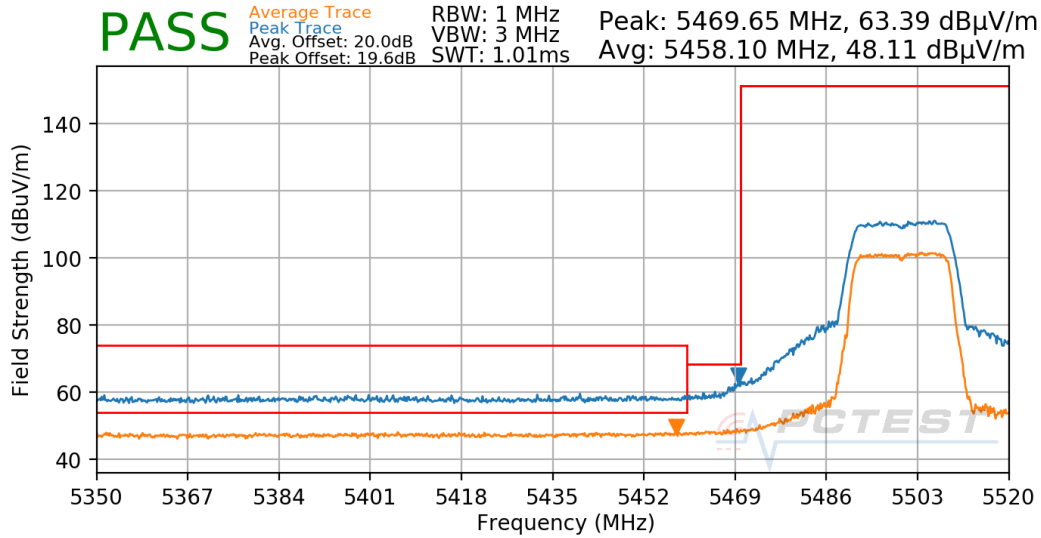
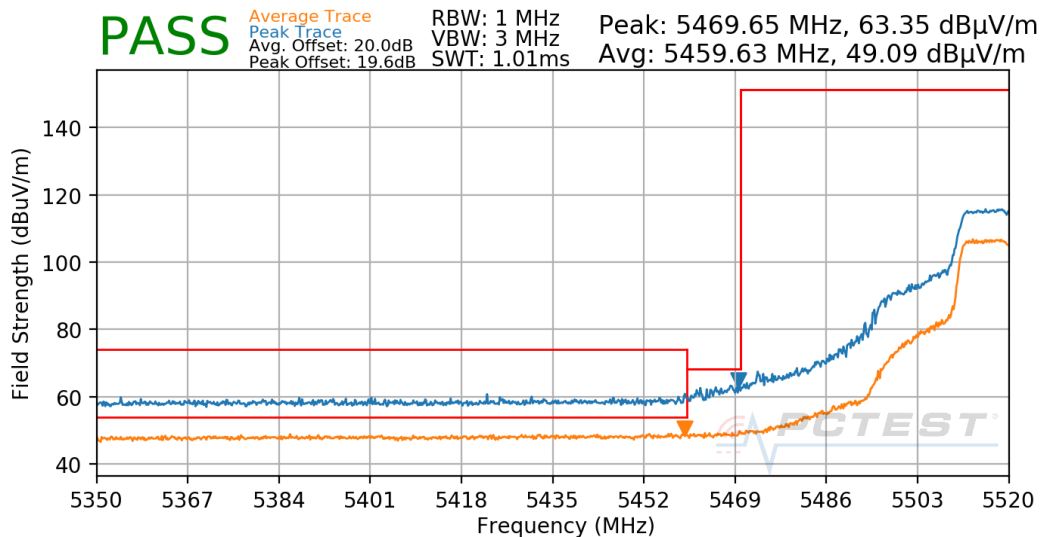


Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5500MHz
Channel: 100



Plot 7-242. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 2C)

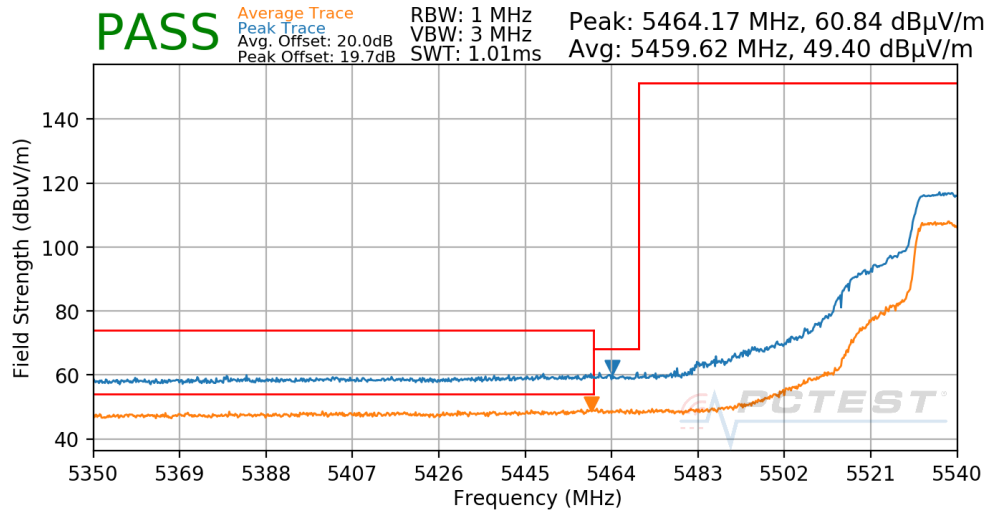
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5520MHz
Channel: 104



Plot 7-243. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 2C)

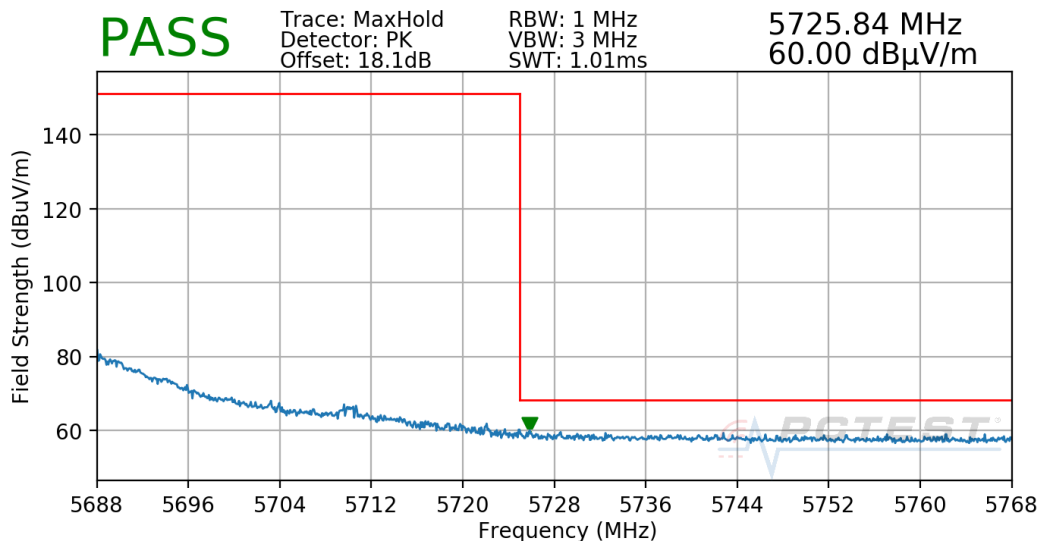
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 175 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5540MHz
Channel: 108



Plot 7-244. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 2C)

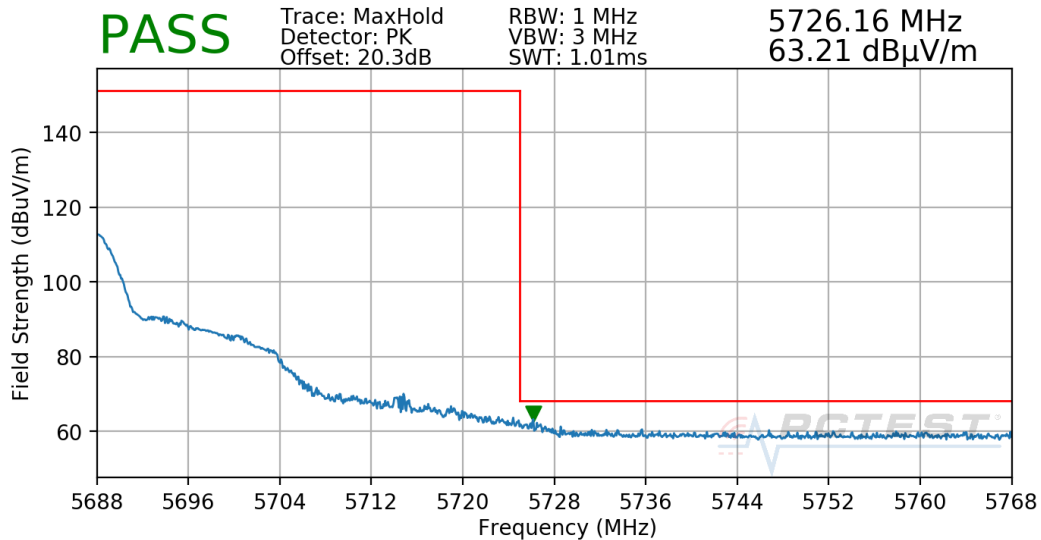
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5660MHz
Channel: 132



Plot 7-245. Radiated Upper Band Edge Plot ANT WF7a (Peak – UNII Band 2C)

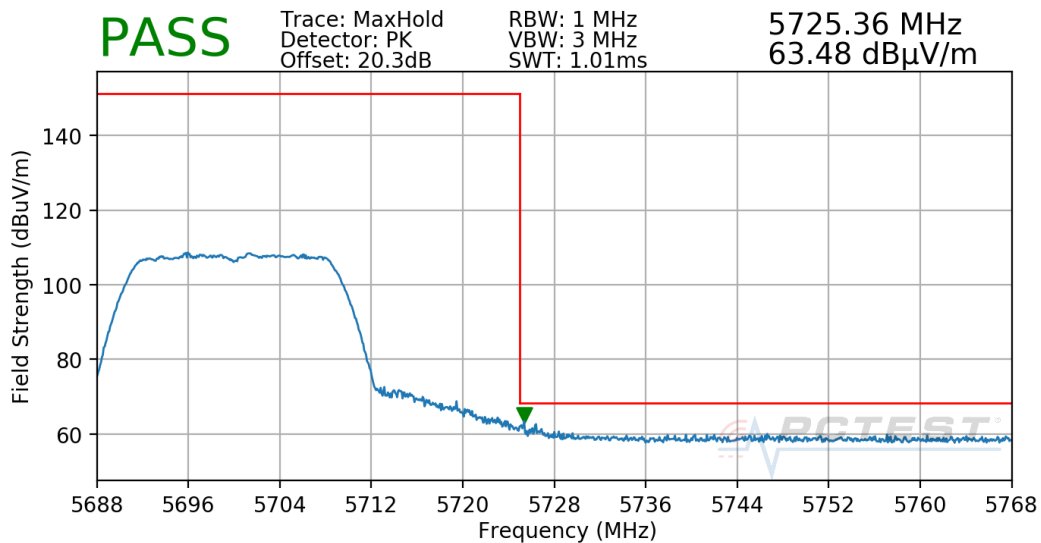
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 176 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5680MHz
Channel: 136



Plot 7-246. Radiated Upper Band Edge Plot ANT WF7a (Peak – UNII Band 2C)

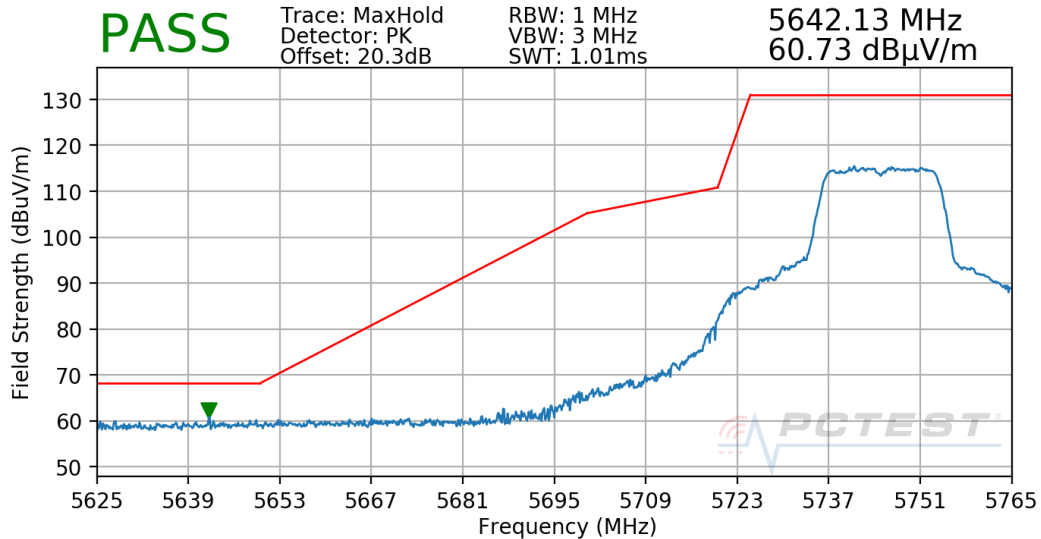
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5700MHz
Channel: 140



Plot 7-247. Radiated Upper Band Edge Plot ANT WF7a (Peak – UNII Band 2C)

