

Plot 7-376. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) - Ch. 7)



Plot 7-377. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) - Ch. 39)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 221 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 221 of 302
© 2022 ELEMENT	÷		V 9.0 02/01/2019





Plot 7-378. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) - Ch. 87)



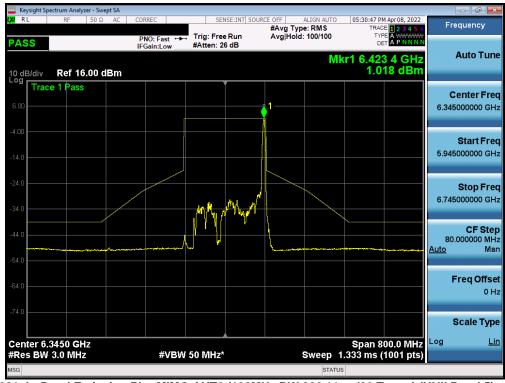
Plot 7-379. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 5) - Ch. 15)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 222 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 222 of 302
© 2022 ELEMENT	•	·	V 9.0 02/01/2019





Plot 7-380. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 5) - Ch. 47)



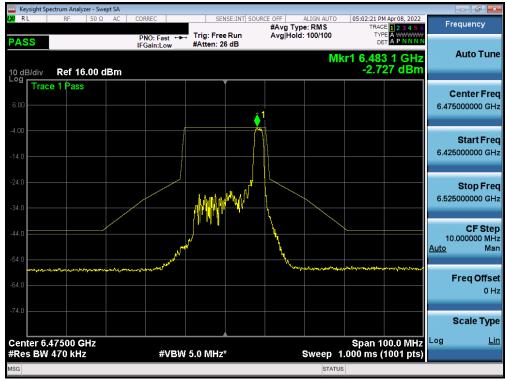
Plot 7-381. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 5) - Ch. 79)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 222 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 223 of 302
© 2022 ELEMENT	-		V 9.0 02/01/2019





Plot 7-382. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) - Ch. 97)



Plot 7-383. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) - Ch. 105)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 224 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Faye 224 01 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





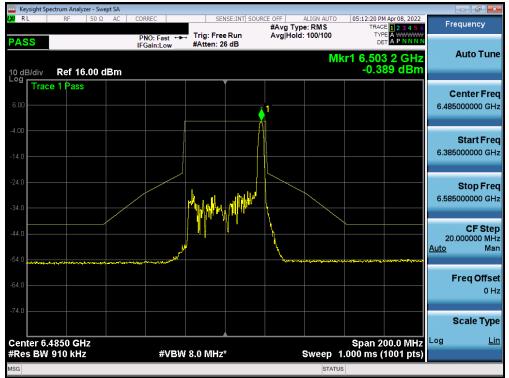
Plot 7-384. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) - Ch. 113)



Plot 7-385. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) - Ch. 99)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 225 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 225 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





Plot 7-386. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) - Ch. 107)



Plot 7-387. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) - Ch. 115)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 226 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 220 01 302
© 2022 ELEMENT	•	·	V 9.0 02/01/2019





Plot 7-388. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 6) - Ch. 103)



Plot 7-389. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 6) - Ch. 111)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 227 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 227 of 302
© 2022 ELEMENT			V 9.0 02/01/2019





Plot 7-390. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 117)



Plot 7-391. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 149)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 228 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 228 of 302
© 2022 ELEMENT	·		V 9.0 02/01/2019





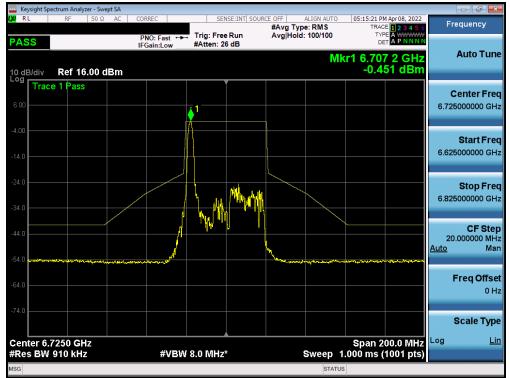
Plot 7-392. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 185)



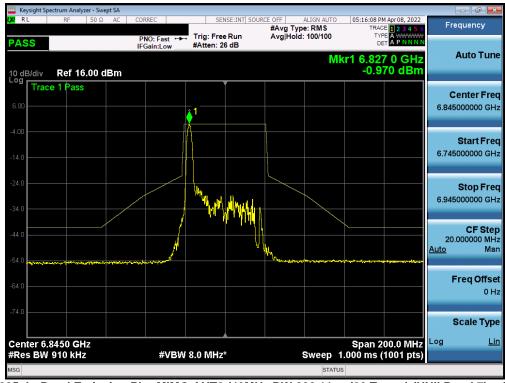
Plot 7-393. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 123)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 229 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 229 01 302
© 2022 ELEMENT	•	·	V 9.0 02/01/2019





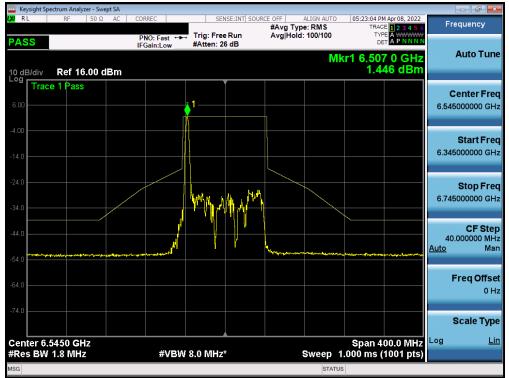
Plot 7-394. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 155)



Plot 7-395. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 179)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 230 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	raye 200 01 302
© 2022 ELEMENT		·	V 9.0 02/01/2019





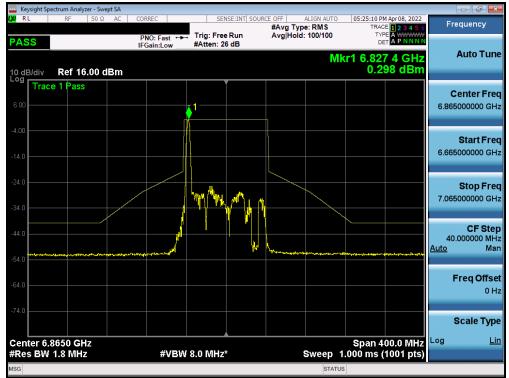
Plot 7-396. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 119)



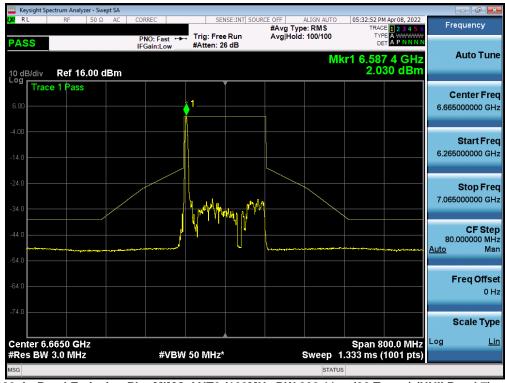
Plot 7-397. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 151)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 221 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 231 of 302
© 2022 ELEMENT	•	-	V 9.0 02/01/2019





