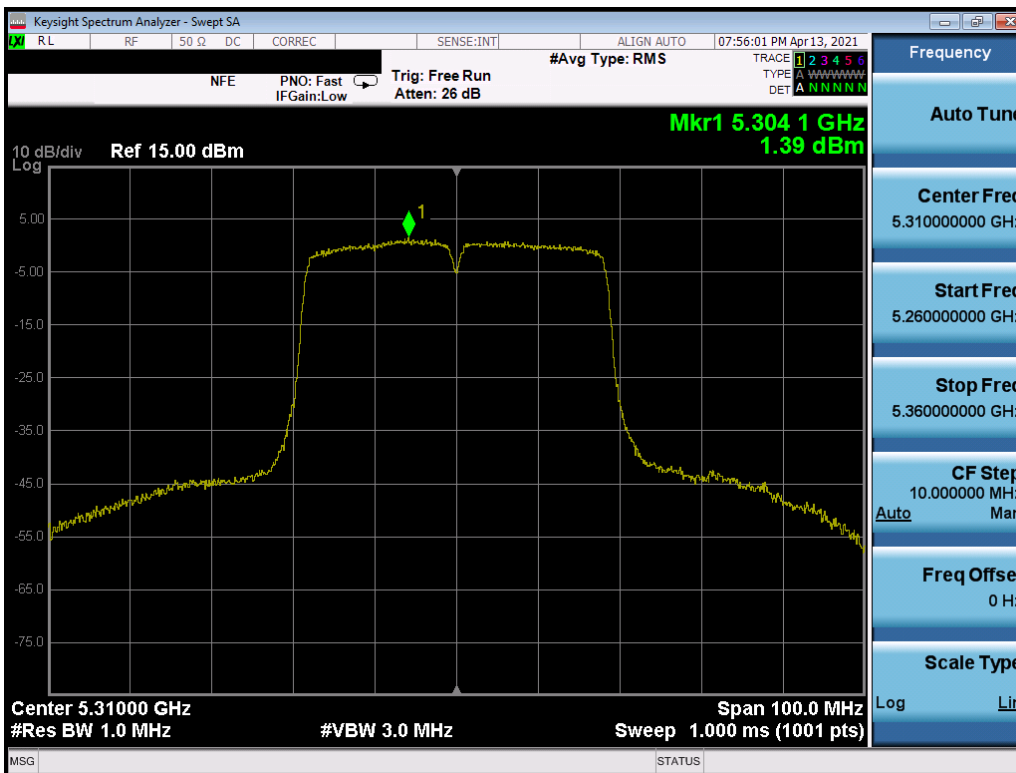
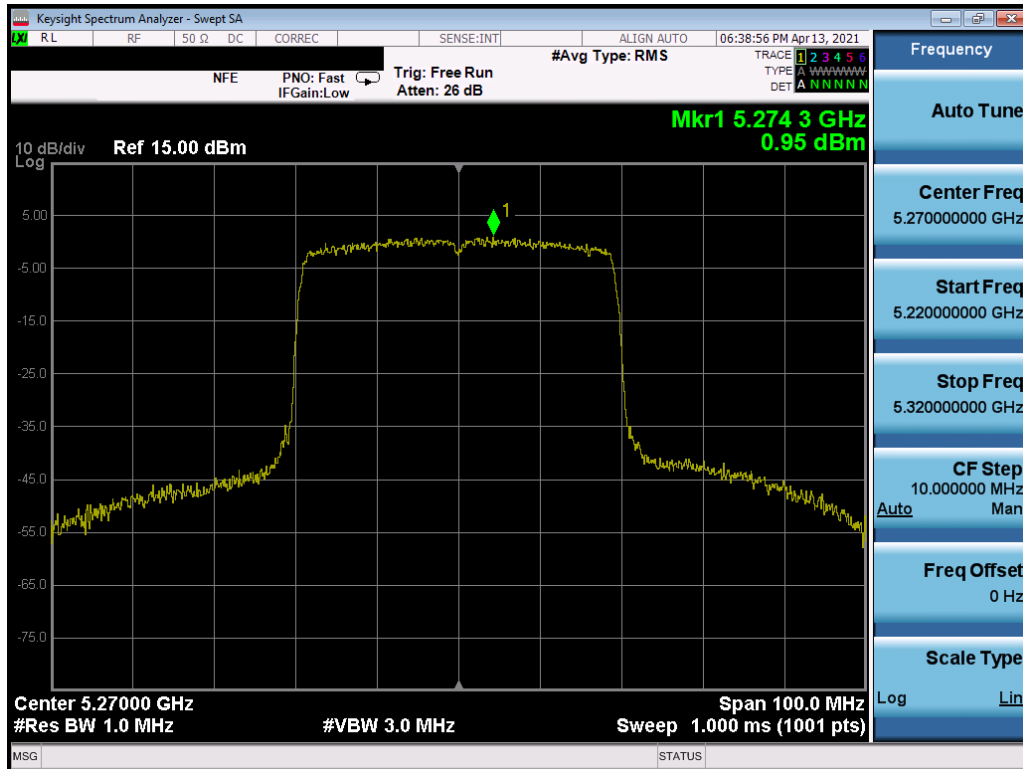


Plot 7-362. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)

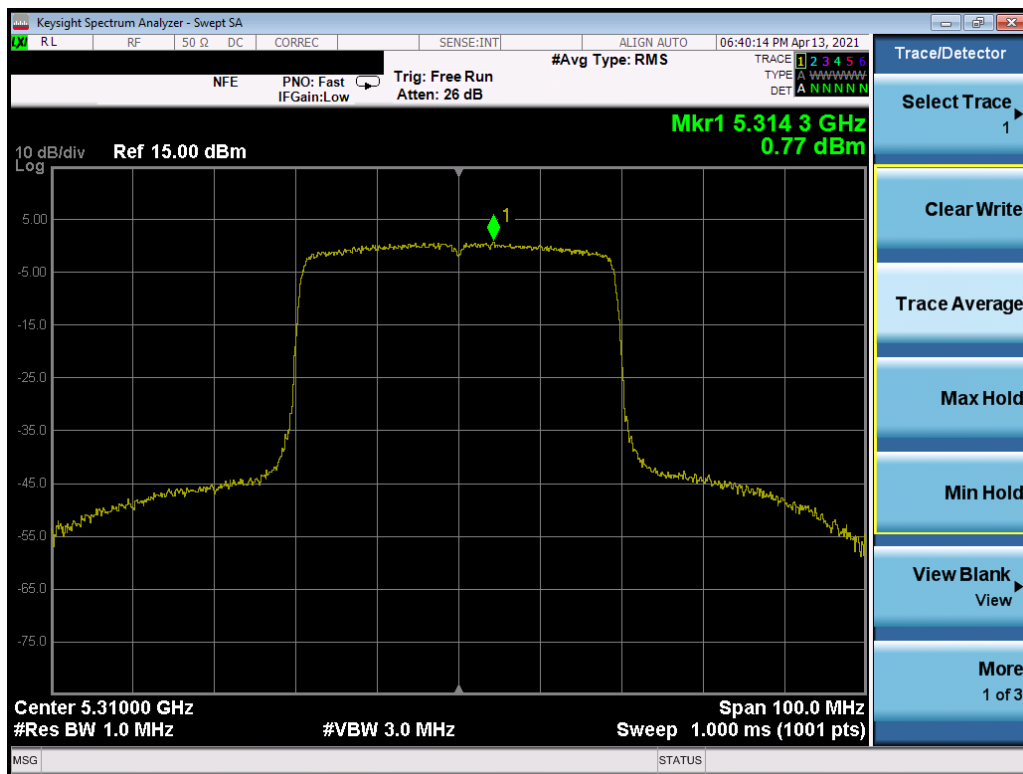


Plot 7-363. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 213 of 309

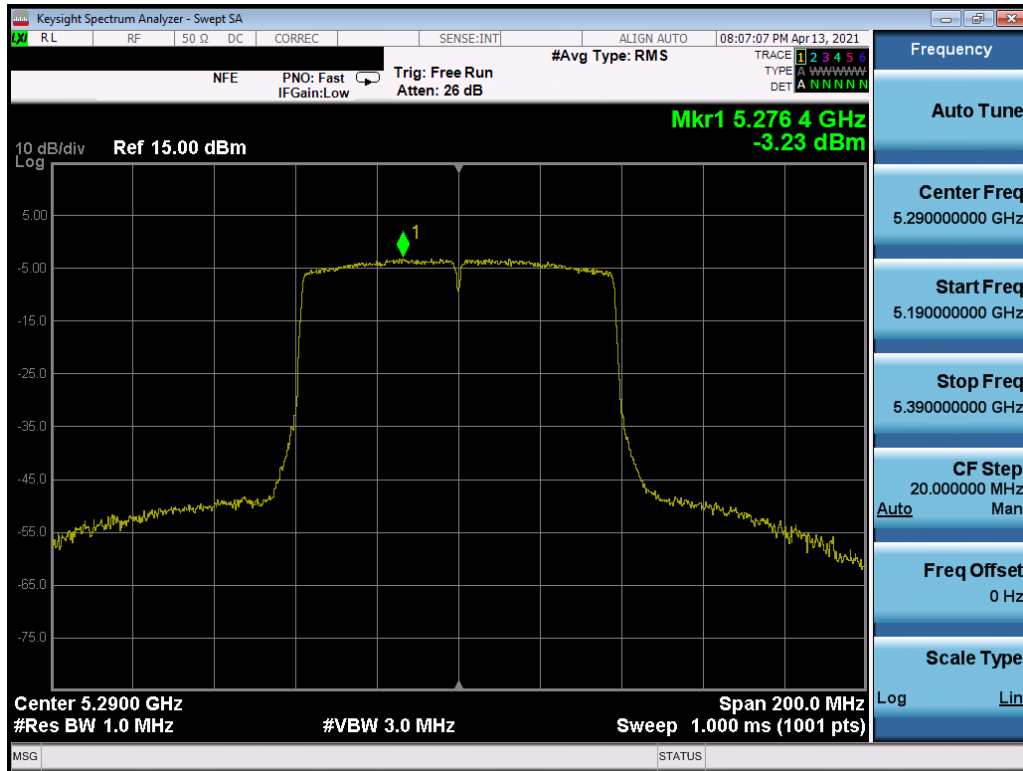


Plot 7-364. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 2A) – Ch. 54)

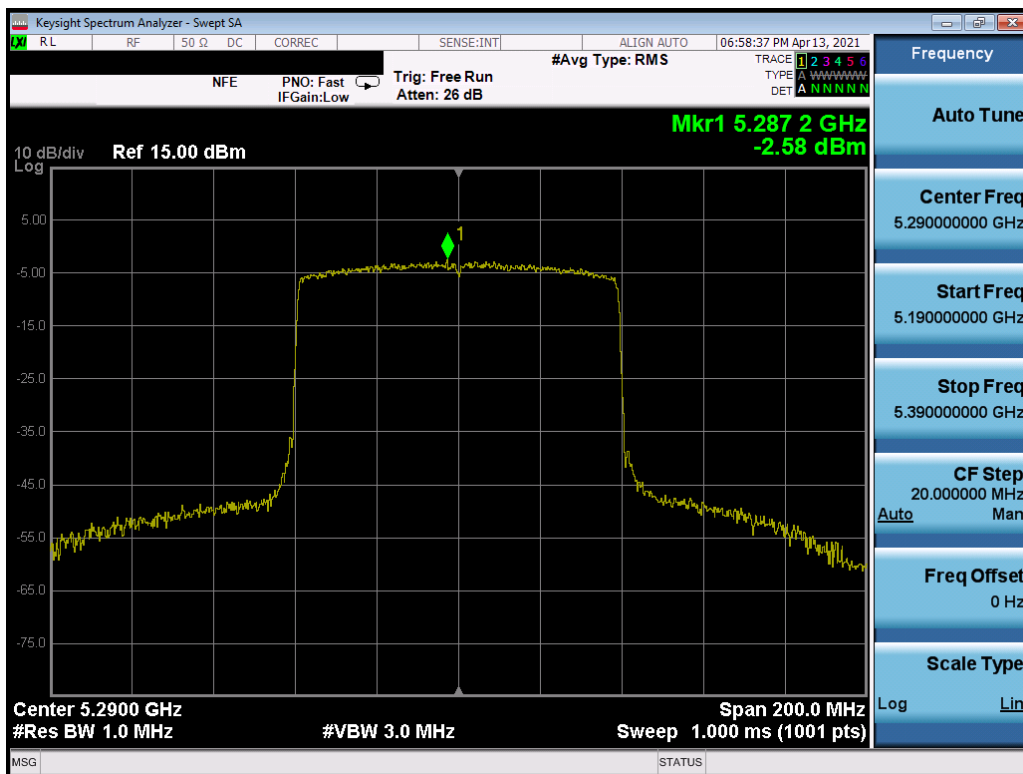


Plot 7-365. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 214 of 309

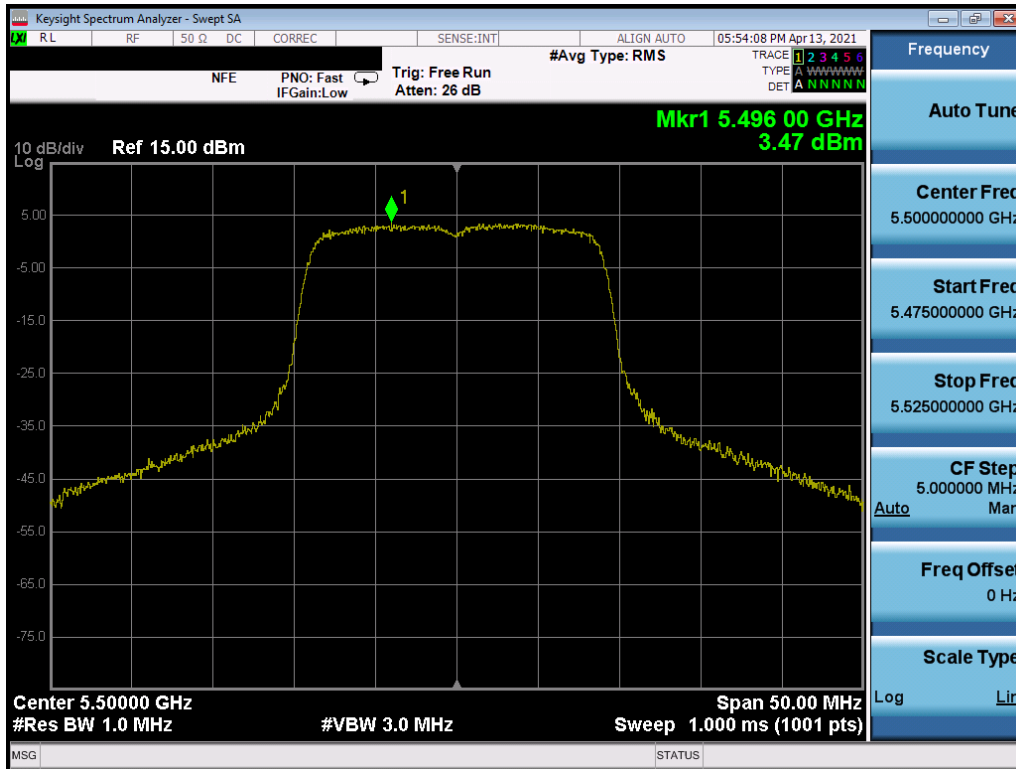


Plot 7-366. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)

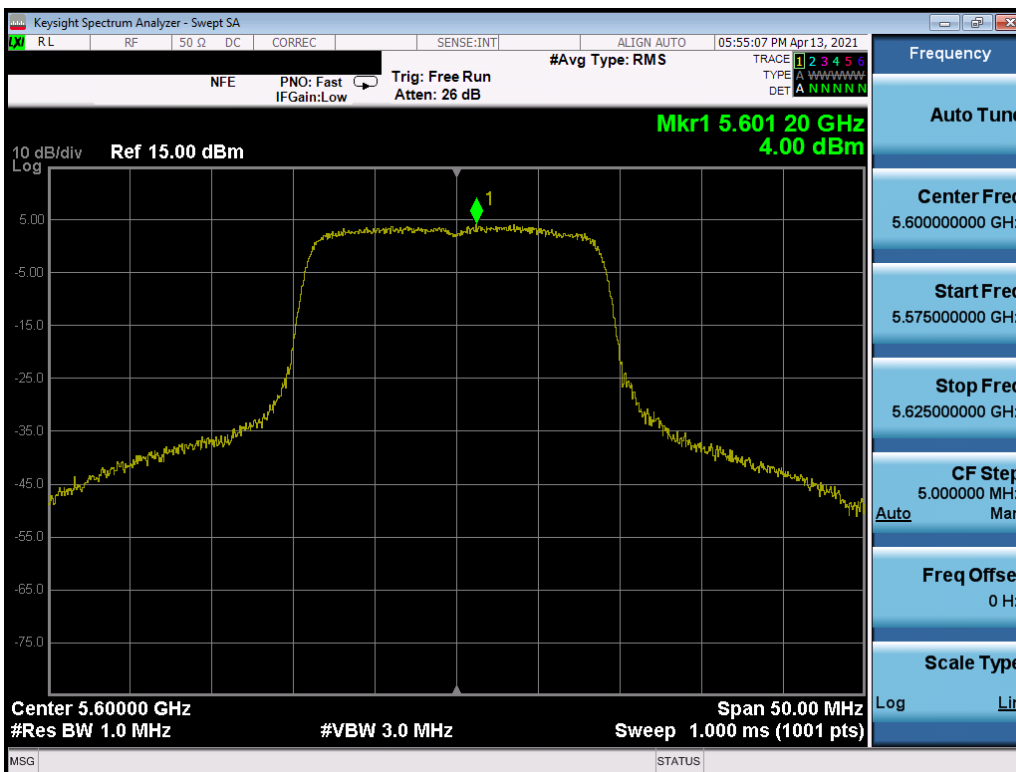


Plot 7-367. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 215 of 309

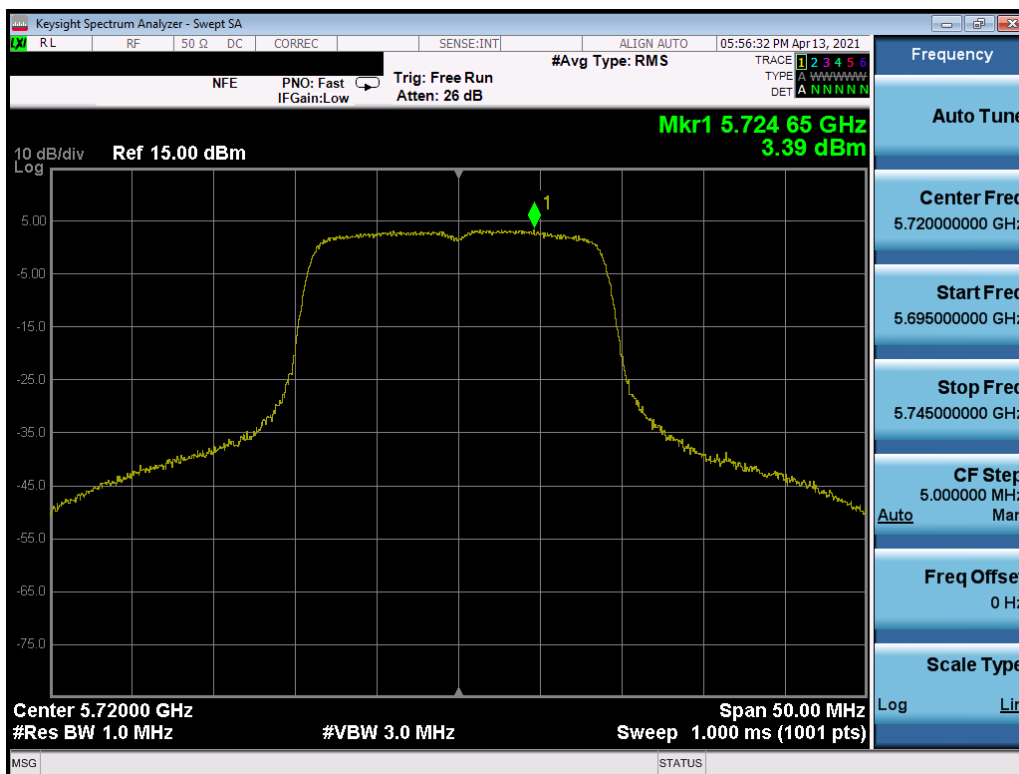


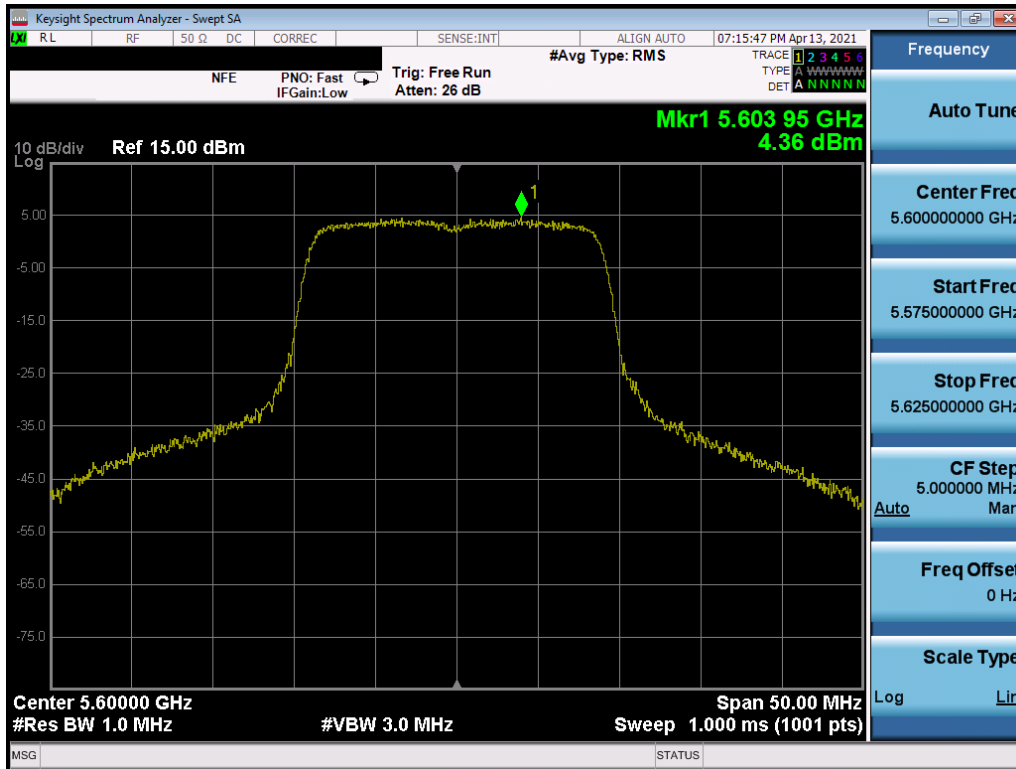
Plot 7-368. Power Spectral Density Plot MIMO ANT2 (802.11a (UNII Band 2C) – Ch. 100)



