TEST REPORT

FCC Sub6 n77 Test for TM19FNNAHD4
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2411-FC020

DATE OF ISSUE
December 6, 2024

Tested by
Jung Ki Lim

Technical Manager
Jong Seok Lee

HCT CO., LTD.
BongJai Huh / CEO

HCT CO., LTD. 2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea Tel. +82 31 645 6300 Fax. +82 31 645 6401

HCT CO.,LTD.
2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Tel. +82 31 645 6300 Fax. +82 31 645 6401

TEST REPORT

REPORT NO.
HCT-RF-2411-FC020

DATE OF ISSUE
December 06, 2024

Applicant	**LG Electronics Inc.** 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea
Product Name Model Name	Telematics TM19FNNAHD4
Date of Test	September 30, 2024 ~ December 5, 2024
Location of Test	■ Permanent Testing Lab ☐ On Site Testing (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)
FCC ID	BEJTM19FNNAHD4
FCC Classification	PCS Licensed Transmitter (PCB)
Test Standard Used	FCC Rule Part(s) : § 27
Test Results	PASS

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	December 06, 2024	Initial Release

Notice

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

CONTENTS

MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	LG Electronics Inc.
Address:	128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea
FCC ID:	BEJTM19FNNAHD4
Application Type:	Certification
FCC Classification:	PCS Licensed Transmitter (PCB)
FCC Rule Part(s):	§ 27
EUT Type:	Telematics
Model(s):	TM19FNNAHD4
SCS(kHz):	30
Bandwidth(MHz):	20, 30, 40, 50, 60, 70, 80, 90, 100
Waveform:	CP-OFDM, DFT-S-OFDM
Modulation:	DFT-S-OFDM: PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
[NR n77] Tx Frequency: (3450 MHz - 3550 MHz)	3460.02 MHz – 3540.00 MHz (Sub6 n77(20 MHz)) 3465.00 MHz – 3534.99 MHz (Sub6 n77(30 MHz)) 3470.01 MHz – 3529.98 MHz (Sub6 n77(40 MHz)) 3475.02 MHz – 3525.00 MHz (Sub6 n77(50 MHz)) 3480.00 MHz – 3519.99 MHz (Sub6 n77(60 MHz)) 3485.01 MHz – 3514.98 MHz (Sub6 n77(70 MHz)) 3490.02 MHz – 3510.00 MHz (Sub6 n77(80 MHz)) 3495.00 MHz – 3504.99 MHz (Sub6 n77(90 MHz)) 3500.01 MHz (Sub6 n77(100 MHz))
[NR n77] Tx Frequency: (3700 MHz - 3980 MHz)	3710.01 MHz – 3969.99 MHz (Sub6 n77(20 MHz)) 3715.02 MHz – 3964.98 MHz (Sub6 n77(30 MHz)) 3720.00 MHz – 3960.00 MHz (Sub6 n77(40 MHz)) 3725.10 MHz – 3954.99 MHz (Sub6 n77(50 MHz)) 3730.02 MHz – 3949.98 MHz (Sub6 n77(60 MHz)) 3735.00 MHz – 3945.00 MHz (Sub6 n77(70 MHz)) 3740.01 MHz – 3939.99 MHz (Sub6 n77(80 MHz)) 3745.02 MHz – 3934.98 MHz (Sub6 n77(90 MHz)) 3750.00 MHz – 3930.00 MHz (Sub6 n77(100 MHz))
Date(s) of Tests:	September 30, 2024 ~ December 5, 2024
Serial number:	Radiated : Honda MY26 #02 Conducted : Honda MY26 #01
External Antenna Serial number:	8B505-3NAF-A000 : C03640005
Antenna Information	Please refer to the Antenna Approval Specification document.

1.1. MAXIMUM OUTPUT POWER

3450 MHz - 3550 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77 (20)	3460.02 – 3540.00	17M9G7D	PI/2 BPSK	0.247	23.92
		17M9G7D	QPSK	0.245	23.89
		17M9W7D	16QAM	0.193	22.86
		18M0W7D	64 QAM	0.139	21.44
		17M9W7D	256 QAM	0.087	19.39
Sub6 n77 (30)	3465.00 – 3534.99	26M9G7D	PI/2 BPSK	0.245	23.89
		26M9G7D	QPSK	0.244	23.87
		26M9W7D	16QAM	0.191	22.82
		26M9W7D	64 QAM	0.137	21.38
		26M9W7D	256 QAM	0.086	19.37
Sub6 n77 (40)	3470.01 – 3529.98	35M8G7D	PI/2 BPSK	0.248	23.95
		35M9G7D	QPSK	0.248	23.94
		35M8W7D	16QAM	0.198	22.97
		35M9W7D	64 QAM	0.138	21.41
		35M8W7D	256 QAM	0.089	19.49
Sub6 n77 (50)	3475.02 – 3525.00	45M8G7D	PI/2 BPSK	0.244	23.87
		45M9G7D	QPSK	0.243	23.85
		45M8W7D	16QAM	0.194	22.88
		45M8W7D	64 QAM	0.138	21.39
		45M8W7D	256 QAM	0.087	19.41
Sub6 n77 (60)	3480.00 – 3519.99	57M9G7D	PI/2 BPSK	0.247	23.92
		58M0G7D	QPSK	0.245	23.90
		58M0W7D	16QAM	0.197	22.94
		57M9W7D	64 QAM	0.141	21.48
		57M9W7D	256 QAM	0.088	19.44
Sub6 n77 (70)	3485.01 – 3514.98	64M6G7D	PI/2 BPSK	0.250	23.98
		64M6G7D	QPSK	0.249	23.96
		64M6W7D	16QAM	0.198	22.97
		64M5W7D	64 QAM	0.140	21.47
		64M5W7D	256 QAM	0.089	19.48
Sub6 n77 (80)	3490.02 – 3510.00	77M2G7D	PI/2 BPSK	0.248	23.95
		77M2G7D	QPSK	0.247	23.92
		77M4W7D	16QAM	0.196	22.92
		77M3W7D	64 QAM	0.141	21.48
		77M2W7D	256 QAM	0.088	19.46
Sub6 n77 (90)	3495.00 – 3504.99	86M8G7D	PI/2 BPSK	0.245	23.89
		87M0G7D	QPSK	0.245	23.89
		87M0W7D	16QAM	0.195	22.90
		86M9W7D	64 QAM	0.137	21.37
		86M9W7D	256 QAM	0.088	19.43
Sub6 n77 (100)	3500.01	96M6G7D	PI/2 BPSK	0.248	23.94
		96M6G7D	QPSK	0.247	23.92
		96M6W7D	16QAM	0.197	22.95
		96M5W7D	64 QAM	0.139	21.43
		96M6W7D	256 QAM	0.087	19.40

3700 MHz - 3980 MHz

Mode (MHz)	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Output Power	
				Max. Power (W)	Max. Power (dBm)
Sub6 n77 (20)	3710.01 – 3969.99	17M9G7D	PI/2 BPSK	0.229	23.60
		17M9G7D	QPSK	0.225	23.53
		17M9W7D	16QAM	0.182	22.60
		17M9W7D	64 QAM	0.128	21.06
		17M9W7D	256 QAM	0.080	19.01
Sub6 n77 (30)	3715.02 – 3964.98	26M8G7D	PI/2 BPSK	0.233	23.68
		26M8G7D	QPSK	0.220	23.43
		26M8W7D	16QAM	0.175	22.42
		26M9W7D	64 QAM	0.125	20.98
		26M9W7D	256 QAM	0.078	18.93
Sub6 n77 (40)	3720.00 – 3960.00	35M8G7D	PI/2 BPSK	0.245	23.89
		35M8G7D	QPSK	0.222	23.46
		35M8W7D	16QAM	0.176	22.46
		35M8W7D	64 QAM	0.124	20.95
		35M8W7D	256 QAM	0.079	18.98
Sub6 n77 (50)	3725.10 – 3954.99	45M8G7D	PI/2 BPSK	0.245	23.90
		45M8G7D	QPSK	0.217	23.36
		45M8W7D	16QAM	0.174	22.41
		45M8W7D	64 QAM	0.123	20.89
		45M8W7D	256 QAM	0.078	18.90
Sub6 n77 (60)	3730.02 – 3949.98	57M9G7D	PI/2 BPSK	0.249	23.96
		58M0G7D	QPSK	0.225	23.52
		58M0W7D	16QAM	0.175	22.44
		57M9W7D	64 QAM	0.125	20.98
		58M1W7D	256 QAM	0.080	19.03
Sub6 n77 (70)	3735.00 – 3945.00	64M4G7D	PI/2 BPSK	0.250	23.98
		64M5G7D	QPSK	0.228	23.57
		64M5W7D	16QAM	0.179	22.54
		64M5W7D	64 QAM	0.129	21.10
		64M5W7D	256 QAM	0.081	19.07
Sub6 n77 (80)	3740.01 – 3939.99	77M3G7D	PI/2 BPSK	0.249	23.97
		77M3G7D	QPSK	0.231	23.63
		77M2W7D	16QAM	0.185	22.68
		77M3W7D	64 QAM	0.132	21.21
		77M3W7D	256 QAM	0.083	19.18
Sub6 n77 (90)	3745.02 – 3934.98	86M9G7D	PI/2 BPSK	0.250	23.98
		86M9G7D	QPSK	0.233	23.68
		86M9W7D	16QAM	0.182	22.61
		86M8W7D	64 QAM	0.131	21.16
		86M9W7D	256 QAM	0.083	19.21
Sub6 n77 (100)	3750.00 – 3930.00	96M5G7D	PI/2 BPSK	0.250	23.98
		96M6G7D	QPSK	0.237	23.75
		96M6W7D	16QAM	0.189	22.76
		96M5W7D	64 QAM	0.133	21.23
		96M6W7D	256 QAM	0.086	19.35

2. INTRODUCTION

2.1. DESCRIPTION OF EUT

The EUT was a Telematics with LTE, Sub 6.

2.2. MEASURING INSTRUMENT CALIBRATION

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

2.3. TEST FACILITY

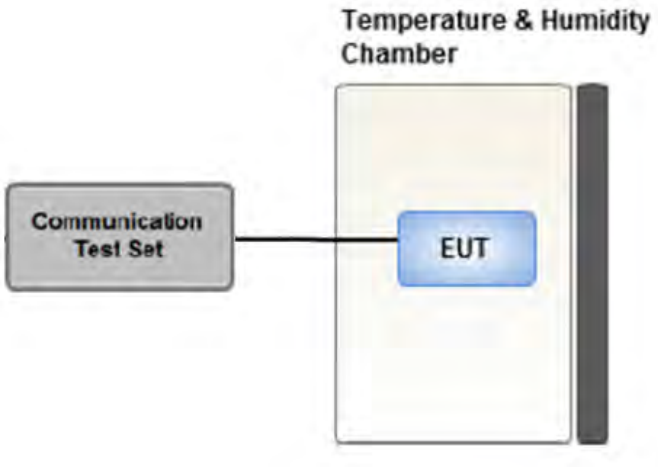
The Fully-anechoic chamber and conducted measurement facility used to collect the radiated data are located at the **74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea**

3. DESCRIPTION OF TESTS

3.1 TEST PROCEDURE

Test Description	Test Procedure Used
Occupied Bandwidth	- KDB 971168 D01 v03r01 – Section 4.3 - ANSI C63.26-2015 – Section 5.4.4
Band Edge	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Spurious and Harmonic Emissions at Antenna Terminal	- KDB 971168 D01 v03r01 – Section 6.0 - ANSI C63.26-2015 – Section 5.7
Conducted Output Power	- KDB 971168 D01 v03r01 – Section 5.2
Peak- to- Average Ratio	- KDB 971168 D01 v03r01 – Section 5.7 - ANSI C63.26-2015 – Section 5.2.3.4
Frequency stability	- ANSI C63.26-2015 – Section 5.6
Radiated Power	- ANSI C63.26-2015 – Section 5.2.4.4 - KDB 971168 D01 v03r01 – Section 5.8
Radiated Spurious and Harmonic Emissions	- ANSI C63.26-2015 – Section 5.5.3 - KDB 971168 D01 v03r01 – Section 5.8

3.2 CONDUCTED OUTPUT POWER



Test setup

Test Overview

When an average power meter is used to perform RF output power measurements, the fundamental condition that measurements be performed only over durations of active transmissions at maximum output power level applies.

Conducted Output Power was tested in accordance with KDB971168 D01 Power Meas License Digital Systems v03r01, Section 5.2.

3.3 RADIATED POWER

Test Overview

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

Test Settings

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

Test Note

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

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

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

3.4 RADIATED SPURIOUS EMISSIONS

Test Overview

Radiated tests are performed in the Fully-anechoic chamber.

Radiated Spurious Emission Measurements at 3 meters by Substitution Method.

Test Settings

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

Test Note

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

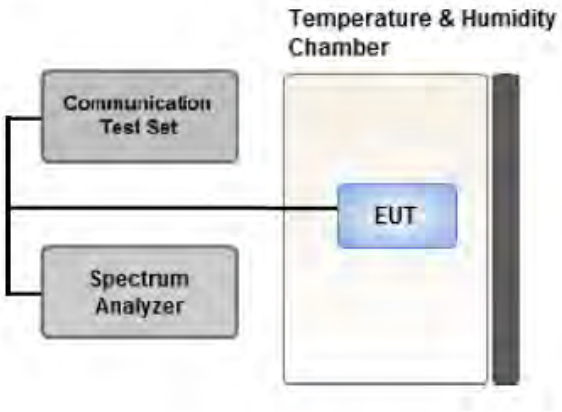
$$\text{Result}_{(dBm)} = \text{Pg}_{(dBm)} - \text{cable loss}_{(dB)} + \text{antenna gain}_{(dBi)}$$

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

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

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

3.5 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)

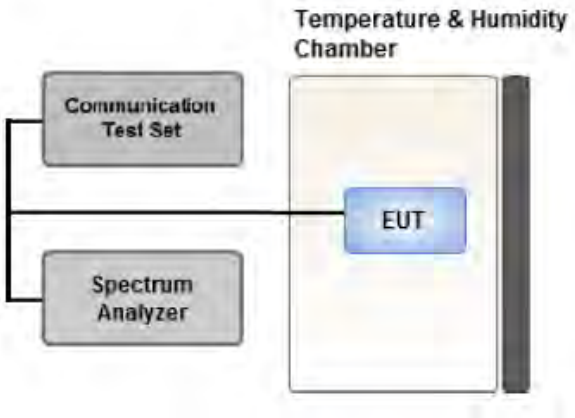
The measurement instrument must have a RBW that is greater than or equal to the OBW of the signal to be measured and a VBW ≥ 3 × RBW.

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 %.

3.6 OCCUPIED BANDWIDTH.



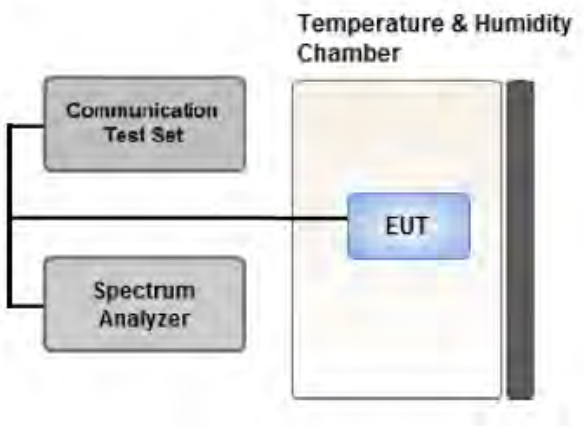
Test setup

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

3.7 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL



Test setup

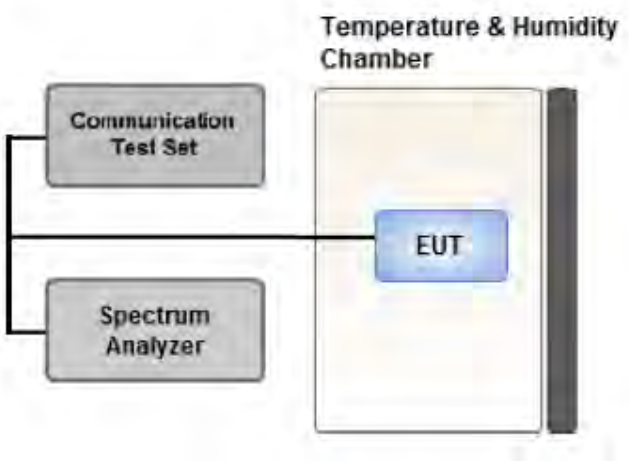
Test Overview

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

Test Settings

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

3.8 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

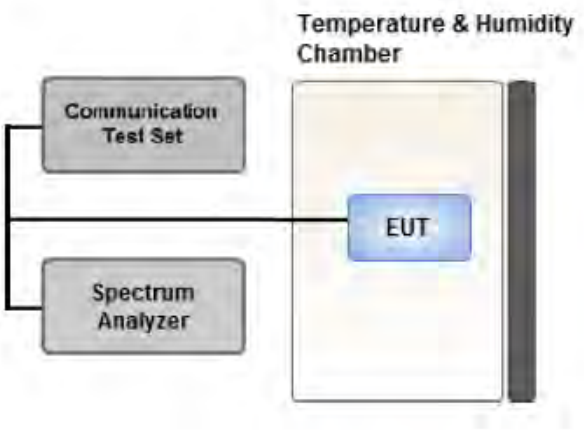
Test Notes

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.

3.9 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.

3.10 WORST CASE(RADIATED TEST)

- The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.
- All modes of operation were investigated and the worst case configuration results are reported.
  Mode : SA, NSA
  Worst case : SA
- All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed.
  Therefore, only the worst case(stand-alone) results were reported.
- Radiated Spurious emissions are measured while operating in EN-DC mode with Sub 6 NR carrier as well as an LTE carrier (anchor).
  All EN-DC mode of operation (=anchor) were investigated and the test results were measured No Peak Found.
  The test results which are attenuated more than 20 dB below the permissible value, so it was not reported.
- The worst case is reported with the EUT positioning, modulations, and paging service configurations shown in the test data.
- All RB sizes, offsets of operation were investigated and the worst case configuration results are reported.
  Please refer to the table below.
- In the case of radiated spurious emissions, all bandwidth of operation were investigated and the worst case bandwidth results are reported.
  (External Antenna Worst case : 80 MHz (3450 MHz - 3550 MHz), 30 MHz (3700 MHz - 3980 MHz))
  (Internal Antenna Worst case : 90 MHz (3450 MHz - 3550 MHz), 100 MHz (3700 MHz - 3980 MHz))

[External Antenna 3450 MHz - 3550 MHz Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 8.2.1		Z
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.3.1		Z

[Internal Antenna_ 3450 MHz - 3550 MHz Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 8.2.2		Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 8.3.2		Z

[External Antenna 3700 MHz - 3980 MHz Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 9.2.1		Y
Radiated Spurious and Harmonic Emissions	PI/2 BPSK	See Section 9.3.1		Z

[Internal Antenna_3700 MHz - 3980 MHz Worst case]

Test Description	Modulation	RB size	RB offset	Axis
Equivalent Isotropic Radiated Power	PI/2 BPSK, QPSK, 16QAM, 64 QAM, 256 QAM	See Section 9.2.2		X
Radiated Spurious and Harmonic Emissions	QPSK	See Section 9.3.2		Z

3.11 WORST CASE(CONDUCTED TEST)

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

[Worst case]

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

4. LIST OF TEST EQUIPMENT

Equipment	Model	Manufacture	Serial No.	Due to Calibration	Calibration Interval
Precision Dipole Antenna	UHAP	Schwarzbeck	01273	03/10/2026	Biennial
Precision Dipole Antenna	UHAP	Schwarzbeck	01274	03/10/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	02289	02/14/2026	Biennial
Horn Antenna(1~18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1299	04/27/2025	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Horn Antenna(15~40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	03/28/2025	Biennial
Loop Antenna(9 kHz~30 MHz)	FMZB1513	Rohde & Schwarz	1513-175	01/16/2025	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/09/2025	Biennial
Hybrid Antenna	VULB9160	Schwarzbeck	760	02/24/2025	Biennial
RF Switching System	FBSR-06B (1G HPF + LNA)	T&M SYSTEM	F3L1	05/14/2025	Annual
RF Switching System	FBSR-06B (3G HPF + LNA)	T&M SYSTEM	F3L2	05/14/2025	Annual
RF Switching System	FBSR-06B (6G HPF + LNA)	T&M SYSTEM	F3L3	05/14/2025	Annual
RF Switching System	FBSR-06B (LNA)	T&M SYSTEM	F3L4	05/14/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/26/2025	Annual
DC Power Supply	E3632A	Hewlett Packard	MY40004427	08/22/2025	Annual
Power Splitter(DC~26.5 GHz)	11667B	Hewlett Packard	11275	02/29/2025	Annual
Chamber	SU-642	ESPEC	93008124	02/19/2025	Annual
Signal Analyzer(10 Hz~26.5 GHz)	N9020A	Agilent	MY51110063	04/04/2025	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	04/17/2025	Annual
Spectrum Analyzer (10 Hz~40 GHz)	FSV40	REOHDE & SCHWARZ	101436	02/13/2025	Annual
Signal & Spectrum Analyzer (2 Hz~67 GHz)	FSW67	REOHDE & SCHWARZ	101736	23/05/2025	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/05/2025	Annual
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262287701	05/16/2025	Annual
Wideband Radio Communication Tester	MT8000A	Anritsu Corp.	6262302511	05/14/2025	Annual
Signal Analyzer(5 Hz~40.0 GHz)	N9030B	KEYSIGHT	MY55480167	05/17/2025	Annual
4-Way Divider	ZC4PD-K1844+	Mini-Circuits	942907	09/10/2025	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-

Note:

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)	1.98 (Confidence level about 95 %, *k*=2)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.36 (Confidence level about 95 %, *k*=2)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.70 (Confidence level about 95 %, *k*=2)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.52 (Confidence level about 95 %, *k*=2)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.66 (Confidence level about 95 %, *k*=2)
Radiated Disturbance (Above 40 GHz)	5.58 (Confidence level about 95 %, *k*=2)

6. SUMMARY OF TEST RESULTS

6.1 Test Condition : Conducted Test

Test Description	FCC Part Section(s)	Test Limit	Test Result
Occupied Bandwidth	§2.1049	N/A	PASS
Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	§2.1051, §27.53(n)(2), §27.53(l)(2)	< -13 dBm	PASS
Conducted Output Power	§2.1046	N/A	PASS
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. 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
20175	1,732.50	-15.75	18.45	9.90	1.76	H	0.456	26.59

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

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

7.3. Emission Designator

GSM Emission Designator

Emission Designator = 249KGXW
GSM BW = 249 kHz
G = Phase Modulation
X = Cases not otherwise covered
W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W
GSM BW = 249 kHz
G = Phase Modulation
7 = Quantized/Digital Info
W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W
WCDMA BW = 4.17 MHz
F = Frequency Modulation
9 = Composite Digital Info
W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D
LTE BW = 4.48 MHz
G = Phase Modulation
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D
LTE BW = 4.48 MHz
W = Amplitude/Angle Modulated
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

8. TEST DATA (3450 MHz - 3550 MHz)

8.1 Conducted Output Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						630668	633334	636000
						3460.02 MHz	3500.01 MHz	3540 MHz
20MHz	30	DFT-s	pi/2 BPSK	1	1	23.92	23.75	23.60
				1	26	23.84	23.51	23.56
				1	49	23.84	23.41	23.60
				25	0	23.42	23.15	23.09
				25	13	23.88	23.53	23.55
				25	26	23.42	22.99	23.09
				50	0	23.40	23.07	23.10
			QPSK	1	1	23.89	23.74	23.57
			16QAM	1	1	22.86	22.81	22.59
			64 QAM	1	1	21.44	21.25	21.12
			256 QAM	1	1	19.39	19.18	19.06
		CP	QPSK	1	1	22.46	22.29	22.11

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						631000	633334	635666
						3465 MHz	3500.01 MHz	3534.99 MHz
30MHz	30	DFT-s	pi/2 BPSK	1	1	23.89	23.81	23.58
				1	39	23.84	23.47	23.52
				1	76	23.76	23.46	23.67
				36	0	23.39	23.15	23.03
				36	21	23.84	23.50	23.55
				36	42	23.32	22.95	23.12
				75	0	23.38	23.06	23.09
			QPSK	1	1	23.87	23.76	23.53
			16QAM	1	1	22.82	22.78	22.54
			64 QAM	1	1	21.38	21.33	21.08
			256 QAM	1	1	19.37	19.32	19.05
		CP	QPSK	1	1	22.39	22.36	22.09

