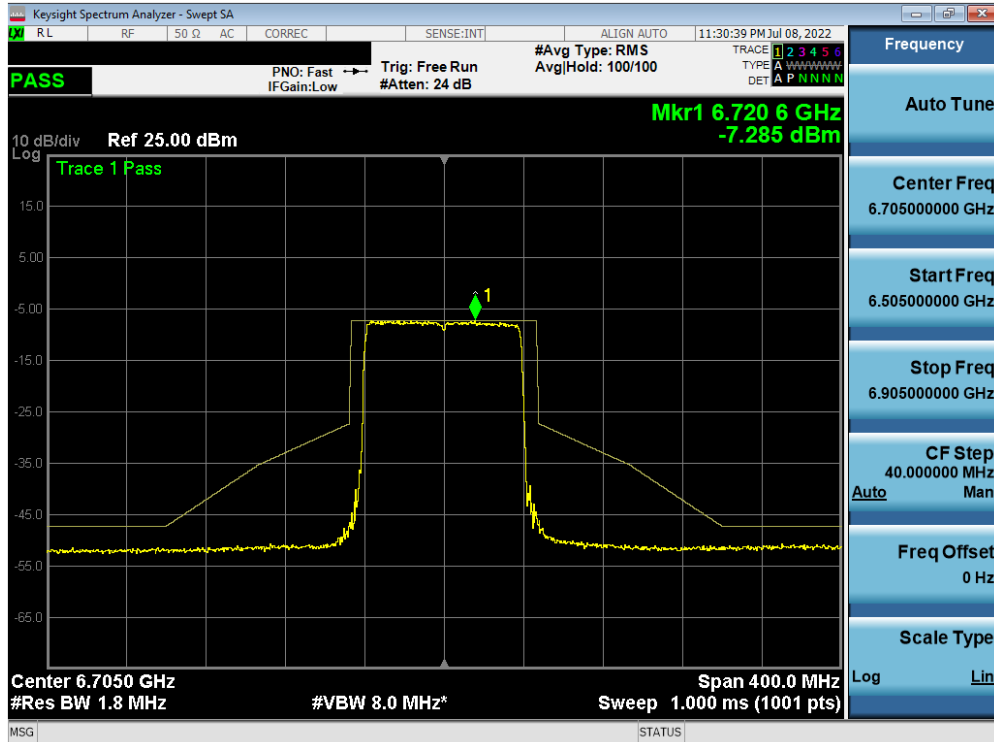
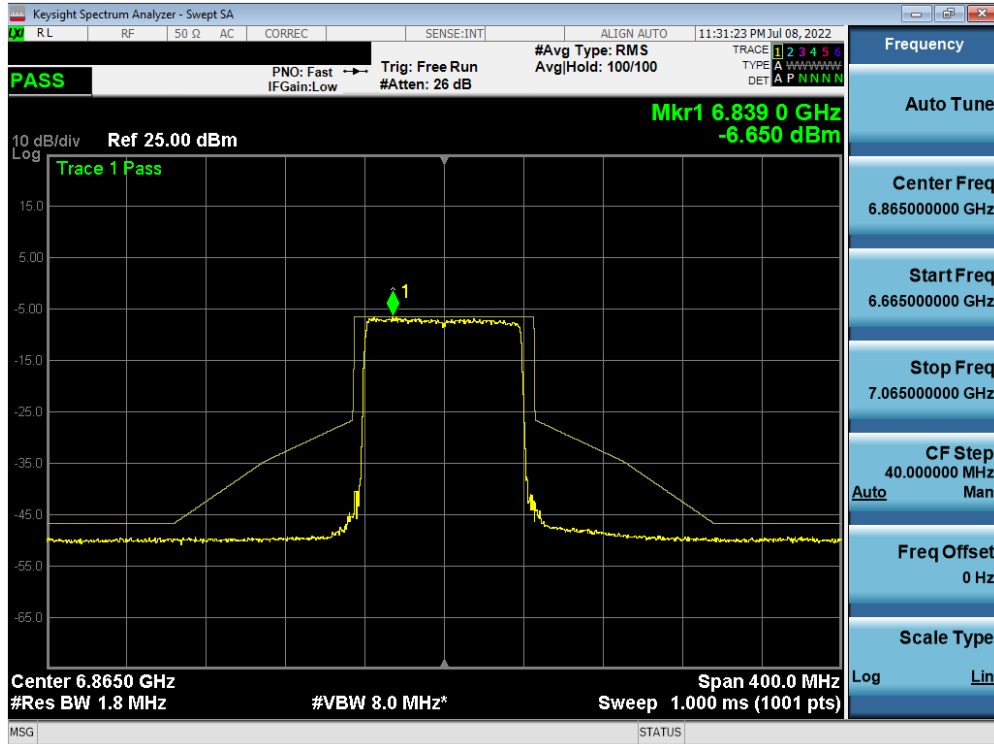


Plot 7-387. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 119)

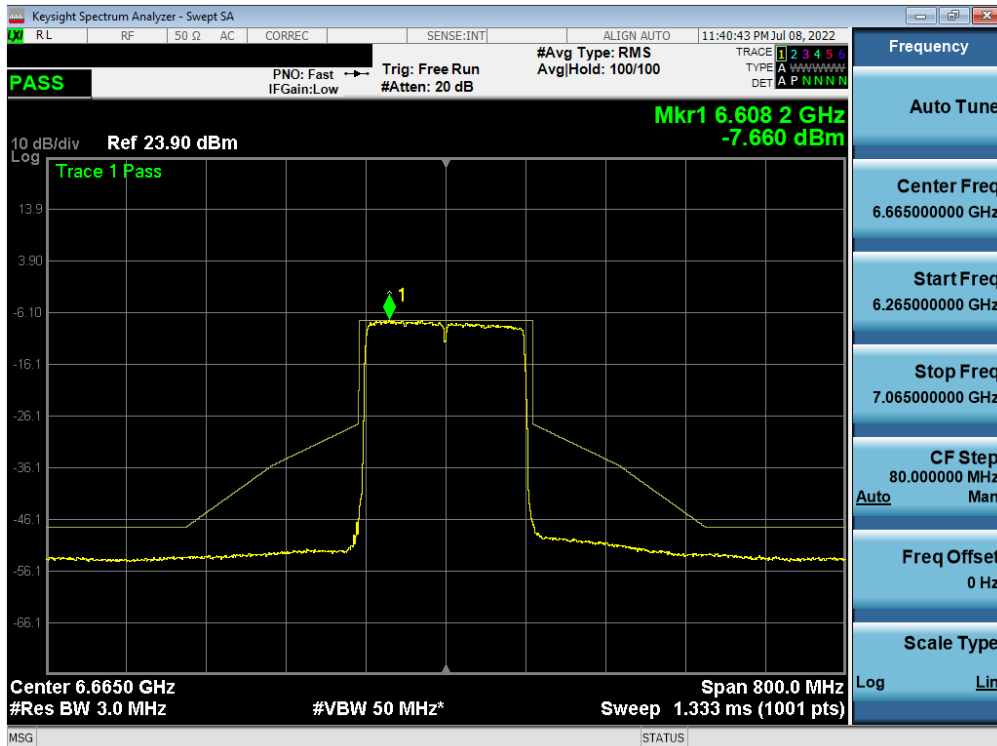


Plot 7-388. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 151)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 227 of 321

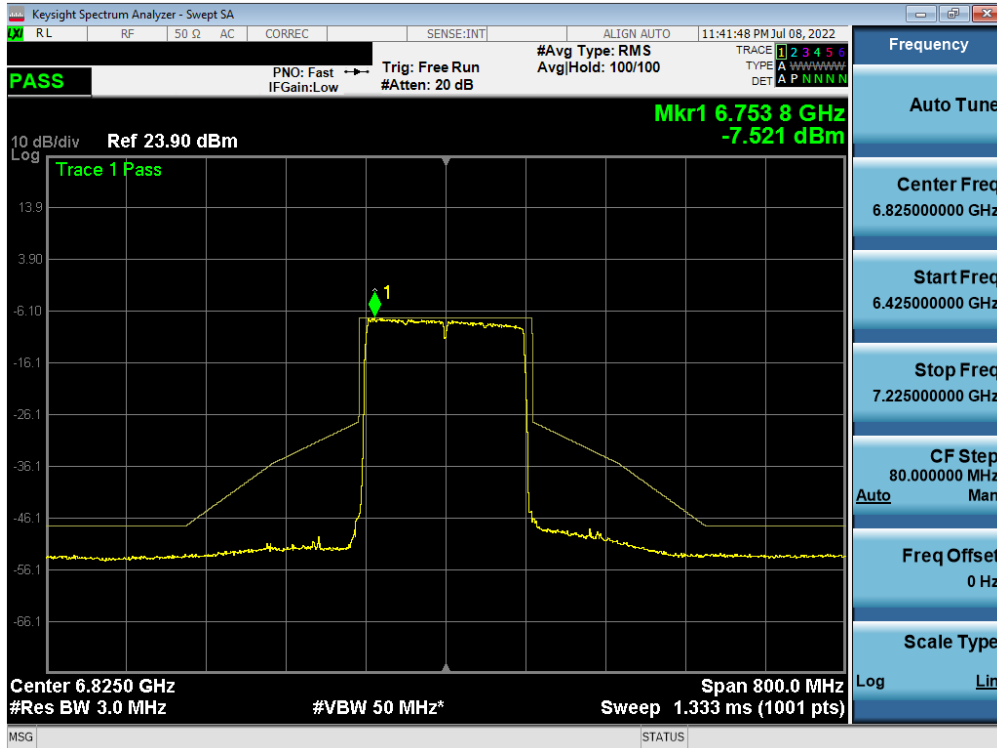


Plot 7-389. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 183)

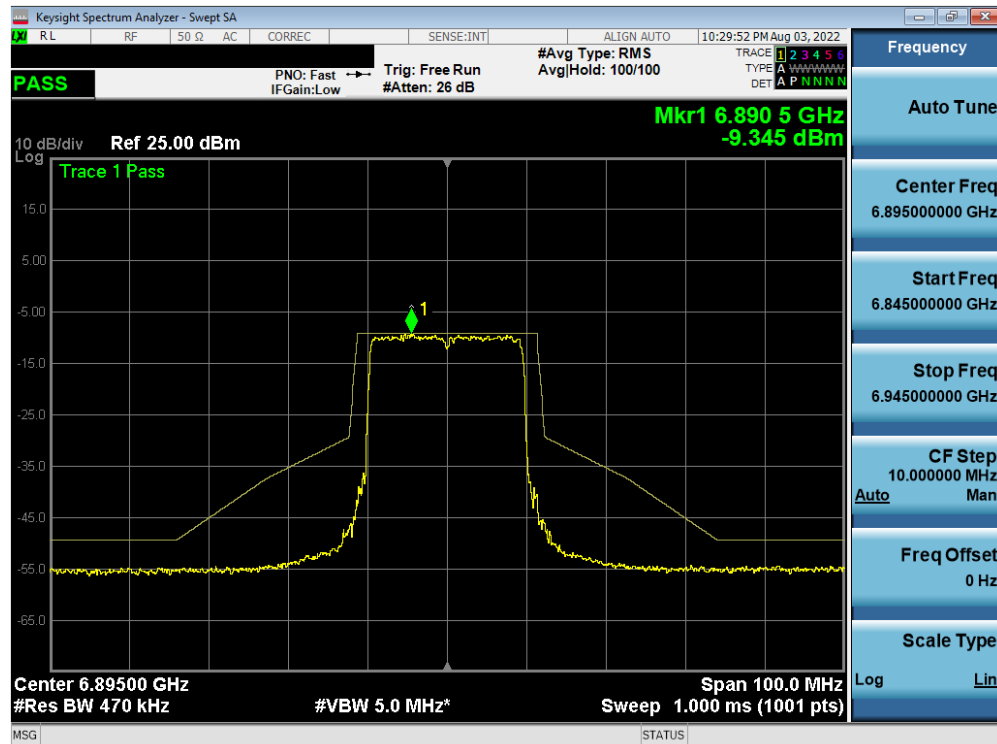


Plot 7-390. In-Band Emission Plot MIMO ANT1 (160MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 143)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 228 of 321

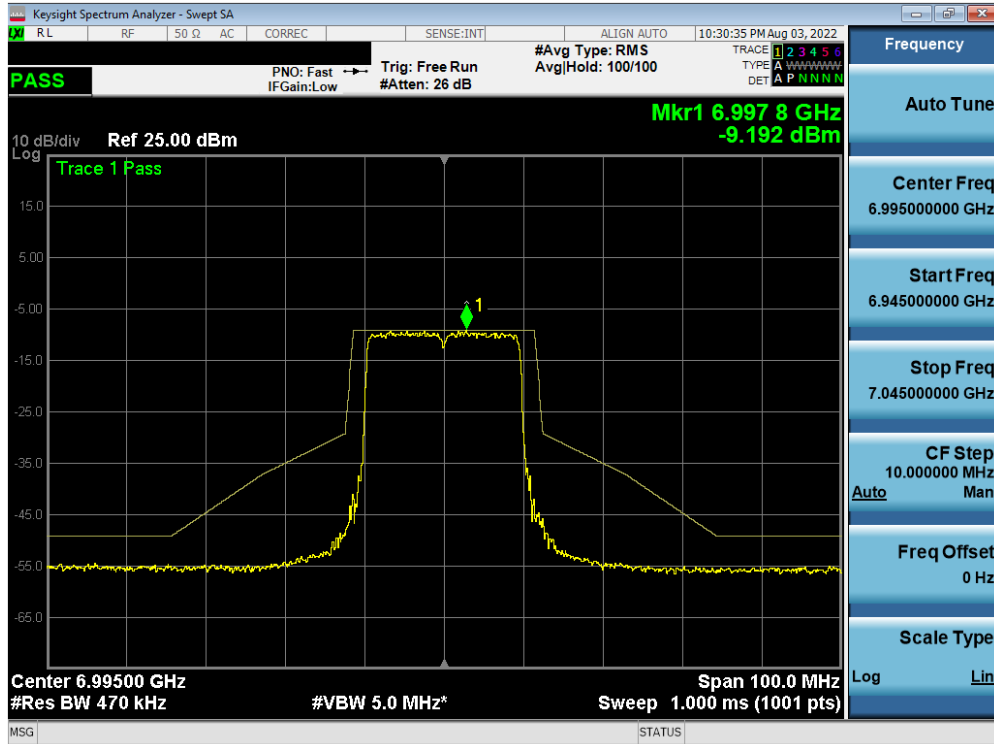


Plot 7-391. In-Band Emission Plot MIMO ANT1 (160MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 175)

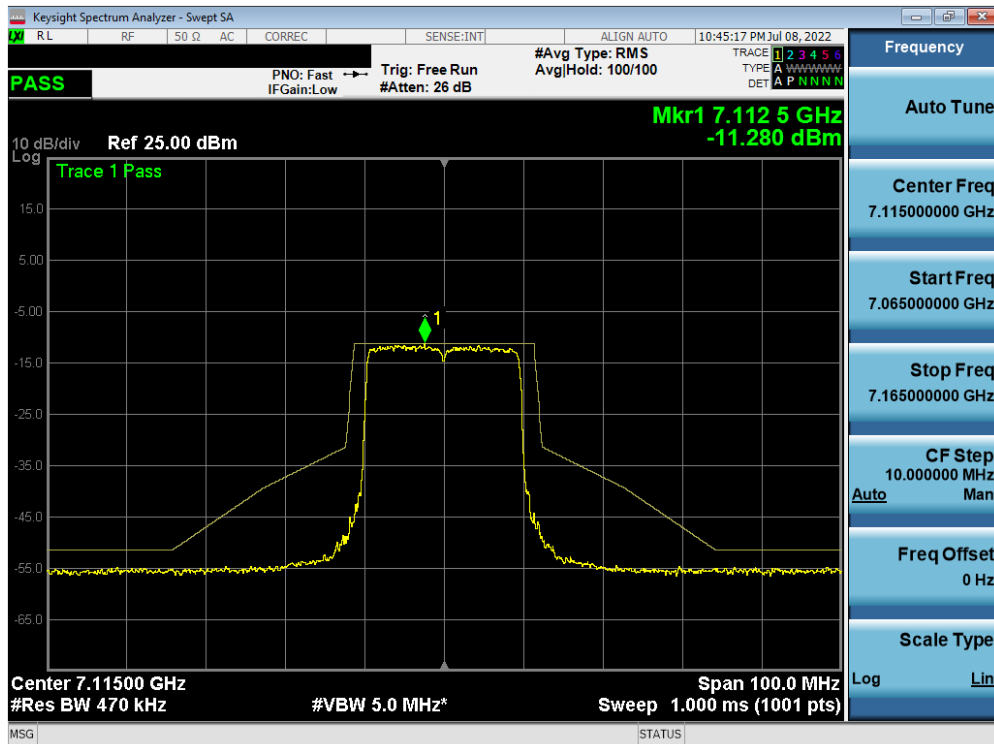


Plot 7-392. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 189)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 229 of 321

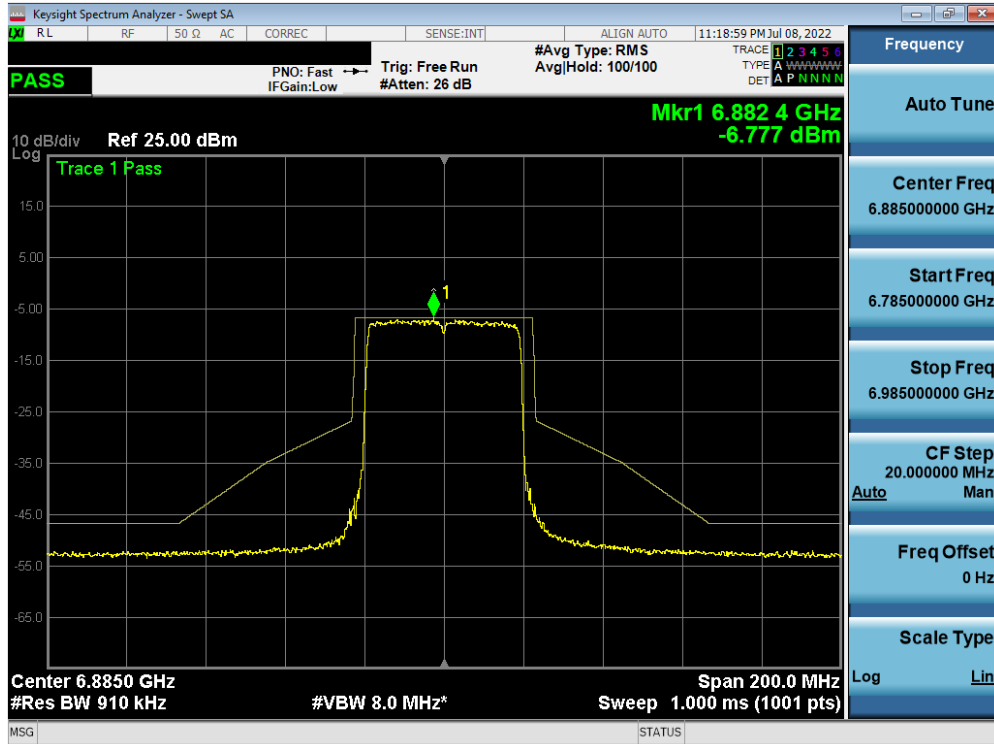


Plot 7-393. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 209)

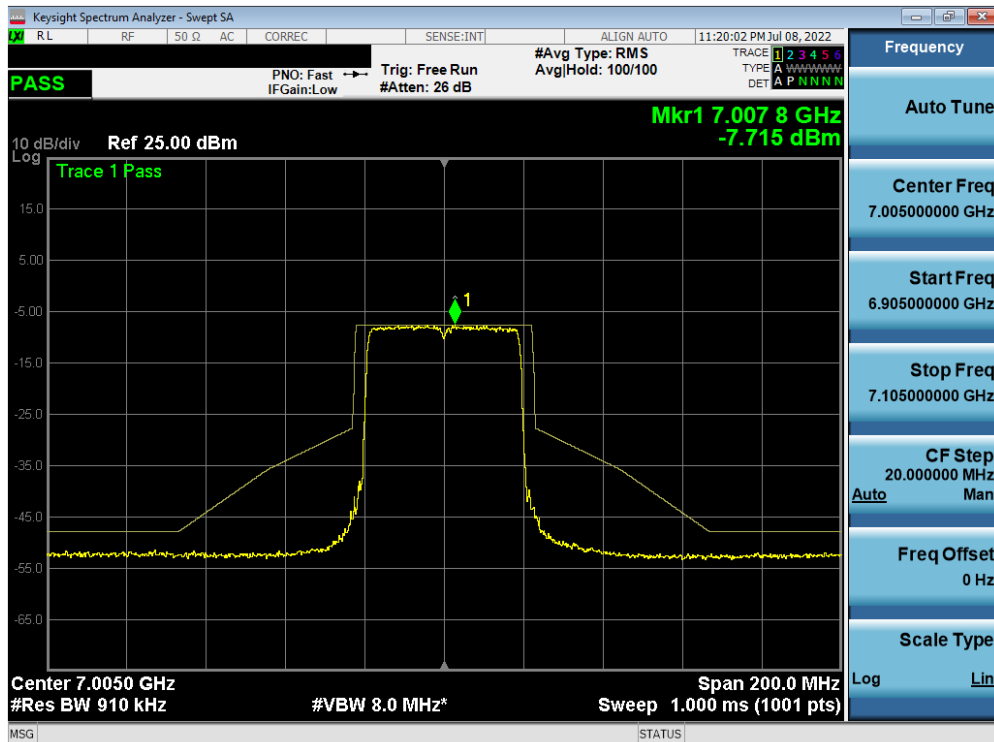


Plot 7-394. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 233)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 230 of 321

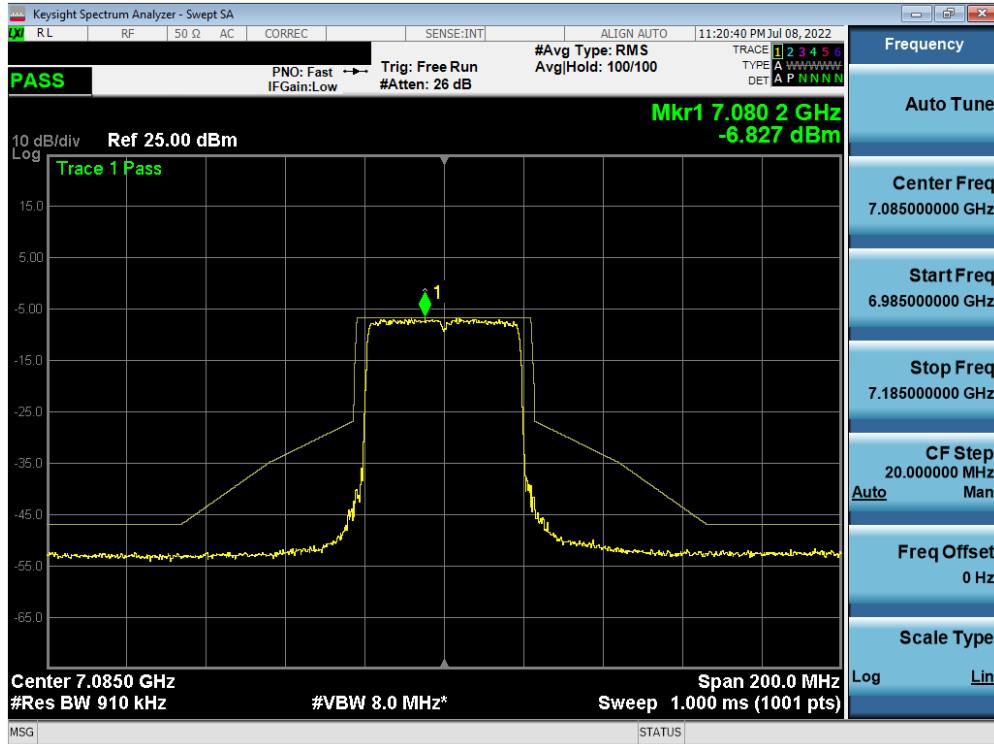


Plot 7-395. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 187)

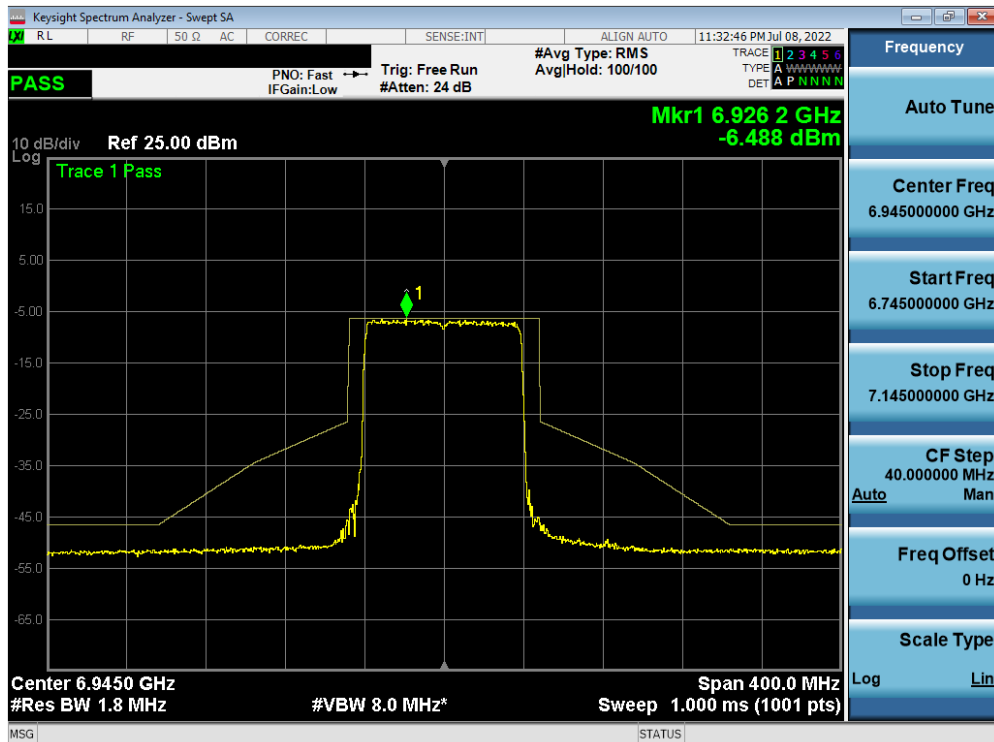


Plot 7-396. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 211)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 231 of 321

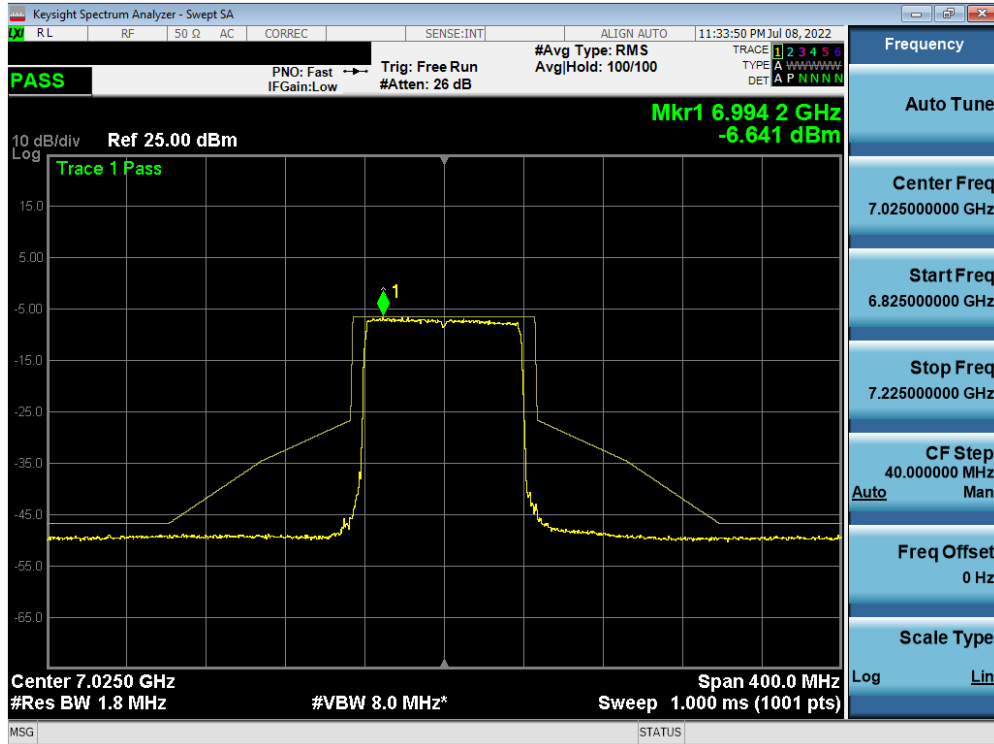


Plot 7-397. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 227)

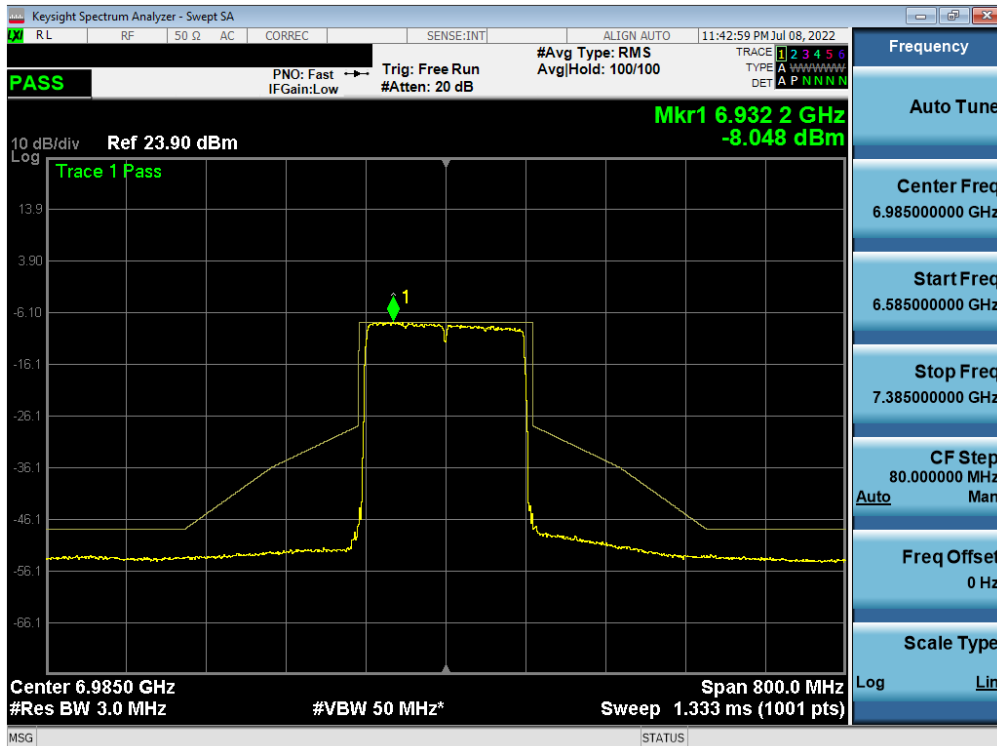


Plot 7-398. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 199)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 232 of 321



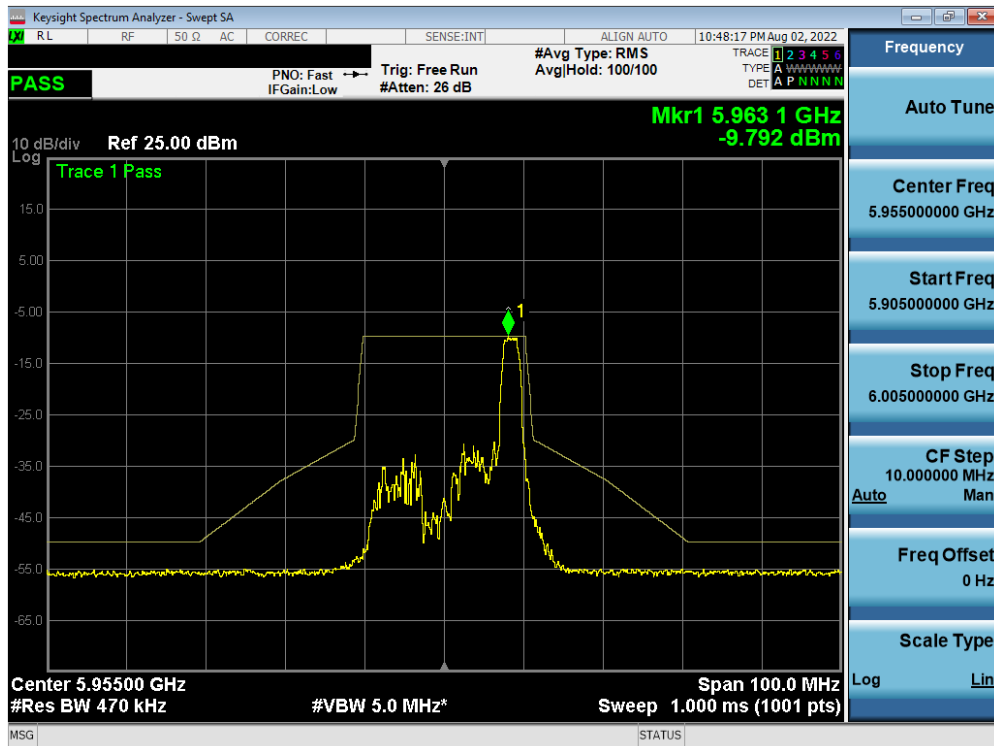
Plot 7-399. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 215)



