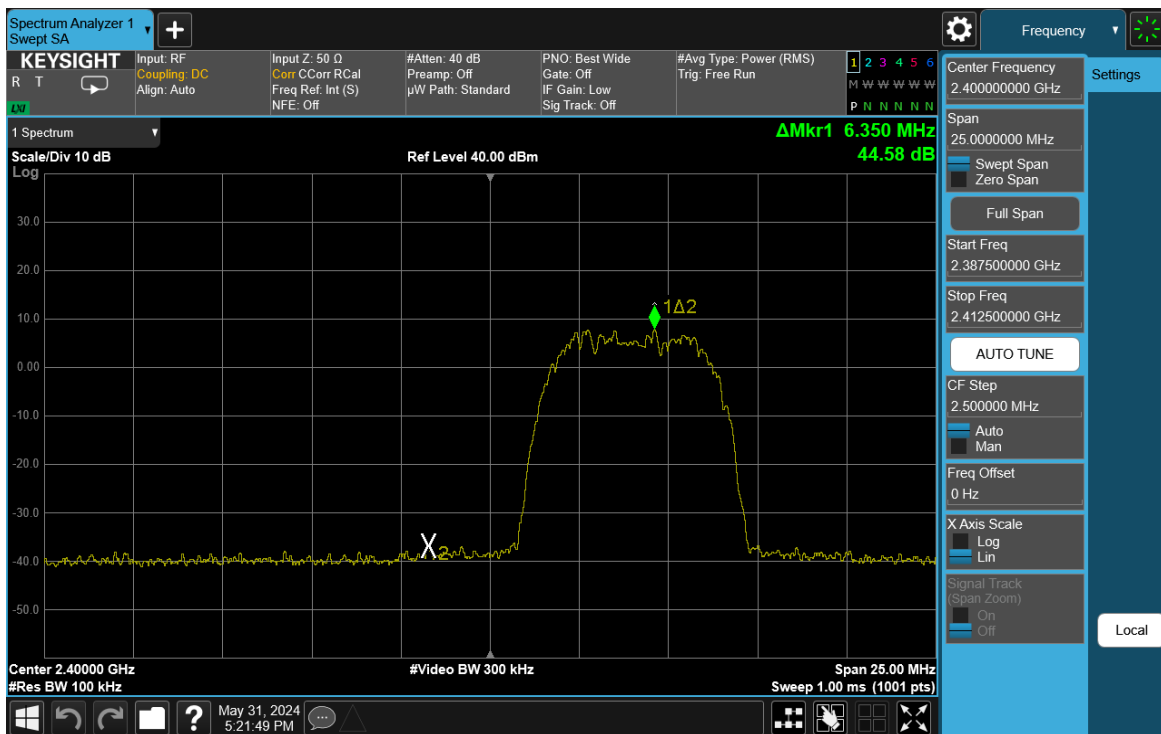
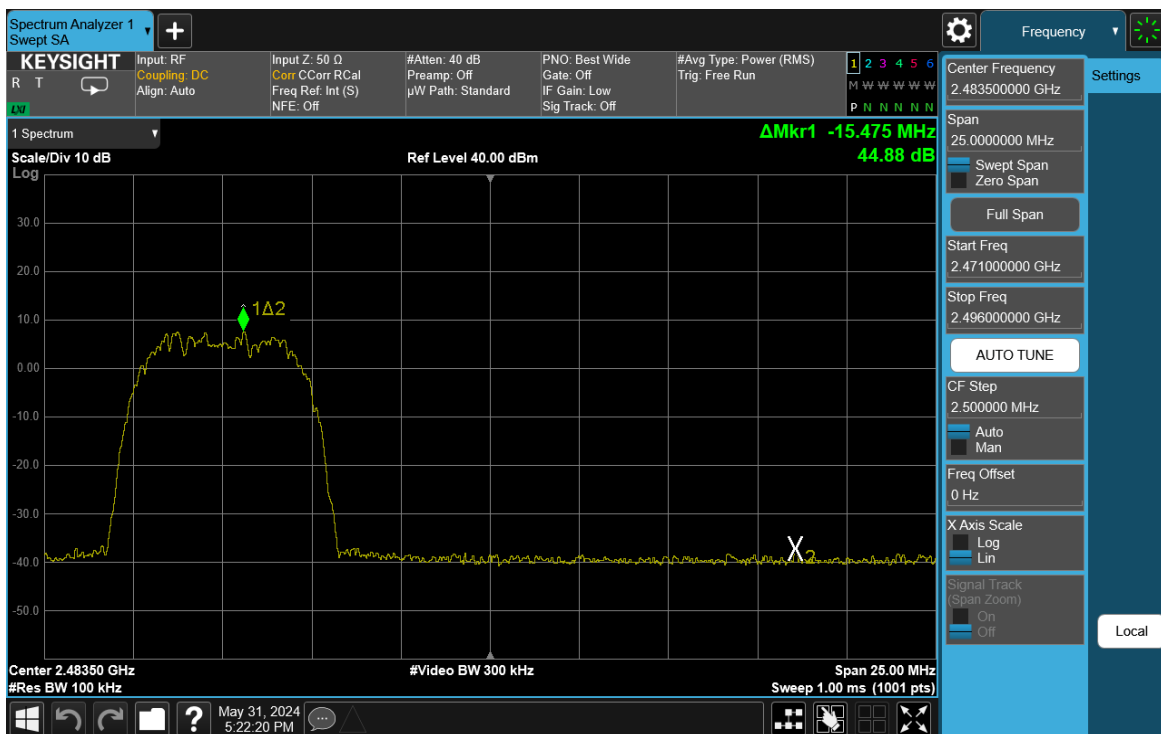




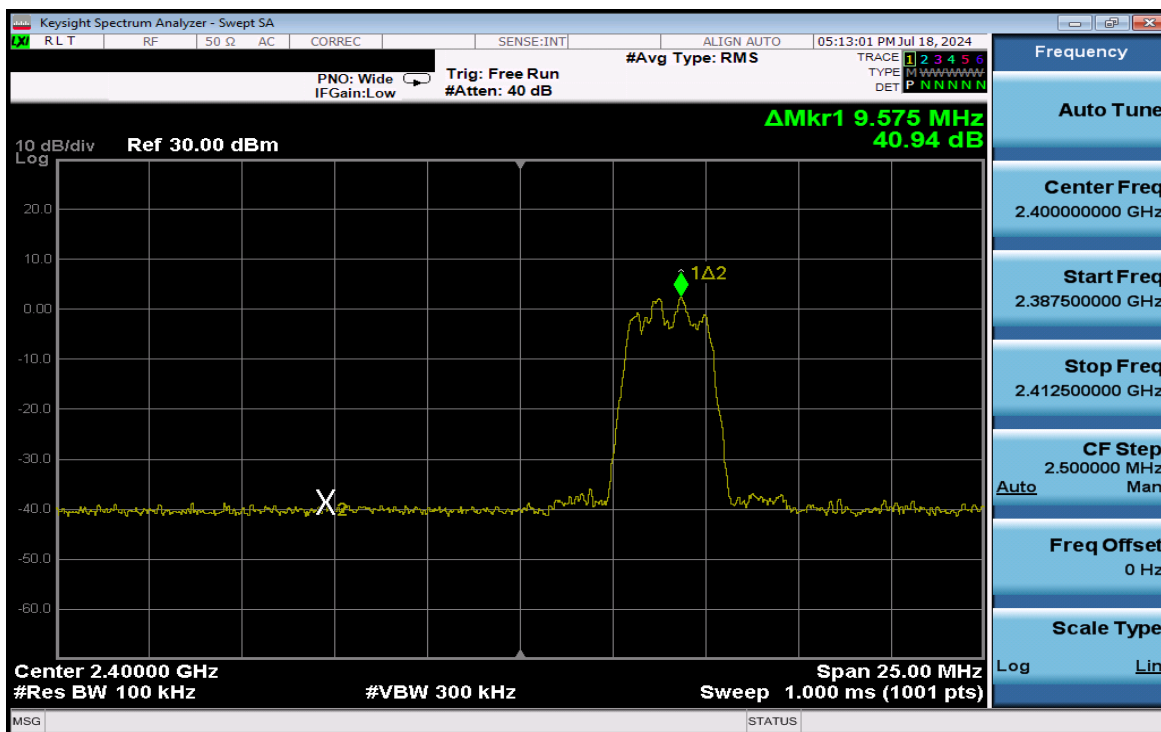
Plot 7-79. Band Edge Plot Antenna WF7 (Bluetooth (HDR8), ePA – Ch. 1)



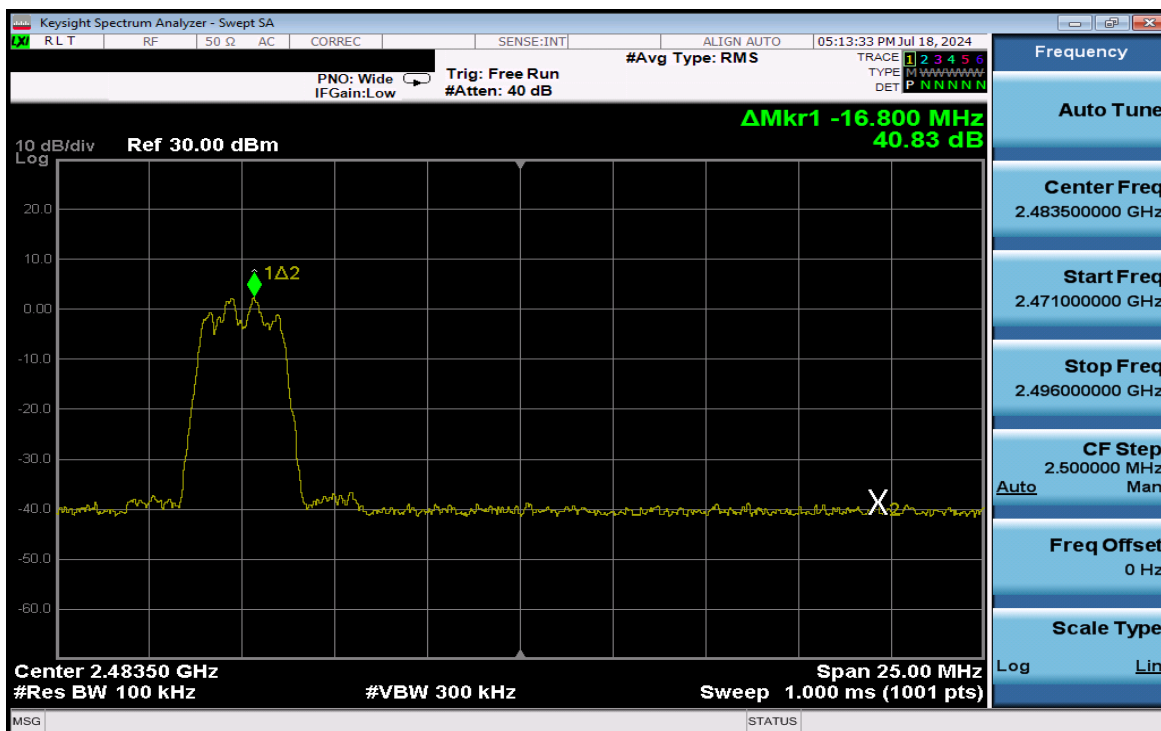
Plot 7-80. Band Edge Plot Antenna WF7 (Bluetooth (HDR8), ePA – Ch. 73)

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 68 of 114

Antenna WF2



Plot 7-81. Band Edge Plot Antenna WF2 (Bluetooth (HDR4), iPA – Ch. 1)

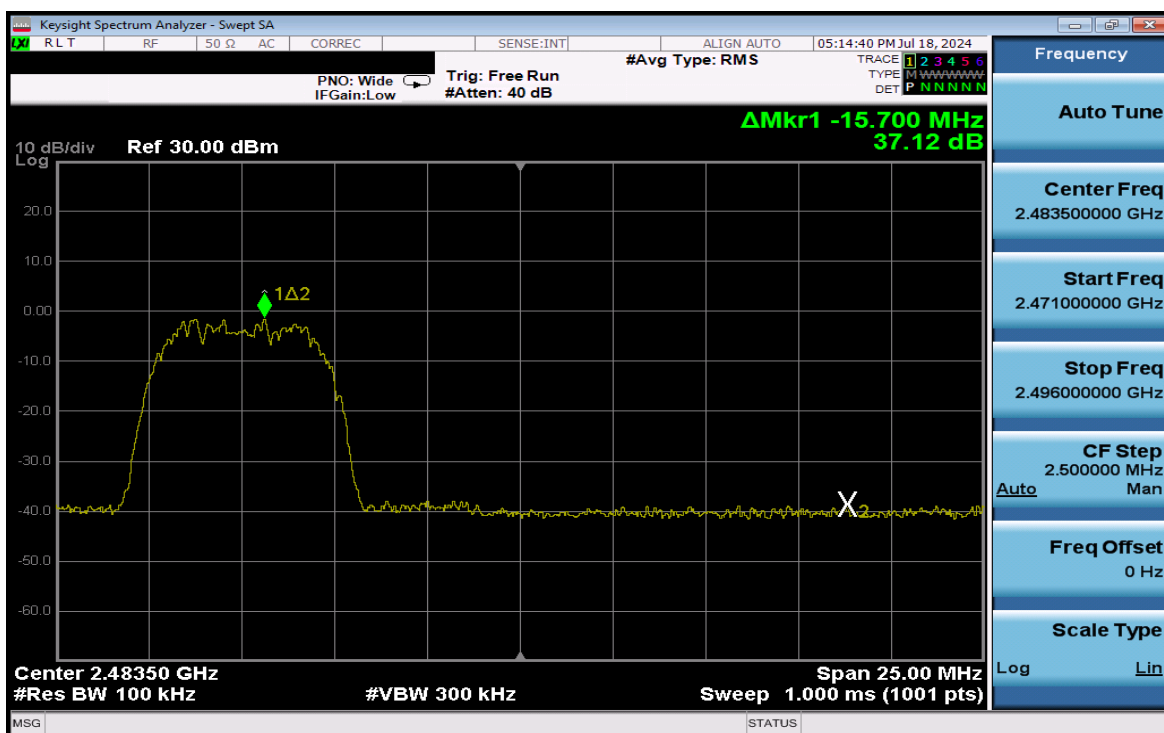
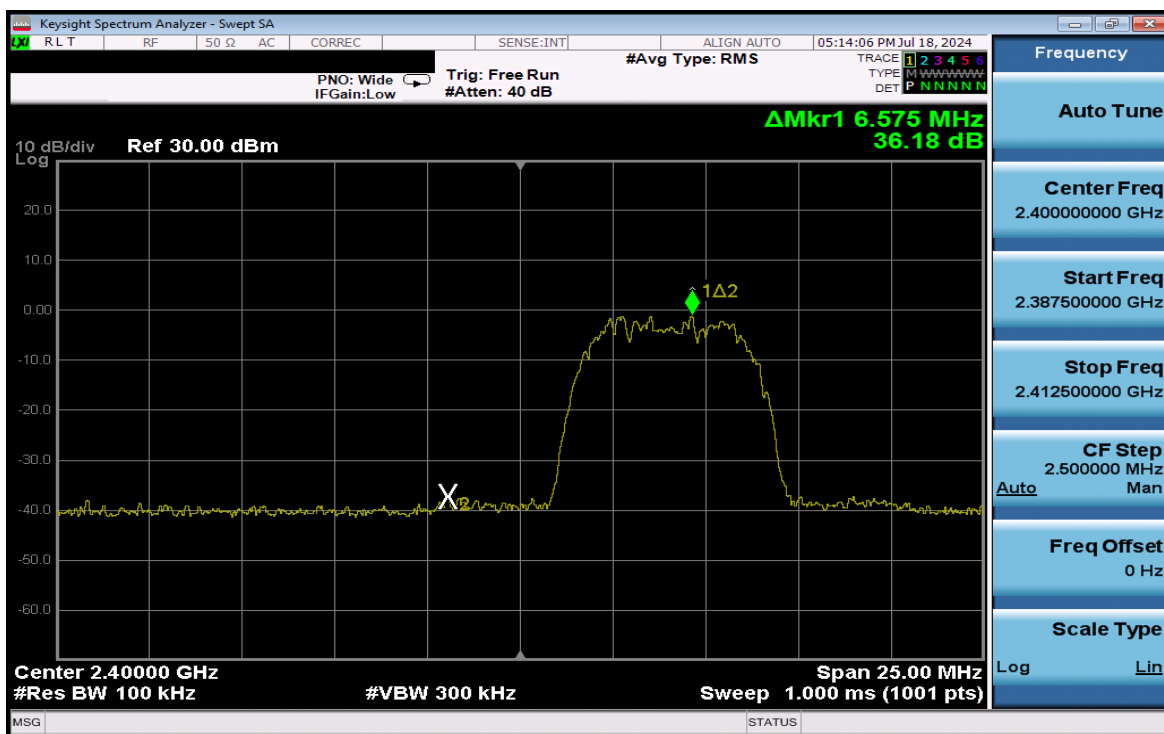


Plot 7-82. Band Edge Plot Antenna WF2 (Bluetooth (HDR4), iPA – Ch. 73)

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 69 of 114

V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 70 of 114

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 Subclause 11.11 of ANSI C63.10-2020.

