

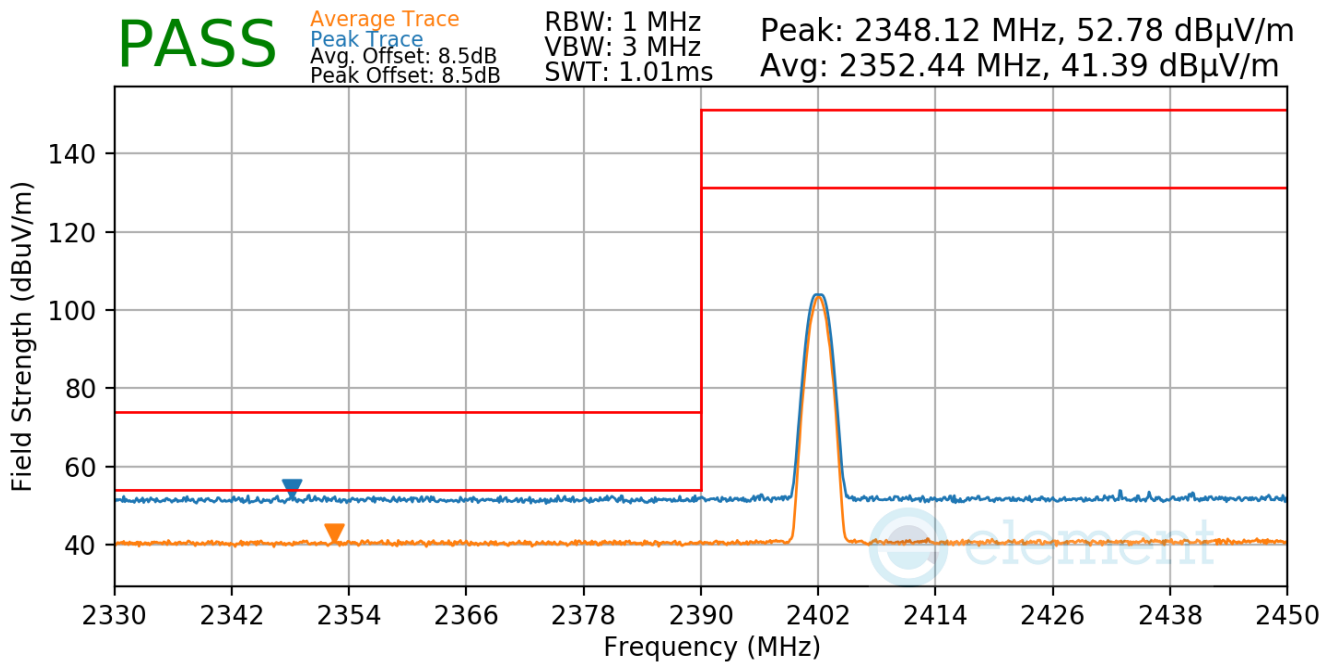
7.7.1 Radiated Restricted Band Edge Measurements §15.205 §15.209; RSS-Gen [8.9]

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

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

Ant1

Bluetooth Mode:	LE
Data Rate:	1Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2402MHz
Channel:	0



Plot 7-120. Radiated Restricted Lower Band Edge Measurement Ant1 (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 102 of 127



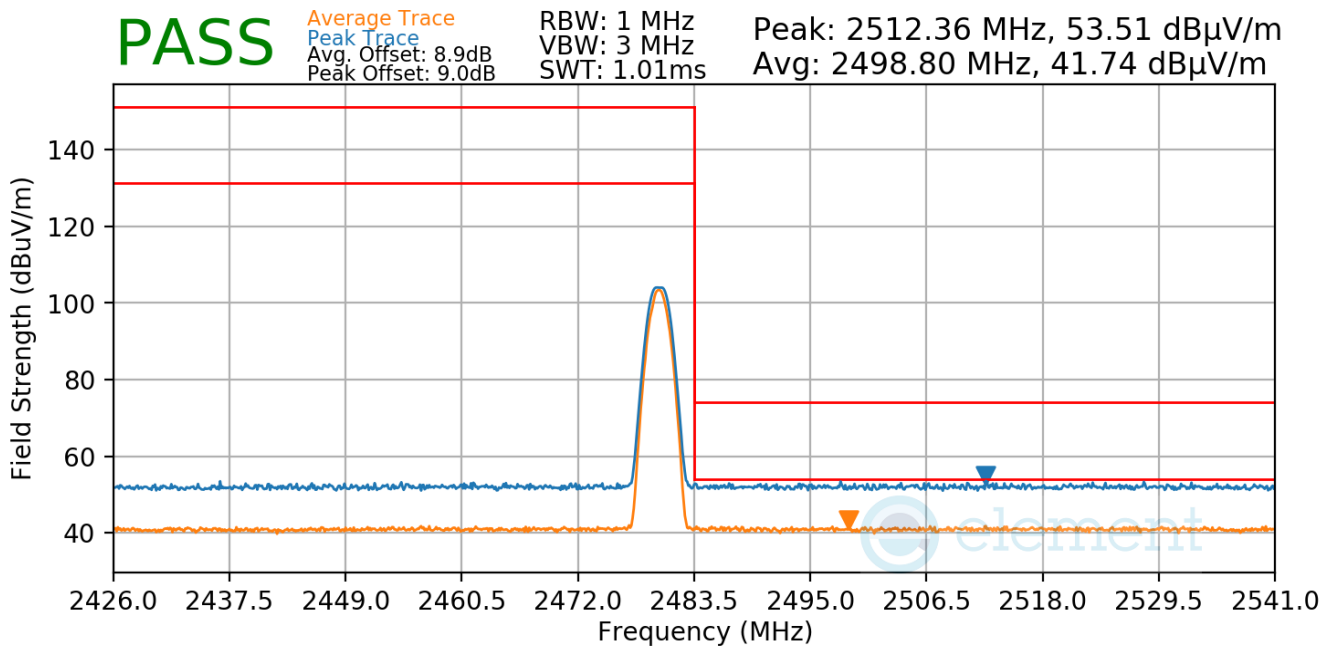
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>1Mbps</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2480MHz</u>
Channel:	<u>39</u>



Plot 7-121. Radiated Restricted Upper Band Edge Measurement Ant1 (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 103 of 127

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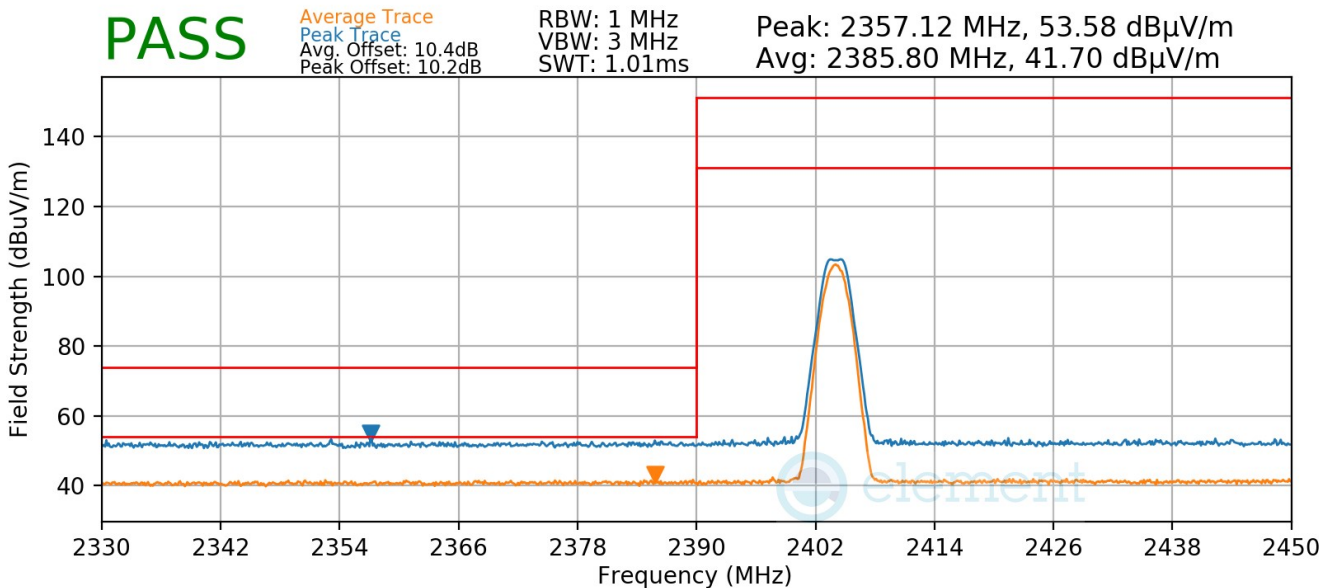
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>2Mbps</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2404MHz</u>
Channel:	<u>1</u>