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						631334	633334	635332
						3470.01 MHz	3500.01 MHz	3529.98 MHz
40MHz	30	DFT-s	pi/2 BPSK	1	1	23.95	23.89	23.57
				1	53	23.84	23.51	23.43
				1	104	23.74	23.49	23.71
				50	0	23.43	23.24	23.01
				50	28	23.89	23.56	23.51
				50	56	23.31	23.02	23.06
				100	0	23.41	23.12	23.04
			QPSK	1	1	23.94	23.87	23.55
			16QAM	1	1	22.97	22.88	22.55
			64 QAM	1	1	21.41	21.38	21.03
			256 QAM	1	1	19.49	19.36	19.08
		CP	QPSK	1	1	22.49	22.46	22.09

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						631668	633334	635000
						3475.02 MHz	3500.01 MHz	3525 MHz
50MHz	30	DFT-s	pi/2 BPSK	1	1	23.87	23.86	23.65
				1	66	23.73	23.43	23.23
				1	131	23.42	23.31	23.47
				64	0	23.40	23.20	23.01
				64	35	23.78	23.52	23.44
				64	69	23.06	22.88	22.85
				128	0	23.25	23.05	22.95
			QPSK	1	1	23.85	23.85	23.62
			16QAM	1	1	22.88	22.88	22.57
			64 QAM	1	1	21.39	21.39	21.13
			256 QAM	1	1	19.41	19.29	19.12
		CP	QPSK	1	1	22.44	22.42	22.10

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						632000	633334	634666
						3480 MHz	3500.01 MHz	3519.99 MHz
60MHz	30	DFT-s	pi/2 BPSK	1	1	23.91	23.92	23.75
				1	81	23.73	23.46	23.39
				1	160	23.34	23.23	23.39
				81	0	23.39	23.20	23.05
				81	41	23.75	23.51	23.49
				81	81	23.08	22.87	22.98
				162	0	23.22	23.04	23.02
			QPSK	1	1	23.90	23.88	23.72
			16QAM	1	1	22.90	22.94	22.77
			64 QAM	1	1	21.45	21.48	21.22
			256 QAM	1	1	19.44	19.42	19.24
		CP	QPSK	1	1	22.38	22.44	22.25

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						632334	633334	634332
						3485.01 MHz	3500.01 MHz	3514.98 MHz
70MHz	30	DFT-s	pi/2 BPSK	1	1	23.94	23.97	23.98
				1	94	23.67	23.44	23.47
				1	187	23.22	23.20	23.41
				90	0	23.39	23.27	23.22
				90	45	23.74	23.53	23.56
				90	99	22.97	22.85	23.00
				180	0	23.19	23.09	23.11
			QPSK	1	1	23.93	23.95	23.96
			16QAM	1	1	22.97	22.95	22.96
			64 QAM	1	1	21.47	21.41	21.47
			256 QAM	1	1	19.43	19.48	19.44
		CP	QPSK	1	1	22.44	22.45	22.44

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						632668	633334	634000
						3490.02 MHz	3500.01 MHz	3510 MHz
80MHz	30	DFT-s	pi/2 BPSK	1	1	23.90	23.95	23.92
				1	109	23.48	23.32	23.26
				1	215	23.07	23.13	23.15
				108	0	23.23	23.19	23.10
				108	55	23.53	23.41	23.34
				108	109	22.78	22.72	22.77
				216	0	23.01	22.94	22.92
			QPSK	1	1	23.86	23.92	23.88
			16QAM	1	1	22.89	22.89	22.92
			64 QAM	1	1	21.43	21.48	21.43
			256 QAM	1	1	19.40	19.46	19.37
		CP	QPSK	1	1	22.49	22.47	22.46

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						633000	633334	633666
						3495 MHz	3500.01 MHz	3504.99 MHz
90MHz	30	DFT-s	pi/2 BPSK	1	1	23.78	23.86	23.89
				1	122	23.27	23.25	23.19
				1	243	23.06	23.19	23.15
				125	0	23.12	23.06	23.07
				125	60	22.87	22.76	22.83
				125	120	22.65	22.58	22.68
				243	0	22.86	22.85	22.88
			QPSK	1	1	23.74	23.79	23.89
			16QAM	1	1	22.77	22.82	22.90
			64 QAM	1	1	21.32	21.29	21.37
			256 QAM	1	1	19.27	19.34	19.43
		CP	QPSK	1	1	22.32	22.37	22.48

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)
						633334
						3500.01 MHz
100MHz	30	DFT-s	pi/2 BPSK	1	1	23.94
				1	137	23.35
				1	271	23.24
				135	0	23.29
				135	69	23.48
				135	138	22.78
				270	0	22.99
			QPSK	1	1	23.92
			16QAM	1	1	22.95
			64 QAM	1	1	21.43
			256 QAM	1	1	19.40
		CP	QPSK	1	1	22.48

8.2 EQUIVALENT ISOTROPIC RADIATED POWER

8.2.1 External Antenna

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3460.02	Sub6 n77/ 20 MHz [30 kHz]	PI/2 BPSK	-18.92	19.09	12.00	3.04	H	< 1.00	0.638	28.05	1	49
		QPSK	-19.00	19.01	12.00	3.04	H		0.627	27.97		
		16-QAM	-19.92	18.09	12.00	3.04	H		0.507	27.05		
		64-QAM	-21.42	16.59	12.00	3.04	H		0.359	25.55		
		256-QAM	-23.41	14.60	12.00	3.04	H		0.227	23.56		
3500.01		PI/2 BPSK	-19.06	19.26	12.04	3.04	H		0.670	28.26	1	1
		QPSK	-19.08	19.24	12.04	3.04	H		0.667	28.24		
		16-QAM	-20.00	18.32	12.04	3.04	H		0.540	27.32		
		64-QAM	-21.48	16.84	12.04	3.04	H		0.384	25.84		
		256-QAM	-23.50	14.82	12.04	3.04	H		0.241	23.82		
3540.00		PI/2 BPSK	-18.83	19.45	12.04	3.06	H		0.697	28.43	1	1
		QPSK	-18.86	19.42	12.04	3.06	H		0.692	28.40		
		16-QAM	-19.81	18.47	12.04	3.06	H		0.556	27.45		
		64-QAM	-21.29	16.99	12.04	3.06	H		0.395	25.97		
		256-QAM	-23.29	14.99	12.04	3.06	H		0.250	23.97		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3465.00	Sub6 n77/ 30 MHz [30 kHz]	PI/2 BPSK	-18.84	19.16	12.02	3.02	H	< 1.00	0.655	28.16	1	76
		QPSK	-18.89	19.11	12.02	3.02	H		0.647	28.11		
		16-QAM	-19.84	18.16	12.02	3.02	H		0.520	27.16		
		64-QAM	-21.35	16.65	12.02	3.02	H		0.367	25.65		
		256-QAM	-23.35	14.65	12.02	3.02	H		0.232	23.65		
3500.01		PI/2 BPSK	-18.81	19.51	12.04	3.04	H		0.710	28.51	1	76
		QPSK	-18.86	19.46	12.04	3.04	H		0.702	28.46		
		16-QAM	-19.83	18.49	12.04	3.04	H		0.561	27.49		
		64-QAM	-21.31	17.01	12.04	3.04	H		0.399	26.01		
		256-QAM	-23.35	14.97	12.04	3.04	H		0.250	23.97		
3534.99		PI/2 BPSK	-18.69	19.61	12.04	3.05	H		0.724	28.60	1	76
		QPSK	-18.74	19.56	12.04	3.05	H		0.716	28.55		
		16-QAM	-19.71	18.59	12.04	3.05	H		0.573	27.58		
		64-QAM	-21.19	17.11	12.04	3.05	H		0.407	26.10		
		256-QAM	-23.20	15.10	12.04	3.05	H		0.256	24.09		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3470.01	Sub6 n77/ 40 MHz [30 kHz]	PI/2 BPSK	-18.81	19.19	12.04	3.01	H	< 1.00	0.664	28.22	1	104
		QPSK	-18.83	19.17	12.04	3.01	H		0.661	28.20		
		16-QAM	-19.84	18.16	12.04	3.01	H		0.524	27.19		
		64-QAM	-21.32	16.68	12.04	3.01	H		0.372	25.71		
		256-QAM	-23.30	14.70	12.04	3.01	H		0.236	23.73		
3500.01		PI/2 BPSK	-18.79	19.53	12.04	3.04	H		0.713	28.53	1	104
		QPSK	-18.84	19.48	12.04	3.04	H		0.705	28.48		
		16-QAM	-19.82	18.50	12.04	3.04	H		0.562	27.50		
		64-QAM	-21.33	16.99	12.04	3.04	H		0.397	25.99		
		256-QAM	-23.35	14.97	12.04	3.04	H		0.250	23.97		
3529.98		PI/2 BPSK	-18.63	19.69	12.04	3.05	H		0.738	28.68	1	104
		QPSK	-18.65	19.67	12.04	3.05	H		0.735	28.66		
		16-QAM	-19.63	18.69	12.04	3.05	H		0.586	27.68		
		64-QAM	-21.11	17.21	12.04	3.05	H		0.417	26.20		
		256-QAM	-23.13	15.19	12.04	3.05	H		0.262	24.18		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3475.02	Sub6 n77/ 50 MHz [30 kHz]	PI/2 BPSK	-19.03	18.99	12.04	3.02	H	< 1.00	0.632	28.01	1	131
		QPSK	-19.10	18.92	12.04	3.02	H		0.622	27.94		
		16-QAM	-20.05	17.97	12.04	3.02	H		0.500	26.99		
		64-QAM	-21.55	16.47	12.04	3.02	H		0.354	25.49		
		256-QAM	-23.54	14.48	12.04	3.02	H		0.224	23.50		
3500.01		PI/2 BPSK	-18.94	19.38	12.04	3.04	H		0.689	28.38	1	131
		QPSK	-18.97	19.35	12.04	3.04	H		0.684	28.35		
		16-QAM	-19.95	18.37	12.04	3.04	H		0.546	27.37		
		64-QAM	-21.43	16.89	12.04	3.04	H		0.388	25.89		
		256-QAM	-23.43	14.89	12.04	3.04	H		0.245	23.89		
3525.00		PI/2 BPSK	-18.81	19.59	12.04	3.04	H		0.723	28.59	1	131
		QPSK	-18.85	19.55	12.04	3.04	H		0.716	28.55		
		16-QAM	-19.80	18.60	12.04	3.04	H		0.575	27.60		
		64-QAM	-21.31	17.09	12.04	3.04	H		0.406	26.09		
		256-QAM	-23.31	15.09	12.04	3.04	H		0.256	24.09		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3480.00	Sub6 n77/ 60 MHz [30 kHz]	PI/2 BPSK	-19.06	18.97	12.04	3.02	H	< 1.00	0.630	27.99	1	160
		QPSK	-19.07	18.96	12.04	3.02	H		0.628	27.98		
		16-QAM	-20.06	17.97	12.04	3.02	H		0.500	26.99		
		64-QAM	-21.58	16.45	12.04	3.02	H		0.352	25.47		
		256-QAM	-23.55	14.48	12.04	3.02	H		0.224	23.50		
3500.01		PI/2 BPSK	-18.84	19.48	12.04	3.04	H		0.705	28.48	1	160
		QPSK	-18.86	19.46	12.04	3.04	H		0.702	28.46		
		16-QAM	-19.82	18.50	12.04	3.04	H		0.562	27.50		
		64-QAM	-21.39	16.93	12.04	3.04	H		0.392	25.93		
		256-QAM	-23.36	14.96	12.04	3.04	H		0.249	23.96		
3519.99		PI/2 BPSK	-18.81	19.68	12.04	3.04	H		0.738	28.68	1	160
		QPSK	-18.84	19.65	12.04	3.04	H		0.733	28.65		
		16-QAM	-19.81	18.68	12.04	3.04	H		0.586	27.68		
		64-QAM	-21.31	17.18	12.04	3.04	H		0.415	26.18		
		256-QAM	-23.33	15.16	12.04	3.04	H		0.261	24.16		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3485.01	Sub6 n77/ 70 MHz [30 kHz]	PI/2 BPSK	-19.06	19.04	12.04	3.03	H	< 1.00	0.638	28.05	1	187
		QPSK	-19.07	19.03	12.04	3.03	H		0.637	28.04		
		16-QAM	-20.05	18.05	12.04	3.03	H		0.508	27.06		
		64-QAM	-21.54	16.56	12.04	3.03	H		0.361	25.57		
		256-QAM	-23.56	14.54	12.04	3.03	H		0.227	23.55		
3500.01		PI/2 BPSK	-18.82	19.50	12.04	3.04	H		0.708	28.50	1	187
		QPSK	-18.85	19.47	12.04	3.04	H		0.703	28.47		
		16-QAM	-19.82	18.50	12.04	3.04	H		0.562	27.50		
		64-QAM	-21.33	16.99	12.04	3.04	H		0.397	25.99		
		256-QAM	-23.33	14.99	12.04	3.04	H		0.251	23.99		
3514.98		PI/2 BPSK	-18.83	19.69	12.04	3.04	H		0.740	28.69	1	187
		QPSK	-18.86	19.66	12.04	3.04	H		0.735	28.66		
		16-QAM	-19.80	18.72	12.04	3.04	H		0.592	27.72		
		64-QAM	-21.34	17.18	12.04	3.04	H		0.415	26.18		
		256-QAM	-23.33	15.19	12.04	3.04	H		0.262	24.19		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3490.02	Sub6 n77/ 80 MHz [30 kHz]	PI/2 BPSK	-18.84	19.33	12.04	3.04	H	< 1.00	0.681	28.33	1	215
		QPSK	-18.86	19.31	12.04	3.04	H		0.678	28.31		
		16-QAM	-19.86	18.31	12.04	3.04	H		0.538	27.31		
		64-QAM	-21.33	16.84	12.04	3.04	H		0.384	25.84		
		256-QAM	-23.33	14.84	12.04	3.04	H		0.242	23.84		
3500.01		PI/2 BPSK	-18.78	19.54	12.04	3.04	H		0.715	28.54	1	215
		QPSK	-18.81	19.51	12.04	3.04	H		0.710	28.51		
		16-QAM	-19.81	18.51	12.04	3.04	H		0.564	27.51		
		64-QAM	-21.36	16.96	12.04	3.04	H		0.395	25.96		
		256-QAM	-23.30	15.02	12.04	3.04	H		0.252	24.02		
3510.00		PI/2 BPSK	-18.81	19.76	12.04	3.05	H		0.750	28.75	1	215
		QPSK	-18.85	19.72	12.04	3.05	H		0.743	28.71		
		16-QAM	-19.87	18.70	12.04	3.05	H		0.588	27.69		
		64-QAM	-21.40	17.17	12.04	3.05	H		0.413	26.16		
		256-QAM	-23.35	15.22	12.04	3.05	H		0.264	24.21		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3495.00	Sub6 n77/ 90 MHz [30 kHz]	PI/2 BPSK	-18.80	19.45	12.04	3.04	H	< 1.00	0.700	28.45	1	243
		QPSK	-18.84	19.41	12.04	3.04	H		0.693	28.41		
		16-QAM	-19.79	18.46	12.04	3.04	H		0.557	27.46		
		64-QAM	-21.25	17.00	12.04	3.04	H		0.398	26.00		
		256-QAM	-23.33	14.92	12.04	3.04	H		0.247	23.92		
3500.01		PI/2 BPSK	-18.80	19.52	12.04	3.04	H		0.711	28.52	1	243
		QPSK	-18.81	19.51	12.04	3.04	H		0.710	28.51		
		16-QAM	-19.85	18.47	12.04	3.04	H		0.559	27.47		
		64-QAM	-21.34	16.98	12.04	3.04	H		0.396	25.98		
		256-QAM	-23.35	14.97	12.04	3.04	H		0.250	23.97		
3504.99		PI/2 BPSK	-18.81	19.64	12.04	3.05	H		0.730	28.63	1	243
		QPSK	-18.86	19.59	12.04	3.05	H		0.721	28.58		
		16-QAM	-19.83	18.62	12.04	3.05	H		0.577	27.61		
		64-QAM	-21.34	17.11	12.04	3.05	H		0.407	26.10		
		256-QAM	-23.30	15.15	12.04	3.05	H		0.259	24.14		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3500.01	Sub6 n77/ 100 MHz [30 kHz]	PI/2 BPSK	-18.80	19.52	12.04	3.04	H	< 1.00	0.711	28.52	1	271
		QPSK	-18.81	19.51	12.04	3.04	H		0.710	28.51		
		16-QAM	-19.81	18.51	12.04	3.04	H		0.564	27.51		
		64-QAM	-21.28	17.04	12.04	3.04	H		0.402	26.04		
		256-QAM	-23.31	15.01	12.04	3.04	H		0.252	24.01		

8.2.2 Internal Antenna

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3460.02	Sub6 n77/ 20 MHz [30 kHz]	PI/2 BPSK	-22.01	16.00	12.00	3.04	H	< 1.00	0.313	24.96	1	49
		QPSK	-22.05	15.96	12.00	3.04	H		0.311	24.92		
		16-QAM	-23.04	14.97	12.00	3.04	H		0.247	23.93		
		64-QAM	-24.53	13.48	12.00	3.04	H		0.175	22.44		
		256-QAM	-26.55	11.46	12.00	3.04	H		0.110	20.42		
3500.01		PI/2 BPSK	-22.63	15.69	12.04	3.04	H		0.294	24.69	1	1
		QPSK	-22.65	15.67	12.04	3.04	H		0.293	24.67		
		16-QAM	-23.64	14.68	12.04	3.04	H		0.233	23.68		
		64-QAM	-25.08	13.24	12.04	3.04	H		0.168	22.24		
		256-QAM	-27.13	11.19	12.04	3.04	H		0.105	20.19		
3540.00		PI/2 BPSK	-22.78	15.50	12.04	3.06	H		0.281	24.48	1	1
		QPSK	-22.84	15.44	12.04	3.06	H		0.277	24.42		
		16-QAM	-23.83	14.45	12.04	3.06	H		0.220	23.43		
		64-QAM	-25.31	12.97	12.04	3.06	H		0.157	21.95		
		256-QAM	-27.33	10.95	12.04	3.06	H		0.098	19.93		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3465.00	Sub6 n77/ 30 MHz [30 kHz]	PI/2 BPSK	-21.97	16.03	12.02	3.02	H	< 1.00	0.318	25.03	1	1
		QPSK	-21.98	16.02	12.02	3.02	H		0.318	25.02		
		16-QAM	-22.99	15.01	12.02	3.02	H		0.252	24.01		
		64-QAM	-24.47	13.53	12.02	3.02	H		0.179	22.53		
		256-QAM	-26.47	11.53	12.02	3.02	H		0.113	20.53		
3500.01		PI/2 BPSK	-22.49	15.83	12.04	3.04	H		0.304	24.83	1	1
		QPSK	-22.50	15.82	12.04	3.04	H		0.303	24.82		
		16-QAM	-23.49	14.83	12.04	3.04	H		0.242	23.83		
		64-QAM	-25.00	13.32	12.04	3.04	H		0.171	22.32		
		256-QAM	-26.99	11.33	12.04	3.04	H		0.108	20.33		
3534.99		PI/2 BPSK	-22.75	15.55	12.04	3.05	H		0.284	24.54	1	1
		QPSK	-22.80	15.50	12.04	3.05	H		0.281	24.49		
		16-QAM	-23.77	14.53	12.04	3.05	H		0.225	23.52		
		64-QAM	-25.27	13.03	12.04	3.05	H		0.159	22.02		
		256-QAM	-27.37	10.93	12.04	3.05	H		0.098	19.92		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3470.01	Sub6 n77/ 40 MHz [30 kHz]	PI/2 BPSK	-21.96	16.04	12.04	3.01	H	< 1.00	0.321	25.07	1	1
		QPSK	-21.97	16.03	12.04	3.01	H		0.321	25.06		
		16-QAM	-22.94	15.06	12.04	3.01	H		0.256	24.09		
		64-QAM	-24.41	13.59	12.04	3.01	H		0.183	22.62		
		256-QAM	-26.45	11.55	12.04	3.01	H		0.114	20.58		
3500.01		PI/2 BPSK	-22.26	16.06	12.04	3.04	H		0.321	25.06	1	1
		QPSK	-22.31	16.01	12.04	3.04	H		0.317	25.01		
		16-QAM	-23.30	15.02	12.04	3.04	H		0.252	24.02		
		64-QAM	-24.76	13.56	12.04	3.04	H		0.180	22.56		
		256-QAM	-26.82	11.50	12.04	3.04	H		0.112	20.50		
3529.98		PI/2 BPSK	-22.81	15.51	12.04	3.05	H		0.282	24.50	1	1
		QPSK	-22.82	15.50	12.04	3.05	H		0.281	24.49		
		16-QAM	-23.83	14.49	12.04	3.05	H		0.223	23.48		
		64-QAM	-25.33	12.99	12.04	3.05	H		0.158	21.98		
		256-QAM	-27.31	11.01	12.04	3.05	H		0.100	20.00		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3475.02	Sub6 n77/ 50 MHz [30 kHz]	PI/2 BPSK	-22.05	15.97	12.04	3.02	H	< 1.00	0.316	24.99	1	1
		QPSK	-22.08	15.94	12.04	3.02	H		0.313	24.96		
		16-QAM	-23.04	14.98	12.04	3.02	H		0.251	24.00		
		64-QAM	-24.53	13.49	12.04	3.02	H		0.178	22.51		
		256-QAM	-26.56	11.46	12.04	3.02	H		0.112	20.48		
3500.01		PI/2 BPSK	-22.25	16.07	12.04	3.04	H		0.321	25.07	1	1
		QPSK	-22.27	16.05	12.04	3.04	H		0.320	25.05		
		16-QAM	-23.21	15.11	12.04	3.04	H		0.258	24.11		
		64-QAM	-24.73	13.59	12.04	3.04	H		0.182	22.59		
		256-QAM	-26.74	11.58	12.04	3.04	H		0.114	20.58		
3525.00		PI/2 BPSK	-22.94	15.46	12.04	3.04	H		0.279	24.46	1	1
		QPSK	-22.96	15.44	12.04	3.04	H		0.278	24.44		
		16-QAM	-23.93	14.47	12.04	3.04	H		0.222	23.47		
		64-QAM	-25.42	12.98	12.04	3.04	H		0.158	21.98		
		256-QAM	-27.45	10.95	12.04	3.04	H		0.099	19.95		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3480.00	Sub6 n77/ 60 MHz [30 kHz]	PI/2 BPSK	-22.06	15.97	12.04	3.02	H	< 1.00	0.316	24.99	1	1
		QPSK	-22.07	15.96	12.04	3.02	H		0.315	24.98		
		16-QAM	-23.08	14.95	12.04	3.02	H		0.250	23.97		
		64-QAM	-24.58	13.45	12.04	3.02	H		0.177	22.47		
		256-QAM	-26.56	11.47	12.04	3.02	H		0.112	20.49		
3500.01		PI/2 BPSK	-22.16	16.16	12.04	3.04	H		0.328	25.16	1	1
		QPSK	-22.18	16.14	12.04	3.04	H		0.327	25.14		
		16-QAM	-23.19	15.13	12.04	3.04	H		0.259	24.13		
		64-QAM	-24.67	13.65	12.04	3.04	H		0.184	22.65		
		256-QAM	-26.69	11.63	12.04	3.04	H		0.116	20.63		
3519.99		PI/2 BPSK	-22.71	15.78	12.04	3.04	H		0.301	24.78	1	1
		QPSK	-22.73	15.76	12.04	3.04	H		0.299	24.76		
		16-QAM	-23.72	14.77	12.04	3.04	H		0.238	23.77		
		64-QAM	-25.19	13.30	12.04	3.04	H		0.170	22.30		
		256-QAM	-27.25	11.24	12.04	3.04	H		0.106	20.24		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3485.01	Sub6 n77/ 70 MHz [30 kHz]	PI/2 BPSK	-22.07	16.03	12.04	3.03	H	< 1.00	0.319	25.04	1	1
		QPSK	-22.08	16.02	12.04	3.03	H		0.318	25.03		
		16-QAM	-23.06	15.04	12.04	3.03	H		0.254	24.05		
		64-QAM	-24.55	13.55	12.04	3.03	H		0.180	22.56		
		256-QAM	-26.54	11.56	12.04	3.03	H		0.114	20.57		
3500.01		PI/2 BPSK	-22.00	16.32	12.04	3.04	H		0.340	25.32	1	1
		QPSK	-22.03	16.29	12.04	3.04	H		0.338	25.29		
		16-QAM	-23.03	15.29	12.04	3.04	H		0.269	24.29		
		64-QAM	-24.52	13.80	12.04	3.04	H		0.191	22.80		
		256-QAM	-26.53	11.79	12.04	3.04	H		0.120	20.79		
3514.98		PI/2 BPSK	-22.40	16.12	12.04	3.04	H		0.325	25.12	1	1
		QPSK	-22.41	16.11	12.04	3.04	H		0.324	25.11		
		16-QAM	-23.37	15.15	12.04	3.04	H		0.260	24.15		
		64-QAM	-24.87	13.65	12.04	3.04	H		0.184	22.65		
		256-QAM	-26.90	11.62	12.04	3.04	H		0.115	20.62		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3490.02	Sub6 n77/ 80 MHz [30 kHz]	PI/2 BPSK	-21.99	16.18	12.04	3.04	H	< 1.00	0.330	25.18	1	1
		QPSK	-22.01	16.16	12.04	3.04	H		0.328	25.16		
		16-QAM	-23.01	15.16	12.04	3.04	H		0.261	24.16		
		64-QAM	-24.49	13.68	12.04	3.04	H		0.185	22.68		
		256-QAM	-26.49	11.68	12.04	3.04	H		0.117	20.68		
3500.01		PI/2 BPSK	-21.89	16.43	12.04	3.04	H		0.349	25.43	1	1
		QPSK	-21.92	16.40	12.04	3.04	H		0.347	25.40		
		16-QAM	-22.93	15.39	12.04	3.04	H		0.275	24.39		
		64-QAM	-24.43	13.89	12.04	3.04	H		0.195	22.89		
		256-QAM	-26.43	11.89	12.04	3.04	H		0.123	20.89		
3510.00		PI/2 BPSK	-22.10	16.47	12.04	3.05	H		0.352	25.46	1	1
		QPSK	-22.11	16.46	12.04	3.05	H		0.351	25.45		
		16-QAM	-23.09	15.48	12.04	3.05	H		0.280	24.47		
		64-QAM	-24.61	13.96	12.04	3.05	H		0.197	22.95		
		256-QAM	-26.61	11.96	12.04	3.05	H		0.125	20.95		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3495.00	Sub6 n77/ 90 MHz [30 kHz]	PI/2 BPSK	-21.95	16.30	12.04	3.04	H	< 1.00	0.339	25.30	1	1
		QPSK	-21.98	16.27	12.04	3.04	H		0.337	25.27		
		16-QAM	-23.00	15.25	12.04	3.04	H		0.266	24.25		
		64-QAM	-24.49	13.76	12.04	3.04	H		0.189	22.76		
		256-QAM	-26.51	11.74	12.04	3.04	H		0.119	20.74		
3500.01		PI/2 BPSK	-21.94	16.38	12.04	3.04	H		0.345	25.38	1	1
		QPSK	-21.95	16.37	12.04	3.04	H		0.344	25.37		
		16-QAM	-22.95	15.37	12.04	3.04	H		0.274	24.37		
		64-QAM	-24.42	13.90	12.04	3.04	H		0.195	22.90		
		256-QAM	-26.42	11.90	12.04	3.04	H		0.123	20.90		
3504.99		PI/2 BPSK	-21.90	16.55	12.04	3.05	H		0.358	25.54	1	1
		QPSK	-22.00	16.45	12.04	3.05	H		0.350	25.44		
		16-QAM	-22.91	15.54	12.04	3.05	H		0.284	24.53		
		64-QAM	-24.43	14.02	12.04	3.05	H		0.200	23.01		
		256-QAM	-26.44	12.01	12.04	3.05	H		0.126	21.00		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3500.01	Sub6 n77/ 100 MHz [30 kHz]	PI/2 BPSK	-22.01	16.31	12.04	3.04	H	< 1.00	0.340	25.31	1	1
		QPSK	-22.04	16.28	12.04	3.04	H		0.337	25.28		
		16-QAM	-23.04	15.28	12.04	3.04	H		0.268	24.28		
		64-QAM	-24.52	13.80	12.04	3.04	H		0.191	22.80		
		256-QAM	-26.54	11.78	12.04	3.04	H		0.120	20.78		

