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:
October 16, 2023

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

Report No.: HCT-RF-2310-FC050

FCC ID:	**A3LSMS926U**
APPLICANT:	**SAMSUNG Electronics Co., Ltd.**

Model(s):	SM-S926U
Additional Model(s):	SM-S926U1
EUT Type:	Mobile Phone
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§27

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(78) (10)	3455.01 – 3544.99	8M68G7D	PI/2 BPSK	0.136	21.33
		8M62G7D	QPSK	0.136	21.32
		8M65W7D	16QAM	0.108	20.33
		8M69W7D	64QAM	0.075	18.76
		8M63W7D	256QAM	0.045	16.55
Sub6 n77(78) (15)	3457.50 – 3542.50	13M0G7D	PI/2 BPSK	0.133	21.25
		13M0G7D	QPSK	0.132	21.20
		13M0W7D	16QAM	0.104	20.17
		13M0W7D	64QAM	0.072	18.58
		13M0W7D	256QAM	0.044	16.39
Sub6 n77(78) (20)	3460.02 – 3540.00	17M9G7D	PI/2 BPSK	0.132	21.19
		18M0G7D	QPSK	0.130	21.15
		18M0W7D	16QAM	0.102	20.07
		18M0W7D	64QAM	0.072	18.55
		18M0W7D	256QAM	0.044	16.40
Sub6 n77(78) (25)	3462.50 – 3537.50	23M1G7D	PI/2 BPSK	0.137	21.37
		23M0G7D	QPSK	0.136	21.33
		23M0W7D	16QAM	0.108	20.33
		23M0W7D	64QAM	0.076	18.82
		23M0W7D	256QAM	0.047	16.75
Sub6 n77(78) (30)	3465.00 – 3534.99	27M0G7D	PI/2 BPSK	0.138	21.41
		27M9G7D	QPSK	0.136	21.35
		26M0W7D	16QAM	0.106	20.27
		27M0W7D	64QAM	0.076	18.78
		26M9W7D	256QAM	0.046	16.61
Sub6 n77(78) (40)	3470.01 – 3529.98	36M0G7D	PI/2 BPSK	0.128	21.07
		35M8G7D	QPSK	0.127	21.04
		36M0W7D	16QAM	0.102	20.07
		35M9W7D	64QAM	0.073	18.66
		36M0W7D	256QAM	0.045	16.52
Sub6 n77(78) (50)	3475.02 – 3525.00	45M9G7D	PI/2 BPSK	0.133	21.25
		46M2G7D	QPSK	0.132	21.21
		45M9W7D	16QAM	0.108	20.34
		45M9W7D	64QAM	0.074	18.69
		45M8W7D	256QAM	0.045	16.55
Sub6 n77(78) (60)	3480.00 – 3519.99	58M0G7D	PI/2 BPSK	0.130	21.14
		58M2G7D	QPSK	0.129	21.11
		58M0W7D	16QAM	0.105	20.22
		58M0W7D	64QAM	0.074	18.67
		58M0W7D	256QAM	0.045	16.55
Sub6 n77(78) (70)	3485.01 – 3514.98	64M5G7D	PI/2 BPSK	0.155	21.91
		64M6G7D	QPSK	0.152	21.81
		64M6W7D	16QAM	0.111	20.44
		64M5W7D	64QAM	0.078	18.92
		64M5W7D	256QAM	0.048	16.81
Sub6 n77(78) (80)	3490.02 – 3510.00	77M2G7D	PI/2 BPSK	0.145	21.60
		77M3G7D	QPSK	0.143	21.55
		77M4W7D	16QAM	0.116	20.64
		77M3W7D	64QAM	0.081	19.10
		77M2W7D	256QAM	0.050	16.97
Sub6 n77(78) (90)	3495.00 – 3504.99	87M1G7D	PI/2 BPSK	0.147	21.66
		87M1G7D	QPSK	0.146	21.63
		87M1W7D	16QAM	0.118	20.73
		87M2W7D	64QAM	0.083	19.19
		87M0W7D	256QAM	0.052	17.15
Sub6 n77(78) (100)	3500.01	96M7G7D	PI/2 BPSK	0.151	21.79
		96M8G7D	QPSK	0.150	21.76
		96M8W7D	16QAM	0.122	20.85
		96M7W7D	64QAM	0.085	19.29
		96M8W7D	256QAM	0.053	17.23

2. 3700 MHz - 3980 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	EIRP	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77(78) (10)	3705.00 – 3975.00	8M71G7D	PI/2 BPSK	0.351	25.45
		8M63G7D	QPSK	0.340	25.31
		8M64W7D	16QAM	0.265	24.23
		8M68W7D	64QAM	0.191	22.80
		8M62W7D	256QAM	0.120	20.80
Sub6 n77(78) (15)	3707.51 – 3972.48	13M0G7D	PI/2 BPSK	0.347	25.40
		13M0G7D	QPSK	0.344	25.36
		13M0W7D	16QAM	0.267	24.27
		12M9W7D	64QAM	0.191	22.81
		13M0W7D	256QAM	0.119	20.76
Sub6 n77(78) (20)	3710.01 – 3969.99	18M0G7D	PI/2 BPSK	0.344	25.37
		17M9G7D	QPSK	0.339	25.30
		17M9W7D	16QAM	0.273	24.35
		18M0W7D	64QAM	0.189	22.77
		18M0W7D	256QAM	0.117	20.68
Sub6 n77(78) (25)	3712.50 – 3967.50	23M0G7D	PI/2 BPSK	0.366	25.63
		23M1G7D	QPSK	0.354	25.49
		23M0W7D	16QAM	0.288	24.60
		23M0W7D	64QAM	0.199	22.99
		22M9W7D	256QAM	0.126	20.99
Sub6 n77(78) (30)	3715.02 – 3964.98	26M9G7D	PI/2 BPSK	0.373	25.72
		26M9G7D	QPSK	0.367	25.65
		26M9W7D	16QAM	0.286	24.56
		27M0W7D	64QAM	0.202	23.06
		26M9W7D	256QAM	0.128	21.06
Sub6 n77(78) (40)	3720.00 – 3960.00	35M8G7D	PI/2 BPSK	0.384	25.84
		35M9G7D	QPSK	0.377	25.76
		35M8W7D	16QAM	0.302	24.80
		35M8W7D	64QAM	0.220	23.42
		35M9W7D	256QAM	0.128	21.06
Sub6 n77(78) (50)	3725.10 – 3954.99	45M9G7D	PI/2 BPSK	0.393	25.94
		45M8G7D	QPSK	0.389	25.90
		45M8W7D	16QAM	0.314	24.97
		45M9W7D	64QAM	0.228	23.58
		46M0W7D	256QAM	0.134	21.28
Sub6 n77(78) (60)	3730.02 – 3949.98	58M0G7D	PI/2 BPSK	0.379	25.79
		58M0G7D	QPSK	0.377	25.76
		58M0W7D	16QAM	0.298	24.74
		57M9W7D	64QAM	0.212	23.27
		58M1W7D	256QAM	0.131	21.17
Sub6 n77(78) (70)	3735.00 – 3945.00	64M6G7D	PI/2 BPSK	0.383	25.83
		64M6G7D	QPSK	0.373	25.72
		64M5W7D	16QAM	0.304	24.83
		64M5W7D	64QAM	0.217	23.36
		64M7W7D	256QAM	0.135	21.30
Sub6 n77(78) (80)	3740.01 – 3939.99	77M3G7D	PI/2 BPSK	0.408	26.11
		77M4G7D	QPSK	0.394	25.95
		77M4W7D	16QAM	0.303	24.81
		77M3W7D	64QAM	0.225	23.52
		77M3W7D	256QAM	0.137	21.38
Sub6 n77(78) (90)	3745.02 – 3934.98	87M1G7D	PI/2 BPSK	0.415	26.18
		87M3G7D	QPSK	0.392	25.93
		86M9W7D	16QAM	0.307	24.87
		87M1W7D	64QAM	0.224	23.50
		87M0W7D	256QAM	0.137	21.37
Sub6 n77(78) (100)	3750.00 – 3930.00	96M5G7D	PI/2 BPSK	0.419	26.22
		96M6G7D	QPSK	0.385	25.86
		96M8W7D	16QAM	0.310	24.92
		96M5W7D	64QAM	0.222	23.46
		96M9W7D	256QAM	0.147	21.66

REVIEWED BY

Report prepared by : Jae Ryang Do
Engineer of Telecommunication Testing Center

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

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
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-2310-FC050	October 16, 2023	- First Approval Report

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:	A3LSMS926U
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§27
EUT Type:	Mobile Phone
Model(s):	SM-S926U
Additional Model(s):	SM-S926U1
SCS(kHz):	30
Bandwidth(MHz):	10, 15, 20, 25, 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)**	3455.01 MHz – 3544.99 MHz (Sub6 n77(78)(10 MHz)) 3457.50 MHz – 3542.50 MHz (Sub6 n77(78)(15 MHz)) 3460.02 MHz – 3540.00 MHz (Sub6 n77(78)(20 MHz)) 3462.50 MHz – 3537.50 MHz (Sub6 n77(78)(25 MHz)) 3465.00 MHz – 3534.99 MHz (Sub6 n77(78)(30 MHz)) 3470.01 MHz – 3529.98 MHz (Sub6 n77(78)(40 MHz)) 3475.02 MHz – 3525.00 MHz (Sub6 n77(78)(50 MHz)) 3480.00 MHz – 3519.99 MHz (Sub6 n77(78)(60 MHz)) 3485.01 MHz – 3514.98 MHz (Sub6 n77(78)(70 MHz)) 3490.02 MHz – 3510.00 MHz (Sub6 n77(78)(80 MHz)) 3495.00 MHz – 3504.99 MHz (Sub6 n77(78)(90 MHz)) 3500.01 MHz (Sub6 n77(78)(100 MHz))
Tx Frequency: **(3700 MHz - 3980 MHz)**	3705.00 MHz – 3975.00 MHz (Sub6 n77(78)(10 MHz)) 3707.51 MHz – 3972.48 MHz (Sub6 n77(78)(15 MHz)) 3710.01 MHz – 3969.99 MHz (Sub6 n77(78)(20 MHz)) 3712.50 MHz – 3967.50 MHz (Sub6 n77(78)(25 MHz)) 3715.02 MHz – 3964.98 MHz (Sub6 n77(78)(30 MHz)) 3720.00 MHz – 3960.00 MHz (Sub6 n77(78)(40 MHz)) 3725.10 MHz – 3954.99 MHz (Sub6 n77(78)(50 MHz)) 3730.02 MHz – 3949.98 MHz (Sub6 n77(78)(60 MHz)) 3735.00 MHz – 3945.00 MHz (Sub6 n77(78)(70 MHz)) 3740.01 MHz – 3939.99 MHz (Sub6 n77(78)(80 MHz)) 3745.02 MHz – 3934.98 MHz (Sub6 n77(78)(90 MHz)) 3745.02 MHz – 3934.98 MHz (Sub6 n77(78)(90 MHz)) 3750.00 MHz – 3930.00 MHz (Sub6 n77(78)(100 MHz))
Date(s) of Tests:	August 31, 2023 ~ October 12, 2023
Serial number:	Radiated: R3CW90B4EDB Conducted: R3CW80MAK7Y

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

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

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

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;

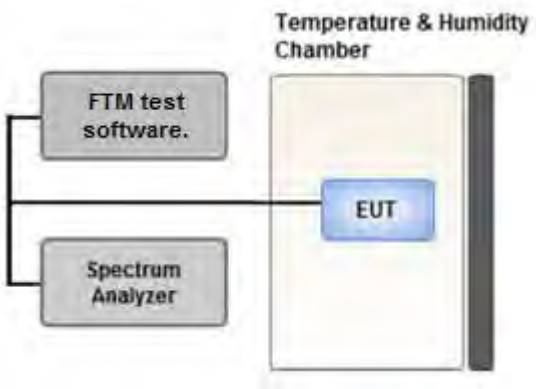
$$\text{Result}_{(dBm)} = \text{Pg}_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

   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.

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

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)

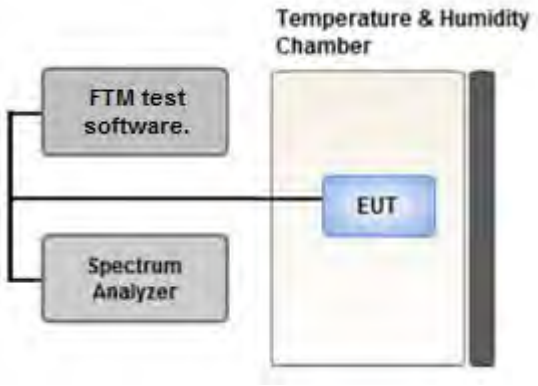
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW ≥ 3 × RBW.

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.

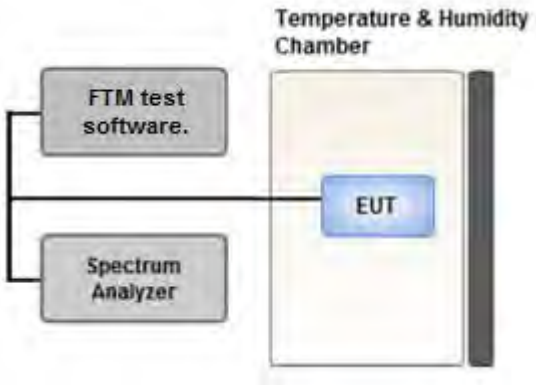
The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

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.

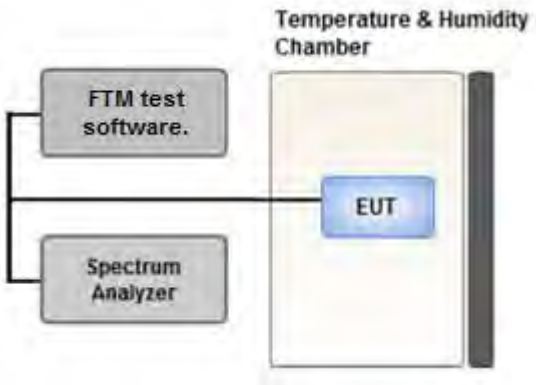
All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

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

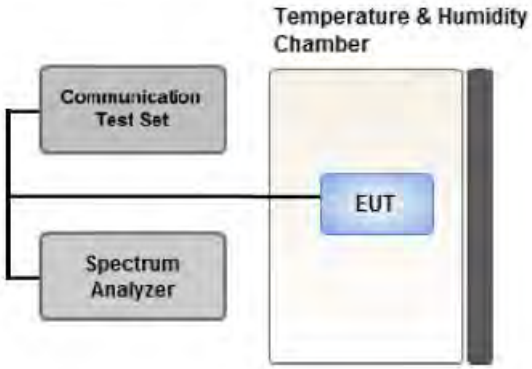
Test Notes

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.

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

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.
- NR n77 (3450 – 3550 MHz / 3700 – 3980 MHz) overlaps the entire frequency range of NR n78 (3450 - 3550 MHz / 3700 – 3800 MHz) and they have the same Tune-up power.

Therefore, test data provided in this report covers n78 as well as n77.

- 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: SA, NSA, SRS
  Worst case: SA
- We were performed the RSE test in condition of co-location.
  Mode : Stand alone, Simultaneous transmission scenarios
  Worst case : Stand alone
- All power classes were tested, and the results were reported for the worst case PC2.
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).
  All EN-DC mode of operation (=anchor) were investigated and the test results were measured No Peak Found.
  The test results which are attenuated more than 20 dB below the permissible value, so it was not reported.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
  Please refer to the table below.
-In the case of radiated spurious emissions, all bandwidth of operation was investigated and the worst case bandwidth results are reported.
(Worst case : 70 MHz (3450 MHz – 3550 MHz), 100 MHz(3700 MHz – 3980 MHz))
- SM-S926U & additional models were tested and the worst case results are reported.
  (Worst case : SM-S926U)

[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	See Section 8.1		Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.2		Y

[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 9.1		Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.2		X

3.10 WORST CASE(CONDUCTED TEST)

- Waveform : All Waveform of operation were investigated and the worst case configuration results are reported.
  (Worst case: DFT-S-OFDM)
- Modulation : All Modulation of operation were investigated and the worst case configuration results are reported.
  (Worst case: PI/2 BPSK)
- NR n77 (3450 – 3550 MHz / 3700 – 3980 MHz) overlaps the entire frequency range of NR n78 (3450 - 3550 MHz / 3700 – 3800 MHz) and they have the same Tune-up power.

Therefore, test data provided in this report covers n78 as well as n77.

- All modes of operation were investigated and the worst case configuration results are reported.
  Mode: SA, NSA, SRS
  Worst case: SA
- All power classes were tested, and the results were reported for the worst case PC2.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
  Please refer to the table below.
- SM-S926U & additional models were tested and the worst case results are reported.
  (Worst case : SM-S926U)

[Worst case]

Test Description	Modulation	Bandwidth (MHz)	Frequency	RB size	RB offset
Occupied Bandwidth,	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Peak-To-Average Ratio	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Mid	Full RB	0
Band Edge	PI/2 BPSK	10	Low	1	0
			High	1	23
		15	Low	1	0
			High	1	37
		20	Low	1	0
			High	1	50
		25	Low	1	0
			High	1	64
		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
		10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	Low, High	Full RB	0
Spurious and Harmonic Emissions at Antenna Terminal	PI/2 BPSK	10, 15, 20, 25, 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	04/27/2025	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/29/2024	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	01/16/2025	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/09/2025	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/24/2025	Biennial
RF Switching System	FBSR-06B (1G HPF + LNA)	T&M SYSTEM	F3L1	05/22/2024	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/22/2024	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/22/2024	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/22/2024	Annual
Power Amplifier	CBL18265035	CERNEX	22966	12/01/2023	Annual
Power Amplifier	CBL26405040	CERNEX	25956	03/02/2024	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/25/2024	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	03/02/2024	Annual
Chamber	SU-642	ESPEC	93008124	02/22/2024	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/11/2024	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/19/2024	Annual
Spectrum Analyzer(10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/22/2024	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/10/2024	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/22/2024	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/23/2024	Annual
SIGNAL GENERATOR (100 kHz~40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	06/22/2024	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/24/2024	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/19/2024	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)	1.90 (Confidence level about 95 %, k=2)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.14 (Confidence level about 95 %, k=2)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.16 (Confidence level about 95 %, k=2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.57 (Confidence level about 95 %, k=2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.76 (Confidence level about 95 %, k=2)
Radiated Disturbance (Above 40 GHz)	5.52 (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		RB	
								W	W	dBm	Size	Offset
3455.01	Sub6 n77(78)/ 10 MHz [30 kHz]	PI/2 BPSK	-24.86	13.08	11.20	2.96	H	< 1.00	0.136	21.33	1	1
		QPSK	-24.87	13.07	11.20	2.96	H		0.136	21.32		
		16-QAM	-25.86	12.08	11.20	2.96	H		0.108	20.33		
		64-QAM	-27.43	10.51	11.20	2.96	H		0.075	18.76		
		256-QAM	-29.64	8.30	11.20	2.96	H		0.045	16.55		
3500.01		PI/2 BPSK	-25.76	12.49	11.30	3.00	H		0.120	20.79	1	1
		QPSK	-25.79	12.46	11.30	3.00	H		0.119	20.76		
		16-QAM	-26.75	11.50	11.30	3.00	H		0.095	19.80		
		64-QAM	-28.31	9.94	11.30	3.00	H		0.067	18.24		
		256-QAM	-30.51	7.74	11.30	3.00	H		0.040	16.04		
3544.99		PI/2 BPSK	-25.53	12.54	11.35	3.02	H		0.122	20.87	1	22
		QPSK	-25.59	12.48	11.35	3.02	H		0.121	20.81		
		16-QAM	-26.57	11.50	11.35	3.02	H		0.096	19.83		
		64-QAM	-28.16	9.91	11.35	3.02	H		0.067	18.24		
		256-QAM	-30.39	7.68	11.35	3.02	H		0.040	16.01		

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
3457.50	Sub6 n77(78)/ 15 MHz [30 kHz]	PI/2 BPSK	-24.91	13.00	11.20	2.95	H	< 1.00	0.133	21.25	1	1
		QPSK	-24.96	12.95	11.20	2.95	H		0.132	21.20		
		16-QAM	-25.99	11.92	11.20	2.95	H		0.104	20.17		
		64-QAM	-27.58	10.33	11.20	2.95	H		0.072	18.58		
		256-QAM	-29.77	8.14	11.20	2.95	H		0.044	16.39		
3500.01		PI/2 BPSK	-25.77	12.48	11.30	3.00	H		0.120	20.78	1	1
		QPSK	-25.80	12.45	11.30	3.00	H		0.119	20.75		
		16-QAM	-26.88	11.37	11.30	3.00	H		0.093	19.67		
		64-QAM	-28.39	9.86	11.30	3.00	H		0.065	18.16		
		256-QAM	-30.55	7.70	11.30	3.00	H		0.040	16.00		
3542.50		PI/2 BPSK	-25.69	12.26	11.30	3.02	H		0.113	20.54	1	36
		QPSK	-25.75	12.20	11.30	3.02	H		0.112	20.48		
		16-QAM	-26.66	11.29	11.30	3.02	H		0.091	19.57		
		64-QAM	-28.22	9.73	11.30	3.02	H		0.063	18.01		
		256-QAM	-30.34	7.61	11.30	3.02	H		0.039	15.89		

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
3460.02	Sub6 n77(78)/ 20 MHz [30 kHz]	PI/2 BPSK	-24.97	12.94	11.20	2.95	H	< 1.00	0.132	21.19	1	1
		QPSK	-25.01	12.90	11.20	2.95	H		0.130	21.15		
		16-QAM	-26.09	11.82	11.20	2.95	H		0.102	20.07		
		64-QAM	-27.61	10.30	11.20	2.95	H		0.072	18.55		
		256-QAM	-29.76	8.15	11.20	2.95	H		0.044	16.40		
3500.01		PI/2 BPSK	-25.60	12.65	11.30	3.00	H		0.124	20.95	1	1
		QPSK	-25.71	12.54	11.30	3.00	H		0.121	20.84		
		16-QAM	-26.79	11.46	11.30	3.00	H		0.095	19.76		
		64-QAM	-28.27	9.98	11.30	3.00	H		0.067	18.28		
		256-QAM	-30.42	7.83	11.30	3.00	H		0.041	16.13		
3540.00		PI/2 BPSK	-25.68	12.27	11.30	3.02	H		0.114	20.55	1	49
		QPSK	-25.73	12.22	11.30	3.02	H		0.112	20.50		
		16-QAM	-26.66	11.29	11.30	3.02	H		0.091	19.57		
		64-QAM	-28.21	9.74	11.30	3.02	H		0.063	18.02		
		256-QAM	-30.26	7.69	11.30	3.02	H		0.040	15.97		

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
3462.50	Sub6 n77(78)/ 25 MHz [30 kHz]	PI/2 BPSK	-24.79	13.12	11.20	2.95	H	< 1.00	0.137	21.37	1	1
		QPSK	-24.83	13.08	11.20	2.95	H		0.136	21.33		
		16-QAM	-25.83	12.08	11.20	2.95	H		0.108	20.33		
		64-QAM	-27.34	10.57	11.20	2.95	H		0.076	18.82		
		256-QAM	-29.41	8.50	11.20	2.95	H		0.047	16.75		
3500.01		PI/2 BPSK	-25.46	12.79	11.30	3.00	H		0.129	21.09	1	1
		QPSK	-25.49	12.76	11.30	3.00	H		0.128	21.06		
		16-QAM	-26.66	11.59	11.30	3.00	H		0.097	19.89		
		64-QAM	-28.09	10.16	11.30	3.00	H		0.070	18.46		
		256-QAM	-30.26	7.99	11.30	3.00	H		0.043	16.29		
3537.50		PI/2 BPSK	-25.51	12.44	11.30	3.02	H		0.118	20.72	1	63
		QPSK	-25.57	12.38	11.30	3.02	H		0.116	20.66		
		16-QAM	-26.45	11.50	11.30	3.02	H		0.095	19.78		
		64-QAM	-28.04	9.91	11.30	3.02	H		0.066	18.19		
		256-QAM	-30.15	7.80	11.30	3.02	H		0.041	16.08		

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
3465.00	Sub6 n77(78)/ 30 MHz [30 kHz]	PI/2 BPSK	-24.71	13.16	11.20	2.95	H	< 1.00	0.138	21.41	1	1
		QPSK	-24.77	13.10	11.20	2.95	H		0.136	21.35		
		16-QAM	-25.85	12.02	11.20	2.95	H		0.106	20.27		
		64-QAM	-27.34	10.53	11.20	2.95	H		0.076	18.78		
		256-QAM	-29.51	8.36	11.20	2.95	H		0.046	16.61		
3500.01		PI/2 BPSK	-25.59	12.66	11.30	3.00	H		0.125	20.96	1	1
		QPSK	-25.63	12.62	11.30	3.00	H		0.124	20.92		
		16-QAM	-26.64	11.61	11.30	3.00	H		0.098	19.91		
		64-QAM	-28.18	10.07	11.30	3.00	H		0.069	18.37		
		256-QAM	-30.27	7.98	11.30	3.00	H		0.042	16.28		
3534.99		PI/2 BPSK	-25.58	12.33	11.30	3.01	H		0.116	20.63	1	76
		QPSK	-25.75	12.16	11.30	3.01	H		0.111	20.46		
		16-QAM	-26.56	11.35	11.30	3.01	H		0.092	19.65		
		64-QAM	-28.09	9.82	11.30	3.01	H		0.065	18.12		
		256-QAM	-30.24	7.67	11.30	3.01	H		0.040	15.97		

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
3470.01	Sub6 n77(78)/ 40 MHz [30 kHz]	PI/2 BPSK	-25.01	12.82	11.20	2.95	H	< 1.00	0.128	21.07	1	1
		QPSK	-25.04	12.79	11.20	2.95	H		0.127	21.04		
		16-QAM	-26.01	11.82	11.20	2.95	H		0.102	20.07		
		64-QAM	-27.42	10.41	11.20	2.95	H		0.073	18.66		
		256-QAM	-29.56	8.27	11.20	2.95	H		0.045	16.52		
3500.01		PI/2 BPSK	-25.56	12.69	11.30	3.00	H		0.126	20.99	1	1
		QPSK	-25.59	12.66	11.30	3.00	H		0.125	20.96		
		16-QAM	-26.48	11.77	11.30	3.00	H		0.102	20.07		
		64-QAM	-28.16	10.09	11.30	3.00	H		0.069	18.39		
		256-QAM	-30.21	8.04	11.30	3.00	H		0.043	16.34		
3529.98		PI/2 BPSK	-25.61	12.27	11.30	2.99	H		0.114	20.58	1	104
		QPSK	-25.66	12.22	11.30	2.99	H		0.113	20.53		
		16-QAM	-26.61	11.27	11.30	2.99	H		0.091	19.58		
		64-QAM	-28.18	9.70	11.30	2.99	H		0.063	18.01		
		256-QAM	-30.31	7.57	11.30	2.99	H		0.039	15.88		

