



ELEMENT WASHINGTON DC LLC

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PART 24 MEASUREMENT REPORT

Applicant Name:
SONY Corporation
1-7-1 Konan
Minato-ku
Tokyo, 108-0075, Japan

Date of Testing:
3/25/2022 - 5/21/2022
Test Report Issue Date:
5/26/2022
Test Site/Location:
Element Lab. Columbia, MD, USA
Test Report Serial No.:
1M2201200003-06.PY7

FCC ID:	PY7-57325M
Applicant Name:	SONY Corporation

Application Type: Certification
EUT Type: Portable Handset
FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
FCC Rule Part: 24
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



FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 1 of 123

V3.0 1/5/2022

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TABLE OF CONTENTS

1.0	INTRODUCTION	4
1.1	Scope	4
1.2	Element Test Location.....	4
1.3	Test Facility / Accreditations.....	4
2.0	PRODUCT INFORMATION.....	5
2.1	Equipment Description	5
2.2	Device Capabilities.....	5
2.3	Test Configuration	5
2.4	Software and Firmware	5
2.5	EMI Suppression Device(s)/Modifications	5
3.0	DESCRIPTION OF TESTS	6
3.1	Evaluation Procedure	6
3.2	Radiated Power and Radiated Spurious Emissions	6
4.0	MEASUREMENT UNCERTAINTY	7
5.0	TEST EQUIPMENT CALIBRATION DATA	8
6.0	SAMPLE CALCULATIONS	9
7.0	TEST RESULTS	10
7.1	Summary.....	10
7.2	Conducted Output Power	11
7.3	Occupied Bandwidth	13
7.4	Spurious and Harmonic Emissions at Antenna Terminal	28
7.5	Band Edge Emissions at Antenna Terminal	49
7.6	Peak-Average Ratio	81
7.7	Radiated Power (ERP/EIRP).....	96
7.8	Radiated Spurious Emissions Measurements.....	101
7.9	Frequency Stability / Temperature Variation	118
8.0	CONCLUSION.....	123

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 2 of 123

PART 24 MEASUREMENT REPORT

Mode	Bandwidth	Modulation	Tx Frequency Range [MHz]	EIRP		Emission Designator
				Max. Power [W]	Max. Power [dBm]	
LTE Band 25/2	20 MHz	QPSK	1860 - 1905	0.126	21.01	18M0G7D
		16QAM	1860 - 1905	0.101	20.06	18M1W7D
	15 MHz	QPSK	1857.5 - 1907.5	0.144	21.57	13M5G7D
		16QAM	1857.5 - 1907.5	0.096	19.83	13M6W7D
	10 MHz	QPSK	1855 - 1910	0.148	21.71	9M06G7D
		16QAM	1855 - 1910	0.099	19.97	9M05W7D
	5 MHz	QPSK	1852.5 - 1912.5	0.153	21.85	4M55G7D
		16QAM	1852.5 - 1912.5	0.101	20.04	4M54W7D
	3 MHz	QPSK	1851.5 - 1913.5	0.154	21.86	2M73G7D
		16QAM	1851.5 - 1913.5	0.102	20.09	2M73W7D
	1.4 MHz	QPSK	1850.7 - 1914.3	0.152	21.83	1M11G7D
		16QAM	1850.7 - 1914.3	0.101	20.06	1M11W7D
NR Band n2	20 MHz	$\pi/2$ BPSK	1860 - 1900	0.163	22.12	18M0G7D
		QPSK	1860 - 1900	0.152	21.80	19M0G7D
		16QAM	1860 - 1900	0.101	20.05	19M1W7D
	15 MHz	$\pi/2$ BPSK	1857.5 - 1902.5	0.166	22.21	13M5G7D
		QPSK	1857.5 - 1902.5	0.153	21.84	14M2G7D
		16QAM	1857.5 - 1902.5	0.095	19.78	14M2W7D
	10 MHz	$\pi/2$ BPSK	1855 - 1905	0.157	21.95	9M02G7D
		QPSK	1855 - 1905	0.143	21.56	9M34G7D
		16QAM	1855 - 1905	0.101	20.05	9M37W7D
	5 MHz	$\pi/2$ BPSK	1852.5 - 1907.5	0.155	21.92	4M59G7D
		QPSK	1852.5 - 1907.5	0.141	21.51	4M53G7D
		16QAM	1852.5 - 1907.5	0.099	19.94	4M54W7D

EUT Overview (LTE/NR)

Mode	Modulation	Tx Frequency Range [MHz]	EIRP		Emission Designator
			Max. Power [W]	Max. Power [dBm]	
GSM/GPRS	GMSK	1850.2 - 1909.8	0.376	25.75	247KGXW
EDGE	8-PSK	1850.2 - 1909.8	0.113	20.54	242KG7W
WCDMA	Spread Spectrum	1852.4 - 1907.6	0.121	20.82	4M18F9W

EUT Overview (2G/3G)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 3 of 123

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.

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 4 of 123

V3.0 1/5/2022

2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **SONY Portable Handset FCC ID: PY7-57325M**. 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 24.

Test Device Serial No.: 09823, 09682, 00KC5, 03JC5, 10086, 09401, 04QAZ

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 and FR2), 802.11b/g/n/ax WLAN, 802.11a/n/ac/ax UNII (5 and 6 GHz), Bluetooth (1x, EDR, LE), NFC

2.3 Test Configuration

The EUT was tested per the guidance of ANSI/TIA-603-E-2016 and KDB 971168 D01 v03r01. See Section 3.2 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: EP-N5100 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 0.1309 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.

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 5 of 123

V3.0 1/5/2022

3.0 DESCRIPTION OF TESTS

3.1 Evaluation Procedure

The measurement procedures described in the “Land Mobile FM or PM – Communications Equipment – Measurements and Performance Standards” (ANSI/TIA-603-E-2016) and “Measurement Guidance for Certification of Licensed Digital Transmitters” (KDB 971168 D01 v03r01) 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/TIA-603-E-2016. 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 and calculations, conversion method is used per the formulas in KDB 971168 Section 5.8.4. 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/TIA-603-E-2016.

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 6 of 123

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_{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

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 7 of 123

V3.0 1/5/2022

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 Number
-	AP2	EMC Cable and Switch System	1/4/2022	Annual	1/4/2023	AP2
-	AP1	EMC Cable and Switch System	12/12/2021	Annual	12/12/2022	AP1
-	ETS	EMC Cable and Switch System	12/9/2021	Annual	12/9/2022	ETS
-	LTx4	Licensed Transmitter Cable Set	12/19/2021	Annual	12/19/2022	LTx4
-	LTx5	Licensed Transmitter Cable Set	12/19/2021	Annual	12/19/2022	LTx5
Anritsu	MT8821C	Radio Communication Analyzer	N/A			6201525694
Emco	3115	Horn Antenna (1-18GHz)	6/18/2020	Biennial	6/18/2022	9704-5182
Emco	3116	Horn Antenna (18 - 40GHz)	7/20/2021	Biennial	7/20/2023	9203-2178
ETS Lindgren	3117	1-18 GHz DRG Horn (Medium)	4/20/2021	Biennial	4/20/2023	00125518
Keysight Technologies	N9020A	MXA Signal Analyzer	3/15/2022	Annual	3/15/2023	MY54500644
Keysight Technologies	N9030A	PXA Signal Analyzer (44GHz)	7/21/2021	Annual	7/21/2022	MY49430494
Keysight Technologies	N9038A	MXE EMI Receiver	1/21/2022	Annual	1/21/2023	MY51210133
Keysight Technologies	E7515B	UXM 5G Wireless Test Platform	1/12/2022	Annual	1/12/2023	MY59150289
Rohde & Schwarz	CMW500	Radio Communication Tester	N/A			112347
Rohde & Schwarz	ESU26	EMI Test Receiver (26.5GHz)	8/3/2021	Annual	8/3/2022	100342
Rohde & Schwarz	ESU40	EMI Test Receiver (40GHz)	5/25/2021	Annual	5/25/2022	100348
Rohde & Schwarz	ESW44	EMI Test Receiver 2Hz to 44 GHz	3/28/2022	Annual	3/28/2023	101716
Rohde & Schwarz	FSW26	2Hz-26.5GHz Signal and Spectrum Analyzer	4/14/2022	Annual	4/14/2023	103187
Sunol	JB5	Bi-Log Antenna (30M - 5GHz)	7/27/2020	Biennial	7/27/2022	A051107

Table 5-1. Test Equipment

Notes:

1. 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.
2. Equipment with a calibration date of "N/A" shown in this list was not used to make direct calibrated measurements.

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 8 of 123

6.0 SAMPLE CALCULATIONS

GSM Emission Designator

Emission Designator = 250KGXW

GSM BW = 250 kHz
 G = Phase Modulation
 X = Cases not otherwise covered
 W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 250KG7W

EDGE BW = 250 kHz
 G = Phase Modulation
 7 = Quantized/Digital Info
 W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M16F9W

WCDMA BW = 4.16 MHz
 F = Frequency Modulation
 9 = Composite Digital Info
 W = Combination (Audio/Data)

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.

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 9 of 123

V3.0 1/5/2022

7.0 TEST RESULTS

7.1 Summary

Company Name: SONY Corporation
 FCC ID: PY7-57325M
 FCC Classification: PCS Licensed Transmitter Held to Ear (PCE)
 Mode(s): GSM/GPRS/EDGE/WCDMA/LTE/NR

Test Condition	Test Description	FCC Part Section(s)	RSS Section(s)	Test Limit	Test Result	Reference
CONDUCTED	Transmitter Conducted Output Power*	2.1046(a), 2.1046(c)	RSS-Gen(6.12)	N/A	PASS	See RF Exposure Report
	Occupied Bandwidth	2.1049(h)	RSS-Gen(6.7)	N/A	PASS	Section 7.2
	Conducted Band Edge / Spurious Emissions	2.1051, 24.238(a)	RSS-Gen(6.13), RSS-133(6.5)	> 43 + 10log ₁₀ (P[Watts]) at Band Edge and for all out-of-band emissions	PASS	Sections 7.3, 7.4
	Peak-to-Average Ratio	24.232(d)	RSS-133(6.4)	≤ 13 dB	PASS	Section 7.5
	Frequency Stability	2.1055, 24.235	RSS-Gen(6.11), RSS-133(6.3)	Fundamental emissions stay within authorized frequency block **Carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm	PASS	Section 7.8
RADIATED	Equivalent Isotropic Radiated Power	24.232(c)	RSS-Gen(6.12), RSS-133(6.4)	< 2 Watts max. EIRP	PASS	Section 7.6
	Radiated Spurious Emissions	2.1053, 24.238(a)	RSS-Gen(6.13), RSS-133(6.5)	≥ 43 + 10 log (P[Watts]) dB of attenuation below transmitter power **Spurious emissions from receivers shall not exceed the limits detailed in RSS-Gen(7.3)	PASS	Section 7.7

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 Element EMC Software Tool v1.0.

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 10 of 123

V3.0 1/5/2022

7.2 Conducted Output Power

Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers is measured by means of a calibrated spectrum analyzer. 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

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Detector = RMS
2. Trace mode = trace average for continuous emissions, max hold for pulse emissions
3. Sweep time = auto couple
4. The trace was allowed to stabilize
5. 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.

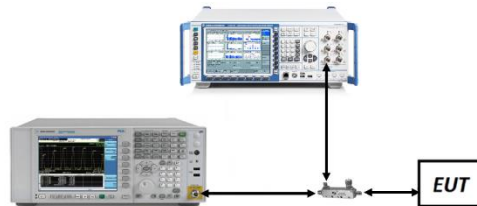


Figure 7-1. Test Instrument & Measurement Setup

Test Notes

1. Conducted power measurements were evaluated for the two contiguous channels 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. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz.
3. All other conducted power measurements are contained in the RF exposure report for this filing.

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 11 of 123

V3.0 1/5/2022



NR (SCS 15kHz)						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]
n2	20	Mid	1880	QPSK	100/0	66 (Sub)	20	Mid	1745	QPSK	100/0	23.71	23.19	26.47
				QPSK	100/0					QPSK	1/50	23.71	23.31	26.52
				QPSK	1/53					QPSK	100/0	24.55	23.16	26.92
				QPSK	1/53					QPSK	1/50	24.61	23.26	27.00
				16Q	1/53					16Q	1/50	23.79	23.68	26.75

Table 7-2. EN-DC: NR Band n2 – LTE Band 66 (Sub Antenna) Conducted Output Data

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 12 of 123

V3.0 1/5/2022

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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

KDB 971168 D01 v03r01 – Section 4.2

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.

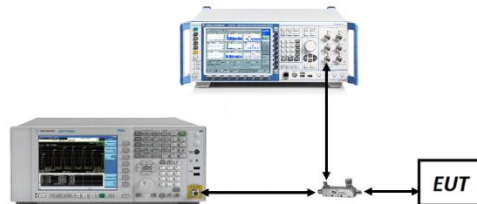


Figure 7-2. Test Instrument & Measurement Setup

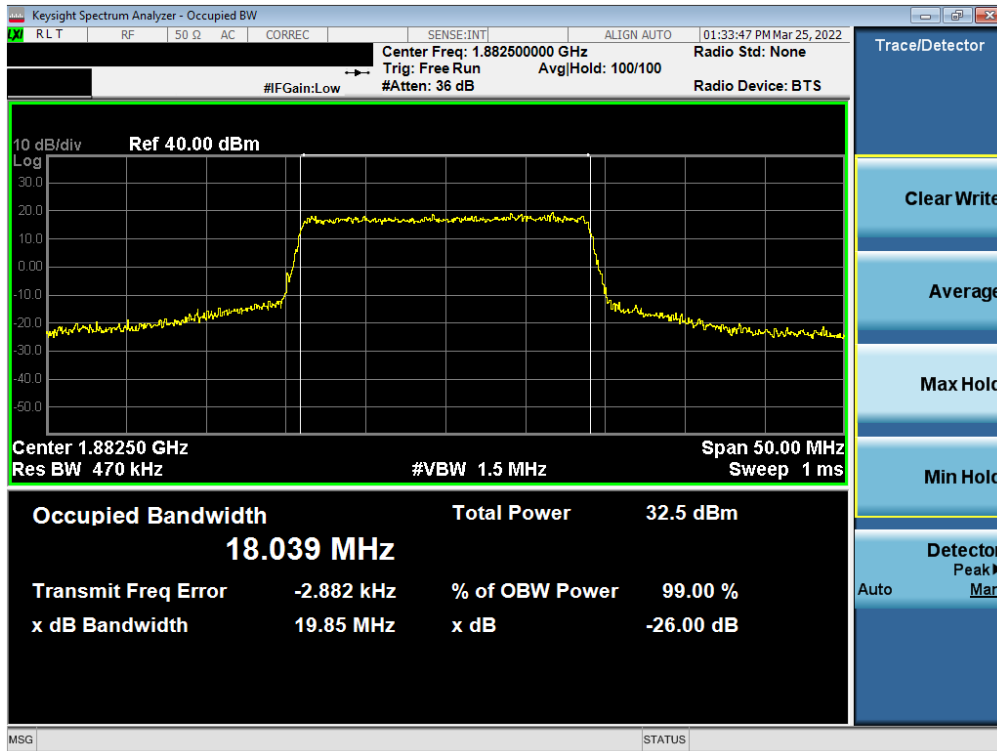
Test Notes

None.

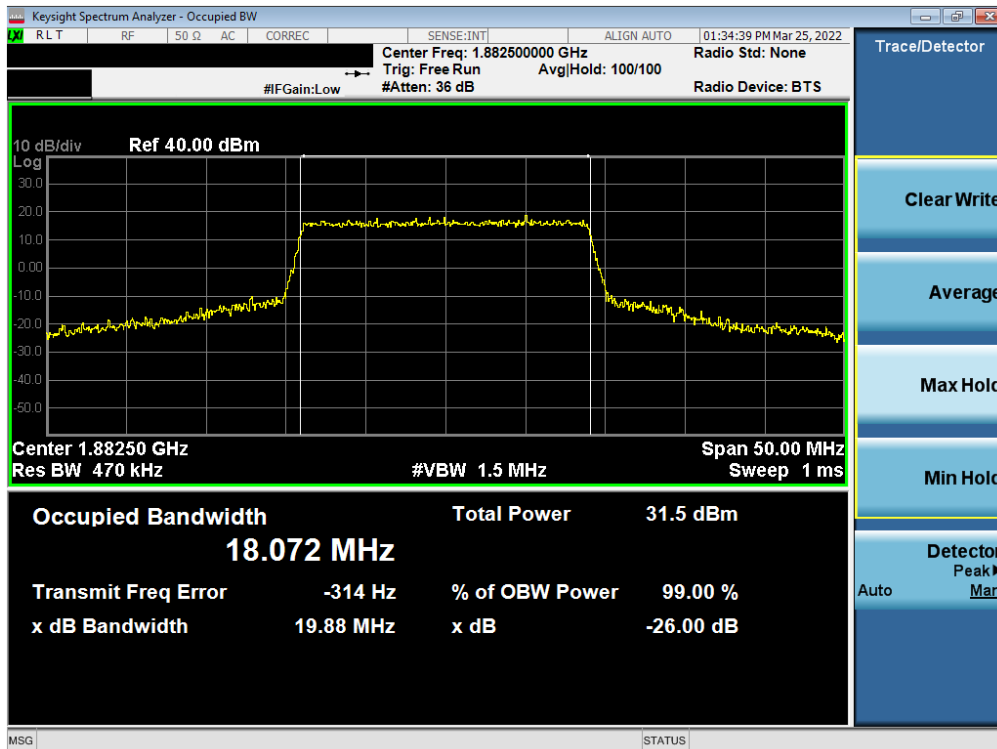
FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 13 of 123

V3.0 1/5/2022

LTE Band 25/2



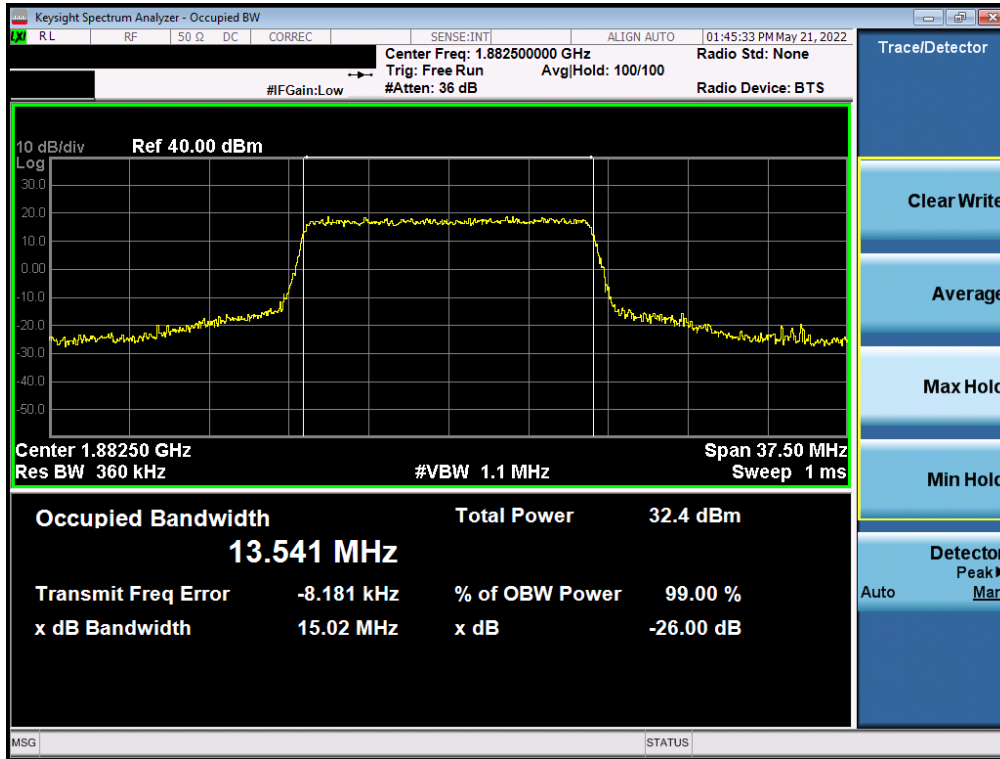
Plot 7-1. Occupied Bandwidth Plot (LTE Band 25/2 - 20MHz QPSK - Full RB)



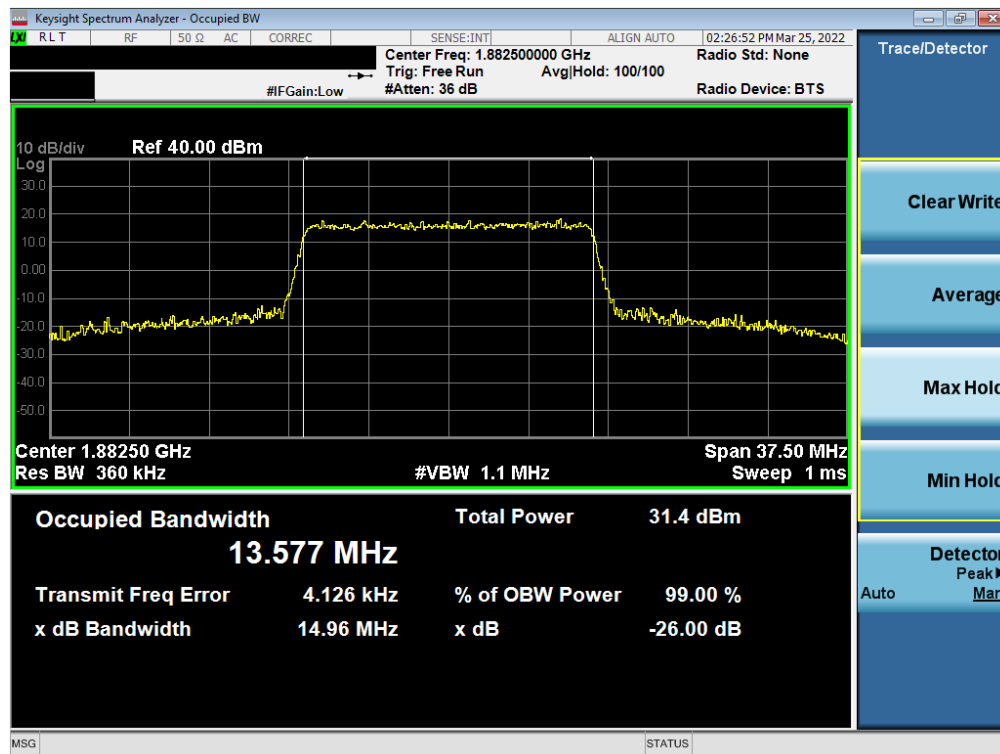
Plot 7-2. Occupied Bandwidth Plot (LTE Band 25/2 - 20MHz 16-QAM - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 14 of 123

V3.0 1/5/2022

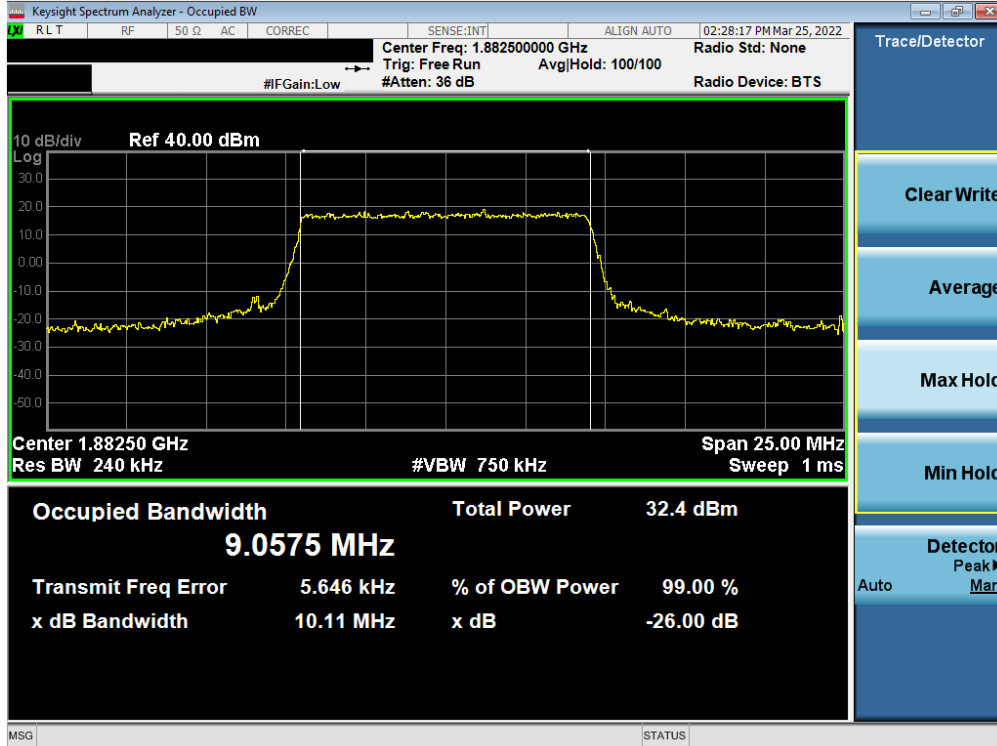


Plot 7-3. Occupied Bandwidth Plot (LTE Band 25/2 - 15MHz QPSK - Full RB)

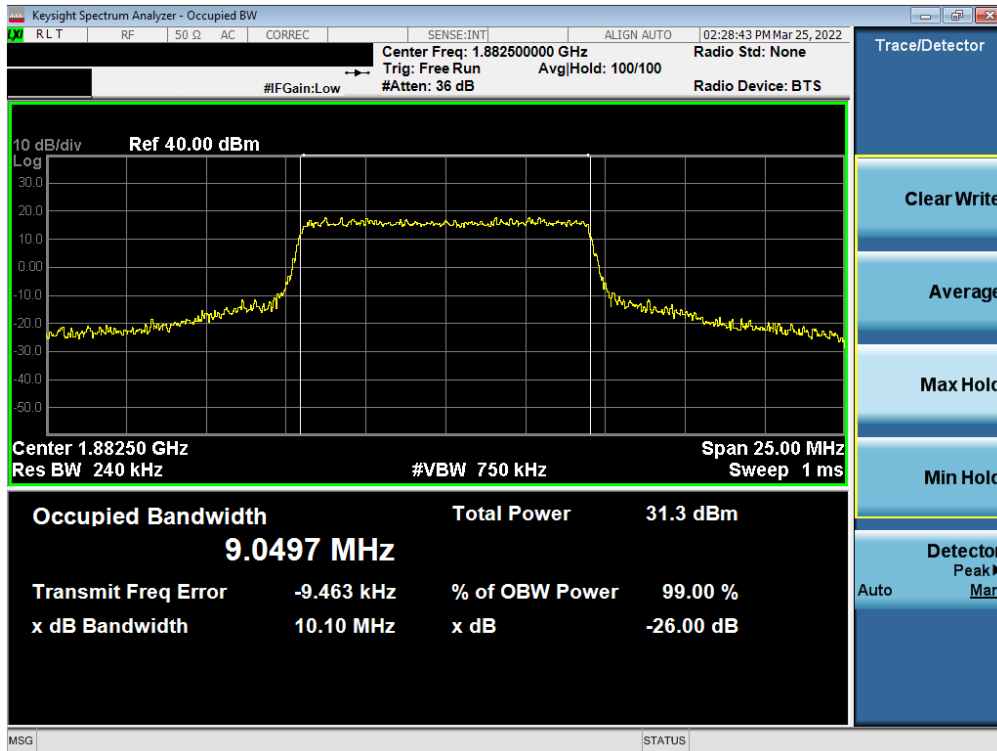


Plot 7-4. Occupied Bandwidth Plot (LTE Band 25/2 - 15MHz 16-QAM - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 15 of 123

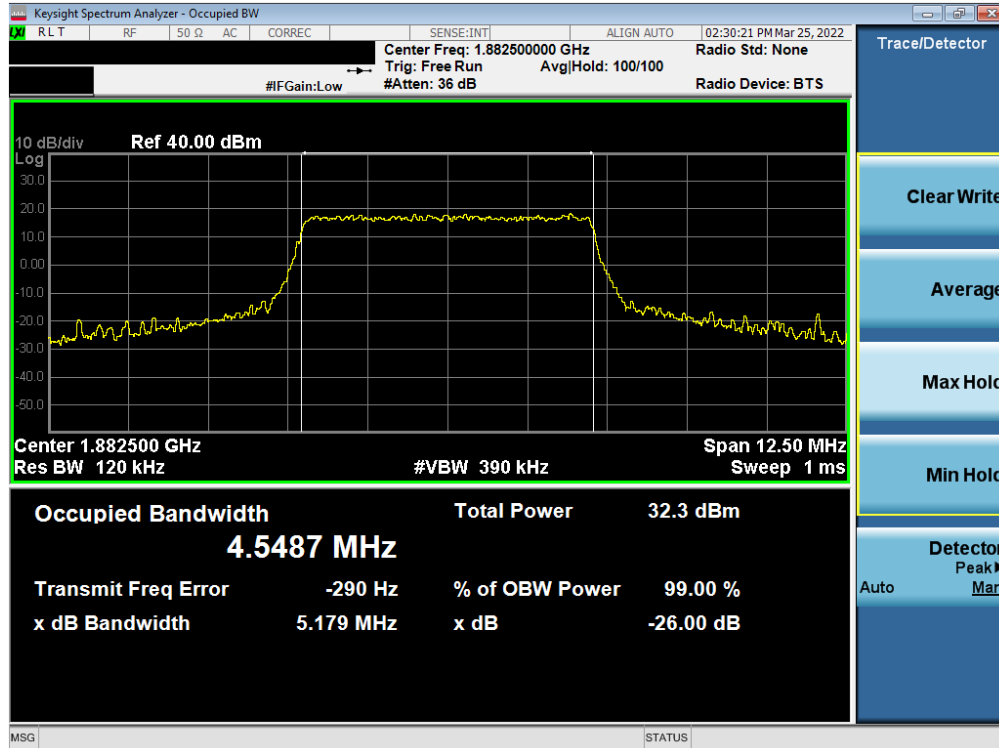


Plot 7-5. Occupied Bandwidth Plot (LTE Band 25/2 - 10MHz QPSK - Full RB)