Plot 7-122. Radiated Restricted Lower Band Edge Measurement Ant1 (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 104 of 127

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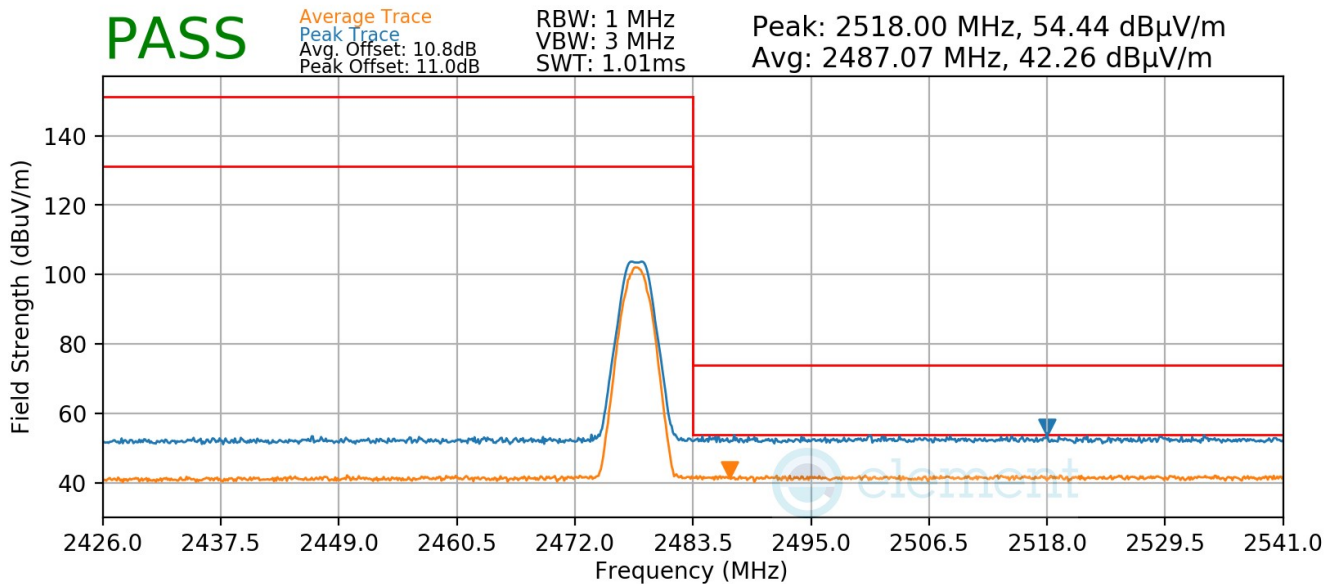


Radiated Restricted Band Edge Measurements
§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>2Mbps</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2478MHz</u>
Channel:	<u>38</u>



Plot 7-123. Radiated Restricted Upper Band Edge Measurement Ant1 (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 105 of 127

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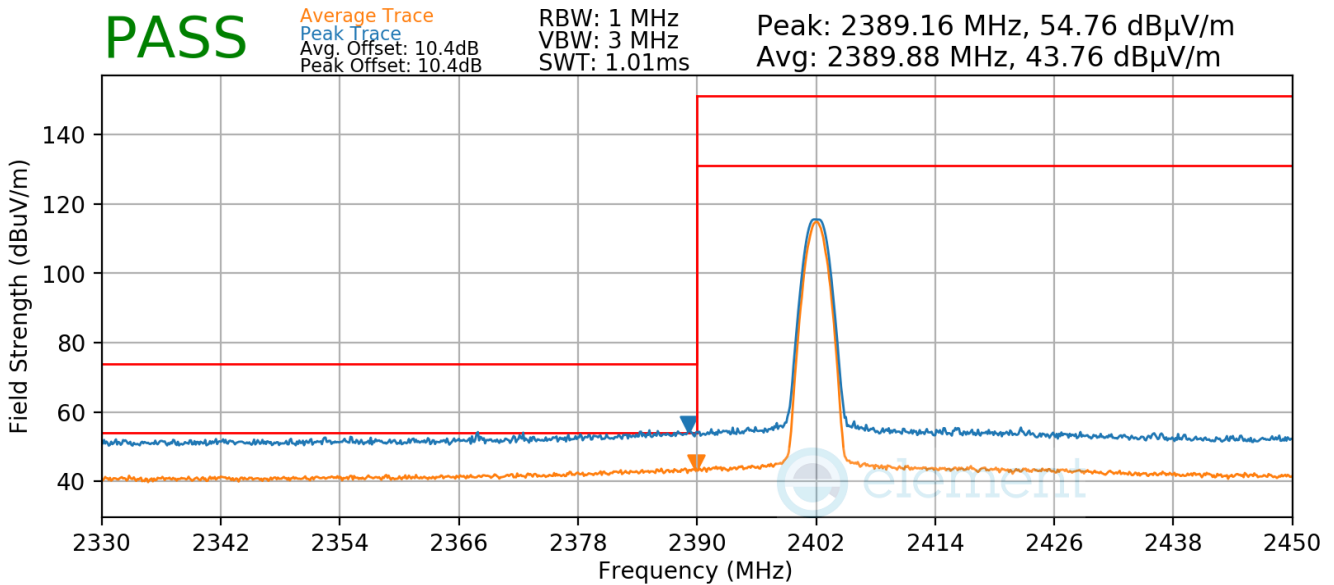
Radiated Restricted Band Edge Measurements
§15.205 §15.209; RSS-Gen [8.9]

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

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

Ant2

Bluetooth Mode:	LE
Data Rate:	1Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2402MHz
Channel:	0



Plot 7-124. Radiated Restricted Lower Band Edge Measurement Ant2 (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 106 of 127

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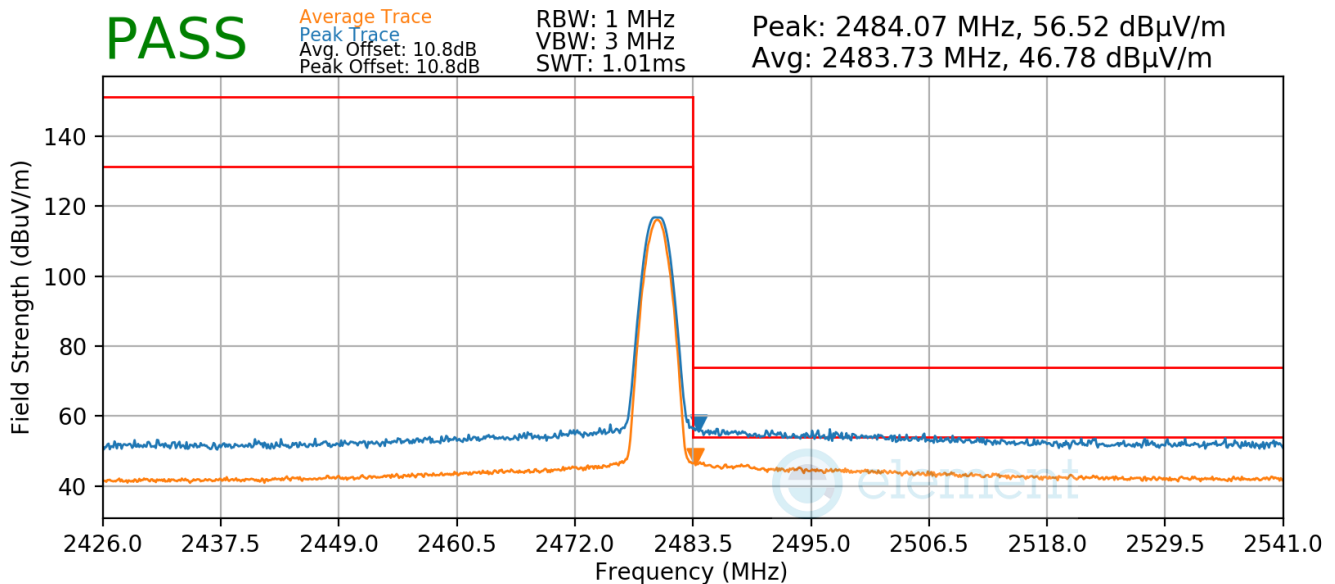
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	LE
Data Rate:	1Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2480MHz
Channel:	39