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
3475.02	Sub6 n77(78)/ 50 MHz [30 kHz]	PI/2 BPSK	-24.86	13.02	11.20	2.97	H	< 1.00	0.133	21.25	1	1
		QPSK	-24.90	12.98	11.20	2.97	H		0.132	21.21		
		16-QAM	-25.77	12.11	11.20	2.97	H		0.108	20.34		
		64-QAM	-27.42	10.46	11.20	2.97	H		0.074	18.69		
		256-QAM	-29.61	8.27	11.20	2.97	H		0.045	16.50		
3500.01		PI/2 BPSK	-25.35	12.90	11.30	3.00	H		0.132	21.20	1	1
		QPSK	-25.41	12.84	11.30	3.00	H		0.130	21.14		
		16-QAM	-26.47	11.78	11.30	3.00	H		0.102	20.08		
		64-QAM	-27.91	10.34	11.30	3.00	H		0.073	18.64		
		256-QAM	-30.00	8.25	11.30	3.00	H		0.045	16.55		
3525.00		PI/2 BPSK	-25.41	12.49	11.30	2.98	H		0.121	20.81	1	131
		QPSK	-25.45	12.45	11.30	2.98	H		0.119	20.77		
		16-QAM	-26.45	11.45	11.30	2.98	H		0.095	19.77		
		64-QAM	-28.01	9.89	11.30	2.98	H		0.066	18.21		
		256-QAM	-30.19	7.71	11.30	2.98	H		0.040	16.03		

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
3480.00	Sub6 n77(78)/ 60 MHz [30 kHz]	PI/2 BPSK	-25.04	12.90	11.20	2.99	H	< 1.00	0.129	21.11	1	1
		QPSK	-25.06	12.88	11.20	2.99	H		0.129	21.09		
		16-QAM	-25.93	12.01	11.20	2.99	H		0.105	20.22		
		64-QAM	-27.48	10.46	11.20	2.99	H		0.074	18.67		
		256-QAM	-29.60	8.34	11.20	2.99	H		0.045	16.55		
3500.01		PI/2 BPSK	-25.41	12.84	11.30	3.00	H		0.130	21.14	1	1
		QPSK	-25.44	12.81	11.30	3.00	H		0.129	21.11		
		16-QAM	-26.39	11.86	11.30	3.00	H		0.104	20.16		
		64-QAM	-28.01	10.24	11.30	3.00	H		0.071	18.54		
		256-QAM	-30.16	8.09	11.30	3.00	H		0.044	16.39		
3519.99		PI/2 BPSK	-25.61	12.31	11.30	2.97	H		0.116	20.64	1	160
		QPSK	-25.66	12.26	11.30	2.97	H		0.115	20.59		
		16-QAM	-26.53	11.39	11.30	2.97	H		0.094	19.72		
		64-QAM	-28.16	9.76	11.30	2.97	H		0.064	18.09		
		256-QAM	-30.32	7.60	11.30	2.97	H		0.039	15.93		

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
3485.01	Sub6 n77(78)/ 70 MHz [30 kHz]	PI/2 BPSK	-24.92	13.09	11.20	3.00	H	< 1.00	0.135	21.29	1	1
		QPSK	-24.95	13.06	11.20	3.00	H		0.134	21.26		
		16-QAM	-25.91	12.10	11.20	3.00	H		0.107	20.30		
		64-QAM	-27.41	10.60	11.20	3.00	H		0.076	18.80		
		256-QAM	-29.56	8.45	11.20	3.00	H		0.046	16.65		
3500.01		PI/2 BPSK	-24.64	13.11	11.30	3.00	H		0.155	21.91	1	1
		QPSK	-24.74	14.05	11.30	3.00	H		0.152	21.81		
		16-QAM	-26.11	12.14	11.30	3.00	H		0.111	20.44		
		64-QAM	-27.63	10.62	11.30	3.00	H		0.078	18.92		
		256-QAM	-29.74	8.51	11.30	3.00	H		0.048	16.81		
3514.98		PI/2 BPSK	-25.51	12.55	11.30	2.98	H		0.122	20.88	1	1
		QPSK	-25.54	12.52	11.30	2.98	H		0.122	20.85		
		16-QAM	-26.45	11.61	11.30	2.98	H		0.099	19.94		
		64-QAM	-28.02	10.04	11.30	2.98	H		0.069	18.37		
		256-QAM	-30.15	7.91	11.30	2.98	H		0.042	16.24		

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
3490.02	Sub6 n77(78)/ 80 MHz [30 kHz]	PI/2 BPSK	-24.86	13.22	11.20	3.00	H	< 1.00	0.139	21.42	1	1
		QPSK	-24.89	13.19	11.20	3.00	H		0.138	21.39		
		16-QAM	-25.81	12.27	11.20	3.00	H		0.111	20.47		
		64-QAM	-27.37	10.71	11.20	3.00	H		0.078	18.91		
		256-QAM	-29.49	8.59	11.20	3.00	H		0.048	16.79		
3500.01		PI/2 BPSK	-24.95	13.30	11.30	3.00	H		0.145	21.60	1	1
		QPSK	-25.00	13.25	11.30	3.00	H		0.143	21.55		
		16-QAM	-25.91	12.34	11.30	3.00	H		0.116	20.64		
		64-QAM	-27.45	10.80	11.30	3.00	H		0.081	19.10		
		256-QAM	-29.58	8.67	11.30	3.00	H		0.050	16.97		
3510.00		PI/2 BPSK	-25.31	12.90	11.30	2.98	H		0.132	21.22	1	1
		QPSK	-25.35	12.86	11.30	2.98	H		0.131	21.18		
		16-QAM	-26.29	11.92	11.30	2.98	H		0.106	20.24		
		64-QAM	-27.85	10.36	11.30	2.98	H		0.074	18.68		
		256-QAM	-29.94	8.27	11.30	2.98	H		0.046	16.59		

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
3495.00	Sub6 n77(78)/ 90 MHz [30 kHz]	PI/2 BPSK	-24.81	13.36	11.25	3.00	H	< 1.00	0.145	21.61	1	1
		QPSK	-24.83	13.34	11.25	3.00	H		0.144	21.59		
		16-QAM	-25.79	12.38	11.25	3.00	H		0.116	20.63		
		64-QAM	-27.31	10.86	11.25	3.00	H		0.081	19.11		
		256-QAM	-29.41	8.76	11.25	3.00	H		0.050	17.01		
3500.01		PI/2 BPSK	-24.89	13.36	11.30	3.00	H		0.147	21.66	1	1
		QPSK	-24.92	13.33	11.30	3.00	H		0.146	21.63		
		16-QAM	-25.86	12.39	11.30	3.00	H		0.117	20.69		
		64-QAM	-27.36	10.89	11.30	3.00	H		0.083	19.19		
		256-QAM	-29.40	8.85	11.30	3.00	H		0.052	17.15		
3504.99		PI/2 BPSK	-24.91	13.32	11.30	2.99	H		0.146	21.63	1	1
		QPSK	-24.98	13.25	11.30	2.99	H		0.143	21.56		
		16-QAM	-25.81	12.42	11.30	2.99	H		0.118	20.73		
		64-QAM	-27.41	10.82	11.30	2.99	H		0.082	19.13		
		256-QAM	-29.52	8.71	11.30	2.99	H		0.050	17.02		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3500.01	Sub6 n77(78)/ 100 MHz [30 kHz]	PI/2 BPSK	-24.76	13.49	11.30	3.00	H	< 1.00	0.151	21.79	1	1
		QPSK	-24.79	13.46	11.30	3.00	H		0.150	21.76		
		16-QAM	-25.70	12.55	11.30	3.00	H		0.122	20.85		
		64-QAM	-27.26	10.99	11.30	3.00	H		0.085	19.29		
		256-QAM	-29.32	8.93	11.30	3.00	H		0.053	17.23		

8.2 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N77(78)

▣ Bandwidth: 70 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meter

▣ 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
632334 (3485.01)	6 970.02	-60.70	10.90	-54.95	4.31	H	-48.36	-13.00	1	1
	10 455.03	-63.92	11.30	-53.99	5.42	H	-48.11	-13.00		
	13 940.04	-59.92	12.40	-49.38	6.38	H	-43.36	-13.00		
	17 425.05	-67.54	15.90	-47.75	7.25	H	-39.09	-13.00		
633334 (3500.01)	7 000.02	-63.35	10.90	-57.43	4.32	H	-50.85	-13.00	1	1
	10 500.03	-63.50	11.30	-52.90	5.41	H	-47.01	-13.00		
	14 000.04	-60.41	12.30	-51.06	6.35	H	-45.11	-13.00		
	17 500.05	-68.38	15.70	-48.29	7.23	H	-39.82	-13.00		
634332 (3515.0)	7 029.96	-63.29	10.90	-56.42	4.35	H	-49.87	-13.00	1	1
	10 544.94	-62.82	11.25	-51.81	5.43	H	-45.99	-13.00		
	14 059.92	-57.60	12.20	-48.39	6.41	H	-42.60	-13.00		
	17 574.90	-68.88	15.40	-46.79	7.28	H	-38.67	-13.00		

8.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77(78)	10 MHz	3500.01	BPSK	Full RB	0	3.91
			QPSK			4.48
			16-QAM			5.41
			64-QAM			5.83
			256-QAM			6.60
	15 MHz		BPSK			3.78
			QPSK			4.36
			16-QAM			5.30
			64-QAM			5.86
			256-QAM			6.67
	20 MHz		BPSK			3.85
			QPSK			4.41
			16-QAM			5.37
			64-QAM			5.79
			256-QAM			6.43
	25 MHz		BPSK			4.07
			QPSK			4.53
			16-QAM			5.71
			64-QAM			6.07
			256-QAM			6.72
	30 MHz		BPSK			3.86
			QPSK			4.42
			16-QAM			5.31
			64-QAM			5.91
			256-QAM			6.68
	40 MHz		BPSK			3.95
			QPSK			4.50
			16-QAM			5.47
			64-QAM			5.94
			256-QAM			6.74

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
	50 MHz		BPSK			3.92
			QPSK			4.50
			16-QAM			5.51
			64-QAM			5.93
			256-QAM			6.74
	60 MHz		BPSK			3.97
			QPSK			4.61
			16-QAM			5.62
			64-QAM			6.06
			256-QAM			6.69
	70 MHz		BPSK			4.02
			QPSK			4.56
			16-QAM			5.59
			64-QAM			5.95
			256-QAM			6.62
	80 MHz		BPSK			4.15
			QPSK			4.70
			16-QAM			5.65
			64-QAM			6.16
			256-QAM			6.65
	90 MHz		BPSK			4.05
			QPSK			4.61
			16-QAM			5.52
			64-QAM			5.96
			256-QAM			6.67
	100 MHz		BPSK			4.29
			QPSK			4.95
			16-QAM			5.88
			64-QAM			6.33
			256-QAM			6.72

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 153 ~ 212.

8.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77(78)	10 MHz	3500.01	BPSK	Full RB	0	8.6794
			QPSK			8.6198
			16-QAM			8.6450
			64-QAM			8.6935
			256-QAM			8.6316
	15 MHz		BPSK			13.012
			QPSK			12.994
			16-QAM			12.992
			64-QAM			12.970
			256-QAM			12.997
	20 MHz		BPSK			17.938
			QPSK			17.945
			16-QAM			18.008
			64-QAM			17.959
			256-QAM			17.963
	25 MHz		BPSK			23.045
			QPSK			23.019
			16-QAM			22.971
			64-QAM			23.042
			256-QAM			23.004
	30 MHz		BPSK			26.959
			QPSK			26.927
			16-QAM			27.007
			64-QAM			26.948
			256-QAM			26.933
	40 MHz		BPSK			35.980
			QPSK			35.841
			16-QAM			35.950
			64-QAM			35.892
			256-QAM			36.010

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
	50 MHz		BPSK			45.921
			QPSK			46.171
			16-QAM			45.865
			64-QAM			45.904
			256-QAM			45.799
	60 MHz		BPSK			58.039
			QPSK			58.188
			16-QAM			58.034
			64-QAM			58.033
			256-QAM			57.997
	70 MHz		BPSK			64.521
			QPSK			64.611
			16-QAM			64.593
			64-QAM			64.464
			256-QAM			64.520
	80 MHz		BPSK			77.221
			QPSK			77.286
			16-QAM			77.410
			64-QAM			77.338
			256-QAM			77.211
	90 MHz		BPSK			87.053
			QPSK			87.113
			16-QAM			87.142
			64-QAM			87.181
			256-QAM			86.956
	100 MHz		BPSK			96.710
			QPSK			96.792
			16-QAM			96.764
			64-QAM			96.700
			256-QAM			96.764

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 93 ~ 152.

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(78)	10	3455.01	5.2214	37.805	-71.393	-33.588	-13.00
		3500.01	8.2911	37.805	-70.893	-33.088	
		3544.98	7.9836	37.805	-71.733	-33.928	
	15	3457.50	4.9497	37.190	-71.385	-34.195	
		3500.01	9.4133	37.805	-70.567	-32.762	
		3542.49	9.9197	37.805	-70.774	-32.969	
	20	3460.02	9.1391	37.805	-71.098	-33.293	
		3500.01	4.9058	37.190	-69.857	-32.667	
		3540.00	8.2941	37.805	-70.902	-33.097	
	25	3462.51	9.6800	37.805	-70.775	-32.970	
		3500.01	8.2757	37.805	-71.041	-33.236	
		3537.48	9.7288	37.805	-69.498	-31.693	
	30	3465.00	8.8814	37.805	-70.944	-33.139	
		3500.01	6.0484	37.805	-71.241	-33.436	
		3534.99	9.6815	37.805	-70.898	-33.093	
	40	3470.01	5.1780	37.805	-71.489	-33.684	
		3500.01	8.8205	37.805	-71.414	-33.609	
		3529.98	8.2797	37.805	-71.376	-33.571	
	50	3475.02	4.9661	37.190	-70.375	-33.185	
		3500.01	4.9432	37.190	-70.754	-33.564	
		3525.00	8.5887	37.805	-71.328	-33.523	
	60	3480.00	9.9671	37.805	-70.877	-33.072	
		3500.01	4.8694	37.190	-71.151	-33.961	
		3519.99	8.2273	37.805	-71.268	-33.463	
	70	3485.01	9.1157	37.805	-70.865	-33.060	
		3500.01	8.2288	37.805	-70.563	-32.758	
		3514.98	9.9711	37.805	-70.989	-33.184	
	80	3490.02	9.9163	37.805	-70.939	-33.134	
		3500.01	9.7069	37.805	-70.319	-32.514	
		3510.00	9.1107	37.805	-70.449	-32.644	
	90	3495.00	8.2842	37.805	-70.750	-32.945	
		3500.01	9.7004	37.805	-71.018	-33.213	
		3504.99	8.2418	37.805	-69.400	-31.595	
	100	3500.01	8.3071	37.805	-70.988	-33.183	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 357 ~ 424.

2. Duty Cycle factor already applied on the factor.

- Duty Cycle Factor(dB) = 6.990

- Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power 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 213 ~ 356.
2. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 6.990

8.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 10 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3455.010	100 %	+20(Ref)	3455 009 996	0.0	0.000 000	0.000
	100 %	-30	3455 009 991	-5.1	0.000 000	-0.001
	100 %	-20	3455 009 985	-10.8	0.000 000	-0.003
	100 %	-10	3455 009 990	-5.6	0.000 000	-0.002
	100 %	0	3455 009 987	-9.3	0.000 000	-0.003
	100 %	+10	3455 009 988	-7.8	0.000 000	-0.002
	100 %	+30	3455 009 990	-5.5	0.000 000	-0.002
	100 %	+40	3455 009 991	-5.5	0.000 000	-0.002
	100 %	+50	3455 009 987	-8.5	0.000 000	-0.002
	Batt. Endpoint	+20	3455 009 985	-10.6	0.000 000	-0.003
3544.980	100 %	+20(Ref)	3544 979 990	0.0	0.000 000	0.000
	100 %	-30	3544 979 981	-9.0	0.000 000	-0.003
	100 %	-20	3544 979 980	-10.1	0.000 000	-0.003
	100 %	-10	3544 979 986	-4.1	0.000 000	-0.001
	100 %	0	3544 979 981	-8.7	0.000 000	-0.002
	100 %	+10	3544 979 984	-5.8	0.000 000	-0.002
	100 %	+30	3544 979 987	-2.4	0.000 000	-0.001
	100 %	+40	3544 979 976	-14.2	0.000 000	-0.004
	100 %	+50	3544 979 978	-12.2	0.000 000	-0.003
	Batt. Endpoint	+20	3544 979 988	-1.8	0.000 000	-0.001

▣ BandWidth: 15 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3457.500	100 %	+20(Ref)	3457 500 002	0.0	0.000 000	0.000
	100 %	-30	3457 500 001	-1.3	0.000 000	0.000
	100 %	-20	3457 499 990	-11.9	0.000 000	-0.003
	100 %	-10	3457 499 999	-2.9	0.000 000	-0.001
	100 %	0	3457 499 996	-6.1	0.000 000	-0.002
	100 %	+10	3457 500 001	-1.5	0.000 000	0.000
	100 %	+30	3457 499 999	-3.5	0.000 000	-0.001
	100 %	+40	3457 499 995	-6.9	0.000 000	-0.002
	100 %	+50	3457 499 996	-6.6	0.000 000	-0.002
	Batt. Endpoint	+20	3457 499 997	-4.9	0.000 000	-0.001
3542.490	100 %	+20(Ref)	3542 489 997	0.0	0.000 000	0.000
	100 %	-30	3542 489 987	-10.8	0.000 000	-0.003
	100 %	-20	3542 490 005	7.4	0.000 000	0.002
	100 %	-10	3542 489 990	-7.3	0.000 000	-0.002
	100 %	0	3542 489 995	-2.0	0.000 000	-0.001
	100 %	+10	3542 489 985	-12.5	0.000 000	-0.004
	100 %	+30	3542 489 987	-10.4	0.000 000	-0.003
	100 %	+40	3542 489 990	-7.1	0.000 000	-0.002
	100 %	+50	3542 489 989	-8.9	0.000 000	-0.003
	Batt. Endpoint	+20	3542 489 992	-5.9	0.000 000	-0.002

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 019 997	0.0	0.000 000	0.000
	100 %	-30	3460 019 991	-6.1	0.000 000	-0.002
	100 %	-20	3460 019 990	-7.9	0.000 000	-0.002
	100 %	-10	3460 019 998	0.7	0.000 000	0.000
	100 %	0	3460 019 994	-3.4	0.000 000	-0.001
	100 %	+10	3460 019 997	-0.4	0.000 000	0.000
	100 %	+30	3460 019 994	-2.9	0.000 000	-0.001
	100 %	+40	3460 019 991	-6.2	0.000 000	-0.002
	100 %	+50	3460 019 997	-0.4	0.000 000	0.000
	Batt. Endpoint	+20	3460 019 997	-0.5	0.000 000	0.000
3540.000	100 %	+20(Ref)	3539 999 991	0.0	0.000 000	0.000
	100 %	-30	3539 999 984	-7.2	0.000 000	-0.002
	100 %	-20	3539 999 987	-4.1	0.000 000	-0.001
	100 %	-10	3539 999 985	-5.8	0.000 000	-0.002
	100 %	0	3539 999 989	-2.4	0.000 000	-0.001
	100 %	+10	3539 999 987	-3.9	0.000 000	-0.001
	100 %	+30	3539 999 985	-6.0	0.000 000	-0.002
	100 %	+40	3539 999 986	-4.7	0.000 000	-0.001
	100 %	+50	3539 999 986	-5.3	0.000 000	-0.001
	Batt. Endpoint	+20	3539 999 993	1.8	0.000 000	0.000

▣ BandWidth: 25 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3462.510	100 %	+20(Ref)	3462 510 007	0.0	0.000 000	0.000
	100 %	-30	3462 510 009	2.0	0.000 000	0.001
	100 %	-20	3462 510 005	-2.0	0.000 000	-0.001
	100 %	-10	3462 510 010	2.8	0.000 000	0.001
	100 %	0	3462 510 008	1.3	0.000 000	0.000
	100 %	+10	3462 510 007	0.6	0.000 000	0.000
	100 %	+30	3462 510 007	0.7	0.000 000	0.000
	100 %	+40	3462 510 004	-2.8	0.000 000	-0.001
	100 %	+50	3462 510 006	-0.7	0.000 000	0.000
	Batt. Endpoint	+20	3462 510 008	1.7	0.000 000	0.001
3537.480	100 %	+20(Ref)	3537 479 999	0.0	0.000 000	0.000
	100 %	-30	3537 479 994	-5.1	0.000 000	-0.001
	100 %	-20	3537 479 996	-3.5	0.000 000	-0.001
	100 %	-10	3537 479 995	-3.9	0.000 000	-0.001
	100 %	0	3537 479 997	-1.7	0.000 000	0.000
	100 %	+10	3537 480 000	1.0	0.000 000	0.000
	100 %	+30	3537 480 001	1.9	0.000 000	0.001
	100 %	+40	3537 479 995	-4.2	0.000 000	-0.001
	100 %	+50	3537 480 000	1.4	0.000 000	0.000
	Batt. Endpoint	+20	3537 480 000	0.6	0.000 000	0.000

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3465.000	100 %	+20(Ref)	3464 999 994	0.0	0.000 000	0.000
	100 %	-30	3464 999 978	-16.5	0.000 000	-0.005
	100 %	-20	3464 999 986	-8.5	0.000 000	-0.002
	100 %	-10	3464 999 980	-14.3	0.000 000	-0.004
	100 %	0	3464 999 987	-7.5	0.000 000	-0.002
	100 %	+10	3464 999 991	-3.6	0.000 000	-0.001
	100 %	+30	3464 999 989	-4.8	0.000 000	-0.001
	100 %	+40	3464 999 994	-0.4	0.000 000	0.000
	100 %	+50	3464 999 985	-8.8	0.000 000	-0.003
	Batt. Endpoint	+20	3464 999 991	-2.8	0.000 000	-0.001
3534.990	100 %	+20(Ref)	3534 989 991	0.0	0.000 000	0.000
	100 %	-30	3534 989 982	-9.0	0.000 000	-0.003
	100 %	-20	3534 989 985	-6.1	0.000 000	-0.002
	100 %	-10	3534 989 984	-7.0	0.000 000	-0.002
	100 %	0	3534 989 981	-10.3	0.000 000	-0.003
	100 %	+10	3534 989 983	-8.0	0.000 000	-0.002
	100 %	+30	3534 989 979	-12.2	0.000 000	-0.003
	100 %	+40	3534 989 975	-16.4	0.000 000	-0.005
	100 %	+50	3534 989 978	-13.0	0.000 000	-0.004
	Batt. Endpoint	+20	3534 989 985	-6.5	0.000 000	-0.002

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 009 992	0.0	0.000 000	0.000
	100 %	-30	3470 009 986	-5.9	0.000 000	-0.002
	100 %	-20	3470 009 990	-1.9	0.000 000	-0.001
	100 %	-10	3470 009 986	-6.1	0.000 000	-0.002
	100 %	0	3470 009 992	-0.4	0.000 000	0.000
	100 %	+10	3470 009 995	2.9	0.000 000	0.001
	100 %	+30	3470 009 991	-1.0	0.000 000	0.000
	100 %	+40	3470 009 983	-9.1	0.000 000	-0.003
	100 %	+50	3470 009 983	-9.1	0.000 000	-0.003
	Batt. Endpoint	+20	3470 009 984	-8.4	0.000 000	-0.002
3529.980	100 %	+20(Ref)	3529 979 992	0.0	0.000 000	0.000
	100 %	-30	3529 979 986	-6.9	0.000 000	-0.002
	100 %	-20	3529 979 988	-4.2	0.000 000	-0.001
	100 %	-10	3529 979 991	-1.2	0.000 000	0.000
	100 %	0	3529 979 988	-4.4	0.000 000	-0.001
	100 %	+10	3529 979 983	-9.1	0.000 000	-0.003
	100 %	+30	3529 979 987	-5.4	0.000 000	-0.002
	100 %	+40	3529 979 991	-1.3	0.000 000	0.000
	100 %	+50	3529 979 985	-7.7	0.000 000	-0.002
	Batt. Endpoint	+20	3529 979 986	-6.0	0.000 000	-0.002

▣ BandWidth: 50 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 019 998	0.0	0.000 000	0.000
	100 %	-30	3475 019 994	-3.8	0.000 000	-0.001
	100 %	-20	3475 019 989	-9.1	0.000 000	-0.003
	100 %	-10	3475 019 996	-1.4	0.000 000	0.000
	100 %	0	3475 019 992	-6.0	0.000 000	-0.002
	100 %	+10	3475 019 991	-6.6	0.000 000	-0.002
	100 %	+30	3475 019 994	-3.5	0.000 000	-0.001
	100 %	+40	3475 019 995	-2.7	0.000 000	-0.001
	100 %	+50	3475 019 999	1.8	0.000 000	0.001
	Batt. Endpoint	+20	3475 019 996	-1.3	0.000 000	0.000
3525.000	100 %	+20(Ref)	3525 000 003	0.0	0.000 000	0.000
	100 %	-30	3524 999 997	-5.9	0.000 000	-0.002
	100 %	-20	3524 999 997	-5.7	0.000 000	-0.002
	100 %	-10	3525 000 000	-2.4	0.000 000	-0.001
	100 %	0	3524 999 994	-8.5	0.000 000	-0.002
	100 %	+10	3524 999 996	-6.7	0.000 000	-0.002
	100 %	+30	3524 999 997	-6.1	0.000 000	-0.002
	100 %	+40	3525 000 002	-0.6	0.000 000	0.000
	100 %	+50	3524 999 997	-5.4	0.000 000	-0.002
	Batt. Endpoint	+20	3524 999 997	-5.2	0.000 000	-0.001

