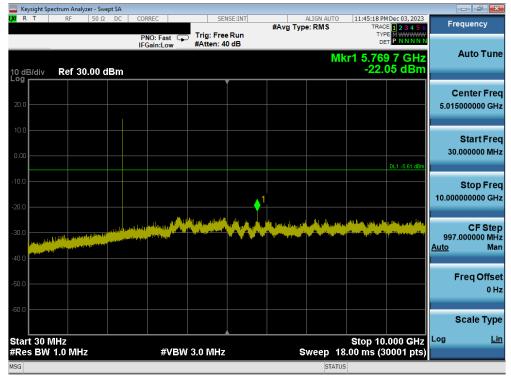
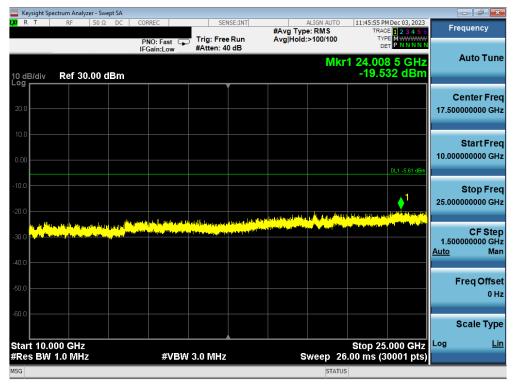


### Antenna WF7b



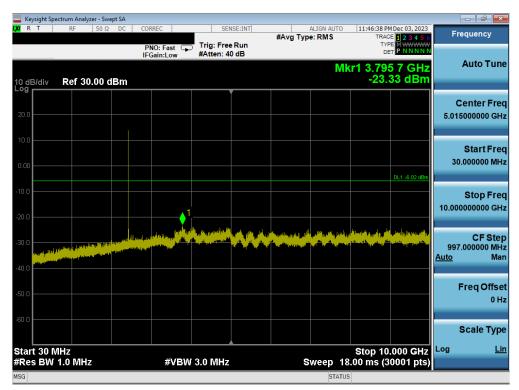
Plot 7-69. Conducted Spurious Plot Antenna WF7b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 1)



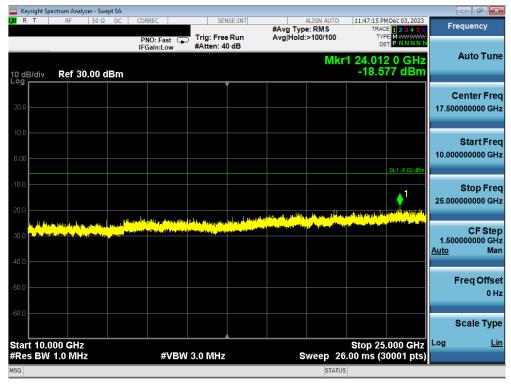
Plot 7-70. Conducted Spurious Plot Antenna WF7b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 1)

FCC ID: BCGA2898 IC: 579C-A2898	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 64 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 64 of 103





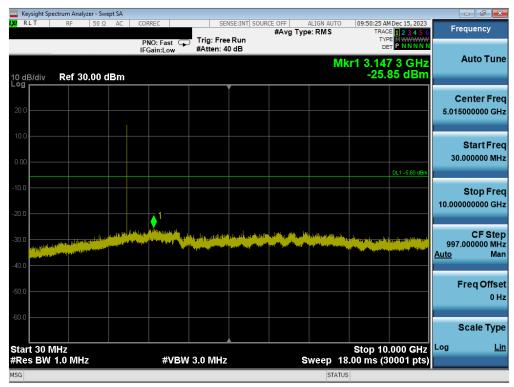
Plot 7-71. Conducted Spurious Plot Antenna WF7b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 38)



Plot 7-72. Conducted Spurious Plot Antenna WF7b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 38)

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 65 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage oo oi 103





Plot 7-73. Conducted Spurious Plot Antenna WF7b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 73)

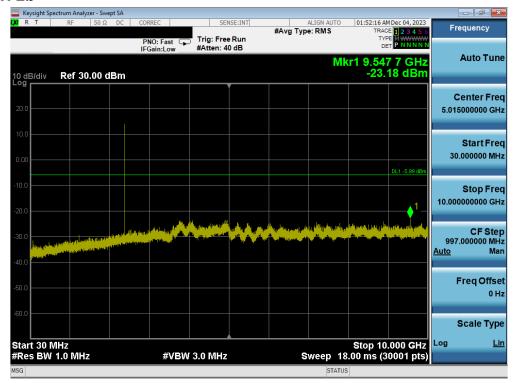


Plot 7-74. Conducted Spurious Plot Antenna WF7b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 73)

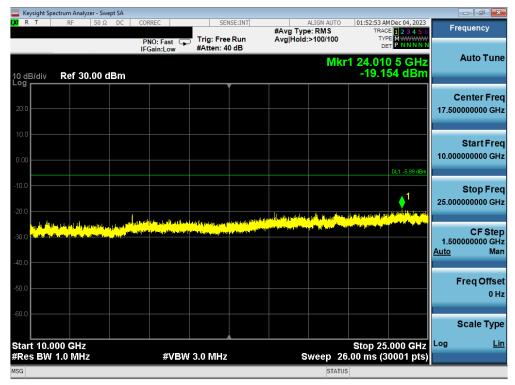
FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 66 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage of or 103



### **Antenna WF2b**



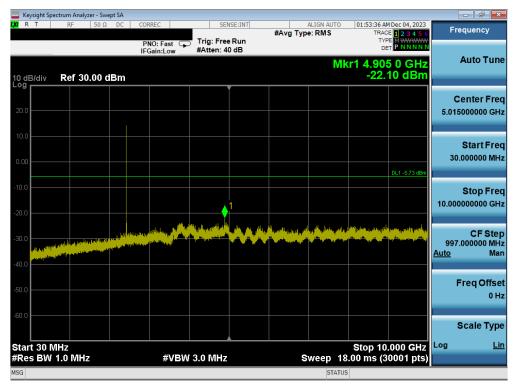
Plot 7-75. Conducted Spurious Plot Antenna WF2b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 1)



