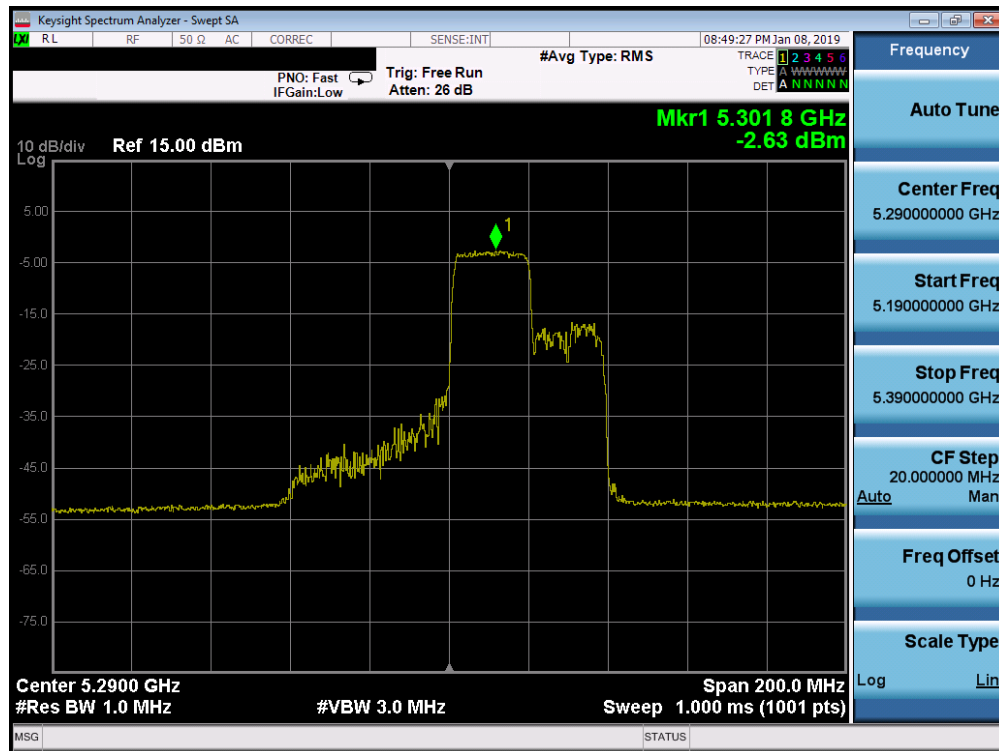
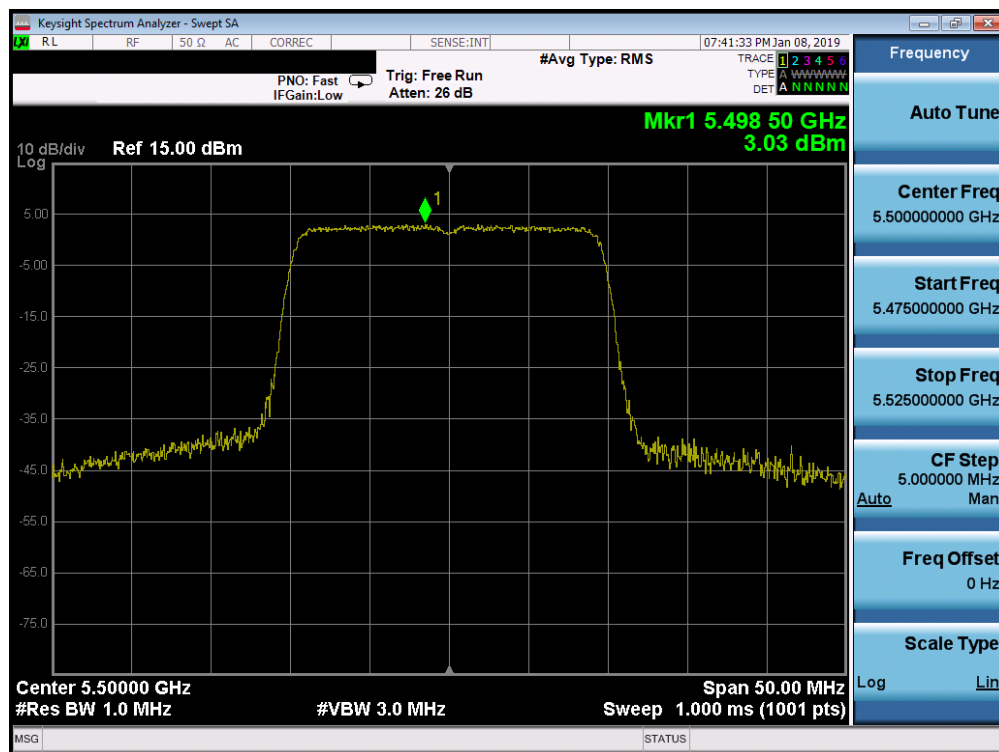


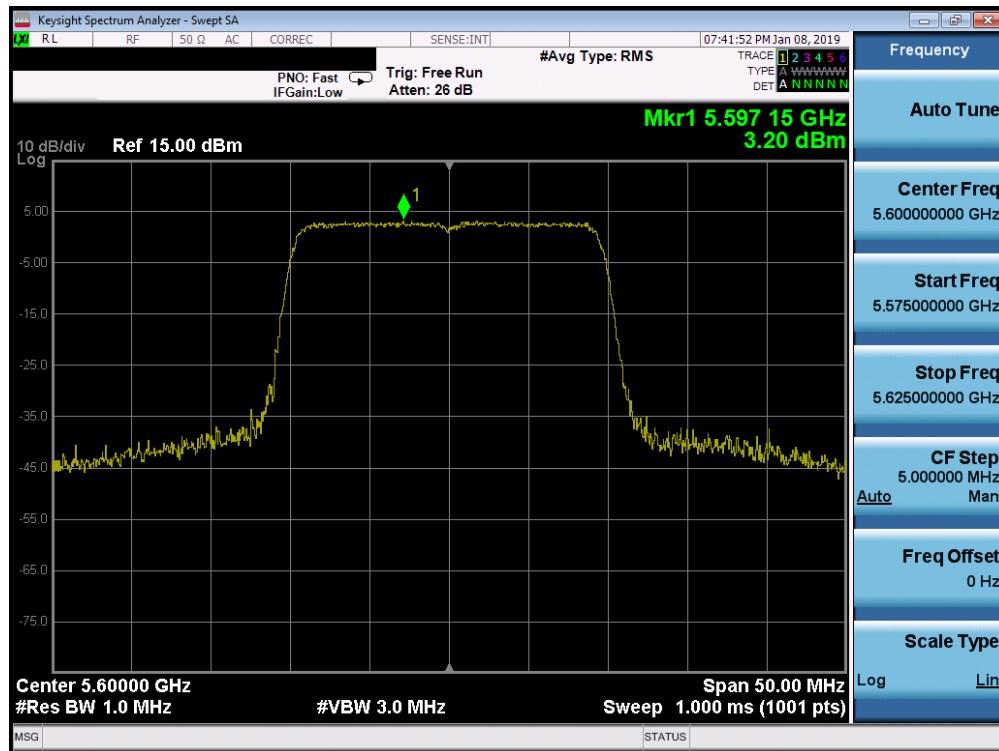


Plot 7-459. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 58)

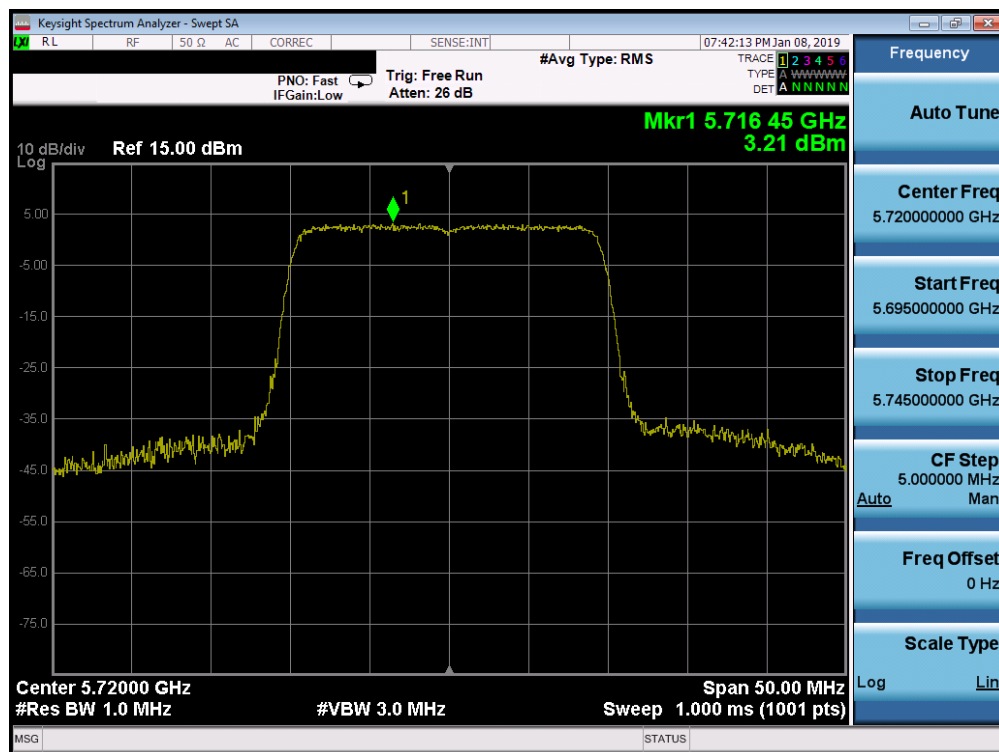


Plot 7-460. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 316 of 519	

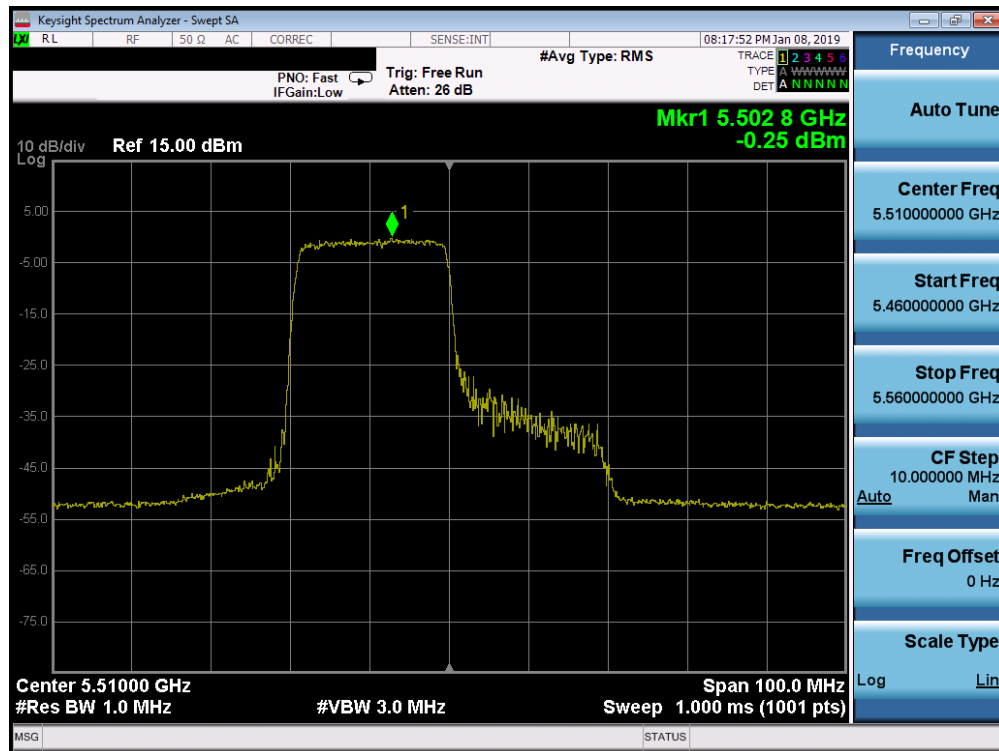


Plot 7-461. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 120)

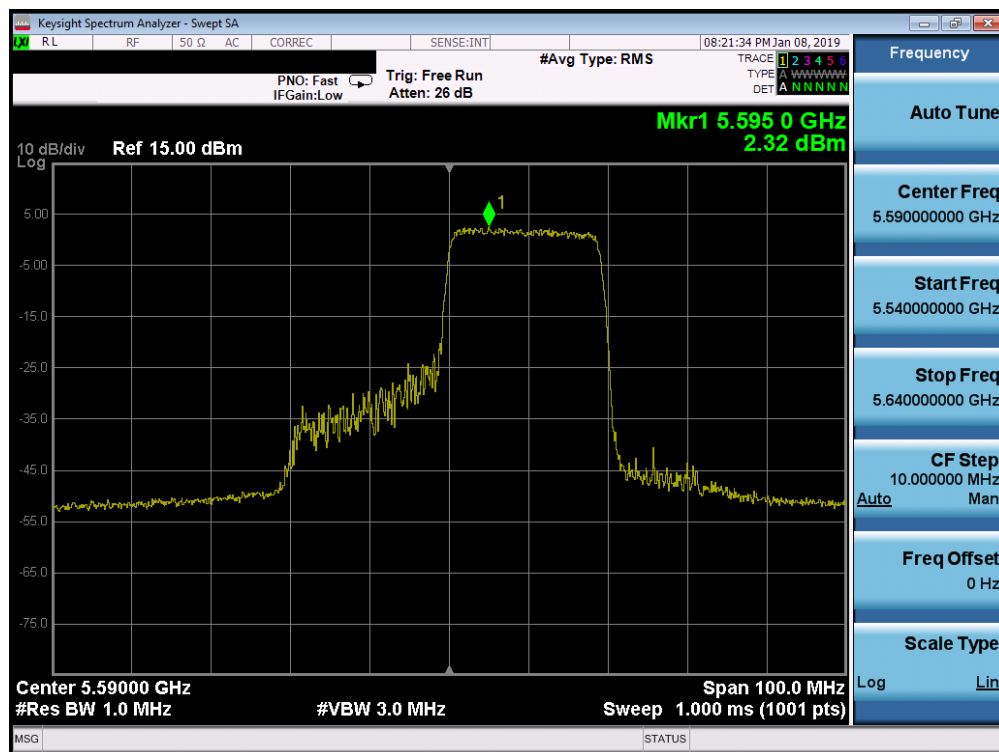


Plot 7-462. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 317 of 519

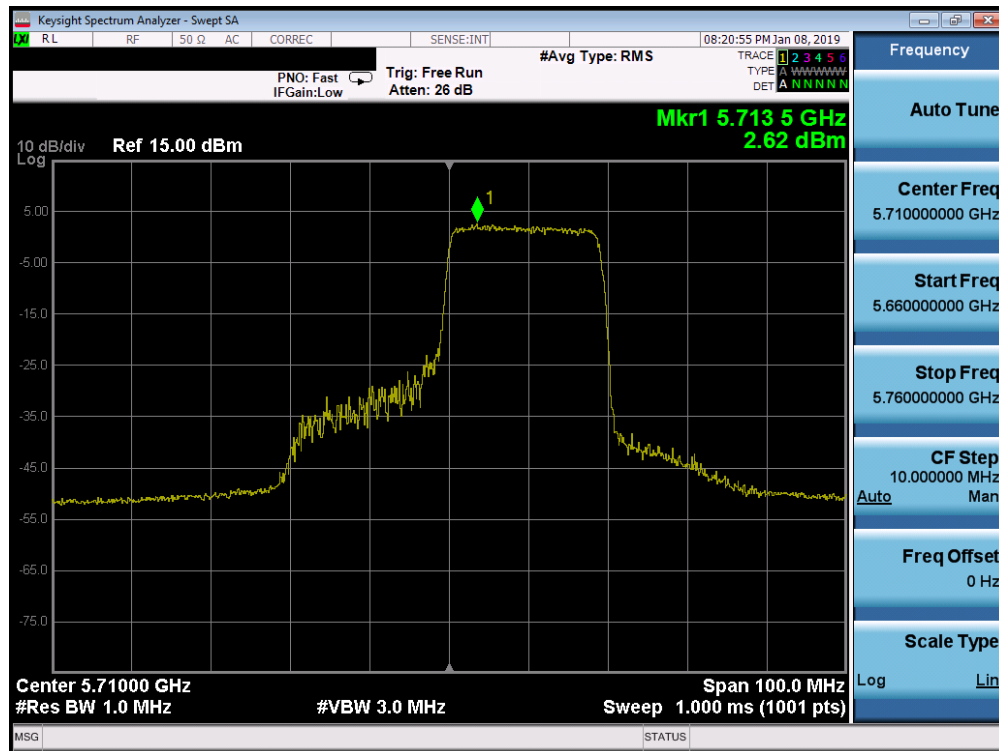


Plot 7-463. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 102)

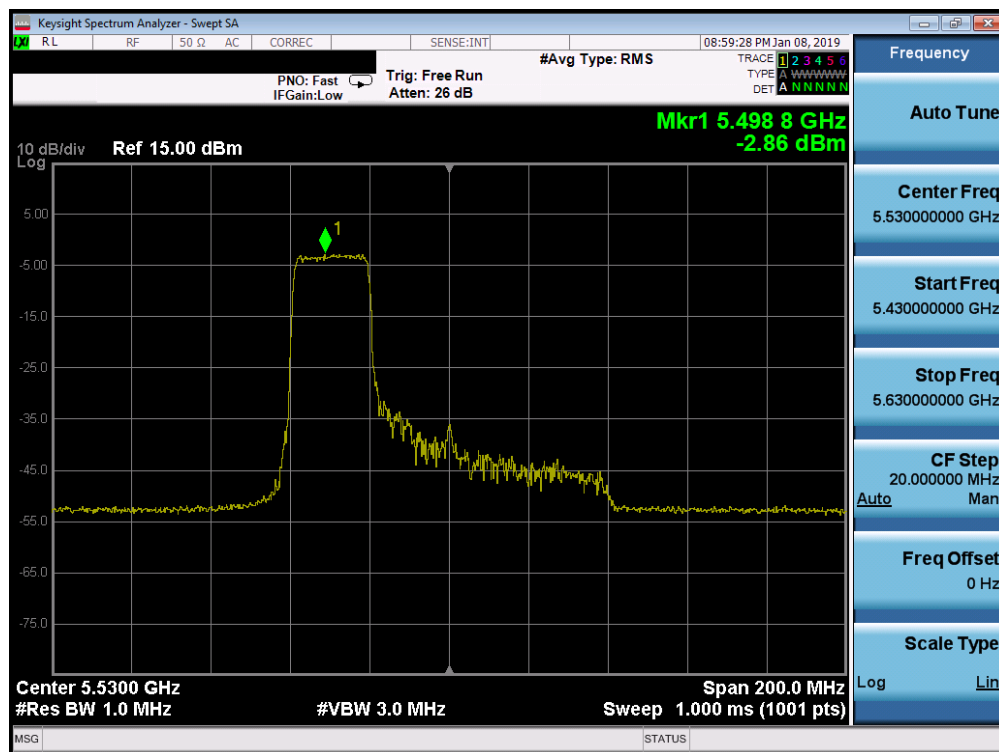


Plot 7-464. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 318 of 519		

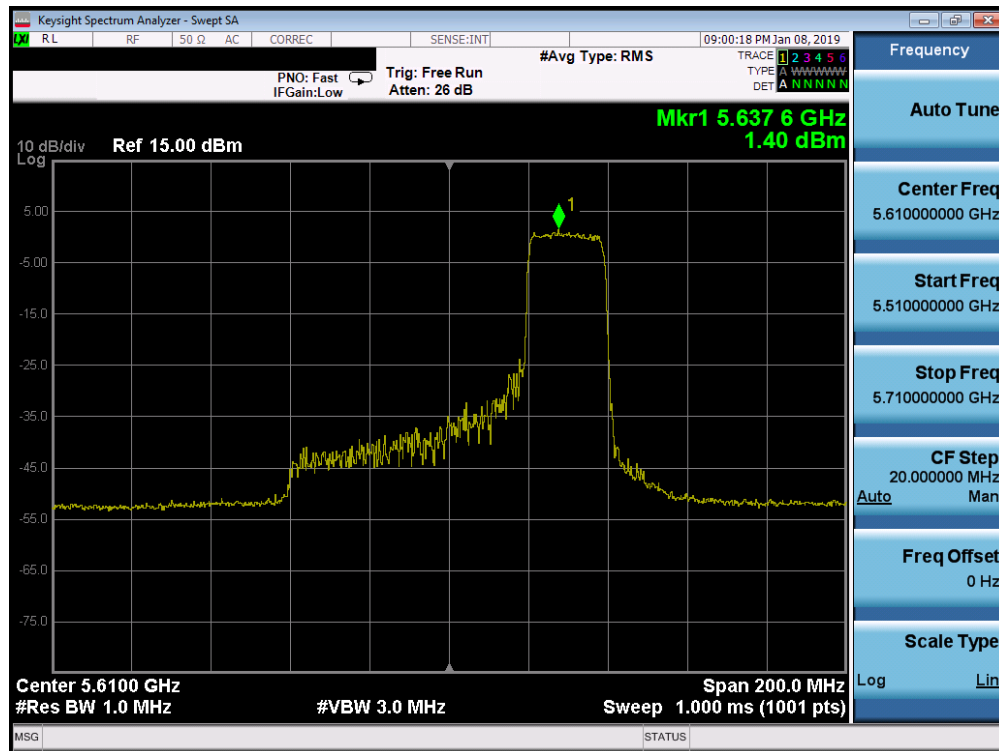


Plot 7-465. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 142)

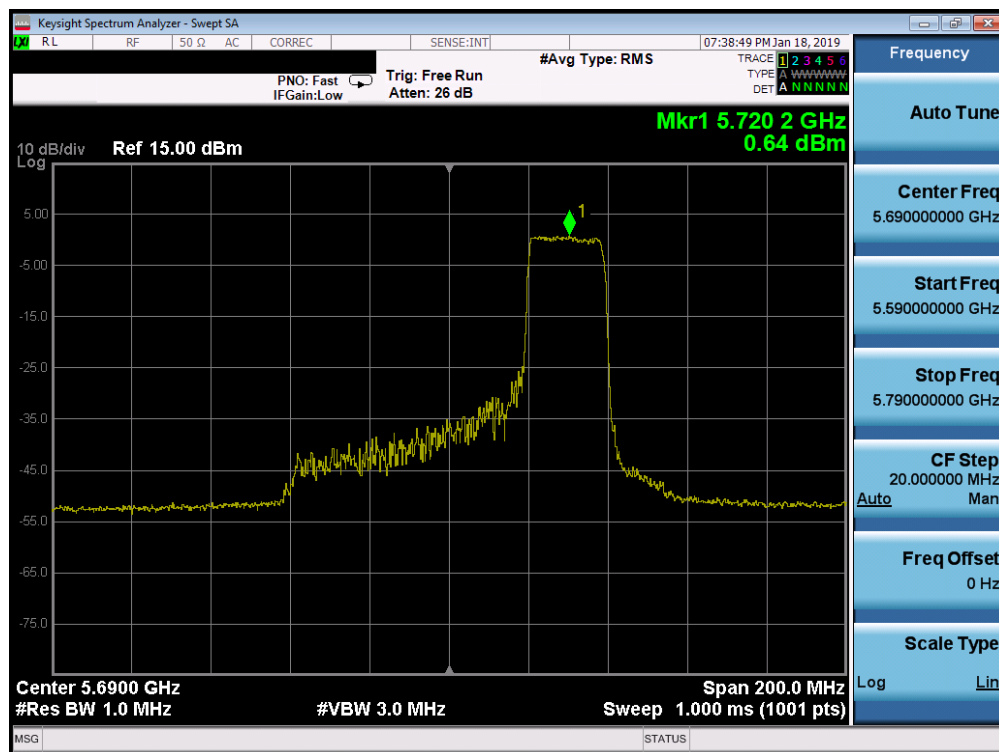


Plot 7-466. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 319 of 519		

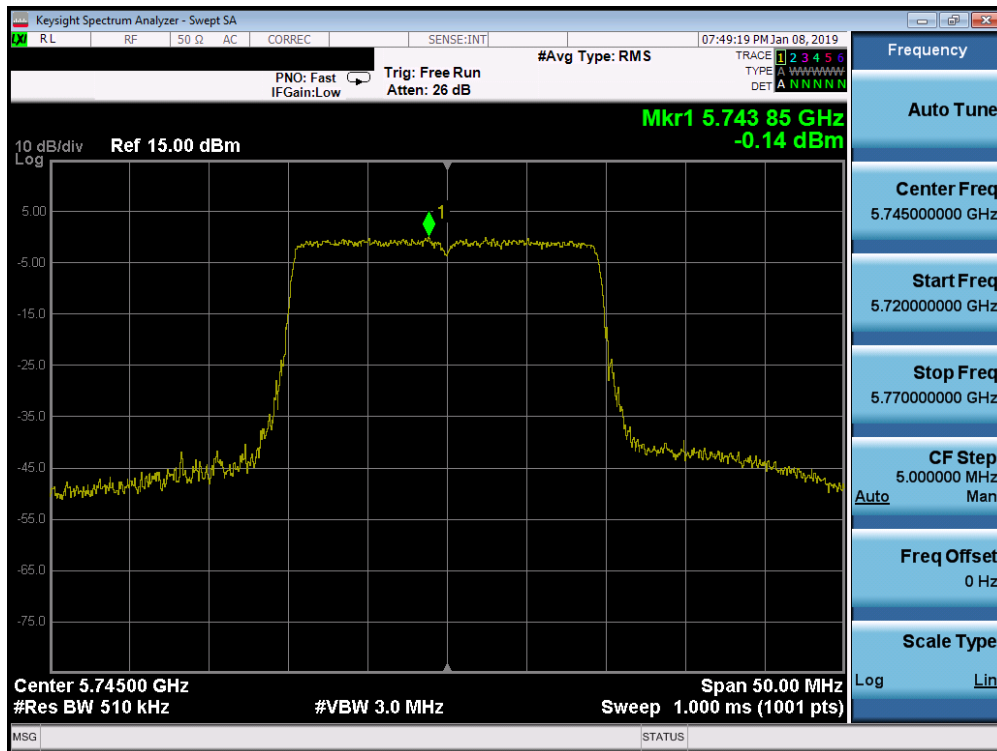


Plot 7-467. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 122)

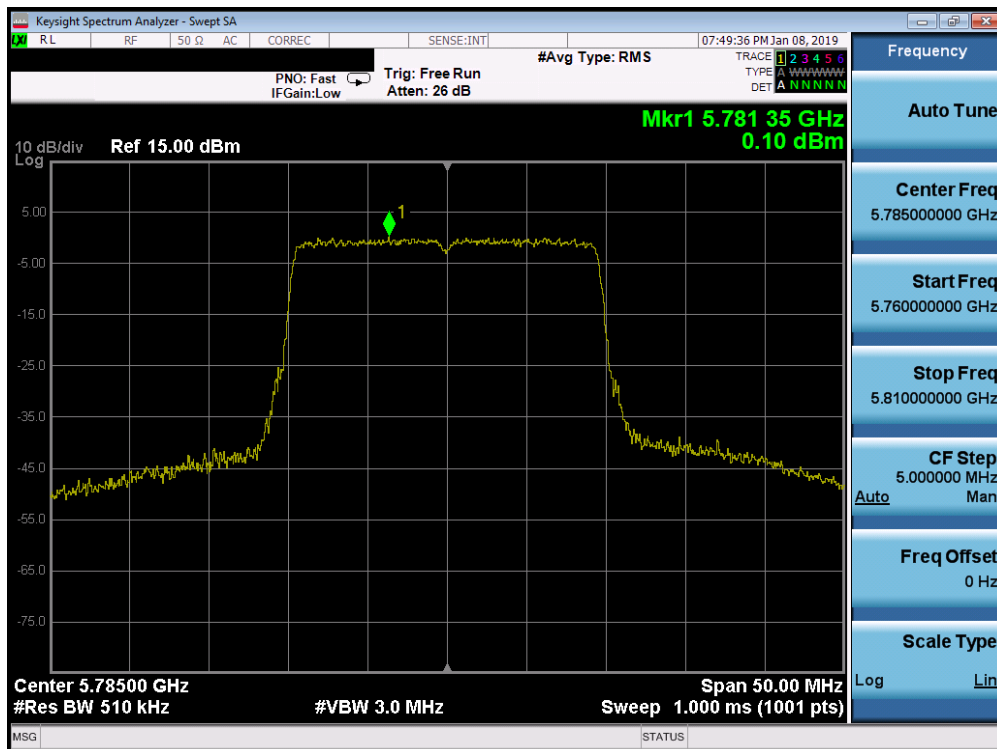


Plot 7-468. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 320 of 519

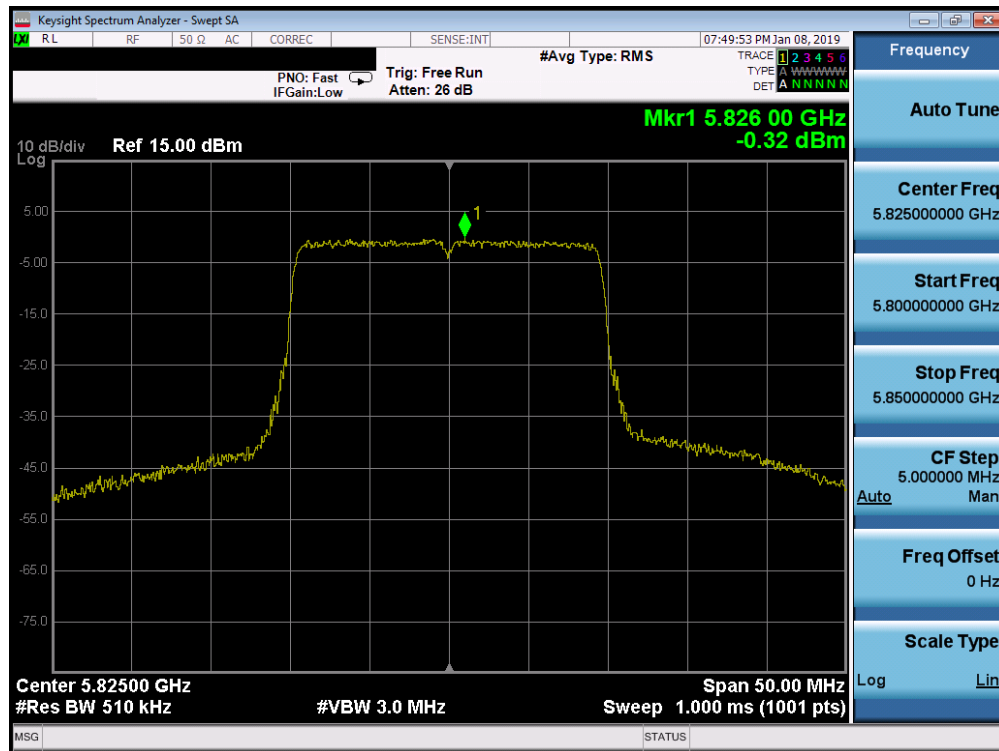


Plot 7-469. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 149)

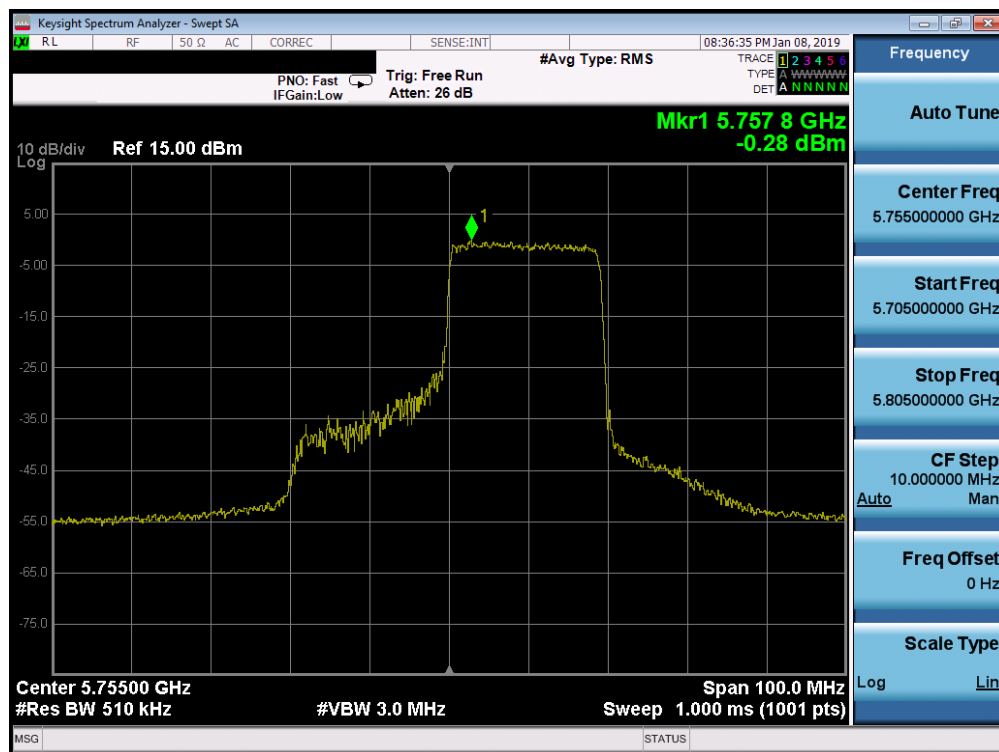


Plot 7-470. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 321 of 519	

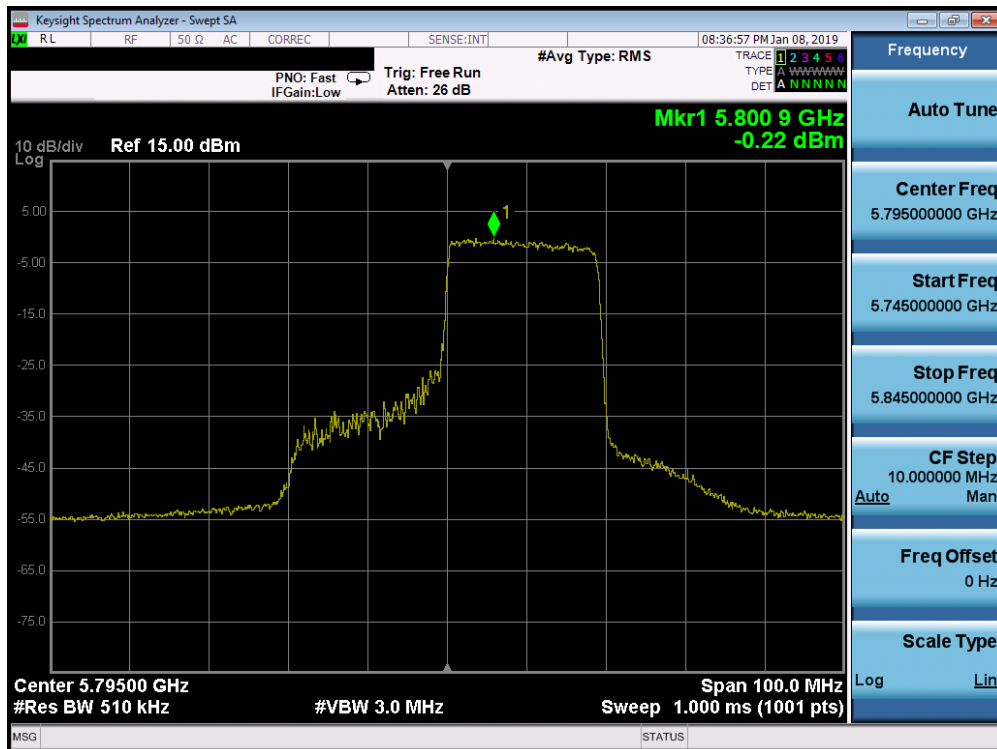


Plot 7-471. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 165)