▣ BandWidth: 60 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3480.000	100 %	+20(Ref)	3479 999 990	0.0	0.000 000	0.000
	100 %	-30	3479 999 991	0.8	0.000 000	0.000
	100 %	-20	3479 999 991	0.8	0.000 000	0.000
	100 %	-10	3479 999 986	-4.5	0.000 000	-0.001
	100 %	0	3479 999 987	-2.6	0.000 000	-0.001
	100 %	+10	3479 999 990	-0.3	0.000 000	0.000
	100 %	+30	3479 999 984	-5.7	0.000 000	-0.002
	100 %	+40	3479 999 986	-4.2	0.000 000	-0.001
	100 %	+50	3479 999 992	1.5	0.000 000	0.000
	Batt. Endpoint	+20	3479 999 995	4.7	0.000 000	0.001
3519.990	100 %	+20(Ref)	3519 989 994	0.0	0.000 000	0.000
	100 %	-30	3519 989 998	3.7	0.000 000	0.001
	100 %	-20	3519 989 998	3.7	0.000 000	0.001
	100 %	-10	3519 989 987	-7.4	0.000 000	-0.002
	100 %	0	3519 989 997	2.6	0.000 000	0.001
	100 %	+10	3519 989 989	-4.4	0.000 000	-0.001
	100 %	+30	3519 989 994	-0.4	0.000 000	0.000
	100 %	+40	3519 989 994	-0.3	0.000 000	0.000
	100 %	+50	3519 989 995	1.4	0.000 000	0.000
	Batt. Endpoint	+20	3519 989 996	2.6	0.000 000	0.001

▣ BandWidth: 70 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 010 003	0.0	0.000 000	0.000
	100 %	-30	3485 010 003	-0.6	0.000 000	0.000
	100 %	-20	3485 009 999	-4.3	0.000 000	-0.001
	100 %	-10	3485 010 005	1.9	0.000 000	0.001
	100 %	0	3485 010 003	-0.2	0.000 000	0.000
	100 %	+10	3485 009 991	-12.4	0.000 000	-0.004
	100 %	+30	3485 009 992	-11.6	0.000 000	-0.003
	100 %	+40	3485 010 008	4.2	0.000 000	0.001
	100 %	+50	3485 009 996	-7.8	0.000 000	-0.002
	Batt. Endpoint	+20	3485 009 999	-4.1	0.000 000	-0.001
3514.980	100 %	+20(Ref)	3514 979 996	0.0	0.000 000	0.000
	100 %	-30	3514 979 984	-11.2	0.000 000	-0.003
	100 %	-20	3514 979 990	-5.9	0.000 000	-0.002
	100 %	-10	3514 979 989	-6.2	0.000 000	-0.002
	100 %	0	3514 979 990	-5.6	0.000 000	-0.002
	100 %	+10	3514 979 994	-1.5	0.000 000	0.000
	100 %	+30	3514 979 990	-5.9	0.000 000	-0.002
	100 %	+40	3514 979 991	-4.4	0.000 000	-0.001
	100 %	+50	3514 979 990	-5.8	0.000 000	-0.002
	Batt. Endpoint	+20	3514 979 990	-5.8	0.000 000	-0.002

▣ BandWidth: 80 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 020 001	0.0	0.000 000	0.000
	100 %	-30	3490 020 000	-0.8	0.000 000	0.000
	100 %	-20	3490 019 999	-1.6	0.000 000	0.000
	100 %	-10	3490 020 004	3.8	0.000 000	0.001
	100 %	0	3490 020 000	-0.6	0.000 000	0.000
	100 %	+10	3490 019 998	-2.8	0.000 000	-0.001
	100 %	+30	3490 019 996	-4.1	0.000 000	-0.001
	100 %	+40	3490 020 006	5.0	0.000 000	0.001
	100 %	+50	3490 019 995	-5.8	0.000 000	-0.002
	Batt. Endpoint	+20	3490 019 990	-11.0	0.000 000	-0.003
3510.000	100 %	+20(Ref)	3509 999 987	0.0	0.000 000	0.000
	100 %	-30	3509 999 981	-5.6	0.000 000	-0.002
	100 %	-20	3509 999 982	-4.7	0.000 000	-0.001
	100 %	-10	3509 999 984	-3.2	0.000 000	-0.001
	100 %	0	3509 999 983	-3.7	0.000 000	-0.001
	100 %	+10	3509 999 985	-2.3	0.000 000	-0.001
	100 %	+30	3509 999 995	8.2	0.000 000	0.002
	100 %	+40	3509 999 990	3.4	0.000 000	0.001
	100 %	+50	3509 999 990	3.4	0.000 000	0.001
	Batt. Endpoint	+20	3509 999 981	-5.5	0.000 000	-0.002

▣ BandWidth: 90 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 000 001	0.0	0.000 000	0.000
	100 %	-30	3495 000 007	5.7	0.000 000	0.002
	100 %	-20	3495 000 006	4.4	0.000 000	0.001
	100 %	-10	3495 000 002	1.2	0.000 000	0.000
	100 %	0	3495 000 007	6.0	0.000 000	0.002
	100 %	+10	3495 000 004	2.6	0.000 000	0.001
	100 %	+30	3495 000 005	3.4	0.000 000	0.001
	100 %	+40	3495 000 008	6.8	0.000 000	0.002
	100 %	+50	3495 000 008	6.8	0.000 000	0.002
	Batt. Endpoint	+20	3495 000 000	-1.6	0.000 000	0.000
3504.990	100 %	+20(Ref)	3504 989 999	0.0	0.000 000	0.000
	100 %	-30	3504 989 986	-13.2	0.000 000	-0.004
	100 %	-20	3504 989 992	-7.2	0.000 000	-0.002
	100 %	-10	3504 989 992	-6.8	0.000 000	-0.002
	100 %	0	3504 989 986	-12.9	0.000 000	-0.004
	100 %	+10	3504 989 995	-3.9	0.000 000	-0.001
	100 %	+30	3504 989 989	-9.4	0.000 000	-0.003
	100 %	+40	3504 989 995	-3.5	0.000 000	-0.001
	100 %	+50	3504 989 995	-3.5	0.000 000	-0.001
	Batt. Endpoint	+20	3504 989 993	-6.4	0.000 000	-0.002

▣ BandWidth: 100 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 010 006	0.0	0.000 000	0.000
	100 %	-30	3500 010 006	0.4	0.000 000	0.000
	100 %	-20	3500 010 007	1.0	0.000 000	0.000
	100 %	-10	3500 010 002	-4.5	0.000 000	-0.001
	100 %	0	3500 010 001	-4.7	0.000 000	-0.001
	100 %	+10	3500 010 005	-1.3	0.000 000	0.000
	100 %	+30	3500 010 012	5.5	0.000 000	0.002
	100 %	+40	3500 010 012	5.5	0.000 000	0.002
	100 %	+50	3500 010 008	2.3	0.000 000	0.001
	Batt. Endpoint	+20	3500 010 010	4.1	0.000 000	0.001

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
3705.00	Sub6 n77(78)/ 10 MHz [30 kHz]	PI/2 BPSK	-22.40	16.09	11.40	3.09	H	< 1.00	0.275	24.40	1	12
		QPSK	-23.35	15.14	11.40	3.09	H		0.221	23.45		
		16-QAM	-24.39	14.10	11.40	3.09	H		0.174	22.41		
		64-QAM	-25.35	13.14	11.40	3.09	H		0.140	21.45		
		256-QAM	-27.61	10.88	11.40	3.09	H		0.083	19.19		
3840.00		PI/2 BPSK	-22.19	17.49	11.10	3.14	H		0.351	25.45	1	1
		QPSK	-22.33	17.35	11.10	3.14	H		0.340	25.31		
		16-QAM	-23.41	16.27	11.10	3.14	H		0.265	24.23		
		64-QAM	-24.84	14.84	11.10	3.14	H		0.191	22.80		
		256-QAM	-26.84	12.84	11.10	3.14	H		0.120	20.80		
3975.00		PI/2 BPSK	-22.42	17.23	10.90	3.20	H		0.311	24.93	1	1
		QPSK	-22.46	17.19	10.90	3.20	H		0.308	24.89		
		16-QAM	-23.48	16.17	10.90	3.20	H		0.244	23.87		
		64-QAM	-25.06	14.59	10.90	3.20	H		0.169	22.29		
		256-QAM	-27.25	12.40	10.90	3.20	H		0.102	20.10		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3707.51	Sub6 n77(78)/ 15 MHz [30 kHz]	PI/2 BPSK	-22.07	16.42	11.40	3.09	H	< 1.00	0.297	24.73	1	36
		QPSK	-23.05	15.44	11.40	3.09	H		0.237	23.75		
		16-QAM	-24.00	14.49	11.40	3.09	H		0.191	22.80		
		64-QAM	-25.49	13.00	11.40	3.09	H		0.135	21.31		
		256-QAM	-27.29	11.20	11.40	3.09	H		0.089	19.51		
3840.00		PI/2 BPSK	-22.24	17.44	11.10	3.14	H		0.347	25.40	1	1
		QPSK	-22.28	17.40	11.10	3.14	H		0.344	25.36		
		16-QAM	-23.37	16.31	11.10	3.14	H		0.267	24.27		
		64-QAM	-24.83	14.85	11.10	3.14	H		0.191	22.81		
		256-QAM	-26.88	12.80	11.10	3.14	H		0.119	20.76		
3972.48		PI/2 BPSK	-22.23	17.42	10.90	3.20	H		0.325	25.12	1	1
		QPSK	-22.25	17.40	10.90	3.20	H		0.324	25.10		
		16-QAM	-23.31	16.34	10.90	3.20	H		0.254	24.04		
		64-QAM	-24.86	14.79	10.90	3.20	H		0.177	22.49		
		256-QAM	-27.04	12.61	10.90	3.20	H		0.107	20.31		

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(78)/ 20 MHz [30 kHz]	PI/2 BPSK	-22.27	16.25	11.40	3.11	H	< 1.00	0.284	24.54	1	49
		QPSK	-23.27	15.25	11.40	3.11	H		0.226	23.54		
		16-QAM	-24.26	14.26	11.40	3.11	H		0.180	22.55		
		64-QAM	-25.85	12.67	11.40	3.11	H		0.125	20.96		
		256-QAM	-27.61	10.91	11.40	3.11	H		0.083	19.20		
3840.00		PI/2 BPSK	-22.27	17.41	11.10	3.14	H		0.344	25.37	1	1
		QPSK	-22.34	17.34	11.10	3.14	H		0.339	25.30		
		16-QAM	-23.29	16.39	11.10	3.14	H		0.272	24.35		
		64-QAM	-24.87	14.81	11.10	3.14	H		0.189	22.77		
		256-QAM	-26.96	12.72	11.10	3.14	H		0.117	20.68		
3969.99		PI/2 BPSK	-22.11	17.51	10.90	3.20	H		0.332	25.21	1	1
		QPSK	-22.21	17.41	10.90	3.20	H		0.324	25.11		
		16-QAM	-23.18	16.44	10.90	3.20	H		0.259	24.14		
		64-QAM	-24.72	14.90	10.90	3.20	H		0.182	22.60		
		256-QAM	-26.88	12.74	10.90	3.20	H		0.111	20.44		

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
3712.50	Sub6 n77(78)/ 25 MHz [30 kHz]	PI/2 BPSK	-22.04	16.63	11.40	3.12	H	< 1.00	0.310	24.91	1	63
		QPSK	-23.08	15.59	11.40	3.12	H		0.244	23.87		
		16-QAM	-24.05	14.62	11.40	3.12	H		0.195	22.90		
		64-QAM	-25.58	13.09	11.40	3.12	H		0.137	21.37		
		256-QAM	-27.35	11.32	11.40	3.12	H		0.091	19.60		
3840.00		PI/2 BPSK	-22.01	17.67	11.10	3.14	H		0.366	25.63	1	1
		QPSK	-22.30	17.38	11.10	3.14	H		0.342	25.34		
		16-QAM	-23.31	16.37	11.10	3.14	H		0.271	24.33		
		64-QAM	-24.71	14.97	11.10	3.14	H		0.196	22.93		
		256-QAM	-26.65	13.03	11.10	3.14	H		0.126	20.99		
3967.50		PI/2 BPSK	-21.81	17.88	10.90	3.21	H		0.361	25.57	1	1
		QPSK	-21.89	17.80	10.90	3.21	H		0.354	25.49		
		16-QAM	-22.78	16.91	10.90	3.21	H		0.288	24.60		
		64-QAM	-24.39	15.30	10.90	3.21	H		0.199	22.99		
		256-QAM	-26.62	13.07	10.90	3.21	H		0.119	20.76		

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(78)/ 30 MHz [30 kHz]	PI/2 BPSK	-22.04	16.63	11.40	3.12	H	< 1.00	0.310	24.91	1	76
		QPSK	-23.04	15.63	11.40	3.12	H		0.246	23.91		
		16-QAM	-24.06	14.61	11.40	3.12	H		0.195	22.89		
		64-QAM	-25.69	12.98	11.40	3.12	H		0.134	21.26		
		256-QAM	-27.41	11.26	11.40	3.12	H		0.090	19.54		
3840.00		PI/2 BPSK	-22.08	17.60	11.10	3.14	H		0.360	25.56	1	1
		QPSK	-22.37	17.31	11.10	3.14	H		0.337	25.27		
		16-QAM	-23.35	16.33	11.10	3.14	H		0.269	24.29		
		64-QAM	-24.89	14.79	11.10	3.14	H		0.188	22.75		
		256-QAM	-26.71	12.97	11.10	3.14	H		0.124	20.93		
3964.98		PI/2 BPSK	-21.66	18.03	10.90	3.21	H		0.373	25.72	1	1
		QPSK	-21.73	17.96	10.90	3.21	H		0.367	25.65		
		16-QAM	-22.82	16.87	10.90	3.21	H		0.286	24.56		
		64-QAM	-24.32	15.37	10.90	3.21	H		0.202	23.06		
		256-QAM	-26.32	13.37	10.90	3.21	H		0.128	21.06		

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(78)/ 40 MHz [30 kHz]	PI/2 BPSK	-22.09	16.60	11.40	3.14	H	< 1.00	0.306	24.86	1	104
		QPSK	-23.12	15.57	11.40	3.14	H		0.242	23.83		
		16-QAM	-24.20	14.49	11.40	3.14	H		0.188	22.75		
		64-QAM	-25.67	13.02	11.40	3.14	H		0.134	21.28		
		256-QAM	-27.44	11.25	11.40	3.14	H		0.089	19.51		
3840.00		PI/2 BPSK	-22.11	17.57	11.10	3.14	H		0.357	25.53	1	1
		QPSK	-22.35	17.33	11.10	3.14	H		0.338	25.29		
		16-QAM	-23.32	16.36	11.10	3.14	H		0.270	24.32		
		64-QAM	-24.73	14.95	11.10	3.14	H		0.195	22.91		
		256-QAM	-26.68	13.00	11.10	3.14	H		0.125	20.96		
3960.00		PI/2 BPSK	-21.63	18.15	10.90	3.21	H		0.384	25.84	1	1
		QPSK	-21.71	18.07	10.90	3.21	H		0.377	25.76		
		16-QAM	-22.67	17.11	10.90	3.21	H		0.302	24.80		
		64-QAM	-24.05	15.73	10.90	3.21	H		0.220	23.42		
		256-QAM	-26.41	13.37	10.90	3.21	H		0.128	21.06		

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(78)/ 50 MHz [30 kHz]	PI/2 BPSK	-21.98	16.86	11.40	3.14	H	< 1.00	0.325	25.12	1	131
		QPSK	-23.06	15.78	11.40	3.14	H		0.254	24.04		
		16-QAM	-24.05	14.79	11.40	3.14	H		0.202	23.05		
		64-QAM	-25.74	13.10	11.40	3.14	H		0.137	21.36		
		256-QAM	-27.53	11.31	11.40	3.14	H		0.091	19.57		
3840.00		PI/2 BPSK	-21.87	17.81	11.10	3.14	H		0.378	25.77	1	1
		QPSK	-22.12	17.56	11.10	3.14	H		0.357	25.52		
		16-QAM	-23.17	16.51	11.10	3.14	H		0.280	24.47		
		64-QAM	-24.63	15.05	11.10	3.14	H		0.200	23.01		
		256-QAM	-26.57	6.12	11.10	3.14	H		0.128	21.07		
3954.99		PI/2 BPSK	-21.54	18.25	10.90	3.21	H		0.393	25.94	1	1
		QPSK	-21.58	18.21	10.90	3.21	H		0.389	25.90		
		16-QAM	-22.51	17.28	10.90	3.21	H		0.314	24.97		
		64-QAM	-23.90	15.89	10.90	3.21	H		0.228	23.58		
		256-QAM	-26.20	13.59	10.90	3.21	H		0.134	21.28		

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(78)/ 60 MHz [30 kHz]	PI/2 BPSK	-21.78	17.08	11.40	3.14	H	< 1.00	0.342	25.34	1	160
		QPSK	-22.86	16.00	11.40	3.14	H		0.267	24.26		
		16-QAM	-23.92	14.94	11.40	3.14	H		0.209	23.20		
		64-QAM	-25.39	13.47	11.40	3.14	H		0.149	21.73		
		256-QAM	-27.30	11.56	11.40	3.14	H		0.096	19.82		
3840.00		PI/2 BPSK	-21.91	17.77	11.10	3.14	H		0.374	25.73	1	1
		QPSK	-22.08	17.60	11.10	3.14	H		0.360	25.56		
		16-QAM	-23.05	16.63	11.10	3.14	H		0.288	24.59		
		64-QAM	-24.46	15.22	11.10	3.14	H		0.208	23.18		
		256-QAM	-26.51	13.17	11.10	3.14	H		0.130	21.13		
3949.98		PI/2 BPSK	-21.69	18.09	10.90	3.20	H		0.379	25.79	1	1
		QPSK	-21.72	18.06	10.90	3.20	H		0.377	25.76		
		16-QAM	-22.74	17.04	10.90	3.20	H		0.298	24.74		
		64-QAM	-24.21	15.57	10.90	3.20	H		0.212	23.27		
		256-QAM	-26.31	13.47	10.90	3.20	H		0.131	21.17		

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(78)/ 70 MHz [30 kHz]	PI/2 BPSK	-21.74	17.12	11.40	3.12	H	< 1.00	0.347	25.40	1	187
		QPSK	-22.83	16.03	11.40	3.12	H		0.270	24.31		
		16-QAM	-23.89	14.97	11.40	3.12	H		0.211	23.25		
		64-QAM	-25.58	13.28	11.40	3.12	H		0.143	21.56		
		256-QAM	-27.31	11.55	11.40	3.12	H		0.096	19.83		
3840.00		PI/2 BPSK	-21.81	17.87	11.10	3.14	H		0.383	25.83	1	1
		QPSK	-22.15	17.53	11.10	3.14	H		0.354	25.49		
		16-QAM	-23.16	16.52	11.10	3.14	H		0.281	24.48		
		64-QAM	-24.58	15.10	11.10	3.14	H		0.202	23.06		
		256-QAM	-26.39	13.29	11.10	3.14	H		0.133	21.25		
3945.00		PI/2 BPSK	-21.76	18.08	10.85	3.18	H		0.376	25.75	1	1
		QPSK	-21.79	18.05	10.85	3.18	H		0.373	25.72		
		16-QAM	-22.68	17.16	10.85	3.18	H		0.304	24.83		
		64-QAM	-24.15	15.69	10.85	3.18	H		0.217	23.36		
		256-QAM	-26.21	13.63	10.85	3.18	H		0.135	21.30		

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(78)/ 80 MHz [30 kHz]	PI/2 BPSK	-21.48	17.38	11.40	3.10	H	< 1.00	0.370	25.68	1	215
		QPSK	-22.58	16.28	11.40	3.10	H		0.287	24.58		
		16-QAM	-23.57	15.29	11.40	3.10	H		0.229	23.59		
		64-QAM	-25.29	13.57	11.40	3.10	H		0.154	21.87		
		256-QAM	-27.11	11.75	11.40	3.10	H		0.101	20.05		
3840.00		PI/2 BPSK	-21.53	18.15	11.10	3.14	H		0.408	26.11	1	1
		QPSK	-22.01	17.67	11.10	3.14	H		0.366	25.63		
		16-QAM	-22.95	16.73	11.10	3.14	H		0.294	24.69		
		64-QAM	-24.58	15.10	11.10	3.14	H		0.202	23.06		
		256-QAM	-26.31	13.37	11.10	3.14	H		0.136	21.33		
3939.99		PI/2 BPSK	-21.54	17.69	11.40	3.10	H		0.397	25.99	1	1
		QPSK	-21.58	17.65	11.40	3.10	H		0.394	25.95		
		16-QAM	-22.72	16.51	11.40	3.10	H		0.303	24.81		
		64-QAM	-24.01	15.22	11.40	3.10	H		0.225	23.52		
		256-QAM	-26.15	13.08	11.40	3.10	H		0.137	21.38		

Freq (MHz)	Mod/ Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain(dBi)	C.L	Pol	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3745.02	Sub6 n77(78)/ 90 MHz [30 kHz]	PI/2 BPSK	-21.59	17.15	11.35	3.09	H	< 1.00	0.348	25.41	1	243
		QPSK	-22.69	16.05	11.35	3.09	H		0.270	24.31		
		16-QAM	-23.71	15.03	11.35	3.09	H		0.213	23.29		
		64-QAM	-25.36	13.38	11.35	3.09	H		0.146	21.64		
		256-QAM	-27.16	11.58	11.35	3.09	H		0.096	19.84		
3840.00		PI/2 BPSK	-21.46	18.22	11.10	3.14	H		0.415	26.18	1	1
		QPSK	-22.01	17.67	11.10	3.14	H		0.366	25.63		
		16-QAM	-23.04	16.64	11.10	3.14	H		0.288	24.60		
		64-QAM	-24.59	15.09	11.10	3.14	H		0.202	23.05		
		256-QAM	-26.27	13.41	11.10	3.14	H		0.137	21.37		
3934.98		PI/2 BPSK	-21.61	18.31	10.80	3.16	H		0.394	25.95	1	1
		QPSK	-21.63	18.29	10.80	3.16	H		0.392	25.93		
		16-QAM	-22.69	17.23	10.80	3.16	H		0.307	24.87		
		64-QAM	-24.06	15.86	10.80	3.16	H		0.224	23.50		
		256-QAM	-26.26	13.66	10.80	3.16	H		0.135	21.30		

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(78)/ 100 MHz [30 kHz]	PI/2 BPSK	-21.60	17.03	11.30	3.08	H	< 1.00	0.335	25.25	1	271
		QPSK	-22.66	15.97	11.30	3.08	H		0.262	24.19		
		16-QAM	-23.61	15.02	11.30	3.08	H		0.211	23.24		
		64-QAM	-25.38	13.25	11.30	3.08	H		0.140	21.47		
		256-QAM	-27.19	11.44	11.30	3.08	H		0.092	19.66		
3840.00		PI/2 BPSK	-21.42	18.26	11.10	3.14	H		0.419	26.22	1	1
		QPSK	-21.81	17.87	11.10	3.14	H		0.383	25.83		
		16-QAM	-22.81	16.87	11.10	3.14	H		0.304	24.83		
		64-QAM	-24.28	15.40	11.10	3.14	H		0.217	23.36		
		256-QAM	-25.98	13.70	11.10	3.14	H		0.147	21.66		
3930.00		PI/2 BPSK	-21.71	18.24	10.80	3.16	H		0.387	25.88	1	1
		QPSK	-21.73	18.22	10.80	3.16	H		0.385	25.86		
		16-QAM	-22.67	17.28	10.80	3.16	H		0.310	24.92		
		64-QAM	-24.13	15.82	10.80	3.16	H		0.222	23.46		
		256-QAM	-26.26	13.69	10.80	3.16	H		0.136	21.33		

9.2 RADIATED SPURIOUS EMISSIONS

▣ NR Band: N77(78)

▣ Bandwidth: 100 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 1 meter

▣ 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
650000 (3750.00)	7 500.00	-57.77	11.10	-50.66	4.50	H	-44.06	-13.00	1	271
	11 250.00	-62.07	11.40	-51.53	5.64	H	-45.77	-13.00		
	15 000.00	-55.70	13.80	-49.21	6.65	V	-42.06	-13.00		
656000 (3840.00)	7 680.00	-58.97	11.10	-52.11	4.55	V	-45.56	-13.00	1	1
	11 520.00	-62.14	11.50	-51.00	5.70	H	-45.20	-13.00		
	15 360.00	-59.23	15.10	-53.44	6.72	H	-45.06	-13.00		
662000 (3930.00)	7 860.00	-63.62	10.60	-56.26	4.61	V	-50.27	-13.00	1	1
	11 790.00	-63.22	12.20	-53.26	5.78	V	-46.84	-13.00		
	15 720.00	-62.16	15.10	-56.60	6.82	V	-48.32	-13.00		

9.3 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77(78)	10 MHz	3840.00	BPSK	Full RB	0	3.90
			QPSK			4.47
			16-QAM			5.41
			64-QAM			5.82
			256-QAM			6.54
	15 MHz		BPSK			3.70
			QPSK			4.35
			16-QAM			5.32
			64-QAM			5.85
			256-QAM			6.66
	20 MHz		BPSK			3.73
			QPSK			4.37
			16-QAM			5.35
			64-QAM			5.82
			256-QAM			6.67
	25 MHz		BPSK			3.88
			QPSK			4.56
			16-QAM			5.71
			64-QAM			6.02
			256-QAM			6.55
	30 MHz		BPSK			3.91
			QPSK			4.52
			16-QAM			5.45
			64-QAM			5.99
			256-QAM			6.69
	40 MHz		BPSK			3.97
			QPSK			4.49
			16-QAM			5.50
			64-QAM			5.93
			256-QAM			6.58

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
	50 MHz		BPSK			4.00
			QPSK			4.58
			16-QAM			5.56
			64-QAM			5.98
			256-QAM			6.67
	60 MHz		BPSK			4.13
			QPSK			4.65
			16-QAM			5.60
			64-QAM			6.07
			256-QAM			6.64
	70 MHz		BPSK			4.09
			QPSK			4.63
			16-QAM			5.65
			64-QAM			6.05
			256-QAM			6.65
	80 MHz		BPSK			4.12
			QPSK			4.73
			16-QAM			5.67
			64-QAM			6.18
			256-QAM			6.64
	90 MHz		BPSK			4.01
			QPSK			4.62
			16-QAM			5.57
			64-QAM			6.03
			256-QAM			6.62
	100 MHz		BPSK			4.42
			QPSK			4.93
			16-QAM			5.88
			64-QAM			6.36
			256-QAM			6.65

