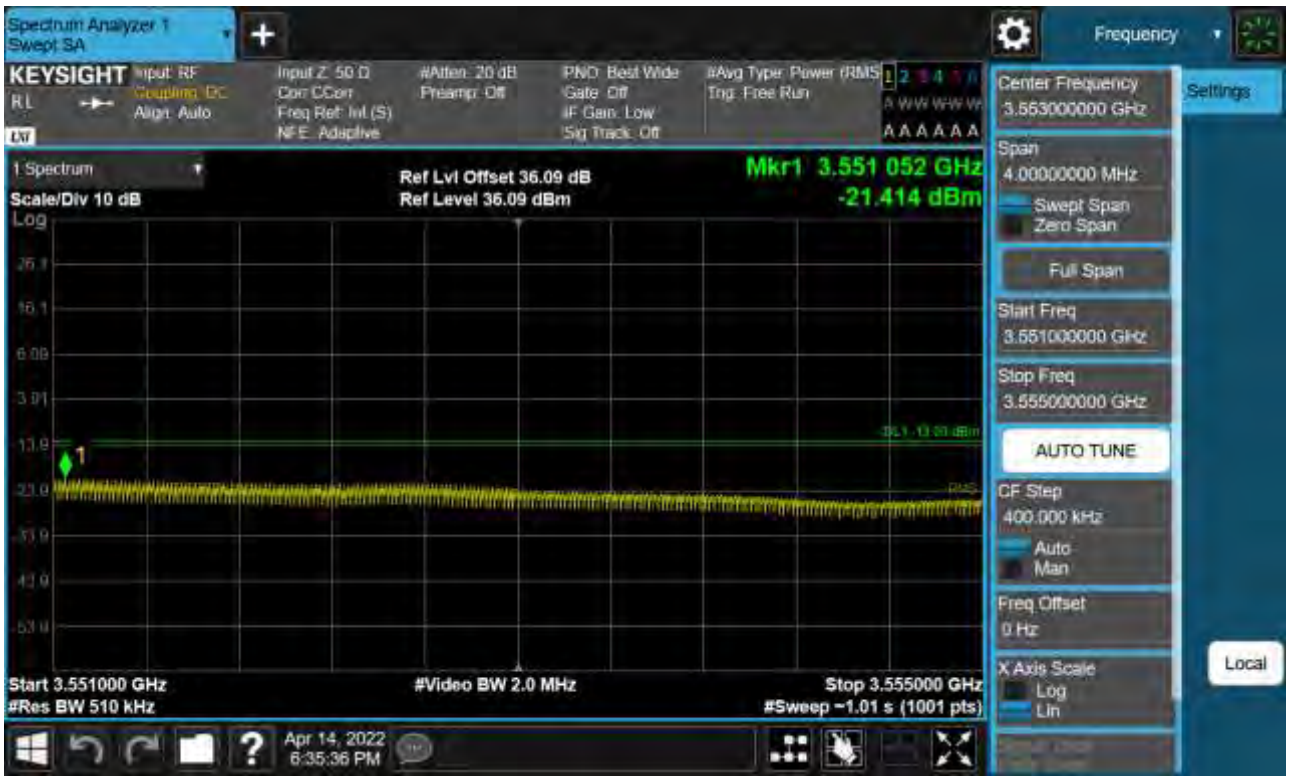
Sub6 n77. Low Band Edge Plot (20 M BW Ch.630668 BPSK FullRB)(3)

Sub6 n77. High Band Edge Plot (20 M BW Ch.636000 BPSK 1RB)(1)

Sub6 n77. High Band Edge Plot (20 M BW Ch.636000 BPSK FullRB)(1)

Sub6 n77. High Band Edge Plot (20 M BW Ch.636000 BPSK 1RB)(2)

Sub6 n77. High Band Edge Plot (20 M BW Ch.636000 BPSK FullRB)(2)

