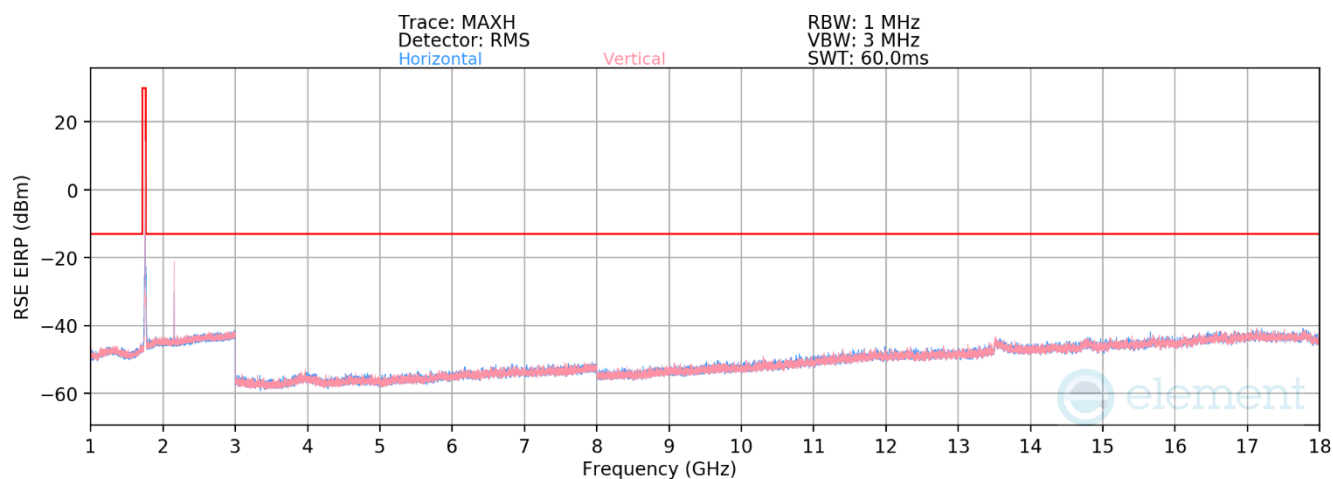


WCDMA AWS



Plot 7-446. Antenna 4b Radiated Spurious Emission above 1GHz (WCDMA AWS)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device
		Page 293 of 338

V2.1 11/9/2021

Mode:	WCDMA RMC
Channel:	1312
Frequency (MHz):	1712.4

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3424.8	H	-	-	-76.30	2.04	32.74	-62.52	-13.00	-49.52
5137.2	V	292	218	-75.46	4.60	36.14	-59.12	-13.00	-46.12
6849.6	H	-	-	-79.49	8.51	36.02	-59.23	-13.00	-46.23
8562.0	H	-	-	-81.16	9.59	35.43	-59.83	-13.00	-46.83
10274.4	H	-	-	-82.70	13.74	38.04	-57.22	-13.00	-44.22

7-43. Antenna 4b Radiated Spurious Data (WCDMA AWS – Low Channel)

Mode:	WCDMA RMC
Channel:	1413
Frequency (MHz):	1732.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3465.2	H	-	-	-79.56	2.37	29.81	-65.45	-13.00	-52.45
5197.8	H	-	-	-79.61	5.15	32.54	-62.72	-13.00	-49.72
6930.4	H	-	-	-80.12	8.37	35.25	-60.01	-13.00	-47.01

Table 7-44. Antenna 4b Radiated Spurious Data (WCDMA AWS – Mid Channel)

Mode:	WCDMA RMC
Channel:	1513
Frequency (MHz):	1752.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3505.2	H	-	-	-76.72	2.45	32.73	-62.53	-13.00	-49.53
5257.8	H	217	192	-74.98	4.82	36.84	-58.41	-13.00	-45.41
7010.4	H	-	-	-78.86	7.89	36.03	-59.23	-13.00	-46.23
8763.0	H	-	-	-81.15	10.35	36.20	-59.06	-13.00	-46.06
10515.6	H	-	-	-82.14	14.22	39.08	-56.18	-13.00	-43.18

Table 7-45. Antenna 4b Radiated Spurious Data (WCDMA AWS – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 294 of 338

V2.1 11/9/2021

7.7.2 Antenna 1 – Radiated Spurious Emission Measurement

LTE Band 71

Bandwidth (MHz):	20								
Frequency (MHz):	673.0								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.0	H	-	-	-76.90	-1.18	28.92	-66.34	-13.00	-53.34
2019.0	H	-	-	-77.76	1.78	31.02	-64.24	-13.00	-51.24
2692.0	H	-	-	-78.62	3.60	31.98	-63.28	-13.00	-50.28

Table 7-46. Antenna 1 Radiated Spurious Data (LTE Band 71 – Low Channel)

Bandwidth (MHz):	20								
Frequency (MHz):	680.5								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1361.0	H	-	-	-76.81	-1.34	28.85	-66.41	-13.00	-53.41
2041.5	H	-	-	-77.65	1.60	30.95	-64.31	-13.00	-51.31
2722.0	H	-	-	-78.73	3.87	32.14	-63.12	-13.00	-50.12

Table 7-47. Antenna 1 Radiated Spurious Data (LTE Band 71 – Mid Channel)

Bandwidth (MHz):	20								
Frequency (MHz):	688.0								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	H	-	-	-76.64	-1.32	29.04	-66.21	-13.00	-53.21
2064.0	H	-	-	-77.19	1.73	31.54	-63.72	-13.00	-50.72
2752.0	H	-	-	-78.61	3.70	32.09	-63.17	-13.00	-50.17

Table 7-48. Antenna 1 Radiated Spurious Data (LTE Band 71 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 295 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

LTE Band 12/17

Bandwidth (MHz):	10								
Frequency (MHz):	704.0								
RB / Offset:	1 / 25								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1408.0	H	-	-	-77.30	-1.65	28.05	-67.21	-13.00	-54.21
2112.0	H	-	-	-78.62	1.70	30.08	-65.18	-13.00	-52.18
2816.0	H	-	-	-78.96	3.33	31.37	-63.89	-13.00	-50.89

Table 7-49. Antenna 1 Radiated Spurious Data (LTE Band 12/17 – Low Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	707.5								
RB / Offset:	1 / 25								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1415.0	H	-	-	-77.40	-1.60	28.00	-67.26	-13.00	-54.26
2122.5	H	-	-	-78.43	1.72	30.29	-64.97	-13.00	-51.97
2830.0	H	-	-	-78.84	3.24	31.40	-63.86	-13.00	-50.86

Table 7-50. Antenna 1 Radiated Spurious Data (LTE Band 12/17 – Mid Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	711.0								
RB / Offset:	1 / 25								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1422.0	H	-	-	-77.56	-1.54	27.90	-67.36	-13.00	-54.36
2133.0	H	-	-	-78.36	1.87	30.51	-64.75	-13.00	-51.75
2844.0	H	-	-	-78.84	3.07	31.23	-64.03	-13.00	-51.03

Table 7-51. Antenna 1 Radiated Spurious Data (LTE Band 12/17 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 296 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

LTE Band 13

Bandwidth (MHz):	5								
Frequency (MHz):	779.5								
RB / Offset:	1 / 12								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1559.0	H	-	-	-78.72	-2.10	26.18	-69.07	-40.00	-29.07
2338.5	H	-	-	-78.19	2.00	30.81	-64.45	-13.00	-51.45
3118.0	H	-	-	-78.64	3.79	32.15	-63.11	-13.00	-50.11

Table 7-52. Antenna 1 Radiated Spurious Data (LTE Band 13 – Low Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	782.0								
RB / Offset:	1 / 25								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1564.0	H	-	-	-78.75	-2.10	26.15	-69.10	-40.00	-29.10
2346.0	H	-	-	-78.11	2.00	30.89	-64.37	-13.00	-51.37
3128.0	H	-	-	-78.87	3.79	31.92	-63.34	-13.00	-50.34

Table 7-53. Antenna 1 Radiated Spurious Data (LTE Band 13 – Mid Channel)

Bandwidth (MHz):	5								
Frequency (MHz):	784.5								
RB / Offset:	1 / 12								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1569.0	H	-	-	-78.43	-2.10	26.47	-68.78	-40.00	-28.78
2353.5	H	-	-	-79.07	2.00	29.93	-65.33	-13.00	-52.33
3138.0	H	-	-	-79.50	3.79	31.29	-63.97	-13.00	-50.97

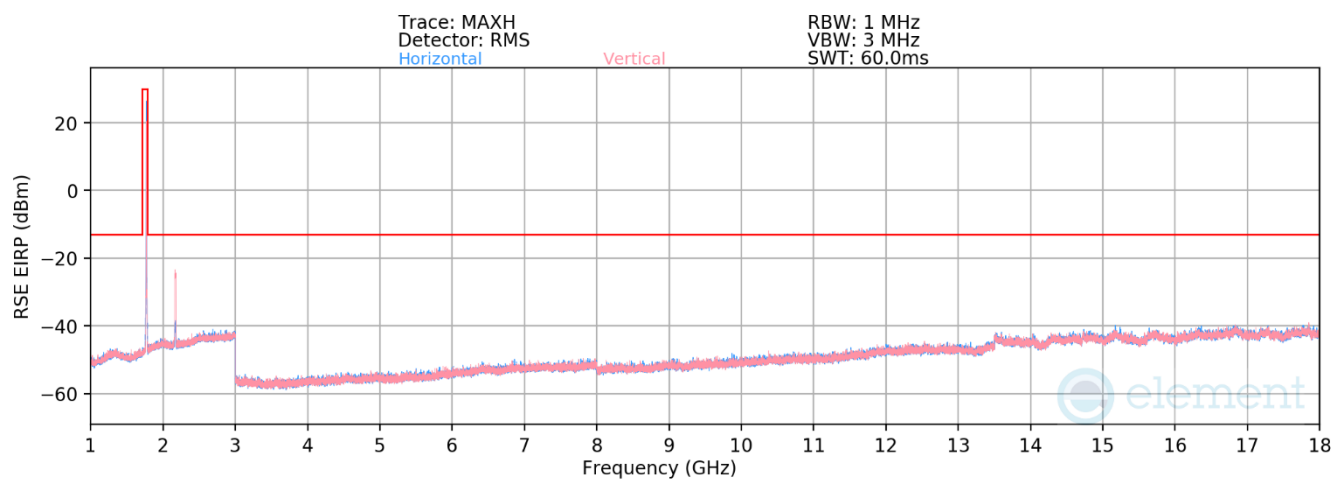
Table 7-54. Antenna 1 Radiated Spurious Data (LTE Band 13 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 297 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

