



ELEMENT WASHINGTON DC LLC

7185 Oakland Mills Road, Columbia, MD 21046 USA
Tel. 410.290.6652 / Fax 410.290.6654
http://www.element.com

UNII DATA REFERENCING REPORT

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

Date of Testing:
03/24/2022 – 03/29/2022
Test Report Issue Date:
05/26/2022
Test Site/Location:
Element Lab. Columbia, MD, USA
Test Report Serial No.:
1M2201200003-28.PY7

FCC ID:	PY7-57325M
APPLICANT:	SONY Corporation

Application Type: Certification
EUT Type: Portable Handset
Frequency Range: 5180 – 5825MHz
Modulation Type: OFDM/OFDMA
FCC Classification: Unlicensed National Information Infrastructure TX (NII)
FCC Rule Part(s): Part 15 Subpart E (15.407)
Test Procedure(s): ANSI C63.10-2013, KDB 558074 D01 v05r02, KDB 648474 D03 v01r04, KDB 662911 D01 v02r01, KDB 484596 D01 v01

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	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 1 of 16

V1.0 05/19/2022



TABLE OF CONTENTS

1.0	DATA REFERENCING	3
1.1	Introduction	3
1.2	Differences Between EUT and Referenced Devices	3
1.3	Spot Check Verification Data	3
1.4	Reference Section	16

FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 2 of 16

V1.0 05/19/2022

1.0 DATA REFERENCING

1.1 Introduction

The test results presented in this filing reference the Certification test results for **FCC ID: PY7-83262V**.

Results are referenced from the following test report S/Ns: R14176139-E5aV3, R14176139-E5bV3, R14176139-E5cV2, R14176139-E5dV2, R14176139-E5eV2, R14176139-E5fV2

The applicant takes full responsibility to ensure that all referenced test results represent compliance for the equipment under test in this filing.

1.2 Differences Between EUT and Referenced Devices

The equipment under test (EUT) in this filing (**FCC ID: PY7-57325M**) and the reference device certified under **FCC ID: PY7-83262V** share a common design. The EUT differs from the reference device with respect to the components and antennas used for licensed (cellular) bands. The components used for 2.4GHz and 5GHz WiFi and BT, including antennas and output power are identical between the EUT and reference device.

1.3 Spot Check Verification Data

In this filing, the worst-case data and spot checks were tested on the EUT as noted below, against the reference device. All the necessary test cases were performed to verify the variant EUT is still in compliance with the spot-checked results to the reference device and was performed using the guidance of ANSI C63.10-2013. Please note that the output power was not compared to the reference device, but to the tune-up to ensure that powers remain within tolerance.

For the EUT in this filing (**FCC ID: PY7-57325M**), spot checks of the following tests were performed:

- Output Power Measurements
- Radiated Spurious Emission Measurements
- Radiated Band Edge Measurements

Each spot check test on the EUT was performed using the same procedures and settings that were used to perform the test on the corresponding reference device.

FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 3 of 16

V1.0 05/19/2022

1.3.1 Output Power Measurements (OFDM)

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5320	64	AVG	11.12	11.19	14.17	23.98	-9.81
5825	165	AVG	11.39	11.22	14.32	30.00	-15.68	

Table 1-1. MIMO 20MHz BW 802.11a (UNII) Maximum Conducted Output Power

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5210	42	AVG	11.22	11.16	14.20	23.98	-9.78

Table 1-2. MIMO 80MHz BW 802.11ac (UNII) Maximum Conducted Output Power

5GHz (160MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5570	114	AVG	11.41	11.26	14.35	30.00	-15.65

Table 1-3. MIMO 160MHz BW 802.11ac (UNII) Maximum Conducted Output Power

FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 4 of 16

1.3.2 Output Power Measurements (OFDMA)

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
					4				
					ANT1	ANT2	MIMO		
	5200	40	AVG	26T	8.80	8.70	11.76	23.98	-12.22

Table 1-4. MIMO 20MHz BW 802.11ax (UNII) Maximum Conducted Output Power (26 Tones)

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
					37				
					ANT1	ANT2	MIMO		
	5180	36	AVG	52T	10.86	10.64	13.76	23.98	-10.22

Table 1-5. MIMO 20MHz BW 802.11ax (UNII) Maximum Conducted Output Power (52 Tones)

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
					65				
					ANT1	ANT2	MIMO		
	5310	62	AVG	484T	10.33	10.57	13.46	23.47	-10.01

Table 1-6. MIMO 40MHz BW 802.11ax (UNII) Maximum Conducted Output Power (484 Tones)

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
					67				
					ANT1	ANT2	MIMO		
	5775	155	AVG	996T	11.27	11.16	14.23	30.00	-15.77