Plot 7-398. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 183)



Plot 7-399. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 143)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 232 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	raye 232 01 302
© 2022 ELEMENT	·		V 9.0 02/01/2019





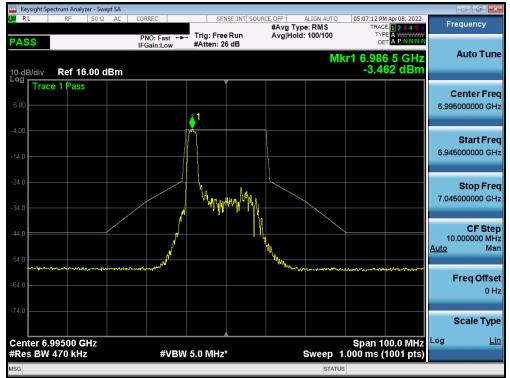
Plot 7-400. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 7) - Ch. 175)



Plot 7-401. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 189)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 222 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 233 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





Plot 7-402. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 209)



Plot 7-403. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 233)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 224 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 234 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





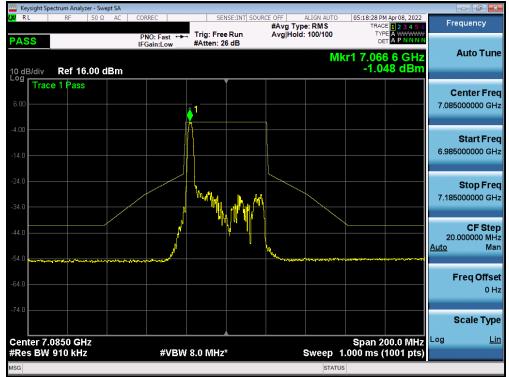
Plot 7-404. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 187)



Plot 7-405. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 211)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 225 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 235 of 302
© 2022 ELEMENT	÷		V 9.0 02/01/2019





Plot 7-406. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 227)



Plot 7-407. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 199)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 226 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 236 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





Plot 7-408. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 215)



Plot 7-409. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 8) - Ch. 207)

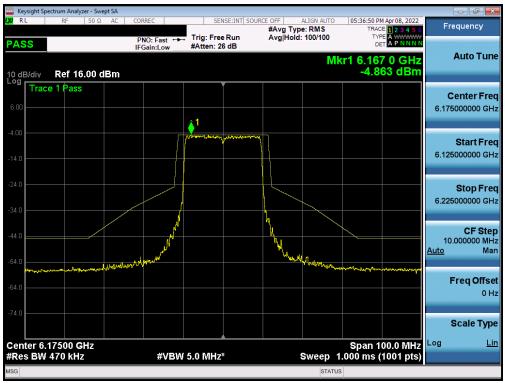
FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 237 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 237 01 302
© 2022 ELEMENT	•		V 9.0 02/01/2019



#### Keysight Spectrum Analyzer - Swept SA 05:36:11 PM Apr 08, 2022 #Avg Type: RMS Avg|Hold: 100/100 Frequency RACE 1 2 3 4 5 Trig: Free Run түр PNO: Fast DET A P N N N PASS #Atten: 26 dB IEGain:Low Auto Tune Mkr1 5.942 7 GHz -4.320 dBm 10 dB/div Ref 16.00 dBm Trace 1 Pass **Center Freq** 5.935000000 GHz 1 Start Freq 5.885000000 GHz Stop Freq 5.985000000 GHz **CF** Step 10.000000 MHz Auto Man **Freq Offset** 0 Hz Scale Type Center 5.93500 GHz #Res BW 470 kHz Span 100.0 MHz Log Sweep 1.000 ms (1001 pts) <u>Lin</u> #VBW 5.0 MHz\*

# MIMO Antenna-2 In-Band Emission Measurements (Full Tones)

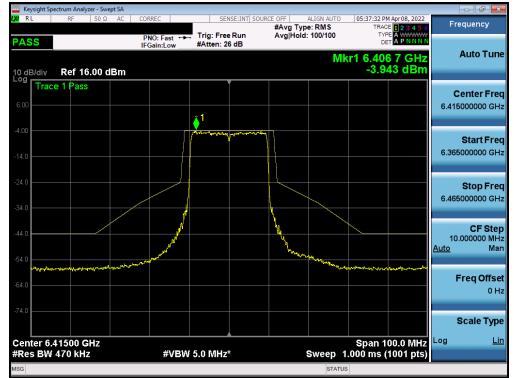




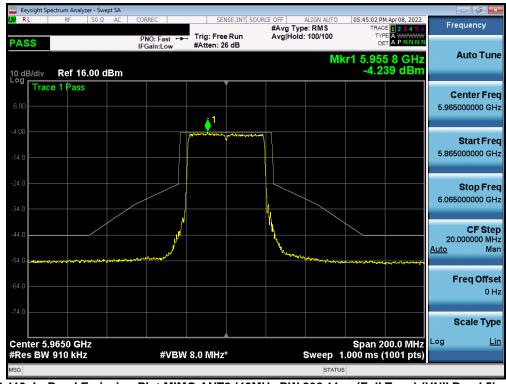
Plot 7-411. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 5) - Ch. 45)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 238 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 238 01 302
© 2022 ELEMENT	•		V 9 0 02/01/2019





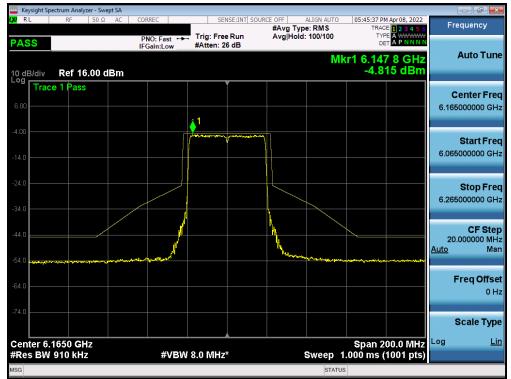
Plot 7-412. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) UNII Band 5) - Ch. 93)



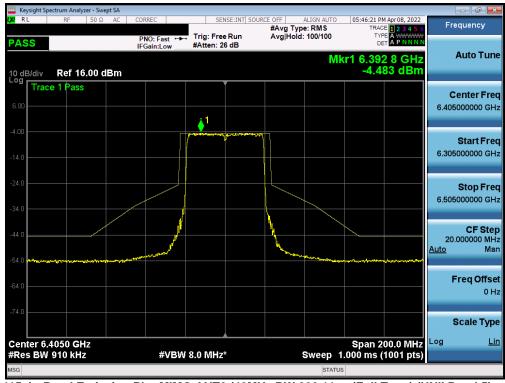
Plot 7-413. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 5) - Ch. 3)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 239 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	raye 239 01 302
© 2022 ELEMENT	-		V 9.0 02/01/2019