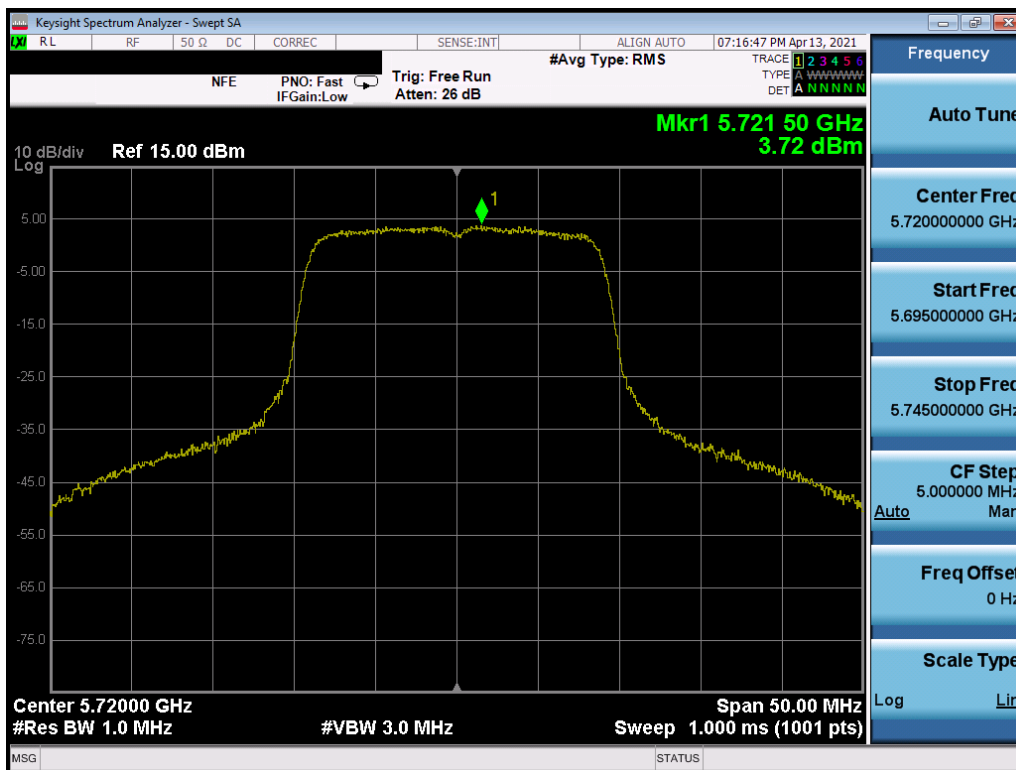
Plot 7-369. Power Spectral Density Plot MIMO ANT2 (802.11a (UNII Band 2C) – Ch. 120)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 216 of 309



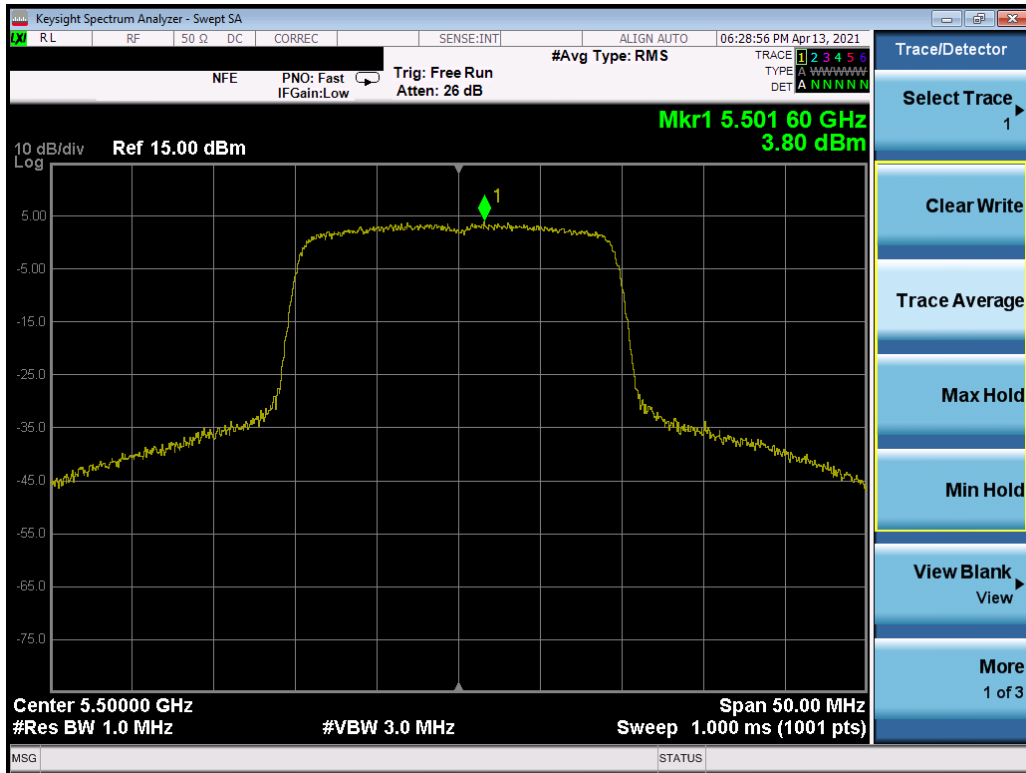


Plot 7-372. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 120)

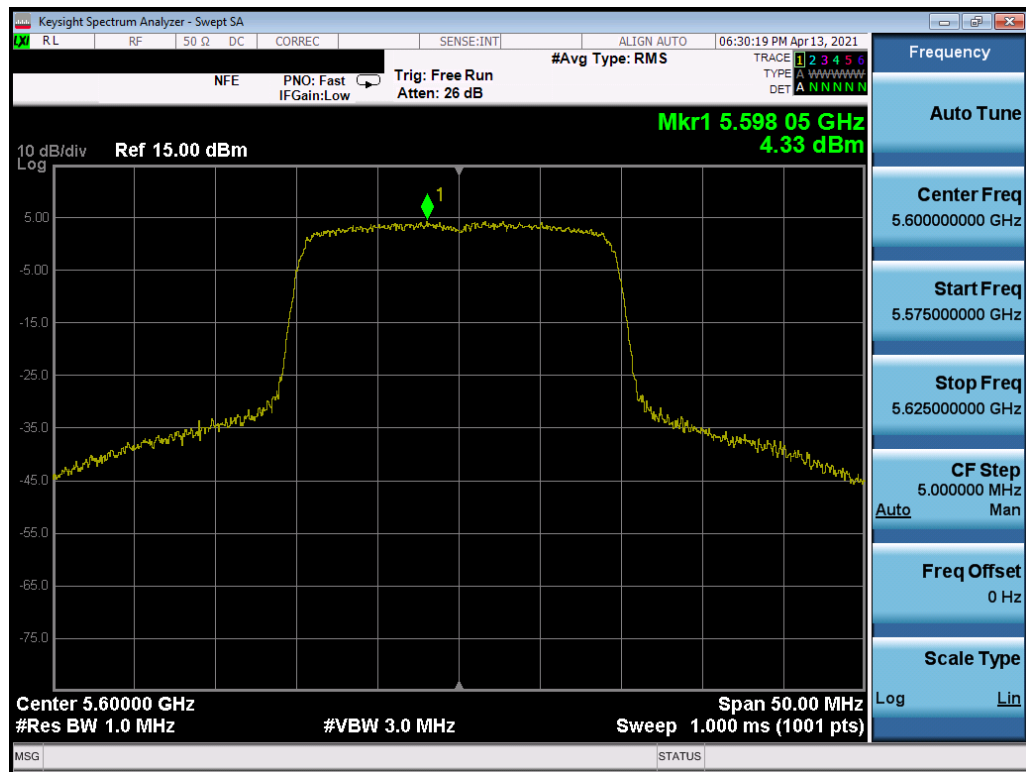


Plot 7-373. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 218 of 309

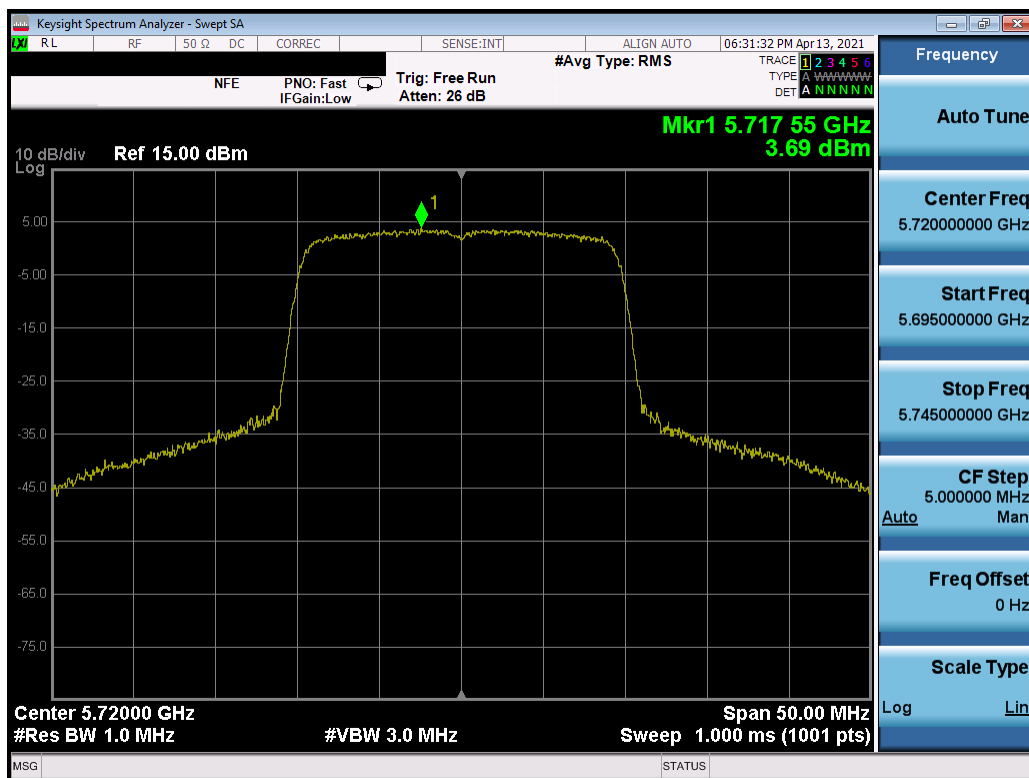


Plot 7-374. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 2C) – Ch. 100)

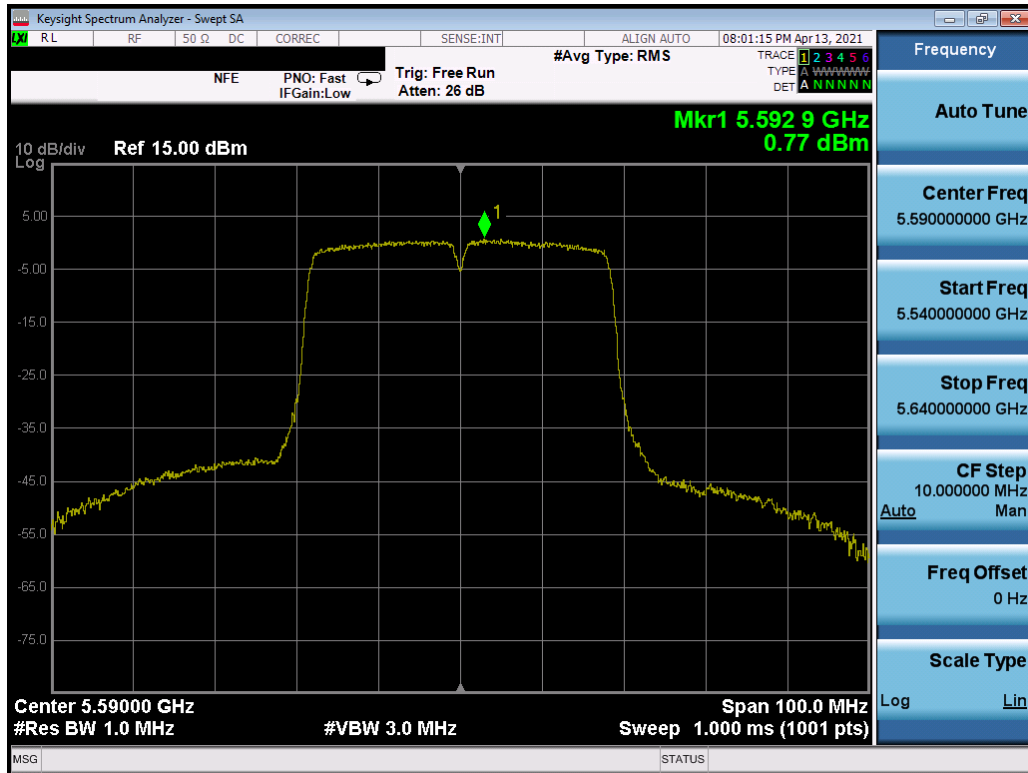


Plot 7-375. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 2C) – Ch. 120)

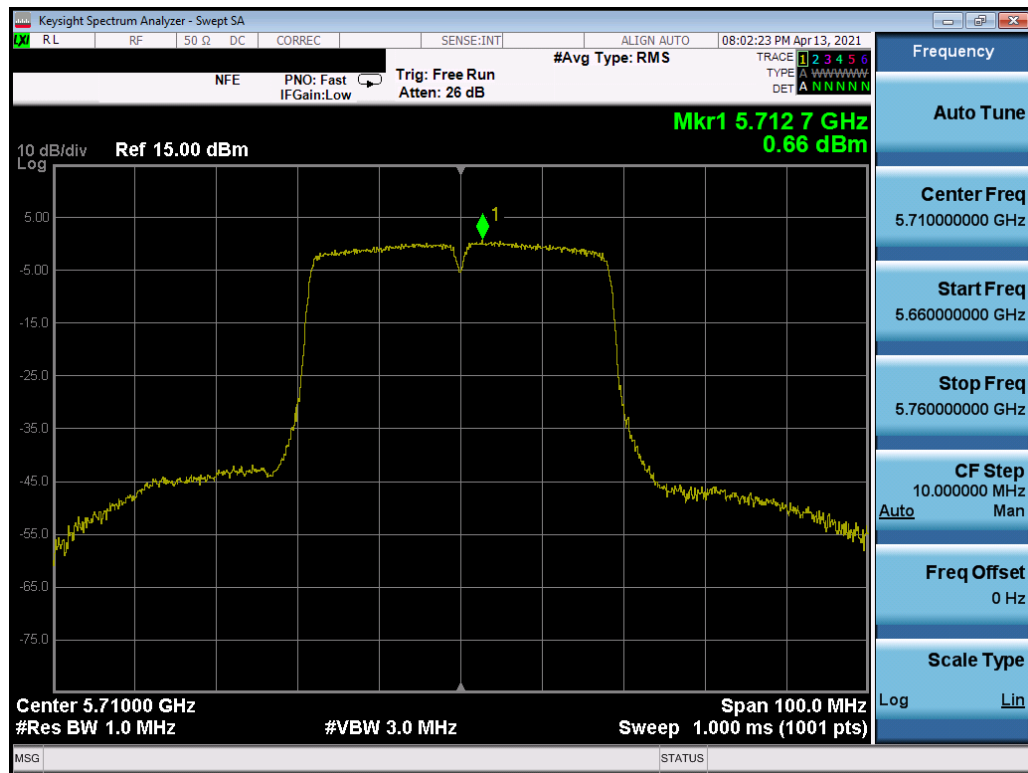
FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 219 of 309





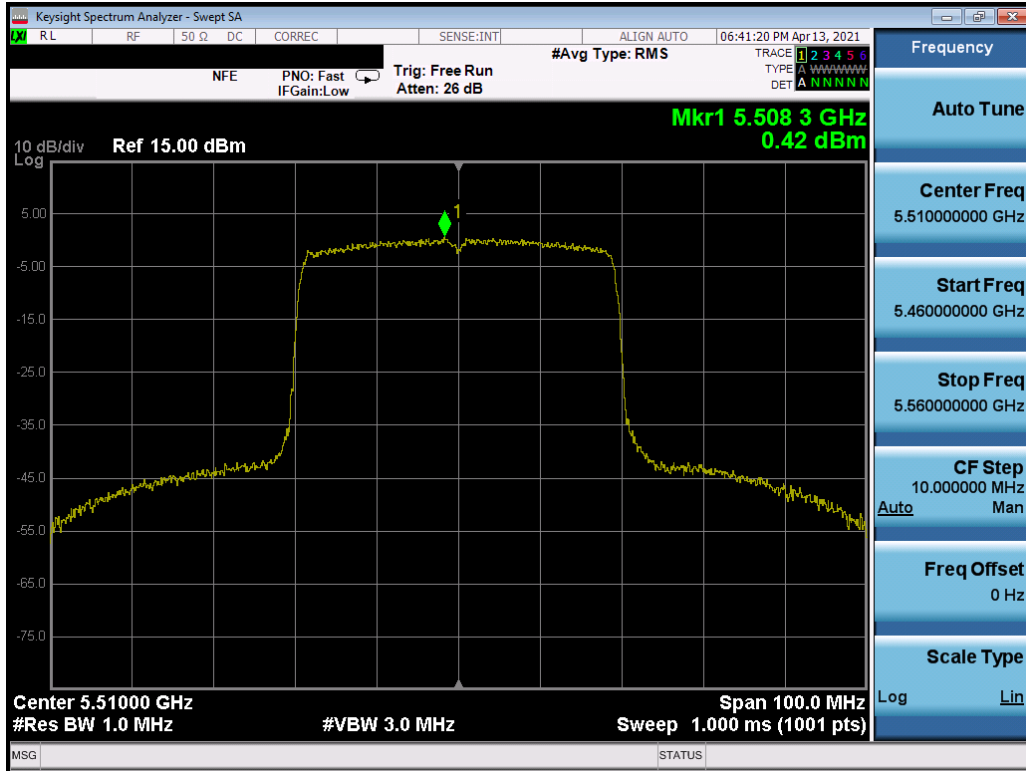


Plot 7-378. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11n (UNII Band 2C) – Ch. 118)

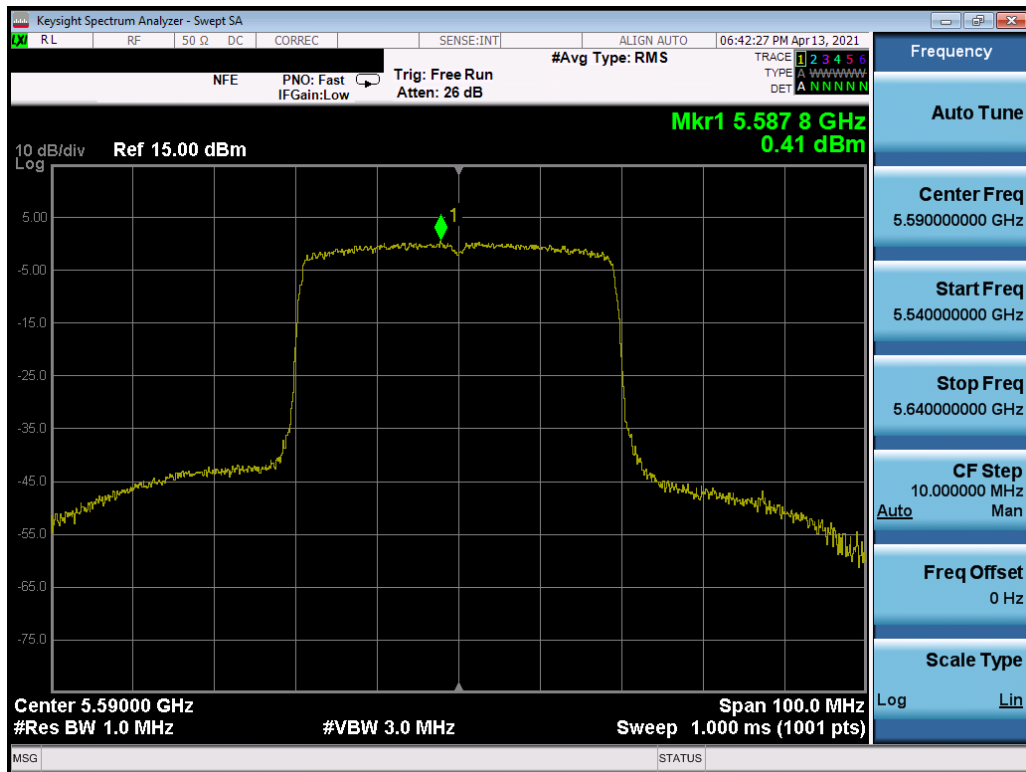


Plot 7-379. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 221 of 309

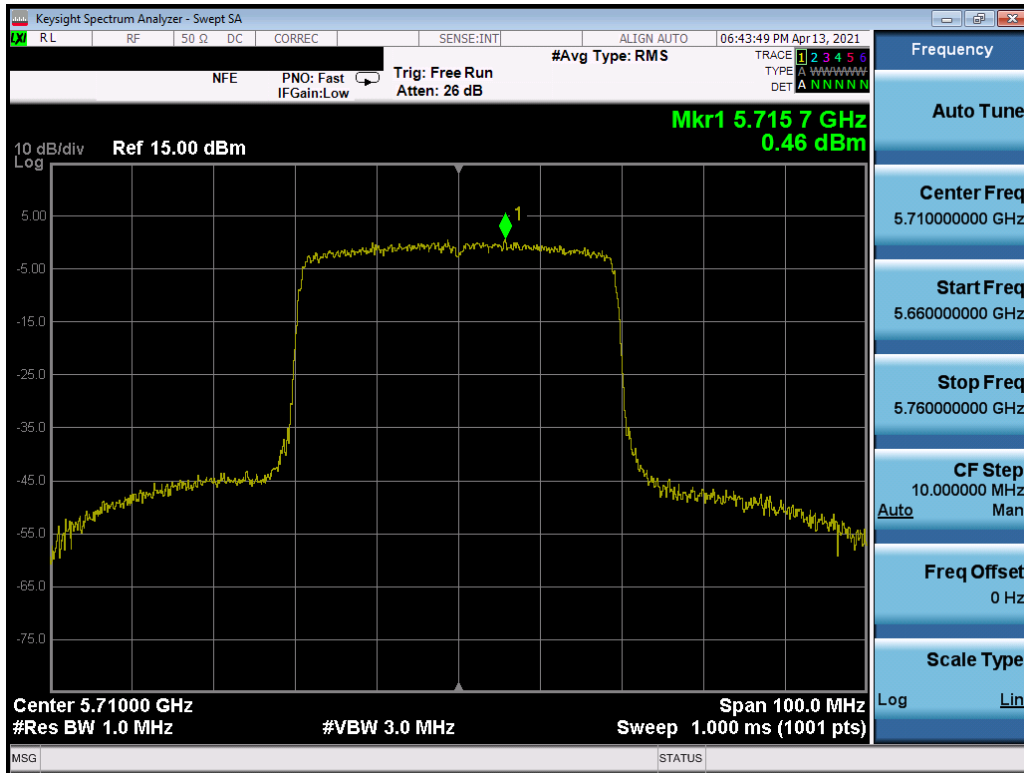


Plot 7-380. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 2C) – Ch. 102)