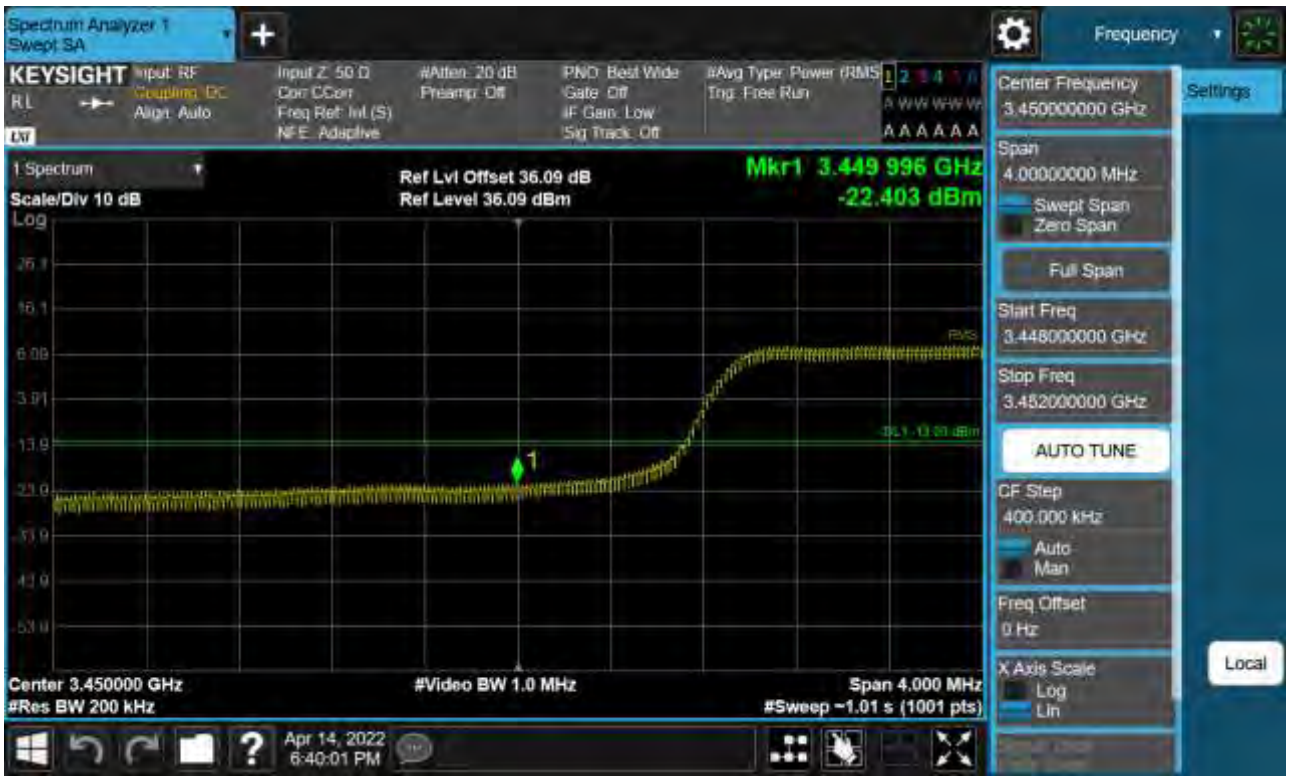


Sub6 n77. High Band Edge Plot (20 M BW Ch.636000 BPSK 1RB)(3)

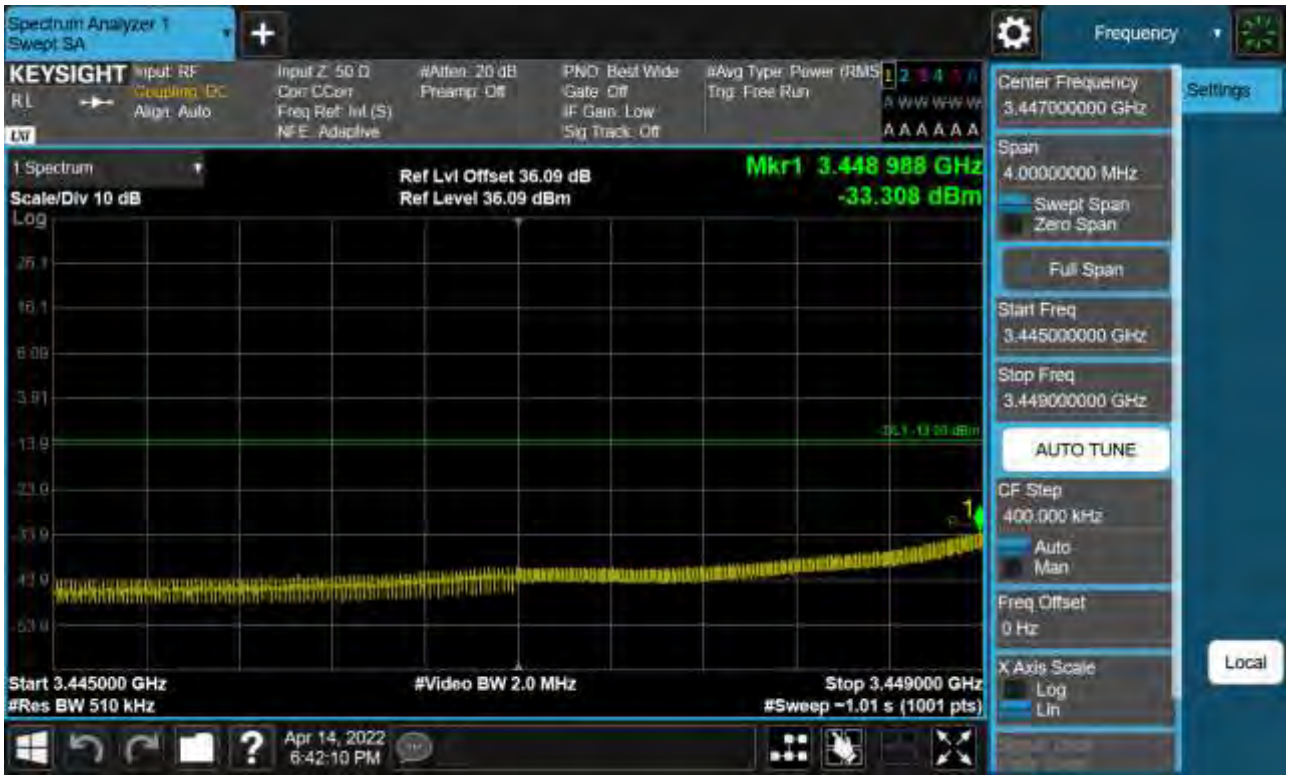
Sub6 n77. High Band Edge Plot (20 M BW Ch.636000 BPSK FullRB)(3)

Sub6 n77. Low Band Edge Plot (30 M BW Ch.631000 BPSK 1RB)(1)

