

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

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11440.00	Average	V	-	-	-79.42	12.70	0.00	40.28	53.98	-13.70
* 11440.00	Peak	V	-	-	-68.88	12.70	0.00	50.82	73.98	-23.16
17160.00	Peak	V	-	-	-68.74	17.71	0.00	55.97	68.20	-12.23
* 22880.00	Average	V	-	-	-79.30	19.50	-9.54	37.66	53.98	-16.32
* 22880.00	Peak	V	-	-	-68.35	19.50	-9.54	48.61	73.98	-25.37
28600.00	Peak	V	-	-	-51.17	5.14	-9.54	51.43	68.20	-16.77

Table 7-18. Radiated Measurements

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

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	V	155	10	-79.33	13.38	0.00	41.05	53.98	-12.93
* 11490.00	Peak	V	155	10	-68.33	13.38	0.00	52.05	73.98	-21.93
17235.00	Peak	V	-	-	-68.38	17.44	0.00	56.06	68.20	-12.14
* 22980.00	Average	V	-	-	-79.15	19.89	-9.54	38.19	53.98	-15.79
* 22980.00	Peak	V	-	-	-68.61	19.89	-9.54	48.73	73.98	-25.25
28725.00	Peak	V	-	-	-51.28	4.66	-9.54	50.84	68.20	-17.36

Table 7-19. Radiated Measurements

FCC ID: ZNFQ730TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5785MHz
Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11570.00	Average	V	158	18	-79.08	12.70	0.00	40.62	53.98	-13.36
* 11570.00	Peak	V	158	18	-68.12	12.70	0.00	51.58	73.98	-22.40
17355.00	Peak	V	-	-	-69.27	19.46	0.00	57.19	68.20	-11.01
23140.00	Peak	V	-	-	-67.91	19.59	-9.54	49.14	68.20	-19.06
28925.00	Peak	V	-	-	-52.57	4.43	-9.54	49.32	68.20	-18.88

Table 7-20. Radiated Measurements

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

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11650.00	Average	V	201	12	-79.08	13.24	0.00	41.16	53.98	-12.82
* 11650.00	Peak	V	201	12	-67.33	13.24	0.00	52.91	73.98	-21.07
17475.00	Peak	V	-	-	-68.54	20.06	0.00	58.52	68.20	-9.68
23300.00	Peak	V	-	-	-67.13	18.93	-9.54	49.26	68.20	-18.94
29125.00	Peak	V	-	-	-50.69	3.48	-9.54	50.25	68.20	-17.95

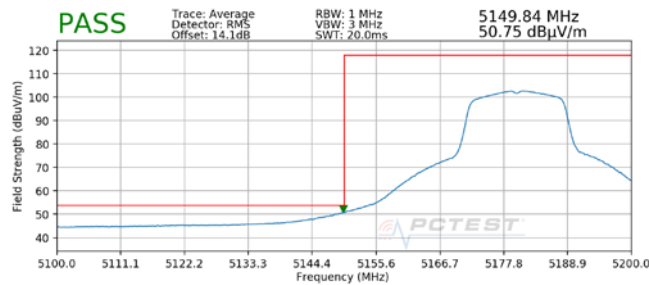
Table 7-21. Radiated Measurements

FCC ID: ZNFQ730TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2001130006-06.ZNF	Test Dates: 01/14/20 - 02/13/20	EUT Type: Portable Handset		Page 72 of 85

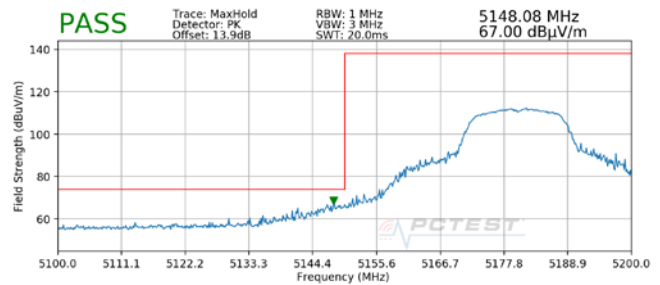
7.6.2 Radiated Band Edge Measurements (20MHz BW)

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

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

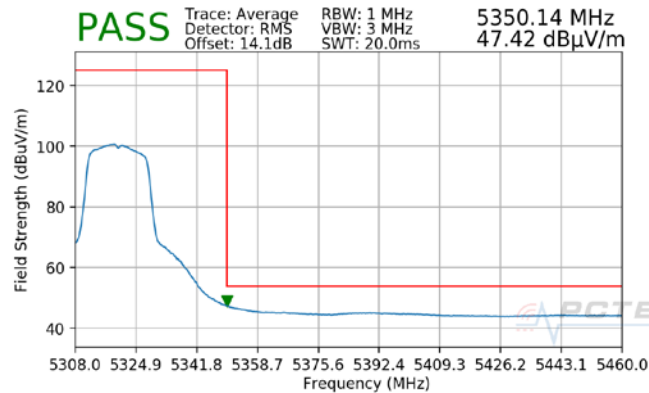


Plot 7-85. Radiated Lower Band Edge Plot (Average – UNII Band 1)

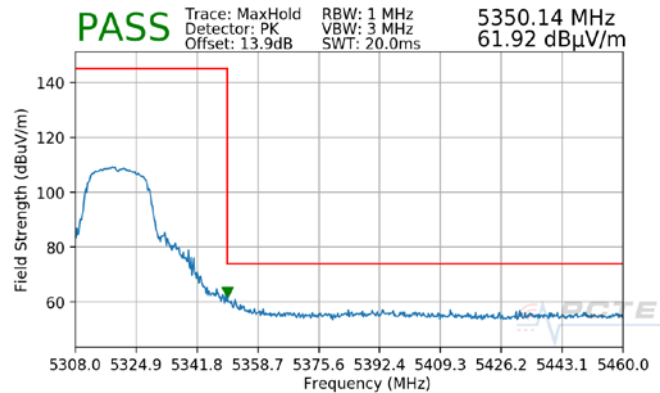


Plot 7-86. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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



