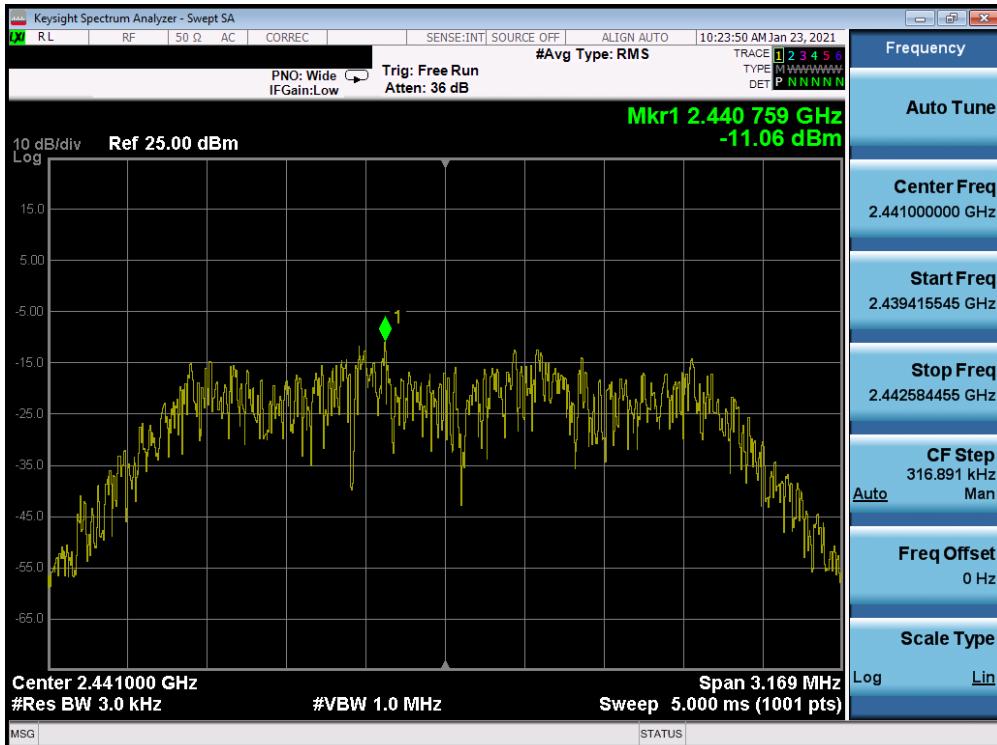
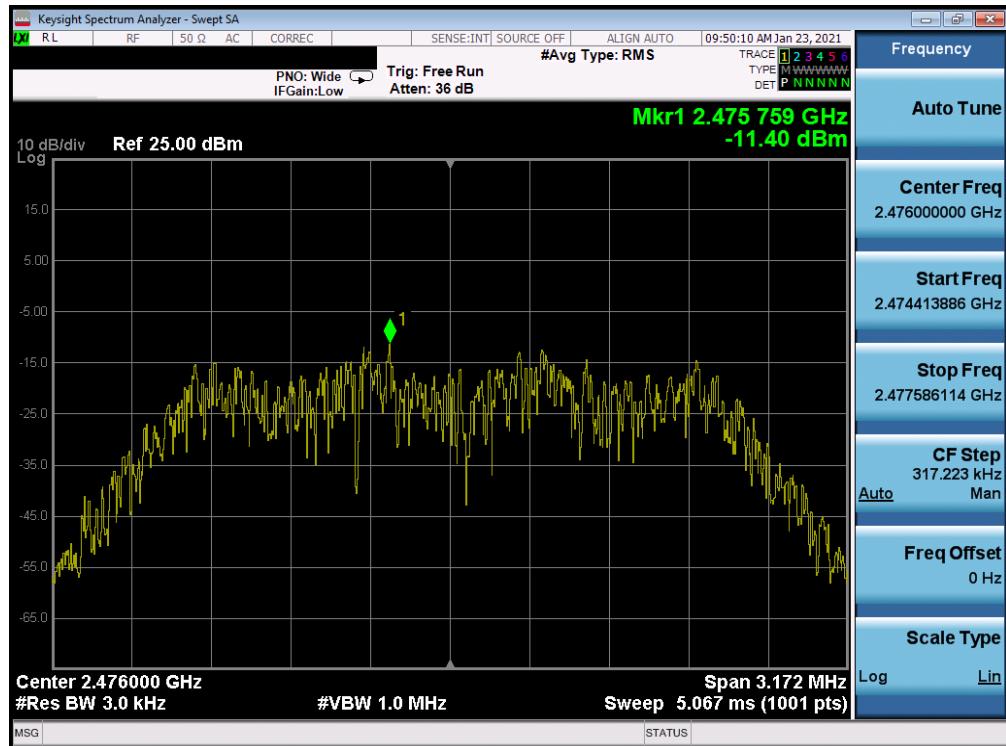


Plot 7-45. Power Spectral Density Plot TxBF Antenna 4a (Bluetooth (HDR4), 4Mbps, iPA – Ch. 38)

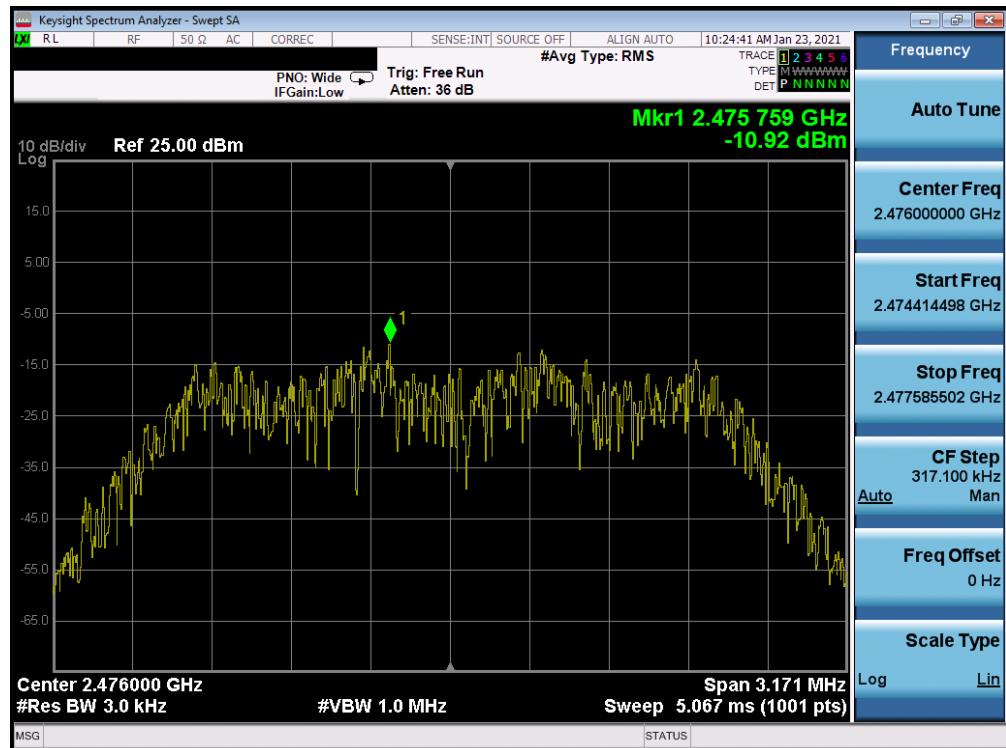


Plot 7-46. Power Spectral Density Plot TxBF Antenna 2a (Bluetooth (HDR4), 4Mbps, iPA – Ch. 38)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 47 of 101	

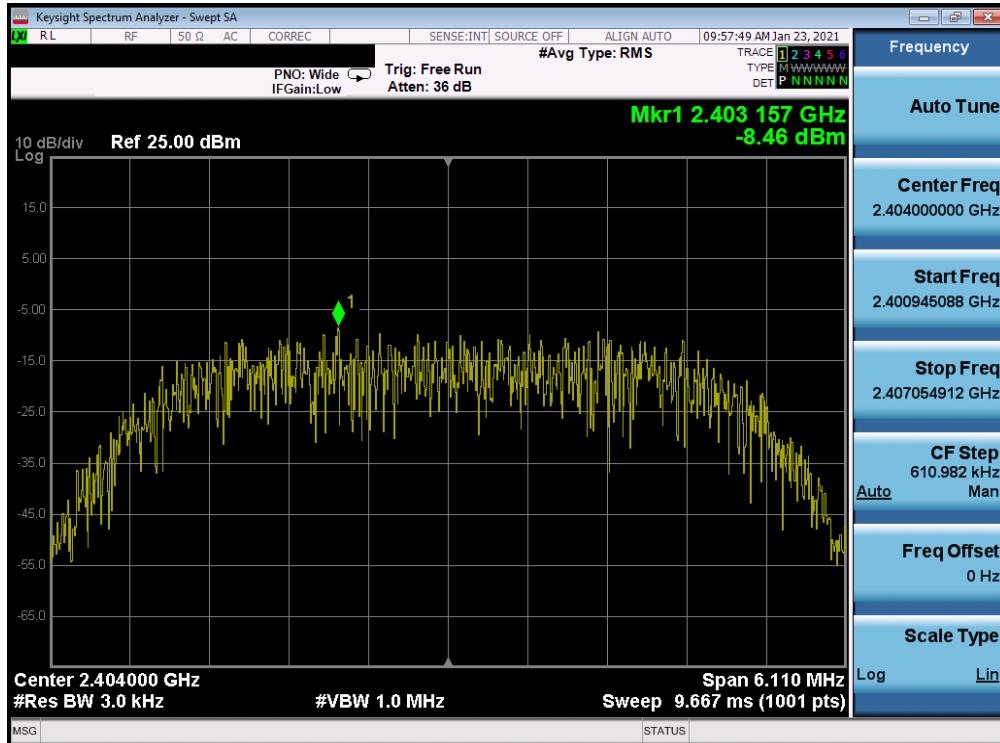


Plot 7-47. Power Spectral Density Plot TxBF Antenna 4a (Bluetooth (HDR4), 4Mbps, iPA – Ch. 73)

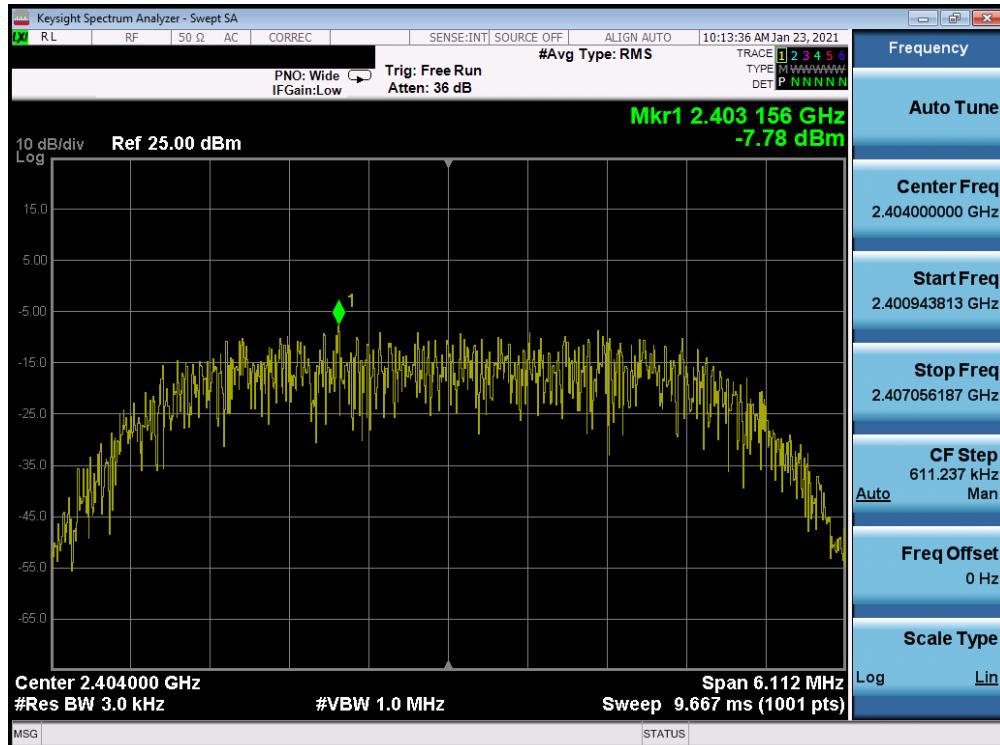


Plot 7-48. Power Spectral Density Plot TxBF Antenna 2a (Bluetooth (HDR4), 4Mbps, iPA – Ch. 73)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 48 of 101

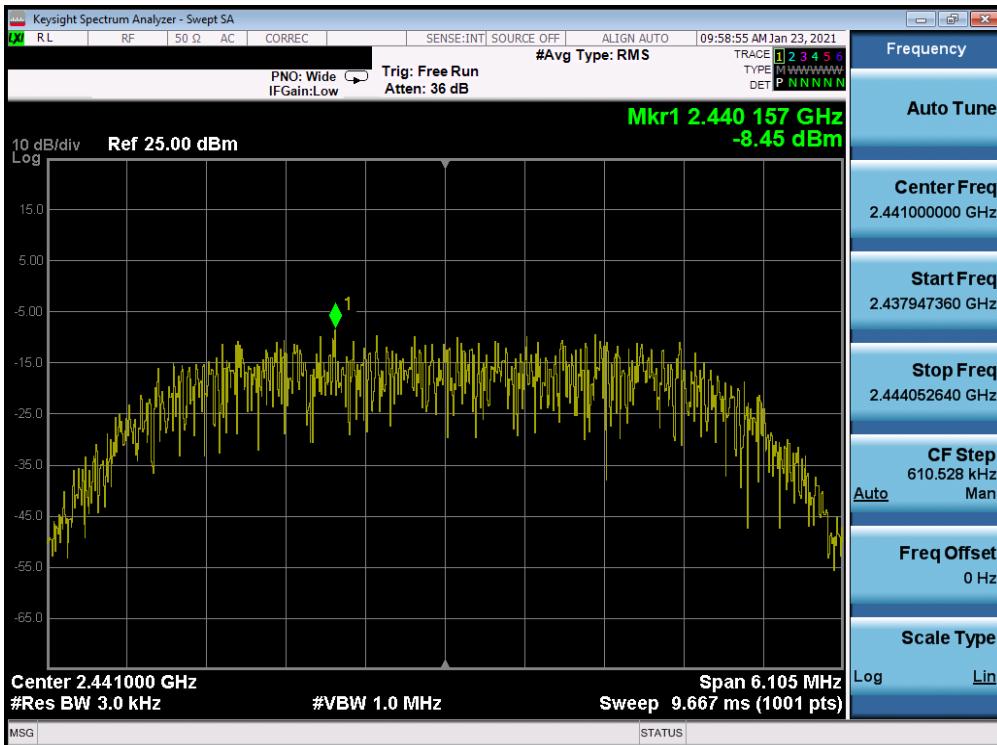


Plot 7-49. Power Spectral Density Plot TxBF Antenna 4a (Bluetooth (HDR8), 8Mbps, ePA – Ch. 1)

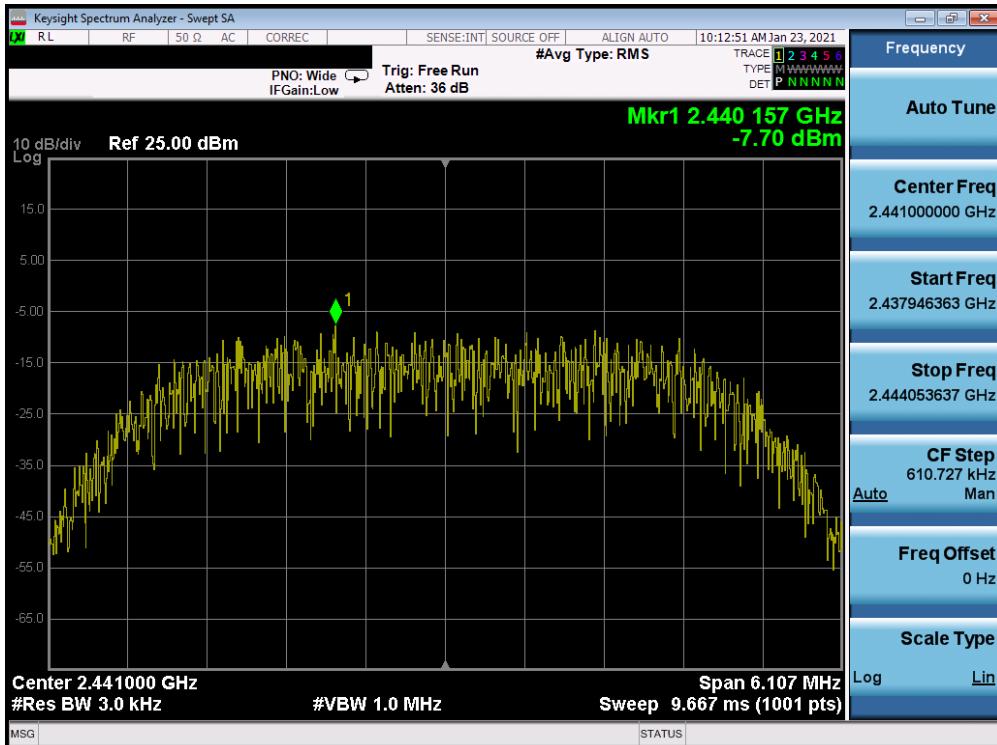


Plot 7-50. Power Spectral Density Plot TxBF Antenna 2a (Bluetooth (HDR8), 8Mbps, ePA – Ch. 1)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST Proud to be part of  element		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 49 of 101	

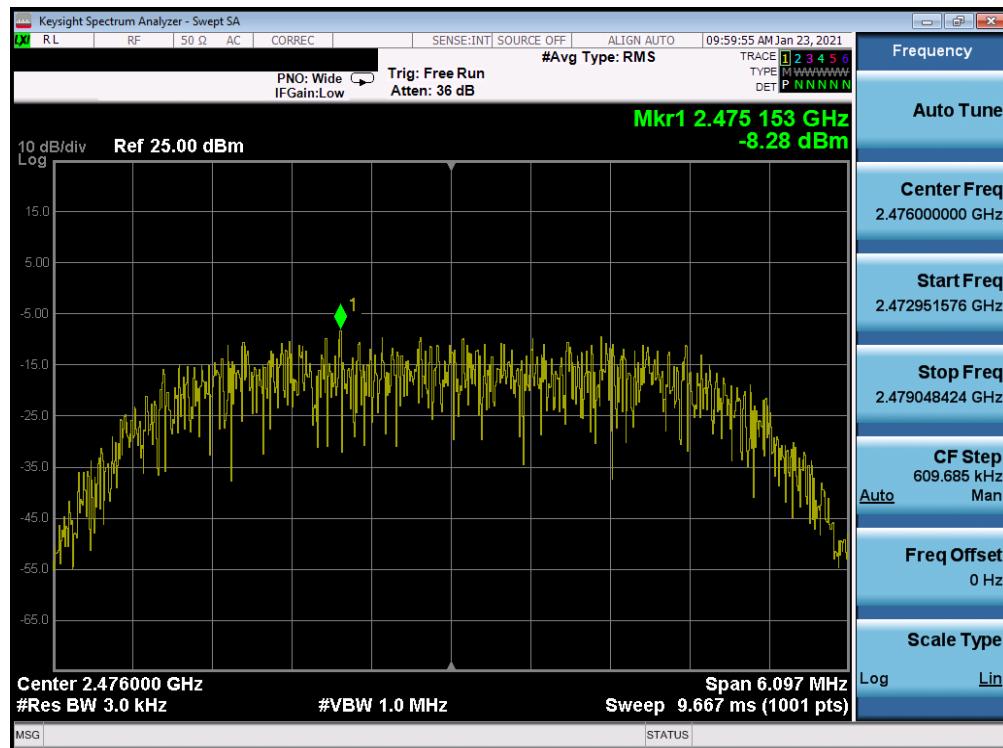


Plot 7-51. Power Spectral Density Plot TxBF Antenna 4a (Bluetooth (HDR8), 8Mbps, ePA – Ch. 38)

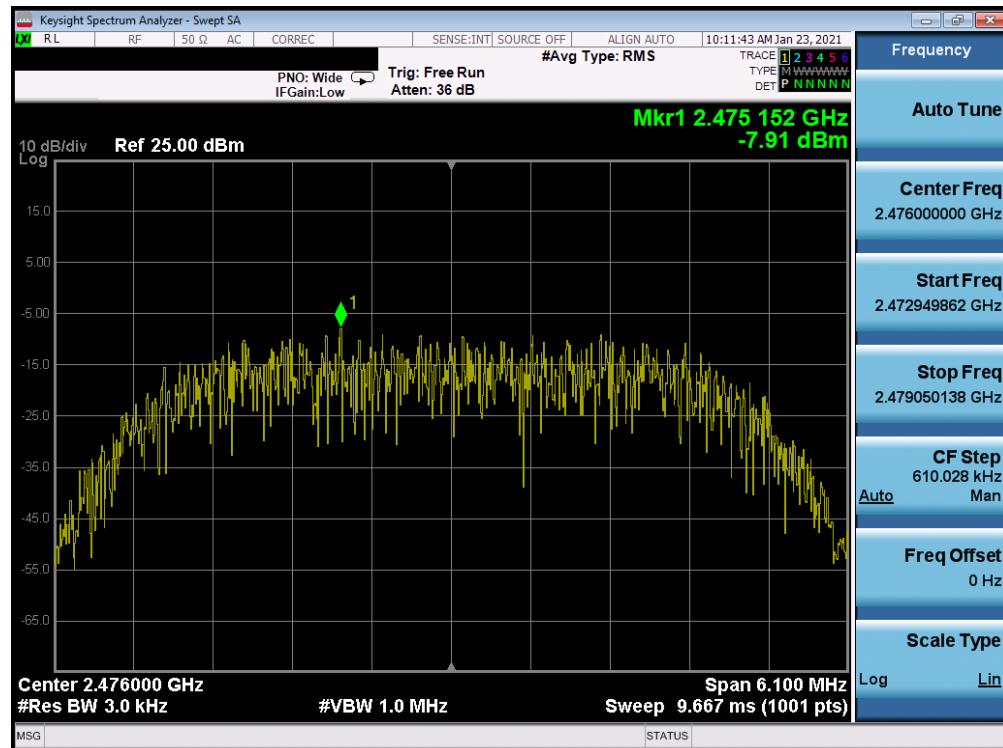


Plot 7-52. Power Spectral Density Plot TxBF Antenna 2a (Bluetooth (HDR8), 8Mbps, ePA – Ch. 38)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 50 of 101	

