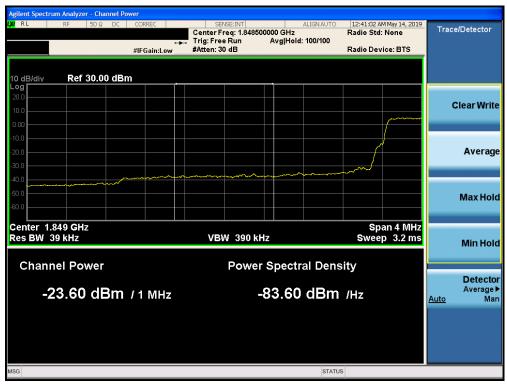




Plot 7-232. Lower Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)



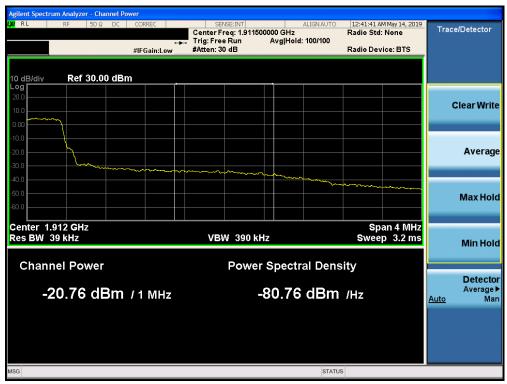
Plot 7-233. Lower Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 145 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 145 01 236





Plot 7-234. Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-235. Upper Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 146 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 146 of 238





Plot 7-236. Lower Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)



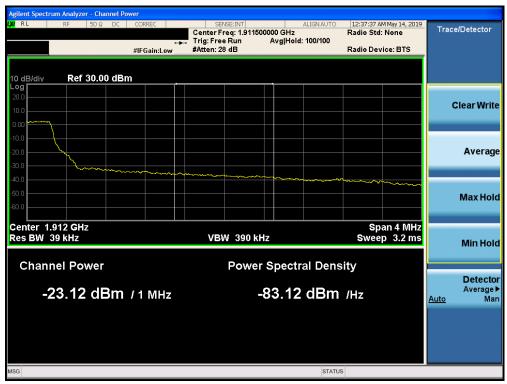
Plot 7-237. Lower Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 147 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 147 of 238





Plot 7-238. Upper Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-239. Upper Extended Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 149 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 148 of 238





Plot 7-240. Lower Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-241. Lower Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 140 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 149 of 238





Plot 7-242. Upper Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-243. Upper Extended Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 450 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 150 of 238





Plot 7-244. Lower Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-245. Lower Extended Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 454 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 151 of 238





Plot 7-246. Upper Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-247. Upper Extended Band Edge Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 450 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 152 of 238





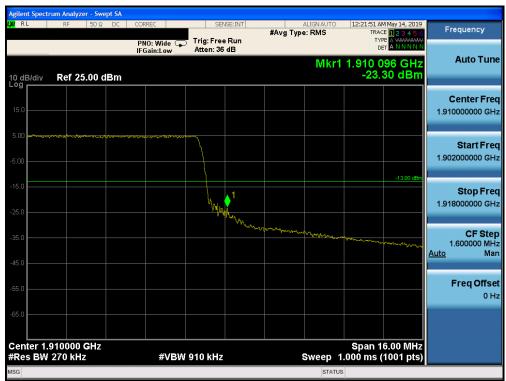
Plot 7-248. Lower Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-249. Lower Extended Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 152 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 153 of 238





Plot 7-250. Upper Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-251. Upper Extended Band Edge Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dog 454 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 154 of 238





Plot 7-252. Lower ACP Plot (Band 7 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-253. Upper ACP Plot (Band 7 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 155 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 155 of 238





Plot 7-254. Lower ACP Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-255. Upper ACP Plot (Band 7 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 456 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 156 of 238

© 2019 PCTEST Engineering Laboratory, Inc.





Plot 7-256. Lower ACP Plot (Band 7 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-257. Upper ACP Plot (Band 7 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 157 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 157 of 238





Plot 7-258. Lower ACP Plot (Band 7 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-259. Upper ACP Plot (Band 7 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 450 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 158 of 238

© 2019 PCTEST Engineering Laboratory, Inc.





Plot 7-260. Lower ACP Plot (Band 41 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-261. Upper ACP Plot (Band 41 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 450 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 159 of 238





Plot 7-262. Lower ACP Plot (Band 41 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-263. Upper ACP Plot (Band 41 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 160 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 160 01 238





Plot 7-264. Lower ACP Plot (Band 41 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-265. Upper ACP Plot (Band 41 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 161 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 161 01 236





Plot 7-266. Lower ACP Plot (Band 41 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-267. Upper ACP Plot (Band 41 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 162 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 162 of 238



Peak-Average Ratio 7.5

Test Overview

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

Test Procedure Used

KDB 971168 D01 v03r01 - Section 5.7.1

Test Settings

- 1. The signal analyzer's CCDF measurement profile is enabled
- 2. Frequency = carrier center frequency
- 3. Measurement BW ≥ OBW or specified reference bandwidth
- 4. The signal analyzer was set to collect one million samples to generate the CCDF curve
- 5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

Test Setup

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



Figure 7-4. Test Instrument & Measurement Setup

Test Notes

None.

FCC ID: BCG-A2094	PCTEST*	(00000000000000000000000000000000000000	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 162 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 163 of 238



Mode	BW (MHz)	Modulation	Average Power [dBm]	PAR at 0.1% [dB]	Limit [dB]	Margin [dB]
LTE Band 4	1.4	QPSK	22.94	5.68	13	-7.32
LTE Band 4	1.4	16QAM	22.20	6.38	13	-6.62
LTE Band 4	3	QPSK	23.03	5.71	13	-7.29
LTE Band 4	3	16QAM	22.17	6.46	13	-6.54
LTE Band 4	5	QPSK	23.05	5.84	13	-7.16
LTE Band 4	5	16QAM	22.20	6.40	13	-6.60
LTE Band 4	10	QPSK	23.04	5.69	13	-7.31
LTE Band 4	10	16QAM	22.23	6.33	13	-6.67
LTE Band 4	15	QPSK	23.19	5.97	13	-7.03
LTE Band 4	15	16QAM	22.11	6.29	13	-6.71
LTE Band 4	20	QPSK	23.27	5.67	13	-7.33
LTE Band 4	20	16QAM	22.02	6.33	13	-6.67
LTE Band 66	1.4	QPSK	22.81	5.77	13	-7.23
LTE Band 66	1.4	16QAM	22.02	6.39	13	-6.61
LTE Band 66	3	QPSK	22.82	5.88	13	-7.12
LTE Band 66	3	16QAM	22.05	6.54	13	-6.46
LTE Band 66	5	QPSK	22.92	5.88	13	-7.12
LTE Band 66	5	16QAM	22.03	6.46	13	-6.54
LTE Band 66	10	QPSK	22.97	5.73	13	-7.27
LTE Band 66	10	16QAM	22.13	6.33	13	-6.67
LTE Band 66	15	QPSK	22.87	6.07	13	-6.93
LTE Band 66	15	16QAM	22.09	6.32	13	-6.68
LTE Band 66	20	QPSK	23.25	5.72	13	-7.28
LTE Band 66	20	16QAM	22.21	6.35	13	-6.65
LTE Band 2	1.4	QPSK	22.75	5.75	13	-7.25
LTE Band 2	1.4	16QAM	21.98	6.42	13	-6.58
LTE Band 2	3	QPSK	22.74	5.85	13	-7.15
LTE Band 2	3	16QAM	21.88	6.49	13	-6.51
LTE Band 2	5	QPSK	22.75	5.76	13	-7.24
LTE Band 2	5	16QAM	21.90	6.47	13	-6.53
LTE Band 2	10	QPSK	22.64	5.71	13	-7.29
LTE Band 2	10	16QAM	21.87	6.34	13	-6.66
LTE Band 2	15	QPSK	23.52	3.41	13	-9.59
LTE Band 2	15	16QAM	21.87	6.31	13	-6.69
LTE Band 2	20	QPSK	22.78	5.81	13	-7.19
LTE Band 2	20	16QAM	21.90	6.32	13	-6.68
LTE Band 25	1.4	QPSK	22.83	5.72	13	-7.28
LTE Band 25	1.4	16QAM	21.95	6.46	13	-6.54
LTE Band 25	3	QPSK	22.83	5.86	13	-7.14
LTE Band 25	3	16QAM	21.91	6.51	13	-6.49
LTE Band 25	5	QPSK	22.83	5.89	13	-7.11
LTE Band 25	5	16QAM	21.99	6.49	13	-6.51
LTE Band 25	10	QPSK	22.71	5.70	13	-7.30
LTE Band 25	10	16QAM	21.95	6.35	13	-6.65
LTE Band 25	15	QPSK	22.92	6.03	13	-6.97
LTE Band 25	15	16QAM	21.97	6.30	13	-6.70
LTE Band 25	20	QPSK	22.77	5.82	13	-7.18
LTE Band 25	20	16QAM	21.85	6.32	13	-6.68

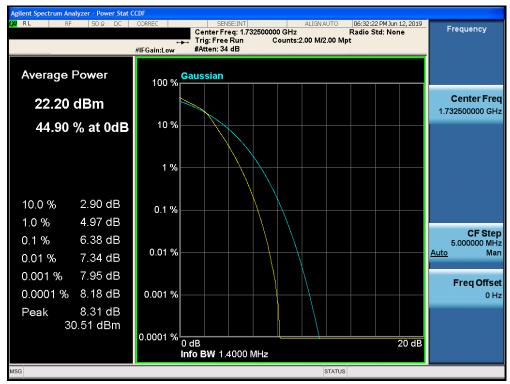
Table 7-6. PAR Results

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 464 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 164 of 238





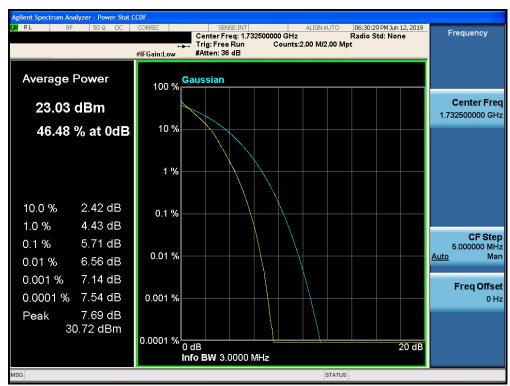
Plot 7-268. PAR Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)



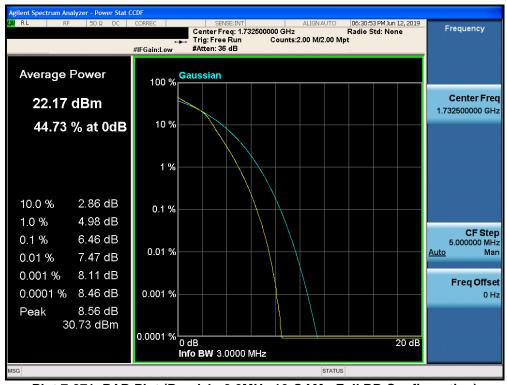
Plot 7-269. PAR Plot (Band 4 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 165 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 165 01 238





