

Plot 7-69. RSE 1-18GHz Antenna WF5B (BDR GFSK ePA – 5245MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5245MHz

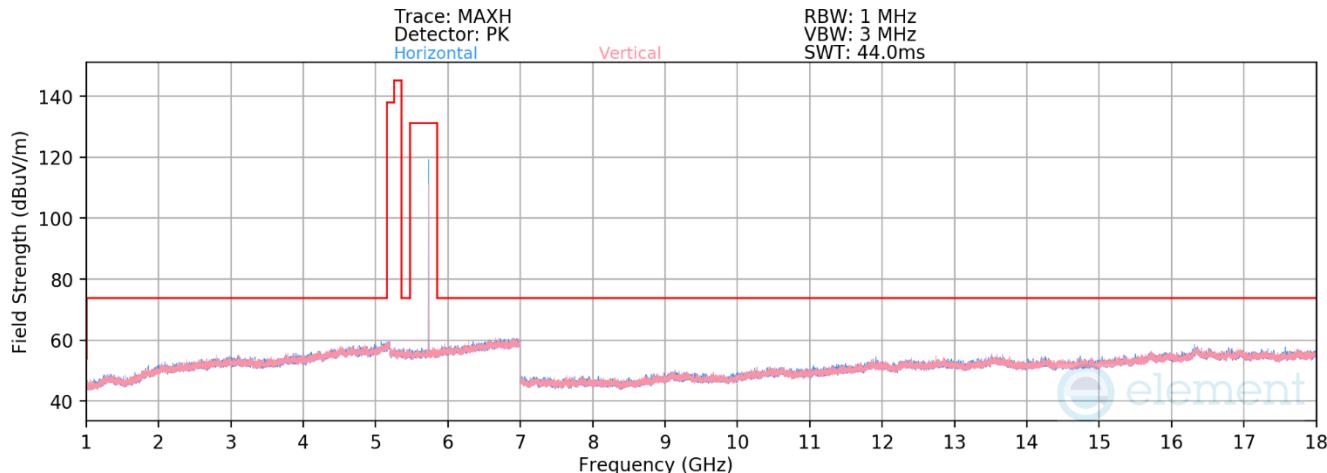
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
10490.00	Peak	H	-	-	-72.01	14.95	49.94	68.20	-18.26
* 15735.00	Average	H	-	-	-84.12	23.09	45.97	53.98	-8.01
* 15735.00	Peak	H	-	-	-72.93	23.09	57.16	73.98	-16.82

Table 7-24. Radiated Measurements Antenna WF5B

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

V 10.5 12/15/2021

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Plot 7-70. RSE 1-18GHz Antenna WF5B (BDR GFSK ePA – 5733MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5733MHz

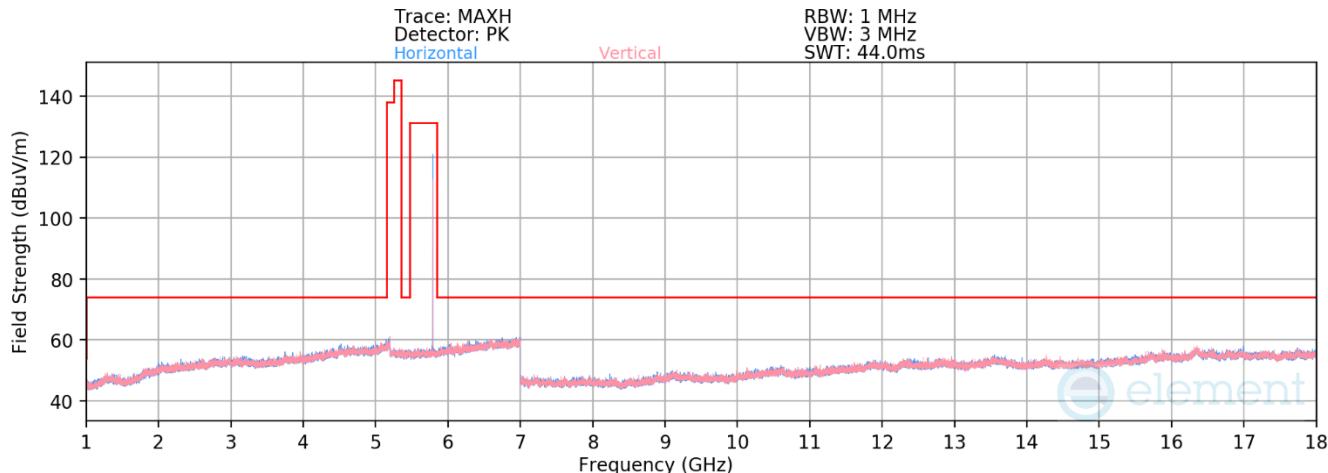
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11466.00	Average	V	335	142	-80.12	16.40	43.28	53.98	-10.70
* 11466.00	Peak	V	335	142	-70.47	16.40	52.93	73.98	-21.05
17199.00	Peak	V	-	-	-71.55	21.10	56.55	68.20	-11.65

Table 7-25. Radiated Measurements Antenna WF5B

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

V 10.5 12/15/2021

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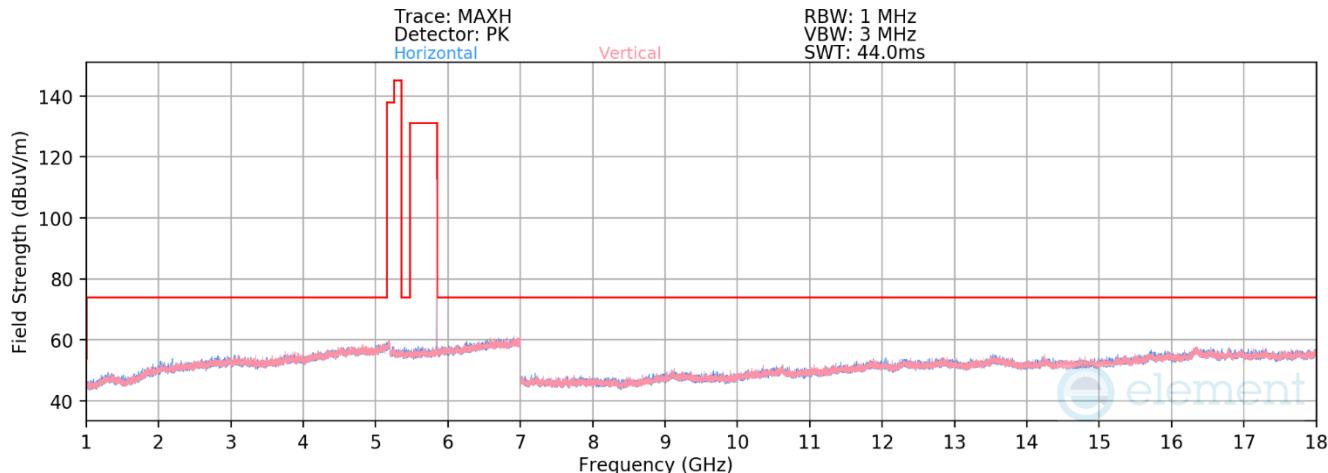
Plot 7-71. RSE 1-18GHz Antenna WF5B (BDR GFSK ePA – 5789MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5789MHz

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
* 11578.00	Average	H	-	-	-82.37	16.28	40.91	53.98	-13.07
* 11578.00	Peak	H	-	-	-70.86	16.28	52.42	73.98	-21.56
17367.00	Peak	H	-	-	-71.33	21.28	56.95	68.20	-11.25

Table 7-26. Radiated Measurements Antenna WF5B

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 73 of 101



Plot 7-72. RSE 1-18GHz Antenna WF5B (BDR GFSK ePA – 5844MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5844MHz

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
* 11688.00	Average	H	-	-	-82.35	16.89	41.54	53.98	-12.43
* 11688.00	Peak	H	-	-	-71.07	16.89	52.82	73.98	-21.15
17532.00	Peak	H	-	-	-71.79	21.68	56.89	68.20	-11.31

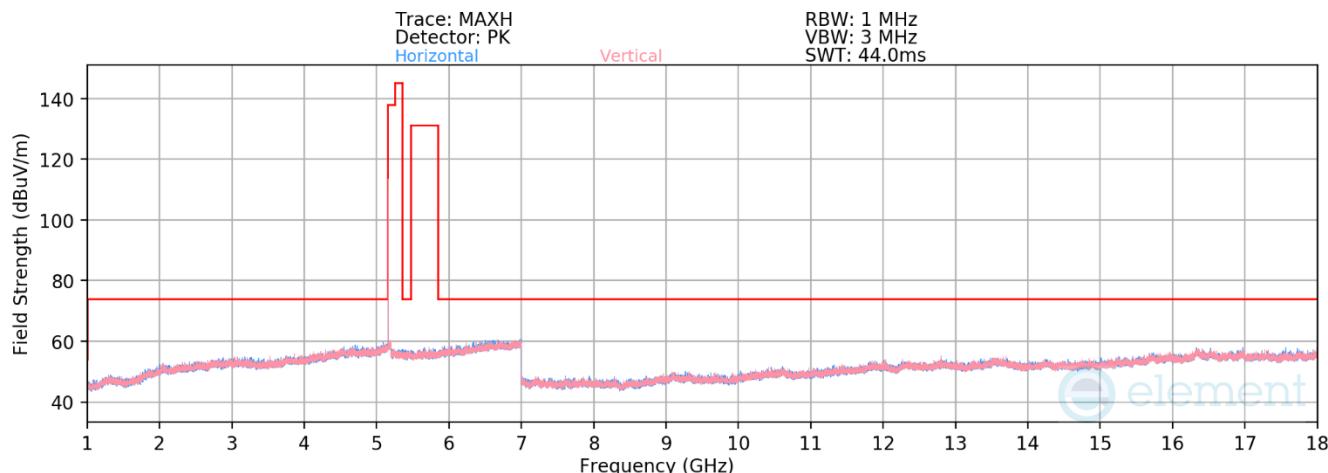
Table 7-27. Radiated Measurements Antenna WF5B