Note:

1. Plots of the EUT's Peak- to- Average Ratio are shown Page 486 ~ 545.

9.4 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77(78)	10 MHz	3840.00	BPSK	Full RB	0	8.7090
			QPSK			8.6253
			16-QAM			8.6409
			64-QAM			8.6844
			256-QAM			8.6186
	15 MHz		BPSK			12.976
			QPSK			12.982
			16-QAM			12.954
			64-QAM			12.943
			256-QAM			12.958
	20 MHz		BPSK			17.949
			QPSK			17.937
			16-QAM			17.937
			64-QAM			17.961
			256-QAM			17.977
	25 MHz		BPSK			22.974
			QPSK			23.045
			16-QAM			22.985
			64-QAM			22.954
			256-QAM			22.926
	30 MHz		BPSK			26.877
			QPSK			26.939
			16-QAM			26.892
			64-QAM			26.987
			256-QAM			26.939
	40 MHz		BPSK			35.843
			QPSK			35.886
			16-QAM			35.830
			64-QAM			35.814
			256-QAM			35.890

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
	50 MHz		BPSK			45.880
			QPSK			45.844
			16-QAM			45.840
			64-QAM			45.924
			256-QAM			45.953
	60 MHz		BPSK			58.002
			QPSK			58.041
			16-QAM			57.992
			64-QAM			57.943
			256-QAM			58.073
	70 MHz		BPSK			64.610
			QPSK			64.638
			16-QAM			64.535
			64-QAM			64.477
			256-QAM			64.676
	80 MHz		BPSK			77.265
			QPSK			77.365
			16-QAM			77.421
			64-QAM			77.289
			256-QAM			77.264
	90 MHz		BPSK			87.103
			QPSK			87.265
			16-QAM			86.858
			64-QAM			87.102
			256-QAM			87.001
	100 MHz		BPSK			96.510
			QPSK			96.601
			16-QAM			96.817
			64-QAM			96.462
			256-QAM			96.903

Note:

1. Plots of the EUT's Occupied Bandwidth are shown Page 426 ~ 485.

9.5 CONDUCTED SPURIOUS EMISSIONS

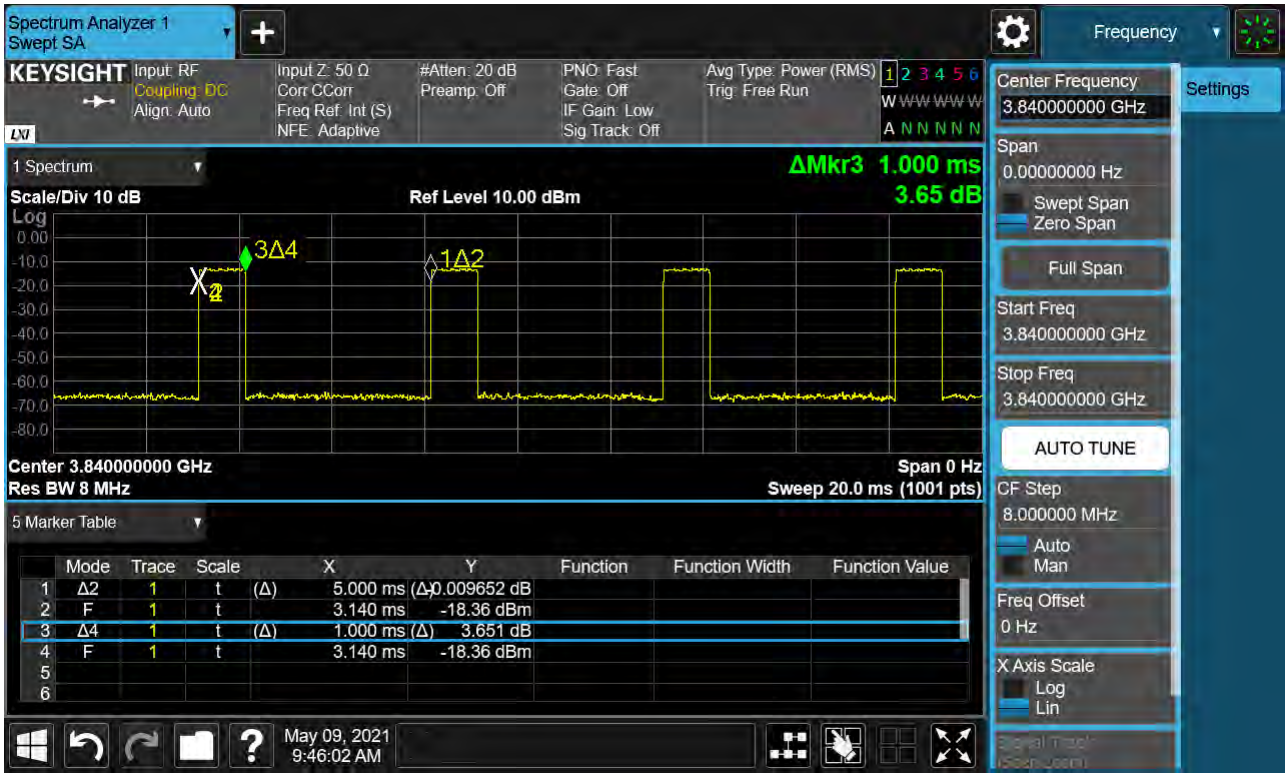
Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77(78)	10	3705.00	9.1815	37.805	-70.569	-32.764	-13.00
		3840.00	6.0289	37.805	-70.993	-33.188	
		3975.00	8.0304	37.805	-70.988	-33.183	
	15	3707.52	7.9871	37.805	-70.618	-32.813	
		3840.00	8.8589	37.805	-70.234	-32.429	
		3972.48	4.9103	37.190	-71.035	-33.845	
	20	3710.01	5.2204	37.805	-71.143	-33.338	
		3840.00	4.9362	37.190	-71.090	-33.900	
		3969.99	4.6606	37.190	-70.519	-33.329	
	25	3712.50	5.4562	37.805	-70.555	-32.750	
		3840.00	9.6844	37.805	-71.219	-33.414	
		3967.50	8.6371	37.805	-70.938	-33.133	
	30	3715.02	7.9826	37.805	-71.172	-33.367	
		3840.00	7.7308	37.805	-71.024	-33.219	
		3964.98	9.7188	37.805	-70.474	-32.669	
	40	3720.00	8.8355	37.805	-70.073	-32.268	
		3840.00	5.1960	37.805	-69.504	-31.699	
		3960.00	6.0175	37.805	-69.609	-31.804	
	50	3725.10	8.2612	37.805	-69.872	-32.067	
		3840.00	6.0444	37.805	-71.200	-33.395	
		3954.99	8.8844	37.805	-70.485	-32.680	
	60	3730.02	8.2762	37.805	-70.801	-32.996	
		3840.00	4.9771	37.190	-70.589	-33.399	
		3949.98	8.2622	37.805	-71.479	-33.674	
	70	3735.00	5.4781	37.805	-70.727	-32.922	
		3840.00	8.0005	37.805	-70.496	-32.691	
		3945.00	9.1421	37.805	-71.205	-33.400	
	80	3740.01	8.2667	37.805	-70.791	-32.986	
		3840.00	4.9293	37.190	-70.790	-33.600	
		3939.99	9.6994	37.805	-71.107	-33.302	
	90	3745.02	7.7383	37.805	-70.255	-32.450	
		3840.00	8.2882	37.805	-71.000	-33.195	
		3934.98	8.2493	37.805	-70.026	-32.221	
	100	3750.00	4.9198	37.190	-70.710	-33.520	
		3840.00	5.2004	37.805	-71.209	-33.404	
		3930.00	8.2418	37.805	-70.406	-32.601	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 690 ~ 761.

2. Duty Cycle factor already applied on the factor.

- Duty Cycle Factor(dB) = 6.990



- Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power 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 546 ~ 689.
2. Duty Cycle factor already applied on the factor.
   - Factor(dB) = Duty Cycle factor + Cable Loss + Ext. Attenuator + Power Splitter
   - Result(dBm) = Reading + Factor
   - Duty Cycle Factor(dB) = 6.990

9.7 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 10 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3705.000	100 %	+20(Ref)	3704 999 998	0.0	0.000 000	0.000
	100 %	-30	3704 999 991	-7.1	0.000 000	-0.002
	100 %	-20	3704 999 997	-1.3	0.000 000	0.000
	100 %	-10	3704 999 988	-9.9	0.000 000	-0.003
	100 %	0	3704 999 989	-9.2	0.000 000	-0.002
	100 %	+10	3704 999 993	-5.1	0.000 000	-0.001
	100 %	+30	3705 000 003	4.3	0.000 000	0.001
	100 %	+40	3704 999 990	-8.2	0.000 000	-0.002
	100 %	+50	3704 999 994	-4.3	0.000 000	-0.001
	Batt. Endpoint	+20	3704 999 993	-4.9	0.000 000	-0.001
3975.000	100 %	+20(Ref)	3974 999 986	0.0	0.000 000	0.000
	100 %	-30	3974 999 975	-11.3	0.000 000	-0.003
	100 %	-20	3974 999 982	-4.0	0.000 000	-0.001
	100 %	-10	3974 999 970	-15.6	0.000 000	-0.004
	100 %	0	3974 999 974	-12.2	0.000 000	-0.003
	100 %	+10	3974 999 986	0.2	0.000 000	0.000
	100 %	+30	3974 999 975	-11.1	0.000 000	-0.003
	100 %	+40	3974 999 978	-8.1	0.000 000	-0.002
	100 %	+50	3974 999 973	-12.7	0.000 000	-0.003
	Batt. Endpoint	+20	3974 999 980	-5.7	0.000 000	-0.001

▣ BandWidth: 15 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3707.520	100 %	+20(Ref)	3707 519 992	0.0	0.000 000	0.000
	100 %	-30	3707 519 980	-11.9	0.000 000	-0.003
	100 %	-20	3707 519 981	-11.1	0.000 000	-0.003
	100 %	-10	3707 519 988	-4.4	0.000 000	-0.001
	100 %	0	3707 519 986	-6.1	0.000 000	-0.002
	100 %	+10	3707 519 983	-9.0	0.000 000	-0.002
	100 %	+30	3707 519 988	-4.2	0.000 000	-0.001
	100 %	+40	3707 519 986	-6.3	0.000 000	-0.002
	100 %	+50	3707 519 999	6.8	0.000 000	0.002
	Batt. Endpoint	+20	3707 519 984	-7.8	0.000 000	-0.002
3972.480	100 %	+20(Ref)	3972 479 996	0.0	0.000 000	0.000
	100 %	-30	3972 479 984	-12.3	0.000 000	-0.003
	100 %	-20	3972 479 982	-13.7	0.000 000	-0.003
	100 %	-10	3972 479 987	-8.6	0.000 000	-0.002
	100 %	0	3972 479 983	-12.9	0.000 000	-0.003
	100 %	+10	3972 479 996	0.1	0.000 000	0.000
	100 %	+30	3972 479 985	-10.7	0.000 000	-0.003
	100 %	+40	3972 479 983	-12.7	0.000 000	-0.003
	100 %	+50	3972 479 988	-7.9	0.000 000	-0.002
	Batt. Endpoint	+20	3972 479 991	-5.1	0.000 000	-0.001

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3710.010	100 %	+20(Ref)	3710 009 990	0.0	0.000 000	0.000
	100 %	-30	3710 009 982	-8.0	0.000 000	-0.002
	100 %	-20	3710 009 989	-1.0	0.000 000	0.000
	100 %	-10	3710 009 985	-5.2	0.000 000	-0.001
	100 %	0	3710 009 990	-0.4	0.000 000	0.000
	100 %	+10	3710 009 984	-5.7	0.000 000	-0.002
	100 %	+30	3710 009 983	-7.1	0.000 000	-0.002
	100 %	+40	3710 009 982	-8.0	0.000 000	-0.002
	100 %	+50	3710 009 987	-2.9	0.000 000	-0.001
	Batt. Endpoint	+20	3710 009 985	-5.2	0.000 000	-0.001
3969.990	100 %	+20(Ref)	3969 989 997	0.0	0.000 000	0.000
	100 %	-30	3969 989 989	-7.6	0.000 000	-0.002
	100 %	-20	3969 989 990	-7.1	0.000 000	-0.002
	100 %	-10	3969 989 994	-3.2	0.000 000	-0.001
	100 %	0	3969 989 986	-10.6	0.000 000	-0.003
	100 %	+10	3969 989 994	-2.9	0.000 000	-0.001
	100 %	+30	3969 989 989	-7.9	0.000 000	-0.002
	100 %	+40	3969 989 982	-15.1	0.000 000	-0.004
	100 %	+50	3969 989 995	-2.1	0.000 000	-0.001
	Batt. Endpoint	+20	3969 989 996	-1.4	0.000 000	0.000

▣ BandWidth: 25 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy (MHz)	Voltage (%)	Temp. (℃)	Frequency (Hz)	Frequency Error (Hz)	Deviation (%)	ppm
3712.500	100 %	+20(Ref)	3712 499 995	0.0	0.000 000	0.000
	100 %	-30	3712 499 997	1.6	0.000 000	0.000
	100 %	-20	3712 499 992	-3.3	0.000 000	-0.001
	100 %	-10	3712 499 998	2.4	0.000 000	0.001
	100 %	0	3712 499 995	0.0	0.000 000	0.000
	100 %	+10	3712 499 995	-0.8	0.000 000	0.000
	100 %	+30	3712 499 996	0.5	0.000 000	0.000
	100 %	+40	3712 499 993	-2.1	0.000 000	-0.001
	100 %	+50	3712 499 997	1.8	0.000 000	0.000
	Batt. Endpoint	+20	3712 499 997	1.5	0.000 000	0.000
3967.500	100 %	+20(Ref)	3967 500 001	0.0	0.000 000	0.000
	100 %	-30	3967 500 000	-0.9	0.000 000	0.000
	100 %	-20	3967 499 998	-2.7	0.000 000	-0.001
	100 %	-10	3967 500 002	0.5	0.000 000	0.000
	100 %	0	3967 500 000	-1.5	0.000 000	0.000
	100 %	+10	3967 500 004	3.1	0.000 000	0.001
	100 %	+30	3967 500 001	-0.5	0.000 000	0.000
	100 %	+40	3967 500 004	3.3	0.000 000	0.001
	100 %	+50	3967 500 000	-0.8	0.000 000	0.000
	Batt. Endpoint	+20	3967 500 003	1.7	0.000 000	0.000

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 019 997	0.0	0.000 000	0.000
	100 %	-30	3715 019 987	-10.7	0.000 000	-0.003
	100 %	-20	3715 019 993	-3.9	0.000 000	-0.001
	100 %	-10	3715 019 987	-10.1	0.000 000	-0.003
	100 %	0	3715 019 997	-0.1	0.000 000	0.000
	100 %	+10	3715 019 996	-1.5	0.000 000	0.000
	100 %	+30	3715 019 985	-11.9	0.000 000	-0.003
	100 %	+40	3715 019 994	-3.4	0.000 000	-0.001
	100 %	+50	3715 019 986	-11.5	0.000 000	-0.003
	Batt. Endpoint	+20	3715 019 987	-10.0	0.000 000	-0.003
3964.980	100 %	+20(Ref)	3964 979 986	0.0	0.000 000	0.000
	100 %	-30	3964 979 974	-11.4	0.000 000	-0.003
	100 %	-20	3964 979 978	-7.6	0.000 000	-0.002
	100 %	-10	3964 979 977	-8.5	0.000 000	-0.002
	100 %	0	3964 979 980	-5.6	0.000 000	-0.001
	100 %	+10	3964 979 973	-12.3	0.000 000	-0.003
	100 %	+30	3964 979 981	-4.6	0.000 000	-0.001
	100 %	+40	3964 979 975	-11.1	0.000 000	-0.003
	100 %	+50	3964 979 982	-3.8	0.000 000	-0.001
	Batt. Endpoint	+20	3964 979 979	-6.6	0.000 000	-0.002

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 000 001	0.0	0.000 000	0.000
	100 %	-30	3719 999 999	-1.5	0.000 000	0.000
	100 %	-20	3720 000 001	0.0	0.000 000	0.000
	100 %	-10	3719 999 998	-2.3	0.000 000	-0.001
	100 %	0	3720 000 002	1.1	0.000 000	0.000
	100 %	+10	3719 999 997	-3.4	0.000 000	-0.001
	100 %	+30	3719 999 996	-4.7	0.000 000	-0.001
	100 %	+40	3720 000 005	3.9	0.000 000	0.001
	100 %	+50	3720 000 003	2.0	0.000 000	0.001
	Batt. Endpoint	+20	3719 999 998	-2.9	0.000 000	-0.001
3960.000	100 %	+20(Ref)	3959 999 991	0.0	0.000 000	0.000
	100 %	-30	3959 999 991	0.1	0.000 000	0.000
	100 %	-20	3959 999 980	-11.3	0.000 000	-0.003
	100 %	-10	3959 999 988	-3.6	0.000 000	-0.001
	100 %	0	3959 999 989	-2.5	0.000 000	-0.001
	100 %	+10	3959 999 983	-8.2	0.000 000	-0.002
	100 %	+30	3959 999 991	-0.3	0.000 000	0.000
	100 %	+40	3959 999 985	-5.9	0.000 000	-0.002
	100 %	+50	3959 999 984	-7.6	0.000 000	-0.002
	Batt. Endpoint	+20	3959 999 978	-13.0	0.000 000	-0.003

▣ BandWidth: 50 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 009 997	0.0	0.000 000	0.000
	100 %	-30	3725 009 981	-15.5	0.000 000	-0.004
	100 %	-20	3725 009 991	-5.3	0.000 000	-0.001
	100 %	-10	3725 009 996	-0.2	0.000 000	0.000
	100 %	0	3725 009 997	0.6	0.000 000	0.000
	100 %	+10	3725 009 991	-5.2	0.000 000	-0.001
	100 %	+30	3725 009 988	-8.5	0.000 000	-0.002
	100 %	+40	3725 009 988	-8.1	0.000 000	-0.002
	100 %	+50	3725 009 996	-1.0	0.000 000	0.000
	Batt. Endpoint	+20	3725 009 993	-3.1	0.000 000	-0.001
3954.990	100 %	+20(Ref)	3954 989 992	0.0	0.000 000	0.000
	100 %	-30	3954 989 985	-7.1	0.000 000	-0.002
	100 %	-20	3954 989 977	-14.9	0.000 000	-0.004
	100 %	-10	3954 989 978	-14.2	0.000 000	-0.004
	100 %	0	3954 989 985	-6.8	0.000 000	-0.002
	100 %	+10	3954 989 979	-13.2	0.000 000	-0.003
	100 %	+30	3954 989 980	-12.6	0.000 000	-0.003
	100 %	+40	3954 989 978	-14.3	0.000 000	-0.004
	100 %	+50	3954 989 982	-10.2	0.000 000	-0.003
	Batt. Endpoint	+20	3954 989 987	-5.3	0.000 000	-0.001

▣ BandWidth: 60 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 019 987	0.0	0.000 000	0.000
	100 %	-30	3730 019 989	2.1	0.000 000	0.001
	100 %	-20	3730 019 987	0.2	0.000 000	0.000
	100 %	-10	3730 019 984	-3.2	0.000 000	-0.001
	100 %	0	3730 019 980	-6.7	0.000 000	-0.002
	100 %	+10	3730 019 982	-4.7	0.000 000	-0.001
	100 %	+30	3730 019 987	-0.1	0.000 000	0.000
	100 %	+40	3730 019 980	-7.0	0.000 000	-0.002
	100 %	+50	3730 019 981	-5.6	0.000 000	-0.001
	Batt. Endpoint	+20	3730 019 986	-1.1	0.000 000	0.000
3949.980	100 %	+20(Ref)	3949 979 980	0.0	0.000 000	0.000
	100 %	-30	3949 979 972	-8.0	0.000 000	-0.002
	100 %	-20	3949 979 978	-1.8	0.000 000	0.000
	100 %	-10	3949 979 981	0.7	0.000 000	0.000
	100 %	0	3949 979 975	-5.3	0.000 000	-0.001
	100 %	+10	3949 979 975	-5.5	0.000 000	-0.001
	100 %	+30	3949 979 974	-6.3	0.000 000	-0.002
	100 %	+40	3949 979 969	-11.7	0.000 000	-0.003
	100 %	+50	3949 979 973	-6.8	0.000 000	-0.002
	Batt. Endpoint	+20	3949 979 977	-3.3	0.000 000	-0.001

▣ BandWidth: 70 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 000 000	0.0	0.000 000	0.000
	100 %	-30	3734 999 990	-9.7	0.000 000	-0.003
	100 %	-20	3734 999 992	-7.9	0.000 000	-0.002
	100 %	-10	3734 999 992	-7.4	0.000 000	-0.002
	100 %	0	3735 000 000	0.7	0.000 000	0.000
	100 %	+10	3735 000 000	0.7	0.000 000	0.000
	100 %	+30	3734 999 994	-5.5	0.000 000	-0.001
	100 %	+40	3734 999 996	-3.6	0.000 000	-0.001
	100 %	+50	3735 000 000	0.5	0.000 000	0.000
	Batt. Endpoint	+20	3735 000 003	3.6	0.000 000	0.001
3945.000	100 %	+20(Ref)	3944 999 998	0.0	0.000 000	0.000
	100 %	-30	3944 999 994	-4.5	0.000 000	-0.001
	100 %	-20	3944 999 988	-10.5	0.000 000	-0.003
	100 %	-10	3944 999 988	-10.5	0.000 000	-0.003
	100 %	0	3944 999 995	-3.5	0.000 000	-0.001
	100 %	+10	3944 999 996	-2.2	0.000 000	-0.001
	100 %	+30	3944 999 997	-0.6	0.000 000	0.000
	100 %	+40	3944 999 995	-2.7	0.000 000	-0.001
	100 %	+50	3944 999 998	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	3944 999 996	-2.1	0.000 000	-0.001

▣ BandWidth: 80 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 009 994	0.0	0.000 000	0.000
	100 %	-30	3740 009 993	-1.0	0.000 000	0.000
	100 %	-20	3740 009 984	-9.3	0.000 000	-0.002
	100 %	-10	3740 009 993	-0.5	0.000 000	0.000
	100 %	0	3740 009 993	-0.2	0.000 000	0.000
	100 %	+10	3740 009 992	-1.1	0.000 000	0.000
	100 %	+30	3740 009 987	-6.8	0.000 000	-0.002
	100 %	+40	3740 009 986	-7.9	0.000 000	-0.002
	100 %	+50	3740 009 992	-1.5	0.000 000	0.000
	Batt. Endpoint	+20	3740 009 992	-1.5	0.000 000	0.000
3939.990	100 %	+20(Ref)	3939 989 976	0.0	0.000 000	0.000
	100 %	-30	3939 989 966	-9.7	0.000 000	-0.002
	100 %	-20	3939 989 966	-9.7	0.000 000	-0.002
	100 %	-10	3939 989 963	-12.6	0.000 000	-0.003
	100 %	0	3939 989 967	-8.6	0.000 000	-0.002
	100 %	+10	3939 989 967	-9.2	0.000 000	-0.002
	100 %	+30	3939 989 967	-8.9	0.000 000	-0.002
	100 %	+40	3939 989 973	-2.9	0.000 000	-0.001
	100 %	+50	3939 989 966	-10.0	0.000 000	-0.003
	Batt. Endpoint	+20	3939 989 974	-1.9	0.000 000	0.000

▣ BandWidth: 90 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 019 994	0.0	0.000 000	0.000
	100 %	-30	3745 019 991	-3.3	0.000 000	-0.001
	100 %	-20	3745 019 990	-3.5	0.000 000	-0.001
	100 %	-10	3745 019 992	-1.5	0.000 000	0.000
	100 %	0	3745 019 986	-7.7	0.000 000	-0.002
	100 %	+10	3745 019 986	-7.7	0.000 000	-0.002
	100 %	+30	3745 019 991	-2.9	0.000 000	-0.001
	100 %	+40	3745 019 993	-1.3	0.000 000	0.000
	100 %	+50	3745 019 994	-0.5	0.000 000	0.000
	Batt. Endpoint	+20	3745 019 990	-4.1	0.000 000	-0.001
3934.980	100 %	+20(Ref)	3934 979 995	0.0	0.000 000	0.000
	100 %	-30	3934 979 991	-4.3	0.000 000	-0.001
	100 %	-20	3934 979 995	-1.0	0.000 000	0.000
	100 %	-10	3934 979 987	-8.4	0.000 000	-0.002
	100 %	0	3934 979 994	-1.6	0.000 000	0.000
	100 %	+10	3934 979 994	-1.6	0.000 000	0.000
	100 %	+30	3934 979 992	-3.3	0.000 000	-0.001
	100 %	+40	3934 979 990	-5.4	0.000 000	-0.001
	100 %	+50	3934 979 989	-6.9	0.000 000	-0.002
	Batt. Endpoint	+20	3934 979 995	-0.5	0.000 000	0.000

▣ BandWidth: 100 MHz

▣ Voltage(100 %): 3.880 VDC

▣ Batt. Endpoint: 3.300 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 000 000	0.0	0.000 000	0.000
	100 %	-30	3749 999 992	-7.4	0.000 000	-0.002
	100 %	-20	3749 999 997	-2.9	0.000 000	-0.001
	100 %	-10	3749 999 997	-3.2	0.000 000	-0.001
	100 %	0	3750 000 000	-0.1	0.000 000	0.000
	100 %	+10	3750 000 002	1.7	0.000 000	0.000
	100 %	+30	3750 000 002	1.7	0.000 000	0.000
	100 %	+40	3749 999 991	-8.4	0.000 000	-0.002
	100 %	+50	3750 000 006	6.3	0.000 000	0.002
	Batt. Endpoint	+20	3750 000 002	2.3	0.000 000	0.001
3930.000	100 %	+20(Ref)	3929 999 991	0.0	0.000 000	0.000
	100 %	-30	3929 999 983	-8.1	0.000 000	-0.002
	100 %	-20	3929 999 977	-13.8	0.000 000	-0.004
	100 %	-10	3929 999 979	-12.0	0.000 000	-0.003
	100 %	0	3929 999 983	-8.0	0.000 000	-0.002
	100 %	+10	3929 999 985	-5.7	0.000 000	-0.001
	100 %	+30	3929 999 992	1.3	0.000 000	0.000
	100 %	+40	3929 999 981	-9.7	0.000 000	-0.002
	100 %	+50	3929 999 981	-9.7	0.000 000	-0.002
	Batt. Endpoint	+20	3929 999 985	-5.9	0.000 000	-0.002