Plot 7-270. PAR Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-271. PAR Plot (Band 4 - 3.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 166 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 166 of 238





Plot 7-272. PAR Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-273. PAR Plot (Band 4 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 167 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 167 of 238





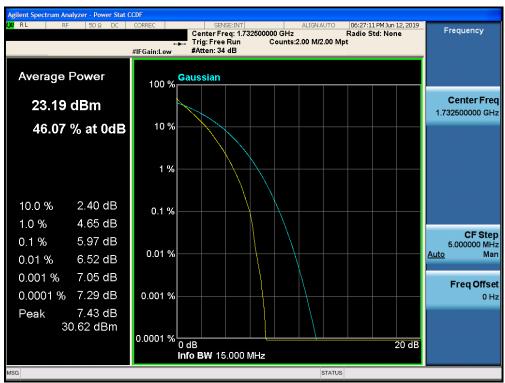
Plot 7-274. PAR Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-275. PAR Plot (Band 4 - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 460 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 168 of 238





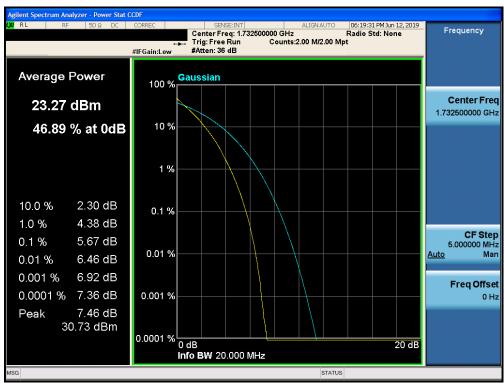
Plot 7-276. PAR Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-277. PAR Plot (Band 4 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 160 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 169 of 238





Plot 7-278. PAR Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)



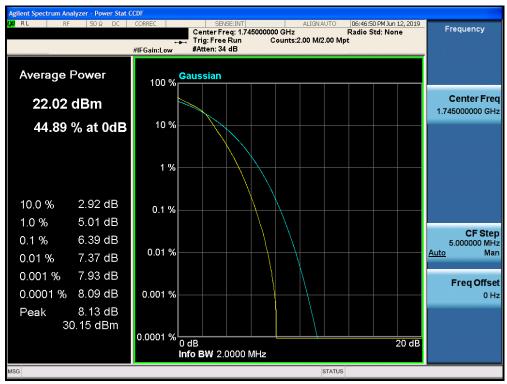
Plot 7-279. PAR Plot (Band 4 - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 170 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 170 01 236





Plot 7-280. PAR Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)



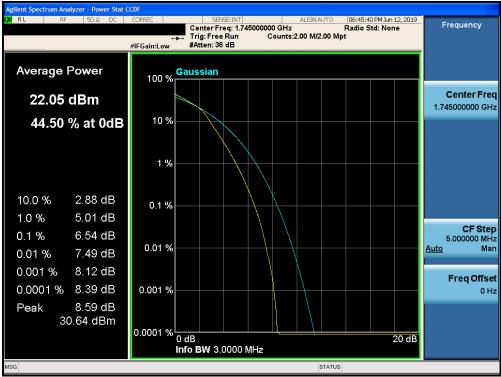
Plot 7-281. PAR Plot (Band 66 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 171 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 171 of 238





Plot 7-282. PAR Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-283. PAR Plot (Band 66 - 3.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 172 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 172 of 238





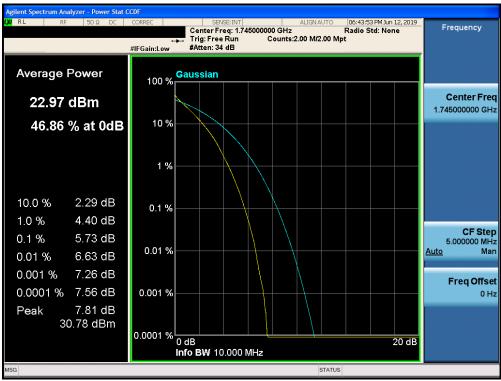
Plot 7-284. PAR Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)



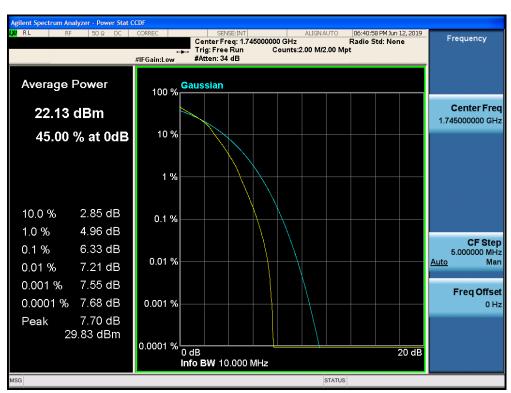
Plot 7-285. PAR Plot (Band 66 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 172 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 173 of 238





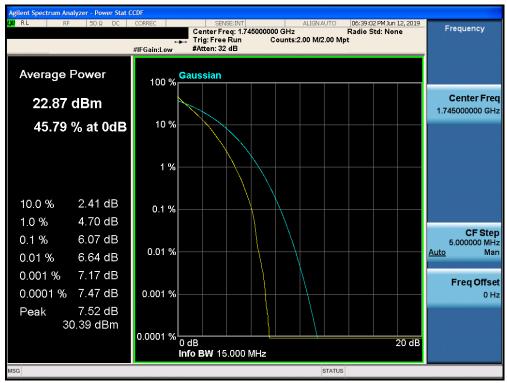
Plot 7-286. PAR Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)



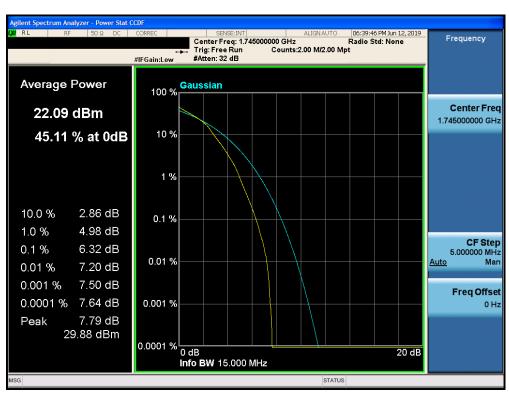
Plot 7-287. PAR Plot (Band 66 - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 174 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 174 of 238





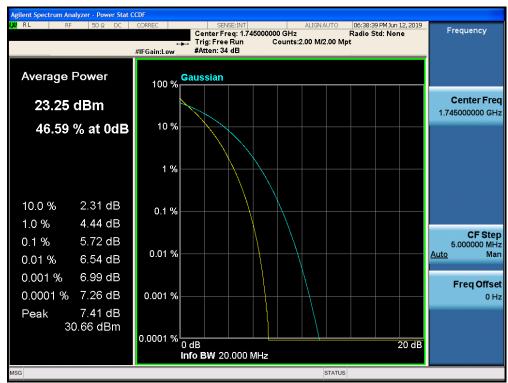
Plot 7-288. PAR Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-289. PAR Plot (Band 66 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 175 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 175 of 238





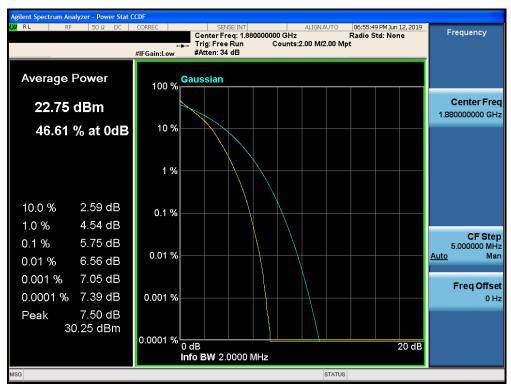
Plot 7-290. PAR Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



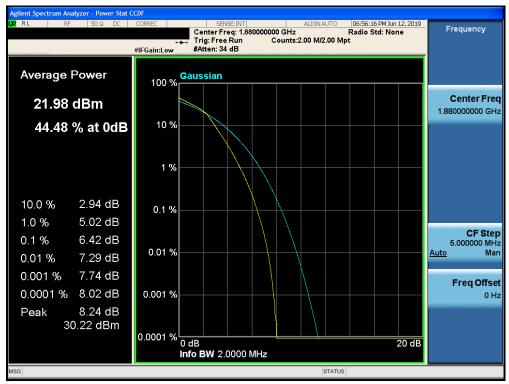
Plot 7-291. PAR Plot (Band 66 - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 176 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 176 of 238





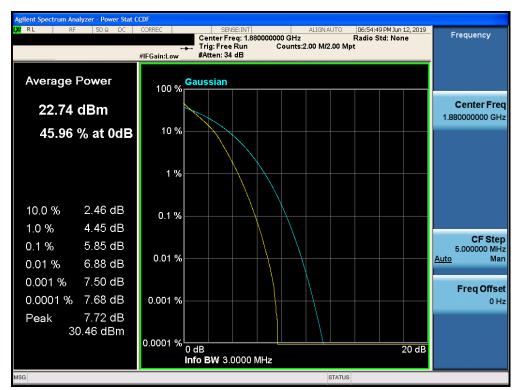
Plot 7-292. PAR Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)



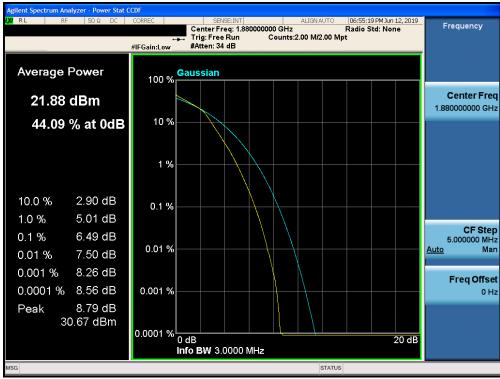
Plot 7-293. PAR Plot (Band 2 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 177 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 177 01 236





Plot 7-294. PAR Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)



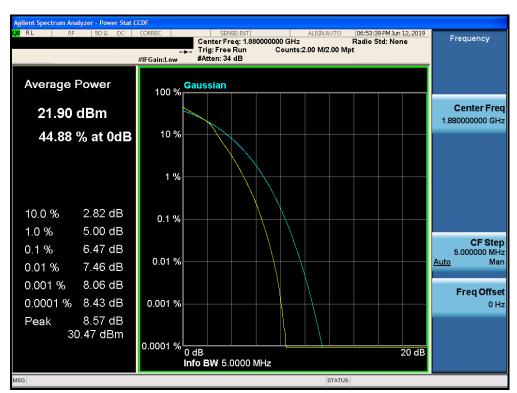
Plot 7-295. PAR Plot (Band 2 - 3.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 470 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 178 of 238





Plot 7-296. PAR Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-297. PAR Plot (Band 2 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 470 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 179 of 238





Plot 7-298. PAR Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-299. PAR Plot (Band 2 - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 180 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	





Plot 7-300. PAR Plot (Band 2 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-301. PAR Plot (Band 2 - 15.0MHz 16-QAM - Full RB Configuration)

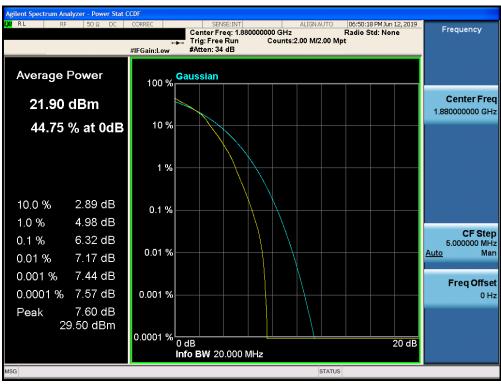
FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 191 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 181 of 238

© 2019 PCTEST Engineering Laboratory, Inc.