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

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7.6.3 TxBF Radiated Spurious Emission



Plot 7-73. RSE 1-18GHz TxBF (BDR GFSK ePA – 5162MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5162MHz

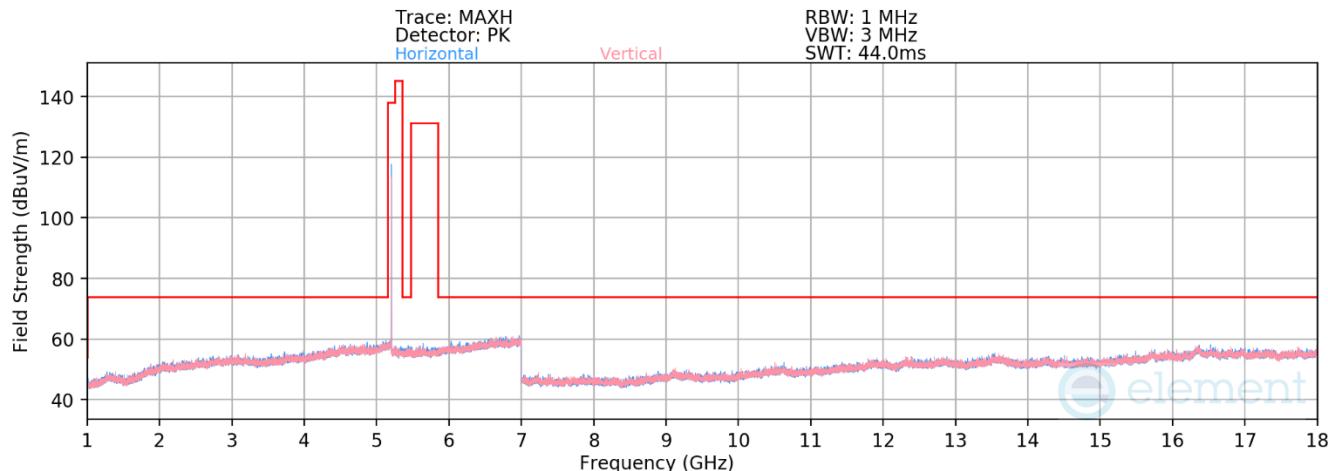
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
10324.00	Peak	H	-	-	-71.26	14.44	50.18	68.20	-18.02
* 15486.00	Average	H	-	-	-84.23	22.25	45.02	53.98	-8.96
* 15486.00	Peak	H	-	-	-73.56	22.25	55.69	73.98	-18.29

Table 7-28. Radiated Measurements TxBF

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

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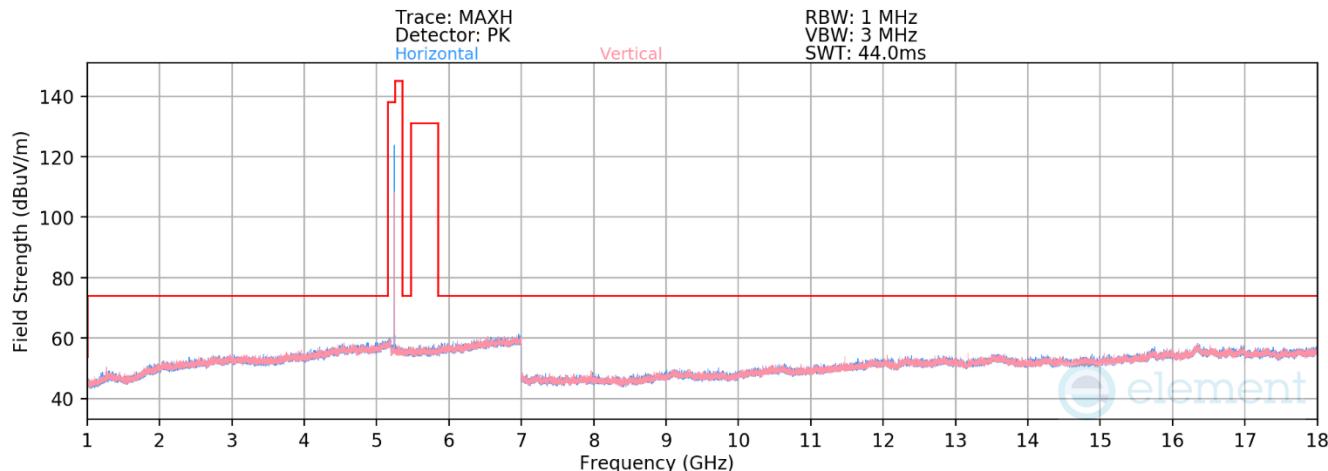
Plot 7-74. RSE 1-18GHz TxBF (BDR GFSK ePA – 5204MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5204MHz

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
10408.00	Peak	H	-	-	-71.46	15.41	50.95	68.20	-17.25
* 15612.00	Average	H	-	-	-83.91	22.69	45.78	53.98	-8.20
* 15612.00	Peak	H	-	-	-72.06	22.69	57.63	73.98	-16.35

Table 7-29. Radiated Measurements TxBF

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			



Plot 7-75. RSE 1-18GHz TxBF (BDR GFSK ePA – 5245MHz)

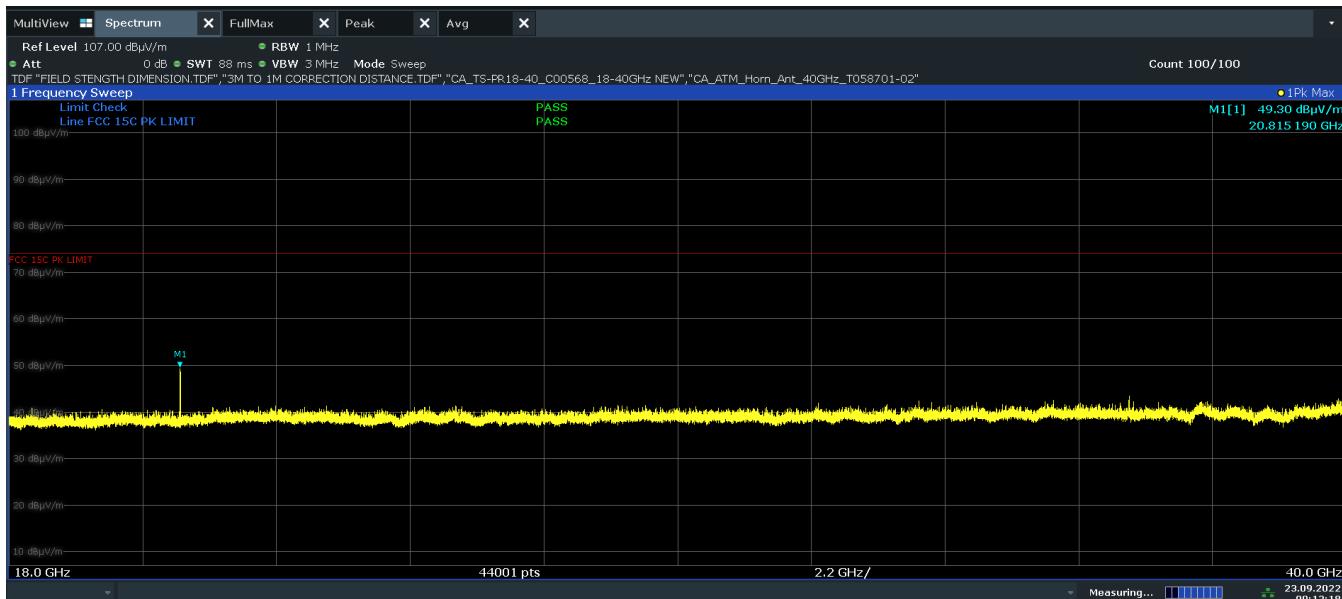
Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5245MHz

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
10490.00	Peak	H	-	-	-71.30	14.95	50.65	68.20	-17.55
* 15735.00	Average	H	-	-	-84.23	23.09	45.86	53.98	-8.12
* 15735.00	Peak	H	-	-	-72.86	23.09	57.23	73.98	-16.75

