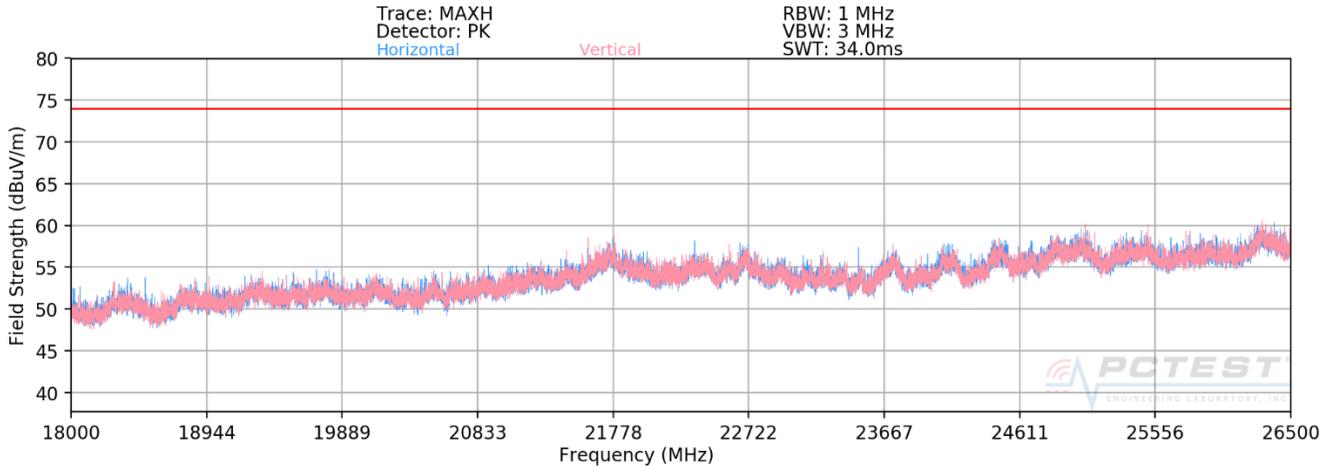
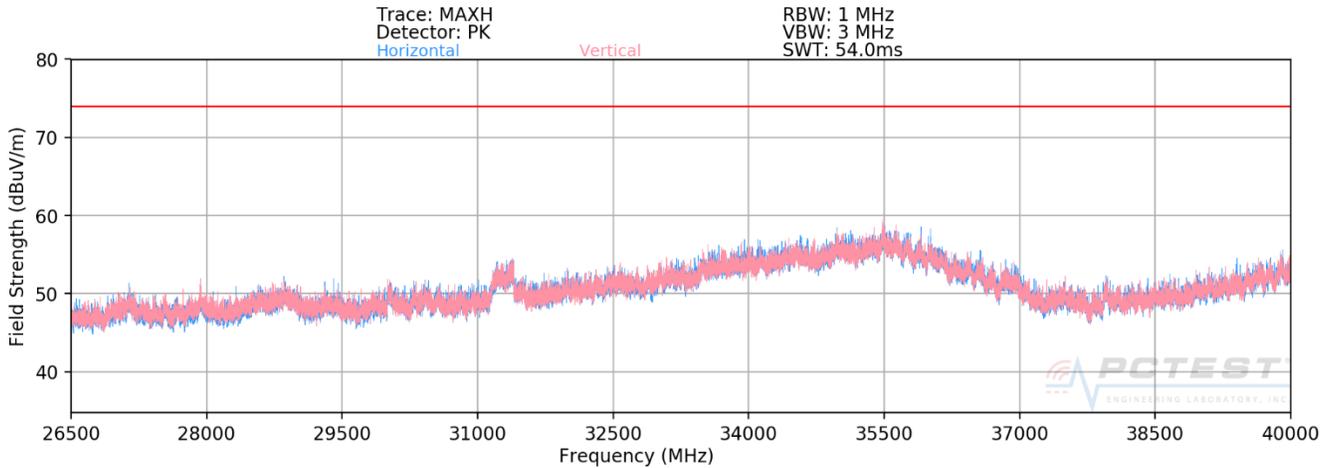


MIMO Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-191. Radiated Spurious Plot 18GHz - 26.5GHz MIMO (802.11ax – 26 Tones)



Plot 7-192. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11ax – 26 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 177 of 221

MIMO Radiated Spurious Emission Measurements (26 Tones)

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

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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 [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10360.00	Peak	V	112	277	-67.09	11.41	0.00	51.32	68.20	-16.88
* 15540.00	Average	V	-	-	-83.98	13.23	0.00	36.25	53.98	-17.73
* 15540.00	Peak	V	-	-	-70.53	13.23	0.00	49.70	73.98	-24.28
* 20720.00	Average	V	-	-	-77.93	17.51	-9.54	37.04	53.98	-16.94
* 20720.00	Peak	V	-	-	-65.74	17.51	-9.54	49.23	73.98	-24.75
25900.00	Peak	V	-	-	-65.02	19.88	-9.54	52.32	68.20	-15.88

Table 7-112. Radiated Measurements MIMO (26 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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 [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10400.00	Peak	V	115	276	-67.67	11.17	0.00	50.50	68.20	-17.70
* 15600.00	Average	V	-	-	-84.07	12.81	0.00	35.74	53.98	-18.24
* 15600.00	Peak	V	-	-	-71.04	12.81	0.00	48.77	73.98	-25.21
* 20800.00	Average	V	-	-	-77.68	17.87	-9.54	37.65	53.98	-16.33
* 20800.00	Peak	V	-	-	-66.90	17.87	-9.54	48.43	73.98	-25.55
26000.00	Peak	V	-	-	-65.60	20.15	-9.54	52.01	68.20	-16.19

Table 7-113. Radiated Measurements MIMO (26 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 178 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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	V	112	274	-67.67	11.37	0.00	50.70	68.20	-17.50
* 15720.00	Average	V	-	-	-84.63	15.18	0.00	37.55	53.98	-16.43
* 15720.00	Peak	V	-	-	-70.79	15.18	0.00	51.39	73.98	-22.59
* 20960.00	Average	V	-	-	-78.09	18.06	-9.54	37.43	53.98	-16.55
* 20960.00	Peak	V	-	-	-66.54	18.06	-9.54	48.98	73.98	-25.00
26200.00	Peak	V	-	-	-65.95	20.23	-9.54	51.74	68.20	-16.46

Table 7-114. Radiated Measurements MIMO (26 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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	V	116	273	-68.80	11.86	0.00	50.06	68.20	-18.14
* 15780.00	Average	V	-	-	-85.04	13.75	0.00	35.71	53.98	-18.27
* 15780.00	Peak	V	-	-	-71.03	13.75	0.00	49.72	73.98	-24.26
* 21040.00	Average	V	-	-	-77.73	18.36	-9.54	38.09	53.98	-15.89
* 21040.00	Peak	V	-	-	-67.26	18.36	-9.54	48.56	73.98	-25.42
26300.00	Peak	V	-	-	-67.99	20.96	-9.54	50.43	68.20	-17.77

Table 7-115. Radiated Measurements MIMO (26 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 179 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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	V	114	273	-70.04	12.47	0.00	49.43	68.20	-18.77
* 15840.00	Average	V	-	-	-84.32	15.16	0.00	37.84	53.98	-16.14
* 15840.00	Peak	V	-	-	-71.12	15.16	0.00	51.04	73.98	-22.94
* 21120.00	Average	V	-	-	-77.46	18.17	-9.54	38.17	53.98	-15.81
* 21120.00	Peak	V	-	-	-66.82	18.17	-9.54	48.81	73.98	-25.17
* 26400.00	Peak	V	-	-	-68.03	20.65	-9.54	50.08	68.20	-18.12

Table 7-116. Radiated Measurements MIMO (26 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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	V	-	-	-84.39	13.08	0.00	35.69	53.98	-18.29
* 10640.00	Peak	V	-	-	-71.01	13.08	0.00	49.07	73.98	-24.91
* 15960.00	Average	V	-	-	-84.28	13.43	0.00	36.15	53.98	-17.83
* 15960.00	Peak	V	-	-	-70.97	13.43	0.00	49.46	73.98	-24.52
* 21280.00	Average	V	-	-	-77.35	18.57	-9.54	38.68	53.98	-15.30
* 21280.00	Peak	V	-	-	-66.27	18.57	-9.54	49.76	73.98	-24.22
26600.00	Peak	V	-	-	-53.05	5.16	-9.54	49.57	68.20	-18.63

Table 7-117. Radiated Measurements MIMO (26 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 180 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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	V	140	12	-83.67	12.87	0.00	36.20	53.98	-17.78
* 11000.00	Peak	V	140	12	-70.70	12.87	0.00	49.17	73.98	-24.81
16500.00	Peak	V	-	-	-71.71	14.82	0.00	50.11	68.20	-18.09
22000.00	Peak	V	-	-	-68.88	19.12	-9.54	47.70	68.20	-20.50
27500.00	Peak	V	-	-	-52.87	3.98	-9.54	48.57	68.20	-19.63

Table 7-118. Radiated Measurements MIMO (26 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5580MHz
 Channel: 116

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	V	144	6	-83.36	12.20	0.00	35.84	53.98	-18.14
* 11200.00	Peak	V	144	6	-69.20	12.20	0.00	50.00	73.98	-23.98
16800.00	Peak	V	-	-	-70.97	16.07	0.00	52.10	68.20	-16.10
* 22400.00	Average	V	-	-	-78.21	20.03	-9.54	39.28	53.98	-14.70
* 22400.00	Peak	V	-	-	-69.23	20.03	-9.54	48.26	73.98	-25.72
28000.00	Peak	V	-	-	-53.67	4.70	-9.54	48.49	68.20	-19.71

Table 7-119. Radiated Measurements MIMO (26 Tones)

FCC ID: ZNFV600TM			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 181 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5700MHz
 Channel: 140

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]
* 11440.00	Average	V	130	14	-82.50	12.91	0.00	37.41	53.98	-16.57
* 11440.00	Peak	V	130	14	-67.81	12.91	0.00	52.10	73.98	-21.88
17160.00	Peak	V	-	-	-70.92	17.74	0.00	53.82	68.20	-14.38
* 22880.00	Average	V	-	-	-78.46	19.50	-9.54	38.50	53.98	-15.48
* 22880.00	Peak	V	-	-	-66.81	19.50	-9.54	50.15	73.98	-23.83
28600.00	Peak	V	-	-	-53.76	5.14	-9.54	48.84	68.20	-19.36

Table 7-120. Radiated Measurements MIMO (26 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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 [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	V	-	-	-84.22	13.38	0.00	36.16	53.98	-17.82
* 11490.00	Peak	V	-	-	-70.46	13.38	0.00	49.92	73.98	-24.06
17235.00	Peak	V	-	-	-71.30	17.89	0.00	53.59	68.20	-14.61
* 22980.00	Average	V	-	-	-78.14	19.89	-9.54	39.21	53.98	-14.77
* 22980.00	Peak	V	-	-	-67.38	19.89	-9.54	49.97	73.98	-24.01
28725.00	Peak	V	-	-	-52.66	4.66	-9.54	49.46	68.20	-18.74

Table 7-121. Radiated Measurements MIMO (26 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 182 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 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	V	-	-	-83.63	13.15	0.00	36.52	53.98	-17.46
* 11570.00	Peak	V	-	-	-70.75	13.15	0.00	49.40	73.98	-24.58
17355.00	Peak	V	-	-	-71.92	18.92	0.00	54.00	68.20	-14.20
23140.00	Peak	V	-	-	-67.38	19.59	-9.54	49.67	68.20	-18.53
28925.00	Peak	V	-	-	-53.59	4.43	-9.54	48.30	68.20	-19.90