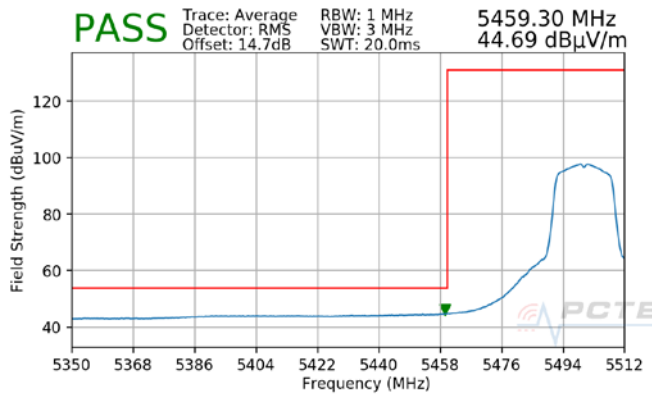
Plot 7-87. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



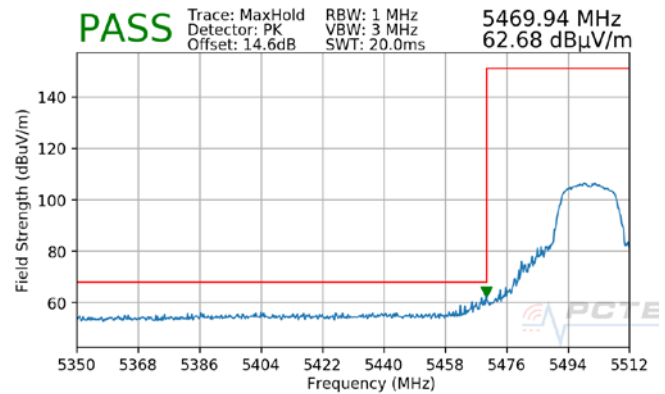
Plot 7-88. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

FCC ID: ZNFQ730TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

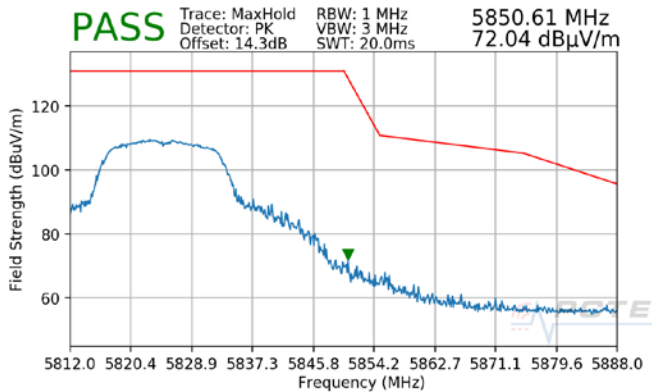


Plot 7-89. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-90. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

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



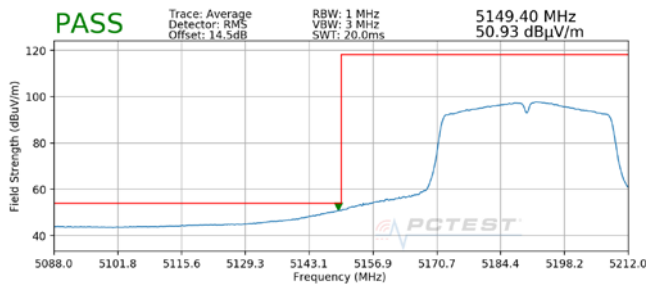
Plot 7-91. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFQ730TM	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M2001130006-06.ZNF	Test Dates: 01/14/20 - 02/13/20	EUT Type: Portable Handset		Page 74 of 85

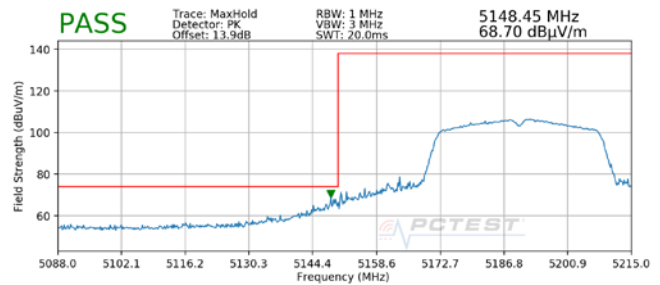
7.6.3 Radiated Band Edge Measurements (40MHz BW)

§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:	5190MHz
Channel:	38

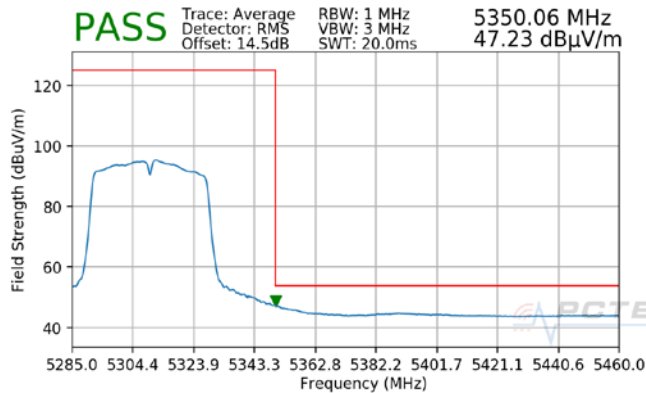


Plot 7-92. Radiated Lower Band Edge Plot (Average – UNII Band 1)