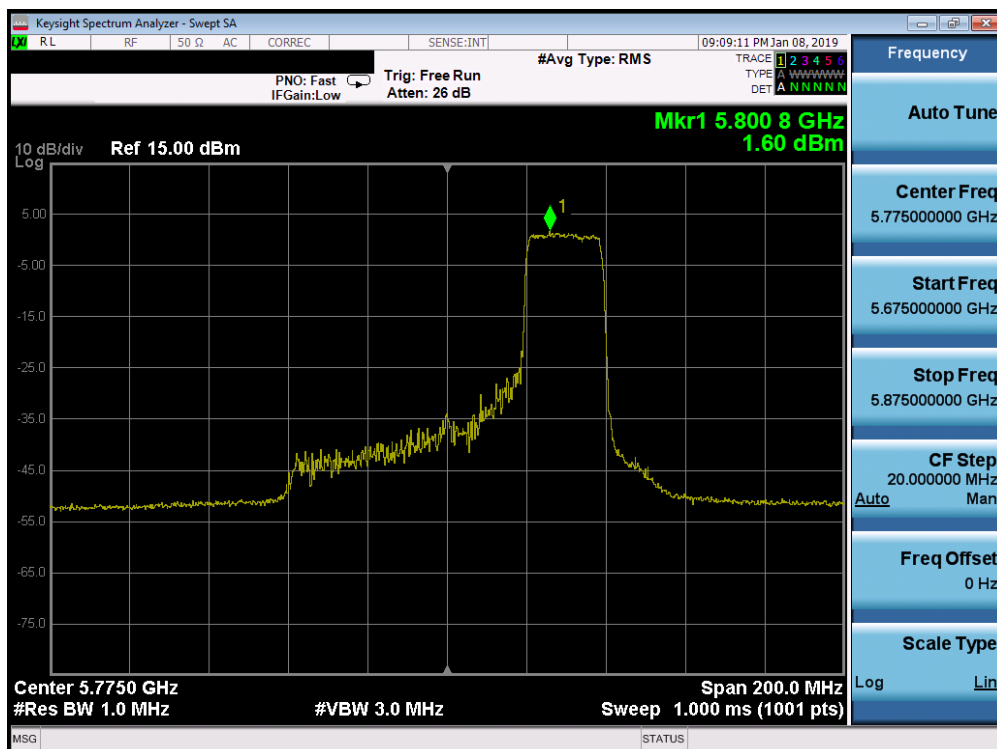


Plot 7-472. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 322 of 519



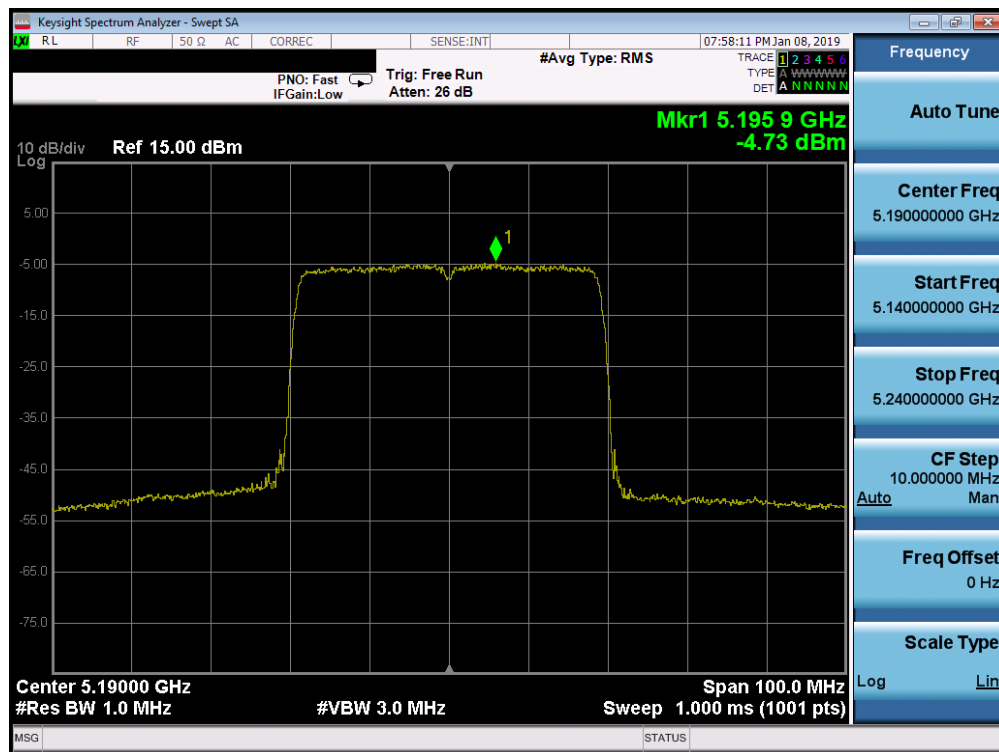
Plot 7-473. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 159)



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

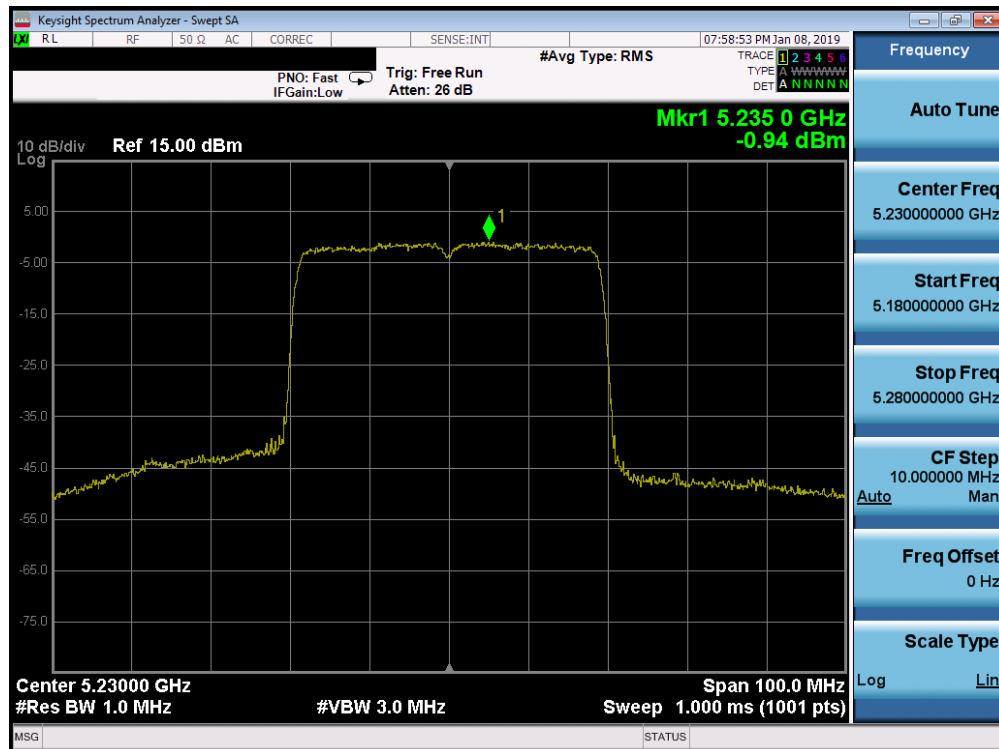
FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 323 of 519	

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

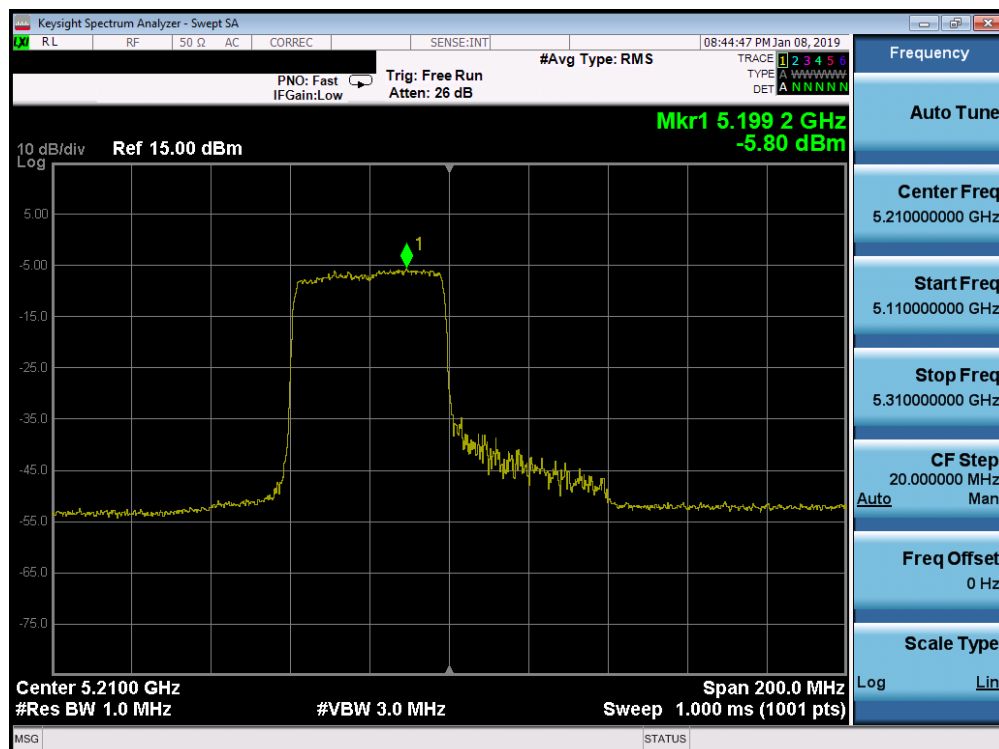


Plot 7-475. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG9700		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 324 of 519

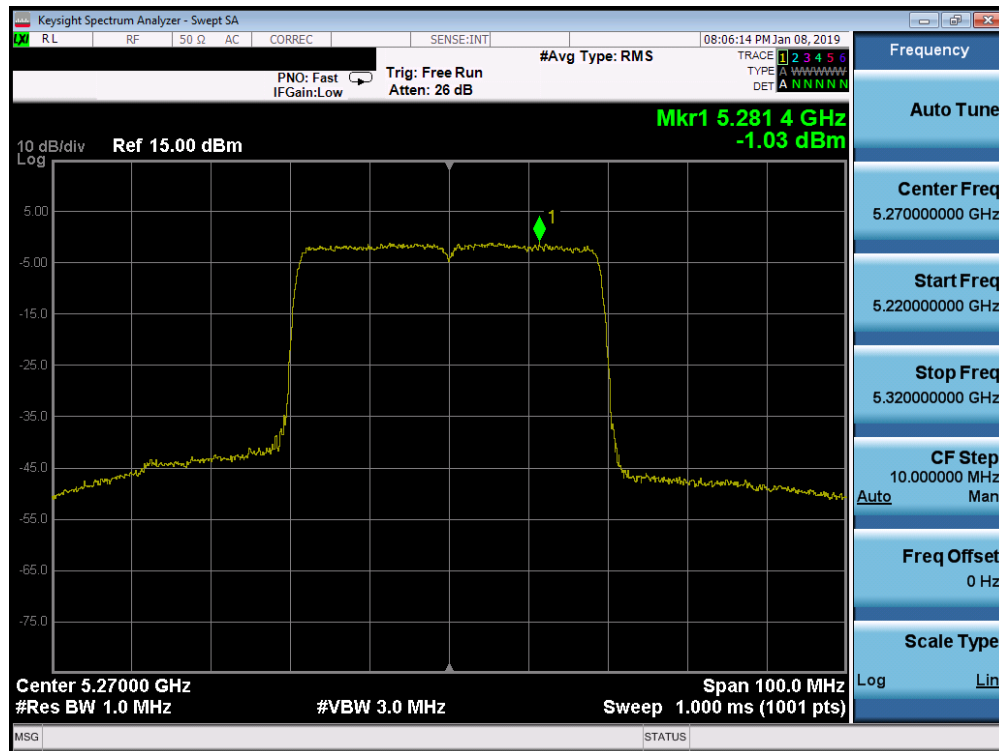


Plot 7-476. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 46)

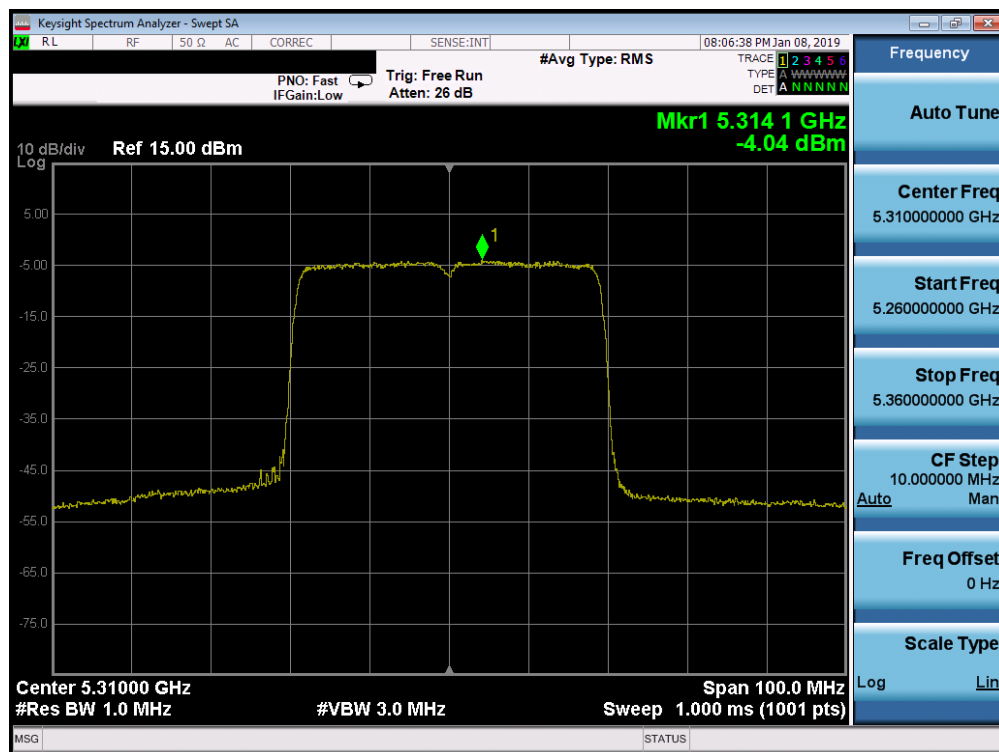


Plot 7-477. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 325 of 519

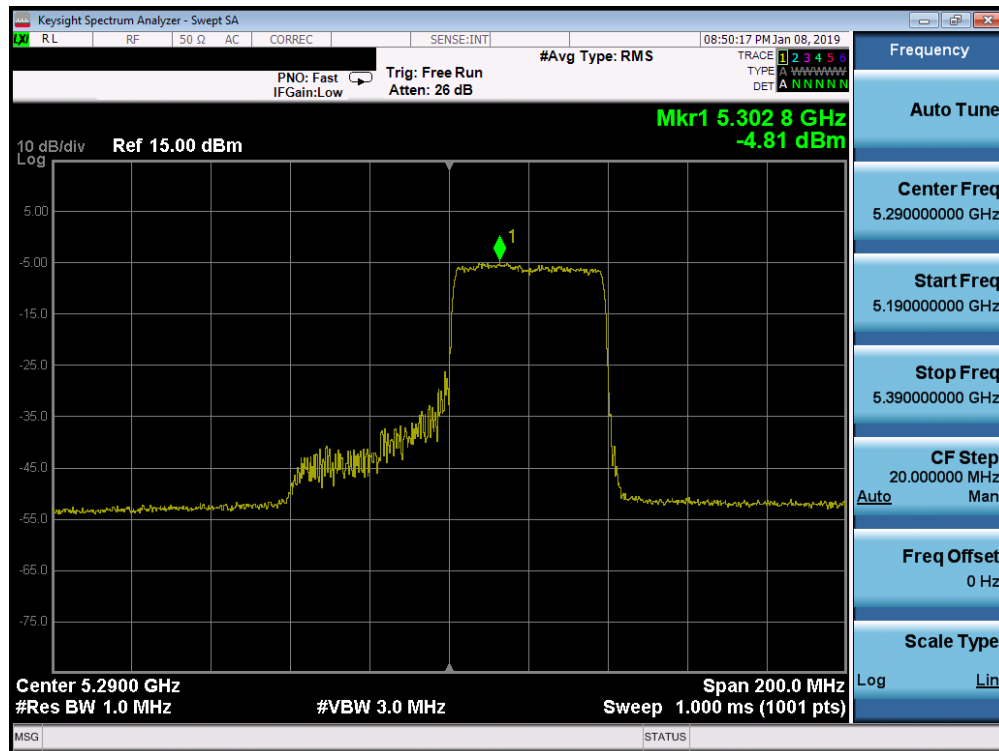


Plot 7-478. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 54)

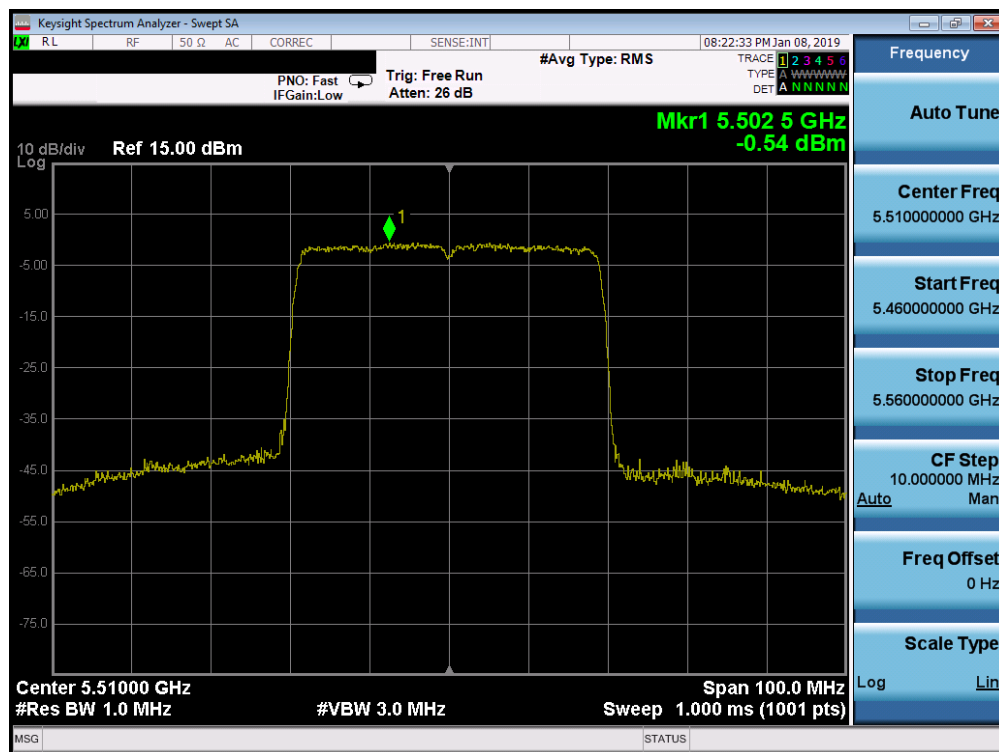


Plot 7-479. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 326 of 519

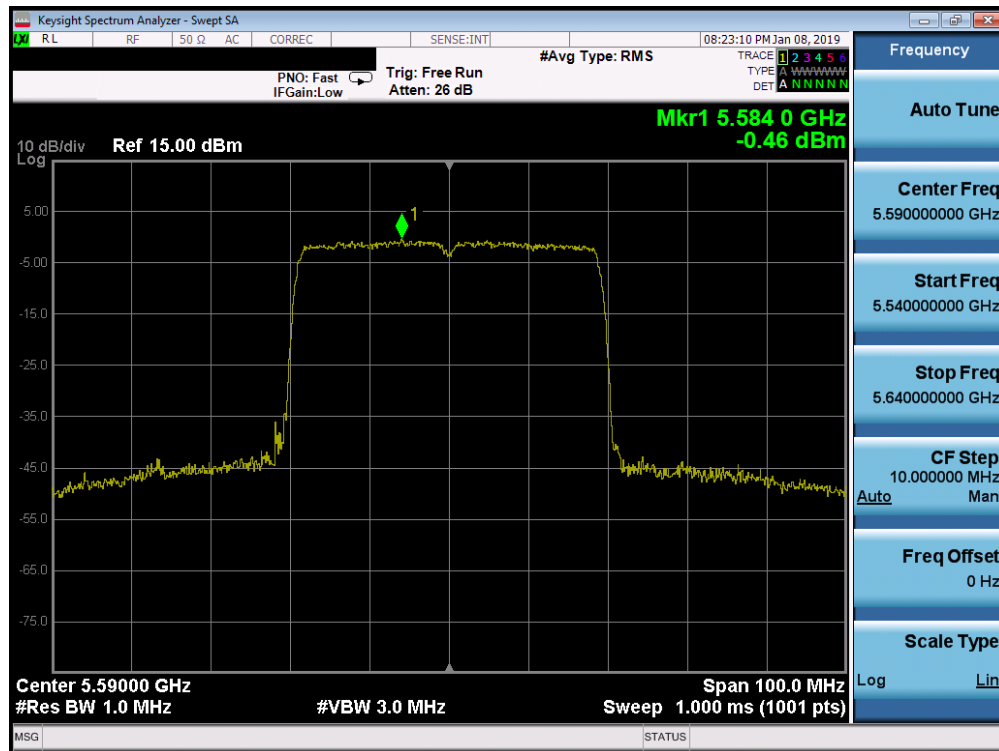


Plot 7-480. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 58)

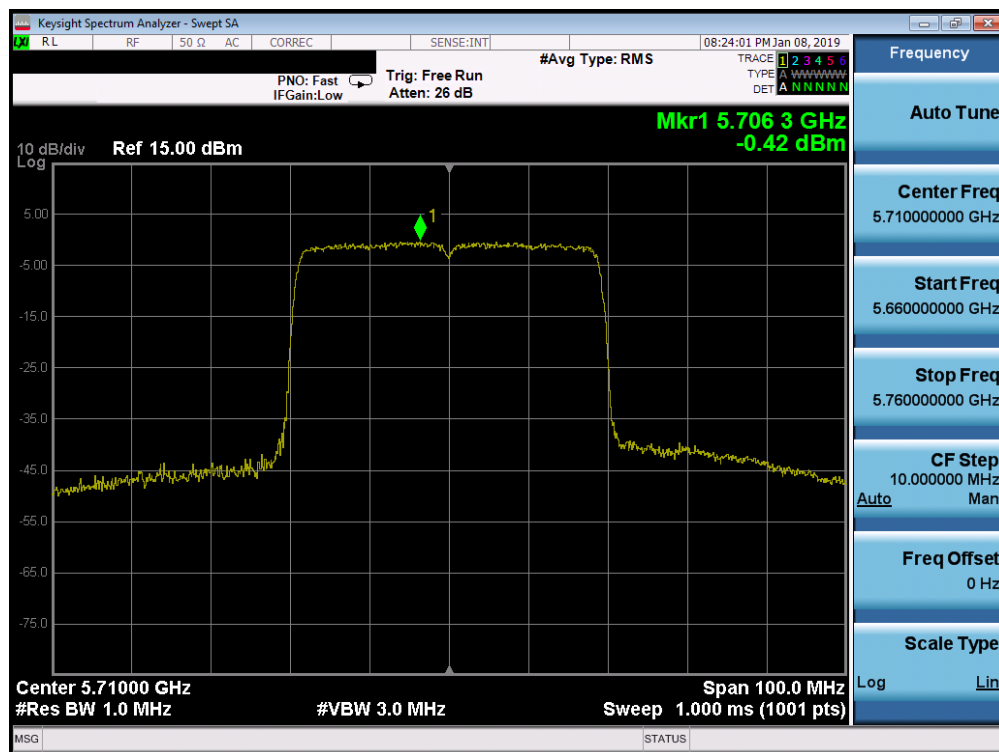


Plot 7-481. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 102)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 327 of 519

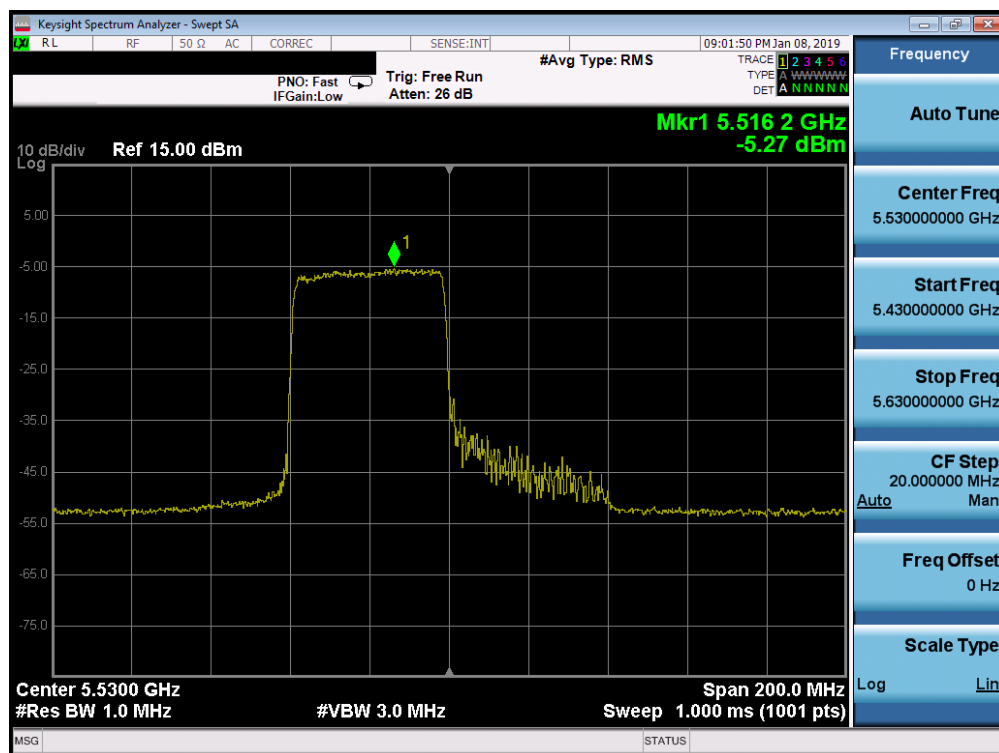


Plot 7-482. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 118)

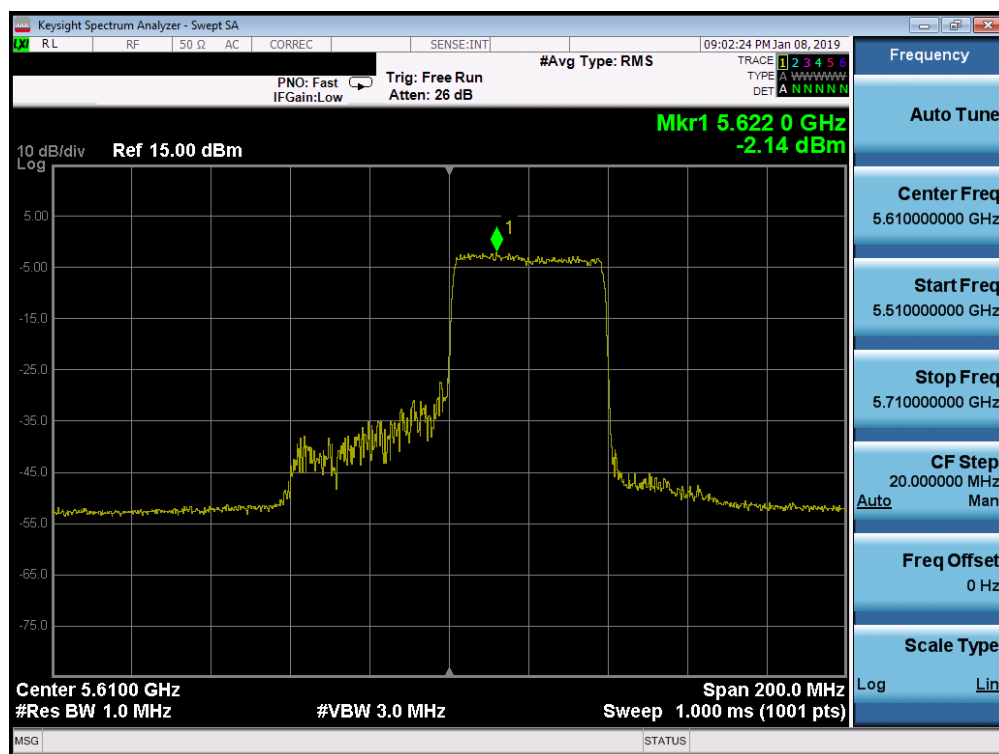


Plot 7-483. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 142)

FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 328 of 519		

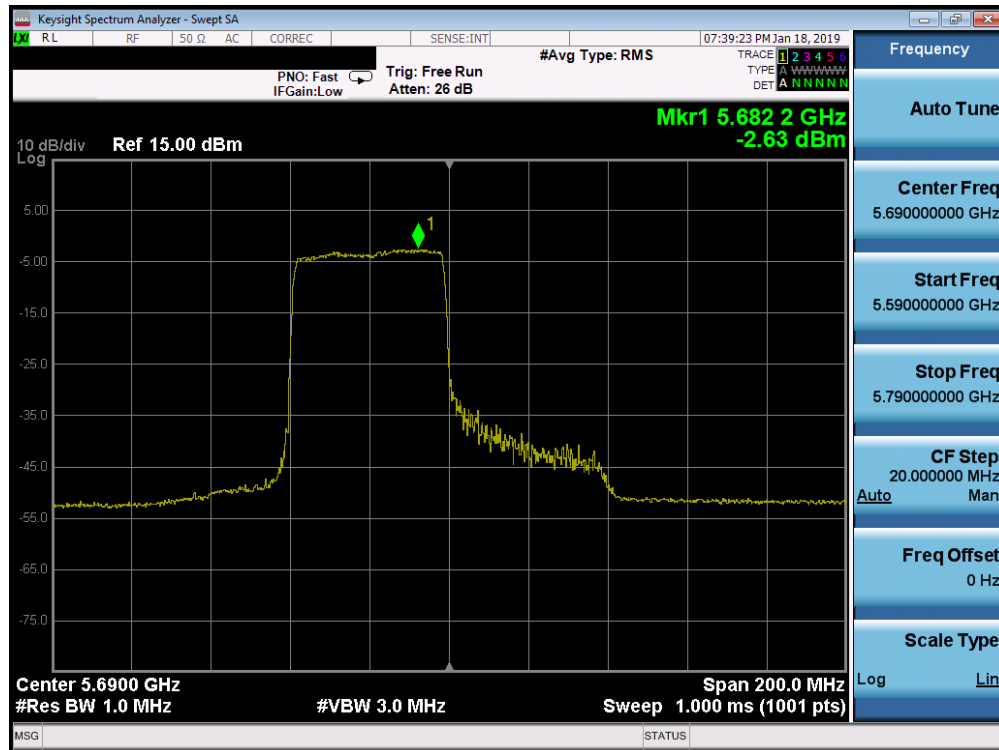


Plot 7-484. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 106)

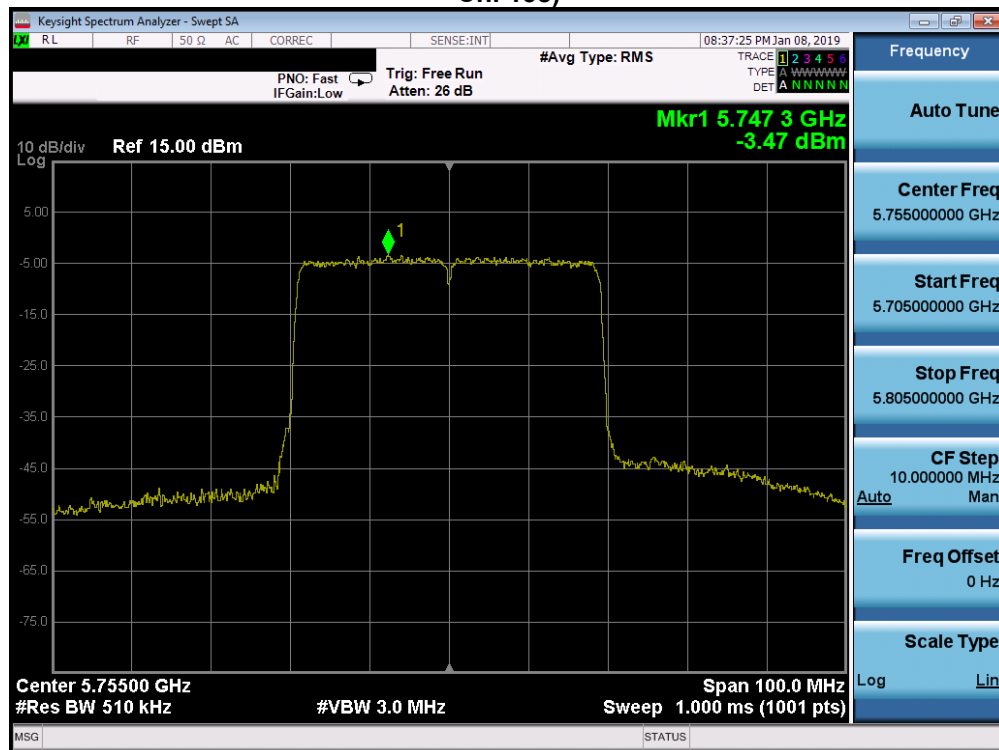


Plot 7-485. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 122)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 329 of 519

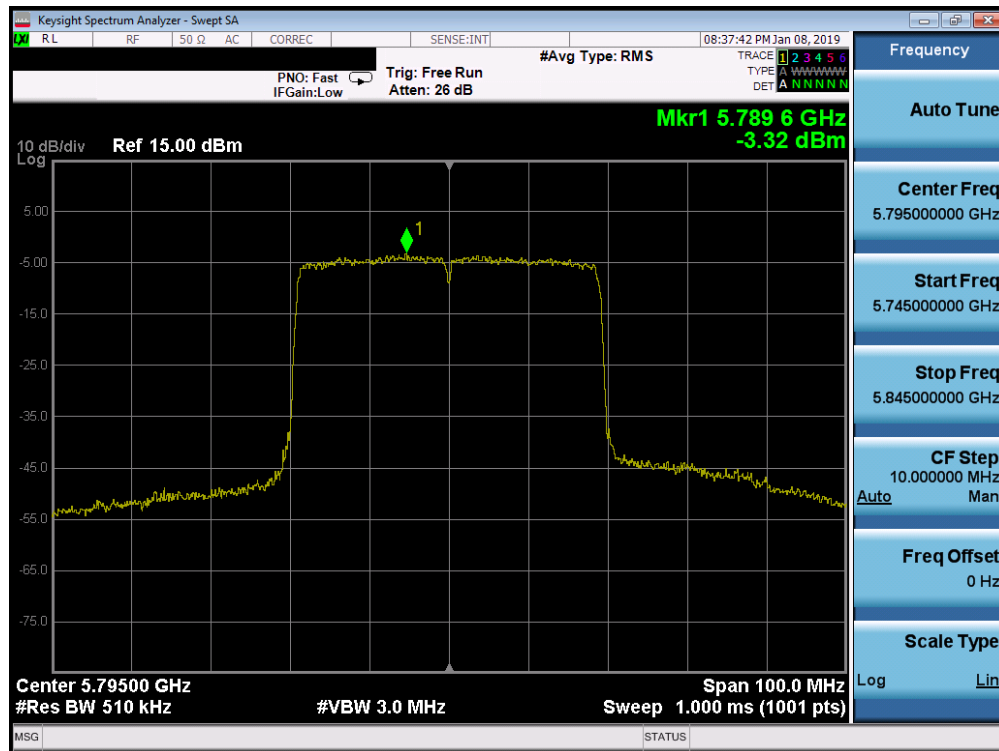


Plot 7-486. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 138)

