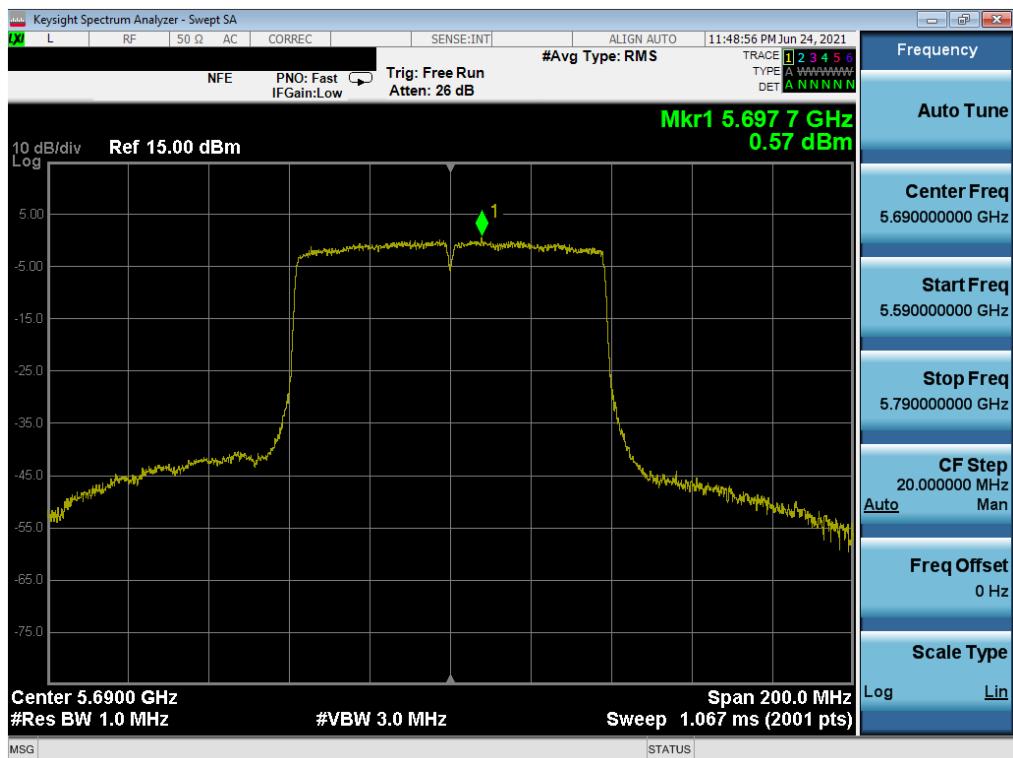
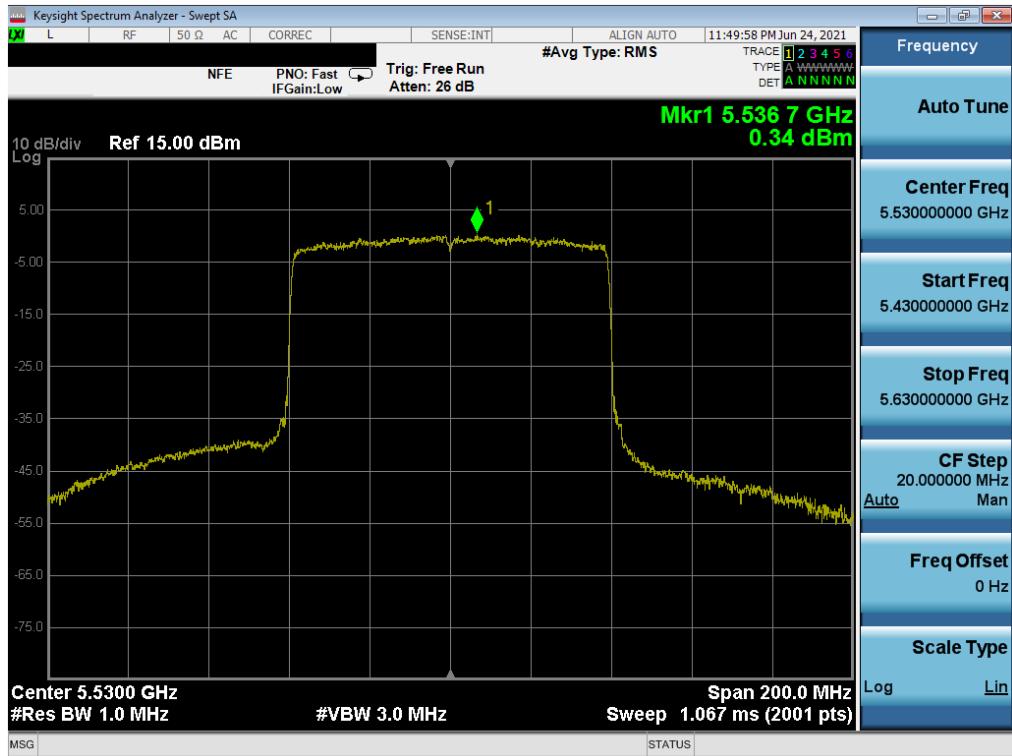


Plot 7-384. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ac (UNII Band 2C) – Ch. 122)

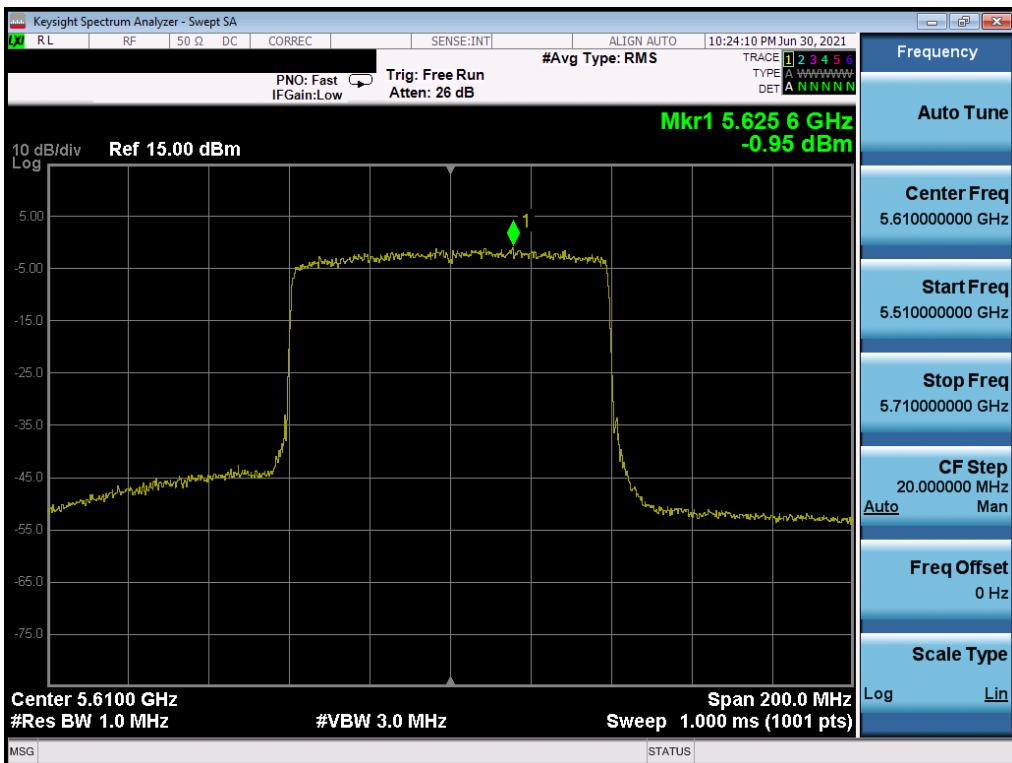


Plot 7-385. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 228 of 336

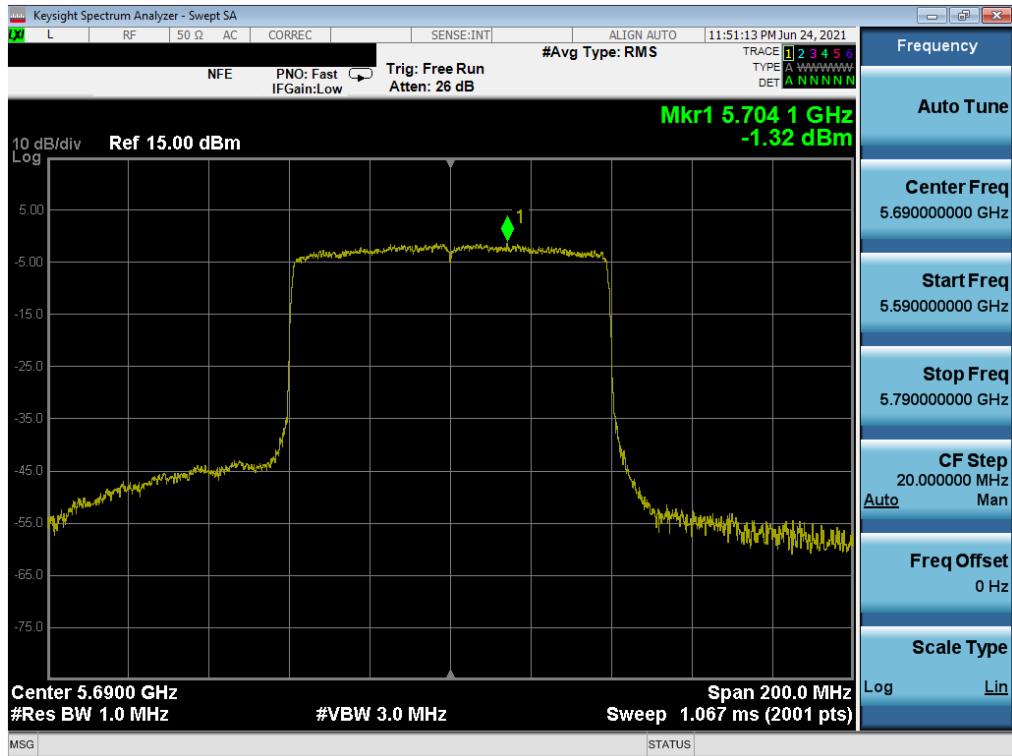


Plot 7-386. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax (UNII Band 2C) – Ch. 106)

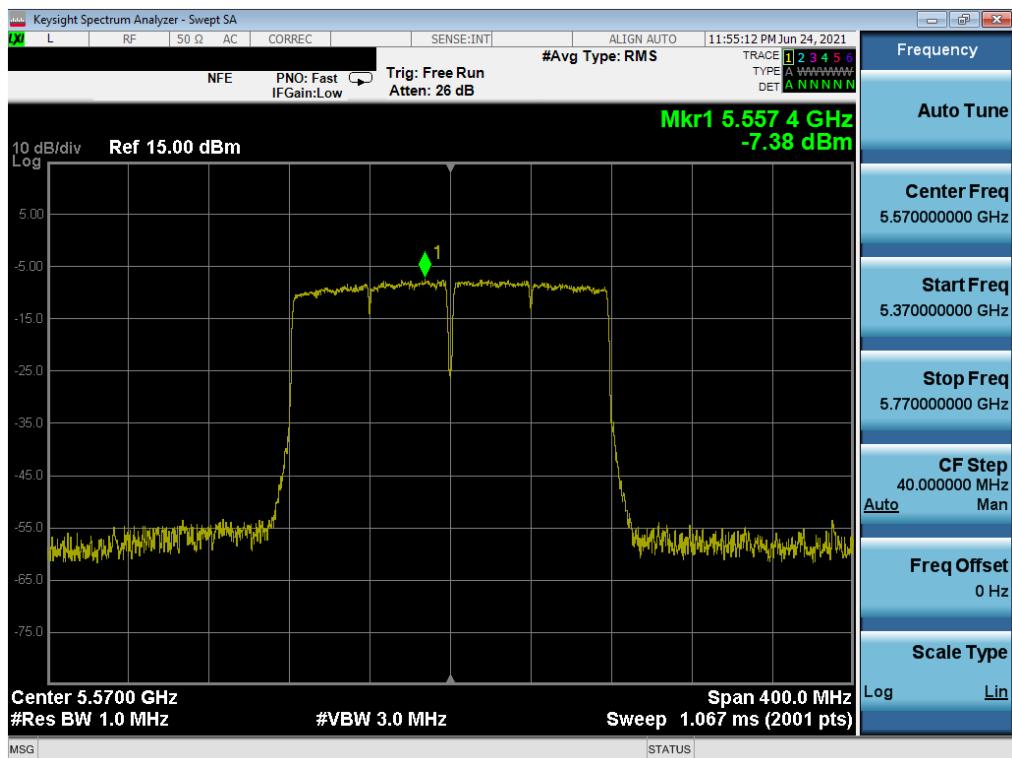


Plot 7-387. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax (UNII Band 2C) – Ch. 122)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 229 of 336

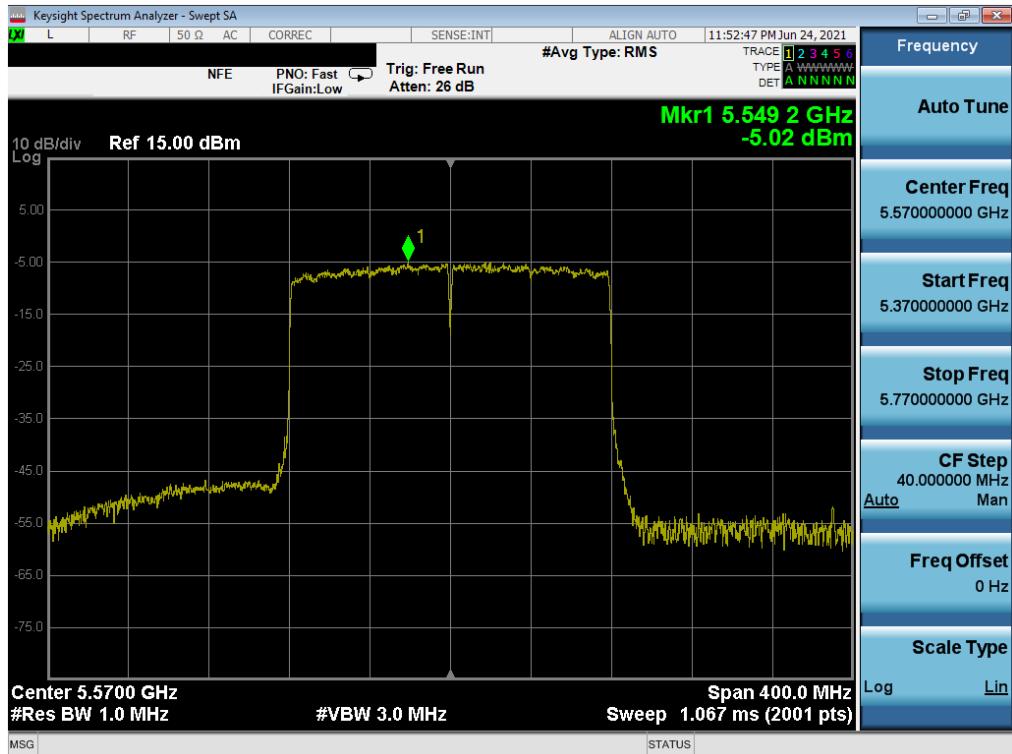


Plot 7-388. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax (UNII Band 2C) – Ch. 138)



Plot 7-389. Power Spectral Density Plot MIMO NORTH (160MHz BW 802.11ac (UNII Band 2C) – Ch. 114)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 230 of 336

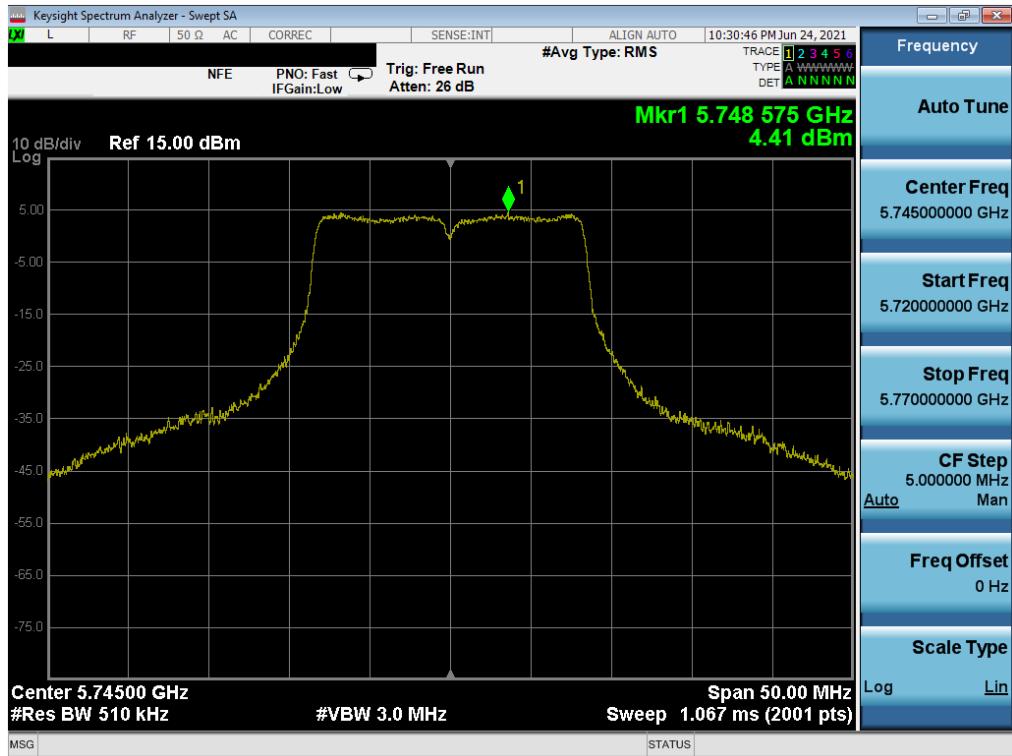


Plot 7-390. Power Spectral Density Plot MIMO NORTH (160MHz BW 802.11ax (UNII Band 2C) – Ch. 114)

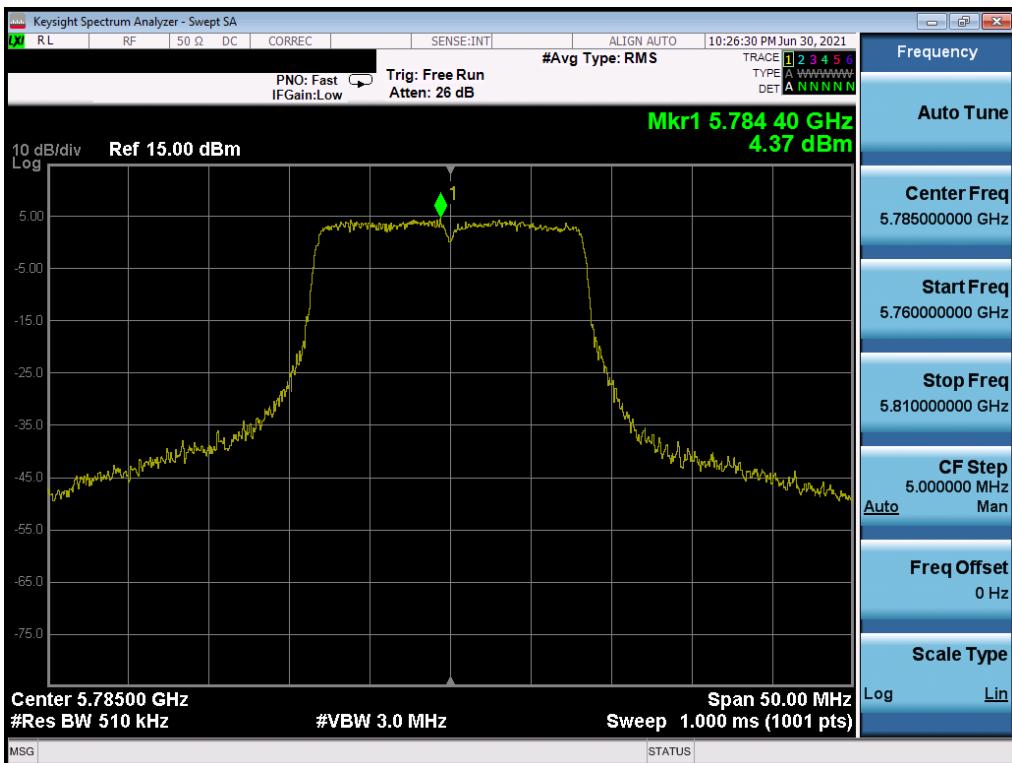
Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density	Margin [dB]
5745	149	a	6	4.41	3.66	7.06	30.0	-22.94
5785	157	a	6	4.37	3.49	6.96	30.0	-23.04
5825	165	a	6	5.06	3.41	7.32	30.0	-22.68
5745	149	n (20MHz)	6.5/7.2 (MCS0)	4.44	3.39	6.96	30.0	-23.04
5785	157	n (20MHz)	6.5/7.2 (MCS0)	4.22	2.80	6.58	30.0	-23.42
5825	165	n (20MHz)	6.5/7.2 (MCS0)	4.62	3.35	7.04	30.0	-22.96
5745	149	ax (20MHz)	6.5/7.2 (MCS0)	4.23	3.31	6.80	30.0	-23.20
5785	157	ax (20MHz)	6.5/7.2 (MCS0)	4.06	2.76	6.47	30.0	-23.53
5825	165	ax (20MHz)	6.5/7.2 (MCS0)	4.79	3.11	7.04	30.0	-22.96
5755	151	n (40MHz)	13.5/15 (MCS0)	1.74	0.32	4.10	30.0	-25.90
5795	159	n (40MHz)	13.5/15 (MCS0)	1.99	0.63	4.37	30.0	-25.63
5755	151	ax (40MHz)	13.5/15 (MCS0)	0.30	-0.95	2.73	30.0	-27.27
5795	159	ax (40MHz)	13.5/15 (MCS0)	0.01	-1.04	2.53	30.0	-27.47
5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-2.21	-2.68	0.57	30.0	-29.43
5775	155	ax (80MHz)	29.3/32.5 (MCS0)	0.83	-1.45	2.85	30.0	-27.15

Table 7-33. Band 3 MIMO Conducted Power Spectral Density Measurements

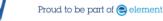
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 231 of 336

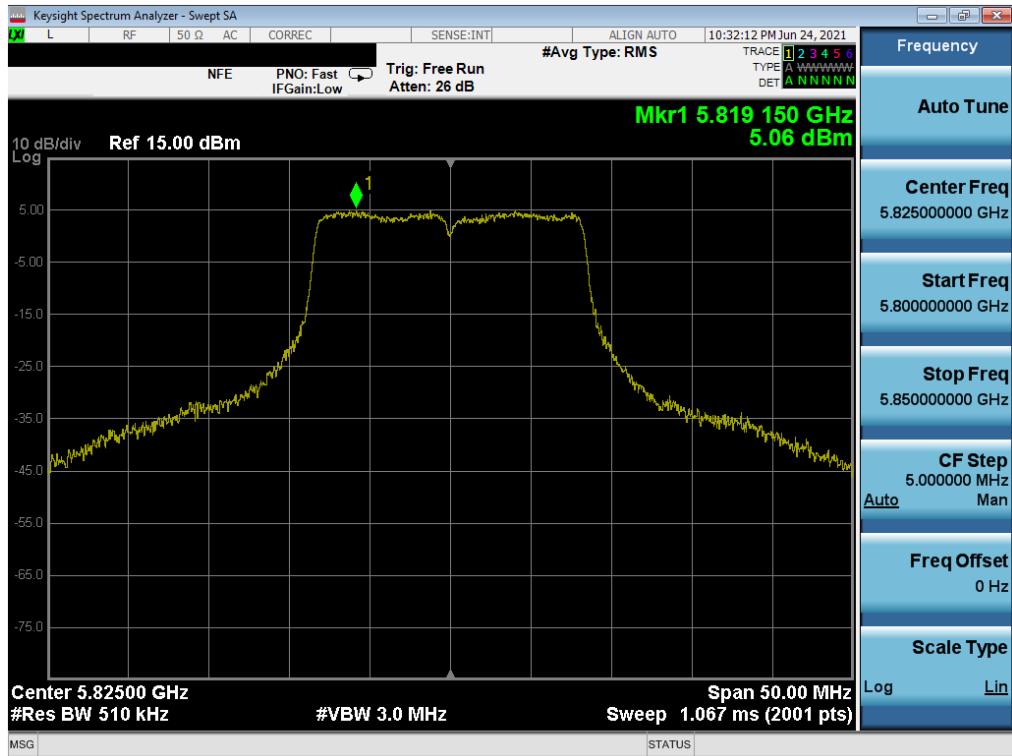


Plot 7-391. Power Spectral Density Plot MIMO SOUTH (802.11a (UNII Band 3) – Ch. 149)