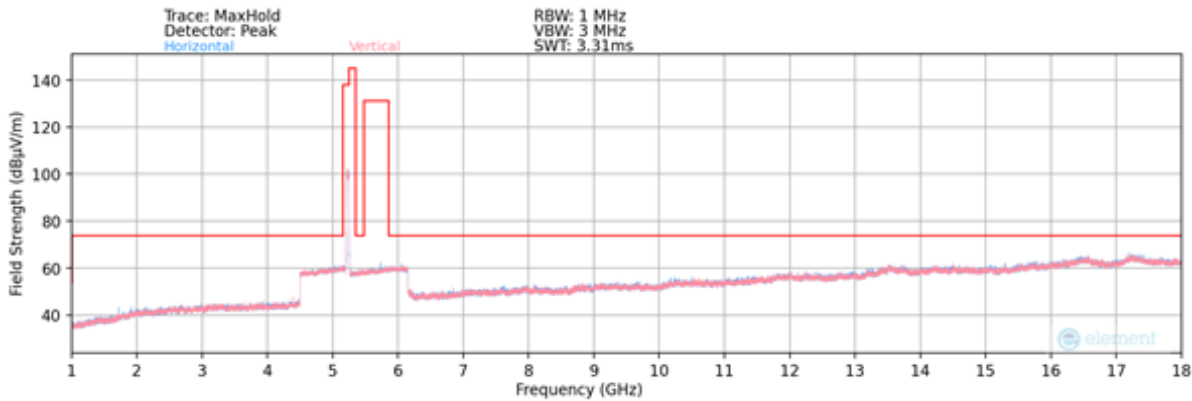
Table 1-7. MIMO 80MHz BW 802.11ax (UNII) Maximum Conducted Output Power (996 Tones)

160MHz BW	Band	Freq [MHz]	Channel	Tones	Average Conducted Power (dBm)		
					RU Index: 65		
					ANT1	ANT2	MIMO
	2C	5570	114	484T	11.19	11.26	14.24

Table 1-8. MIMO 160MHz BW 802.11ax (UNII) Maximum Conducted Output Power (484 Tones)

FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 5 of 16

1.3.3 Worst Case Radiated Spurious Emissions Measurements



Plot 1-1. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U1 Ch. 40 – 26 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 Distance of Measurements: 3 Meters
 Operating Frequency: 5200MHz
 Channel: 40

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
6933.00	Peak	H	115	290	-66.38	11.53	52.15	68.20	-16.05

Table 1-9. Radiated Measurements MIMO (26 Tones)

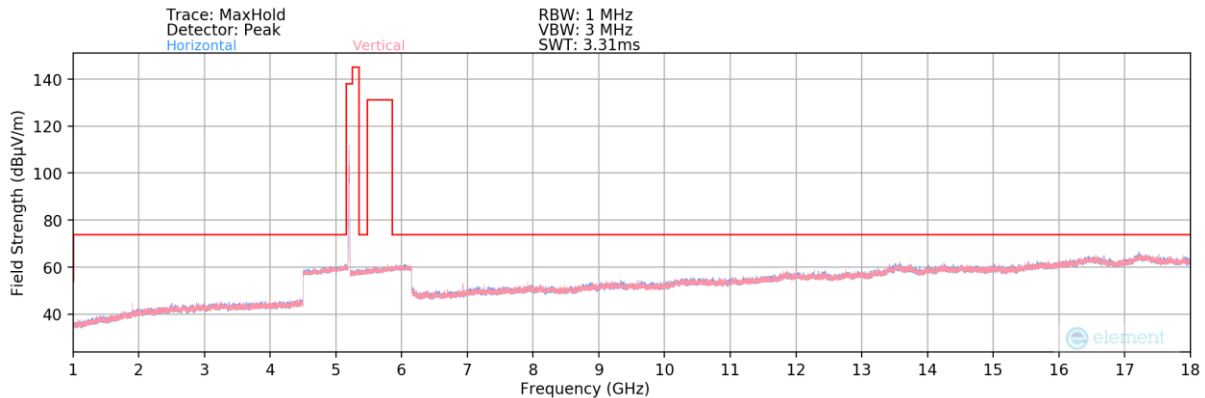
RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBµV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr (dB)	Corrected Reading (dBµV/m)	Avg Limit (dBµV/m)	Margin (dB)	Peak Limit (dBµV/m)	PK Margin (dB)	UNII Non-Restricted (dBµV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 4.68696	38.22	Pk	34	-29.9	42.32	54	-11.68	74	-31.68	-	-	0-360	101	H
5	*** 4.90184	37.66	Pk	34.1	-29	42.76	54	-11.24	74	-31.24	-	-	0-360	101	V
4	*** 9.40678	36.29	Pk	36.7	-25.9	47.09	54	-6.91	74	-26.91	-	-	0-360	200	H
8	*** 9.14904	37.28	Pk	36.3	-26.1	47.48	54	-6.52	74	-26.52	-	-	0-360	101	V
3	6.93335	42.69	PK-U	35.9	-27.6	50.99	-	-	-	-	68.2	-17.21	333	241	H
7	6.93309	39.62	Pk	35.9	-27.6	47.92	-	-	-	-	68.2	-20.28	0-360	200	V
2	*** 5.40956	34.19	Pk	34.5	-22.6	46.09	54	-7.91	74	-27.91	-	-	0-360	199	H
6	*** 5.43685	33.94	Pk	34.5	-22.9	45.54	54	-8.46	74	-28.46	-	-	0-360	199	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 PK-U - U-NII: Maximum Peak
 ADV - U-NII AD primary method, Linear Voltage Average

Figure 1-1. Reference Test Results for Table 1-9 (Report No.:R14176139-E5bV3, Page 90)

FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 6 of 16



Plot 1-2. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U1 Ch. 46 – 484 Tones)

Worst Case Mode: 802.11ax (40MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 Distance of Measurements: 3 Meters
 Operating Frequency: 5230MHz
 Channel: 46

