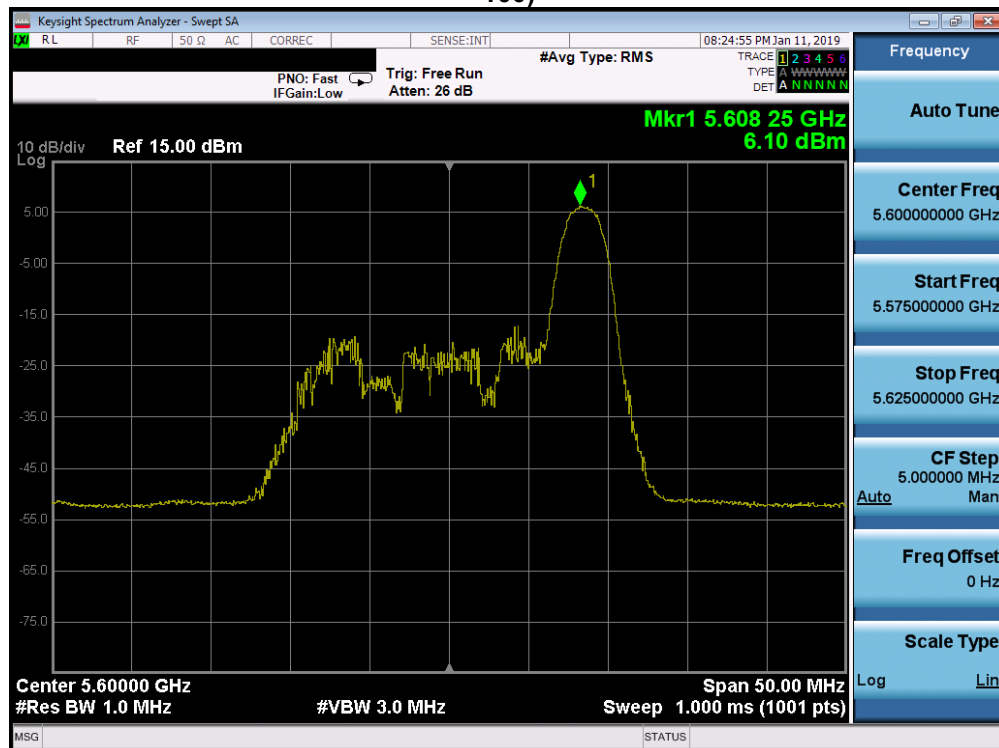
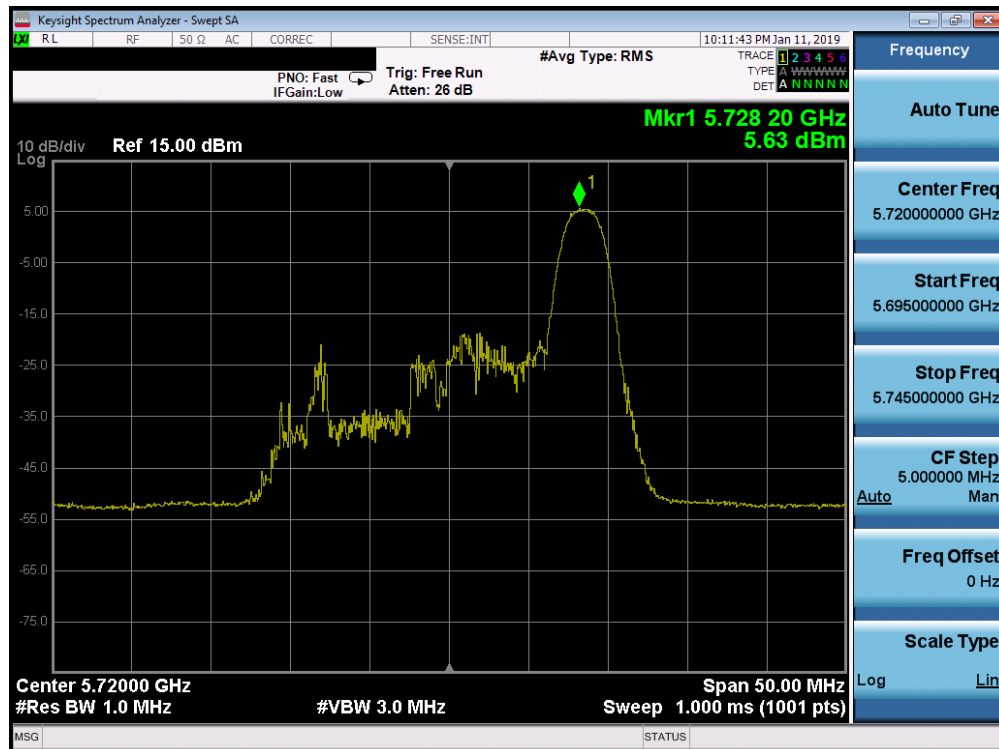


Plot 7-379. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 100)

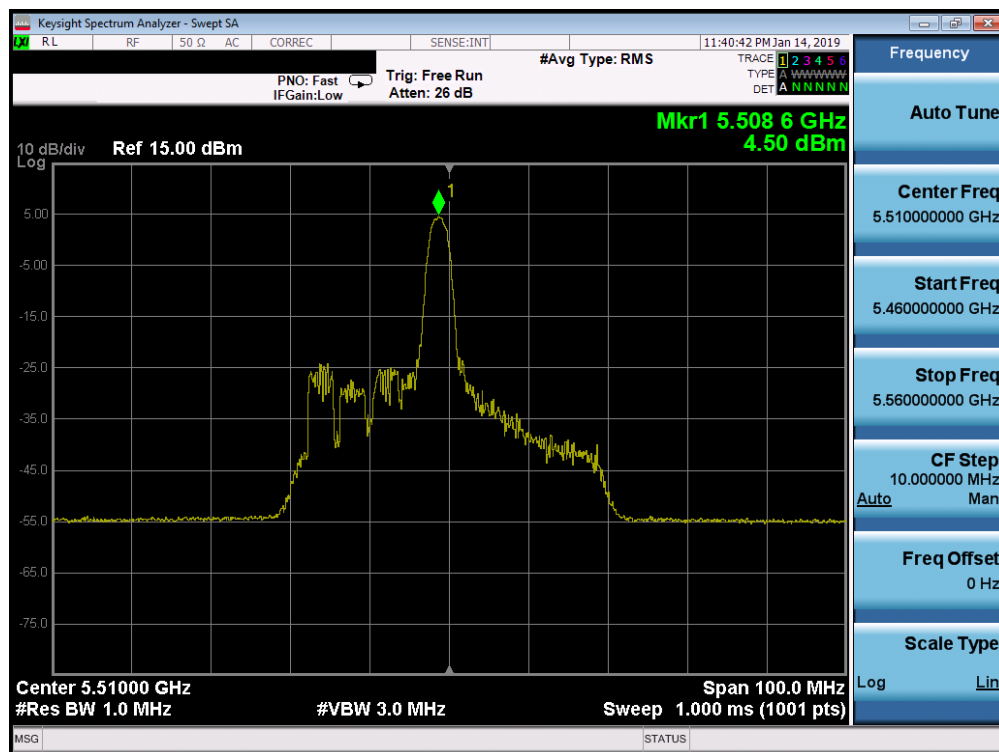


Plot 7-380. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 120)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 273 of 514

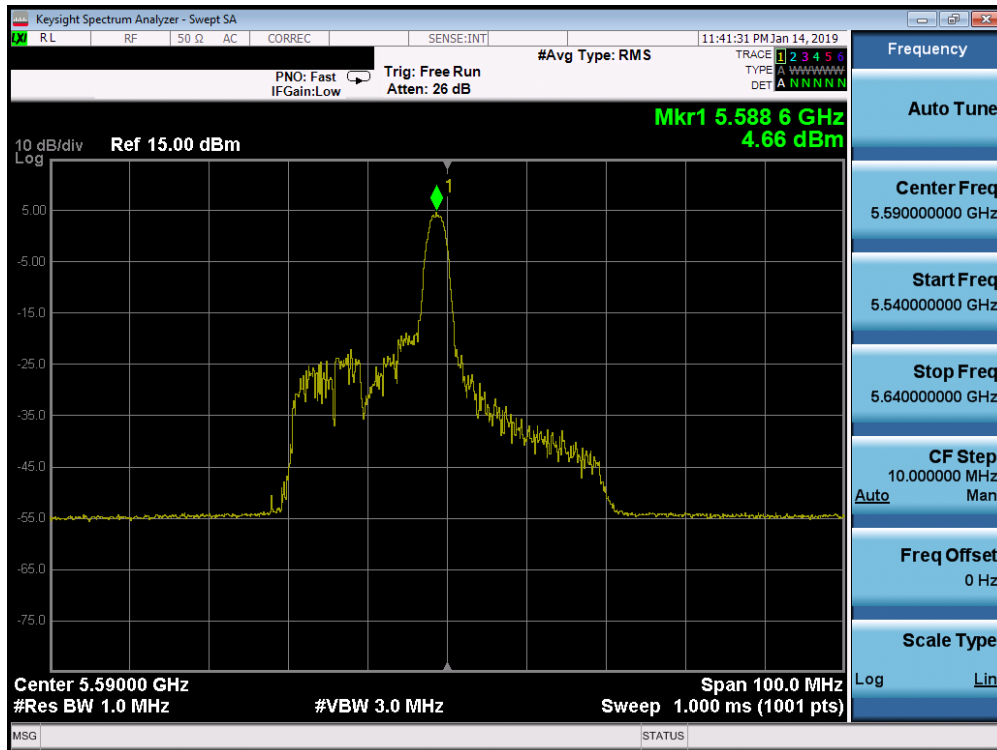


Plot 7-381. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 144)

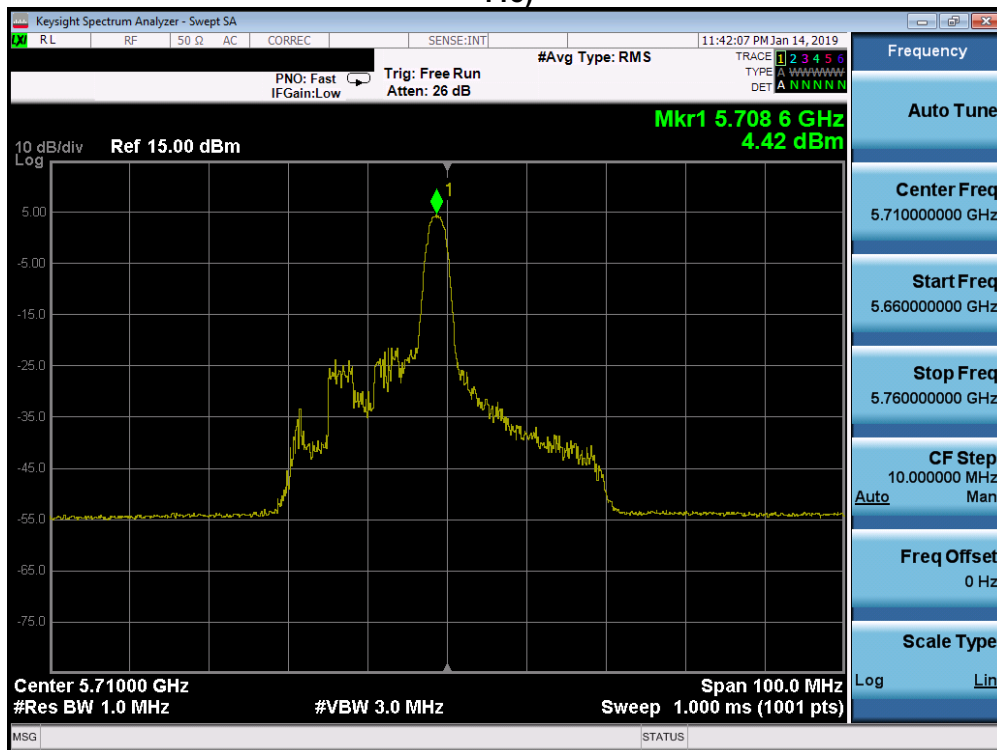


Plot 7-382. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 102)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 274 of 514		

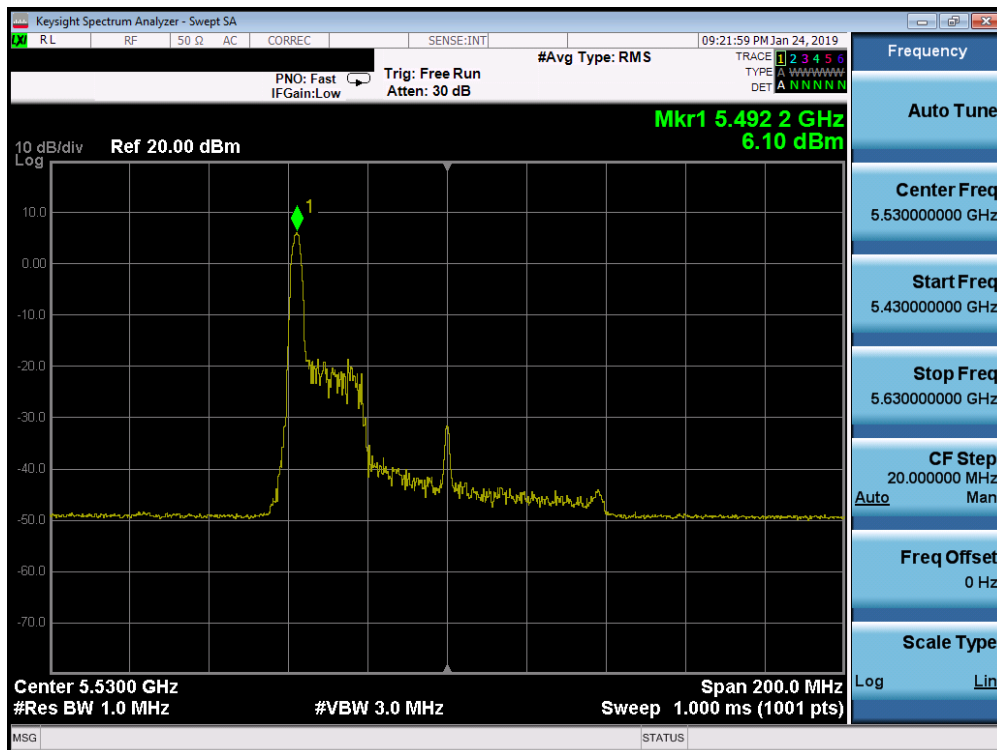


Plot 7-383. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 118)

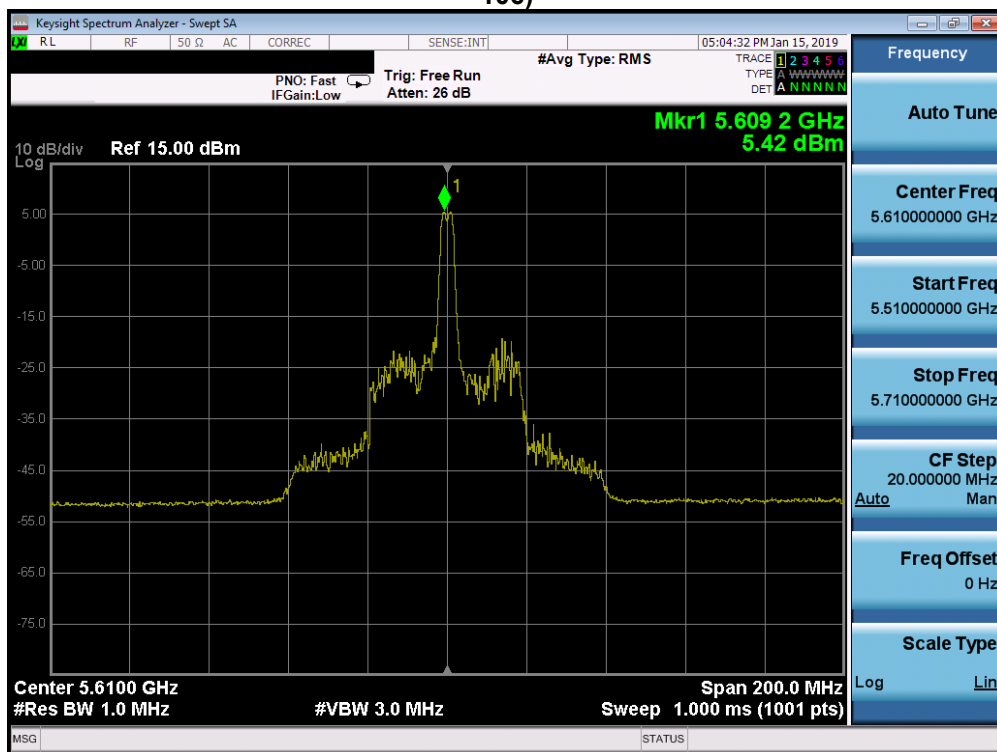


Plot 7-384. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 142)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 275 of 514		

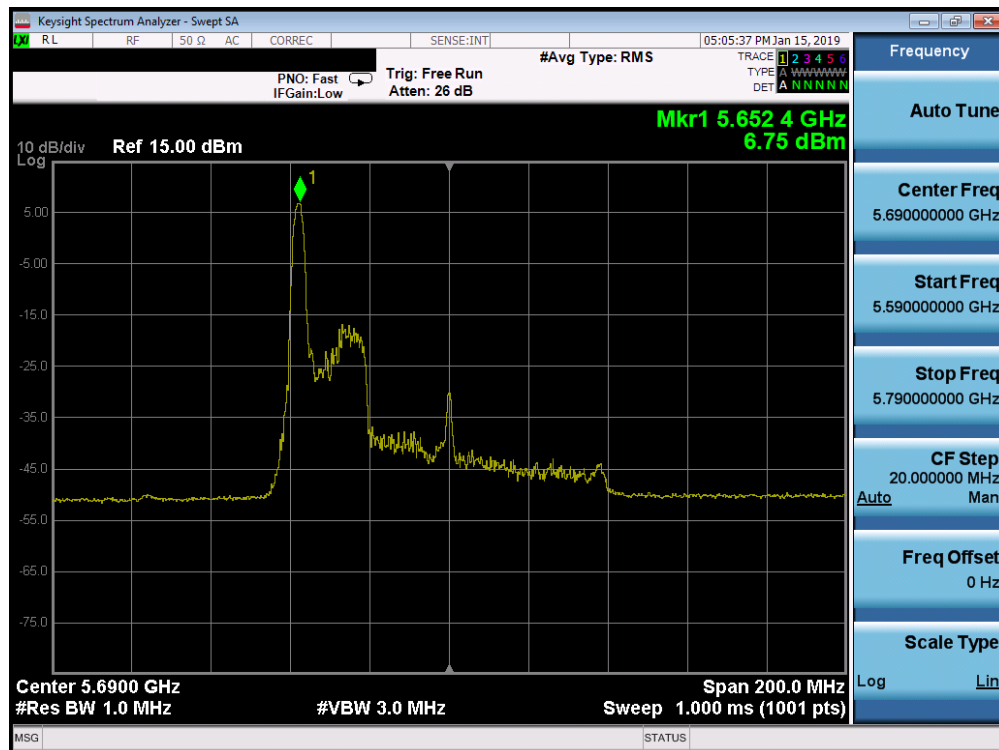


Plot 7-385. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 106)

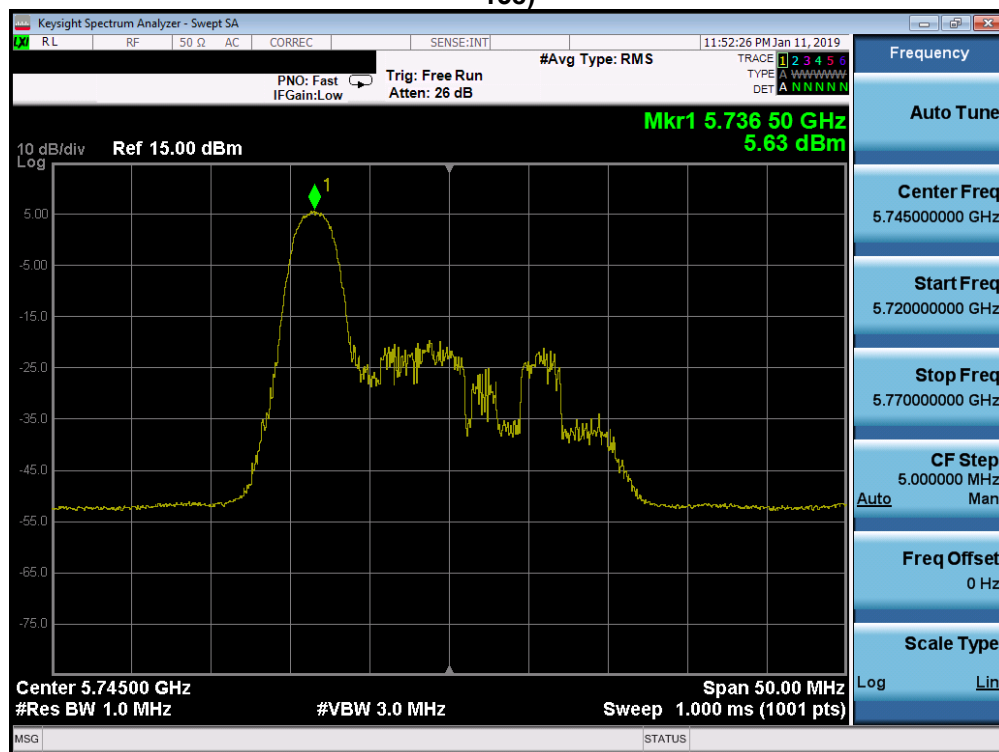


Plot 7-386. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 122)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 276 of 514		

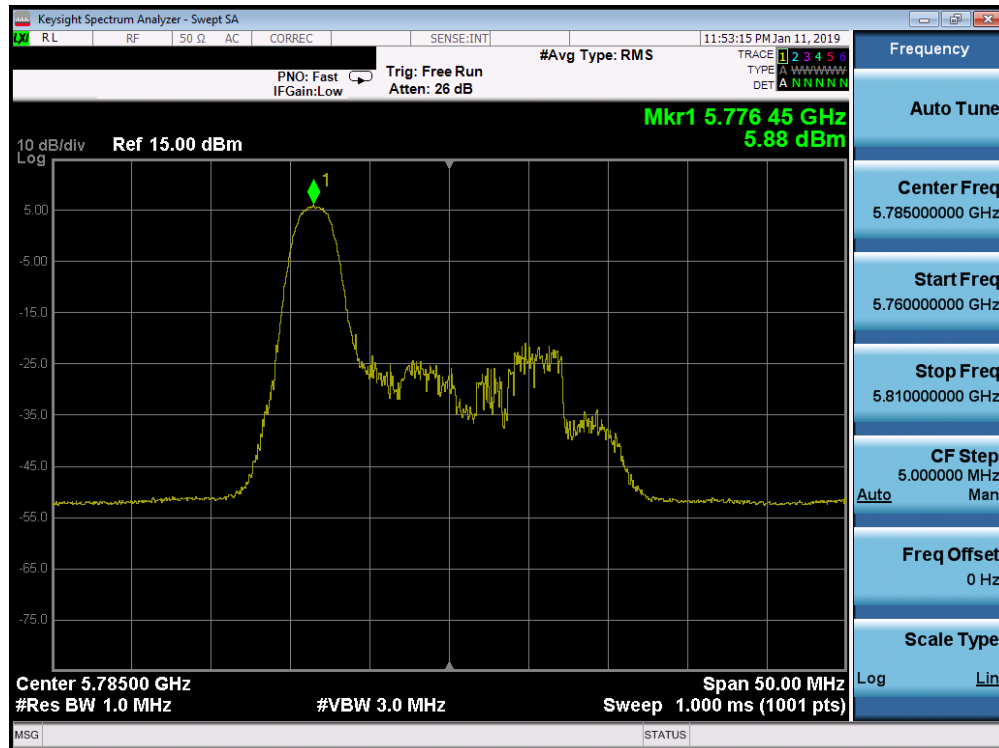


Plot 7-387. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 138)

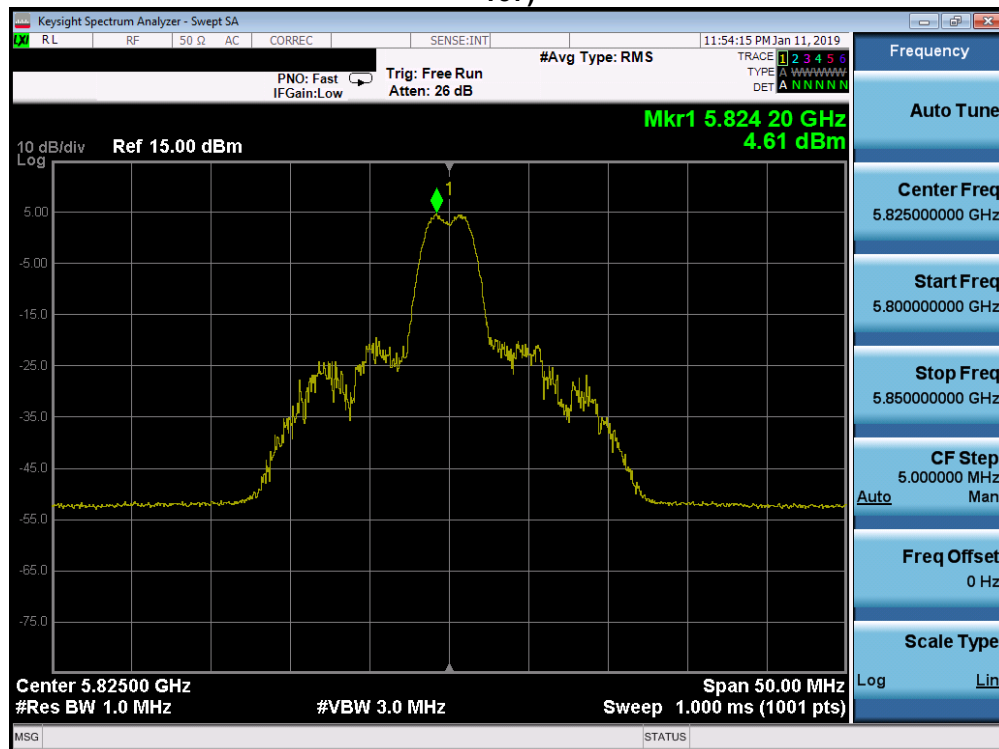


Plot 7-388. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 149)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 277 of 514		

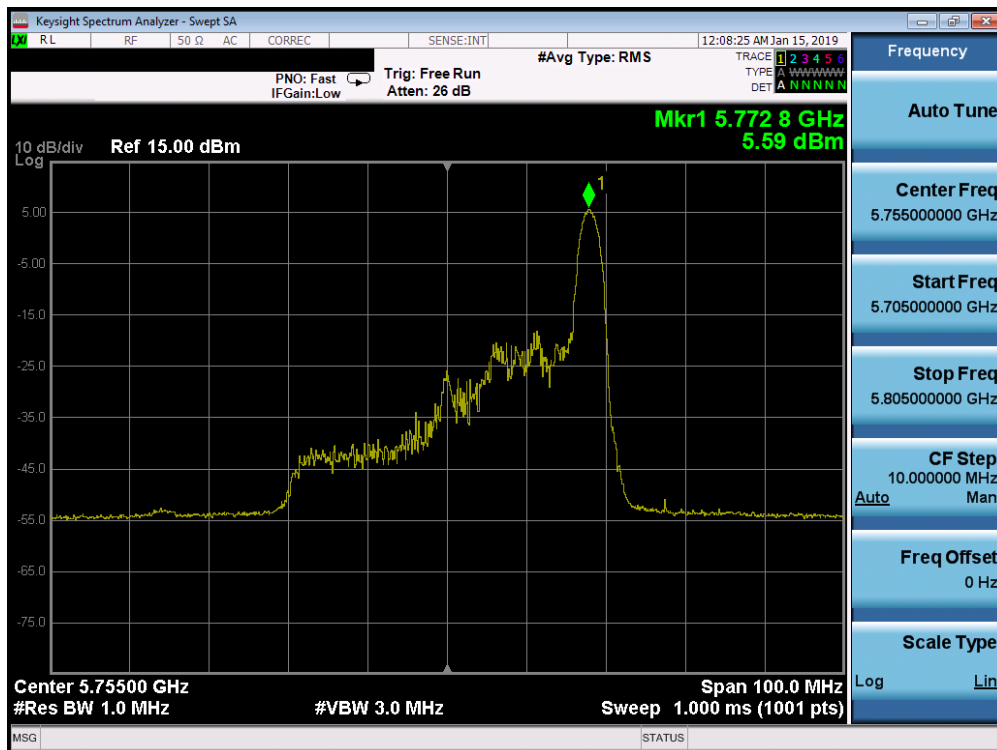


Plot 7-389. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 157)

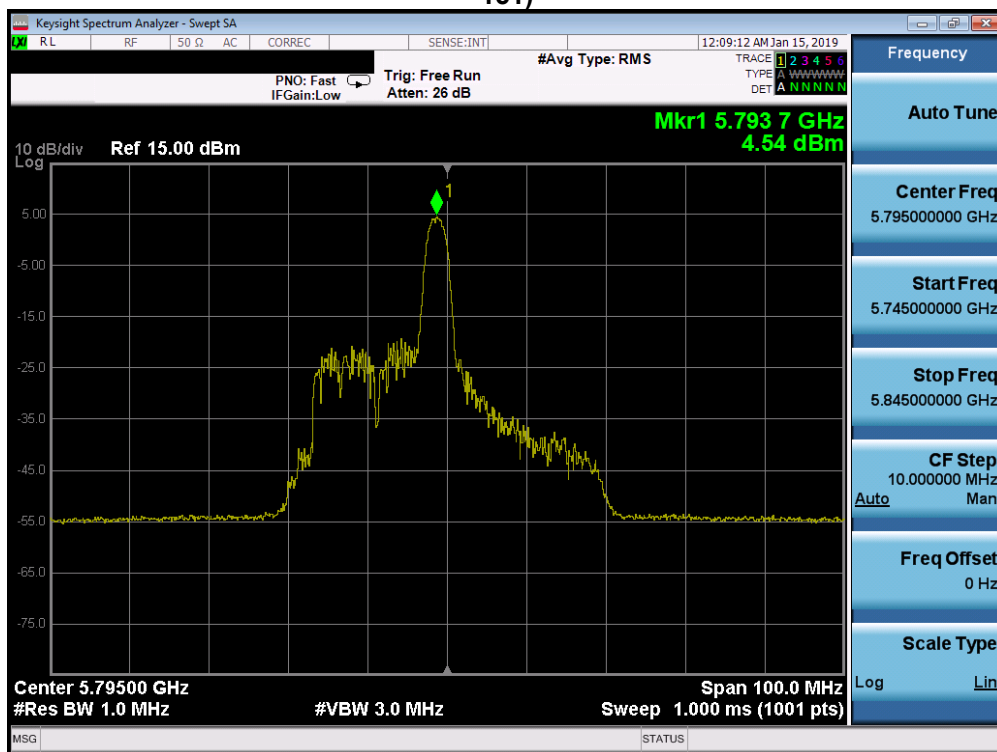


Plot 7-390. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 165)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 278 of 514		

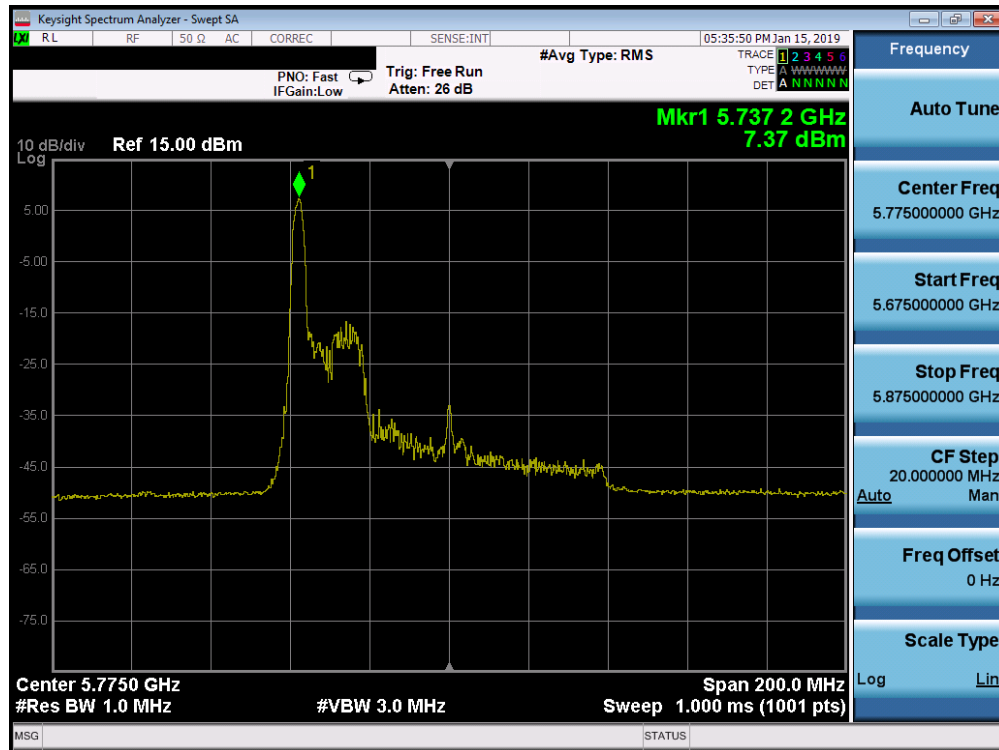


Plot 7-391. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 151)



Plot 7-392. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 159)

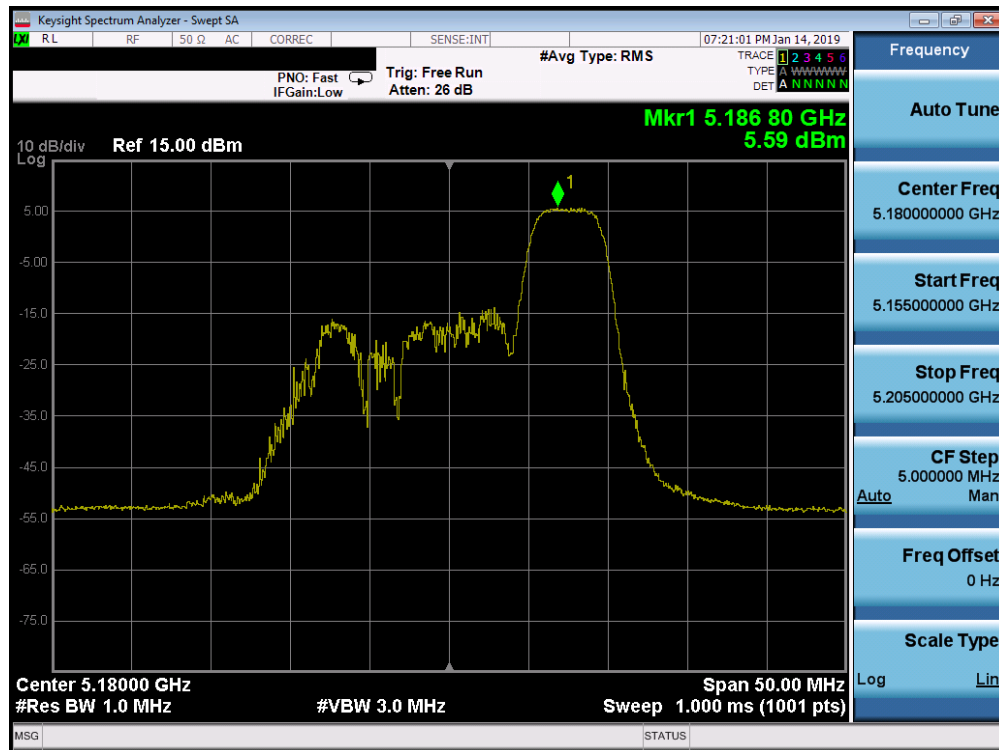
FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 279 of 514		



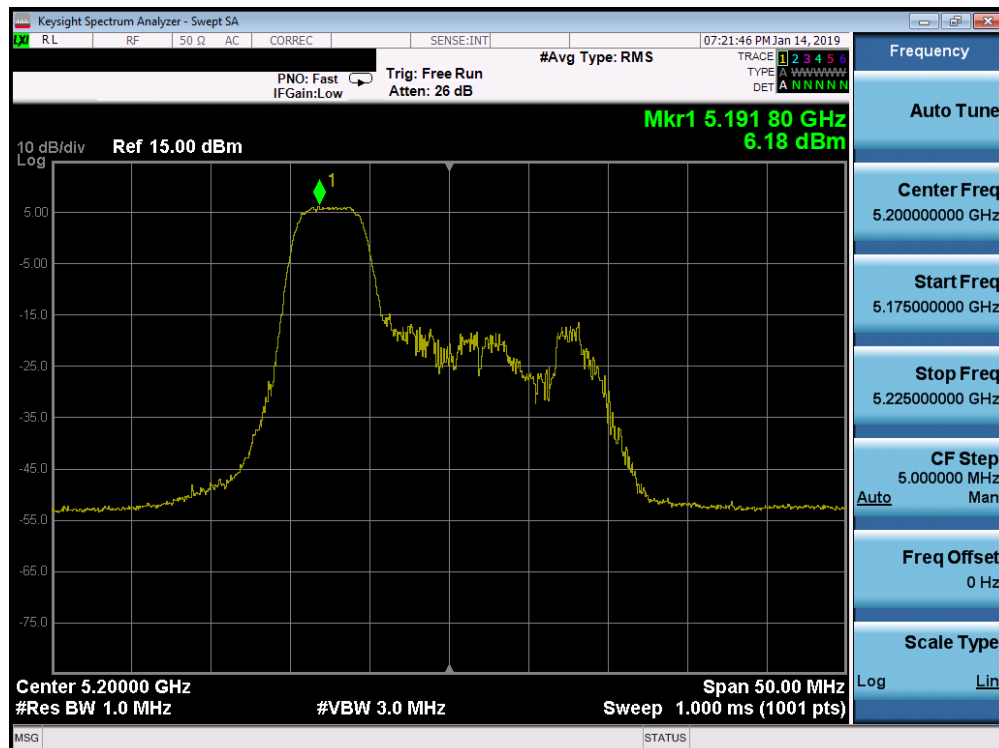
Plot 7-393. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSC03L	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 280 of 514

MIMO Antenna-1 Power Spectral Density Measurements (52 Tones)