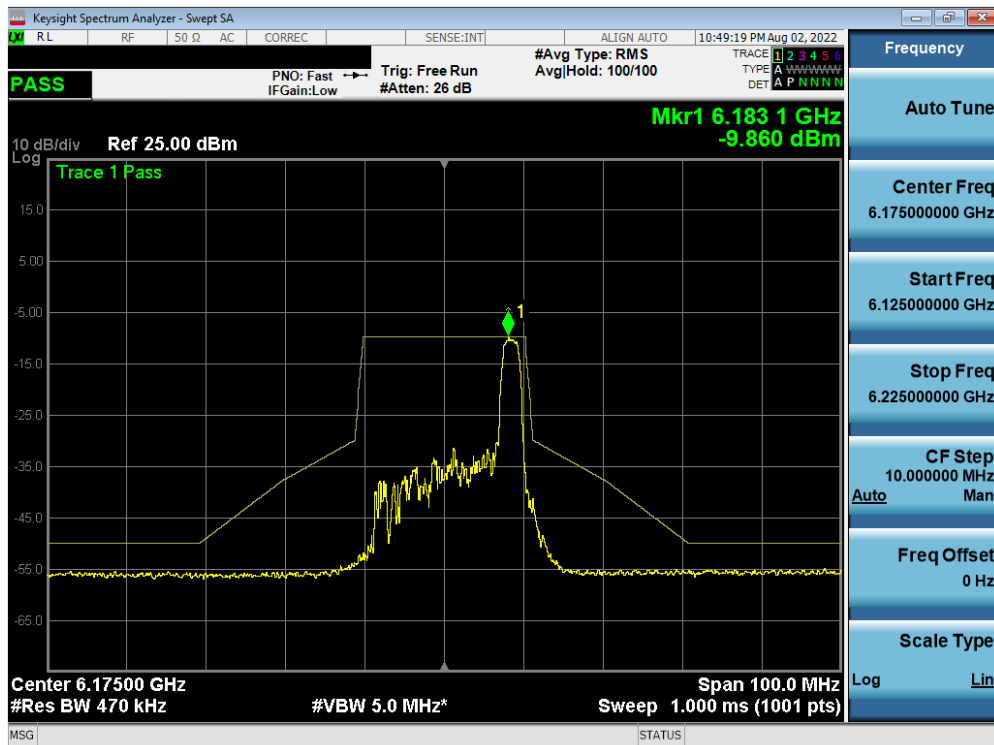
Plot 7-400. In-Band Emission Plot MIMO ANT1 (160MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 207)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 233 of 321

MIMO Antenna-2 In-Band Emission Measurements (26 Tones)

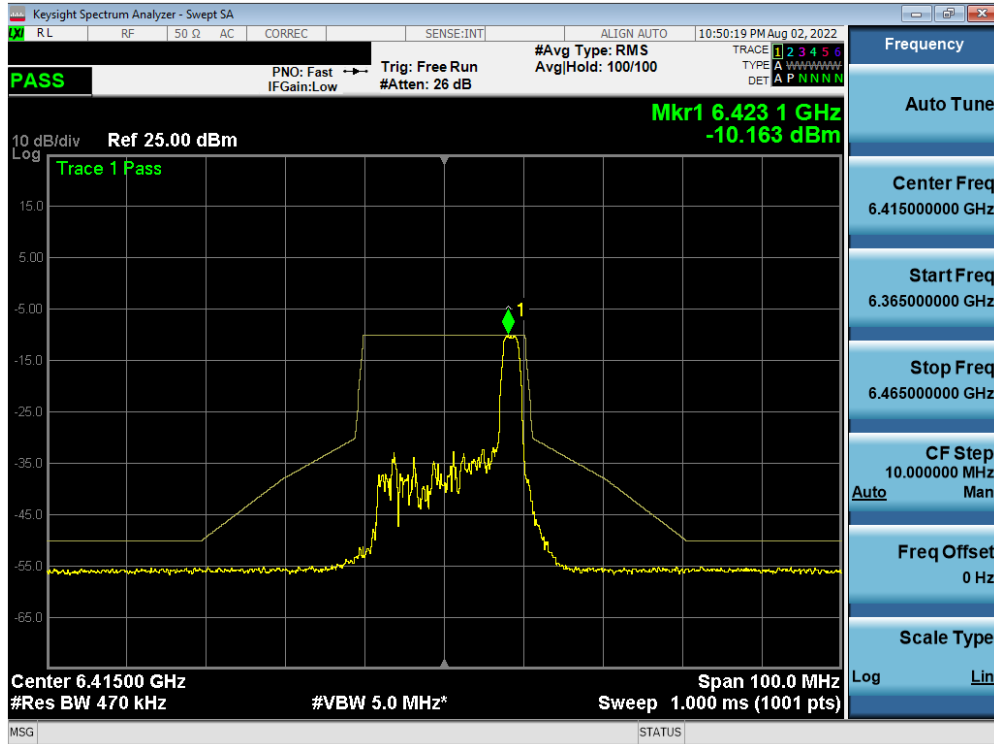


Plot 7-401. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) UNII Band 5) – Ch. 1)

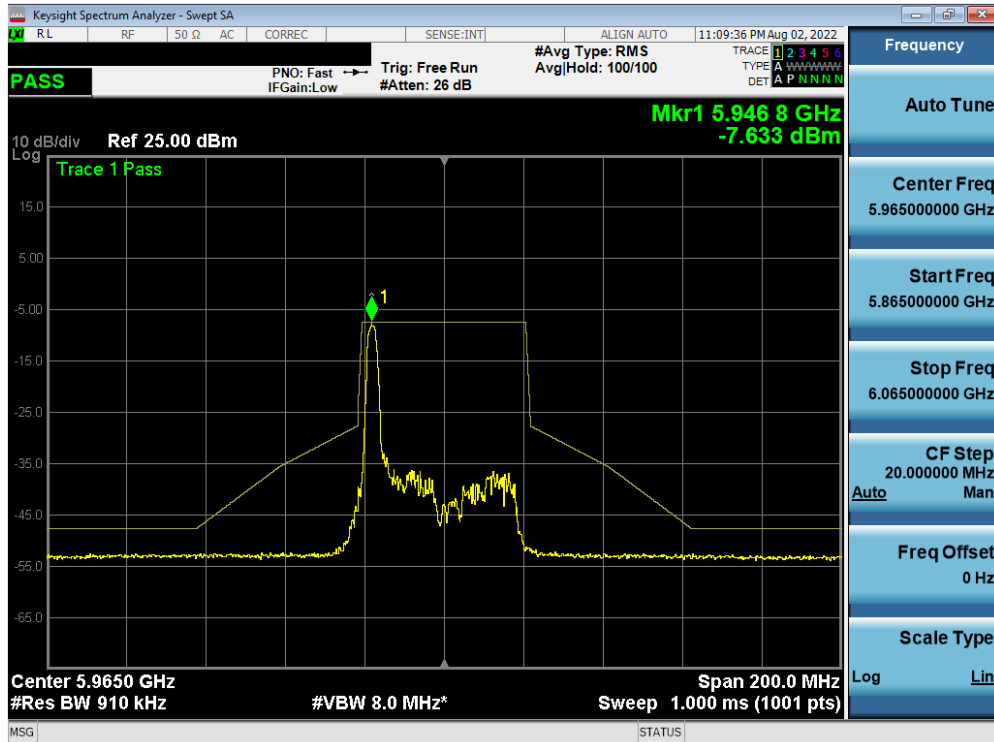


Plot 7-402. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 45)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 234 of 321

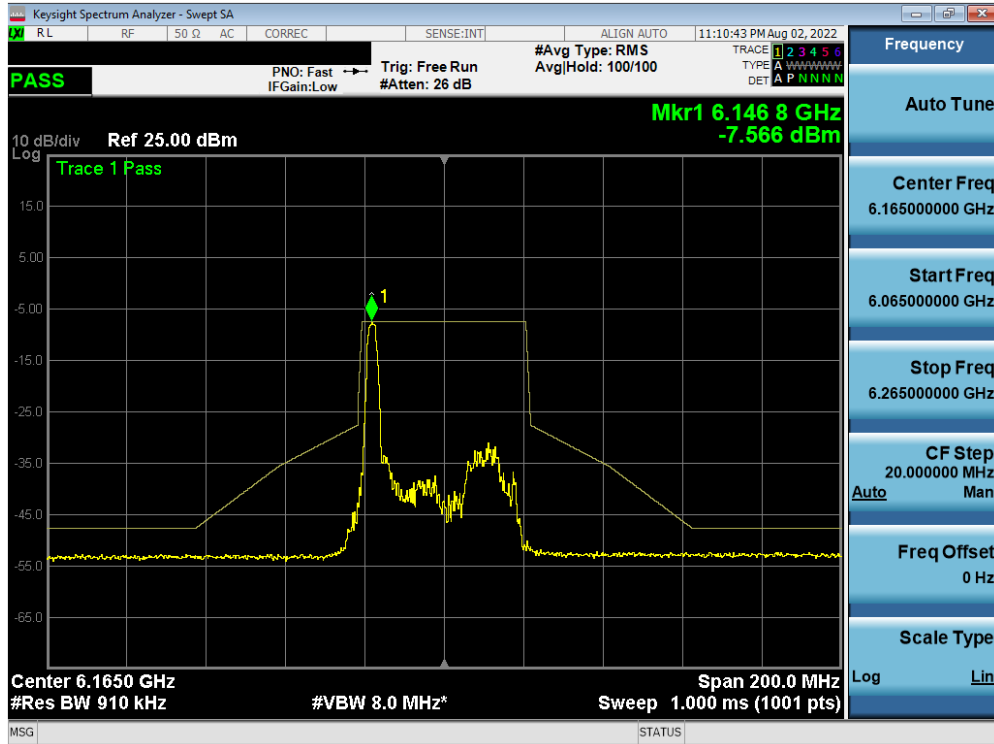


Plot 7-403. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) UNII Band 5) – Ch. 93

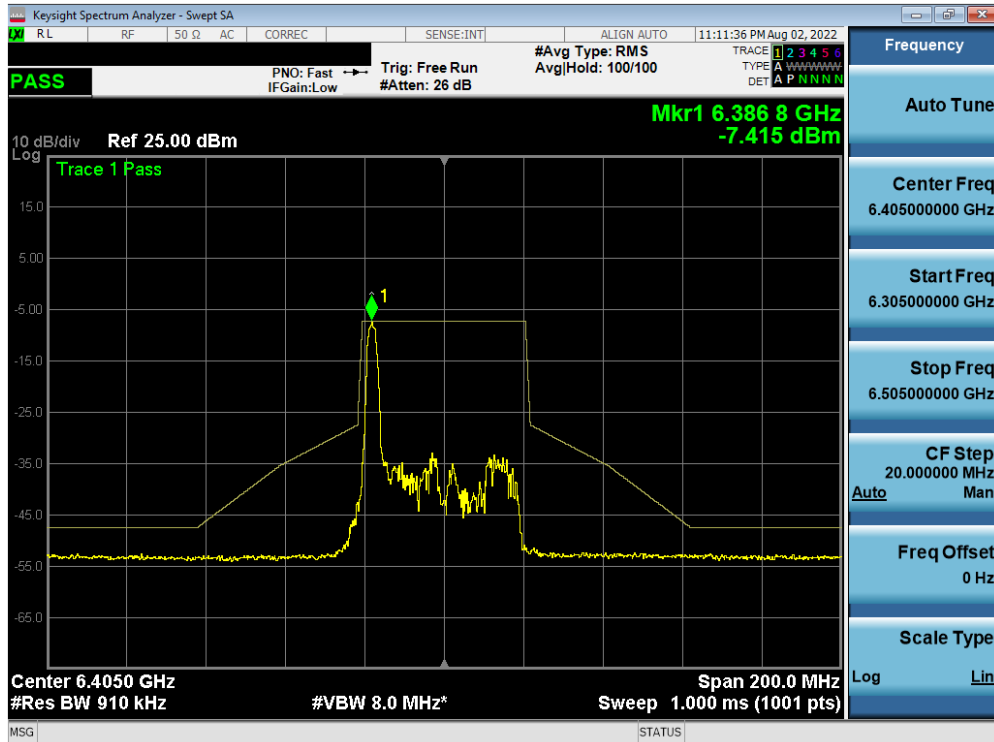


Plot 7-404. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 3)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 235 of 321

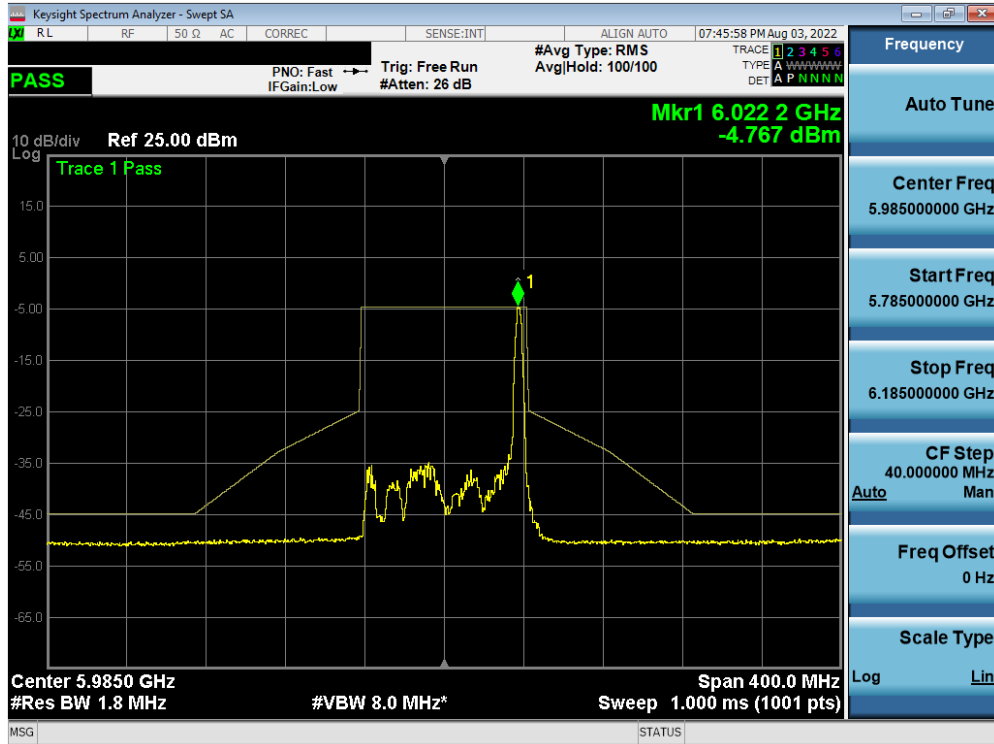


Plot 7-405. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 43)

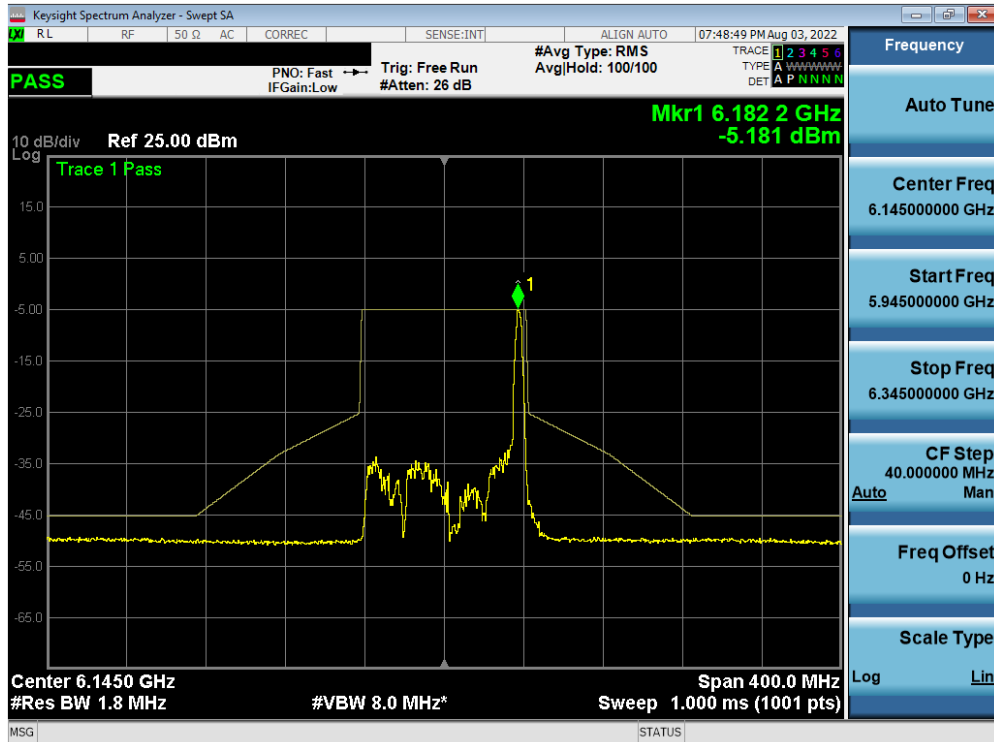


Plot 7-406. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 91)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 236 of 321

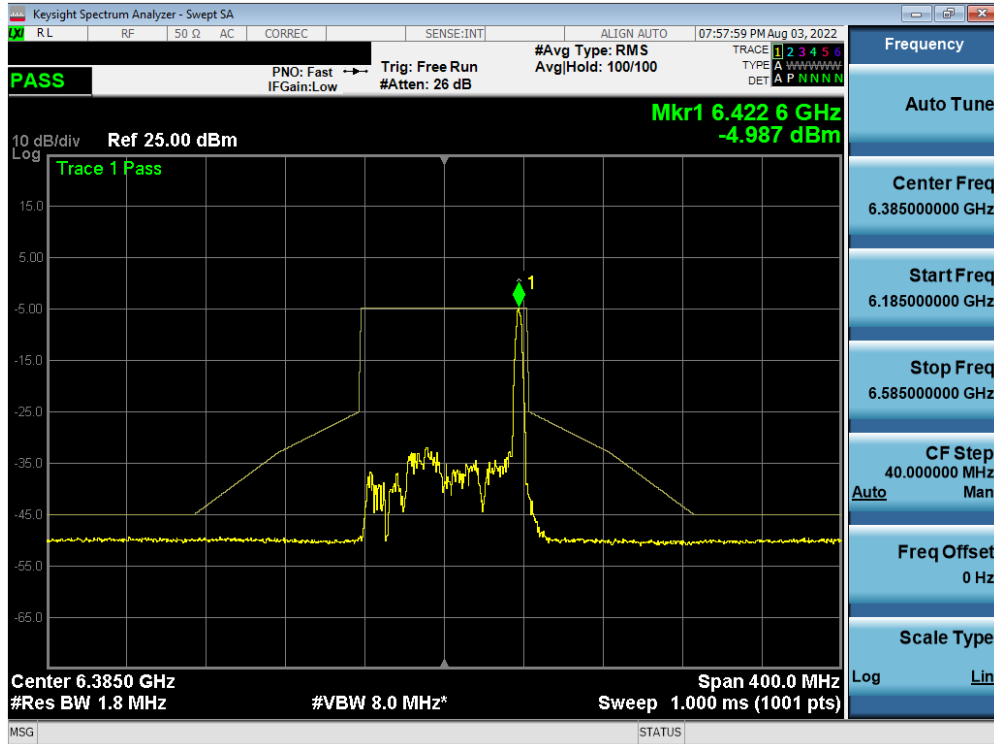


Plot 7-407. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 7)

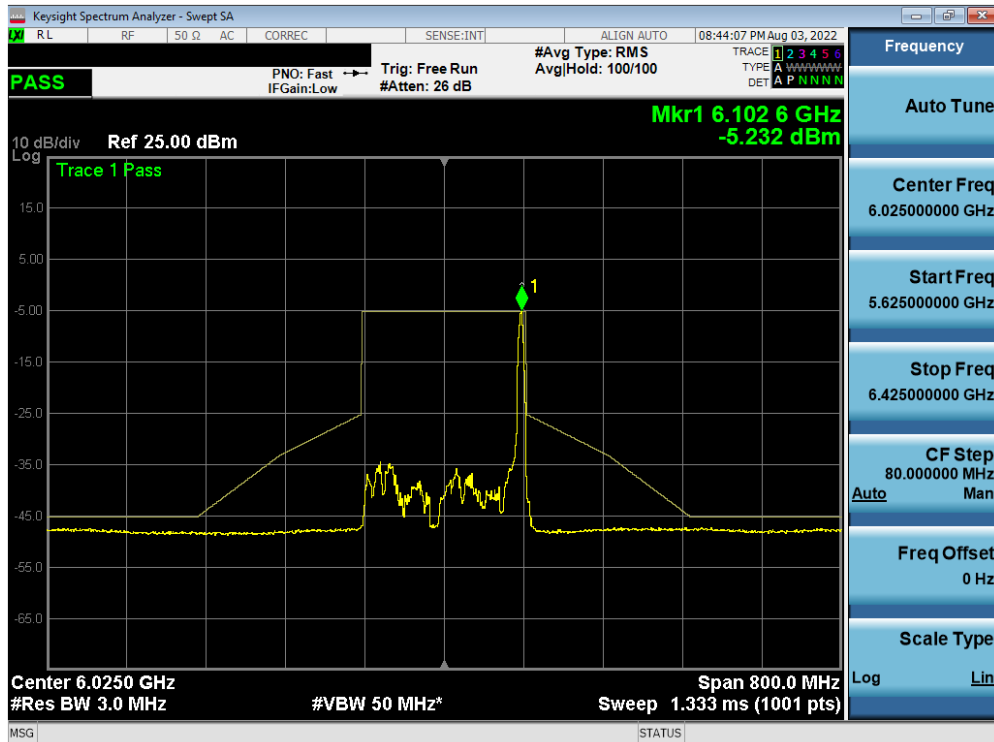


Plot 7-408. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 39)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 237 of 321

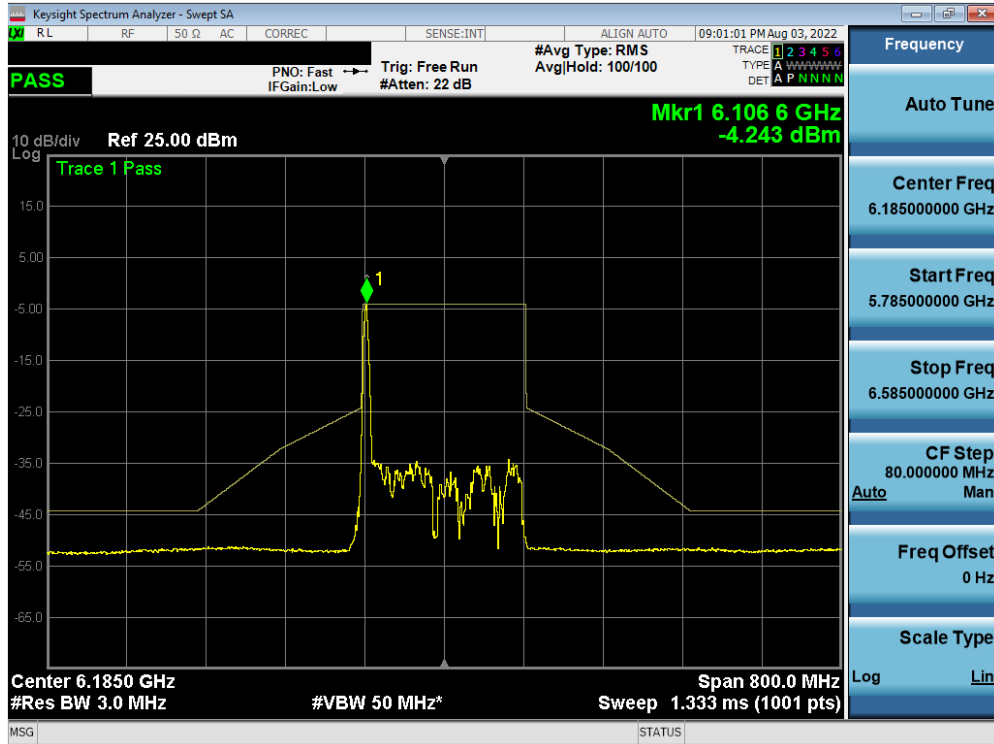


Plot 7-409. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 87)

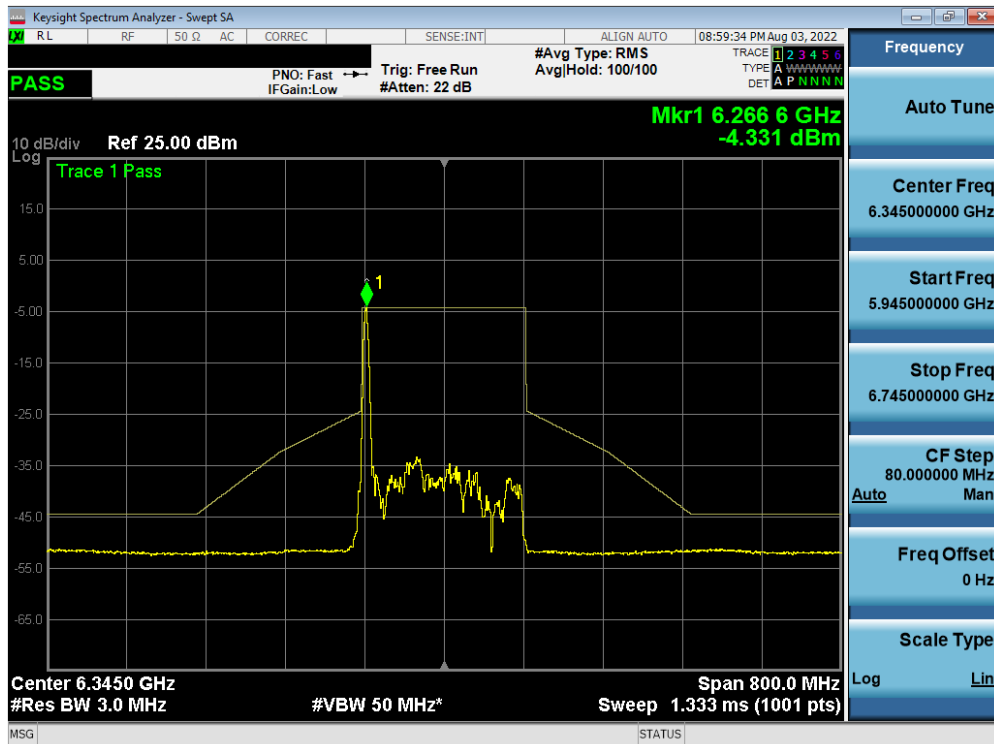


Plot 7-410. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 15)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 238 of 321

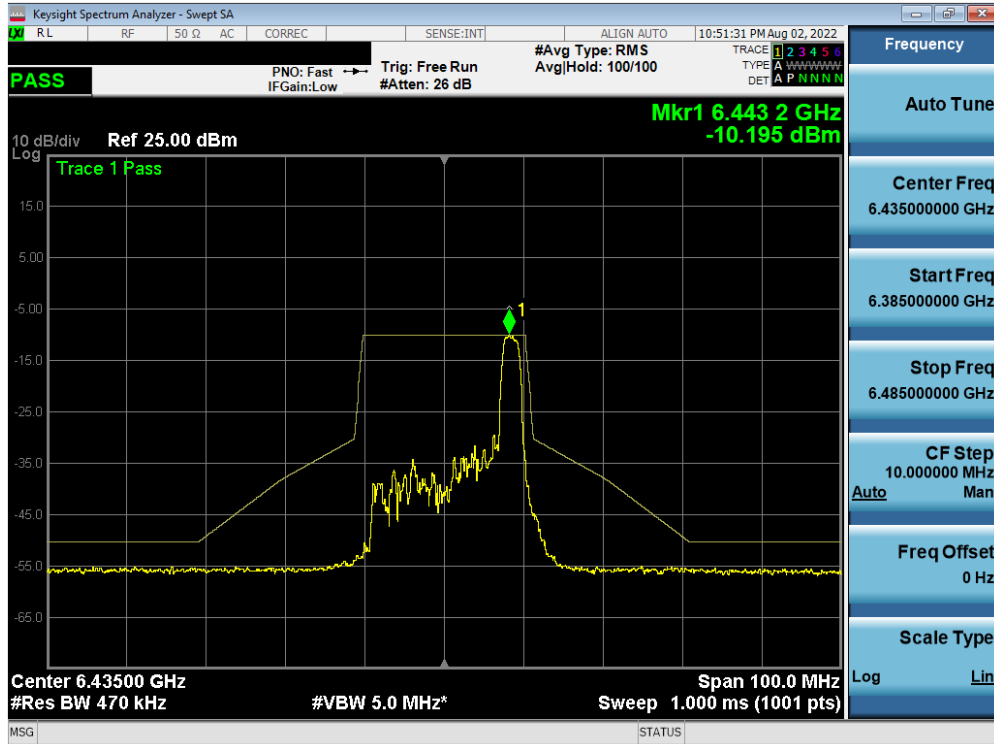


Plot 7-411. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 47)

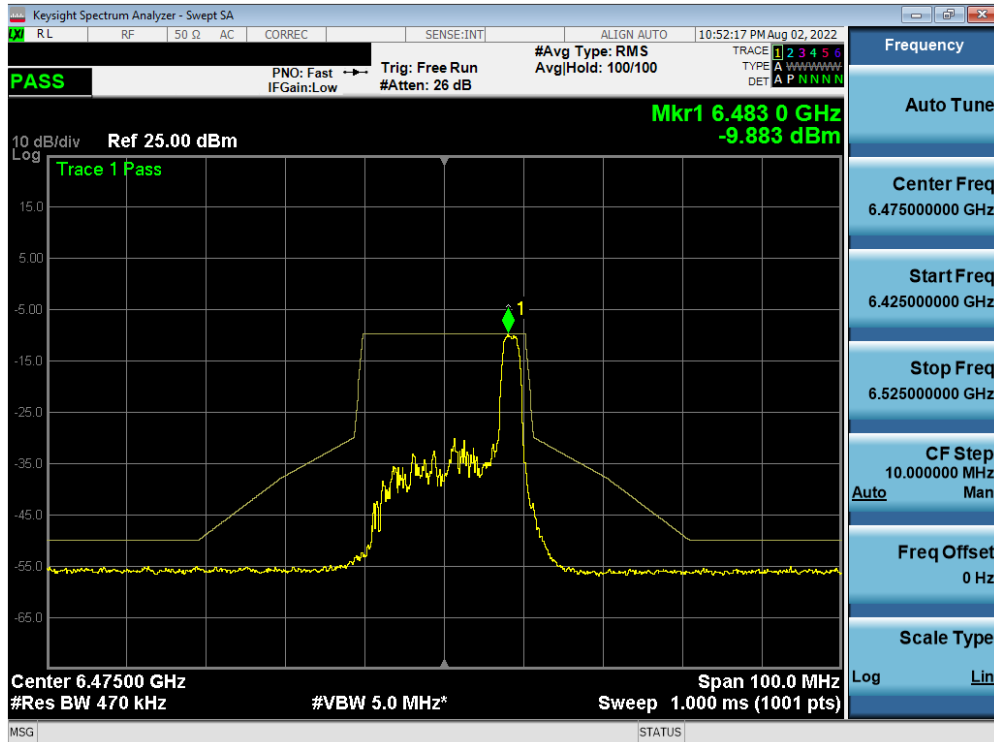


Plot 7-412. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 79)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 239 of 321

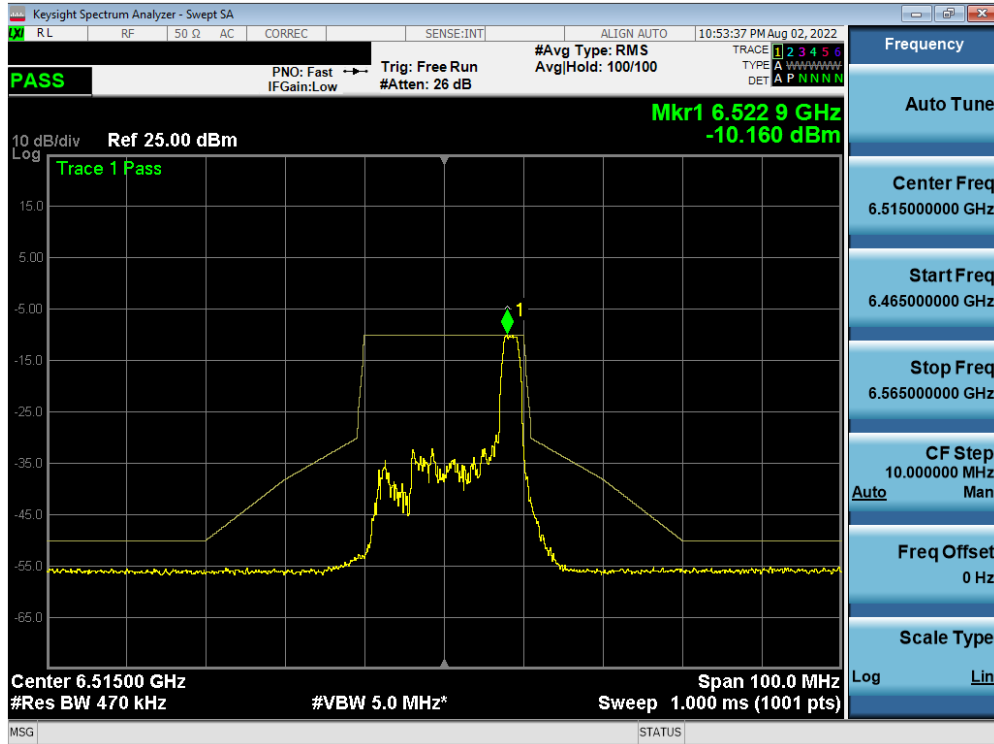


Plot 7-413. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 97)