Plot 7-125. Radiated Restricted Upper Band Edge Measurement Ant2 (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 107 of 127

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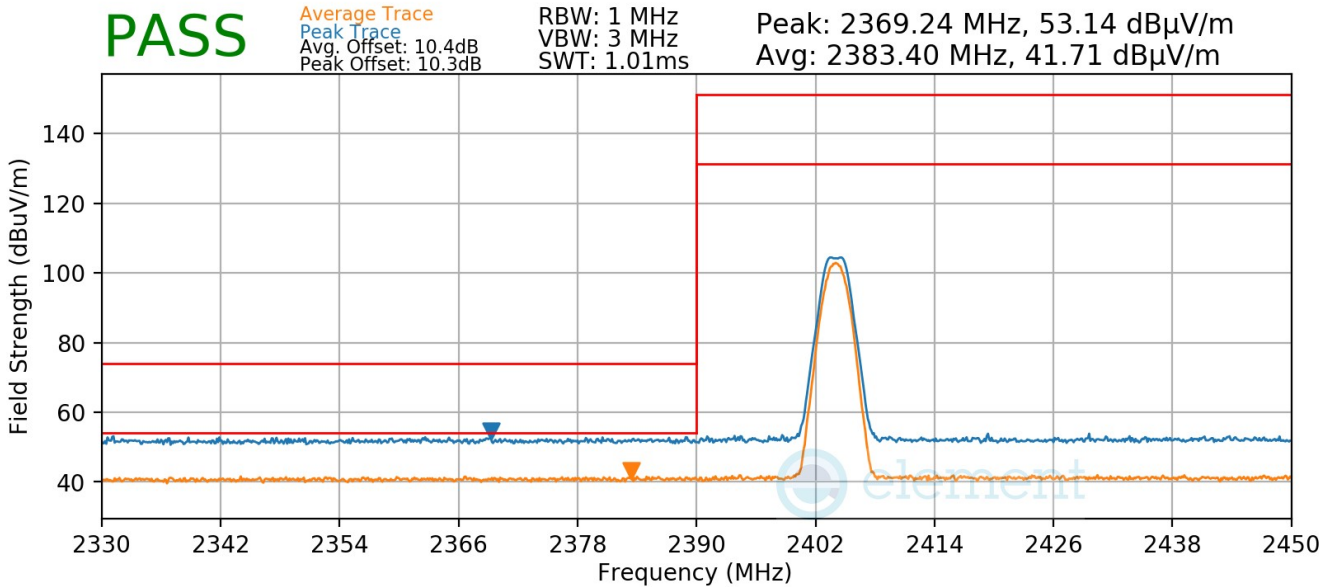
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>2Mbps</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2404MHz</u>
Channel:	<u>1</u>



Plot 7-126. Radiated Restricted Lower Band Edge Measurement Ant2 (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 108 of 127

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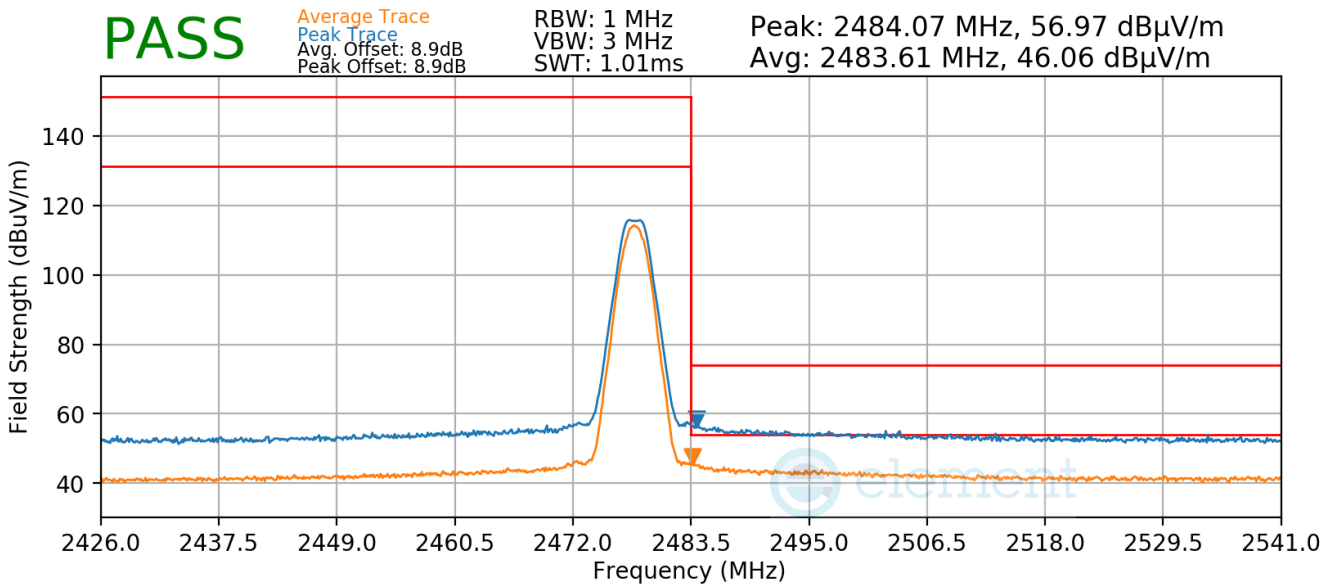


Radiated Restricted Band Edge Measurements
§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>2Mbps</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2478MHz</u>
Channel:	<u>38</u>



Plot 7-127. Radiated Restricted Upper Band Edge Measurement Ant2 (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 109 of 127

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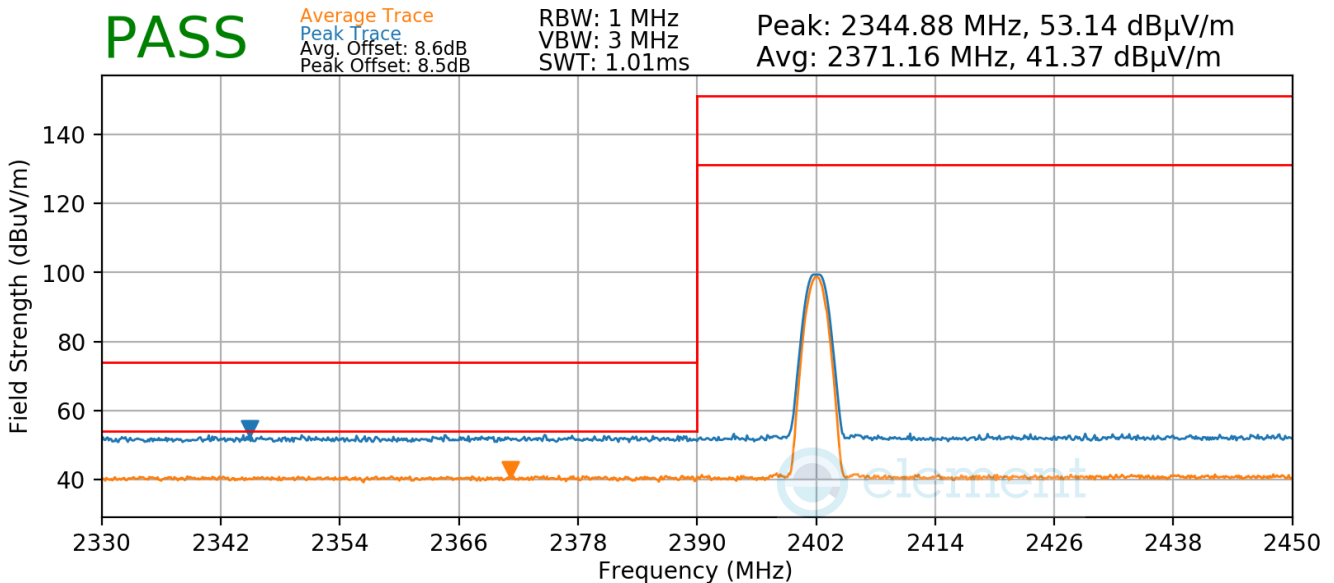
Radiated Restricted Band Edge Measurements
§15.205 §15.209; RSS-Gen [8.9]