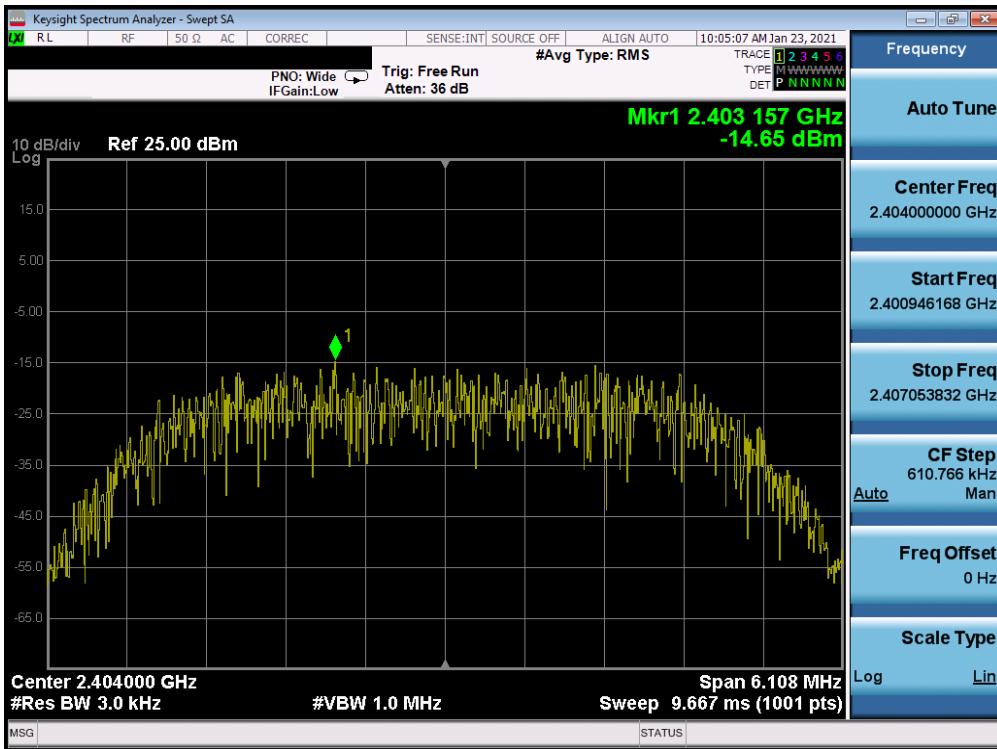


Plot 7-53. Power Spectral Density Plot TxBF Antenna 4a (Bluetooth (HDR8), 8Mbps, ePA – Ch. 73)

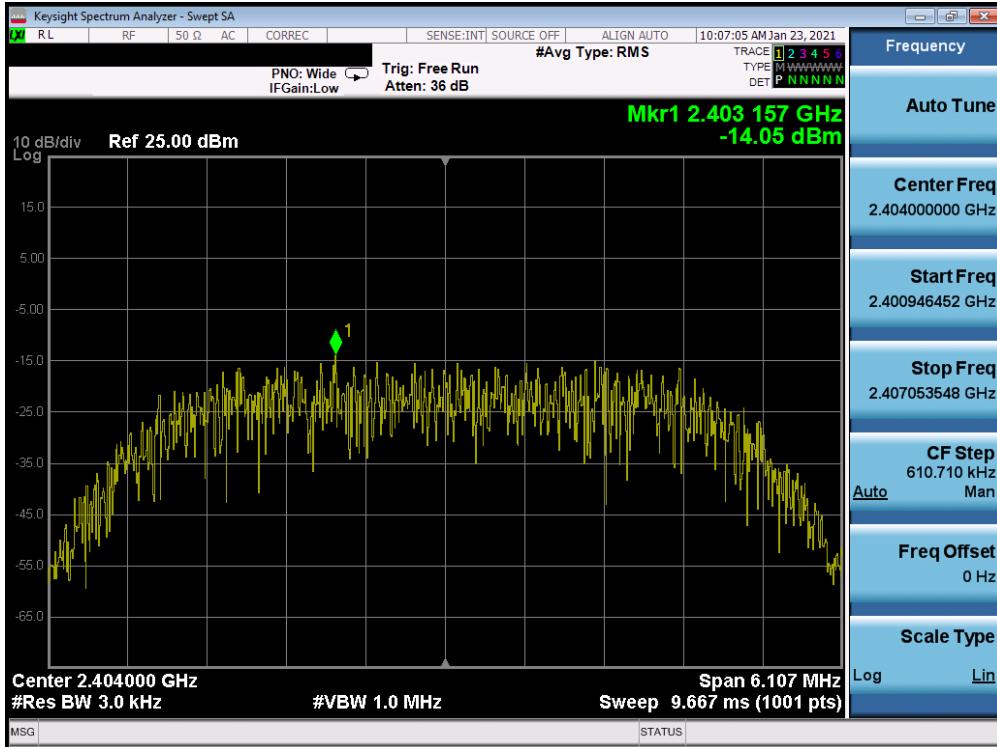


Plot 7-54. Power Spectral Density Plot TxBF Antenna 2a (Bluetooth (HDR8), 8Mbps, ePA – Ch. 73)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 51 of 101	

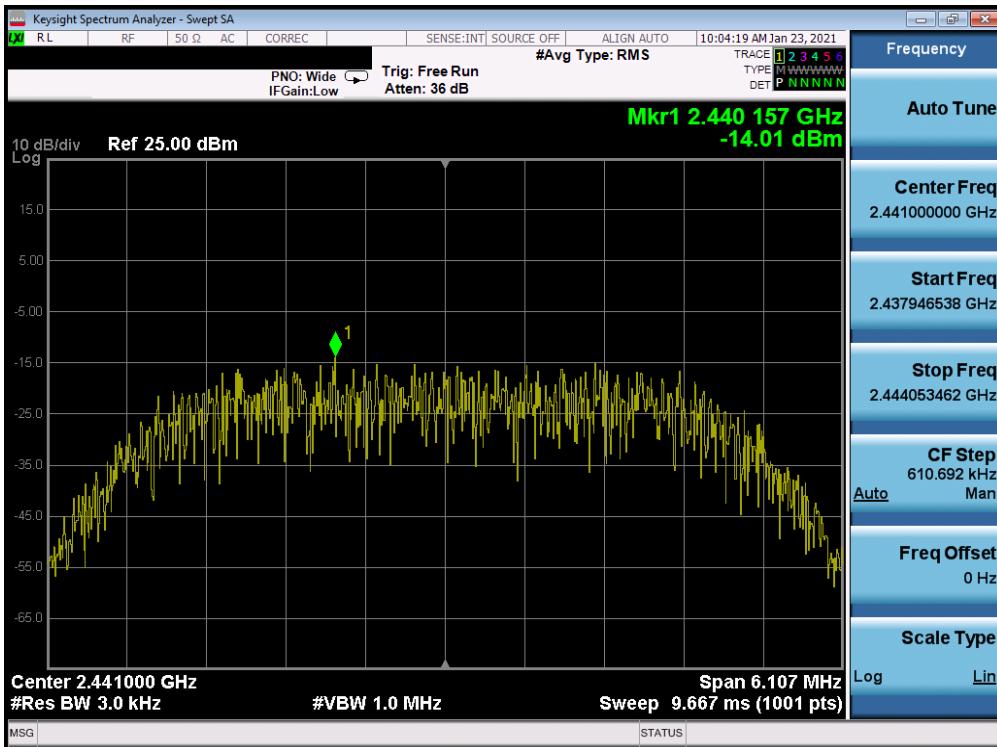


Plot 7-55. Power Spectral Density Plot TxBF Antenna 4a (Bluetooth (HDR8), 8Mbps, iPA – Ch. 1)

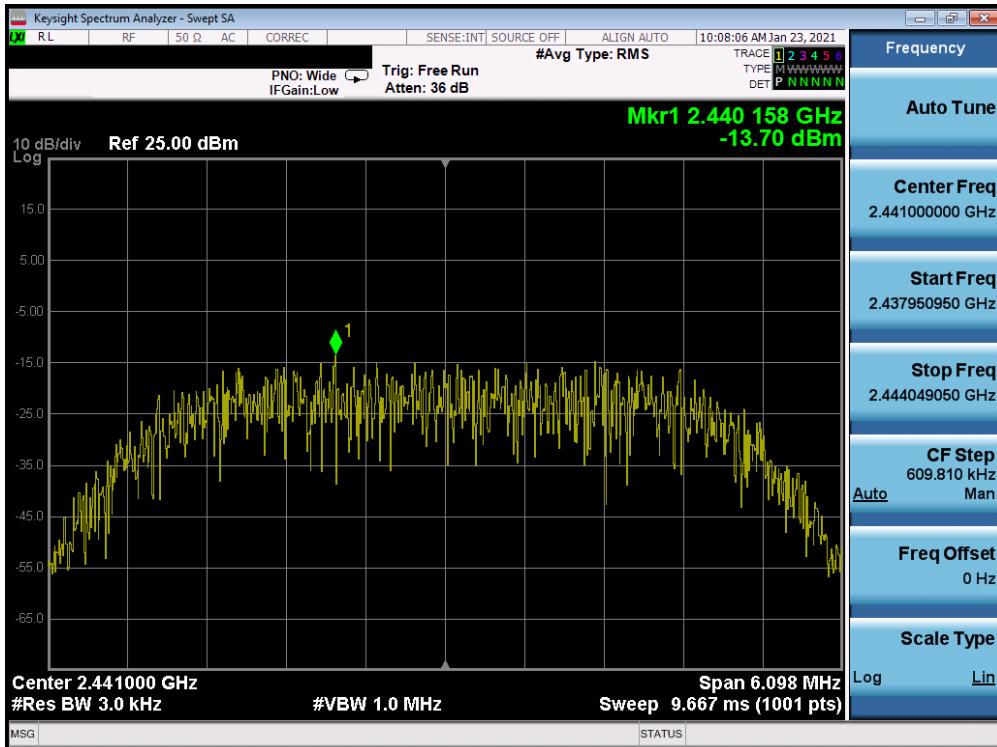


Plot 7-56. Power Spectral Density Plot TxBF Antenna 2a (Bluetooth (HDR8), 8Mbps, iPA – Ch. 1)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 52 of 101	

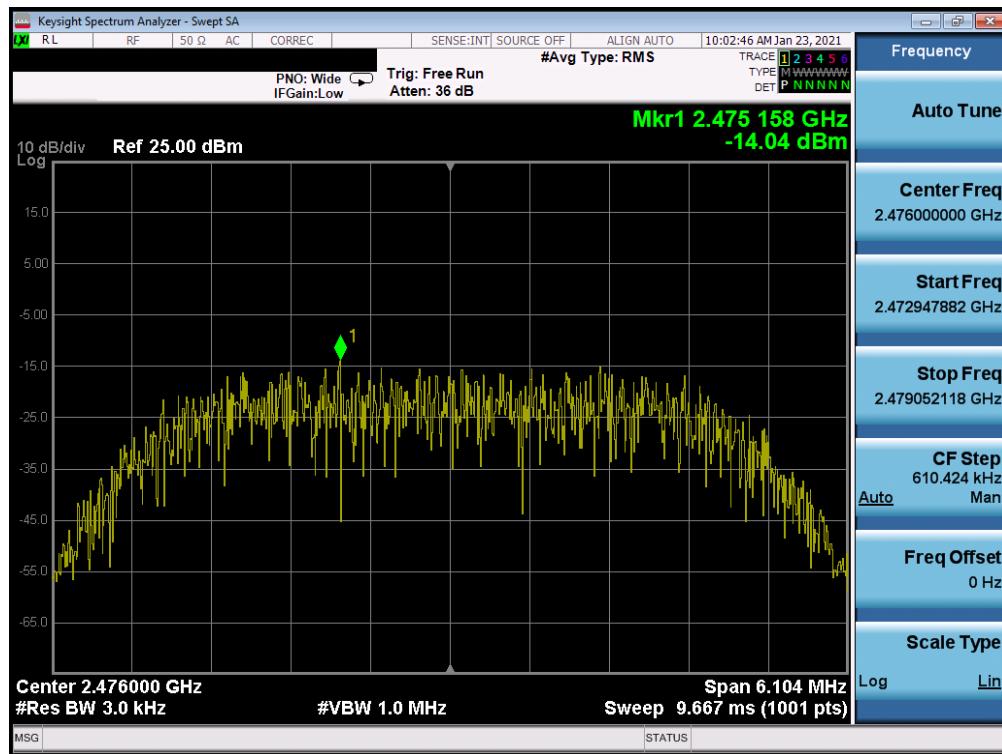


Plot 7-57. Power Spectral Density Plot TxBF Antenna 4a (Bluetooth (HDR8), 8Mbps, iPA – Ch. 38)

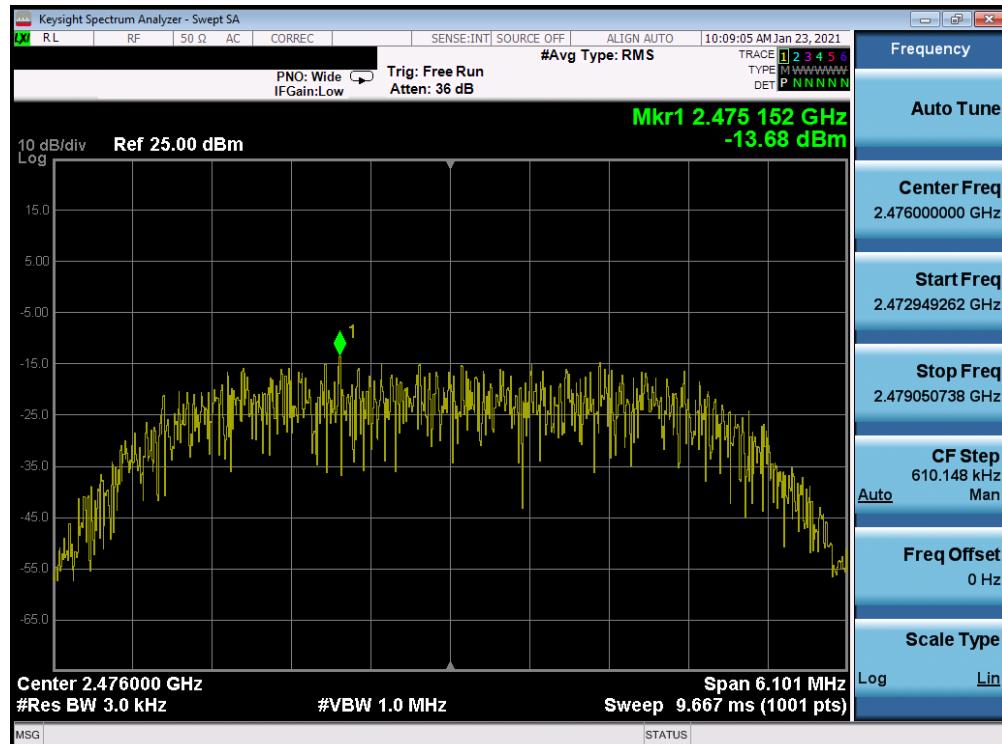


Plot 7-58. Power Spectral Density Plot TxBF Antenna 2a (Bluetooth (HDR8), 8Mbps, iPA – Ch. 38)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 53 of 101	



Plot 7-59. Power Spectral Density Plot TxBF Antenna 4a (Bluetooth (HDR8), 8Mbps, iPA – Ch. 73)



Plot 7-60. Power Spectral Density Plot TxBF Antenna 2a (Bluetooth (HDR8), 8Mbps, iPA – Ch. 73)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 54 of 101	

7.5 Conducted Authorized Band Edge

§15.247(d); RSS-247 [5.5]

Test Overview and Limit

For the following out of band conducted spurious emissions plots at the band edge, the EUT was set to transmit at maximum power with the largest packet size available. These settings produced the worst-case emissions.

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth.

Test Procedure Used

ANSI C63.10-2013 – Section 11.11.3
 KDB 558074 D01 v05r02 – Section 8.7.2

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW = 100kHz
4. VBW = 300kHz
5. Detector = Peak
6. Number of sweep points $\geq 2 \times \text{Span/RBW}$
7. Trace mode = max hold
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Setup

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



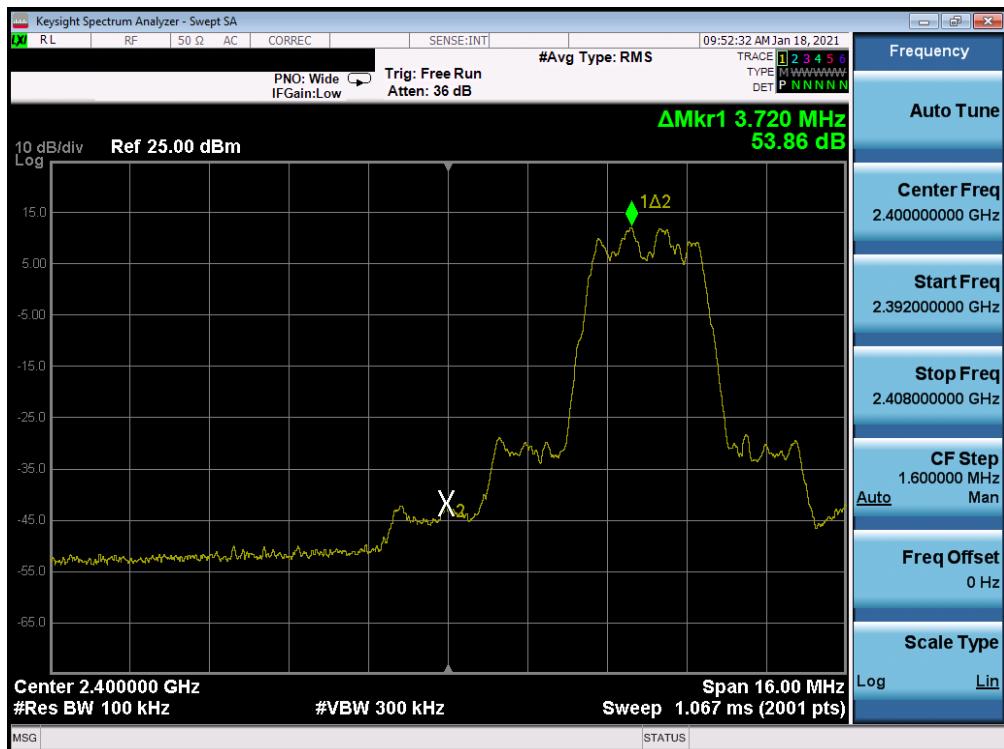
Figure 7-4. Test Instrument & Measurement Setup

Test Notes

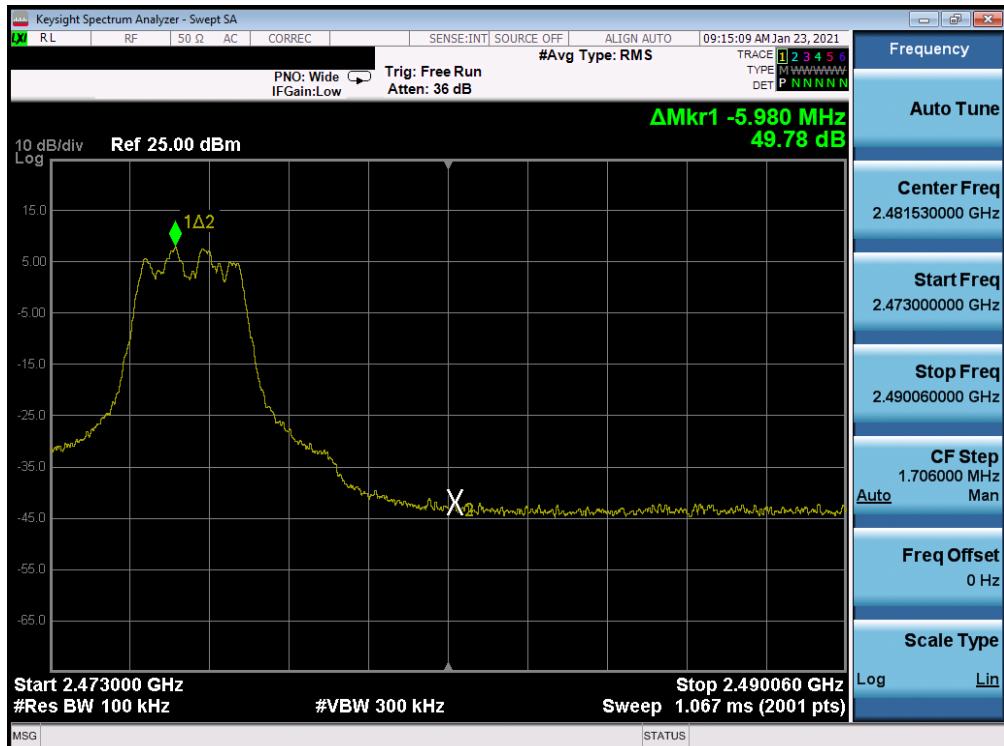
All supported modulation, antenna (including TxBF mode) and power schemes have been tested on the unit and only worst case configuration is reported.