LTE Band 66/4



Plot 7-447. Antenna 1 Radiated Spurious Emission above 1GHz (LTE Band 66/4)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 298 of 338

V2.1 11/9/2021

Bandwidth (MHz):	20
Frequency (MHz):	1720.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3440.0	V	335	345	-77.23	4.93	34.70	-60.56	-13.00	-47.56
5160.0	V	-	-	-80.43	7.51	34.08	-61.18	-13.00	-48.18
6880.0	V	-	-	-80.58	10.24	36.66	-58.60	-13.00	-45.60

Table 7-55. Antenna 1 Radiated Spurious Data (LTE Band 66/4 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1745.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.0	V	-	-	-79.12	5.40	33.28	-61.98	-13.00	-48.98
5235.0	V	-	-	-80.00	7.36	34.36	-60.89	-13.00	-47.89
6980.0	V	-	-	-80.14	9.92	36.78	-58.48	-13.00	-45.48

Table 7-56. Antenna 1 Radiated Spurious Data (LTE Band 66/4 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1770.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3540.0	V	-	-	-79.20	5.64	33.44	-61.82	-13.00	-48.82
5310.0	V	-	-	-79.90	7.58	34.68	-60.58	-13.00	-47.58
7080.0	V	-	-	-80.20	10.37	37.17	-58.09	-13.00	-45.09

Table 7-57. Antenna 1 Radiated Spurious Data (LTE Band 66/4 – High Channel)

FCC ID: BCGA2435		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 299 of 338

V2.1 11/9/2021

NR Band n71

Bandwidth (MHz):	20								
Frequency (MHz):	673.0								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.0	H	-	-	-77.40	-2.90	26.70	-68.56	-13.00	-55.56
2019.0	V	378	336	-74.46	0.72	33.26	-62.00	-13.00	-49.00
2692.0	H	-	-	-78.26	2.33	31.07	-64.19	-13.00	-51.19
3365.0	H	-	-	-78.47	2.45	30.98	-64.28	-13.00	-51.28
4038.0	H	-	-	-78.73	3.80	32.07	-63.18	-13.00	-50.18

Table 7-58. Antenna 1 Radiated Spurious Data (NR Band n71 – Low Channel)

Bandwidth (MHz):	20								
Frequency (MHz):	680.5								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1361.0	H	-	-	-77.51	-3.32	26.17	-69.09	-13.00	-56.09
2041.5	H	398	335	-72.72	0.52	34.80	-60.46	-13.00	-47.46
2722.0	H	-	-	-77.82	2.40	31.58	-63.68	-13.00	-50.68
3402.5	H	-	-	-78.76	2.62	30.86	-64.40	-13.00	-51.40
4083.0	H	-	-	-79.04	3.65	31.61	-63.65	-13.00	-50.65

Table 7-59. Antenna 1 Radiated Spurious Data (NR Band n71 – Mid Channel)

Bandwidth (MHz):	20								
Frequency (MHz):	688.0								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	H	-	-	-77.60	-3.71	25.69	-69.57	-13.00	-56.57
2064.0	H	400	339	-73.03	0.16	34.13	-61.12	-13.00	-48.12
2752.0	H	-	-	-77.78	2.19	31.41	-63.85	-13.00	-50.85
3440.0	H	-	-	-78.76	2.96	31.20	-64.06	-13.00	-51.06
4128.0	H	-	-	-78.78	3.56	31.78	-63.48	-13.00	-50.48

Table 7-60. Antenna 1 Radiated Spurious Data (NR Band n71 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 300 of 338

V2.1 11/9/2021

NR Band n12

Bandwidth (MHz):	15								
Frequency (MHz):	706.5								
RB / Offset:	1 / 37								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1413.0	V	-	-	-77.39	-1.60	28.01	-67.25	-13.00	-54.25
2119.5	V	-	-	-78.27	1.72	30.45	-64.81	-13.00	-51.81
2826.0	V	-	-	-78.83	3.24	31.41	-63.85	-13.00	-50.85

Table 7-61. Antenna 1 Radiated Spurious Data (NR Band n12 – Low Channel)

Bandwidth (MHz):	15								
Frequency (MHz):	707.5								
RB / Offset:	1 / 37								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1415.0	V	-	-	-77.39	-1.60	28.01	-67.25	-13.00	-54.25
2122.5	V	-	-	-78.27	1.72	30.45	-64.81	-13.00	-51.81
2830.0	V	-	-	-78.83	3.24	31.41	-63.85	-13.00	-50.85

Table 7-62. Antenna 1 Radiated Spurious Data (NR Band n12 – Mid Channel)

Bandwidth (MHz):	15								
Frequency (MHz):	708.5								
RB / Offset:	1 / 37								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1417.0	V	-	-	-77.18	-1.58	28.24	-67.02	-13.00	-54.02
2125.5	V	-	-	-78.21	1.76	30.55	-64.71	-13.00	-51.71
2834.0	V	-	-	-78.75	3.23	31.48	-63.78	-13.00	-50.78

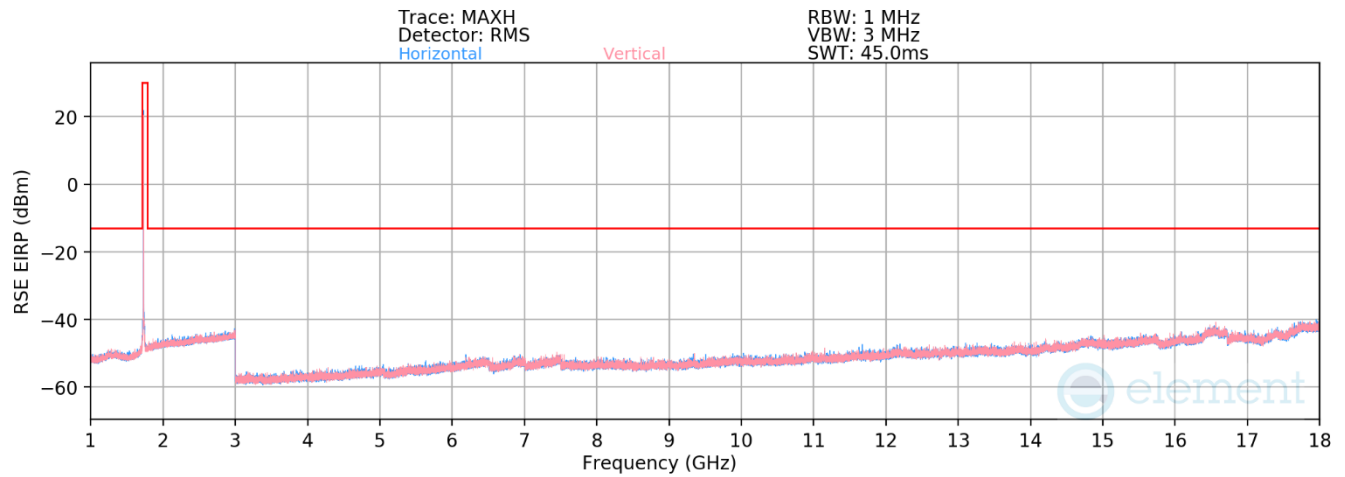
Table 7-63. Antenna 1 Radiated Spurious Data (NR Band n12 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 301 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

NR Band n66



Plot 7-448. Antenna 1 Radiated Spurious Emission above 1GHz (NR Band n66)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device
		Page 302 of 338

V2.1 11/9/2021

Bandwidth (MHz):	40
Frequency (MHz):	1730.0
RB / Offset:	1 / 108

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3460.0	H	-	-	-77.68	1.42	30.74	-64.51	-13.00	-51.51
5190.0	H	-	-	-79.45	4.59	32.14	-63.12	-13.00	-50.12
6920.0	H	-	-	-80.48	8.59	35.11	-60.15	-13.00	-47.15

Table 7-64. Antenna 1 Radiated Spurious Data (NR Band n66 – Low Channel)

Bandwidth (MHz):	40
Frequency (MHz):	1745.0
RB / Offset:	1 / 108

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.0	H	-	-	-77.65	1.51	30.86	-64.39	-13.00	-51.39
5235.0	H	-	-	-79.38	4.73	32.35	-62.91	-13.00	-49.91
6980.0	H	-	-	-80.34	8.11	34.77	-60.49	-13.00	-47.49

Table 7-65. Antenna 1 Radiated Spurious Data (NR Band n66 – Mid Channel)

Bandwidth (MHz):	40
Frequency (MHz):	1760.0
RB / Offset:	1 / 108

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3520.0	H	-	-	-77.65	1.62	30.97	-64.29	-13.00	-51.29
5280.0	H	-	-	-79.42	4.95	32.53	-62.73	-13.00	-49.73
7040.0	H	-	-	-80.77	8.10	34.33	-60.93	-13.00	-47.93

Table 7-66. Antenna 1 Radiated Spurious Data (NR Band n66 – High Channel)

FCC ID: BCGA2435		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 303 of 338

V2.1 11/9/2021

NR Band n70

Bandwidth (MHz):	10
Frequency (MHz):	1700.0
RB / Offset:	1/25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3400.0	H	219	65	-75.22	4.93	36.71	-58.55	-13.00	-45.55
5100.0	H	-	-	-80.32	7.70	34.38	-60.87	-13.00	-47.87
6800.0	H	-	-	-80.94	10.20	36.26	-59.00	-13.00	-46.00
8500.0	H	-	-	-81.24	11.56	37.32	-57.93	-13.00	-44.93

