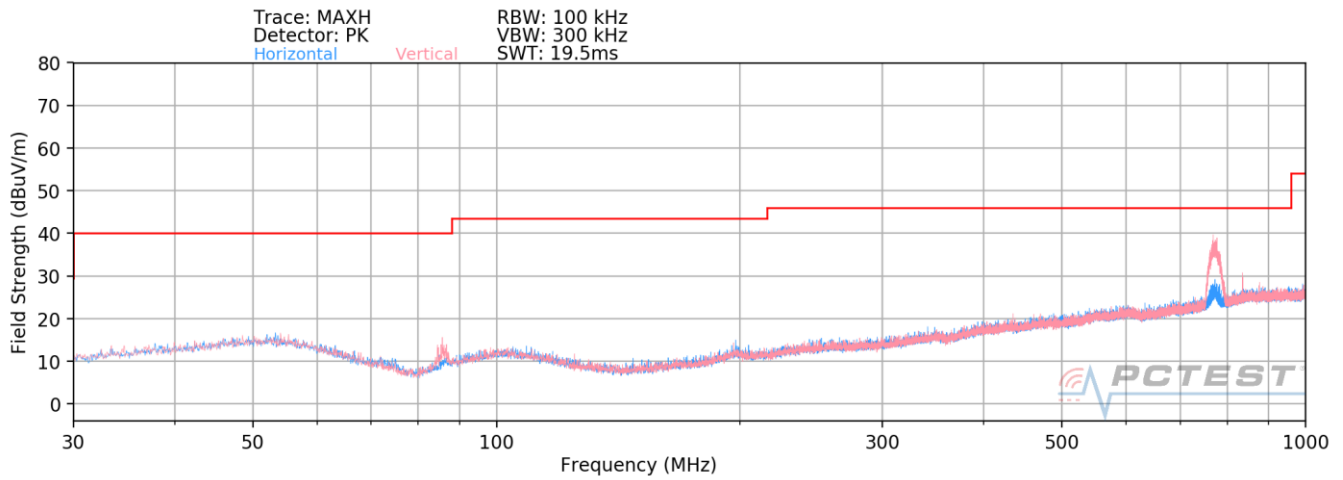


## 7.6.4 Simultaneous Tx Radiated Spurious Emissions Measurements

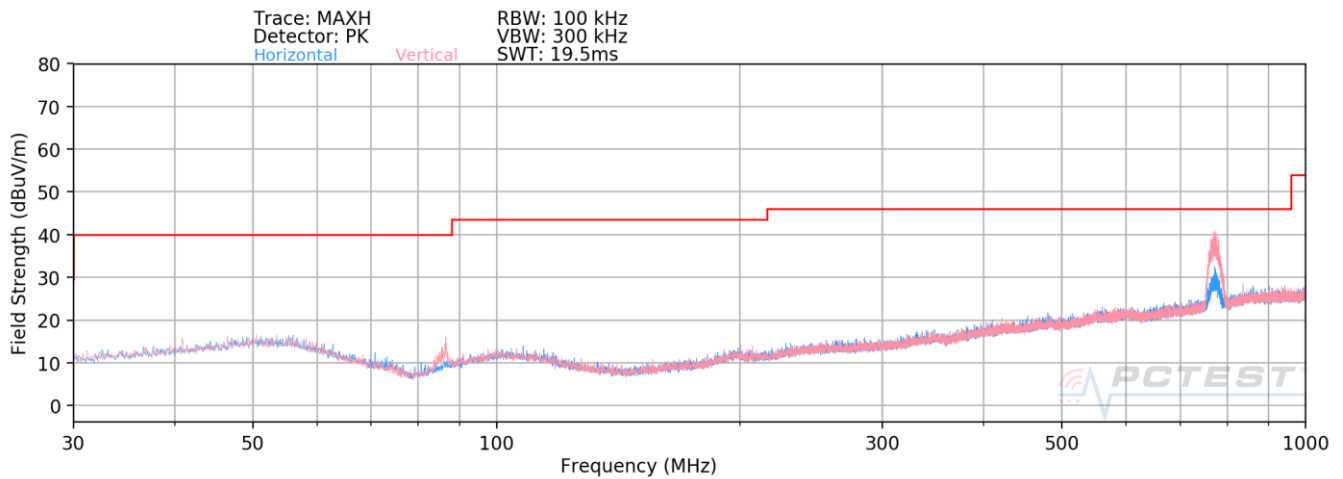
§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Description	2.4 GHz Emission	5 GHz Emission
Antenna	South	North
Channel	1	120
Operating Frequency (MHz)	2412	5600
Data Rate (Mbps)	1	6
Mode	b	a

**Table 7-71. Simultaneous Transmission Config-1**

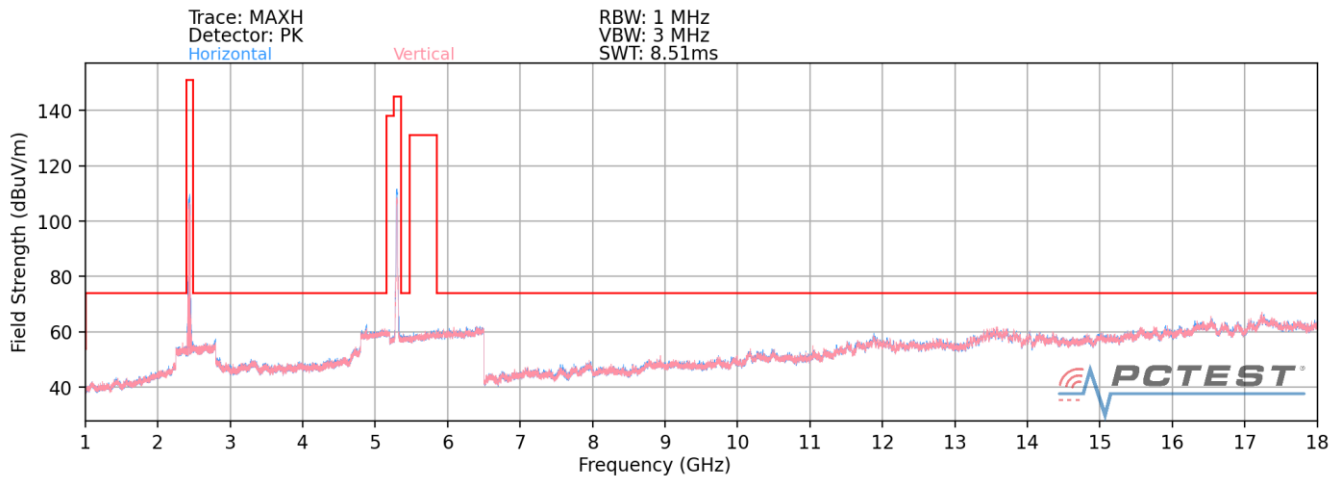


**Plot 7-457. Radiated Spurious Plot 30MHz - 1GHz Closed**

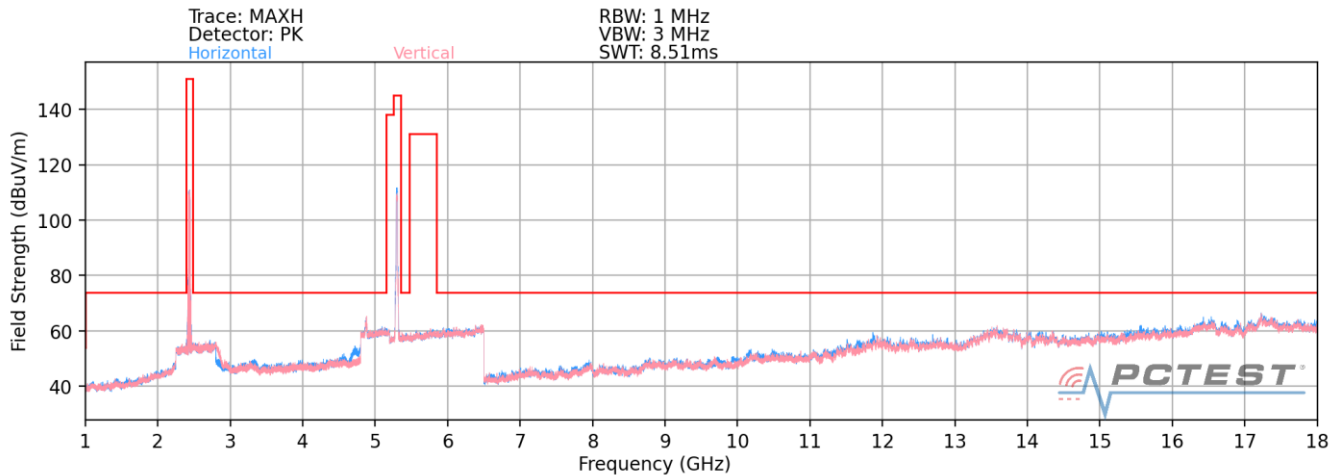


**Plot 7-458. Radiated Spurious Plot 30MHz - 1GHz 300°**

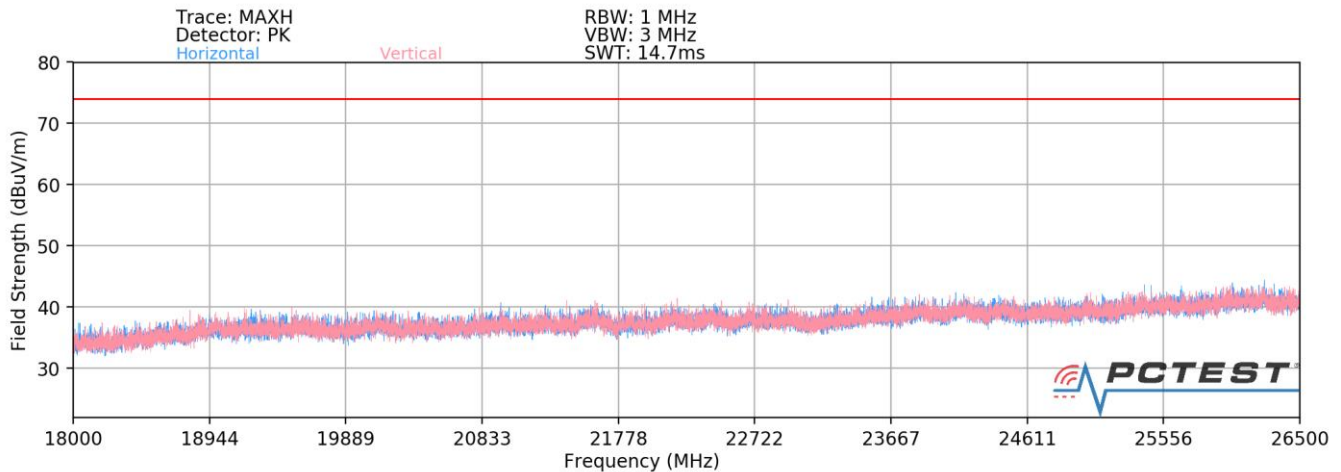
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 284 of 336



**Plot 7-459. Radiated Spurious Plot 1GHz – 18GHz Closed**

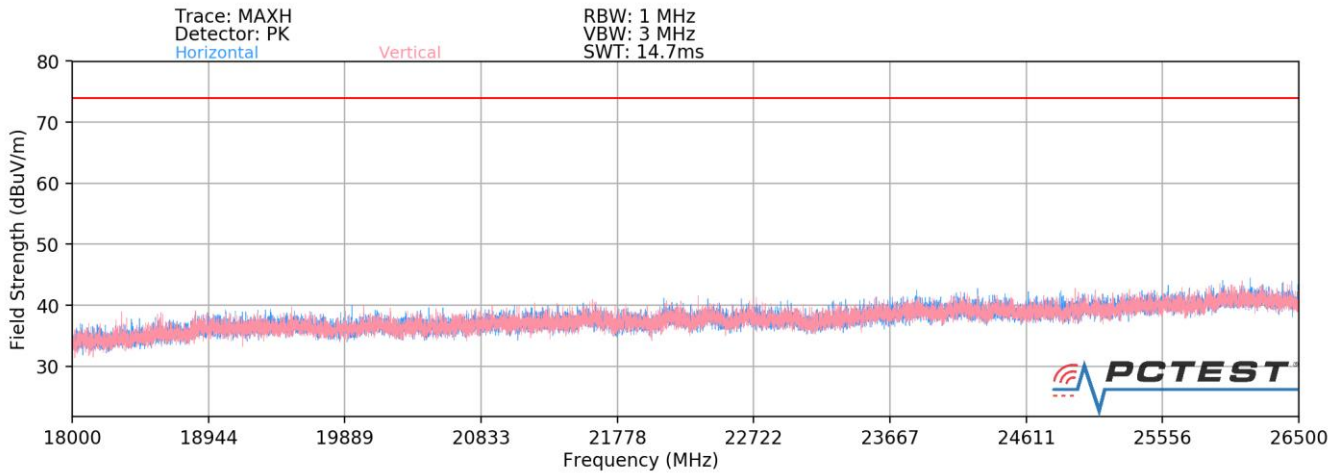


**Plot 7-460. Radiated Spurious Plot 1GHz – 18GHz 300°**

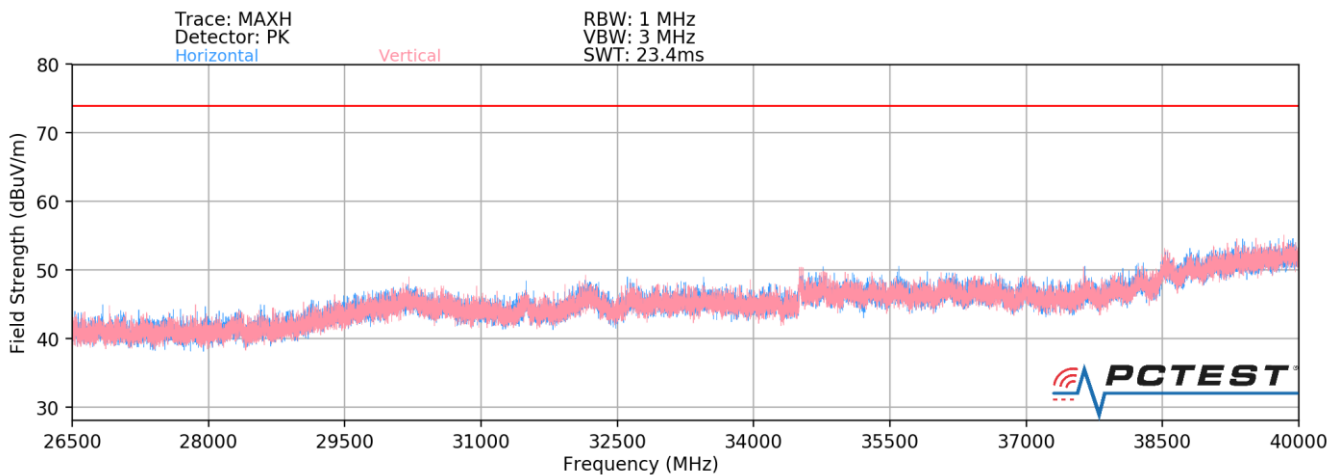


**Plot 7-461. Radiated Spurious Plot 18GHz – 26.5GHz Closed**

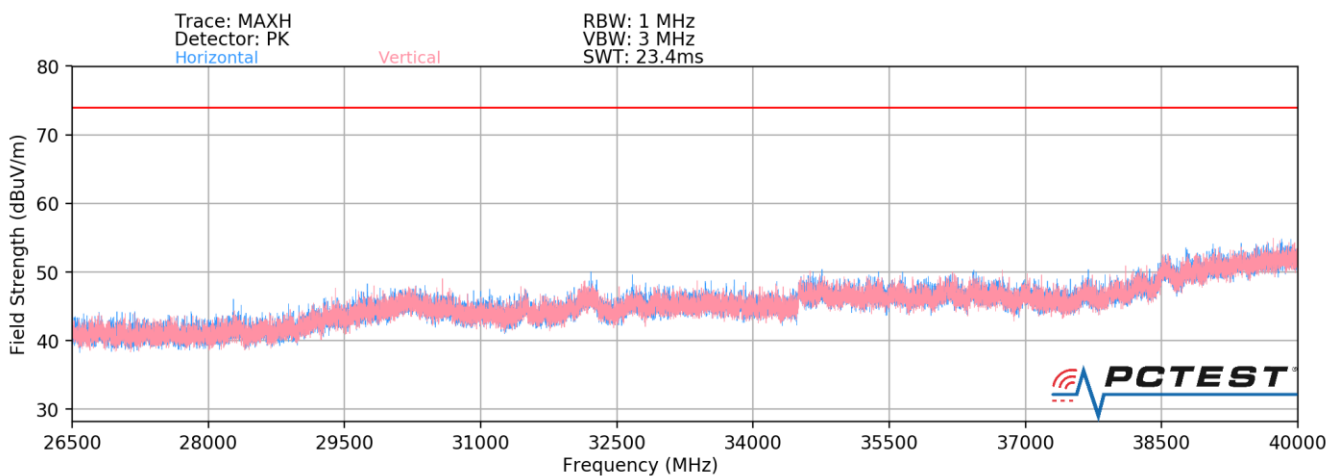
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 285 of 336



**Plot 7-462. Radiated Spurious Plot 18GHz – 26.5GHz Open**



**Plot 7-463. Radiated Spurious Plot above 26.5GHz Closed**



**Plot 7-464. Radiated Spurious Plot above 26.5GHz Open**

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 286 of 336

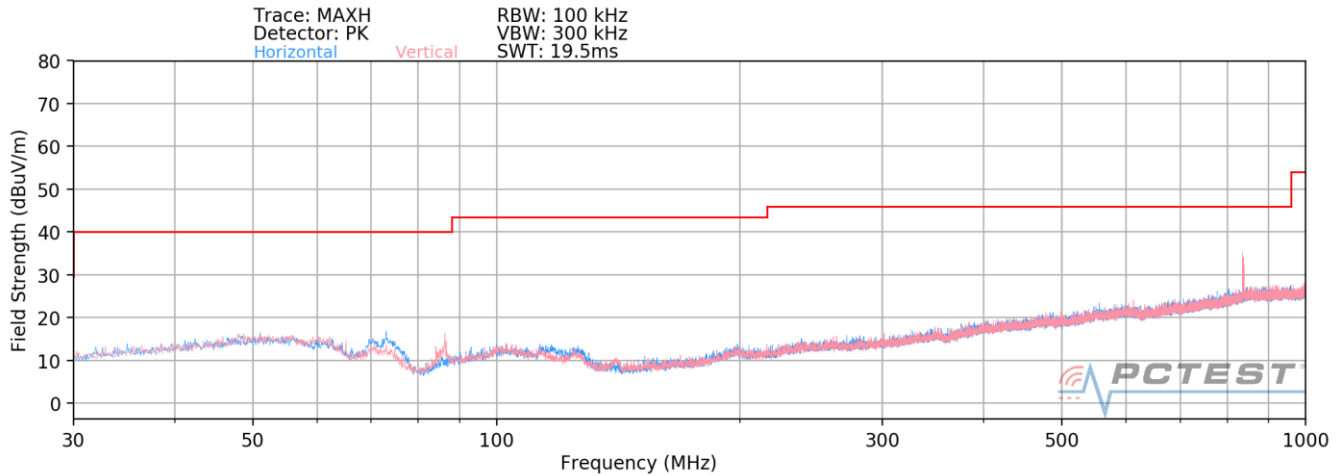
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
776.00	Peak	V	-	-	-75.89	-4.67	26.44	68.20	-41.76
3964.00	Average	V	-	-	-80.49	9.02	35.53	73.98	-38.45
3964.00	Peak	V	-	-	-69.28	9.02	46.74	53.98	-7.24
7152.00	Peak	V	-	-	-71.07	15.36	51.29	68.20	-16.91
8788.00	Peak	V	-	-	-72.71	19.04	53.33	68.20	-14.87
10340.00	Peak	V	-	-	-72.56	21.04	55.48	68.20	-12.72
11976.00	Average	V	-	-	-83.27	25.04	48.77	53.98	-5.21
11976.00	Peak	V	-	-	-72.80	25.04	59.24	73.98	-14.74