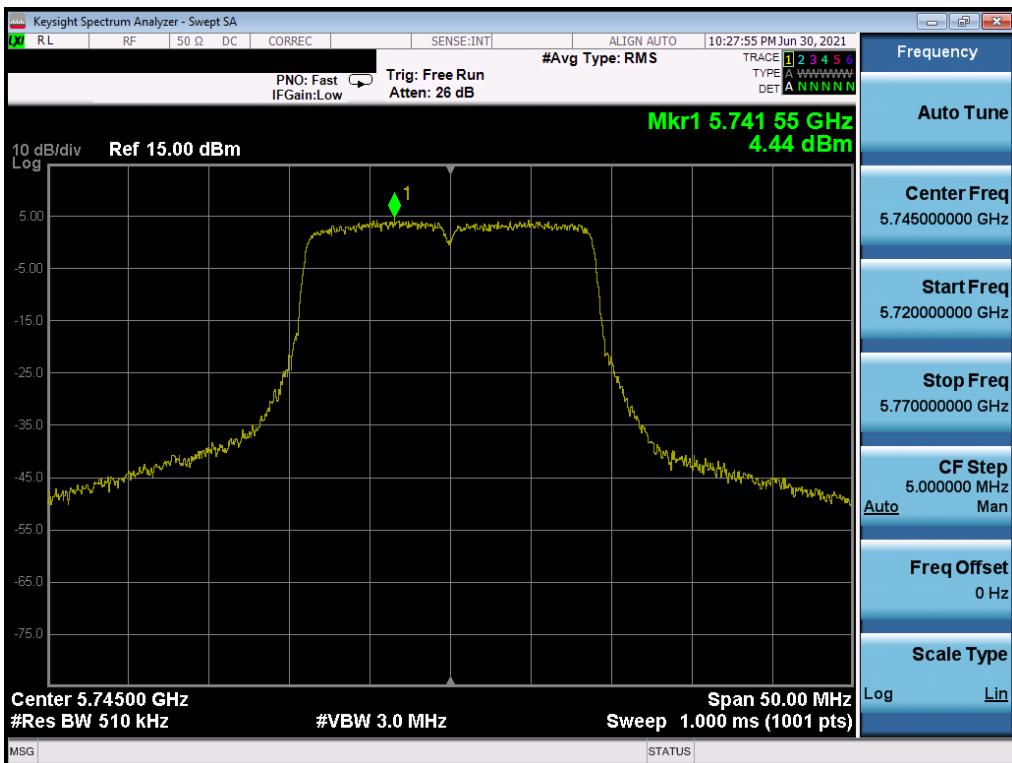


Plot 7-392. Power Spectral Density Plot MIMO SOUTH (802.11a (UNII Band 3) – Ch. 157)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 232 of 336

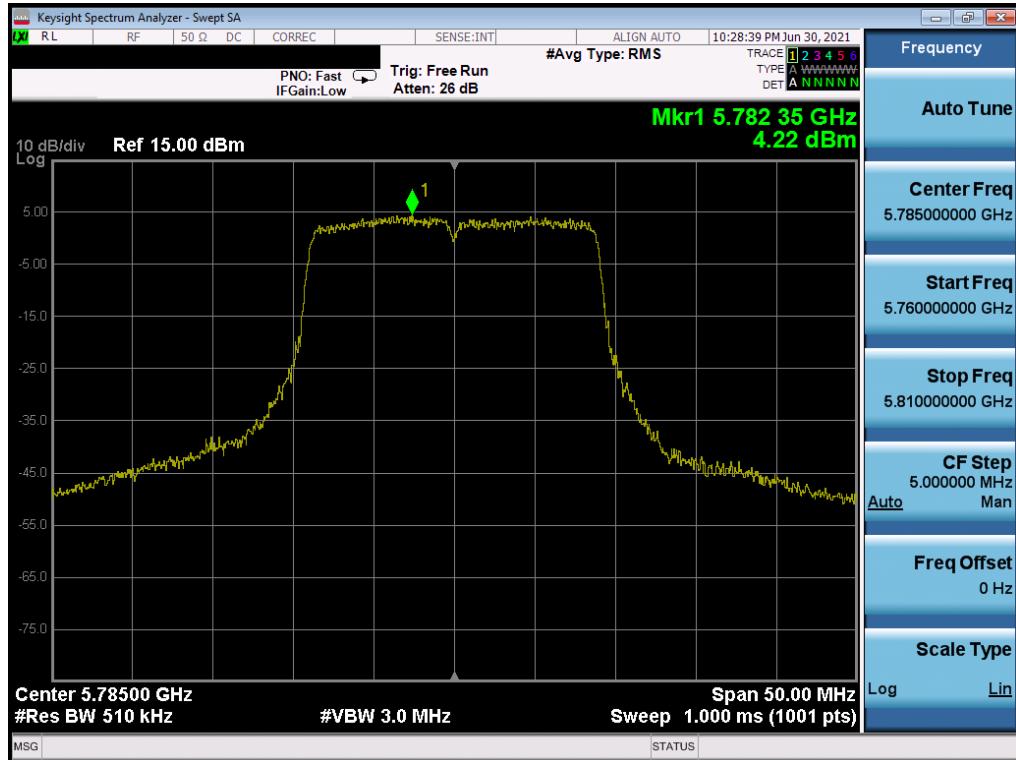


Plot 7-393. Power Spectral Density Plot MIMO SOUTH (802.11a (UNII Band 3) – Ch. 165)

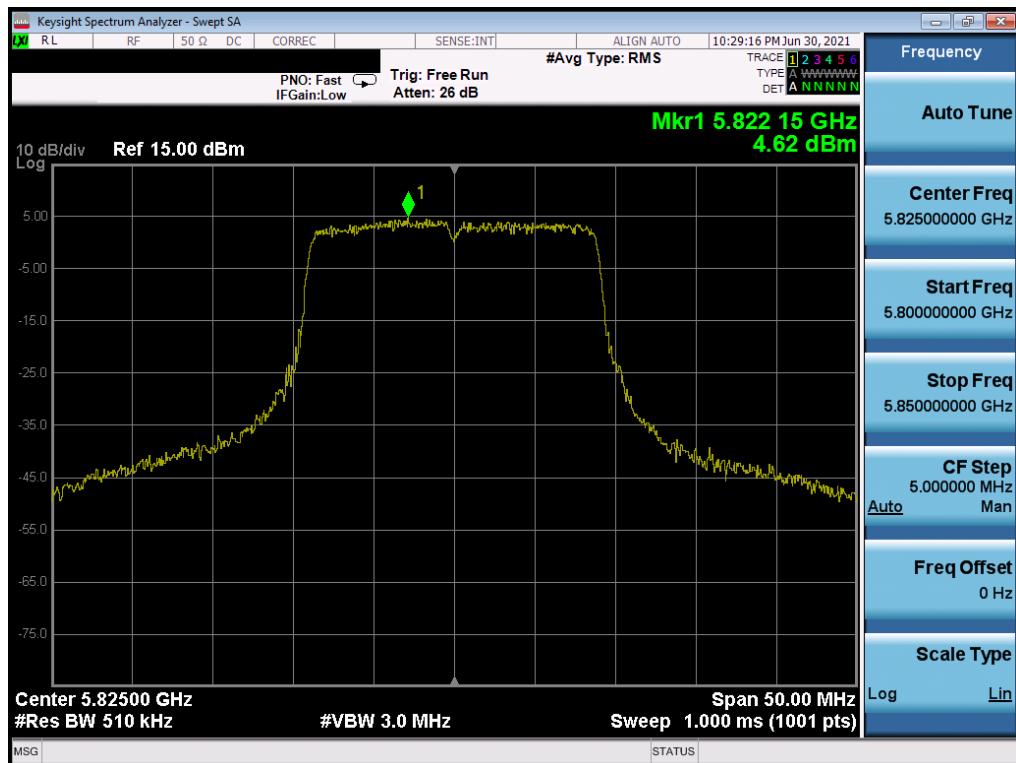


Plot 7-394. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 233 of 336

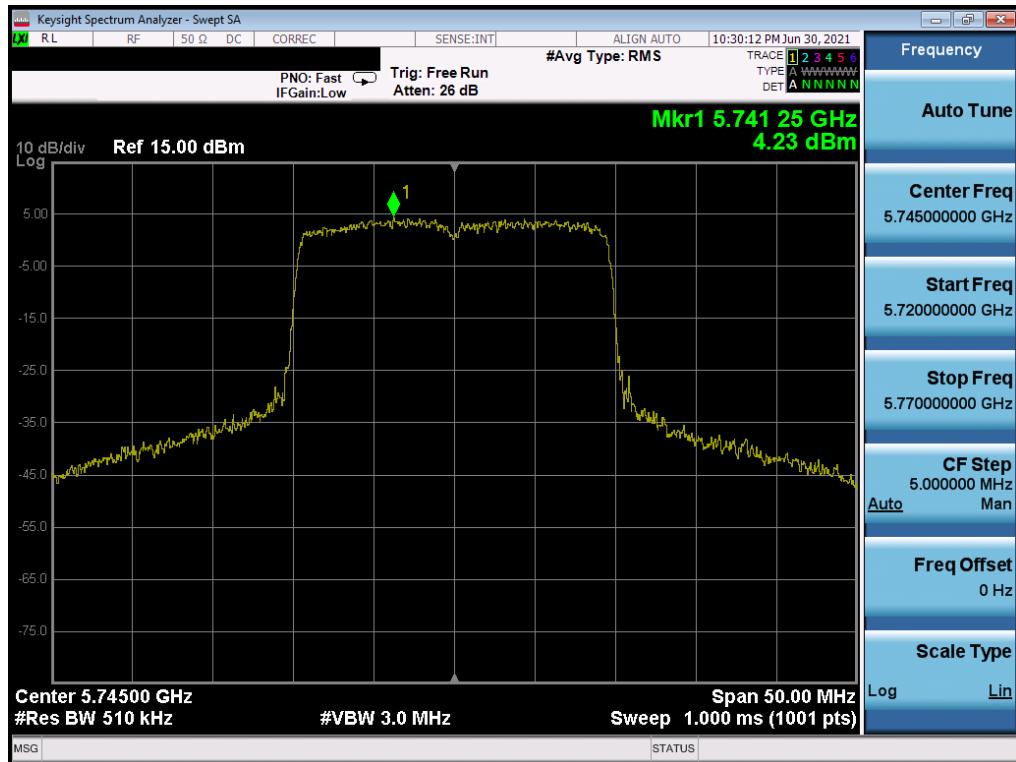


Plot 7-395. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

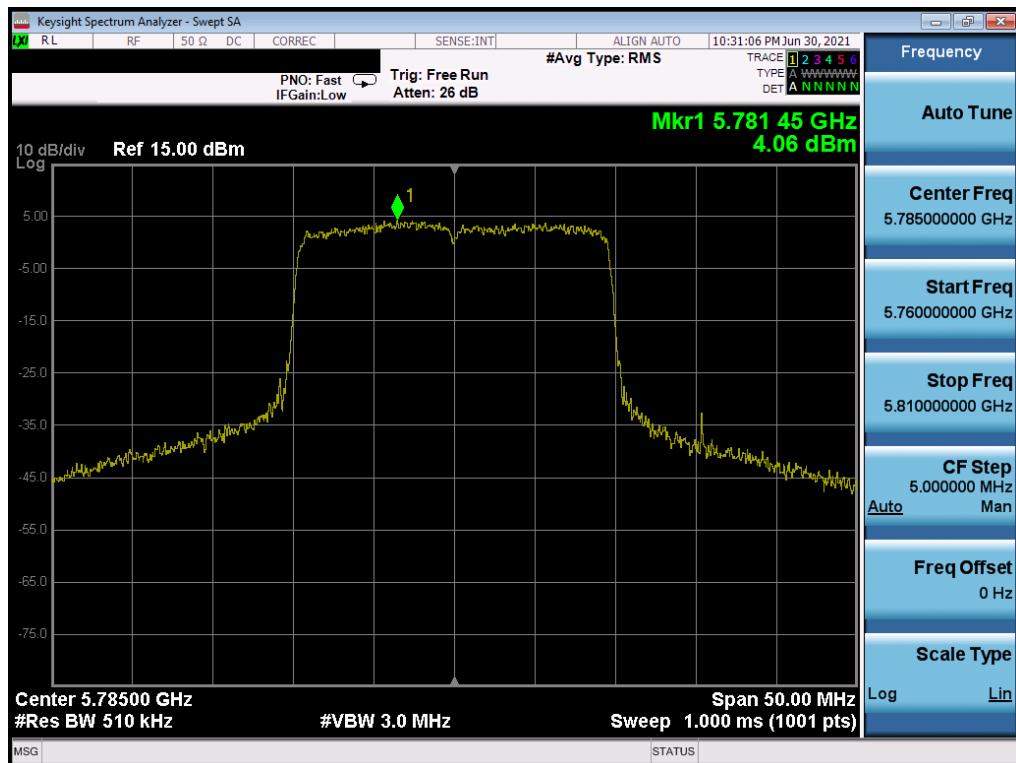


Plot 7-396. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 234 of 336

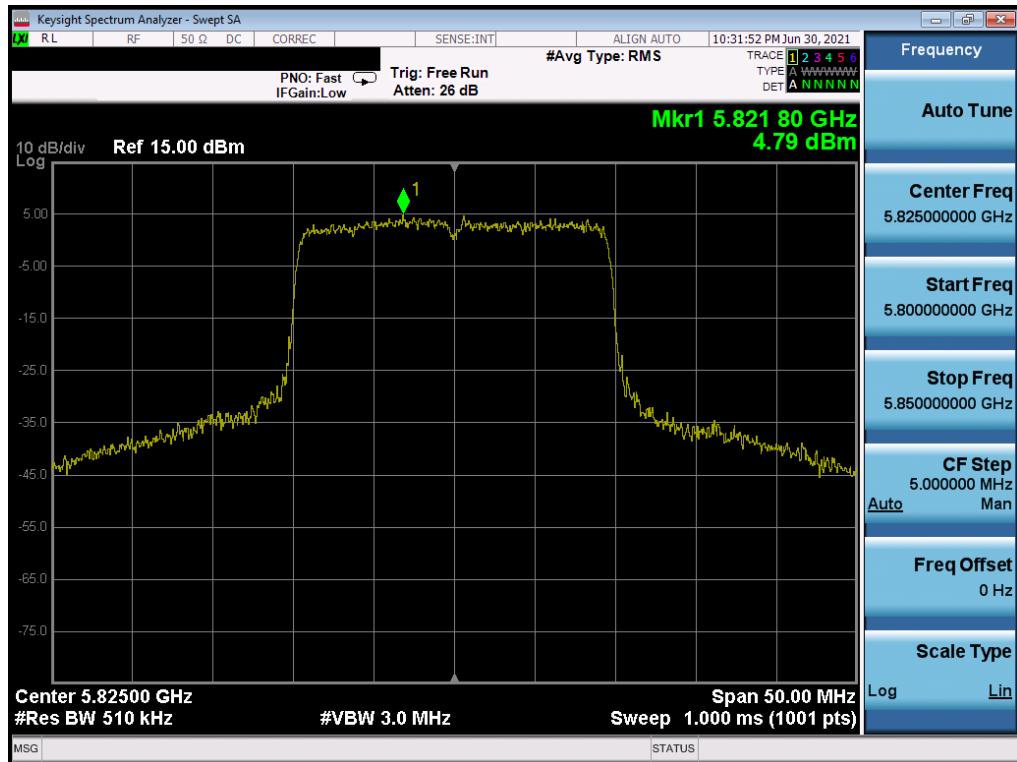


Plot 7-397. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax (UNII Band 3) – Ch. 149)

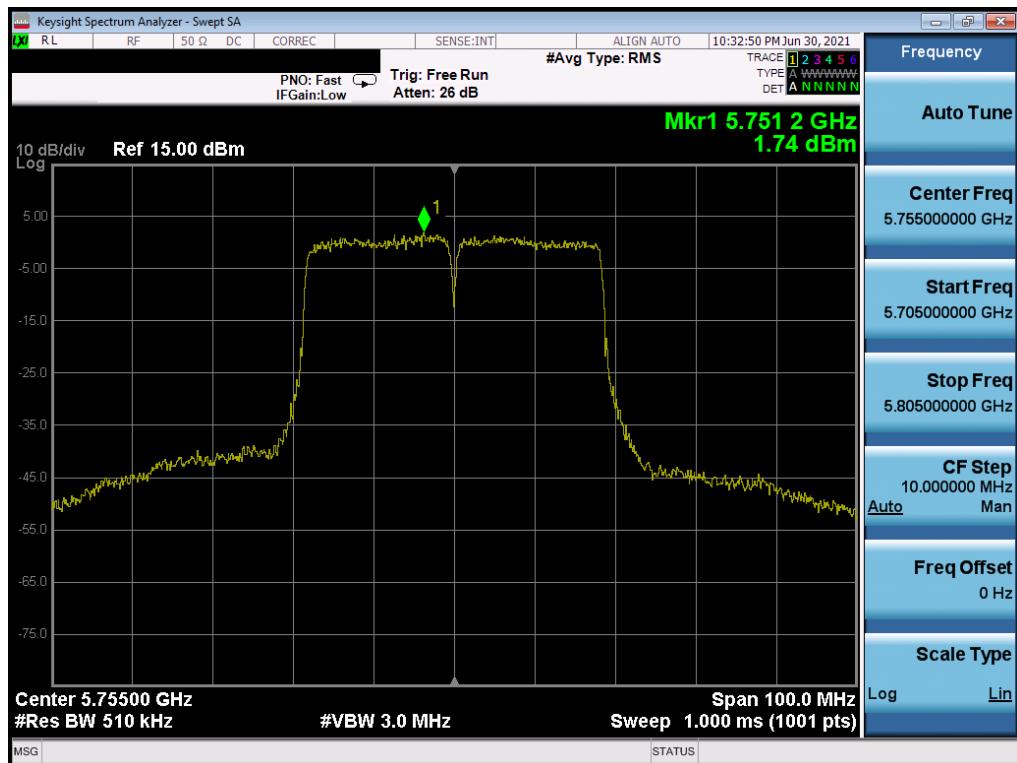


Plot 7-398. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax (UNII Band 3) – Ch. 157)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 235 of 336

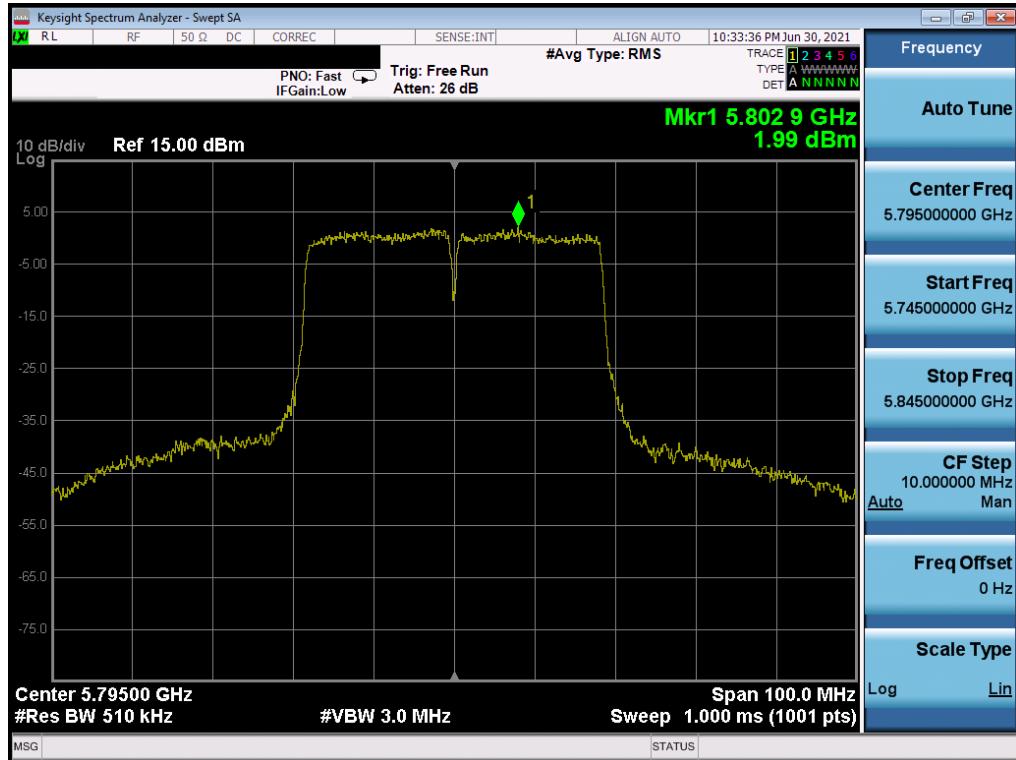


Plot 7-399. Power Spectral Density Plot MIMO SOUTH (20MHz BW 802.11ax (UNII Band 3) – Ch. 165)

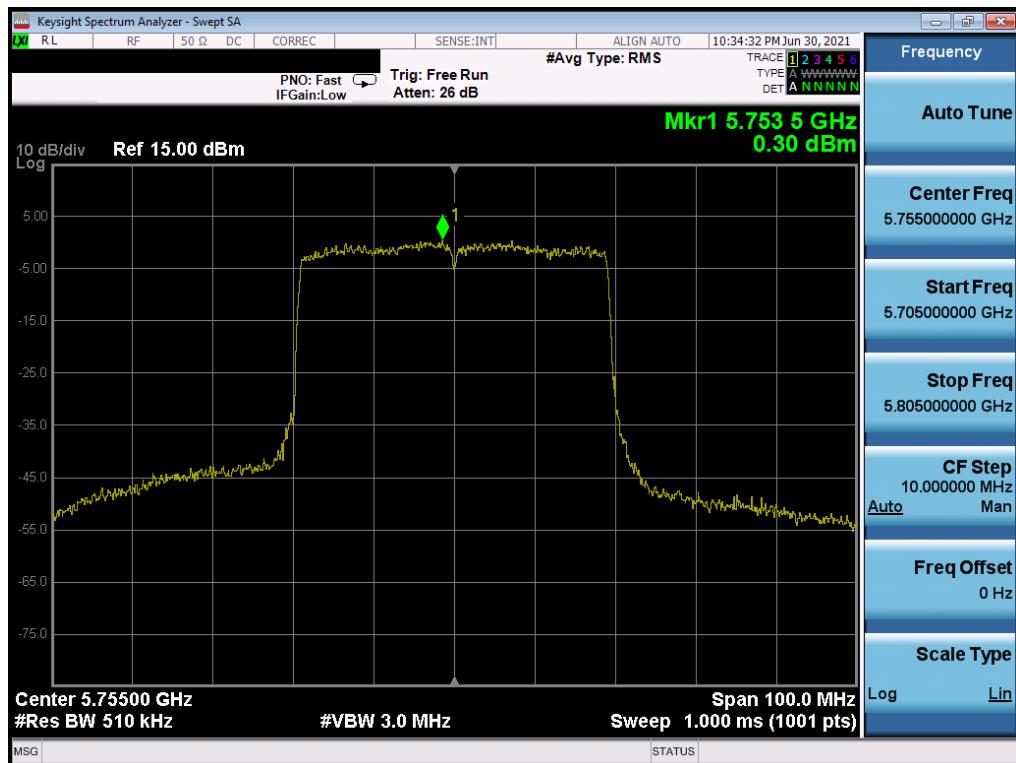


Plot 7-400. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 236 of 336

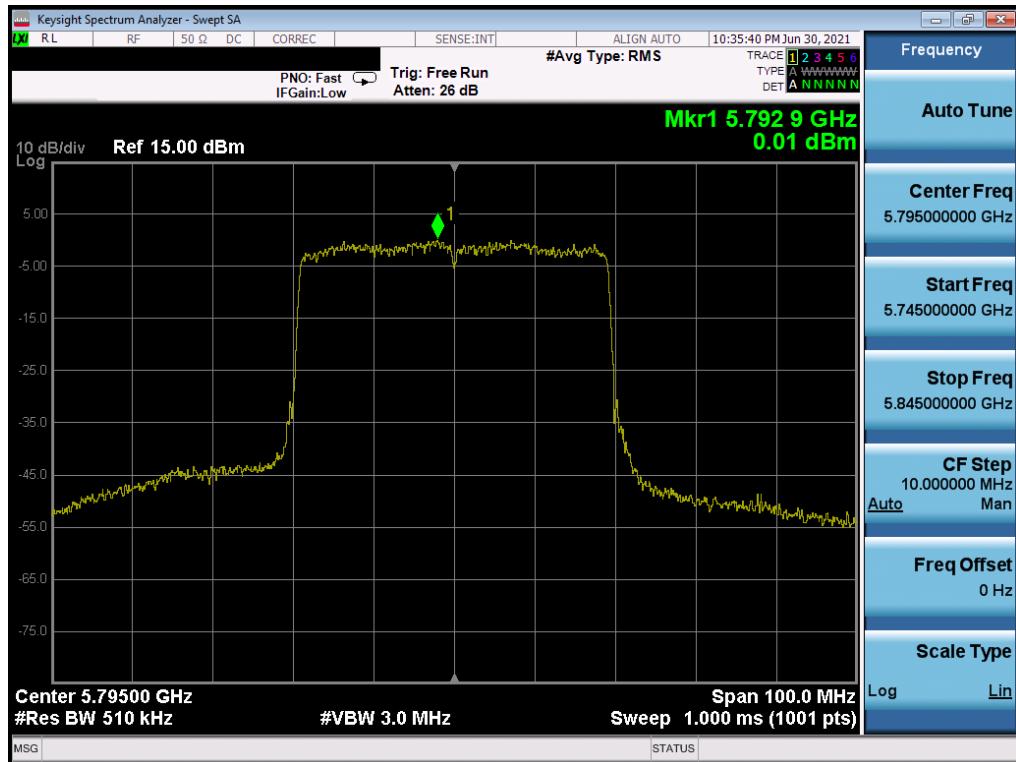


Plot 7-401. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

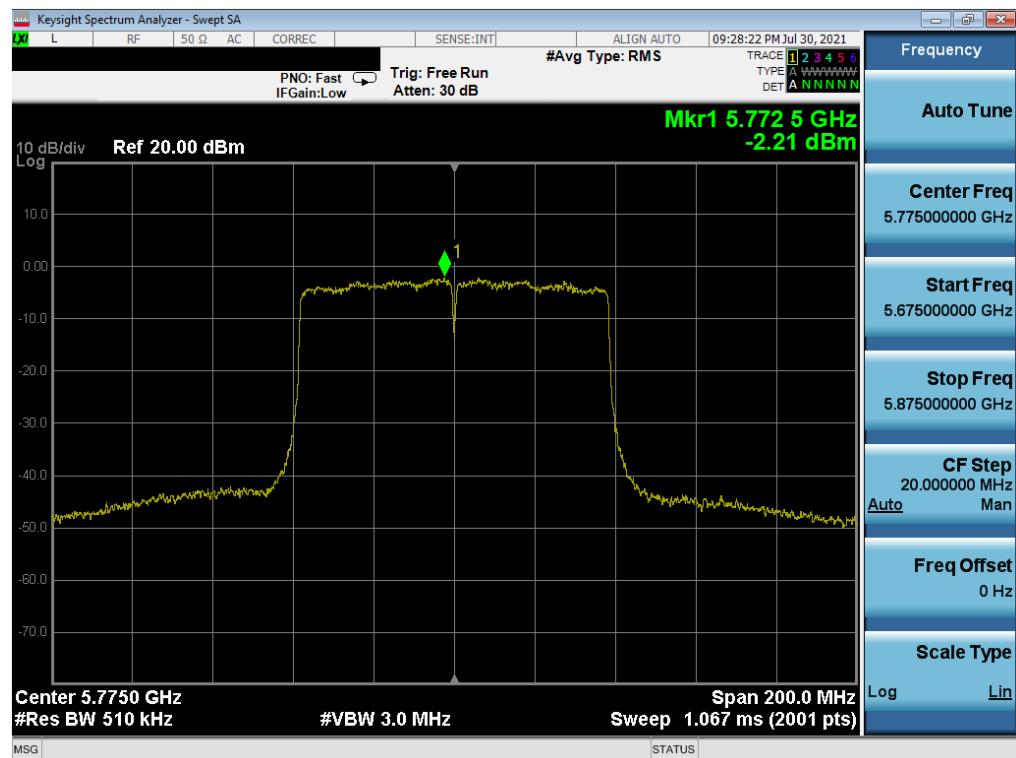


Plot 7-402. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax (UNII Band 3) – Ch. 151)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 237 of 336