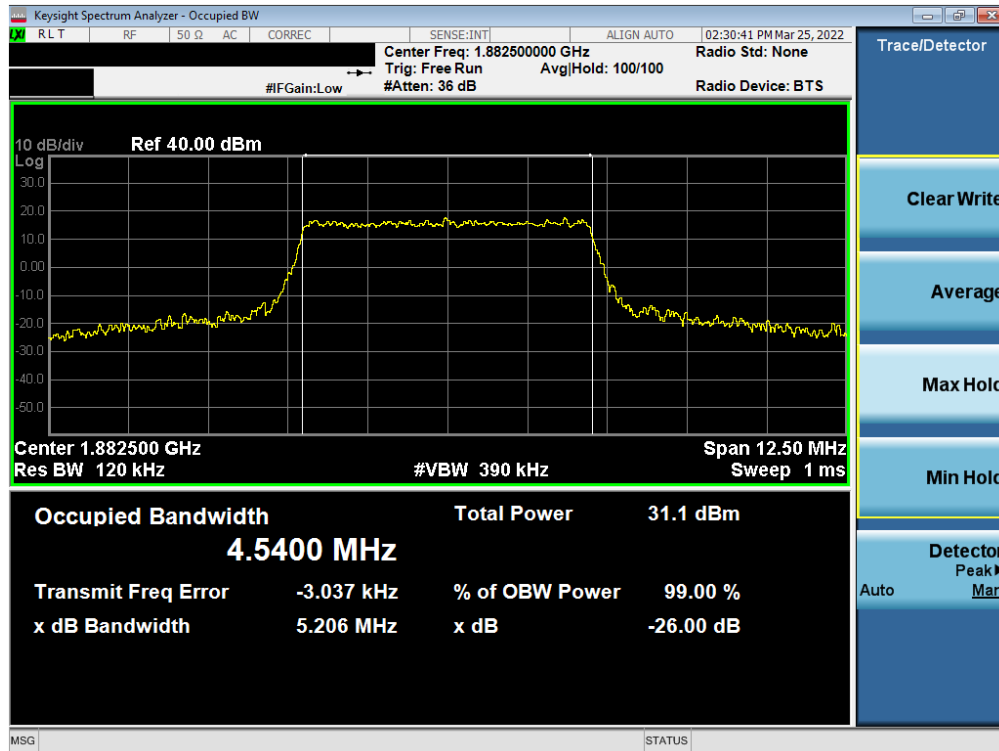


Plot 7-6. Occupied Bandwidth Plot (LTE Band 25/2 - 10MHz 16-QAM - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 16 of 123

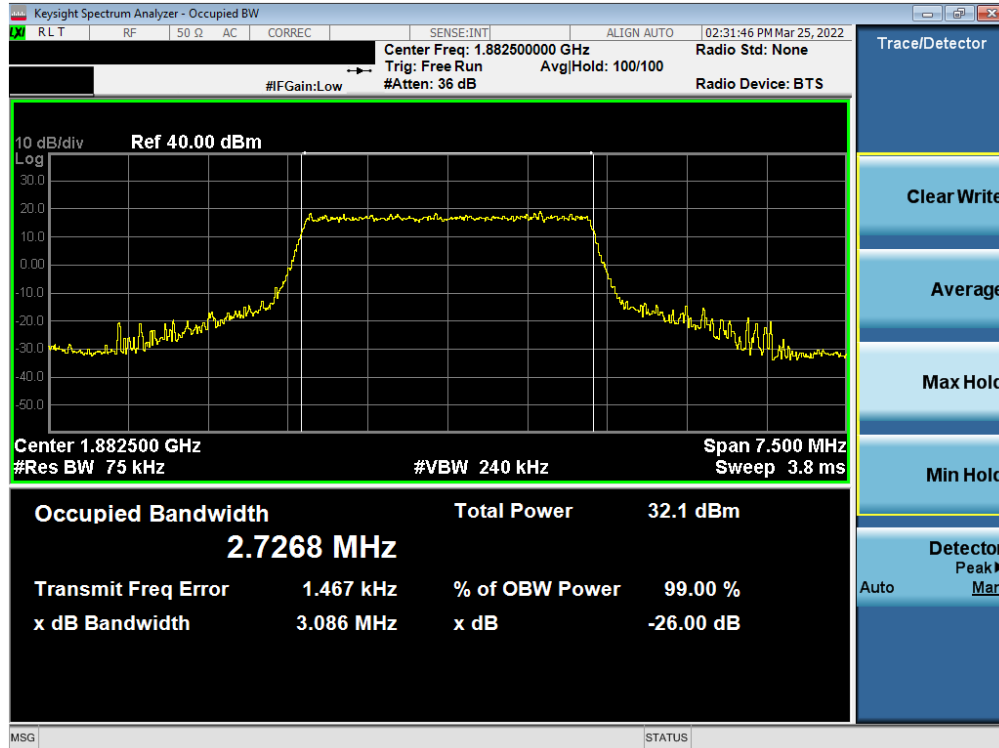


Plot 7-7. Occupied Bandwidth Plot (LTE Band 25/2 - 5MHz QPSK - Full RB)

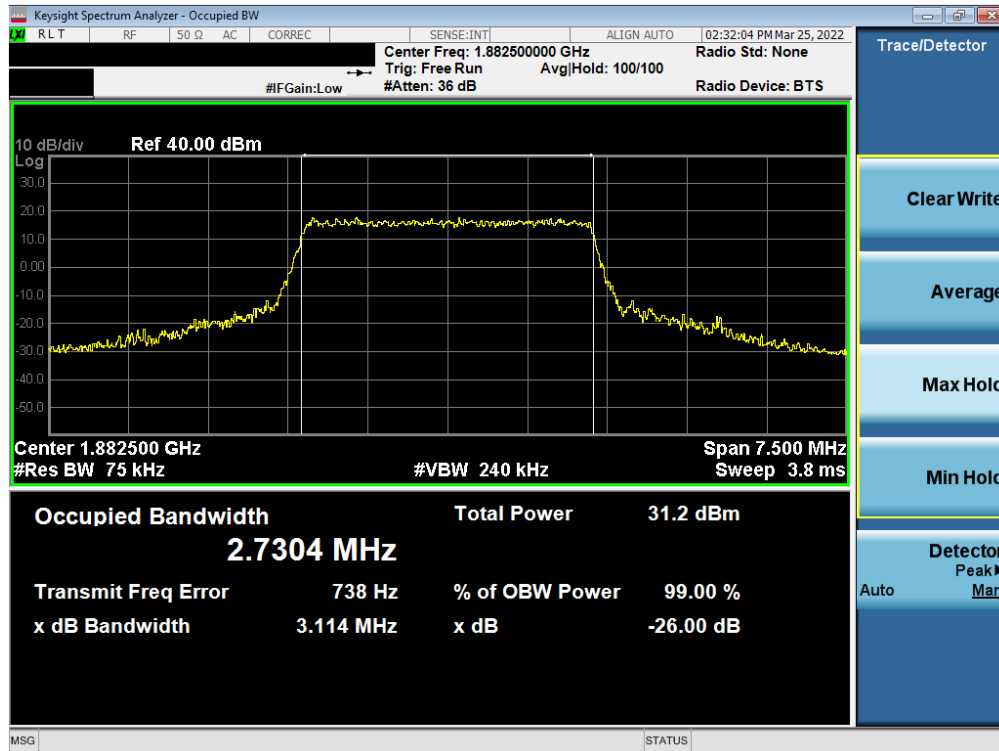


Plot 7-8. Occupied Bandwidth Plot (LTE Band 25/2 - 5MHz 16-QAM - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 17 of 123

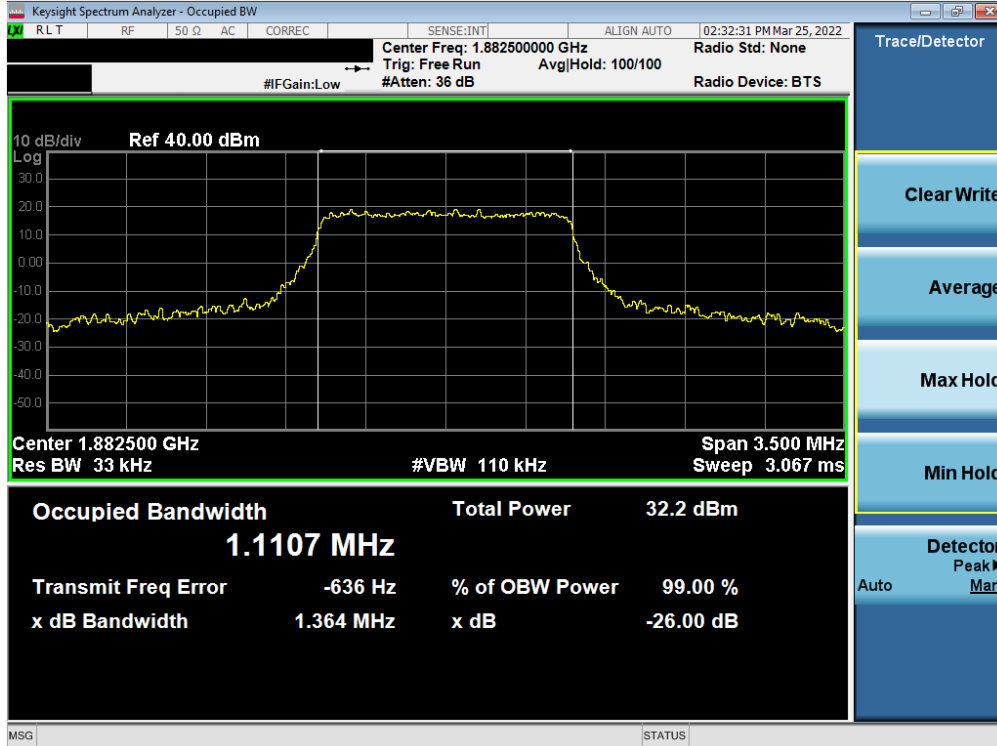


Plot 7-9. Occupied Bandwidth Plot (LTE Band 25/2 - 3MHz QPSK - Full RB)

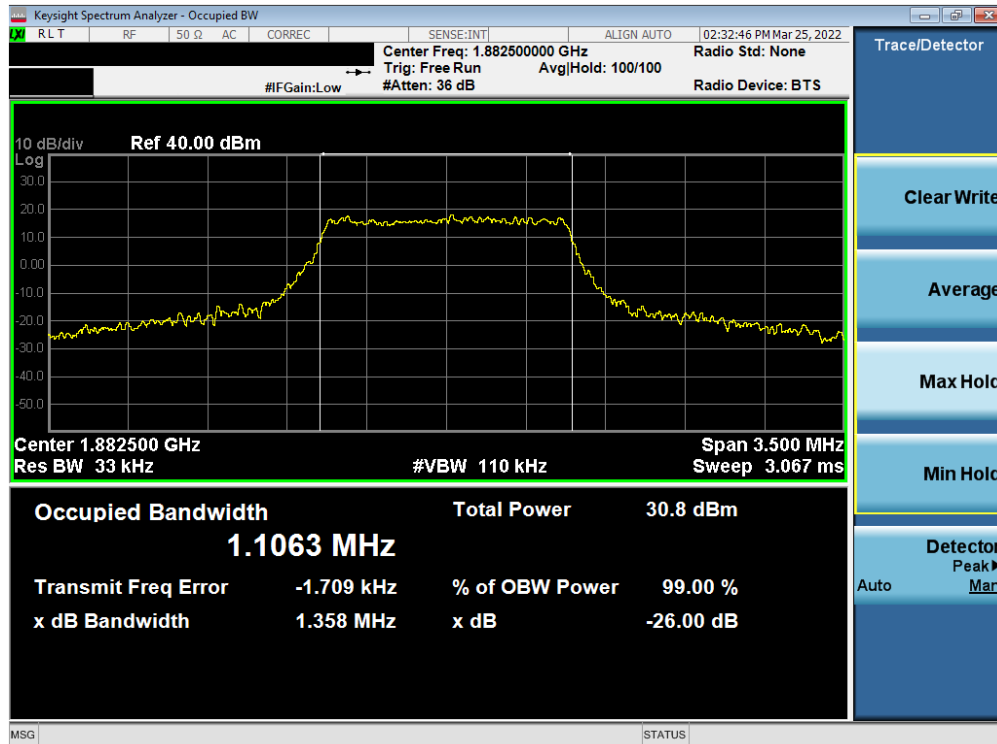


Plot 7-10. Occupied Bandwidth Plot (LTE Band 25/2 - 3MHz 16-QAM - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 18 of 123



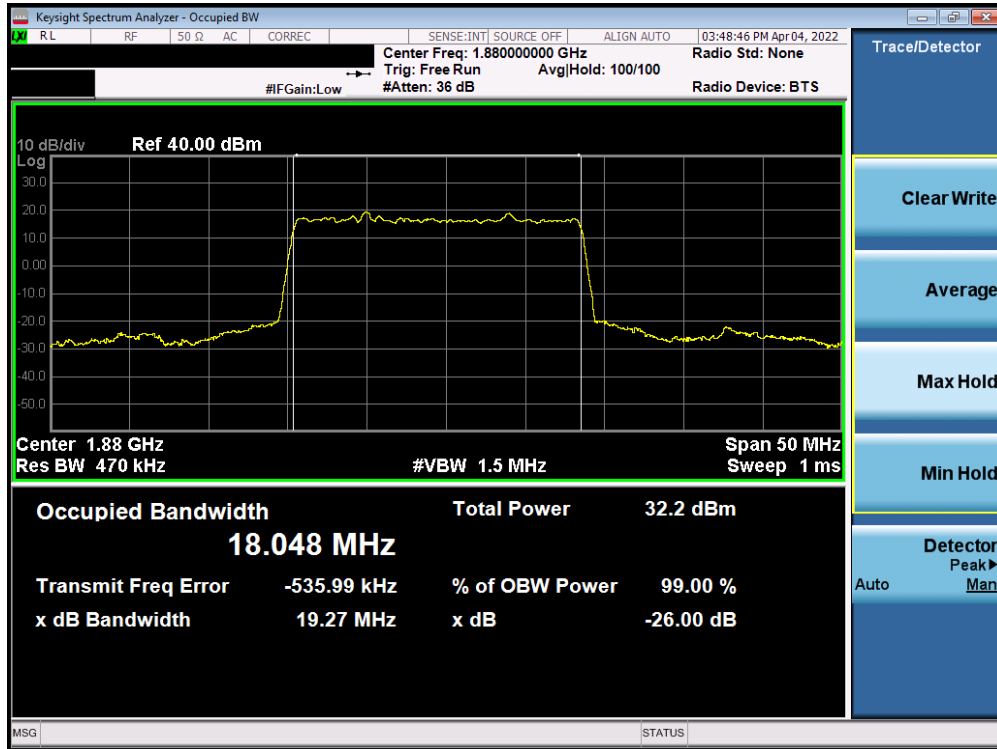
Plot 7-11. Occupied Bandwidth Plot (LTE Band 25/2 - 1.4MHz QPSK - Full RB)



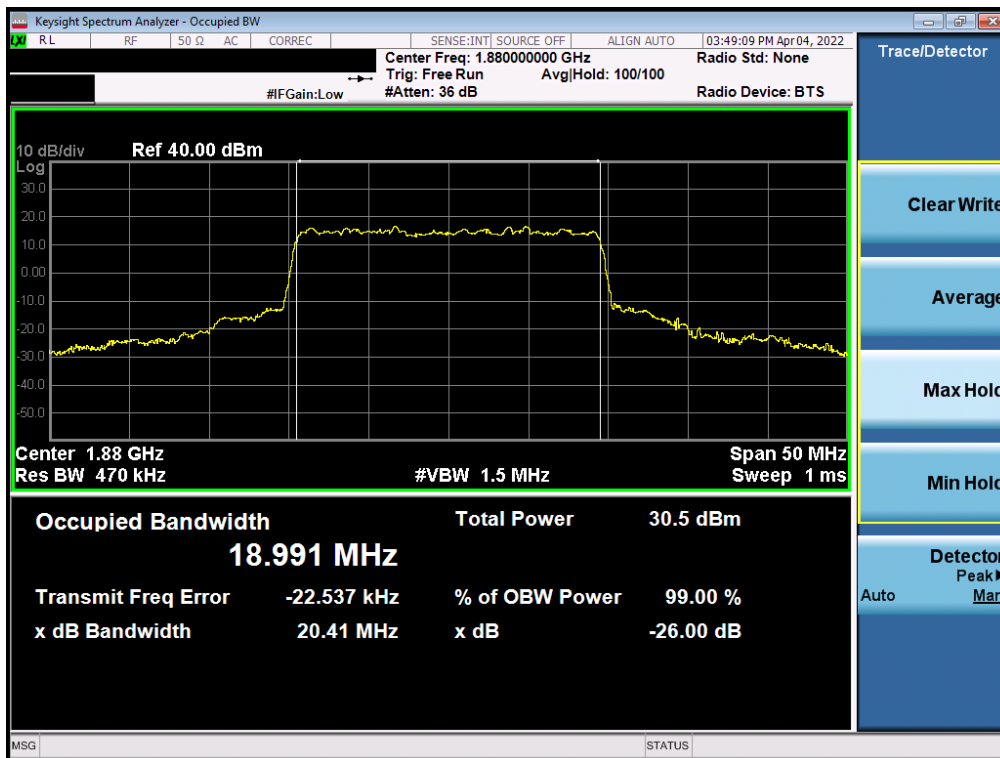
Plot 7-12. Occupied Bandwidth Plot (LTE Band 25/2 - 1.4MHz 16-QAM - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 19 of 123

NR Band n2

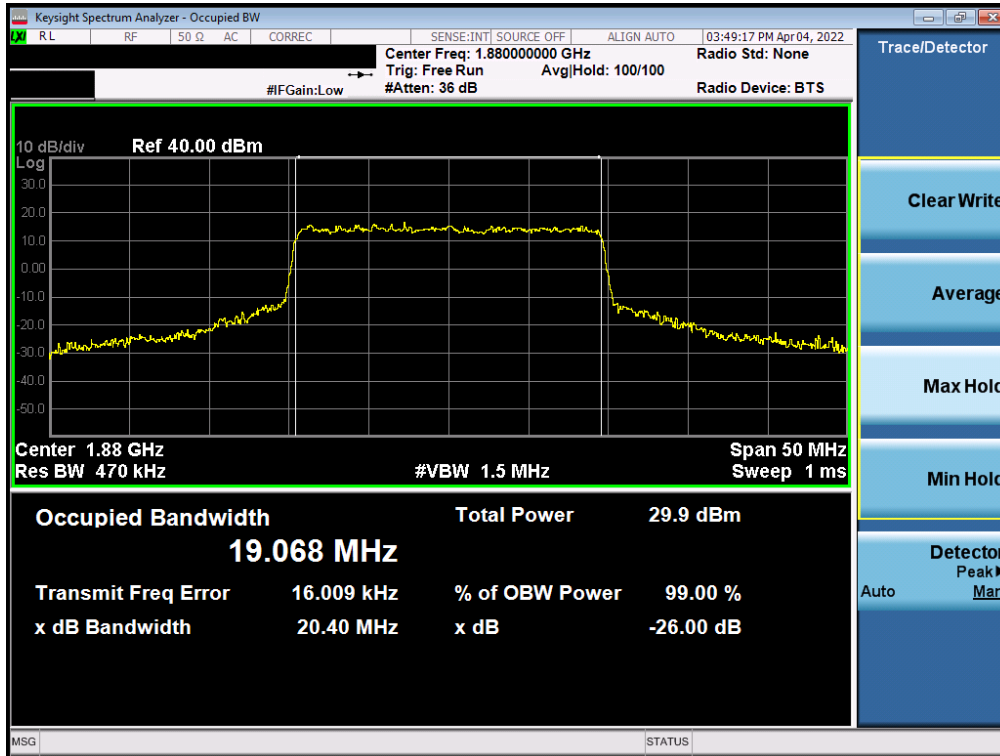


Plot 7-13. Occupied Bandwidth Plot (NR Band n2 - 20.0MHz DFT-S-OFDM BPSK - Full RB)

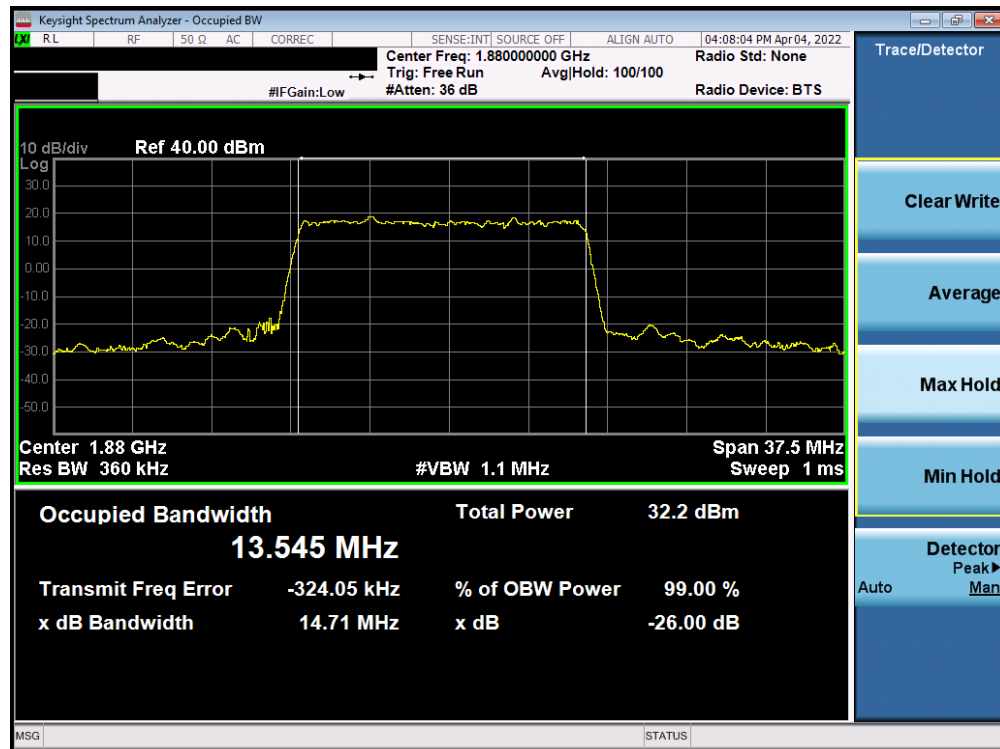


Plot 7-14. Occupied Bandwidth Plot (NR Band n2 - 20.0MHz CP-OFDM QPSK - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 20 of 123

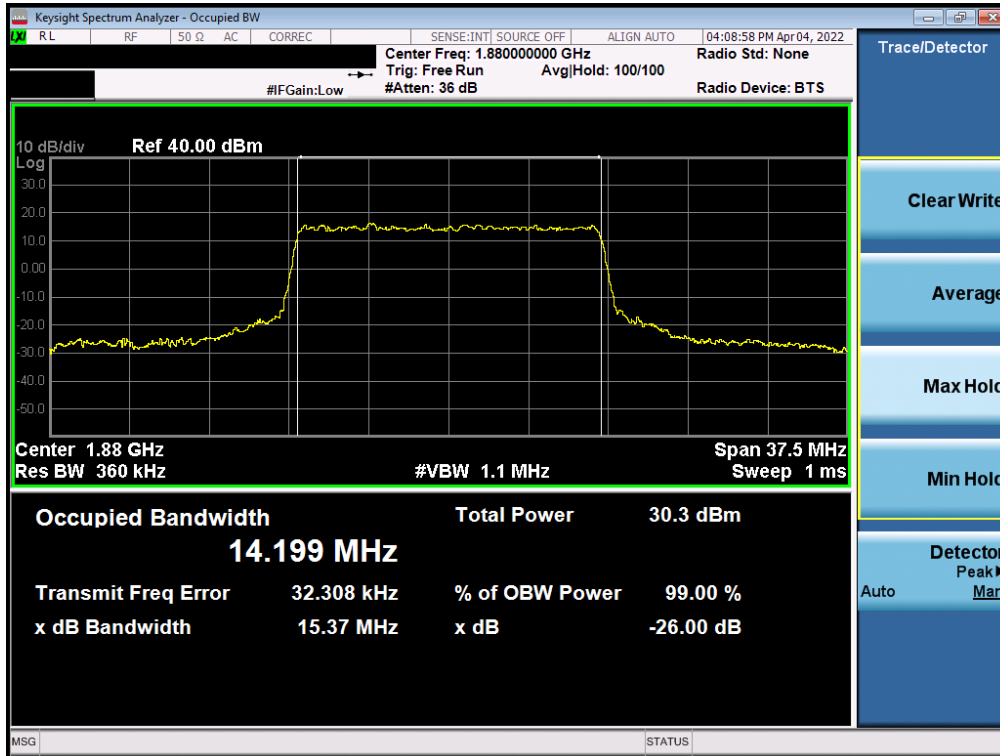


Plot 7-15. Occupied Bandwidth Plot (NR Band n2 - 20.0MHz CP-OFDM 16QAM - Full RB)

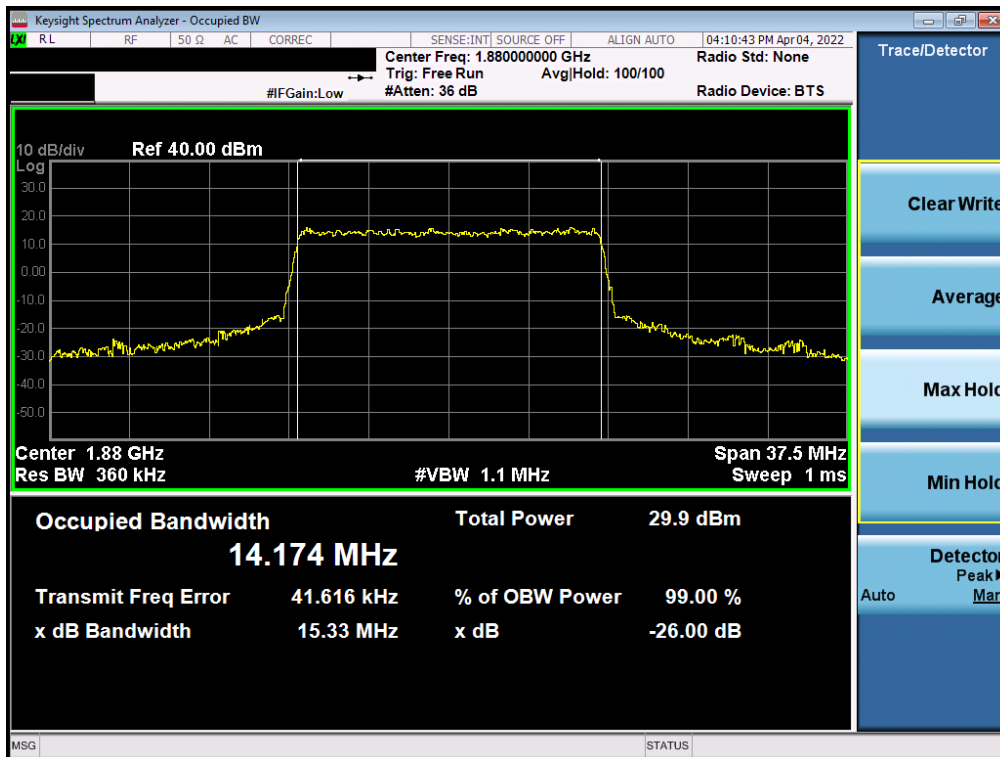


Plot 7-16. Occupied Bandwidth Plot (NR Band n2 - 15.0MHz DFT-S-OFDM BPSK - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M220120003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 21 of 123

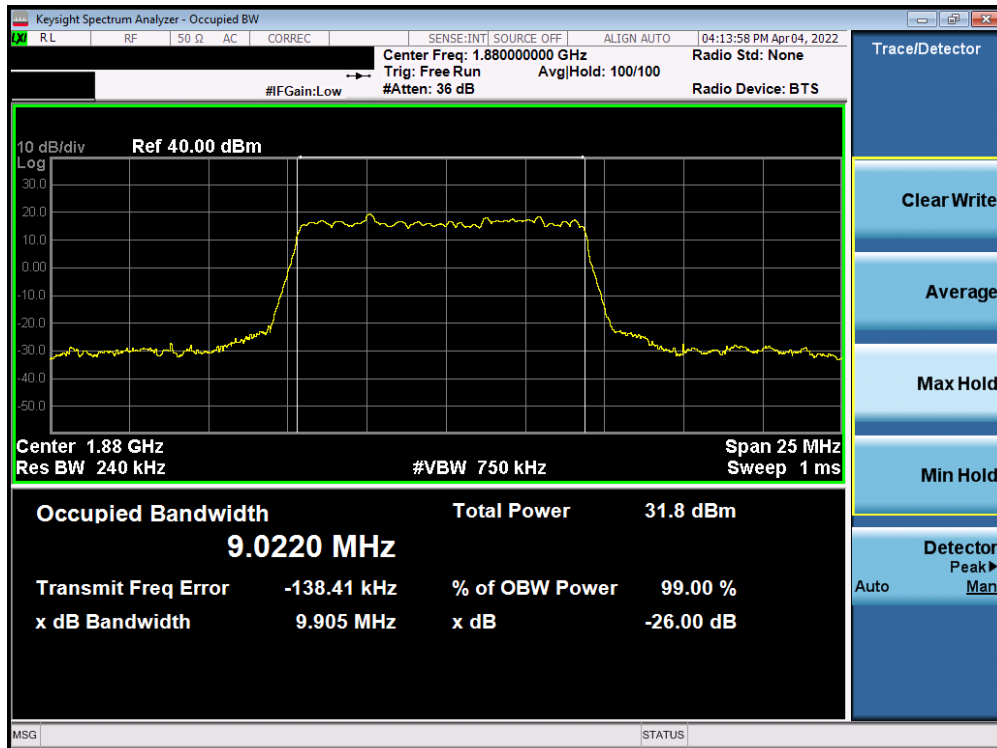


Plot 7-17. Occupied Bandwidth Plot (NR Band n2 - 15.0MHz CP-OFDM QPSK - Full RB)

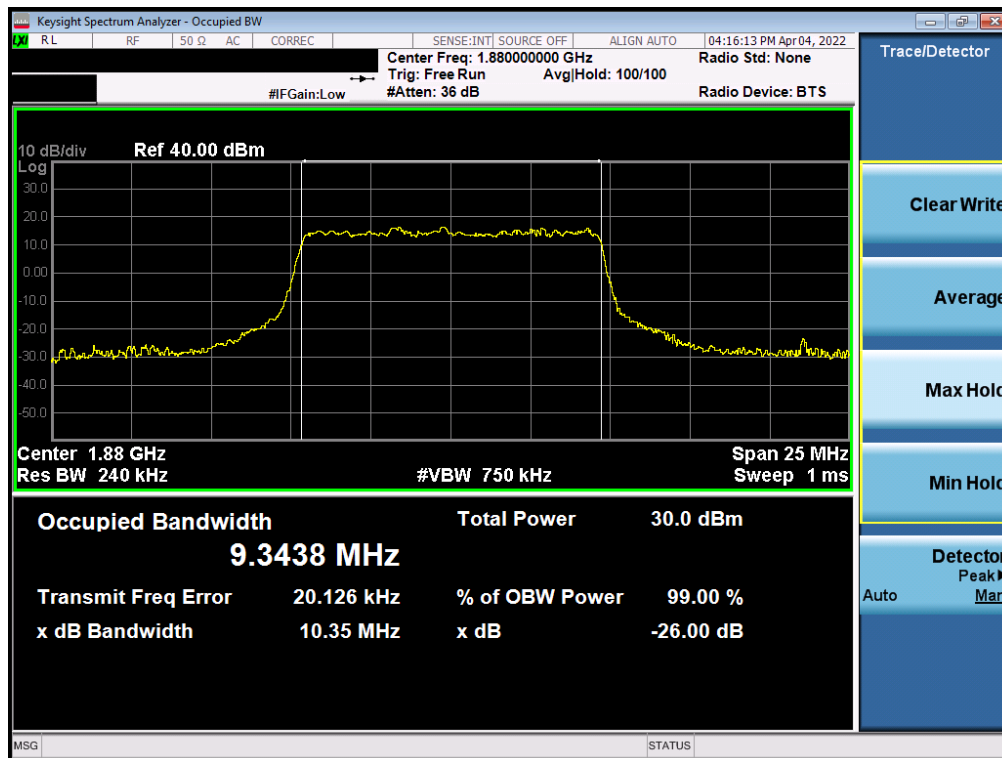


Plot 7-18. Occupied Bandwidth Plot (NR Band n2 - 15.0MHz CP-OFDM 16QAM - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 22 of 123

