

**PART 27 MEASUREMENT REPORT**

**Applicant Name:**

Sony Corporation  
1-7-1 Konan Minato-ku  
Tokyo, 108-0075  
Japan

**Date of Testing:**

06/03/2022 - 08/09/2022

**Test Report Issue Date:**

08/10/2022

**Test Site/Location:**

Element lab., Columbia, MD, USA

**Test Report Serial No.:**

1M2205240063-08.PY7

<b>FCC ID:</b>	<b>PY7-76056F</b>
<b>Applicant Name:</b>	<b>Sony Corporation</b>

**Application Type:**

Certification

**EUT Type:**

Portable Handset

**FCC Classification:**

PCS Licensed Transmitter Held to Ear (PCE)

**FCC Rule Part:**

27

**Test Procedure(s):**

ANSI C63.26-2015, KDB 648474 D03 v01r04

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947. Test results reported herein relate only to the item(s) tested.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.



**RJ Ortanez**  
Executive Vice President



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Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	EIRP		Emission Designator
				Max. Power [W]	Max. Power [dBm]	
NR Band n77 PC2 (3700 - 3980MHz) Main ANT	100 MHz	$\pi/2$ BPSK	3750.0 - 3930.0	0.097	19.88	96M8G7D
		QPSK	3750.0 - 3930.0	0.098	19.89	96M8G7D
		16QAM	3750.0 - 3930.0	0.078	18.92	97M0W7D
	80 MHz	$\pi/2$ BPSK	3740.0 - 3940.0	0.092	19.66	77M4G7D
		QPSK	3740.0 - 3940.0	0.099	19.96	77M8G7D
		16QAM	3740.0 - 3940.0	0.088	19.44	77M8W7D
	60 MHz	$\pi/2$ BPSK	3730.0 - 3950.0	0.096	19.84	58M1G7D
		QPSK	3730.0 - 3950.0	0.101	20.03	58M0G7D
		16QAM	3730.0 - 3950.0	0.088	19.45	58M1W7D
	40 MHz	$\pi/2$ BPSK	3720.0 - 3960.0	0.107	20.30	35M9G7D
		QPSK	3720.0 - 3960.0	0.108	20.33	37M9G7D
		16QAM	3720.0 - 3960.0	0.096	19.80	38M0W7D
	30 MHz	$\pi/2$ BPSK	3715.0 - 3965.0	0.104	20.17	27M1G7D
		QPSK	3715.0 - 3965.0	0.107	20.29	28M1G7D
		16QAM	3715.0 - 3965.0	0.095	19.77	28M1W7D
	20 MHz	$\pi/2$ BPSK	3710.0 - 3970.0	0.108	20.33	18M2G7D
		QPSK	3710.0 - 3970.0	0.107	20.31	18M3G7D
		16QAM	3710.0 - 3970.0	0.090	19.55	18M3W7D

**EUT Overview (Main ANT)**

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Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	EIRP		Emission Designator
				Max. Power [W]	Max. Power [dBm]	
NR Band n77 PC2 (3700 - 3980MHz) As-Div ANT	100 MHz	$\pi/2$ BPSK	3750.0 - 3930.0	0.026	14.19	96M7G7D
		QPSK	3750.0 - 3930.0	0.026	14.15	97M6G7D
		16QAM	3750.0 - 3930.0	0.022	13.34	97M7W7D
	80 MHz	$\pi/2$ BPSK	3740.0 - 3940.0	0.030	14.73	77M6G7D
		QPSK	3740.0 - 3940.0	0.029	14.59	78M0G7D
		16QAM	3740.0 - 3940.0	0.025	13.91	77M6W7D
	60 MHz	$\pi/2$ BPSK	3730.0 - 3950.0	0.031	14.94	58M4G7D
		QPSK	3730.0 - 3950.0	0.029	14.65	58M3G7D
		16QAM	3730.0 - 3950.0	0.026	14.11	58M2W7D
	40 MHz	$\pi/2$ BPSK	3720.0 - 3960.0	0.032	15.01	36M1G7D
		QPSK	3720.0 - 3960.0	0.028	14.50	35M9G7D
		16QAM	3720.0 - 3960.0	0.025	13.93	38M0W7D
	30 MHz	$\pi/2$ BPSK	3715.0 - 3965.0	0.030	14.74	27M1G7D
		QPSK	3715.0 - 3965.0	0.025	14.06	28M1G7D
		16QAM	3715.0 - 3965.0	0.026	14.21	28M1W7D
	20 MHz	$\pi/2$ BPSK	3710.0 - 3970.0	0.026	14.20	18M0G7D
		QPSK	3710.0 - 3970.0	0.025	14.04	17M9G7D
		16QAM	3710.0 - 3970.0	0.028	14.47	18M3W7D

**EUT Overview (As-Div ANT)**

Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	EIRP	
				Max. Power [W]	Max. Power [dBm]
UL-MIMO NR Band n77 (PC3) (3700 - 3980MHz)	100 MHz	QPSK	3750.0 - 3930.0	0.026	14.09
		16QAM	3750.0 - 3930.0	0.023	13.57
	80 MHz	QPSK	3740.0 - 3940.0	0.024	13.80
		16QAM	3740.0 - 3940.0	0.021	13.20
	60 MHz	QPSK	3730.0 - 3950.0	0.022	13.52
		16QAM	3730.0 - 3950.0	0.019	12.75
	40 MHz	QPSK	3720.0 - 3960.0	0.024	13.89
		16QAM	3720.0 - 3960.0	0.021	13.14
	30 MHz	QPSK	3715.0 - 3965.0	0.025	13.89
		16QAM	3715.0 - 3965.0	0.022	13.40
	20 MHz	QPSK	3710.0 - 3970.0	0.024	13.87
		16QAM	3710.0 - 3970.0	0.021	13.14

**EUT Overview (UL-MIMO)**

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# 1.0 INTRODUCTION

## 1.1 Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

## 1.2 Element Test Location

These measurement tests were conducted at the Element laboratory located at 7185 Oakland Mills Road, Columbia, MD 21046. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014.

## 1.3 Test Facility / Accreditations

**Measurements were performed at Element lab located in Columbia, MD 21046, U.S.A.**

- Element Washington DC LLC is an ISO 17025-2017 accredited test facility under the American Association for Laboratory Accreditation (A2LA) with Certificate number 2041.01 for Specific Absorption Rate (SAR), Hearing Aid Compatibility (HAC) testing, where applicable, and Electromagnetic Compatibility (EMC) testing for FCC and Innovation, Science, and Economic Development Canada rules.
- Element Washington DC LLC TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC 17065-2012 by A2LA (Certificate number 2041.03) in all scopes of FCC Rules and ISED Standards (RSS).
- Element Washington DC LLC facility is a registered (2451B) test laboratory with the site description on file with ISED.
- Element Washington DC LLC is a Recognized U.S. Certification Assessment Body (CAB # US0110) for ISED Canada as designated by NIST under the U.S. and Canada Mutual Recognition Agreement.

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## 2.0 PRODUCT INFORMATION

### 2.1 Equipment Description

The Equipment Under Test (EUT) is the **Sony Corporation Portable Handset FCC ID: PY7-76056F**. The test data contained in this report pertains only to the emissions due to the EUT's licensed transmitters that operate under the provisions of Part 27.

**Test Device Serial No.:** 94880, 00001, 99864

### 2.2 Device Capabilities

This device contains the following capabilities:

850/1900 GSM/GPRS/EDGE, 850/1700/1900, WCDMA/HSPA, Multi-band LTE, Multi-band 5G NR FR1, 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII (5 and 6 GHz), Bluetooth (1x, EDR, LE), NFC, Wireless Power Transfer

### 2.3 Test Configuration

The EUT was tested per the guidance of ANSI C63.26-2015. See Section 7.0 of this test report for a description of the radiated and antenna port conducted emissions tests.

This device supports wireless charging capability and, thus, is subject to the test requirements of KDB 648474 D03 v01r04. Additional radiated spurious emission measurements were performed with the EUT lying flat on an authorized wireless charging pad (WCP) Model: Belkan F7U050 while operating under normal conditions in a simulated call or data transmission configuration. The worst case radiated emissions data is shown in this report.

### 2.4 Software and Firmware

Testing was performed on device(s) using software/firmware version 0.45 installed on the EUT.

### 2.5 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

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## 3.0 DESCRIPTION OF TESTS

### 3.1 Evaluation Procedure

The measurement procedures described in the “American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services” (ANSI C63.26-2015) were used in the measurement of the EUT.

**Deviation from Measurement Procedure.....None**

### 3.2 Radiated Power and Radiated Spurious Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. The test site inside the chamber is a 6m x 5.2m elliptical, obstruction-free area in accordance with Figure 5.7 of Clause 5 in ANSI C63.4-2014. Absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections for measurements above 1GHz. For measurements below 1GHz, the absorbers are removed. A raised turntable is used for radiated measurement. The turn table is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm tall test table made of Styrodur is placed on top of the turn table. A Styrodur pedestal is placed on top of the test table to bring the total table height to 1.5m.

The equipment under test was transmitting while connected to its integral antenna and is placed on a turntable 3 meters from the receive antenna. The receive antenna height is adjusted between 1 and 4 meter height, the turntable is rotated through 360 degrees, and the EUT is manipulated through all orthogonal planes representative of its typical use to achieve the highest reading on the receive spectrum analyzer.

For radiated power measurements, substitution method is used per the guidance of ANSI C63.26-2015. For emissions below 1GHz, a half-wave dipole is substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer level previously recorded from the spurious emission from the EUT. The power of the emission is calculated using the following formula:

$$P_d [dBm] = P_g [dBm] - \text{cable loss} [dB] + \text{antenna gain} [dBd/dBi];$$

where  $P_d$  is the dipole equivalent power,  $P_g$  is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to  $P_g [dBm] - \text{cable loss} [dB]$ .

For radiated spurious emissions measurements, the field strength conversion method is used per the formulas in Section 5.2.7 of ANSI C63.26-2015. Field Strength (EIRP) is calculated using the following formulas:

$$E_{[dB\mu V/m]} = \text{Measured amplitude level}_{[dBm]} + 107 + \text{Cable Loss}_{[dB]} + \text{Antenna Factor}_{[dB/m]}$$

And

$$\text{EIRP}_{[dBm]} = E_{[dB\mu V/m]} + 20\log D - 104.8; \text{ where } D \text{ is the measurement distance in meters.}$$

All radiated measurements are performed in a chamber that meets the site requirements per ANSI C63.4-2014. Additionally, radiated emissions below 30MHz are also validated on an Open Area Test Site to assert correlation with the chamber measurements per the requirements of KDB 414788 D01 v01r01.

Radiated power and radiated spurious emission levels are investigated with the receive antenna horizontally and vertically polarized per ANSI C63.26-2015.

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## 4.0 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 uncertainty shown below meets or exceeds the  $U_{\text{CISPR}}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Contribution	Expanded Uncertainty ( $\pm$ dB)
Conducted Bench Top Measurements	1.13
Radiated Disturbance (<1GHz)	4.98
Radiated Disturbance (>1GHz)	5.07
Radiated Disturbance (>18GHz)	5.09

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## 5.0 TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST). Measurements antennas used during testing were calibrated in accordance to the requirements of ANSI C63.5-2017.

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial #
-	AP2-001	EMC Cable and Switch System	1/4/2022	Annual	1/4/2023	AP2-001
-	AP2-002	EMC Cable and Switch System	3/11/2022	Annual	3/11/2023	AP2-002
-	ETS-001	EMC Cable and Switch System	12/9/2021	Annual	12/9/2022	ETS-001
-	ETS-002	EMC Cable and Switch System	3/10/2022	Annual	3/10/2023	ETS-002
-	MD 1M 18-40	EMC Cable and Switch System	3/9/2022	Annual	3/9/2023	MD 1M 18-40
-	LTx2	Licensed Transmitter Cable Set	12/19/2021	Annual	12/19/2022	LTx2
-	LTx6-40	Licensed Transmitter Cable Set	7/29/2022	Annual	7/29/2023	LTx6-40
-	WL40-1	WLAN Cable Set (40GHz)	7/29/2022	Annual	7/29/2023	WL40-1
-	MVG-001	EMC Cable and Switch System	3/10/2022	Annual	3/10/2023	-
-	MVG-002	EMC Cable and Switch System	3/10/2022	Annual	3/10/2023	-
Com-Power	AL-130R	Active Loop Antenna	1/19/2022	Biennial	1/19/2024	121085
EMCO	3116	Horn Antenna (18-40GHz)	7/20/2021	Biennial	7/20/2023	9203-2178
EMCO	3115	Horn Antenna (1-18GHz)	6/18/2020	Biennial	9/25/2022	9704-5182
Espec	SCP-220	Controller	5/25/2022	Biennial	5/25/2024	OCPSSH0612K05
ETS-Lindgren	3117	1-18 GHz DRG Horn (Medium)	4/20/2021	Biennial	4/20/2023	125518
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	2/14/2022	Annual	2/14/2023	MY52350166
Keysight Technologies	N9038A	MXE EMI Receiver	1/21/2022	Annual	1/21/2023	MY51210133
Keysight Technologies	N9030B	PXA Signal Analyzer, Multi-touch	1/7/2022	Annual	1/7/2023	MY57141001
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	8/3/2021	Annual	8/25/2022	100342
Rohde & Schwarz	ESW44	EMI Test Receiver 2Hz to 44 GHz	3/28/2022	Annual	3/28/2023	101716
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	5/25/2021	Annual	7/25/2022	100348
Sunol Sciences	JB6	JB6 Antenna	11/13/2020	Biennial	11/13/2022	A082816
Sunol Sciences	JB5	Bi-Log Antenna (30M-5GHz)	7/27/2020	Biennial	9/25/2022	A051107

**Table 5-1. Test Equipment**

**Note:**

For equipment listed above that has a calibration date or calibration due date that falls within the test date range, care was taken to ensure that this equipment was used after the calibration date and before the calibration due date.

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## 6.0 SAMPLE CALCULATIONS

### QPSK Modulation

**Emission Designator = 8M62G7D**

LTE BW = 8.62 MHz

G = Phase Modulation

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

### QAM Modulation

**Emission Designator = 8M45W7D**

LTE BW = 8.45 MHz

W = Amplitude/Angle Modulated

7 = Quantized/Digital Info

D = Data transmission, telemetry, telecommand

### Spurious Radiated Emission

**Example: Spurious emission at 3700.40 MHz**

The receive spectrum analyzer reading at 3 meters with the EUT on the turntable was  $-81.0$  dBm. The gain of the substituted antenna is  $8.1$  dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of  $-81.0$  dBm on the spectrum analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is  $2.0$  dB at  $3700.40$  MHz. So  $6.1$  dB is added to the signal generator reading of  $-30.9$  dBm yielding  $-24.80$  dBm. The fundamental EIRP was  $25.50$  dBm so this harmonic was  $25.50$  dBm  $- (-24.80) = 50.3$  dBc.

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## 7.0 TEST RESULTS

### 7.1 Summary

Company Name: Sony Corporation  
 FCC ID: PY7-76056F  
 FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)  
 Mode(s): NR

Test Condition	Test Description	FCC Part Section(s)	Test Limit	Test Result	Reference
<b>CONDUCTED</b>	Transmitter Conducted Output Power	2.1046(a), 2.1046(c)	N/A	PASS	Section 7.2
	Occupied Bandwidth	2.1049(h)	N/A	PASS	Section 7.3
	Conducted Band Edge / Spurious Emissions (NR Band n77)	2.1051, 27.53(l)	≤ 13 dBm / MHz	PASS	Sections 7.4, 7.5
	Peak-to-Average Ratio (NR Band n77)	27.50(j)(4)	≤ 13 dB	PASS	Section 7.6
	Frequency Stability	2.1055, 27.54	Fundamental emissions stay within authorized frequency block.	PASS	Section 7.9
<b>RADIATED</b>	Effective Radiated Power / Equivalent Isotropic Radiated Power (NR Band n77)	27.50(j)(3)	≤ 1 Watt EIRP	PASS	Section 7.7
	Radiated Spurious Emissions (NR Band n77)	2.1053, 27.53(l)	≤ 13 dBm / MHz	PASS	Section 7.8

\* The only transmitter output conducted powers included in this report are those where the Pmax value, per the tune-up document, is higher than any of the DSI power levels. For the remaining conducted power measurements, see the **RF Exposure Report**.

**Table 7-1. Summary of Test Results**

#### Notes:

- 1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
- 2) The analyzer plots were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables, directional couplers, and attenuators used as part of the system to maintain a link between the call box and the EUT at all frequencies of interest.
- 3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables, attenuators, and couplers.
- 4) All conducted emissions measurements are performed with automated test software to capture the corresponding plots necessary to show compliance. The measurement software utilized is EMC Software Tool v1.1.
- 5) This device supports n77 operation over two antennas simultaneously. The data in this section is marked as "Main" or "Sub".

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## 7.2 Conducted Output Power Data

### Test Overview

All 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 Procedure Used

ANSI C63.26-2015 – Section 5.2

### Test Settings

1. Span = 2 x OBW to 3 x OBW
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-1. Test Instrument & Measurement Setup**

### Test Notes

1. Conducted power measurements were evaluated using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
2. All other conducted power measurements are contained in the RF exposure report for this filing.

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Bandwidth	Modulation	Channel	Frequency [MHz]	Main RB Size/Offset	Main Conducted Power [dBm]	Sub RB Size/Offset	Sub Conducted Power [dBm]	UL-MIMO Conducted Power [dBm]
100 MHz	QPSK	650000	3750.00	273 / 0	20.56	1 / 68	20.79	23.69
		656000	3840.00	1 / 136	20.56	1 / 136	20.49	23.54
		662000	3930.00	273 / 0	19.78	1 / 136	19.72	22.76
	16-QAM	650000	3750.00	1 / 204	20.54	1 / 136	20.92	23.74
		656000	3840.00	1 / 136	20.99	1 / 68	20.91	23.96
		662000	3930.00	273 / 0	20.11	273 / 0	19.83	22.98
	64-QAM	650000	3750.00	1 / 204	20.98	1 / 136	20.60	23.80
		656000	3840.00	1 / 68	20.86	1 / 68	20.77	23.82
		662000	3930.00	273 / 0	20.06	273 / 0	19.80	22.94
	256-QAM	650000	3750.00	1 / 204	20.30	1 / 136	18.99	22.70
		656000	3840.00	1 / 68	20.15	1 / 136	20.49	23.34
		662000	3930.00	273 / 0	19.60	273 / 0	19.30	22.46
80 MHz	QPSK	649334	3740.01	1 / 108	20.39	1 / 108	19.76	23.10
		656000	3840.00	217 / 0	20.25	1 / 108	20.22	23.24
		662666	3939.99	1 / 54	19.23	1 / 54	19.93	22.61
	16-QAM	649334	3740.01	1 / 108	20.89	1 / 108	20.29	23.61
		656000	3840.00	217 / 0	20.24	1 / 108	20.19	23.22
		662666	3939.99	1 / 54	19.64	1 / 54	20.31	23.00
	64-QAM	649334	3740.01	1 / 108	20.94	1 / 108	19.87	23.45
		656000	3840.00	217 / 0	20.29	1 / 108	20.31	23.31
		662666	3939.99	1 / 54	19.09	1 / 54	20.47	22.85
	256-QAM	649334	3740.01	1 / 108	19.12	1 / 108	18.29	21.73
		656000	3840.00	217 / 0	18.73	1 / 108	18.73	21.74
		662666	3939.99	1 / 54	19.36	1 / 54	19.66	22.52
60 MHz	QPSK	648668	3730.02	1 / 121	20.27	162 / 0	19.87	23.08
		656000	3840.00	1 / 81	19.72	162 / 0	20.18	22.97
		663332	3949.98	1 / 121	20.28	1 / 40	20.29	23.30
	16-QAM	648668	3730.02	1 / 121	20.10	162 / 0	19.84	22.98
		656000	3840.00	1 / 81	20.08	162 / 0	20.19	23.15
		663332	3949.98	1 / 121	20.14	1 / 40	20.26	23.21
	64-QAM	648668	3730.02	1 / 121	20.34	162 / 0	19.88	23.13
		656000	3840.00	1 / 81	19.87	162 / 0	20.21	23.05
		663332	3949.98	1 / 121	20.23	1 / 40	20.39	23.32
	256-QAM	648668	3730.02	1 / 121	19.08	162 / 0	19.80	22.46
		656000	3840.00	1 / 81	18.14	162 / 0	18.67	21.42
		663332	3949.98	1 / 121	20.00	1 / 40	19.94	22.98
40 MHz	QPSK	648000	3720.00	1 / 79	20.13	1 / 79	20.30	23.23
		656000	3840.00	1 / 79	20.32	106 / 0	20.33	23.33
		664000	3960.00	1 / 26	20.34	1 / 79	20.66	23.51
	16-QAM	648000	3720.00	1 / 79	20.65	1 / 79	20.43	23.55
		656000	3840.00	1 / 79	20.53	106 / 0	20.27	23.41
		664000	3960.00	1 / 26	20.77	1 / 79	20.98	23.88
	64-QAM	648000	3720.00	1 / 79	20.54	1 / 79	20.70	23.63
		656000	3840.00	1 / 79	20.46	106 / 0	20.22	23.35
		664000	3960.00	1 / 26	20.53	1 / 79	20.94	23.75
	256-QAM	648000	3720.00	1 / 79	18.61	1 / 79	18.82	21.73
		656000	3840.00	1 / 79	18.80	106 / 0	18.66	21.74
		664000	3960.00	1 / 26	19.96	1 / 79	20.12	23.05
30 MHz	QPSK	647668	3715.02	1 / 39	20.66	1 / 39	20.86	23.77
		656000	3840.00	1 / 58	19.86	1 / 58	20.09	22.99
		664332	3964.98	78 / 0	20.71	1 / 19	20.06	23.41
	16-QAM	647668	3715.02	1 / 39	20.69	1 / 39	20.91	23.81
		656000	3840.00	1 / 58	19.08	1 / 58	20.45	22.83
		664332	3964.98	78 / 0	20.72	1 / 19	20.97	23.86
	64-QAM	647668	3715.02	1 / 39	20.94	1 / 39	20.80	23.88
		656000	3840.00	1 / 58	20.32	1 / 58	20.31	23.32
		664332	3964.98	78 / 0	20.72	1 / 19	20.71	23.72
	256-QAM	647668	3715.02	1 / 39	20.00	1 / 39	20.21	23.12
		656000	3840.00	1 / 58	18.31	1 / 58	18.64	21.49
		664332	3964.98	78 / 0	20.27	1 / 19	20.16	23.23
20 MHz	QPSK	647334	3710.01	1 / 25	20.64	1 / 37	20.83	23.74
		656000	3840.00	1 / 13	20.66	1 / 25	19.84	23.28
		664666	3969.99	1 / 37	20.70	1 / 37	20.43	23.58
	16-QAM	647334	3710.01	1 / 25	20.88	51 / 0	19.30	23.17
		656000	3840.00	1 / 13	20.95	1 / 25	20.06	23.54
		664666	3969.99	1 / 37	18.55	1 / 37	20.79	22.82
	64-QAM	647334	3710.01	1 / 25	20.60	51 / 0	19.24	22.99
		656000	3840.00	1 / 13	20.97	1 / 25	20.12	23.58
		664666	3969.99	1 / 37	18.51	1 / 37	20.89	22.87
	256-QAM	647334	3710.01	1 / 25	19.79	1 / 37	20.33	23.08
		656000	3840.00	1 / 13	20.23	1 / 25	-27.63	20.23
		664666	3969.99	1 / 37	20.42	1 / 37	20.20	23.32

**Table 7-2. Conducted Power Data (UL-MIMO NR Band n77 (PC3))**

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NR (SCS 30kHz)						LTE						NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
n77 (Main)	100	Mid	3840	$\pi/2$ BPSK	1/136	B13	10	Mid	782	QPSK	1/25	26.75	22.46	28.12
				QPSK	270/0					25.66	22.32	27.31		
				QPSK	270/0					25.67	22.42	27.35		
				QPSK	1/136					26.73	22.33	28.08		
				QPSK	1/136					26.80	22.41	28.15		
				16Q	1/136					25.62	22.53	27.35		

**Table 7-3. Conducted Power Data (NR Band n77 (Main ANT) + EN-DC Anchor B13)**

NR (SCS 30kHz)						LTE						NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
n77 (Main)	100	Mid	3840	$\pi/2$ BPSK	1/136	B66	20	Mid	1745	QPSK	1/50	26.84	23.07	28.36
				QPSK	270/0					25.76	23.18	27.67		
				QPSK	270/0					25.78	23.05	27.64		
				QPSK	1/136					26.79	23.15	28.35		
				QPSK	1/136					26.82	23.08	28.35		
				16Q	1/136					26.04	23.45	27.95		

**Table 7-4. Conducted Power Data (NR Band n77 (Main ANT) + EN-DC Anchor B66)**

NR (SCS 30kHz)						LTE						NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
n77 (As-Div)	100	Mid	3840	$\pi/2$ BPSK	1/136	12	10	Mid	707.5	QPSK	1/25	23.01	23.17	26.10
				QPSK	50/0					22.89	23.18	26.05		
				QPSK	270/0					22.89	23.13	26.02		
				QPSK	1/136					23.14	23.16	26.16		
				QPSK	1/136					23.14	23.26	26.21		
				16Q	1/136					22.77	22.93	25.86		

**Table 7-5. Conducted Power Data (NR Band n77 (As-Div ANT) + EN-DC Anchor B13)**

NR (SCS 30kHz)						LTE						NR	LTE	EN-DC
NR Band	NR Bandwidth [MHz]	NR Channel	NR Frequency [MHz]	Mod.	NR RB#/Offset	LTE Band	LTE Bandwidth [MHz]	LTE Channel	LTE Frequency [MHz]	Mod.	LTE RB#/Offset	Conducted Power [dBm]	Conducted Power [dBm]	Total Tx. Power [dBm]
n77 (As-Div)	100	Mid	3840	$\pi/2$ BPSK	1/136	B66	20	Mid	1745	QPSK	1/50	23.81	23.14	26.50
				QPSK	270/0					23.79	23.07	26.46		
				QPSK	270/0					23.79	23.10	26.47		
				QPSK	1/136					23.80	23.05	26.45		
				QPSK	1/136					23.82	23.15	26.51		
				16Q	1/136					24.01	23.49	26.77		

**Table 7-6. Conducted Power Data (NR Band n77 (As-Div ANT) + EN-DC Anchor B66)**

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## 7.3 Occupied Bandwidth

### Test Overview

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured. All modes of operation were investigated and the worst case configuration results are reported in this section.