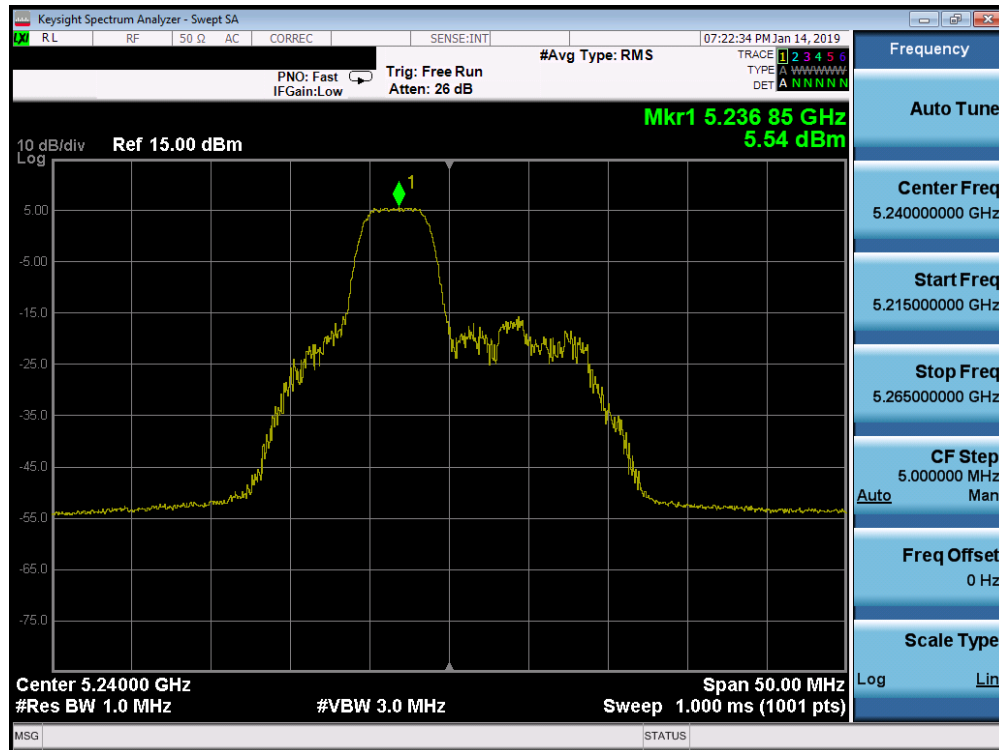


Plot 7-394. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 36)

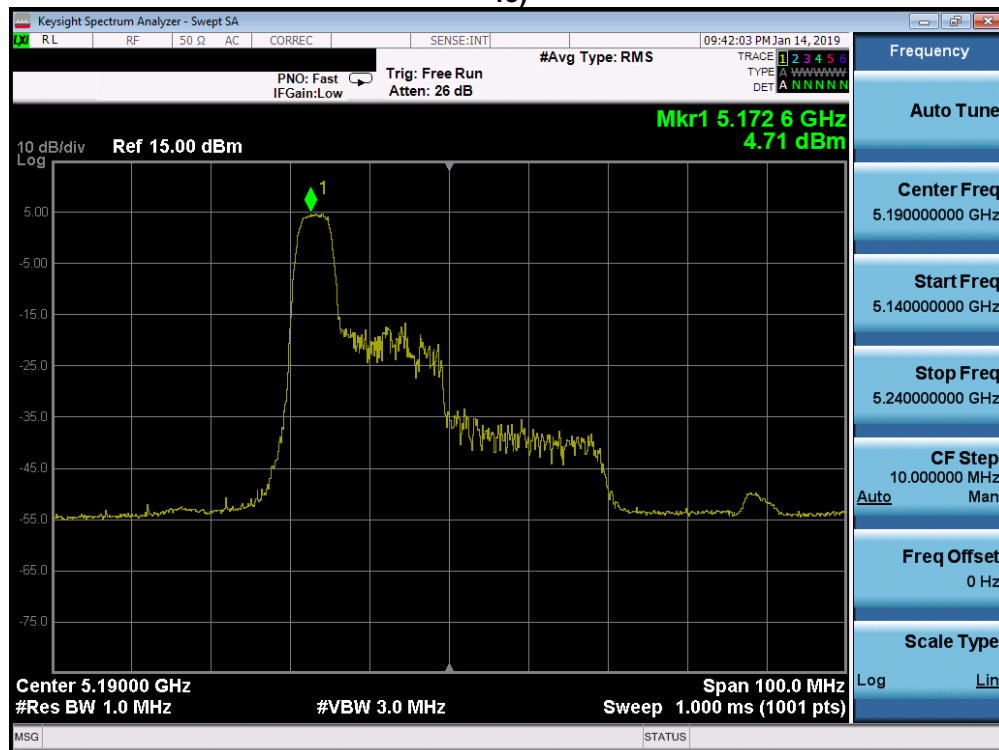


Plot 7-395. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 40)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 281 of 514

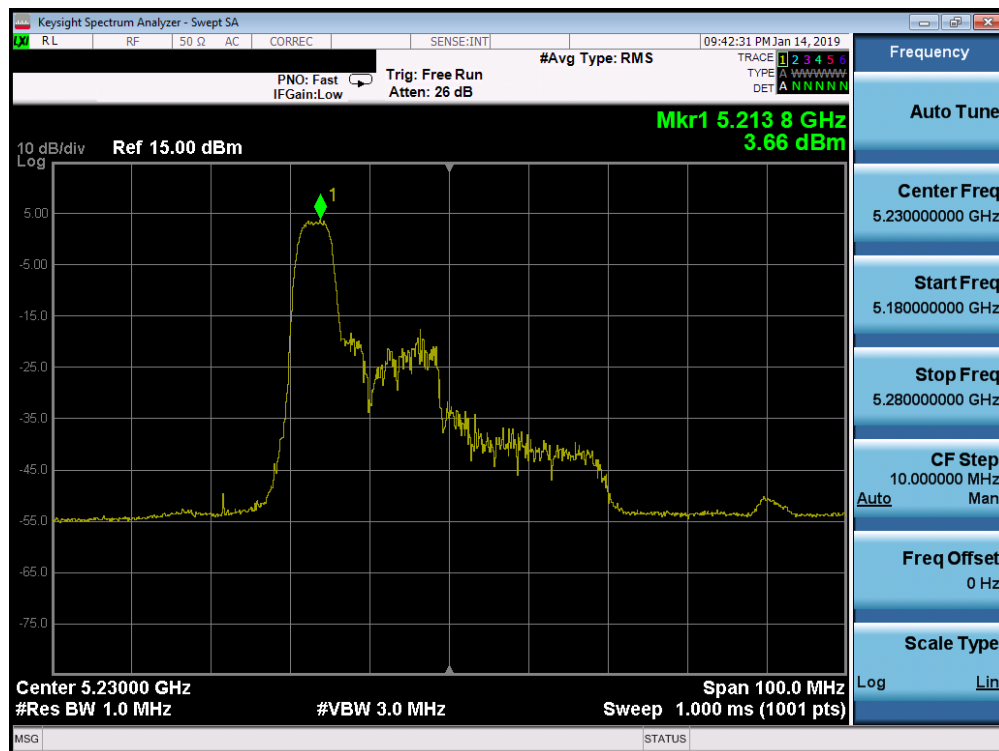


Plot 7-396. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 48)

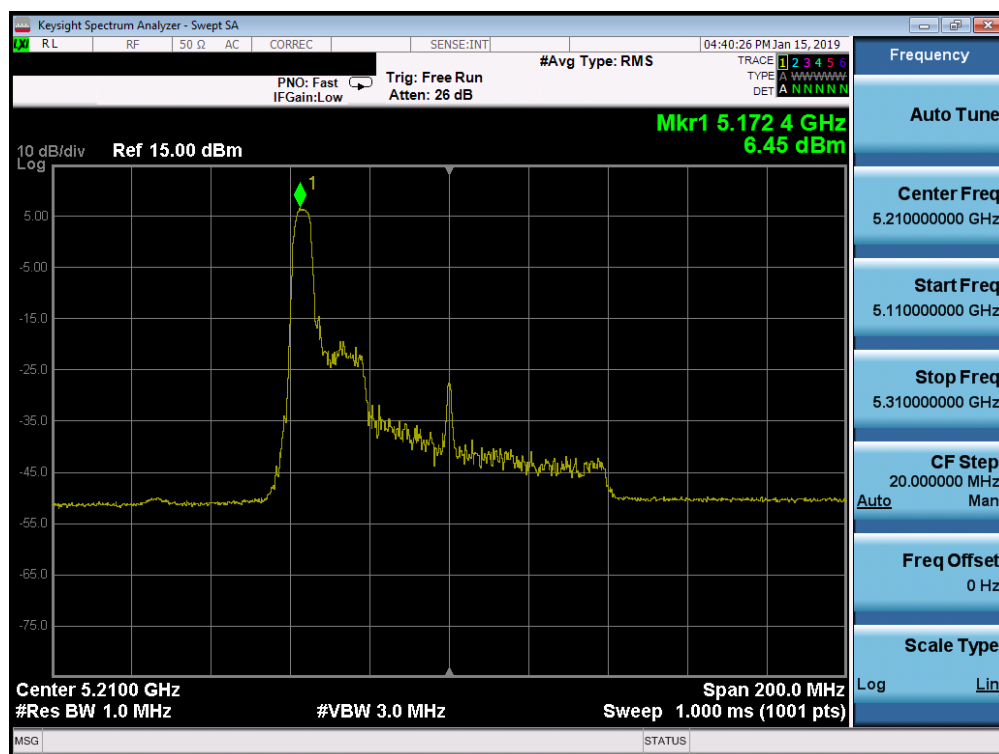


Plot 7-397. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 282 of 514

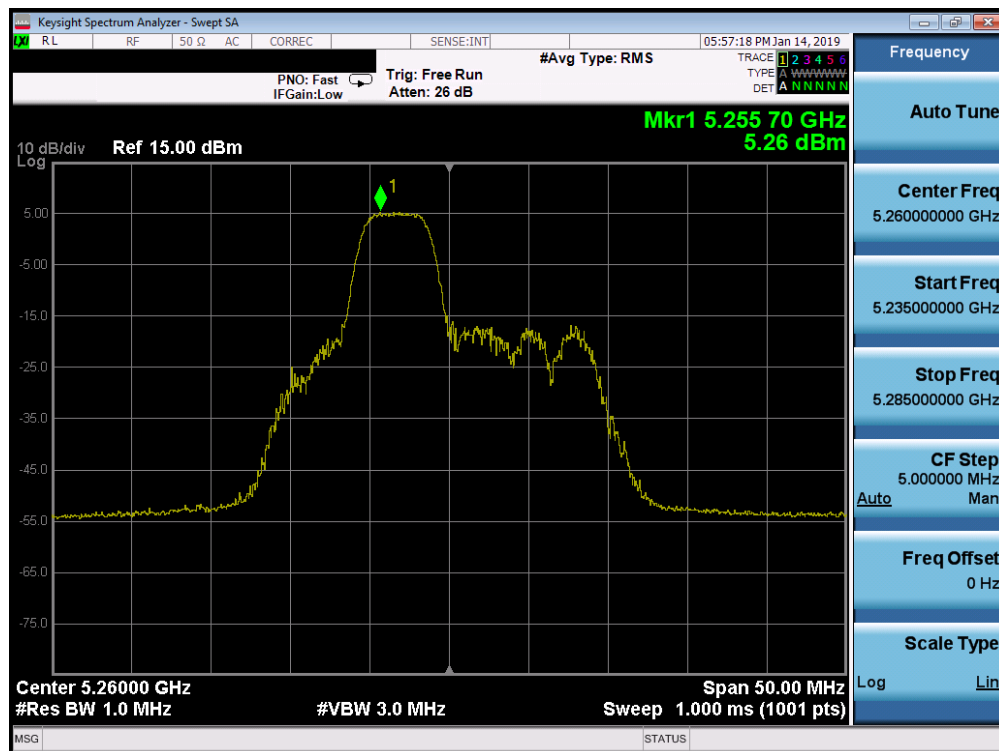


Plot 7-398. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 46)

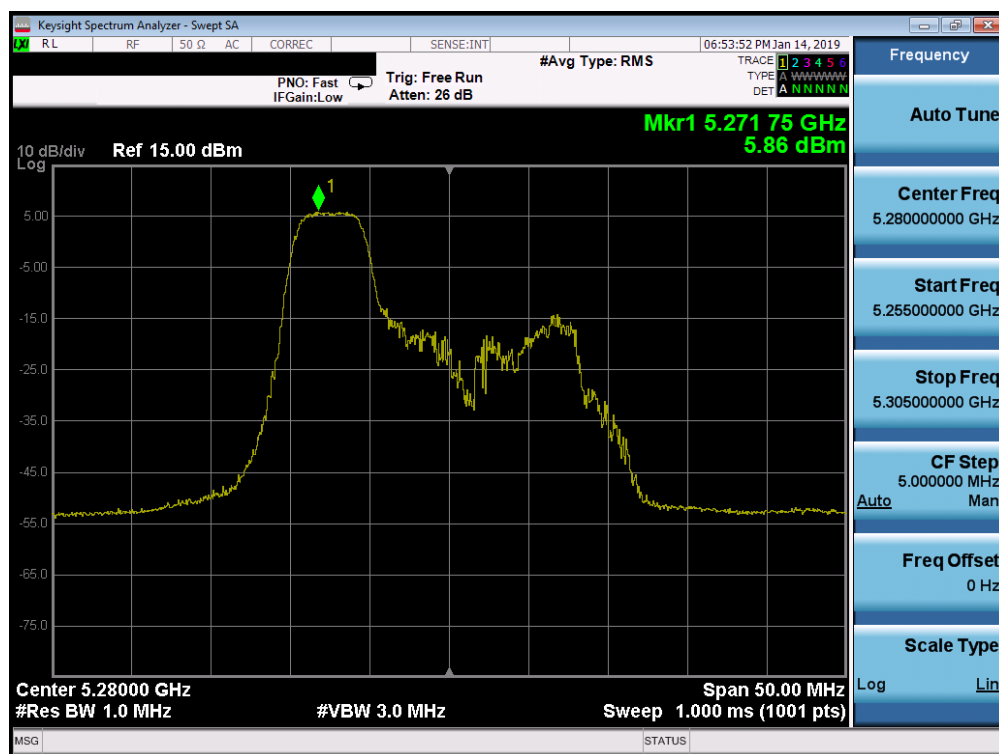


Plot 7-399. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 283 of 514

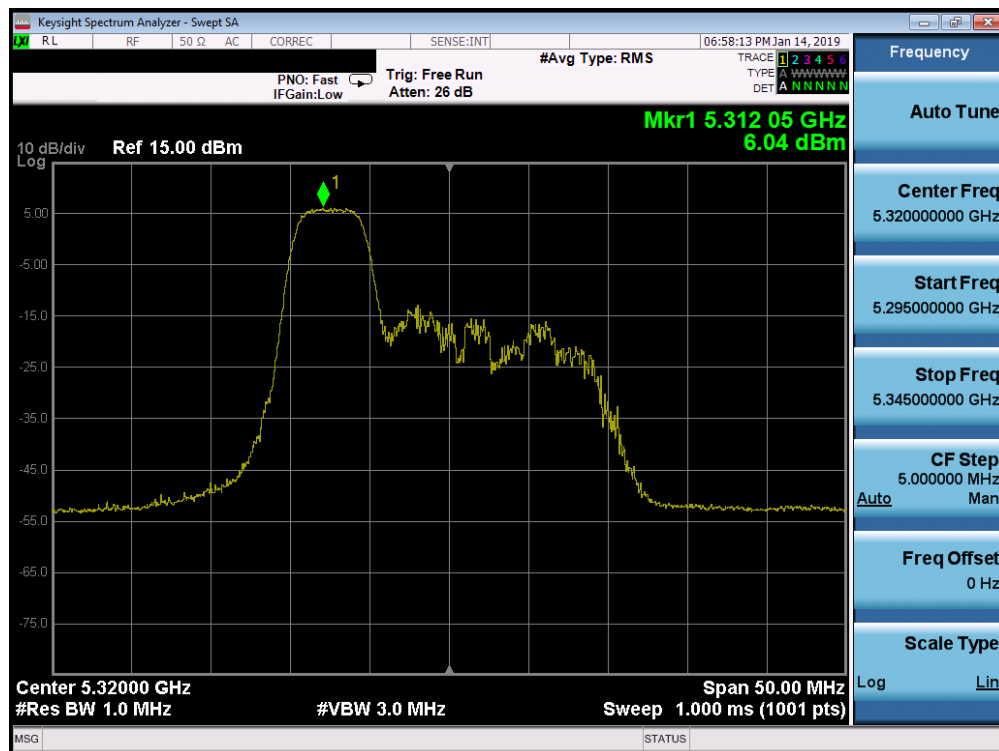


Plot 7-400. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 52)

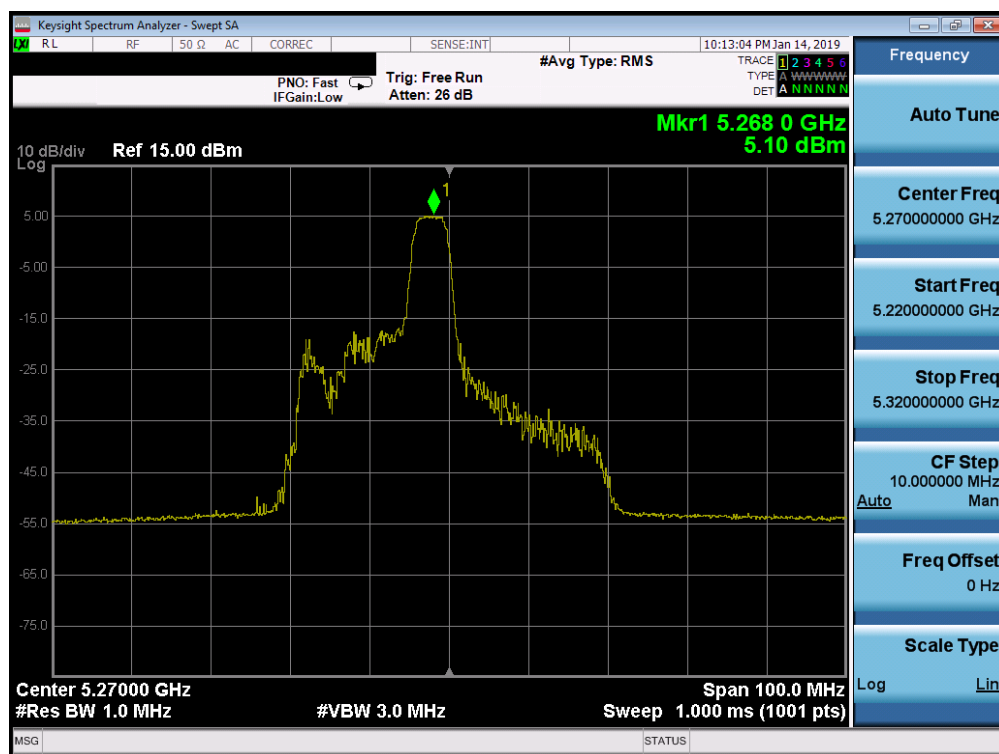


Plot 7-401. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 56)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 284 of 514	

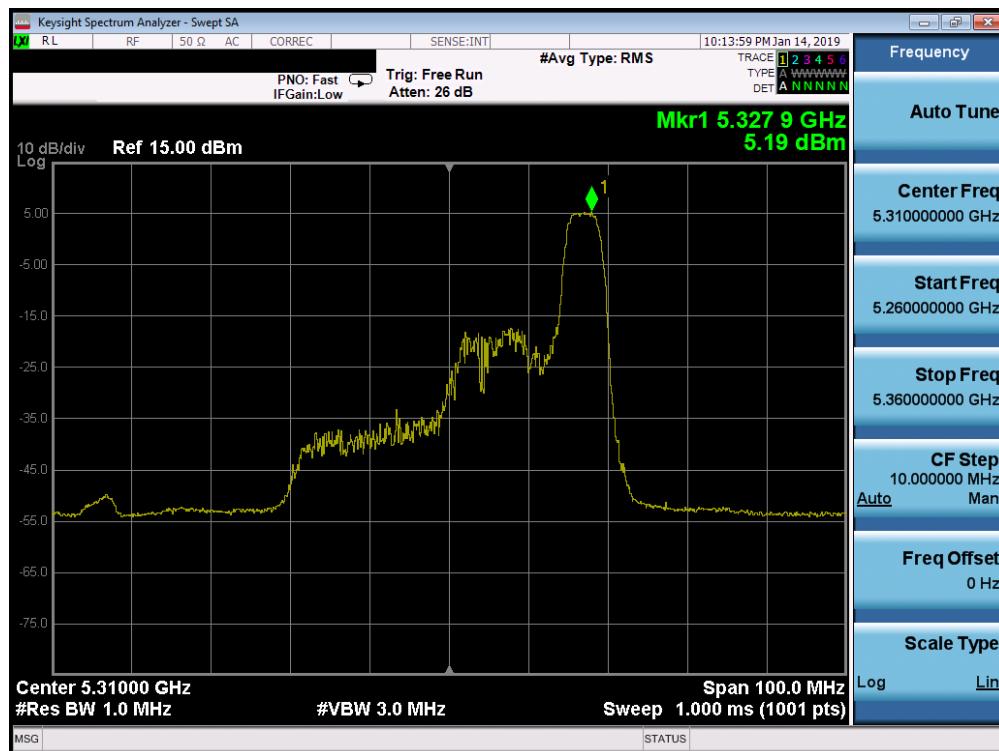


Plot 7-402. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 64)

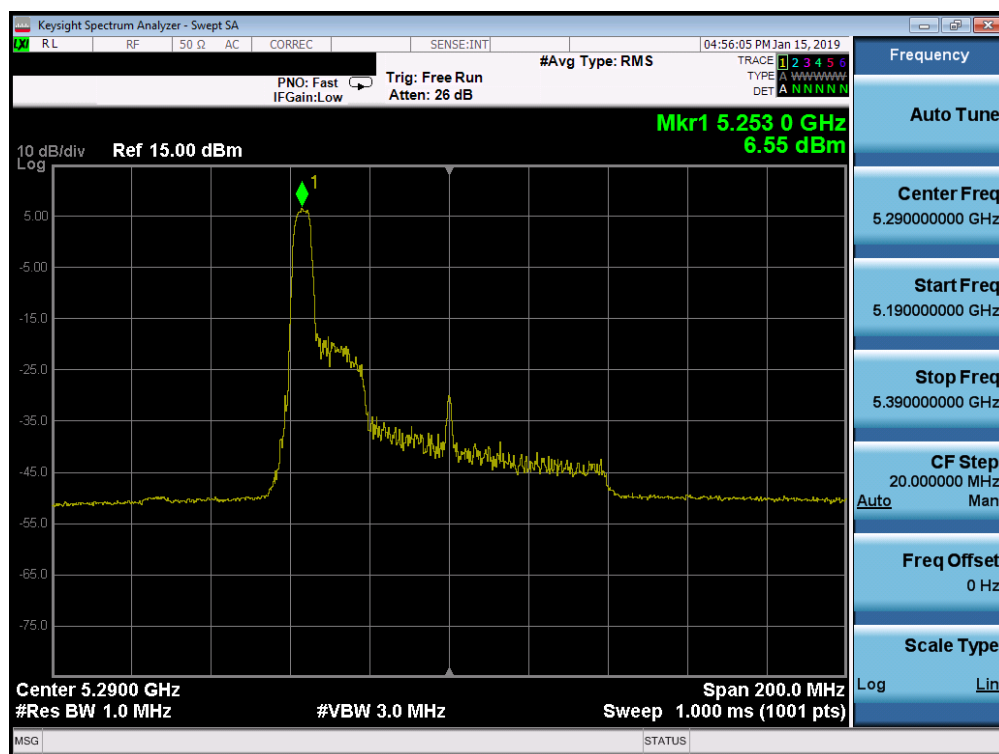


Plot 7-403. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 54)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 285 of 514

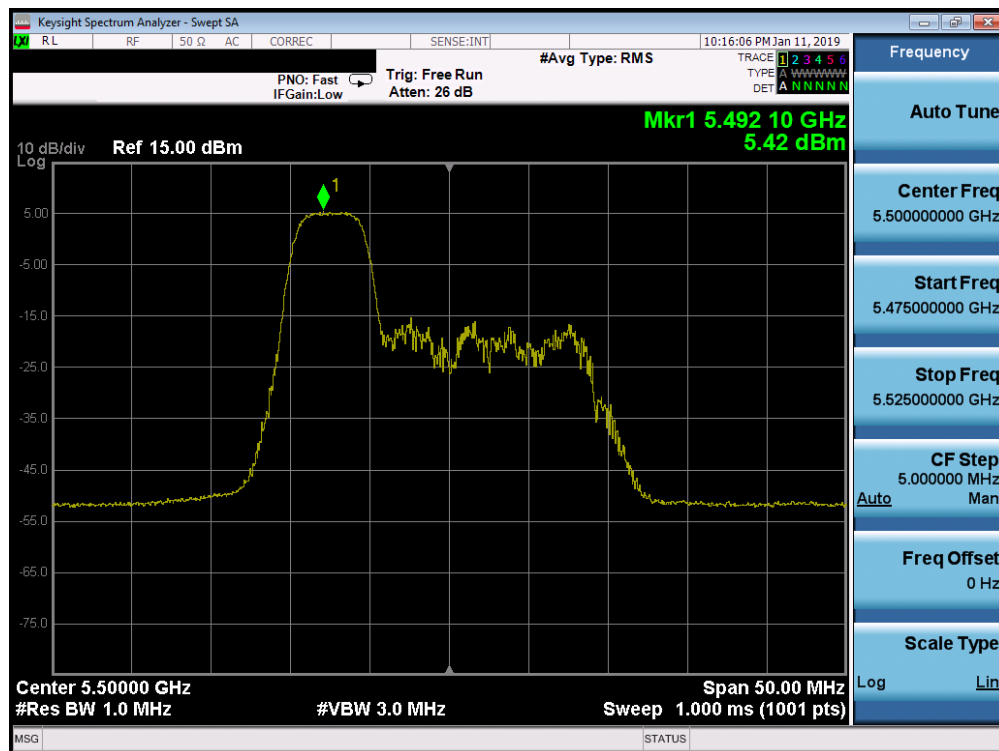


Plot 7-404. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 62)

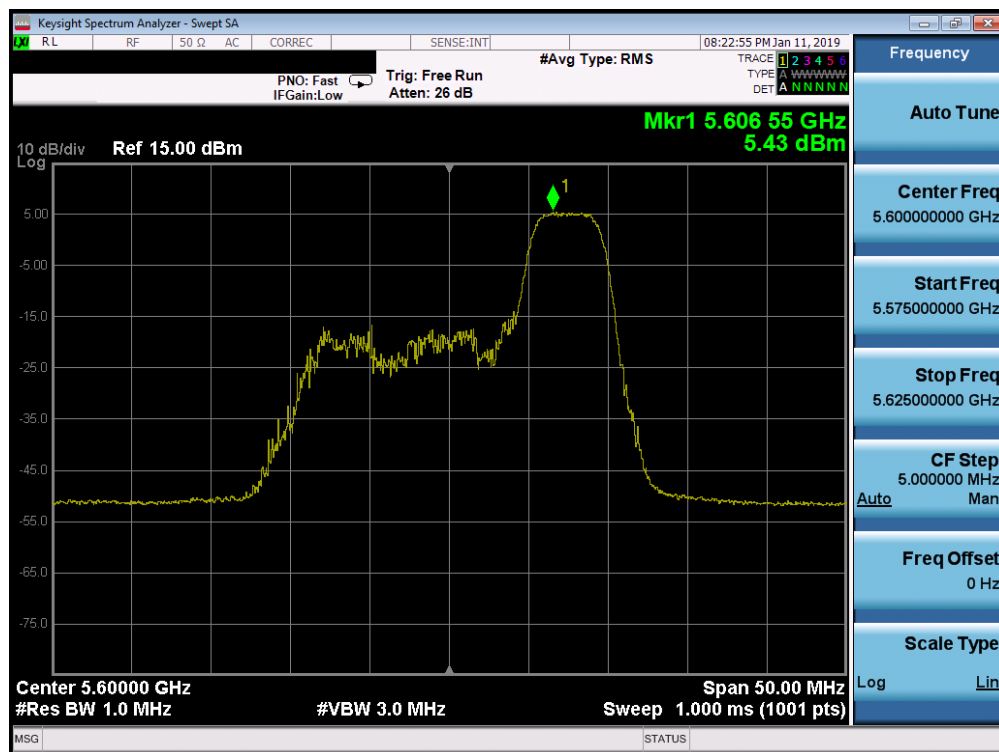


Plot 7-405. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 58)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 286 of 514

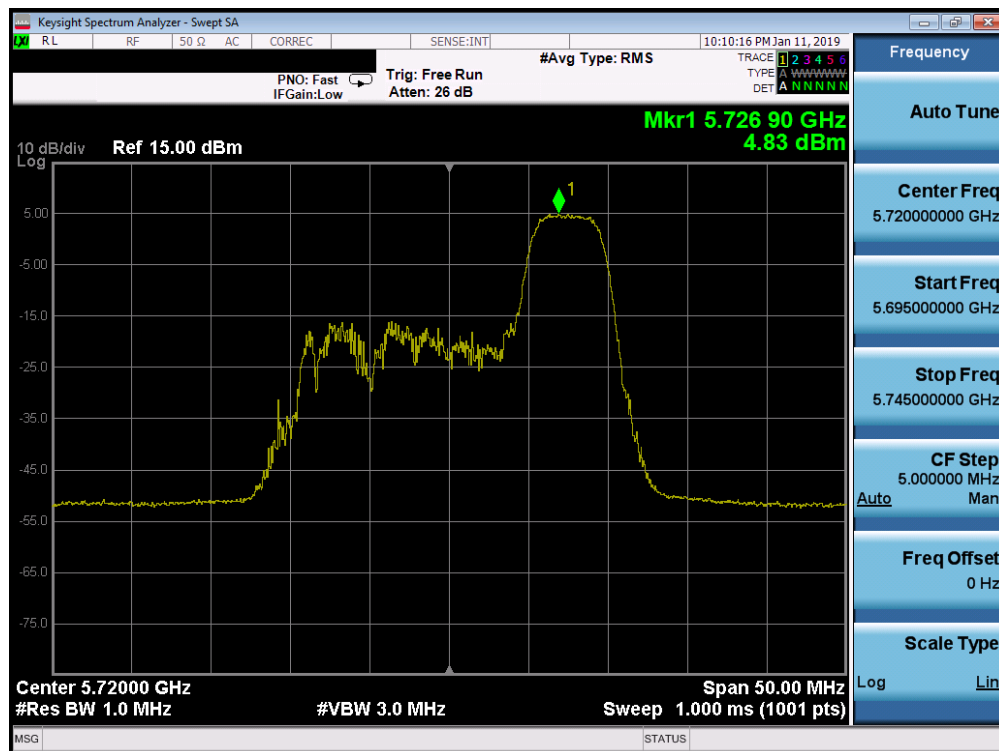


Plot 7-406. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 100)

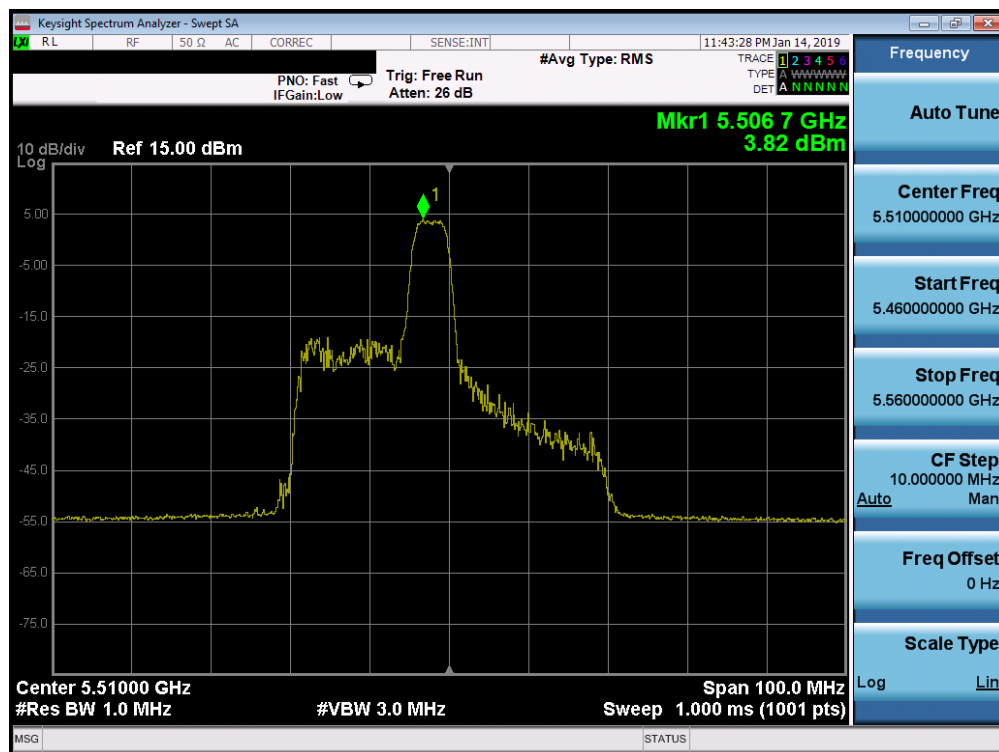


Plot 7-407. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 120)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 287 of 514

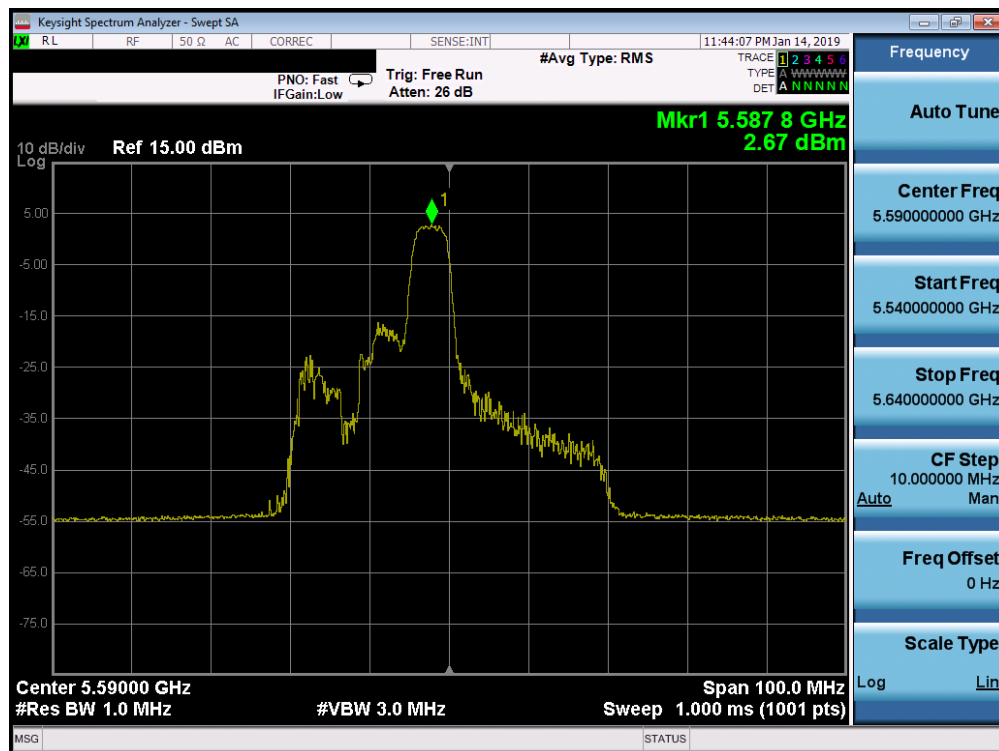


Plot 7-408. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 144)

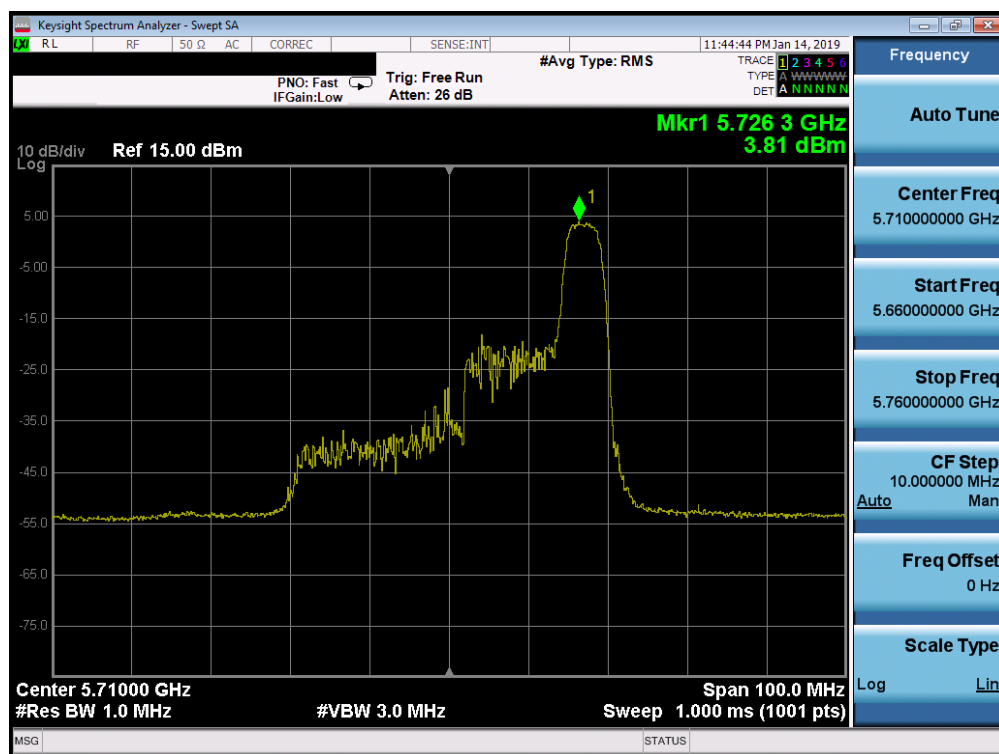


Plot 7-409. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 102)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 288 of 514