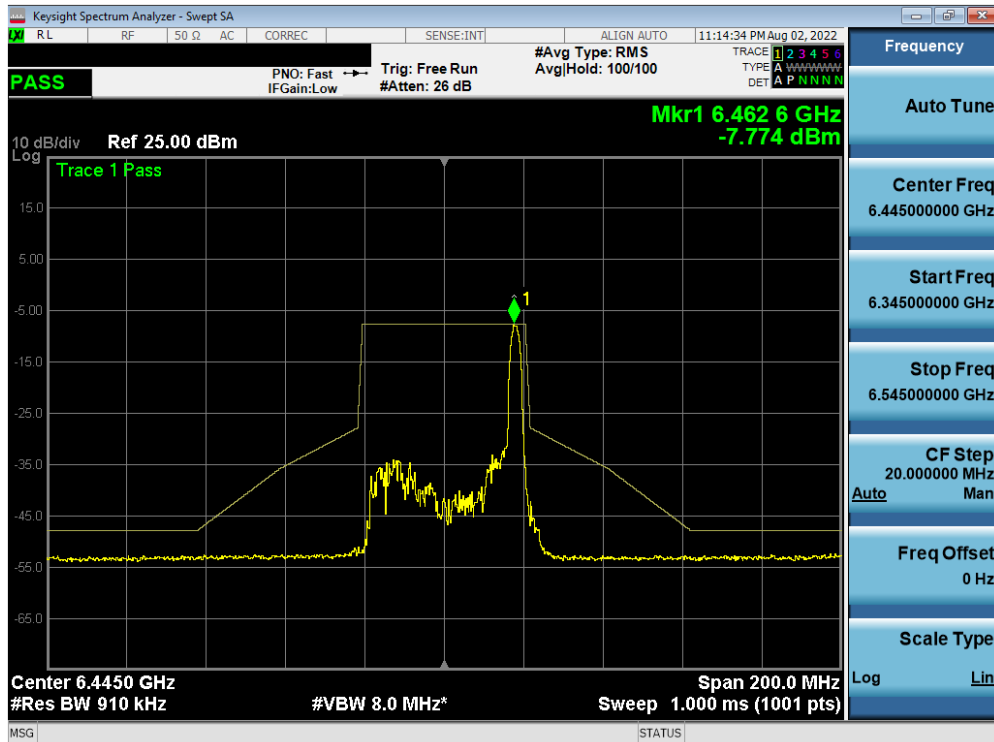


Plot 7-414. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 105)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 240 of 321

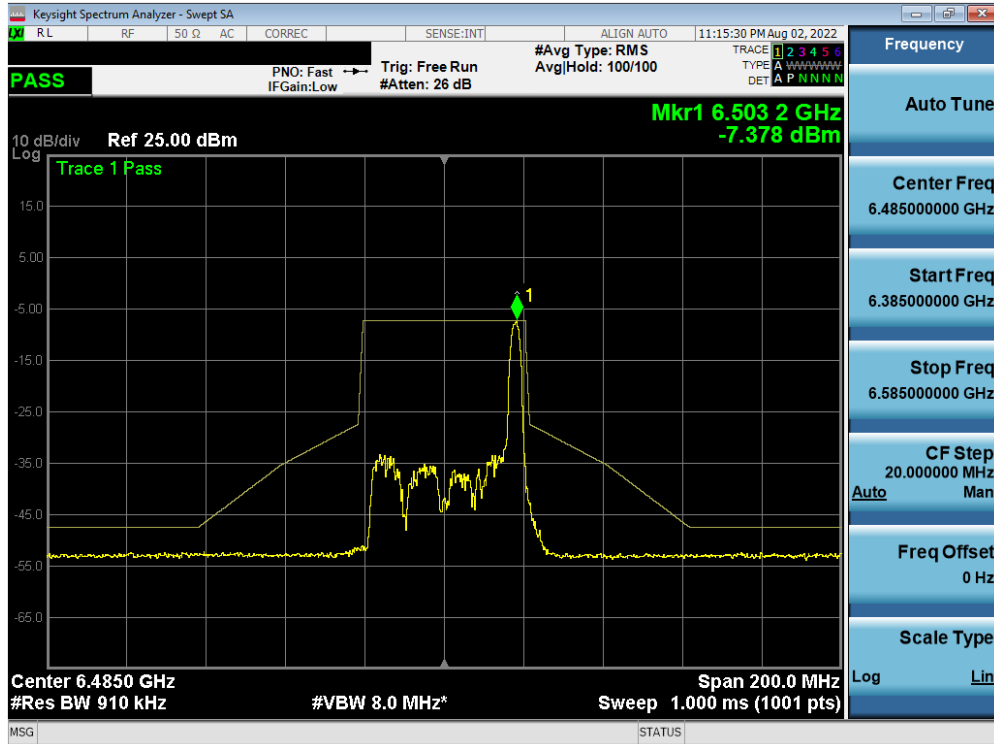


Plot 7-415. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 113)

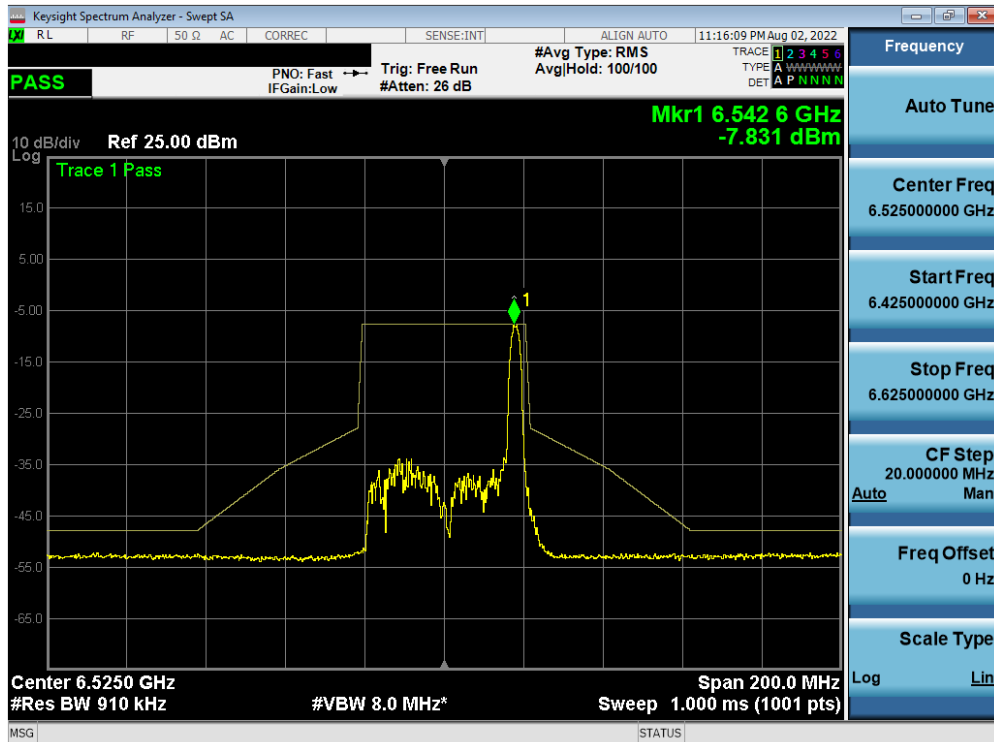


Plot 7-416. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 99)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M220524063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 241 of 321

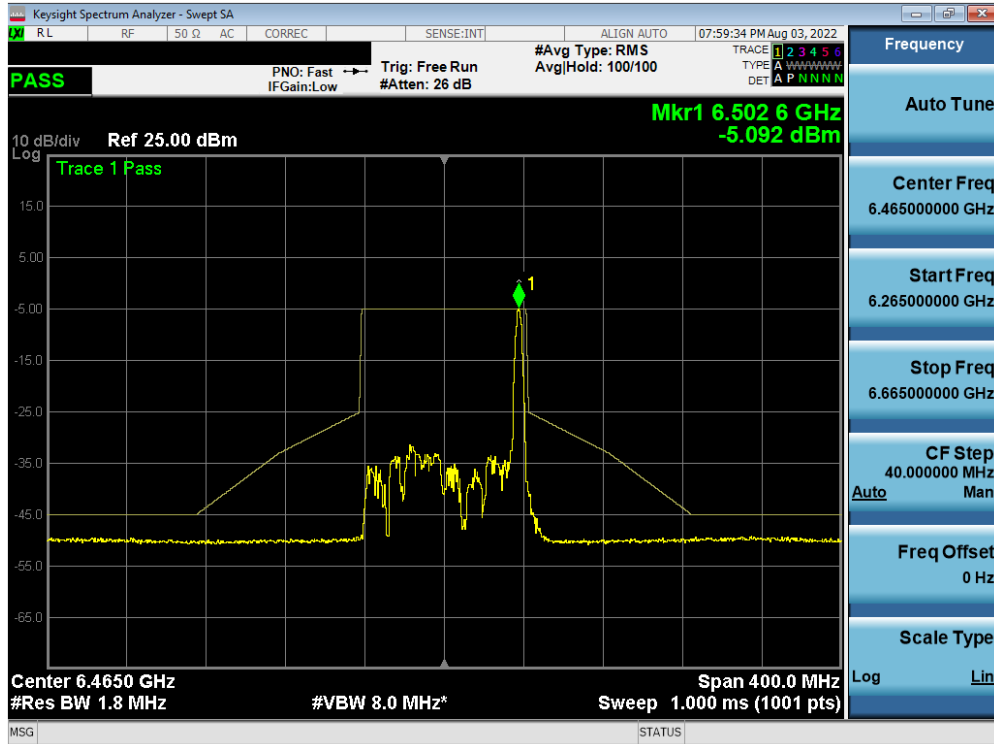


Plot 7-417. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 107)

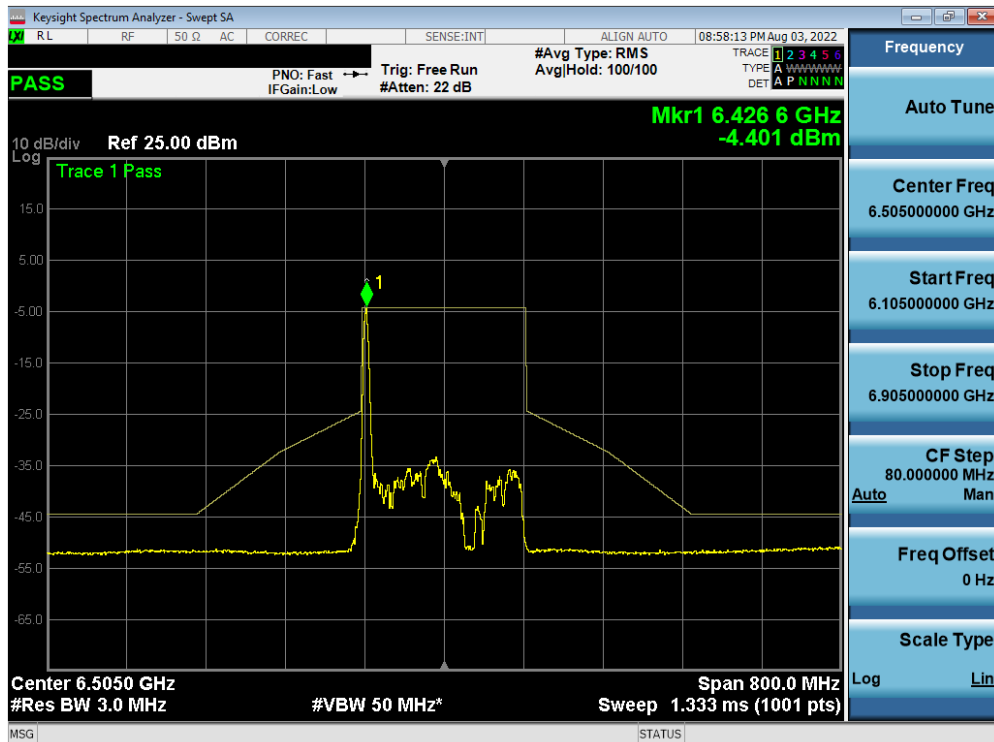


Plot 7-418. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 115)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 242 of 321

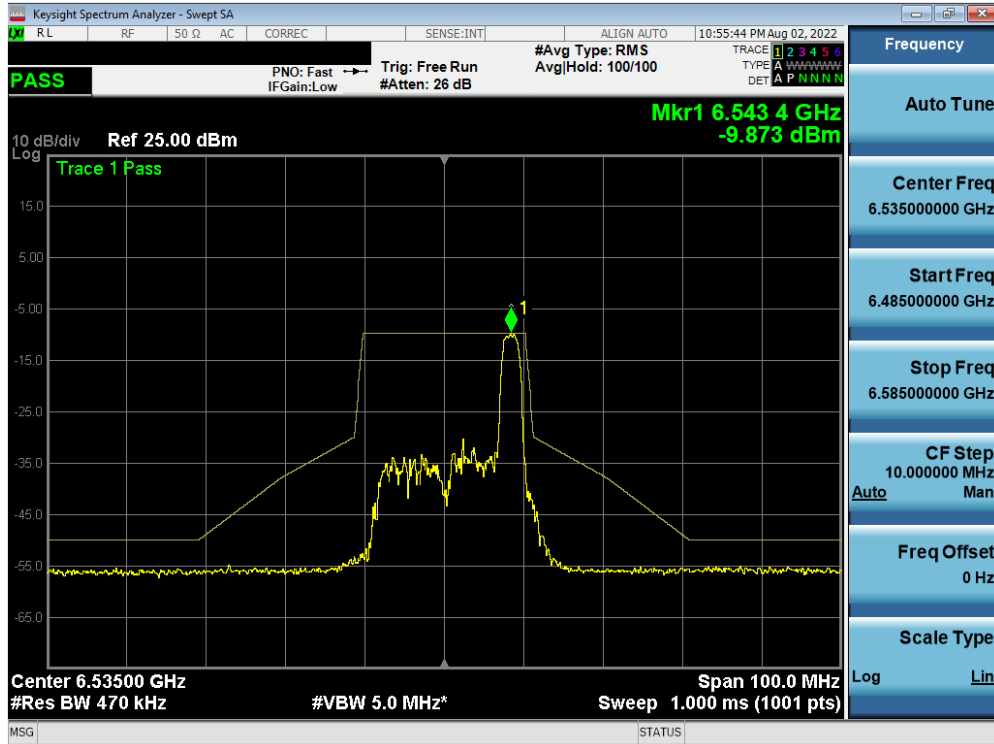


Plot 7-419. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 103)

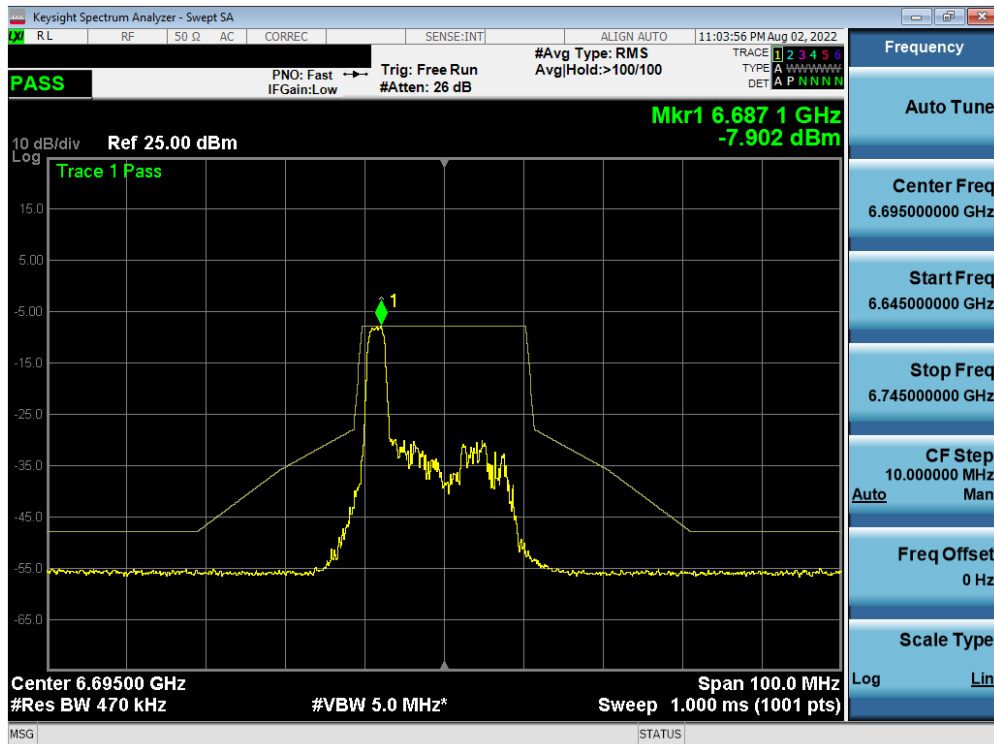


Plot 7-420. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 111)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 243 of 321

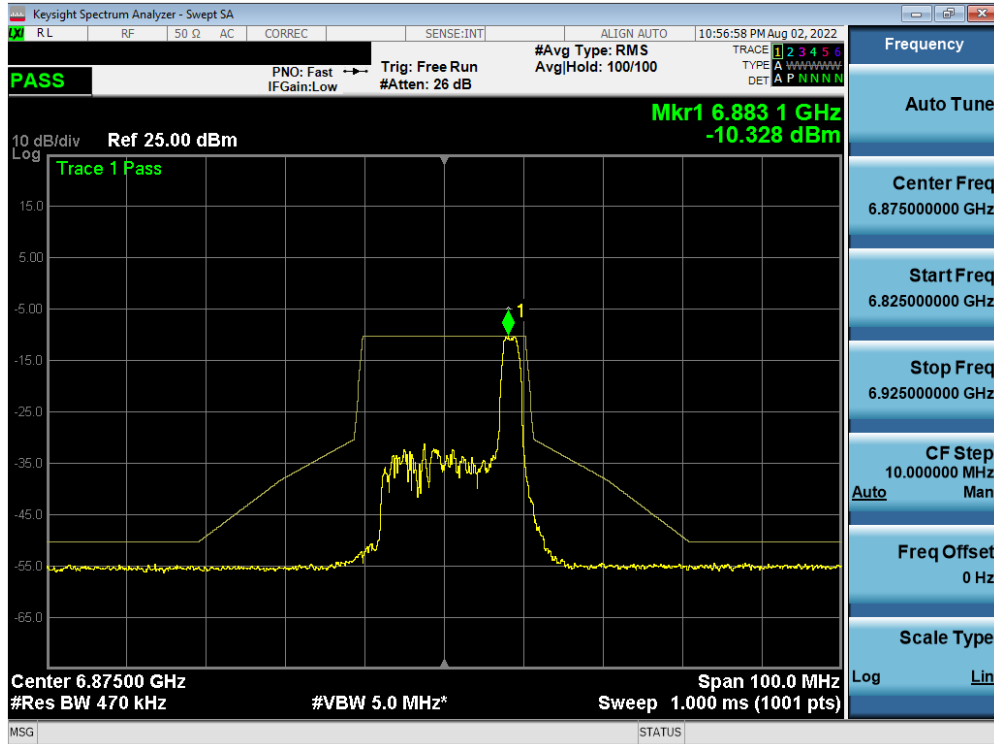


Plot 7-421. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 117)

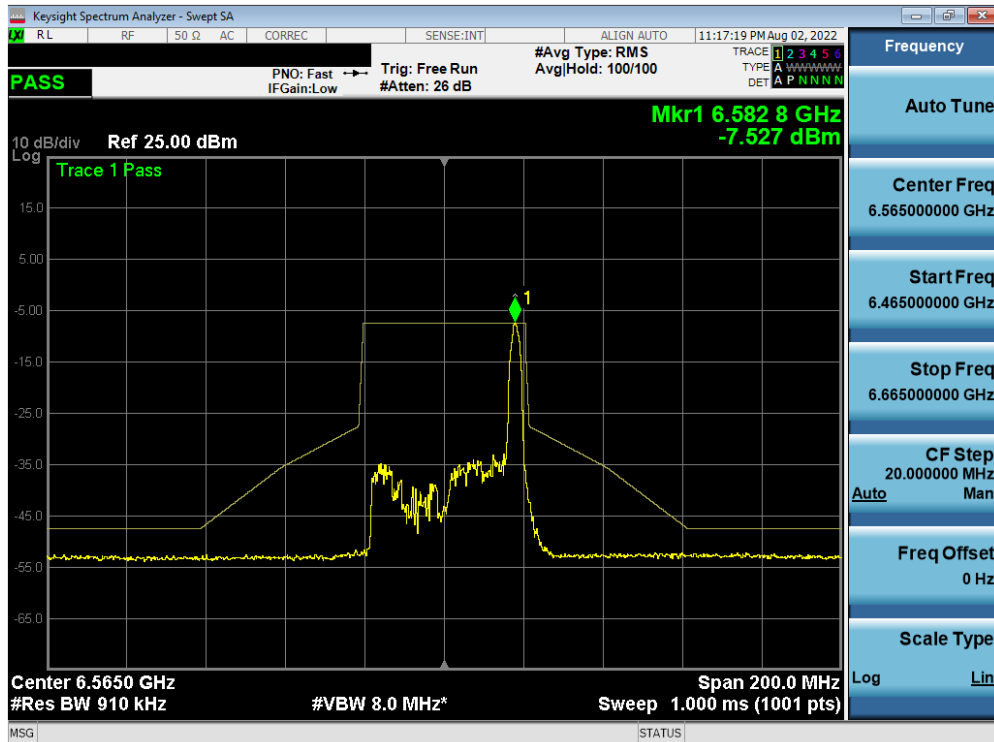


Plot 7-422. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 149)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 244 of 321

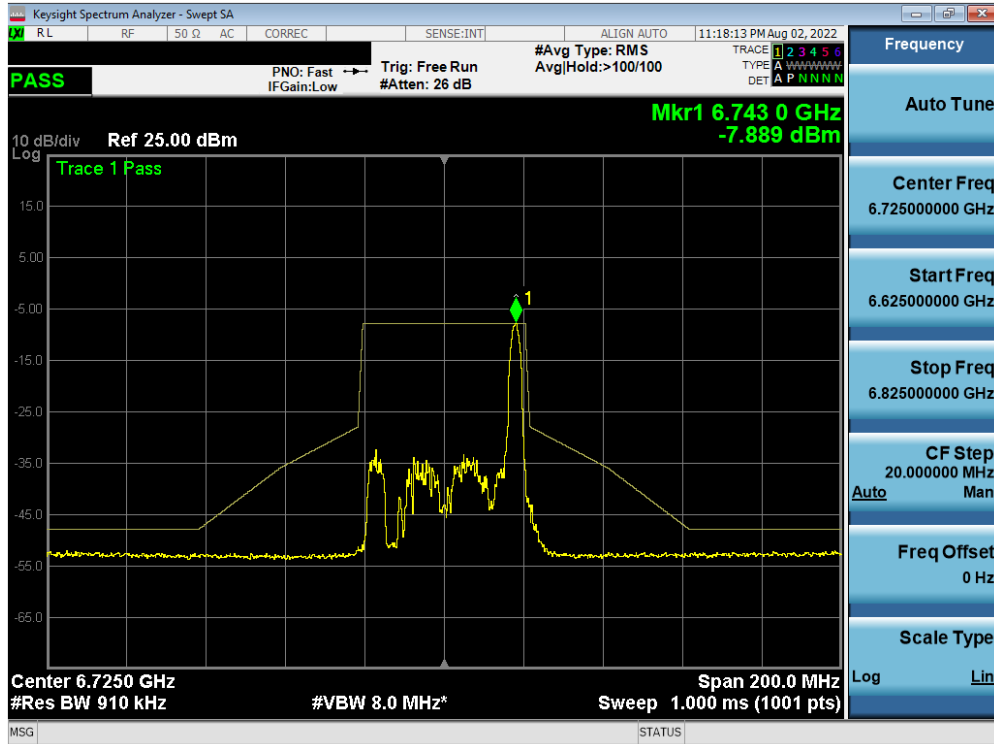


Plot 7-423. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 185)

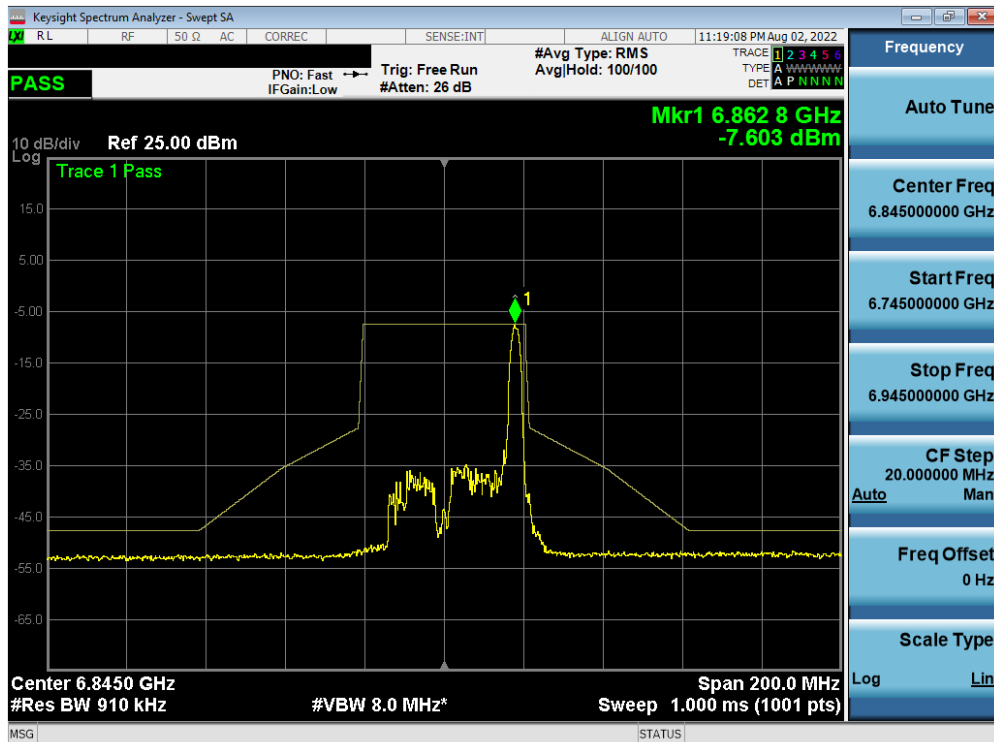


Plot 7-424. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 123)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M220524063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 245 of 321

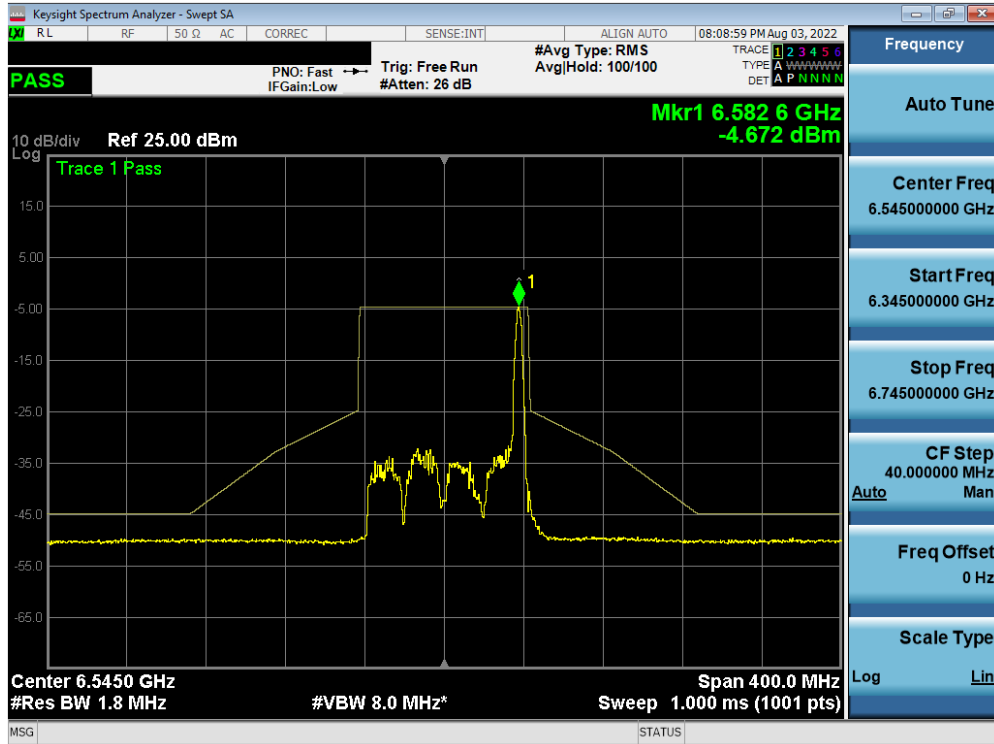


Plot 7-425. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 155)

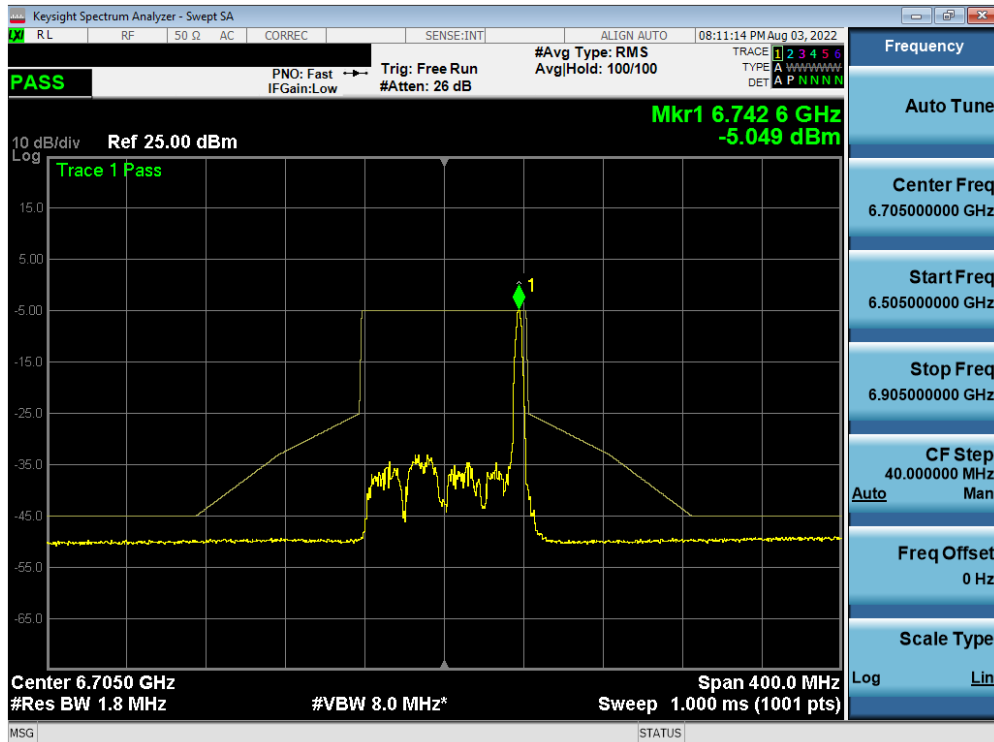


Plot 7-426. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 179)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 246 of 321

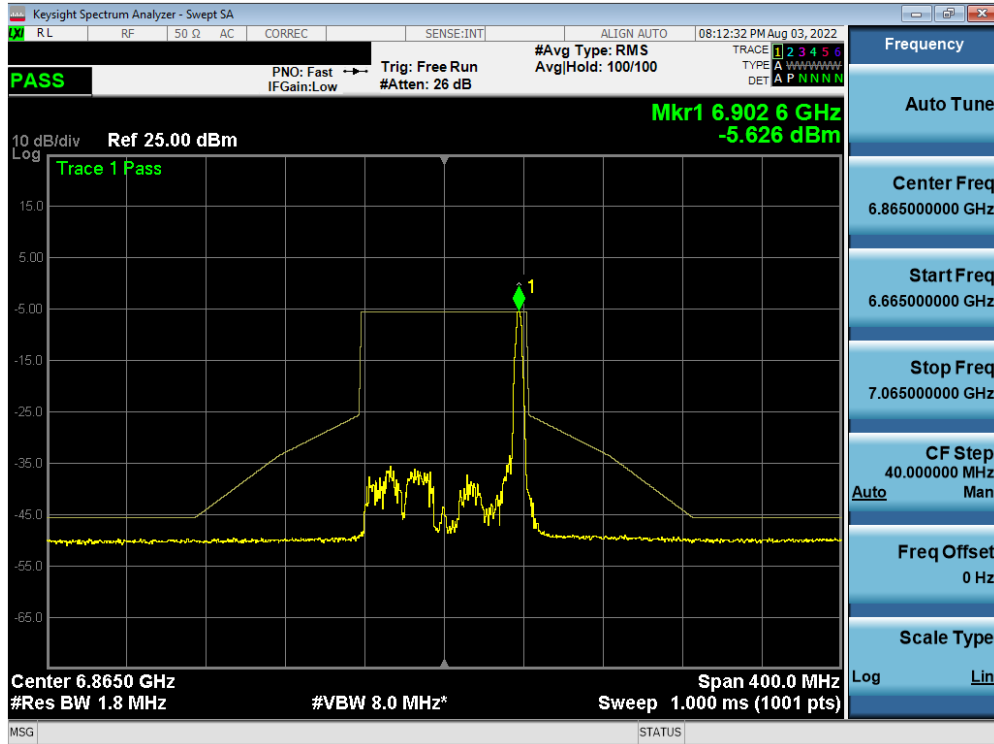


Plot 7-427. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 119)