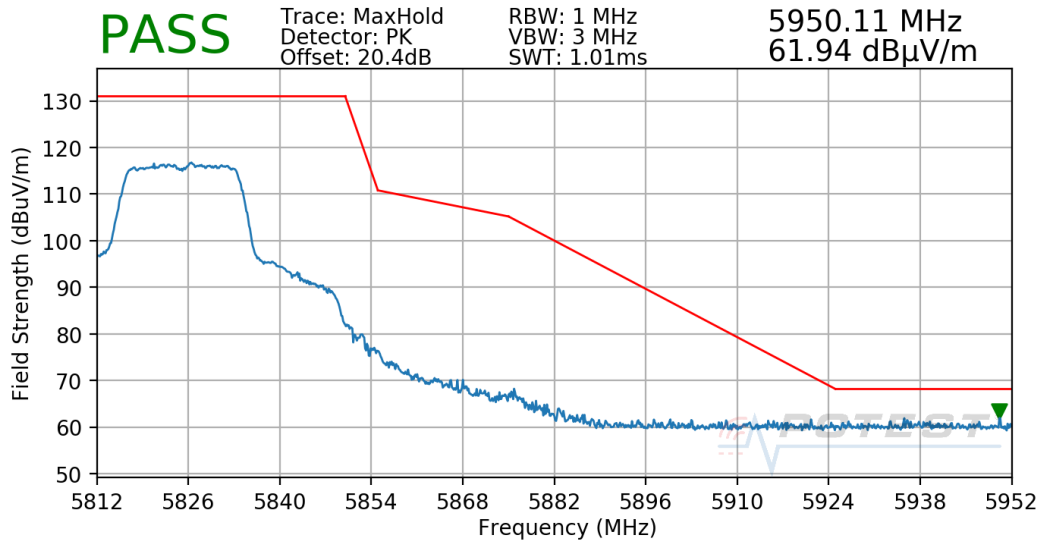
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 177 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5745MHz
Channel: 149



Plot 7-248. Radiated Lower Band Edge Plot ANT WF7a (Peak – UNII Band 3)

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5825MHz
Channel: 165



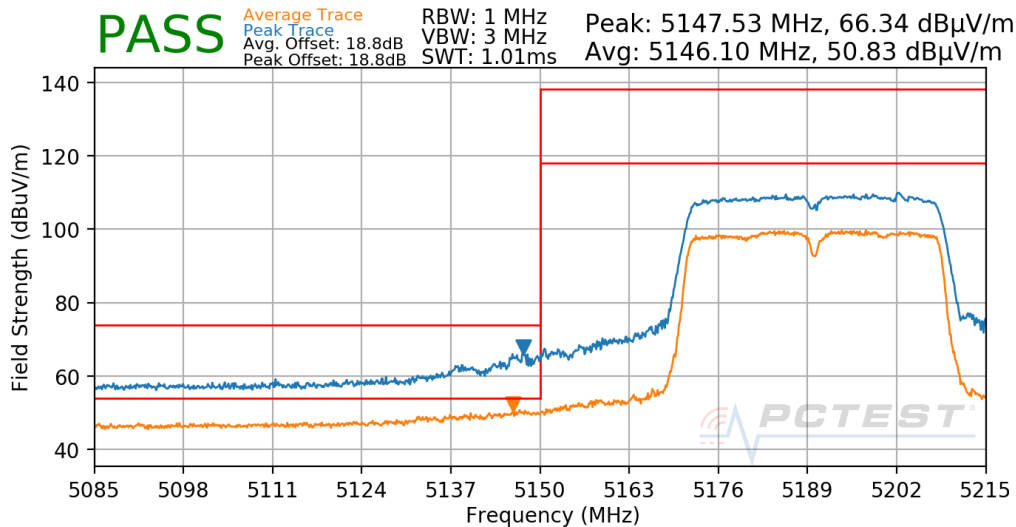
Plot 7-249. Radiated Upper Band Edge Plot ANT WF7a (Peak – UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 178 of 208

7.6.8 Antenna WF7a Radiated Band Edge Measurements (40MHz BW)

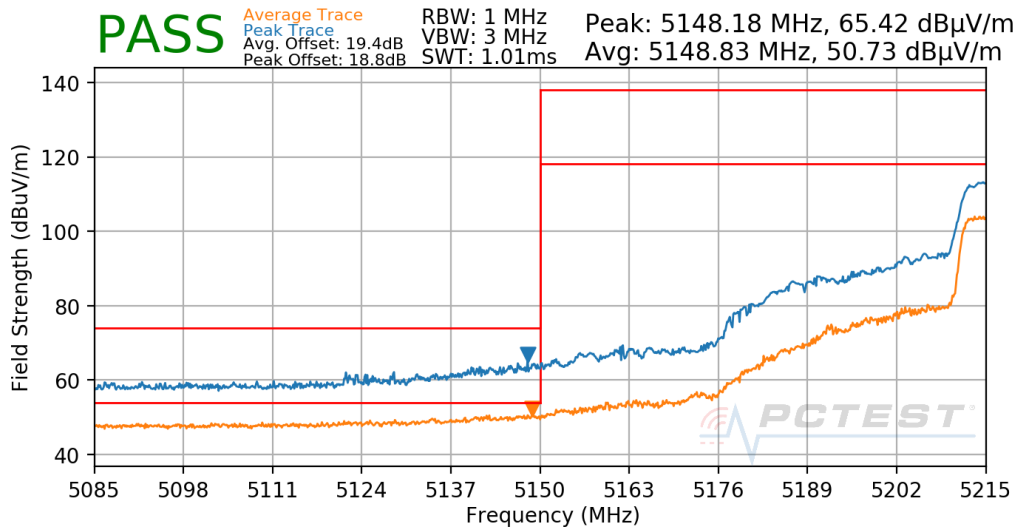
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS7
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38



Plot 7-250. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 1)

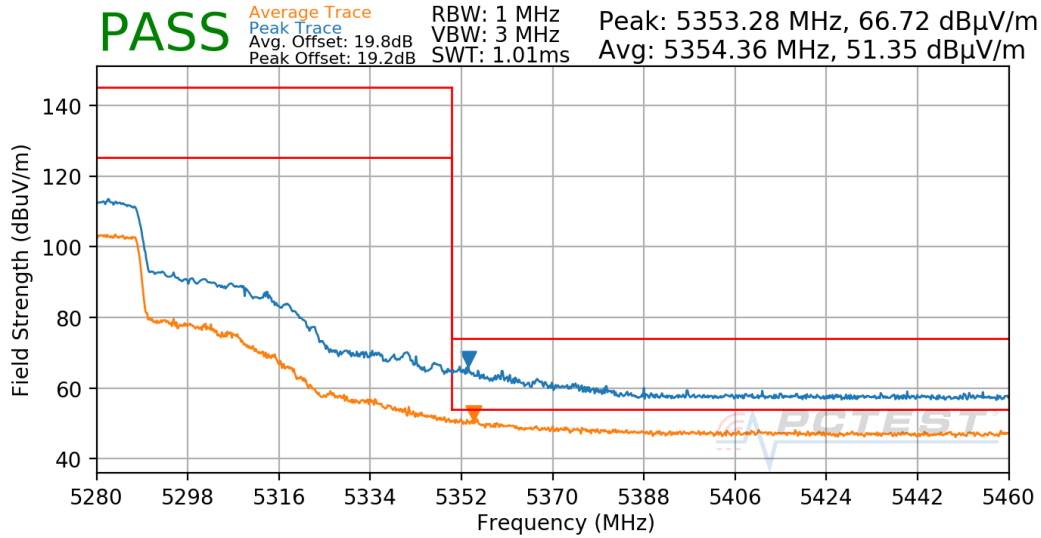
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS7
Distance of Measurements:	3 Meters
Operating Frequency:	5230MHz
Channel:	46



Plot 7-251. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 1)

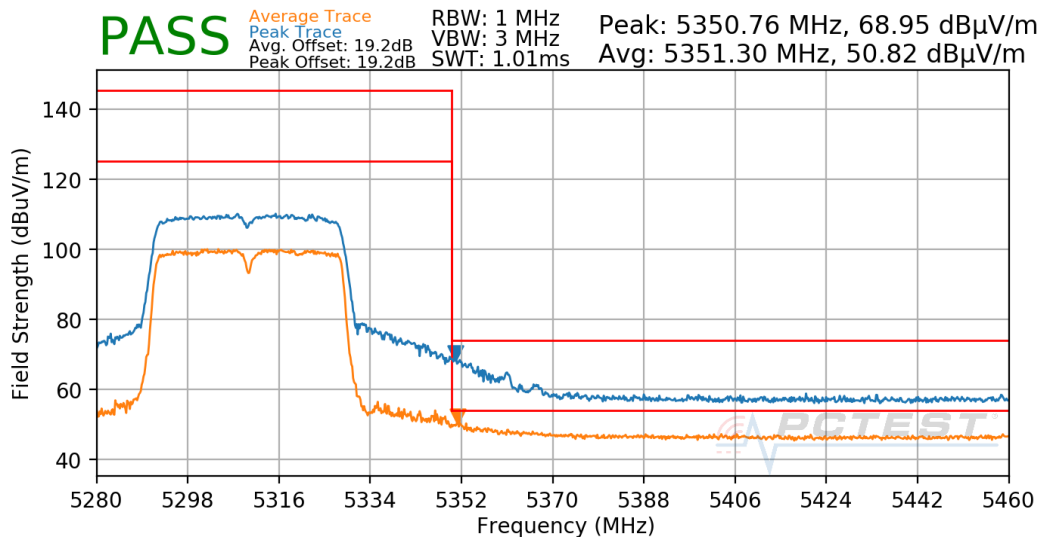
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 179 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5270MHz
Channel: 54



Plot 7-252. Radiated Upper Band Edge Plot ANT WF7a (UNII Band 2A)

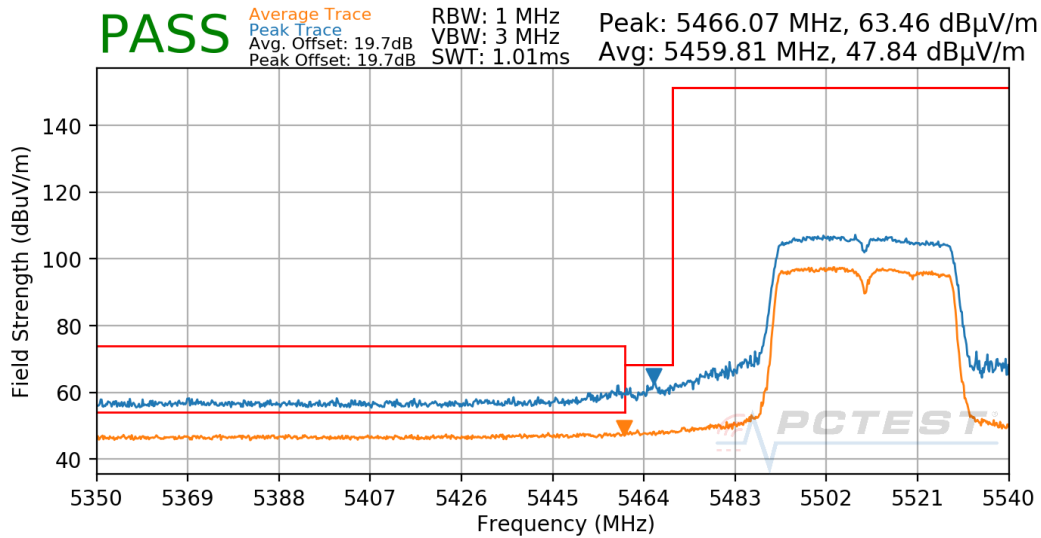
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5310MHz
Channel: 62



Plot 7-253. Radiated Upper Band Edge Plot ANT WF7a (UNII Band 2A)

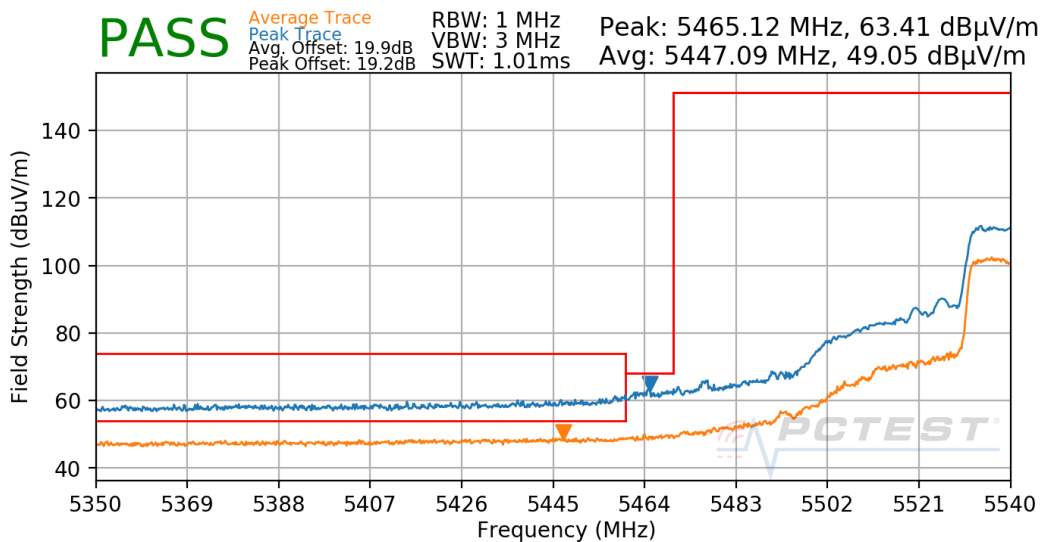
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 180 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5510MHz
Channel: 102



Plot 7-254. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 2C)