8.3 RADIATED SPURIOUS EMISSIONS

8.3.1 External Antenna

▣ NR Band: N77

▣ Bandwidth: 80 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 3 meters

▣ SCS: 30 kHz

Ch.	Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
632668 (3490.02)	6 980.04	-63.23	11.16	-57.57	4.48	V	-50.89	-13.00	1	215
	10 470.06	-64.53	11.72	-54.33	5.59	V	-48.20	-13.00		
	13 960.08	-61.16	12.79	-51.52	6.50	V	-45.23	-13.00		
633334 (3500.01)	7 000.02	-63.38	11.13	-56.73	4.45	V	-50.05	-13.00	1	215
	10 500.03	-64.74	11.71	-53.49	5.64	V	-47.42	-13.00		
	14 000.04	-60.92	12.76	-51.34	6.55	V	-45.13	-13.00		
634000 (3510.00)	7 020.00	-63.77	11.07	-56.86	4.41	V	-50.20	-13.00	1	215
	10 530.00	-63.63	11.69	-52.87	5.64	V	-46.82	-13.00		
	14 040.00	-58.54	12.73	-49.22	6.50	V	-42.99	-13.00		

8.3.2 Internal Antenna

- ▣ NR Band: N77
- ▣ Bandwidth: 90 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 3 meters
- ▣ SCS: 30 kHz

Ch.	Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
633000 (3495.00)	6 990.00	-50.18	11.16	-44.08	4.48	V	-37.40	-13.00	1	1
	10 485.00	-62.30	11.72	-51.75	5.61	V	-45.64	-13.00		
	13 980.00	-60.47	12.77	-50.89	6.52	V	-44.64	-13.00		
633334 (3500.01)	7 000.02	-50.57	11.13	-43.92	4.45	H	-37.24	-13.00	1	1
	10 500.03	-61.80	11.71	-50.55	5.64	V	-44.48	-13.00		
	14 000.04	-60.32	12.76	-50.74	6.55	V	-44.53	-13.00		
636666 (3504.99)	7 009.98	-51.92	11.10	-44.99	4.42	V	-38.31	-13.00	1	1
	10 514.97	-61.63	11.71	-50.57	5.65	V	-44.51	-13.00		
	14 019.96	-59.83	12.74	-50.79	6.55	V	-44.60	-13.00		

8.4 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77	20 MHz	3500.01	BPSK	Full RB	0	4.49
			QPSK			5.53
			16-QAM			6.46
			64-QAM			6.75
			256-QAM			6.78
	30 MHz		BPSK			4.40
			QPSK			5.41
			16-QAM			6.40
			64-QAM			6.74
			256-QAM			6.77
	40 MHz		BPSK			4.78
			QPSK			5.35
			16-QAM			6.33
			64-QAM			6.67
			256-QAM			6.74
	50 MHz		BPSK			4.48
			QPSK			4.90
			16-QAM			5.98
			64-QAM			6.45
			256-QAM			6.73
	60 MHz		BPSK			4.72
			QPSK			5.88
			16-QAM			6.27
			64-QAM			6.63
			256-QAM			6.71
	70 MHz		BPSK			4.88
			QPSK			5.22
			16-QAM			6.19
			64-QAM			6.58
			256-QAM			6.71
	80 MHz		BPSK			4.35
			QPSK			5.05
			16-QAM			6.12
			64-QAM			6.56
			256-QAM			6.74
	90 MHz		BPSK			4.47
			QPSK			5.06
			16-QAM			6.13
			64-QAM			6.51
			256-QAM			6.73
	100 MHz		BPSK			4.46
			QPSK			5.01
			16-QAM			6.06
			64-QAM			6.48
			256-QAM			6.74

Note:
1. Plots of the EUT's Peak- to- Average Ratio are shown Page 92 ~ 136.

8.5 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77	20 MHz	3500.01	BPSK	Full RB	0	17.940
			QPSK			17.942
			16-QAM			17.929
			64-QAM			17.946
			256-QAM			17.918
	30 MHz		BPSK			26.911
			QPSK			26.864
			16-QAM			26.851
			64-QAM			26.922
			256-QAM			26.879
	40 MHz		BPSK			35.782
			QPSK			35.867
			16-QAM			35.816
			64-QAM			35.868
			256-QAM			35.797
	50 MHz		BPSK			45.752
			QPSK			45.863
			16-QAM			45.824
			64-QAM			45.827
			256-QAM			45.803
	60 MHz		BPSK			57.904
			QPSK			57.969
			16-QAM			58.015
			64-QAM			57.941
			256-QAM			57.923
	70 MHz		BPSK			64.595
			QPSK			64.561
			16-QAM			64.624
			64-QAM			64.472
			256-QAM			64.505
	80 MHz		BPSK			77.236
			QPSK			77.231
			16-QAM			77.355
			64-QAM			77.276
			256-QAM			77.201
	90 MHz		BPSK			86.812
			QPSK			86.970
			16-QAM			86.970
			64-QAM			86.864
			256-QAM			86.935
	100 MHz		BPSK			96.569
			QPSK			96.558
			16-QAM			96.610
			64-QAM			96.505
			256-QAM			96.640

Note:
1. Plots of the EUT's Occupied Bandwidth are shown Page 137 ~ 181.

8.6 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77	20	3460.020	4.9552	30.200	-63.305	-33.105	-13.00
		3500.010	9.7109	30.815	-62.694	-31.879	
		3540.000	8.9332	30.815	-62.854	-32.039	
	30	3465.000	9.5314	30.815	-63.335	-32.520	
		3500.010	8.5743	30.815	-63.476	-32.661	
		3534.990	8.2951	30.815	-62.970	-32.155	
	40	3470.010	8.2852	30.815	-64.063	-33.248	
		3500.010	9.1526	30.815	-63.433	-32.618	
		3529.980	5.2343	30.815	-63.496	-32.681	
	50	3475.020	4.8555	30.200	-63.509	-33.309	
		3500.010	8.8535	30.815	-63.976	-33.161	
		3525.000	9.0728	30.815	-63.305	-32.490	
	60	3480.000	4.9053	30.200	-64.009	-33.809	
		3500.010	4.5664	30.200	-62.885	-32.685	
		3519.990	8.6142	30.815	-62.711	-31.896	
	70	3485.010	8.0359	30.815	-63.400	-32.585	
		3500.010	8.8634	30.815	-63.533	-32.718	
		3514.980	4.9352	30.200	-63.471	-33.271	
	80	3490.020	5.2244	30.815	-63.122	-32.307	
		3500.010	6.0220	30.815	-62.778	-31.963	
		3510.000	5.4138	30.815	-63.259	-32.444	
	90	3495.000	4.9452	30.200	-62.596	-32.396	
		3500.010	4.8954	30.200	-63.309	-33.109	
		3504.990	7.9960	30.815	-63.876	-33.061	
	100	3500.010	8.8535	30.815	-63.527	-32.712	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 182 ~ 231.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

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

8.7 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 232 ~ 339.
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

8.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3460.020	100 %	+20(Ref)	3460 019 980	0.0	0.000 000	0.000
	100 %	-30	3460 019 959	-20.5	-0.000 001	-0.006
	100 %	-20	3460 019 941	-38.5	-0.000 001	-0.011
	100 %	-10	3460 019 962	-17.4	-0.000 001	-0.005
	100 %	0	3460 019 961	-18.3	-0.000 001	-0.005
	100 %	+10	3460 019 940	-39.8	-0.000 001	-0.012
	100 %	+30	3460 019 941	-38.8	-0.000 001	-0.011
	100 %	+40	3460 019 941	-38.8	-0.000 001	-0.011
	100 %	+50	3460 019 943	-36.6	-0.000 001	-0.011
	85 %	+20	3460 019 959	-20.5	-0.000 001	-0.006
	115 %	+20	3460 019 962	-17.6	-0.000 001	-0.005
3540.000	100 %	+20(Ref)	3539 999 986	0.0	0.000 000	0.000
	100 %	-30	3539 999 972	-14.0	0.000 000	-0.004
	100 %	-20	3539 999 972	-14.4	0.000 000	-0.004
	100 %	-10	3539 999 951	-34.9	-0.000 001	-0.010
	100 %	0	3539 999 951	-35.7	-0.000 001	-0.010
	100 %	+10	3539 999 968	-18.5	-0.000 001	-0.005
	100 %	+30	3539 999 969	-17.1	0.000 000	-0.005
	100 %	+40	3539 999 967	-19.6	-0.000 001	-0.006
	100 %	+50	3539 999 967	-19.2	-0.000 001	-0.005
	85 %	+20	3539 999 971	-14.8	0.000 000	-0.004
	115 %	+20	3539 999 964	-22.2	-0.000 001	-0.006

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3465.000	100 %	+20(Ref)	3464 999 966	0.0	0.000 000	0.000
	100 %	-30	3464 999 951	-14.5	0.000 000	-0.004
	100 %	-20	3464 999 948	-17.7	-0.000 001	-0.005
	100 %	-10	3464 999 946	-19.9	-0.000 001	-0.006
	100 %	0	3464 999 942	-23.9	-0.000 001	-0.007
	100 %	+10	3464 999 936	-29.2	-0.000 001	-0.008
	100 %	+30	3464 999 935	-30.8	-0.000 001	-0.009
	100 %	+40	3464 999 931	-34.8	-0.000 001	-0.010
	100 %	+50	3464 999 927	-38.6	-0.000 001	-0.011
	85 %	+20	3464 999 947	-18.4	-0.000 001	-0.005
	115 %	+20	3464 999 934	-32.0	-0.000 001	-0.009
3534.990	100 %	+20(Ref)	3534 989 981	0.0	0.000 000	0.000
	100 %	-30	3534 989 962	-19.3	-0.000 001	-0.005
	100 %	-20	3534 989 958	-22.6	-0.000 001	-0.006
	100 %	-10	3534 989 937	-43.9	-0.000 001	-0.012
	100 %	0	3534 989 952	-28.7	-0.000 001	-0.008
	100 %	+10	3534 989 951	-30.3	-0.000 001	-0.009
	100 %	+30	3534 989 965	-15.8	0.000 000	-0.004
	100 %	+40	3534 989 965	-15.9	0.000 000	-0.004
	100 %	+50	3534 989 958	-22.9	-0.000 001	-0.006
	85 %	+20	3534 989 964	-16.5	0.000 000	-0.005
	115 %	+20	3534 989 961	-20.1	-0.000 001	-0.006

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3470.010	100 %	+20(Ref)	3470 009 980	0.0	0.000 000	0.000
	100 %	-30	3470 009 959	-21.3	-0.000 001	-0.006
	100 %	-20	3470 009 959	-20.8	-0.000 001	-0.006
	100 %	-10	3470 009 958	-22.4	-0.000 001	-0.006
	100 %	0	3470 009 957	-23.5	-0.000 001	-0.007
	100 %	+10	3470 009 958	-22.6	-0.000 001	-0.007
	100 %	+30	3470 009 953	-27.7	-0.000 001	-0.008
	100 %	+40	3470 009 952	-28.2	-0.000 001	-0.008
	100 %	+50	3470 009 952	-27.9	-0.000 001	-0.008
	85 %	+20	3470 009 969	-11.5	0.000 000	-0.003
	115 %	+20	3470 009 962	-18.4	-0.000 001	-0.005
3529.980	100 %	+20(Ref)	3529 979 970	0.0	0.000 000	0.000
	100 %	-30	3529 979 960	-10.5	0.000 000	-0.003
	100 %	-20	3529 979 959	-11.2	0.000 000	-0.003
	100 %	-10	3529 979 958	-11.9	0.000 000	-0.003
	100 %	0	3529 979 957	-12.8	0.000 000	-0.004
	100 %	+10	3529 979 954	-15.7	0.000 000	-0.004
	100 %	+30	3529 979 936	-34.2	-0.000 001	-0.010
	100 %	+40	3529 979 954	-15.6	0.000 000	-0.004
	100 %	+50	3529 979 954	-16.1	0.000 000	-0.005
	85 %	+20	3529 979 949	-21.2	-0.000 001	-0.006
	115 %	+20	3529 979 946	-23.9	-0.000 001	-0.007

▣ BandWidth: 50 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3475.020	100 %	+20(Ref)	3475 019 960	0.0	0.000 000	0.000
	100 %	-30	3475 019 924	-36.6	-0.000 001	-0.011
	100 %	-20	3475 019 942	-18.3	-0.000 001	-0.005
	100 %	-10	3475 019 944	-16.0	0.000 000	-0.005
	100 %	0	3475 019 946	-14.1	0.000 000	-0.004
	100 %	+10	3475 019 946	-14.4	0.000 000	-0.004
	100 %	+30	3475 019 950	-10.4	0.000 000	-0.003
	100 %	+40	3475 019 948	-12.3	0.000 000	-0.004
	100 %	+50	3475 019 948	-11.7	0.000 000	-0.003
	85 %	+20	3475 019 946	-14.3	0.000 000	-0.004
	115 %	+20	3475 019 949	-10.8	0.000 000	-0.003
3525.000	100 %	+20(Ref)	3524 999 961	0.0	0.000 000	0.000
	100 %	-30	3524 999 943	-18.3	-0.000 001	-0.005
	100 %	-20	3524 999 925	-36.0	-0.000 001	-0.010
	100 %	-10	3524 999 946	-14.7	0.000 000	-0.004
	100 %	0	3524 999 931	-30.0	-0.000 001	-0.009
	100 %	+10	3524 999 931	-30.1	-0.000 001	-0.009
	100 %	+30	3524 999 932	-29.6	-0.000 001	-0.008
	100 %	+40	3524 999 933	-28.3	-0.000 001	-0.008
	100 %	+50	3524 999 936	-25.1	-0.000 001	-0.007
	85 %	+20	3524 999 938	-22.9	-0.000 001	-0.006
	115 %	+20	3524 999 937	-24.1	-0.000 001	-0.007

▣ BandWidth: 60 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3480.000	100 %	+20(Ref)	3479 999 982	0.0	0.000 000	0.000
	100 %	-30	3479 999 956	-25.2	-0.000 001	-0.007
	100 %	-20	3479 999 953	-28.2	-0.000 001	-0.008
	100 %	-10	3479 999 948	-33.3	-0.000 001	-0.010
	100 %	0	3479 999 966	-15.9	0.000 000	-0.005
	100 %	+10	3479 999 961	-20.9	-0.000 001	-0.006
	100 %	+30	3479 999 955	-26.3	-0.000 001	-0.008
	100 %	+40	3479 999 970	-11.4	0.000 000	-0.003
	100 %	+50	3479 999 965	-16.7	0.000 000	-0.005
	85 %	+20	3480 000 000	18.8	0.000 001	0.005
	115 %	+20	3479 999 960	-21.9	-0.000 001	-0.006
3519.990	100 %	+20(Ref)	3519 989 986	0.0	0.000 000	0.000
	100 %	-30	3519 989 969	-17.3	0.000 000	-0.005
	100 %	-20	3519 989 962	-24.1	-0.000 001	-0.007
	100 %	-10	3519 989 979	-6.7	0.000 000	-0.002
	100 %	0	3519 989 976	-9.8	0.000 000	-0.003
	100 %	+10	3519 989 973	-12.9	0.000 000	-0.004
	100 %	+30	3519 989 969	-16.7	0.000 000	-0.005
	100 %	+40	3519 989 967	-19.5	-0.000 001	-0.006
	100 %	+50	3519 989 991	4.8	0.000 000	0.001
	85 %	+20	3519 989 970	-16.5	0.000 000	-0.005
	115 %	+20	3519 989 964	-22.4	-0.000 001	-0.006

▣ BandWidth: 70 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3485.010	100 %	+20(Ref)	3485 009 978	0.0	0.000 000	0.000
	100 %	-30	3485 009 951	-26.7	-0.000 001	-0.008
	100 %	-20	3485 009 951	-27.3	-0.000 001	-0.008
	100 %	-10	3485 009 944	-33.7	-0.000 001	-0.010
	100 %	0	3485 009 946	-32.3	-0.000 001	-0.009
	100 %	+10	3485 009 963	-15.6	0.000 000	-0.004
	100 %	+30	3485 009 961	-17.1	0.000 000	-0.005
	100 %	+40	3485 009 955	-22.9	-0.000 001	-0.007
	100 %	+50	3485 009 956	-21.8	-0.000 001	-0.006
	85 %	+20	3485 009 963	-15.2	0.000 000	-0.004
	115 %	+20	3485 009 958	-20.6	-0.000 001	-0.006
3514.980	100 %	+20(Ref)	3514 979 973	0.0	0.000 000	0.000
	100 %	-30	3514 979 946	-27.4	-0.000 001	-0.008
	100 %	-20	3514 979 969	-4.5	0.000 000	-0.001
	100 %	-10	3514 979 942	-31.1	-0.000 001	-0.009
	100 %	0	3514 979 941	-32.0	-0.000 001	-0.009
	100 %	+10	3514 979 961	-12.9	0.000 000	-0.004
	100 %	+30	3514 979 962	-11.5	0.000 000	-0.003
	100 %	+40	3514 979 959	-14.9	0.000 000	-0.004
	100 %	+50	3514 979 956	-17.4	0.000 000	-0.005
	85 %	+20	3514 979 959	-14.4	0.000 000	-0.004
	115 %	+20	3514 979 955	-18.0	-0.000 001	-0.005

▣ BandWidth: 80 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3490.020	100 %	+20(Ref)	3490 019 973	0.0	0.000 000	0.000
	100 %	-30	3490 019 945	-27.3	-0.000 001	-0.008
	100 %	-20	3490 019 943	-30.1	-0.000 001	-0.009
	100 %	-10	3490 019 943	-30.0	-0.000 001	-0.009
	100 %	0	3490 019 943	-30.1	-0.000 001	-0.009
	100 %	+10	3490 019 940	-33.1	-0.000 001	-0.009
	100 %	+30	3490 019 938	-35.0	-0.000 001	-0.010
	100 %	+40	3490 019 938	-35.0	-0.000 001	-0.010
	100 %	+50	3490 019 936	-37.2	-0.000 001	-0.011
	85 %	+20	3490 019 943	-29.5	-0.000 001	-0.008
	115 %	+20	3490 019 948	-24.7	-0.000 001	-0.007
3510.000	100 %	+20(Ref)	3509 999 975	0.0	0.000 000	0.000
	100 %	-30	3509 999 947	-27.8	-0.000 001	-0.008
	100 %	-20	3509 999 947	-27.8	-0.000 001	-0.008
	100 %	-10	3509 999 945	-30.0	-0.000 001	-0.009
	100 %	0	3509 999 945	-30.3	-0.000 001	-0.009
	100 %	+10	3509 999 969	-6.0	0.000 000	-0.002
	100 %	+30	3509 999 967	-8.4	0.000 000	-0.002
	100 %	+40	3509 999 941	-33.7	-0.000 001	-0.010
	100 %	+50	3509 999 964	-11.4	0.000 000	-0.003
	85 %	+20	3509 999 955	-19.9	-0.000 001	-0.006
	115 %	+20	3509 999 959	-15.6	0.000 000	-0.004

▣ BandWidth: 90 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3495.000	100 %	+20(Ref)	3494 999 981	0.0	0.000 000	0.000
	100 %	-30	3494 999 959	-22.3	-0.000 001	-0.006
	100 %	-20	3494 999 959	-22.2	-0.000 001	-0.006
	100 %	-10	3494 999 958	-23.3	-0.000 001	-0.007
	100 %	0	3494 999 976	-4.7	0.000 000	-0.001
	100 %	+10	3494 999 972	-8.8	0.000 000	-0.003
	100 %	+30	3494 999 972	-8.9	0.000 000	-0.003
	100 %	+40	3494 999 969	-11.8	0.000 000	-0.003
	100 %	+50	3494 999 967	-14.2	0.000 000	-0.004
	85 %	+20	3494 999 966	-14.6	0.000 000	-0.004
	115 %	+20	3494 999 968	-12.8	0.000 000	-0.004
3504.990	100 %	+20(Ref)	3504 989 992	0.0	0.000 000	0.000
	100 %	-30	3504 989 966	-25.7	-0.000 001	-0.007
	100 %	-20	3504 989 966	-25.7	-0.000 001	-0.007
	100 %	-10	3504 989 966	-25.5	-0.000 001	-0.007
	100 %	0	3504 989 965	-26.5	-0.000 001	-0.008
	100 %	+10	3504 989 982	-9.6	0.000 000	-0.003
	100 %	+30	3504 989 986	-5.7	0.000 000	-0.002
	100 %	+40	3504 989 982	-9.8	0.000 000	-0.003
	100 %	+50	3504 989 962	-29.5	-0.000 001	-0.008
	85 %	+20	3504 989 969	-22.9	-0.000 001	-0.007
	115 %	+20	3504 989 973	-19.1	-0.000 001	-0.005

▣ BandWidth: 100 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3500.010	100 %	+20(Ref)	3500 009 957	0.0	0.000 000	0.000
	100 %	-30	3500 009 915	-42.6	-0.000 001	-0.012
	100 %	-20	3500 009 934	-23.6	-0.000 001	-0.007
	100 %	-10	3500 009 936	-21.8	-0.000 001	-0.006
	100 %	0	3500 009 935	-22.1	-0.000 001	-0.006
	100 %	+10	3500 009 934	-23.8	-0.000 001	-0.007
	100 %	+30	3500 009 934	-23.3	-0.000 001	-0.007
	100 %	+40	3500 009 934	-23.5	-0.000 001	-0.007
	100 %	+50	3500 009 934	-23.0	-0.000 001	-0.007
	85 %	+20	3500 009 936	-21.1	-0.000 001	-0.006
	115 %	+20	3500 009 940	-17.3	0.000 000	-0.005