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

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

NB UNII_L

Bluetooth Mode:	LE
Data Rate:	1Mbps
Power Scheme:	iPA
Measurement Distance:	3 Meters
Operating Frequency:	2402MHz
Channel:	0



Plot 7-128. Radiated Restricted Lower Band Edge Measurement NB UNII_L (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 110 of 127



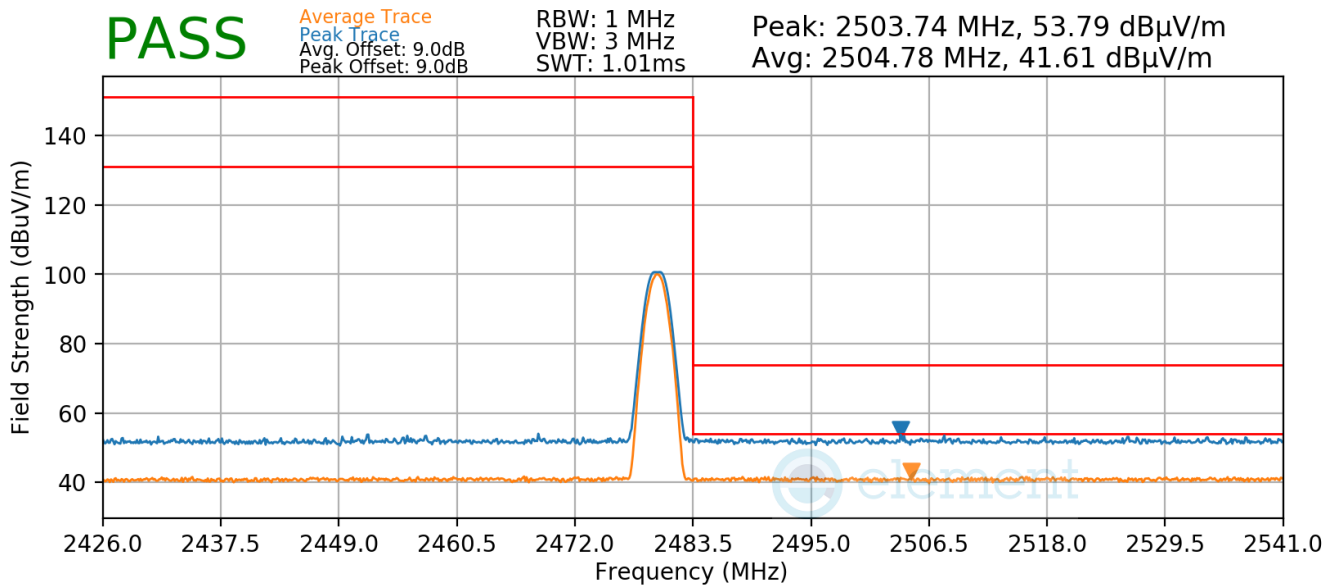
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	LE
Data Rate:	1Mbps
Power Scheme:	iPA
Measurement Distance:	3 Meters
Operating Frequency:	2480MHz
Channel:	39



Plot 7-129. Radiated Restricted Upper Band Edge Measurement NB UNII_L (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
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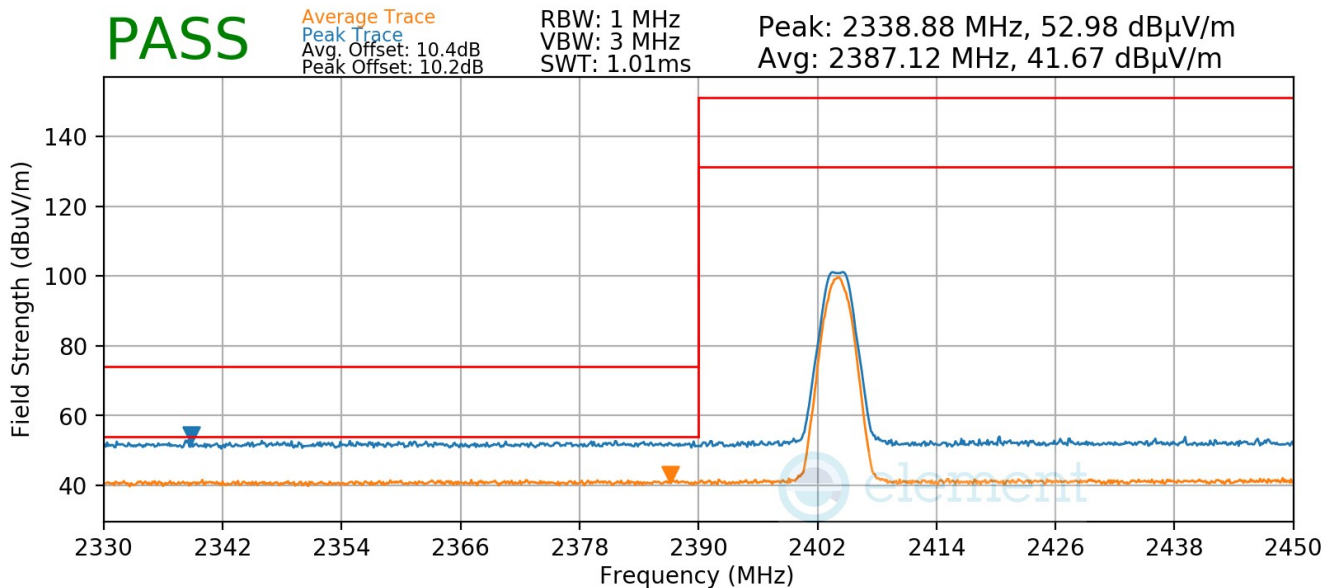
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>2Mbps</u>
Power Scheme:	<u>iPA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2404MHz</u>
Channel:	<u>1</u>



Plot 7-130. Radiated Restricted Lower Band Edge Measurement NB UNII_L (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 112 of 127

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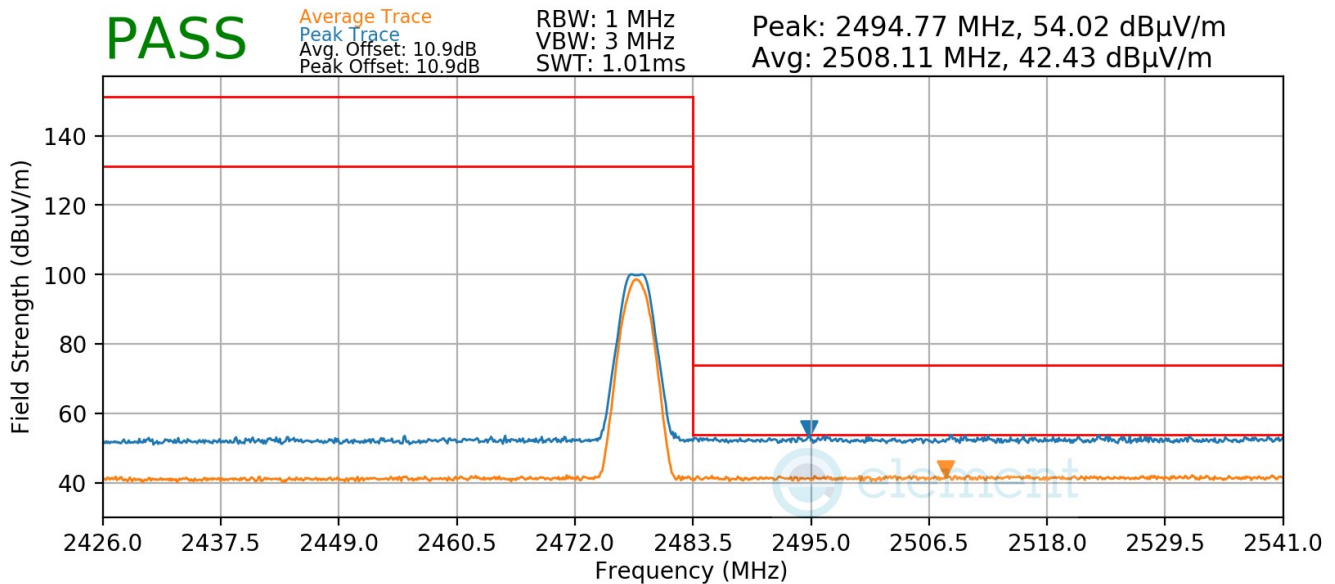
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>2Mbps</u>
Power Scheme:	<u>iPA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2478MHz</u>
Channel:	<u>38</u>