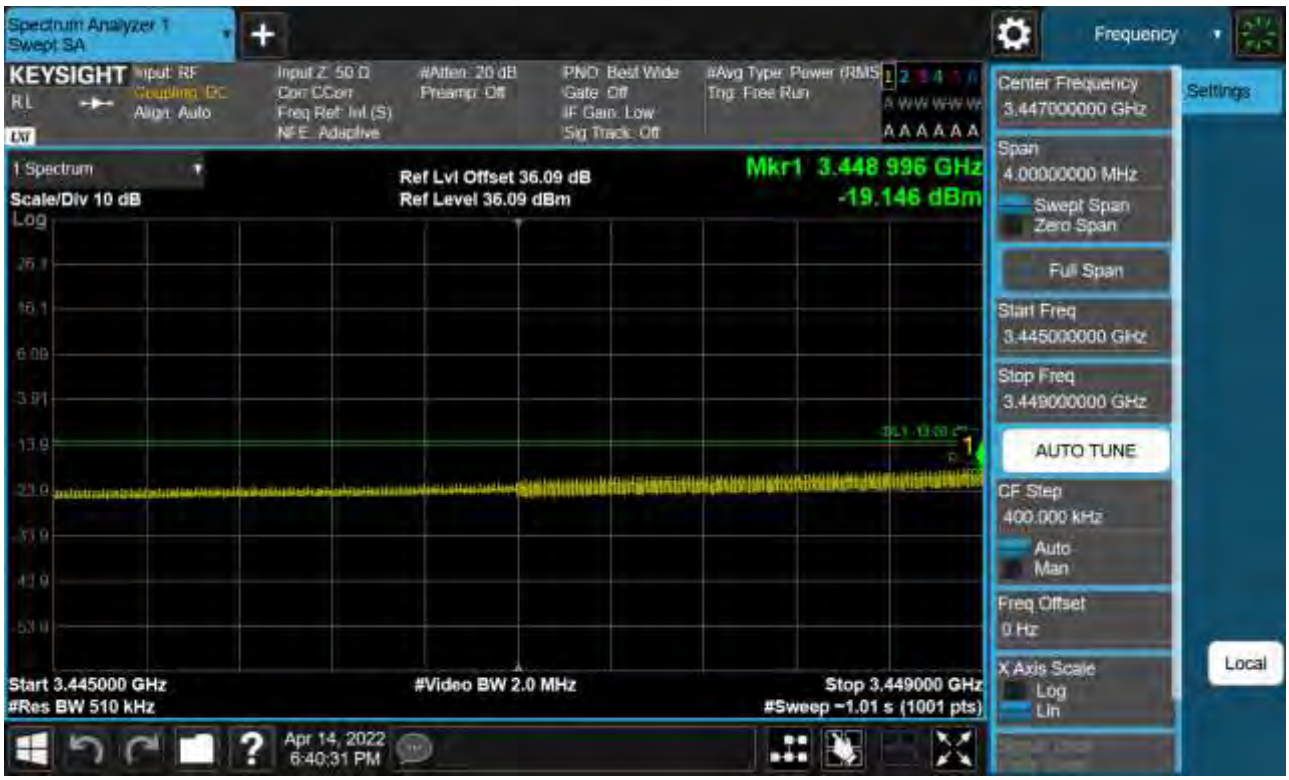
Sub6 n77. Low Band Edge Plot (30 M BW Ch.631000 BPSK FullRB)(1)



Sub6 n77. Low Band Edge Plot (30 M BW Ch.631000 BPSK 1RB)(2)



Sub6 n77. Low Band Edge Plot (30 M BW Ch.631000 BPSK FullRB)(2)



Sub6 n77. Low Band Edge Plot (30 M BW Ch.631000 BPSK 1RB)(3)

Sub6 n77. Low Band Edge Plot (30 M BW Ch.631000 BPSK FullRB)(3)

Sub6 n77. High Band Edge Plot (30 M BW Ch.635666 BPSK 1RB)(1)

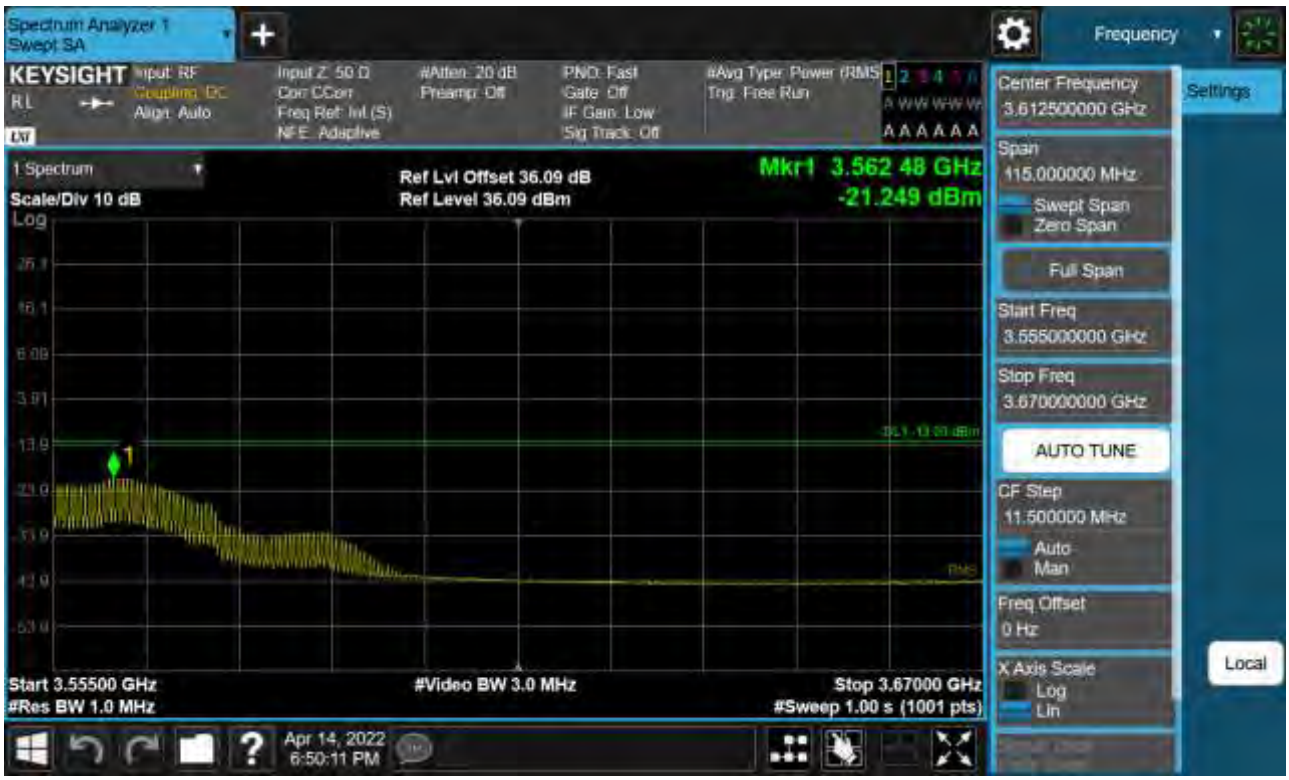
Sub6 n77. High Band Edge Plot (30 M BW Ch.635666 BPSK FullRB)(1)