9. TEST DATA (3700 MHz - 3980 MHz)

9.1 Conducted Output Power

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						647334	656000	664666
						3710.01 MHz	3840 MHz	3969.99MHz
20MHz	30	DFT-s	pi/2 BPSK	1	1	23.60	22.86	23.43
				1	26	23.32	23.06	23.05
				1	49	23.31	23.45	22.48
				25	0	22.96	22.51	22.79
				25	13	23.38	23.11	23.13
				25	26	22.86	22.83	22.31
				50	0	22.86	22.66	22.65
			QPSK	1	1	23.53	22.92	23.41
			16QAM	1	1	22.60	21.93	22.41
			64 QAM	1	1	21.06	20.44	20.91
			256 QAM	1	1	19.01	18.42	18.87
		CP	QPSK	1	1	22.07	21.45	21.92

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						647668	656000	664332
						3715.02 MHz	3840 MHz	3964.98 MHz
30MHz	30	DFT-s	pi/2 BPSK	1	1	23.41	22.88	23.44
				1	39	23.20	23.00	23.29
				1	76	23.32	23.68	22.90
				36	0	22.79	22.41	22.85
				36	21	23.23	23.08	23.33
				36	42	22.79	22.94	22.65
				75	0	22.77	22.64	22.82
			QPSK	1	1	23.34	22.89	23.43
			16QAM	1	1	22.34	21.87	22.42
			64 QAM	1	1	20.92	20.36	20.98
			256 QAM	1	1	18.89	18.32	18.93
		CP	QPSK	1	1	21.92	21.44	21.92

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						648000	656000	664000
						3720 MHz	3840 MHz	3960 MHz
40MHz	30	DFT-s	pi/2 BPSK	1	1	23.55	22.93	23.08
				1	53	23.15	23.02	23.38
				1	104	23.54	23.89	22.87
				50	0	22.82	22.44	22.88
				50	28	23.23	23.09	23.37
				50	56	22.83	23.00	22.77
				100	0	22.82	22.64	22.78
			QPSK	1	1	23.46	22.91	23.07
			16QAM	1	1	22.46	21.92	22.12
			64 QAM	1	1	20.95	20.40	20.53
			256 QAM	1	1	18.98	18.39	18.61
		CP	QPSK	1	1	21.98	21.48	21.45

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						648334	656000	663666
						3725.1 MHz	3840 MHz	3954.99 MHz
50MHz	30	DFT-s	pi/2 BPSK	1	1	23.42	22.61	22.52
				1	61	23.18	22.93	23.20
				1	131	23.60	23.90	22.65
				64	0	22.81	22.32	22.39
				64	35	23.30	23.12	23.17
				64	69	22.91	23.04	22.62
				128	0	22.87	22.62	22.48
			QPSK	1	1	23.36	22.65	22.48
			16QAM	1	1	22.41	21.62	21.49
			64 QAM	1	1	20.89	20.19	20.01
			256 QAM	1	1	18.90	18.15	17.96
		CP	QPSK	1	1	21.98	21.16	21.03

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						648668	656000	663332
						3730.02 MHz	3840 MHz	3949.98 MHz
60MHz	30	DFT-s	pi/2 BPSK	1	1	23.56	23.35	23.09
				1	81	23.51	23.27	23.65
				1	160	23.90	23.92	23.96
				81	0	22.99	22.77	22.92
				81	41	23.55	23.30	23.66
				81	81	23.31	23.24	23.34
				162	0	23.11	22.93	23.11
			QPSK	1	1	23.52	23.21	23.06
			16QAM	1	1	22.44	22.21	22.07
			64 QAM	1	1	20.98	20.70	20.57
			256 QAM	1	1	19.03	18.72	18.95
		CP	QPSK	1	1	22.03	21.73	21.94

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						649000	656000	663000
						3735 MHz	3840 MHz	3945 MHz
70MHz	30	DFT-s	pi/2 BPSK	1	1	23.62	23.35	23.21
				1	94	23.62	23.32	23.53
				1	187	23.89	23.98	23.97
				90	0	23.07	22.79	22.83
				90	45	23.70	23.42	23.62
				90	99	23.43	23.31	23.38
				180	0	23.22	22.99	23.10
			QPSK	1	1	23.57	23.31	23.20
			16QAM	1	1	22.54	22.33	22.22
			64 QAM	1	1	21.10	20.81	20.72
			256 QAM	1	1	19.07	18.80	19.01
		CP	QPSK	1	1	22.13	21.85	21.76

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						649334	656000	662666
						3740.01 MHz	3840 MHz	3939.99 MHz
80MHz	30	DFT-s	pi/2 BPSK	1	1	23.77	23.41	23.42
				1	109	23.69	23.28	23.45
				1	215	23.95	23.94	23.97
				108	0	23.05	22.79	22.72
				108	55	23.75	23.45	23.56
				108	109	23.45	23.35	23.32
				216	0	23.32	22.99	23.11
			QPSK	1	1	23.63	23.38	23.39
			16QAM	1	1	22.68	22.43	22.40
			64 QAM	1	1	21.21	20.90	20.91
			256 QAM	1	1	19.18	18.96	18.94
		CP	QPSK	1	1	22.13	21.95	21.97

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						649668	656000	662332
						3745.02 MHz	3840 MHz	3934.98 MHz
90MHz	30	DFT-s	pi/2 BPSK	1	1	23.67	23.52	23.56
				1	122	23.80	23.32	23.34
				1	243	23.97	23.98	23.91
				125	0	23.11	22.84	22.81
				125	60	23.38	22.99	22.96
				125	120	23.36	23.39	23.29
				243	0	23.38	23.04	23.08
			QPSK	1	1	23.68	23.52	23.62
			16QAM	1	1	22.61	22.51	22.60
			64 QAM	1	1	21.16	21.07	21.10
			256 QAM	1	1	19.21	19.05	19.07
		CP	QPSK	1	1	22.22	22.05	22.19

Bandwidth	SCS(kHz)	OFDM	Modulation	RB Size	RB Offset	Max.Average Power (dBm)		
						650000	656000	662000
						3750 MHz	3840 MHz	3930 MHz
100MHz	30	DFT-s	pi/2 BPSK	1	1	23.65	23.64	23.78
				1	137	23.77	23.35	23.39
				1	271	23.84	23.96	23.98
				135	0	23.15	22.90	22.94
				135	69	23.90	23.51	23.49
				135	138	23.36	23.43	23.33
				270	0	23.40	23.17	23.16
			QPSK	1	1	23.62	23.57	23.75
			16QAM	1	1	22.65	22.56	22.76
			64 QAM	1	1	21.16	21.08	21.23
			256 QAM	1	1	19.16	19.09	19.35
		CP	QPSK	1	1	22.21	22.15	22.26

9.2 EQUIVALENT ISOTROPIC RADIATED POWER

9.2.1 External Antenna

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3710.01	Sub6 n77/ 20 MHz [30 kHz]	PI/2 BPSK	-20.95	17.55	12.08	3.08	V	< 1.00	0.452	26.55	1	49
		QPSK	-20.97	17.53	12.08	3.08	V		0.450	26.53		
		16-QAM	-21.96	16.54	12.08	3.08	V		0.358	25.54		
		64-QAM	-23.45	15.05	12.08	3.08	V		0.254	24.05		
		256-QAM	-25.49	13.01	12.08	3.08	V		0.159	22.01		
3840.00		PI/2 BPSK	-21.02	18.93	11.58	3.20	V		0.538	27.31	1	49
		QPSK	-21.05	18.90	11.58	3.20	V		0.535	27.28		
		16-QAM	-21.99	17.96	11.58	3.20	V		0.431	26.34		
		64-QAM	-23.48	16.47	11.58	3.20	V		0.306	24.85		
		256-QAM	-25.50	14.45	11.58	3.20	V		0.192	22.83		
3969.99		PI/2 BPSK	-22.78	17.08	11.69	3.25	H		0.357	25.52	1	49
		QPSK	-23.49	16.37	11.69	3.25	H		0.303	24.81		
		16-QAM	-24.48	15.38	11.69	3.25	H		0.241	23.82		
		64-QAM	-25.78	14.08	11.69	3.25	H		0.179	22.52		
		256-QAM	-27.81	12.05	11.69	3.25	H		0.112	20.49		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3715.02	Sub6 n77/ 30 MHz [30 kHz]	PI/2 BPSK	-20.94	17.63	12.08	3.11	V	< 1.00	0.457	26.60	1	76
		QPSK	-20.98	17.59	12.08	3.11	V		0.453	26.56		
		16-QAM	-21.98	16.59	12.08	3.11	V		0.360	25.56		
		64-QAM	-23.46	15.11	12.08	3.11	V		0.256	24.08		
		256-QAM	-25.49	13.08	12.08	3.11	V		0.160	22.05		
3840.00		PI/2 BPSK	-21.00	18.95	11.58	3.20	V		0.541	27.33	1	76
		QPSK	-21.03	18.92	11.58	3.20	V		0.537	27.30		
		16-QAM	-22.07	17.88	11.58	3.20	V		0.423	26.26		
		64-QAM	-23.54	16.41	11.58	3.20	V		0.301	24.79		
		256-QAM	-25.54	14.41	11.58	3.20	V		0.190	22.79		
3964.98		PI/2 BPSK	-23.16	16.77	11.67	3.24	H		0.331	25.20	1	76
		QPSK	-23.24	16.69	11.67	3.24	H		0.325	25.12		
		16-QAM	-24.25	15.68	11.67	3.24	H		0.258	24.11		
		64-QAM	-25.40	14.53	11.67	3.24	H		0.198	22.96		
		256-QAM	-27.39	12.54	11.67	3.24	H		0.125	20.97		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3720.00	Sub6 n77/ 40 MHz [30 kHz]	PI/2 BPSK	-20.90	17.73	12.07	3.13	V	< 1.00	0.465	26.67	1	104
		QPSK	-20.91	17.72	12.07	3.13	V		0.463	26.66		
		16-QAM	-21.90	16.73	12.07	3.13	V		0.369	25.67		
		64-QAM	-23.39	15.24	12.07	3.13	V		0.262	24.18		
		256-QAM	-25.41	13.22	12.07	3.13	V		0.164	22.16		
3840.00		PI/2 BPSK	-21.08	18.87	11.58	3.20	V		0.531	27.25	1	1
		QPSK	-21.11	18.84	11.58	3.20	V		0.527	27.22		
		16-QAM	-22.11	17.84	11.58	3.20	V		0.419	26.22		
		64-QAM	-23.64	16.31	11.58	3.20	V		0.294	24.69		
		256-QAM	-25.61	14.34	11.58	3.20	V		0.187	22.72		
3960.00		PI/2 BPSK	-23.02	16.98	11.65	3.24	H		0.346	25.39	1	1
		QPSK	-23.07	16.93	11.65	3.24	H		0.342	25.34		
		16-QAM	-24.09	15.91	11.65	3.24	H		0.270	24.32		
		64-QAM	-25.09	14.91	11.65	3.24	H		0.215	23.32		
		256-QAM	-27.01	12.99	11.65	3.24	H		0.138	21.40		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3725.10	Sub6 n77/ 50 MHz [30 kHz]	PI/2 BPSK	-21.11	17.65	12.06	3.15	V	< 1.00	0.453	26.56	1	1
		QPSK	-21.13	17.63	12.06	3.15	V		0.451	26.54		
		16-QAM	-22.11	16.65	12.06	3.15	V		0.360	25.56		
		64-QAM	-23.65	15.11	12.06	3.15	V		0.252	24.02		
		256-QAM	-25.62	13.14	12.06	3.15	V		0.160	22.05		
3840.00		PI/2 BPSK	-21.26	18.69	11.58	3.20	V		0.509	27.07	1	66
		QPSK	-21.28	18.67	11.58	3.20	V		0.507	27.05		
		16-QAM	-22.23	17.72	11.58	3.20	V		0.407	26.10		
		64-QAM	-23.70	16.25	11.58	3.20	V		0.290	24.63		
		256-QAM	-25.76	14.19	11.58	3.20	V		0.181	22.57		
3954.99		PI/2 BPSK	-22.97	17.06	11.63	3.23	H		0.352	25.46	1	1
		QPSK	-23.03	17.00	11.63	3.23	H		0.347	25.40		
		16-QAM	-24.00	16.03	11.63	3.23	H		0.277	24.43		
		64-QAM	-25.16	14.87	11.63	3.23	H		0.212	23.27		
		256-QAM	-27.18	12.85	11.63	3.23	H		0.133	21.25		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3730.02	Sub6 n77/ 60 MHz [30 kHz]	PI/2 BPSK	-21.01	17.89	12.04	3.17	V	< 1.00	0.474	26.76	1	81
		QPSK	-21.06	17.84	12.04	3.17	V		0.469	26.71		
		16-QAM	-22.03	16.87	12.04	3.17	V		0.375	25.74		
		64-QAM	-23.55	15.35	12.04	3.17	V		0.264	24.22		
		256-QAM	-25.56	13.34	12.04	3.17	V		0.166	22.21		
3840.00		PI/2 BPSK	-21.15	18.80	11.58	3.20	V		0.522	27.18	1	81
		QPSK	-21.16	18.79	11.58	3.20	V		0.521	27.17		
		16-QAM	-22.16	17.79	11.58	3.20	V		0.414	26.17		
		64-QAM	-23.63	16.32	11.58	3.20	V		0.295	24.70		
		256-QAM	-25.67	14.28	11.58	3.20	V		0.185	22.66		
3949.98		PI/2 BPSK	-22.72	17.33	11.61	3.22	H		0.373	25.72	1	1
		QPSK	-22.77	17.28	11.61	3.22	H		0.369	25.67		
		16-QAM	-23.75	16.30	11.61	3.22	H		0.294	24.69		
		64-QAM	-25.24	14.81	11.61	3.22	H		0.209	23.20		
		256-QAM	-27.20	12.85	11.61	3.22	H		0.133	21.24		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3735.00	Sub6 n77/ 70 MHz [30 kHz]	PI/2 BPSK	-21.01	18.01	12.02	3.18	V	< 1.00	0.484	26.85	1	94
		QPSK	-21.02	18.00	12.02	3.18	V		0.483	26.84		
		16-QAM	-22.04	16.98	12.02	3.18	V		0.382	25.82		
		64-QAM	-23.56	15.46	12.02	3.18	V		0.269	24.30		
		256-QAM	-25.58	13.44	12.02	3.18	V		0.169	22.28		
3840.00		PI/2 BPSK	-21.10	18.85	11.58	3.20	V		0.528	27.23	1	94
		QPSK	-21.12	18.83	11.58	3.20	V		0.526	27.21		
		16-QAM	-22.17	17.78	11.58	3.20	V		0.413	26.16		
		64-QAM	-23.64	16.31	11.58	3.20	V		0.294	24.69		
		256-QAM	-25.66	14.29	11.58	3.20	V		0.185	22.67		
3945.00		PI/2 BPSK	-22.46	17.57	11.60	3.23	H		0.393	25.94	1	1
		QPSK	-22.53	17.50	11.60	3.23	H		0.386	25.87		
		16-QAM	-23.52	16.51	11.60	3.23	H		0.308	24.88		
		64-QAM	-25.03	15.00	11.60	3.23	H		0.217	23.37		
		256-QAM	-27.06	12.97	11.60	3.23	H		0.136	21.34		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3740.01	Sub6 n77/ 80 MHz [30 kHz]	PI/2 BPSK	-21.01	18.14	12.00	3.19	V	< 1.00	0.496	26.95	1	1
		QPSK	-21.03	18.12	12.00	3.19	V		0.493	26.93		
		16-QAM	-22.03	17.12	12.00	3.19	V		0.392	25.93		
		64-QAM	-23.60	15.55	12.00	3.19	V		0.273	24.36		
		256-QAM	-25.58	13.57	12.00	3.19	V		0.173	22.38		
3840.00		PI/2 BPSK	-21.17	18.78	11.58	3.20	V		0.520	27.16	1	108
		QPSK	-21.20	18.75	11.58	3.20	V		0.516	27.13		
		16-QAM	-22.13	17.82	11.58	3.20	V		0.417	26.20		
		64-QAM	-23.67	16.28	11.58	3.20	V		0.292	24.66		
		256-QAM	-25.64	14.31	11.58	3.20	V		0.186	22.69		
3939.99		PI/2 BPSK	-22.23	17.77	11.58	3.23	H		0.409	26.12	1	1
		QPSK	-22.25	17.75	11.58	3.23	H		0.407	26.10		
		16-QAM	-23.31	16.69	11.58	3.23	H		0.319	25.04		
		64-QAM	-24.81	15.19	11.58	3.23	H		0.226	23.54		
		256-QAM	-26.82	13.18	11.58	3.23	H		0.142	21.53		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3745.02	Sub6 n77/ 90 MHz [30 kHz]	PI/2 BPSK	-21.05	18.12	11.97	3.18	V	< 1.00	0.491	26.91	1	1
		QPSK	-21.06	18.11	11.97	3.18	V		0.490	26.90		
		16-QAM	-22.07	17.10	11.97	3.18	V		0.388	25.89		
		64-QAM	-23.57	15.60	11.97	3.18	V		0.275	24.39		
		256-QAM	-25.61	13.56	11.97	3.18	V		0.172	22.35		
3840.00		PI/2 BPSK	-21.17	18.78	11.58	3.20	V		0.520	27.16	1	122
		QPSK	-21.18	18.77	11.58	3.20	V		0.519	27.15		
		16-QAM	-22.22	17.73	11.58	3.20	V		0.408	26.11		
		64-QAM	-23.67	16.28	11.58	3.20	V		0.292	24.66		
		256-QAM	-25.75	14.20	11.58	3.20	V		0.181	22.58		
3934.98		PI/2 BPSK	-21.81	18.14	11.56	3.24	H		0.443	26.46	1	1
		QPSK	-21.83	18.12	11.56	3.24	H		0.441	26.44		
		16-QAM	-22.81	17.14	11.56	3.24	H		0.352	25.46		
		64-QAM	-24.35	15.60	11.56	3.24	H		0.247	23.92		
		256-QAM	-26.32	13.63	11.56	3.24	H		0.157	21.95		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3750.00	Sub6 n77/ 100 MHz [30 kHz]	PI/2 BPSK	-21.04	18.15	11.95	3.17	V	< 1.00	0.493	26.93	1	271
		QPSK	-21.05	18.14	11.95	3.17	V		0.492	26.92		
		16-QAM	-22.11	17.08	11.95	3.17	V		0.386	25.86		
		64-QAM	-23.58	15.61	11.95	3.17	V		0.275	24.39		
		256-QAM	-25.60	13.59	11.95	3.17	V		0.173	22.37		
3840.00		PI/2 BPSK	-21.18	18.77	11.58	3.20	V		0.519	27.15	1	136
		QPSK	-21.20	18.75	11.58	3.20	V		0.516	27.13		
		16-QAM	-22.20	17.75	11.58	3.20	V		0.410	26.13		
		64-QAM	-23.72	16.23	11.58	3.20	V		0.289	24.61		
		256-QAM	-25.76	14.19	11.58	3.20	V		0.181	22.57		
3930.00		PI/2 BPSK	-22.38	17.52	11.54	3.26	H		0.380	25.80	1	1
		QPSK	-22.41	17.49	11.54	3.26	H		0.378	25.77		
		16-QAM	-23.42	16.48	11.54	3.26	H		0.299	24.76		
		64-QAM	-24.95	14.95	11.54	3.26	H		0.210	23.23		
		256-QAM	-26.94	12.96	11.54	3.26	H		0.133	21.24		