### Test Procedure Used

ANSI C63.26-2015 – Section 5.4.4

### Test Settings

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

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



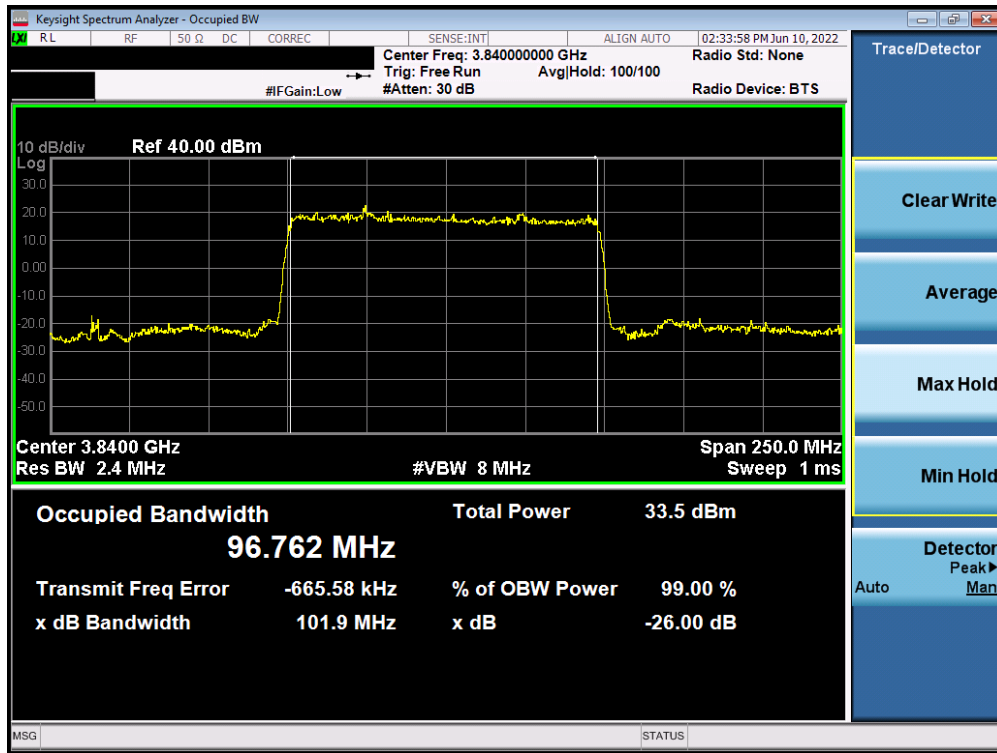
**Figure 7-2. Test Instrument & Measurement Setup**

### Test Notes

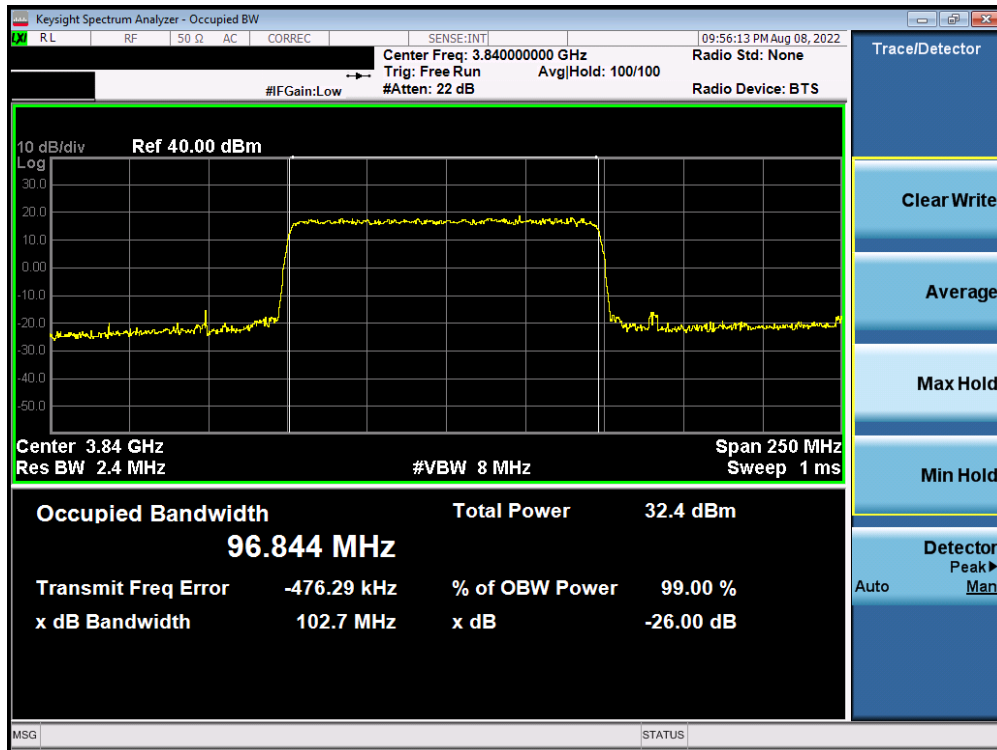
None.

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## NR Band n77 – Main ANT



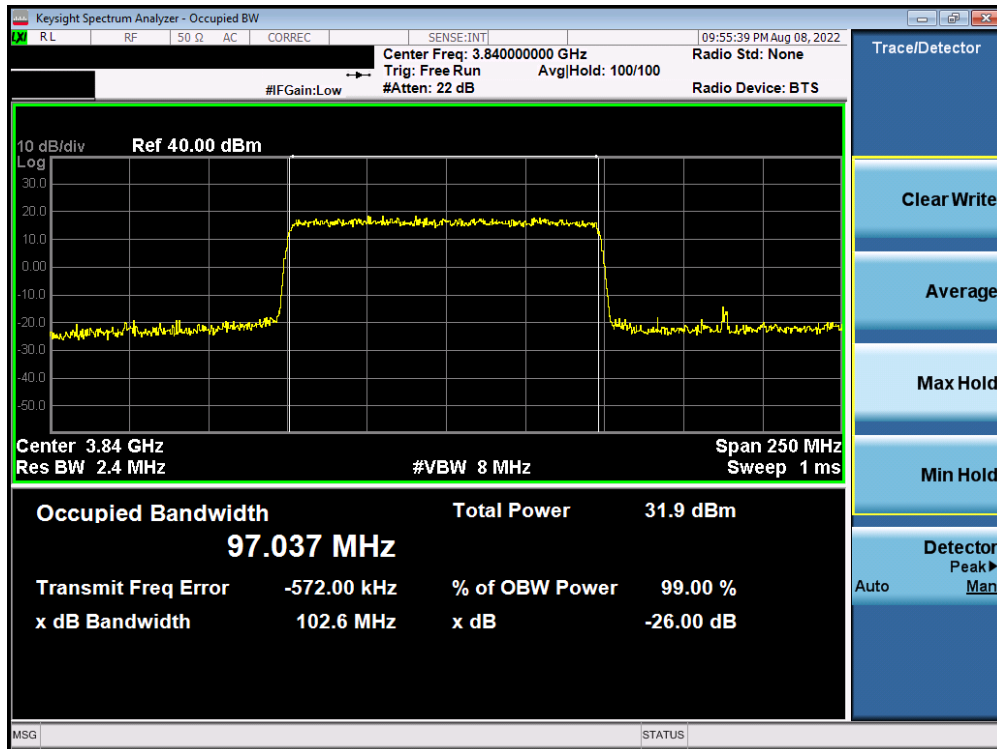
Plot 7-1. Occupied Bandwidth Plot (NR Band n77 - 100MHz  $\pi/2$  BPSK - Full RB - Main ANT)



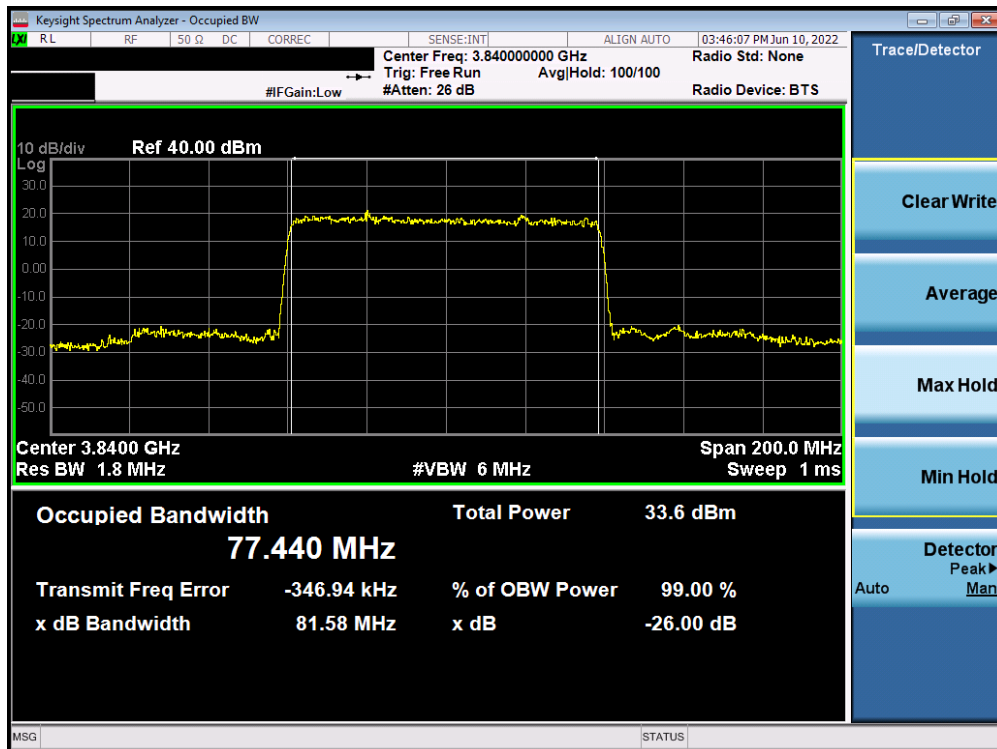
Plot 7-2. Occupied Bandwidth Plot (NR Band n77 - 100MHz QPSK - Full RB - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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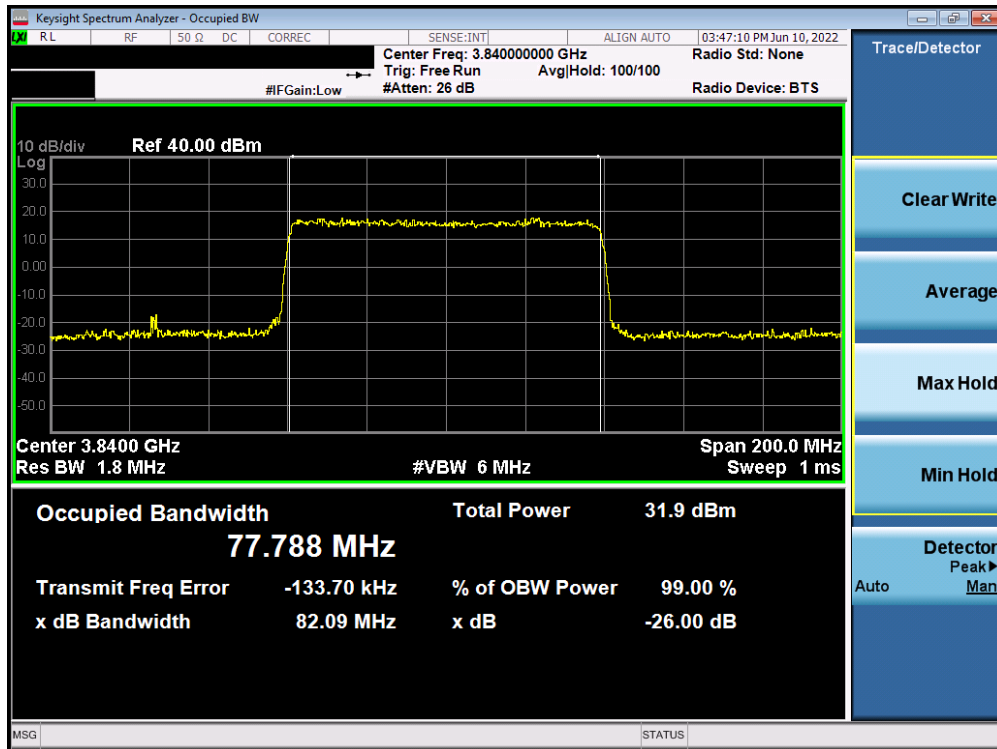


Plot 7-3. Occupied Bandwidth Plot (NR Band n77 - 100MHz 16-QAM - Full RB - Main ANT)

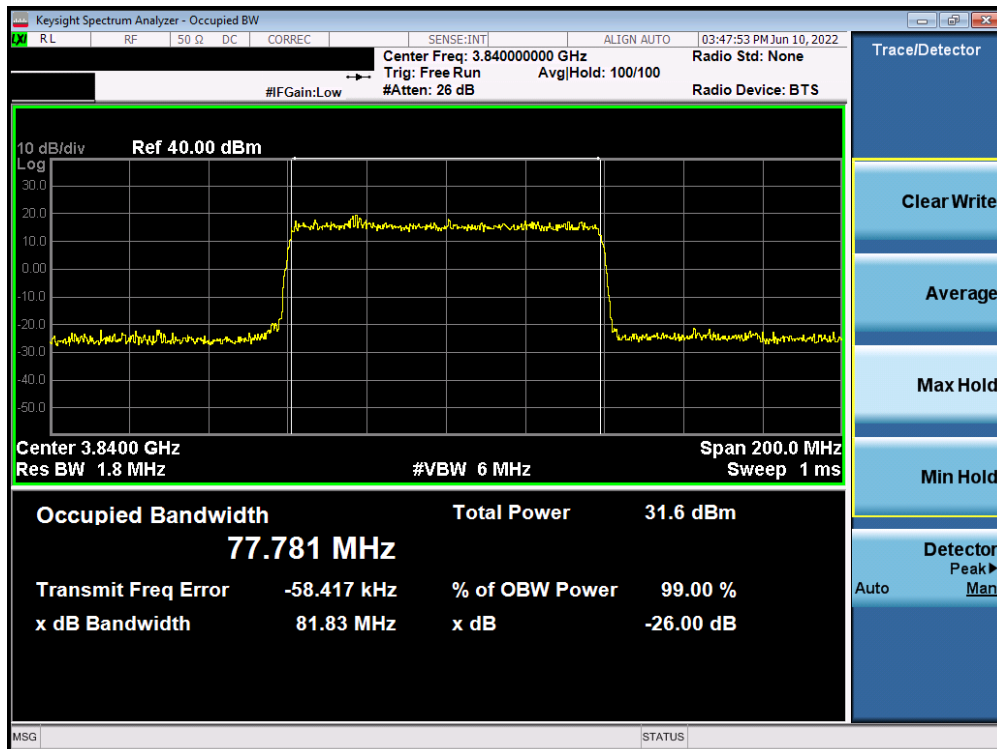


Plot 7-4. Occupied Bandwidth Plot (NR Band n77 - 80MHz  $\pi/2$  BPSK - Full RB - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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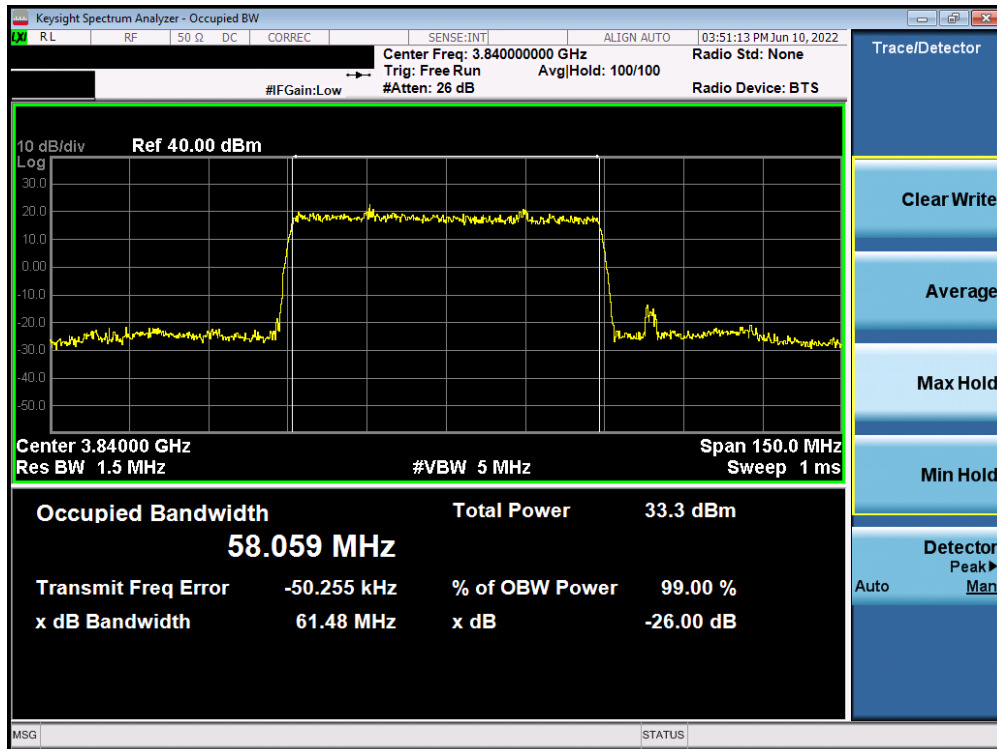


Plot 7-5. Occupied Bandwidth Plot (NR Band n77 - 80MHz QPSK - Full RB - Main ANT)

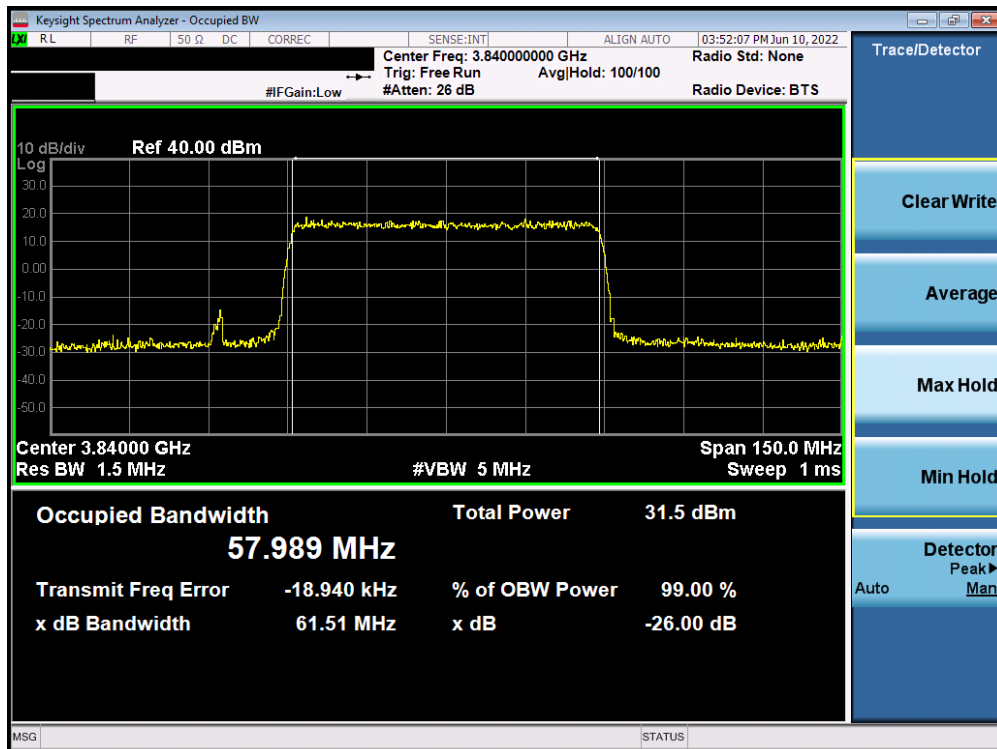


Plot 7-6. Occupied Bandwidth Plot (NR Band n77 - 80MHz 16-QAM - Full RB - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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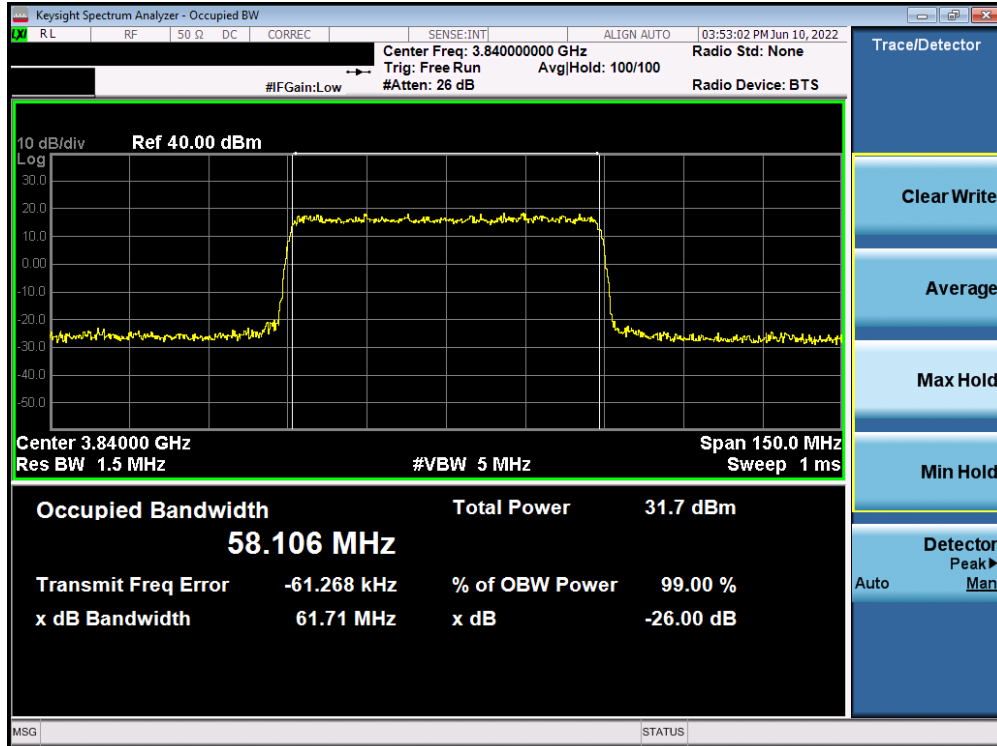


Plot 7-7. Occupied Bandwidth Plot (NR Band n77 - 60MHz  $\pi/2$  BPSK - Full RB - Main ANT)