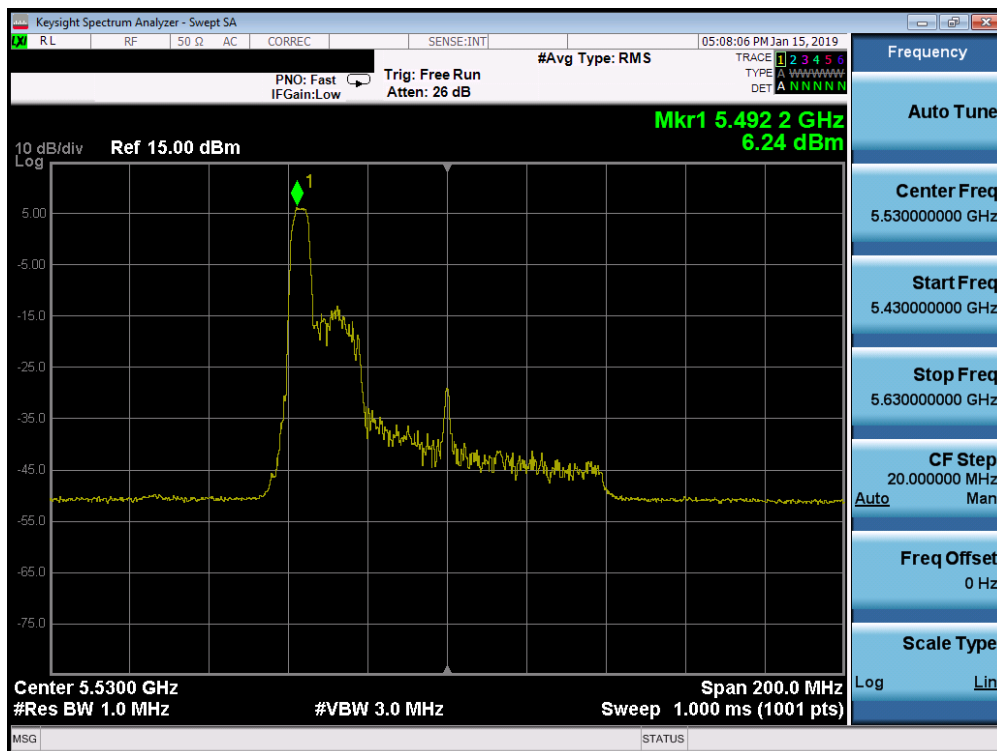


Plot 7-410. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 118)

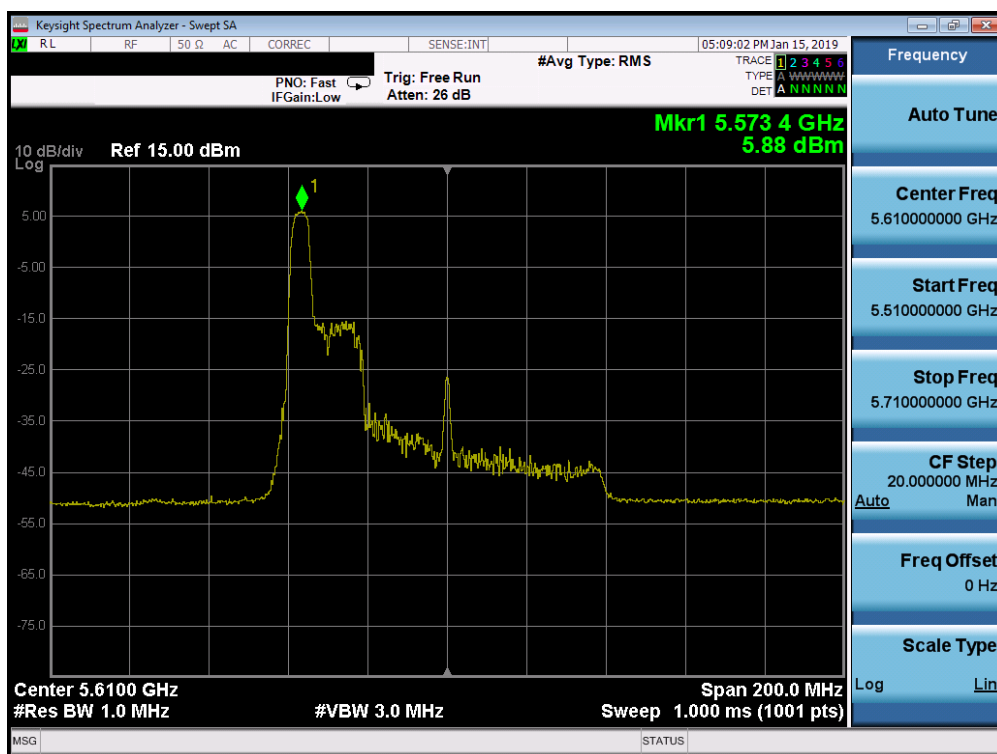


Plot 7-411. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 142)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 289 of 514	

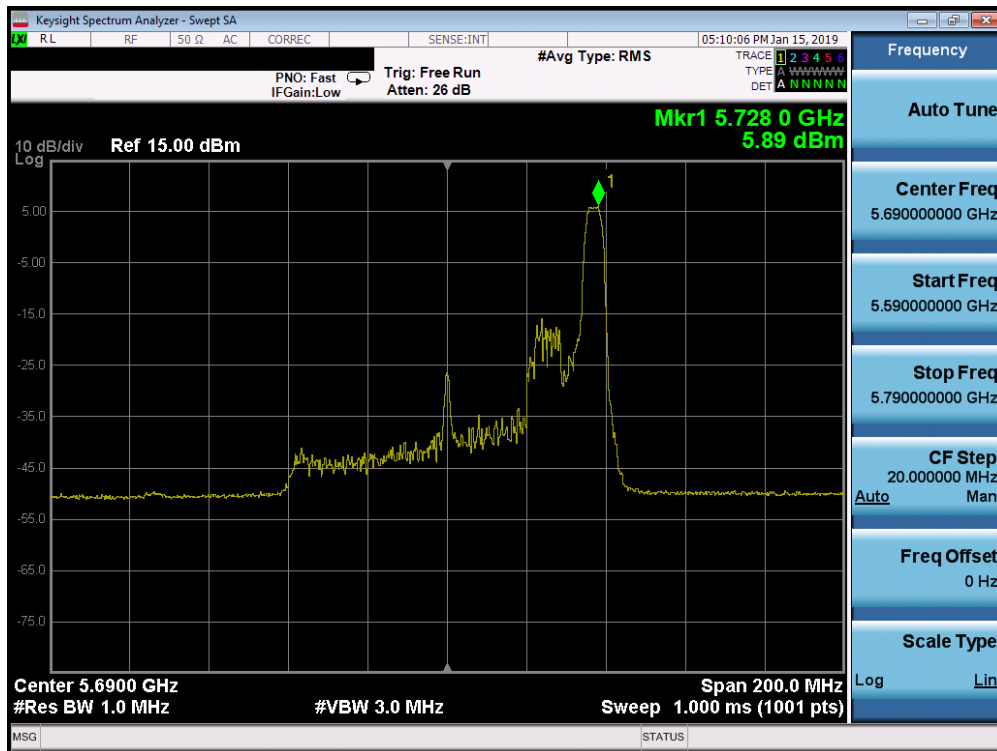


Plot 7-412. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 106)

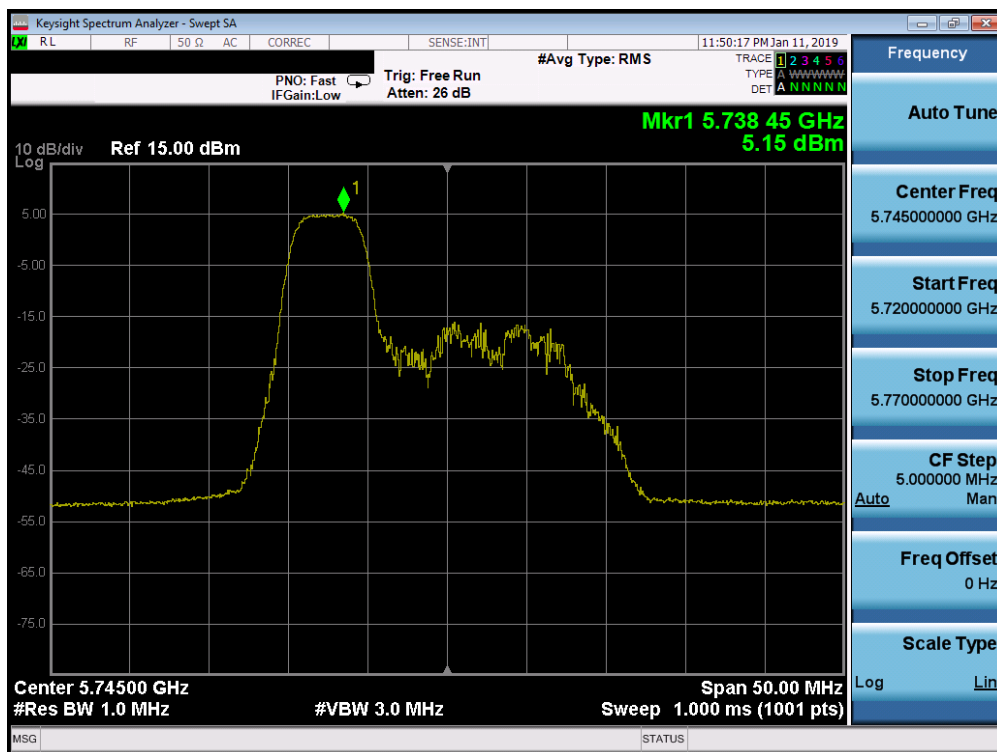


Plot 7-413. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 122)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 290 of 514

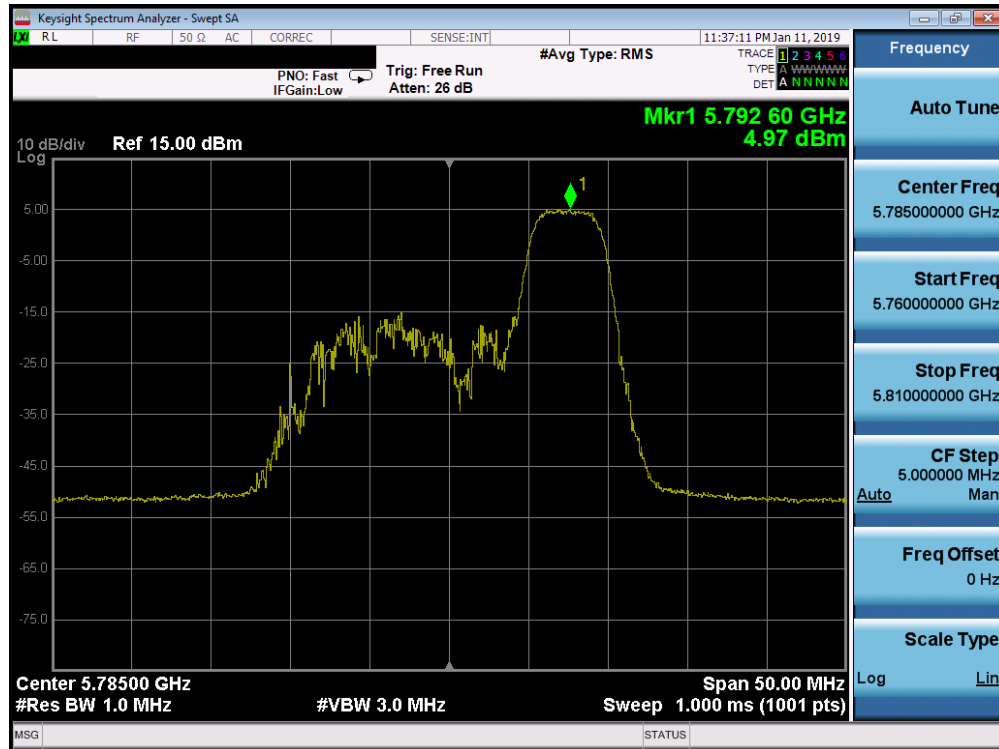


Plot 7-414. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 138)

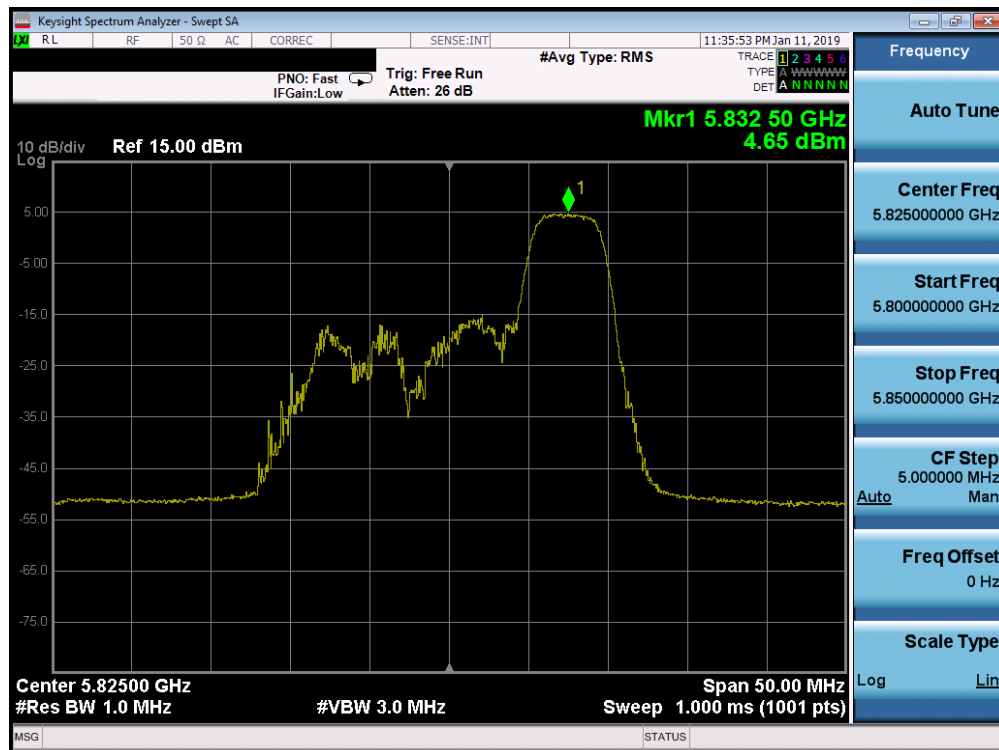


Plot 7-415. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 149)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 291 of 514		

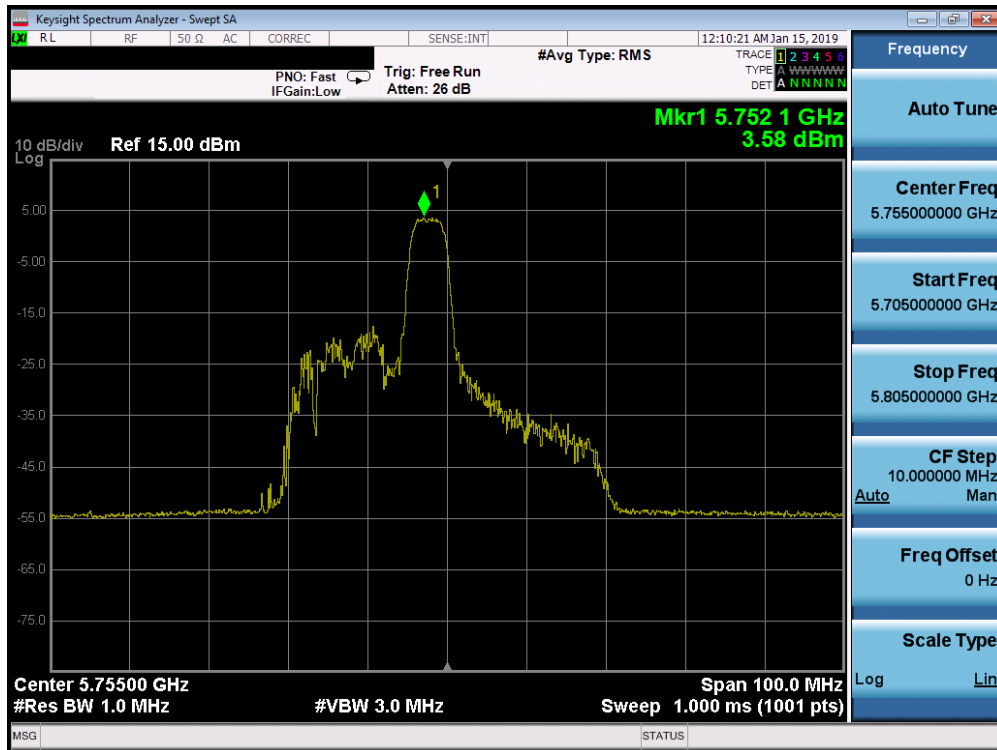


Plot 7-416. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 157)

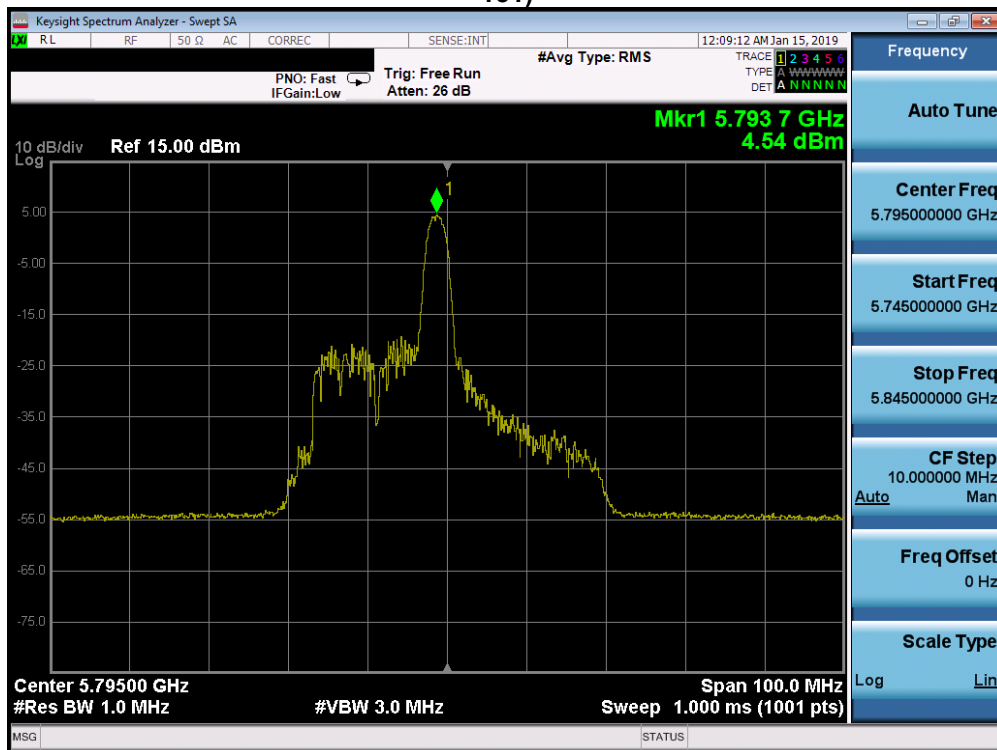


Plot 7-417. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 165)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 292 of 514		

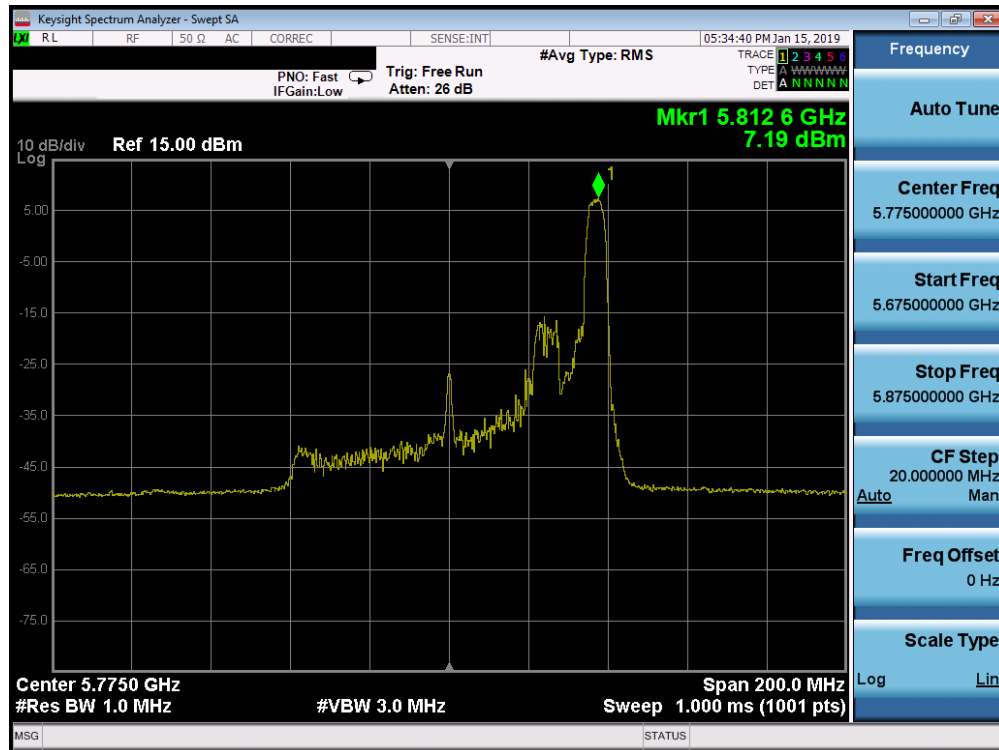


Plot 7-418. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 151)



Plot 7-419. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 159)

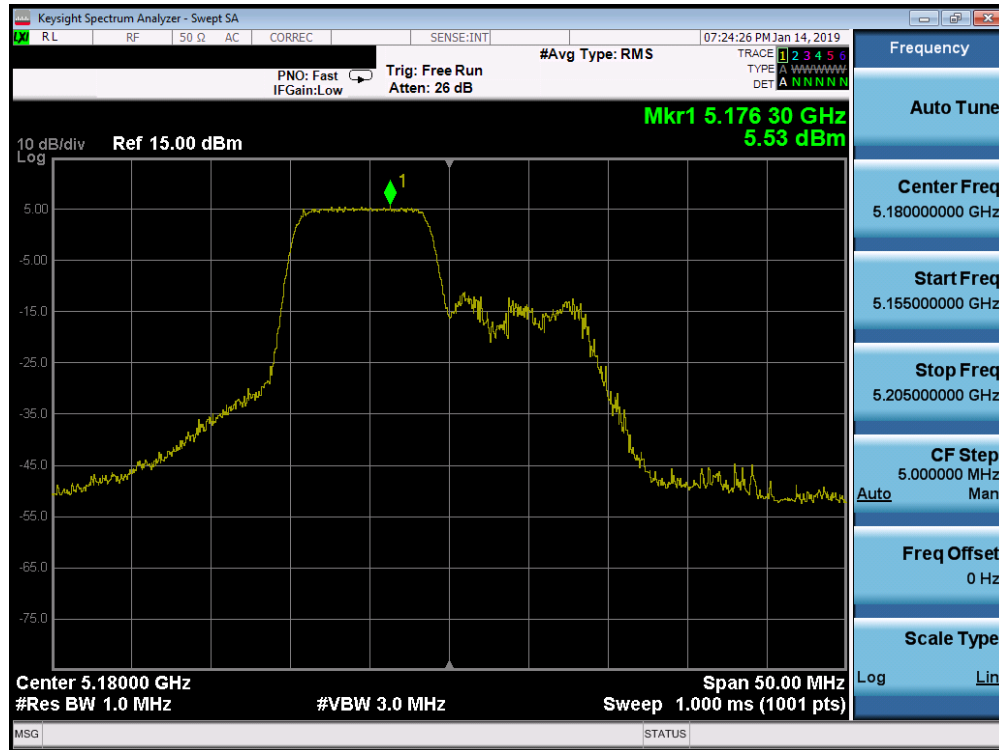
FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 293 of 514



Plot 7-420. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 155)

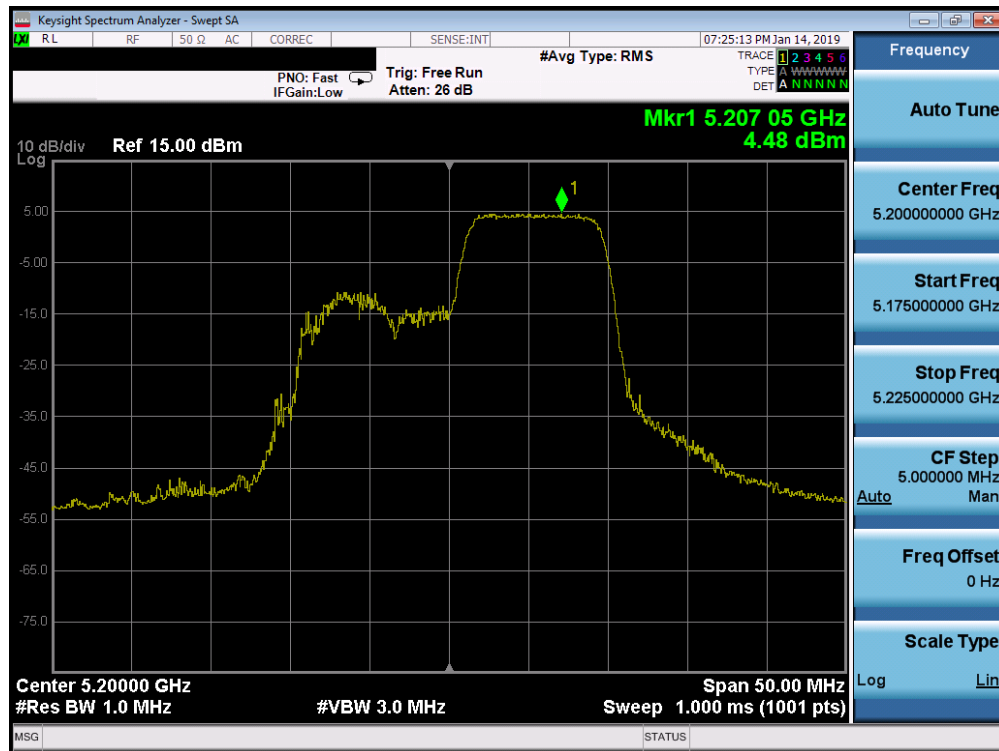
FCC ID: A3LSC03L	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 294 of 514

MIMO Antenna-1 Power Spectral Density Measurements (106 Tones)

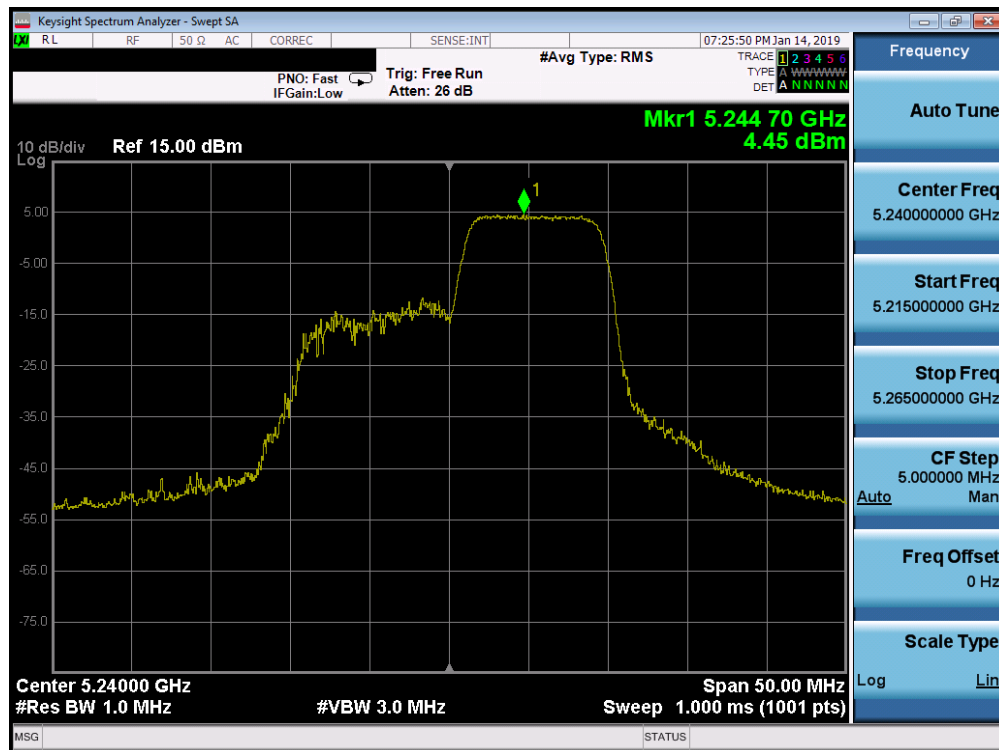


Plot 7-421. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 36)

FCC ID: A3LSC03L	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 295 of 514

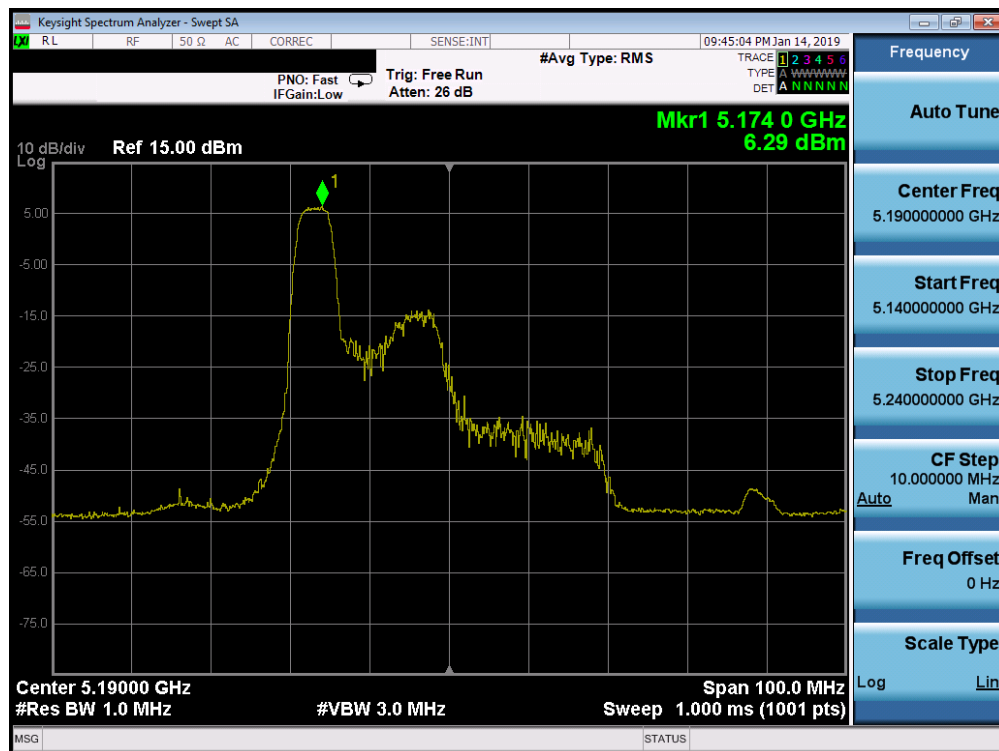


Plot 7-422. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 40)

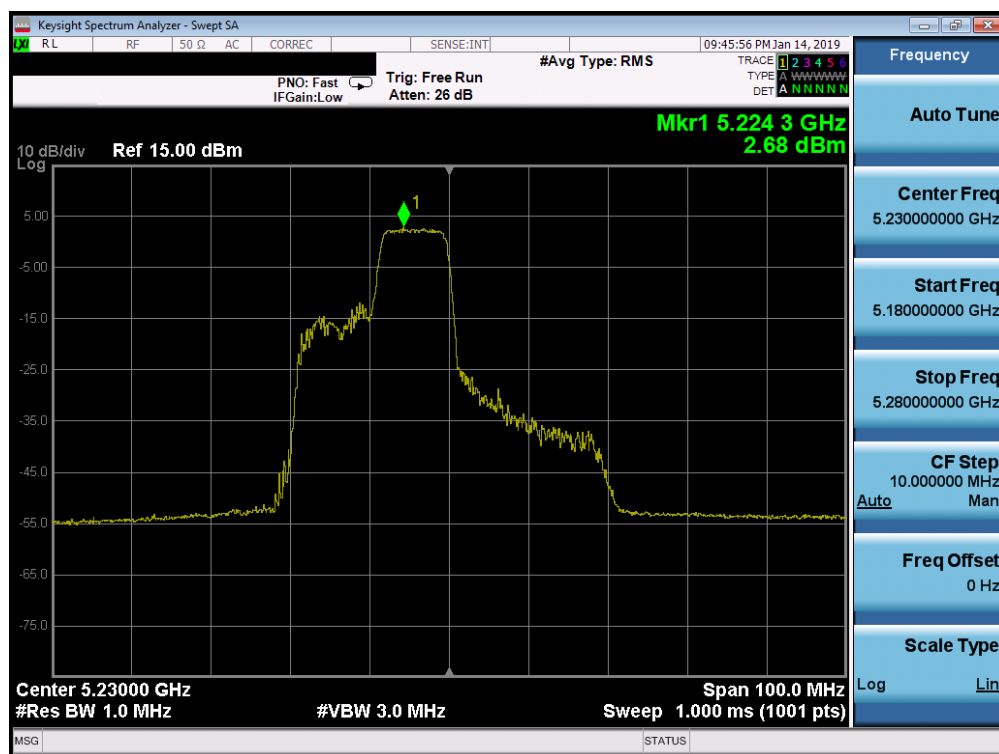


Plot 7-423. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 48)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 296 of 514

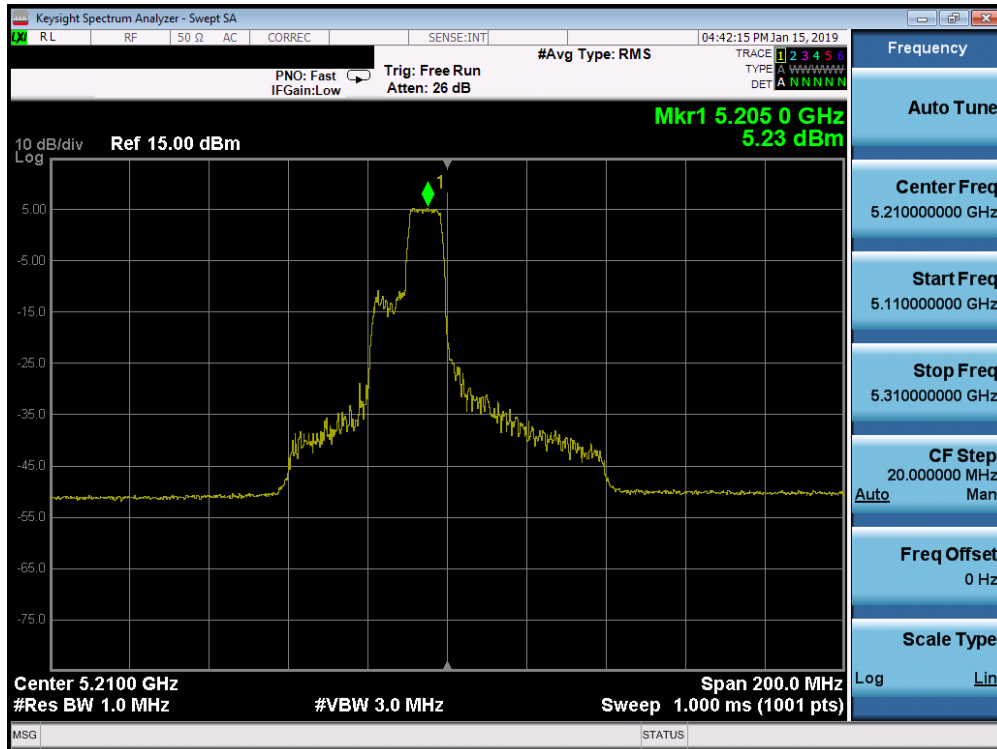


Plot 7-424. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 38)

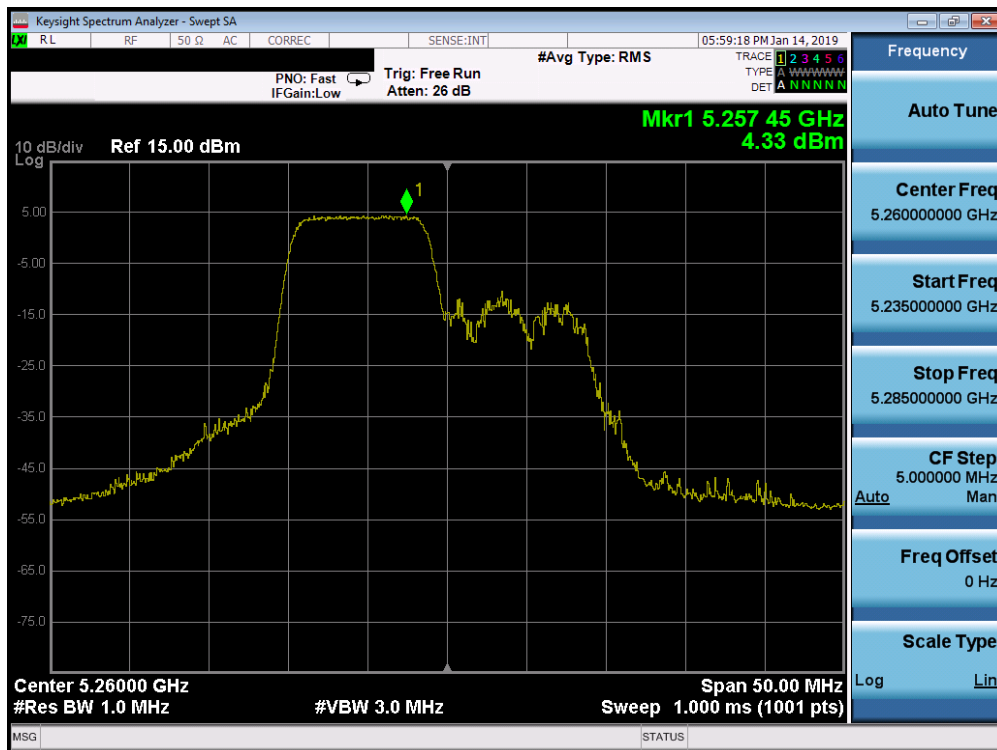


Plot 7-425. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 46)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 297 of 514