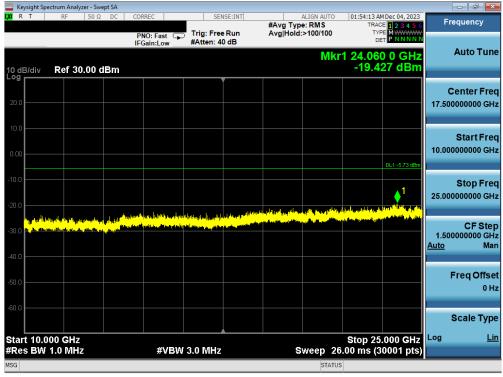
Plot 7-76. Conducted Spurious Plot Antenna WF2b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 1)

FCC ID: BCGA2898 IC: 579C-A2898	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 67 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 67 01 103





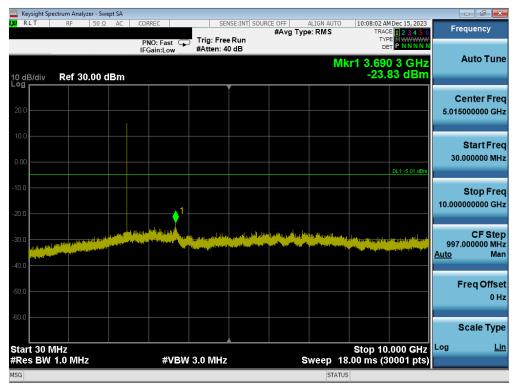
Plot 7-77. Conducted Spurious Plot Antenna WF2b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 38)



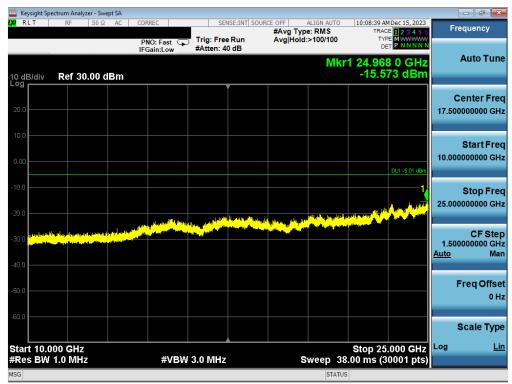
Plot 7-78. Conducted Spurious Plot Antenna WF2b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 38)

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 68 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage to till 103





Plot 7-79. Conducted Spurious Plot Antenna WF2b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 73)



Plot 7-80. Conducted Spurious Plot Antenna WF2b (Bluetooth (HDR4), 4 Mbps, ePA - Ch. 73)

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 69 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage 69 01 103



### 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 [µV/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-13. Radiated Limits

#### **Test Procedures Used**

ANSI C63.10-2013 - Subclause 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)
- Number of measurement points = 1001 (Number of points must be ≥ 2 x 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
- Trace was allowed to stabilize

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Dogg 70 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 70 of 103



### **Test Setup**

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

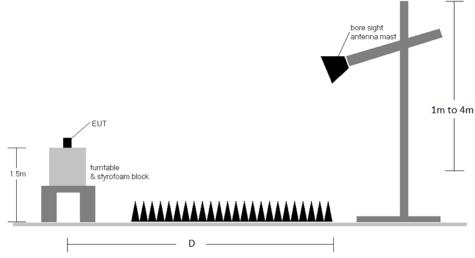


Figure 7-6. Radiated Test Setup >1GHz

### **Test Notes**

- 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.

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 71 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 71 of 103



### **Sample Calculations**

### **Determining Spurious Emissions Levels**

- Field Strength Level [dBμV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- O AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB] Preamplifier Gain [dB]
- Margin [dB] = Field Strength Level [dBμV/m] Limit [dBμV/m]

### **Radiated Band Edge Measurement Offset**

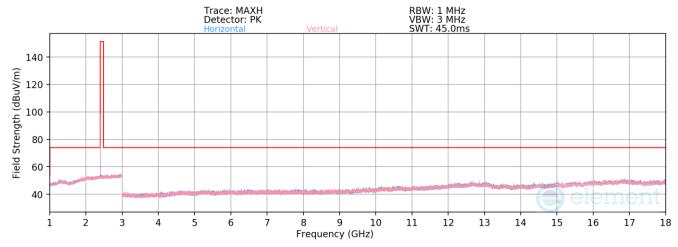
- The amplitude offset shown in the radiated restricted band edge plots in Section 7.7.1 was calculated using the formula:
  - Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) Preamplifier Gain

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Dogg 70 of 100
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 72 of 103



### Radiated Spurious Emission Measurements (1 – 18GHz) §15.205 §15.209 §15.247(d); RSS-Gen [8.9]

### **Antenna WF7b**



Plot 7-81. Radiated Spurious Emissions 1-18GHz Antenna WF7b (4Mbps, HDR4, ePA - Ch. 1)

Bluetooth Mode: HDR4

Data Rate: 4Mbps

Power Scheme ePA

Distance of Measurements: 3 Meters

Operating Frequency: 2404MHz

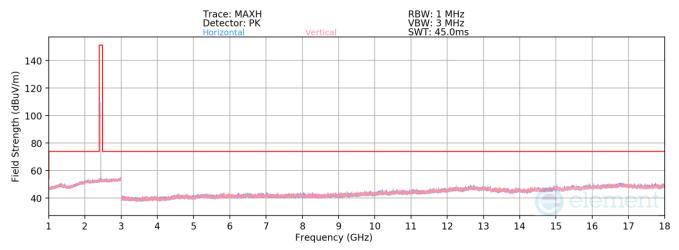
Channel: 1

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4808.00	Avg	-	-	-	-77.63	2.33	31.70	53.98	-22.28
4808.00	Peak	-	-	-	-66.34	2.33	42.99	73.98	-30.99
12020.00	Avg	-	-	-	-79.43	8.72	36.29	53.98	-17.69
12020.00	Peak	-	-	-	-68.22	8.72	47.50	73.98	-26.48