Plot 7-131. Radiated Restricted Upper Band Edge Measurement NB UNII_L (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 113 of 127

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Radiated Restricted Band Edge Measurements

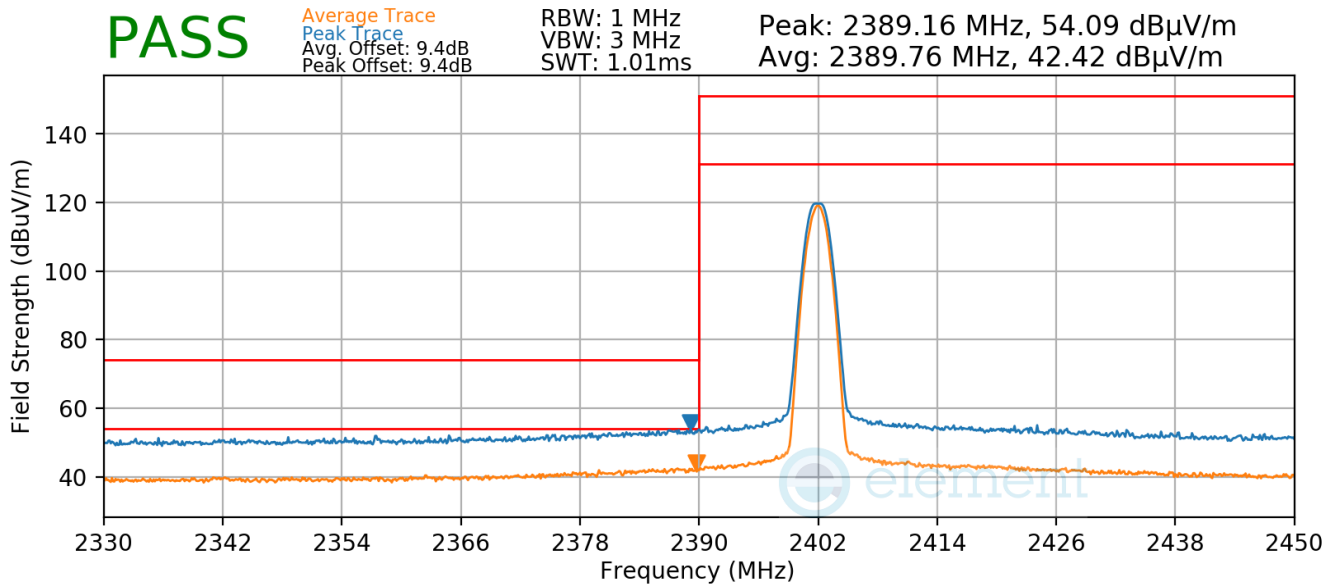
§15.205 §15.209; RSS-Gen [8.9]

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

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

TxBF

Bluetooth Mode:	LE
Data Rate:	1Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2402MHz
Channel:	0



Plot 7-132. Radiated Restricted Lower Band Edge Measurement TxBF (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 114 of 127

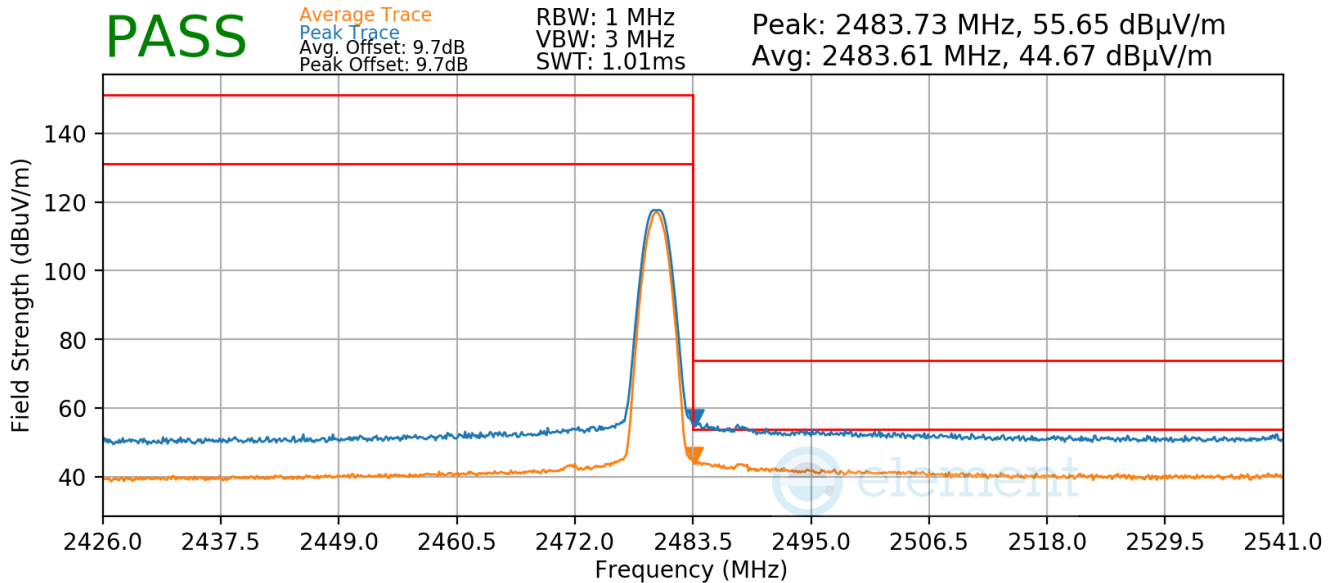


Radiated Restricted Band Edge Measurements
§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	LE
Data Rate:	1Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2480MHz
Channel:	39



Plot 7-133. Radiated Restricted Upper Band Edge Measurement TxBF (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 115 of 127

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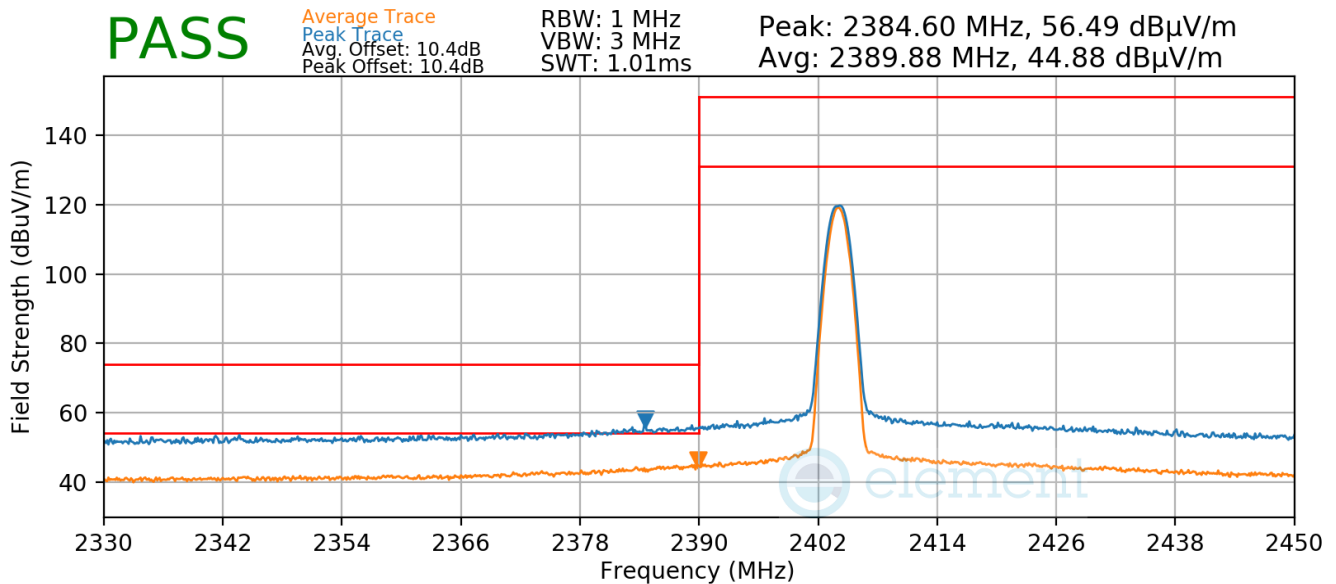
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>2Mbps</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2404MHz</u>
Channel:	<u>1</u>



