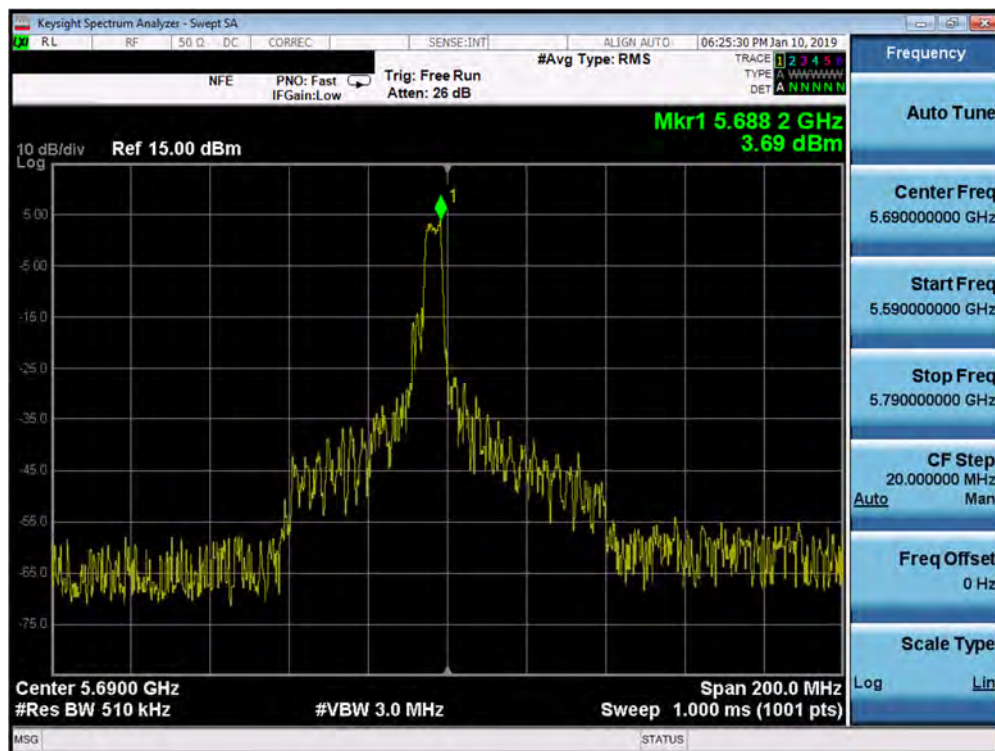


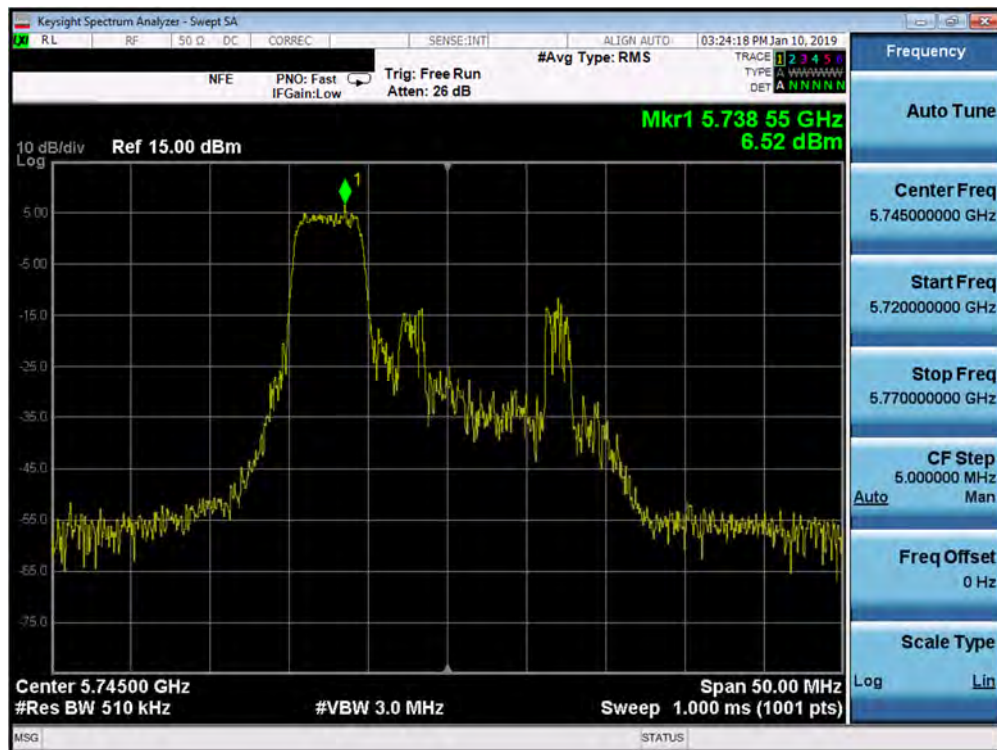


Plot 7-285. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 209 of 516

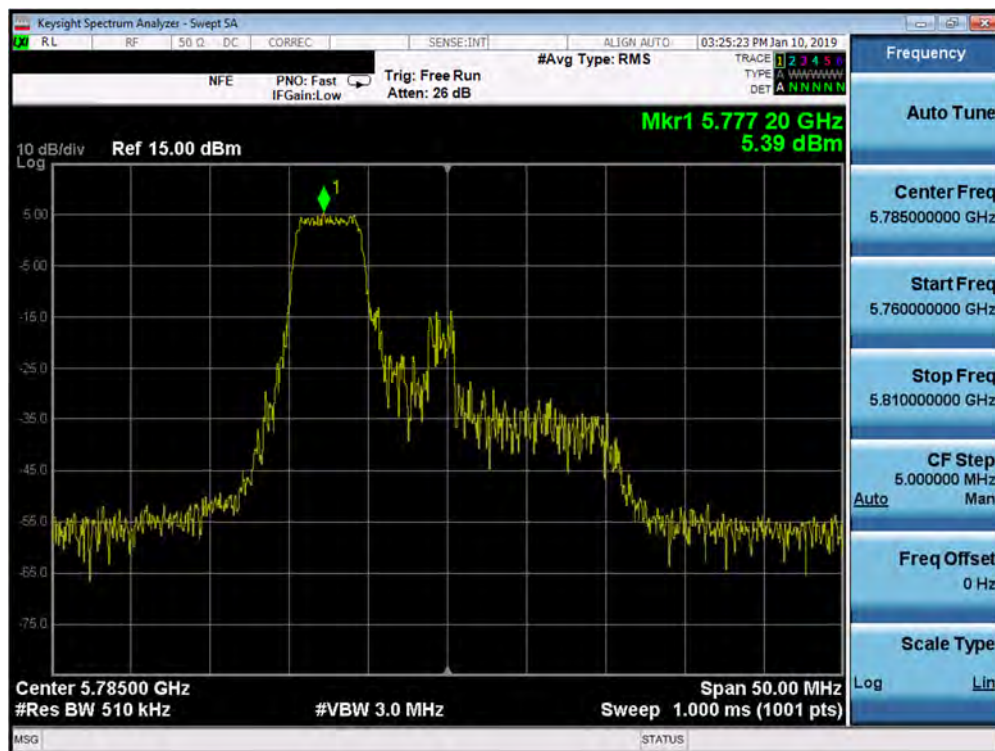
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	ax (20MHz)	52T	MCS0	6.52	30.0	-23.48
	5785	157	ax (20MHz)	52T	MCS0	5.39	30.0	-24.61
	5825	165	ax (20MHz)	52T	MCS0	4.21	30.0	-25.79
	5755	151	ax (40MHz)	52T	MCS0	4.76	30.0	-25.24
	5795	159	ax (40MHz)	52T	MCS0	0.52	30.0	-29.48
	5775	155	ax (80MHz)	52T	MCS0	6.35	30.0	-23.65

Table 7-86. Band 3 Conducted Power Spectral Density Measurements SISO ANT2 (52 Tones)

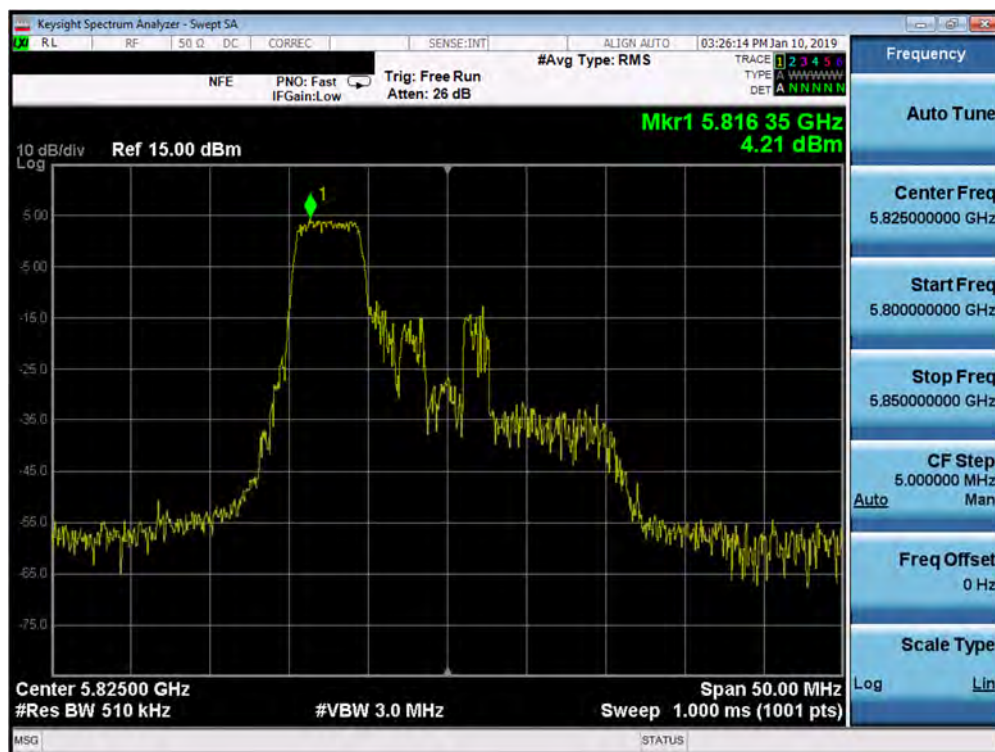


Plot 7-286. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 149)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset			Page 210 of 516

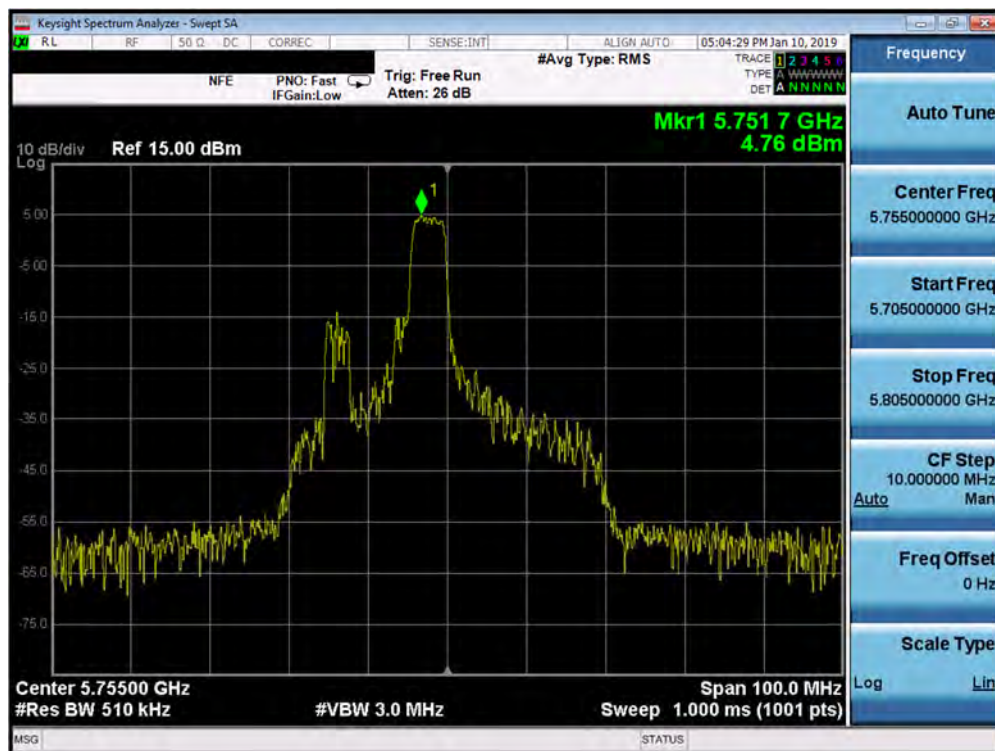


Plot 7-287. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 157)

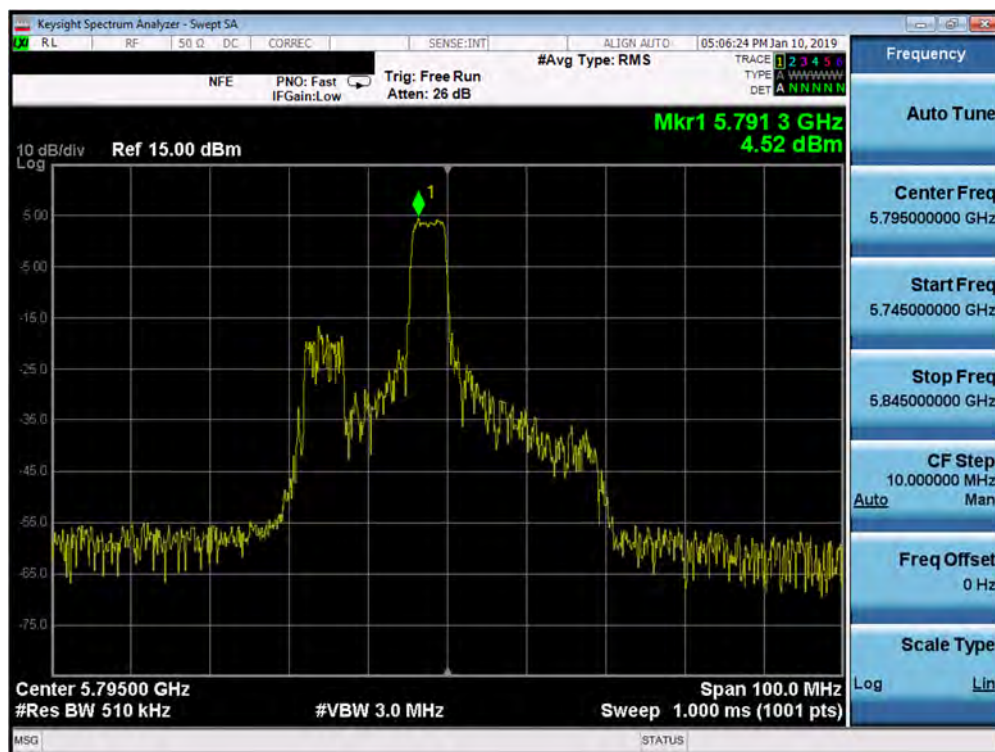


Plot 7-288. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 165)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 211 of 516

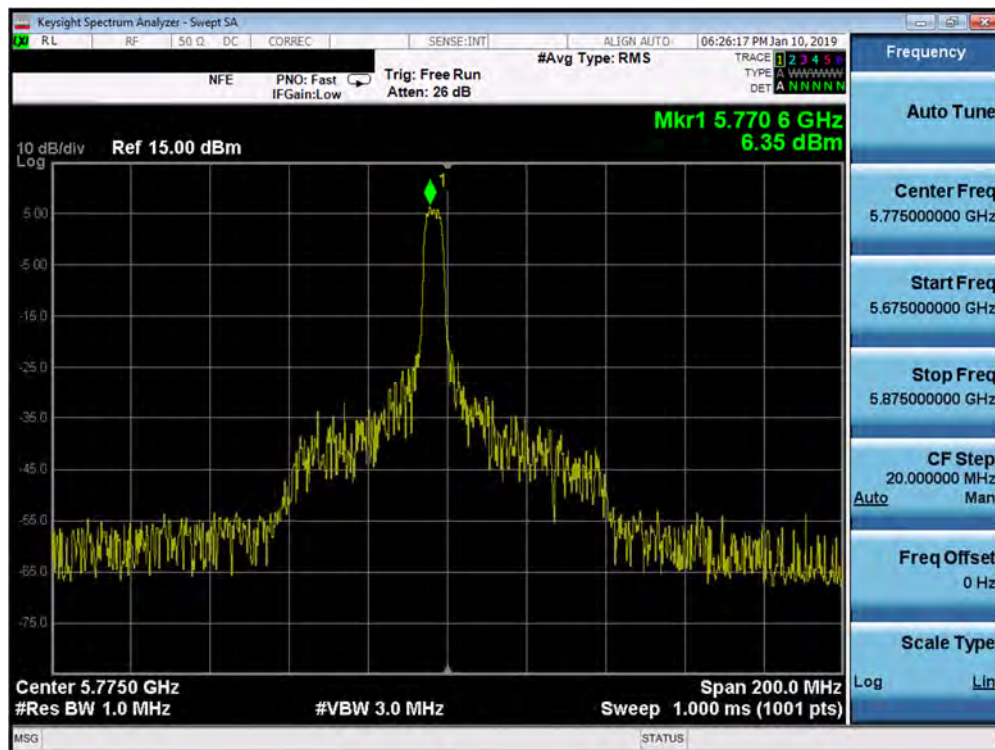


Plot 7-289. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 151)



Plot 7-290. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 159)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 212 of 516



Plot 7-291. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 213 of 516

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

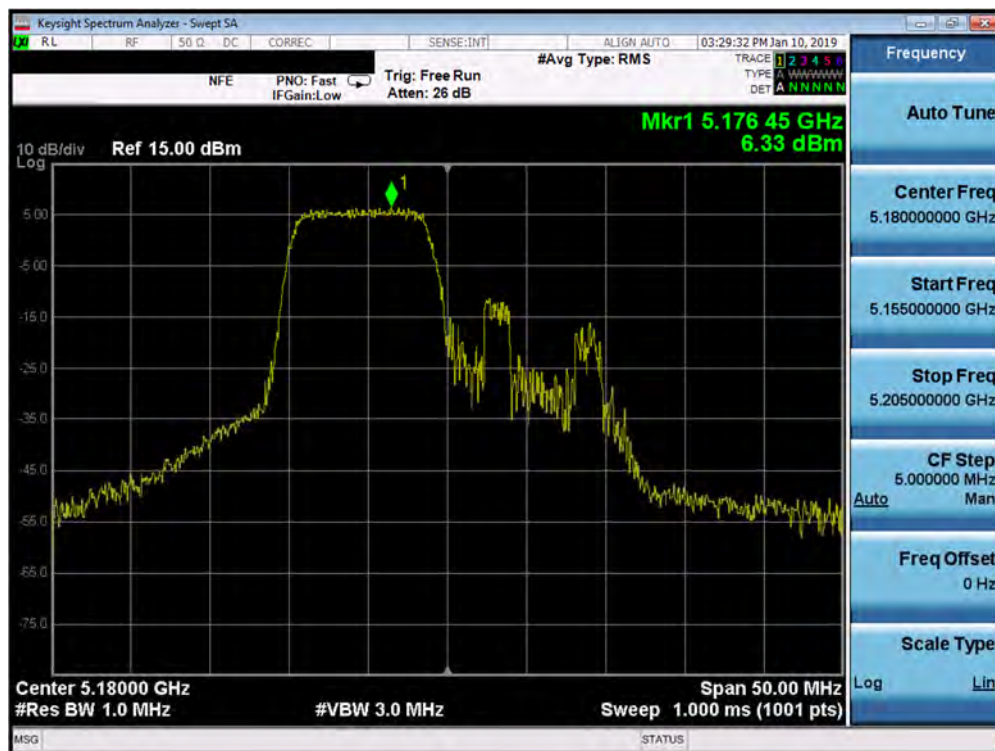
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	106T	MCS0	6.33	11.0	-4.67
	5200	40	ax (20MHz)	106T	MCS0	6.97	11.0	-4.03
	5240	48	ax (20MHz)	106T	MCS0	7.14	11.0	-3.86
	5190	38	ax (40MHz)	106T	MCS0	4.00	11.0	-7.00
	5230	46	ax (40MHz)	106T	MCS0	5.82	11.0	-5.18
	5210	42	ax (80MHz)	106T	MCS0	4.67	11.0	-6.33
Band 2A	5260	52	ax (20MHz)	106T	MCS0	7.35	11.0	-3.65
	5280	56	ax (20MHz)	106T	MCS0	7.35	11.0	-3.65
	5320	64	ax (20MHz)	106T	MCS0	7.37	11.0	-3.63
	5270	54	ax (40MHz)	106T	MCS0	5.49	11.0	-5.51
	5310	62	ax (40MHz)	106T	MCS0	5.06	11.0	-5.94
	5290	58	ax (80MHz)	106T	MCS0	4.37	11.0	-6.63
Band 2C	5500	100	ax (20MHz)	106T	MCS0	7.50	11.0	-3.50
	5600	120	ax (20MHz)	106T	MCS0	6.99	11.0	-4.01
	5720	144	ax (20MHz)	106T	MCS0	7.21	11.0	-3.79
	5510	102	ax (40MHz)	106T	MCS0	5.50	11.0	-5.50
	5550	118	ax (40MHz)	106T	MCS0	5.33	11.0	-5.67
	5710	142	ax (40MHz)	106T	MCS0	5.10	11.0	-5.90
	5530	106	ax (80MHz)	106T	MCS0	4.92	11.0	-6.08
	5610	122	ax (80MHz)	106T	MCS0	4.50	11.0	-6.50
	5690	138	ax (80MHz)	106T	MCS0	1.20	11.0	-9.80

Table 7-87. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT2 (106 Tones)