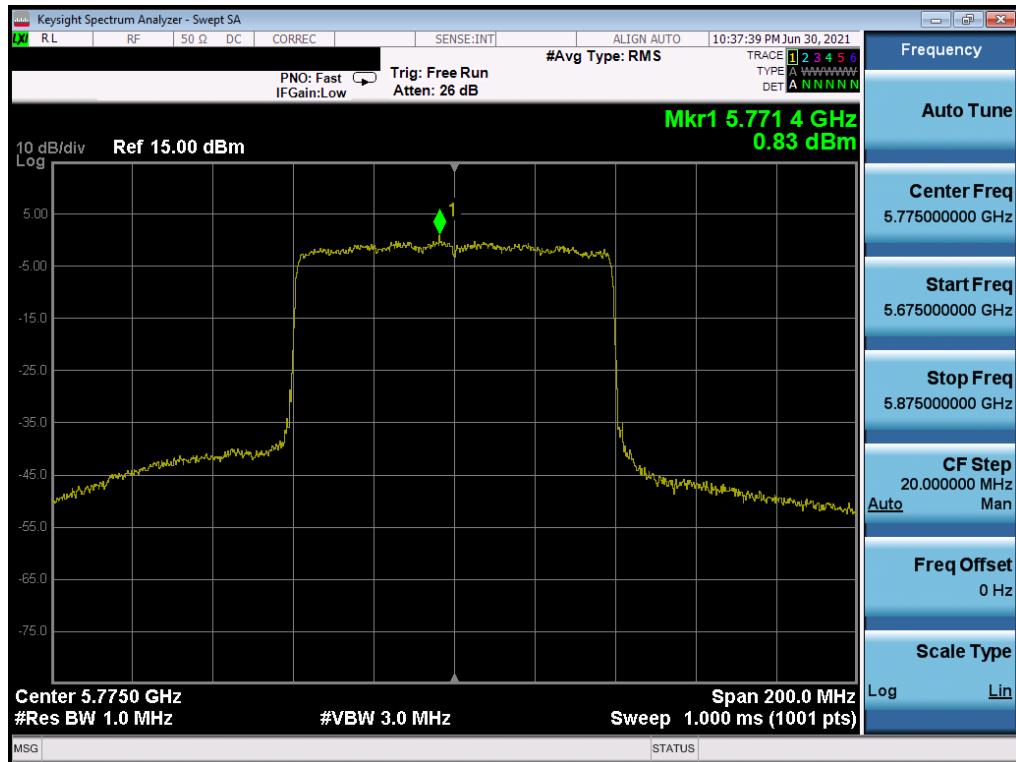


Plot 7-403. Power Spectral Density Plot MIMO SOUTH (40MHz BW 802.11ax (UNII Band 3) – Ch. 159)

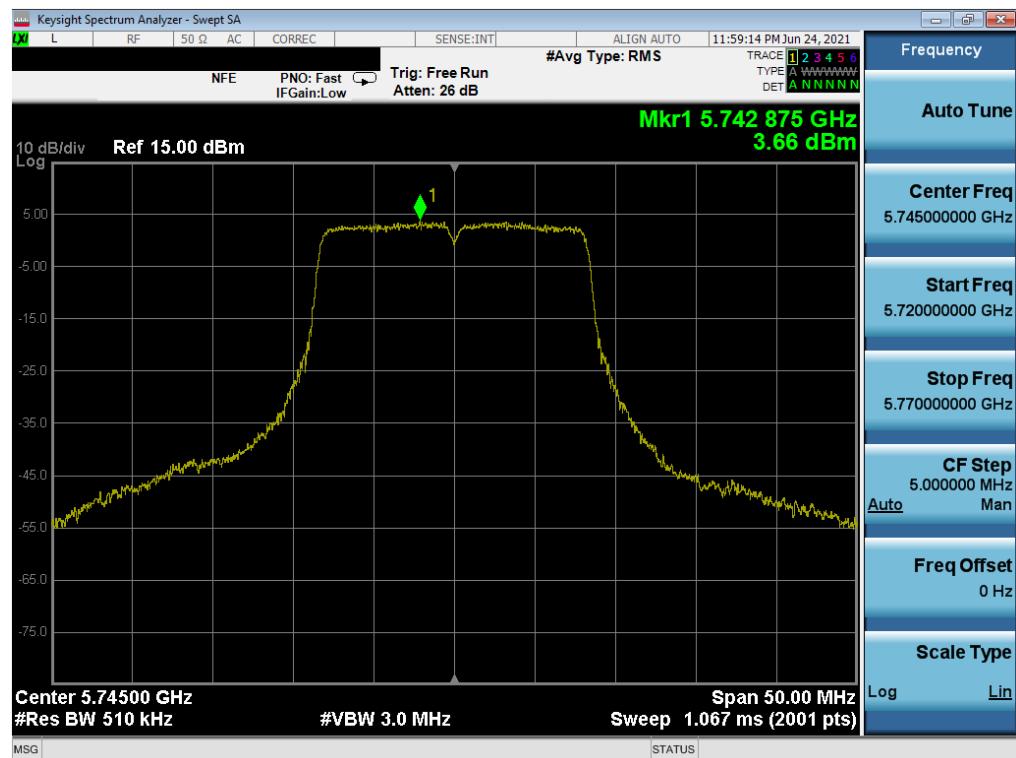


Plot 7-404. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

FCC ID: C3K1995 IC: 3048A-1995	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 238 of 336

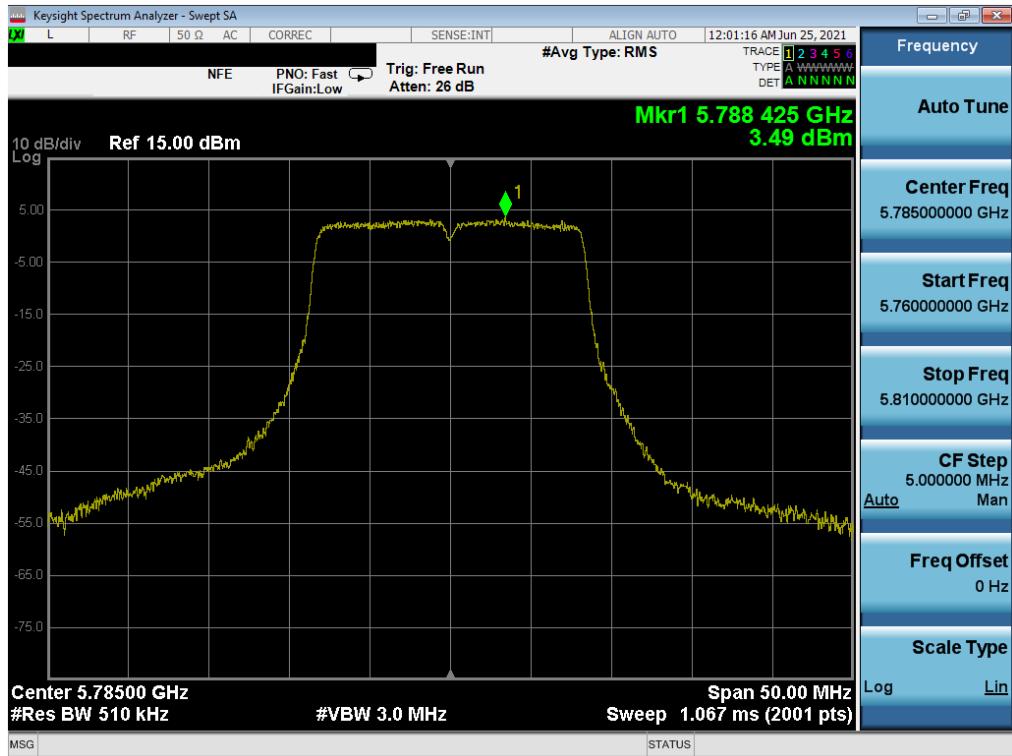


Plot 7-405. Power Spectral Density Plot MIMO SOUTH (80MHz BW 802.11ax (UNII Band 3) – Ch. 155)

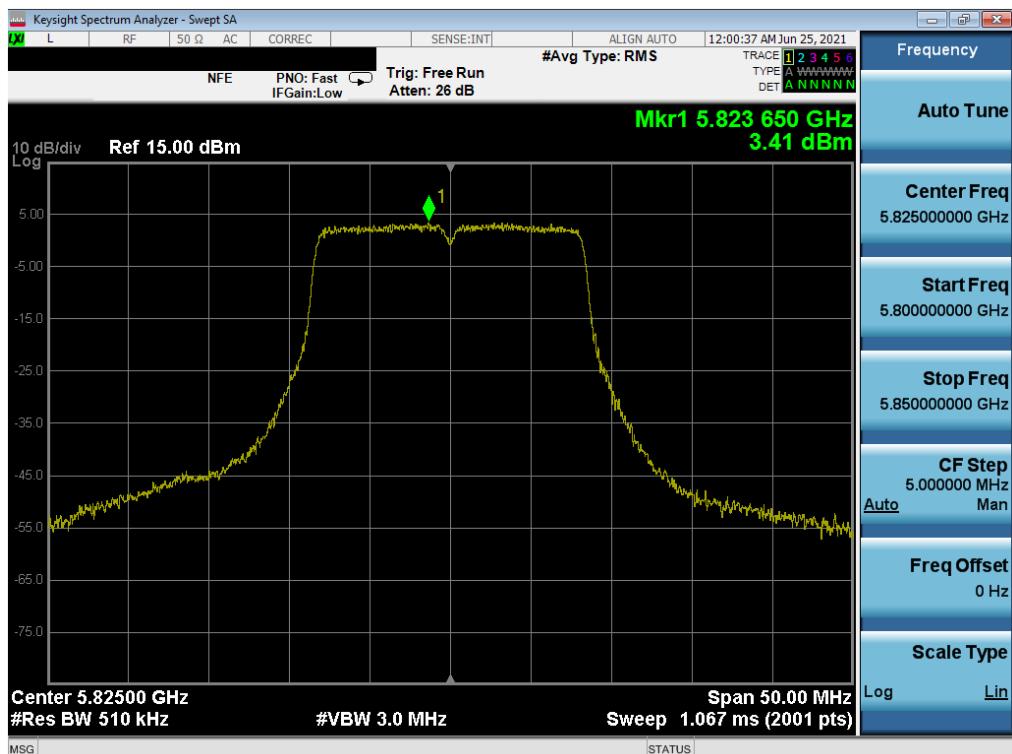


Plot 7-406. Power Spectral Density Plot MIMO NORTH (802.11a (UNII Band 3) – Ch. 149)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 239 of 336

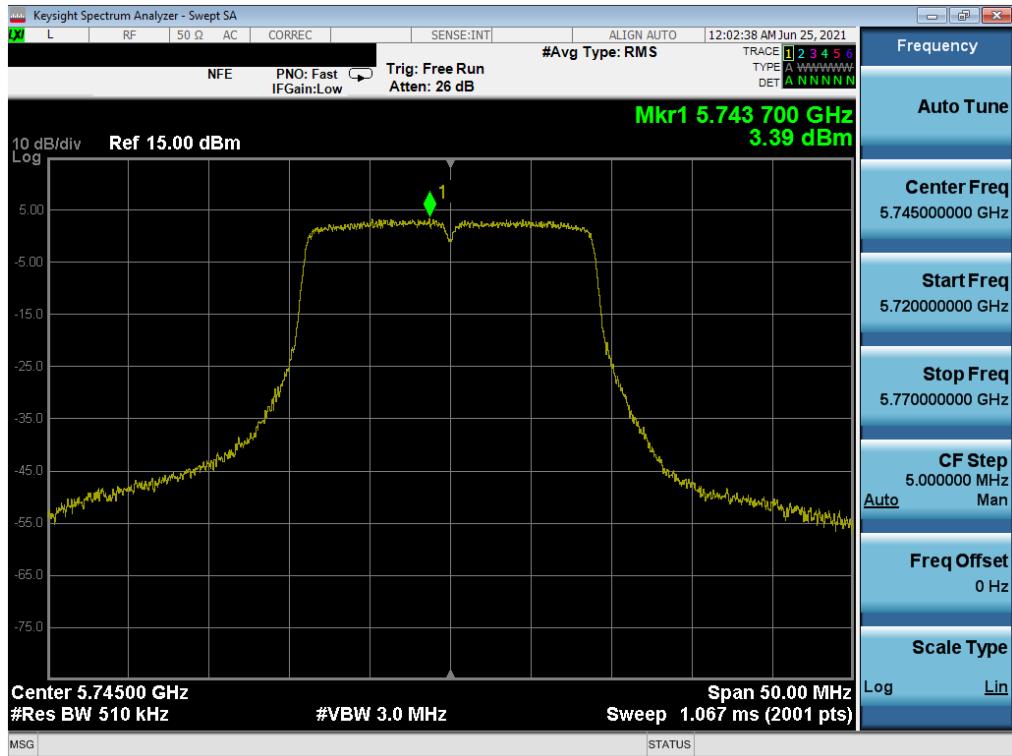


Plot 7-407. Power Spectral Density Plot MIMO NORTH (802.11a (UNII Band 3) – Ch. 157)

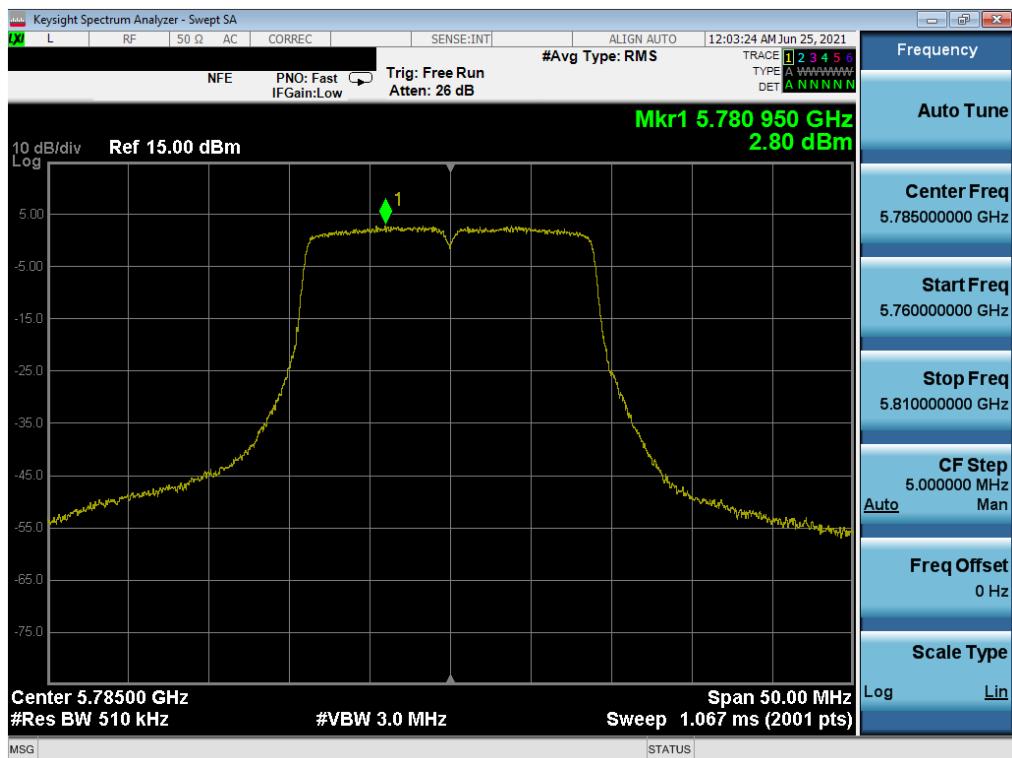


Plot 7-408. Power Spectral Density Plot MIMO NORTH (802.11a (UNII Band 3) – Ch. 165)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 240 of 336