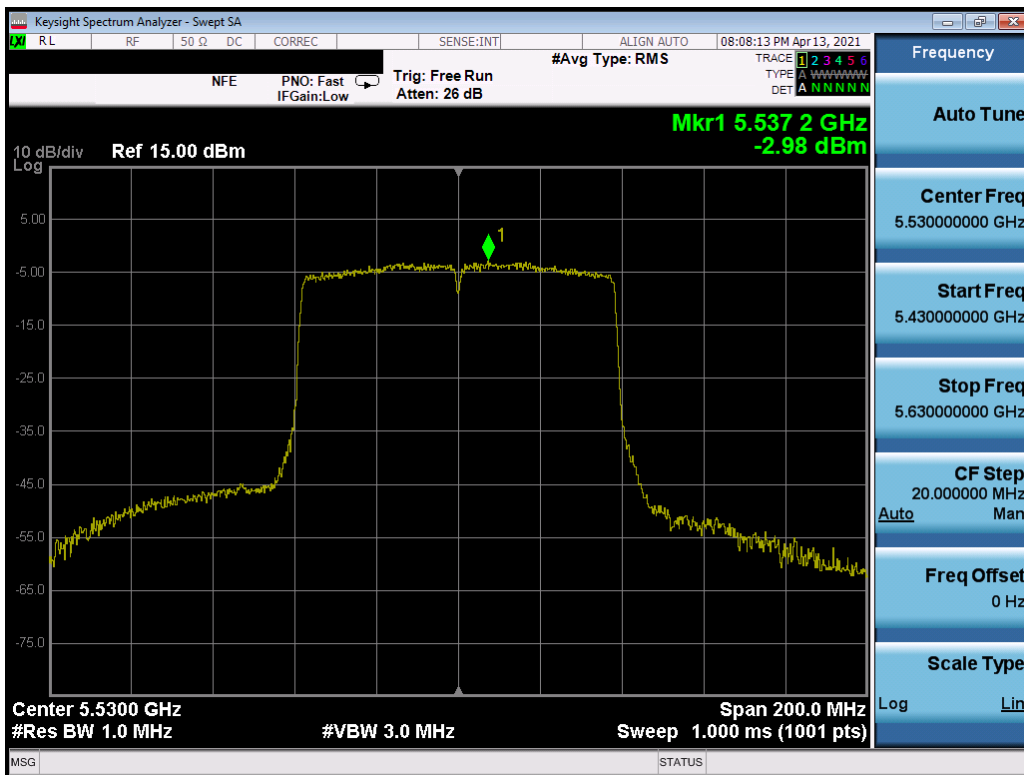


Plot 7-381. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 222 of 309

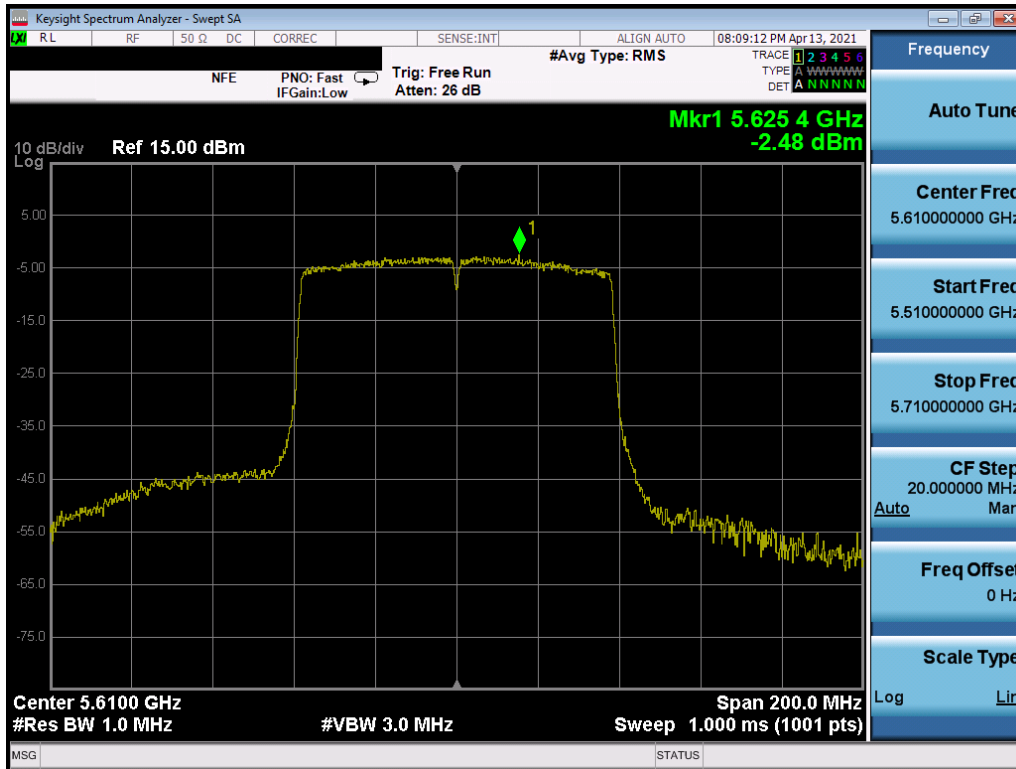


Plot 7-382. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 2C) – Ch. 142)

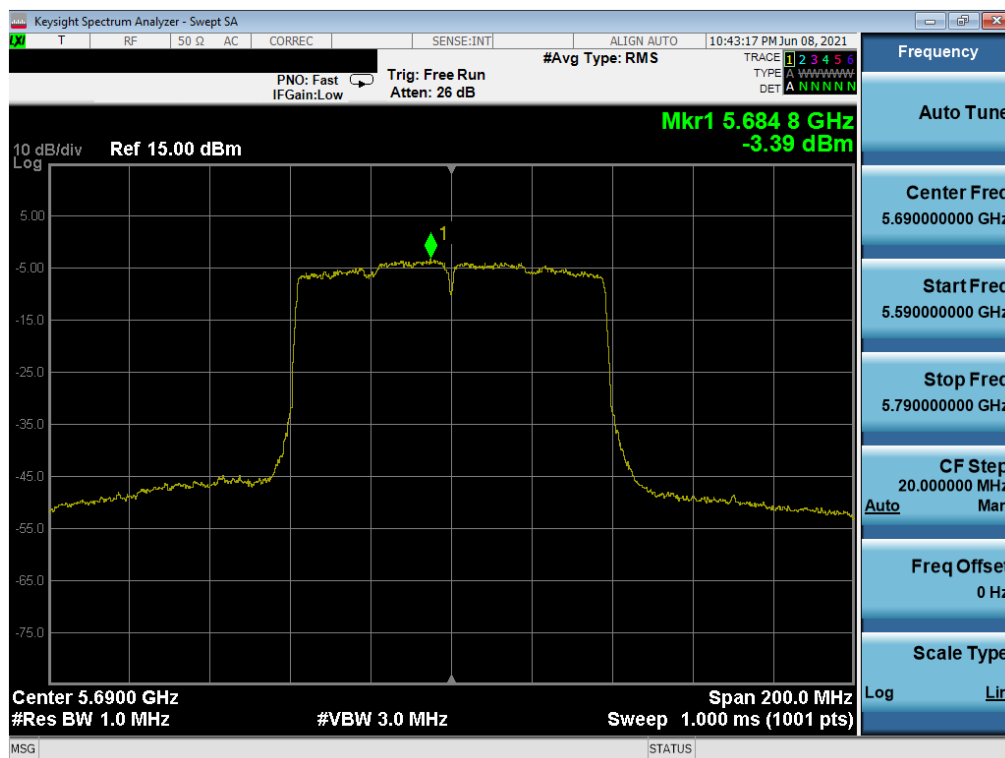


Plot 7-383. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 223 of 309

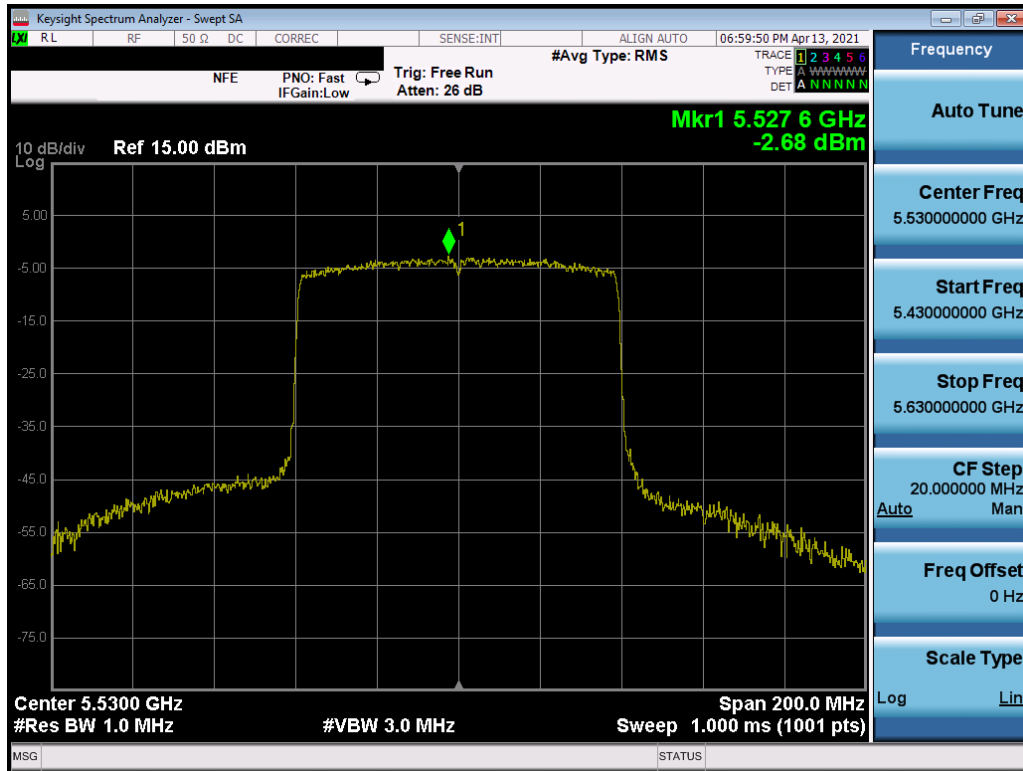


Plot 7-384. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 122)

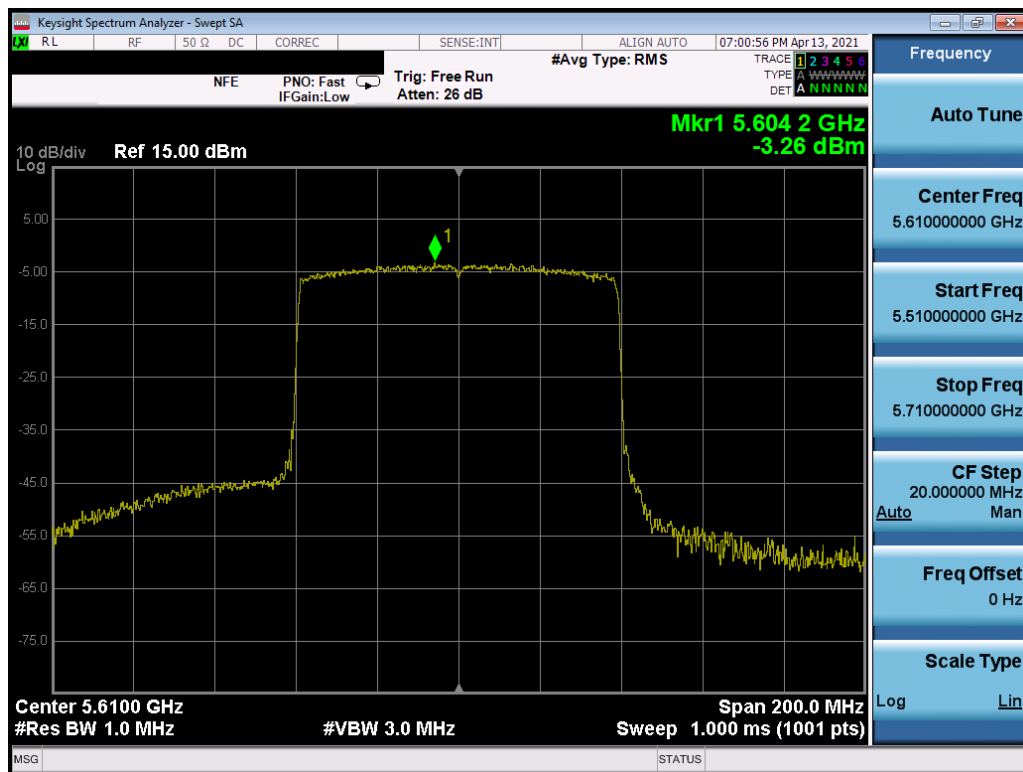


Plot 7-385. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 224 of 309

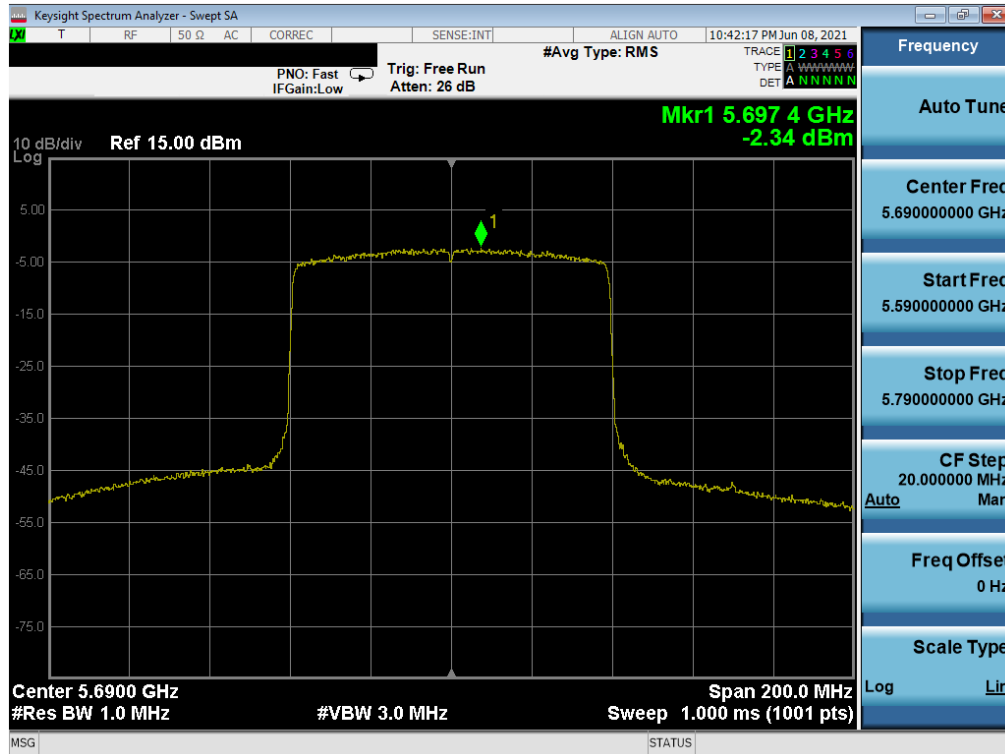


Plot 7-386. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 2C) – Ch. 106)

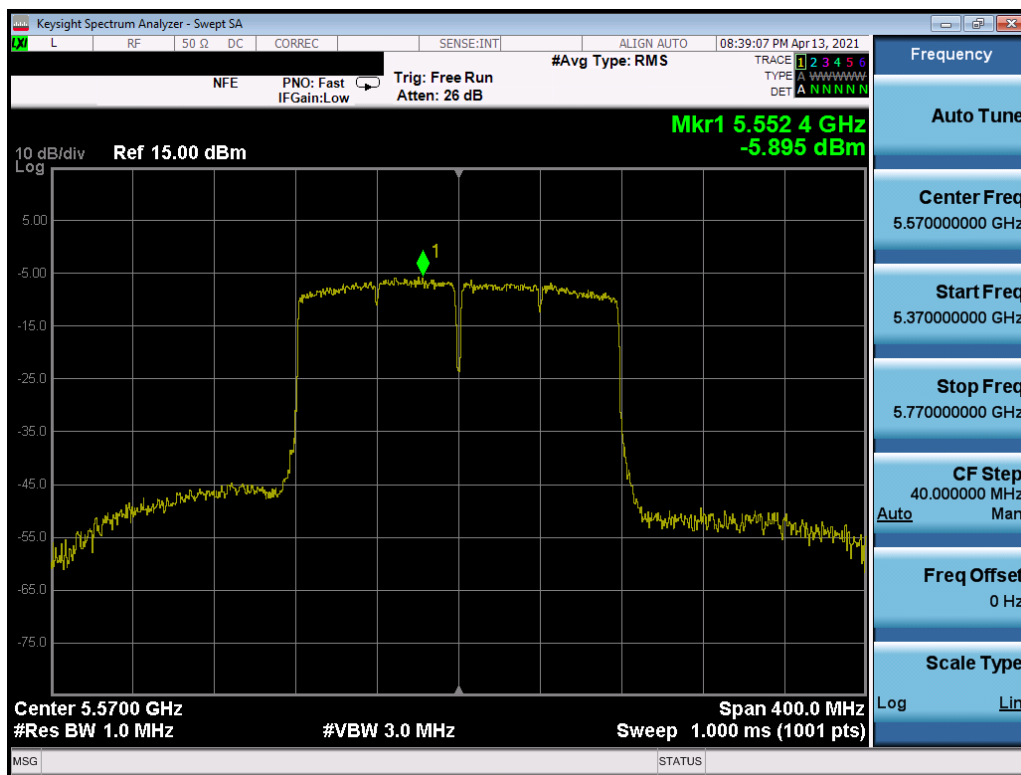


Plot 7-387. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 2C) – Ch. 122)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 225 of 309

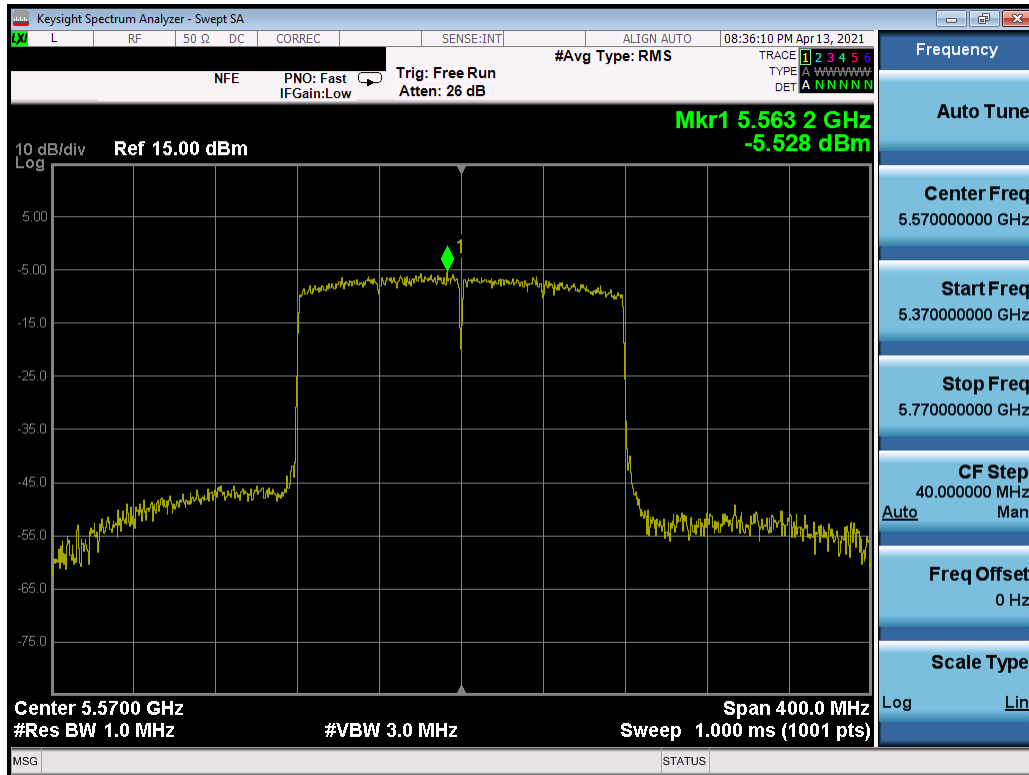


Plot 7-388. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 2C) – Ch. 138)



Plot 7-389. Power Spectral Density Plot MIMO ANT2 (160MHz BW 802.11ac (UNII Band 2C) – Ch. 114)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 226 of 309