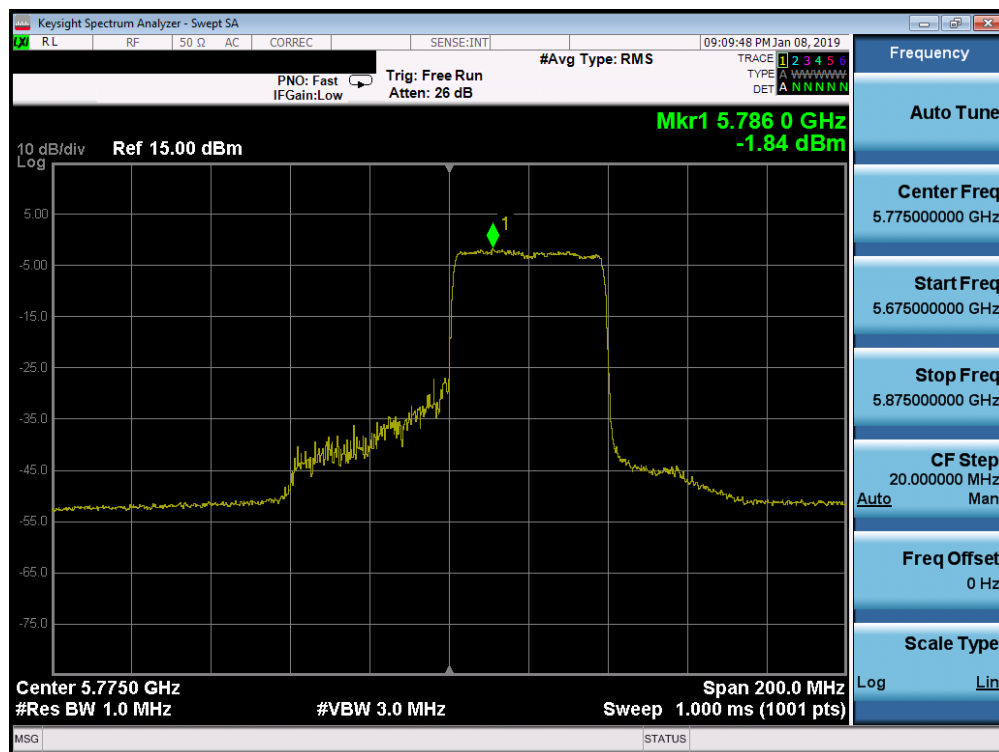


Plot 7-487. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 330 of 519



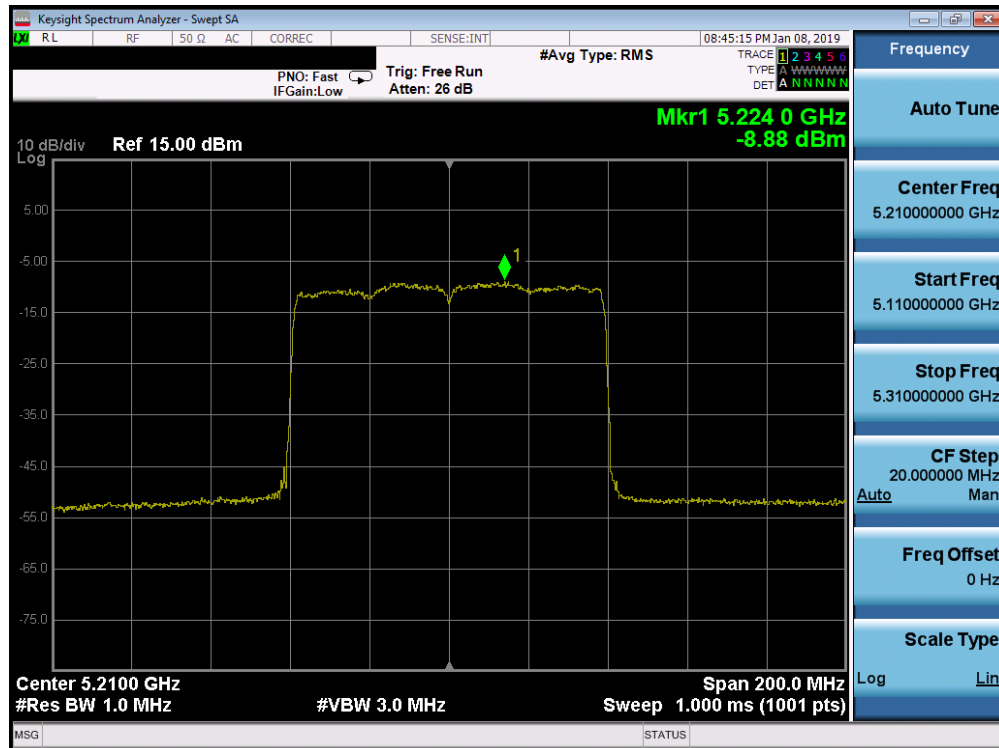
Plot 7-488. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 159)



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

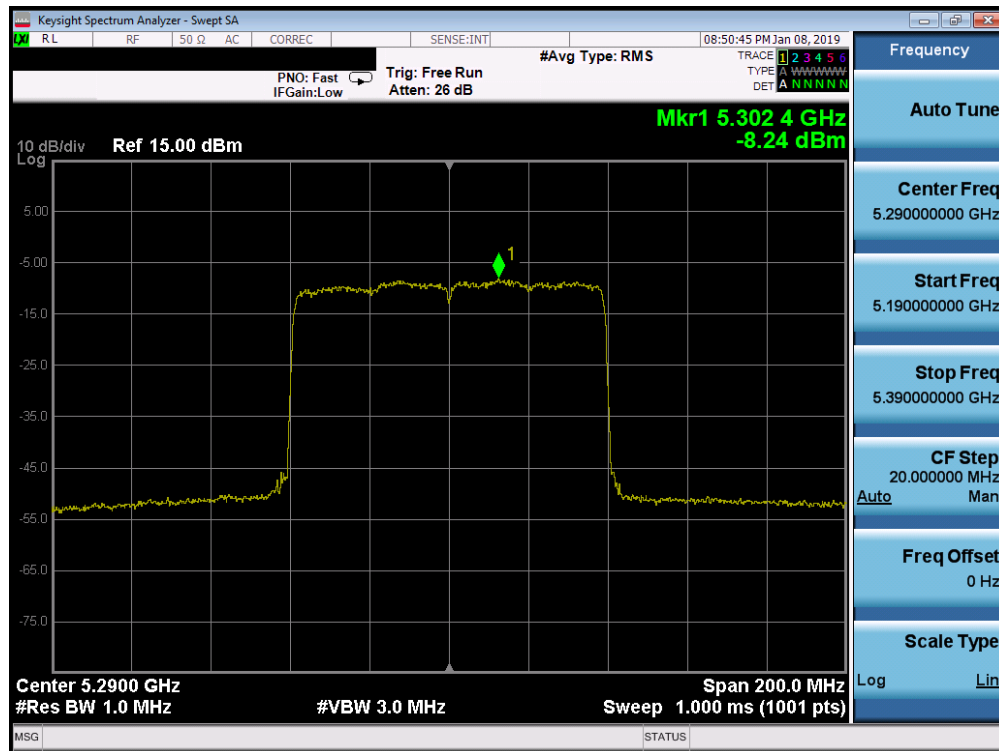
FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 331 of 519	

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

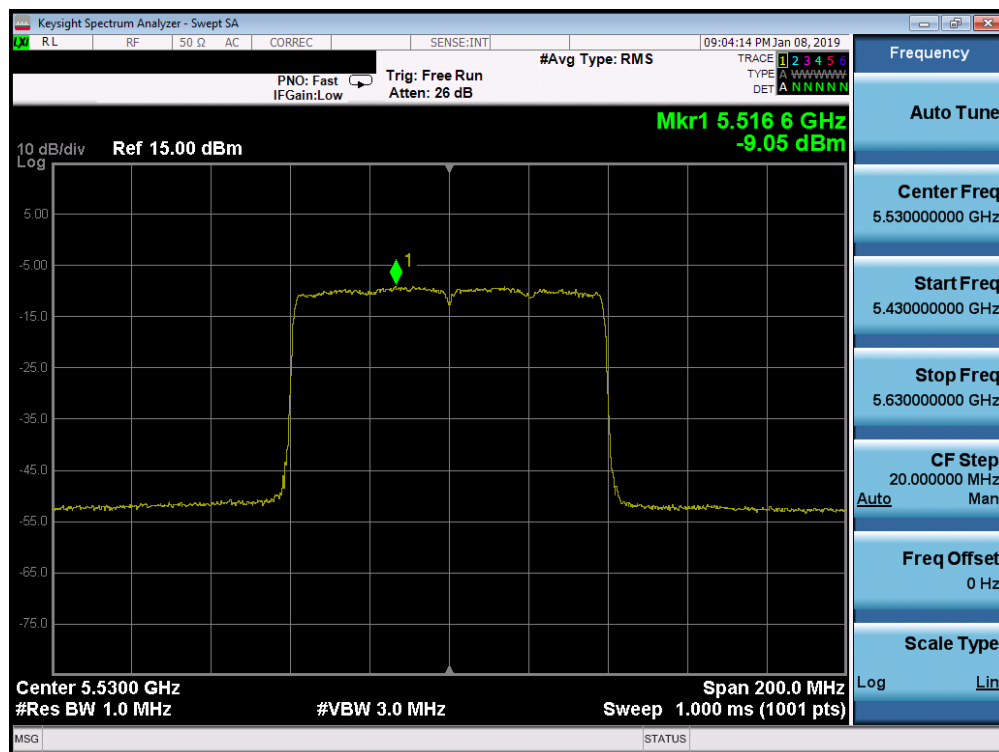


Plot 7-490. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 332 of 519

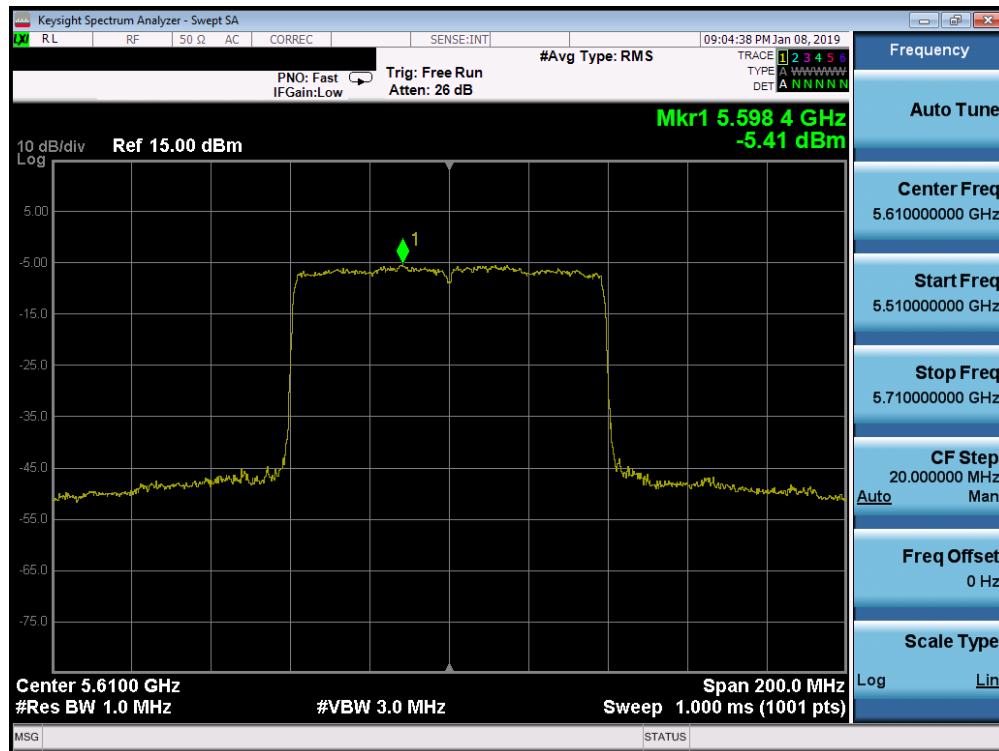


Plot 7-491. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2A) – Ch. 58)

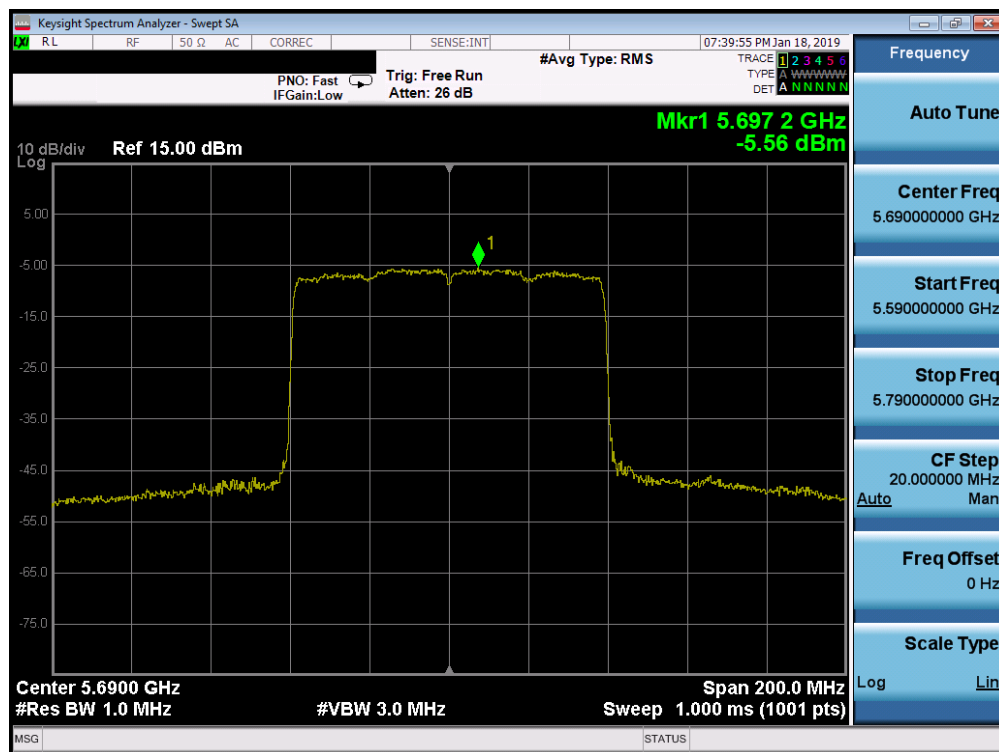


Plot 7-492. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 333 of 519

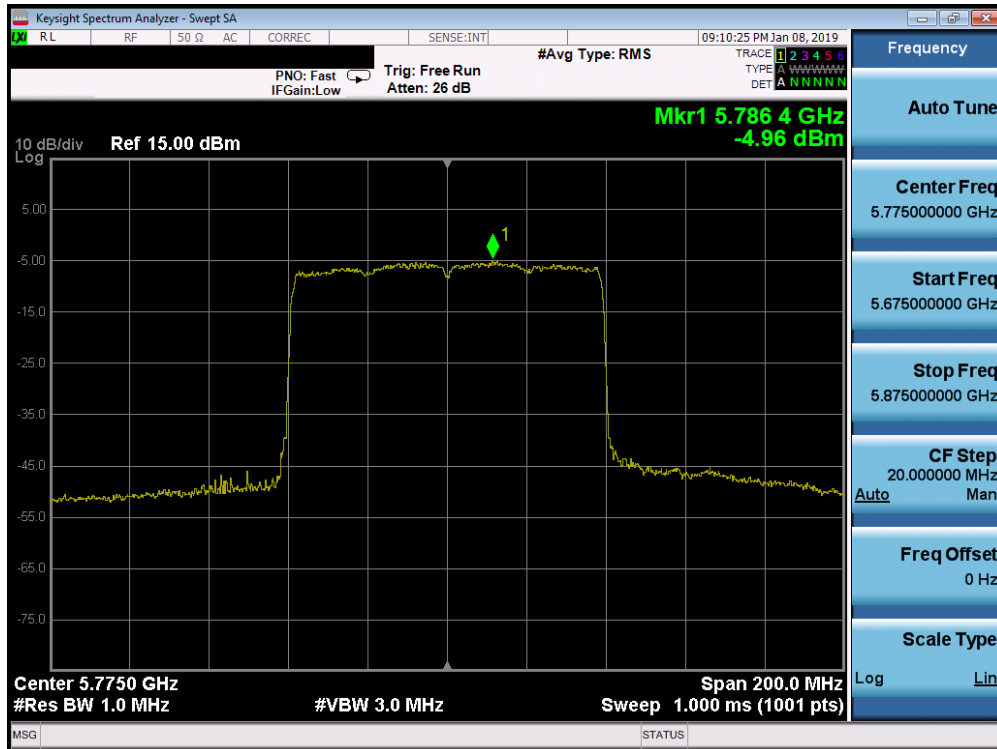


Plot 7-493. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 122)

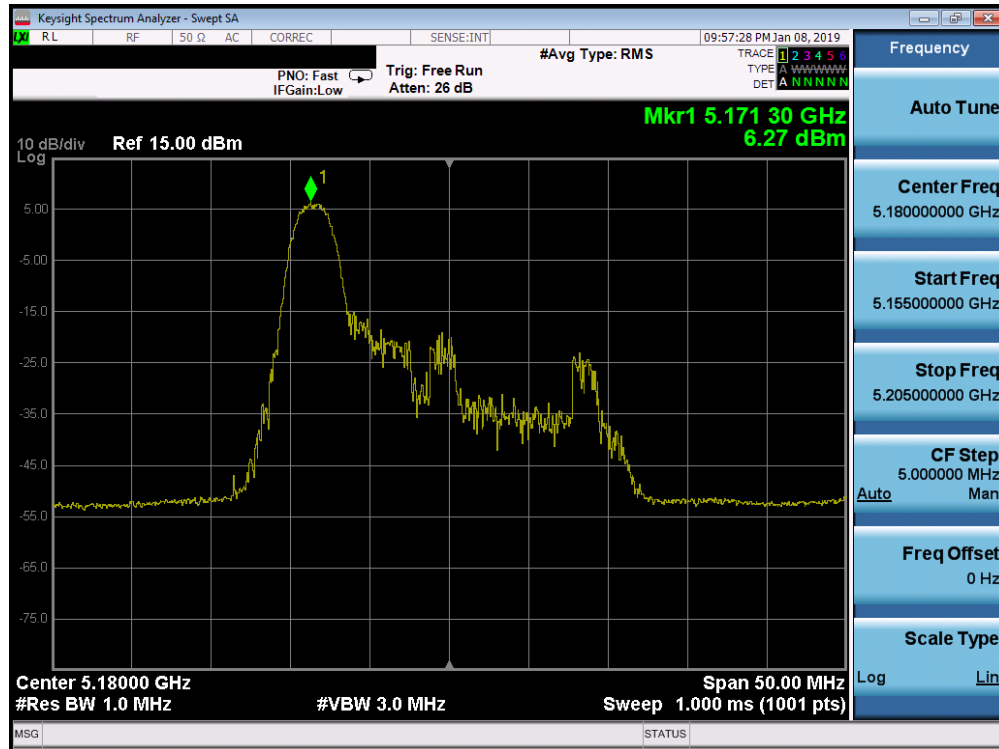


Plot 7-494. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 334 of 519

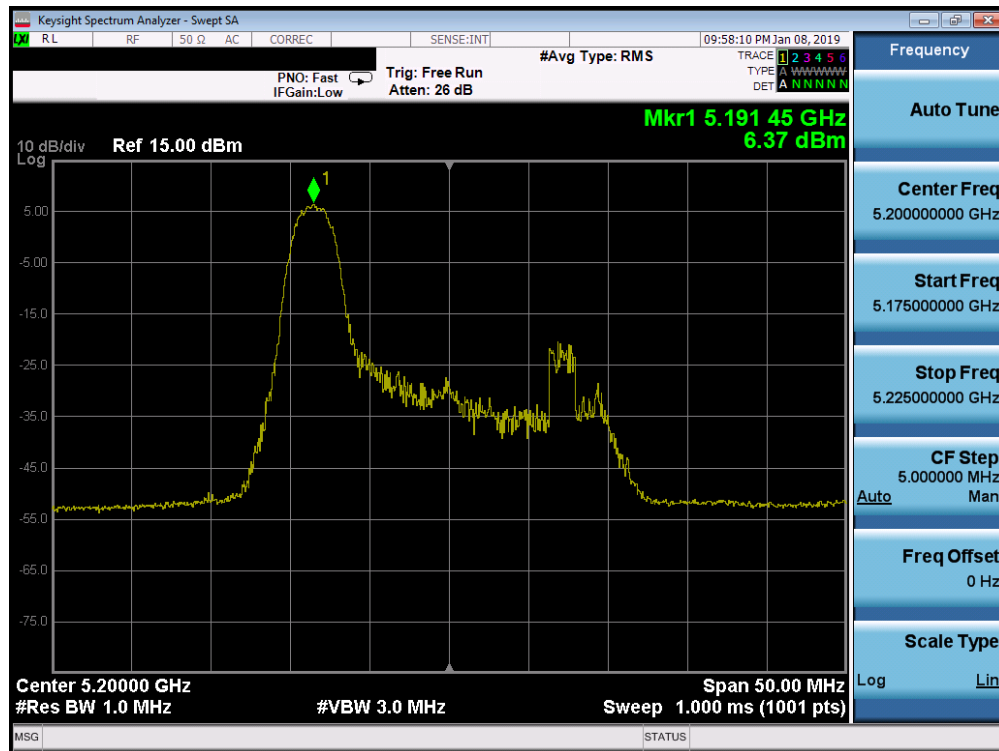


MIMO Antenna-2 Power Spectral Density Measurements (26 Tones)

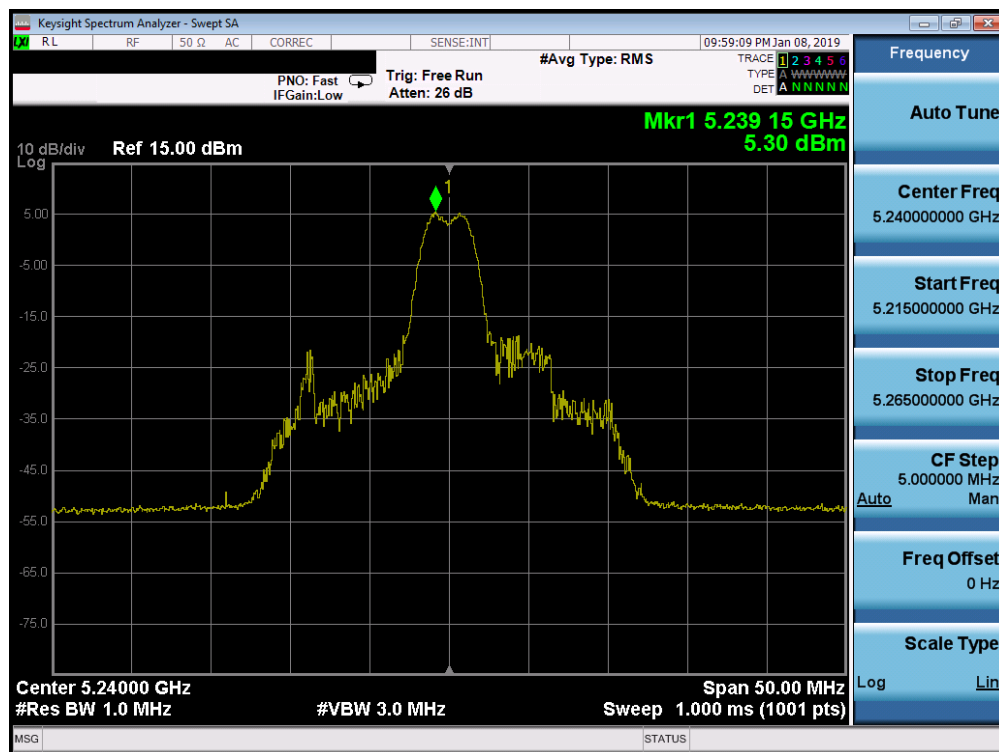


Plot 7-496. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 36)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 336 of 519

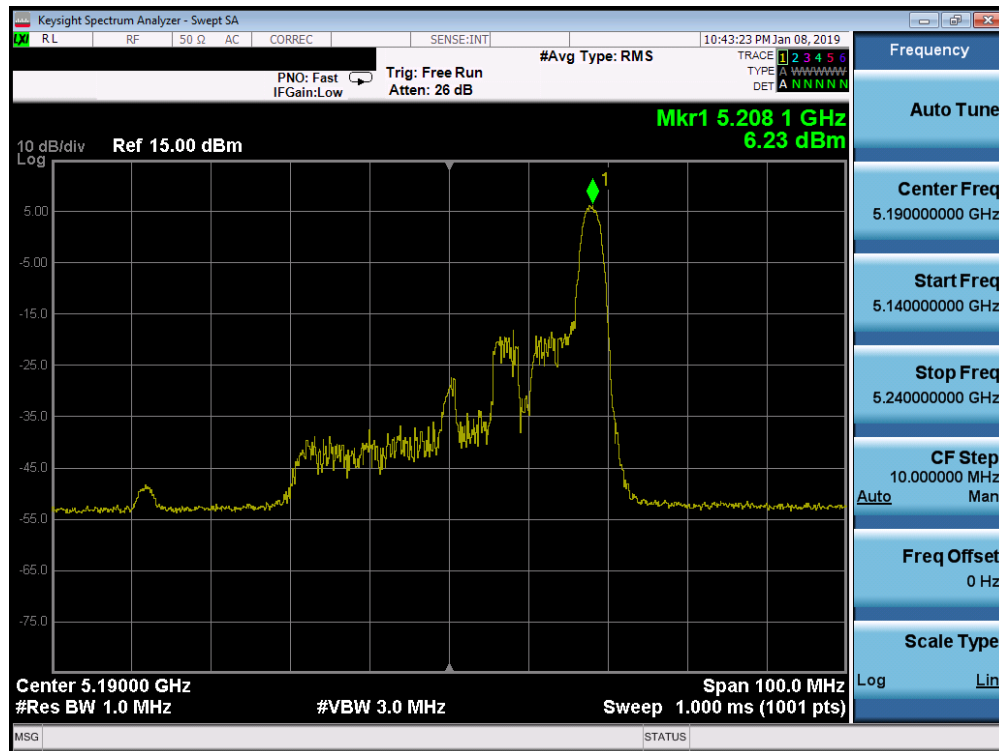


Plot 7-497. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 40)

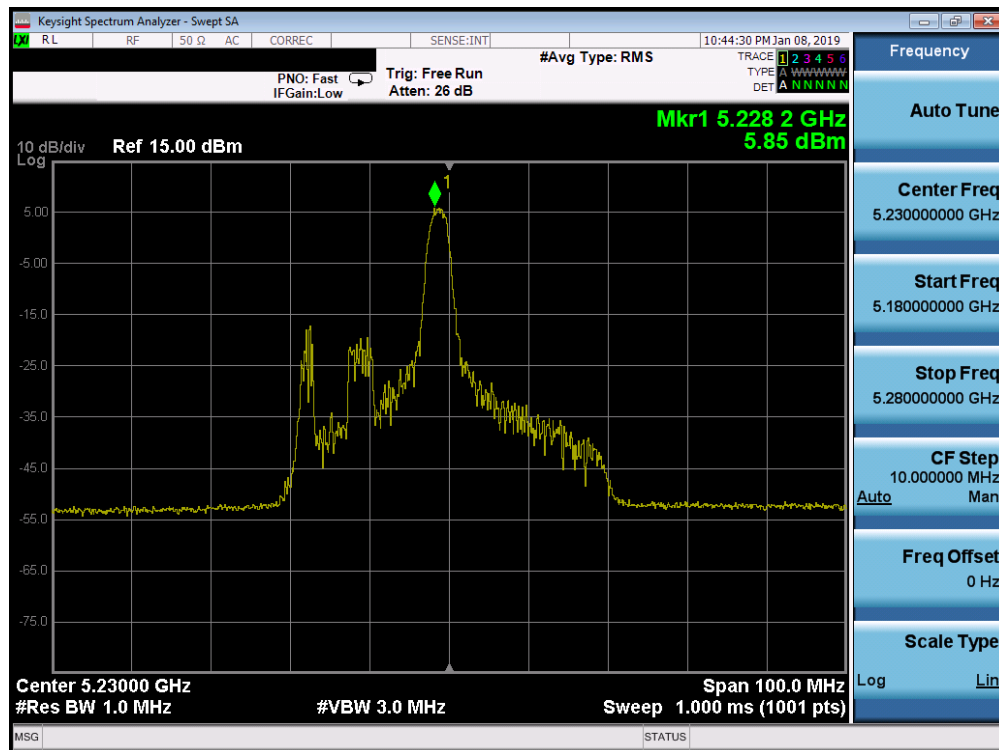


Plot 7-498. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 48)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 337 of 519

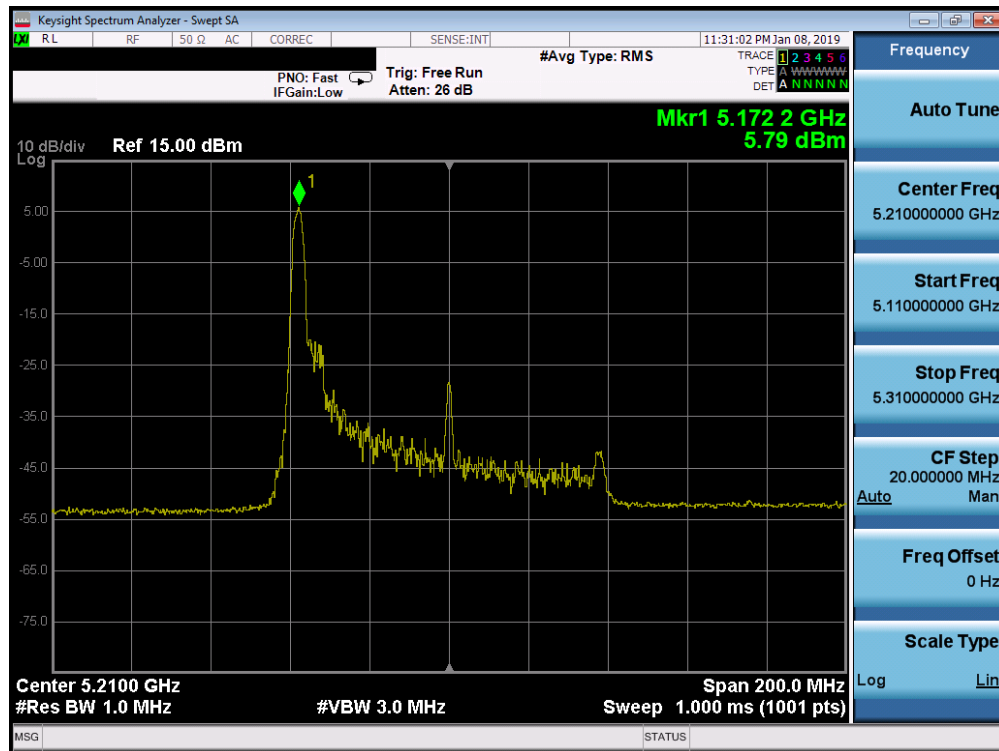


Plot 7-499. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 38)

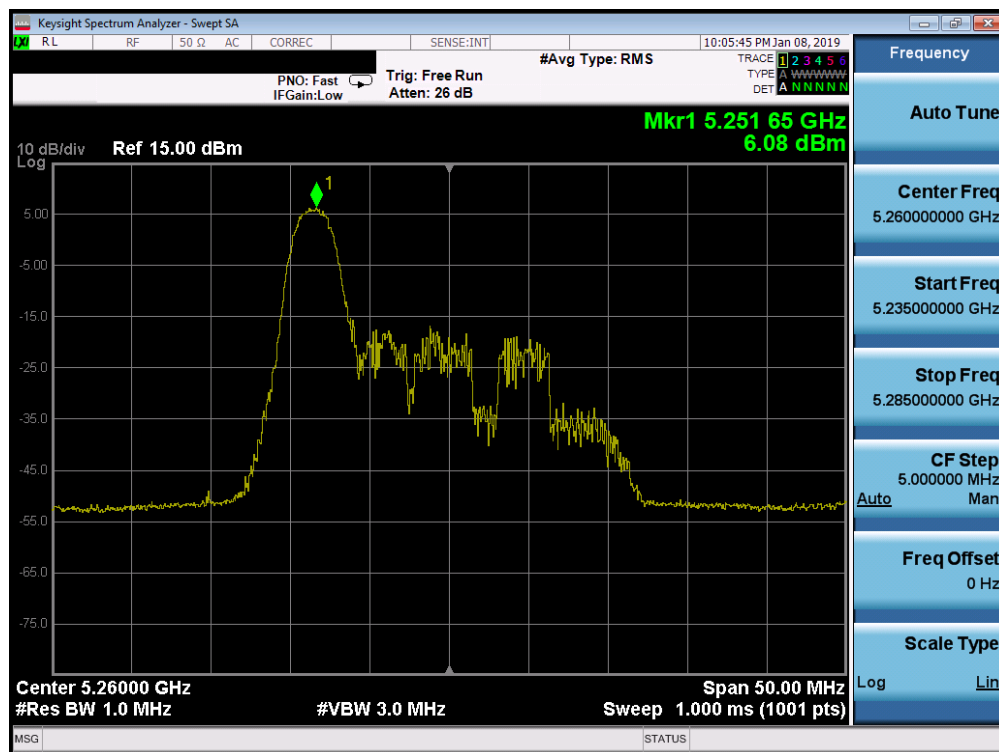


Plot 7-500. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 46)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 338 of 519