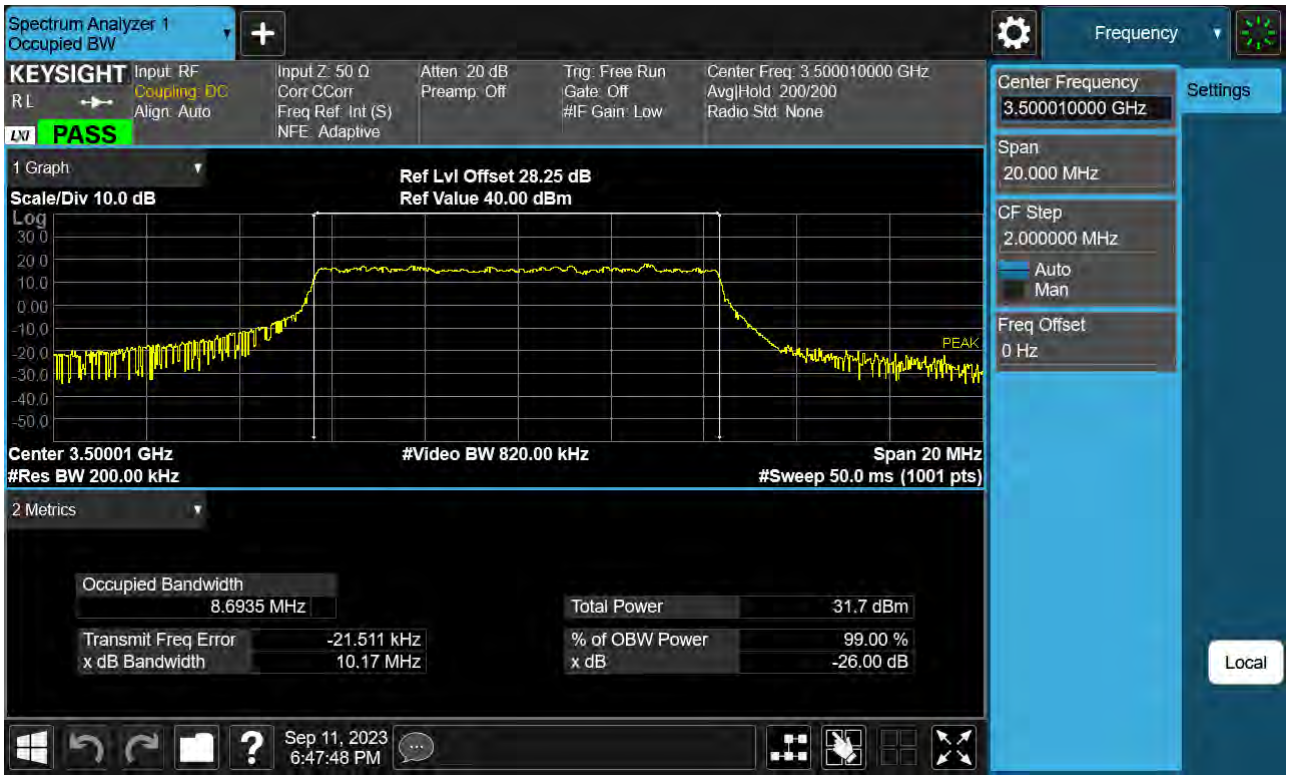
10. TEST PLOTS(3450 MHz - 3550 MHz)

Sub6 n77(78). Occupied Bandwidth Plot (10 M BW Ch.633334 BPSK)

Sub6 n77(78). Occupied Bandwidth Plot (10 M BW Ch.633334 QPSK)

Sub6 n77(78). Occupied Bandwidth Plot (10 M BW Ch.633334 16QAM)

Sub6 n77(78). Occupied Bandwidth Plot (10 M BW Ch.633334 64QAM)



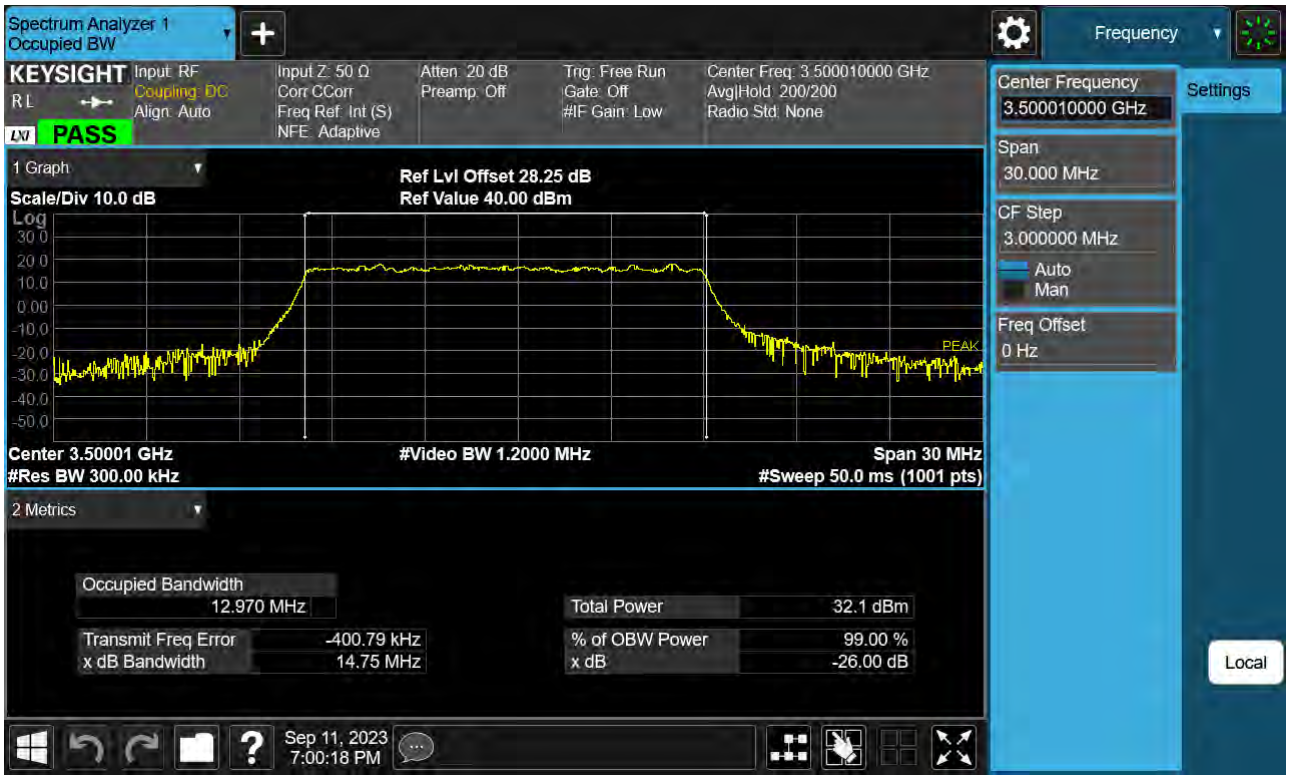
Sub6 n77(78). Occupied Bandwidth Plot (10 M BW Ch.633334 256QAM)

Sub6 n77(78). Occupied Bandwidth Plot (15 M BW Ch.633334 BPSK)

Sub6 n77(78). Occupied Bandwidth Plot (15 M BW Ch.633334 QPSK)

Sub6 n77(78). Occupied Bandwidth Plot (15 M BW Ch.633334 16QAM)

Sub6 n77(78). Occupied Bandwidth Plot (15 M BW Ch.633334 64QAM)

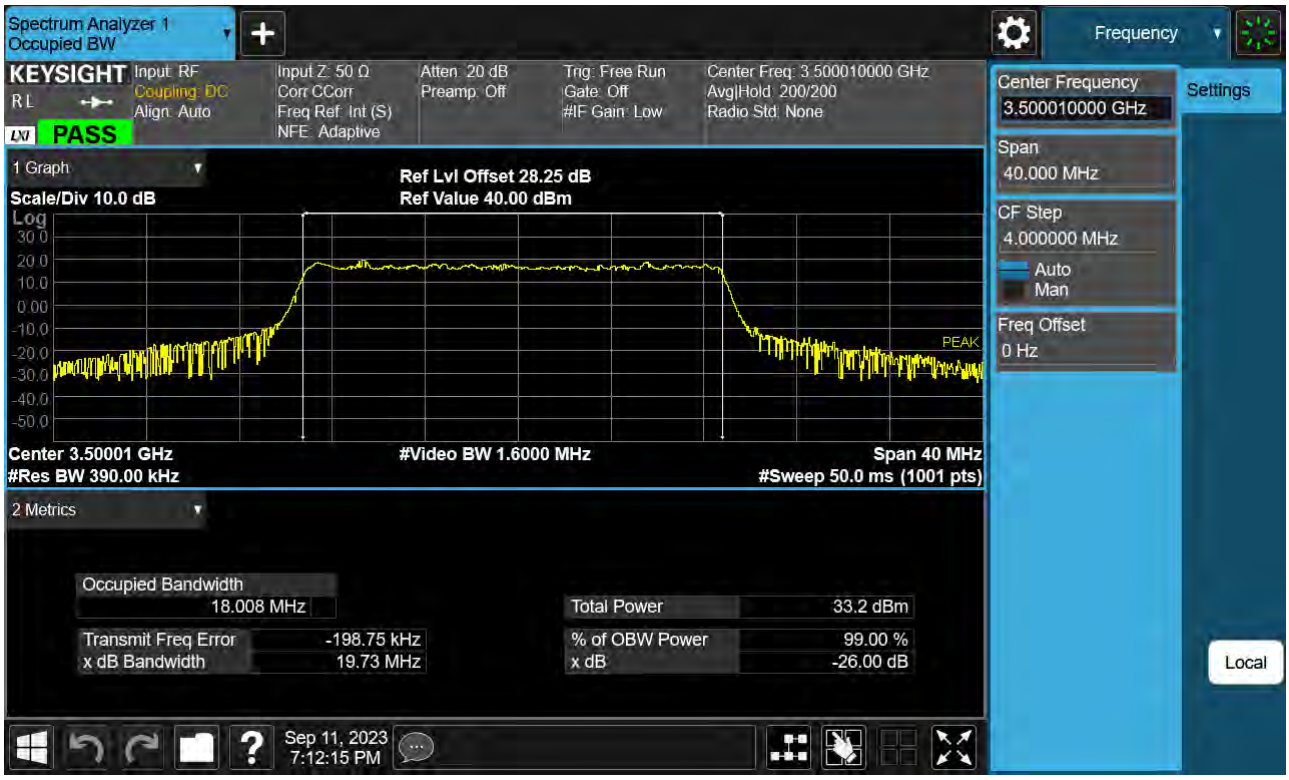


Sub6 n77(78). Occupied Bandwidth Plot (15 M BW Ch.633334 256QAM)

Sub6 n77(78). Occupied Bandwidth Plot (20 M BW Ch.633334 BPSK)

Sub6 n77(78). Occupied Bandwidth Plot (20 M BW Ch.633334 QPSK)

Sub6 n77(78). Occupied Bandwidth Plot (20 M BW Ch.633334 16QAM)



Sub6 n77(78). Occupied Bandwidth Plot (20 M BW Ch.633334 64QAM)

Sub6 n77(78). Occupied Bandwidth Plot (20 M BW Ch.633334 256QAM)

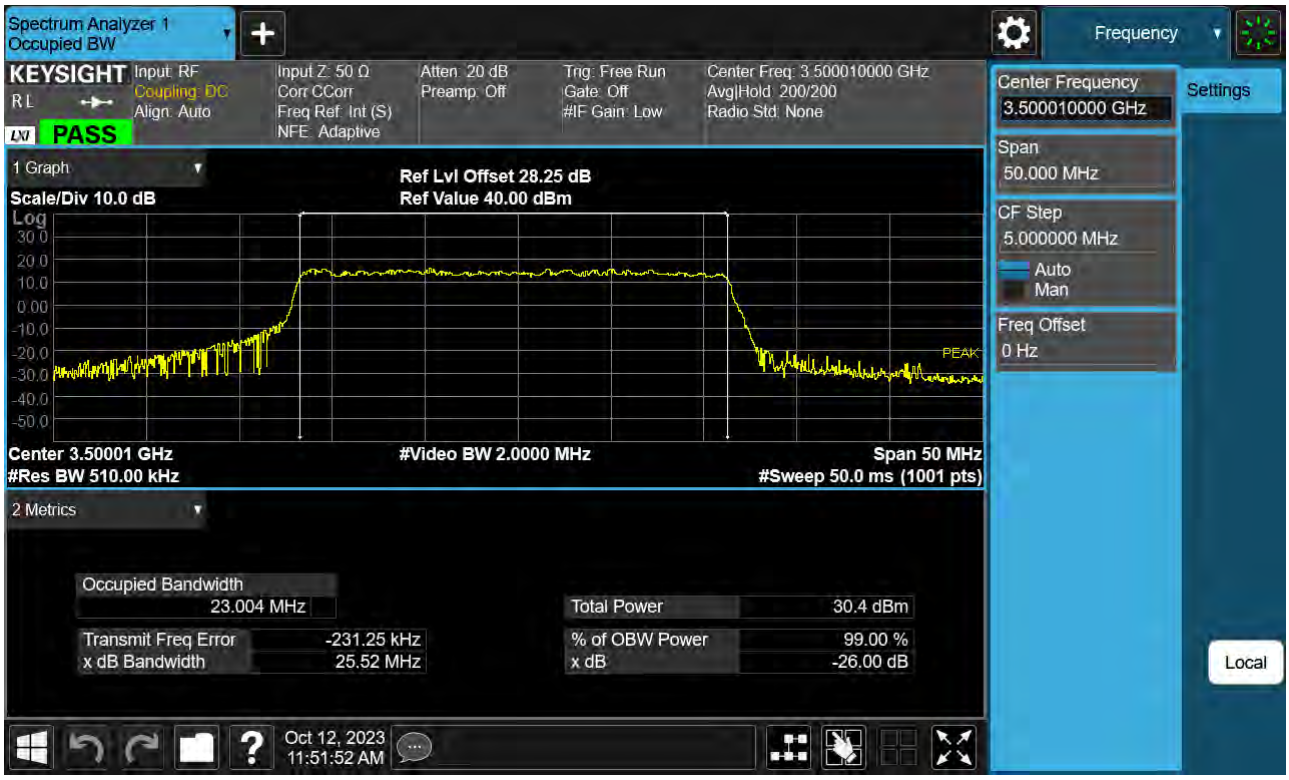
Sub6 n77(78). Occupied Bandwidth Plot (25 M BW Ch.633334 BPSK)

Sub6 n77(78). Occupied Bandwidth Plot (25 M BW Ch.633334 QPSK)

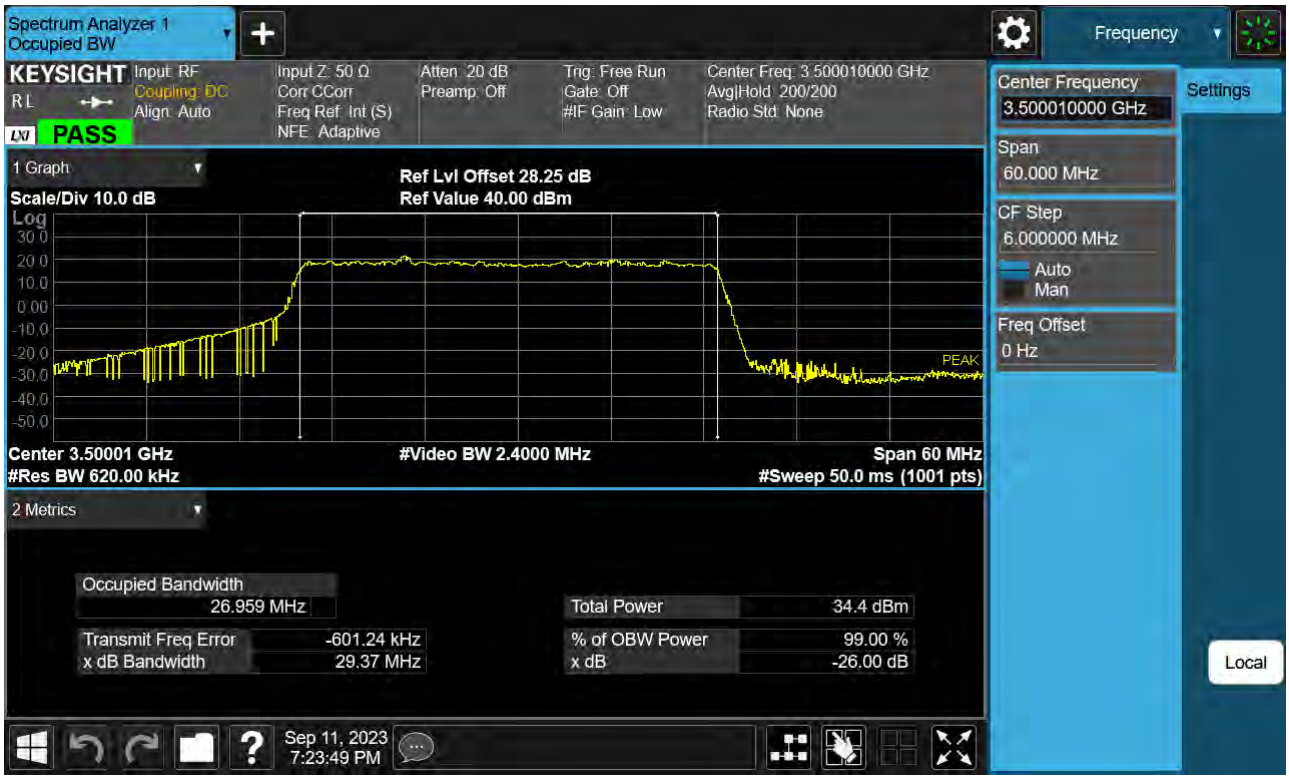
Sub6 n77(78). Occupied Bandwidth Plot (25 M BW Ch.633334 16QAM)

Sub6 n77(78). Occupied Bandwidth Plot (25 M BW Ch.633334 64QAM)

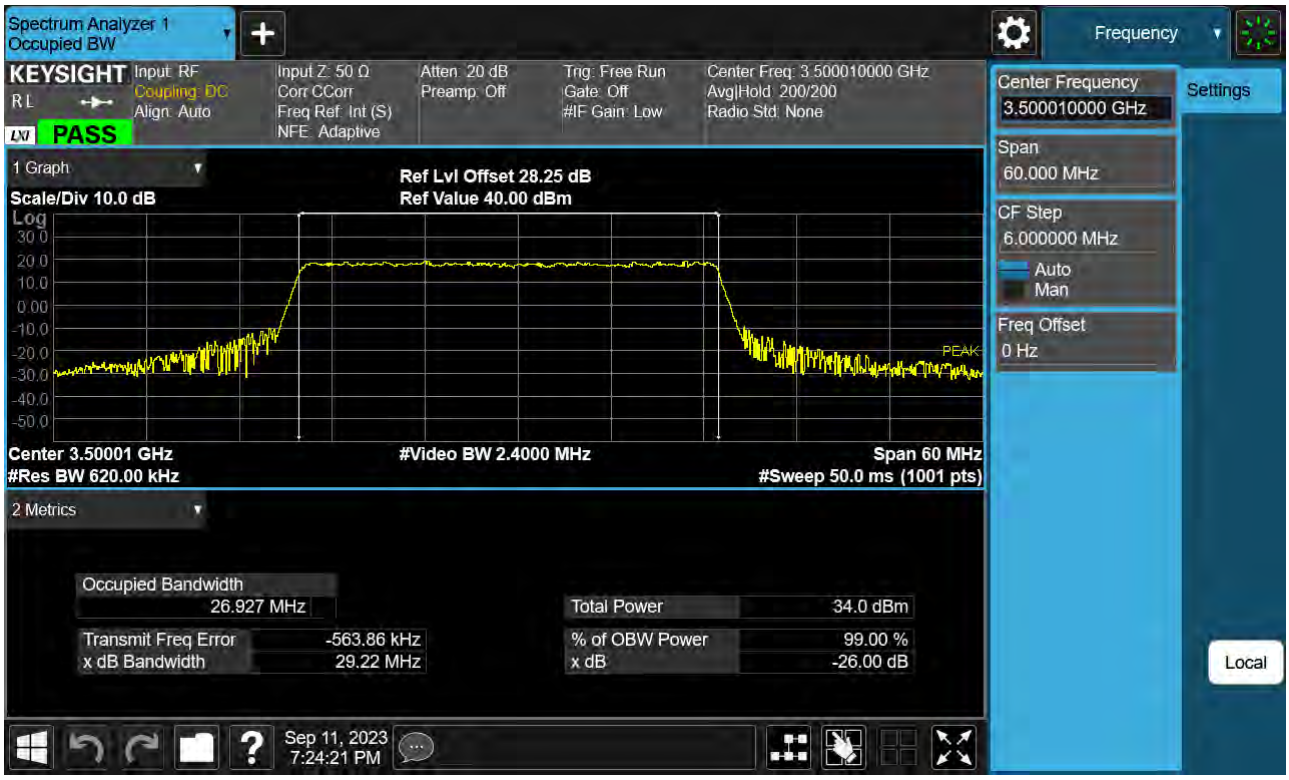
Sub6 n77(78). Occupied Bandwidth Plot (25 M BW Ch.633334 256QAM)



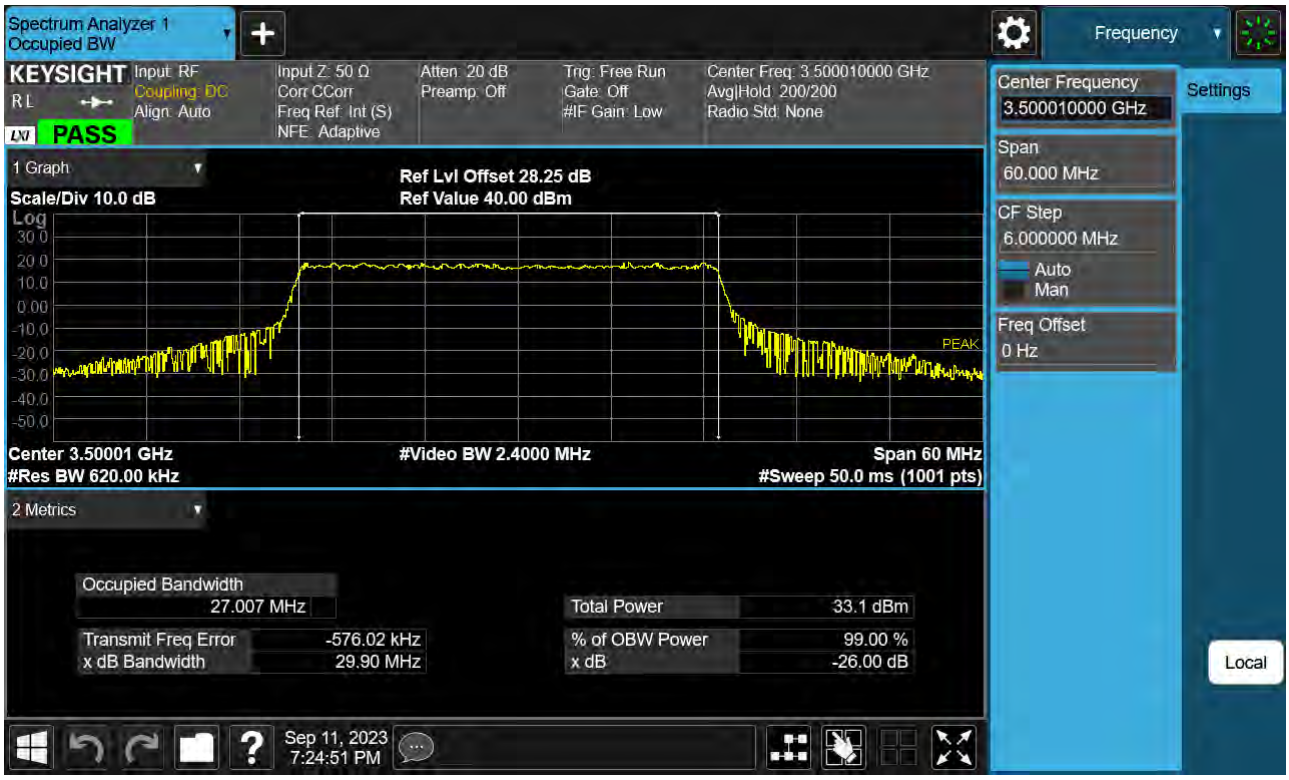
Sub6 n77(78). Occupied Bandwidth Plot (30 M BW Ch.633334 BPSK)