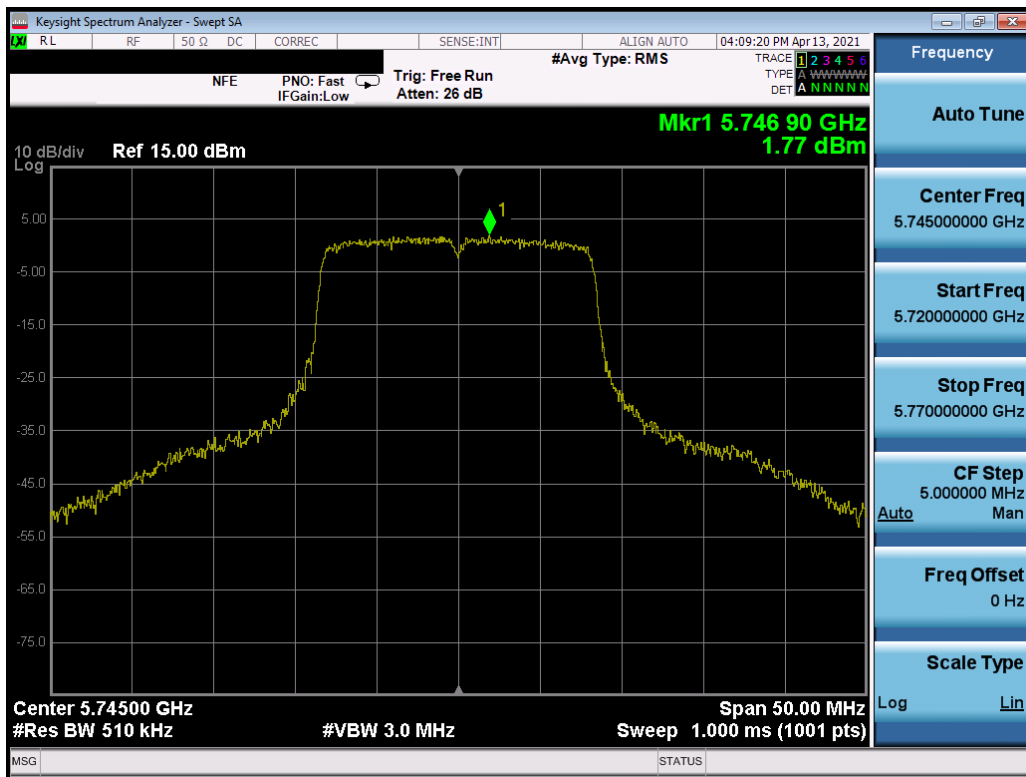


Plot 7-390. Power Spectral Density Plot MIMO ANT2 (160MHz BW 802.11ax (UNII Band 2C) – Ch. 114

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 227 of 309

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density	Margin [dB]
Band 3	5745	149	a	6	1.77	1.34	4.57	30.0	-25.43
	5785	157	a	6	1.92	1.13	4.55	30.0	-25.45
	5825	165	a	6	1.68	1.29	4.50	30.0	-25.50
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	1.21	1.11	4.17	30.0	-25.83
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	1.28	1.34	4.32	30.0	-25.68
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	1.75	1.03	4.42	30.0	-25.58
	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	1.32	1.25	4.30	30.0	-25.70
	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	1.66	1.12	4.41	30.0	-25.59
	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	1.57	1.80	4.70	30.0	-25.30
	5755	151	n (40MHz)	13.5/15 (MCS0)	-1.72	-1.29	1.51	30.0	-28.49
	5795	159	n (40MHz)	13.5/15 (MCS0)	-2.19	-1.87	0.98	30.0	-29.02
	5755	151	ax (40MHz)	13.5/15 (MCS0)	-1.96	-1.79	1.14	30.0	-28.86
	5795	159	ax (40MHz)	13.5/15 (MCS0)	-2.04	-2.56	0.72	30.0	-29.28
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-2.56	-2.78	0.34	30.0	-29.66
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	-3.02	-3.52	-0.25	30.0	-30.25

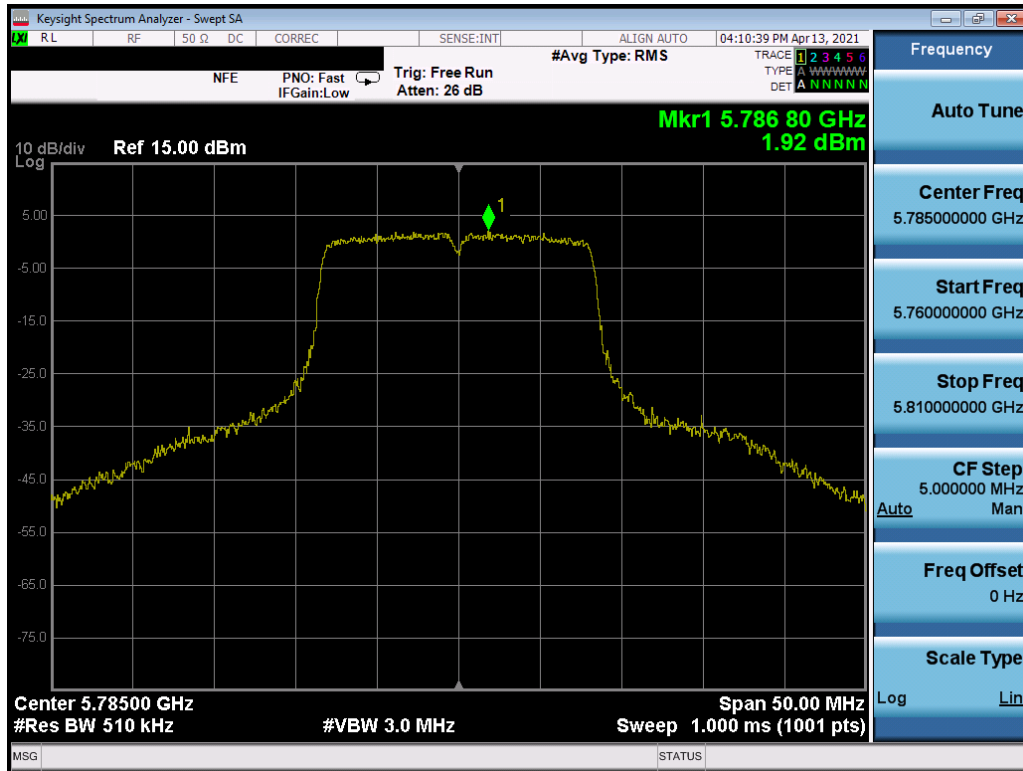
Table 7-24. Band 3 Conducted Power Spectral Density Measurements MIMO



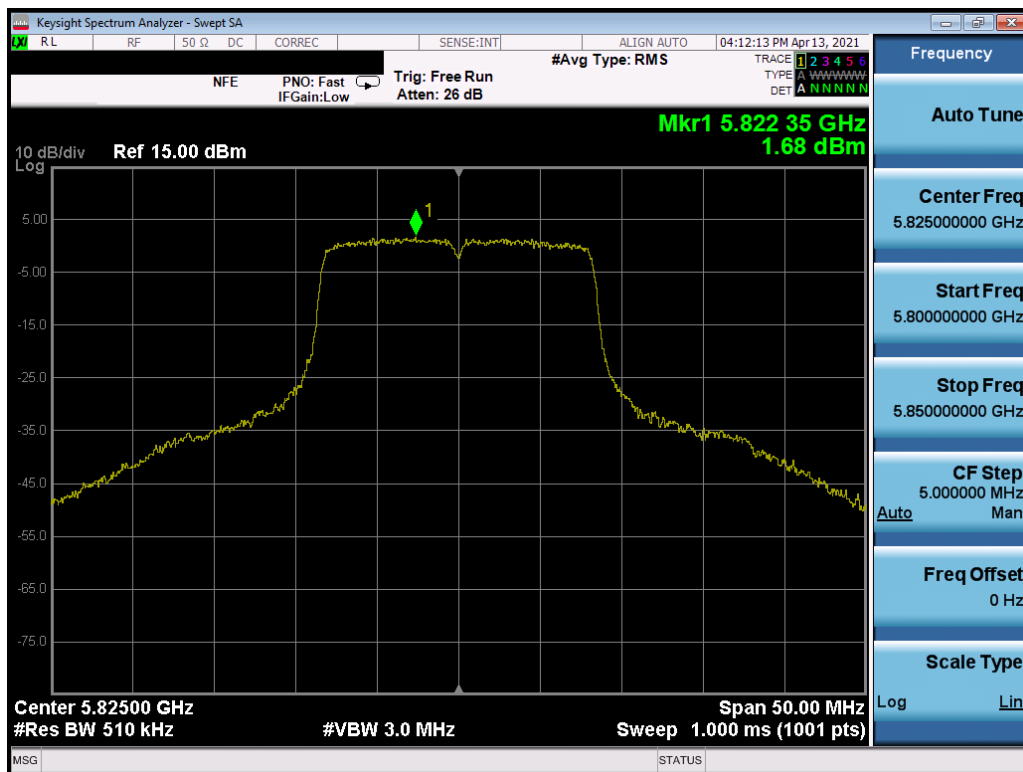
Plot 7-391. Power Spectral Density Plot MIMO ANT1 (802.11a (UNII Band 3) – Ch. 149)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 228 of 309



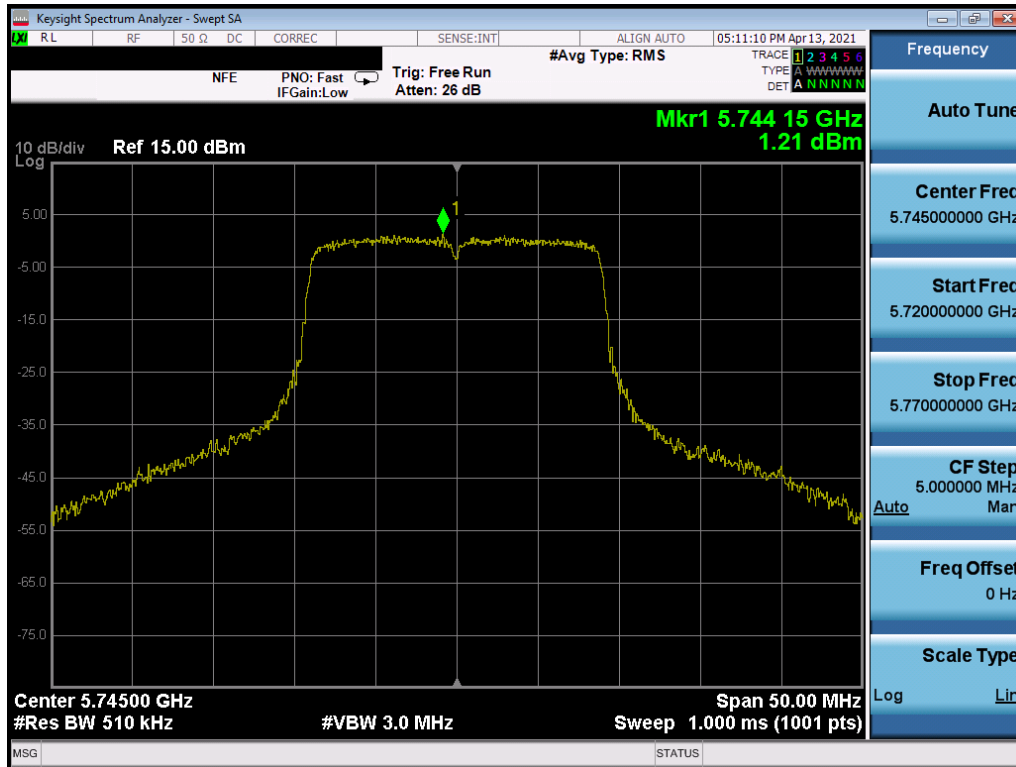


Plot 7-392. Power Spectral Density Plot MIMO ANT1 (802.11a (UNII Band 3) – Ch. 157)

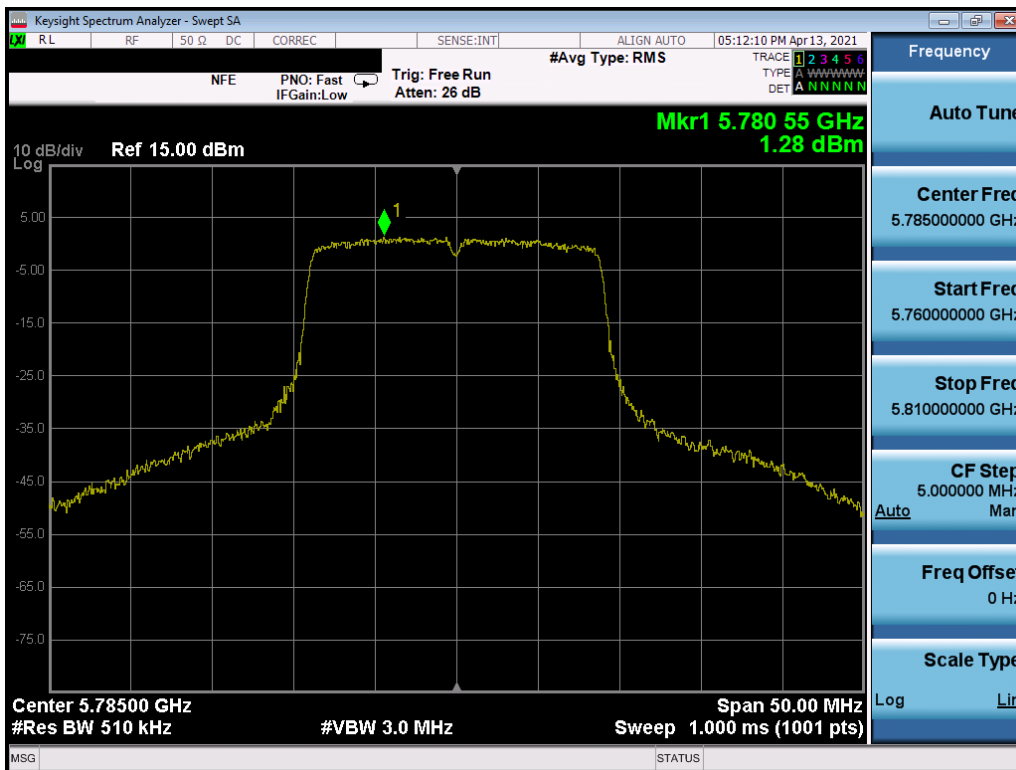


Plot 7-393. Power Spectral Density Plot MIMO ANT1 (802.11a (UNII Band 3) – Ch. 165)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 229 of 309

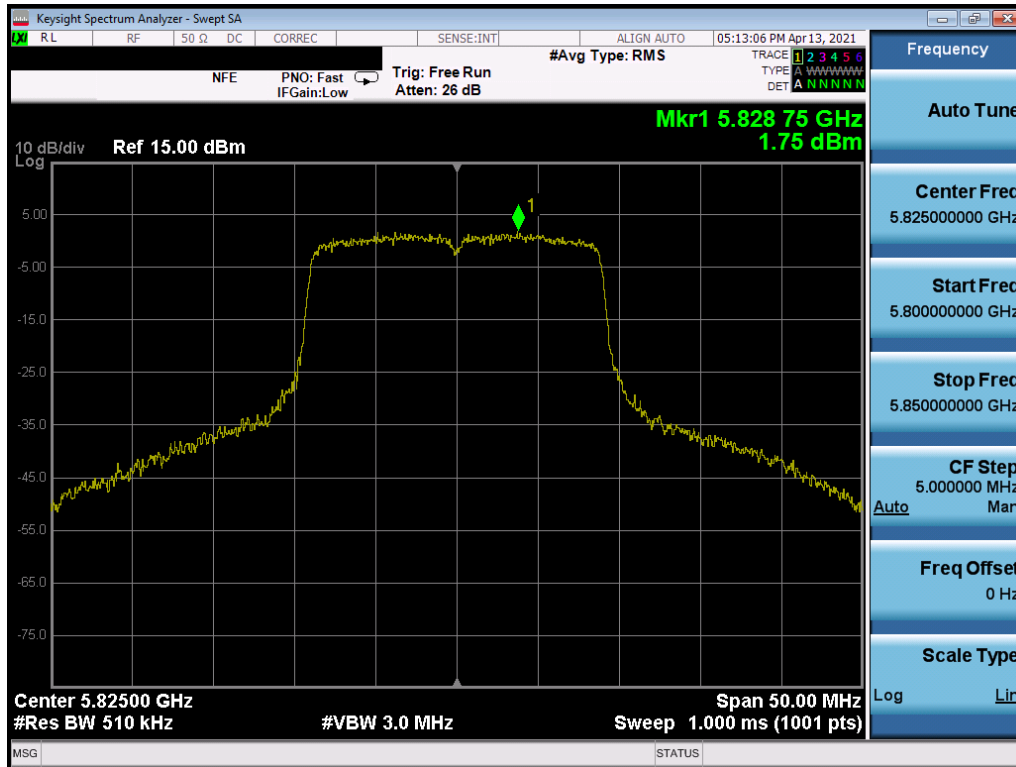


Plot 7-394. Power Spectral Density Plot MIMO ANT1 (20MHz 802.11n (UNII Band 3) – Ch. 149)

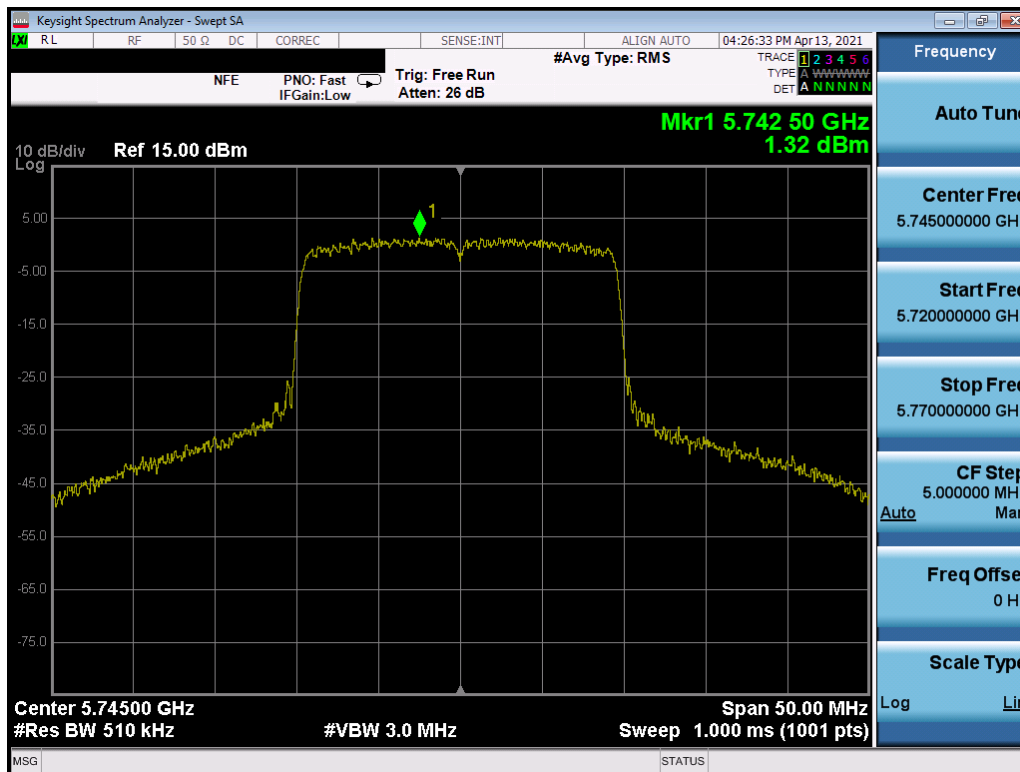


Plot 7-395. Power Spectral Density Plot MIMO ANT1 (20MHz 802.11n (UNII Band 3) – Ch. 157)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 230 of 309



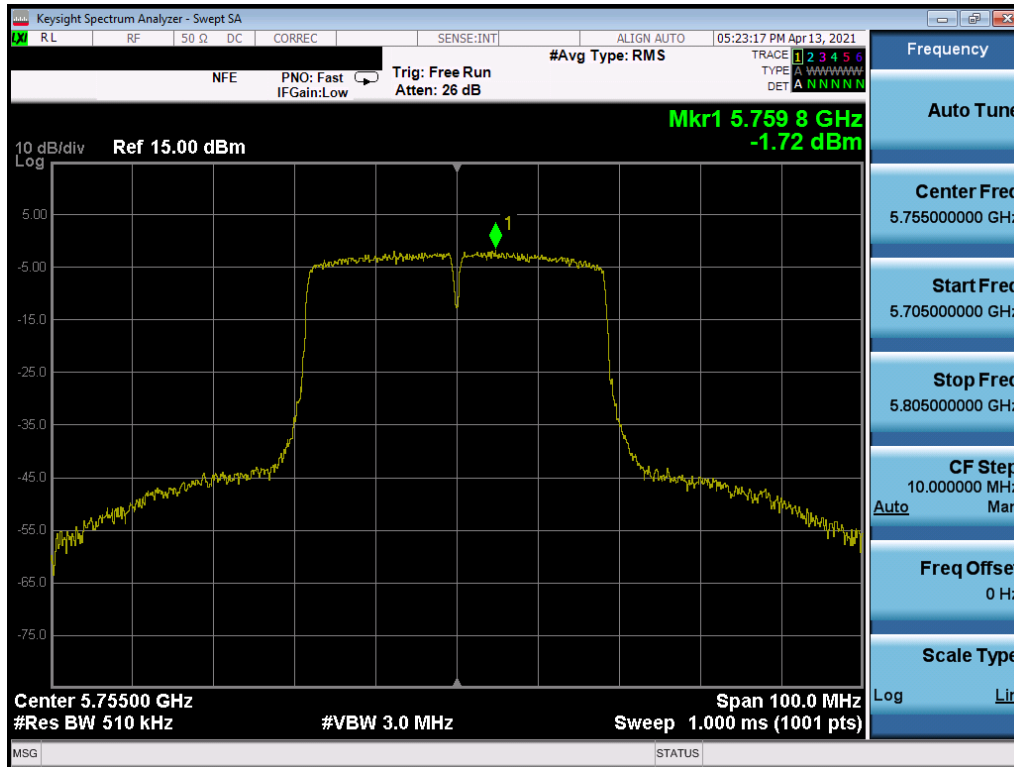
Plot 7-396. Power Spectral Density Plot MIMO ANT1 (20MHz 802.11n (UNII Band 3) – Ch. 165)