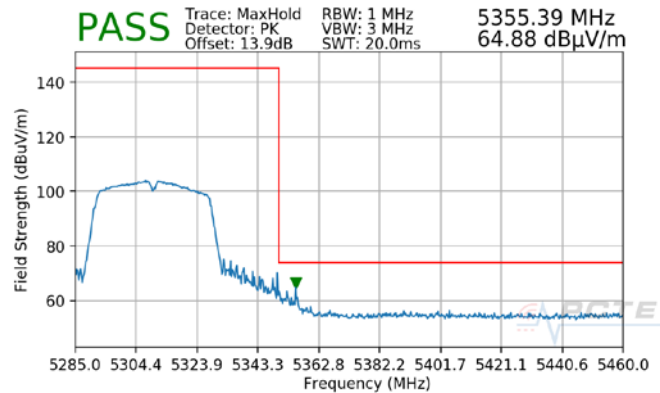


Plot 7-93. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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



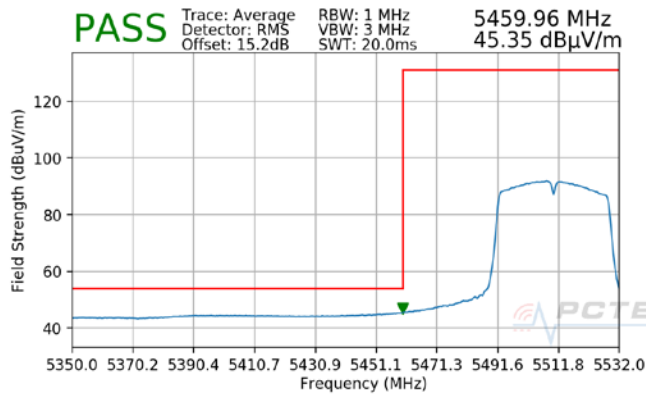
Plot 7-94. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



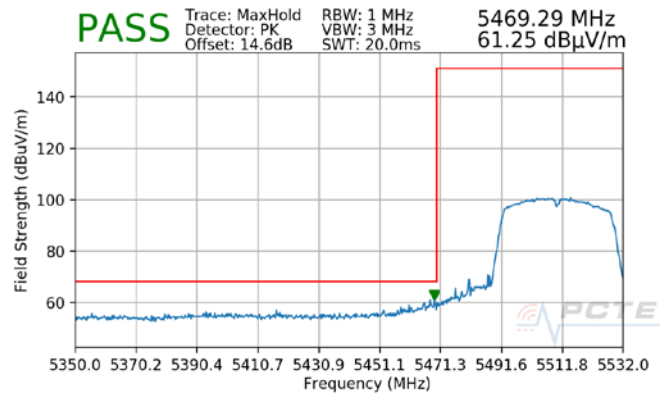
Plot 7-95. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

FCC ID: ZNFQ730TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5510MHz
Channel:	102

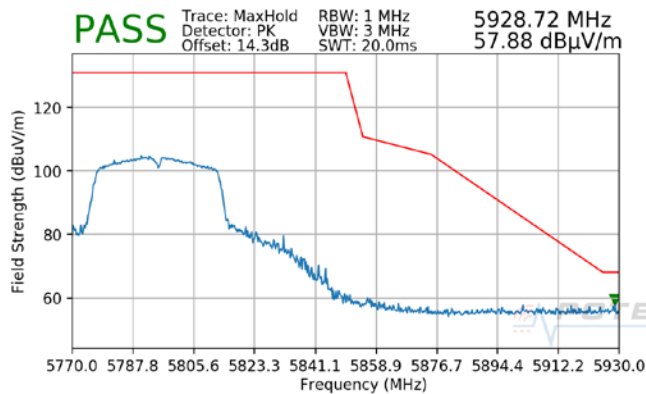


Plot 7-96. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-97. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

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



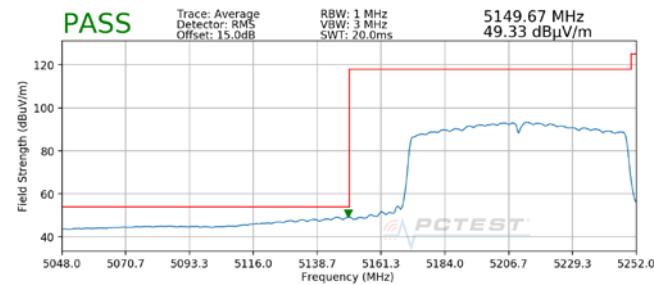
Plot 7-98. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFQ730TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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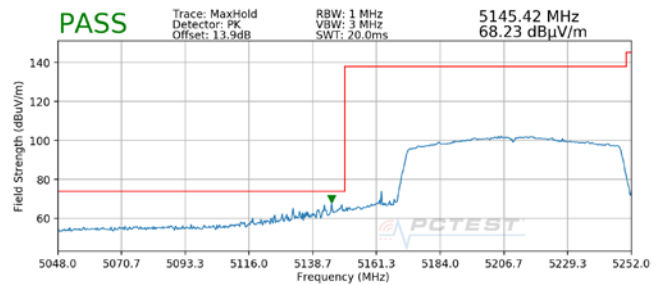
7.6.4 Radiated Band Edge Measurements (80MHz BW)