Sub6 n77. High Band Edge Plot (30 M BW Ch.635666 BPSK 1RB)(2)

Sub6 n77. High Band Edge Plot (30 M BW Ch.635666 BPSK FullRB)(2)

Sub6 n77. High Band Edge Plot (30 M BW Ch.635666 BPSK 1RB)(3)

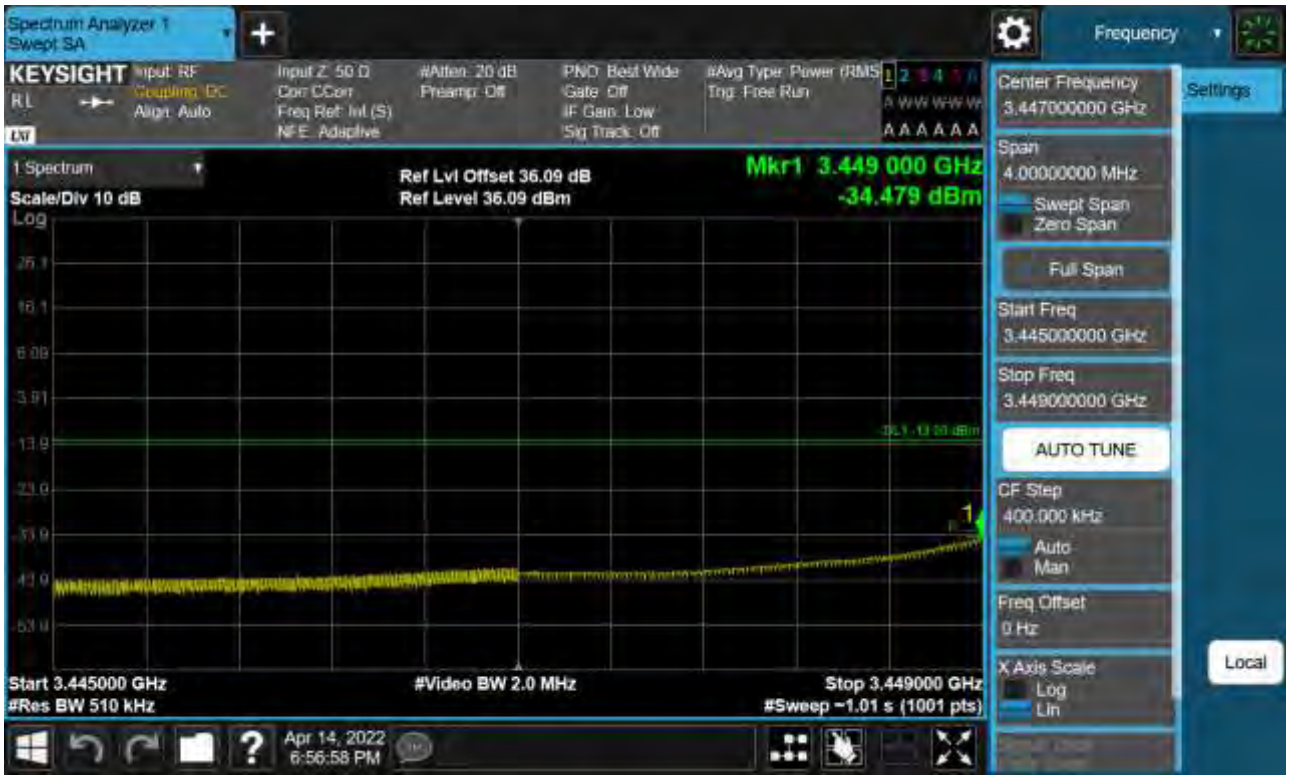
Sub6 n77. High Band Edge Plot (30 M BW Ch.635666 BPSK FullRB)(3)



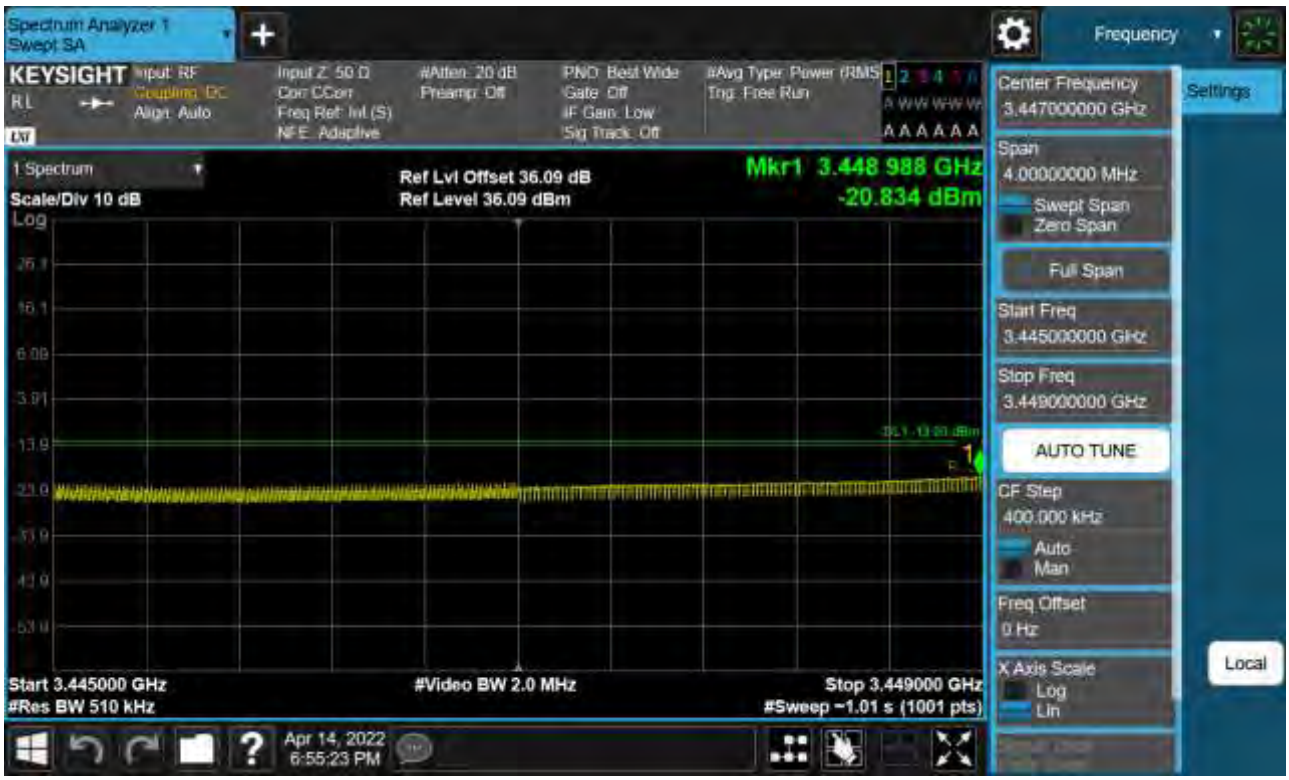
Sub6 n77. Low Band Edge Plot (40 M BW Ch.631334 BPSK 1RB)(1)