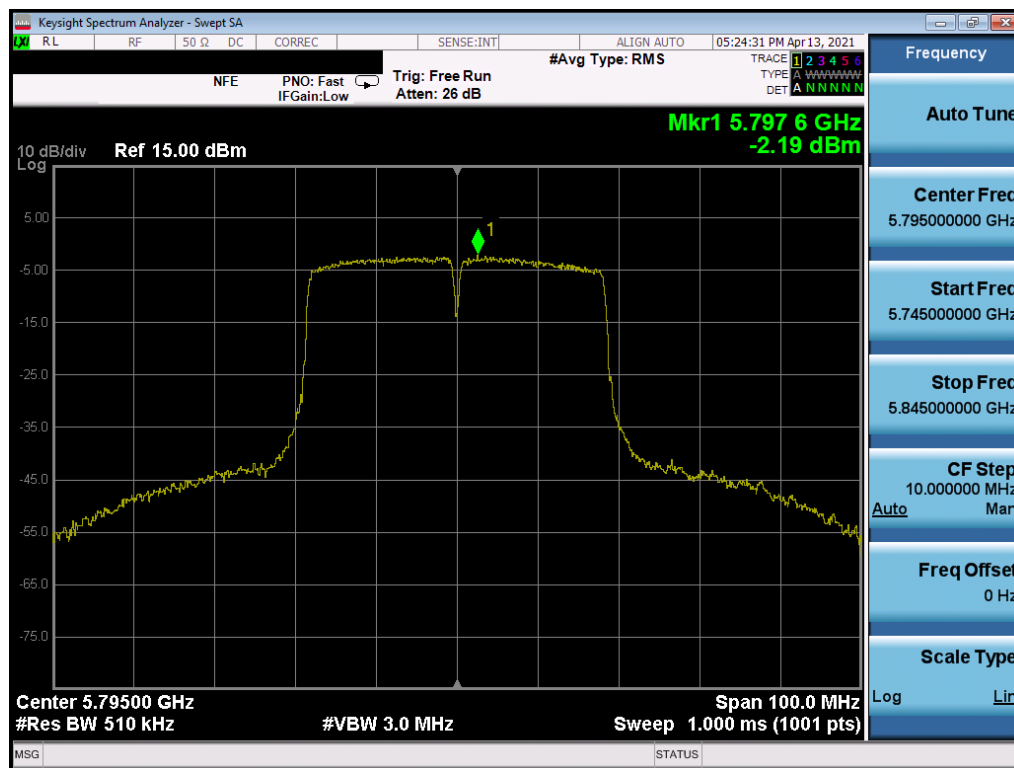
Plot 7-397. Power Spectral Density Plot MIMO ANT1 (20MHz 802.11ax (UNII Band 3) – Ch. 149)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 231 of 309



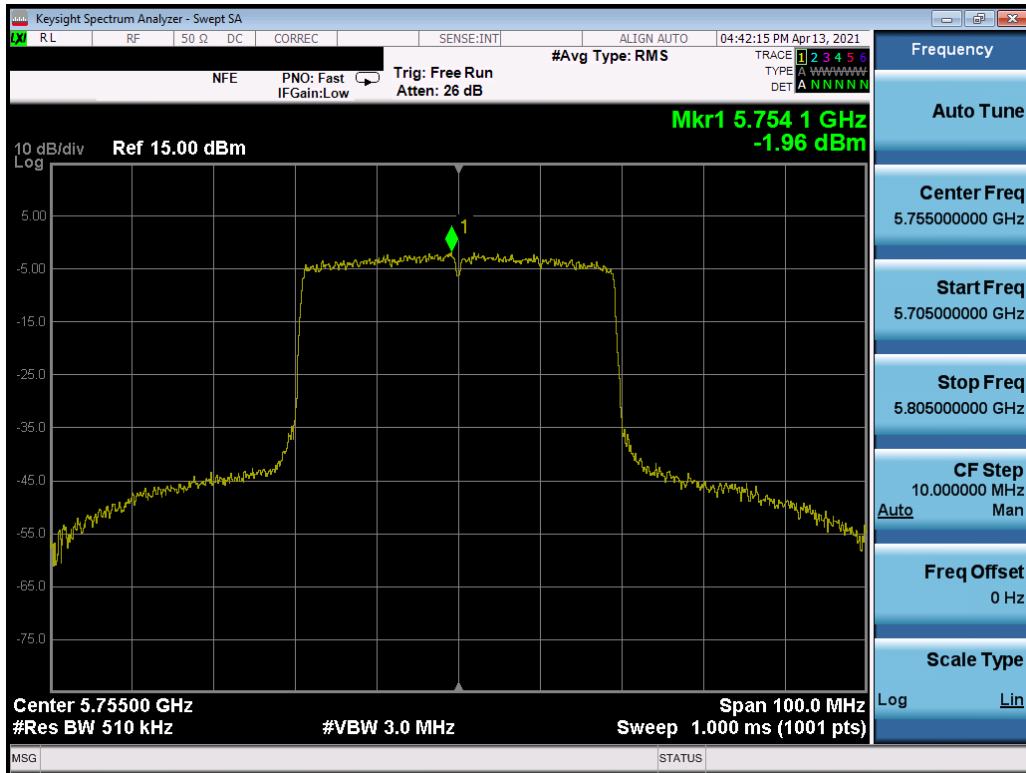


Plot 7-400. Power Spectral Density Plot MIMO ANT1 (40MHz 802.11n (UNII Band 3) – Ch. 151)

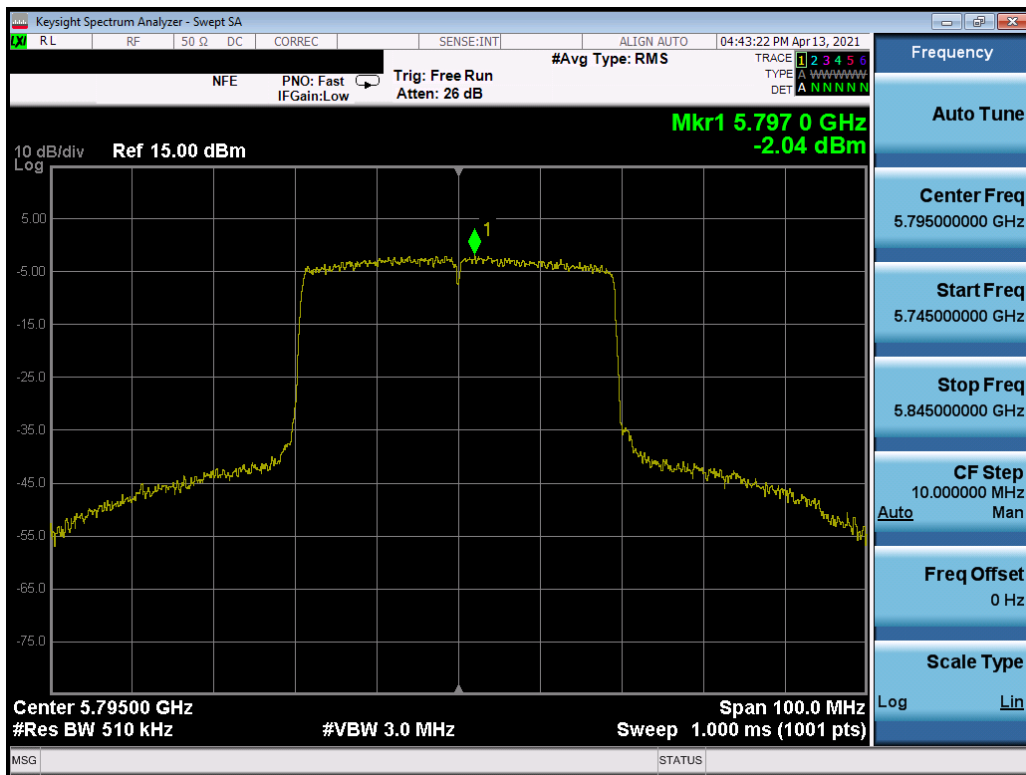


Plot 7-401. Power Spectral Density Plot MIMO ANT1 (40MHz 802.11n (UNII Band 3) – Ch. 159)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 233 of 309

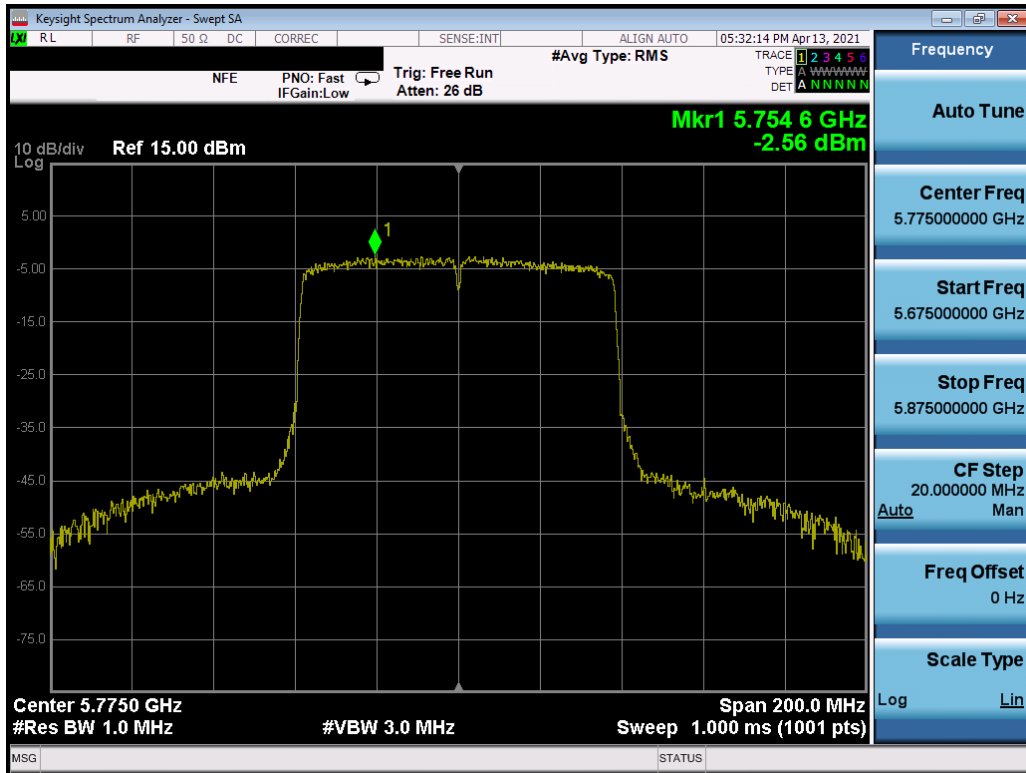


Plot 7-402. Power Spectral Density Plot MIMO ANT1 (40MHz 802.11ax (UNII Band 3) – Ch. 151)

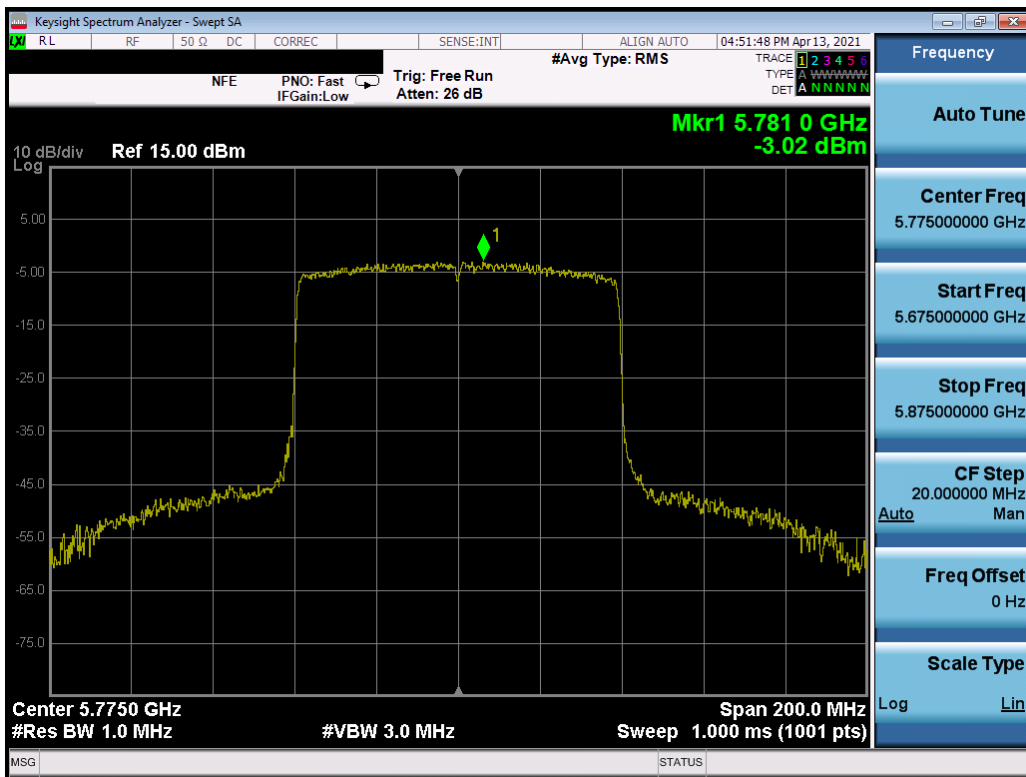


Plot 7-403. Power Spectral Density Plot MIMO ANT1 (40MHz 802.11ax (UNII Band 3) – Ch. 159)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 234 of 309

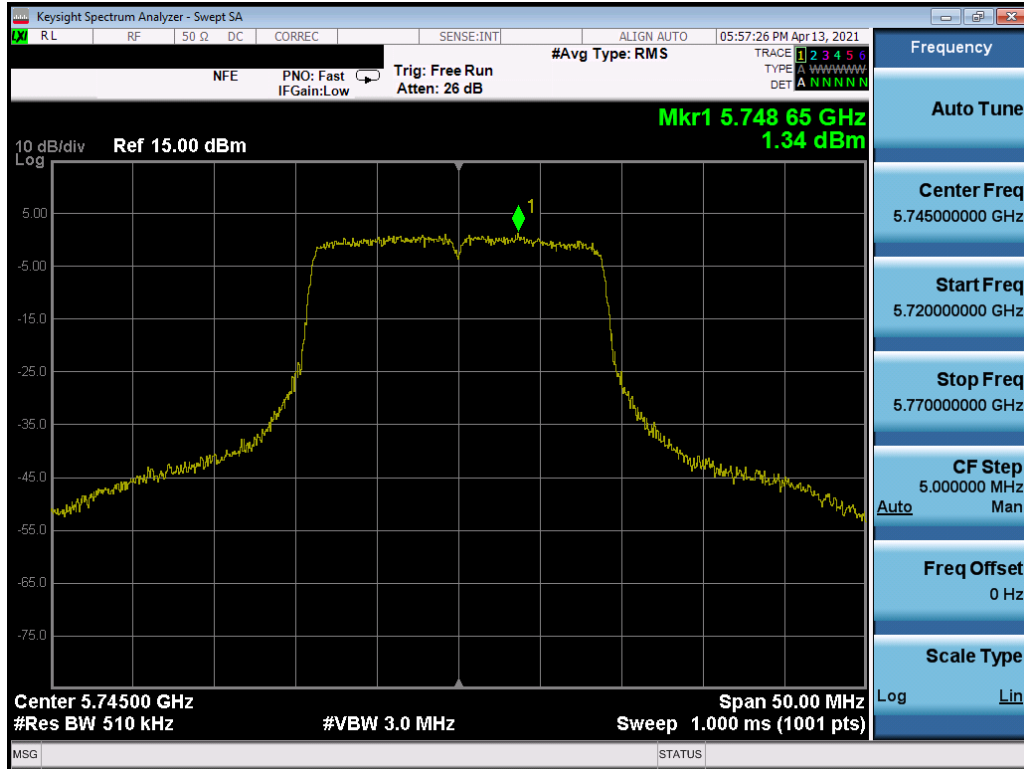


Plot 7-404. Power Spectral Density Plot MIMO ANT1 (80MHz 802.11ac (UNII Band 3) – Ch. 155)

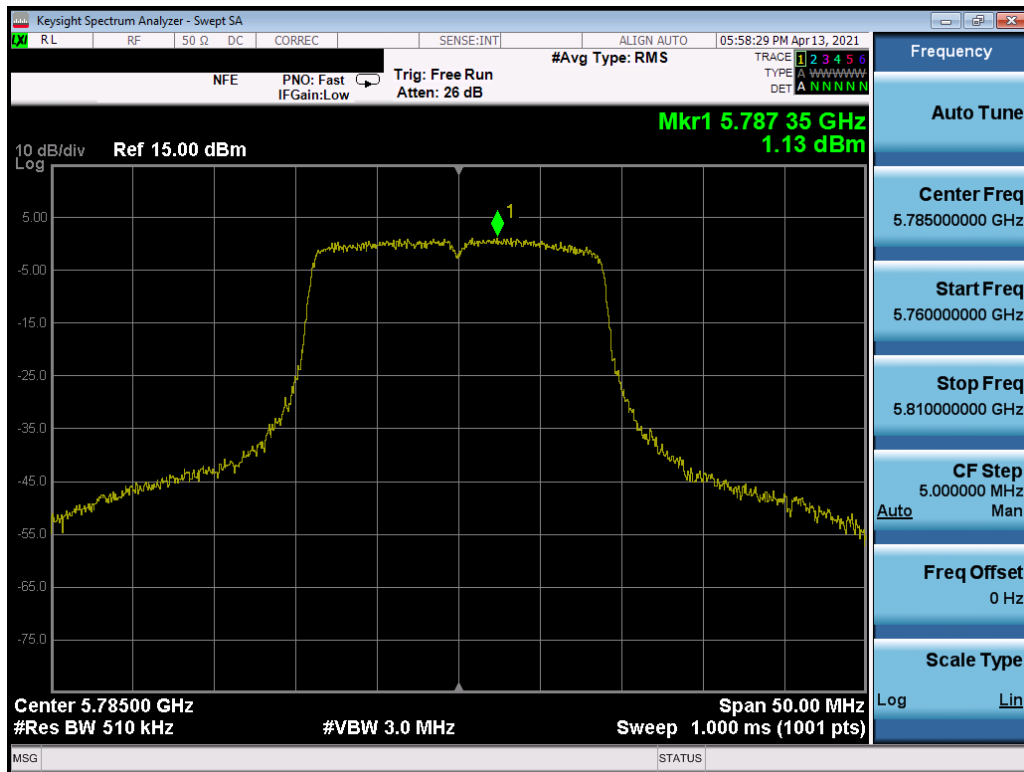


Plot 7-405. Power Spectral Density Plot MIMO ANT1 (80MHz 802.11ax (UNII Band 3) – Ch. 155)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 235 of 309



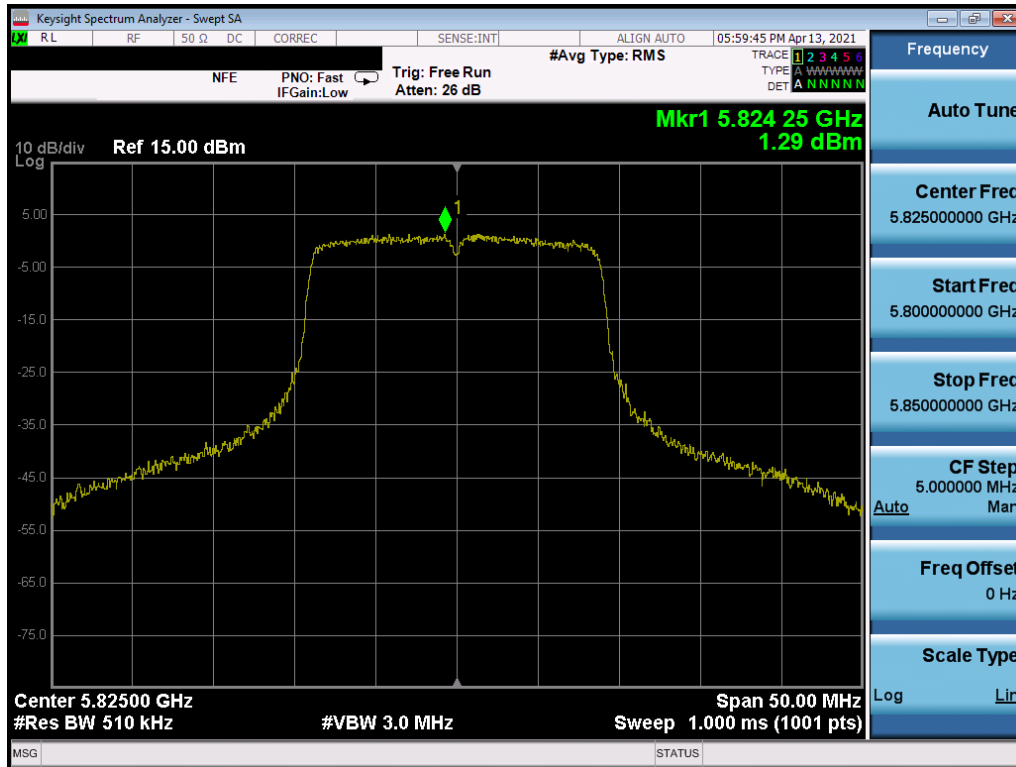
Plot 7-406. Power Spectral Density Plot MIMO ANT2 (802.11a (UNII Band 3) – Ch. 149)



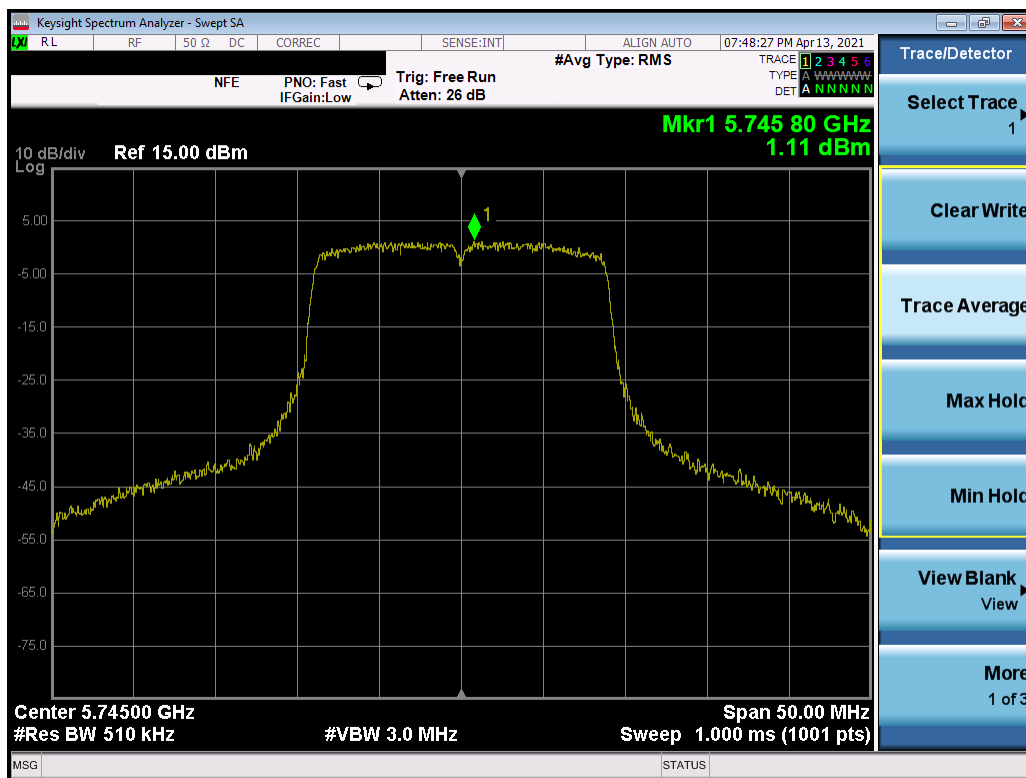
Plot 7-407. Power Spectral Density Plot MIMO ANT2 (802.11a (UNII Band 3) – Ch. 157)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 236 of 309