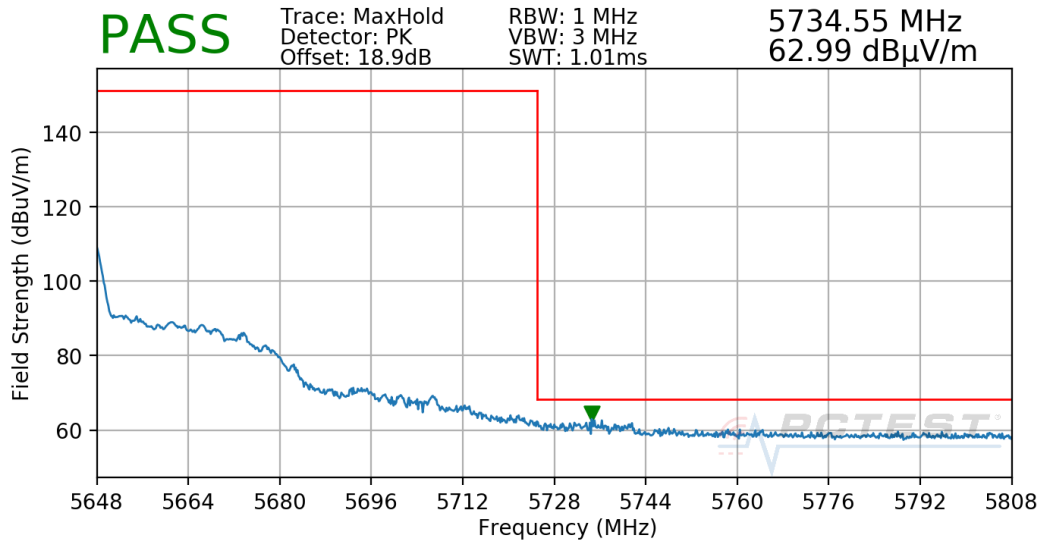
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5550MHz
Channel: 110



Plot 7-255. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 2C)

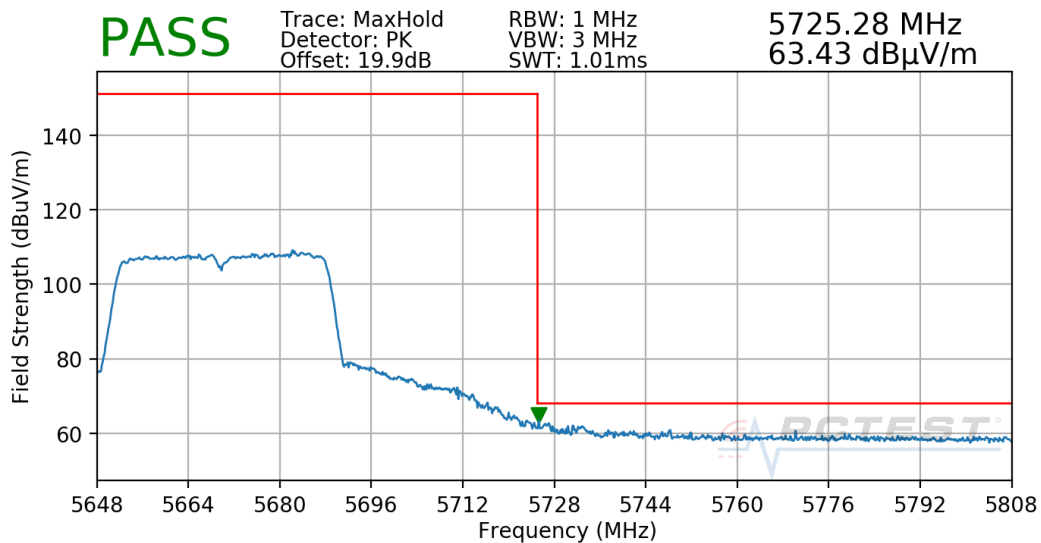
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 181 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5630MHz
Channel: 126



Plot 7-256. Radiated Upper Band Edge Plot ANT WF7a (Peak - UNII Band 2C)

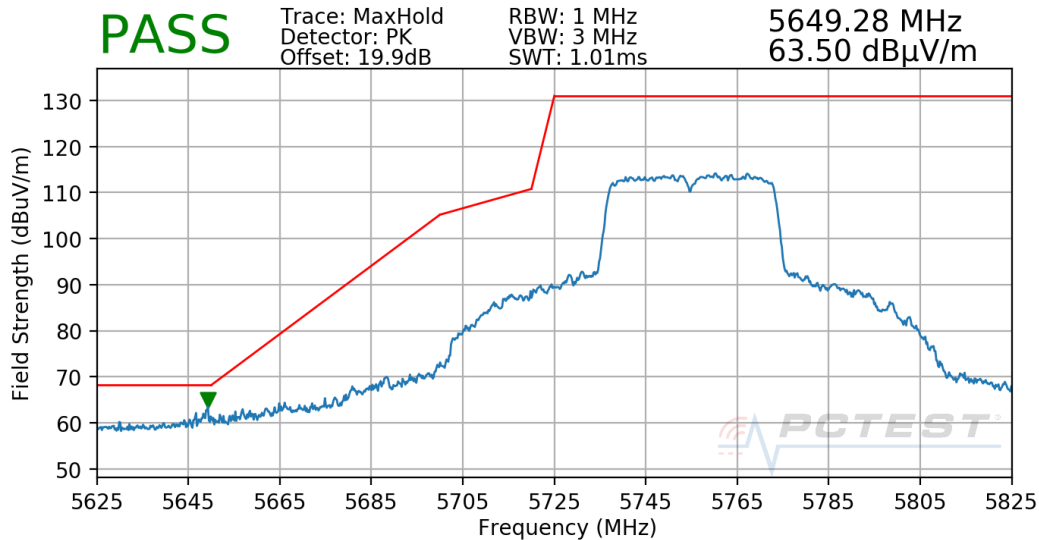
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5670MHz
Channel: 134



Plot 7-257. Radiated Upper Band Edge Plot ANT WF7a (Peak - UNII Band 2C)

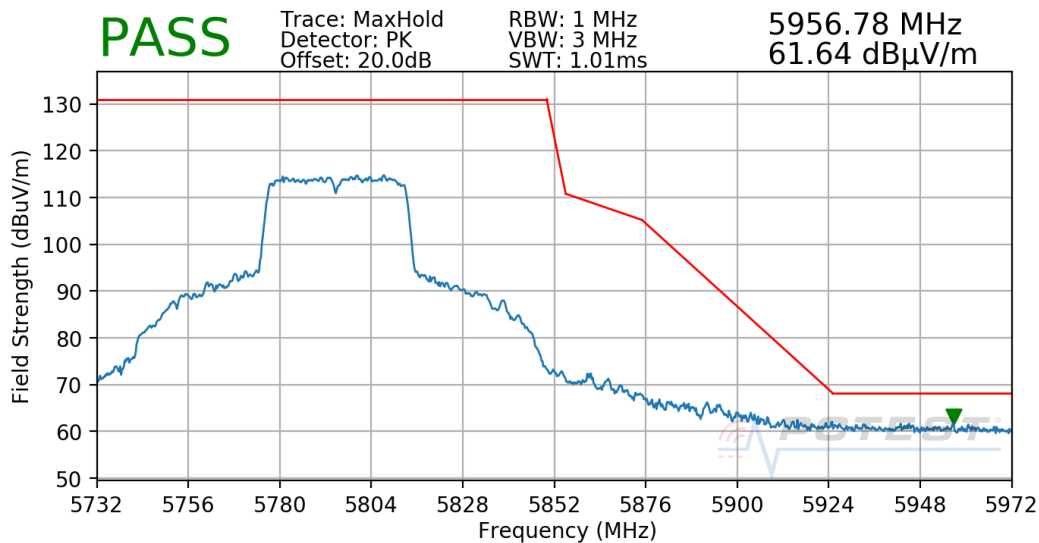
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 182 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5755MHz
Channel: 151



Plot 7-258. Radiated Lower Band Edge Plot ANT WF7a (Peak – UNII Band 3)

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS7
Distance of Measurements: 3 Meters
Operating Frequency: 5795MHz
Channel: 159



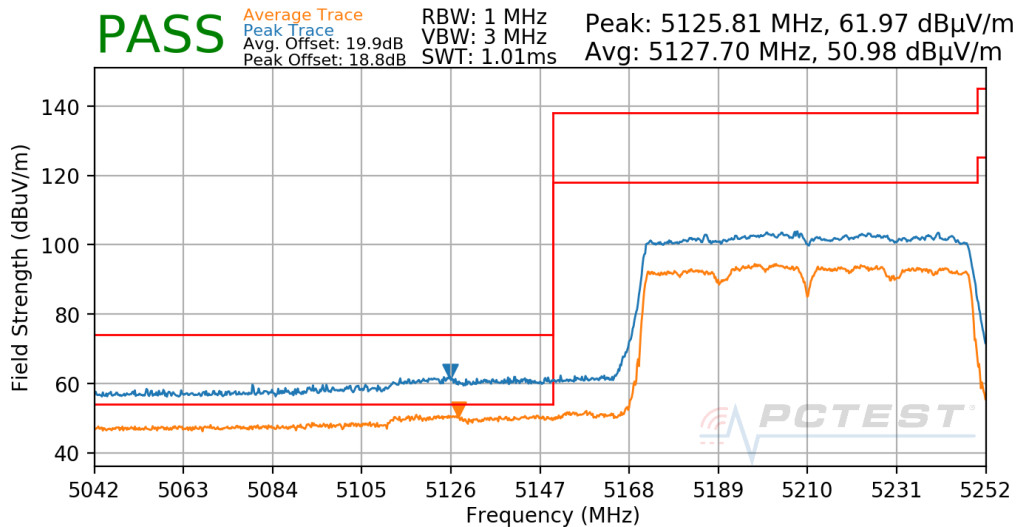
Plot 7-259. Radiated Upper Band Edge Plot ANT WF7a (Peak – UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 183 of 208

7.6.9 Antenna WF7a Radiated Band Edge Measurements (80MHz BW)

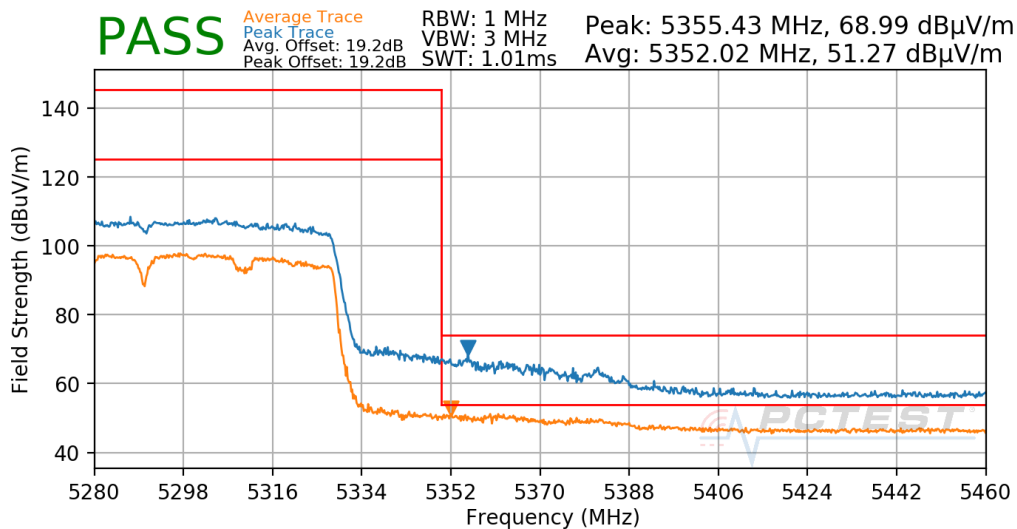
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS9
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42



Plot 7-260. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 1)

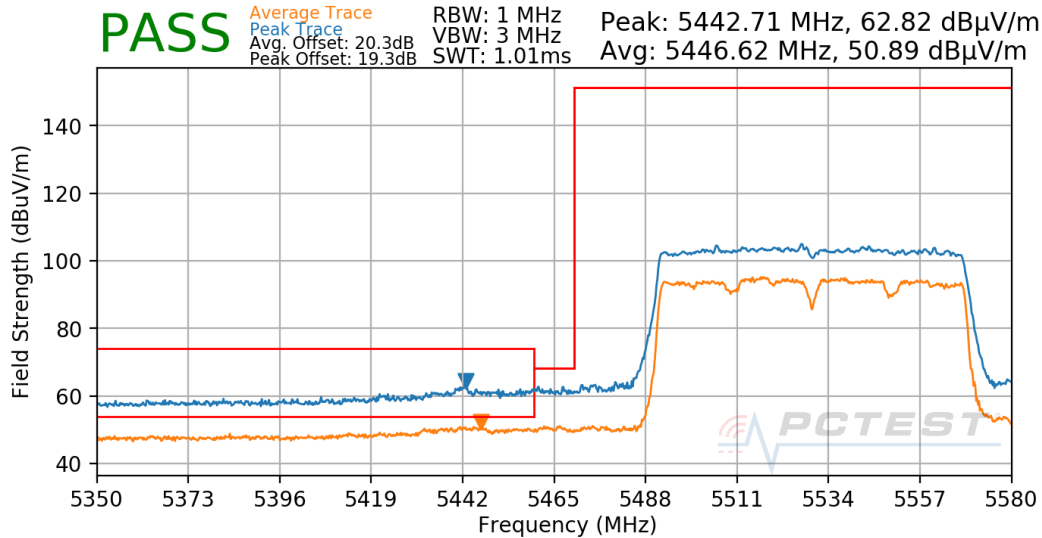
Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS9
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



Plot 7-261. Radiated Upper Band Edge Plot ANT WF7a (UNII Band 2A)