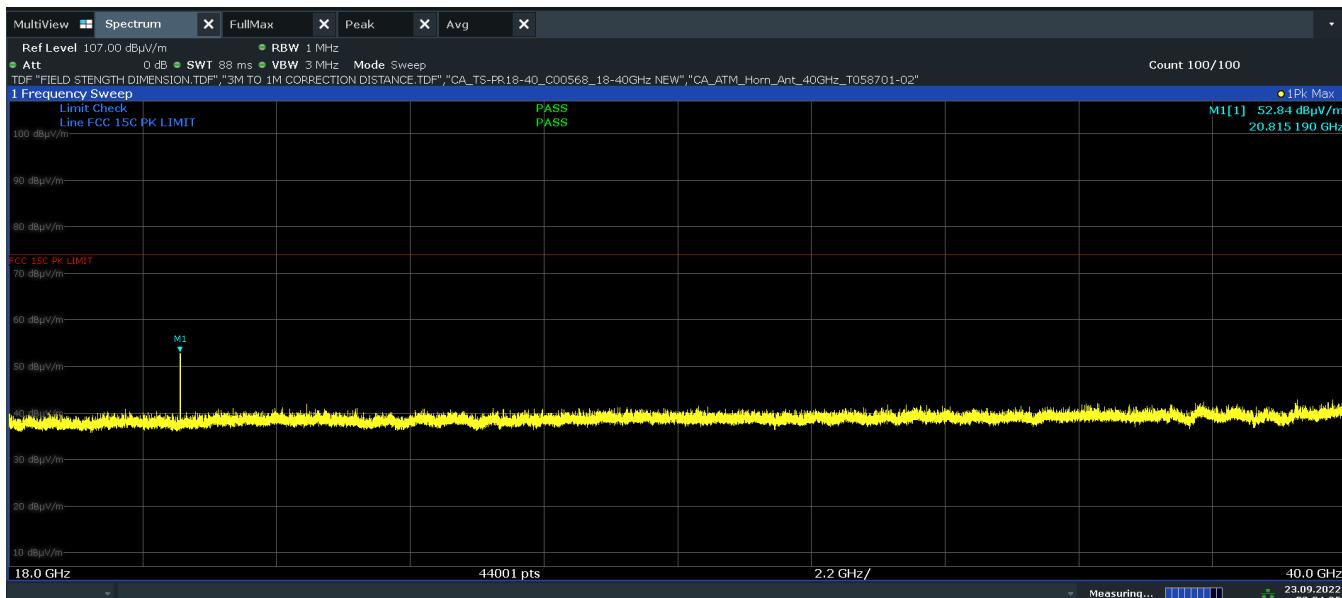
Table 7-30. Radiated Measurements TxBF

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 77 of 101

Radiated Spurious Emission (Above 18GHz)



Plot 7-76. RSE 18 - 40GHz TxBF (BDR GFSK ePA – 5204MHz, Pol. H)



Plot 7-77. RSE 18 - 40GHz TxBF (BDR GFSK ePA – 5204MHz, Pol. V)

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 78 of 101

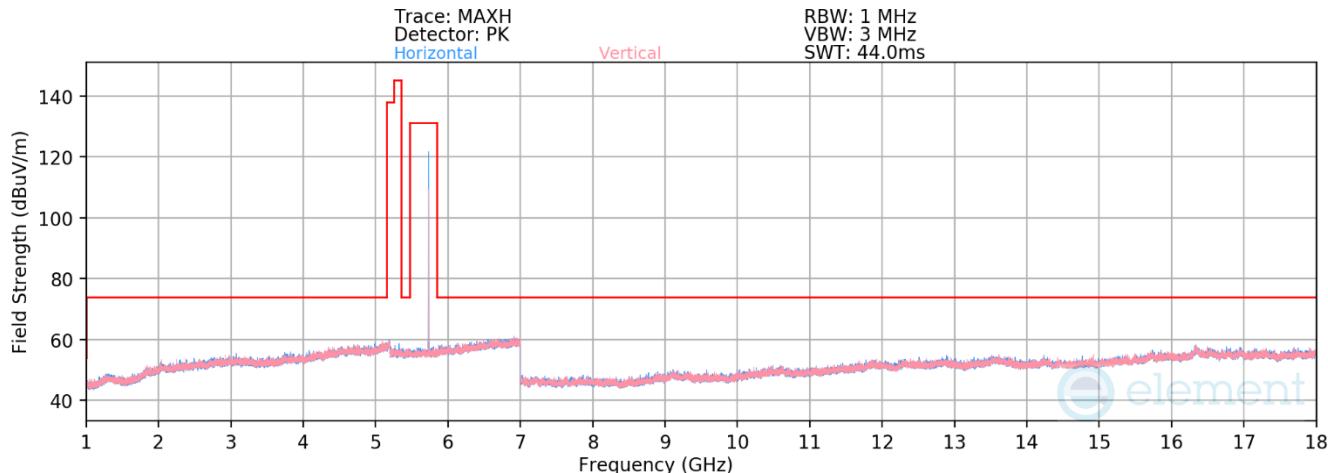


Mode: BDR
Data Rate: 1Mbps
Power Scheme: ePA
Distance of Measurements: 3 Meters
Operating Frequency: 5204MHz

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
* 20816.00	Average	V	150	155	-56.00	-7.49	43.51	53.98	-10.47
* 20816.00	Peak	V	150	155	-46.67	-7.49	52.84	73.98	-21.14

Table 7-31. Radiated Measurements TxBF

FCC ID: BCGA2436		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 79 of 101

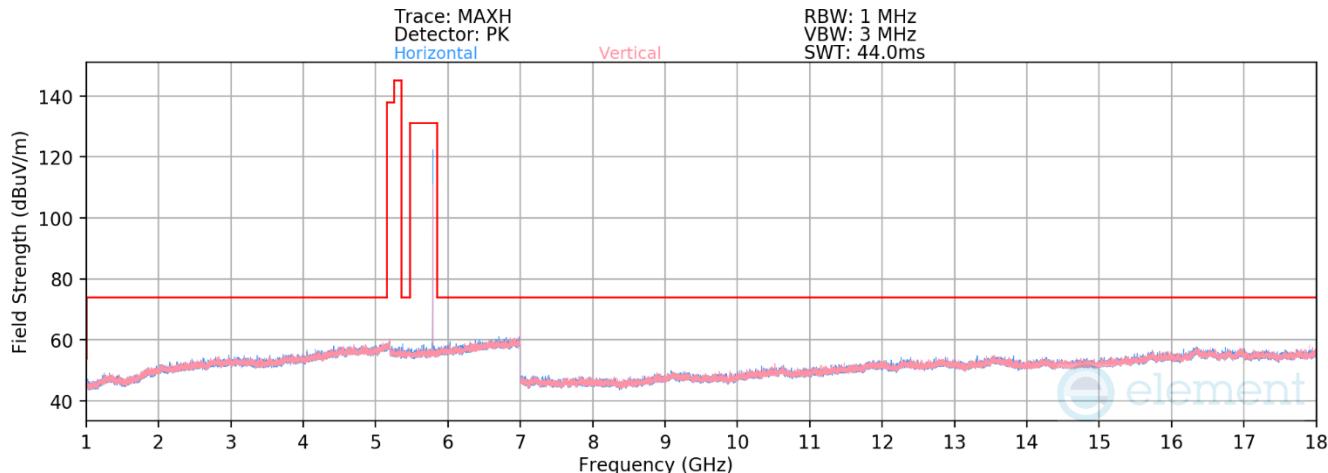

Plot 7-78. RSE 1-18GHz TxBF (BDR GFSK ePA – 5733MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5733MHz

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]
* 11466.00	Average	H	-	-	-82.15	16.40	41.25	53.98	-12.73
* 11466.00	Peak	H	-	-	-71.47	16.40	51.93	73.98	-22.05
17199.00	Peak	H	-	-	-71.77	21.10	56.33	68.20	-11.87

Table 7-32. Radiated Measurements TxBF

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 80 of 101



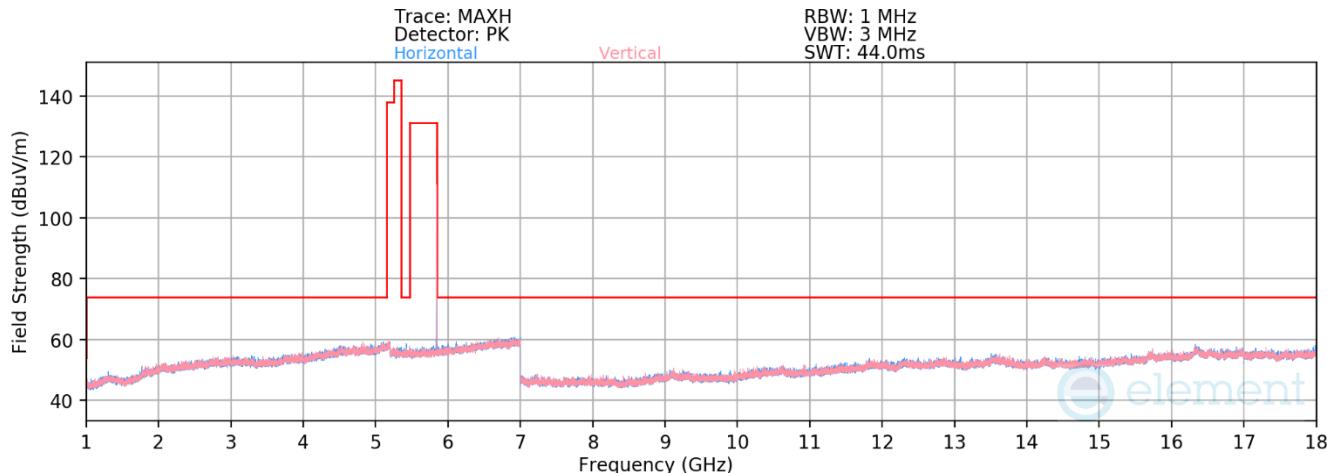
Plot 7-79. RSE 1-18GHz TxBF (BDR GFSK ePA – 5789MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5789MHz

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
* 11578.00	Average	H	-	-	-82.38	16.28	40.90	53.98	-13.08
* 11578.00	Peak	H	-	-	-71.11	16.28	52.17	73.98	-21.81
17367.00	Peak	H	-	-	-71.42	21.28	56.86	68.20	-11.34