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 55 of 101

Antenna 4a



Plot 7-61. Band Edge Plot Antenna 4a (Bluetooth (HDR4), ePA – Ch. 1)

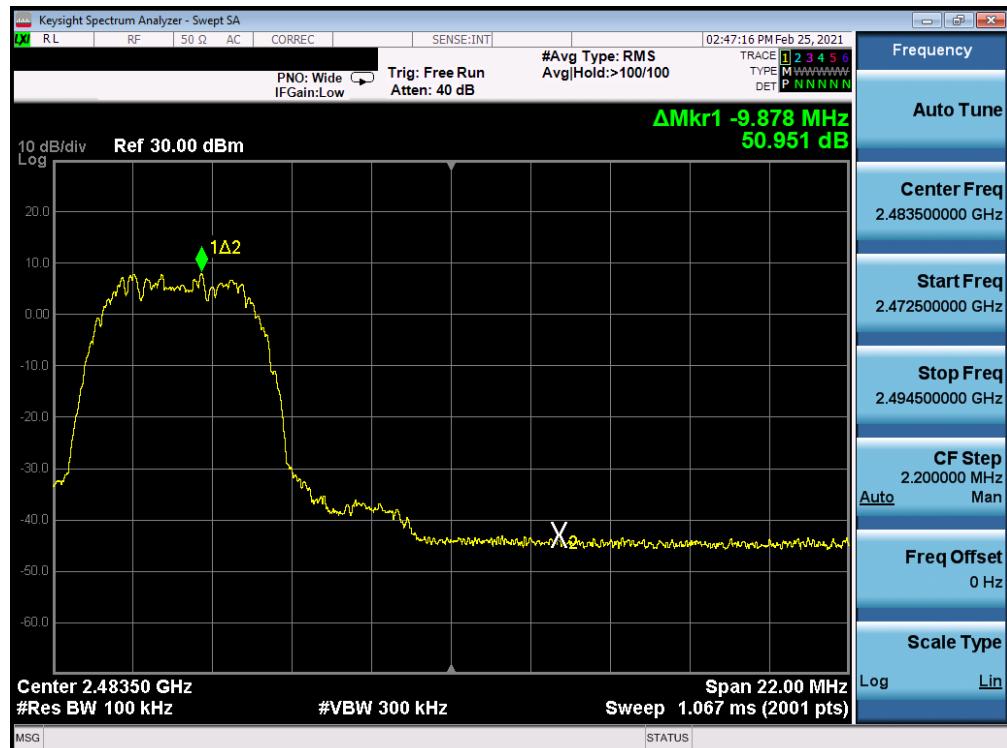


Plot 7-62. Band Edge Plot Antenna 4a (Bluetooth (HDR4), ePA – Ch. 73)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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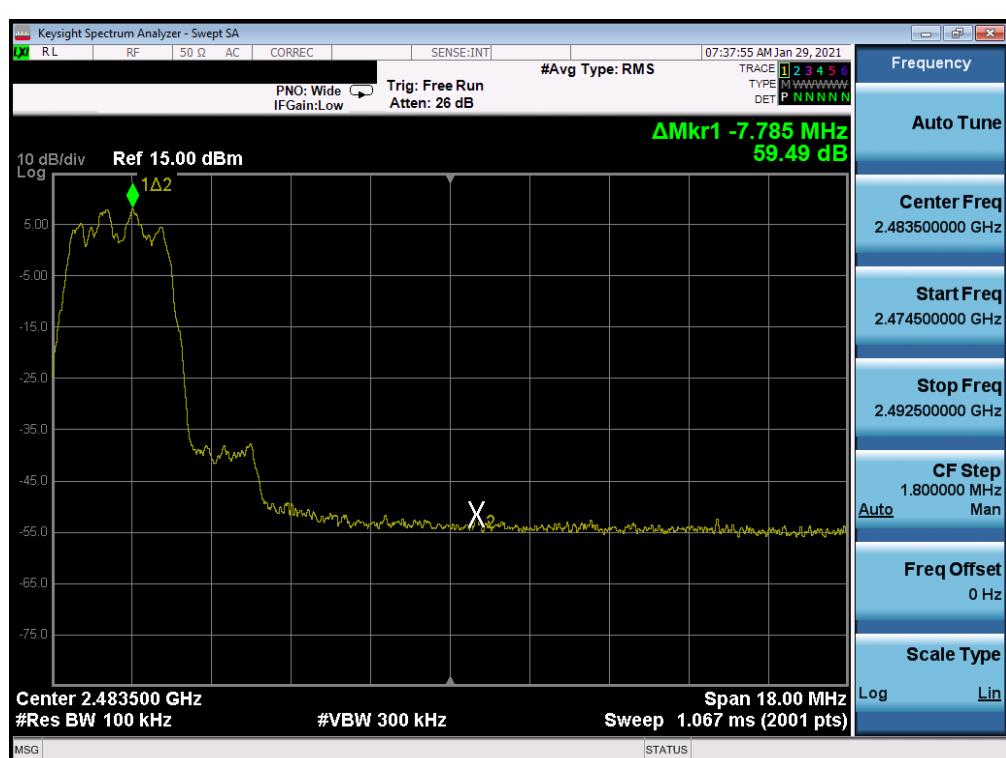
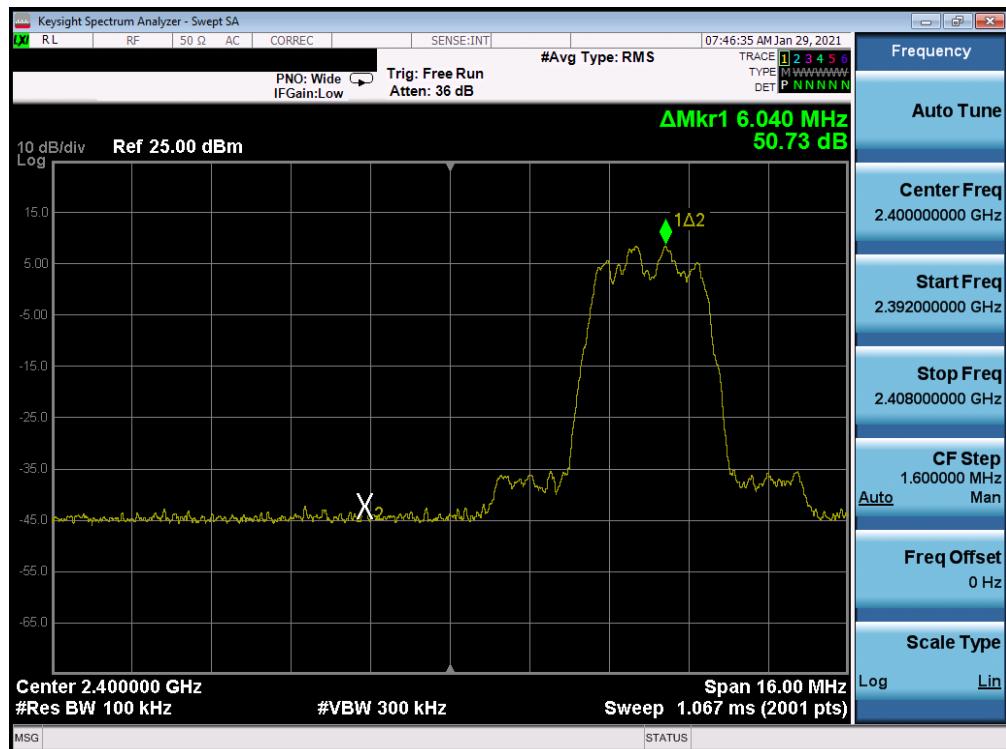
Plot 7-63. Band Edge Plot Antenna 4a (Bluetooth (HDR8), ePA – Ch. 1)



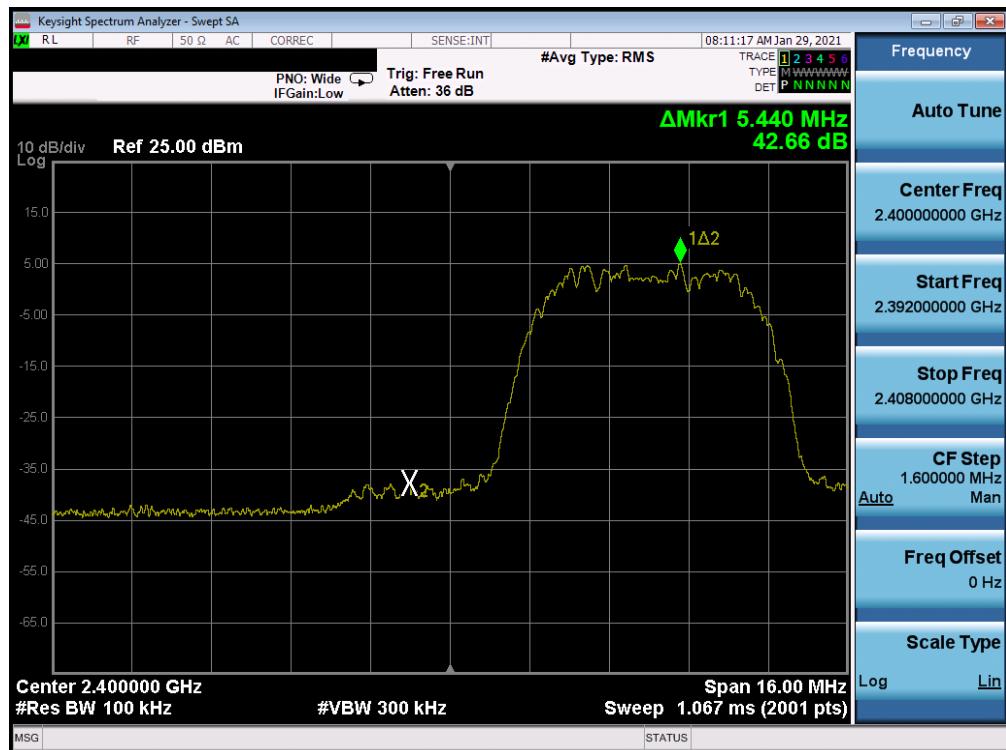
Plot 7-64. Band Edge Plot Antenna 4a (Bluetooth (HDR8), ePA – Ch. 73)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 57 of 101	

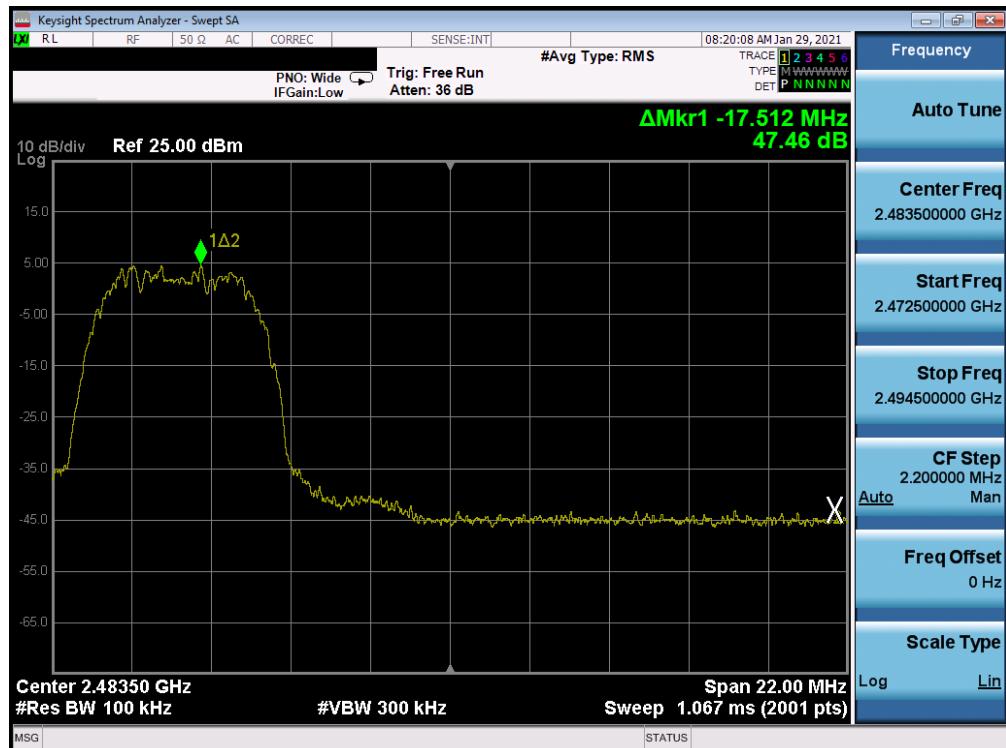
Antenna 2a



FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 58 of 101	



Plot 7-67. Band Edge Plot Antenna 2a (Bluetooth (HDR8), ePA – Ch. 1)



Plot 7-68. Band Edge Plot Antenna 2a (Bluetooth (HDR8), ePA – Ch. 73)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 59 of 101	

7.6 Conducted Spurious Emissions

§15.247(d); RSS-247 [5.5]

Test Overview and Limit

For the following out of band conducted spurious emissions plots, the EUT was set to transmit at maximum power with the largest packet size available. The worst case spurious emissions were found in this configuration.

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the procedure in Section 8.5 of KDB 558074 D01 v05r02 and Section 11.11 of ANSI C63.10-2013.

Test Procedure Used

ANSI C63.10-2013 – Section 11.11.3
 KDB 558074 D01 v05r02 – Section 8.5

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to 25GHz (separated into two plots per channel)
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

Test Setup

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

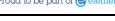


Figure 7-5. Test Instrument & Measurement Setup

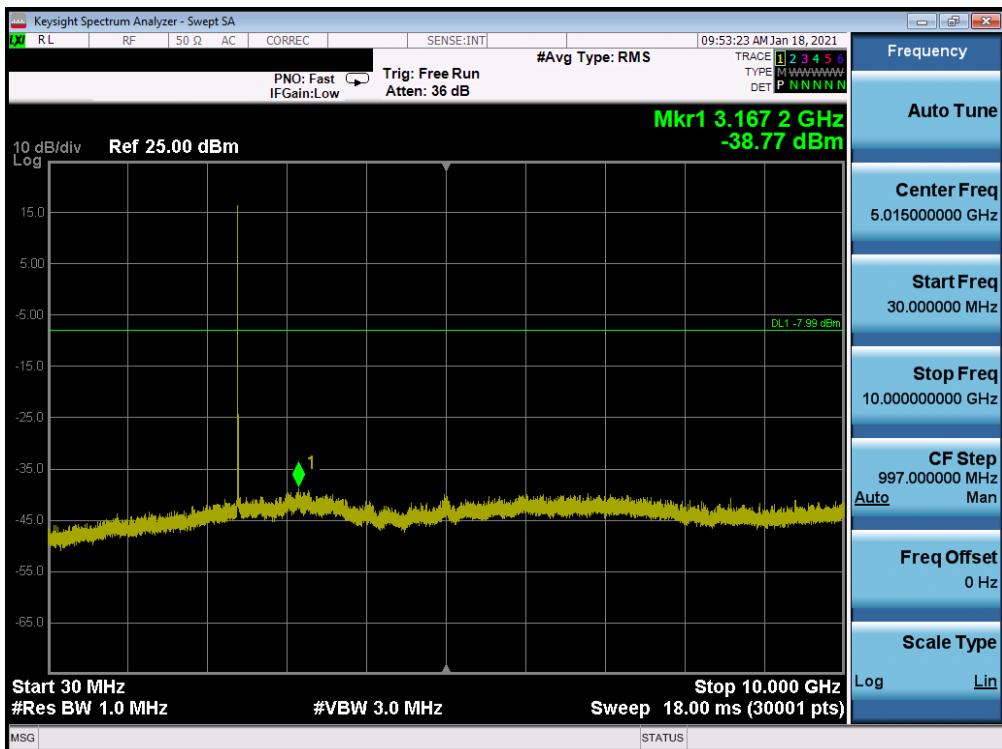
FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device		Page 60 of 101

Test Notes

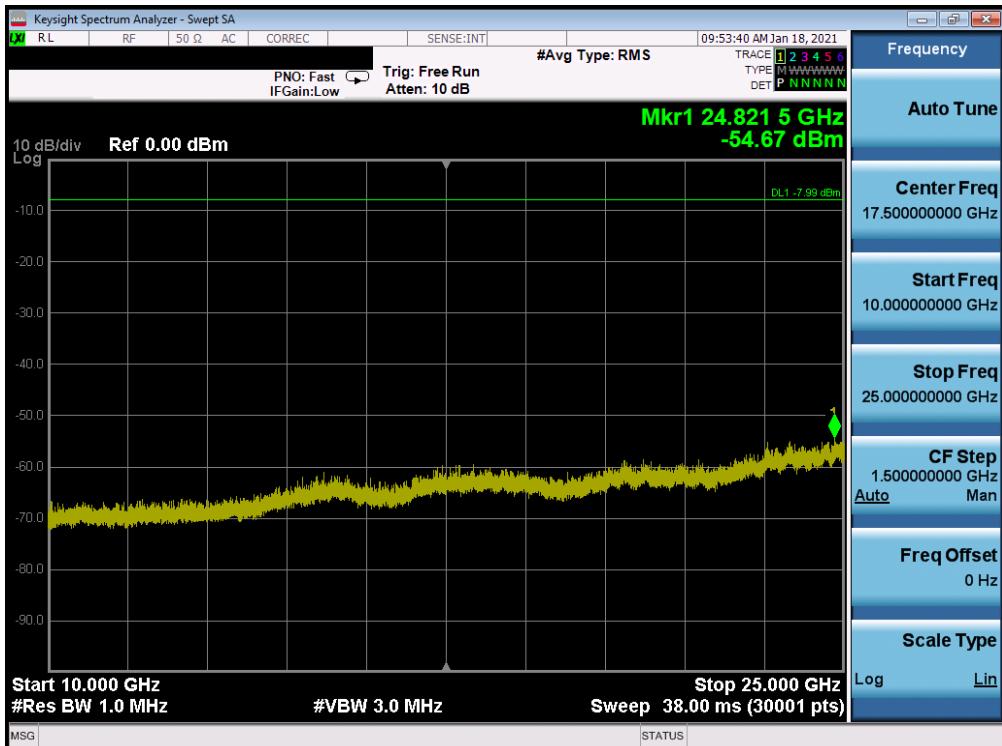
1. RBW was set to 1MHz rather than 100kHz in order to increase the measurement speed.
2. The display line shown in the following plots denotes the limit at 20dB below the fundamental emission level measured in a 100kHz bandwidth. However, since the traces in the following plots are measured with a 1MHz RBW, the display line may not necessarily appear to be 20dB below the level of the fundamental in a 1MHz bandwidth.
3. For plots showing conducted spurious emissions near the limit, the frequencies were investigated with a reduced RBW to ensure that no emissions were present.
4. All supported modulation, antenna (including TxBF mode) and power schemes have been tested on the unit and only worst case configuration is reported.

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Antenna 4a

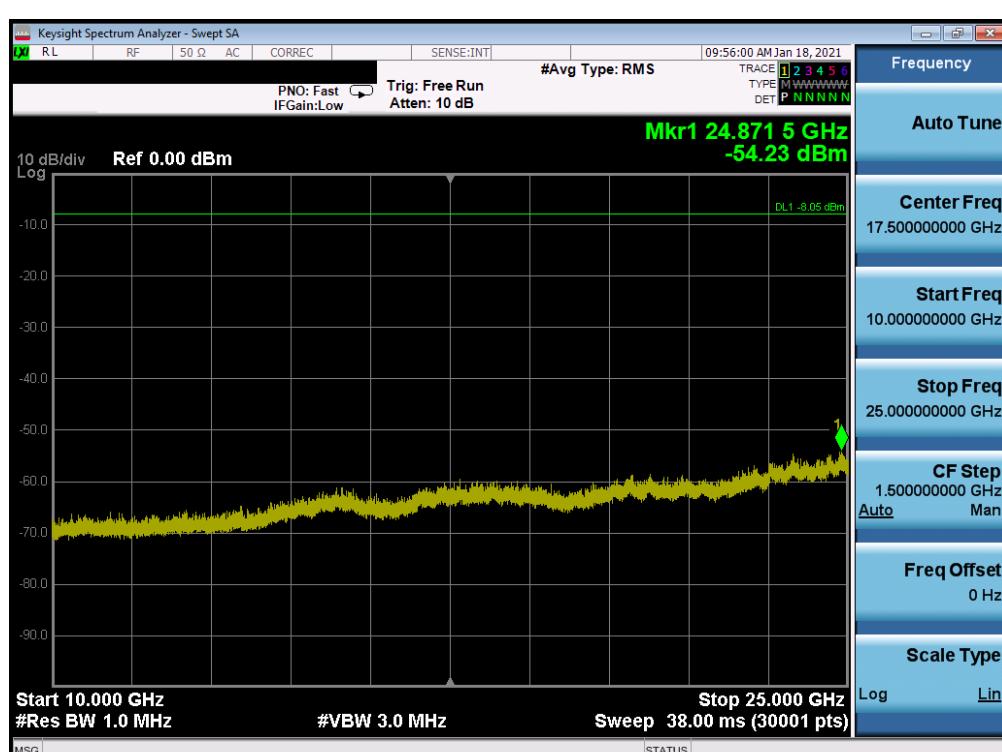
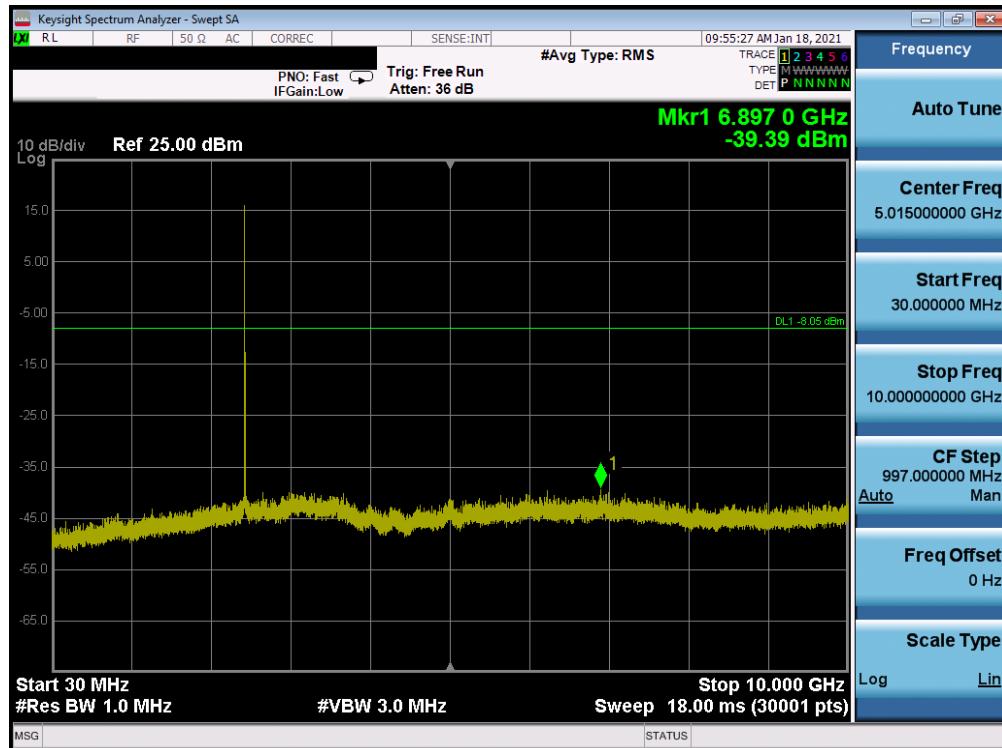