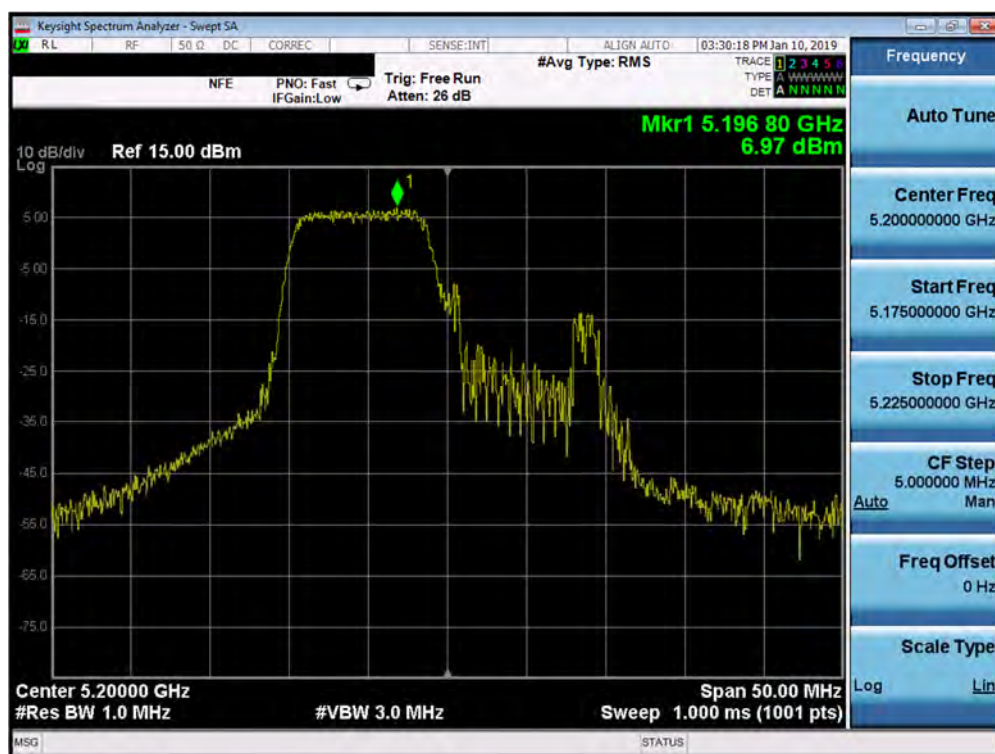
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density	Margin [dB]
Band 1	5180	36	ax (20MHz)	106T	MCS0	6.33	-8.43	-2.10	10.0	-12.10
	5200	40	ax (20MHz)	106T	MCS0	6.97	-8.34	-1.37	10.0	-11.37
	5240	48	ax (20MHz)	106T	MCS0	7.14	-7.99	-0.85	10.0	-10.85
	5190	38	ax (40MHz)	106T	MCS0	4.00	-8.43	-4.43	10.0	-14.43
	5230	46	ax (40MHz)	106T	MCS0	5.82	-8.34	-2.52	10.0	-12.52
	5210	42	ax (80MHz)	106T	MCS0	4.67	-7.99	-3.32	10.0	-13.32

Table 7-88. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 106 Tones)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	
			Page 214 of 516

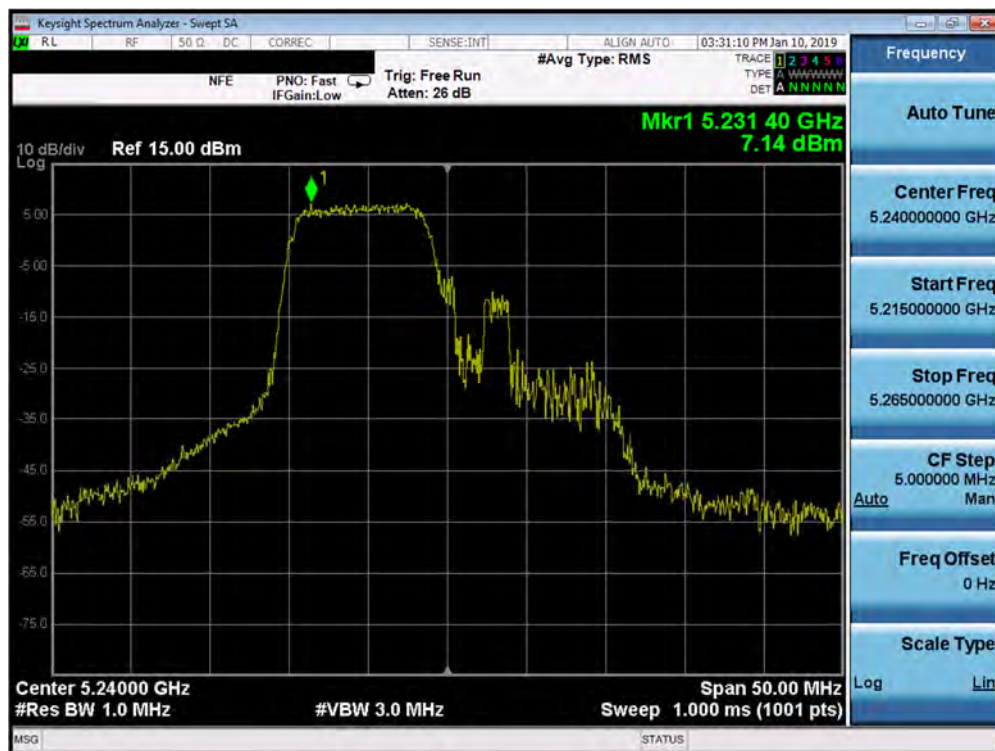


Plot 7-292. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 36)

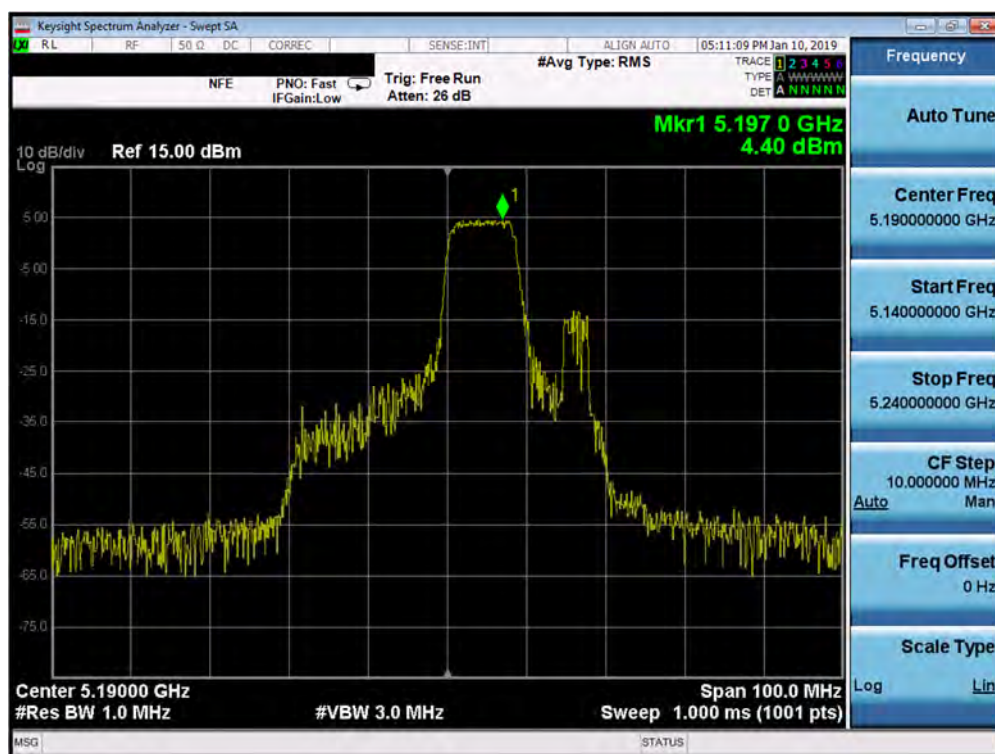


Plot 7-293. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 40)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 215 of 516

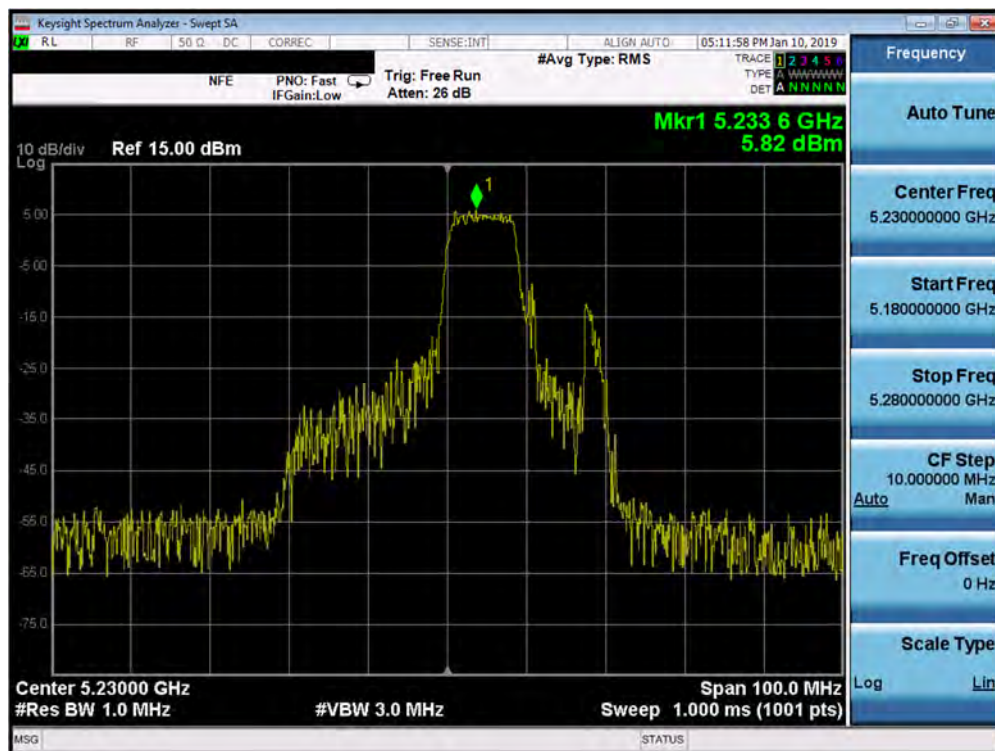


Plot 7-294. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 48)

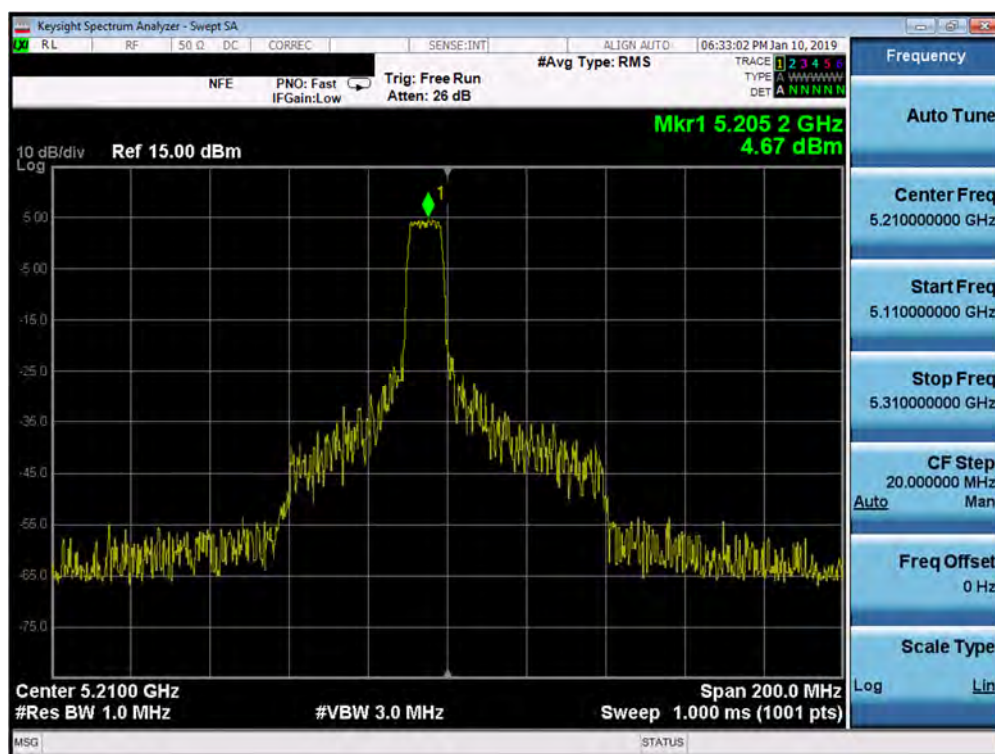


Plot 7-295. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 216 of 516

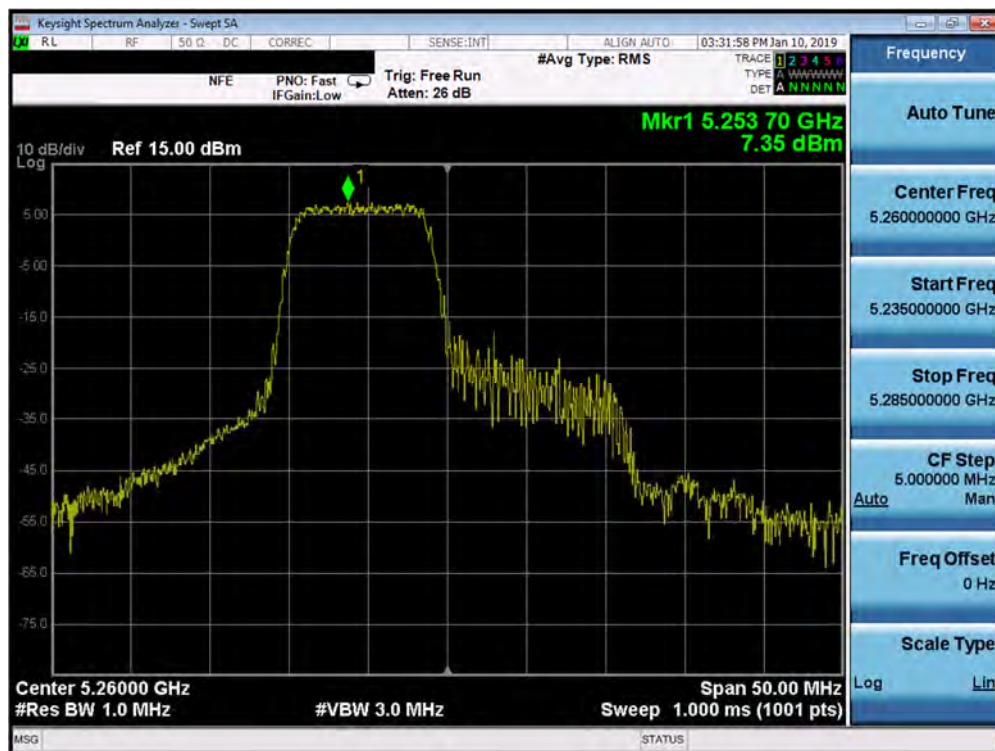


Plot 7-296. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 46)

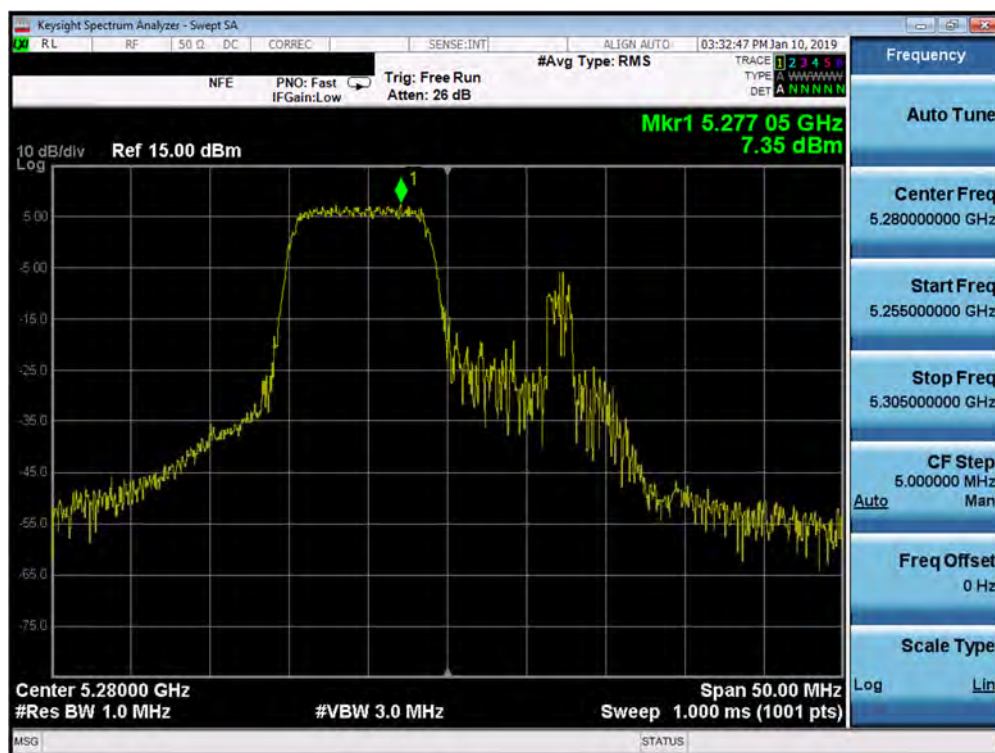


Plot 7-297. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 217 of 516

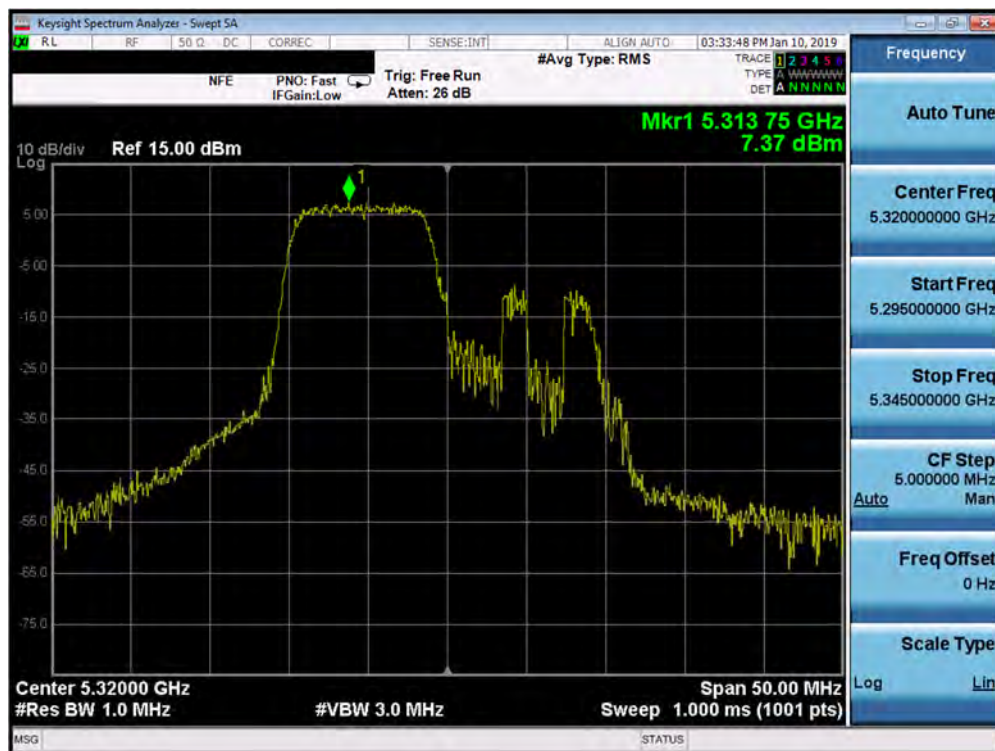


Plot 7-298. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 52)

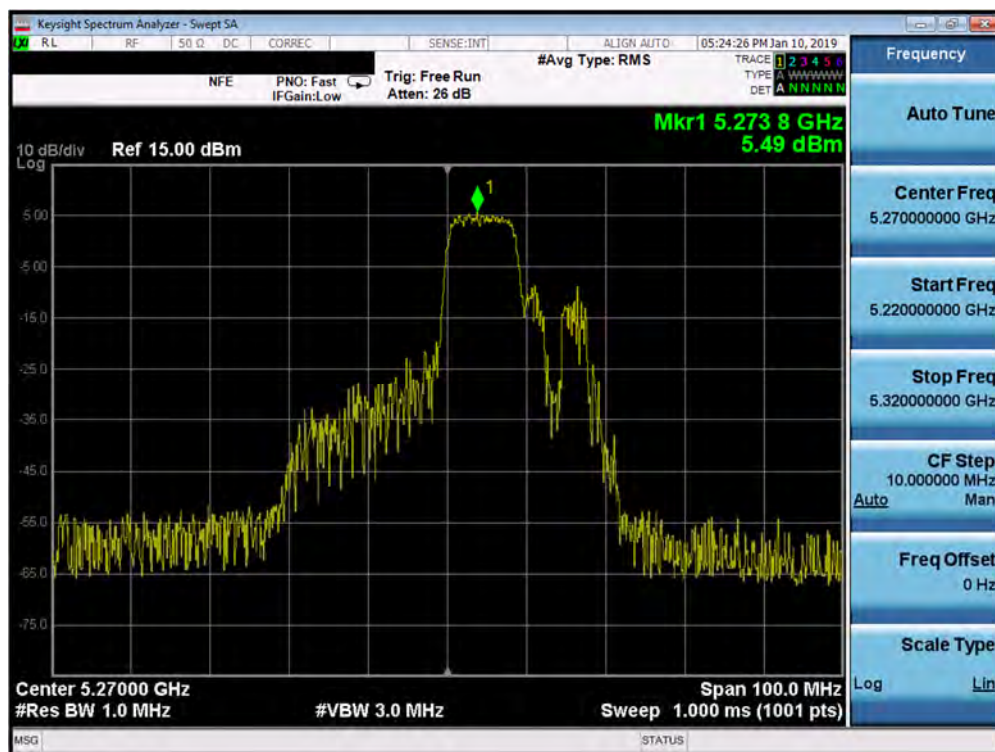


Plot 7-299. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 56)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 218 of 516