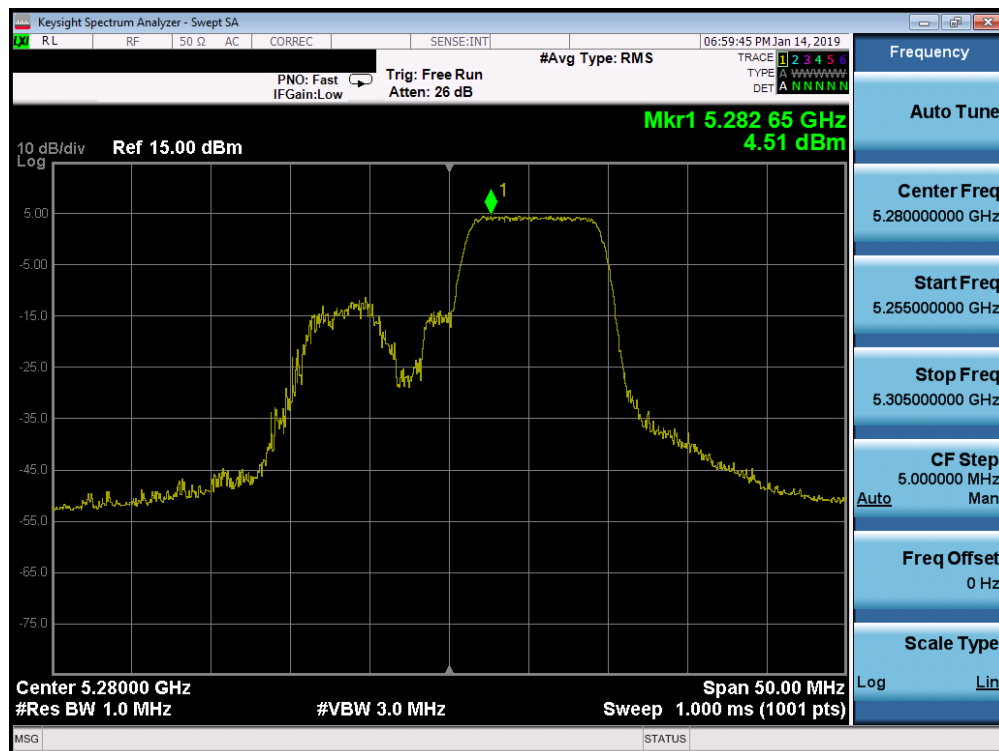


Plot 7-426. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 42)

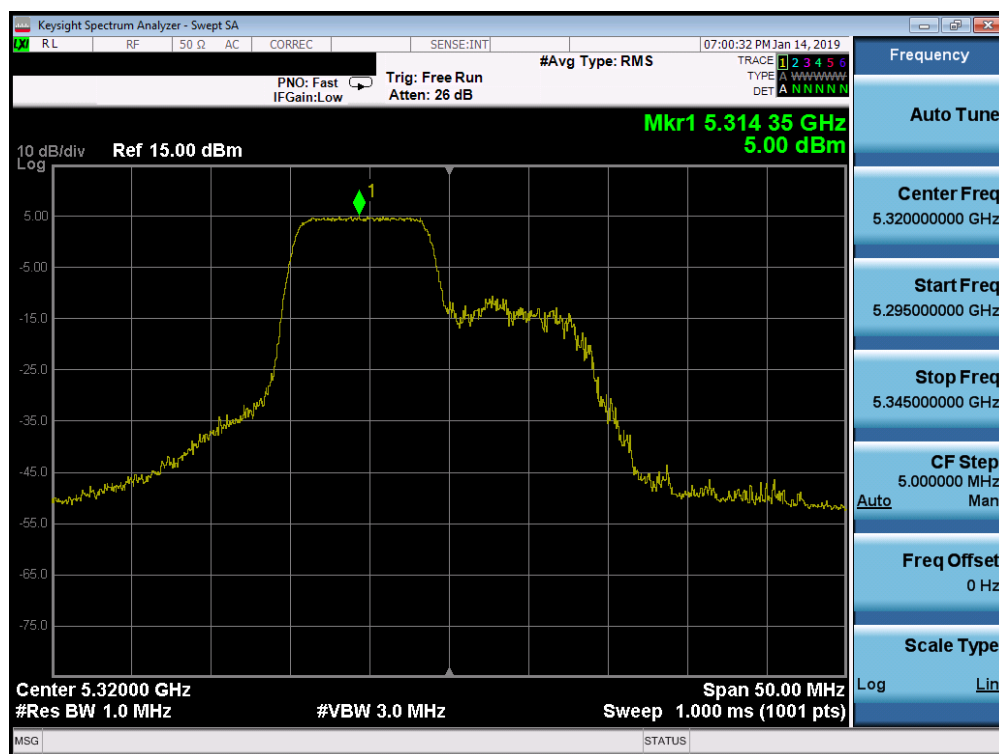


Plot 7-427. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 52)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 298 of 514		

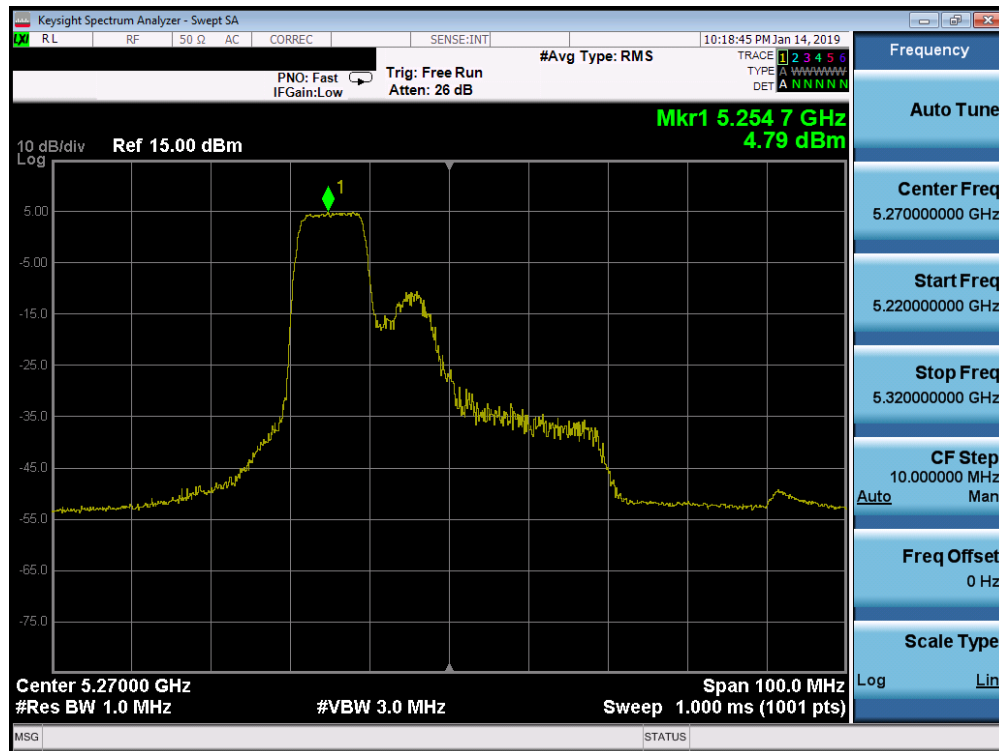


Plot 7-428. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 56)

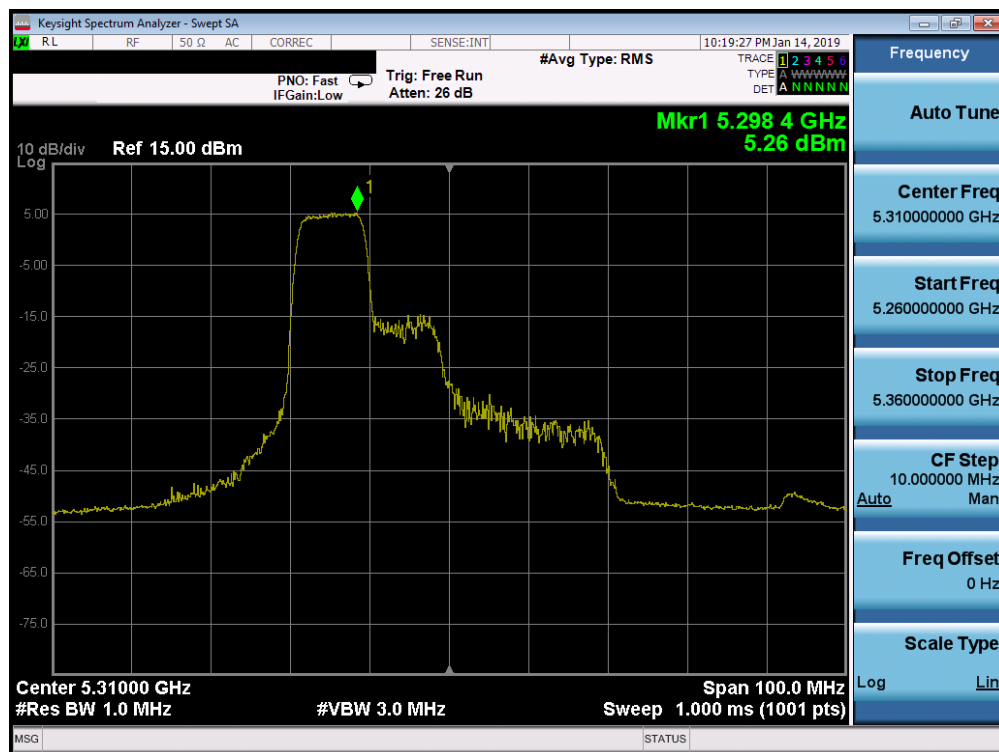


Plot 7-429. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 64)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 299 of 514

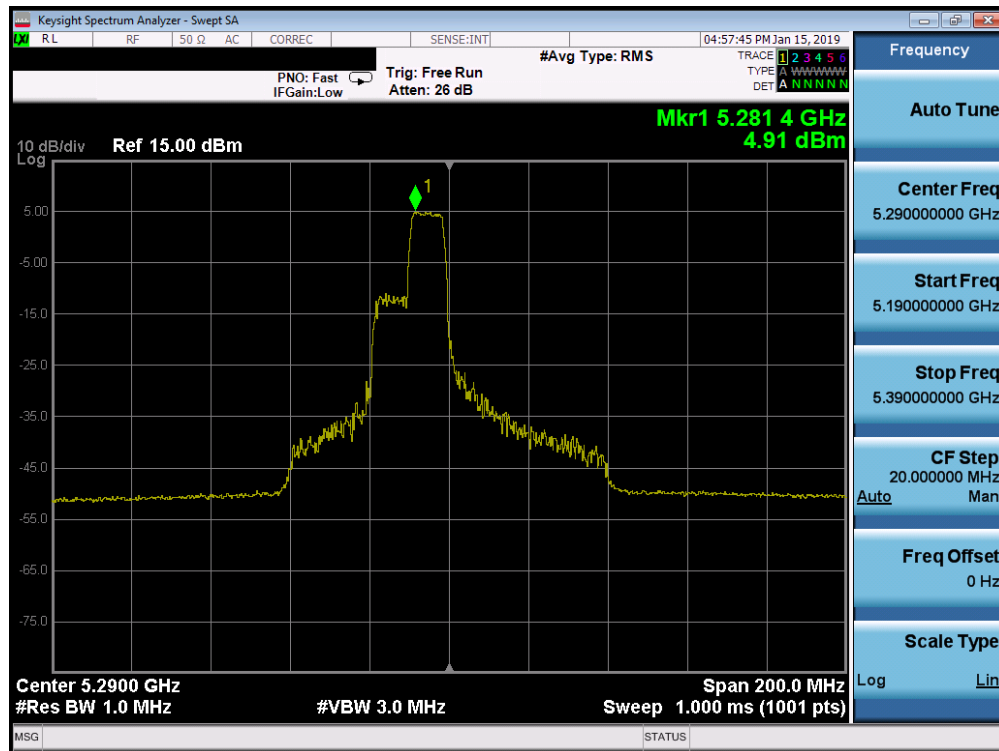


Plot 7-430. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 54)

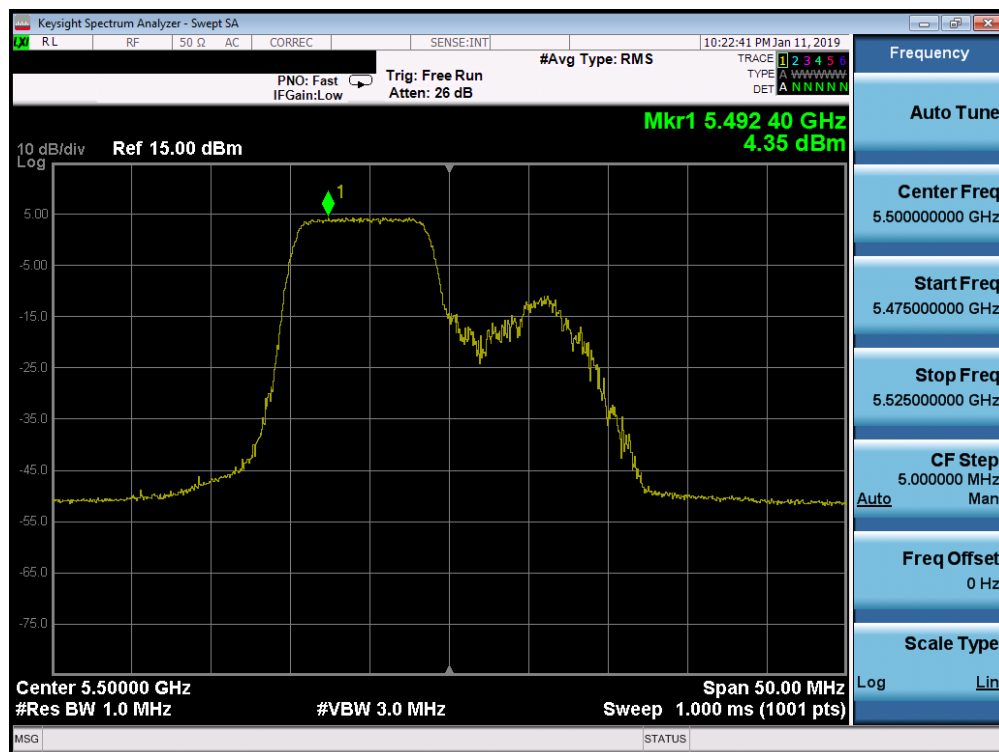


Plot 7-431. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 300 of 514

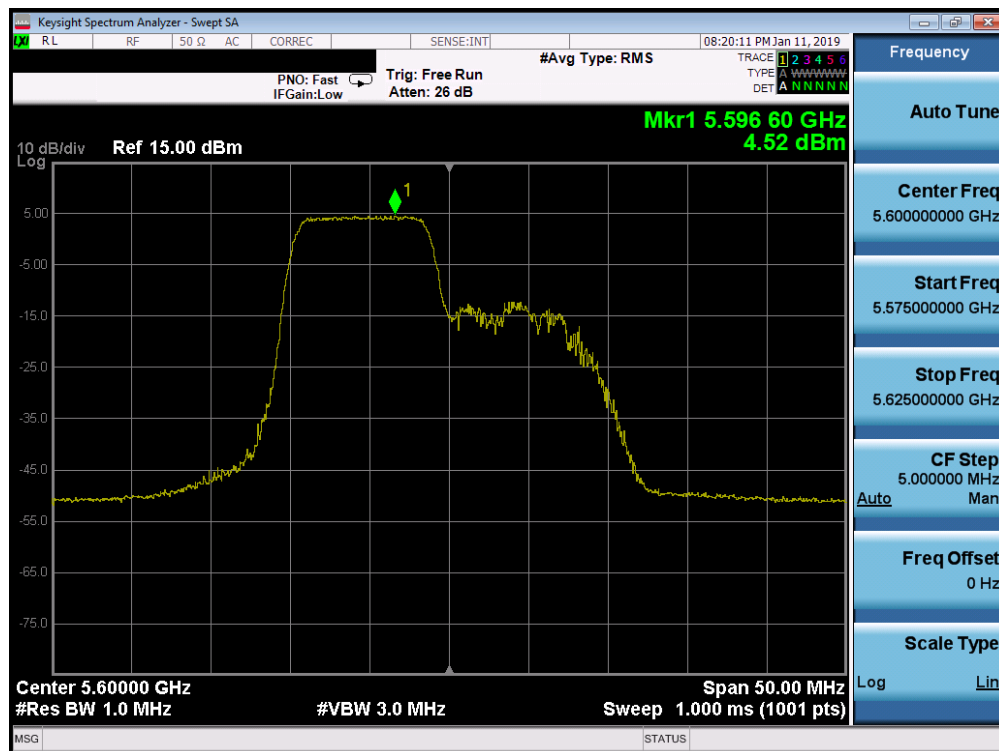


Plot 7-432. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 58)

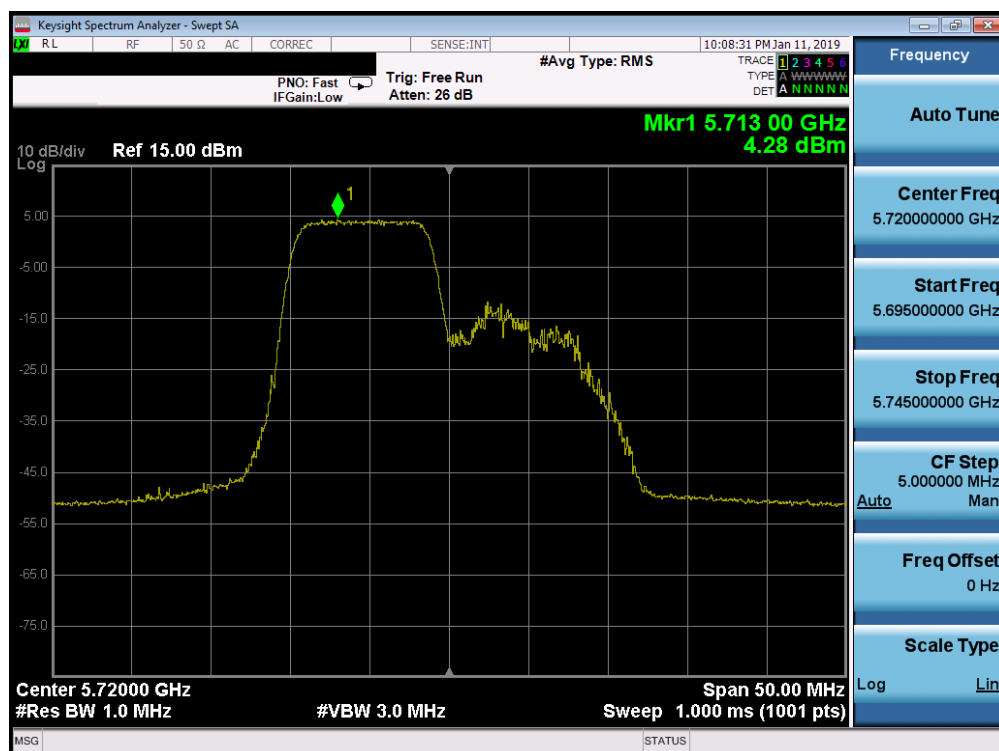


Plot 7-433. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 100)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 301 of 514	

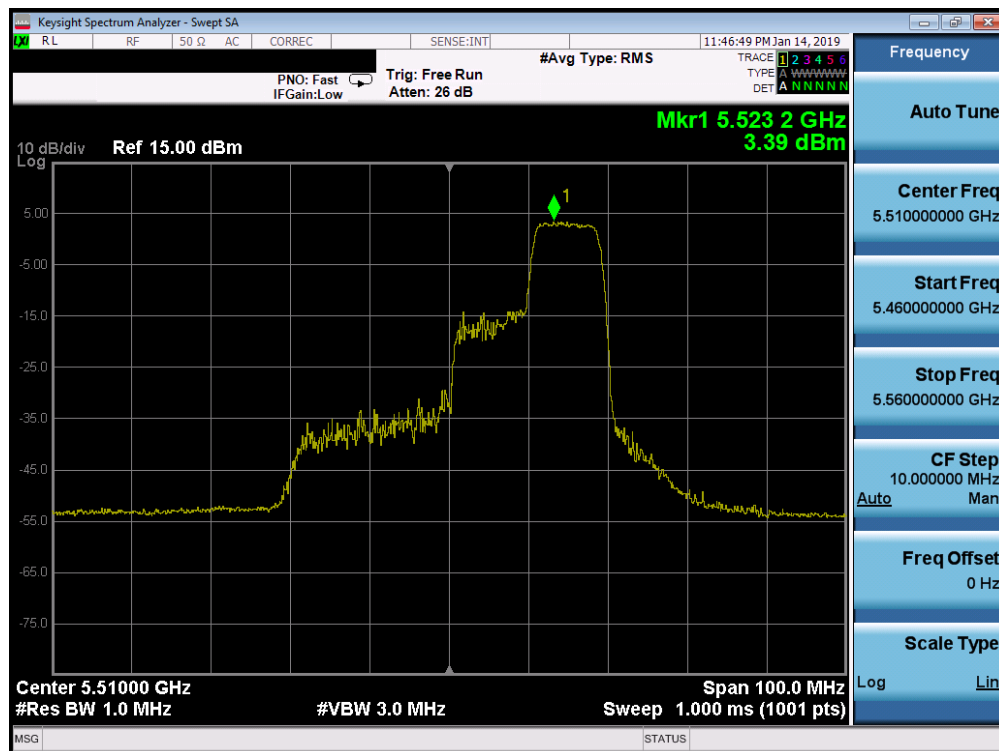


Plot 7-434. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 120)

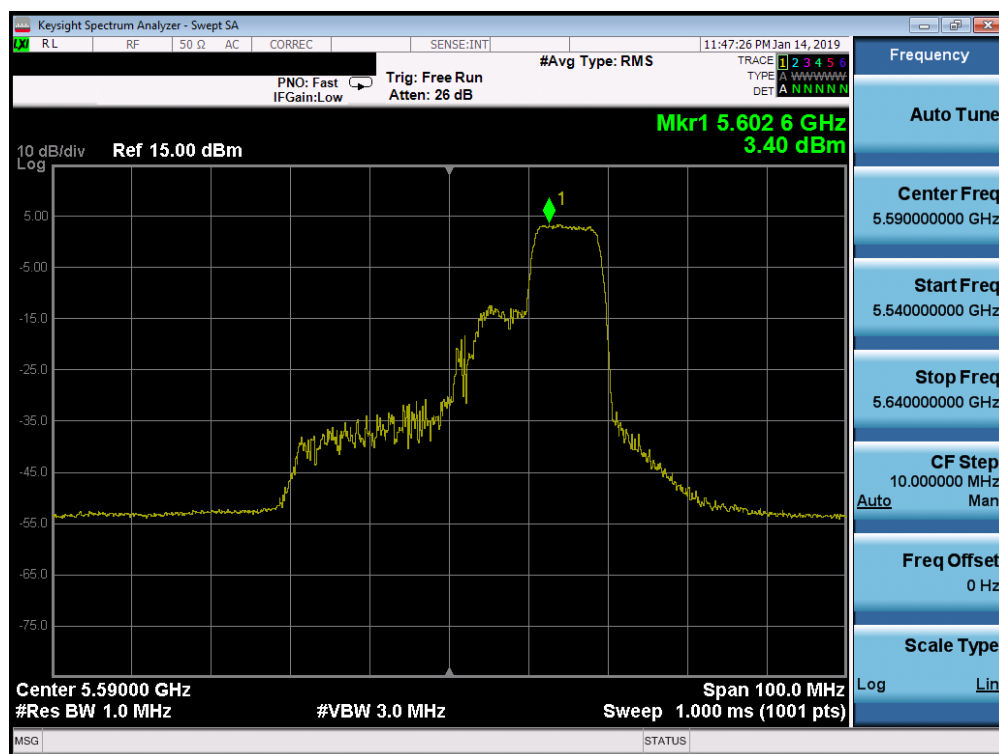


Plot 7-435. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 144)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 302 of 514		

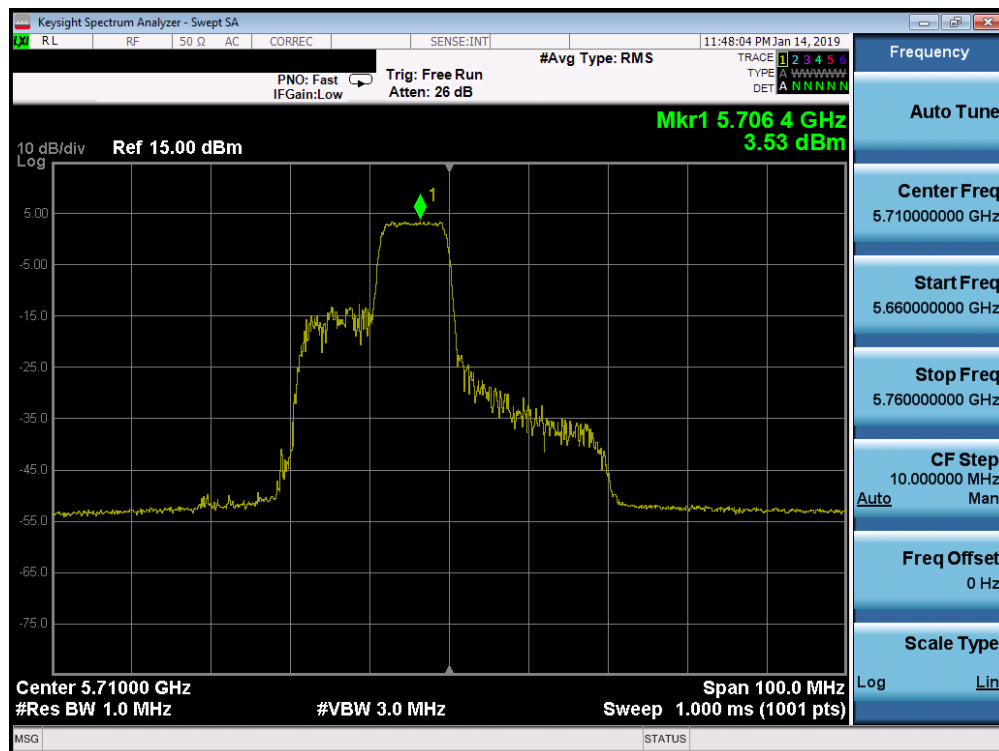


Plot 7-436. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 102)

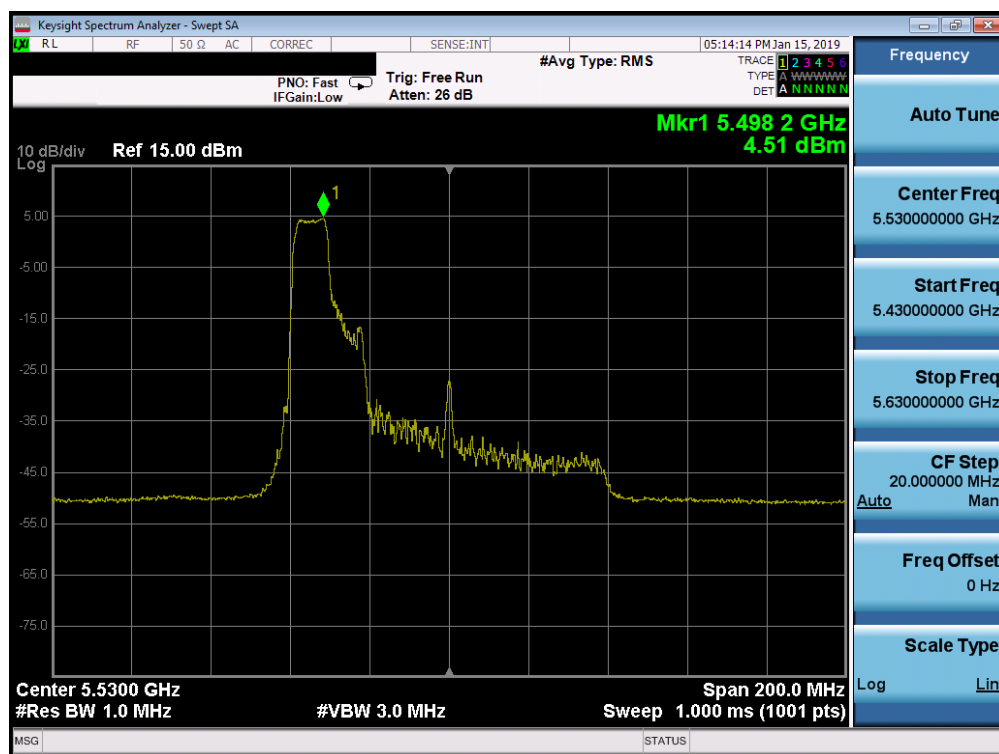


Plot 7-437. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 303 of 514	

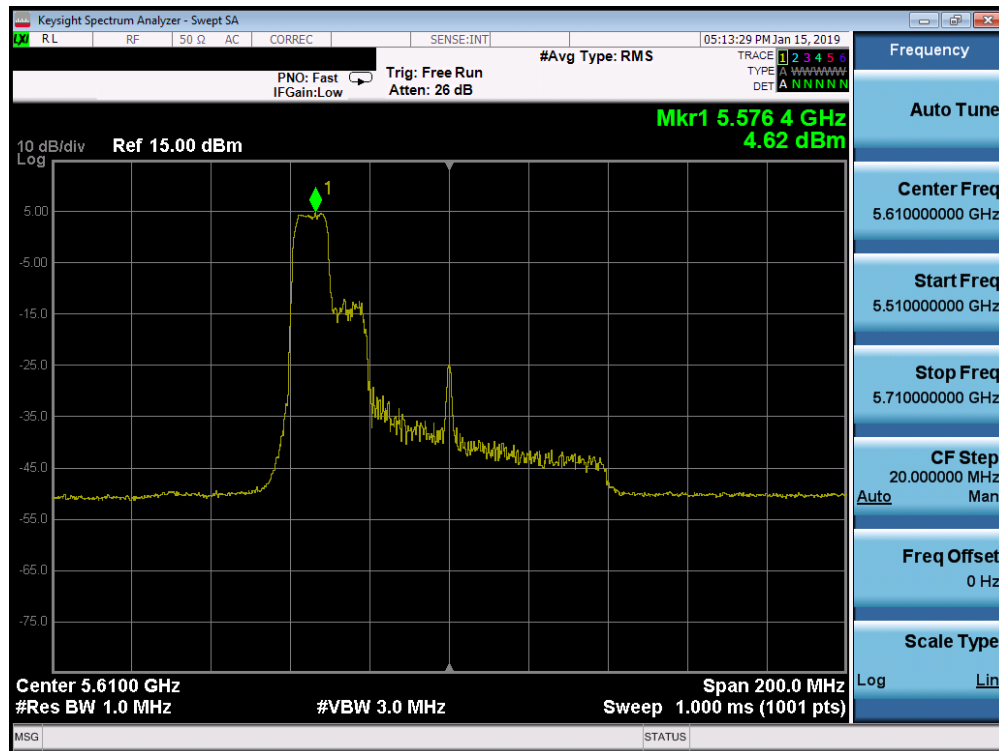


Plot 7-438. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 142)

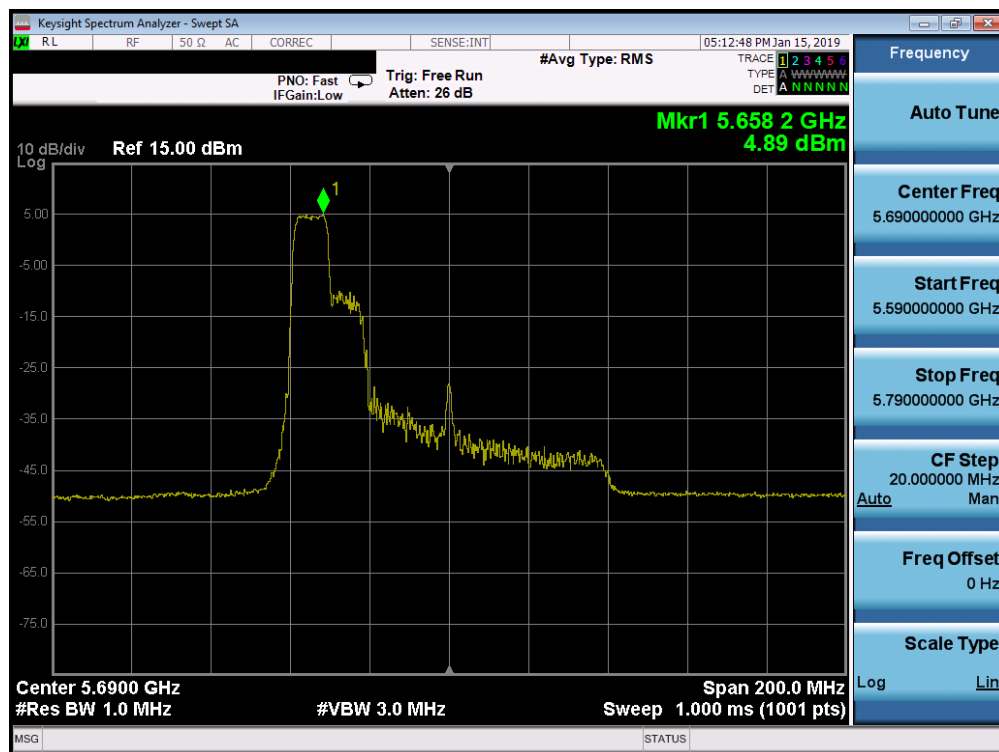


Plot 7-439. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 304 of 514	

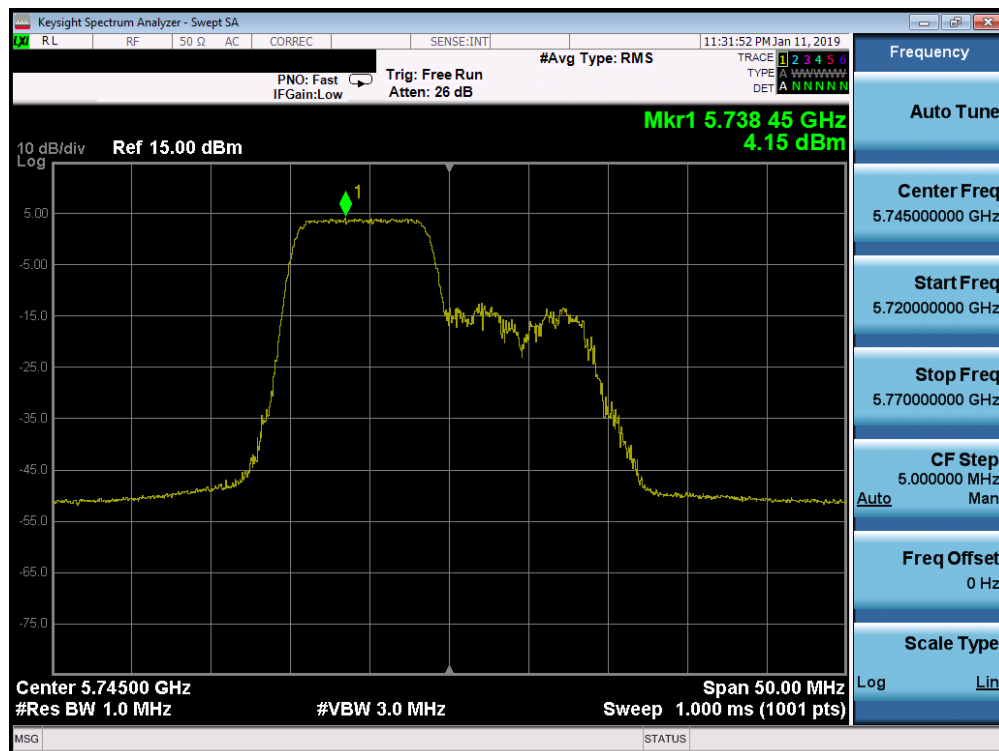


Plot 7-440. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 122)

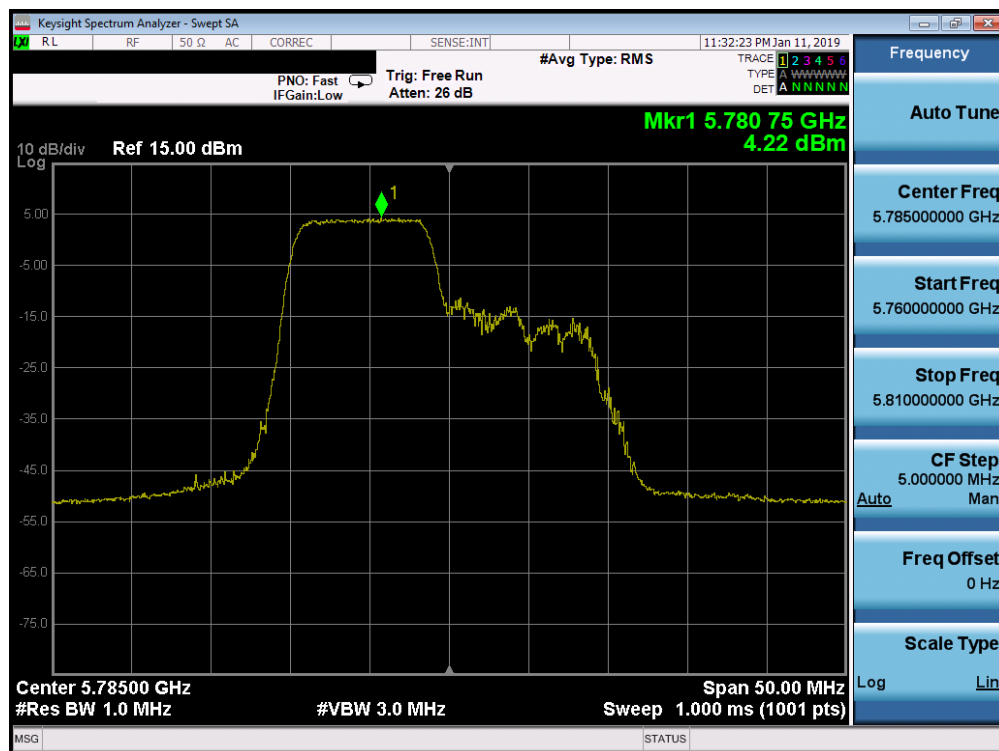


Plot 7-441. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 305 of 514

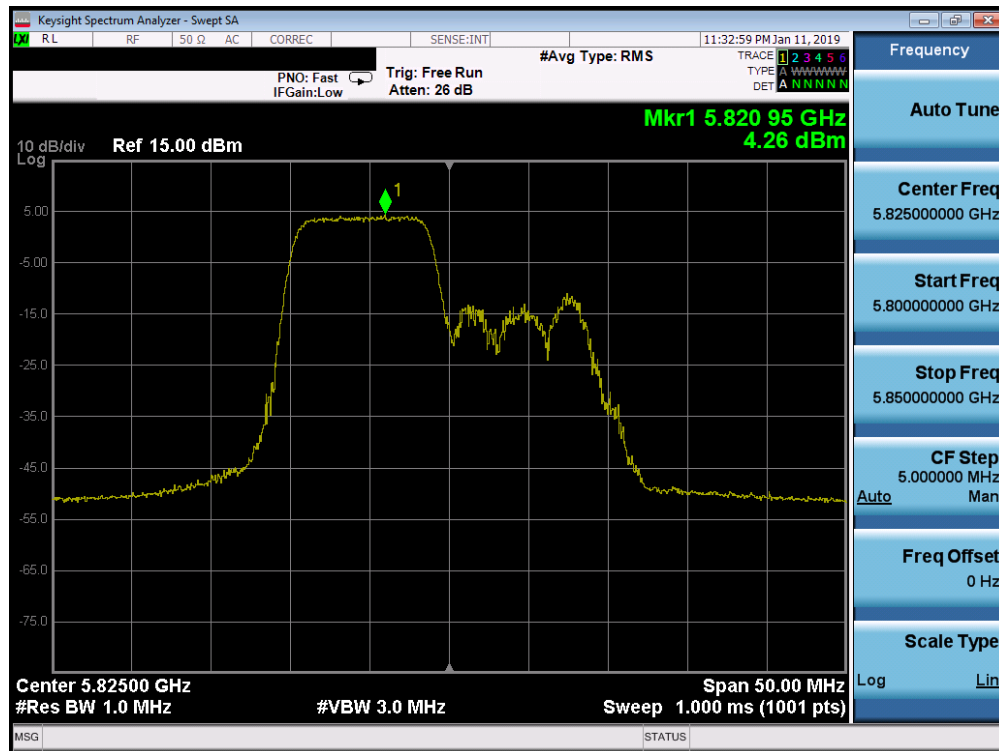


Plot 7-442. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 149)