Table 7-14. Radiated Spurious Emission Measurements Antenna WF7b

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 73 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 73 01 103





Plot 7-82. Radiated Spurious Emissions 1-18GHz Antenna WF7b (4Mbps, HDR4, ePA - Ch. 38)

Bluetooth Mode: HDR4

Data Rate: 4Mbps

Power Scheme ePA

Distance of Measurements: 3 Meters

Operating Frequency: 2441MHz

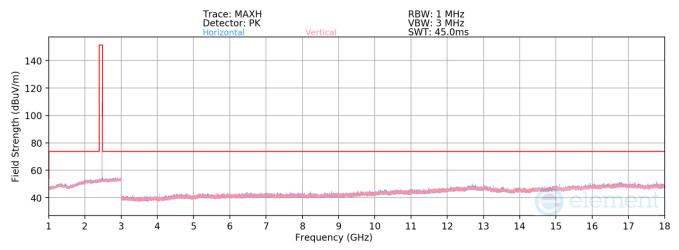
Channel: 38

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4882.00	Avg	-	-	-	-77.70	1.92	31.22	53.98	-22.76
4882.00	Peak	-	-	-	-66.50	1.92	42.42	73.98	-31.56
7323.00	Avg	-	-	-	-78.52	4.06	32.54	53.98	-21.44
7323.00	Peak	-	-	-	-67.10	4.06	43.96	73.98	-30.02
12205.00	Avg	-	-	-	-79.84	9.60	36.76	53.98	-17.22
12205.00	Peak	-	-	-	-68.73	9.60	47.87	73.98	-26.11

Table 7-15. Radiated Spurious Emission Measurements Antenna WF7b

FCC ID: BCGA2898 IC: 579C-A2898	element)	element MEASUREMENT REPORT (CERTIFICATION)		
Test Report S/N:	Test Dates:	EUT Type:	Page 74 of 103	
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 74 01 103	





Plot 7-83. Radiated Spurious Emissions 1-18GHz Antenna WF7b (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 [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4952.00	Avg	-	-	-	-78.04	2.09	31.05	53.98	-22.93
4952.00	Peak	-	-	-	-66.58	2.09	42.51	73.98	-31.47
7428.00	Avg	-	-	-	-79.04	4.47	32.43	53.98	-21.55
7428.00	Peak	-	-	-	-66.89	4.47	44.58	73.98	-29.40
12380.00	Avg	-	-	-	-79.80	9.37	36.57	53.98	-17.41
12380.00	Peak	-	-	-	-67.49	9.37	48.88	73.98	-25.10

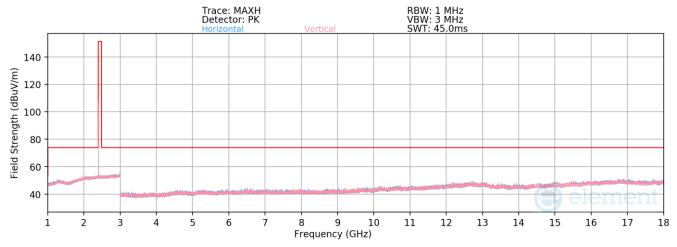
Table 7-16. Radiated Spurious Emission Measurements Antenna WF7b

FCC ID: BCGA2898 IC: 579C-A2898	element)	element MEASUREMENT REPORT (CERTIFICATION)			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 75 of 102		
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 75 of 103		



### Radiated Spurious Emission Measurements (1 – 18GHz) §15.205 §15.209 §15.247(d); RSS-Gen [8.9]

### Antenna WF2b



Plot 7-84. Radiated Spurious Emissions 1-18GHz Antenna WF2b (4Mbps, HDR4, ePA - Ch. 1)

Bluetooth Mode: HDR4

Data Rate: 4Mbps

Power Scheme ePA

Distance of Measurements: 3 Meters

Operating Frequency: 2404MHz

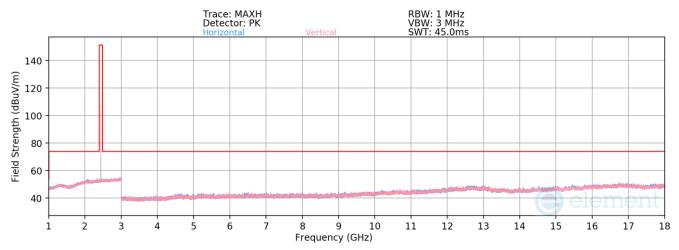
Channel: 1

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4808.00	Avg	-	-	-	-77.53	2.33	31.80	53.98	-22.18
4808.00	Peak	-	-	-	-65.71	2.33	43.62	73.98	-30.36
12020.00	Avg	-	-	-	-79.43	8.72	36.29	53.98	-17.69
12020.00	Peak	-	-	-	-67.98	8.72	47.74	73.98	-26.24

Table 7-17. Radiated Spurious Emission Measurements Antenna WF2b

FCC ID: BCGA2898 IC: 579C-A2898	element)	ment MEASUREMENT REPORT (CERTIFICATION)		
Test Report S/N:	Test Dates:	EUT Type:	Dogo 76 of 102	
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 76 of 103	





Plot 7-85. Radiated Spurious Emissions 1-18GHz Antenna WF2b (4Mbps, HDR4, ePA - Ch. 38)