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
16131.50	Average	H	-	-	-89.13	30.25	48.12	53.98	-5.86
16131.50	Peak	H	-	-	-78.57	30.25	58.68	73.98	-15.30

Table 1-10. Radiated Measurements MIMO (484 Tones)

RADIATED EMISSIONS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AT0072 (dB/m)	Amp/Cbl/Filtr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 4.07632	40.79	Pk	33.6	-32.1	42.29	54	-11.71	74	-31.71	-	-	0-360	101	H
4	*** 4.79576	40.33	Pk	34.1	-30.1	44.33	54	-9.67	74	-29.67	-	-	0-360	200	V
2	*** 9.12731	37.7	Pk	36.3	-26.1	47.9	54	-6.1	74	-26.1	-	-	0-360	199	H
3	*** 7.37351	37.39	Pk	35.7	-27.8	45.29	54	-8.71	74	-28.71	-	-	0-360	101	H
5	*** 8.38669	38.04	Pk	35.8	-26.4	47.44	54	-6.56	74	-26.56	-	-	0-360	199	V
6	*** 16.13154	38.18	PK-U	40.8	-24.3	54.68	-	-	74	-19.32	-	-	134	253	V
	*** 16.13118	25.67	ADV	40.8	-24.4	42.07	54	-11.93	-	-	-	-	134	253	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 PK-U - U-NII: Maximum Peak
 ADV - U-NII AD primary method, Linear Voltage Average

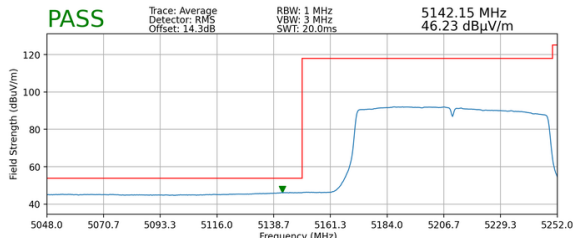
Figure 1-2. Reference Test Results for Table 1-11 (Report No.:R14176139-E5bV3, Page 107)

Note: From the spot-check data in table 1-10, the average and peak field strength measurements are higher than the reference test results in figure 1-2. However, the spot-checked data as shown are measured to be noise floor measurements, which is due to the system/equipment noise floor readings.

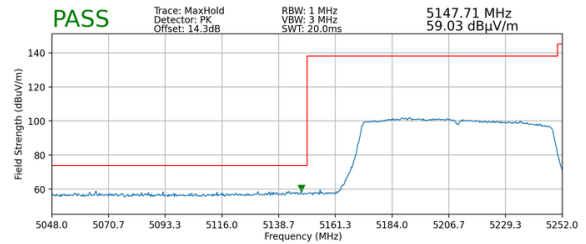
FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 7 of 16

Worst Case Radiated Band Edge Measurements (OFDM)

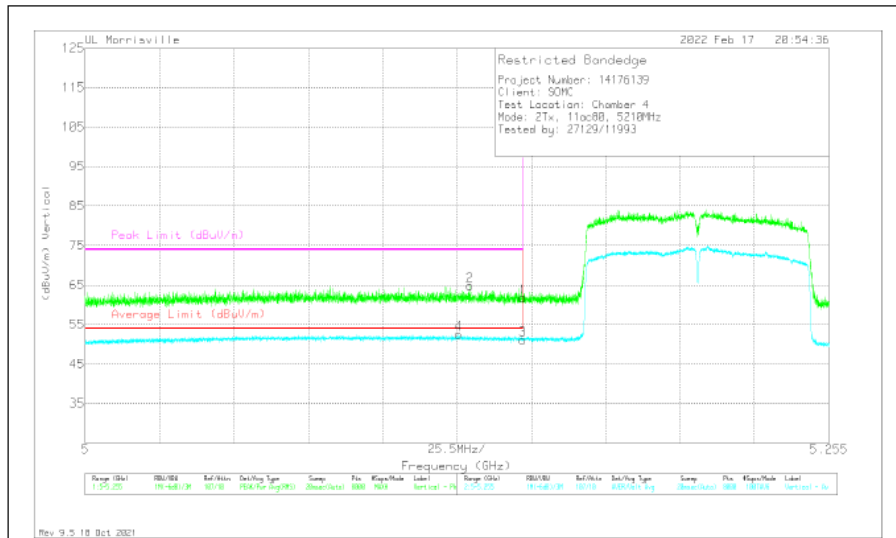
Worst Case Mode: 802.11ac
 Worst Case Transfer Rate: MCS0
 Bandwidth: 80MHz
 Distance of Measurements: 3 Meters
 Operating Frequency: 5210MHz
 Channel: 42



Plot 1-3. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)



Plot 1-4. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.14999	37.94	Pk	34.2	-10.3	61.84	-	-	74	-12.16	73	207	V
2	** 5.13192	40.8	Pk	34.2	-10.2	64.8	-	-	74	-9.2	73	207	V
3	*** 5.14999	27.2	ADV	34.2	-10.3	51.1	54	-2.9	-	-	73	207	V
4	*** 5.12799	28.62	ADV	34.1	-10.2	52.52	54	-1.48	-	-	73	207	V