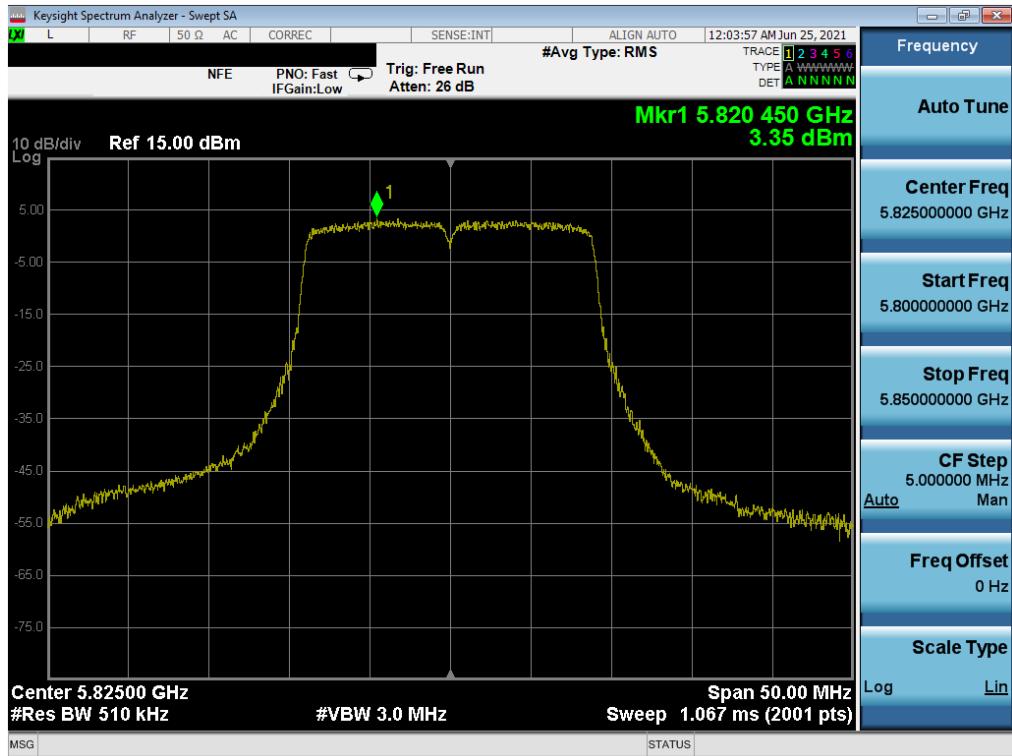


Plot 7-409. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

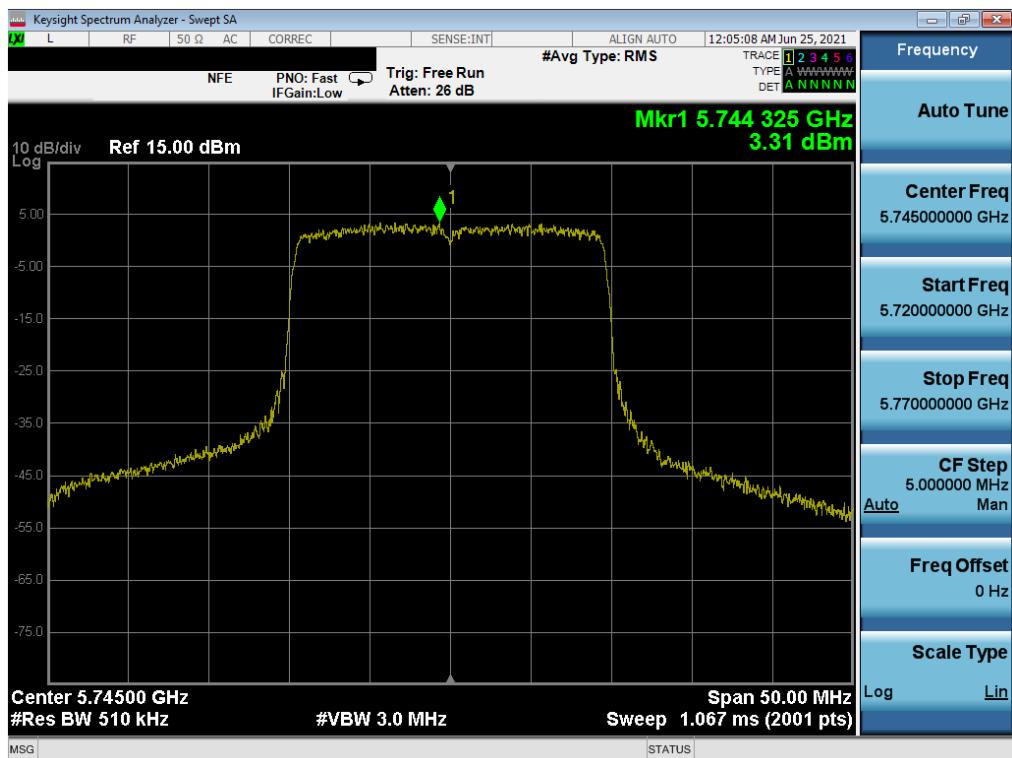


Plot 7-410. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 241 of 336

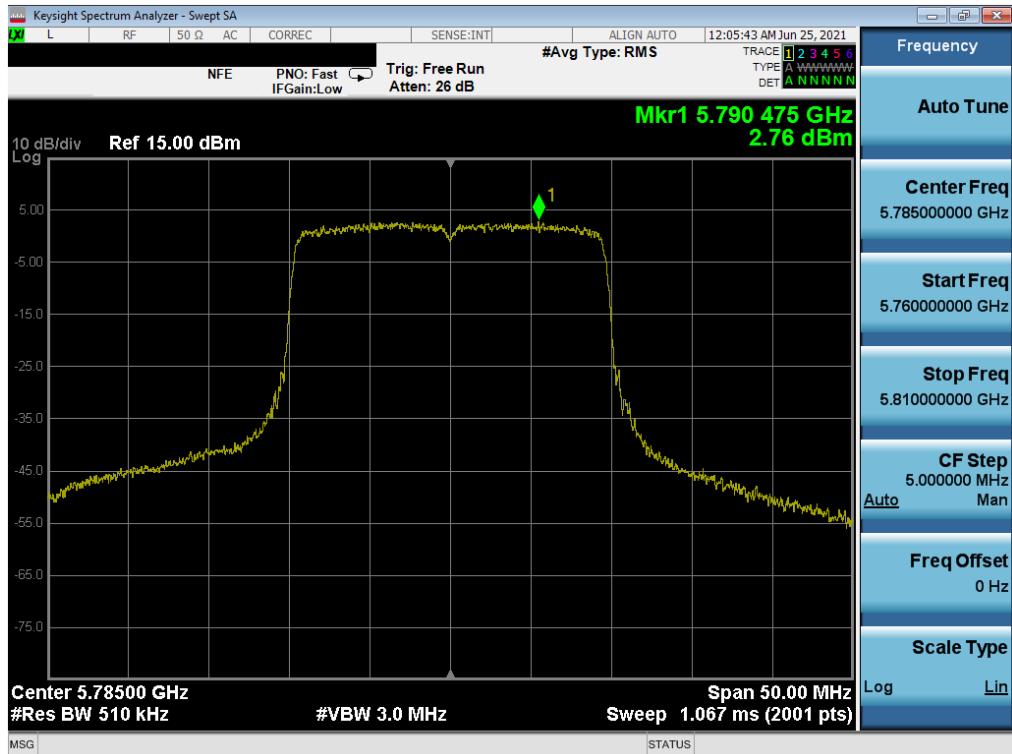


Plot 7-411. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

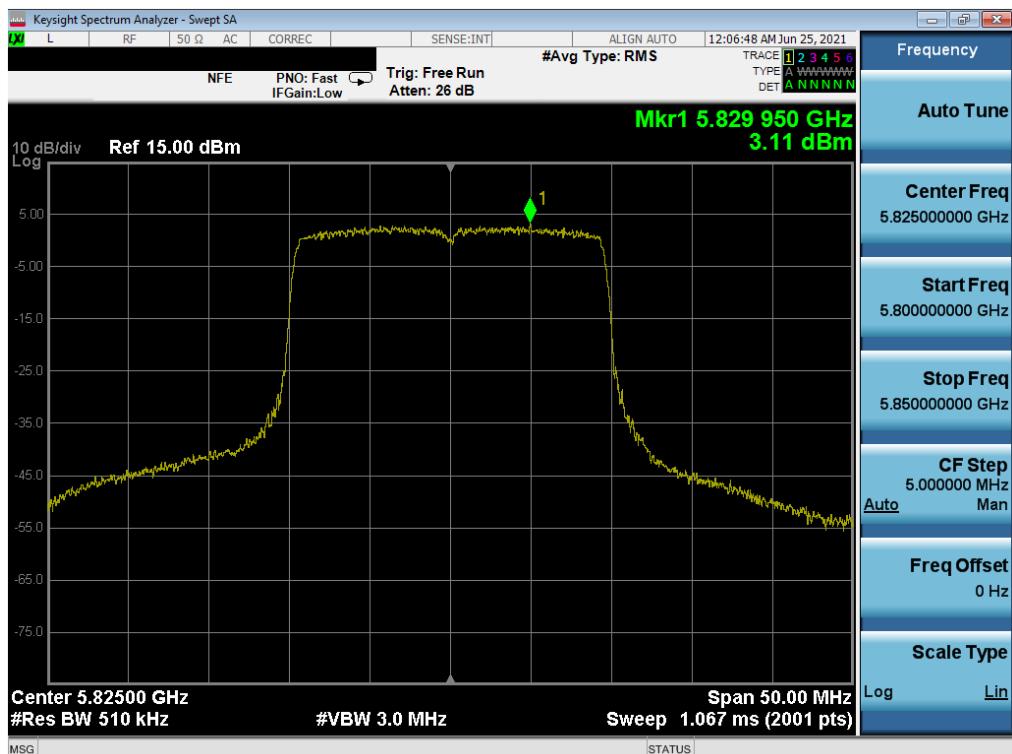


Plot 7-412. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax (UNII Band 3) – Ch. 149)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 242 of 336

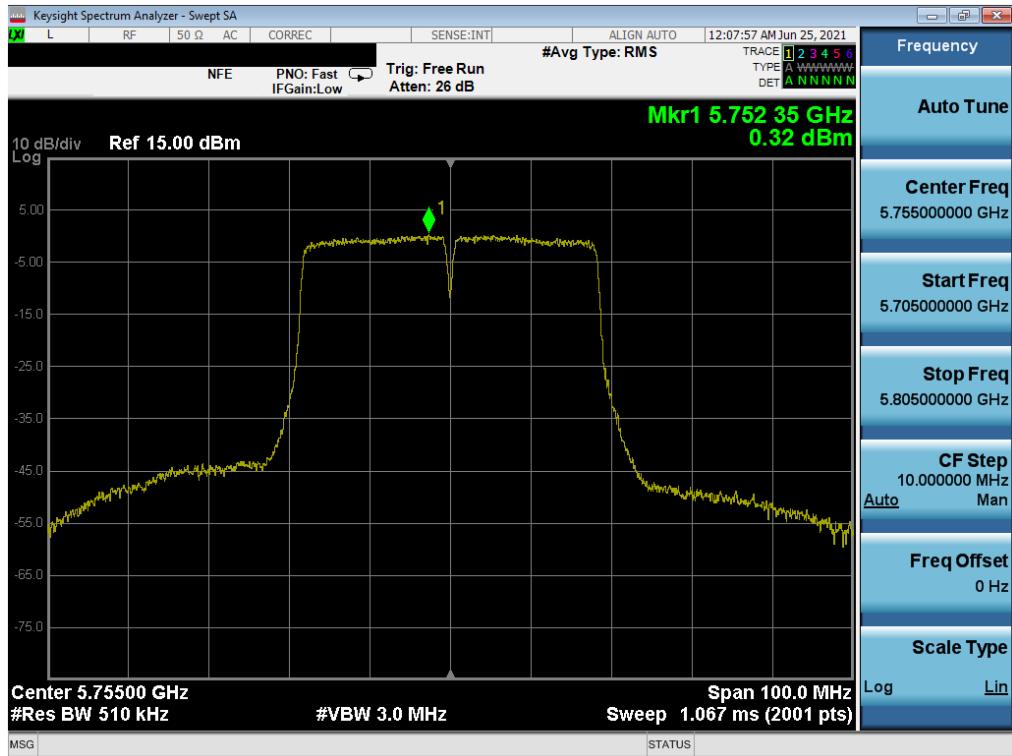


Plot 7-413. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax (UNII Band 3) – Ch. 157)

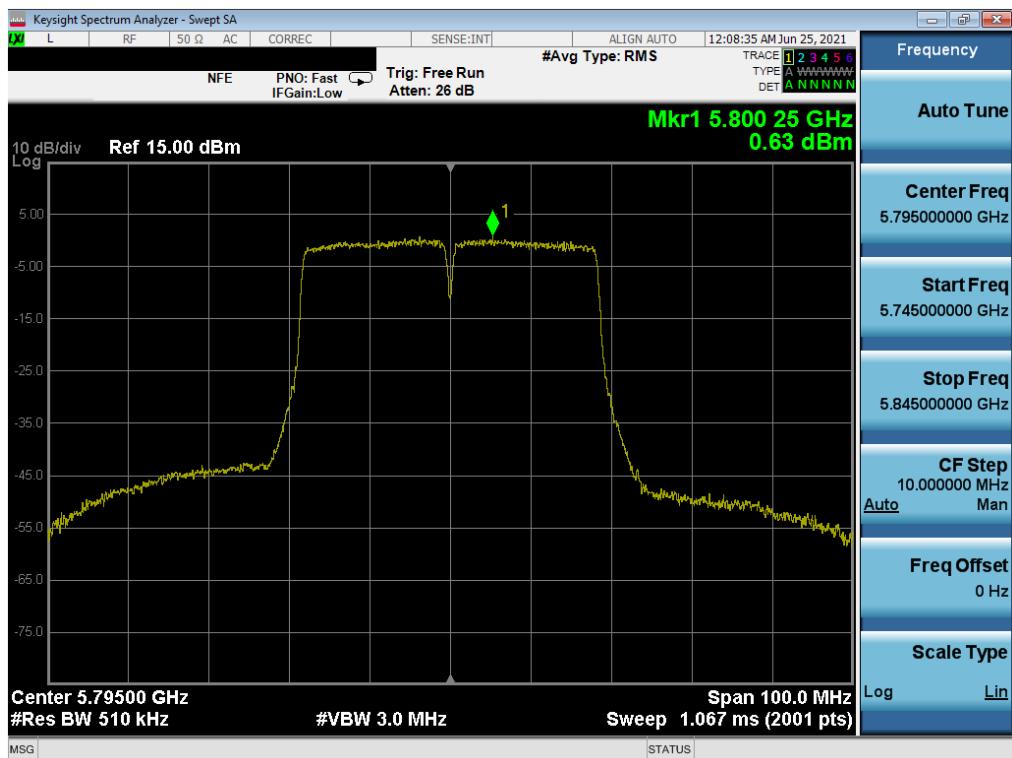


Plot 7-414. Power Spectral Density Plot MIMO NORTH (20MHz BW 802.11ax (UNII Band 3) – Ch. 165)

FCC ID: C3K1995 IC: 3048A-1995		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 243 of 336

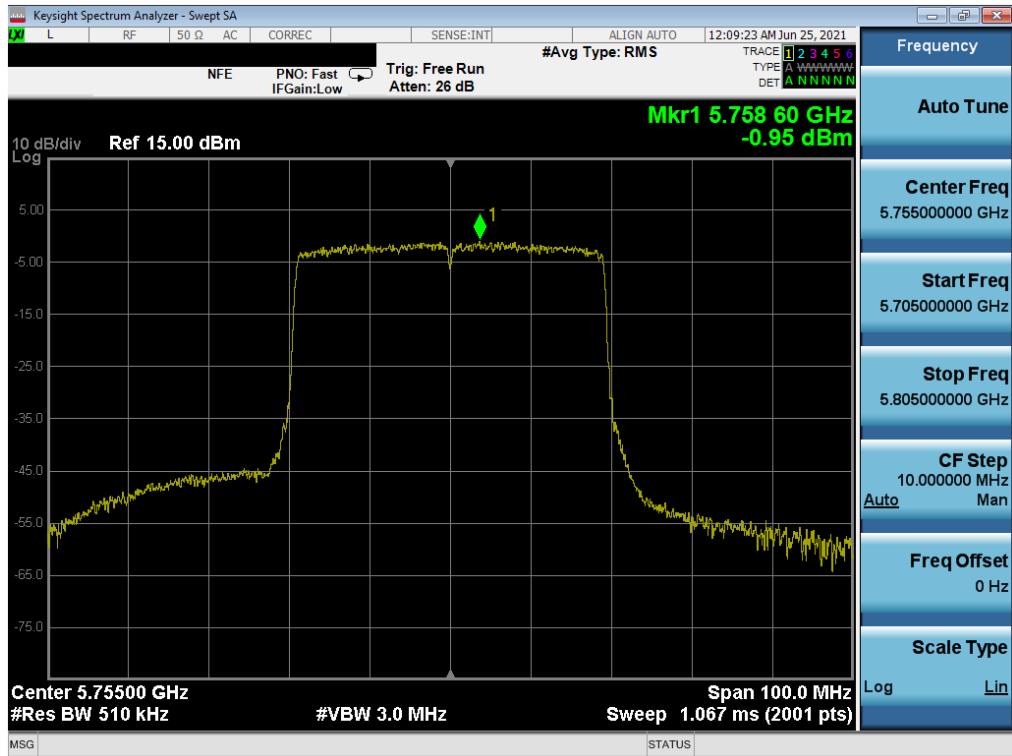


Plot 7-415. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

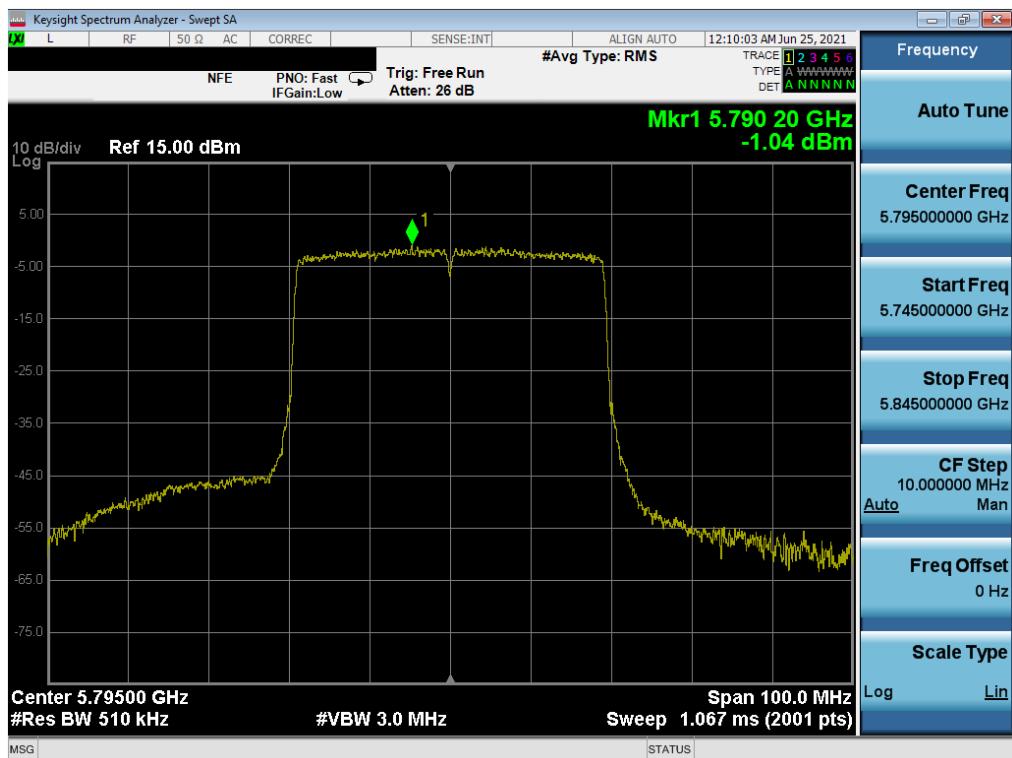


Plot 7-416. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11n (UNII Band 3) – Ch. 159)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 244 of 336

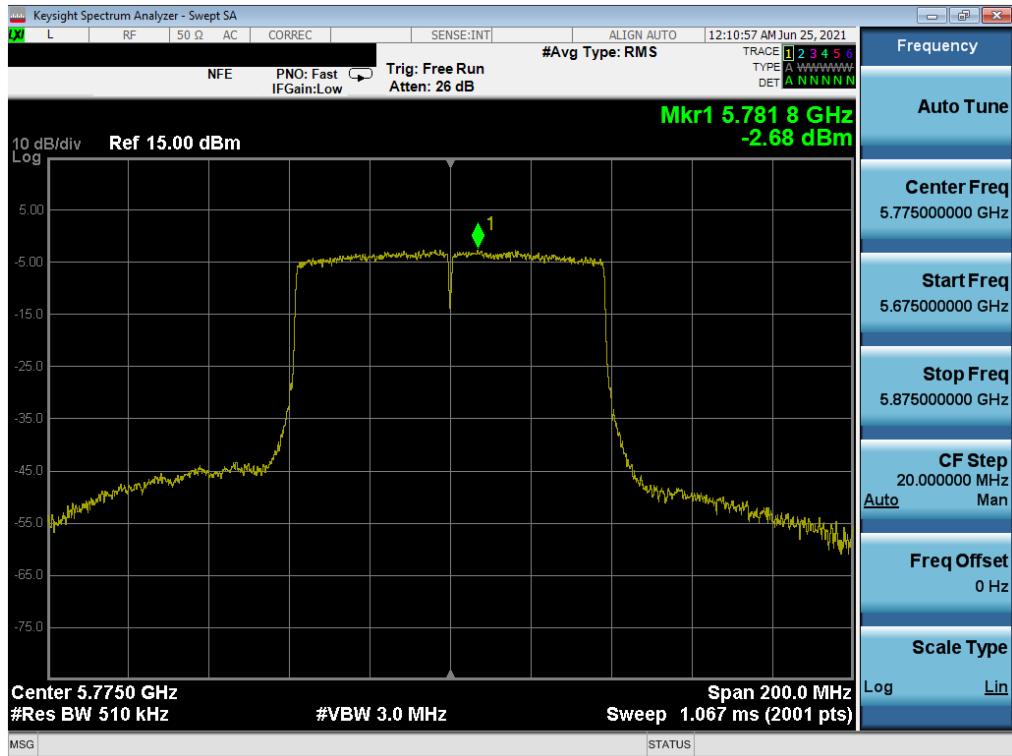


Plot 7-417. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax (UNII Band 3) – Ch. 151)

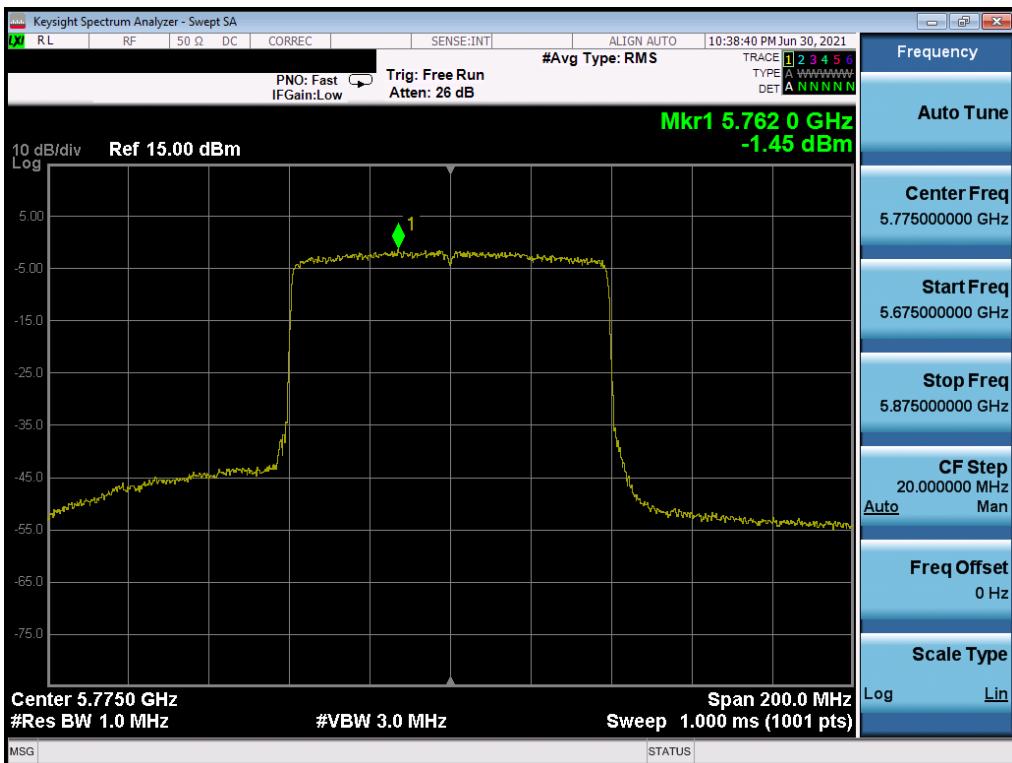


Plot 7-418. Power Spectral Density Plot MIMO NORTH (40MHz BW 802.11ax (UNII Band 3) – Ch. 159)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 245 of 336



Plot 7-419. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)



Plot 7-420. Power Spectral Density Plot MIMO NORTH (80MHz BW 802.11ax (UNII Band 3) – Ch. 155)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 246 of 336

**Note:**

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 v02r01 Section E)2), the power spectral density at South Antenna and North Antenna were first measured separately as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

**Sample MIMO Calculation:**

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted power spectral density was measured to be 0.89 dBm for SOUTH and -0.66 dBm for NORTH.

South Antenna + North Antenna = MIMO

$$(0.89 \text{ dBm} + -0.66 \text{ dBm}) = (1.23 \text{ mW} + 0.86 \text{ mW}) = 2.09 \text{ mW} = 3.19 \text{ dBm}$$

**Sample e.i.r.p Power Spectral Density Calculation:**

At 5180MHz in 802.11n (20MHz BW) mode, the average MIMO power density was calculated to be 3.19 dBm with directional gain of 6.02 dBi.

e.i.r.p. Power Spectral Density(dBm) = Power Spectral Density (dBm) + Ant gain (dBi)

$$3.19 \text{ dBm} + 6.02 \text{ dBi} = 9.21 \text{ dBm}$$

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## 7.6 Radiated Spurious Emission Measurements – Above 1GHz

§15.407(b) §15.205 §15.209; RSS-Gen [8.9]

### Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11n (20MHz BW), 802.11n (40MHz BW), 802.11ac (80MHz), and 802.11ax (160MHz)), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

**For transmitters operating in the 5.15-5.25 GHz and 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.**

**For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.**

**For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.**

**All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-34 per Section 15.209 and RSS-Gen (8.9).**

Frequency	Field Strength [ $\mu$ V/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-34. Radiated Limits

### Test Procedures Used

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5  
 KDB 789033 D02 v02r01 – Section G

### Test Settings

#### Average Measurements above 1GHz (Method AD)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be  $\geq 2 \times$  span/RBW)
6. Averaging type = power (RMS)
7. Sweep time = auto couple
8. Trace was averaged over 100 sweeps

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### Peak Measurements above 1GHz

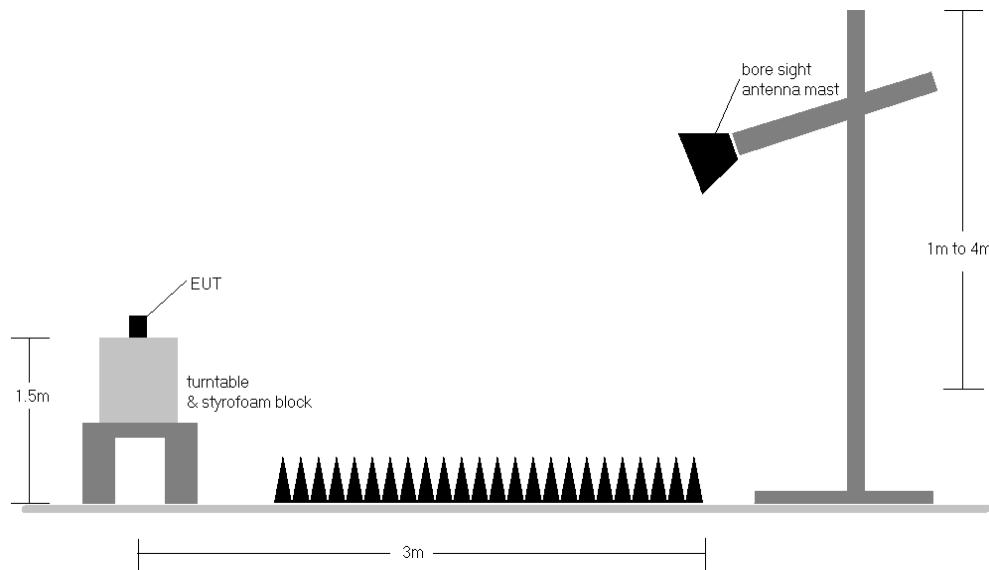
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

### Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

### Test Setup

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



**Figure 7-5. Test Instrument & Measurement Setup**

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### Test Notes

1. All emissions that lie in the restricted bands (denoted by a \* next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-34.
2. All spurious emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-34. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dB $\mu$ V/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dB $\mu$ V/m.
3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
6. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. Radiated spurious emissions were investigated while operating in MIMO mode, however, it was determined that single antenna operation produced the worst case emissions. Since the emissions produced from MIMO operation were found to be more than 20dB below the limit, the MIMO emissions are not reported.
8. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
9. The “-” shown in the following RSE tables are used to denote a noise floor measurement.