Table 7-122. Radiated Measurements MIMO (26 Tones)

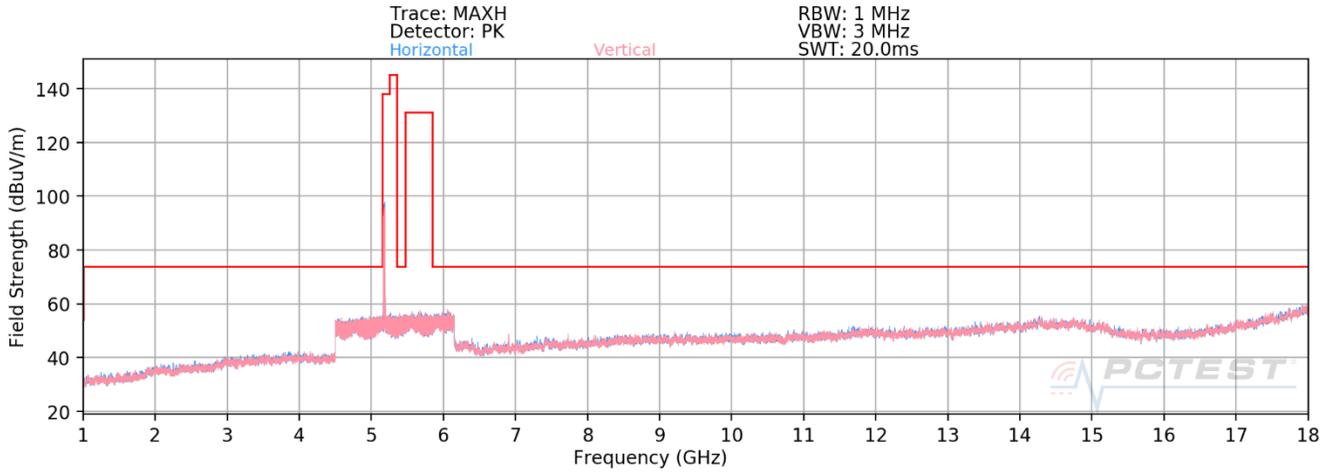
Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 4
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5825MHz
 Channel: 165

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	V	-	-	-83.78	13.27	0.00	36.49	53.98	-17.49
* 11650.00	Peak	V	-	-	-70.37	13.27	0.00	49.90	73.98	-24.08
17475.00	Peak	V	-	-	-70.62	19.66	0.00	56.04	68.20	-12.16
23300.00	Peak	V	-	-	-67.12	18.93	-9.54	49.27	68.20	-18.93
29125.00	Peak	V	-	-	-53.08	3.48	-9.54	47.86	68.20	-20.34

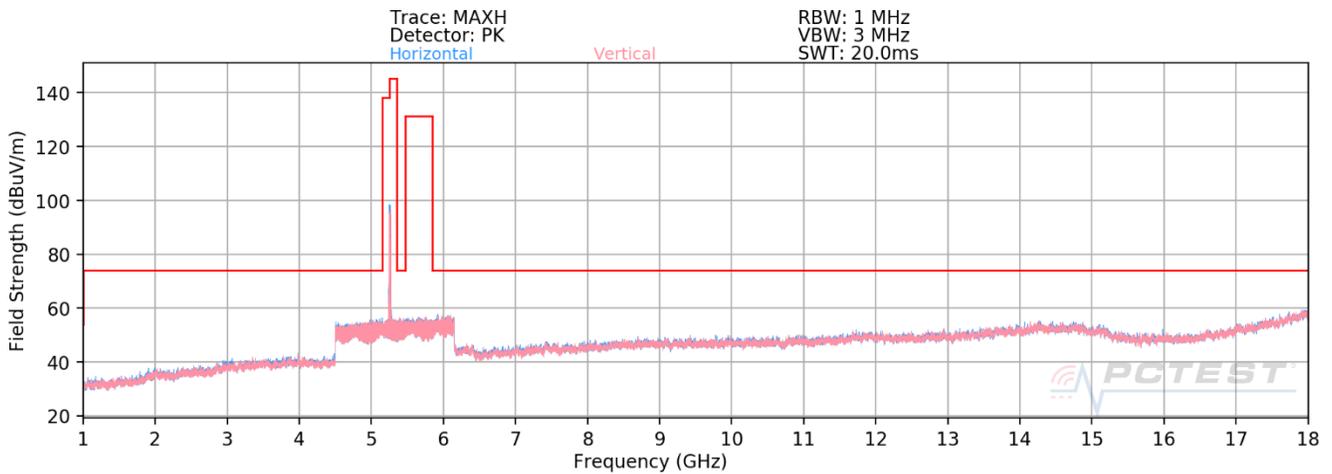
Table 7-123. Radiated Measurements MIMO (26 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 183 of 221	

242 Tones

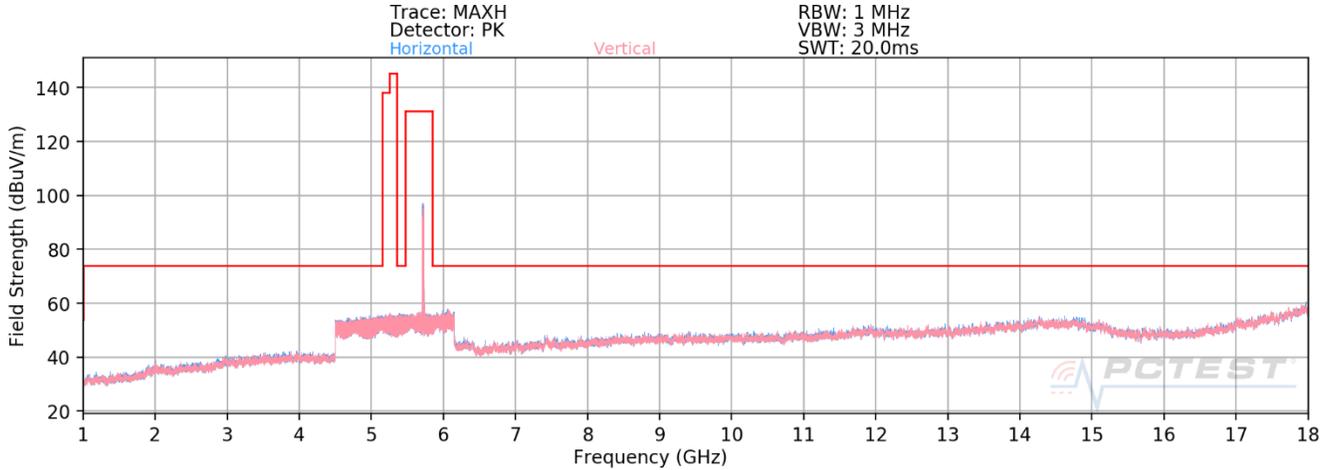


Plot 7-193. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U1 Ch. 40 – 242 Tones)

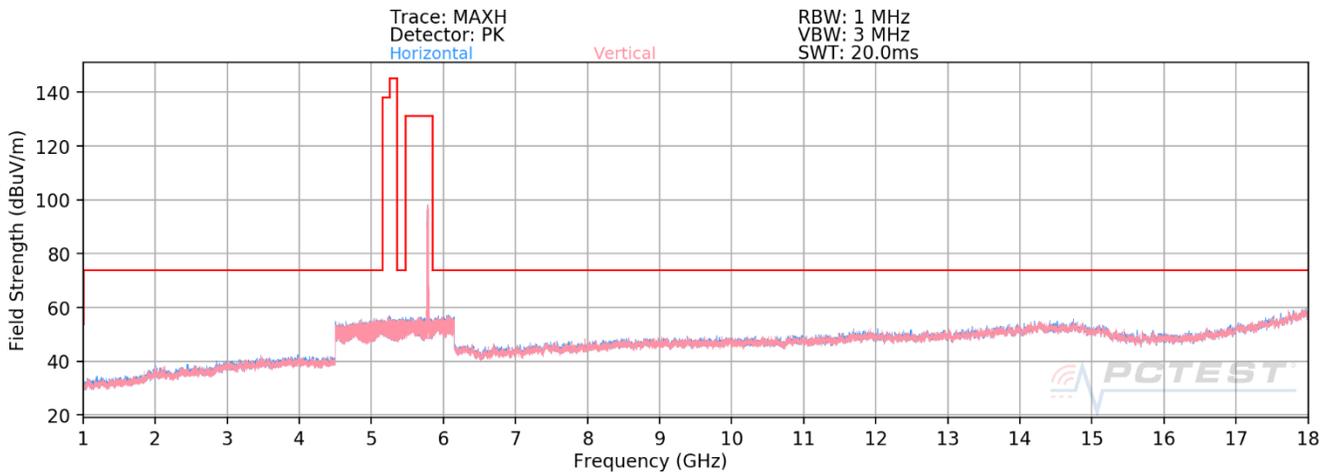


Plot 7-194. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2A Ch. 56 – 242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 184 of 221



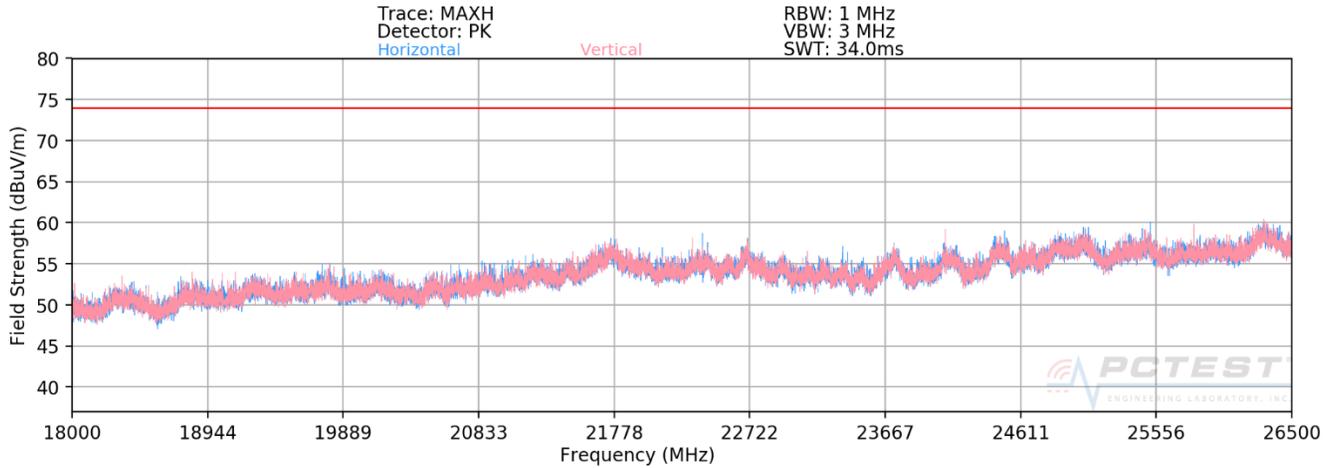
Plot 7-195. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U2C Ch. 120 – 242 Tones)