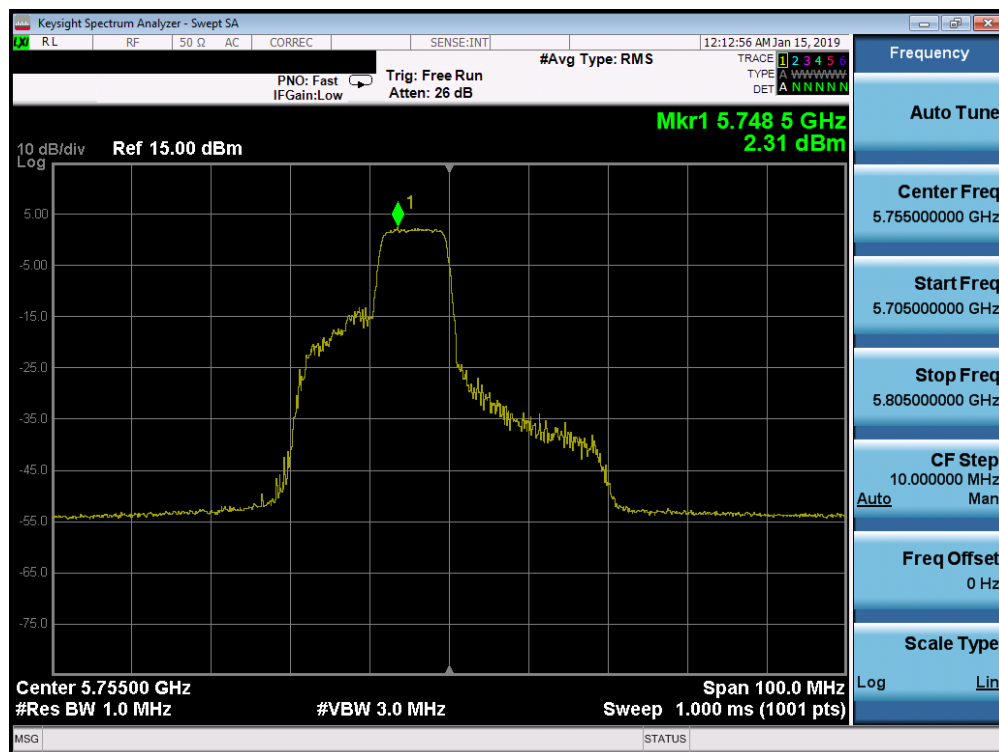


Plot 7-443. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 306 of 514	

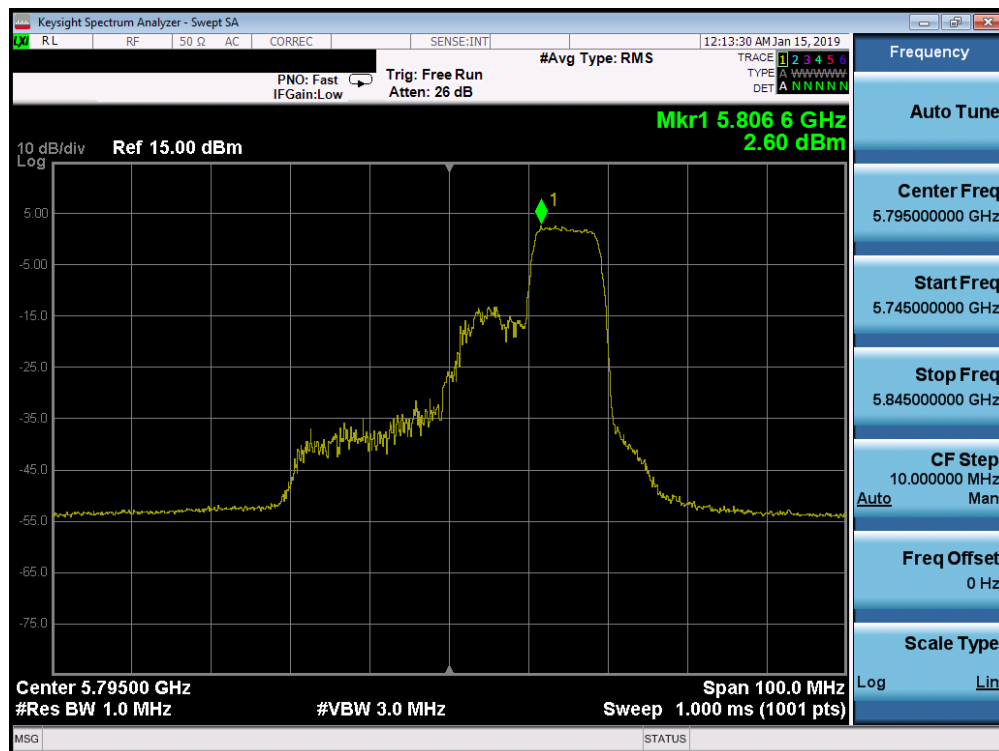


Plot 7-444. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 165)

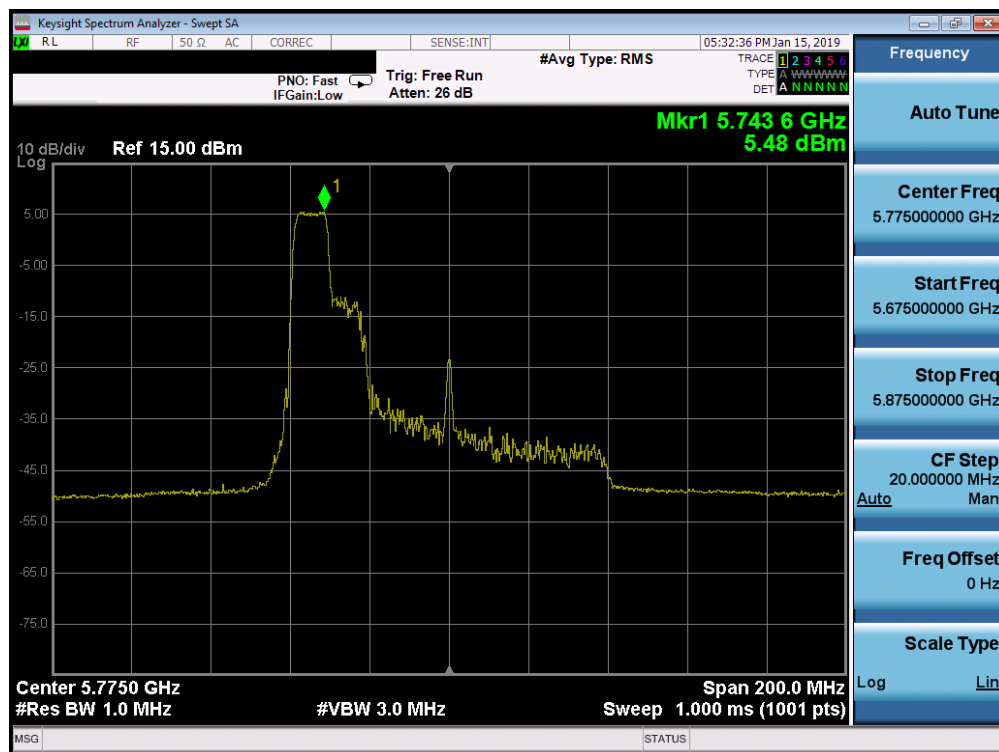


Plot 7-445. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 307 of 514		



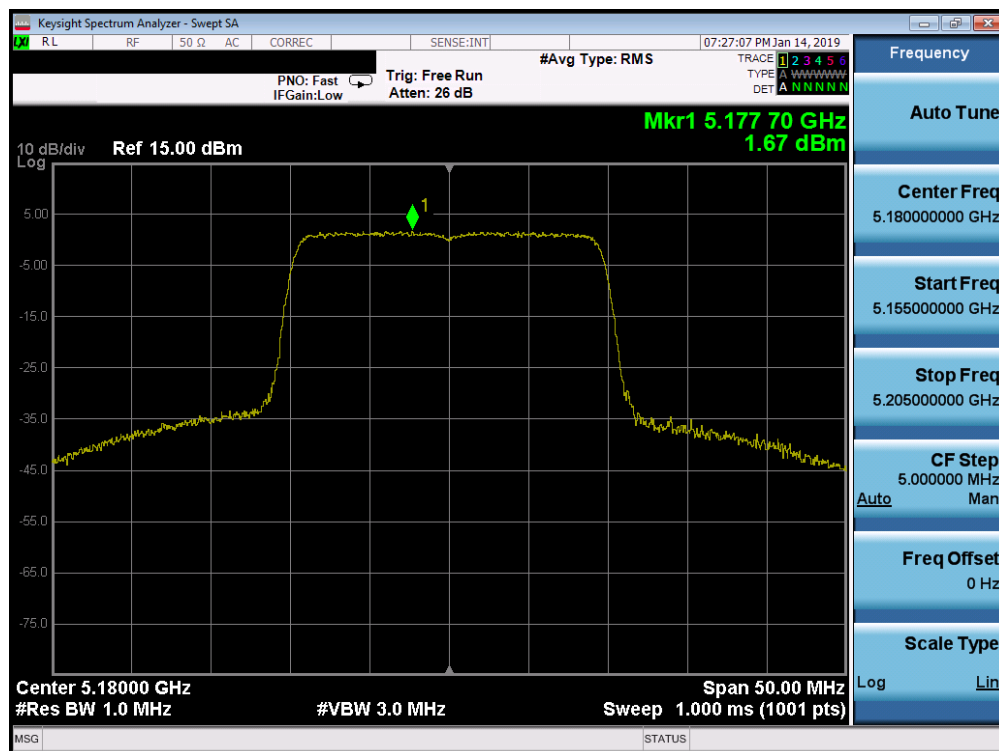
Plot 7-446. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 159)



Plot 7-447. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 155)

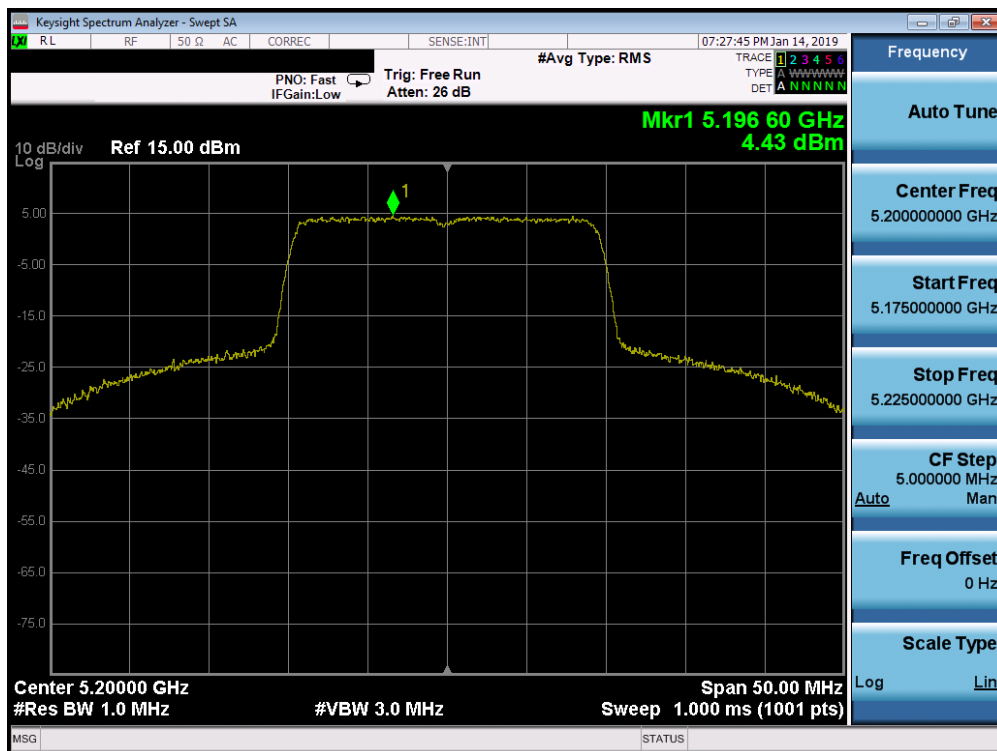
FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 308 of 514		

MIMO Antenna-1 Power Spectral Density Measurements (242 Tones)

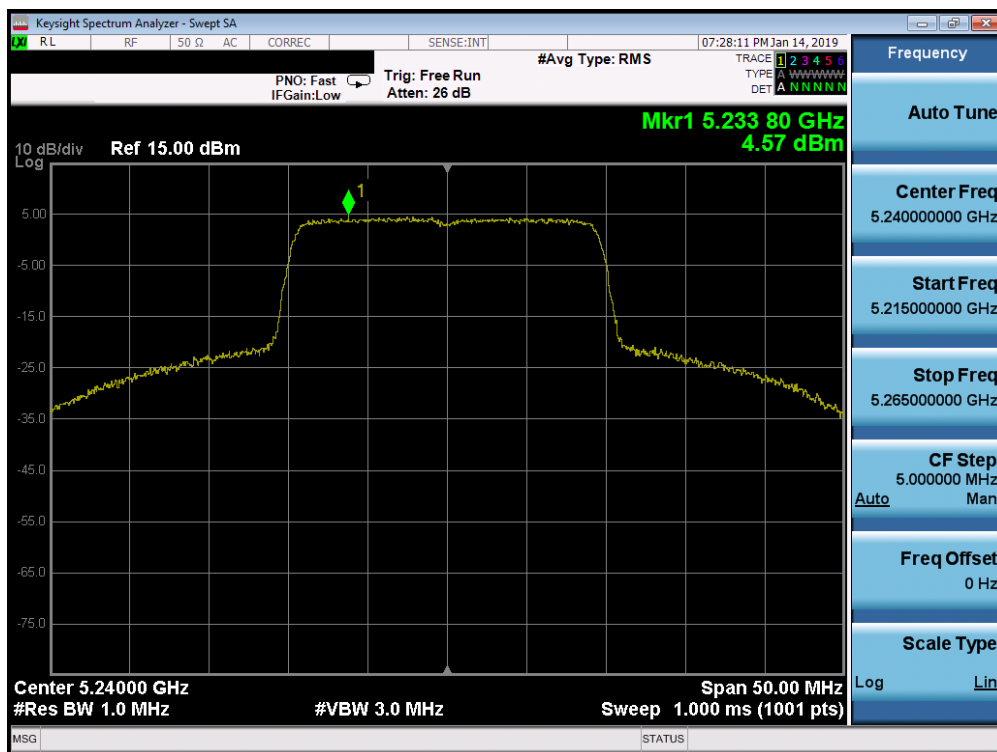


Plot 7-448. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 36)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 309 of 514

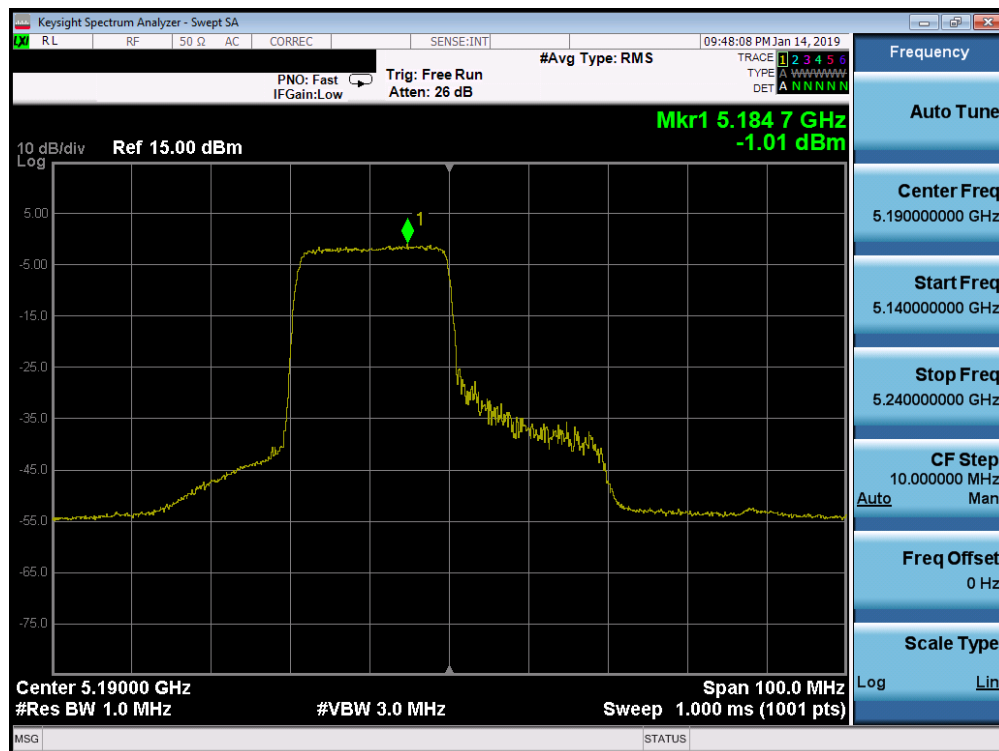


Plot 7-449. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 40)

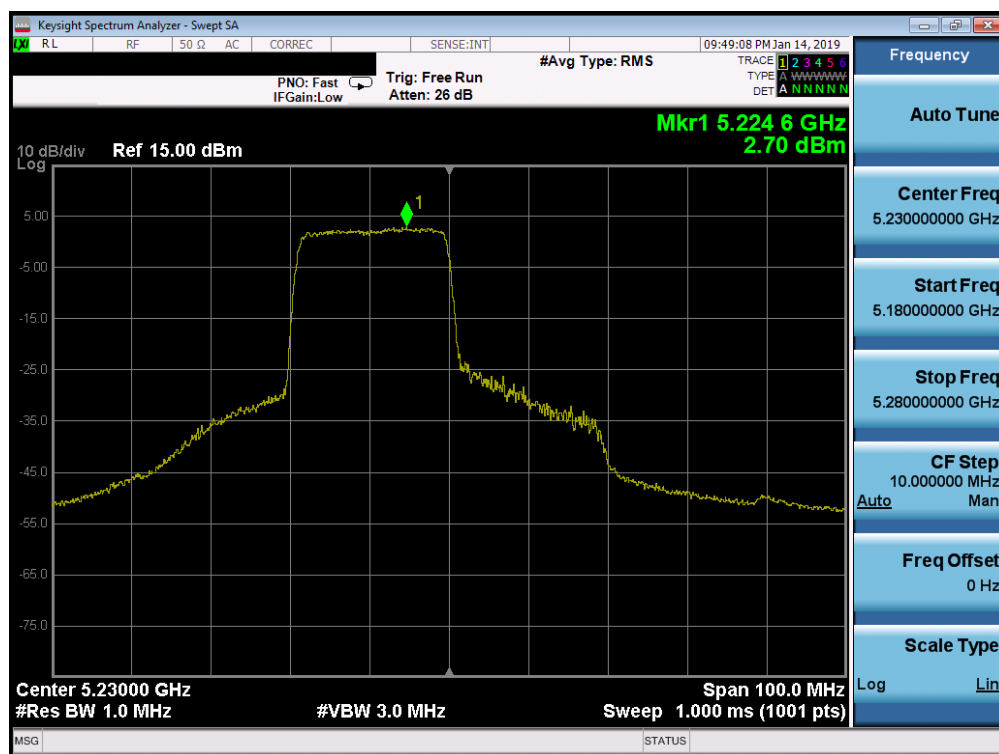


Plot 7-450. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 48)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 310 of 514

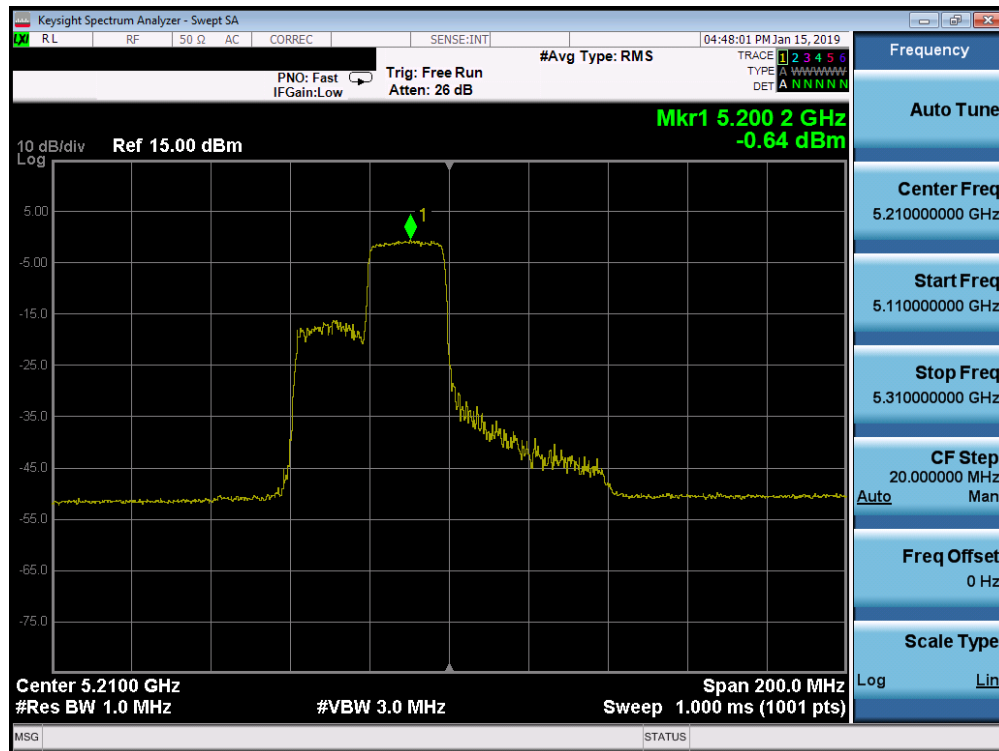


Plot 7-451. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 38)

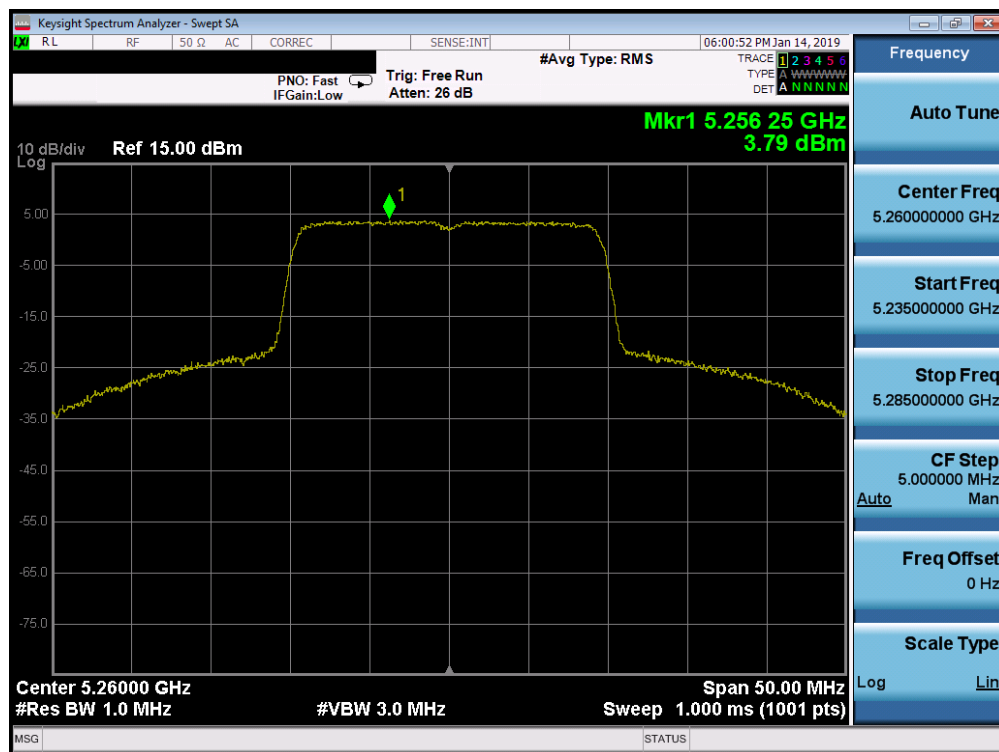


Plot 7-452. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 46)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 311 of 514

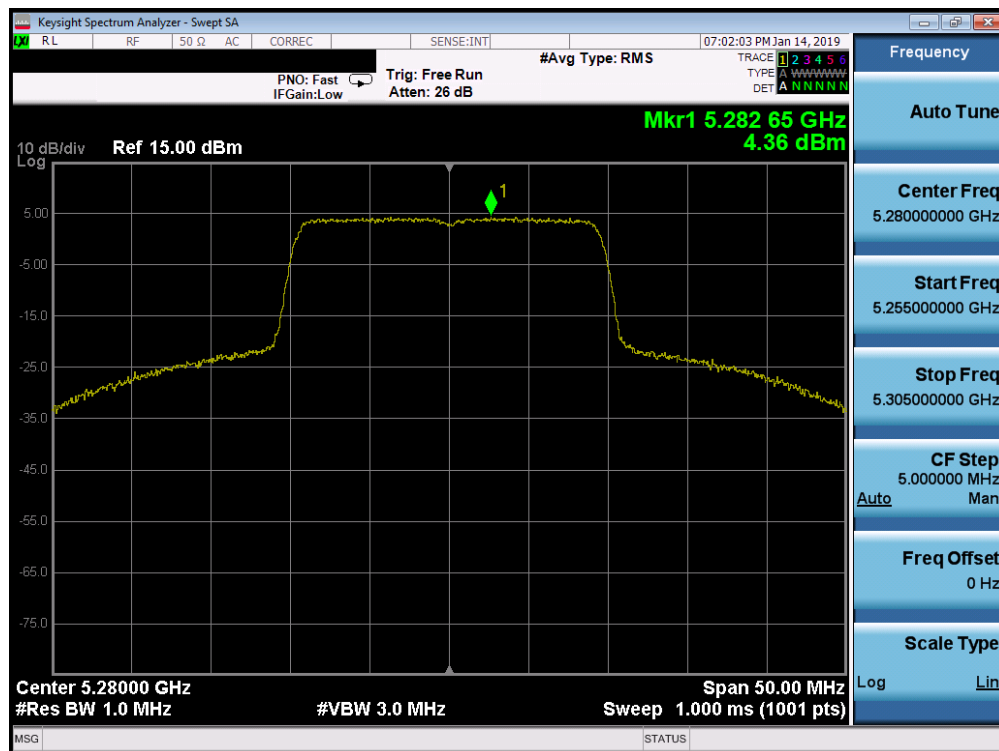


Plot 7-453. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 42)

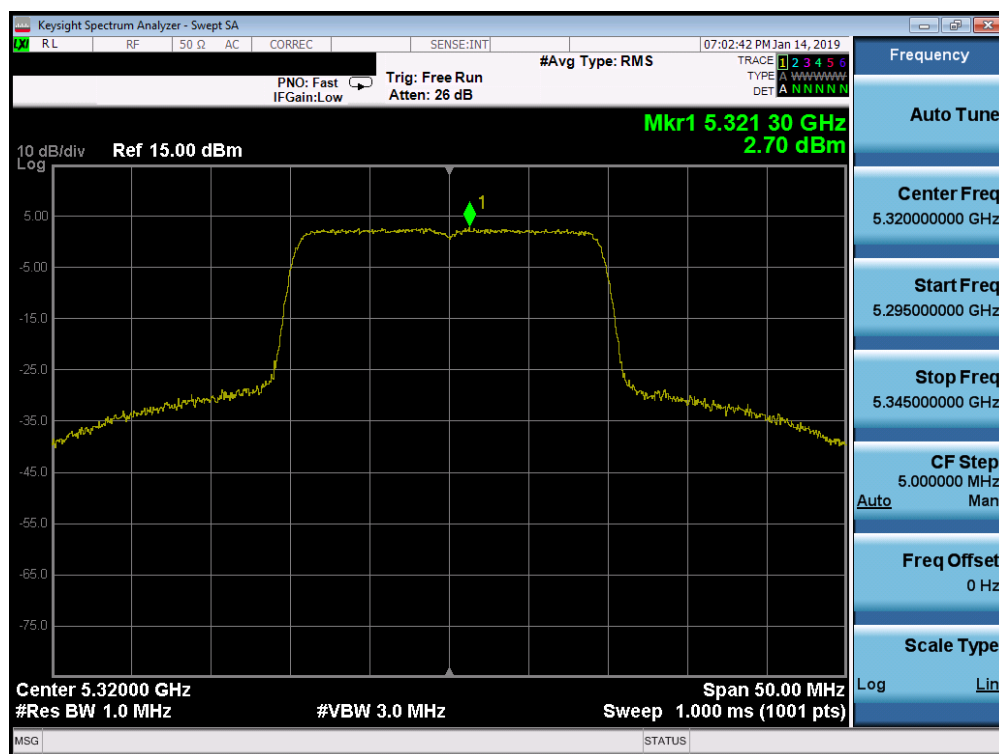


Plot 7-454. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 52)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 312 of 514

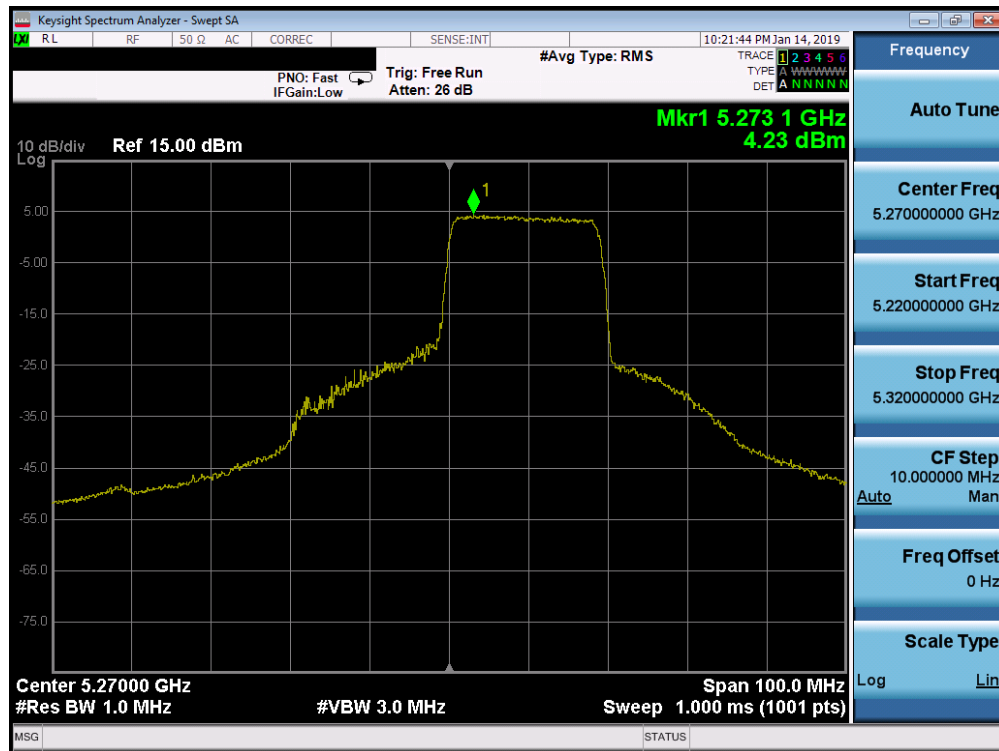


Plot 7-455. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 56)

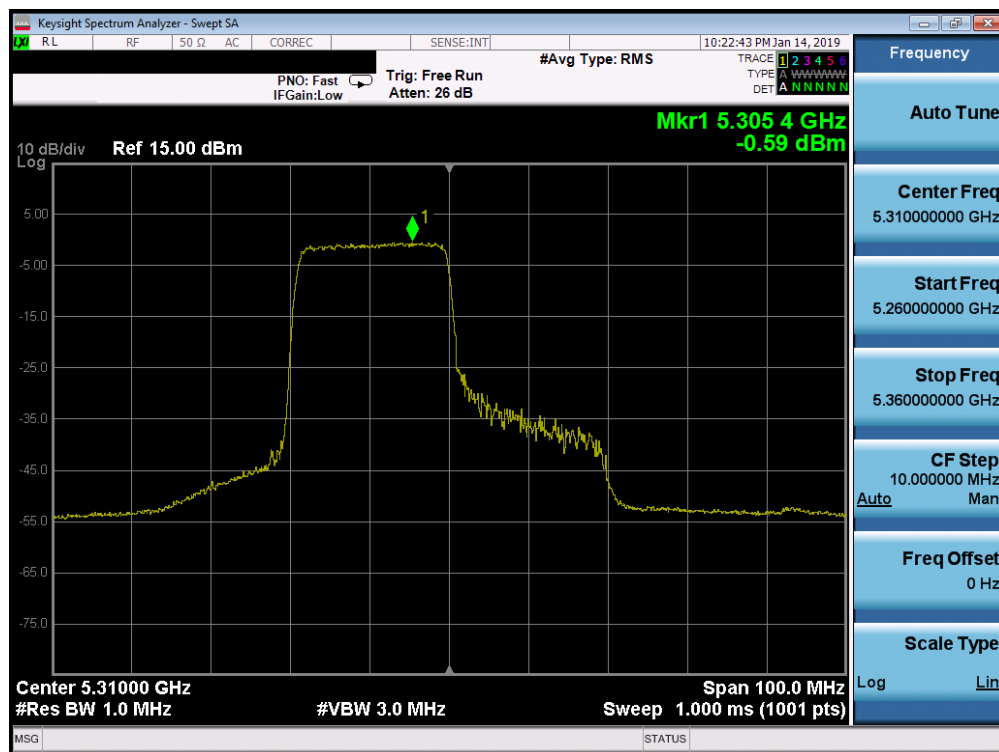


Plot 7-456. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 64)

FCC ID: A3LSC03L	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 313 of 514

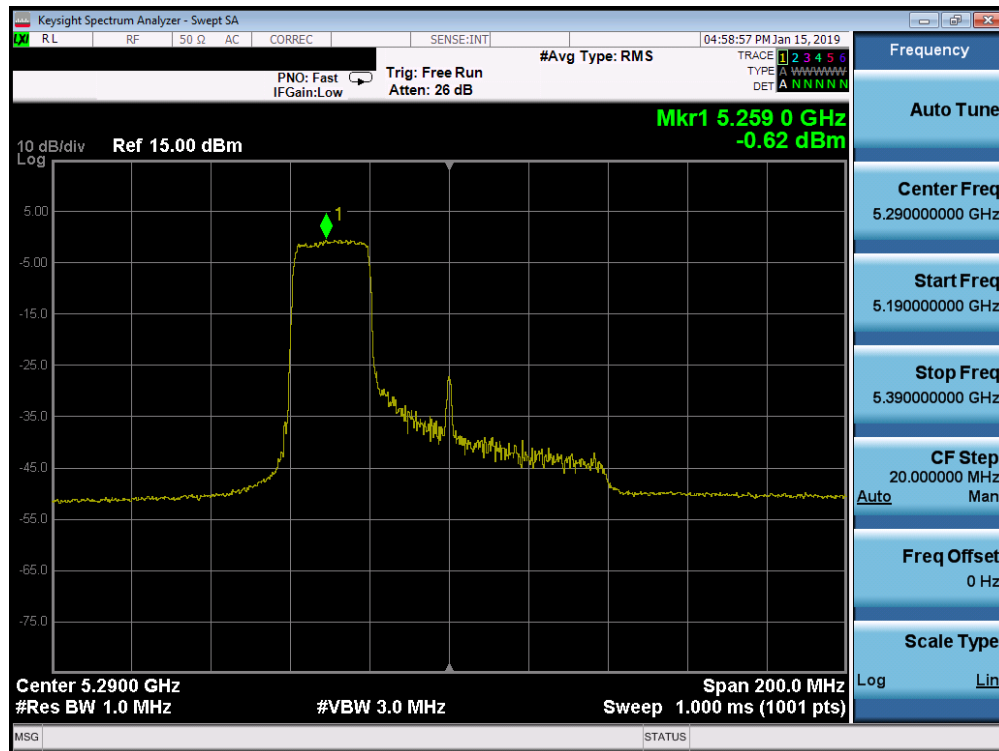


Plot 7-457. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 54)