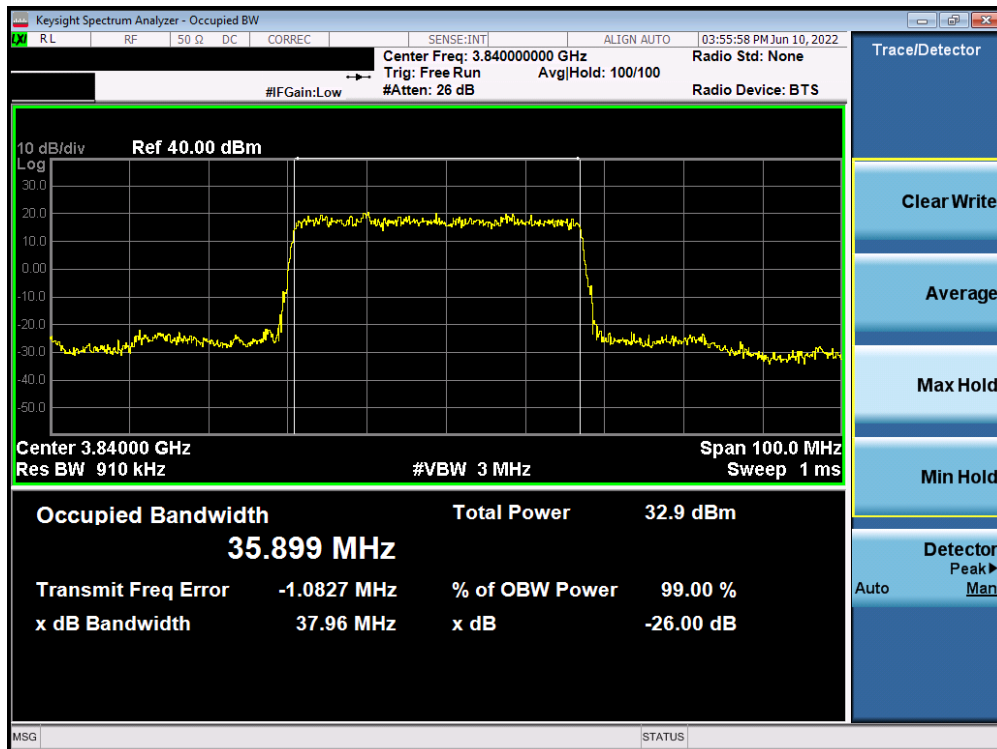


Plot 7-8. Occupied Bandwidth Plot (NR Band n77 - 60MHz QPSK - Full RB - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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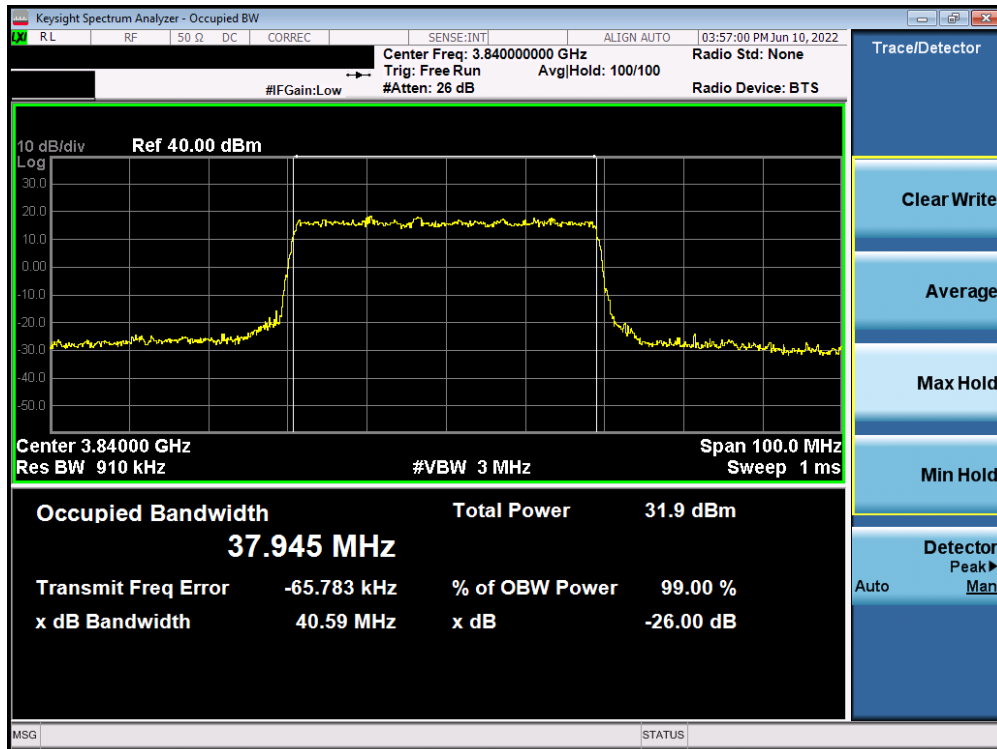


Plot 7-9. Occupied Bandwidth Plot (NR Band n77 - 60MHz 16-QAM - Full RB - Main ANT)

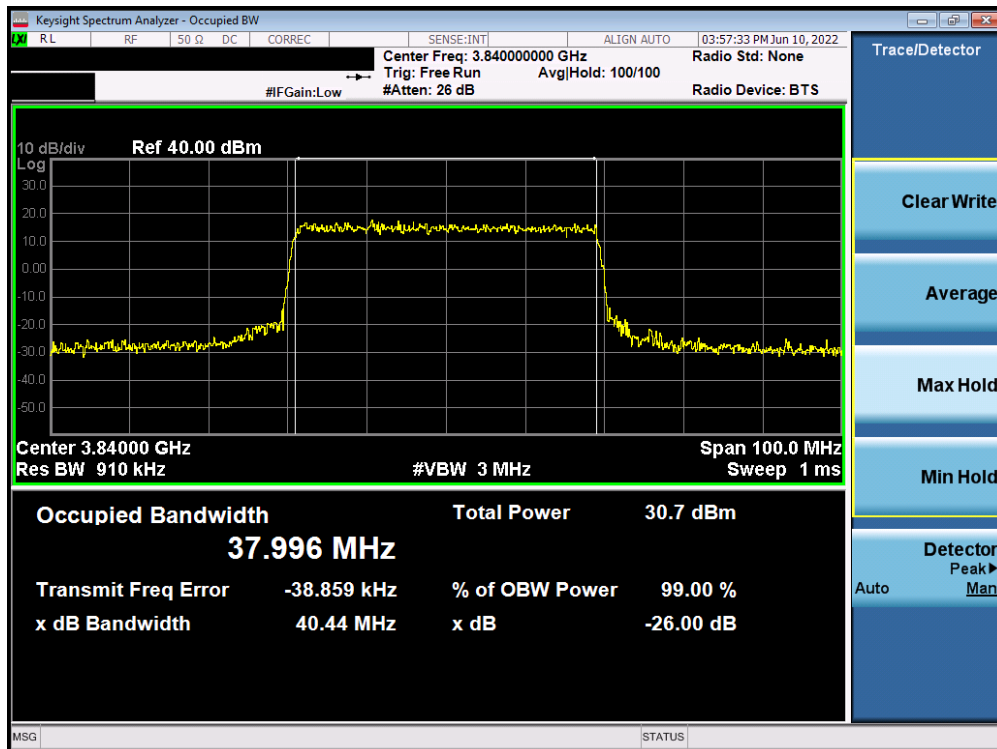


Plot 7-10. Occupied Bandwidth Plot (NR Band n77 - 40MHz  $\pi/2$  BPSK - Full RB - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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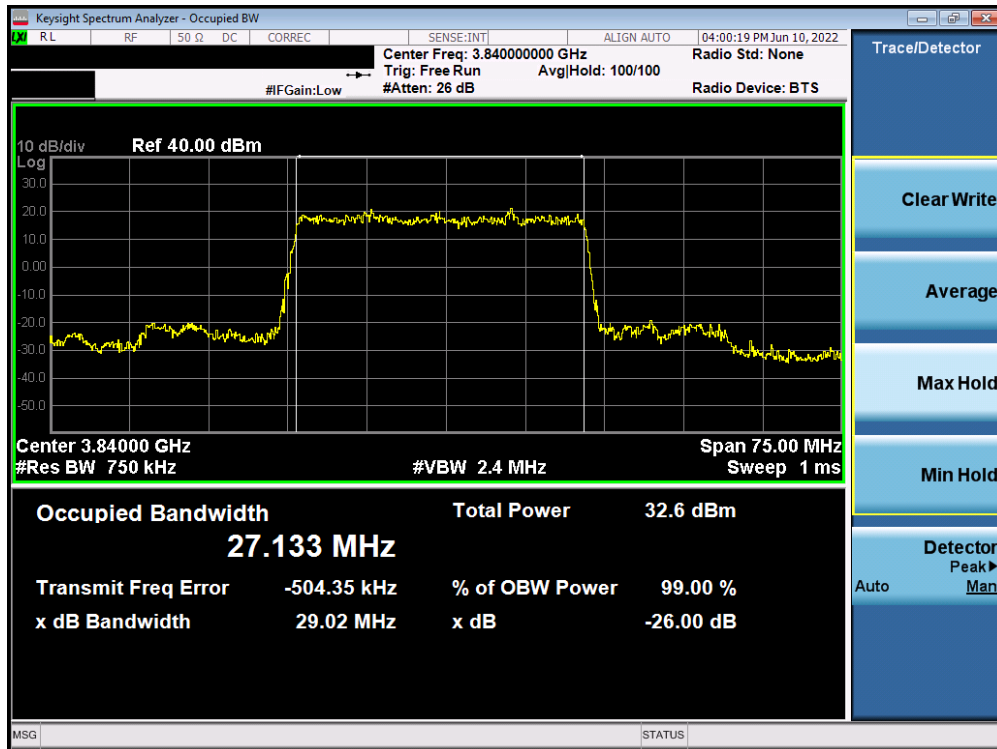


Plot 7-11. Occupied Bandwidth Plot (NR Band n77 - 40MHz QPSK - Full RB - Main ANT)

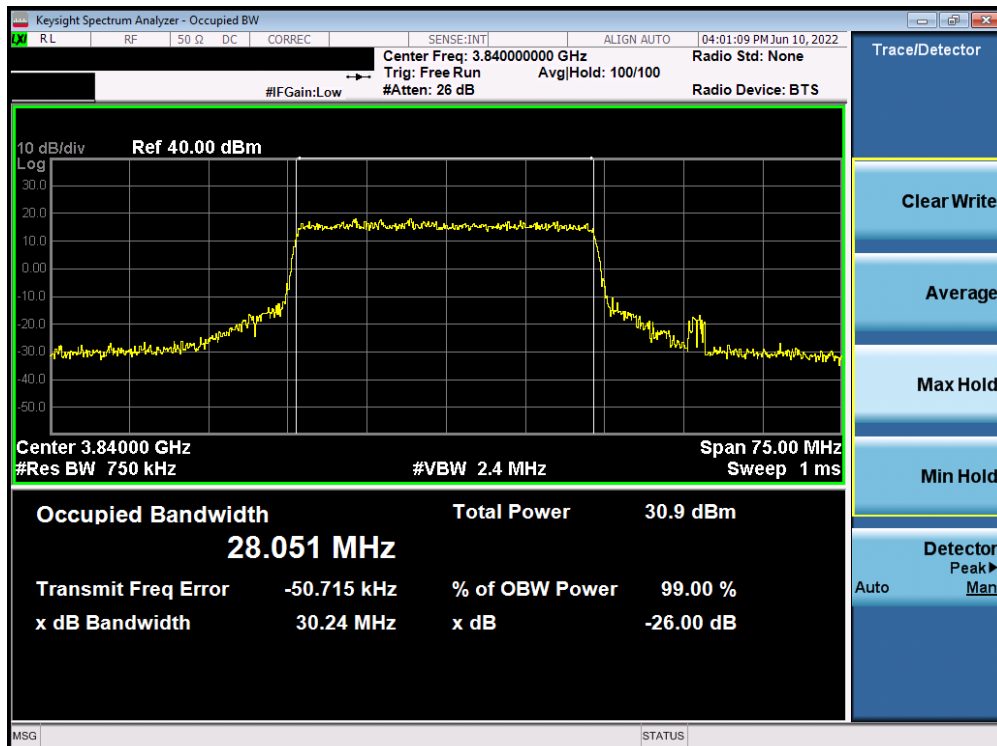


Plot 7-12. Occupied Bandwidth Plot (NR Band n77 - 40MHz 16-QAM - Full RB - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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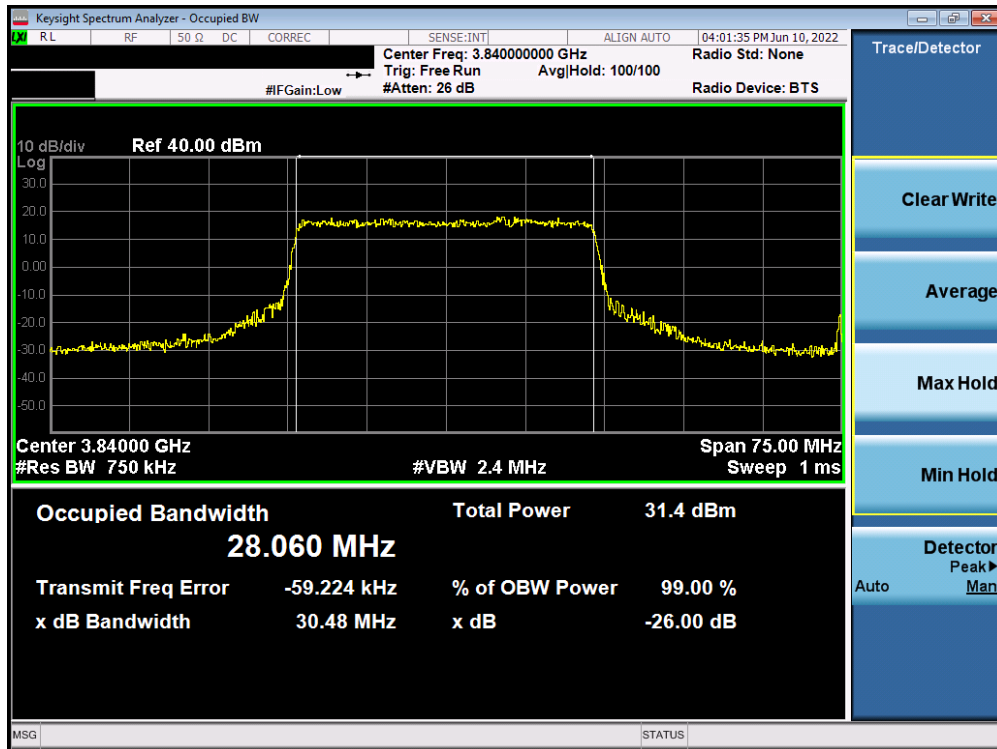


Plot 7-13. Occupied Bandwidth Plot (NR Band n77 - 30MHz  $\pi/2$  BPSK - Full RB - Main ANT)

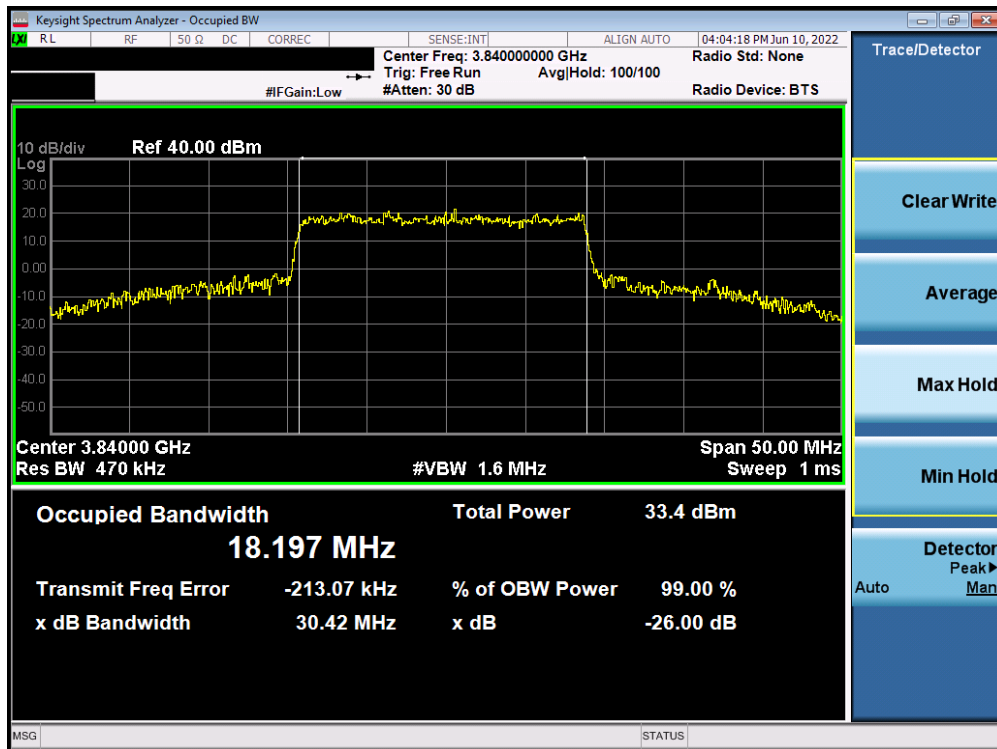


Plot 7-14. Occupied Bandwidth Plot (NR Band n77 - 30MHz QPSK - Full RB - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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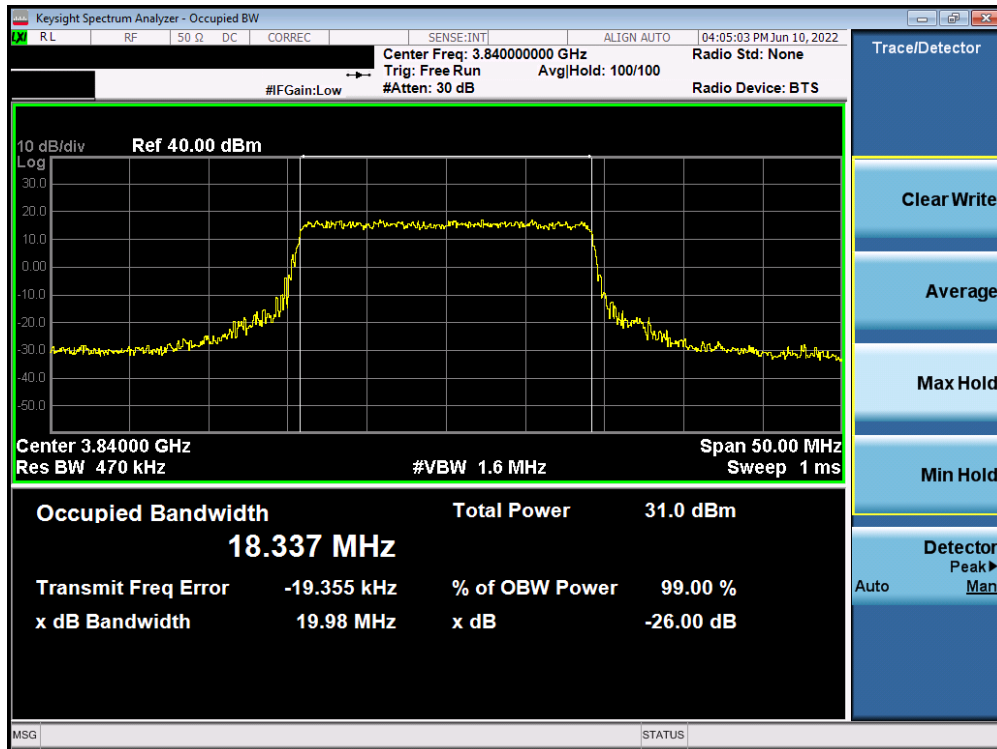


Plot 7-15. Occupied Bandwidth Plot (NR Band n77 - 30MHz 16-QAM - Full RB - Main ANT)

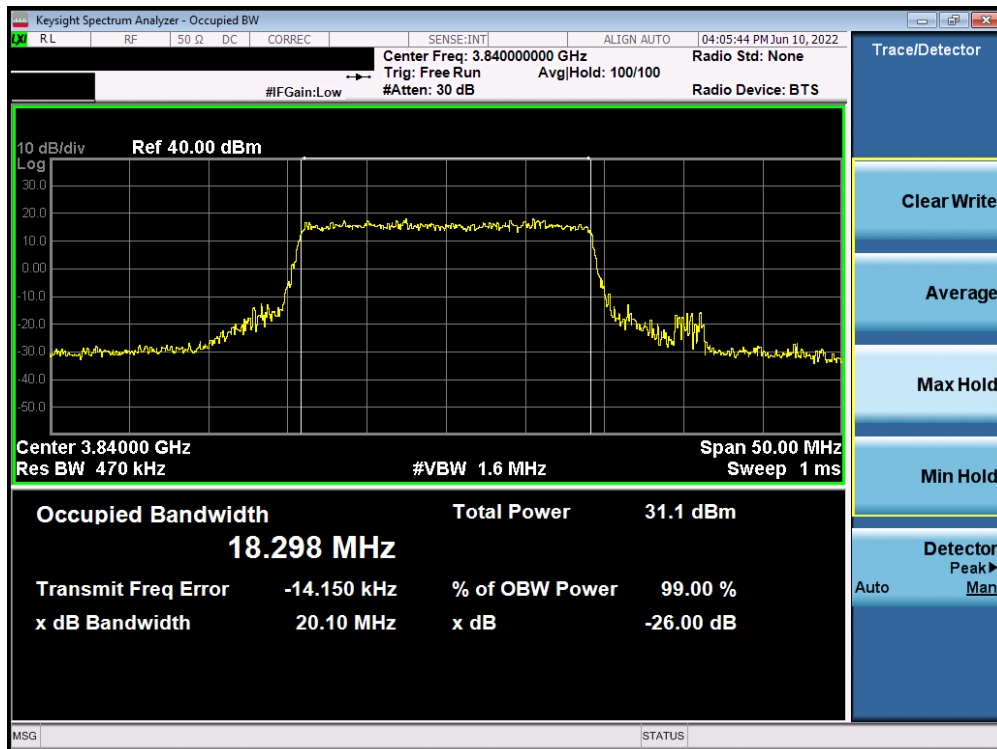


Plot 7-16. Occupied Bandwidth Plot (NR Band n77 - 20MHz  $\pi/2$  BPSK - Full RB - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-17. Occupied Bandwidth Plot (NR Band n77 - 20MHz QPSK - Full RB - Main ANT)

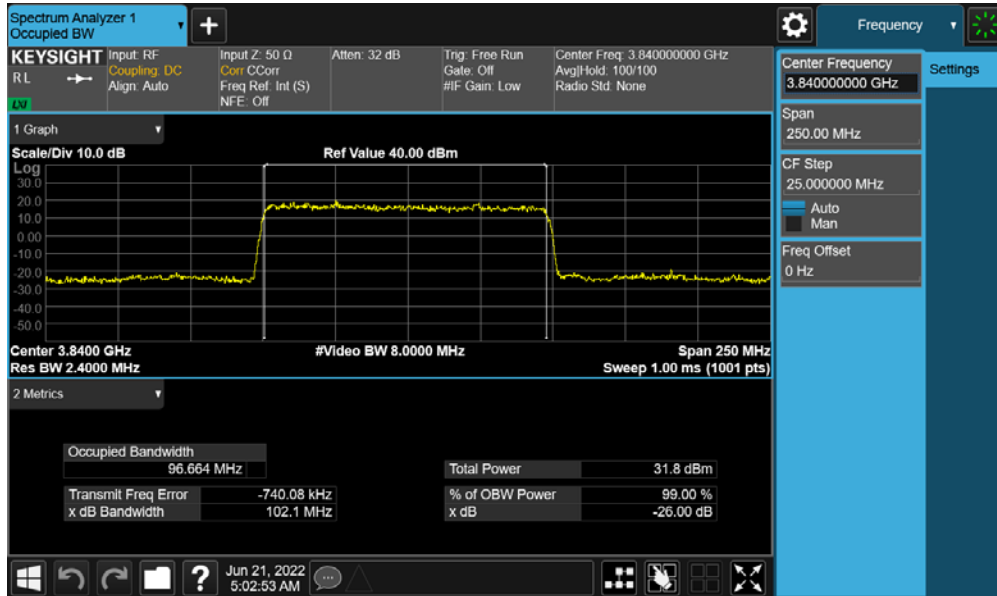


Plot 7-18. Occupied Bandwidth Plot (NR Band n77 - 20MHz 16-QAM - Full RB - Main ANT)