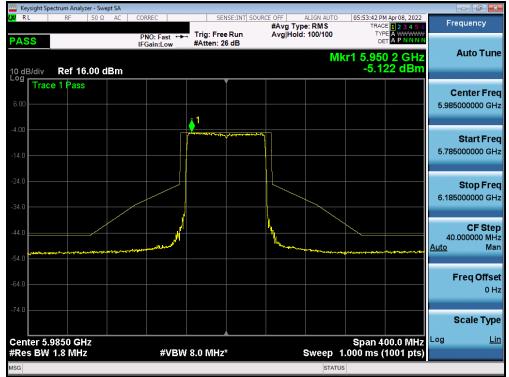
Plot 7-414. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 5) - Ch. 43)



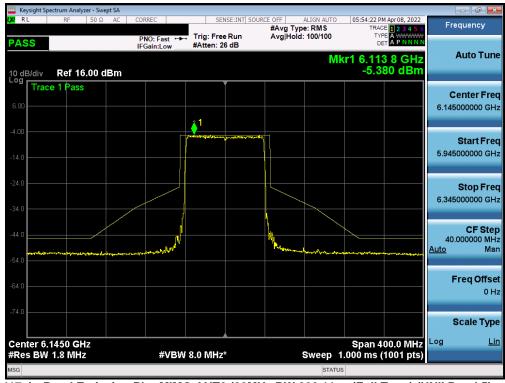
Plot 7-415. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 5) - Ch. 91)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 240 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Faye 240 01 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





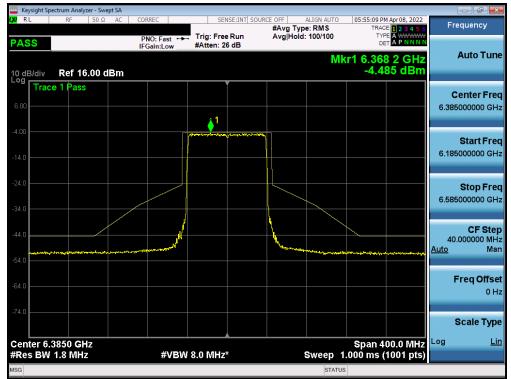
Plot 7-416. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 5) - Ch. 7)



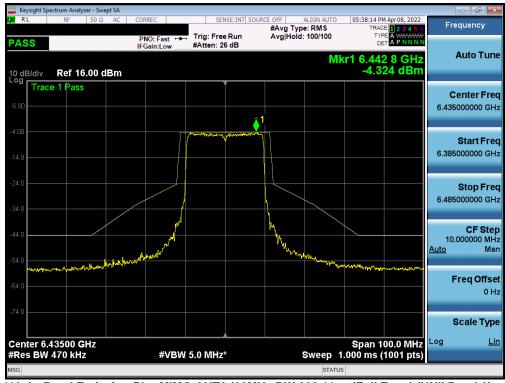
Plot 7-417. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 5) - Ch. 39)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 241 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 241 of 302
© 2022 ELEMENT	-		V 9.0 02/01/2019





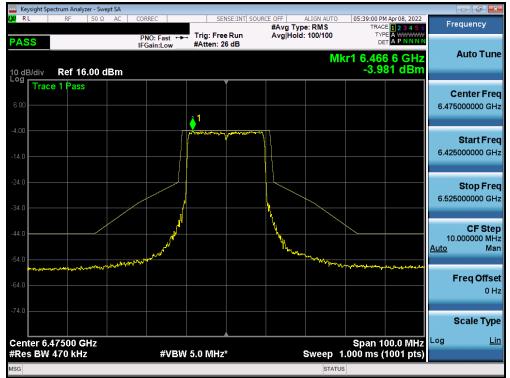
Plot 7-418. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 5) - Ch. 87)



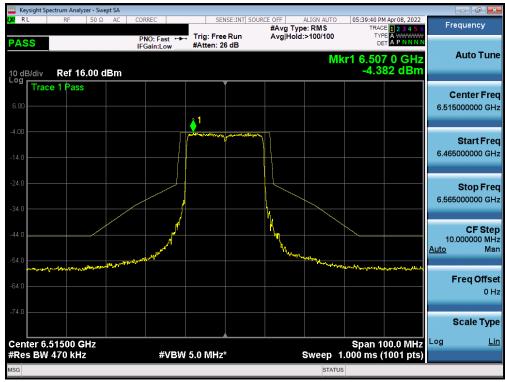
Plot 7-419. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 6) - Ch. 97)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dago 242 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 242 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





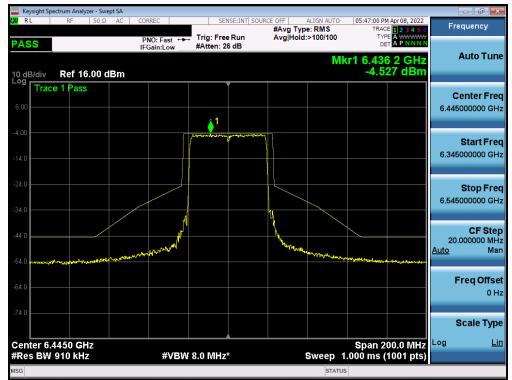
Plot 7-420. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 6) - Ch. 105)



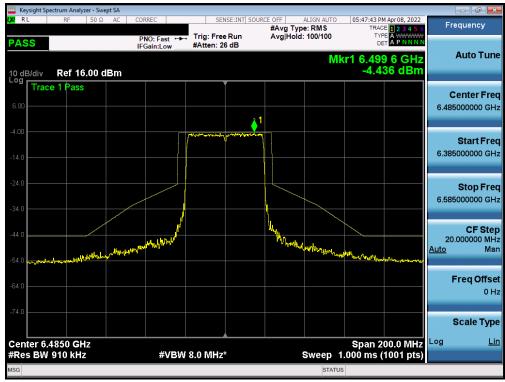
Plot 7-421. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 6) - Ch. 113)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 243 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Faye 243 01 302
© 2022 ELEMENT	•	•	V 9.0 02/01/2019





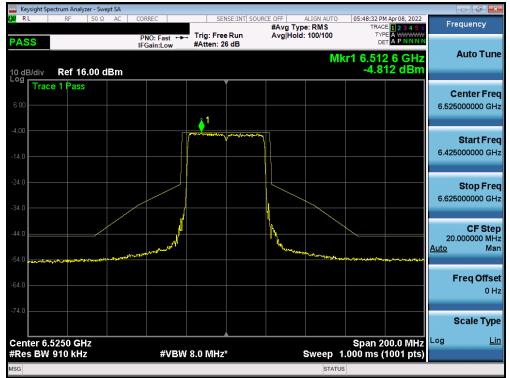
Plot 7-422. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 6) - Ch. 99)