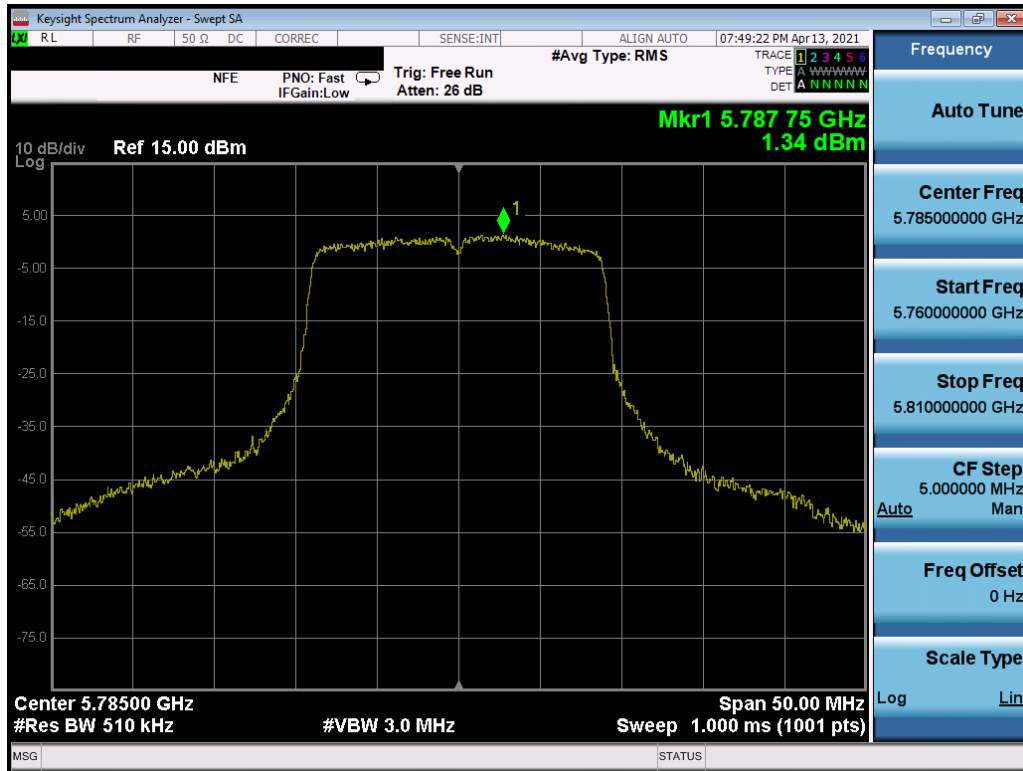


Plot 7-408. Power Spectral Density Plot MIMO ANT2 (802.11a (UNII Band 3) – Ch. 165)

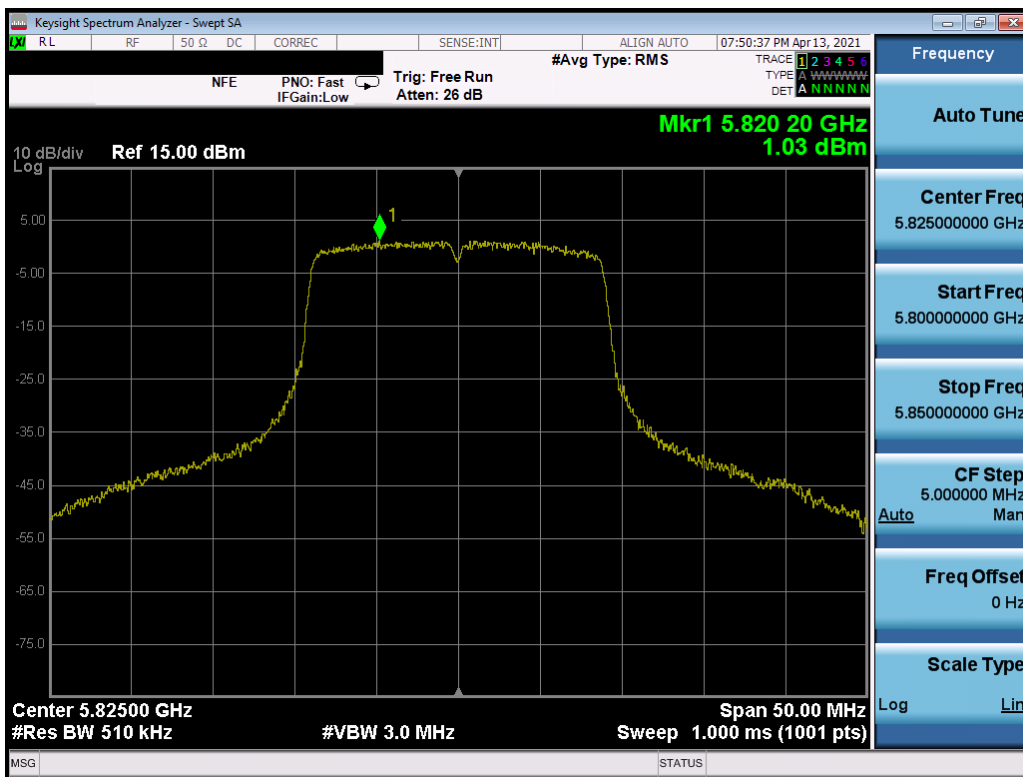


Plot 7-409. Power Spectral Density Plot MIMO ANT2 (20MHz 802.11n (UNII Band 3) – Ch. 149)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 237 of 309

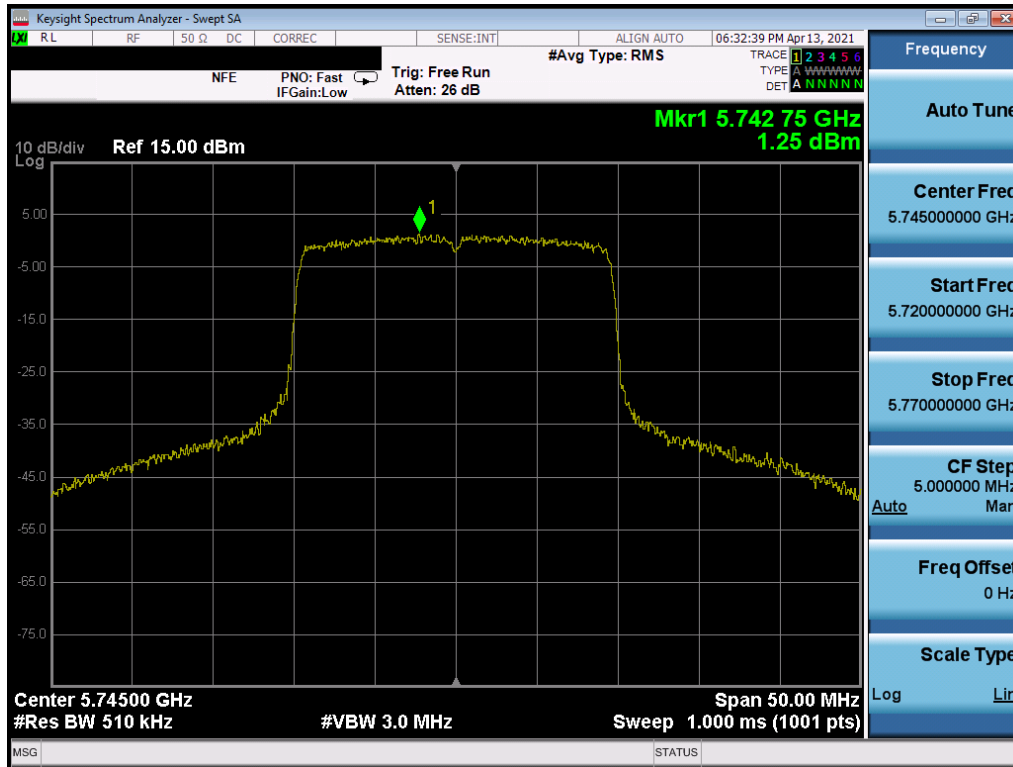


Plot 7-410. Power Spectral Density Plot MIMO ANT2 (20MHz 802.11n (UNII Band 3) – Ch. 157)

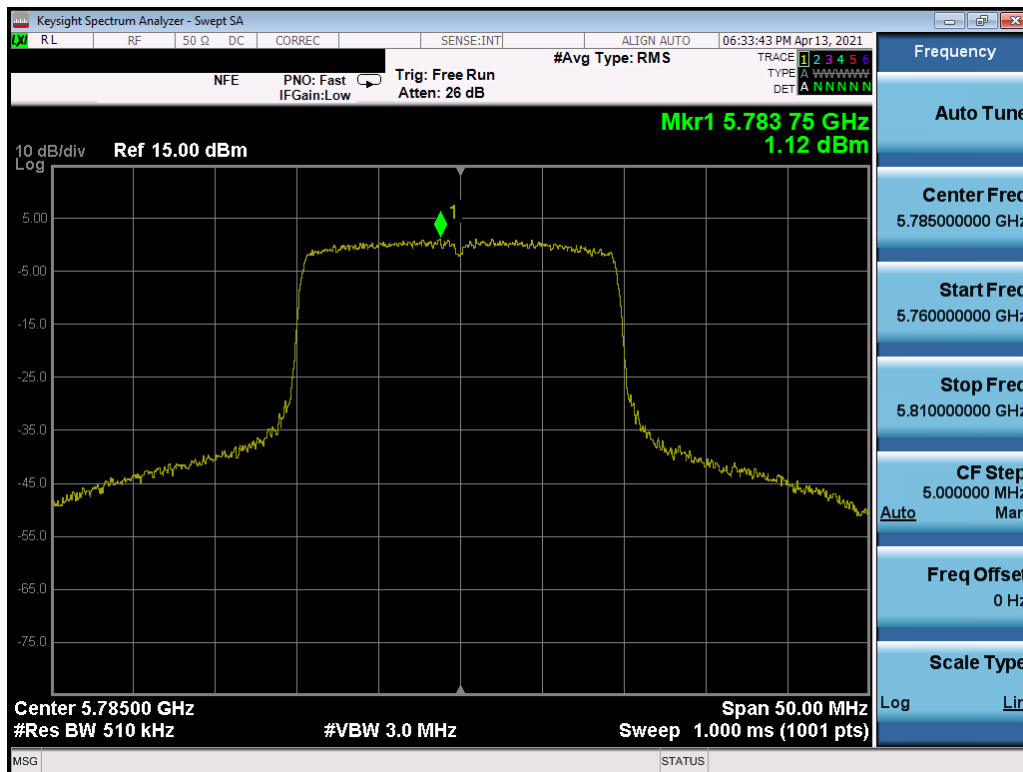


Plot 7-411. Power Spectral Density Plot MIMO ANT2 (20MHz 802.11n (UNII Band 3) – Ch. 165)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 238 of 309

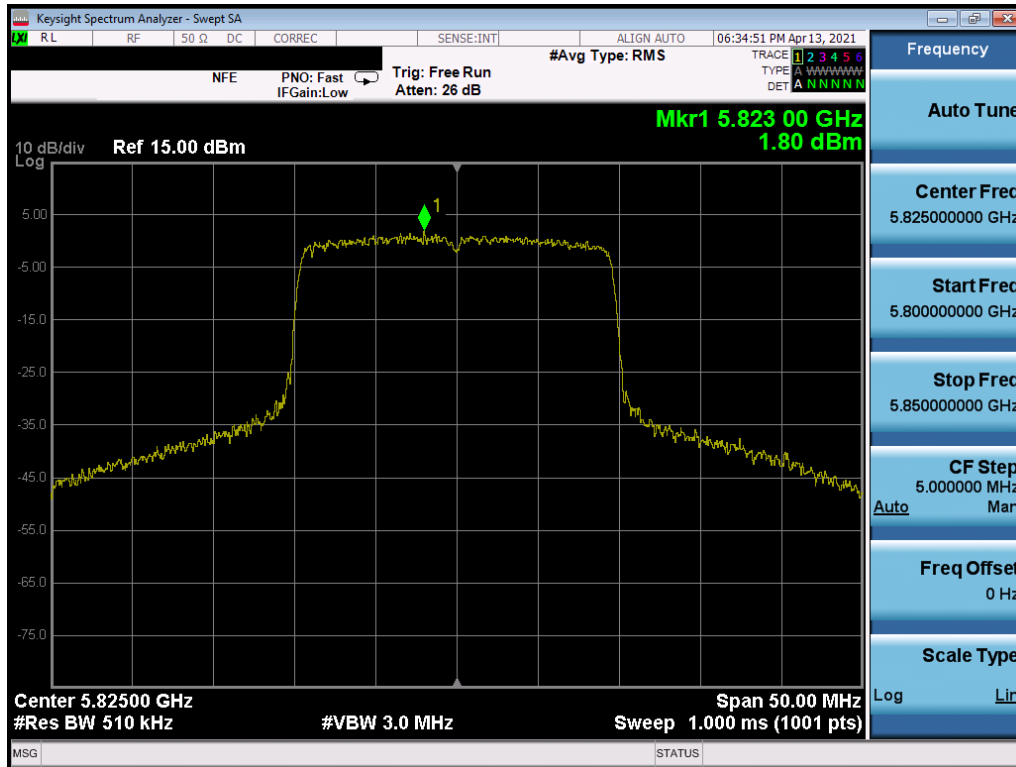


Plot 7-412. Power Spectral Density Plot MIMO ANT2 (20MHz 802.11ax (UNII Band 3) – Ch. 149)

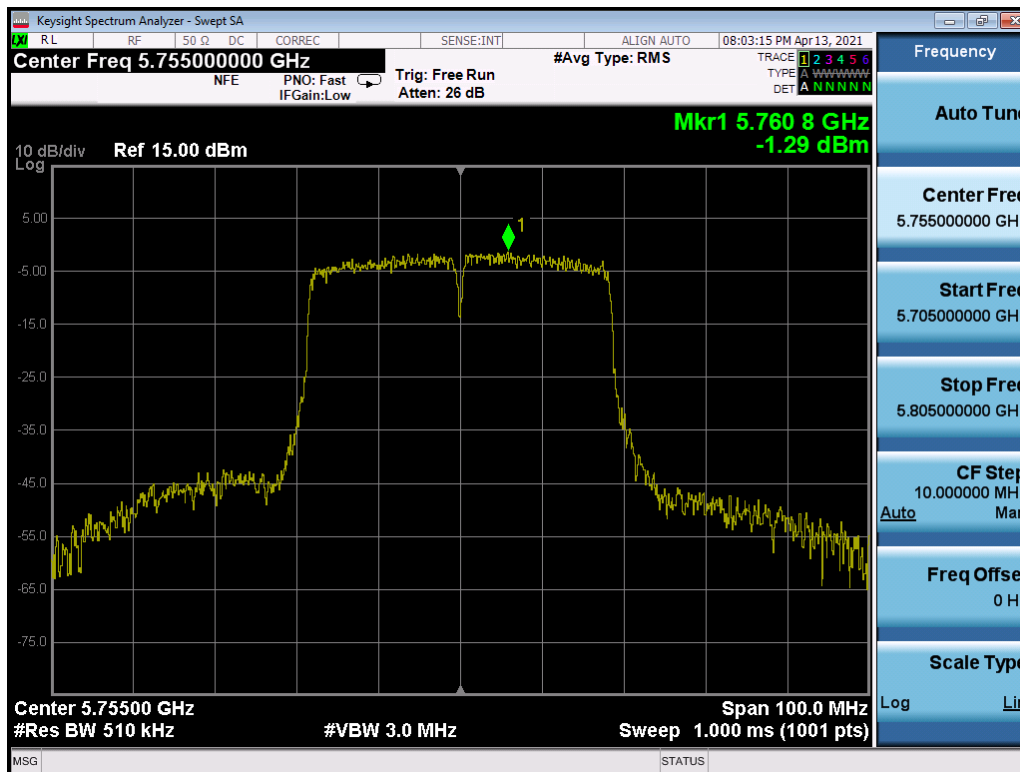


Plot 7-413. Power Spectral Density Plot MIMO ANT2 (20MHz 802.11ax (UNII Band 3) – Ch. 157)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 239 of 309

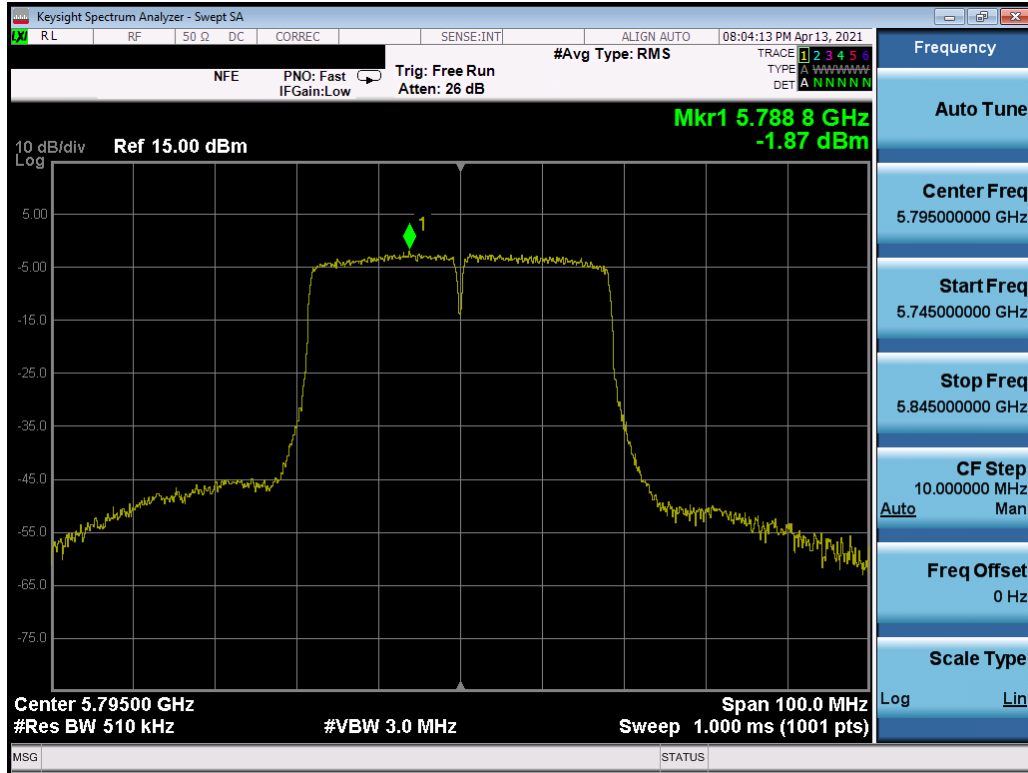


Plot 7-414. Power Spectral Density Plot MIMO ANT2 (20MHz 802.11ax (UNII Band 3) – Ch. 165)

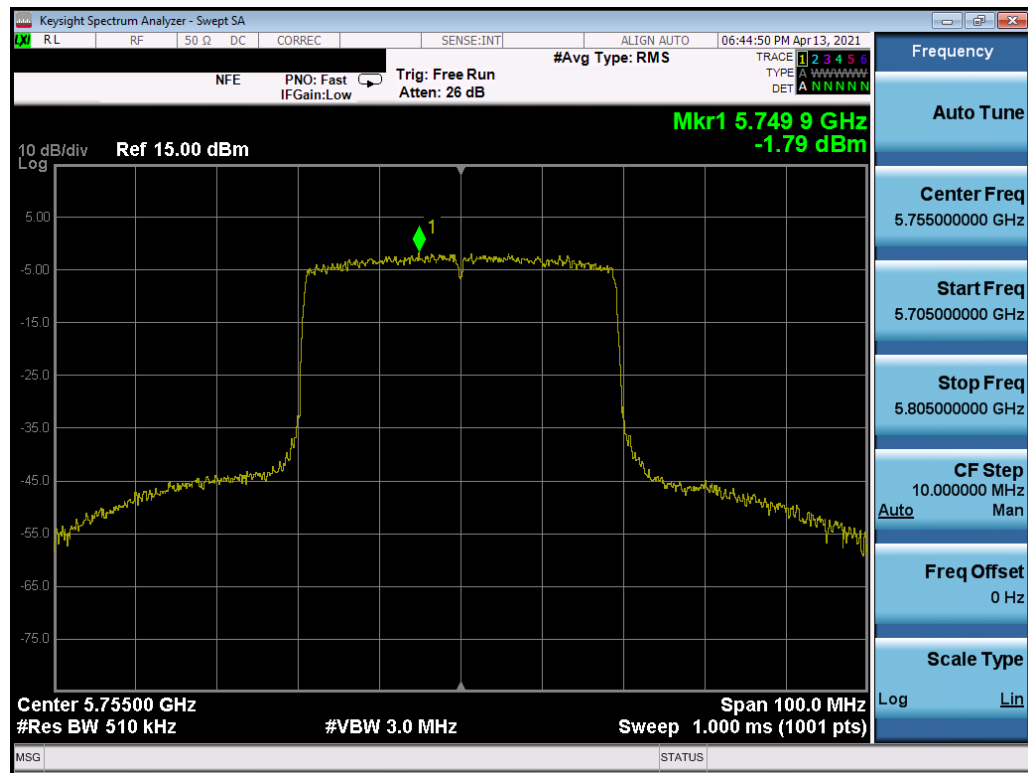


Plot 7-415. Power Spectral Density Plot MIMO ANT2 (40MHz 802.11n (UNII Band 3) – Ch. 151)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 240 of 309