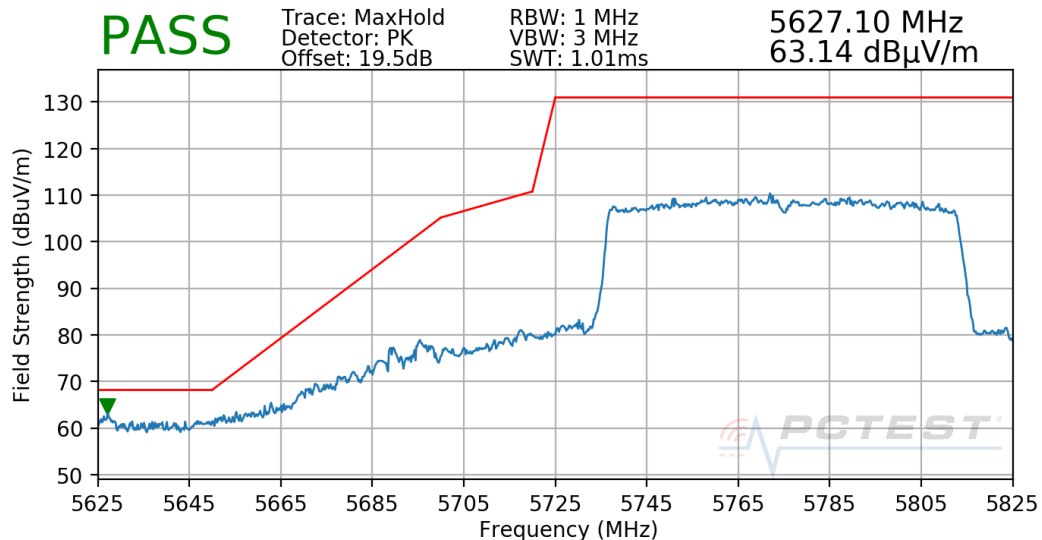
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 184 of 208

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS9
Distance of Measurements: 3 Meters
Operating Frequency: 5530MHz
Channel: 106



Plot 7-262. Radiated Lower Band Edge Plot ANT WF7a (UNII Band 2C)

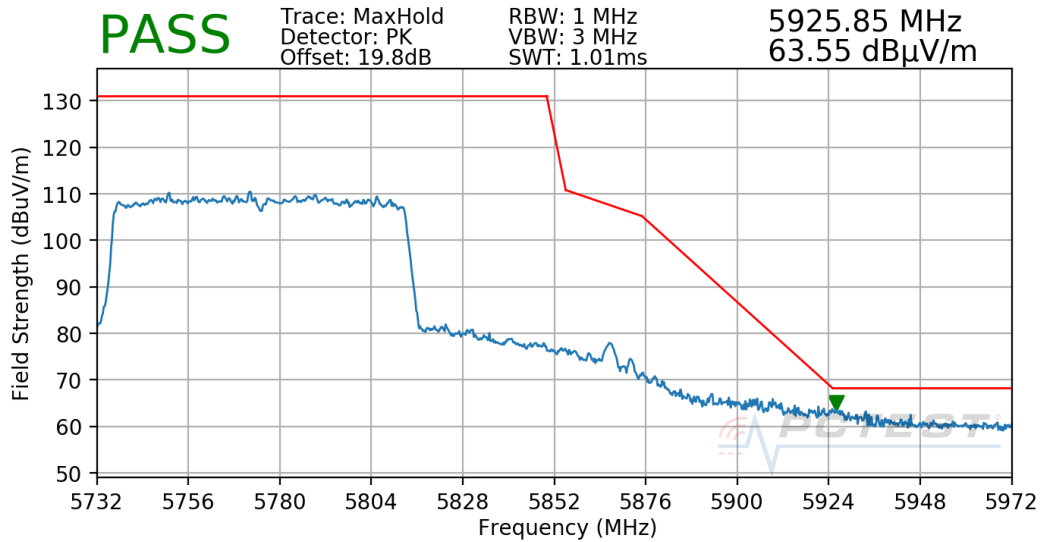
Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS9
Distance of Measurements: 3 Meters
Operating Frequency: 5775MHz
Channel: 155



Plot 7-263. Radiated Lower Band Edge Plot ANT WF7a (Peak - UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 185 of 208

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS9
Distance of Measurements: 3 Meters
Operating Frequency: 5775MHz
Channel: 155



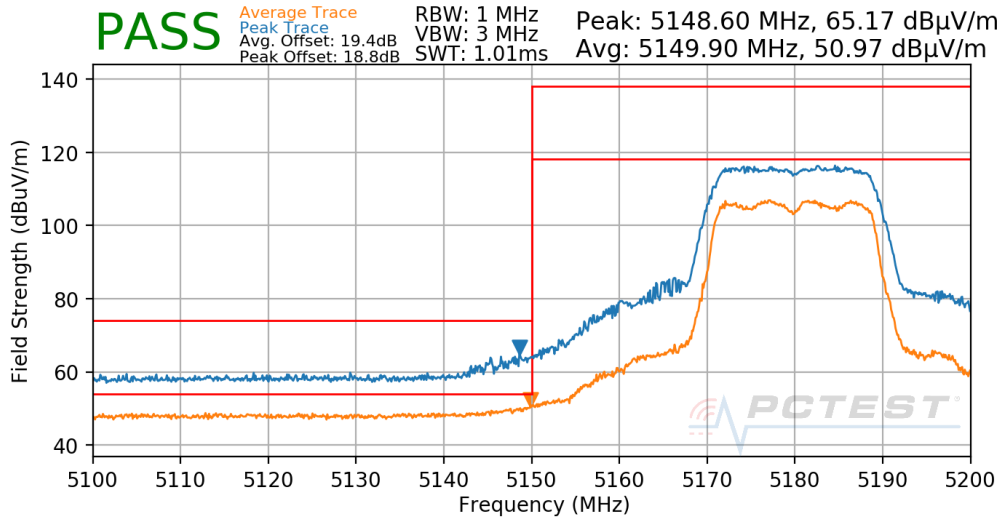
Plot 7-264. Radiated Upper Band Edge Plot ANT WF7a (Peak – UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 186 of 208

7.6.10 CDD/SDM Radiated Band Edge Measurements (20MHz BW)

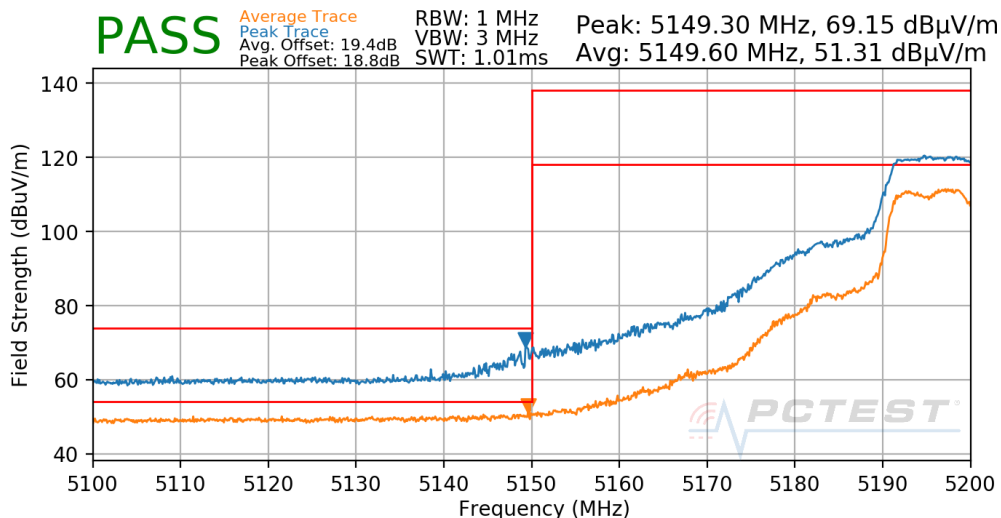
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS15
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36



Plot 7-265. Radiated Lower Band Edge Plot CDD (UNII Band 1)

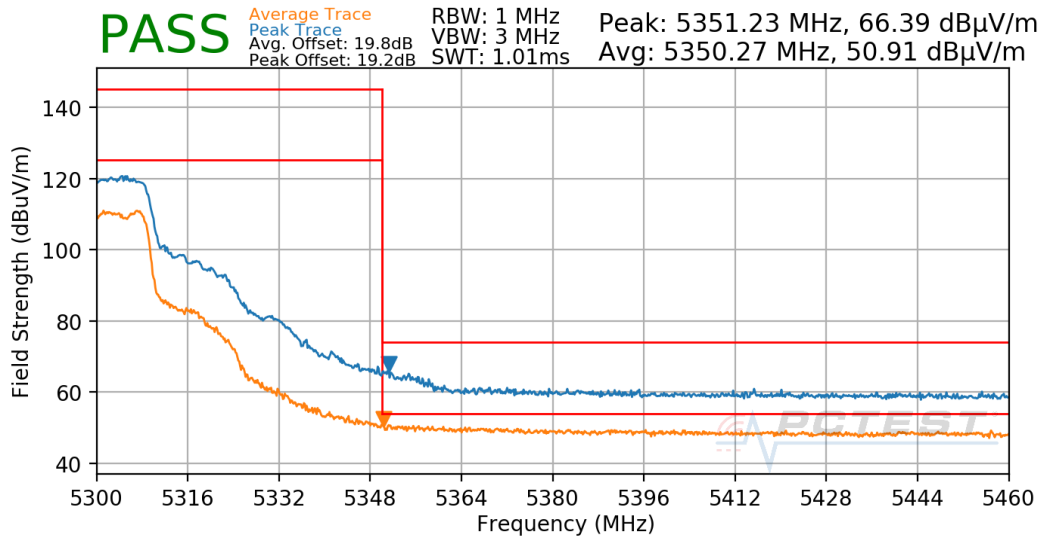
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS15
Distance of Measurements:	3 Meters
Operating Frequency:	5200MHz
Channel:	40



Plot 7-266. Radiated Lower Band Edge Plot CDD (UNII Band 1)

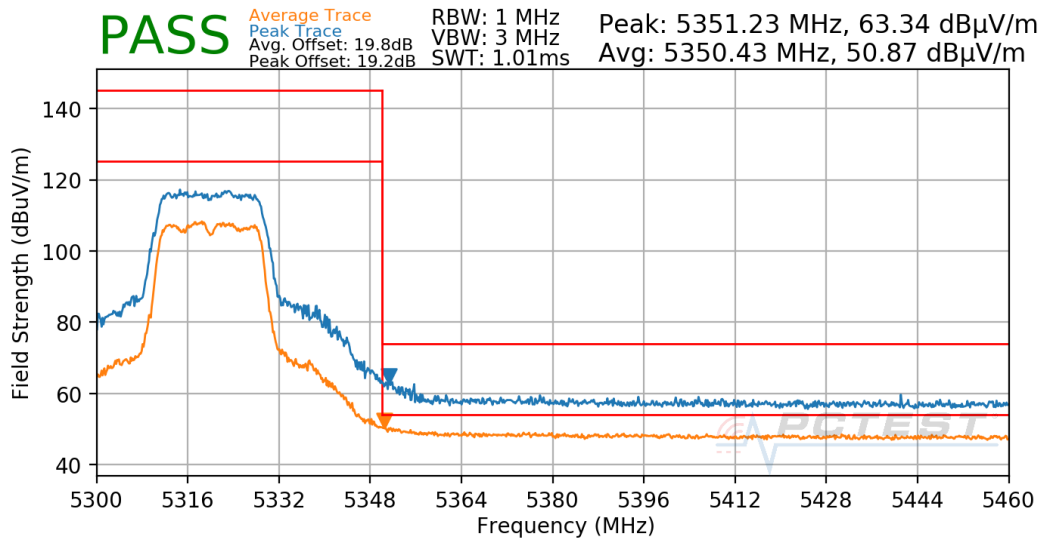
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 187 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS8
Distance of Measurements: 3 Meters
Operating Frequency: 5300MHz
Channel: 60



Plot 7-267. Radiated Upper Band Edge Plot SDM (UNII Band 2A)

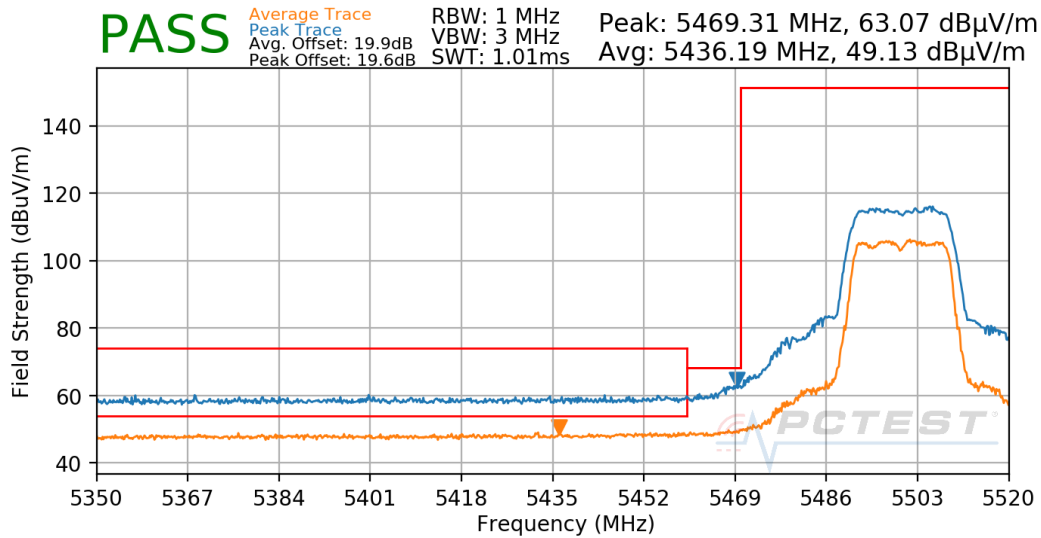
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5320MHz
Channel: 64



Plot 7-268. Radiated Upper Band Edge Plot CDD (UNII Band 2A)