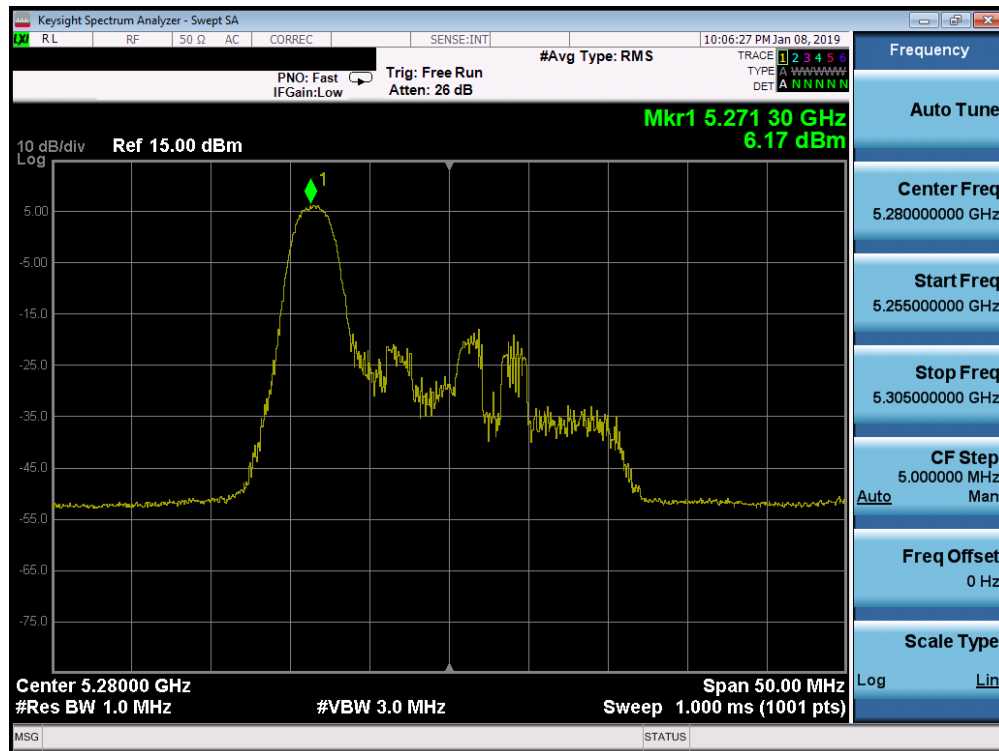


Plot 7-501. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 42)

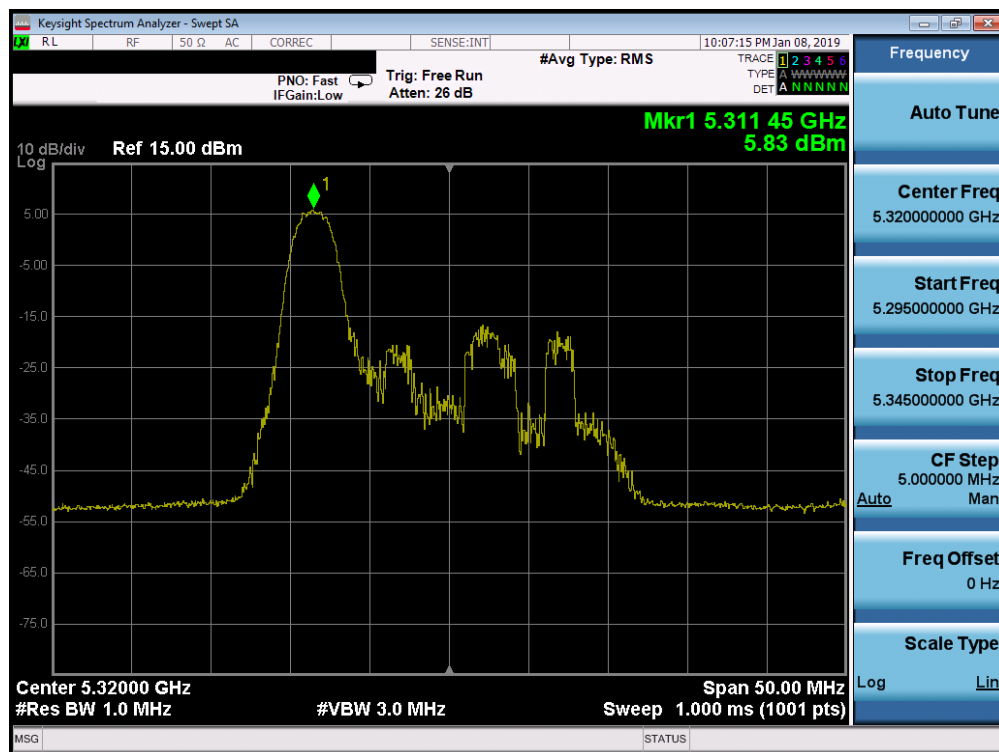


Plot 7-502. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 52)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 339 of 519

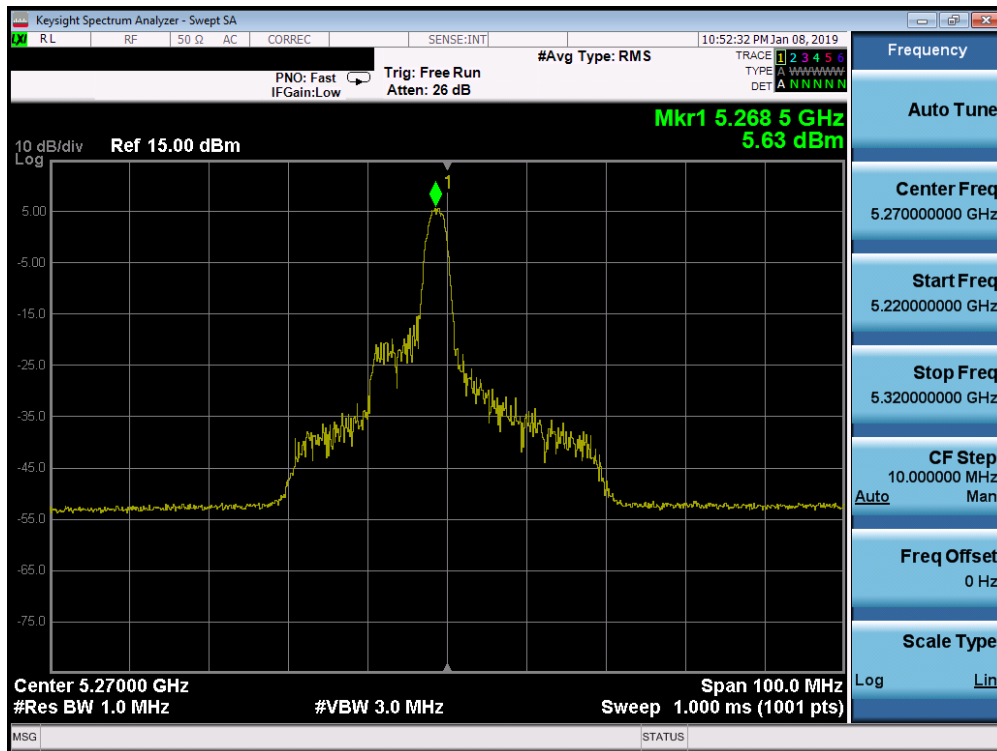


Plot 7-503. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 56)

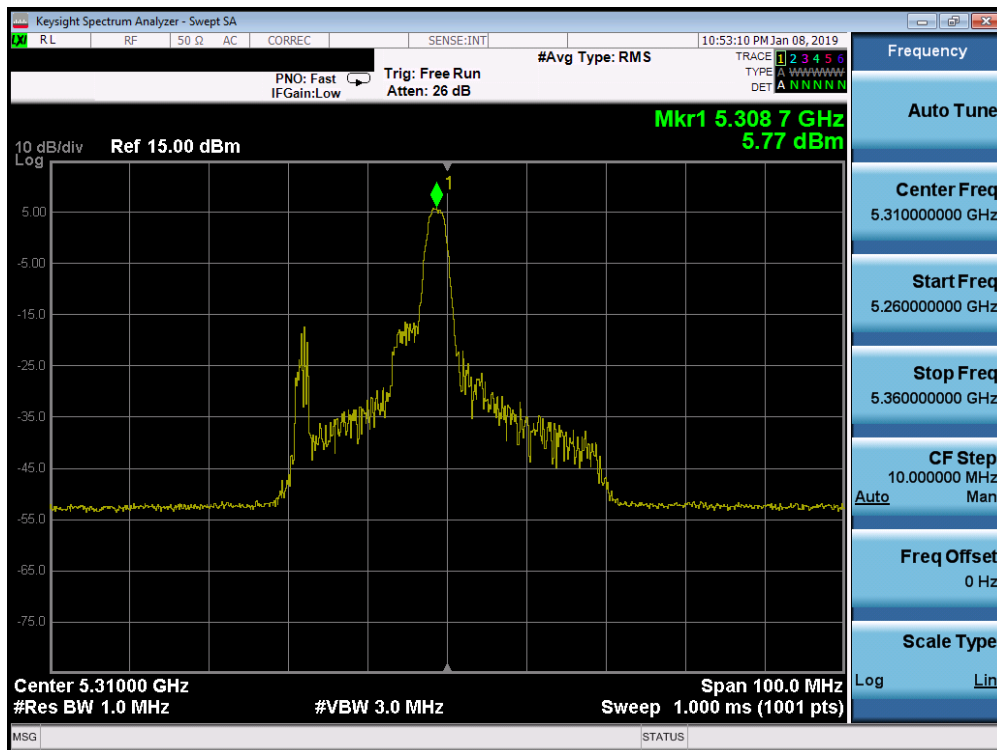


Plot 7-504. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 64)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 340 of 519

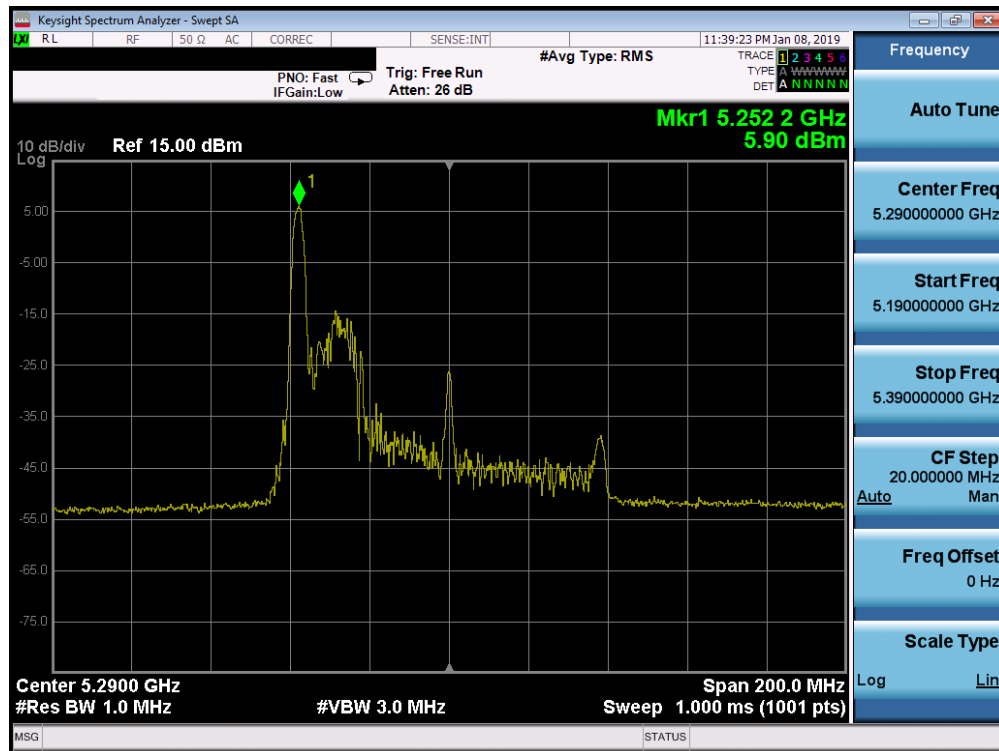


Plot 7-505. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 54)

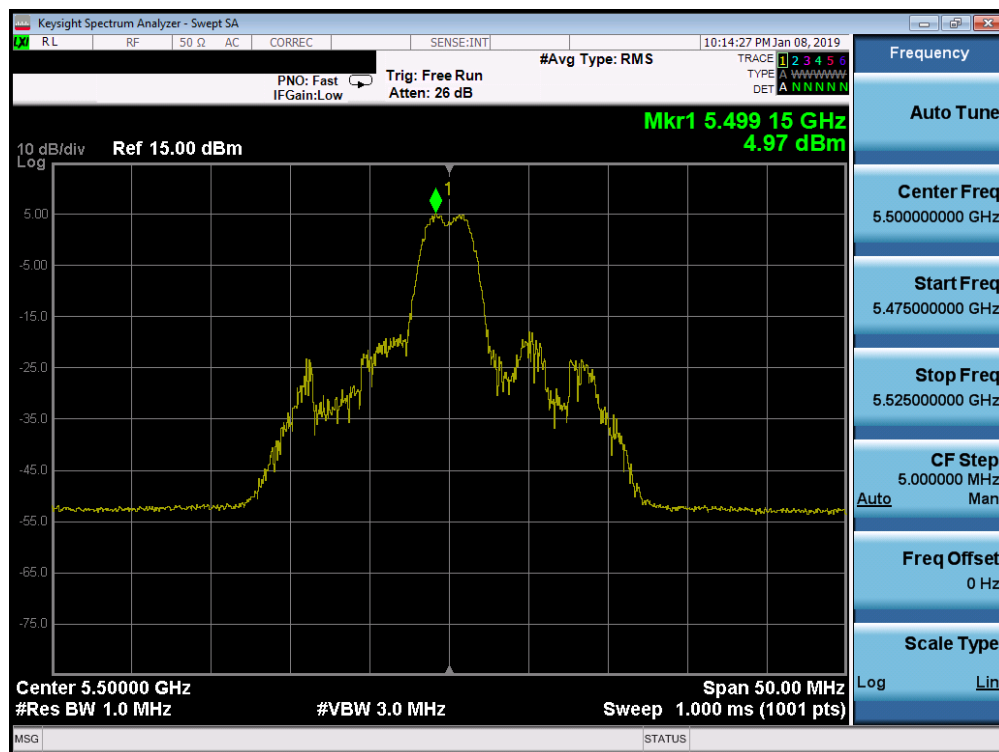


Plot 7-506. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 341 of 519

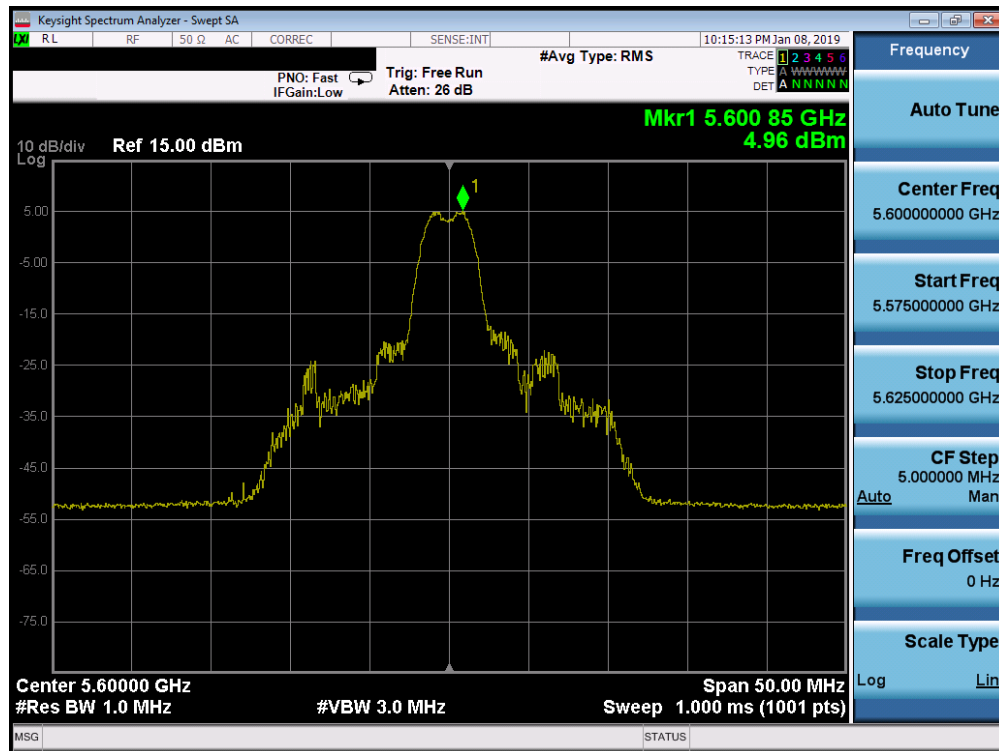


Plot 7-507. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 58)

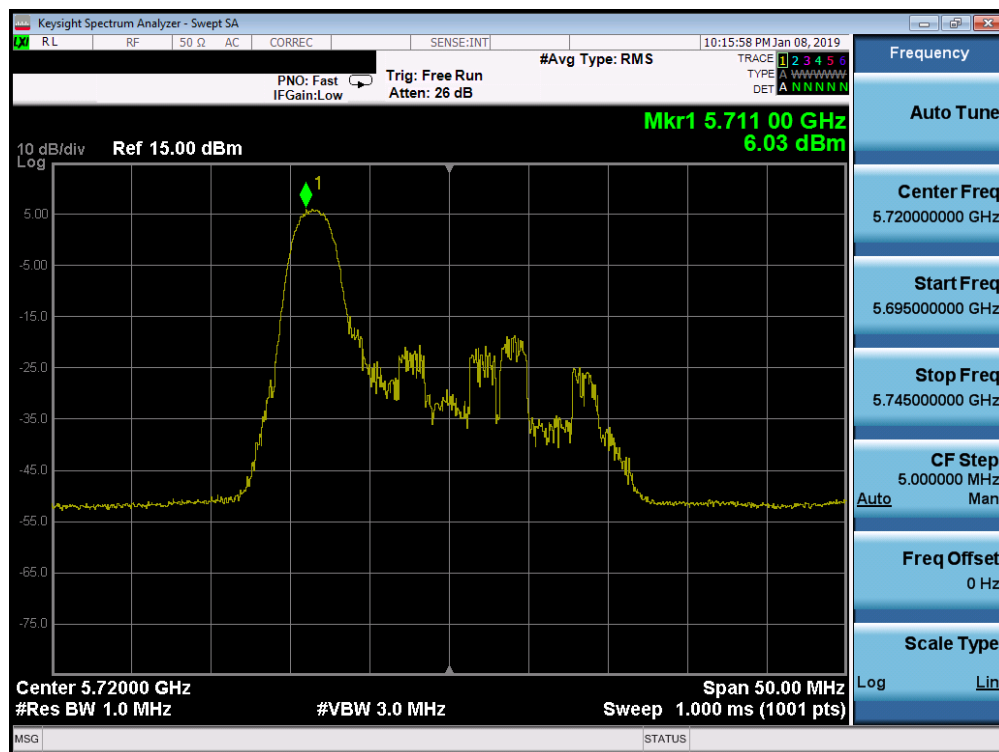


Plot 7-508. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 342 of 519

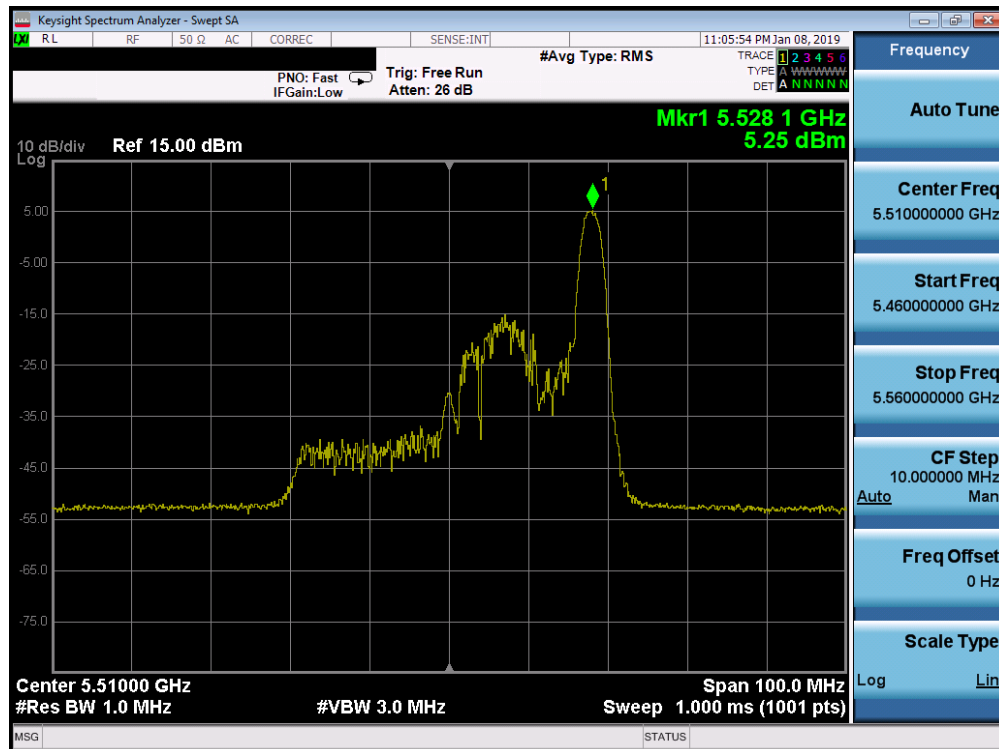


Plot 7-509. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 120)

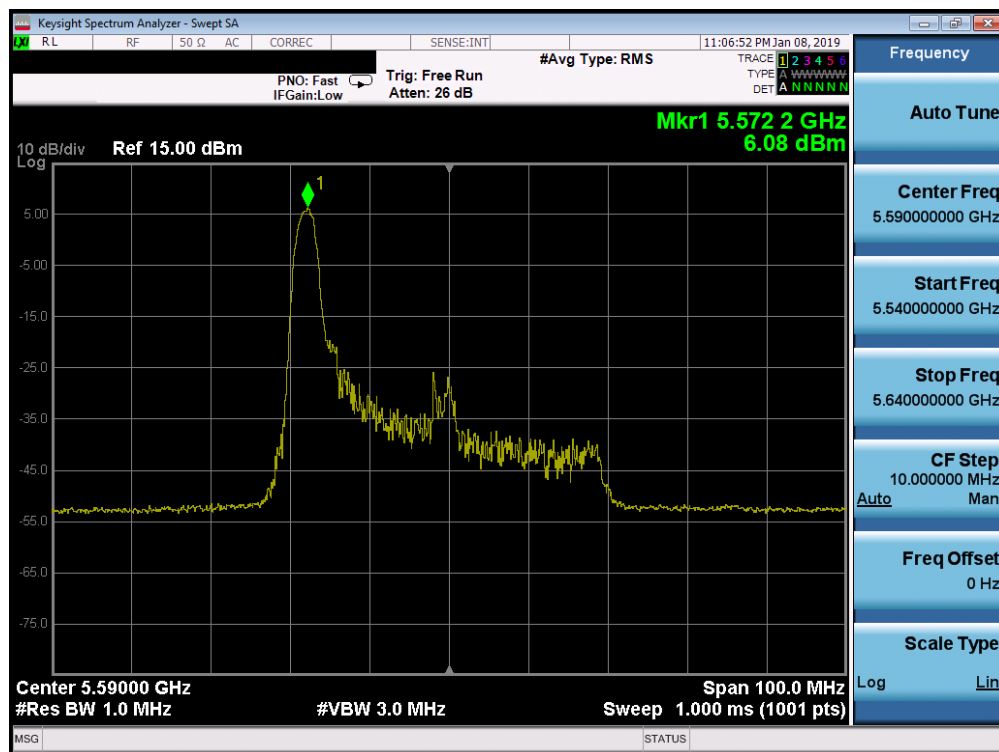


Plot 7-510. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 343 of 519

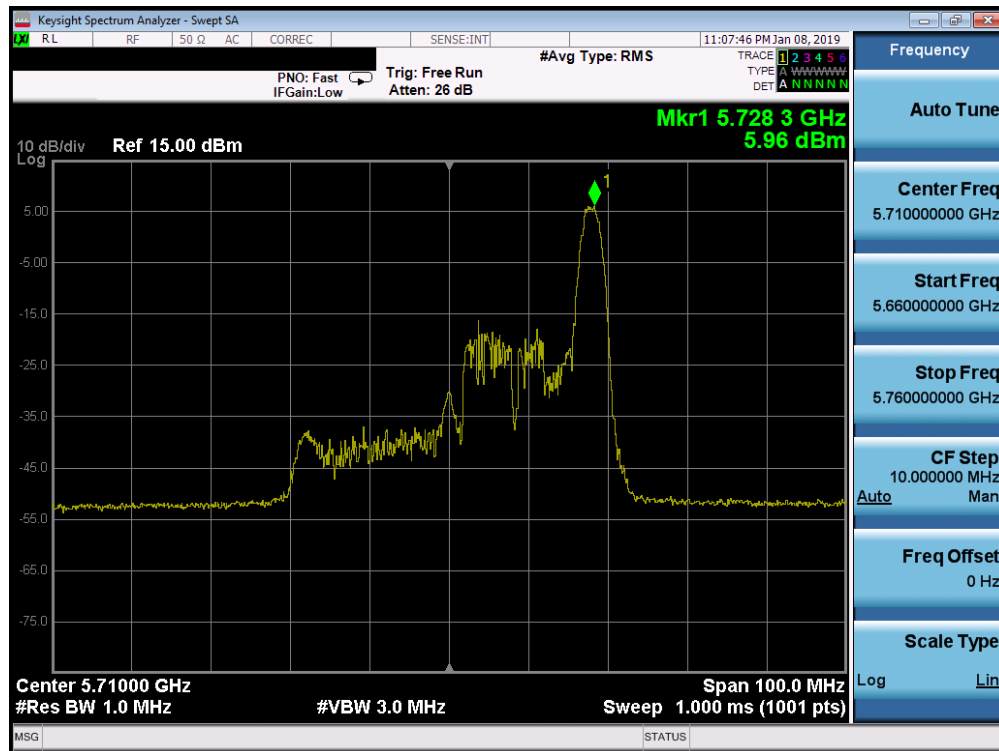


Plot 7-511. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 102)

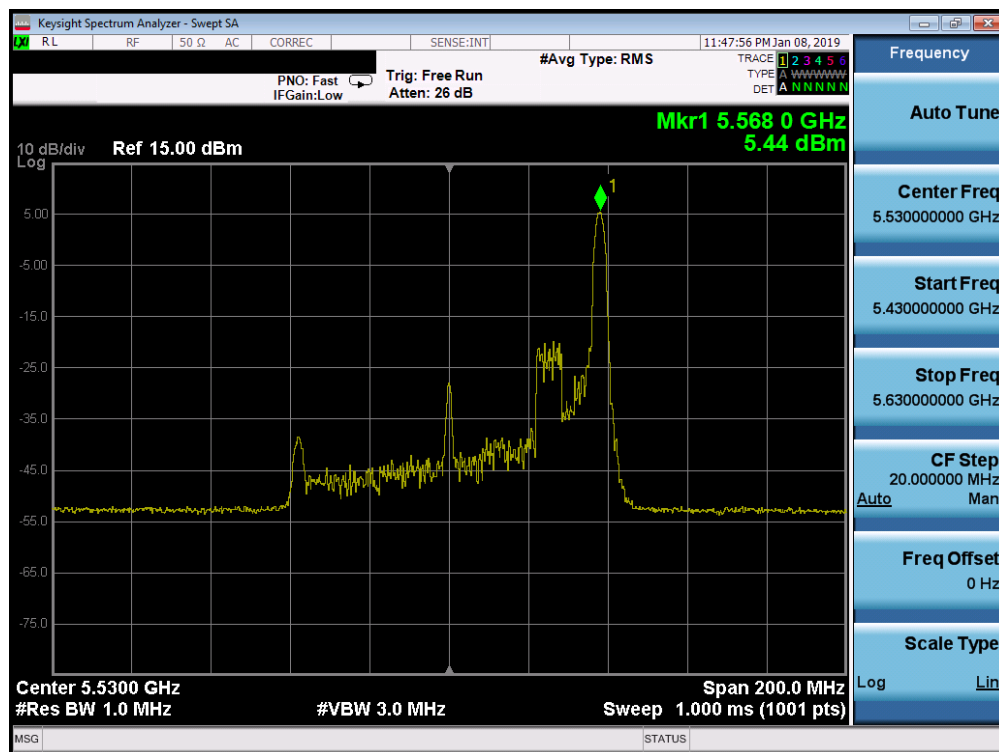


Plot 7-512. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 344 of 519

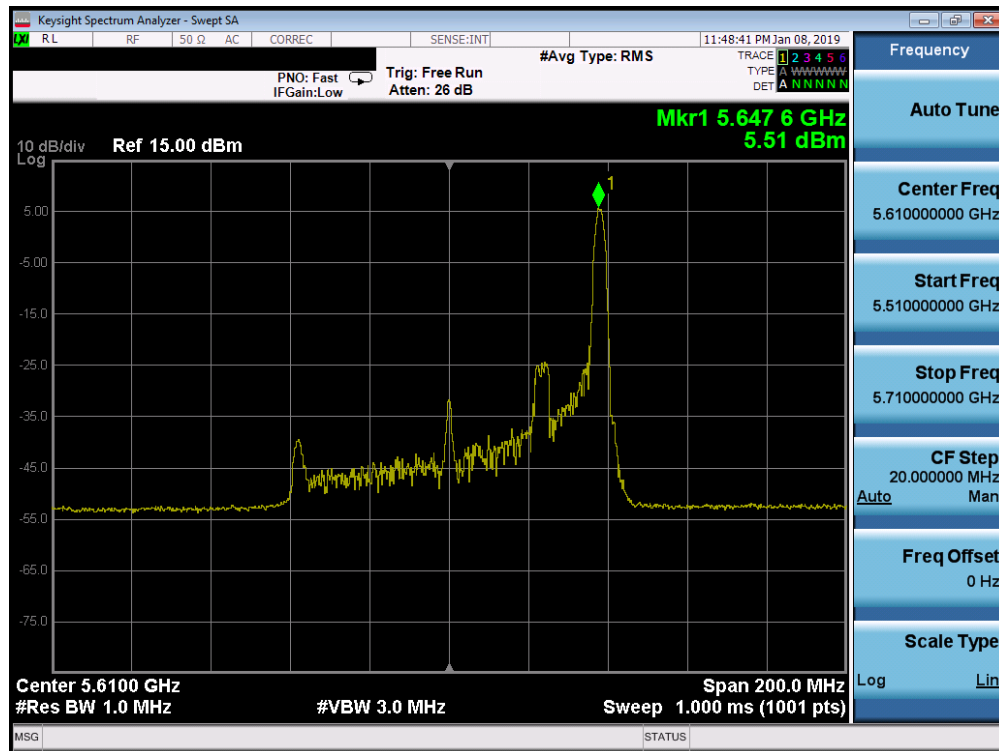


Plot 7-513. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 142)

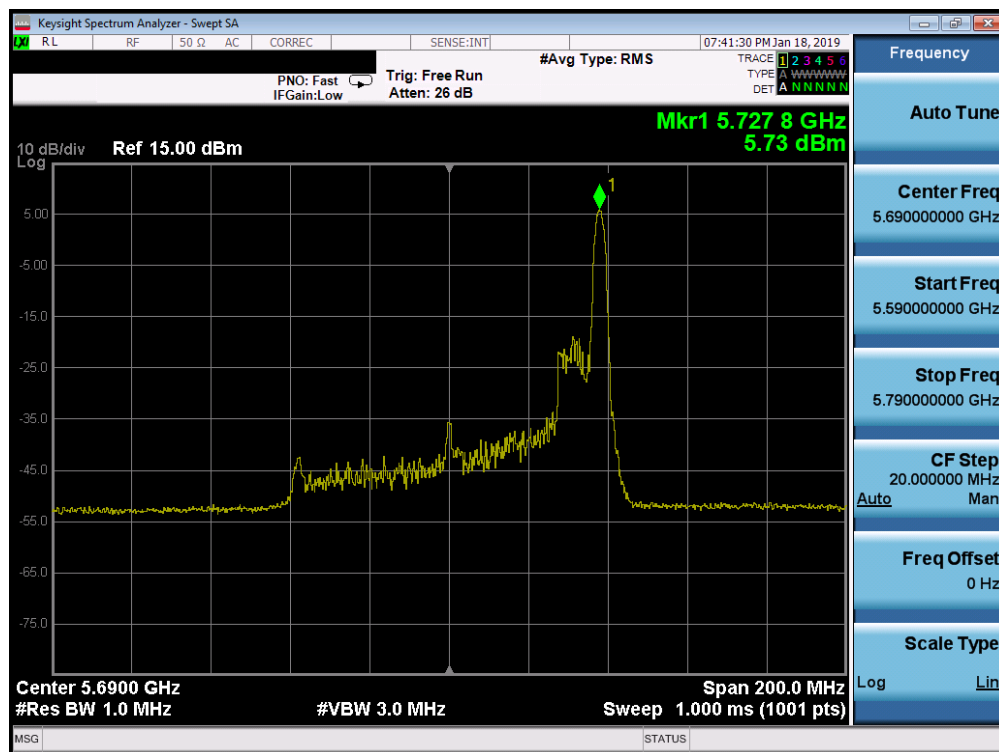


Plot 7-514. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 345 of 519

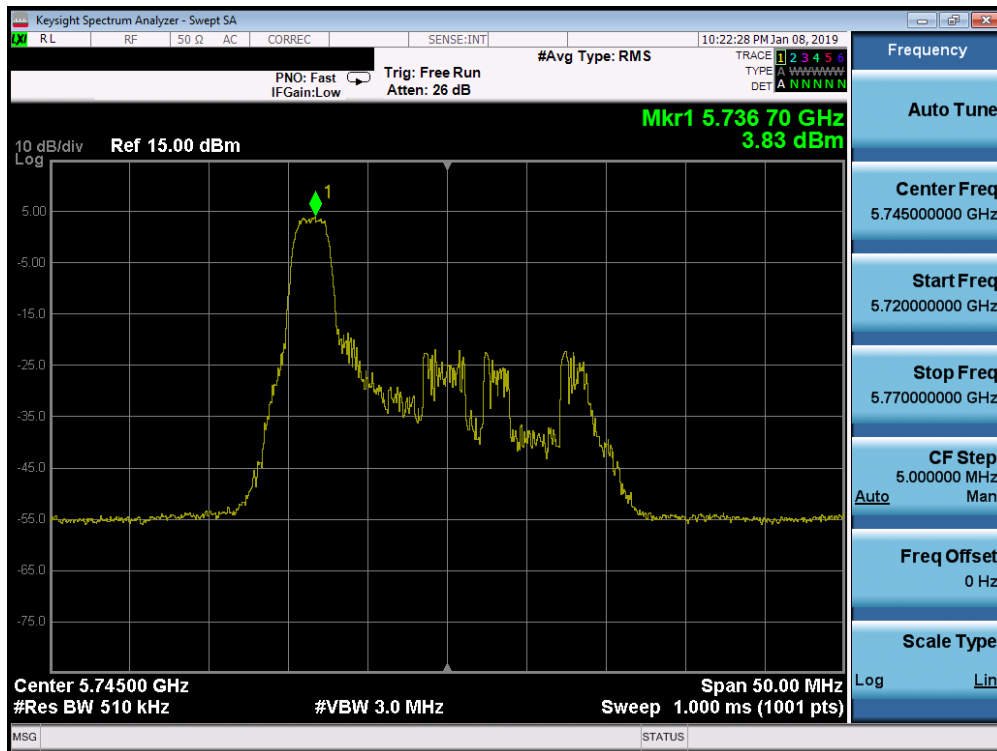


Plot 7-515. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 122)