Table 7-67. Antenna 1 Radiated Spurious Data (NR Band n70 – Low Channel)

Bandwidth (MHz):	15
Frequency (MHz):	1702.5
RB / Offset:	1/37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3405.0	H	221	117	-75.60	4.94	36.34	-58.92	-13.00	-45.92
5107.5	H	-	-	-80.46	7.75	34.29	-60.96	-13.00	-47.96
6810.0	H	-	-	-80.88	10.18	36.30	-58.96	-13.00	-45.96
8512.5	H	-	-	-81.57	11.33	36.76	-58.49	-13.00	-45.49

Table 7-68. Antenna 1 Radiated Spurious Data (NR Band n70 – Mid Channel)

Bandwidth (MHz):	10
Frequency (MHz):	1705.0
RB / Offset:	1/25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3410.0	H	219	64	-75.68	4.94	36.26	-58.99	-13.00	-45.99
5115.0	H	-	-	-80.58	7.78	34.20	-61.05	-13.00	-48.05
6820.0	H	-	-	-80.87	10.24	36.37	-58.88	-13.00	-45.88
8525.0	H	-	-	-81.53	11.29	36.76	-58.50	-13.00	-45.50

Table 7-69. Antenna 1 Radiated Spurious Data (NR Band n70 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 304 of 338

V2.1 11/9/2021

WCDMA AWS

Mode:	WCDMA RMC
Channel:	1312
Frequency (MHz):	1712.4

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3424.8	H	-	-	-76.33	2.04	32.71	-62.55	-13.00	-49.55
5137.2	H	-	-	-77.51	4.60	34.09	-61.17	-13.00	-48.17
6849.6	H	-	-	-79.15	8.51	36.36	-58.89	-13.00	-45.89

7-70. Antenna 1 Radiated Spurious Data (WCDMA AWS – Low Channel)

Mode:	WCDMA RMC
Channel:	1413
Frequency (MHz):	1732.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3465.2	H	-	-	-76.32	2.37	33.05	-62.21	-13.00	-49.21
5197.8	H	-	-	-77.75	5.15	34.40	-60.86	-13.00	-47.86
6930.4	H	-	-	-79.19	8.37	36.18	-59.08	-13.00	-46.08

Table 7-71. Antenna 1 Radiated Spurious Data (WCDMA AWS – Mid Channel)

Mode:	WCDMA RMC
Channel:	1513
Frequency (MHz):	1752.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3505.2	H	-	-	-76.75	2.45	32.70	-62.56	-13.00	-49.56
5257.8	H	-	-	-77.73	4.82	34.09	-61.16	-13.00	-48.16
7010.4	H	-	-	-78.96	7.89	35.93	-59.33	-13.00	-46.33

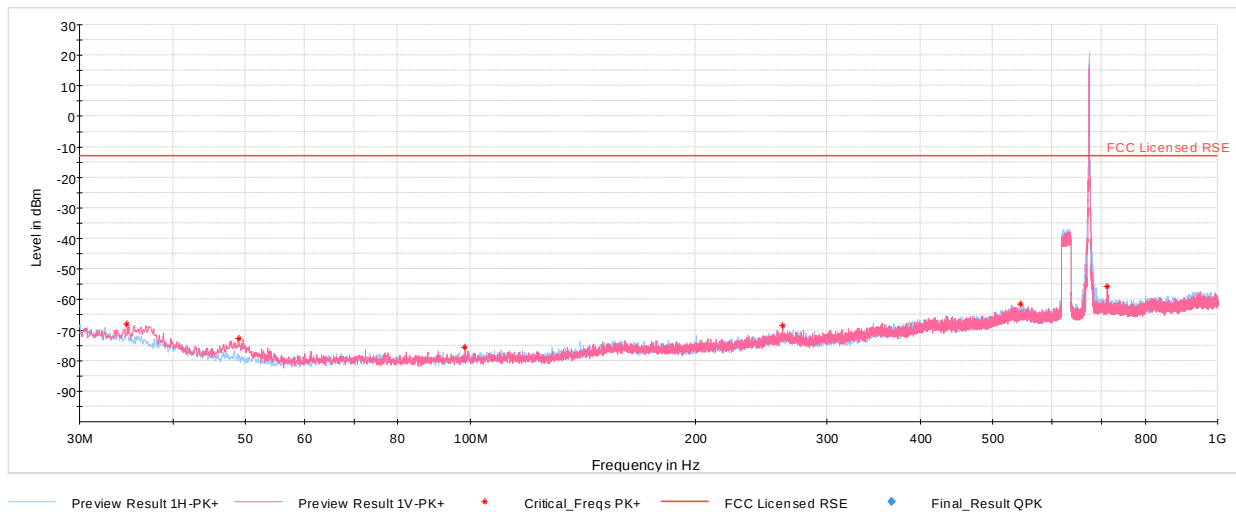
Table 7-72. Antenna 1 Radiated Spurious Data (WCDMA AWS – High Channel)

FCC ID: BCGA2435		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 305 of 338

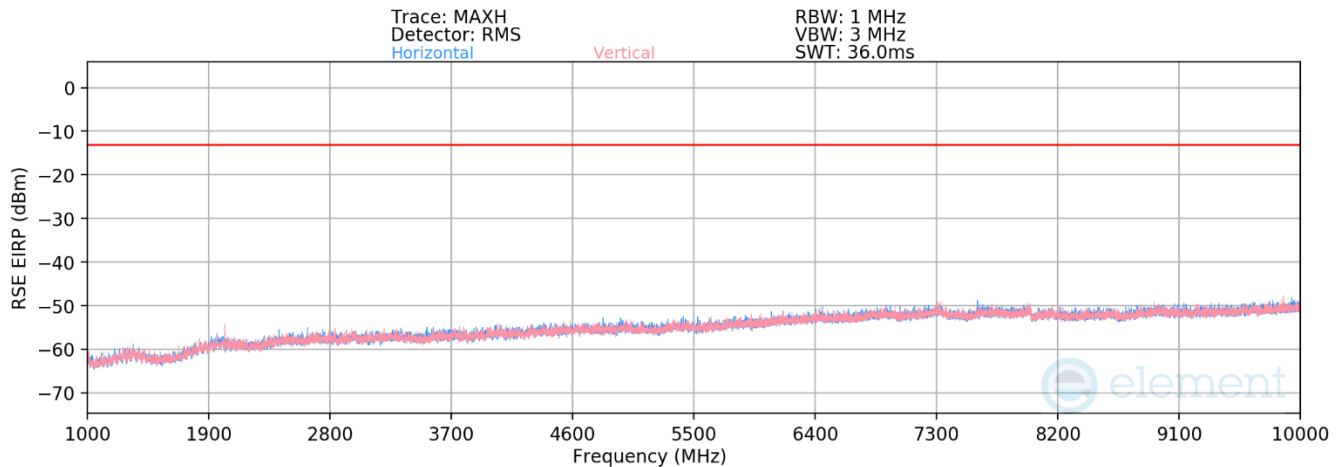
V2.1 11/9/2021

7.7.3 Antenna 3 – Radiated Spurious Emission Measurement

LTE Band 71



Plot 7-449. Antenna 3 Radiated Spurious Emission below 1GHz (LTE Band 71)



Plot 7-450. Antenna 3 Radiated Spurious Emission above 1GHz (LTE Band 71)

FCC ID: BCGA2435		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 306 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

Bandwidth (MHz):	20
Frequency (MHz):	673.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.0	V	266	133	-74.73	-1.18	31.09	-64.17	-13.00	-51.17
2019.0	V	319	101	-67.35	1.78	41.43	-53.83	-13.00	-40.83
2692.0	V	-	-	-78.87	3.60	31.73	-63.53	-13.00	-50.53
3365.0	V	-	-	-79.02	4.68	32.66	-62.60	-13.00	-49.60
4038.0	V	-	-	-79.70	5.84	33.14	-62.12	-13.00	-49.12

Table 7-73. Antenna 3 Radiated Spurious Data (LTE Band 71 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	680.5
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1361.0	V	-	-	-71.97	-1.34	33.69	-61.57	-13.00	-48.57
2041.5	V	307	104	-68.36	1.60	40.24	-55.02	-13.00	-42.02
2722.0	V	-	-	-78.77	3.87	32.10	-63.16	-13.00	-50.16
3402.5	V	-	-	-79.21	4.59	32.38	-62.88	-13.00	-49.88
4083.0	V	-	-	-79.64	5.94	33.30	-61.95	-13.00	-48.95

Table 7-74. Antenna 3 Radiated Spurious Data (LTE Band 71 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	688.0
RB / Offset:	1 / 50

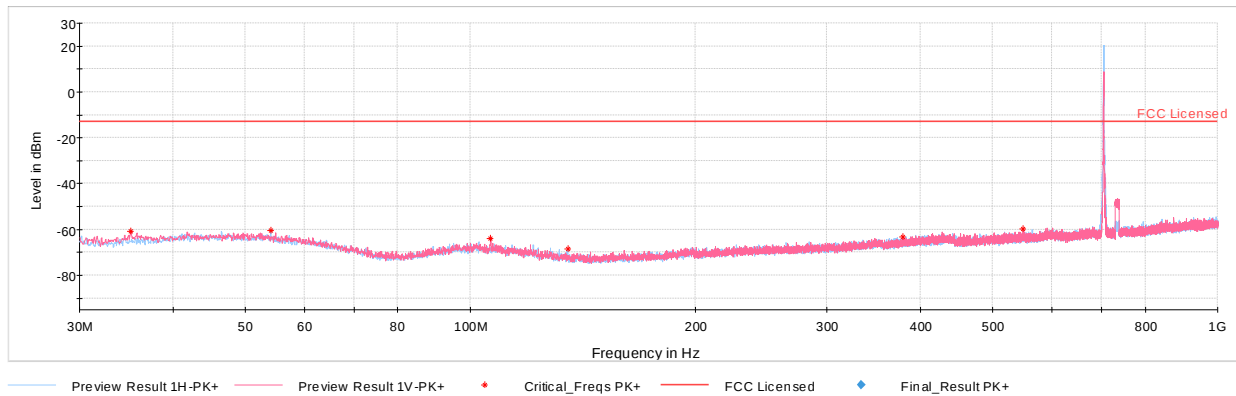
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	V	346	242	-74.89	-1.32	30.79	-64.46	-13.00	-51.46
2064.0	V	303	109	-70.44	1.73	38.29	-56.97	-13.00	-43.97
2752.0	V	-	-	-78.88	3.70	31.82	-63.44	-13.00	-50.44
3440.0	V	-	-	-79.10	4.16	32.06	-63.20	-13.00	-50.20
4128.0	V	-	-	-79.56	5.79	33.23	-62.03	-13.00	-49.03