Plot 7-69. Conducted Spurious Plot Antenna 4a (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 1)

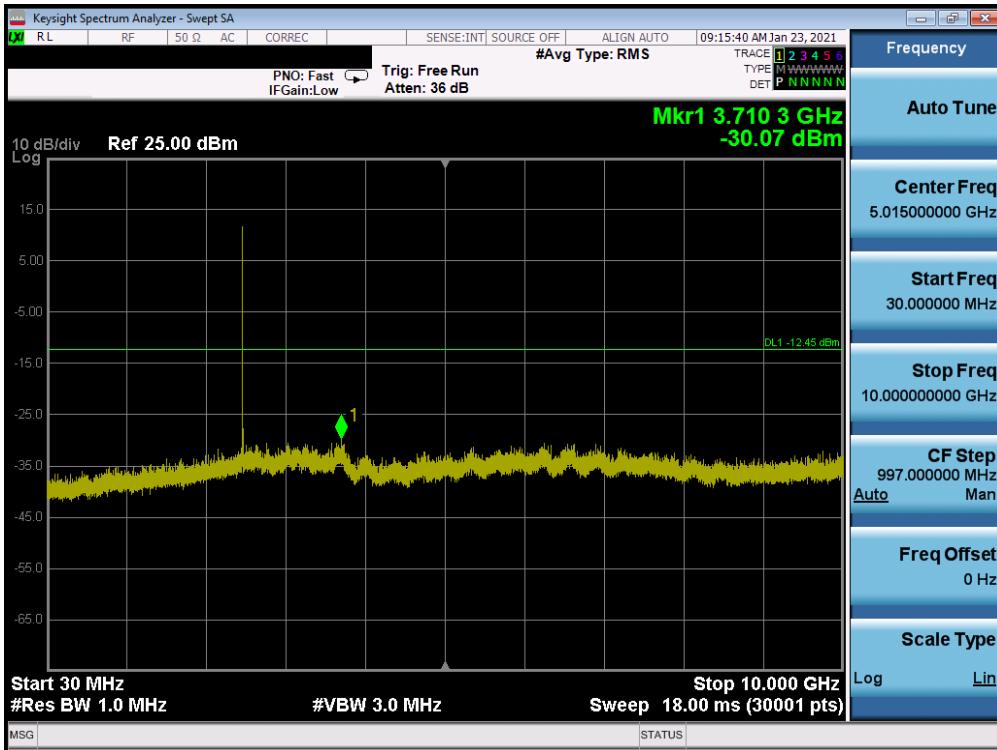


Plot 7-70. Conducted Spurious Plot Antenna 4a (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 1)

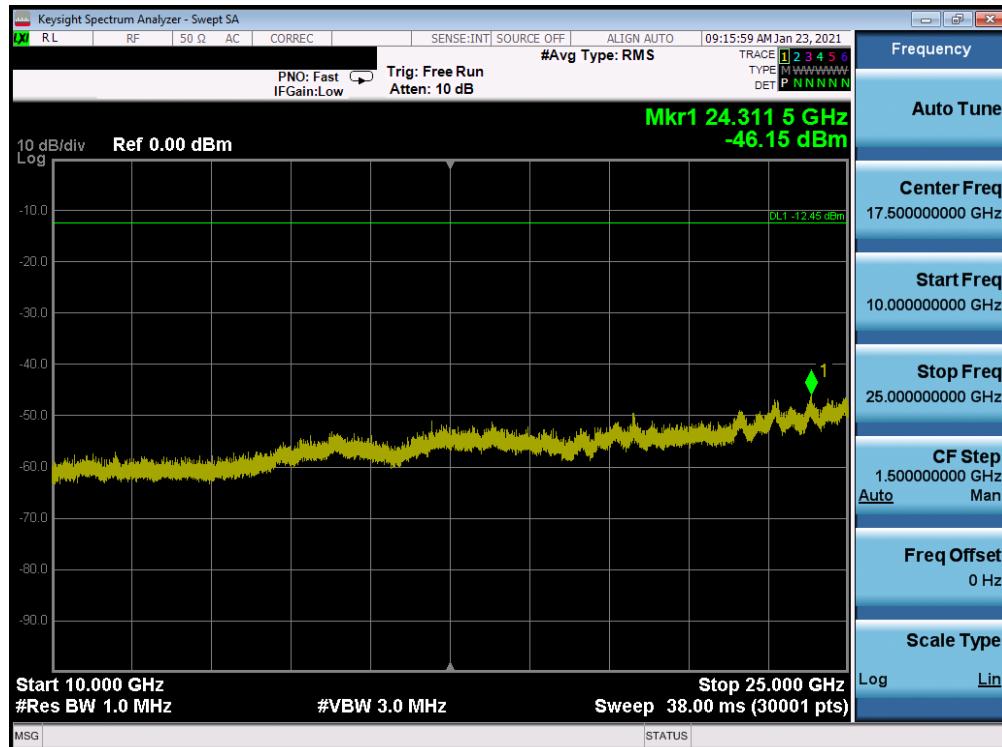
FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device		Page 62 of 101



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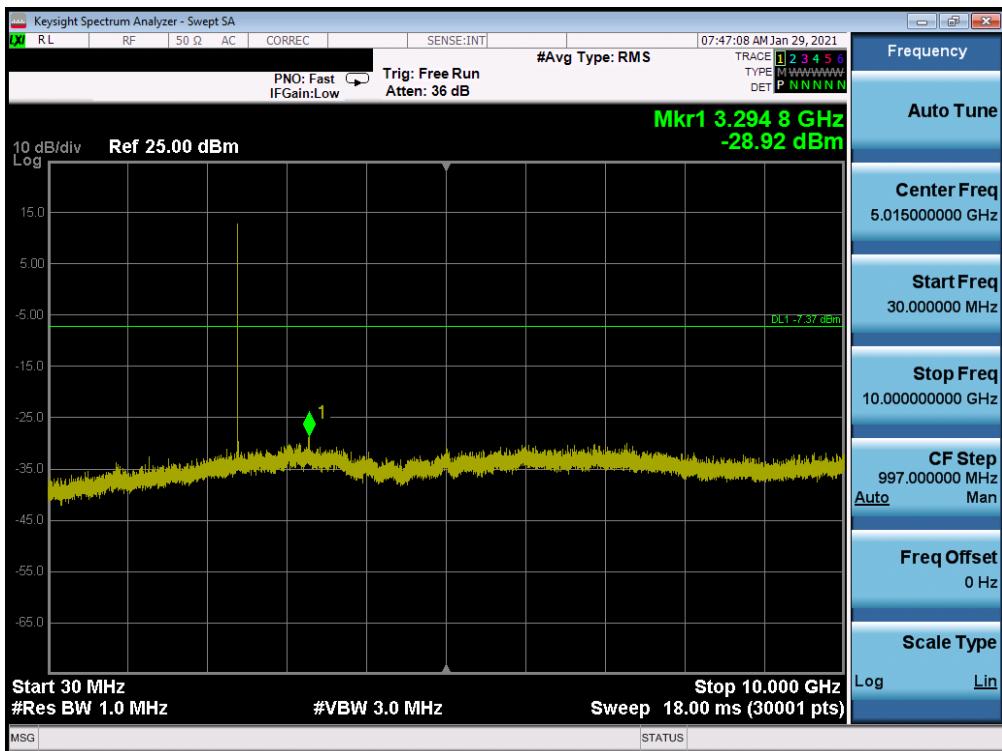
Plot 7-73. Conducted Spurious Plot Antenna 4a (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 73)



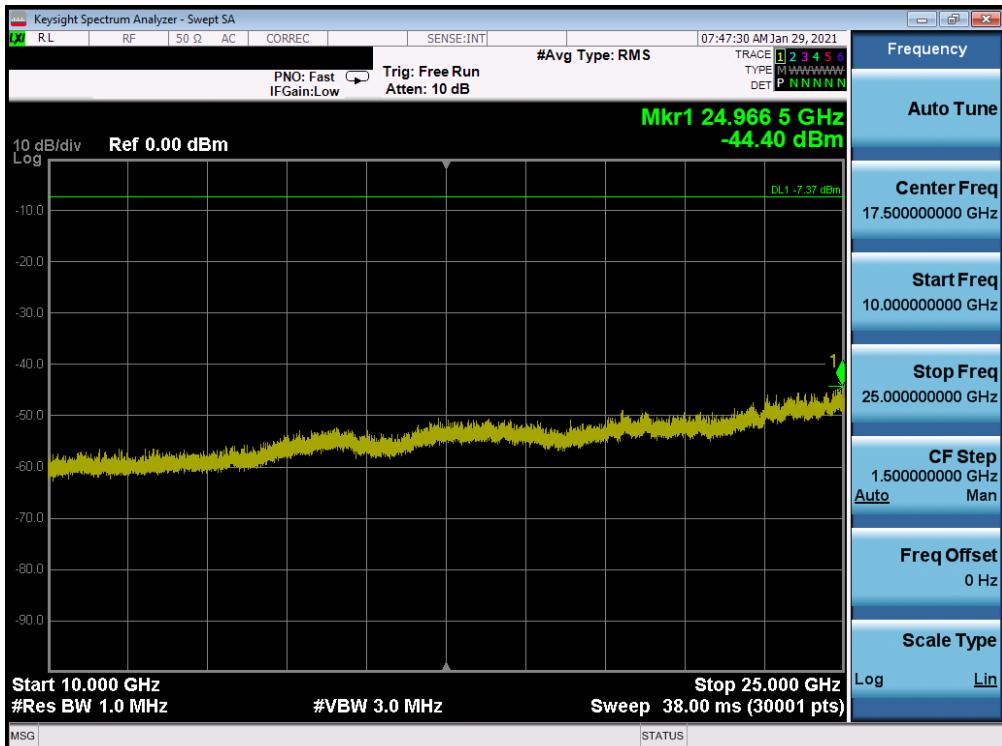
Plot 7-74. Conducted Spurious Plot Antenna 4a (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 73)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 64 of 101

Antenna 2a

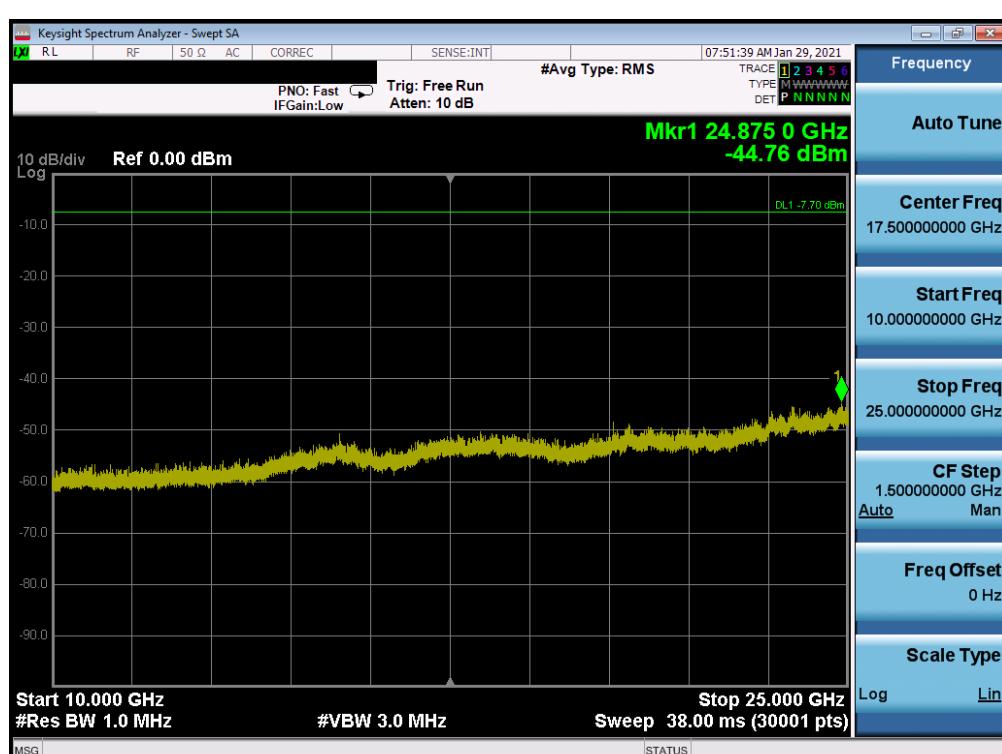
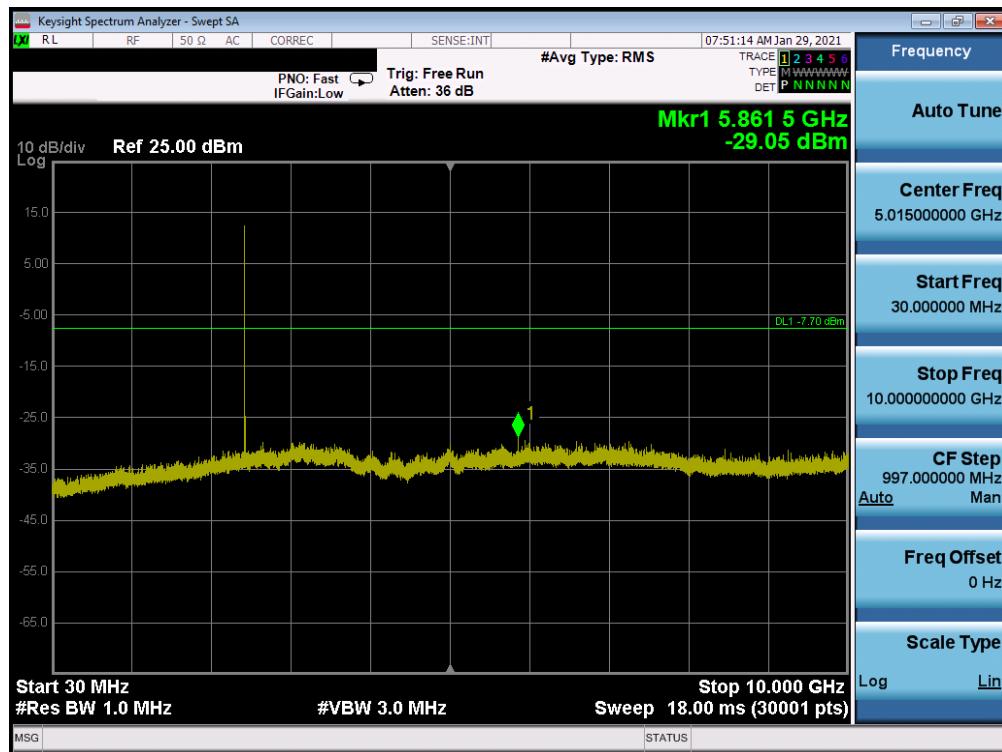


Plot 7-75. Conducted Spurious Plot Antenna 2a (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 1)

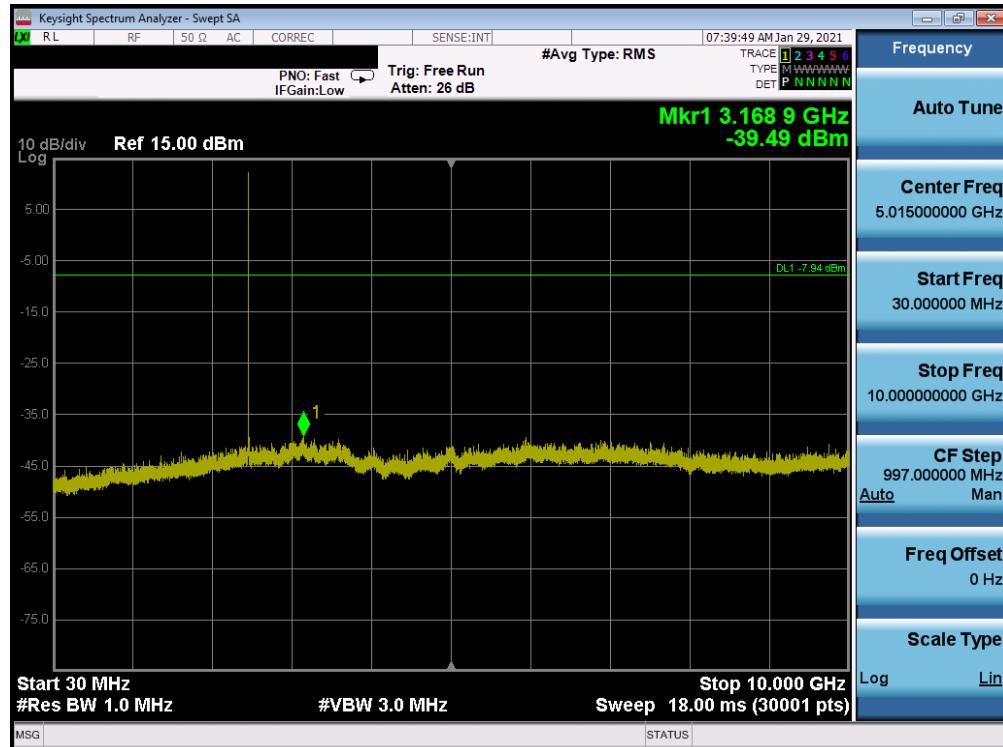


Plot 7-76. Conducted Spurious Plot Antenna 2a (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 1)

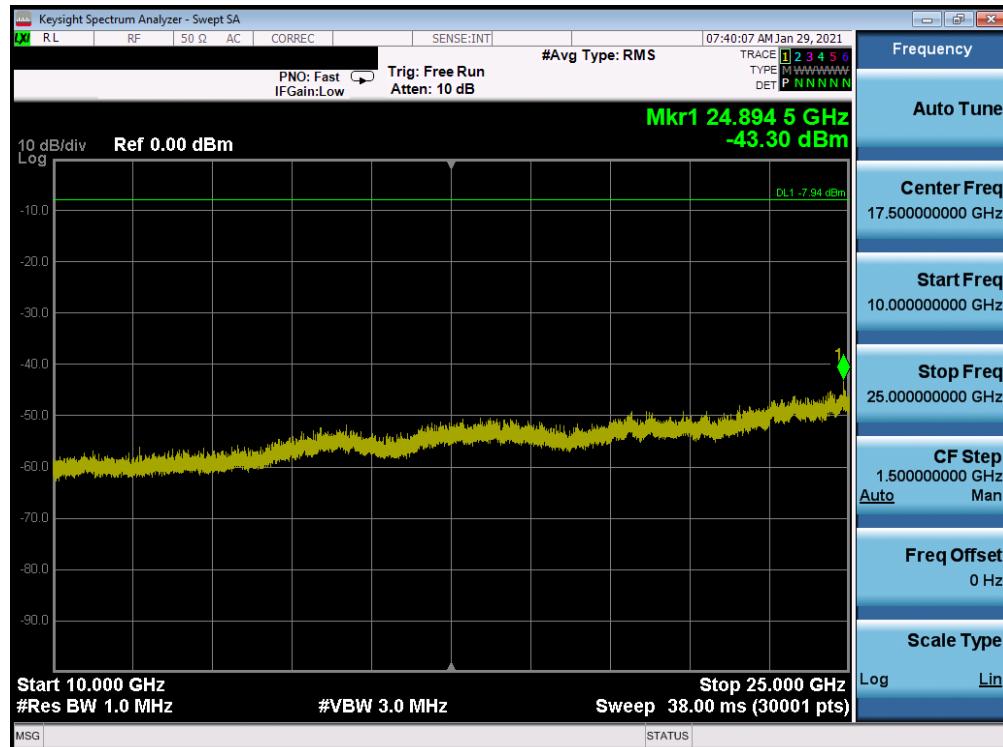
FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device		Page 65 of 101



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Plot 7-79. Conducted Spurious Plot Antenna 2a (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 73)



Plot 7-80. Conducted Spurious Plot Antenna 2a (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 73)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST Proud to be part of  element		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 67 of 101	

7.7 Radiated Spurious Emissions – Above 1GHz

§15.205 §15.209 §15.247(d); 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 maximum power and at the appropriate frequencies. 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 7-13 per Section 15.209 and RSS-Gen (8.9).

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

Table 7-13. Radiated Limits

Test Procedures Used

ANSI C63.10-2013 – Section 6.6.4.3

KDB 558074 D01 v05r02 – Section 8.6, 8.7

Test Settings

Average Field Strength Measurements

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

Peak Field Strength Measurements

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

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Test Setup

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

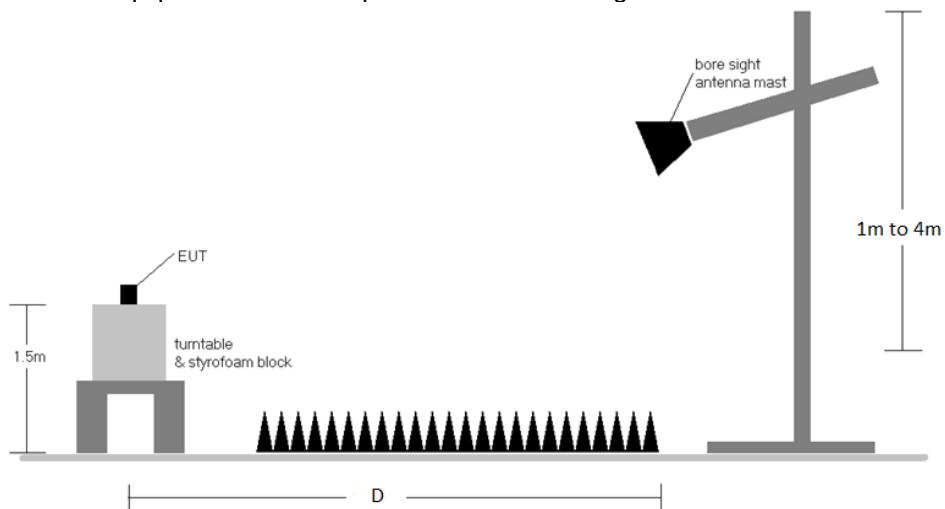
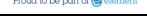


Figure 7-6. Radiated Test Setup >1GHz

Test Notes

1. The optional test procedures for antenna port conducted measurements of unwanted emissions per the guidance of KDB 558074 D01 v05r02 were not used to evaluate this device for compliance to radiated limits. All radiated spurious emissions levels were measured in a radiated test setup.
2. All emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-13.
3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas.
6. D is the measurement test distance and emissions 1-18GHz were measured at a 3 meters test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
8. All supported modulation, antenna (including TxBF mode) and power schemes have been tested on the unit and only worst case configuration is reported.