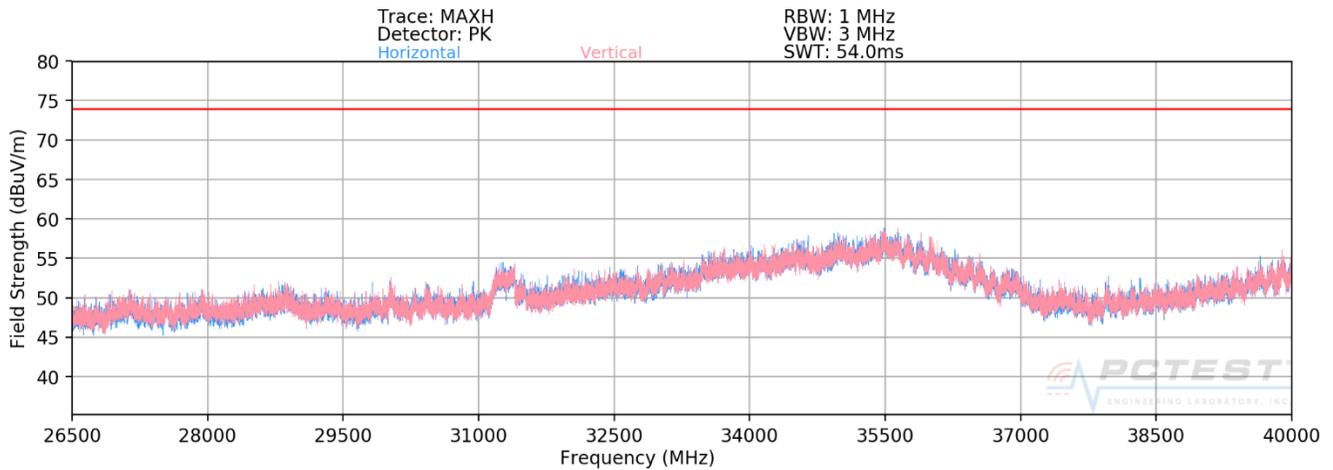
Plot 7-196. Radiated Spurious Plot above 1GHz MIMO (802.11ax – U3 Ch. 157 – 242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 185 of 221	

MIMO Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-197. Radiated Spurious Plot 18GHz - 26.5GHz MIMO (802.11ax – 242 Tones)



Plot 7-198. Radiated Spurious Plot 26.5GHz - 40GHz MIMO (802.11ax – 242 Tones)

FCC ID: ZNFV600TM	 MEASUREMENT REPORT (CERTIFICATION)		 Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 186 of 221

MIMO Radiated Spurious Emission Measurements (242 Tones)
 §15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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 [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10360.00	Peak	V	113	278	-69.15	11.41	0.00	49.26	68.20	-18.94
* 15540.00	Average	V	-	-	-83.81	13.23	0.00	36.42	53.98	-17.56
* 15540.00	Peak	V	-	-	-70.69	13.23	0.00	49.54	73.98	-24.44
* 20720.00	Average	V	-	-	-77.54	17.51	-9.54	37.43	53.98	-16.55
* 20720.00	Peak	V	-	-	-65.38	17.51	-9.54	49.59	73.98	-24.39
25900.00	Peak	V	-	-	-65.53	19.88	-9.54	51.81	68.20	-16.39

Table 7-124. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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 [dBµV/m]	Limit [dBµV/m]	Margin [dB]
10400.00	Peak	V	113	252	-68.53	11.17	0.00	49.64	68.20	-18.56
* 15600.00	Average	V	-	-	-83.92	12.81	0.00	35.89	53.98	-18.09
* 15600.00	Peak	V	-	-	-70.60	12.81	0.00	49.21	73.98	-24.77
* 20800.00	Average	V	-	-	-77.29	17.87	-9.54	38.04	53.98	-15.94
* 20800.00	Peak	V	-	-	-65.67	17.87	-9.54	49.66	73.98	-24.32
26000.00	Peak	V	-	-	-65.48	20.15	-9.54	52.13	68.20	-16.07

Table 7-125. Radiated Measurements MIMO (242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 187 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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	V	115	256	-69.51	11.37	0.00	48.86	68.20	-19.34
* 15720.00	Average	V	-	-	-84.52	15.18	0.00	37.66	53.98	-16.32
* 15720.00	Peak	V	-	-	-71.31	15.18	0.00	50.87	73.98	-23.11
* 20960.00	Average	V	-	-	-77.65	18.06	-9.54	37.87	53.98	-16.11
* 20960.00	Peak	V	-	-	-65.50	18.06	-9.54	50.02	73.98	-23.96
26200.00	Peak	V	-	-	-65.20	20.23	-9.54	52.49	68.20	-15.71

Table 7-126. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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	V	115	252	-69.51	11.86	0.00	49.35	68.20	-18.85
* 15780.00	Average	V	-	-	-84.95	13.75	0.00	35.80	53.98	-18.18
* 15780.00	Peak	V	-	-	-71.76	13.75	0.00	48.99	73.98	-24.99
* 21040.00	Average	V	-	-	-77.03	18.36	-9.54	38.79	53.98	-15.19
* 21040.00	Peak	V	-	-	-65.64	18.36	-9.54	50.18	73.98	-23.80
26300.00	Peak	V	-	-	-65.14	20.96	-9.54	53.28	68.20	-14.92

Table 7-127. Radiated Measurements MIMO (242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 188 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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	V	126	246	-71.09	12.47	0.00	48.38	68.20	-19.82
* 15840.00	Average	V	-	-	-84.26	15.16	0.00	37.90	53.98	-16.08
* 15840.00	Peak	V	-	-	-70.40	15.16	0.00	51.76	73.98	-22.22
* 21120.00	Average	V	-	-	-77.67	18.17	-9.54	37.96	53.98	-16.02
* 21120.00	Peak	V	-	-	-66.94	18.17	-9.54	48.69	73.98	-25.29
26400.00	Peak	V	-	-	-65.29	20.65	-9.54	52.82	68.20	-15.38

Table 7-128. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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	V	-	-	-84.30	13.08	0.00	35.78	53.98	-18.20
* 10640.00	Peak	V	-	-	-70.76	13.08	0.00	49.32	73.98	-24.66
* 15960.00	Average	V	-	-	-84.21	13.43	0.00	36.22	53.98	-17.76
* 15960.00	Peak	V	-	-	-70.91	13.43	0.00	49.52	73.98	-24.46
* 21280.00	Average	V	-	-	-77.30	18.57	-9.54	38.73	53.98	-15.25
* 21280.00	Peak	V	-	-	-66.23	18.57	-9.54	49.80	73.98	-24.18
26600.00	Peak	V	-	-	-51.54	5.16	-9.54	51.08	68.20	-17.12

Table 7-129. Radiated Measurements MIMO (242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 189 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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	V	-	-	-83.99	12.87	0.00	35.88	53.98	-18.10
* 11000.00	Peak	V	-	-	-70.50	12.87	0.00	49.37	73.98	-24.61
16500.00	Peak	V	-	-	-77.08	14.82	0.00	44.74	68.20	-23.46
22000.00	Peak	V	-	-	-66.54	19.12	-9.54	50.04	68.20	-18.16
27500.00	Peak	V	-	-	-50.64	3.98	-9.54	50.80	68.20	-17.40

Table 7-130. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5580MHz
 Channel: 116

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	V	131	349	-83.78	12.20	0.00	35.42	53.98	-18.56
* 11200.00	Peak	V	131	349	-69.77	12.20	0.00	49.43	73.98	-24.55
16800.00	Peak	V	-	-	-70.69	16.07	0.00	52.38	68.20	-15.82
* 22400.00	Average	V	-	-	-77.24	20.03	-9.54	40.25	53.98	-13.73
* 22400.00	Peak	V	-	-	-66.77	20.03	-9.54	50.72	73.98	-23.26
28000.00	Peak	V	-	-	-50.71	4.70	-9.54	51.45	68.20	-16.75

Table 7-131. Radiated Measurements MIMO (242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 190 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 5700MHz
 Channel: 140

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]
* 11440.00	Average	V	136	364	-83.76	12.91	0.00	36.15	53.98	-17.83
* 11440.00	Peak	V	136	364	-69.95	12.91	0.00	49.96	73.98	-24.02
17160.00	Peak	V	-	-	-71.38	17.74	0.00	53.36	68.20	-14.84
* 22880.00	Average	V	-	-	-77.90	19.50	-9.54	39.06	53.98	-14.92
* 22880.00	Peak	V	-	-	-66.59	19.50	-9.54	50.37	73.98	-23.61
28600.00	Peak	V	-	-	-50.66	5.14	-9.54	51.94	68.20	-16.26

Table 7-132. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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 [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	V	114	5	-83.60	13.38	0.00	36.78	53.98	-17.20
* 11490.00	Peak	V	114	5	-70.33	13.38	0.00	50.05	73.98	-23.93
17235.00	Peak	V	-	-	-71.08	17.89	0.00	53.81	68.20	-14.39
* 22980.00	Average	V	-	-	-67.75	19.89	-9.54	49.60	53.98	-4.38
* 22980.00	Peak	V	-	-	-66.59	19.89	-9.54	50.76	73.98	-23.22
28725.00	Peak	V	-	-	-51.00	4.66	-9.54	51.12	68.20	-17.08

Table 7-133. Radiated Measurements MIMO (242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 191 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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	V	116	19	-83.31	13.15	0.00	36.84	53.98	-17.14
* 11570.00	Peak	V	116	19	-69.67	13.15	0.00	50.48	73.98	-23.50
17355.00	Peak	V	-	-	-71.86	18.92	0.00	54.06	68.20	-14.14
23140.00	Peak	V	-	-	-67.34	19.59	-9.54	49.71	68.20	-18.49
28925.00	Peak	V	-	-	-51.55	4.43	-9.54	50.34	68.20	-17.86

Table 7-134. Radiated Measurements MIMO (242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 192 of 221	

Worst Case Mode: 802.11ax (20MHz BW)
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 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	V	-	-	-83.82	13.27	0.00	36.45	53.98	-17.53
* 11650.00	Peak	V	-	-	-70.29	13.27	0.00	49.98	73.98	-24.00
17475.00	Peak	V	-	-	-71.36	19.66	0.00	55.30	68.20	-12.90
23300.00	Peak	V	-	-	-66.98	18.93	-9.54	49.41	68.20	-18.79
29125.00	Peak	V	-	-	-50.40	3.48	-9.54	50.54	68.20	-17.66

Table 7-135. Radiated Measurements MIMO (242 Tones)

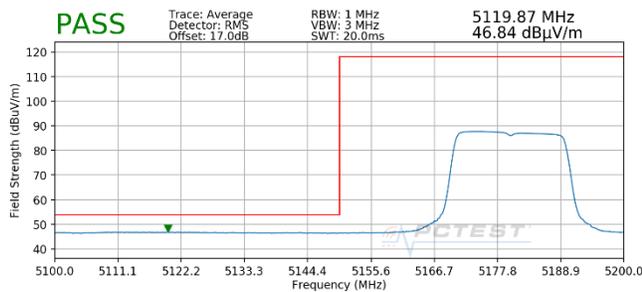
FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 193 of 221	

7.6.4 SISO Antenna-1 Radiated Band Edge Measurements (20MHz BW)

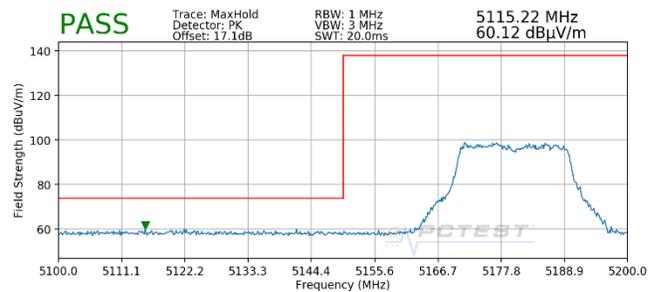
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

242 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

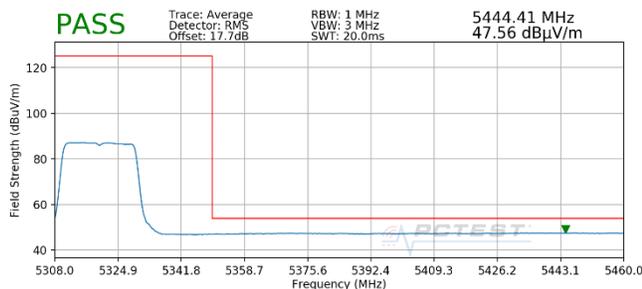


Plot 7-199. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 242 Tones)