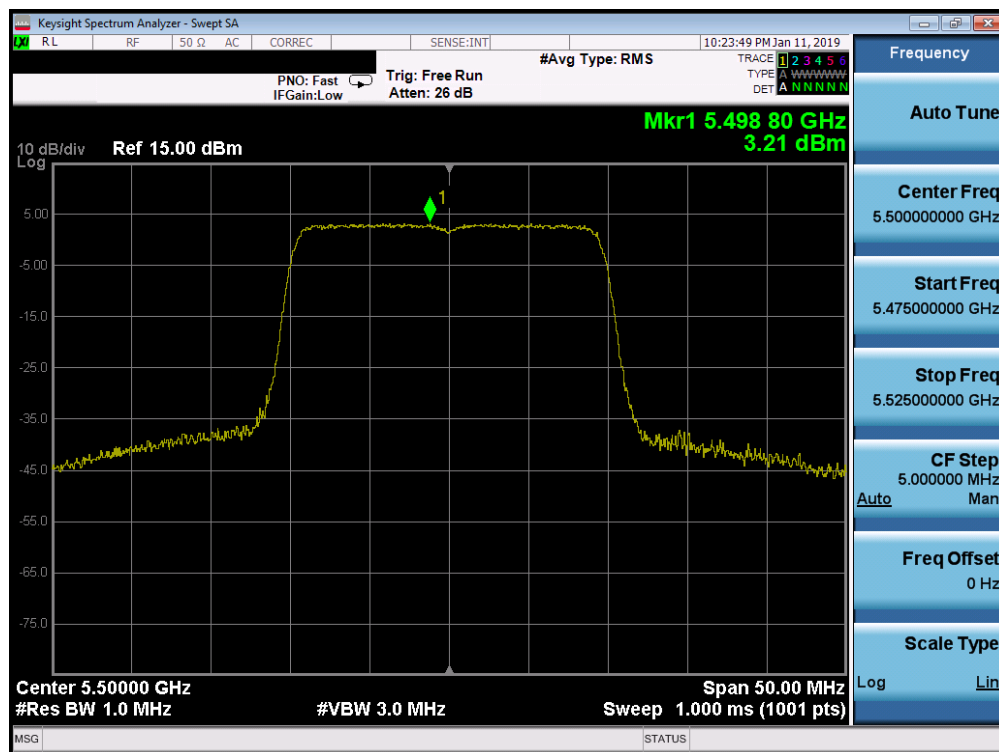


Plot 7-458. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 314 of 514		

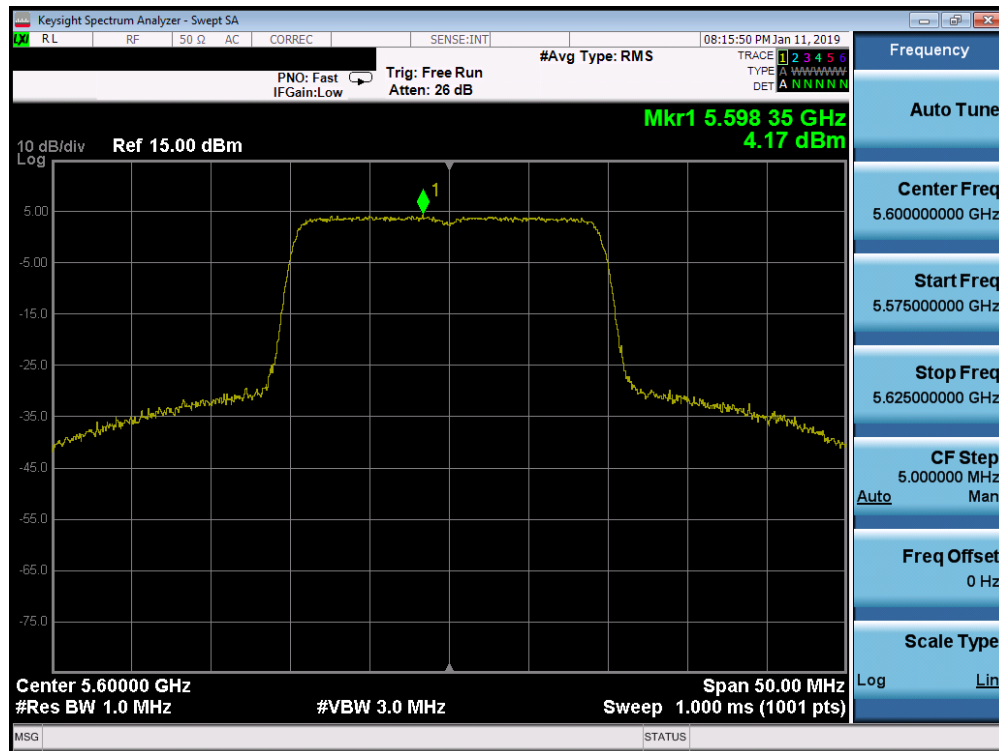


Plot 7-459. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 58)

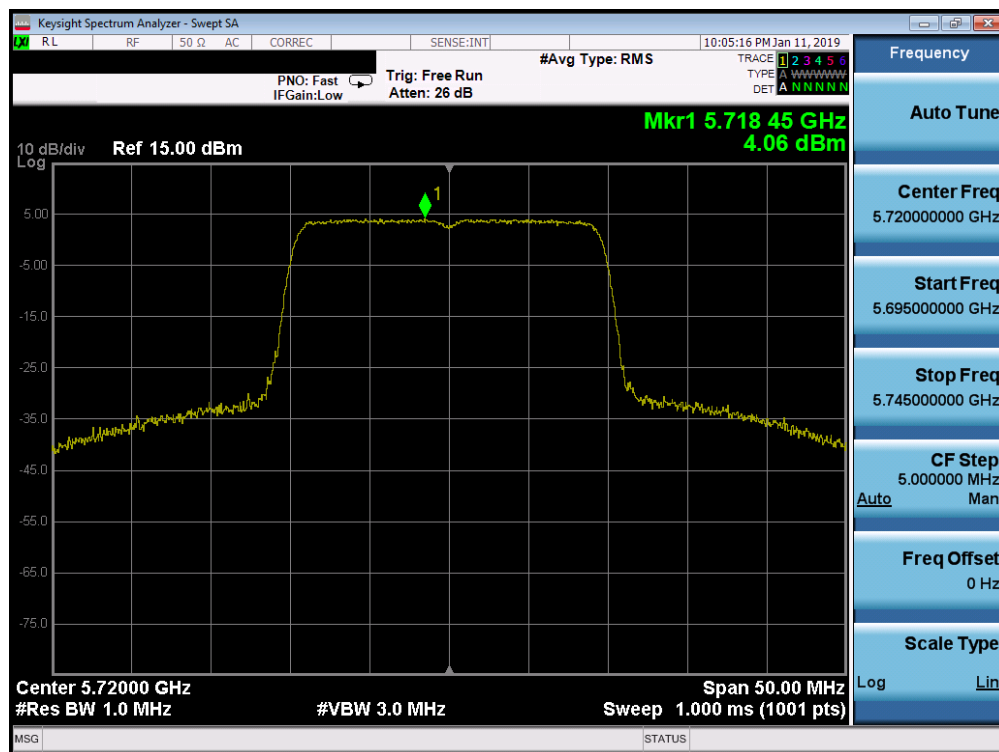


Plot 7-460. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 100)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 315 of 514

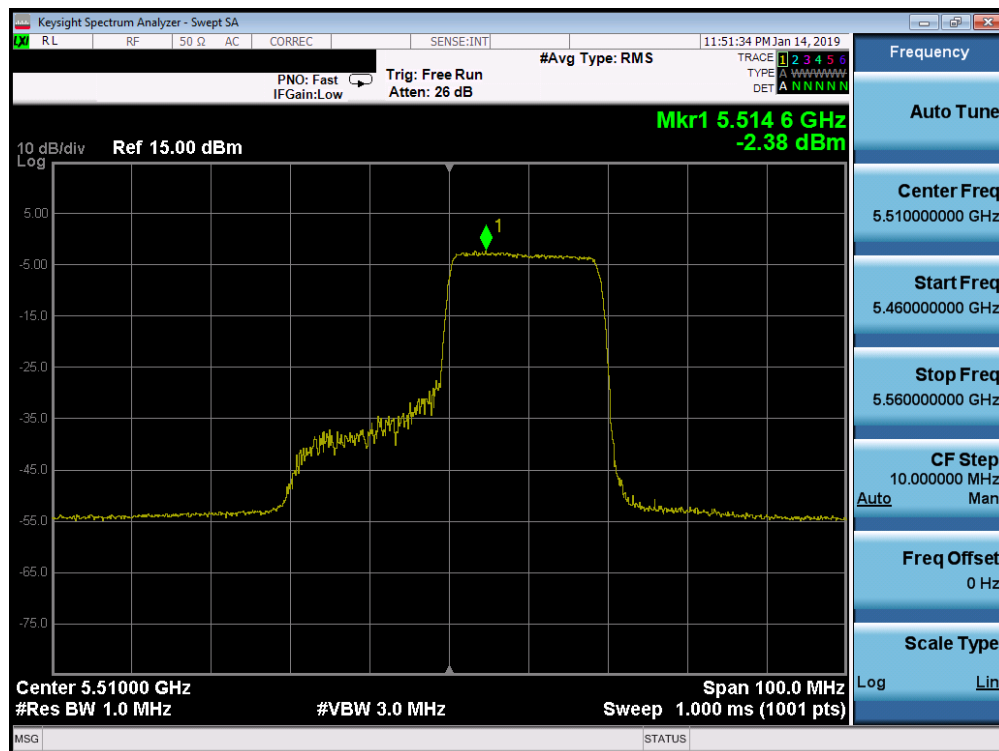


Plot 7-461. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 120)

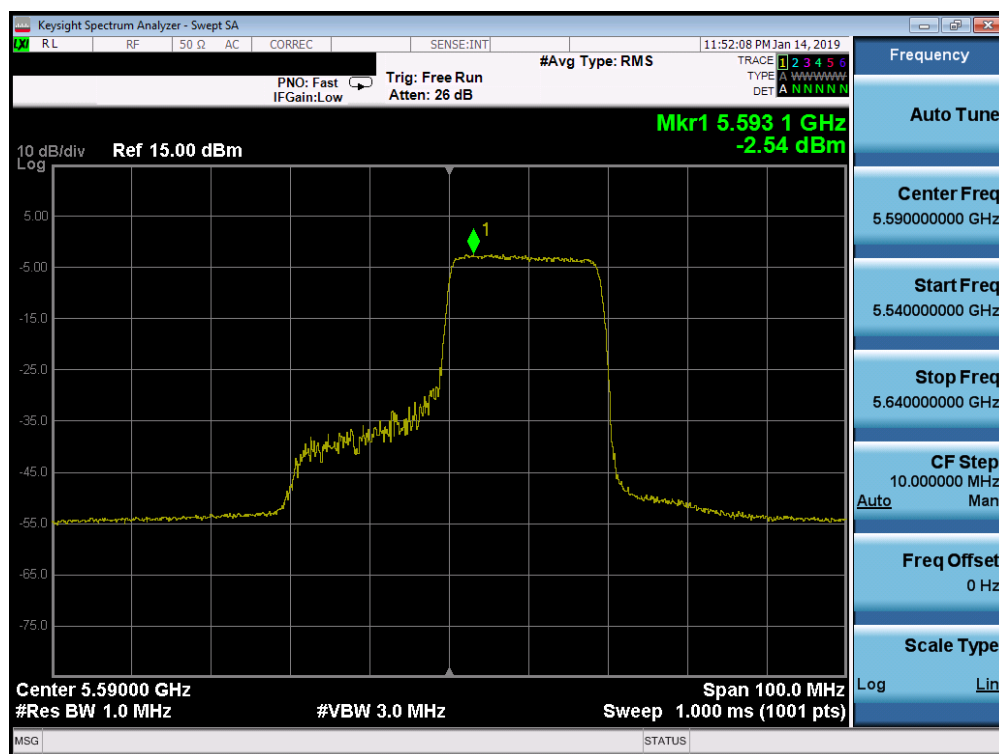


Plot 7-462. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 144)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 316 of 514

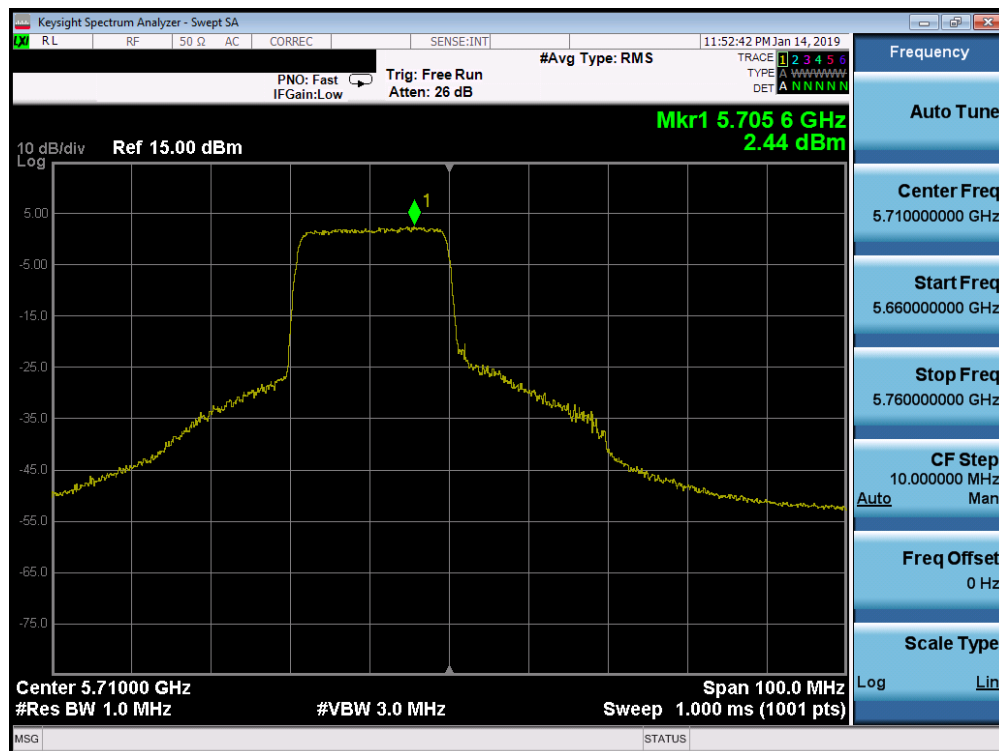


Plot 7-463. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 102)

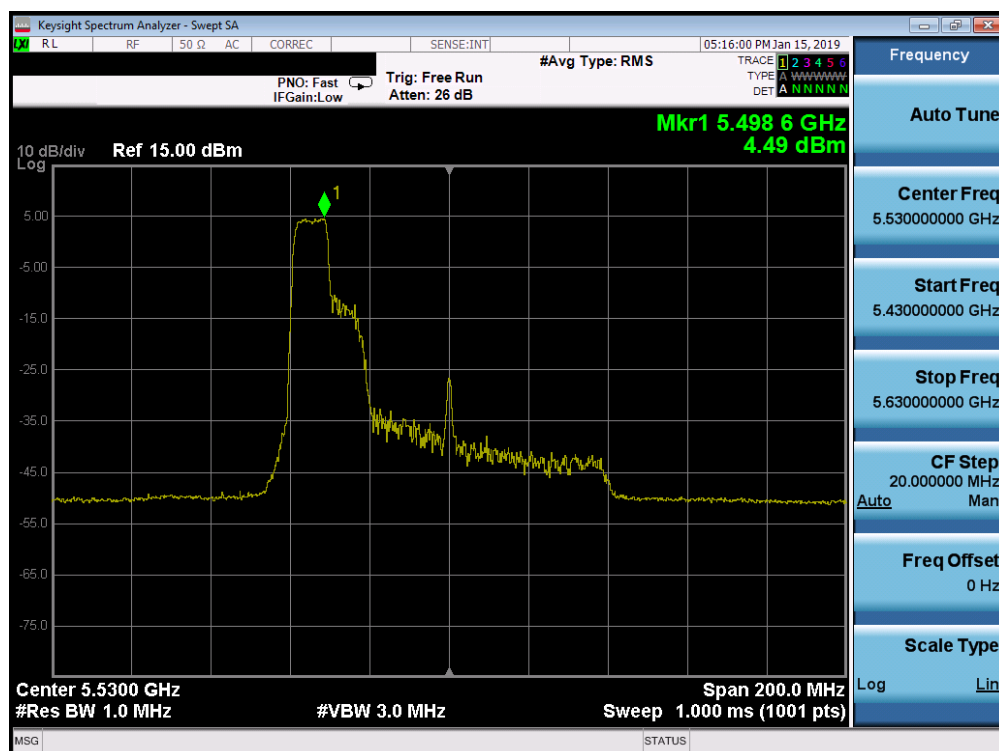


Plot 7-464. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 317 of 514		

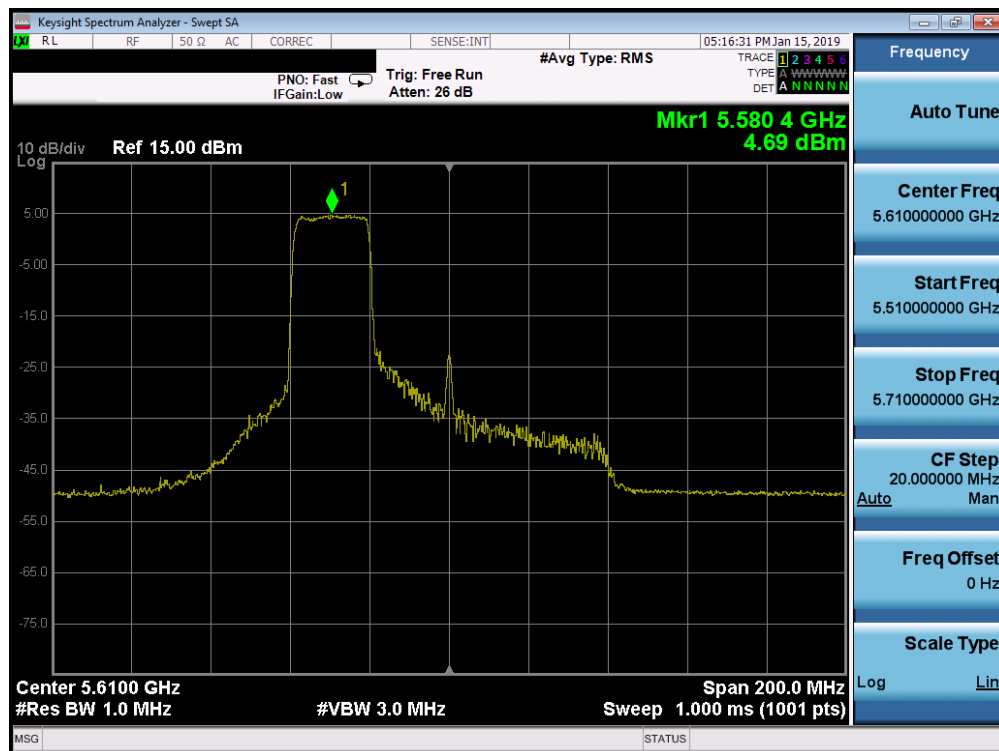


Plot 7-465. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 142)

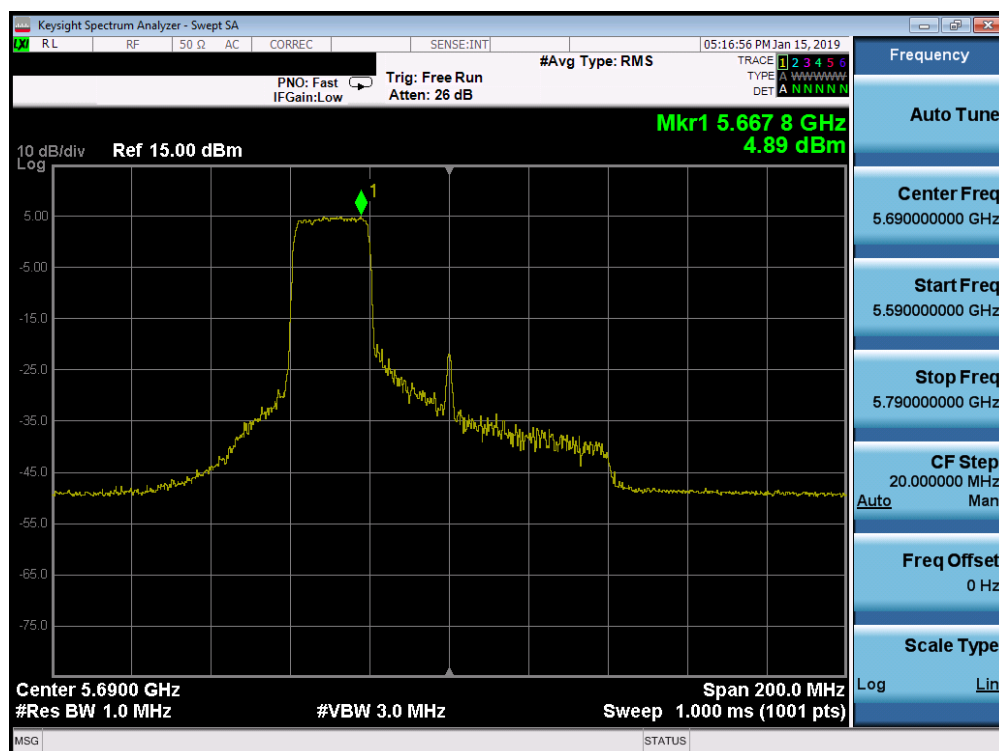


Plot 7-466. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 318 of 514

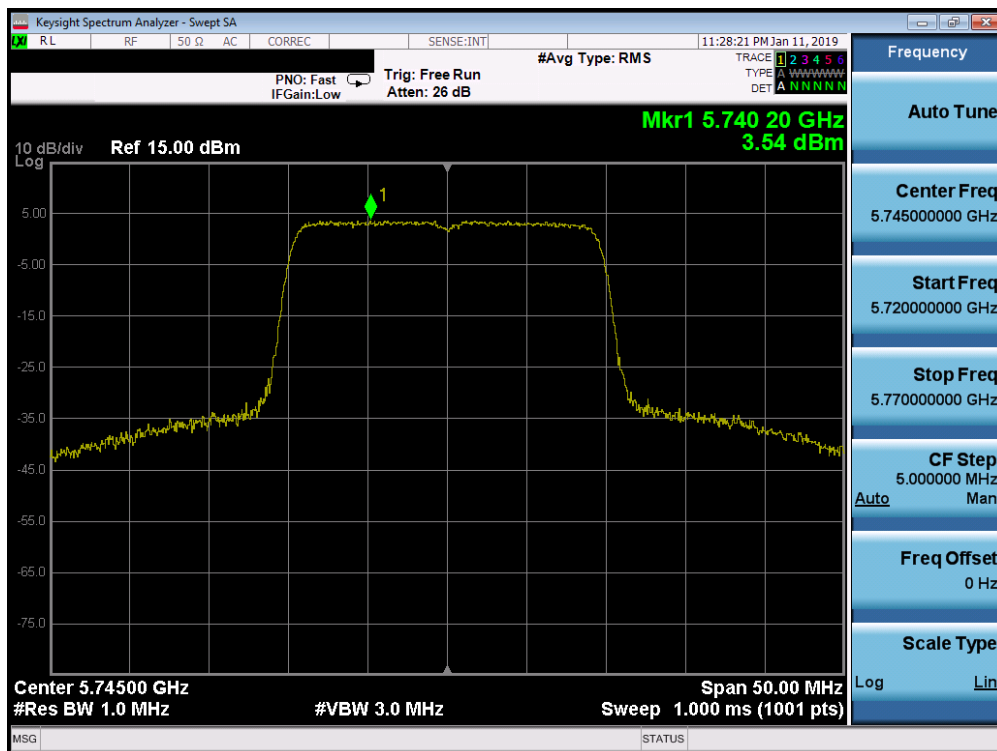


Plot 7-467. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 122)

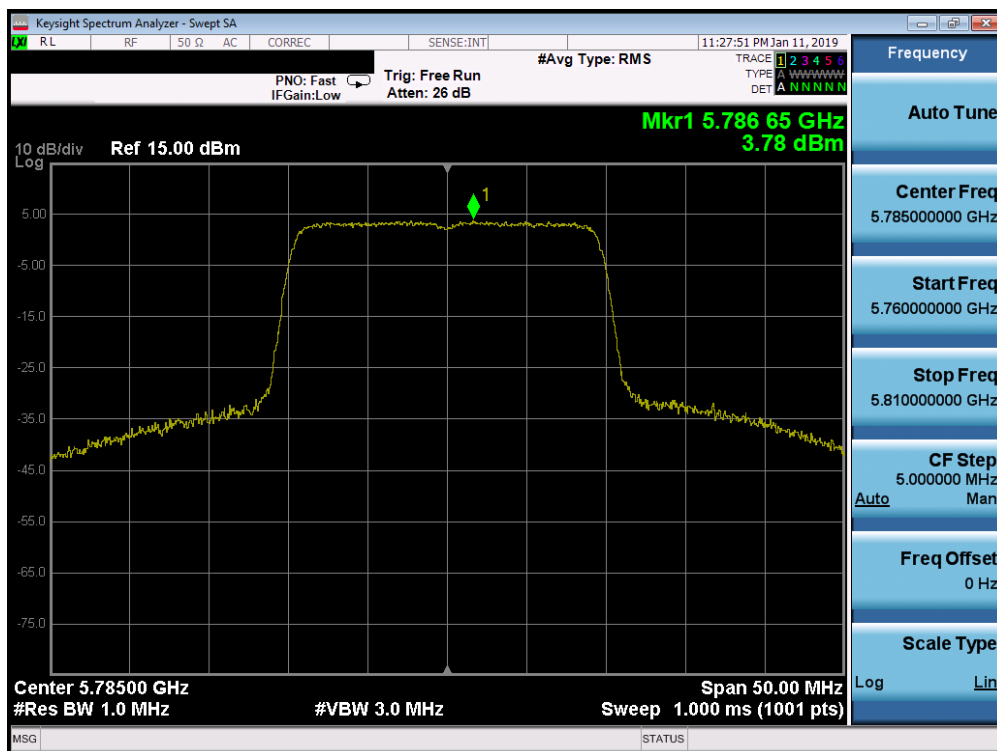


Plot 7-468. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 319 of 514

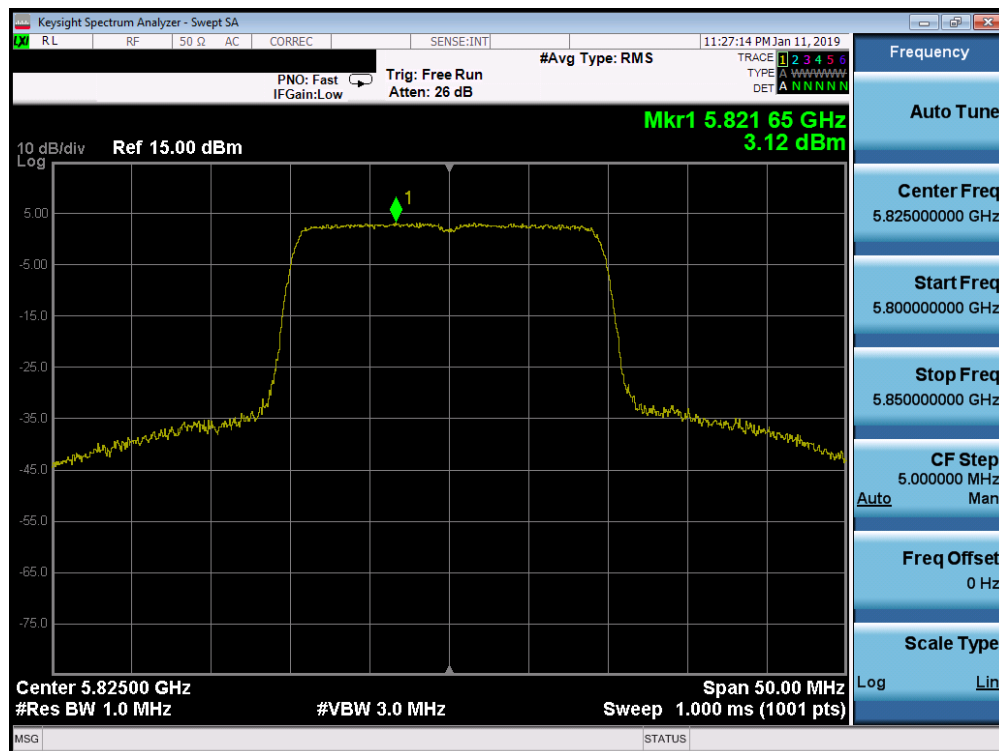


Plot 7-469. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 149)

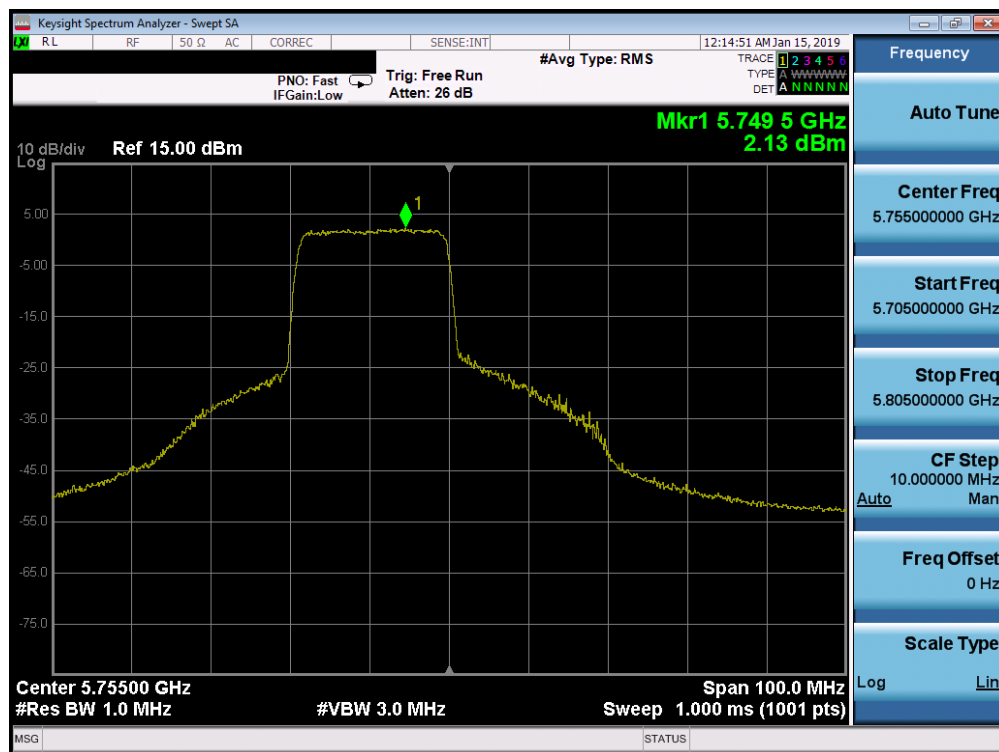


Plot 7-470. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 320 of 514	

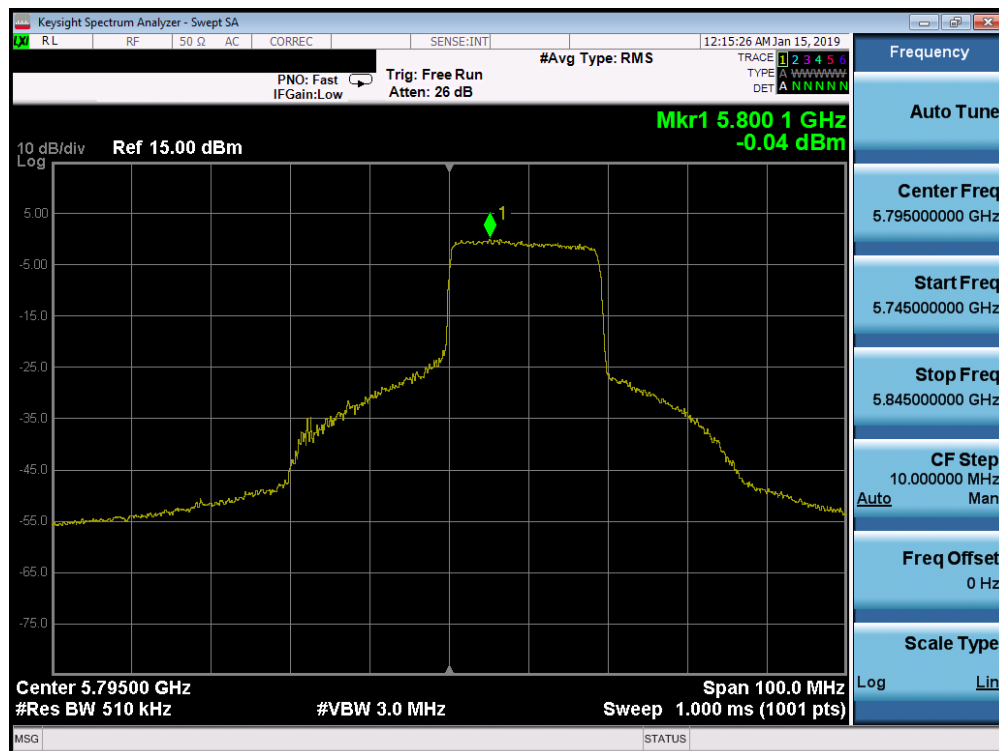


Plot 7-471. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 165)

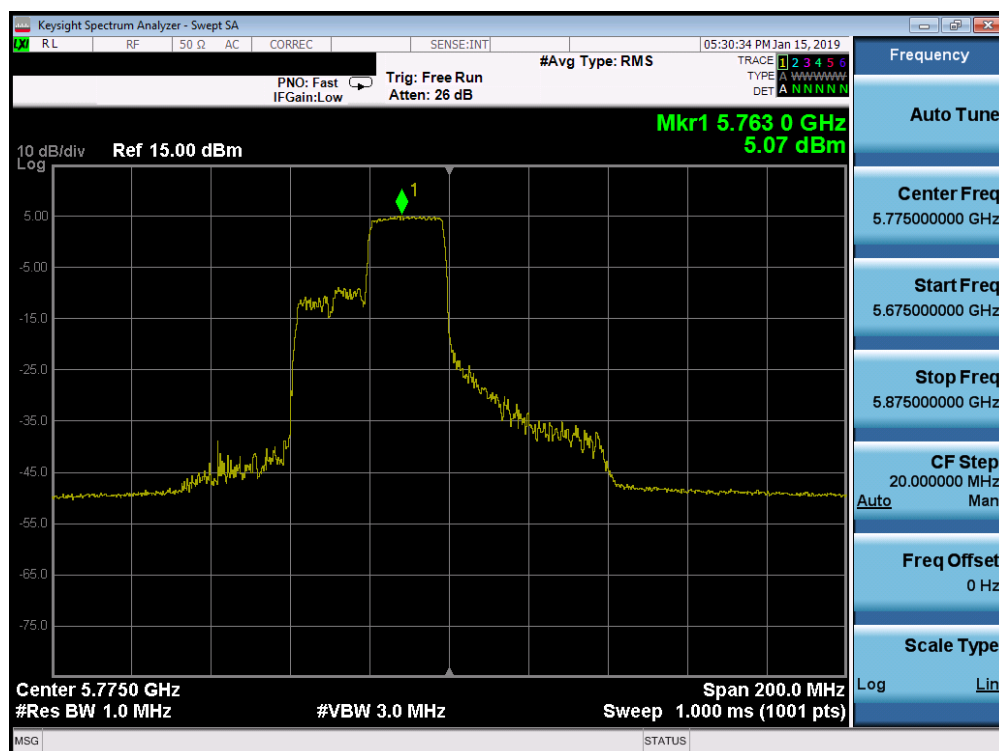


Plot 7-472. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSC03L	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
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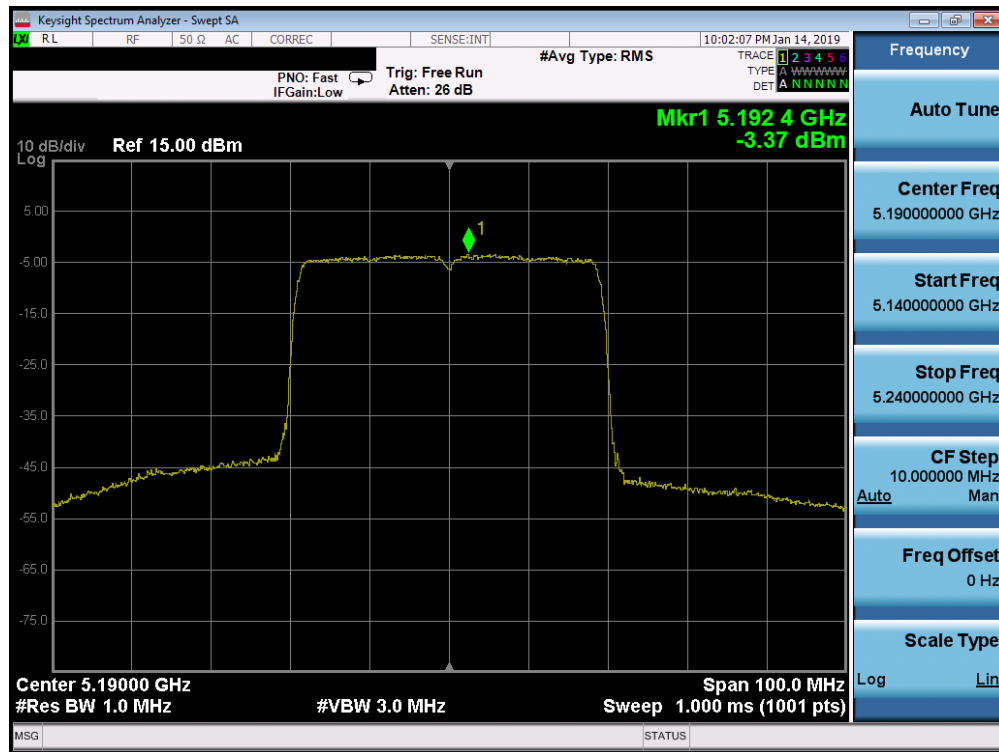
Plot 7-473. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 159)



Plot 7-474. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 155)

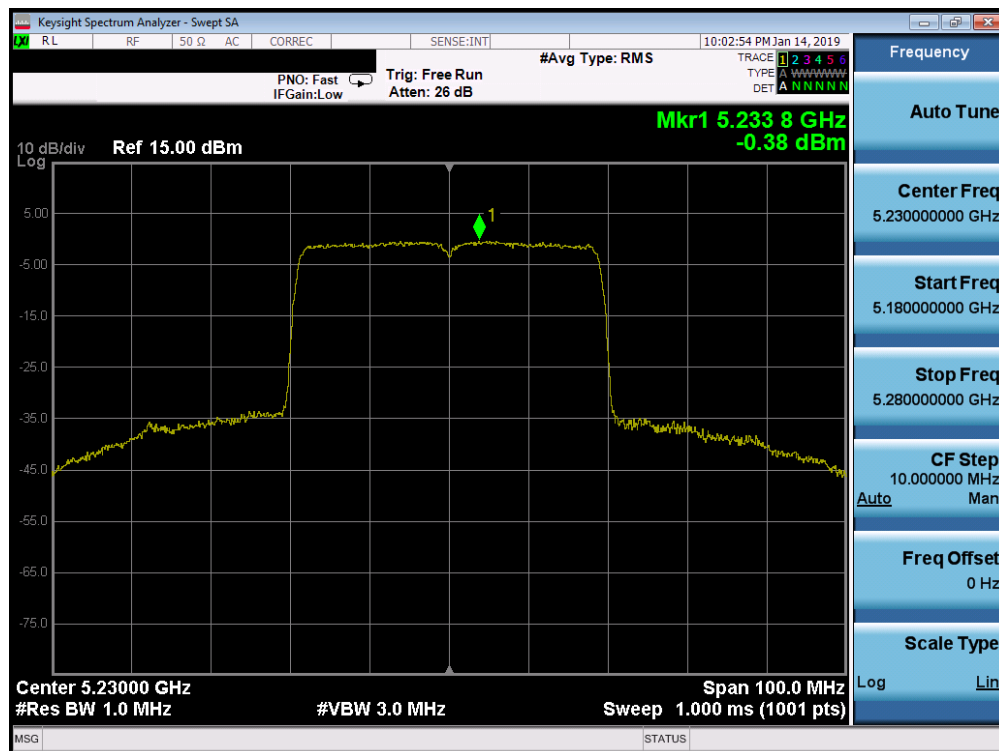
FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 322 of 514