**Table 7-72. Radiated Measurements (SOUTH 2.4GHz – NORTH 5GHz)**

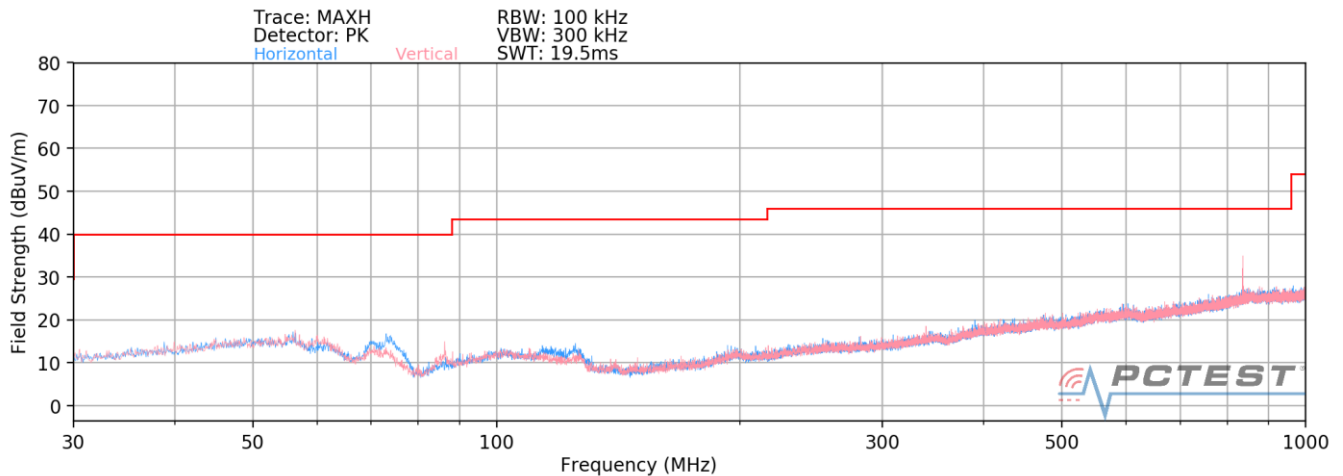
<b>FCC ID:</b> C3K1995 <b>IC:</b> 3048A-1995		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2105060048-14.C3K	<b>Test Dates:</b> 05/20/2021 - 09/08/2021	<b>EUT Type:</b> Portable Handset		Page 287 of 336

Description	2.4 GHz Emission	5 GHz Emission
Antenna	North	South
Channel	1	120
Operating Frequency (MHz)	2412	5600
Data Rate (Mbps)	1	6
Mode	b	a

**Table 7-73. Simultaneous Transmission Config-2**

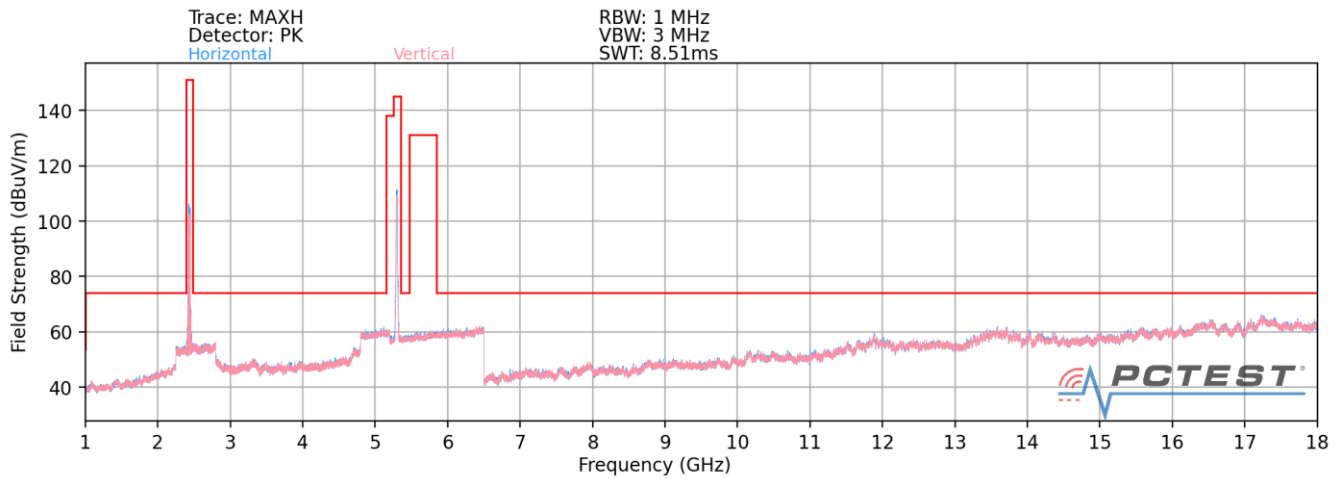


**Plot 7-465. Radiated Spurious Plot 30MHz - 1GHz Closed**

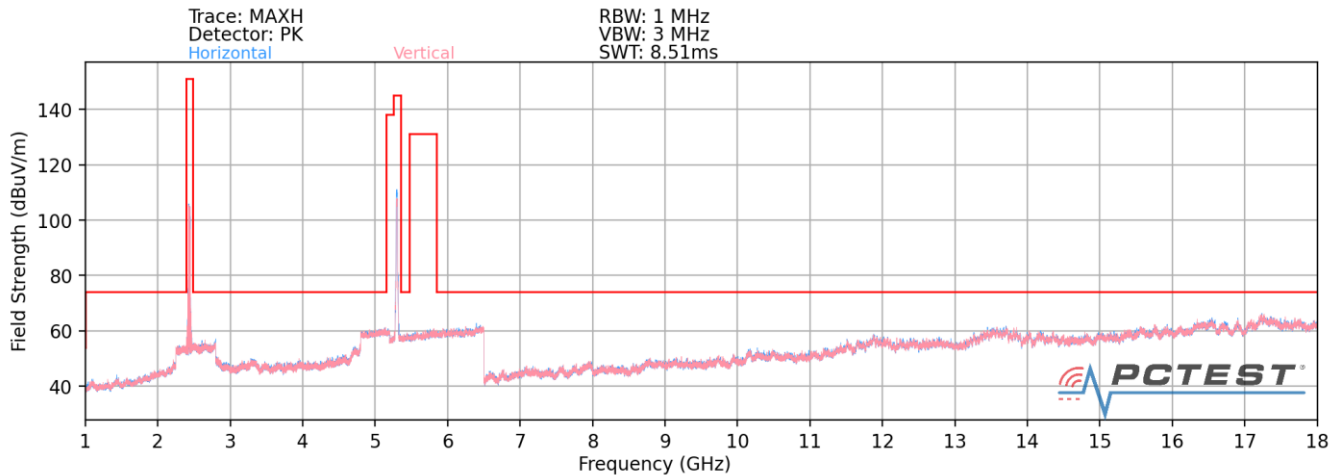


**Plot 7-466. Radiated Spurious Plot 30MHz - 1GHz 300°**

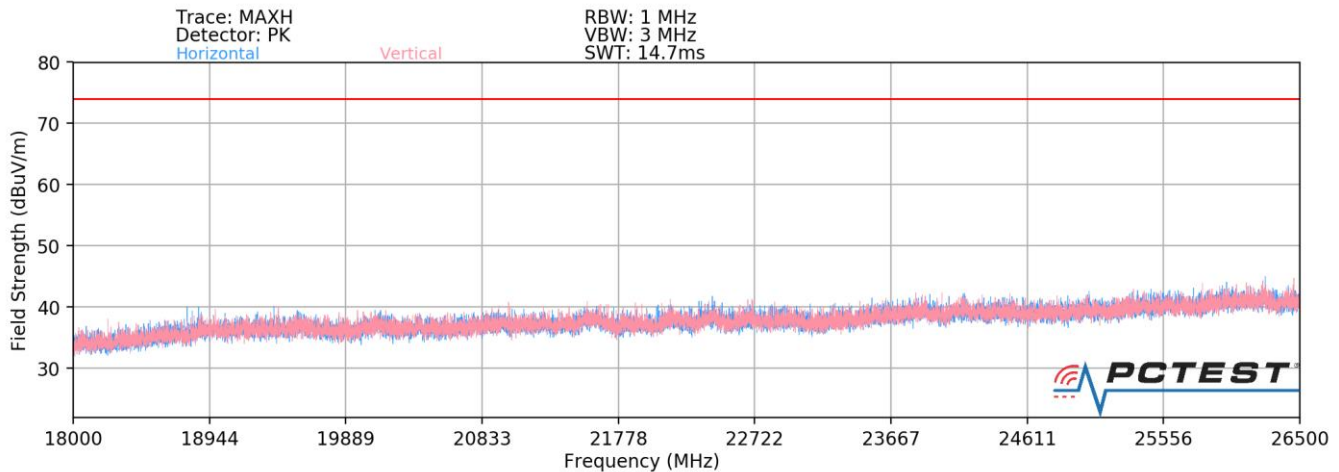
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 288 of 336



**Plot 7-467. Radiated Spurious Plot 1GHz – 18GHz Closed**

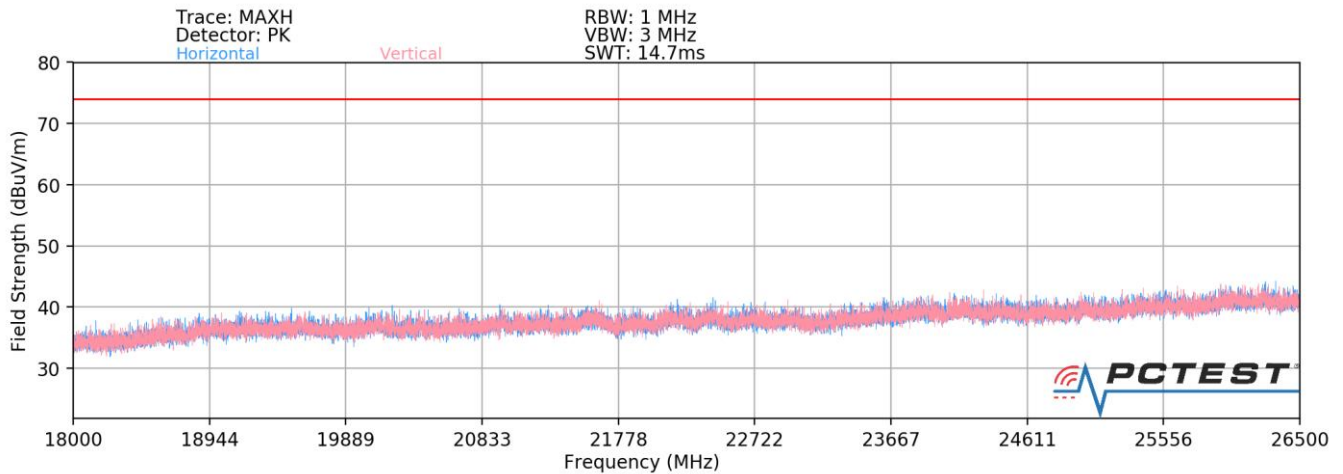


**Plot 7-468. Radiated Spurious Plot 1GHz – 18GHz 300°**

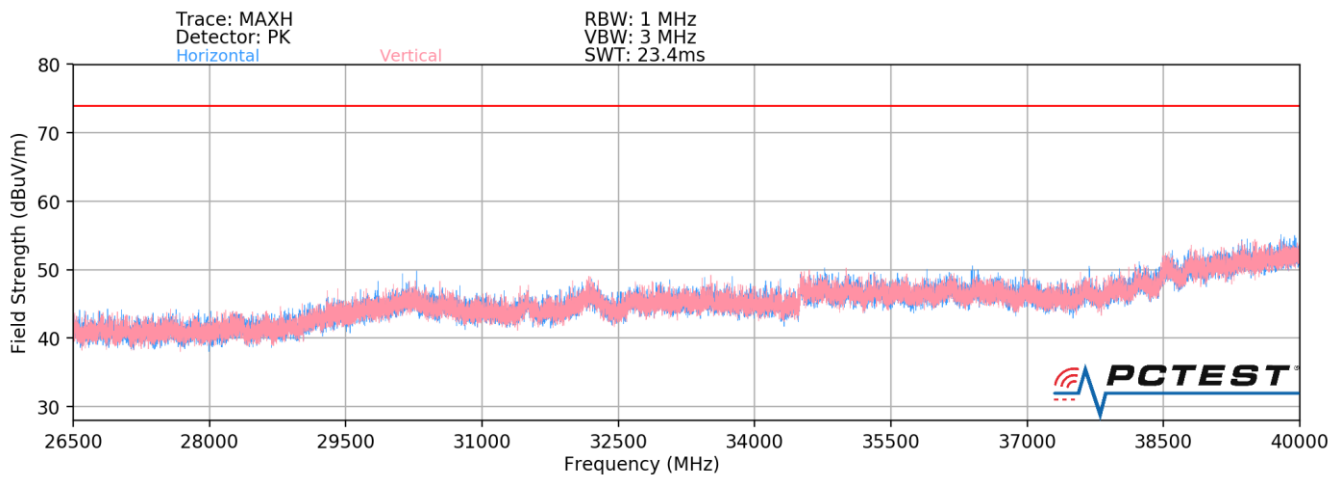


**Plot 7-469. Radiated Spurious Plot 18GHz – 26.5GHz Closed**

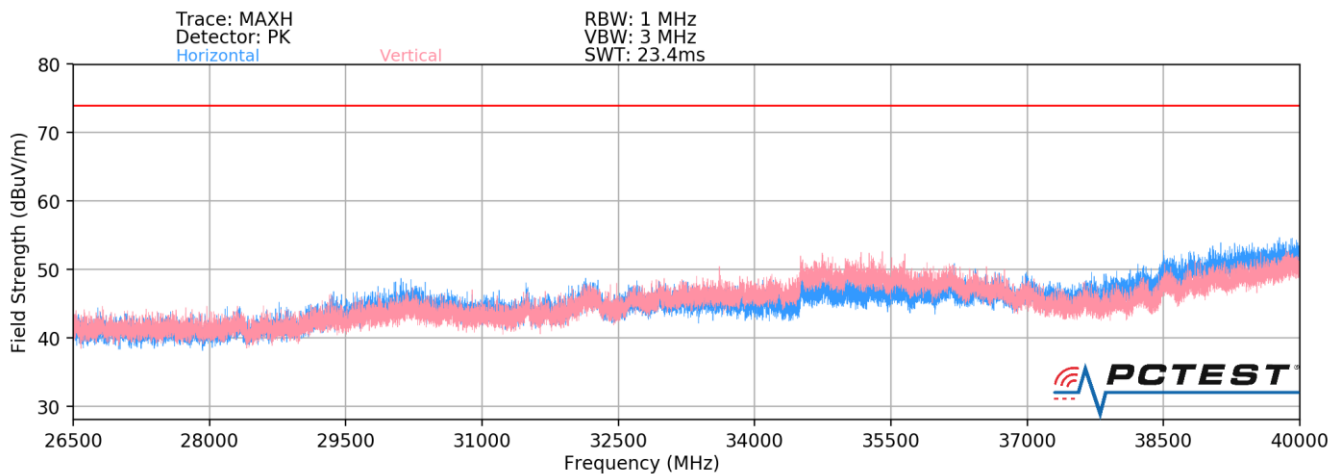
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 289 of 336



**Plot 7-470. Radiated Spurious Plot 18GHz – 26.5GHz Open**



**Plot 7-471. Radiated Spurious Plot above 26.5GHz Closed**



**Plot 7-472. Radiated Spurious Plot above 26.5GHz Open**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 290 of 336

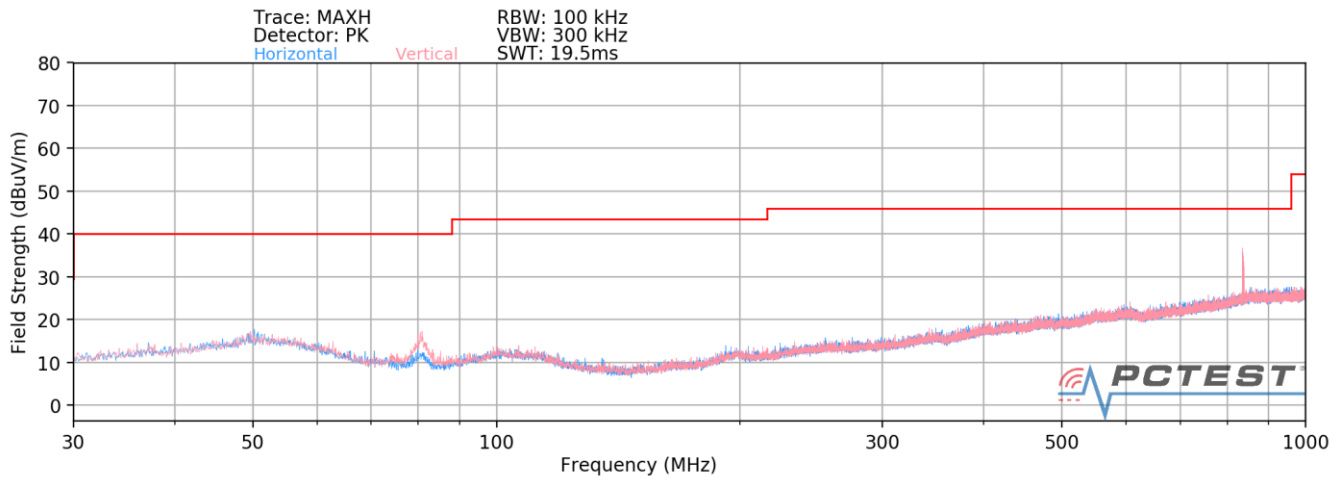
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
776.00	Peak	V	-	-	-75.27	-4.67	27.06	68.20	-41.14
3964.00	Average	V	-	-	-80.60	9.02	35.42	73.98	-38.56
3964.00	Peak	V	-	-	-69.16	9.02	46.86	53.98	-7.12
7152.00	Peak	V	-	-	-69.82	15.36	52.54	68.20	-15.66
8788.00	Peak	V	-	-	-72.27	19.04	53.77	68.20	-14.43
10340.00	Peak	V	-	-	-72.09	21.04	55.95	68.20	-12.25
11976.00	Average	V	-	-	-83.38	25.04	48.66	53.98	-5.32
11976.00	Peak	V	-	-	-71.96	25.04	60.08	73.98	-13.90

**Table 7-74. Radiated Measurements (SOUTH 5GHz – NORTH 2.4GHz)**

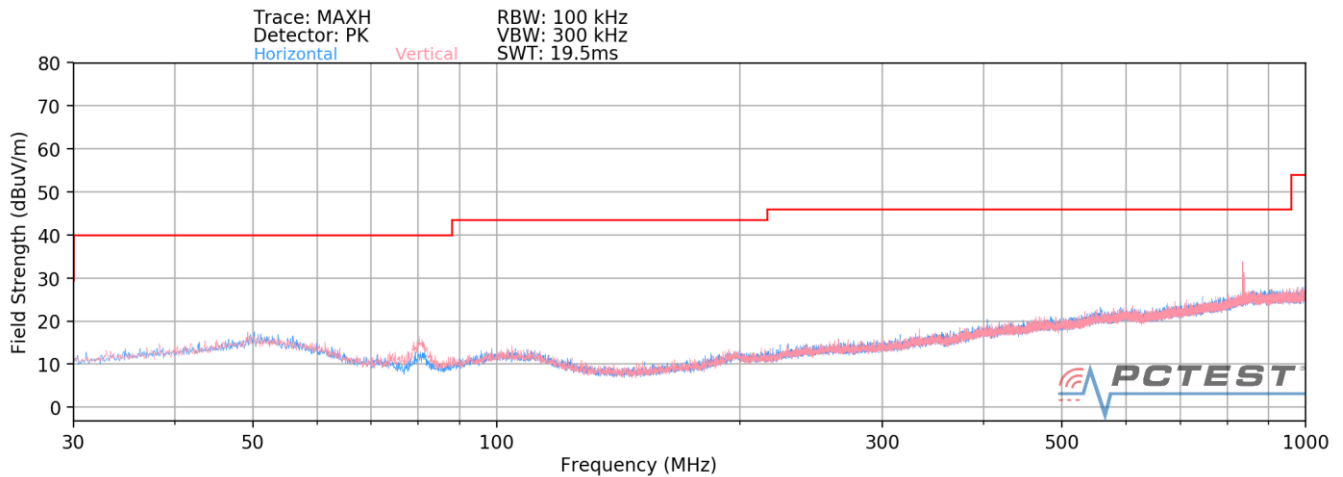
<b>FCC ID:</b> C3K1995 <b>IC:</b> 3048A-1995		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2105060048-14.C3K	<b>Test Dates:</b> 05/20/2021 - 09/08/2021	<b>EUT Type:</b> Portable Handset		Page 291 of 336

Description	2.4 GHz Emission	5 GHz Emission
Antenna	North, South	North, South
Channel	6	120
Operating Frequency (MHz)	2437	5600
Data Rate (Mbps)	1	6
Mode	b	a