### Sample Calculations

#### Determining Spurious Emissions Levels

- Field Strength Level [dB $\mu$ V/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dB $\mu$ V/m] – Limit [dB $\mu$ V/m]

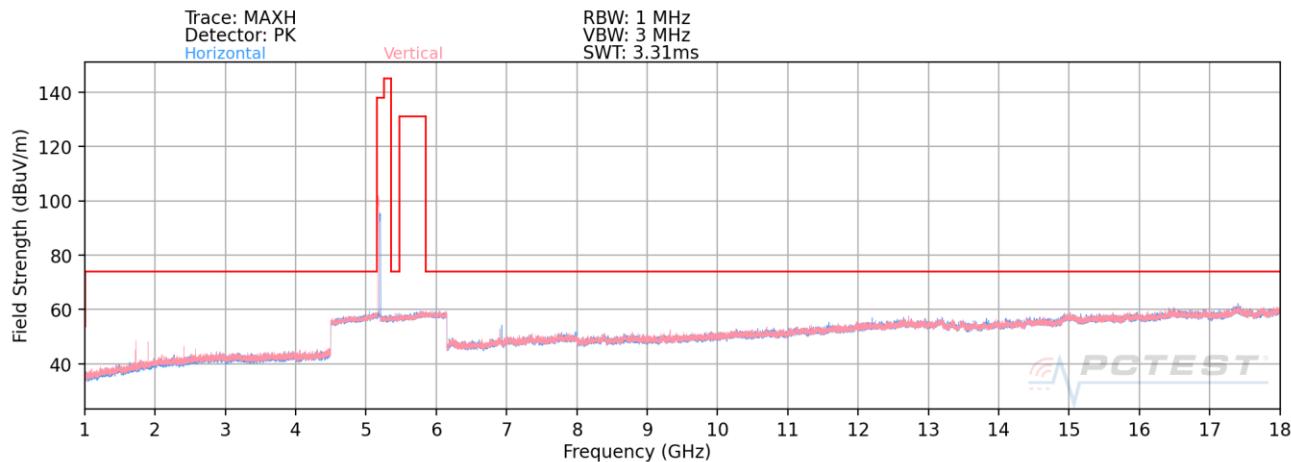
#### Radiated Band Edge Measurement Offset

- The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula:  

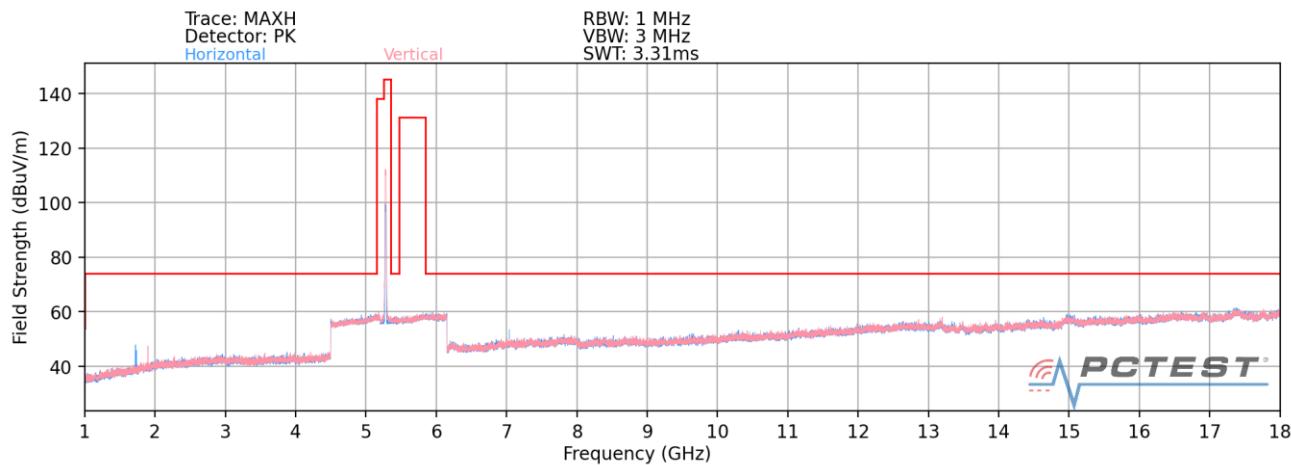
$$\text{Offset (dB)} = (\text{Antenna Factor} + \text{Cable Loss} + \text{Attenuator}) - \text{Preamplifier Gain}$$

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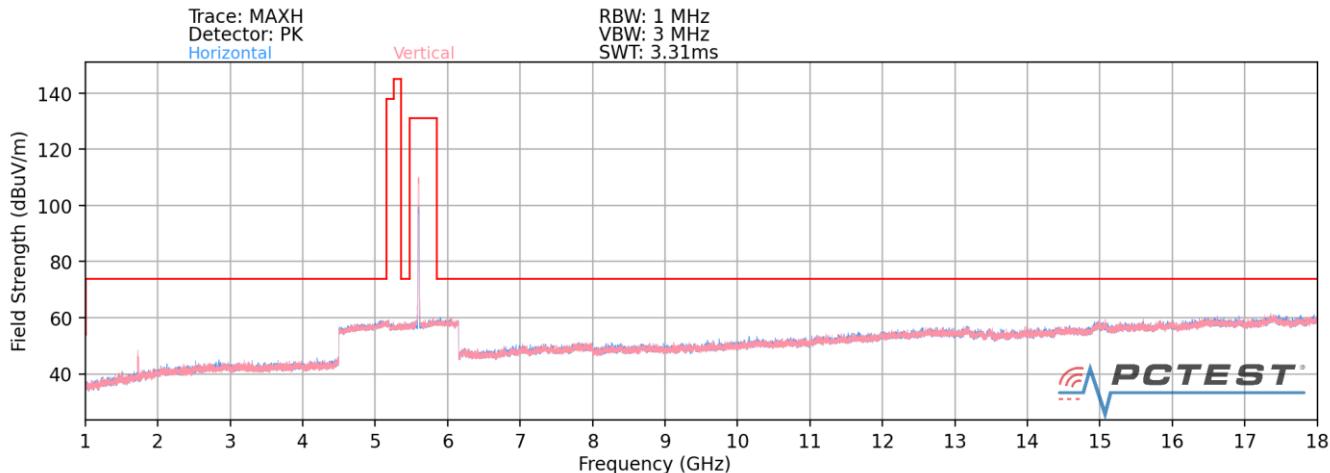
### 7.6.1 SISO SOUTH Radiated Spurious Emission Measurements



Plot 7-421. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11a – U1 Ch. 40) Open

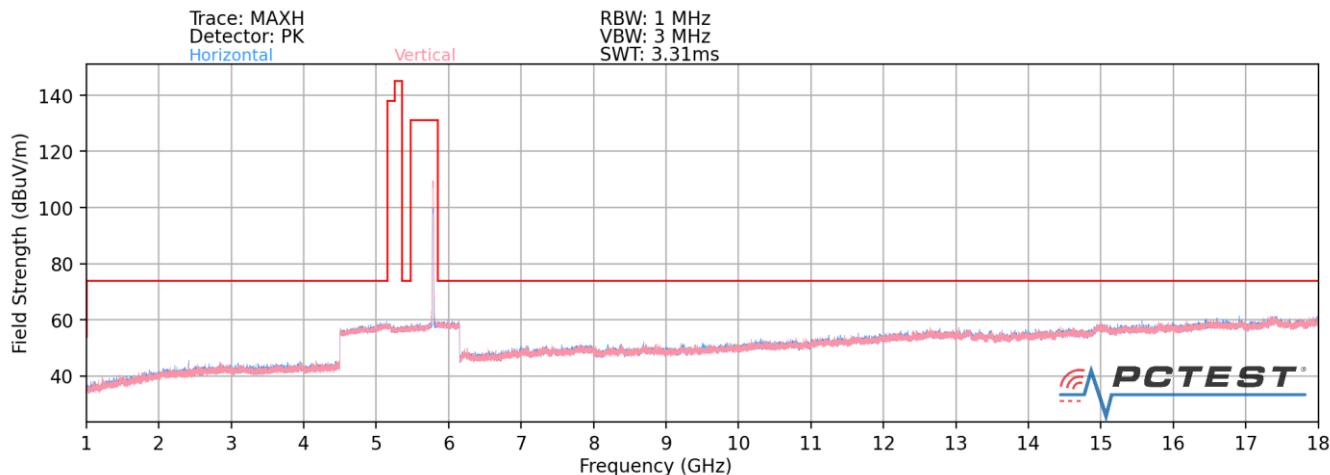


Plot 7-422. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11a – U2A Ch. 56) Open

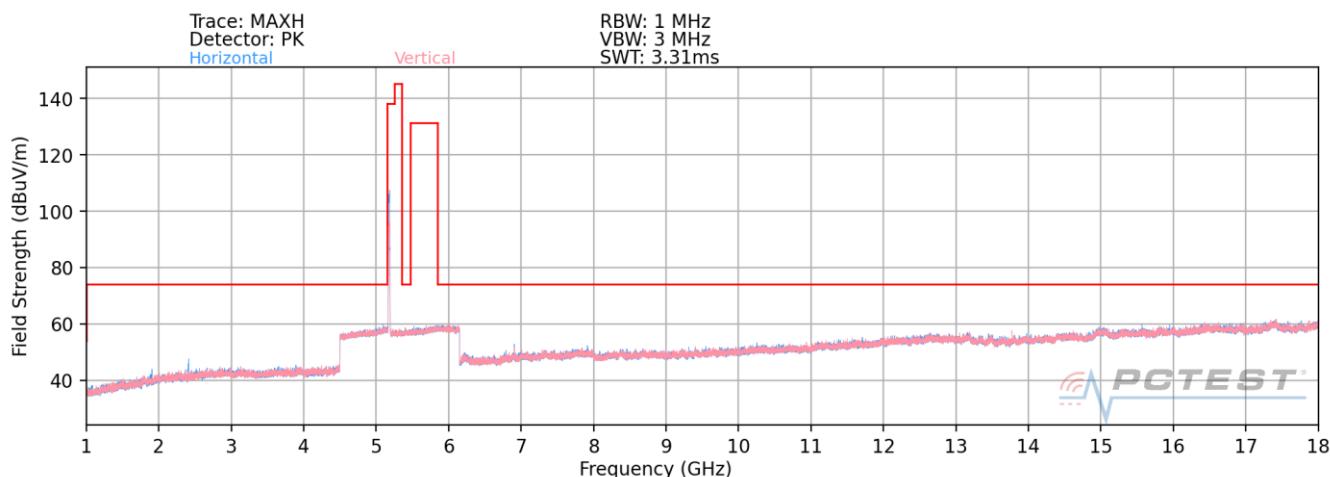


Plot 7-423. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11a – U2C Ch. 120) Open

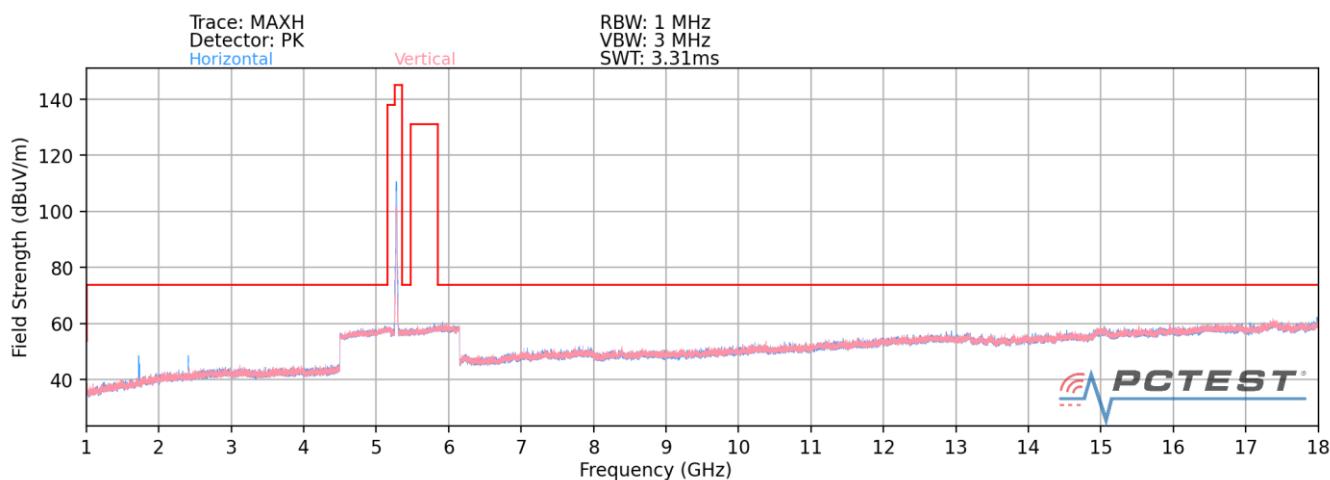
FCC ID: C3K1995 IC: 3048A-1995	 PCTEST® Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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**Plot 7-424. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11a – U3 Ch. 157) Open**

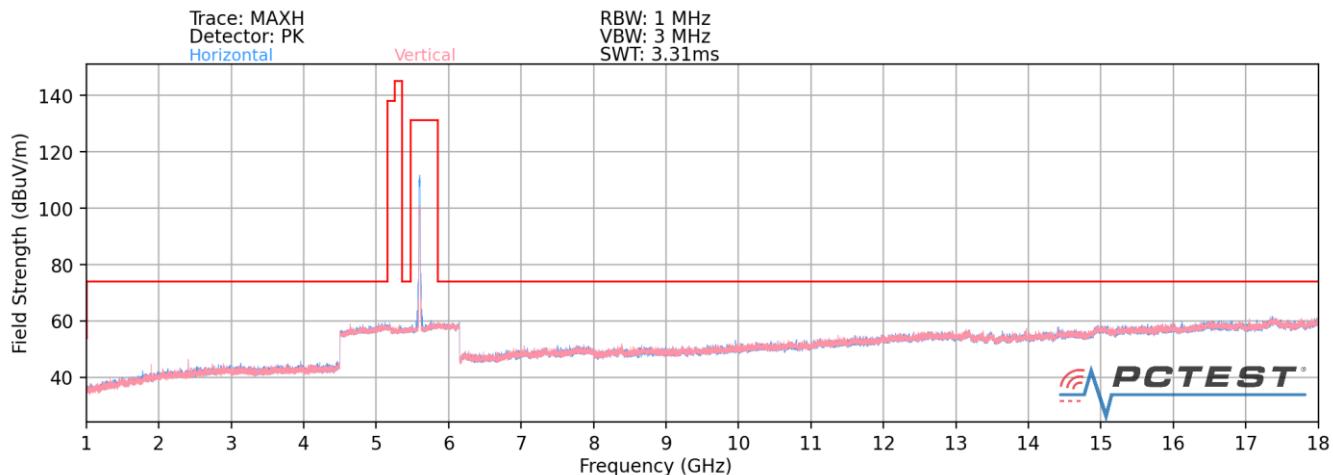


**Plot 7-425. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11a – U1 Ch. 40) Closed**

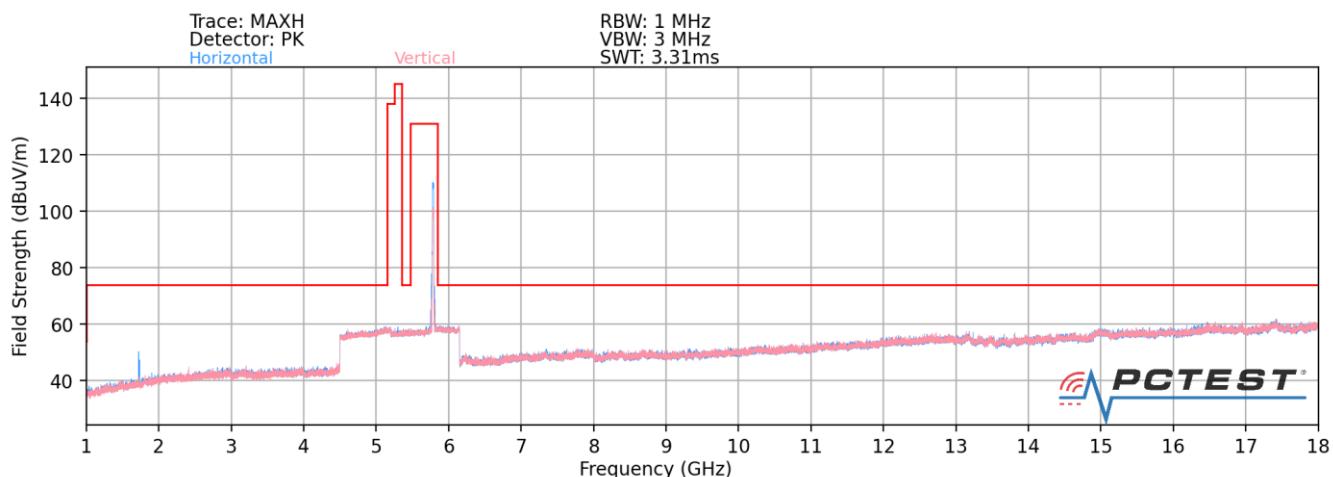


**Plot 7-426. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11a – U2A Ch. 56) Closed**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
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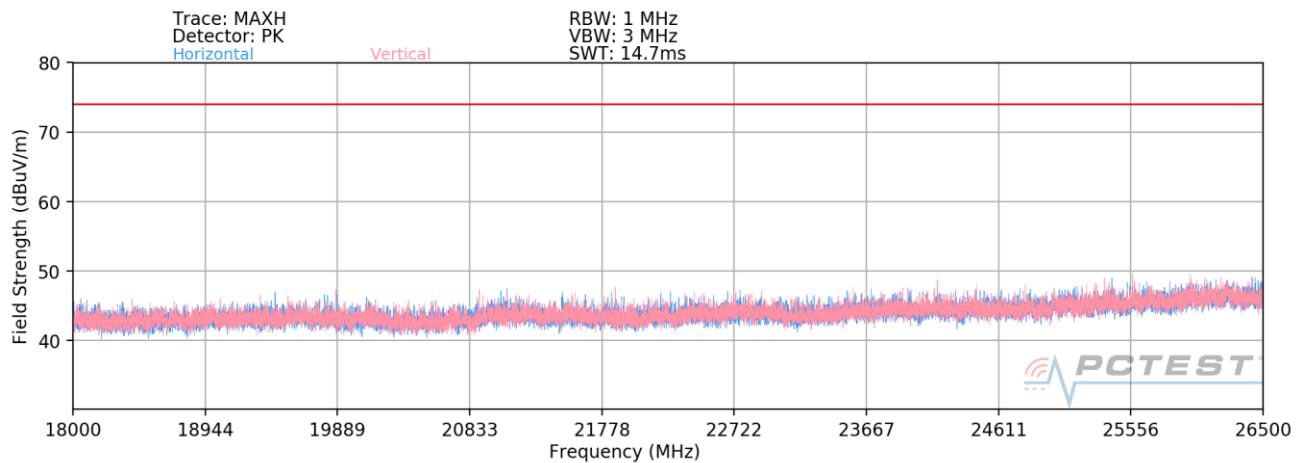
**Plot 7-427. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11a – U2C Ch. 120) Closed**



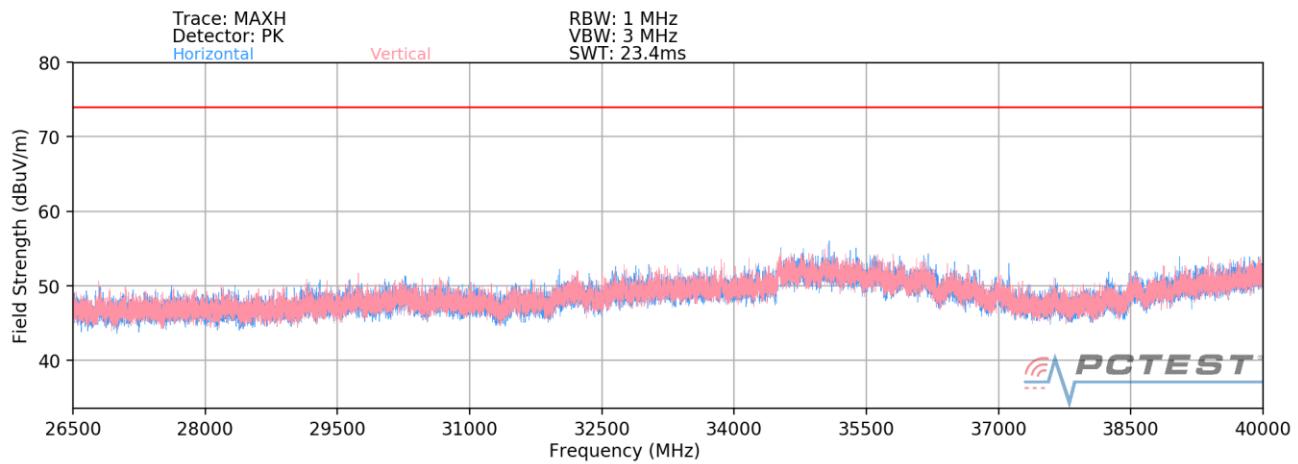
**Plot 7-428. Radiated Spurious Plot above 1GHz SISO SOUTH (802.11a – U3 Ch. 157) Closed**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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## SISO SOUTH Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-429. Radiated Spurious Plot 18GHz - 26.5GHz SISO SOUTH (802.11a) Open

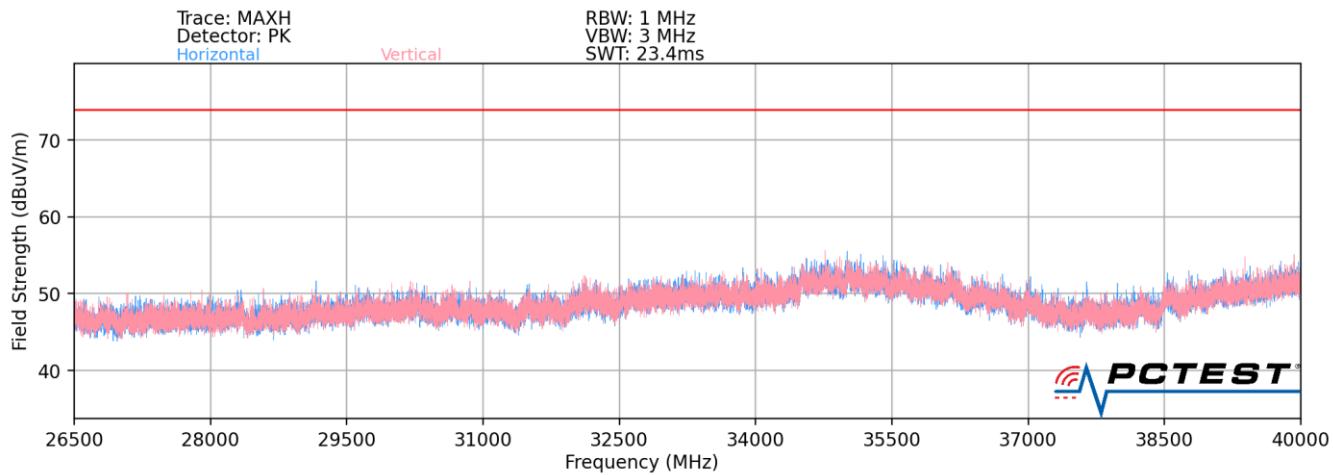


Plot 7-430. Radiated Spurious Plot 26.5GHz - 40GHz SISO SOUTH (802.11a) Open



Plot 7-431. Radiated Spurious Plot 18GHz - 26.5GHz SISO SOUTH (802.11a) Closed

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Technical Manager
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**Plot 7-432. Radiated Spurious Plot 26.5GHz - 40GHz SISO SOUTH (802.11a) Closed**

FCC ID: C3K1995 IC: 3048A-1995	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
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## SISO SOUTH Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5180MHz  
Channel: 36

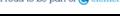
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10360.00	Peak	H	-	-	-72.85	15.73	0.00	49.88	68.20	-18.32
*	Average	H	-	-	-82.34	22.76	0.00	47.42	53.98	-6.56
*	Peak	H	-	-	-73.59	22.76	0.00	56.17	73.98	-17.81
*	Average	H	-	-	-67.28	4.46	-9.54	34.63	53.98	-19.35
*	Peak	H	-	-	-56.86	4.46	-9.54	45.05	73.98	-28.93
25900.00	Peak	H	-	-	-56.64	6.90	-9.54	47.72	68.20	-20.48

**Table 7-35. Radiated Measurements SISO SOUTH**

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 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]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10400.00	Peak	H	-	-	-70.26	15.88	0.00	52.62	68.20	-15.58
*	Average	H	-	-	-82.09	22.85	0.00	47.76	53.98	-6.22
*	Peak	H	-	-	-71.79	22.85	0.00	58.06	73.98	-15.92
*	Average	H	-	-	-66.95	4.84	-9.54	35.34	53.98	-18.64
*	Peak	H	-	-	-56.37	4.84	-9.54	45.92	73.98	-28.06
26000.00	Peak	H	-	-	-56.68	7.11	-9.54	47.89	68.20	-20.31

**Table 7-36. Radiated Measurements SISO SOUTH**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)				 Microsoft	Approved by: Technical Manager
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Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]	
10480.00	Peak	H	-	-	-69.89	15.96	0.00	53.07	68.20	-15.13	
*	15720.00	Average	H	-	-	-82.81	22.92	0.00	47.11	53.98	-6.86
*	15720.00	Peak	H	-	-	-71.95	22.92	0.00	57.97	73.98	-16.00
*	20960.00	Average	H	-	-	-66.84	4.98	-9.54	35.60	53.98	-18.38
*	20960.00	Peak	H	-	-	-56.14	4.98	-9.54	46.30	73.98	-27.68
	26200.00	Peak	H	-	-	-56.32	7.06	-9.54	48.20	68.20	-20.00