Plot 7-134. Radiated Restricted Lower Band Edge Measurement TxBF (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
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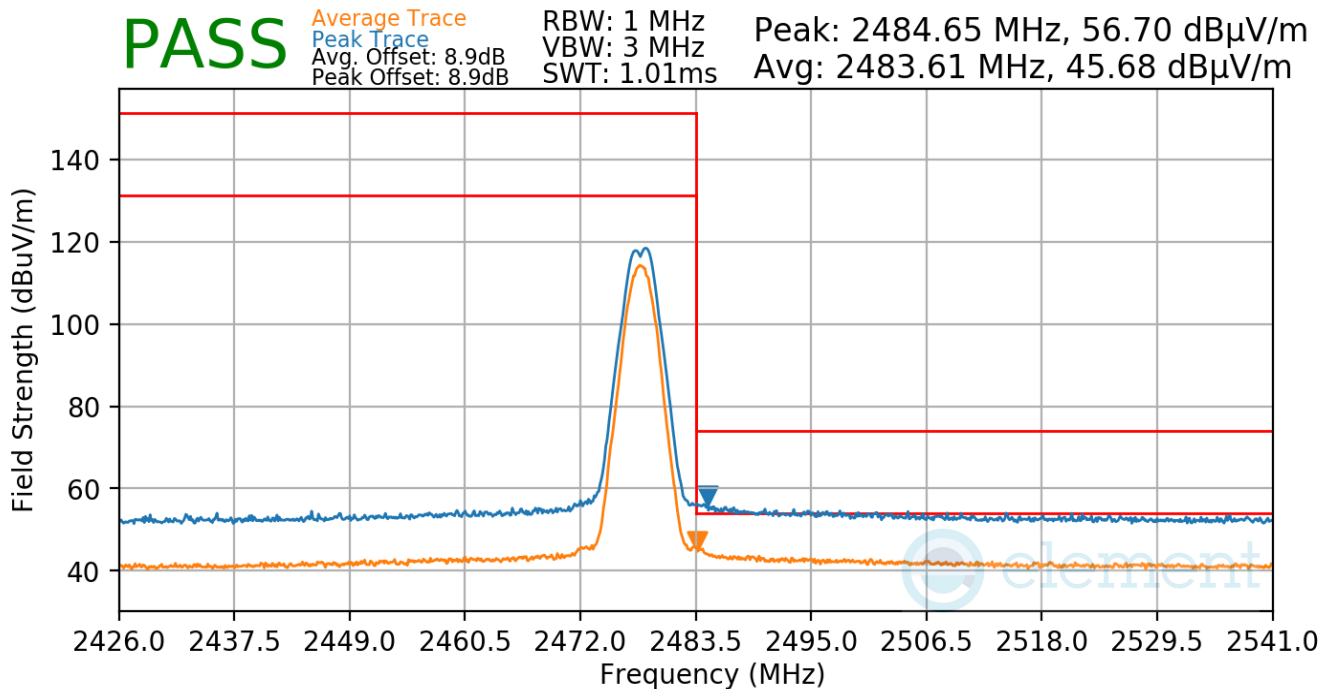
Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

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

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

Bluetooth Mode:	<u>LE</u>
Data Rate:	<u>2Mbps</u>
Power Scheme:	<u>ePA</u>
Measurement Distance:	<u>3 Meters</u>
Operating Frequency:	<u>2478MHz</u>
Channel:	<u>38</u>



Plot 7-135. Radiated Restricted Upper Band Edge Measurement TxBF (Average & Peak)

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 117 of 127

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7.8 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 7-32 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 7-32. 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

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
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Test Setup

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

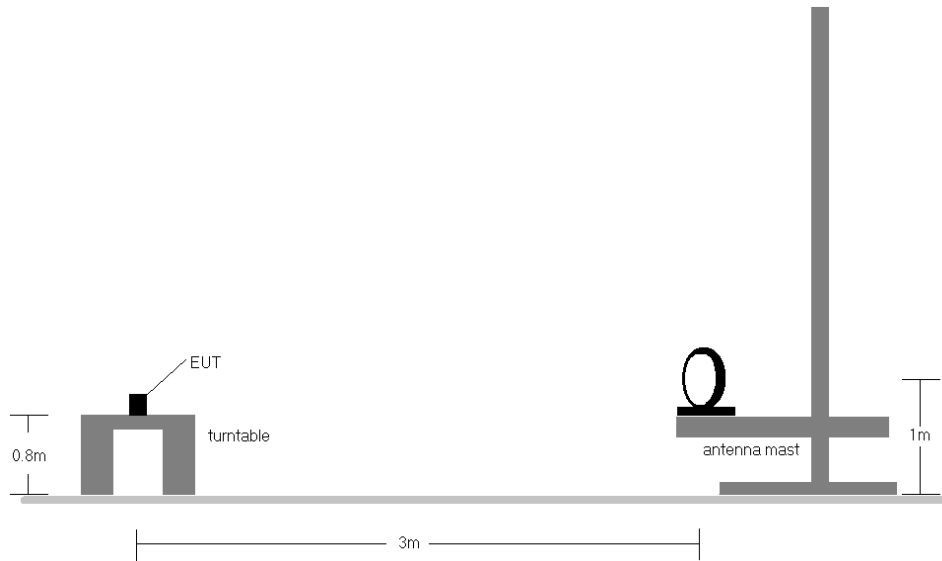


Figure 7-7. Radiated Test Setup < 30MHz

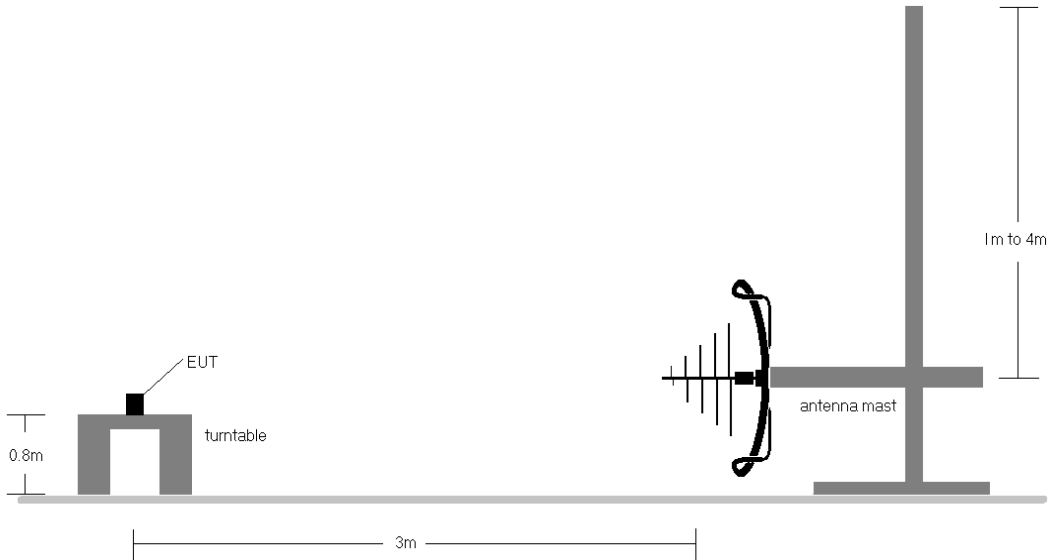


Figure 7-8. Radiated Test Setup < 1GHz

FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical 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 7-32.
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. All supported modulation, antenna (including TxBF mode) and power schemes have been tested on the unit and only worst case configuration is reported.
10. Both configurations below were investigated, and the worst case has been reported.
 - a. EUT powered by AC/DC adaptor to USB-C Power Pack to Magnetic Charging Cable
 - b. EUT powered by host PC via USB-C Power Pack to Magnetic Charging Cable