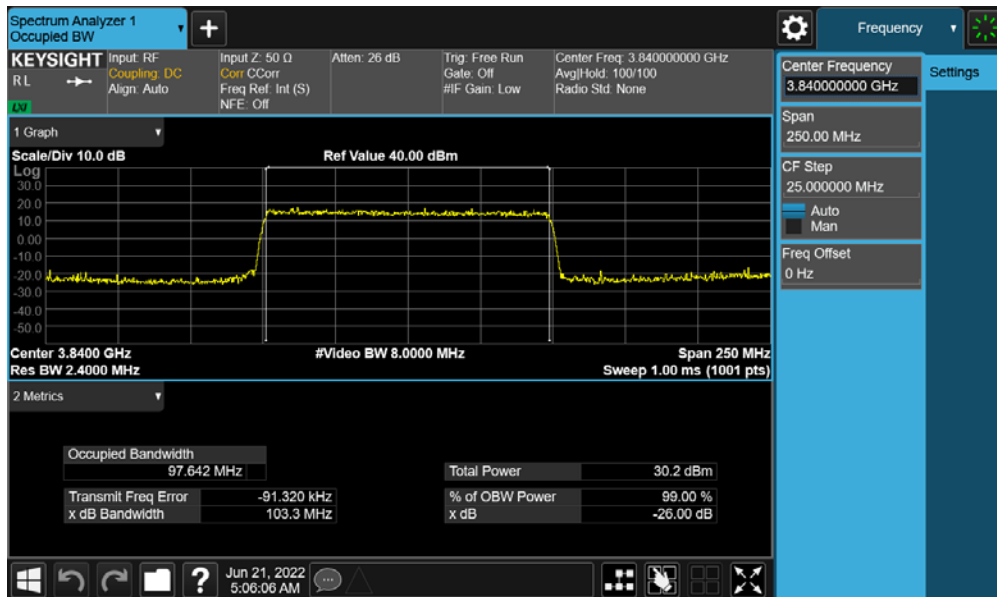
## NR Band n77 – As-Div ANT

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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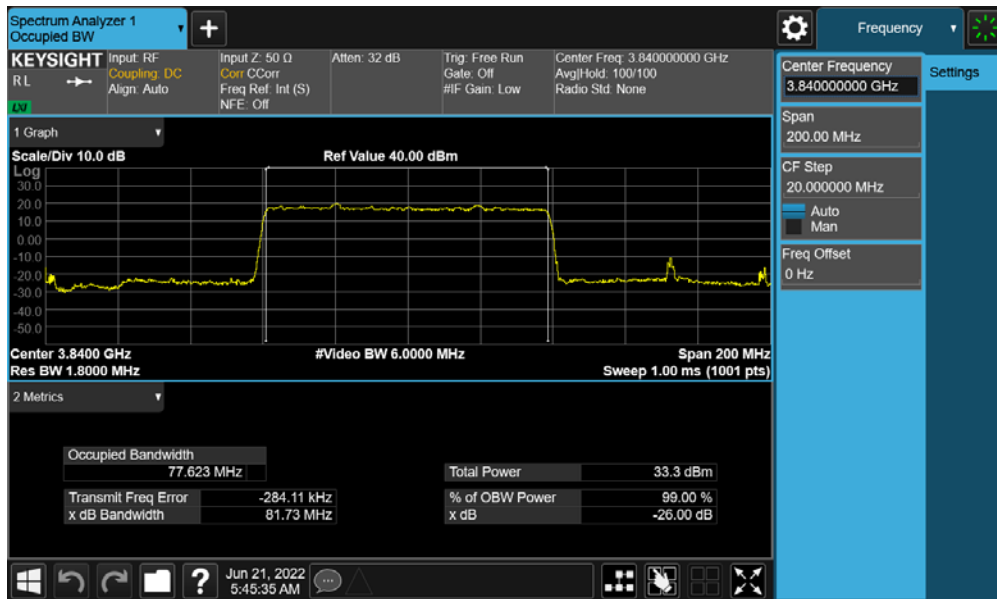
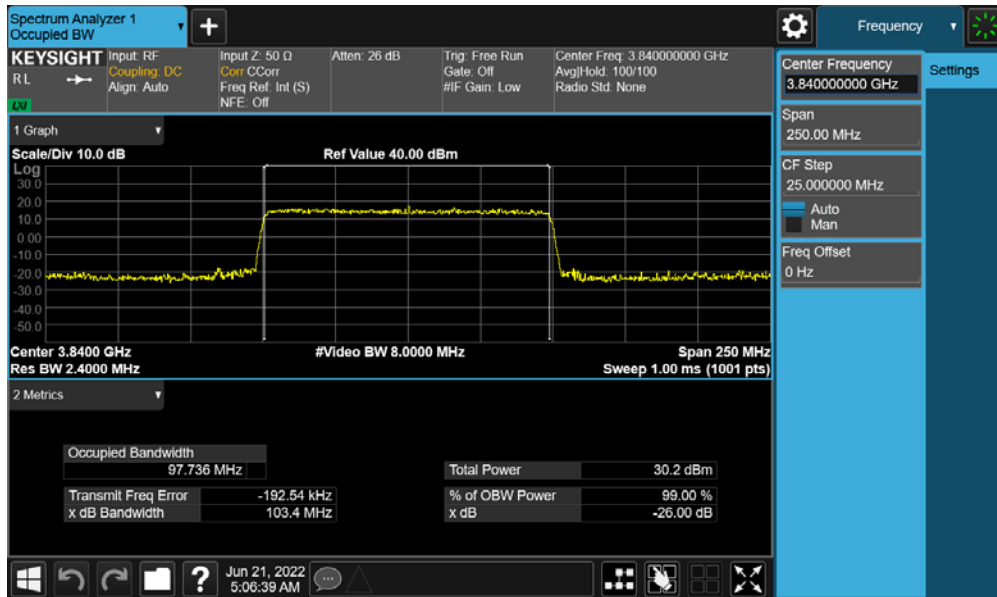


Plot 7-19. Occupied Bandwidth Plot (NR Band n77 - 100MHz  $\pi/2$  BPSK - Full RB - As-Div ANT)

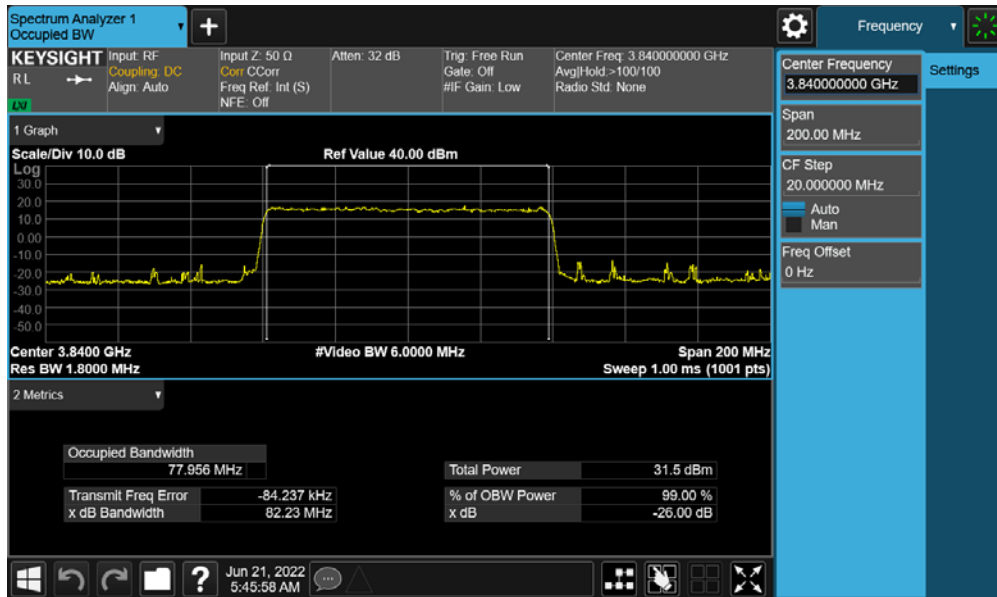


Plot 7-20. Occupied Bandwidth Plot (NR Band n77 - 100MHz QPSK - Full RB - As-Div ANT)

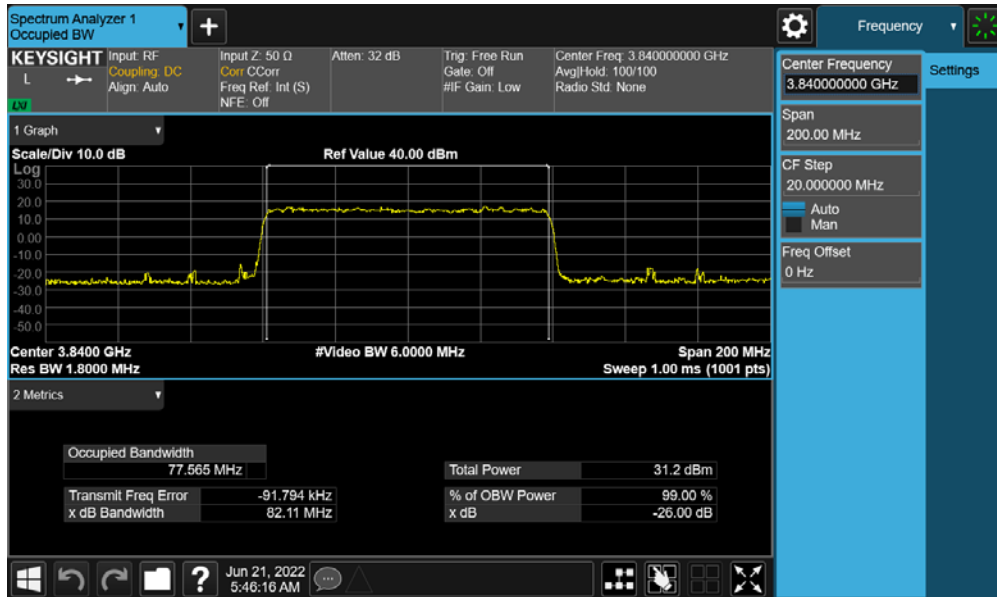
FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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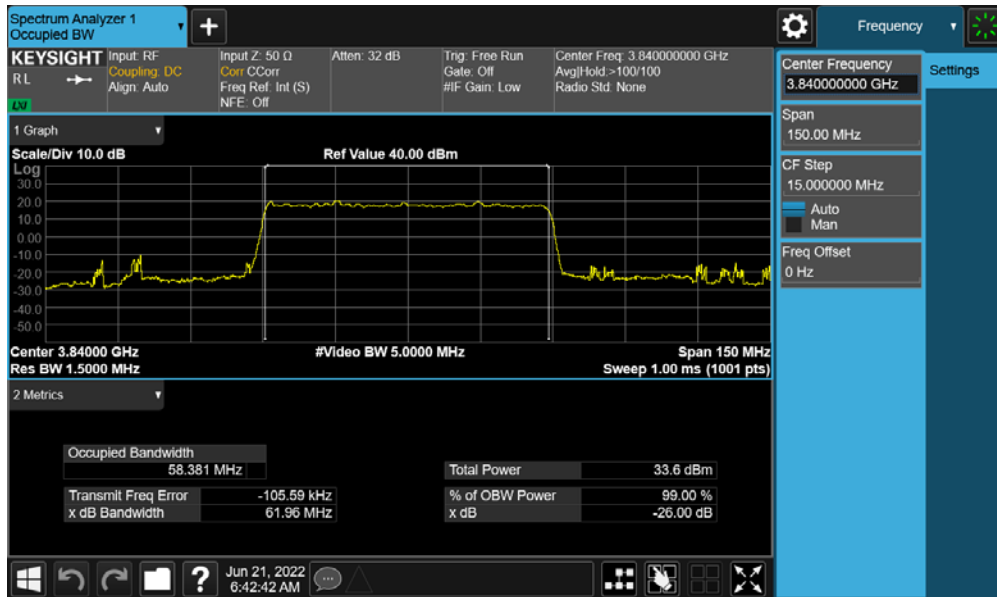


Plot 7-23. Occupied Bandwidth Plot (NR Band n77 - 80MHz QPSK - Full RB - As-Div ANT)

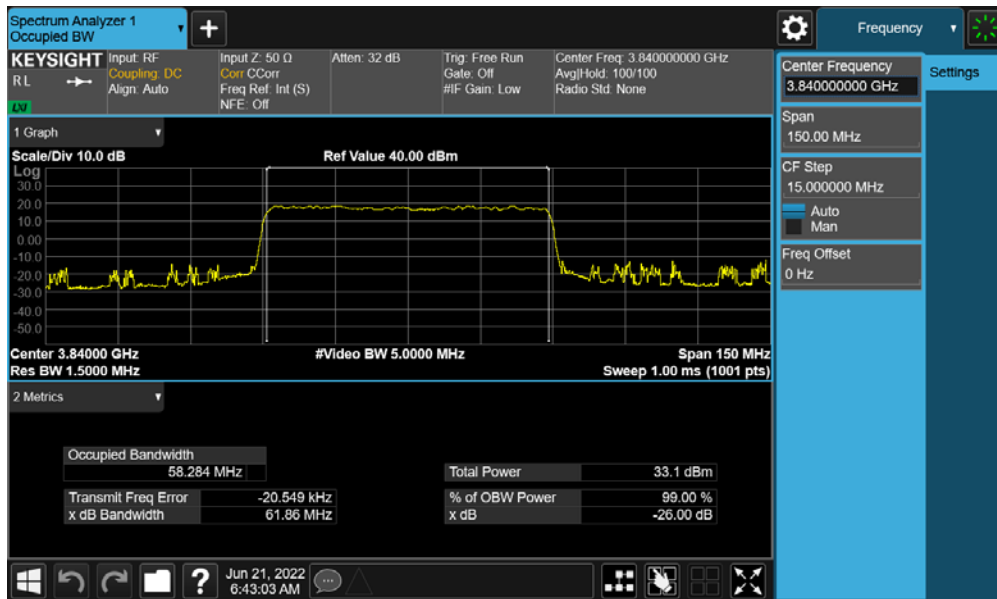


Plot 7-24. Occupied Bandwidth Plot (NR Band n77 - 80MHz 16-QAM - Full RB - As-Div ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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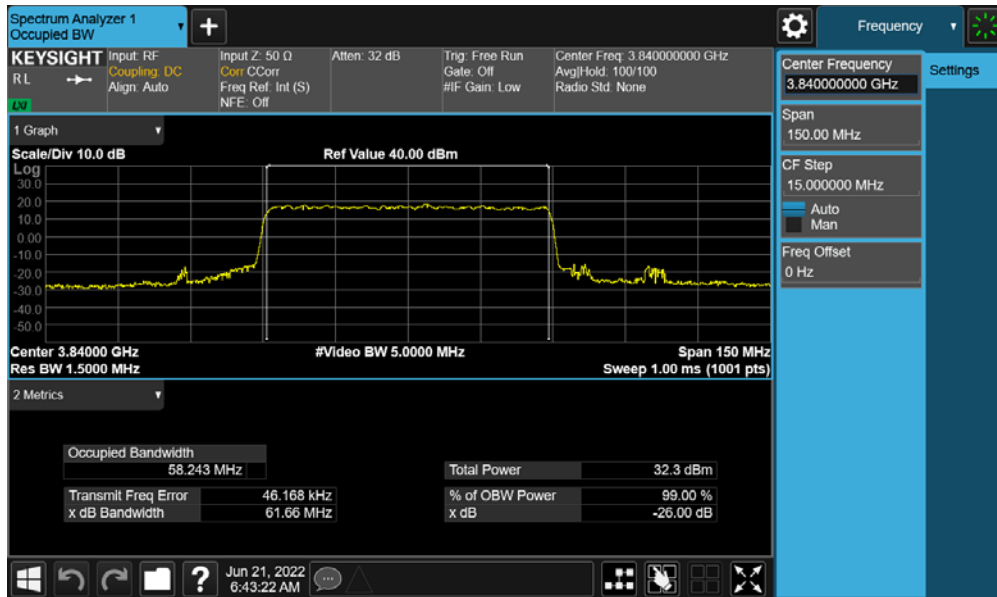


Plot 7-25. Occupied Bandwidth Plot (NR Band n77 - 60MHz  $\pi/2$  BPSK - Full RB - As-Div ANT)

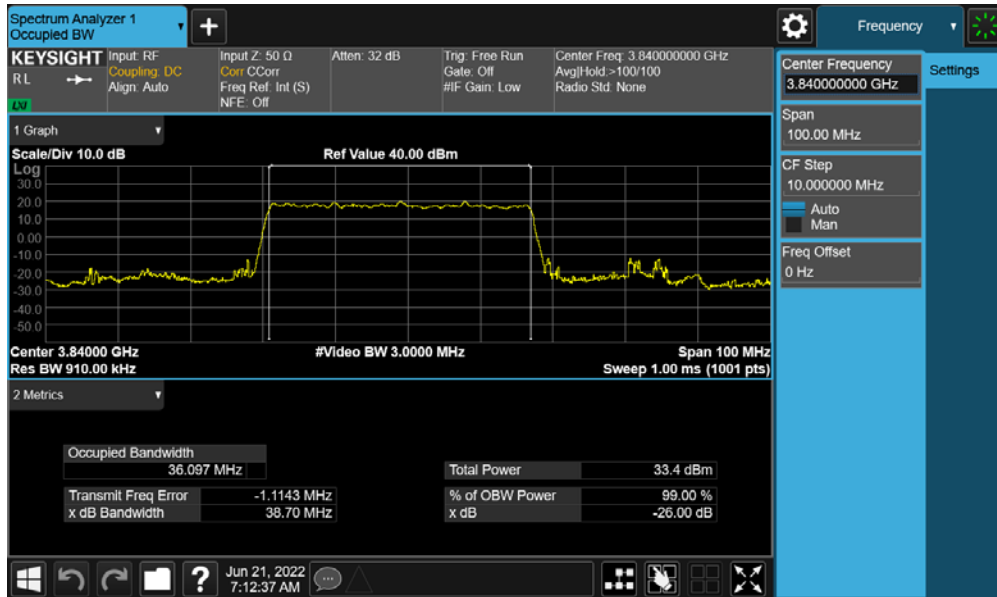


Plot 7-26. Occupied Bandwidth Plot (NR Band n77 - 60MHz QPSK - Full RB - As-Div ANT)

FCC ID: PY7-76056F		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 28 of 130	

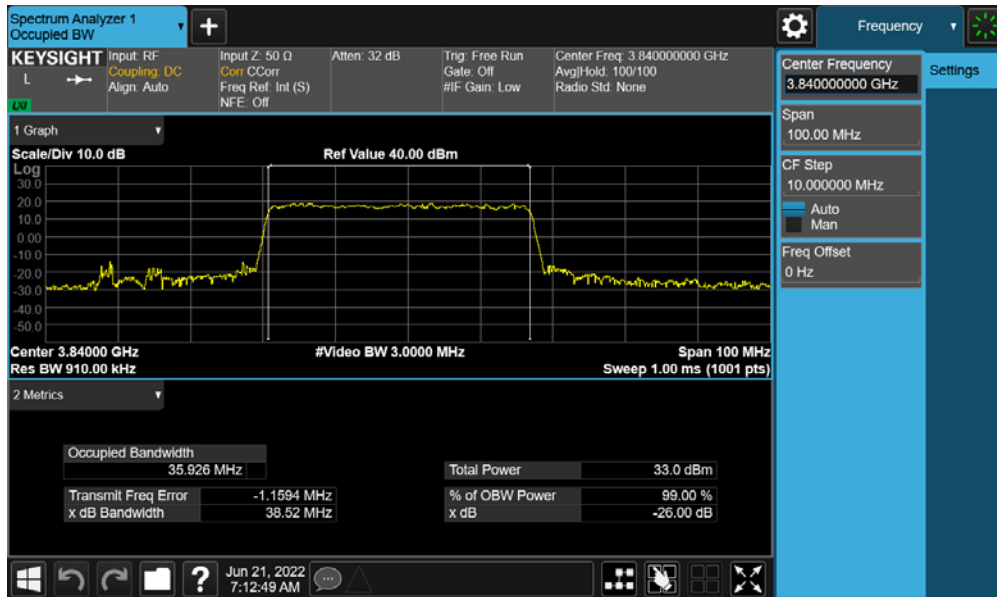


Plot 7-27. Occupied Bandwidth Plot (NR Band n77 - 60MHz 16-QAM - Full RB - As-Div ANT)

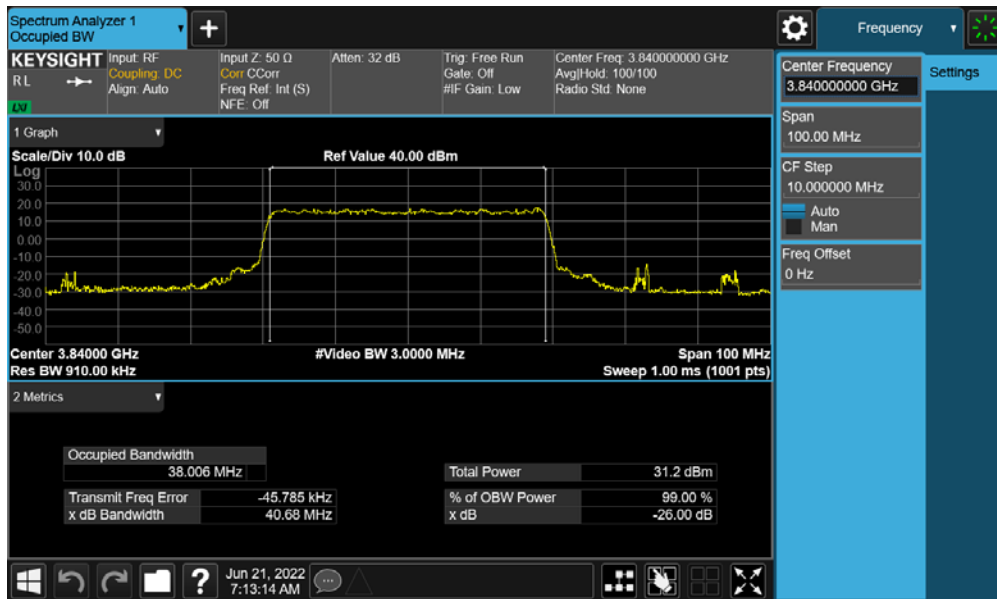


Plot 7-28. Occupied Bandwidth Plot (NR Band n77 - 40MHz  $\pi/2$  BPSK - Full RB - As-Div ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 29 of 130

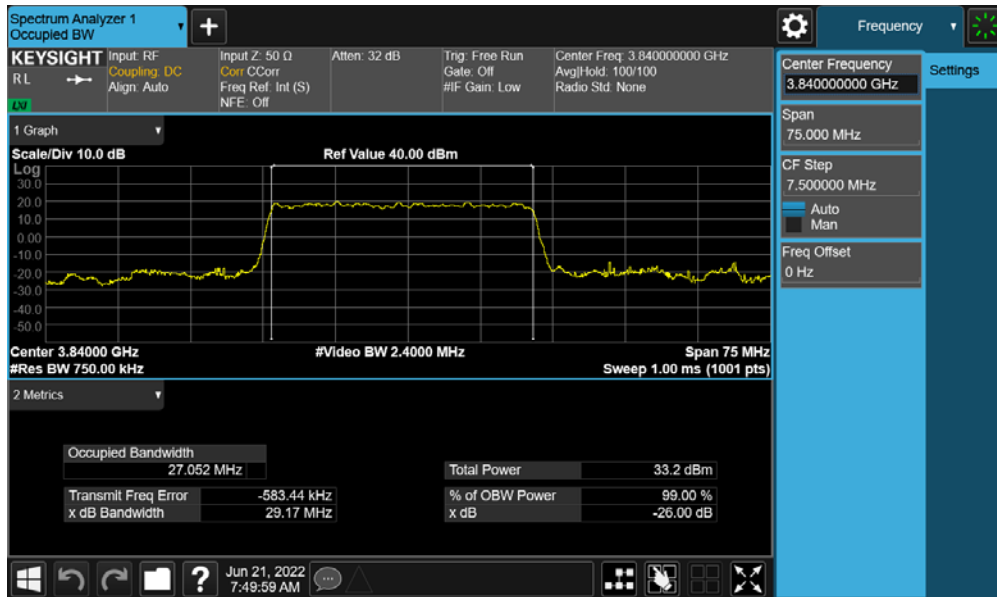


Plot 7-29. Occupied Bandwidth Plot (NR Band n77 - 40MHz QPSK - Full RB - As-Div ANT)

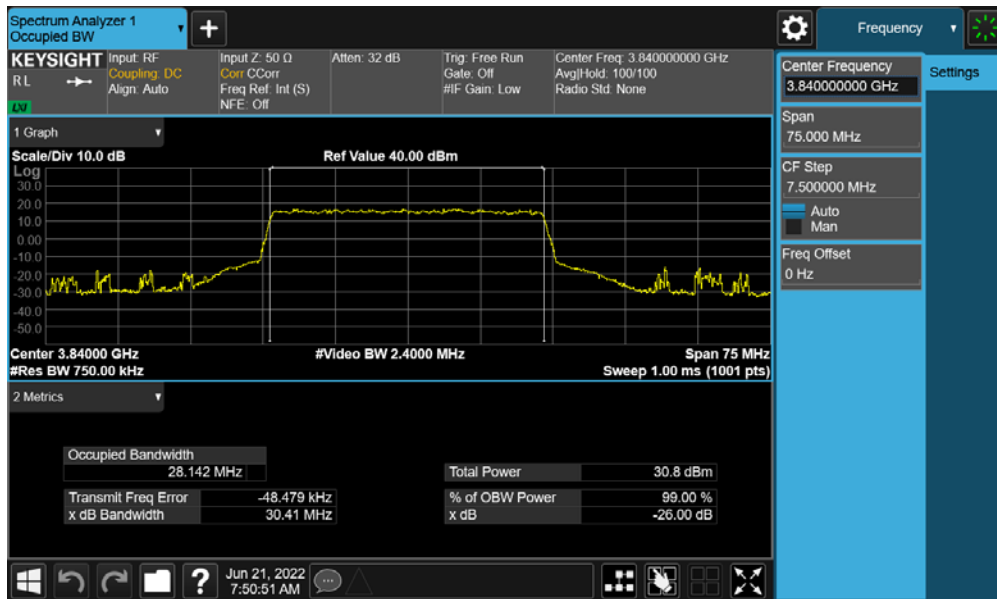


Plot 7-30. Occupied Bandwidth Plot (NR Band n77 - 40MHz 16-QAM - Full RB - As-Div ANT)

FCC ID: PY7-76056F		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 30 of 130	