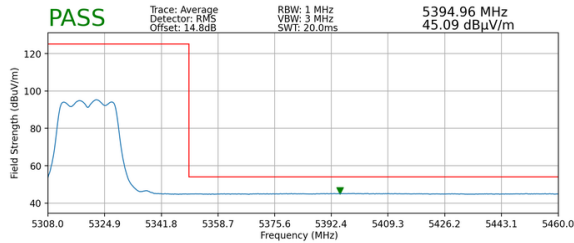
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - U-NII AD primary method, Linear Voltage Average

Figure 1-3. Reference Test Results for Plots 1-3 and 1-4 (Report No.:R14176139-E5aV3, Page 63)

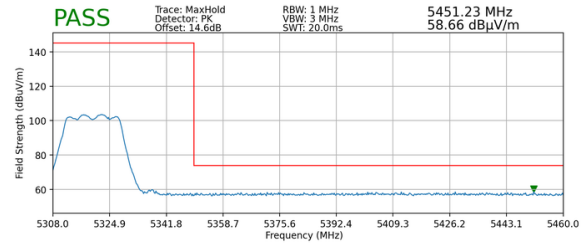
FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 8 of 16



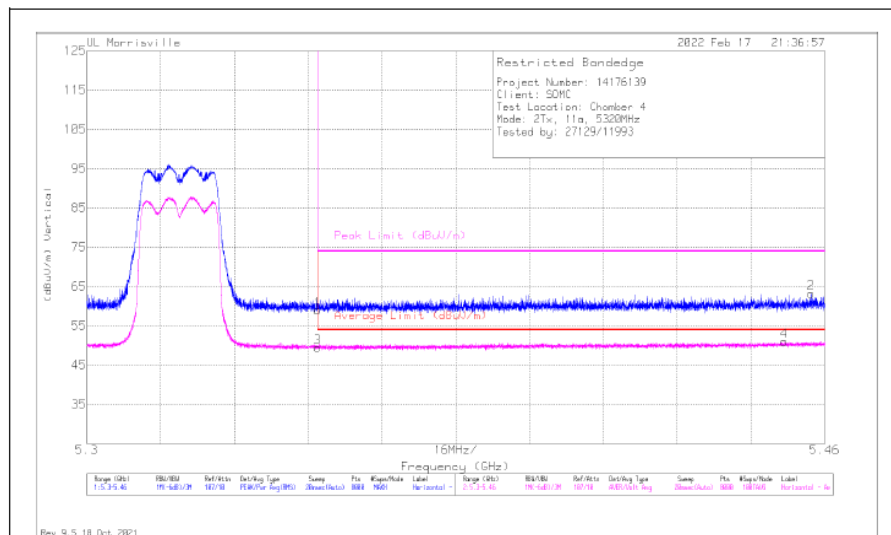
Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Bandwidth: 20MHz
 Distance of Measurements: 3 Meters
 Operating Frequency: 5320MHz
 Channel: 64



Plot 1-5. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)



Plot 1-6. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Amp/Cb/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.35001	34.58	Pk	34.5	-10.1	58.98	-	-	74	-15.02	317	195	H
2	** 5.45706	38.65	Pk	34.4	-9.8	63.25	-	-	74	-10.75	317	195	H
3	*** 5.35001	25.08	ADV	34.5	-10.1	49.48	54	-4.52	-	-	317	195	H
4	** 5.45124	26.41	ADV	34.4	-9.8	51.01	54	-2.99	-	-	317	195	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - U-NII AD primary method, Linear Voltage Average

Figure 1-4. Reference Test Results for Plots 1-5 and 1-6 (Report No.:R14176139-E5aV3, Page 64)

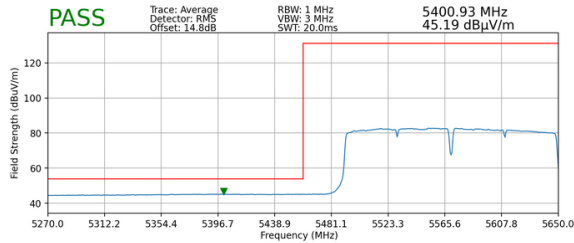
FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 9 of 16

V1.0 05/19/2022

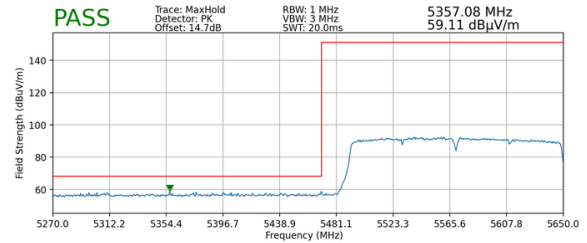
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