Sub6 n77. Low Band Edge Plot (40 M BW Ch.631334 BPSK FullRB)(1)

Sub6 n77. Low Band Edge Plot (40 M BW Ch.631334 BPSK 1RB)(2)



Sub6 n77. Low Band Edge Plot (40 M BW Ch.631334 BPSK FullRB)(2)



Sub6 n77. Low Band Edge Plot (40 M BW Ch.631334 BPSK 1RB)(3)

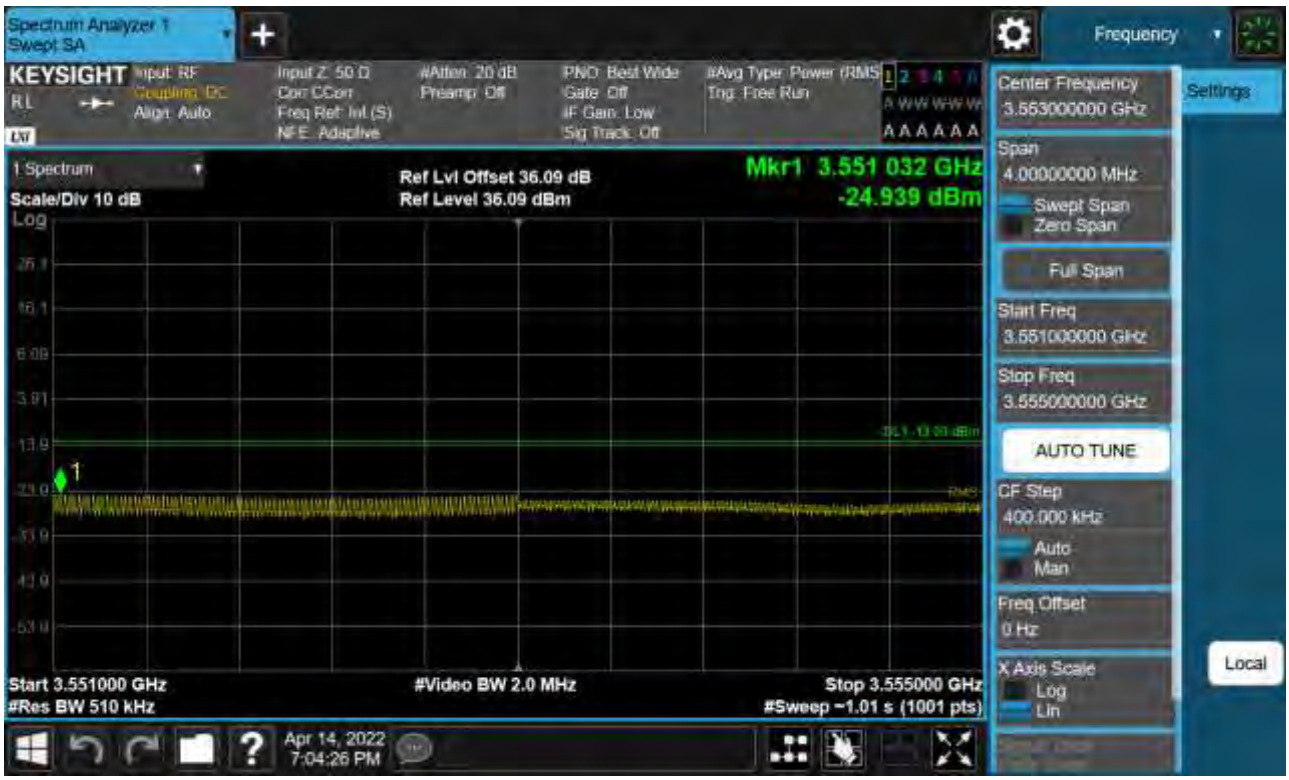
Sub6 n77. Low Band Edge Plot (40 M BW Ch.631334 BPSK FullRB)(3)

Sub6 n77. High Band Edge Plot (40 M BW Ch.635332 BPSK 1RB)(1)

Sub6 n77. High Band Edge Plot (40 M BW Ch.635332 BPSK FullRB)(1)

Sub6 n77. High Band Edge Plot (40 M BW Ch.635332 BPSK 1RB)(2)

Sub6 n77. High Band Edge Plot (40 M BW Ch.635332 BPSK FullRB)(2)