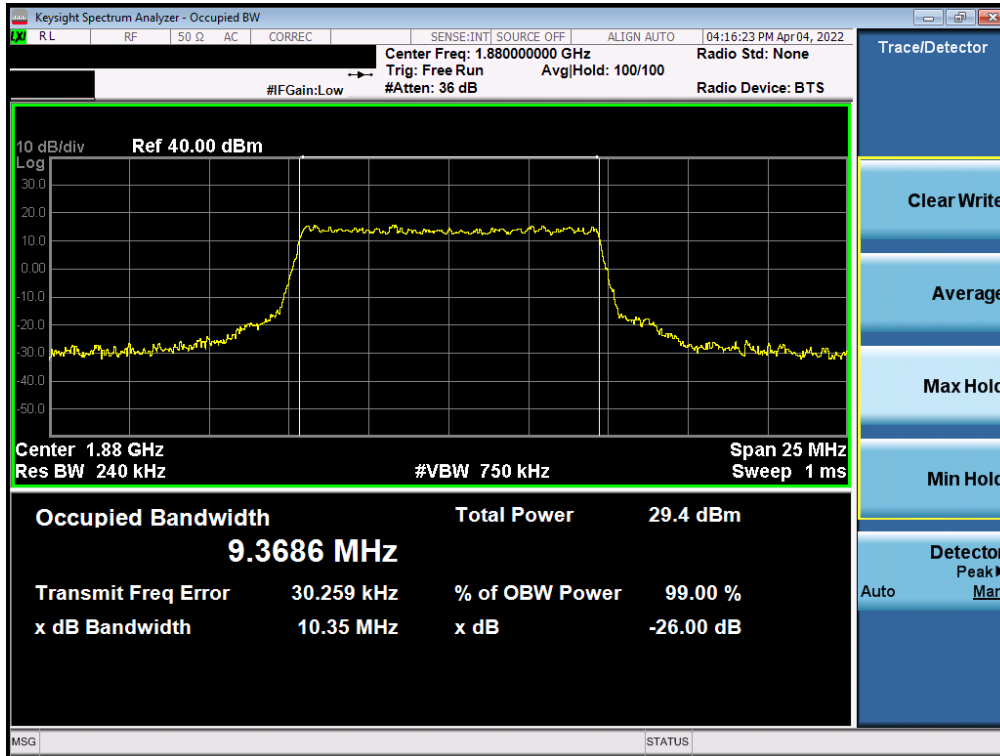


Plot 7-19. Occupied Bandwidth Plot (NR Band n2 - 10.0MHz DFT-S-OFDM BPSK - Full RB)

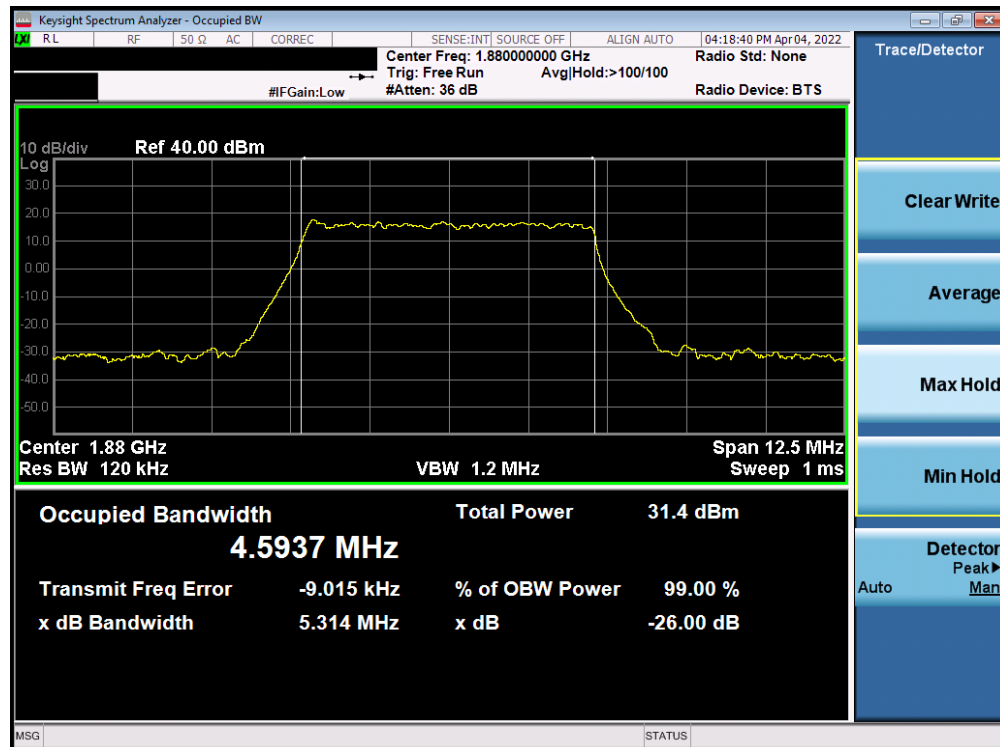


Plot 7-20. Occupied Bandwidth Plot (NR Band n2 - 10.0MHz CP-OFDM QPSK - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 23 of 123

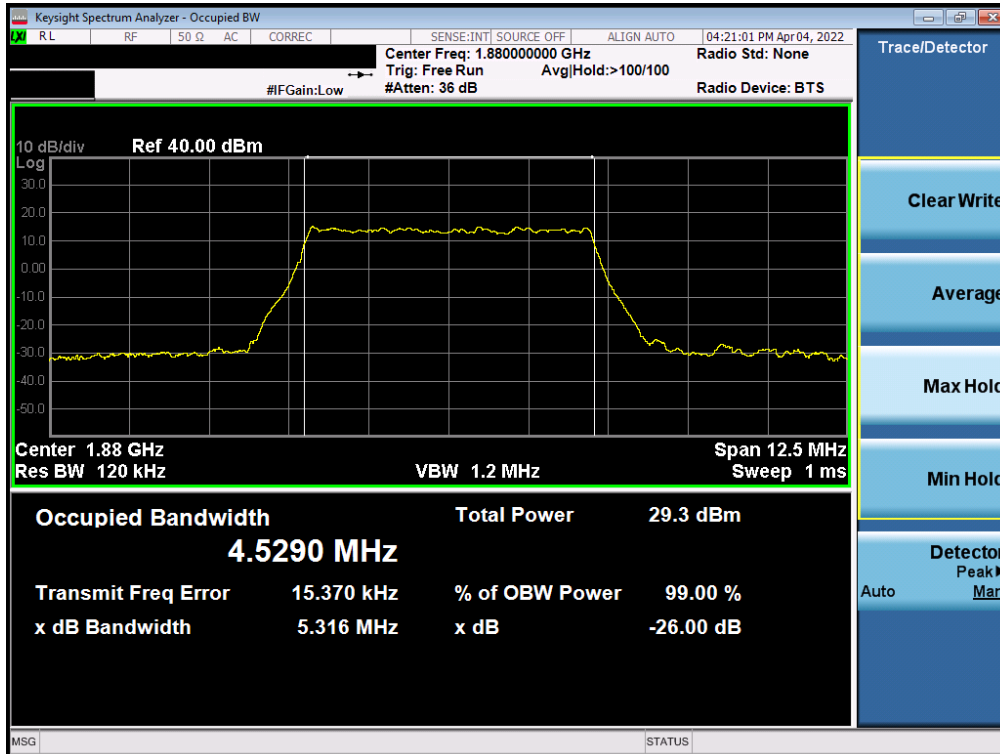


Plot 7-21. Occupied Bandwidth Plot (NR Band n2 - 10.0MHz CP-OFDM 16QAM - Full RB)

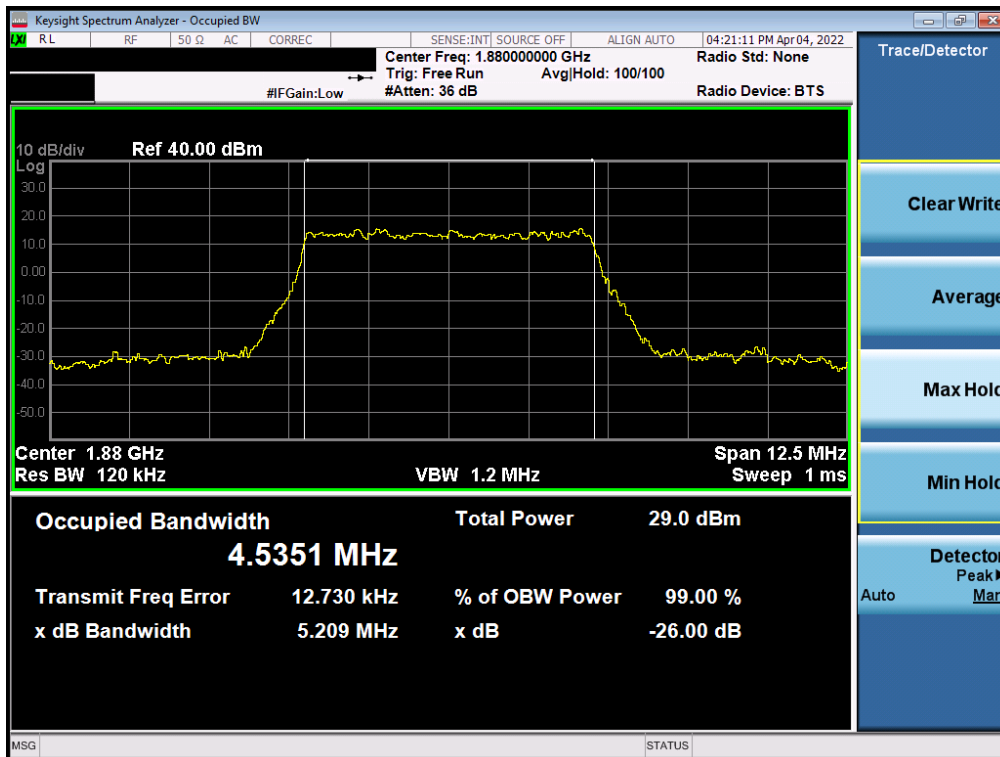


Plot 7-22. Occupied Bandwidth Plot (NR Band n2 - 5.0MHz DFT-S-OFDM BPSK - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 24 of 123



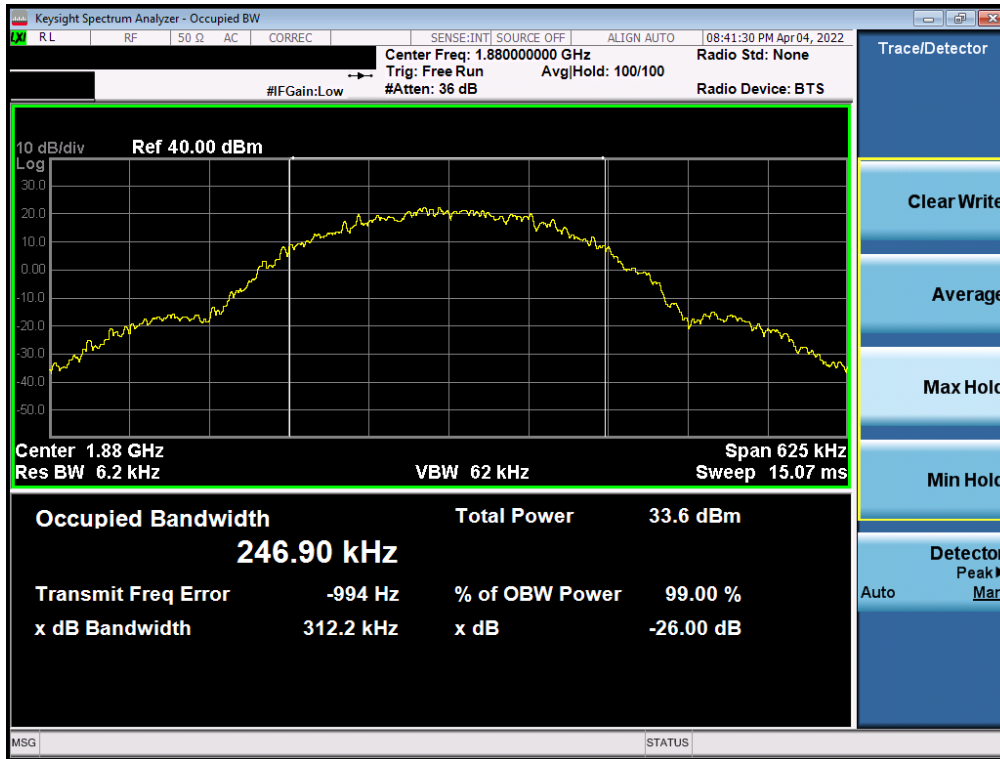
Plot 7-23. Occupied Bandwidth Plot (NR Band n2 - 5.0MHz CP-OFDM QPSK - Full RB)



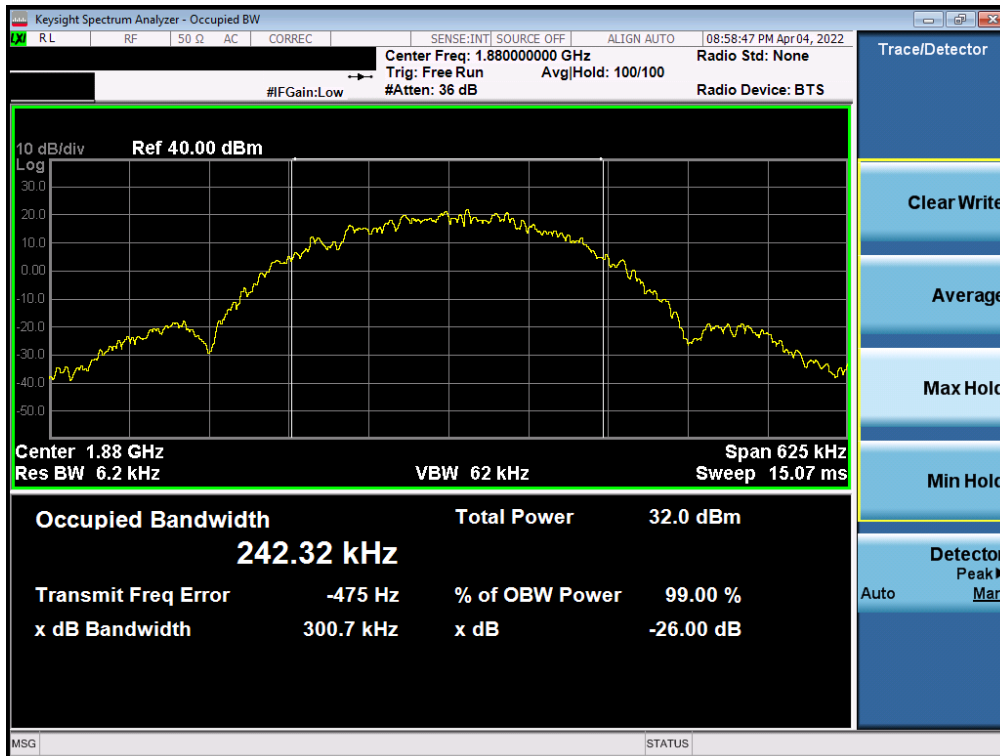
Plot 7-24. Occupied Bandwidth Plot (NR Band n2 - 5.0MHz CP-OFDM 16QAM - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 25 of 123

GSM/GPRS PCS



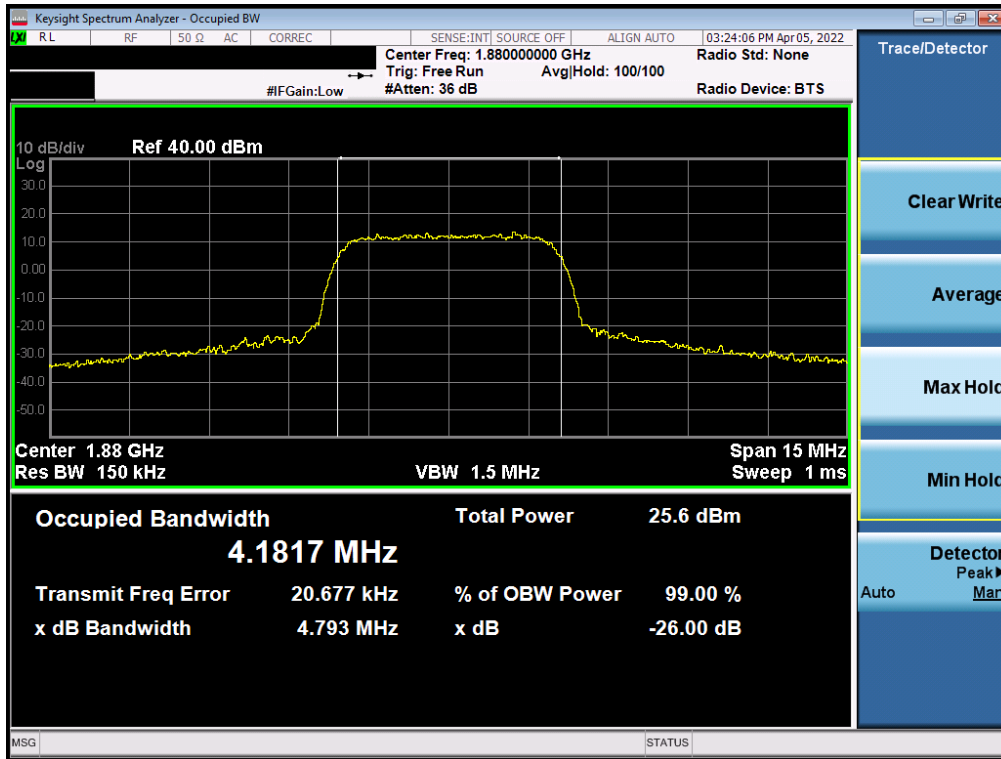
Plot 7-25. Occupied Bandwidth Plot (GPRS, Ch. 661)



Plot 7-26. Occupied Bandwidth Plot (EDGE, Ch. 661)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 26 of 123

WCDMA PCS



Plot 7-27. Occupied Bandwidth Plot (WCDMA, Ch. 9400)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 27 of 123

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 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 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.

The minimum permissible attenuation level of any spurious emission is $43 + 10 \log_{10}(P_{[Watts]})$, where P is the transmitter power in Watts.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to 20GHz (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.

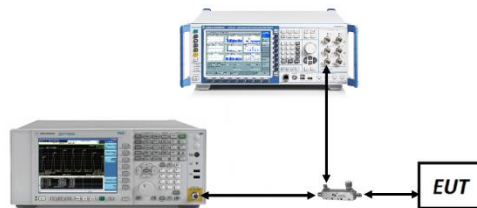


Figure 7-3. Test Instrument & Measurement Setup

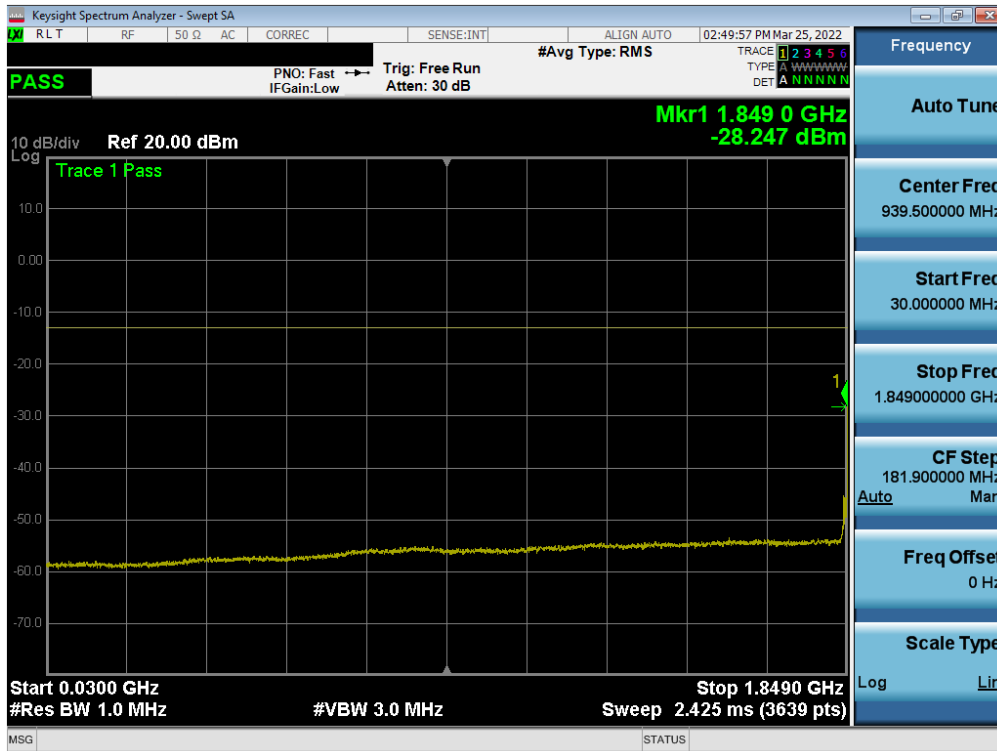
Test Notes

1. Per Part 24 and RSS-133, compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth 100 kHz or greater for measurements below 1GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. 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 emission are attenuated at least 26 dB below the transmitter power.
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.

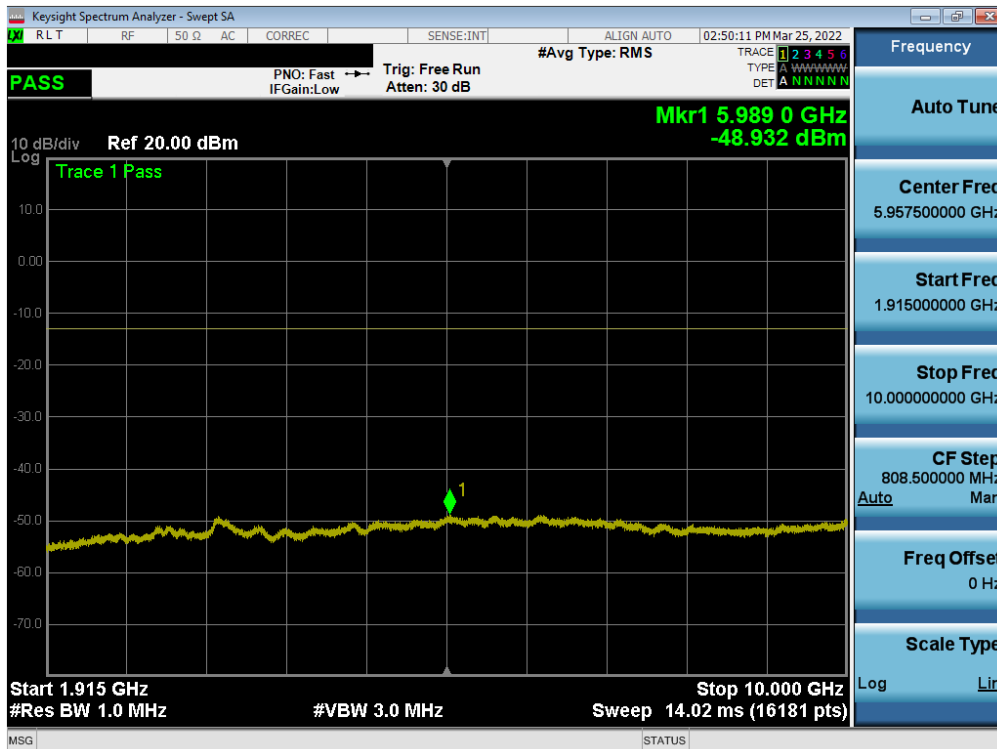
FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 28 of 123

V3.0 1/5/2022

LTE Band 25/2

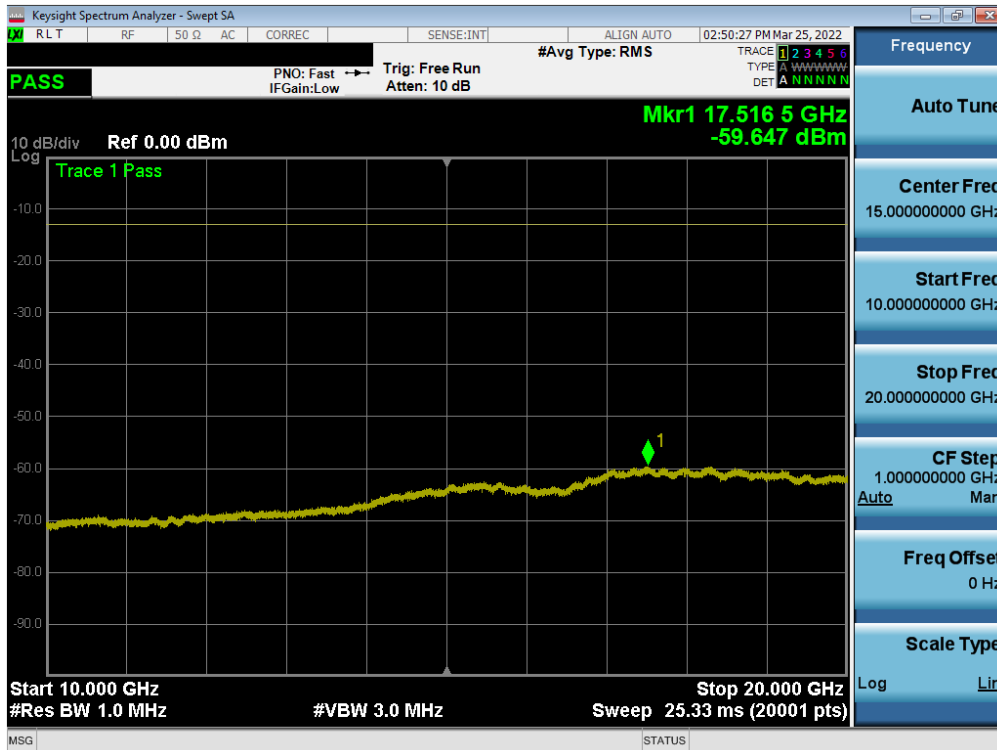


Plot 7-28. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Low Channel)

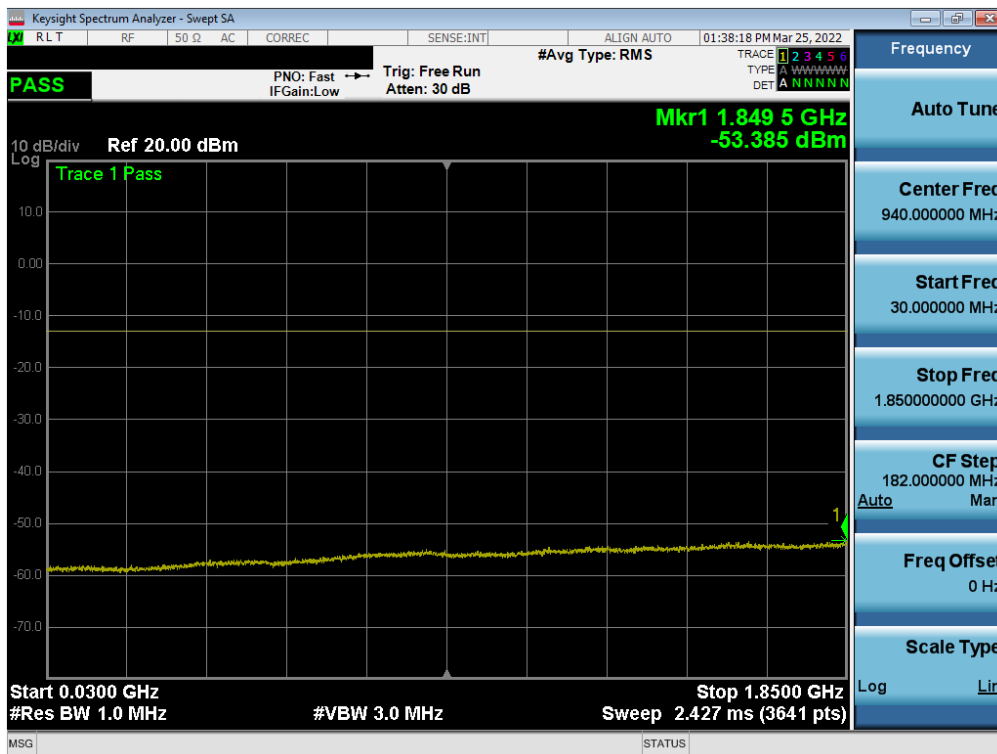


Plot 7-29. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Low Channel)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 29 of 123

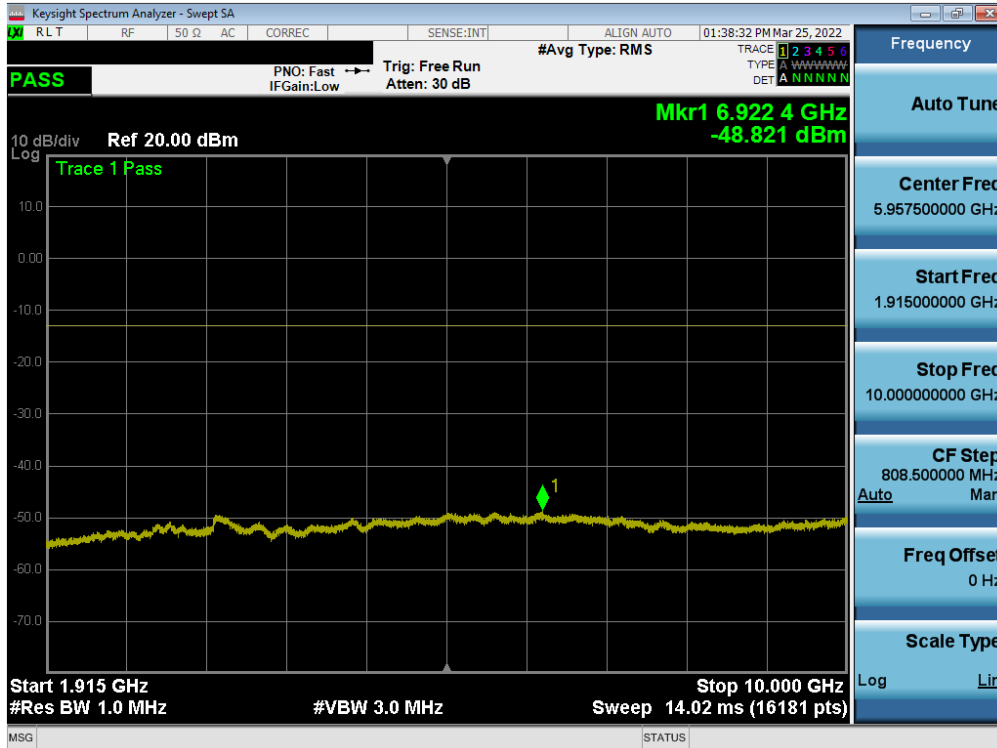


Plot 7-30. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Low Channel)