Table 7-75. Antenna 3 Radiated Spurious Data (LTE Band 71 – High Channel)

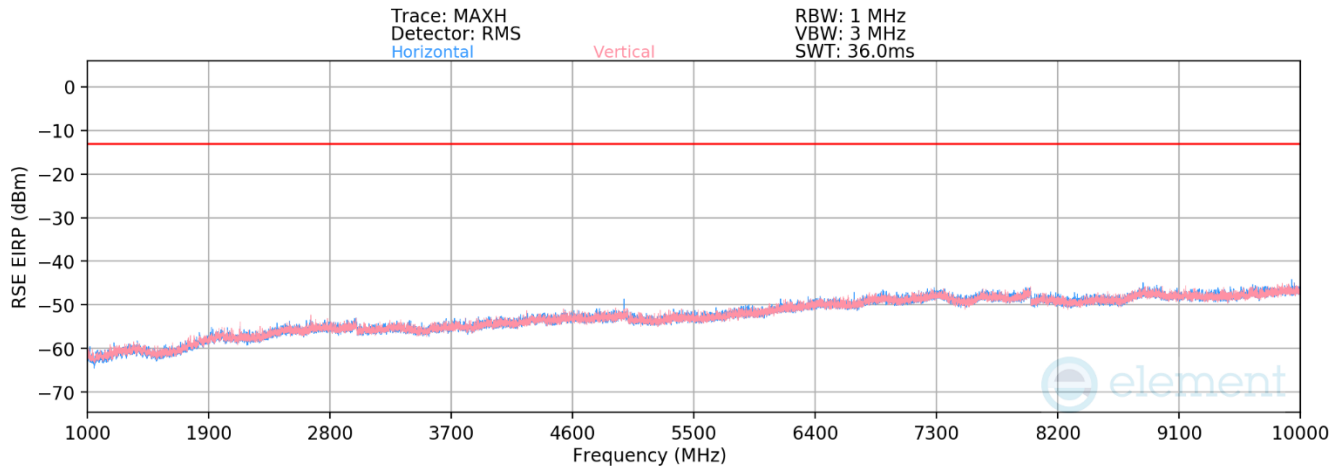
FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 307 of 338

V2.1 11/9/2021

LTE Band 12/17



Plot 7-451. Antenna 3 Radiated Spurious Emission below 1GHz (LTE Band 12/17)



Plot 7-452. Antenna 3 Radiated Spurious Emission above 1GHz (LTE Band 12/17)

FCC ID: BCGA2435		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 308 of 338

V2.1 11/9/2021

Bandwidth (MHz):	10
Frequency (MHz):	704.0
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1408.0	H	311	43	-76.90	-1.65	28.45	-66.81	-13.00	-53.81
2112.0	H	210	211	-74.69	1.70	34.01	-61.25	-13.00	-48.25
2816.0	H	-	-	-78.58	3.33	31.75	-63.51	-13.00	-50.51
3520.0	H	-	-	-79.20	4.14	31.94	-63.32	-13.00	-50.32
4224.0	H	-	-	-79.41	5.73	33.32	-61.94	-13.00	-48.94

Table 7-76. Antenna 3 Radiated Spurious Data (LTE Band 12/17 – Low Channel)

Bandwidth (MHz):	10
Frequency (MHz):	707.5
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1415.0	H	256	43	-75.74	-1.60	29.66	-65.60	-13.00	-52.60
2122.5	H	369	284	-74.04	1.72	34.68	-60.58	-13.00	-47.58
2830.0	H	-	-	-78.74	3.24	31.50	-63.76	-13.00	-50.76
3537.5	H	-	-	-79.40	4.48	32.08	-63.18	-13.00	-50.18
4245.0	H	-	-	-79.81	5.75	32.94	-62.32	-13.00	-49.32

Table 7-77. Antenna 3 Radiated Spurious Data (LTE Band 12/17 – Mid Channel)

Bandwidth (MHz):	10
Frequency (MHz):	711.0
RB / Offset:	1 / 25

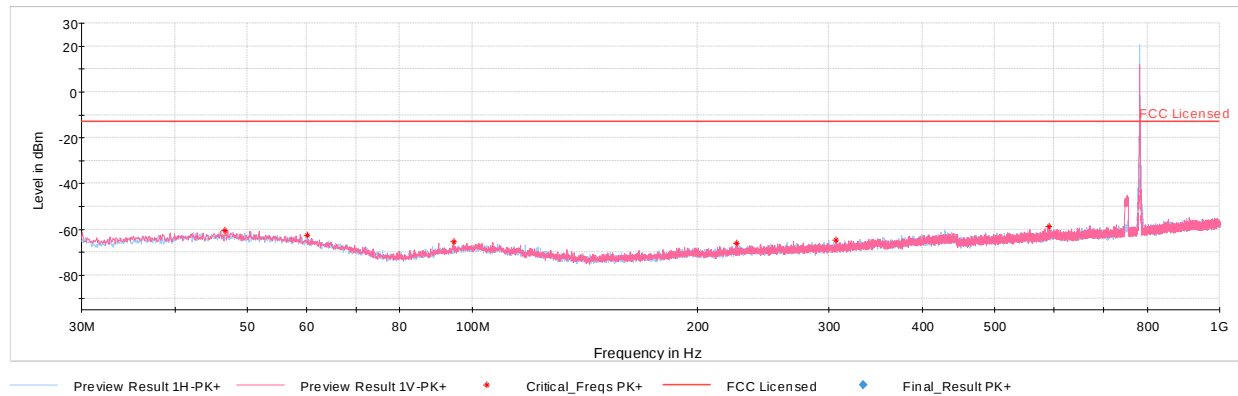
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1422.0	H	392	111	-74.67	-1.54	30.79	-64.47	-13.00	-51.47
2133.0	H	370	286	-72.37	1.87	36.50	-58.76	-13.00	-45.76
2844.0	H	-	-	-78.56	3.07	31.51	-63.75	-13.00	-50.75
3555.0	H	-	-	-79.17	4.81	32.64	-62.62	-13.00	-49.62
4266.0	H	-	-	-79.84	5.72	32.88	-62.38	-13.00	-49.38

Table 7-78. Antenna 3 Radiated Spurious Data (LTE Band 12/17 – High Channel)

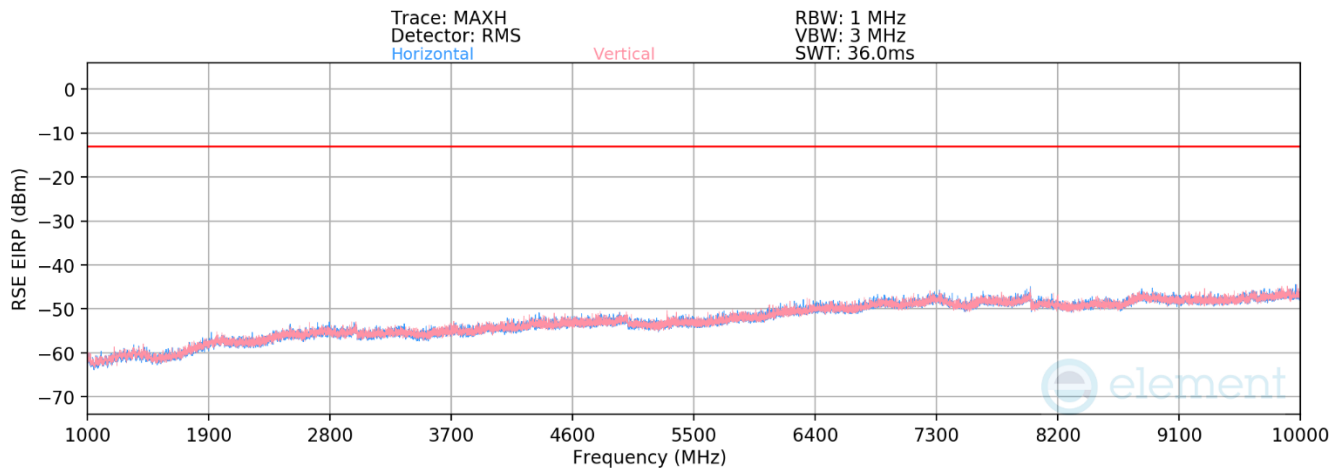
FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 309 of 338

V2.1 11/9/2021

LTE Band 13



Plot 7-453. Antenna 3 Radiated Spurious Emission below 1GHz (LTE Band 13)



Plot 7-454. Antenna 3 Radiated Spurious Emission above 1GHz (LTE Band 13)

FCC ID: BCGA2435		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 310 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

Bandwidth (MHz):	5
Frequency (MHz):	779.5
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1559.0	H	161	233	-77.05	-2.10	27.85	-67.40	-40.00	-27.40
2338.5	H	270	323	-75.63	2.00	33.37	-61.89	-13.00	-48.89
3118.0	H	-	-	-79.02	3.79	31.77	-63.49	-13.00	-50.49
3897.5	H	-	-	-79.36	5.13	32.77	-62.49	-13.00	-49.49
4677.0	H	-	-	-79.87	6.84	33.97	-61.29	-13.00	-48.29

Table 7-79. Antenna 3 Radiated Spurious Data (LTE Band 13 – Low Channel)