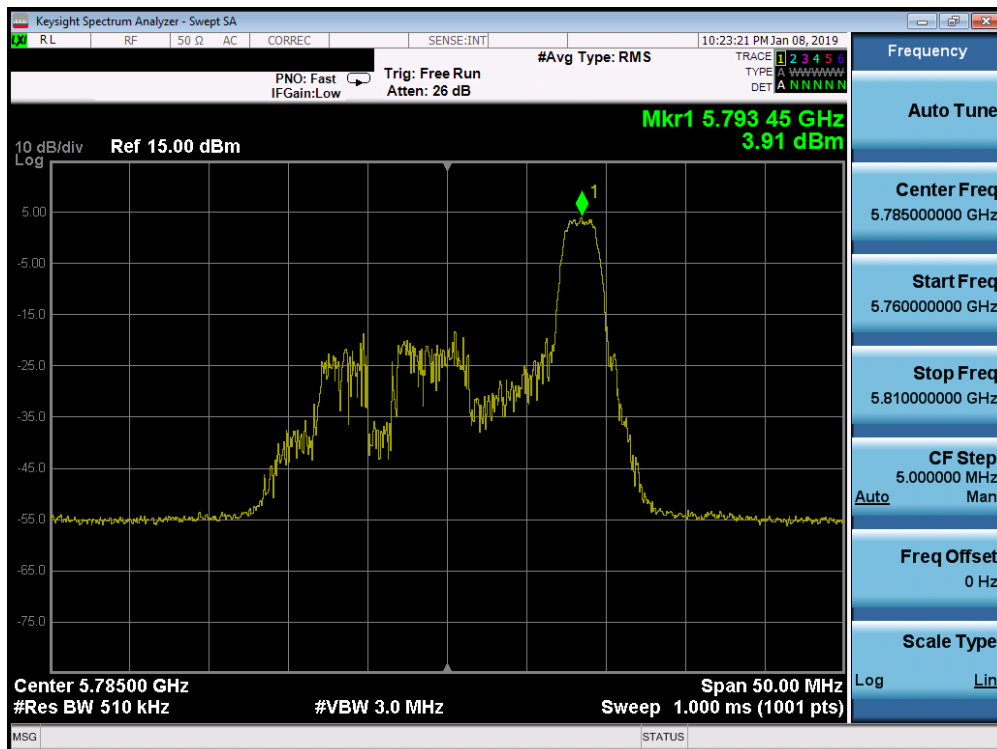


Plot 7-516. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 346 of 519

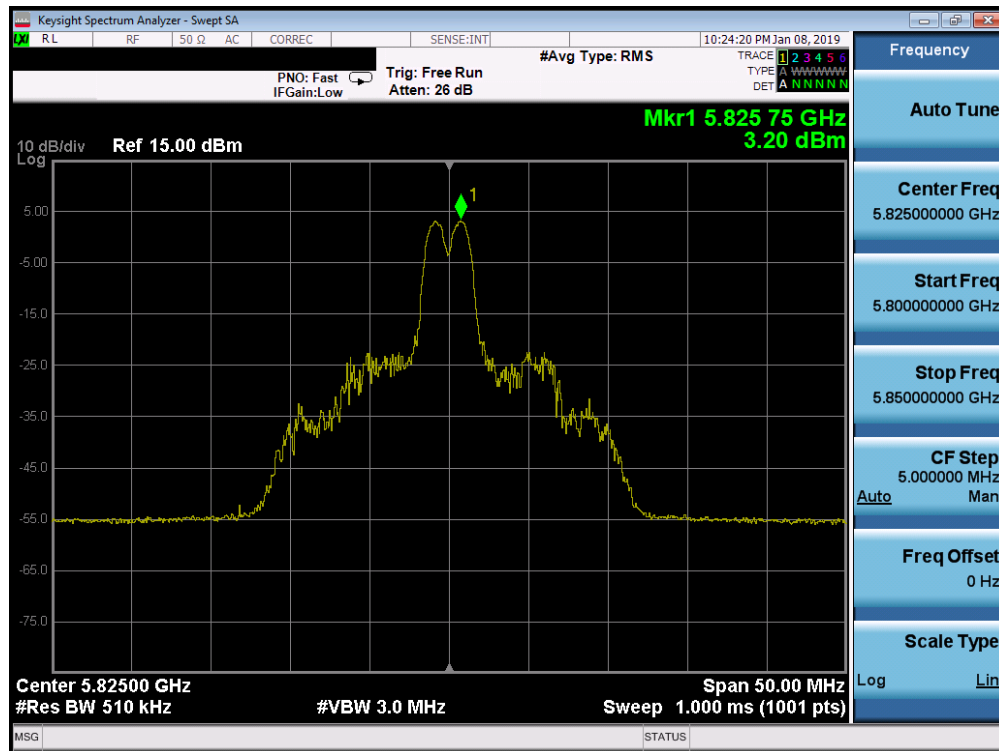


Plot 7-517. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 149)

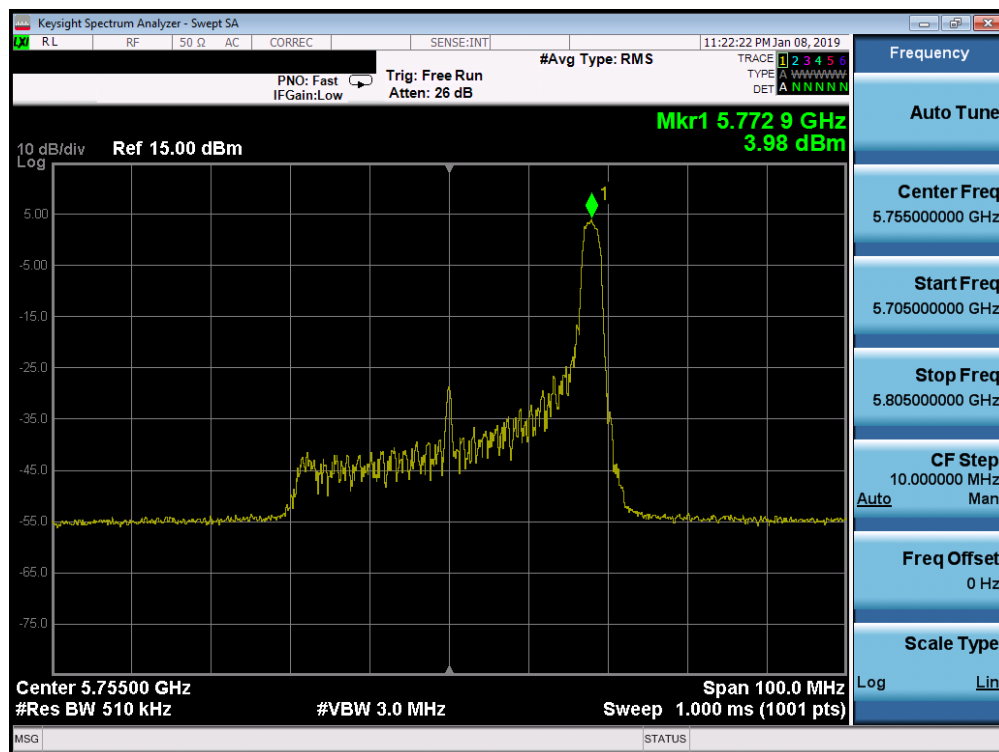


Plot 7-518. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 347 of 519

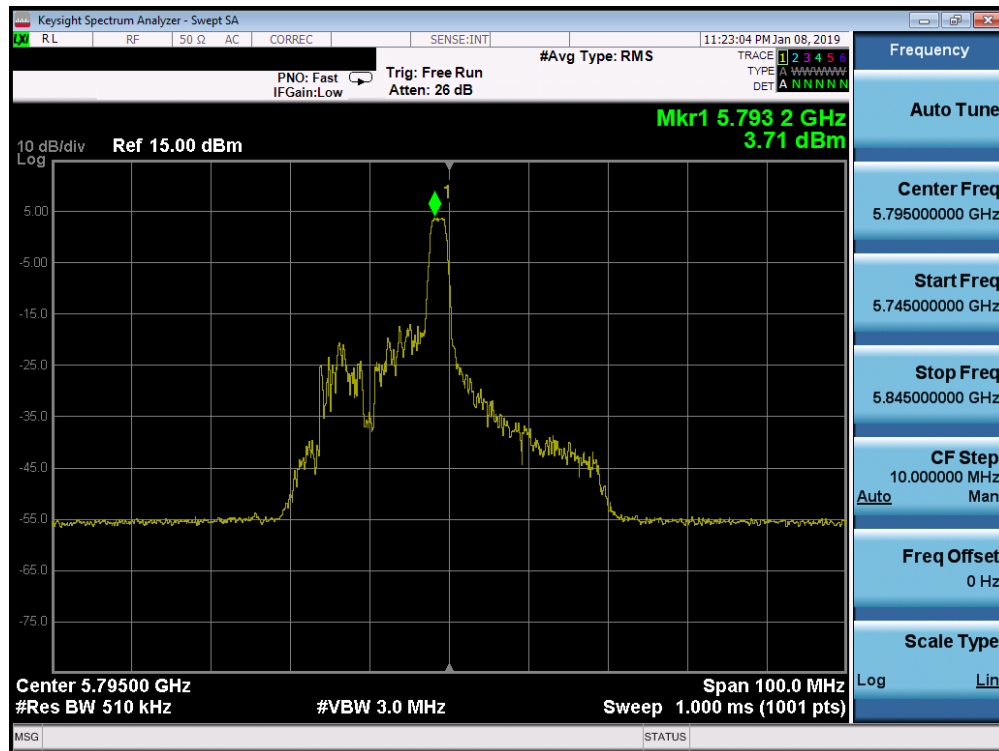


Plot 7-519. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 165)

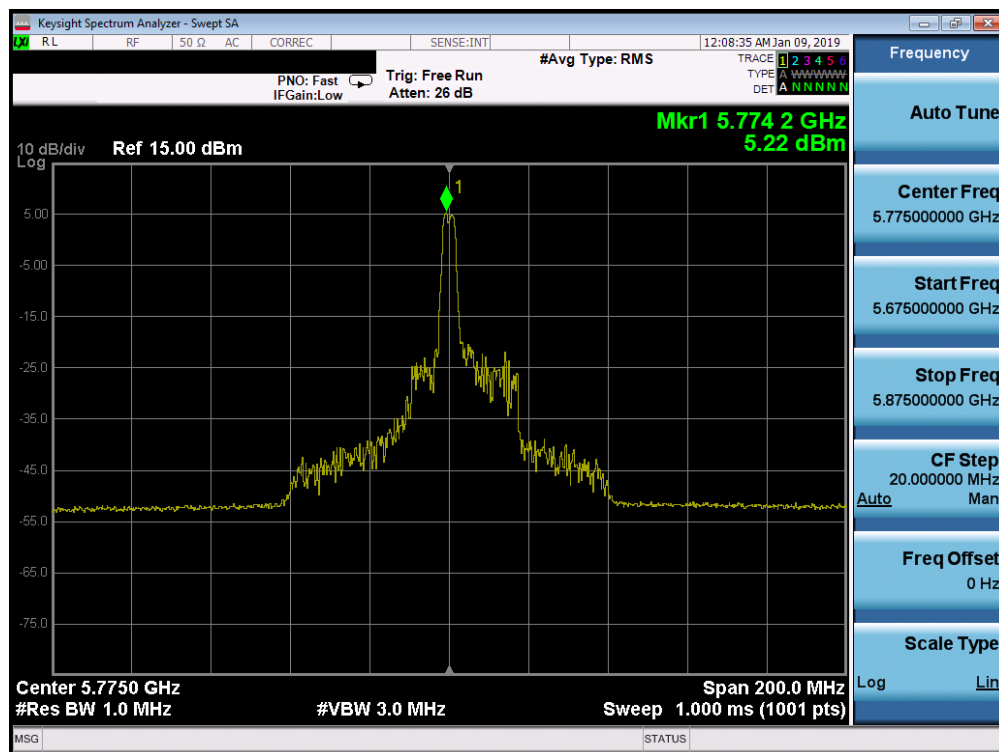


Plot 7-520. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 348 of 519



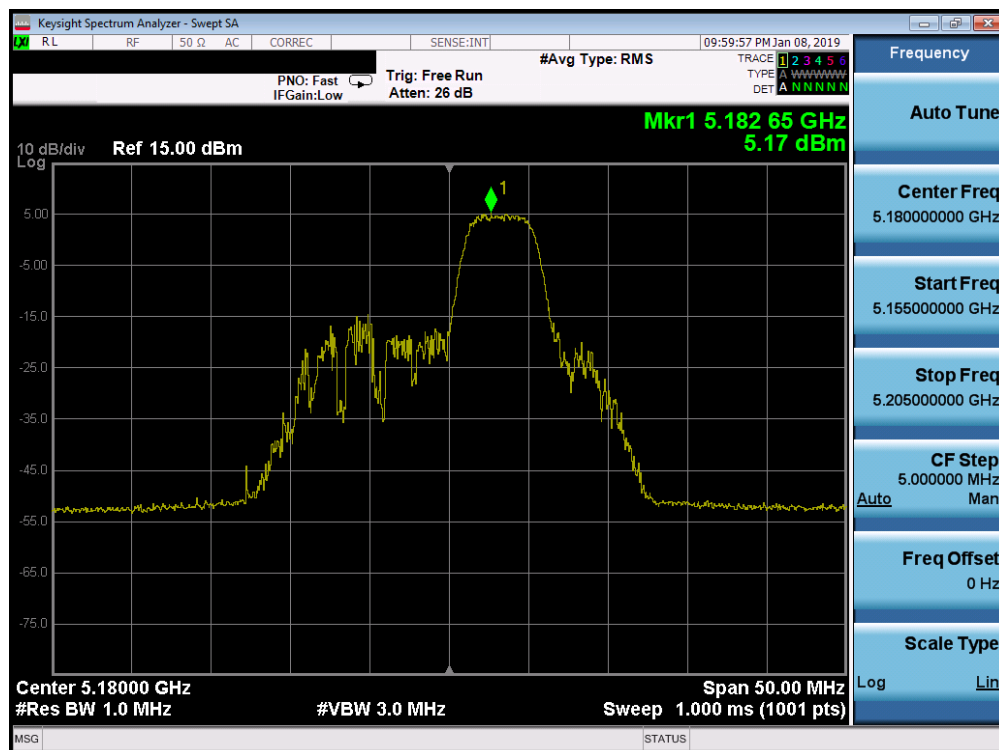
Plot 7-521. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 159)



Plot 7-522. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 155)

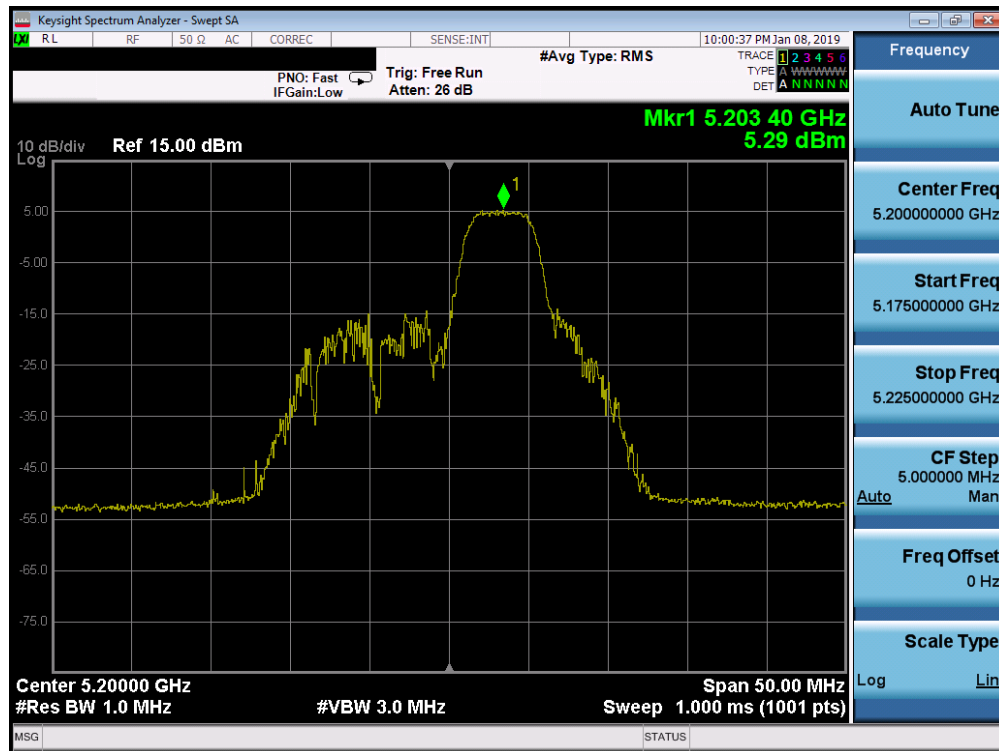
FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 349 of 519		

MIMO Antenna-2 Power Spectral Density Measurements (52 Tones)

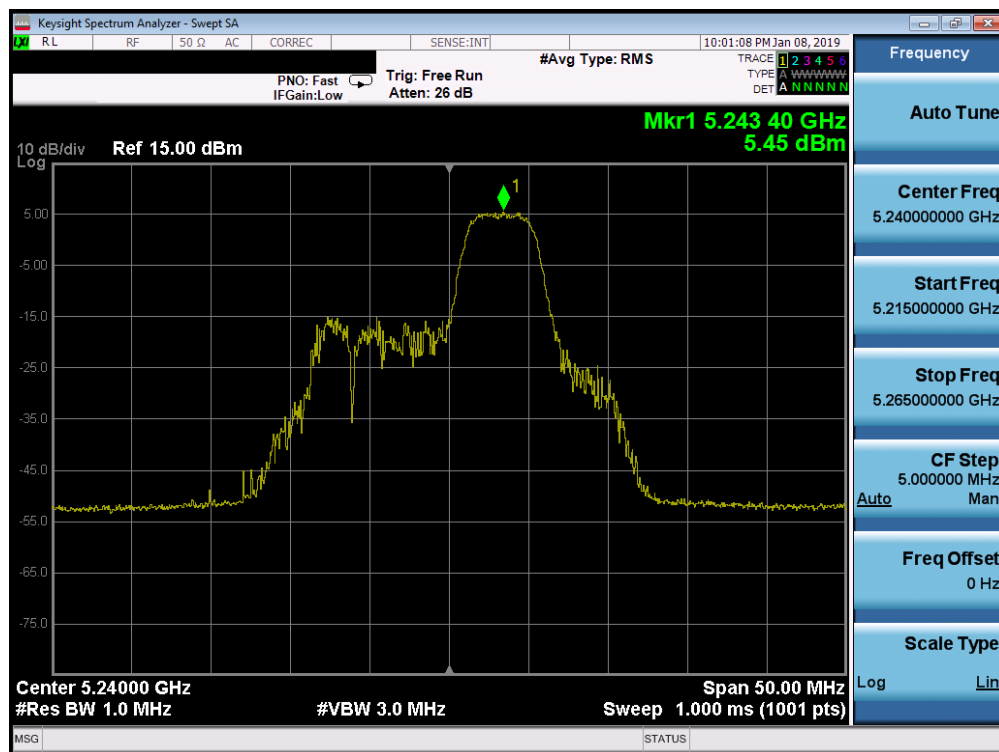


Plot 7-523. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 36)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 350 of 519

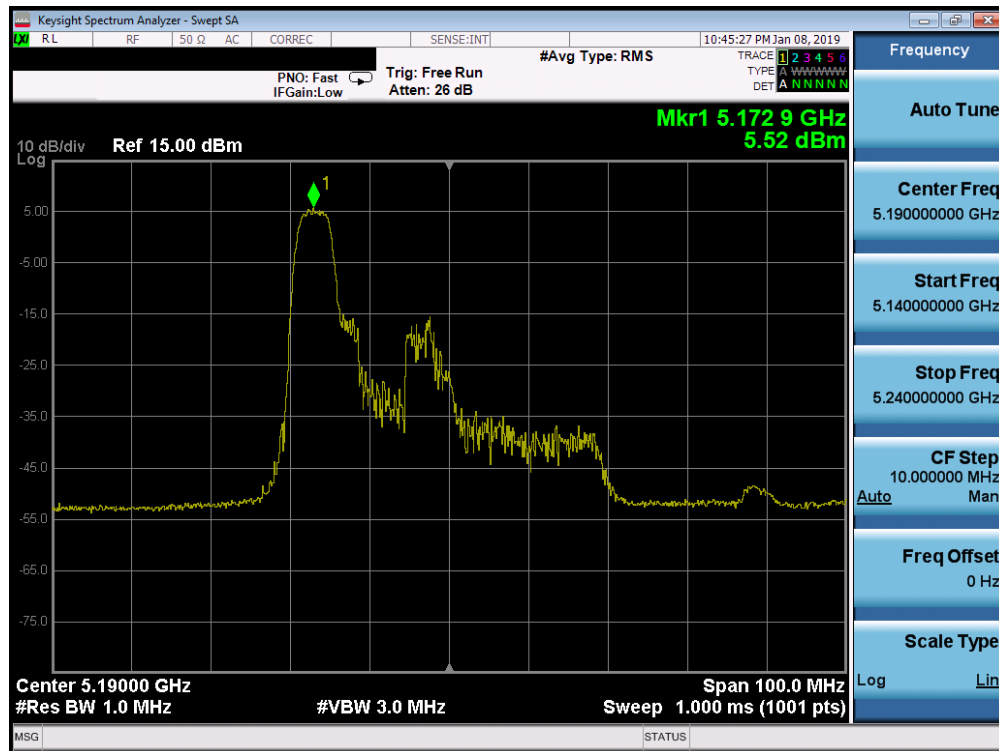


Plot 7-524. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 40)

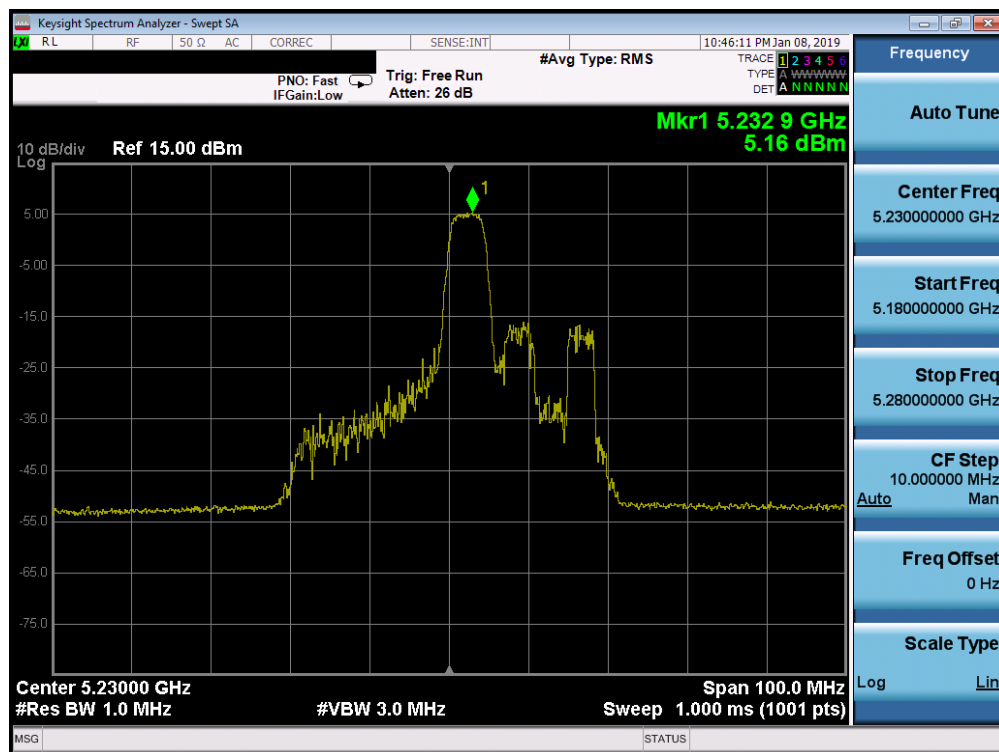


Plot 7-525. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 48)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 351 of 519

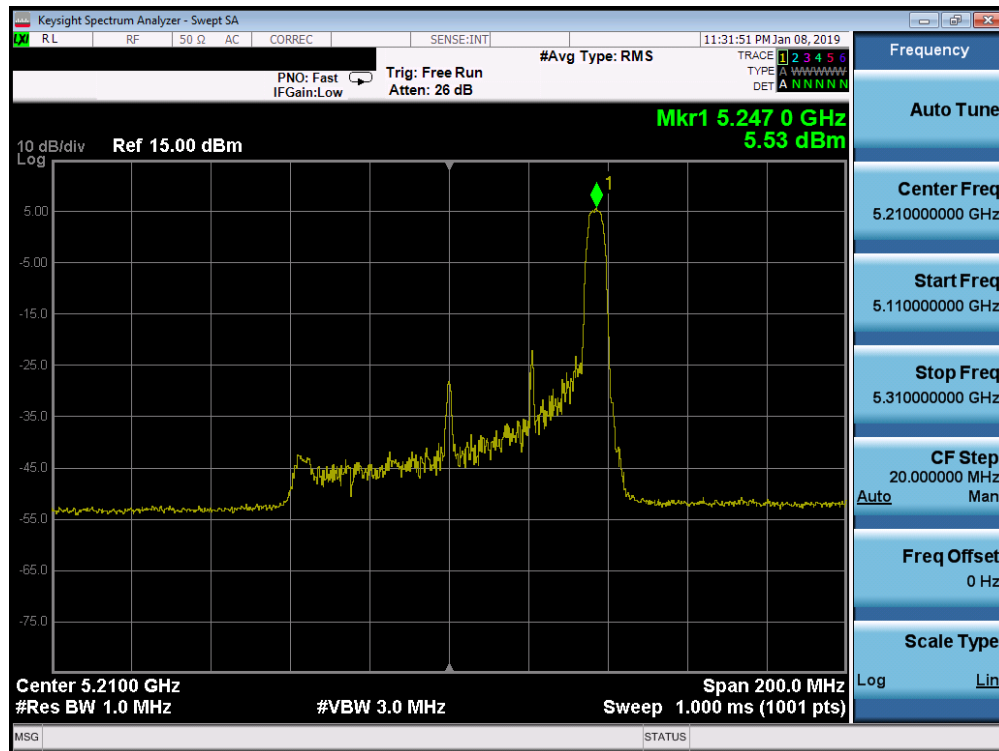


Plot 7-526. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 38)

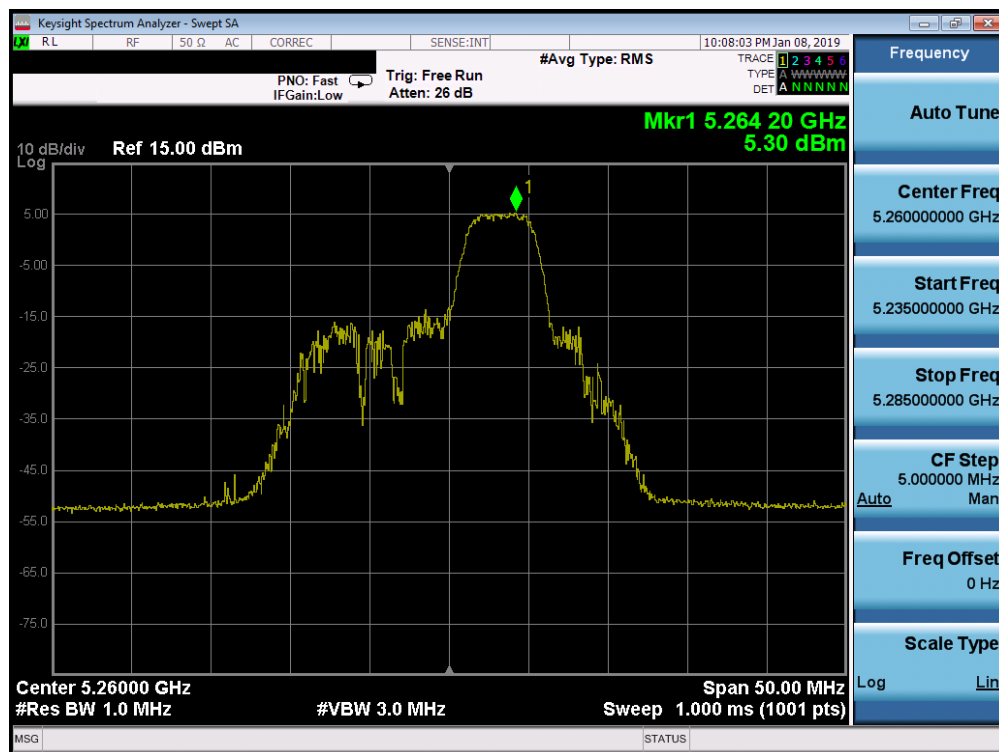


Plot 7-527. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 46)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 352 of 519

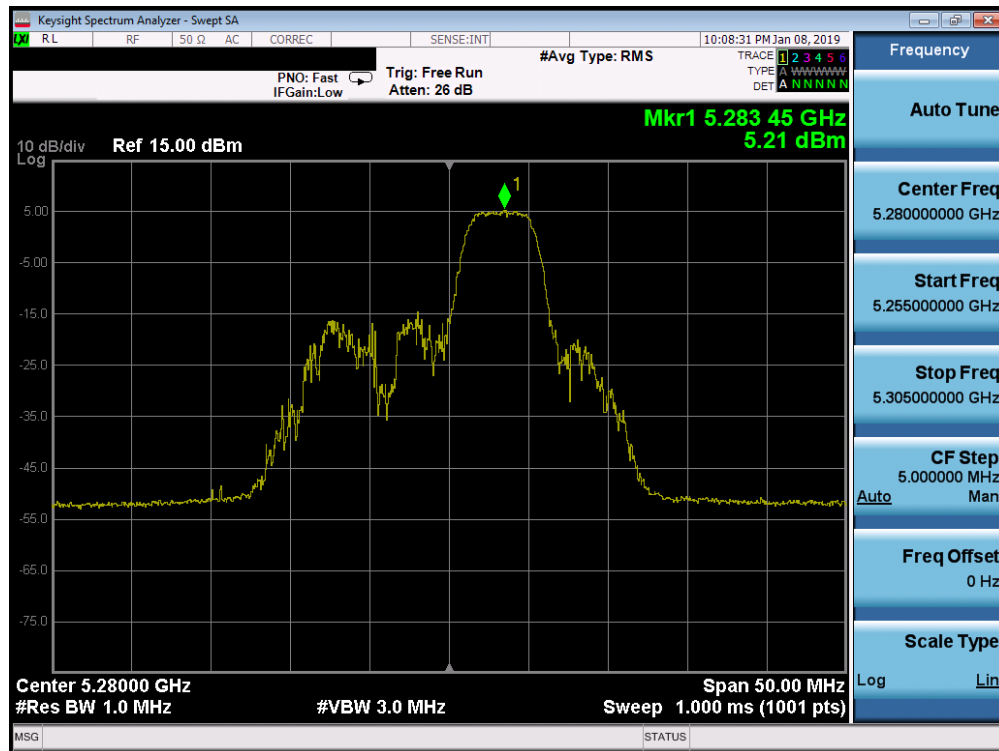


Plot 7-528. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 42)

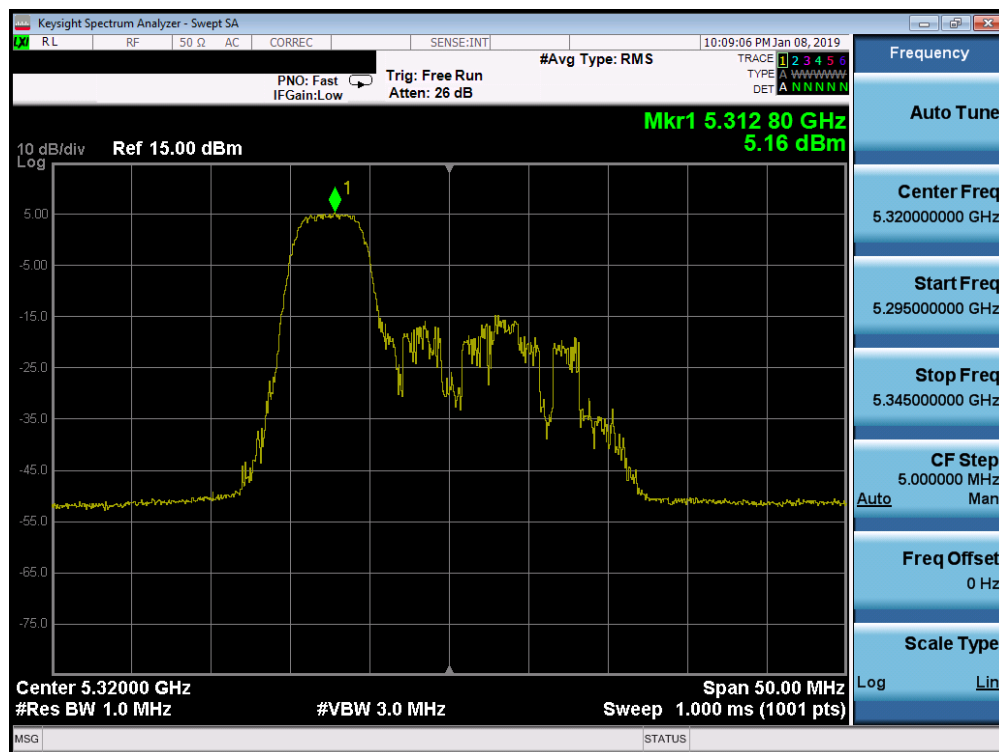


Plot 7-529. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 52)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 353 of 519

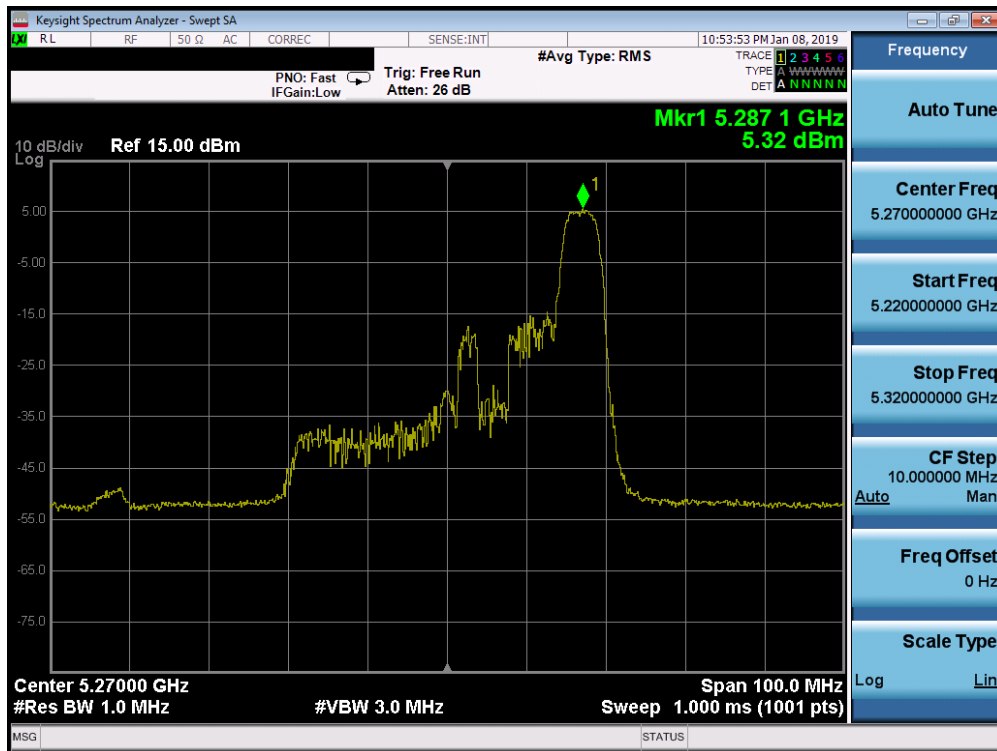


Plot 7-530. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 56)