Table 7-33. Radiated Measurements TxBF

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 81 of 101



Plot 7-80. RSE 1-18GHz TxBF (BDR GFSK ePA – 5844MHz)

Mode: BDR
 Data Rate: 1Mbps
 Power Scheme: ePA
 Distance of Measurements: 3 Meters
 Operating Frequency: 5844MHz

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
* 5426.00	Average	H	156	100	-71.57	17.98	53.41	53.98	-0.57
* 5426.00	Peak	H	156	100	-63.98	17.98	61.00	73.98	-12.98
* 11688.00	Average	H	-	-	-82.25	16.89	41.64	53.98	-12.34
* 11688.00	Peak	H	-	-	-70.28	16.89	53.61	73.98	-20.37
17532.00	Peak	H	-	-	-71.59	21.68	57.09	68.20	-11.11

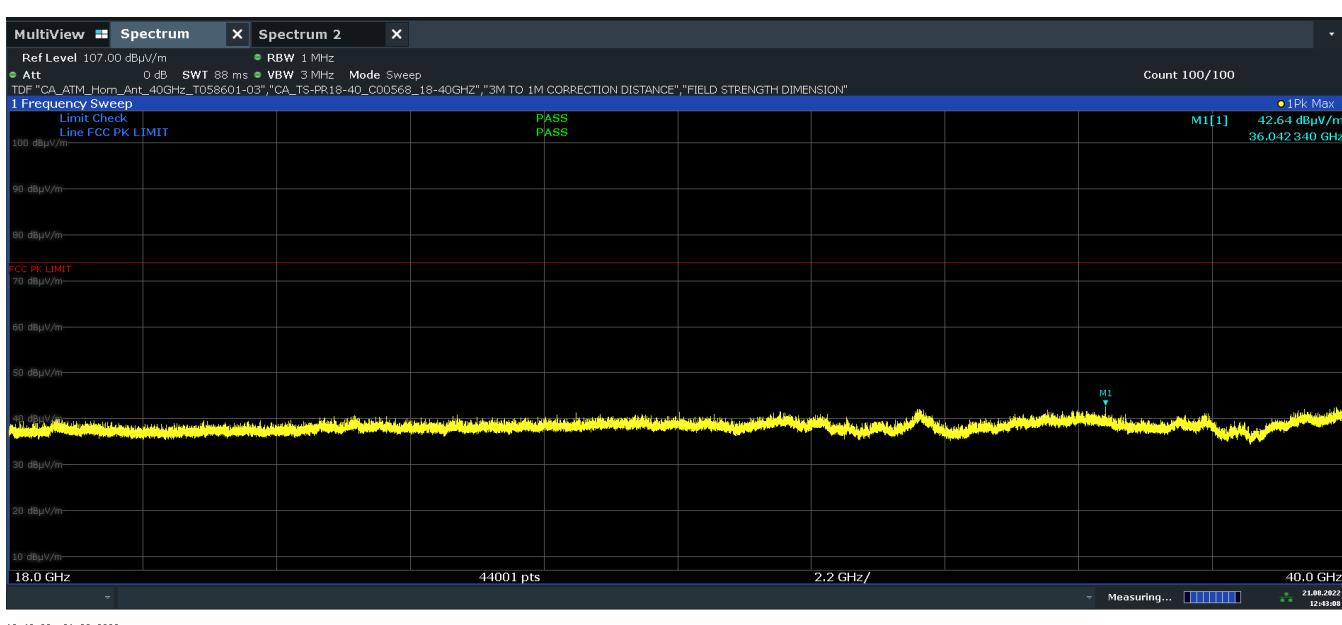
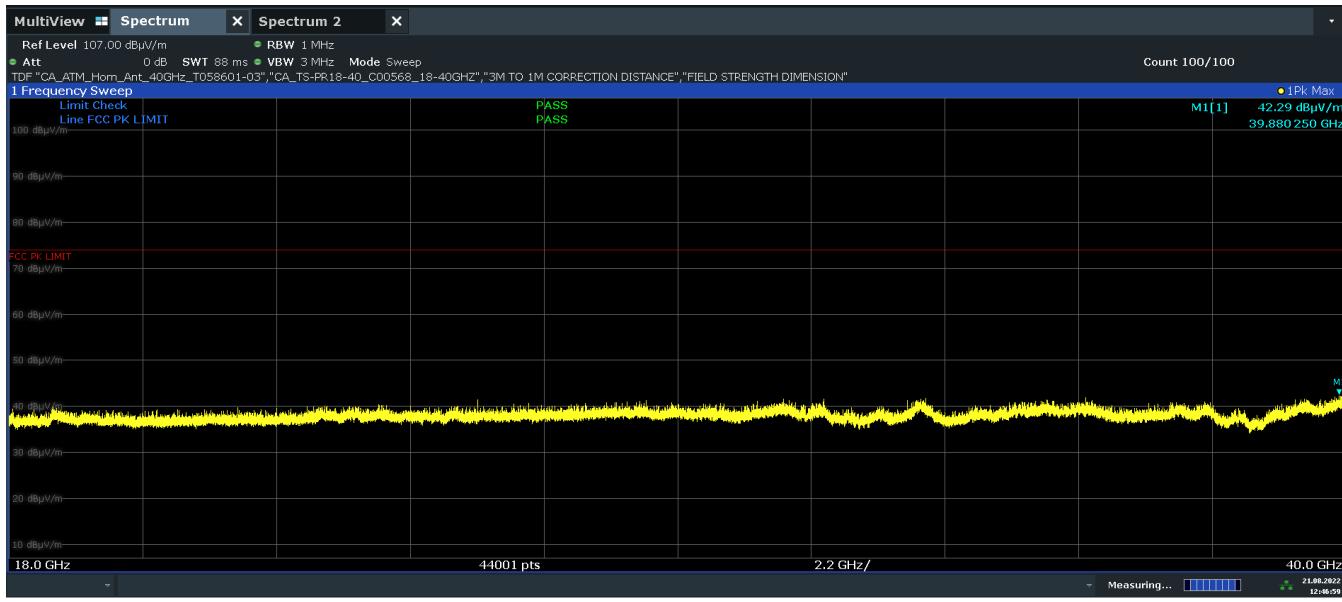
Table 7-34. Radiated Measurements TxBF

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

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Page 82 of 101



Plot 7-82. RSE 18 - 40GHz TxBF (BDR GFSK ePA – 5789MHz, Pol. V)

FCC ID: BCGA2436		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 83 of 101

7.6.4 Radiated Band Edge Measurements

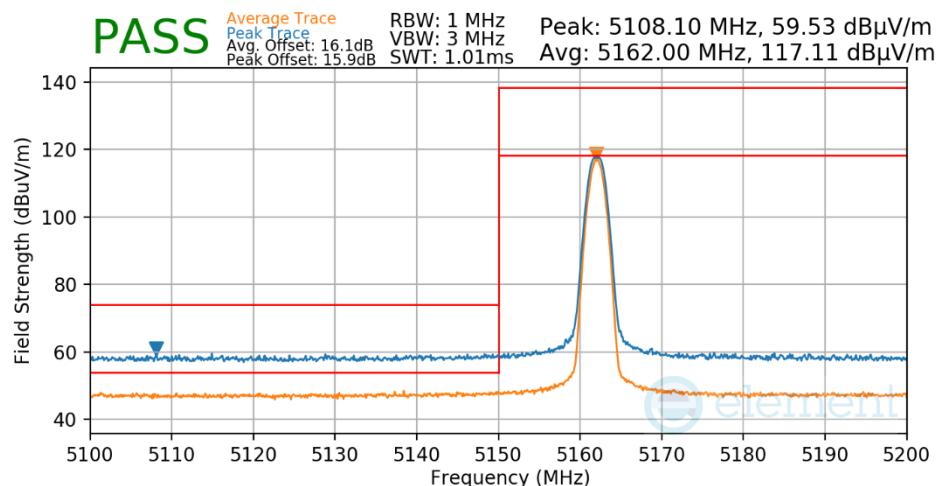
§15.407(b.1) §15.205 §15.209

Antenna WF5T

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

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

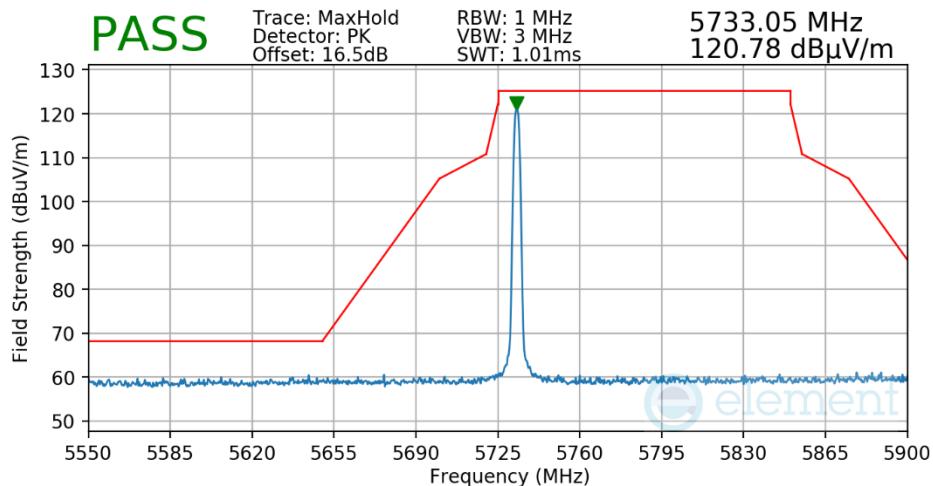
Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5162MHz