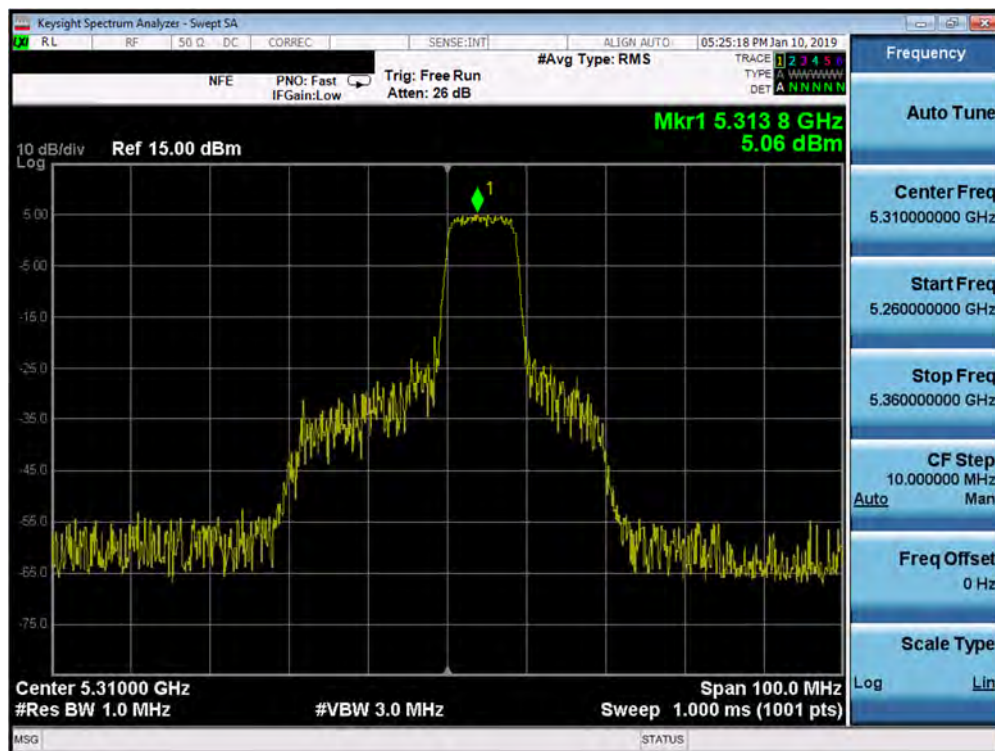


Plot 7-300. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 64)

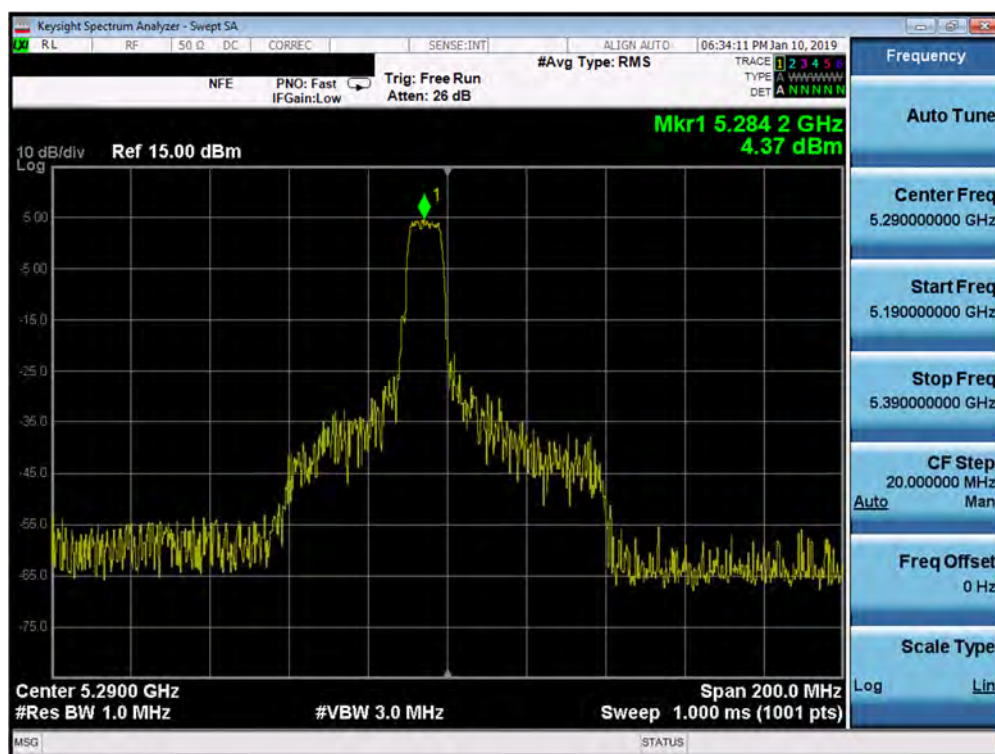


Plot 7-301. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 54)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 219 of 516

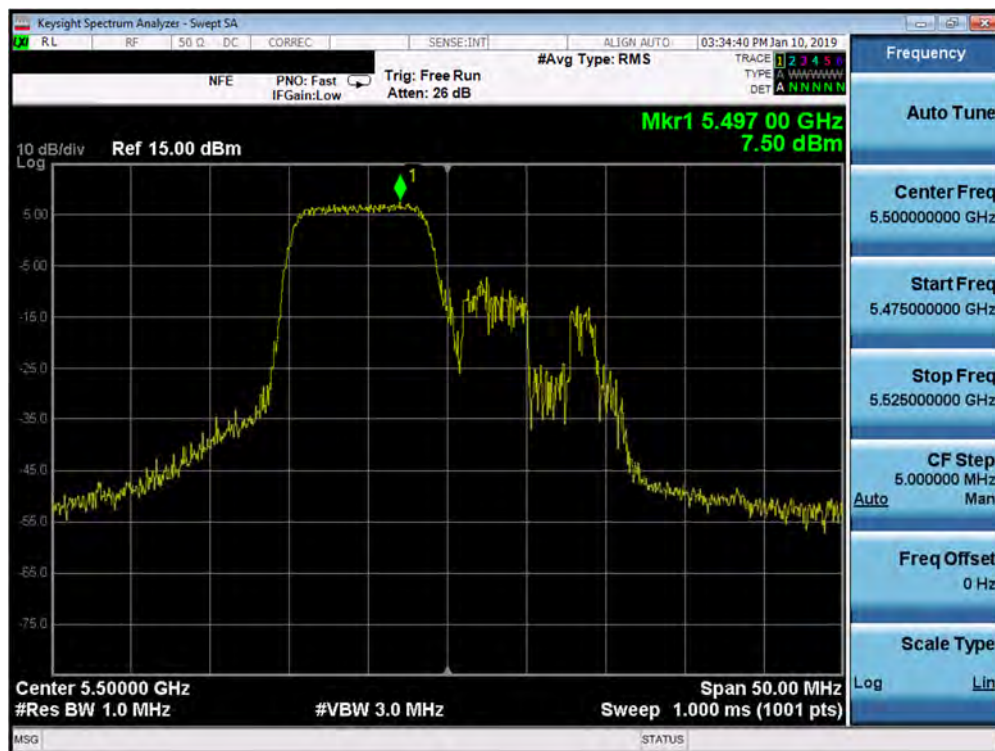


Plot 7-302. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 62)

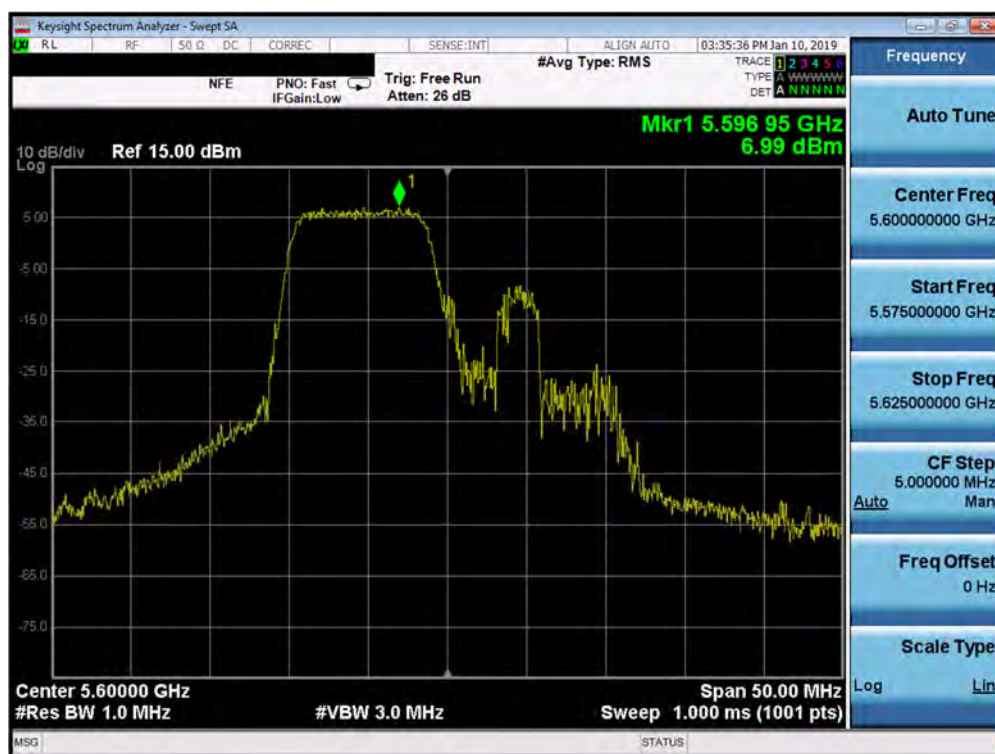


Plot 7-303. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 220 of 516

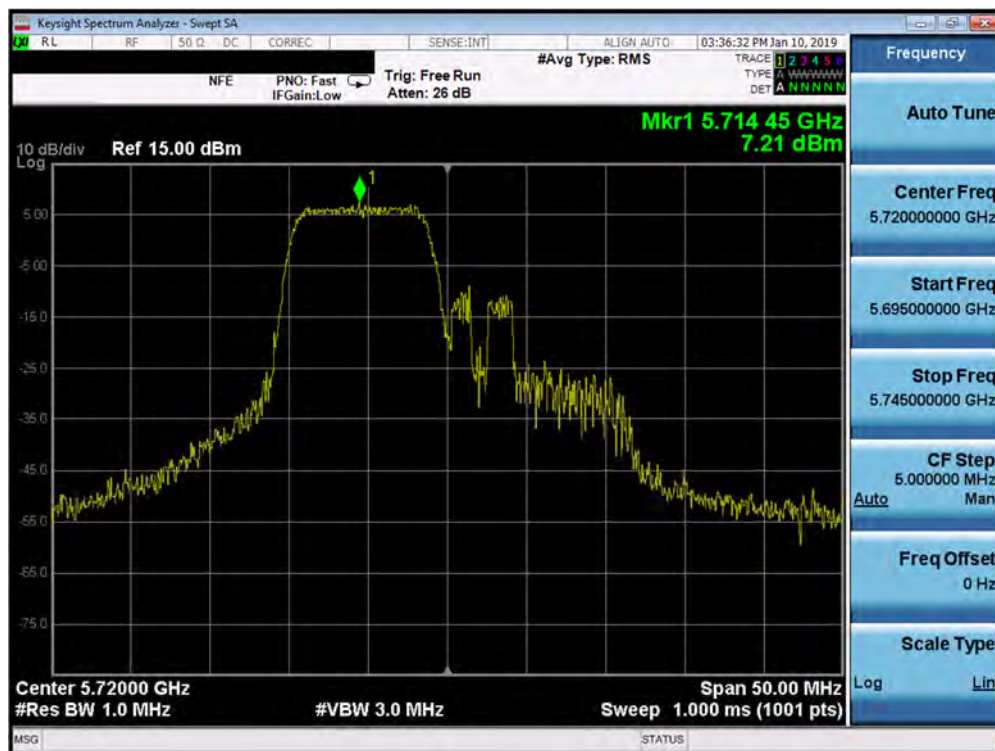


Plot 7-304. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 100)

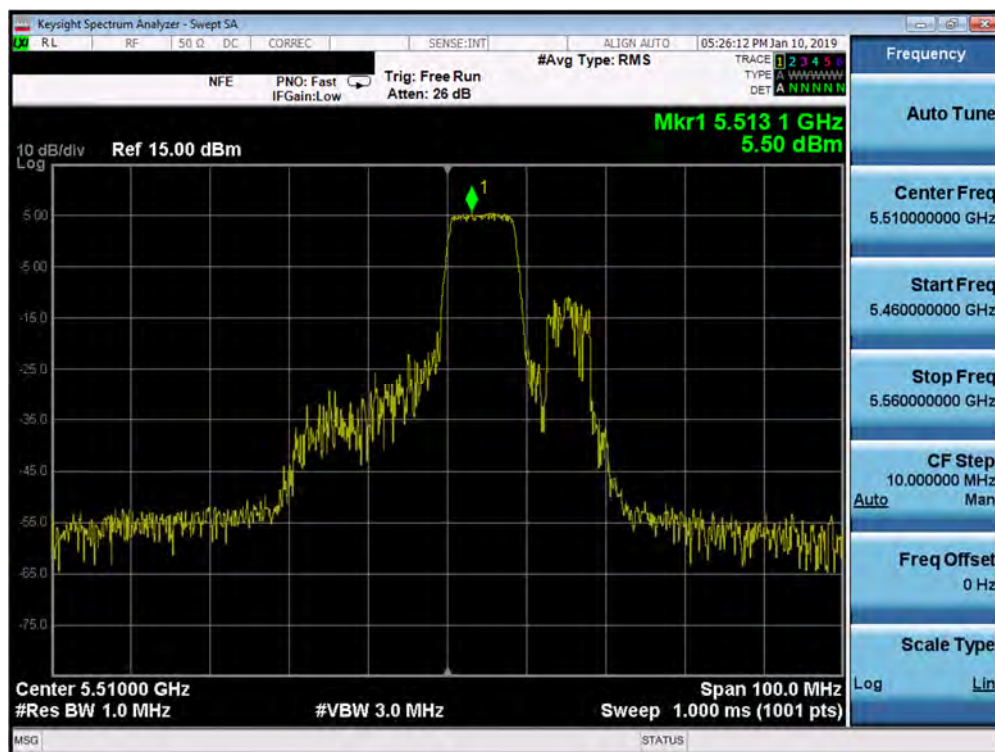


Plot 7-305. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 120)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 221 of 516

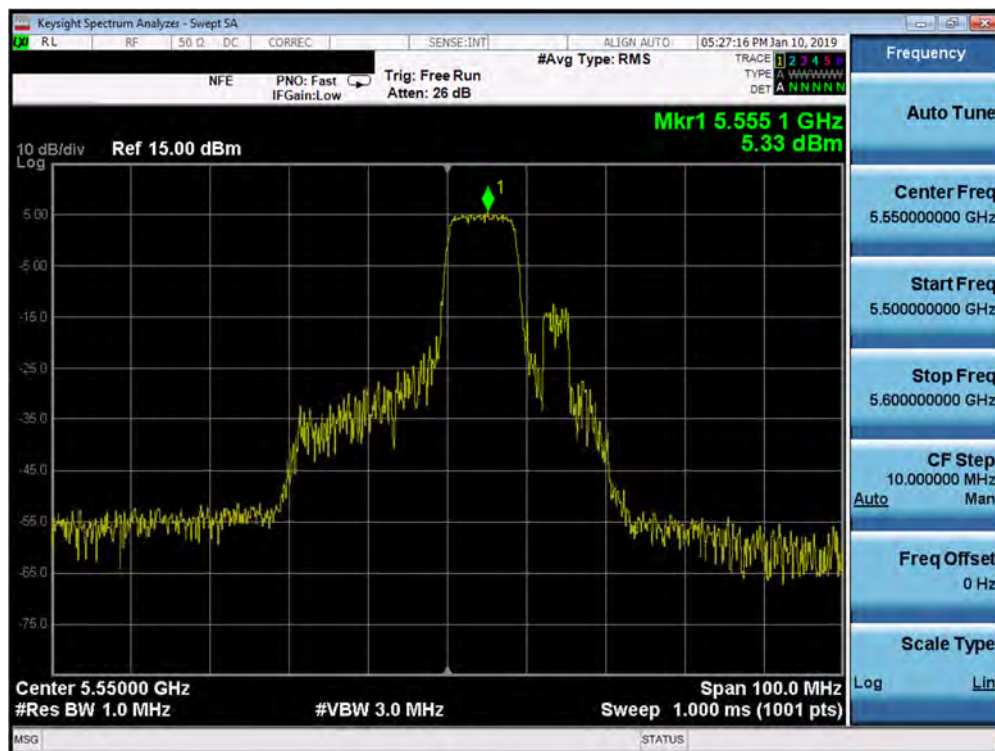


Plot 7-306. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 144)

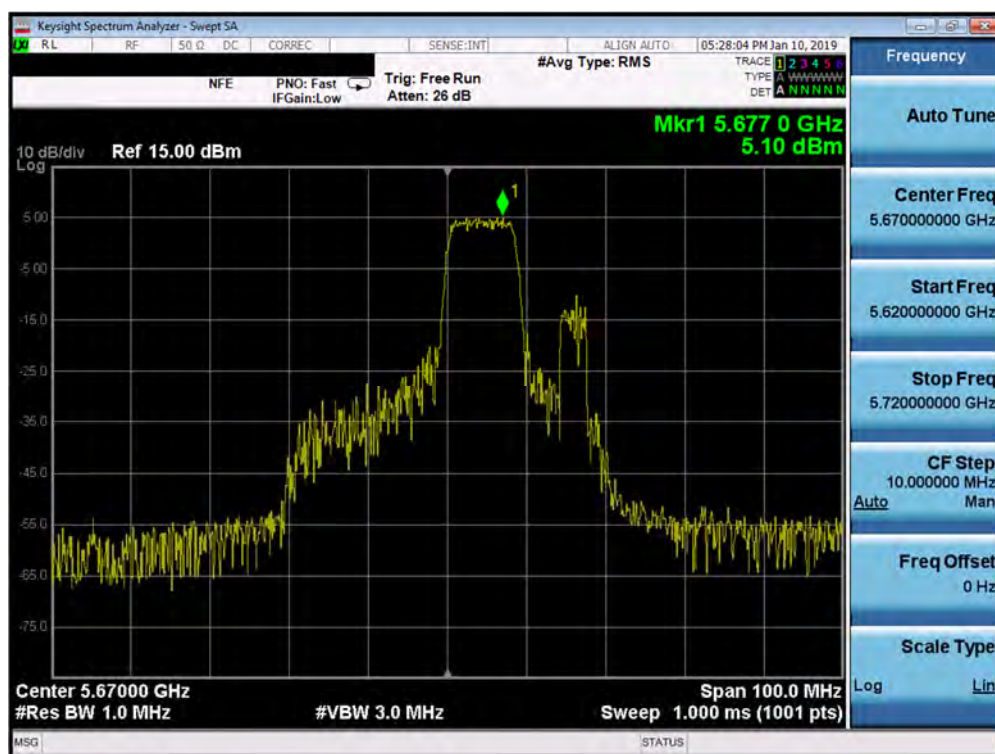


Plot 7-307. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 102)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 222 of 516

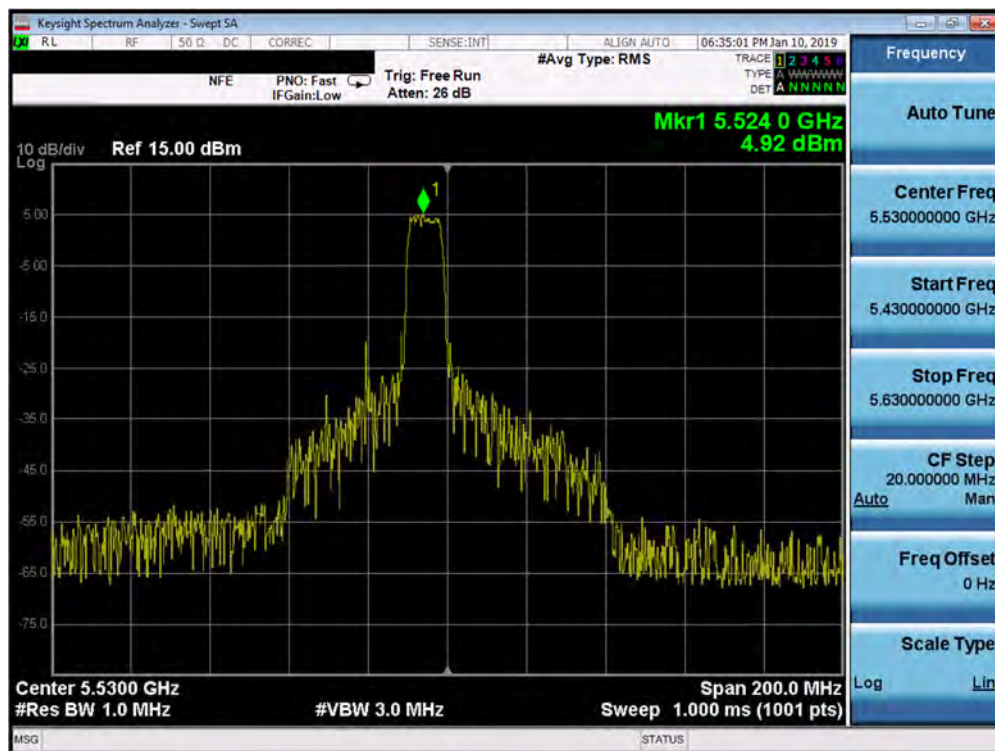


Plot 7-308. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 118)