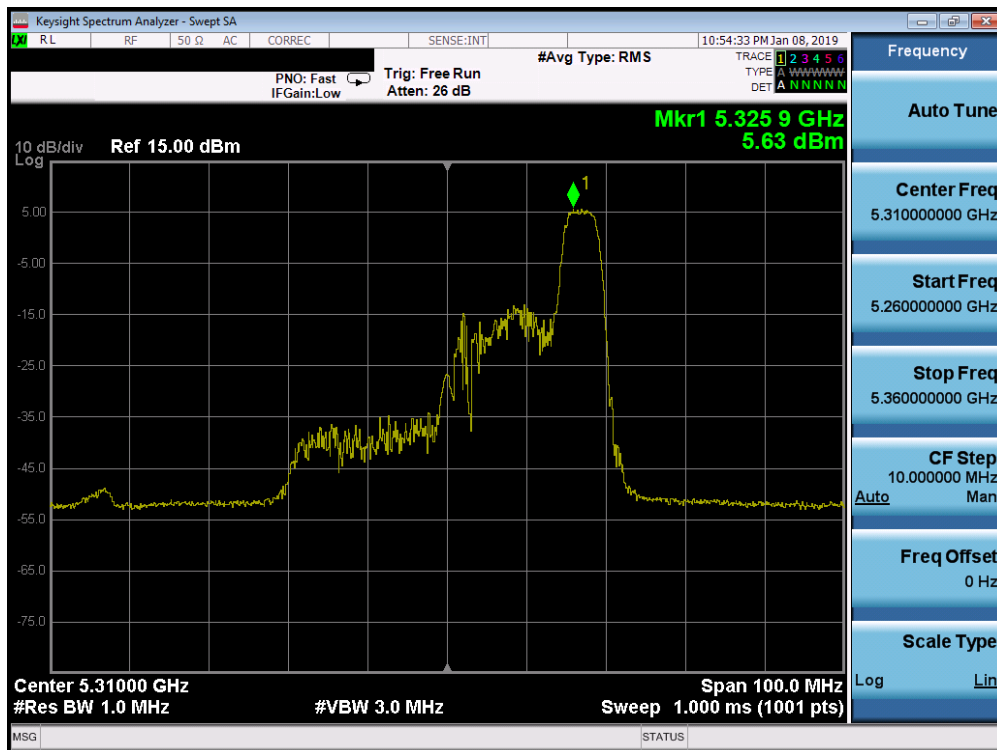


Plot 7-531. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 64)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 354 of 519

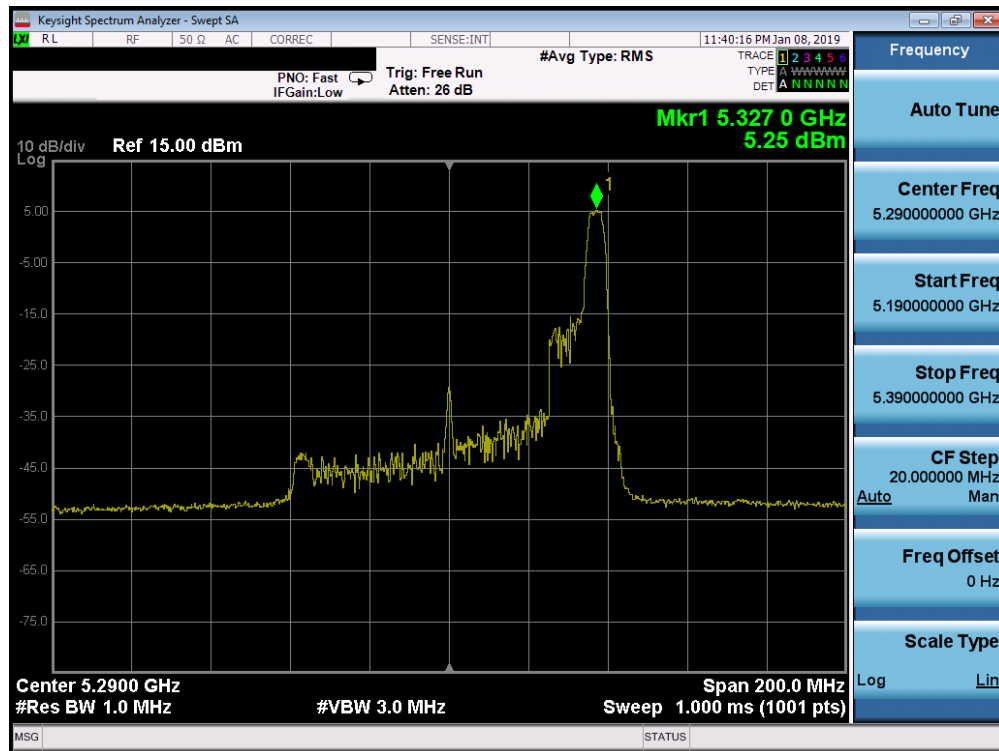


Plot 7-532. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 54)

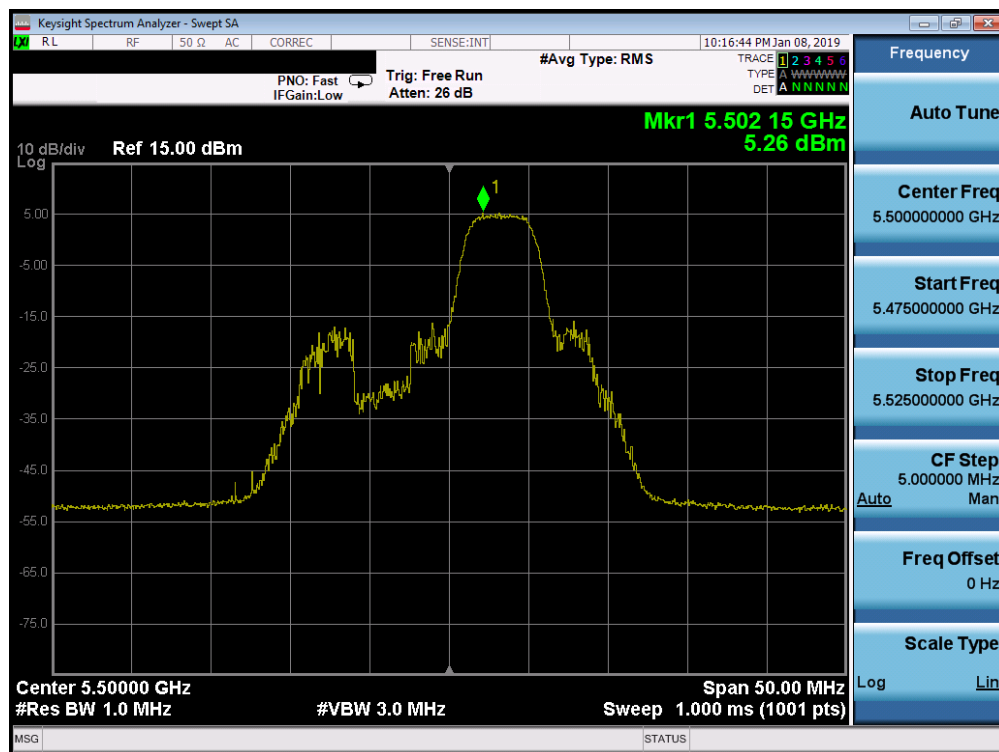


Plot 7-533. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 355 of 519

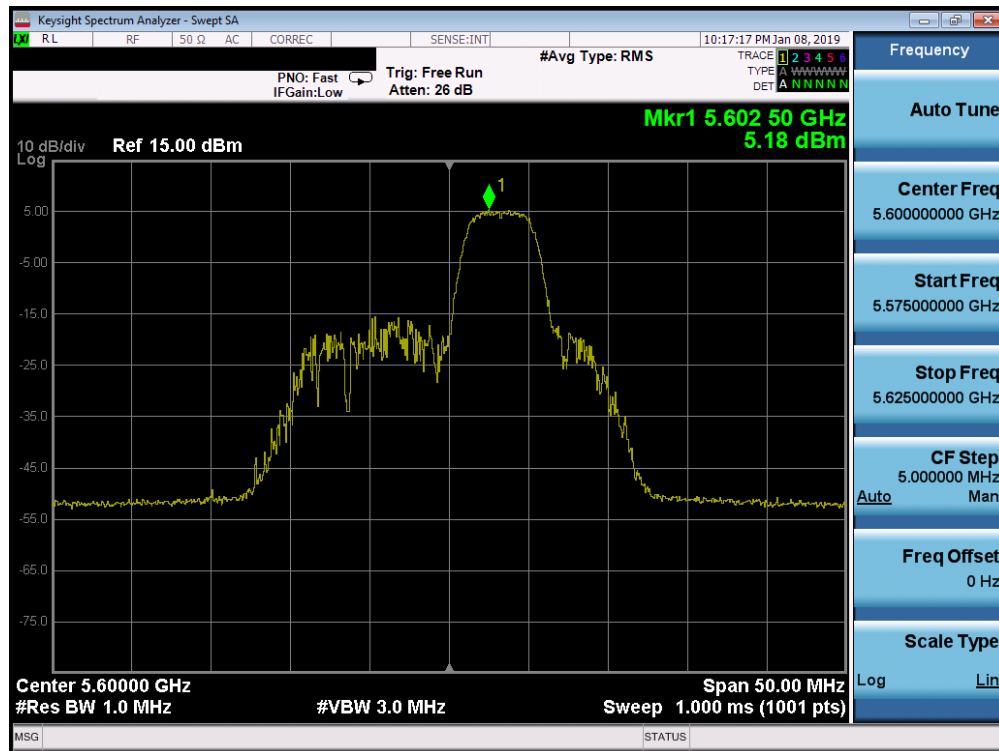


Plot 7-534. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 58)

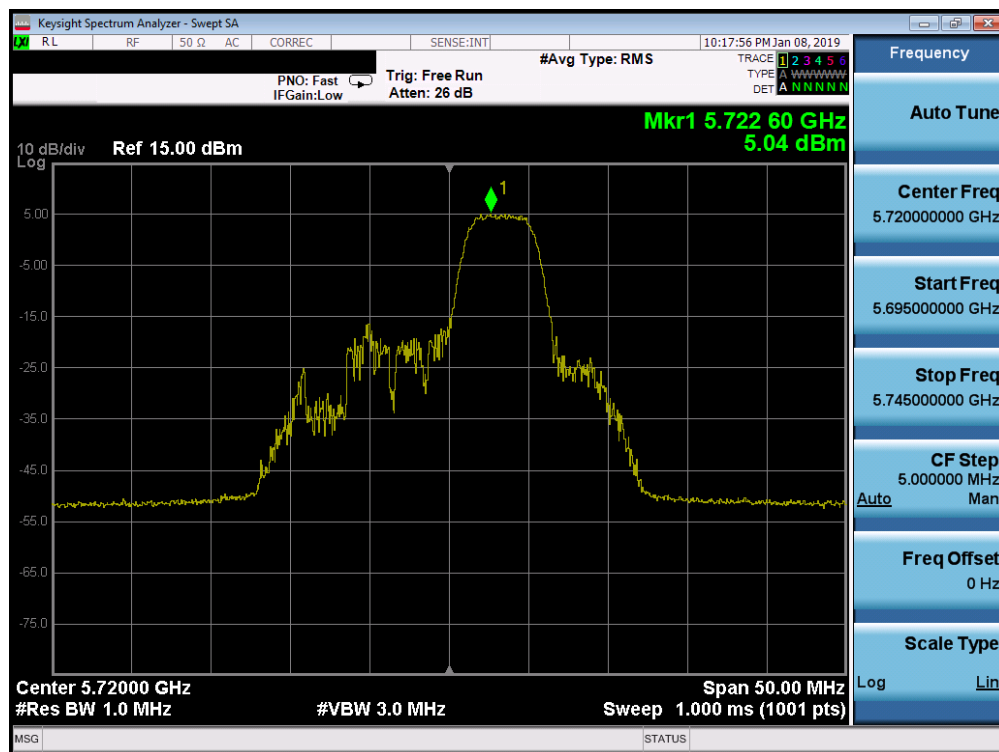


Plot 7-535. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 356 of 519

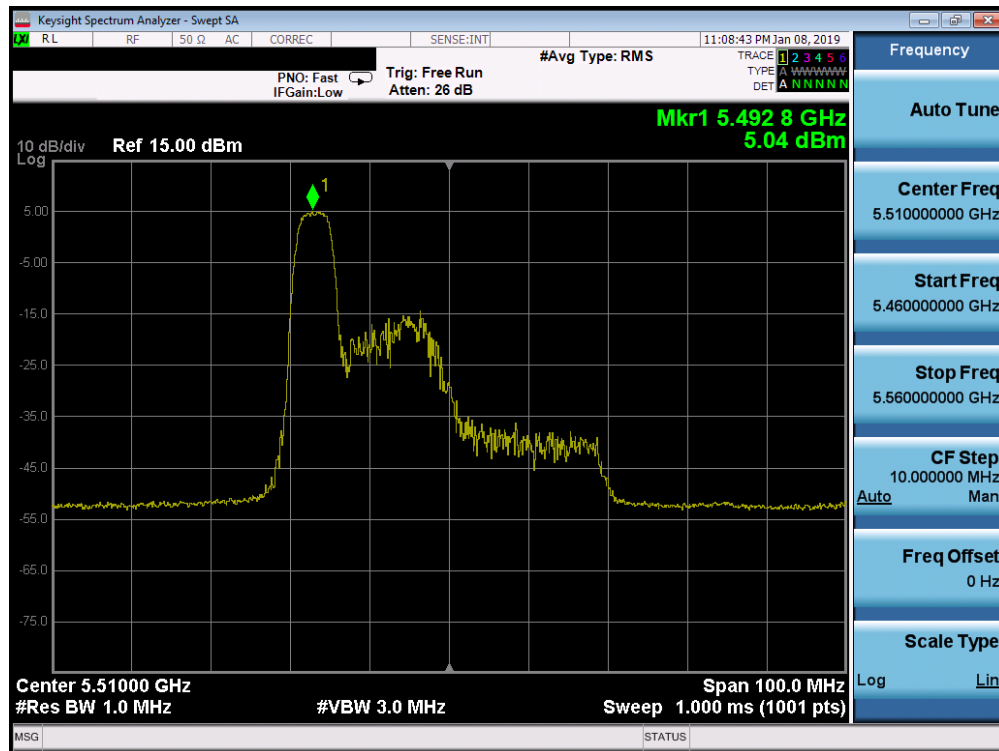


Plot 7-536. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 120)

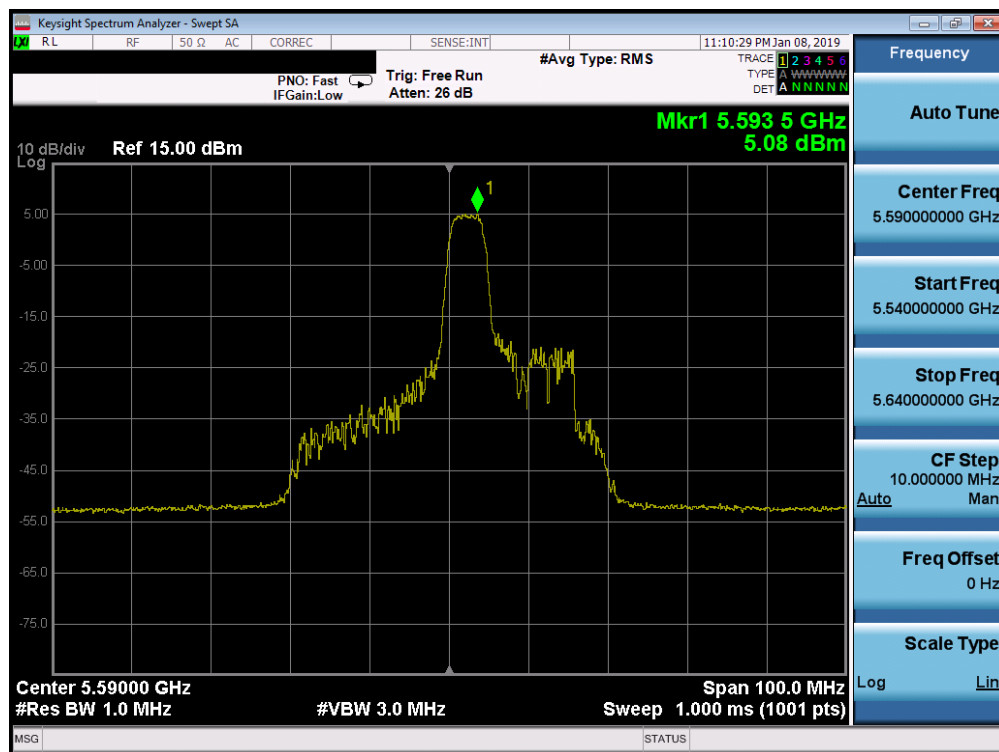


Plot 7-537. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 357 of 519

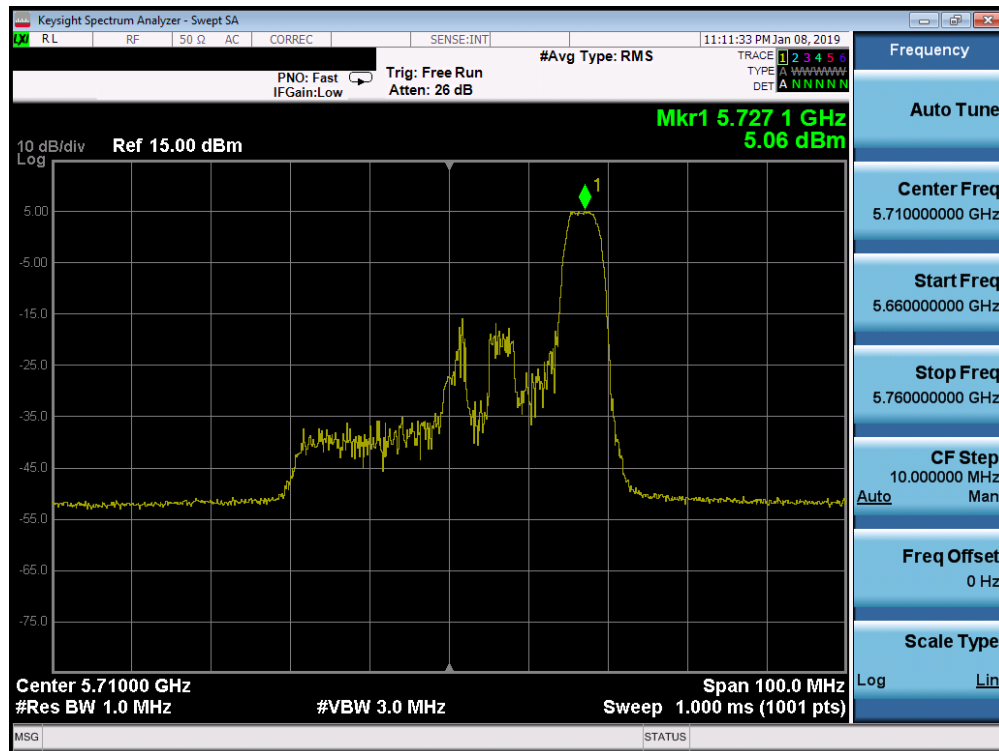


Plot 7-538. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 102)

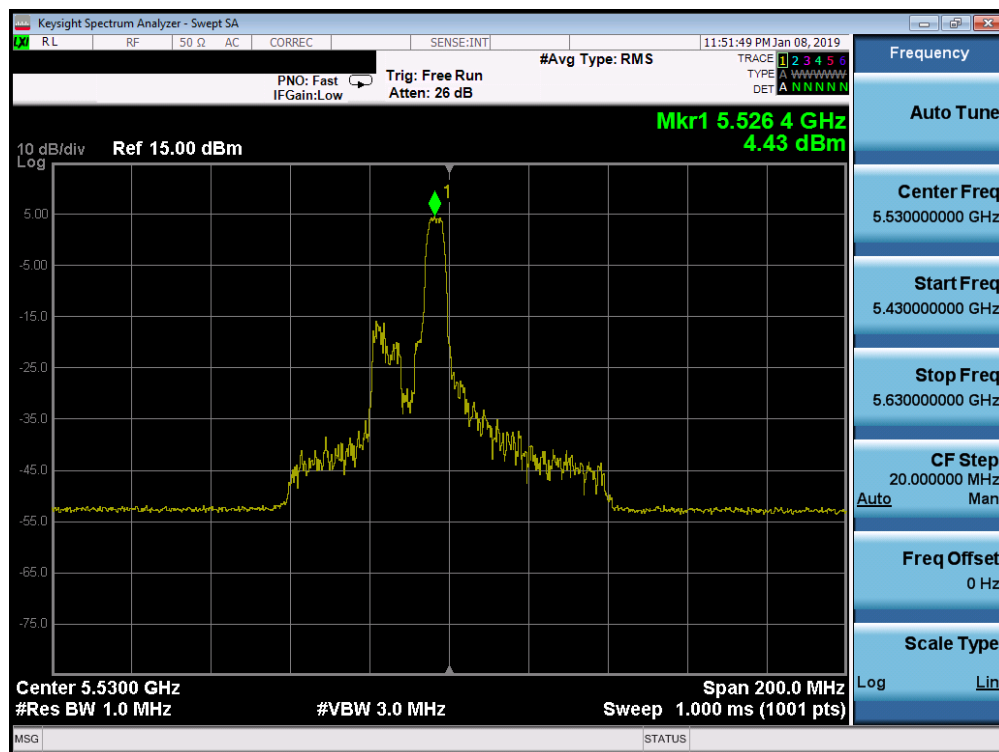


Plot 7-539. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 358 of 519

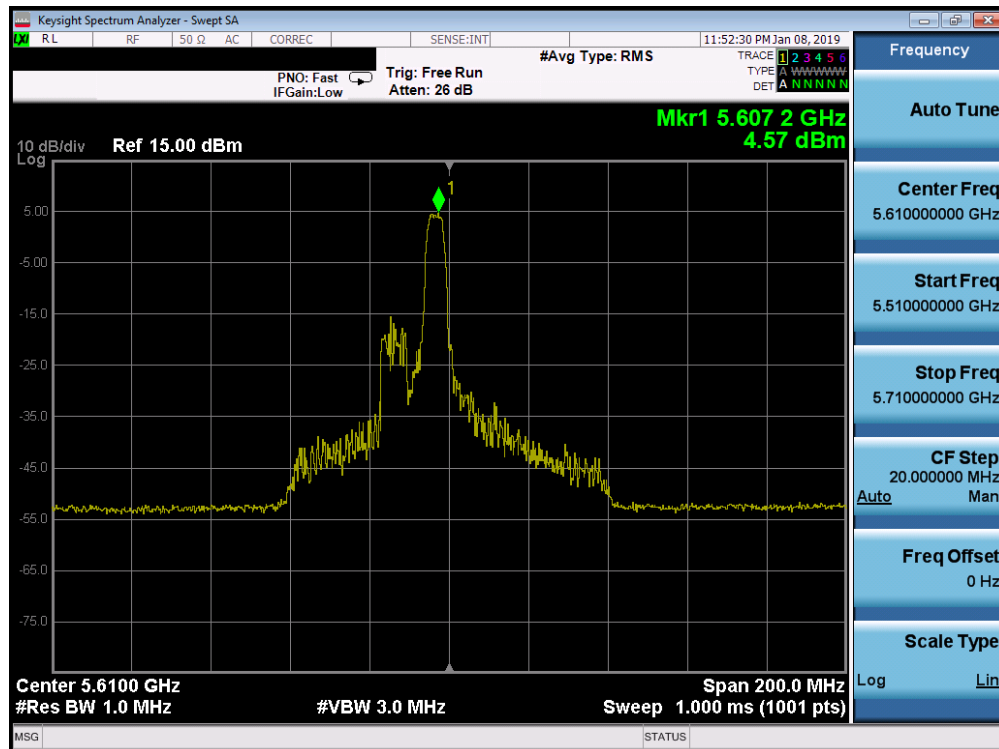


Plot 7-540. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 142)

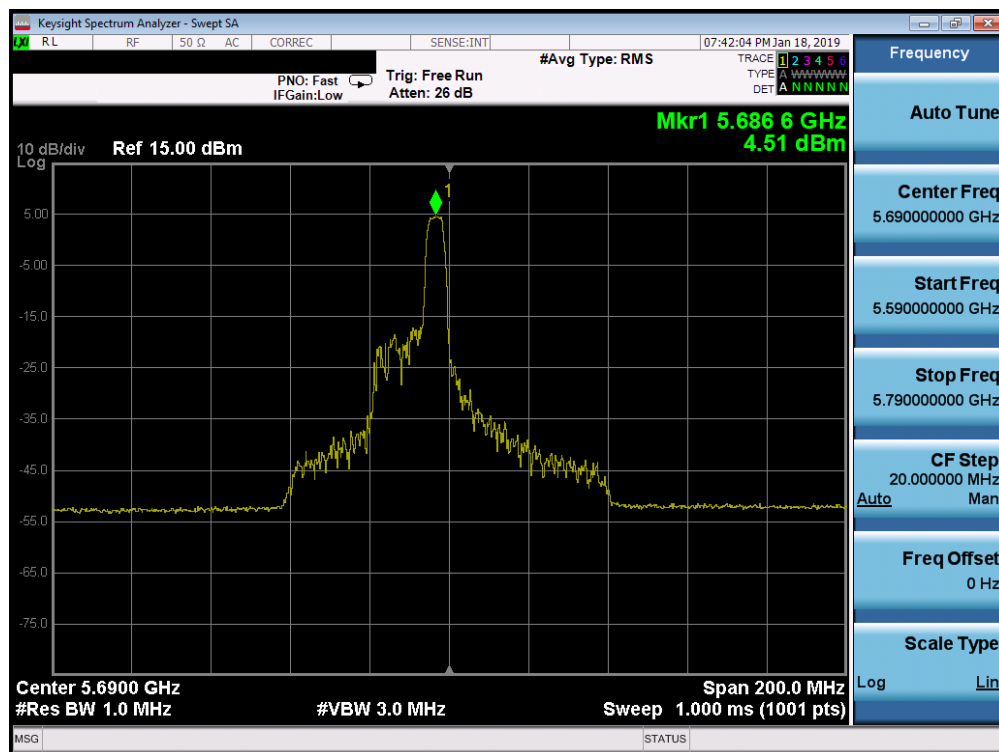


Plot 7-541. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 359 of 519

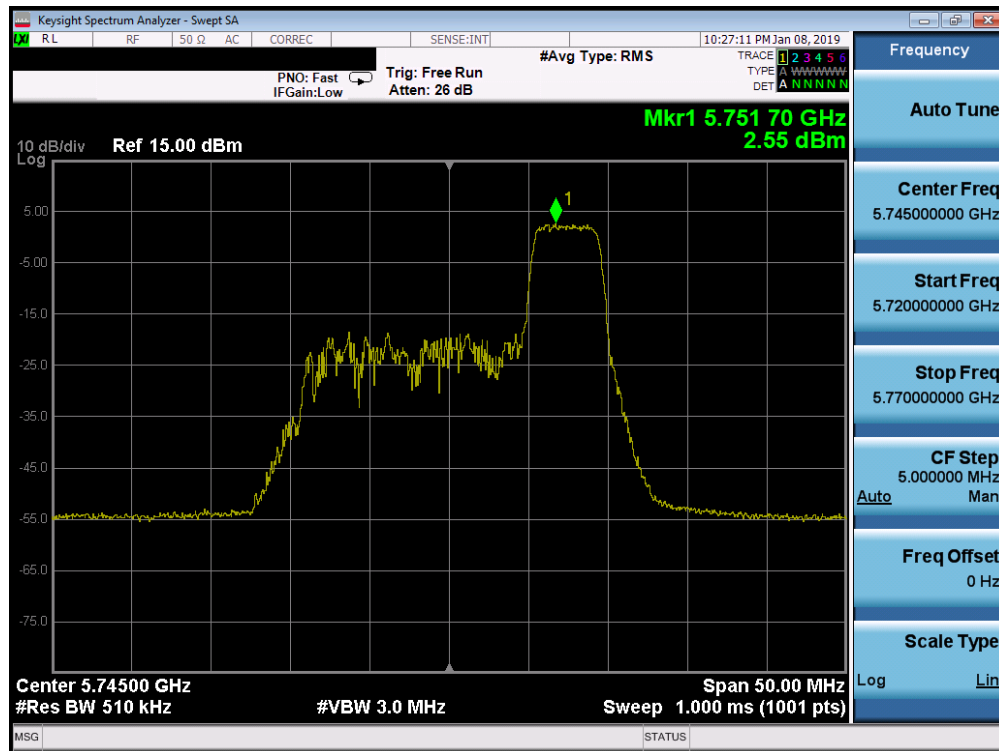


Plot 7-542. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 122)

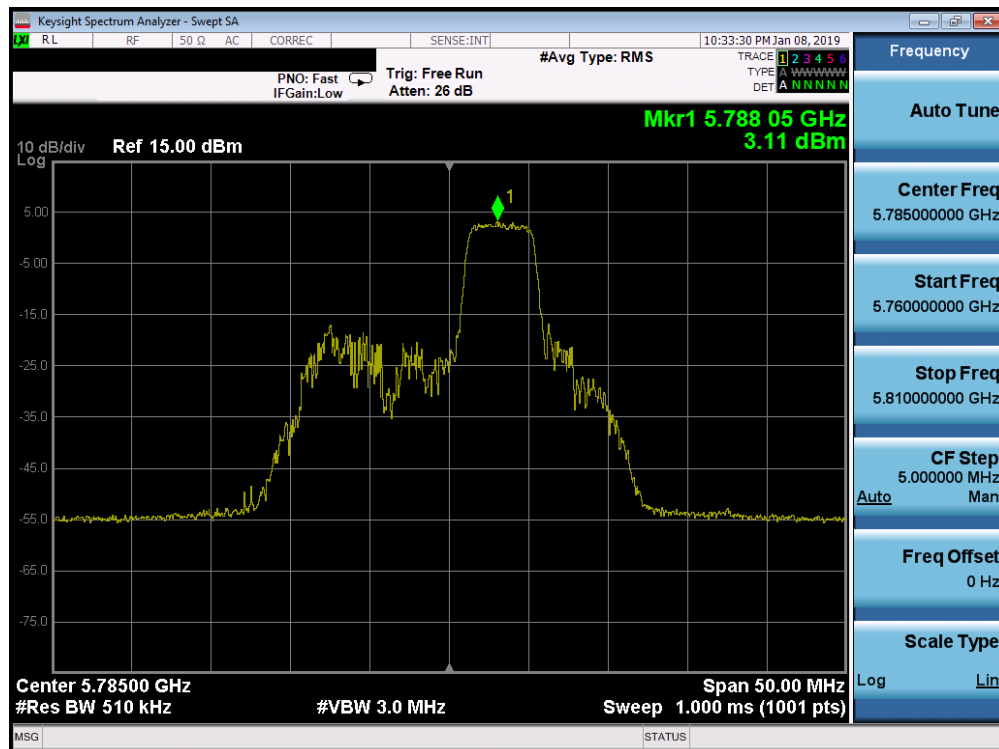


Plot 7-543. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 360 of 519

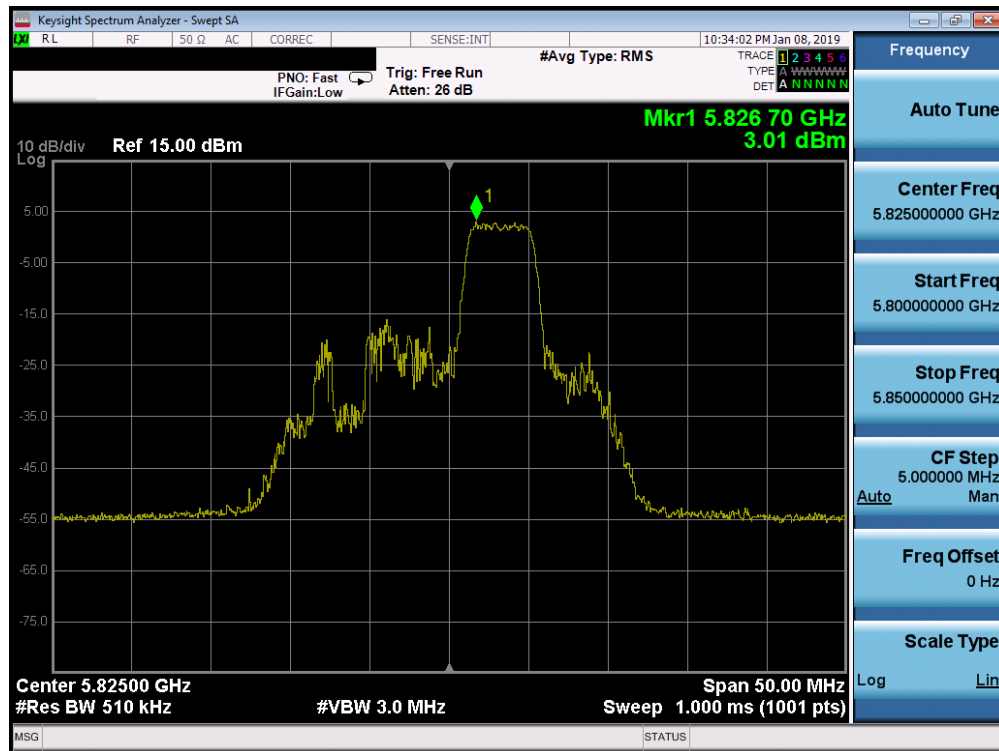


Plot 7-544. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 149)