9.2.2 Internal Antenna

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3710.01	Sub6 n77/ 20 MHz [30 kHz]	PI/2 BPSK	-24.32	14.18	12.08	3.08	H	< 1.00	0.208	23.18	1	1
		QPSK	-24.35	14.15	12.08	3.08	H		0.207	23.15		
		16-QAM	-25.31	13.19	12.08	3.08	H		0.166	22.19		
		64-QAM	-26.85	11.65	12.08	3.08	H		0.116	20.65		
		256-QAM	-28.84	9.66	12.08	3.08	H		0.074	18.66		
3840.00		PI/2 BPSK	-25.46	14.49	11.58	3.20	H		0.194	22.87	1	49
		QPSK	-25.48	14.47	11.58	3.20	H		0.193	22.85		
		16-QAM	-26.46	13.49	11.58	3.20	H		0.154	21.87		
		64-QAM	-27.95	12.00	11.58	3.20	H		0.109	20.38		
		256-QAM	-29.94	10.01	11.58	3.20	H		0.069	18.39		
3969.99		PI/2 BPSK	-25.16	14.70	11.69	3.25	H		0.206	23.14	1	1
		QPSK	-25.21	14.65	11.69	3.25	H		0.204	23.09		
		16-QAM	-26.15	13.71	11.69	3.25	H		0.164	22.15		
		64-QAM	-27.63	12.23	11.69	3.25	H		0.117	20.67		
		256-QAM	-29.67	10.19	11.69	3.25	H		0.073	18.63		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3715.02	Sub6 n77/ 30 MHz [30 kHz]	PI/2 BPSK	-24.34	14.23	12.08	3.11	H	< 1.00	0.209	23.20	1	1
		QPSK	-24.35	14.22	12.08	3.11	H		0.208	23.19		
		16-QAM	-25.35	13.22	12.08	3.11	H		0.166	22.19		
		64-QAM	-26.85	11.72	12.08	3.11	H		0.117	20.69		
		256-QAM	-28.83	9.74	12.08	3.11	H		0.074	18.71		
3840.00		PI/2 BPSK	-25.35	14.60	11.58	3.20	H		0.199	22.98	1	76
		QPSK	-25.41	14.54	11.58	3.20	H		0.196	22.92		
		16-QAM	-26.34	13.61	11.58	3.20	H		0.158	21.99		
		64-QAM	-27.83	12.12	11.58	3.20	H		0.112	20.50		
		256-QAM	-29.79	10.16	11.58	3.20	H		0.071	18.54		
3964.98		PI/2 BPSK	-25.26	14.67	11.67	3.24	H		0.204	23.10	1	1
		QPSK	-25.27	14.66	11.67	3.24	H		0.204	23.09		
		16-QAM	-26.31	13.62	11.67	3.24	H		0.160	22.05		
		64-QAM	-27.59	12.34	11.67	3.24	H		0.119	20.77		
		256-QAM	-29.64	10.29	11.67	3.24	H		0.075	18.72		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3720.00	Sub6 n77/ 40 MHz [30 kHz]	PI/2 BPSK	-24.29	14.34	12.07	3.13	H	< 1.00	0.213	23.28	1	1
		QPSK	-24.31	14.32	12.07	3.13	H		0.212	23.26		
		16-QAM	-25.29	13.34	12.07	3.13	H		0.169	22.28		
		64-QAM	-26.78	11.85	12.07	3.13	H		0.120	20.79		
		256-QAM	-28.79	9.84	12.07	3.13	H		0.076	18.78		
3840.00		PI/2 BPSK	-25.18	14.77	11.58	3.20	H		0.207	23.15	1	104
		QPSK	-25.23	14.72	11.58	3.20	H		0.204	23.10		
		16-QAM	-26.25	13.70	11.58	3.20	H		0.161	22.08		
		64-QAM	-27.70	12.25	11.58	3.20	H		0.116	20.63		
		256-QAM	-29.68	10.27	11.58	3.20	H		0.073	18.65		
3960.00		PI/2 BPSK	-25.41	14.59	11.65	3.24	H		0.200	23.00	1	1
		QPSK	-25.49	14.51	11.65	3.24	H		0.196	22.92		
		16-QAM	-26.46	13.54	11.65	3.24	H		0.157	21.95		
		64-QAM	-27.63	12.37	11.65	3.24	H		0.120	20.78		
		256-QAM	-29.65	10.35	11.65	3.24	H		0.075	18.76		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3725.10	Sub6 n77/ 50 MHz [30 kHz]	PI/2 BPSK	-24.44	14.32	12.06	3.15	H	< 1.00	0.210	23.23	1	1
		QPSK	-24.51	14.25	12.06	3.15	H		0.207	23.16		
		16-QAM	-25.45	13.31	12.06	3.15	H		0.167	22.22		
		64-QAM	-26.94	11.82	12.06	3.15	H		0.118	20.73		
		256-QAM	-28.97	9.79	12.06	3.15	H		0.074	18.70		
3840.00		PI/2 BPSK	-25.28	14.67	11.58	3.20	H		0.202	23.05	1	131
		QPSK	-25.31	14.64	11.58	3.20	H		0.200	23.02		
		16-QAM	-26.25	13.70	11.58	3.20	H		0.161	22.08		
		64-QAM	-27.74	12.21	11.58	3.20	H		0.115	20.59		
		256-QAM	-29.73	10.22	11.58	3.20	H		0.072	18.60		
3954.99		PI/2 BPSK	-25.46	14.57	11.63	3.23	H		0.198	22.97	1	1
		QPSK	-25.53	14.50	11.63	3.23	H		0.195	22.90		
		16-QAM	-26.51	13.52	11.63	3.23	H		0.156	21.92		
		64-QAM	-27.81	12.22	11.63	3.23	H		0.115	20.62		
		256-QAM	-29.85	10.18	11.63	3.23	H		0.072	18.58		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3730.02	Sub6 n77/ 60 MHz [30 kHz]	PI/2 BPSK	-24.46	14.44	12.04	3.17	H	< 1.00	0.214	23.31	1	1
		QPSK	-24.48	14.42	12.04	3.17	H		0.213	23.29		
		16-QAM	-25.47	13.43	12.04	3.17	H		0.170	22.30		
		64-QAM	-26.97	11.93	12.04	3.17	H		0.120	20.80		
		256-QAM	-28.99	9.91	12.04	3.17	H		0.076	18.78		
3840.00		PI/2 BPSK	-25.19	14.76	11.58	3.20	H		0.206	23.14	1	160
		QPSK	-25.21	14.74	11.58	3.20	H		0.205	23.12		
		16-QAM	-26.18	13.77	11.58	3.20	H		0.164	22.15		
		64-QAM	-27.65	12.30	11.58	3.20	H		0.117	20.68		
		256-QAM	-29.63	10.32	11.58	3.20	H		0.074	18.70		
3949.98		PI/2 BPSK	-25.45	14.60	11.61	3.22	H		0.199	22.99	1	1
		QPSK	-25.52	14.53	11.61	3.22	H		0.196	22.92		
		16-QAM	-26.48	13.57	11.61	3.22	H		0.157	21.96		
		64-QAM	-27.93	12.12	11.61	3.22	H		0.113	20.51		
		256-QAM	-29.98	10.07	11.61	3.22	H		0.070	18.46		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3735.00	Sub6 n77/ 70 MHz [30 kHz]	PI/2 BPSK	-24.45	14.57	12.02	3.18	H	< 1.00	0.219	23.41	1	1
		QPSK	-24.47	14.55	12.02	3.18	H		0.218	23.39		
		16-QAM	-25.45	13.57	12.02	3.18	H		0.174	22.41		
		64-QAM	-26.96	12.06	12.02	3.18	H		0.123	20.90		
		256-QAM	-28.99	10.03	12.02	3.18	H		0.077	18.87		
3840.00		PI/2 BPSK	-24.99	14.96	11.58	3.20	H		0.216	23.34	1	187
		QPSK	-25.04	14.91	11.58	3.20	H		0.213	23.29		
		16-QAM	-26.06	13.89	11.58	3.20	H		0.169	22.27		
		64-QAM	-27.53	12.42	11.58	3.20	H		0.120	20.80		
		256-QAM	-29.51	10.44	11.58	3.20	H		0.076	18.82		
3945.00		PI/2 BPSK	-25.27	14.76	11.60	3.23	H		0.206	23.13	1	1
		QPSK	-25.38	14.65	11.60	3.23	H		0.200	23.02		
		16-QAM	-26.32	13.71	11.60	3.23	H		0.161	22.08		
		64-QAM	-27.85	12.18	11.60	3.23	H		0.114	20.55		
		256-QAM	-29.83	10.20	11.60	3.23	H		0.072	18.57		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3740.01	Sub6 n77/ 80 MHz [30 kHz]	PI/2 BPSK	-24.36	14.79	12.00	3.19	H	< 1.00	0.229	23.60	1	1
		QPSK	-24.39	14.76	12.00	3.19	H		0.228	23.57		
		16-QAM	-25.41	13.74	12.00	3.19	H		0.180	22.55		
		64-QAM	-26.91	12.24	12.00	3.19	H		0.127	21.05		
		256-QAM	-28.95	10.20	12.00	3.19	H		0.080	19.01		
3840.00		PI/2 BPSK	-25.06	14.89	11.58	3.20	H		0.212	23.27	1	215
		QPSK	-25.09	14.86	11.58	3.20	H		0.211	23.24		
		16-QAM	-26.03	13.92	11.58	3.20	H		0.170	22.30		
		64-QAM	-27.51	12.44	11.58	3.20	H		0.121	20.82		
		256-QAM	-29.49	10.46	11.58	3.20	H		0.077	18.84		
3939.99		PI/2 BPSK	-25.20	14.80	11.58	3.23	H		0.207	23.15	1	1
		QPSK	-25.23	14.77	11.58	3.23	H		0.205	23.12		
		16-QAM	-26.29	13.71	11.58	3.23	H		0.161	22.06		
		64-QAM	-27.73	12.27	11.58	3.23	H		0.115	20.62		
		256-QAM	-29.74	10.26	11.58	3.23	H		0.073	18.61		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3745.02	Sub6 n77/ 90 MHz [30 kHz]	PI/2 BPSK	-24.34	14.83	11.97	3.18	H	< 1.00	0.230	23.62	1	1
		QPSK	-24.37	14.80	11.97	3.18	H		0.229	23.59		
		16-QAM	-25.36	13.81	11.97	3.18	H		0.182	22.60		
		64-QAM	-26.91	12.26	11.97	3.18	H		0.127	21.05		
		256-QAM	-28.89	10.28	11.97	3.18	H		0.081	19.07		
3840.00		PI/2 BPSK	-25.03	14.92	11.58	3.20	H		0.214	23.30	1	243
		QPSK	-25.05	14.90	11.58	3.20	H		0.213	23.28		
		16-QAM	-26.06	13.89	11.58	3.20	H		0.169	22.27		
		64-QAM	-27.51	12.44	11.58	3.20	H		0.121	20.82		
		256-QAM	-29.47	10.48	11.58	3.20	H		0.077	18.86		
3934.98		PI/2 BPSK	-25.07	14.88	11.56	3.24	H		0.209	23.20	1	1
		QPSK	-25.12	14.83	11.56	3.24	H		0.207	23.15		
		16-QAM	-26.08	13.87	11.56	3.24	H		0.166	22.19		
		64-QAM	-27.56	12.39	11.56	3.24	H		0.118	20.71		
		256-QAM	-29.56	10.39	11.56	3.24	H		0.074	18.71		

Freq (MHz)	Bandwidth [SCS (kHz)]	Modulation	Measured Level (dBm)	Substitude Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	Limit	EIRP		RB	
								W	W	dBm	Size	Offset
3750.00	Sub6 n77/ 100 MHz [30 kHz]	PI/2 BPSK	-24.33	14.86	11.95	3.17	H	< 1.00	0.231	23.64	1	1
		QPSK	-24.34	14.85	11.95	3.17	H		0.231	23.63		
		16-QAM	-25.35	13.84	11.95	3.17	H		0.183	22.62		
		64-QAM	-26.84	12.35	11.95	3.17	H		0.130	21.13		
		256-QAM	-28.86	10.33	11.95	3.17	H		0.082	19.11		
3840.00		PI/2 BPSK	-25.02	14.93	11.58	3.20	H		0.214	23.31	1	271
		QPSK	-25.05	14.90	11.58	3.20	H		0.213	23.28		
		16-QAM	-26.08	13.87	11.58	3.20	H		0.168	22.25		
		64-QAM	-27.54	12.41	11.58	3.20	H		0.120	20.79		
		256-QAM	-29.53	10.42	11.58	3.20	H		0.076	18.80		
3930.00		PI/2 BPSK	-24.99	14.91	11.54	3.26	H		0.208	23.19	1	1
		QPSK	-25.00	14.90	11.54	3.26	H		0.208	23.18		
		16-QAM	-26.02	13.88	11.54	3.26	H		0.164	22.16		
		64-QAM	-27.46	12.44	11.54	3.26	H		0.118	20.72		
		256-QAM	-29.46	10.44	11.54	3.26	H		0.075	18.72		

9.3 RADIATED SPURIOUS EMISSIONS

9.3.1 External Antenna

▣ NR Band: N77

▣ Bandwidth: 30 MHz

▣ Modulation: PI/2 BPSK

▣ Distance: 3 meters

▣ SCS: 30 kHz

Ch.	Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
647668 (3715.02)	7 430.04	-64.08	11.26	-56.08	4.56	V	-49.38	-13.00	1	76
	11 145.06	-65.27	12.13	-53.28	5.80	V	-46.95	-13.00		
	14 860.08	-57.58	13.83	-51.84	6.77	V	-44.78	-13.00		
656000 (3840.00)	7 680.00	-65.71	11.47	-58.40	4.70	V	-51.63	-13.00	1	76
	11 520.00	-64.55	12.34	-53.24	5.87	V	-46.77	-13.00		
	15 360.00	-58.74	15.37	-52.16	6.88	V	-43.67	-13.00		
664332 (3964.98)	7 929.96	-60.85	11.01	-52.90	4.77	V	-46.66	-13.00	1	76
	11 894.94	-63.39	12.51	-52.99	6.01	V	-46.49	-13.00		
	15 859.92	-62.12	16.05	-54.05	6.94	V	-44.94	-13.00		

9.3.2 Internal Antenna

- ▣ NR Band: N77
- ▣ Bandwidth: 100 MHz
- ▣ Modulation: PI/2 BPSK
- ▣ Distance: 3 meters
- ▣ SCS: 30 kHz

Ch.	Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)	Limit (dBm)	RB	
									Size	Offset
650000 (3750.00)	7 500.00	-57.66	11.52	-50.36	4.60	V	-43.44	-13.00	1	1
	11 250.00	-61.74	12.05	-50.63	5.89	V	-44.47	-13.00		
	15 000.00	-58.85	14.31	-51.69	6.78	V	-44.16	-13.00		
656000 (3840.00)	7 680.00	-58.58	11.47	-51.27	4.70	H	-44.50	-13.00	1	271
	11 520.00	-63.85	12.34	-52.54	5.87	V	-46.07	-13.00		
	15 360.00	-58.92	15.37	-52.34	6.88	V	-43.85	-13.00		
662000 (3930.00)	7 860.00	-63.80	11.07	-55.97	4.75	V	-49.65	-13.00	1	1
	11 790.00	-62.16	12.68	-52.73	6.02	V	-46.07	-13.00		
	15 720.00	-60.22	16.08	-53.92	6.95	V	-44.79	-13.00		

9.4 PEAK-TO-AVERAGE RATIO

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (dB)
Sub6 n77	20 MHz	3840.00	BPSK	Full RB	0	4.88
			QPSK			5.72
			16-QAM			6.45
			64-QAM			6.58
			256-QAM			6.63
	30 MHz		BPSK			4.95
			QPSK			5.67
			16-QAM			6.41
			64-QAM			6.53
			256-QAM			6.62
	40 MHz		BPSK			4.23
			QPSK			5.55
			16-QAM			6.37
			64-QAM			6.54
			256-QAM			6.59
	50 MHz		BPSK			4.32
			QPSK			5.77
			16-QAM			6.47
			64-QAM			6.64
			256-QAM			6.68
	60 MHz		BPSK			5.66
			QPSK			6.03
			16-QAM			6.48
			64-QAM			6.60
			256-QAM			6.66
	70 MHz		BPSK			4.42
			QPSK			5.78
			16-QAM			6.45
			64-QAM			6.65
			256-QAM			6.67
	80 MHz		BPSK			4.33
			QPSK			5.83
			16-QAM			6.52
			64-QAM			6.61
			256-QAM			6.68
	90 MHz		BPSK			4.34
			QPSK			5.79
			16-QAM			6.52
			64-QAM			6.62
			256-QAM			6.68
	100 MHz		BPSK			4.34
			QPSK			5.85
			16-QAM			6.49
			64-QAM			6.66
			256-QAM			6.65

Note:
1. Plots of the EUT's Peak- to- Average Ratio are shown Page 341 ~ 385.

9.5 OCCUPIED BANDWIDTH

Band	Band Width	Frequency (MHz)	Modulation	Resource Block Size	Resource Block Offset	Data (MHz)
Sub6 n77	20 MHz	3840.00	BPSK	Full RB	0	17.906
			QPSK			17.936
			16-QAM			17.933
			64-QAM			17.924
			256-QAM			17.932
	30 MHz		BPSK			26.838
			QPSK			26.836
			16-QAM			26.839
			64-QAM			26.875
			256-QAM			26.907
	40 MHz		BPSK			35.769
			QPSK			35.790
			16-QAM			35.801
			64-QAM			35.786
			256-QAM			35.790
	50 MHz		BPSK			45.757
			QPSK			45.765
			16-QAM			45.824
			64-QAM			45.764
			256-QAM			45.832
	60 MHz		BPSK			57.924
			QPSK			57.979
			16-QAM			58.020
			64-QAM			57.943
			256-QAM			58.058
	70 MHz		BPSK			64.403
			QPSK			64.482
			16-QAM			64.460
			64-QAM			64.498
			256-QAM			64.494
	80 MHz		BPSK			77.296
			QPSK			77.303
			16-QAM			77.161
			64-QAM			77.259
			256-QAM			77.249
	90 MHz		BPSK			86.900
			QPSK			86.869
			16-QAM			86.895
			64-QAM			86.755
			256-QAM			86.902
	100 MHz		BPSK			96.529
			QPSK			96.561
			16-QAM			96.642
			64-QAM			96.497
			256-QAM			96.585

Note:
1. Plots of the EUT's Occupied Bandwidth are shown Page 386 ~ 430.

9.6 CONDUCTED SPURIOUS EMISSIONS

Band	Band Width (MHz)	Frequency (MHz)	Frequency of Maximum Harmonic (GHz)	Factor (dB)	Measurement Maximum Data (dBm)	Result (dBm)	Limit (dBm)
Sub6 n77	20	3710.010	10.0000	30.815	-63.311	-32.496	-13.00
		3840.000	4.9652	30.200	-62.767	-32.567	
		3969.990	9.9601	30.815	-63.270	-32.455	
	30	3715.020	9.9402	30.815	-62.588	-31.773	
		3840.000	8.3151	30.815	-62.634	-31.819	
		3964.980	8.7438	30.815	-62.996	-32.181	
	40	3720.000	7.4477	30.815	-63.719	-32.904	
		3840.000	9.9502	30.815	-63.598	-32.783	
		3960.000	9.3918	30.815	-62.981	-32.166	
	50	3725.010	9.1127	30.815	-63.566	-32.751	
		3840.000	5.1646	30.815	-63.212	-32.397	
		3954.990	8.8036	30.815	-63.197	-32.382	
	60	3730.020	8.8634	30.815	-62.936	-32.121	
		3840.000	9.9900	30.815	-62.843	-32.028	
		3949.980	5.2543	30.815	-63.665	-32.850	
	70	3735.000	8.0160	30.815	-63.617	-32.802	
		3840.000	7.7568	30.815	-63.698	-32.883	
		3945.000	8.3250	30.815	-63.530	-32.715	
	80	3740.010	9.1326	30.815	-63.542	-32.727	
		3840.000	4.9552	30.200	-62.968	-32.768	
		3939.990	9.7109	30.815	-62.867	-32.052	
	90	3745.020	6.0020	30.815	-63.537	-32.722	
		3840.000	9.1326	30.815	-63.271	-32.456	
		3934.980	7.4876	30.815	-63.492	-32.677	
	100	3750.000	9.1725	30.815	-63.065	-32.250	
		3840.000	9.7109	30.815	-64.060	-33.245	
		3930.000	9.0229	30.815	-62.419	-31.604	

Note:

1. Plots of the EUT's Conducted Spurious Emissions are shown Page 182 ~ 231.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Ext. Attenuator + Power Splitter

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

9.7 BAND EDGE

1. Plots of the EUT's Band Edge are shown Page 485 ~ 592.
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

9.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

▣ BandWidth: 20 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3710.010	100 %	+20(Ref)	3710 009 968	0.0	0.000 000	0.000
	100 %	-30	3710 009 941	-27.3	-0.000 001	-0.007
	100 %	-20	3710 009 942	-26.8	-0.000 001	-0.007
	100 %	-10	3710 009 943	-25.6	-0.000 001	-0.007
	100 %	0	3710 009 927	-41.3	-0.000 001	-0.011
	100 %	+10	3710 009 930	-38.2	-0.000 001	-0.010
	100 %	+30	3710 009 933	-35.0	-0.000 001	-0.009
	100 %	+40	3710 009 933	-35.6	-0.000 001	-0.010
	100 %	+50	3710 009 937	-31.5	-0.000 001	-0.008
	85 %	+20	3710 009 950	-18.8	-0.000 001	-0.005
	115 %	+20	3710 009 950	-18.5	0.000 000	-0.005
3969.990	100 %	+20(Ref)	3969 989 971	0.0	0.000 000	0.000
	100 %	-30	3969 989 943	-28.5	-0.000 001	-0.007
	100 %	-20	3969 989 942	-29.4	-0.000 001	-0.007
	100 %	-10	3969 989 944	-27.0	-0.000 001	-0.007
	100 %	0	3969 989 947	-24.3	-0.000 001	-0.006
	100 %	+10	3969 989 929	-42.3	-0.000 001	-0.011
	100 %	+30	3969 989 947	-24.5	-0.000 001	-0.006
	100 %	+40	3969 989 947	-24.2	-0.000 001	-0.006
	100 %	+50	3969 989 951	-20.0	-0.000 001	-0.005
	85 %	+20	3969 989 950	-21.6	-0.000 001	-0.005
	115 %	+20	3969 989 950	-21.0	-0.000 001	-0.005

▣ BandWidth: 30 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3715.020	100 %	+20(Ref)	3715 019 981	0.0	0.000 000	0.000
	100 %	-30	3715 019 960	-21.6	-0.000 001	-0.006
	100 %	-20	3715 019 941	-40.6	-0.000 001	-0.011
	100 %	-10	3715 019 941	-40.4	-0.000 001	-0.011
	100 %	0	3715 019 942	-39.1	-0.000 001	-0.011
	100 %	+10	3715 019 942	-39.7	-0.000 001	-0.011
	100 %	+30	3715 019 960	-20.9	-0.000 001	-0.006
	100 %	+40	3715 019 944	-36.8	-0.000 001	-0.010
	100 %	+50	3715 019 946	-35.7	-0.000 001	-0.010
	85 %	+20	3715 019 959	-22.2	-0.000 001	-0.006
	115 %	+20	3715 019 956	-24.8	-0.000 001	-0.007
3964.980	100 %	+20(Ref)	3964 979 980	0.0	0.000 000	0.000
	100 %	-30	3964 979 959	-21.2	-0.000 001	-0.005
	100 %	-20	3964 979 957	-22.7	-0.000 001	-0.006
	100 %	-10	3964 979 958	-22.0	-0.000 001	-0.006
	100 %	0	3964 979 960	-19.7	0.000 000	-0.005
	100 %	+10	3964 979 957	-23.5	-0.000 001	-0.006
	100 %	+30	3964 979 960	-19.8	0.000 000	-0.005
	100 %	+40	3964 979 961	-19.1	0.000 000	-0.005
	100 %	+50	3964 979 959	-20.7	-0.000 001	-0.005
	85 %	+20	3964 979 962	-18.2	0.000 000	-0.005
	115 %	+20	3964 979 962	-17.6	0.000 000	-0.004

▣ BandWidth: 40 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3720.000	100 %	+20(Ref)	3719 999 970	0.0	0.000 000	0.000
	100 %	-30	3719 999 941	-29.2	-0.000 001	-0.008
	100 %	-20	3719 999 963	-7.8	0.000 000	-0.002
	100 %	-10	3719 999 940	-30.8	-0.000 001	-0.008
	100 %	0	3719 999 962	-8.8	0.000 000	-0.002
	100 %	+10	3719 999 939	-31.0	-0.000 001	-0.008
	100 %	+30	3719 999 939	-31.4	-0.000 001	-0.008
	100 %	+40	3719 999 937	-33.2	-0.000 001	-0.009
	100 %	+50	3719 999 938	-32.1	-0.000 001	-0.009
	85 %	+20	3719 999 950	-20.9	-0.000 001	-0.006
	115 %	+20	3719 999 948	-22.4	-0.000 001	-0.006
3960.000	100 %	+20(Ref)	3959 999 976	0.0	0.000 000	0.000
	100 %	-30	3959 999 950	-25.2	-0.000 001	-0.006
	100 %	-20	3959 999 951	-25.1	-0.000 001	-0.006
	100 %	-10	3959 999 952	-23.8	-0.000 001	-0.006
	100 %	0	3959 999 954	-22.1	-0.000 001	-0.006
	100 %	+10	3959 999 953	-22.3	-0.000 001	-0.006
	100 %	+30	3959 999 952	-23.3	-0.000 001	-0.006
	100 %	+40	3959 999 957	-18.9	0.000 000	-0.005
	100 %	+50	3959 999 954	-21.5	-0.000 001	-0.005
	85 %	+20	3959 999 964	-11.6	0.000 000	-0.003
	115 %	+20	3959 999 955	-20.9	-0.000 001	-0.005

▣ BandWidth: 50 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3725.010	100 %	+20(Ref)	3725 009 988	0.0	0.000 000	0.000
	100 %	-30	3725 009 975	-12.8	0.000 000	-0.003
	100 %	-20	3725 009 974	-13.8	0.000 000	-0.004
	100 %	-10	3725 009 975	-12.7	0.000 000	-0.003
	100 %	0	3725 009 975	-12.4	0.000 000	-0.003
	100 %	+10	3725 009 974	-14.1	0.000 000	-0.004
	100 %	+30	3725 009 971	-16.3	0.000 000	-0.004
	100 %	+40	3725 009 973	-14.9	0.000 000	-0.004
	100 %	+50	3725 009 970	-17.4	0.000 000	-0.005
	85 %	+20	3725 009 970	-17.7	0.000 000	-0.005
	115 %	+20	3725 009 971	-16.6	0.000 000	-0.004
3954.990	100 %	+20(Ref)	3954 989 983	0.0	0.000 000	0.000
	100 %	-30	3954 989 963	-19.6	0.000 000	-0.005
	100 %	-20	3954 989 962	-20.3	-0.000 001	-0.005
	100 %	-10	3954 989 963	-19.4	0.000 000	-0.005
	100 %	0	3954 989 964	-19.1	0.000 000	-0.005
	100 %	+10	3954 989 963	-19.2	0.000 000	-0.005
	100 %	+30	3954 989 966	-17.1	0.000 000	-0.004
	100 %	+40	3954 989 963	-19.7	0.000 000	-0.005
	100 %	+50	3954 989 959	-23.4	-0.000 001	-0.006
	85 %	+20	3954 989 968	-14.5	0.000 000	-0.004
	115 %	+20	3954 989 966	-16.8	0.000 000	-0.004

▣ BandWidth: 60 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3730.020	100 %	+20(Ref)	3730 019 976	0.0	0.000 000	0.000
	100 %	-30	3730 019 951	-25.1	-0.000 001	-0.007
	100 %	-20	3730 019 951	-24.9	-0.000 001	-0.007
	100 %	-10	3730 019 951	-24.5	-0.000 001	-0.007
	100 %	0	3730 019 948	-27.3	-0.000 001	-0.007
	100 %	+10	3730 019 948	-27.8	-0.000 001	-0.007
	100 %	+30	3730 019 949	-27.2	-0.000 001	-0.007
	100 %	+40	3730 019 948	-28.0	-0.000 001	-0.008
	100 %	+50	3730 019 948	-27.5	-0.000 001	-0.007
	85 %	+20	3730 019 955	-20.9	-0.000 001	-0.006
	115 %	+20	3730 019 962	-14.0	0.000 000	-0.004
3949.980	100 %	+20(Ref)	3949 979 985	0.0	0.000 000	0.000
	100 %	-30	3949 979 992	6.9	0.000 000	0.002
	100 %	-20	3949 979 971	-14.3	0.000 000	-0.004
	100 %	-10	3949 979 969	-16.0	0.000 000	-0.004
	100 %	0	3949 979 971	-14.1	0.000 000	-0.004
	100 %	+10	3949 979 969	-16.2	0.000 000	-0.004
	100 %	+30	3949 979 969	-15.9	0.000 000	-0.004
	100 %	+40	3949 979 990	4.9	0.000 000	0.001
	100 %	+50	3949 979 970	-15.1	0.000 000	-0.004
	85 %	+20	3949 979 971	-13.8	0.000 000	-0.003
	115 %	+20	3949 979 966	-19.1	0.000 000	-0.005