Bluetooth Mode: HDR4

Data Rate: 4Mbps

Power Scheme ePA

Distance of Measurements: 3 Meters

Operating Frequency: 2441MHz

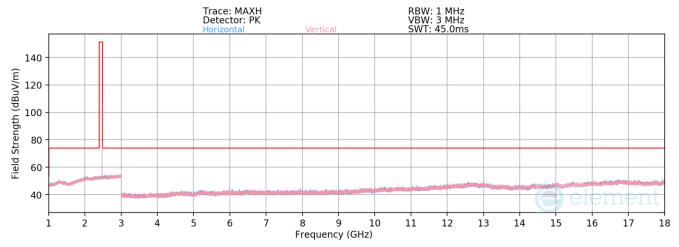
Channel: 38

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4882.00	Avg	-	-	-	-77.61	1.92	31.31	53.98	-22.67
4882.00	Peak	-	-	-	-66.48	1.92	42.44	73.98	-31.54
7323.00	Avg	-	-	-	-78.56	4.06	32.50	53.98	-21.48
7323.00	Peak	-	-	-	-66.66	4.06	44.40	73.98	-29.58
12205.00	Avg	-	-	-	-79.87	9.60	36.73	53.98	-17.25
12205.00	Peak	-	-	-	-68.73	9.60	47.87	73.98	-26.11

Table 7-18. Radiated Spurious Emission Measurements Antenna WF2b

FCC ID: BCGA2898 IC: 579C-A2898	element element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 77 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 77 of 103





Plot 7-86. Radiated Spurious Emissions 1-18GHz Antenna WF2b (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 [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4952.00	Avg	-	-	-	-78.00	2.09	31.09	53.98	-22.89
4952.00	Peak	-	-	-	-66.70	2.09	42.39	73.98	-31.59
7428.00	Avg	-	-	-	-79.05	4.47	32.42	53.98	-21.56
7428.00	Peak	-	-	-	-67.53	4.47	43.94	73.98	-30.04
12380.00	Avg	-	-	-	-79.77	9.37	36.60	53.98	-17.38
12380.00	Peak	-	-	-	-67.69	9.37	48.68	73.98	-25.30

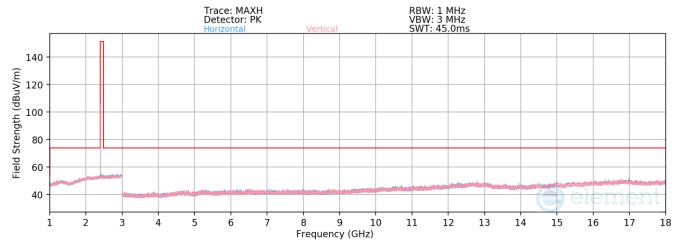
Table 7-19. Radiated Spurious Emission Measurements Antenna WF2b

FCC ID: BCGA2898 IC: 579C-A2898	element)	element MEASUREMENT REPORT (CERTIFICATION)		
Test Report S/N:	Test Dates:	EUT Type:	Page 78 of 103	
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 78 01 103	



# Radiated Spurious Emission Measurements (1-18GHz) §15.205 §15.209 §15.247(d); RSS-Gen [8.9]

### **TxBF**



Plot 7-87. 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

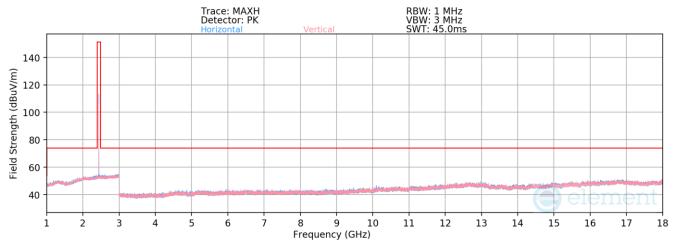
Channel: 1

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4808.00	Avg	-	-	-	-77.65	2.33	31.68	53.98	-22.30
4808.00	Peak	-	-	-	-66.06	2.33	43.27	73.98	-30.71
12020.00	Avg	-	-	-	-79.54	8.72	36.18	53.98	-17.80
12020.00	Peak	-	-	-	-68.23	8.72	47.49	73.98	-26.49

Table 7-20. Radiated Spurious Emission Measurements TxBF

FCC ID: BCGA2898 IC: 579C-A2898	element)	ement MEASUREMENT REPORT (CERTIFICATION)			
Test Report S/N:	Test Dates:	EUT Type:	Dogo 70 of 102		
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 79 of 103		





Plot 7-88. Radiated Spurious Emissions 1-18GHz TxBF (4Mbps, HDR4, ePA - Ch. 38)

Bluetooth Mode: HDR4

Data Rate: 4Mbps

Power Scheme ePA

Distance of Measurements: 3 Meters

Operating Frequency: 2441MHz

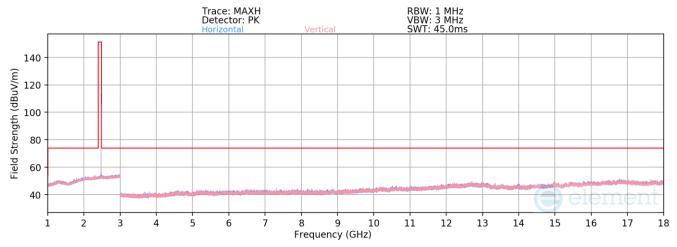
Channel: 38

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4882.00	Avg	-	-	-	-77.52	1.92	31.40	53.98	-22.58
4882.00	Peak	-	-	-	-66.16	1.92	42.76	73.98	-31.22
7323.00	Avg	-	-	-	-78.44	4.06	32.62	53.98	-21.36
7323.00	Peak	-	-	-	-66.88	4.06	44.18	73.98	-29.80
12205.00	Avg	-	-	-	-79.85	9.60	36.75	53.98	-17.23
12205.00	Peak	-	-	-	-68.99	9.60	47.61	73.98	-26.37

Table 7-21. Radiated Spurious Emission Measurements TxBF

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 80 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage ou ui 103