Plot 7-302. PAR Plot (Band 2 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-303. PAR Plot (Band 2 - 20.0MHz 16-QAM - Full RB Configuration)

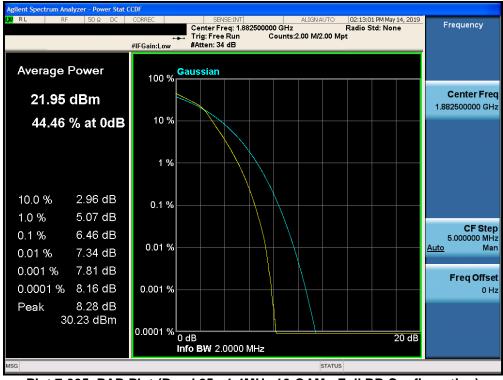
FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 400 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 182 of 238



Band 25



Plot 7-304. PAR Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)



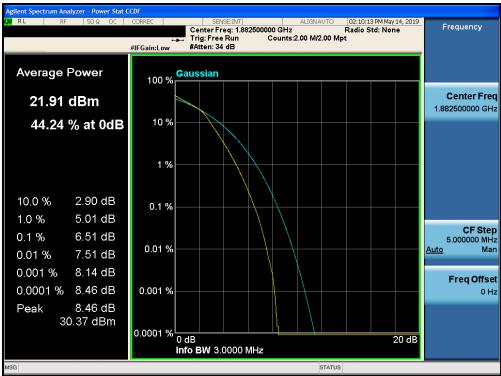
Plot 7-305. PAR Plot (Band 25 - 1.4MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 183 of 238	
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 163 01 236	





Plot 7-306. PAR Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-307. PAR Plot (Band 25 - 3.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 194 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 184 of 238





Plot 7-308. PAR Plot (Band 25 - 5.0MHz QPSK - Full RB Configuration)



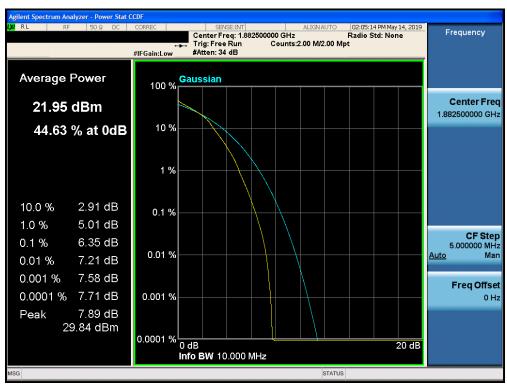
Plot 7-309. PAR Plot (Band 25 - 5.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 105 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 185 of 238





Plot 7-310. PAR Plot (Band 25 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-311. PAR Plot (Band 25 - 10.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 196 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 186 of 238





Plot 7-312. PAR Plot (Band 25 - 15.0MHz QPSK - Full RB Configuration)



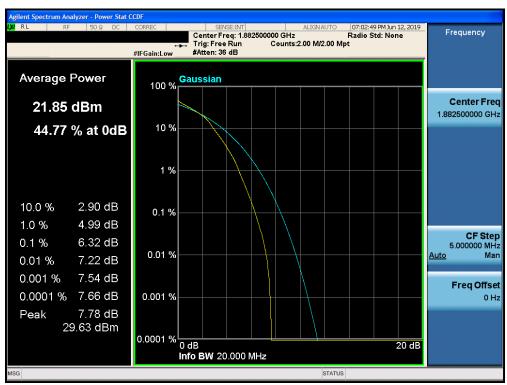
Plot 7-313. PAR Plot (Band 25 - 15.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 187 of 238	
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 167 01 236	





Plot 7-314. PAR Plot (Band 25 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-315. PAR Plot (Band 25 - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:	Dogo 100 of 220		
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 188 of 238		



Radiated Power (ERP/EIRP) 7.6

Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 - Section 5.2.1

Test Settings

The relevant equation for determining the ERP or EIRP from the conducted RF output power measured is:

ERP/EIRP = PMeas - LC + GT

Where:

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as PMeas, typically dBW or dBm)

PMeas = measured transmitter output power or PSD, in dBW or dBm

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

Test Setup

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



Figure 7-5. ERP/EIRP Measurement Setup

FCC ID: BCG-A2094	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 190 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 189 of 238



Test Notes

- The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The
 worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and
 channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- 3) The Level (dBm) readings in the table were taken with a correction table loaded into the base station simulator. The correction table was used to account for the signal attenuation in the connecting cable between the transmitter and antenna.
- 4) The Ant. Gains (GT) are listed in dBi.

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 100 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 190 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
699.70	1.4	QPSK	1/0	24.96	-28.00	-5.19	0.303	34.77	-39.96	-3.04	0.497	36.99	-40.03
707.50	1.4	QPSK	1/0	25.00	-28.00	-5.15	0.305	34.77	-39.92	-3.00	0.501	36.99	-39.99
715.30	1.4	QPSK	1/5	24.91	-28.00	-5.24	0.299	34.77	-40.01	-3.09	0.491	36.99	-40.08
707.50	1.4	16-QAM	1/0	24.45	-28.00	-5.70	0.269	34.77	-40.47	-3.55	0.442	36.99	-40.54
700.50	3	QPSK	1/0	24.78	-28.00	-5.37	0.290	34.77	-40.14	-3.22	0.476	36.99	-40.21
707.50	3	QPSK	1/0	24.99	-28.00	-5.16	0.305	34.77	-39.93	-3.01	0.500	36.99	-40.00
714.50	3	QPSK	1/0	24.95	-28.00	-5.20	0.302	34.77	-39.97	-3.05	0.495	36.99	-40.04
707.50	3	16-QAM	1/0	24.52	-28.00	-5.63	0.274	34.77	-40.40	-3.48	0.449	36.99	-40.47
701.50	5	QPSK	1 / 24	24.91	-28.00	-5.24	0.299	34.77	-40.01	-3.09	0.491	36.99	-40.08
707.50	5	QPSK	1/0	24.99	-28.00	-5.16	0.305	34.77	-39.93	-3.01	0.500	36.99	-40.00
713.50	5	QPSK	1 / 24	24.97	-28.00	-5.18	0.303	34.77	-39.95	-3.03	0.498	36.99	-40.02
707.50	5	16-QAM	1/0	24.40	-28.00	-5.75	0.266	34.77	-40.52	-3.60	0.437	36.99	-40.59
704.00	10	QPSK	1 / 49	24.88	-28.00	-5.27	0.297	34.77	-40.04	-3.12	0.488	36.99	-40.11
707.50	10	QPSK	1/0	24.91	-28.00	-5.24	0.299	34.77	-40.01	-3.09	0.491	36.99	-40.08
711.00	10	QPSK	1/0	24.84	-28.00	-5.31	0.294	34.77	-40.08	-3.16	0.483	36.99	-40.15
704.00	10	16-QAM	1 / 27	24.45	-28.00	-5.70	0.269	34.77	-40.47	-3.55	0.442	36.99	-40.54

Table 7-7. ERP Data (Band 12)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
706.50	5	QPSK	1 / 24	25.00	-28.00	-5.15	0.305	34.77	-39.92	-3.00	0.501	36.99	-39.99
710.00	5	QPSK	1/0	24.97	-28.00	-5.18	0.303	34.77	-39.95	-3.03	0.498	36.99	-40.02
713.50	5	QPSK	1 / 24	24.99	-28.00	-5.16	0.305	34.77	-39.93	-3.01	0.500	36.99	-40.00
706.50	5	16-QAM	1 / 24	24.48	-28.00	-5.67	0.271	34.77	-40.44	-3.52	0.445	36.99	-40.51
709.00	10	QPSK	1/0	24.95	-28.00	-5.20	0.302	34.77	-39.97	-3.05	0.495	36.99	-40.04
710.00	10	QPSK	1/0	24.95	-28.00	-5.20	0.302	34.77	-39.97	-3.05	0.495	36.99	-40.04
711.00	10	QPSK	1/0	24.98	-28.00	-5.17	0.304	34.77	-39.94	-3.02	0.499	36.99	-40.01
711.00	10	16-QAM	1/0	24.44	-28.00	-5.71	0.269	34.77	-40.48	-3.56	0.441	36.99	-40.55

Table 7-8. ERP Data (Band 17)

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 404 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 191 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
779.50	5	QPSK	1/0	24.96	-26.40	-3.59	0.438	34.77	-38.36	-1.44	0.718	36.99	-38.43
782.00	5	QPSK	1/0	25.00	-26.40	-3.55	0.442	34.77	-38.32	-1.40	0.724	36.99	-38.39
784.50	5	QPSK	1/0	24.99	-26.40	-3.56	0.441	34.77	-38.33	-1.41	0.723	36.99	-38.40
784.50	5	16-QAM	1 / 24	24.80	-26.40	-3.75	0.422	34.77	-38.52	-1.60	0.692	36.99	-38.59
782.00	10	QPSK	1/0	25.00	-26.40	-3.55	0.442	34.77	-38.32	-1.40	0.724	36.99	-38.39
782.00	10	16-QAM	1/0	24.53	-26.40	-4.02	0.396	34.77	-38.79	-1.87	0.650	36.99	-38.86

Table 7-9. ERP Data (Band 13)

Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
824.70	1.4	QPSK	1/0	24.93	-26.30	-3.52	0.445	38.45	-41.97	-1.37	0.729	40.61	-41.98
836.50	1.4	QPSK	1/5	24.99	-26.30	-3.46	0.451	38.45	-41.91	-1.31	0.740	40.61	-41.92
848.30	1.4	QPSK	1/5	24.86	-26.30	-3.59	0.438	38.45	-42.04	-1.44	0.718	40.61	-42.05
836.50	1.4	16-QAM	1/0	24.50	-26.30	-3.95	0.403	38.45	-42.40	-1.80	0.661	40.61	-42.41
825.50	3	QPSK	1/0	24.92	-26.30	-3.53	0.444	38.45	-41.98	-1.38	0.728	40.61	-41.99
836.50	3	QPSK	1 / 14	24.88	-26.30	-3.57	0.440	38.45	-42.02	-1.42	0.721	40.61	-42.03
847.50	3	QPSK	1 / 14	24.80	-26.30	-3.65	0.432	38.45	-42.10	-1.50	0.708	40.61	-42.11
836.50	3	16-QAM	1 / 14	24.44	-26.30	-4.01	0.397	38.45	-42.46	-1.86	0.652	40.61	-42.47
826.50	5	QPSK	1/0	24.83	-26.30	-3.62	0.435	38.45	-42.07	-1.47	0.713	40.61	-42.08
836.50	5	QPSK	1/0	24.99	-26.30	-3.46	0.451	38.45	-41.91	-1.31	0.740	40.61	-41.92
846.50	5	QPSK	1/0	25.00	-26.30	-3.45	0.452	38.45	-41.90	-1.30	0.741	40.61	-41.91
846.50	5	16-QAM	1/0	24.53	-26.30	-3.92	0.406	38.45	-42.37	-1.77	0.665	40.61	-42.38
829.00	10	QPSK	1/0	24.78	-26.30	-3.67	0.430	38.45	-42.12	-1.52	0.705	40.61	-42.13
836.50	10	QPSK	1/0	24.92	-26.30	-3.53	0.444	38.45	-41.98	-1.38	0.728	40.61	-41.99
844.00	10	QPSK	1/0	24.89	-26.30	-3.56	0.441	38.45	-42.01	-1.41	0.723	40.61	-42.02
844.00	10	16-QAM	1/0	24.52	-26.30	-3.93	0.405	38.45	-42.38	-1.78	0.664	40.61	-42.39