**Table 7-75. Simultaneous Transmission Config-3**

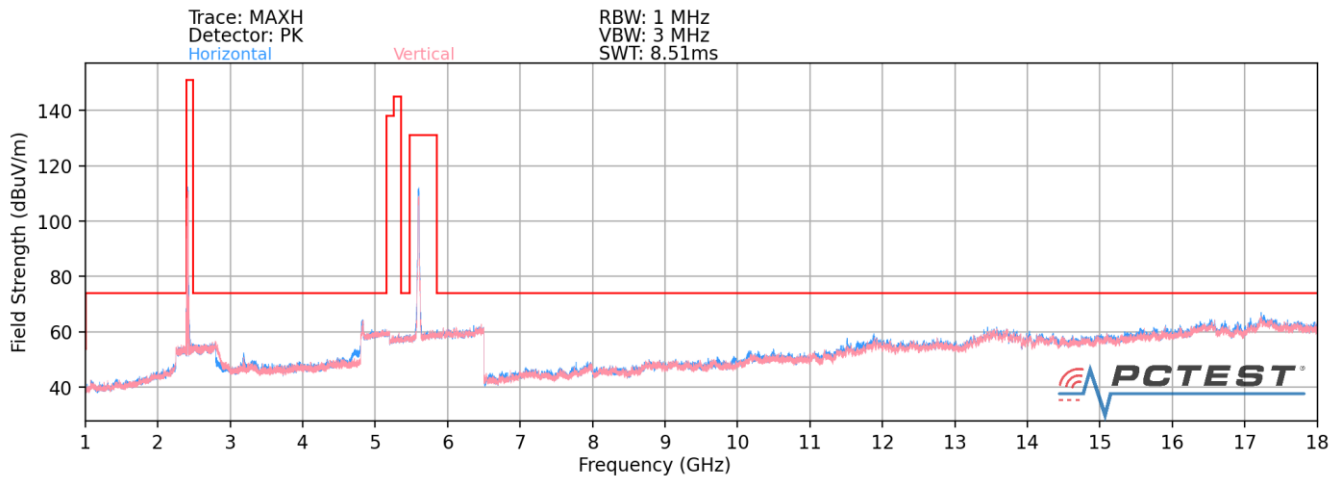


**Plot 7-473. Radiated Spurious Plot 30MHz - 1GHz Closed**

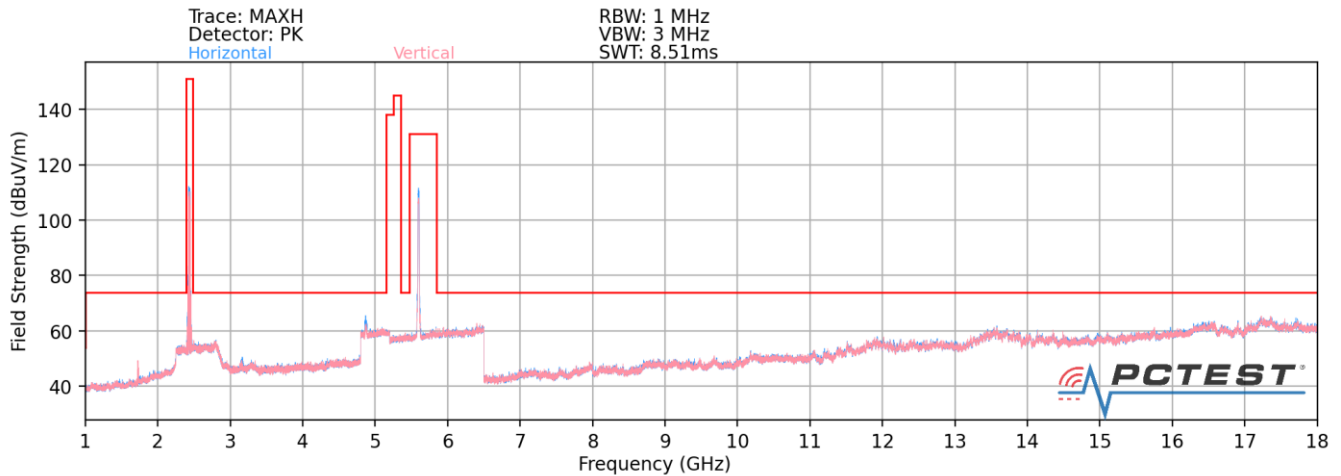


**Plot 7-474. Radiated Spurious Plot 30MHz - 1GHz 300°**

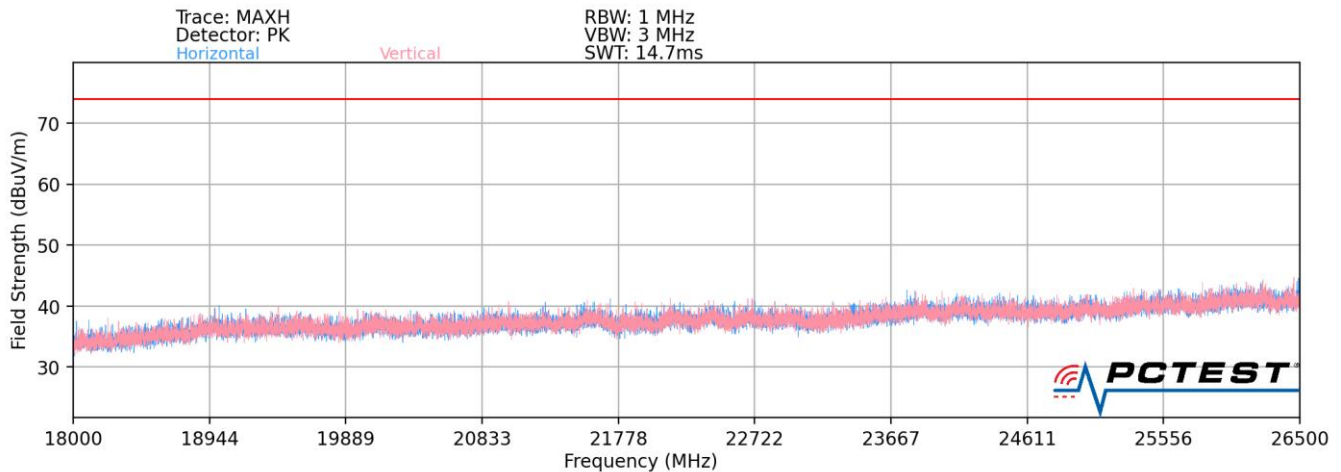
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 292 of 336



**Plot 7-475. Radiated Spurious Plot 1GHz – 18GHz Closed**

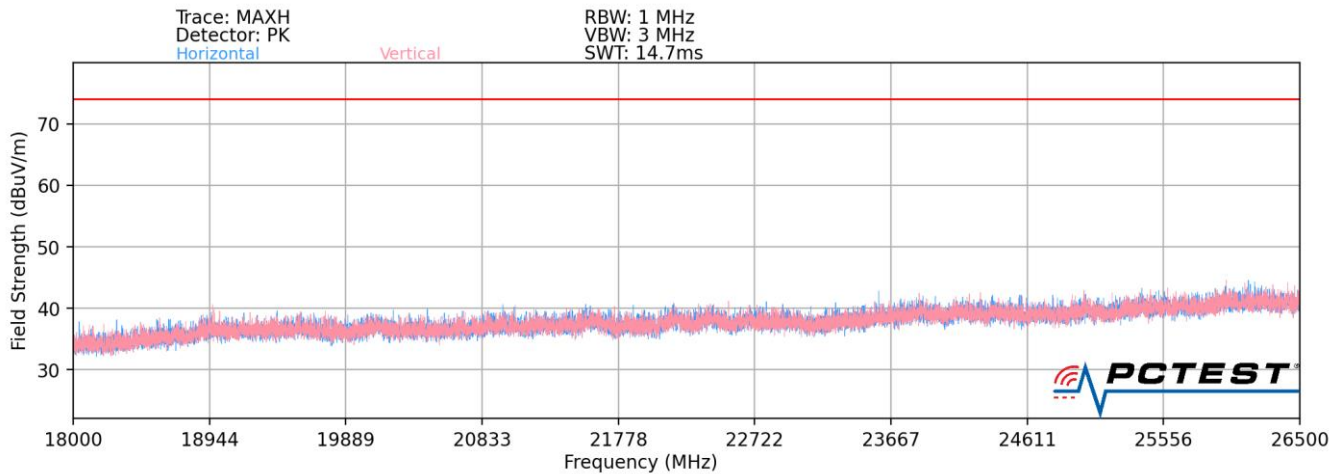


**Plot 7-476. Radiated Spurious Plot 1GHz – 18GHz Open**

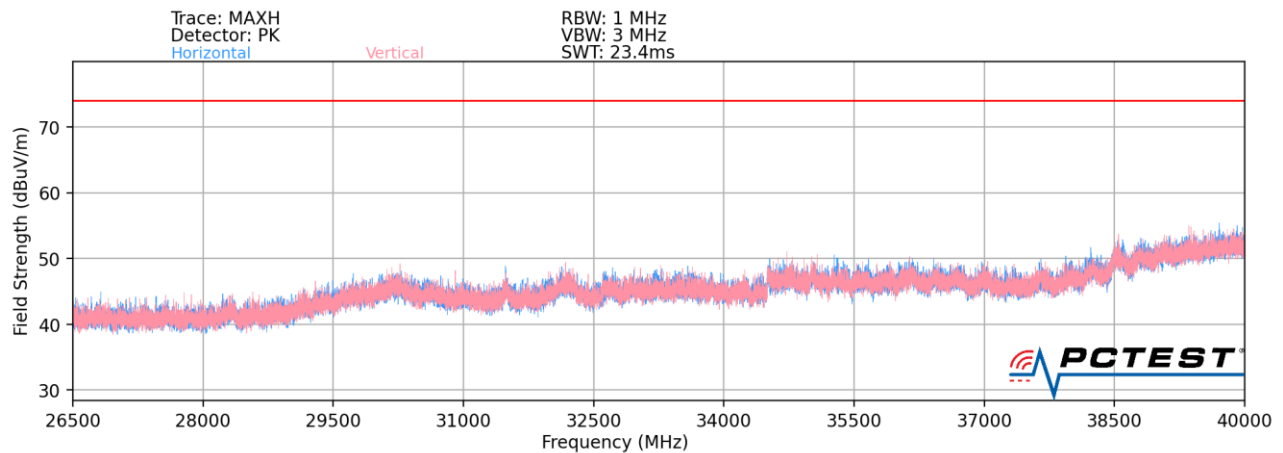


**Plot 7-477. Radiated Spurious Plot 18GHz – 26.5GHz Closed**

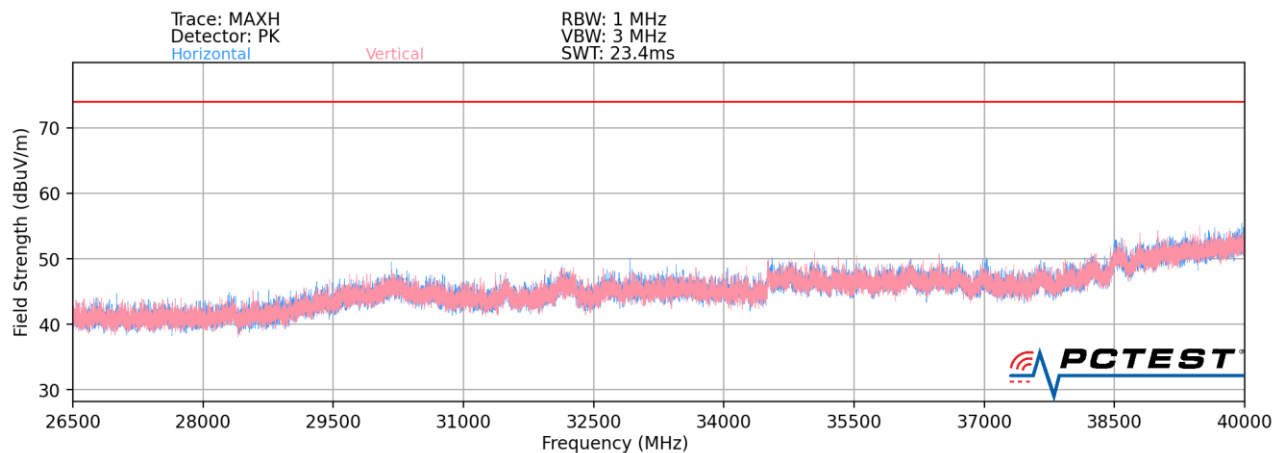
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 293 of 336



**Plot 7-478. Radiated Spurious Plot 18GHz – 26.5GHz Open**



**Plot 7-479. Radiated Spurious Plot above 26.5GHz Closed**



**Plot 7-480. Radiated Spurious Plot above 26.5GHz Open**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 294 of 336

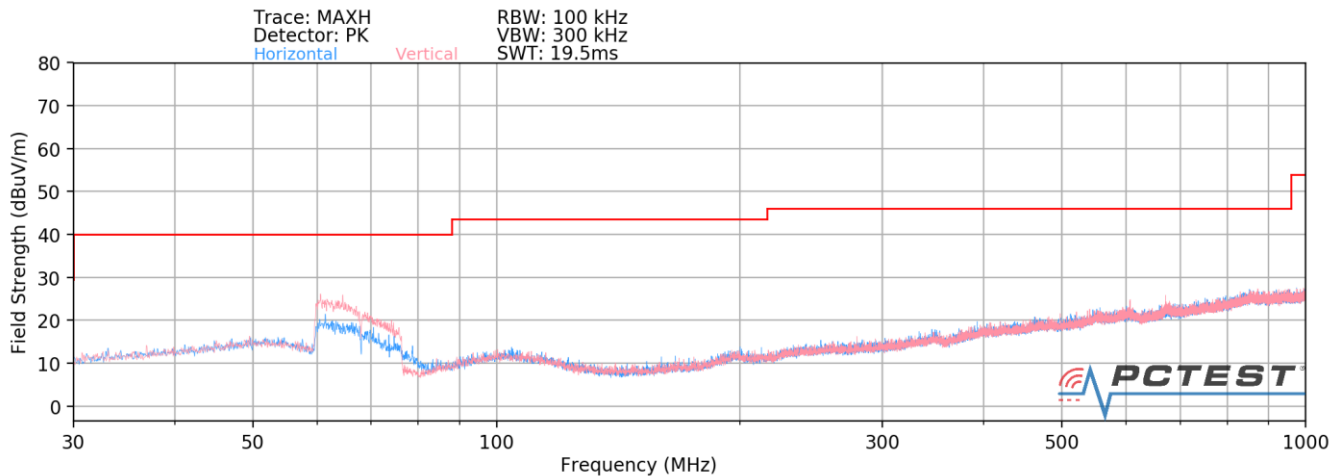
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
726.00	Peak	V	173	295	-63.70	-5.30	38.00	68.20	-30.20
3889.00	Average	V	-	-	-80.06	8.11	35.05	73.98	-38.93
3889.00	Peak	V	-	-	-68.76	8.11	46.35	53.98	-7.63
7052.00	Peak	V	-	-	-70.48	15.07	51.59	68.20	-16.61
8763.00	Peak	V	-	-	-72.34	18.25	52.91	68.20	-15.29
10215.00	Peak	V	-	-	-71.80	20.54	55.74	68.20	-12.46
11926.00	Average	V	-	-	-83.35	26.41	50.06	53.98	-3.92
11926.00	Peak	V	-	-	-72.23	26.41	61.18	73.98	-12.80

**Table 7-76. Radiated Measurements (MIMO 2.4GHz – MIMO 5GHz)**

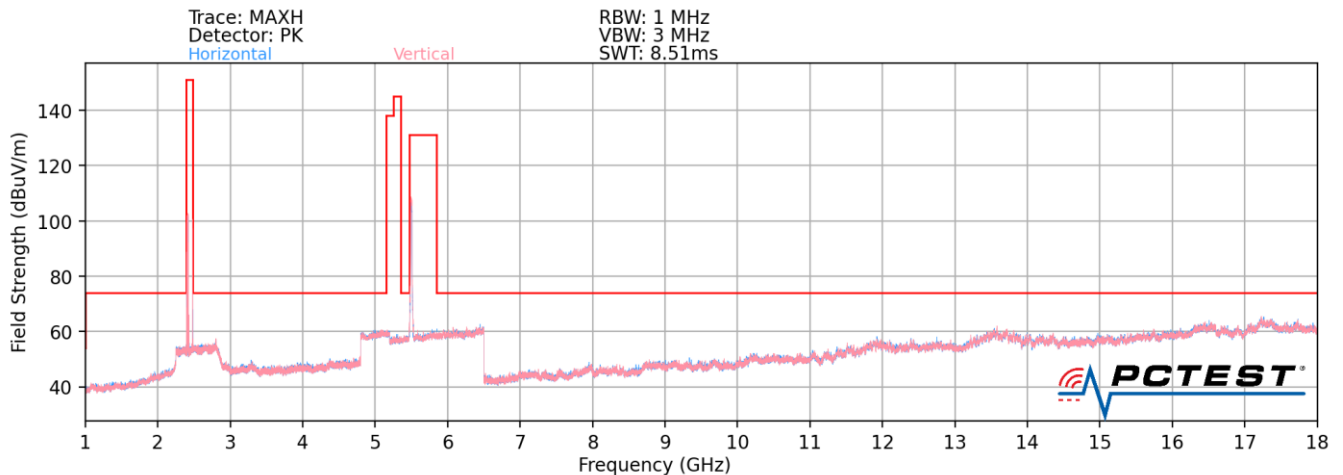
<b>FCC ID:</b> C3K1995 <b>IC:</b> 3048A-1995		<b>MEASUREMENT REPORT (CERTIFICATION)</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2105060048-14.C3K	<b>Test Dates:</b> 05/20/2021 - 09/08/2021	<b>EUT Type:</b> Portable Handset		Page 295 of 336

Description	BT transmission	2.4 GHz Emission	5 GHz Emission
Antenna	South	North	North, South
Channel	78	1	100
Operating Frequency (MHz)	2480	2412	5500
Data Rate (Mbps)	1	1	6
Mode	GFSK	g	a

**Table 7-77. Simultaneous Transmission Config-4**

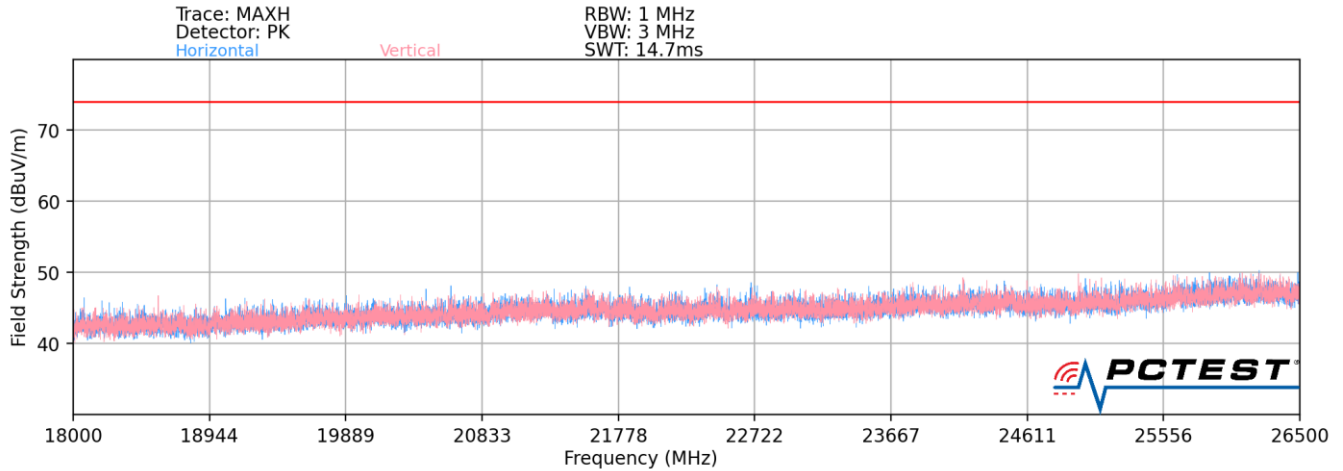


**Plot 7-481. Radiated Spurious Plot 30MHz - 1GHz 300°**

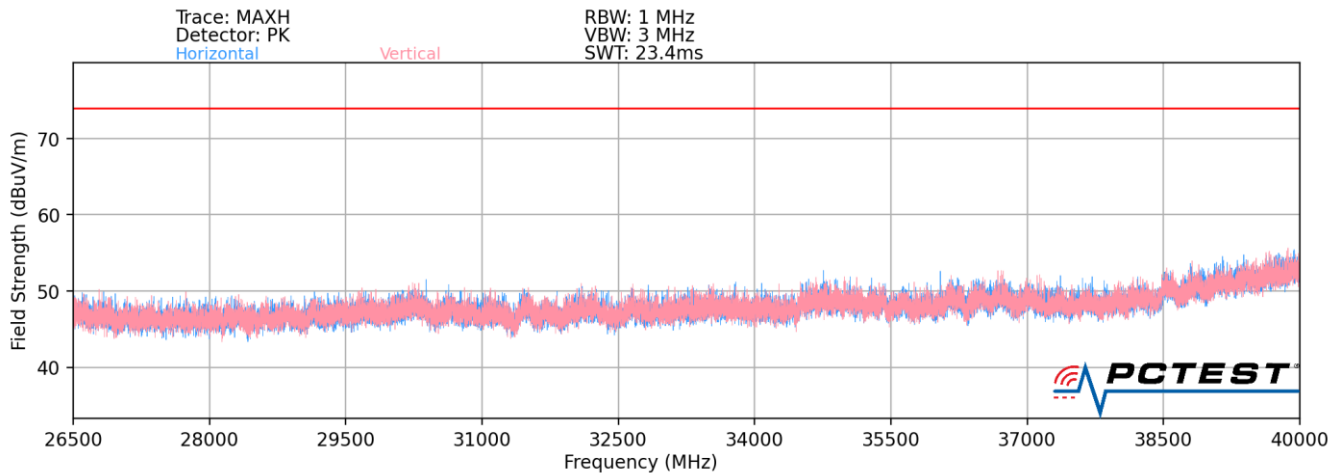


**Plot 7-482. Radiated Spurious Plot 1GHz - 18GHz 300°**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 296 of 336



**Plot 7-483. Radiated Spurious Plot 18GHz – 26.5GHz 300°**



**Plot 7-484. Radiated Spurious Plot above 26.5GHz 300°**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 297 of 336