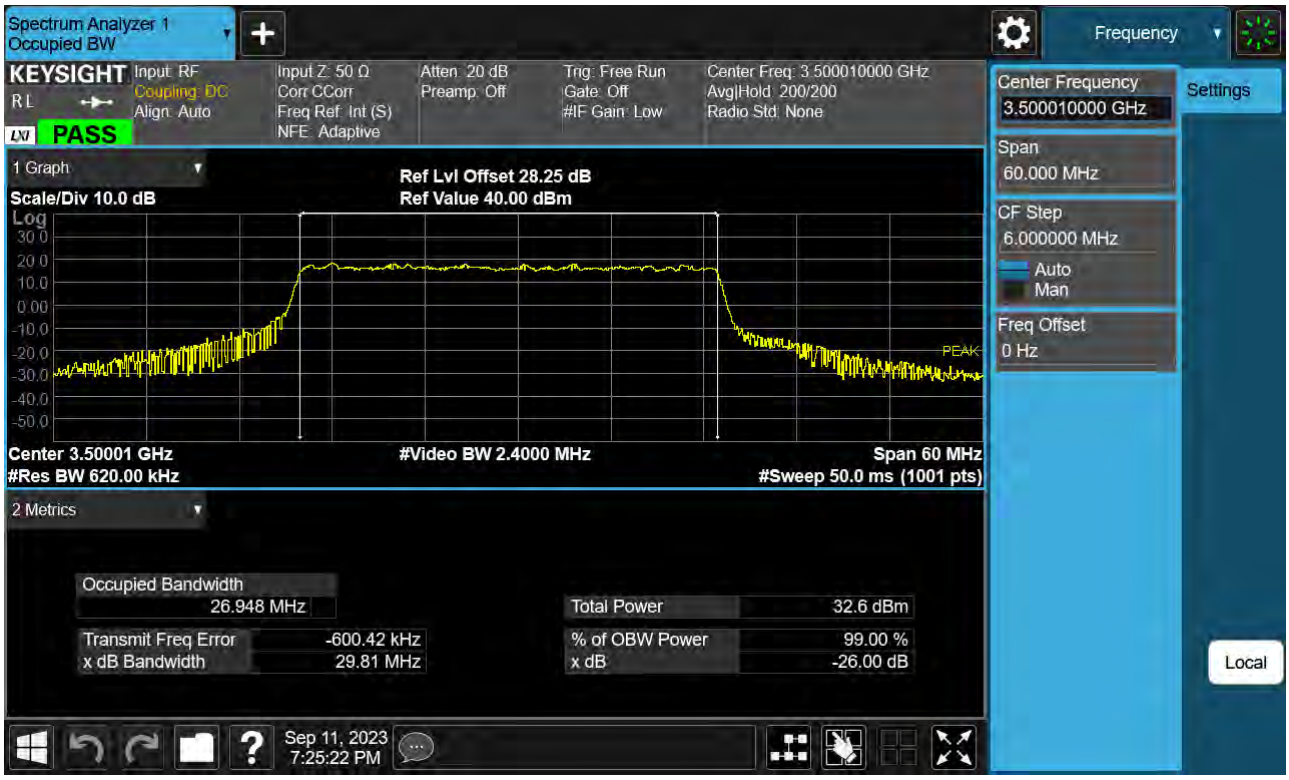
Sub6 n77(78). Occupied Bandwidth Plot (30 M BW Ch.633334 QPSK)



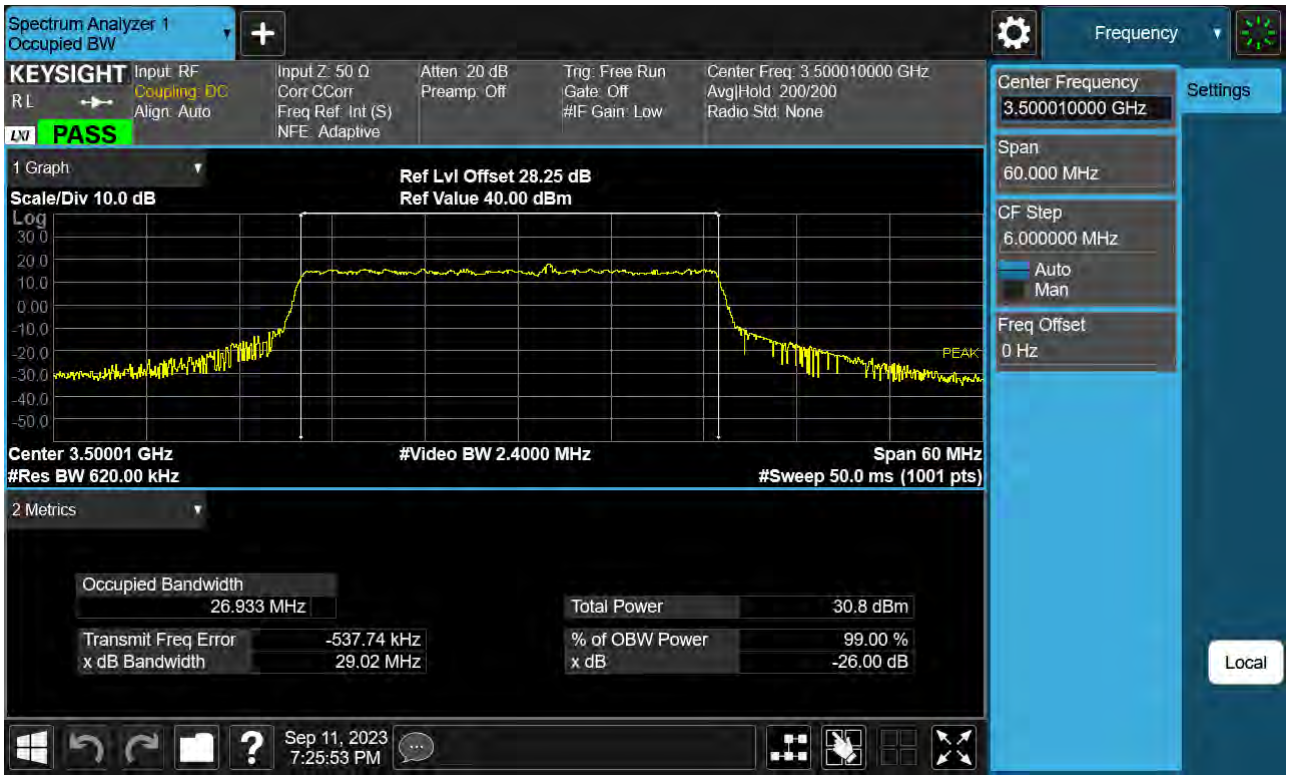
Sub6 n77(78). Occupied Bandwidth Plot (30 M BW Ch.633334 16QAM)



Sub6 n77(78). Occupied Bandwidth Plot (30 M BW Ch.633334 64QAM)

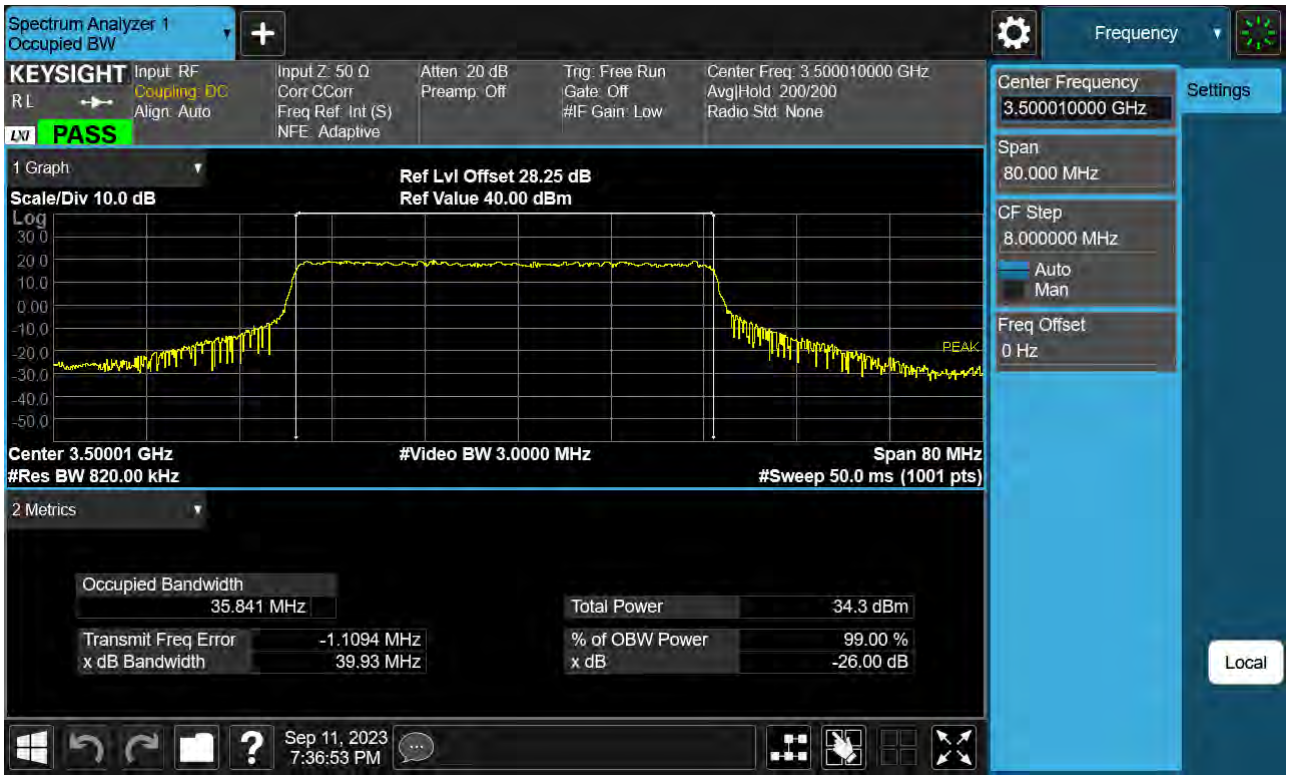


Sub6 n77(78). Occupied Bandwidth Plot (30 M BW Ch.633334 256QAM)



Sub6 n77(78). Occupied Bandwidth Plot (40 M BW Ch.633334 BPSK)

Sub6 n77(78). Occupied Bandwidth Plot (40 M BW Ch.633334 QPSK)



Sub6 n77(78). Occupied Bandwidth Plot (40 M BW Ch.633334 16QAM)

Sub6 n77(78). Occupied Bandwidth Plot (40 M BW Ch.633334 64QAM)

Sub6 n77(78). Occupied Bandwidth Plot (40 M BW Ch.633334 256QAM)

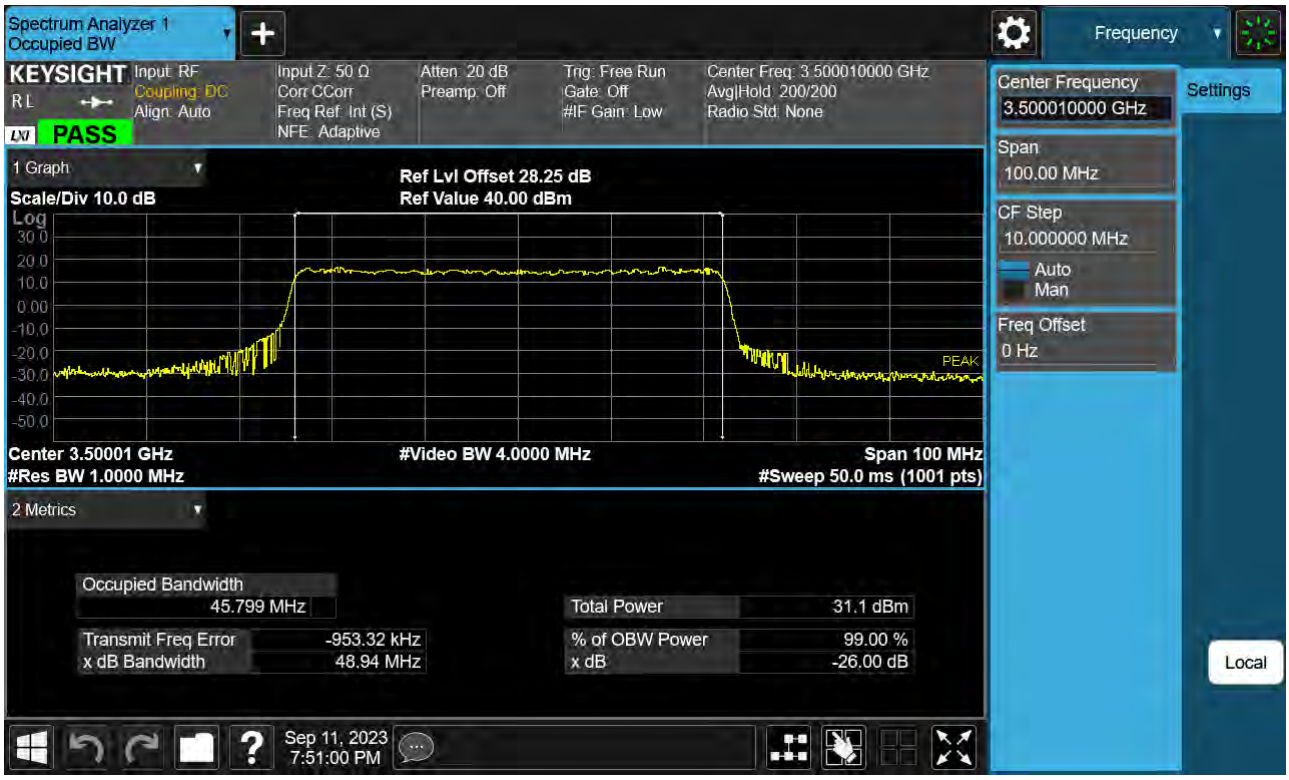
Sub6 n77(78). Occupied Bandwidth Plot (50 M BW Ch.633334 BPSK)

Sub6 n77(78). Occupied Bandwidth Plot (50 M BW Ch.633334 QPSK)

Sub6 n77(78). Occupied Bandwidth Plot (50 M BW Ch.633334 16QAM)

Sub6 n77(78). Occupied Bandwidth Plot (50 M BW Ch.633334 64QAM)

Sub6 n77(78). Occupied Bandwidth Plot (50 M BW Ch.633334 256QAM)



Sub6 n77(78). Occupied Bandwidth Plot (60 M BW Ch.633334 BPSK)

Sub6 n77(78). Occupied Bandwidth Plot (60 M BW Ch.633334 QPSK)

Sub6 n77(78). Occupied Bandwidth Plot (60 M BW Ch.633334 16QAM)

Sub6 n77(78). Occupied Bandwidth Plot (60 M BW Ch.633334 64QAM)

Sub6 n77(78). Occupied Bandwidth Plot (60 M BW Ch.633334 256QAM)

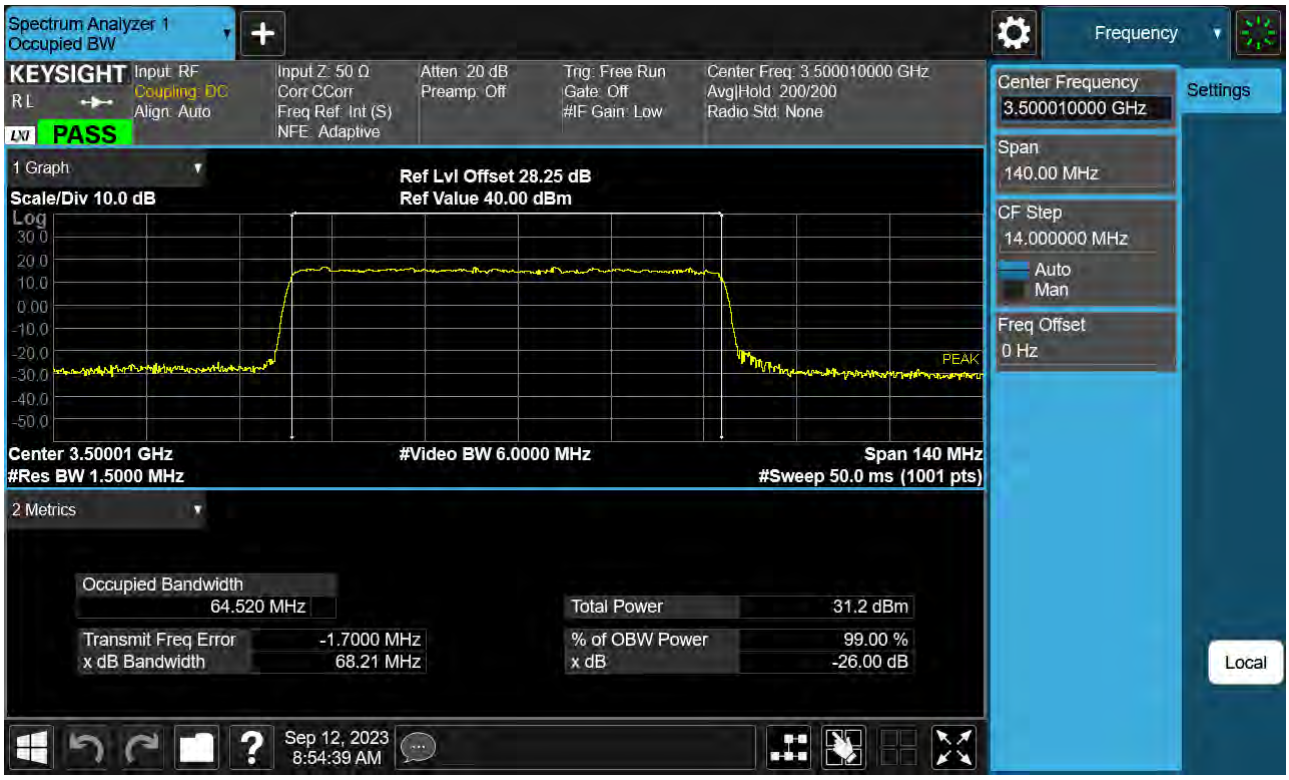
Sub6 n77(78). Occupied Bandwidth Plot (70 M BW Ch.633334 BPSK)

Sub6 n77(78). Occupied Bandwidth Plot (70 M BW Ch.633334 QPSK)

Sub6 n77(78). Occupied Bandwidth Plot (70 M BW Ch.633334 16QAM)

Sub6 n77(78). Occupied Bandwidth Plot (70 M BW Ch.633334 64QAM)

Sub6 n77(78). Occupied Bandwidth Plot (70 M BW Ch.633334 256QAM)



Sub6 n77(78). Occupied Bandwidth Plot (80 M BW Ch.633334 BPSK)

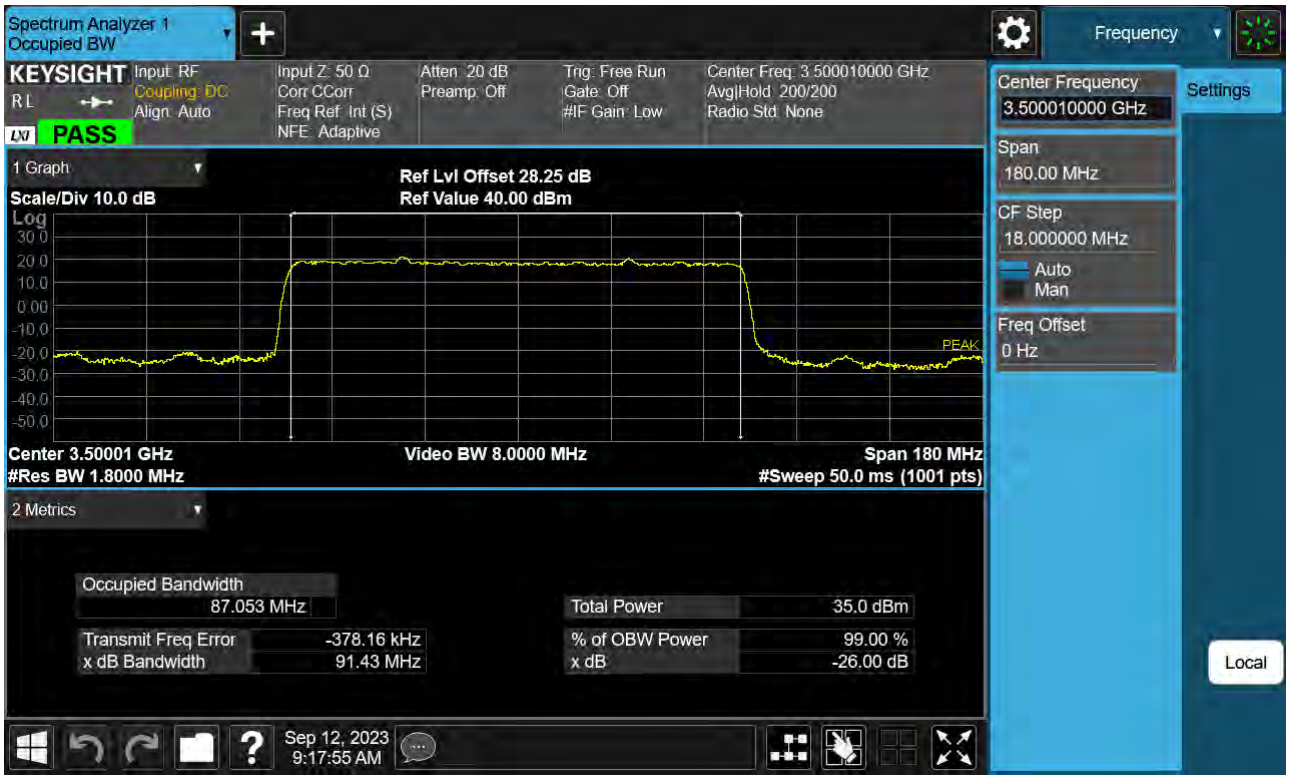
Sub6 n77(78). Occupied Bandwidth Plot (80 M BW Ch.633334 QPSK)

Sub6 n77(78). Occupied Bandwidth Plot (80 M BW Ch.633334 16QAM)

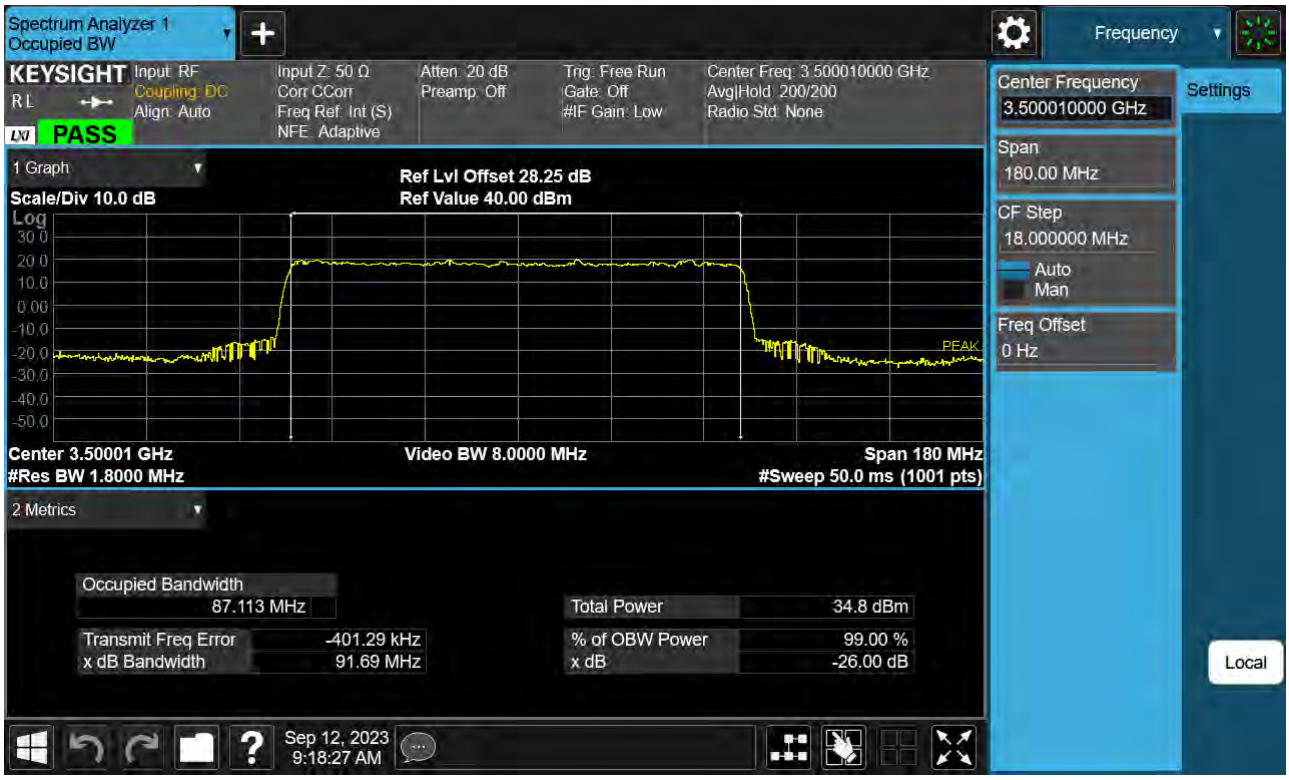
Sub6 n77(78). Occupied Bandwidth Plot (80 M BW Ch.633334 64QAM)

Sub6 n77(78). Occupied Bandwidth Plot (80 M BW Ch.633334 256QAM)

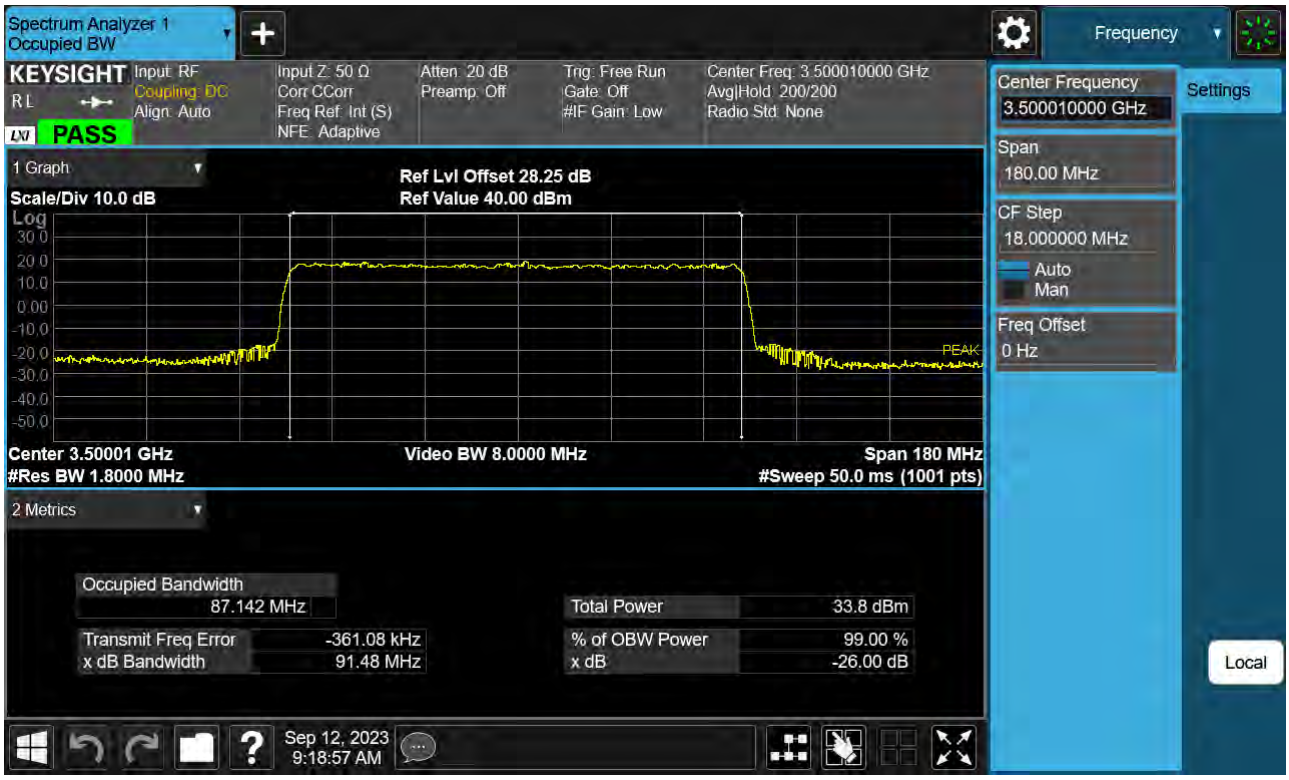
Sub6 n77(78). Occupied Bandwidth Plot (90 M BW Ch.633334 BPSK)