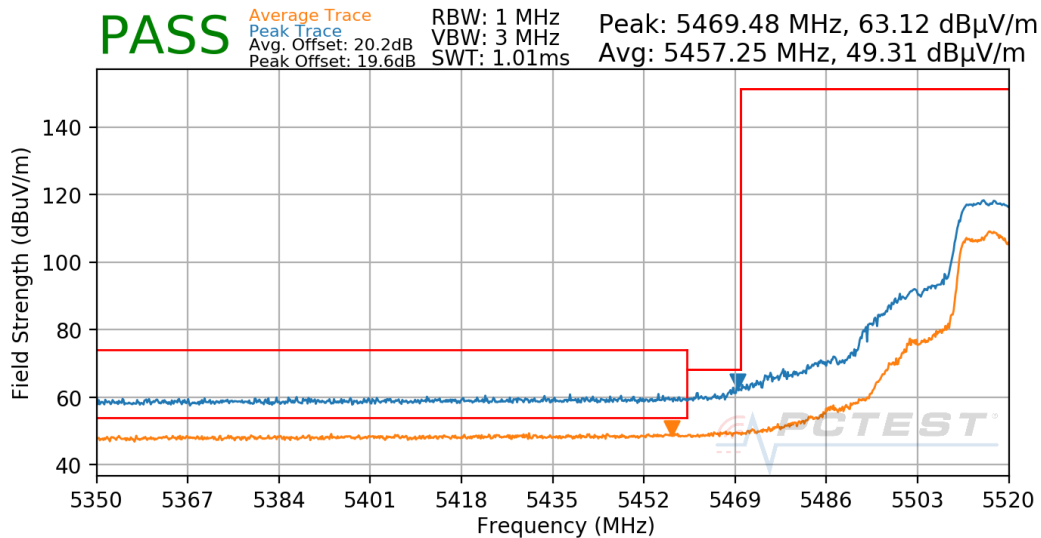
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 188 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5500MHz
Channel: 100



Plot 7-269. Radiated Lower Band Edge Plot CDD (UNII Band 2C)

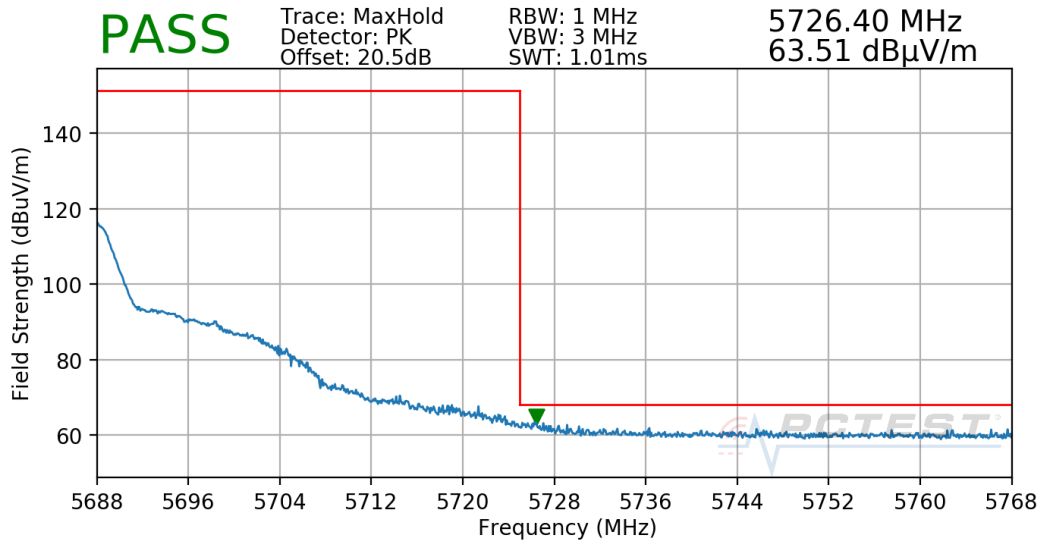
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS8
Distance of Measurements: 3 Meters
Operating Frequency: 5520MHz
Channel: 104



Plot 7-270. Radiated Lower Band Edge Plot SDM (UNII Band 2C)

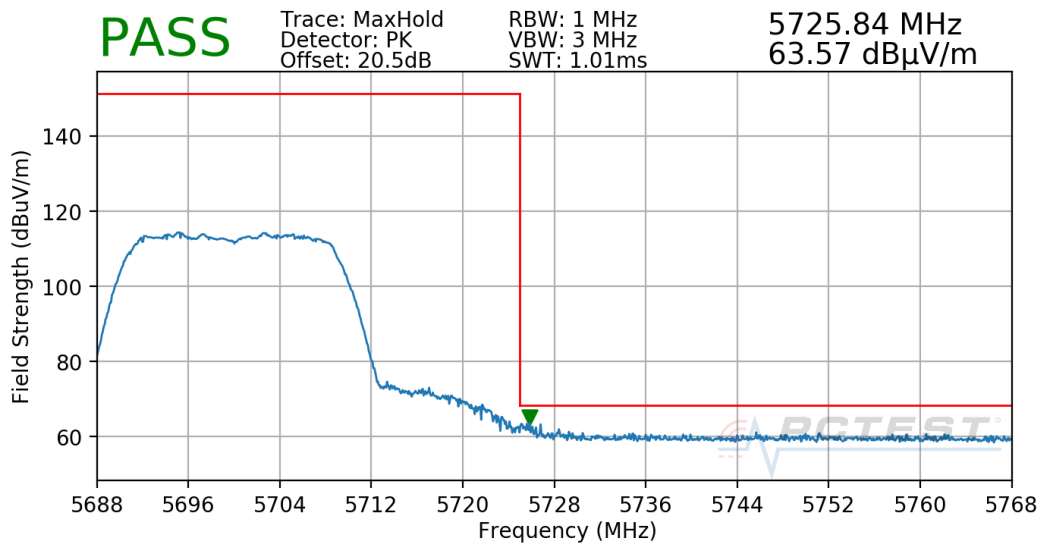
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 189 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS8
Distance of Measurements: 3 Meters
Operating Frequency: 5580MHz
Channel: 136



Plot 7-271. Radiated Upper Band Edge Plot SDM (Peak - UNII Band 2C)

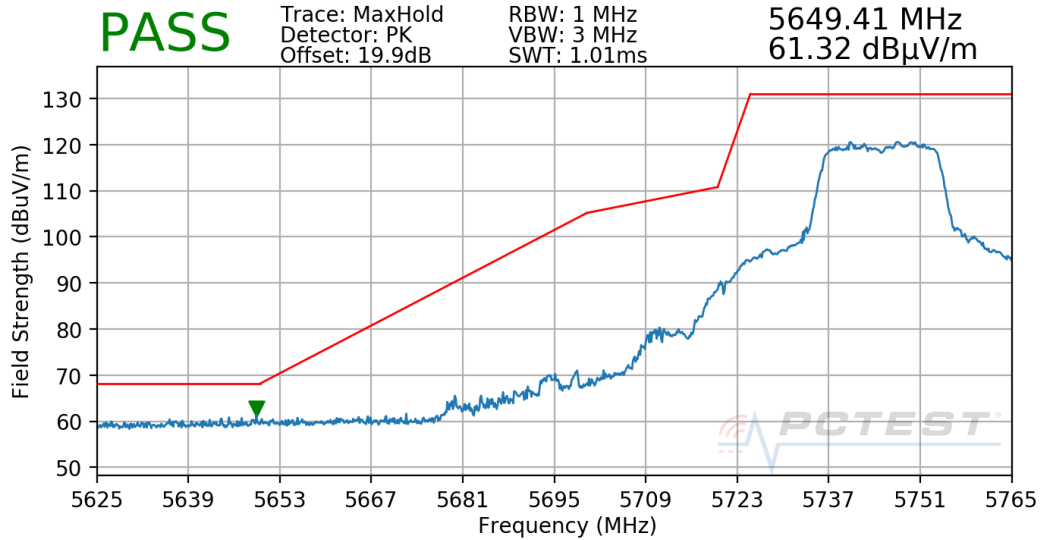
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5700MHz
Channel: 140



Plot 7-272. Radiated Upper Band Edge Plot CDD (Peak - UNII Band 2C)

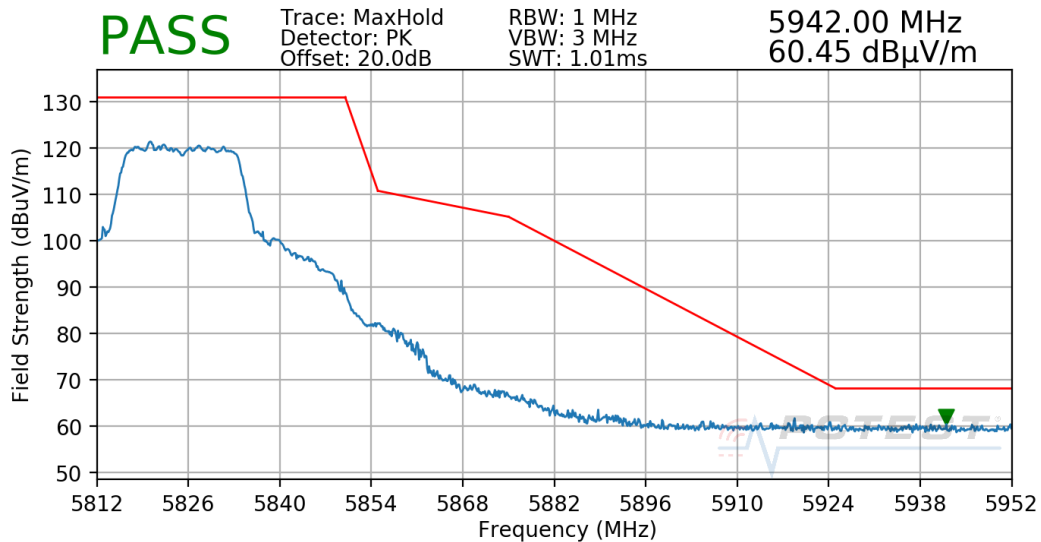
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 190 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5745MHz
Channel: 149



Plot 7-273. Radiated Lower Band Edge Plot CDD (Peak - UNII Band 3)

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5825MHz
Channel: 165



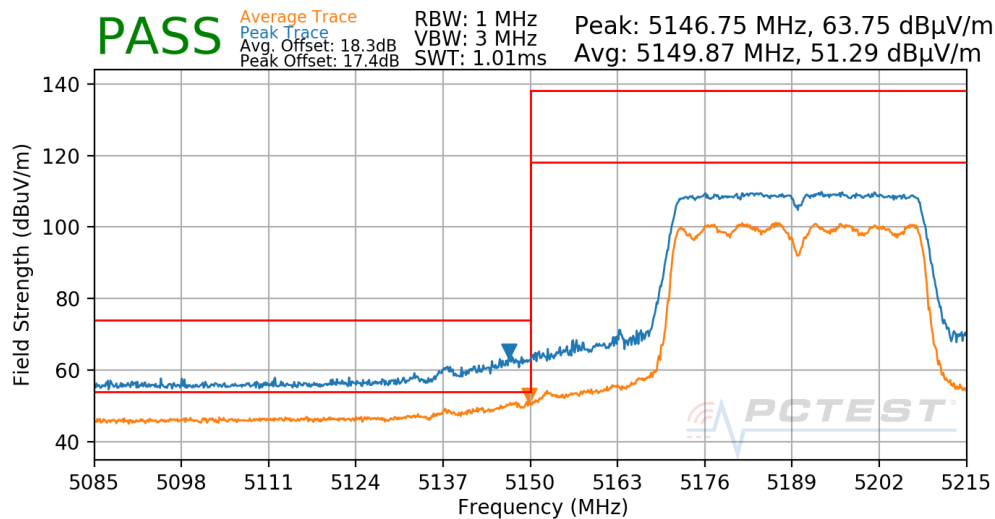
Plot 7-274. Radiated Upper Band Edge Plot CDD (Peak - UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 191 of 208

7.6.11 CDD/SDM Radiated Band Edge Measurements (40MHz BW)

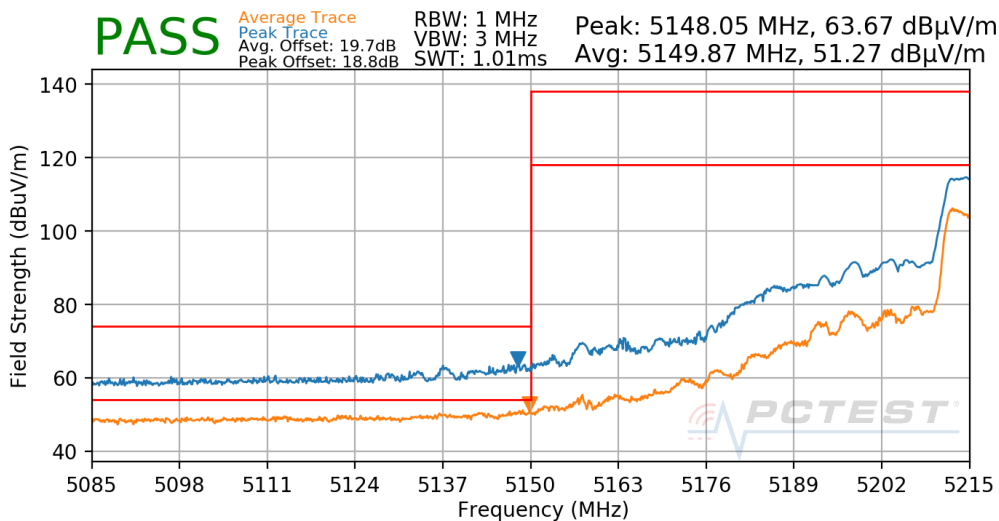
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS15
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38



Plot 7-275. Radiated Lower Band Edge Plot CDD (UNII Band 1)