Plot 7-89. 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

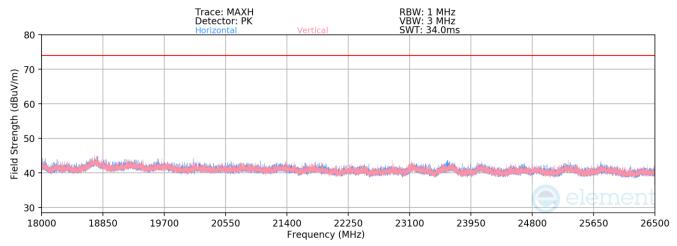
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4952.00	Avg	-	-	-	-77.89	2.09	31.20	53.98	-22.78
4952.00	Peak	-	-	-	-66.46	2.09	42.63	73.98	-31.35
7428.00	Avg	-	-	-	-79.03	4.47	32.44	53.98	-21.54
7428.00	Peak	-	-	-	-67.34	4.47	44.13	73.98	-29.85
12380.00	Avg	-	-	-	-79.66	9.37	36.71	53.98	-17.27
12380.00	Peak	-	-	-	-68.54	9.37	47.83	73.98	-26.15

Table 7-22. Radiated Spurious Emission Measurements TxBF

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 81 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage of Ut 103



# Radiated Spurious Emission Measurements (Above 18GHz) §15.205 §15.209 RSS-Gen [8.9]



Plot 7-90. Radiated Spurious Plot Above 18GHz (4Mbps, HDR4, ePA - Ch. 38)

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 92 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 82 of 103



### **Antenna WF7b**

Bluetooth Mode:

HDR4

Data Rate:

4Mbps

Power Scheme:

ePA

Measurement Distance:

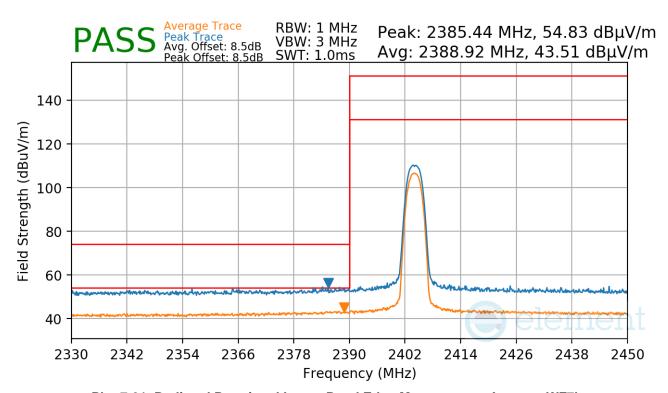
3 Meters

Operating Frequency:

2404MHz

Channel:

1



Plot 7-91. Radiated Restricted Lower Band Edge Measurement Antenna WF7b

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 83 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	raye os ur 103



Bluetooth Mode:

Data Rate:

8Mbps

Power Scheme:

ePA

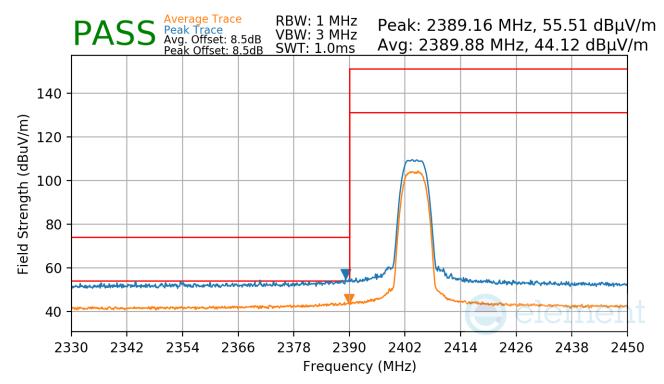
Measurement Distance:

3 Meters

Operating Frequency:

2404MHz

Channel:



Plot 7-92. Radiated Restricted Lower Band Edge Measurement Antenna WF7b

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 84 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Fage 04 01 103



Bluetooth Mode:

Data Rate:

4Mbps

Power Scheme:

ePA

Measurement Distance:

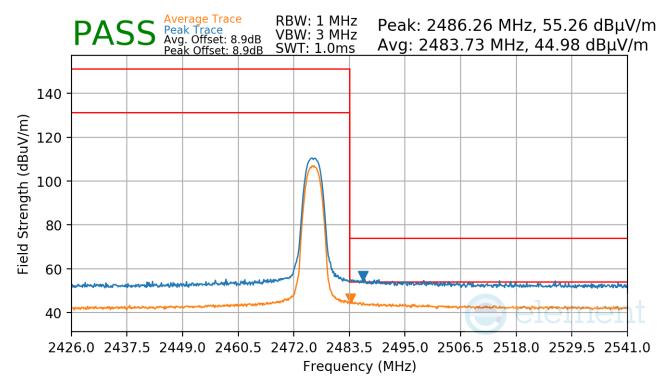
3 Meters

Operating Frequency:

2476MHz

Channel:

73



Plot 7-93. Radiated Restricted Upper Band Edge Measurement Antenna WF7b

FCC ID: BCGA2898 IC: 579C-A2898	element)	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 85 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 65 01 103



Bluetooth Mode:

Data Rate:

Power Scheme:

Measurement Distance:

Operating Frequency:

Channel:

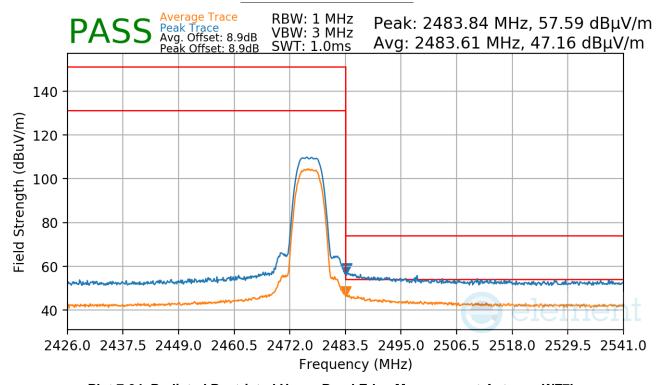
HDR8

8Mbps

ePA

3 Meters

2476MHz



Plot 7-94. Radiated Restricted Upper Band Edge Measurement Antenna WF7b

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 86 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage of 01 103