Test Procedure Used

ANSI C63.10-2020 – Subclause 11.11.3
KDB 558074 D01 v05r02 – Section 8.5
ANSI C63.10-2020 – Subclause 14.5.3
KDB 662911 D01 v02r01 – Section E)3)b)

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: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 71 of 114

V 10.6 09/14/2023

Test Notes

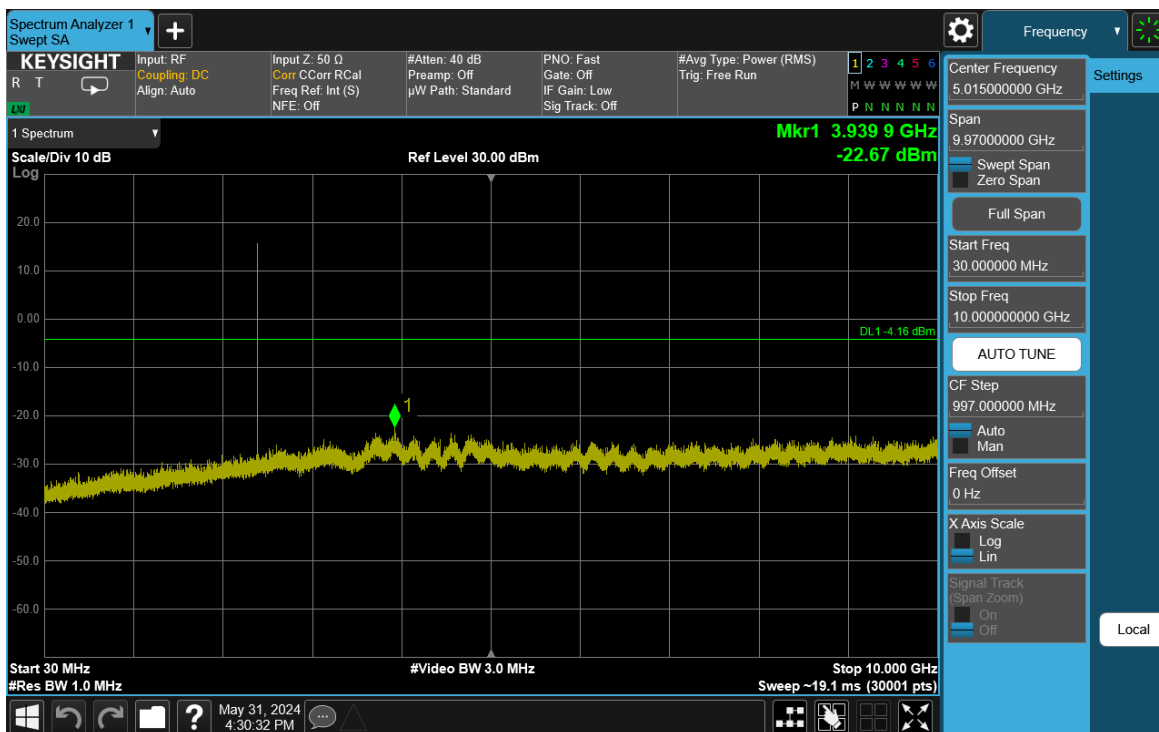
1. RBW was set to 1MHz rather than 100kHz in order to increase the measurement speed.
2. The display line shown in the following plots denotes the limit at 20dB below the fundamental emission level measured in a 100kHz bandwidth. However, since the traces in the following plots are measured with a 1MHz 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: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 72 of 114

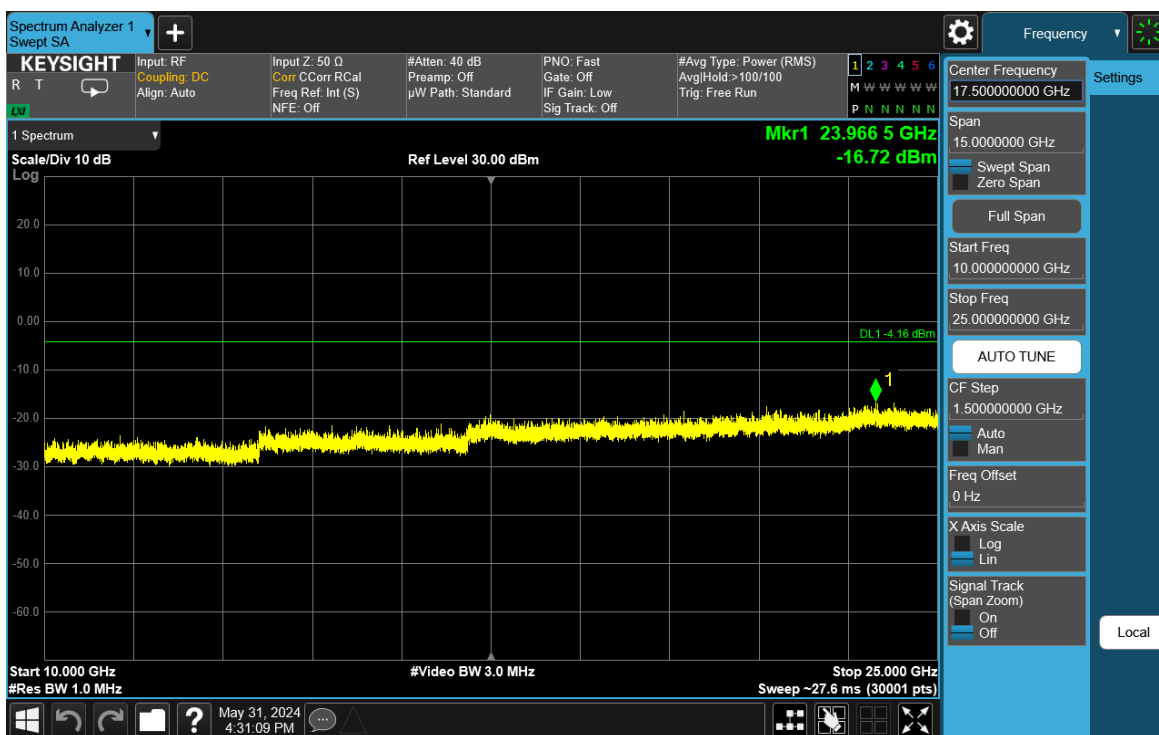
V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

Antenna WF8



Plot 7-85. Conducted Spurious Plot Antenna WF8 (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 1)

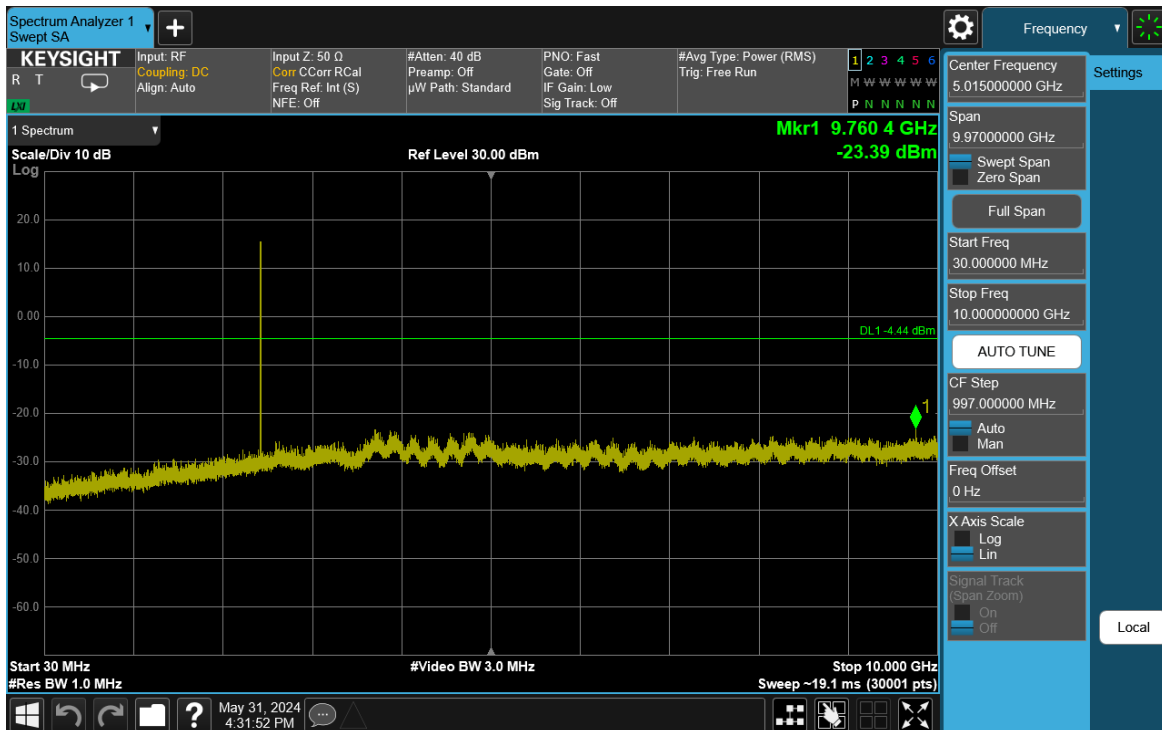


Plot 7-86. Conducted Spurious Plot Antenna WF8 (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 1)

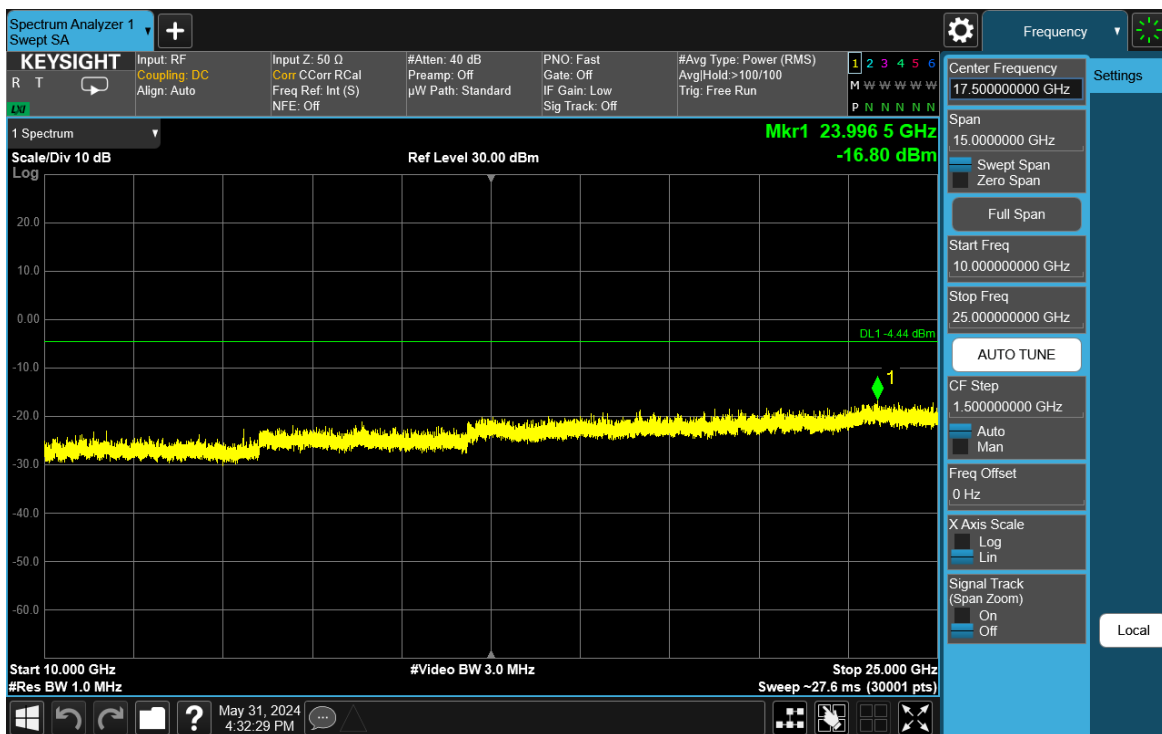
FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 73 of 114

V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.

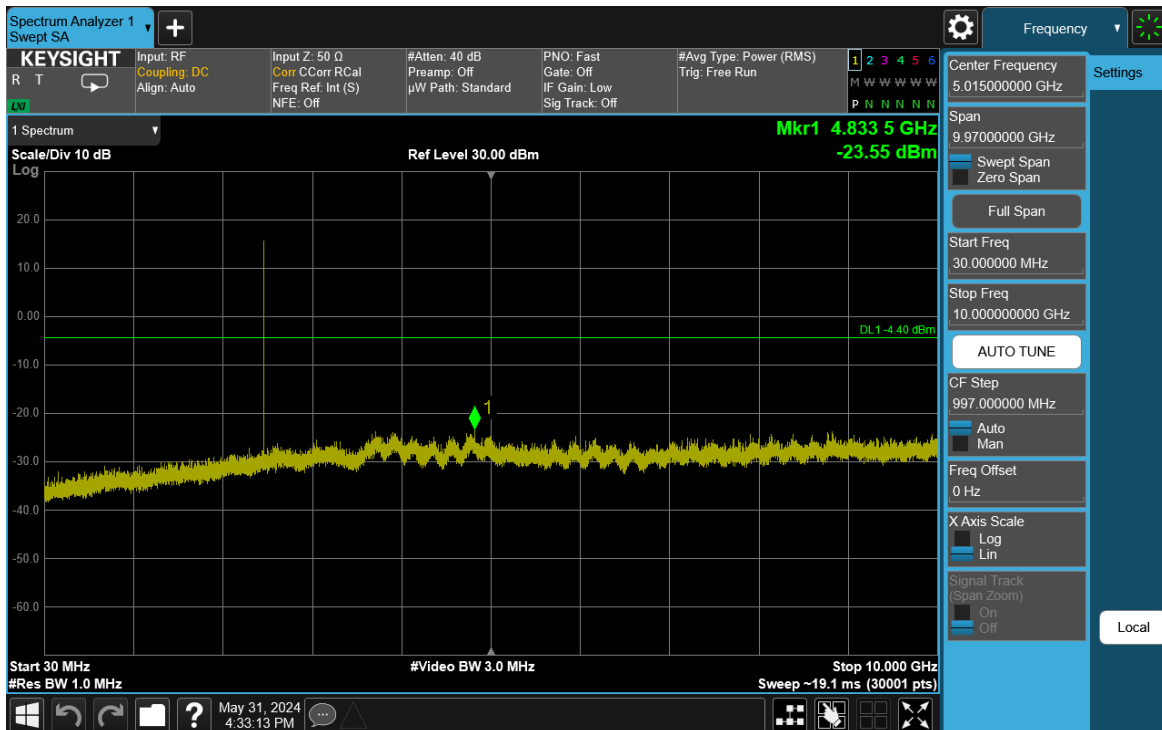


Plot 7-87. Conducted Spurious Plot Antenna WF8 (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 38)

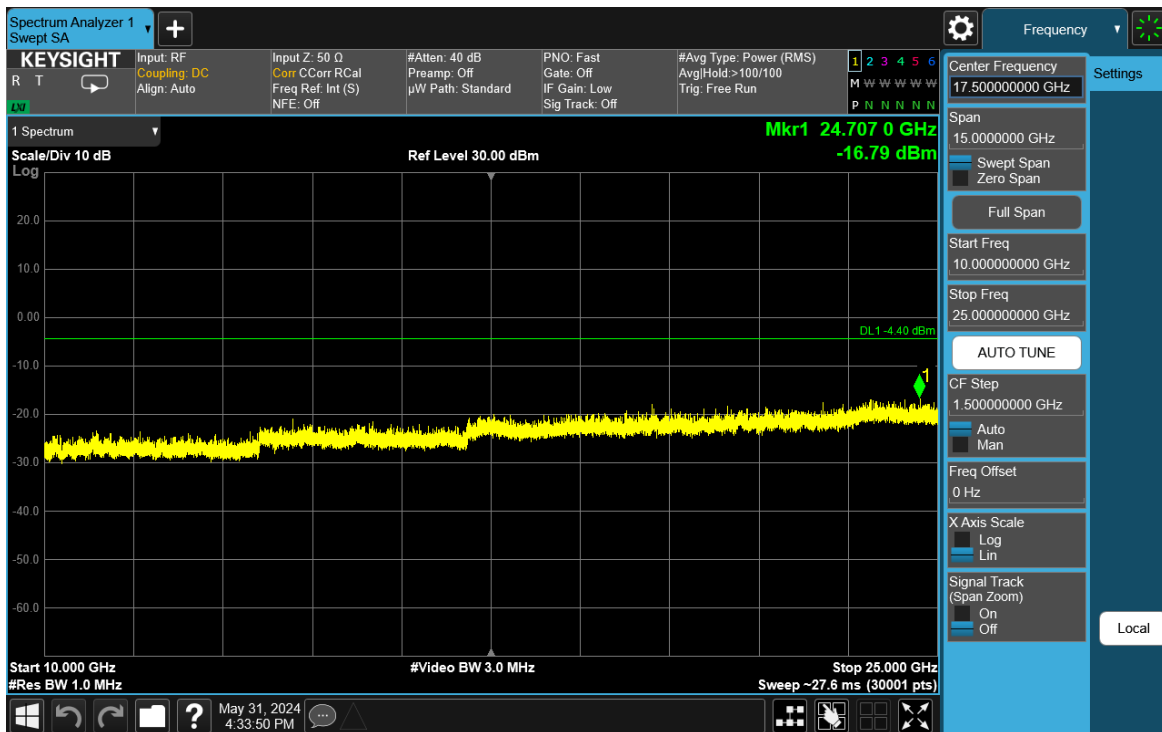


Plot 7-88. Conducted Spurious Plot Antenna WF8 (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 38)

FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 74 of 114



Plot 7-89. Conducted Spurious Plot Antenna WF8 (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 73)