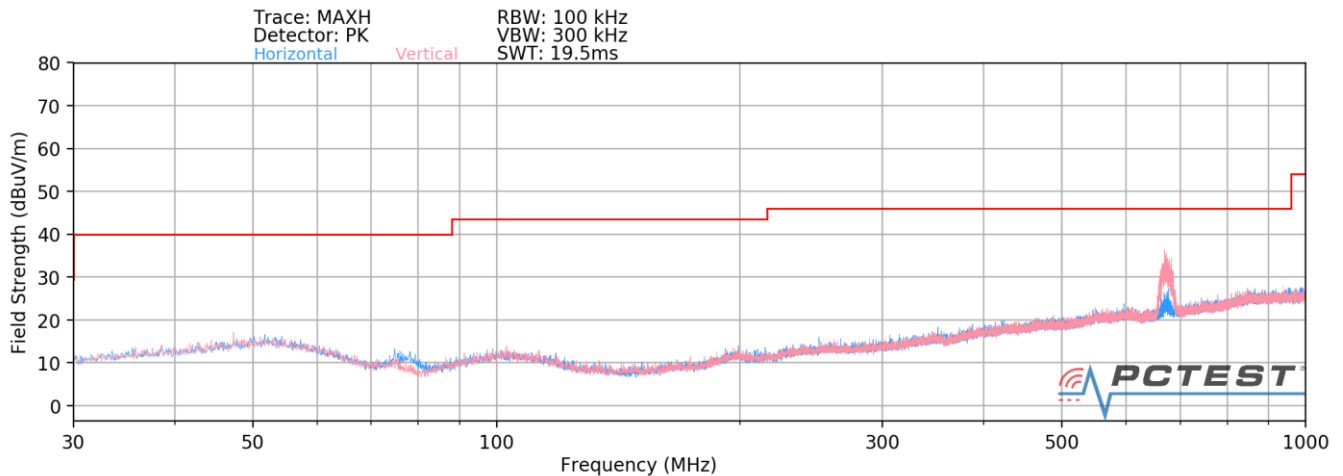
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
62.00	Peak	V	-	-	-97.65	15.74	25.09	68.20	-43.11
676.00	Peak	V	-	-	-81.77	21.47	46.70	68.20	-21.50
3764.00	Average	V	-	-	-80.53	7.66	34.13	53.98	-19.85
3764.00	Peak	V	-	-	-68.08	7.66	46.58	73.98	-27.40
8384.00	Average	V	-	-	-83.68	17.98	41.30	53.98	-12.68
8384.00	Peak	V	-	-	-72.33	17.98	52.65	73.98	-21.33
8452.00	Average	V	-	-	-83.65	17.82	41.17	53.98	-12.81
8452.00	Peak	V	-	-	-72.20	17.82	52.62	73.98	-21.36
8588.00	Average	V	-	-	-83.84	17.82	40.98	53.98	-13.00
8588.00	Peak	V	-	-	-72.19	17.82	52.63	73.98	-21.35
11744.00	Average	V	-	-	-83.93	24.84	47.91	53.98	-6.07
11744.00	Peak	V	-	-	-72.64	24.84	59.20	73.98	-14.78

**Table 7-78. Radiated Measurements (SOUTH BT – NORTH 2.4GHz – MIMO 5GHz)**

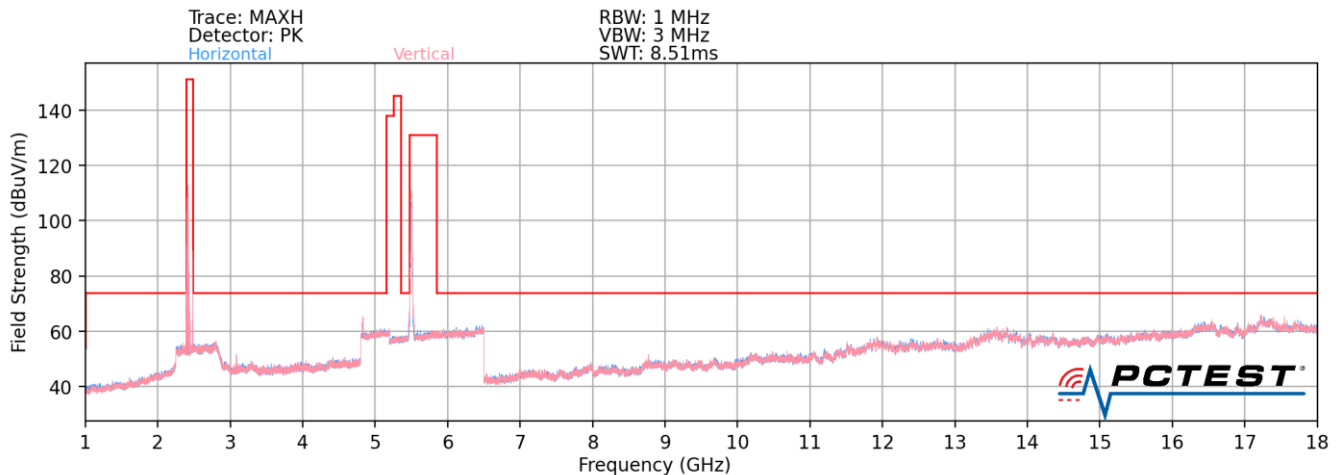
FCC ID: C3K1995 IC: 3048A-1995		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 298 of 336

Description	BT transmission	2.4 GHz Emission	5 GHz Emission
Antenna	North	South	North, South
Channel	78	1	100
Operating Frequency (MHz)	2480	2412	5500
Data Rate (Mbps)	1	1	6
Mode	GFSK	g	a

**Table 7-79. Simultaneous Transmission Config-5**

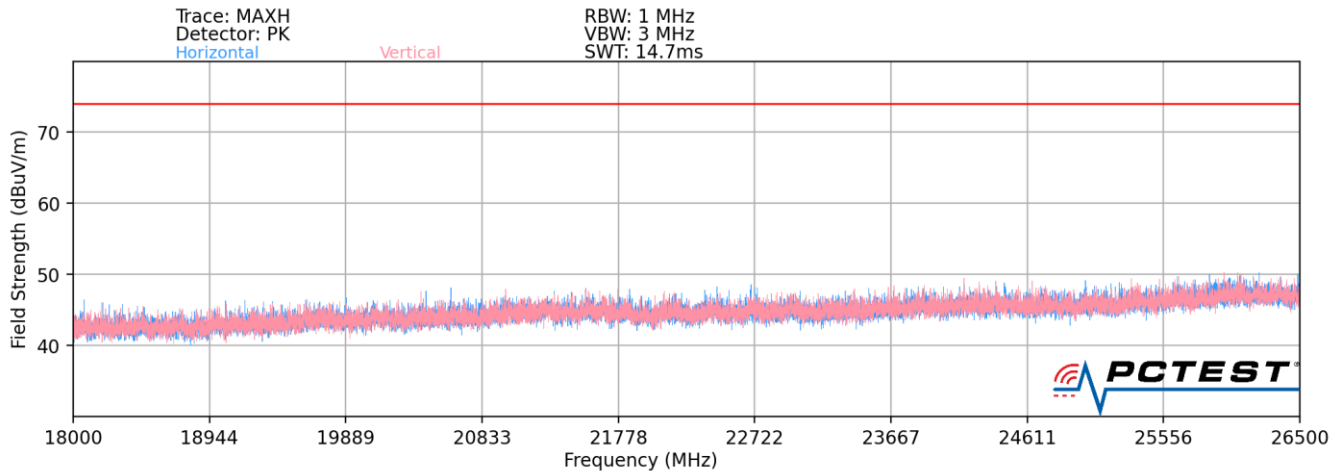


**Plot 7-485. Radiated Spurious Plot 30MHz - 1GHz 300°**

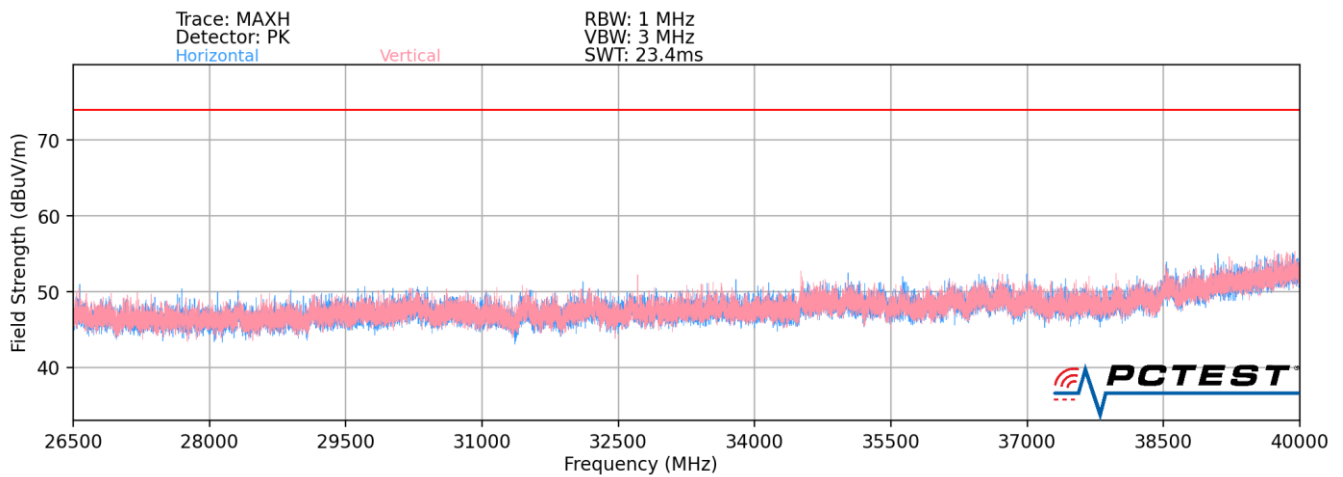


**Plot 7-486. Radiated Spurious Plot 1GHz – 18GHz**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 299 of 336



**Plot 7-487. Radiated Spurious Plot 18GHz – 26.5GHz**



**Plot 7-488. Radiated Spurious Plot above 26.5GHz**

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 300 of 336

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]
676.00	Peak	V	150	9	-66.07	21.47	62.40	68.20	-5.80
3764.00	Average	V	-	-	-80.14	7.66	34.52	53.98	-19.46
3764.00	Peak	V	-	-	-69.14	7.66	45.52	73.98	-28.46
8384.00	Average	V	-	-	-83.56	17.98	41.42	53.98	-12.56
8384.00	Peak	V	-	-	-71.71	17.98	53.27	73.98	-20.71
8452.00	Average	V	-	-	-83.69	17.82	41.13	53.98	-12.85
8452.00	Peak	V	-	-	-72.36	17.82	52.46	73.98	-21.52
8588.00	Average	V	-	-	-83.77	18.36	41.59	53.98	-12.38
8588.00	Peak	V	-	-	-72.18	18.36	53.18	73.98	-20.79
11744.00	Average	V	-	-	-83.92	24.84	47.92	53.98	-6.06
11744.00	Peak	V	-	-	-72.38	24.84	59.46	73.98	-14.52

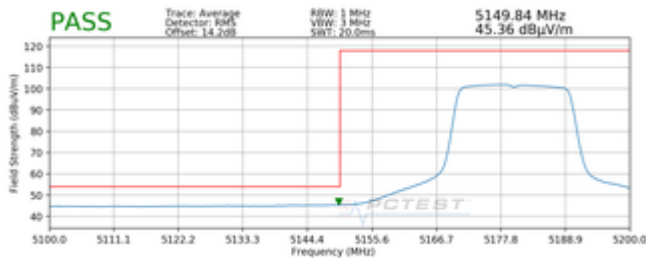
**Table 7-80. Radiated Measurements (SOUTH 2.4GHz – NORTH BT – MIMO 5GHz)**

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 301 of 336

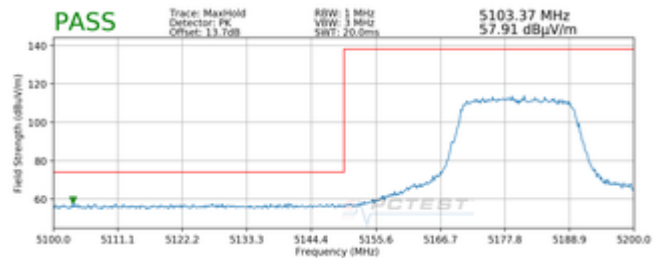
## 7.6.5 SISO SOUTH Radiated Band Edge Measurements (20MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

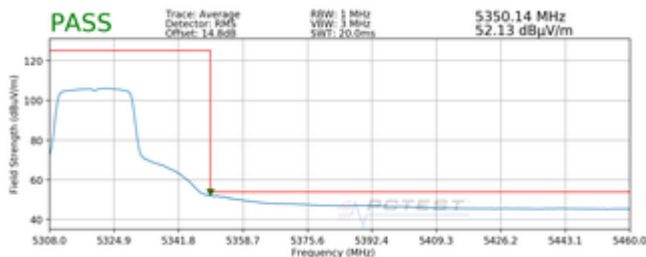


**Plot 7-489. Radiated Lower Band Edge Plot SISO SOUTH (Average – UNII Band 1)**

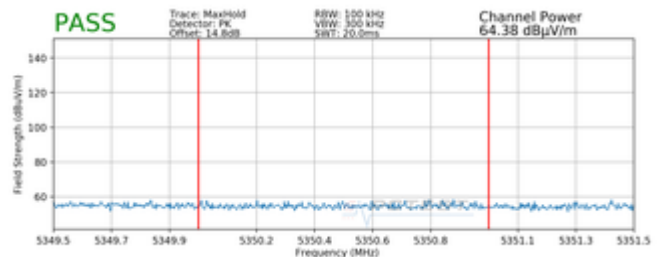


**Plot 7-490. Radiated Lower Band Edge Plot SISO SOUTH (Peak – UNII Band 1)**

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



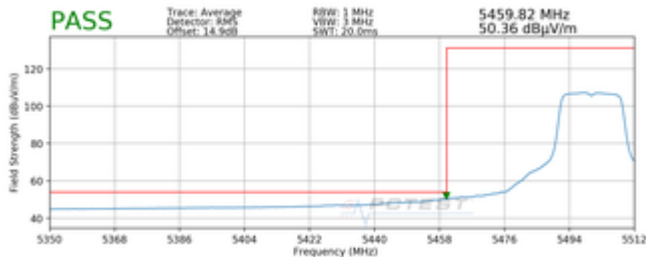
**Plot 7-491. Radiated Upper Band Edge Plot SISO SOUTH (Average – UNII Band 2A)**



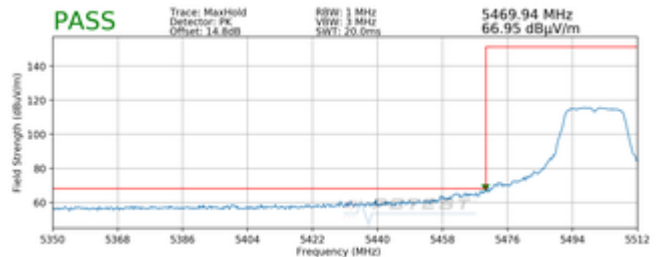
**Plot 7-492. Radiated Upper Band Edge Plot SISO SOUTH (Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	 <b>Microsoft</b>	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 302 of 336

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

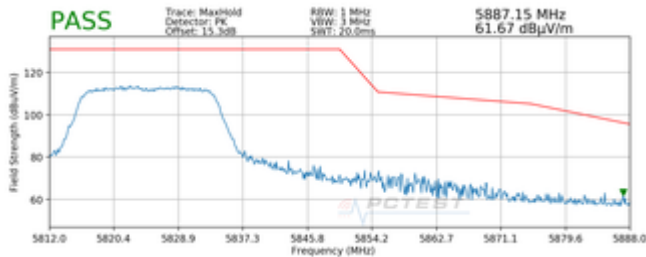


**Plot 7-493. Radiated Lower Band Edge Plot SISO SOUTH (Average – UNII Band 2C)**



**Plot 7-494. Radiated Lower Band Edge Plot SISO SOUTH (Peak – UNII Band 2C)**

Worst Case Mode: 802.11n  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5825MHz  
Channel: 165

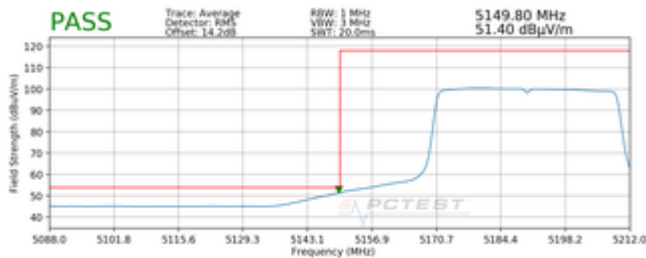


**Plot 7-495. Radiated Upper Band Edge Plot SISO SOUTH (Peak – UNII Band 3)**

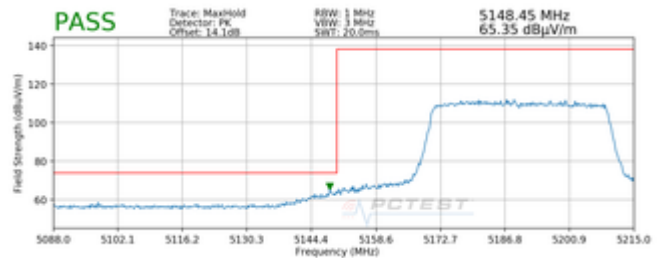
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 303 of 336

## 7.6.6 SISO SOUTH Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

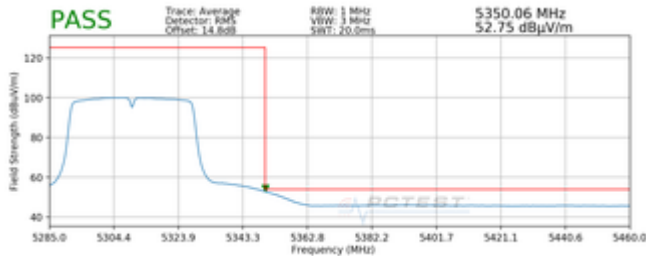


**Plot 7-496. Radiated Lower Band Edge Plot SISO SOUTH (Average – UNII Band 1)**

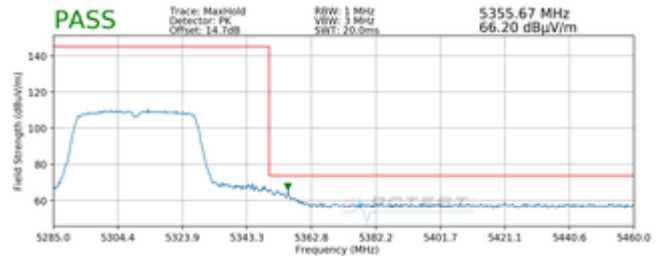


**Plot 7-497. Radiated Lower Band Edge Plot SISO SOUTH (Peak – UNII Band 1)**

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



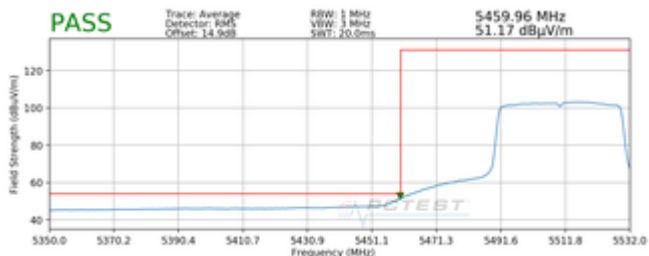
**Plot 7-498. Radiated Upper Band Edge Plot SISO SOUTH (Average – UNII Band 2A)**