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Sample Calculations

Determining Spurious Emissions Levels

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

Radiated Band Edge Measurement Offset

- The amplitude offset shown in the radiated restricted band edge plots in Section 7.8 was calculated using the formula:

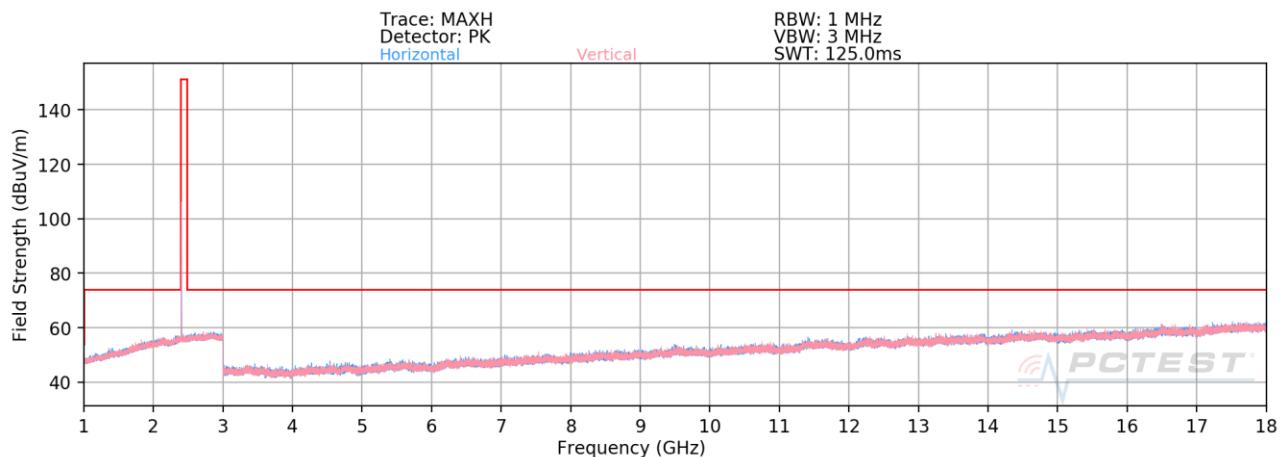
$$\text{Offset (dB)} = (\text{Antenna Factor} + \text{Cable Loss} + \text{Attenuator}) - \text{Preamplifier Gain}$$

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Radiated Spurious Emission Measurements (1 – 18GHz)

§15.205 §15.209 §15.247(d); RSS-Gen [8.9]

Antenna 4a



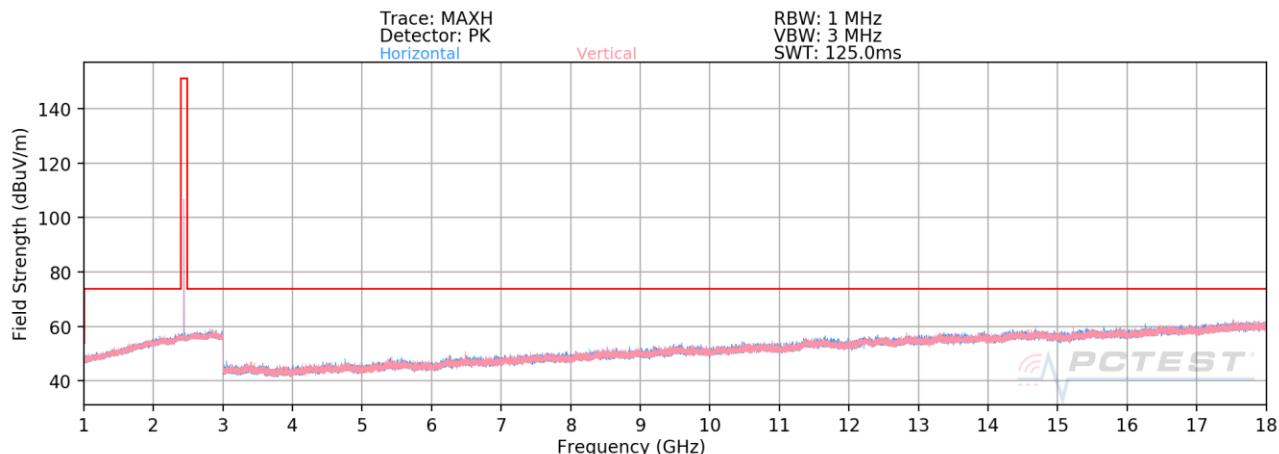
Plot 7-81. Radiated Spurious Emissions Above 1GHz Antenna 4a (4Mbps, HDR4, ePA – Ch. 1)

Bluetooth Mode:	<u>HDR4</u>
Power Scheme	<u>ePA</u>
Distance of Measurements:	<u>3 Meters</u>
Operating Frequency:	<u>2404MHz</u>
Channel:	<u>1</u>

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4808.00	Avg	-	-	-	-79.34	7.60	35.26	53.98	-18.72
4808.00	Peak	-	-	-	-66.94	7.60	47.66	73.98	-26.32
12020.00	Avg	-	-	-	-81.05	17.44	43.39	53.98	-10.59
12020.00	Peak	-	-	-	-68.93	17.44	55.51	73.98	-18.47

Table 7-14. Radiated Measurements Antenna 4a

FCC ID: BCGA2379 IC: 579C-A2379	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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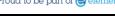


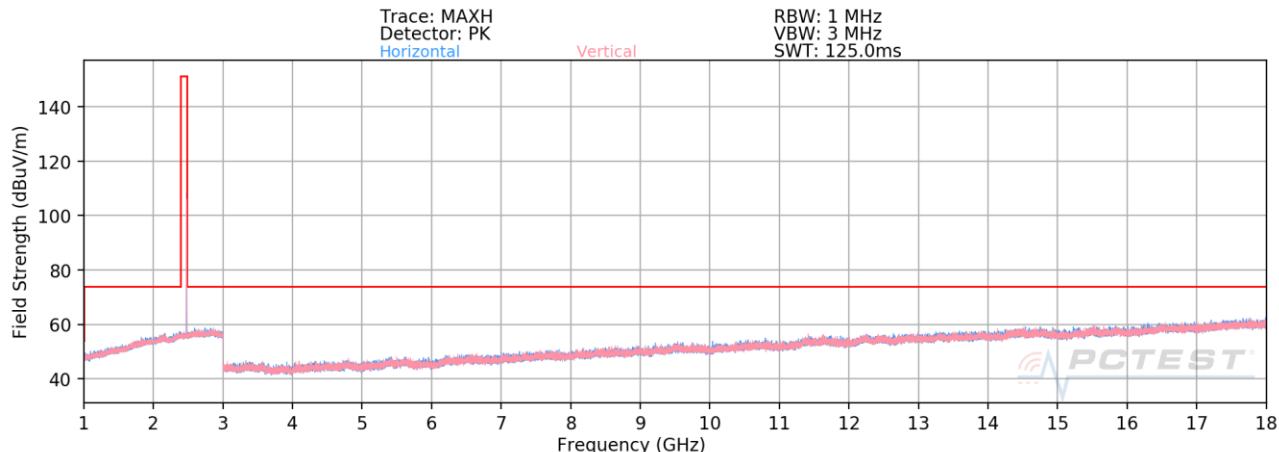
Plot 7-82. Radiated Spurious Emissions Above 1GHz Antenna 4a (4Mbps, HDR4, ePA – Ch. 38)

Bluetooth Mode:	<u>HDR4</u>
Power Scheme	<u>ePA</u>
Distance of Measurements:	<u>3 Meters</u>
Operating Frequency:	<u>2441MHz</u>
Channel:	<u>38</u>

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4882.00	Avg	-	-	-	-78.63	6.76	35.13	53.98	-18.85
4882.00	Peak	-	-	-	-66.20	6.76	47.56	73.98	-26.42
7323.00	Avg	-	-	-	-79.12	10.75	38.63	53.98	-15.35
7323.00	Peak	-	-	-	-67.91	10.75	49.84	73.98	-24.14
12205.00	Avg	-	-	-	-81.02	18.73	44.71	53.98	-9.27
12205.00	Peak	-	-	-	-68.81	18.73	56.92	73.98	-17.06

Table 7-15. Radiated Measurements Antenna 4a

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device			



Plot 7-83. Radiated Spurious Emissions Above 1GHz Antenna 4a (4Mbps, HDR4, ePA – Ch. 73)

Bluetooth Mode: HDR4
Power Scheme ePA
Distance of Measurements: 3 Meters
Operating Frequency: 2476MHz
Channel: 73

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4952.00	Avg	-	-	-	-78.79	5.97	34.18	53.98	-19.80
4952.00	Peak	-	-	-	-66.39	5.97	46.58	73.98	-27.40
7428.00	Avg	-	-	-	-79.13	10.39	38.26	53.98	-15.72
7428.00	Peak	-	-	-	-67.74	10.39	49.65	73.98	-24.33
12380.00	Avg	-	-	-	-80.49	17.41	43.92	53.98	-10.06
12380.00	Peak	-	-	-	-68.33	17.41	56.08	73.98	-17.90

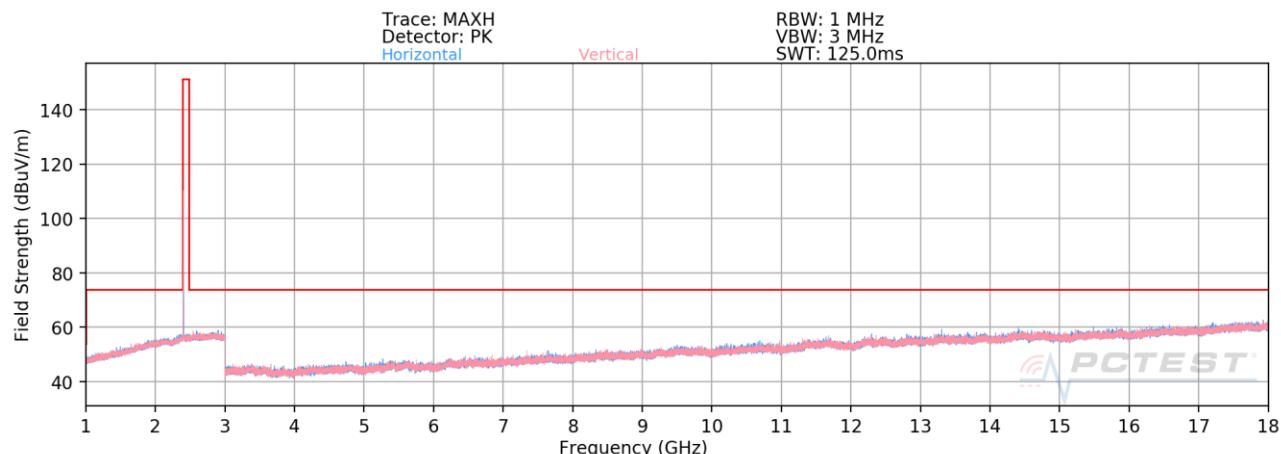
Table 7-16. Radiated Measurements Antenna 4a

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device			

Radiated Spurious Emission Measurements (1 – 18GHz)

§15.205 §15.209 §15.247(d); RSS-Gen [8.9]

Antenna 2a

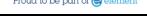


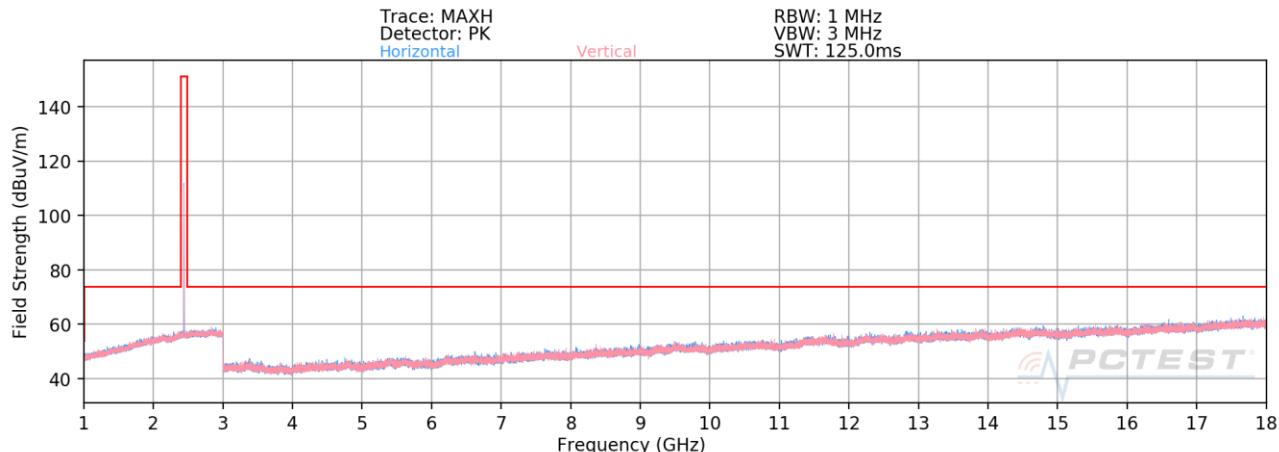
Plot 7-84. Radiated Spurious Emissions Above 1GHz Antenna 2a (4Mbps, HDR4, ePA – Ch. 1)

Bluetooth Mode:	<u>HDR4</u>
Power Scheme	<u>ePA</u>
Distance of Measurements:	<u>3 Meters</u>
Operating Frequency:	<u>2404MHz</u>
Channel:	<u>1</u>

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4808.00	Avg	-	-	-	-79.26	7.60	35.34	53.98	-18.64
4808.00	Peak	-	-	-	-66.95	7.60	47.65	73.98	-26.33
12020.00	Avg	-	-	-	-80.96	17.44	43.48	53.98	-10.50
12020.00	Peak	-	-	-	-68.98	17.44	55.46	73.98	-18.52

Table 7-17. Radiated Measurements Antenna 2a

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device			



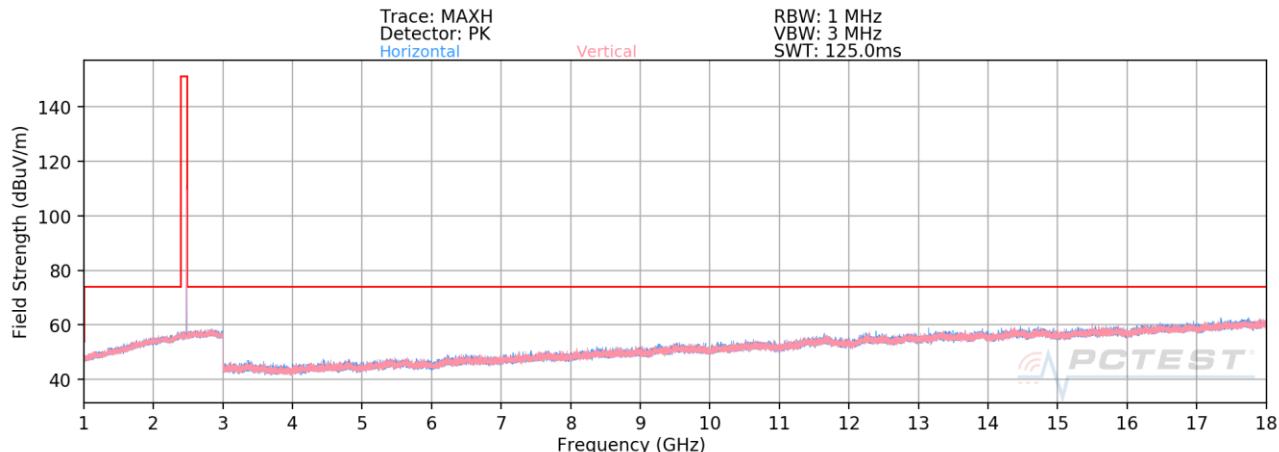
Plot 7-85. Radiated Spurious Emissions Above 1GHz Antenna 2a (4Mbps, HDR4, ePA – Ch. 38)

Bluetooth Mode:	<u>HDR4</u>
Power Scheme	<u>ePA</u>
Distance of Measurements:	<u>3 Meters</u>
Operating Frequency:	<u>2441MHz</u>
Channel:	<u>38</u>

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4882.00	Avg	-	-	-	-78.63	6.76	35.13	53.98	-18.85
4882.00	Peak	-	-	-	-65.51	6.76	48.25	73.98	-25.73
7323.00	Avg	-	-	-	-79.05	10.75	38.70	53.98	-15.28
7323.00	Peak	-	-	-	-66.95	10.75	50.80	73.98	-23.18
12205.00	Avg	-	-	-	-80.96	18.73	44.77	53.98	-9.21
12205.00	Peak	-	-	-	-68.63	18.73	57.10	73.98	-16.88

Table 7-18. Radiated Measurements Antenna 2a

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device			



Plot 7-86. Radiated Spurious Emissions Above 1GHz Antenna 2a (4Mbps, HDR4, ePA – Ch. 73)

Bluetooth Mode:	HDR4
Power Scheme	ePA
Distance of Measurements:	3 Meters
Operating Frequency:	2476MHz
Channel:	73

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4956.00	Avg	-	-	-	-79.67	5.97	33.30	53.98	-20.68
4956.00	Peak	-	-	-	-66.92	5.97	46.05	73.98	-27.93
7434.00	Avg	-	-	-	-80.52	10.39	36.87	53.98	-17.11
7434.00	Peak	-	-	-	-67.31	10.39	50.08	73.98	-23.90
12390.00	Avg	-	-	-	-81.19	17.41	43.22	53.98	-10.76
12390.00	Peak	-	-	-	-68.47	17.41	55.94	73.98	-18.04

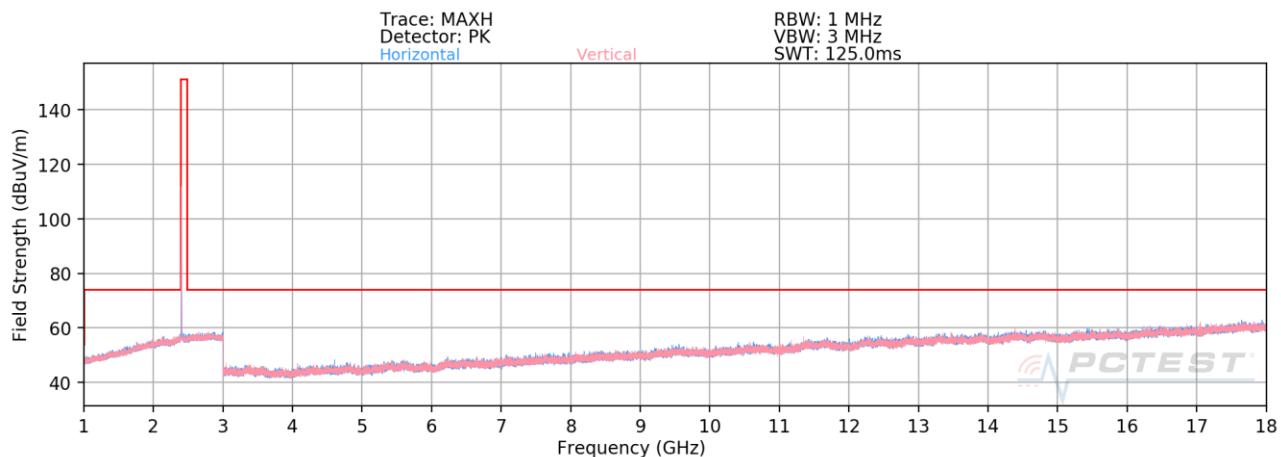
Table 7-19. Radiated Measurements Antenna 2a

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device			

Radiated Spurious Emission Measurements (Above 1GHz)

§15.205 §15.209 §15.247(d); RSS-Gen [8.9]

TxBF

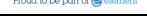


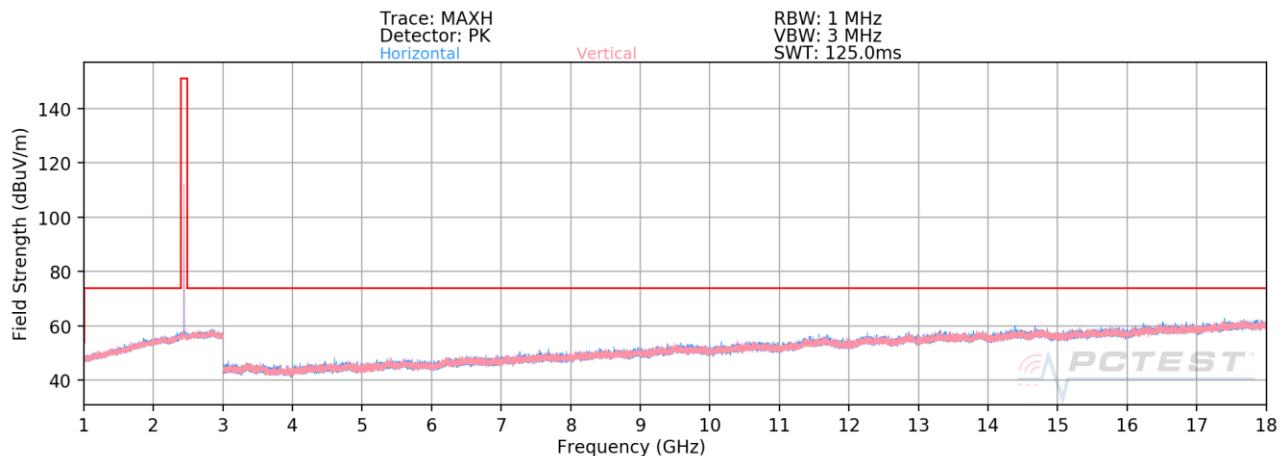
Plot 7-87. Radiated Spurious Emissions Above 1GHz TxBF (4Mbps, HDR4, ePA – Ch. 1)