Table 7-10. ERP Data (Band 5)

FCC ID: BCG-A2094	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 400 of 200
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 192 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
824.70	1.4	QPSK	1/0	24.84	-26.30	-3.61	0.436	38.45	-42.06	-1.46	0.714	40.61	-42.07
836.50	1.4	QPSK	1/5	24.97	-26.30	-3.48	0.449	38.45	-41.93	-1.33	0.736	40.61	-41.94
848.30	1.4	QPSK	1/5	24.89	-26.30	-3.56	0.441	38.45	-42.01	-1.41	0.723	40.61	-42.02
836.50	1.4	16-QAM	1/5	24.48	-26.30	-3.97	0.401	38.45	-42.42	-1.82	0.658	40.61	-42.43
825.50	3	QPSK	1/0	24.74	-26.30	-3.71	0.426	38.45	-42.16	-1.56	0.698	40.61	-42.17
836.50	3	QPSK	1/0	24.82	-26.30	-3.63	0.434	38.45	-42.08	-1.48	0.711	40.61	-42.09
847.50	3	QPSK	1 / 14	24.73	-26.30	-3.72	0.425	38.45	-42.17	-1.57	0.697	40.61	-42.18
847.50	3	16-QAM	1 / 14	24.44	-26.30	-4.01	0.397	38.45	-42.46	-1.86	0.652	40.61	-42.47
826.50	5	QPSK	1/0	24.90	-26.30	-3.55	0.442	38.45	-42.00	-1.40	0.724	40.61	-42.01
836.50	5	QPSK	1 / 24	25.00	-26.30	-3.45	0.452	38.45	-41.90	-1.30	0.741	40.61	-41.91
846.50	5	QPSK	1 / 24	24.91	-26.30	-3.54	0.443	38.45	-41.99	-1.39	0.726	40.61	-42.00
836.50	5	16-QAM	1 / 24	24.50	-26.30	-3.95	0.403	38.45	-42.40	-1.80	0.661	40.61	-42.41
829.00	10	QPSK	1 / 49	24.78	-26.30	-3.67	0.430	38.45	-42.12	-1.52	0.705	40.61	-42.13
836.50	10	QPSK	1 / 49	24.90	-26.30	-3.55	0.442	38.45	-42.00	-1.40	0.724	40.61	-42.01
844.00	10	QPSK	1/0	24.76	-26.30	-3.69	0.428	38.45	-42.14	-1.54	0.701	40.61	-42.15
836.50	10	16-QAM	1 / 27	24.51	-26.30	-3.94	0.404	38.45	-42.39	-1.79	0.662	40.61	-42.40

Table 7-11. ERP Data (Band 26)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 402 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 193 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	1/5	24.00	-14.00	10.00	10.000	30.00	-20.00
1732.50	1.4	QPSK	1/0	24.00	-14.00	10.00	10.000	30.00	-20.00
1754.30	1.4	QPSK	1/0	23.99	-14.00	9.99	9.977	30.00	-20.01
1732.50	1.4	16-QAM	1/0	23.51	-14.00	9.51	8.933	30.00	-20.49
1711.50	3	QPSK	1 / 14	24.00	-14.00	10.00	10.000	30.00	-20.00
1732.50	3	QPSK	1 / 14	23.98	-14.00	9.98	9.954	30.00	-20.02
1753.50	3	QPSK	1 / 14	23.99	-14.00	9.99	9.977	30.00	-20.01
1711.50	3	16-QAM	1 / 14	23.50	-14.00	9.50	8.913	30.00	-20.50
1712.50	5	QPSK	1 / 24	23.90	-14.00	9.90	9.772	30.00	-20.10
1732.50	5	QPSK	1 / 24	23.97	-14.00	9.97	9.931	30.00	-20.03
1752.50	5	QPSK	1/0	24.00	-14.00	10.00	10.000	30.00	-20.00
1732.50	5	16-QAM	1 / 24	23.43	-14.00	9.43	8.770	30.00	-20.57
1715.00	10	QPSK	1/0	23.97	-14.00	9.97	9.931	30.00	-20.03
1732.50	10	QPSK	1/0	24.00	-14.00	10.00	10.000	30.00	-20.00
1750.00	10	QPSK	1/0	23.95	-14.00	9.95	9.886	30.00	-20.05
1732.50	10	16-QAM	1 / 27	23.42	-14.00	9.42	8.750	30.00	-20.58
1717.50	15	QPSK	1/0	23.88	-14.00	9.88	9.727	30.00	-20.12
1732.50	15	QPSK	1 / 74	24.00	-14.00	10.00	10.000	30.00	-20.00
1747.50	15	QPSK	1 / 74	23.98	-14.00	9.98	9.954	30.00	-20.02
1747.50	15	16-QAM	1 / 27	23.45	-14.00	9.45	8.810	30.00	-20.55
1720.00	20	QPSK	1/0	23.97	-14.00	9.97	9.931	30.00	-20.03
1732.50	20	QPSK	1 / 99	23.99	-14.00	9.99	9.977	30.00	-20.01
1745.00	20	QPSK	1 / 99	24.00	-14.00	10.00	10.000	30.00	-20.00
1745.00	20	16-QAM	1 / 27	23.43	-14.00	9.43	8.770	30.00	-20.57

Table 7-12. EIRP Data (Band 4)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 104 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 194 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
1710.70	1.4	QPSK	1/5	23.80	-14.00	9.80	9.550	30.00	-20.20
1745.00	1.4	QPSK	1/5	23.96	-14.00	9.96	9.908	30.00	-20.04
1779.30	1.4	QPSK	1/0	23.83	-14.00	9.83	9.616	30.00	-20.17
1710.70	1.4	16-QAM	1/5	23.35	-14.00	9.35	8.610	30.00	-20.65
1711.50	3	QPSK	1/0	23.81	-14.00	9.81	9.572	30.00	-20.19
1745.00	3	QPSK	1/0	23.70	-14.00	9.70	9.333	30.00	-20.30
1778.50	3	QPSK	1 / 14	23.72	-14.00	9.72	9.376	30.00	-20.28
1778.50	3	16-QAM	1/0	23.40	-14.00	9.40	8.710	30.00	-20.60
1712.50	5	QPSK	1/0	23.77	-14.00	9.77	9.484	30.00	-20.23
1745.00	5	QPSK	1/0	23.86	-14.00	9.86	9.683	30.00	-20.14
1777.50	5	QPSK	1 / 24	23.79	-14.00	9.79	9.528	30.00	-20.21
1777.50	5	16-QAM	1/0	23.52	-14.00	9.52	8.954	30.00	-20.48
1715.00	10	QPSK	1/0	23.66	-14.00	9.66	9.247	30.00	-20.34
1745.00	10	QPSK	1/0	23.80	-14.00	9.80	9.550	30.00	-20.20
1775.00	10	QPSK	1 / 49	23.76	-14.00	9.76	9.462	30.00	-20.24
1745.00	10	16-QAM	1 / 27	23.55	-14.00	9.55	9.016	30.00	-20.45
1717.50	15	QPSK	1/0	23.64	-14.00	9.64	9.204	30.00	-20.36
1745.00	15	QPSK	1/0	24.00	-14.00	10.00	10.000	30.00	-20.00
1772.50	15	QPSK	1/0	23.82	-14.00	9.82	9.594	30.00	-20.18
1772.50	15	16-QAM	1 / 27	23.50	-14.00	9.50	8.913	30.00	-20.50
1720.00	20	QPSK	1/0	23.78	-14.00	9.78	9.506	30.00	-20.22
1745.00	20	QPSK	1 / 99	23.99	-14.00	9.99	9.977	30.00	-20.01
1770.00	20	QPSK	1 / 99	23.68	-14.00	9.68	9.290	30.00	-20.32
1745.00	20	16-QAM	1 / 27	23.40	-14.00	9.40	8.710	30.00	-20.60

Table 7-13. EIRP Data (Band 66)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 105 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 195 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
1850.70	1.4	QPSK	3/2	23.74	-12.40	11.34	13.614	33.01	-21.67
1880.00	1.4	QPSK	3/2	23.80	-12.40	11.40	13.804	33.01	-21.61
1909.30	1.4	QPSK	3/2	23.89	-12.40	11.49	14.093	33.01	-21.52
1850.70	1.4	16-QAM	1/5	23.37	-12.40	10.97	12.503	33.01	-22.04
1851.50	3	QPSK	1/0	23.73	-12.40	11.33	13.583	33.01	-21.68
1880.00	3	QPSK	1/0	23.53	-12.40	11.13	12.972	33.01	-21.88
1908.50	3	QPSK	1 / 14	23.44	-12.40	11.04	12.706	33.01	-21.97
1851.50	3	16-QAM	1 / 14	23.31	-12.40	10.91	12.331	33.01	-22.10
1852.50	5	QPSK	1/0	23.78	-12.40	11.38	13.740	33.01	-21.63
1880.00	5	QPSK	1/0	23.71	-12.40	11.31	13.521	33.01	-21.70
1907.50	5	QPSK	1/0	23.52	-12.40	11.12	12.942	33.01	-21.89
1907.50	5	16-QAM	1 / 24	23.33	-12.40	10.93	12.388	33.01	-22.08
1855.00	10	QPSK	1/0	23.76	-12.40	11.36	13.677	33.01	-21.65
1880.00	10	QPSK	1/0	23.79	-12.40	11.39	13.772	33.01	-21.62
1905.00	10	QPSK	1/0	23.80	-12.40	11.40	13.804	33.01	-21.61
1905.00	10	16-QAM	1/0	23.37	-12.40	10.97	12.503	33.01	-22.04
1857.50	15	QPSK	1/0	23.82	-12.40	11.42	13.868	33.01	-21.59
1880.00	15	QPSK	1/0	23.81	-12.40	11.41	13.836	33.01	-21.60
1902.50	15	QPSK	1/0	23.67	-12.40	11.27	13.397	33.01	-21.74
1902.50	15	16-QAM	1/0	23.43	-12.40	11.03	12.677	33.01	-21.98
1860.00	20	QPSK	1 / 99	23.94	-12.40	11.54	14.256	33.01	-21.47
1880.00	20	QPSK	1/0	23.97	-12.40	11.57	14.355	33.01	-21.44
1900.00	20	QPSK	1/0	23.98	-12.40	11.58	14.388	33.01	-21.43
1880.00	20	16-QAM	1/0	23.44	-12.40	11.04	12.706	33.01	-21.97