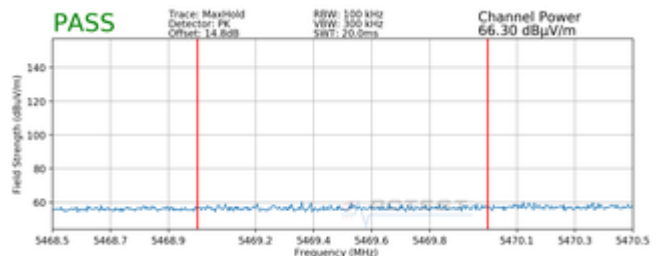
**Plot 7-499. Radiated Upper Band Edge Plot SISO SOUTH (Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 304 of 336

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5510MHz  
Channel: 102

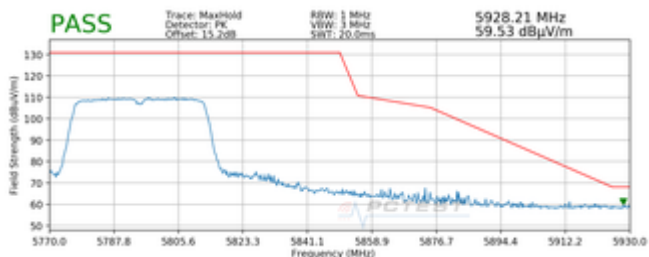


**Plot 7-500. Radiated Lower Band Edge Plot SISO SOUTH (Average – UNII Band 2C)**



**Plot 7-501. Radiated Lower Band Edge Plot SISO SOUTH (Peak – UNII Band 2C)**

Worst Case Mode: 802.11n  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5795MHz  
Channel: 159



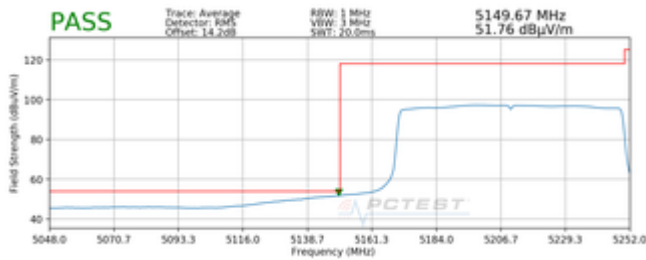
**Plot 7-502. Radiated Upper Band Edge Plot SISO SOUTH (Peak – UNII Band 3)**

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 305 of 336

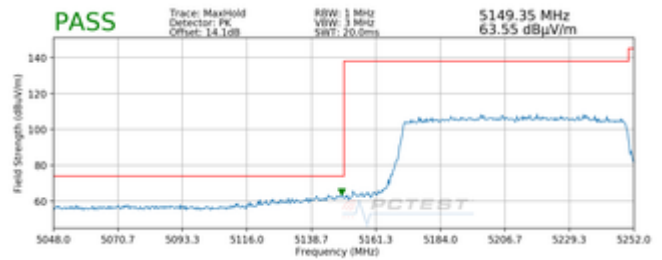
## 7.6.7 SISO SOUTH Radiated Band Edge Measurements (80MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

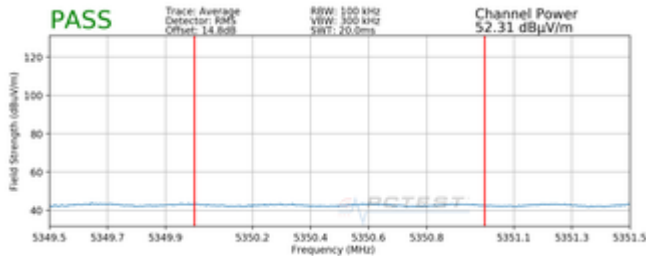


**Plot 7-503. Radiated Lower Band Edge Plot SISO SOUTH (Average – UNII Band 1)**

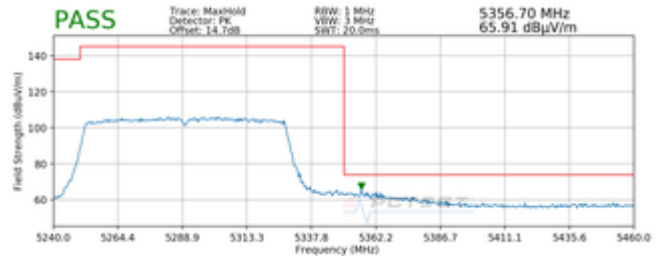


**Plot 7-504. Radiated Lower Band Edge Plot SISO SOUTH (Peak – UNII Band 1)**

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



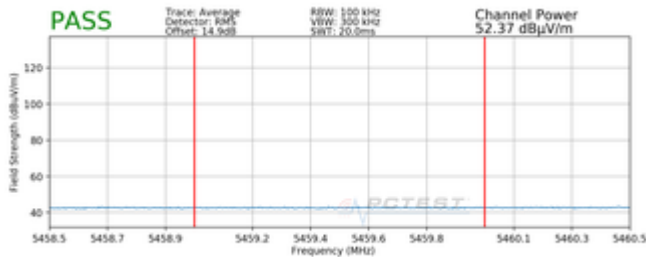
**Plot 7-505. Radiated Upper Band Edge Plot SISO SOUTH (Average – UNII Band 2A)**



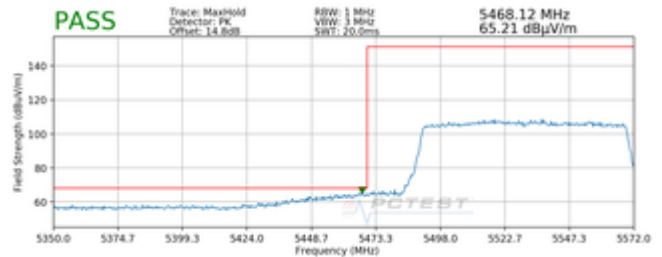
**Plot 7-506. Radiated Upper Band Edge Plot SISO SOUTH (Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 306 of 336

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5530MHz  
Channel: 106

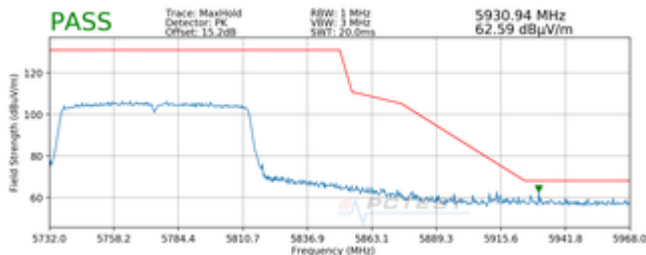


**Plot 7-507. Radiated Lower Band Edge Plot SISO SOUTH (Average – UNII Band 2C)**



**Plot 7-508. Radiated Lower Band Edge Plot SISO SOUTH (Peak – UNII Band 2C)**

Worst Case Mode: 802.11ac  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5775MHz  
Channel: 155

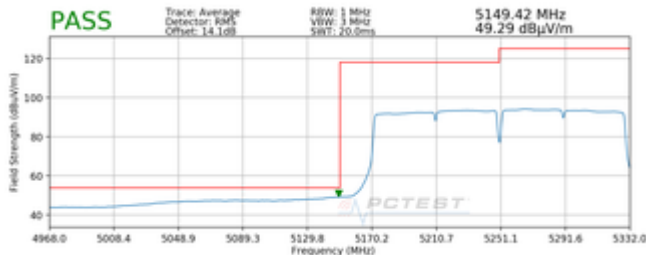


**Plot 7-509. Radiated Upper Band Edge Plot SISO SOUTH (Peak – UNII Band 3)**

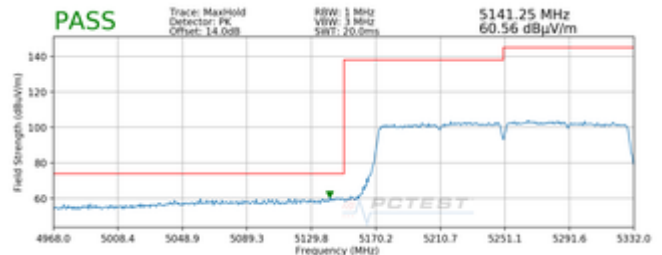
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 307 of 336

## 7.6.8 SISO SOUTH Radiated Band Edge Measurements (160MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5250MHz
Channel:	50

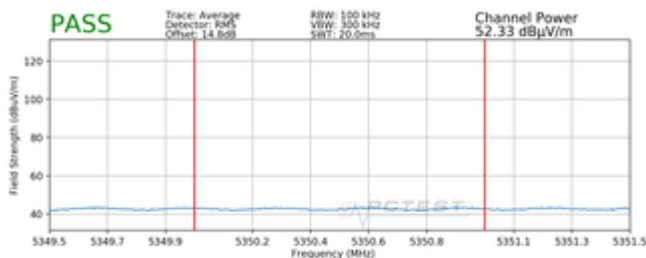


**Plot 7-510. Radiated Lower Band Edge Plot SISO SOUTH (Average – UNII Band 1)**

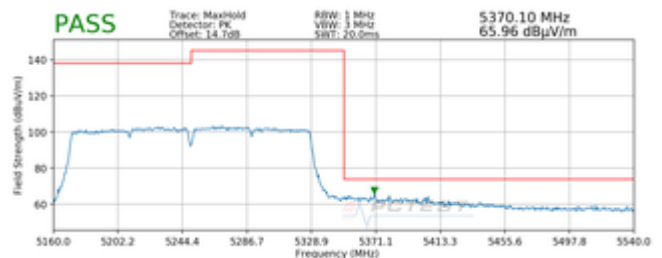


**Plot 7-511. Radiated Lower Band Edge Plot SISO SOUTH (Peak – UNII Band 1)**

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5250MHz
Channel:	50



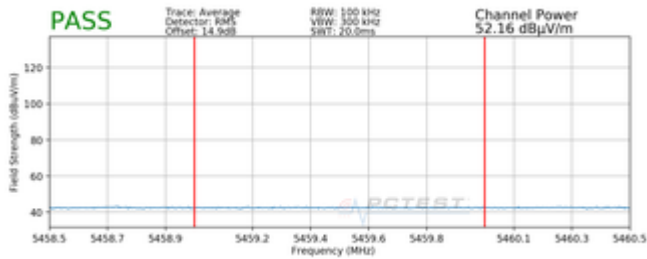
**Plot 7-512. Radiated Upper Band Edge Plot SISO SOUTH (Average – UNII Band 2A)**



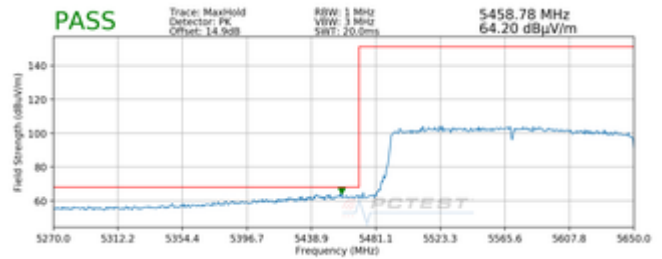
**Plot 7-513. Radiated Upper Band Edge Plot SISO SOUTH (Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	PCTEST 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 308 of 336

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5570MHz  
Channel: 114



**Plot 7-514. Radiated Lower Band Edge Plot SISO SOUTH (Average – UNII Band 2C)**

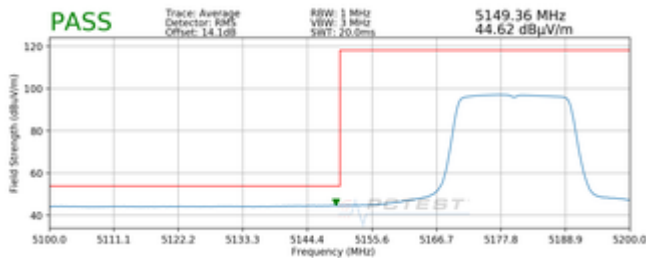


**Plot 7-515. Radiated Lower Band Edge Plot SISO SOUTH (Peak – UNII Band 2C)**

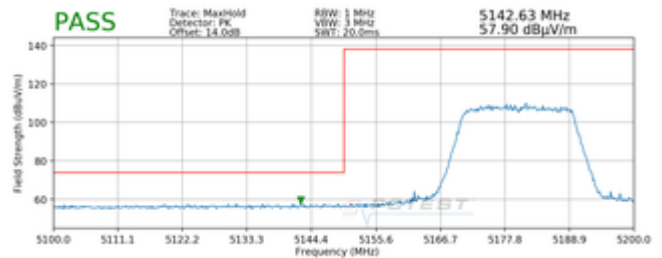
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 309 of 336

## 7.6.9 SISO NORTH Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

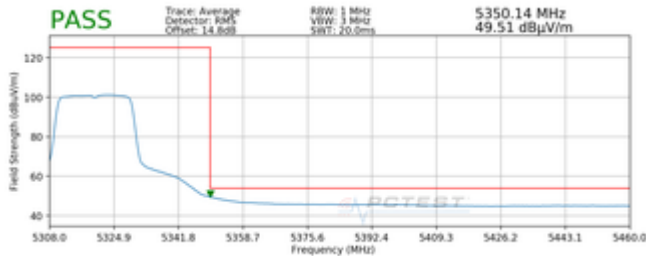


**Plot 7-516. Radiated Lower Band Edge Plot SISO NORTH (Average – UNII Band 1)**

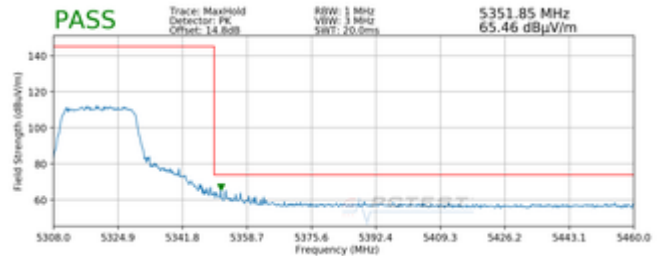


**Plot 7-517. Radiated Lower Band Edge Plot SISO NORTH (Peak – UNII Band 1)**

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



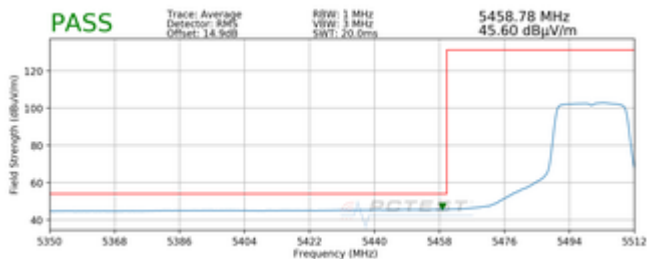
**Plot 7-518. Radiated Upper Band Edge Plot SISO NORTH (Average – UNII Band 2A)**



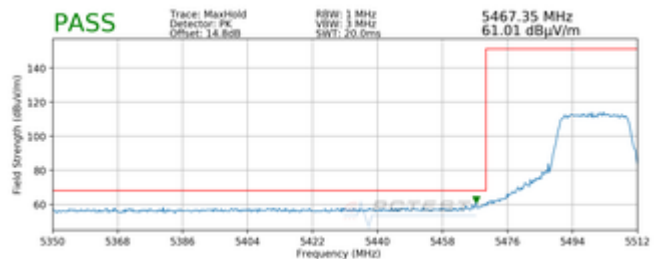
**Plot 7-519. Radiated Upper Band Edge Plot SISO NORTH (Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 310 of 336

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5500MHz  
Channel: 100

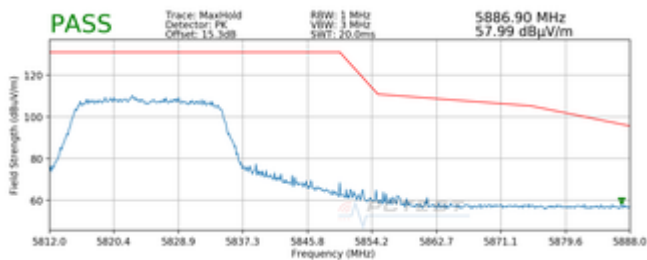


**Plot 7-520. Radiated Lower Band Edge Plot SISO NORTH (Average – UNII Band 2C)**



**Plot 7-521. Radiated Lower Band Edge Plot SISO NORTH (Peak – UNII Band 2C)**

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5825MHz  
Channel: 165

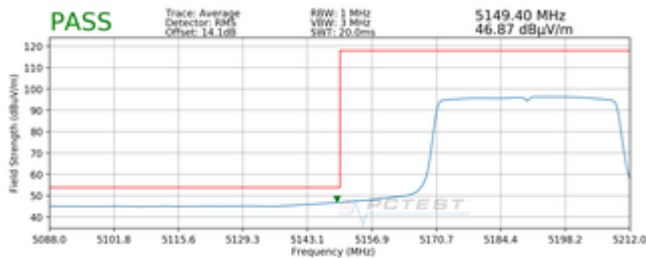


**Plot 7-522. Radiated Upper Band Edge Plot SISO NORTH (Peak – UNII Band 3)**

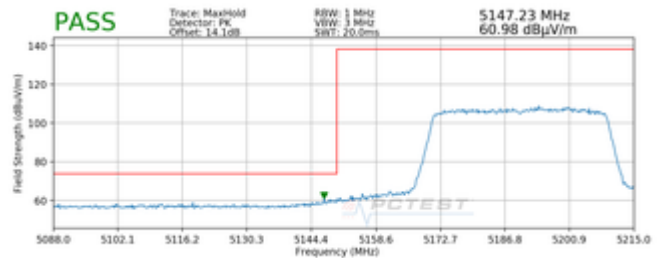
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 311 of 336

## 7.6.10 SISO NORTH Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

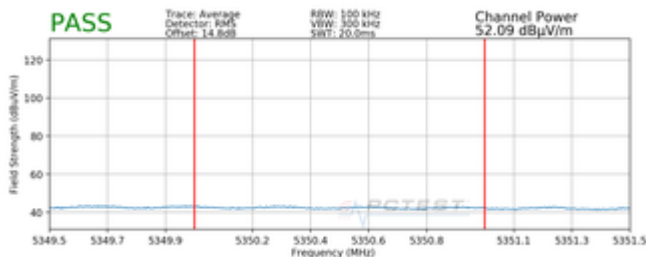


**Plot 7-523. Radiated Lower Band Edge Plot SISO NORTH (Average – UNII Band 1)**

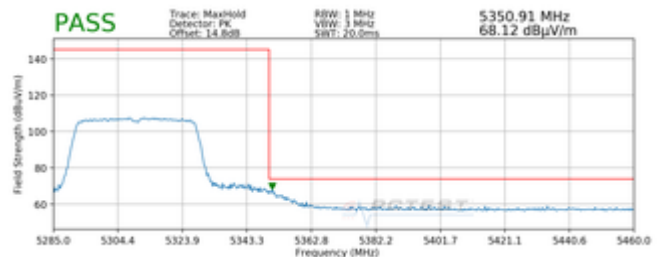


**Plot 7-524. Radiated Lower Band Edge Plot SISO NORTH (Peak – UNII Band 1)**

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



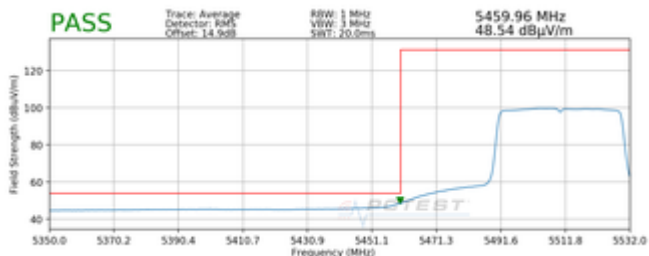
**Plot 7-525. Radiated Upper Band Edge Plot SISO NORTH (Average – UNII Band 2A)**



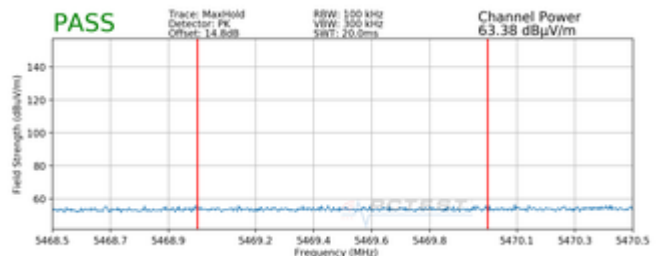
**Plot 7-526. Radiated Upper Band Edge Plot SISO NORTH (Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 312 of 336