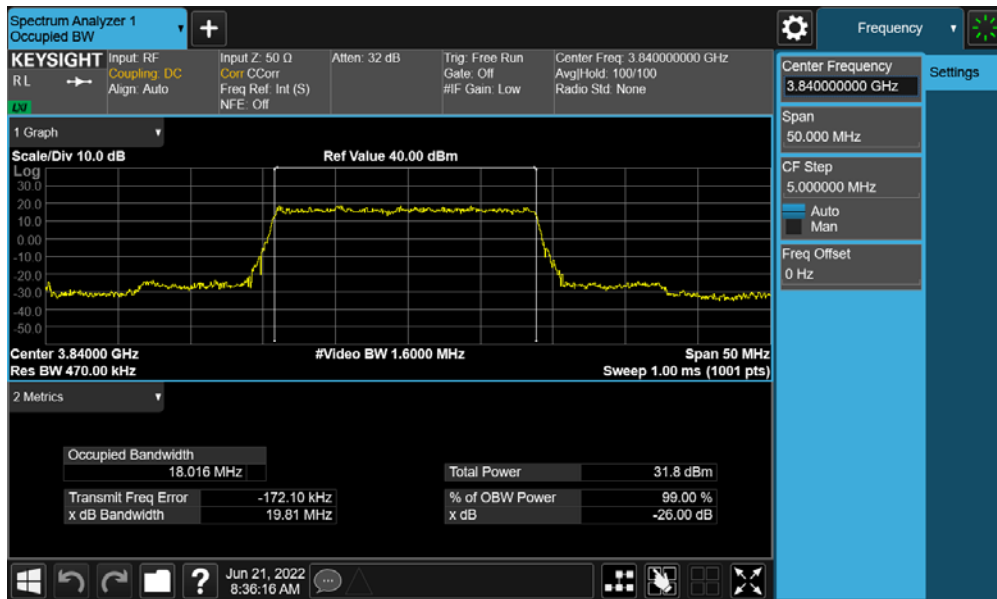
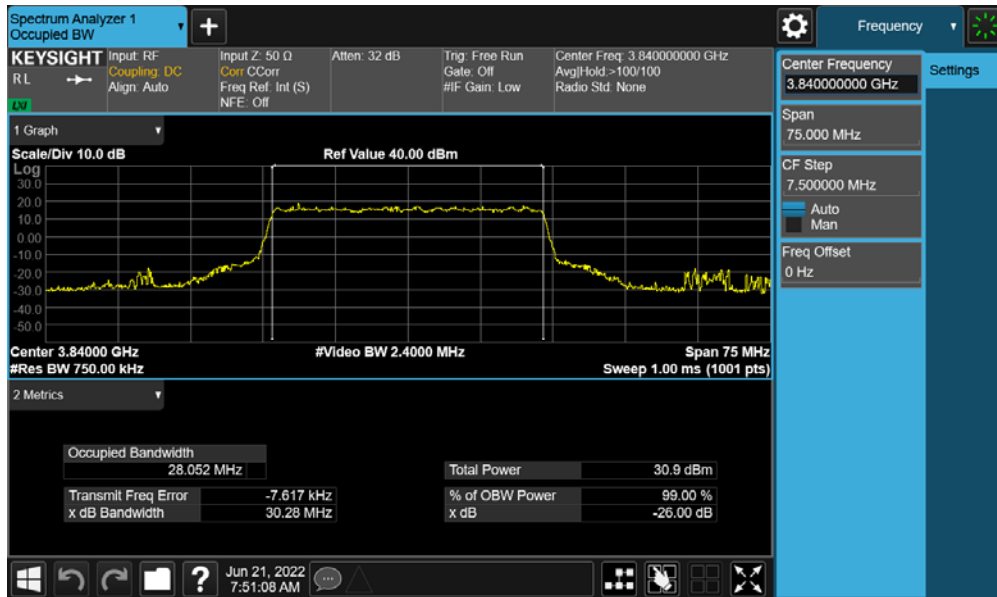


Plot 7-31. Occupied Bandwidth Plot (NR Band n77 - 30MHz  $\pi/2$  BPSK - Full RB - As-Div ANT)



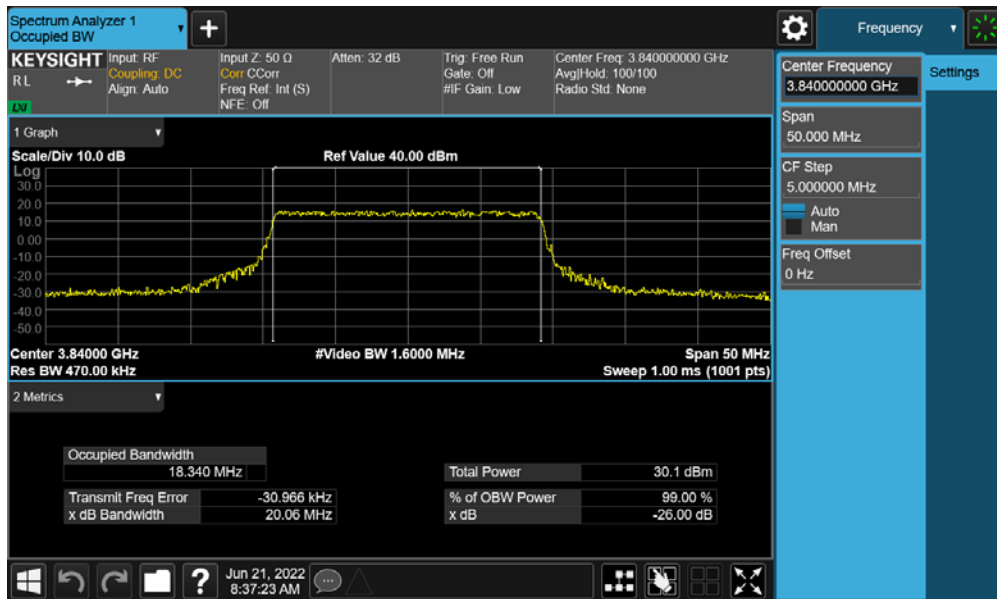
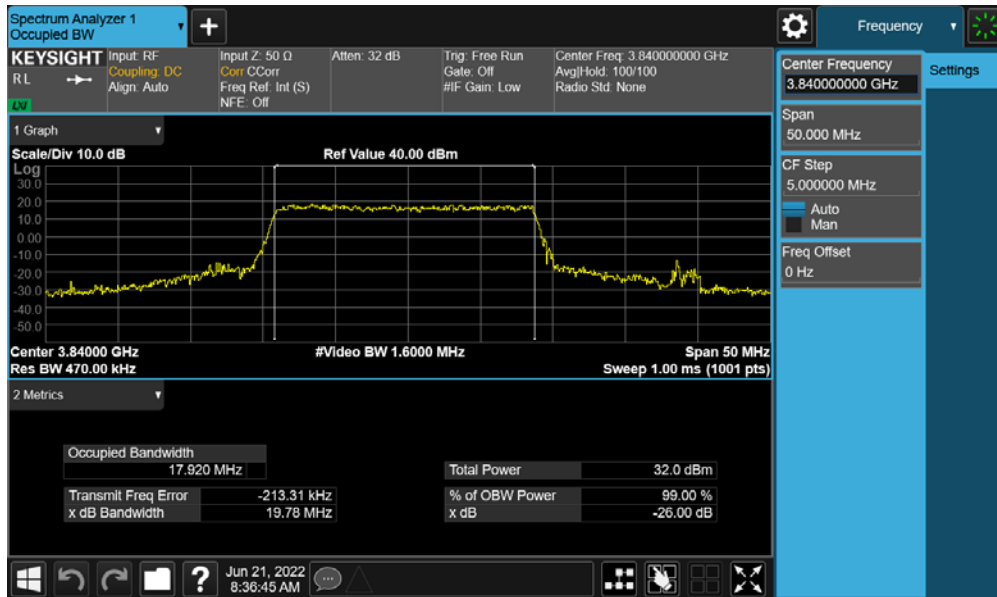
Plot 7-32. Occupied Bandwidth Plot (NR Band n77 - 30MHz QPSK - Full RB - As-Div ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 31 of 130



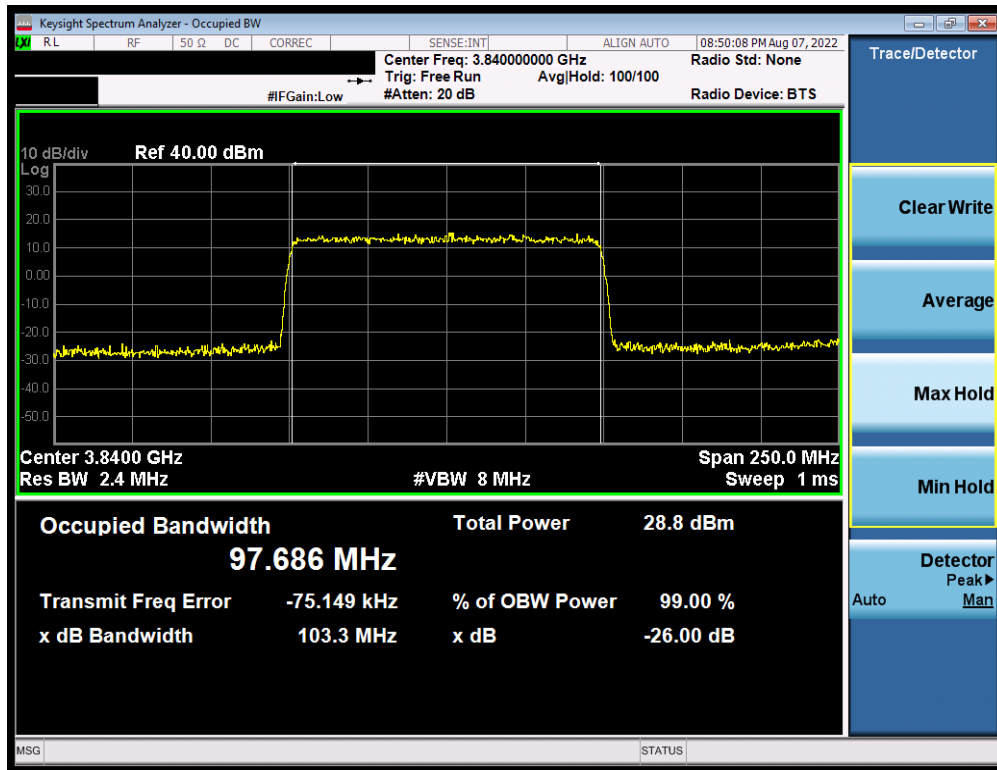
FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 32 of 130



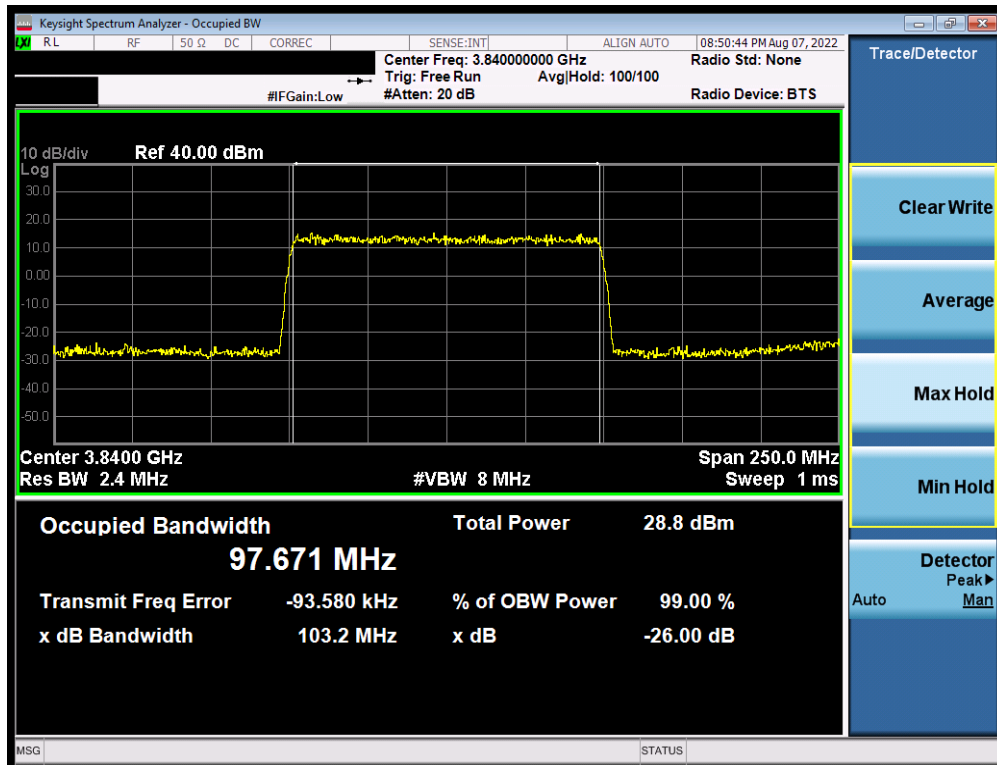


FCC ID: PY7-76056F		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 33 of 130	

## NR Band n77 – Sub ANT (UL-MIMO)

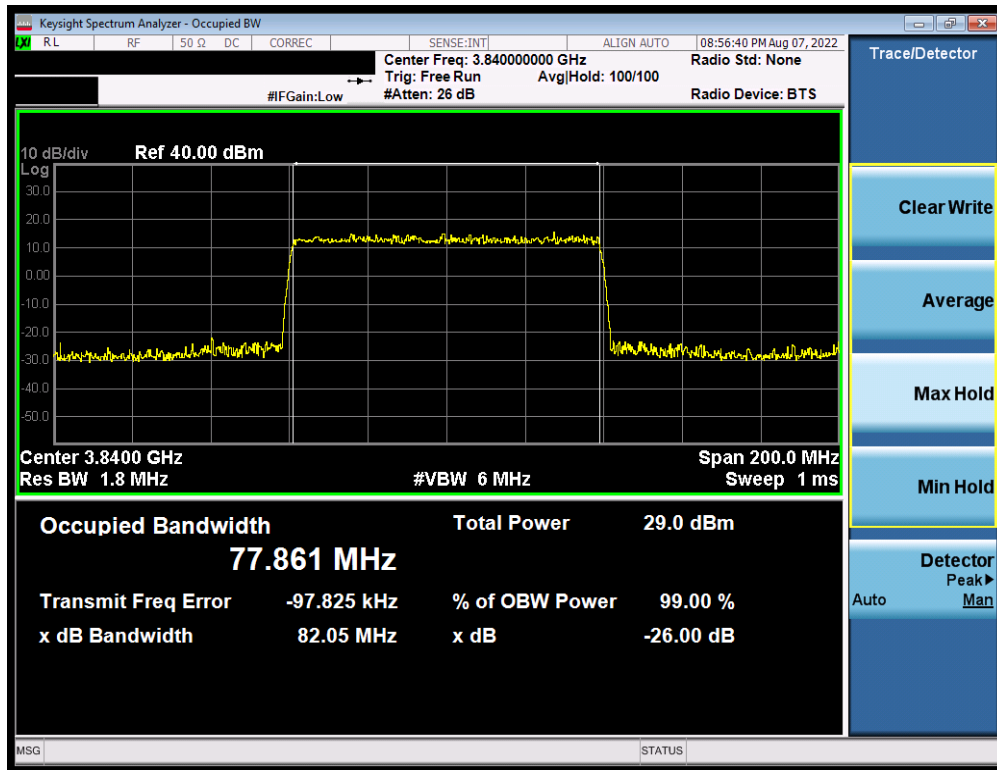


Plot 7-37. Occupied Bandwidth Plot (NR Band n77 - 100MHz QPSK - Full RB - Sub ANT (UL-MIMO))

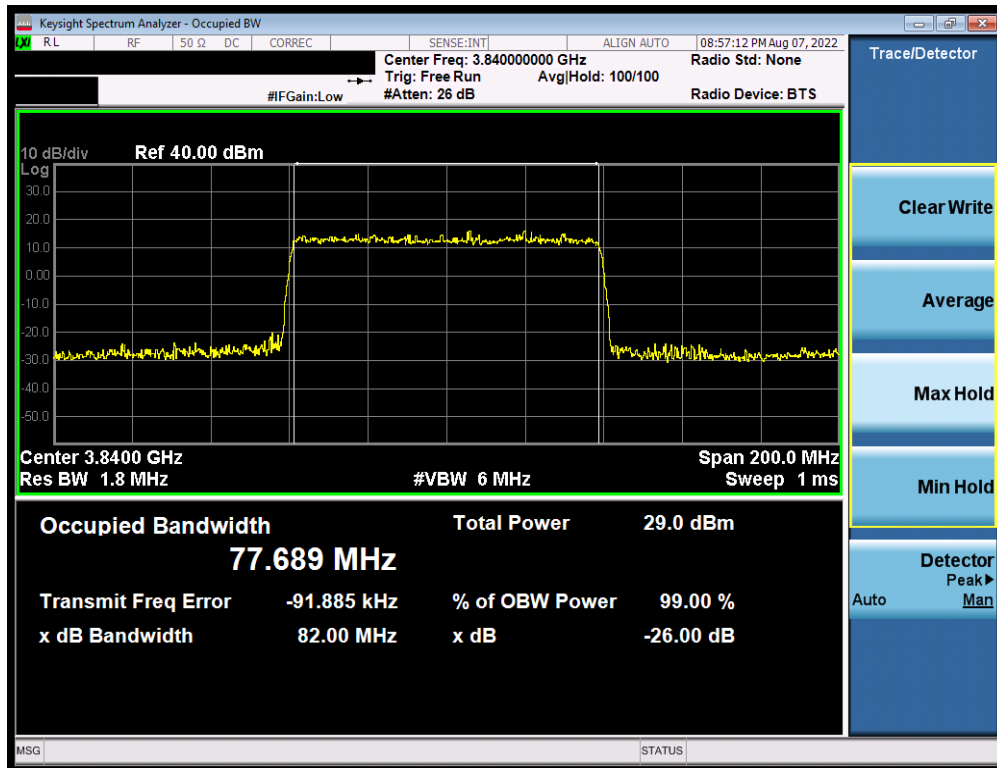


Plot 7-38. Occupied Bandwidth Plot (NR Band n77 - 100MHz 16-QAM - Full RB - Sub ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 34 of 130

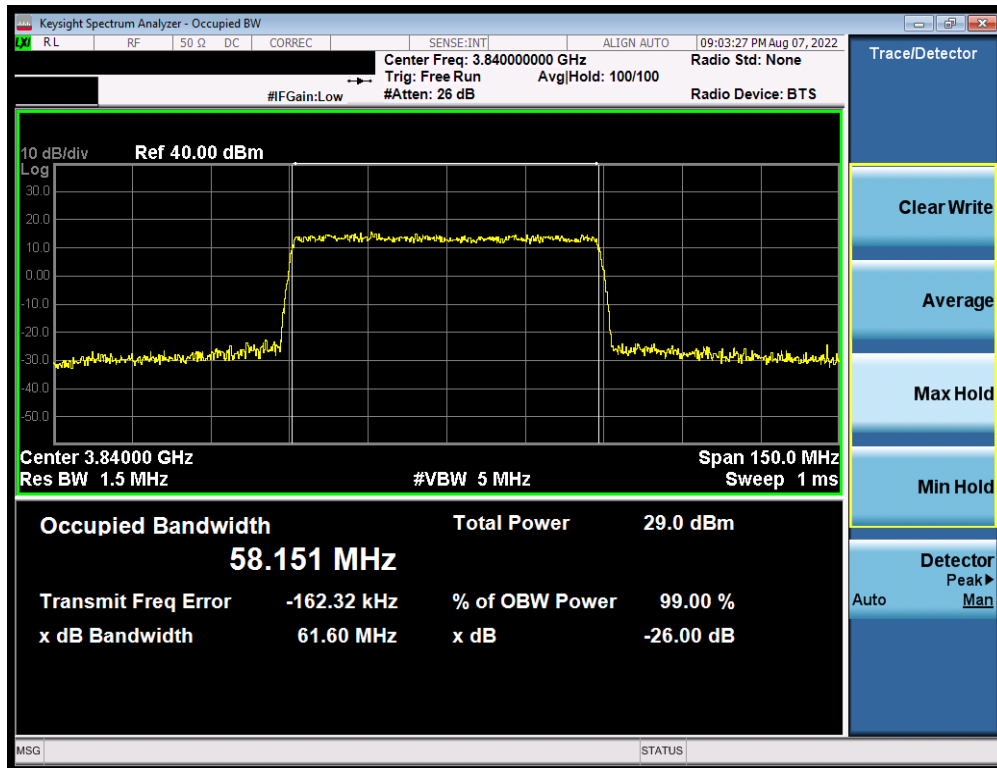


Plot 7-39. Occupied Bandwidth Plot (NR Band n77 - 80MHz QPSK - Full RB - Sub ANT (UL-MIMO))

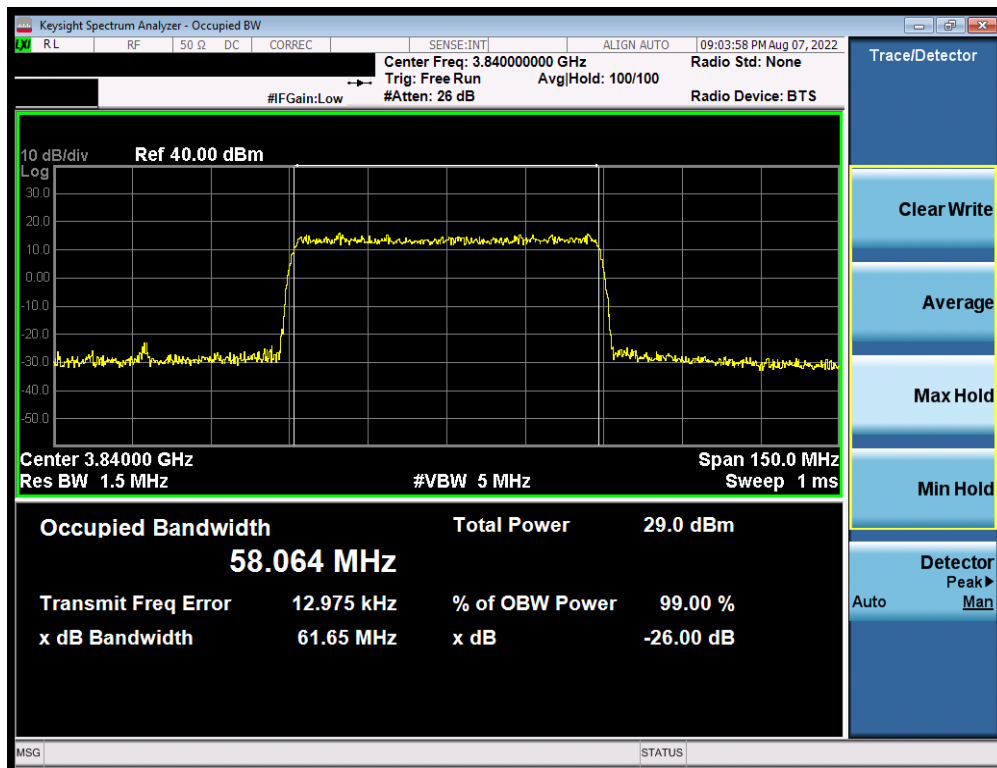


Plot 7-40. Occupied Bandwidth Plot (NR Band n77 - 80MHz 16-QAM - Full RB - Sub ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 35 of 130



Plot 7-41. Occupied Bandwidth Plot (NR Band n77 - 60MHz QPSK - Full RB - Sub ANT (UL-MIMO))

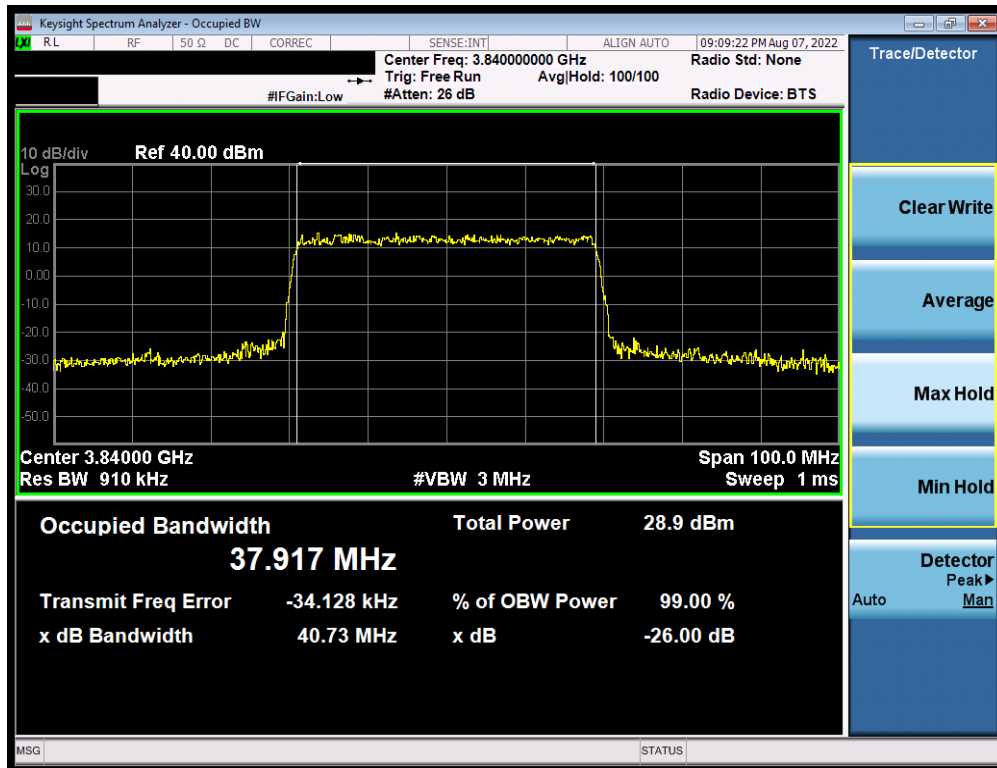


Plot 7-42. Occupied Bandwidth Plot (NR Band n77 - 60MHz 16-QAM - Full RB - Sub ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 36 of 130