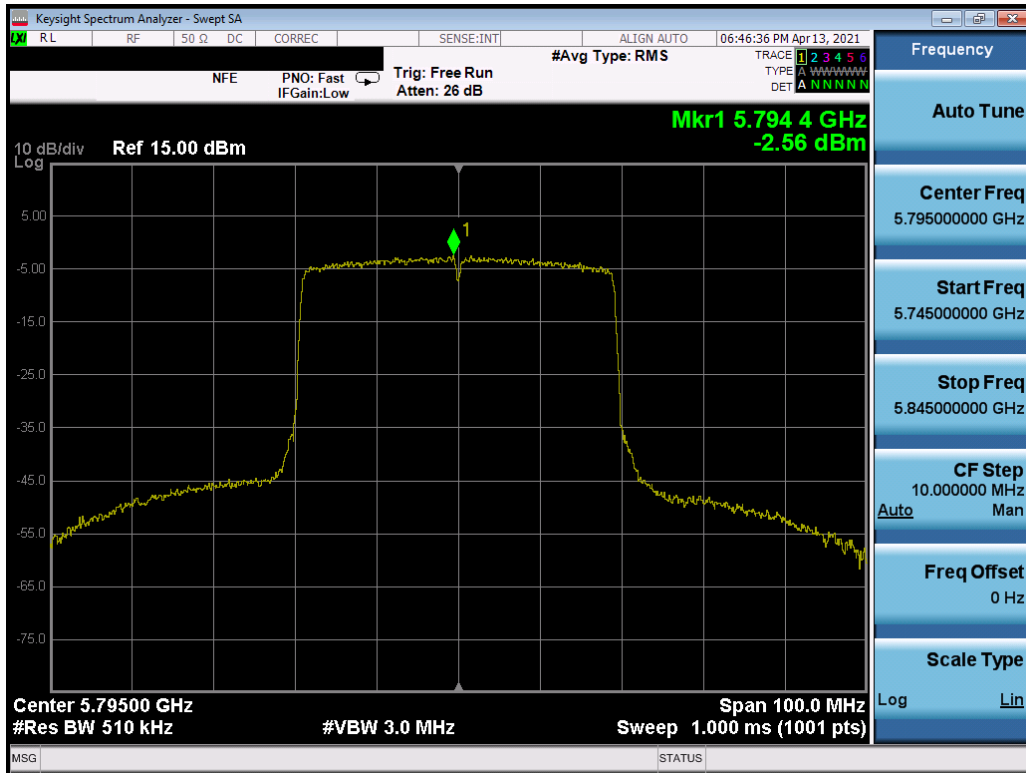


Plot 7-416. Power Spectral Density Plot MIMO ANT2 (40MHz 802.11n (UNII Band 3) – Ch. 159)

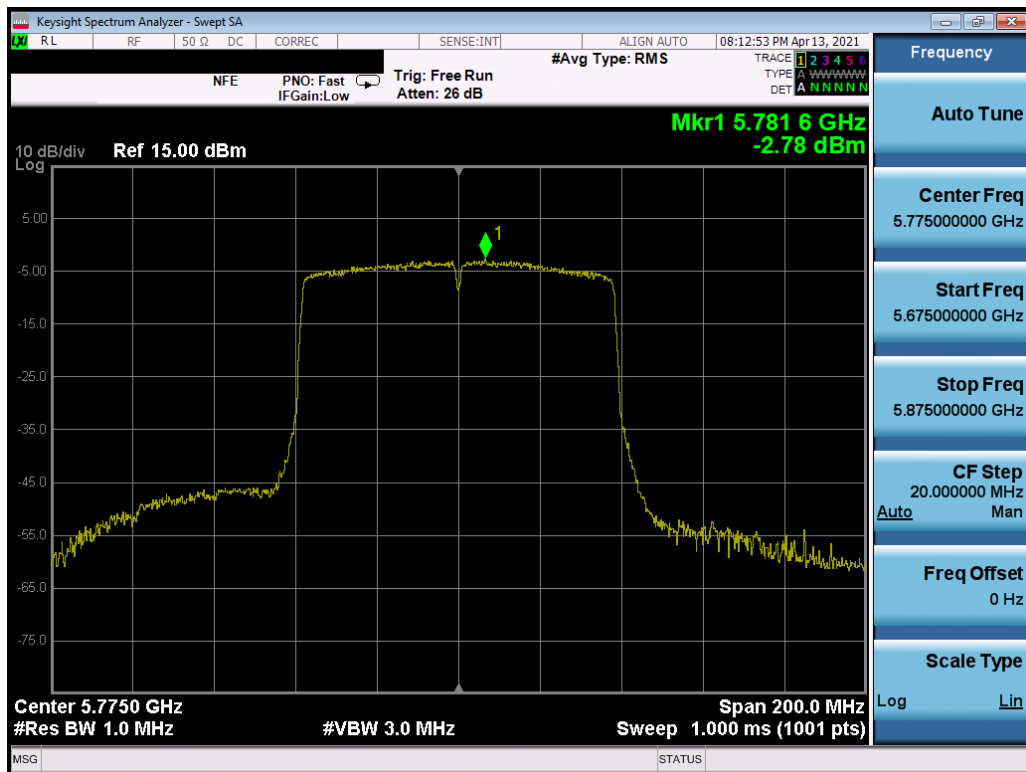


Plot 7-417. Power Spectral Density Plot MIMO ANT2 (40MHz 802.11ax (UNII Band 3) – Ch. 151)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 241 of 309

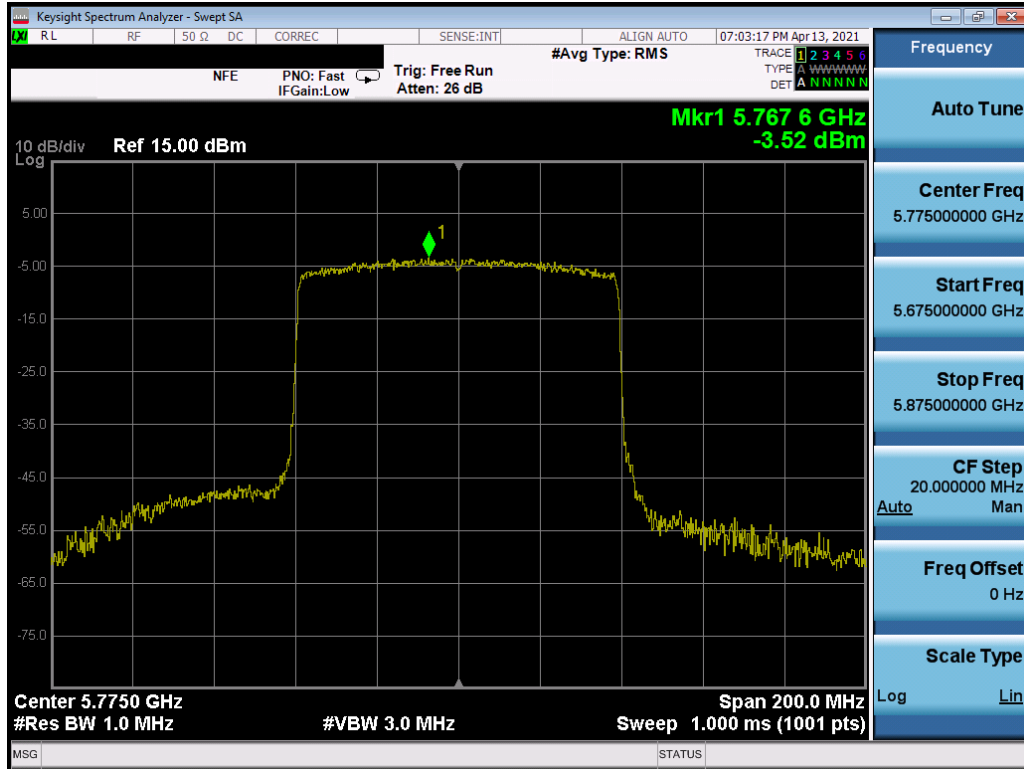


Plot 7-418. Power Spectral Density Plot MIMO ANT2 (40MHz 802.11ax (UNII Band 3) – Ch. 159)



Plot 7-419. Power Spectral Density Plot MIMO ANT2 (80MHz 802.11ac (UNII Band 3) – Ch. 155)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 242 of 309



Plot 7-420. Power Spectral Density Plot MIMO ANT2 (80MHz 802.11ax (UNII Band 3) – Ch. 155)

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 243 of 309

## 7.6 Radiated Spurious Emission Measurements – Above 1GHz

§15.407(b) §15.205 §15.209; RSS-Gen [8.9]

### Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11n (20MHz BW), 802.11n (40MHz BW), and 802.11ac (80MHz)), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

**For transmitters operating in the 5.15-5.25 GHz and 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.**

**For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.**

**For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.**

**All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-27 per Section 15.209 and RSS-Gen (8.9).**

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-25. Radiated Limits

### Test Procedures Used

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5  
KDB 789033 D02 v02r01 – Section G

### Test Settings

#### Average Measurements above 1GHz (Method AD)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be  $\geq 2 \times \text{span/RBW}$ )
6. Averaging type = power (RMS)
7. Sweep time = auto couple
8. Trace was averaged over 100 sweeps

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### Peak Measurements above 1GHz

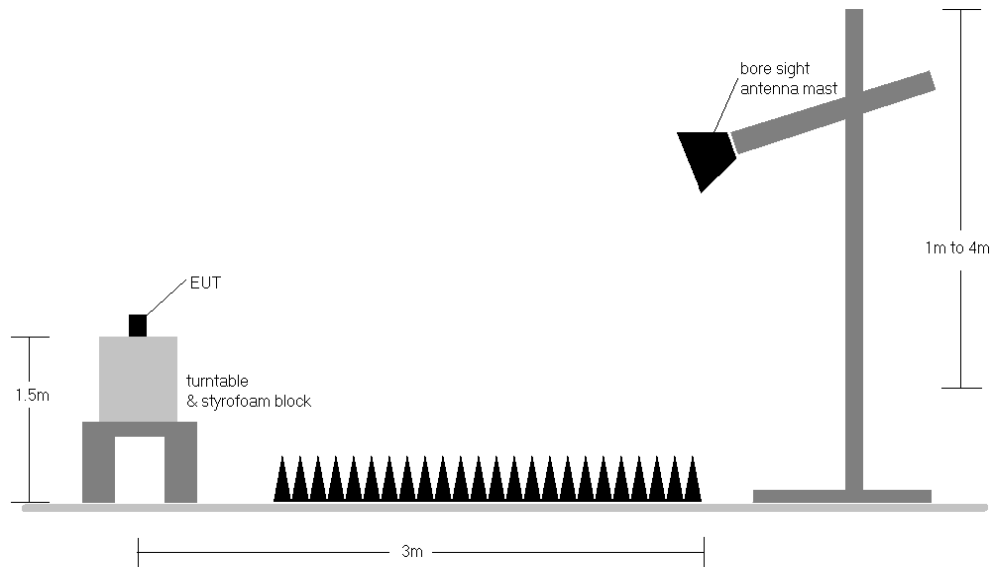
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

### Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

### Test Setup

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



**Figure 7-5. Test Instrument & Measurement Setup**

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
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## Test Notes

1. All emissions that lie in the restricted bands (denoted by a \* next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-27.
2. All spurious emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-27. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBμV/m.
3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
6. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
8. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

## Sample Calculations

### Determining Spurious Emissions Levels

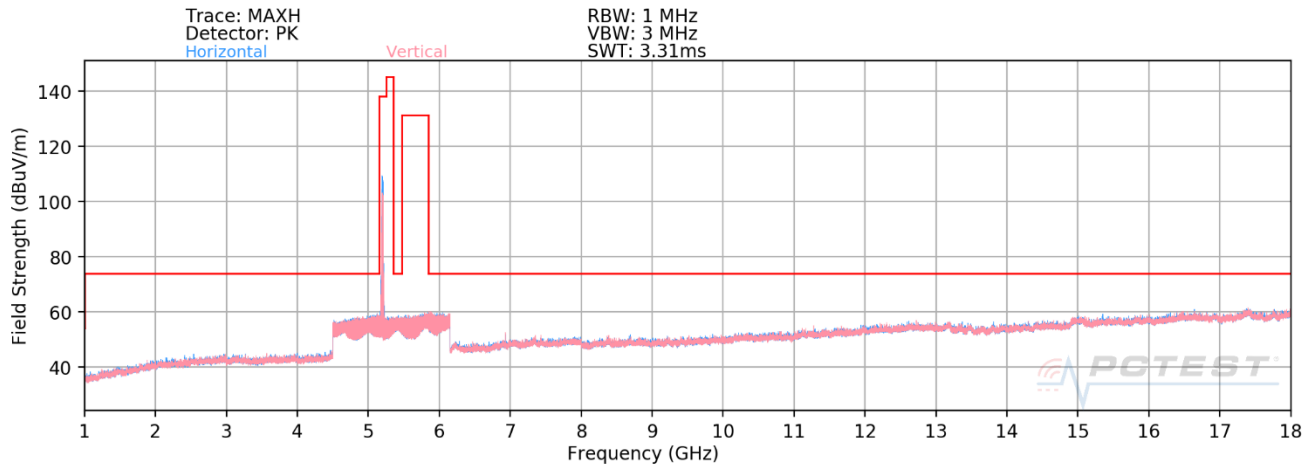
- Field Strength Level [dBμV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dBμV/m] – Limit [dBμV/m]

### Radiated Band Edge Measurement Offset

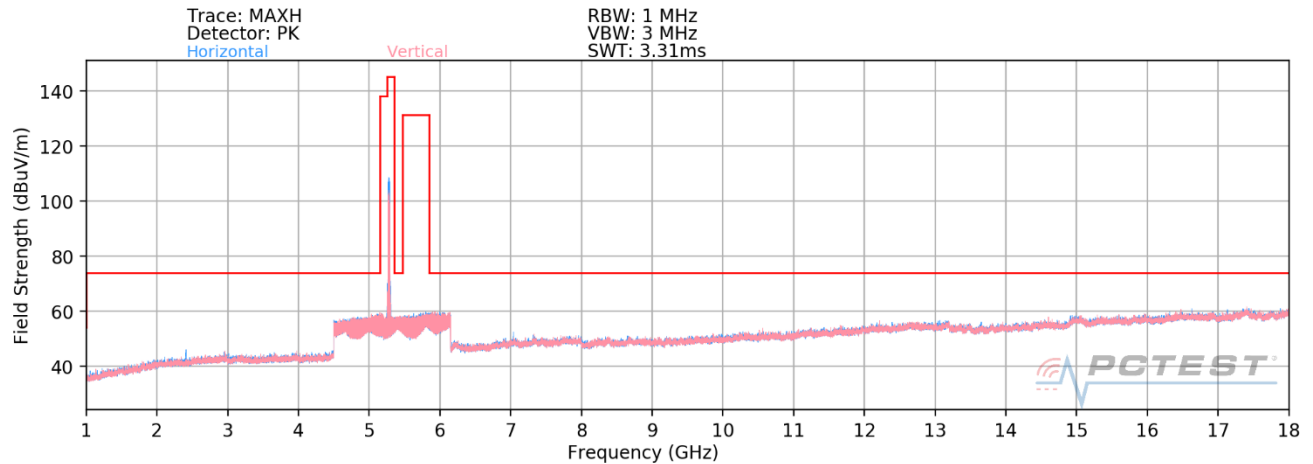
- The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula:  
Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

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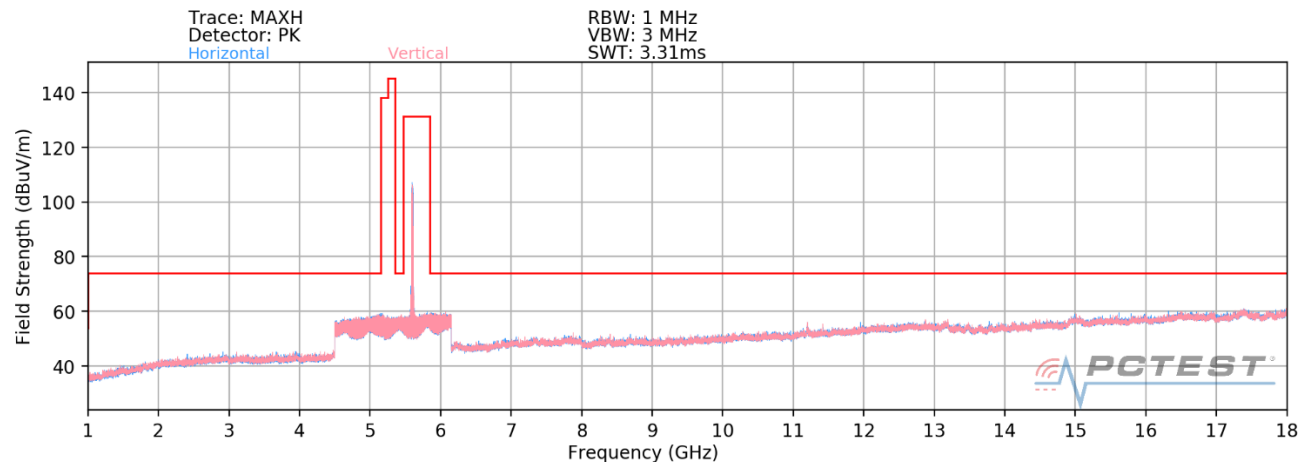
## 6.6.1 SISO Antenna 1 - Radiated Spurious Emission Measurements



**Plot 7-421. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U1 Ch. 40) Open**

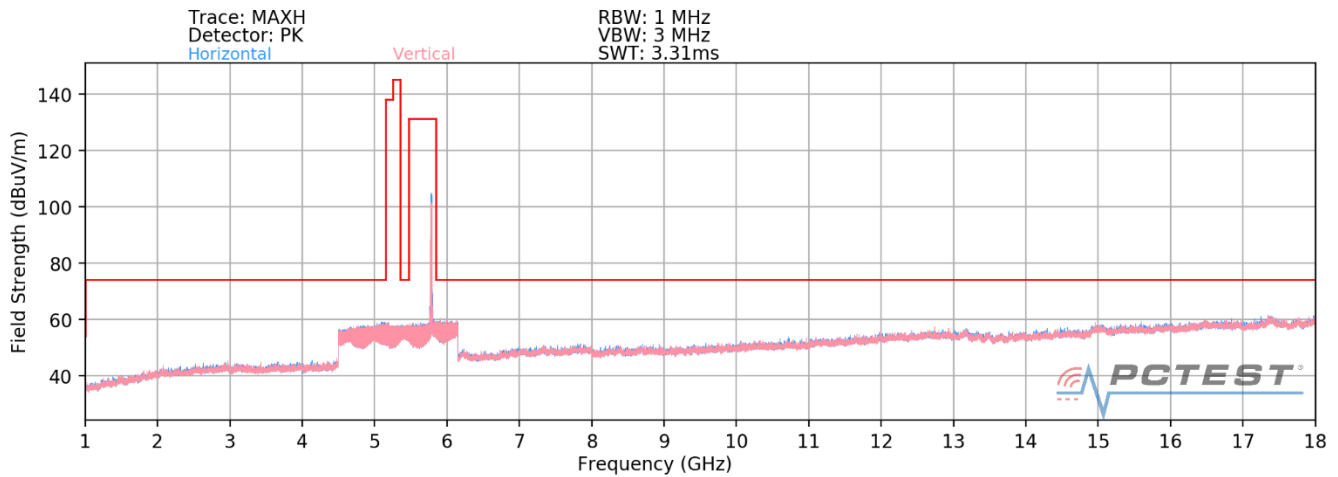


**Plot 7-422. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U2A Ch. 56) Open**

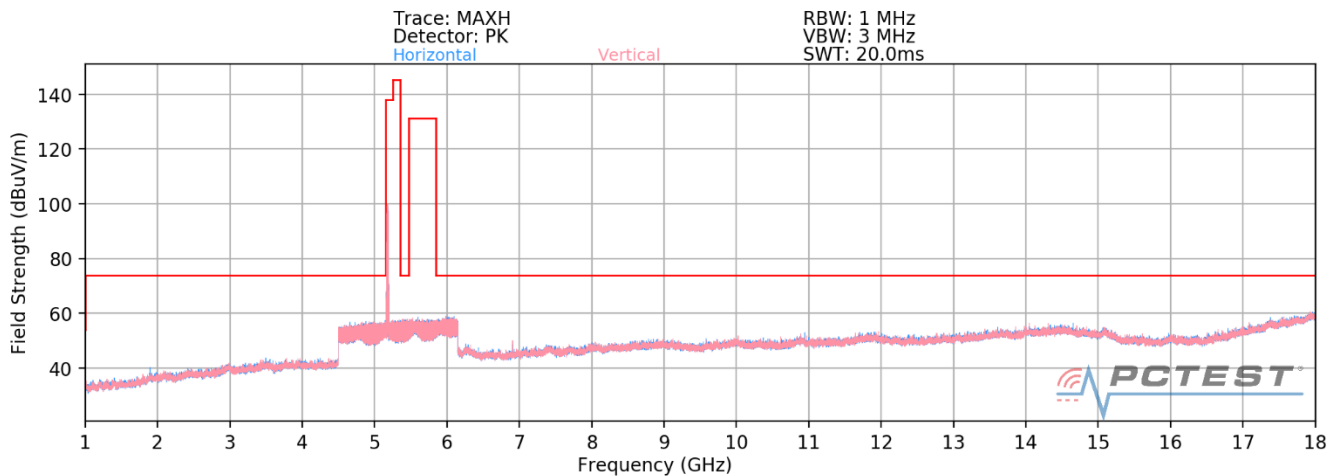


**Plot 7-423. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U2C Ch. 120) Open**

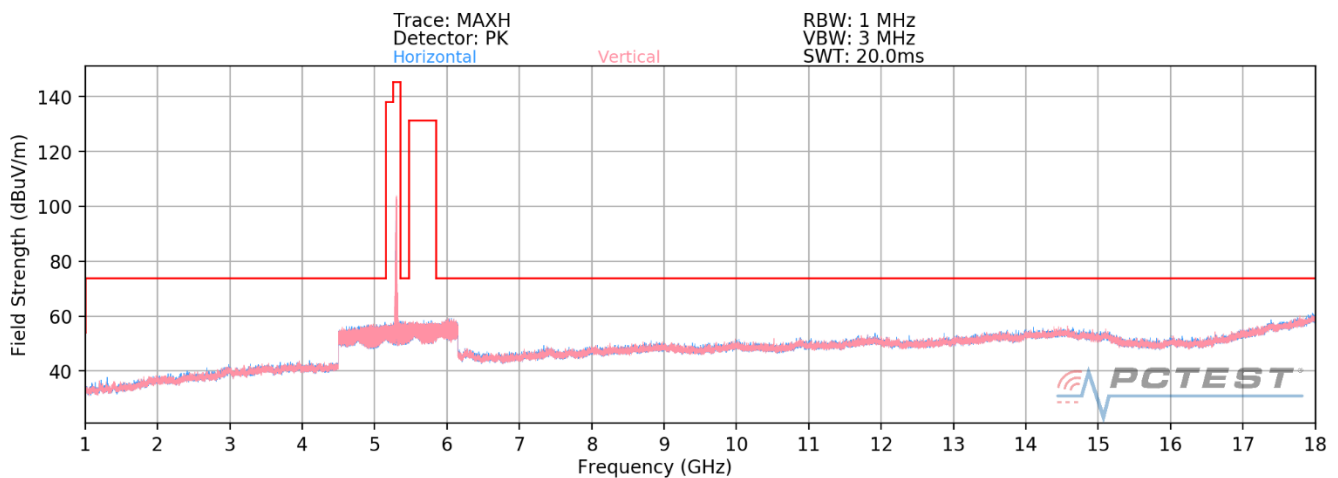
FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
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**Plot 7-424. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U3 Ch. 157) Open**