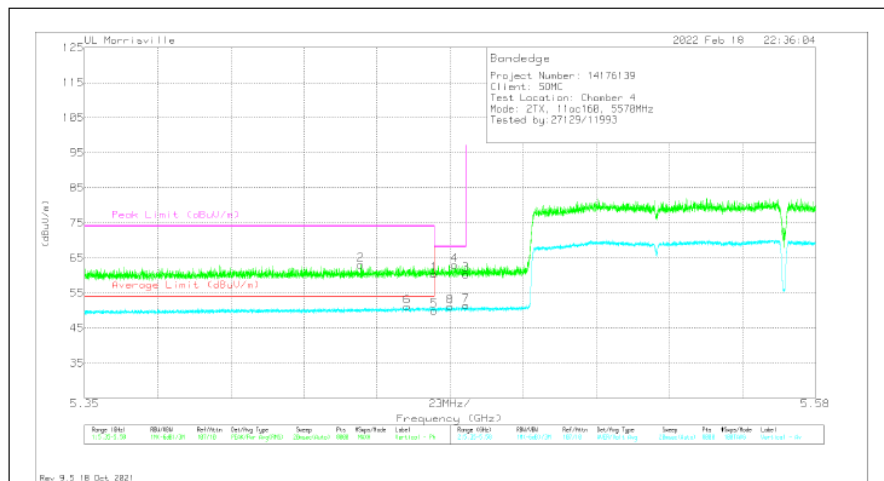
Worst Case Mode: 802.11ac
 Worst Case Transfer Rate: MCS0
 Bandwidth: 160MHz
 Distance of Measurements: 3 Meters
 Operating Frequency: 5570MHz
 Channel: 114



Plot 1-7. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)



Plot 1-8. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Amp/Cbl/Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.45998	35.78	PK	34.4	-9.7	60.48	-	-	74	-13.52	45	119	V
2	** 5.43695	38.61	PK	34.4	-9.9	63.11	-	-	74	-10.89	45	119	V
5	*** 5.45998	25.28	ADV	34.4	-9.7	49.98	54	-4.02	-	-	45	119	V
6	*** 5.45156	26.54	ADV	34.4	-9.8	51.14	54	-2.86	-	-	45	119	V
8	5.46507	26.44	ADV	34.4	-9.7	51.14	-	-	-	-	45	119	V
4	5.46642	38.26	PK	34.4	-9.7	62.96	-	-	68.2	-5.24	45	119	V
3	5.46999	35.65	PK	34.4	-9.7	60.35	-	-	68.2	-7.85	45	119	V
7	5.46999	26.67	ADV	34.4	-9.7	51.37	-	-	-	-	45	119	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 PK - Peak detector
 ADV - Linear Voltage Average

Figure 1-5. Reference Test Results for Plots 1-7 and 1-8 (Report No.:R14176139-E5cV2, Page 58)

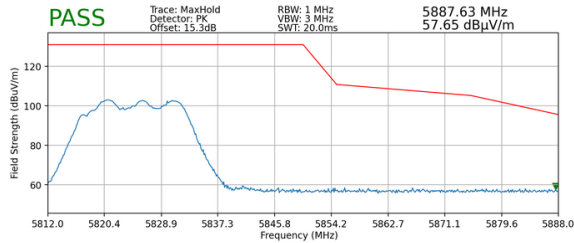
FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 10 of 16

V1.0 05/19/2022

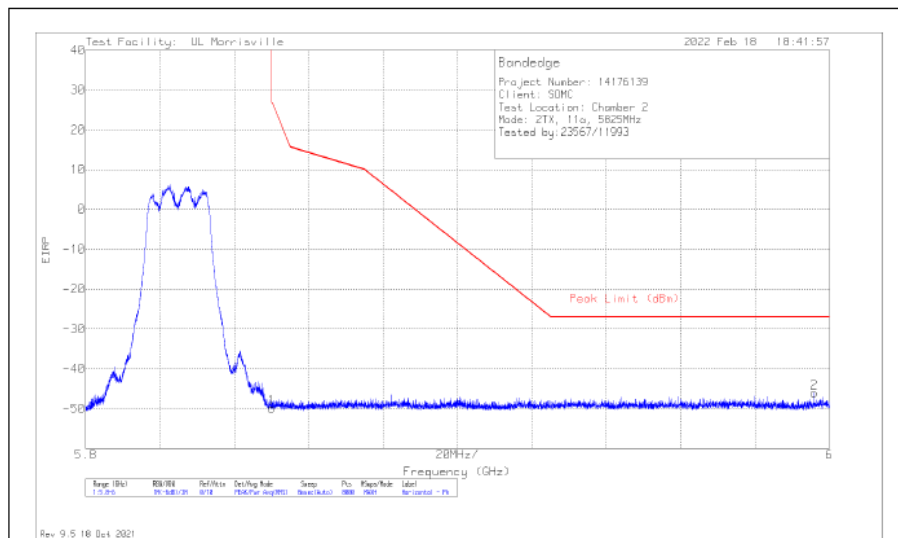
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Worst Case Mode: 802.11a
 Worst Case Transfer Rate: 6Mbps
 Bandwidth: 20MHz
 Distance of Measurements: 3 Meters
 Operating Frequency: 5825MHz
 Channel: 165



Plot 1-9. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	AT0072 (dB/m)	Amp/Cbl/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85001	-74.09	Pk	35.2	-22.8	11.8	-49.89	26.99	-76.88	78	119	H
2	5.99597	-70.43	PK	35.3	-22.7	11.8	-46.03	-27	-19.03	78	119	H

Pk - Peak detector

Figure 1-6. Reference Test Results for Plot 1-9 (Report No.:R14176139-E5eV2, Page 41)

Note: 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:

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

And

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

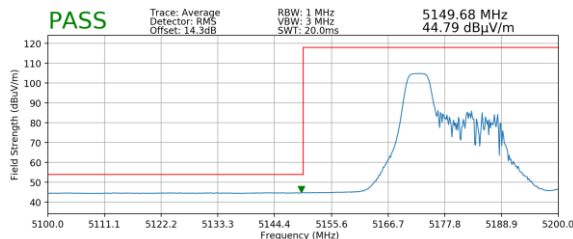
FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 11 of 16