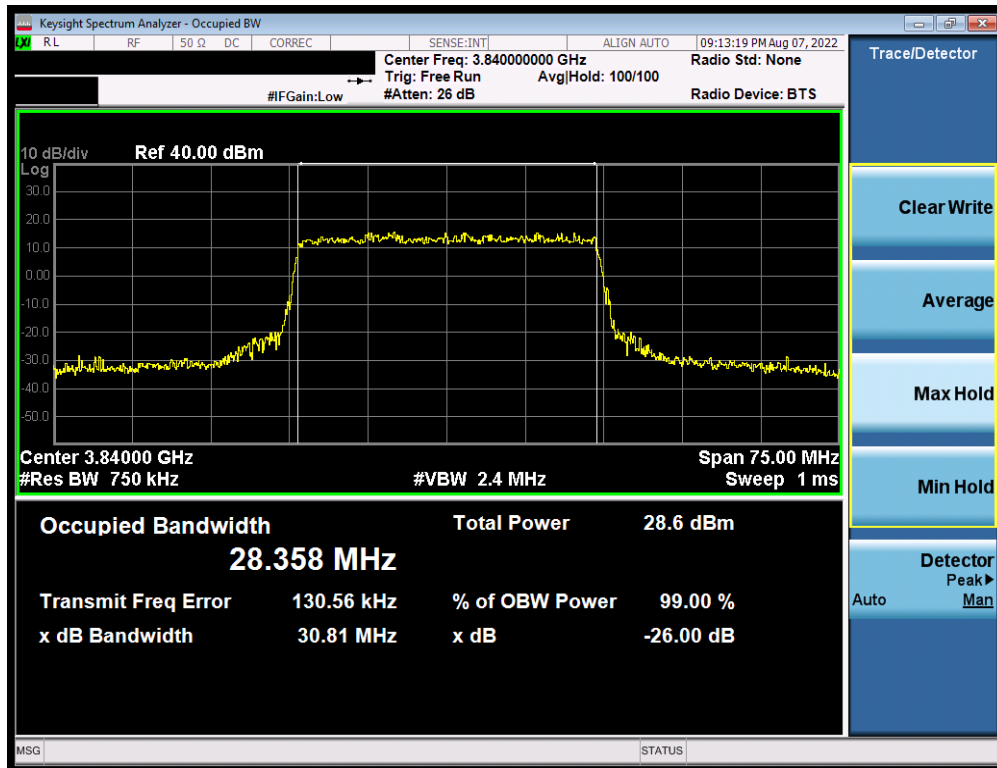


Plot 7-43. Occupied Bandwidth Plot (NR Band n77 - 40MHz QPSK - Full RB - Sub ANT (UL-MIMO))

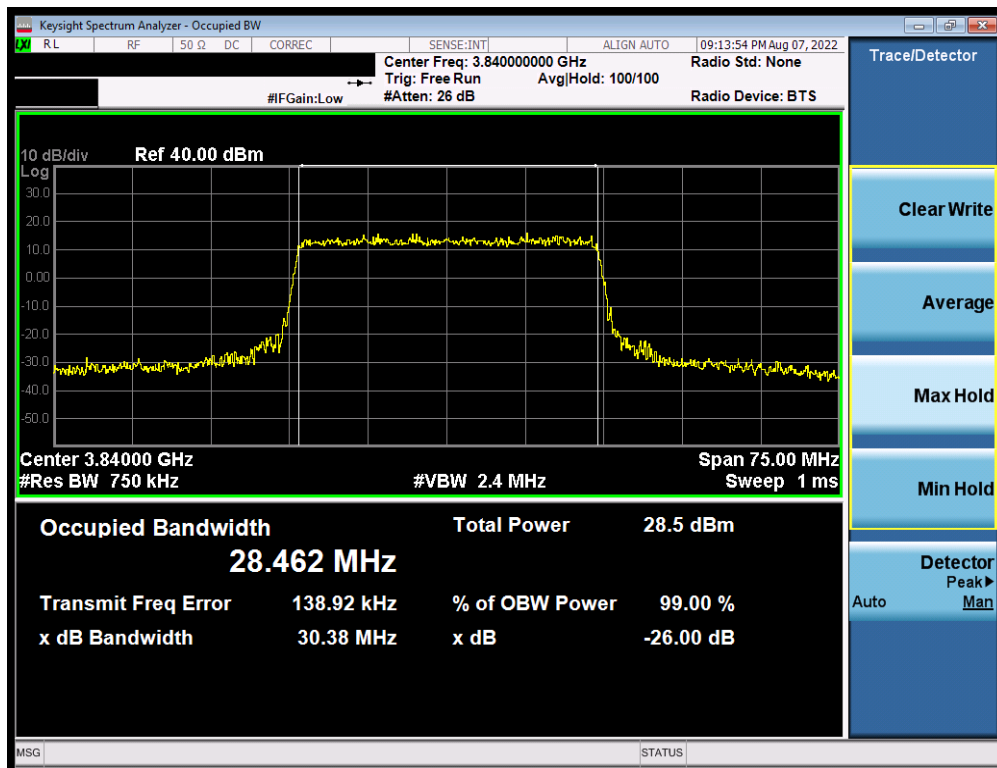


Plot 7-44. Occupied Bandwidth Plot (NR Band n77 - 40MHz 16-QAM - Full RB - Sub ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 37 of 130

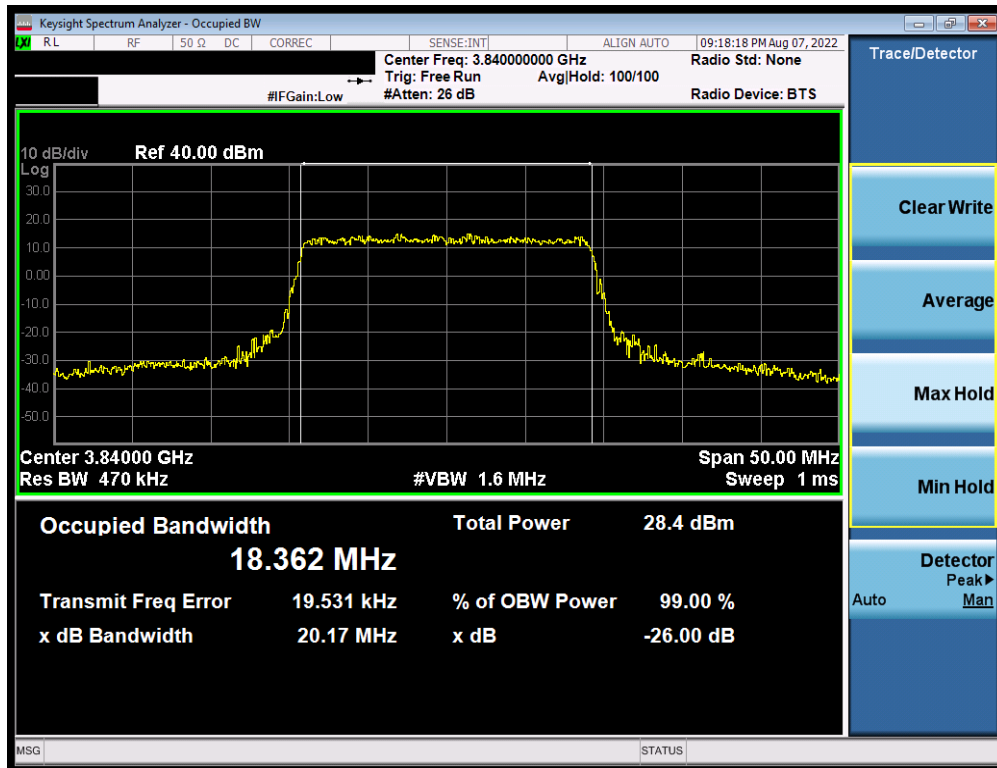


Plot 7-45. Occupied Bandwidth Plot (NR Band n77 - 30MHz QPSK - Full RB - Sub ANT (UL-MIMO))

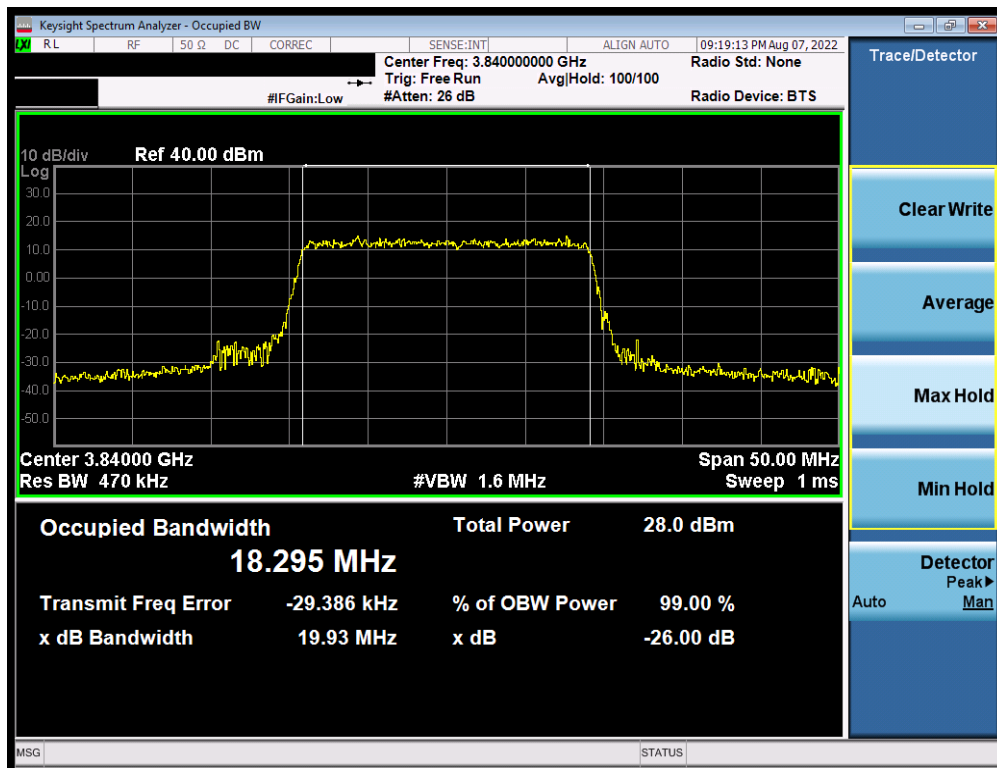


Plot 7-46. Occupied Bandwidth Plot (NR Band n77 - 30MHz 16-QAM - Full RB - Sub ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 38 of 130



Plot 7-47. Occupied Bandwidth Plot (NR Band n77 - 20MHz QPSK - Full RB - Sub ANT (UL-MIMO))



Plot 7-48. Occupied Bandwidth Plot (NR Band n77 - 20MHz 16-QAM - Full RB - Sub ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 39 of 130

## 7.4 Spurious and Harmonic Emissions at Antenna Terminal

### 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 10<sup>th</sup> 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 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.

***For operations in the 3700 – 3980MHz band, the maximum permissible conducted power level of any spurious emission is -13dBm/MHz.***

### Test Procedure Used

ANSI C63.26-2015 – Section 5.7.4

### Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to the tenth harmonic of the highest transmit frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



**Figure 7-3. Test Instrument & Measurement Setup**

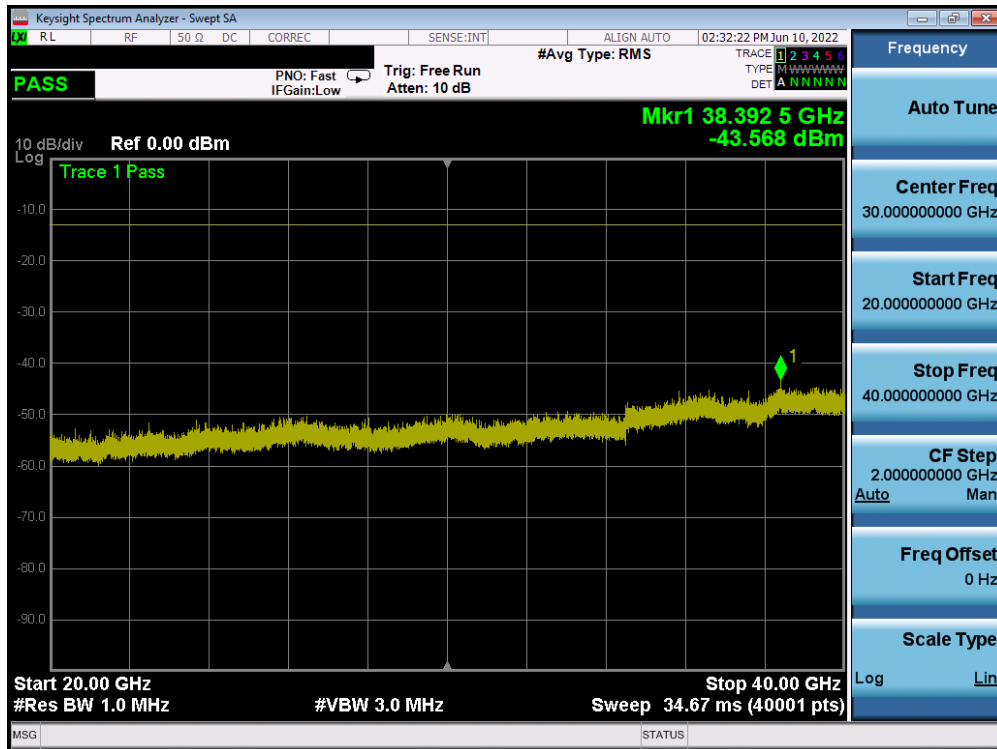
### Test Notes

1. Per Part 27.53(k), compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz.
2. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) 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.
3. In this section, the UL-MIMO NR band n77 (main and sub antennas) plots has a 3dB correction applied to the individual plots to address the MIMO requirements in ANSI C63.26.

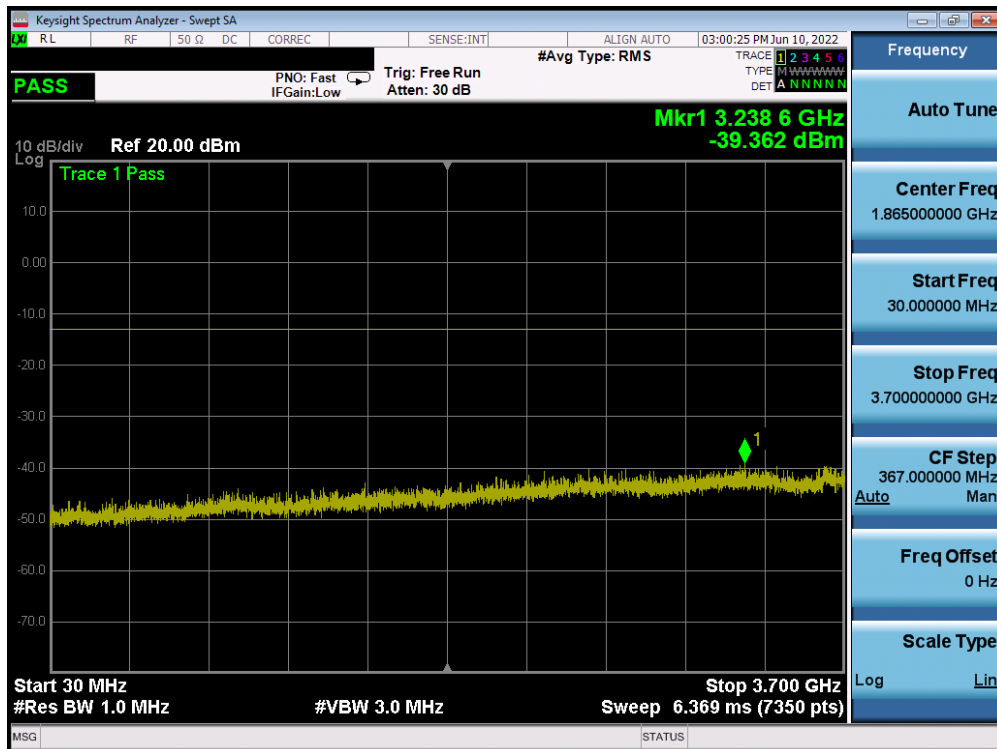
FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 40 of 130





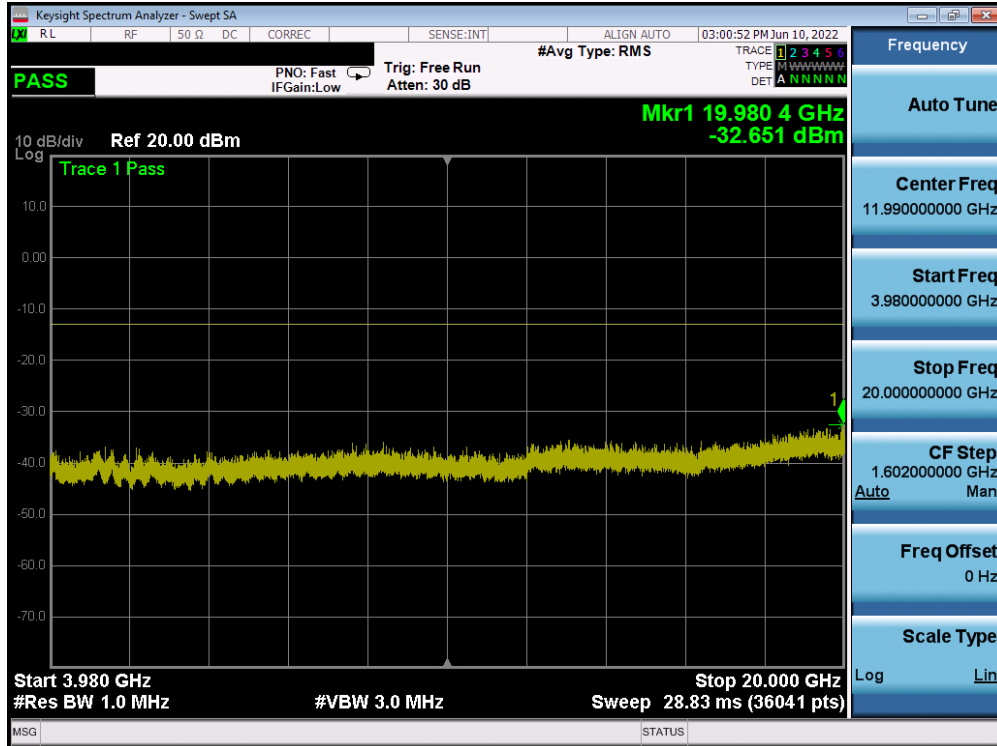


Plot 7-51. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Main ANT)

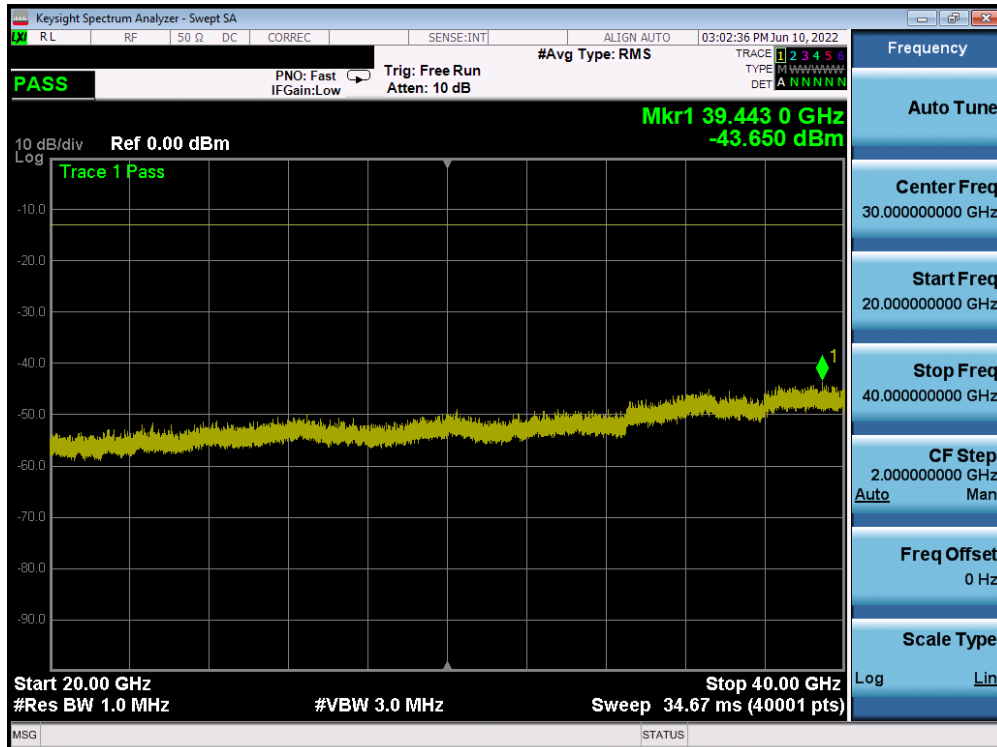


Plot 7-52. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 42 of 130

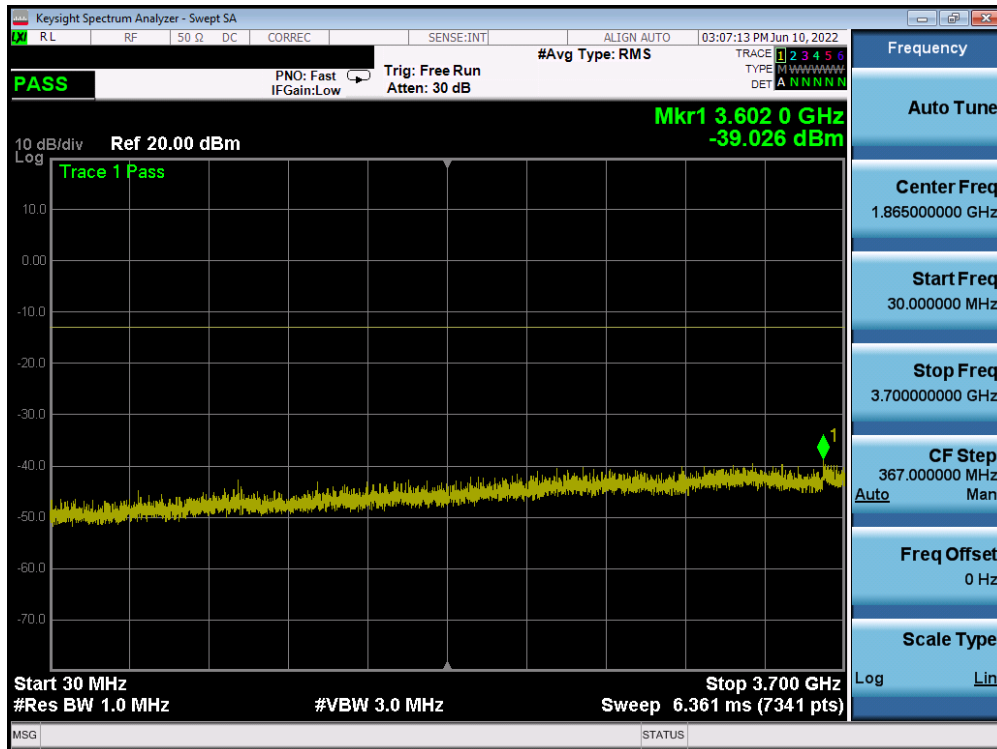


Plot 7-53. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Main ANT)

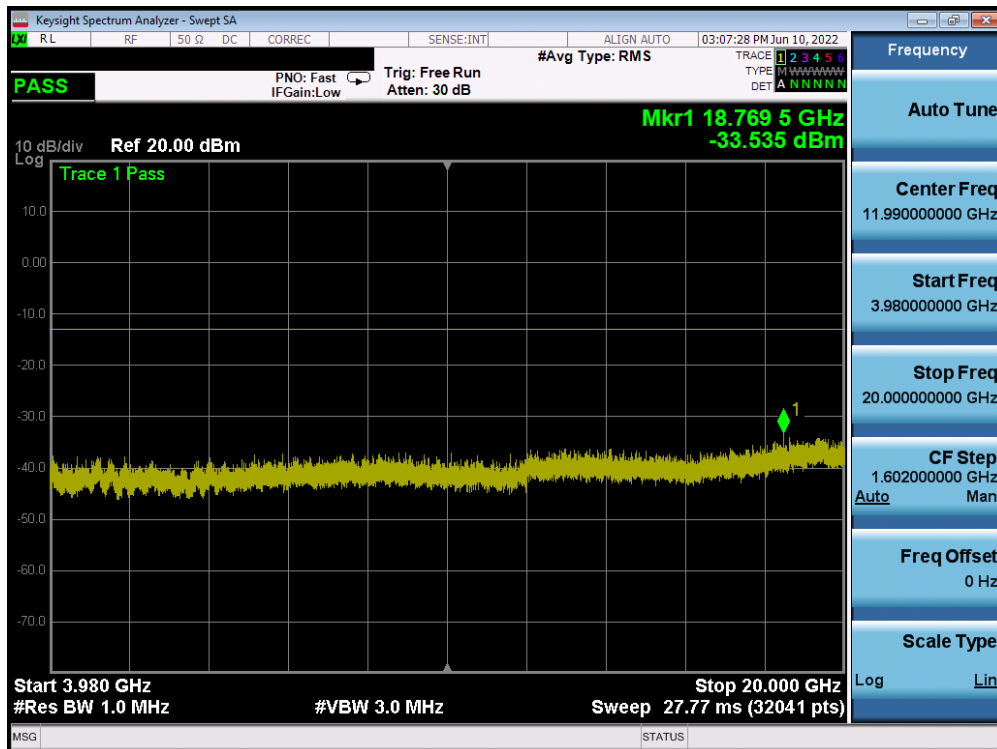


Plot 7-54. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 43 of 130

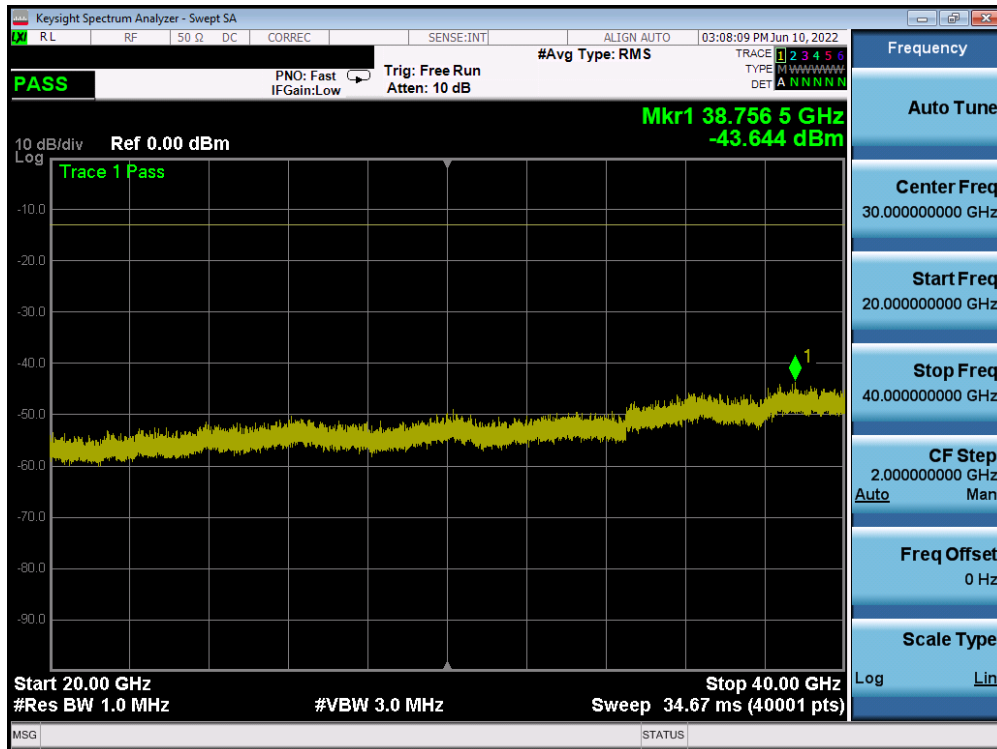


Plot 7-55. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Main ANT)