▣ BandWidth: 70 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3735.000	100 %	+20(Ref)	3734 999 967	0.0	0.000 000	0.000
	100 %	-30	3734 999 932	-34.4	-0.000 001	-0.009
	100 %	-20	3734 999 931	-36.1	-0.000 001	-0.010
	100 %	-10	3734 999 955	-12.3	0.000 000	-0.003
	100 %	0	3734 999 957	-9.5	0.000 000	-0.003
	100 %	+10	3734 999 955	-11.9	0.000 000	-0.003
	100 %	+30	3734 999 931	-36.3	-0.000 001	-0.010
	100 %	+40	3734 999 931	-36.3	-0.000 001	-0.010
	100 %	+50	3734 999 931	-35.8	-0.000 001	-0.010
	85 %	+20	3734 999 940	-26.5	-0.000 001	-0.007
	115 %	+20	3734 999 942	-24.8	-0.000 001	-0.007
3945.000	100 %	+20(Ref)	3944 999 980	0.0	0.000 000	0.000
	100 %	-30	3944 999 958	-21.5	-0.000 001	-0.005
	100 %	-20	3944 999 960	-19.2	0.000 000	-0.005
	100 %	-10	3944 999 958	-21.3	-0.000 001	-0.005
	100 %	0	3944 999 959	-20.4	-0.000 001	-0.005
	100 %	+10	3944 999 958	-21.4	-0.000 001	-0.005
	100 %	+30	3944 999 958	-21.5	-0.000 001	-0.005
	100 %	+40	3944 999 957	-22.4	-0.000 001	-0.006
	100 %	+50	3944 999 935	-45.1	-0.000 001	-0.011
	85 %	+20	3944 999 947	-32.2	-0.000 001	-0.008
	115 %	+20	3944 999 952	-27.8	-0.000 001	-0.007

▣ BandWidth: 80 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3740.010	100 %	+20(Ref)	3740 009 986	0.0	0.000 000	0.000
	100 %	-30	3740 009 970	-15.9	0.000 000	-0.004
	100 %	-20	3740 009 969	-17.2	0.000 000	-0.005
	100 %	-10	3740 009 946	-39.5	-0.000 001	-0.011
	100 %	0	3740 009 970	-15.7	0.000 000	-0.004
	100 %	+10	3740 009 945	-40.6	-0.000 001	-0.011
	100 %	+30	3740 009 943	-42.6	-0.000 001	-0.011
	100 %	+40	3740 009 944	-41.5	-0.000 001	-0.011
	100 %	+50	3740 009 966	-19.5	-0.000 001	-0.005
	85 %	+20	3740 009 967	-18.9	-0.000 001	-0.005
	115 %	+20	3740 009 968	-18.0	0.000 000	-0.005
3939.990	100 %	+20(Ref)	3939 989 975	0.0	0.000 000	0.000
	100 %	-30	3939 989 923	-51.3	-0.000 001	-0.013
	100 %	-20	3939 989 948	-26.8	-0.000 001	-0.007
	100 %	-10	3939 989 949	-25.3	-0.000 001	-0.006
	100 %	0	3939 989 947	-27.6	-0.000 001	-0.007
	100 %	+10	3939 989 948	-26.5	-0.000 001	-0.007
	100 %	+30	3939 989 946	-28.1	-0.000 001	-0.007
	100 %	+40	3939 989 946	-28.6	-0.000 001	-0.007
	100 %	+50	3939 989 946	-28.6	-0.000 001	-0.007
	85 %	+20	3939 989 952	-22.1	-0.000 001	-0.006
	115 %	+20	3939 989 948	-26.1	-0.000 001	-0.007

▣ BandWidth: 90 MHz

▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3745.020	100 %	+20(Ref)	3745 019 970	0.0	0.000 000	0.000
	100 %	-30	3745 019 939	-31.7	-0.000 001	-0.008
	100 %	-20	3745 019 940	-30.8	-0.000 001	-0.008
	100 %	-10	3745 019 940	-30.8	-0.000 001	-0.008
	100 %	0	3745 019 962	-8.3	0.000 000	-0.002
	100 %	+10	3745 019 936	-34.0	-0.000 001	-0.009
	100 %	+30	3745 019 935	-35.5	-0.000 001	-0.009
	100 %	+40	3745 019 935	-35.3	-0.000 001	-0.009
	100 %	+50	3745 019 933	-37.6	-0.000 001	-0.010
	85 %	+20	3745 019 950	-20.4	-0.000 001	-0.005
	115 %	+20	3745 019 945	-25.9	-0.000 001	-0.007
3934.980	100 %	+20(Ref)	3934 979 981	0.0	0.000 000	0.000
	100 %	-30	3934 979 964	-17.5	0.000 000	-0.004
	100 %	-20	3934 979 961	-20.1	-0.000 001	-0.005
	100 %	-10	3934 979 963	-18.8	0.000 000	-0.005
	100 %	0	3934 979 988	7.1	0.000 000	0.002
	100 %	+10	3934 979 963	-18.0	0.000 000	-0.005
	100 %	+30	3934 979 963	-18.2	0.000 000	-0.005
	100 %	+40	3934 979 960	-21.8	-0.000 001	-0.006
	100 %	+50	3934 979 988	7.0	0.000 000	0.002
	85 %	+20	3934 979 961	-20.7	-0.000 001	-0.005
	115 %	+20	3934 979 970	-11.8	0.000 000	-0.003

▣ BandWidth: 100 MHz

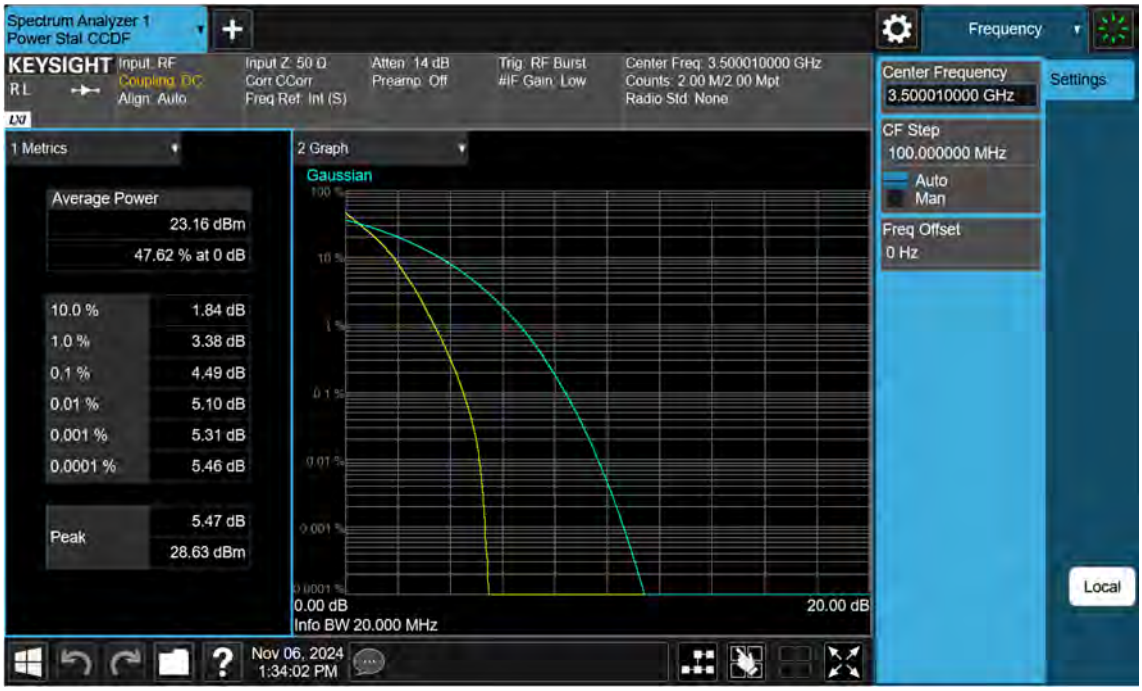
▣ Voltage(100 %): 13.200 VDC

▣ LIMIT: Emission must remain in band

Test. Frequncy	Voltage	Temp.	Frequency	Frequency	Deviation	ppm
(MHz)	(%)	(°C)	(Hz)	Error (Hz)	(%)	
3750.000	100 %	+20(Ref)	3749 999 981	0.0	0.000 000	0.000
	100 %	-30	3749 999 959	-22.0	-0.000 001	-0.006
	100 %	-20	3749 999 958	-22.8	-0.000 001	-0.006
	100 %	-10	3749 999 975	-6.0	0.000 000	-0.002
	100 %	0	3749 999 952	-28.4	-0.000 001	-0.008
	100 %	+10	3749 999 950	-30.5	-0.000 001	-0.008
	100 %	+30	3749 999 967	-13.6	0.000 000	-0.004
	100 %	+40	3749 999 965	-15.6	0.000 000	-0.004
	100 %	+50	3749 999 963	-17.9	0.000 000	-0.005
	85 %	+20	3749 999 955	-25.9	-0.000 001	-0.007
	115 %	+20	3749 999 957	-24.3	-0.000 001	-0.006
3930.000	100 %	+20(Ref)	3929 999 963	0.0	0.000 000	0.000
	100 %	-30	3929 999 942	-21.5	-0.000 001	-0.005
	100 %	-20	3929 999 942	-21.5	-0.000 001	-0.005
	100 %	-10	3929 999 940	-23.0	-0.000 001	-0.006
	100 %	0	3929 999 940	-22.7	-0.000 001	-0.006
	100 %	+10	3929 999 942	-21.4	-0.000 001	-0.005
	100 %	+30	3929 999 937	-26.7	-0.000 001	-0.007
	100 %	+40	3929 999 916	-47.2	-0.000 001	-0.012
	100 %	+50	3929 999 949	-14.6	0.000 000	-0.004
	85 %	+20	3929 999 940	-23.6	-0.000 001	-0.006
	115 %	+20	3929 999 941	-22.2	-0.000 001	-0.006

10. TEST PLOTS(3450 MHz - 3550 MHz)

n77(3450~3550 MHz)_20 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_20 M_PAR_Mid_QPSK_FullRB

n77(3450~3550 MHz)_20 M_PAR_Mid_16QAM_FullRB

n77(3450~3550 MHz)_20 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_20 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_30 M_PAR_Mid_BPSK_FullRB

n77(3450~3550 MHz)_30 M_PAR_Mid_QPSK_FullRB

n77(3450~3550 MHz)_30 M_PAR_Mid_16QAM_FullRB

n77(3450~3550 MHz)_30 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_30 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_40 M_PAR_Mid_BPSK_FullRB

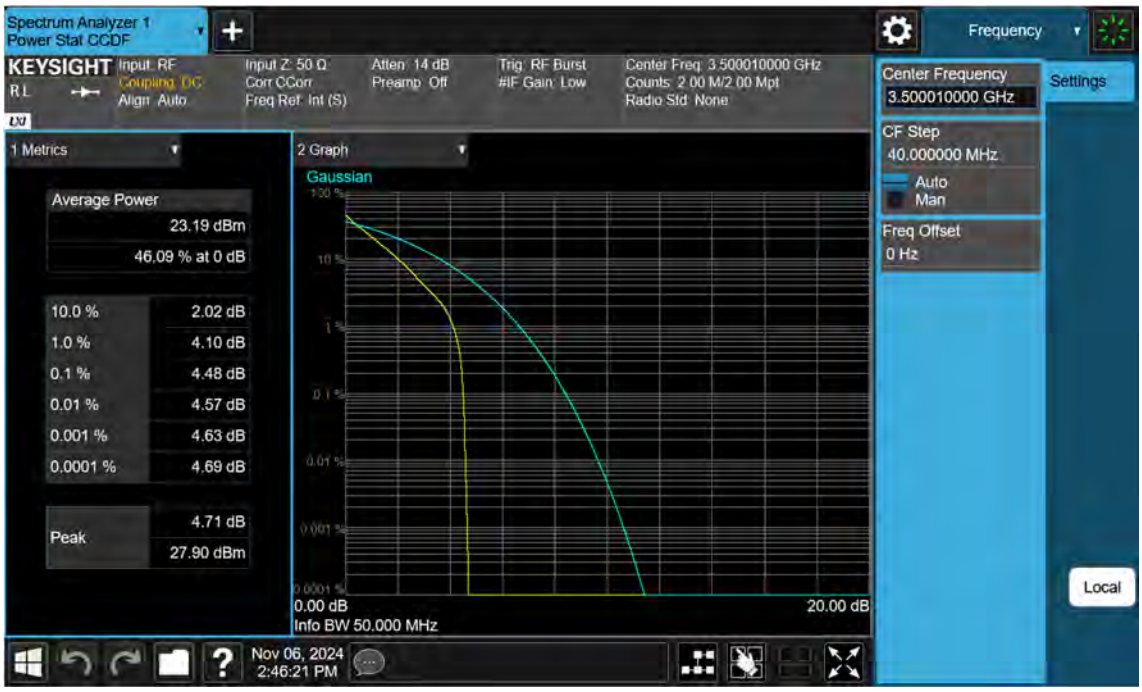
n77(3450~3550 MHz)_40 M_PAR_Mid_QPSK_FullRB

n77(3450~3550 MHz)_40 M_PAR_Mid_16QAM_FullRB

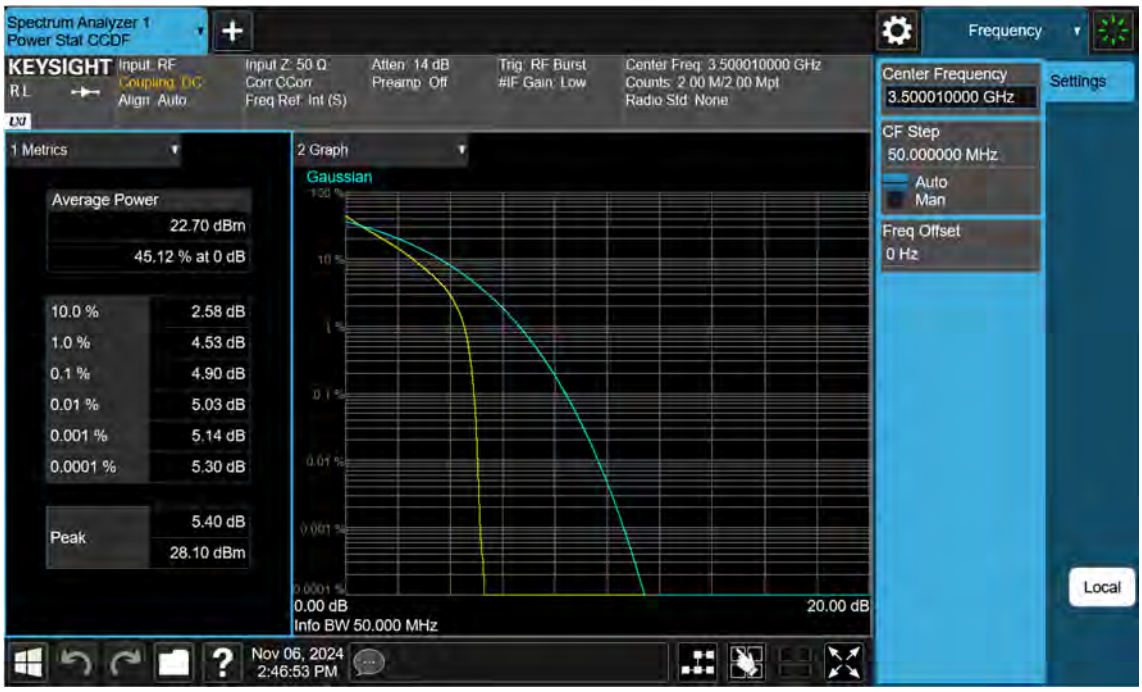
n77(3450~3550 MHz)_40 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_40 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_50 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_50 M_PAR_Mid_QPSK_FullRB

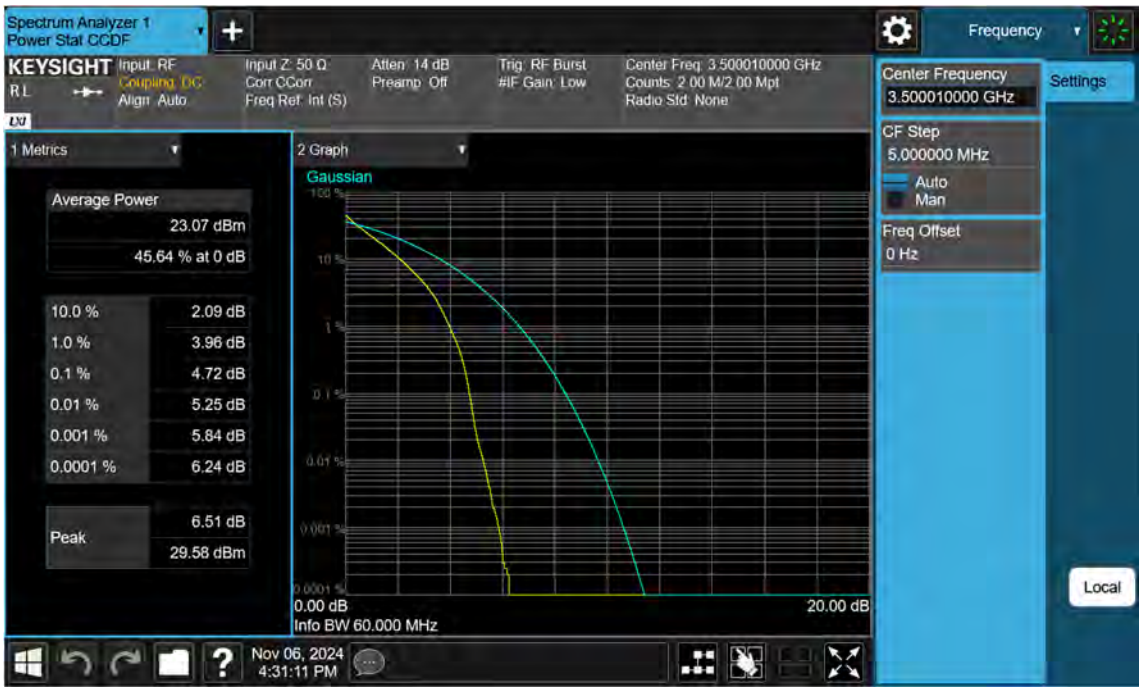


n77(3450~3550 MHz)_50 M_PAR_Mid_16QAM_FullRB

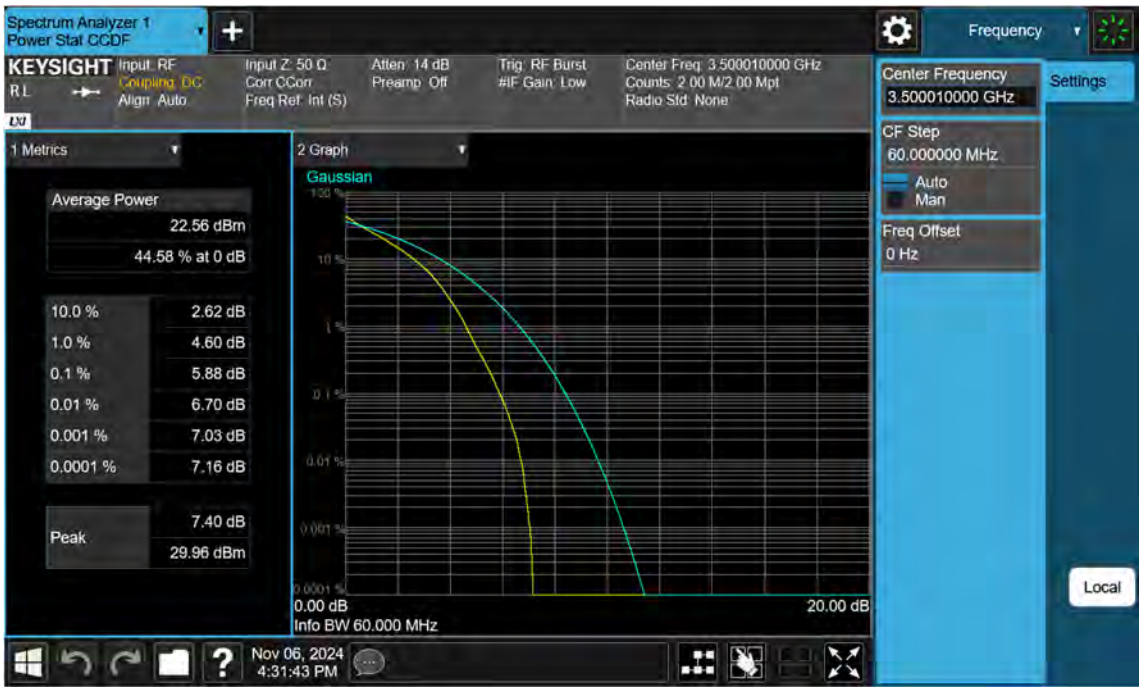
n77(3450~3550 MHz)_50 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_50 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_60 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_60 M_PAR_Mid_QPSK_FullRB

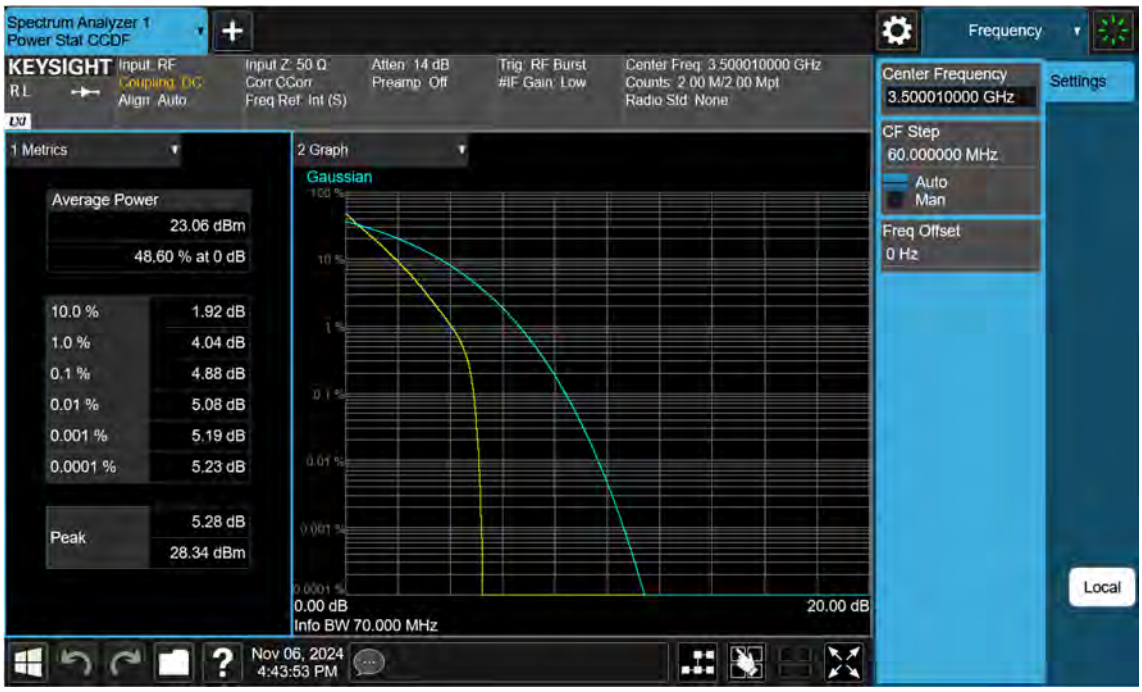


n77(3450~3550 MHz)_60 M_PAR_Mid_16QAM_FullRB

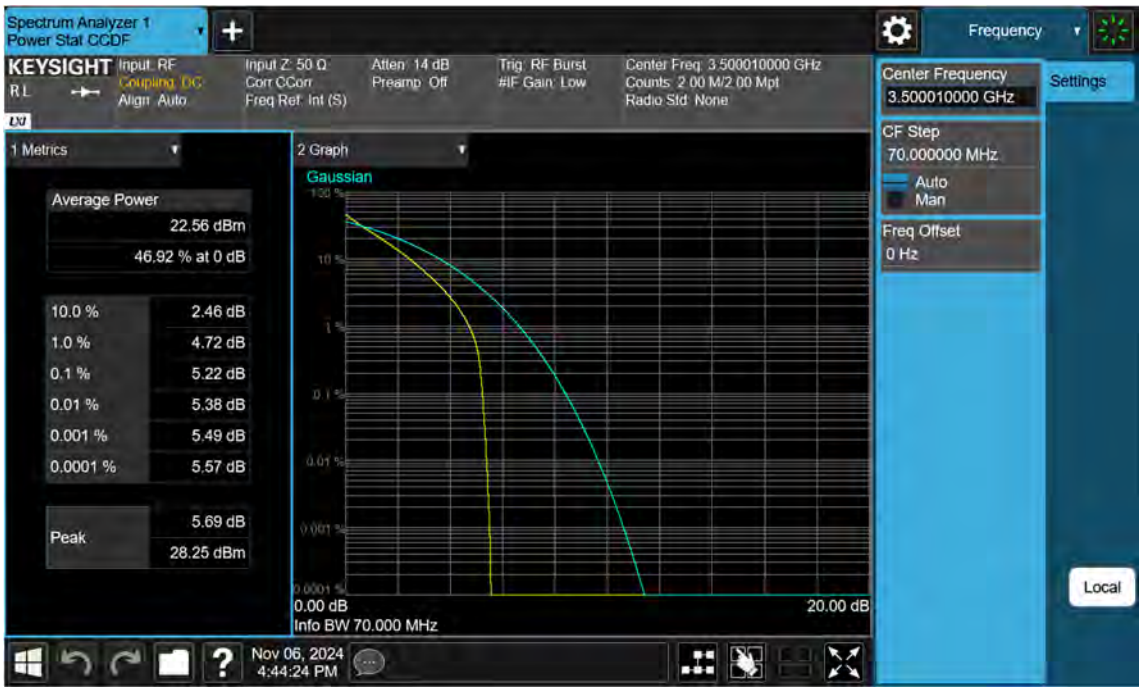
n77(3450~3550 MHz)_60 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_60 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_70 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_70 M_PAR_Mid_QPSK_FullRB