Plot 7-83. Radiated Lower Band Edge Measurement Antenna WF5T

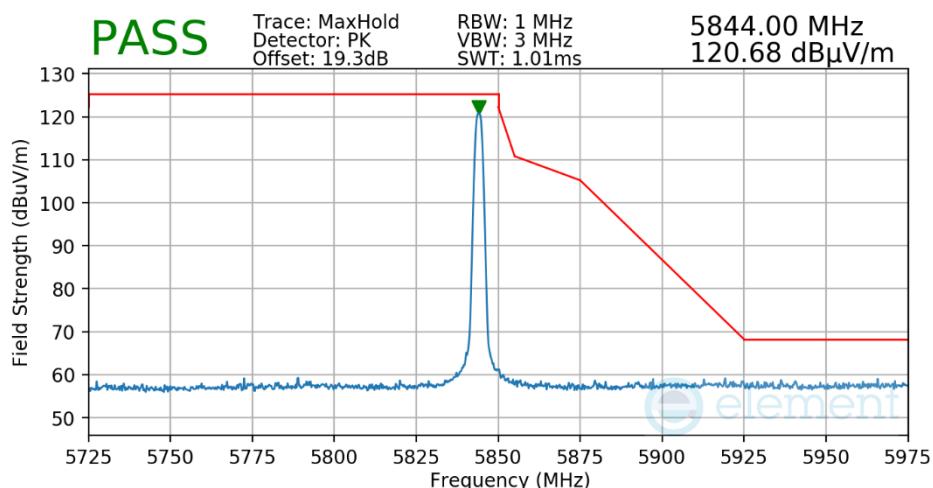
FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device		Page 84 of 101

Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5733MHz



Plot 7-84. Radiated Lower Band Edge Measurement Antenna WF5

Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5844MHz



Plot 7-85. Radiated Upper Band Edge Measurement Antenna WF5

FCC ID: BCGA2436	 element MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device		Page 85 of 101

Radiated Band Edge Measurements

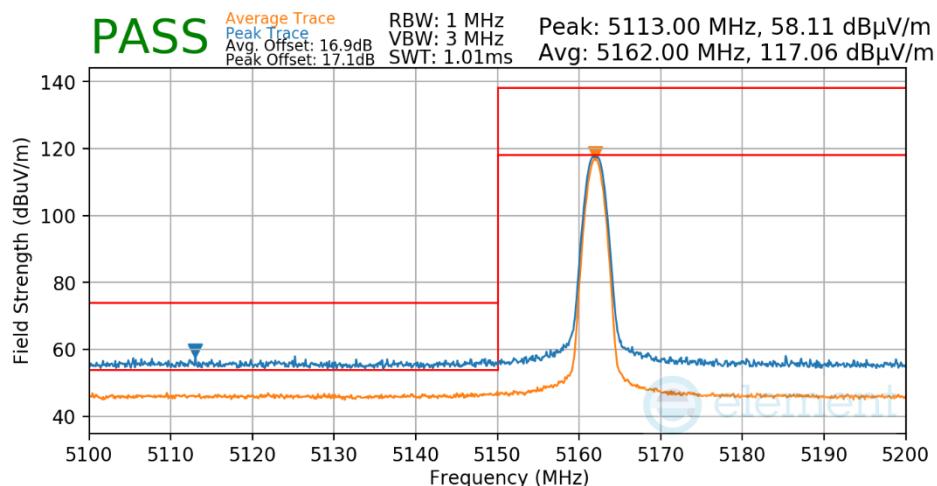
§15.407(b.1) §15.205 §15.209

Antenna WF5B

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

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

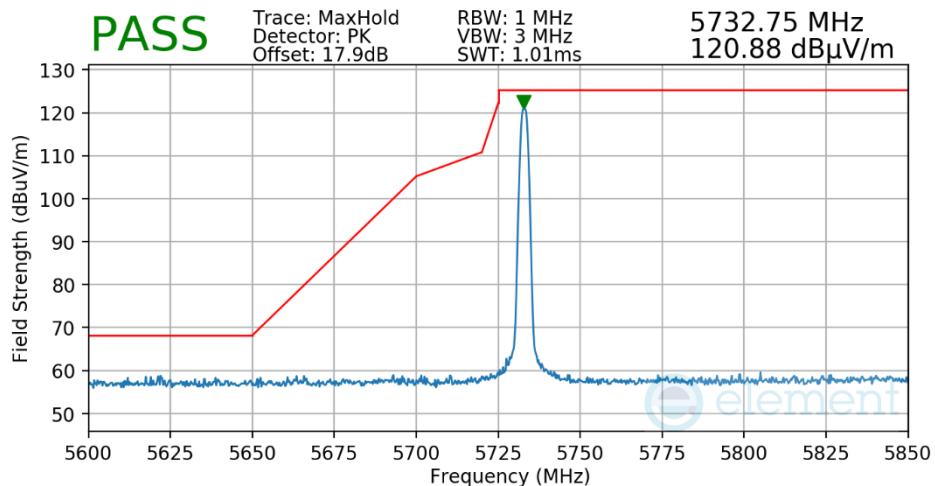
Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5162MHz



Plot 7-86. Radiated Lower Band Edge Measurement Antenna WF5B

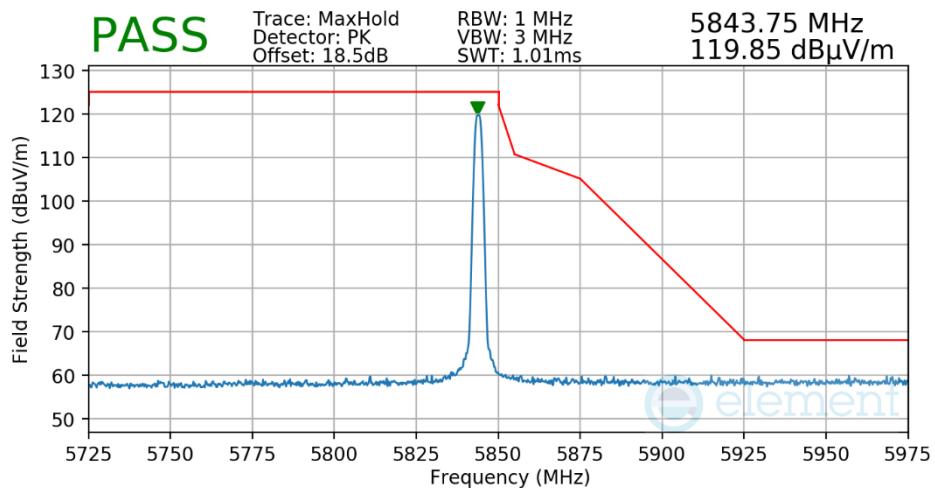
FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device		Page 86 of 101

Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5733MHz



Plot 7-87. Radiated Lower Band Edge Measurement Antenna WF5B

Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5844MHz



Plot 7-88. Radiated Upper Band Edge Measurement Antenna WF5B

FCC ID: BCGA2436	 element MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device		Page 87 of 101

Radiated Band Edge Measurements

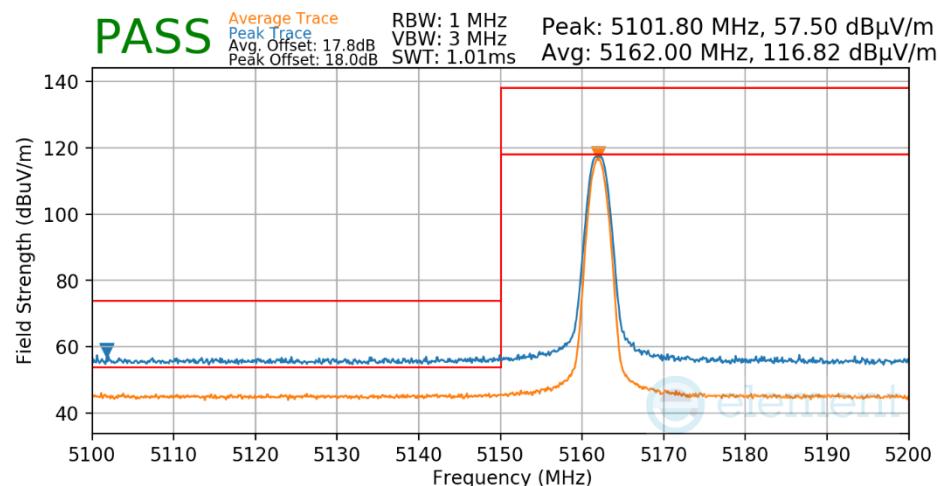
§15.407(b.1) §15.205 §15.209

TxBF

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

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

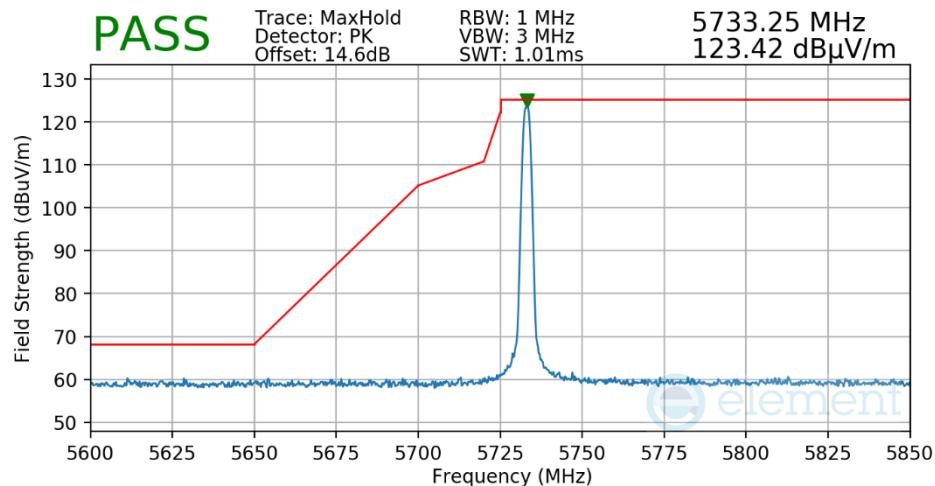
Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5162MHz