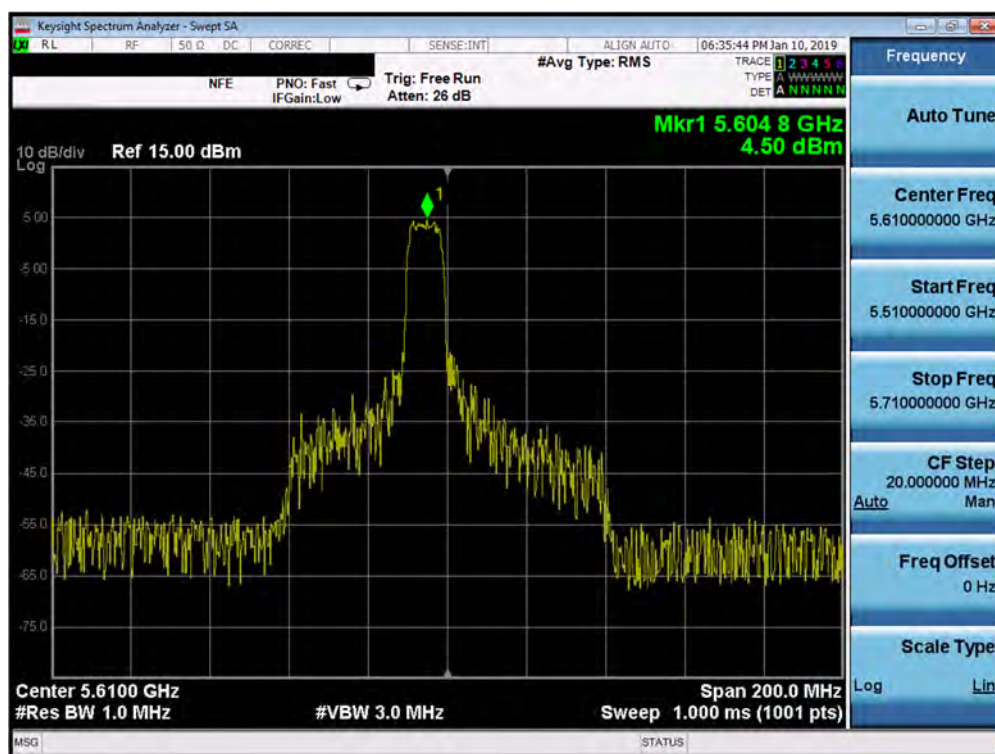


Plot 7-309. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 142)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 223 of 516

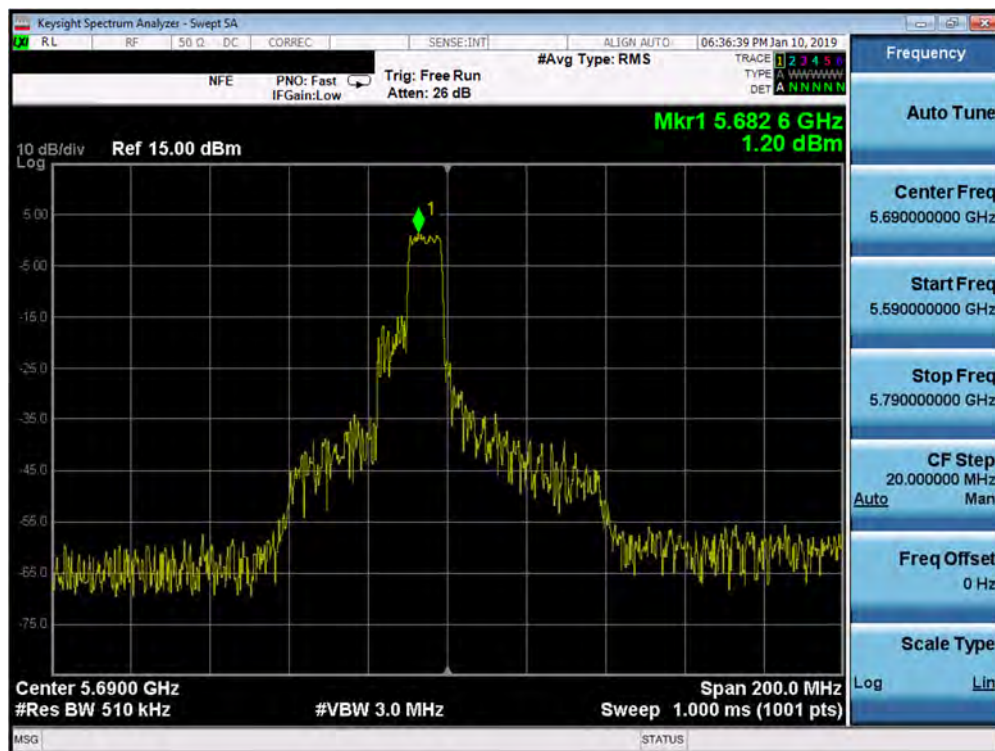


Plot 7-310. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 106)



Plot 7-311. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 122)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 224 of 516

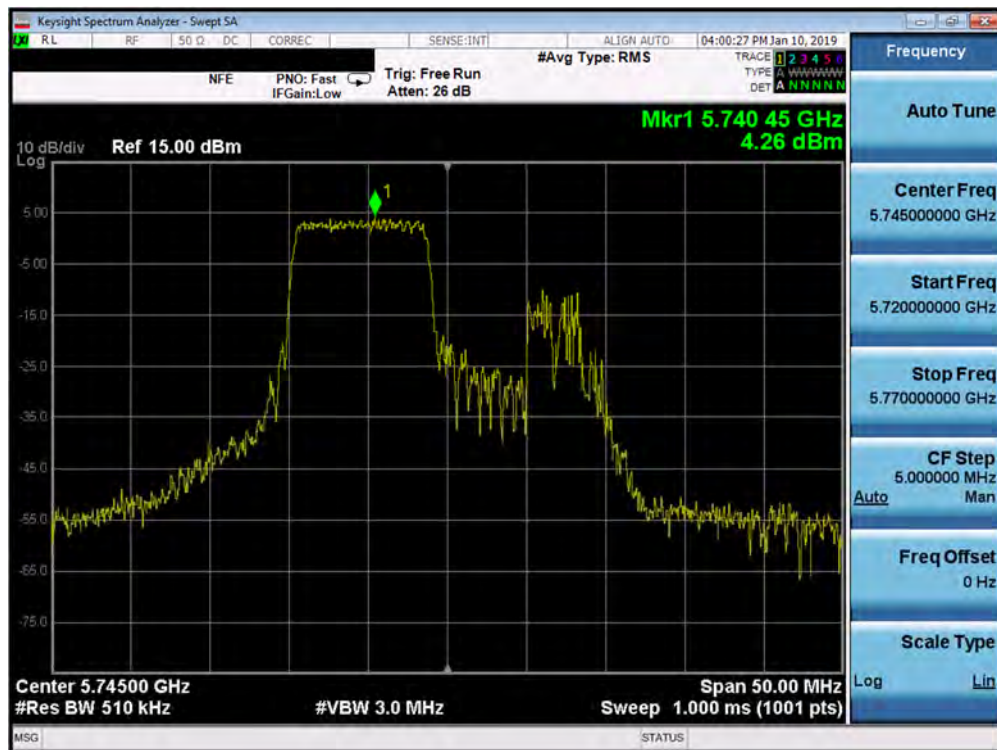


Plot 7-312. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 225 of 516

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	ax (20MHz)	106T	MCS0	4.26	30.0	-25.74
	5785	157	ax (20MHz)	106T	MCS0	3.82	30.0	-26.18
	5825	165	ax (20MHz)	106T	MCS0	3.52	30.0	-26.48
	5755	151	ax (40MHz)	106T	MCS0	2.78	30.0	-27.22
	5795	159	ax (40MHz)	106T	MCS0	1.75	30.0	-28.25
	5775	155	ax (80MHz)	106T	MCS0	4.45	30.0	-25.55

Table 7-89. Band 3 Conducted Power Spectral Density Measurements SISO ANT2 (106 Tones)



Plot 7-313. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 149)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset			Page 226 of 516

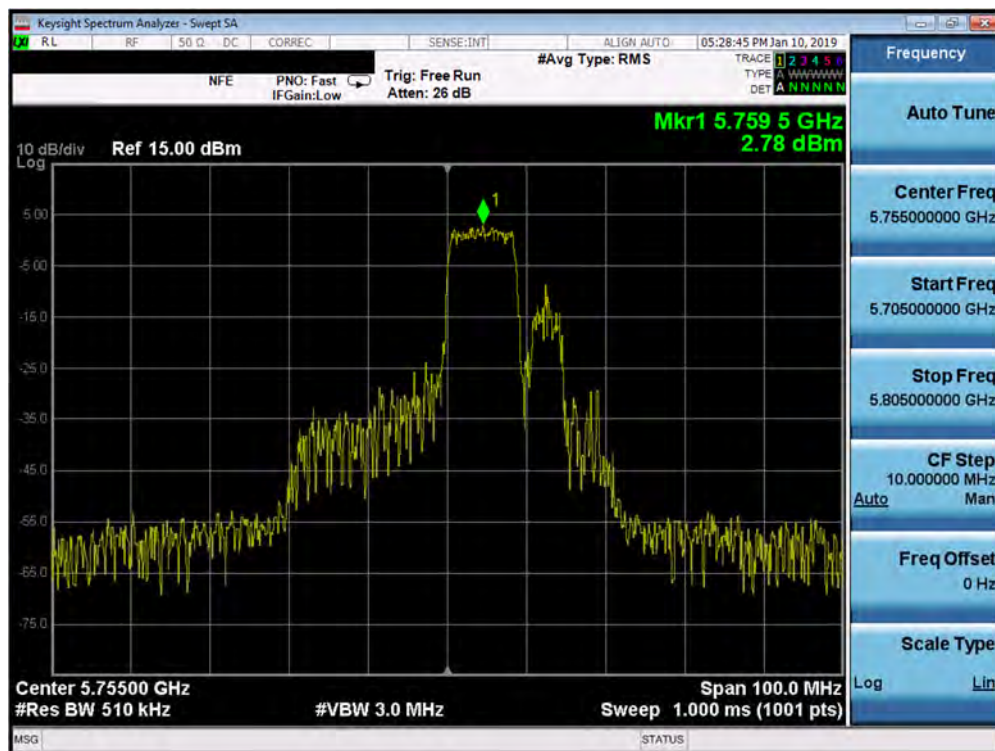


Plot 7-314. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 157)

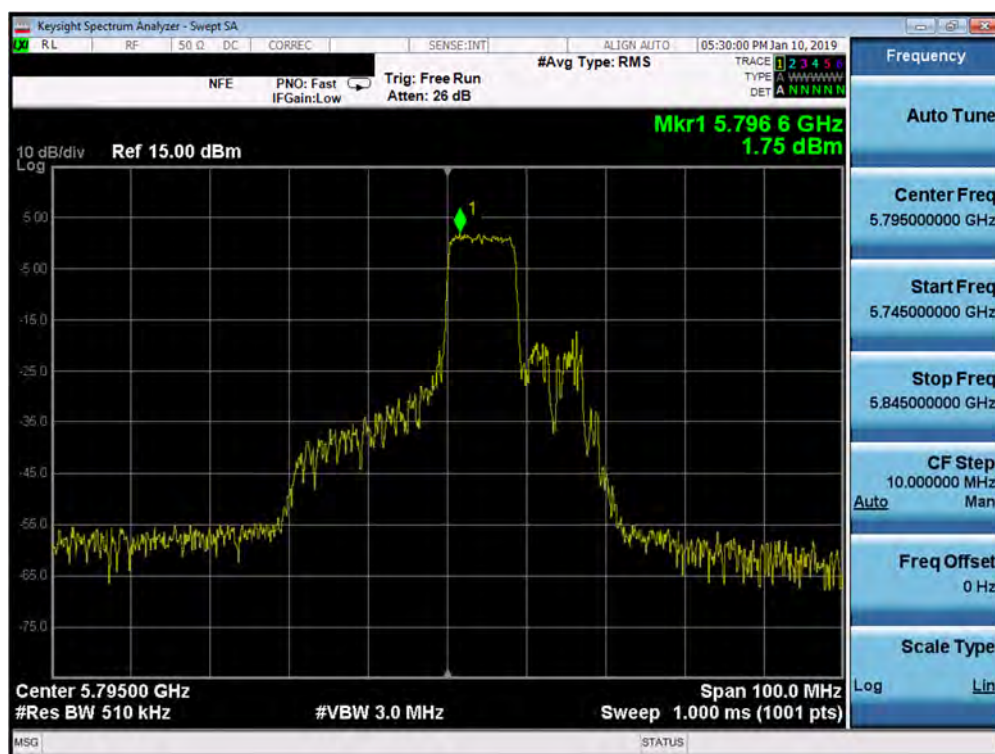


Plot 7-315. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 165)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 227 of 516

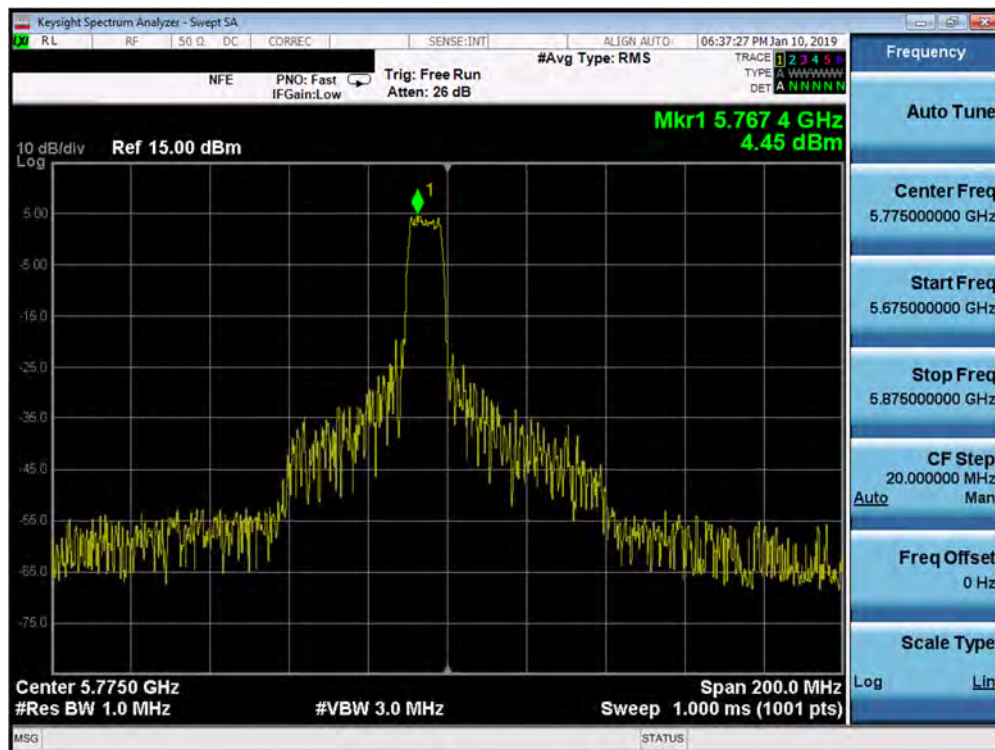


Plot 7-316. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 151)



Plot 7-317. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 159)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 228 of 516



Plot 7-318. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 229 of 516

SISO Antenna-2 Power Spectral Density Measurements (242 Tones)

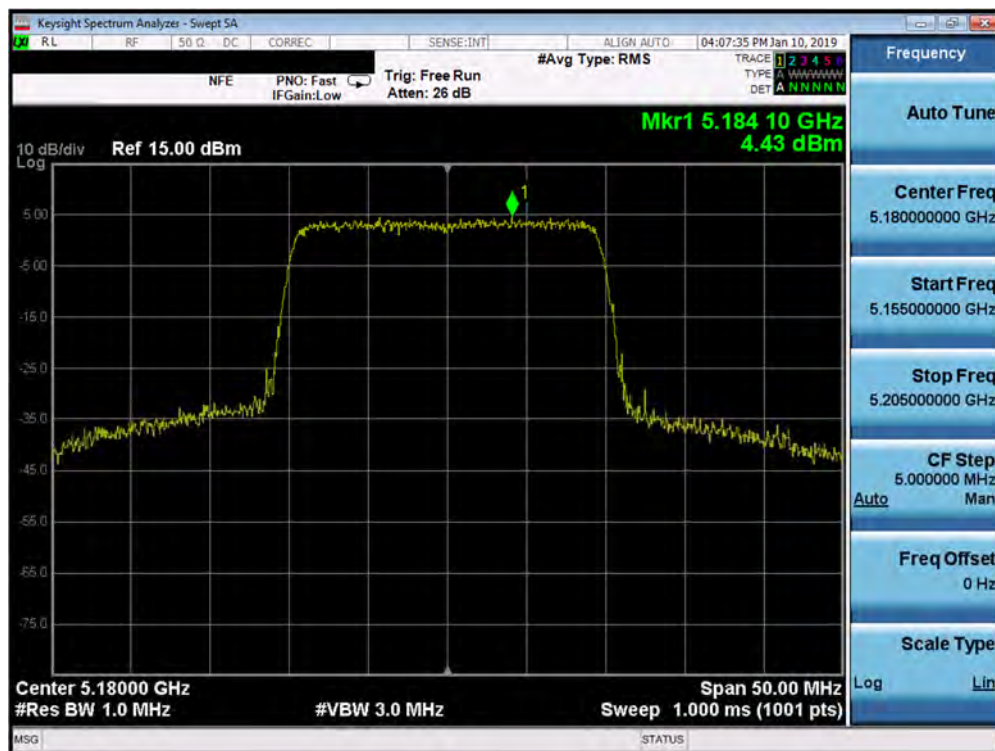
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	242T	MCS0	4.43	11.0	-6.57
	5200	40	ax (20MHz)	242T	MCS0	4.31	11.0	-6.69
	5240	48	ax (20MHz)	242T	MCS0	4.95	11.0	-6.05
	5190	38	ax (40MHz)	242T	MCS0	3.07	11.0	-7.93
	5230	46	ax (40MHz)	242T	MCS0	3.93	11.0	-7.07
	5210	42	ax (80MHz)	242T	MCS0	1.88	11.0	-9.12
Band 2A	5260	52	ax (20MHz)	242T	MCS0	4.89	11.0	-6.11
	5280	56	ax (20MHz)	242T	MCS0	5.12	11.0	-5.88
	5320	64	ax (20MHz)	242T	MCS0	5.21	11.0	-5.79
	5270	54	ax (40MHz)	242T	MCS0	3.30	11.0	-7.70
	5310	62	ax (40MHz)	242T	MCS0	3.62	11.0	-7.38
	5290	58	ax (80MHz)	242T	MCS0	1.93	11.0	-9.07
Band 2C	5500	100	ax (20MHz)	242T	MCS0	4.82	11.0	-6.18
	5600	120	ax (20MHz)	242T	MCS0	4.27	11.0	-6.73
	5720	144	ax (20MHz)	242T	MCS0	4.52	11.0	-6.48
	5510	102	ax (40MHz)	242T	MCS0	3.33	11.0	-7.67
	5590	118	ax (40MHz)	242T	MCS0	3.05	11.0	-7.95
	5710	142	ax (40MHz)	242T	MCS0	2.74	11.0	-8.26
	5530	106	ax (80MHz)	242T	MCS0	2.40	11.0	-8.60
	5610	122	ax (80MHz)	242T	MCS0	2.22	11.0	-8.78
	5690	138	ax (80MHz)	242T	MCS0	-0.05	11.0	-11.05

Table 7-90. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT2 (242 Tones)

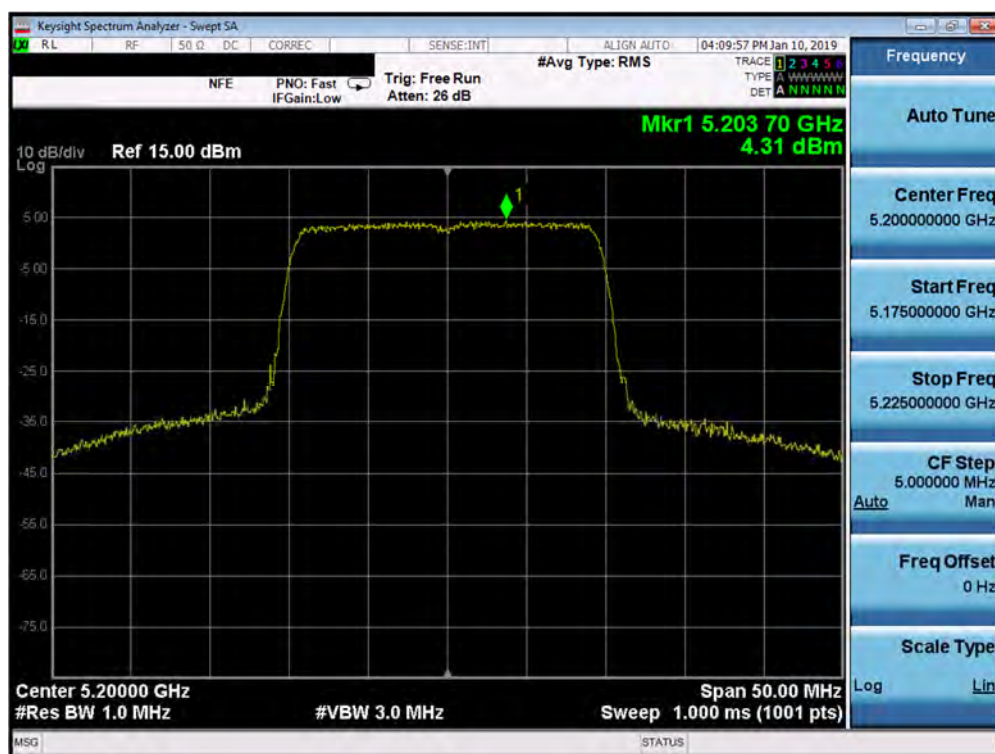
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density	Margin [dB]
Band 1	5180	36	ax (20MHz)	242T	MCS0	4.43	-8.43	-4.00	10.0	-14.00
	5200	40	ax (20MHz)	242T	MCS0	4.31	-8.34	-4.03	10.0	-14.03
	5240	48	ax (20MHz)	242T	MCS0	4.95	-7.99	-3.04	10.0	-13.04
	5190	38	ax (40MHz)	242T	MCS0	3.07	-8.43	-5.36	10.0	-15.36
	5230	46	ax (40MHz)	242T	MCS0	3.93	-8.34	-4.41	10.0	-14.41
	5210	42	ax (80MHz)	242T	MCS0	1.88	-7.99	-6.11	10.0	-16.11