Bandwidth (MHz):	10
Frequency (MHz):	782.0
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1564.0	H	166	266	-77.51	-2.10	27.39	-67.86	-40.00	-27.86
2346.0	H	118	54	-76.38	2.00	32.62	-62.64	-13.00	-49.64
3128.0	H	-	-	-78.65	3.79	32.14	-63.12	-13.00	-50.12
3910.0	H	-	-	-79.44	5.13	32.69	-62.57	-13.00	-49.57
4692.0	H	-	-	-79.71	6.84	34.13	-61.13	-13.00	-48.13

Table 7-80. Antenna 3 Radiated Spurious Data (LTE Band 13 – Mid Channel)

Bandwidth (MHz):	5
Frequency (MHz):	784.5
RB / Offset:	1 / 12

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1569.0	H	165	240	-77.26	-2.10	27.64	-67.61	-40.00	-27.61
2353.5	H	194	254	-77.08	2.00	31.92	-63.34	-13.00	-50.34
3138.0	H	-	-	-78.79	3.79	32.00	-63.26	-13.00	-50.26
3922.5	H	-	-	-79.59	5.13	32.54	-62.72	-13.00	-49.72
4707.0	H	-	-	-79.79	6.84	34.05	-61.21	-13.00	-48.21

Table 7-81. Antenna 3 Radiated Spurious Data (LTE Band 13 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 311 of 338

V2.1 11/9/2021

LTE Band 66/4

Bandwidth (MHz):	20								
Frequency (MHz):	1720.0								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3440.0	-	-	-	-78.85	4.93	33.08	-62.18	-13.00	-49.18
5160.0	-	-	-	-79.84	7.51	34.67	-60.59	-13.00	-47.59
6880.0	-	-	-	-80.22	10.24	37.02	-58.24	-13.00	-45.24

Table 7-82. Antenna 3 Radiated Spurious Data (LTE Band 66/4 – Low Channel)

Bandwidth (MHz):	20								
Frequency (MHz):	1745.0								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.0	-	-	-	-79.28	5.40	33.12	-62.14	-13.00	-49.14
5235.0	-	-	-	-79.81	7.36	34.55	-60.70	-13.00	-47.70
6980.0	-	-	-	-80.06	9.92	36.86	-58.40	-13.00	-45.40

Table 7-83. Antenna 3 Radiated Spurious Data (LTE Band 66/4 – Mid Channel)

Bandwidth (MHz):	20								
Frequency (MHz):	1770.0								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3540.0	-	-	-	-79.08	5.64	33.56	-61.70	-13.00	-48.70
5310.0	V	111	270	-78.54	7.58	36.04	-59.22	-13.00	-46.22
7080.0	V	-	-	-80.56	10.37	36.81	-58.45	-13.00	-45.45
8850.0	V	-	-	-82.68	12.19	36.51	-58.74	-13.00	-45.74
10620.0	V	-	-	-83.08	15.13	39.05	-56.21	-13.00	-43.21

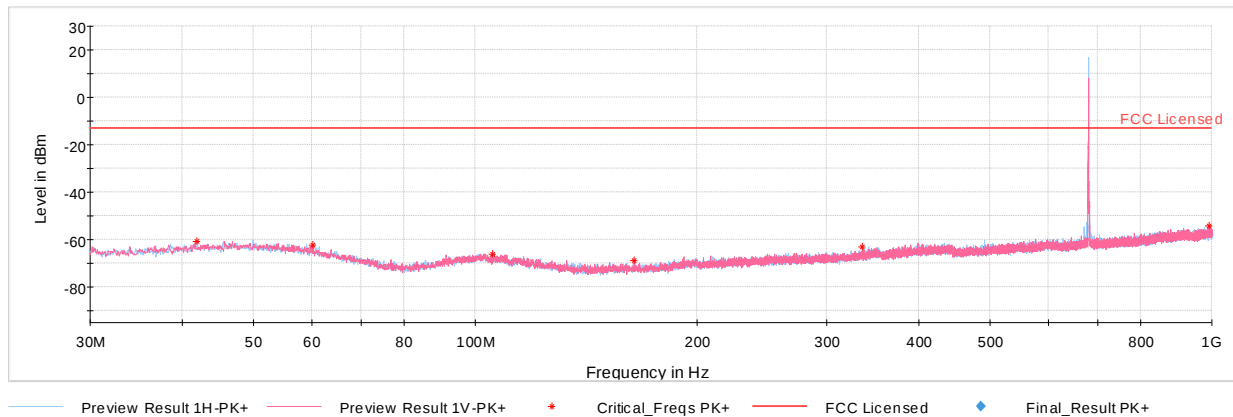
Table 7-84. Antenna 3 Radiated Spurious Data (LTE Band 66/4 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 312 of 338

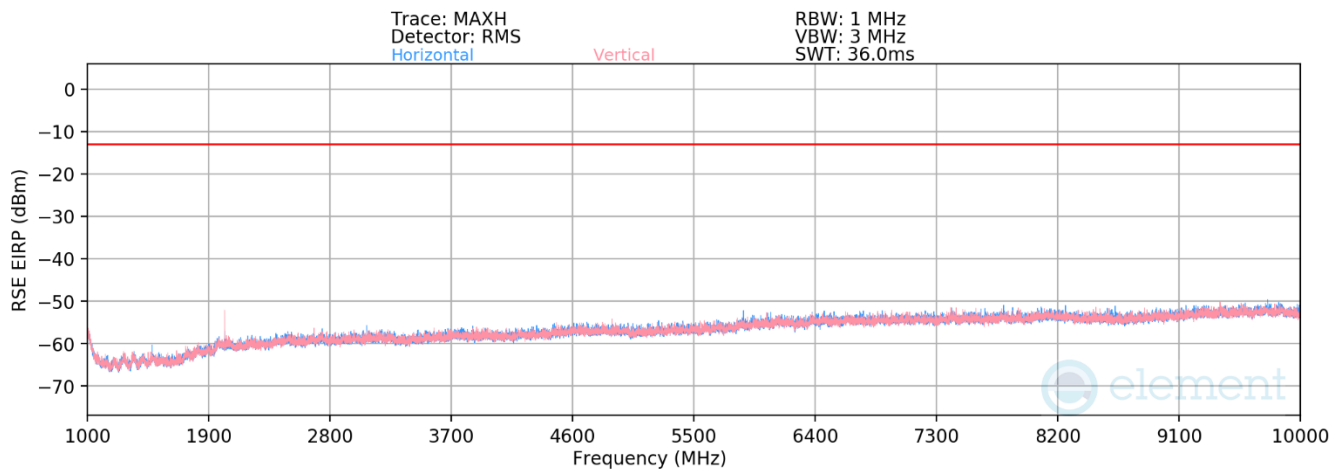
V2.1 11/9/2021

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 Washington DC LLC. 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.

NR Band n71



Plot 7-455. Antenna 4b Radiated Spurious Emission below 1GHz (NR Band n71)



Plot 7-456. Antenna 4b Radiated Spurious Emission above 1GHz (NR Band n71)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 313 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

Bandwidth (MHz):	20
Frequency (MHz):	673.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.0	V	390	121	-75.04	-2.90	29.06	-66.20	-13.00	-53.20
2019.0	V	390	124	-61.24	0.72	46.48	-48.78	-13.00	-35.78
2692.0	H	-	-	-78.36	2.33	30.97	-64.29	-13.00	-51.29
3365.0	H	-	-	-78.51	2.45	30.94	-64.32	-13.00	-51.32
4038.0	H	-	-	-78.86	3.80	31.94	-63.31	-13.00	-50.31

Table 7-85. Antenna 4b Radiated Spurious Data (NR Band n71 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	680.5
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1361.0	V	390	136	-75.61	-3.32	28.07	-67.19	-13.00	-54.19
2041.5	V	215	292	-63.39	0.52	44.13	-51.13	-13.00	-38.13
2722.0	V	-	-	-78.04	2.40	31.36	-63.90	-13.00	-50.90
3402.5	V	-	-	-78.60	2.62	31.02	-64.24	-13.00	-51.24
4083.0	V	-	-	-78.95	3.65	31.70	-63.56	-13.00	-50.56

Table 7-86. Antenna 4b Radiated Spurious Data (NR Band n71 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	688.0
RB / Offset:	1 / 50

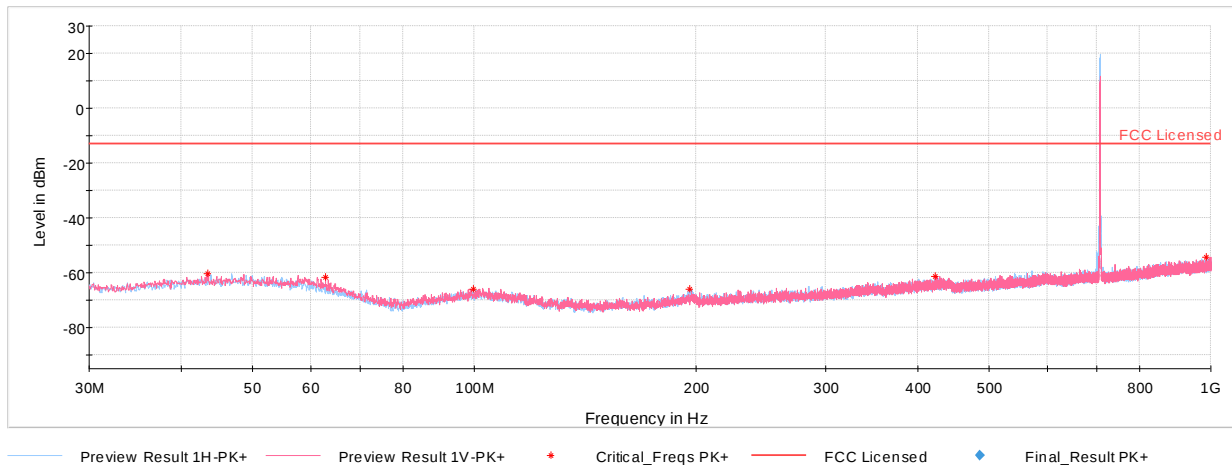
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	V	-	-	-77.53	-3.71	25.76	-69.50	-13.00	-56.50
2064.0	V	337	261	-65.54	0.16	41.62	-53.63	-13.00	-40.63
2752.0	V	-	-	-77.75	2.19	31.44	-63.82	-13.00	-50.82
3440.0	V	-	-	-78.61	2.96	31.35	-63.91	-13.00	-50.91
4128.0	V	-	-	-78.84	3.56	31.72	-63.54	-13.00	-50.54