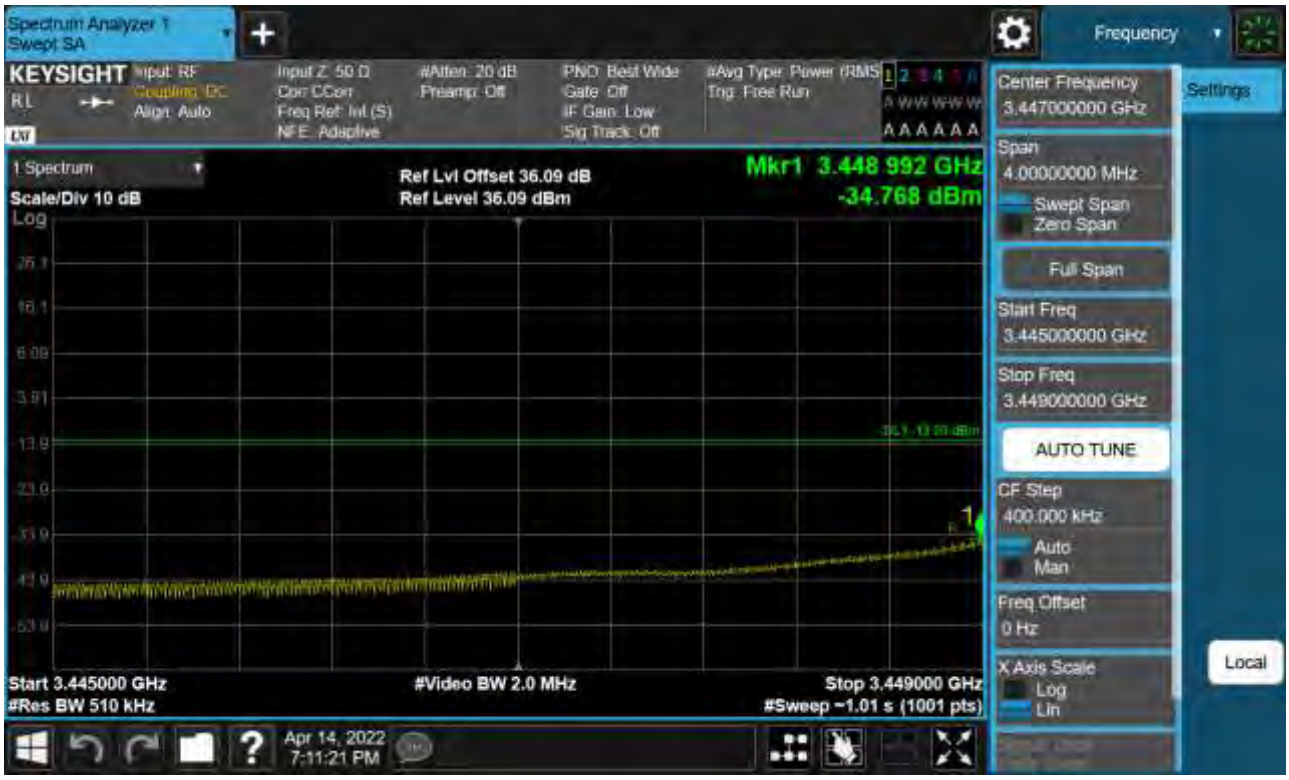
Sub6 n77. High Band Edge Plot (40 M BW Ch.635332 BPSK 1RB)(3)

Sub6 n77. High Band Edge Plot (40 M BW Ch.635332 BPSK FullRB)(3)

Sub6 n77. Low Band Edge Plot (50 M BW Ch.631668 BPSK 1RB)(1)

Sub6 n77. Low Band Edge Plot (50 M BW Ch.631668 BPSK FullRB)(1)

Sub6 n77. Low Band Edge Plot (50 M BW Ch.631668 BPSK 1RB)(2)



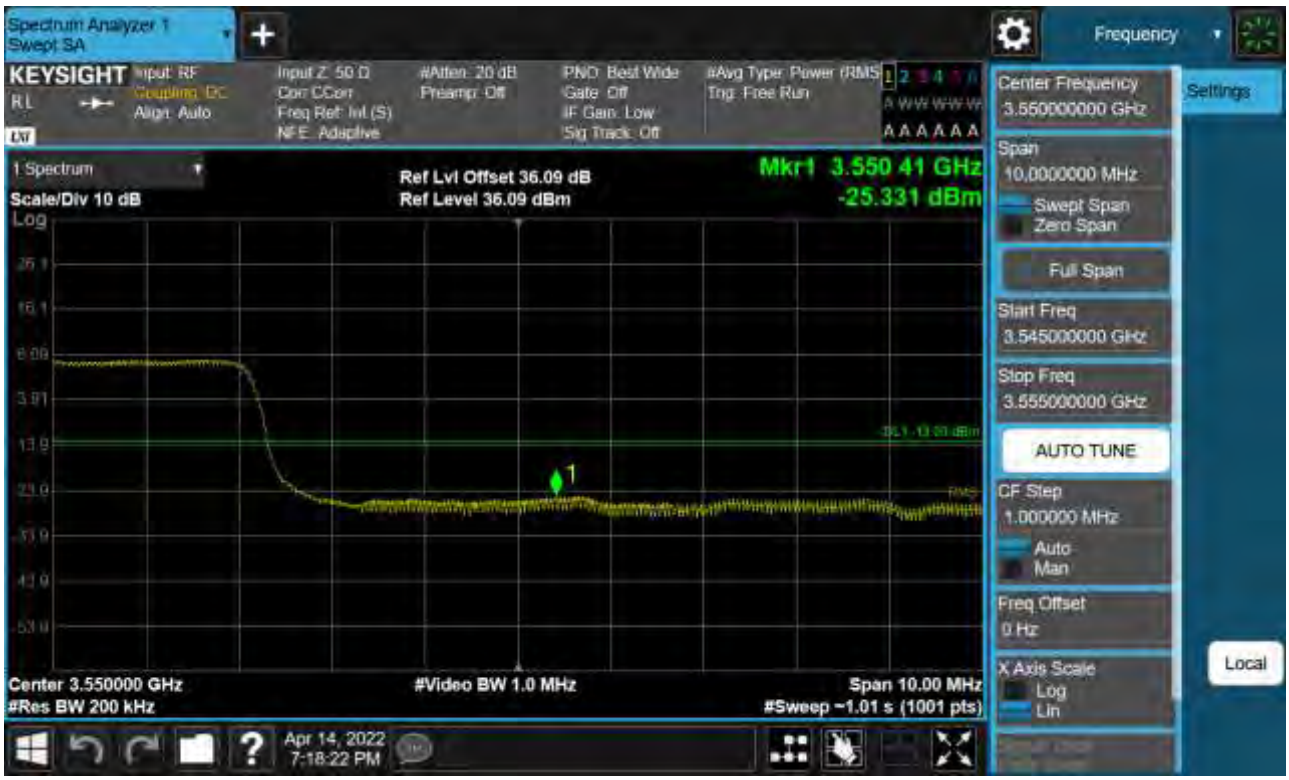
Sub6 n77. Low Band Edge Plot (50 M BW Ch.631668 BPSK FullRB)(2)