§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:	5210MHz
Channel:	42

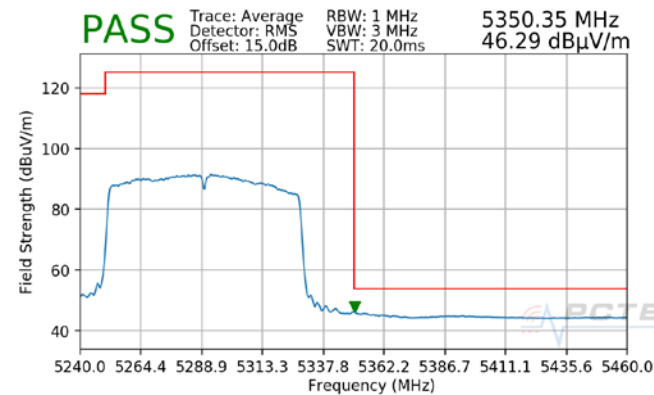


Plot 7-99. Radiated Lower Band Edge Plot (Average – UNII Band 1)

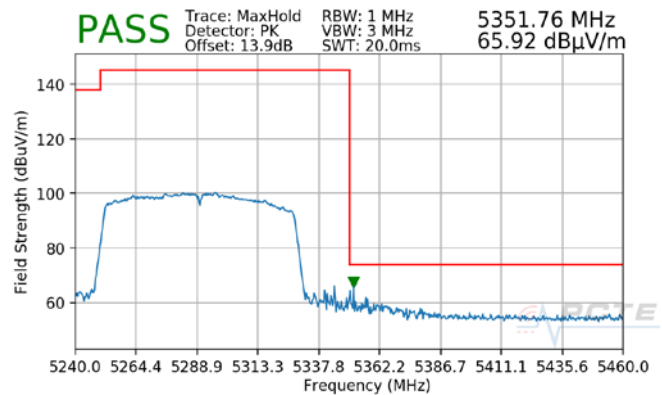


Plot 7-100. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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



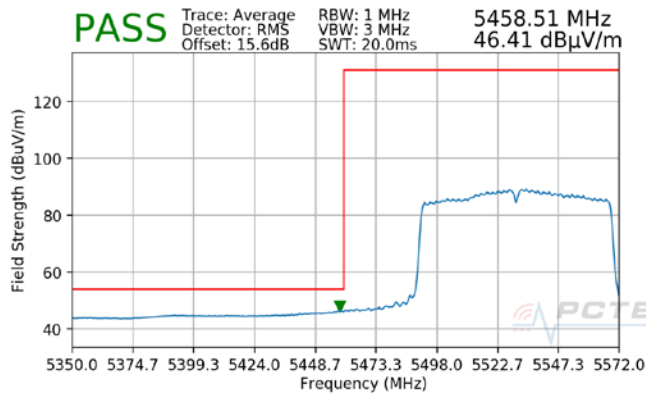
Plot 7-101. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



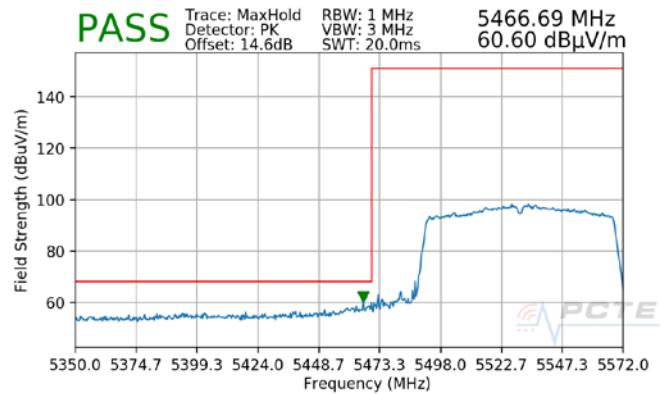
Plot 7-102. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

FCC ID: ZNFQ730TM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2001130006-06-ZNF	Test Dates: 01/14/20 - 02/13/20	EUT Type: Portable Handset		Page 77 of 85

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

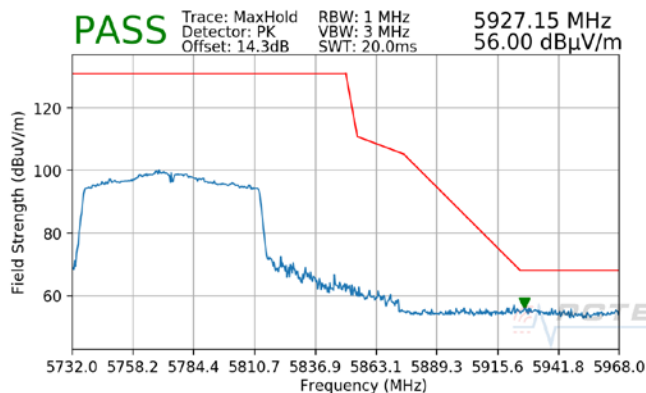


Plot 7-103. Radiated Lower Band Edge Plot (Average - UNII Band 2C)



Plot 7-104. Radiated Lower Band Edge Plot (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 7-105. Radiated Upper Band Edge Plot (Peak - UNII Band 3)

FCC ID: ZNFQ730TM	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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7.7 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 7-22. 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.