Table 7-87. Antenna 4b Radiated Spurious Data (NR Band n71 – High Channel)

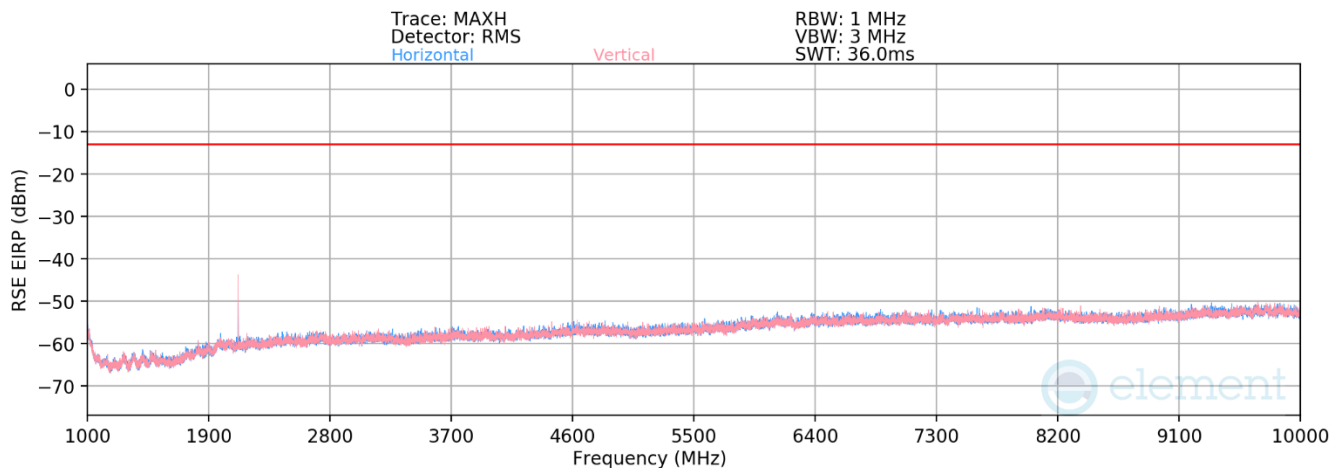
FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 314 of 338

V2.1 11/9/2021

NR Band n12



Plot 7-457. Antenna 4b Radiated Spurious Emission below 1GHz (NR Band n12)



Plot 7-458. Antenna 4b Radiated Spurious Emission above 1GHz (NR Band n12)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 315 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

Bandwidth (MHz):	15
Frequency (MHz):	706.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1413.0	V	395	118	-75.18	-1.81	30.01	-65.25	-13.00	-52.25
2119.5	V	395	262	-71.52	1.76	37.24	-58.02	-13.00	-45.02
2826.0	H	-	-	-78.66	3.25	31.59	-63.67	-13.00	-50.67
3532.5	H	-	-	-79.69	4.37	31.68	-63.57	-13.00	-50.57
4239.0	H	-	-	-80.07	5.80	32.73	-62.53	-13.00	-49.53

Table 7-88. Antenna 4b Radiated Spurious Data (NR Band n12 – Low Channel)

Bandwidth (MHz):	15
Frequency (MHz):	707.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1415.0	V	379	85	-75.76	-1.80	29.44	-65.82	-13.00	-52.82
2122.5	H	-	-	-78.07	1.72	30.65	-64.61	-13.00	-51.61
2830.0	H	-	-	-78.56	3.24	31.68	-63.58	-13.00	-50.58
3537.5	H	-	-	-79.26	4.48	32.22	-63.04	-13.00	-50.04

Table 7-89. Antenna 4b Radiated Spurious Data (NR Band n12 – Mid Channel)

Bandwidth (MHz):	15
Frequency (MHz):	708.5
RB / Offset:	1 / 37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1417.0	V	292	77	-76.21	-1.80	28.99	-66.26	-13.00	-53.26
2125.5	V	-	-	-78.10	1.83	30.73	-64.52	-13.00	-51.52
2834.0	V	-	-	-78.77	3.34	31.57	-63.69	-13.00	-50.69
3542.5	V	-	-	-79.43	4.61	32.18	-63.08	-13.00	-50.08

Table 7-90. Antenna 4b Radiated Spurious Data (NR Band n12 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 316 of 338

V2.1 11/9/2021

NR Band n66

Bandwidth (MHz):	40
Frequency (MHz):	1730.0
RB / Offset:	1 / 108

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3460.0	V	-	-	-77.62	1.42	30.80	-64.45	-13.00	-51.45
5190.0	V	-	-	-79.38	4.59	32.21	-63.05	-13.00	-50.05
6920.0	V	-	-	-80.63	8.59	34.96	-60.30	-13.00	-47.30

Table 7-91. Antenna 3 Radiated Spurious Data (NR Band n66 – Low Channel)

Bandwidth (MHz):	40
Frequency (MHz):	1745.0
RB / Offset:	1 / 108

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.0	V	-	-	-77.67	1.51	30.84	-64.41	-13.00	-51.41
5235.0	V	-	-	-79.35	4.73	32.38	-62.88	-13.00	-49.88
6980.0	V	-	-	-80.47	8.11	34.64	-60.62	-13.00	-47.62

Table 7-92. Antenna 3 Radiated Spurious Data (NR Band n66 – Mid Channel)

Bandwidth (MHz):	40
Frequency (MHz):	1760.0
RB / Offset:	1 / 108

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3520.0	V	-	-	-77.68	1.62	30.94	-64.32	-13.00	-51.32
5280.0	V	-	-	-79.42	4.95	32.53	-62.73	-13.00	-49.73
7040.0	V	-	-	-80.73	8.10	34.37	-60.89	-13.00	-47.89

Table 7-93. Antenna 3 Radiated Spurious Data (NR Band n66 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 317 of 338

V2.1 11/9/2021

NR Band n70

Bandwidth (MHz):	10
Frequency (MHz):	1700.0
RB / Offset:	1/25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3400.0	V	-	-	-79.48	4.93	32.45	-62.81	-13.00	-49.81
5100.0	V	117	153	-79.33	7.70	35.37	-59.88	-13.00	-46.88
6800.0	V	-	-	-80.81	10.20	36.39	-58.87	-13.00	-45.87
8500.0	V	-	-	-81.57	11.56	36.99	-58.26	-13.00	-45.26
10200.0	V	-	-	-82.33	14.09	38.76	-56.50	-13.00	-43.50

Table 7-94. Antenna 3 Radiated Spurious Data (NR Band n70 – Low Channel)

Bandwidth (MHz):	15
Frequency (MHz):	1702.5
RB / Offset:	1/37

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3405.0	V	-	-	-79.52	4.94	32.42	-62.84	-13.00	-49.84
5107.5	V	260	156	-79.22	7.75	35.53	-59.72	-13.00	-46.72
6810.0	V	-	-	-80.95	10.18	36.23	-59.03	-13.00	-46.03
8512.5	V	-	-	-81.17	11.33	37.16	-58.09	-13.00	-45.09
10215.0	V	-	-	-82.18	14.51	39.33	-55.93	-13.00	-42.93

Table 7-95. Antenna 3 Radiated Spurious Data (NR Band n70 – Mid Channel)

Bandwidth (MHz):	10
Frequency (MHz):	1705.0
RB / Offset:	1/25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3410.0	V	-	-	-79.31	4.94	32.63	-62.62	-13.00	-49.62
5115.0	V	139	136	-79.34	7.78	35.44	-59.81	-13.00	-46.81
6820.0	V	-	-	-80.95	10.24	36.29	-58.96	-13.00	-45.96
8525.0	V	-	-	-81.42	11.29	36.87	-58.39	-13.00	-45.39
10230.0	V	-	-	-82.27	14.38	39.11	-56.15	-13.00	-43.15

Table 7-96. Antenna 3 Radiated Spurious Data (NR Band n70 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 318 of 338

V2.1 11/9/2021

WCDMA AWS

Mode:	WCDMA RMC								
Channel:	1312								
Frequency (MHz):	1712.4								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3424.8	V	-	-	-76.33	2.04	32.71	-62.55	-13.00	-49.55
5137.2	V	-	-	-77.37	4.60	34.23	-61.03	-13.00	-48.03
6849.6	V	-	-	-79.02	8.51	36.49	-58.76	-13.00	-45.76

7-97. Antenna 3 Radiated Spurious Data (WCDMA AWS – Low Channel)

Mode:	WCDMA RMC								
Channel:	1413								
Frequency (MHz):	1732.6								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3465.2	V	-	-	-76.60	2.37	32.77	-62.49	-13.00	-49.49
5197.8	V	-	-	-77.87	5.15	34.28	-60.98	-13.00	-47.98
6930.4	V	-	-	-79.27	8.37	36.10	-59.16	-13.00	-46.16

Table 7-98. Antenna 3 Radiated Spurious Data (WCDMA AWS – Mid Channel)

Mode:	WCDMA RMC								
Channel:	1513								
Frequency (MHz):	1752.6								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3505.2	V	-	-	-76.69	2.45	32.76	-62.50	-13.00	-49.50
5257.8	V	-	-	-77.64	4.82	34.18	-61.07	-13.00	-48.07
7010.4	V	-	-	-78.93	7.89	35.96	-59.30	-13.00	-46.30

Table 7-99. Antenna 3 Radiated Spurious Data (WCDMA AWS – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 319 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

7.7.4 Antenna 2b – Radiated Spurious Emission Measurement

LTE Band 66/4

Bandwidth (MHz):	20
Frequency (MHz):	1720.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3440.0	-	-	-	-78.93	4.93	33.00	-62.26	-13.00	-49.26
5160.0	-	-	-	-80.04	7.51	34.47	-60.79	-13.00	-47.79
6880.0	-	-	-	-80.39	10.24	36.85	-58.41	-13.00	-45.41