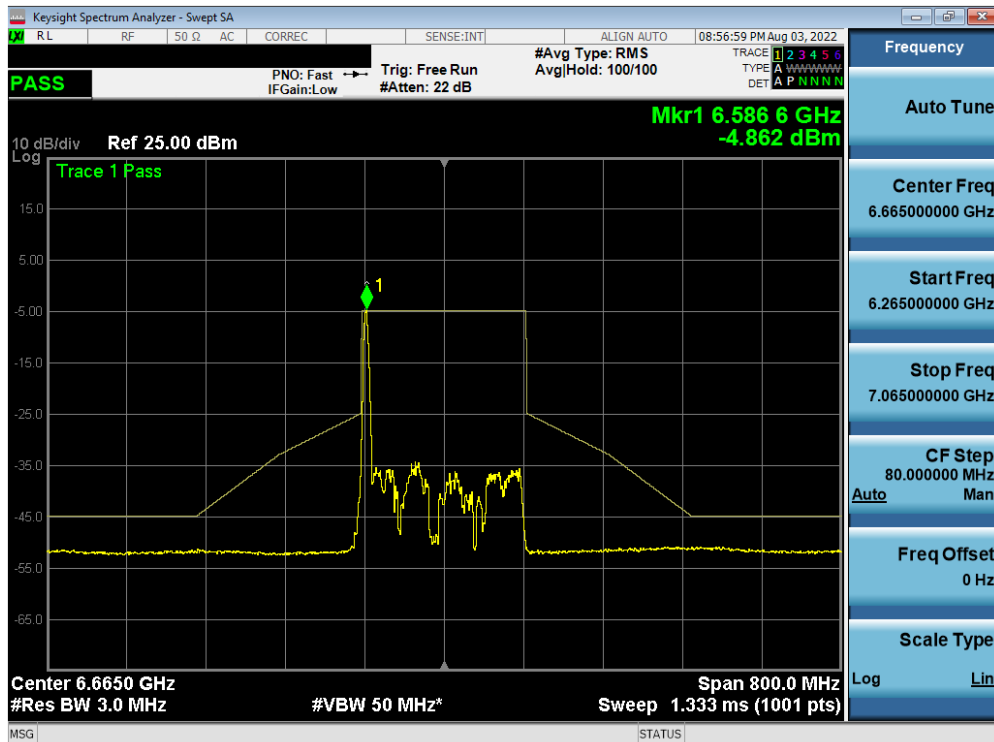


Plot 7-428. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 151)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 247 of 321

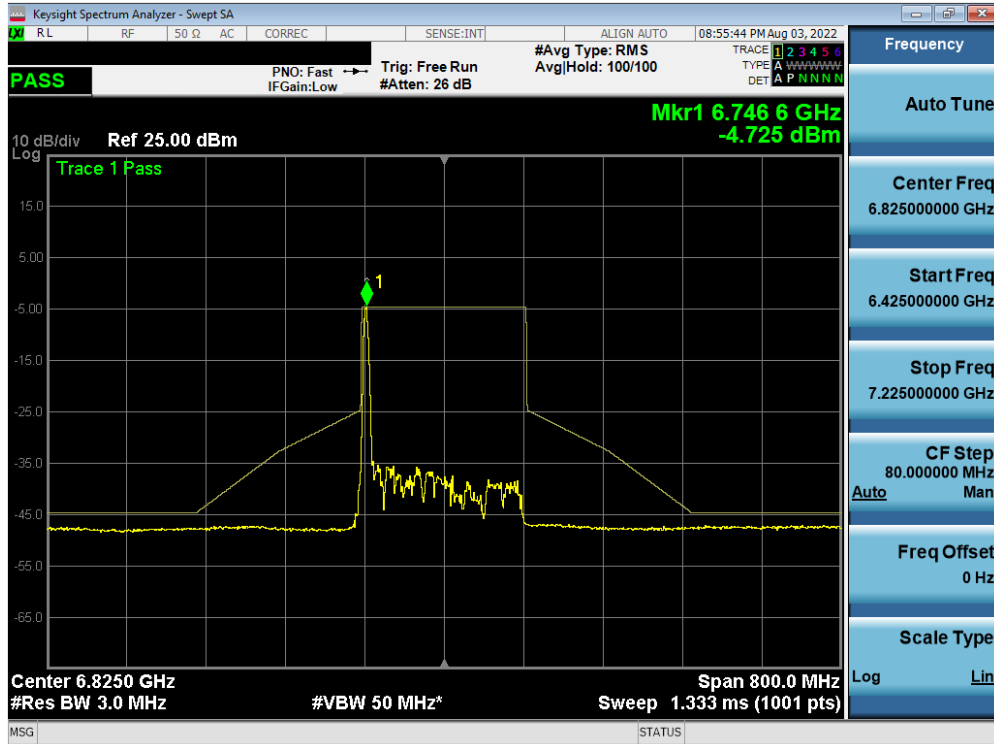


Plot 7-429. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 183)

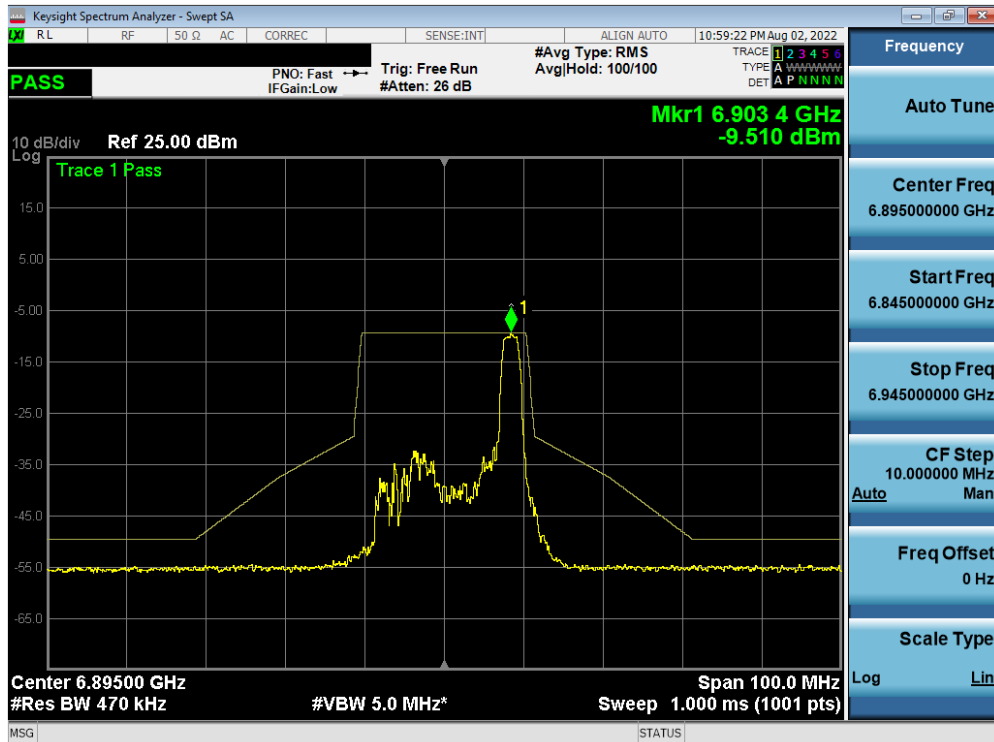


Plot 7-430. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 143)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 248 of 321

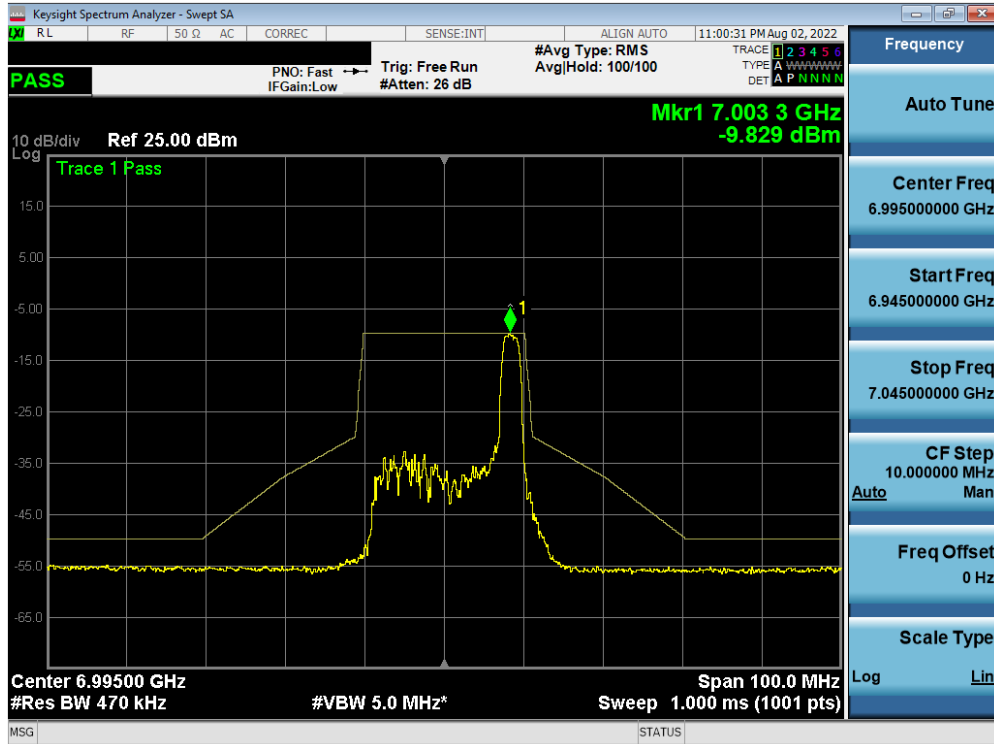


Plot 7-431. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 175)

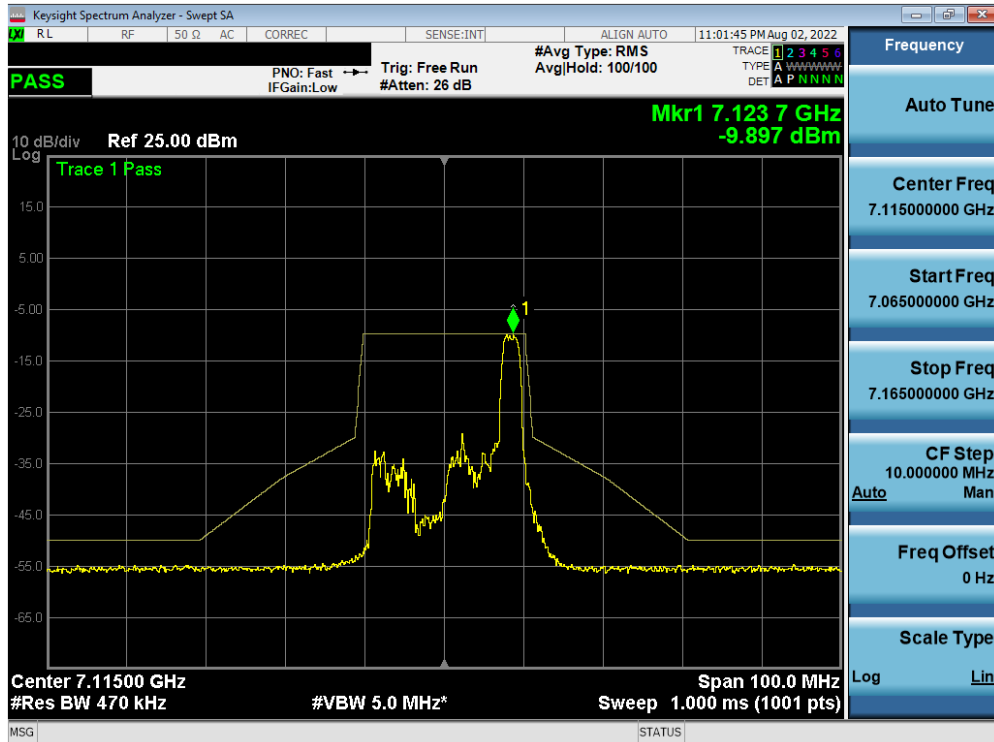


Plot 7-432. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 189)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M220524063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 249 of 321

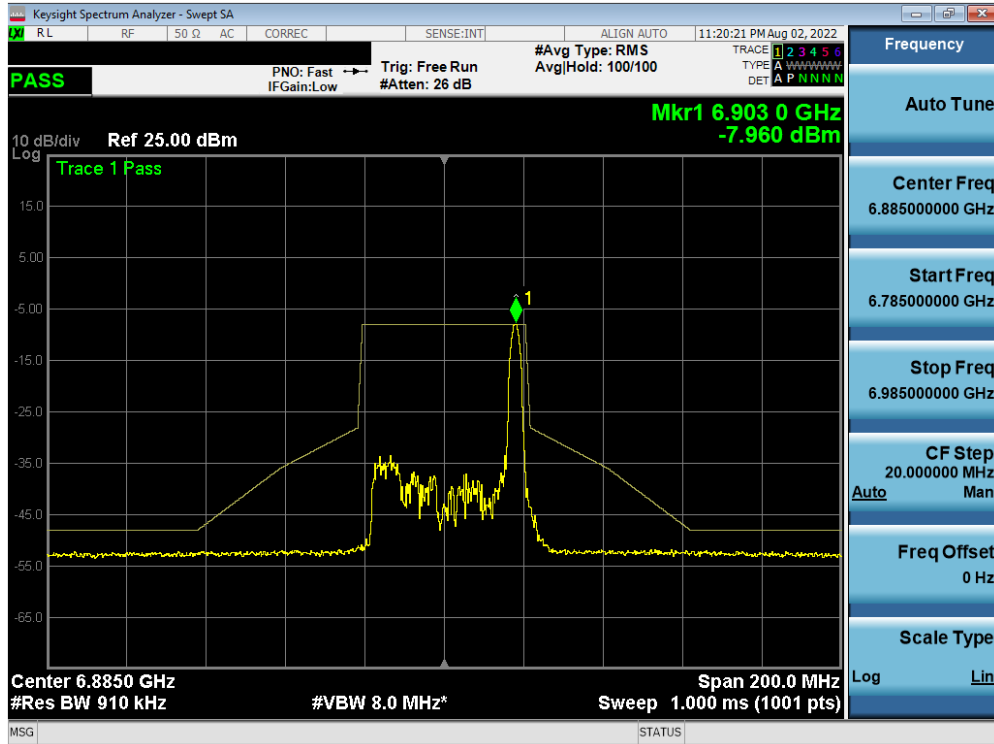


Plot 7-433. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 209)

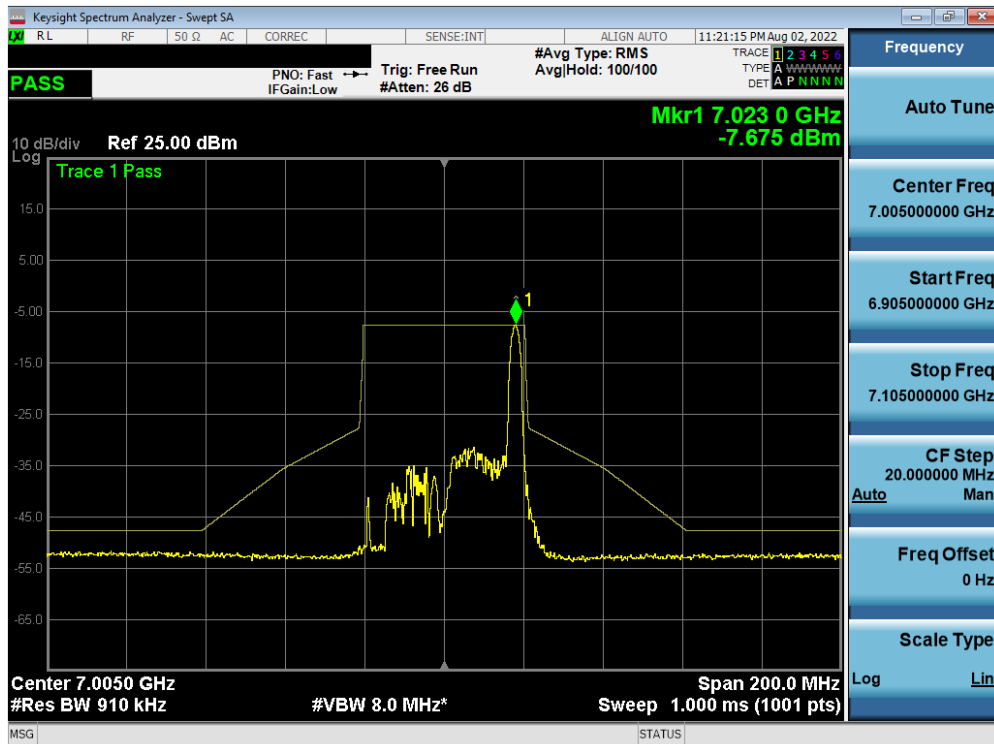


Plot 7-434. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 233)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 250 of 321

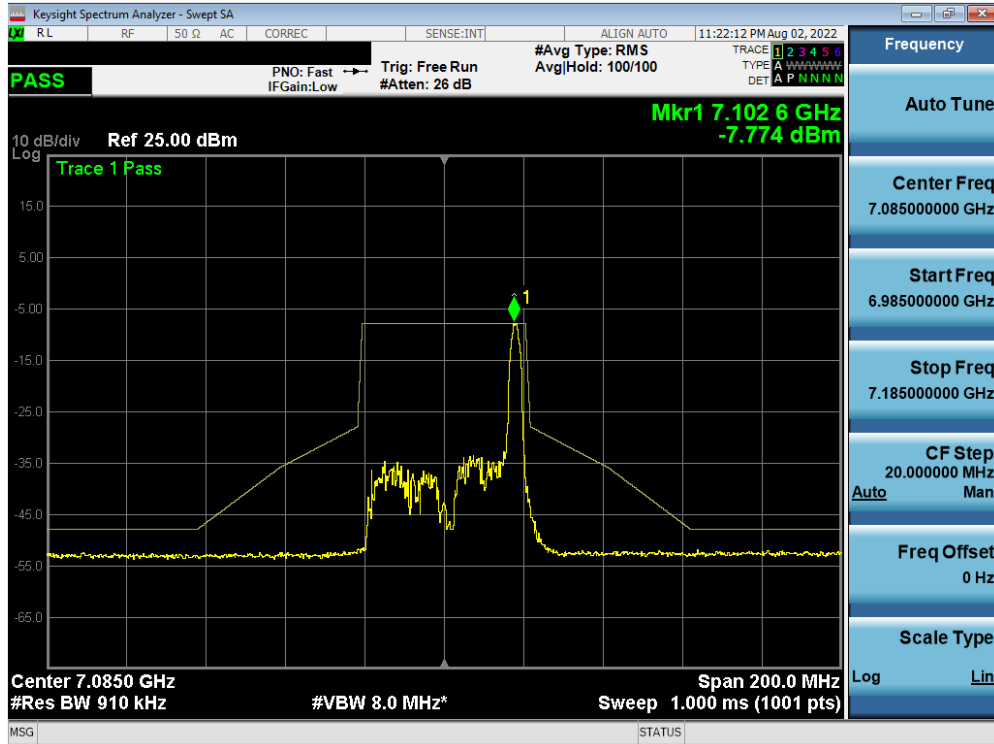


Plot 7-435. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 187)

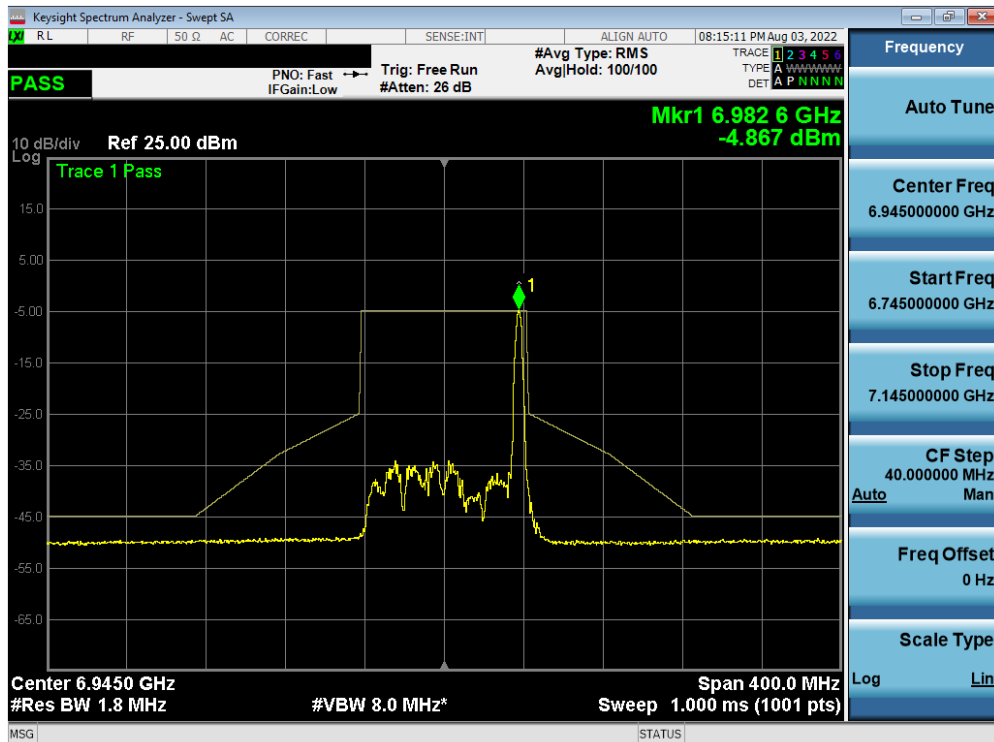


Plot 7-436. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 211)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 251 of 321

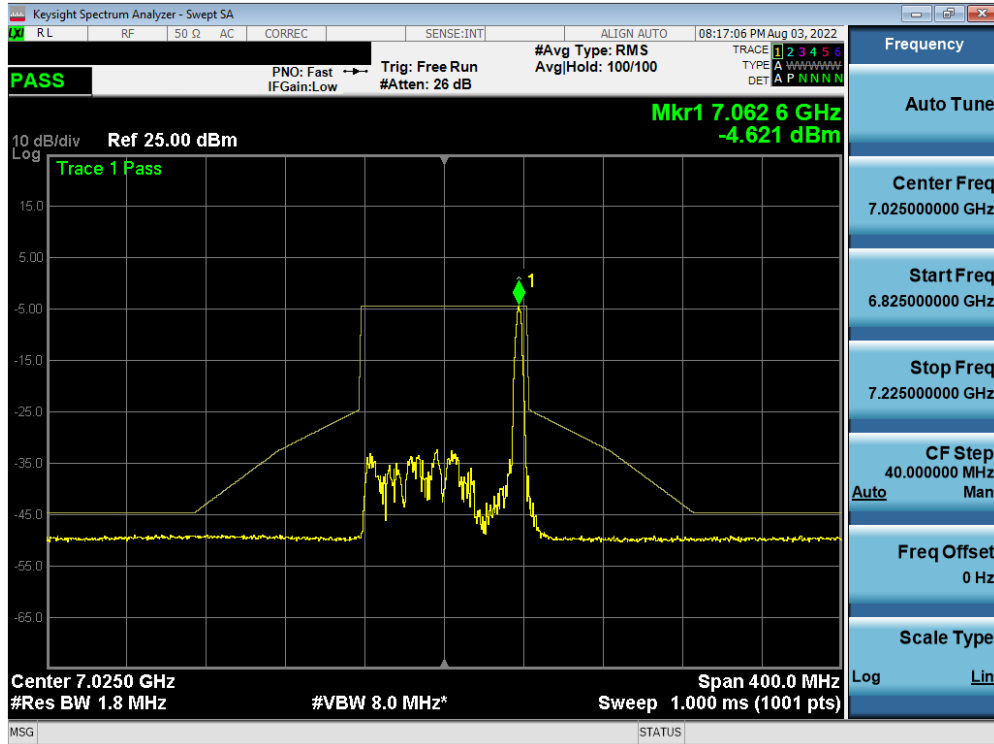


Plot 7-437. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 227)

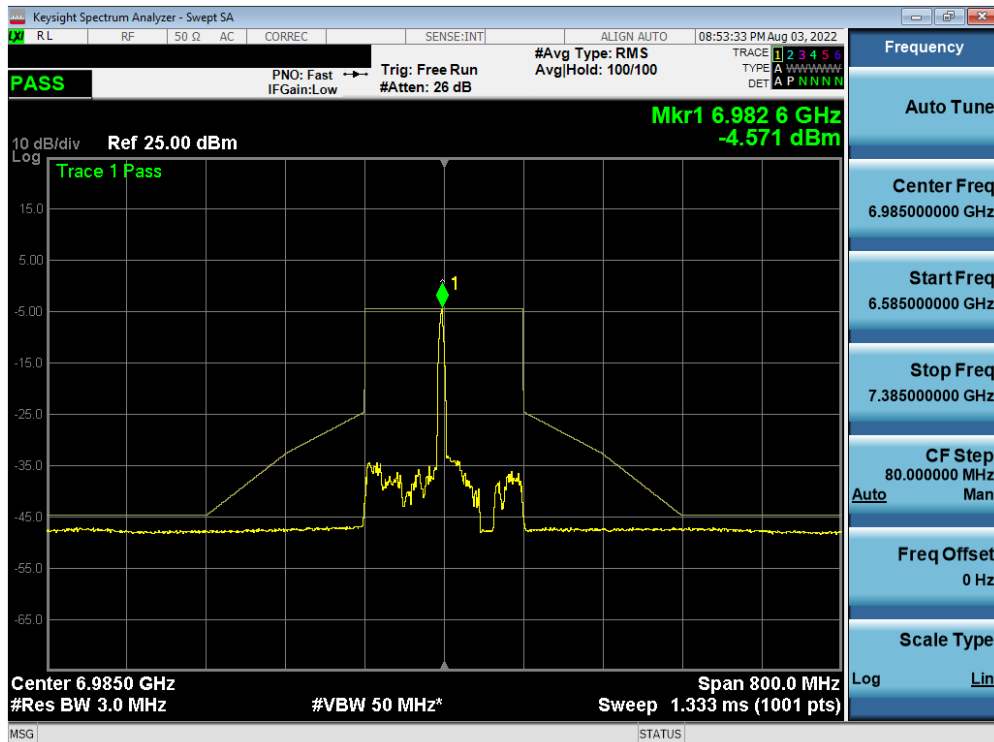


Plot 7-438. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 199)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 252 of 321



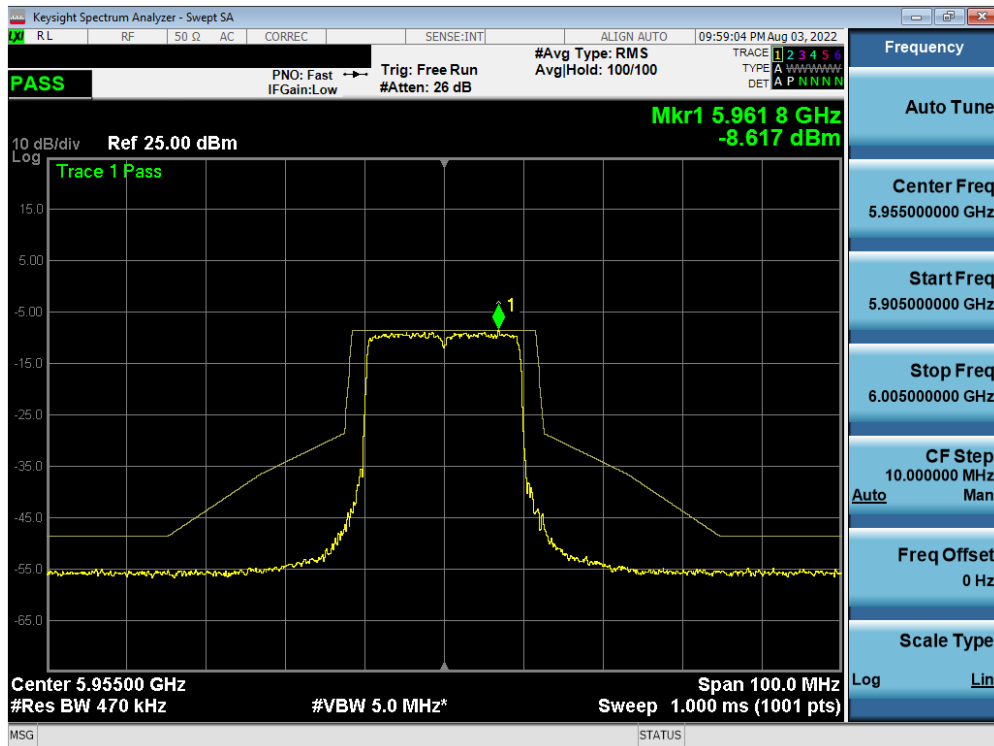
Plot 7-439. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 215)



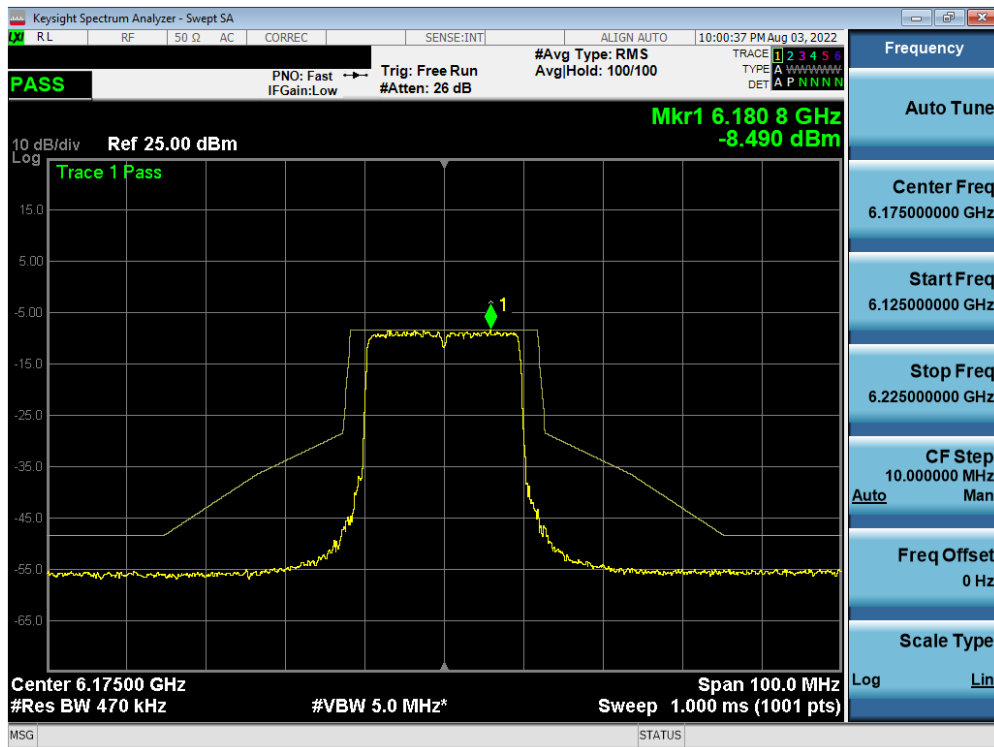
Plot 7-440. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 207)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 253 of 321

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

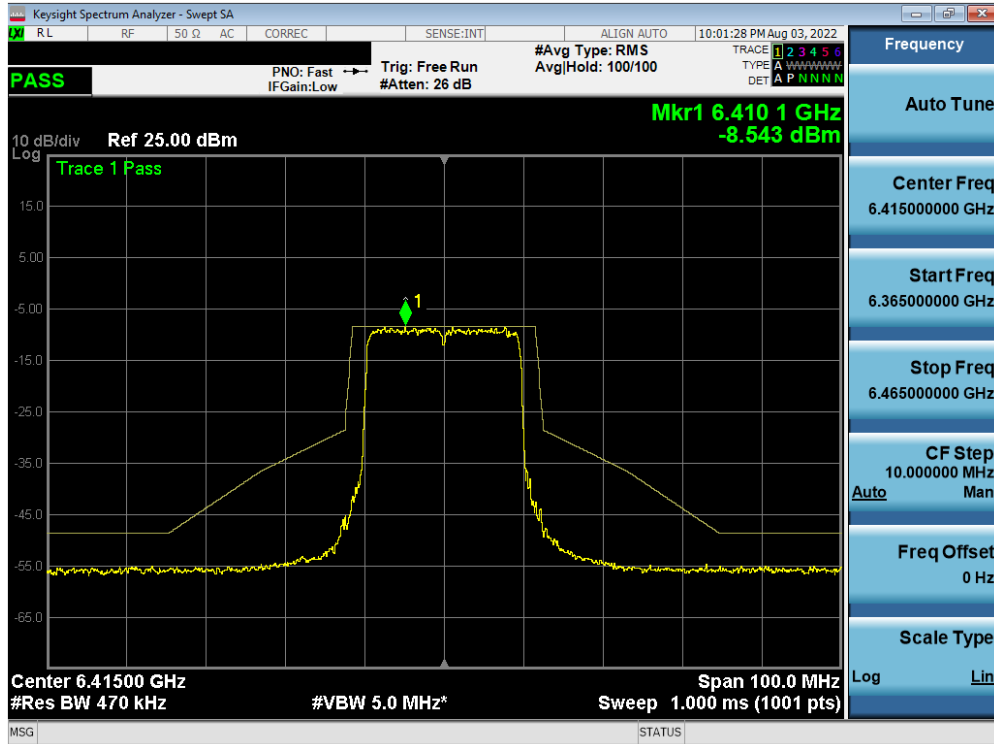


Plot 7-441. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) UNII Band 5) – Ch. 1