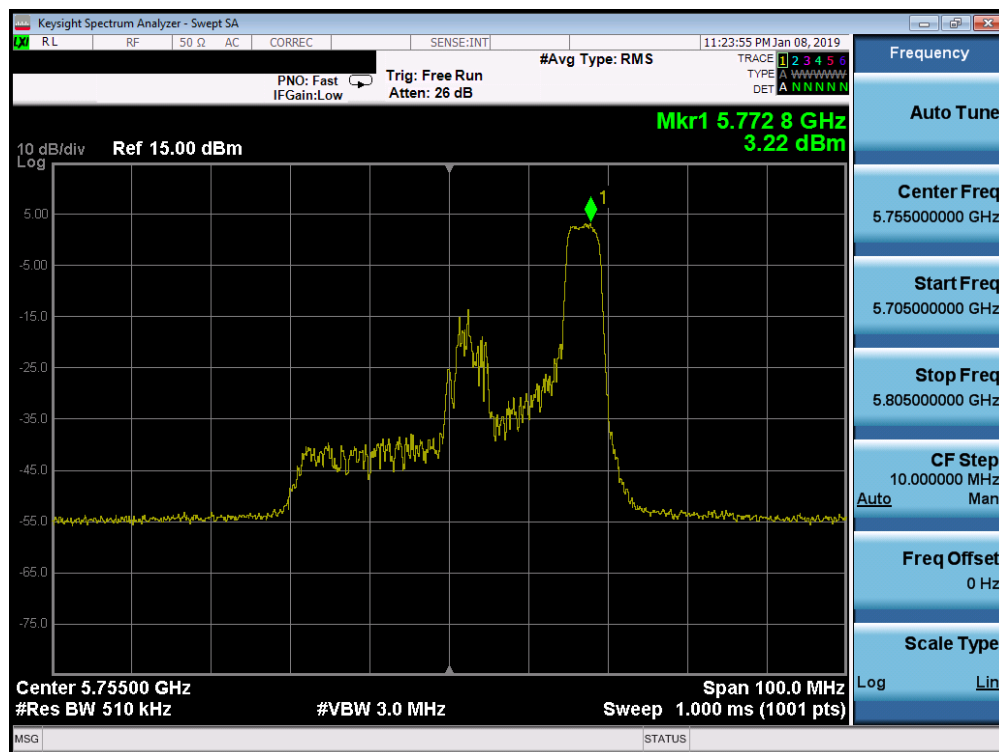


Plot 7-545. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 361 of 519

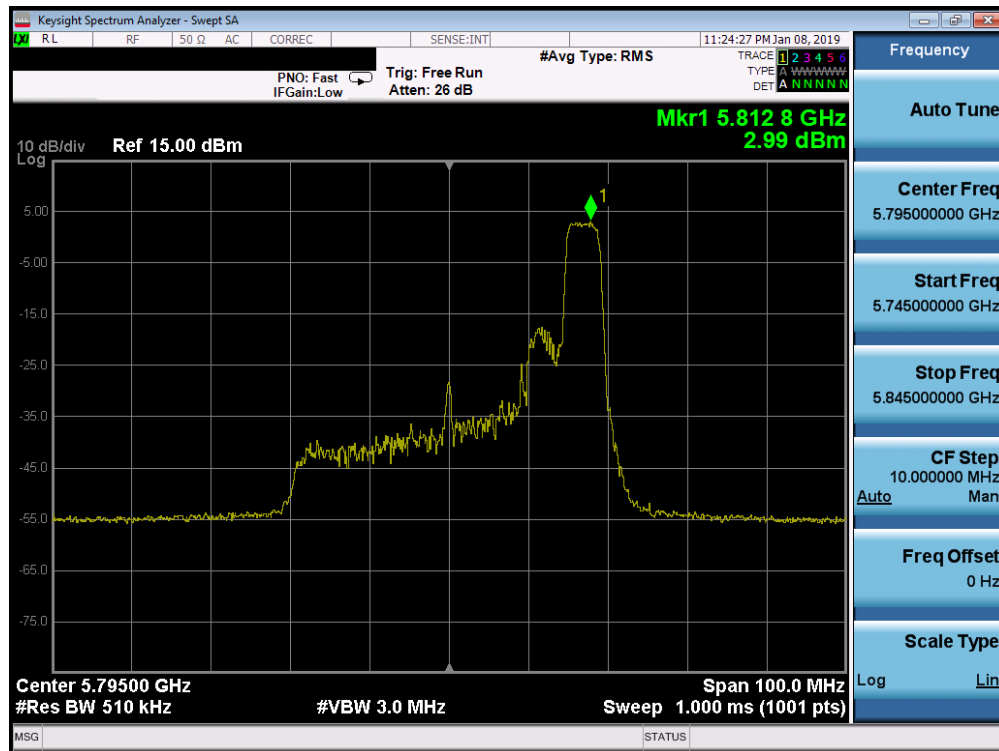


Plot 7-546. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 165)

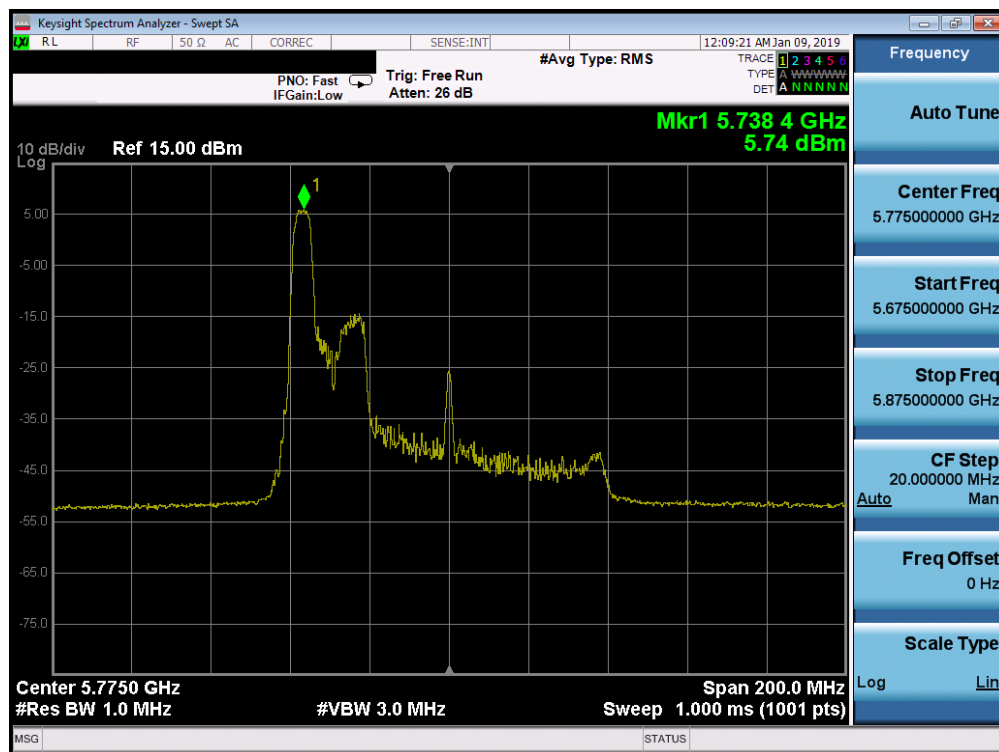


Plot 7-547. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9700	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 362 of 519



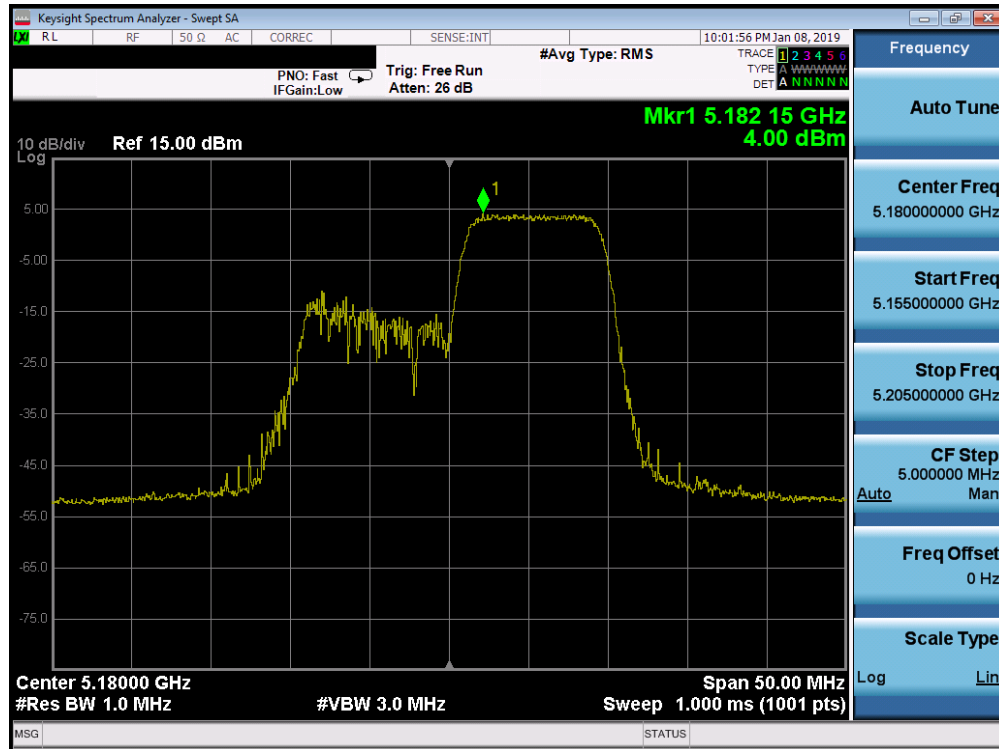
Plot 7-548. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 159)



Plot 7-549. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 155)

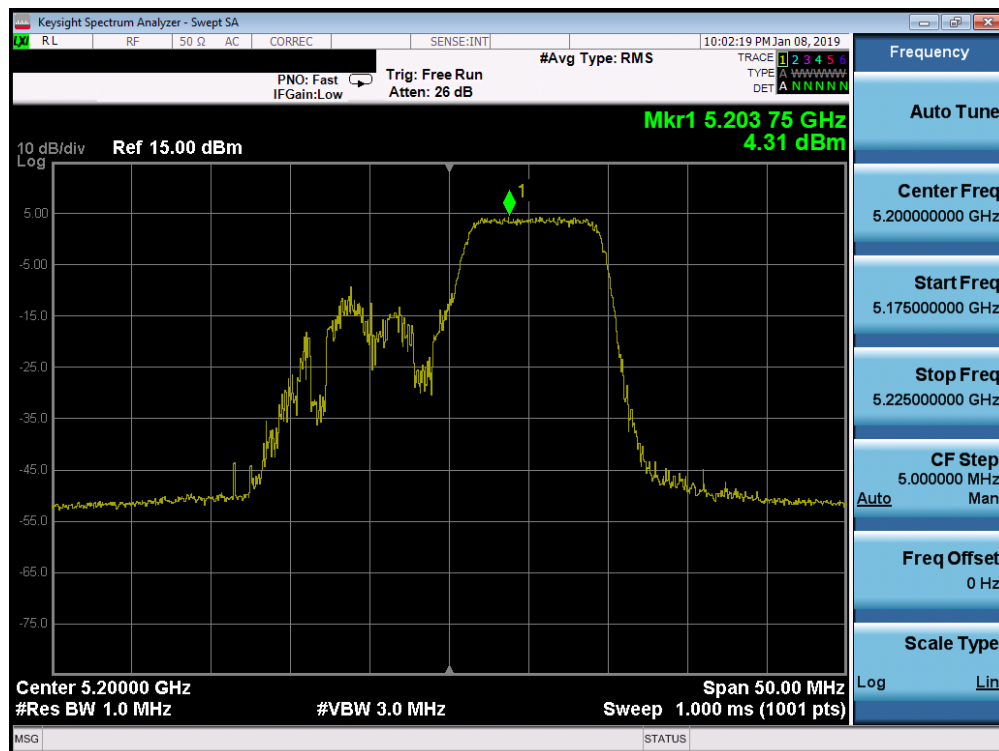
FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 363 of 519

MIMO Antenna-2 Power Spectral Density Measurements (106 Tones)

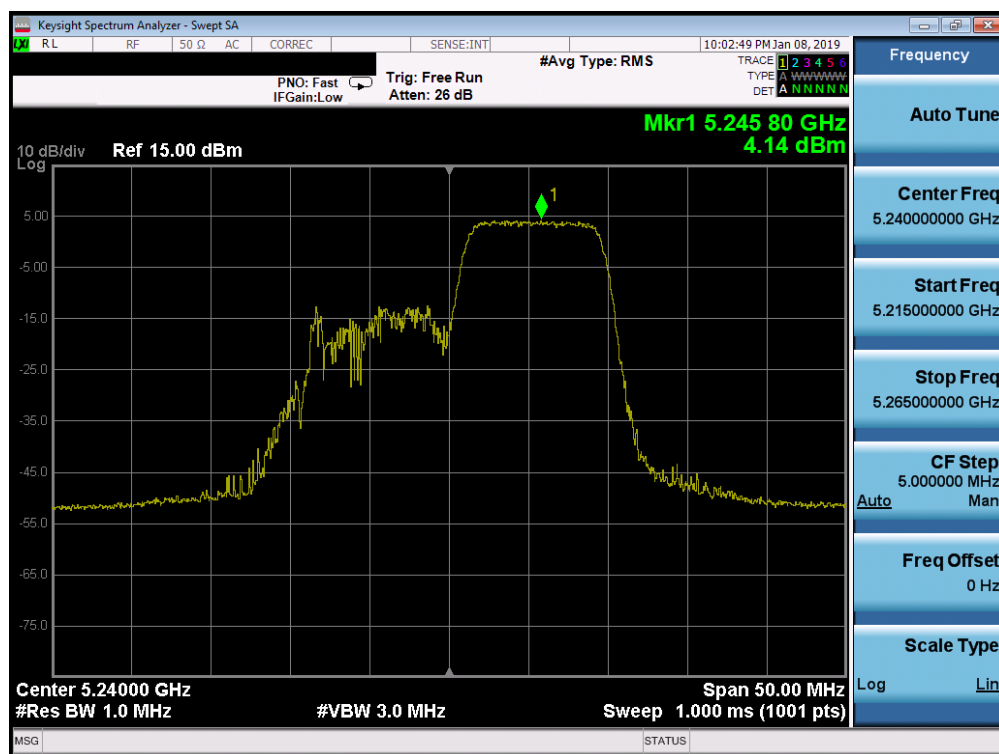


Plot 7-550. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 36)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 364 of 519

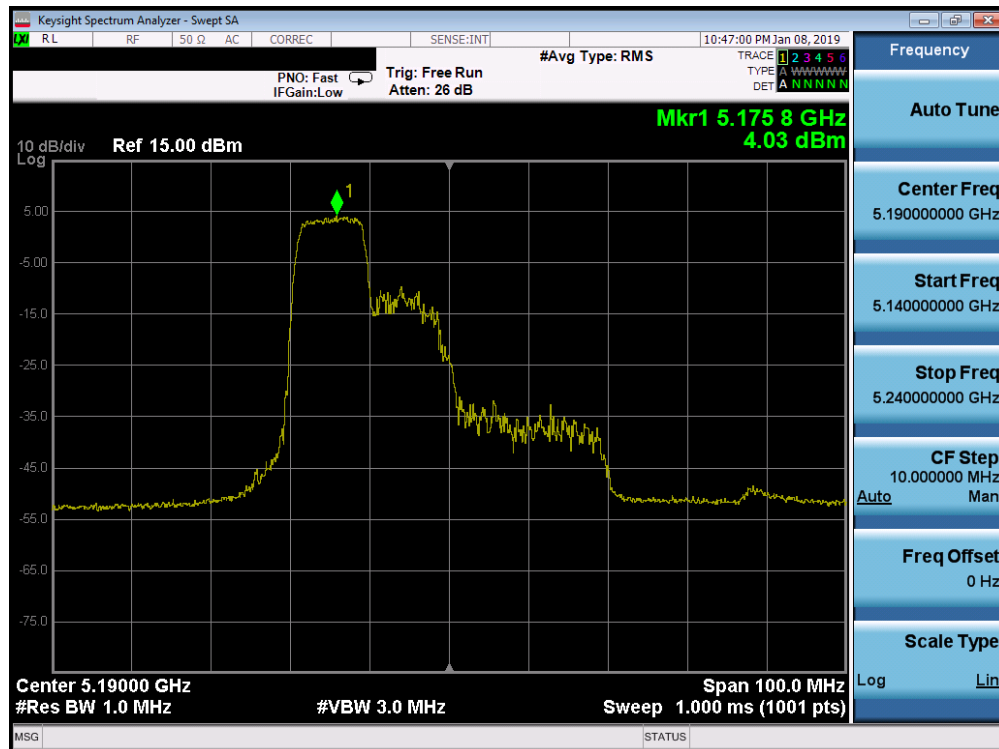


Plot 7-551. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 40)

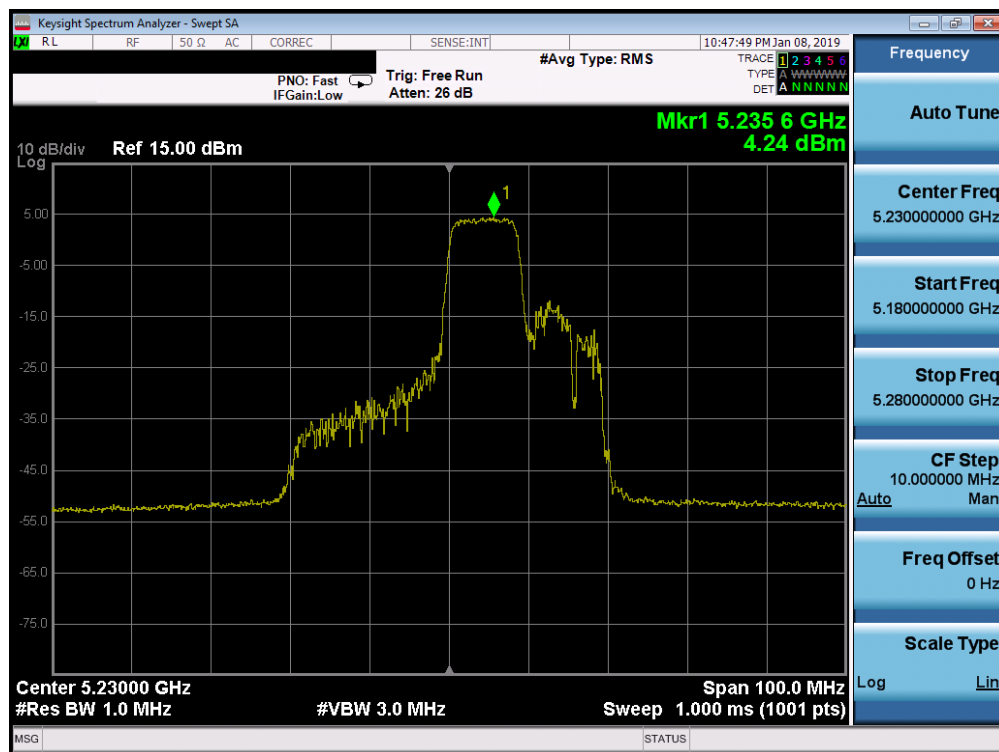


Plot 7-552. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 48)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 365 of 519

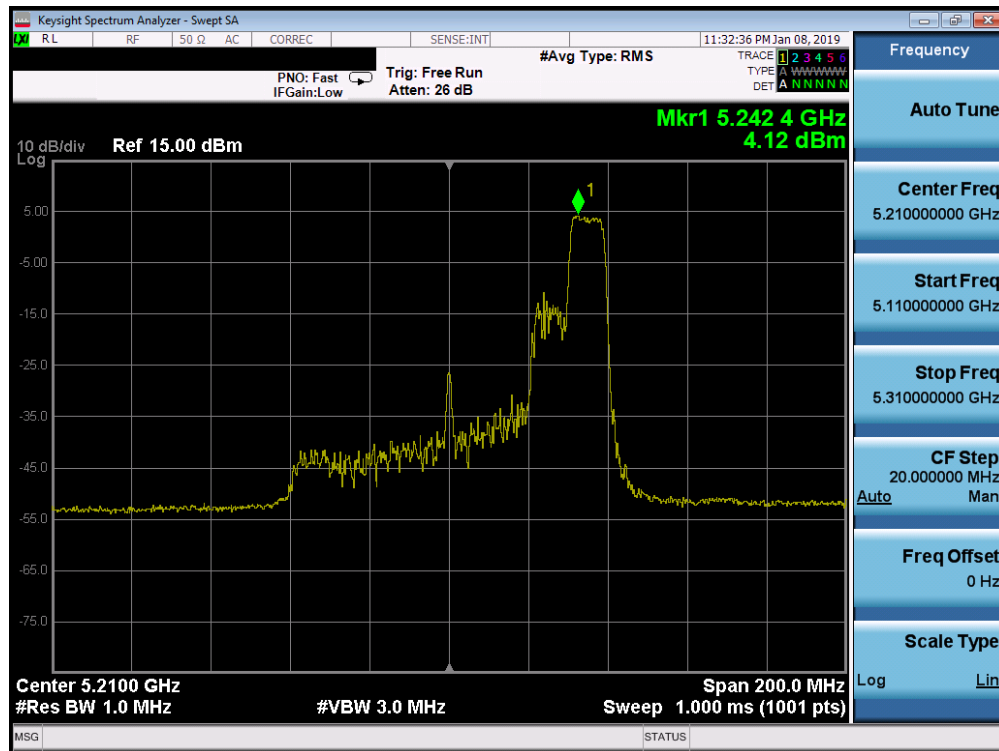


Plot 7-553. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 38)

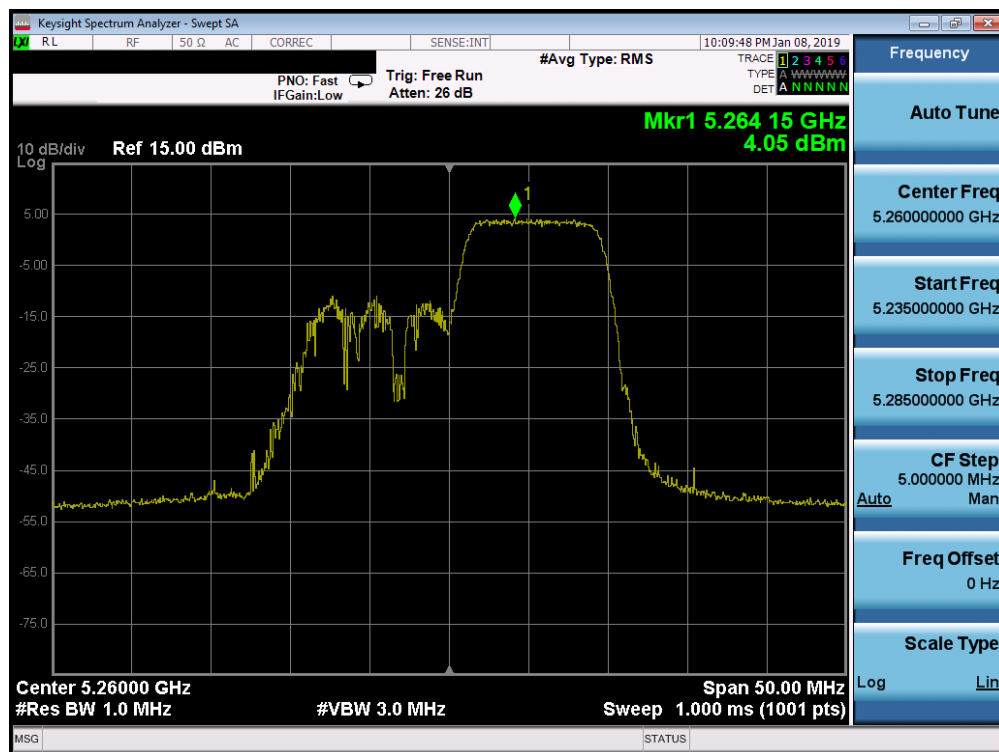


Plot 7-554. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 46)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 366 of 519

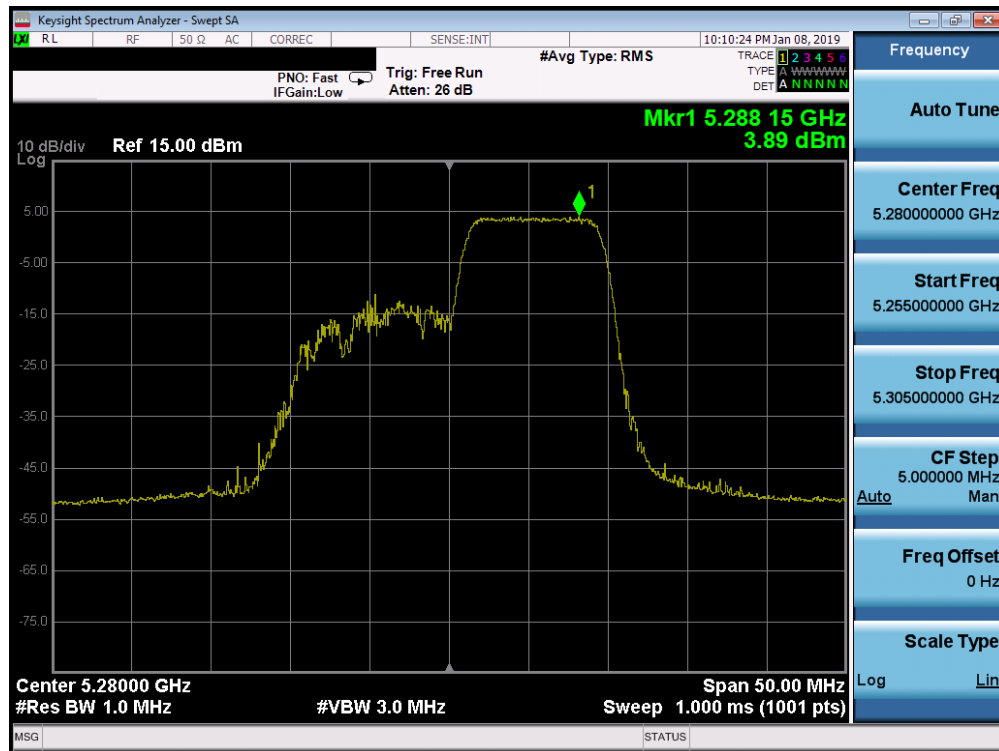


Plot 7-555. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 42)

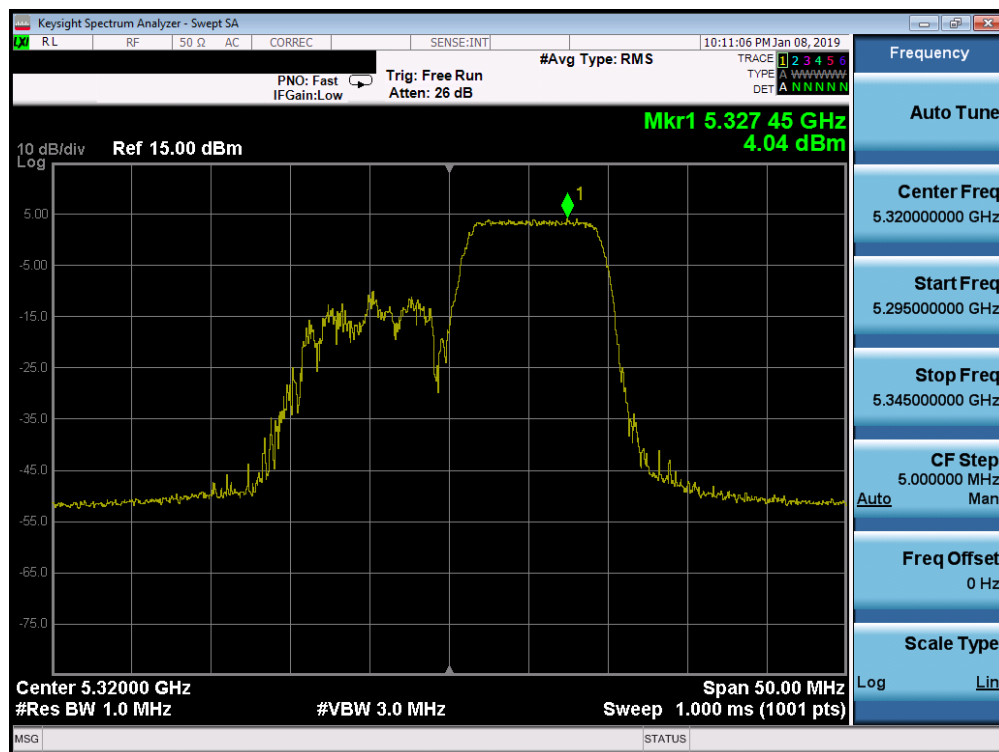


Plot 7-556. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 52)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 367 of 519

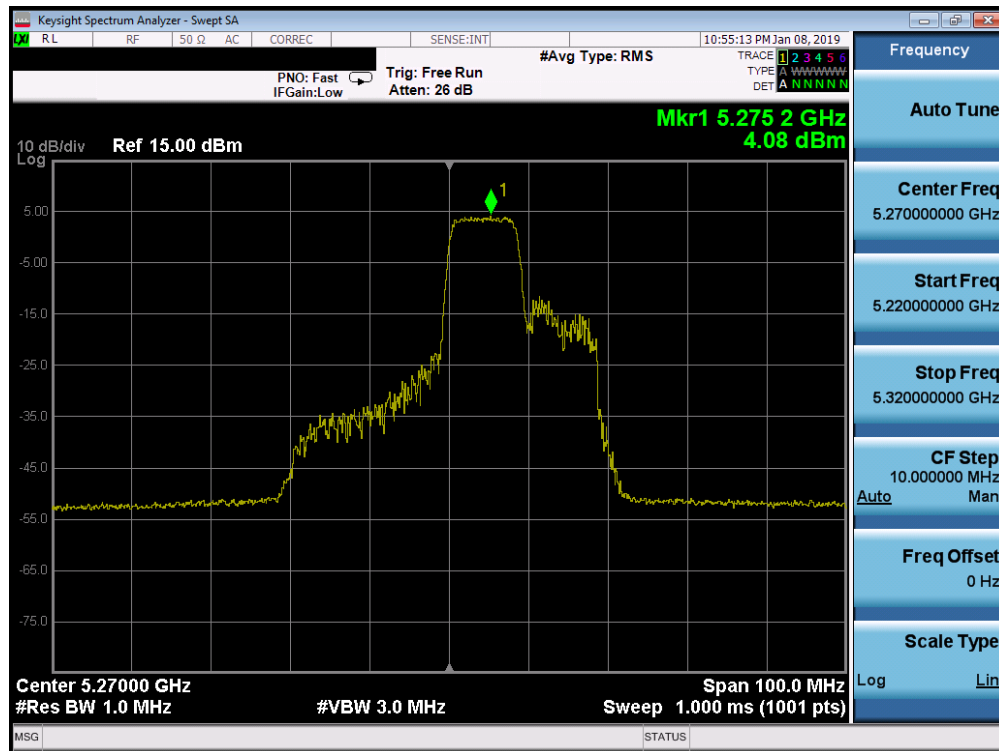


Plot 7-557. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 56)

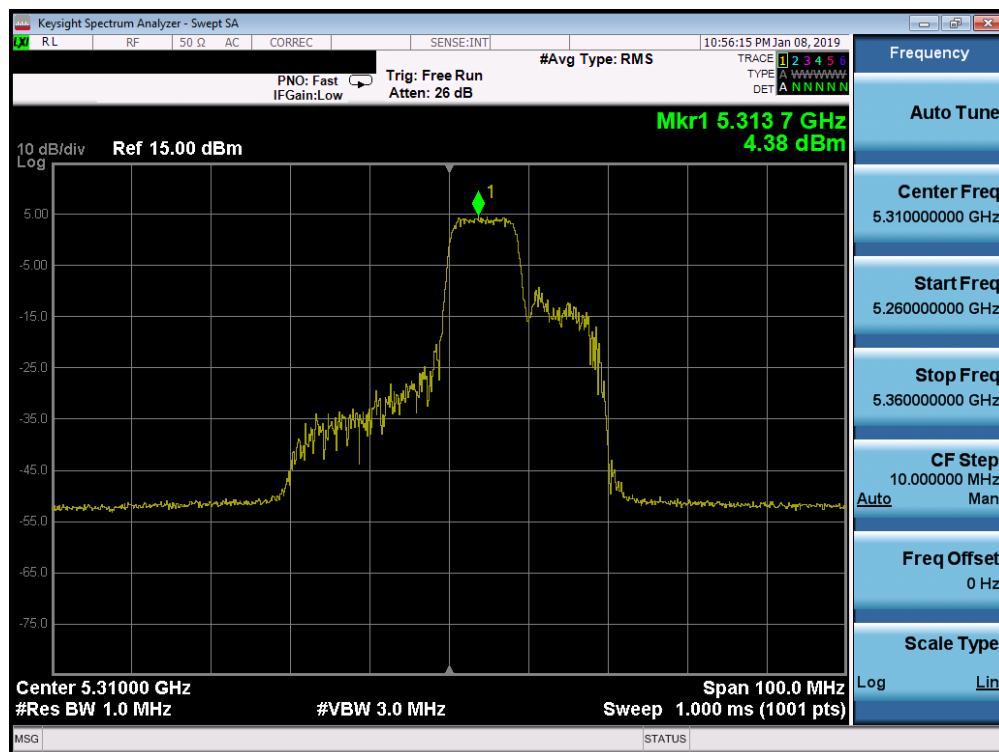


Plot 7-558. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 64)

FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 368 of 519		

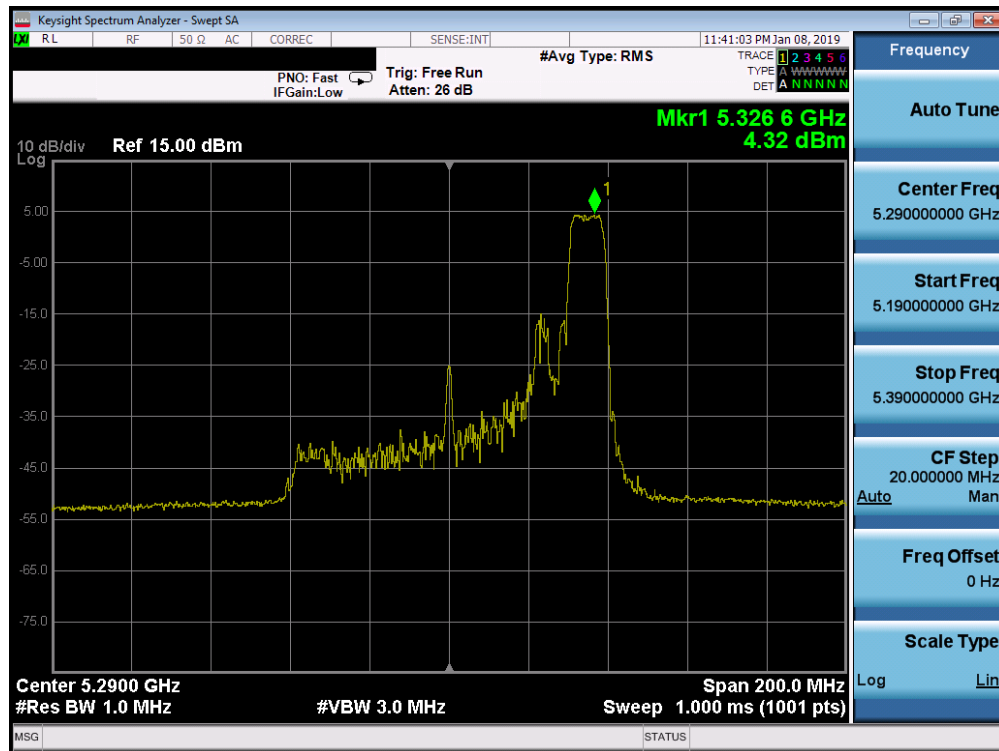


Plot 7-559. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 54)