MIMO Antenna-1 Power Spectral Density Measurements (484 Tones)

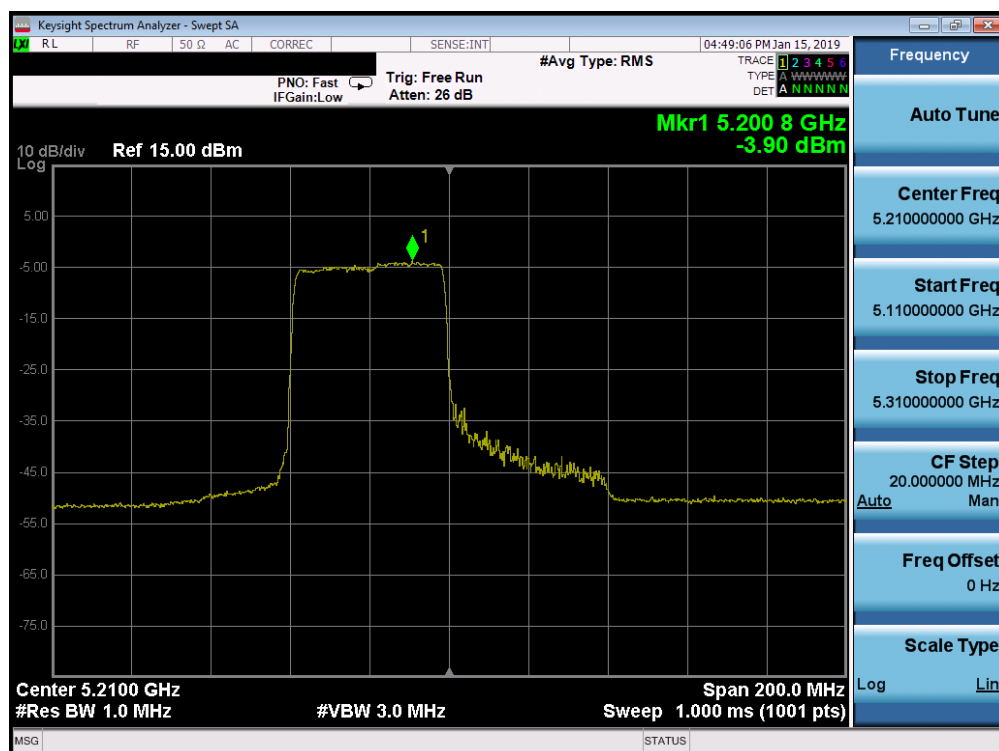


Plot 7-475. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 323 of 514

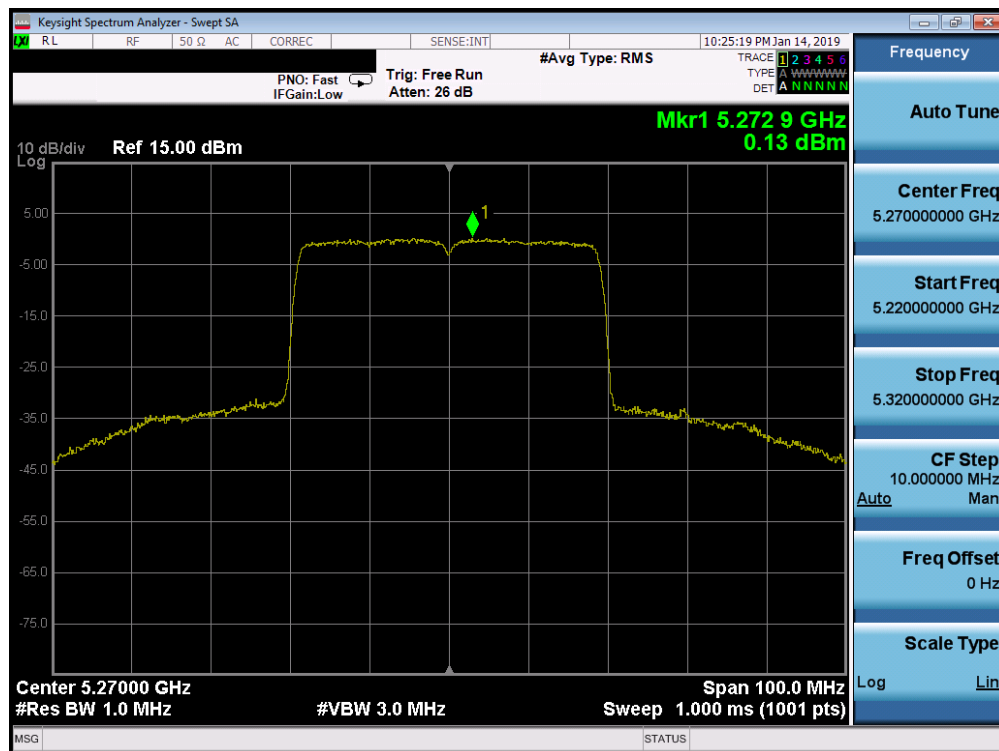


Plot 7-476. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 46)

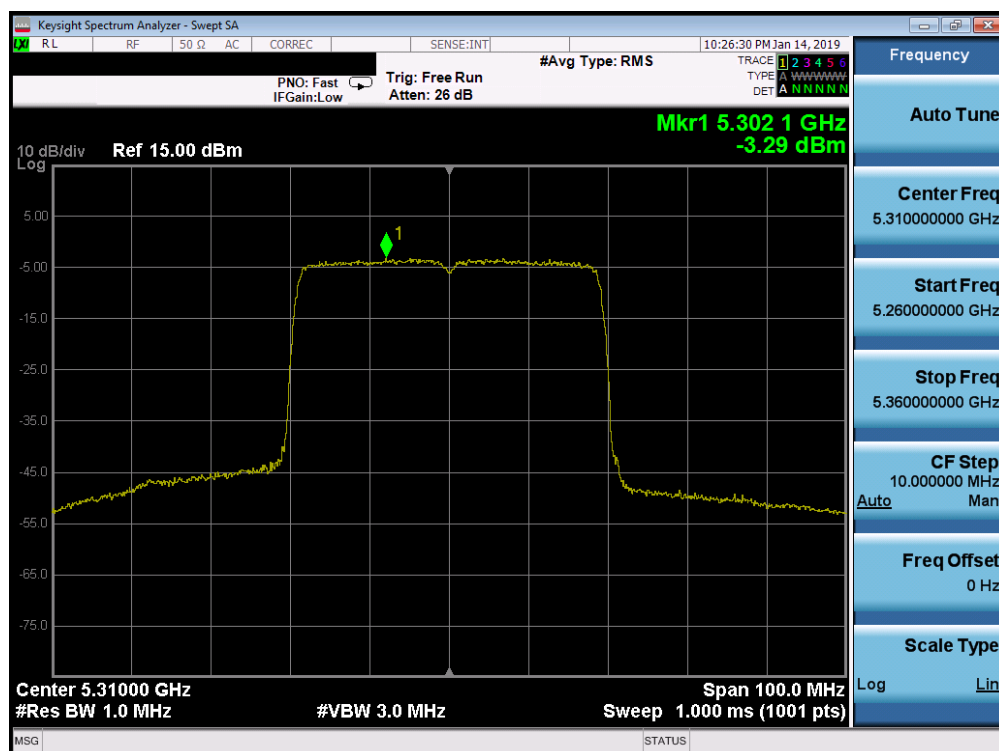


Plot 7-477. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 324 of 514		

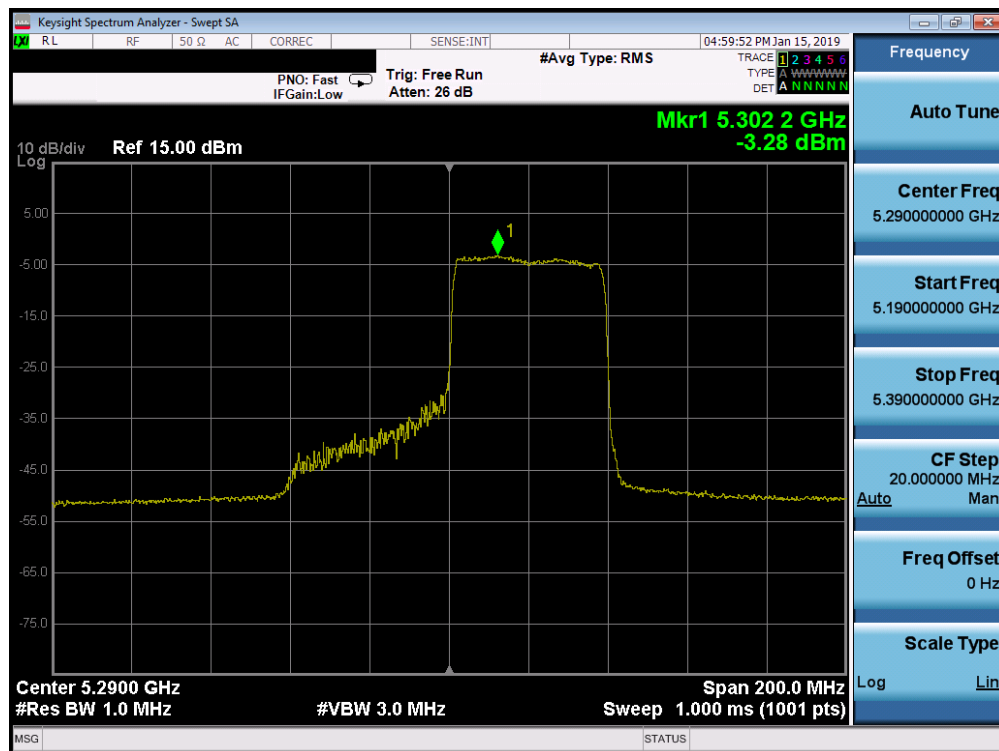


Plot 7-478. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 54)

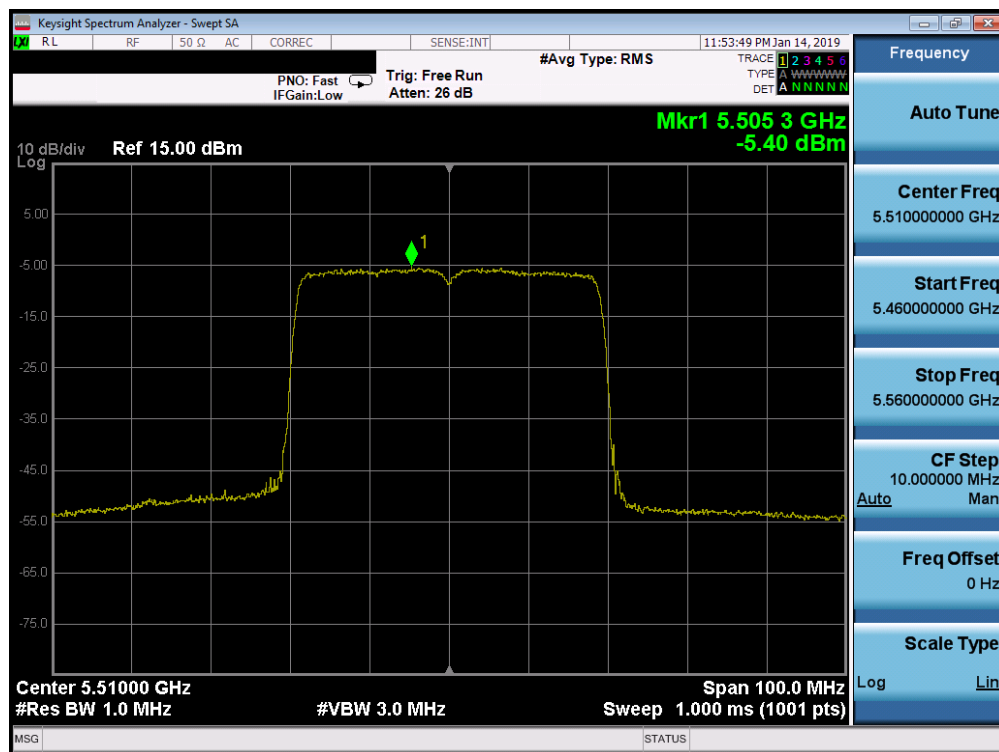


Plot 7-479. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 325 of 514

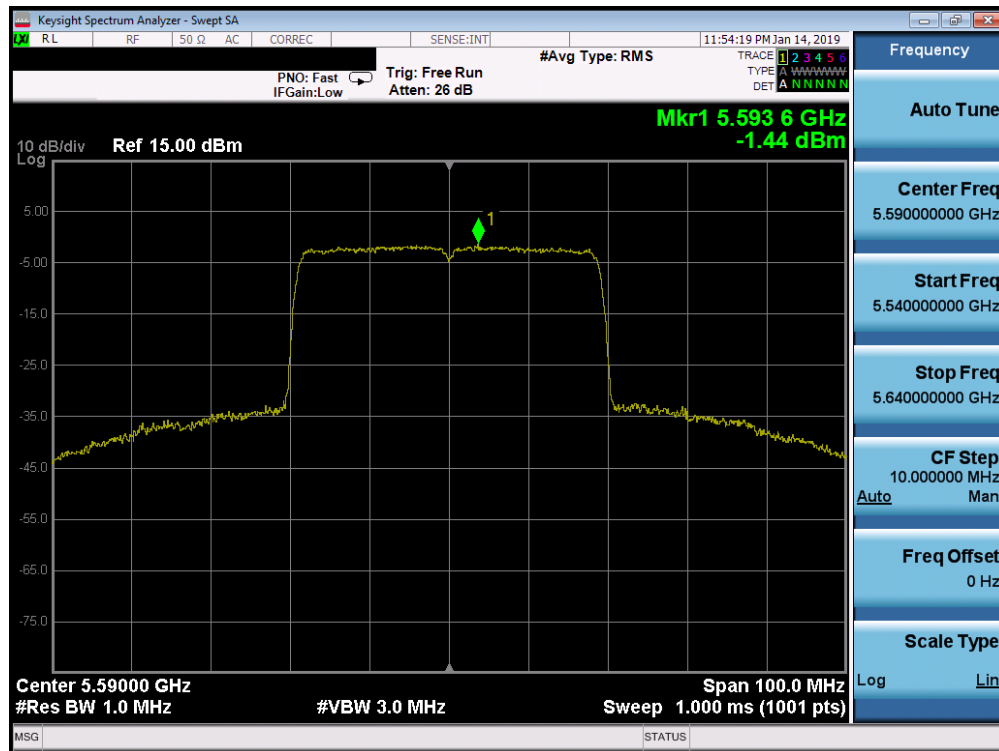


Plot 7-480. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 58)

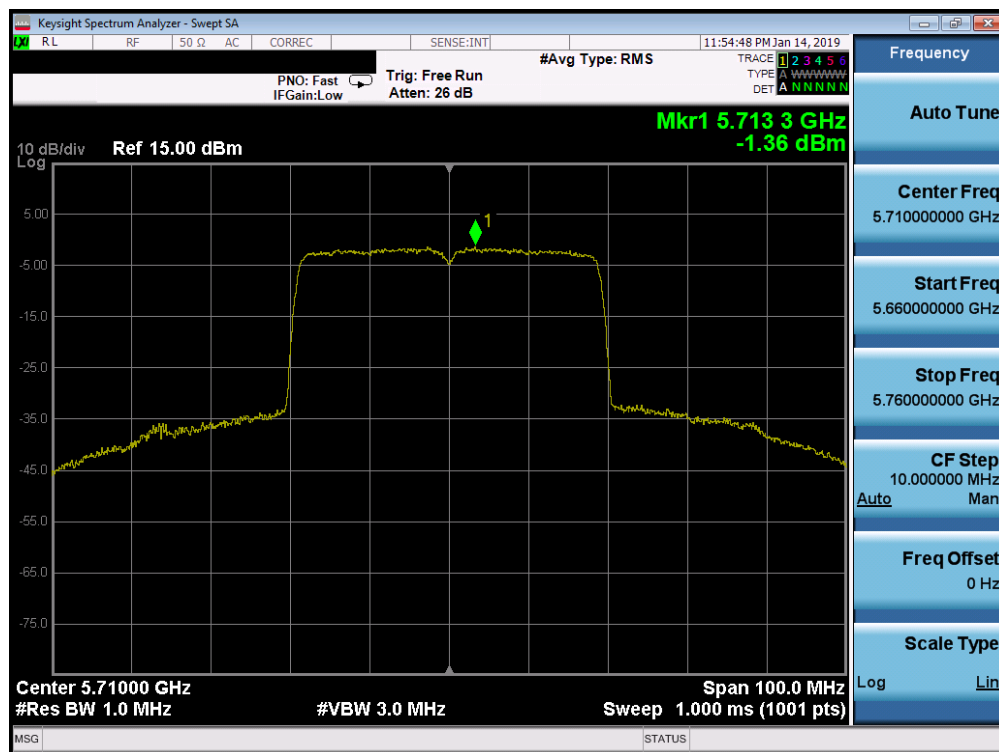


Plot 7-481. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 102)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 326 of 514		

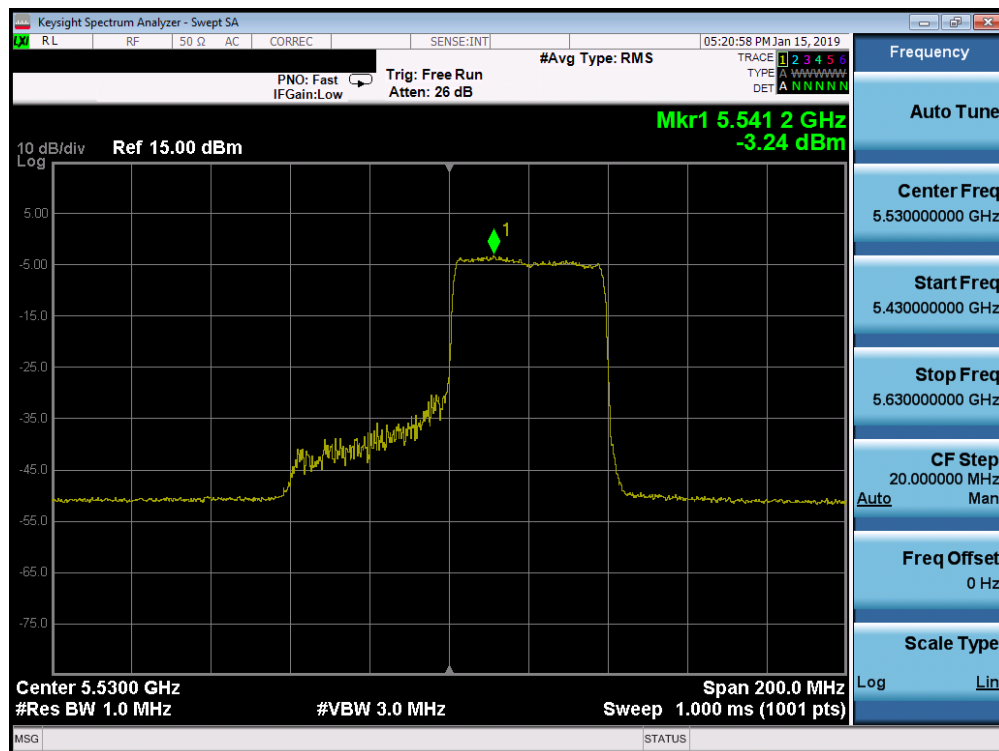


Plot 7-482. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 118)

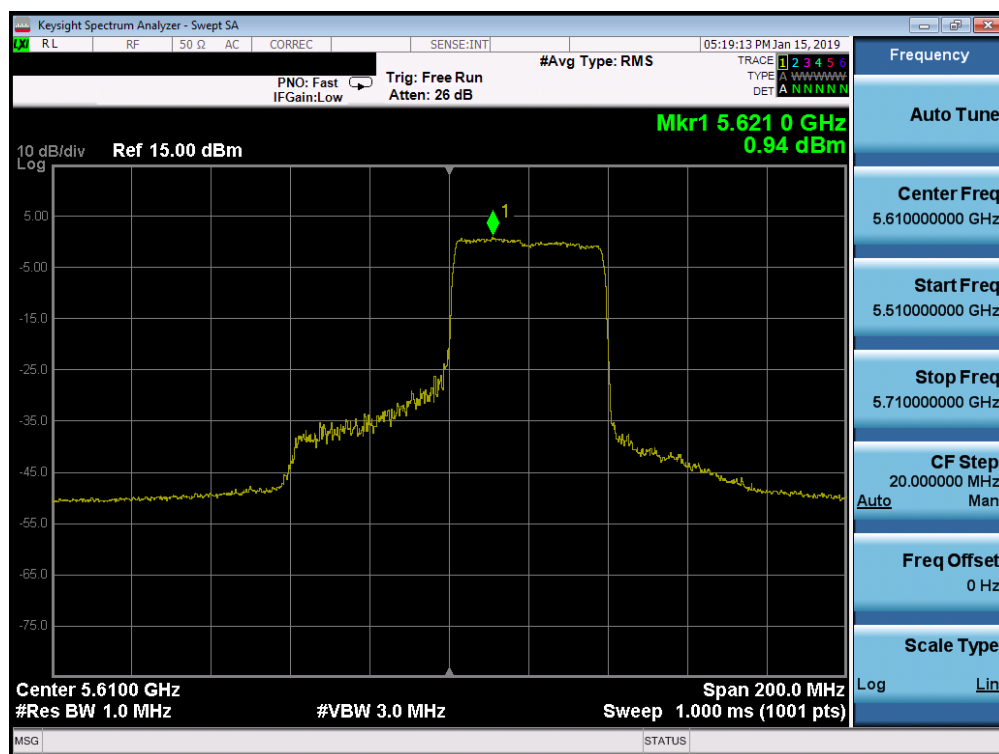


Plot 7-483. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 142)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 327 of 514		

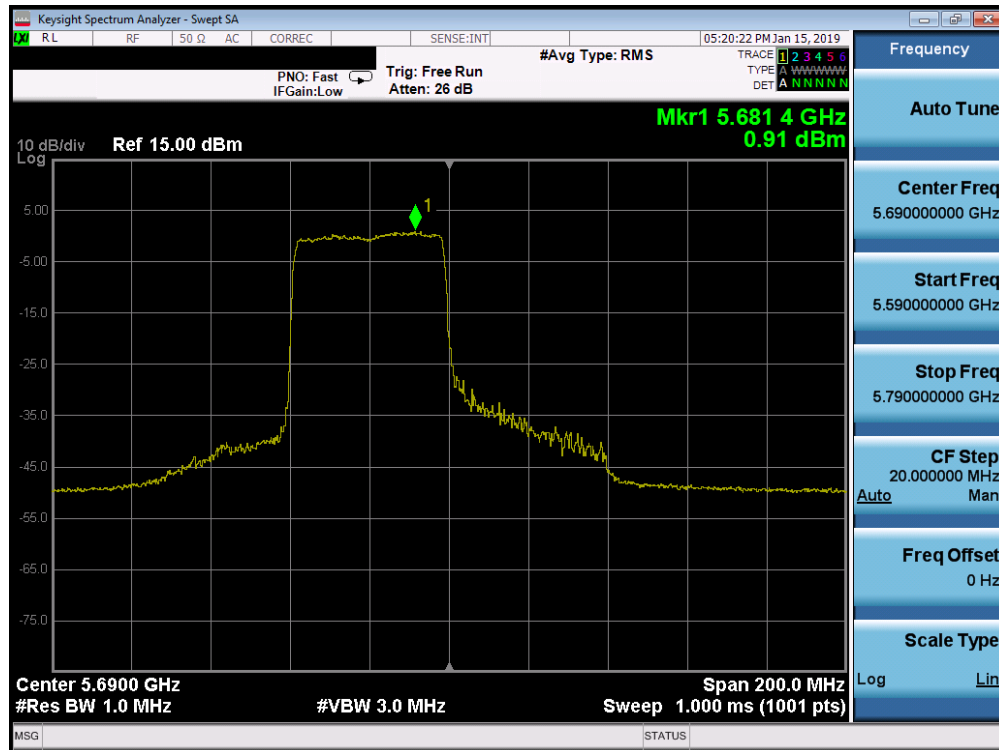


Plot 7-484. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 106)

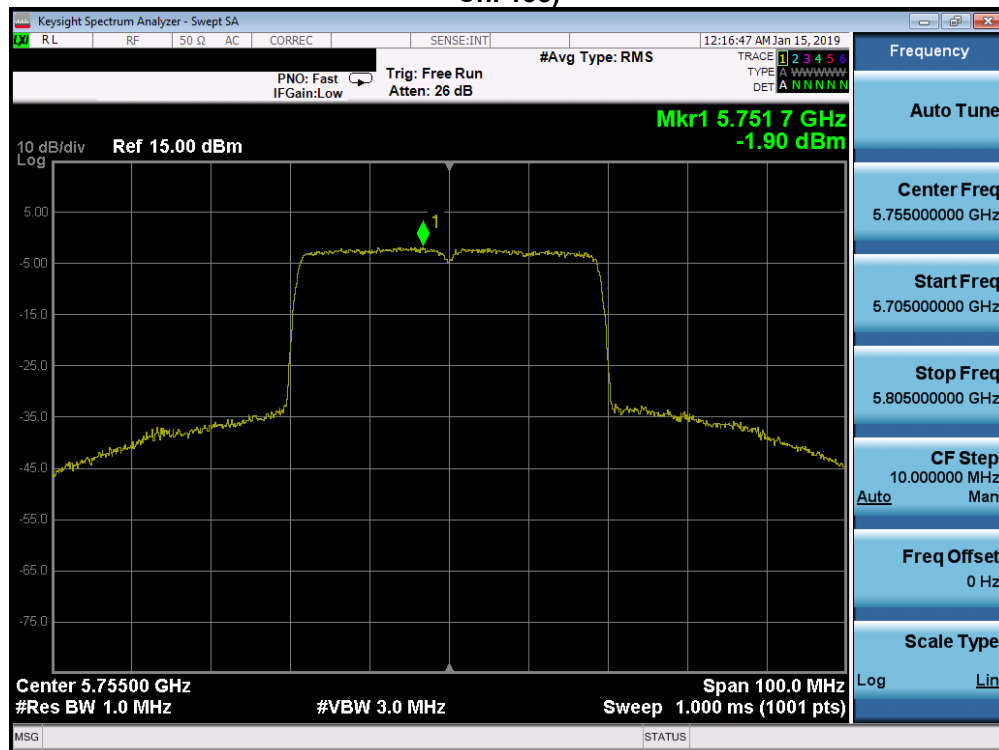


Plot 7-485. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 122)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 328 of 514		

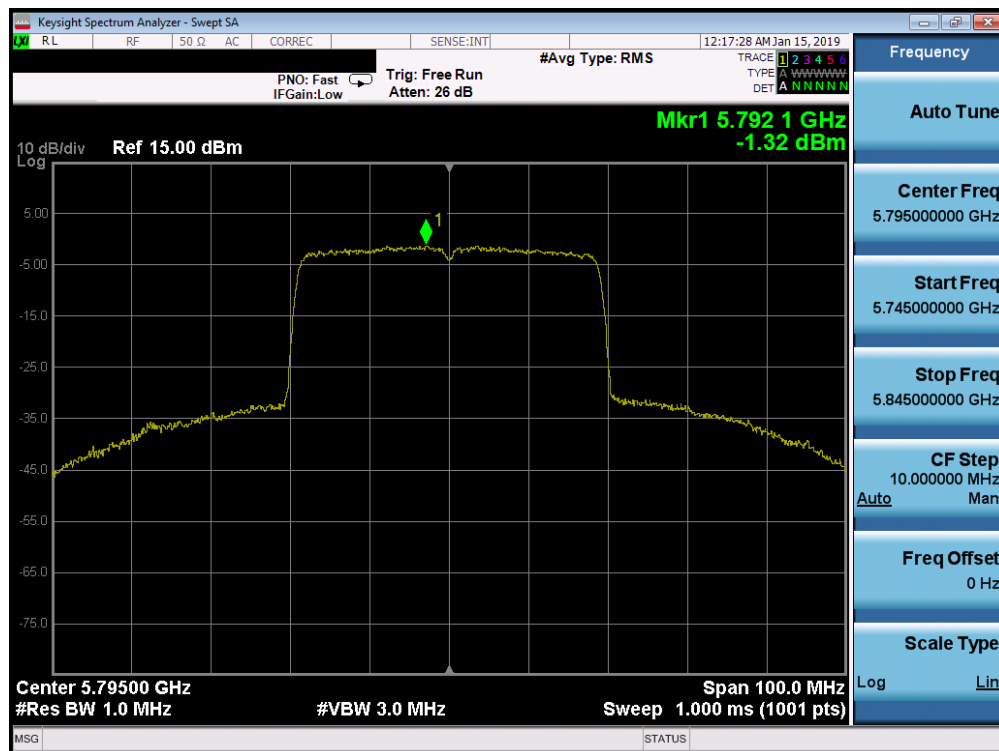


Plot 7-486. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 138)



Plot 7-487. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset				Page 329 of 514



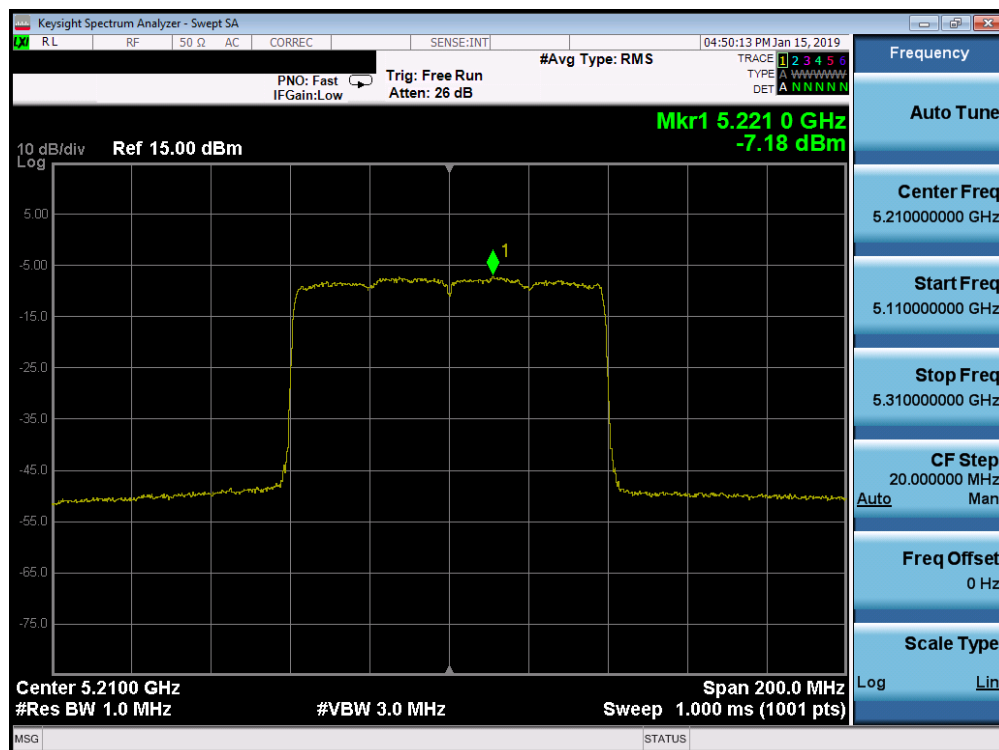
Plot 7-488. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 159)



Plot 7-489. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 155)

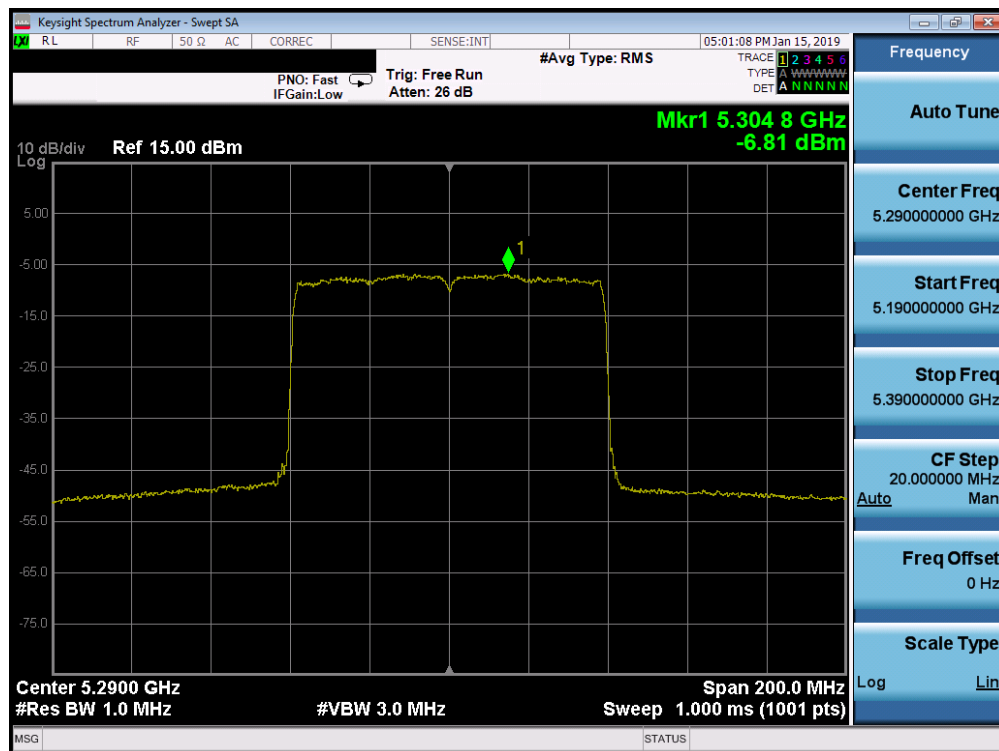
FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 330 of 514		

MIMO Antenna-1 Power Spectral Density Measurements (996 Tones)

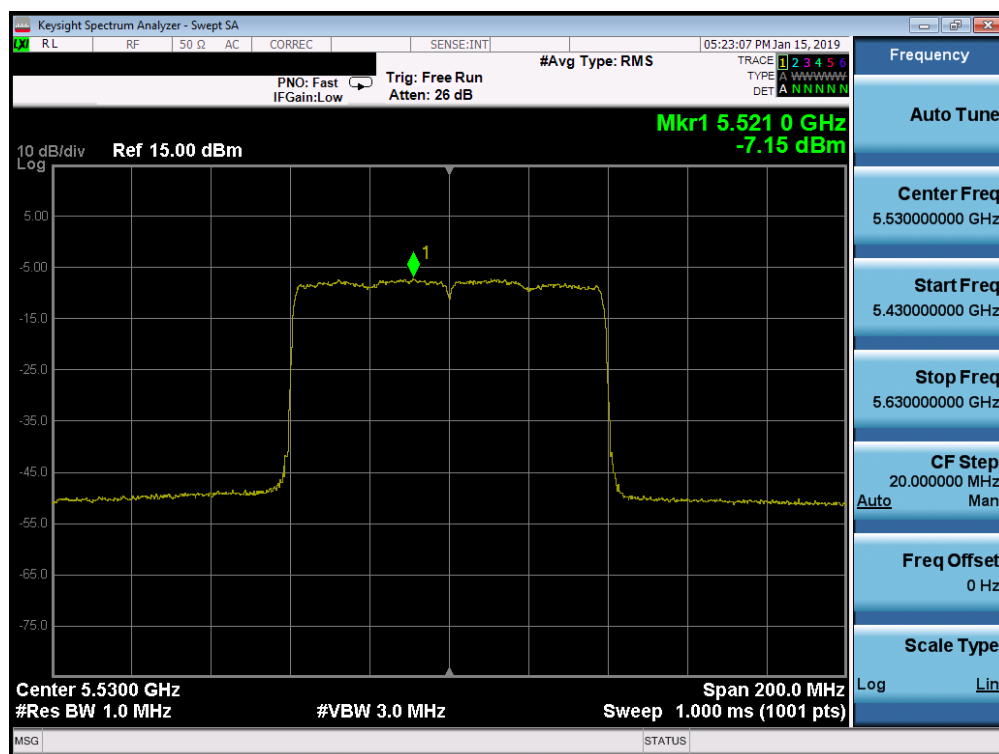


Plot 7-490. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 331 of 514

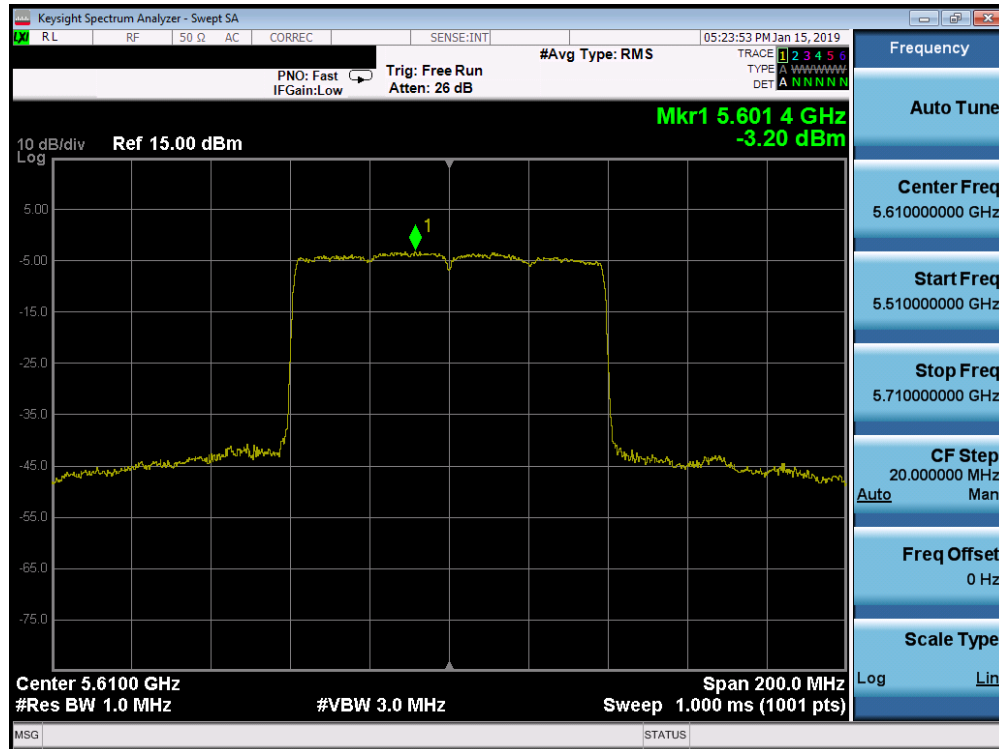


Plot 7-491. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2A) – Ch. 58)