Plot 7-89. Radiated Lower Band Edge Measurement TxBF

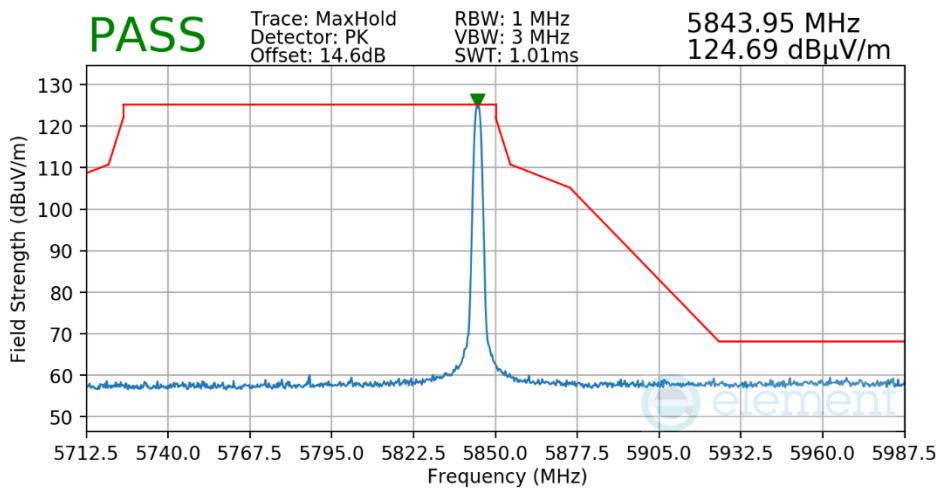
FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device		Page 88 of 101

Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5733MHz



Plot 7-90. Radiated Lower Band Edge Measurement TxBF

Mode: BDR
 Power Scheme: ePA
 Measurement Distance: 3 Meters
 Operating Frequency: 5844MHz



Plot 7-91. Radiated Upper Band Edge Measurement TxBF

FCC ID: BCGA2436		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 89 of 101

7.7 Radiated Spurious Emissions – Below 1GHz

§15.209

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 must not exceed the limits shown in Table 7-35 per Section 15.209.

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

Table 7-35. Radiated Limits

Test Procedures Used

ANSI C63.10-2013

Test Settings

Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. VBW = 300kHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 90 of 101

Test Setup

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

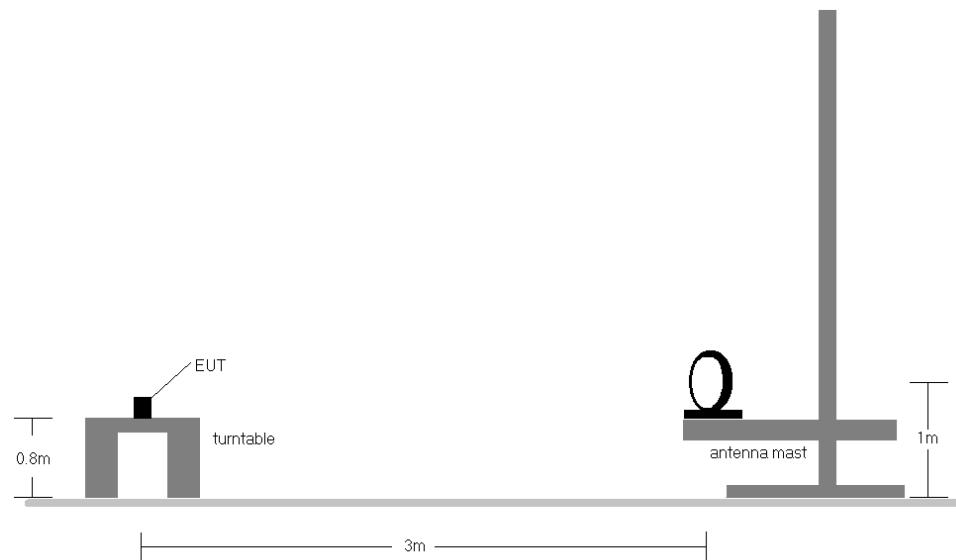


Figure 7-6. Radiated Test Setup < 30MHz

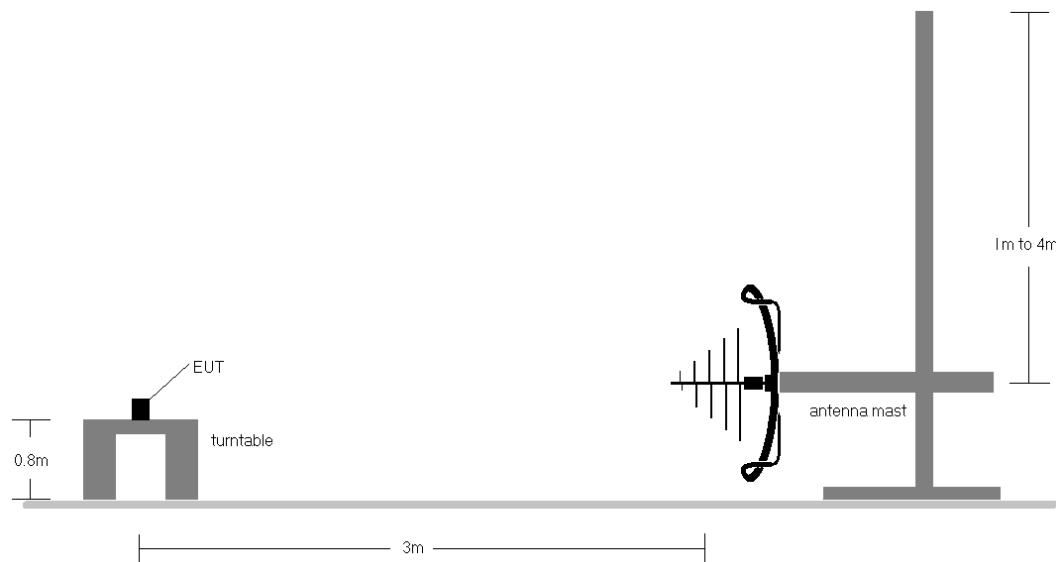


Figure 7-7. Radiated Test Setup < 1GHz

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 91 of 101

Test Notes

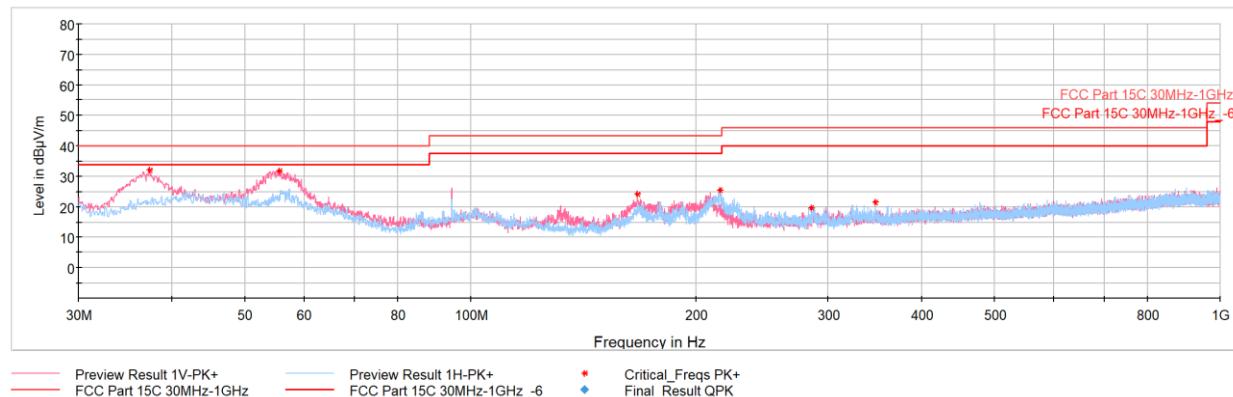
1. All emissions lying in restricted bands specified in §15.205 are below the limit shown in Table 7-35.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes. For below 30MHz the loop antenna 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 for emissions 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