Plot 7-31. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Mid Channel)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 30 of 123

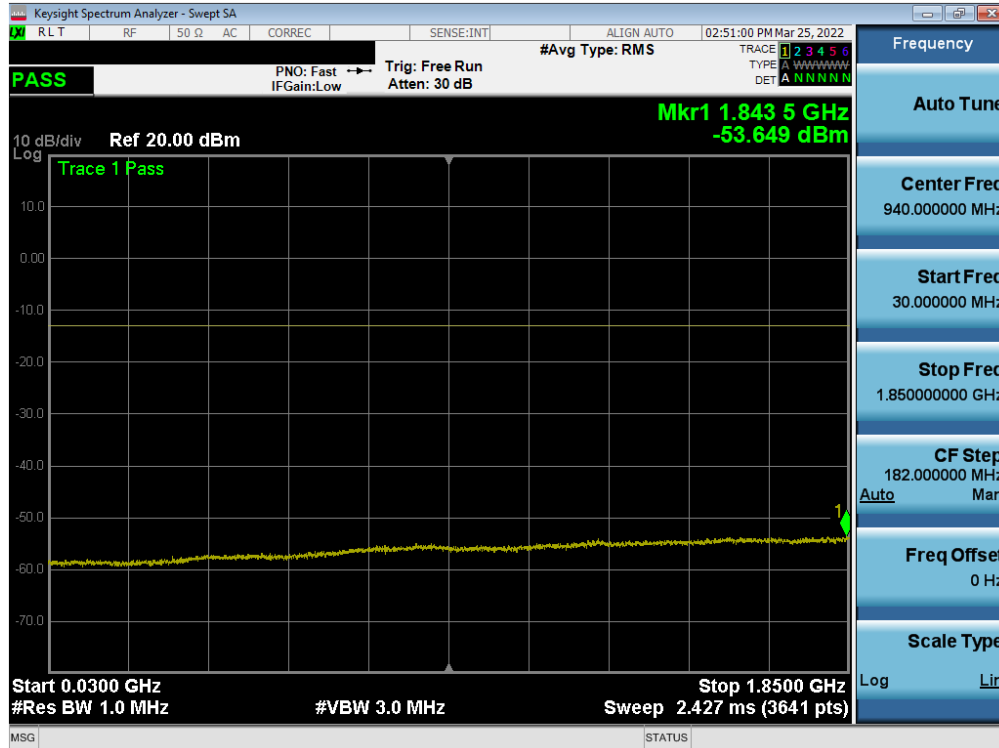


Plot 7-32. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Mid Channel)



Plot 7-33. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - Mid Channel)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 31 of 123

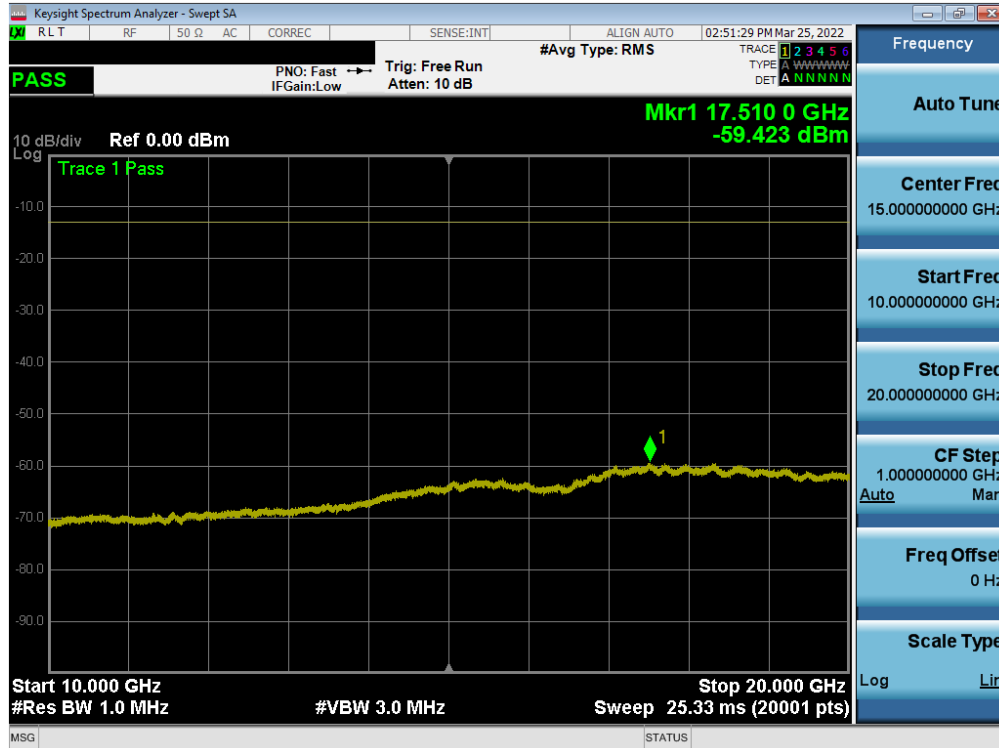


Plot 7-34. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - High Channel)



Plot 7-35. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - High Channel)

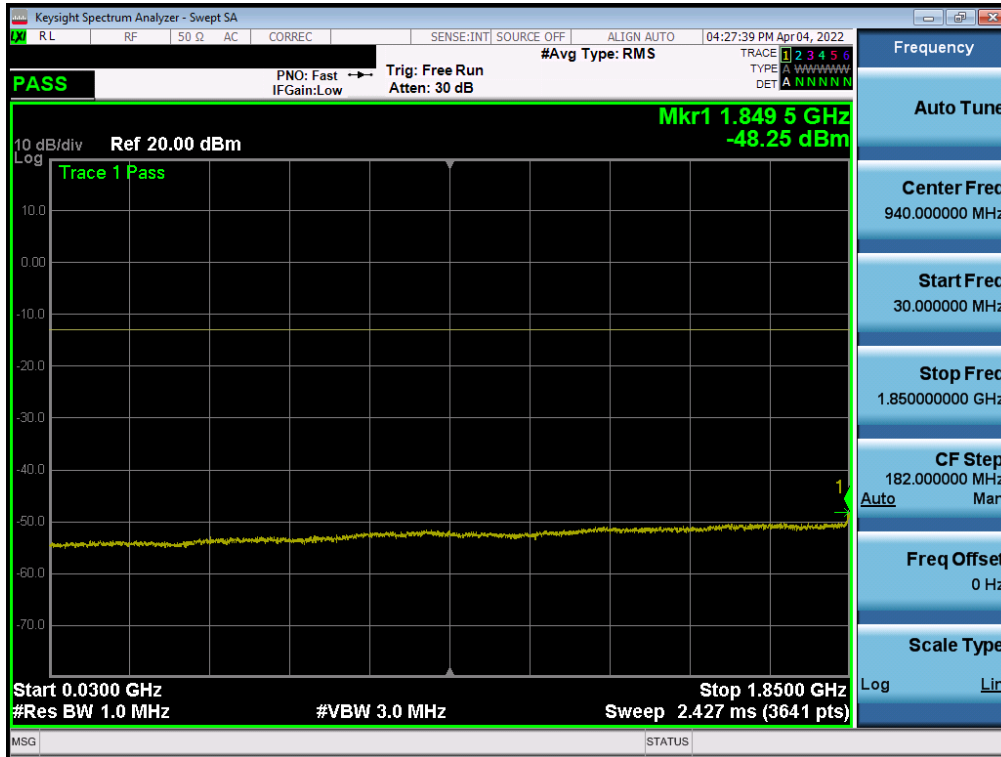
FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 32 of 123



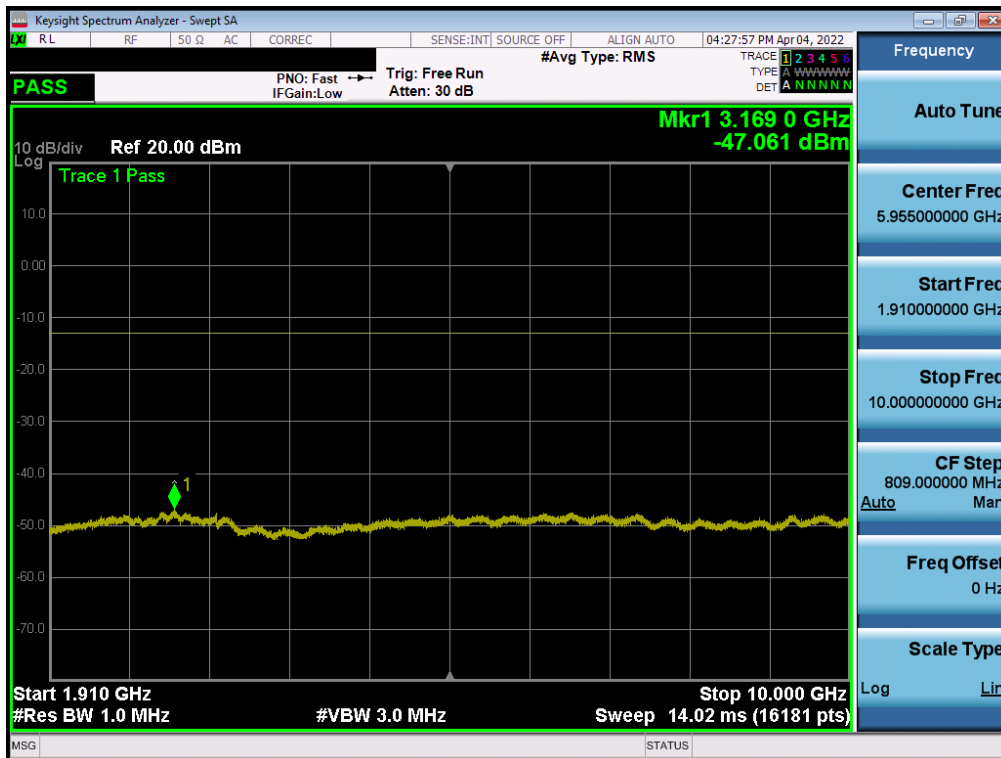
Plot 7-36. Conducted Spurious Plot (LTE Band 25/2 - 20MHz QPSK - 1RB - High Channel)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 33 of 123

NR Band n2



Plot 7-37. Conducted Spurious Plot (NR Band n2 -20.0MHz - 1RB - Low Channel)

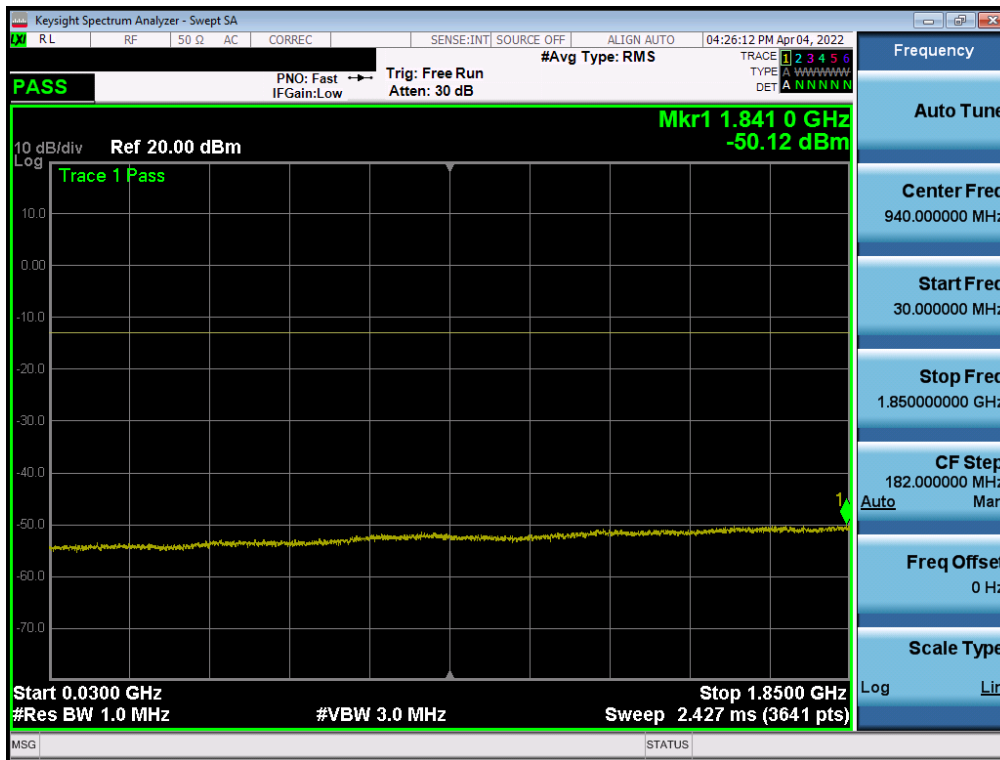


Plot 7-38. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Low Channel)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 34 of 123

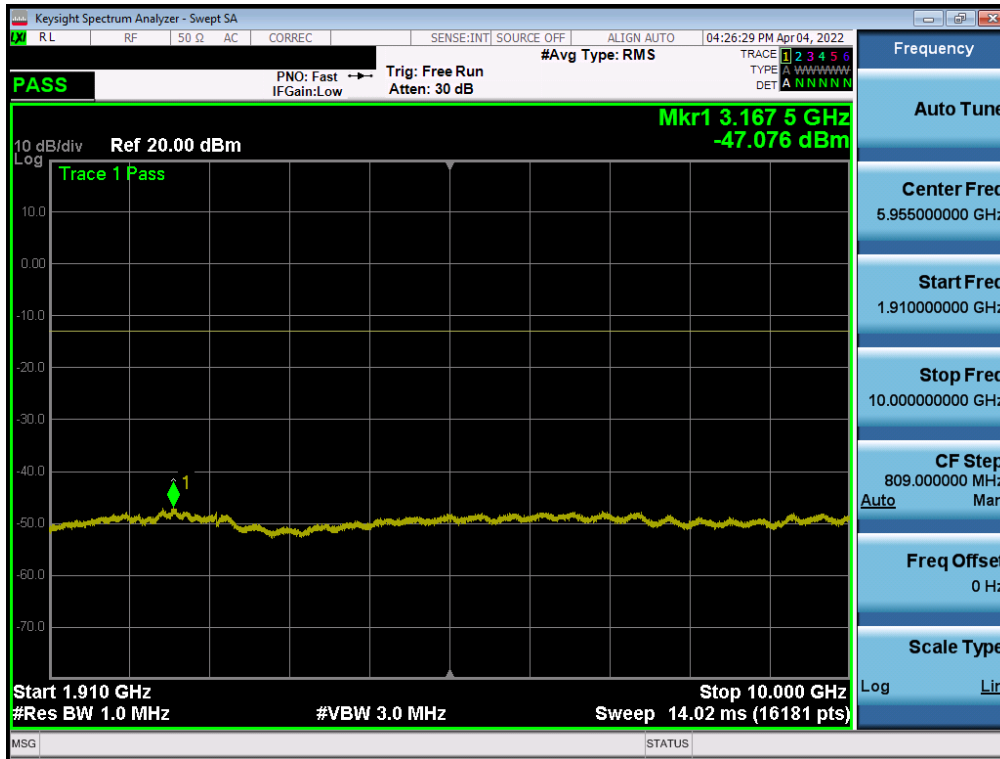


Plot 7-39. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Low Channel)



Plot 7-40. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Mid Channel)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 35 of 123

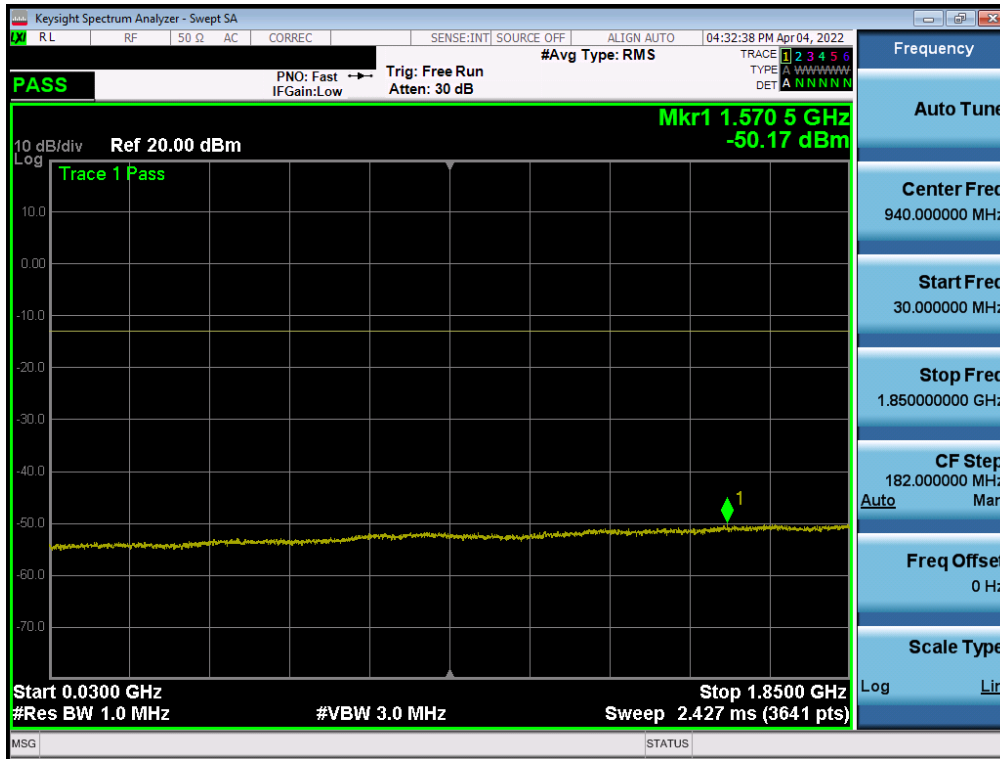


Plot 7-41. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Mid Channel)

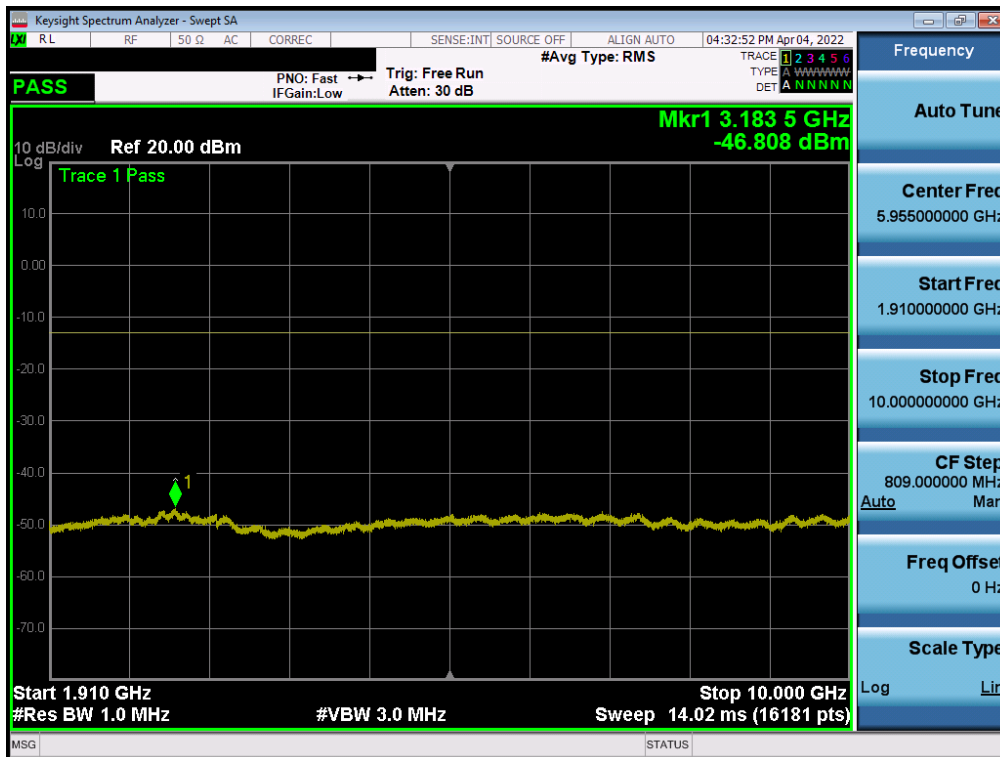


Plot 7-42. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - Mid Channel)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 36 of 123



Plot 7-43. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - High Channel)



Plot 7-44. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - High Channel)

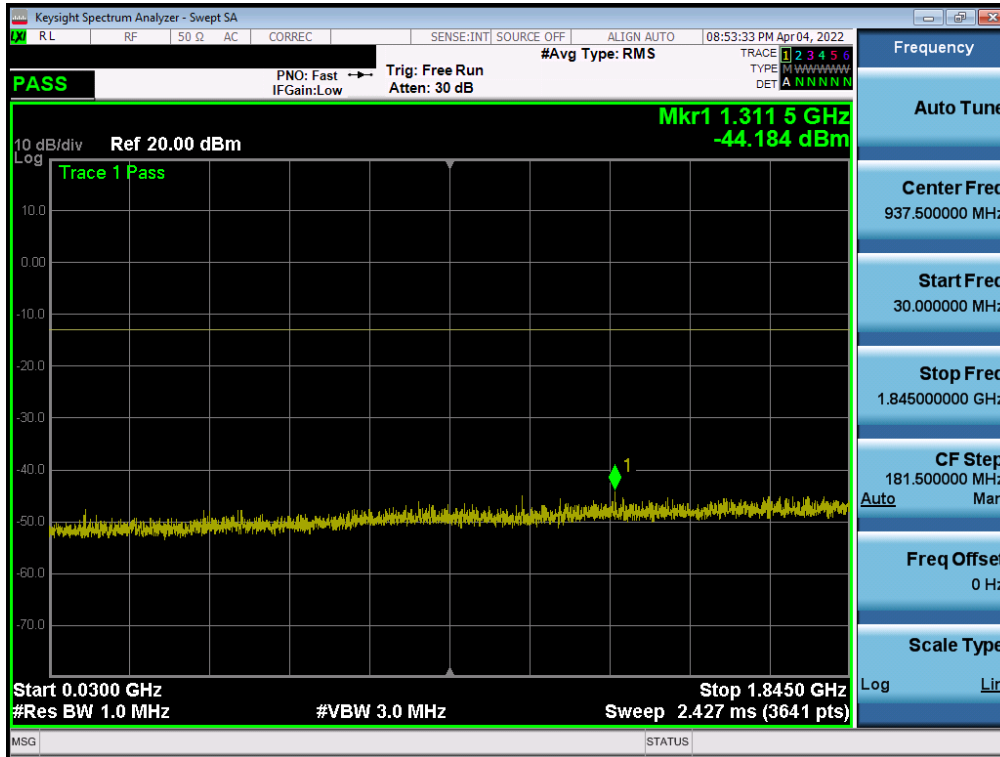
FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 37 of 123



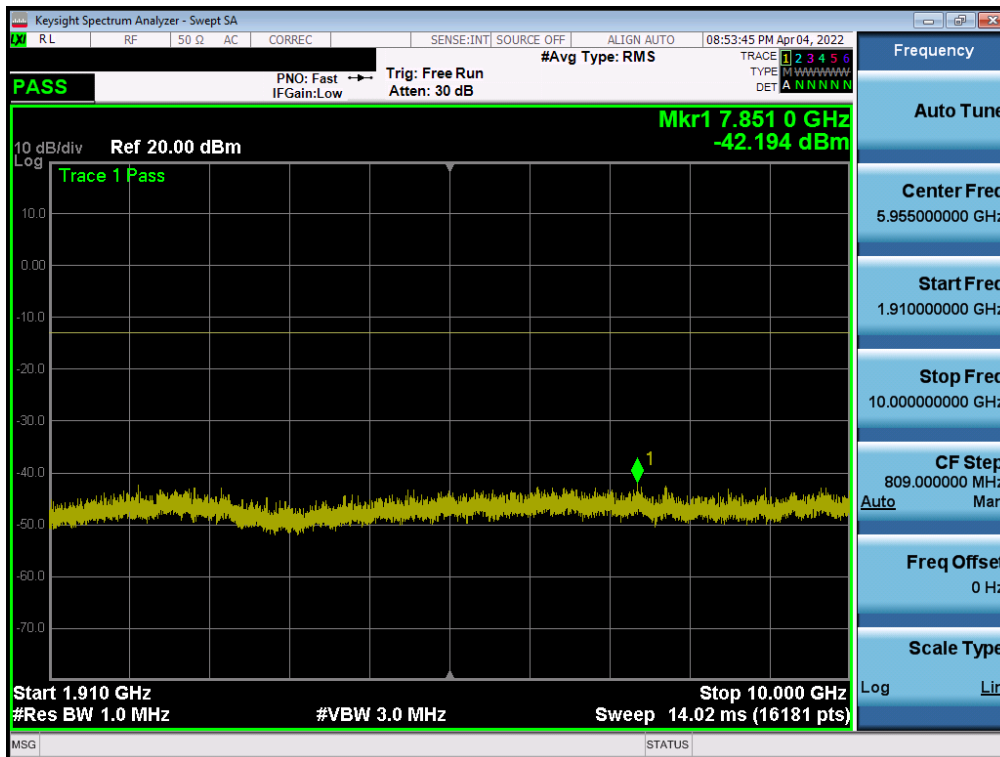
Plot 7-45. Conducted Spurious Plot (NR Band n2 - 20.0MHz - 1RB - High Channel)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 38 of 123

GSM/GPRS PCS

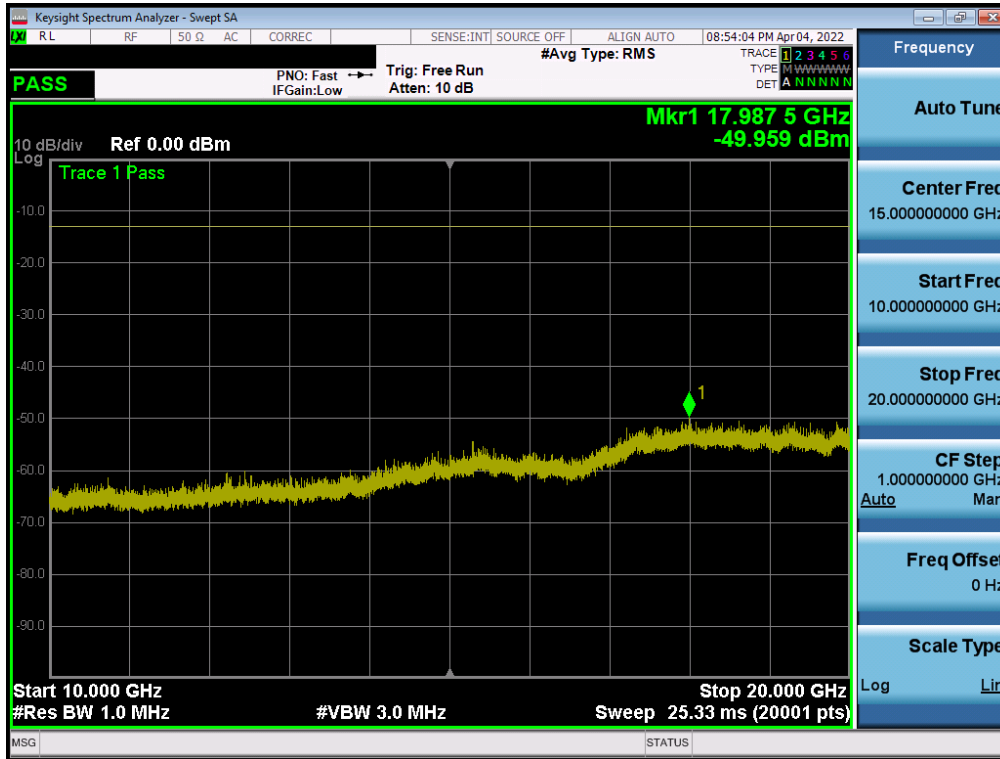


Plot 7-46. Conducted Spurious Plot (GPRS Ch. 512)

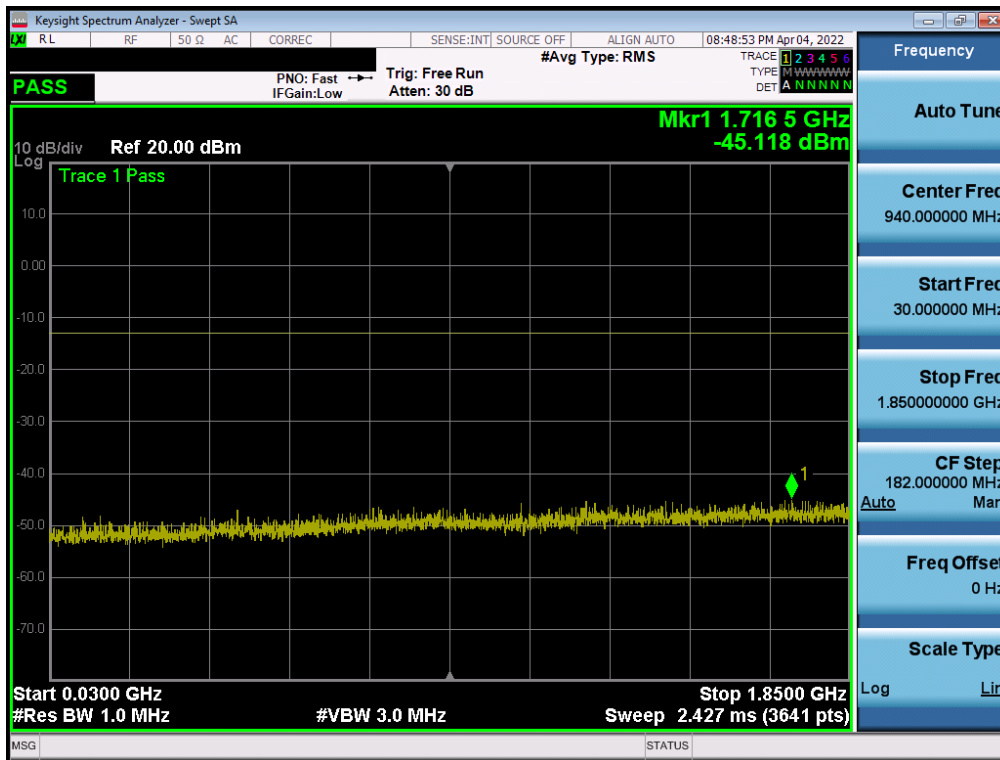


Plot 7-47. Conducted Spurious Plot (GPRS Ch. 512)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 39 of 123