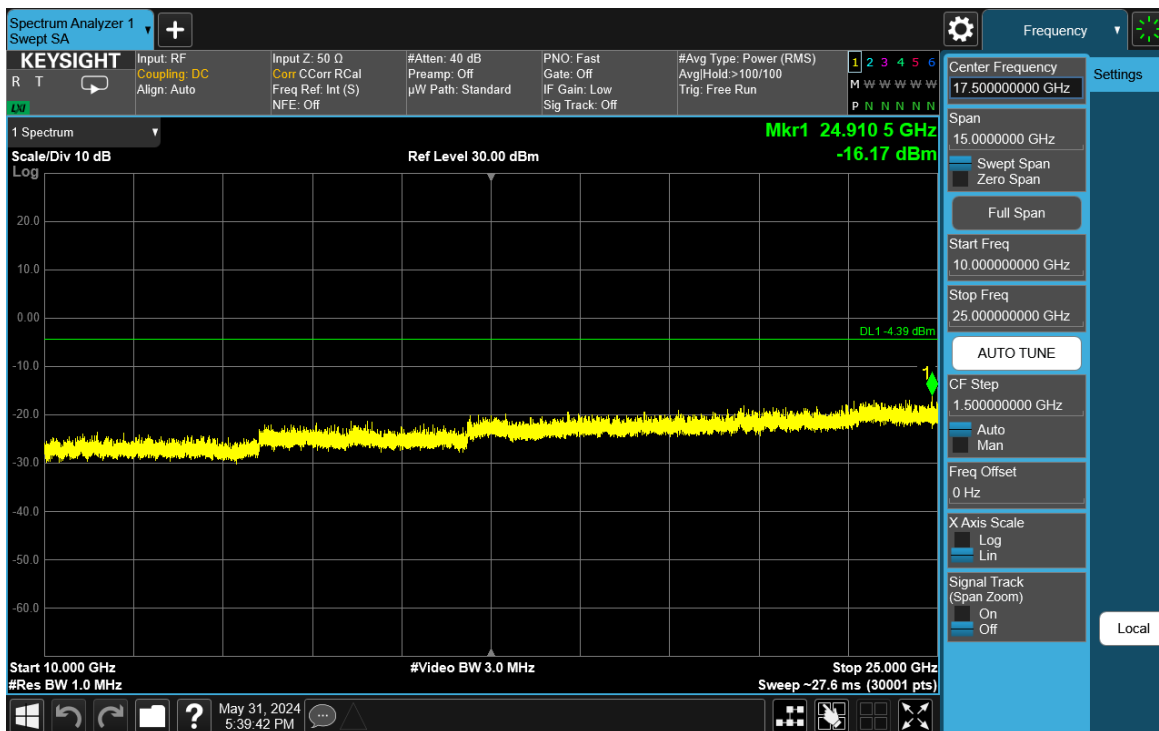
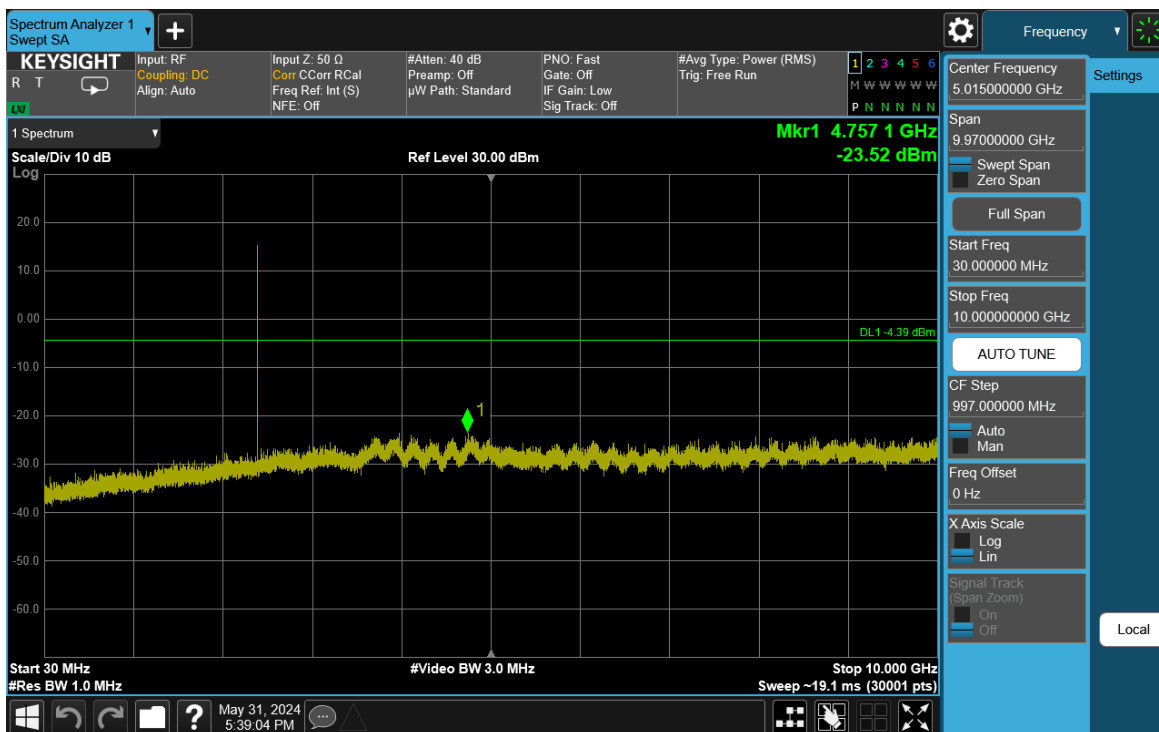


Plot 7-90. Conducted Spurious Plot Antenna WF8 (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 73)

FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 75 of 114

V 10.6 09/14/2023

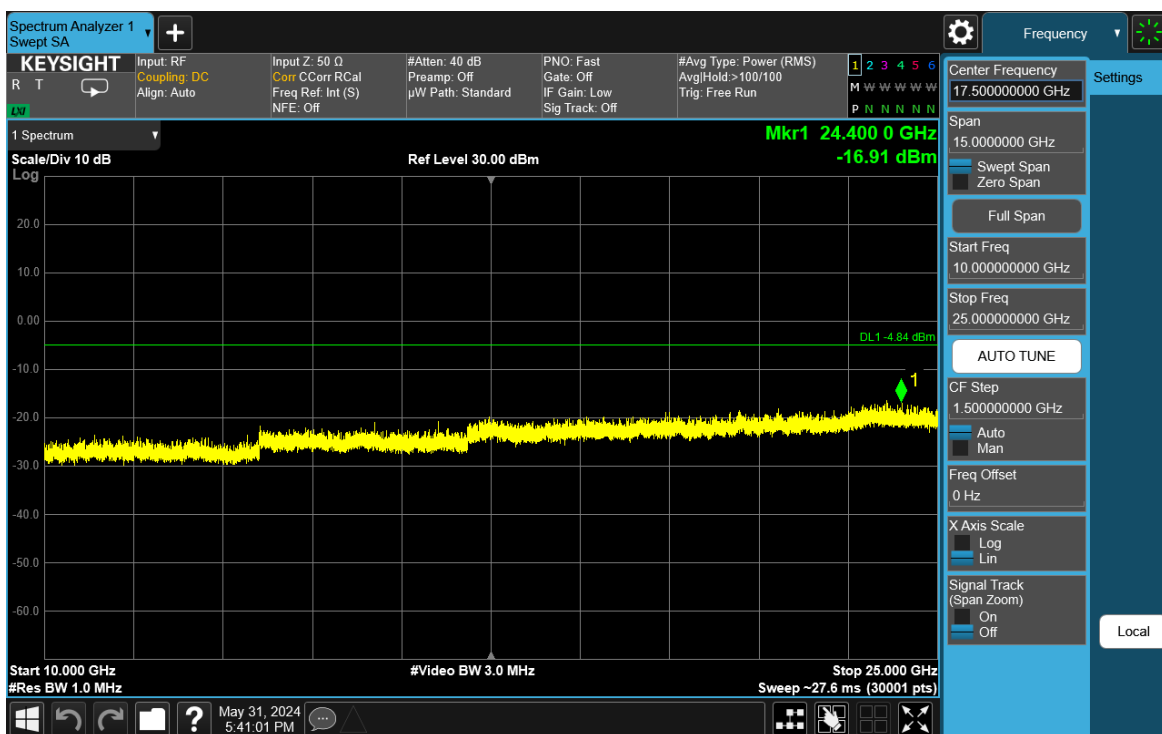
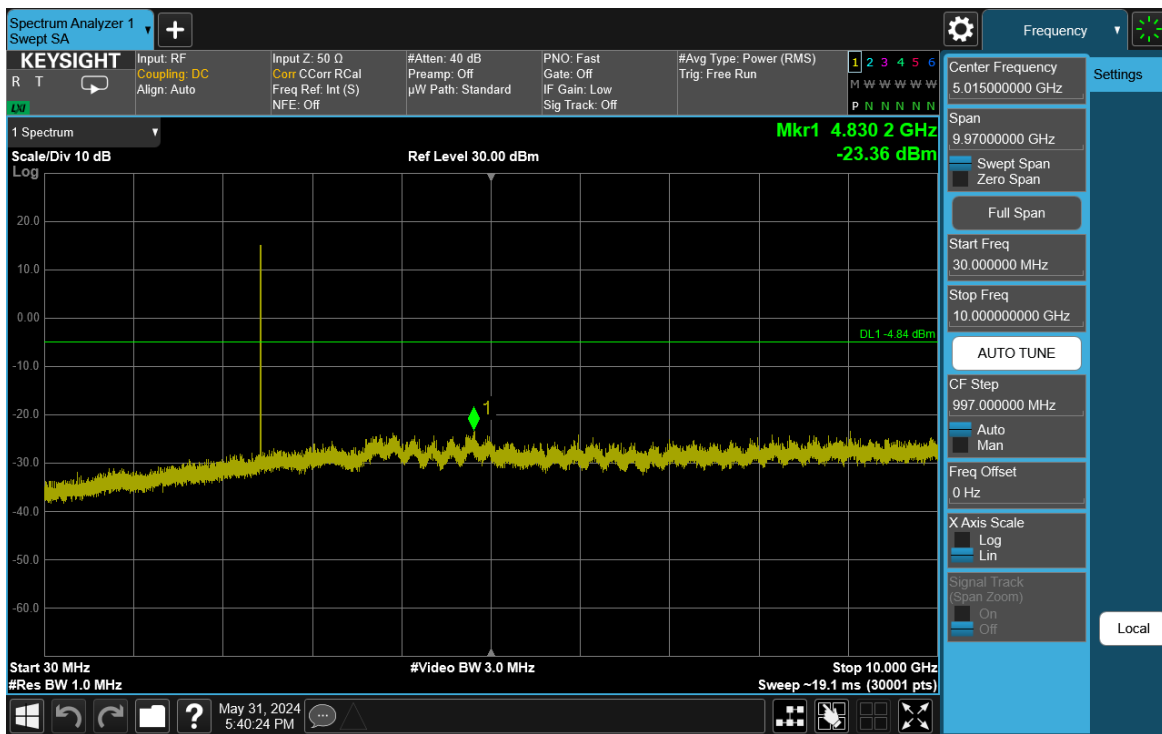
Antenna WF7



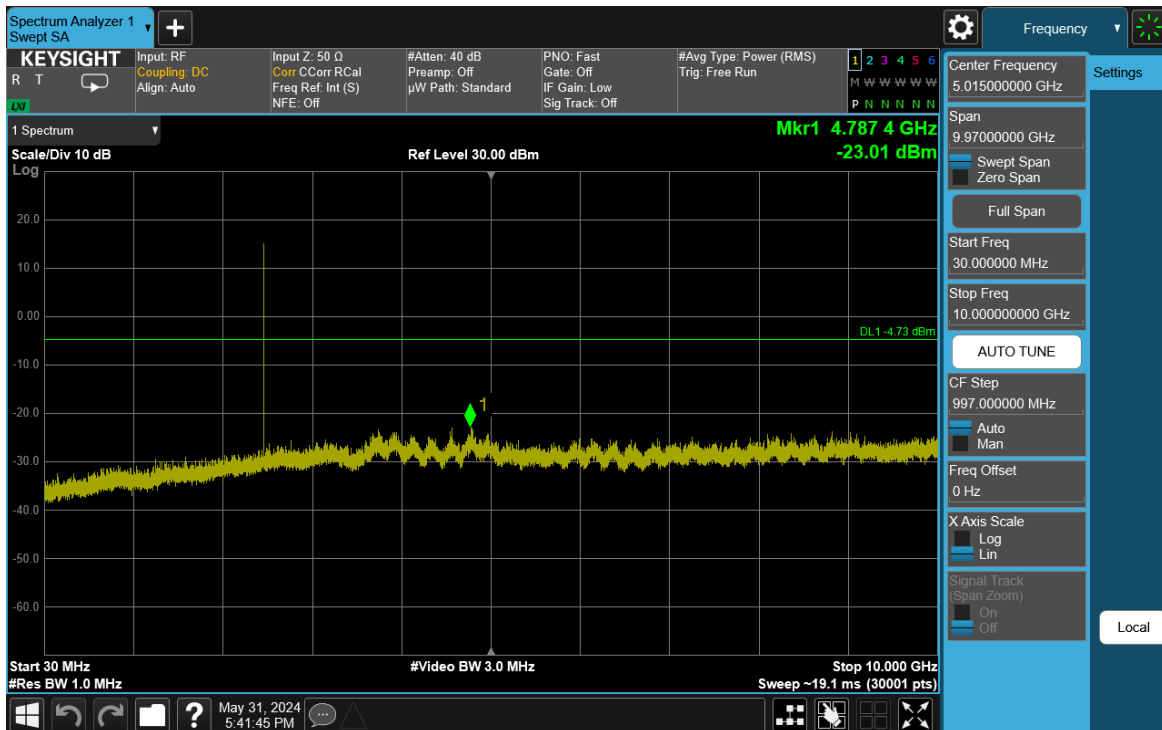
FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 76 of 114

V 10.6 09/14/2023

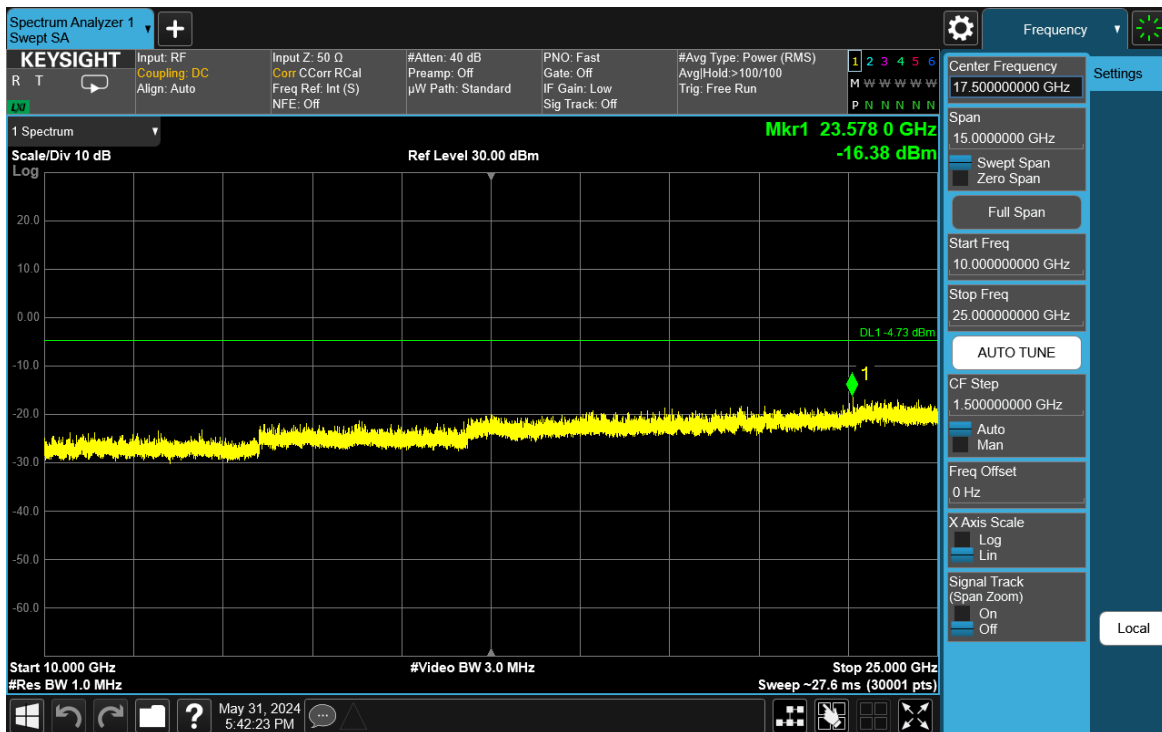
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 77 of 114



Plot 7-95. Conducted Spurious Plot Antenna WF7 (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 73)

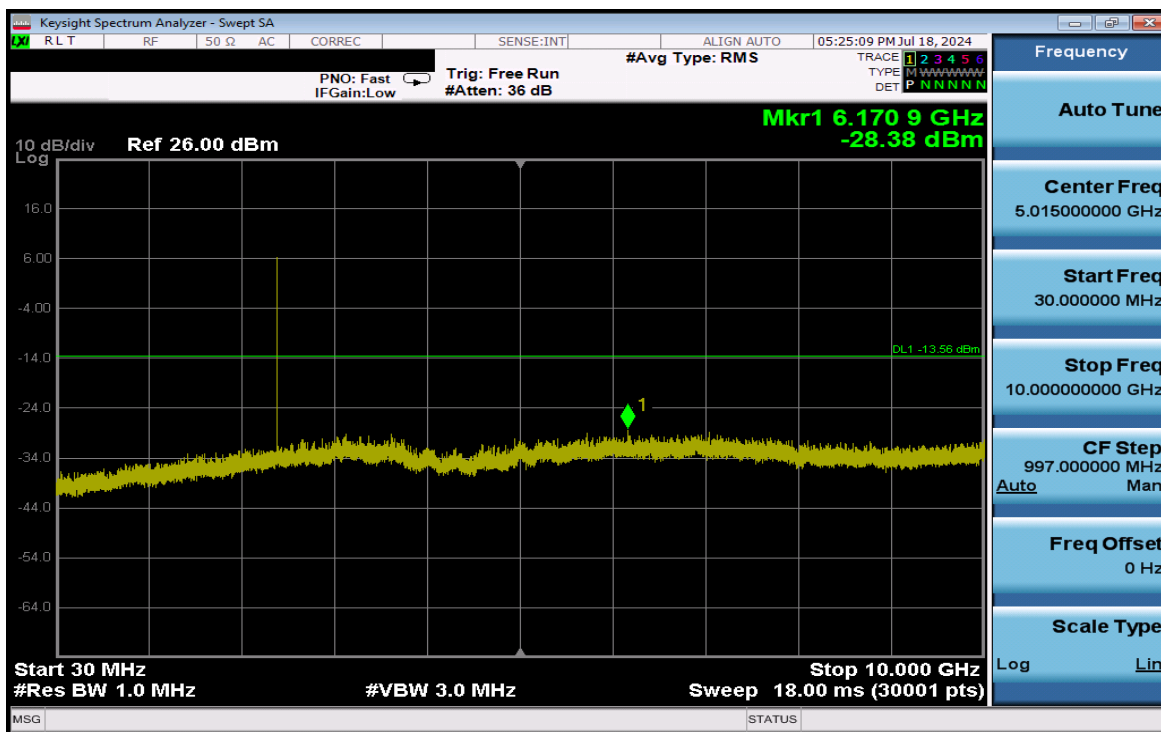


Plot 7-96. Conducted Spurious Plot Antenna WF7 (Bluetooth (HDR4), 4 Mbps, ePA – Ch. 73)