Bluetooth Mode: HDR4
Power Scheme ePA
Distance of Measurements: 3 Meters
Operating Frequency: 2404MHz
Channel: 1

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4808.00	Avg	-	-	-	-78.35	7.60	36.25	53.98	-17.73
4808.00	Peak	-	-	-	-66.41	7.60	48.19	73.98	-25.79
12020.00	Avg	-	-	-	-80.60	17.44	43.84	53.98	-10.14
12020.00	Peak	-	-	-	-68.20	17.44	56.24	73.98	-17.74

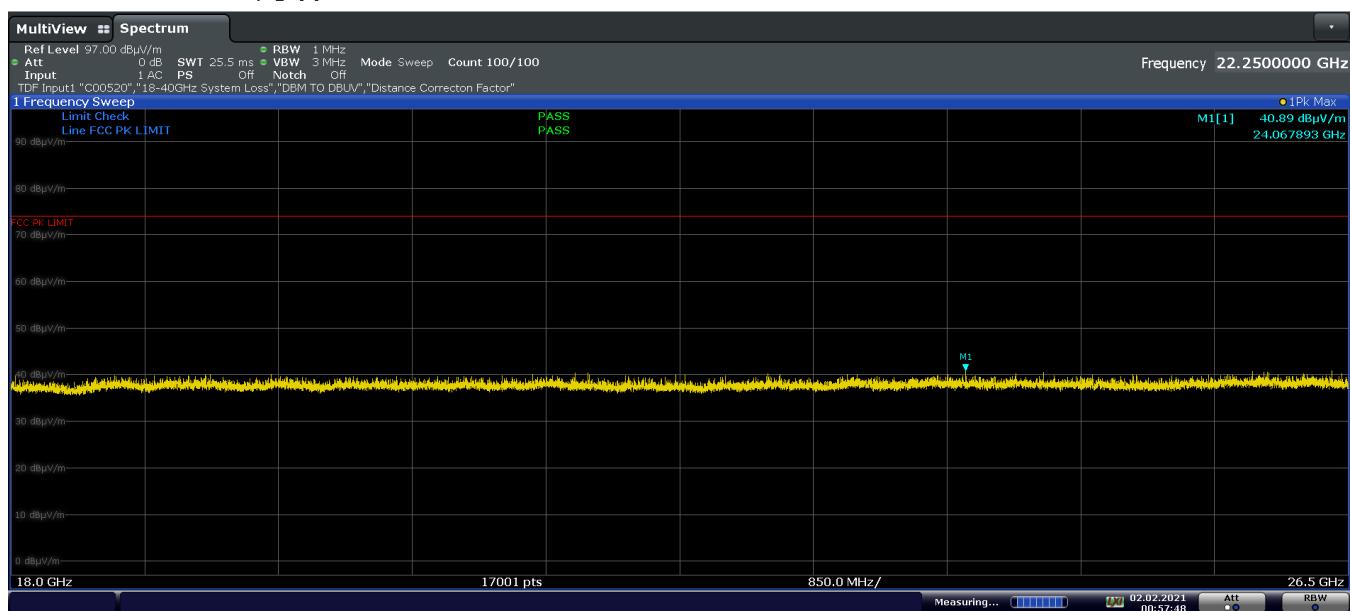
Table 7-20. Radiated Measurements TxBF

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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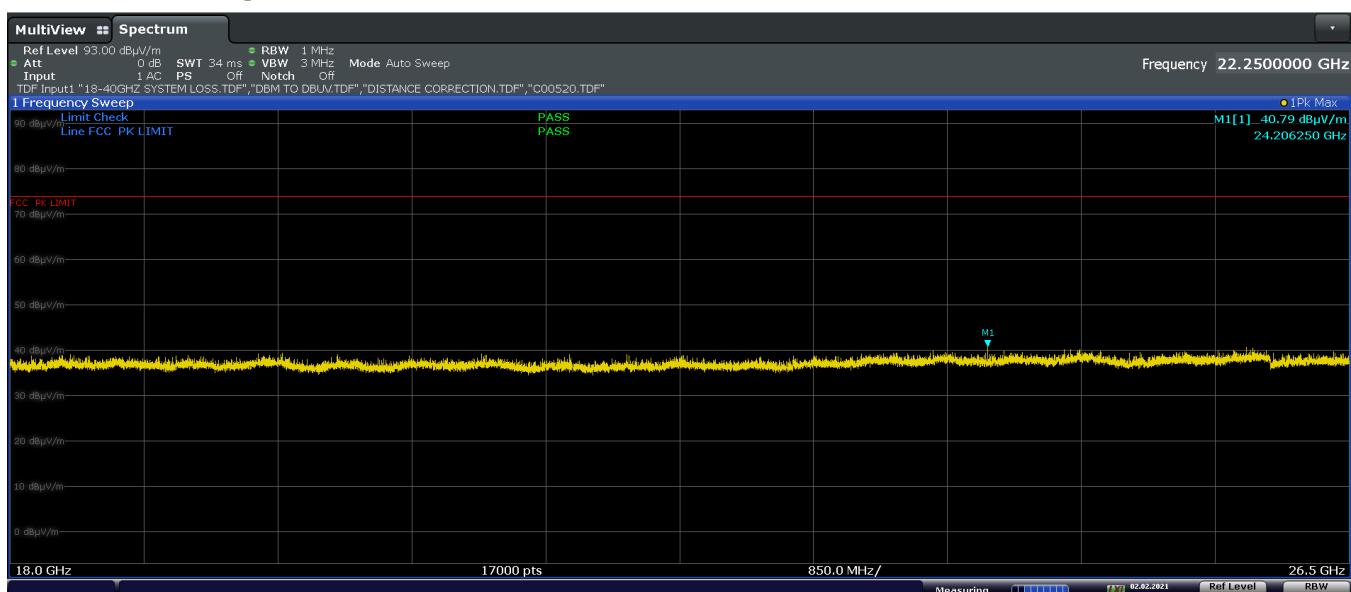
Plot 7-88. Radiated Spurious Emissions Above 1GHz TxBF (4Mbps, HDR4, ePA – Ch. 38)

CC2014 US1 BT HDR4 ePA TxBF Ch2441 q00_00[H]



Plot 7-89. Radiated Spurious Emissions Above 18GHz TxBF (4Mbps – Ch.38, ePA, Ant. Pol. H)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-1.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 78 of 101	



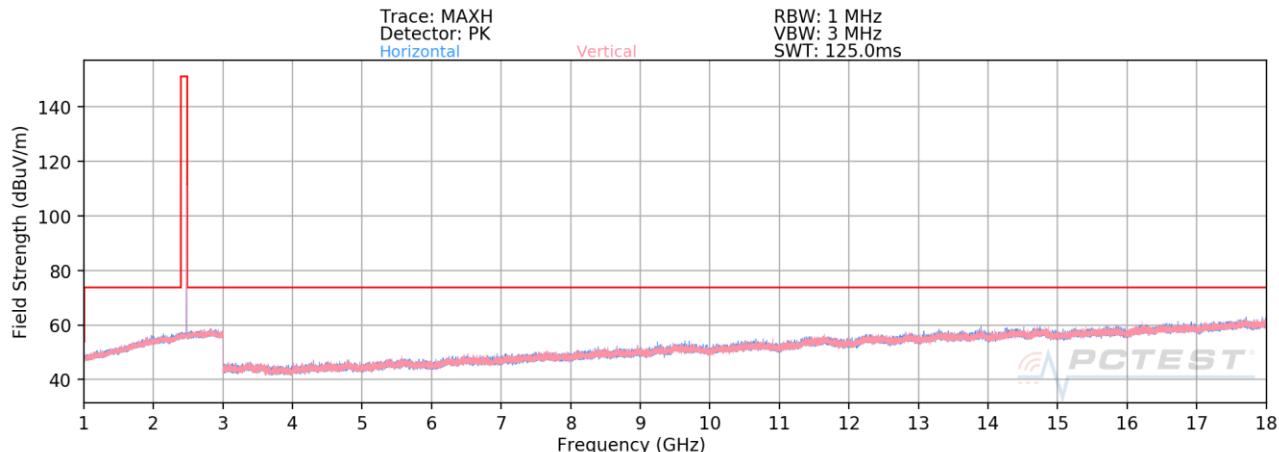
Plot 7-90. Radiated Spurious Emissions Above 18GHz TxBF (4Mbps – Ch.38, ePA, Ant. Pol. V)

Bluetooth Mode:	<u>HDR4</u>
Power Scheme	<u>ePA</u>
Distance of Measurements:	<u>3 Meters</u>
Operating Frequency:	<u>2441MHz</u>
Channel:	<u>38</u>

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]
4882.00	Avg	-	-	-	-78.63	6.76	35.13	53.98	-18.85
4882.00	Peak	-	-	-	-66.39	6.76	47.37	73.98	-26.61
7323.00	Avg	-	-	-	-79.06	10.75	38.69	53.98	-15.29
7323.00	Peak	-	-	-	-67.21	10.75	50.54	73.98	-23.44
12205.00	Avg	-	-	-	-80.84	18.73	44.89	53.98	-9.09
12205.00	Peak	-	-	-	-68.96	18.73	56.77	73.98	-17.21

Table 7-21. Radiated Measurements TxBF

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-91. Radiated Spurious Emissions Above 1GHz TxBF (4Mbps, HDR4, ePA – Ch. 73)

Bluetooth Mode: HDR4
Power Scheme ePA
Distance of Measurements: 3 Meters
Operating Frequency: 2476MHz
Channel: 73

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4952.00	Avg	-	-	-	-78.70	5.97	34.27	53.98	-19.71
4952.00	Peak	-	-	-	-66.06	5.97	46.91	73.98	-27.07
7428.00	Avg	-	-	-	-78.75	10.39	38.64	53.98	-15.34
7428.00	Peak	-	-	-	-66.94	10.39	50.45	73.98	-23.53
12380.00	Avg	-	-	-	-79.47	17.41	44.94	53.98	-9.04
12380.00	Peak	-	-	-	-67.31	17.41	57.10	73.98	-16.88

Table 7-22. Radiated Measurements TxBF

FCC ID: BCGA2379 IC: 579C-A2379	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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7.8 Radiated Restricted Band Edge Measurements

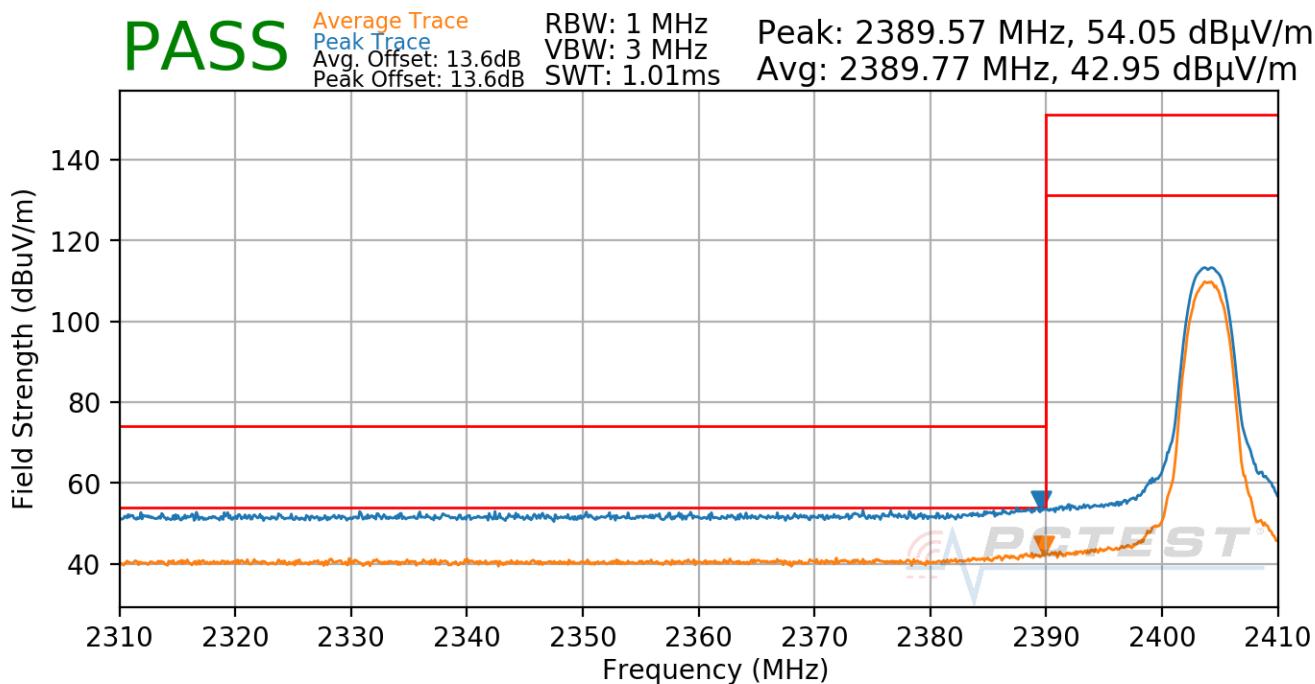
§15.205 §15.209; RSS-Gen [8.9]

Antenna 4a

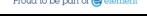
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

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

Bluetooth Mode:	HDR4-Antenna 4a
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-92. Radiated Restricted Lower Band Edge Measurement Antenna 4a (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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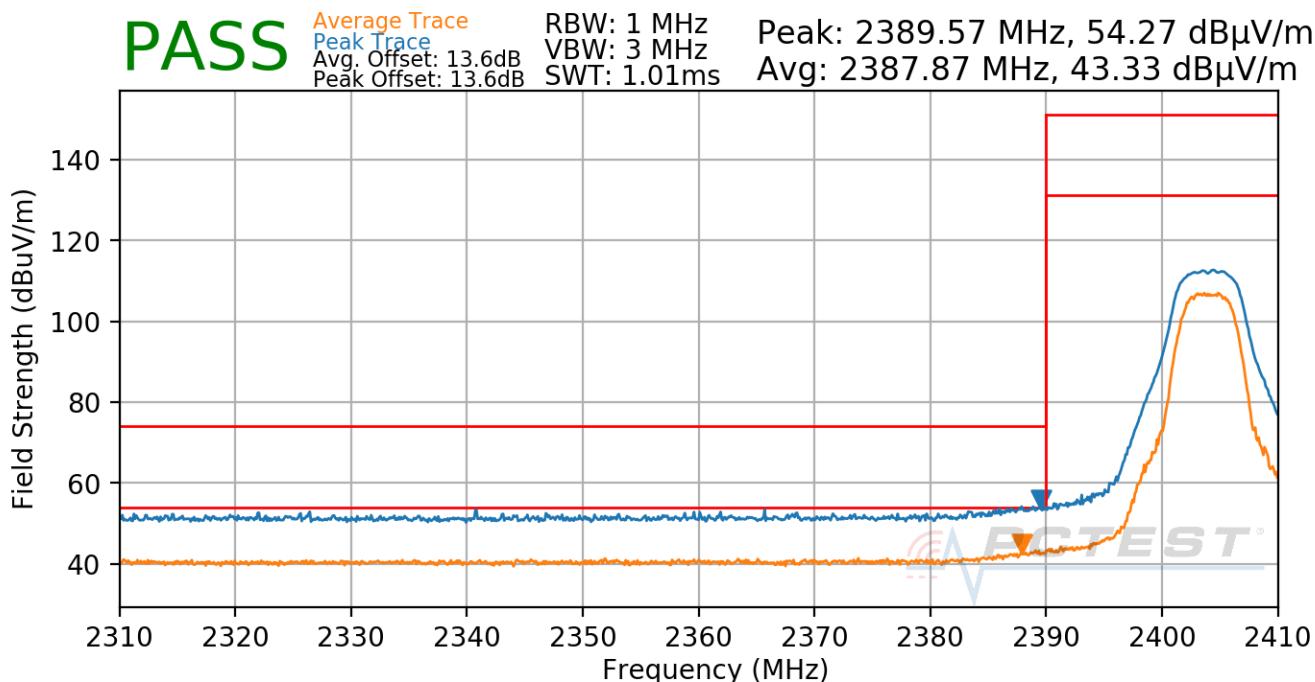
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

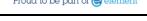
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR8-Antenna 4a
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-93. Radiated Restricted Lower Band Edge Measurement Antenna 4a (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device		Page 82 of 101

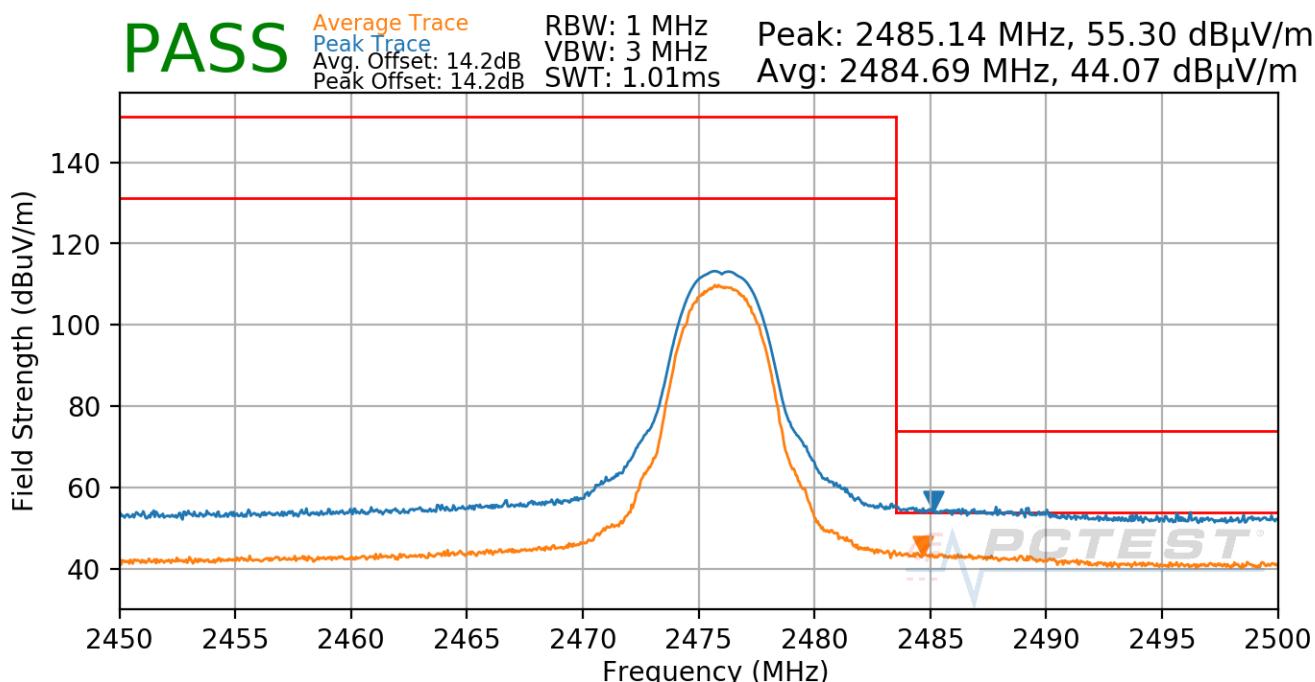
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

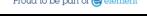
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR4-Antenna 4a
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2476MHz
Channel:	73



Plot 7-94. Radiated Restricted Upper Band Edge Measurement Antenna 4a (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 83 of 101	

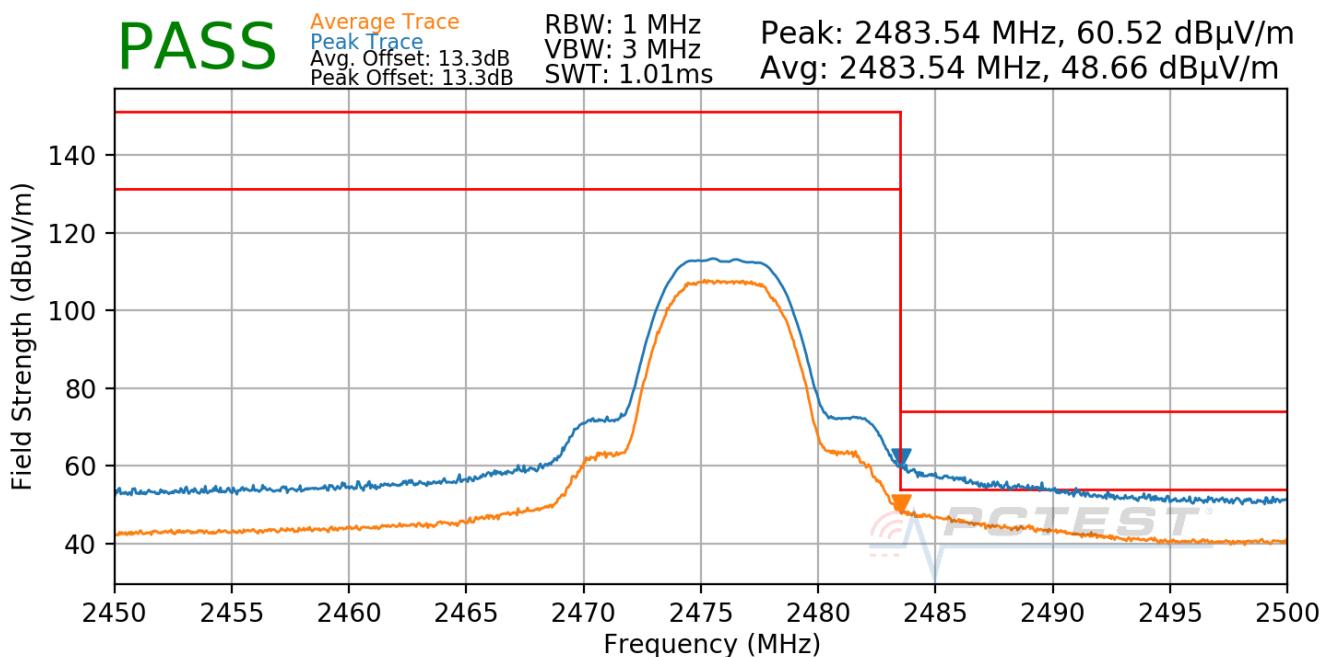
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