V1.0 05/19/2022

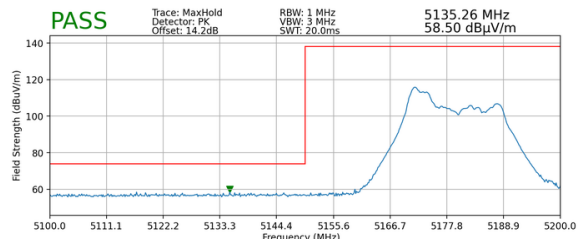
1.3.4 Worst Case Radiated Band Edge Measurements 802.11ax OFDMA

52 Tones

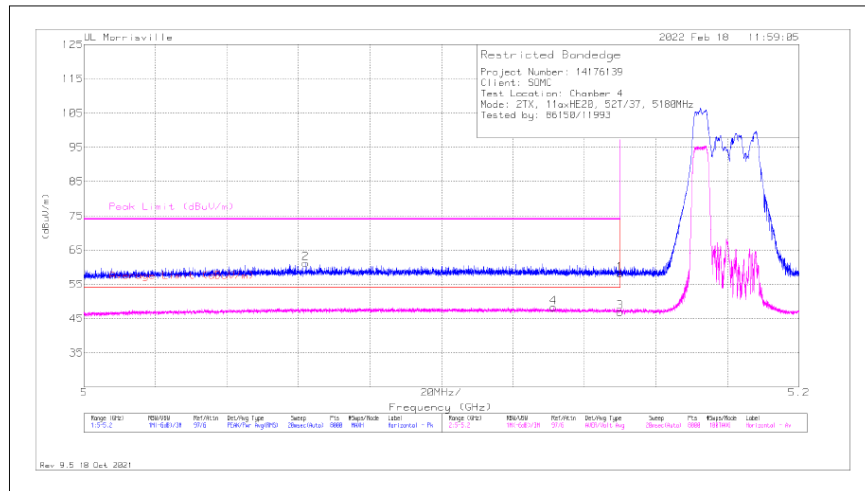
Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	37
Bandwidth:	20MHz
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36



Plot 1-10. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 52 Tones)



Plot 1-11. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 52 Tones)



TRACE MARKER

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Amp/cb/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.14999	34.39	PK	34.2	-10.3	58.29	-	-	74	-15.71	348	145	H
2	*** 5.06203	37.2	PK	34.1	-10.1	61.2	-	-	74	-12.8	348	145	H
3	*** 5.14999	23.07	ADV	34.2	-10.3	46.97	54	-7.03	-	-	348	145	H
4	*** 5.13129	24.35	ADV	34.2	-10.2	48.35	54	-5.65	-	-	348	145	H

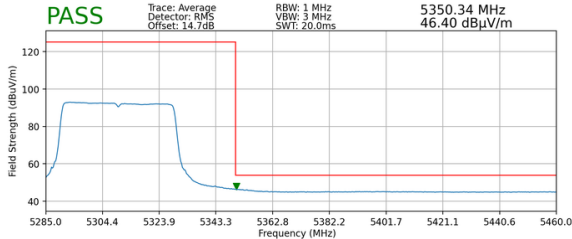
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - U-NII AD primary method, Linear Voltage Average

Figure 1-7. Reference Test Results for Plots 1-10 and 1-11 (Report No.:R14176139-E5bV3, Page 93)

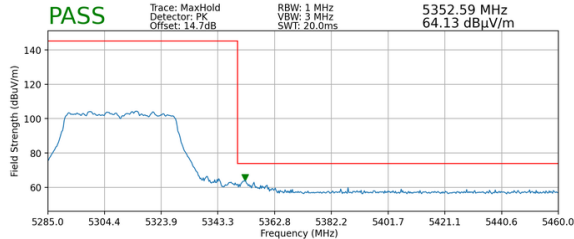
FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 12 of 16

484 Tones

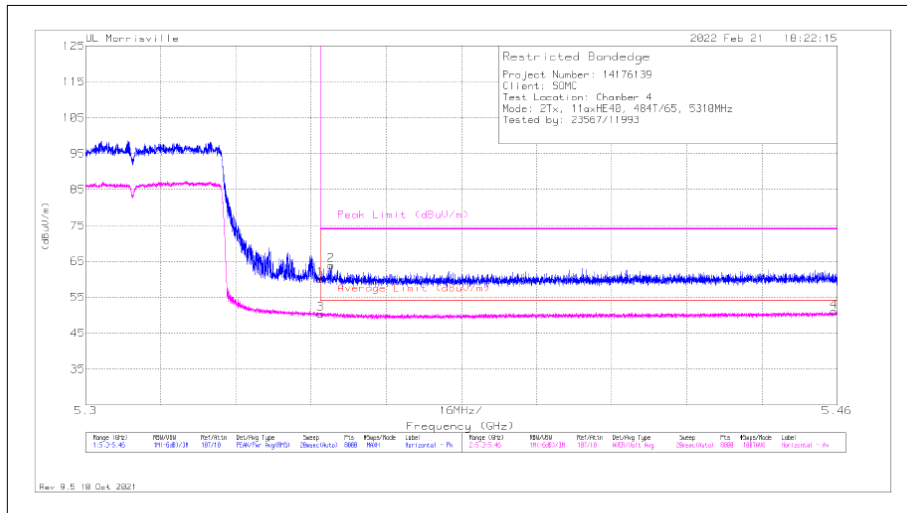
Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	65
Bandwidth:	40MHz
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