Table 7-91. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 242 Tones)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 230 of 516

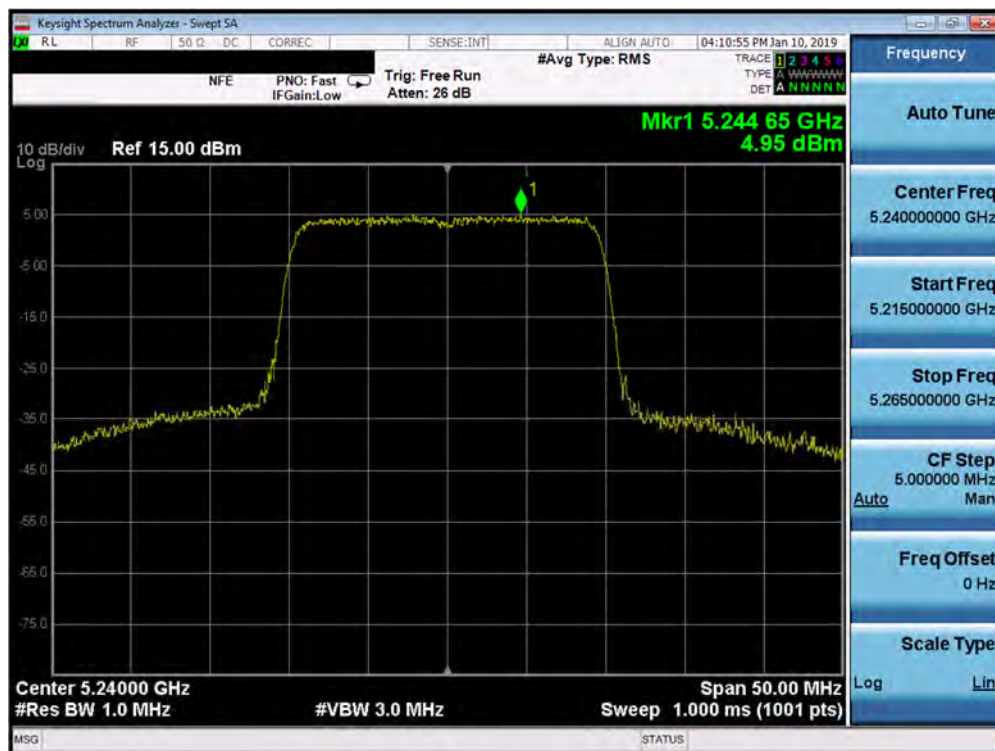


Plot 7-319. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 36)

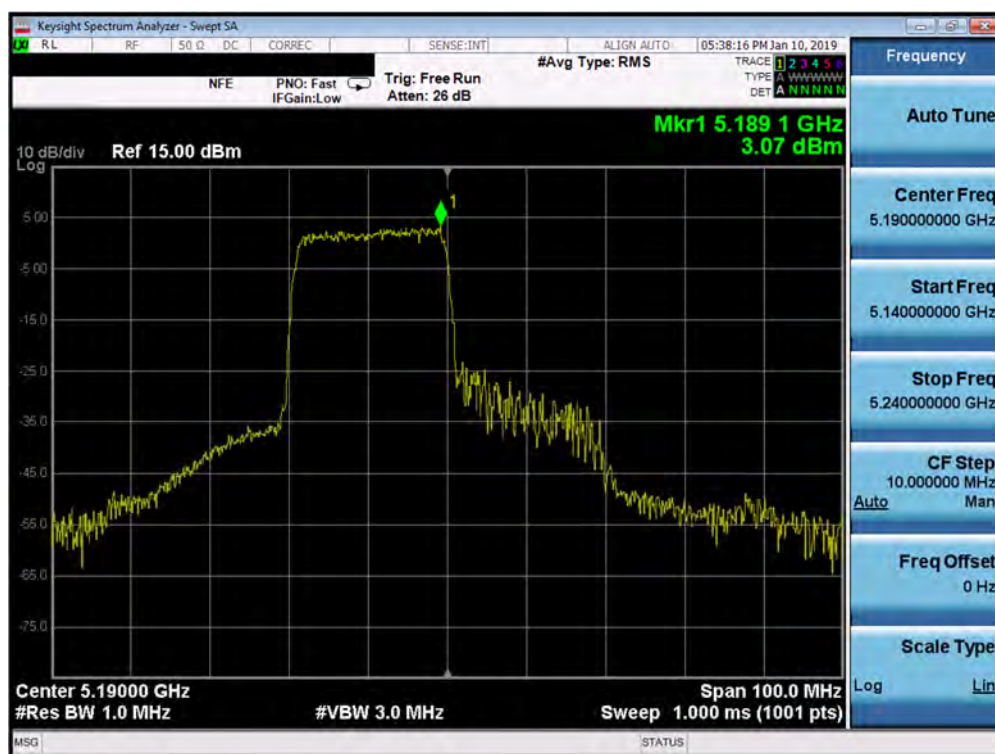


Plot 7-320. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 40)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 231 of 516

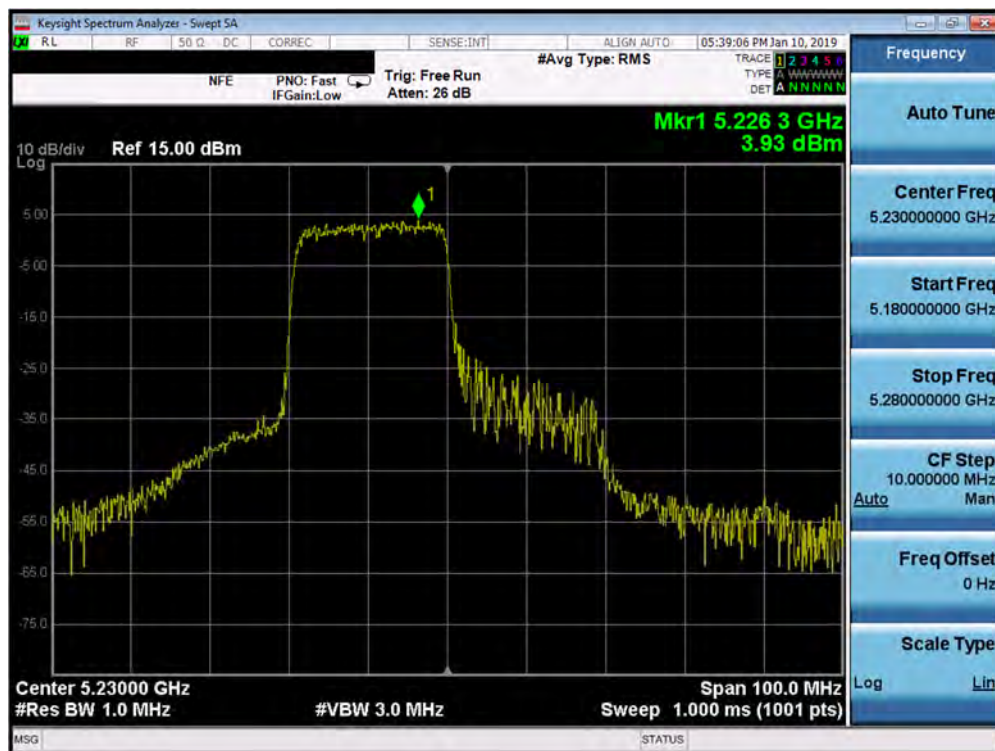


Plot 7-321. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 48)

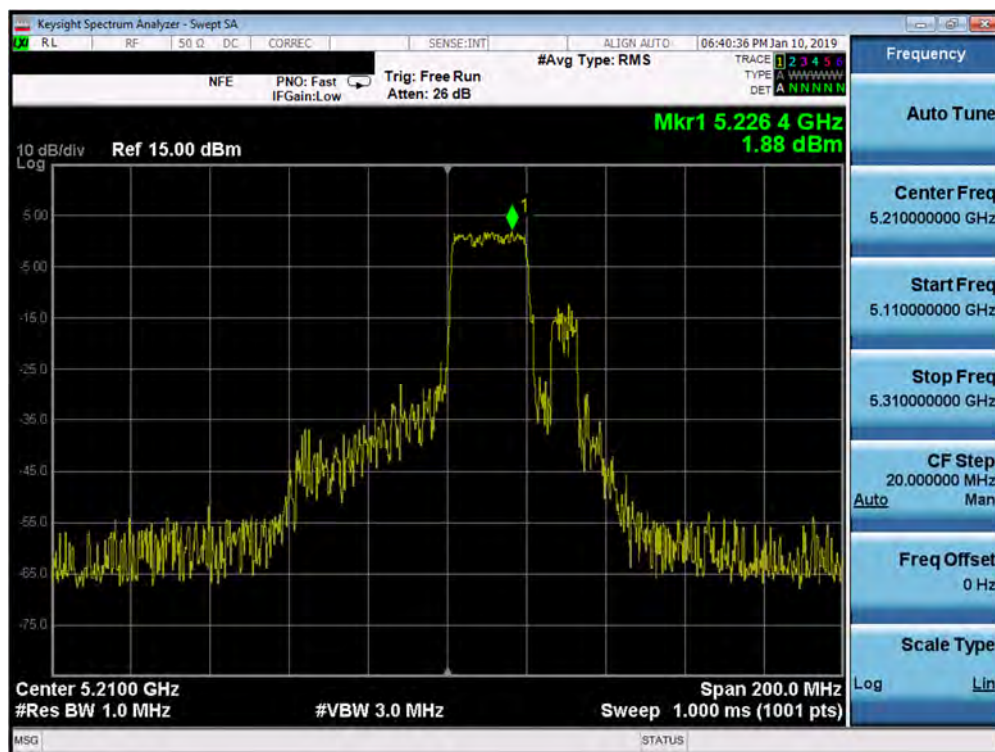


Plot 7-322. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 232 of 516

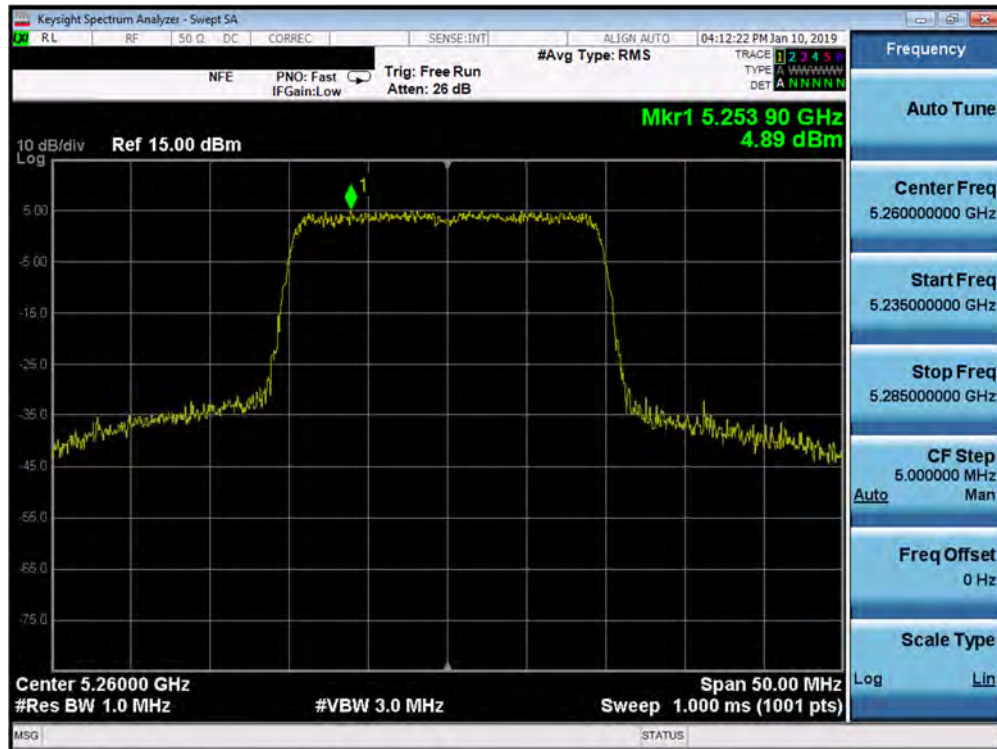


Plot 7-323. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 46)

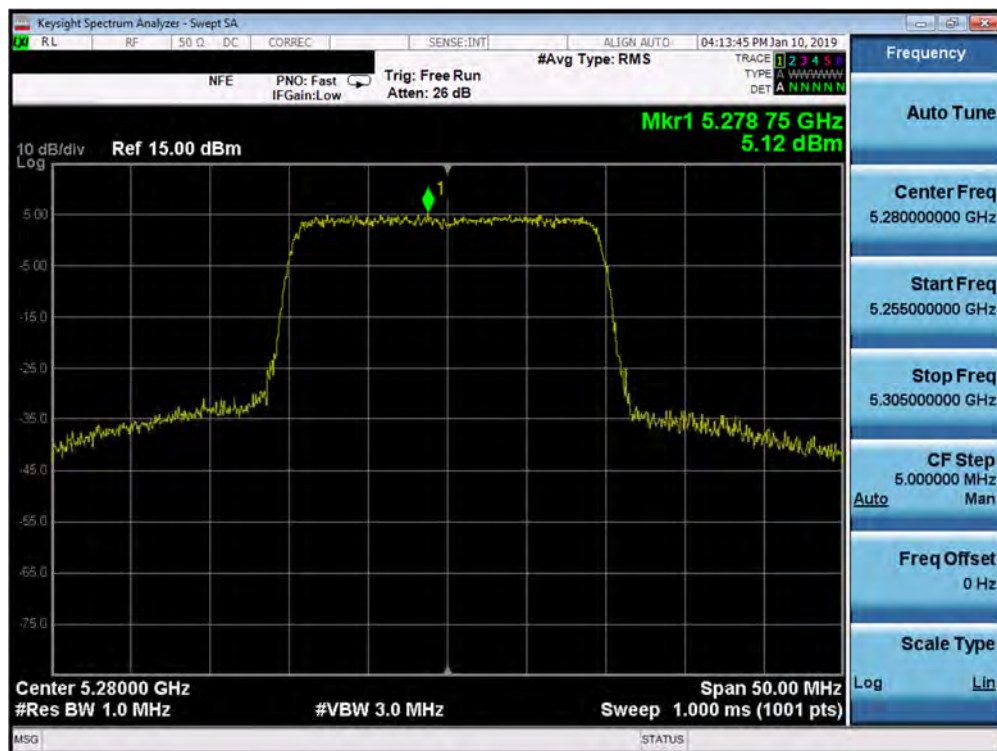


Plot 7-324. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 242 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 233 of 516

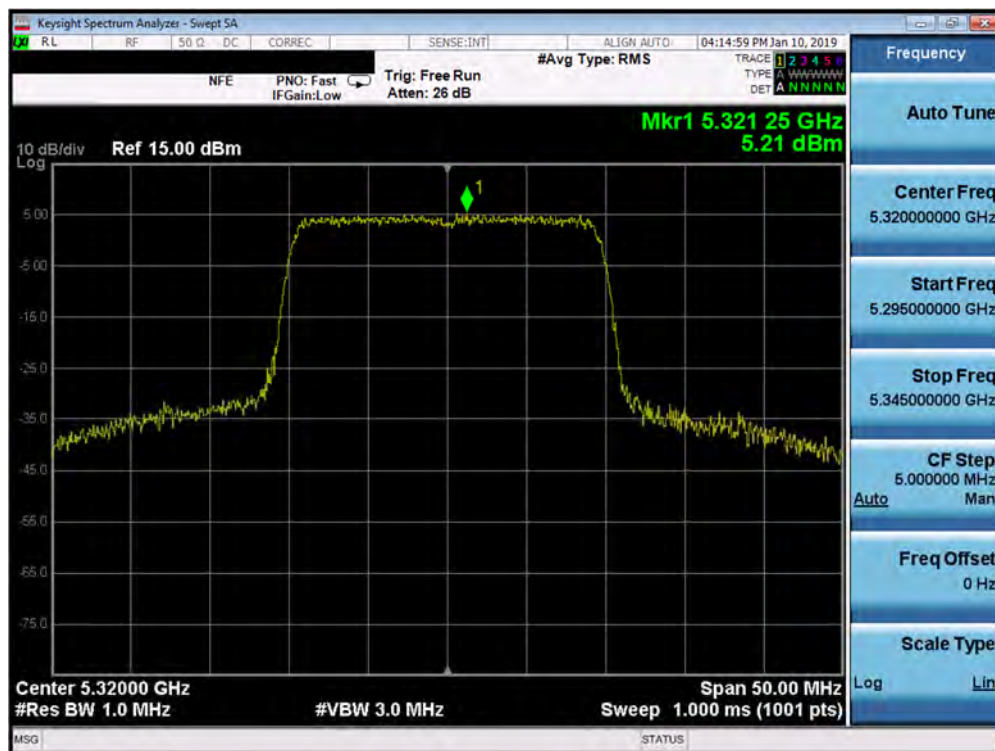


Plot 7-325. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 52)

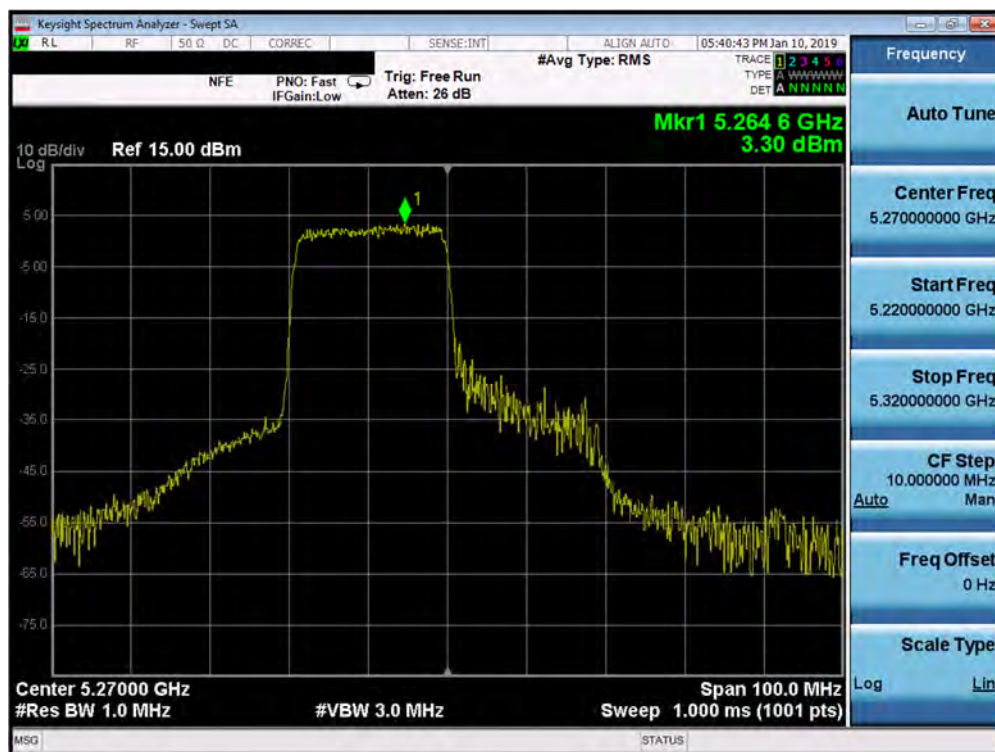


Plot 7-326. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 56)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 234 of 516

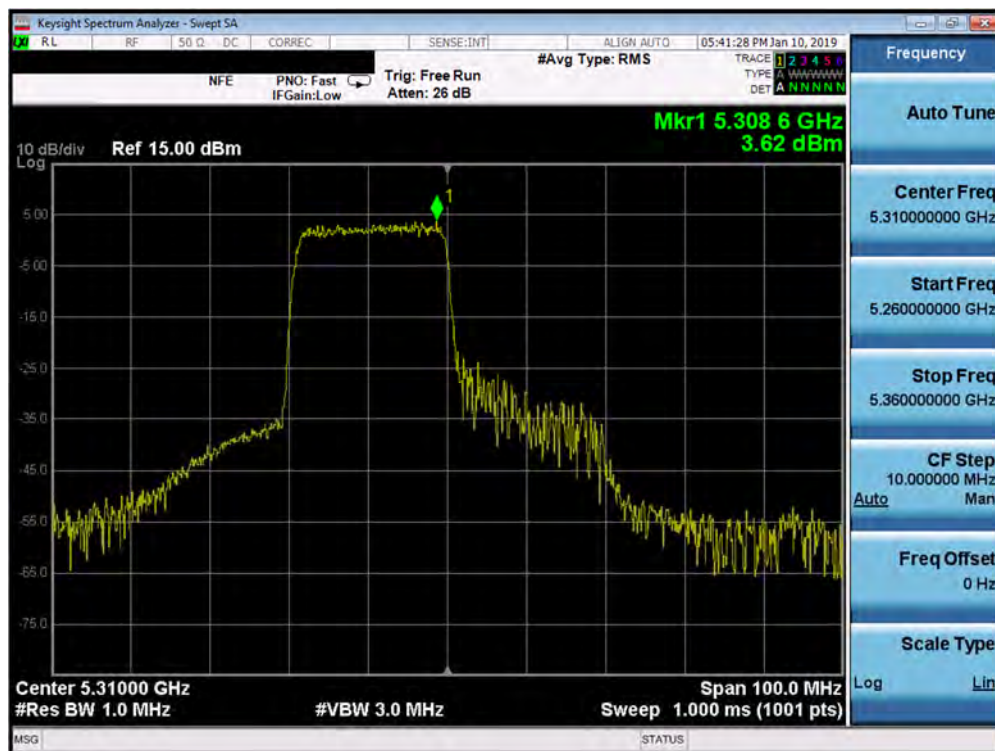


Plot 7-327. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 64)