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

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 92 of 101

TxBF Radiated Spurious Emissions (Below 1GHz)
§15.209

Plot 7-92. RSE 30MHz - 1GHz TxBF (BDR GFSK ePA – 5204MHz), with AC/DC Adapter

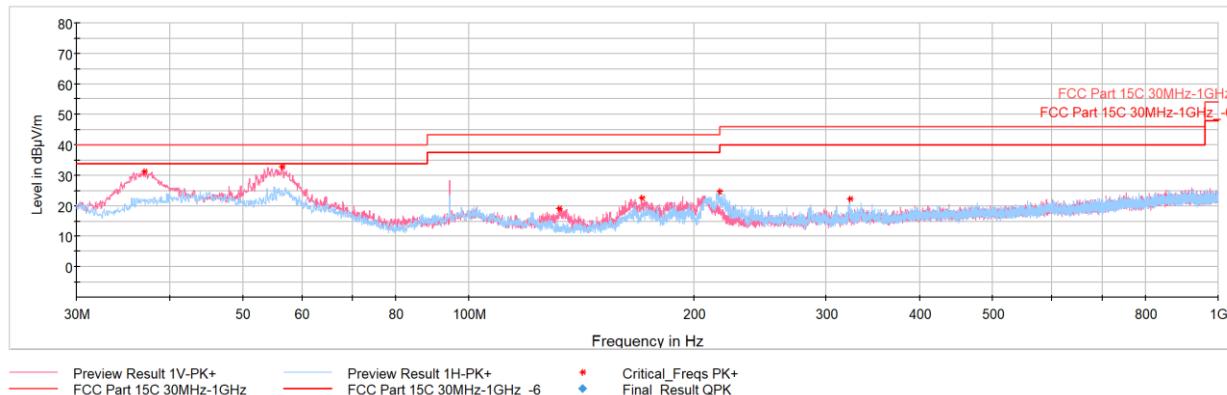
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
37.32	Max-Peak	V	100	355	-56.86	-18.15	31.99	40.00	-8.01
55.61	Max-Peak	V	100	159	-59.07	-16.07	31.86	40.00	-8.14
166.82	Max-Peak	V	100	51	-62.52	-20.23	24.25	43.52	-19.27
215.08	Max-Peak	H	100	171	-63.69	-17.87	25.44	43.52	-18.08
284.77	Max-Peak	H	100	141	-71.55	-15.72	19.73	46.02	-26.29
346.61	Max-Peak	H	100	17	-72.00	-13.57	21.43	46.02	-24.59

Table 7-36. RSE 30MHz - 1GHz TxBF (BDR GFSK ePA – 5204MHz), with AC/DC Adapter

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			Page 93 of 101

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V 10.5 12/15/2021



Plot 7-93. RSE 30MHz - 1GHz TxBF (BDR GFSK ePA – 5789MHz), with AC/DC Adapter

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
36.94	Max-Peak	V	100	15	-57.37	-18.23	31.40	40.00	-8.60
56.48	Max-Peak	V	100	32	-57.90	-16.28	32.82	40.00	-7.18
132.29	Max-Peak	V	100	15	-66.82	-21.02	19.16	43.52	-24.36
170.31	Max-Peak	V	100	80	-64.16	-20.19	22.65	43.52	-20.87
215.85	Max-Peak	H	100	168	-64.65	-17.76	24.59	43.52	-18.93
322.31	Max-Peak	H	100	15	-70.29	-14.54	22.17	46.02	-23.85

Table 7-37. RSE 30MHz - 1GHz TxBF (BDR GFSK ePA – 5789MHz), with AC/DC Adapter

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

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7.8 AC Line Conducted Emissions Measurement

§15.207

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. All data rates and modes were investigated for AC Line conducted spurious emissions.

All conducted emissions must not exceed the limits shown in the table below, per Section 15.207.

Frequency of emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Table 7-38. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Subclause 6.2

Test Settings

Quasi-Peak Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Average Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = RMS
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 95 of 101

Test Setup

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

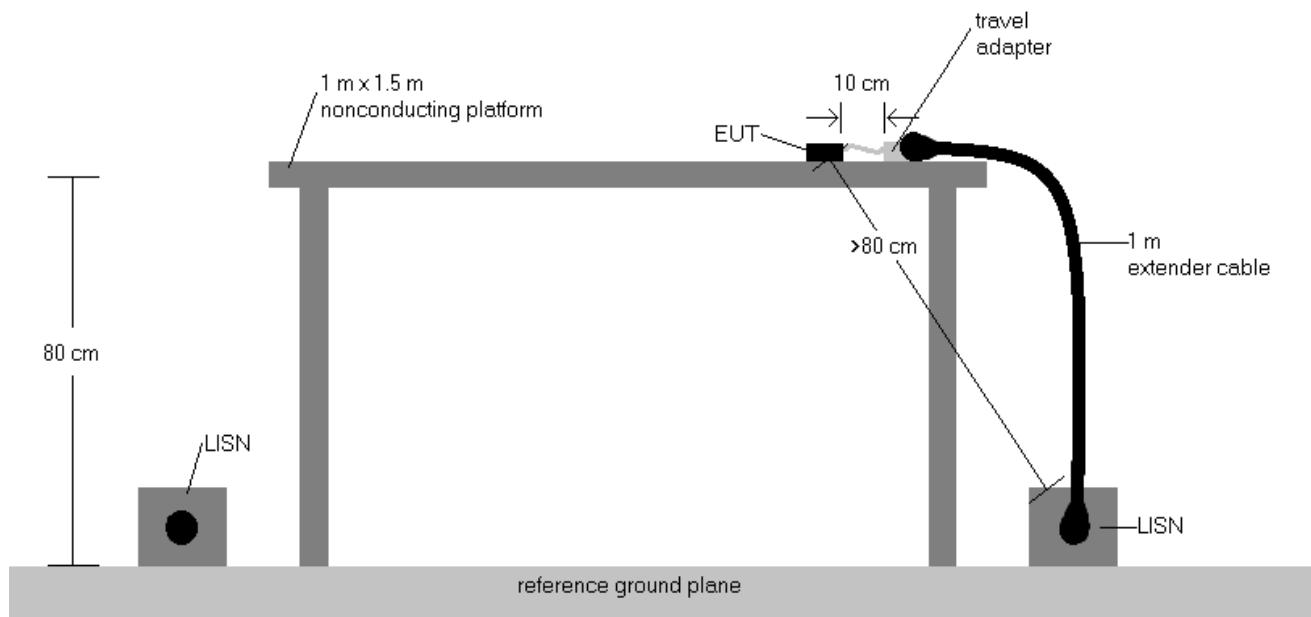
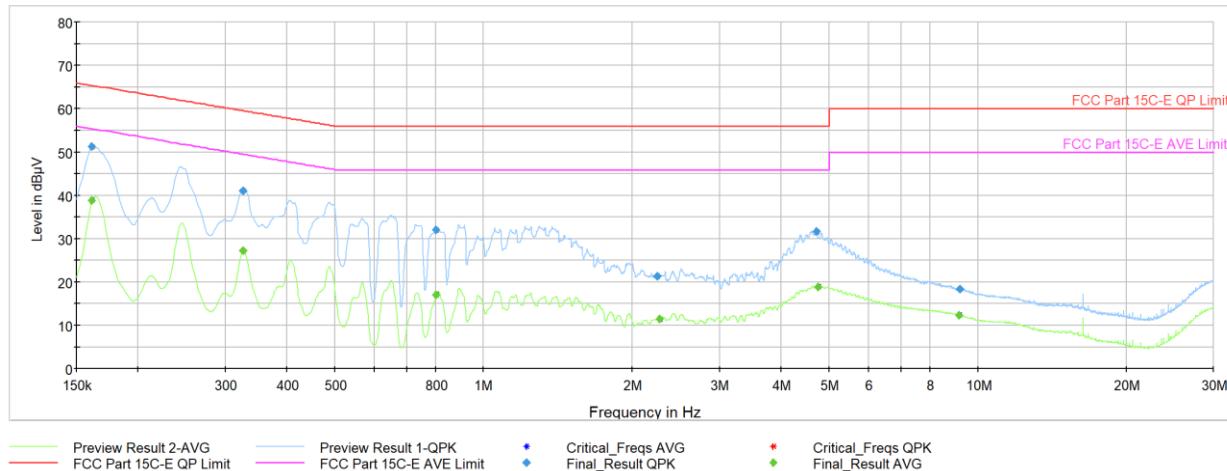


Figure 7-8. Test Instrument & Measurement Setup

Test Notes

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

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 96 of 101



Plot 7-94. AC Line Conducted Plot (BDR GFSK ePA – 5204MHz) (L1) with AC/DC Adapter.