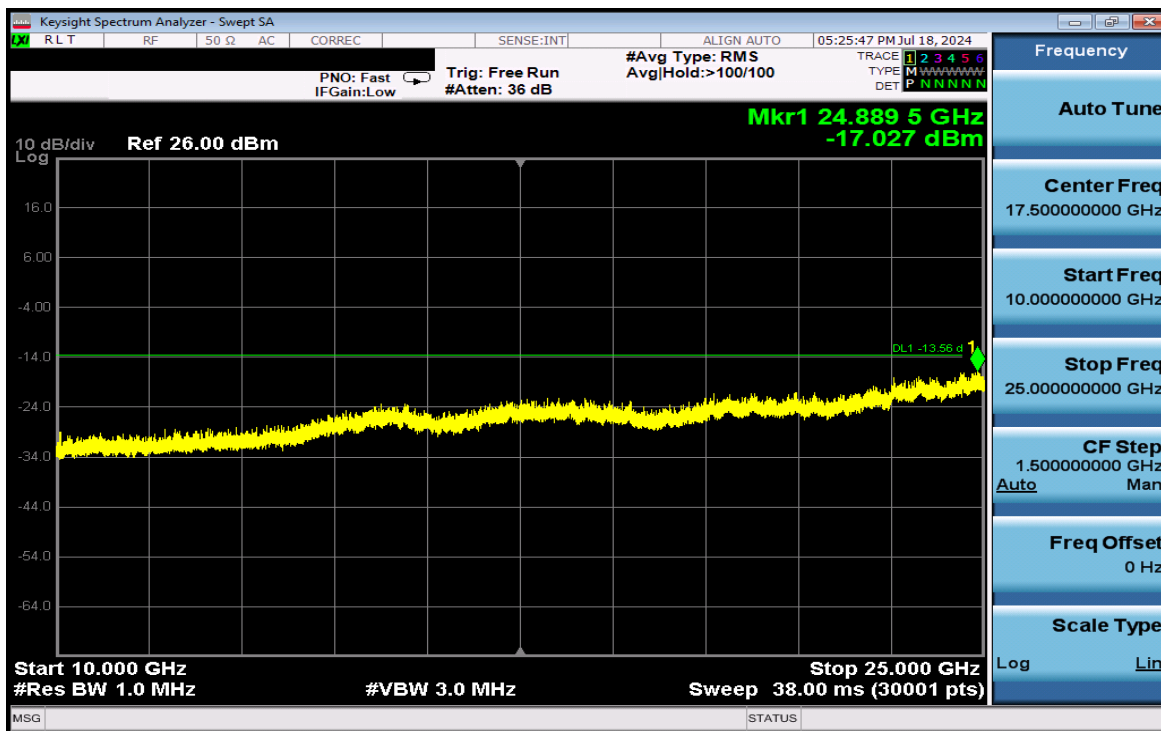
FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 78 of 114

V 10.6 09/14/2023

Antenna WF2



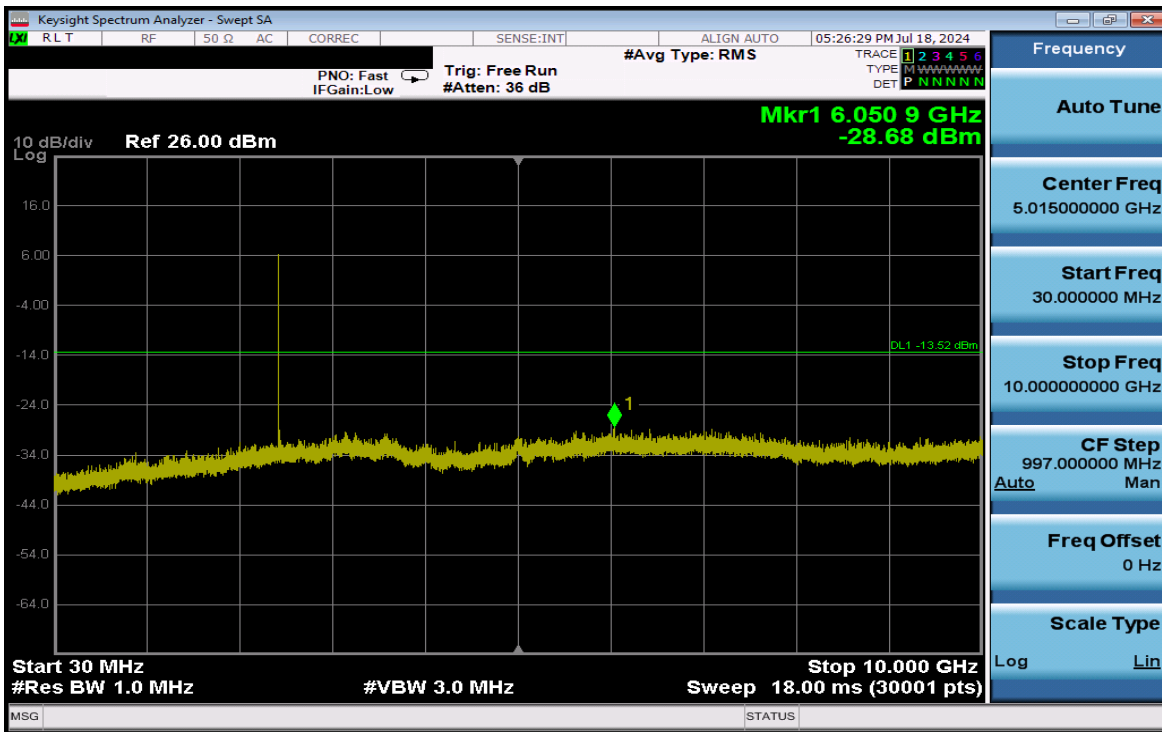
Plot 7-97. Conducted Spurious Plot Antenna WF2 (Bluetooth (HDR4), 4 Mbps, iPA – Ch. 1)



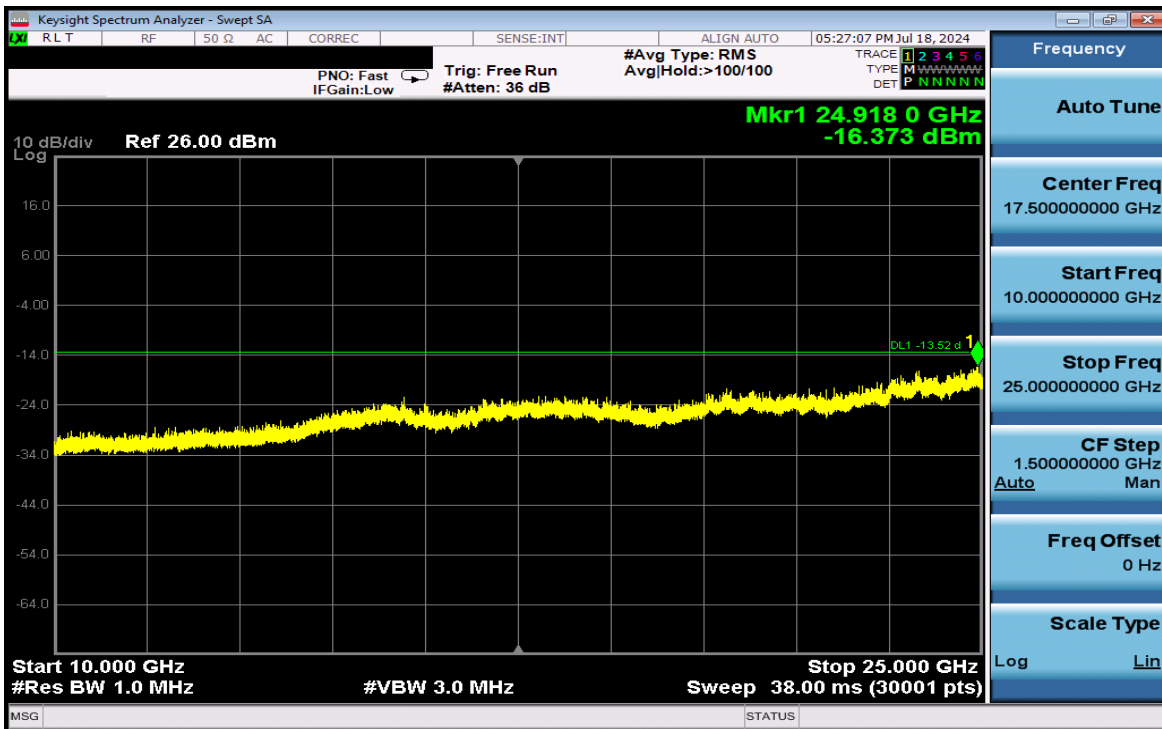
Plot 7-98. Conducted Spurious Plot Antenna WF2 (Bluetooth (HDR4), 4 Mbps, iPA – Ch. 1)

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 79 of 114

V 10.6 09/14/2023



Plot 7-99. Conducted Spurious Plot Antenna WF2 (Bluetooth (HDR4), 4 Mbps, iPA – Ch. 38)

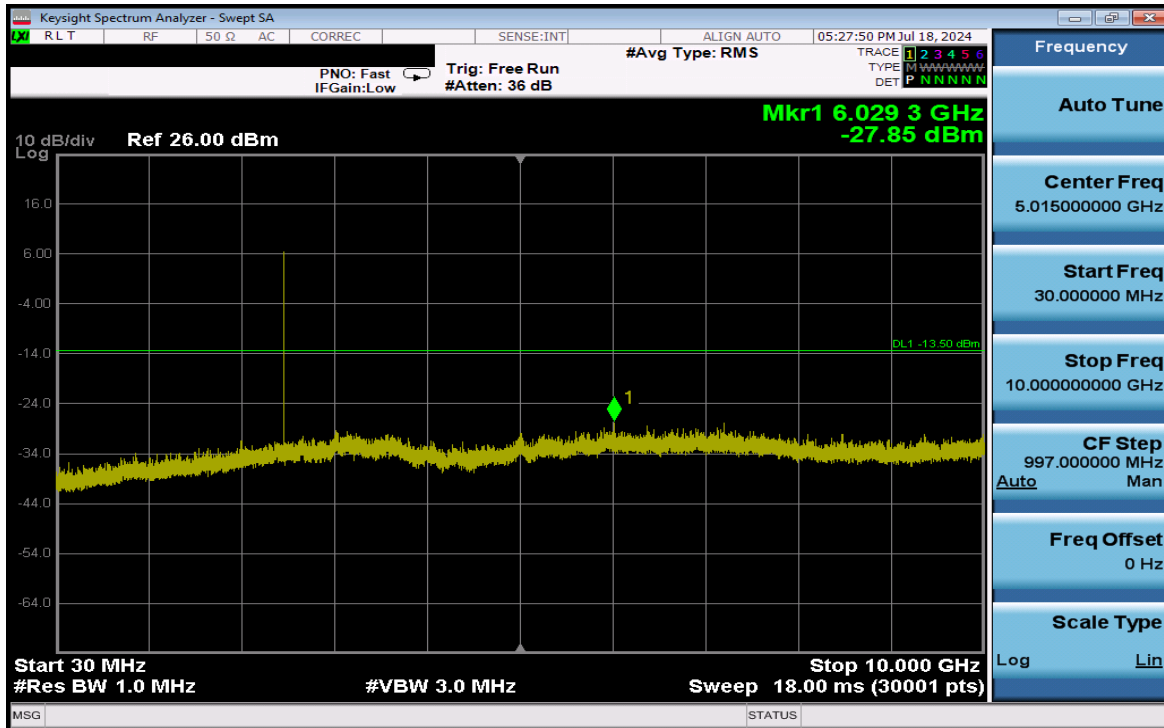


Plot 7-100. Conducted Spurious Plot Antenna WF2 (Bluetooth (HDR4), 4 Mbps, iPA – Ch. 38)

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 80 of 114

V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



7.7 Radiated Spurious Emissions

§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 7-17 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [$\mu\text{V/m}$]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-17. Radiated Limits

Test Procedures Used

ANSI C63.10-2020 – Subclause 6.6.4.3
KDB 558074 D01 v05r02 – Sections 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 $\geq 2 \times \text{span/RBW}$)
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

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 82 of 114

V 10.6 09/14/2023

Test Setup

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

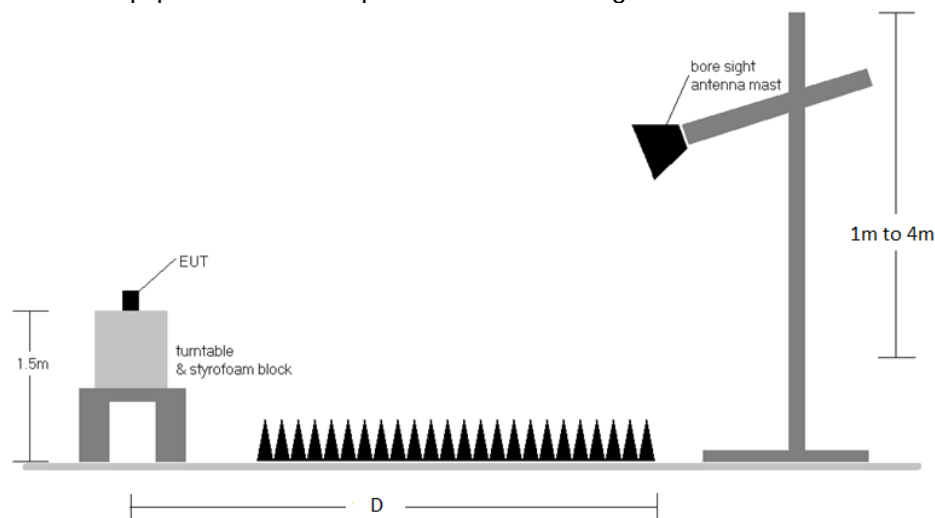


Figure 7-6. Radiated Test Setup >1GHz

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 7-17.
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.

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device		Page 83 of 114

V 10.6 09/14/2023

Sample Calculations

Determining Spurious Emissions Levels

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

Radiated Band Edge Measurement Offset

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

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

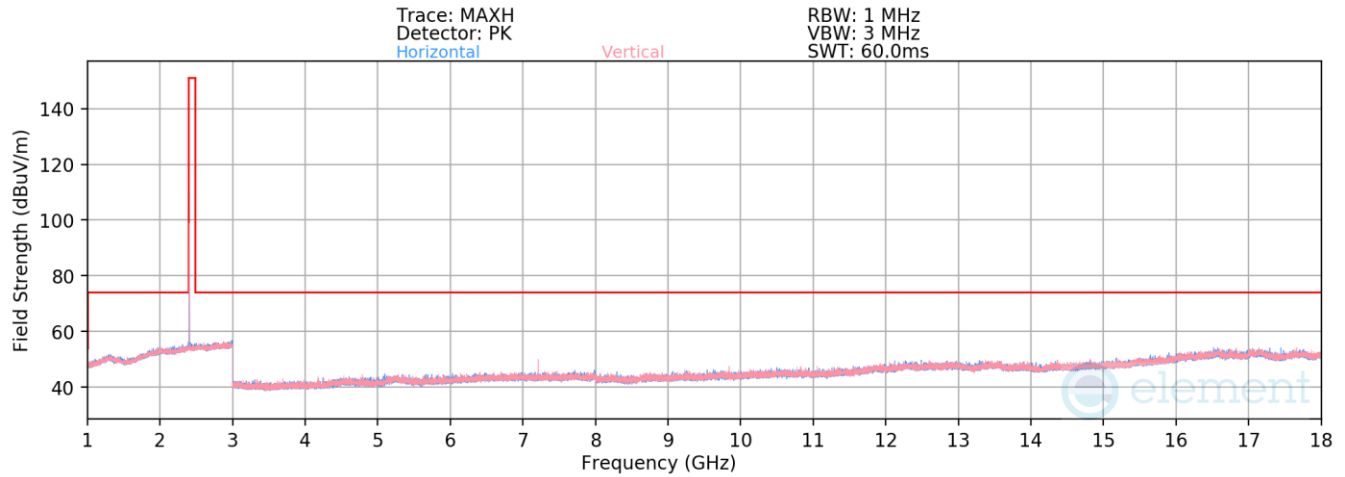
FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 84 of 114

V 10.6 09/14/2023

Radiated Spurious Emission Measurements

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

Antenna WF8



Plot 7-103. Radiated Spurious Emissions 1-18GHz Antenna WF8 (4Mbps, HDR4, ePA – Ch. 1)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
Power Scheme: ePA
Distance of Measurements: 3 Meters
Operating Frequency: 2404MHz
Channel: 1