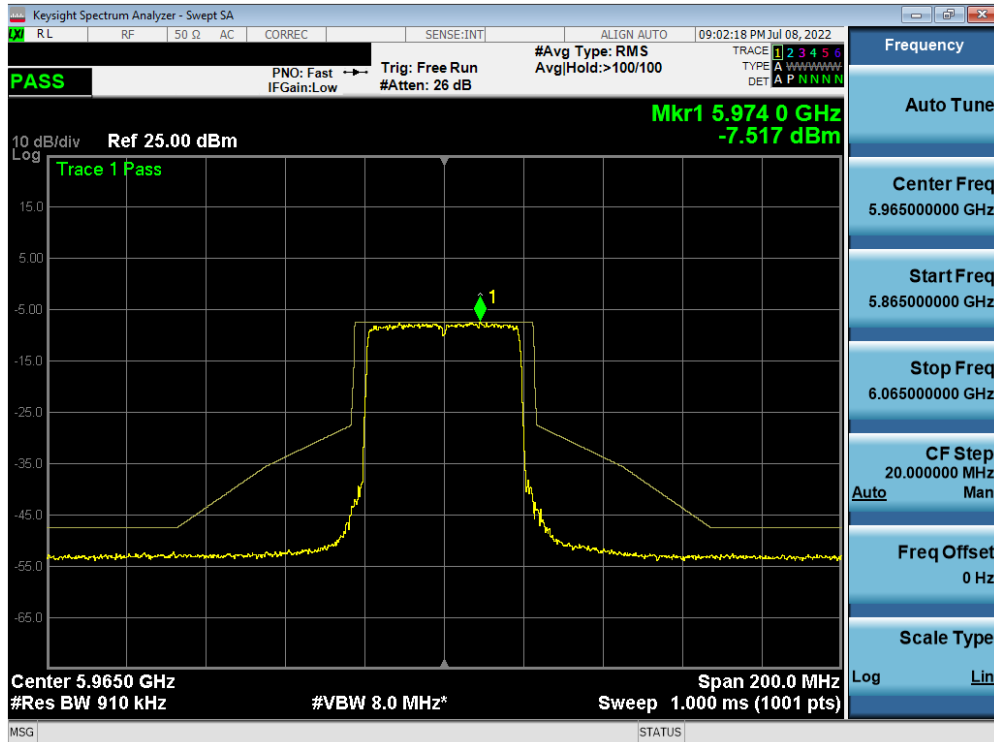


Plot 7-442. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 45)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 254 of 321

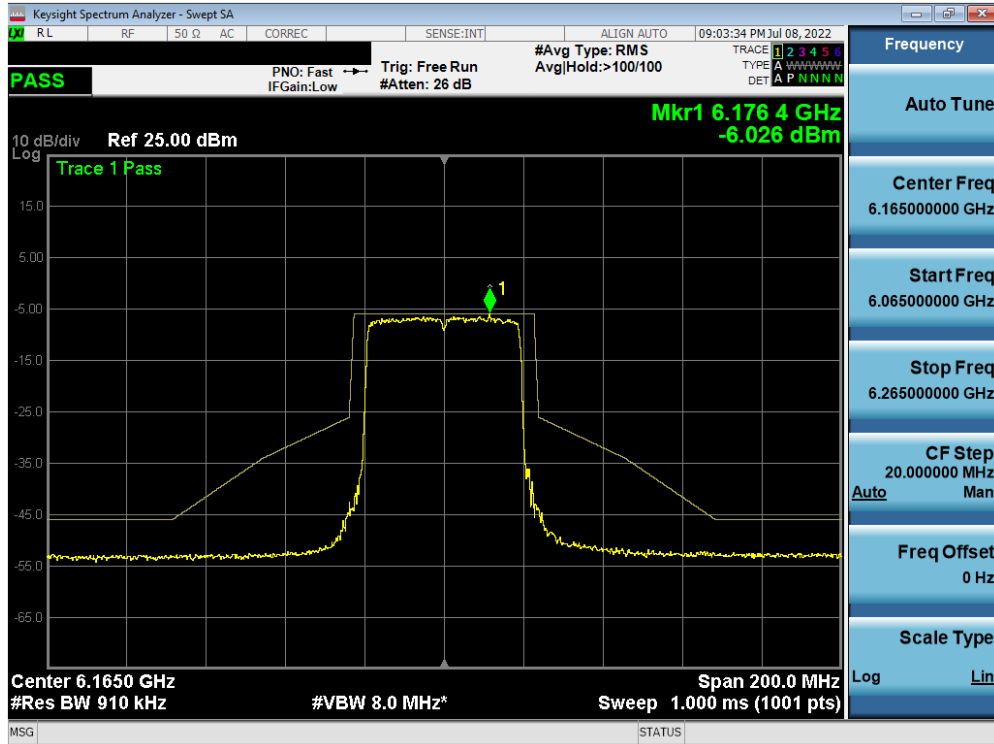


Plot 7-443. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) UNII Band 5) – Ch. 93

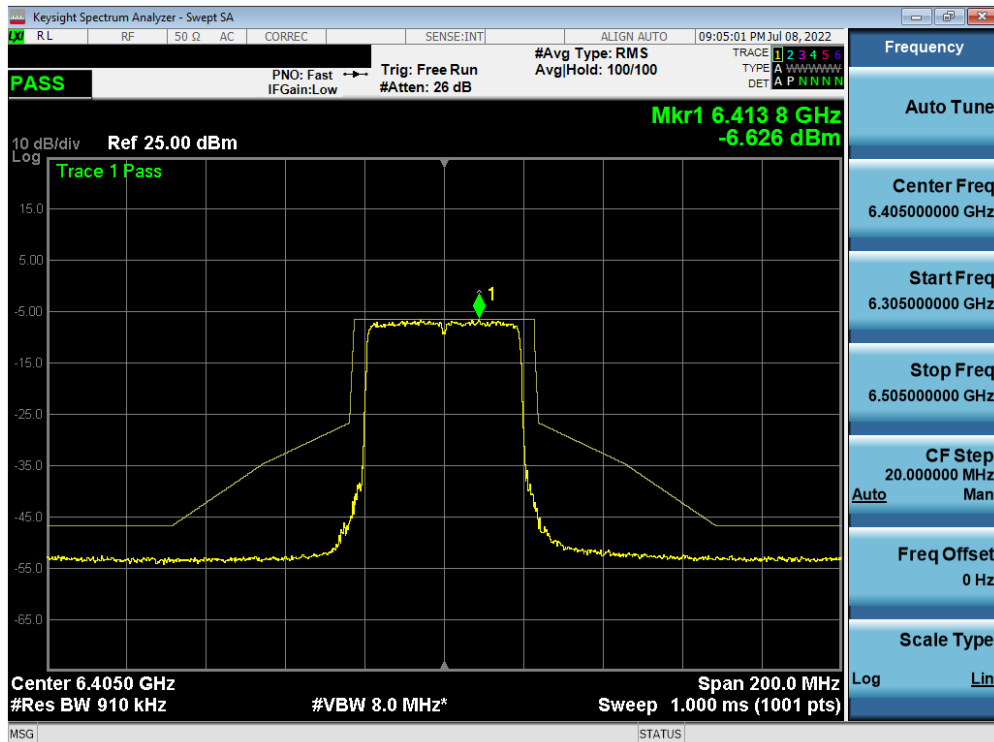


Plot 7-444. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 3)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 255 of 321

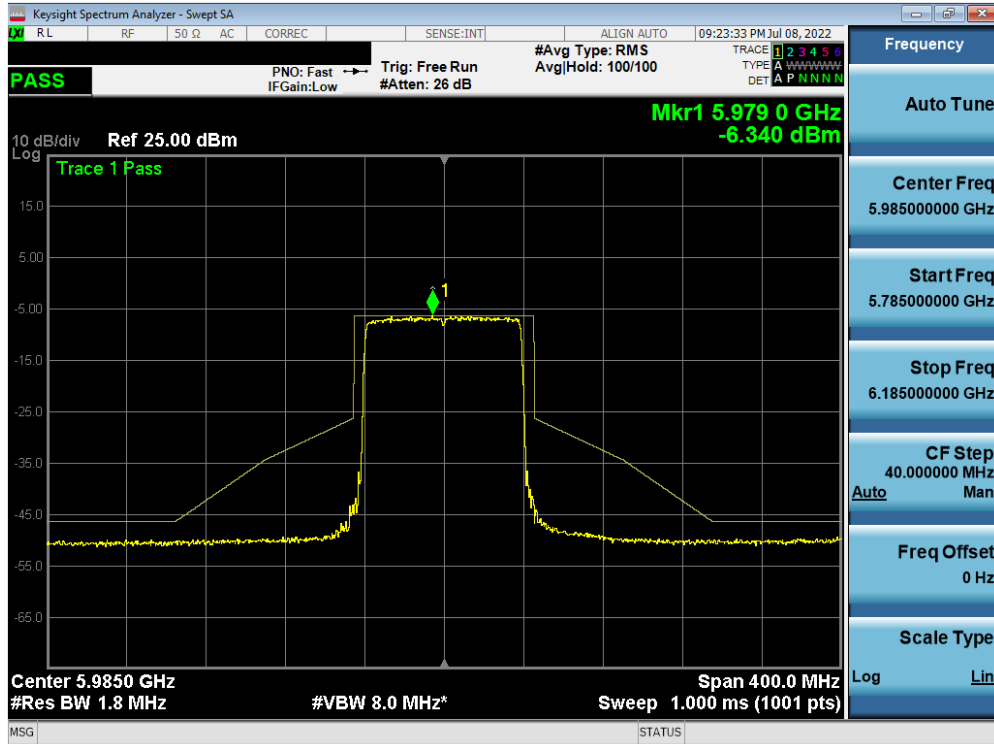


Plot 7-445. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 43)

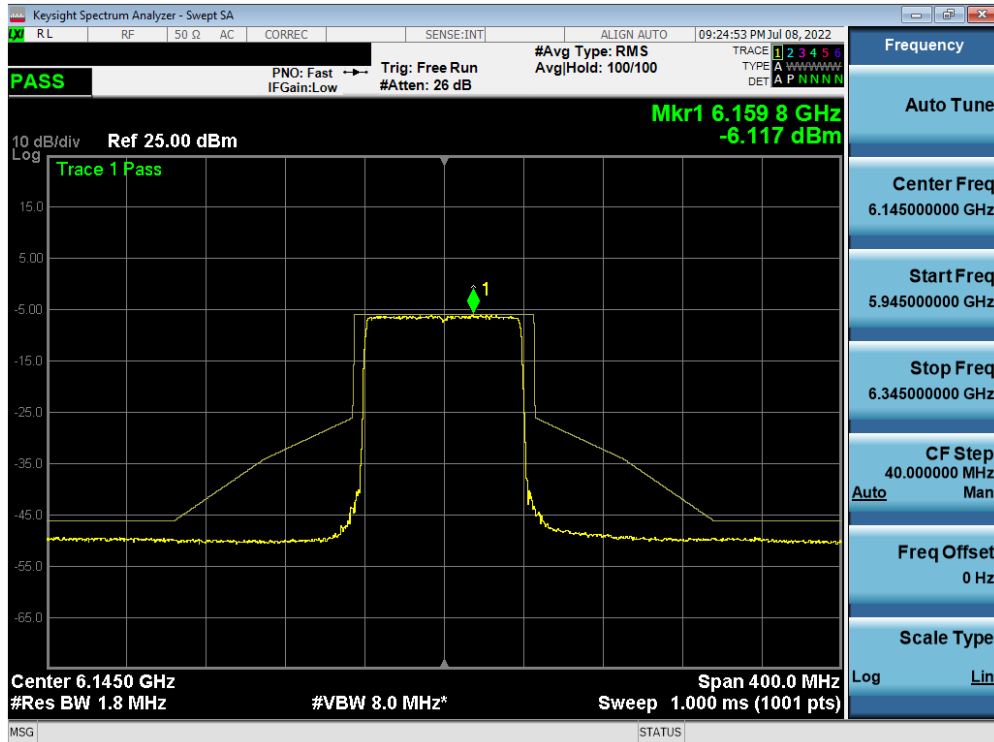


Plot 7-446. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 91)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 256 of 321

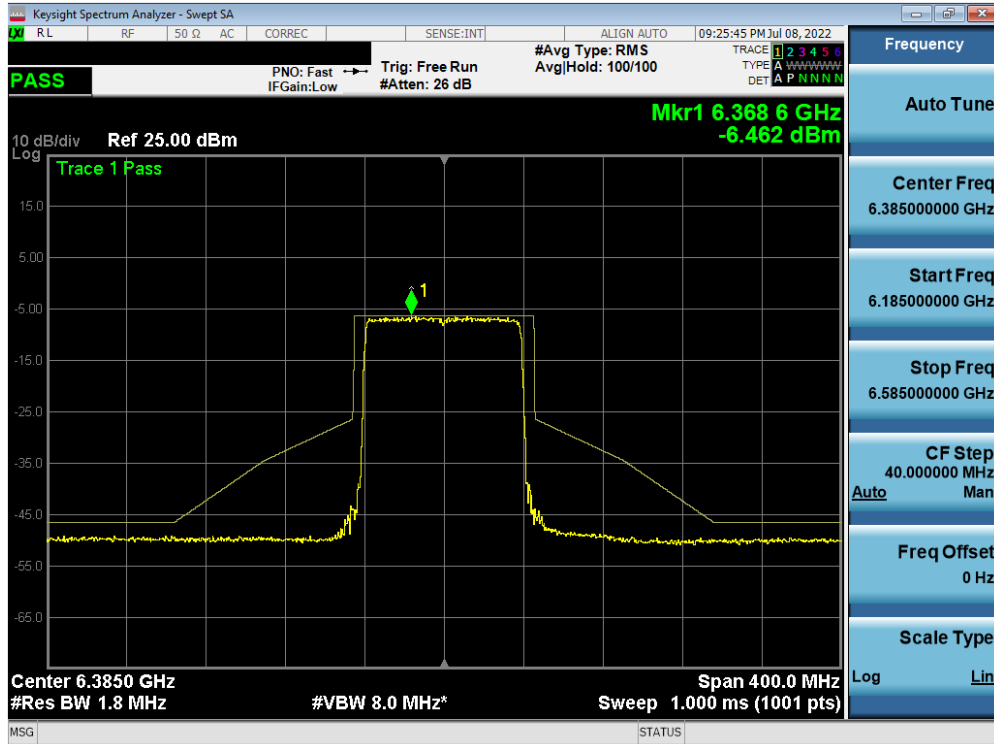


Plot 7-447. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 7)

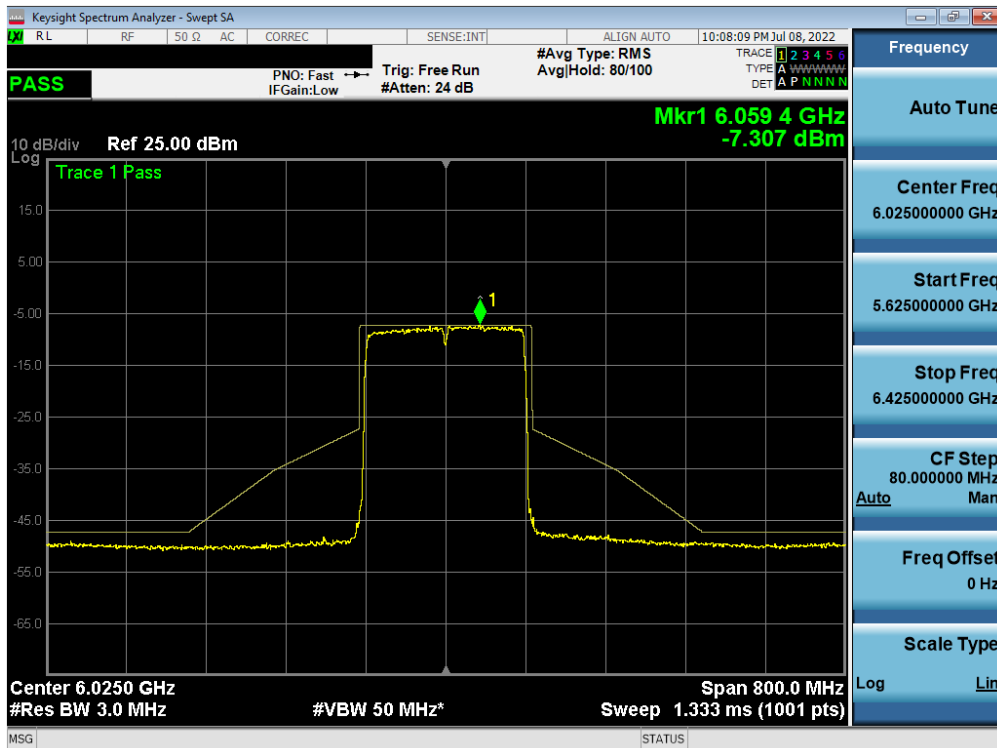


Plot 7-448. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 39)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 257 of 321

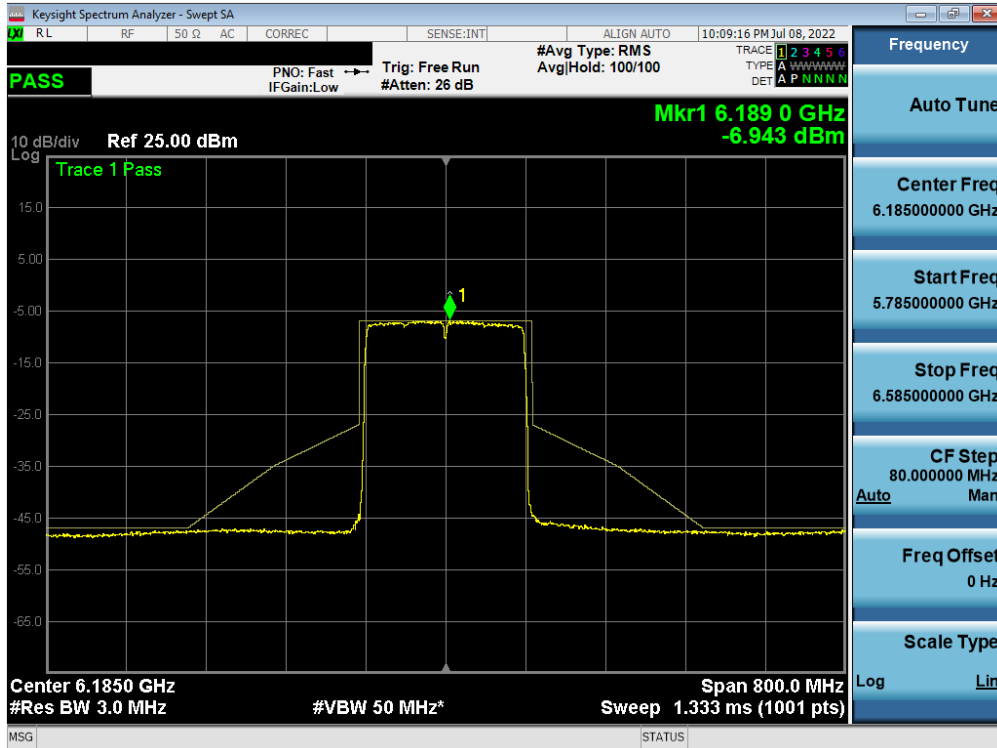


Plot 7-449. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 87)

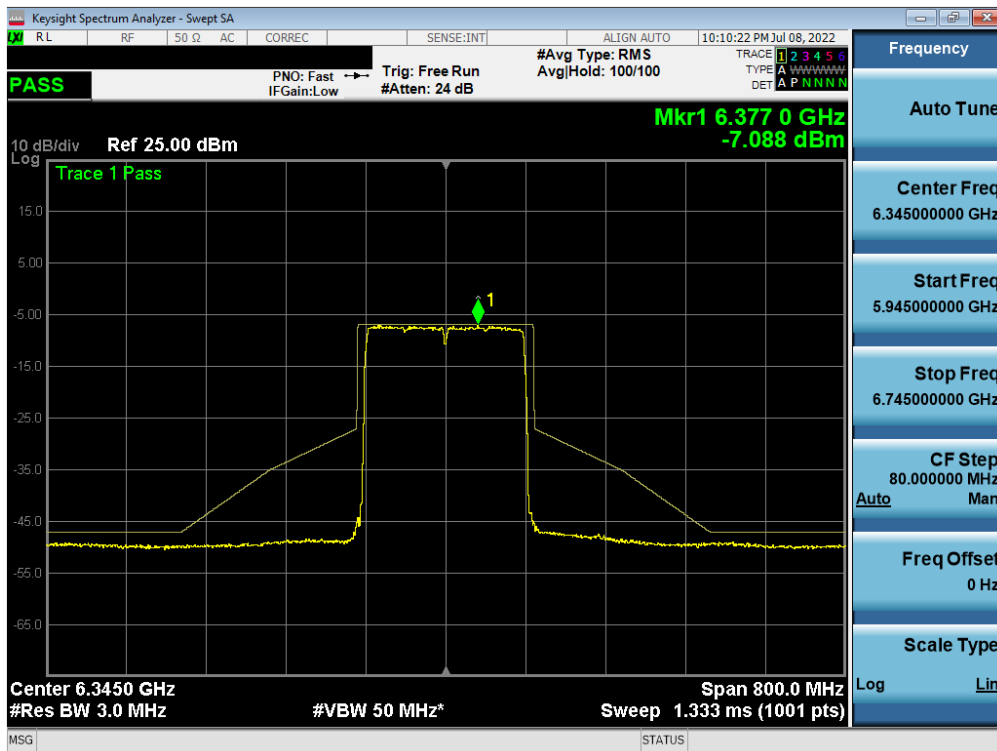


Plot 7-450. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 15)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 258 of 321

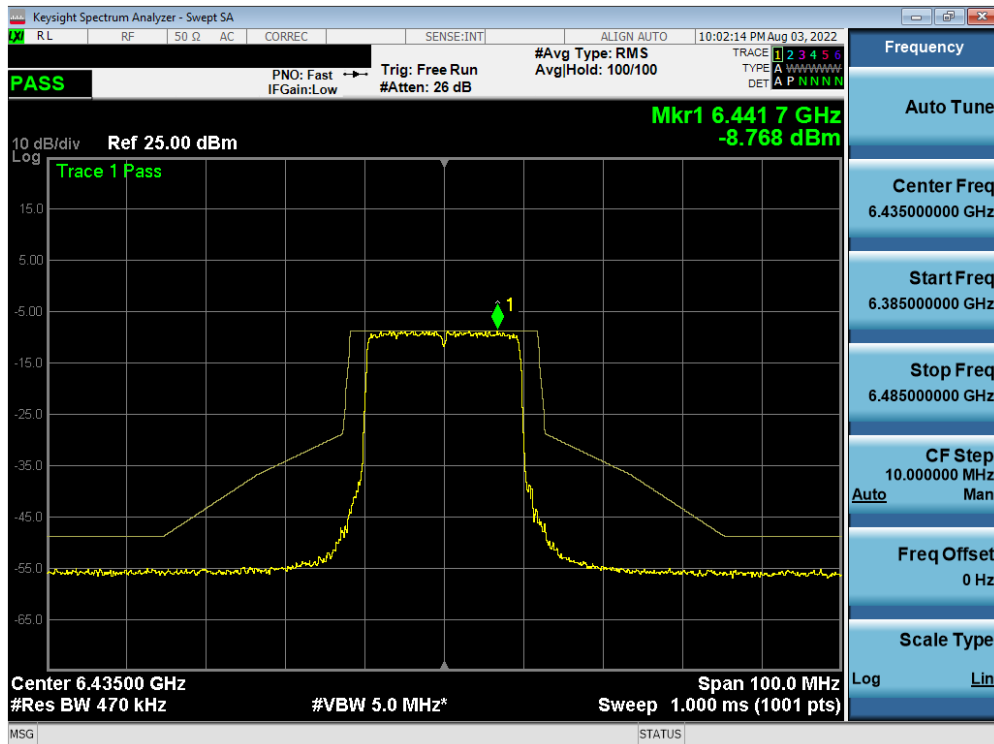


Plot 7-451. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 47)

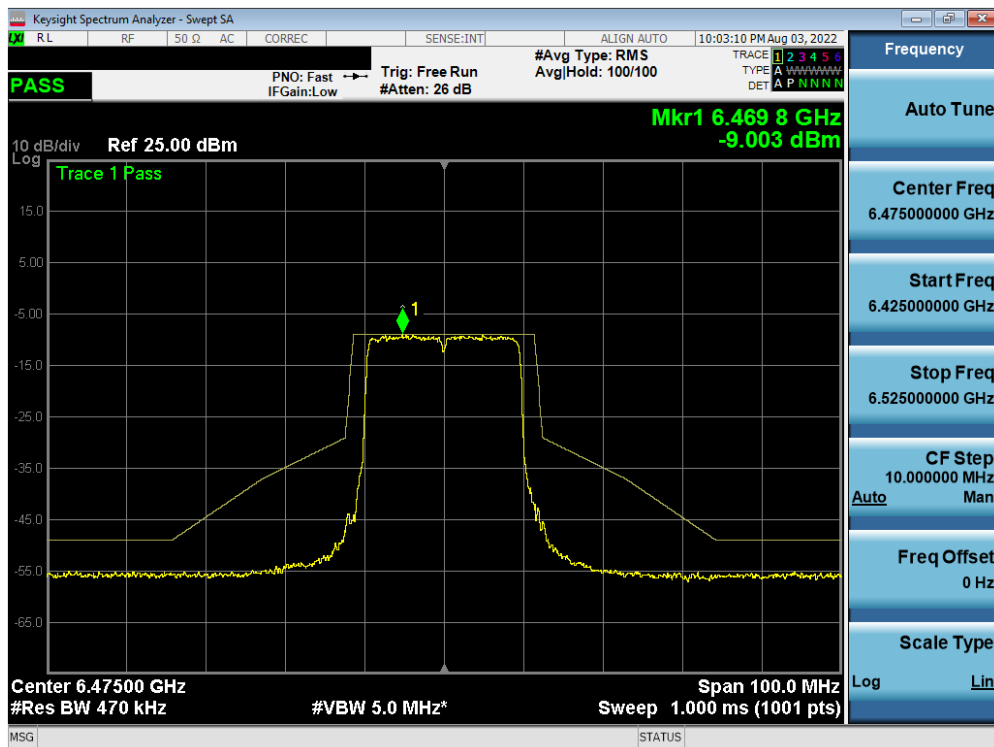


Plot 7-452. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (Full Tone) (UNII Band 5) – Ch. 79)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 259 of 321

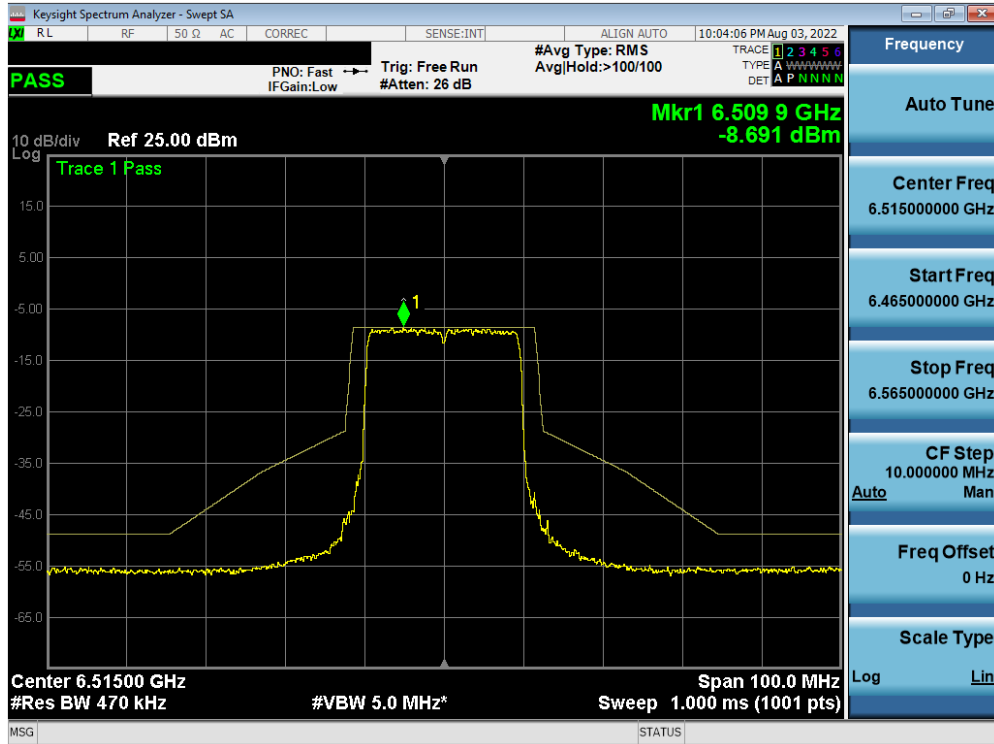


Plot 7-453. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 6) – Ch. 97)

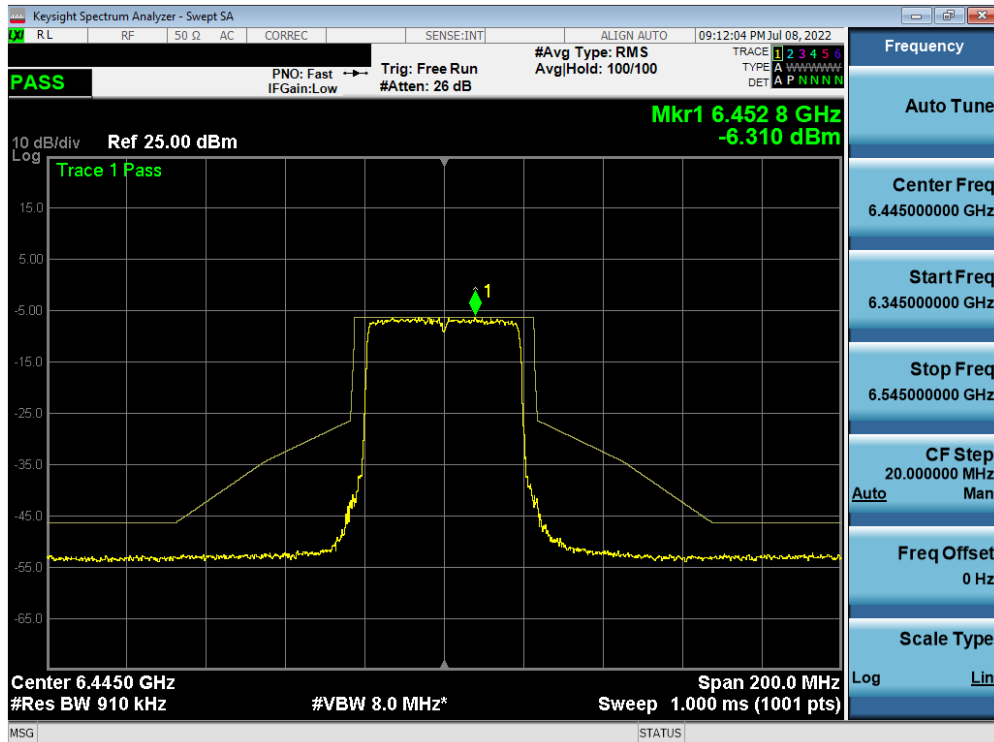


Plot 7-454. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 6) – Ch. 105)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 260 of 321