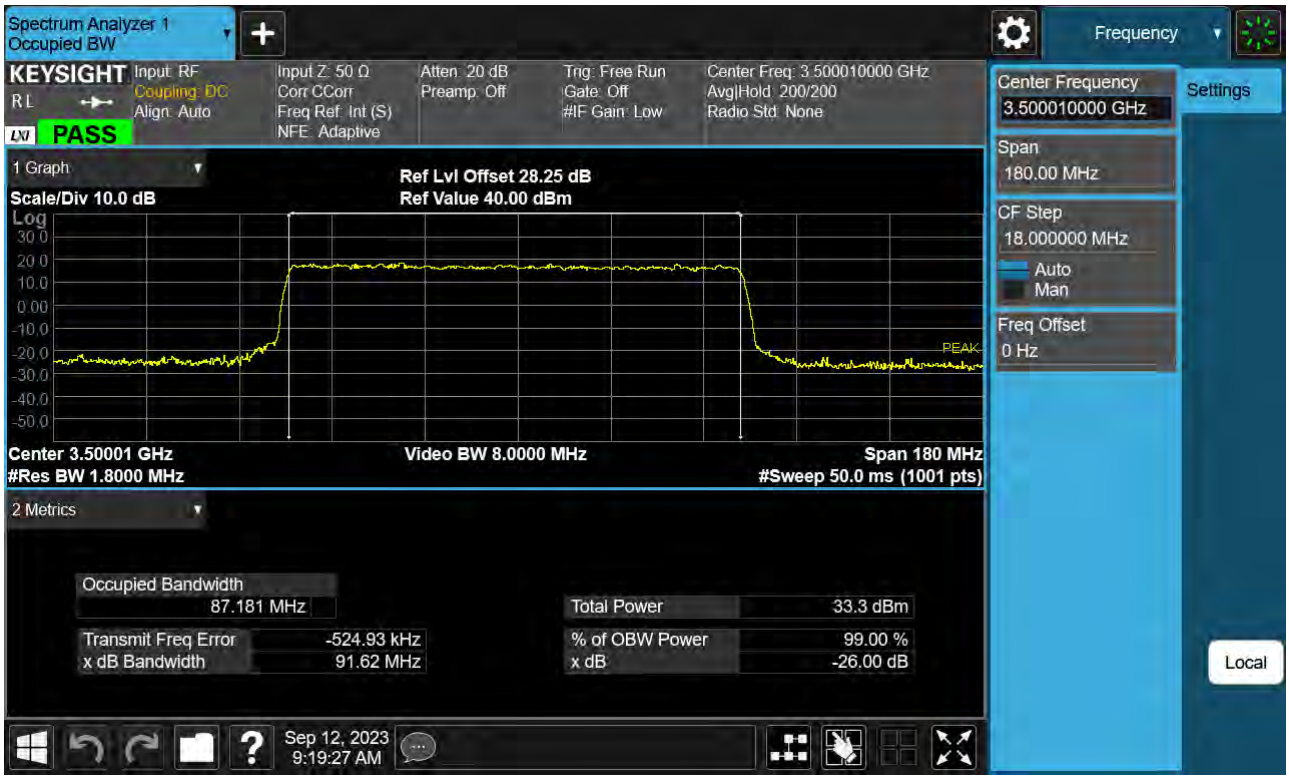
Sub6 n77(78). Occupied Bandwidth Plot (90 M BW Ch.633334 QPSK)



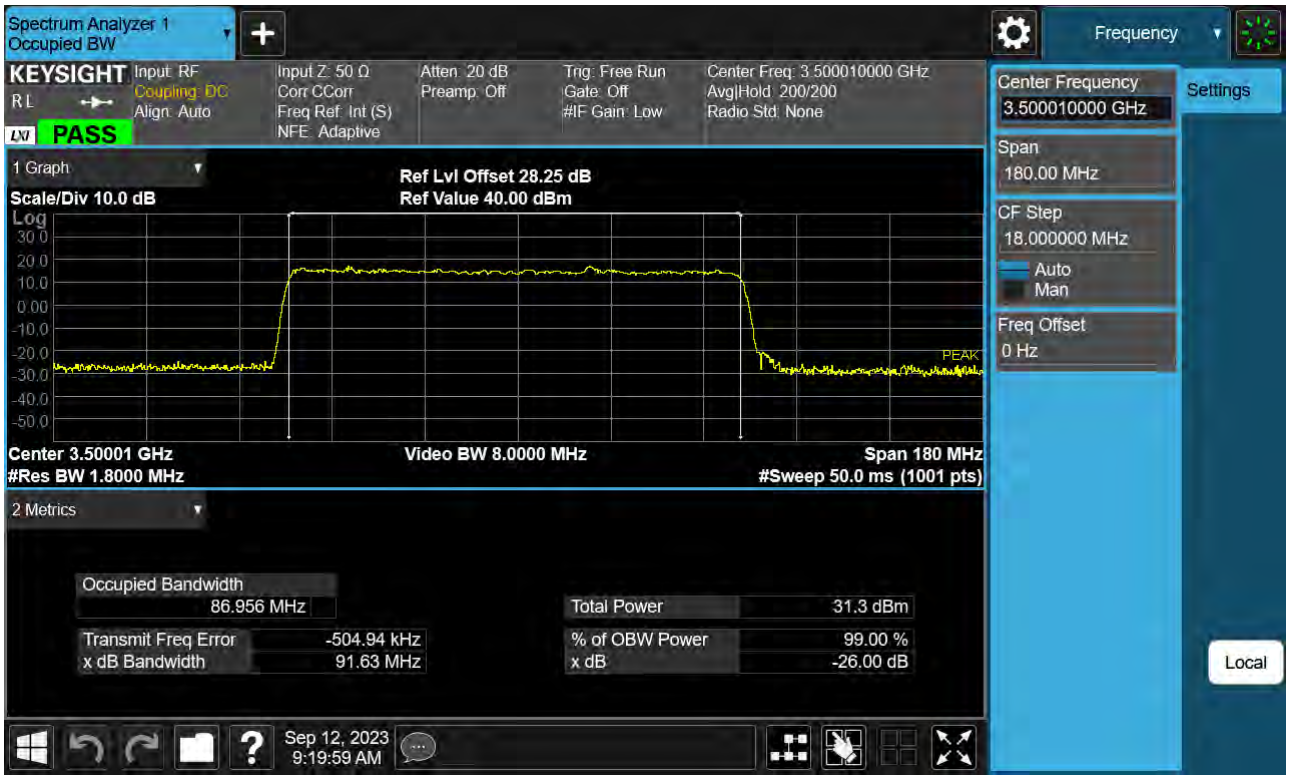
Sub6 n77(78). Occupied Bandwidth Plot (90 M BW Ch.633334 16QAM)



Sub6 n77(78). Occupied Bandwidth Plot (90 M BW Ch.633334 64QAM)

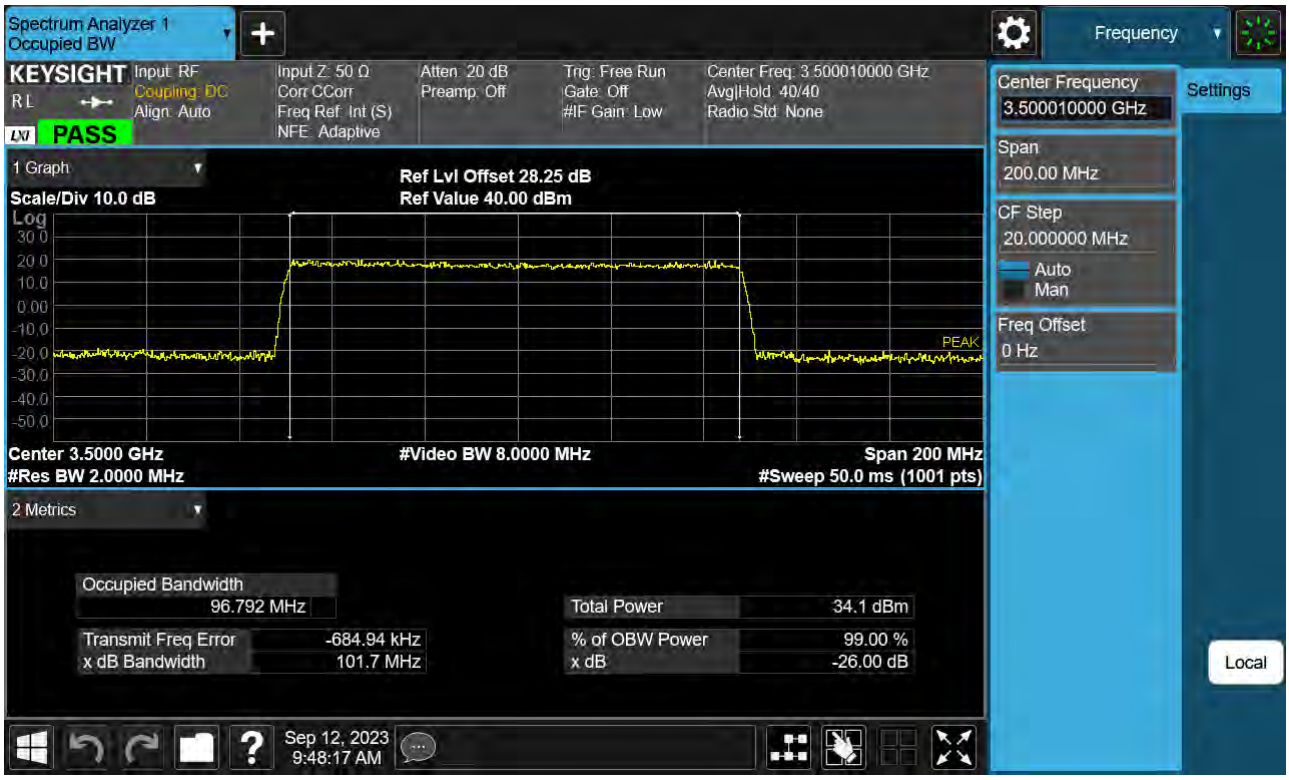


Sub6 n77(78). Occupied Bandwidth Plot (90 M BW Ch.633334 256QAM)

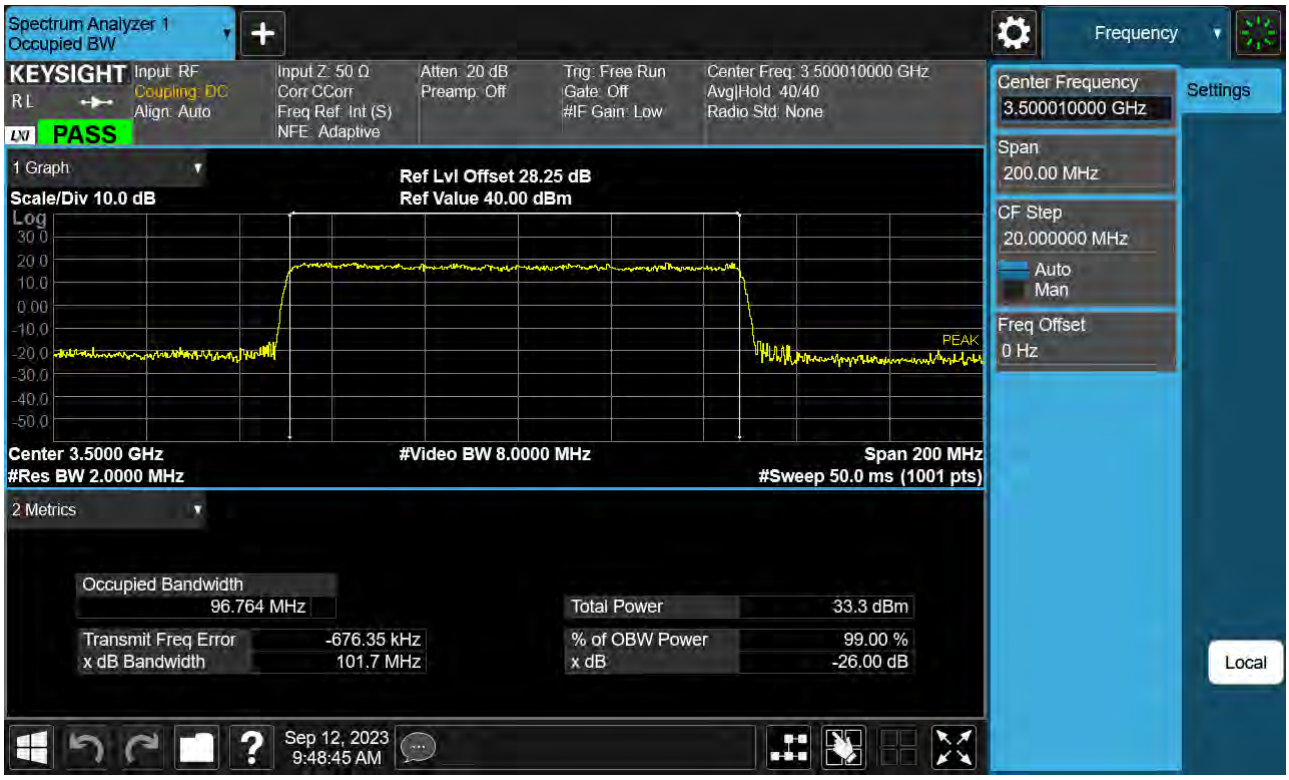


Sub6 n77(78). Occupied Bandwidth Plot (100 M BW Ch.633334 BPSK)

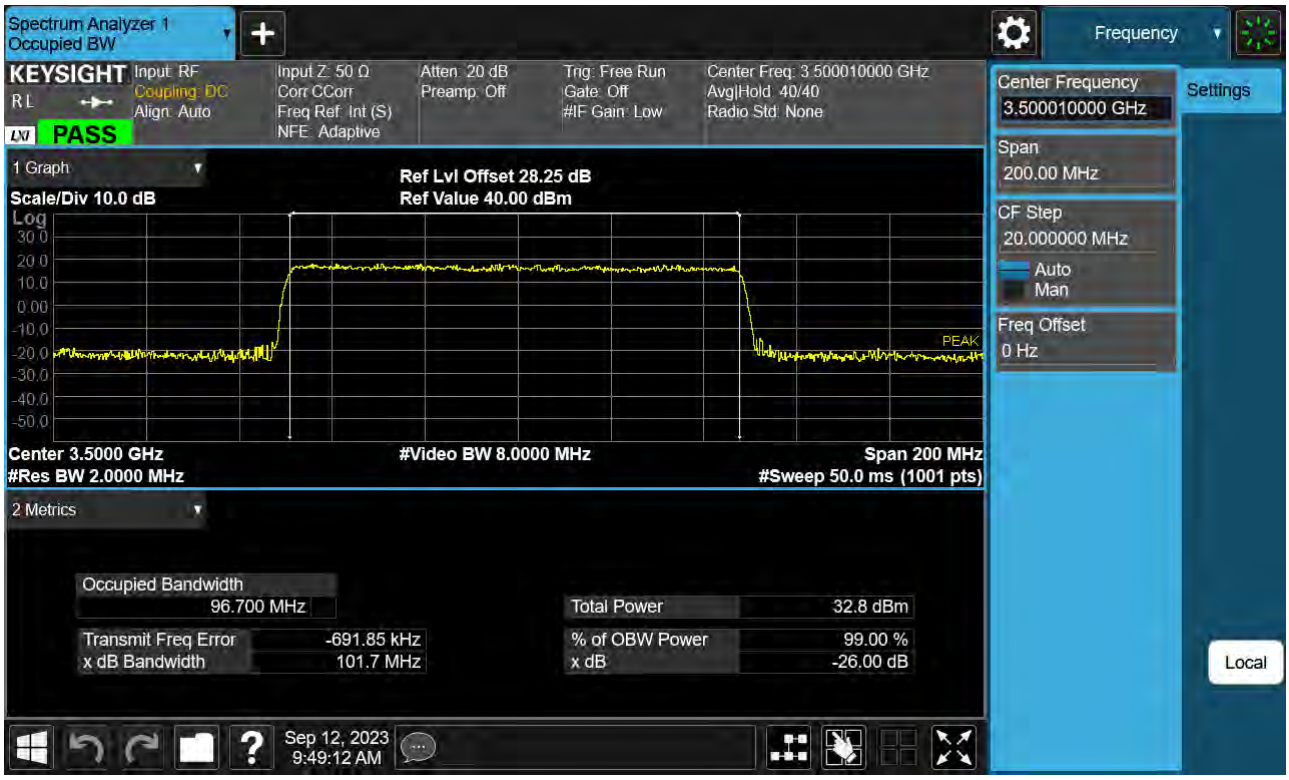
Sub6 n77(78). Occupied Bandwidth Plot (100 M BW Ch.633334 QPSK)



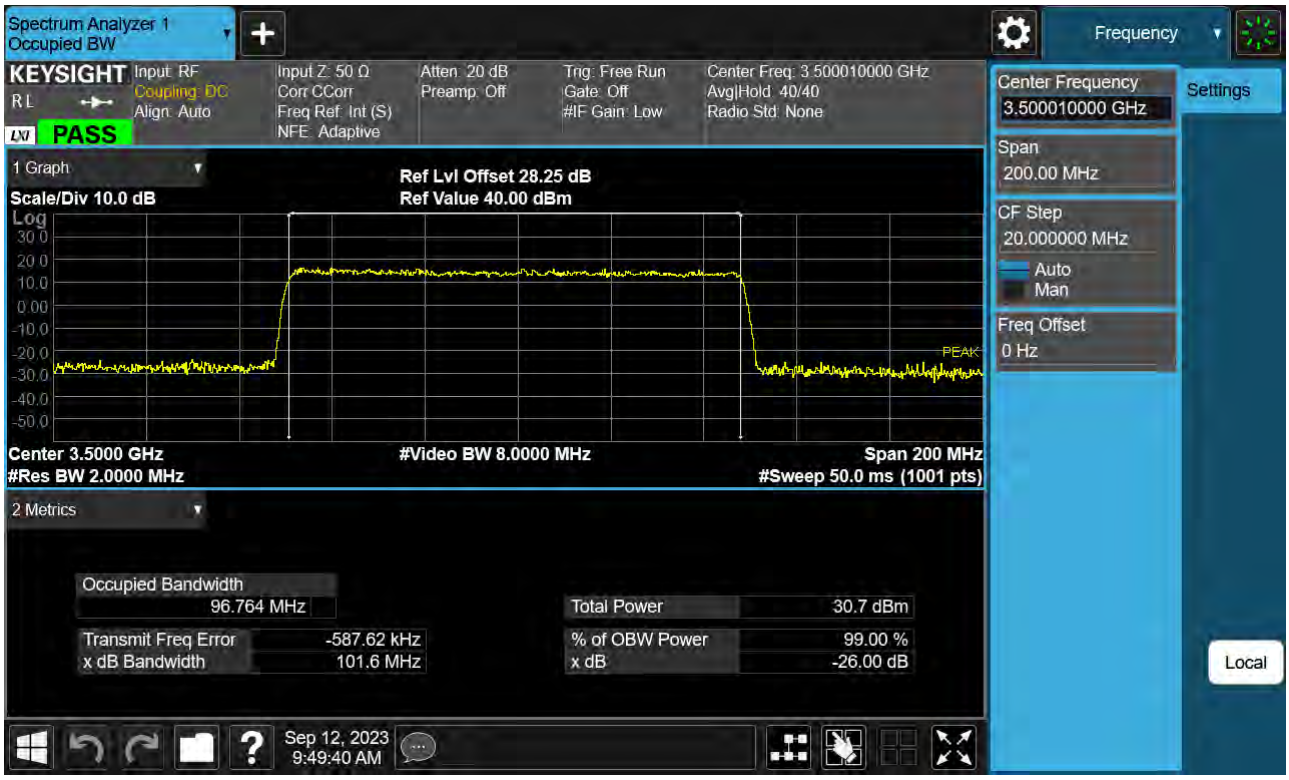
Sub6 n77(78). Occupied Bandwidth Plot (100 M BW Ch.633334 16QAM)



Sub6 n77(78). Occupied Bandwidth Plot (100 M BW Ch.633334 64QAM)

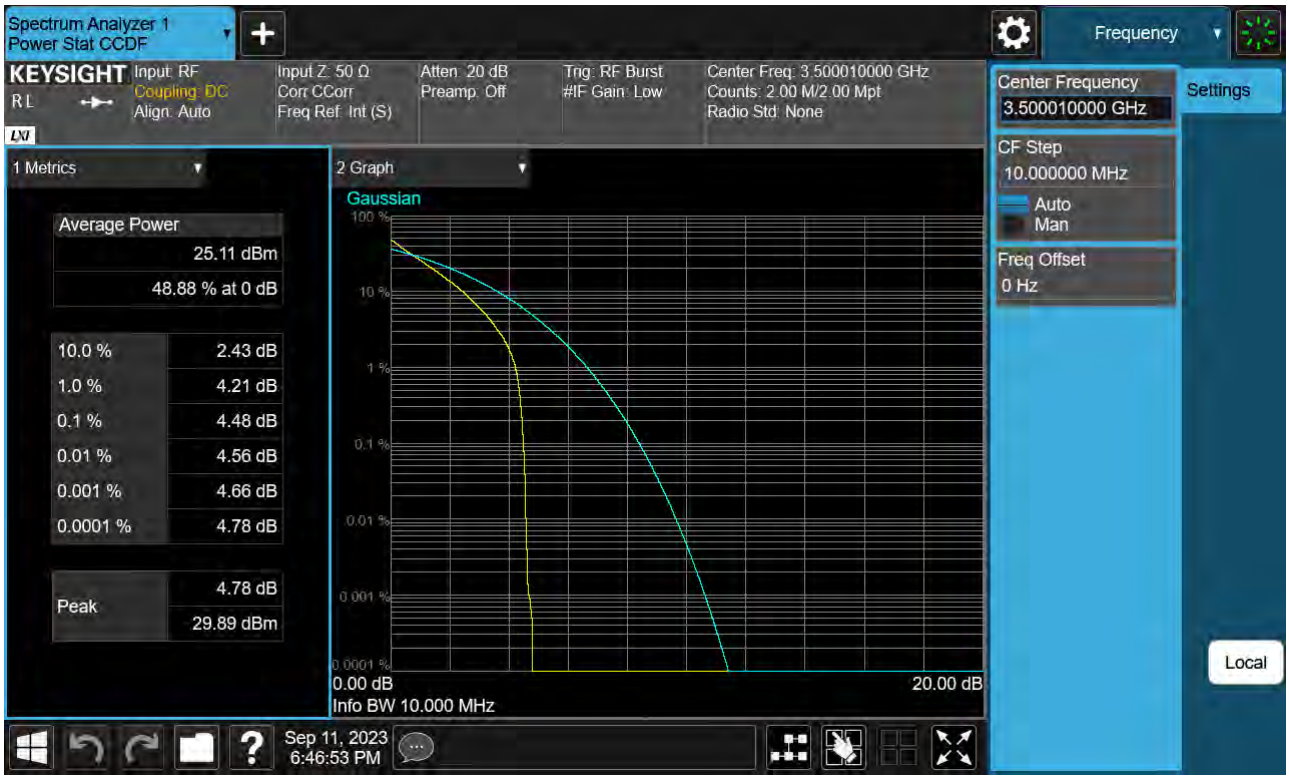


Sub6 n77(78). Occupied Bandwidth Plot (100 M BW Ch.633334 256QAM)



Sub6 n77(78). PAR Plot (10 M BW_Ch.633334_ BPSK)

Sub6 n77(78). PAR Plot (10 M BW_Ch.633334_QPSK)

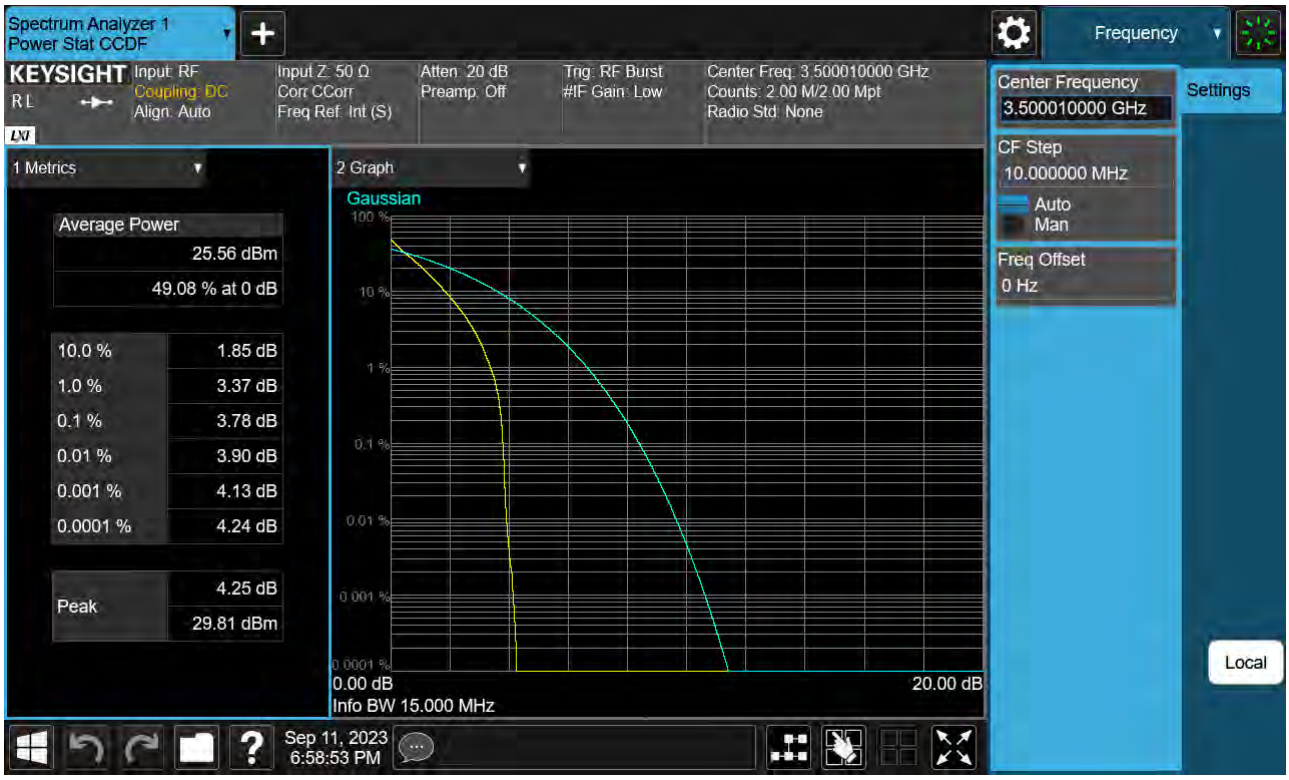


Sub6 n77(78). PAR Plot (10 M BW_Ch.633334_16QAM)