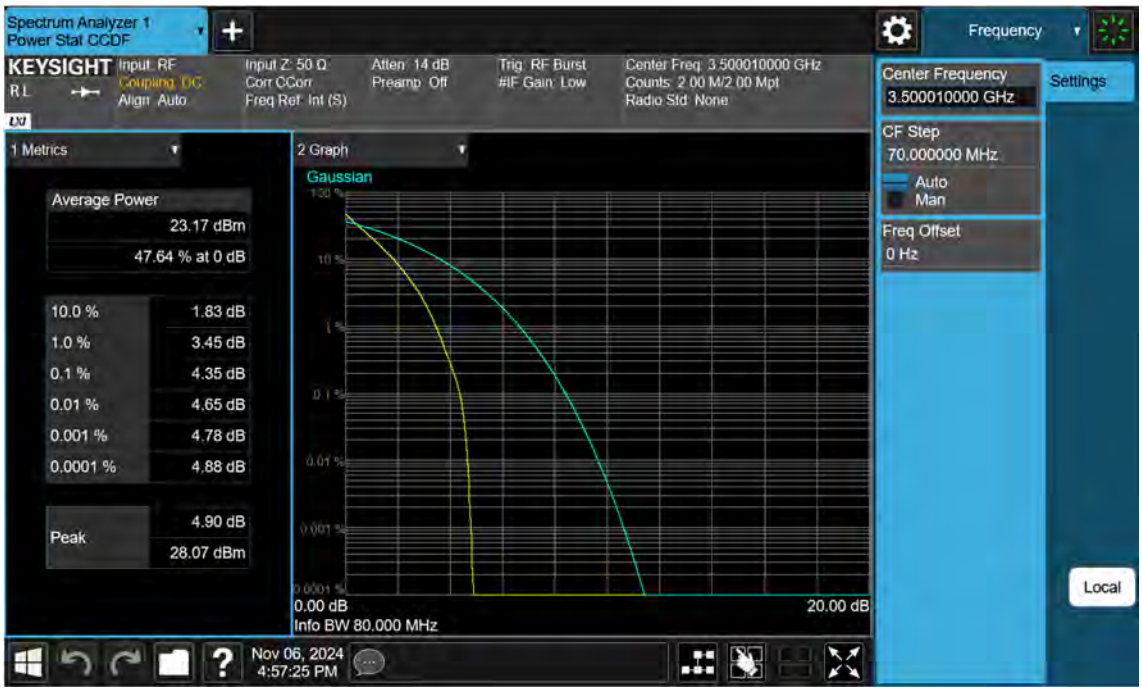


n77(3450~3550 MHz)_70 M_PAR_Mid_16QAM_FullRB

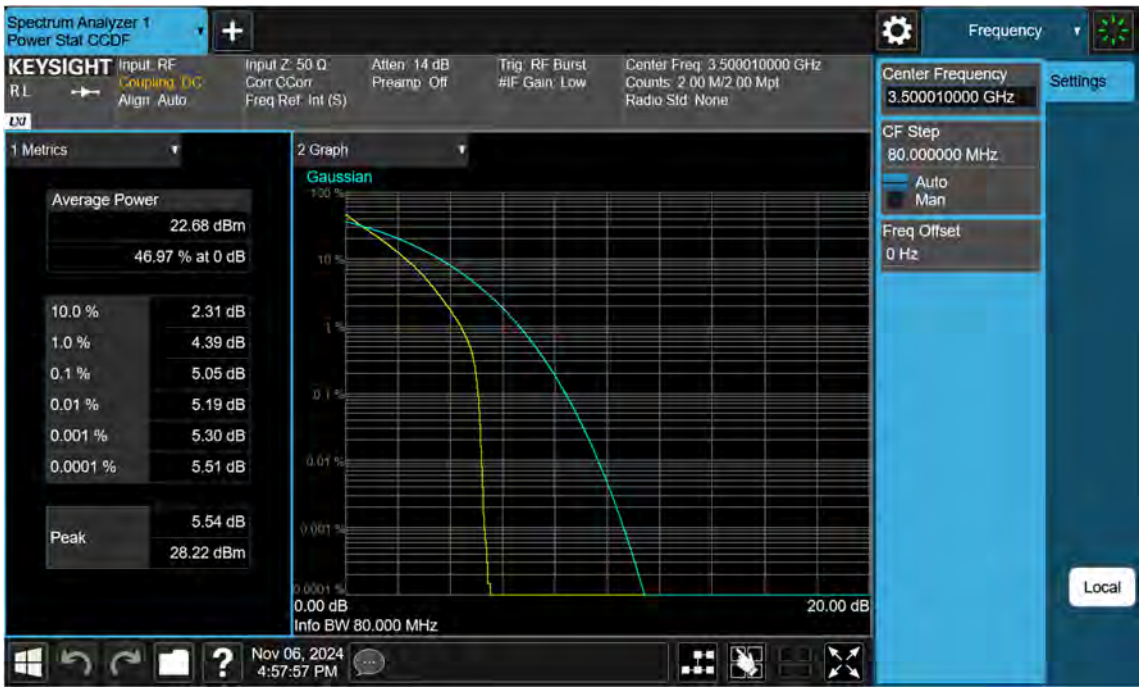
n77(3450~3550 MHz)_70 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_70 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_80 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_80 M_PAR_Mid_QPSK_FullRB

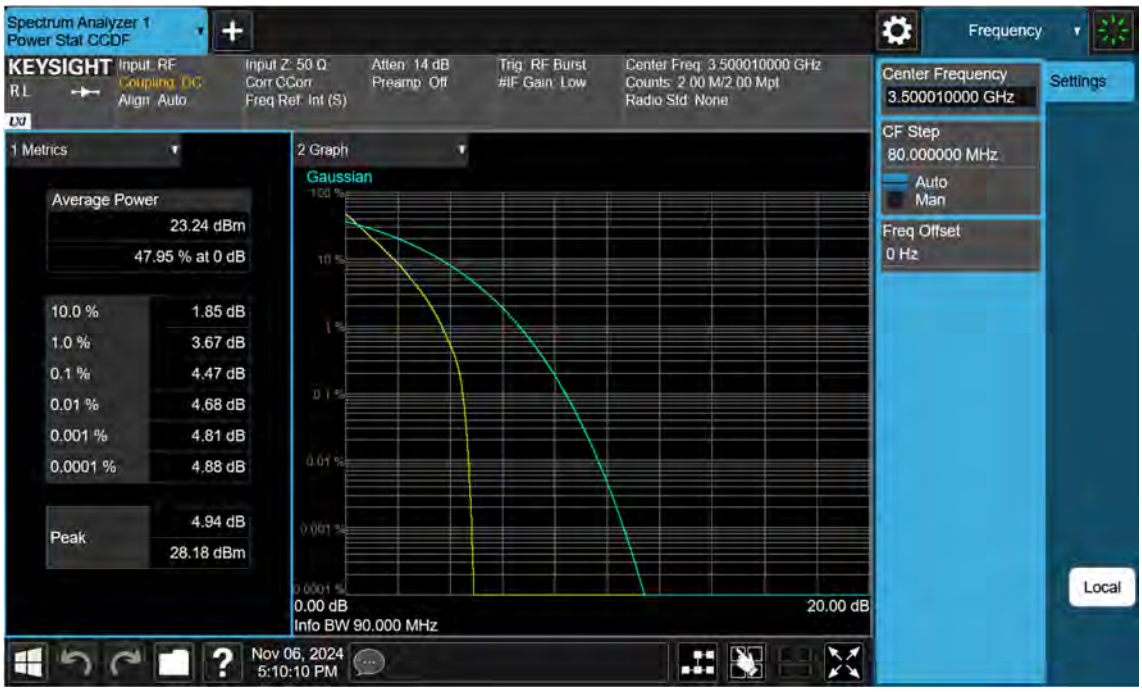


n77(3450~3550 MHz)_80 M_PAR_Mid_16QAM_FullRB

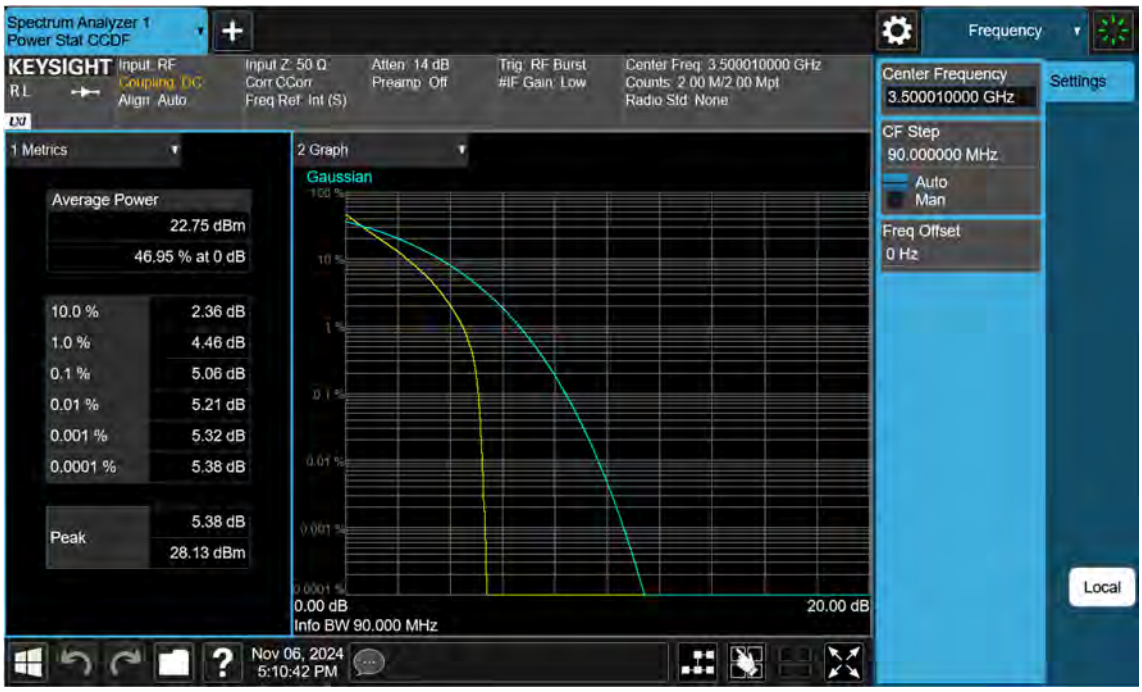
n77(3450~3550 MHz)_80 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_80 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_90 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_90 M_PAR_Mid_QPSK_FullRB

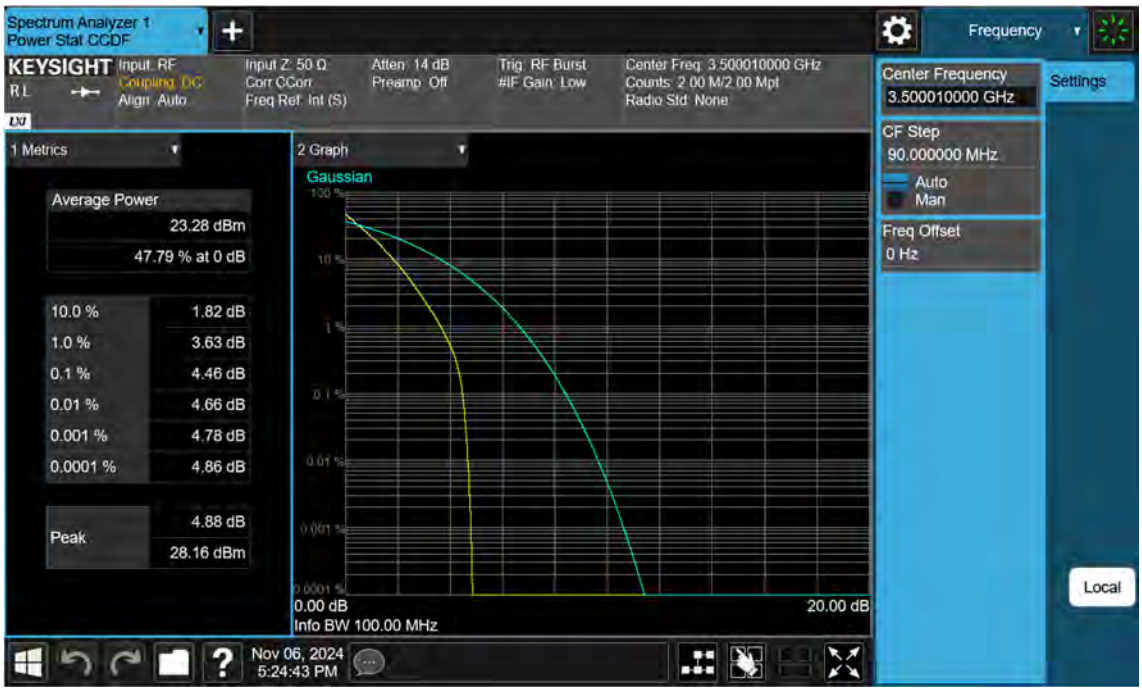


n77(3450~3550 MHz)_90 M_PAR_Mid_16QAM_FullRB

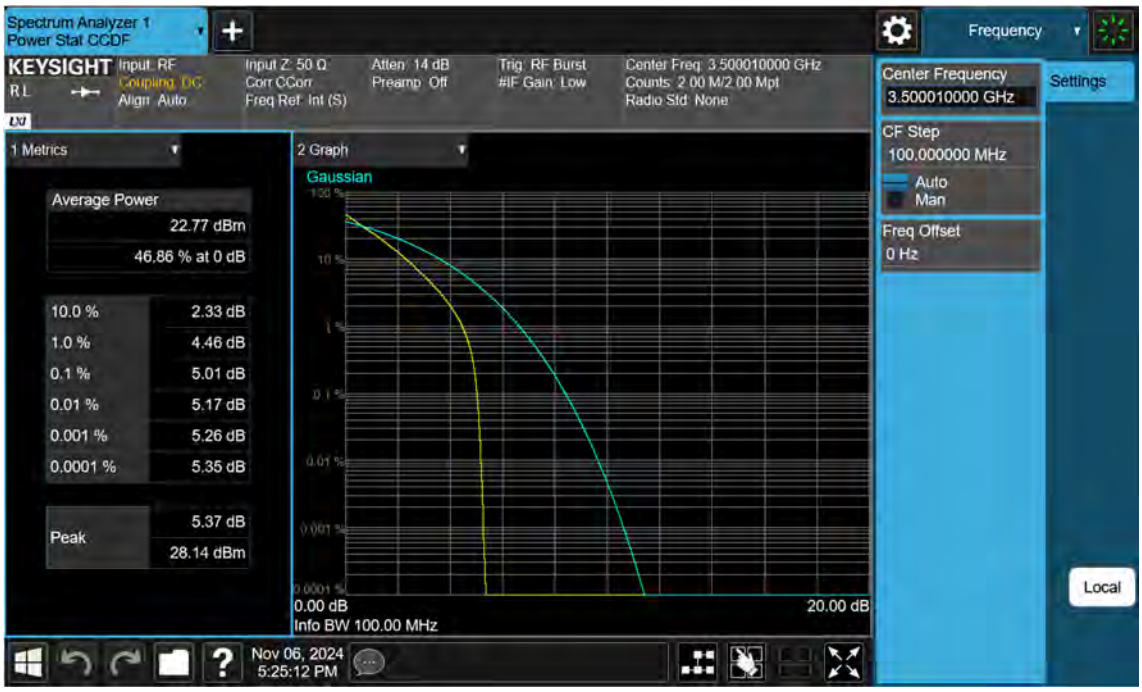
n77(3450~3550 MHz)_90 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_90 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_100 M_PAR_Mid_BPSK_FullRB



n77(3450~3550 MHz)_100 M_PAR_Mid_QPSK_FullRB



n77(3450~3550 MHz)_100 M_PAR_Mid_16QAM_FullRB

n77(3450~3550 MHz)_100 M_PAR_Mid_64QAM_FullRB

n77(3450~3550 MHz)_100 M_PAR_Mid_256QAM_FullRB

n77(3450~3550 MHz)_20 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_20 M_OBW_Mid_QPSK_FullRB

n77(3450~3550 MHz)_20 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_20 M_OBW_Mid_64QAM_FullRB

n77(3450~3550 MHz)_20 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_30 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_30 M_OBW_Mid_QPSK_FullRB

n77(3450~3550 MHz)_30 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_30 M_OBW_Mid_64QAM_FullRB

n77(3450~3550 MHz)_30 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_40 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_40 M_OBW_Mid_QPSK_FullRB

n77(3450~3550 MHz)_40 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_40 M_OBW_Mid_64QAM_FullRB

n77(3450~3550 MHz)_40 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_50 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_50 M_OBW_Mid_QPSK_FullRB

n77(3450~3550 MHz)_50 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_50 M_OBW_Mid_64QAM_FullRB

n77(3450~3550 MHz)_50 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_60 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_60 M_OBW_Mid_QPSK_FullRB

n77(3450~3550 MHz)_60 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_60 M_OBW_Mid_64QAM_FullRB

n77(3450~3550 MHz)_60 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_70 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_70 M_OBW_Mid_QPSK_FullRB

n77(3450~3550 MHz)_70 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_70 M_OBW_Mid_64QAM_FullRB

n77(3450~3550 MHz)_70 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_80 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_80 M_OBW_Mid_QPSK_FullRB

n77(3450~3550 MHz)_80 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_80 M_OBW_Mid_64QAM_FullRB

n77(3450~3550 MHz)_80 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_90 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_90 M_OBW_Mid_QPSK_FullRB

n77(3450~3550 MHz)_90 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_90 M_OBW_Mid_64QAM_FullRB

n77(3450~3550 MHz)_90 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_100 M_OBW_Mid_BPSK_FullRB

n77(3450~3550 MHz)_100 M_OBW_Mid_QPSK_FullRB

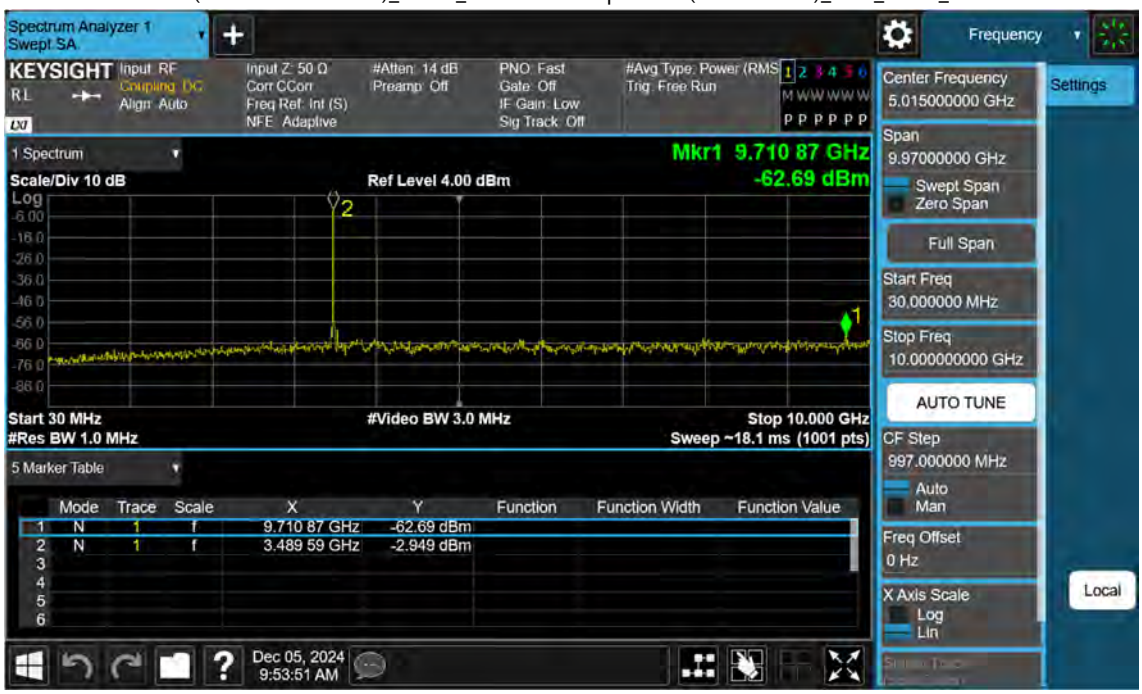
n77(3450~3550 MHz)_100 M_OBW_Mid_16QAM_FullRB

n77(3450~3550 MHz)_100 M_OBW_Mid_64QAM_FullRB

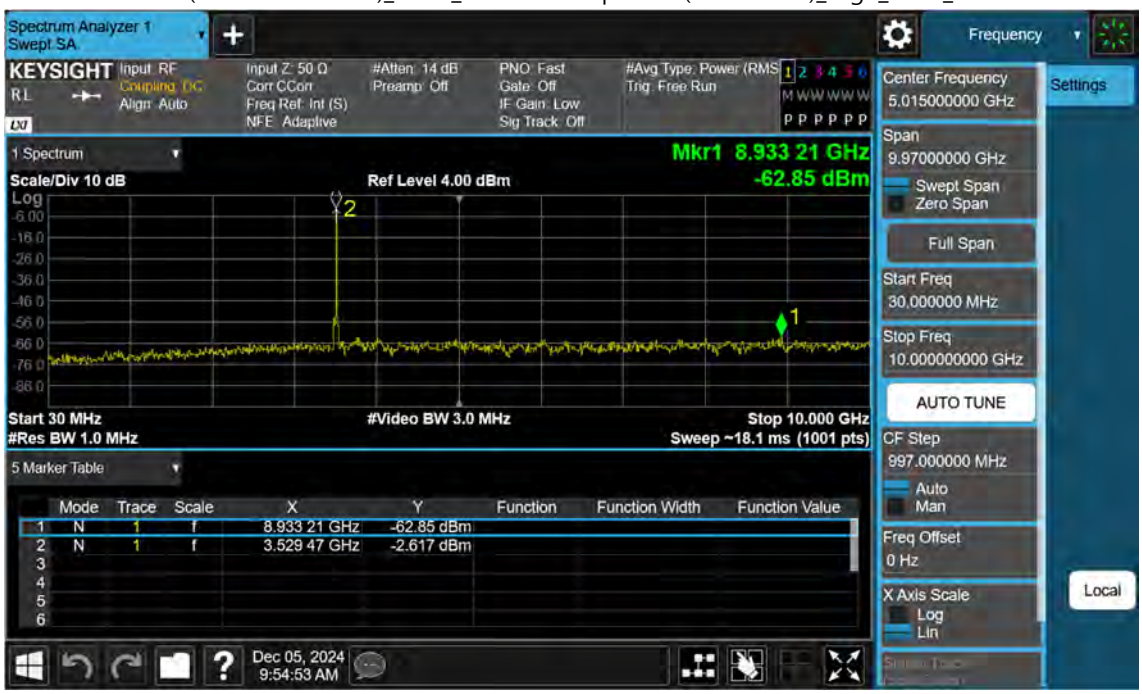
n77(3450~3550 MHz)_100 M_OBW_Mid_256QAM_FullRB