Table 7-100. Antenna 2b Radiated Spurious Data (LTE Band 66/4 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1745.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.0	-	-	-	-79.15	5.40	33.25	-62.01	-13.00	-49.01
5235.0	-	-	-	-79.87	7.36	34.49	-60.76	-13.00	-47.76
6980.0	-	-	-	-80.22	9.92	36.70	-58.56	-13.00	-45.56

Table 7-101. Antenna 2b Radiated Spurious Data (LTE Band 66/4 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1770.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3540.0	-	-	-	-79.14	5.64	33.50	-61.76	-13.00	-48.76
5310.0	-	-	-	-79.80	7.58	34.78	-60.48	-13.00	-47.48
7080.0	-	-	-	-80.41	10.37	36.96	-58.30	-13.00	-45.30

Table 7-102. Antenna 2b Radiated Spurious Data (LTE Band 66/4 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 320 of 338

V2.1 11/9/2021

NR Band n66

Bandwidth (MHz):	20								
Frequency (MHz):	1730.0								
RB / Offset:	1 / 108								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3460.0	H	-	-	-77.65	1.42	30.77	-64.48	-13.00	-51.48
5190.0	V	291	35	-62.78	4.59	48.81	-46.45	-13.00	-33.45
6920.0	H	-	-	-80.54	8.59	35.05	-60.21	-13.00	-47.21
8650.0	H	-	-	-81.97	8.88	33.91	-61.35	-13.00	-48.35
10380.0	H	-	-	-81.42	9.85	35.43	-59.83	-13.00	-46.83

Table 7-103. Antenna 2b Radiated Spurious Data (NR Band n66 – Low Channel)

Bandwidth (MHz):	20								
Frequency (MHz):	1745.0								
RB / Offset:	1 / 108								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.0	H	-	-	-77.52	1.51	30.99	-64.26	-13.00	-51.26
5235.0	H	-	-	-79.34	4.73	32.39	-62.87	-13.00	-49.87
6980.0	H	-	-	-80.43	8.11	34.68	-60.58	-13.00	-47.58

Table 7-104. Antenna 2b Radiated Spurious Data (NR Band n66 – Mid Channel)

Bandwidth (MHz):	20								
Frequency (MHz):	1900.0								
RB / Offset:	1 / 50								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3800.0	H	-	-	-77.64	1.62	30.98	-64.28	-13.00	-51.28
5700.0	H	-	-	-79.48	4.95	32.47	-62.79	-13.00	-49.79
7600.0	H	-	-	-80.78	8.10	34.32	-60.94	-13.00	-47.94

Table 7-105. Antenna 2b Radiated Spurious Data (NR Band n66 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 321 of 338

V2.1 11/9/2021

NR Band n70

Bandwidth (MHz):	10								
Frequency (MHz):	1700.0								
RB / Offset:	1/25								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3400.0	V	318	2	-78.23	4.93	33.70	-61.56	-13.00	-48.56
5100.0	V	299	55	-71.40	7.70	43.30	-51.95	-13.00	-38.95
6800.0	H	-	-	-80.62	10.20	36.58	-58.68	-13.00	-45.68
8500.0	H	-	-	-81.43	11.56	37.13	-58.12	-13.00	-45.12
10200.0	H	-	-	-82.19	14.09	38.90	-56.36	-13.00	-43.36

Table 7-106. Antenna 2b Radiated Spurious Data (NR Band n70 – Low Channel)

Bandwidth (MHz):	15								
Frequency (MHz):	1702.5								
RB / Offset:	1/37								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3405.0	V	353	359	-78.55	4.94	33.39	-61.87	-13.00	-48.87
5107.5	V	331	332	-78.86	7.75	35.89	-59.36	-13.00	-46.36
6810.0	H	-	-	-80.89	10.18	36.29	-58.97	-13.00	-45.97
8512.5	H	-	-	-81.47	11.33	36.86	-58.39	-13.00	-45.39
10215.0	H	-	-	-82.51	14.51	39.00	-56.26	-13.00	-43.26

Table 7-107. Antenna 2b Radiated Spurious Data (NR Band n70 – Mid Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	1705.0								
RB / Offset:	1/25								
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3410.0	V	315	361	-78.47	4.94	33.47	-61.78	-13.00	-48.78
5115.0	V	303	327	-79.64	7.78	35.14	-60.11	-13.00	-47.11
6820.0	H	-	-	-80.78	10.24	36.46	-58.79	-13.00	-45.79
8525.0	H	-	-	-81.46	11.29	36.83	-58.43	-13.00	-45.43
10230.0	H	-	-	-82.32	14.38	39.06	-56.20	-13.00	-43.20

Table 7-108. Antenna 2b Radiated Spurious Data (NR Band n70 – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 322 of 338

V2.1 11/9/2021

WCDMA AWS

Mode:	WCDMA RMC
Channel:	1312
Frequency (MHz):	1712.4

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3424.8	H	-	-	-76.28	2.04	32.76	-62.50	-13.00	-49.50
5137.2	H	-	-	-77.55	4.60	34.05	-61.21	-13.00	-48.21
6849.6	H	-	-	-79.32	8.51	36.19	-59.06	-13.00	-46.06

7-109. Antenna 2b Radiated Spurious Data (WCDMA AWS – Low Channel)

Mode:	WCDMA RMC
Channel:	1413
Frequency (MHz):	1732.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3465.2	H	-	-	-76.53	2.37	32.84	-62.42	-13.00	-49.42
5197.8	H	-	-	-77.73	5.15	34.42	-60.84	-13.00	-47.84
6930.4	H	-	-	-79.04	8.37	36.33	-58.93	-13.00	-45.93

Table 7-110. Antenna 2b Radiated Spurious Data (WCDMA AWS – Mid Channel)

Mode:	WCDMA RMC
Channel:	1513
Frequency (MHz):	1752.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3505.2	H	-	-	-76.55	2.45	32.90	-62.36	-13.00	-49.36
5257.8	H	280	31	-72.73	4.82	39.09	-56.16	-13.00	-43.16
7010.4	H	-	-	-78.94	7.89	35.95	-59.31	-13.00	-46.31
8763.0	H	-	-	-81.21	10.35	36.14	-59.12	-13.00	-46.12
10515.6	H	-	-	-82.85	14.22	38.37	-56.89	-13.00	-43.89

Table 7-111. Antenna 2b Radiated Spurious Data (WCDMA AWS – High Channel)

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 323 of 338

V2.1 11/9/2021

7.8 Frequency Stability / Temperature Variation

§2.1053, §27.53

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015 and TIA-603-E-2016. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure Used

ANSI C63.26-2015

TIA-603-E-2016

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

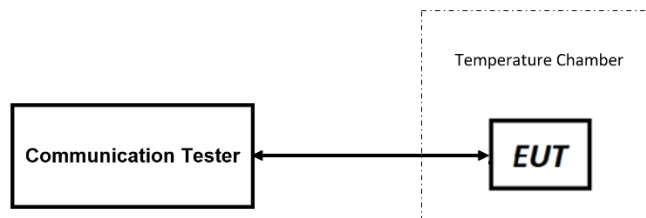


Figure 7-8. Test Instrument & Measurement Setup

Test Notes

1. All port were tested and only the worst case data were reported

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 324 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

LTE Band 66/4							
			Low Channel Frequency (Hz):		1,720,000,000		
			High Channel Frequency (Hz):		1,770,000,000		
			Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	1,720,000,051	1,770,000,026	26	13	0.0000015
		- 20	1,720,000,036	1,770,000,040	11	27	0.0000015
		- 10	1,720,000,041	1,770,000,025	16	12	0.0000009
		0	1,720,000,052	1,770,000,037	27	24	0.0000016
		+ 10	1,720,000,037	1,770,000,039	12	26	0.0000015
		+ 20 (Ref)	1,720,000,025	1,770,000,013	0	0	0.0000000
		+ 30	1,720,000,034	1,770,000,026	9	13	0.0000007
		+ 40	1,720,000,034	1,770,000,032	9	19	0.0000011
		+ 50	1,720,000,036	1,770,000,022	11	9	0.0000006
Battery Endpoint	3.23	+ 20	1,720,000,048	1,770,000,032	23	19	0.0000013

Table 7-112. LTE Band 66/4 Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 325 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

LTE Band 71							
			Low Channel Frequency (Hz):		673,000,000		
			High Channel Frequency (Hz):		688,000,000		
			Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	672,999,998	687,999,999	-1	-1	-0.0000001
		- 20	672,999,995	687,999,996	-4	-4	-0.0000006
		- 10	672,999,996	688,000,002	-3	2	-0.0000004
		0	673,000,000	688,000,003	1	3	0.0000004
		+ 10	672,999,998	688,000,000	-1	0	-0.0000001
		+ 20 (Ref)	672,999,999	688,000,000	0	0	0.0000000
		+ 30	673,000,001	688,000,003	2	3	0.0000004
		+ 40	673,000,000	687,999,998	1	-2	-0.0000003
		+ 50	672,999,999	687,999,998	0	-2	-0.0000003
Battery Endpoint	3.23	+ 20	672,999,995	687,999,996	-4	-4	-0.0000006

Table 7-113. LTE Band 71 Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 326 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

LTE Band 12/17							
			Low Channel Frequency (Hz):		704,000,000		
			High Channel Frequency (Hz):		711,000,000		
			Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	703,999,998	710,999,999	-3	-1	-0.0000004
		- 20	703,999,999	710,999,999	-2	-1	-0.0000003
		- 10	704,000,001	711,000,002	0	2	0.0000003
		0	704,000,000	711,000,001	-1	1	-0.0000001
		+ 10	704,000,002	711,000,000	1	0	0.0000001
		+ 20 (Ref)	704,000,001	711,000,000	0	0	0.0000000
		+ 30	703,999,998	711,000,001	-3	1	-0.0000004
		+ 40	704,000,002	711,000,002	1	2	0.0000003
Battery Endpoint	3.23	+ 50	703,999,998	710,999,999	-3	-1	-0.0000004
		+ 20	704,000,003	710,999,999	2	-1	0.0000003