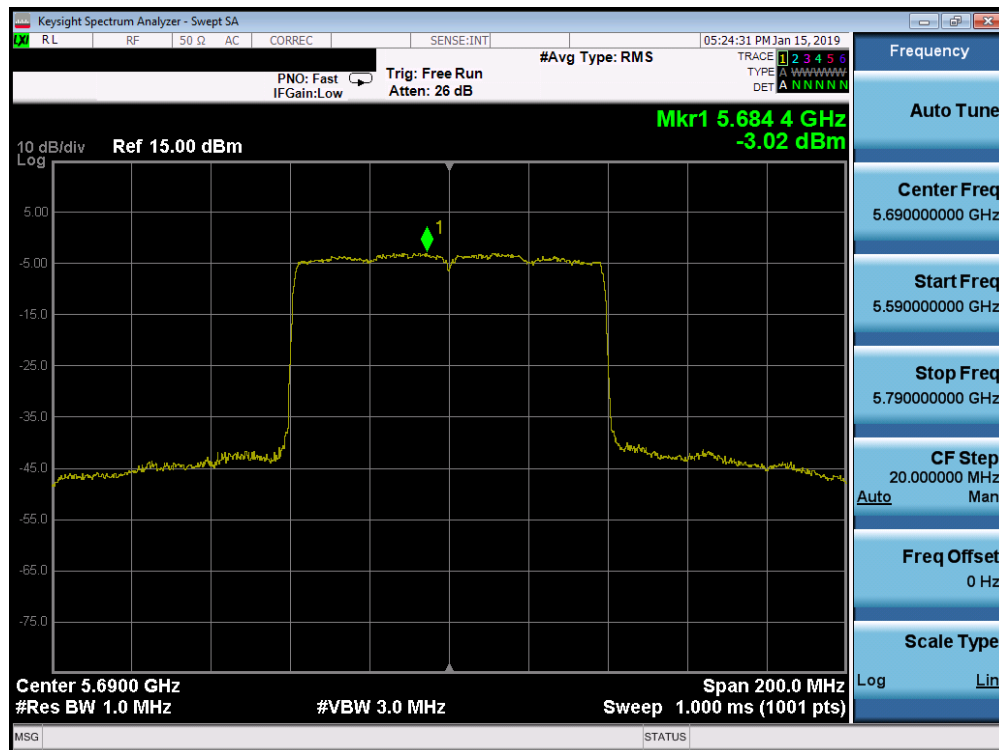


Plot 7-492. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset	Page 332 of 514		



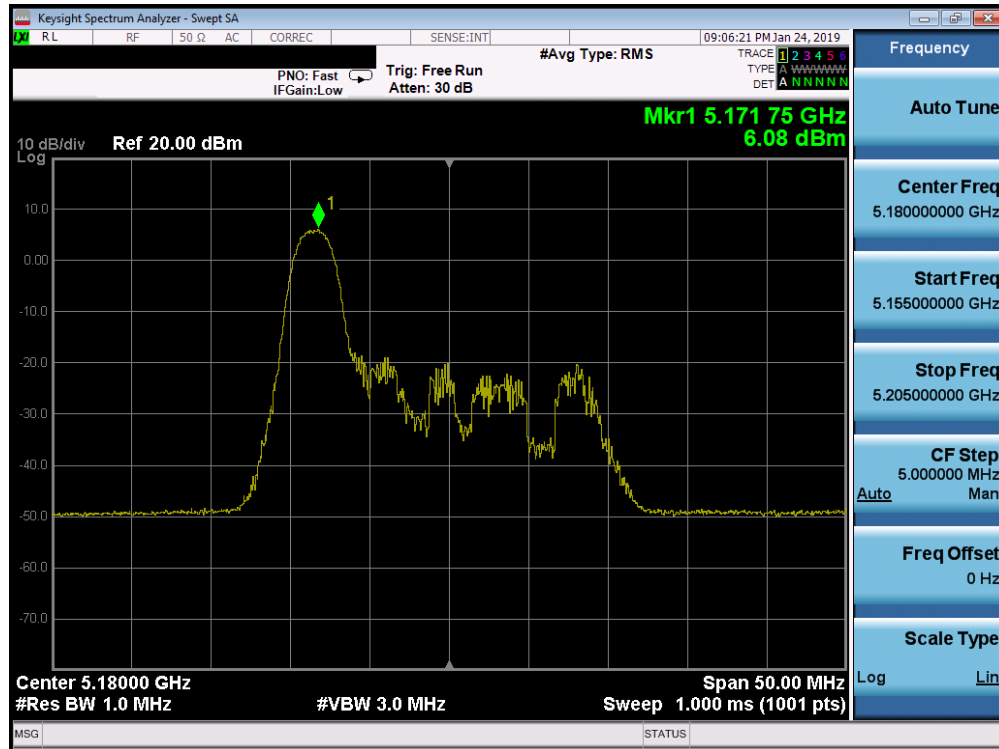
Plot 7-493. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 122)



Plot 7-494. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 138)

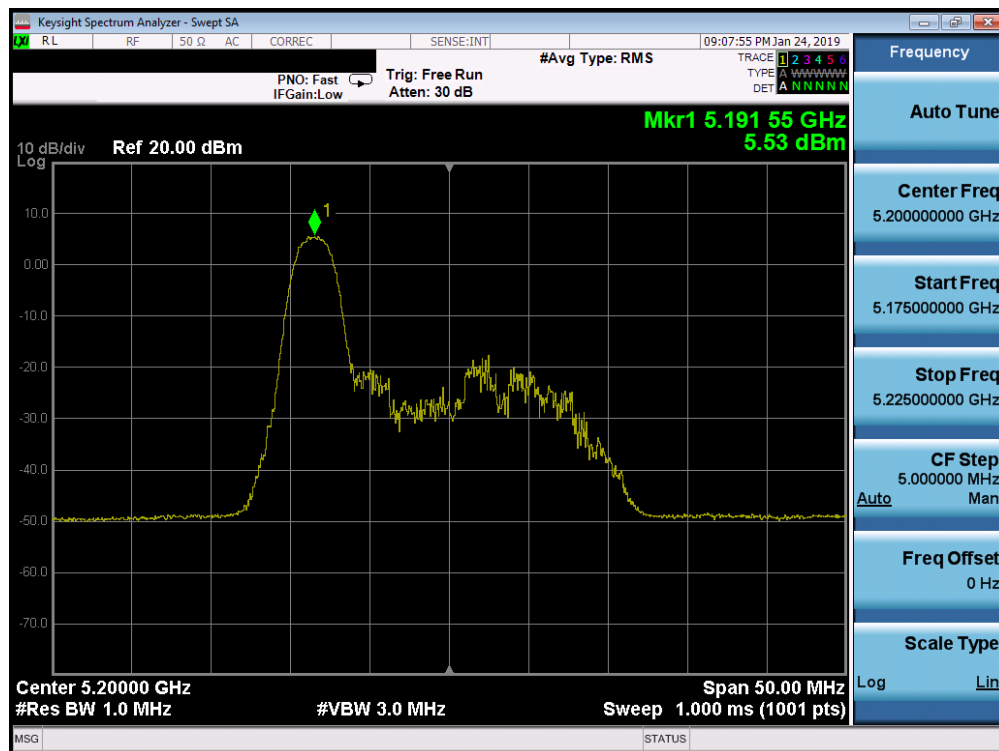
FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 333 of 514

MIMO Antenna-2 Power Spectral Density Measurements (26 Tones)

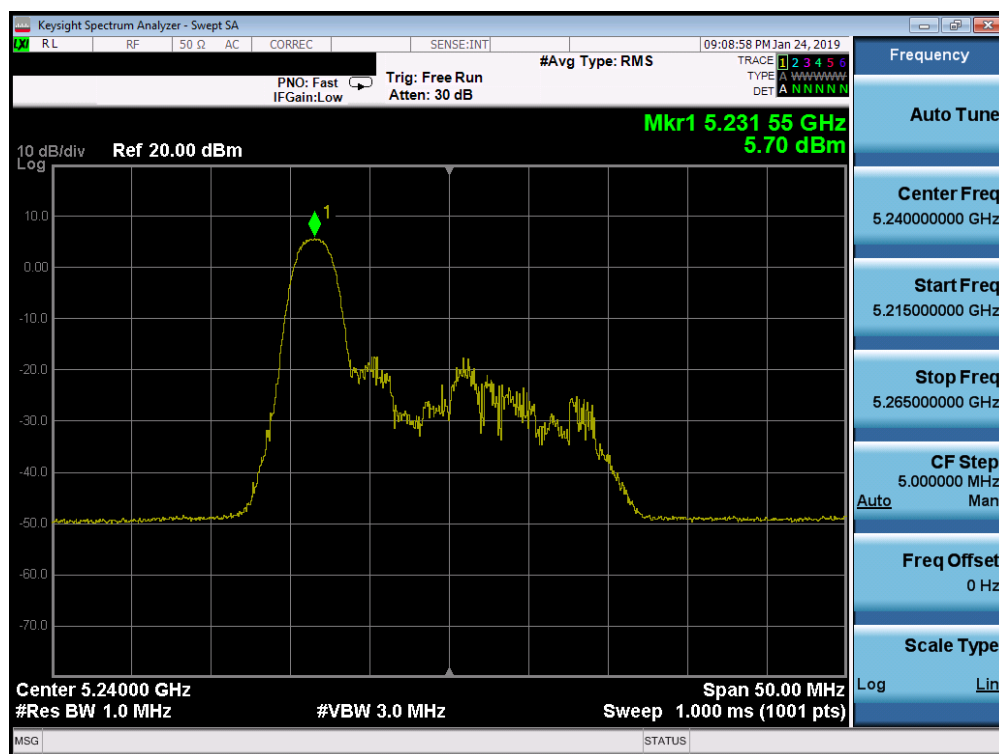


Plot 7-496. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 36)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 335 of 514

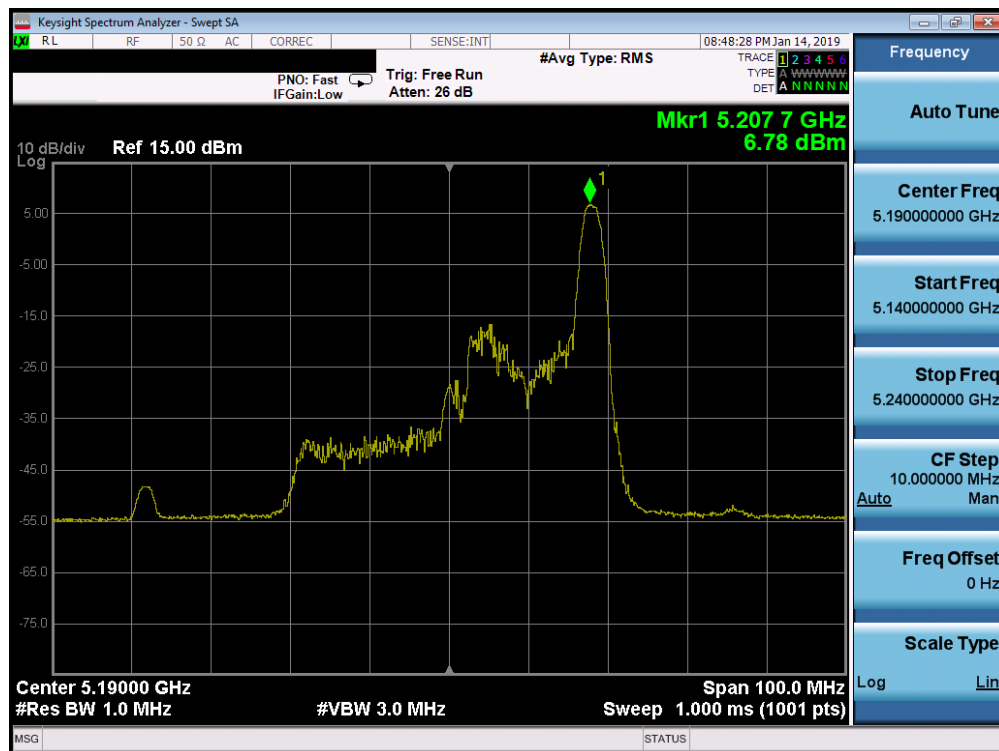


Plot 7-497. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 40)

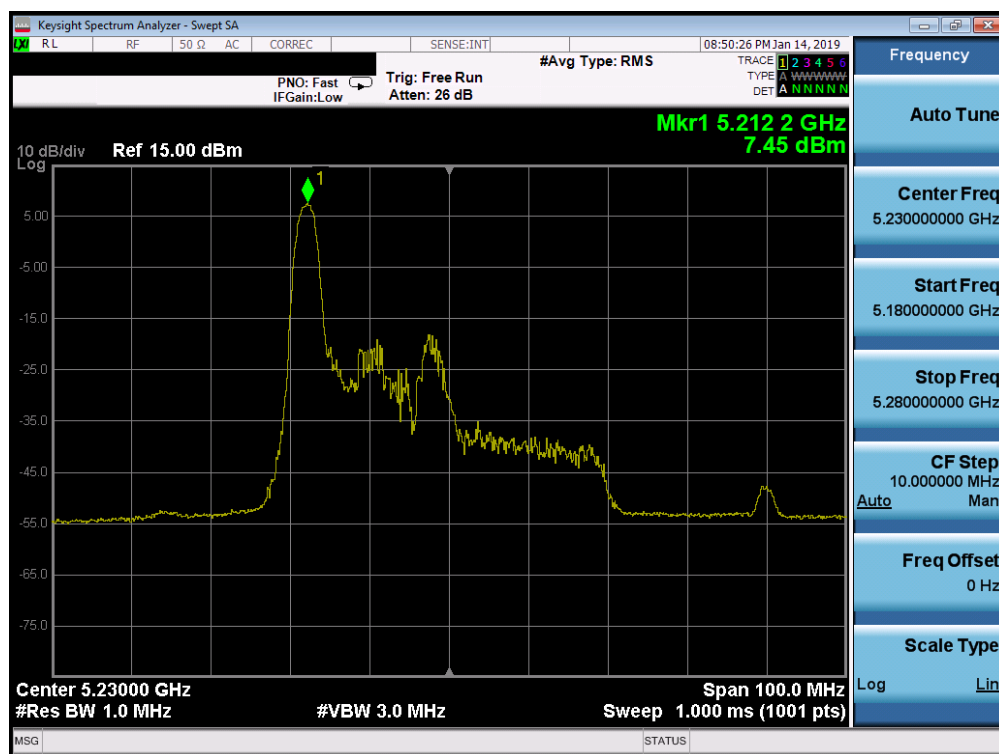


Plot 7-498. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 48)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 336 of 514

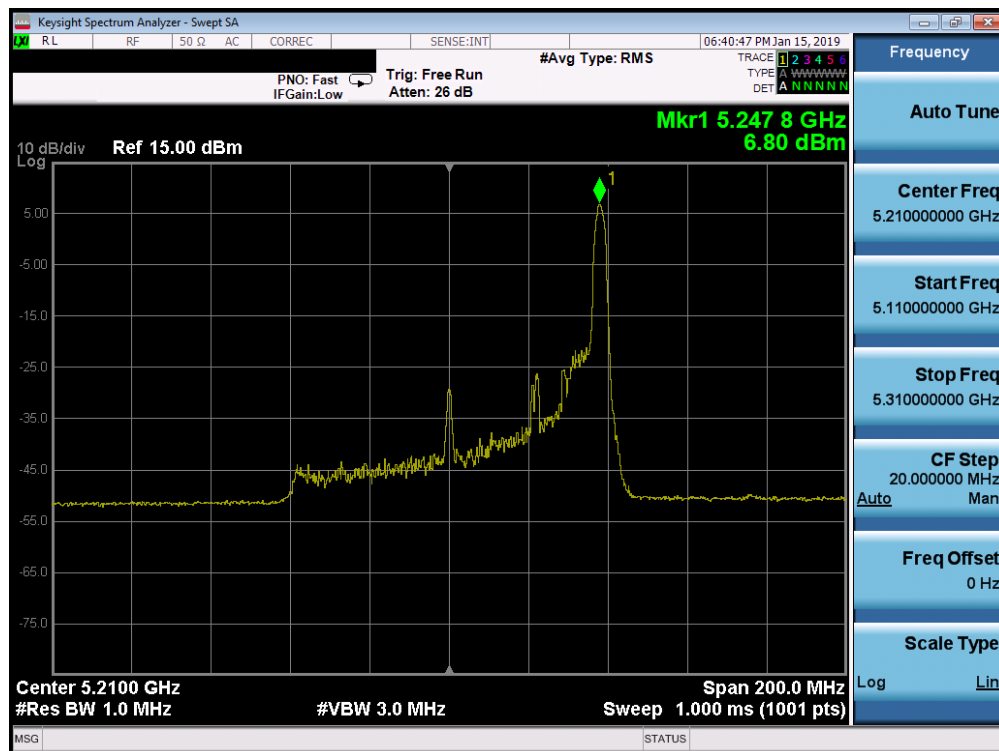


Plot 7-499. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 38)

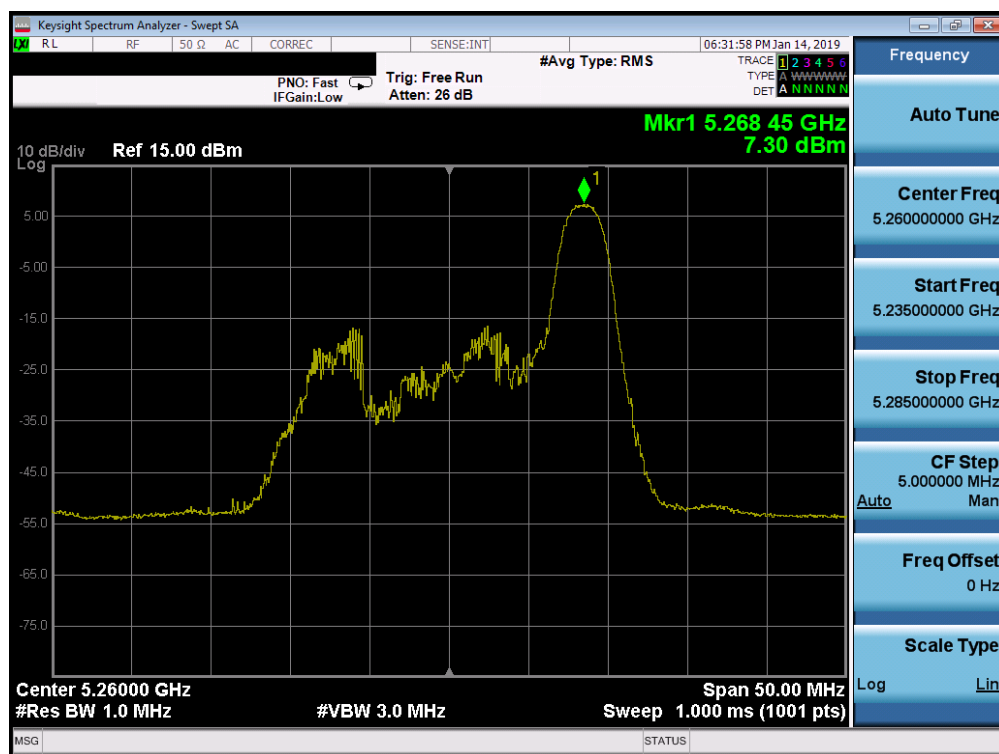


Plot 7-500. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 46)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 337 of 514

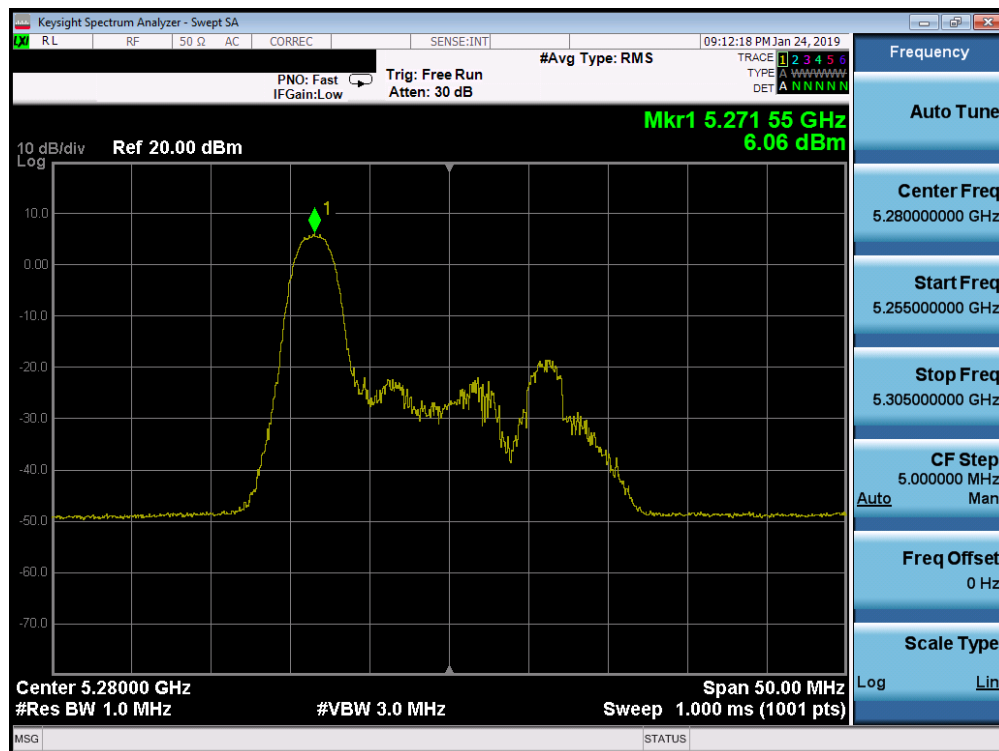


Plot 7-501. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 42)

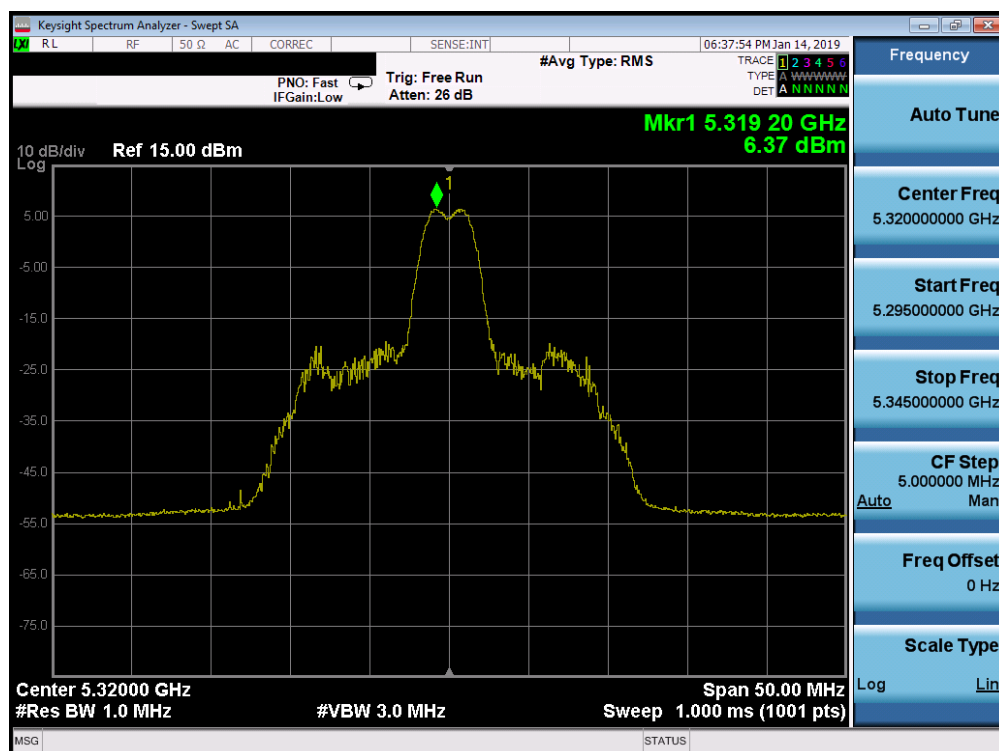


Plot 7-502. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 52)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 338 of 514

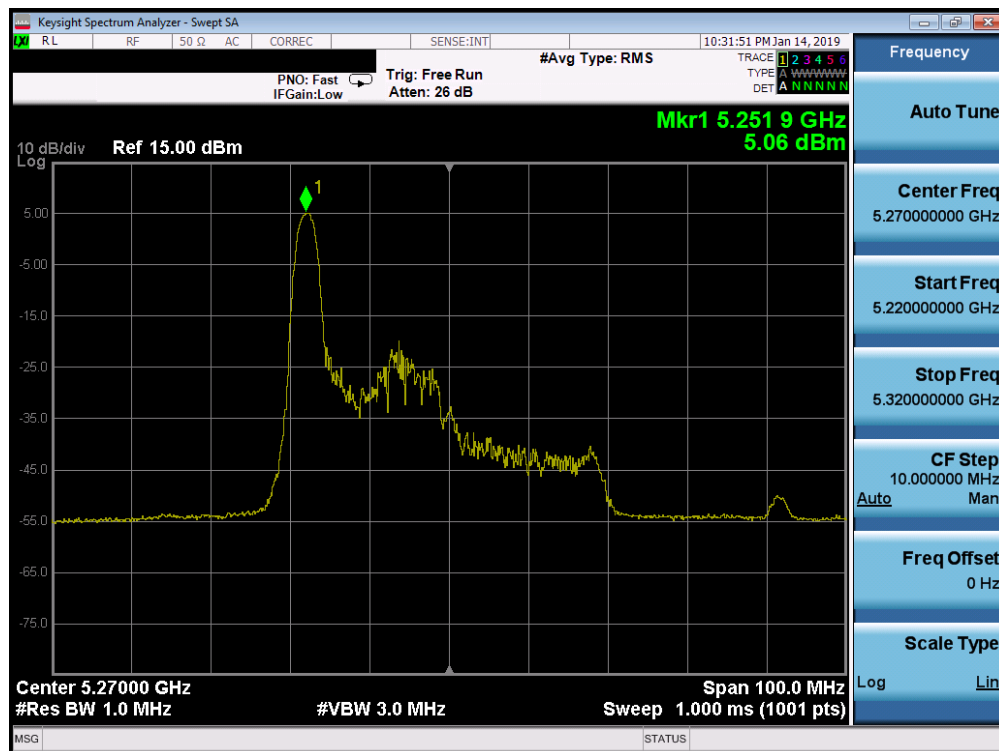


Plot 7-503. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 56)

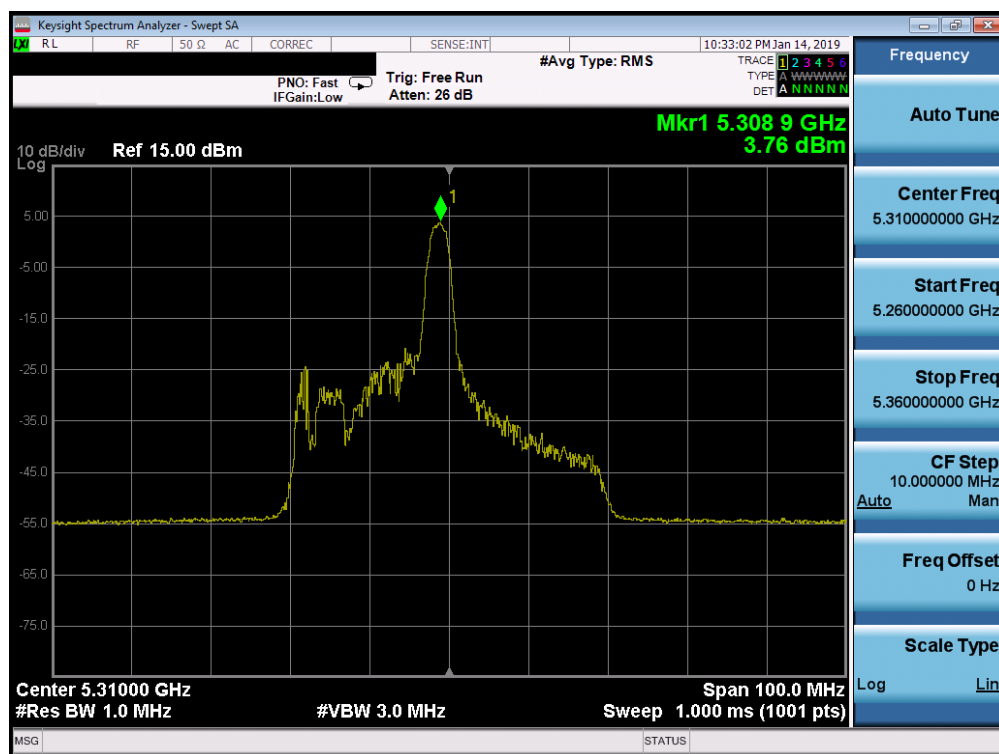


Plot 7-504. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 64)

FCC ID: A3LSC03L	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 339 of 514

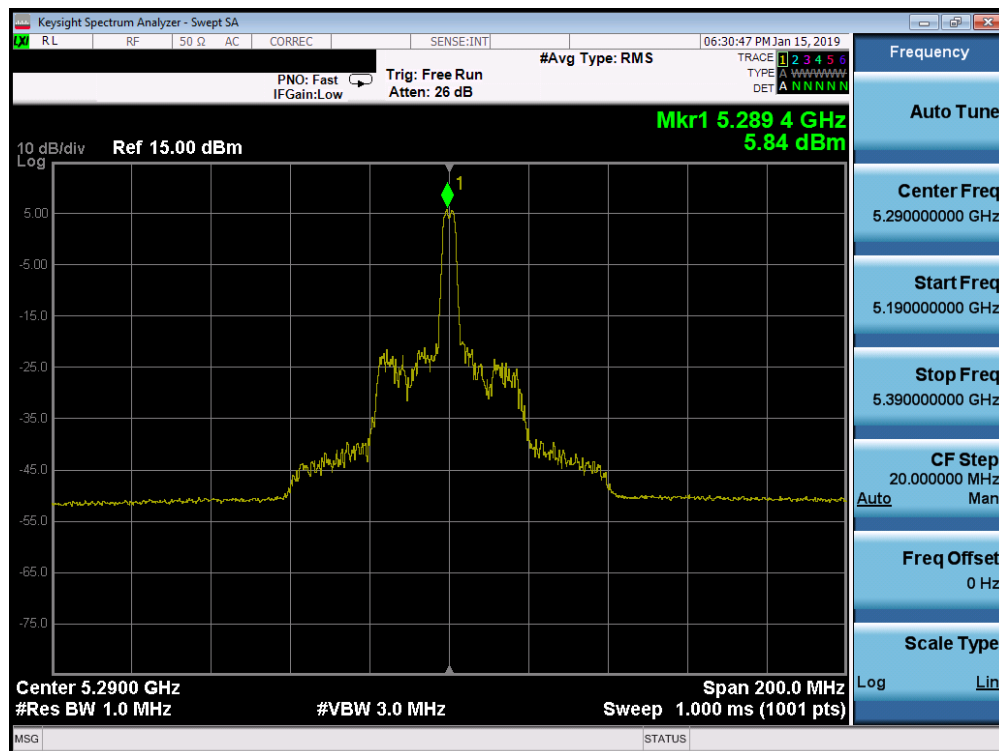


Plot 7-505. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 54)

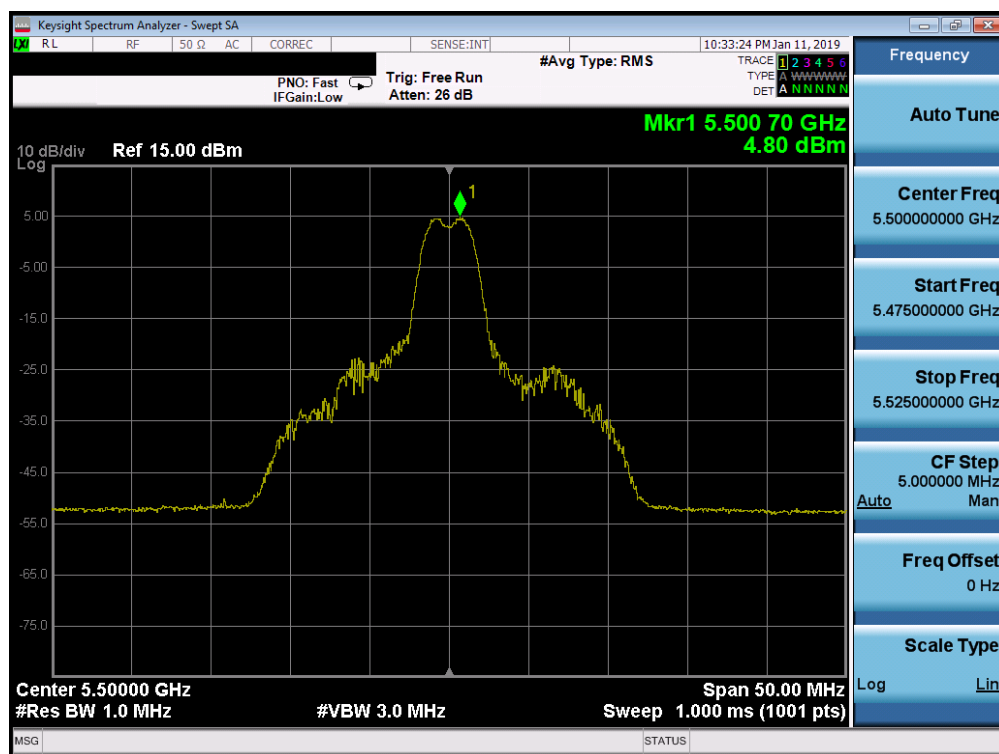


Plot 7-506. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 340 of 514

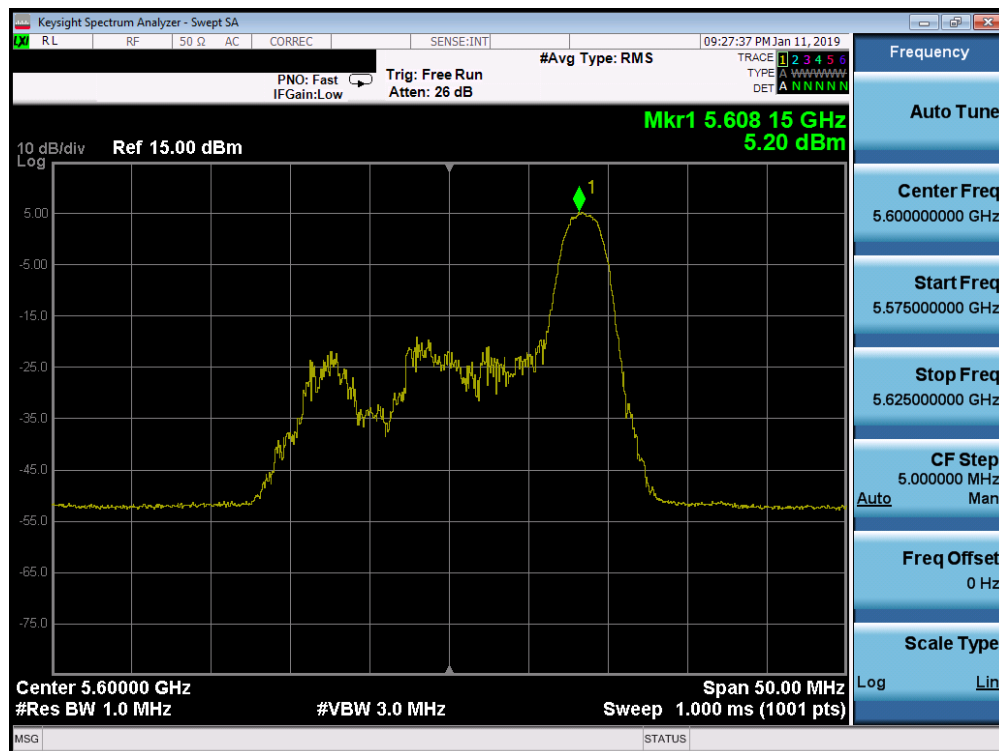


Plot 7-507. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 58)

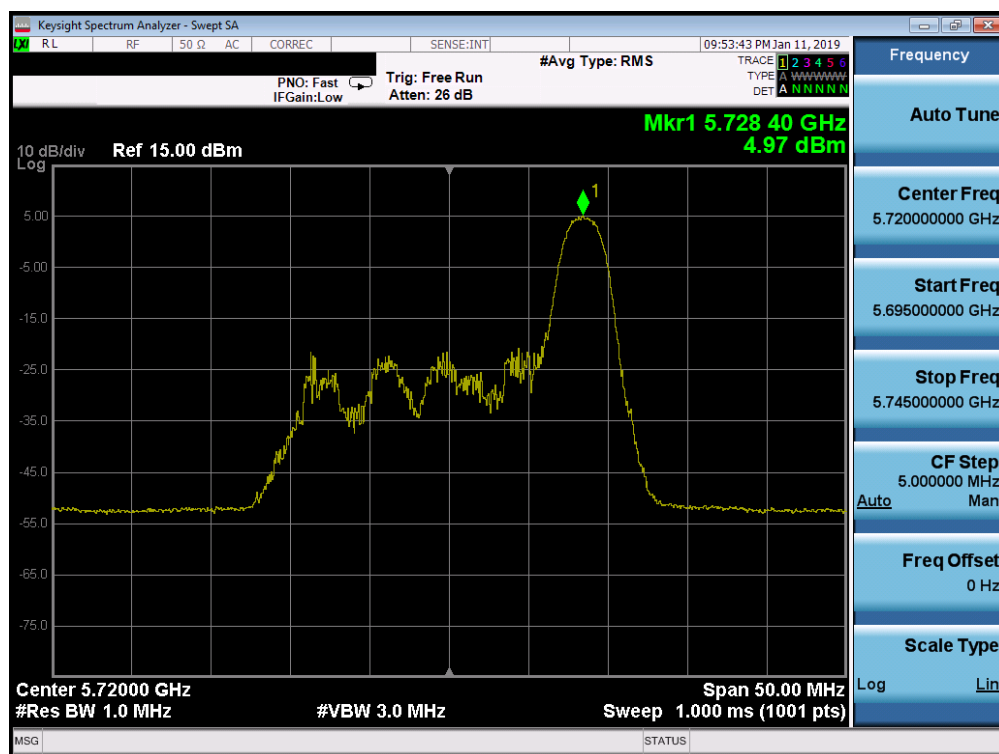


Plot 7-508. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 100)

FCC ID: A3LSC03L			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-509. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 120)



Plot 7-510. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 144)

FCC ID: A3LSC03L		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1901240017-07.A3L	Test Dates: 10/23/2018 - 1/18/2019	EUT Type: Portable Handset		Page 342 of 514