**Table 7-37. Radiated Measurements SISO SOUTH**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]	
10520.00	Peak	H	-	-	-69.32	16.21	0.00	53.89	68.20	-14.31	
*	15780.00	Average	H	-	-	-83.05	22.95	0.00	46.90	53.98	-7.08
*	15780.00	Peak	H	-	-	-71.75	22.95	0.00	58.20	73.98	-15.78
*	21040.00	Average	H	-	-	-66.71	4.87	-9.54	35.61	53.98	-18.37
*	21040.00	Peak	H	-	-	-55.81	4.87	-9.54	46.51	73.98	-27.47
	26300.00	Peak	H	-	-	-56.77	7.20	-9.54	47.89	68.20	-20.31

**Table 7-38. Radiated Measurements SISO SOUTH**

FCC ID: C3K1995 IC: 3048A-1995	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	H	-	-	-70.05	16.14	0.00	53.09	68.20	-15.11
* 15840.00	Average	H	-	-	-82.46	23.17	0.00	47.71	53.98	-6.27
* 15840.00	Peak	H	-	-	-72.22	23.17	0.00	57.95	73.98	-16.03
* 21120.00	Average	H	-	-	-66.78	5.08	-9.54	35.76	53.98	-18.22
* 21120.00	Peak	H	-	-	-56.85	5.08	-9.54	45.69	73.98	-28.29
26400.00	Peak	H	-	-	-56.36	7.43	-9.54	48.53	68.20	-19.67

**Table 7-39. Radiated Measurements SISO SOUTH**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 10640.00	Average	H	-	-	-78.81	16.61	0.00	44.80	53.98	-9.18
* 10640.00	Peak	H	-	-	-68.37	16.61	0.00	55.24	73.98	-18.74
* 15960.00	Average	H	-	-	-82.64	14.52	0.00	38.88	53.98	-15.10
* 15960.00	Peak	H	-	-	-71.21	14.52	0.00	50.31	73.98	-23.67
* 21280.00	Average	H	-	-	-66.74	5.12	-9.54	35.84	53.98	-18.14
* 21280.00	Peak	H	-	-	-55.83	5.12	-9.54	46.75	73.98	-27.23
26600.00	Peak	H	-	-	-56.39	7.20	-9.54	48.27	68.20	-19.93

**Table 7-40. Radiated Measurements SISO SOUTH**

FCC ID: C3K1995 IC: 3048A-1995	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
11000.00	Average	H	-	-	-81.88	17.32	0.00	42.44	53.98	-11.54
11000.00	Peak	H	-	-	-71.39	17.32	0.00	52.93	73.98	-21.05
16500.00	Peak	H	-	-	-71.28	24.59	0.00	60.31	68.20	-7.89
22000.00	Peak	H	-	-	-57.13	5.19	-9.54	45.52	68.20	-22.68
27500.00	Peak	H	-	-	-56.84	7.76	-9.54	48.38	68.20	-19.82

**Table 7-41. Radiated Measurements SISO SOUTH**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
11200.00	Average	H	-	-	-81.25	17.36	0.00	43.11	53.98	-10.87
11200.00	Peak	H	-	-	-70.72	17.36	0.00	53.64	73.98	-20.34
16800.00	Peak	H	-	-	-71.25	24.71	0.00	60.46	68.20	-7.74
22400.00	Average	H	-	-	-67.01	5.34	-9.54	35.79	53.98	-18.19
22400.00	Peak	H	-	-	-55.58	5.34	-9.54	47.22	73.98	-26.76
28000.00	Peak	H	-	-	-57.31	8.05	-9.54	48.19	68.20	-20.01

**Table 7-42. Radiated Measurements SISO SOUTH**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
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Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5720MHz  
 Channel: 144

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 11440.00	Average	H	-	-	-81.89	18.14	0.00	43.25	53.98	-10.73
* 11440.00	Peak	H	-	-	-71.14	18.14	0.00	54.00	73.98	-19.98
17160.00	Peak	H	-	-	-71.98	24.76	0.00	59.78	68.20	-8.42
* 22880.00	Average	H	-	-	-67.12	5.17	-9.54	35.51	53.98	-18.47
* 22880.00	Peak	H	-	-	-57.50	5.17	-9.54	45.13	73.98	-28.85
28600.00	Peak	H	-	-	-57.11	8.21	-9.54	48.56	68.20	-19.64

**Table 7-43. Radiated Measurements SISO SOUTH**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 11490.00	Average	H	-	-	-81.87	18.27	0.00	43.40	53.98	-10.58
* 11490.00	Peak	H	-	-	-70.83	18.27	0.00	54.44	73.98	-19.54
17235.00	Peak	H	-	-	-71.20	25.59	0.00	61.39	68.20	-6.81
* 22980.00	Average	H	-	-	-67.01	5.21	-9.54	35.66	53.98	-18.32
* 22980.00	Peak	H	-	-	-56.42	5.21	-9.54	46.25	73.98	-27.73
28725.00	Peak	H	-	-	-56.59	8.30	-9.54	49.17	68.20	-19.03

**Table 7-44. Radiated Measurements SISO SOUTH**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)			 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset				Page 260 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
11570.00	Average	H	-	-	-81.72	18.31	0.00	43.59	53.98	-10.39
11570.00	Peak	H	-	-	-71.05	18.31	0.00	54.26	73.98	-19.72
17355.00	Peak	H	-	-	-71.49	26.27	0.00	61.78	68.20	-6.42
23140.00	Peak	H	-	-	-56.94	5.32	-9.54	45.83	68.20	-22.37
28925.00	Peak	H	-	-	-57.01	8.49	-9.54	48.94	68.20	-19.26

**Table 7-45. Radiated Measurements SISO SOUTH**

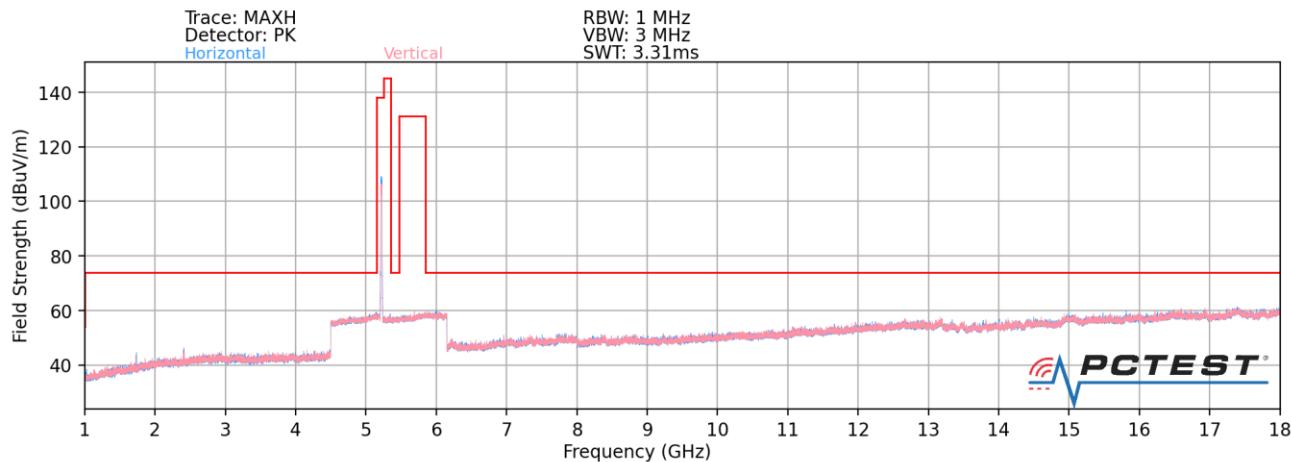
Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
11650.00	Average	H	-	-	-81.51	18.41	0.00	43.90	53.98	-10.08
11650.00	Peak	H	-	-	-71.12	18.41	0.00	54.29	73.98	-19.69
17475.00	Peak	H	-	-	-72.98	26.23	0.00	60.25	68.20	-7.95
23300.00	Peak	H	-	-	-56.75	5.36	-9.54	46.06	68.20	-22.14
29125.00	Peak	H	-	-	-56.98	8.55	-9.54	49.03	68.20	-19.17

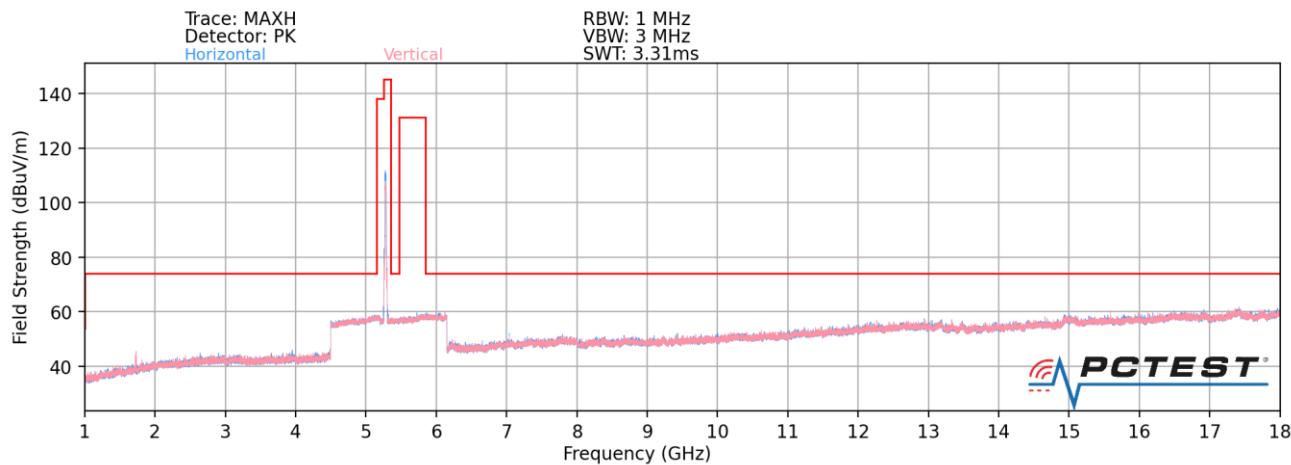
**Table 7-46. Radiated Measurements SISO SOUTH**

FCC ID: C3K1995 IC: 3048A-1995	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 261 of 336

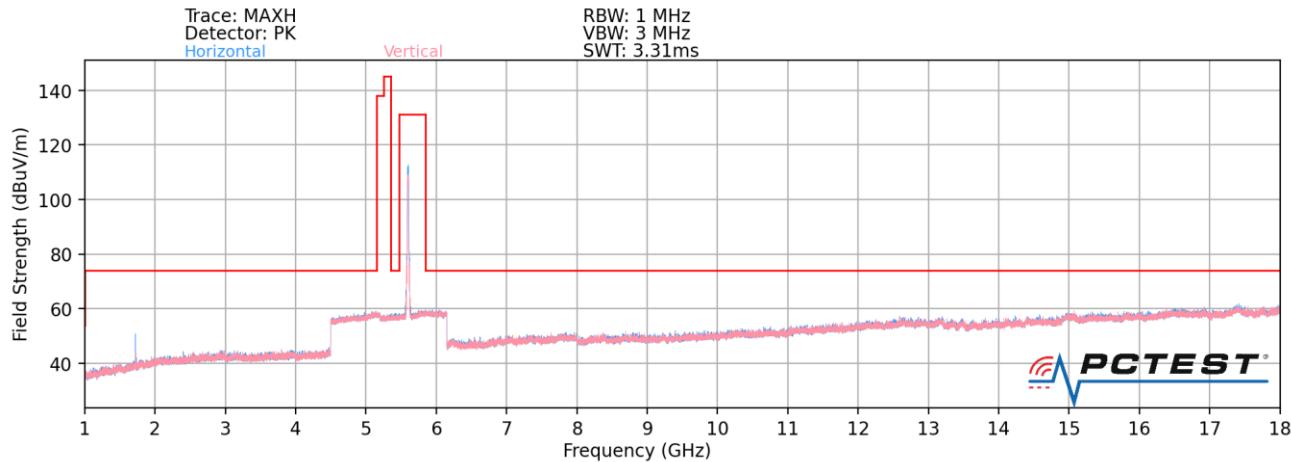
## 7.6.2 SISO NORTH Radiated Spurious Emission Measurements



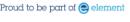
Plot 7-433. Radiated Spurious Plot above 1GHz SISO NORTH (802.11a – U1 Ch. 40) Open

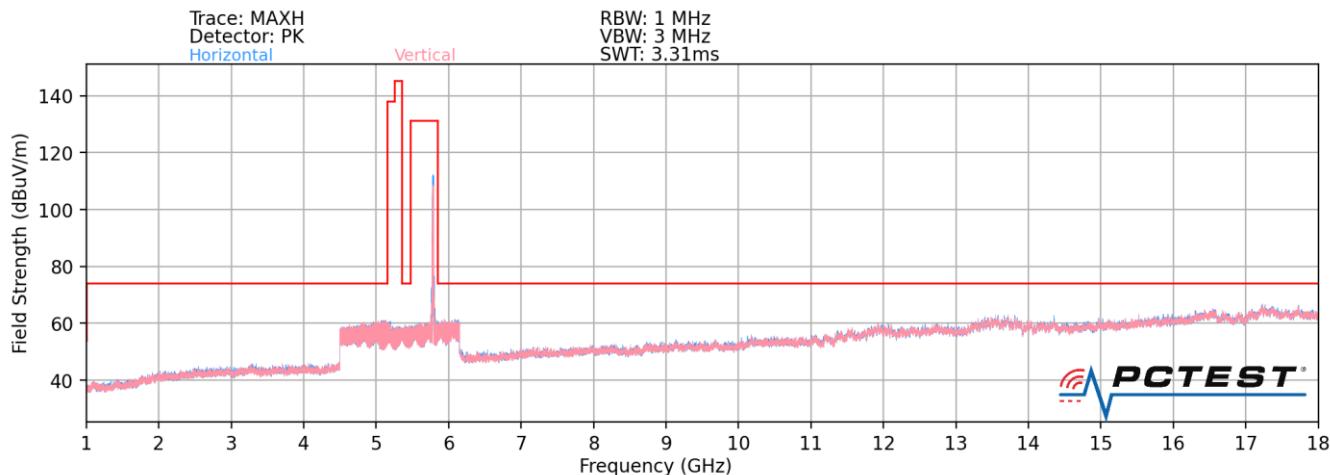


Plot 7-434. Radiated Spurious Plot above 1GHz SISO NORTH (802.11a – U2A Ch. 56) Open

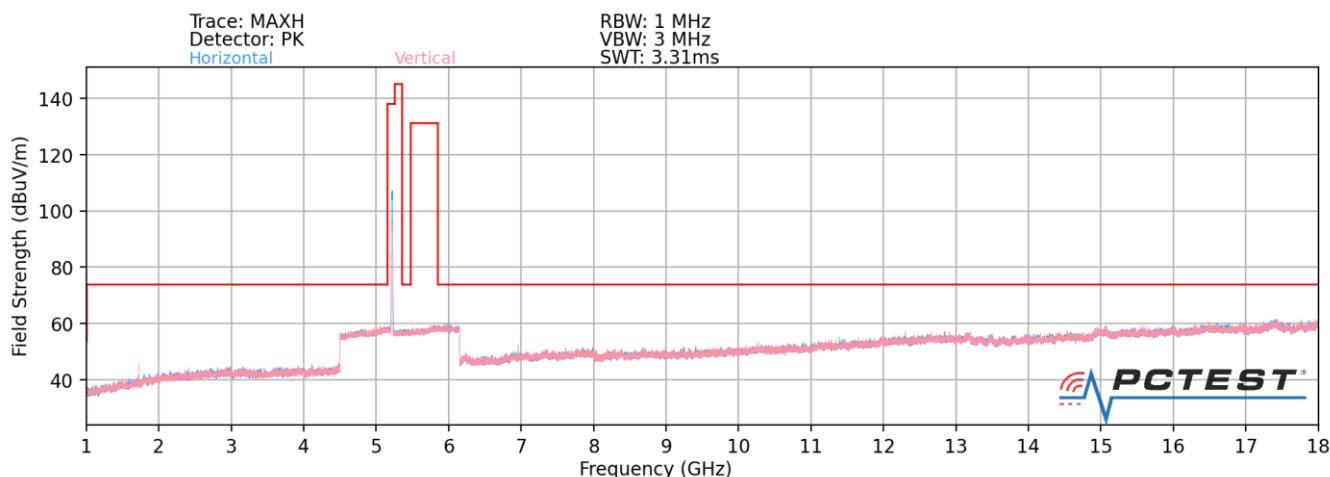


Plot 7-435. Radiated Spurious Plot above 1GHz SISO NORTH (802.11a – U2C Ch. 120) Open

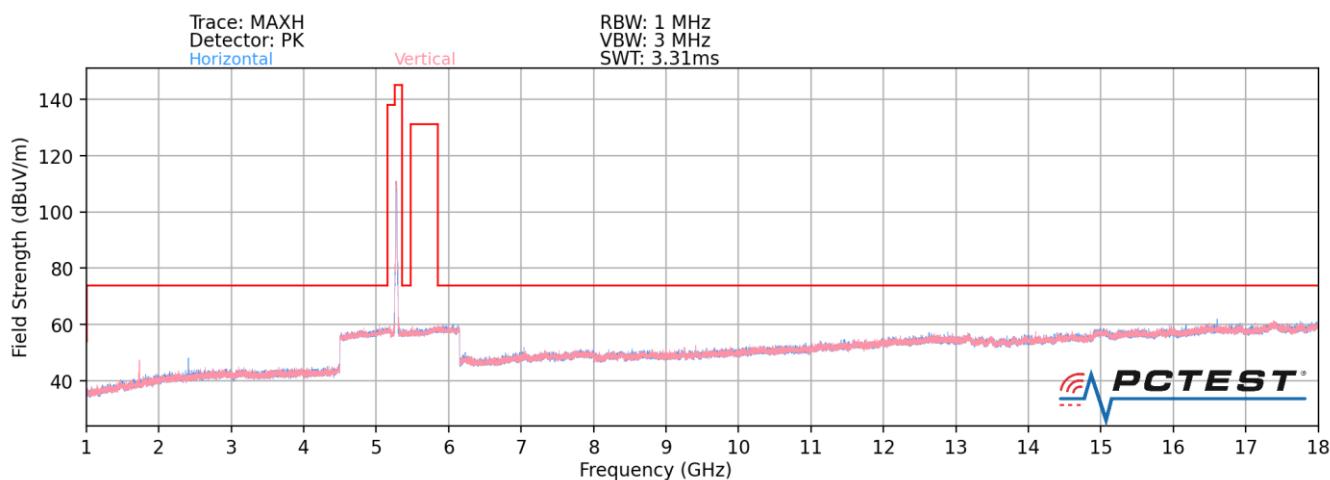
FCC ID: C3K1995 IC: 3048A-1995	 PCTEST® Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 262 of 336



**Plot 7-436. Radiated Spurious Plot above 1GHz SISO NORTH (802.11a – U3 Ch. 157) Open**

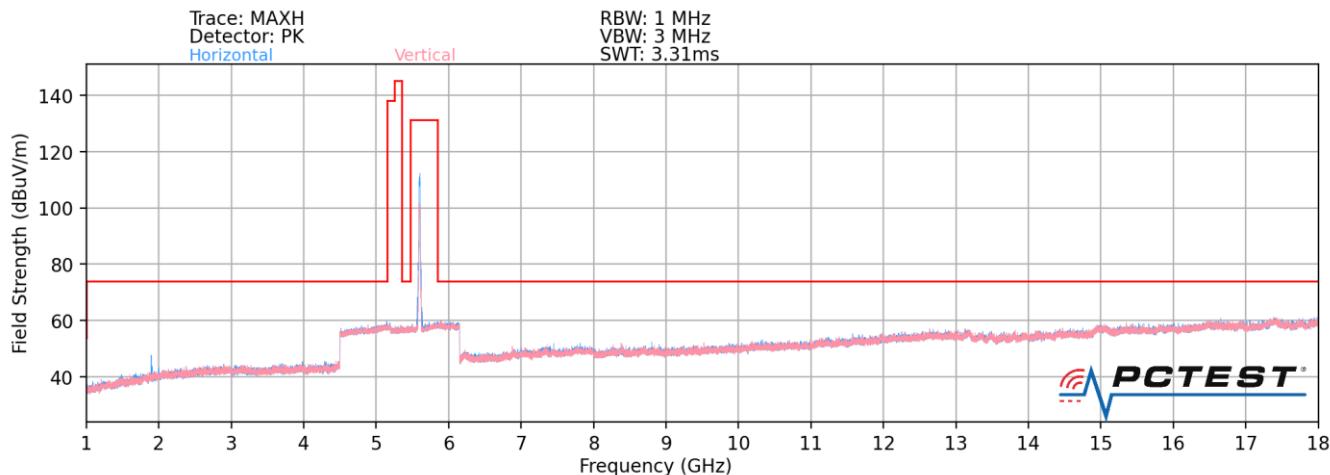


**Plot 7-437. Radiated Spurious Plot above 1GHz SISO NORTH (802.11a – U1 Ch. 40) Closed**

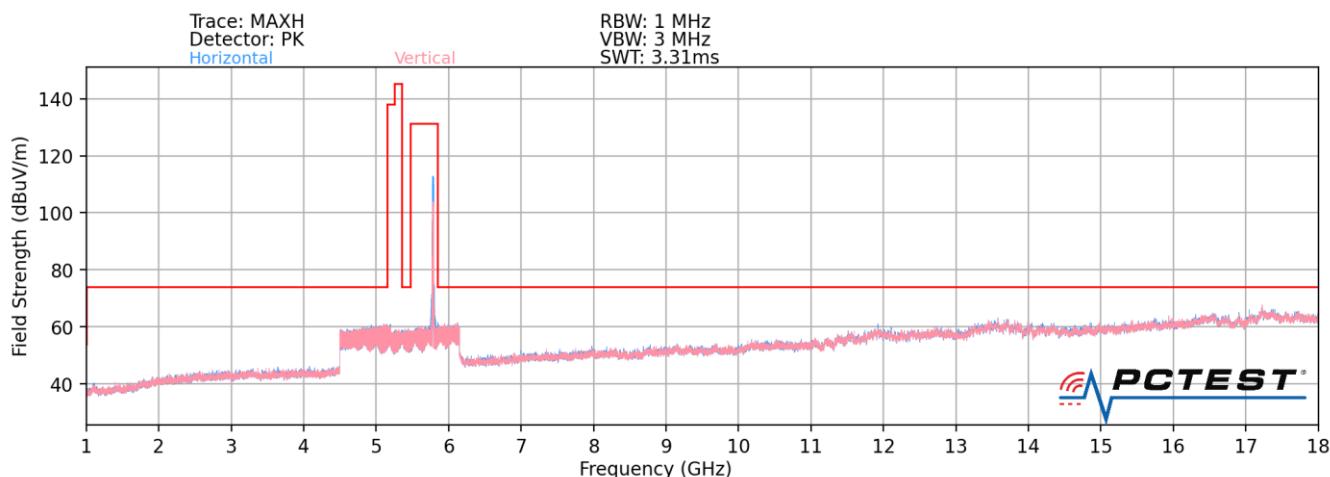


**Plot 7-438. Radiated Spurious Plot above 1GHz SISO NORTH (802.11a – U2A Ch. 56) Closed**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 263 of 336



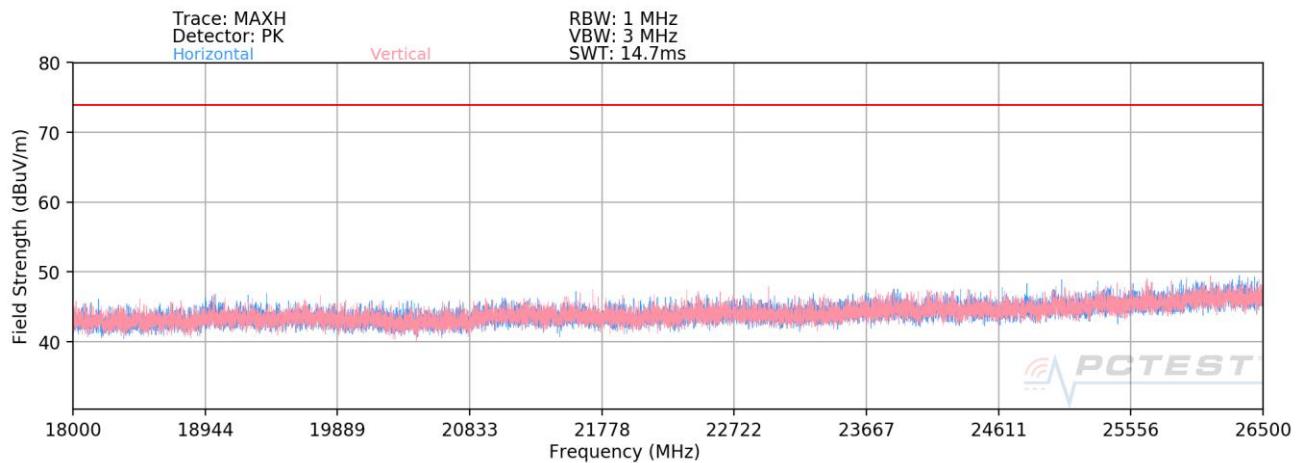
**Plot 7-439. Radiated Spurious Plot above 1GHz SISO NORTH (802.11a – U2C Ch. 120) Closed**