Table 7-14. EIRP Data (Band 2)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 106 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 196 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
1850.70	1.4	QPSK	1/0	23.87	-12.40	11.47	14.028	33.01	-21.54
1882.50	1.4	QPSK	3/2	23.77	-12.40	11.37	13.709	33.01	-21.64
1914.30	1.4	QPSK	1/0	23.59	-12.40	11.19	13.152	33.01	-21.82
1882.50	1.4	16-QAM	1/0	23.28	-12.40	10.88	12.246	33.01	-22.13
1851.50	3	QPSK	1/0	23.87	-12.40	11.47	14.028	33.01	-21.54
1882.50	3	QPSK	1/0	23.70	-12.40	11.30	13.490	33.01	-21.71
1913.50	3	QPSK	1/0	23.87	-12.40	11.47	14.028	33.01	-21.54
1882.50	3	16-QAM	1/0	23.37	-12.40	10.97	12.503	33.01	-22.04
1852.50	5	QPSK	1/0	23.85	-12.40	11.45	13.964	33.01	-21.56
1882.50	5	QPSK	1/0	23.64	-12.40	11.24	13.305	33.01	-21.77
1912.50	5	QPSK	1/0	23.73	-12.40	11.33	13.583	33.01	-21.68
1882.50	5	16-QAM	1/0	23.37	-12.40	10.97	12.503	33.01	-22.04
1855.00	10	QPSK	1/0	23.66	-12.40	11.26	13.366	33.01	-21.75
1882.50	10	QPSK	1 / 49	23.75	-12.40	11.35	13.646	33.01	-21.66
1910.00	10	QPSK	1/0	23.69	-12.40	11.29	13.459	33.01	-21.72
1882.50	10	16-QAM	1/0	23.37	-12.40	10.97	12.503	33.01	-22.04
1857.50	15	QPSK	1/0	23.89	-12.40	11.49	14.093	33.01	-21.52
1882.50	15	QPSK	1/0	23.81	-12.40	11.41	13.836	33.01	-21.60
1907.50	15	QPSK	1/0	23.64	-12.40	11.24	13.305	33.01	-21.77
1882.50	15	16-QAM	1/0	23.40	-12.40	11.00	12.589	33.01	-22.01
1860.00	20	QPSK	1 / 99	23.77	-12.40	11.37	13.709	33.01	-21.64
1882.50	20	QPSK	1 / 99	23.85	-12.40	11.45	13.964	33.01	-21.56
1905.00	20	QPSK	1/0	23.65	-12.40	11.25	13.335	33.01	-21.76
1882.50	20	16-QAM	1/0	23.34	-12.40	10.94	12.417	33.01	-22.07

Table 7-15. EIRP Data (Band 25)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 407 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 197 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
2502.50	5	QPSK	1 / 24	23.48	-13.10	10.38	10.914	33.01	-22.63
2535.00	5	QPSK	1 / 24	23.20	-13.10	10.10	10.233	33.01	-22.91
2567.50	5	QPSK	1/0	23.21	-13.10	10.11	10.257	33.01	-22.90
2502.50	5	16-QAM	1 / 24	22.98	-13.10	9.88	9.727	33.01	-23.13
2505.00	10	QPSK	1 / 49	23.30	-13.10	10.20	10.471	33.01	-22.81
2535.00	10	QPSK	1/0	23.14	-13.10	10.04	10.093	33.01	-22.97
2565.00	10	QPSK	1 / 49	23.28	-13.10	10.18	10.423	33.01	-22.83
2505.00	10	16-QAM	1 / 27	23.08	-13.10	9.98	9.954	33.01	-23.03
2507.50	15	QPSK	1 / 74	23.16	-13.10	10.06	10.139	33.01	-22.95
2535.00	15	QPSK	1/0	23.21	-13.10	10.11	10.257	33.01	-22.90
2562.50	15	QPSK	1 / 74	22.97	-13.10	9.87	9.705	33.01	-23.14
2507.50	15	16-QAM	1 / 27	22.98	-13.10	9.88	9.727	33.01	-23.13
2510.00	20	QPSK	1 / 99	23.17	-13.10	10.07	10.162	33.01	-22.94
2535.00	20	QPSK	1/0	23.20	-13.10	10.10	10.233	33.01	-22.91
2560.00	20	QPSK	1 / 99	23.18	-13.10	10.08	10.186	33.01	-22.93
2510.00	20	16-QAM	1 / 27	23.00	-13.10	9.90	9.772	33.01	-23.11

Table 7-16. EIRP Data (Band 7)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 100 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 198 of 238



Frequency [MHz]	Channel Bandwidth [MHz]	Mod.	RB Size/Offset	Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
2498.50	5	QPSK	1 / 24	23.50	-13.00	10.50	11.220	33.01	-22.51
2593.00	5	QPSK	1/0	23.31	-13.00	10.31	10.740	33.01	-22.70
2687.50	5	QPSK	1/0	23.45	-13.00	10.45	11.092	33.01	-22.56
2593.00	5	16-QAM	1/0	22.68	-13.00	9.68	9.290	33.01	-23.33
2501.00	10	QPSK	1/0	23.50	-13.00	10.50	11.220	33.01	-22.51
2593.00	10	QPSK	1/0	23.47	-13.00	10.47	11.143	33.01	-22.54
2685.00	10	QPSK	1/0	23.50	-13.00	10.50	11.220	33.01	-22.51
2685.00	10	16-QAM	1 / 27	22.63	-13.00	9.63	9.183	33.01	-23.38
2503.50	15	QPSK	1 / 74	23.48	-13.00	10.48	11.169	33.01	-22.53
2593.00	15	QPSK	1 / 74	23.42	-13.00	10.42	11.015	33.01	-22.59
2682.50	15	QPSK	1 / 74	23.38	-13.00	10.38	10.914	33.01	-22.63
2503.50	15	16-QAM	1 / 27	22.63	-13.00	9.63	9.183	33.01	-23.38
2506.00	20	QPSK	1 / 99	23.49	-13.00	10.49	11.194	33.01	-22.52
2593.00	20	QPSK	1 / 99	23.50	-13.00	10.50	11.220	33.01	-22.51
2680.00	20	QPSK	1/0	23.48	-13.00	10.48	11.169	33.01	-22.53
2506.00	20	16-QAM	1 / 27	22.63	-13.00	9.63	9.183	33.01	-23.38

Table 7-17. EIRP Data (Band 41)

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 400 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 199 of 238



7.7 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas.

Test Procedures Used

KDB 971168 D01 v03r01 - Section 5.8

ANSI/TIA-603-E-2016 - Section 2.2.12

Test Settings

- 1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
- 2. VBW \geq 3 x RBW
- 3. Span = 1.5 times the OBW
- 4. No. of sweep points $\geq 2 \times \text{span} / \text{RBW}$
- 5. Detector = RMS
- 6. Trace mode = Average (Max Hold for pulsed emissions)
- 7. The trace was allowed to stabilize

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 200 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 200 of 238



Test Setup

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

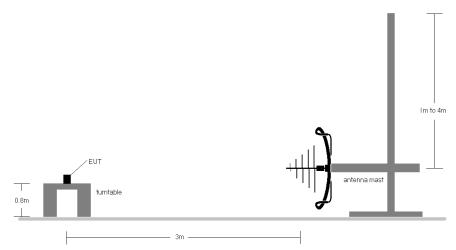


Figure 7-6. Test Instrument & Measurement Setup < 1GHz

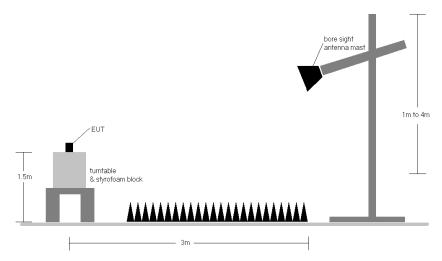


Figure 7-7. Test Instrument & Measurement Setup > 1GHz

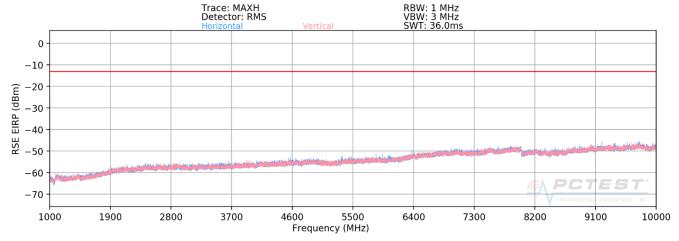
Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 4) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- Below 1GHz Pre-scan plot shows no significant emissions.

FCC ID: BCG-A2094	PCTEST: ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 201 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 201 of 238



Band 12/17



Plot 7-316. Radiated Spurious Plot above 1GHz (Band 12/17)

OPERATING FREQUENCY: 704.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 10.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1408.00	Н	-	-	-71.89	4.35	-67.54	-54.5
2112.00	Н	-	-	-69.29	5.05	-64.24	-51.2
2816.00	Н	-	-	-70.05	6.90	-63.15	-50.2
3520.00	Н	-	-	-71.17	8.03	-63.14	-50.1

Table 7-18. Radiated Spurious Data (Band 12/17 - Low Channel)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 202 of 222
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 202 of 238



OPERATING FREQUENCY: 707.50 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 10.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1415.00	Н	-	-	-71.79	4.42	-67.36	-54.4
2122.50	V	114	26	-69.11	5.22	-63.89	-50.9
2830.00	Н	-	-	-69.85	7.01	-62.85	-49.8
3537.50	Н	-	-	-71.01	8.00	-63.01	-50.0

Table 7-19. Radiated Spurious Data (Band 12/17 - Mid Channel)

OPERATING FREQUENCY: 711.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 10.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

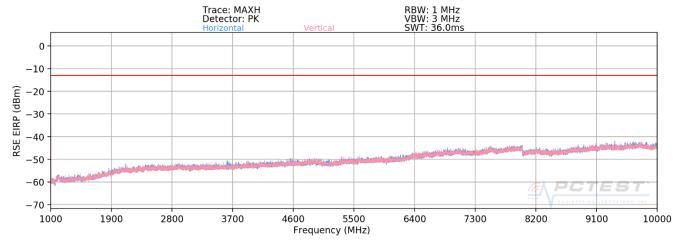
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1422.00	Ι	1	-	-71.85	4.50	-67.35	-54.3
2133.00	Η	-	-	-69.33	5.34	-63.99	-51.0
2844.00	Η	-	-	-70.42	7.06	-63.36	-50.4
3555.00	Н	-	-	-70.87	7.98	-62.88	-49.9

Table 7-20. Radiated Spurious Data (Band 12/17 - High Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 202 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 203 of 238