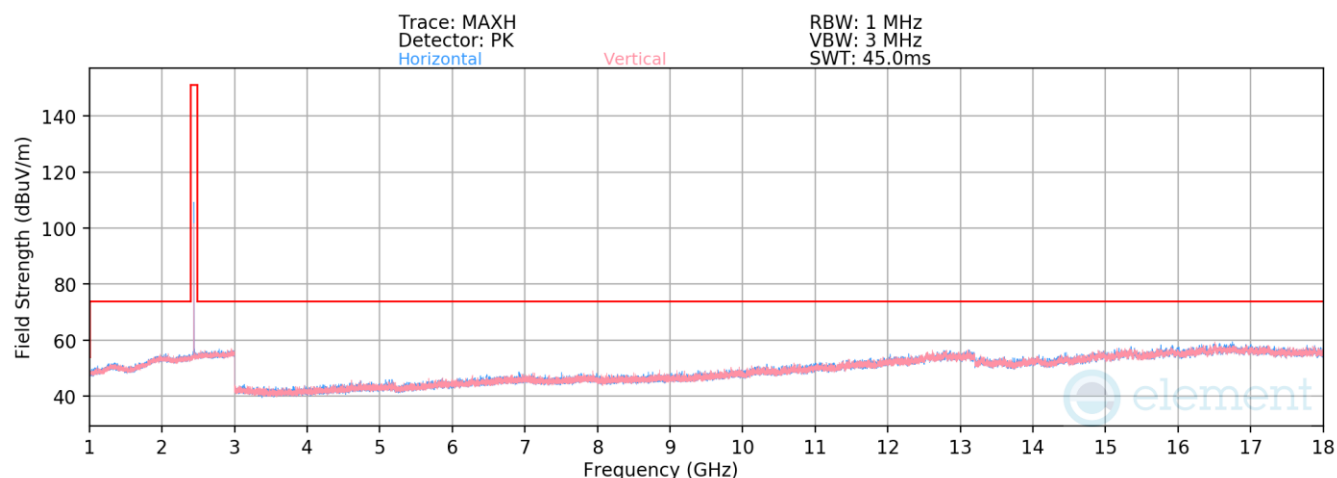
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4808.00	Avg	H	-	-	-77.36	2.87	32.51	53.98	-21.47
4808.00	Peak	H	-	-	-65.84	2.87	44.03	73.98	-29.95
12020.00	Avg	H	-	-	-79.31	9.96	37.65	53.98	-16.33
12020.00	Peak	H	-	-	-68.30	9.96	48.66	73.98	-25.32

Table 7-18. Radiated Spurious Emission Measurements Antenna WF8

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 85 of 114

V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



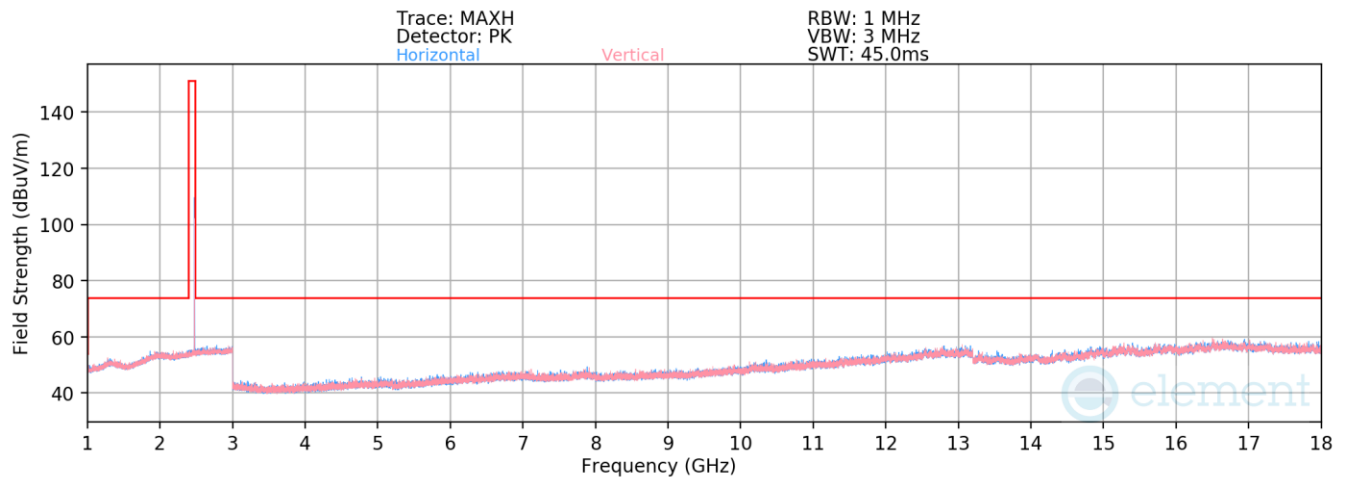
Plot 7-104. Radiated Spurious Emissions 1-18GHz Antenna WF8 (4Mbps, HDR4, ePA – Ch. 38)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
Power Scheme: ePA
Distance of Measurements: 3 Meters
Operating Frequency: 2441MHz
Channel: 38

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4882.00	Avg	H	-	-	-80.60	7.37	33.77	53.98	-20.21
4882.00	Peak	H	-	-	-68.93	7.37	45.44	73.98	-28.54
7323.00	Avg	H	-	-	-81.73	10.78	36.05	53.98	-17.93
7323.00	Peak	H	-	-	-70.61	10.78	47.17	73.98	-26.81
12205.00	Avg	H	-	-	-83.71	18.76	42.05	53.98	-11.93
12205.00	Peak	H	-	-	-72.59	18.76	53.17	73.98	-20.81

Table 7-19. Radiated Spurious Emission Measurements Antenna WF8

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 86 of 114



Plot 7-105. Radiated Spurious Emissions 1-18GHz Antenna WF8 (4Mbps, HDR4, ePA – Ch. 73)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
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 [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4952.00	Avg	H	-	-	-80.21	7.06	33.85	53.98	-20.13
4952.00	Peak	H	-	-	-69.06	7.06	45.00	73.98	-28.98
7428.00	Avg	H	-	-	-82.03	10.98	35.95	53.98	-18.03
7428.00	Peak	H	-	-	-71.01	10.98	46.97	73.98	-27.01
12380.00	Avg	H	-	-	-84.09	19.40	42.31	53.98	-11.67
12380.00	Peak	H	-	-	-73.00	19.40	53.40	73.98	-20.58

Table 7-20. Radiated Spurious Emission Measurements Antenna WF8

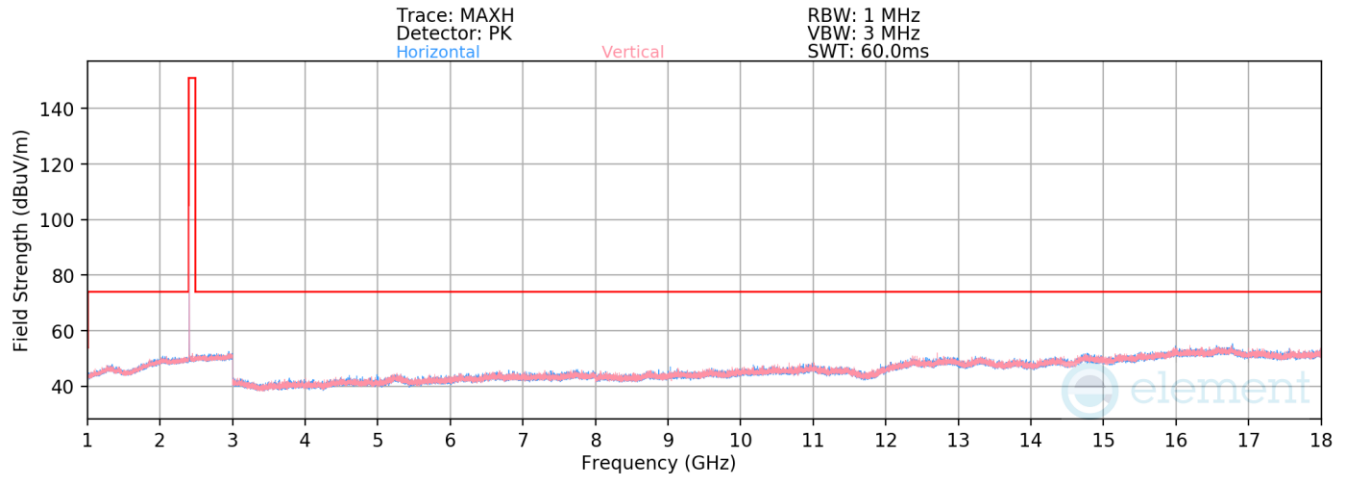
FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device		Page 87 of 114

V 10.6 09/14/2023

Radiated Spurious Emission Measurements

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

Antenna WF7



Plot 7-106. Radiated Spurious Emissions 1-18GHz Antenna WF7 (4Mbps, HDR4, ePA – Ch. 1)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
Power Scheme: ePA
Distance of Measurements: 3 Meters
Operating Frequency: 2404MHz
Channel: 1

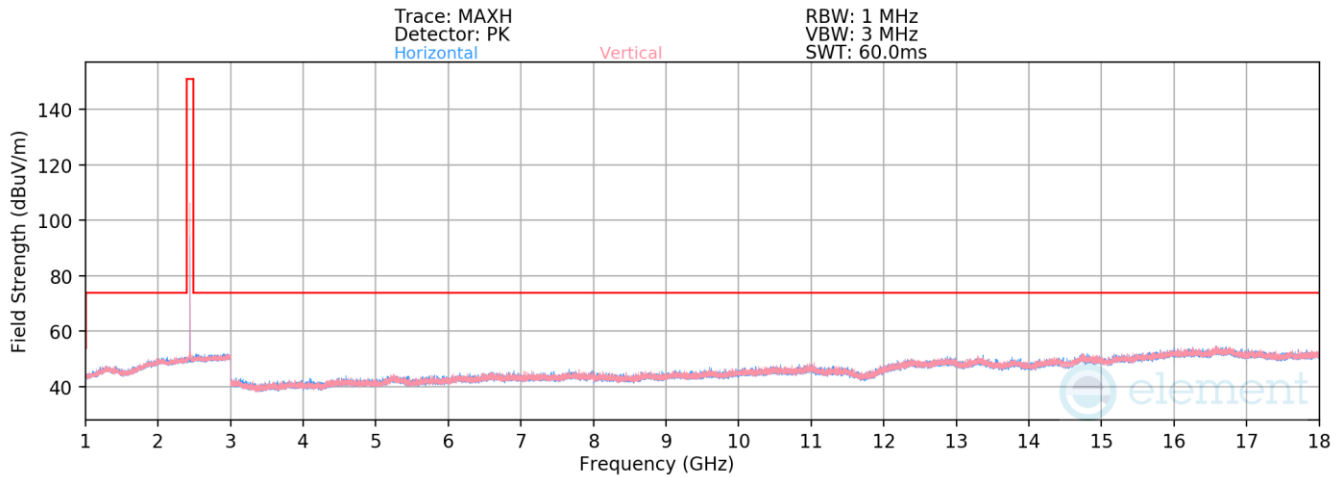
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4808.00	Avg	H	-	-	-77.46	2.49	32.03	53.98	-21.95
4808.00	Peak	H	-	-	-66.27	2.49	43.22	73.98	-30.76
12020.00	Avg	H	-	-	-81.46	10.83	36.37	53.98	-17.61
12020.00	Peak	H	-	-	-69.54	10.83	48.29	73.98	-25.69

Table 7-21. Radiated Spurious Emission Measurements Antenna WF7

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 88 of 114

V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



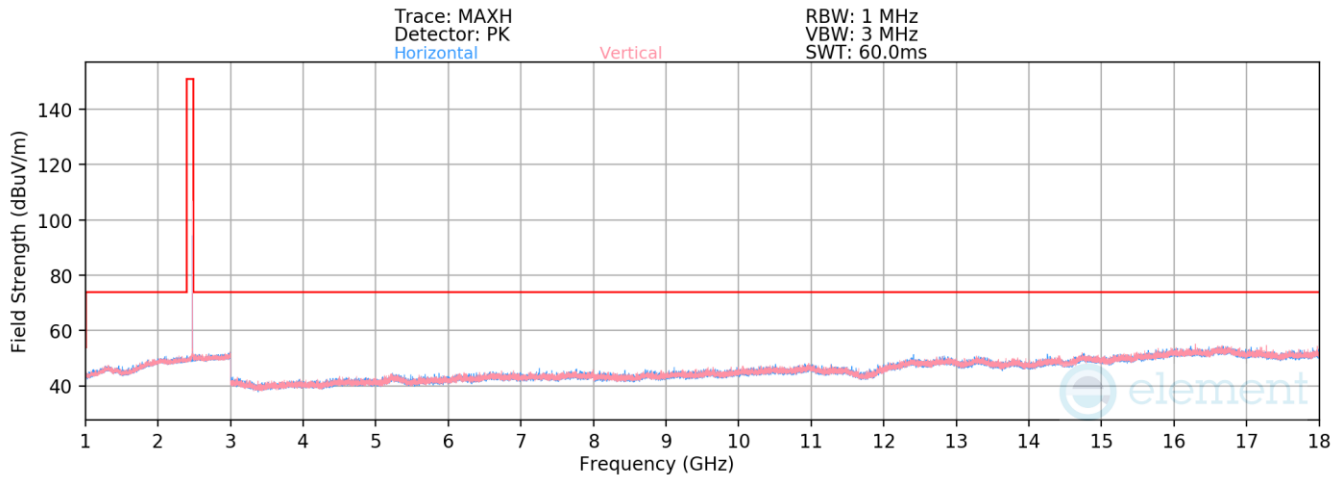
Plot 7-107. Radiated Spurious Emissions 1-18GHz Antenna WF7 (4Mbps, HDR4, ePA – Ch. 38)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
Power Scheme: ePA
Distance of Measurements: 3 Meters
Operating Frequency: 2441MHz
Channel: 38

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4882.00	Avg	H	-	-	-77.61	2.87	32.26	53.98	-21.72
4882.00	Peak	H	-	-	-66.49	2.87	43.38	73.98	-30.60
7323.00	Avg	H	-	-	-78.35	5.30	33.95	53.98	-20.03
7323.00	Peak	H	-	-	-66.60	5.30	45.70	73.98	-28.28
12205.00	Avg	H	-	-	-80.77	11.16	37.39	53.98	-16.59
12205.00	Peak	H	-	-	-69.31	11.16	48.85	73.98	-25.13

Table 7-22. Radiated Spurious Emission Measurements Antenna WF7

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 89 of 114



Plot 7-108. Radiated Spurious Emissions 1-18GHz Antenna WF7 (4Mbps, HDR4, ePA – Ch. 73)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
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 [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4952.00	Avg	H	-	-	-77.76	2.77	32.01	53.98	-21.97
4952.00	Peak	H	-	-	-66.16	2.77	43.61	73.98	-30.37
7428.00	Avg	H	-	-	-78.16	5.32	34.16	53.98	-19.82
7428.00	Peak	H	-	-	-66.94	5.32	45.38	73.98	-28.60
12380.00	Avg	H	-	-	-80.36	11.99	38.63	53.98	-15.35
12380.00	Peak	H	-	-	-68.94	11.99	50.05	73.98	-23.93

Table 7-23. Radiated Spurious Emission Measurements Antenna WF7

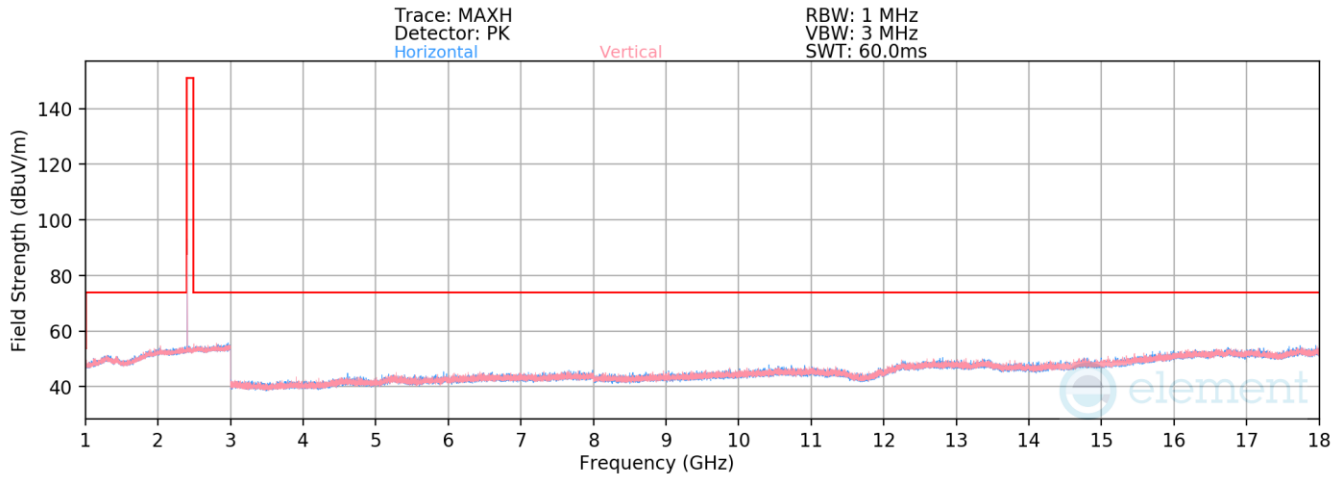
FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device		Page 90 of 114

V 10.6 09/14/2023

Radiated Spurious Emission Measurements

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

Antenna WF2



Plot 7-109. Radiated Spurious Emissions 1-18GHz Antenna WF2 (4Mbps, HDR4, iPA – Ch. 1)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
Power Scheme: iPA
Distance of Measurements: 3 Meters
Operating Frequency: 2404MHz
Channel: 1

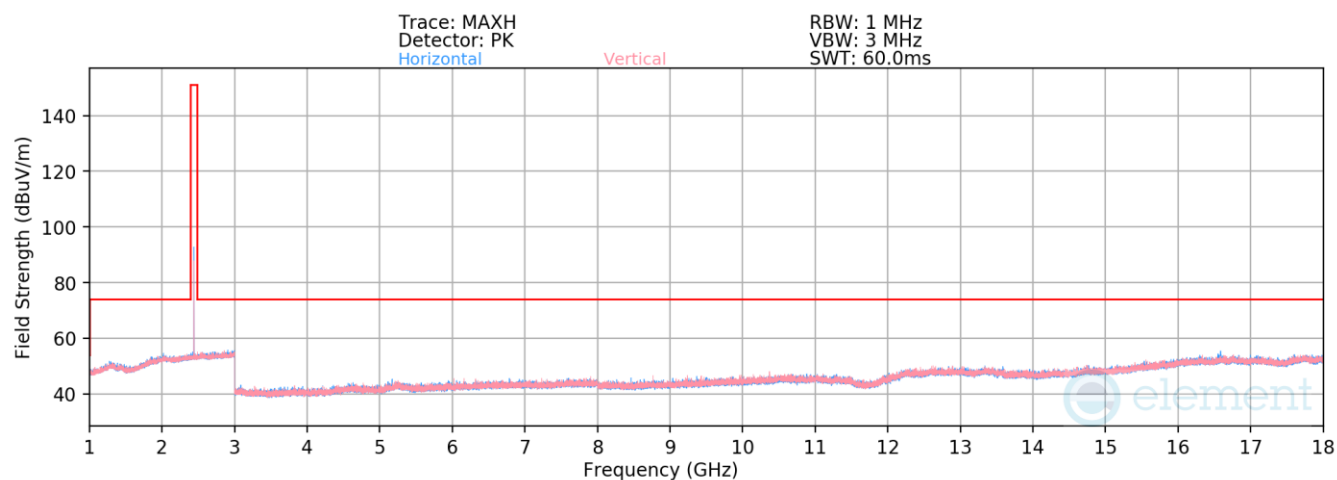
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4808.00	Avg	V	-	-	-77.40	2.87	32.47	53.98	-21.51
4808.00	Peak	V	-	-	-65.98	2.87	43.89	73.98	-30.09
12020.00	Avg	V	-	-	-81.34	9.96	35.62	53.98	-18.36
12020.00	Peak	V	-	-	-69.61	9.96	47.35	73.98	-26.63