Plot 1-12. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 484 Tones)



Plot 1-13. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 484 Tones)



TRACE MARKER

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.35001	35.68	Pk	34.5	-10.1	60.08	-	-	74	-13.92	352	135	H
2	*** 5.35231	39.59	Pk	34.5	-10.1	63.99	-	-	74	-10.01	352	135	H
3	*** 5.35001	26	ADV	34.5	-10.1	50.4	54	-3.6	-	-	352	135	H
4	*** 5.45932	26.36	ADV	34.4	-9.7	51.06	54	-2.94	-	-	352	135	H

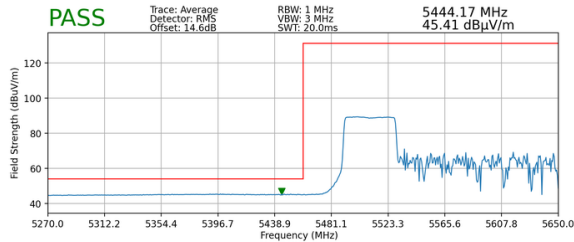
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP002 Restricted Band
 Pk - Peak detector
 ADV - U-NII AD primary method, Linear Voltage Average

Figure 1-8. Reference Test Results for Plots 1-12 and 1-13 (Report No.:R14176139-E5bV3, Page 103)

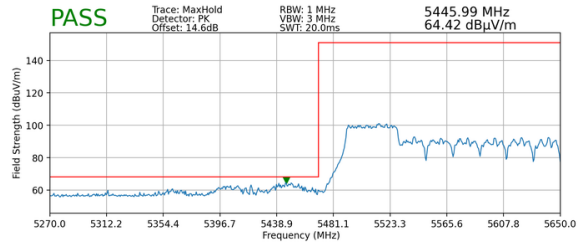
FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 13 of 16



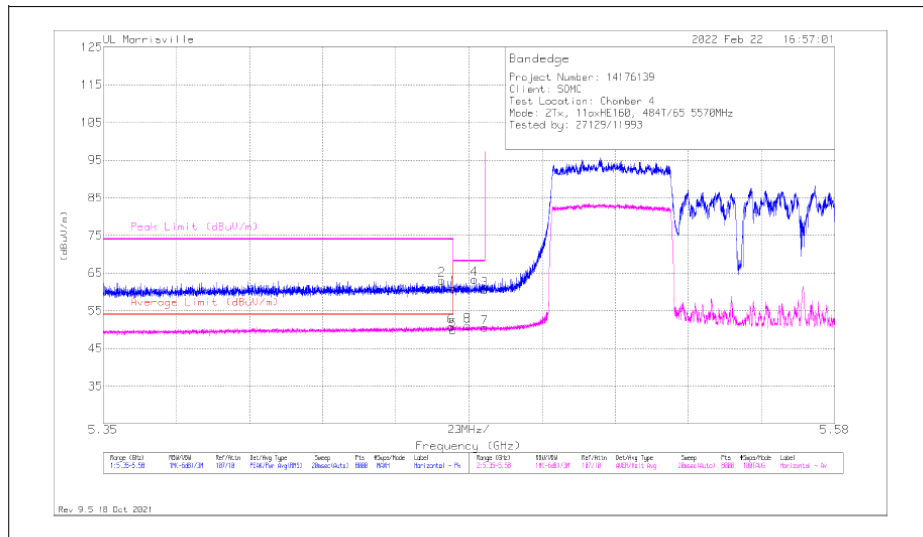
Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 65
 Bandwidth: 160MHz
 Distance of Measurements: 3 Meters
 Operating Frequency: 5570MHz
 Channel: 114



Plot 1-14. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 484 Tones)



Plot 1-15. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 484 Tones)



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 5.45998	36.21	Pk	34.4	-9.7	60.91	-	-	74	-13.09	84	151	H
2	*** 5.45639	38.54	Pk	34.4	-9.8	63.14	-	-	74	-10.86	84	151	H
5	*** 5.45998	25.04	ADV	34.4	-9.7	49.74	54	-4.26	-	-	84	151	H
6	*** 5.45941	26.05	ADV	34.4	-9.7	50.75	54	-3.25	-	-	84	151	H
8	5.46456	26.27	ADV	34.4	-9.7	50.97	-	-	-	-	84	151	H
4	5.46671	38.69	Pk	34.4	-9.7	63.39	-	-	68.2	-4.81	84	151	H
3	5.46999	35.89	Pk	34.4	-9.7	60.59	-	-	68.2	-7.61	84	151	H
7	5.46999	25.86	ADV	34.4	-9.7	50.56	-	-	-	-	84	151	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 ** - indicates frequency in Taiwan NCC LP0002 Restricted Band
 Pk - Peak detector
 ADV - Linear Voltage Average