Table 7-114. LTE Band 12/17 Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 327 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

LTE Band 13							
		Low Channel Frequency (Hz):		779,500,000			
		High Channel Frequency (Hz):		784,500,000			
		Ref. Voltage (VDC):		3.80			
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	779,499,995	784,499,998	-1	-4	-0.0000005
		- 20	779,499,996	784,499,999	0	-3	-0.0000004
		- 10	779,499,995	784,500,002	-1	0	-0.0000001
		0	779,500,000	784,500,002	4	0	0.0000005
		+ 10	779,499,996	784,500,006	0	4	0.0000005
		+ 20 (Ref)	779,499,996	784,500,002	0	0	0.0000000
		+ 30	779,499,993	784,500,003	-3	1	-0.0000004
		+ 40	779,500,000	784,500,003	4	1	0.0000005
		+ 50	779,499,992	784,500,003	-4	1	-0.0000005
Battery Endpoint	3.23	+ 20	779,499,995	784,499,999	-1	-3	-0.0000004

Table 7-115. LTE Band 13 Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 328 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

NR Band n66							
			Low Channel Frequency (Hz):		1,720,000,000		
			High Channel Frequency (Hz):		1,770,000,000		
			Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	1,719,999,136	1,769,999,232	-435	-347	-0.0000253
		- 20	1,719,999,123	1,769,999,220	-448	-359	-0.0000260
		- 10	1,719,999,129	1,769,999,151	-442	-428	-0.0000257
		0	1,719,999,115	1,769,999,191	-456	-388	-0.0000265
		+ 10	1,719,999,138	1,769,999,193	-433	-386	-0.0000252
		+ 20 (Ref)	1,719,999,571	1,769,999,579	0	0	0.0000000
		+ 30	1,719,999,218	1,769,999,207	-353	-372	-0.0000210
		+ 40	1,719,999,120	1,769,999,146	-451	-433	-0.0000262
		+ 50	1,719,999,131	1,769,999,154	-440	-425	-0.0000256
Battery Endpoint	3.23	+ 20	1,719,999,225	1,769,999,213	-346	-366	-0.0000207

Table 7-116. NR Band n66 Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 329 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

NR Band n70							
			Low Channel Frequency (Hz):		1,695,000,000		
			High Channel Frequency (Hz):		1,710,000,000		
			Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	1,694,998,557	1,709,998,517	-700	-735	-0.0000430
		- 20	1,694,998,567	1,709,998,527	-690	-725	-0.0000424
		- 10	1,694,998,594	1,709,998,500	-663	-752	-0.0000440
		0	1,694,998,530	1,709,998,498	-727	-754	-0.0000441
		+ 10	1,694,998,612	1,709,998,561	-645	-691	-0.0000404
		+ 20 (Ref)	1,694,999,257	1,709,999,252	0	0	0.0000000
		+ 30	1,694,998,592	1,709,998,599	-665	-653	-0.0000392
		+ 40	1,694,998,503	1,709,998,572	-754	-680	-0.0000445
		+ 50	1,694,998,547	1,709,998,596	-710	-656	-0.0000419
Battery Endpoint	3.23	+ 20	1,694,998,550	1,709,998,539	-707	-713	-0.0000417

Table 7-117. NR Band n70 Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 330 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

NR Band n71							
			Low Channel Frequency (Hz):		673,000,000		
			High Channel Frequency (Hz):		688,000,000		
			Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	672,999,734	687,999,741	-162	-159	-0.0000241
		- 20	672,999,785	687,999,784	-111	-116	-0.0000169
		- 10	672,999,745	687,999,714	-151	-186	-0.0000270
		0	672,999,725	687,999,781	-171	-119	-0.0000254
		+ 10	672,999,752	687,999,729	-144	-171	-0.0000249
		+ 20 (Ref)	672,999,896	687,999,900	0	0	0.0000000
		+ 30	672,999,758	687,999,795	-138	-105	-0.0000205
		+ 40	672,999,747	687,999,716	-149	-184	-0.0000267
		+ 50	672,999,709	687,999,742	-187	-158	-0.0000278
Battery Endpoint	3.23	+ 20	672,999,711	687,999,723	-185	-177	-0.0000275

Table 7-118. NR Band n71 Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 331 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

NR Band n12							
			Low Channel Frequency (Hz):	834,000,000			
			High Channel Frequency (Hz):	839,000,000			
			Ref. Voltage (VDC):	3.80			
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	833,999,726	838,999,701	-108	-185	-0.0000221
		- 20	833,999,708	838,999,759	-126	-127	-0.0000151
		- 10	833,999,735	838,999,747	-99	-139	-0.0000166
		0	833,999,730	838,999,730	-104	-156	-0.0000186
		+ 10	833,999,732	838,999,729	-102	-157	-0.0000187
		+ 20 (Ref)	833,999,834	838,999,886	0	0	0.0000000
		+ 30	833,999,709	838,999,724	-125	-162	-0.0000193
		+ 40	833,999,719	838,999,756	-115	-130	-0.0000155
		+ 50	833,999,725	838,999,756	-109	-130	-0.0000155
Battery Endpoint	3.23	+ 20	833,999,655	838,999,775	-179	-111	-0.0000215

Table 7-119. NR Band n12 Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 332 of 338

V2.1 11/9/2021

Frequency Stability / Temperature Variation

WCDMA AWS							
			Low Channel Frequency (Hz):		1,712,400,000		
			High Channel Frequency (Hz):		1,752,600,000		
			Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Low Freq. (Hz)	High Freq. (Hz)	Low Freq. Dev. (Hz)	High Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	1,712,400,050	1,752,600,056	25	26	0.0000015
		- 20	1,712,400,040	1,752,600,057	15	27	0.0000015
		- 10	1,712,400,046	1,752,600,057	21	27	0.0000015
		0	1,712,400,035	1,752,600,046	10	16	0.0000009
		+ 10	1,712,400,054	1,752,600,055	29	25	0.0000017
		+ 20 (Ref)	1,712,400,025	1,752,600,030	0	0	0.0000000
		+ 30	1,712,400,053	1,752,600,054	28	24	0.0000016
		+ 40	1,712,400,045	1,752,600,042	20	12	0.0000012
		+ 50	1,712,400,037	1,752,600,056	12	26	0.0000015
Battery Endpoint	3.23	+ 20	1,712,400,048	1,752,600,044	23	14	0.0000013

Table 7-120. WCDMA AWS Frequency Stability Data

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 333 of 338

V2.1 11/9/2021

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Apple Tablet Device** **FCC ID: BCGA2435** complies with all the requirements of Part 27 of the FCC rules.

FCC ID: BCGA2435		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 334 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

9.0 APPENDIX A

Antenna gains provided by manufacturer:

Band	Horizontal (dBi)	Vertical (dBi)
B1	1.3	1.1
B2	1.5	1.3
B3	0.5	-0.5
B5	-3.1	-2.6
B7	-3.1	-0.3
B8	-1.7	-2.8
B11	-1.1	-4
B13	-1.5	-1.9
B17	-2.4	-1.9
B20	-3.4	-2.6
B21	-1.4	-3.9
B28	-2.5	-1.9
B30	-2.8	-2.1
B34	-3.1	-0.8
B39	1.5	0.8
B40	-2.6	-2.1
B41	-3.2	-0.4
B42	-1.2	-3.4
B48	-1.2	-3.5
B66	0.4	-0.9
B71	-1.9	-2.1
n41	-3.2	-0.4
n70	-1.6	-1.9
n77	-0.6	-2.6
n78	-2.9	-2.6
n79	0.1	-0.3

Table 9-1. Cellular Antenna Gain (Ant 1); Type: IFA

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 335 of 338

V2.1 11/9/2021

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 Washington DC LLC. 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.

Band	Horizontal (dBi)	Vertical (dBi)
B1	0.6	0.6
B2	1.4	0.5
B3	2.1	0.7
B5	-3.3	-1.3
B7	-3.1	-2.7
B8	-2.2	-3.2
B11	0.1	-2.3
B13	-2.7	-3
B17	-2.5	-2.3
B20	-2.6	-1.7
B21	0.2	-1.9
B28	-2.2	-1.1
B30	-4.1	-3.8
B34	-1.62	0.31
B39	1.4	0.6
B40	-5.5	-1.2
B41	-5.6	-2.7
B42	-1.5	-0.1
B48	-1.5	0
B66	2.3	0.8
B71	-3.1	-3.6
n41	-5.6	-2.7
n70	2	0.7
n77	-1.8	-0.1
n78	-1	0.6
n79	-2.9	-0.6

Table 9-2. Cellular Antenna Gain (Ant 3); Type: IFA

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 336 of 338

V2.1 11/9/2021

Band	Horizontal (dBi)	Vertical (dBi)
B1	-3.5	-1.3
B2	-3.4	-2.7
B3	-3.7	-3.2
B7	-1.5	0.2
B30	-2.6	-0.3
B39	-3.7	-3
B40	-2.6	0.3
B41	-1.9	-0.4
B42	-2.6	-1
B48	-2.5	-1.6
B66	-3.4	-3.1
n41	-1.9	-0.4
n70	-3.4	-3.1
n77	-1.5	-2.6
n78	-1.6	-2.6
n79	0.1	0.3

Table 9-3. Cellular Antenna Gain (Ant 4b); Type: IFA

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 337 of 338

V2.1 11/9/2021

Band	Horizontal (dBi)	Vertical (dBi)
B1	-3.3	-2.9
B2	-4.9	-4
B3	-4.5	-5
B7	0	-0.1
B30	-0.6	0.7
B39	-4.7	-4.3
B40	-0.3	1.1
B41	-0.3	-0.8
B66	-4.6	-5.5
n41	-0.3	-0.8
n70	-4.9	-4.9

Table 9-4. Cellular Antenna Gain (Ant 2b); Type: IFA

FCC ID: BCGA2435	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-03.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 338 of 338

V2.1 11/9/2021