Table 7-24. Radiated Spurious Emission Measurements Antenna WF2

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device		Page 91 of 114

V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Plot 7-110. Radiated Spurious Emissions 1-18GHz Antenna WF2 (4Mbps, HDR4, iPA – Ch. 38)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
Power Scheme iPA
Distance of Measurements: 3 Meters
Operating Frequency: 2441MHz
Channel: 38

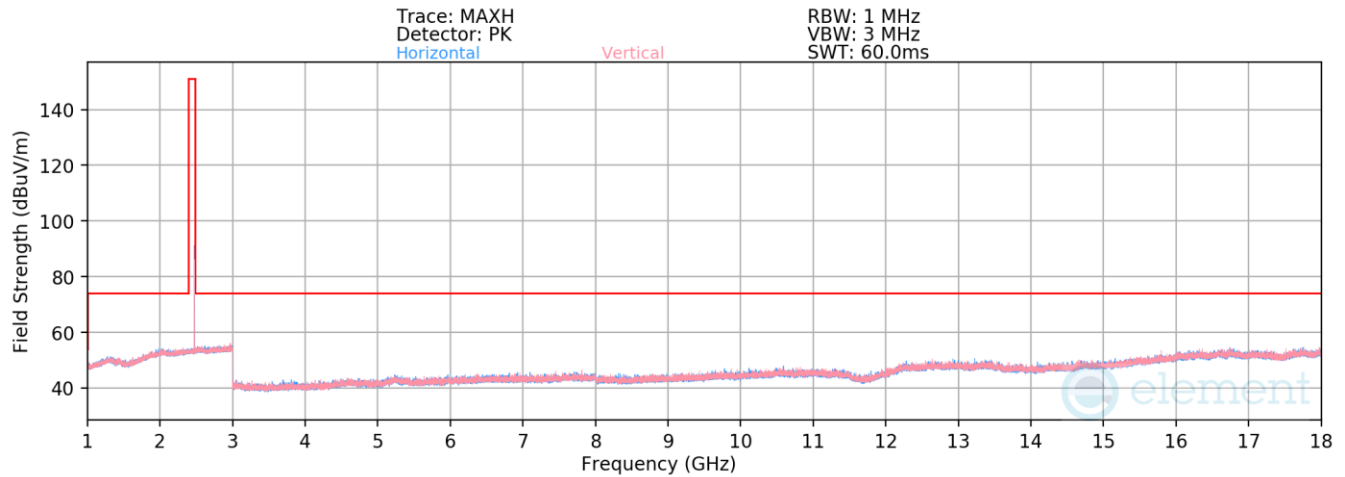
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4882.00	Avg	V	-	-	-77.41	2.74	32.33	53.98	-21.65
4882.00	Peak	V	-	-	-66.02	2.74	43.72	73.98	-30.26
7323.00	Avg	V	-	-	-78.26	5.06	33.80	53.98	-20.18
7323.00	Peak	V	-	-	-67.18	5.06	44.88	73.98	-29.10
12205.00	Avg	V	-	-	-80.82	10.98	37.16	53.98	-16.82
12205.00	Peak	V	-	-	-69.48	10.98	48.50	73.98	-25.48

Table 7-25. Radiated Spurious Emission Measurements Antenna WF2

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 92 of 114

V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Plot 7-111. Radiated Spurious Emissions 1-18GHz Antenna WF2 (4Mbps, HDR4, iPA – Ch. 73)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
Power Scheme: iPA
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 [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4952.00	Avg	V	-	-	-77.77	2.71	31.94	53.98	-22.04
4952.00	Peak	V	-	-	-66.18	2.71	43.53	73.98	-30.45
7428.00	Avg	V	-	-	-78.60	5.64	34.04	53.98	-19.94
7428.00	Peak	V	-	-	-66.88	5.64	45.76	73.98	-28.22
12380.00	Avg	V	-	-	-80.27	10.61	37.34	53.98	-16.64
12380.00	Peak	V	-	-	-68.11	10.61	49.50	73.98	-24.48

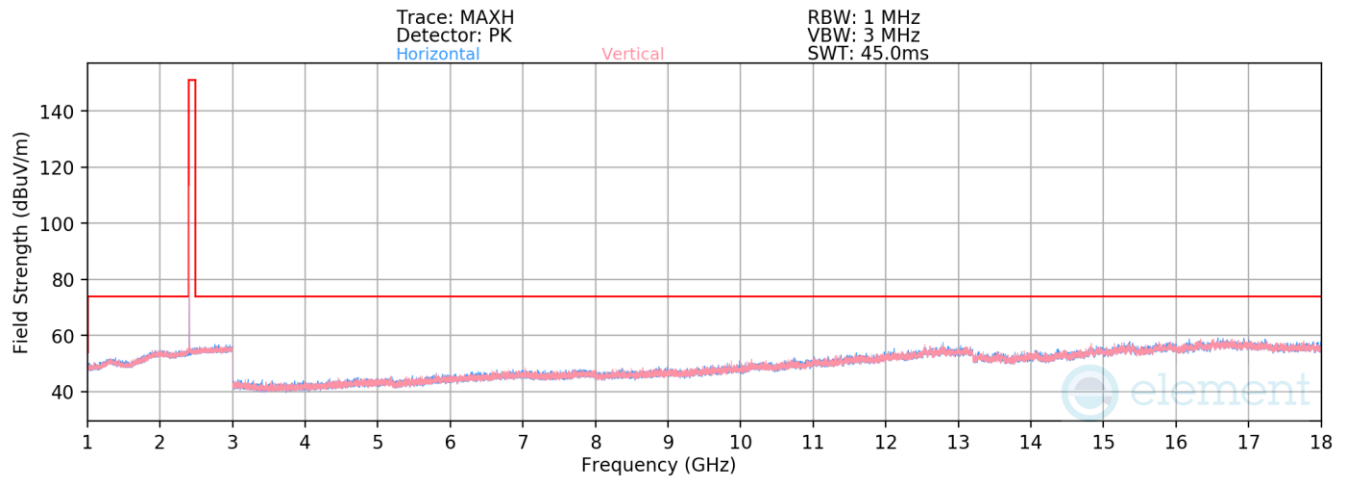
Table 7-26. Radiated Spurious Emission Measurements Antenna WF2

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 93 of 114

Radiated Spurious Emission Measurements

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

TxBF



Plot 7-112. Radiated Spurious Emissions 1-18GHz TxBF (4Mbps, HDR4, ePA – Ch. 1)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
Power Scheme: ePA
Distance of Measurements: 3 Meters
Operating Frequency: 2404MHz
Channel: 1

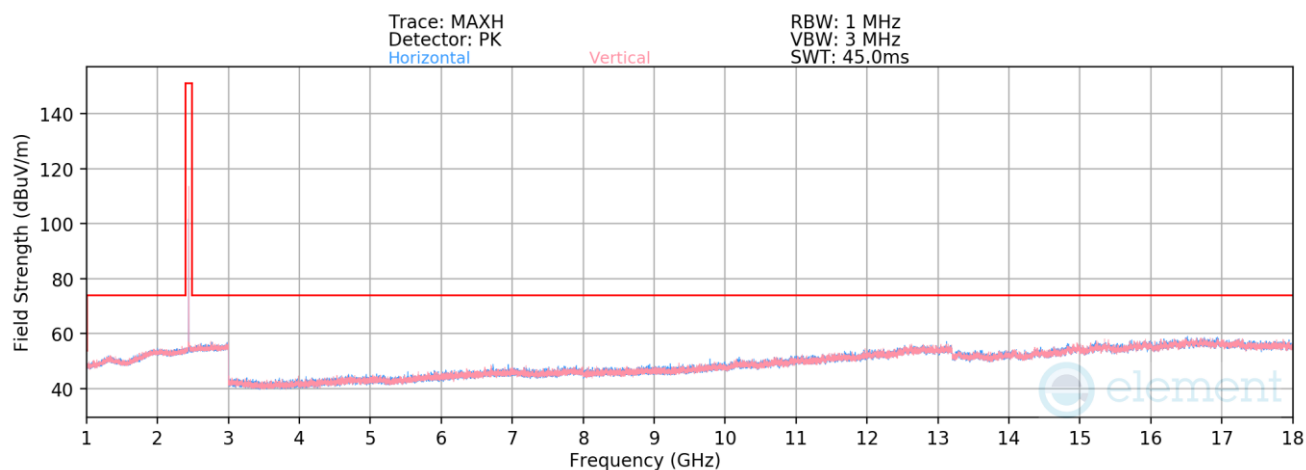
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4808.00	Avg	V	-	-	-80.24	7.30	34.06	53.98	-19.92
4808.00	Peak	V	-	-	-68.82	7.30	45.48	73.98	-28.50
12020.00	Avg	V	-	-	-83.70	18.62	41.92	53.98	-12.06
12020.00	Peak	V	-	-	-71.77	18.62	53.85	73.98	-20.13

Table 7-27. Radiated Spurious Emission Measurements TxBF

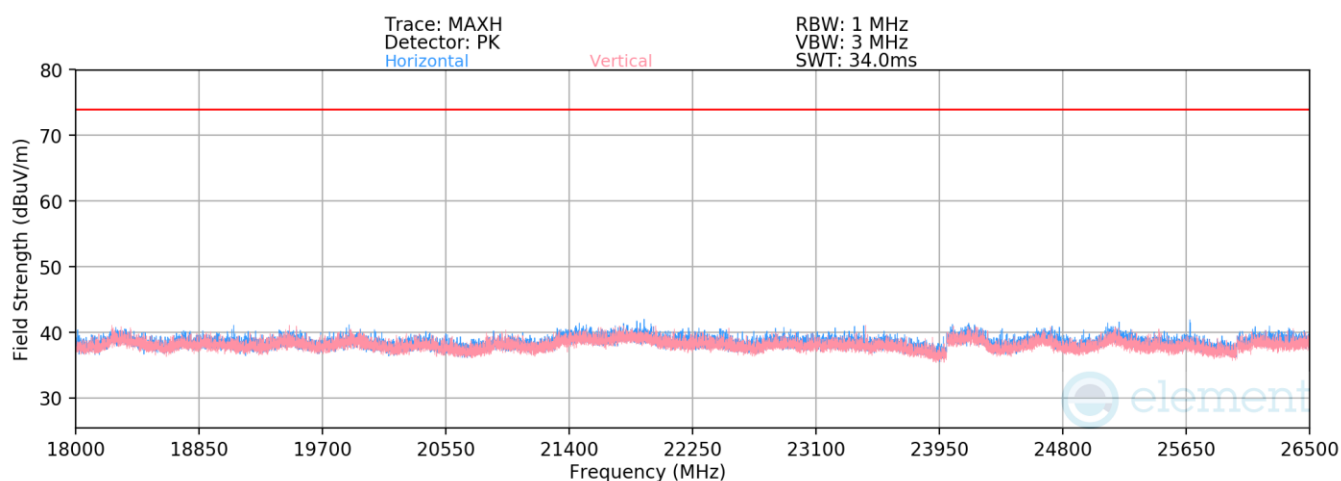
FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device		Page 94 of 114

V 10.6 09/14/2023

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



Plot 7-113. Radiated Spurious Emissions 1-18GHz TxBF (4Mbps, HDR4, ePA – Ch. 38)



Plot 7-114. Radiated Spurious Emissions Above 18GHz TxBF (4Mbps, HDR4, ePA – Ch. 38)

FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 95 of 114

V 10.6 09/14/2023

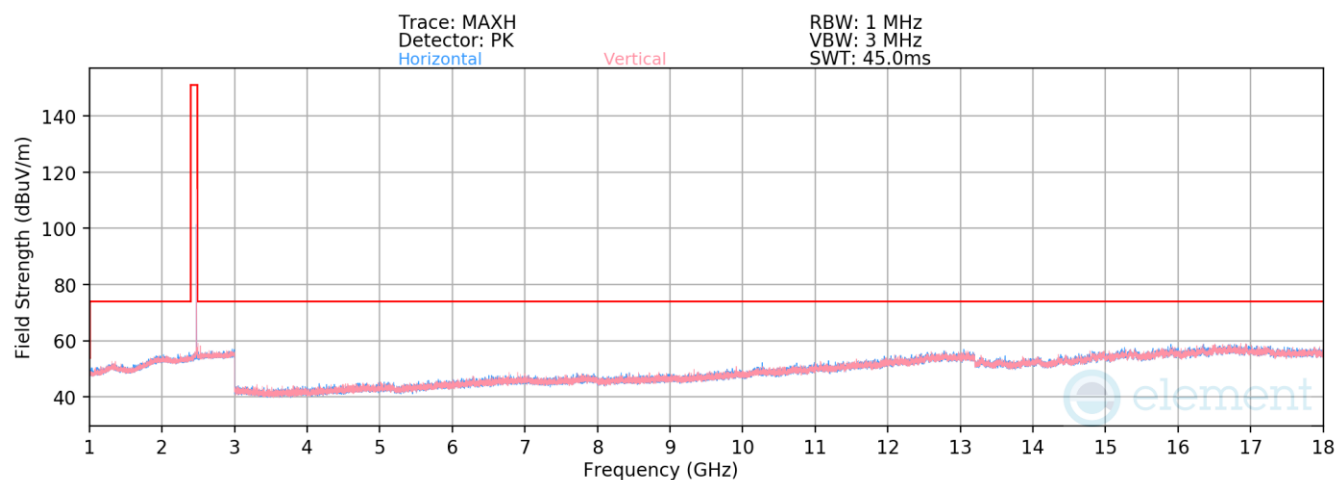
Bluetooth Mode: HDR4
 Data Rate: 4Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 2441MHz
 Channel: 38

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	V	-	-	-80.63	7.70	34.07	53.98	-19.91
4882.00	Peak	V	-	-	-69.98	7.70	44.72	73.98	-29.26
7323.00	Avg	V	-	-	-81.77	10.78	36.01	53.98	-17.97
7323.00	Peak	V	-	-	-70.79	10.78	46.99	73.98	-26.99
12205.00	Avg	V	-	-	-83.77	18.82	42.05	53.98	-11.93
12205.00	Peak	V	-	-	-72.74	18.82	53.08	73.98	-20.90

Table 7-28. Radiated Spurious Emission Measurements TxBF

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 96 of 114

V 10.6 09/14/2023



Plot 7-115. Radiated Spurious Emissions 1-18GHz TxBF (4Mbps, HDR4, ePA – Ch. 73)

Bluetooth Mode: HDR4
Data Rate: 4Mbps
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 [dBuV/m]	Limit [dBuV/m]	Margin [dB]
4952.00	Avg	V	-	-	-80.28	7.09	33.81	53.98	-20.17
4952.00	Peak	V	-	-	-69.15	7.09	44.94	73.98	-29.04
7428.00	Avg	V	-	-	-82.06	10.98	35.92	53.98	-18.06
7428.00	Peak	V	-	-	-70.87	10.98	47.11	73.98	-26.87
12380.00	Avg	V	-	-	-83.57	18.83	42.26	53.98	-11.72
12380.00	Peak	V	-	-	-72.54	18.83	53.29	73.98	-20.69

Table 7-29. Radiated Spurious Emission Measurements TxBF

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device		Page 97 of 114

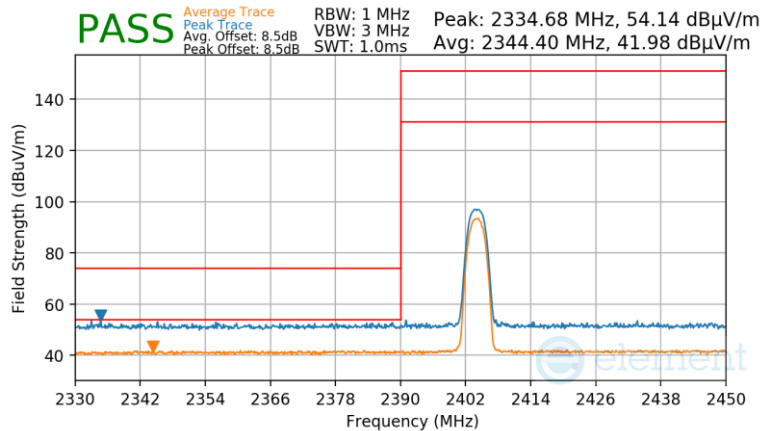
V 10.6 09/14/2023

Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

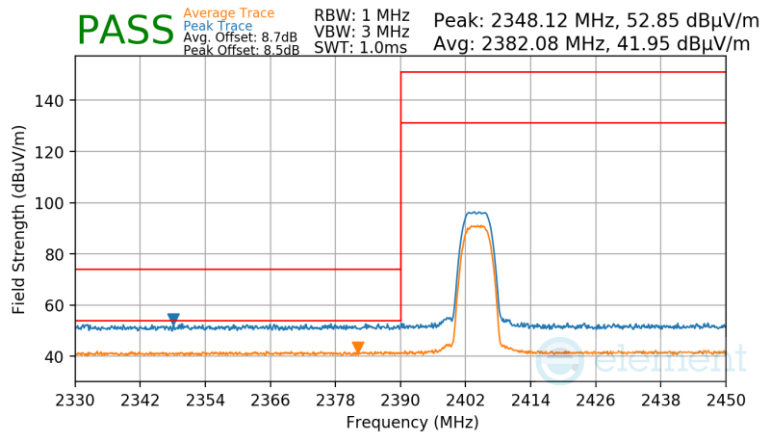
Antenna WF8

Bluetooth Mode: HDR4
 Data Rate: 4Mbps
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 2404MHz
 Channel: 1