Plot 7-56. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Main ANT)

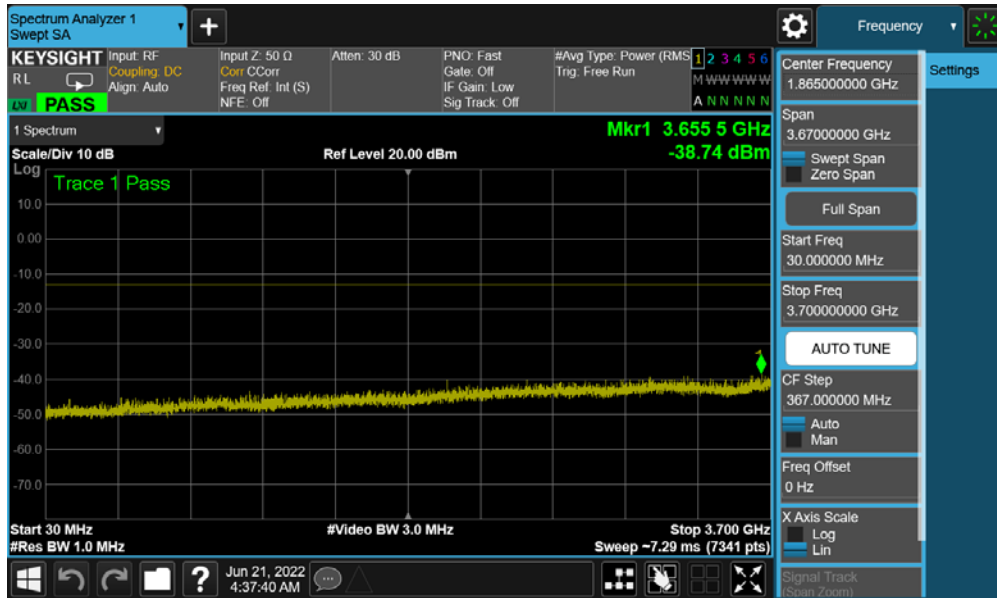
FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 44 of 130



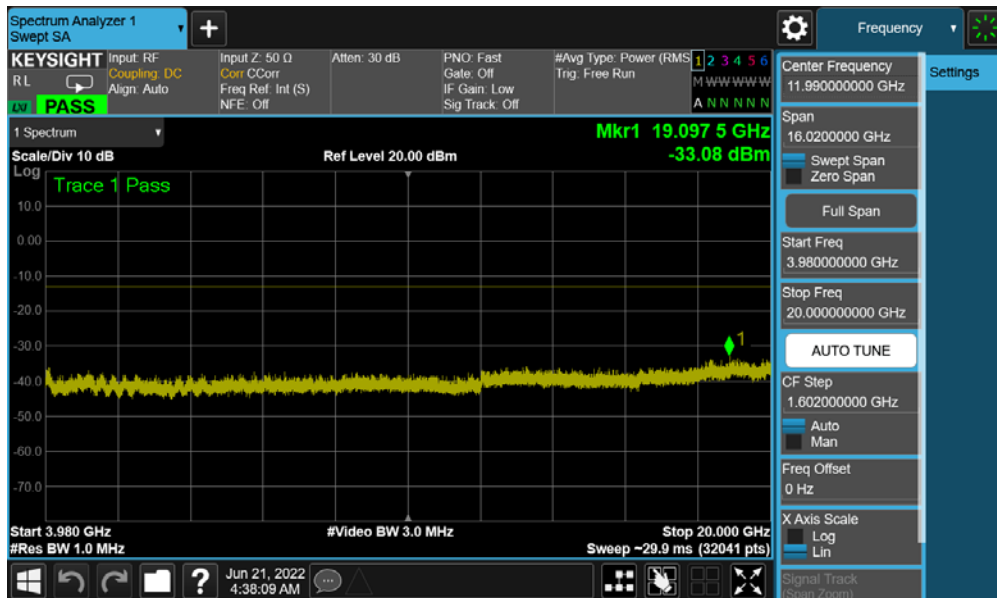
Plot 7-57. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Main ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 45 of 130

# NR Band n77 – As-Div ANT

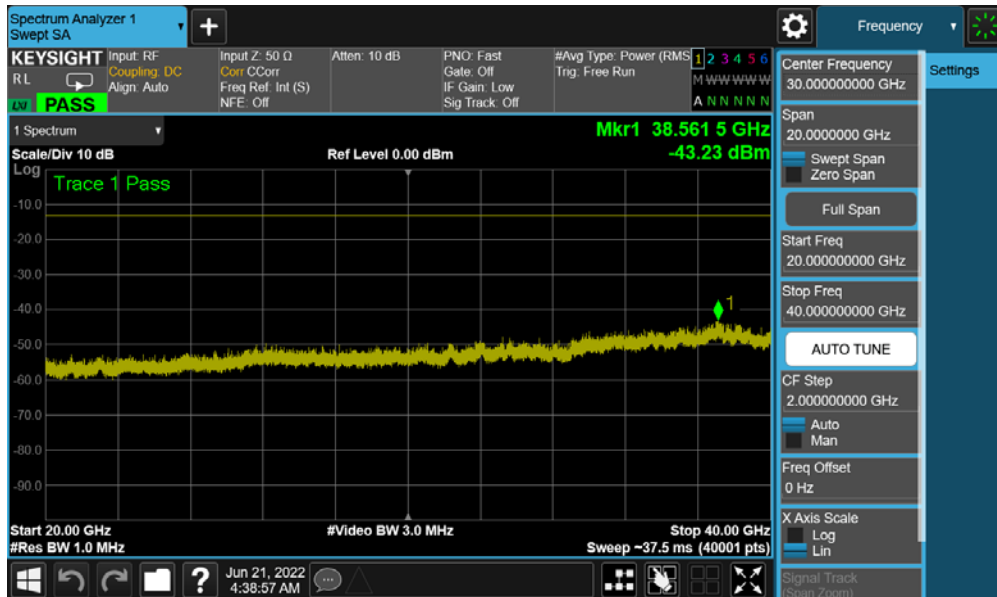


Plot 7-58. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - As-Div ANT)

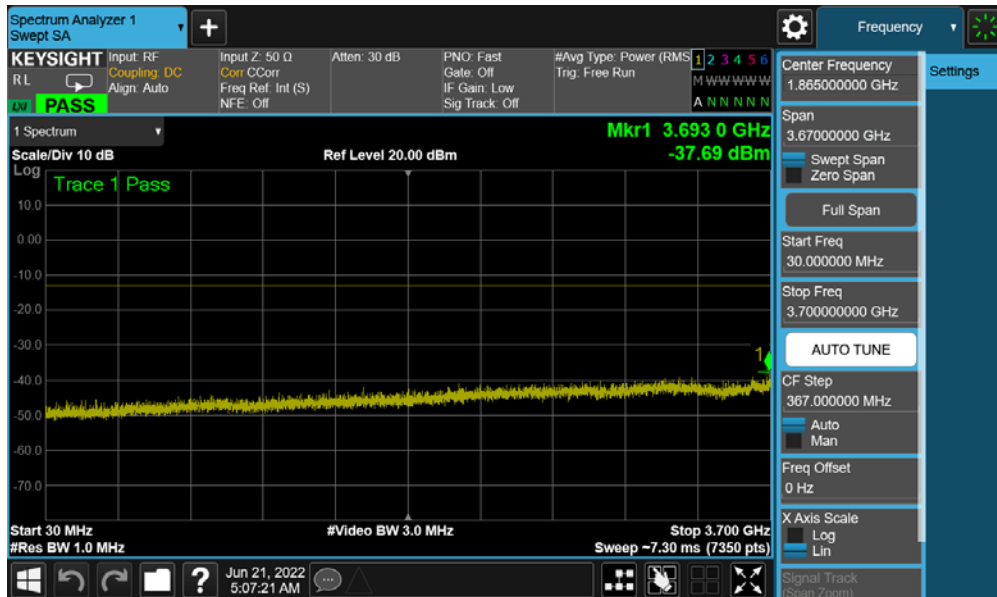


Plot 7-59. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - As-Div ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 46 of 130

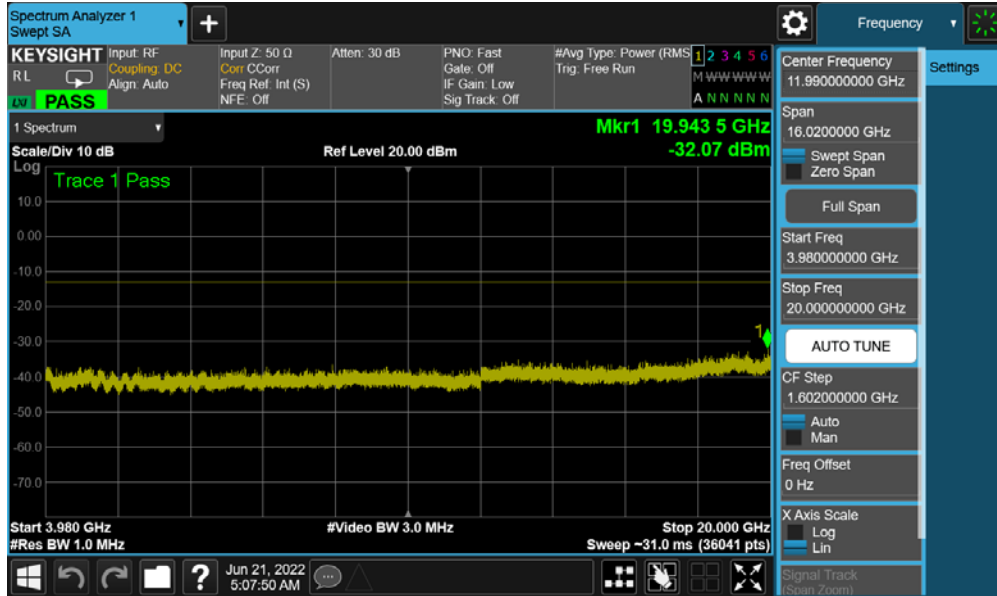


Plot 7-60. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - As-Div ANT)

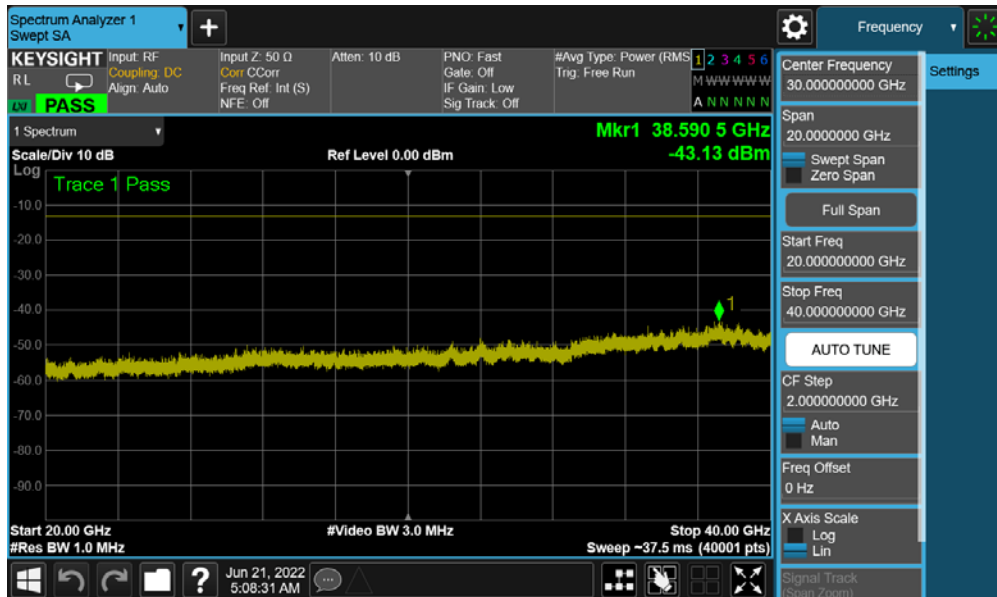


Plot 7-61. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - As-Div ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 47 of 130



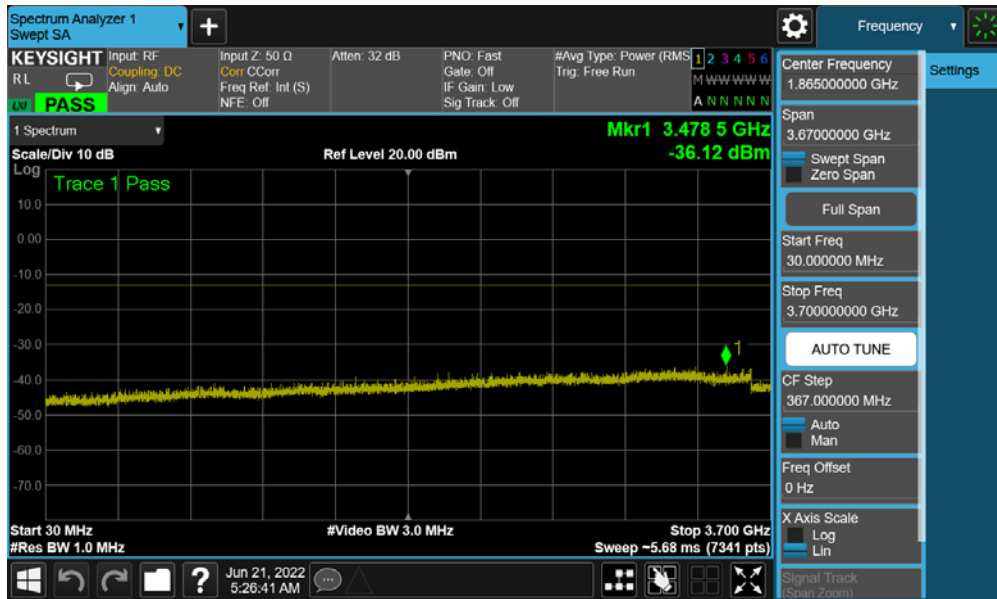
Plot 7-62. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - As-Div ANT)



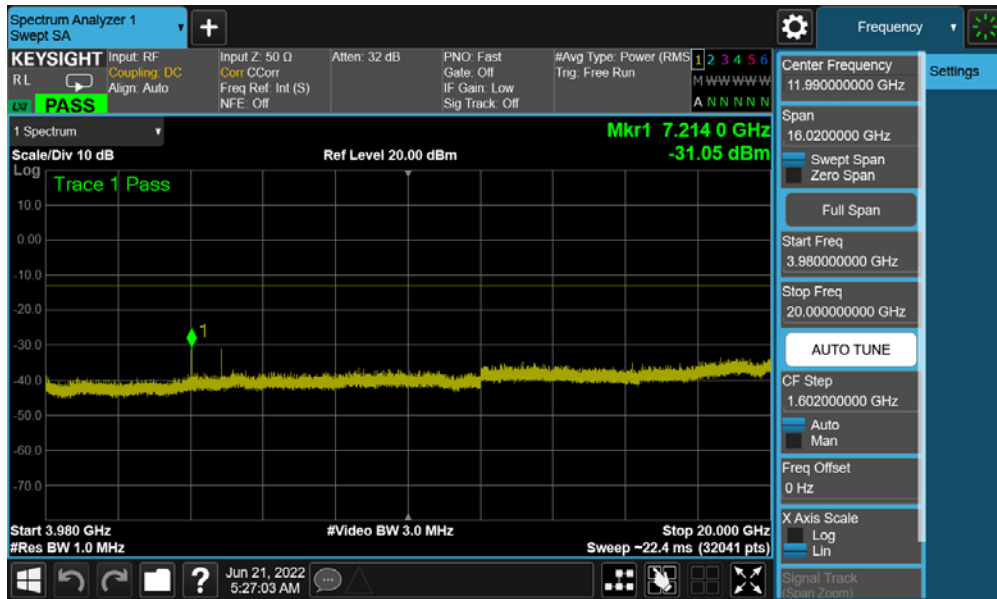
Plot 7-63. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - As-Div ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 48 of 130



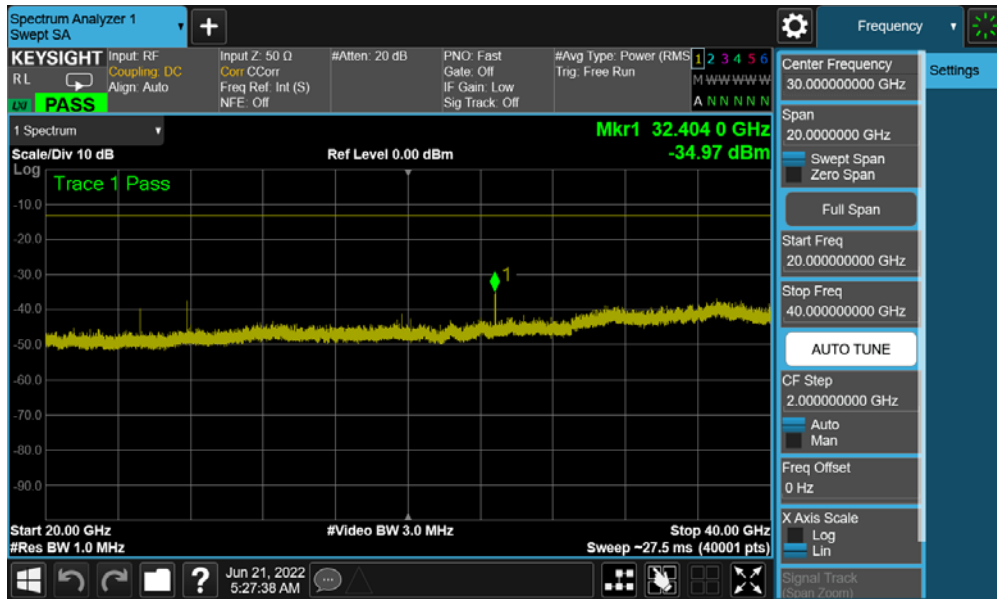


Plot 7-64. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - As-Div ANT)



Plot 7-65. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - As-Div ANT)

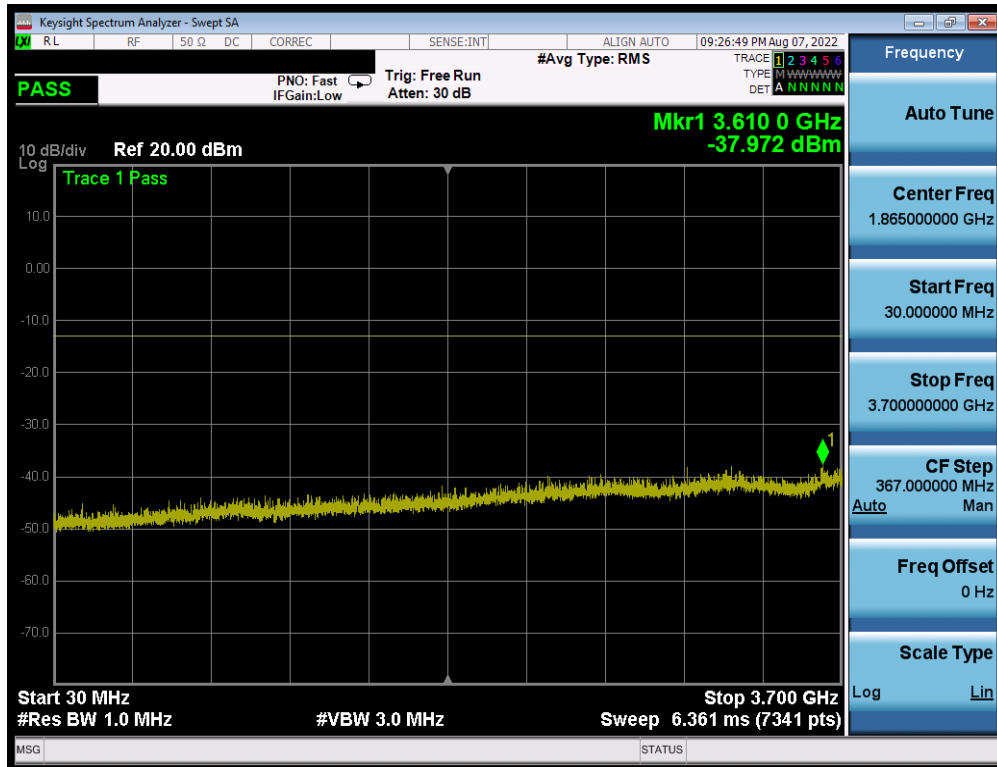
FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 49 of 130



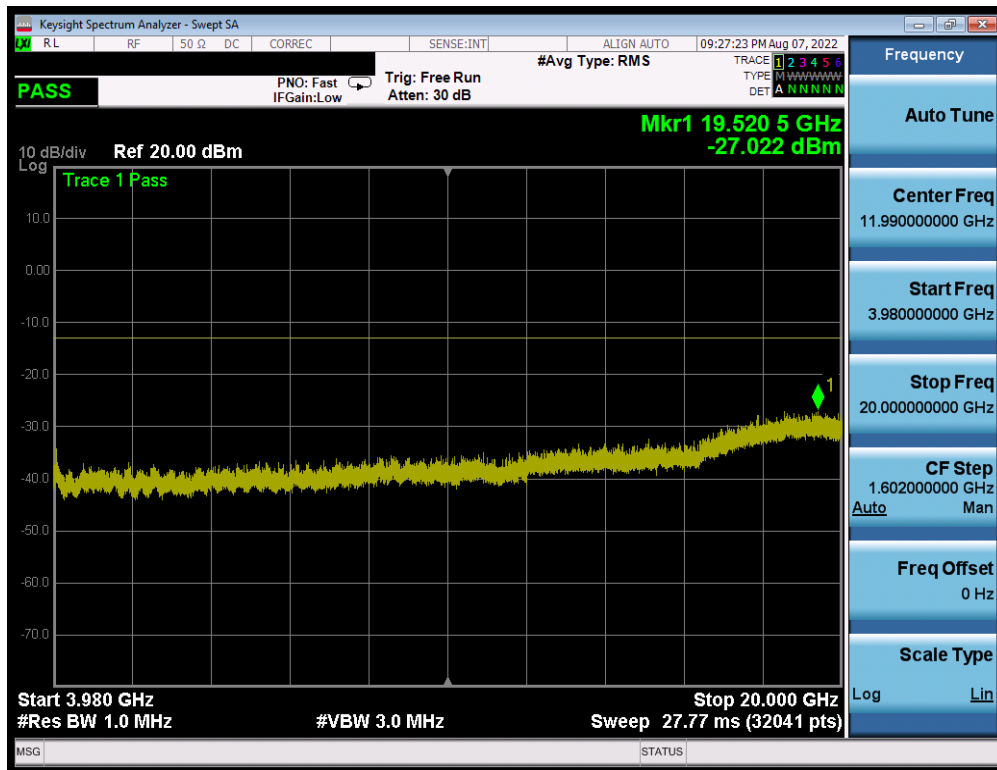
Plot 7-66. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - As-Div ANT)

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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## NR Band n77 – Main ANT (UL-MIMO)