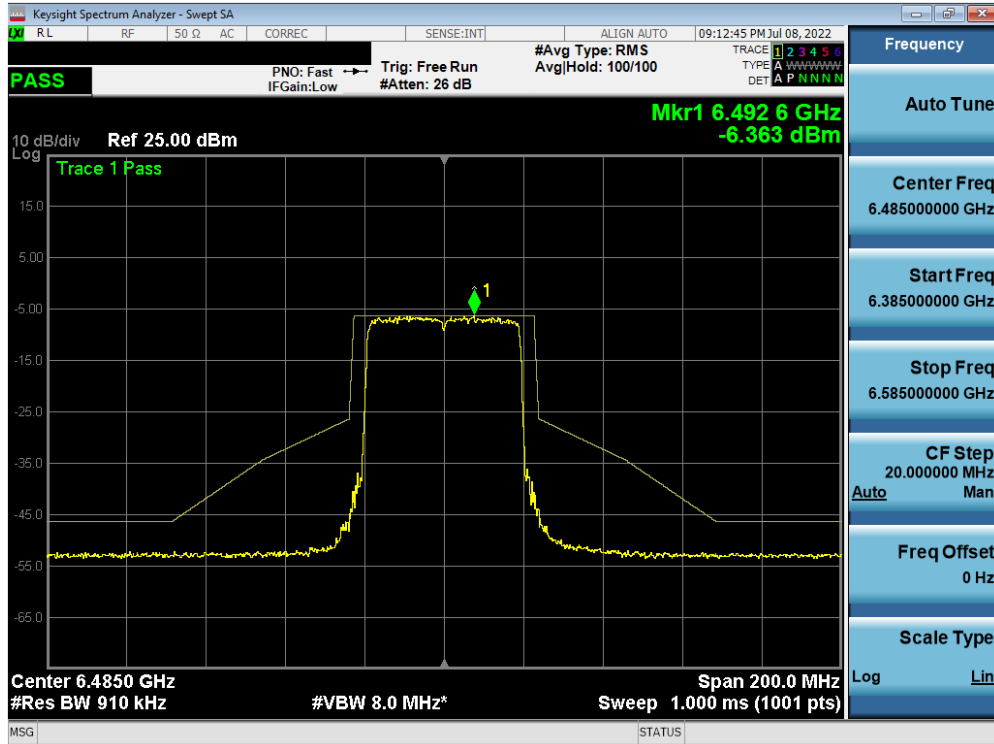


Plot 7-455. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 6) – Ch. 113)

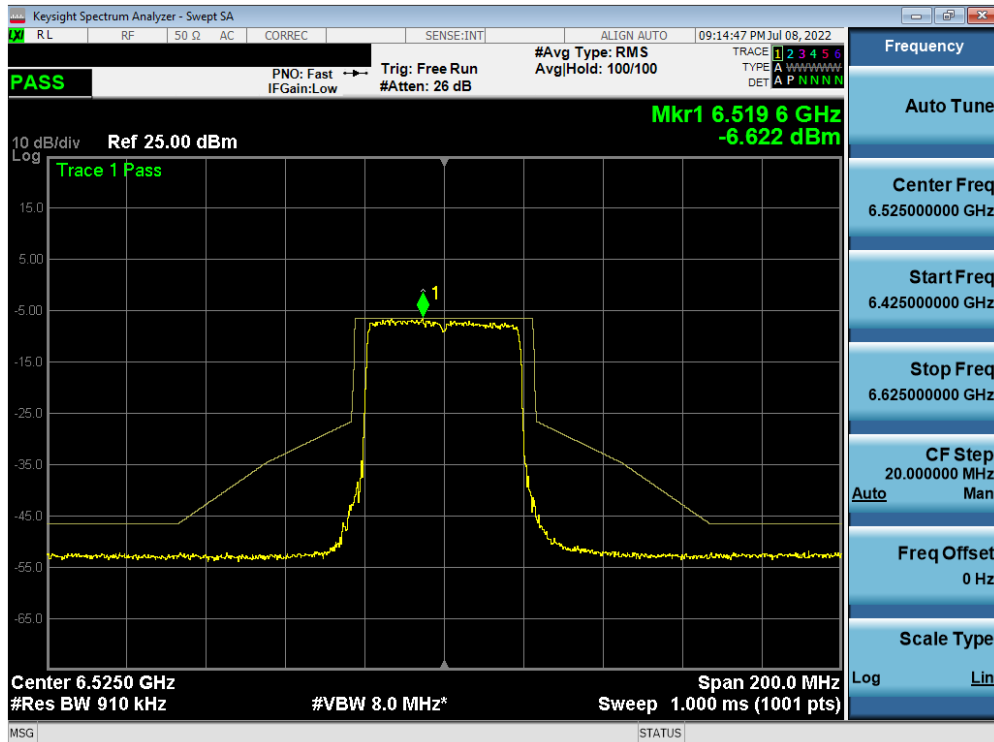


Plot 7-456. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 6) – Ch. 99)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M220524063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 261 of 321

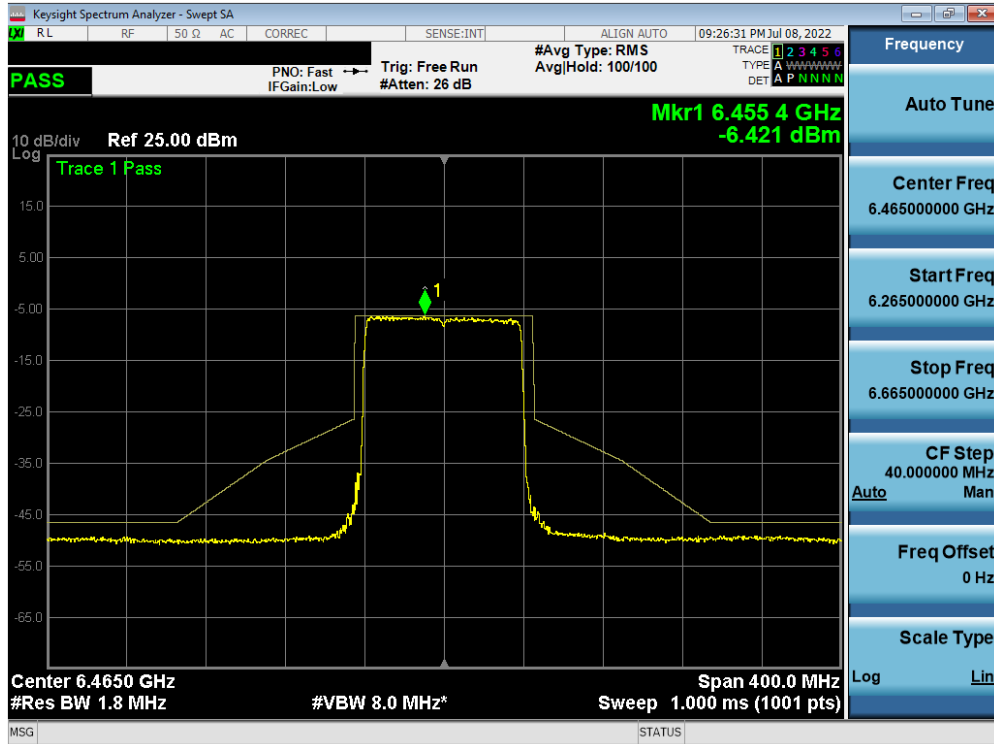


Plot 7-457. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 6) – Ch. 107)

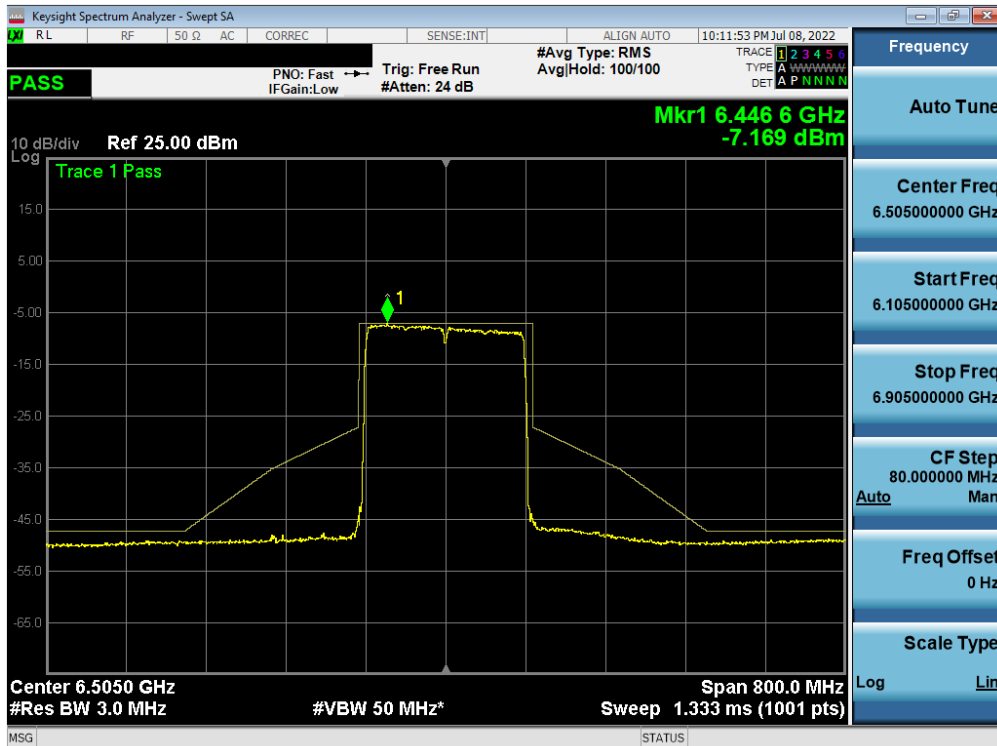


Plot 7-458. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 6) – Ch. 115)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 262 of 321

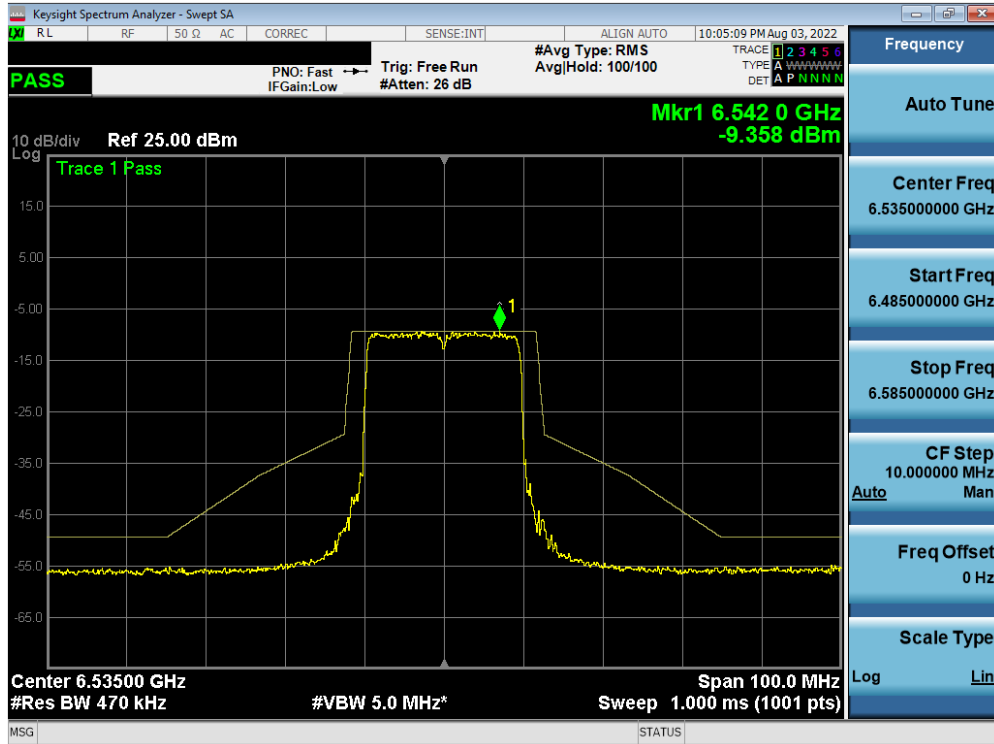


Plot 7-459. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 6) – Ch. 103)

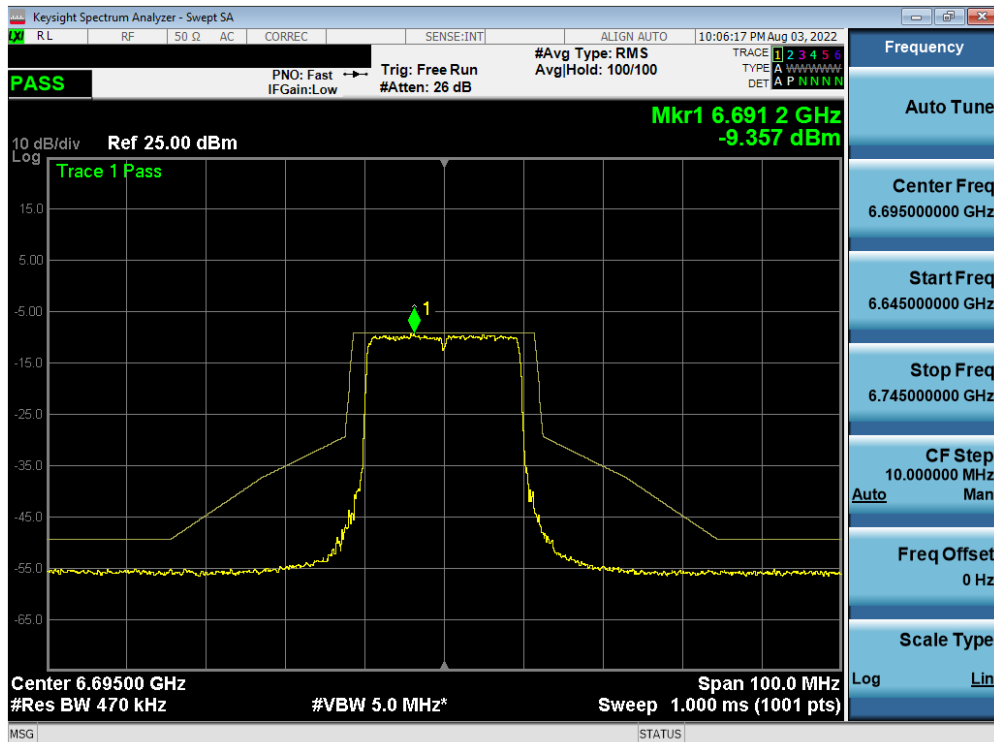


Plot 7-460. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (Full Tone) (UNII Band 6) – Ch. 111)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 263 of 321

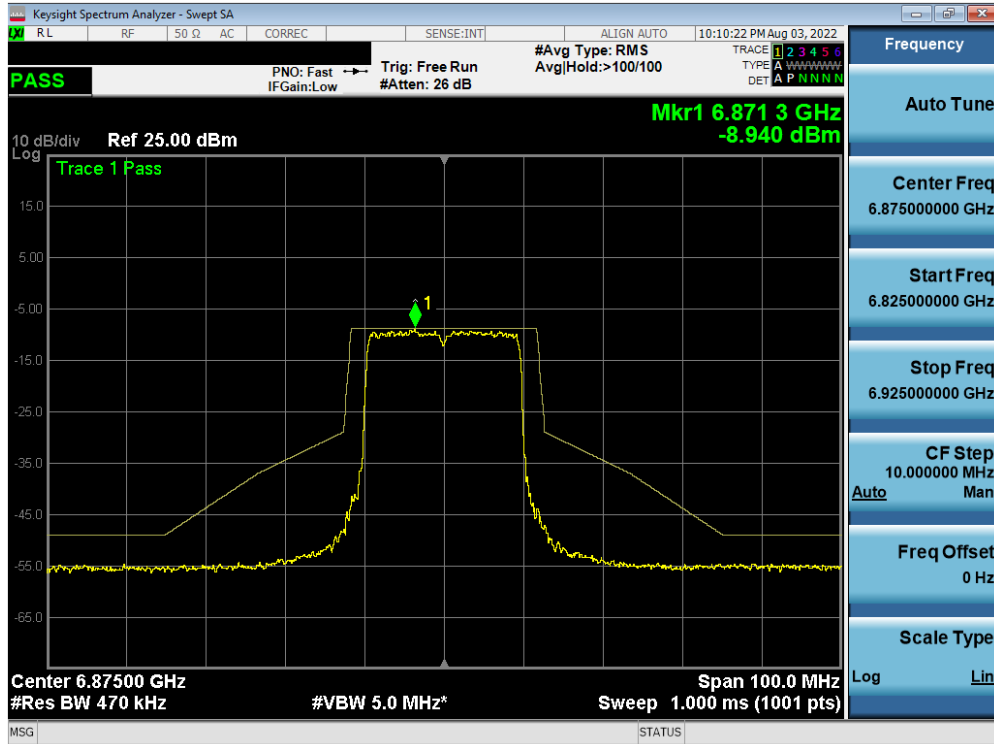


Plot 7-461. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 117)

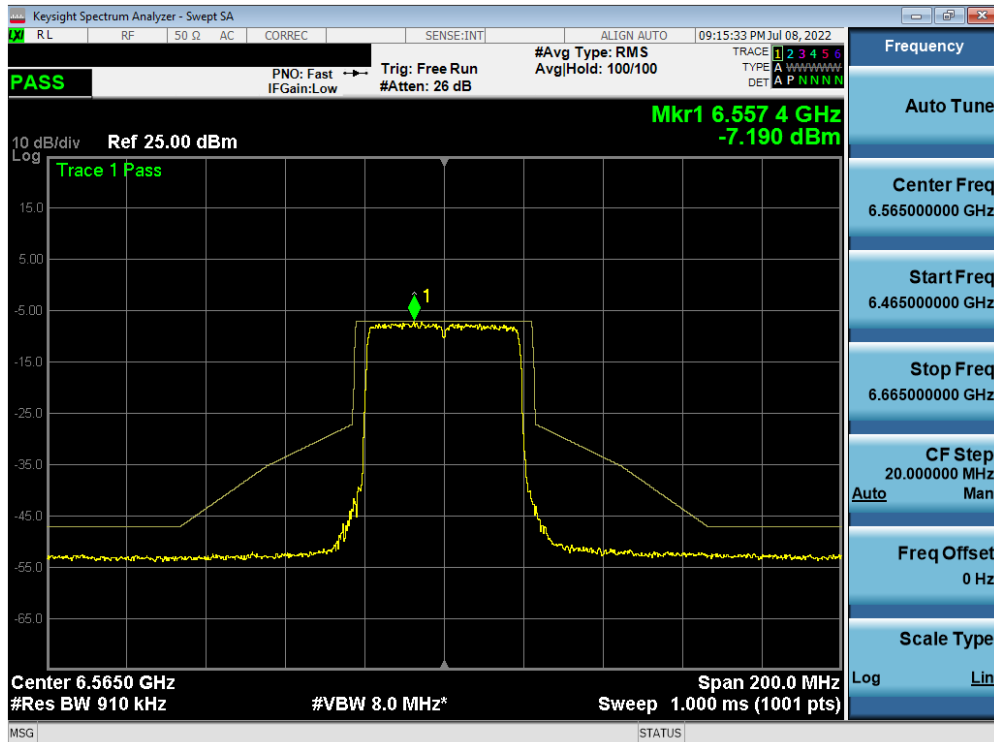


Plot 7-462. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 149)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 264 of 321

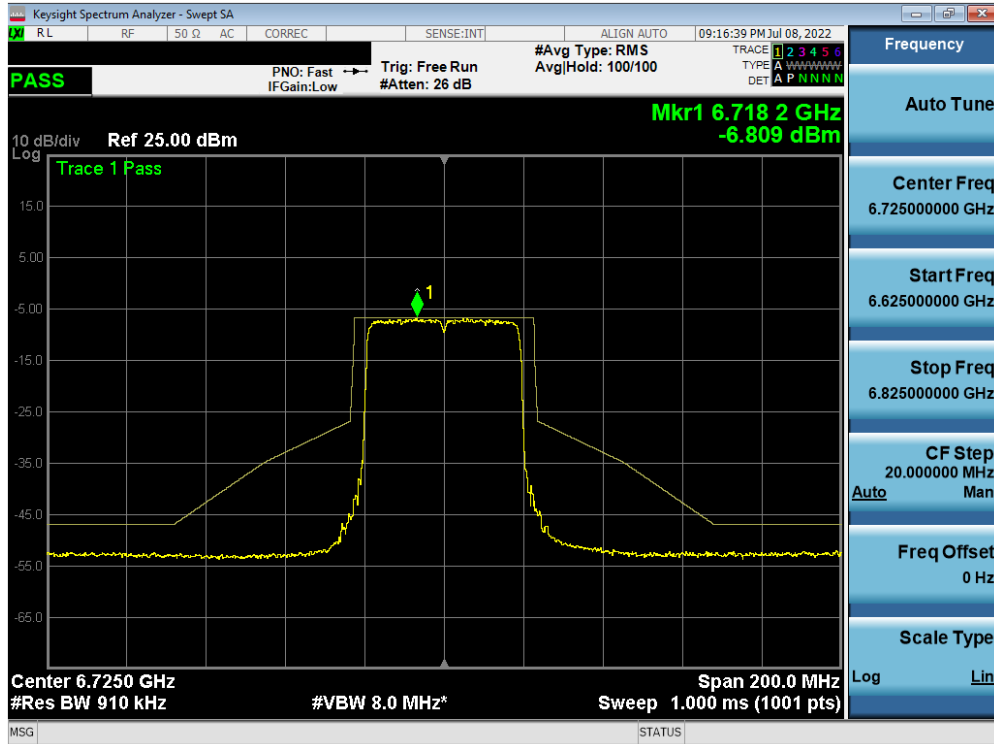


Plot 7-463. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 185)

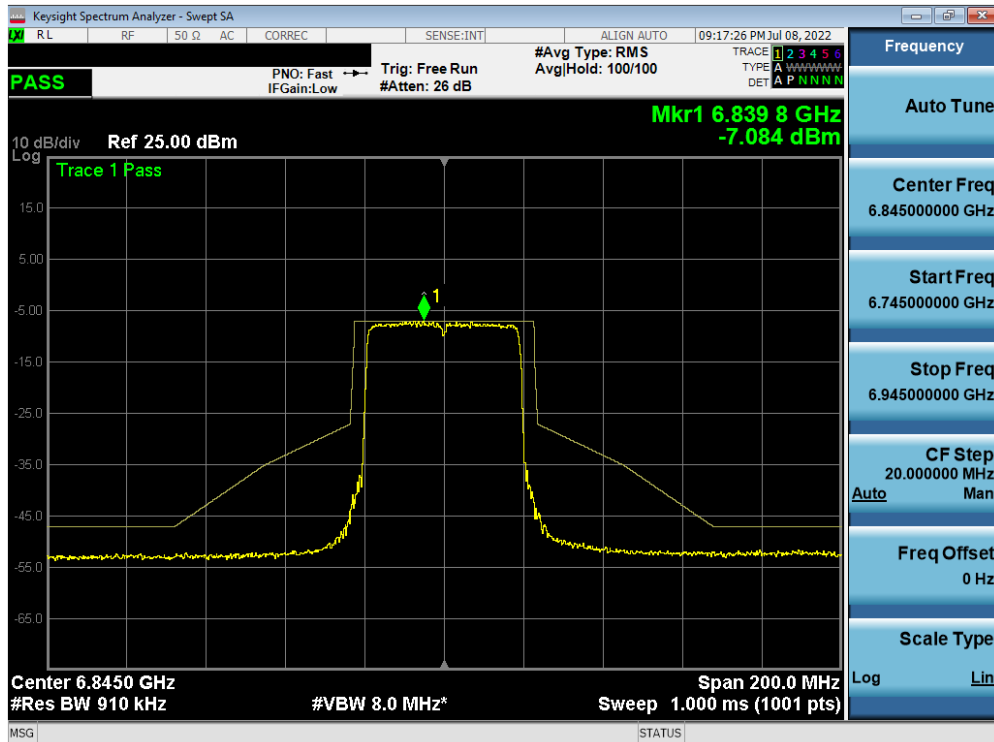


Plot 7-464. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 123)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 265 of 321

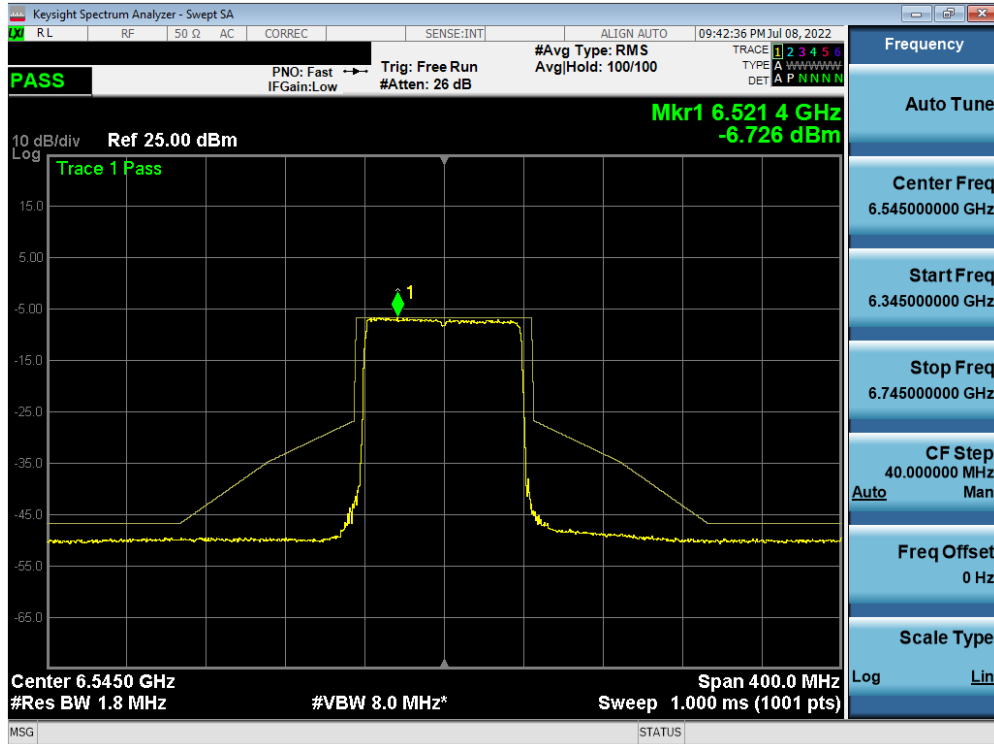


Plot 7-465. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 155)

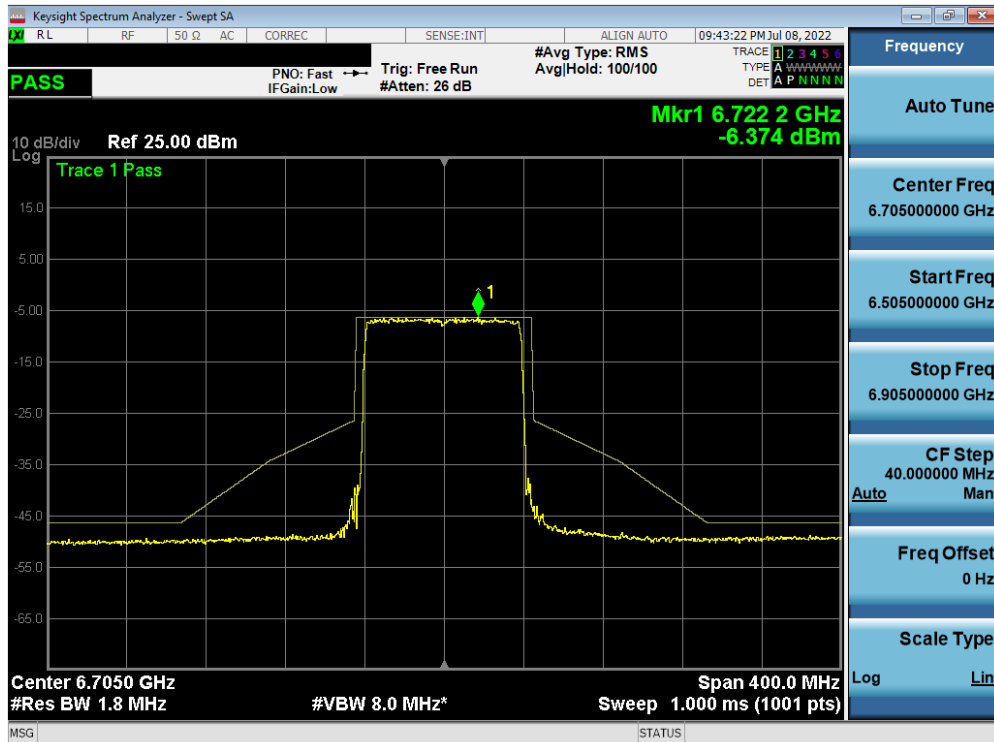


Plot 7-466. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 179)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 266 of 321

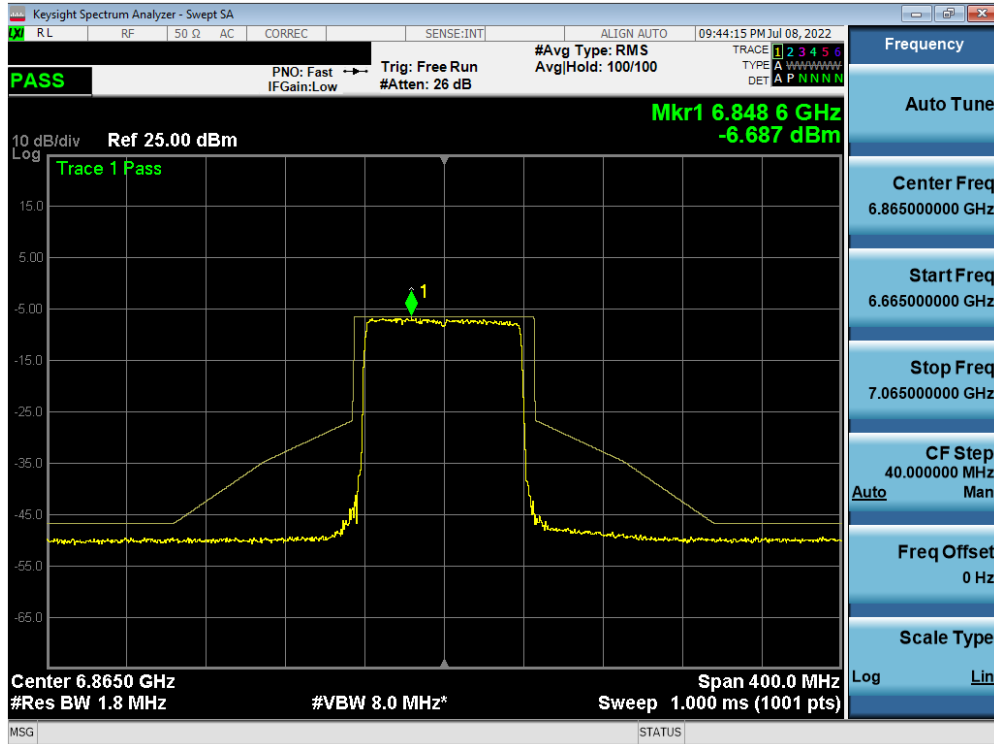


Plot 7-467. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 119)

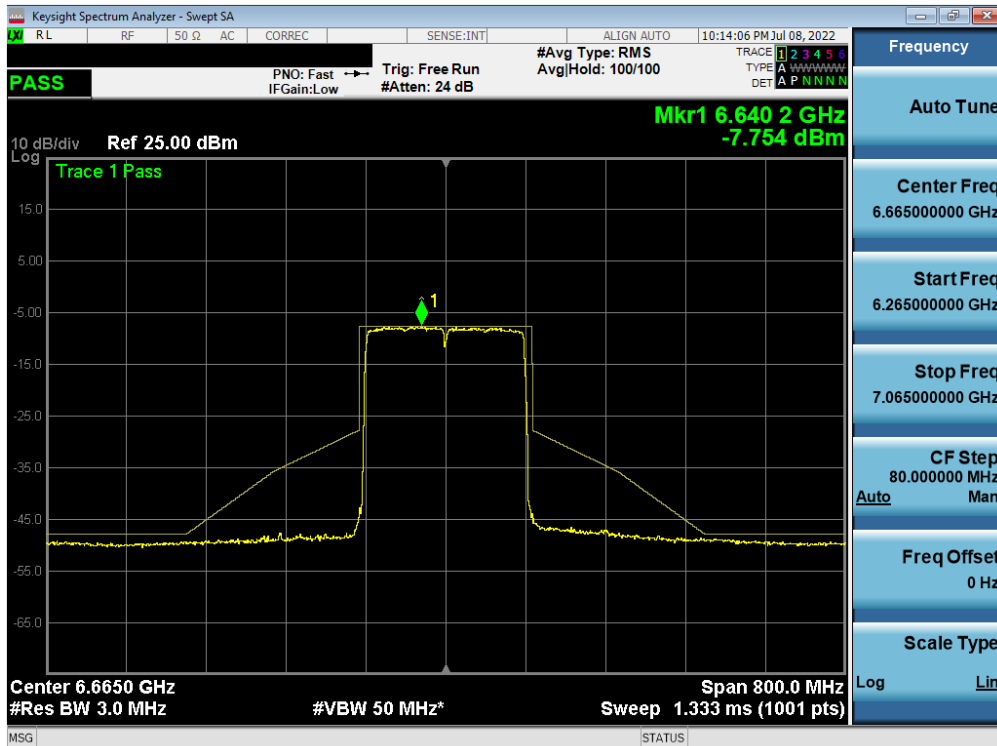


Plot 7-468. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 151)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 267 of 321