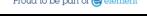
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR8-Antenna 4a
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2476MHz
Channel:	73



Plot 7-95. Radiated Restricted Upper Band Edge Measurement Antenna 4a (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Radiated Restricted Band Edge Measurements

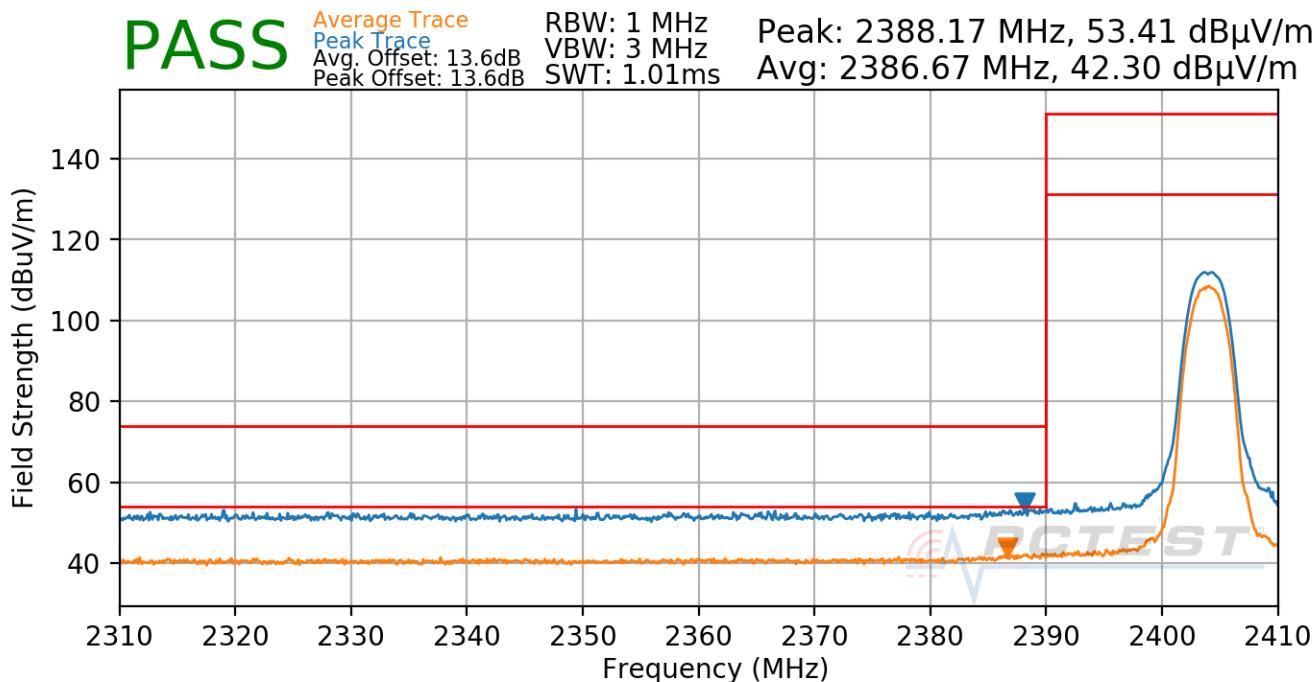
§15.205 §15.209; RSS-Gen [8.9]

Antenna 2a

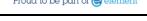
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR4-Antenna 2a
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-96. Radiated Restricted Lower Band Edge Measurement Antenna 2a (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 85 of 101	

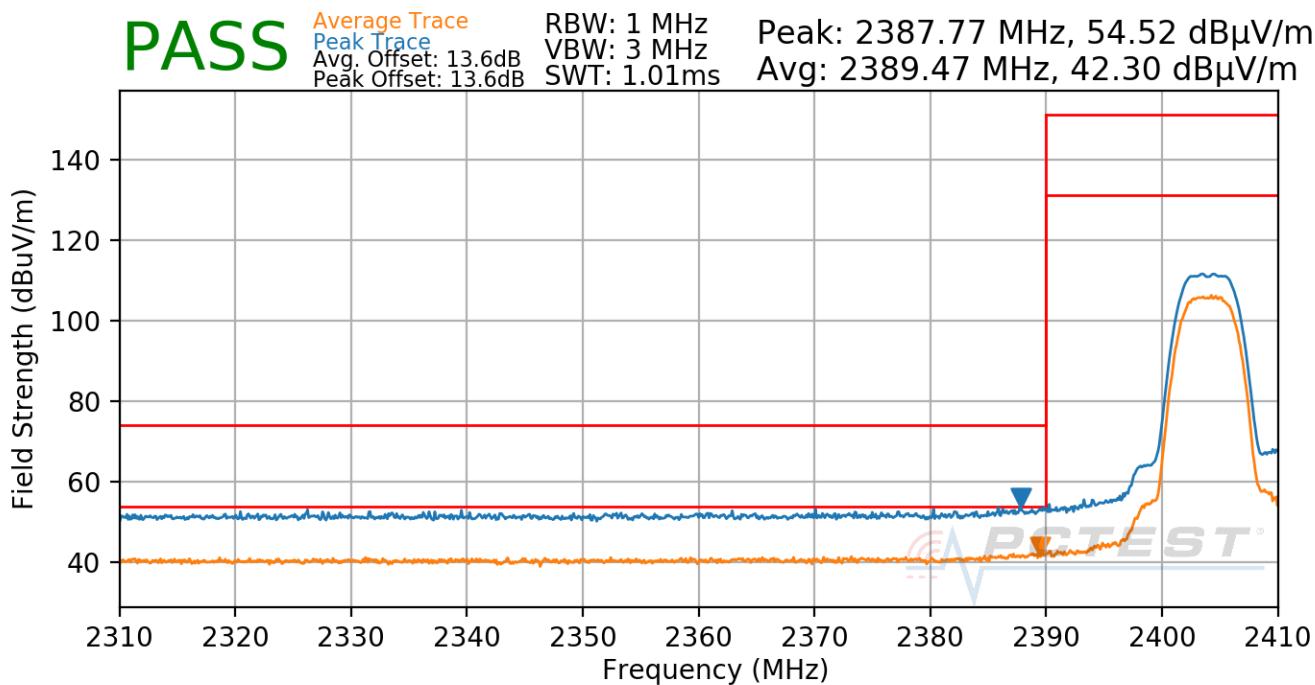
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

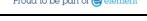
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	<u>HDR8-Antenna 2a</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2404MHz</u>
Channel:	<u>1</u>



Plot 7-97. Radiated Restricted Lower Band Edge Measurement Antenna 2a (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device		Page 86 of 101

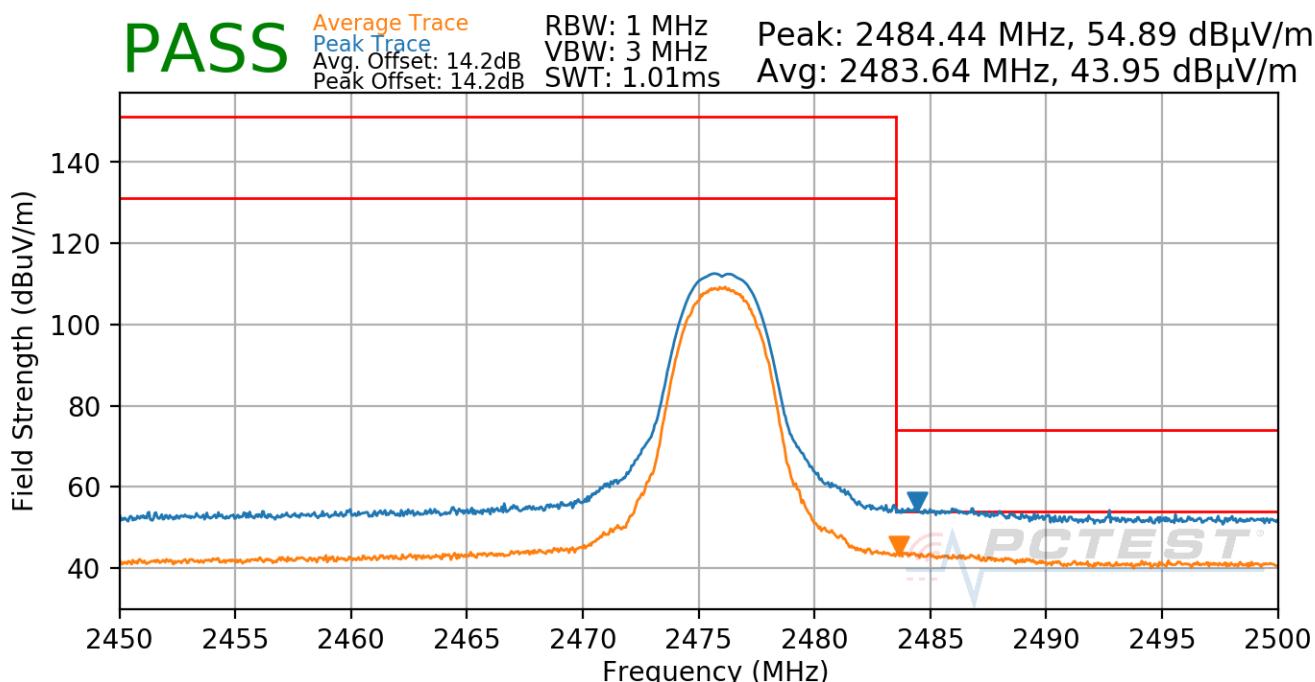
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

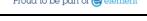
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	<u>HDR4-Antenna 2a</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2476MHz</u>
Channel:	<u>73</u>



Plot 7-98. Radiated Restricted Upper Band Edge Measurement Antenna 2a (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 87 of 101	

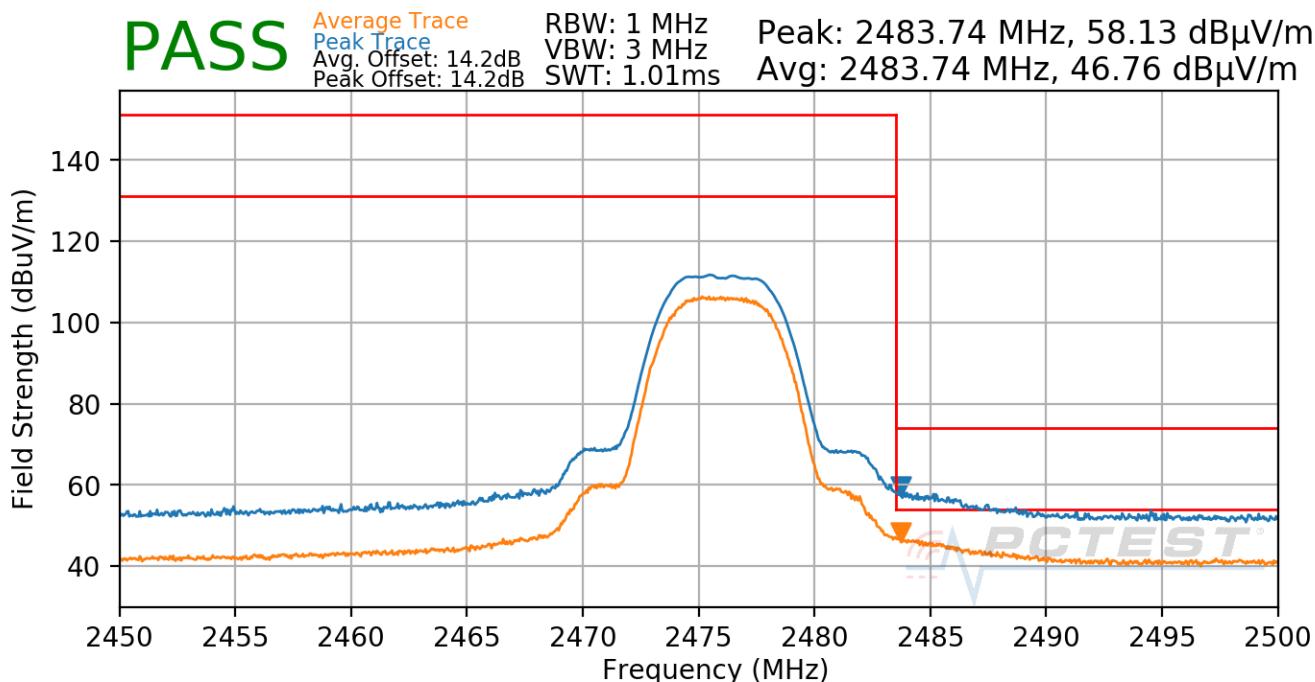
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

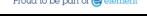
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR8-Antenna 2a
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2476MHz
Channel:	73



Plot 7-99. Radiated Restricted Upper Band Edge Measurement Antenna 2a (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 88 of 101	

Radiated Restricted Band Edge Measurements

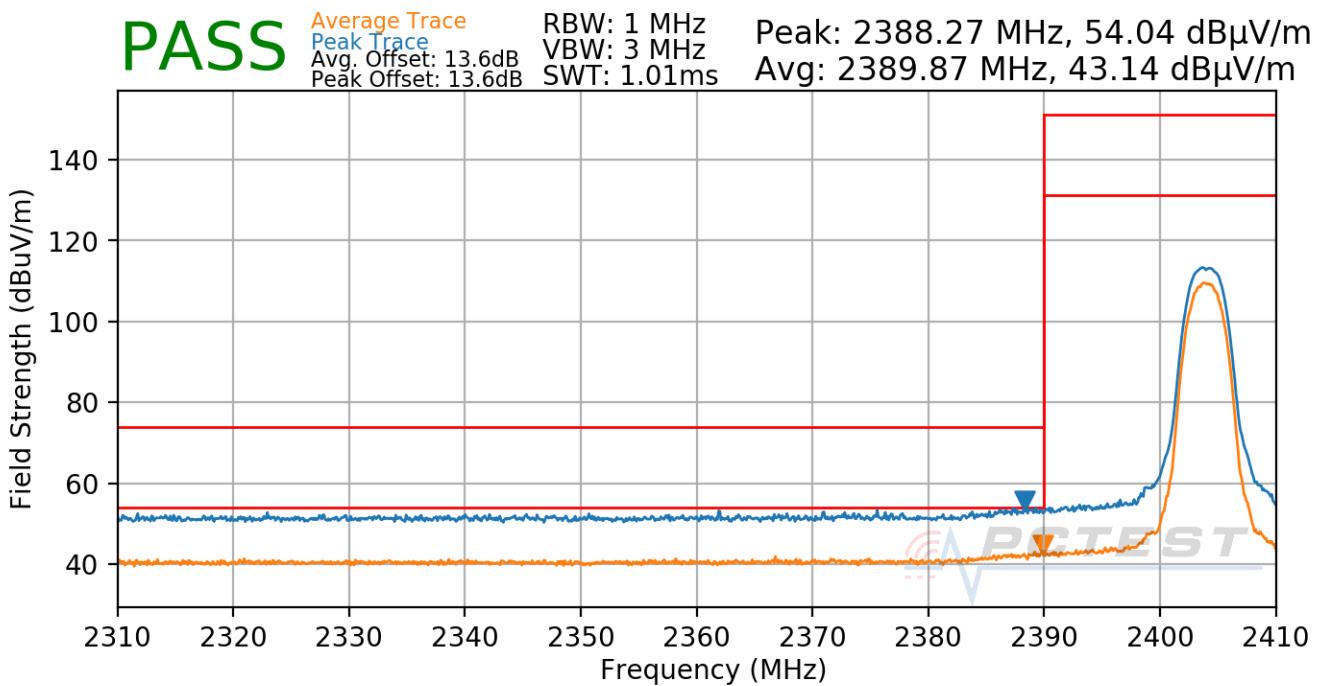
§15.205 §15.209; RSS-Gen [8.9]

TxBF

The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR4-TxBF
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-100. Radiated Restricted Lower Band Edge Measurement TxBF (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 89 of 101

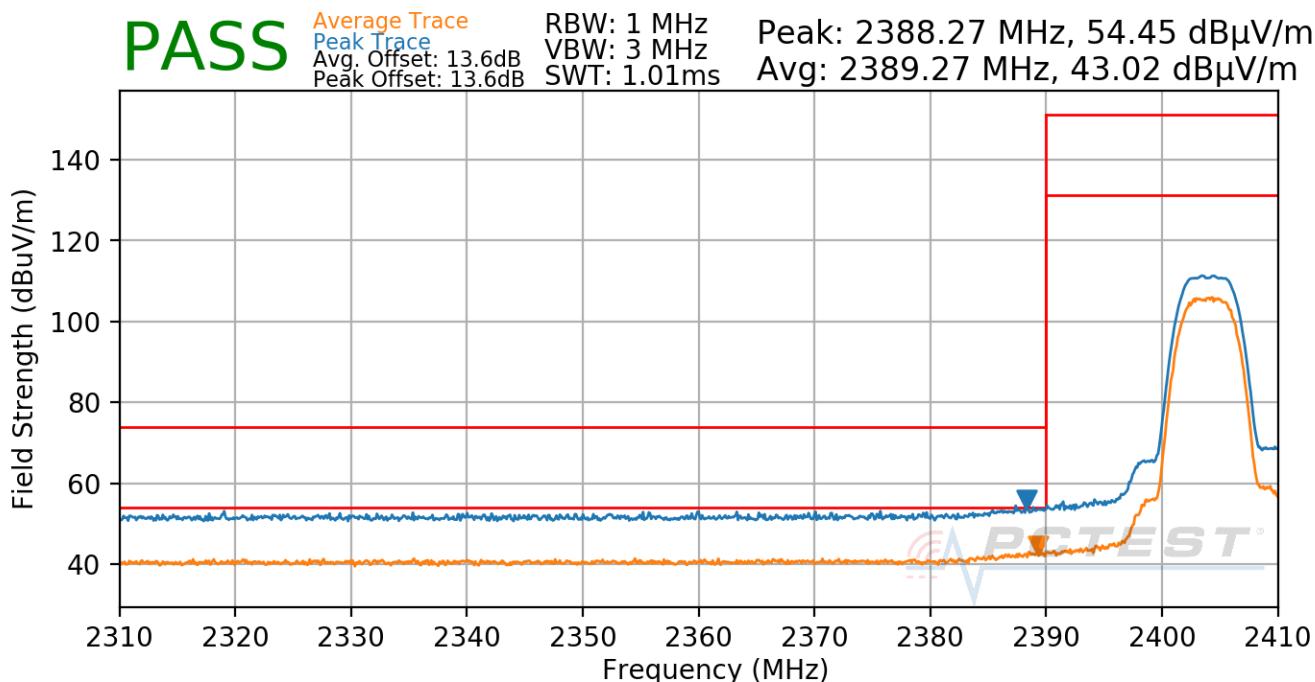
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

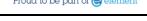
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR8-TxBF
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-101. Radiated Restricted Lower Band Edge Measurement TxBF (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device		Page 90 of 101

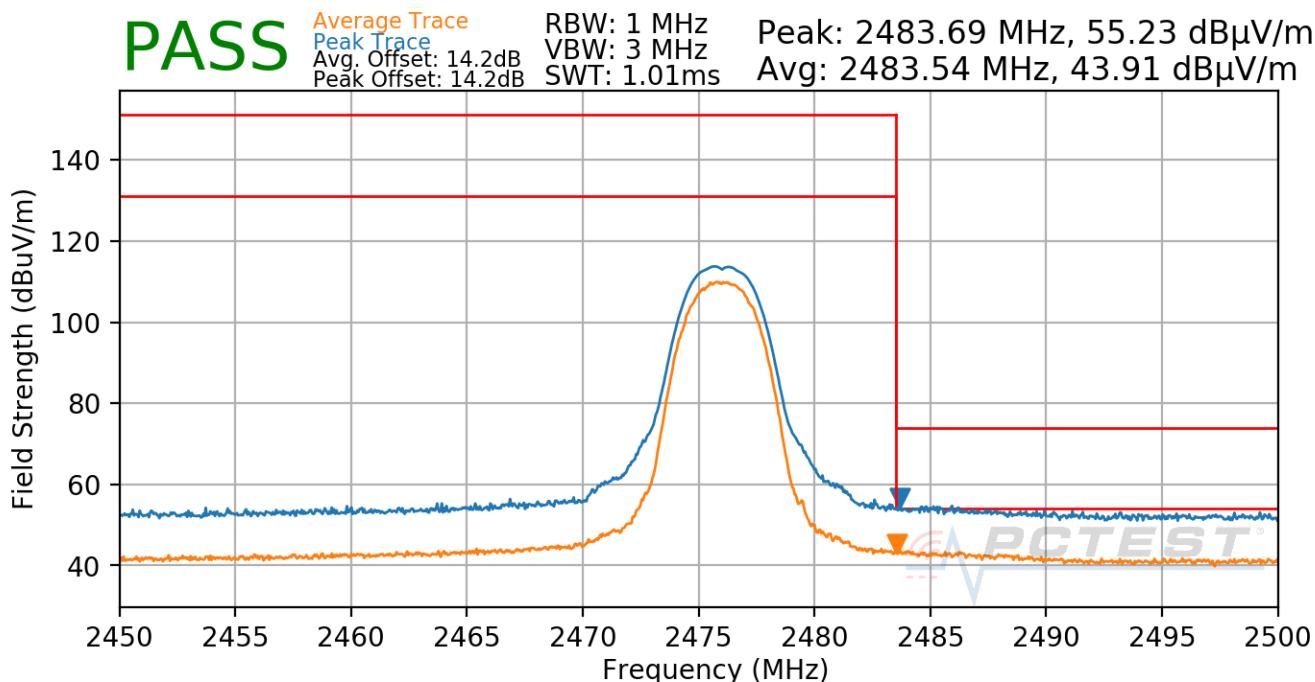
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