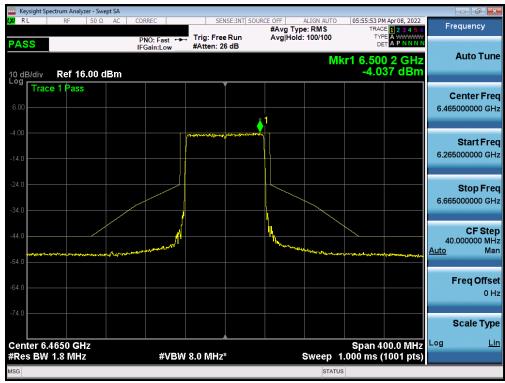
Plot 7-423. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 6) - Ch. 107)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 244 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 244 of 302
© 2022 ELEMENT	·		V 9.0 02/01/2019





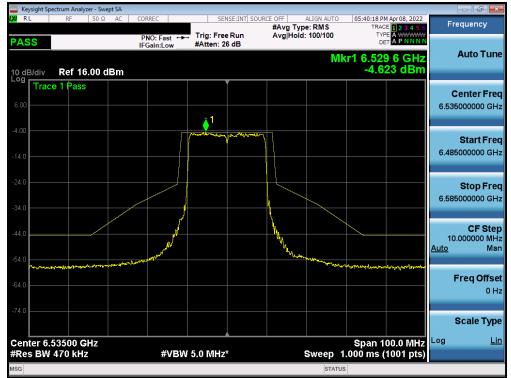
Plot 7-424. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 6) - Ch. 115)



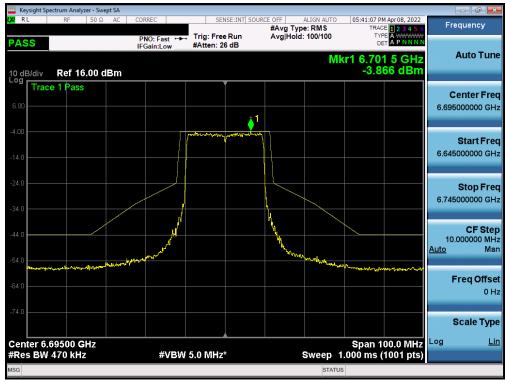
Plot 7-425. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 6) - Ch. 103)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 245 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 240 01 302
© 2022 ELEMENT	•	·	V 9.0 02/01/2019





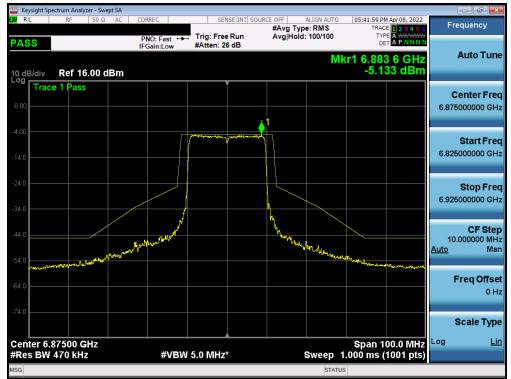
Plot 7-426. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 117)



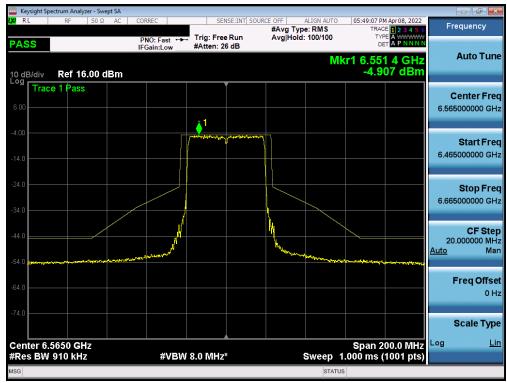
Plot 7-427. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 149)

FCC ID: A3LSMF936B		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Daga 246 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 246 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





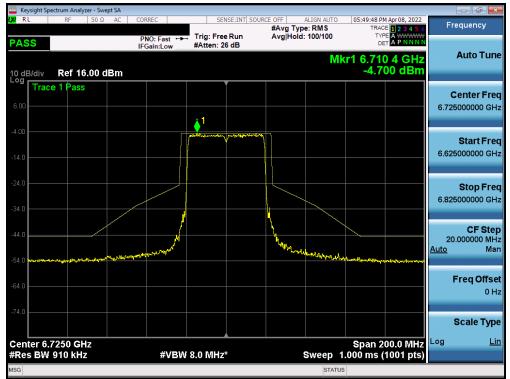
Plot 7-428. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 185)



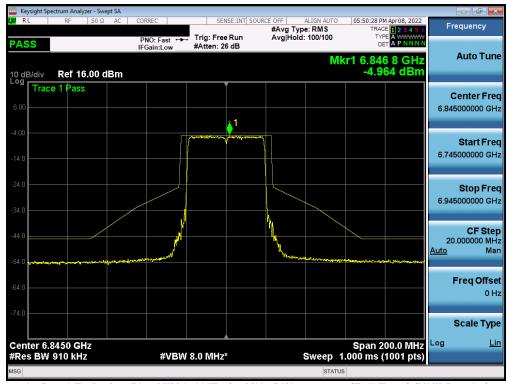
Plot 7-429. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 123)

FCC ID: A3LSMF936B		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Daga 247 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 247 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





Plot 7-430. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 155)



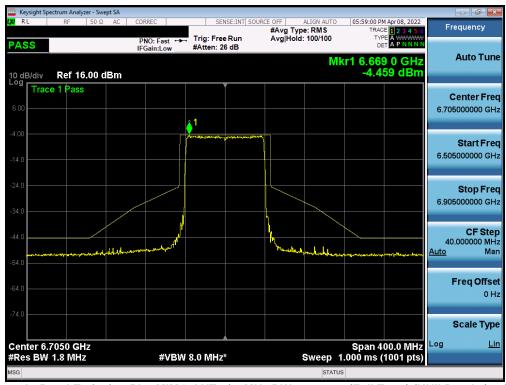
Plot 7-431. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 179)

FCC ID: A3LSMF936B		Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage 249 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 248 of 302
© 2022 ELEMENT	-		V 9.0 02/01/2019





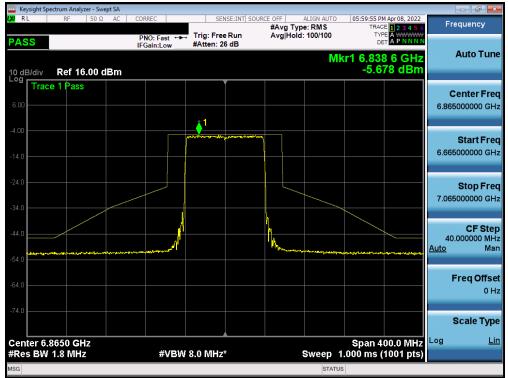
Plot 7-432. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 119)



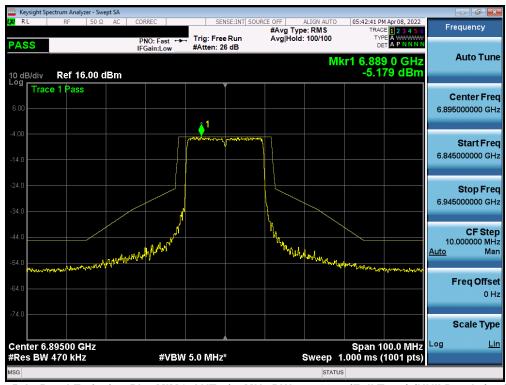
Plot 7-433. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 151)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 249 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Faye 249 01 302
© 2022 ELEMENT	•	·	V 9.0 02/01/2019