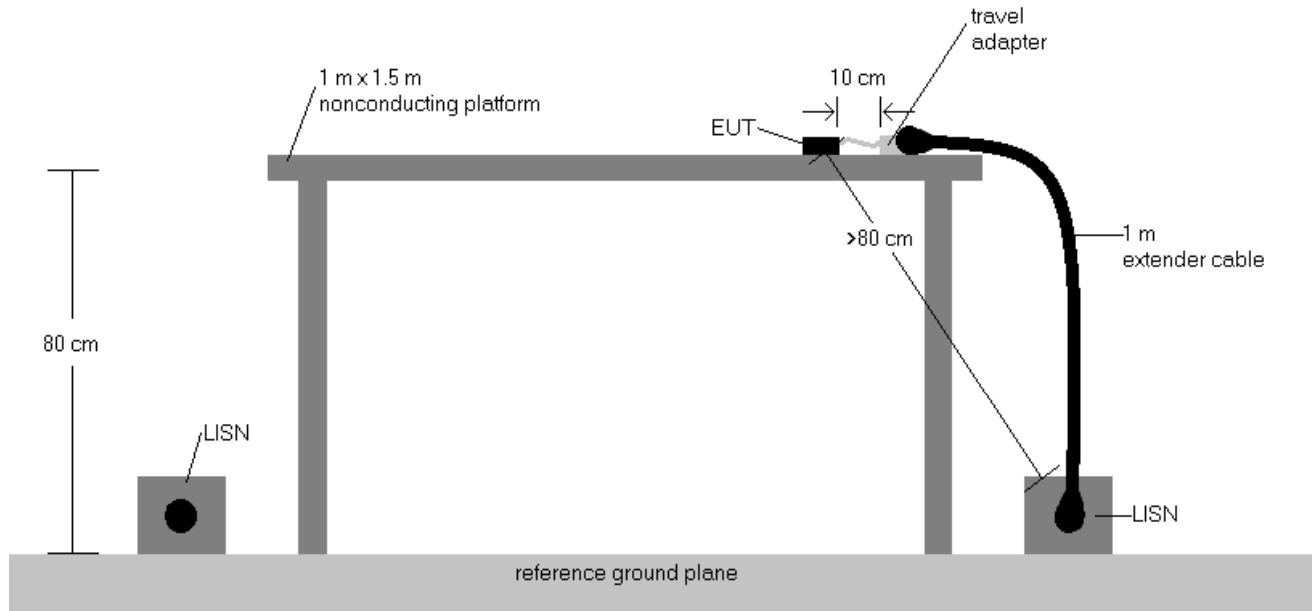
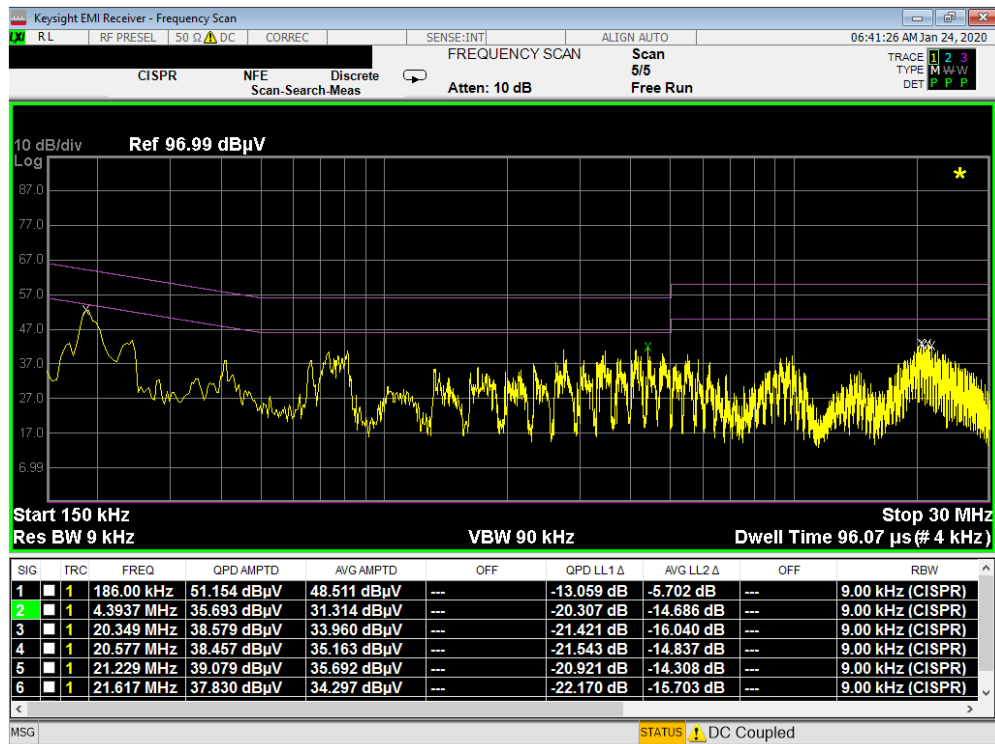