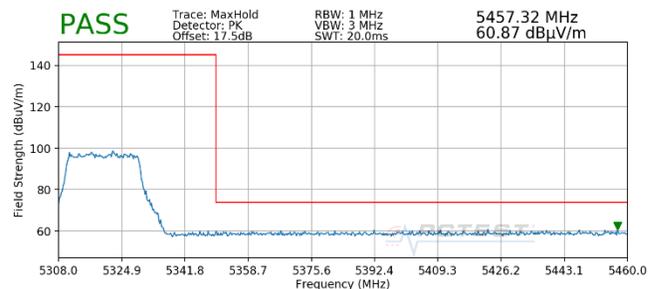


Plot 7-200. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 242 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



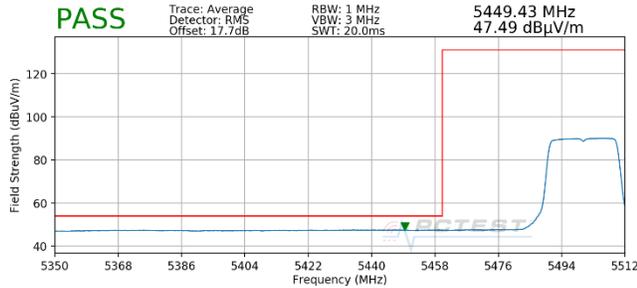
Plot 7-201. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 242 Tones)



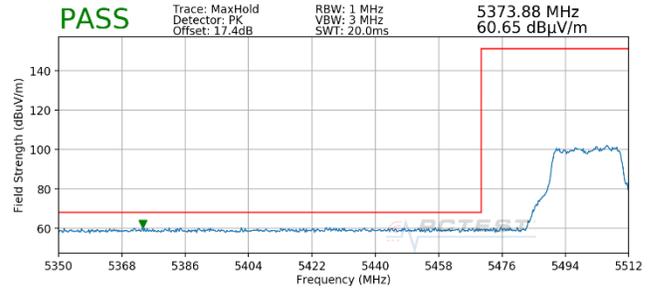
Plot 7-202. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 194 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5500MHz
 Channel: 100

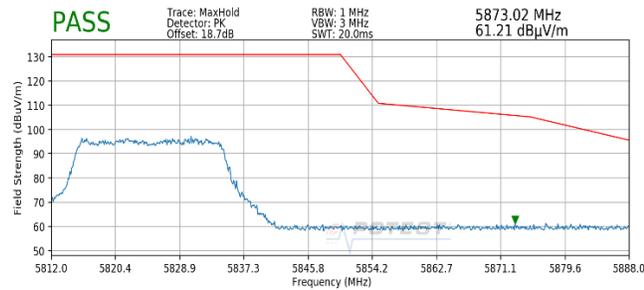


Plot 7-203. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 242 Tones)



Plot 7-204. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 242 Tones)

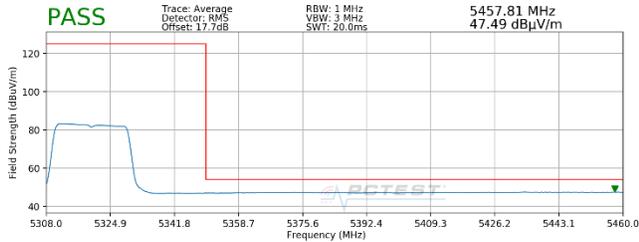
Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5825MHz
 Channel: 165



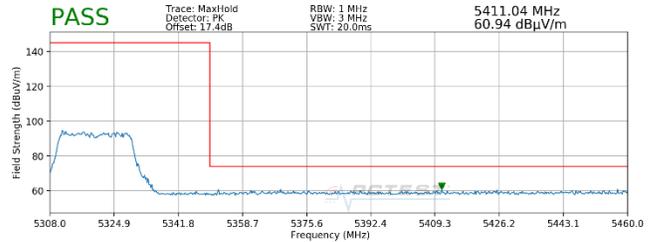
Plot 7-205. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 195 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5320MHz
 Channel: 64



**Plot 7-206. Radiated Band Edge Plot SISO ANT1
(Average – WCP – 242 Tones)**



**Plot 7-207. Radiated Band Edge Plot SISO ANT1
(Peak – WCP – 242 Tones)**

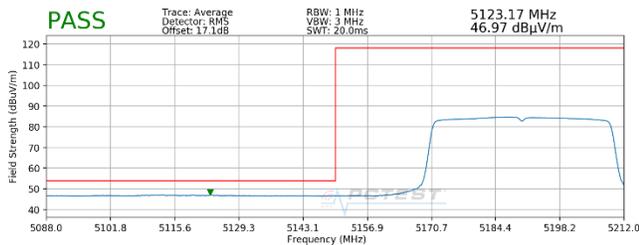
FCC ID: ZNFV600TM	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 196 of 221	

7.6.5 SISO Antenna-1 Radiated Band Edge Measurements (40MHz BW)

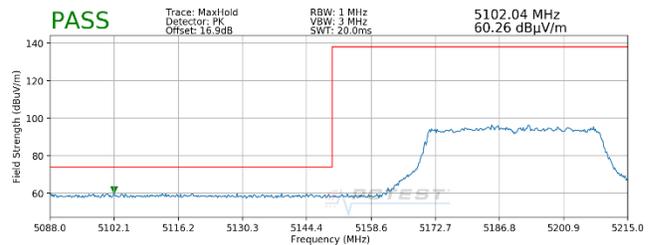
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

484 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	65
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

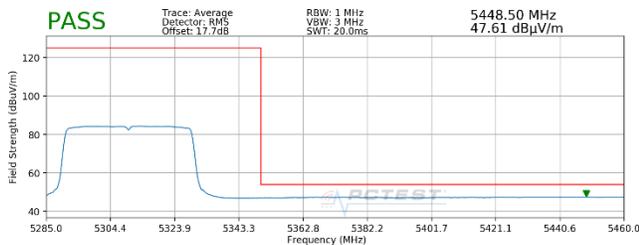


Plot 7-208. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 484 Tones)

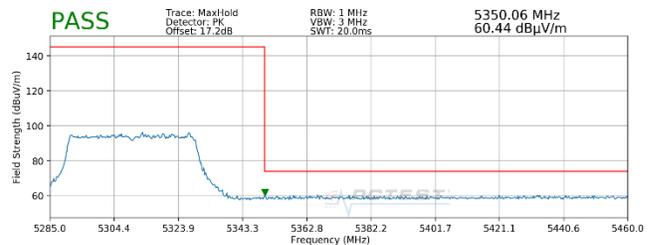


Plot 7-209. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 484 Tones)

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



Plot 7-210. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 484 Tones)

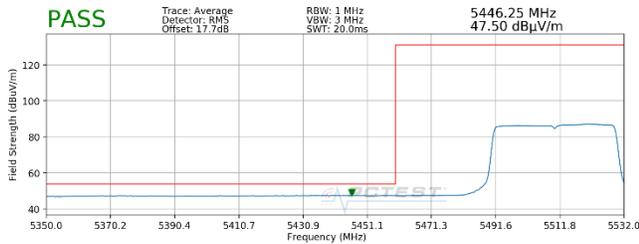


Plot 7-211. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 484 Tones)

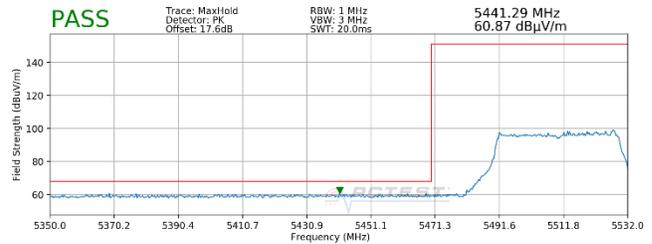
FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 197 of 221



Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 65
 Distance of Measurements: 3 Meters
 Operating Frequency: 5510MHz
 Channel: 102

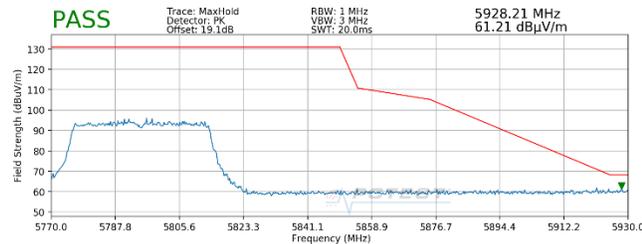


Plot 7-212. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 484 Tones)



Plot 7-213. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 484 Tones)

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 65
 Distance of Measurements: 3 Meters
 Operating Frequency: 5795MHz
 Channel: 159



Plot 7-214. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 484 Tones)

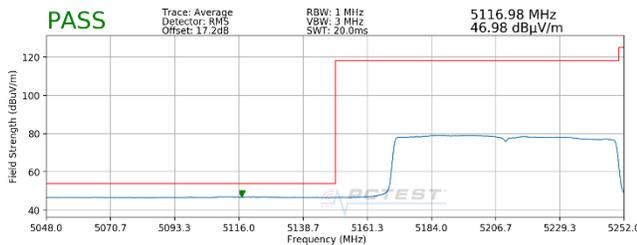
FCC ID: ZNFV600TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 198 of 221

7.6.6 SISO Antenna-1 Radiated Band Edge Measurements (80MHz BW)

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

996 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

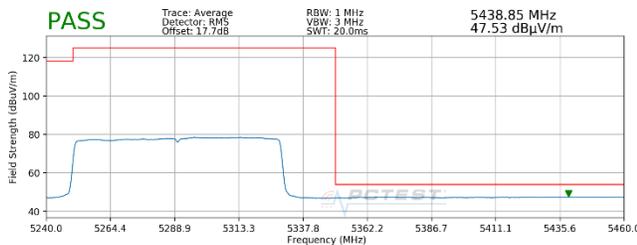


Plot 7-215. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 1 – 996 Tones)

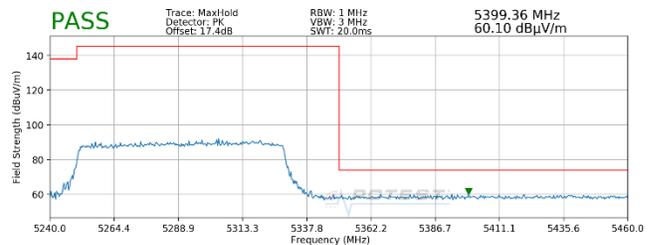


Plot 7-216. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 1 – 996 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



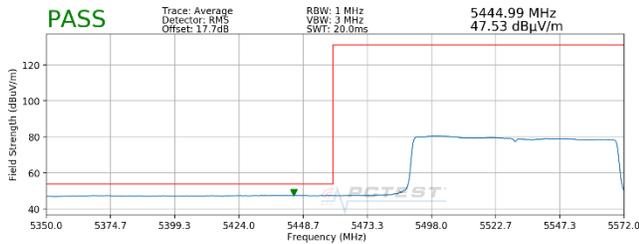
Plot 7-217. Radiated Upper Band Edge Plot SISO ANT1 (Average – UNII Band 2A – 996 Tones)



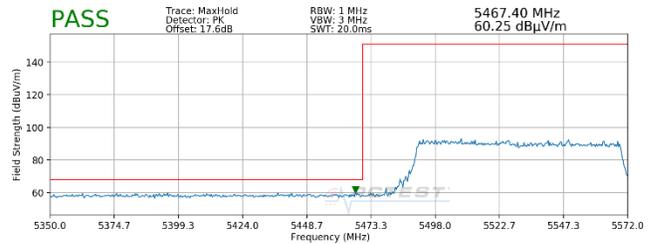
Plot 7-218. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 2A – 996 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 199 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 67
 Distance of Measurements: 3 Meters
 Operating Frequency: 5530MHz
 Channel: 106