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5510MHz  
Channel: 102

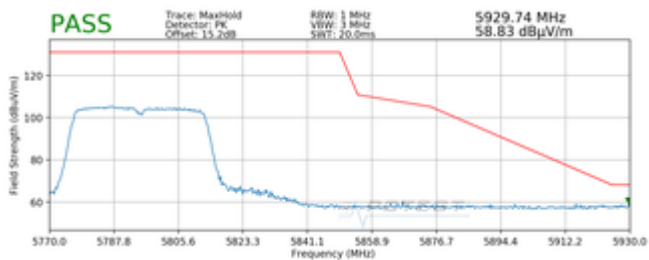


**Plot 7-527. Radiated Lower Band Edge Plot SISO NORTH (Average – UNII Band 2C)**



**Plot 7-528. Radiated Lower Band Edge Plot SISO NORTH (Peak – UNII Band 2C)**

Worst Case Mode: 802.11ac  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5795MHz  
Channel: 159

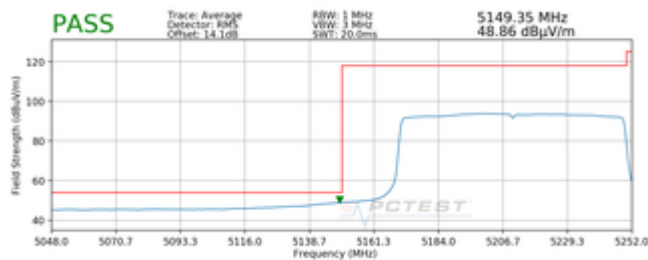


**Plot 7-529. Radiated Upper Band Edge Plot SISO NORTH (Peak – UNII Band 3)**

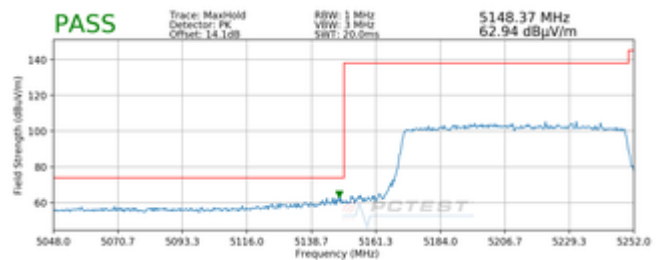
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 313 of 336

## 7.6.11 SISO NORTH Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

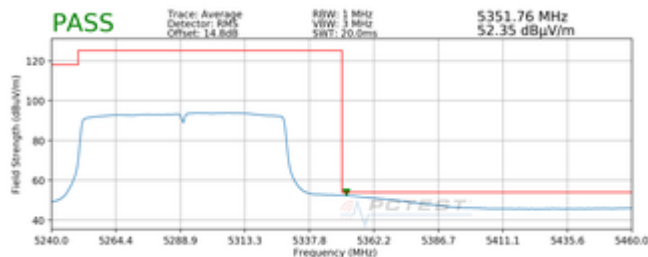


**Plot 7-530. Radiated Lower Band Edge Plot SISO NORTH (Average – UNII Band 1)**

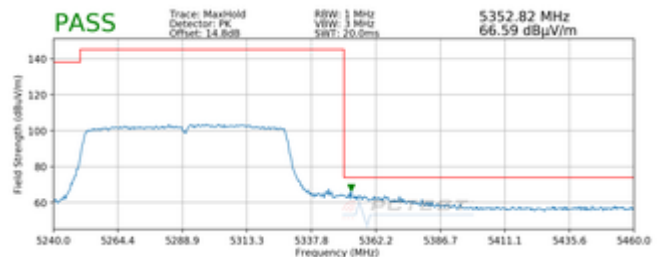


**Plot 7-531. Radiated Lower Band Edge Plot SISO NORTH (Peak – UNII Band 1)**

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



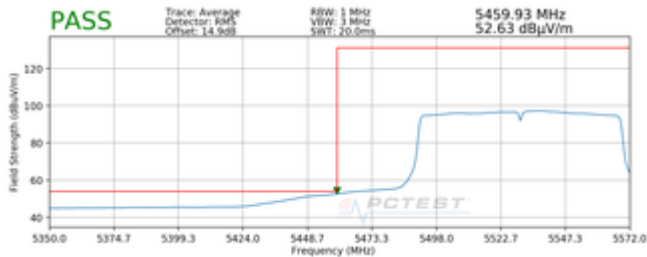
**Plot 7-532. Radiated Upper Band Edge Plot SISO NORTH (Average – UNII Band 2A)**



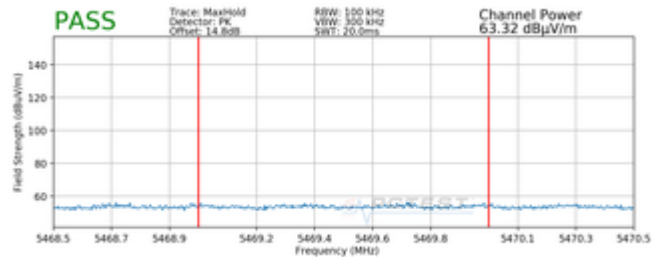
**Plot 7-533. Radiated Upper Band Edge Plot SISO NORTH (Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 314 of 336

Worst Case Mode: 802.11ac  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5530MHz  
Channel: 106

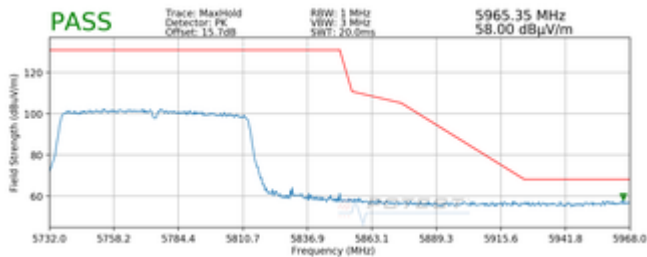


**Plot 7-534. Radiated Lower Band Edge Plot SISO NORTH (Average – UNII Band 2C)**



**Plot 7-535. Radiated Lower Band Edge Plot SISO NORTH (Peak – UNII Band 2C)**

Worst Case Mode: 802.11ac  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5775MHz  
Channel: 155

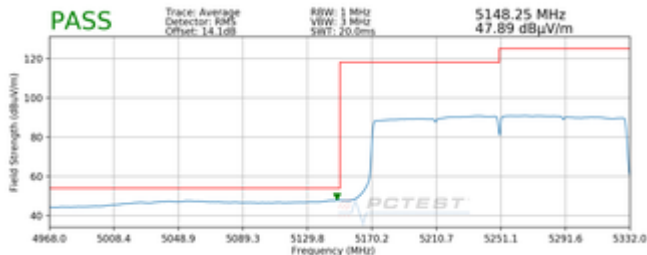


**Plot 7-536. Radiated Upper Band Edge Plot SISO NORTH (Peak – UNII Band 3)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 315 of 336

## 7.6.12 SISO NORTH Radiated Band Edge Measurements (160MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5250MHz
Channel:	50

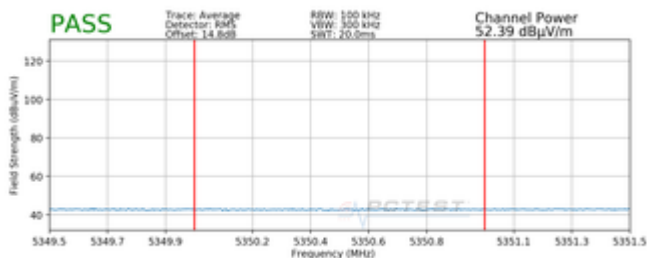


**Plot 7-537. Radiated Lower Band Edge Plot SISO NORTH (Average – UNII Band 1)**

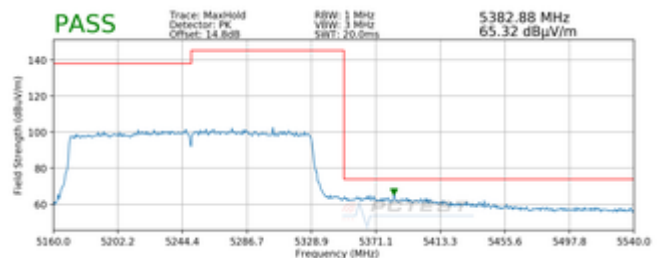


**Plot 7-538. Radiated Lower Band Edge Plot SISO NORTH (Peak – UNII Band 1)**

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5250MHz
Channel:	50



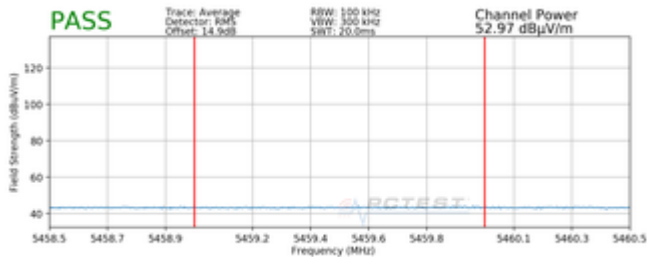
**Plot 7-539. Radiated Upper Band Edge Plot SISO NORTH (Average – UNII Band 2A)**



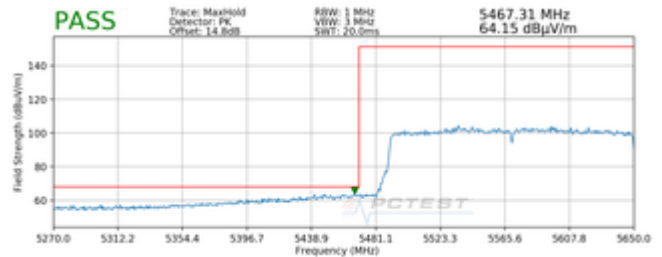
**Plot 7-540. Radiated Upper Band Edge Plot SISO NORTH (Peak – UNII Band 2A)**

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 316 of 336

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



**Plot 7-541. Radiated Lower Band Edge Plot SISO NORTH (Average – UNII Band 2C)**

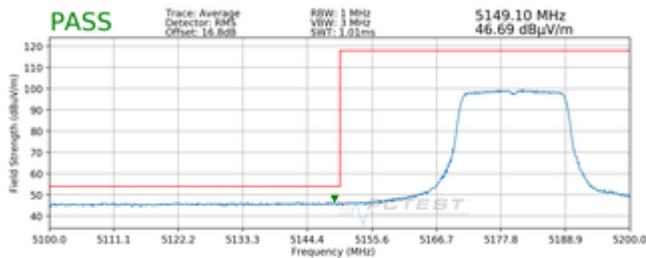


**Plot 7-542. Radiated Lower Band Edge Plot SISO NORTH (Peak – UNII Band 2C)**

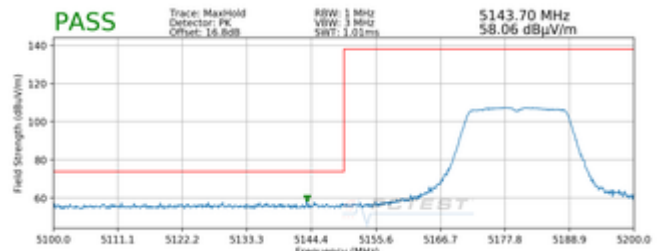
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 317 of 336

### 7.6.13 MIMO Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

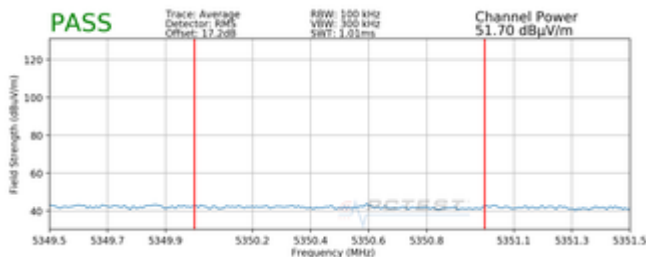


**Plot 7-543. Radiated Lower Band Edge Plot MIMO  
(Average – UNII Band 1)**

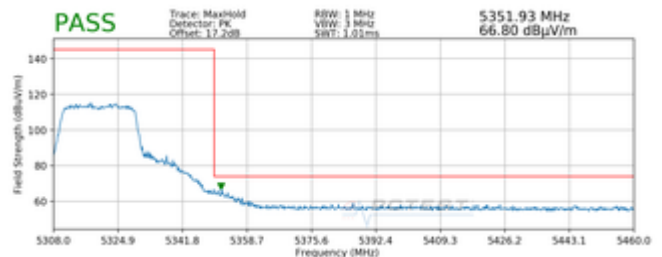


**Plot 7-544. Radiated Lower Band Edge Plot MIMO  
(Peak – UNII Band 1)**

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



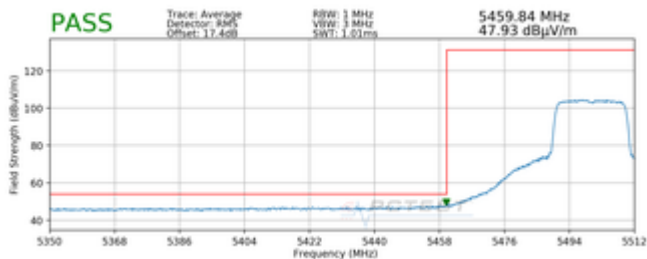
**Plot 7-545. Radiated Upper Band Edge Plot MIMO  
(Average – UNII Band 2A)**



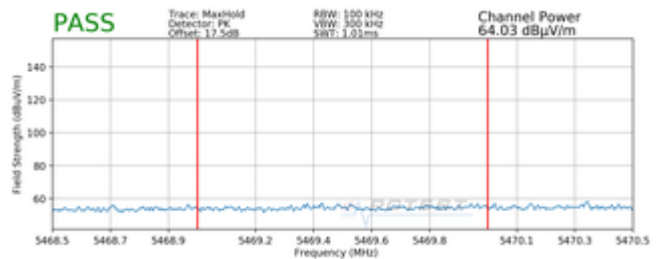
**Plot 7-546. Radiated Upper Band Edge Plot MIMO  
(Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 318 of 336

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5500MHz  
Channel: 100

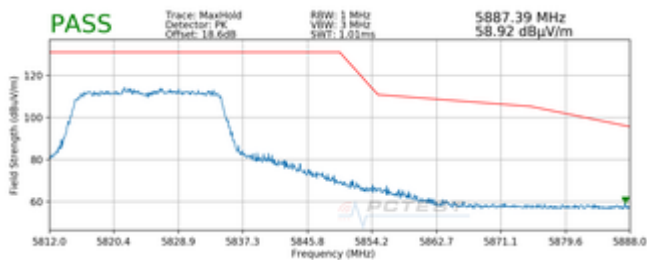


**Plot 7-547. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)**



**Plot 7-548. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)**

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5825MHz  
Channel: 165

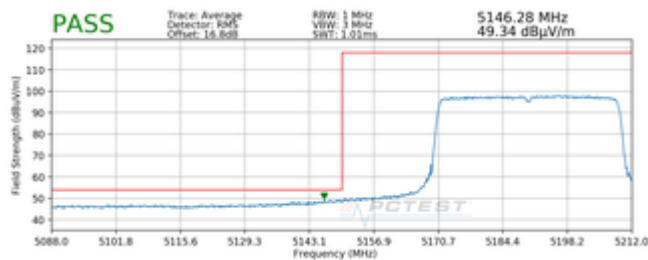


**Plot 7-549. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)**

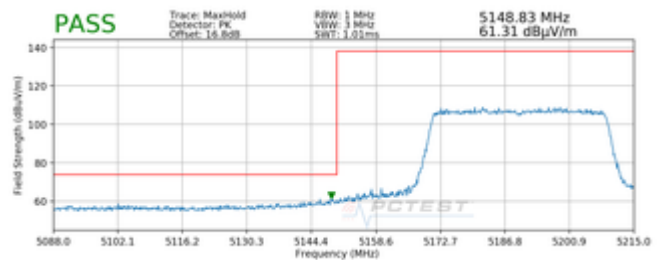
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 319 of 336

## 7.6.14 MIMO Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

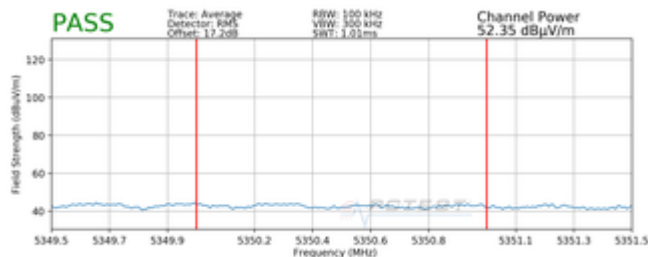


**Plot 7-550. Radiated Lower Band Edge Plot MIMO  
(Average – UNII Band 1)**

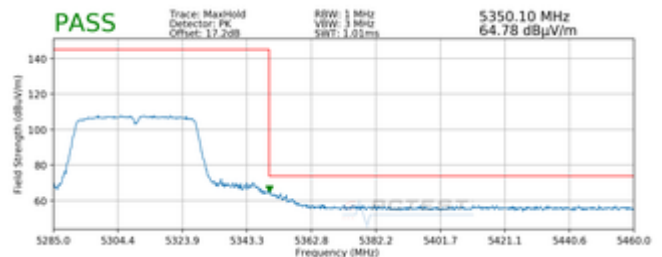


**Plot 7-551. Radiated Lower Band Edge Plot MIMO  
(Peak – UNII Band 1)**

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



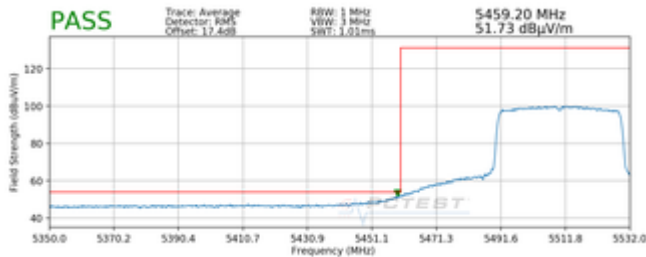
**Plot 7-552. Radiated Upper Band Edge Plot MIMO  
(Average – UNII Band 2A)**



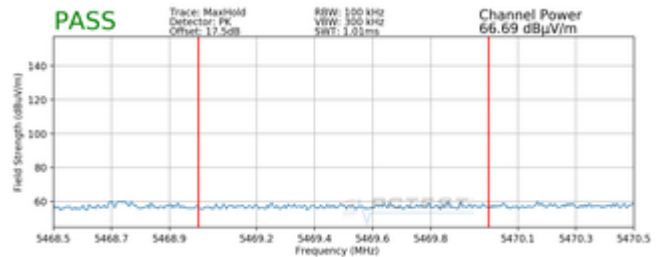
**Plot 7-553. Radiated Upper Band Edge Plot MIMO  
(Peak – UNII Band 2A)**

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 320 of 336

Worst Case Mode: 802.11ax SU  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5510MHz  
Channel: 102

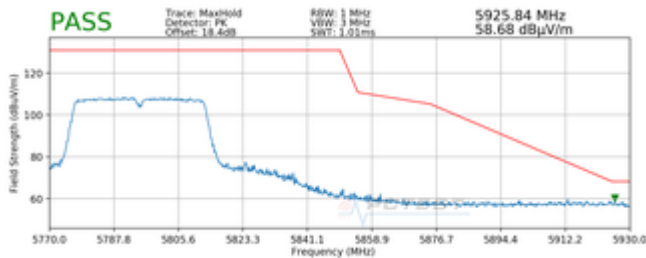


**Plot 7-554. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)**



**Plot 7-555. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)**

Worst Case Mode: 802.11n  
Worst Case Transfer Rate: MCS8  
Distance of Measurements: 3 Meters  
Operating Frequency: 5795MHz  
Channel: 159



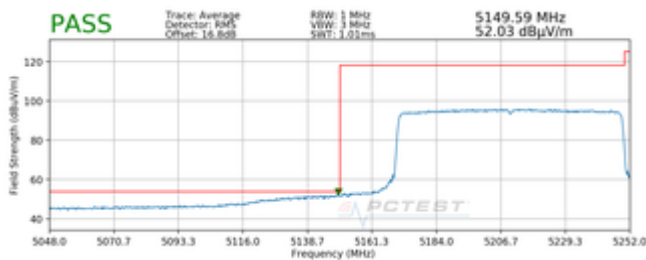
**Plot 7-556. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 321 of 336

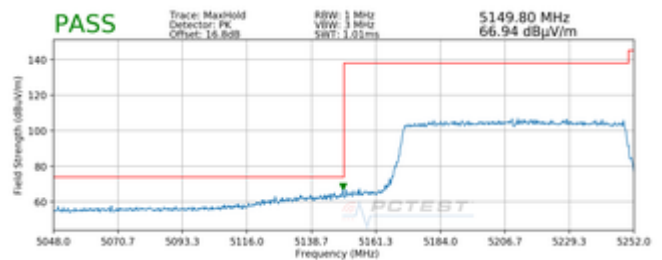
## 7.6.15 MIMO Radiated Band Edge Measurements (80MHz BW)