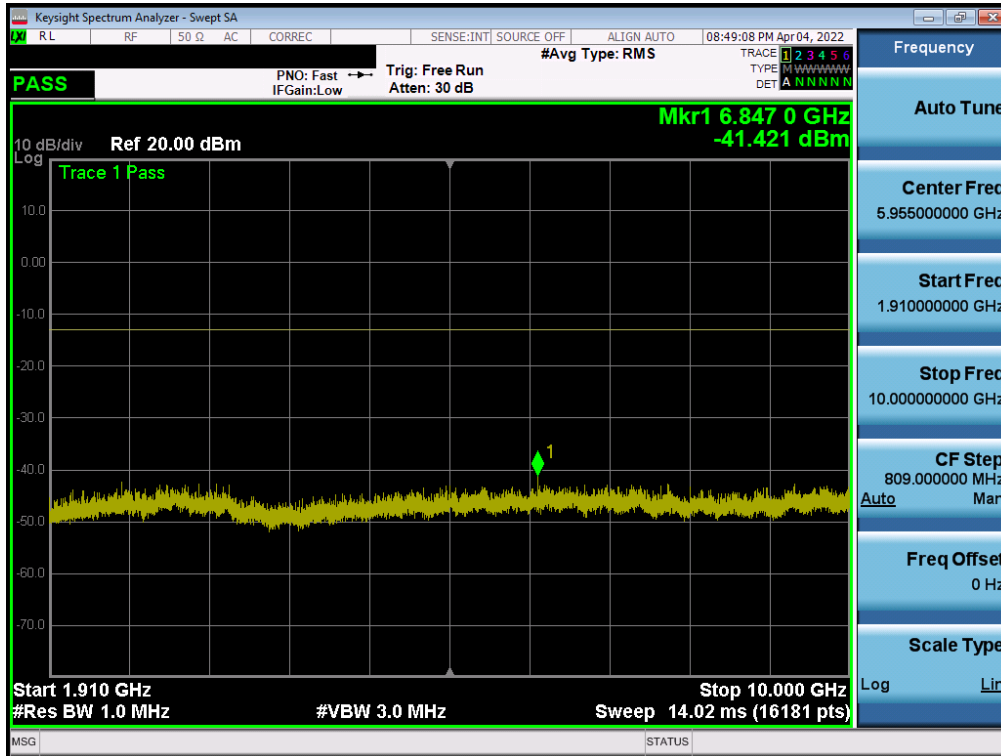


Plot 7-48. Conducted Spurious Plot (GPRS Ch. 512)

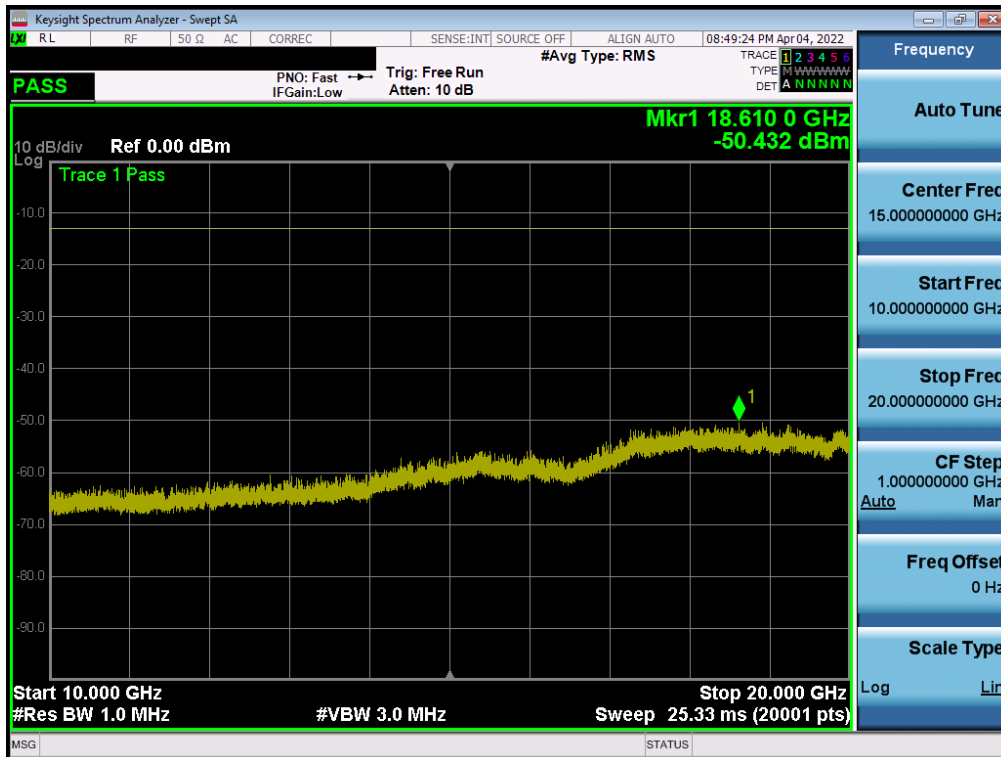


Plot 7-49. Conducted Spurious Plot (GPRS Ch. 661)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 40 of 123

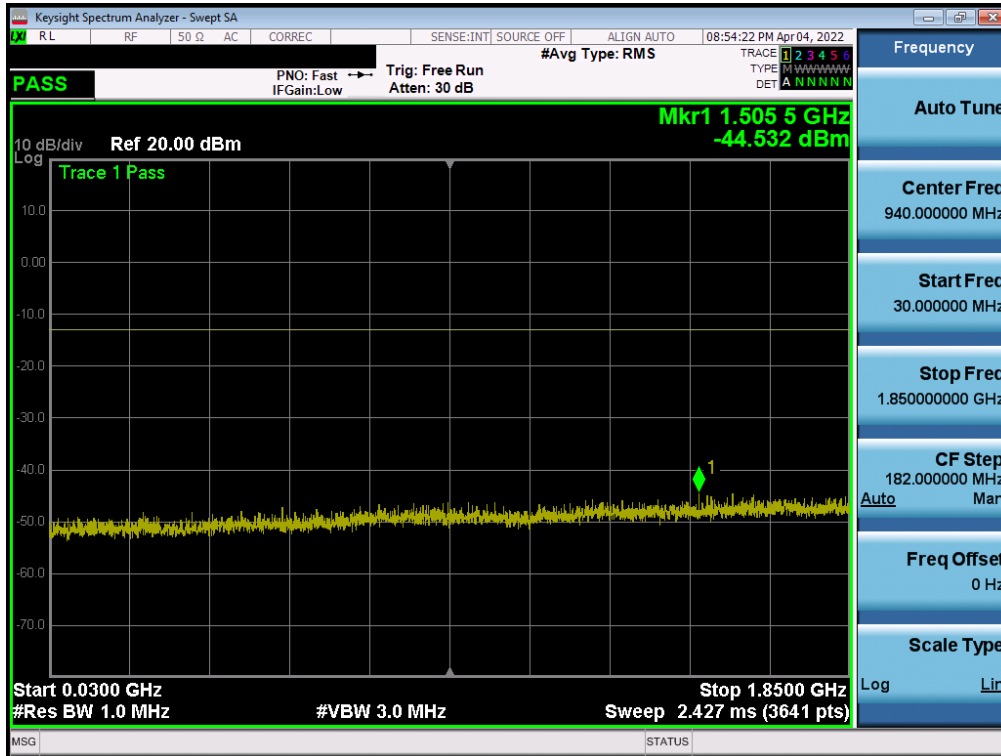


Plot 7-50. Conducted Spurious Plot (GPRS Ch. 661)

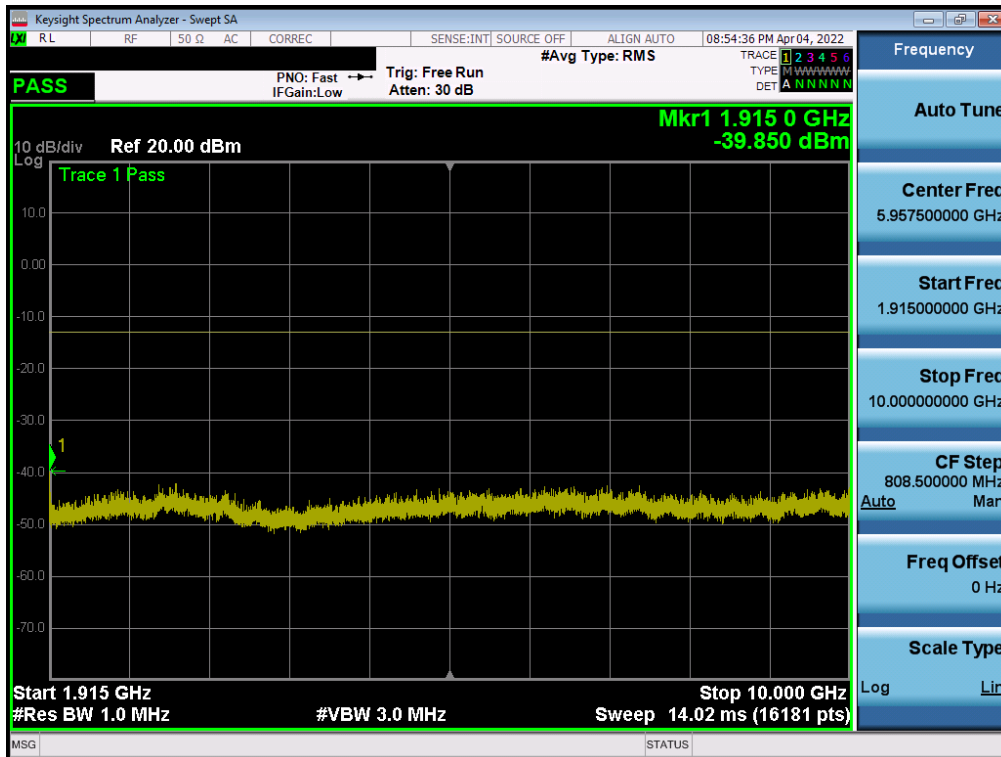


Plot 7-51. Conducted Spurious Plot (GPRS Ch. 661)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 41 of 123

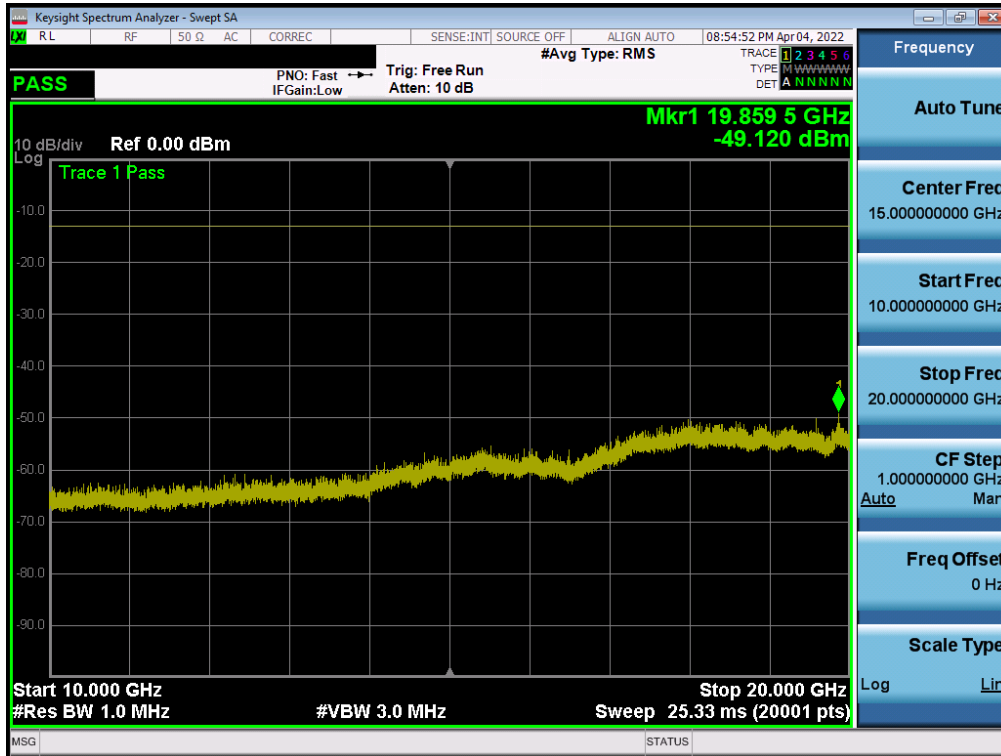


Plot 7-52. Conducted Spurious Plot (GPRS Ch. 810)



Plot 7-53. Conducted Spurious Plot (GPRS Ch. 810)

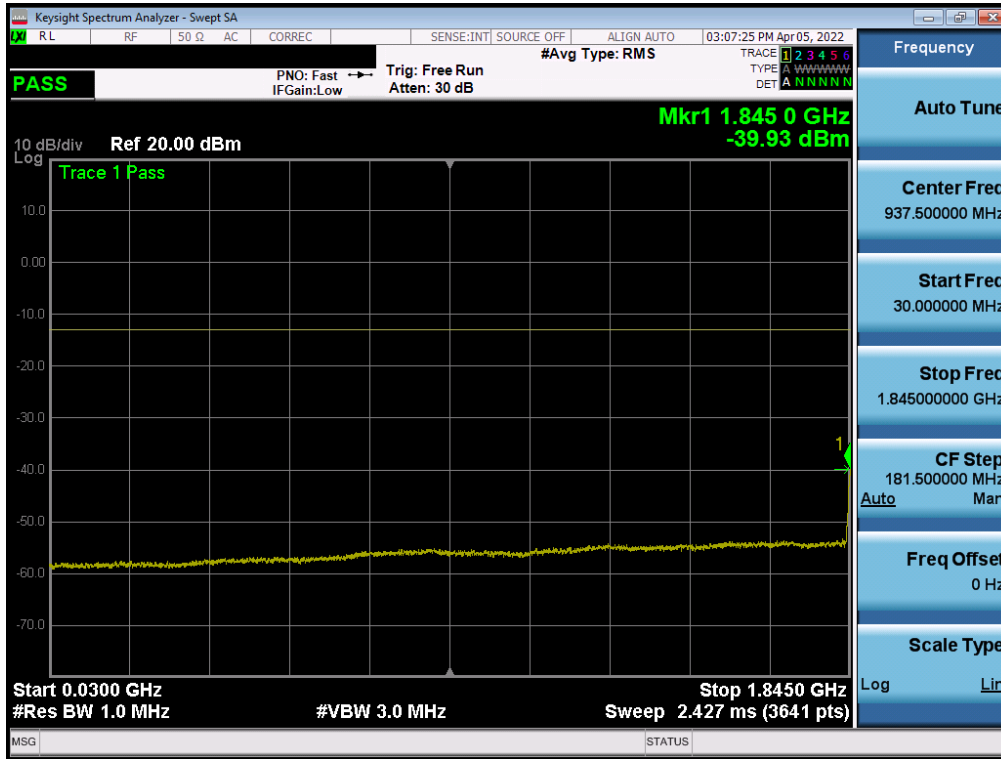
FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 42 of 123



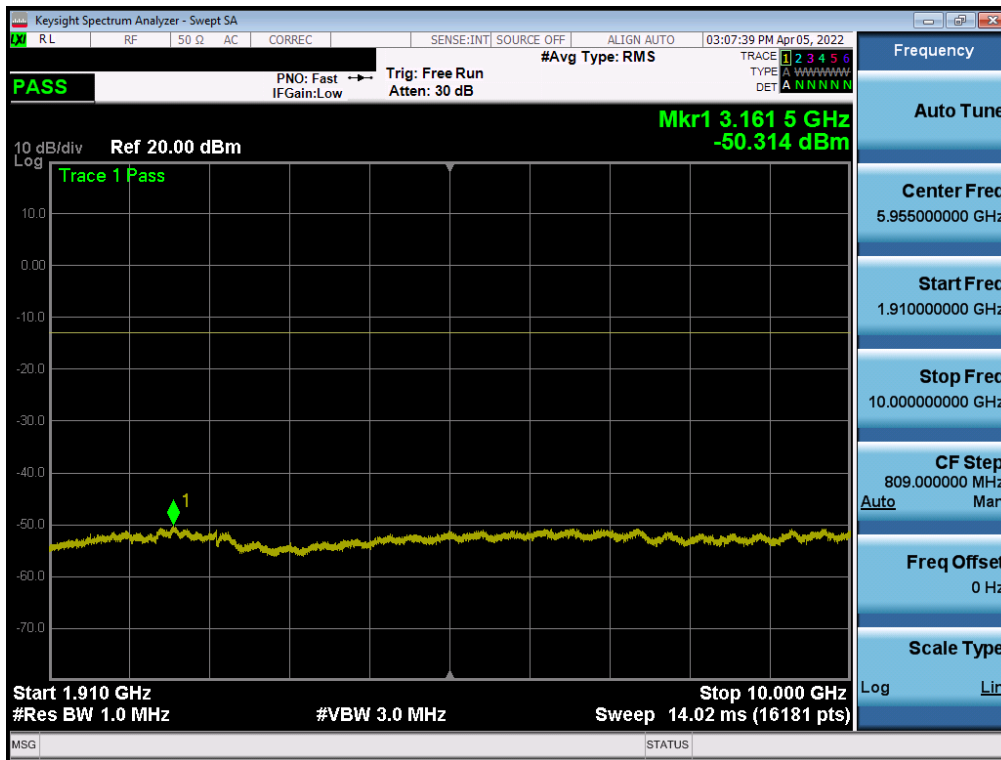
Plot 7-54. Conducted Spurious Plot (GPRS Ch. 810)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 43 of 123

WCDMA PCS



Plot 7-55. Conducted Spurious Plot (WCDMA Ch. 9262)

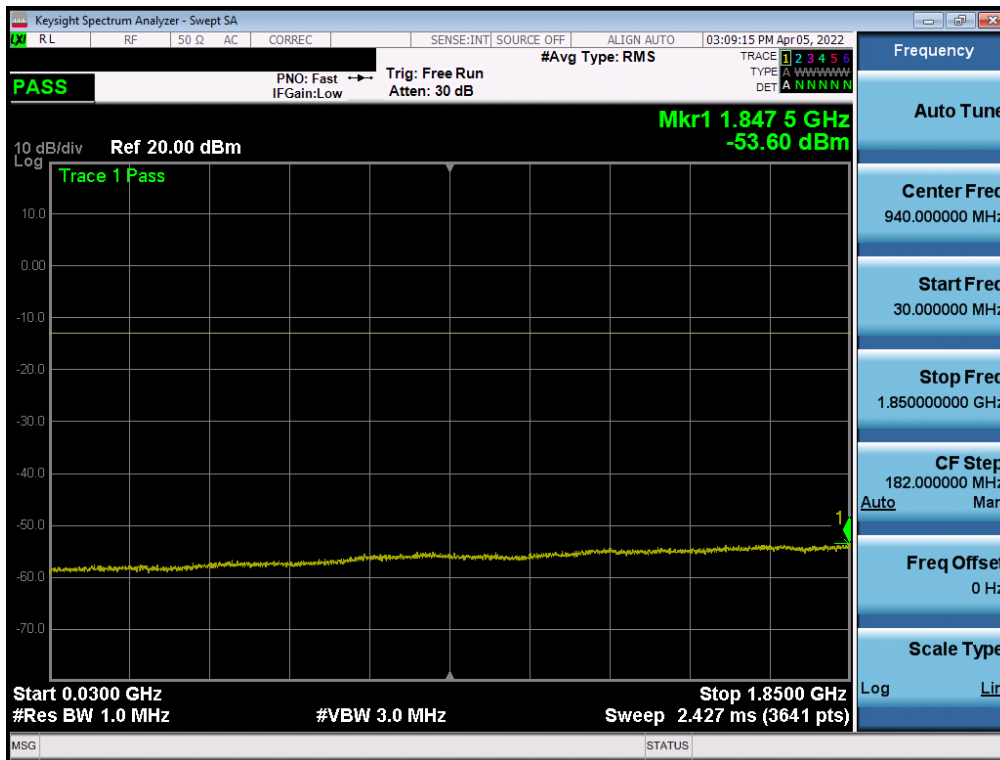


Plot 7-56. Conducted Spurious Plot (WCDMA Ch. 9262)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 44 of 123

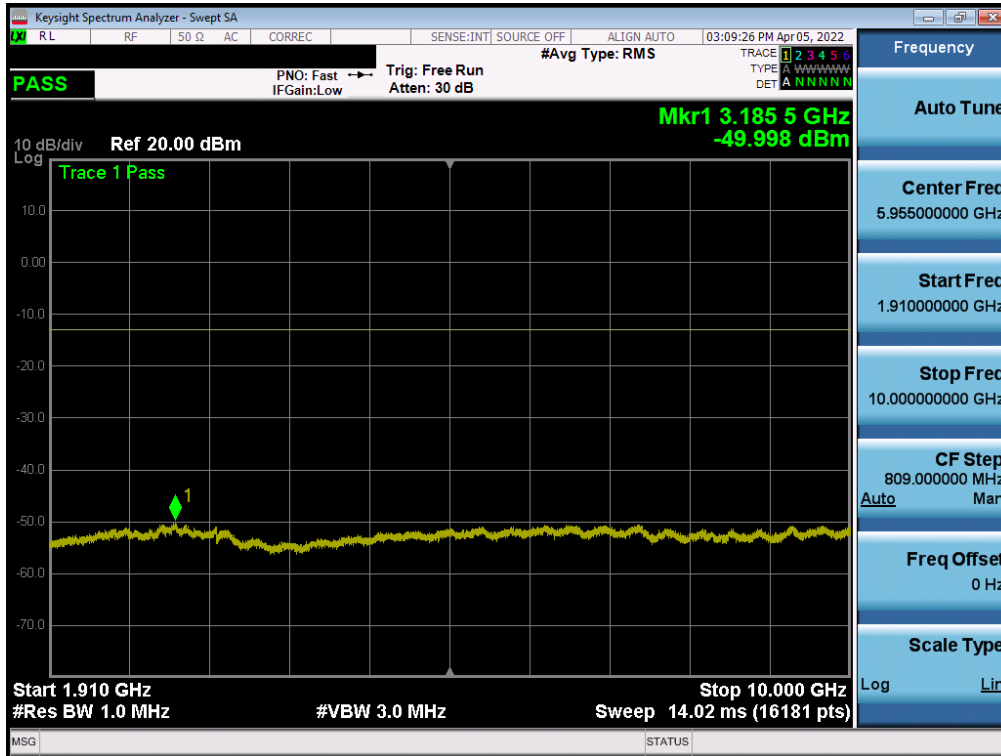


Plot 7-57. Conducted Spurious Plot (WCDMA Ch. 9262)

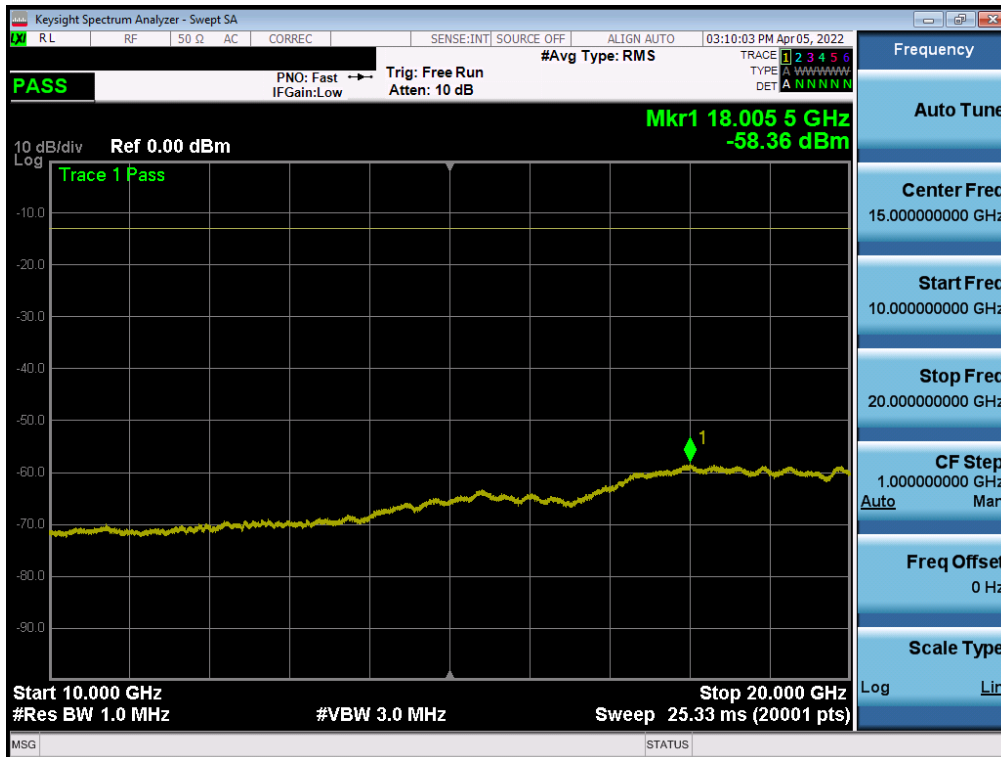


Plot 7-58. Conducted Spurious Plot (WCDMA Ch. 9400)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 45 of 123

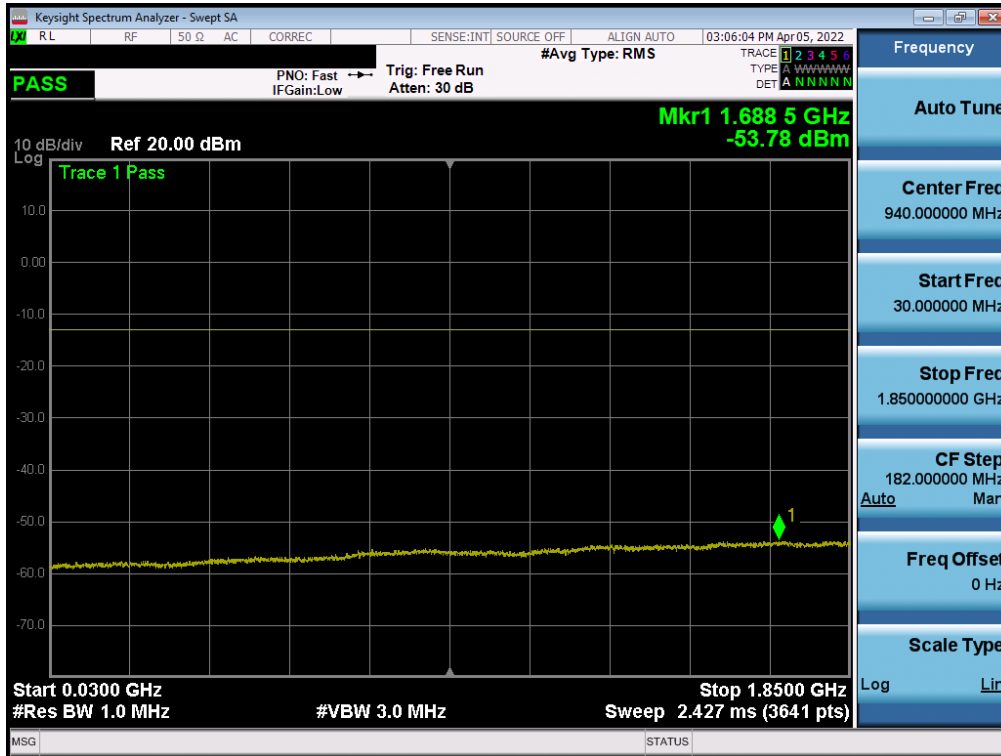


Plot 7-59. Conducted Spurious Plot (WCDMA Ch. 9400)

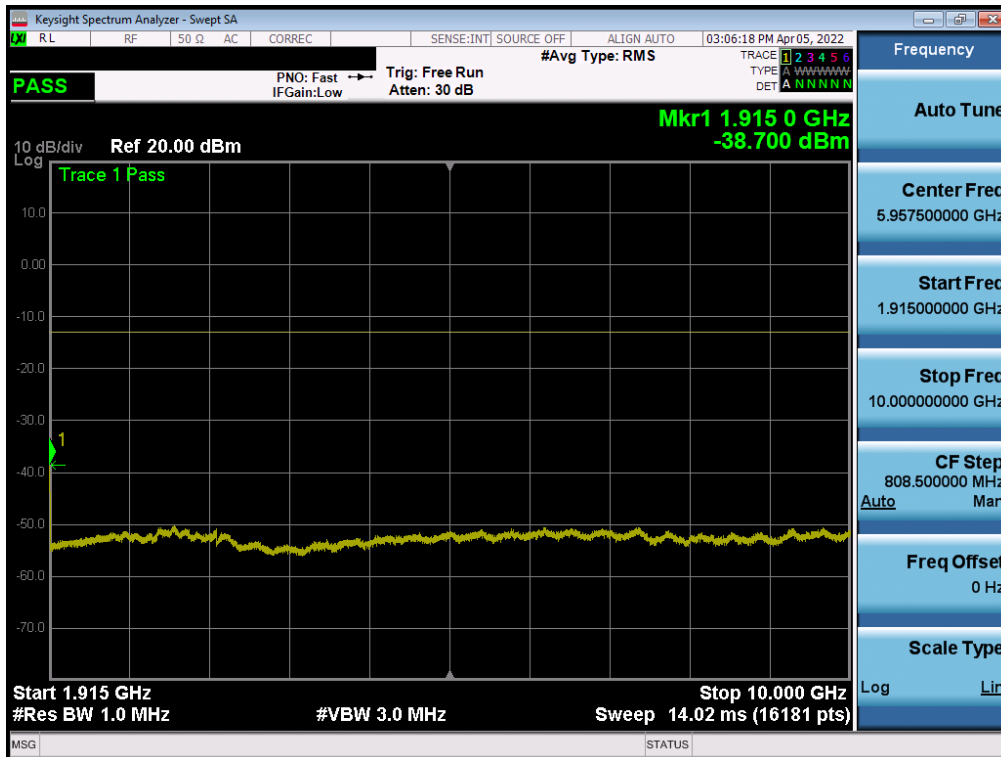


Plot 7-60. Conducted Spurious Plot (WCDMA Ch. 9400)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 46 of 123



Plot 7-61. Conducted Spurious Plot (WCDMA Ch. 9538)



Plot 7-62. Conducted Spurious Plot (WCDMA Ch. 9538)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 47 of 123



Plot 7-63. Conducted Spurious Plot (WCDMA Ch. 9538)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 48 of 123

7.5 Band Edge Emissions at Antenna Terminal

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 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.