Band 13



Plot 7-317. Radiated Spurious Plot above 1GHz (Band 13)

OPERATING FREQUENCY: 779.50 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 5.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2338.50	V	121	342	-69.82	6.21	-63.61	-50.6
3118.00	V	-	-	-70.76	7.46	-63.30	-50.3
3897.50	V	-	-	-71.61	8.89	-62.71	-49.7

Table 7-21. Radiated Spurious Data (Band 13 - Low Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 204 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 204 of 238



OPERATING FREQUENCY: 782.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 5.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2346.00	V	-	-	-71.03	6.22	-64.80	-51.8
3128.00	V	-	-	-70.63	7.50	-63.13	-50.1
3910.00	V	-	-	-71.66	8.92	-62.74	-49.7

Table 7-22. Radiated Spurious Data (Band 13 - Mid Channel)

OPERATING FREQUENCY: 784.50 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 5.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2353.50	V	117	354	-70.05	6.22	-63.83	-50.8
3138.00	V	-	-	-70.82	7.54	-63.28	-50.3
3922.50	V	-	-	-71.64	8.95	-62.69	-49.7

Table 7-23. Radiated Spurious Data (Band 13 - High Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dono 205 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 205 of 238



MODULATION SIGNAL: QPSK

BANDWIDTH: 5.00 MHz

DISTANCE: 3 meters

NARROWBAND EMISSION LIMIT: -50 dBm

WIDEBAND EMISSION LIMIT: -40 dBm/MHz

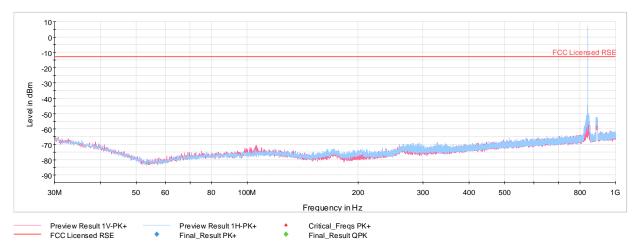
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1559.00	V	-	-	-73.43	5.80	-67.63	-27.6
1564.00	V	-	-	-75.96	5.82	-70.15	-30.1
1569.00	٧	-	-	-73.28	5.82	-67.46	-27.5

Table 7-24. Radiated Spurious Data (Band 13 - 1559-1610MHz Band)

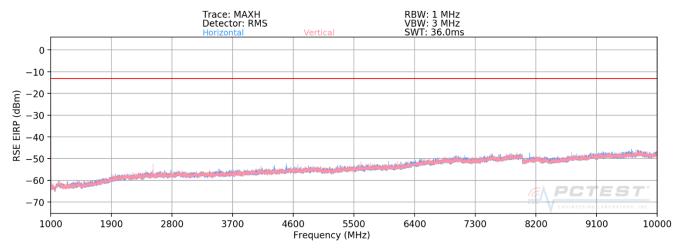
FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 200 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 206 of 238



Band 26/5



Plot 7-318. Radiated Spurious Plot - Below 1GHz (Band 26/5, with WCP + AC/DC Adapter)



Plot 7-319. Radiated Spurious Plot above 1GHz (Band 26/5)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 207 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 207 01 236



OPERATING FREQUENCY: 829.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 10.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1658.00	V	-	-	-72.40	5.50	-66.90	-53.9
2487.00	V	390	357	-67.78	5.92	-61.87	-48.9
3316.00	V	-	-	-71.13	7.87	-63.26	-50.3
4145.00	V	-	-	-70.74	9.02	-61.71	-48.7

Table 7-25. Radiated Spurious Data (Band 26/5 - Low Channel)

OPERATING FREQUENCY: 836.50 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 10.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1673.00	>	-	-	-72.49	5.60	-66.88	-53.9
2509.50	V	390	358	-67.53	5.90	-61.63	-48.6
3346.00	٧	-	-	-70.94	7.95	-62.99	-50.0
4182.50	V	-	-	-71.64	9.13	-62.51	-49.5

Table 7-26. Radiated Spurious Data (Band 26/5 - Mid Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 200 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 208 of 238



OPERATING FREQUENCY: 844.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 10.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

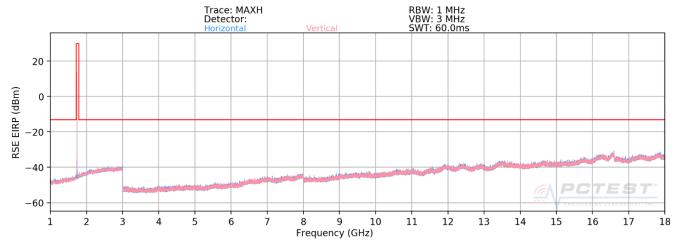
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1688.00	V	-	-	-72.36	5.65	-66.71	-53.7
2532.00	V	350	360	-66.38	5.93	-60.45	-47.5
3376.00	V	-	-	-70.81	8.04	-62.77	-49.8
4220.00	V	-	-	-71.27	9.19	-62.08	-49.1

Table 7-27. Radiated Spurious Data (Band 26/5 – High Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 200 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 209 of 238



Band 66/4



Plot 7-320. Radiated Spurious Plot above 1GHz (Band 66/4)

OPERATING FREQUENCY: 1720.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3440.00	V	-	-	-70.61	8.12	-62.49	-49.5
5160.00	V	-	-	-71.68	10.14	-61.54	-48.5
6880.00	V	-	-	-69.34	11.38	-57.96	-45.0
8600.00	V	-	-	-70.06	13.02	-57.04	-44.0

Table 7-28. Radiated Spurious Data (Band 66/4 – Low Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 240 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 210 of 238



OPERATING FREQUENCY: 1745.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3490.00	V	-	-	-71.01	8.12	-62.89	-49.9
5235.00	V	292	3	-69.37	10.14	-59.23	-46.2
6980.00	٧	-	-	-69.25	11.38	-57.87	-44.9
8725.00	V	-	-	-70.40	13.02	-57.38	-44.4

Table 7-29. Radiated Spurious Data (Band 66/4 - Mid Channel)

OPERATING FREQUENCY: 1770.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

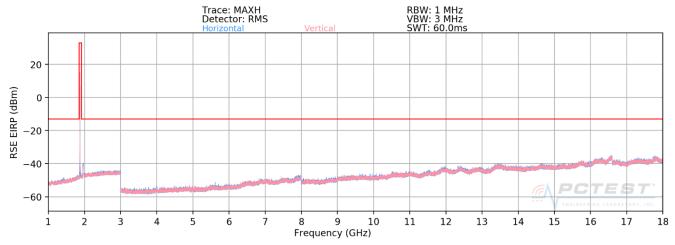
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3540.00	V	-	-	-70.77	8.12	-62.65	-49.6
5310.00	V	-	-	-71.07	10.14	-60.93	-47.9
7080.00	V	-	-	-70.12	11.38	-58.74	-45.7

Table 7-30. Radiated Spurious Data (Band 66/4 - High Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 244 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 211 of 238



Band 25/2



Plot 7-321. Radiated Spurious Plot above 1GHz (Band 25/2)

OPERATING FREQUENCY: 1860.00 MHz

MODULATION SIGNAL: **QPSK**

BANDWIDTH: 20.0 MHz DISTANCE: 3 meters LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3720.00	V	134	336	-68.29	8.42	-59.87	-46.9
5580.00	V	-	-	-70.97	10.72	-60.25	-47.2
7440.00	V	-	-	-69.21	11.89	-57.32	-44.3
9300.00	V	-	-	-68.69	13.29	-55.40	-42.4

Table 7-31. Radiated Spurious Data (Band 25/2 - Low Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 212 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	raye 212 01 238



OPERATING FREQUENCY: 1882.50 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3765.00	V	110	317	-62.73	8.48	-54.25	-41.3
5647.50	٧	-	-	-71.23	10.69	-60.54	-47.5
7530.00	٧	-	-	-69.08	11.99	-57.10	-44.1
9412.50	V	-	-	-67.68	13.36	-54.32	-41.3

Table 7-32. Radiated Spurious Data (Band 25/2 - Mid Channel)

OPERATING FREQUENCY: 1905.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -13 dBm

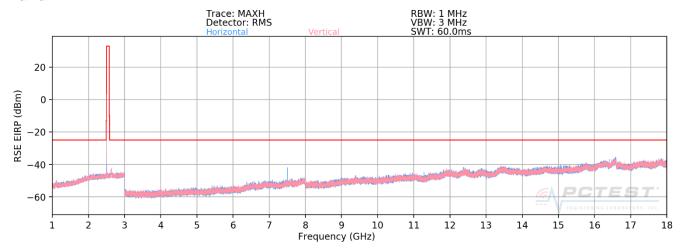
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3810.00	V	138	323	-67.76	8.65	-59.11	-46.1
5715.00	V	-	-	-71.28	10.67	-60.62	-47.6
7620.00	٧	-	-	-69.18	12.16	-57.02	-44.0
9525.00	V	-	-	-68.13	13.19	-54.93	-41.9

Table 7-33. Radiated Spurious Data (Band 25/2 – High Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 242 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 213 of 238



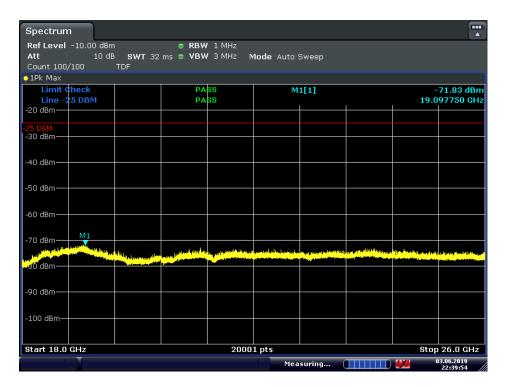
Band 7



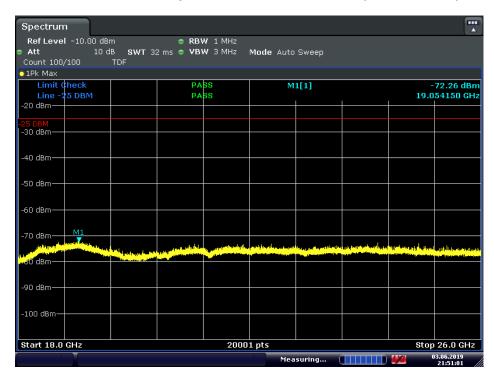
Plot 7-322. Radiated Spurious Plot 1GHz - 18GHz (Band 7)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 244 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 214 of 238





Plot 7-323. Radiated Spurious Plot 18GHz - 26GHz (Band 7, Pol. H)



Plot 7-324. Radiated Spurious Plot 18GHz – 26GHz (Band 7, Pol. V)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 215 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 215 01 238



OPERATING FREQUENCY: 2510.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5020.00	Н	-	-	-70.89	10.00	-60.88	-35.9
7530.00	Η	293	142	-49.11	11.99	-37.13	-12.1
10040.00	Η	-	-	-68.25	13.11	-55.14	-30.1
12550.00	Η	-	-	-64.95	13.13	-51.82	-26.8
15060.00	Н	-	-	-63.00	14.05	-48.95	-24.0