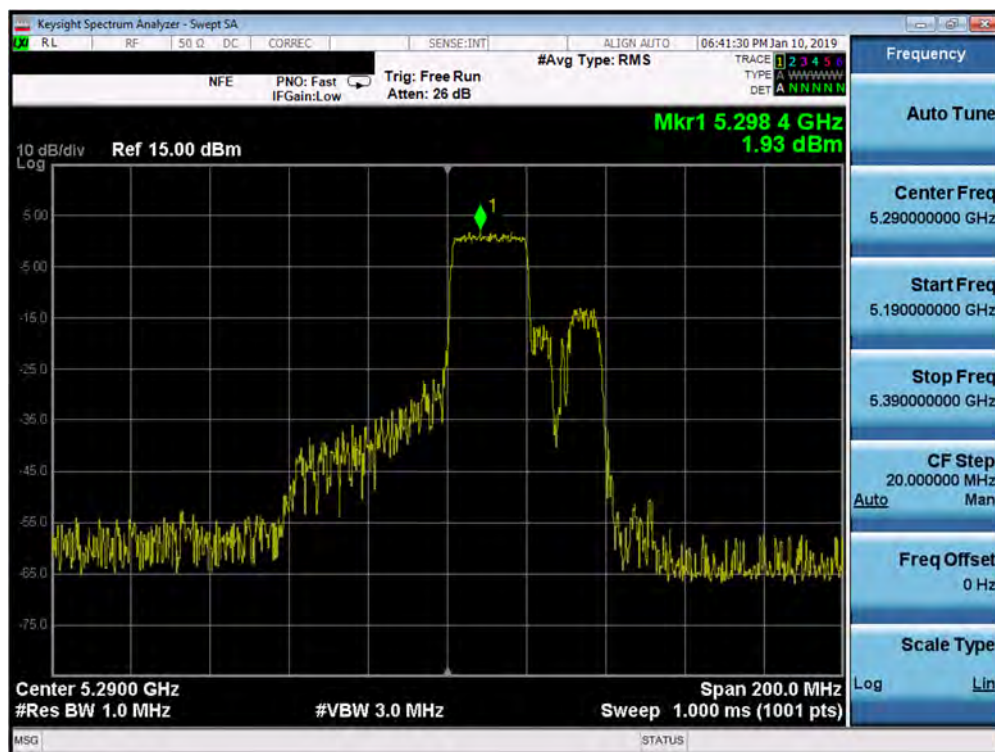


Plot 7-328. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 54)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 235 of 516

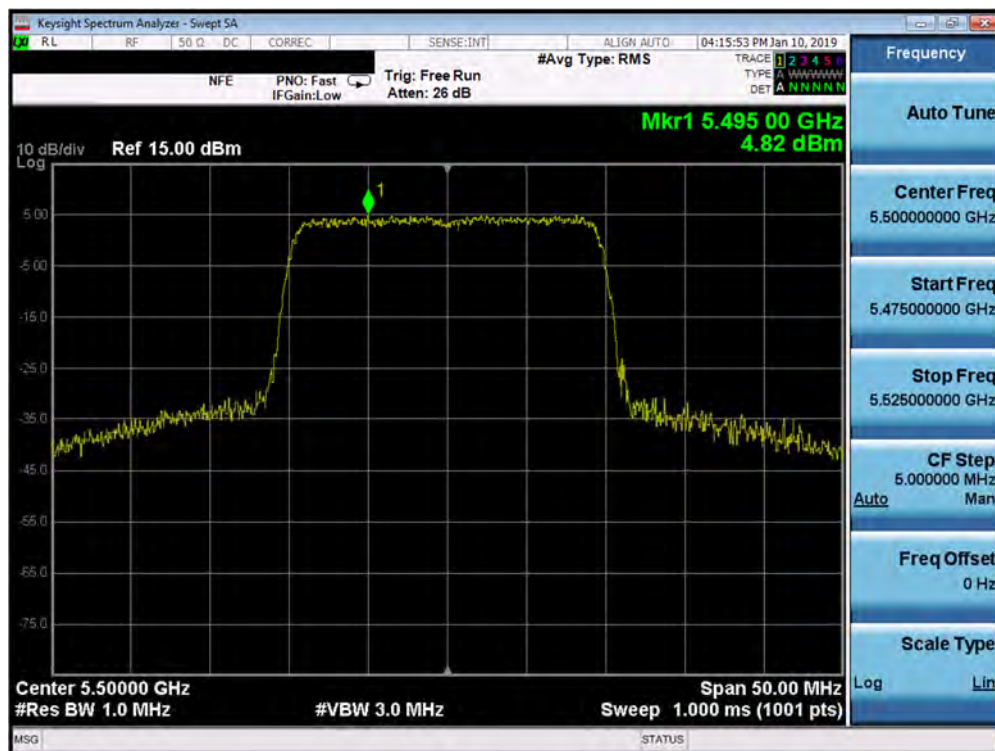


Plot 7-329. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 62)

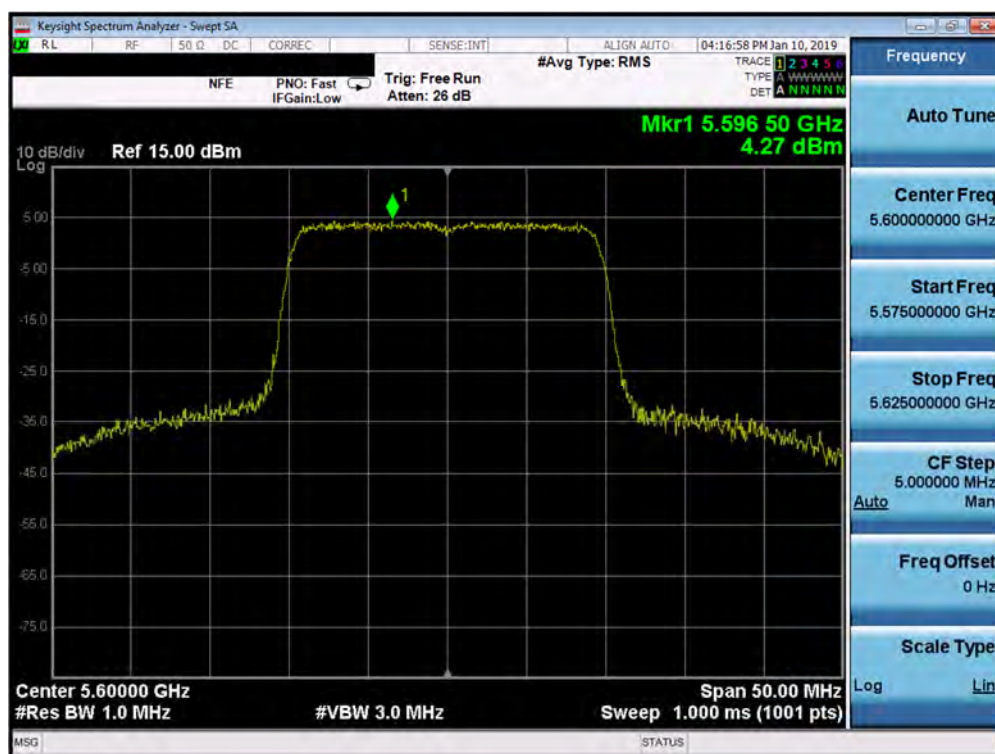


Plot 7-330. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 236 of 516

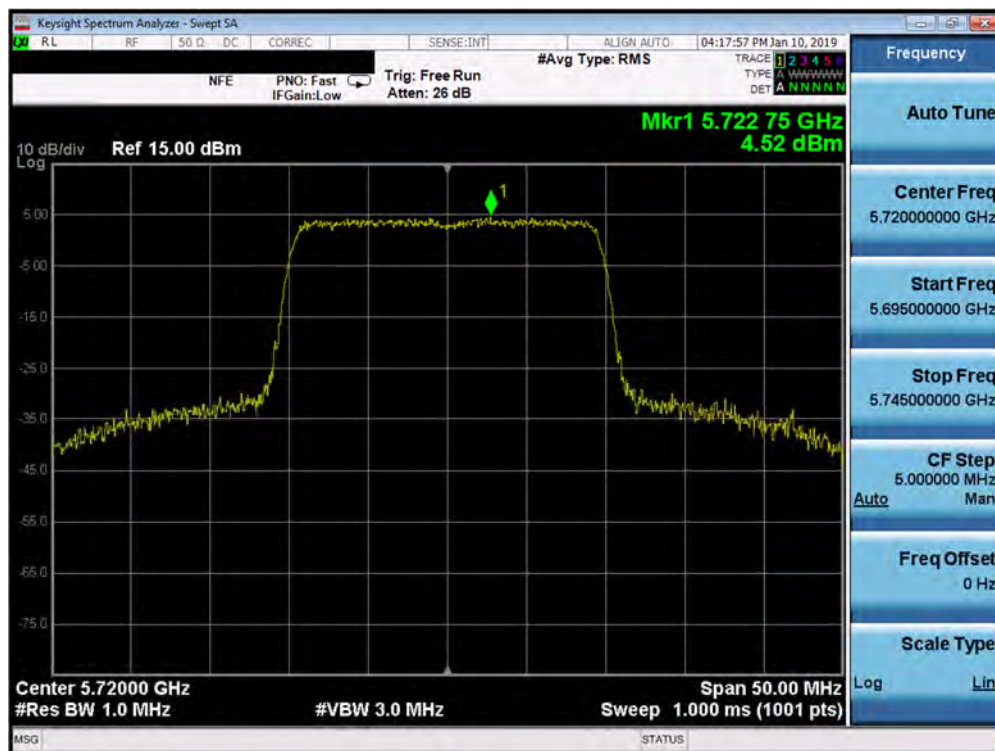


Plot 7-331. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 100)

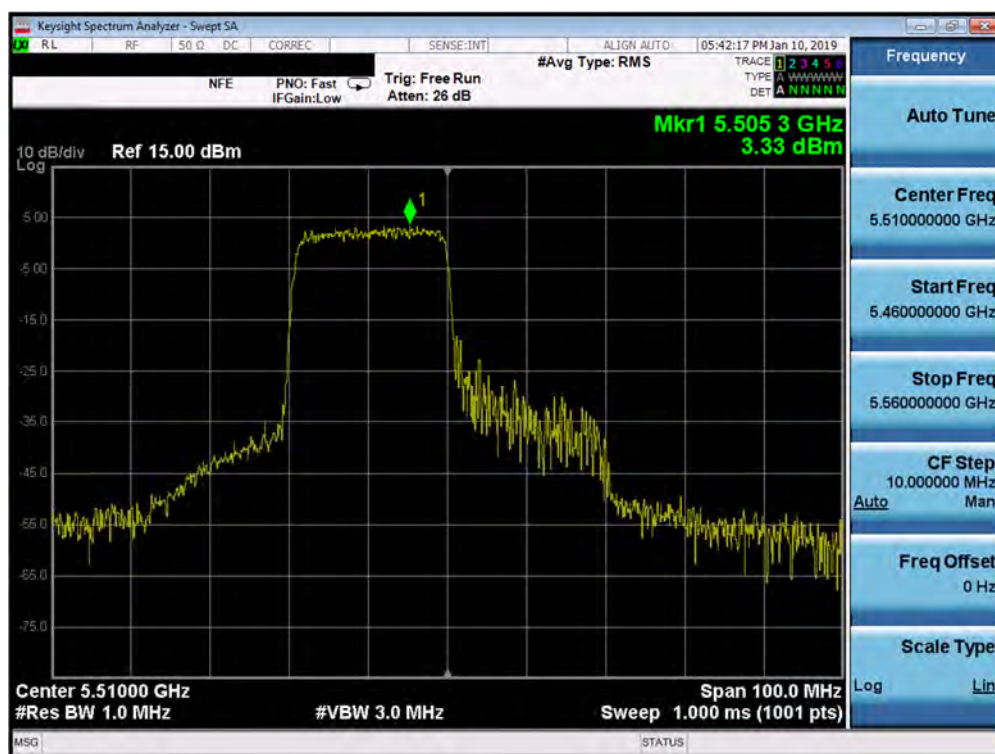


Plot 7-332. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 120)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 237 of 516

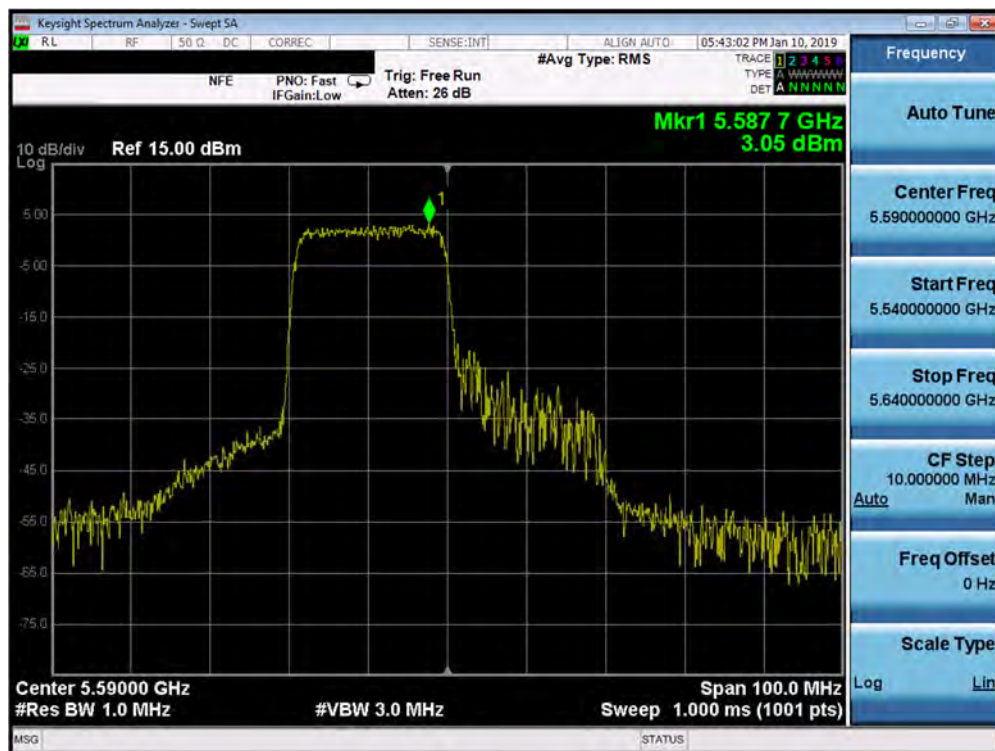


Plot 7-333. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 144)

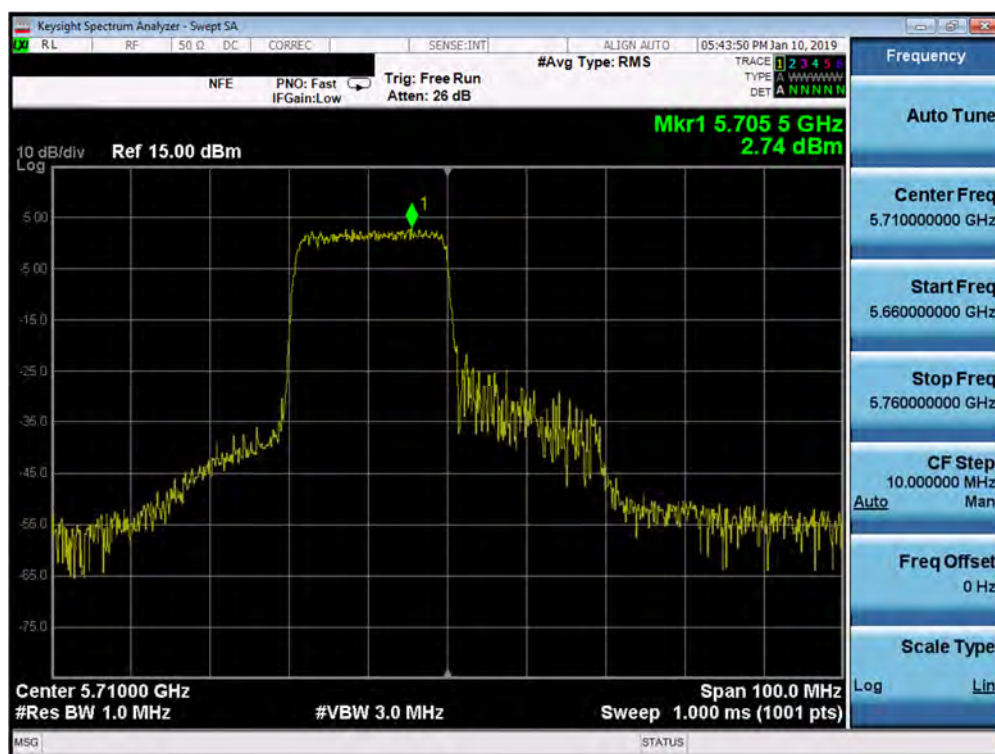


Plot 7-334. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 102)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 238 of 516

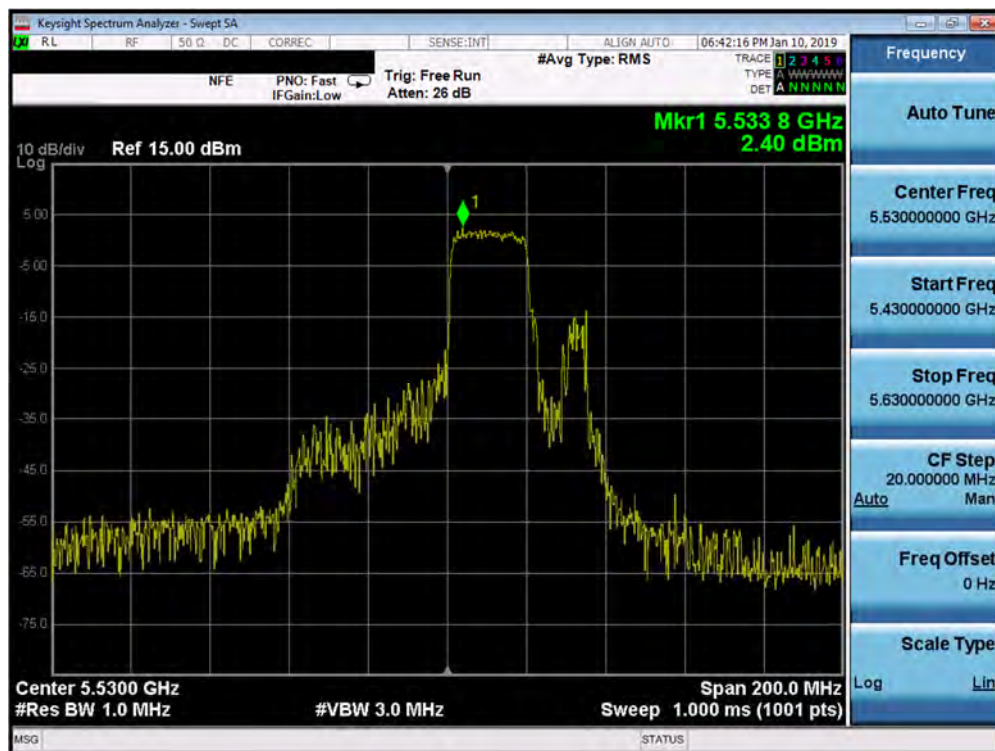


Plot 7-335. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 118)

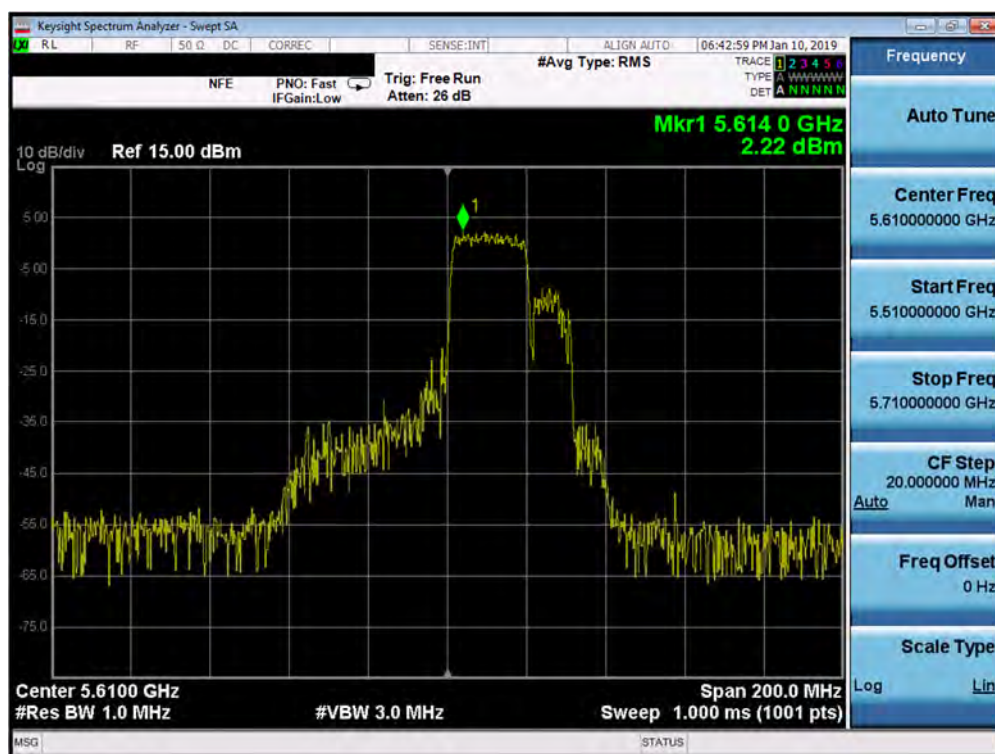


Plot 7-336. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 142)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 239 of 516