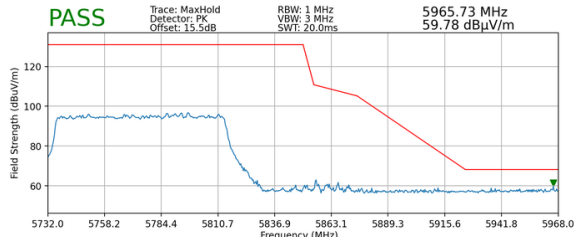
Figure 1-9. Reference Test Results for Plots 1-14 and 1-15 (Report No.:R14176139-E5dV2, Page 104)

FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 14 of 16

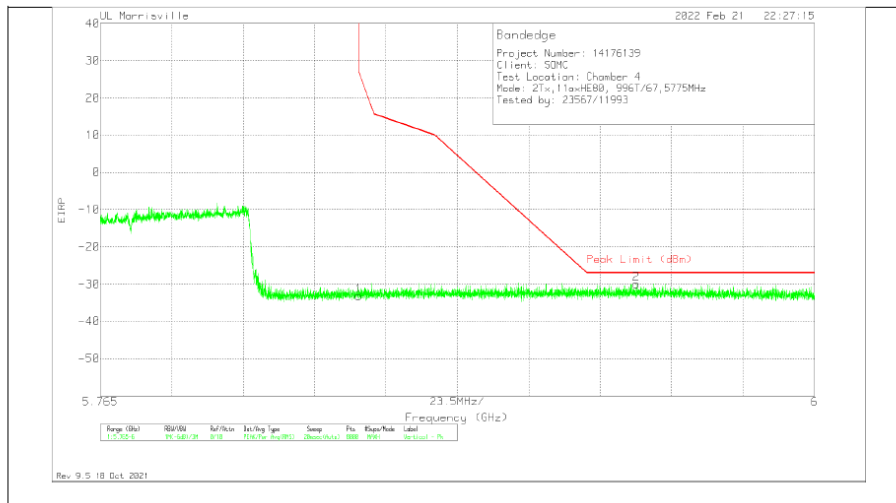
V1.0 05/19/2022

996 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Bandwidth:	80MHz
Distance of Measurements:	3 Meters
Operating Frequency:	5775MHz
Channel:	155



Plot 1-16. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 996 Tones)



Marker	Frequency (GHz)	Meter Reading (dBm)	Det	206211 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Conversion Factor (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85002	-70.29	Pk	34.7	-9.4	11.8	-33.19	26.95	-60.14	27	393	V
2	5.94139	-67.58	Pk	35	-9.2	11.8	-29.98	-27	-2.98	27	393	V

Pk - Peak detector

Figure 1-10. Reference Test Results for Plot 1-16 (Report No.:R14176139-E5fV2, Page 73)

FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 15 of 16

1.4 Reference Section

This section displays the source of referenced data presented for the filing of this EUT (FCC ID: PY7-57325M).

FCC Part Section(s)	Test Description	Frequency Range(s) [MHz]	Mode(s)	FCC ID of Referenced Device	Test Report S/N (Referenced Device)	Section (Referenced Device)
15.407(e)	6dB Bandwidth	5180 – 5825	802.11a/n/ac	PY7-83262V	R14176139-E5aV3 R14176139-E5cV2 R14176139-E5eV2	9.2
15.407(a)(1)(iv), (a)(2), (a)(3)	Maximum Conducted Output Power	5180 – 5825	802.11a/n/ac	PY7-83262V	R14176139-E5aV3 R14176139-E5cV2 R14176139-E5eV2	9.3
15.407(a)(1)(iv), (a)(2), (a)(3)	Maximum Power Spectral Density	5180 – 5825	802.11a/n/ac	PY7-83262V	R14176139-E5aV3 R14176139-E5cV2 R14176139-E5eV2	9.3
15.407(b)(1), (b)(2), (b)(3), (b)(4)	Undesirable Emissions	5180 – 5825	802.11a/n/ac	PY7-83262V	R14176139-E5aV3 R14176139-E5cV2 R14176139-E5eV2	10.1

Table 1-11. Cross-Referenced Data for UNII OFDM

FCC Part Section(s)	Test Description	Frequency Range(s) [MHz]	Mode(s)	FCC ID of Referenced Device	Test Report S/N (Referenced Device)	Section (Referenced Device)
15.407(e)	6dB Bandwidth	5180 – 5825	802.11ax	PY7-83262V	R14176139-E5bV3 R14176139-E5dV2 R14176139-E5fV2	9.2
15.407(a)(1)(iv), (a)(2), (a)(3)	Maximum Conducted Output Power	5180 – 5825	802.11ax	PY7-83262V	R14176139-E5bV3 R14176139-E5dV2 R14176139-E5fV2	9.3
15.407(a)(1)(iv), (a)(2), (a)(3)	Maximum Power Spectral Density	5180 – 5825	802.11ax	PY7-83262V	R14176139-E5bV3 R14176139-E5dV2 R14176139-E5fV2	9.3
15.407(b)(1), (b)(2), (b)(3), (b)(4)	Undesirable Emissions	5180 – 5825	802.11ax	PY7-83262V	R14176139-E5bV3 R14176139-E5dV2 R14176139-E5fV2	10.1

Table 1-12. Cross-Referenced Data for UNII OFDMA

FCC ID: PY7-57325M	UNII DATA REFERENCING REPORT		Approved by: Technical Manager
Test Report S/N: 1M2201200003-28.PY7	Test Dates: 03/24/2022 – 03/29/2022	EUT Type: Portable Handset	Page 16 of 16