**§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]**

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

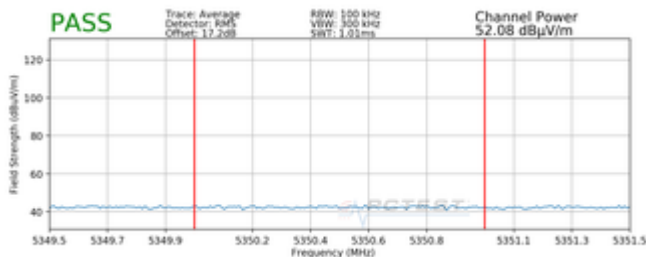


**Plot 7-557. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1)**

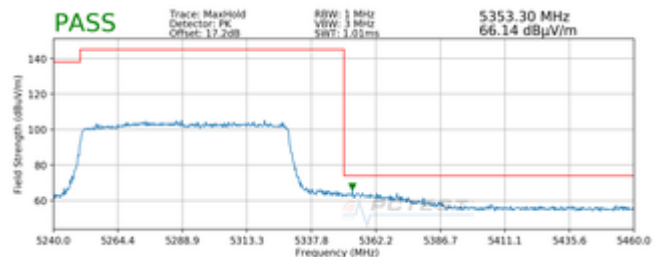


**Plot 7-558. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1)**

Worst Case Mode:	802.11ax SU
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



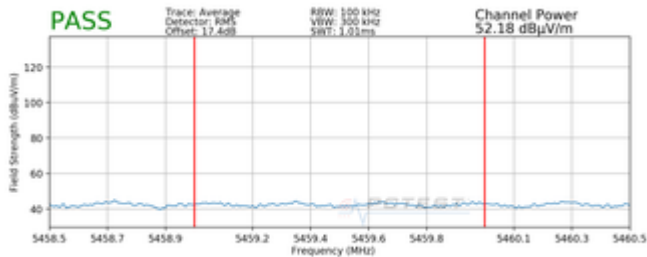
**Plot 7-559. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A)**



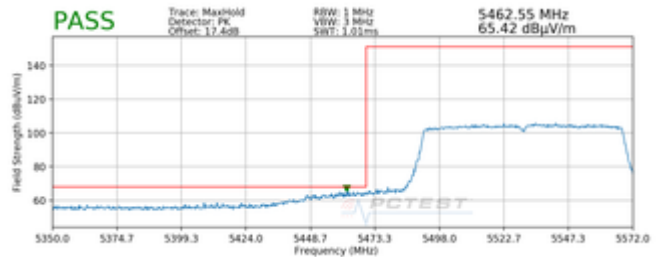
**Plot 7-560. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 322 of 336

Worst Case Mode: 802.11ac  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5530MHz  
Channel: 106

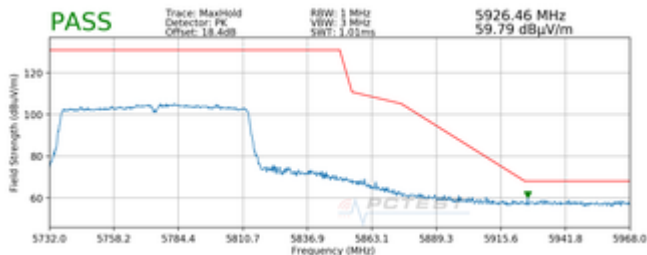


**Plot 7-561. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C)**



**Plot 7-562. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C)**

Worst Case Mode: 802.11ac  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5775MHz  
Channel: 155

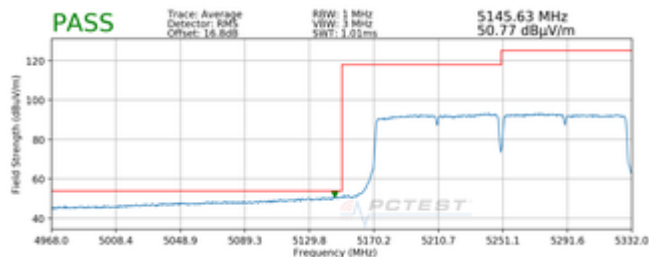


**Plot 7-563. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3)**

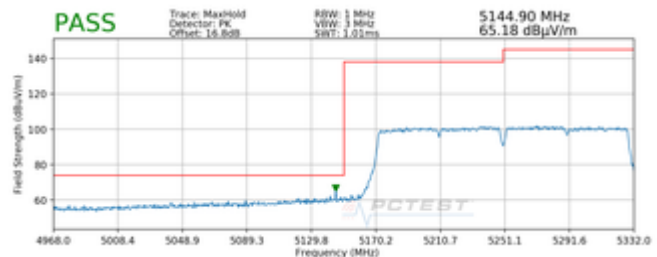
FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 323 of 336

## 7.6.16 MIMO Radiated Band Edge Measurements (160MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ac  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5250MHz  
Channel: 50

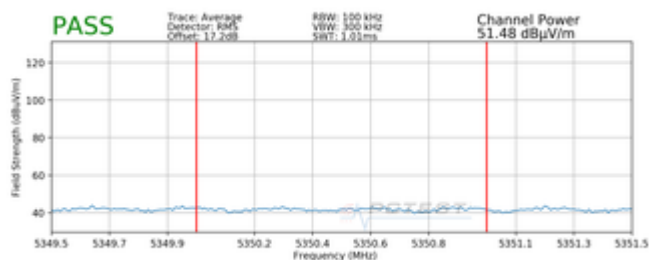


**Plot 7-564. Radiated Lower Band Edge Plot MIMO  
(Average – UNII Band 1)**

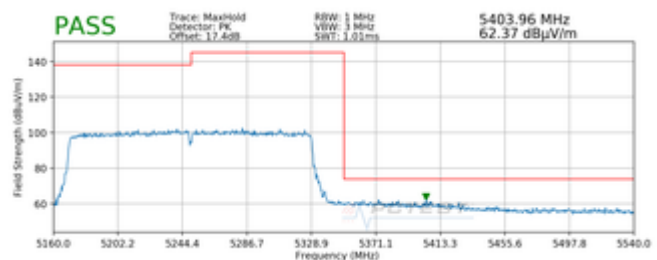


**Plot 7-565. Radiated Lower Band Edge Plot MIMO  
(Peak – UNII Band 1)**

Worst Case Mode: 802.11ac  
Worst Case Transfer Rate: MCS0  
Distance of Measurements: 3 Meters  
Operating Frequency: 5250MHz  
Channel: 50



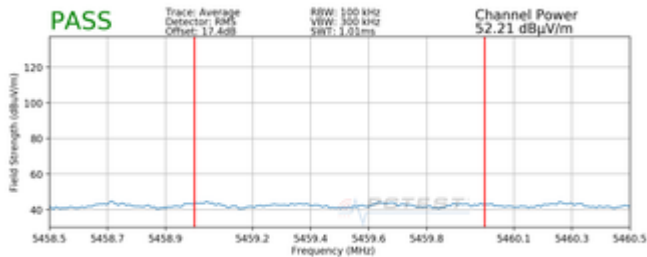
**Plot 7-566. Radiated Upper Band Edge Plot MIMO  
(Average – UNII Band 2A)**



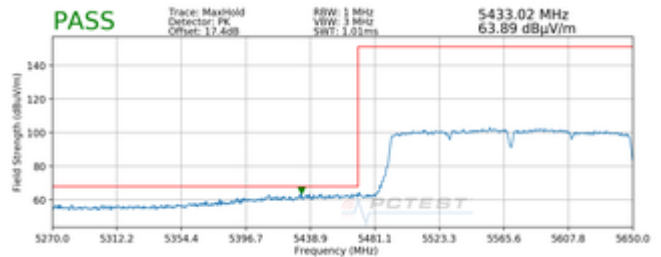
**Plot 7-567. Radiated Upper Band Edge Plot MIMO  
(Peak – UNII Band 2A)**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 324 of 336

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



**Plot 7-568. Radiated Lower Band Edge Plot MIMO  
(Average – UNII Band 2C)**



**Plot 7-569. Radiated Lower Band Edge Plot MIMO  
(Peak – UNII Band 2C)**

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 325 of 336

## 7.7 Radiated Spurious Emissions Measurements – Below 1GHz

§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 maximum power, and at the appropriate frequencies. All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

***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 7-81 per Section 15.209 and RSS-Gen (8.9).***

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

**Table 7-81. Radiated Limits**

### Test Procedures Used

ANSI C63.10-2013

### Test Settings

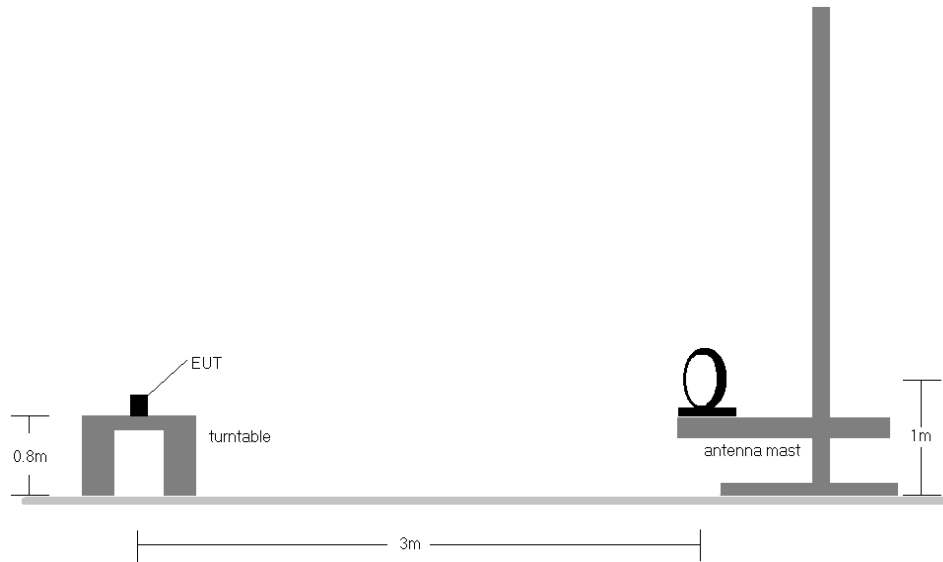
#### Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

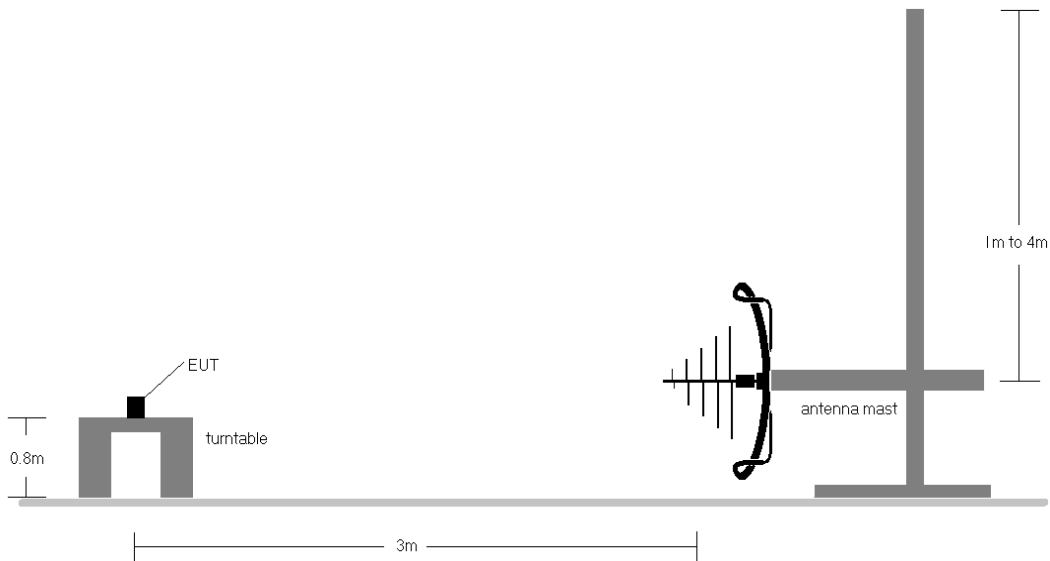
FCC ID: C3K1995 IC: 3048A-1995		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2105060048-14.C3K	Test Dates: 05/20/2021 - 09/08/2021	EUT Type: Portable Handset		Page 326 of 336

## Test Setup

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



**Figure 7-6. Radiated Test Setup < 30MHz**



**Figure 7-7. Radiated Test Setup < 1GHz**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 327 of 336

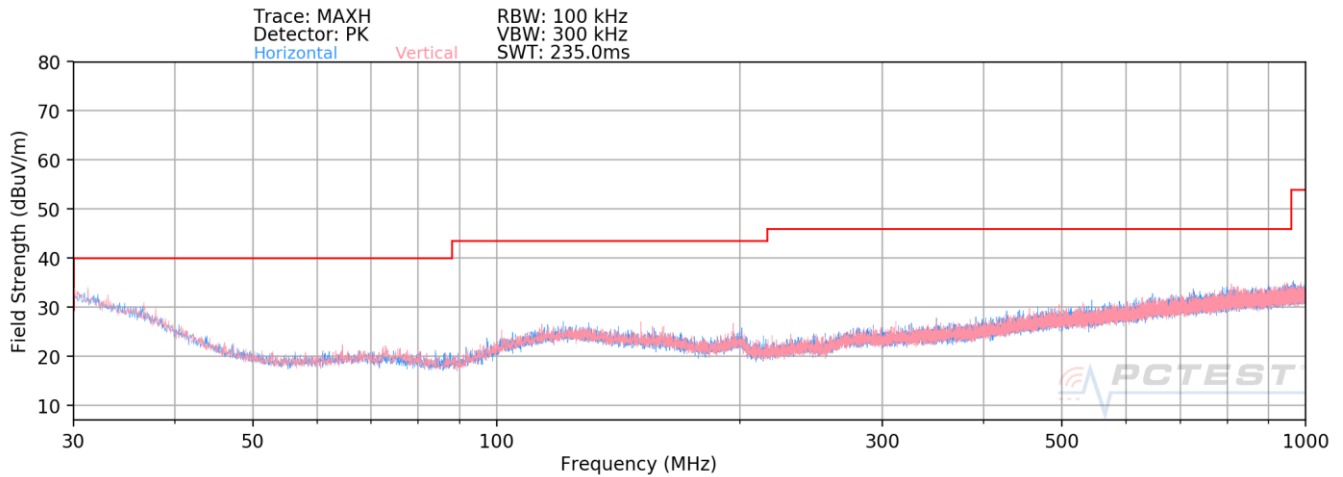
## Test Notes

1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-81.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
3. This unit was tested with its standard battery.
4. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
5. Emissions were measured at a 3 meter test distance.
6. Emissions are investigated while operating on the center channel of the mode, band, and modulation that produced the worst case results during the transmitter spurious emissions testing.
7. No spurious emissions were detected within 20dB of the limit below 30MHz.
8. The results recorded using the broadband antenna is known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
9. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. There were no emissions detected in the 30MHz – 1GHz frequency range, as shown in the subsequent plots.

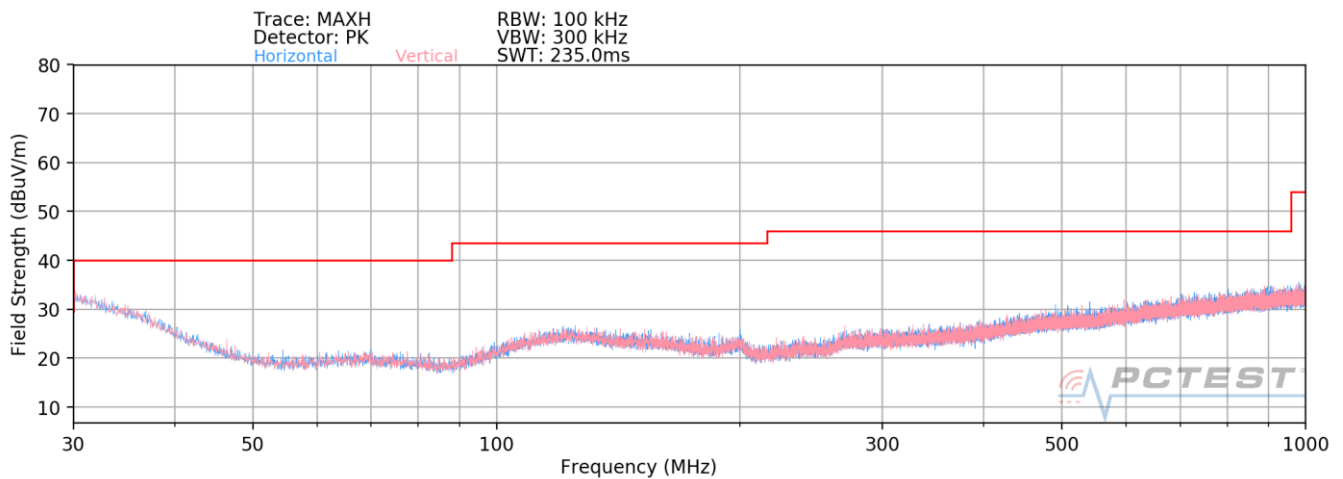
FCC ID: C3K1995 IC: 3048A-1995	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	 <b>Microsoft</b>	<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2105060048-14.C3K	<b>Test Dates:</b> 05/20/2021 - 09/08/2021	<b>EUT Type:</b> Portable Handset		Page 328 of 336

## MIMO Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]



**Plot 7-570. Radiated Spurious Plot below 1GHz MIMO (802.11a) Closed**



**Plot 7-571. Radiated Spurious Plot below 1GHz MIMO (802.11a) Open**

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</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 329 of 336

## 7.8 Line-Conducted Test Data

### §15.407; RSS-Gen [8.8]

#### Test Overview and Limit

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.

***All conducted emissions must not exceed the limits shown in the table below, per Section 15.207 and RSS-Gen (8.8).***

Frequency of emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

**Table 7-82. Conducted Limits**

\*Decreases with the logarithm of the frequency.

#### Test Procedures Used

ANSI C63.10-2013, Section 6.2

#### Test Settings

##### Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

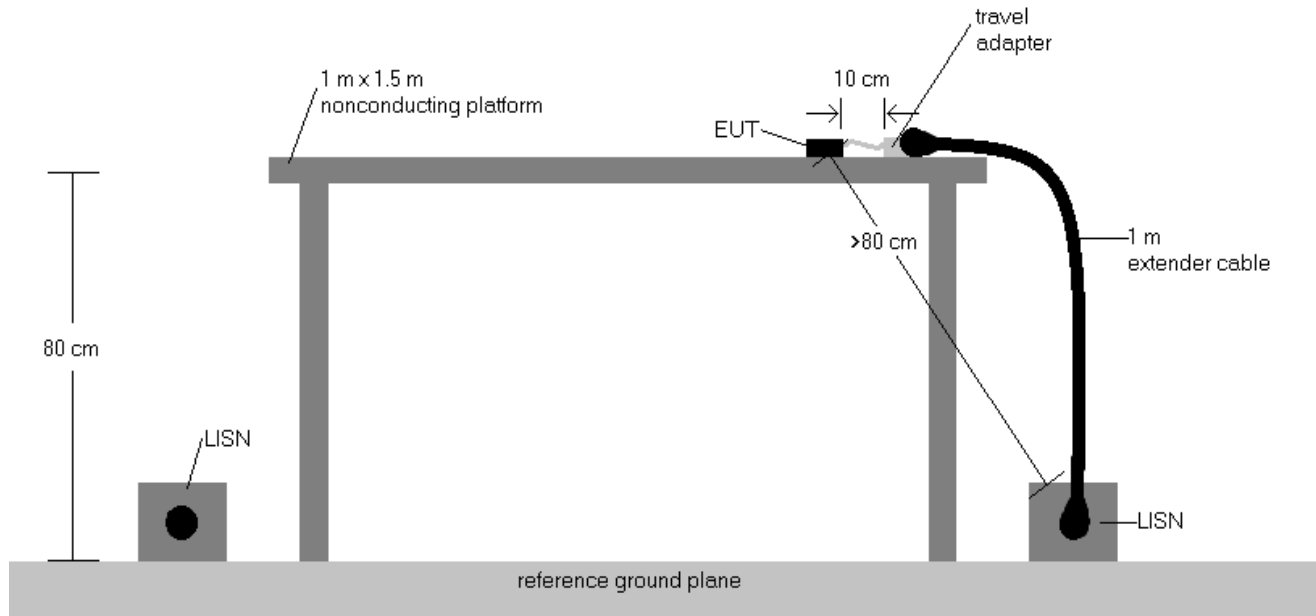
##### Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = RMS
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