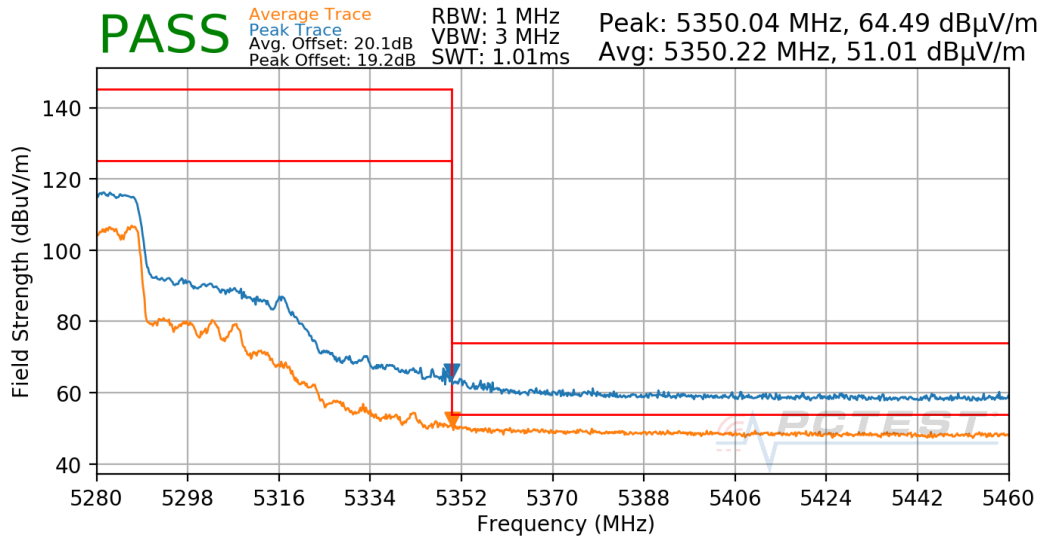
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS15
Distance of Measurements:	3 Meters
Operating Frequency:	5230MHz
Channel:	46



Plot 7-276. Radiated Lower Band Edge Plot CDD (UNII Band 1)

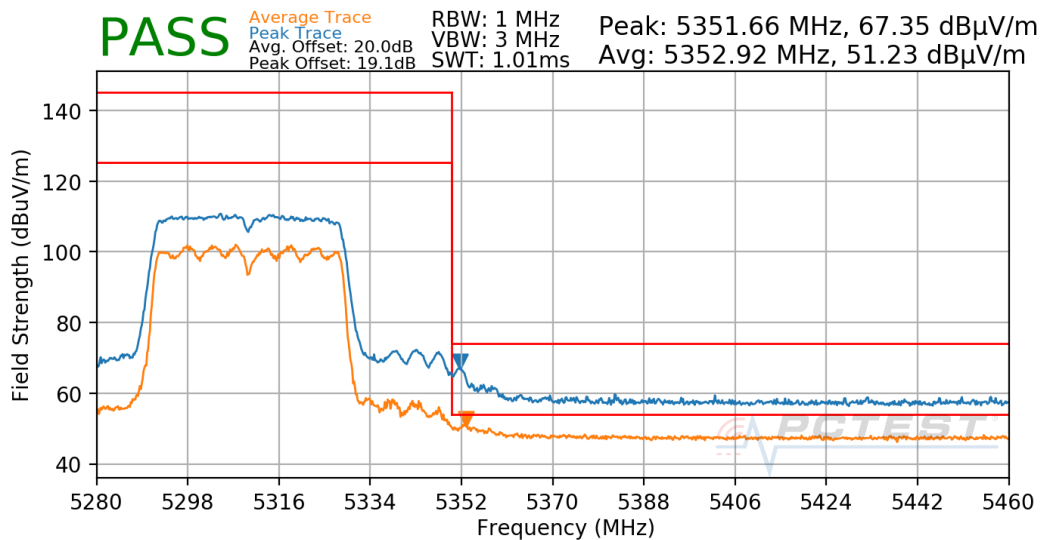
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 192 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5270MHz
Channel: 54



Plot 7-277. Radiated Upper Band Edge Plot CDD (UNII Band 2A)

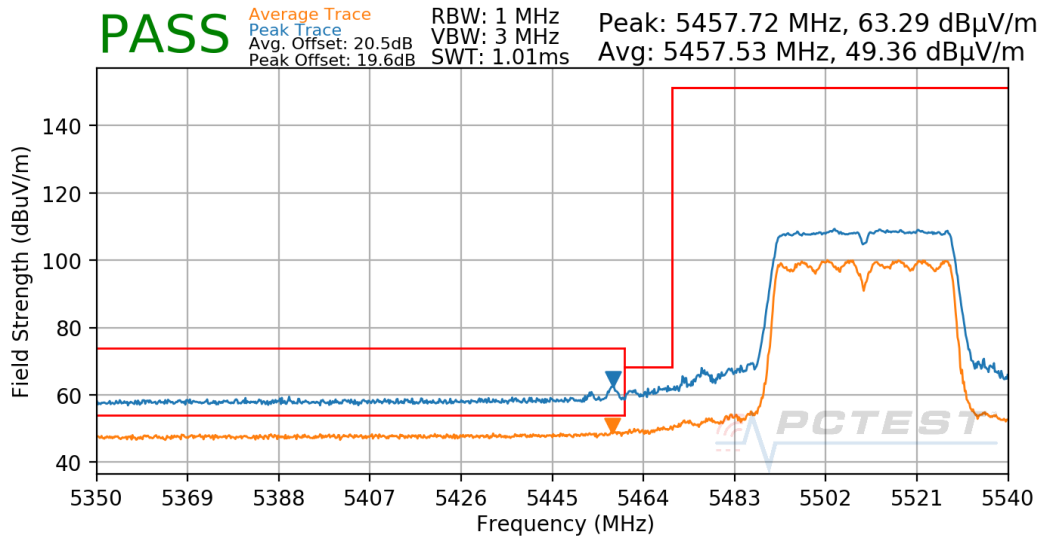
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5310MHz
Channel: 62



Plot 7-278. Radiated Upper Band Edge Plot CDD (UNII Band 2A)

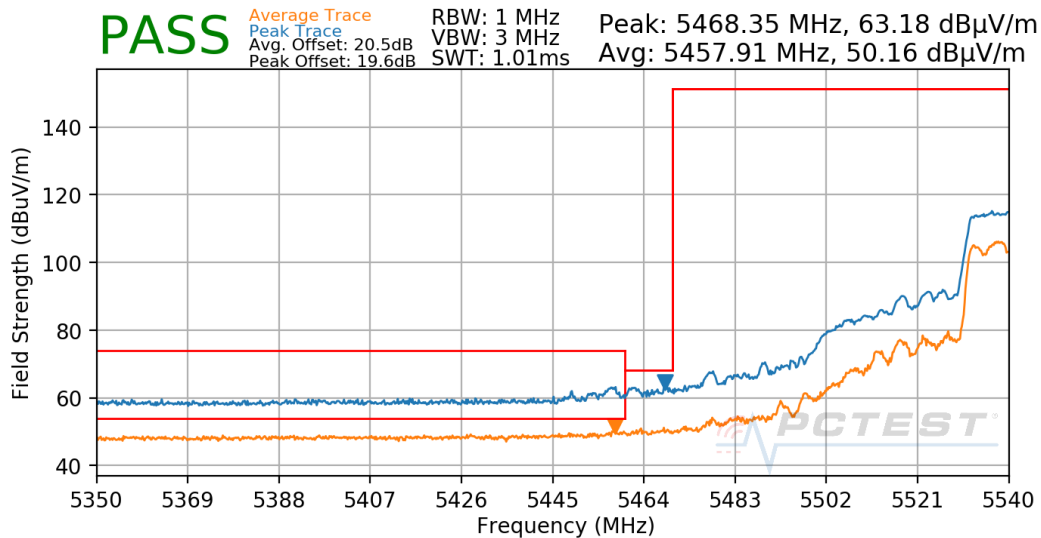
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 193 of 208

Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5510MHz
Channel: 102



Plot 7-279. Radiated Lower Band Edge Plot CDD (UNII Band 2C)

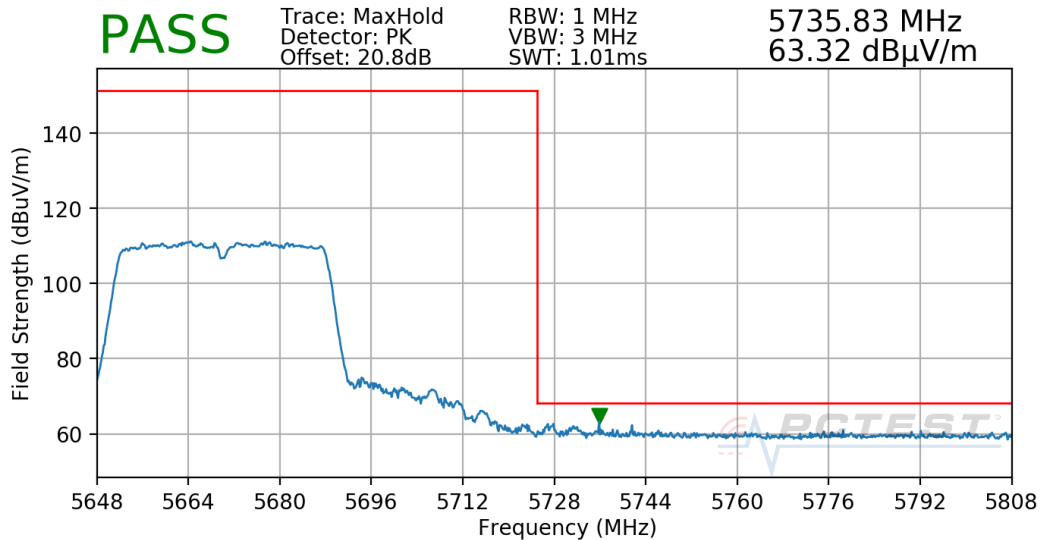
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5550MHz
Channel: 110



Plot 7-280. Radiated Lower Band Edge Plot CDD (UNII Band 2C)

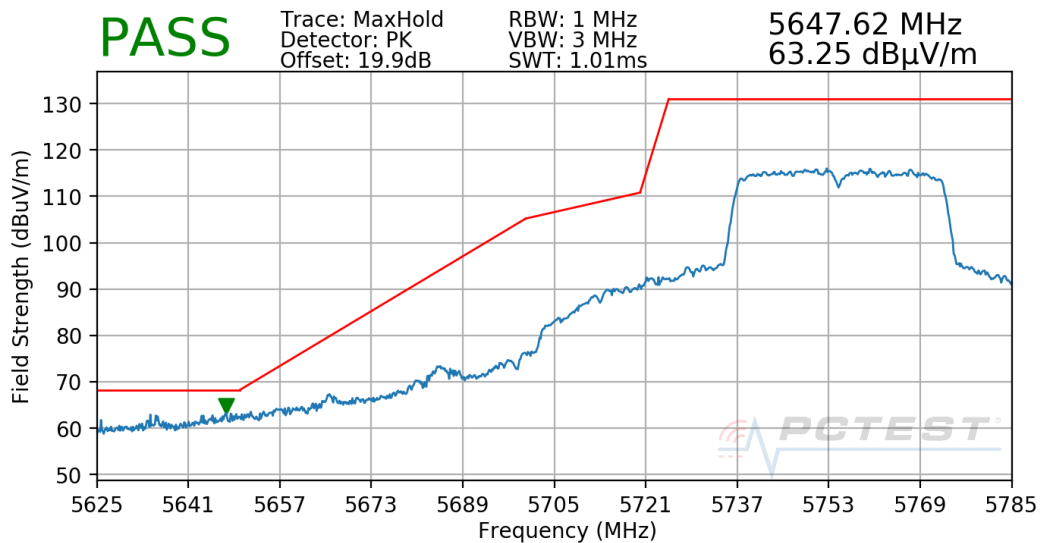
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5670MHz
Channel: 134



Plot 7-281. Radiated Upper Band Edge Plot CDD (Peak - UNII Band 2C)

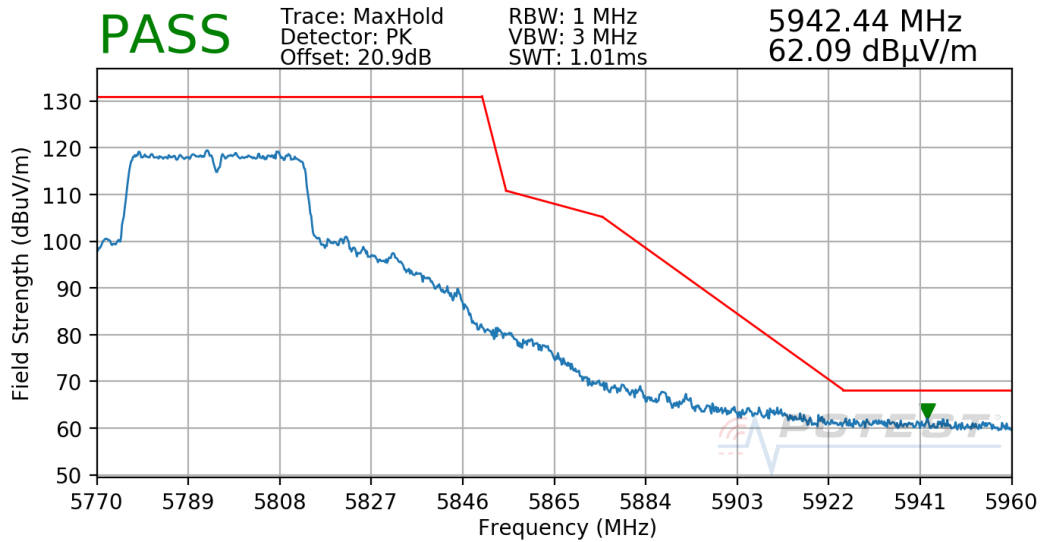
Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5755MHz
Channel: 151