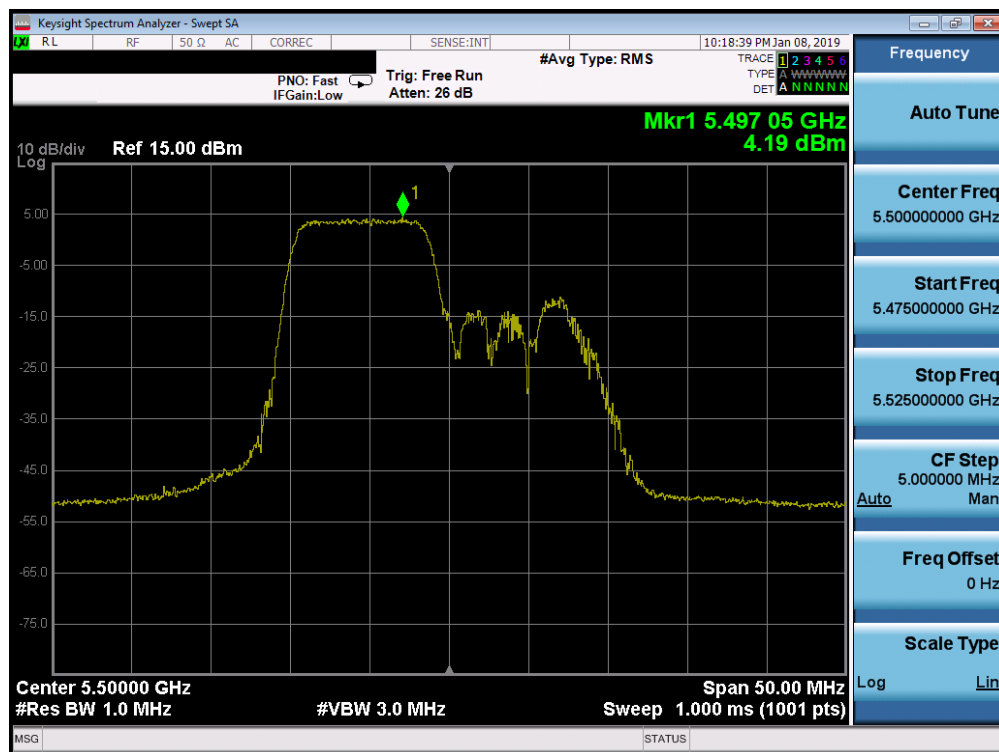


Plot 7-560. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 369 of 519		

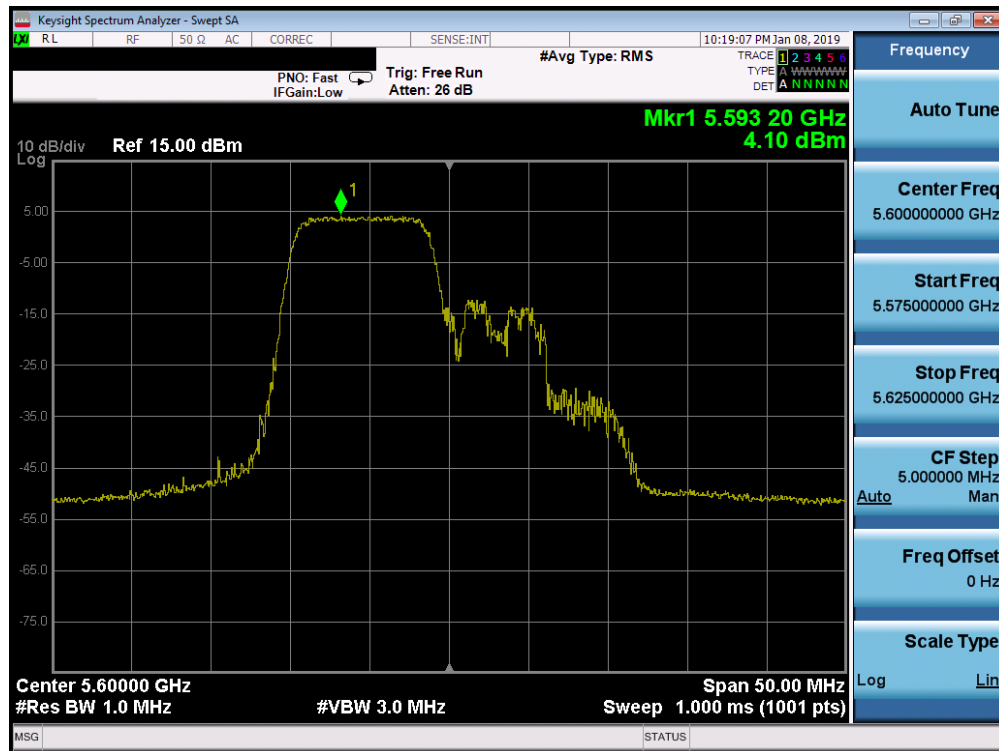


Plot 7-561. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 58)

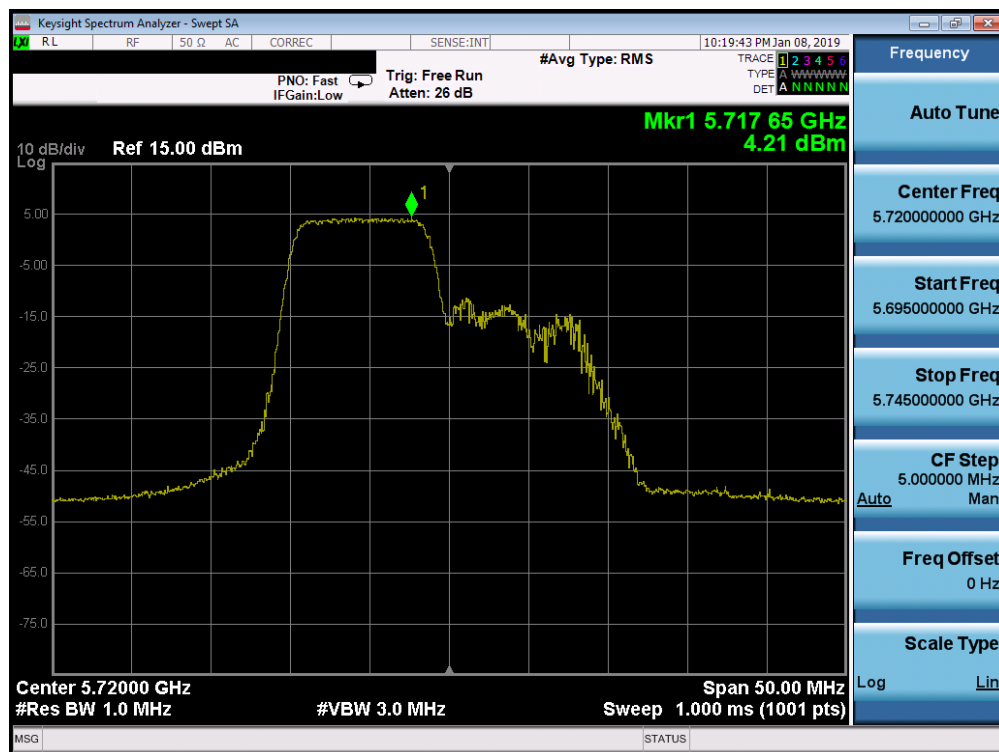


Plot 7-562. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMG9700	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 370 of 519

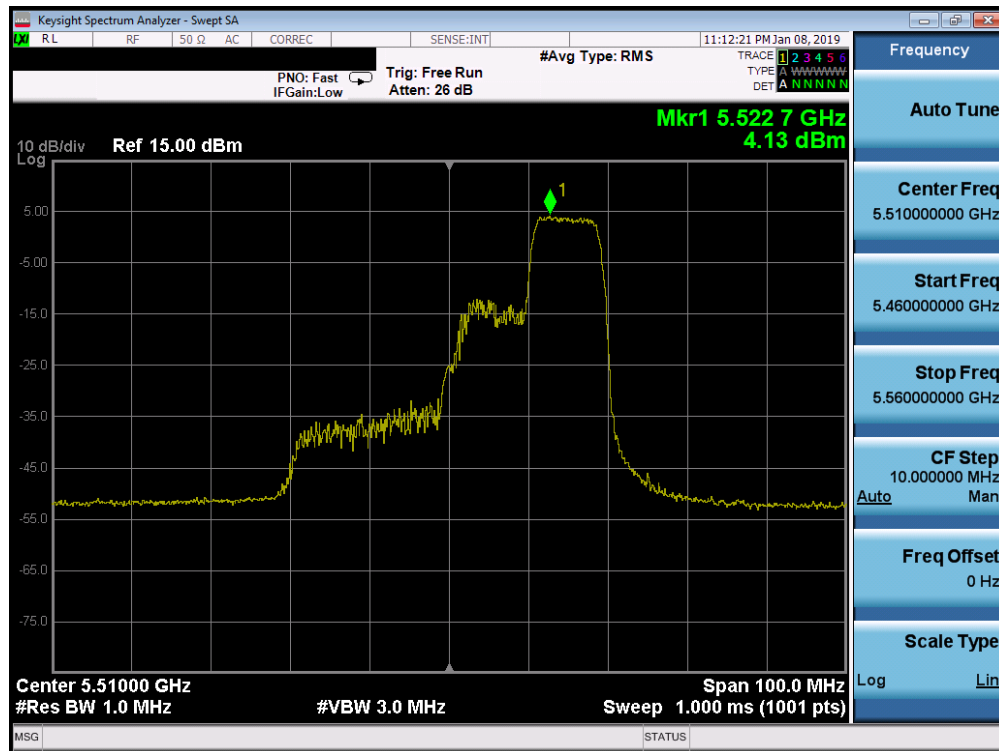


Plot 7-563. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 120)

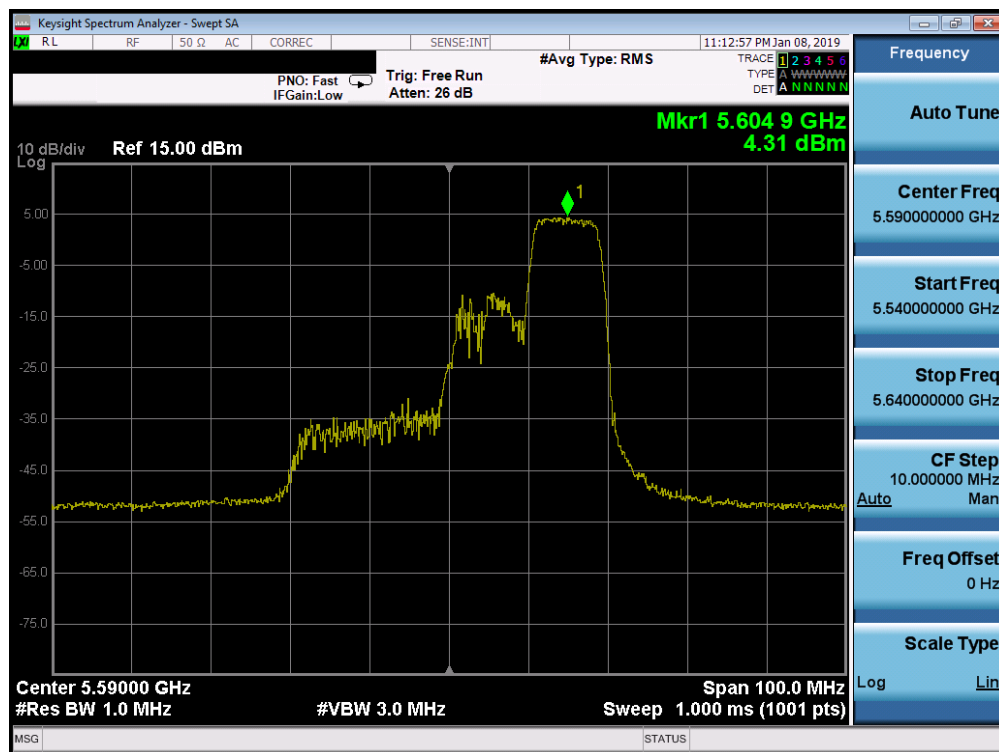


Plot 7-564. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMG9700			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset	Page 371 of 519		

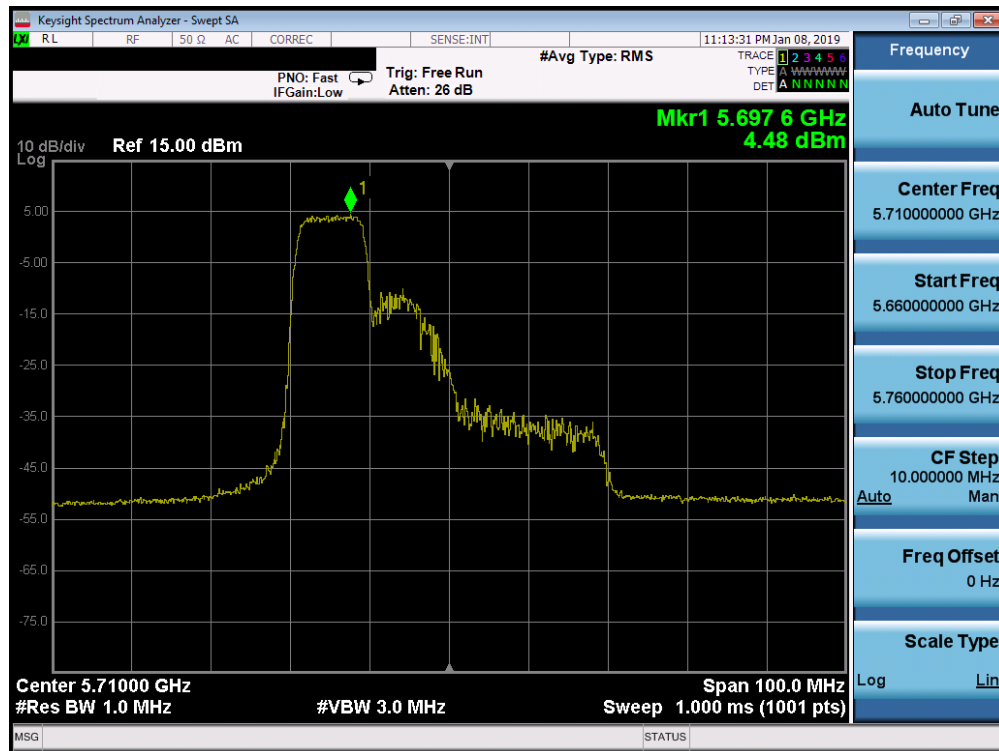


Plot 7-565. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 102)

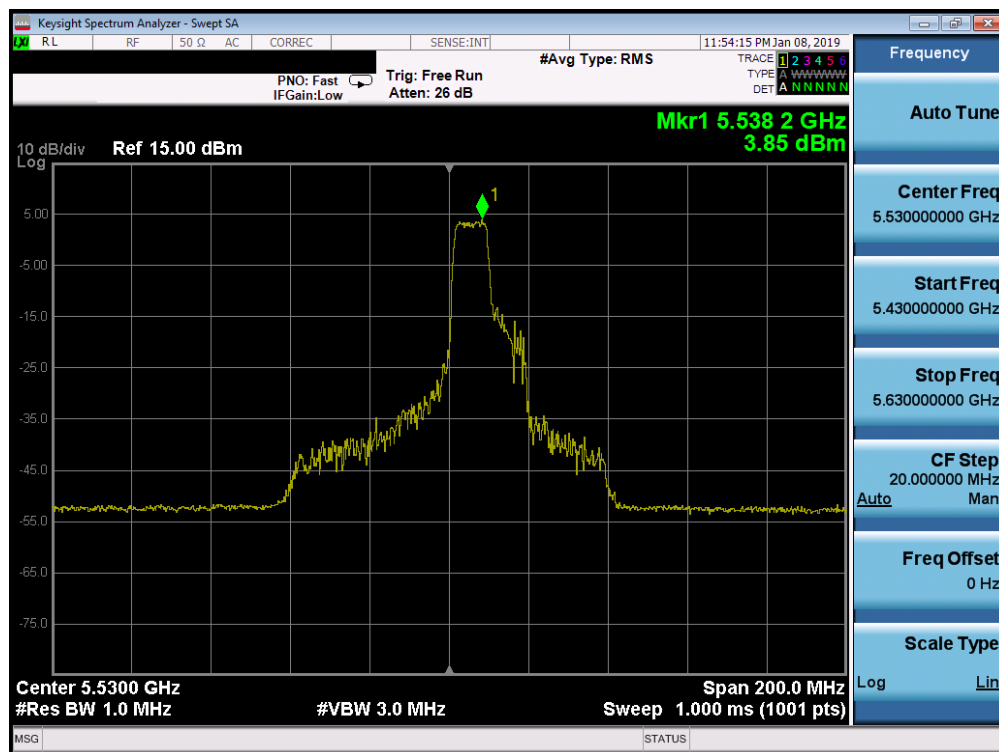


Plot 7-566. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 372 of 519

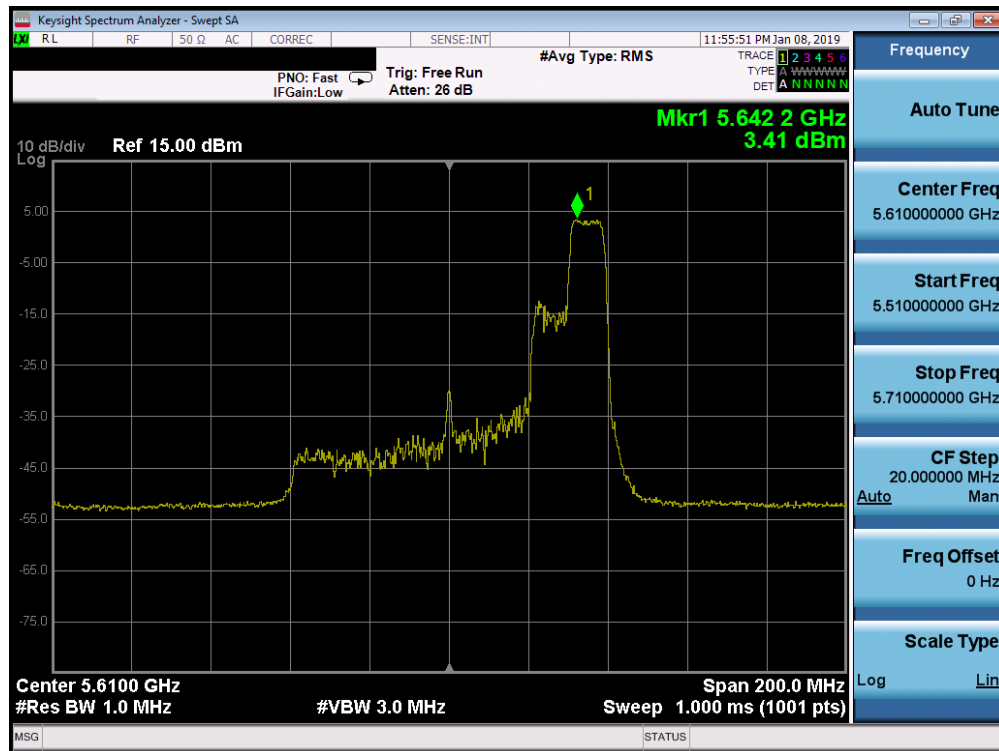


Plot 7-567. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 142)

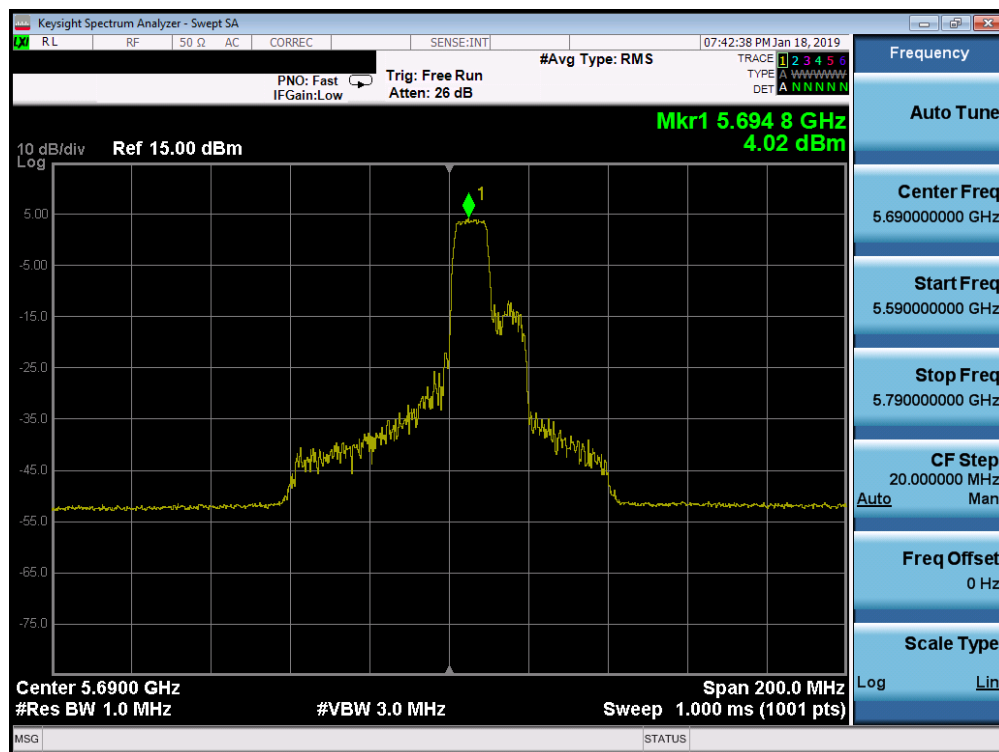


Plot 7-568. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 373 of 519

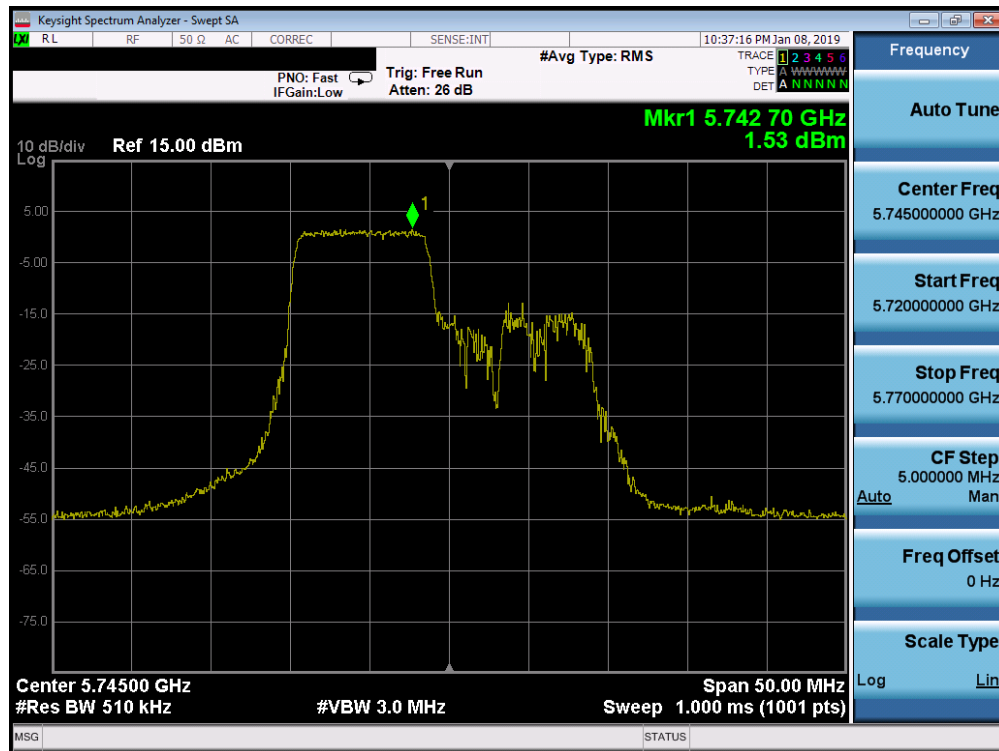


Plot 7-569. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 122)

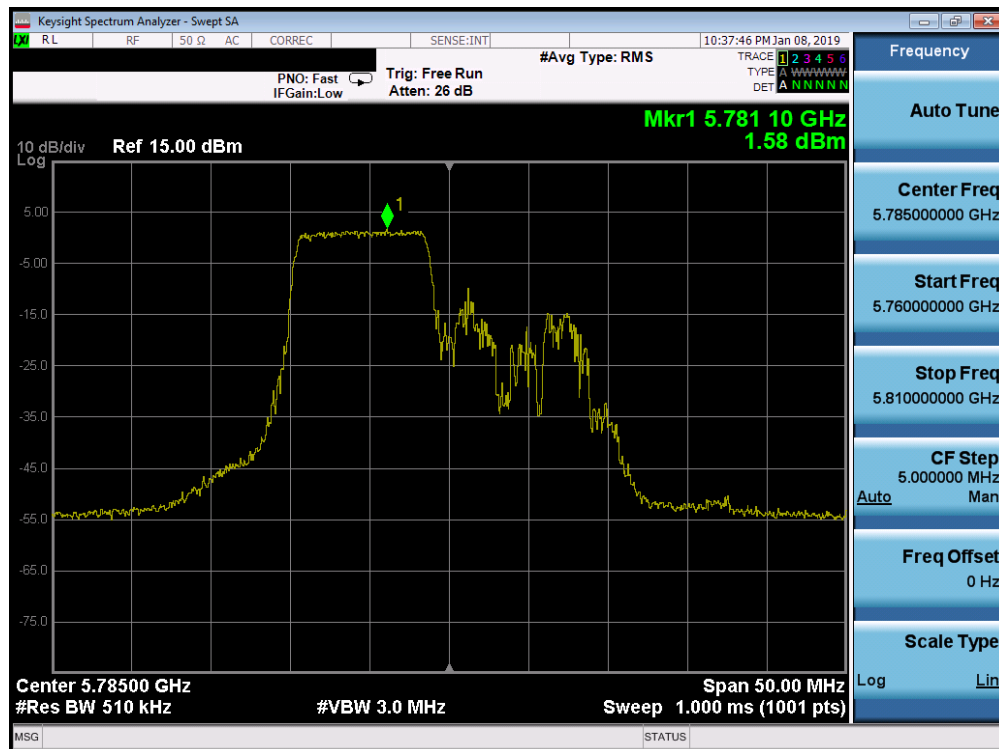


Plot 7-570. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 374 of 519

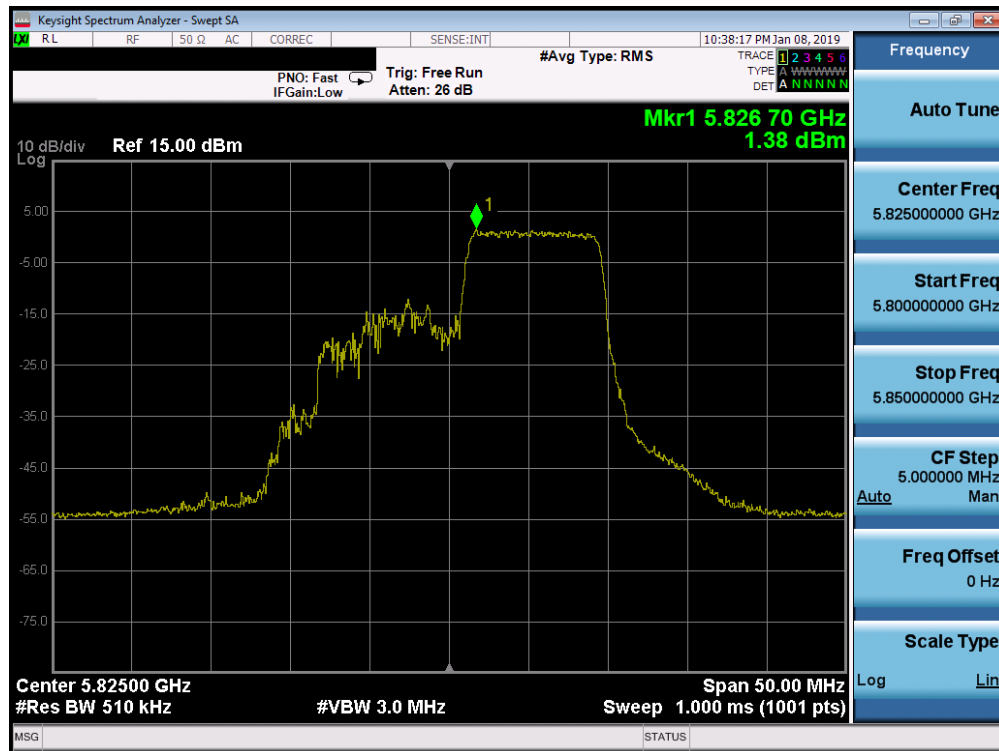


Plot 7-571. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 149)

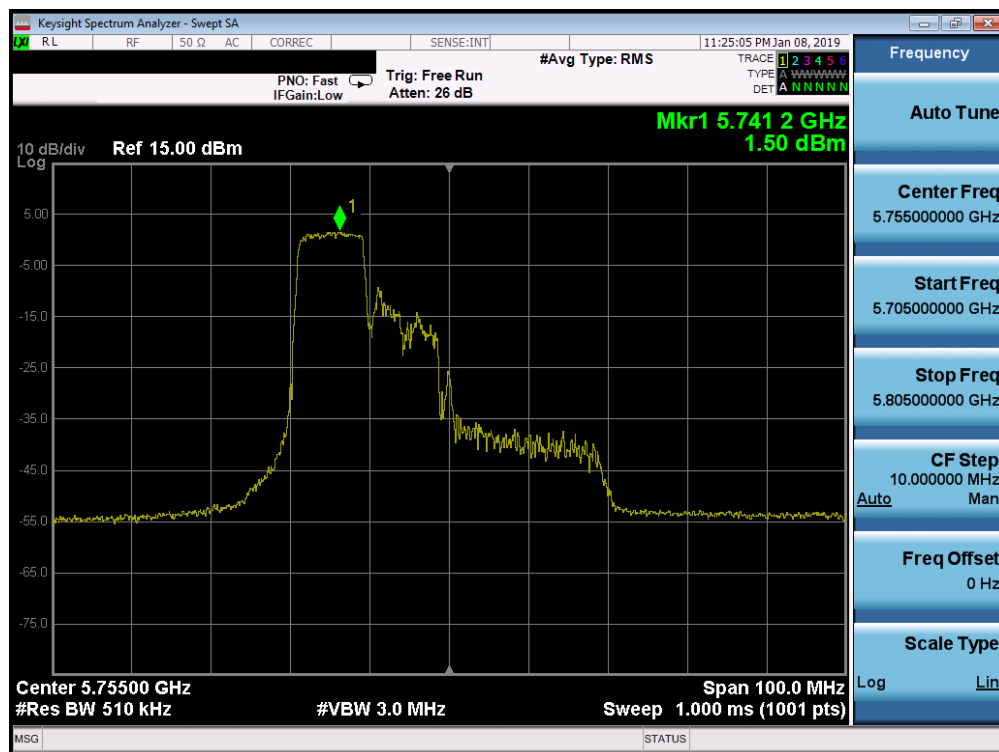


Plot 7-572. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 375 of 519

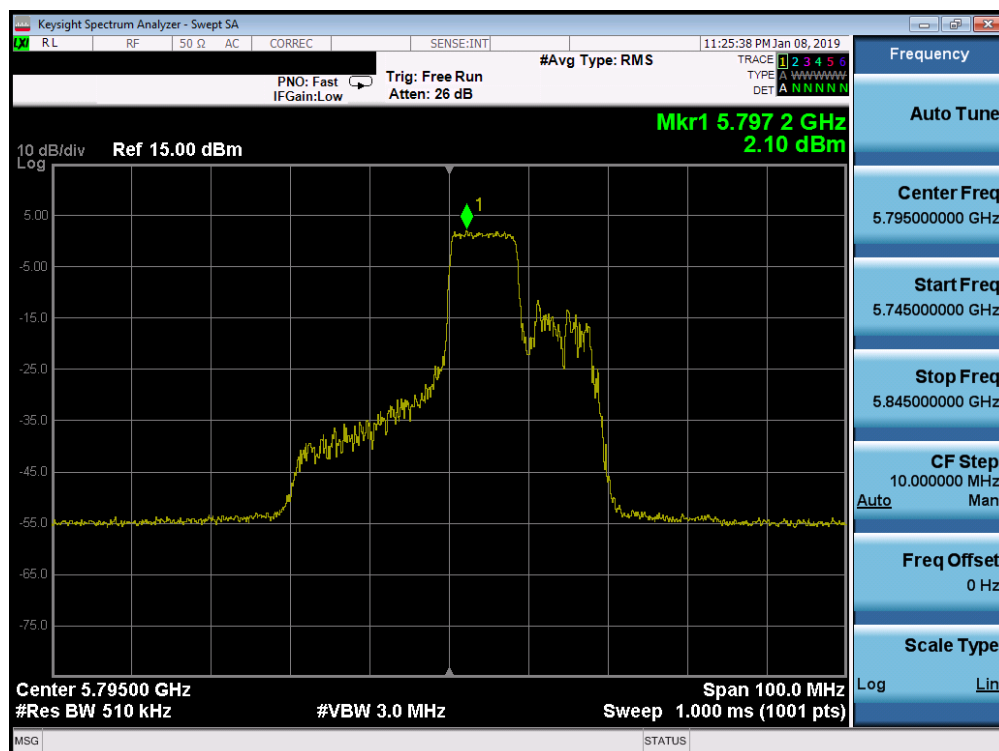


Plot 7-573. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 165)

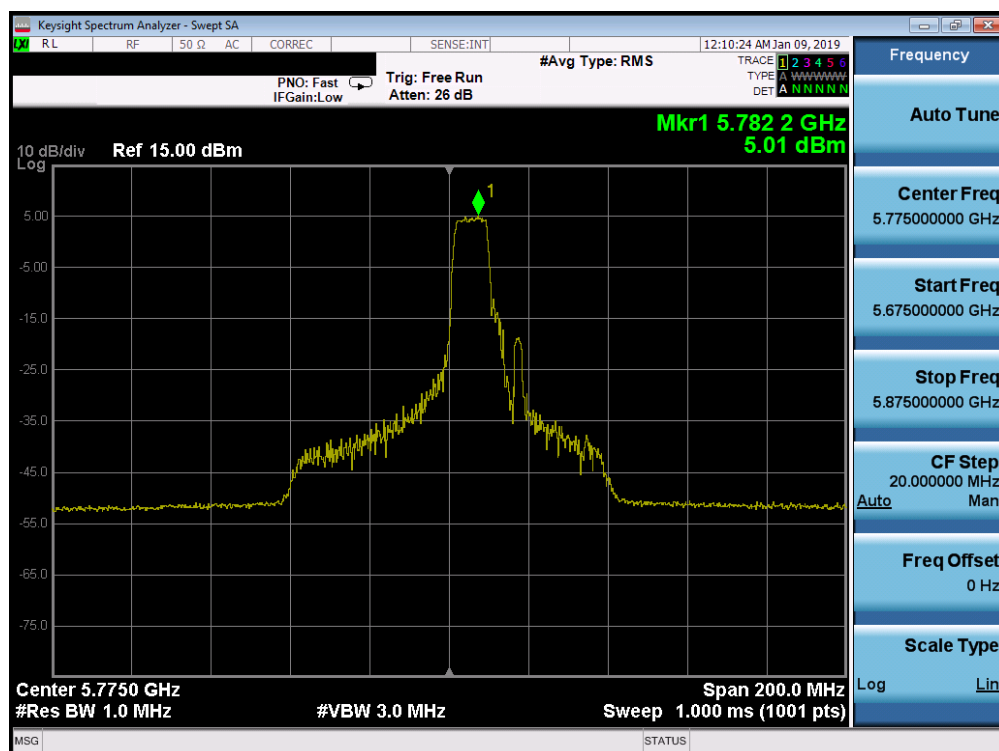


Plot 7-574. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 376 of 519



Plot 7-575. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 159)



Plot 7-576. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9700	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811260212-15.A3L	Test Dates: 11/9/2018 - 1/22/2019	EUT Type: Portable Handset		Page 377 of 519