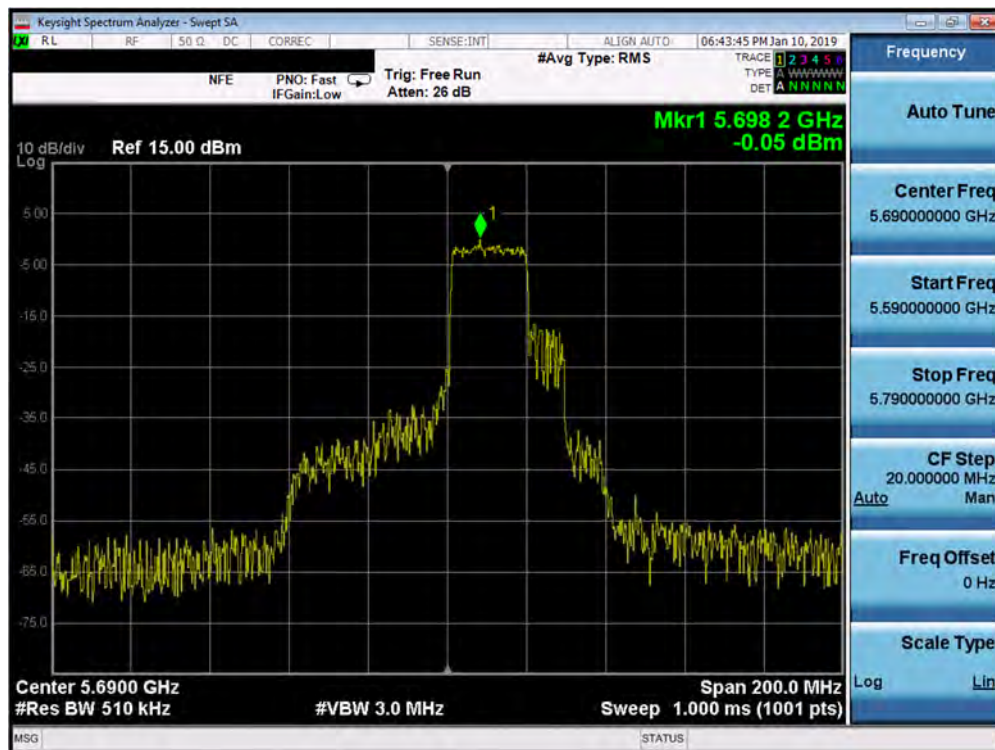


Plot 7-337. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 106)



Plot 7-338. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 122)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 240 of 516



Plot 7-339. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 241 of 516

Keysight Spectrum Analyzer - Swept SA

Frequency

Auto Tune

Center Freq 5.74500000 GHz

Start Freq 5.720000000 GHz

Stop Freq 5.770000000 GHz

CF Step 5.000000 MHz

Auto Man

Freq Offset 0 Hz

Scale Type Log Lin

Center 5.74500 GHz

Span 50.00 MHz

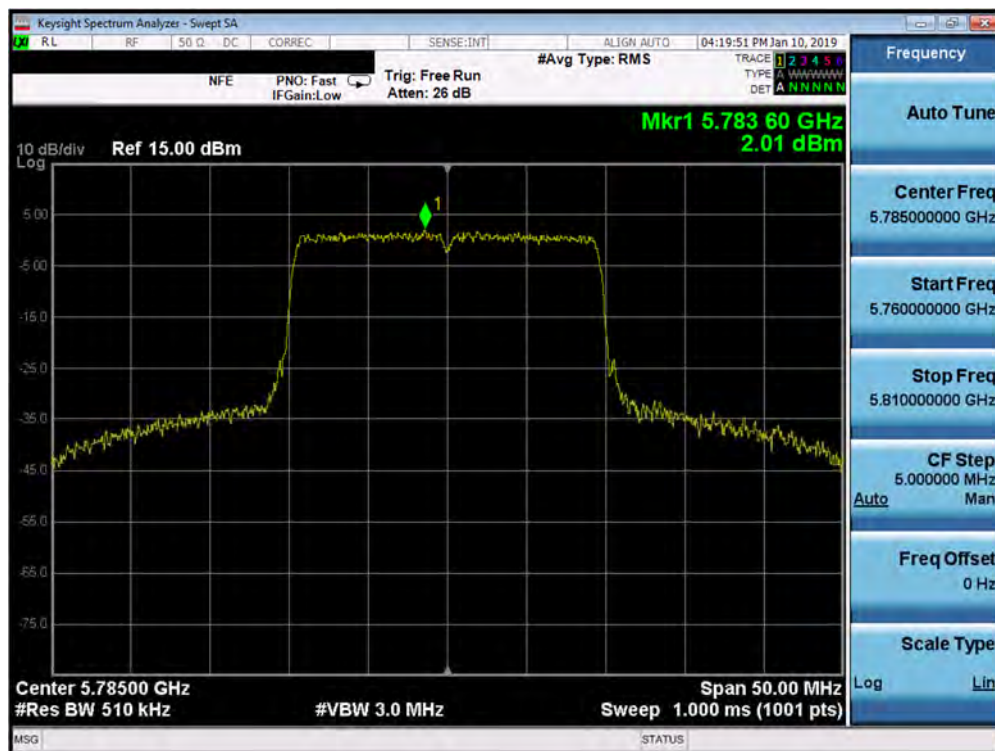
#Res BW 510 kHz

#VBW 3.0 MHz

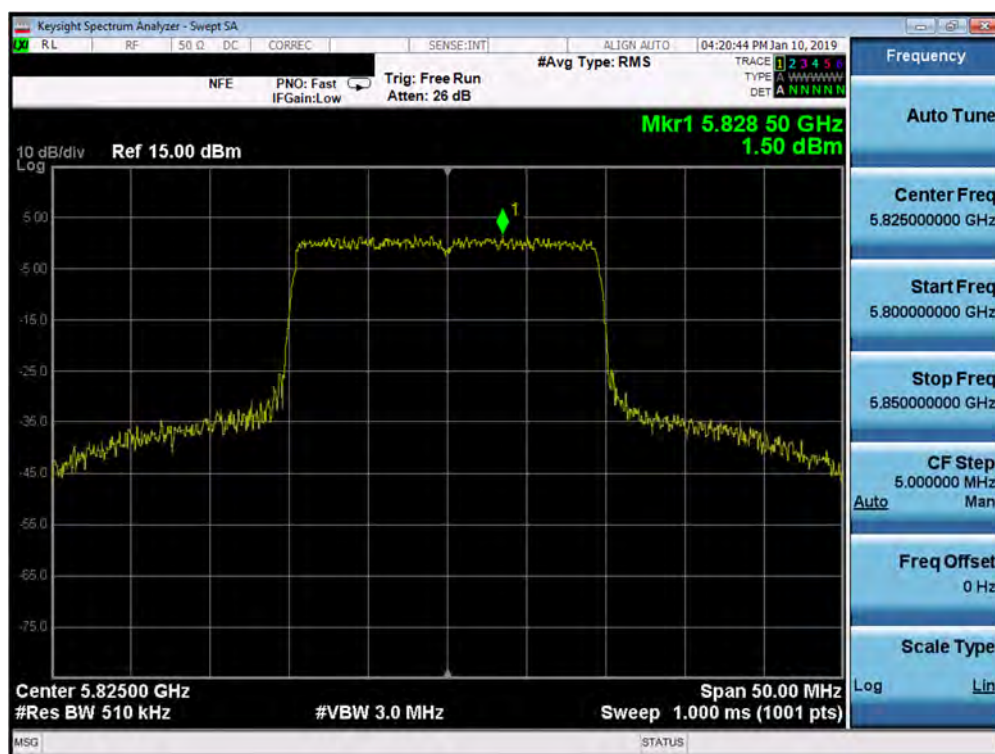
Sweep 1.000 ms (1001 pts)

MSG STATUS

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 242 of 516

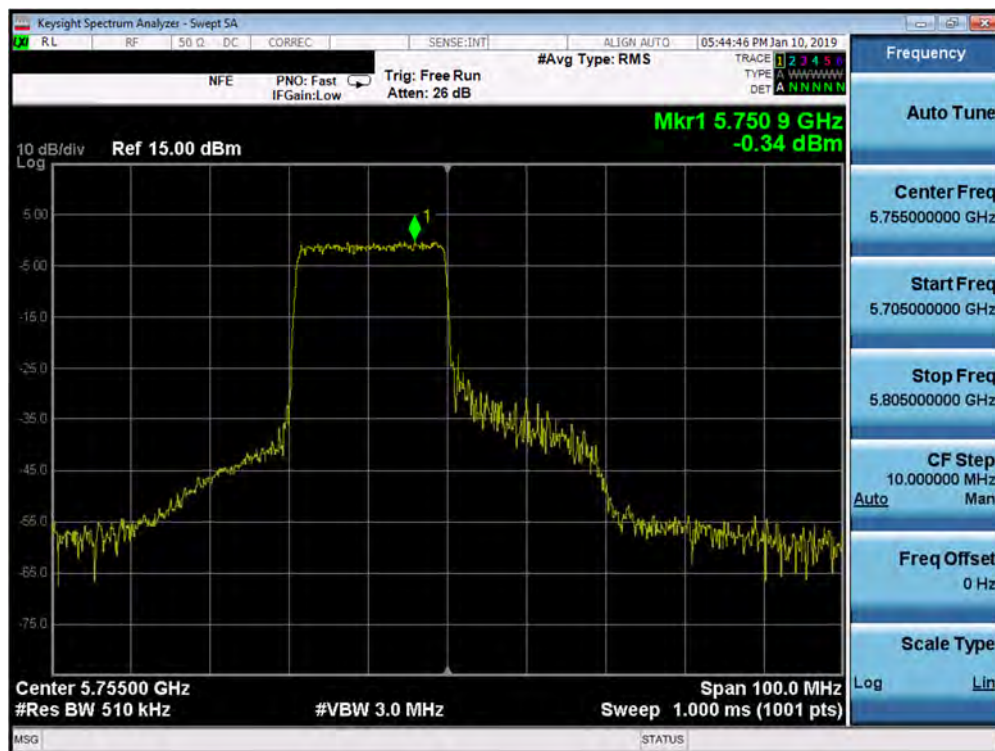


Plot 7-341. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 157)

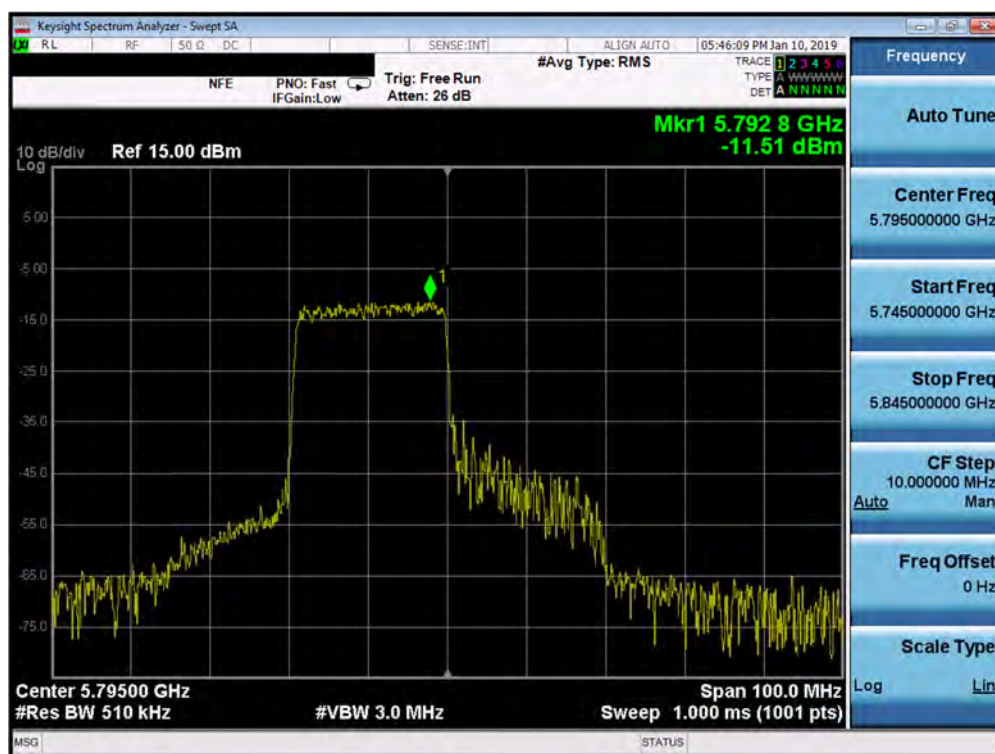


Plot 7-342. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 165)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 243 of 516

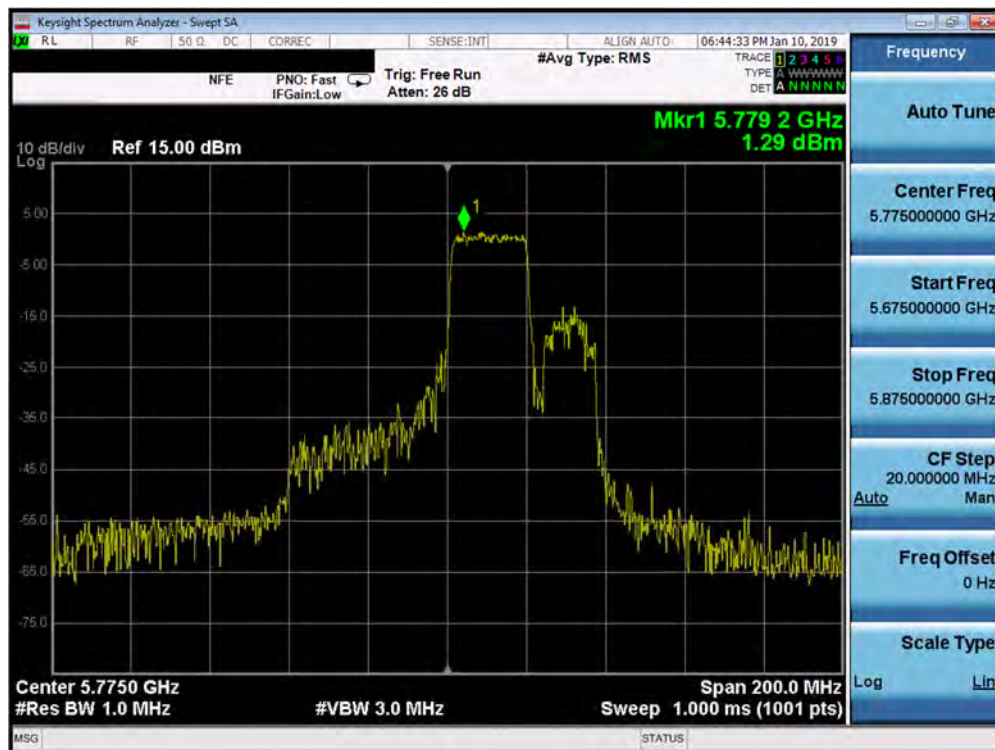


Plot 7-343. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 151)



Plot 7-344. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 159)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 244 of 516



Plot 7-345. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 245 of 516

SISO Antenna-2 Power Spectral Density Measurements (484 Tones)

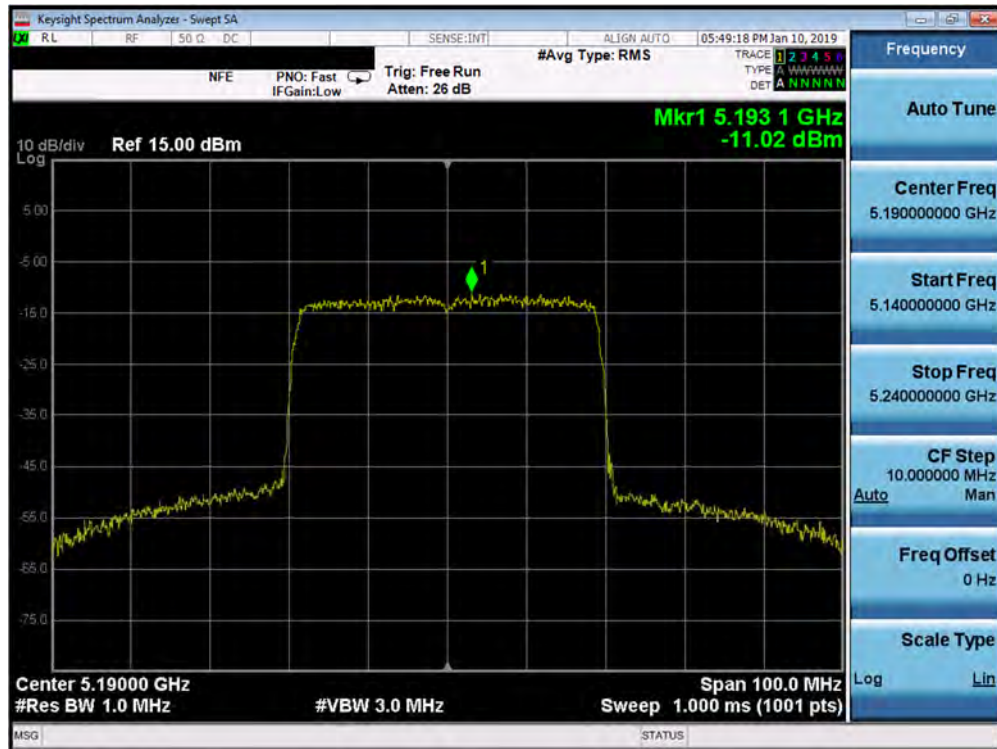
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5190	38	ax (40MHz)	484T	MCS0	-11.02	11.0	-22.02
	5230	46	ax (40MHz)	484T	MCS0	-10.91	11.0	-21.91
	5210	42	ax (80MHz)	484T	MCS0	0.26	11.0	-10.74
Band 2A	5270	54	ax (40MHz)	484T	MCS0	-11.10	11.0	-22.10
	5310	62	ax (40MHz)	484T	MCS0	-11.39	11.0	-22.39
	5290	58	ax (80MHz)	484T	MCS0	-1.13	11.0	-12.13
Band 2C	5510	102	ax (40MHz)	484T	MCS0	-11.00	11.0	-22.00
	5590	118	ax (40MHz)	484T	MCS0	-11.59	11.0	-22.59
	5710	142	ax (40MHz)	484T	MCS0	-11.51	11.0	-22.51
	5530	106	ax (80MHz)	484T	MCS0	-0.41	11.0	-11.41
	5610	122	ax (80MHz)	484T	MCS0	0.46	11.0	-10.54
	5690	138	ax (80MHz)	484T	MCS0	-3.75	11.0	-14.75

Table 7-93. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT2 (484 Tones)

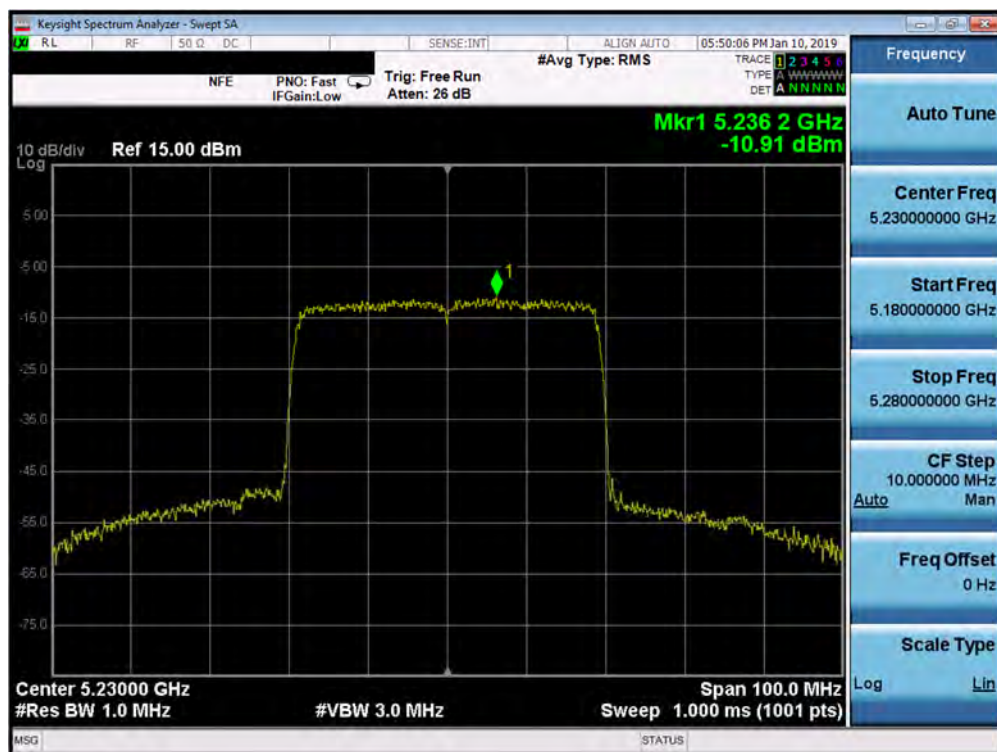
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density	Margin [dB]
Band 1	5190	38	n (40MHz)	13.5/15 (MCS0)	-11.02	-8.43	-19.45	10.0	-29.45
	5230	46	n (40MHz)	13.5/15 (MCS0)	-10.91	-8.34	-19.25	10.0	-29.25
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	0.26	-7.99	-7.73	10.0	-17.73