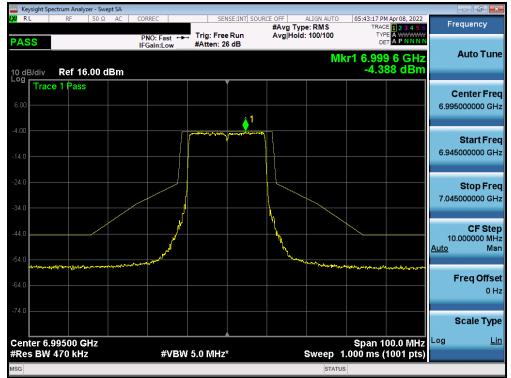
Plot 7-434. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) - Ch. 183)



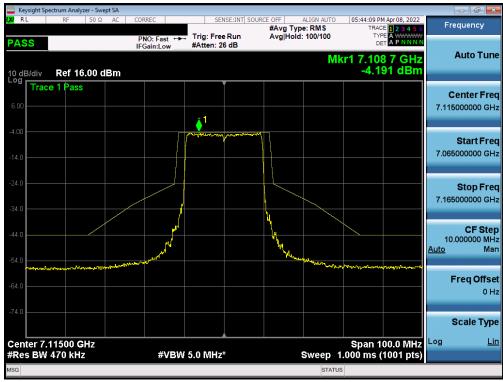
Plot 7-435. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) - Ch. 189)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 250 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 250 01 502
© 2022 ELEMENT	•	·	V 9.0 02/01/2019





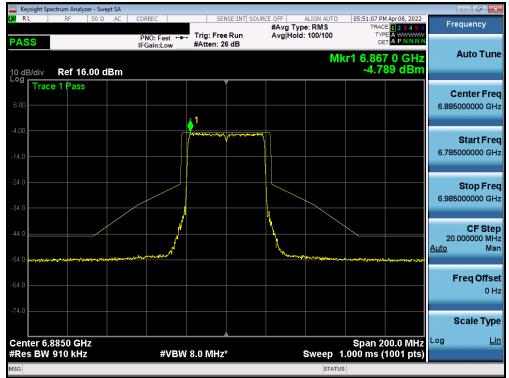
Plot 7-436. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) - Ch. 209)



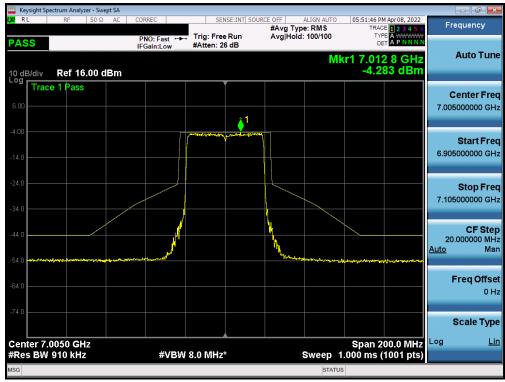
Plot 7-437. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) - Ch. 233)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 251 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 251 of 302
© 2022 ELEMENT	·		V 9.0 02/01/2019





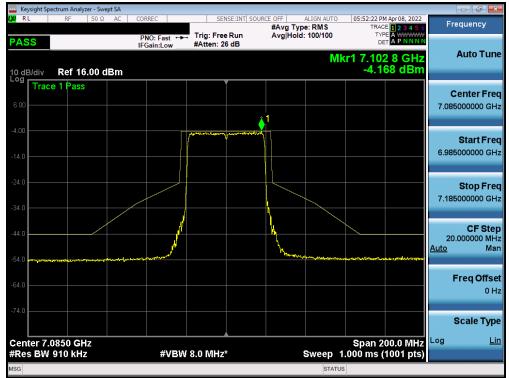
Plot 7-438. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) - Ch. 187)



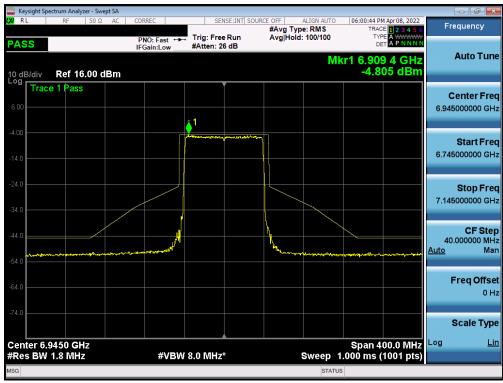
Plot 7-439. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) - Ch. 211)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 252 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 252 01 302
© 2022 ELEMENT	•		V 9.0 02/01/2019





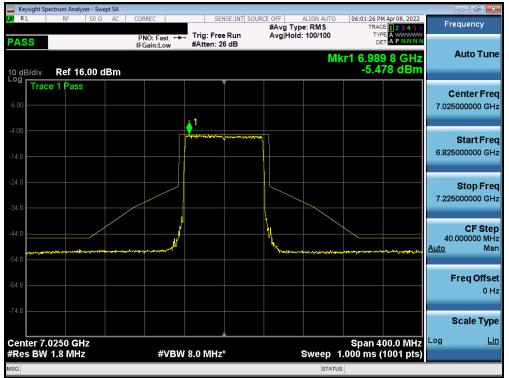
Plot 7-440. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) - Ch. 227)



Plot 7-441. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 8) - Ch. 199)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 252 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 253 of 302
© 2022 ELEMENT	•	·	V 9.0 02/01/2019





Plot 7-442. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 8) - Ch. 215)

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 254 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 254 of 302
© 2022 ELEMENT	·		V 9.0 02/01/2019



## 7.6 Contention Based Protocol – 802.11ax §15.407(d)(6)

## Test Overview and Limit

Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.

Unlicensed indoor low-power devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel and stay off the channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain.

To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel.

#### Test Procedure Used

ANSI C63.10-2013 – Section 12.3.2.2 KDB 987594 D02 v01r01

#### Test Settings

- 1. Configure the EUT to transmit with a constant duty cycle.
- 2. Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
- 3. Set the signal analyzer center frequency to the nominal EEUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2, as shown in Figure 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
- 4. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two.
- 5. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
- 6. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT as shown in Figure 2.
- 7. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
- 8. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
- **9.** (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
- **10.** Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal and repeat the process.

FCC ID: A3LSMF936B	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 255 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 200 01 302
© 2022 ELEMENT	•	-	\/ 0 0 02/01/2010

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. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact ct.info@element.com.