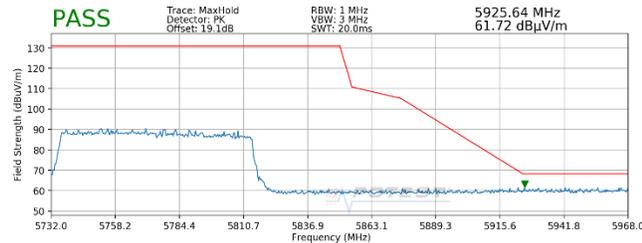


Plot 7-219. Radiated Lower Band Edge Plot SISO ANT1 (Average – UNII Band 2C – 996 Tones)



Plot 7-220. Radiated Lower Band Edge Plot SISO ANT1 (Peak – UNII Band 2C – 996 Tones)

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



Plot 7-221. Radiated Upper Band Edge Plot SISO ANT1 (Peak – UNII Band 3 – 996 Tones)

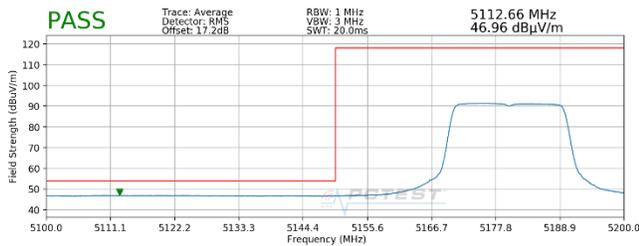
FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 200 of 221

7.6.7 SISO Antenna-2 Radiated Band Edge Measurements (20MHz BW)

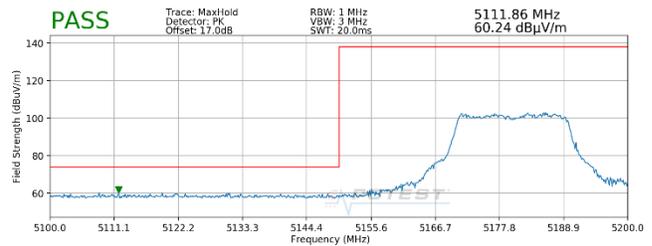
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

242 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

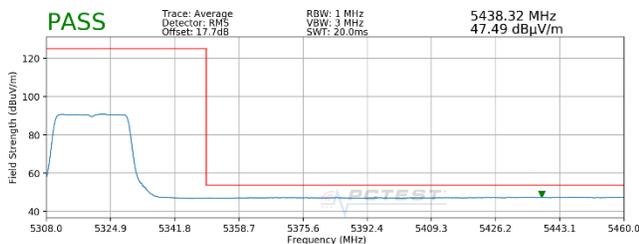


Plot 7-222. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 242 Tones)

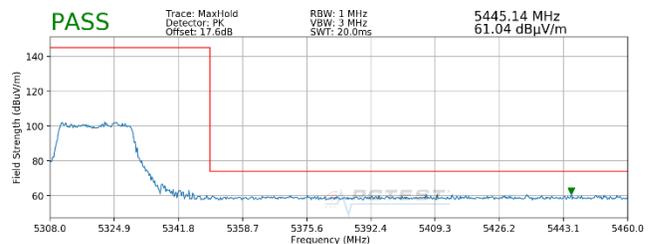


Plot 7-223. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 242 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



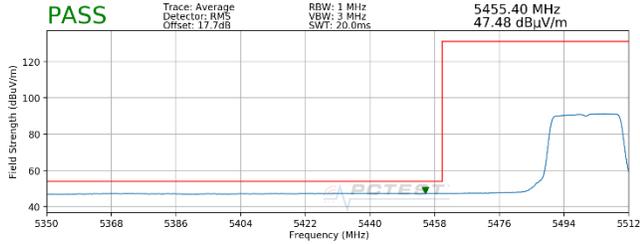
Plot 7-224. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 242 Tones)



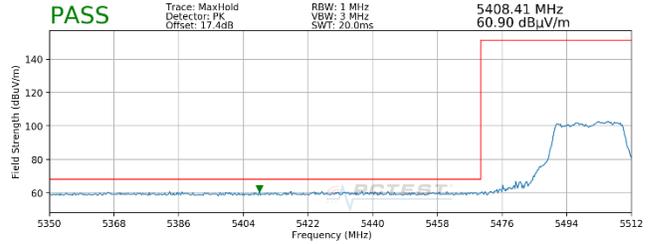
Plot 7-225. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 242 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 201 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5500MHz
 Channel: 100

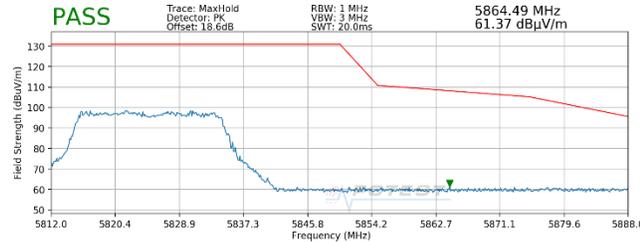


Plot 7-226. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 242 Tones)



Plot 7-227. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 242 Tones)

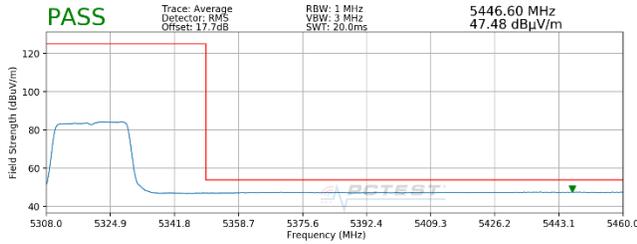
Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5825MHz
 Channel: 165



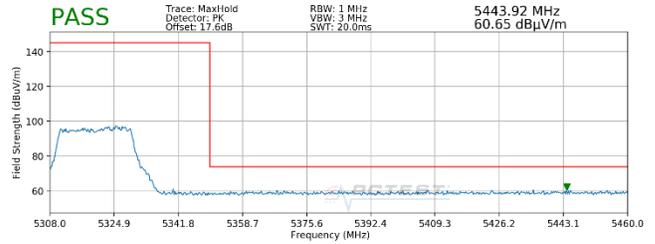
Plot 7-228. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 202 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5320MHz
 Channel: 64



Plot 7-229. Radiated Band Edge Plot SISO ANT2 (Average – WCP – 242 Tones)



Plot 7-230. Radiated Band Edge Plot SISO ANT2 (Peak – WCP – 242 Tones)

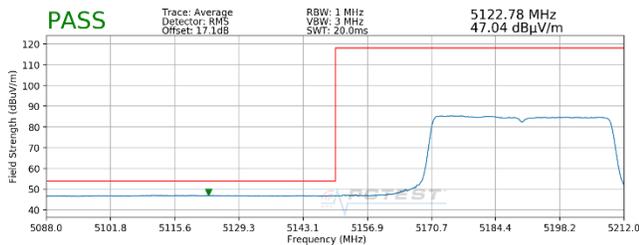
FCC ID: ZNFV600TM	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset	Page 203 of 221

7.6.8 SISO Antenna-2 Radiated Band Edge Measurements (40MHz BW)

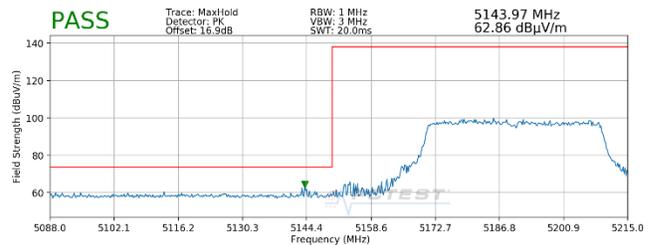
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

484 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	65
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

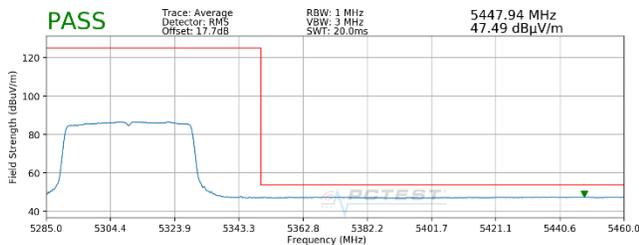


Plot 7-231. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 484 Tones)



Plot 7-232. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 484 Tones)

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



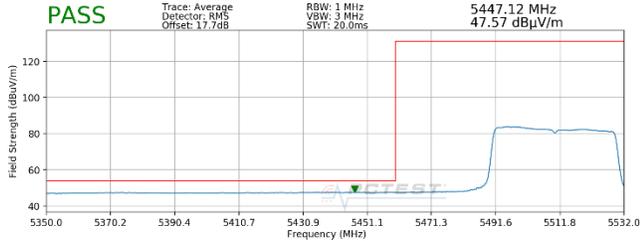
Plot 7-233. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 484 Tones)



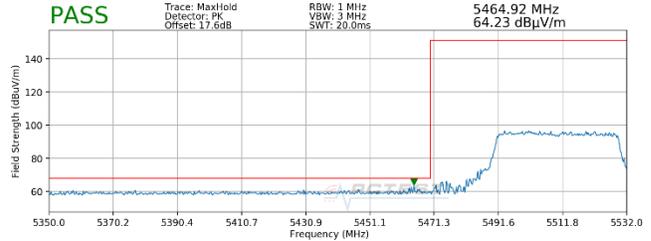
Plot 7-234. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 484 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 204 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 65
 Distance of Measurements: 3 Meters
 Operating Frequency: 5510MHz
 Channel: 102

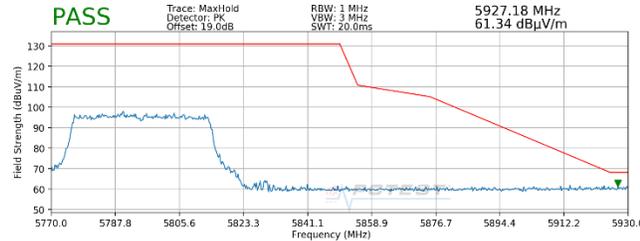


Plot 7-235. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 484 Tones)



Plot 7-236. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 484 Tones)

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 65
 Distance of Measurements: 3 Meters
 Operating Frequency: 5795MHz
 Channel: 159



Plot 7-237. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 484 Tones)

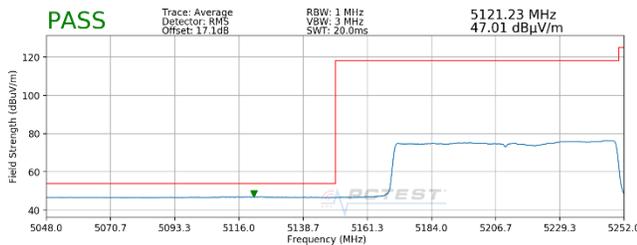
FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 205 of 221

7.6.9 SISO Antenna-2 Radiated Band Edge Measurements (80MHz BW)

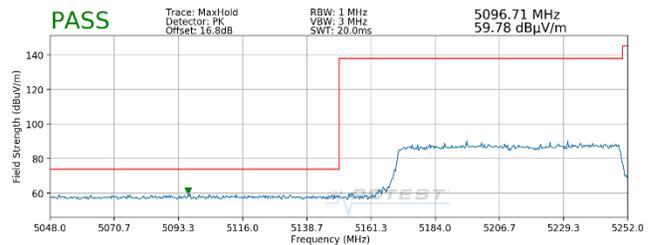
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