The minimum permissible attenuation level of any spurious emission is $43 + 10 \log_{10}(P_{\text{Watts}})$, where P is the transmitter power in Watts.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

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 \geq 1% of the emission bandwidth
4. VBW \geq 3 x RBW
5. Detector = RMS
6. Number of sweep points \geq 2 x Span/RBW
7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Setup

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

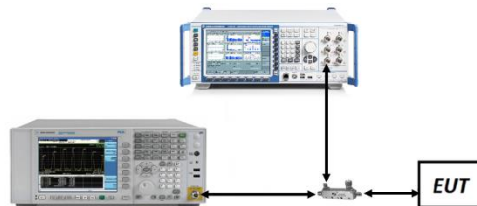


Figure 7-4. Test Instrument & Measurement Setup

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 49 of 123

V3.0 1/5/2022

Test Notes

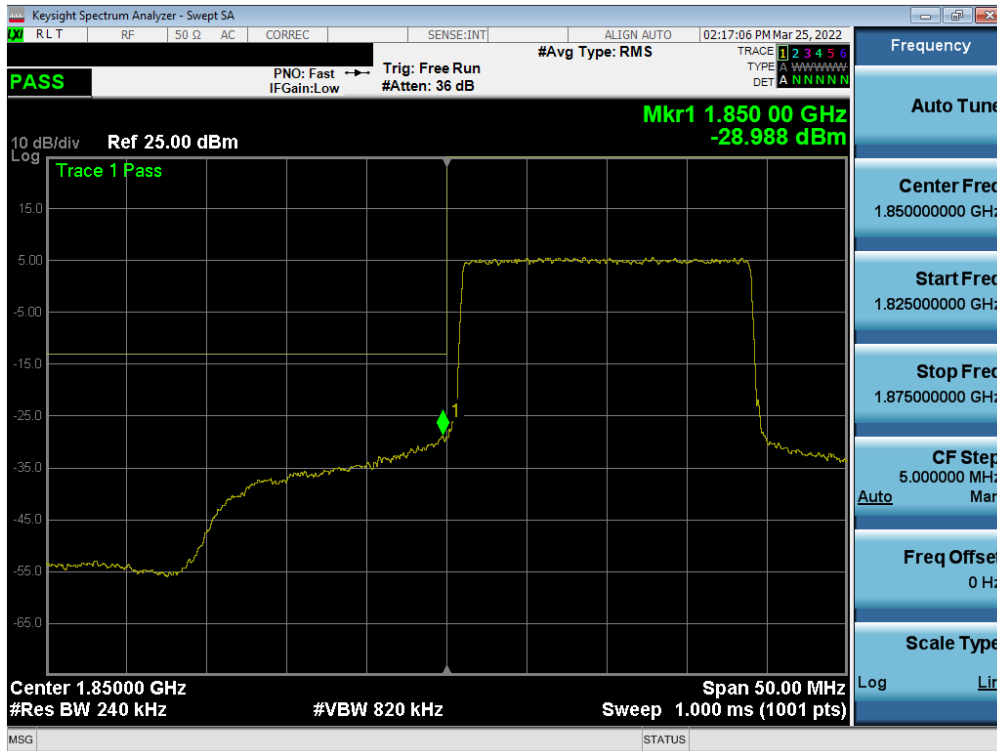
1. Per 24.238(b) and RSS-133(6.5), in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. 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 emission are attenuated at least 26 dB below the transmitter power.

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.

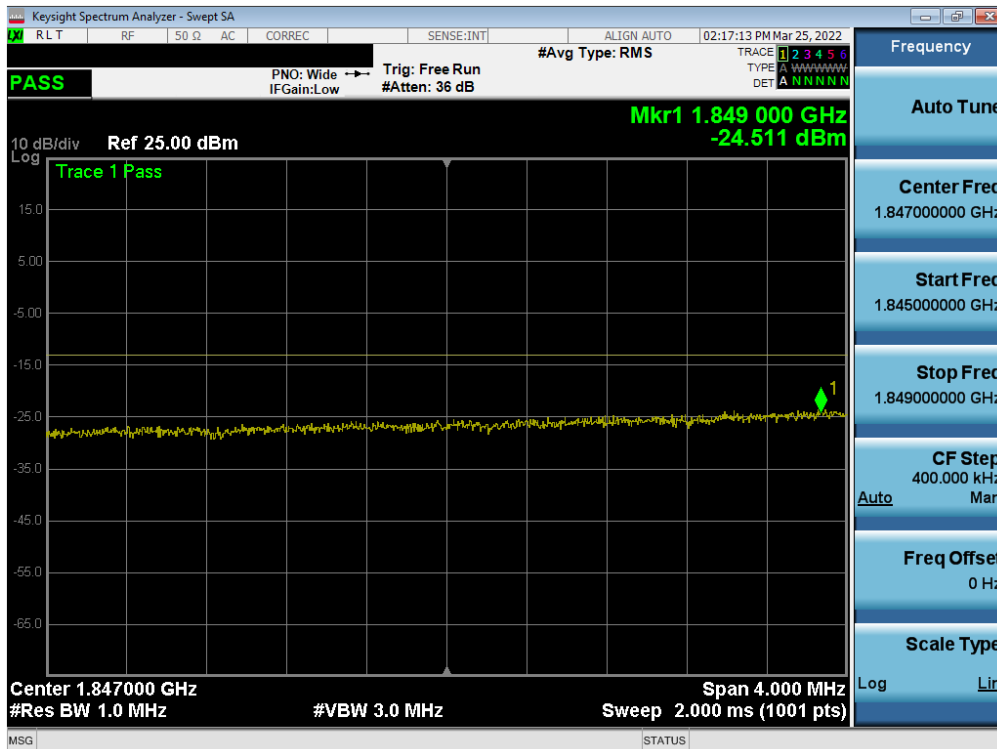
FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 50 of 123

V3.0 1/5/2022

LTE Band 25/2



Plot 7-64. Lower Band Edge Plot (LTE Band 25/2 - 20MHz QPSK – Full RB)

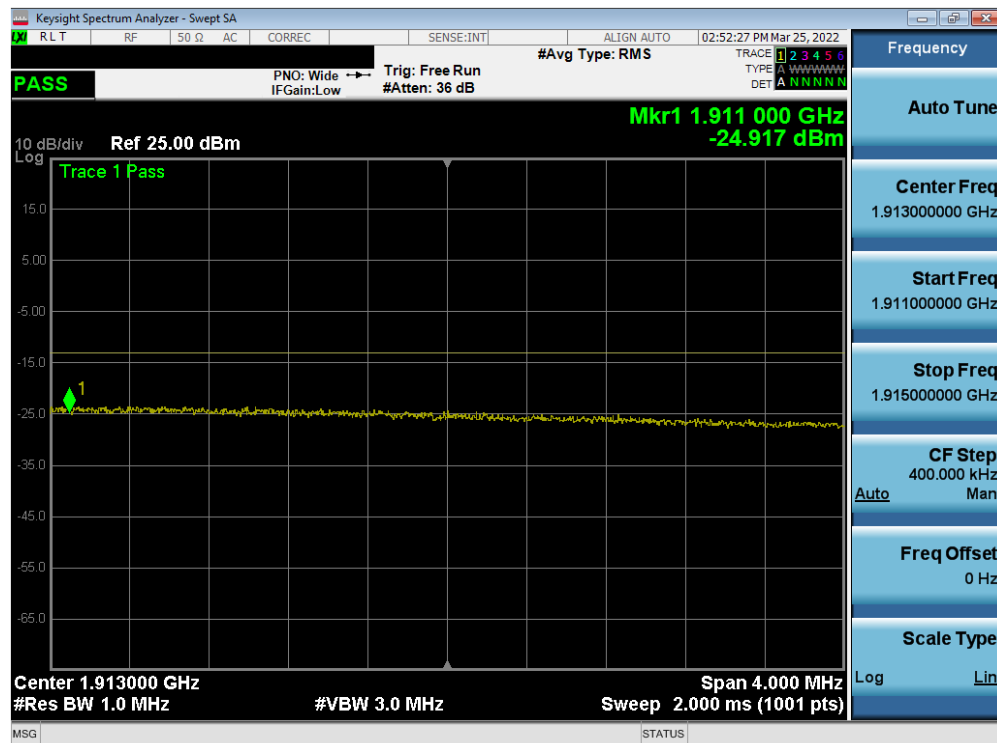


Plot 7-65. Extended Lower Band Edge Plot (LTE Band 25/2 - 20MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 51 of 123



Plot 7-66. Upper Band Edge Plot (LTE Band 2 - 20MHz QPSK – Full RB)

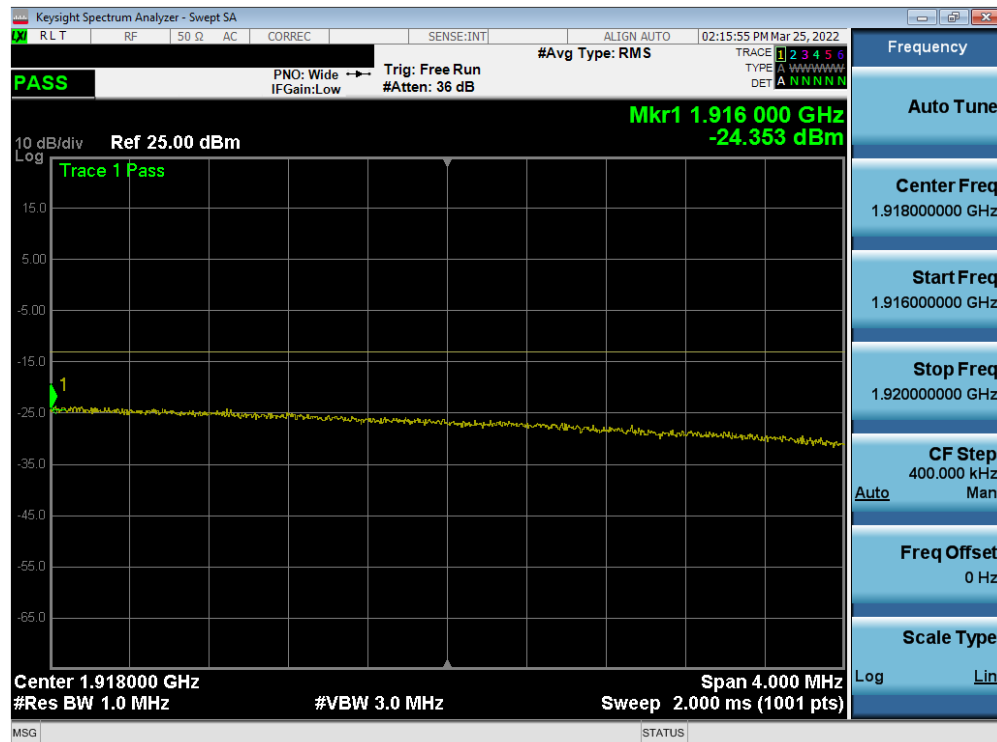


Plot 7-67. Extended Upper Band Edge Plot (LTE Band 2 - 20MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 52 of 123

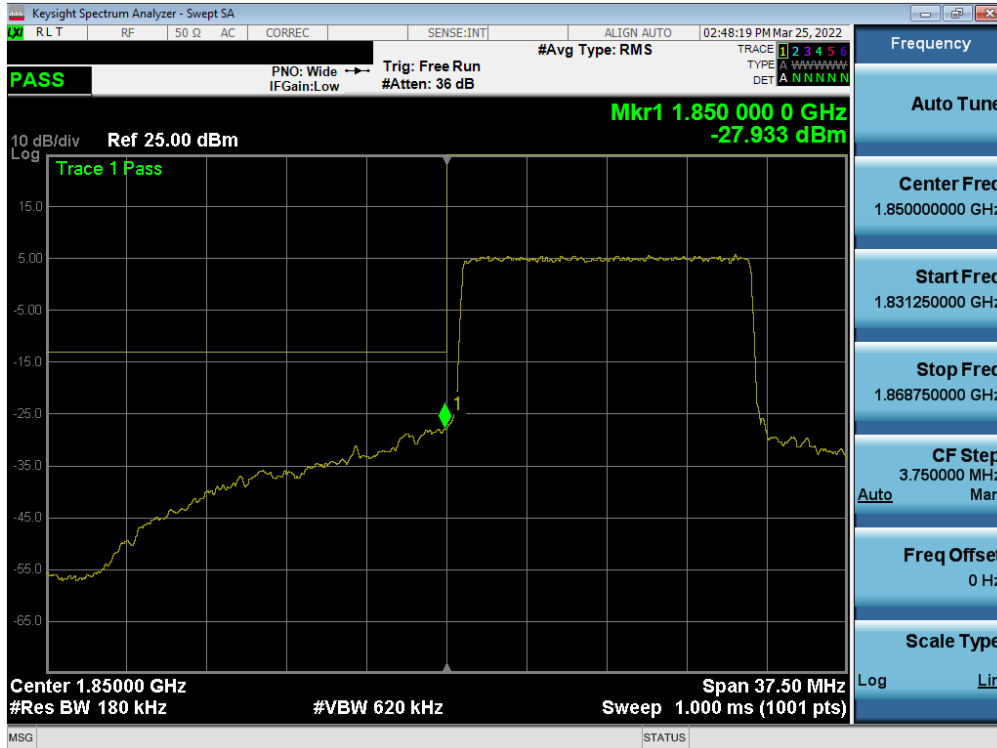


Plot 7-68. Upper Band Edge Plot (LTE Band 25 - 20MHz QPSK – Full RB)

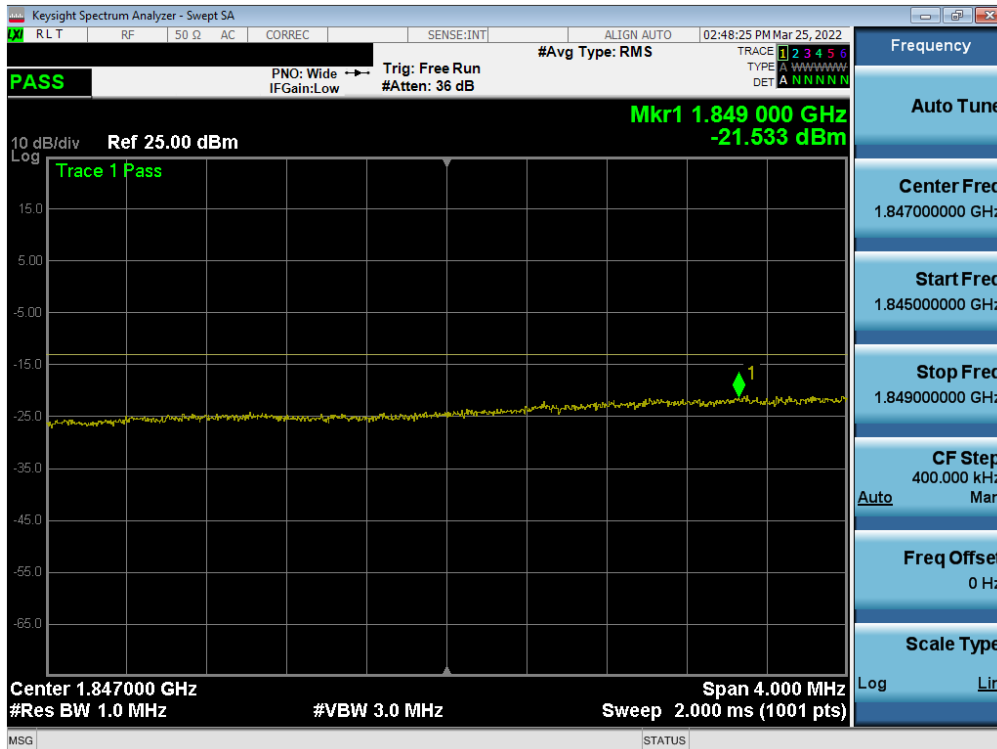


Plot 7-69. Extended Upper Band Edge Plot (LTE Band 25 - 20MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 53 of 123



Plot 7-70. Lower Band Edge Plot (LTE Band 25/2 - 15MHz QPSK – Full RB)

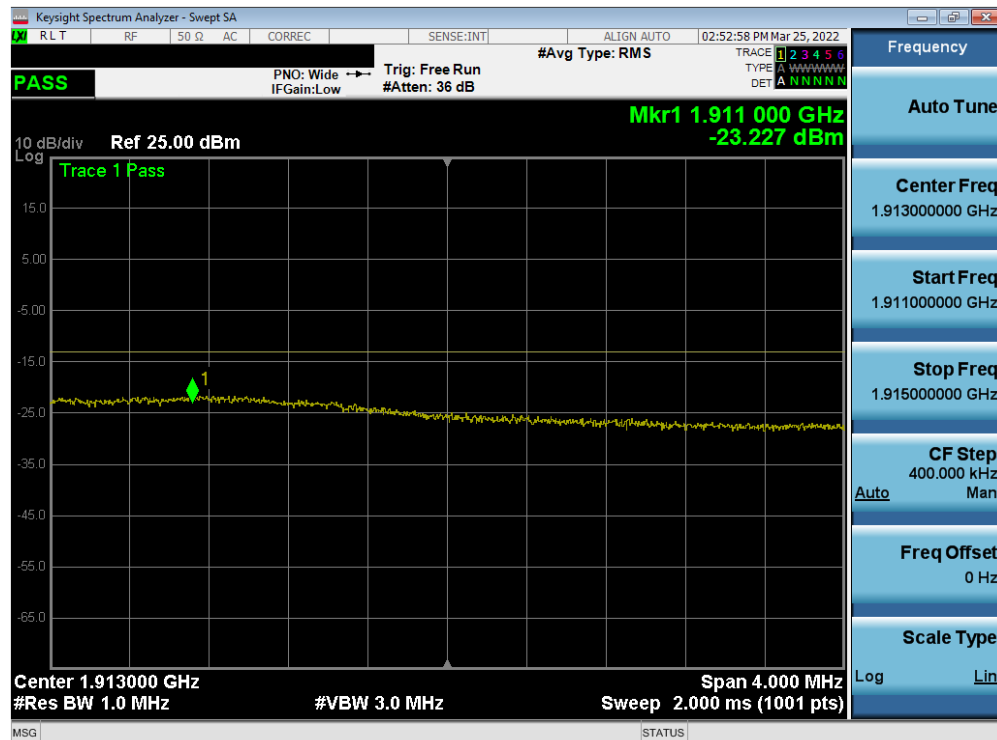


Plot 7-71. Extended Lower Band Edge Plot (LTE Band 25/2 - 15MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 54 of 123

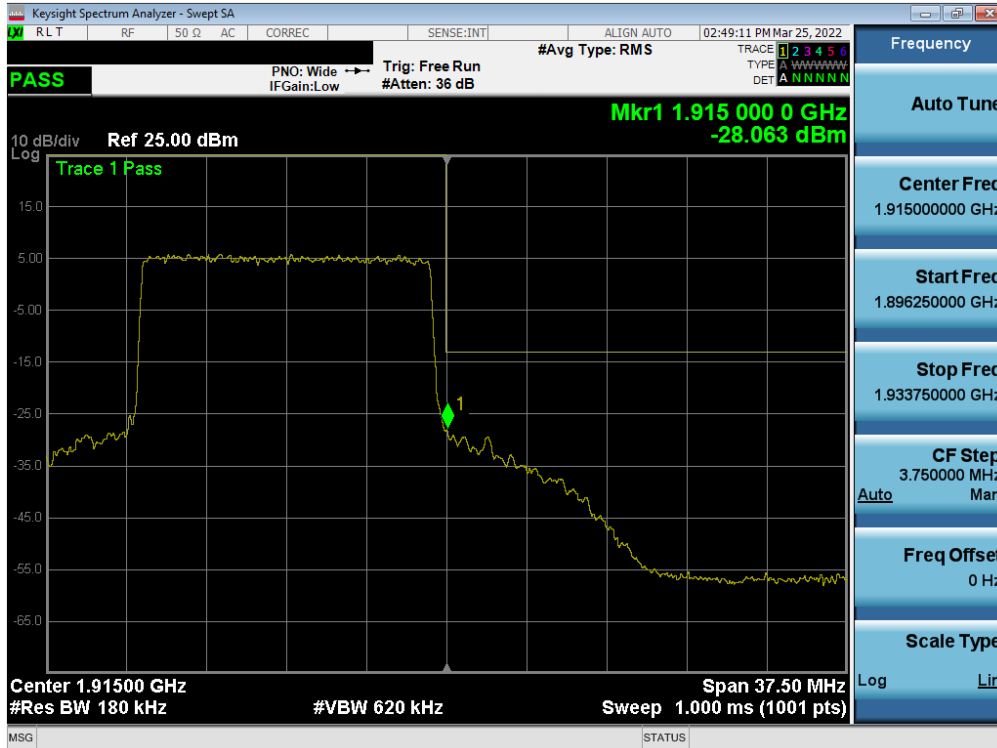


Plot 7-72. Upper Band Edge Plot (LTE Band 2 - 15MHz QPSK – Full RB)

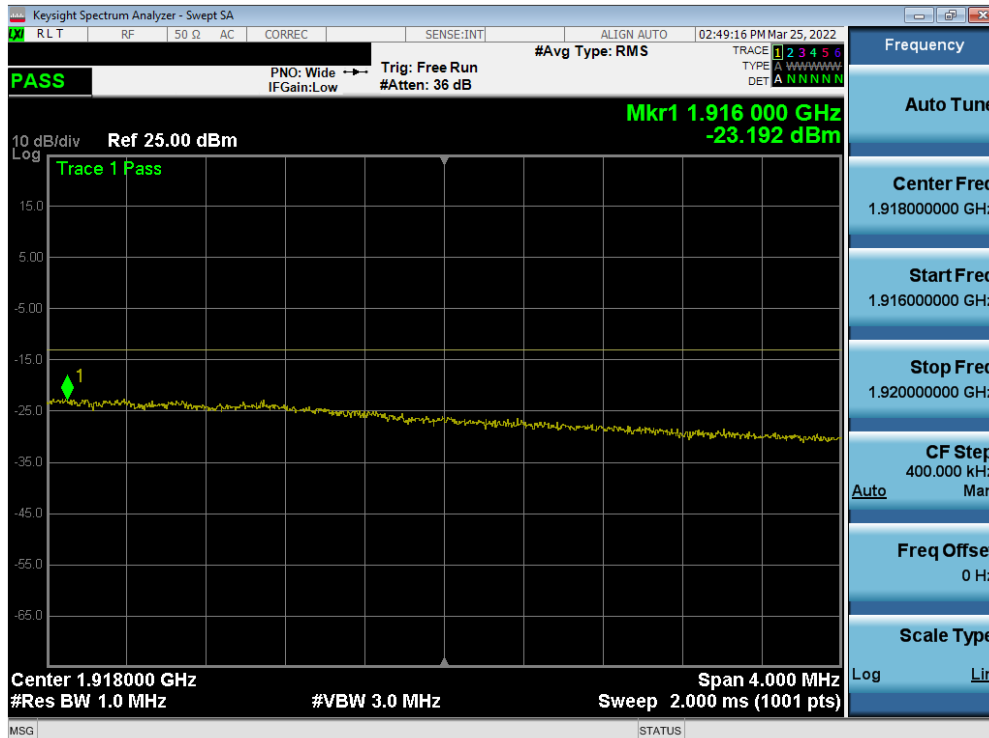


Plot 7-73. Extended Upper Band Edge Plot (LTE Band 2 - 15MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 55 of 123

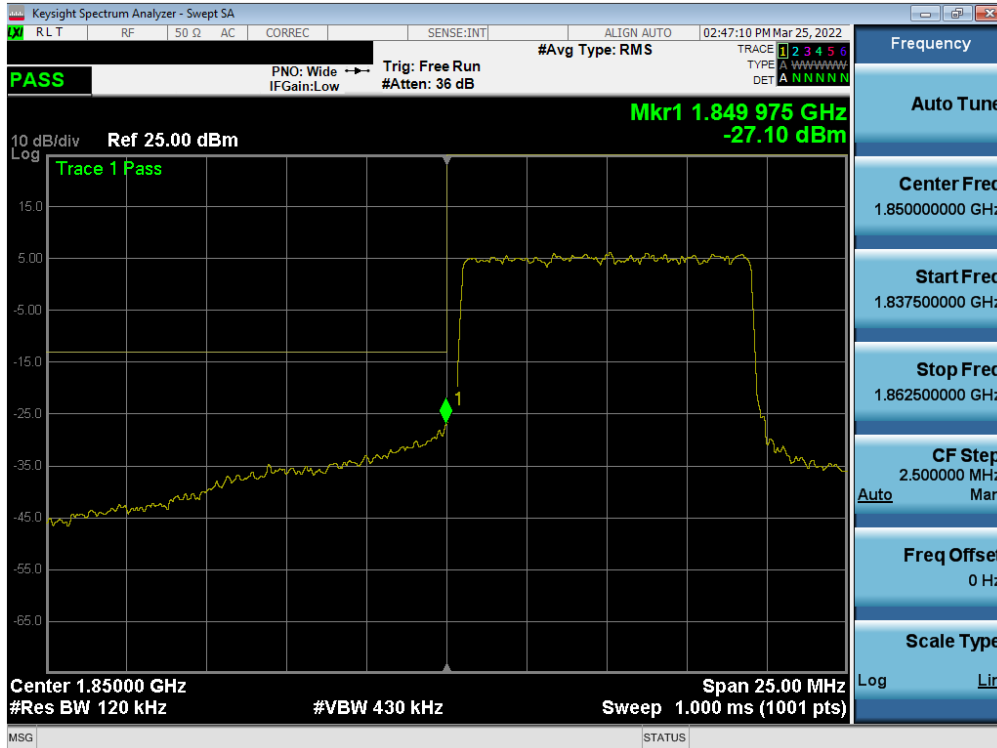


Plot 7-74. Upper Band Edge Plot (LTE Band 25 - 15MHz QPSK – Full RB)

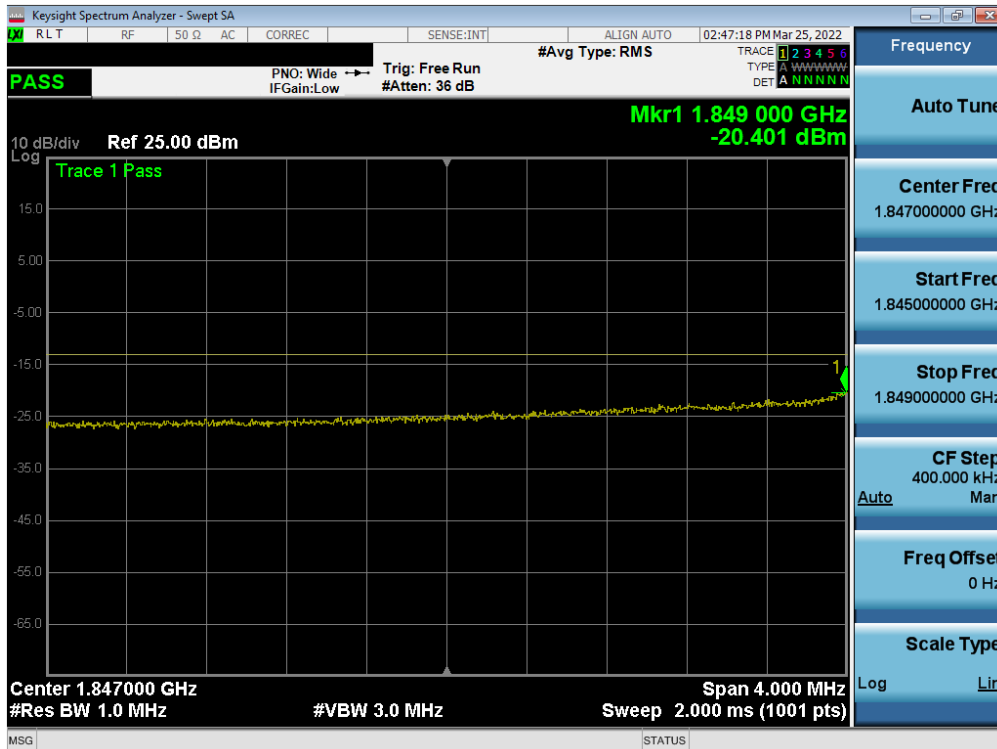


Plot 7-75. Extended Upper Band Edge Plot (LTE Band 25 - 15MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 56 of 123

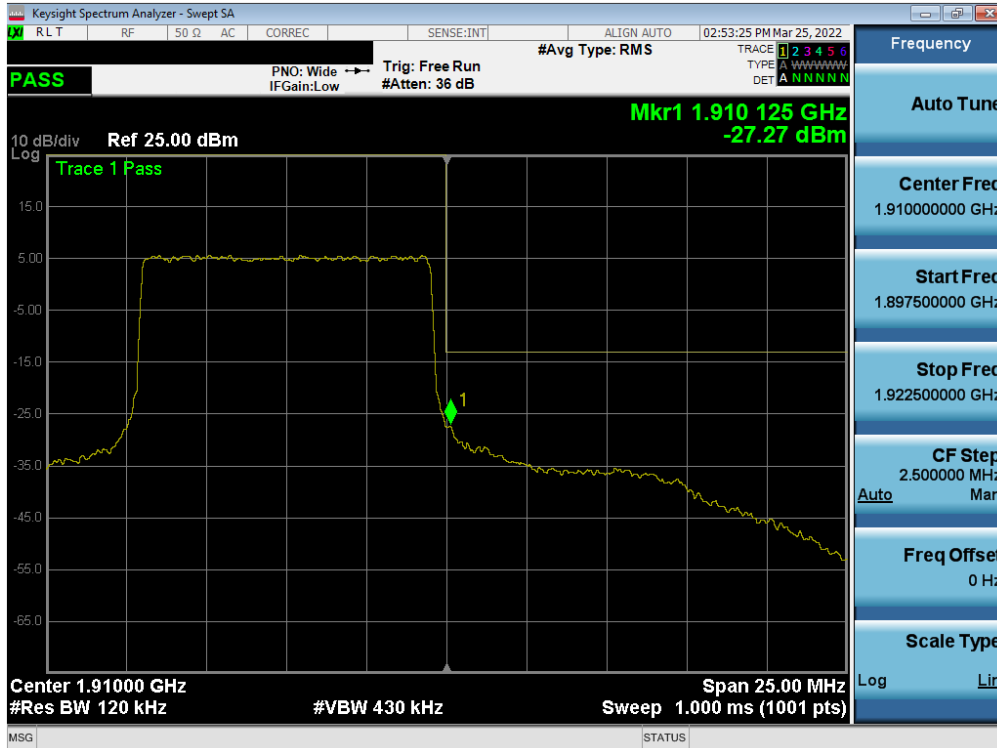


Plot 7-76. Lower Band Edge Plot (LTE Band 25/2 - 10MHz QPSK – Full RB)