Plot 7-282. Radiated Lower Band Edge Plot CDD (Peak - UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Worst Case Mode: 802.11n
Worst Case Transfer Rate: MCS15
Distance of Measurements: 3 Meters
Operating Frequency: 5795MHz
Channel: 159



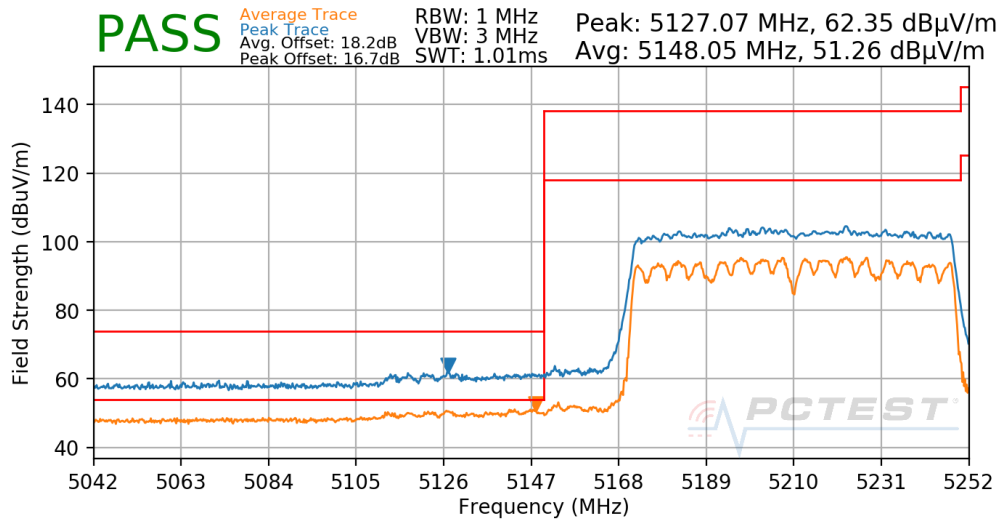
Plot 7-283. Radiated Upper Band Edge Plot CDD (Peak – UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 196 of 208

7.6.12 CDD/SDM Radiated Band Edge Measurements (80MHz BW)

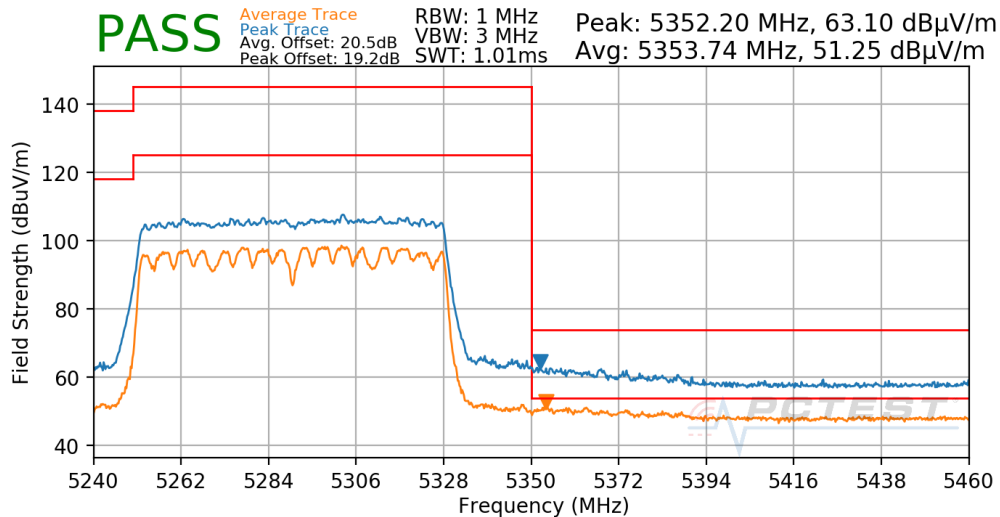
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS9
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42



Plot 7-284. Radiated Lower Band Edge Plot CDD (UNII Band 1)

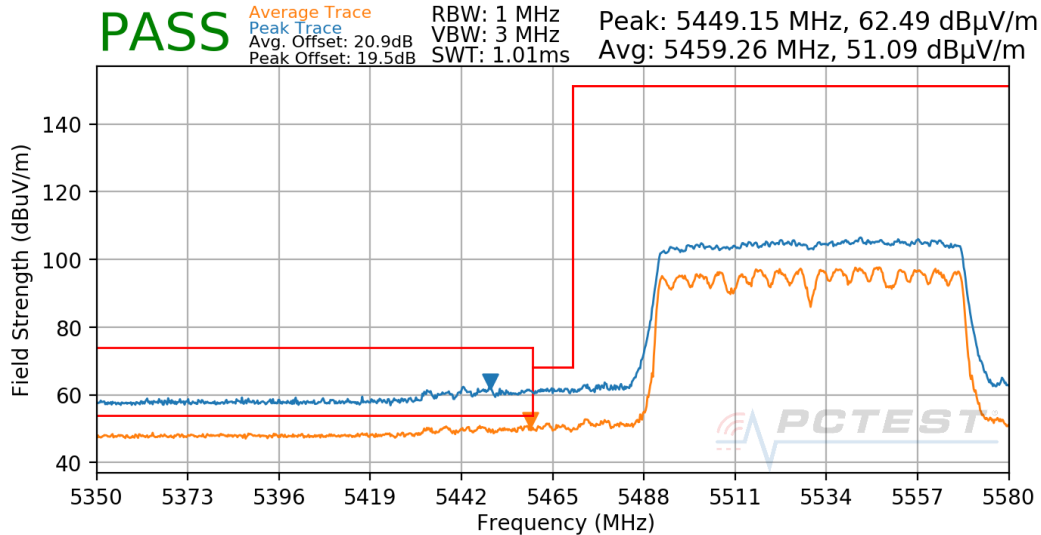
Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS9
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



Plot 7-285. Radiated Upper Band Edge Plot CDD (UNII Band 2A)

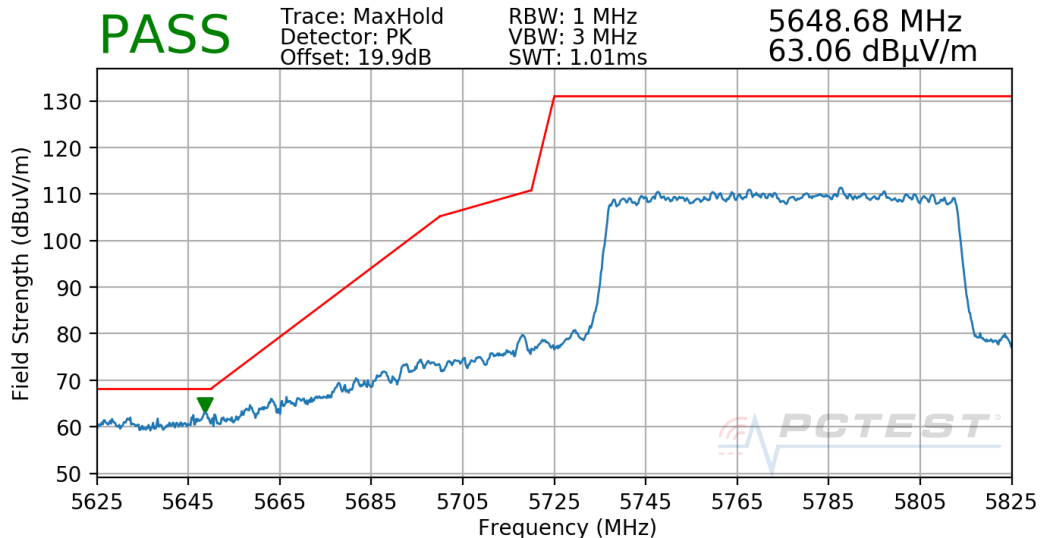
FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 197 of 208

Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS9
Distance of Measurements: 3 Meters
Operating Frequency: 5530MHz
Channel: 106



Plot 7-286. Radiated Lower Band Edge Plot CDD (UNII Band 2C)

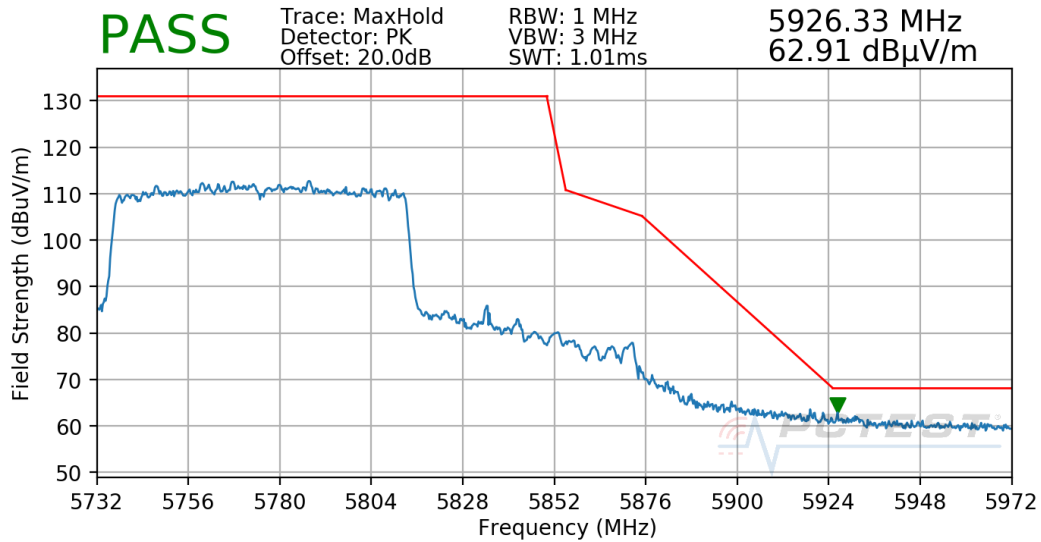
Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS9
Distance of Measurements: 3 Meters
Operating Frequency: 5775MHz
Channel: 155



Plot 7-287. Radiated Lower Band Edge Plot CDD (Peak - UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Worst Case Mode: 802.11ac
Worst Case Transfer Rate: MCS9
Distance of Measurements: 3 Meters
Operating Frequency: 5775MHz
Channel: 155



Plot 7-288. Radiated Upper Band Edge Plot CDD (Peak - UNII Band 3)

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.7 Radiated Spurious Emissions – 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 7 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-72 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 7-72. 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

Peak Field Strength Measurements

7. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
8. RBW = 120kHz (for emissions from 30MHz – 1GHz)
9. VBW = 300kHz
10. Detector = quasi-peak
11. Sweep time = auto couple
12. Trace mode = max hold
13. Trace was allowed to stabilize

FCC ID: BCGA2316	 PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Test Setup

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

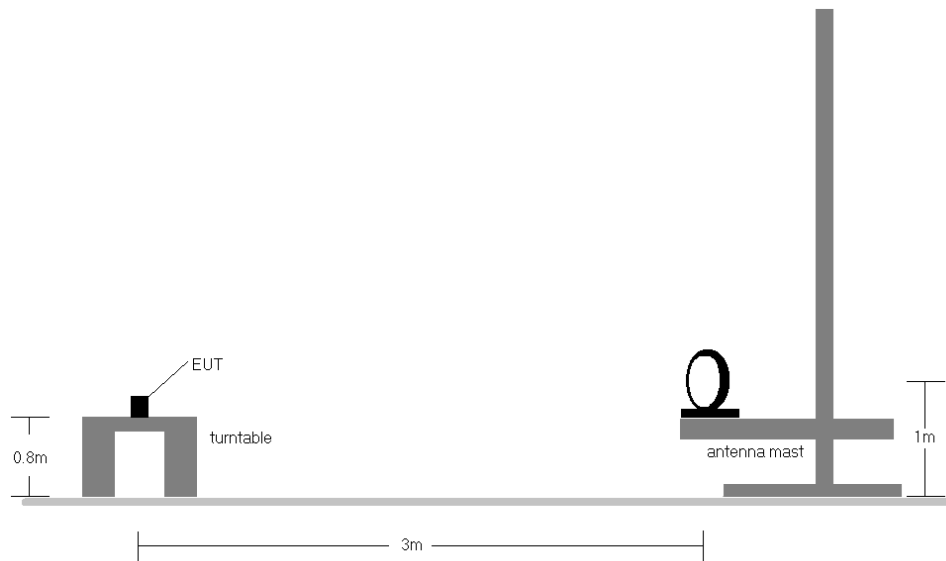


Figure 7-6. Radiated Test Setup < 30MHz

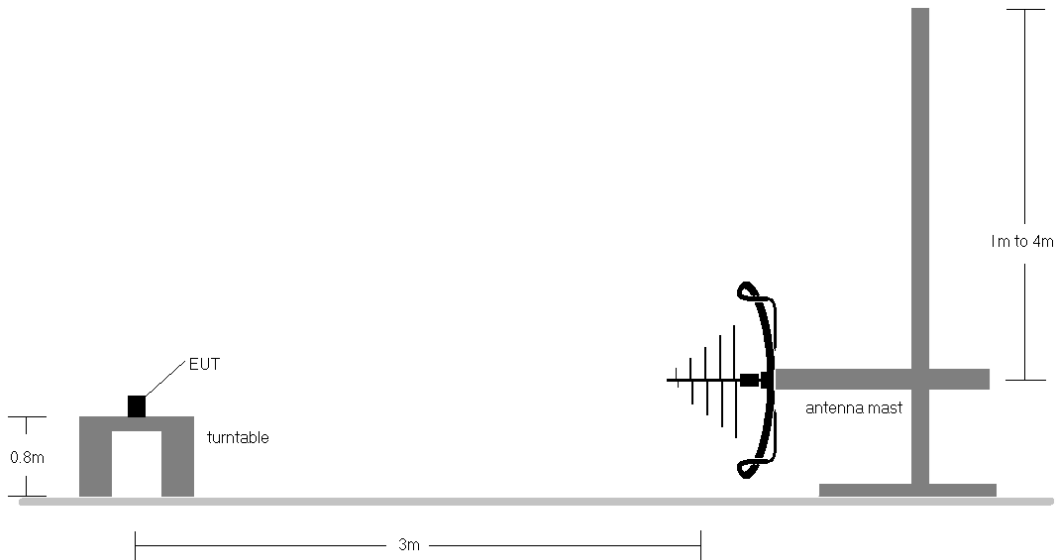


Figure 7-7. Radiated Test Setup < 1GHz

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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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 7-72.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes. For below 30MHz the loop antenna was positioned in 3 orthogonal planes (X front, Y side, Z top) to determine the orientation resulting in the worst case emissions.
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 on emissions that were within 6dB of the limit.
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.
10. Both configurations below were investigated, and the worst case has been reported.
 - a. EUT powered by AC/DC adaptor via USB-C cable with wire charger
 - b. EUT powered by host PC via USB-C cable with wire charger
11. All antenna configurations were investigated and only the worst case is reported.
12. The unit was tested with all possible modes and only the highest emission is reported.