996 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

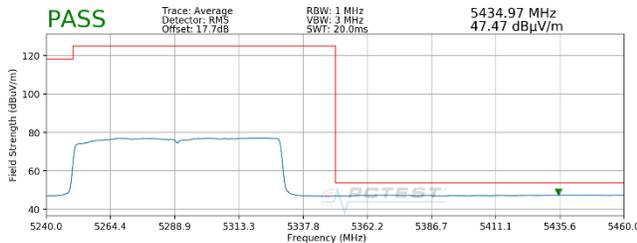


Plot 7-238. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 1 – 996 Tones)

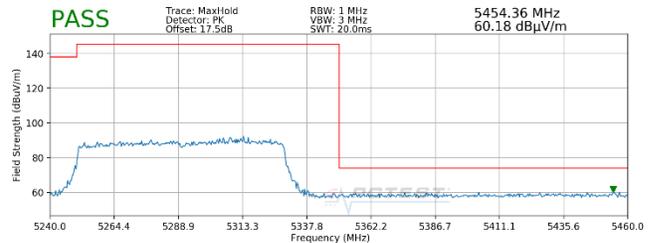


Plot 7-239. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 1 – 996 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



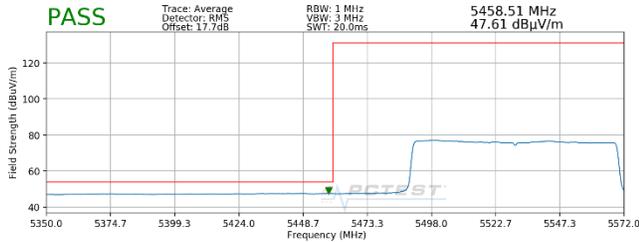
Plot 7-240. Radiated Upper Band Edge Plot SISO ANT2 (Average – UNII Band 2A – 996 Tones)



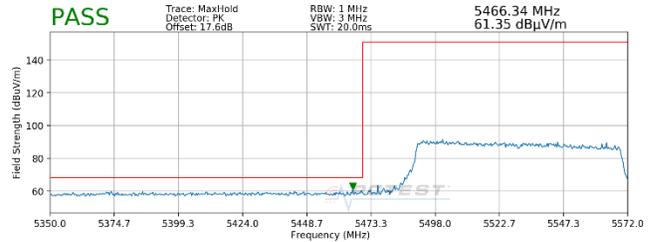
Plot 7-241. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 2A – 996 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 206 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 67
 Distance of Measurements: 3 Meters
 Operating Frequency: 5530MHz
 Channel: 106

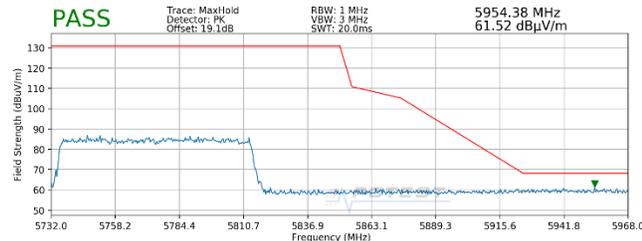


Plot 7-242. Radiated Lower Band Edge Plot SISO ANT2 (Average – UNII Band 2C – 996 Tones)



Plot 7-243. Radiated Lower Band Edge Plot SISO ANT2 (Peak – UNII Band 2C – 996 Tones)

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



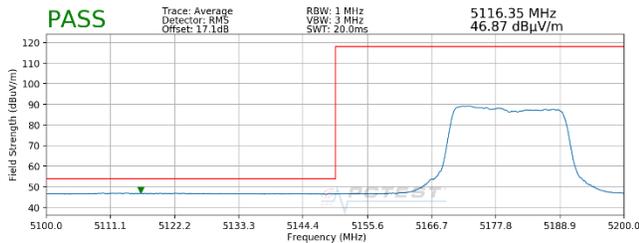
Plot 7-244. Radiated Upper Band Edge Plot SISO ANT2 (Peak – UNII Band 3 – 996 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 207 of 221

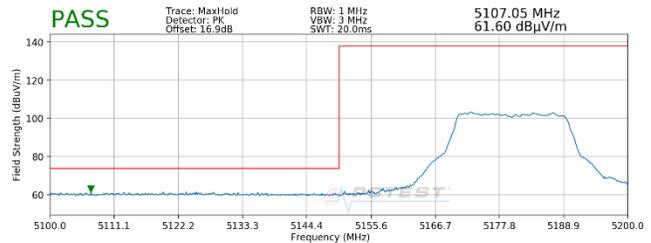
7.6.10 MIMO Radiated Band Edge Measurements (20MHz BW) \$15.407(b.1)(b.2) \$15.205 \$15.209; RSS-Gen [8.9]

242 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

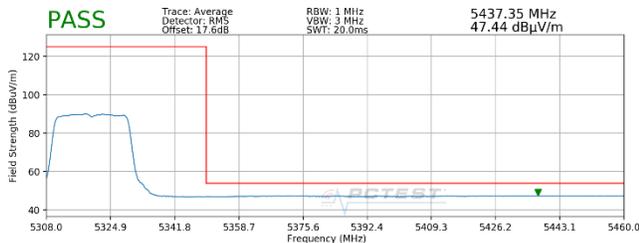


Plot 7-245. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 242 Tones)

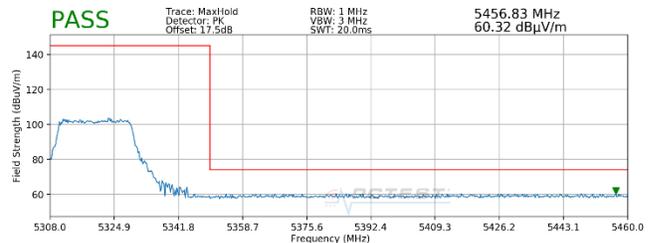


Plot 7-246. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 242 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



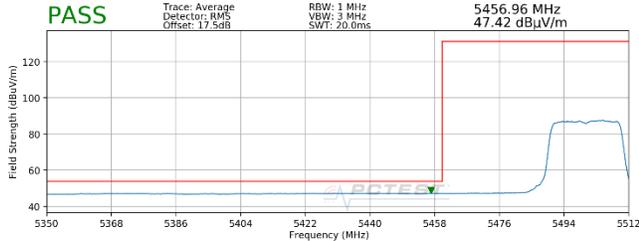
Plot 7-247. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 242 Tones)



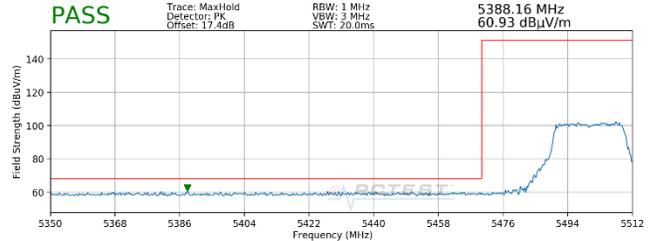
Plot 7-248. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 242 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 208 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5500MHz
 Channel: 100

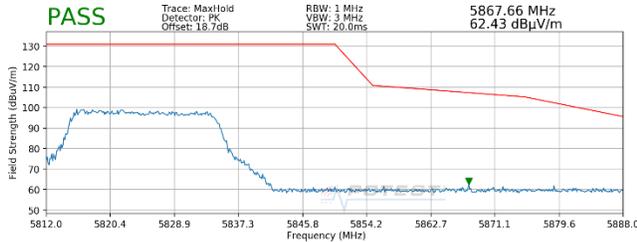


Plot 7-249. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 242 Tones)



Plot 7-250. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 242 Tones)

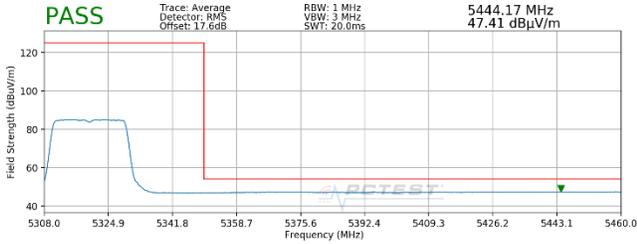
Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5825MHz
 Channel: 165



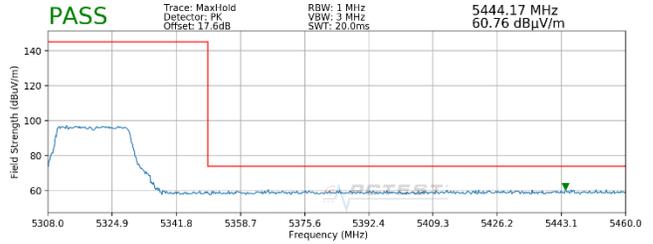
Plot 7-251. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 242 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 209 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 3 Meters
 Operating Frequency: 5320MHz
 Channel: 64



Plot 7-252. Radiated Band Edge Plot MIMO (Average – WCP – 242 Tones)



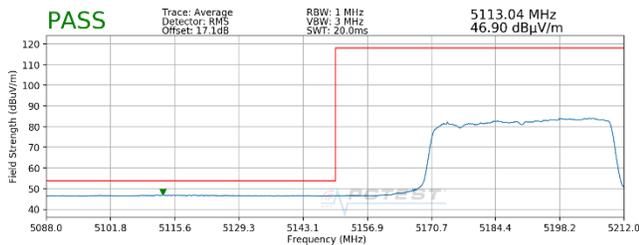
Plot 7-253. Radiated Band Edge Plot MIMO (Peak – WCP – 242 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 210 of 221

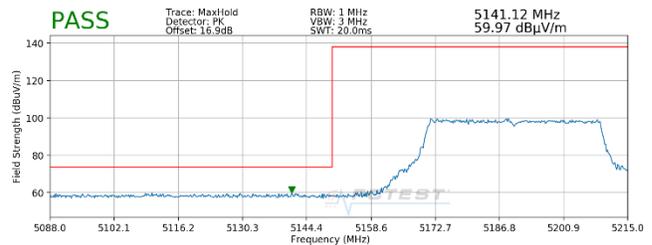
7.6.11 MIMO Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

484 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	65
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

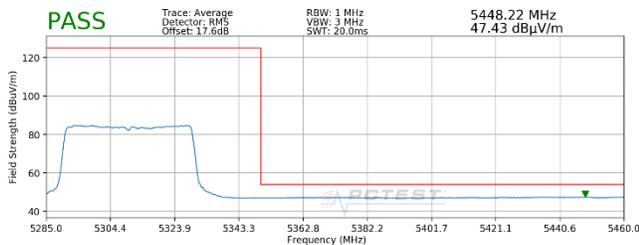


Plot 7-254. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 484 Tones)

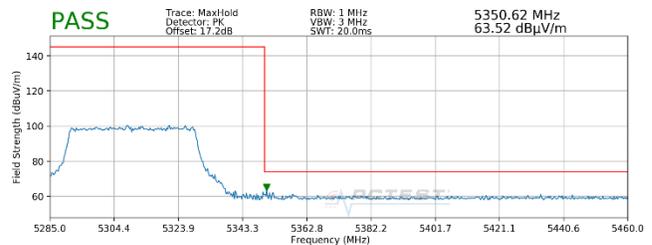


Plot 7-255. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 484 Tones)

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



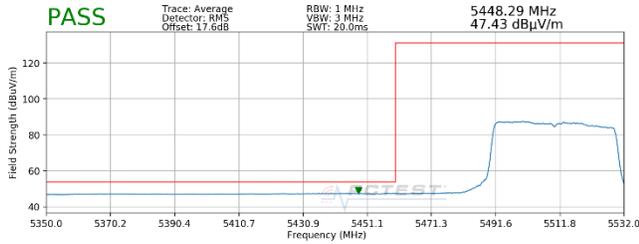
Plot 7-256. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 484 Tones)