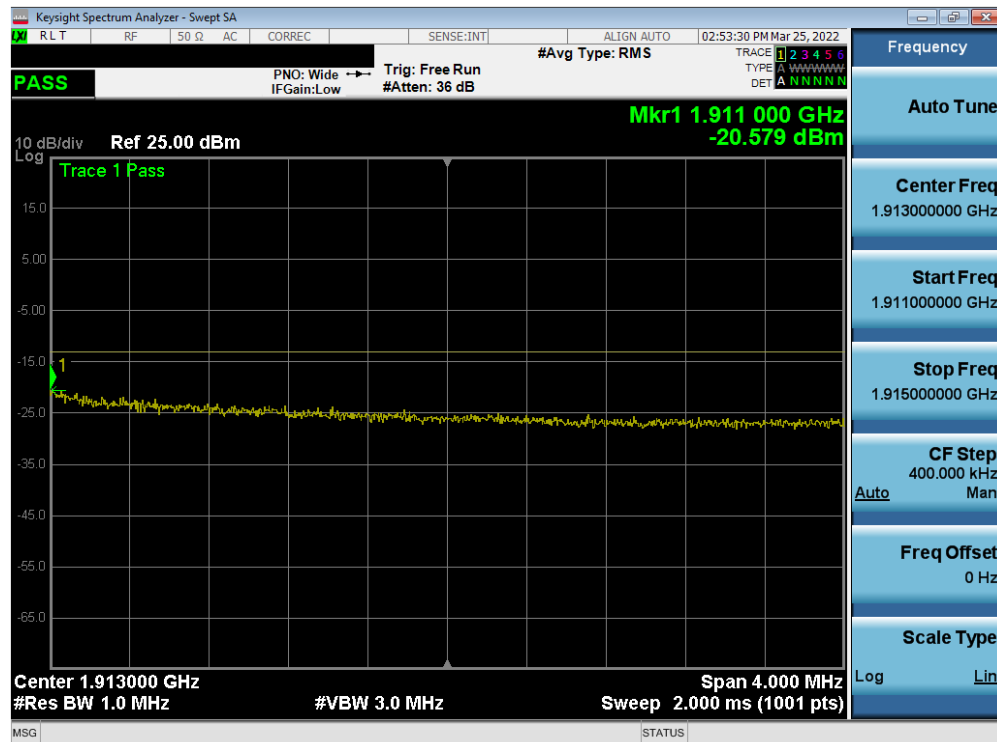


Plot 7-77. Extended Lower Band Edge Plot (LTE Band 25/2 - 10MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 57 of 123

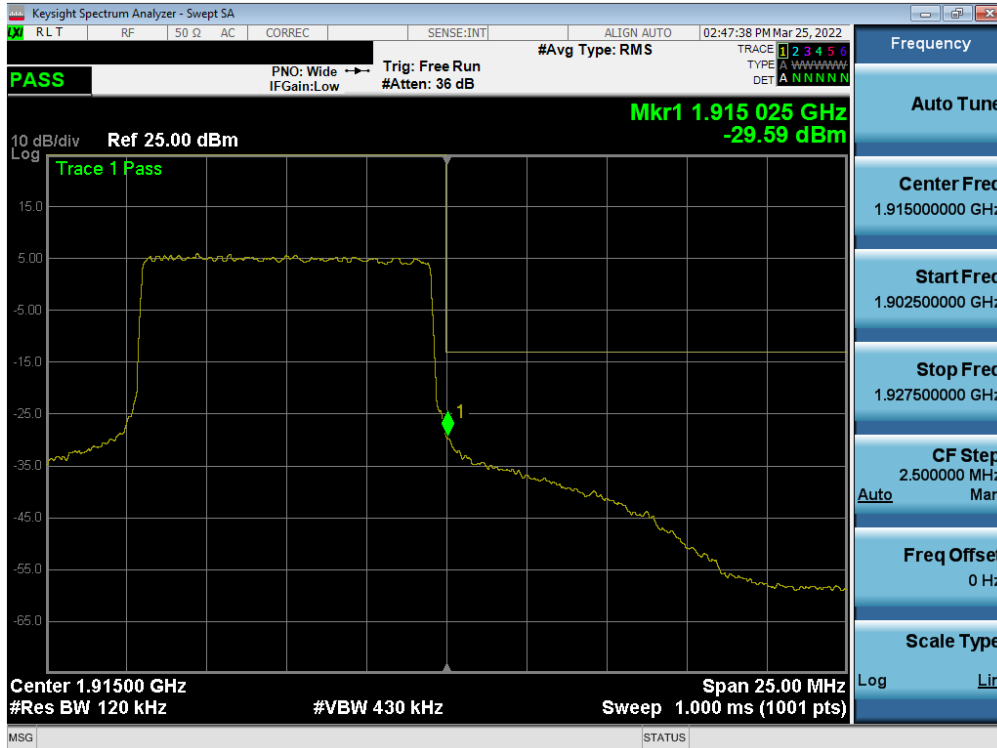


Plot 7-78. Upper Band Edge Plot (LTE Band 2 - 10MHz QPSK – Full RB)

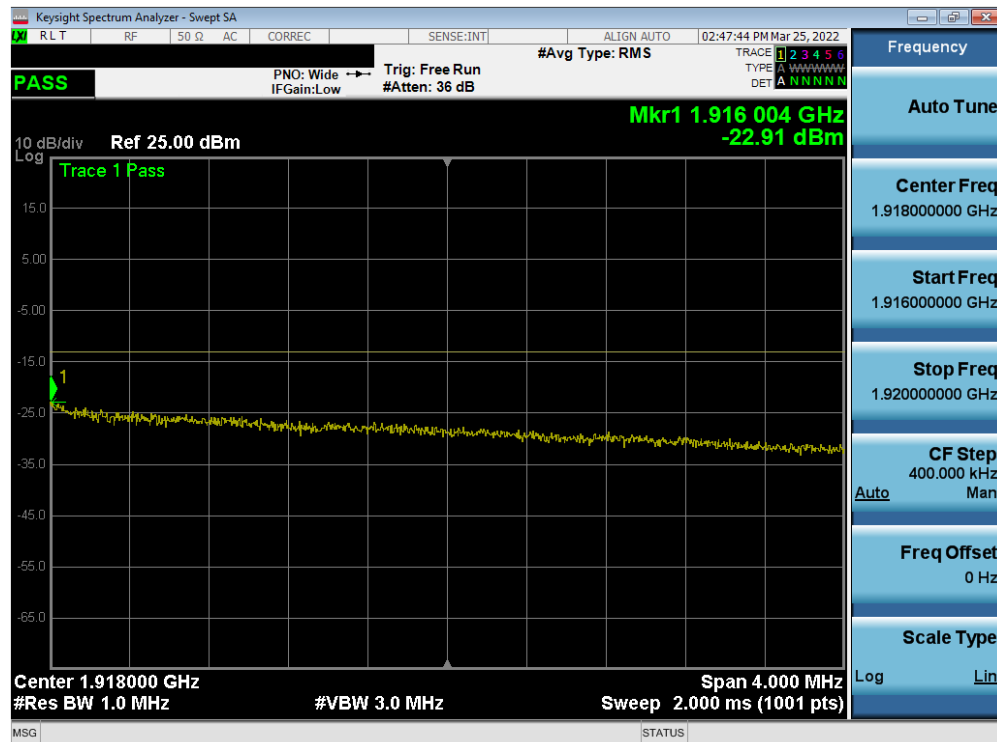


Plot 7-79. Extended Upper Band Edge Plot (LTE Band 2 - 10MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 58 of 123

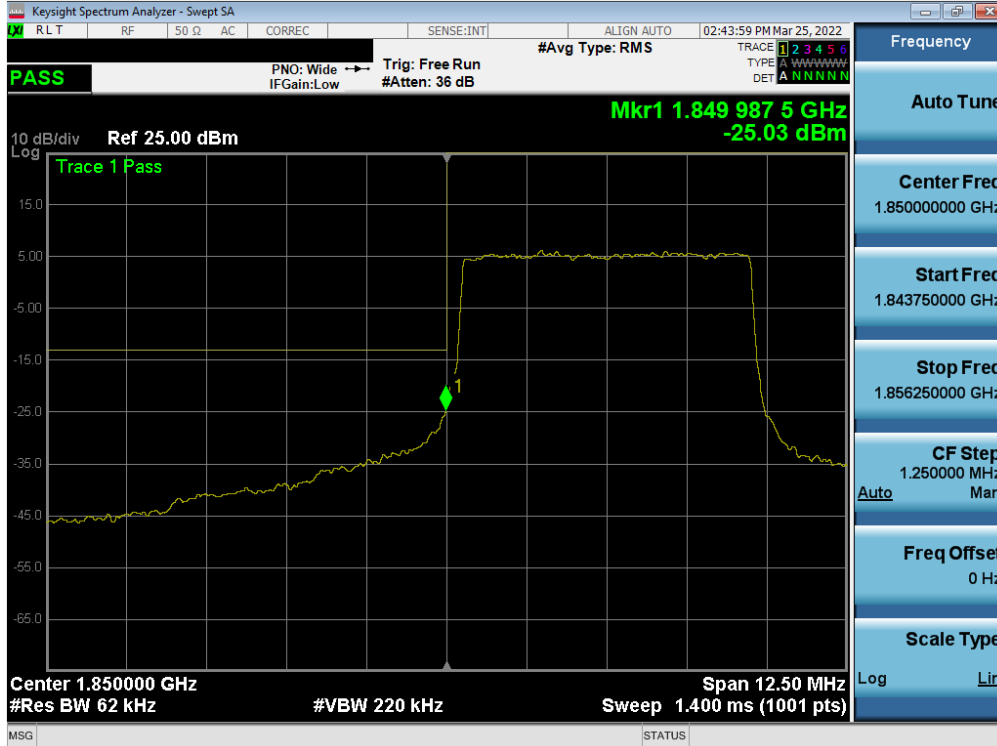


Plot 7-80. Upper Band Edge Plot (LTE Band 25 - 10MHz QPSK – Full RB)

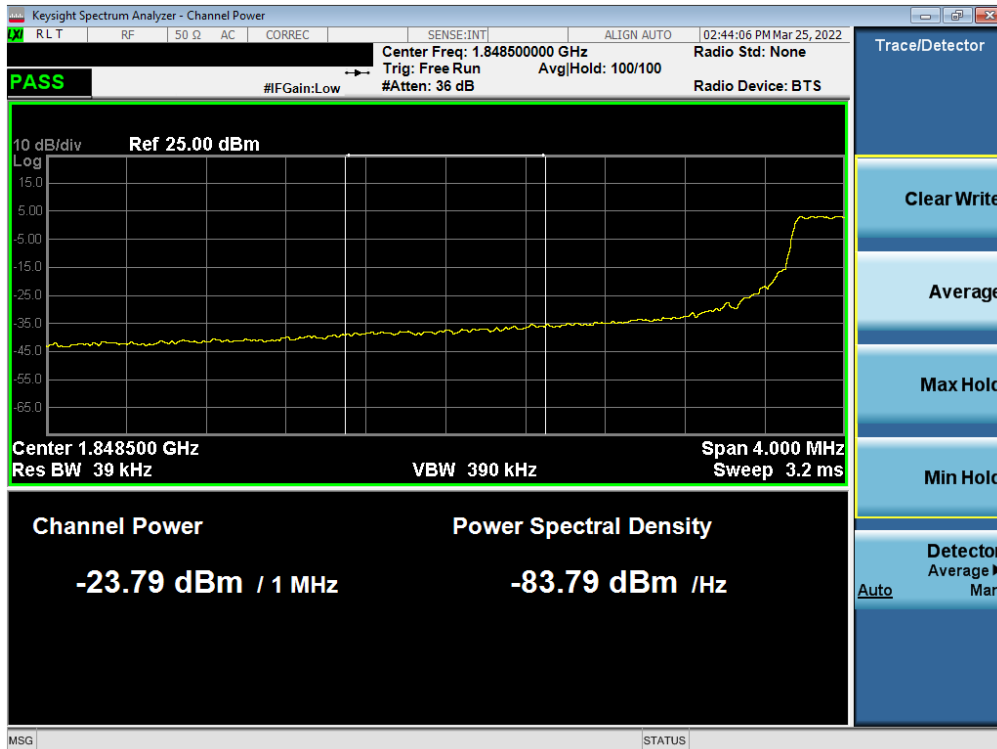


Plot 7-81. Extended Upper Band Edge Plot (LTE Band 25 - 10MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 59 of 123



Plot 7-82. Lower Band Edge Plot (LTE Band 25/2 - 5MHz QPSK – Full RB)

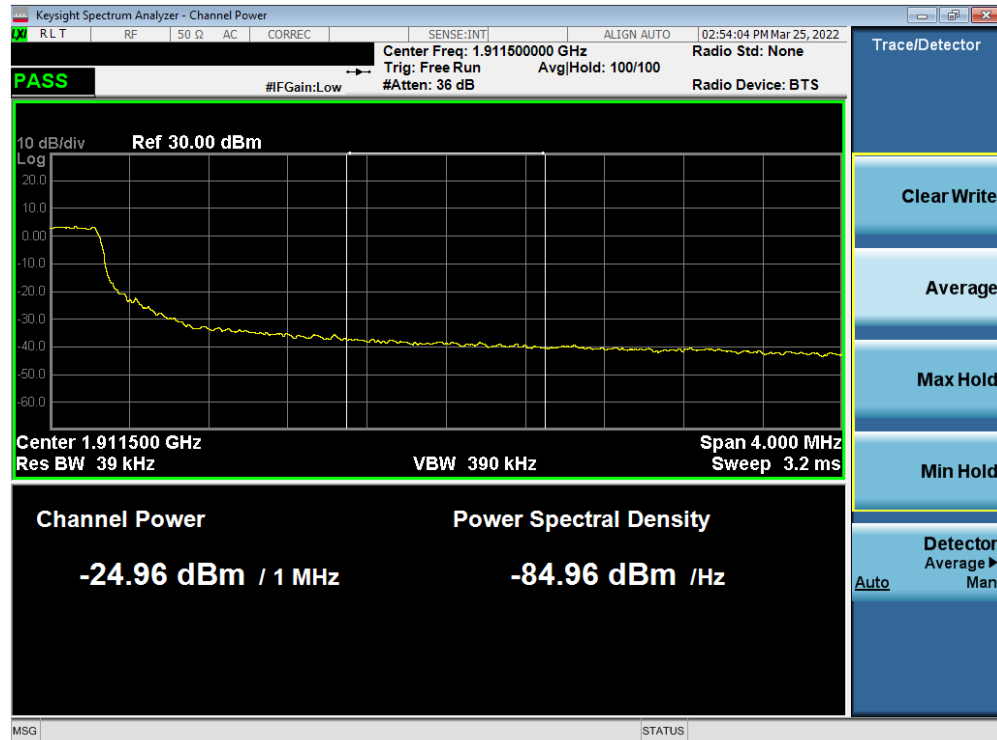


Plot 7-83. Extended Lower Band Edge Plot (LTE Band 25/2 - 5MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 60 of 123



Plot 7-84. Upper Band Edge Plot (LTE Band 2 - 5MHz QPSK – Full RB)

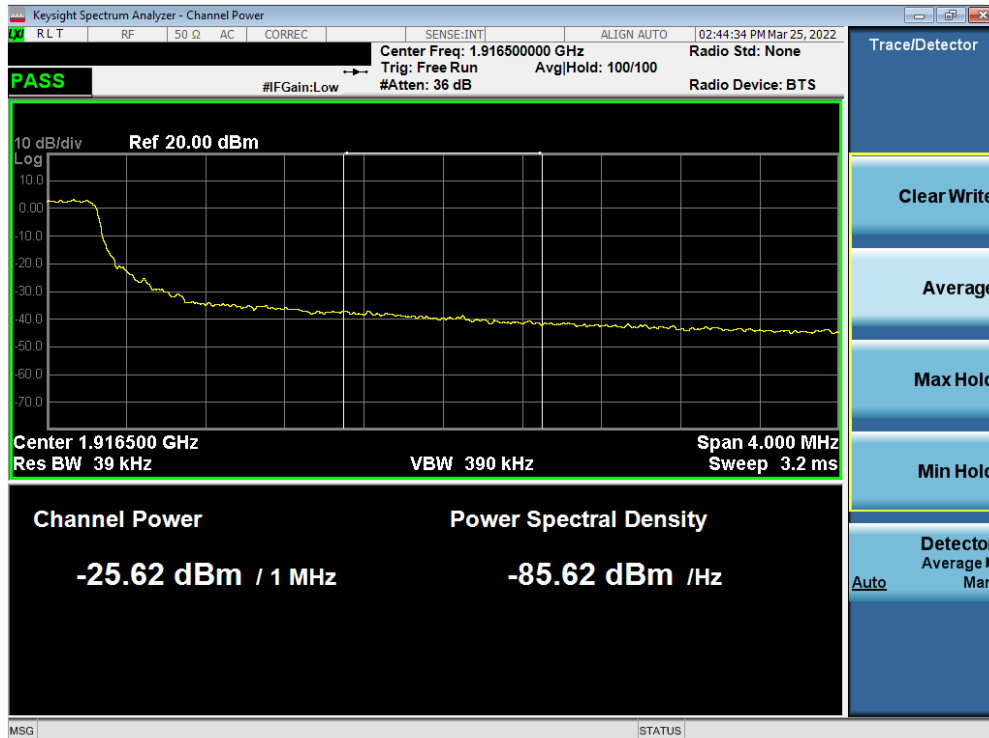


Plot 7-85. Extended Upper Band Edge Plot (LTE Band 2 - 5MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 61 of 123

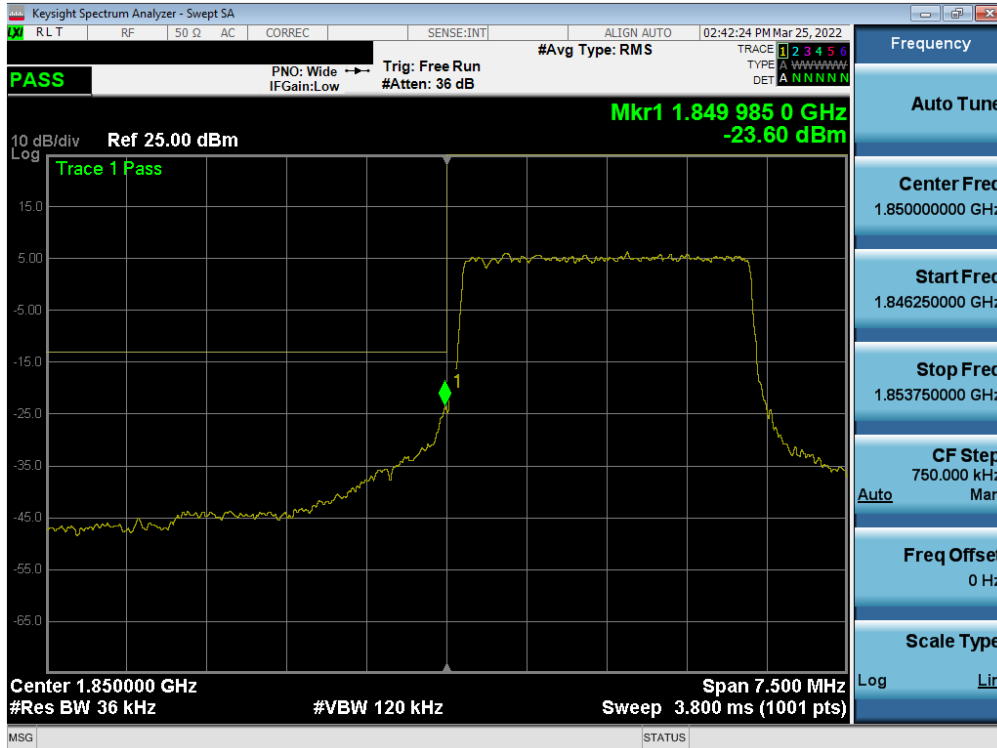


Plot 7-86. Upper Band Edge Plot (LTE Band 25 - 5MHz QPSK – Full RB)

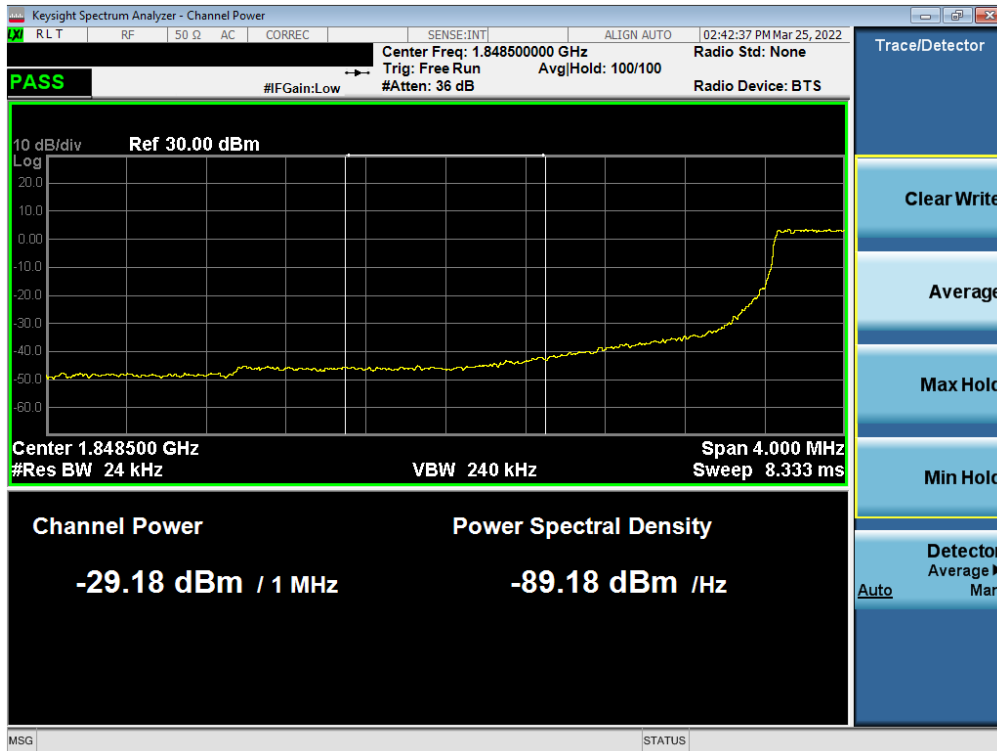


Plot 7-87. Extended Upper Band Edge Plot (LTE Band 25 - 5MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 62 of 123



Plot 7-88. Lower Band Edge Plot (LTE Band 25/2 - 3MHz QPSK – Full RB)

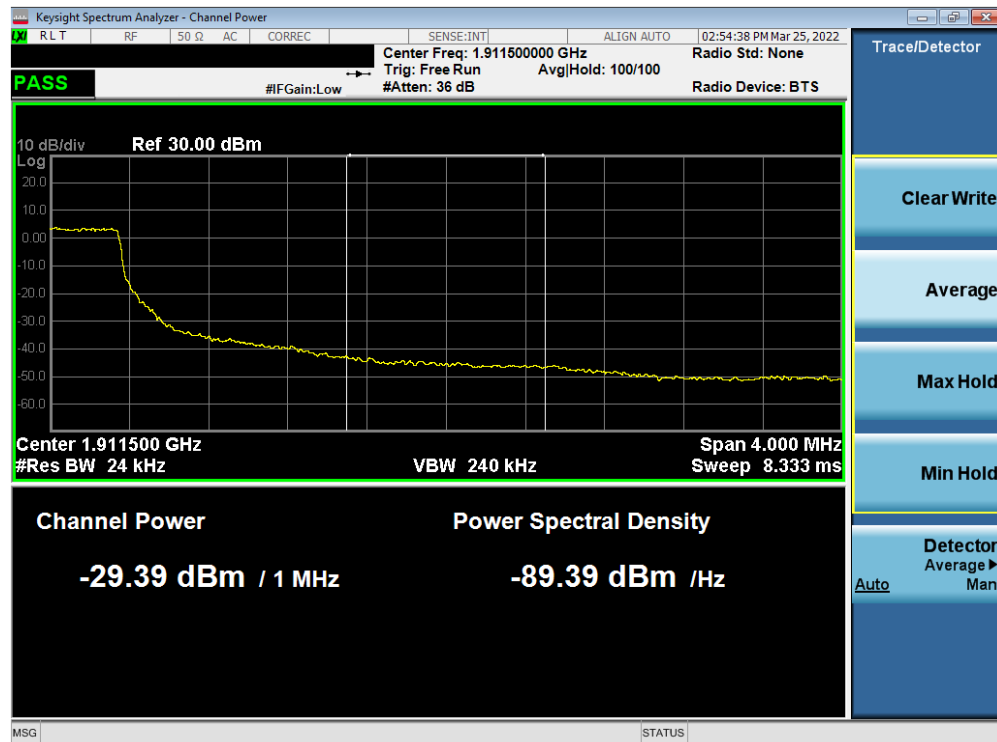


Plot 7-89. Extended Lower Band Edge Plot (LTE Band 25/2 - 3MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 63 of 123



Plot 7-90. Upper Band Edge Plot (LTE Band 2 - 3MHz QPSK – Full RB)

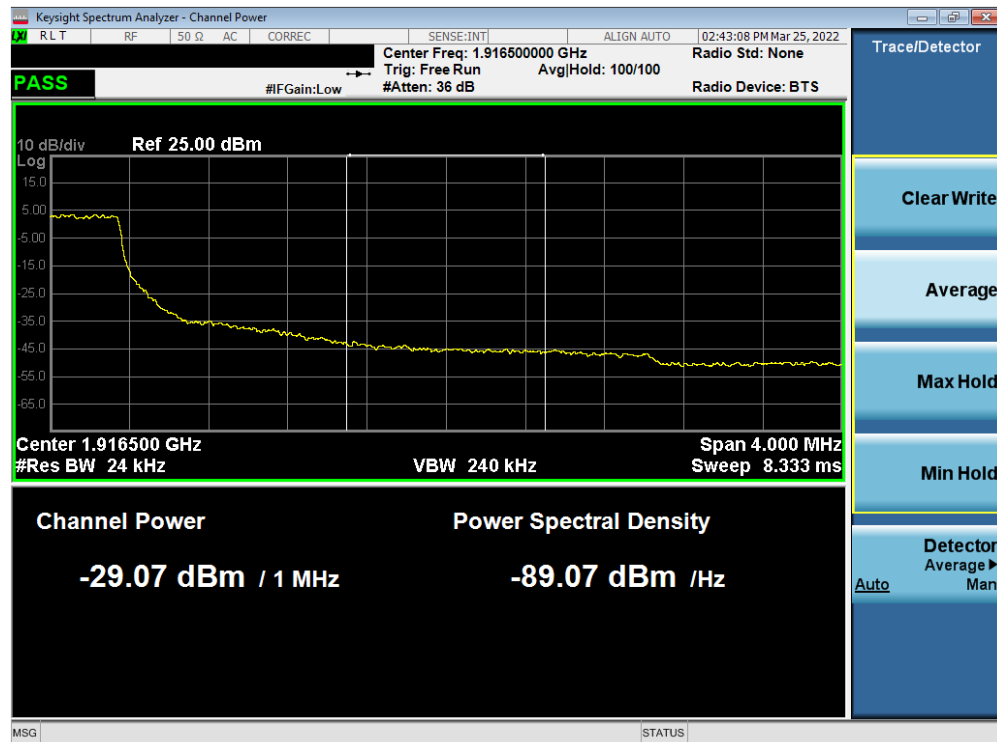


Plot 7-91. Extended Upper Band Edge Plot (LTE Band 2 - 3MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 64 of 123

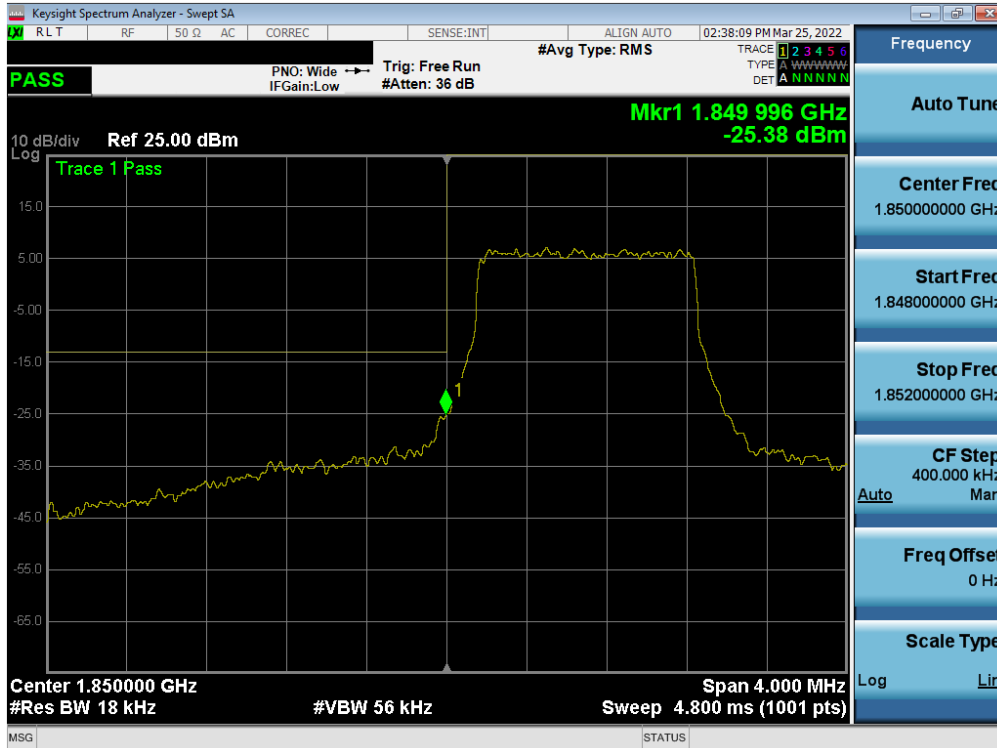


Plot 7-92. Upper Band Edge Plot (LTE Band 25 - 3MHz QPSK – Full RB)