Figure 7-6. Test Instrument & Measurement Setup

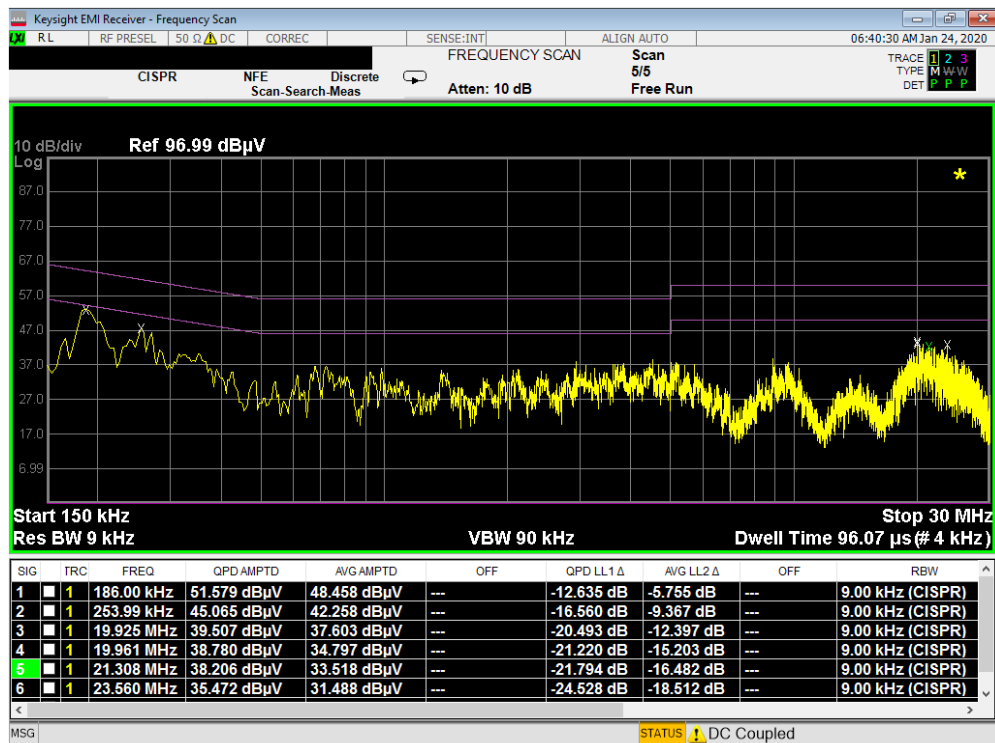
Test Notes

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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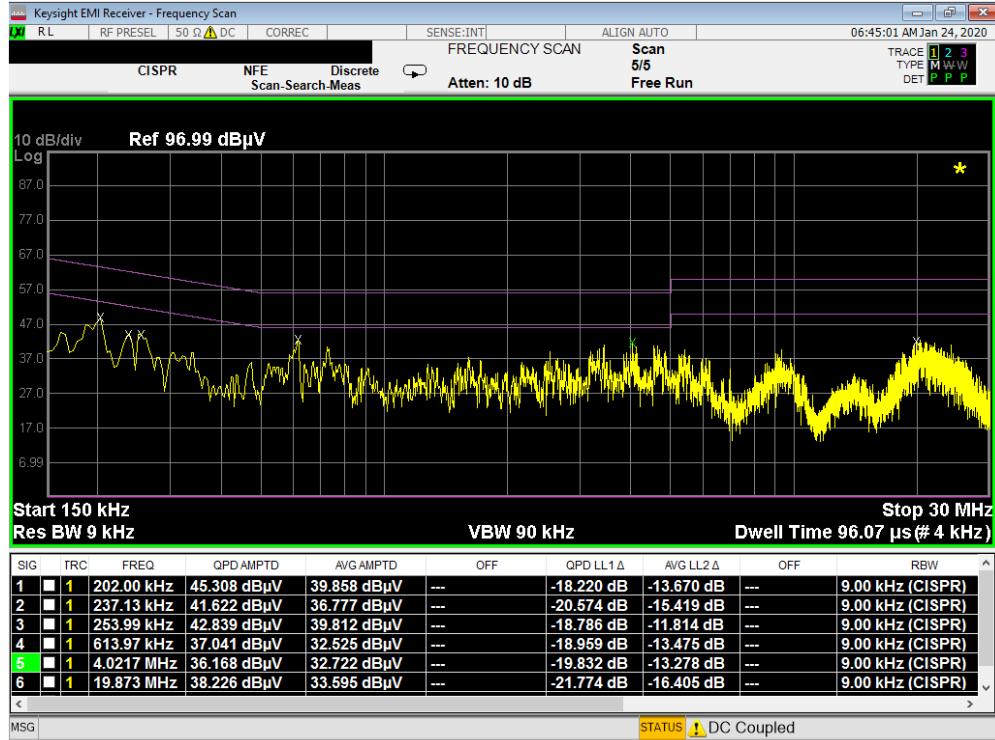


Plot 7-106. Line Conducted Plot with 802.11a UNII Band 1 (L1)

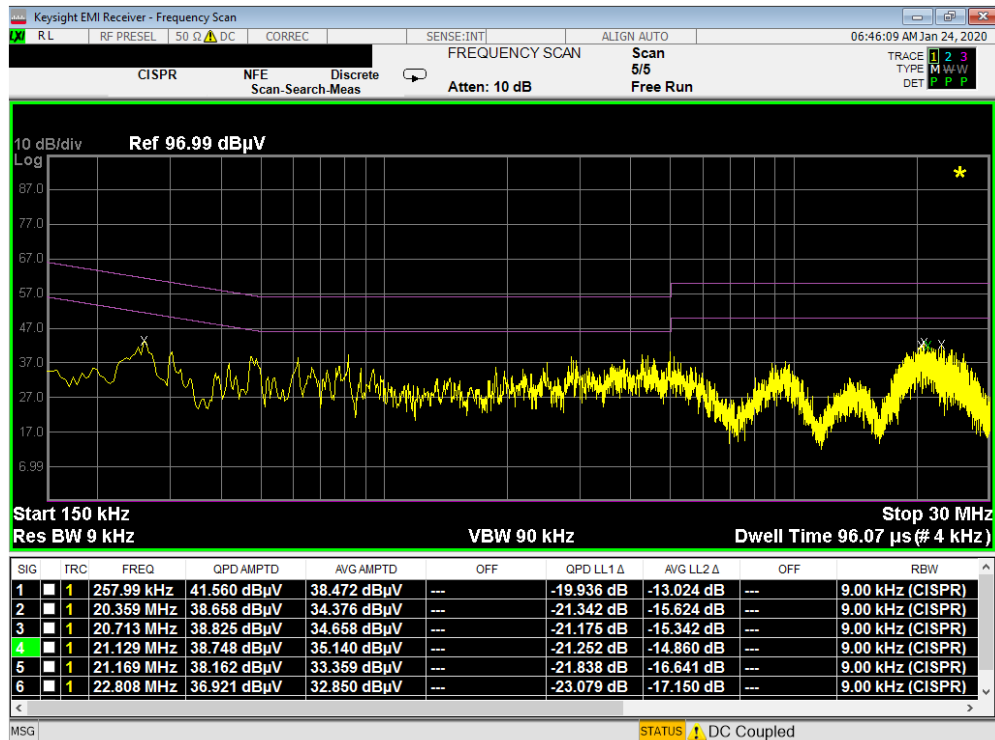


Plot 7-107. Line Conducted Plot with 802.11a UNII Band 1 (N)