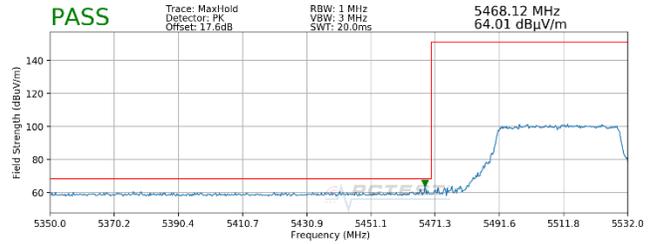
Plot 7-257. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 484 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 211 of 221

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 65
 Distance of Measurements: 3 Meters
 Operating Frequency: 5510MHz
 Channel: 102

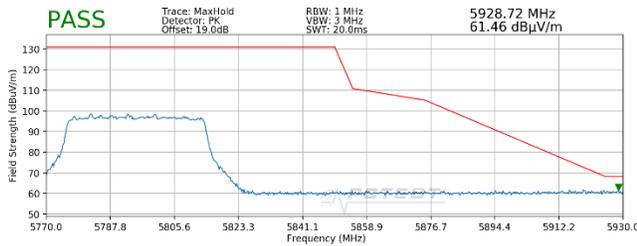


Plot 7-258. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 484 Tones)



Plot 7-259. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 484 Tones)

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 65
 Distance of Measurements: 3 Meters
 Operating Frequency: 5795MHz
 Channel: 159



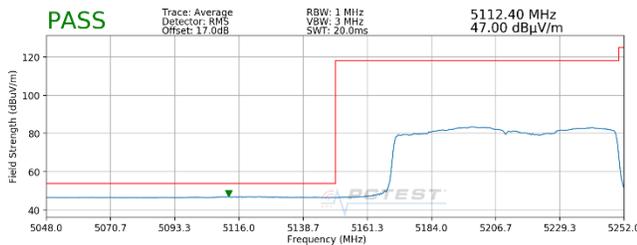
Plot 7-260. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 484 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N: 1M1911250198-08.ZNF	Test Dates: 11/26/2019 - 1/19/2020	EUT Type: Portable Handset		Page 212 of 221

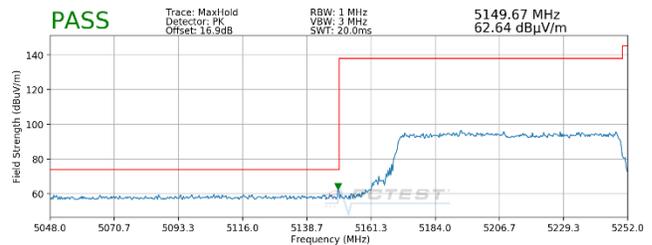
7.6.12 MIMO Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

996 Tones

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	67
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

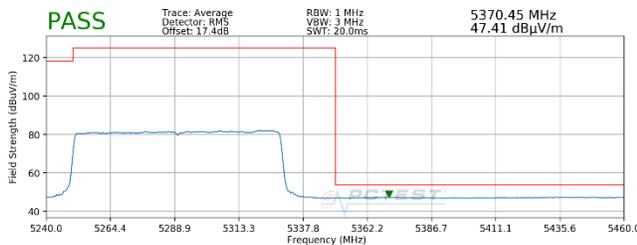


Plot 7-261. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 1 – 996 Tones)

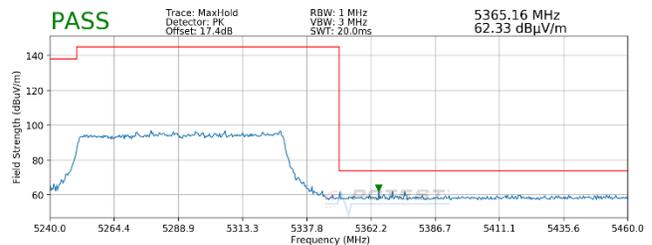


Plot 7-262. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 1 – 996 Tones)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index:	64
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



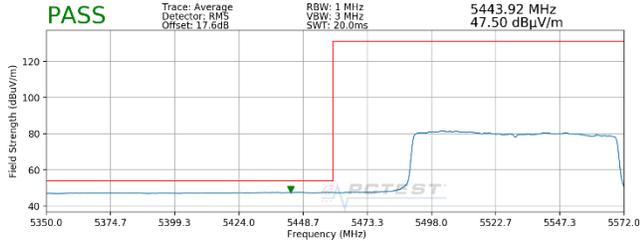
Plot 7-263. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 2A – 996 Tones)



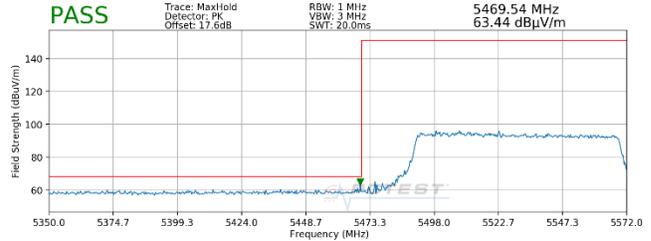
Plot 7-264. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 2A – 996 Tones)

FCC ID: ZNFV600TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 67
 Distance of Measurements: 3 Meters
 Operating Frequency: 5530MHz
 Channel: 106

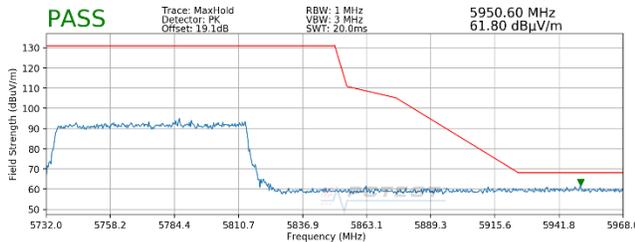


Plot 7-265. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 2C – 996 Tones)



Plot 7-266. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 2C – 996 Tones)

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



Plot 7-267. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 3 – 996 Tones)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
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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 7-136 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [$\mu\text{V/m}$]	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 7-136. 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

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Test Setup

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

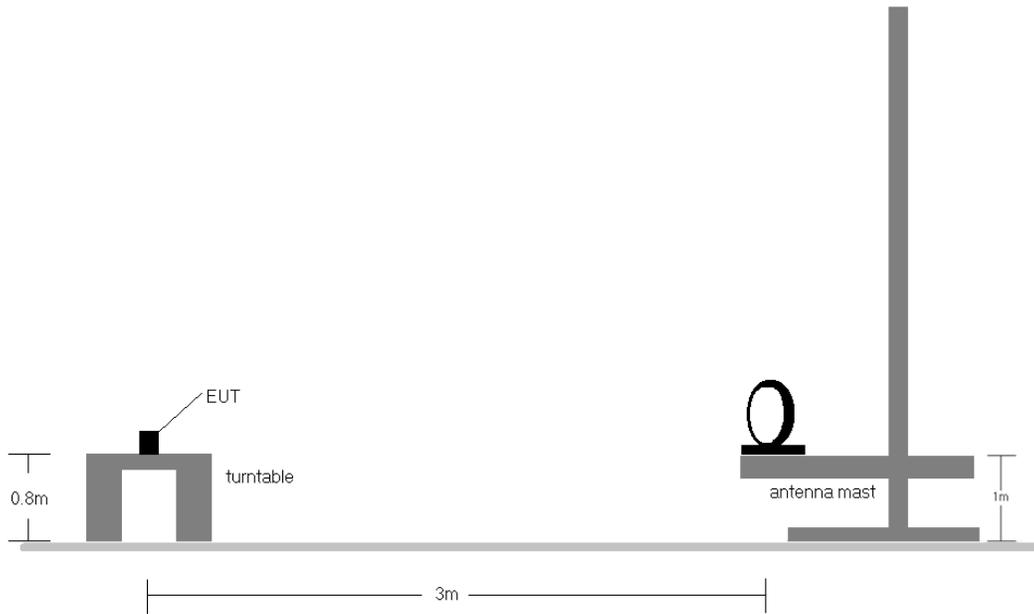


Figure 7-6. Radiated Test Setup < 30MHz

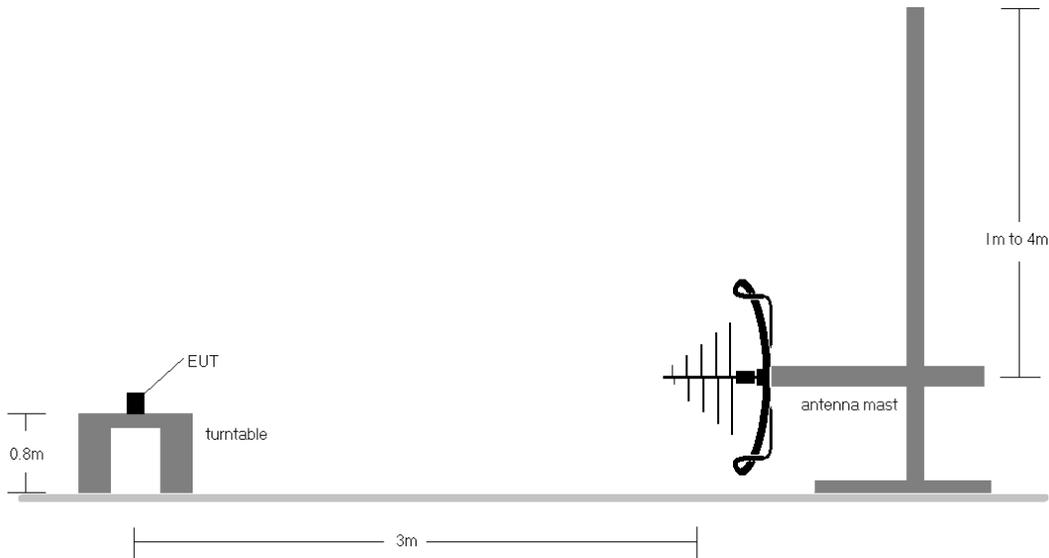


Figure 7-7. Radiated Test Setup < 1GHz

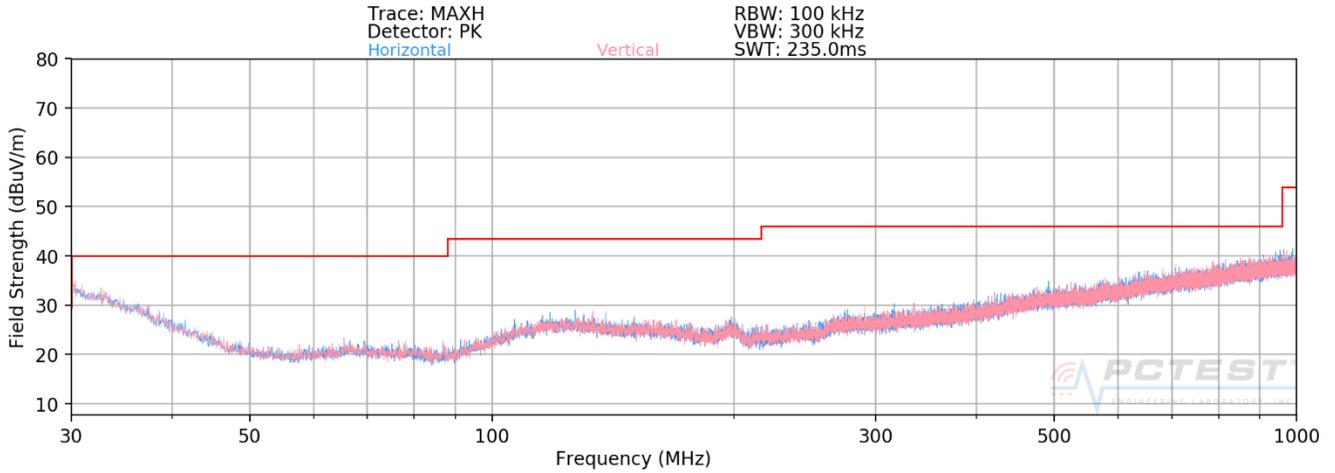
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Test Notes