Sub6 n77. Low Band Edge Plot (50 M BW Ch.631668 BPSK 1RB)(3)

Sub6 n77. Low Band Edge Plot (50 M BW Ch.631668 BPSK FullRB)(3)

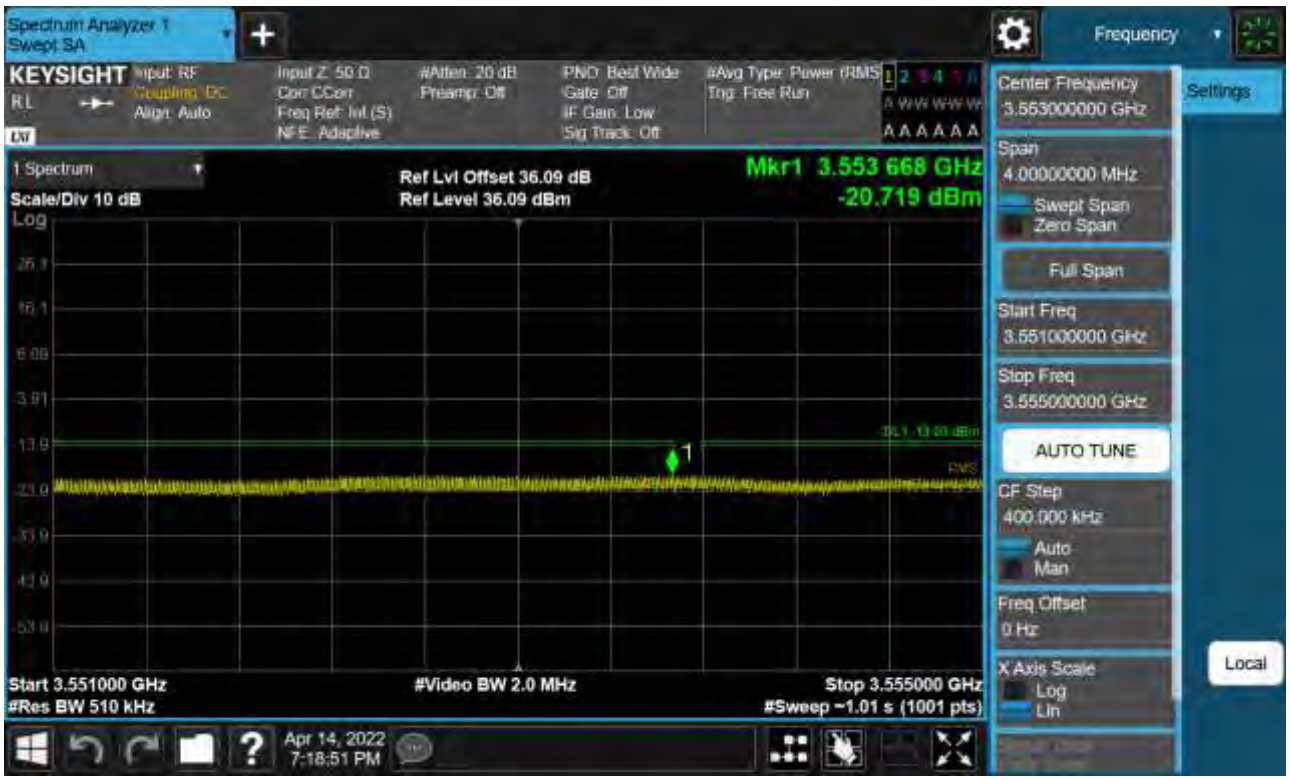
Sub6 n77. High Band Edge Plot (50 M BW Ch.635000 BPSK 1RB)(1)

Sub6 n77. High Band Edge Plot (50 M BW Ch.635000 BPSK FullRB)(1)