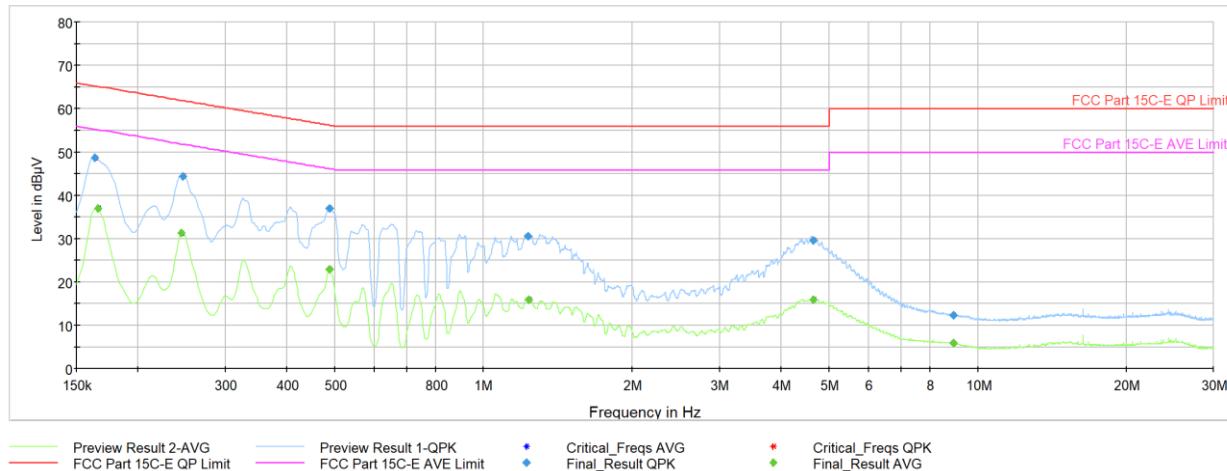
Frequency [MHz]	Process State	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Line	PE
0.161	FINAL	—	38.88	55.40	-16.52	L1	GND
0.161	FINAL	51.3	—	65.40	-14.08	L1	GND
0.326	FINAL	—	27.20	49.57	-22.37	L1	GND
0.326	FINAL	41.2	—	59.57	-18.39	L1	GND
0.800	FINAL	32.1	—	56.00	-23.94	L1	GND
0.803	FINAL	—	17.00	46.00	-29.00	L1	GND
2.243	FINAL	21.4	—	56.00	-34.65	L1	GND
2.265	FINAL	—	11.46	46.00	-34.54	L1	GND
4.715	FINAL	31.7	—	56.00	-24.26	L1	GND
4.745	FINAL	—	18.81	46.00	-27.19	L1	GND
9.175	FINAL	—	12.40	50.00	-37.60	L1	GND
9.200	FINAL	18.3	—	60.00	-41.68	L1	GND

Table 7-39. AC Line Conducted (BDR GFSK ePA – 5204MHz) (L1) with AC/DC Adapter

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

V 10.5 12/15/2021

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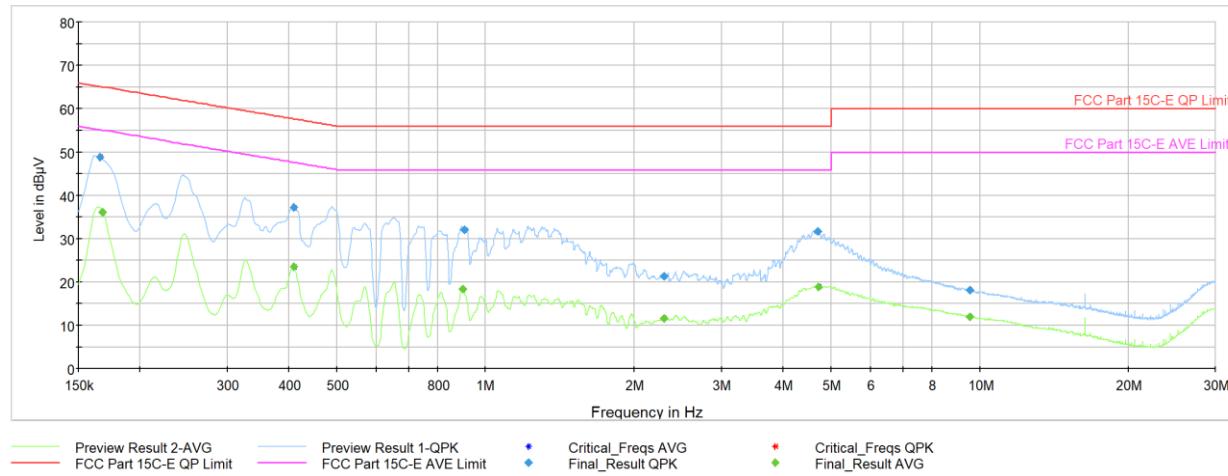


Plot 7-95. AC Line Conducted Plot (BDR GFSK ePA – 5204MHz) (N) with AC/DC Adapter

Frequency [MHz]	Process State	QuasiPeak [dB μ V]	Average [dB μ V]	Limit [dB μ V]	Margin [dB]	Line	PE
0.164	FINAL	48.8	—	65.28	-16.53	N	GND
0.166	FINAL	—	36.97	55.17	-18.20	N	GND
0.245	FINAL	—	31.25	51.94	-20.69	N	GND
0.247	FINAL	44.4	—	61.87	-17.48	N	GND
0.488	FINAL	—	23.03	46.21	-23.18	N	GND
0.488	FINAL	37.1	—	56.21	-19.12	N	GND
1.230	FINAL	30.6	—	56.00	-25.36	N	GND
1.235	FINAL	—	15.88	46.00	-30.12	N	GND
4.639	FINAL	—	16.02	46.00	-29.98	N	GND
4.652	FINAL	29.7	—	56.00	-26.33	N	GND
8.923	FINAL	—	5.85	50.00	-44.15	N	GND
8.932	FINAL	12.4	—	60.00	-47.61	N	GND

Table 7-40. AC Line Conducted (BDR GFSK ePA – 5204MHz) (N) with AC/DC Adapter

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device		Page 98 of 101



Plot 7-96. AC Line Conducted Plot (BDR GFSK ePA – 5789MHz) (L1) with AC/DC Adapter.

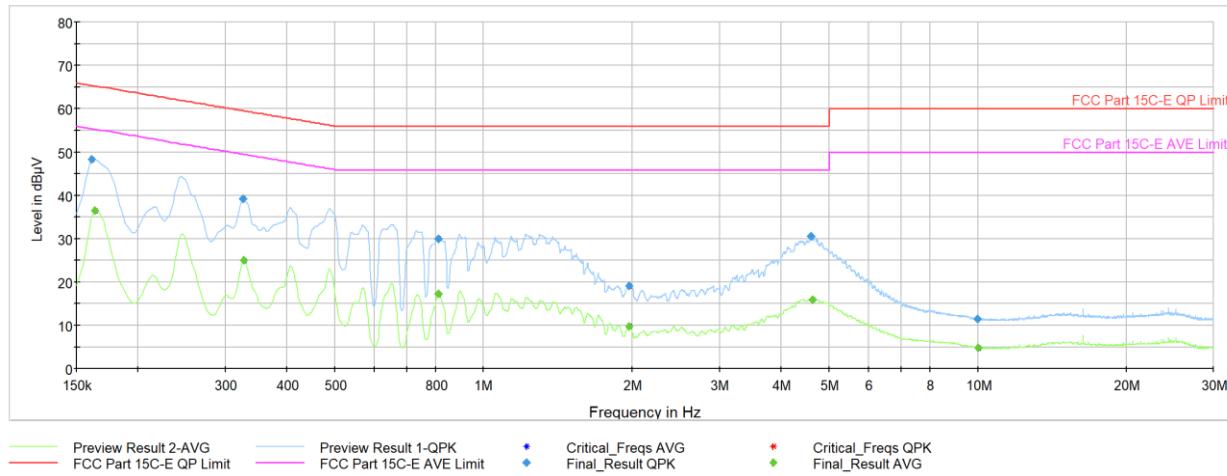
Frequency [MHz]	Process State	QuasiPeak [dB μ V]	Average [dB μ V]	Limit [dB μ V]	Margin [dB]	Line	PE
0.166	FINAL	48.8	—	65.17	-16.34	L1	GND
0.168	FINAL	—	36.17	55.06	-18.89	L1	GND
0.409	FINAL	—	23.52	47.67	-24.16	L1	GND
0.409	FINAL	37.2	—	57.67	-20.43	L1	GND
0.899	FINAL	—	18.39	46.00	-27.61	L1	GND
0.906	FINAL	32.0	—	56.00	-23.97	L1	GND
2.294	FINAL	21.3	—	56.00	-34.71	L1	GND
2.297	FINAL	—	11.67	46.00	-34.33	L1	GND
4.704	FINAL	31.6	—	56.00	-24.36	L1	GND
4.713	FINAL	—	18.97	46.00	-27.03	L1	GND
9.533	FINAL	—	12.06	50.00	-37.94	L1	GND
9.535	FINAL	18.1	—	60.00	-41.90	L1	GND

Table 7-41. AC Line Conducted (BDR GFSK ePA – 5789MHz) (L1) with AC/DC Adapter

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

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Plot 7-97. AC Line Conducted Plot (BDR GFSK ePA – 5789MHz) (N) with AC/DC Adapter.

Frequency [MHz]	Process State	QuasiPeak [dBμV]	Average [dBμV]	Limit [dBμV]	Margin [dB]	Line	PE
0.161	FINAL	48.4	—	65.40	-16.99	N	GND
0.164	FINAL	—	36.48	55.28	-18.81	N	GND
0.326	FINAL	39.2	—	59.57	-20.36	N	GND
0.328	FINAL	—	24.99	49.51	-24.51	N	GND
0.809	FINAL	30.0	—	56.00	-26.04	N	GND
0.812	FINAL	—	17.28	46.00	-28.72	N	GND
1.968	FINAL	19.0	—	56.00	-37.00	N	GND
1.970	FINAL	—	9.89	46.00	-36.11	N	GND
4.596	FINAL	30.5	—	56.00	-25.49	N	GND
4.623	FINAL	—	15.99	46.00	-30.01	N	GND
9.989	FINAL	11.5	—	60.00	-48.48	N	GND
10.007	FINAL	—	4.83	50.00	-45.17	N	GND

Table 7-42. AC Line Conducted (BDR GFSK ePA – 5789MHz) (N) with AC/DC Adapter

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device			

V 10.5 12/15/2021

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8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Apple Tablet Device** **FCC ID: BCGA2436** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules.

FCC ID: BCGA2436	 element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N: 1C2205090027-06-R1.BCG	Test Dates: 7/1/2022 – 9/26/2022	EUT Type: Tablet Device	Page 101 of 101