### **Antenna WF2b**

Bluetooth Mode:

HDR4

Data Rate:

4Mbps

Power Scheme:

ePA

Measurement Distance:

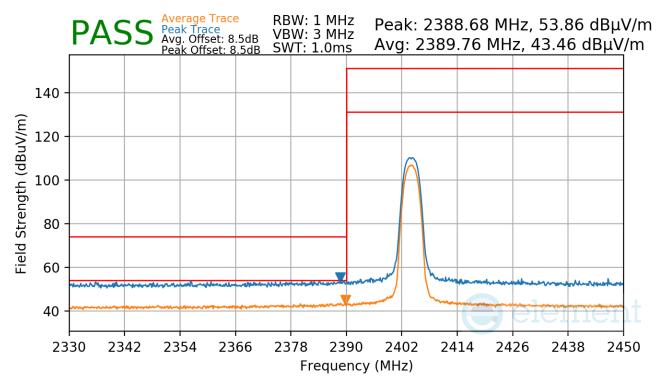
3 Meters

Operating Frequency:

2404MHz

Channel:

1



Plot 7-95. Radiated Restricted Lower Band Edge Measurement Antenna WF2b

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 87 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 87 of 103



Bluetooth Mode:

Data Rate:

Power Scheme:

Measurement Distance:

Operating Frequency:

Channel:

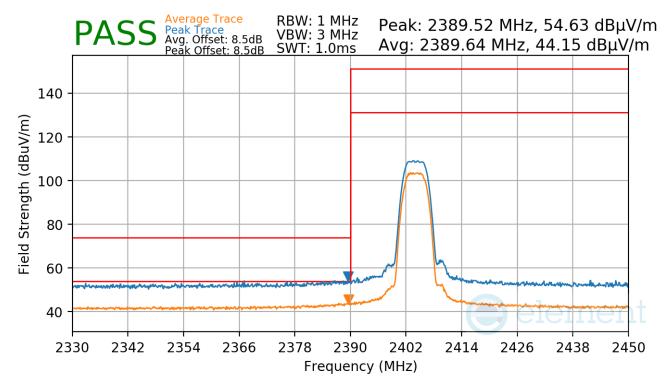
HDR8

8Mbps

ePA

3 Meters

2404MHz



Plot 7-96. Radiated Restricted Lower Band Edge Measurement Antenna WF2b

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Dogg 00 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 88 of 103



Bluetooth Mode:

HDR4

Data Rate:

4Mbps

Power Scheme:

ePA

Measurement Distance:

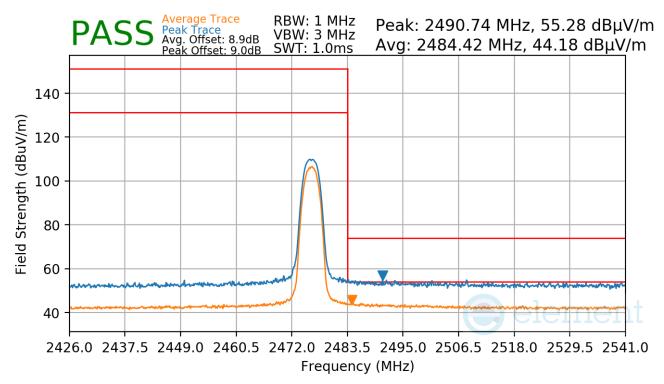
3 Meters

Operating Frequency:

2476MHz

Channel:

73



Plot 7-97. Radiated Restricted Upper Band Edge Measurement Antenna WF2b

FCC ID: BCGA2898 IC: 579C-A2898	element)	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 89 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 69 01 103



Bluetooth Mode:

Data Rate:

8Mbps

Power Scheme:

ePA

Measurement Distance:

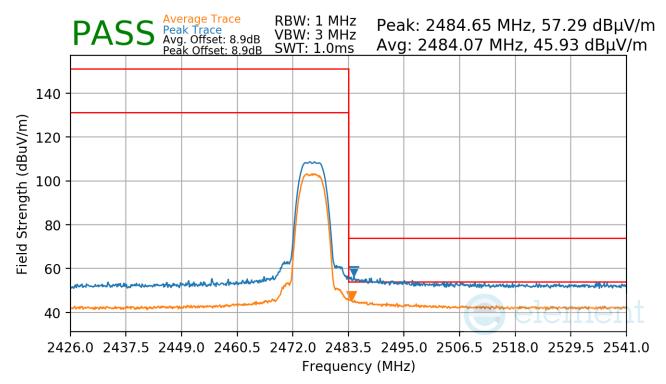
3 Meters

Operating Frequency:

2476MHz

Channel:

73



Plot 7-98. Radiated Restricted Upper Band Edge Measurement Antenna WF2b

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 90 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 90 01 103



### **TxBF**

Bluetooth Mode:

HDR4

Data Rate:

4Mbps

Power Scheme:

ePA

Measurement Distance:

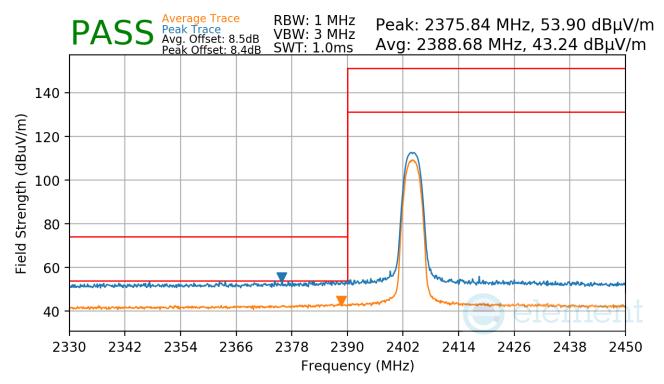
3 Meters

Operating Frequency:

2404MHz

Channel:

1



Plot 7-99. Radiated Restricted Lower Band Edge Measurement TxBF

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 01 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 91 of 103



Bluetooth Mode:

Data Rate:

8Mbps

Power Scheme:

ePA

Measurement Distance:

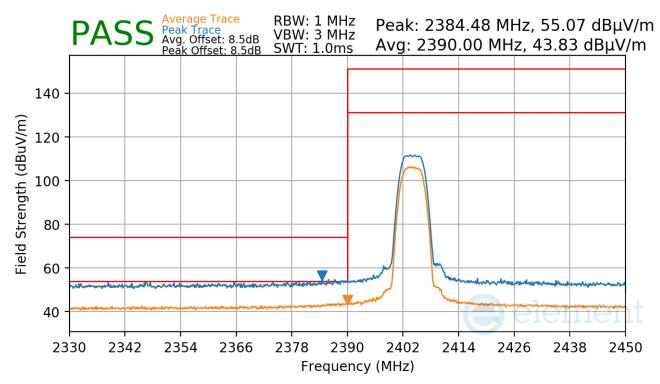
3 Meters

Operating Frequency:

2404MHz

Channel:

1



Plot 7-100. Radiated Restricted Lower Band Edge Measurement TxBF

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 02 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 92 of 103



Bluetooth Mode:

HDR4

Data Rate:

4Mbps

Power Scheme:

ePA

Measurement Distance:

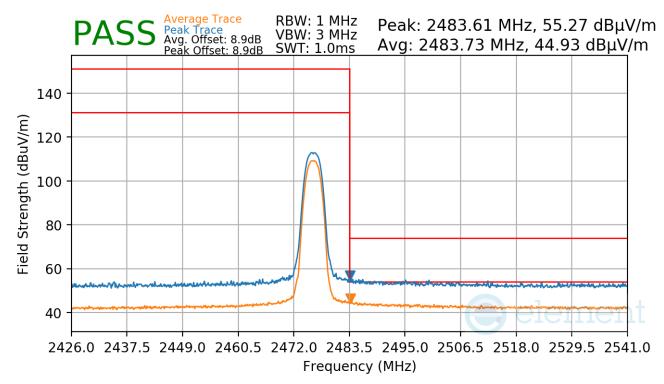
3 Meters

Operating Frequency:

2476MHz

Channel:

73



Plot 7-101. Radiated Restricted Upper Band Edge Measurement TxBF

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 02 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 93 of 103



Bluetooth Mode:

Data Rate:

8Mbps

Power Scheme:

ePA

Measurement Distance:

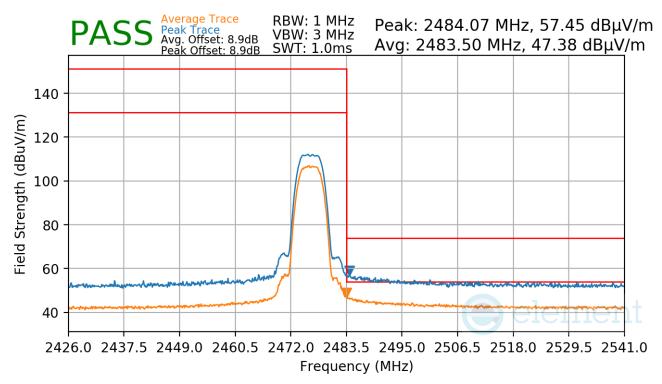
3 Meters

Operating Frequency:

2476MHz

Channel:

73



Plot 7-102. Radiated Restricted Upper Band Edge Measurement TxBF

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 94 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Fage 94 01 103



### 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 7-23 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 7-23. 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
- Trace was allowed to stabilize

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 95 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage 95 of 103



### **Test Setup**

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

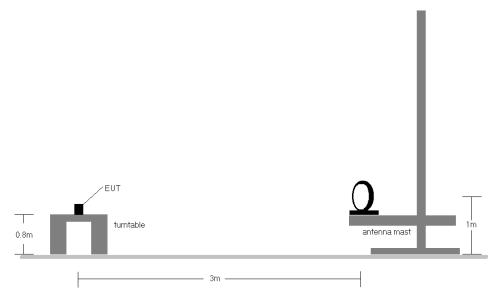


Figure 7-7. Radiated Test Setup < 30MHz

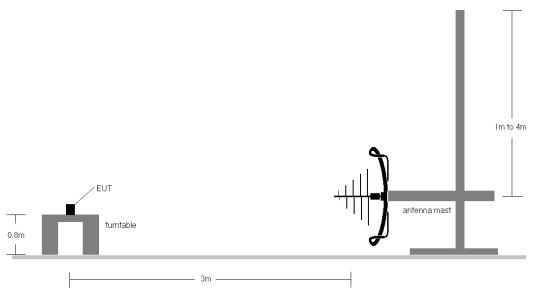


Figure 7-8. Radiated Test Setup < 1GHz

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 96 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 96 of 103



#### **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. 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**

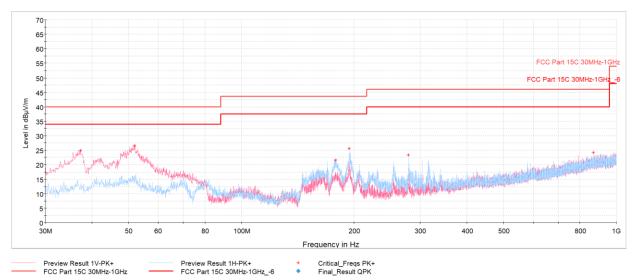
- Field Strength Level [dBμV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB] Preamplifier Gain [dB]
- Margin [dB] = Field Strength Level [dBμV/m] Limit [dBμV/m]

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 97 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 97 of 103



## Radiated Spurious Emissions Measurements (Below 1GHz) §15.209; RSS-Gen [8.9]

### **TxBF**



Plot 7-103. 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]
37.23	Max-Peak	V	100	21	-51.82	-15.18	24.92	40.00	-15.08
51.97	Max-Peak	V	100	267	-53.87	-13.13	26.54	40.00	-13.46
178.51	Max-Peak	Н	200	238	-44.75	-18.73	21.57	43.52	-21.95
193.98	Max-Peak	Н	100	225	-46.54	-16.94	25.59	43.52	-17.93
278.90	Max-Peak	Н	100	32	-45.93	-15.05	23.44	46.02	-22.58
868.61	Max-Peak	Н	100	0	-58.03	-2.95	24.15	46.02	-21.87

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

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 98 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	rage 90 UI 103



### 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)		
(IVITIZ)	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** 

#### **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)
- Detector = RMS
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- Trace was allowed to stabilize

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 00 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 99 of 103

<sup>\*</sup>Decreases with the logarithm of the frequency.