FCC ID: ZNFQ730TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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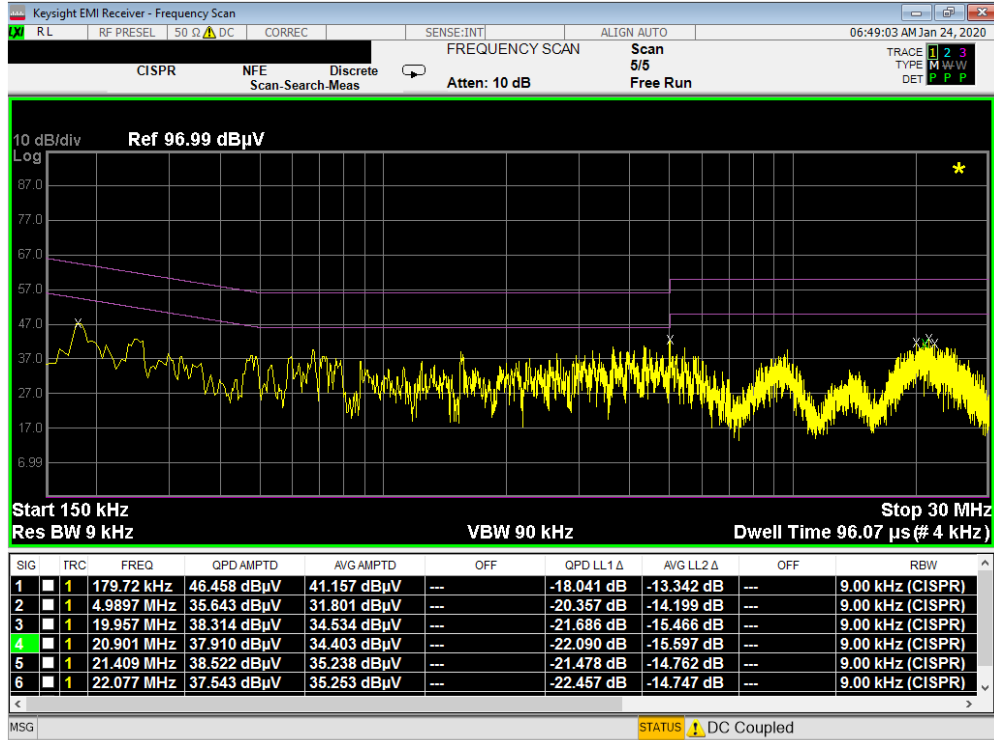


Plot 7-108. Line Conducted Plot with 802.11a UNII Band 2A (L1)

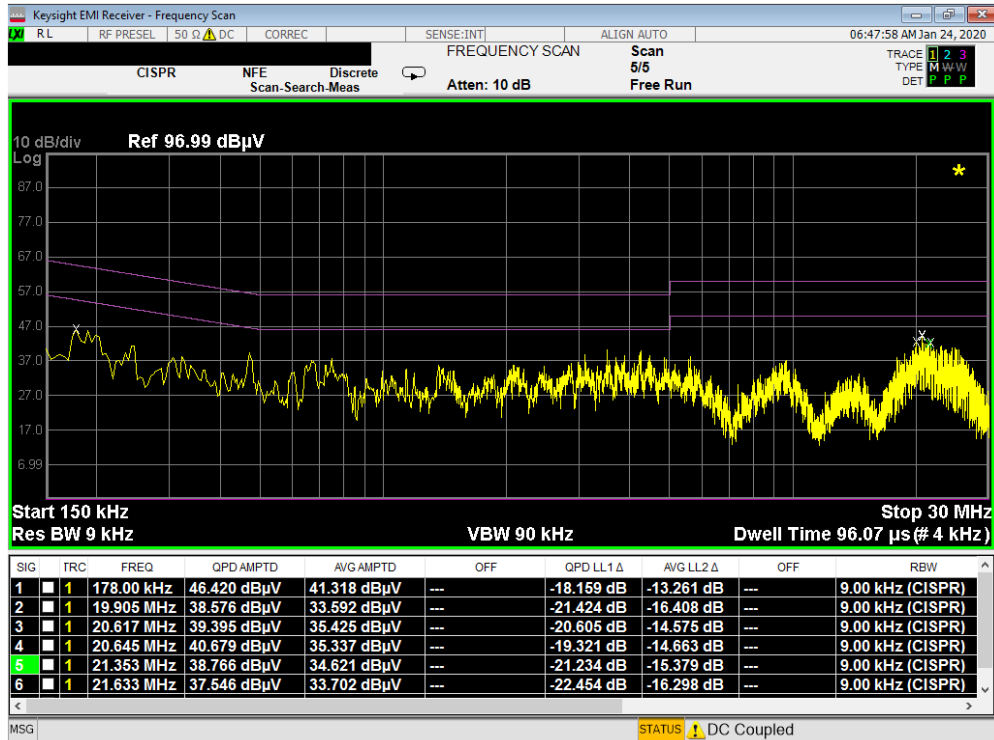


Plot 7-109. Line Conducted Plot with 802.11a UNII Band 2A (N)