Sample Calculations

Determining Spurious Emissions Levels

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

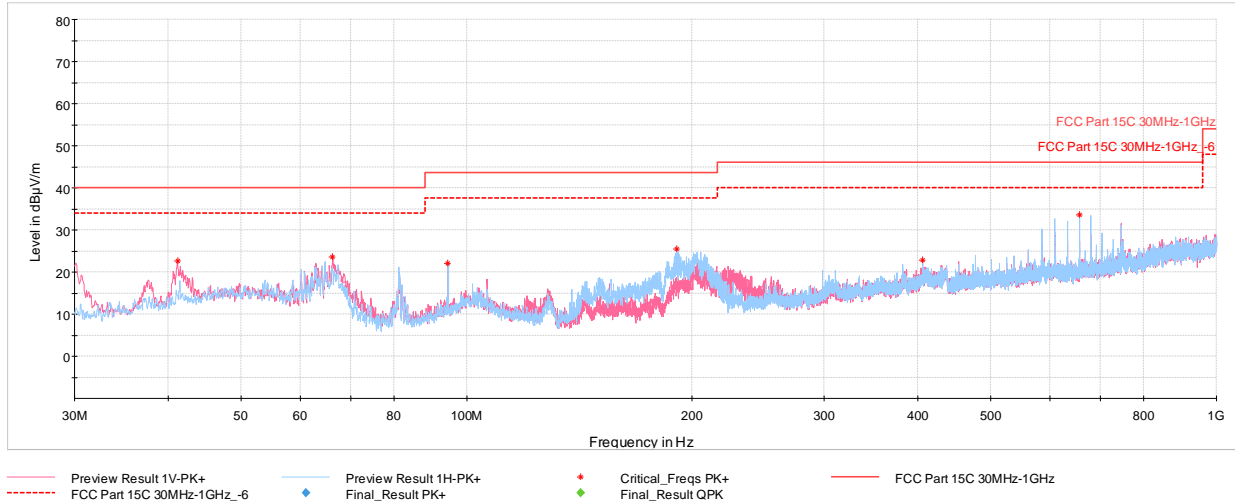
FCC ID: BCGA2117 IC: 579C-A2117		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2302130007-02.BCG	Test Dates: 2/10/2023 - 5/4/2023	EUT Type: Head Mounted Device	Page 120 of 127



Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]

TxBF



Plot 7-136. Radiated Spurious Emissions Below 1GHz TxBF (1Mbps, ePA – Ch.0, Pol. H & V, 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]
41.16	Max Peak	V	200	35	-71.86	-12.55	22.59	40.00	-17.41
66.28	Max Peak	V	100	156	-68.85	-14.63	23.52	40.00	-16.48
94.46	Max Peak	V	300	255	-71.10	-13.87	22.03	43.52	-21.49
190.54	Max Peak	H	100	251	-68.24	-13.22	25.54	43.52	-17.98
405.68	Max Peak	V	100	79	-77.02	-7.13	22.85	46.02	-23.17
656.28	Max Peak	H	100	269	-69.98	-3.51	33.51	46.02	-12.51

Table 7-33. Radiated Spurious Emissions Below 1GHz TxBF (1Mbps, ePA – Ch.0, Pol. H & V, with AC/DC Adapter)

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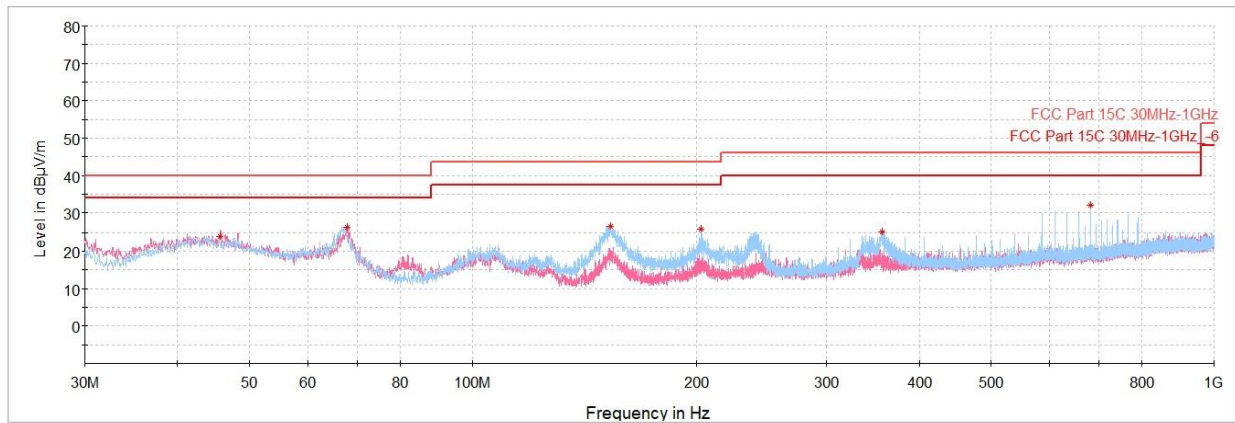
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Co-Tx Radiated Spurious Emissions Measurements (Below 1GHz)

\$15.209; RSS-Gen [8.9]

Description	BT 2.4G	NB UNII 5G	WLAN 2.4G	WiFi 5G
Antenna	NB UNII_L	NB UNII_L + NB_UNII_R	Ant1 + Ant2	Ant1 + Ant2
Channel	39	1	12	36
Operating Frequency (MHz)	2480	5157	2467	5180
Mode/Modulation	BLE1M	BLE1M	WLAN 11ax (SU)	UNII 11ax (SU)

Table 7-34. Worst Case Co-Tx Configuration



— Preview Result 1V-PK+ — Preview Result 1H-PK+ * Critical_Freqs PK+
— FCC Part 15C 30MHz-1GHz — FCC Part 15C 30MHz-1GHz_6 ◆ Final_Result QPK

Plot 7-137. Radiated Spurious Emissions Below 1GHz Co-Tx (Pol. H & V 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]
45.67	Max Peak	V	300	98	-67.25	-15.82	23.93	40.00	-16.07
67.78	Max Peak	V	100	200	-60.99	-19.52	26.49	40.00	-13.51
153.34	Max Peak	H	200	58	-59.57	-20.77	26.66	43.52	-16.86
203.15	Max Peak	H	100	225	-63.01	-18.10	25.89	43.52	-17.63
355.97	Max Peak	H	100	261	-67.76	-13.99	25.25	46.02	-20.77
681.31	Max Peak	H	100	317	-67.33	-7.71	31.96	46.02	-14.06

Table 7-35. Radiated Spurious Emissions Below 1GHz Co-Tx (Pol. H & V with AC/DC Adapter)

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7.9 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 7-36. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Subclause 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.