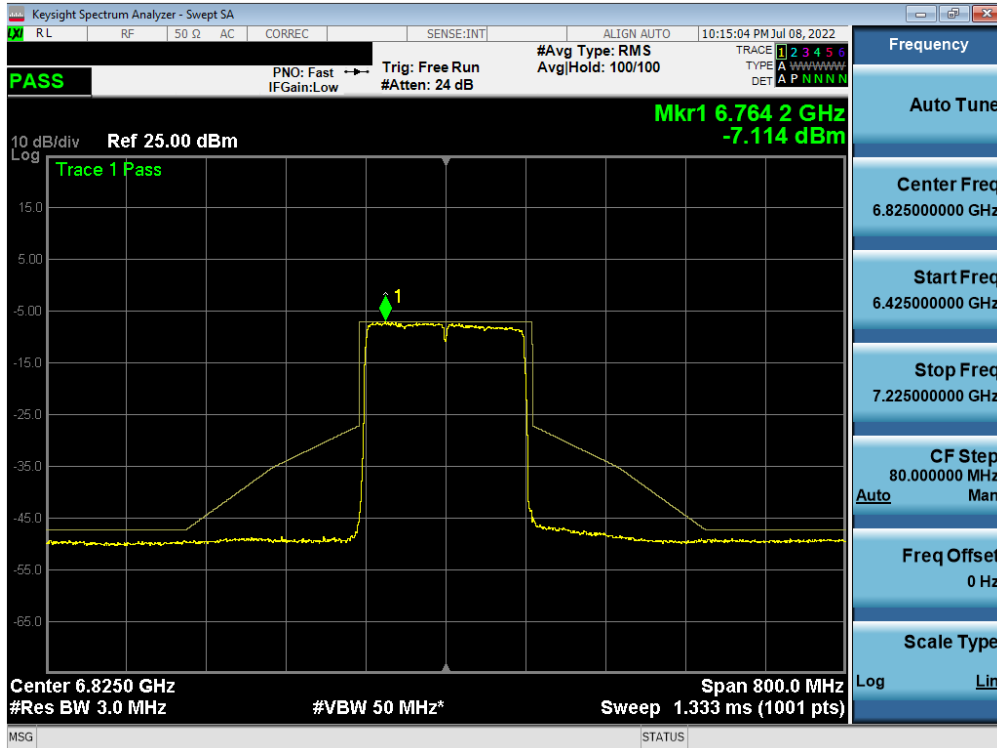


Plot 7-469. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 183)

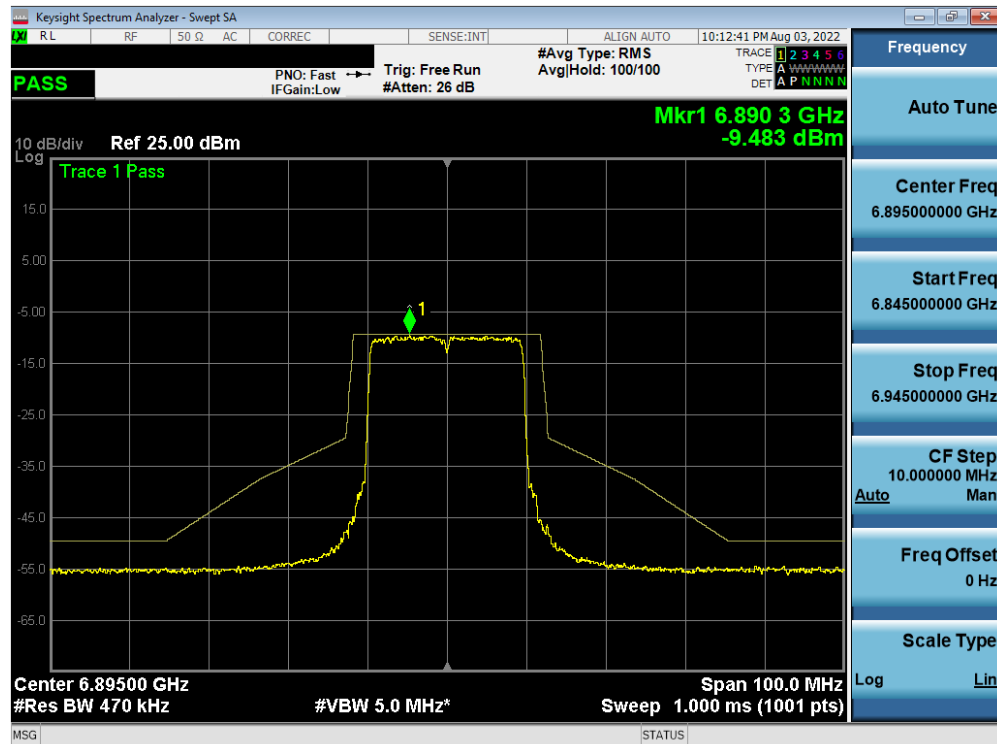


Plot 7-470. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 143)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 268 of 321

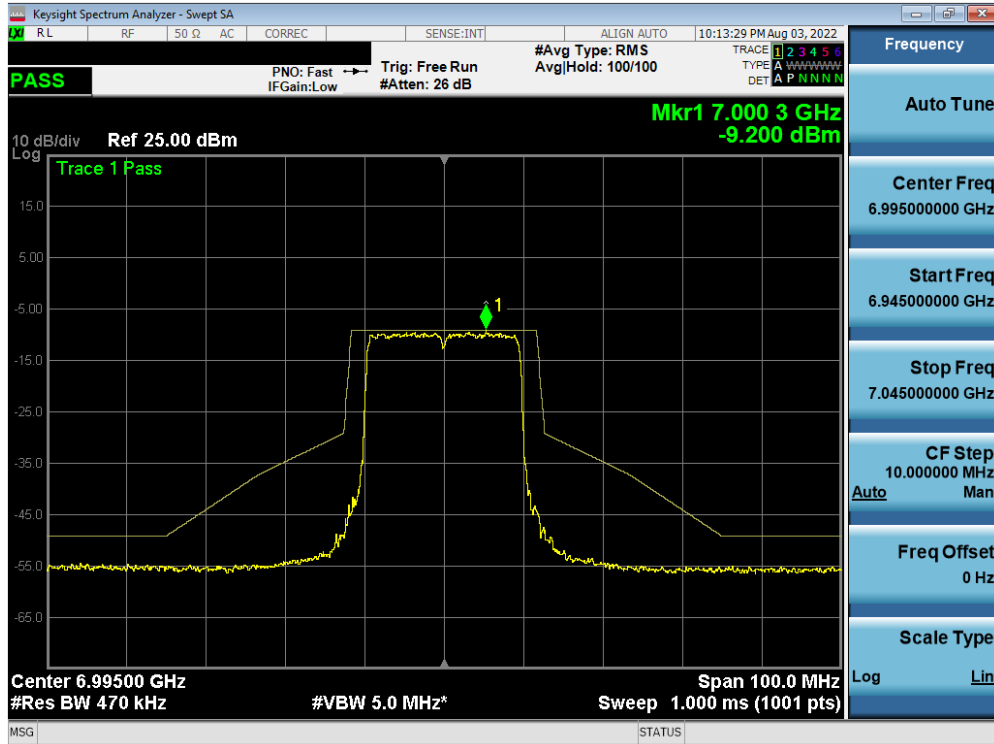


Plot 7-471. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (Full Tone) (UNII Band 7) – Ch. 175)

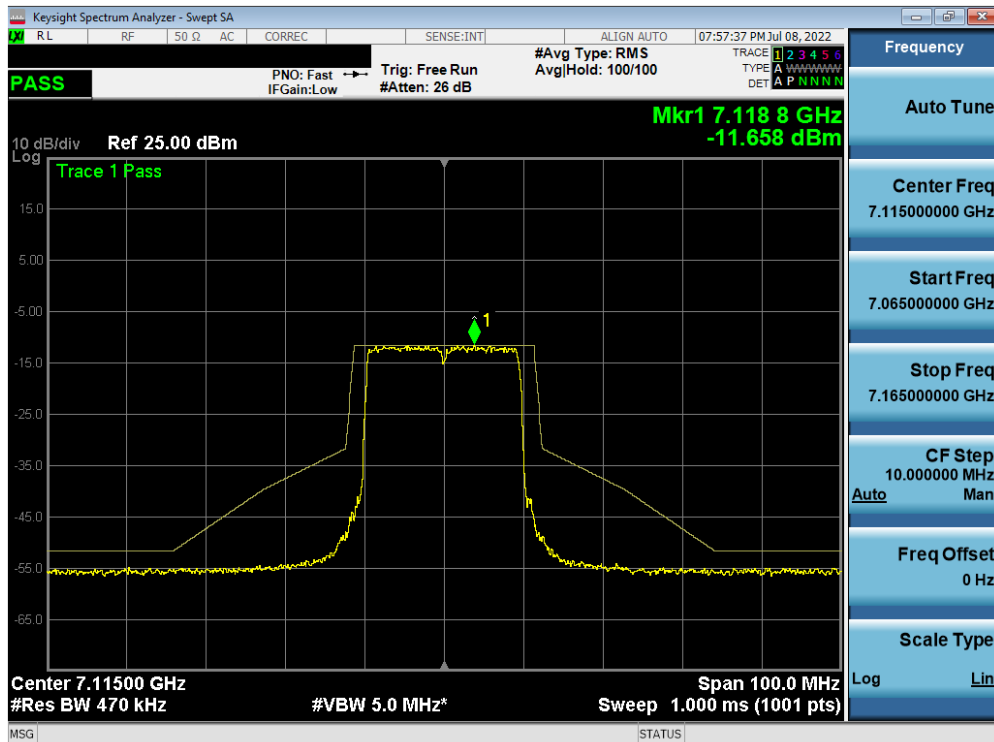


Plot 7-472. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 189)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 269 of 321

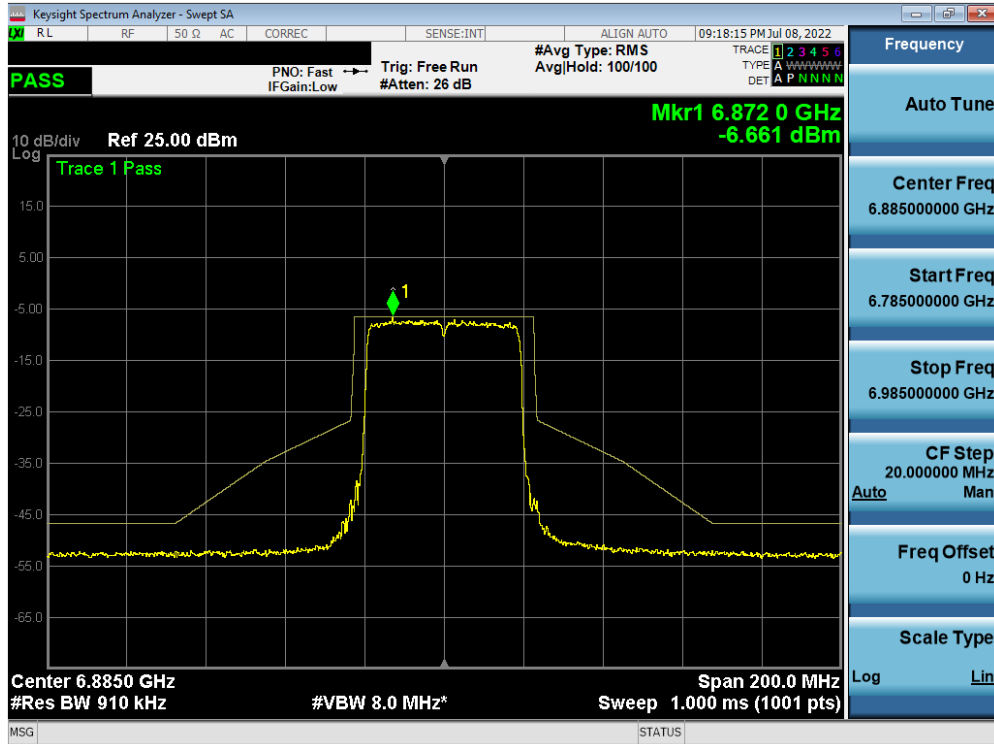


Plot 7-473. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 209)

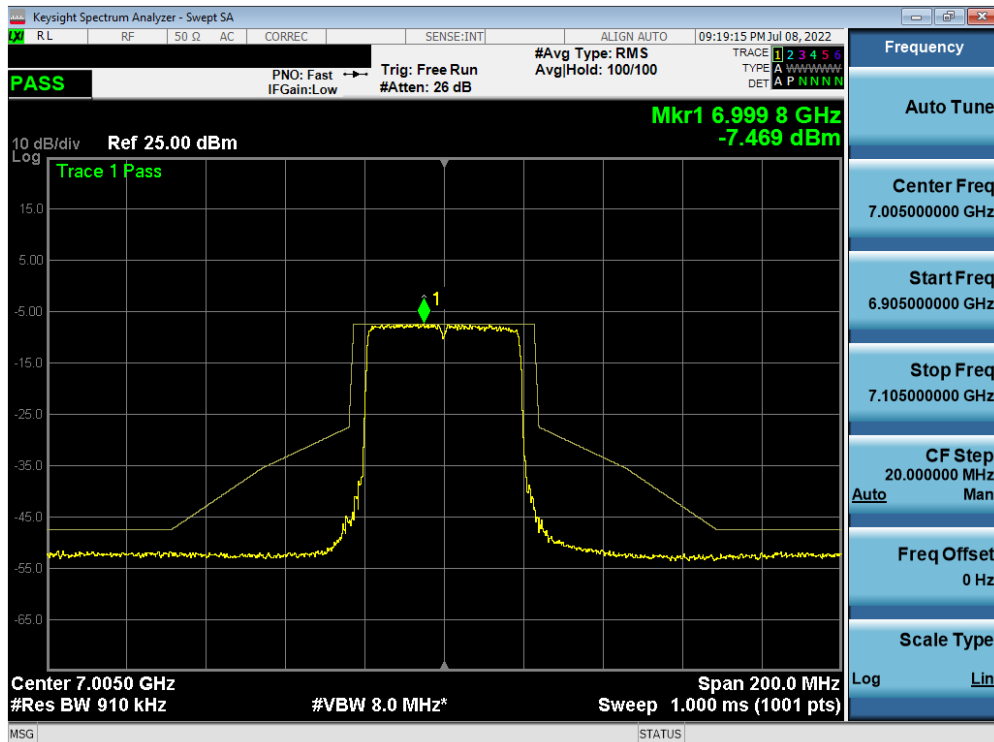


Plot 7-474. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 233)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M220524063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 270 of 321

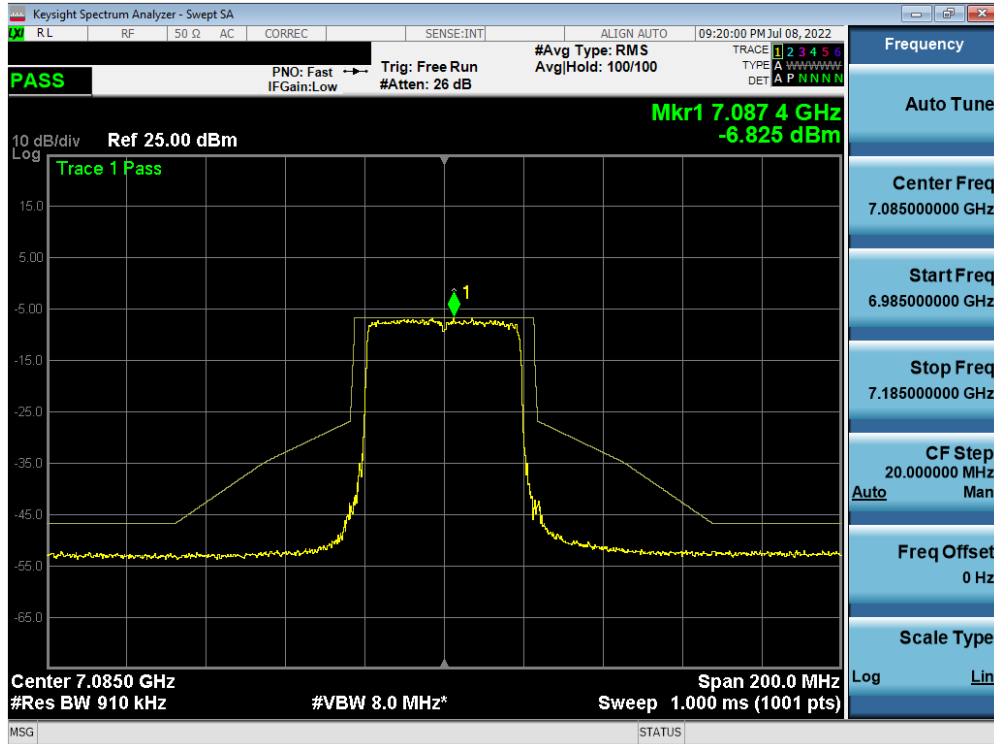


Plot 7-475. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 187)

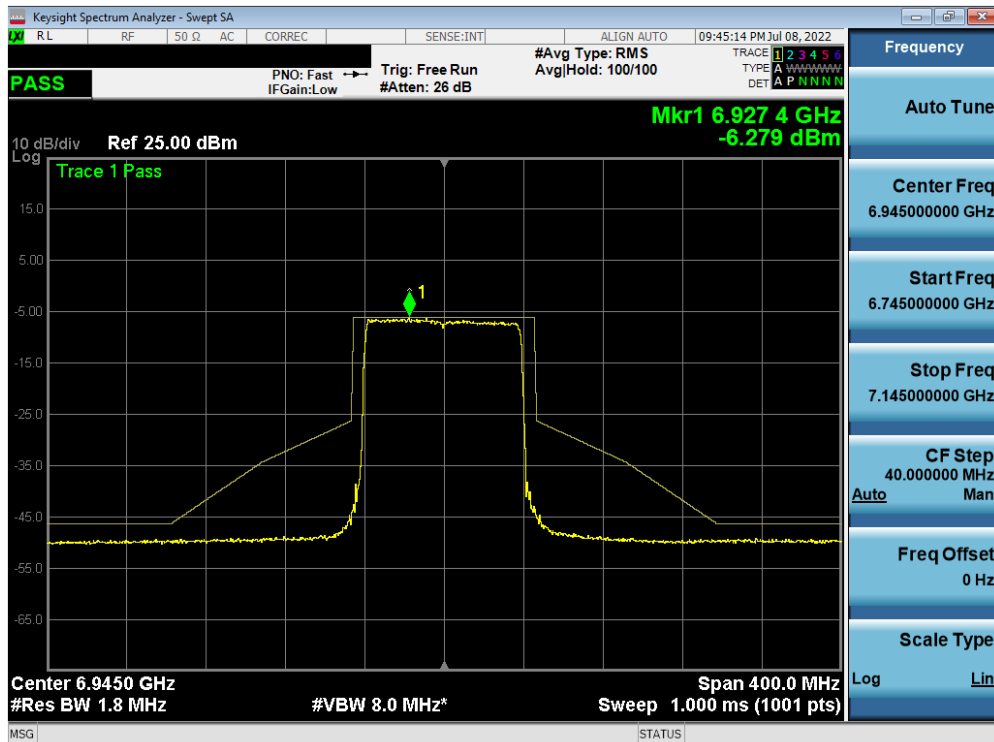


Plot 7-476. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 211)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 271 of 321

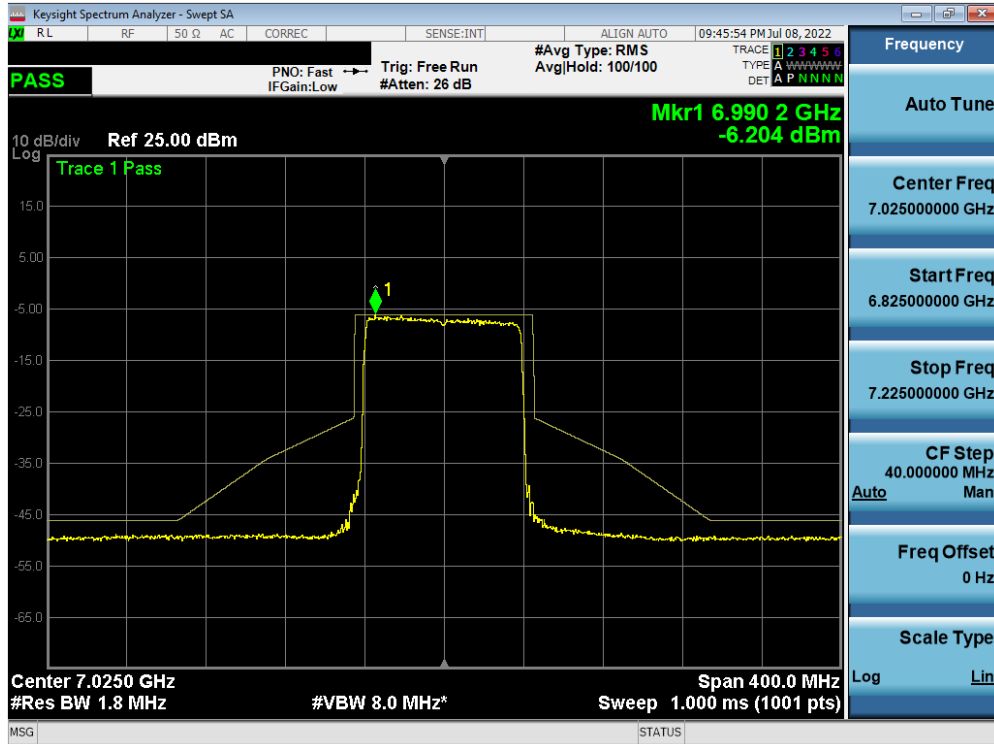


Plot 7-477. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 227)

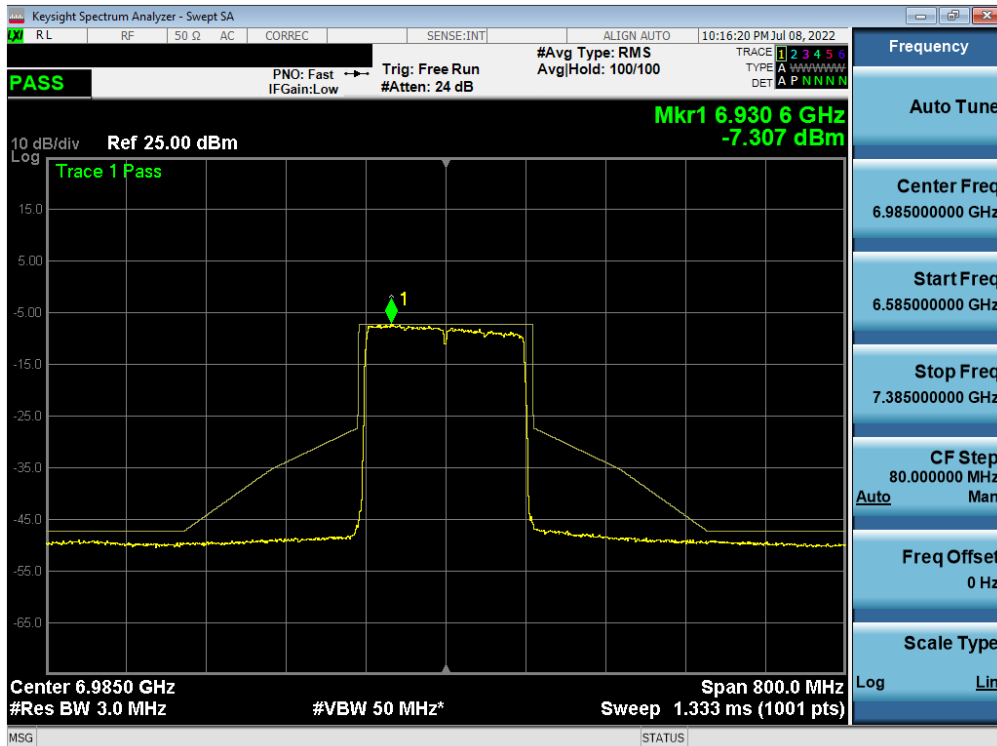


Plot 7-478. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 199)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 272 of 321



Plot 7-479. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 215)



Plot 7-480. In-Band Emission Plot MIMO ANT2 (160MHz BW 802.11ax (Full Tone) (UNII Band 8) – Ch. 207)

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 273 of 321

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 EUT 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.

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Test Setup

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

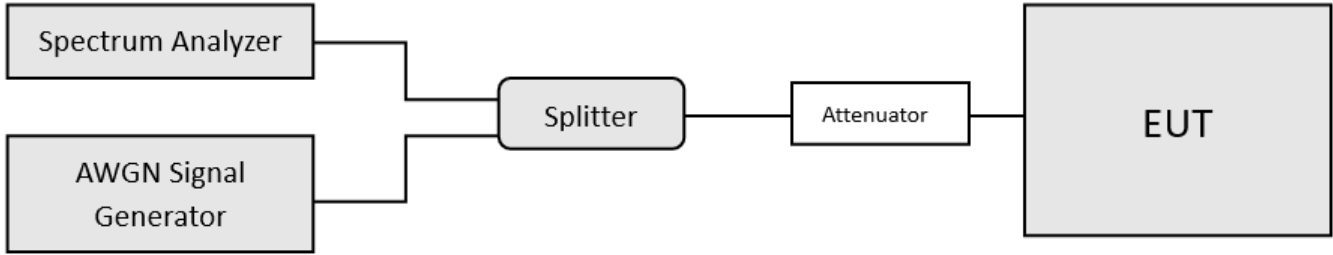


Figure 7-5. Contention-based protocol test setup, conducted method

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 7-481). The amplitude of the signal was increased until detected by the EUT, signaled by the ceasing of transmission (see Plot 7-497), marker indicates the point at which the AWGN signal is introduced.
- 2.
3. 15 trials were ran in order to assure that at least 90% of certainty was met.

	Min. Gain [dBi]
5925 – 6425 MHz	-5.90
6425 – 6525 MHz	-6.40
6525 – 6875 MHz	-5.70
6875 – 7125 MHz	-4.50

Table 7-32. Antenna Lowest Gain

$$\text{Detection Level} = \text{Injected AWGN Power (dBm)} - \text{Antenna Gain (dBi)} + \text{Path Loss (dB)}$$

Equation 7-1. Detection Level Calculation

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Band	Channel	Channel Freq [MHz]	Channel BW [MHz]	Incumbent Freq [MHz]	Injected (AWGN) [dBm]	Antenna Gain [dBi]	Path Loss (dB)	Adjusted Power Level [dBm]	Detection Limit [dBm]	Margin [dB]
UNII Band 5	53	6215	20	6215	-75.84	-5.90	0.49	-69.45	-62.0	-7.45
				6110	-75.84	-5.90	0.46	-69.48	-62.0	-7.48
	47	6185	160	6185	-77.72	-5.90	0.48	-71.34	-62.0	-9.34
				6260	-74.83	-5.90	0.50	-68.43	-62.0	-6.43
UNII Band 6	101	6455	20	6455	-74.32	-6.40	0.54	-67.38	-62.0	-5.38
				6430	-74.30	-6.40	0.53	-67.37	-62.0	-5.37
	111	6505	160	6505	-74.21	-6.40	0.55	-67.26	-62.0	-5.26
				6580	-73.89	-6.40	0.57	-66.92	-62.0	-4.92
UNII Band 7	149	6695	20	6695	-80.53	-5.70	0.59	-74.24	-62.0	-12.24
				6750	-75.61	-5.70	0.60	-69.31	-62.0	-7.31
	175	6825	160	6825	-74.84	-5.70	0.62	-68.52	-62.0	-6.52
				6900	-75.51	-5.70	0.63	-69.18	-62.0	-7.18
UNII Band 8	197	6935	20	6935	-78.28	-4.50	0.64	-73.14	-62.0	-11.14
				6910	-74.69	-4.50	0.64	-69.55	-62.0	-7.55
	207	6985	160	6985	-75.60	-4.50	0.65	-70.45	-62.0	-8.45
				7060	-75.31	-4.50	0.66	-70.15	-62.0	-8.15

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

Band	Channel	Channel Freq [MHz]	Channel BW [MHz]	Incumbent Freq [MHz]	EUT Transmission Status			Margin [dB]
					Adjusted AWGN Power (dBm)			
					Normal	Minimal	Ceased	
UNII Band 5	53	6215	20	6215	-76.87	-73.62	-70.75	-7.45
				6110	-75.89	-73.10	-70.78	-7.48
	47	6185	160	6185	-78.14	-74.75	-72.64	-9.34
				6260	-75.97	-72.53	-69.73	-6.43
UNII Band 6	101	6455	20	6455	-73.97	-70.72	-68.08	-5.38
				6430	-73.51	-70.77	-68.07	-5.37
	111	6505	160	6505	-72.75	-70.18	-67.96	-5.26
				6580	-72.54	-69.71	-67.62	-4.92
UNII Band 7	149	6695	20	6695	-78.74	-76.20	-74.14	-12.24
				6750	-74.24	-71.50	-69.21	-7.31
	175	6825	160	6825	-73.81	-71.01	-68.42	-6.52
				6900	-74.55	-72.04	-69.08	-7.18
UNII Band 8	197	6935	20	6935	-79.05	-76.07	-73.24	-11.14
				6910	-75.63	-72.36	-69.65	-7.55
	207	6985	160	6985	-75.85	-73.16	-70.55	-8.45
				7060	-75.88	-73.04	-70.25	-8.15

Table 7-34. Contention Based Protocol – Detection Results – All Tx Cases

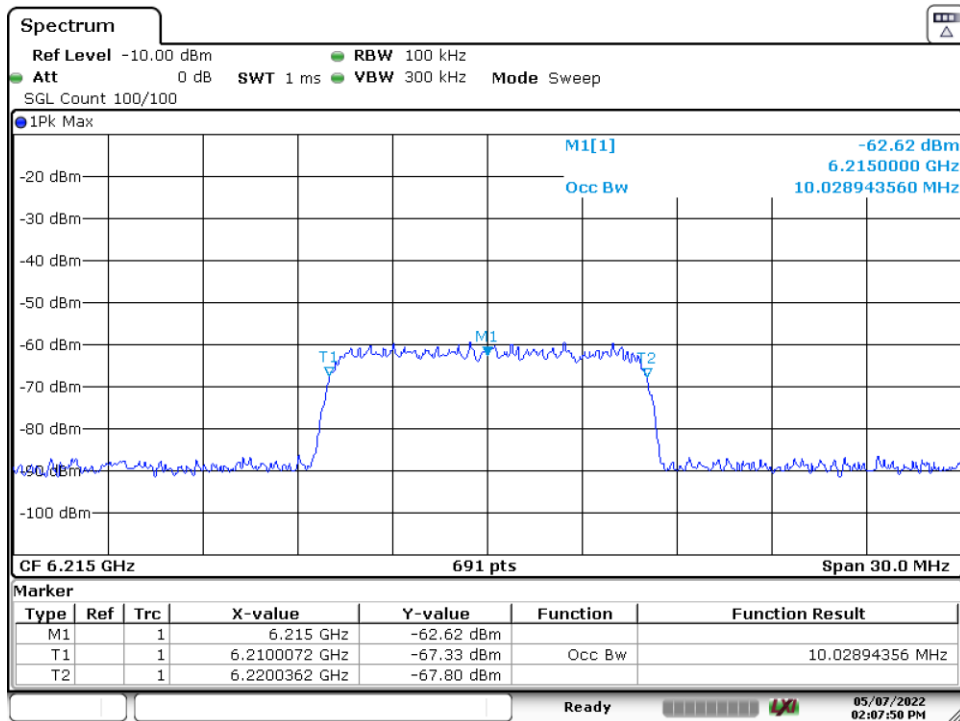
FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Band	Channel	Channel Freq [MHz]	Channel BW [MHz]	Incumbent Freq [MHz]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Detection Rate (%)	
UNII Band 5	53	6215	20	6215	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100	
				6110	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	47	6185	160	6185	1	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	1	1
UNII Band 6	101	6455	20	6455	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
				6430	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	111	6505	160	6505	1	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	1	1
UNII Band 7	149	6695	20	6695	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
				6750	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	175	6825	160	6825	1	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	1	1
UNII Band 8	197	6935	20	6935	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	100
				6910	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	207	6985	160	6985	1	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	1	1

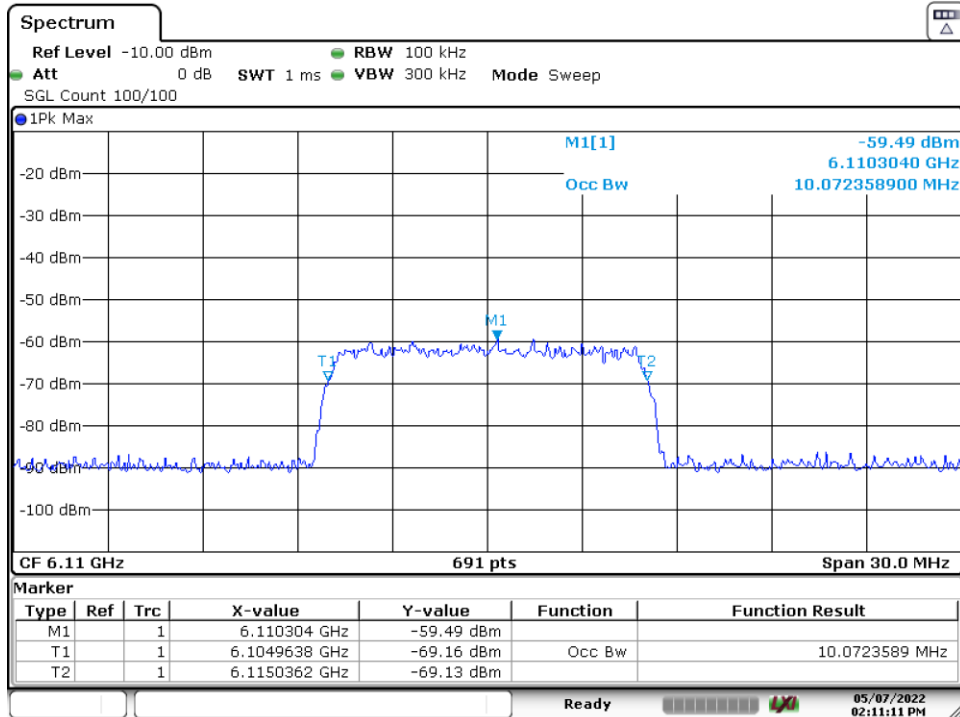
Table 7-35. Contention Based Protocol – Incumbent Detection Trial Results