## Test Setup

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

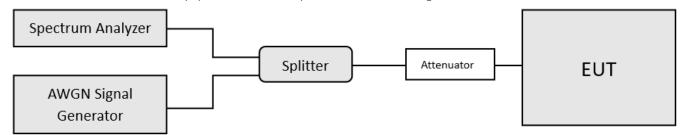


Figure 7-5. Contention-based protocol test setup, conducted method

## Test Notes

- 1. Per guidance from KDB 987594 D02 v01r01, contention based protocol was tested using an AWGN signal with a bandwidth of 10MHz (see Plot 7-349). The amplitude of the signal was increased until detected by the EUT, signaled by the ceasing of transmission (see Plot 7-365), marker indicates the point at which the AWGN signal is introduced.
- 2. 15 trials were ran in order to assure that at least 90% of certainty was met.
- 3. Per Guidance from KDB 987594 D04 v01, contention based protocol was tested with receiver with the lowest antenna gain.
- 4. All CBP Timing Plots shown are for the ceased condition. Some spikes that may be shown are from adjacent portions of the spectrum that are still transmiting.

Detection Level = Injected AWGN Power (dBm) – Antenna Gain (dBi) + Path Loss (dB)

Band	Channel	Channel Freq [MHz]	Channel BW [MHz]	Incumbent Freq [MHz]	Injected (AWGN) [dBm]	Antenna Gain [dBi]	Adjusted Power Level [dBm]	Detection Limit [dBm]	Margin [dB]
	53	6215	20	6215	-73.30	-3.42	-69.88	-62.0	-7.88
UNII				6110	-73.50	-3.42	-70.08	-62.0	-8.08
Band 5	47	6185	160	6185	-73.20	-3.42	-69.78	-62.0	-7.78
				6260	-72.20	-3.42	-68.78	-62.0	-6.78
	101	6455	20	6455	-73.15	-10.50	-62.65	-62.0	-0.65
UNII				6430	-73.10	-10.50	-62.60	-62.0	-0.60
Band 6	111	6505	160	6505	-73.20	-10.50	-62.70	-62.0	-0.70
				6580	-73.72	-10.50	-63.22	-62.0	-1.22
	149	6695	20	6695	-74.10	-8.64	-65.46	-62.0	-3.46
UNII				6750	-71.40	-8.64	-62.76	-62.0	-0.76
Band 7	175	6825	160	6825	-74.27	-8.64	-65.63	-62.0	-3.63
				6900	-74.45	-8.64	-65.81	-62.0	-3.81
	197	6935	20	6935	-75.30	-11.46	-63.84	-62.0	-1.84
UNII				6910	-74.96	-11.46	-63.50	-62.0	-1.50
Band 8	207	6985	160	6985	-76.37	-11.46	-64.91	-62.0	-2.91
				7060	-73.90	-11.46	-62.44	-62.0	-0.44

**Equation 7-1. Detection Level Calculation** 

Table 7-31. Contention Based Protocol – Incumbent Detection Results

FCC ID: A3LSMF936B		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Baga 256 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 256 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019



					EUT	Transmission S	Amsmission Status         AWGN Power (dBm)         Minimal       Ceased         -72.88       -69.88         -73.08       -70.08         -72.78       -69.78         -71.78       -69.78         -65.65       -62.65         -65.60       -62.60         -65.70       -62.70         -66.22       -63.22         -68.46       -65.46         -65.76       -62.76         -68.63       -65.63		
		Channel From	Channel BW	lu e un b e ut	Adjuste	d AWGN Powe	er (dBm)		
Band	Channel	Channel Freq [MHz]	[MHz]	Incumbent Freq [MHz]	Normal	Minimal	Ceased		
	53	6215	20	6215	-81.88	-72.88	-69.88		
UNII				6110	-82.08	-73.08	-70.08		
Band 5	47	6185	160	6185	-81.78	-72.78	-69.78		
				6260	-80.78	-71.78	-68.78		
	101	6455	20	6455	-74.65	-65.65	-62.65		
UNII				6430	-74.60	-65.60	-62.60		
Band 6	111	6505	160	6505	-74.70	-65.70	-62.70		
				6580	-75.22	-66.22	-63.22		
	149	6695	20	6695	-77.46	-68.46	-65.46		
UNII				6750	-74.76	-65.76	-62.76		
Band 7	175	6825	160	6825	-77.63	-68.63	-65.63		
				6900	-77.81	-68.81	-65.81		
	197	6935	20	6935	-75.84	-66.84	-63.84		
UNII				6910	-75.50	-66.50	-63.50		
Band 8	207	6985	160	6985	-76.91	-67.91	-64.91		
				7060	-74.44	-65.44	-62.44		

Table 7-32. Contention Based Protocol – Detection Results – All Tx Cases

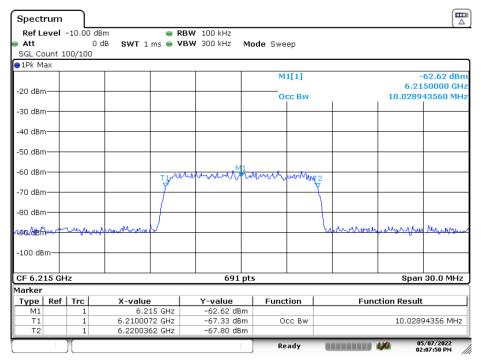
Band	Channel	Channel Freq [MHz]	Channel BW [MHz]	Incumbent Freq [MHz]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Detection Rate (%)
	53	6215	20	6215	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
UNII				6110	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
Band 5	47	6185	160	6185	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
				6260	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
	101	6455	20	6455	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
UNII				6430	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
Band 6	111	6505	160	6505	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
				6580	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
	149	6695	20	6695	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
UNII				6750	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
Band 7	175	6825	160	6825	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
				6900	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
	197	6935	20	6935	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
UNII				6910	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
Band 8	207	6985	160	6985	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
				7060	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100

 Table 7-33. Contention Based Protocol – Incumbent Detection Trial Results

FCC ID: A3LSMF936B		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 257 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 257 01 302
© 2022 ELEMENT		-	V 9 0 02/01/2019

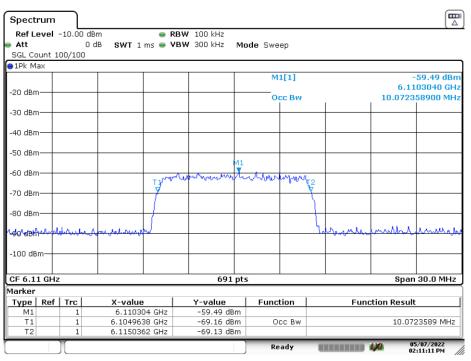


## **AWGN Plots**



Date: 7.MAY.2022 14:07:50





Date: 7.MAY.2022 14:11:11

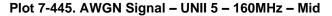
## Plot 7-444. AWGN Signal - UNII 5 - 160MHz - Low

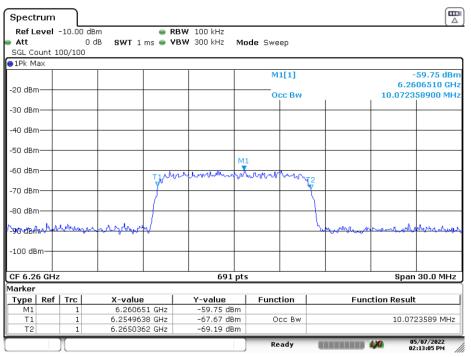
FCC ID: A3LSMF936B		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 258 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Fage 256 01 502
© 2022 ELEMENT	•		V 9.0 02/01/2019