Table 7-34. Radiated Spurious Data (Band 7 - Low Channel)

OPERATING FREQUENCY: 2535.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5070.00	Η	106	244	-71.06	10.07	-60.99	-36.0
7605.00	Н	-	-	-68.96	12.15	-56.81	-31.8
10140.00	Η	-	-	-67.88	13.10	-54.79	-29.8
12675.00	Н	-	-	-64.04	13.15	-50.89	-25.9

Table 7-35. Radiated Spurious Data (Band 7 - Mid Channel)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 216 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 216 of 238



OPERATING FREQUENCY: 2560.00 MHz

QPSK MODULATION SIGNAL:

> BANDWIDTH: 20.0 MHz DISTANCE: 3 meters LIMIT: -25 dBm

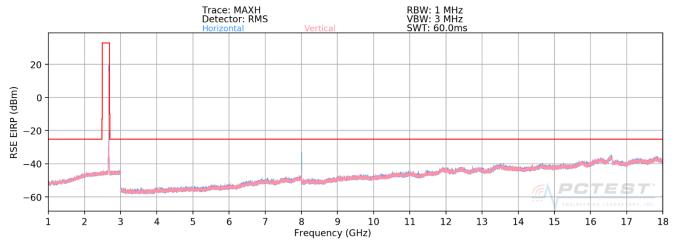
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5120.00	Η	-	-	-71.17	10.10	-61.07	-36.1
7680.00	Н	317	178	-64.57	12.15	-52.42	-27.4
10240.00	Η	-	-	-67.65	13.10	-54.55	-29.5
12800.00	Η	-	-	-64.25	13.17	-51.08	-26.1
15360.00	Н	-	-	-63.16	14.01	-49.15	-24.2

Table 7-36. Radiated Spurious Data (Band 7 - High Channel)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 247 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 217 of 238



Band 41



Plot 7-325. Radiated Spurious Plot 1GHz - 18GHz (Band 41)

OPERATING FREQUENCY: 2506.00 MHz

MODULATION SIGNAL: **QPSK**

> BANDWIDTH: 20.0 MHz DISTANCE: 3 meters

> > LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	Η	109	178	-66.06	9.99	-56.07	-31.1
7518.00	Η	230	152	-49.62	11.99	-37.64	-12.6
10024.00	Η	-	-	-69.90	13.11	-56.79	-31.8
12530.00	Η	-	-	-66.04	13.15	-52.90	-27.9
15036.00	Н	-	-	-65.33	14.06	-51.28	-26.3

Table 7-37. Radiated Spurious Data (Band 41 - Low Channel)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 219 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 218 of 238



OPERATING FREQUENCY: 2593.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	Η	114	151	-62.39	10.20	-52.19	-27.2
7779.00	Н	283	141	-49.28	12.20	-37.08	-12.1
10372.00	Η	-	-	-69.36	13.07	-56.29	-31.3
12965.00	Η	-	-	-65.85	13.25	-52.60	-27.6
15558.00	Н	-	-	-64.50	14.01	-50.49	-25.5

Table 7-38. Radiated Spurious Data (Band 41 - Mid Channel)

OPERATING FREQUENCY: 2680.00 MHz

MODULATION SIGNAL: QPSK

BANDWIDTH: 20.0 MHz
DISTANCE: 3 meters
LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	Η	107	140	-68.06	10.37	-57.69	-32.7
8040.00	Н	236	138	-47.51	12.53	-34.98	-10.0
10720.00	Н	-	-	-68.31	13.07	-55.25	-30.2
13400.00	Н	-	-	-67.03	13.78	-53.26	-28.3
16080.00	Н	-	-	-63.59	13.63	-49.96	-25.0

Table 7-39. Radiated Spurious Data (Band 41 - High Channel)

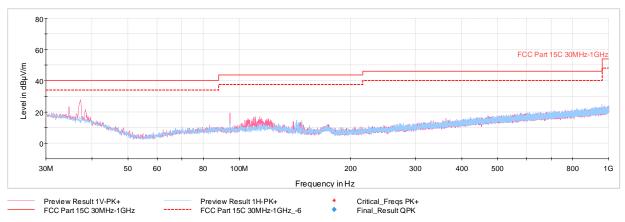
FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 240 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 219 of 238



Simultaneous Tx Radiated Spurious Measurements

Description	WIFI 2.4GHz	LTE
Antenna	FCM	FCM
Channel	6	41490
Operating Frequency (MHz)	2437	2680
Mode/Modulation	802.11b	QPSK/1RB/20MHz

Table 7-40. Worst Case Simultaneous Transmission Config



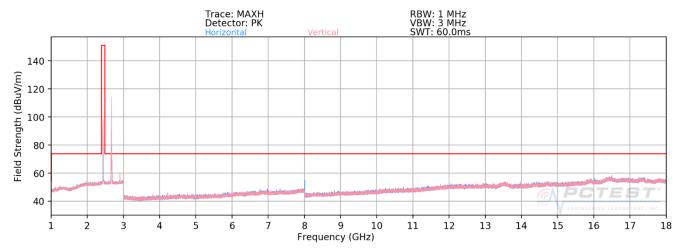
Plot 7-326. Radiated Spurious Plot Below 1GHz (with WCP + AC/DC Adapter)

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]
34.61	Max Peak	V	100	10	-72.00	-11.60	23.40	40.00	-16.60
37.23	Max Peak	V	100	285	-66.20	-13.10	27.70	40.00	-12.30
38.44	Max Peak	V	100	248	-71.71	-13.70	21.59	40.00	-18.41
94.41	Max Peak	V	100	301	-69.62	-18.10	19.28	43.52	-24.24
110.32	Max Peak	V	100	215	-72.61	-17.30	17.09	43.52	-26.43
139.90	Max Peak	V	100	82	-74.42	-18.60	13.98	43.52	-29.54

Table 7-41. Radiated Spurious Measurements Below 1GHz (with WCP + AC/DC Adapter)

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	(0	
Test Report S/N:	Test Dates:	EUT Type:	Dogg 220 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 220 of 238





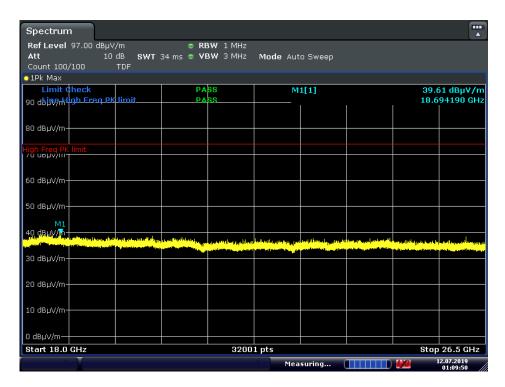
Plot 7-327. Radiated Spurious Plot Above 1GHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5360.00	Н	-	-	-66.75	10.37	-56.37	-25.00	-31.4
8040.00	Н	109	223	-63.56	12.53	-51.03	-25.00	-26.0
10720.00	Н	-	ı	-63.66	13.07	-50.59	-25.00	-25.6
2194.00	Н	156	250	-45.48	5.60	-39.87	-25.00	-14.9
2923.00	Н	102	141	-42.54	7.06	-35.48	-25.00	-10.5

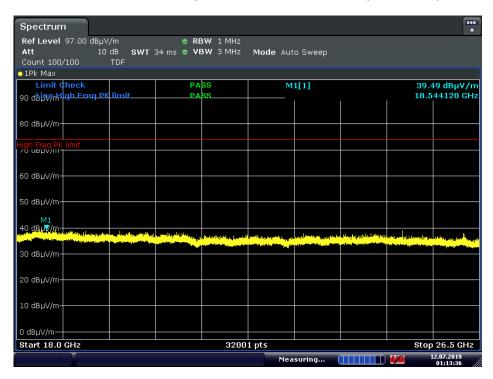
Table 7-42. Radiated Spurious Measurements Above 1GHz

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 221 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 221 of 238





Plot 7-328. Radiated Spurious Plot Above 18GHz (Ant. Pol. H)



Plot 7-329. Radiated Spurious Plot Above 18GHz (Ant. Pol. V)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 222 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 222 01 238



7.8 Frequency Stability / Temperature Variation

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI/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 22, the frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency. For Part 24, Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure Used

ANSI/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

None

FCC ID: BCG-A2094	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 222 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 223 of 238



Band 12/17 Frequency Stability Measurements

 OPERATING FREQUENCY:
 707,500,000
 Hz

 CHANNEL:
 23790

 REFERENCE VOLTAGE:
 3.80
 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %		- 30	707,500,004	4	0.000006
100 %		- 20	707,500,004	4	0.000006
100 %		- 10	707,500,005	5	0.000006
100 %		0	707,500,004	4	0.000006
100 %	3.80	+ 10	707,500,004	4	0.0000006
100 %		+ 20	707,500,005	5	0.000007
100 %		+ 30	707,500,005	5	0.000006
100 %		+ 40	707,500,004	4	0.000006
100 %		+ 50	707,500,005	5	0.000007
BATT. ENDPOINT	3.40	+ 20	707,500,004	4	0.000006

Table 7-43. Frequency Stability Data (Band 12/17)

Note:

FCC ID: BCG-A2094	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 224 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 224 01 238



Band 12/17 Frequency Stability Measurements

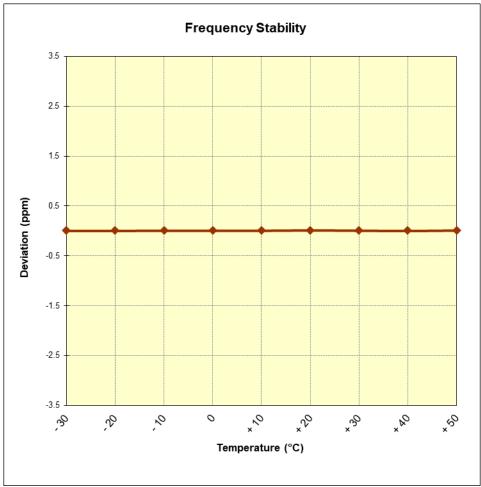


Figure 7-9. Frequency Stability Graph (Band 12/17)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 225 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 225 of 238



Band 13 Frequency Stability Measurements

OPERATING FREQUENCY: 782,000,000 Hz CHANNEL: 23230 3.80 REFERENCE VOLTAGE: **VDC**

POWER TEMP FREQUENCY VOLTAGE Freq. Dev. Deviation (%) (VDC) (°C) (Hz) (Hz) (%) 100 % - 30 782,000,006 6 0.0000007 100 % - 20 6 782,000,006 0.0000008 5 100 % - 10 782,000,005 0.0000007 100 % 0 782,000,005 5 0.0000007 100 % 3.80 + 10 782,000,006 6 0.0000008 100 % + 20 5 782,000,005 0.0000007 100 % +30782,000,005 5 0.0000007 100 % 0.0000008 + 40 782,000,006 6 100 % + 50 782,000,006 6 0.0000007 BATT. ENDPOINT 6 3.40 + 20 782,000,006 0.0000007

Table 7-44. Frequency Stability Data (Band 13)

Note:

FCC ID: BCG-A2094	PCTEST: ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 226 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 220 01 238



Band 13 Frequency Stability Measurements

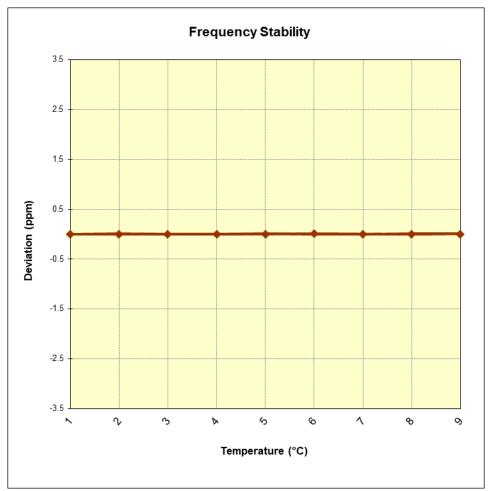


Figure 7-10. Frequency Stability Graph (Band 13)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 227 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 227 of 238



Band 26/5 Frequency Stability Measurements

OPERATING FREQUENCY: Hz 836,500,000

> CHANNEL: 26865

REFERENCE VOLTAGE: 3.80 **VDC**

DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %		- 30	836,500,005	5	0.0000006
100 %		- 20	836,500,004	4	0.000005
100 %		- 10	836,500,005	5	0.000005
100 %		0	836,500,005	5	0.000005
100 %	3.80	+ 10	836,500,005	5	0.0000006
100 %		+ 20	836,500,005	5	0.000006
100 %		+ 30	836,500,004	4	0.0000005
100 %		+ 40	836,500,005	5	0.0000006
100 %		+ 50	836,500,005	5	0.000006
BATT. ENDPOINT	3.40	+ 20	836,500,006	6	0.000008

Table 7-45. Frequency Stability Data (Band 26/5)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 229 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 228 of 238



Band 26/5 Frequency Stability Measurements

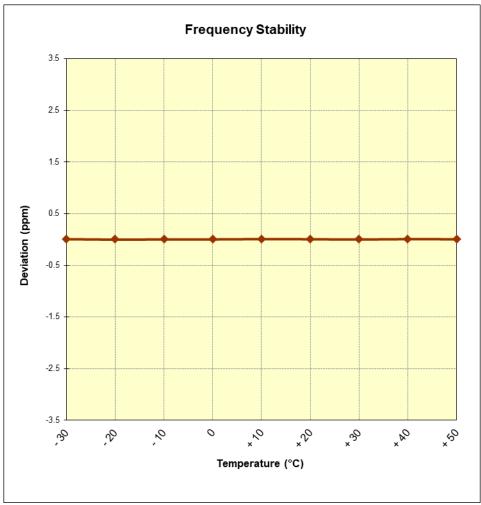


Figure 7-11. Frequency Stability Graph (Band 26/5)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 220 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 229 of 238



Band 66/4 Frequency Stability Measurements

 OPERATING FREQUENCY:
 1,745,000,000
 Hz

 CHANNEL:
 132322

REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %		- 30	1,744,999,995	-5	-0.0000003
100 %		- 20	1,745,000,004	4	0.0000002
100 %		- 10	1,745,000,005	5	0.000003
100 %		0	1,745,000,006	6	0.000003
100 %	3.80	+ 10	1,744,999,994	-6	-0.0000003
100 %		+ 20	1,744,999,994	-6	-0.0000004
100 %		+ 30	1,744,999,993	-7	-0.0000004
100 %		+ 40	1,745,000,007	7	0.000004
100 %		+ 50	1,745,000,007	7	0.000004
BATT. ENDPOINT	3.40	+ 20	1,745,000,006	6	0.0000003

Table 7-46. Frequency Stability Data (Band 66/4)

Note:

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 230 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 230 01 238



Band 66/4 Frequency Stability Measurements

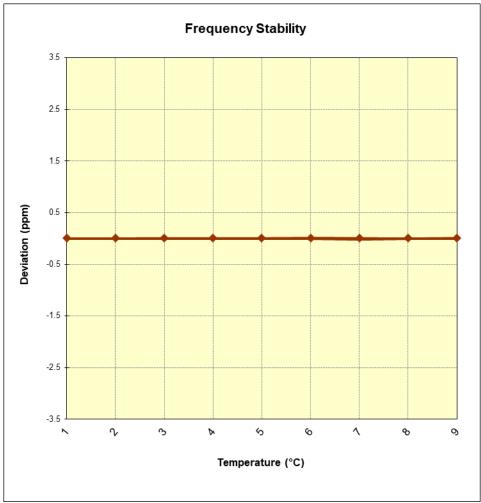


Figure 7-12. Frequency Stability Graph (Band 66/4)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 224 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 231 of 238



Band 25/2 Frequency Stability Measurements

OPERATING FREQUENCY: 1,882,500,000 Hz

CHANNEL: 26365

REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %		- 30	1,882,500,005	5	0.0000003
100 %		- 20	1,882,500,005	5	0.0000003
100 %		- 10	1,882,500,005	5	0.0000003
100 %		0	1,882,500,006	6	0.0000003
100 %	3.80	+ 10	1,882,500,007	7	0.0000004
100 %		+ 20	1,882,500,007	7	0.0000004
100 %		+ 30	1,882,500,007	7	0.0000004
100 %		+ 40	1,882,500,008	8	0.0000004
100 %		+ 50	1,882,500,008	8	0.0000004
BATT. ENDPOINT	3.40	+ 20	1,882,499,994	-6	-0.0000003

Table 7-47. Frequency Stability Data (Band 25/2)

Note:

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	(0	
Test Report S/N:	Test Dates:	EUT Type:	Page 232 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 232 01 238



Band 25/2 Frequency Stability Measurements

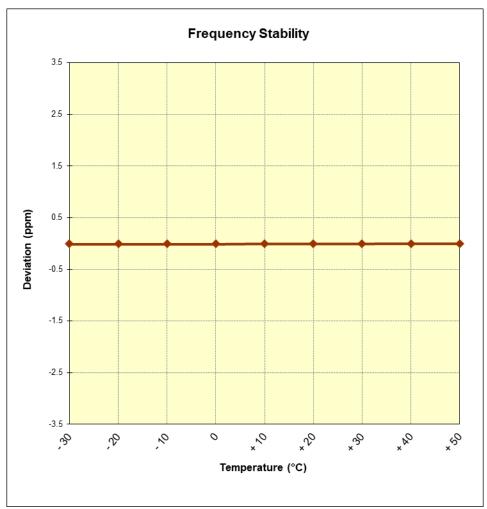


Figure 7-13. Frequency Stability Graph (Band 25/2)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 222 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 233 of 238



Band 7 Frequency Stability Measurements

OPERATING FREQUENCY: 2,535,000,000 Hz

CHANNEL: 21100

REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %		- 30	2,535,000,006	6	0.000003
100 %		- 20	2,535,000,011	11	0.000004
100 %		- 10	2,535,000,009	9	0.0000004
100 %		0	2,535,000,009	9	0.000004
100 %	3.80	+ 10	2,535,000,010	10	0.000004
100 %		+ 20	2,535,000,011	11	0.000004
100 %		+ 30	2,535,000,011	11	0.0000004
100 %		+ 40	2,535,000,011	11	0.000004
100 %		+ 50	2,535,000,013	13	0.0000005
BATT. ENDPOINT	3.40	+ 20	2,535,000,011	11	0.0000004

Table 7-48. Frequency Stability Data (Band 7)

Note:

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	(
Test Report S/N:	Test Dates:	EUT Type:	Page 234 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 234 01 236



Band 7 Frequency Stability Measurements

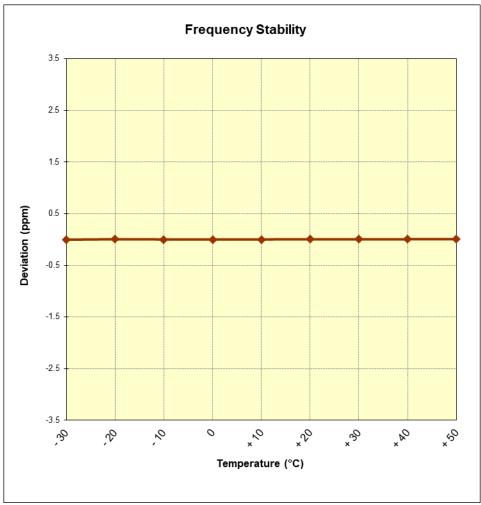


Figure 7-14. Frequency Stability Graph (Band 7)

FCC ID: BCG-A2094	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 225 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 235 of 238



Band 41 Frequency Stability Measurements

OPERATING FREQUENCY: 2,593,000,000 Hz CHANNEL: 40620 3.80 REFERENCE VOLTAGE: **VDC**

POWER TEMP FREQUENCY VOLTAGE Freq. Dev. Deviation (%) (VDC) (°C) (Hz) (Hz) (%) 100 % - 30 2,593,000,023 0.0000009 23 100 % - 20 2,593,000,023 23 0.0000009 21 100 % - 10 2,593,000,021 0.0000008 100 % 0 2,593,000,023 23 0.0000009 100 % 3.80 + 10 2,593,000,021 21 0.0000008 100 % + 20 25 2,593,000,025 0.0000010 100 % +302,593,000,027 27 0.0000010 100 % 0.0000010 + 40 2,593,000,025 25 100 % + 50 2,593,000,026 26 0.0000010 BATT. ENDPOINT 2,593,000,054 54 3.40 + 20 0.0000021

Table 7-49. Frequency Stability Data (Band 41)

Note:

FCC ID: BCG-A2094	ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 236 of 238
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Fage 236 01 236



Band 41 Frequency Stability Measurements

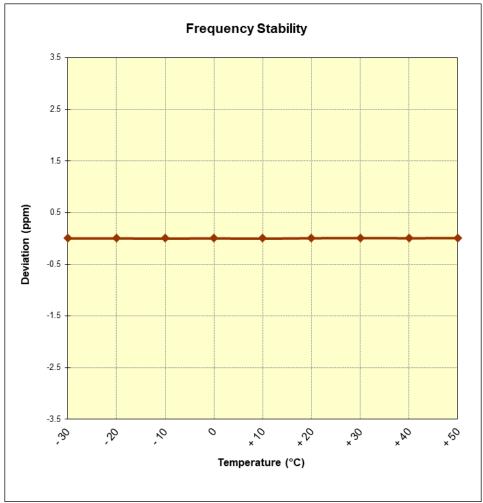


Figure 7-15. Frequency Stability Graph (Band 41)

FCC ID: BCG-A2094	ENGINESHING LABORATORY, INC.	/	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 227 of 229
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 237 of 238



CONCLUSION 8.0

collected data relate only to the item(s) tested and show that the Apple FCC ID: BCG-A2094 complies with all the requirements of Part 22, 24, & 27 of the FCC Rules for LTE operation only.

FCC ID: BCG-A2094	PCTEST: ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 220 of 220
1C1905130008-03.BCG	05/01/2019 - 08/01/2019	Watch	Page 238 of 238