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Date: 7.MAY.2022 14:07:50

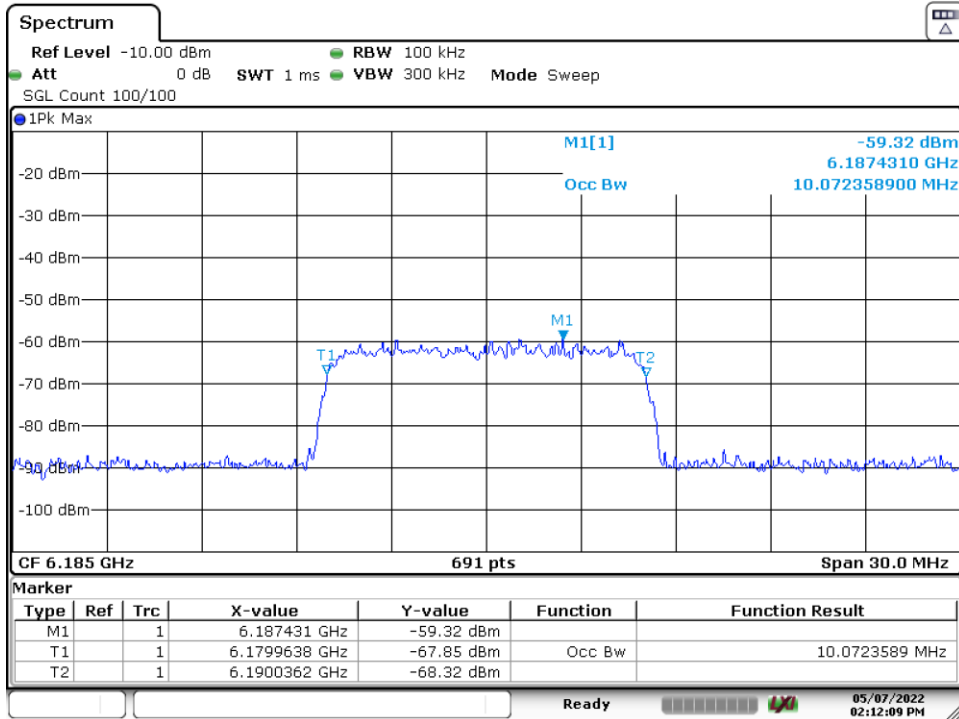
Plot 7-481. AWGN Signal – UNII 5 – 20MHz



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

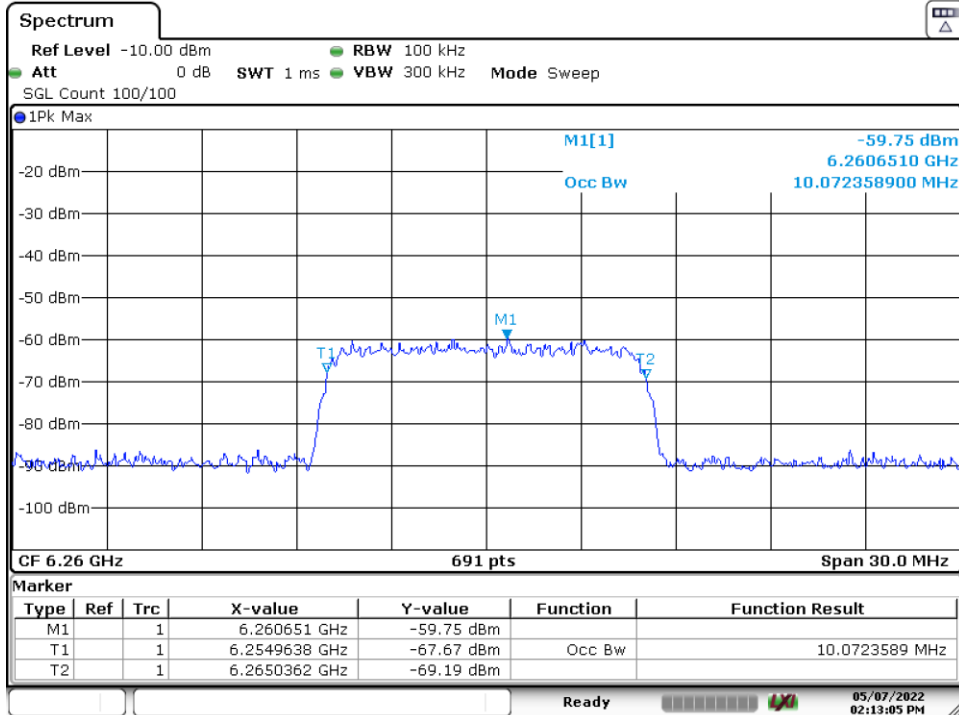
Plot 7-482. AWGN Signal – UNII 5 – 160MHz - Low

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Date: 7.MAY.2022 14:12:09

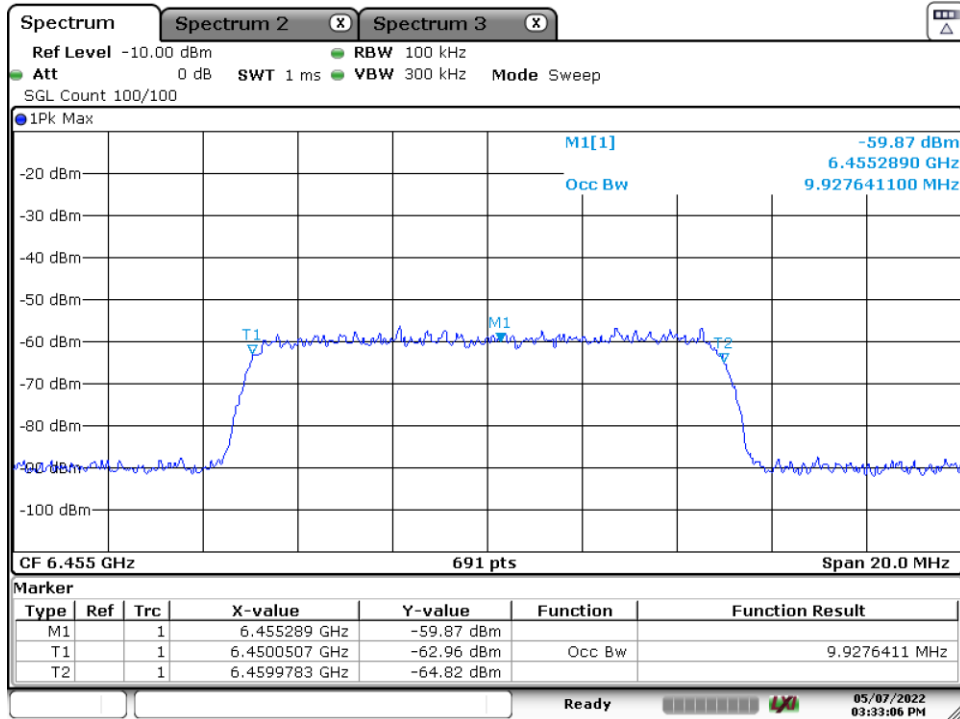
Plot 7-483. AWGN Signal – UNII 5 – 160MHz - Mid



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

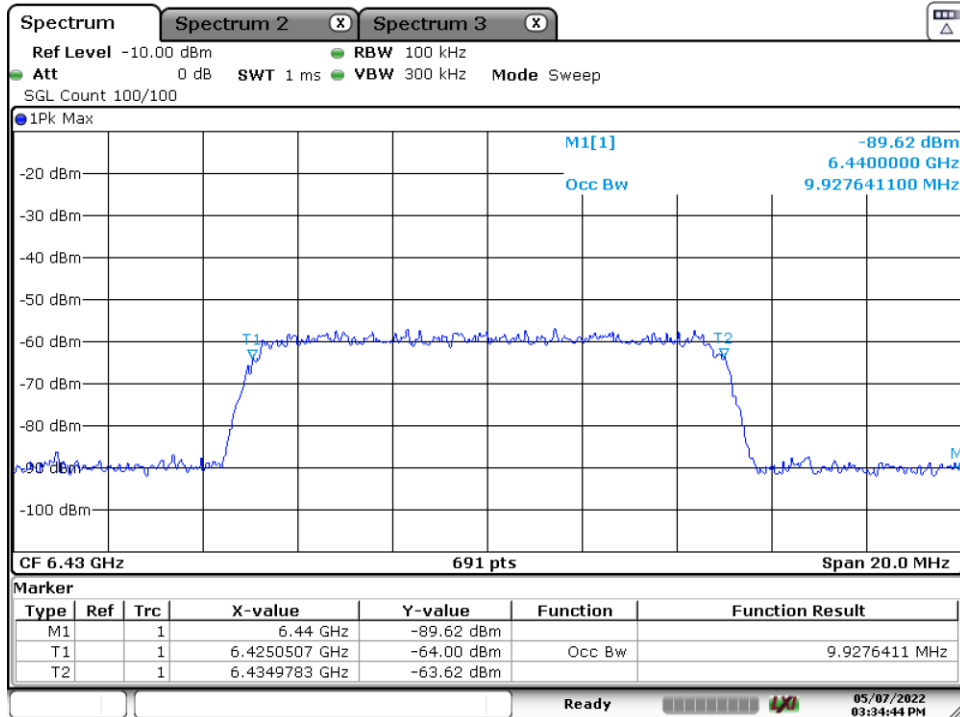
Plot 7-484. AWGN Signal – UNII 5 – 160MHz - High

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2205240063-18.PY7	Test Dates: 6/3/2022 – 8/10/2022	EUT Type: Portable Handset	Page 279 of 321



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

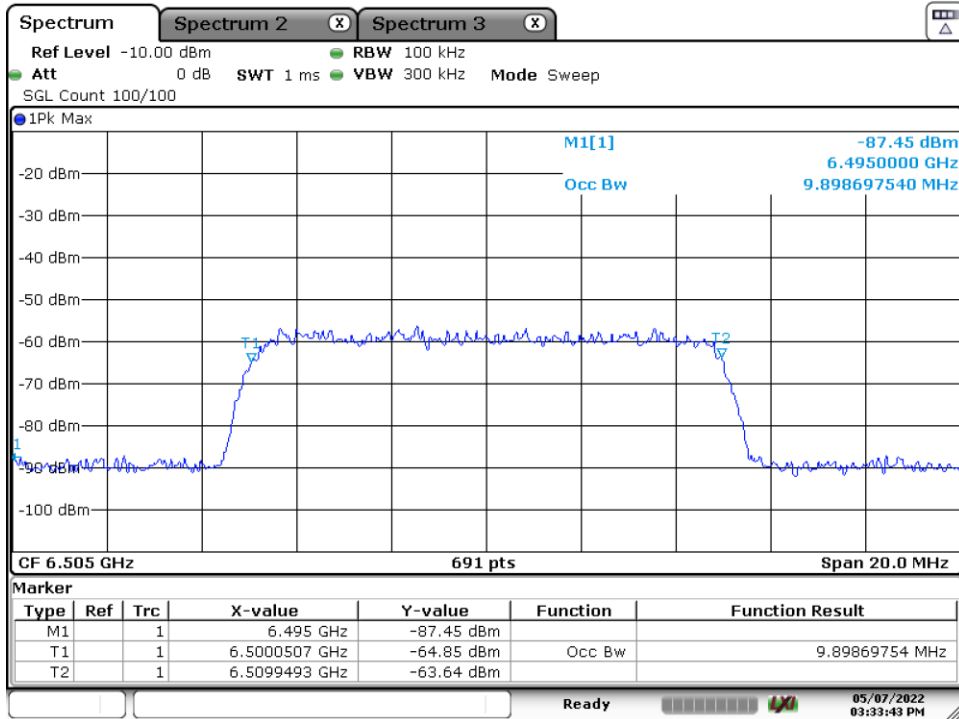
Plot 7-485. AWGN Signal – UNII 6 – 20MHz



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

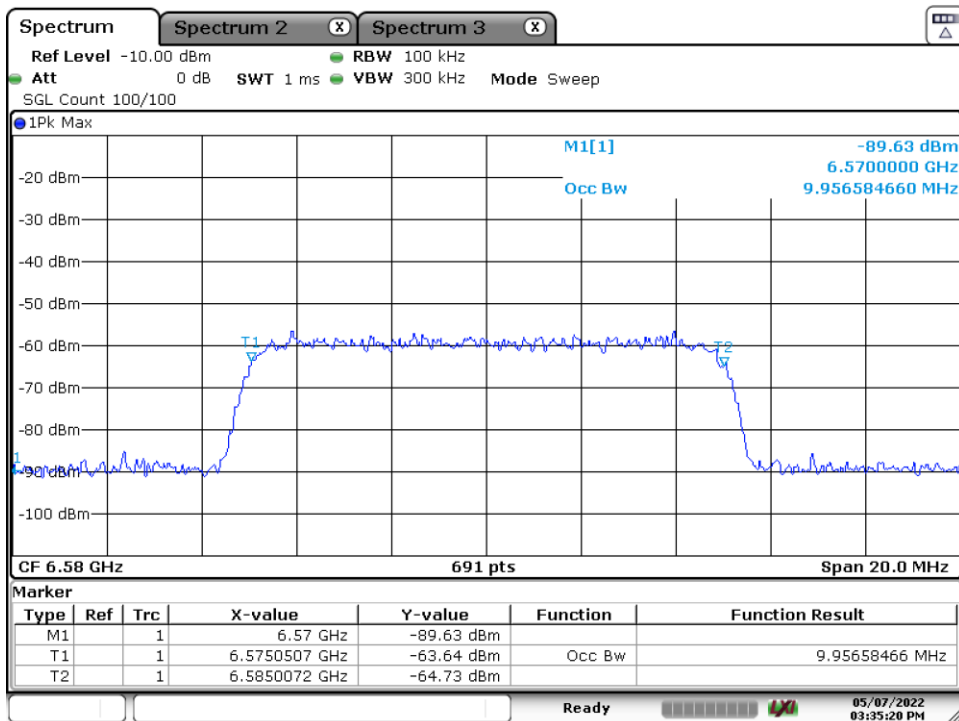
Plot 7-486. AWGN Signal – UNII 6 – 160MHz - Low

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Date: 7.MAY.2022 15:33:43

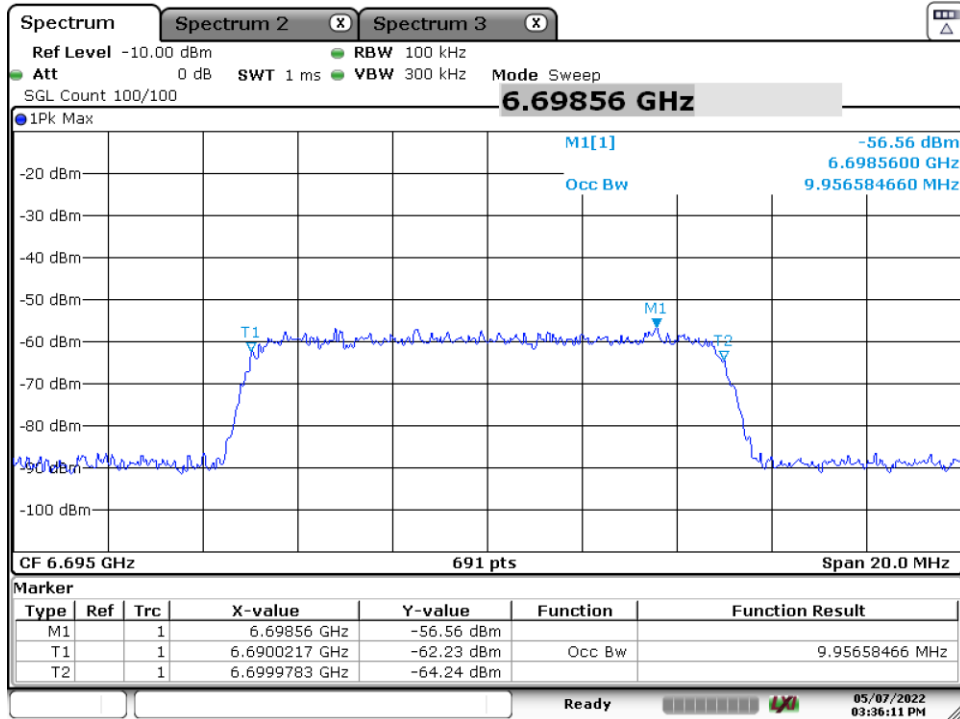
Plot 7-487. AWGN Signal – UNII 6 – 160MHz - Mid



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

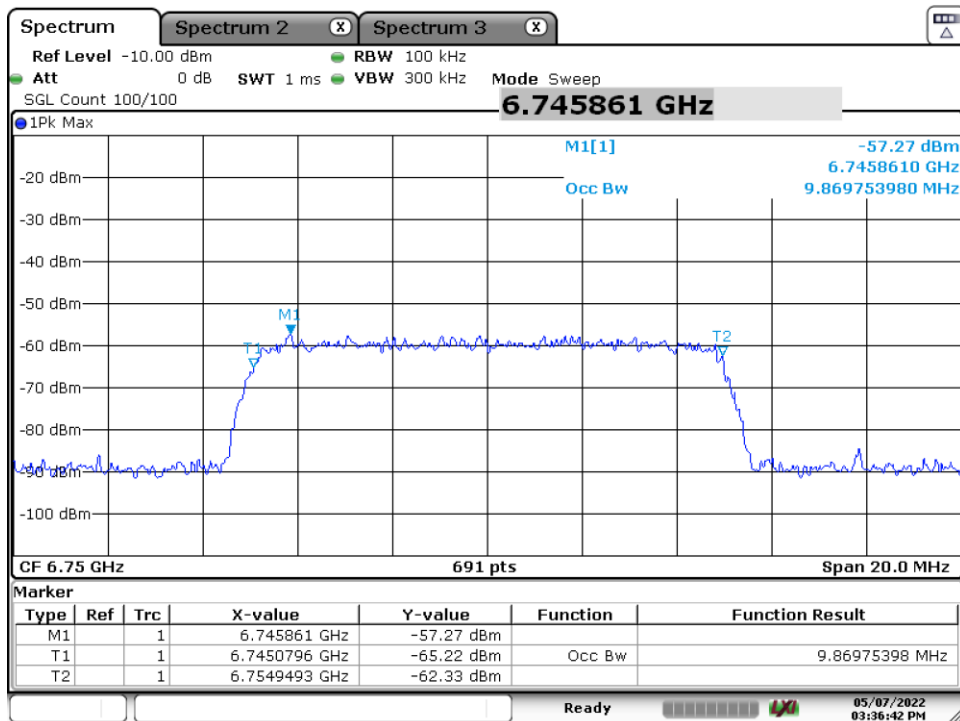
Plot 7-488. AWGN Signal – UNII 6 – 160MHz - High

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Date: 7.MAY.2022 15:36:11

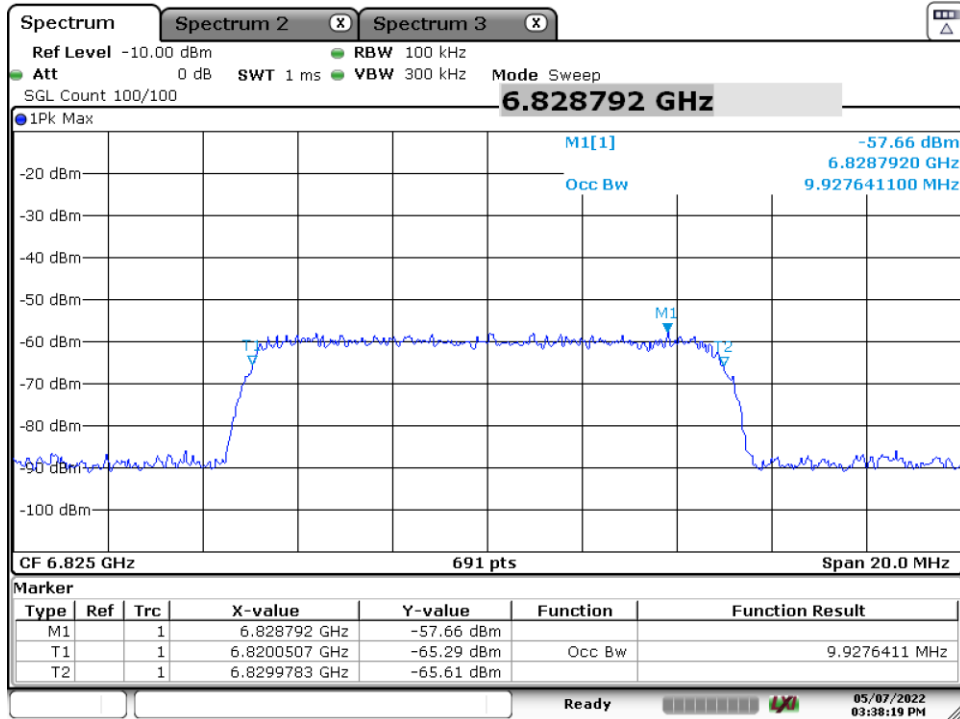
Plot 7-489. AWGN Signal – UNII 7 – 20MHz



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

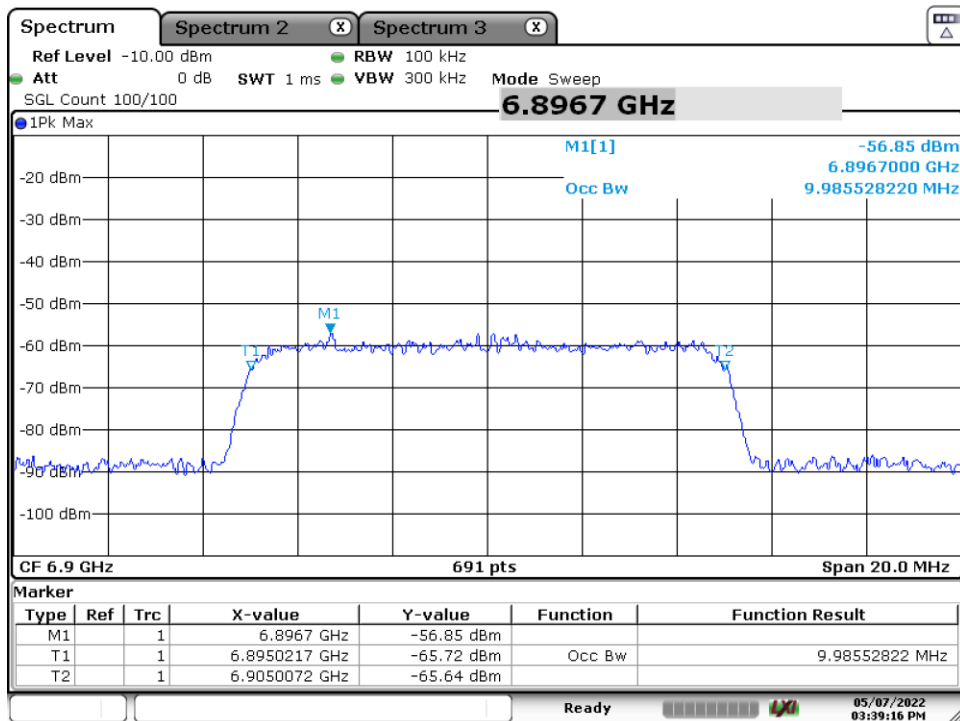
Plot 7-490. AWGN Signal – UNII 7 – 160MHz - Low

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Date: 7.MAY.2022 15:38:18

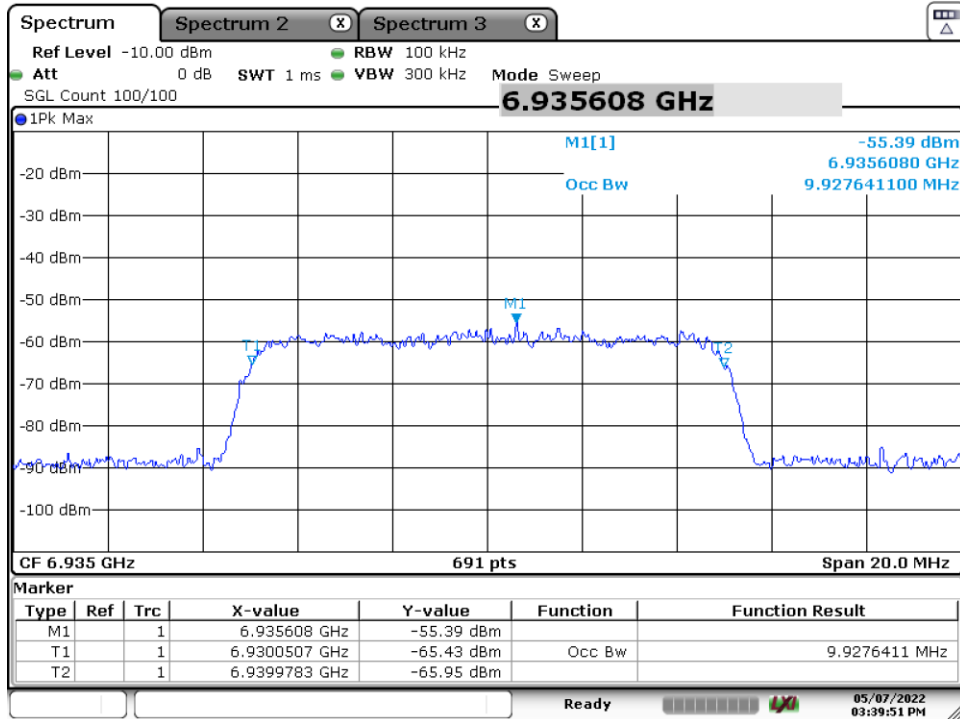
Plot 7-491. AWGN Signal – UNII 7 – 160MHz - Mid



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

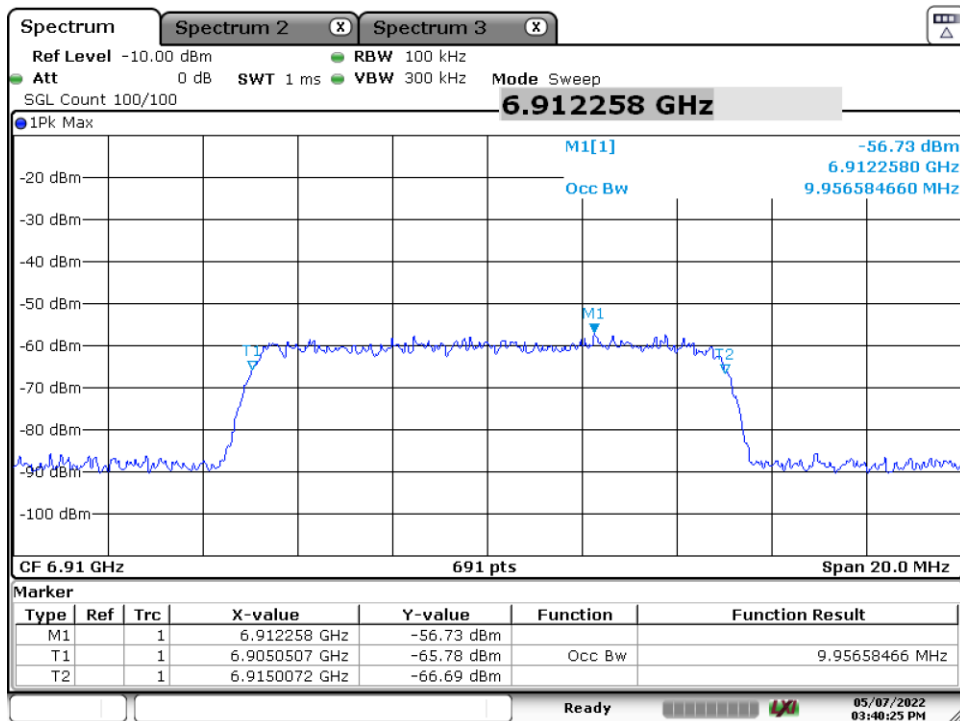
Plot 7-492. AWGN Signal – UNII 7 – 160MHz - High

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Date: 7.MAY.2022 15:39:51

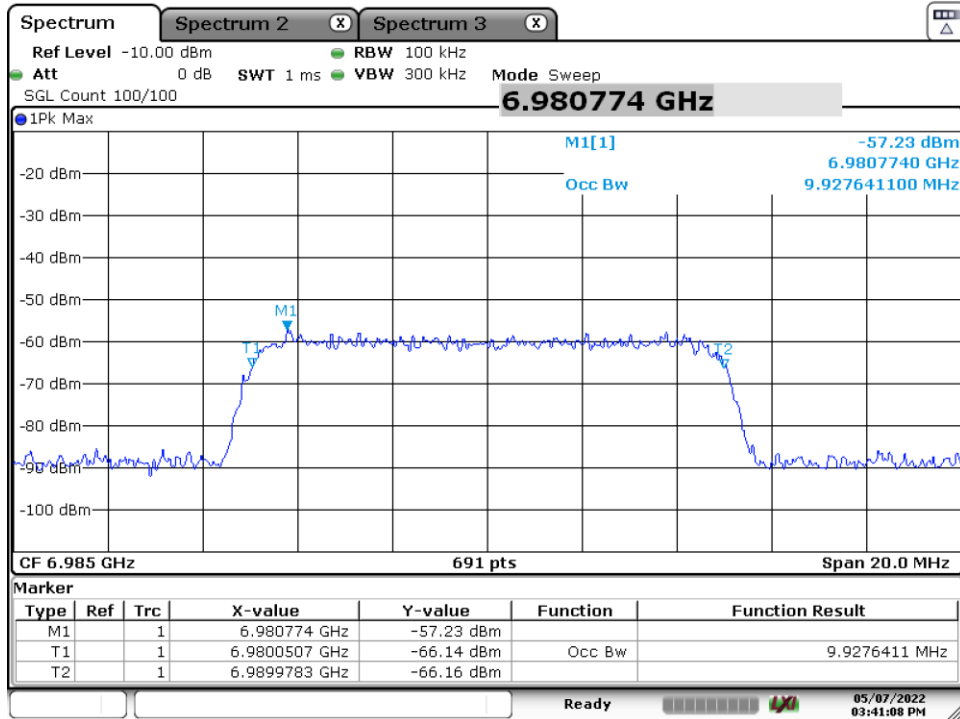
Plot 7-493. AWGN Signal – UNII 8 – 20MHz



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

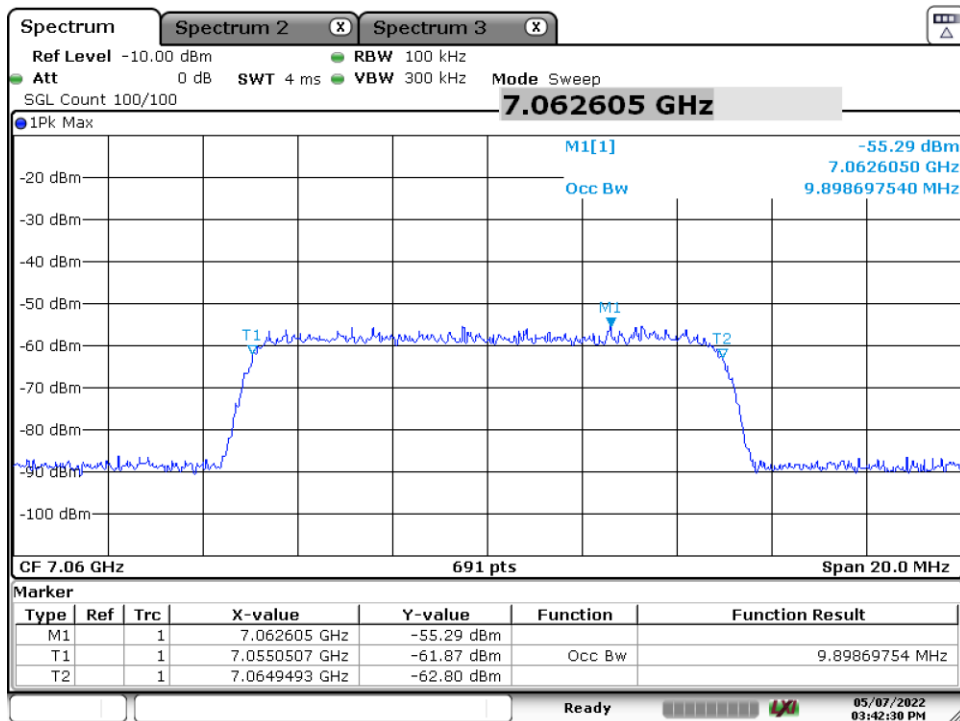
Plot 7-494. AWGN Signal – UNII 8 – 160MHz - Low

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Date: 7.MAY.2022 15:41:07

Plot 7-495. AWGN Signal – UNII 8 – 160MHz - Mid



Date: 7.MAY.2022 15:42:30

Plot 7-496. AWGN Signal – UNII 8 – 160MHz - High

FCC ID: PY7-76056F	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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