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## Test Setup

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

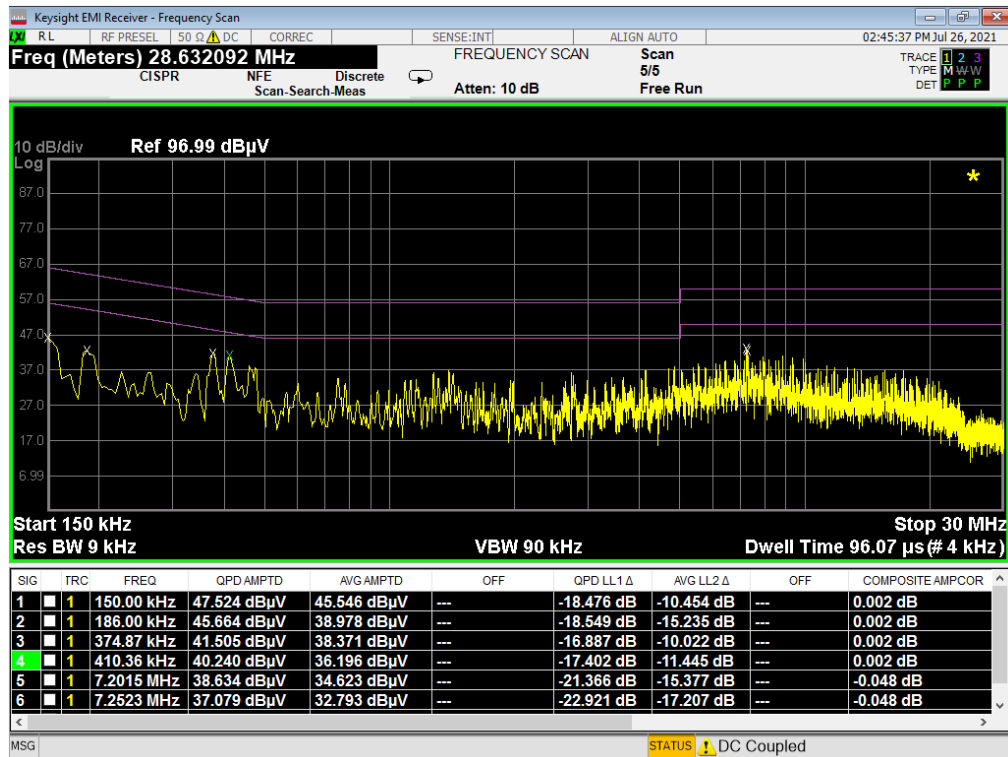


**Figure 7-8. Test Instrument & Measurement Setup**

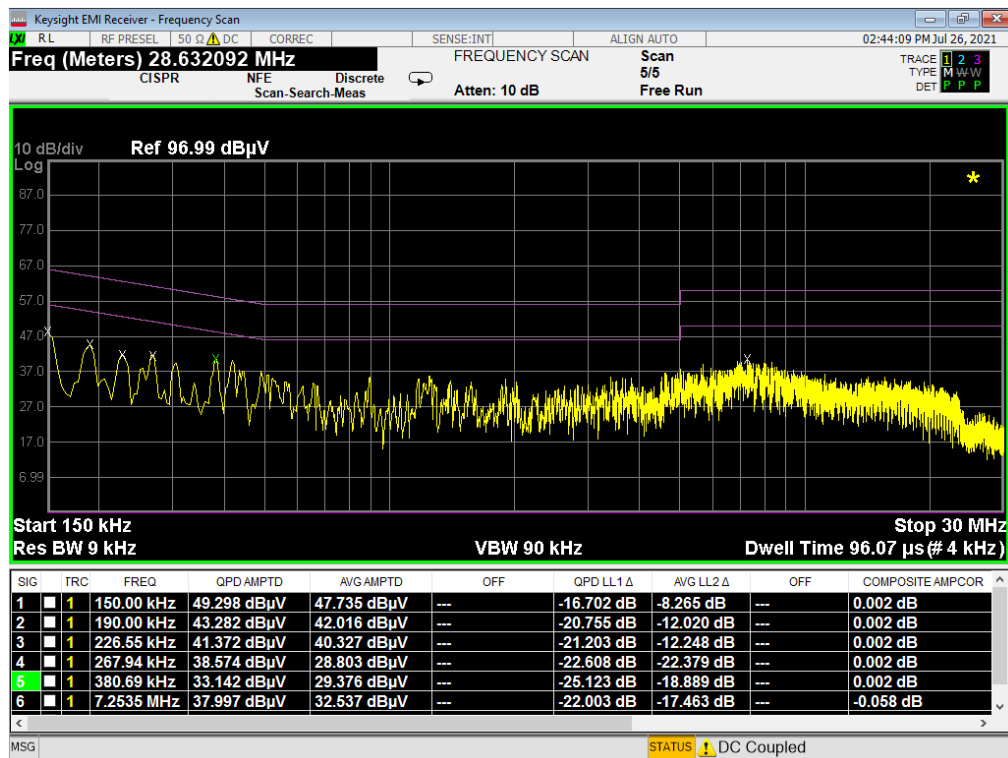
## Test Notes

1. All modes of operation were investigated and the worst-case emissions are reported using mid channel. The emissions found were not affected by the choice of channel used during testing.
2. The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207 and RSS-Gen (8.8).
3.  $\text{Corr. (dB)} = \text{Cable loss (dB)} + \text{LISN insertion factor (dB)}$
4.  $\text{QP/AV Level (dB}\mu\text{V)} = \text{QP/AV Analyzer/Receiver Level (dB}\mu\text{V)} + \text{Corr. (dB)}$
5.  $\text{Margin (dB)} = \text{QP/AV Limit (dB}\mu\text{V)} - \text{QP/AV Level (dB}\mu\text{V)}$
6. Traces shown in plot are made using a peak detector.
7. Deviations to the Specifications: None.

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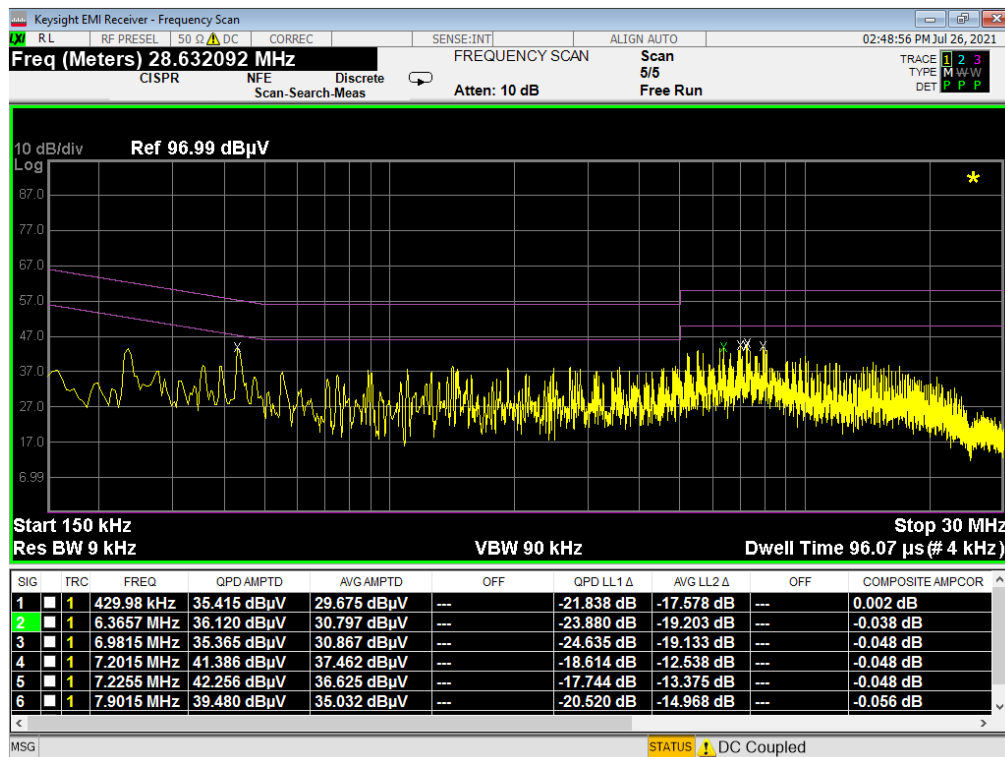


Plot 7-572. Line Conducted Plot with 802.11a UNII Band 1 (L1)

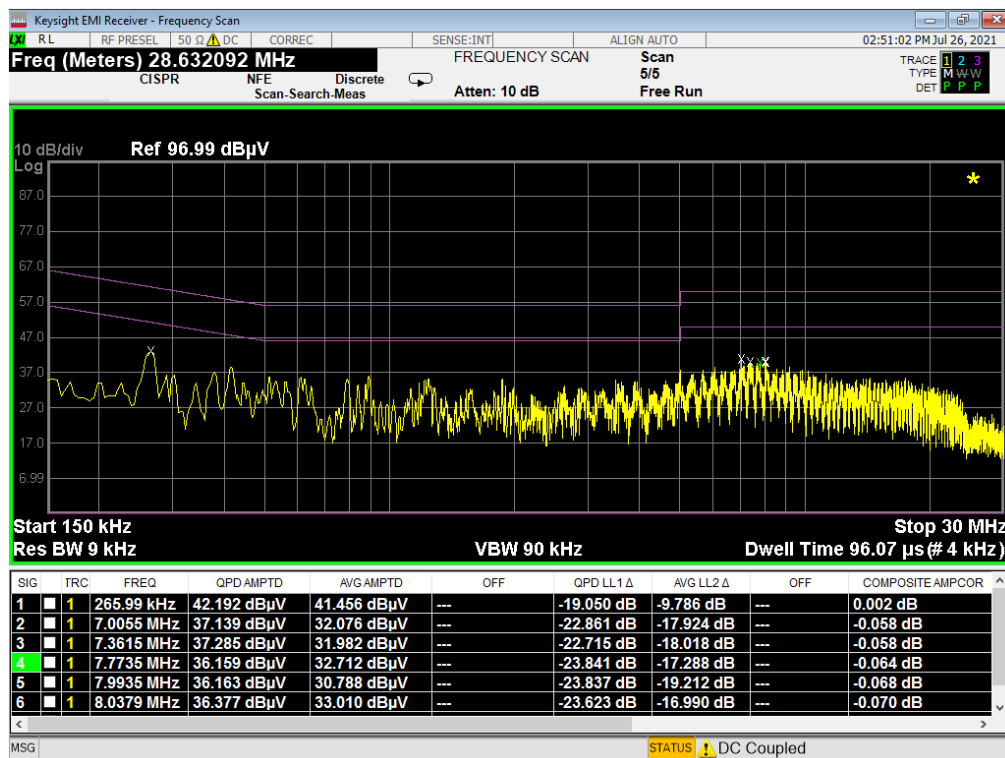


Plot 7-573. Line Conducted Plot with 802.11a UNII Band 1 (N)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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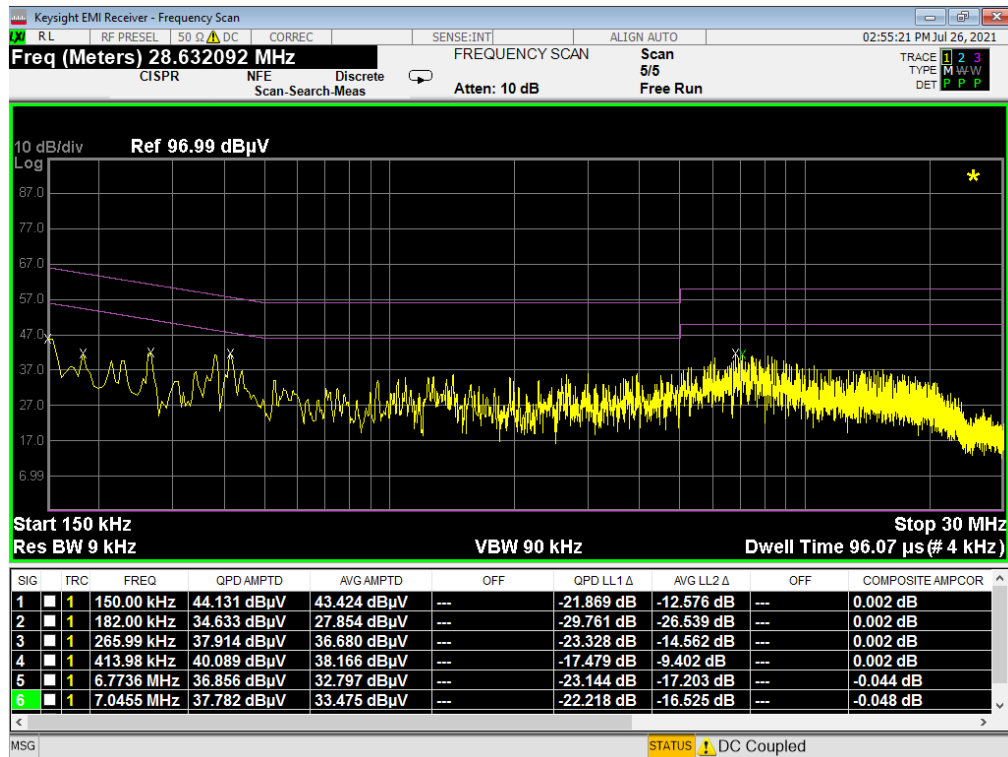


Plot 7-574. Line Conducted Plot with 802.11a UNII Band 2A (L1)

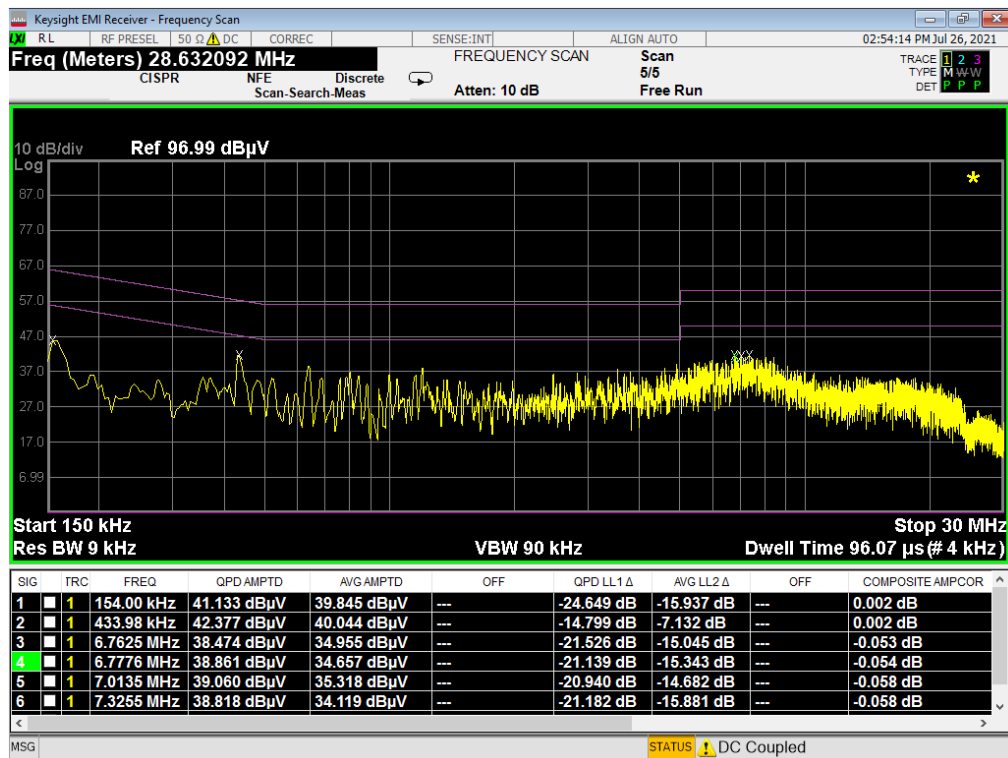


Plot 7-575. Line Conducted Plot with 802.11a UNII Band 2A (N)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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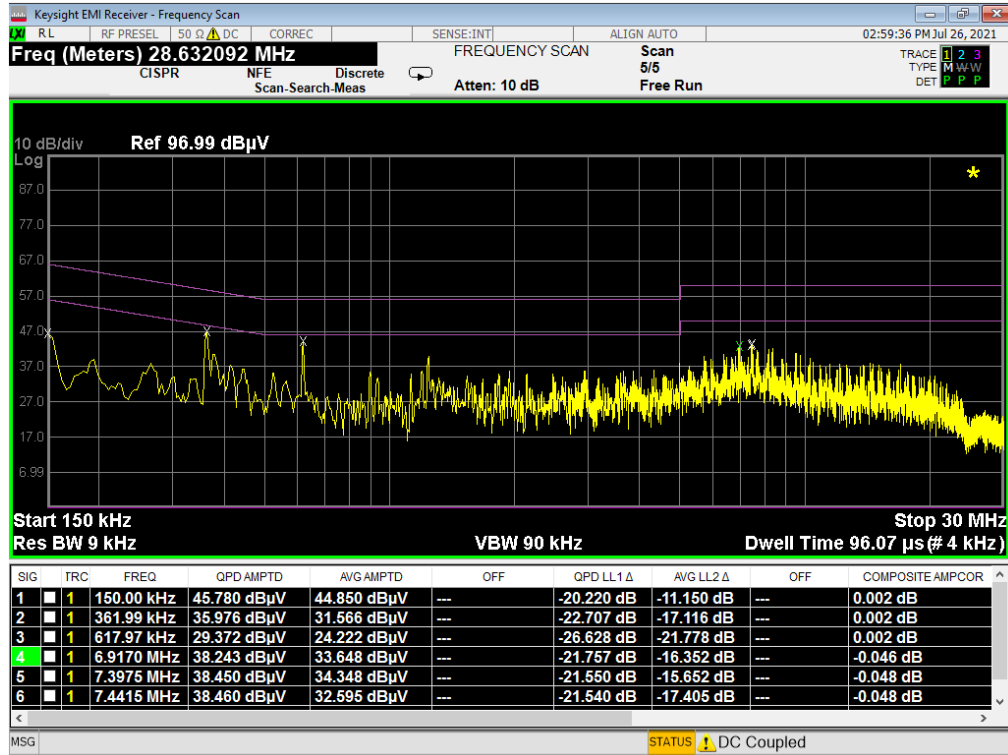


Plot 7-576. Line Conducted Plot with 802.11a UNII Band 2C (L1)

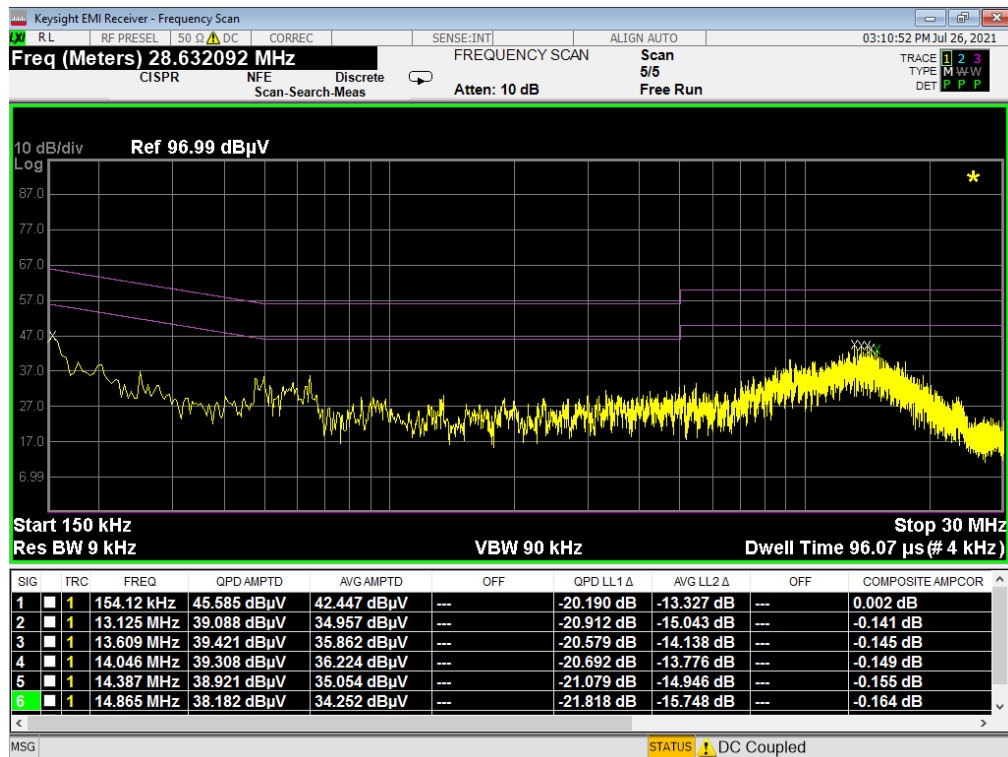


Plot 7-577. Line Conducted Plot with 802.11a UNII Band 2C (N)

FCC ID: C3K1995 IC: 3048A-1995	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Microsoft	Approved by: Technical Manager
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Plot 7-578. Line Conducted Plot with 802.11a UNII Band 3 (L1)



Plot 7-579. Line Conducted Plot with 802.11a UNII Band 3 (N)

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## 8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Microsoft Corporation Portable Handset FCC ID: C3K1995** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules and with RSS-247 of the Innovation, Science, and Economic Development Canada rules.

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