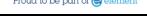
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR4-TxBF
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2476MHz
Channel:	73



Plot 7-102. Radiated Restricted Upper Band Edge Measurement TxBF (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 91 of 101	

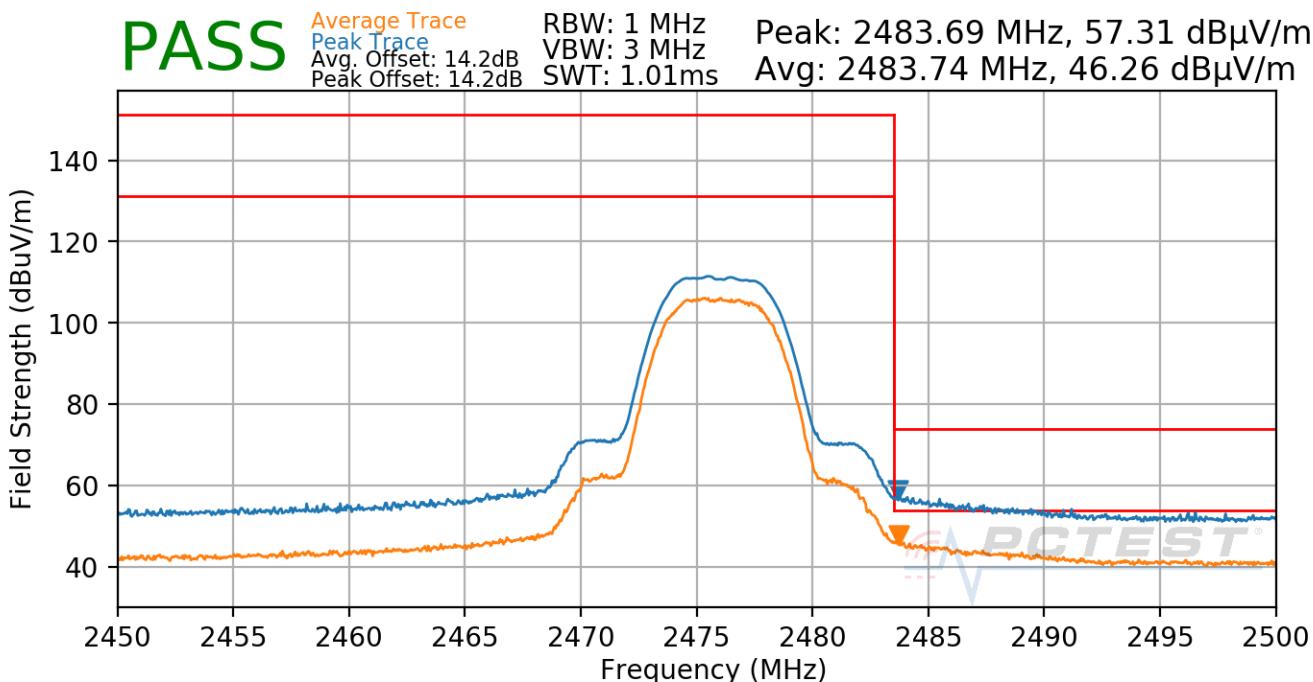
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

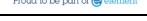
The amplitude offset shown in the following plots for average measurements was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

Bluetooth Mode:	HDR8-TxBF
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2476MHz
Channel:	73



Plot 7-103. Radiated Restricted Upper Band Edge Measurement TxBF (Average & Peak)

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST® Proud to be part of 		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device	Page 92 of 101	

7.9 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 7-23 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [μ 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 7-23. 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

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. VBW = 300kHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. 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.

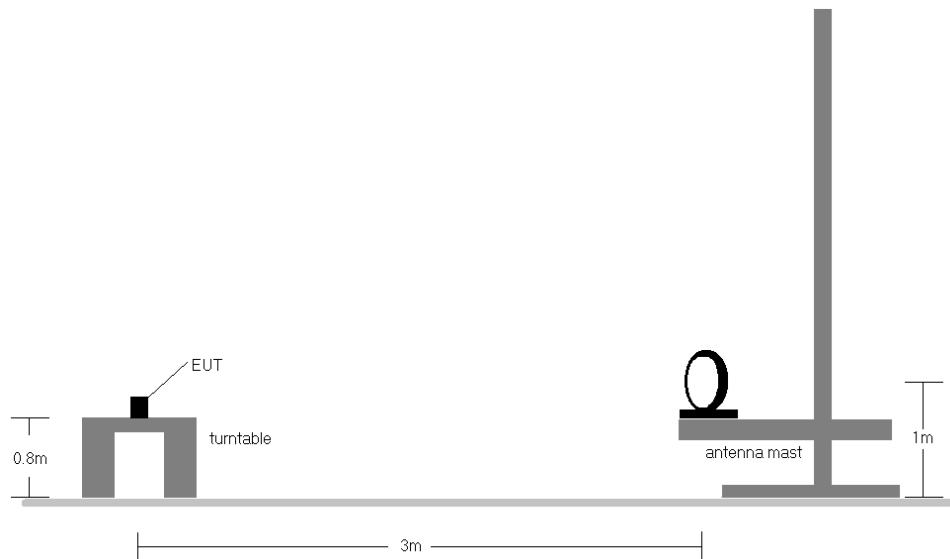


Figure 7-7. Radiated Test Setup < 30MHz

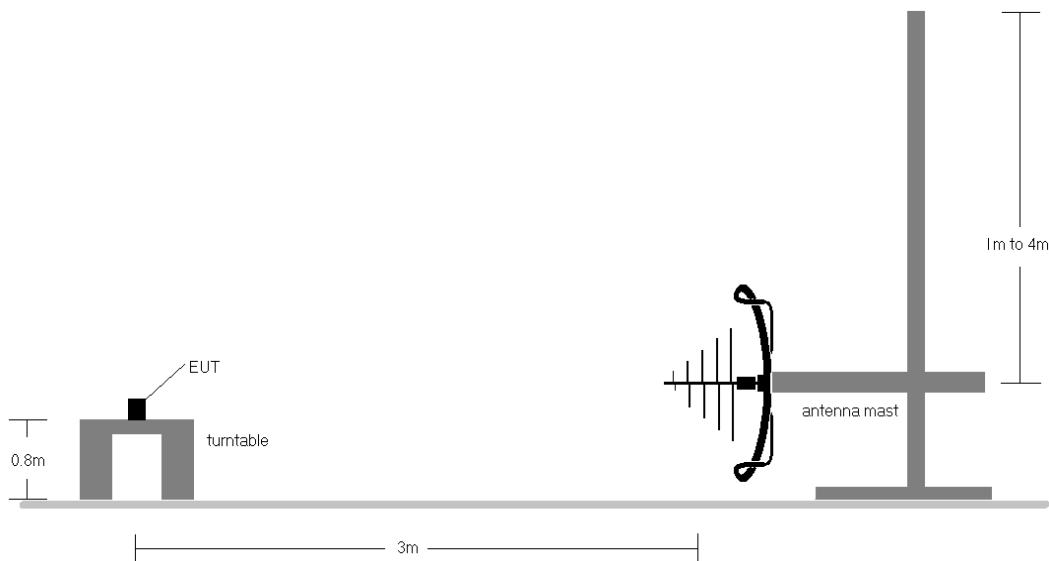


Figure 7-8. Radiated Test Setup < 1GHz

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 		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 7-23.
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. All supported modulation, antenna (including TxBF mode) and power schemes have been tested on the unit and only worst case configuration is reported.
11. 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

Sample Calculations

Determining Spurious Emissions Levels

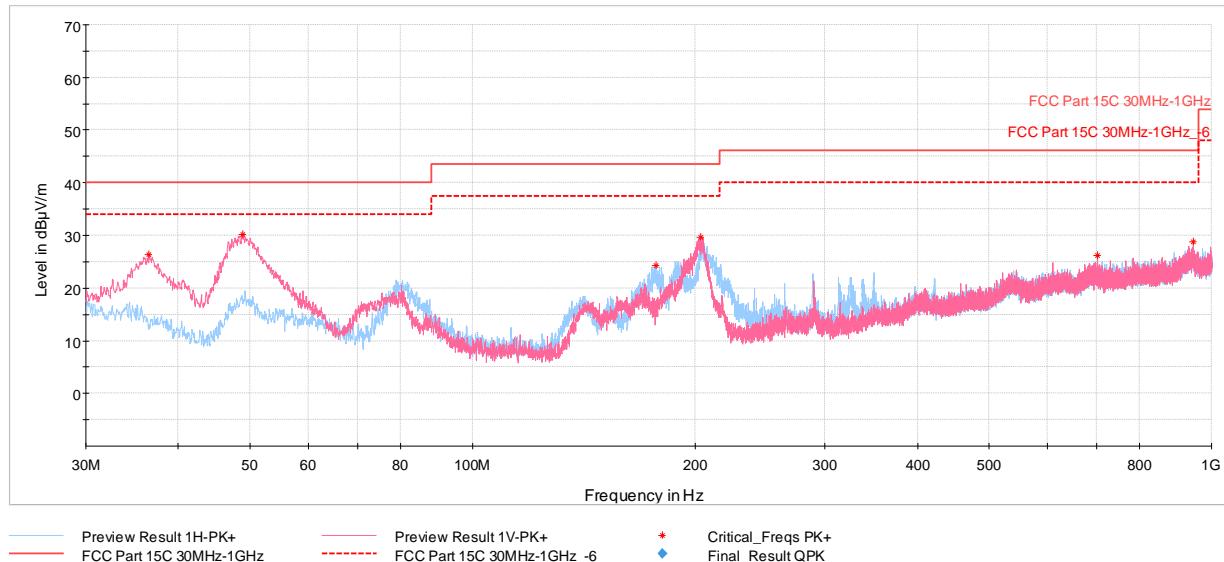
- Field Strength Level $[\text{dB}_{\mu\text{V/m}}]$ = Analyzer Level $[\text{dBm}] + 107 + \text{AFCL} [\text{dB/m}]$
- AFCL $[\text{dB/m}]$ = Antenna Factor $[\text{dB/m}] + \text{Cable Loss} [\text{dB}] - \text{Preamplifier Gain} [\text{dB}]$
- Margin $[\text{dB}]$ = Field Strength Level $[\text{dB}_{\mu\text{V/m}}]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

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Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]

TxBF



Plot 7-104. Radiated Spurious Emissions below 1GHz TxBF (4Mbps, ePA – Ch.38 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]
36.55	Max Peak	V	100	357	-65.51	-15.13	26.36	40.00	-13.64
48.92	Max Peak	V	100	74	-56.05	-20.85	30.10	40.00	-9.90
177.00	Max Peak	H	100	237	-65.78	-16.95	24.27	43.52	-19.25
203.78	Max Peak	V	100	77	-60.58	-16.78	29.64	43.52	-13.88
701.68	Max Peak	V	250	345	-77.73	-3.11	26.16	46.02	-19.86
944.13	Max Peak	V	250	323	-78.55	0.28	28.73	46.02	-17.29

Table 7-24. Radiated Spurious Emissions below 1GHz TxBF (4Mbps, ePA – Ch.38 with AC/DC Adapter)

FCC ID: BCGA2379 IC: 579C-A2379	 MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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7.10 AC Line-Conducted Emissions Measurement

§15.207; 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 (dB μ V)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Table 7-25. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Section 6.2

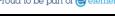
Test Settings

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.

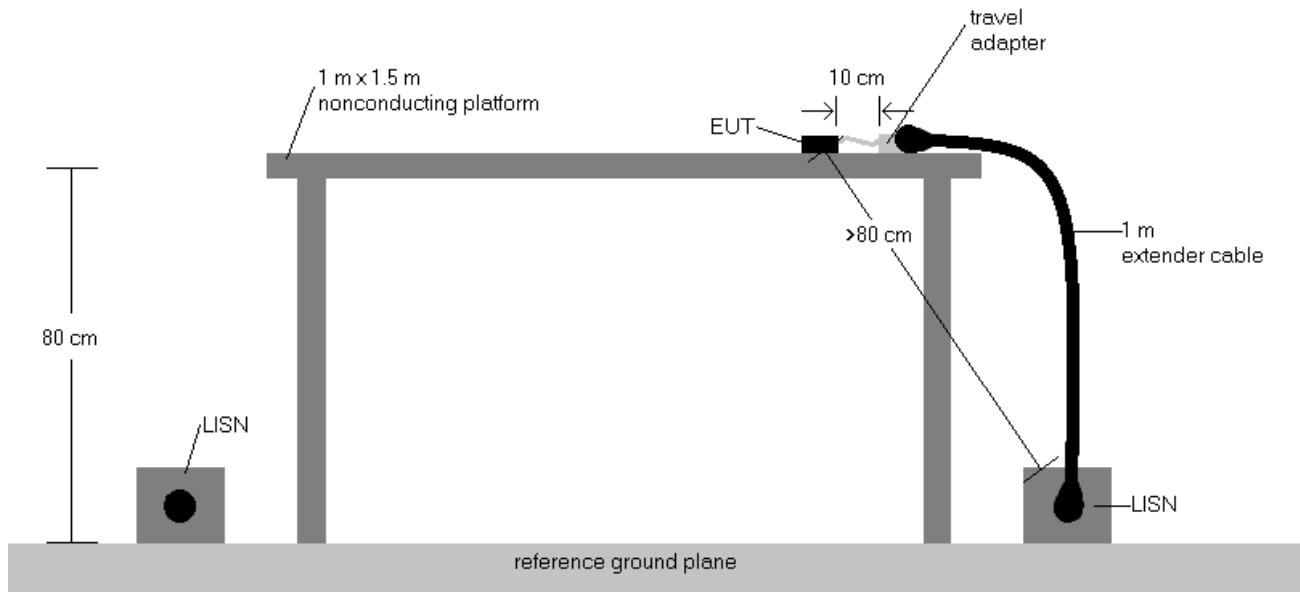
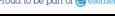
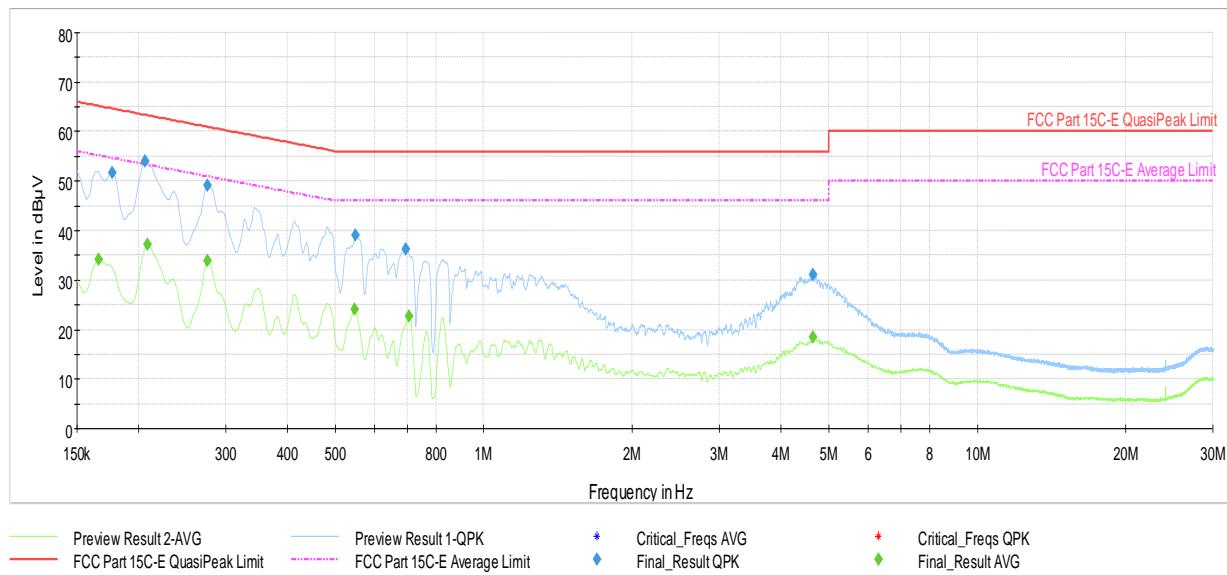


Figure 7-9. Test Instrument & Measurement Setup

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 Part 15.207 and RSS-Gen(8.8).
4. Corr. (dB) = Cable loss (dB) + LISN insertion factor (dB)
5. QP/AV Level (dB μ V) = QP/AV Analyzer/Receiver Level (dB μ V) + Correction Factor (dB)
6. Margin (dB) = QP/AV Level (dB μ V) - QP/AV Limit (dB μ V)
7. Traces shown in plot are made using quasi peak and average detectors.
8. Deviations to the Specifications: None.
9. All supported modulation, antenna (including TxBF mode) and power schemes have been tested on the unit and only worst case configuration is reported.

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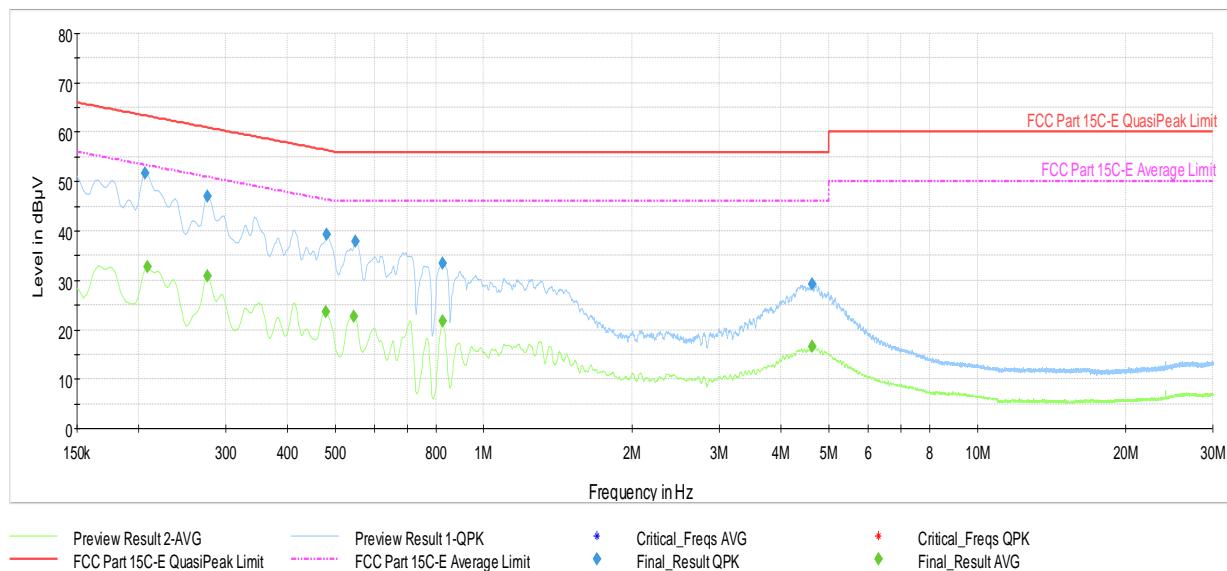


Plot 7-105. AC Line Conducted Plot with Bluetooth HDR (L1, 4Mbps ePA - Ch.38 with Laptop)

Frequency [MHz]	Process State	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Line	PE
0.166	FINAL	—	34.19	55.17	-20.98	L1	GND
0.177	FINAL	51.7	—	64.63	-12.91	L1	GND
0.206	FINAL	54.1	—	63.36	-9.30	L1	GND
0.209	FINAL	—	37.16	53.27	-16.10	L1	GND
0.276	FINAL	—	33.84	50.94	-17.10	L1	GND
0.276	FINAL	49.2	—	60.94	-11.74	L1	GND
0.548	FINAL	—	23.99	46.00	-22.01	L1	GND
0.551	FINAL	39.0	—	56.00	-17.05	L1	GND
0.695	FINAL	36.3	—	56.00	-19.71	L1	GND
0.706	FINAL	—	22.60	46.00	-23.40	L1	GND
4.637	FINAL	—	18.41	46.00	-27.59	L1	GND
4.643	FINAL	31.0	—	56.00	-24.99	L1	GND

Table 7-26. AC Line Conducted Data with Bluetooth HDR (L1, 4Mbps ePA - Ch.38 with Laptop)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C2101020005-11.BCG	Test Dates: 12/15/2020-2/25/2021	EUT Type: Tablet Device			



Plot 7-106. AC Line Conducted Plot with Bluetooth HDR (N, 4Mbps ePA - Ch.38 with Laptop)

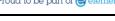
Frequency [MHz]	Process State	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Line	PE
0.206	FINAL	51.8	—	63.36	-11.60	N	GND
0.209	FINAL	—	32.74	53.27	-20.53	N	GND
0.276	FINAL	47.1	—	60.94	-13.85	N	GND
0.276	FINAL	—	30.87	50.94	-20.07	N	GND
0.479	FINAL	—	23.62	46.37	-22.75	N	GND
0.481	FINAL	39.3	—	56.33	-17.04	N	GND
0.546	FINAL	—	22.63	46.00	-23.37	N	GND
0.551	FINAL	38.0	—	56.00	-18.04	N	GND
0.825	FINAL	—	21.70	46.00	-24.30	N	GND
0.825	FINAL	33.5	—	56.00	-22.46	N	GND
4.625	FINAL	29.2	—	56.00	-26.80	N	GND
4.630	FINAL	—	16.55	46.00	-29.45	N	GND

Table 7-27. AC Line Conducted Data with Bluetooth HDR (N, 4Mbps ePA - Ch.38 with Laptop)

FCC ID: BCGA2379 IC: 579C-A2379	PCTEST® Proud to be part of 			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: BCGA2379 and IC: 579C-A2379** is in compliance with Part 15 Subpart C (15.247) of the FCC Rules and RSS-247 of the Innovation, Science and Economic Development Canada Rules.

FCC ID: BCGA2379 IC: 579C-A2379	 PCTEST [®] Proud to be part of  element		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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