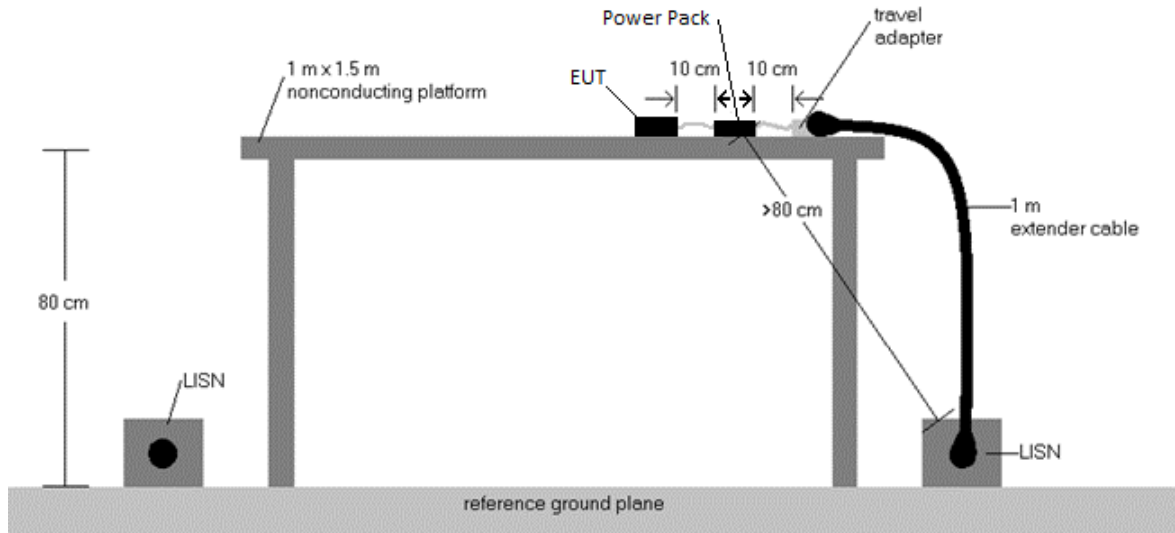


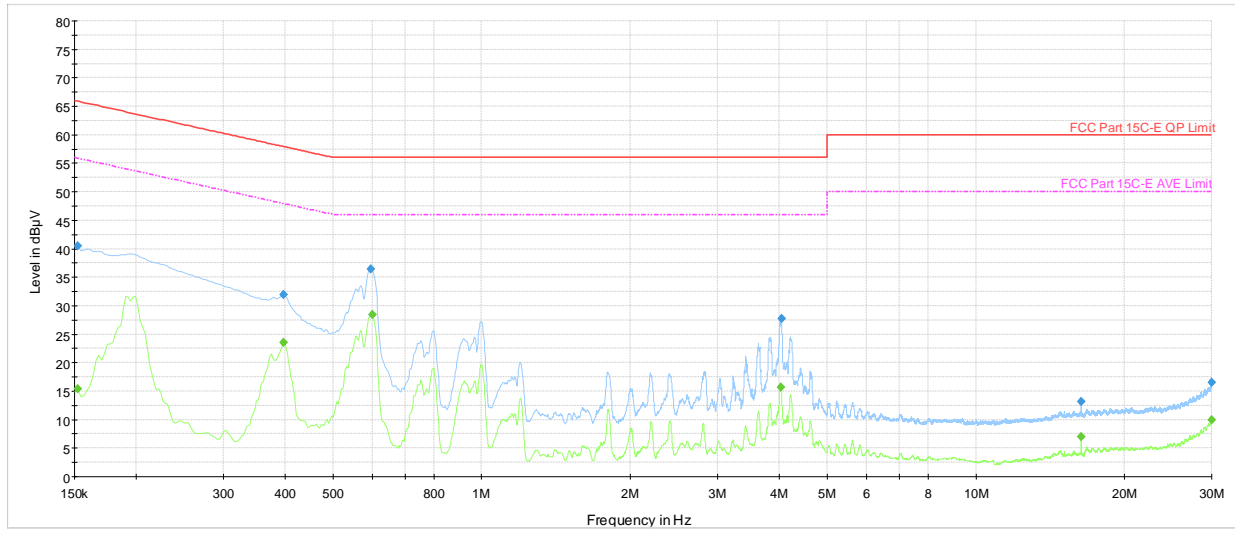
Figure 7-9. Test Instrument & Measurement Setup

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 to USB-C Power Pack to Magnetic Charging Cable
 - b. EUT powered by host PC via USB-C Power Pack to Magnetic Charging Cable
3. The limit for an intentional radiator from 150kHz to 30MHz are specified in Part 15.207 and RSS-Gen (8.8).
4. $\text{Corr. (dB)} = \text{Cable loss (dB)} + \text{LISN insertion factor (dB)}$
5. $\text{QP/AV Level (dB}\mu\text{V)} = \text{QP/AV Analyzer/Receiver Level (dB}\mu\text{V)} + \text{Correction Factor (dB)}$
6. $\text{Margin (dB)} = \text{QP/AV Level (dB}\mu\text{V)} - \text{QP/AV Limit (dB}\mu\text{V)}$
7. Traces shown in plot are made using a quasi peak and average detectors.
8. Deviations to the Specifications: None.

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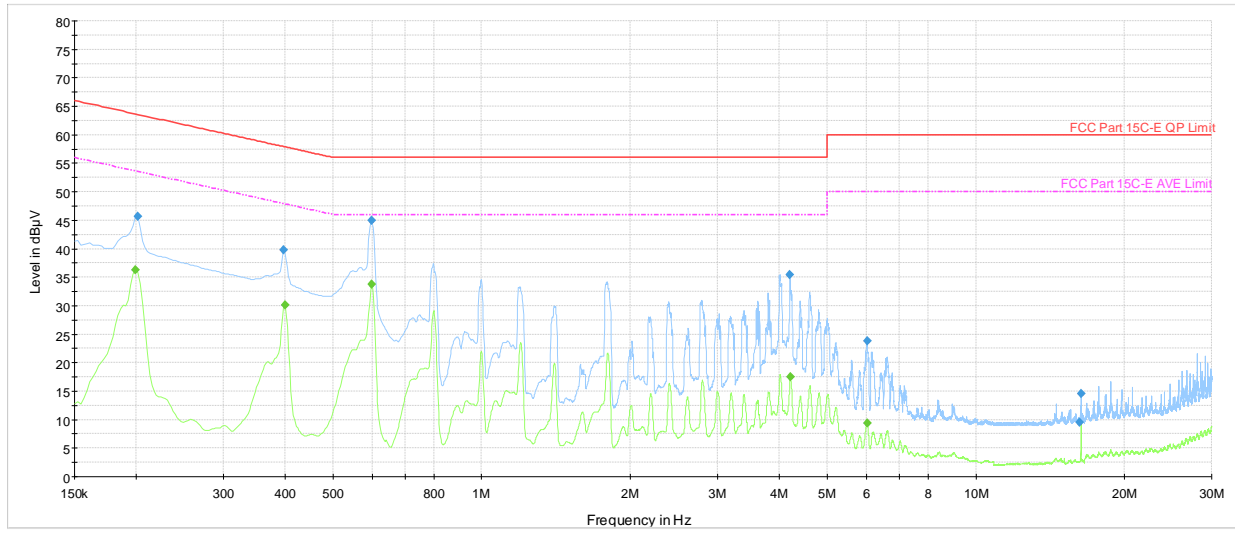


Plot 7-138. AC Line Conducted Plot with Bluetooth LE Tx BF (N, 1Mbps ePA – Ch.0 with AC/DC Adapter)

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.152	FINAL	---	15.41	55.88	-40.46	N	GND
0.152	FINAL	40.50	---	65.88	-25.37	N	GND
0.398	FINAL	---	23.50	47.91	-24.41	N	GND
0.398	FINAL	31.93	---	57.91	-25.97	N	GND
0.596	FINAL	36.45	---	56.00	-19.55	N	GND
0.600	FINAL	---	28.40	46.00	-17.60	N	GND
4.027	FINAL	---	15.75	46.00	-30.25	N	GND
4.038	FINAL	27.73	---	56.00	-28.27	N	GND
16.310	FINAL	13.13	---	60.00	-46.87	N	GND
16.310	FINAL	---	6.94	50.00	-43.06	N	GND
29.978	FINAL	---	9.99	50.00	-40.01	N	GND
29.994	FINAL	16.55	---	60.00	-43.45	N	GND

Table 7-37. AC Line Conducted Data with Bluetooth LE Tx BF (N, 1Mbps ePA – Ch.0 with AC/DC Adapter)


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Plot 7-139. AC Line Conducted Plot with Bluetooth LE TxBF (L1, 1Mbps ePA – Ch.0 with AC/DC Adapter)

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.200	FINAL	---	36.26	53.63	-17.37	L1	GND
0.202	FINAL	45.71	---	63.54	-17.83	L1	GND
0.398	FINAL	39.73	---	57.91	-18.18	L1	GND
0.400	FINAL	---	30.07	47.86	-17.79	L1	GND
0.598	FINAL	---	33.71	46.00	-12.29	L1	GND
0.598	FINAL	44.98	---	56.00	-11.02	L1	GND
4.207	FINAL	35.52	---	56.00	-20.48	L1	GND
4.216	FINAL	---	17.49	46.00	-28.51	L1	GND
6.025	FINAL	23.85	---	60.00	-36.15	L1	GND
6.029	FINAL	---	9.42	50.00	-40.58	L1	GND
16.206	FINAL	9.58	---	60.00	-50.42	L1	GND
16.307	FINAL	14.59	---	60.00	-45.41	L1	GND

Table 7-38. AC Line Conducted Data with Bluetooth LE TxBF (L1, 1Mbps ePA – Ch.0 with AC/DC Adapter)

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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Apple Head Mounted Device FCC ID: BCGA2117 and IC: 579C-A2117** 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.

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