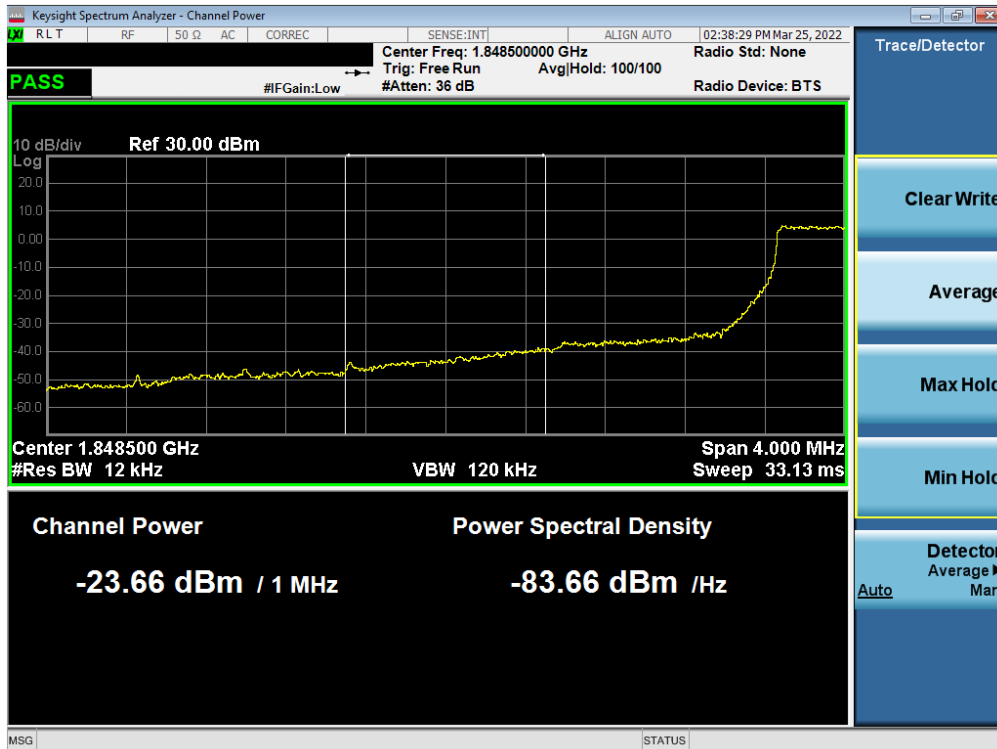


Plot 7-93. Extended Upper Band Edge Plot (LTE Band 25 - 3MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 65 of 123

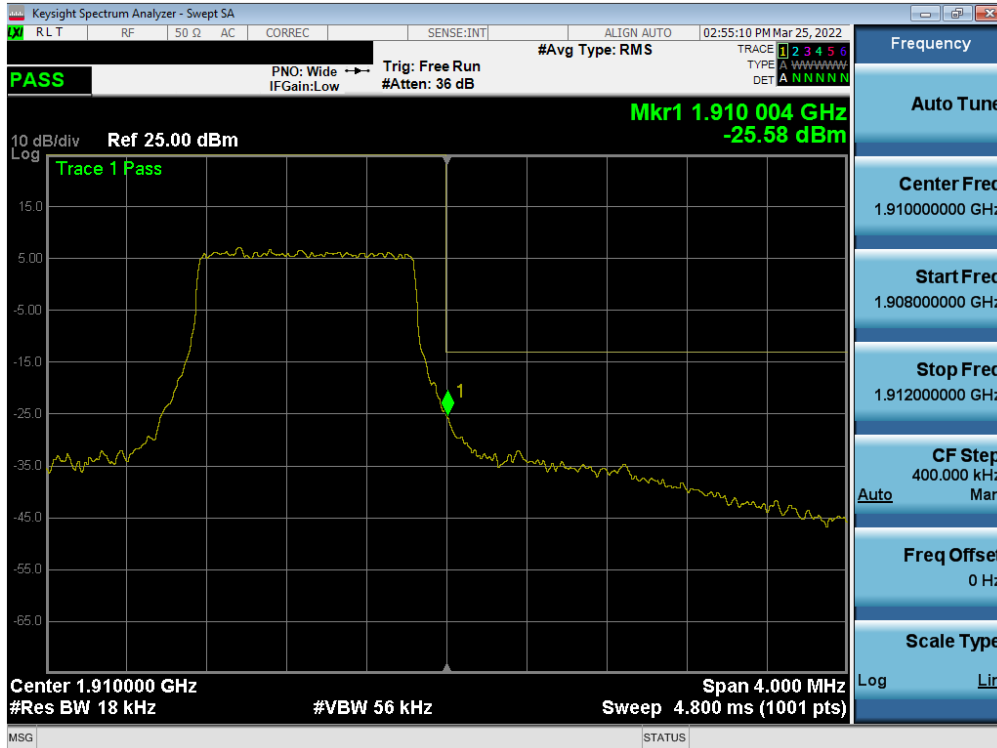


Plot 7-94. Lower Band Edge Plot (LTE Band 25/2 – 1.4MHz QPSK – Full RB)

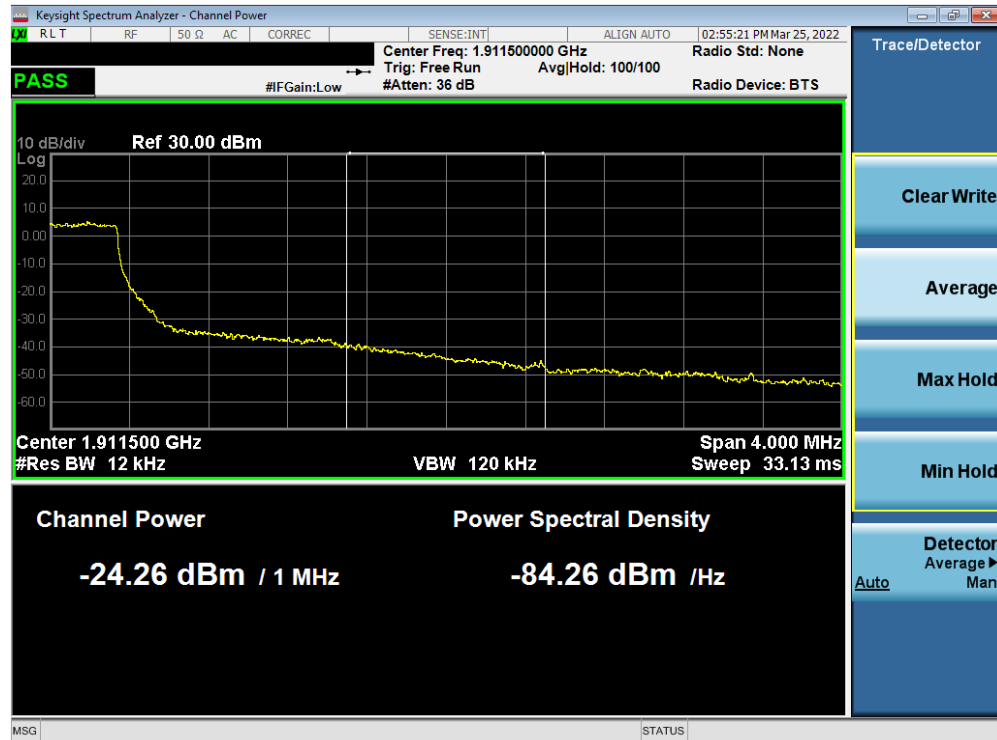


Plot 7-95. Extended Lower Band Edge Plot (LTE Band 25/2 – 1.4MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 66 of 123



Plot 7-96. Upper Band Edge Plot (LTE Band 2 – 1.4MHz QPSK – Full RB)

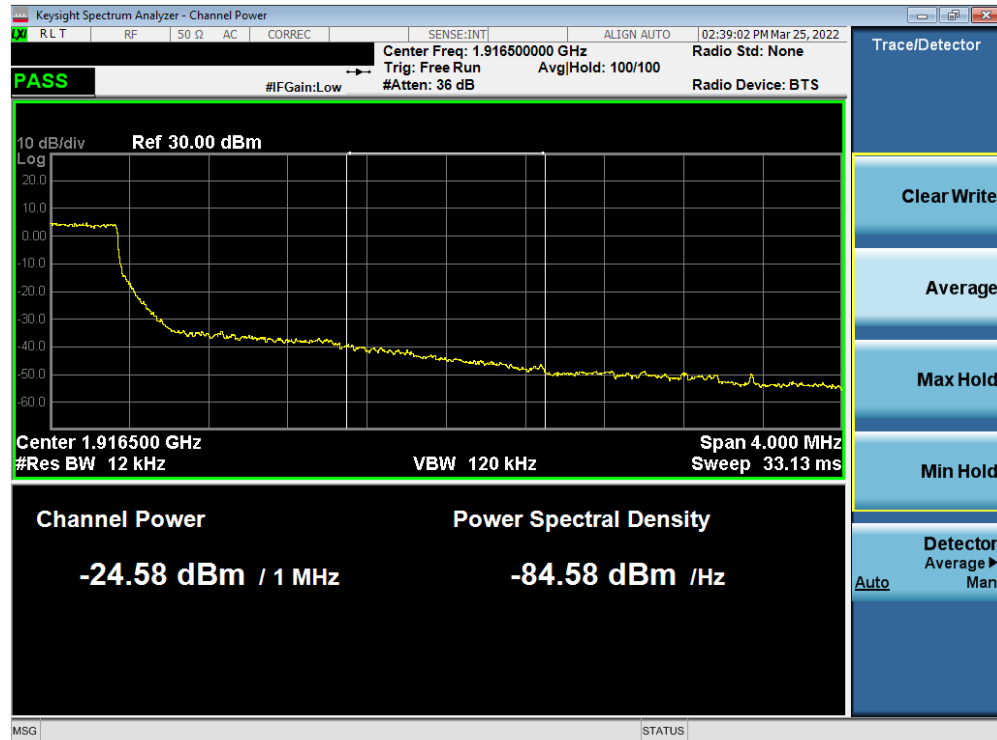


Plot 7-97. Extended Upper Band Edge Plot (LTE Band 2 – 1.4MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 67 of 123



Plot 7-98. Upper Band Edge Plot (LTE Band 25 – 1.4MHz QPSK – Full RB)



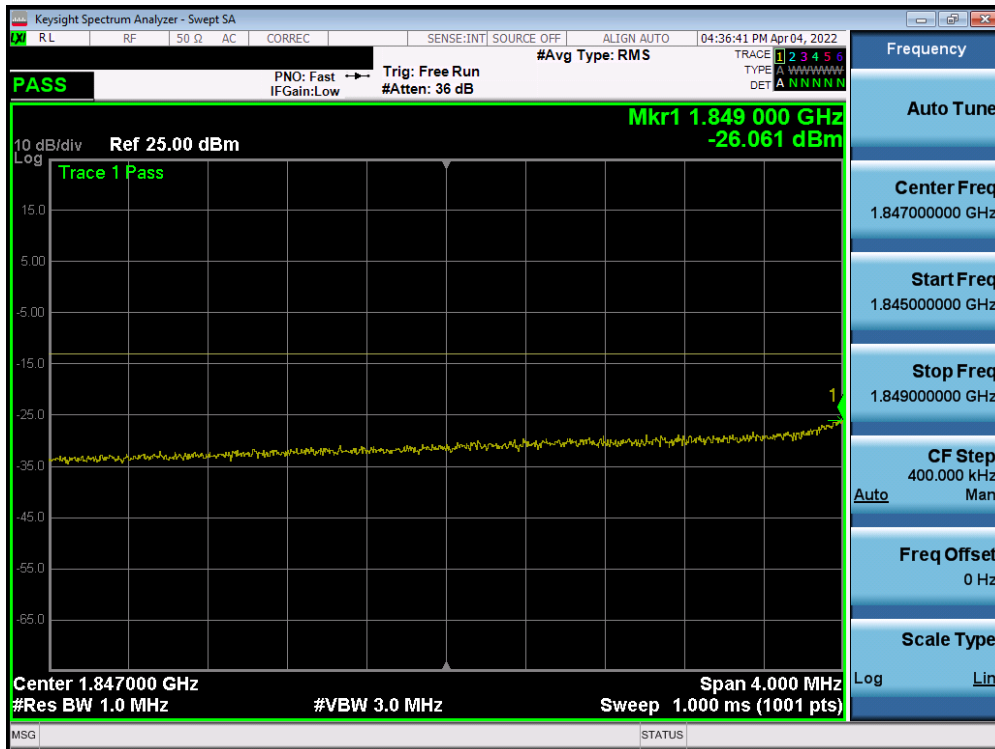
Plot 7-99. Extended Upper Band Edge Plot (LTE Band 25 – 1.4MHz QPSK – Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 68 of 123

NR Band n2



Plot 7-100. Lower Band Edge Plot (NR Band n22 – 20.0MHz - Full RB)

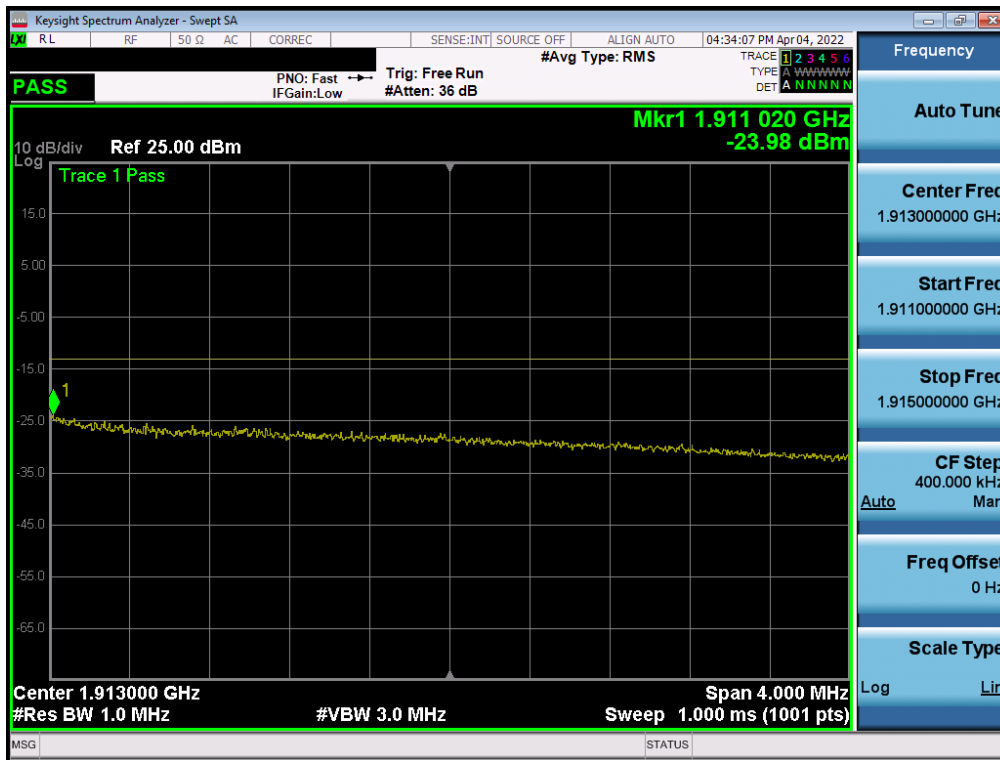


Plot 7-101. Lower Extended Band Edge Plot (NR Band n2 – 20.0MHz - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 69 of 123



Plot 7-102. Upper Band Edge Plot (NR Band n2 – 20.0MHz - Full RB)

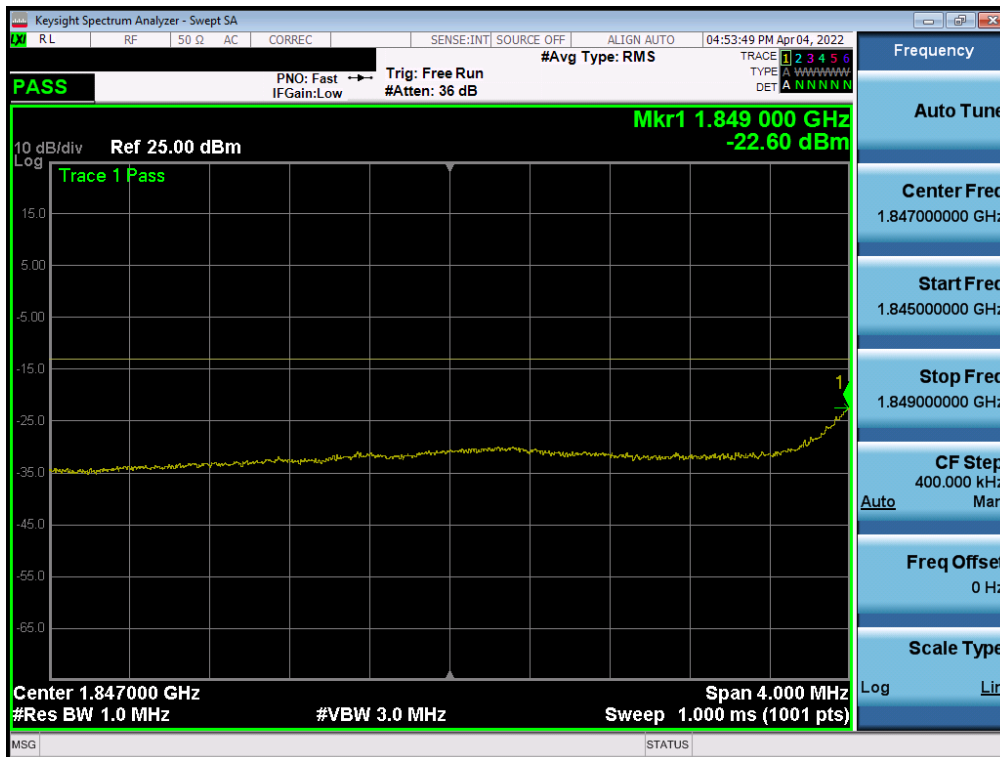


Plot 7-103. Upper Extended Band Edge Plot (NR Band n2 – 20.0MHz - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 70 of 123



Plot 7-104. Lower Band Edge Plot (NR Band n2 – 15.0MHz - Full RB)

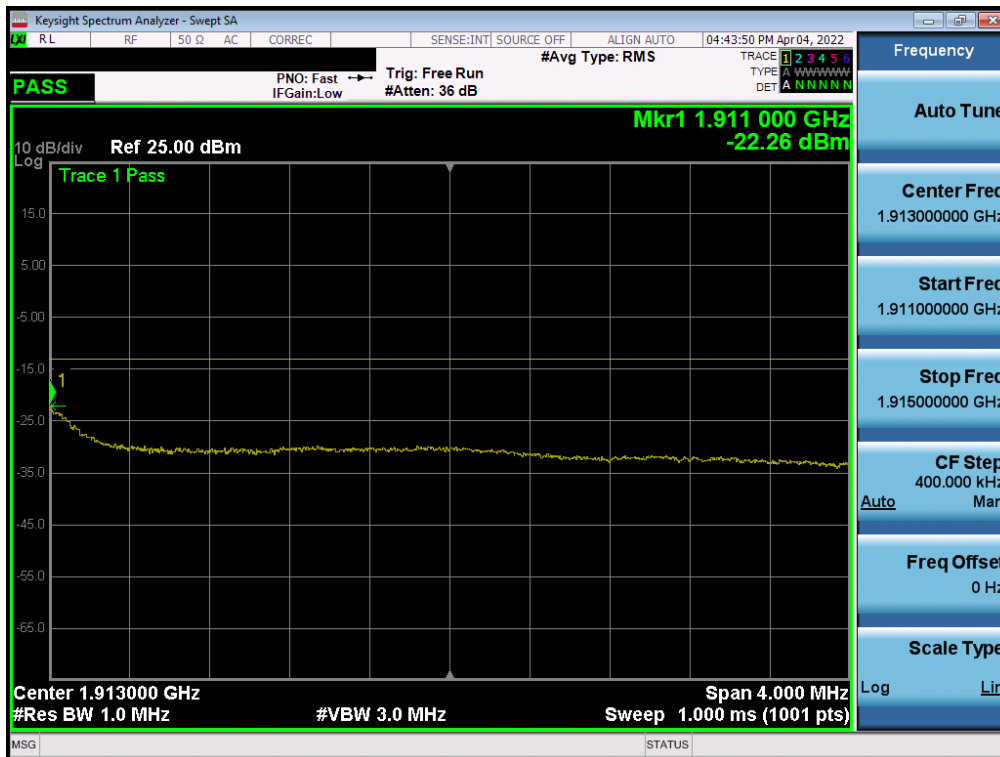


Plot 7-105. Lower Extended Band Edge Plot (NR Band n2 – 15.0MHz - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 71 of 123



Plot 7-106. Upper Band Edge Plot (NR Band n2 – 15.0MHz - Full RB)

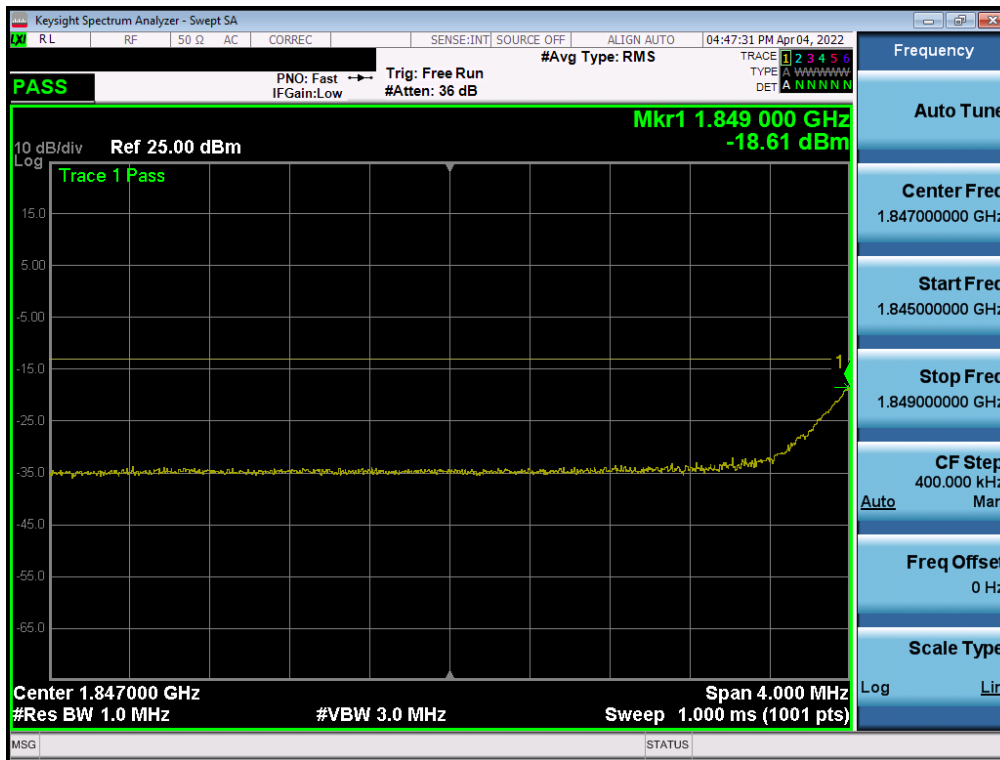


Plot 7-107. Upper Extended Band Edge Plot (NR Band n2 – 15.0MHz - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 72 of 123



Plot 7-108. Lower Band Edge Plot (NR Band n2 – 10.0MHz - Full RB)

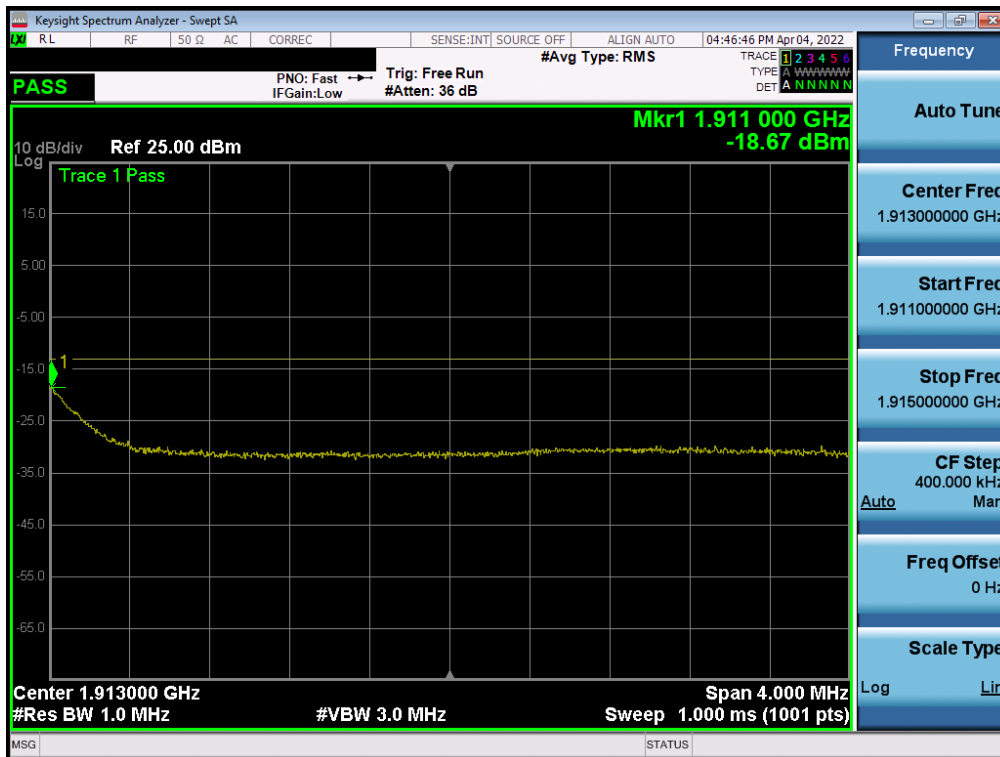


Plot 7-109. Lower Extended Band Edge Plot (NR Band n2 – 10.0MHz - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 73 of 123



Plot 7-110. Upper Band Edge Plot (NR Band n2 – 10.0MHz - Full RB)

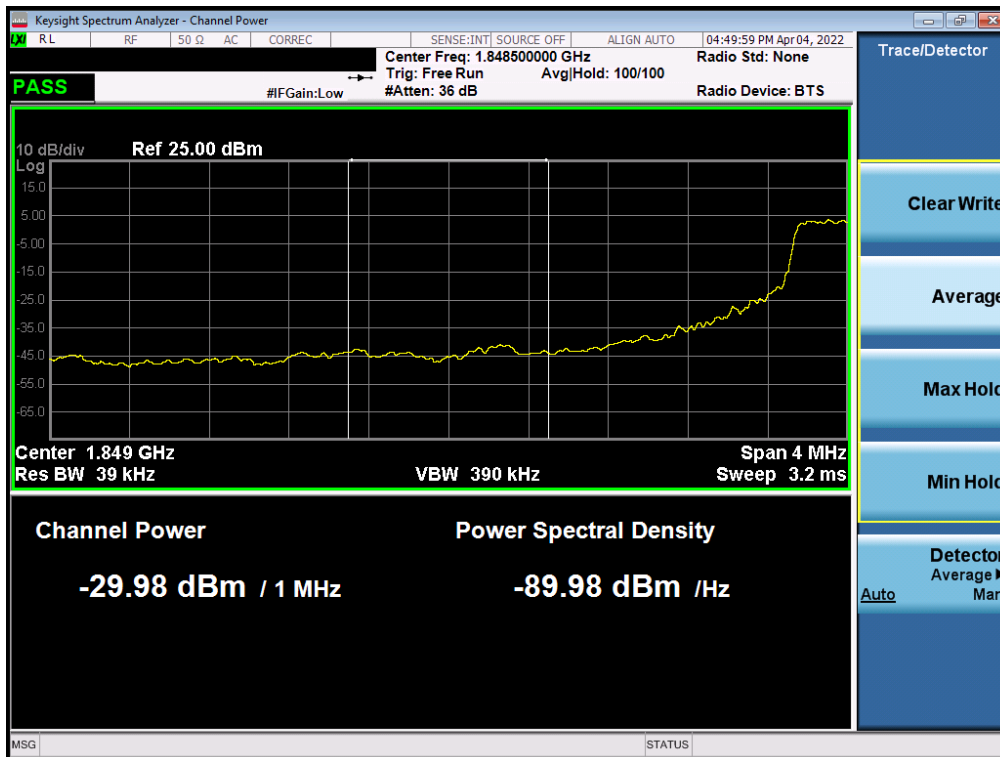


Plot 7-111. Upper Extended Band Edge Plot (NR Band n2 – 10.0MHz - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 74 of 123



Plot 7-112. Lower Band Edge Plot (NR Band n2 – 5.0MHz - Full RB)

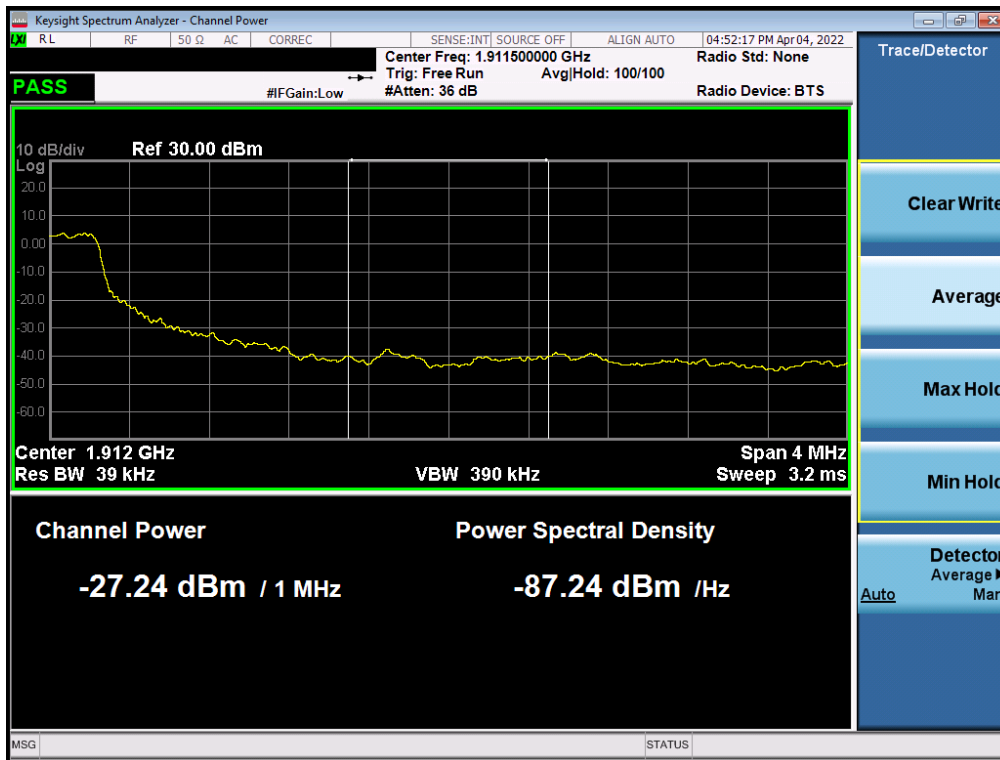


Plot 7-113. Lower Extended Band Edge Plot (NR Band n2 – 5.0MHz - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 75 of 123



Plot 7-114. Upper Band Edge Plot (NR Band n2 – 5.0MHz - Full RB)



Plot 7-115. Upper Extended Band Edge Plot (NR Band n2 – 5.0MHz - Full RB)

FCC ID: PY7-57325M	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-06.PY7	Test Dates: 3/25/2022 - 5/21/2022	EUT Type: Portable Handset	Page 76 of 123