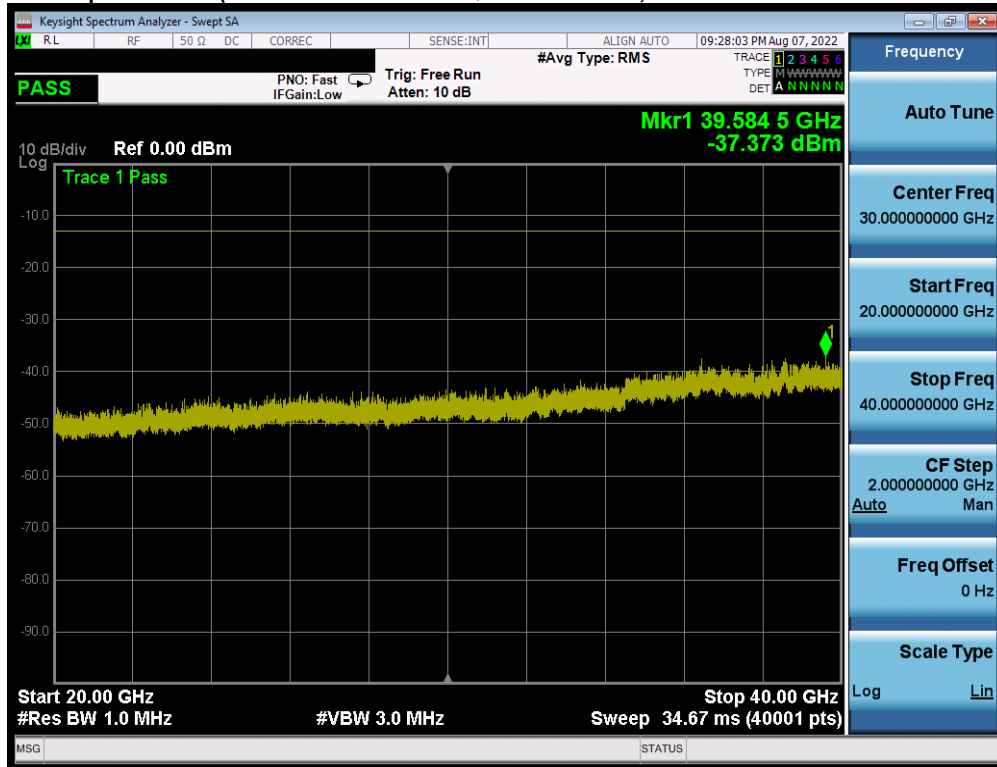


Plot 7-67. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Main ANT (UL-MIMO))

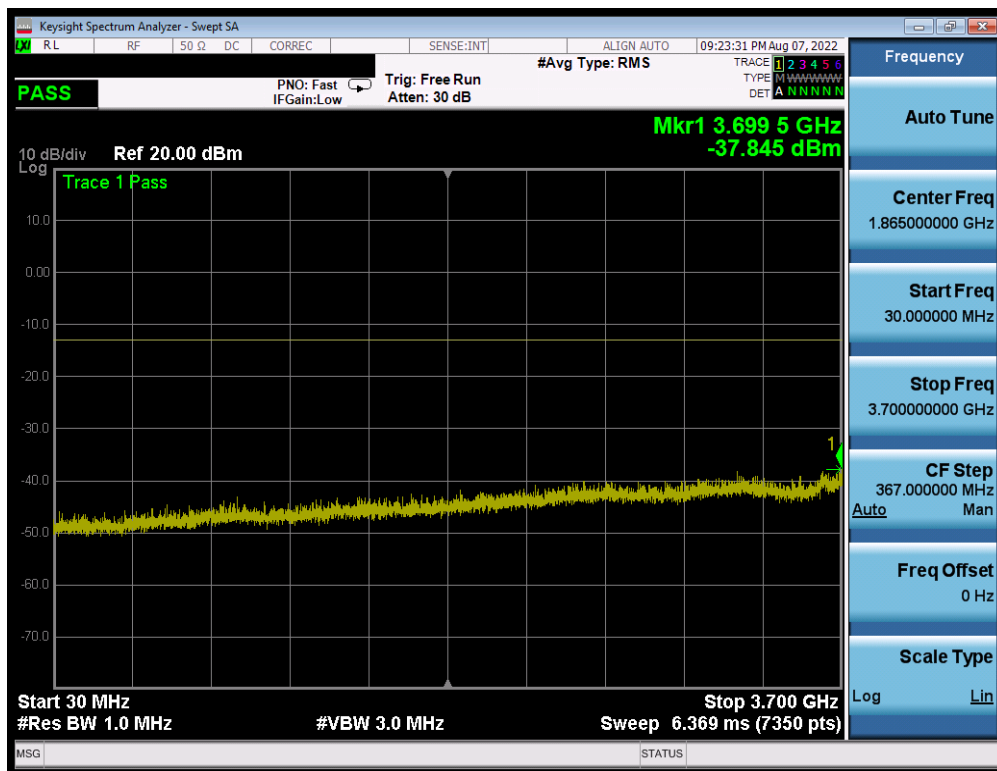


FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 51 of 130

Plot 7-68. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Main ANT (UL-MIMO))

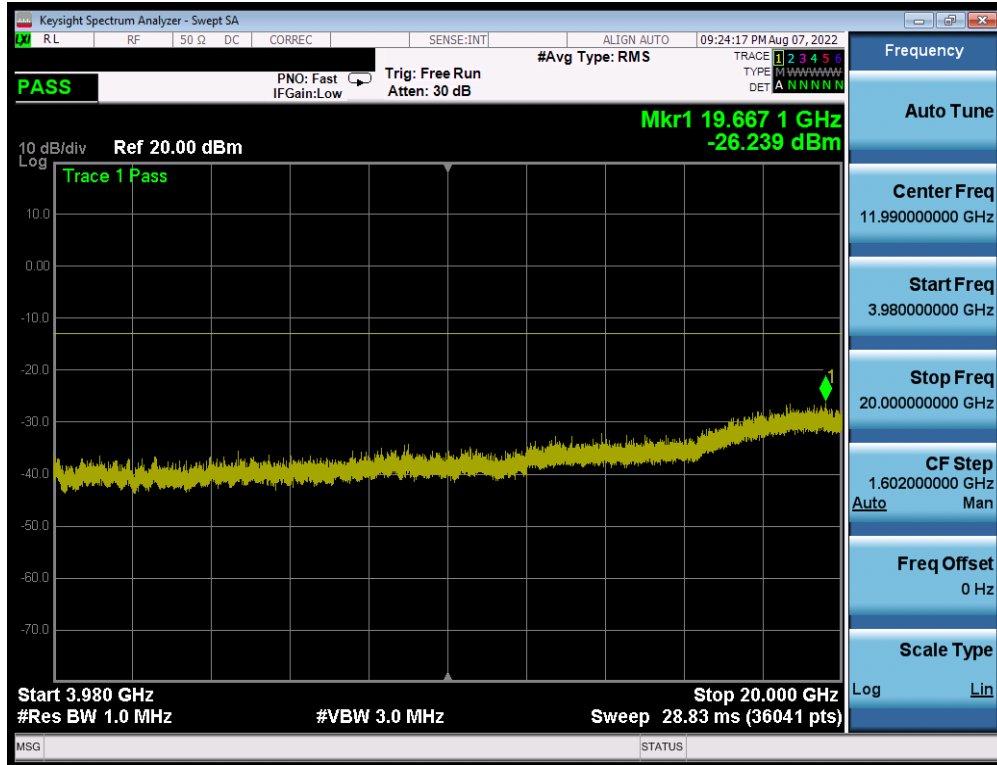


Plot 7-69. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Main ANT (UL-MIMO))

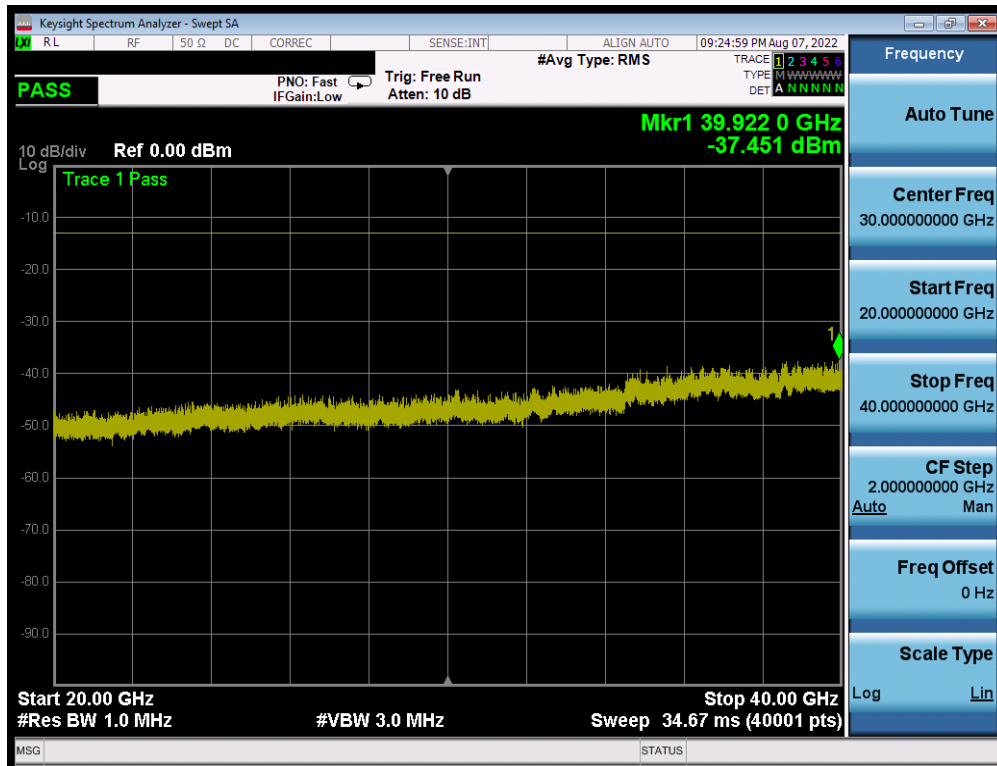


Plot 7-70. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Main ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 52 of 130

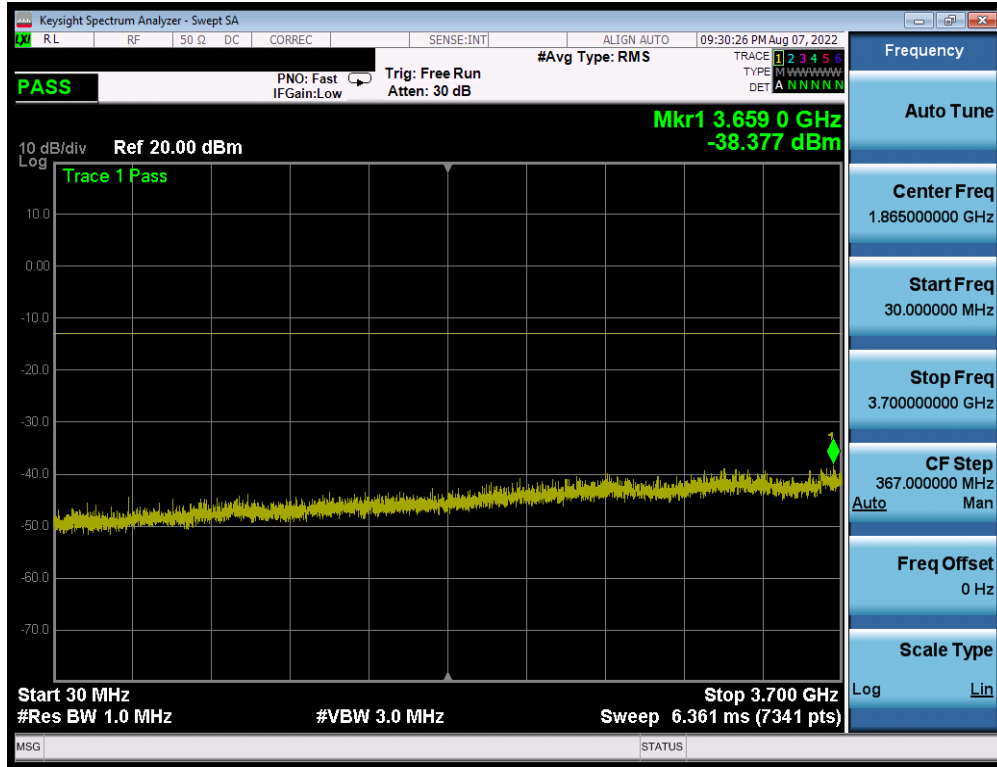


Plot 7-71. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Main ANT (UL-MIMO))

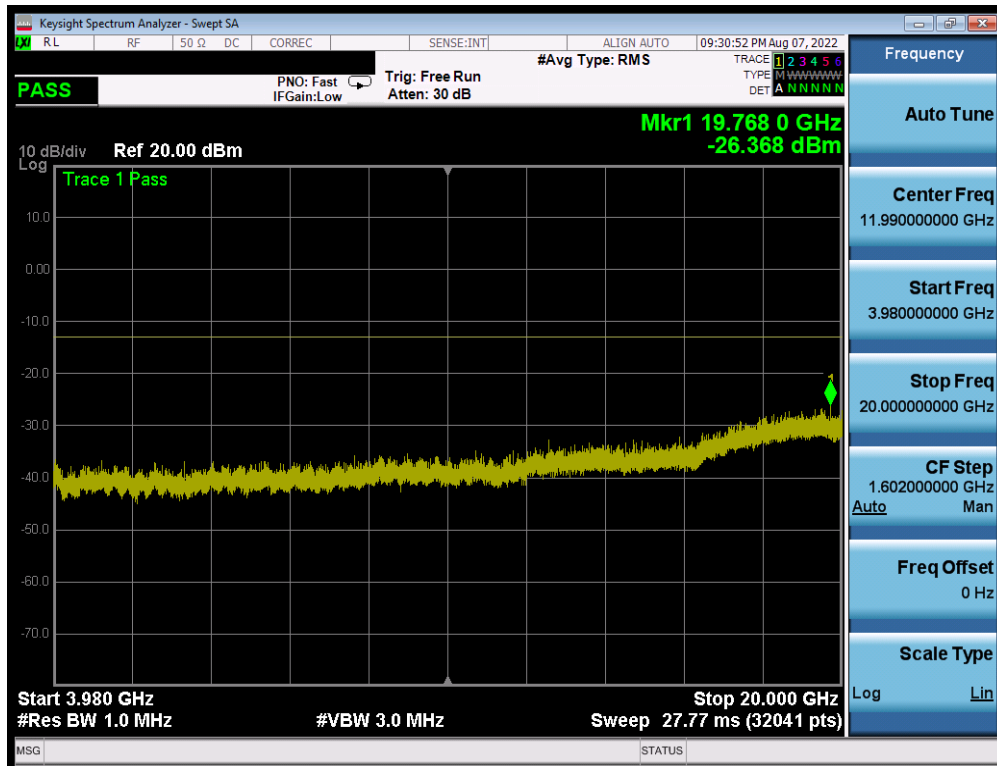


Plot 7-72. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel - Main ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 53 of 130

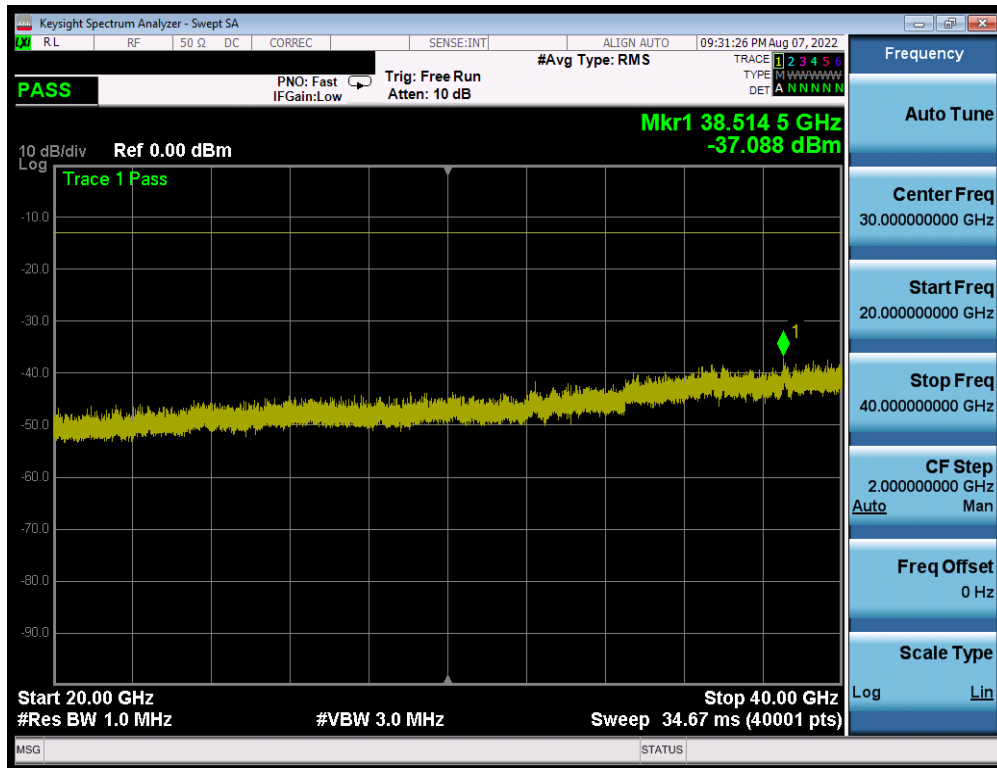


Plot 7-73. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Main ANT (UL-MIMO))



Plot 7-74. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Main ANT (UL-MIMO))

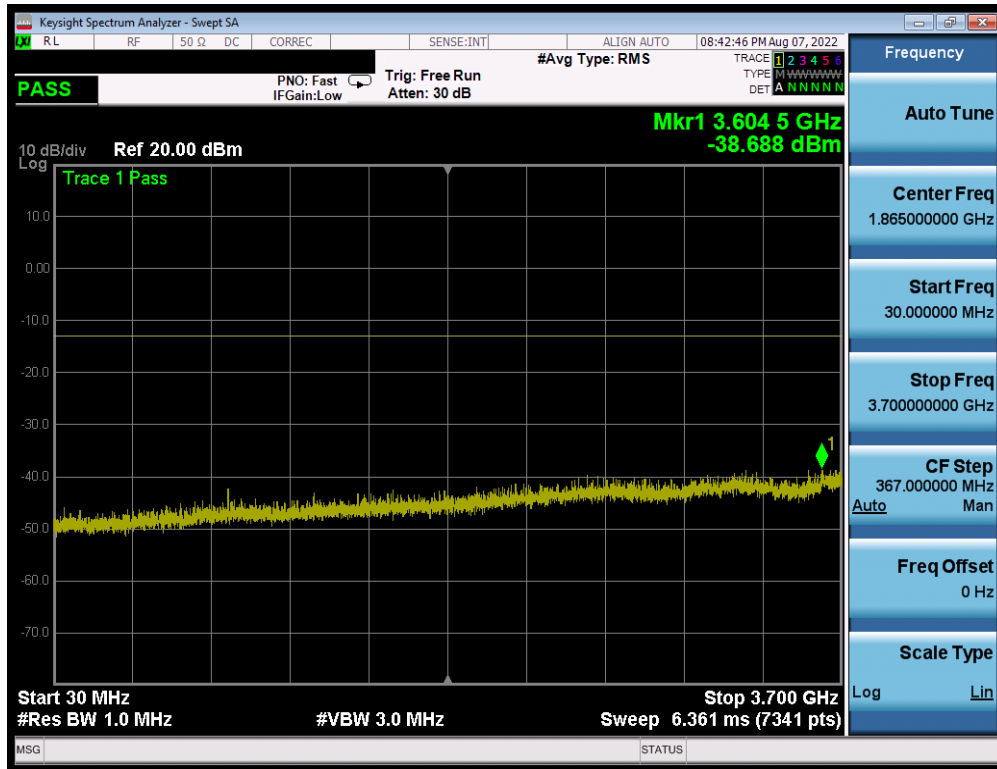
FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-75. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Main ANT (UL-MIMO))

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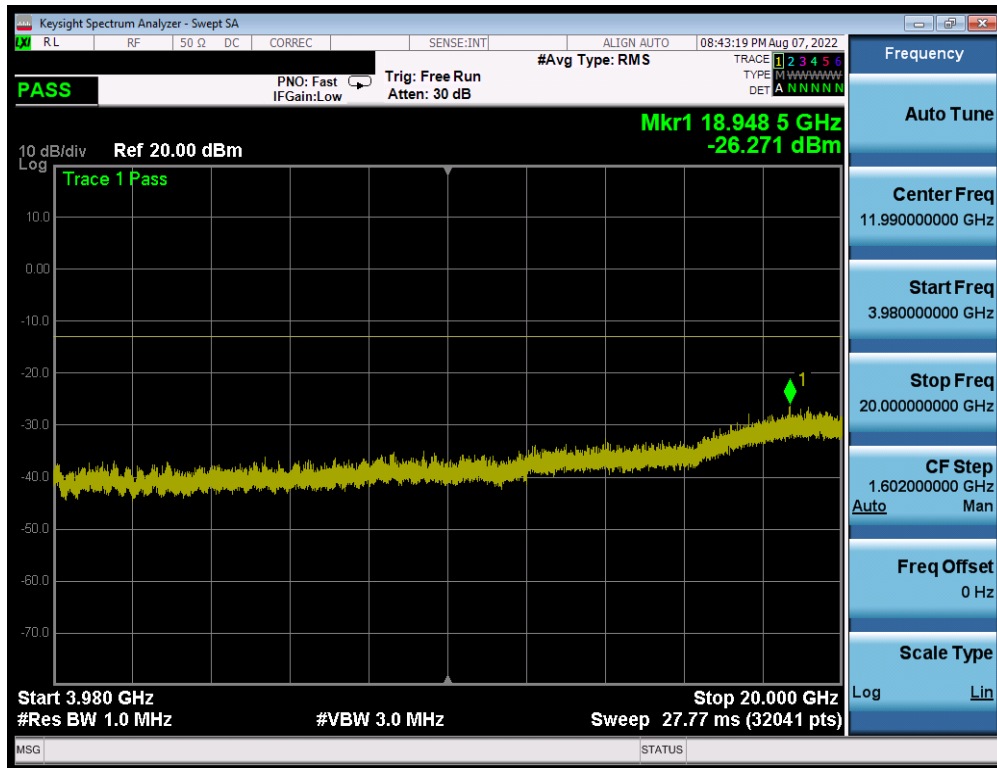
## NR Band n77 – Sub ANT (UL-MIMO)



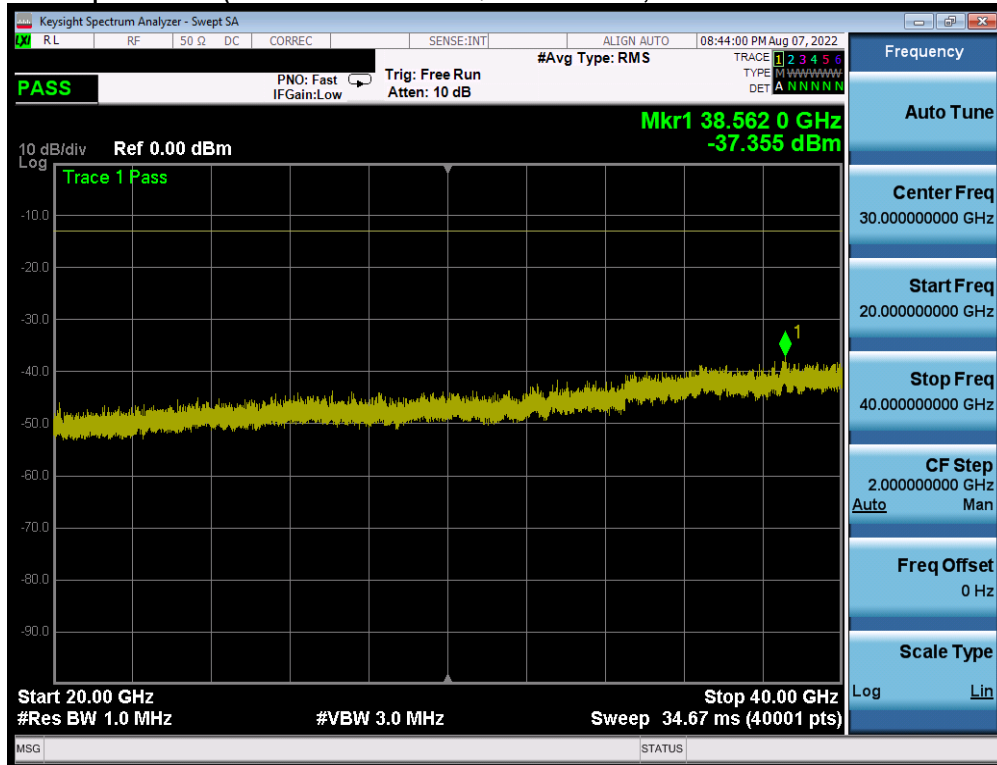
Plot 7-76. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Sub ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-77. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Sub ANT (UL-MIMO))



Plot 7-78. Conducted Spurious Plot (NR Band n77 - 100MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Sub ANT (UL-MIMO))

FCC ID: PY7-76056F	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2205240063-08.PY7	Test Dates: 06/03/2022 - 08/09/2022	EUT Type: Portable Handset	Page 57 of 130