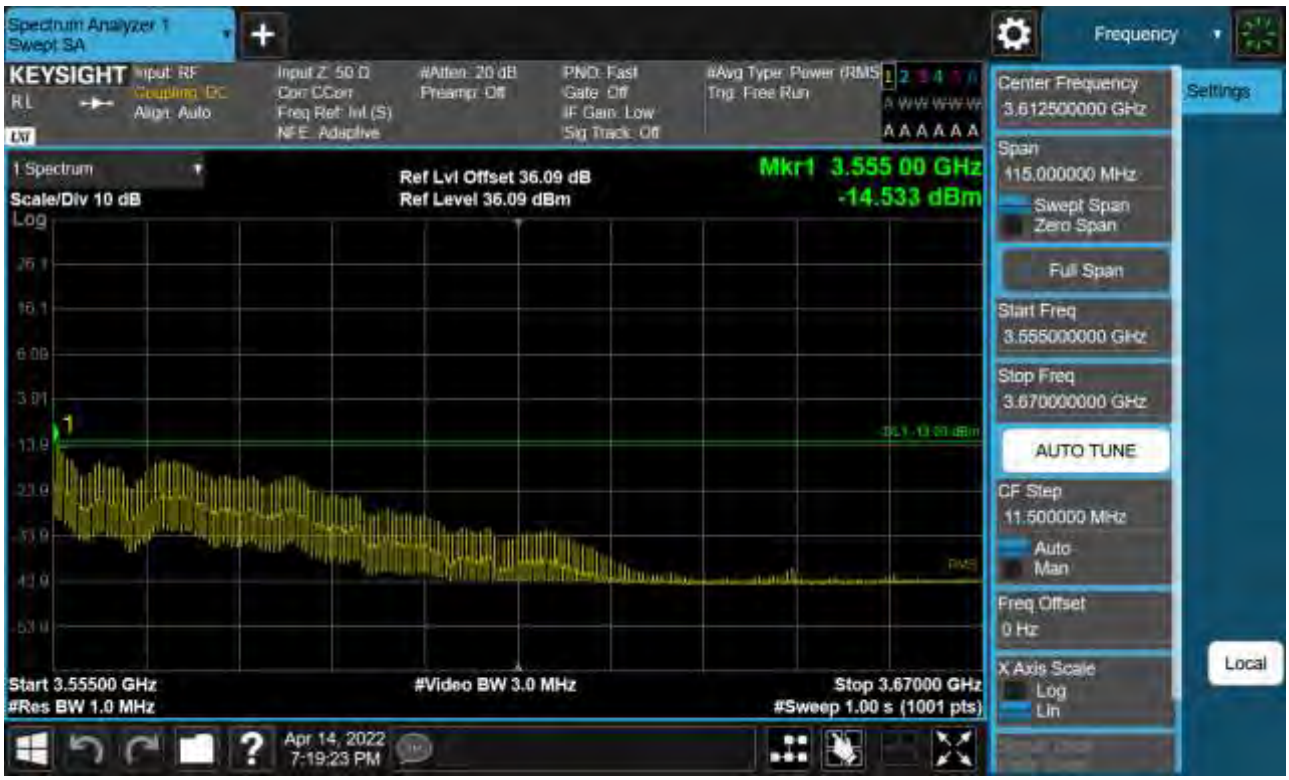
Sub6 n77. High Band Edge Plot (50 M BW Ch.635000 BPSK 1RB)(2)

Sub6 n77. High Band Edge Plot (50 M BW Ch.635000 BPSK FullRB)(2)



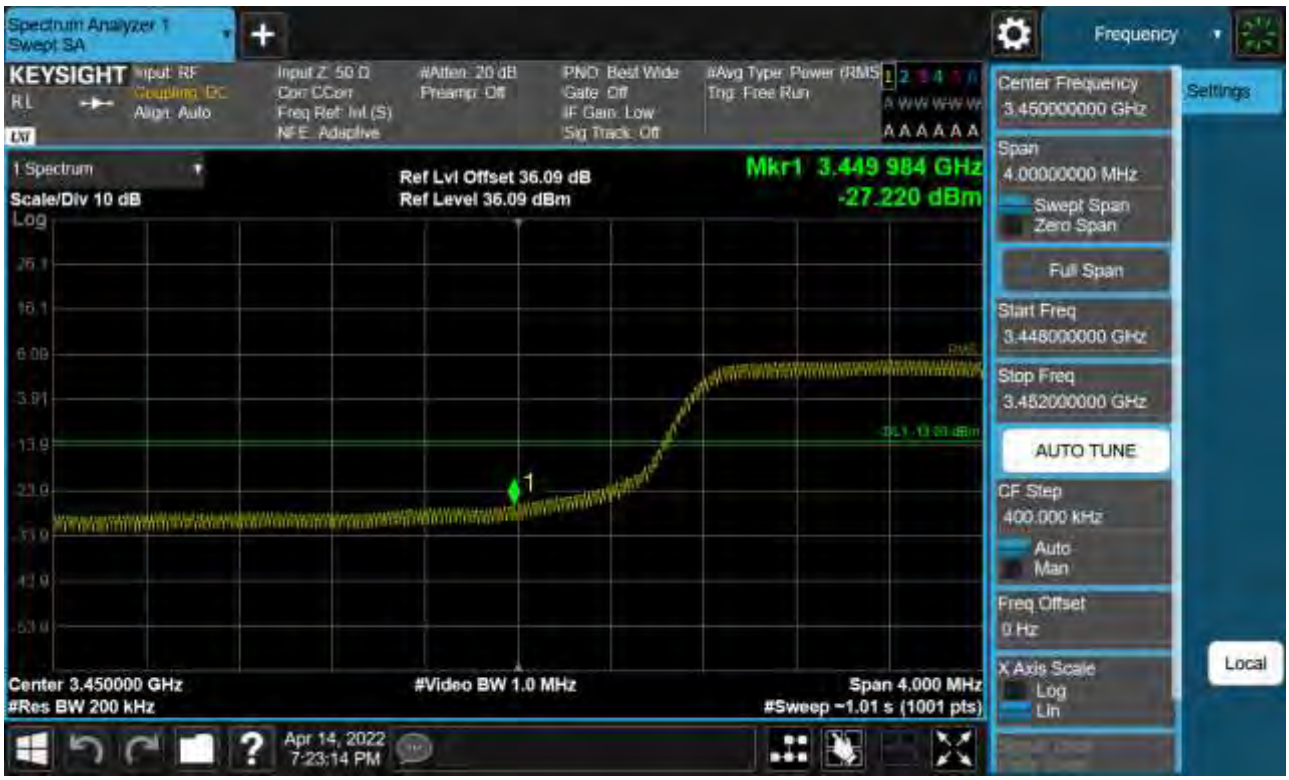
Sub6 n77. High Band Edge Plot (50 M BW Ch.635000 BPSK 1RB)(3)

Sub6 n77. High Band Edge Plot (50 M BW Ch.635000 BPSK FullRB)(3)



Sub6 n77. Low Band Edge Plot (60 M BW Ch.632000 BPSK 1RB)(1)

Sub6 n77. Low Band Edge Plot (60 M BW Ch.632000 BPSK FullRB)(1)



Sub6 n77. Low Band Edge Plot (60 M BW Ch.632000 BPSK 1RB)(2)