Specti	um									
Ref Le Att SGL Co		-	Bm 🛛 🖷 F dB SWT 1 ms 🖷 V	RBW 100 kHz /BW 300 kHz	Mode Swe	ер				
😑 1Pk Ma	эх									
-20 dBm					м	1[1]				-59.32 dBm 374310 GHz
-20 ubii					0	cc Bw			10.0723	58900 MHz
-30 dBm										
-40 dBm										
-50 dBm										
-60 dBm	-		T1,v <sup>m</sup>	whitewar	M1	mory	T2			
-70 dBm			<b>↓ ↓</b>				ł			
-80 dBm			+				+			
N-9.0,818mA	1 Lord	ففيهنا كالمحال	mar Mar Mar Mar				V.	andra	and the set	Manhoraling
-100 dB	m+									
CF 6.18	35 GH	łz		691	pts				Span	30.0 MHz
Marker										
Туре	Ref	Trc	X-value	Y-value	Func	tion		Fund	tion Result	:
M1		1	6.187431 GHz	-59.32 de						
T1 T2		1	6.1799638 GHz 6.1900362 GHz	-67.85 dE -68.32 dE		cc Bw			10.07	23589 MHz
		)[			Re	ady	-			5/07/2022 2:12:09 PM

Date: 7.MAY.2022 14:12:09





Date: 7.MAY.2022 14:13:05

Plot 7-446. AWGN Signal – UNII 5 – 160MHz - High

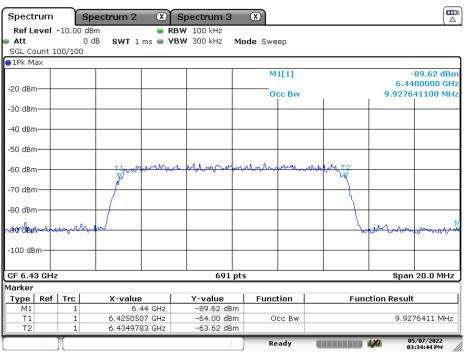
FCC ID: A3LSMF936B		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 250 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 259 of 302
© 2022 ELEMENT	•		V 9.0 02/01/2019



Spect	rum	5	pectrum 2	× 5	Spectrum 3	3 X				
Ref L	evel	-10.00 0	1Bm	e RB	<b>W</b> 100 kHz					
👄 Att			dB SWT 1	ms 👄 VB'	<b>W</b> 300 kHz	Mode	Sweep			
		100/100								
⊖1Pk M	ax									
							M1[1]			-59.87 dBm
-20 dBrr	n					ļ				552890 GHz
							Occ Bw	1	9.9276	541100 MHz
-30 dBrr	n-+-		_							
-40 dBm	n-+									
-50 dBm	n-+									+
60 JD			T1 .		Manna	M1	and a day	A March -0		
-60 dBr	n		- Porto	*****	man and a start of the start of			12		
-70 dBm										
-/0 001										
-80 dBm	n									
00 0.011	.									
190/HBh	May	كعفياتين وسيكر	www.					<u>۲</u>	- Arendarow	And a star and a star and a star a
										1
-100 dB	™+		_							
CF 6.4	55 G	Hz			691	pts			Spar	1 20.0 MHz
Marker									•	
Type	Ref	Trc	X-value	1	Y-value	F	unction	Fur	nction Resul	t
M1		1	6.45528	39 GHz	-59.87 de	3m				
T1		1	6.450050		-62.96 dB		Occ Bw		9.92	76411 MHz
T2		1	6.459978	33 GHz	-64.82 dE	3m				
		)[					Ready			5/07/2022 3:33:06 PM

Date: 7.MAY.2022 15:33:06

Plot 7-447. AWGN Signal – UNII 6 – 20MHz



Date: 7.MAY.2022 15:34:43

Plot 7-448. AWGN Signal - UNII 6 - 160MHz - Low

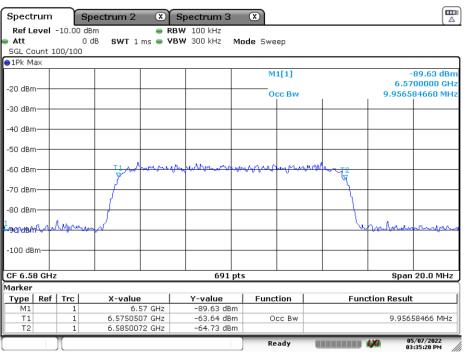
FCC ID: A3LSMF936B		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 260 of 302
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Faye 200 01 302
© 2022 ELEMENT	•	·	V 9.0 02/01/2019



Spect	rum	5	pectrum 2	×	Spectrum 3	×					
	evel	-10.00 (			3W 100 kHz						
👄 Att			dB SWT 1	ms 👄 VE	300 kHz	Mode Swe	еер				
		100/100									
⊖1Pk M	ax			1							
						M	1[1]				87.45 dBm
-20 dBm	n					<u> </u>	CC BW				97540 MHz
-30 dBn	n										
-40 dBm											
-40 0011											
-50 dBm	n										
-60 dBm	n —		TAN	mary	w April 1948	far March	assi and	Mar Arritz			
			1 2					1 1			
-70 dBr	n								1		
-80 dBm	n								1		
1									1		
<sup>™</sup> 96′d8'n	and the	490	wand						لعمر	Laboration	map masses
-100 dB	Im-										
CF 6.5	05 G	Hz	•		691	pts				Span	20.0 MHz
Marker											
Туре	Ref	Trc	X-value		Y-value	Func	tion		Fund	ction Result	
M1		1		95 GHz	-87.45 de						
T1		1	6.50005		-64.85 dB		CC BW			9.898	69754 MHz
T2		1	6.50994	93 GHZ	-63.64 dE	sm			_		
		ا				Re	ady		80		5/07/2022 1:33:43 PM

Date: 7.MAY.2022 15:33:43

Plot 7-449. AWGN Signal - UNII 6 - 160MHz - Mid



Date: 7.MAY.2022 15:35:20

## Plot 7-450. AWGN Signal – UNII 6 – 160MHz - High

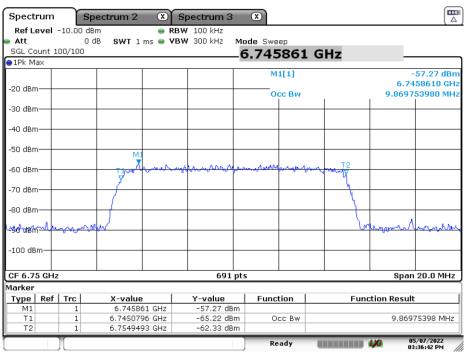
FCC ID: A3LSMF936B		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dega 261 of 202
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 261 of 302
© 2022 ELEMENT	•	•	V 9.0 02/01/2019