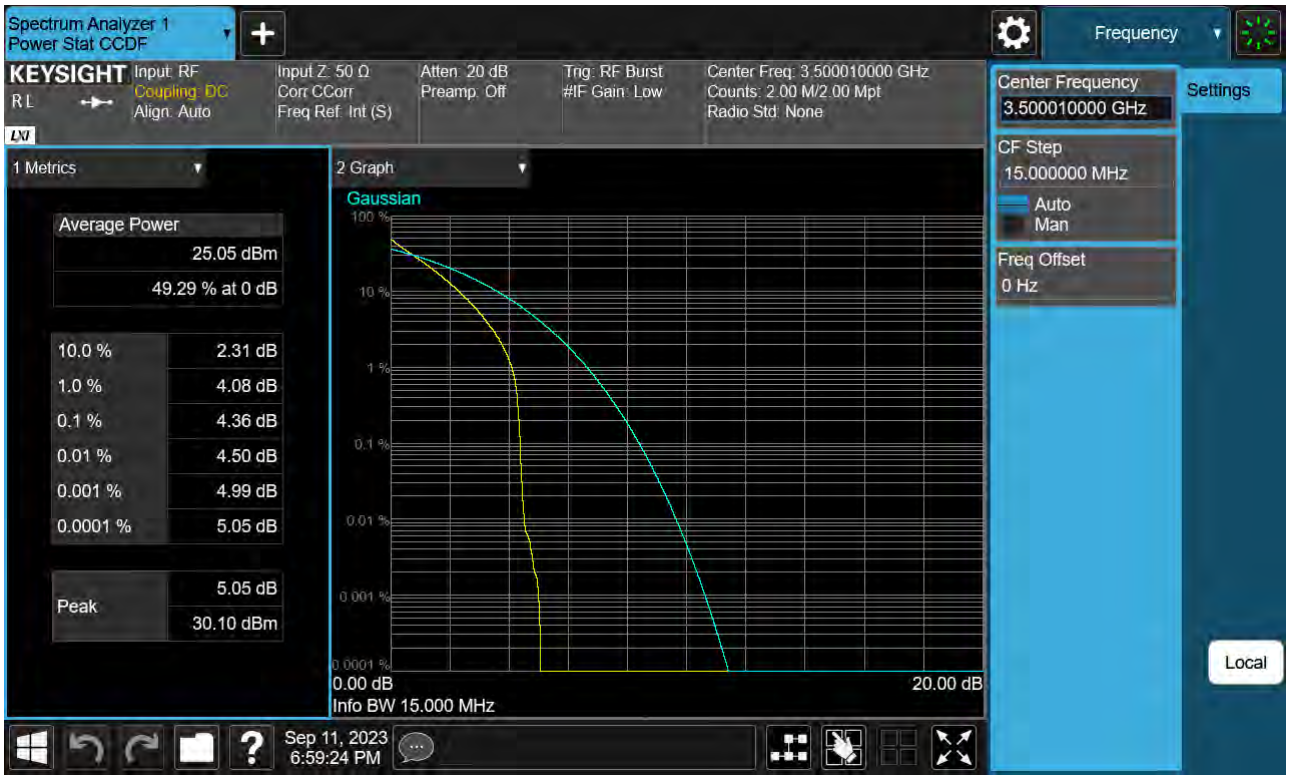
Sub6 n77(78). PAR Plot (10 M BW_Ch.633334_64QAM)

Sub6 n77(78). PAR Plot (10 M BW_Ch.633334_256QAM)

Sub6 n77(78). PAR Plot (15 M BW_Ch.633334_ BPSK)



Sub6 n77(78). PAR Plot (15 M BW_Ch.633334_QPSK)



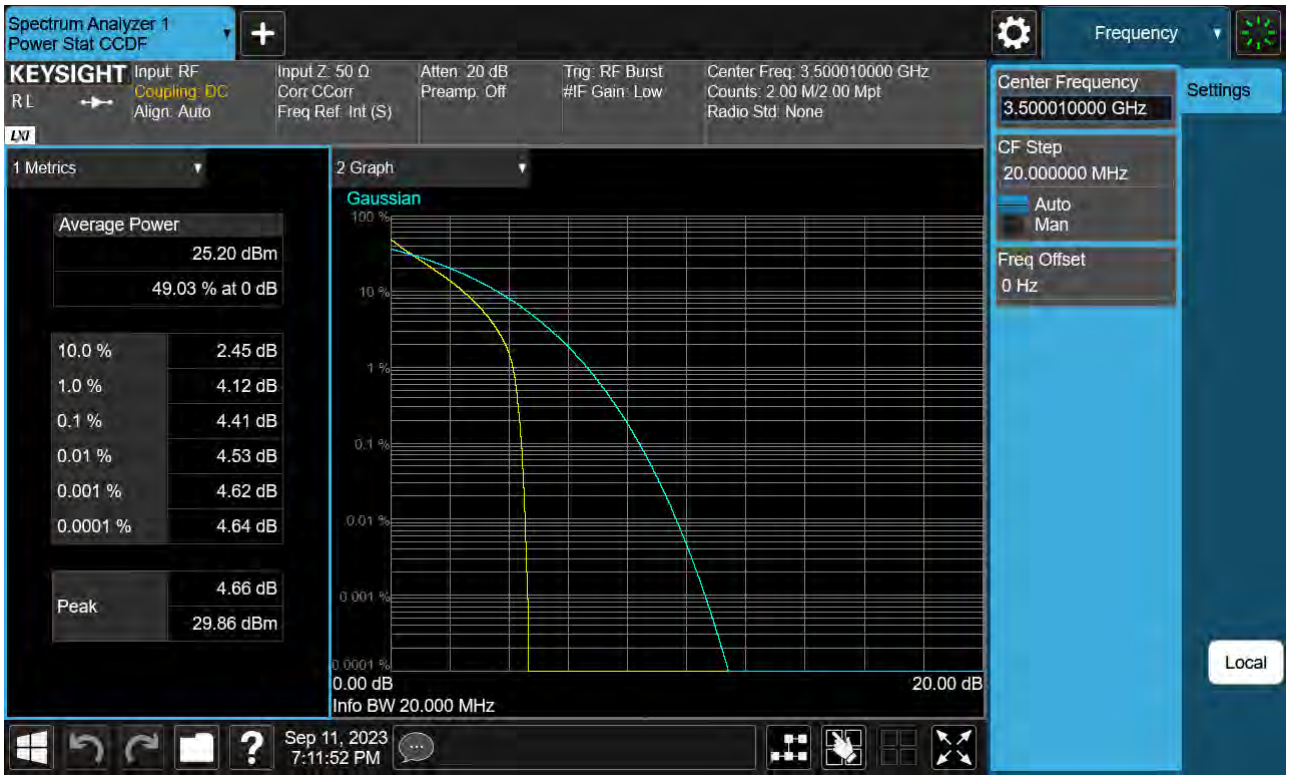
Sub6 n77(78). PAR Plot (15 M BW_Ch.633334_16QAM)

Sub6 n77(78). PAR Plot (15 M BW_Ch.633334_64QAM)

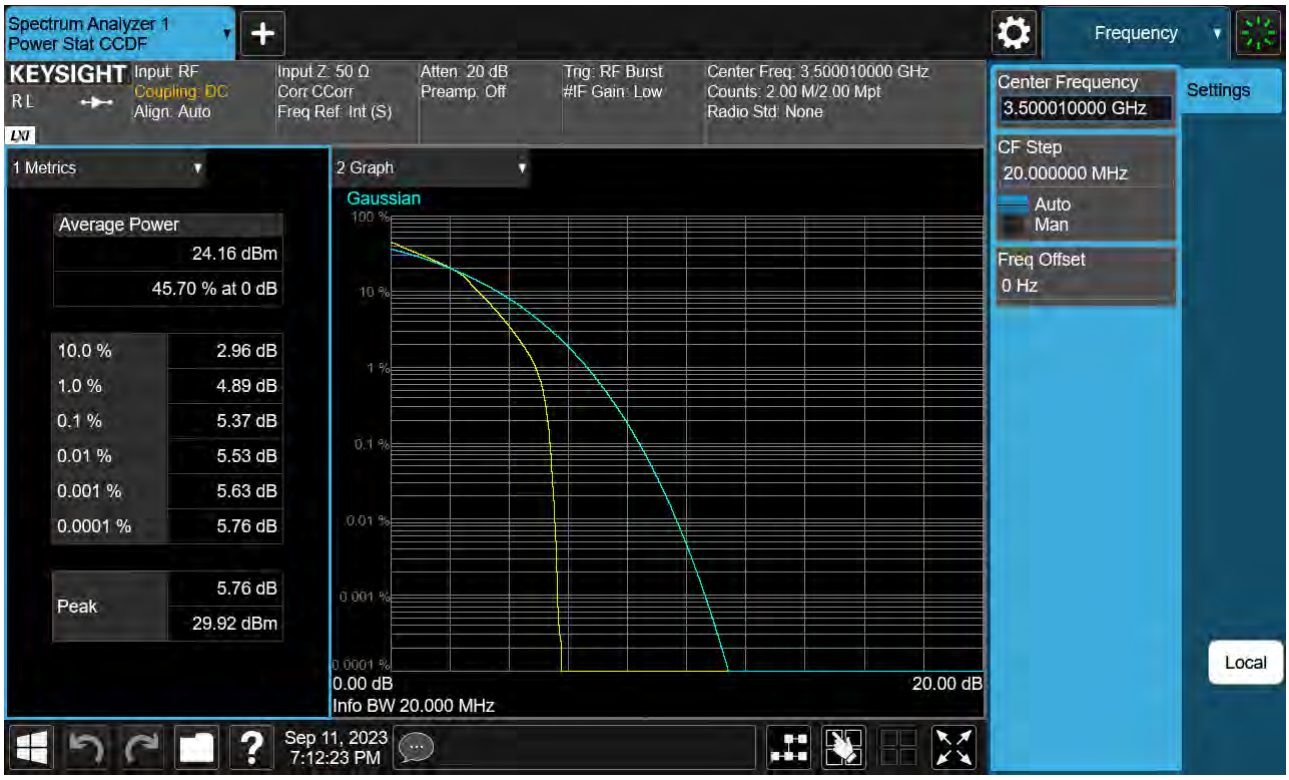
Sub6 n77(78). PAR Plot (15 M BW_Ch.633334_256QAM)

Sub6 n77(78). PAR Plot (20 M BW_Ch.633334_ BPSK)

Sub6 n77(78). PAR Plot (20 M BW_Ch.633334_QPSK)



Sub6 n77(78). PAR Plot (20 M BW_Ch.633334_16QAM)



Sub6 n77(78). PAR Plot (20 M BW_Ch.633334_64QAM)

Sub6 n77(78). PAR Plot (20 M BW_Ch.633334_256QAM)

Sub6 n77(78). PAR Plot (25 M BW_Ch.633334_ BPSK)

Sub6 n77(78). PAR Plot (25 M BW_Ch.633334_QPSK)

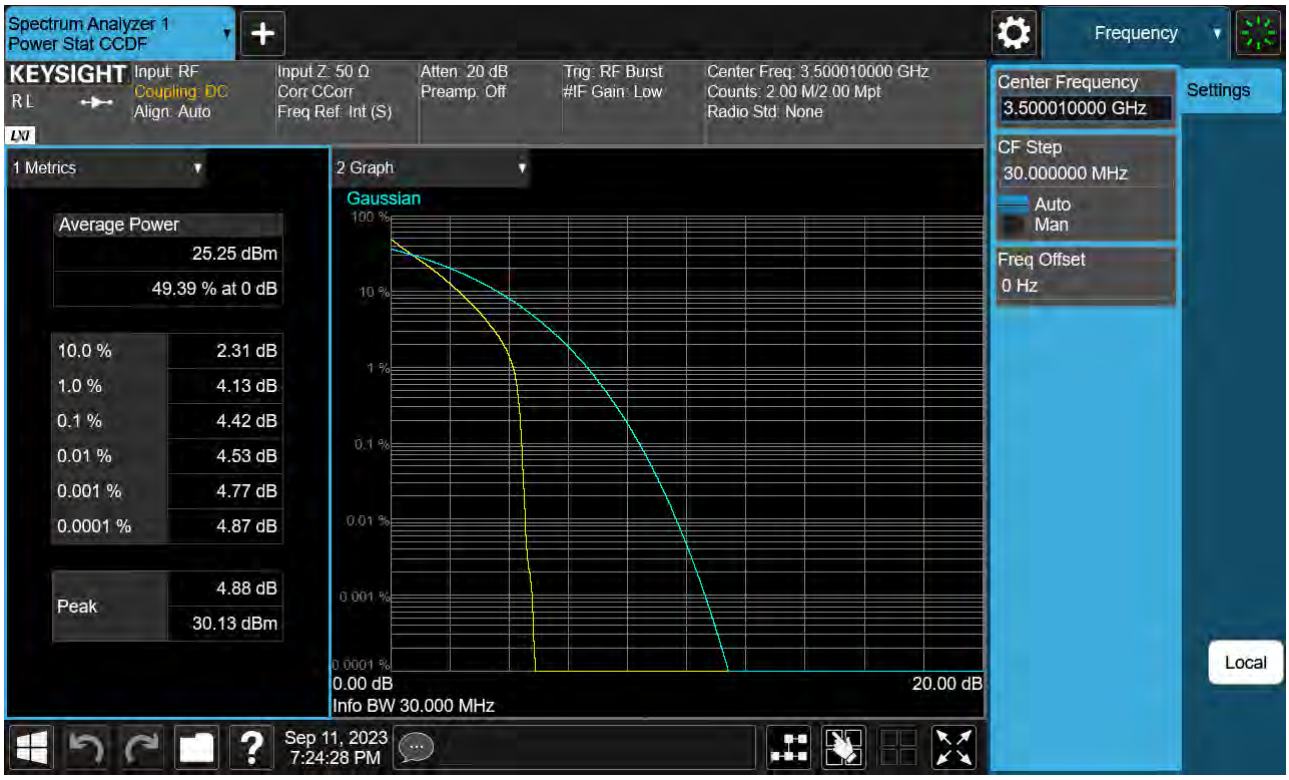
Sub6 n77(78). PAR Plot (25 M BW_Ch.633334_16QAM)

Sub6 n77(78). PAR Plot (25 M BW_Ch.633334_64QAM)

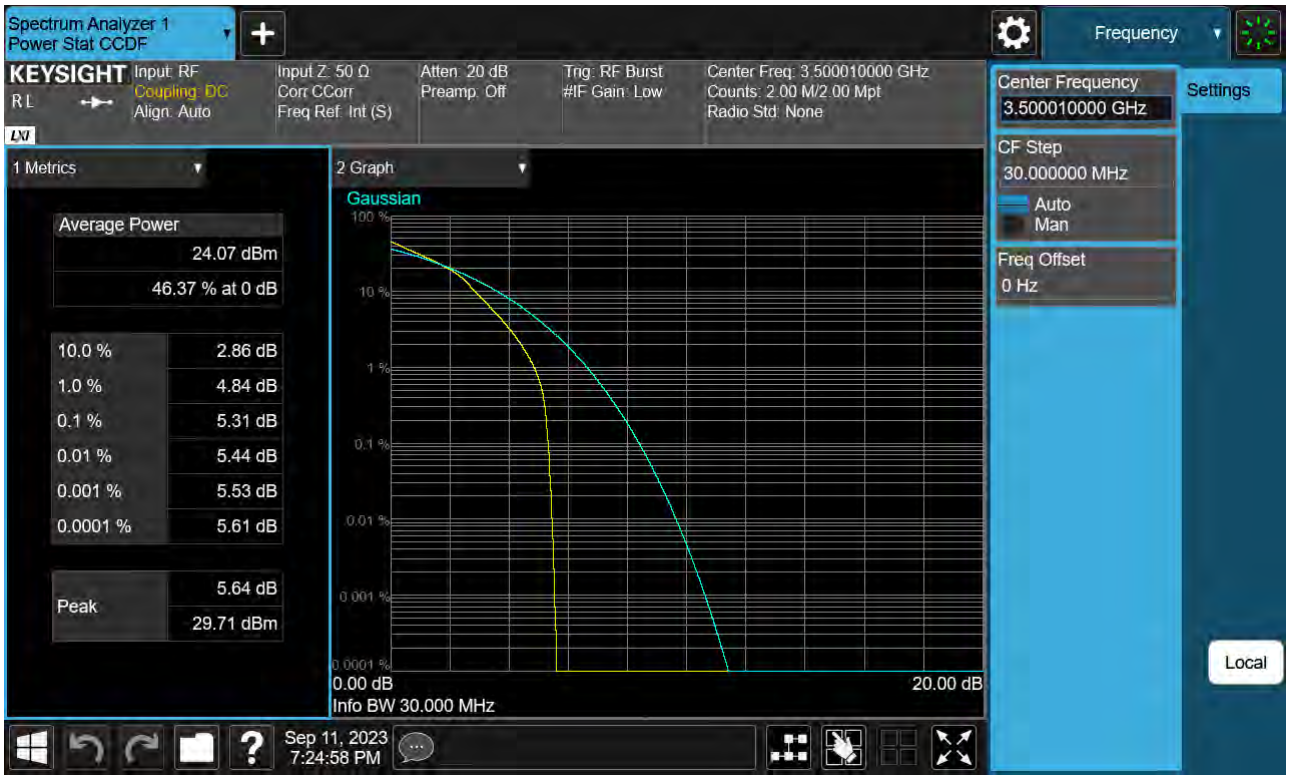
Sub6 n77(78). PAR Plot (25 M BW_Ch.633334_256QAM)

Sub6 n77(78). PAR Plot (30 M BW_Ch.633334_ BPSK)

Sub6 n77(78). PAR Plot (30 M BW_Ch.633334_QPSK)



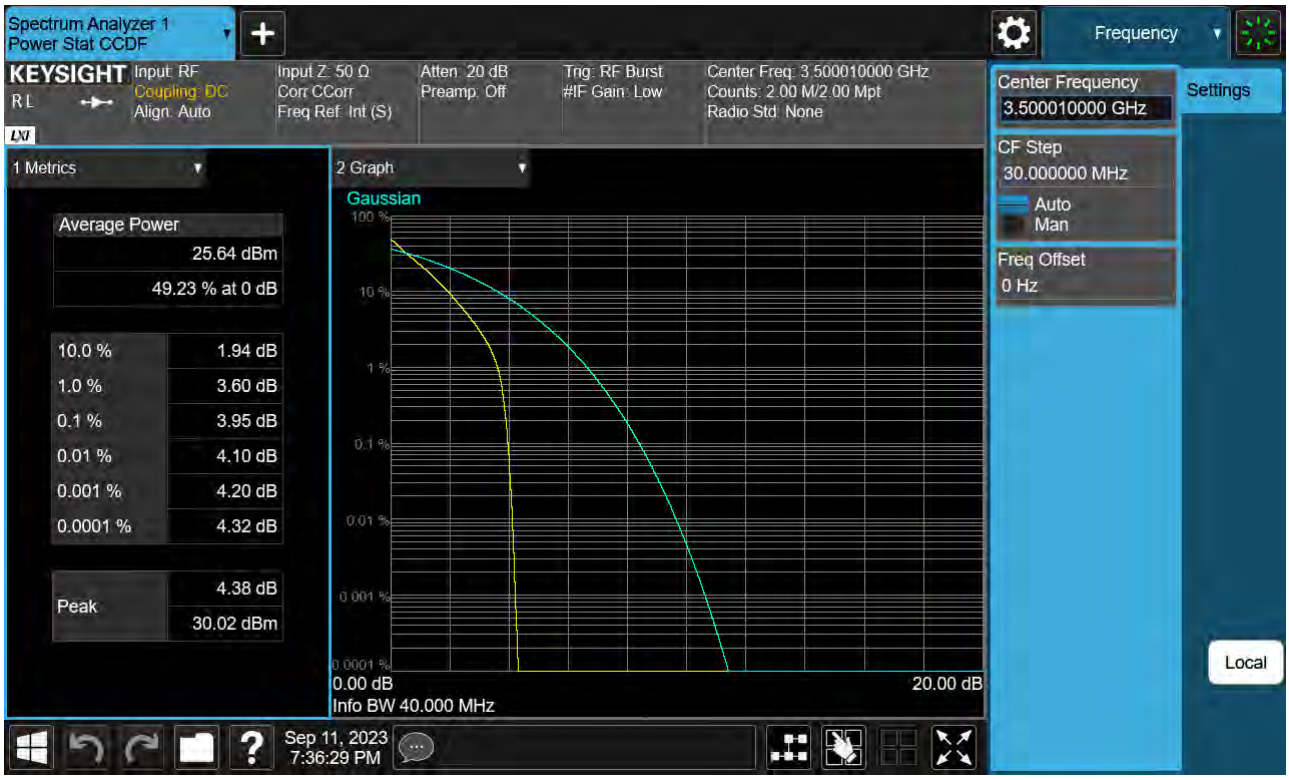
Sub6 n77(78). PAR Plot (30 M BW_Ch.633334_16QAM)



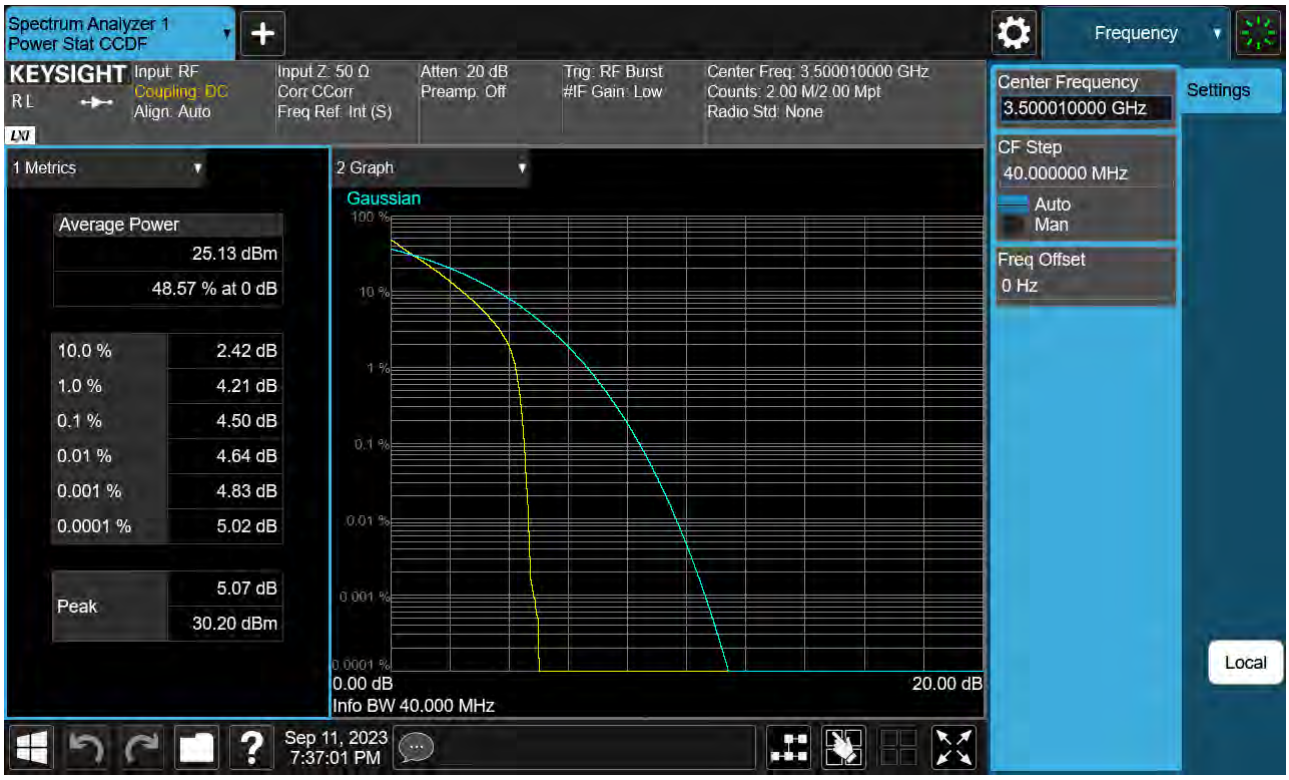
Sub6 n77(78). PAR Plot (30 M BW_Ch.633334_64QAM)

Sub6 n77(78). PAR Plot (30 M BW_Ch.633334_256QAM)

Sub6 n77(78). PAR Plot (40 M BW_Ch.633334_ BPSK)



Sub6 n77(78). PAR Plot (40 M BW_Ch.633334_QPSK)



Sub6 n77(78). PAR Plot (40 M BW_Ch.633334_16QAM)

Sub6 n77(78). PAR Plot (40 M BW_Ch.633334_64QAM)

Sub6 n77(78). PAR Plot (40 M BW_Ch.633334_256QAM)