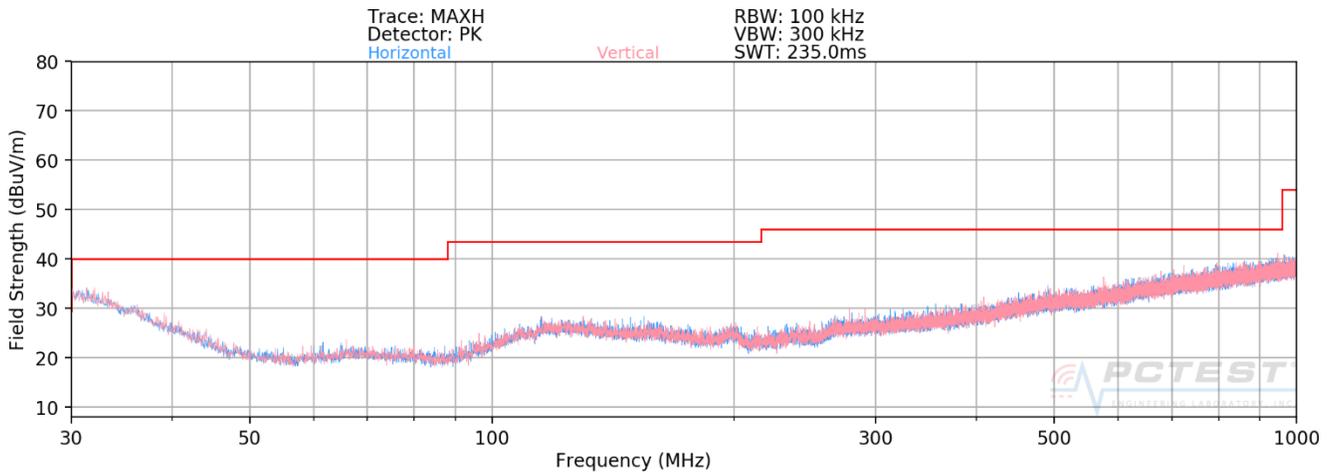
1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-136.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
3. This 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.

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SISO Antenna-1 Radiated Spurious Emissions Measurements (Below 1GHz)
§15.209; RSS-Gen [8.9]



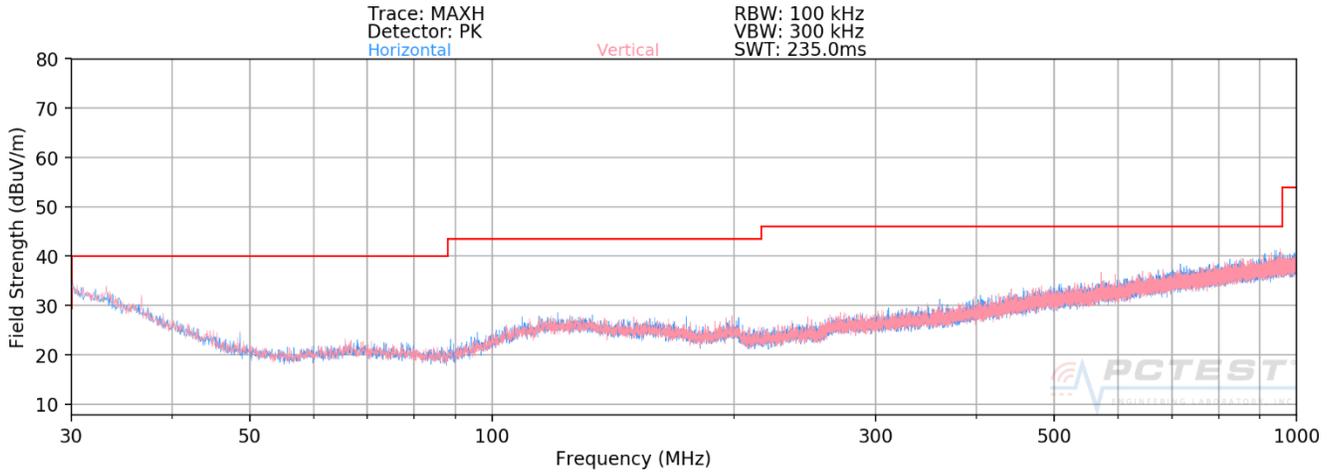
Plot 7-268. Radiated Spurious Plot below 1GHz SISO ANT1 (802.11ax – 26 Tones – U3 Ch. 157)



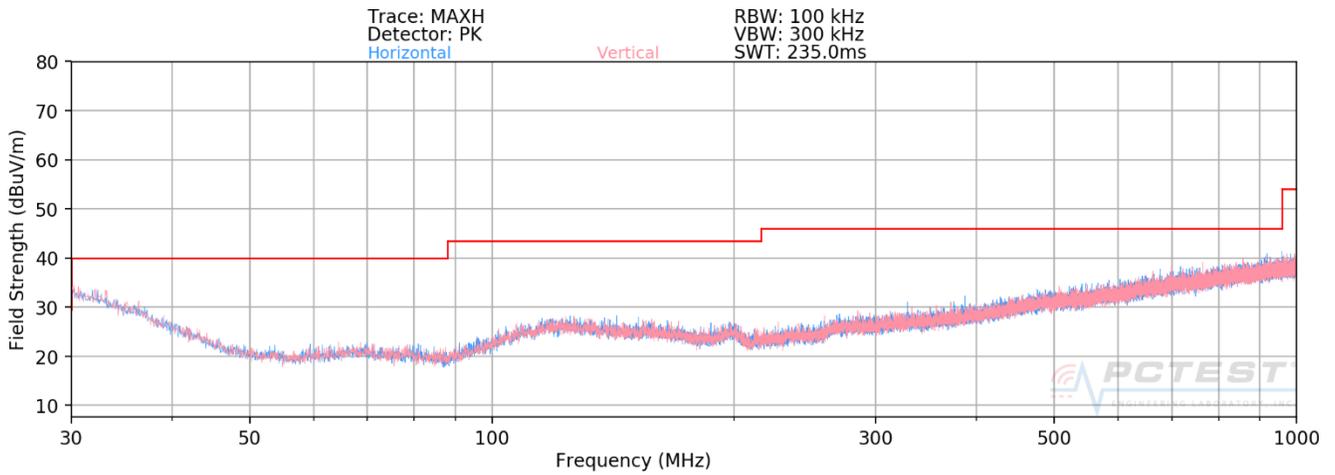
Plot 7-269. Radiated Spurious Plot below 1GHz SISO ANT1 (802.11ax – 242 Tones – U3 Ch. 157)

FCC ID: ZNFV600TM	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
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SISO Antenna-2 Radiated Spurious Emissions Measurements (Below 1GHz)
§15.209; RSS-Gen [8.9]



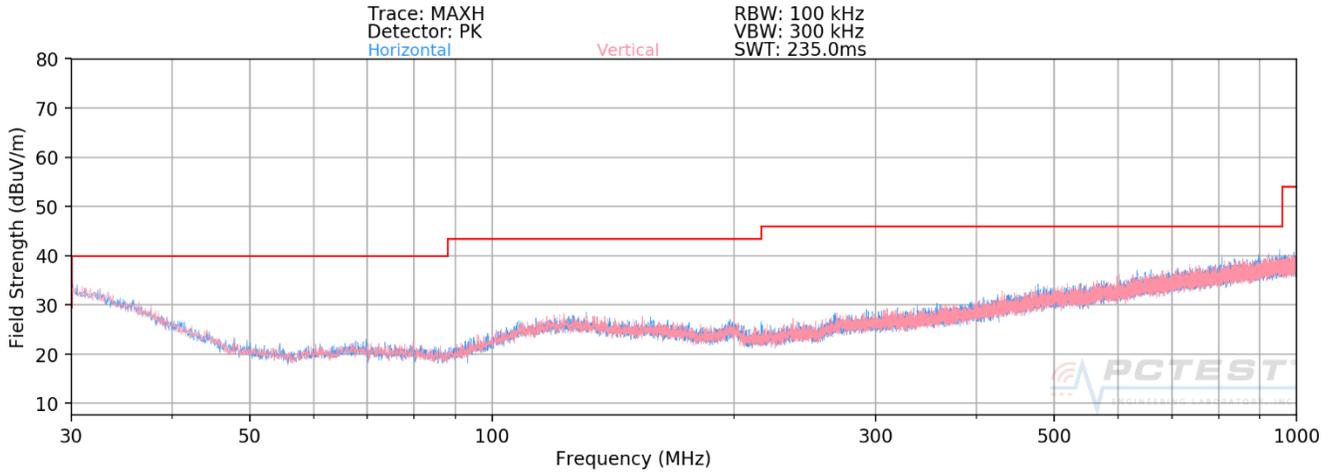
Plot 7-270. Radiated Spurious Plot below 1GHz SISO ANT2 (802.11ax – 26 Tones – U3 Ch. 157)



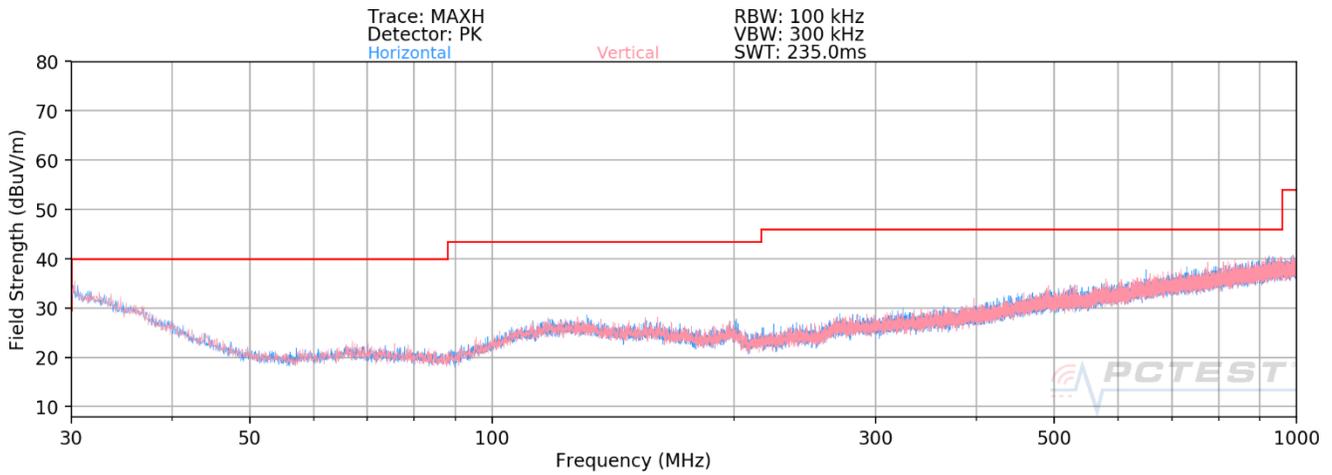
Plot 7-271. Radiated Spurious Plot below 1GHz SISO ANT2 (802.11ax – 242 Tones – U3 Ch. 157)

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MIMO Radiated Spurious Emissions Measurements (Below 1GHz)
§15.209; RSS-Gen [8.9]



Plot 7-272. Radiated Spurious Plot below 1GHz MIMO (802.11ax – 26 Tones – U3 Ch. 157)



Plot 7-273. Radiated Spurious Plot below 1GHz MIMO (802.11ax – 242 Tones – U3 Ch. 157)

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8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **LG Portable Handset FCC ID: ZNFV600TM** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules and RSS-247 of the Innovation, Science and Economic Development Canada Rules.

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