FCC ID: ZNFQ730TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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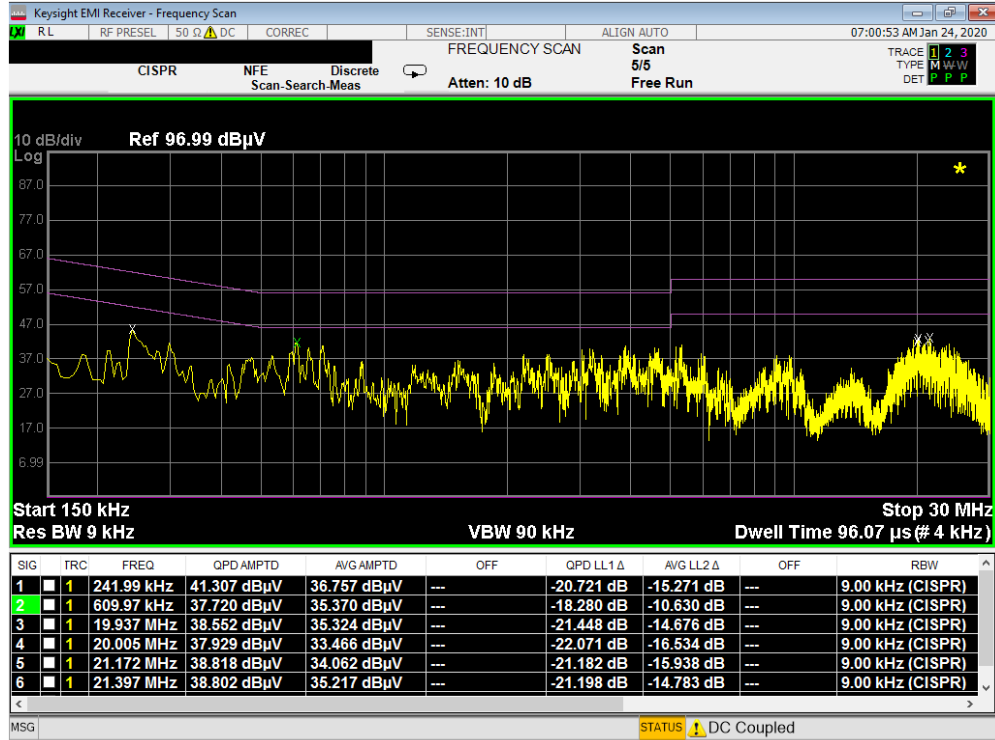


Plot 7-110. Line Conducted Plot with 802.11a UNII Band 2C (L1)

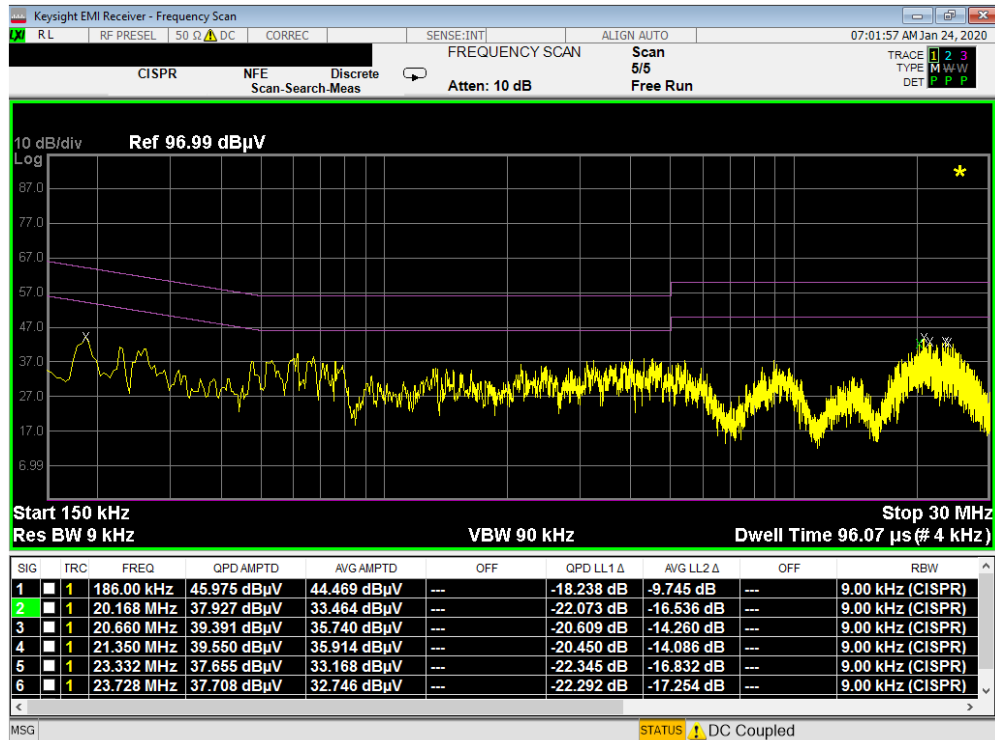


Plot 7-111. Line Conducted Plot with 802.11a UNII Band 2C (N)

FCC ID: ZNFQ730TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-112. Line Conducted Plot with 802.11a UNII Band 3 (L1)



Plot 7-113. Line Conducted Plot with 802.11a UNII Band 3 (N)

FCC ID: ZNFQ730TM	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
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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: ZNFQ730TM** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules.

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