n77(3450~3550 MHz)_20 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB

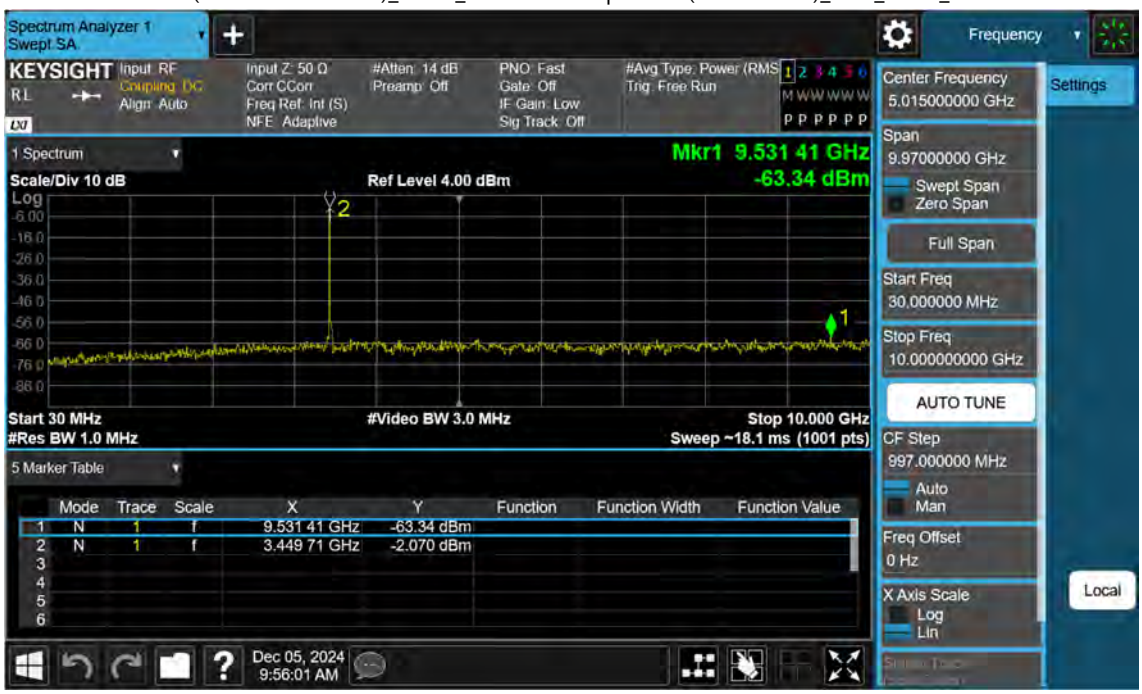
n77(3450~3550 MHz)_20 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB



n77(3450~3550 MHz)_20 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB



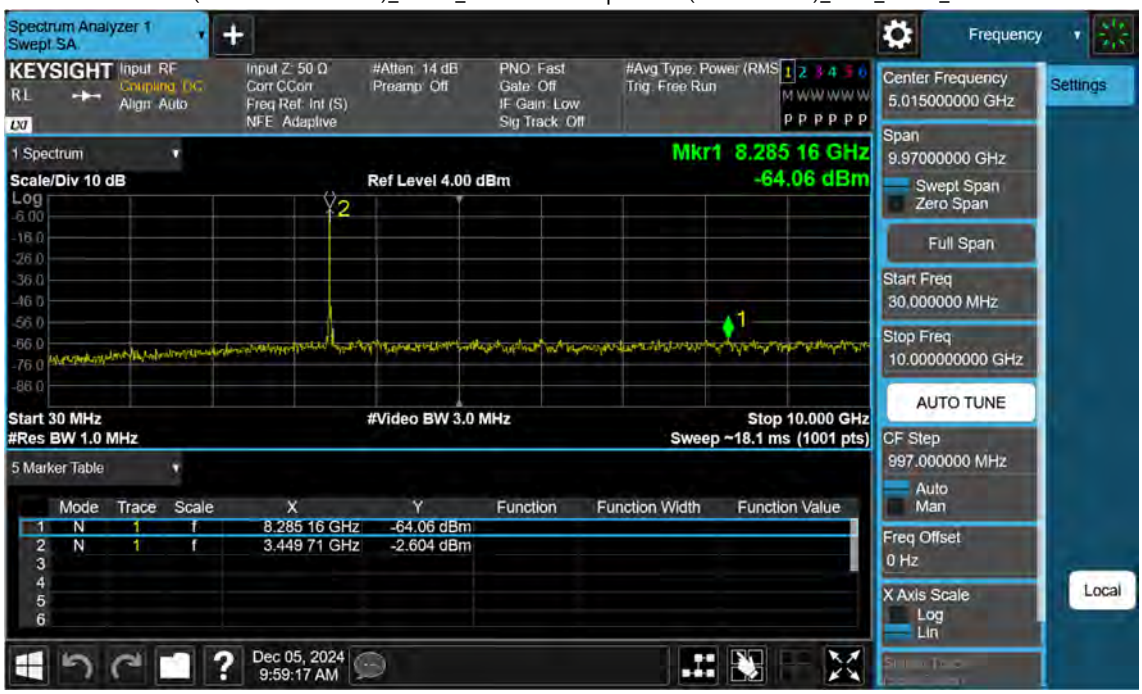
n77(3450~3550 MHz)_30 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB



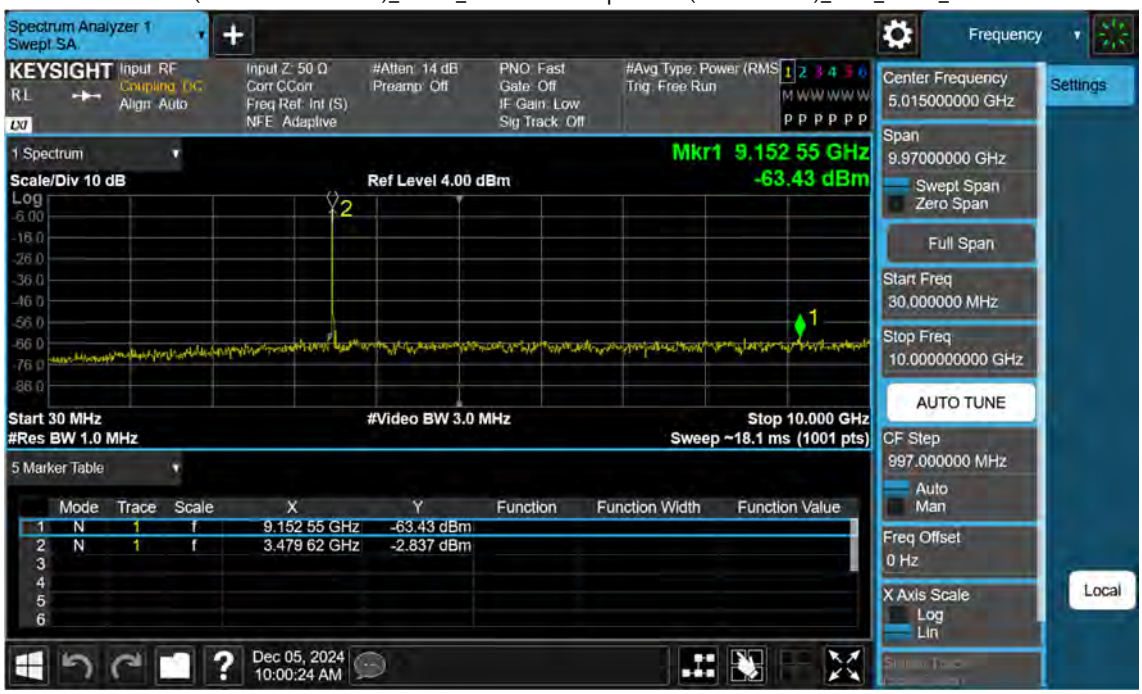
n77(3450~3550 MHz)_30 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB

n77(3450~3550 MHz)_30 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB

n77(3450~3550 MHz)_40 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB



n77(3450~3550 MHz)_40 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB



n77(3450~3550 MHz)_40 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB

n77(3450~3550 MHz)_50 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB

n77(3450~3550 MHz)_50 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB

n77(3450~3550 MHz)_50 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB

n77(3450~3550 MHz)_60 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB

n77(3450~3550 MHz)_60 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB

n77(3450~3550 MHz)_60 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB

n77(3450~3550 MHz)_70 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB

n77(3450~3550 MHz)_70 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB

n77(3450~3550 MHz)_70 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB

n77(3450~3550 MHz)_80 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB

n77(3450~3550 MHz)_80 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB

n77(3450~3550 MHz)_80 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB

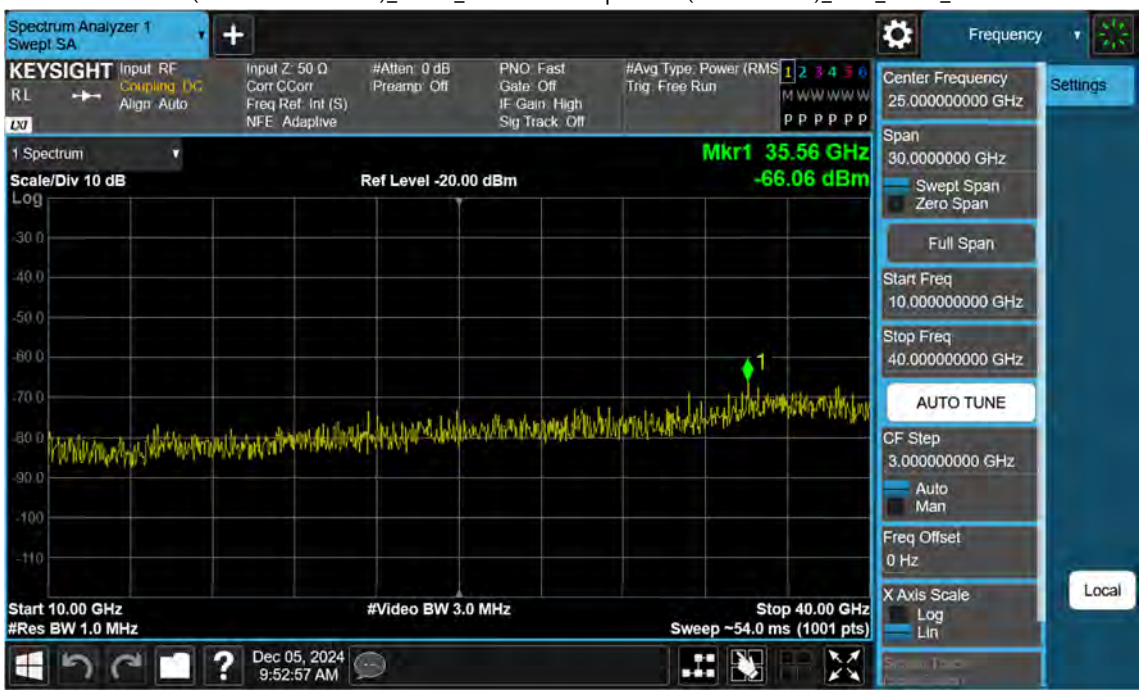
n77(3450~3550 MHz)_90 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB

n77(3450~3550 MHz)_90 M_Conducted Spurious(30 M-10 G)_Mid_BPSK_1RB

n77(3450~3550 MHz)_90 M_Conducted Spurious(30 M-10 G)_High_BPSK_1RB

n77(3450~3550 MHz)_100 M_Conducted Spurious(30 M-10 G)_Low_BPSK_1RB

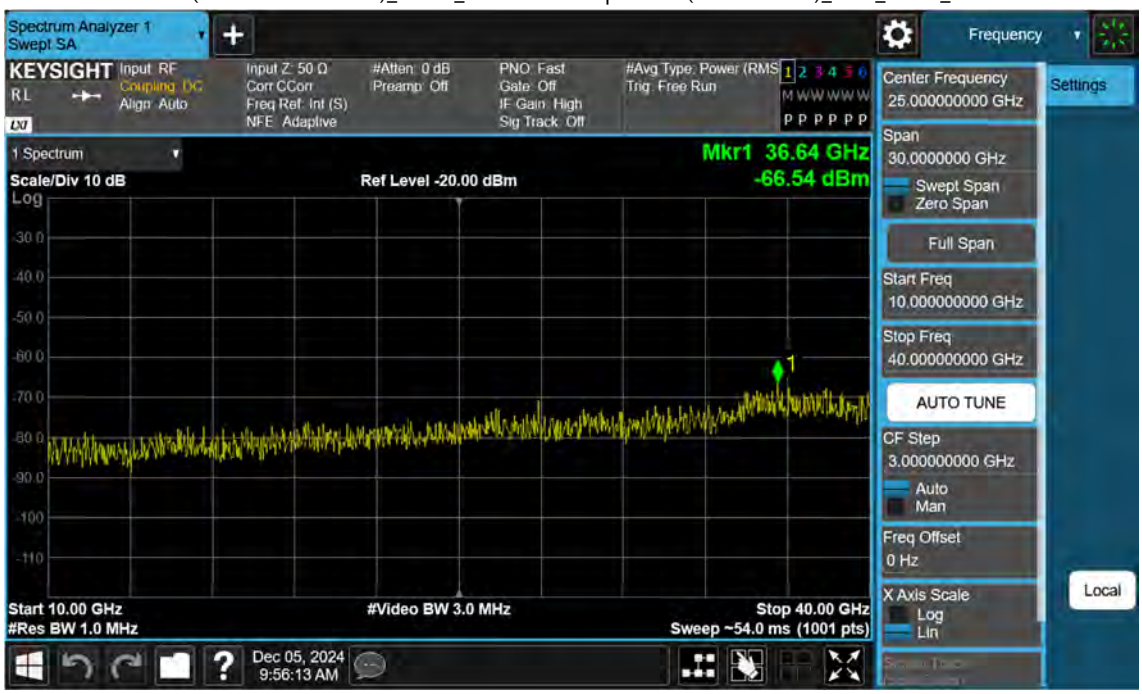
n77(3450~3550 MHz)_20 M_Conducted Spurious(Above10 G)_Low_BPSK_1RB



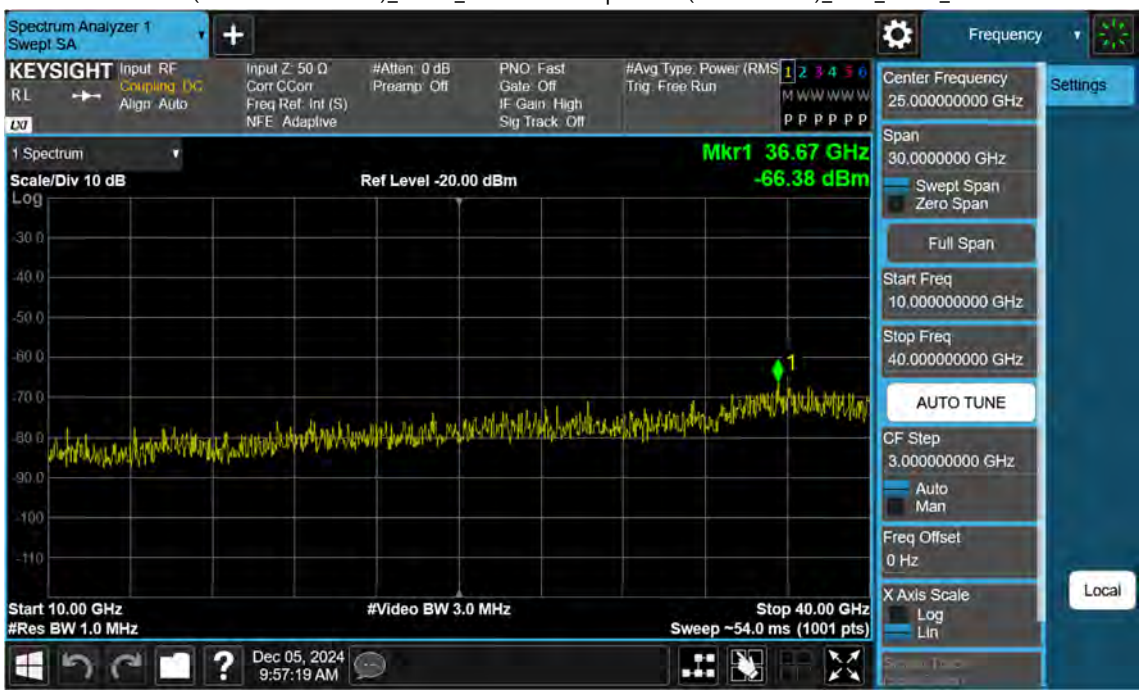
n77(3450~3550 MHz)_20 M_Conducted Spurious(Above10 G)_Mid_BPSK_1RB

n77(3450~3550 MHz)_20 M_Conducted Spurious(Above10 G)_High_BPSK_1RB

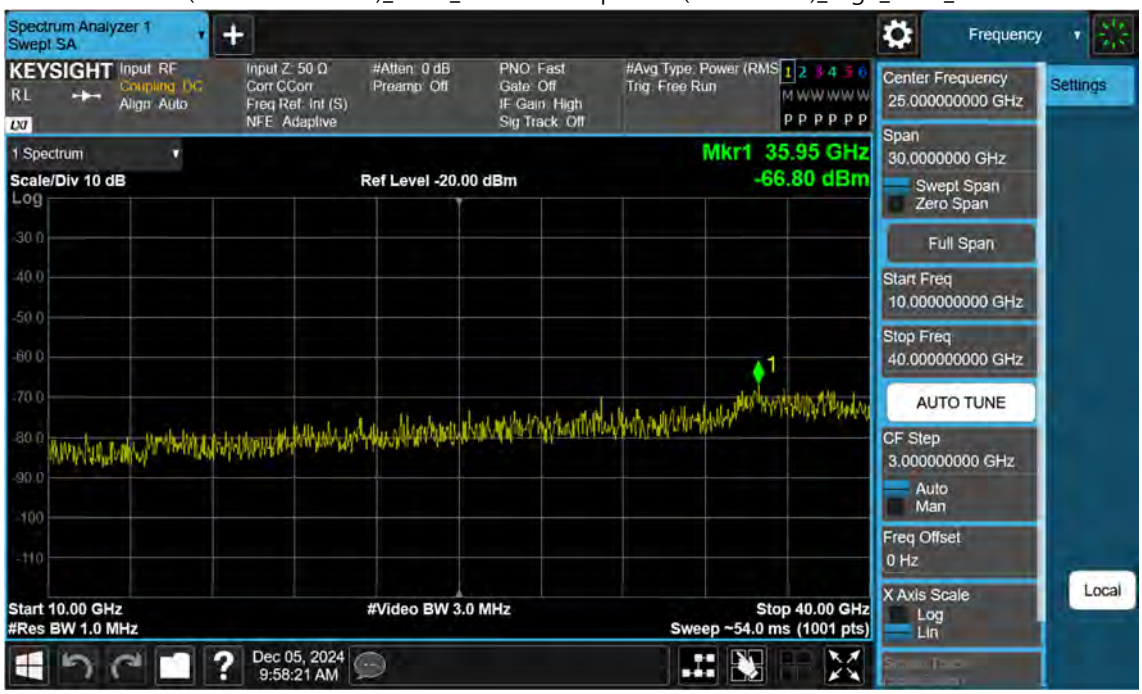
n77(3450~3550 MHz)_30 M_Conducted Spurious(Above10 G)_Low_BPSK_1RB



n77(3450~3550 MHz)_30 M_Conducted Spurious(Above10 G)_Mid_BPSK_1RB



n77(3450~3550 MHz)_30 M_Conducted Spurious(Above10 G)_High_BPSK_1RB



n77(3450~3550 MHz)_40 M_Conducted Spurious(Above10 G)_Low_BPSK_1RB

n77(3450~3550 MHz)_40 M_Conducted Spurious(Above10 G)_Mid_BPSK_1RB

n77(3450~3550 MHz)_40 M_Conducted Spurious(Above10 G)_High_BPSK_1RB

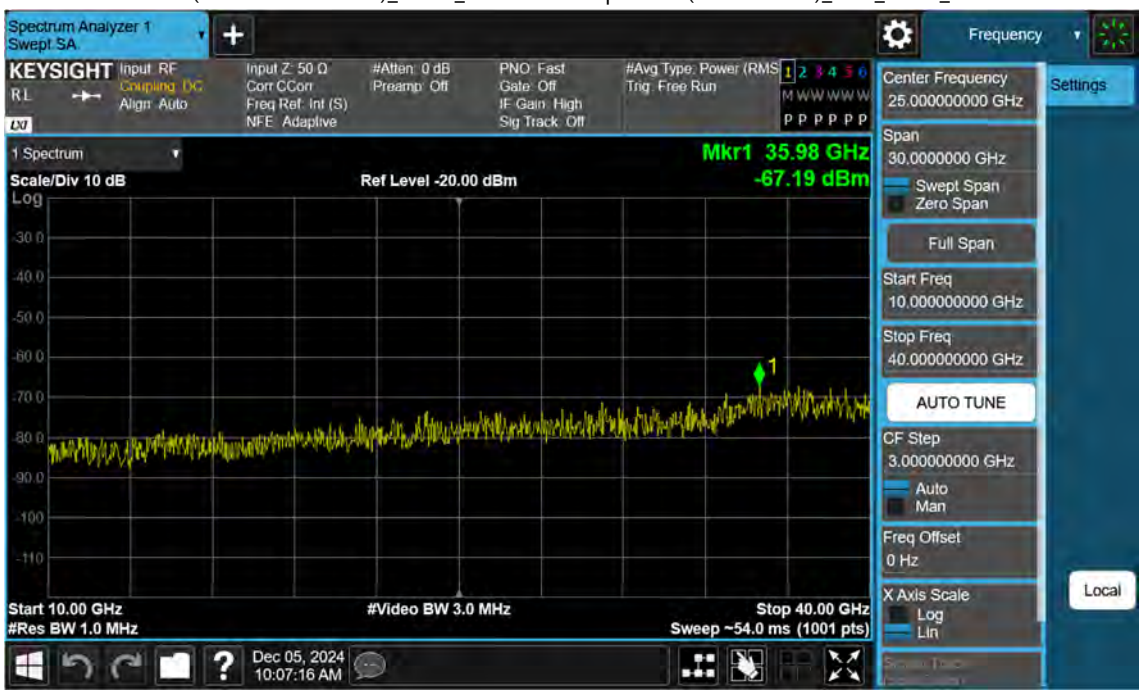
n77(3450~3550 MHz)_50 M_Conducted Spurious(Above10 G)_Low_BPSK_1RB

n77(3450~3550 MHz)_50 M_Conducted Spurious(Above10 G)_Mid_BPSK_1RB

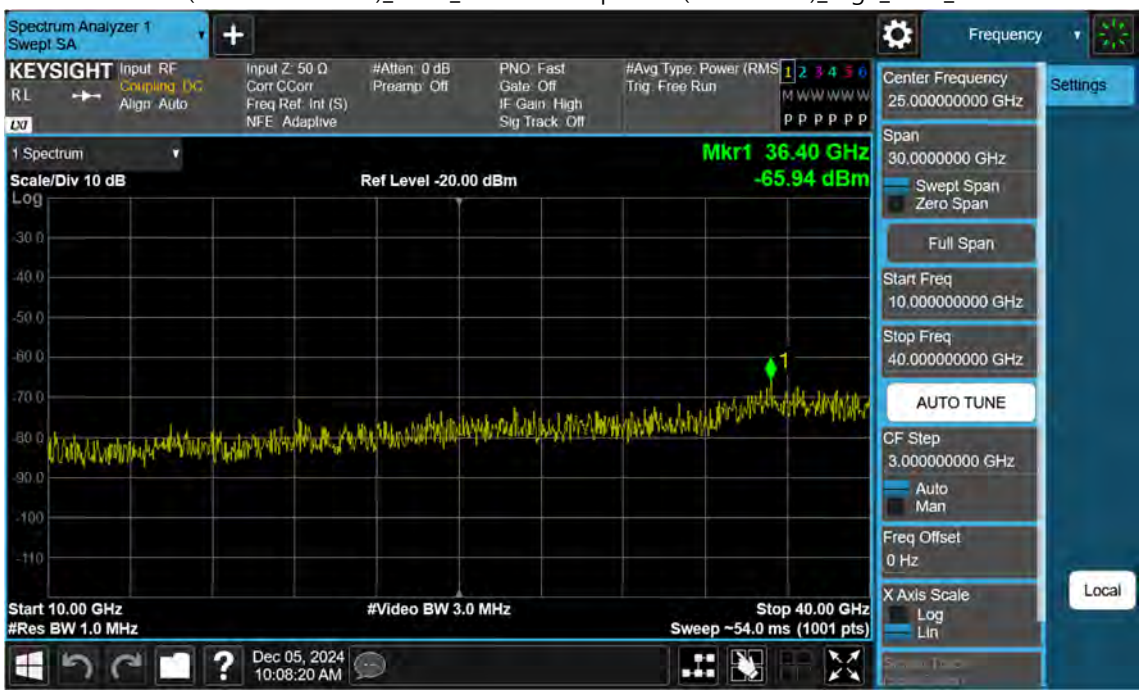
n77(3450~3550 MHz)_50 M_Conducted Spurious(Above10 G)_High_BPSK_1RB

n77(3450~3550 MHz)_60 M_Conducted Spurious(Above10 G)_Low_BPSK_1RB

n77(3450~3550 MHz)_60 M_Conducted Spurious(Above10 G)_Mid_BPSK_1RB



n77(3450~3550 MHz)_60 M_Conducted Spurious(Above10 G)_High_BPSK_1RB



n77(3450~3550 MHz)_70 M_Conducted Spurious(Above10 G)_Low_BPSK_1RB