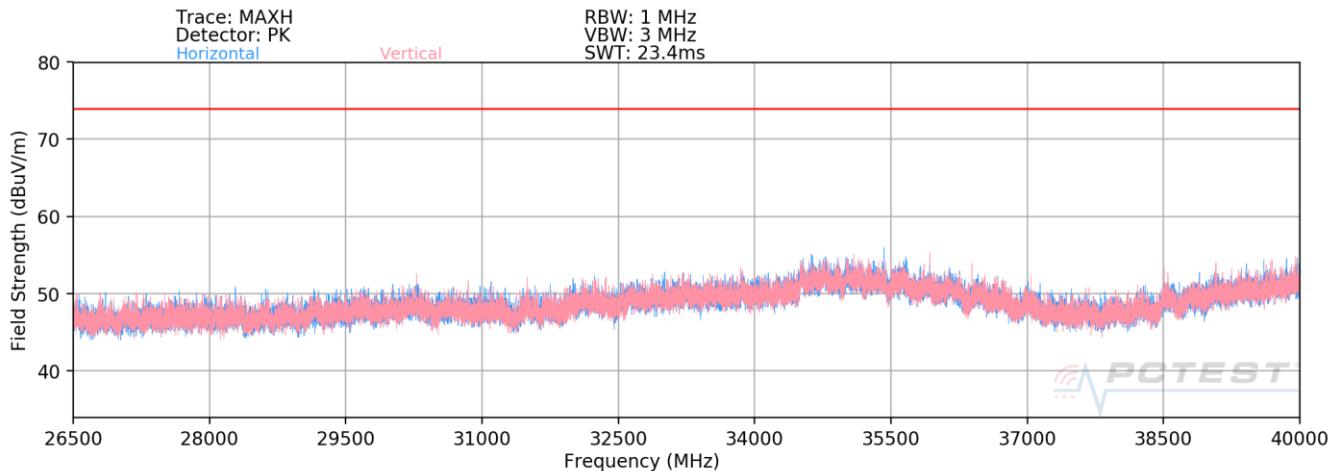
**Plot 7-440. Radiated Spurious Plot above 1GHz SISO NORTH (802.11a – U3 Ch. 157) Closed**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 264 of 336

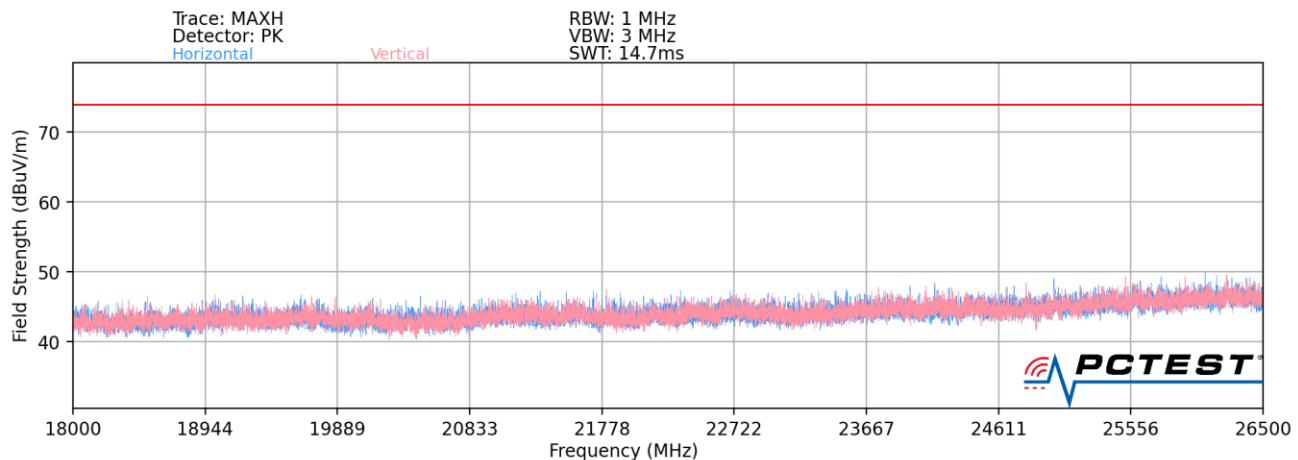
## SISO NORTH Radiated Spurious Emissions Measurements (Above 18GHz)



**Plot 7-441. Radiated Spurious Plot above 18GHz - 26.5GHz SISO NORTH (802.11a) Open**

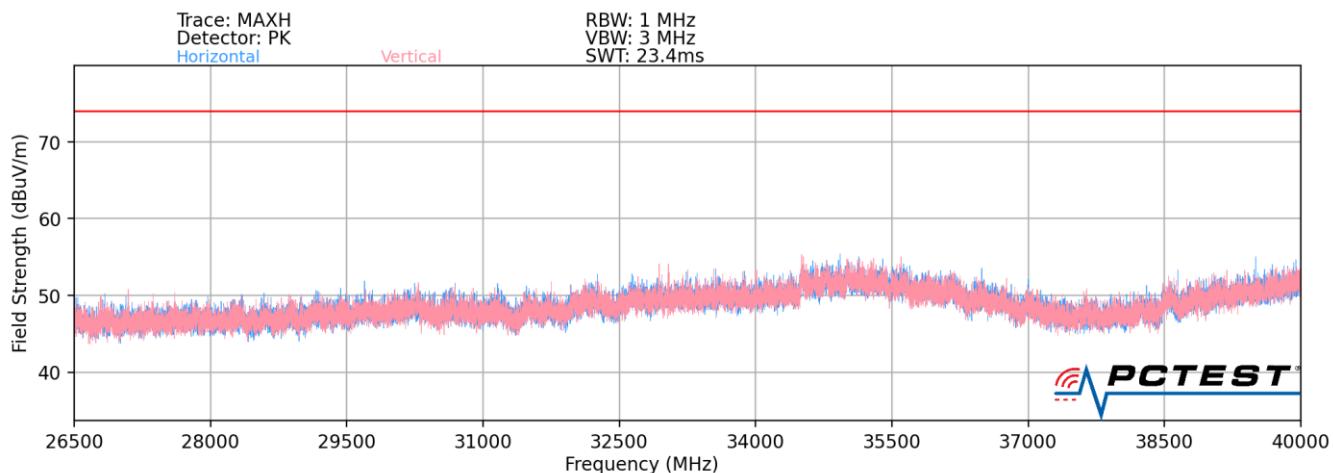


**Plot 7-442. Radiated Spurious Plot 26.5GHz - 40GHz SISO NORTH (802.11a) Open**



**Plot 7-443. Radiated Spurious Plot above 18GHz - 26.5GHz SISO NORTH (802.11a) Closed**

FCC ID: C3K1995 IC: 3048A-1995	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 265 of 336



**Plot 7-444. Radiated Spurious Plot 26.5GHz - 40GHz SISO NORTH (802.11a) Closed**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 266 of 336

## SISO NORTH Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5180MHz
Channel:	36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10360.00	Peak	H	-	-	-70.13	15.73	0.00	52.60	68.20	-15.60
* 15540.00	Average	H	-	-	-82.08	22.76	0.00	47.68	53.98	-6.30
* 15540.00	Peak	H	-	-	-71.74	22.76	0.00	58.02	73.98	-15.96
* 20720.00	Average	H	-	-	-66.86	4.46	-9.54	35.05	53.98	-18.93
* 20720.00	Peak	H	-	-	-57.02	4.46	-9.54	44.89	73.98	-29.09
25900.00	Peak	H	-	-	-56.57	6.90	-9.54	47.79	68.20	-20.41

Table 7-47. Radiated Measurements SISO NORTH

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 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]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10400.00	Peak	H	-	-	-70.08	15.88	0.00	52.80	68.20	-15.40
* 15600.00	Average	H	-	-	-82.73	22.85	0.00	47.12	53.98	-6.86
* 15600.00	Peak	H	-	-	-71.55	22.85	0.00	58.30	73.98	-15.68
* 20800.00	Average	H	-	-	-66.92	4.84	-9.54	35.37	53.98	-18.61
* 20800.00	Peak	H	-	-	-56.29	4.84	-9.54	46.00	73.98	-27.98
26000.00	Peak	H	-	-	-56.65	7.11	-9.54	47.92	68.20	-20.28

Table 7-48. Radiated Measurements SISO NORTH

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)			 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset				Page 267 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10480.00	Peak	H	-	-	-69.91	15.96	0.00	53.05	68.20	-15.15
* 15720.00	Average	H	-	-	-82.43	22.92	0.00	47.49	53.98	-6.48
* 15720.00	Peak	H	-	-	-71.98	22.92	0.00	57.94	73.98	-16.03
* 20960.00	Average	H	-	-	-66.99	4.98	-9.54	35.45	53.98	-18.53
* 20960.00	Peak	H	-	-	-56.46	4.98	-9.54	45.98	73.98	-28.00
26200.00	Peak	H	-	-	-56.40	7.06	-9.54	48.12	68.20	-20.08

**Table 7-49. Radiated Measurements SISO NORTH**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10520.00	Peak	H	-	-	-70.66	16.21	0.00	52.55	68.20	-15.65
* 15780.00	Average	H	-	-	-82.03	22.95	0.00	47.92	53.98	-6.06
* 15780.00	Peak	H	-	-	-71.78	22.95	0.00	58.17	73.98	-15.81
* 21040.00	Average	H	-	-	-66.75	4.87	-9.54	35.57	53.98	-18.41
* 21040.00	Peak	H	-	-	-55.89	4.87	-9.54	46.43	73.98	-27.55
26300.00	Peak	H	-	-	-56.98	7.20	-9.54	47.68	68.20	-20.52

**Table 7-50. Radiated Measurements SISO NORTH**

FCC ID: C3K1995 IC: 3048A-1995	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 268 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10560.00	Peak	H	-	-	-70.85	16.14	0.00	52.29	68.20	-15.91
* 15840.00	Average	H	-	-	-82.16	23.17	0.00	48.01	53.98	-5.97
* 15840.00	Peak	H	-	-	-72.18	23.17	0.00	57.99	73.98	-15.99
* 21120.00	Average	H	-	-	-66.85	5.08	-9.54	35.69	53.98	-18.29
* 21120.00	Peak	H	-	-	-55.81	5.08	-9.54	46.73	73.98	-27.25
26400.00	Peak	H	-	-	-56.75	7.43	-9.54	48.14	68.20	-20.06

**Table 7-51. Radiated Measurements SISO NORTH**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 10640.00	Average	H	-	-	-81.83	16.61	0.00	41.78	53.98	-12.20
* 10640.00	Peak	H	-	-	-71.58	16.61	0.00	52.03	73.98	-21.95
* 15960.00	Average	H	-	-	-81.82	23.29	0.00	48.47	53.98	-5.51
* 15960.00	Peak	H	-	-	-71.00	23.29	0.00	59.29	73.98	-14.69
* 21280.00	Average	H	-	-	-65.13	5.12	-9.54	37.45	53.98	-16.53
* 21280.00	Peak	H	-	-	-56.67	5.12	-9.54	45.91	73.98	-28.07
26600.00	Peak	H	-	-	-55.77	7.20	-9.54	48.89	68.20	-19.31

**Table 7-52. Radiated Measurements SISO NORTH**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 269 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
11000.00	Average	H	-	-	-81.77	17.32	0.00	42.55	53.98	-11.43
11000.00	Peak	H	-	-	-71.60	17.32	0.00	52.72	73.98	-21.26
16500.00	Peak	H	-	-	-71.08	24.59	0.00	60.51	68.20	-7.69
22000.00	Peak	H	-	-	-56.86	5.19	-9.54	45.79	68.20	-22.41
27500.00	Peak	H	-	-	-56.69	7.76	-9.54	48.53	68.20	-19.67

**Table 7-53. Radiated Measurements SISO NORTH**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
11200.00	Average	H	-	-	-81.27	17.36	0.00	43.09	53.98	-10.89
11200.00	Peak	H	-	-	-70.76	17.36	0.00	53.60	73.98	-20.38
16800.00	Peak	H	-	-	-71.52	24.71	0.00	60.19	68.20	-8.01
22400.00	Average	H	-	-	-66.85	5.34	-9.54	35.95	53.98	-18.03
22400.00	Peak	H	-	-	-55.93	5.34	-9.54	46.87	73.98	-27.11
28000.00	Peak	H	-	-	-56.66	8.05	-9.54	48.84	68.20	-19.36

**Table 7-54. Radiated Measurements SISO NORTH**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of  <b>MEASUREMENT REPORT (CERTIFICATION)</b>			 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset			

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5720MHz  
 Channel: 144

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
11440.00	Average	H	-	-	-81.55	18.14	0.00	43.59	53.98	-10.39
11440.00	Peak	H	-	-	-70.97	18.14	0.00	54.17	73.98	-19.81
17160.00	Peak	H	-	-	-71.33	24.76	0.00	60.43	68.20	-7.77
22880.00	Average	H	-	-	-67.17	5.17	-9.54	35.46	53.98	-18.52
22880.00	Peak	H	-	-	-56.96	5.17	-9.54	45.67	73.98	-28.31
28600.00	Peak	H	-	-	-57.13	8.21	-9.54	48.54	68.20	-19.66

**Table 7-55. Radiated Measurements SISO NORTH**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
11490.00	Average	H	-	-	-86.47	22.32	0.00	42.85	53.98	-11.13
11490.00	Peak	H	-	-	-77.76	22.32	0.00	51.56	73.98	-22.42
17235.00	Peak	H	-	-	-78.90	32.10	0.00	60.20	68.20	-8.00
22980.00	Average	H	-	-	-66.85	5.21	-9.54	35.82	53.98	-18.16
22980.00	Peak	H	-	-	-56.44	5.21	-9.54	46.23	73.98	-27.75
28725.00	Peak	H	-	-	-57.42	8.30	-9.54	48.34	68.20	-19.86

**Table 7-56. Radiated Measurements SISO NORTH**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)			 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset				Page 271 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5785MHz  
 Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
11570.00	Average	H	-	-	-83.80	24.34	0.00	47.54	53.98	-6.44
11570.00	Peak	H	-	-	-73.54	24.34	0.00	57.80	73.98	-16.18
17355.00	Peak	H	-	-	-71.44	18.91	0.00	54.47	68.20	-13.73
23140.00	Peak	H	-	-	-56.66	5.32	-9.54	46.11	68.20	-22.09
28925.00	Peak	H	-	-	-57.34	8.49	-9.54	48.61	68.20	-19.59

**Table 7-57. Radiated Measurements SISO NORTH**

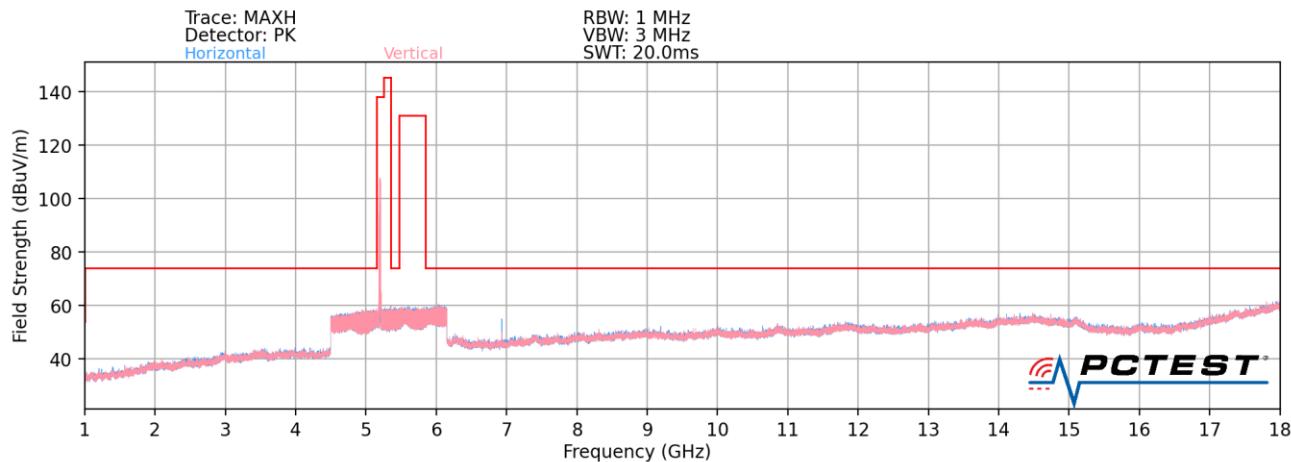
Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5825MHz  
 Channel: 165

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
11650.00	Average	H	-	-	-83.94	23.47	0.00	46.53	53.98	-7.45
11650.00	Peak	H	-	-	-73.17	23.47	0.00	57.30	73.98	-16.68
17475.00	Peak	H	-	-	-74.19	30.72	0.00	63.53	68.20	-4.67
23300.00	Peak	H	-	-	-56.83	5.36	-9.54	45.98	68.20	-22.22
29125.00	Peak	H	-	-	-57.39	8.55	-9.54	48.62	68.20	-19.58

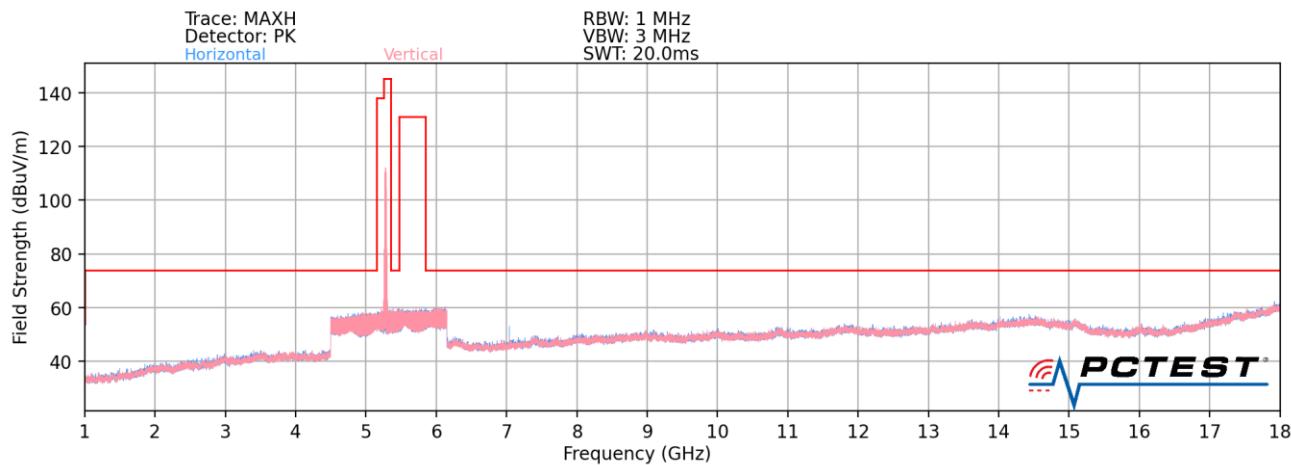
**Table 7-58. Radiated Measurements SISO NORTH**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of  <b>MEASUREMENT REPORT (CERTIFICATION)</b>			 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset			

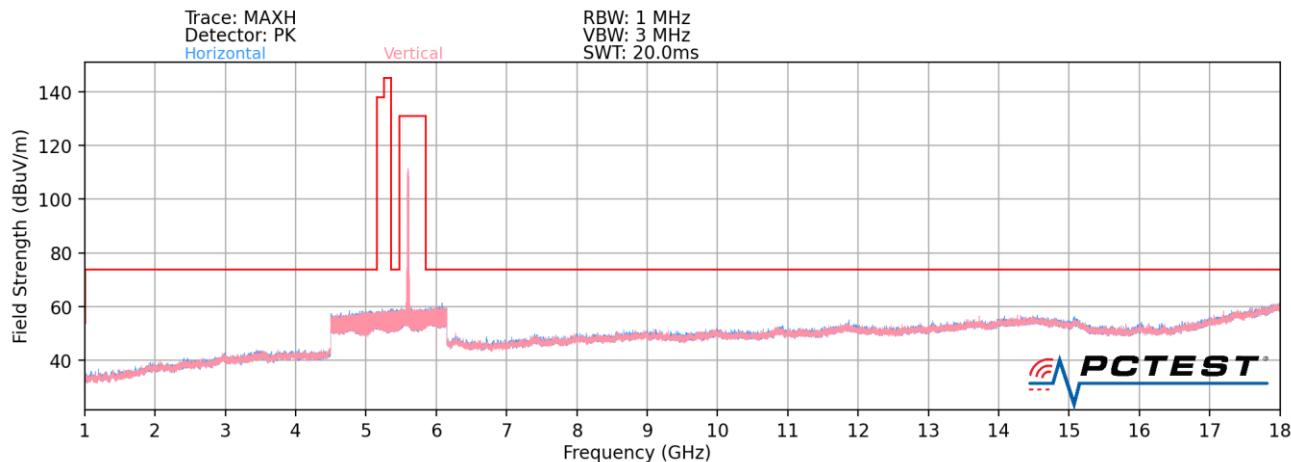
### 7.6.3 MIMO Radiated Spurious Emission Measurements



Plot 7-445. Radiated Spurious Plot above 1GHz MIMO (802.11a – U1 Ch. 40) Open

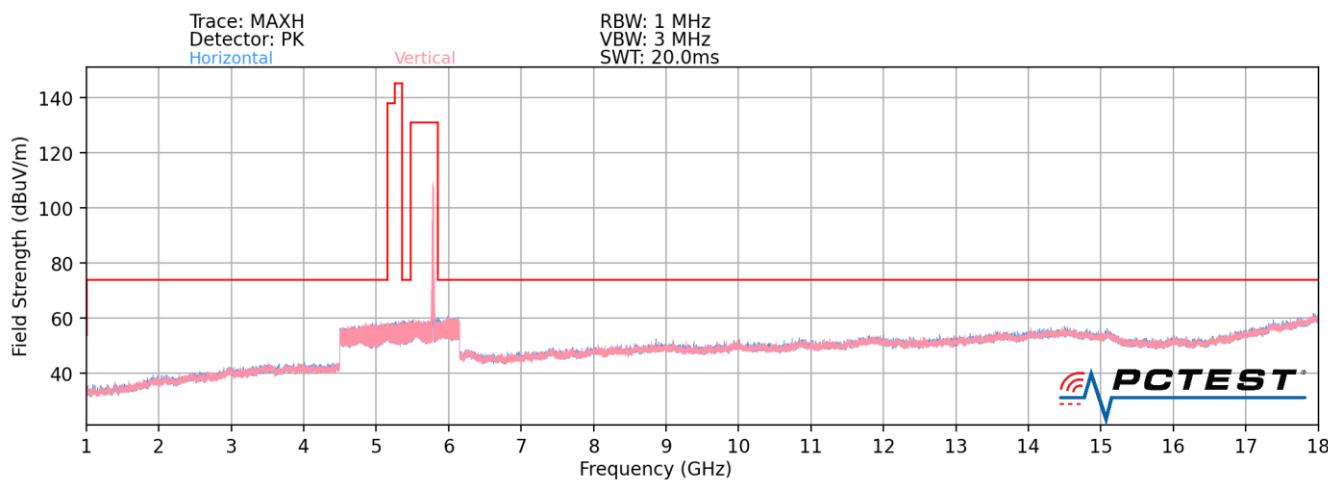


Plot 7-446. Radiated Spurious Plot above 1GHz MIMO (802.11a – U2A Ch. 56) Open

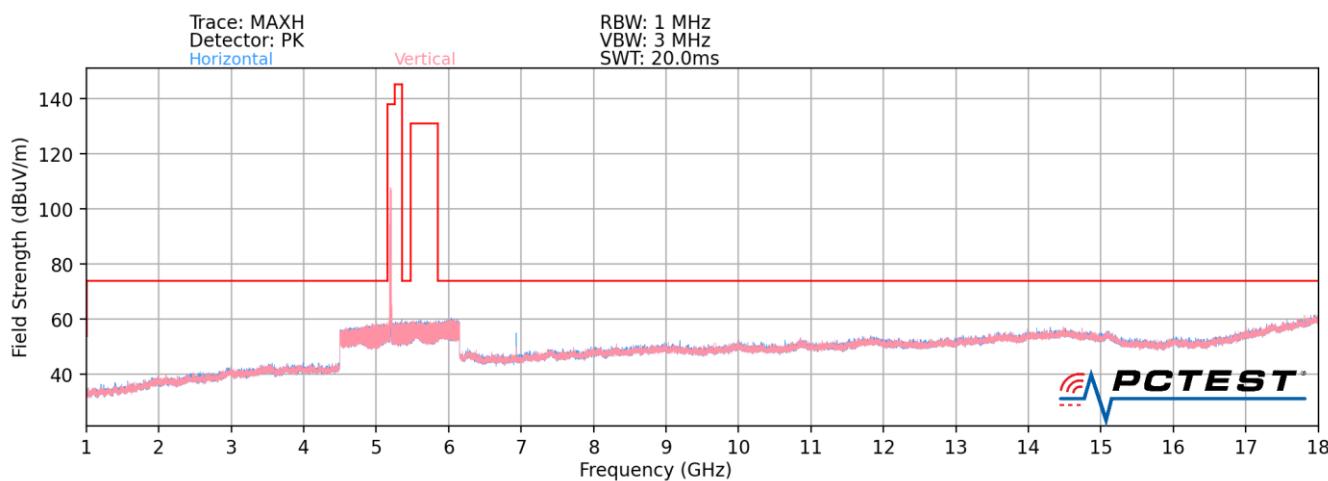


Plot 7-447. Radiated Spurious Plot above 1GHz MIMO (802.11a – U2C Ch. 120) Open

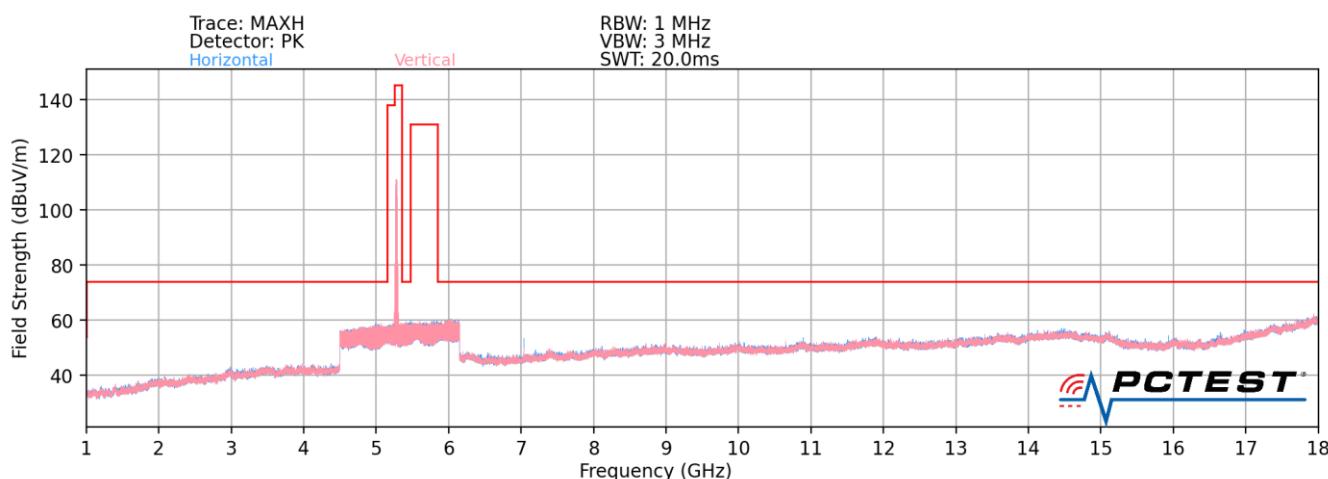
FCC ID: C3K1995 IC: 3048A-1995	 PCTEST® Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 273 of 336