Spect	rum		Spectrum 2	×	Spectrum 3	3 X				
	evel	-10.00			RBW 100 kHz					
👄 Att			OdB SWT	1 ms 😑 🎙	<b>/BW</b> 300 kHz	Mode Sv	veep			
		100/100				_6.69	856	GHz	_	
😑 1Pk Ma	ax									
							M1[1]			-56.56 dBm
-20 dBm	n—									985600 GHz
							Occ Bw		9.9565	84660 MHz
-30 dBm	n—						_			
-40 dBm	n—									
-50 dBm	n—+						_	M1		
			T1 . 4							
-60 dBm	n-+-			- soy all you	-Listeral data	مانعهمكم	all a contra	MAMMAT2		
			^							
-70 dBm	n-+-			+					_	
			1 /							
-80 dBm				-						
42.40.0.1	n Ma	antra	N. N. O						Janum	In a sale of
190NdBd	1 Strips	area a tead	Alerton -	+			-		- 11 m	F
100 10										
-100 dB	m+									
CF 6.69	95 GI	Ηz			69	l pts			Spar	20.0 MHz
Marker										
Type	Ref	Trc	X-valu	e	Y-value	Fur	oction	Fi	Inction Result	t
M1		1	6.69	356 GHz	-56.56 d	Bm				
T1		1		217 GHz	-62.23 d		Occ Bw		9.956	58466 MHz
T2		1	6.6999	783 GHz	-64.24 d	Bm				
		)[					Ready		0 03	5/07/2022 3:36:11 PM

Date: 7.MAY.2022 15:36:11

Plot 7-451. AWGN Signal – UNII 7 – 20MHz



Date: 7.MAY.2022 15:36:42

Plot 7-452. AWGN Signal - UNII 7 - 160MHz - Low

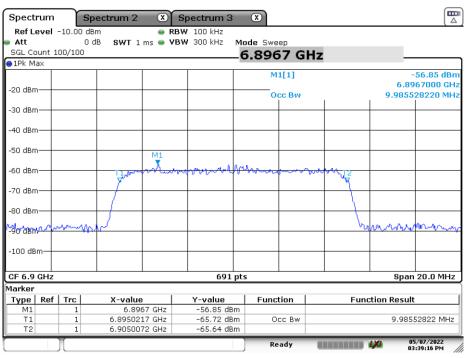
FCC ID: A3LSMF936B		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Daga 262 of 202	
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 262 of 302	
© 2022 ELEMENT	•		V 9.0 02/01/2019	



Spect	rum	5	Spectrum 2	×	Spectrum 3	8 X						
	evel	-10.00			BW 100 kHz							
Att			) dB <b>SWT</b> 1	ms 😑 V	' <b>BW</b> 300 kHz	Mode Swe						
		00/100				_6.828	3792	2 GH	IZ	_		
⊖1Pk M	ax											
						×	11[1]				-57.66 dBm	
-20 dBm	∩					<u> </u>	_			6.8287920 GHz 9.927641100 MHz		
							CC BW	1		9.9276	541100 MHZ	
-30 dBm	∩											
-40 dBm	<u>ו</u> רי		-			-						
-50 dBm	+-י							M1				
				and - n-	640 Carlos 1			Ţ				
-60 dBm	ד י		Tutto	the stand of the s	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1	alger and a	www	Mn12			
70 40-			1 2						- X			
-70 dBm	די											
-80 dBm	_											
-00 ubii	·											
-90 dbr	pade	mansh	lyn						- Le	morne	10 hansa	
50 abri	· •											
-100 dB	m —											
05 6 0		1-			601	nte				Const	20.0 MU	
CF 6.825 GHz 691 pts Span 20.0 MHz												
Marker		1 - 1				1 -						
Туре	Ref		X-value		Y-value	Fund	tion		Fund	tion Resul	t	
M1 T1		1	6.8287		-57.66 dl -65.29 dl		CC BW			0.00	276411 MHz	
T2		1	6.82997		-65.61 dl					9.92		
<u> </u>		1 1	0.02991	ee ana	00.01 0						5/07/2022	
		Л				R	eady				3:38:19 PM	

Date: 7.MAY.2022 15:38:18

Plot 7-453. AWGN Signal - UNII 7 - 160MHz - Mid



Date: 7.MAY.2022 15:39:16

Plot 7-454. AWGN Signal - UNII 7 - 160MHz - High

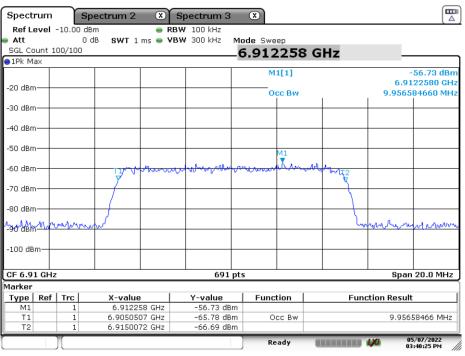
FCC ID: A3LSMF936B		Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:	Page 263 of 302	
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset		
© 2022 ELEMENT	•		V 9.0 02/01/2019	



Spect	rum	S	pectrum 2	×	Spectrum 3	3 X				
	evel	-10.00 0			RBW 100 kHz					
👄 Att			dB SWT 1	ms 😑 🍾	<b>/BW</b> 300 kHz	Mode Sw				
SGL Count 100/100 6.935608 GHz										
😑 1Pk Ma	ax									
						N	11[1]			55.39 dBm
-20 dBm	∩					L	_			56080 GHz
							CC BW	1	9.92764	41100 MHz
-30 dBm	∩— -		_							
-40 dBm	<b>⊢</b> −ι		-				+		+	
-50 dBm	ν <del>-+</del> -		_			MI				
						Amerila arto				
-60 dBm	י−+		Thurson and a second	~~~~w	han marken he	handrand		M- M		
			J Y					×.		
-70 dBm	+-י		- fr							
-80 dBm	ד י									
^-90 d8m	MM	mm	when						monune	ch mon
-90° an			ľ							
-100 dB	_									
-100 ub	"Τ									
CF 6.935 GHz         691 pts         Span 20.0 MHz										
Marker										
Туре	Ref	Trc	X-value		Y-value	Fun	ction	Fun	iction Result	
M1		1	6.9356		-55.39 d					
T1		1	6.93005		-65.43 d		Dee Bw		9.927	6411 MHz
T2		1	6.93997	83 GHz	-65.95 d	Bm				
		)[				R	eady			/07/2022 :39:51 PM

Date: 7.MAY.2022 15:39:51

Plot 7-455. AWGN Signal – UNII 8 – 20MHz



Date: 7.MAY.2022 15:40:24

#### Plot 7-456. AWGN Signal - UNII 8 - 160MHz - Low

FCC ID: A3LSMF936B		MEASUREMENT REPORT (CERTIFICATION)		
Test Report S/N:	Test Dates:	EUT Type:	Dega 264 of 202	
1M2204110052-14.A3L	4/1/2022 - 06/29/2022	Portable Handset	Page 264 of 302	
© 2022 ELEMENT			V 9 0 02/01/2019	