### **Test Setup**

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

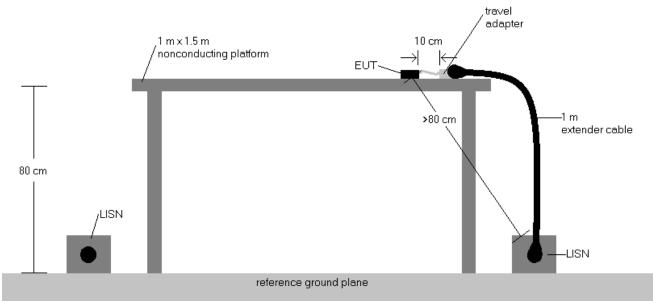


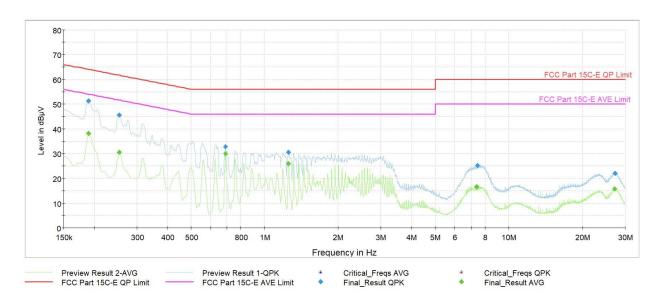
Figure 7-9. Test Instrument & Measurement Setup

### **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.
- 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
- 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 $\mu$ V) = QP/AV Analyzer/Receiver Level (dB $\mu$ V) + Correction Factor (dB)
- 6. Margin (dB) = QP/AV Level (dB $\mu$ V) QP/AV Limit (dB $\mu$ V)
- 7. Traces shown in plot are made using quasi peak and average detectors.
- 8. Deviations to the Specifications: None.

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 100 of 102
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 100 of 103





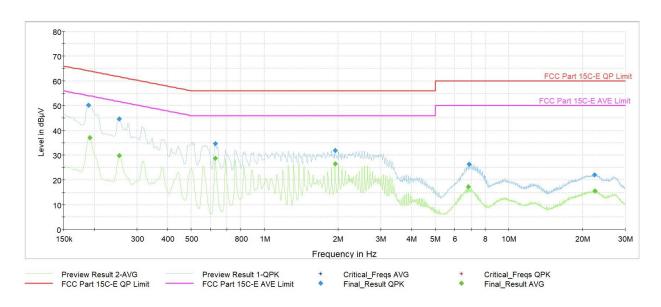
Plot 7-104. AC Line Conducted Plot with Bluetooth HDR TxBF (L1, 4Mbps ePA - Ch.38 with Laptop)

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Averaqe [dBµV]	Limit [dBµV]	Marqin [dB]	Line	PE
0.191	FINAL	_	38.07	54.02	-15.95	L1	GND
0.191	FINAL	51.4		64.02	-12.66	L1	GND
0.254	FINAL	_	30.48	51.64	-21.16	L1	GND
0.254	FINAL	45.5		61.64	-16.15	L1	GND
0.692	FINAL	32.8		56.00	-23.21	L1	GND
0.692	FINAL	_	29.98	46.00	-16.02	L1	GND
1.253	FINAL	30.5	_	56.00	-25.50	L1	GND
1.253	FINAL	_	25.96	46.00	-20.04	L1	GND
7.382	FINAL	_	16.58	50.00	-33.42	L1	GND
7.445	FINAL	25.3	_	60.00	-34.74	L1	GND
27.143	FINAL	_	15.69	50.00	-34.31	L1	GND
27.292	FINAL	22.0		60.00	-38.02	L1	GND

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

FCC ID: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 101 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Fage 101 01 103





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

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Averaqe [dBµV]	Limit [dBµV]	Marqin [dB]	Line	PE
0.191	FINAL	50.2	_	64.02	-13.78	N	GND
0.193	FINAL	_	36.99	53.92	-16.93	N	GND
0.254	FINAL	_	29.76	51.64	-21.88	N	GND
0.254	FINAL	44.6	_	61.64	-17.08	N	GND
0.627	FINAL	_	28.74	46.00	-17.26	N	GND
0.627	FINAL	34.6	_	56.00	-21.41	N	GND
1.943	FINAL	31.9	_	56.00	-24.14	N	GND
1.946	FINAL	_	26.42	46.00	-19.58	N	GND
6.824	FINAL	_	17.13	50.00	-32.87	N	GND
6.889	FINAL	26.3	_	60.00	-33.70	N	GND
22.457	FINAL	22.0	1	60.00	-37.98	N	GND
22.522	FINAL	_	15.47	50.00	-34.53	N	GND

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

FCC ID: BCGA2898 IC: 579C-A2898	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 102 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 102 01 103



### 8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Apple Tablet Device FCC ID: BCGA2898 and IC: 579C-A2898** 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: BCGA2898 IC: 579C-A2898	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 103 of 103
1C2311270065-05.BCG	12/1/2023 - 2/20/2024	Tablet Device	Page 103 01 103