**Plot 7-448. Radiated Spurious Plot above 1GHz MIMO (802.11a – U3 Ch. 157) Open**

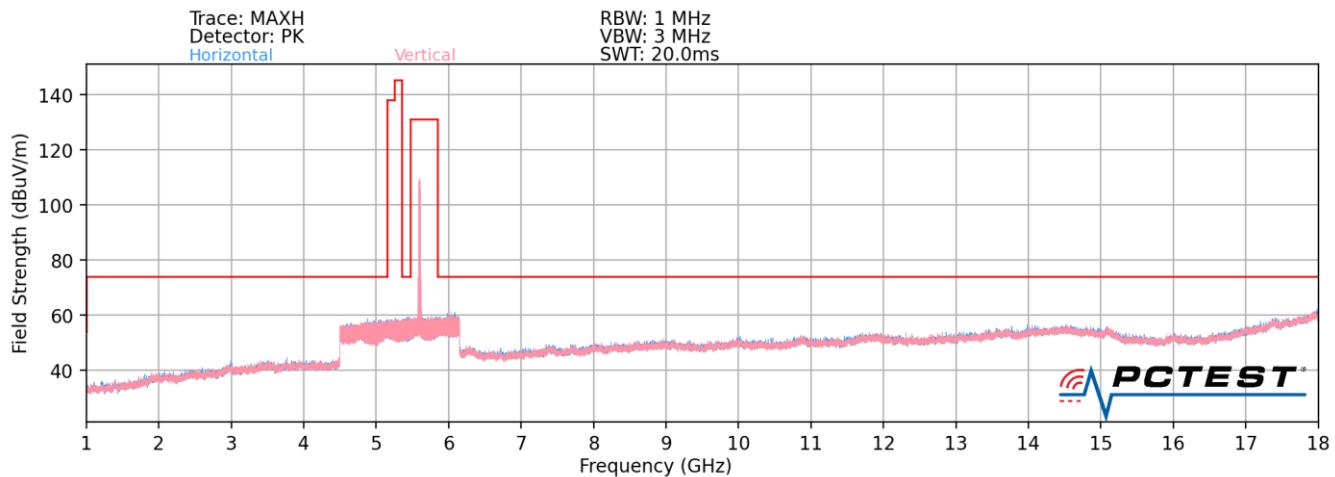


**Plot 7-449. Radiated Spurious Plot above 1GHz MIMO (802.11a – U1 Ch. 40) 150°**

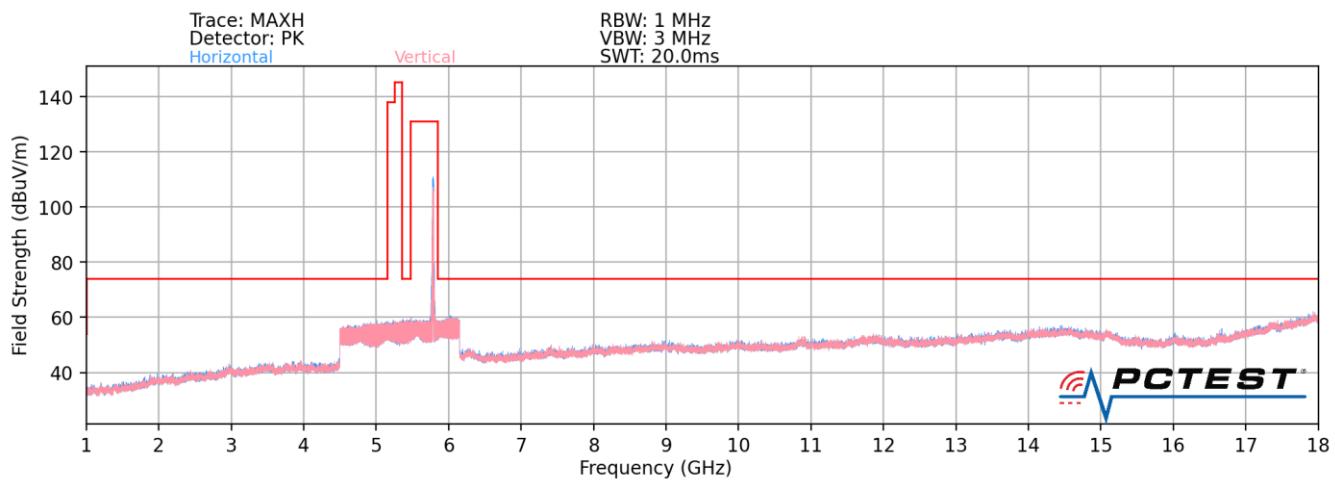


**Plot 7-450. Radiated Spurious Plot above 1GHz MIMO (802.11a – U2A Ch. 56) 150°**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 274 of 336



**Plot 7-451. Radiated Spurious Plot above 1GHz MIMO (802.11a – U2C Ch. 120) 150°**



**Plot 7-452. Radiated Spurious Plot above 1GHz MIMO (802.11a – U3 Ch. 157) 150°**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 275 of 336

## MIMO Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5180MHz
Channel:	36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10360.00	Peak	H	-	-	-68.06	12.12	0.00	51.06	68.20	-17.14
* 15540.00	Average	H	-	-	-80.38	13.39	0.00	40.01	53.98	-13.97
* 15540.00	Peak	H	-	-	-68.15	13.39	0.00	52.24	73.98	-21.74
* 20720.00	Average	H	-	-	-67.19	4.46	-9.54	34.72	53.98	-19.26
* 20720.00	Peak	H	-	-	-56.88	4.46	-9.54	45.03	73.98	-28.95
25900.00	Peak	H	-	-	-56.48	6.90	-9.54	47.88	68.20	-20.32

Table 7-59. Radiated Measurements MIMO

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 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]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10400.00	Peak	H	-	-	-68.21	11.58	0.00	50.37	68.20	-17.83
* 15600.00	Average	H	-	-	-80.49	14.08	0.00	40.59	53.98	-13.39
* 15600.00	Peak	H	-	-	-68.42	14.08	0.00	52.66	73.98	-21.32
* 20800.00	Average	H	-	-	-67.01	4.84	-9.54	35.28	53.98	-18.70
* 20800.00	Peak	H	-	-	-57.03	4.84	-9.54	45.26	73.98	-28.72
26000.00	Peak	H	-	-	-57.12	7.11	-9.54	47.45	68.20	-20.75

Table 7-60. Radiated Measurements MIMO

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST<sup>®</sup></b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 276 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5240MHz  
 Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10480.00	Peak	H	-	-	-68.81	12.38	0.00	50.57	68.20	-17.63
* 15720.00	Average	H	-	-	-80.81	13.91	0.00	40.10	53.98	-13.88
* 15720.00	Peak	H	-	-	-68.96	13.91	0.00	51.95	73.98	-22.03
* 20960.00	Average	H	-	-	-66.98	5.01	-9.54	35.48	53.98	-18.50
* 20960.00	Peak	H	-	-	-56.71	5.01	-9.54	45.75	73.98	-28.23
26200.00	Peak	H	-	-	-56.89	6.99	-9.54	47.55	68.20	-20.65

**Table 7-61. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5260MHz  
 Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10520.00	Peak	H	-	-	-68.73	12.34	0.00	50.61	68.20	-17.59
* 15780.00	Average	H	-	-	-81.08	13.58	0.00	39.50	53.98	-14.48
* 15780.00	Peak	H	-	-	-68.83	13.58	0.00	51.75	73.98	-22.23
* 21040.00	Average	H	-	-	-67.84	4.89	-9.54	34.50	53.98	-19.48
* 21040.00	Peak	H	-	-	-56.19	4.89	-9.54	46.15	73.98	-27.83
26300.00	Peak	H	-	-	-56.97	7.06	-9.54	47.55	68.20	-20.65

**Table 7-62. Radiated Measurements MIMO**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)			 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset				Page 277 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5280MHz  
 Channel: 56

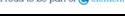
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
10560.00	Peak	H	-	-	-68.07	12.03	0.00	50.96	68.20	-17.24
* 15840.00	Average	H	-	-	-81.05	13.60	0.00	39.55	53.98	-14.43
* 15840.00	Peak	H	-	-	-68.60	13.60	0.00	52.00	73.98	-21.98
* 21120.00	Average	H	-	-	-66.76	5.08	-9.54	35.78	53.98	-18.20
* 21120.00	Peak	H	-	-	-55.42	5.08	-9.54	47.12	73.98	-26.86
26400.00	Peak	H	-	-	-56.32	7.43	-9.54	48.57	68.20	-19.63

**Table 7-63. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5320MHz  
 Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 10640.00	Average	H	-	-	-80.61	12.39	0.00	38.78	53.98	-15.20
* 10640.00	Peak	H	-	-	-68.82	12.39	0.00	50.57	73.98	-23.41
* 15960.00	Average	H	-	-	-81.37	14.52	0.00	40.15	53.98	-13.83
* 15960.00	Peak	H	-	-	-69.59	14.52	0.00	51.93	73.98	-22.05
* 21280.00	Average	H	-	-	-66.73	5.14	-9.54	35.86	53.98	-18.12
* 21280.00	Peak	H	-	-	-56.37	5.14	-9.54	46.22	73.98	-27.76
26600.00	Peak	H	-	-	-56.97	7.21	-9.54	47.70	68.20	-20.50

**Table 7-64. Radiated Measurements MIMO**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)			 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset				Page 278 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5500MHz  
 Channel: 100

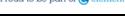
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 11000.00	Average	H	-	-	-79.52	12.79	0.00	40.27	53.98	-13.70
* 11000.00	Peak	H	-	-	-67.27	12.79	0.00	52.52	73.98	-21.45
16500.00	Peak	H	-	-	-68.51	15.02	0.00	53.51	68.20	-14.69
22000.00	Peak	H	-	-	-56.39	5.16	-9.54	46.22	68.20	-21.98
27500.00	Peak	H	-	-	-56.21	7.69	-9.54	48.94	68.20	-19.26

**Table 7-65. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5600MHz  
 Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 11200.00	Average	H	-	-	-80.13	12.86	0.00	39.73	53.98	-14.25
* 11200.00	Peak	H	-	-	-67.79	12.86	0.00	52.07	73.98	-21.91
16800.00	Peak	H	-	-	-68.49	15.52	0.00	54.03	68.20	-14.17
* 22400.00	Average	H	-	-	-67.24	5.45	-9.54	35.66	53.98	-18.32
* 22400.00	Peak	H	-	-	-57.14	5.45	-9.54	45.76	73.98	-28.22
28000.00	Peak	H	-	-	-57.42	7.99	-9.54	48.03	68.20	-20.17

**Table 7-66. Radiated Measurements MIMO**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 279 of 336

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5720MHz  
 Channel: 144

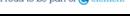
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 11440.00	Average	H	-	-	-80.47	13.08	0.00	39.61	53.98	-14.37
* 11440.00	Peak	H	-	-	-68.38	13.08	0.00	51.70	73.98	-22.28
17160.00	Peak	H	-	-	-69.22	17.81	0.00	55.59	68.20	-12.61
* 22880.00	Average	H	-	-	-67.02	5.43	-9.54	35.86	53.98	-18.12
* 22880.00	Peak	H	-	-	-56.76	5.43	-9.54	46.12	73.98	-27.86
28600.00	Peak	H	-	-	-57.06	8.29	-9.54	48.69	68.20	-19.51

**Table 7-67. Radiated Measurements MIMO**

Worst Case Mode: 802.11a  
 Worst Case Transfer Rate: 6Mbps  
 Distance of Measurements: 1 & 3 Meters  
 Operating Frequency: 5745MHz  
 Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 11490.00	Average	H	-	-	-80.61	13.64	0.00	40.03	53.98	-13.95
* 11490.00	Peak	H	-	-	-68.38	13.64	0.00	52.26	73.98	-21.72
17235.00	Peak	H	-	-	-68.55	17.96	0.00	56.41	68.20	-11.79
* 22980.00	Average	H	-	-	-66.93	5.29	-9.54	35.82	53.98	-18.16
* 22980.00	Peak	H	-	-	-56.64	5.29	-9.54	46.11	73.98	-27.87
28725.00	Peak	H	-	-	-56.86	8.24	-9.54	48.84	69.20	-20.36

**Table 7-68. Radiated Measurements MIMO**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)			 Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset				Page 280 of 336

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5785MHz
Channel:	157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 11570.00	Average	H	-	-	-80.07	14.11	0.00	41.04	53.98	-12.94
* 11570.00	Peak	H	-	-	-68.56	14.11	0.00	52.55	73.98	-21.43
17355.00	Peak	H	-	-	-69.31	18.91	0.00	56.60	68.20	-11.60
23140.00	Peak	H	-	-	-56.75	5.34	-9.54	46.04	68.20	-22.16
28925.00	Peak	H	-	-	-56.89	8.48	-9.54	49.04	68.20	-19.16

**Table 7-69. Radiated Measurements MIMO**

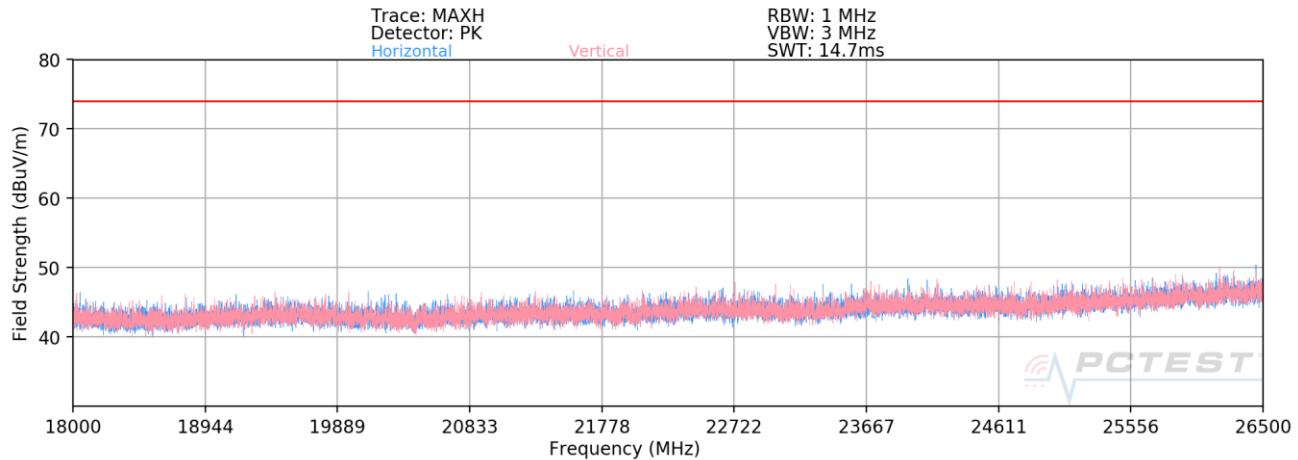
Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5825MHz
Channel:	165

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
* 11650.00	Average	H	-	-	-80.64	14.11	0.00	40.47	53.98	-13.51
* 11650.00	Peak	H	-	-	-68.69	14.11	0.00	52.42	73.98	-21.56
17475.00	Peak	H	-	-	-68.42	18.91	0.00	57.49	68.20	-10.71
23300.00	Peak	H	-	-	-56.14	5.29	-9.54	46.60	68.20	-21.60
29125.00	Peak	H	-	-	-57.09	8.49	-9.54	48.86	68.20	-19.34

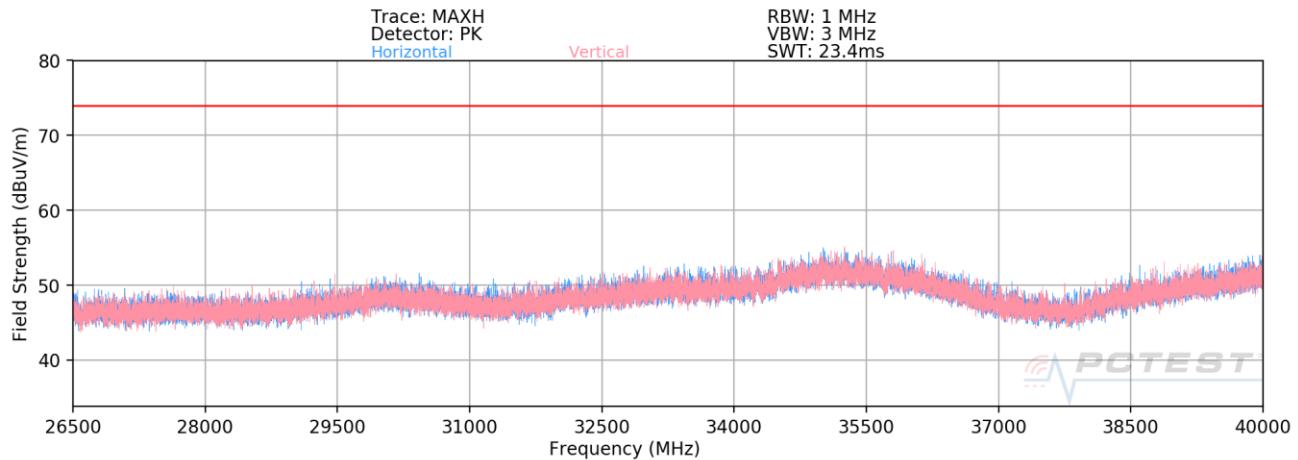
**Table 7-70. Radiated Measurements MIMO**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 281 of 336

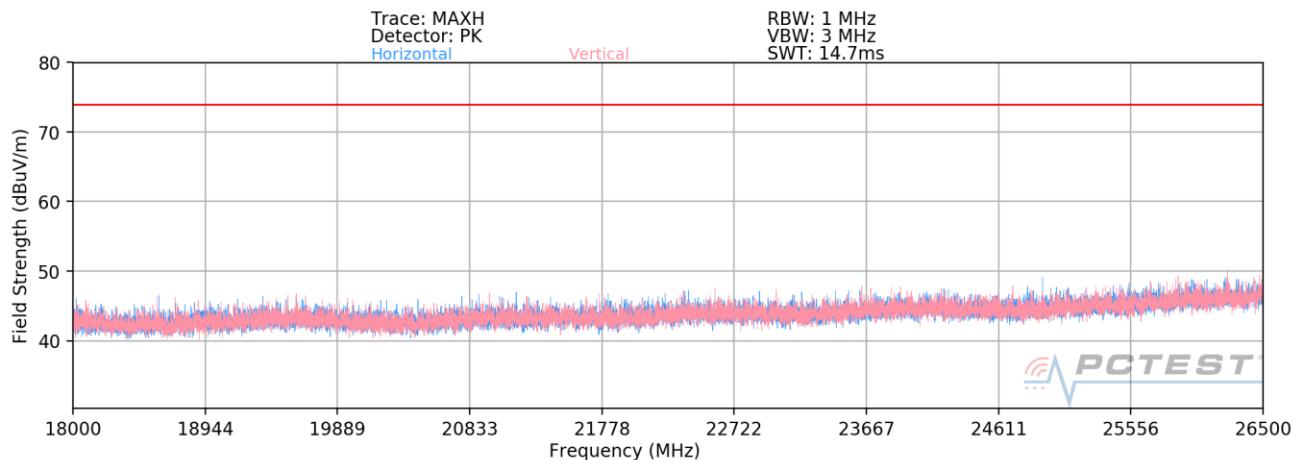
## MIMO Radiated Spurious Emissions Measurements (Above 18GHz)



**Plot 7-453. Radiated Spurious Plot above 18GHz - 26.5GHz MIMO (802.11a) Closed**

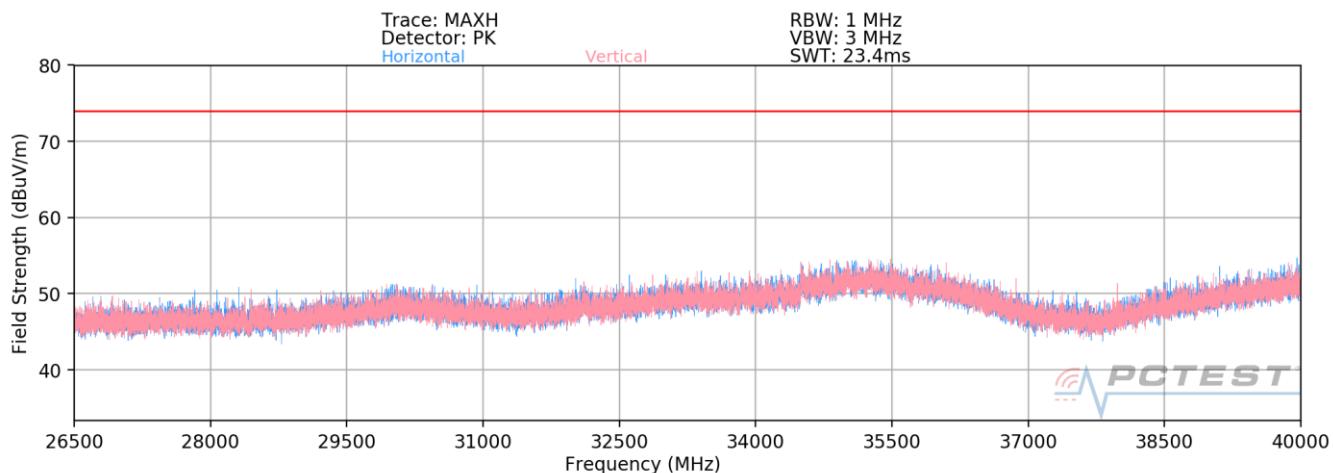


**Plot 7-454. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11a) Closed**



**Plot 7-455. Radiated Spurious Plot above 18GHz - 26.5GHz MIMO (802.11a) Open**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset	Page 282 of 336



**Plot 7-456. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11a) Open**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST®</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 283 of 336