Plot 7-116. Radiated Restricted Lower Band Edge Measurement Antenna WF8

Bluetooth Mode: HDR8
 Data Rate: 8Mbps
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 2404MHz
 Channel: 1

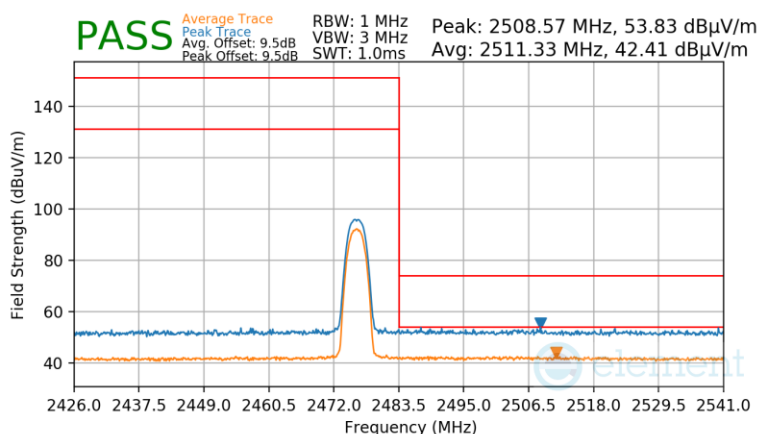


Plot 7-117. Radiated Restricted Lower Band Edge Measurement Antenna WF8

FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 98 of 114

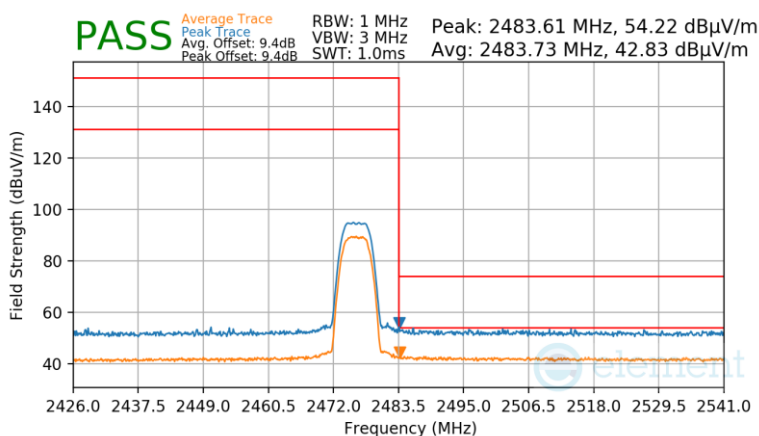
V 10.6 09/14/2023

Bluetooth Mode: HDR4
 Data Rate: 4Mbps
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 2476MHz
 Channel: 73



Plot 7-118. Radiated Restricted Upper Band Edge Measurement Antenna WF8

Bluetooth Mode: HDR8
 Data Rate: 8Mbps
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 2476MHz
 Channel: 73

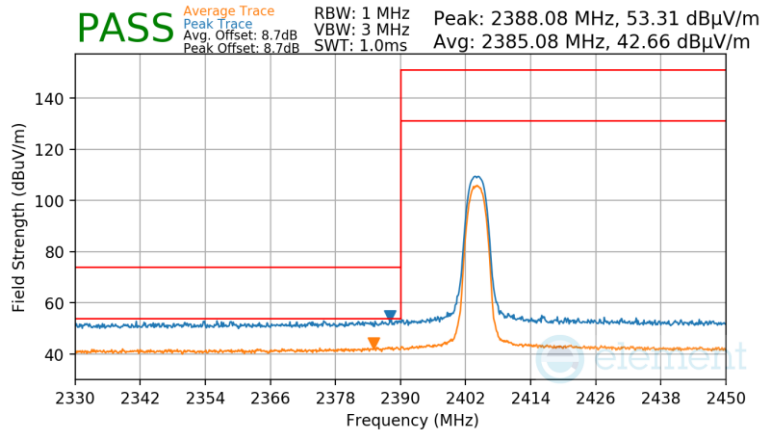


Plot 7-119. Radiated Restricted Upper Band Edge Measurement Antenna WF8

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 99 of 114

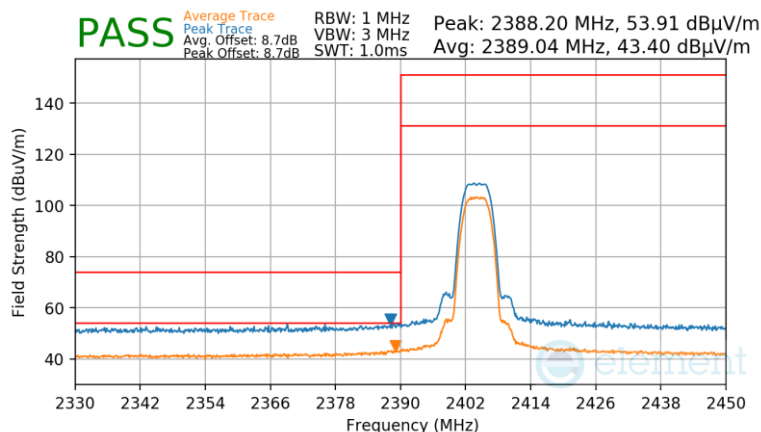
Antenna WF7

Bluetooth Mode:	HDR4
Data Rate:	4Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-120. Radiated Restricted Lower Band Edge Measurement Antenna WF7

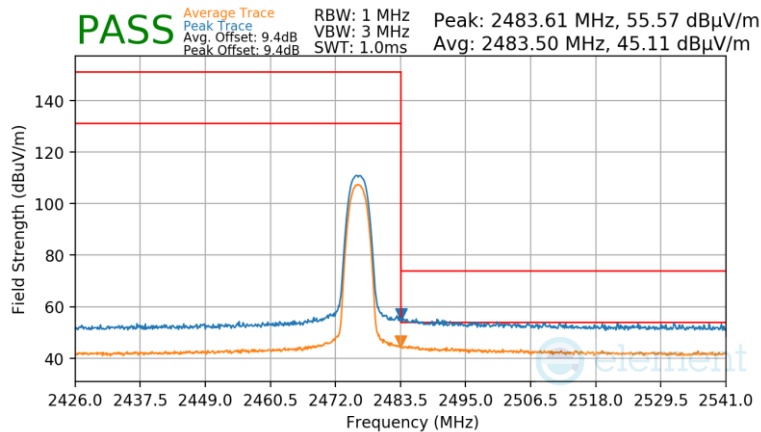
Bluetooth Mode:	HDR8
Data Rate:	8Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-121. Radiated Restricted Lower Band Edge Measurement Antenna WF7

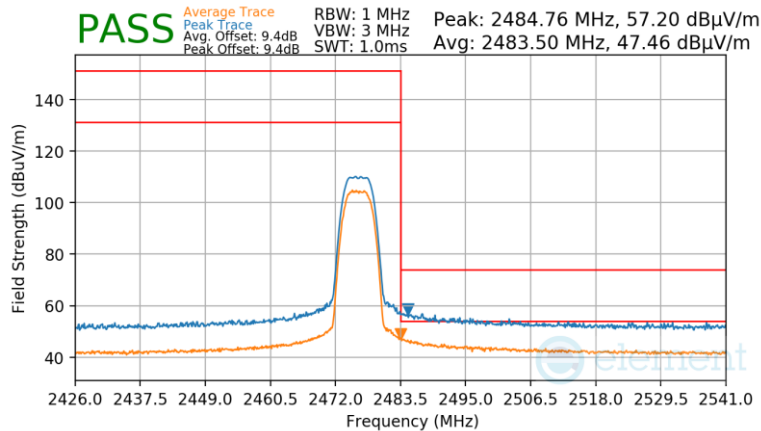
FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 100 of 114

Bluetooth Mode: HDR4
 Data Rate: 4Mbps
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 2476MHz
 Channel: 73



Plot 7-122. Radiated Restricted Upper Band Edge Measurement Antenna WF7

Bluetooth Mode: HDR8
 Data Rate: 8Mbps
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 2476MHz
 Channel: 73

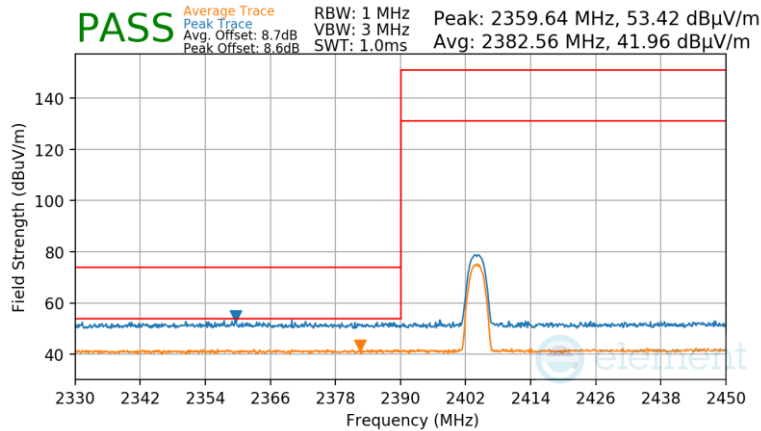


Plot 7-123. Radiated Restricted Upper Band Edge Measurement Antenna WF7

FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 101 of 114

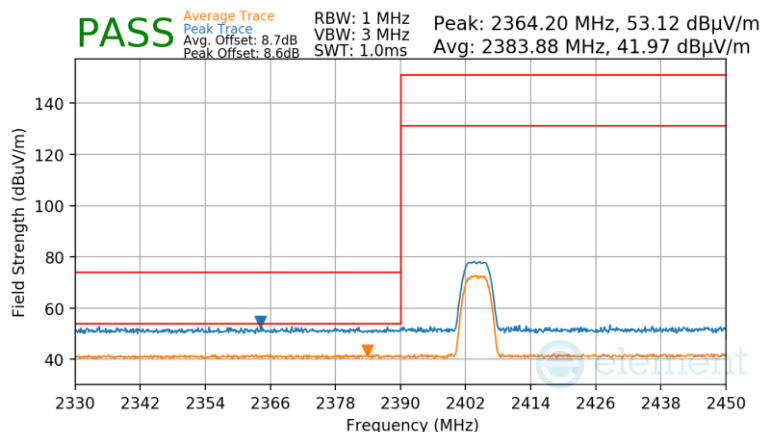
Antenna WF2

Bluetooth Mode:	HDR4
Data Rate:	4Mbps
Power Scheme:	iPA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-124. Radiated Restricted Lower Band Edge Measurement Antenna WF2

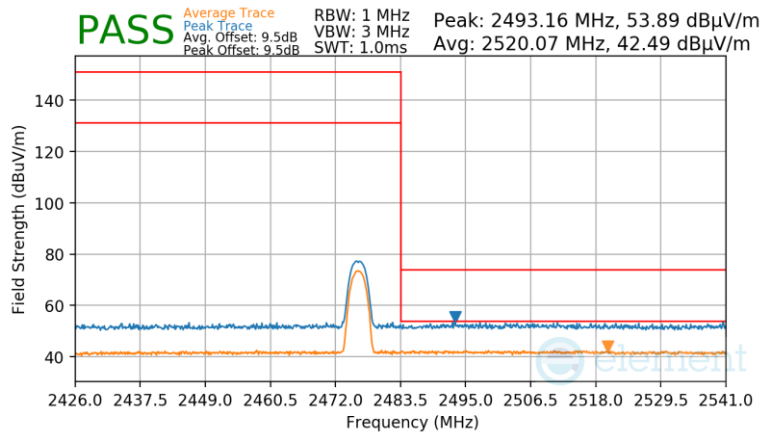
Bluetooth Mode:	HDR8
Data Rate:	8Mbps
Power Scheme:	iPA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-125. Radiated Restricted Lower Band Edge Measurement Antenna WF2

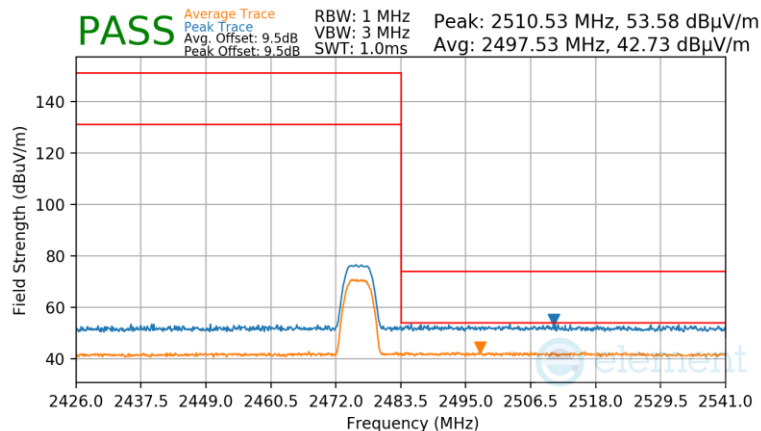
FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 102 of 114

Bluetooth Mode: HDR4
 Data Rate: 4Mbps
 Power Scheme: iPA
 Measurement Distance: 3 Meters
 Operating Frequency: 2476MHz
 Channel: 73



Plot 7-126. Radiated Restricted Upper Band Edge Measurement Antenna WF2

Bluetooth Mode: HDR8
 Data Rate: 8Mbps
 Power Scheme: iPA
 Measurement Distance: 3 Meters
 Operating Frequency: 2476MHz
 Channel: 73

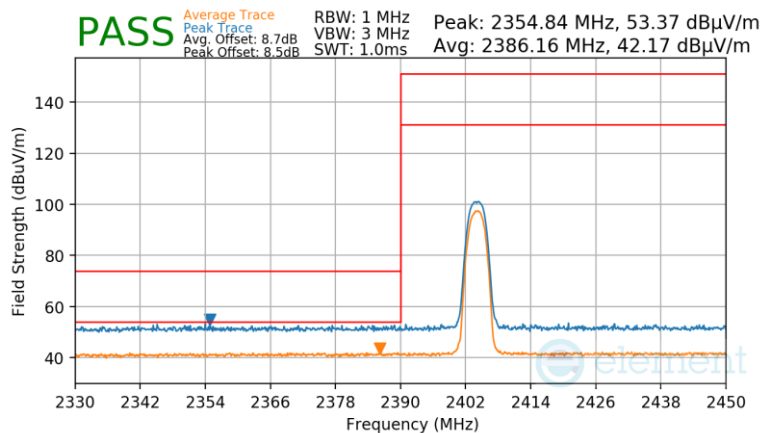


Plot 7-127. Radiated Restricted Upper Band Edge Measurement Antenna WF2

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 103 of 114

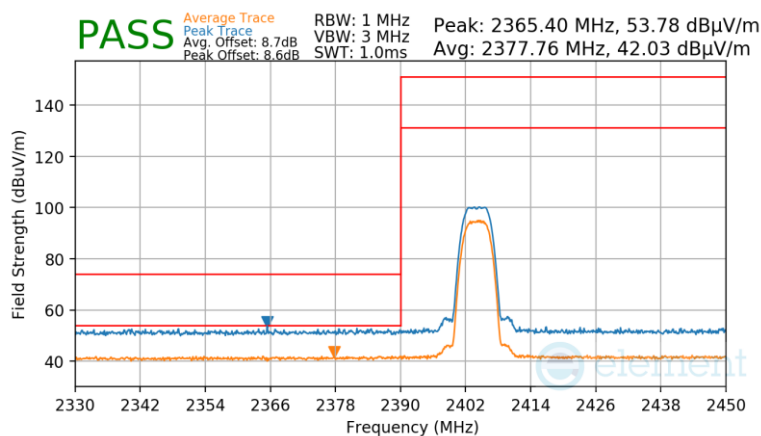
TxBF

Bluetooth Mode:	HDR4
Data Rate:	4Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-128. Radiated Restricted Lower Band Edge Measurement TxBF

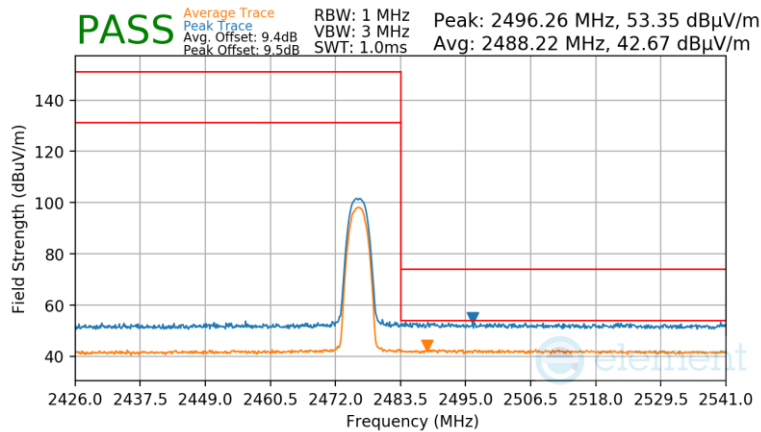
Bluetooth Mode:	HDR8
Data Rate:	8Mbps
Power Scheme:	ePA
Measurement Distance:	3 Meters
Operating Frequency:	2404MHz
Channel:	1