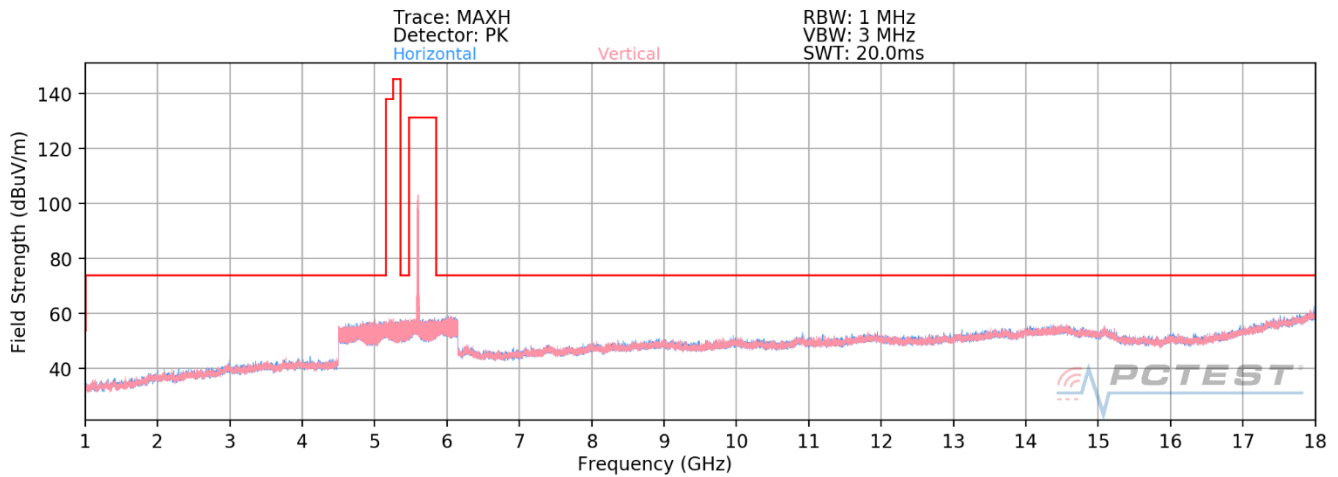


**Plot 7-425. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U1 Ch. 40) Closed**

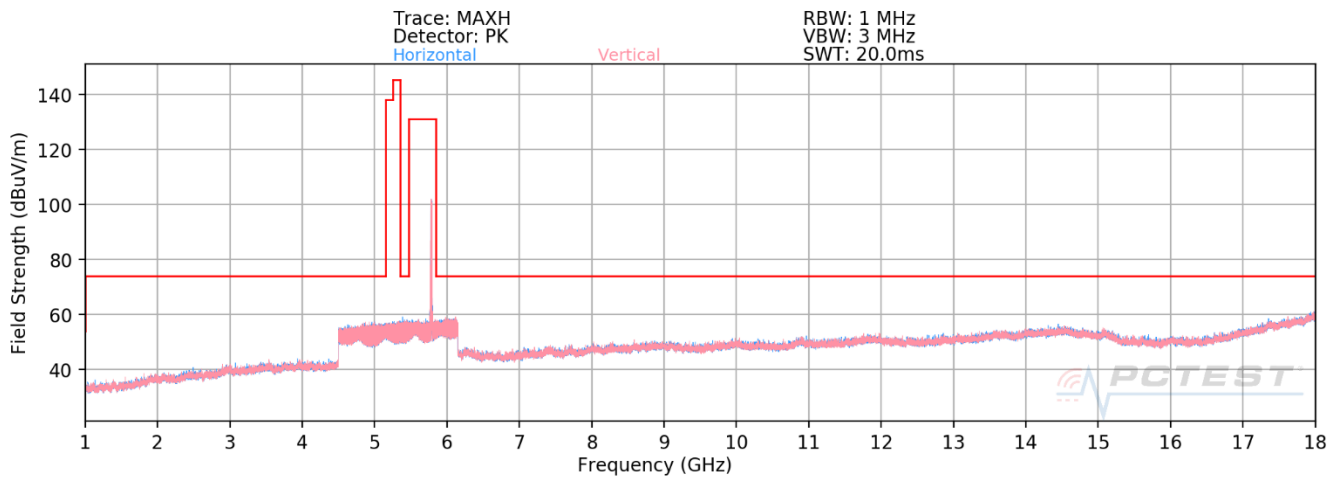


**Plot 7-426. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U2A Ch. 56) Closed**

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 248 of 309



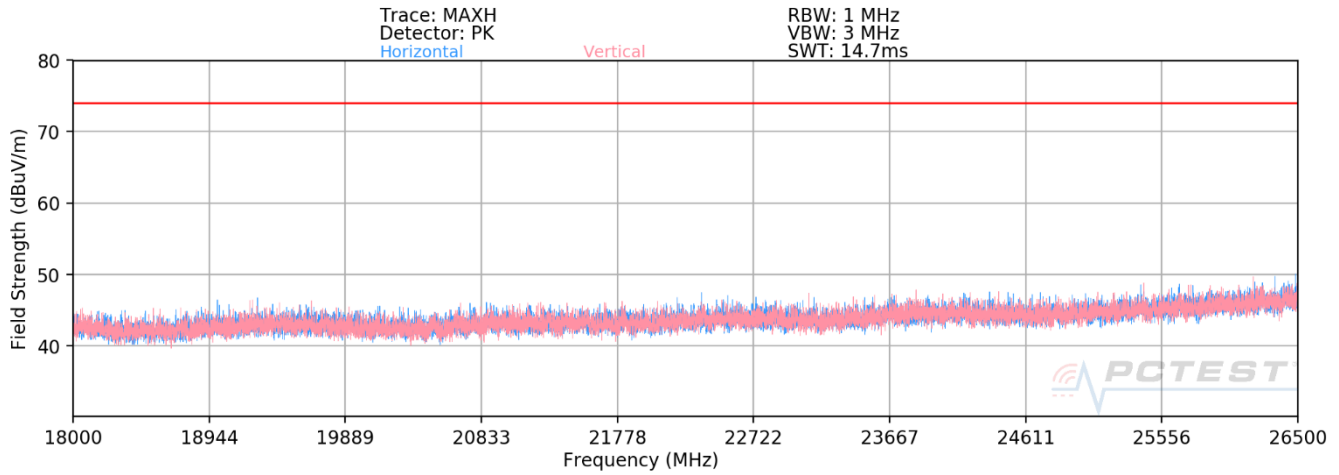
**Plot 7-427. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U2C Ch. 120) Closed**



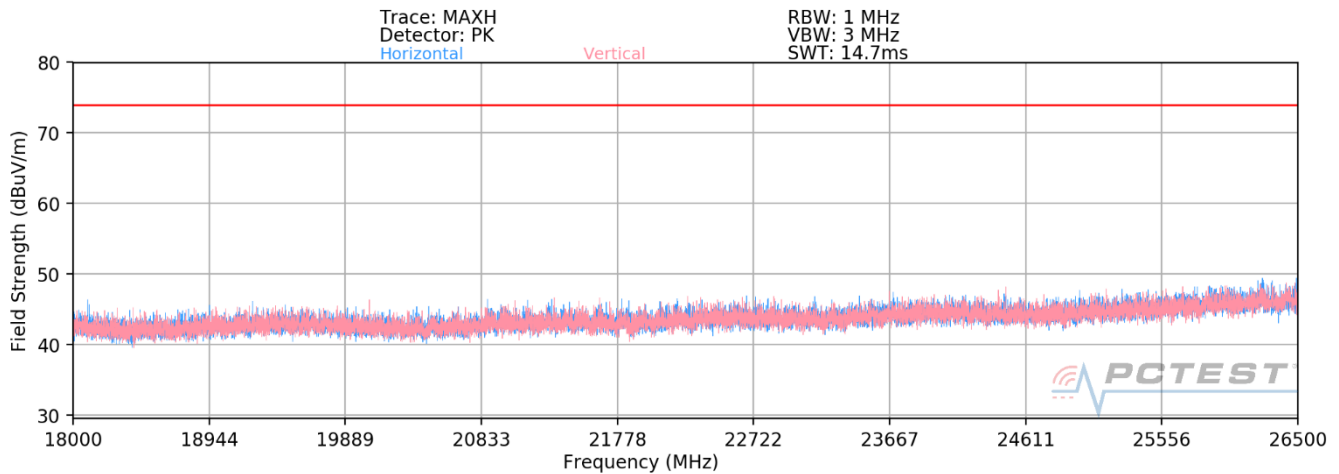
**Plot 7-428. Radiated Spurious Plot above 1GHz SISO ANT1 (802.11a – U3 Ch. 157) Closed**

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 249 of 309

## SISO Antenna 1 Radiated Spurious Emissions Measurements (Above 18GHz)

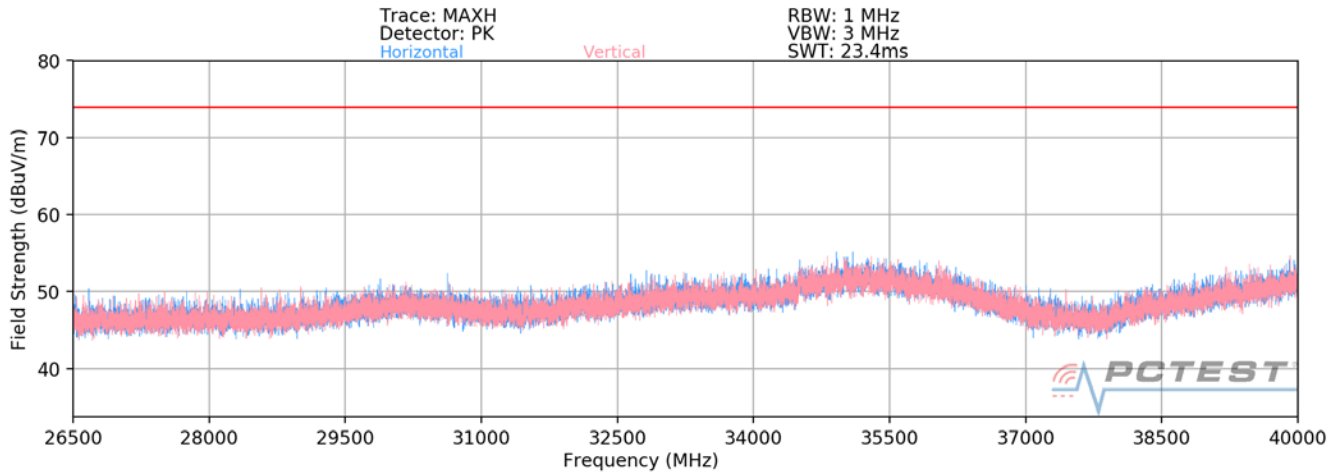


**Plot 7-429. Radiated Spurious Plot 18GHz - 26.5GHz (802.11a) Open**

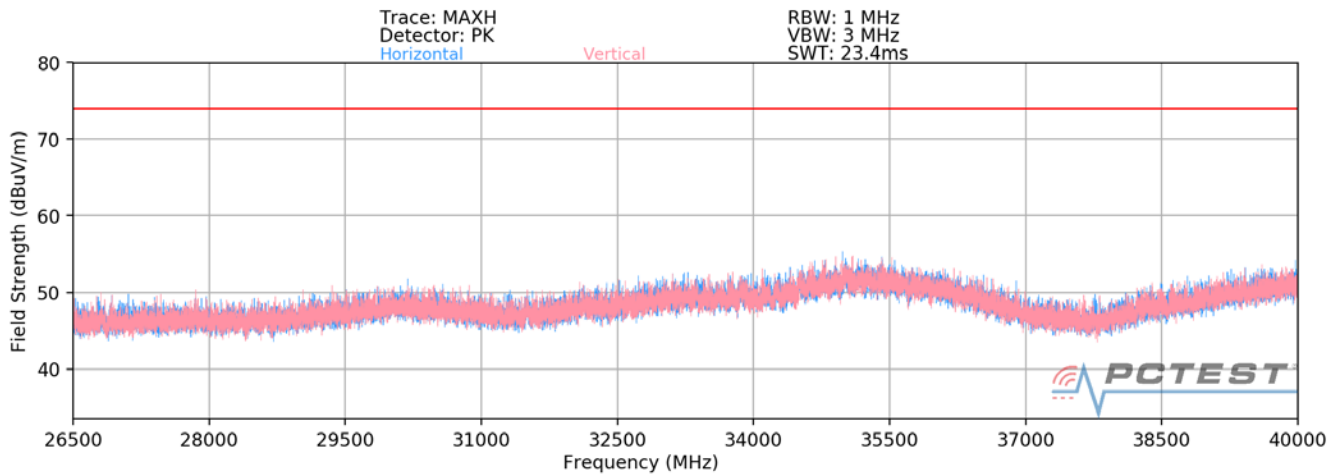


**Plot 7-430. Radiated Spurious Plot 18GHz - 26.5GHz (802.11a) Closed**

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
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**Plot 7-431. Radiated Spurious Plot 26.5GHz - 40GHz (802.11a) Open**



**Plot 7-432. Radiated Spurious Plot 26.5GHz - 40GHz (802.11a) Closed**

FCC ID: A3LSMF926B	<b>PCTEST</b> Proud to be part of element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
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## Radiated Spurious Emission Measurements

\$15.407(b) \$15.205 & \$15.209: RSS-Gen [8.9]

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5180MHz  
Channel: 36

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10360.00	Peak	H	-	-	-72.44	15.49	0.00	50.05	68.20	-18.15
* 15540.00	Average	H	-	-	-83.83	22.68	0.00	45.85	53.98	-8.13
* 15540.00	Peak	H	-	-	-75.29	22.68	0.00	54.39	73.98	-19.59
* 20720.00	Average	H	-	-	-66.88	4.48	-9.54	35.06	53.98	-18.92
* 20720.00	Peak	H	-	-	-56.41	4.48	-9.54	45.53	73.98	-28.45
25900.00	Peak	H	-	-	-55.70	6.92	-9.54	48.67	68.20	-19.53

**Table 7-26. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5200MHz  
Channel: 40

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10400.00	Peak	H	-	-	-73.52	15.52	0.00	49.00	68.20	-19.20
* 15600.00	Average	H	-	-	-83.66	22.77	0.00	46.11	53.98	-7.87
* 15600.00	Peak	H	-	-	-74.48	22.77	0.00	55.29	73.98	-18.69
* 20800.00	Average	H	-	-	-66.76	4.88	-9.54	35.58	53.98	-18.40
* 20800.00	Peak	H	-	-	-56.29	4.88	-9.54	46.05	73.98	-27.93
26000.00	Peak	H	-	-	-55.95	7.10	-9.54	48.61	68.20	-19.59

**Table 7-27. Radiated Measurements SISO ANT1**

FCC ID: A3LSMF926B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset		Page 252 of 309



Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5240MHz  
Channel: 48

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10480.00	Peak	H	-	-	-72.61	15.45	0.00	49.84	68.20	-18.36
* 15720.00	Average	H	-	-	-83.05	22.76	0.00	46.71	53.98	-7.27
* 15720.00	Peak	H	-	-	-74.93	22.76	0.00	54.83	73.98	-19.15
* 20960.00	Average	H	-	-	-67.39	5.01	-9.54	35.07	53.98	-18.91
* 20960.00	Peak	H	-	-	-57.12	5.01	-9.54	45.35	73.98	-28.63
26200.00	Peak	H	-	-	-54.95	6.99	-9.54	49.49	68.20	-18.71

**Table 7-28. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5260MHz  
Channel: 52

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10520.00	Peak	H	-	-	-73.59	15.75	0.00	49.16	68.20	-19.04
* 15780.00	Average	H	-	-	-83.28	22.89	0.00	46.61	53.98	-7.37
* 15780.00	Peak	H	-	-	-75.03	22.89	0.00	54.86	73.98	-19.12
* 21040.00	Average	H	-	-	-66.73	4.88	-9.54	35.60	53.98	-18.38
* 21040.00	Peak	H	-	-	-56.22	4.88	-9.54	46.12	73.98	-27.86
26300.00	Peak	H	-	-	-55.67	7.06	-9.54	48.85	68.20	-19.35

**Table 7-29. Radiated Measurements SISO ANT1**

FCC ID: A3LSMF926B	 <b>MEASUREMENT REPORT (CERTIFICATION)</b> 	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset
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Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5280MHz  
Channel: 56

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
10560.00	Peak	H	-	-	-73.65	16.14	0.00	49.49	68.20	-18.71
* 15840.00	Average	H	-	-	-83.81	23.17	0.00	46.36	53.98	-7.62
* 15840.00	Peak	H	-	-	-74.47	23.17	0.00	55.70	73.98	-18.28
* 21120.00	Average	H	-	-	-67.08	5.08	-9.54	35.45	53.98	-18.52
* 21120.00	Peak	H	-	-	-56.02	5.08	-9.54	46.52	73.98	-27.46
26400.00	Peak	H	-	-	-55.71	7.43	-9.54	49.18	68.20	-19.02

**Table 7-30. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5320MHz  
Channel: 64

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 10640.00	Average	H	-	-	-82.87	16.06	0.00	40.19	53.98	-13.79
* 10640.00	Peak	H	-	-	-74.41	16.06	0.00	48.65	73.98	-25.33
* 15960.00	Average	H	-	-	-83.01	23.29	0.00	47.28	53.98	-6.70
* 15960.00	Peak	H	-	-	-73.96	23.29	0.00	56.33	73.98	-17.65
* 21280.00	Average	H	-	-	-66.99	5.14	-9.54	35.61	53.98	-18.37
* 21280.00	Peak	H	-	-	-55.52	5.14	-9.54	47.08	73.98	-26.90
26600.00	Peak	H	-	-	-57.89	7.21	-9.54	46.78	68.20	-21.42

**Table 7-31. Radiated Measurements SISO ANT1**

FCC ID: A3LSMF926B	 <b>MEASUREMENT REPORT (CERTIFICATION)</b> 	Approved by: Technical Manager
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Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5500MHz  
Channel: 100

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11000.00	Average	H	-	-	-83.65	16.78	0.00	40.13	53.98	-13.85
* 11000.00	Peak	H	-	-	-74.84	16.78	0.00	48.94	73.98	-25.04
16500.00	Peak	H	-	-	-74.96	24.50	0.00	56.54	68.20	-11.66
22000.00	Peak	H	-	-	-59.06	5.16	-9.54	43.56	68.20	-24.64
27500.00	Peak	H	-	-	-56.31	7.69	-9.54	48.84	68.20	-19.36

**Table 7-32. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5600MHz  
Channel: 120

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 12000.00	Average	H	-	-	-81.95	18.64	0.00	43.69	53.98	-10.29
* 12000.00	Peak	H	-	-	-74.67	18.64	0.00	50.97	73.98	-23.01
16800.00	Peak	H	-	-	-73.88	24.48	0.00	57.60	68.20	-10.60
* 22400.00	Average	H	-	-	-66.65	5.45	-9.54	36.26	53.98	-17.72
* 22400.00	Peak	H	-	-	-56.66	5.45	-9.54	46.25	73.98	-27.73
28000.00	Peak	H	-	-	-55.80	7.97	-9.54	49.62	68.20	-18.58

**Table 7-33. Radiated Measurements SISO ANT1**

FCC ID: A3LSMF926B	 <b>MEASUREMENT REPORT (CERTIFICATION)</b> 	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset
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Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5720MHz  
Channel: 144

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11480.00	Average	H	-	-	-83.29	17.99	0.00	41.70	53.98	-12.27
* 11480.00	Peak	H	-	-	-74.80	17.99	0.00	50.19	73.98	-23.78
17220.00	Peak	H	-	-	-75.67	24.81	0.00	56.14	68.20	-12.06
* 22960.00	Average	H	-	-	-66.73	5.31	-9.54	36.04	53.98	-17.94
* 22960.00	Peak	H	-	-	-55.50	5.31	-9.54	47.27	73.98	-26.71
28700.00	Peak	H	-	-	-55.87	7.97	-9.54	49.56	68.20	-18.64

**Table 7-34. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5745MHz  
Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11490.00	Average	H	-	-	-83.62	17.82	0.00	41.20	53.98	-12.78
* 11490.00	Peak	H	-	-	-74.80	17.82	0.00	50.02	73.98	-23.96
17235.00	Peak	H	-	-	-75.81	25.21	0.00	56.40	68.20	-11.80
* 22980.00	Average	H	-	-	-66.52	5.29	-9.54	36.23	53.98	-17.75
* 22980.00	Peak	H	-	-	-56.74	5.29	-9.54	46.01	73.98	-27.97
28725.00	Peak	H	-	-	-55.89	8.24	-9.54	49.81	68.20	-18.39

**Table 7-35. Radiated Measurements SISO ANT1**

FCC ID: A3LSMF926B	 <b>MEASUREMENT REPORT (CERTIFICATION)</b> 	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset
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Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5785MHz  
Channel: 157

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11570.00	Average	H	-	-	-83.07	17.80	0.00	41.73	53.98	-12.25
* 11570.00	Peak	H	-	-	-74.11	17.80	0.00	50.69	73.98	-23.29
17355.00	Peak	H	-	-	-73.95	26.23	0.00	59.28	68.20	-8.92
23140.00	Peak	H	-	-	-56.21	5.34	-9.54	46.59	68.20	-21.61
28925.00	Peak	H	-	-	-56.70	8.47	-9.54	49.23	68.20	-18.97

**Table 7-36. Radiated Measurements SISO ANT1**

Worst Case Mode: 802.11a  
Worst Case Transfer Rate: 6Mbps  
Distance of Measurements: 1 & 3 Meters  
Operating Frequency: 5825MHz  
Channel: 165

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11650.00	Average	H	-	-	-82.72	18.05	0.00	42.33	53.98	-11.65
* 11650.00	Peak	H	-	-	-74.56	18.05	0.00	50.49	73.98	-23.49
17475.00	Peak	H	-	-	-75.95	25.87	0.00	56.92	68.20	-11.28
23300.00	Peak	H	-	-	-56.44	5.29	-9.54	46.31	68.20	-21.89
29125.00	Peak	H	-	-	-55.49	8.49	-9.54	50.45	68.20	-17.75

**Table 7-37. Radiated Measurements SISO ANT1**

FCC ID: A3LSMF926B	 <b>MEASUREMENT REPORT (CERTIFICATION)</b> 	Approved by: Technical Manager
Test Report S/N: 1M2104190044-13.A3L	Test Dates: 04/22/21 - 06/22/21	EUT Type: Portable Handset
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