Sample Calculations

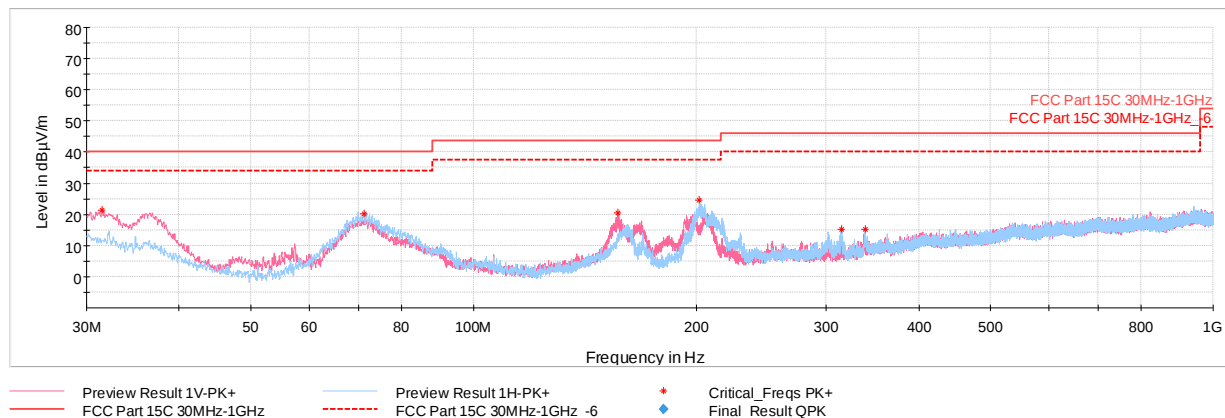
Determining Spurious Emissions Levels

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

FCC ID: BCGA2316	 PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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CDD Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]



Plot 7-289. Radiated Spurious Emissions below 1GHz CDD – Ch.36 with AC/DC Adapter

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]
31.50	Max Peak	V	100	180	-67.37	-18.22	21.41	40.00	-18.59
71.13	Max Peak	H	250	182	-60.20	-26.47	20.33	40.00	-19.67
156.78	Max Peak	V	100	95	-64.80	-21.63	20.57	43.52	-22.95
202.13	Max Peak	H	100	147	-60.25	-22.15	24.60	43.52	-18.92
314.31	Max Peak	H	100	46	-73.00	-18.75	15.25	46.02	-30.77
338.31	Max Peak	H	100	193	-74.19	-17.59	15.22	46.02	-30.80

Table 7-73. Radiated Spurious Emissions below 1GHz CDD – Ch.36 with AC/DC Adapter

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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7.8 AC Line-Conducted Emissions Measurement

§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 AC Line 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 7-74. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Section 6.2

Test Settings

Quasi-Peak 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 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.

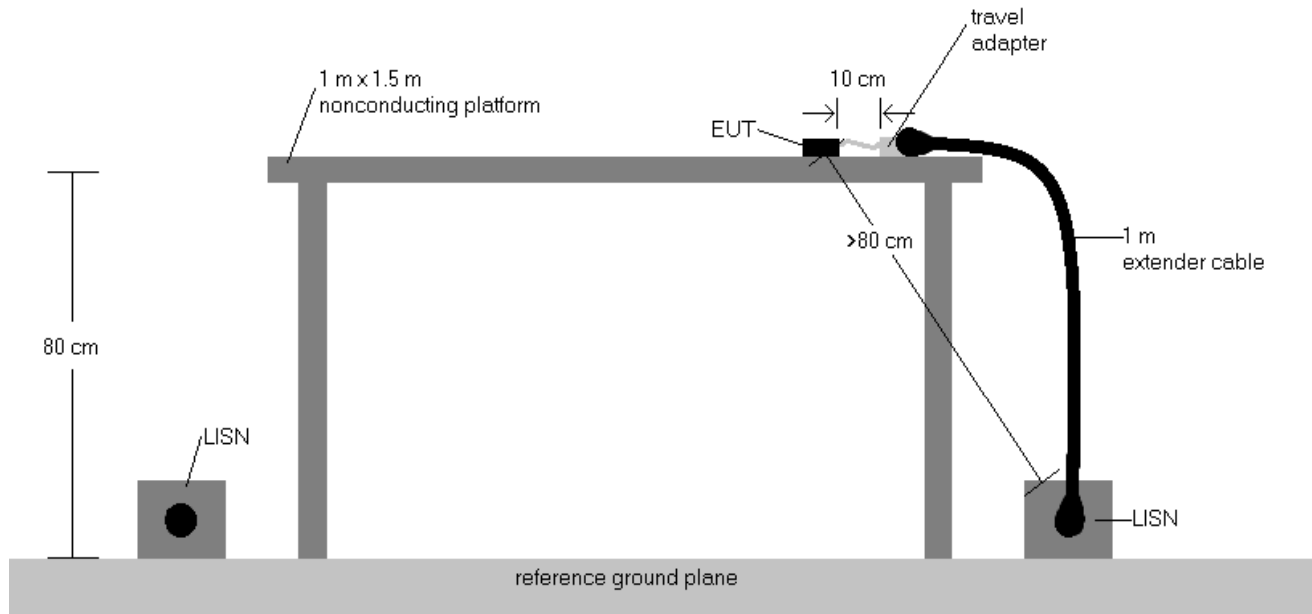
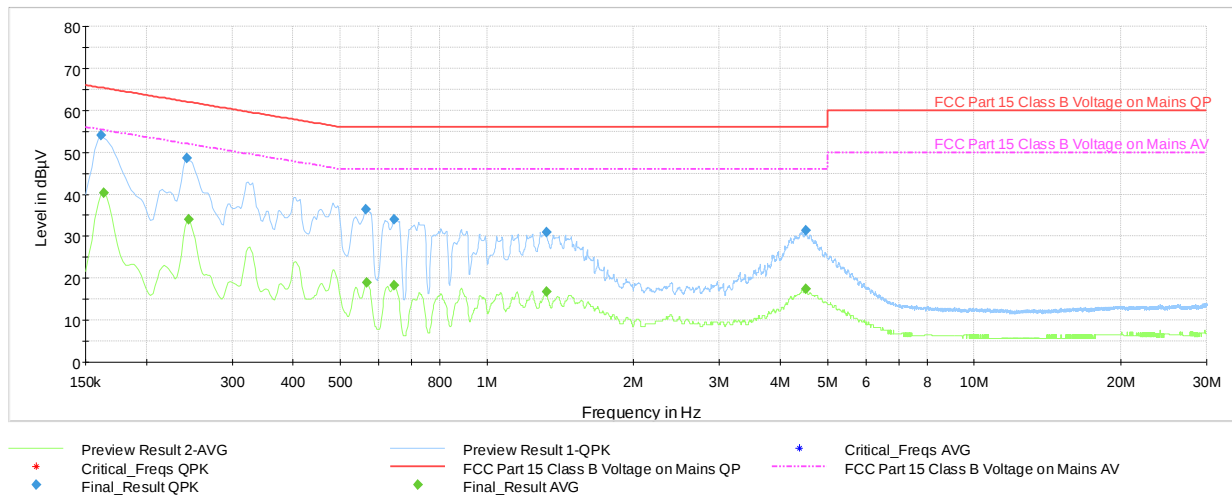


Figure 7-8. Test Instrument & Measurement Setup

Test Notes

1. All modes of operation were investigated and the worst-case emissions are reported. The emissions found were not affected by the choice of channel used during testing.
2. Both configurations below were investigated, and the worst case has been reported.
 - a. EUT powered by AC/DC adaptor via USB-C cable with wire charger
 - b. EUT powered by host PC via USB-C cable with wire charger
3. The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207 and RSS-Gen (8.8).
4. $\text{Corr. (dB)} = \text{Cable loss (dB)} + \text{LISN insertion factor (dB)}$
5. $\text{QP/AV Level (dB}\mu\text{V)} = \text{QP/AV Analyzer/Receiver Level (dB}\mu\text{V)} + \text{Corr. (dB)}$
6. $\text{Margin (dB)} = \text{QP/AV Level (dB}\mu\text{V)} - \text{QP/AV Limit (dB}\mu\text{V)}$
7. Traces shown in plots are made using quasi-peak and average detectors.
8. Deviations to the Specifications: None.
9. The unit was tested with all possible modes and only the highest emission is reported.

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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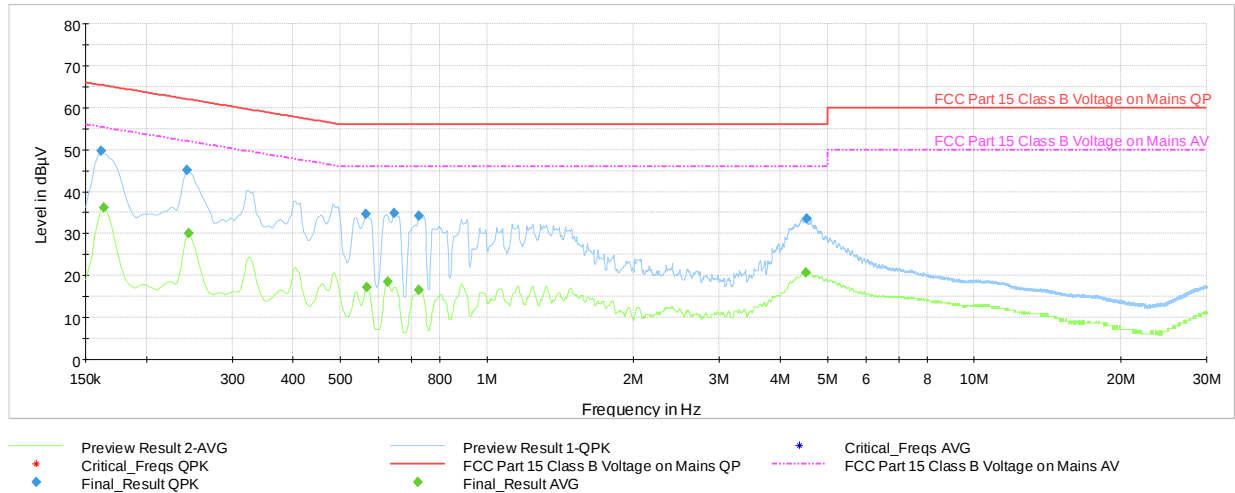


Plot 7-290. AC Line Conducted Plot with CDD – Ch.36 (L1), with AC/DC adapter

Frequency [MHz]	Process State	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Line	PE
0.161	FINAL	54.0	—	65.40	-11.40	L1	GND
0.164	FINAL	—	40.41	55.28	-14.87	L1	GND
0.242	FINAL	48.5	—	62.02	-13.49	L1	GND
0.245	FINAL	—	33.94	51.94	-18.00	L1	GND
0.564	FINAL	36.5	—	56.00	-19.49	L1	GND
0.566	FINAL	—	18.90	46.00	-27.10	L1	GND
0.645	FINAL	—	18.29	46.00	-27.71	L1	GND
0.645	FINAL	34.1	—	56.00	-21.93	L1	GND
1.325	FINAL	—	16.69	46.00	-29.31	L1	GND
1.325	FINAL	31.0	—	56.00	-25.04	L1	GND
4.515	FINAL	31.5	—	56.00	-24.55	L1	GND
4.522	FINAL	—	17.36	46.00	-28.64	L1	GND

Table 7-75. AC Line Conducted Data with CDD – Ch.36 (L1) with AC/DC adapter

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-291. AC Line Conducted Plot with CDD – Ch.36 (N), with AC/DC adapter

Frequency [MHz]	Process State	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Line	PE
0.161	FINAL	49.6	—	65.40	-15.77	N	GND
0.164	FINAL	—	36.08	55.28	-19.20	N	GND
0.242	FINAL	45.1	—	62.02	-16.97	N	GND
0.245	FINAL	—	30.03	51.94	-21.91	N	GND
0.564	FINAL	34.7	—	56.00	-21.28	N	GND
0.566	FINAL	—	17.25	46.00	-28.75	N	GND
0.625	FINAL	—	18.50	46.00	-27.50	N	GND
0.645	FINAL	34.8	—	56.00	-21.19	N	GND
0.724	FINAL	—	16.46	46.00	-29.54	N	GND
0.726	FINAL	34.2	—	56.00	-21.80	N	GND
4.508	FINAL	—	20.69	46.00	-25.31	N	GND
4.529	FINAL	33.7	—	56.00	-22.32	N	GND

Table 7-76. AC Line Conducted Data with CDD – Ch.36 (N), with AC/DC adapter

FCC ID: BCGA2316	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Apple Tablet Device FCC ID: BCGA2316** 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.

FCC ID: BCGA2316	 PCTEST Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2004270028-08-R1.BCG	Test Dates: 6/15/2020 - 08/14/2020	EUT Type: Tablet Device	Page 208 of 208