Plot 7-129. Radiated Restricted Lower Band Edge Measurement TxBF

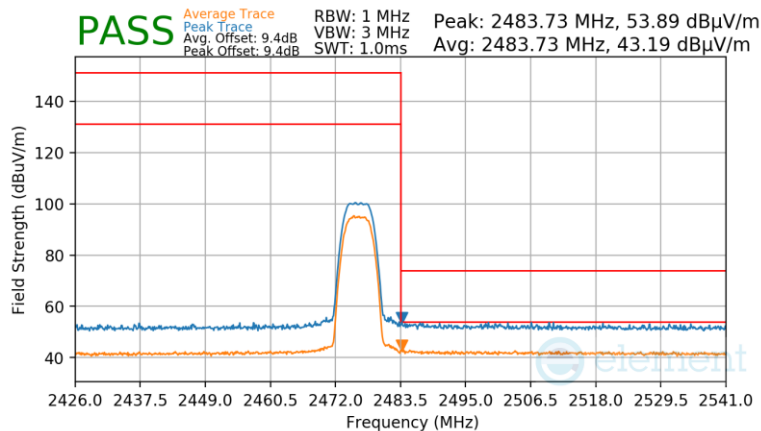
FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 104 of 114

Bluetooth Mode: HDR4
 Data Rate: 4Mbps
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 2476MHz
 Channel: 73



Plot 7-130. Radiated Restricted Upper Band Edge Measurement TxBF

Bluetooth Mode: HDR8
 Data Rate: 8Mbps
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 2476MHz
 Channel: 73



Plot 7-131. Radiated Restricted Upper Band Edge Measurement TxBF

FCC ID: BCGA2993 IC: 579C-A2993	 MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 105 of 114

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 7-30 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-30. Radiated Limits

Test Procedures Used

ANSI C63.10-2020

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: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 106 of 114

V 10.6 09/14/2023

Test Setup

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

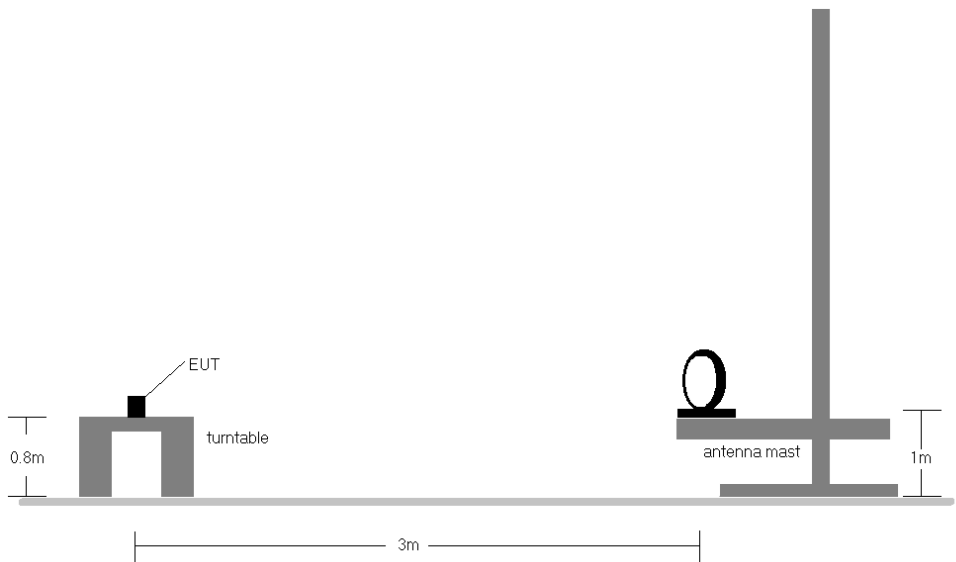


Figure 7-7. Radiated Test Setup < 30MHz

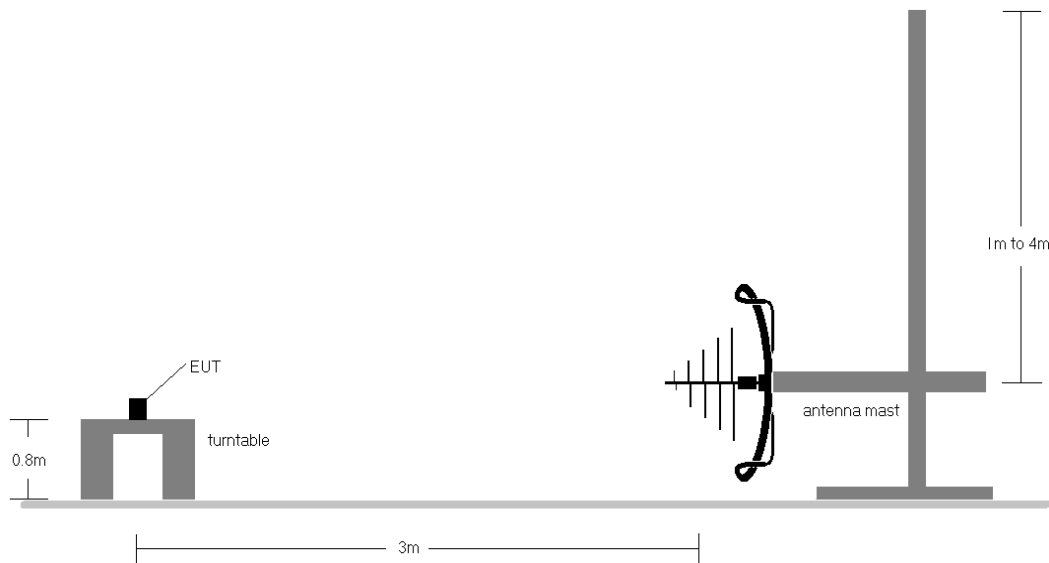


Figure 7-8. Radiated Test Setup < 1GHz

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 107 of 114

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 7-30.
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 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 $_{[dB\mu V/m]} = \text{Analyzer Level}_{[dBm]} + 107 + \text{AFCL}_{[dB/m]}$
- $\text{AFCL}_{[dB/m]} = \text{Antenna Factor}_{[dB/m]} + \text{Cable Loss}_{[dB]} - \text{Preamplifier Gain}_{[dB]}$
- $\text{Margin}_{[dB]} = \text{Field Strength Level}_{[dB\mu V/m]} - \text{Limit}_{[dB\mu V/m]}$

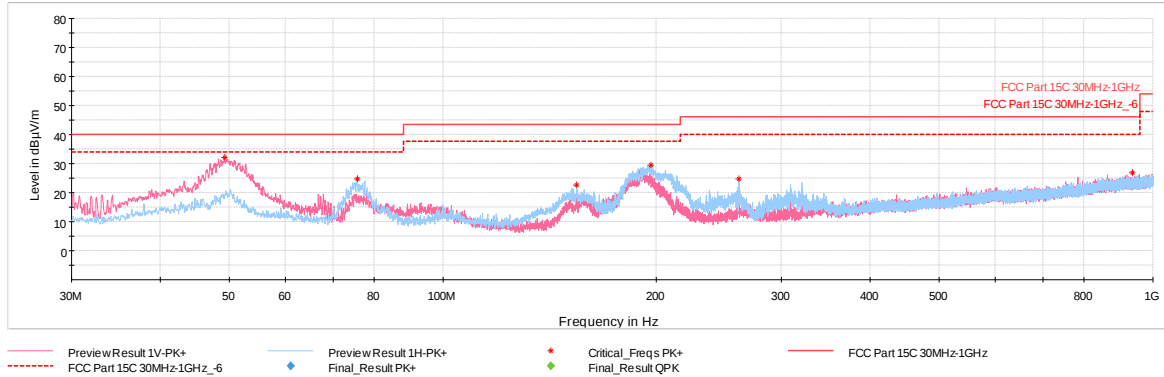
FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device		Page 108 of 114

V 10.6 09/14/2023

Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]

TxBF



Plot 7-132. Radiated Spurious Emissions Below 1GHz TxBF (4Mbps, ePA – Ch.38 with AC/DC adaptor via USB-C cable with wire charger)

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]
49.26	Max Peak	V	100	277	-62.08	-12.83	32.09	40.00	-7.91
75.78	Max Peak	H	200	72	-61.77	-20.54	24.69	40.00	-15.31
154.26	Max Peak	H	200	155	-65.02	-19.33	22.65	43.52	-20.87
196.16	Max Peak	H	100	191	-61.63	-16.00	29.37	43.52	-14.15
260.96	Max Peak	H	100	220	-67.69	-14.59	24.72	46.02	-21.30
936.32	Max Peak	H	100	32	-78.10	-2.00	26.90	46.02	-19.12

Table 7-31. Radiated Spurious Emissions Below 1GHz TxBF (4Mbps, ePA – Ch.38 with AC/DC adaptor via USB-C cable with wire charger)

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 109 of 114

V 10.6 09/14/2023

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 (dBμV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Table 7-32. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2020 – 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

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 110 of 114

V 10.6 09/14/2023

Test Setup

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

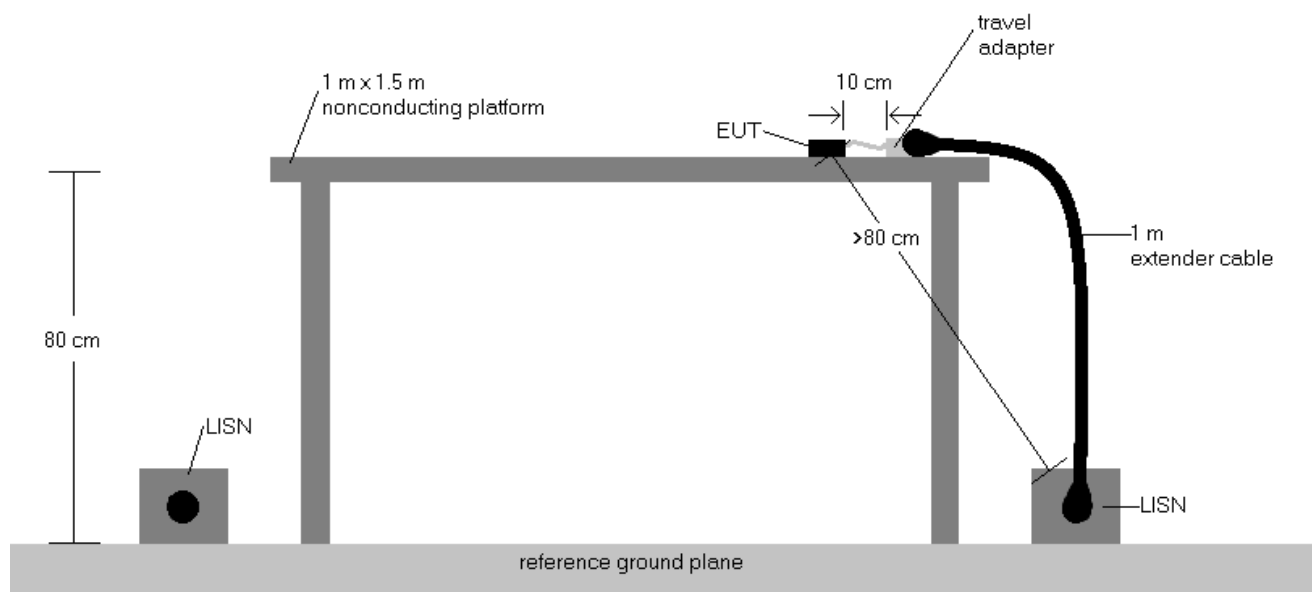


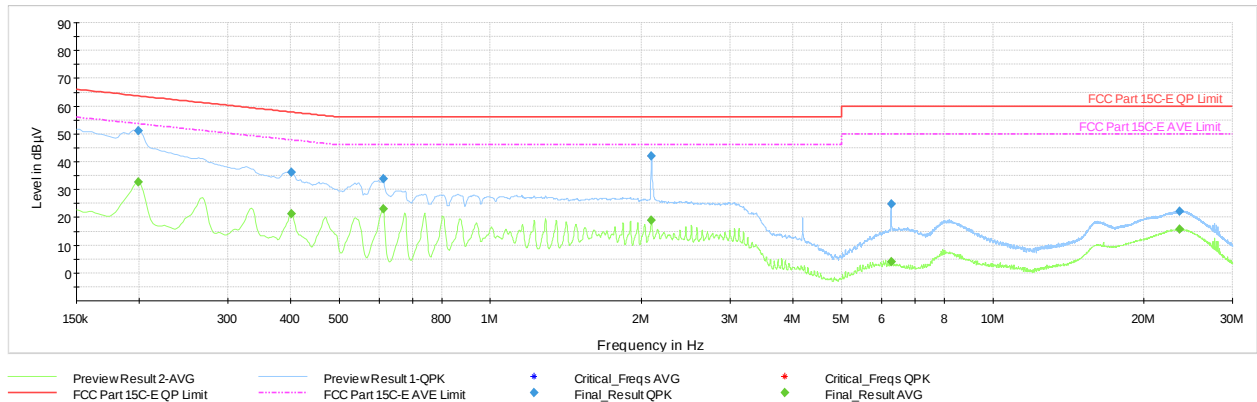
Figure 7-9. Test Instrument & Measurement Setup

Test Notes

- 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.
- Both configurations below were investigated, and the worst case has been reported.
 - EUT powered by AC/DC adaptor via USB-C cable with wire charger
 - EUT powered by host PC via USB-C cable with wire charger
- The limit for an intentional radiator from 150kHz to 30MHz are specified in Part 15.207 and RSS-Gen(8.8).
- $\text{Corr. (dB)} = \text{Cable loss (dB)} + \text{LISN insertion factor (dB)}$
- $\text{QP/AV Level (dB}\mu\text{V)} = \text{QP/AV Analyzer/Receiver Level (dB}\mu\text{V)} + \text{Correction Factor (dB)}$
- $\text{Margin (dB)} = \text{QP/AV Level (dB}\mu\text{V)} - \text{QP/AV Limit (dB}\mu\text{V)}$
- Traces shown in plot are made using quasi peak and average detectors.
- Deviations to the Specifications: None.

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 111 of 114

V 10.6 09/14/2023



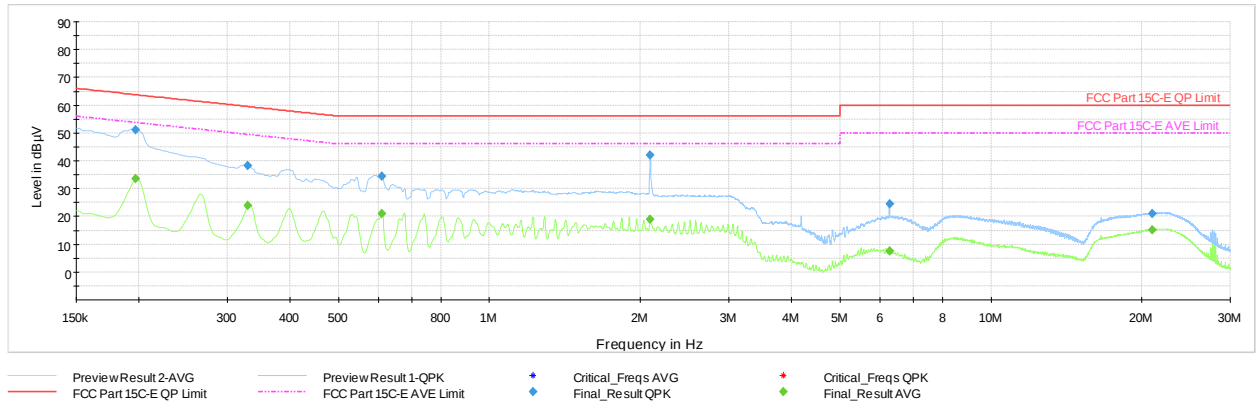
Plot 7-133. AC Line Conducted Plot with Bluetooth HDR Tx BF (L1, 4Mbps ePA - Ch.38 with host PC via USB-C cable with wire charger)

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.200	FINAL	—	32.79	53.63	-20.84	L1	GND
0.200	FINAL	51.0	—	63.63	-12.61	L1	GND
0.402	FINAL	—	21.27	47.81	-26.55	L1	GND
0.402	FINAL	36.3	—	57.81	-21.55	L1	GND
0.611	FINAL	—	23.16	46.00	-22.84	L1	GND
0.611	FINAL	33.8	—	56.00	-22.25	L1	GND
2.092	FINAL	42.0	—	56.00	-14.02	L1	GND
2.092	FINAL	—	18.81	46.00	-27.19	L1	GND
6.275	FINAL	24.8	—	60.00	-35.22	L1	GND
6.275	FINAL	—	3.92	50.00	-46.08	L1	GND
23.501	FINAL	—	15.67	50.00	-34.33	L1	GND
23.501	FINAL	22.0	—	60.00	-37.96	L1	GND

Table 7-33. AC Line Conducted Data with Bluetooth HDR Tx BF (L1, 4Mbps ePA - Ch.38 with host PC via USB-C cable with wire charger)

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 112 of 114

V 10.6 09/14/2023



Plot 7-134. AC Line Conducted Plot with Bluetooth HDR Tx BF (N, 4Mbps ePA - Ch.38 with host PC via USB-C cable with wire charger)

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.197	FINAL	—	33.60	53.73	-20.12	N	GND
0.197	FINAL	51.1	—	63.73	-12.62	N	GND
0.330	FINAL	—	23.83	49.45	-25.62	N	GND
0.330	FINAL	38.2	—	59.45	-21.25	N	GND
0.609	FINAL	—	20.92	46.00	-25.08	N	GND
0.609	FINAL	34.5	—	56.00	-21.47	N	GND
2.092	FINAL	42.0	—	56.00	-14.02	N	GND
2.092	FINAL	—	18.97	46.00	-27.03	N	GND
6.272	FINAL	24.5	—	60.00	-35.46	N	GND
6.272	FINAL	—	7.69	50.00	-42.31	N	GND
20.994	FINAL	—	15.20	50.00	-34.80	N	GND
20.994	FINAL	21.1	—	60.00	-38.88	N	GND

Table 7-34. AC Line Conducted Data with Bluetooth HDR Tx BF (N, 4Mbps ePA - Ch.38 with host PC via USB-C cable with wire charger)

FCC ID: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification		Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device		Page 113 of 114

8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Apple Tablet Device FCC ID: BCGA2993 and IC: 579C-A2993** 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: BCGA2993 IC: 579C-A2993		MEASUREMENT REPORT Certification	Approved by: Technical Manager
Test Report S/N: 1C2405200017-05-R2.BCG	Test Dates: 5/20/2024 - 8/26/2024	EUT Type: Tablet Device	Page 114 of 114