Table 7-94. Bands 1 e.r.i.p Conducted Power Spectral Density Measurements (ISED 484 Tones)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	
			Page 246 of 516

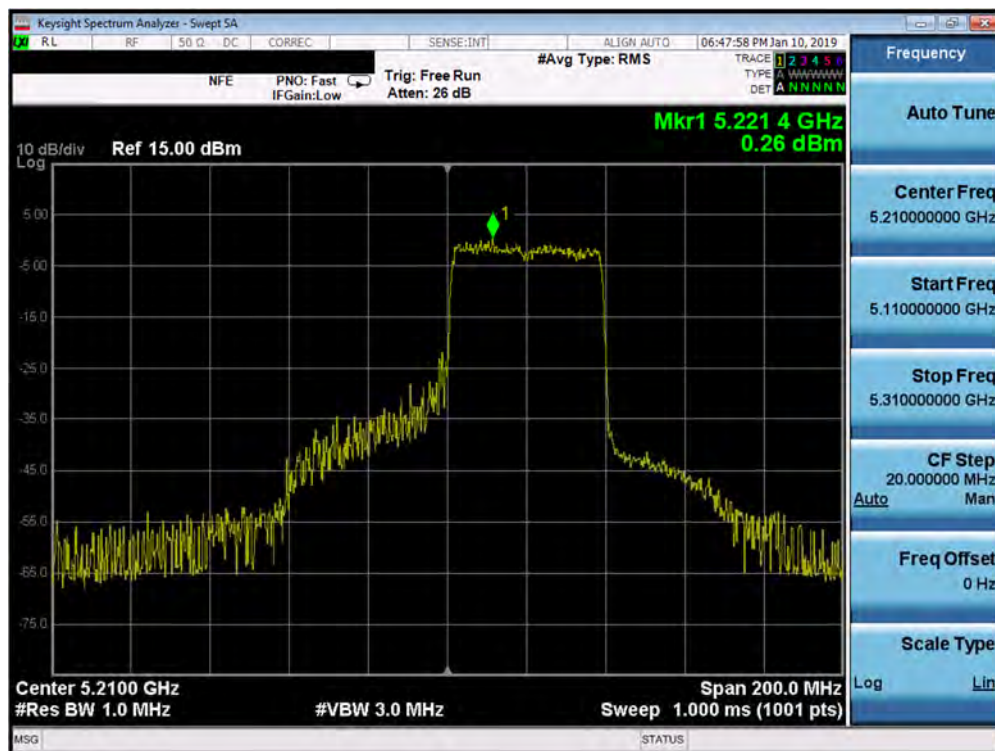


Plot 7-346. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 38)

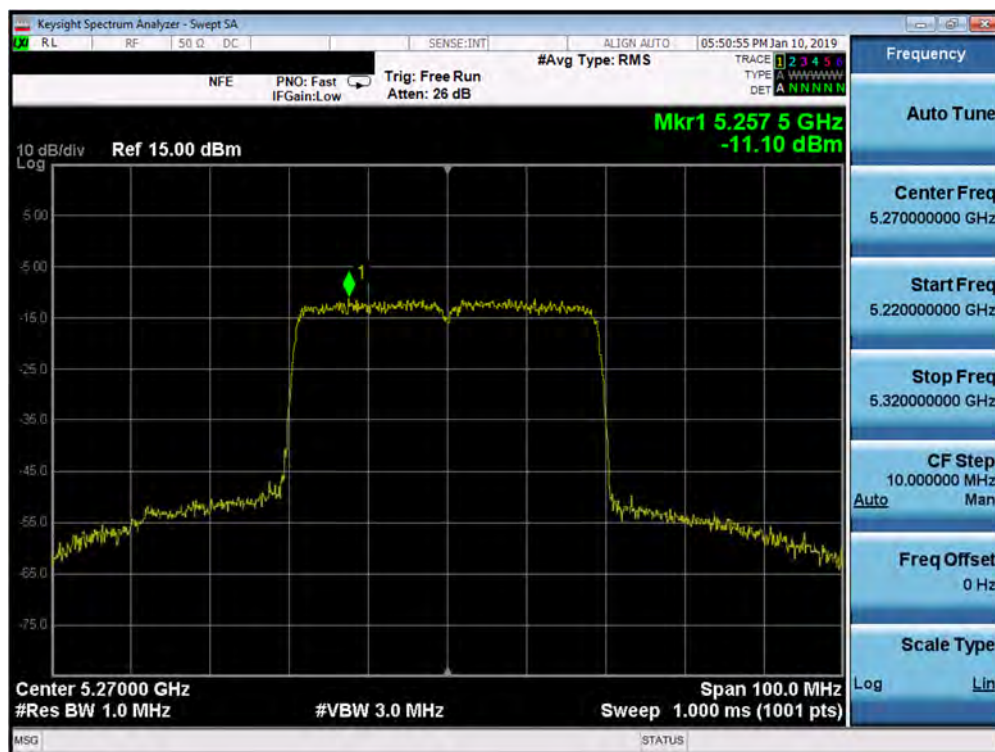


Plot 7-347. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 46)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 247 of 516

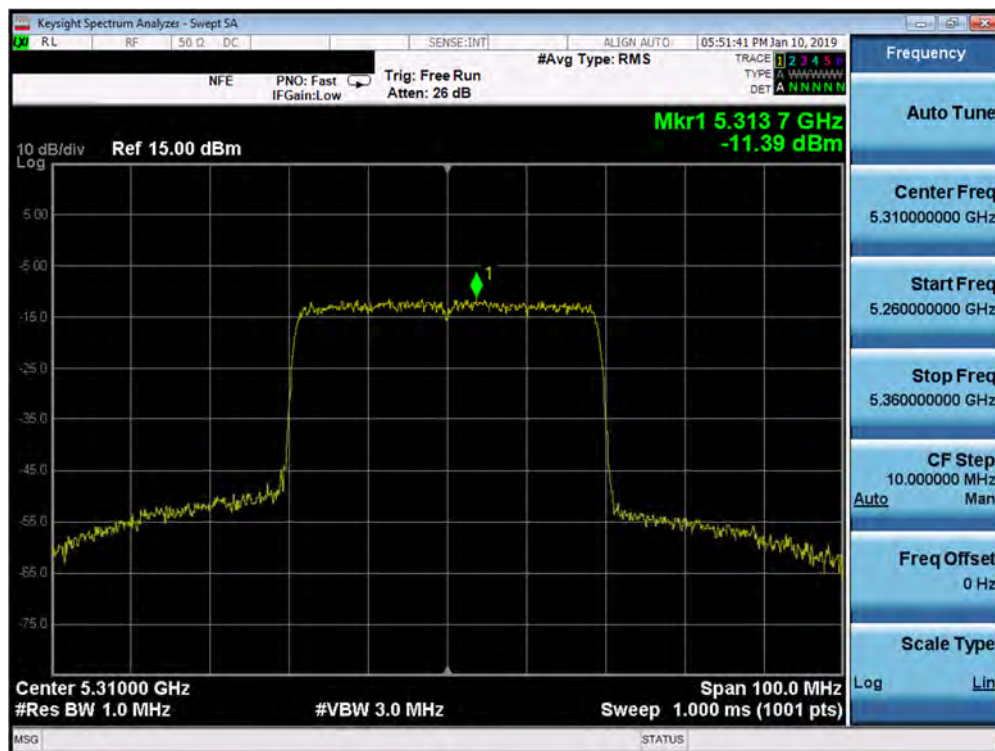


Plot 7-348. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 1) – Ch. 42)

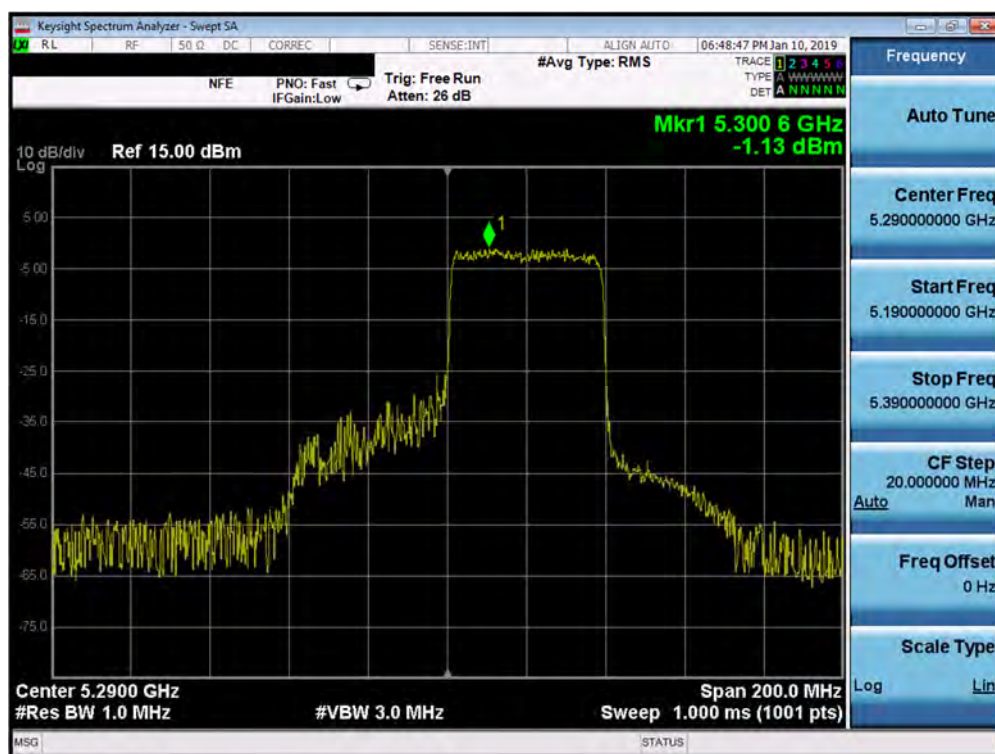


Plot 7-349. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 54)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 248 of 516

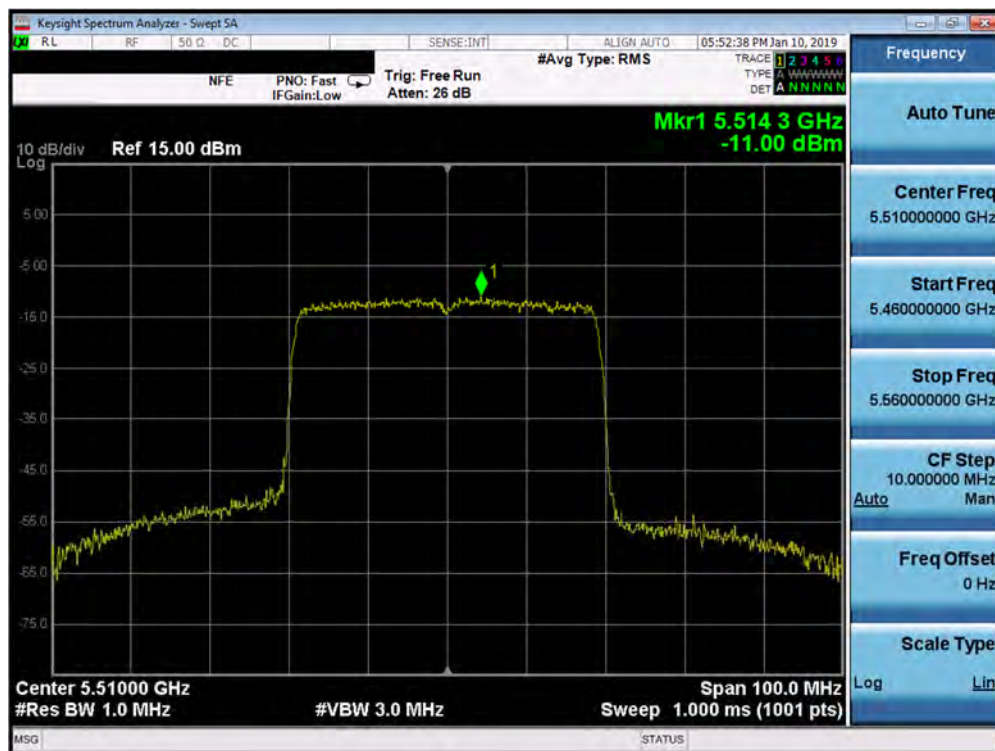


Plot 7-350. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 62)

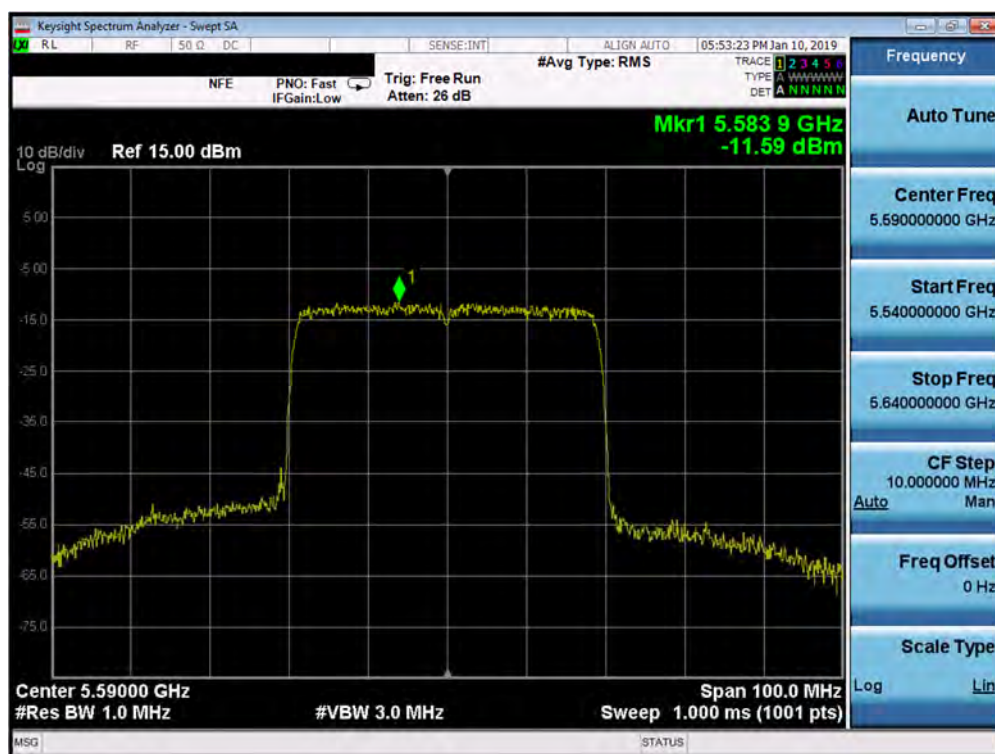


Plot 7-351. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 249 of 516

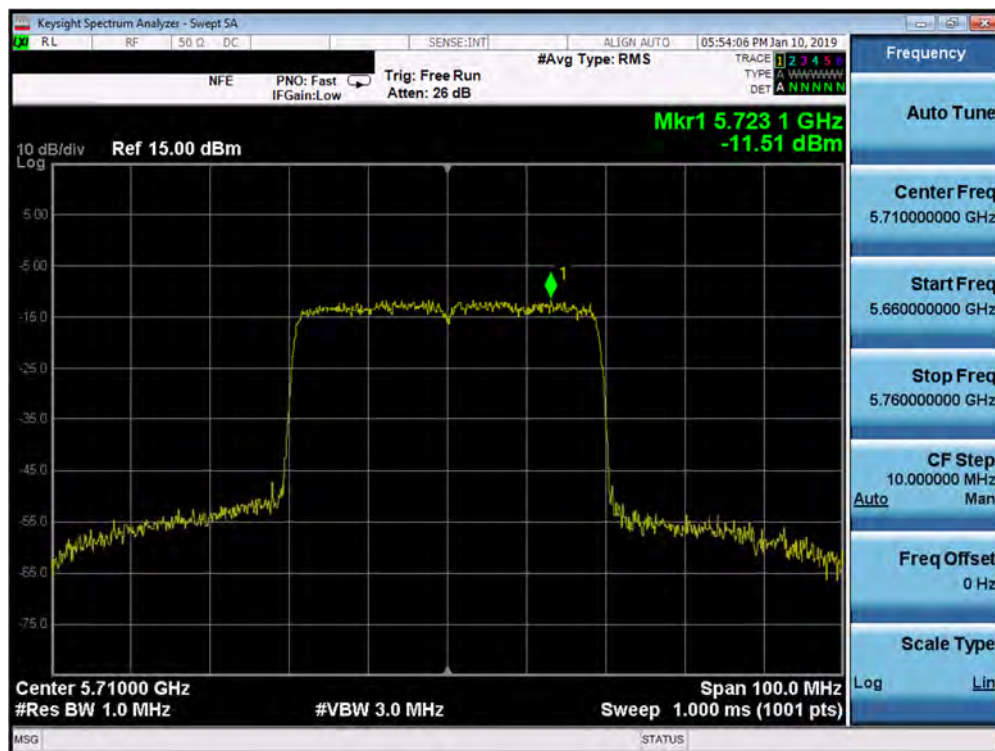


Plot 7-352. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 102)

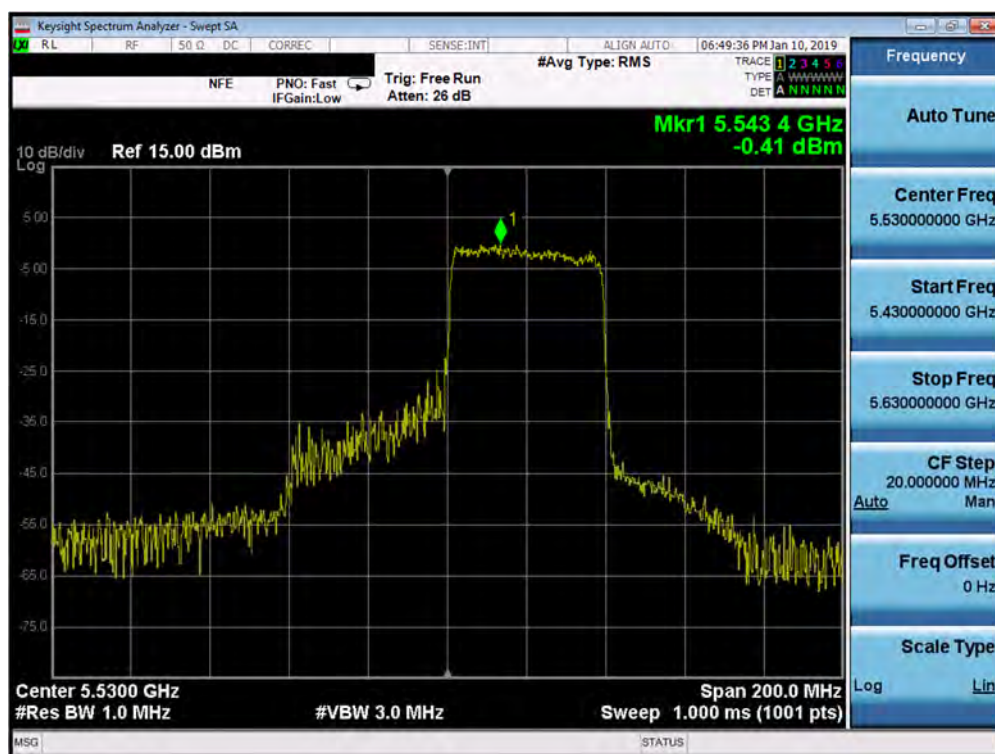


Plot 7-353. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 250 of 516

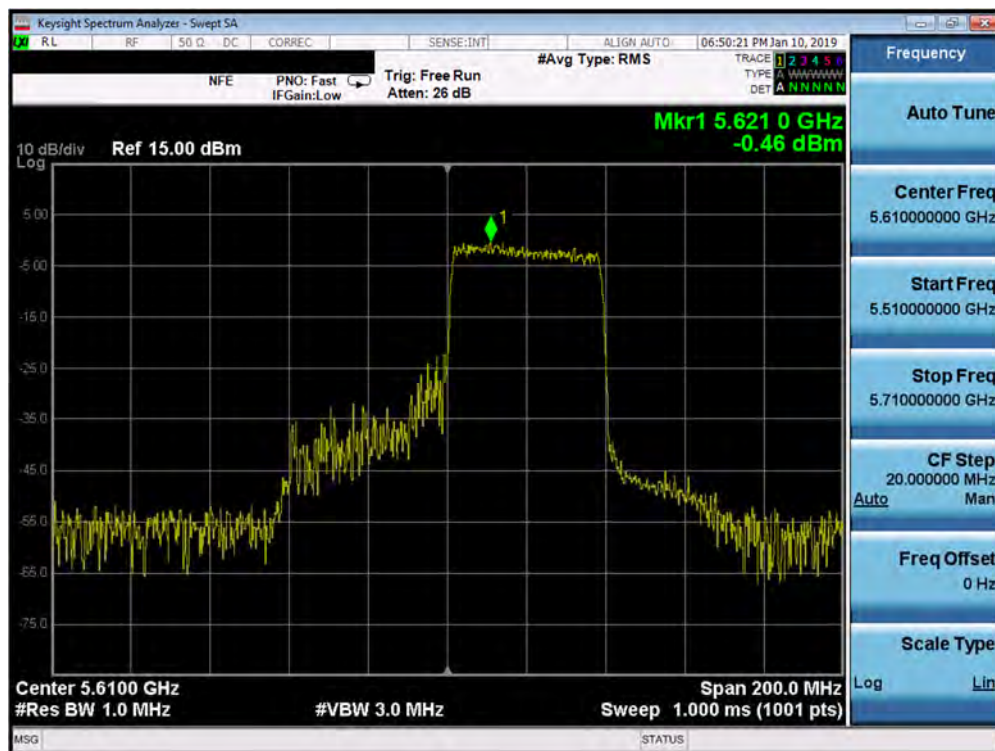


Plot 7-354. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 142)

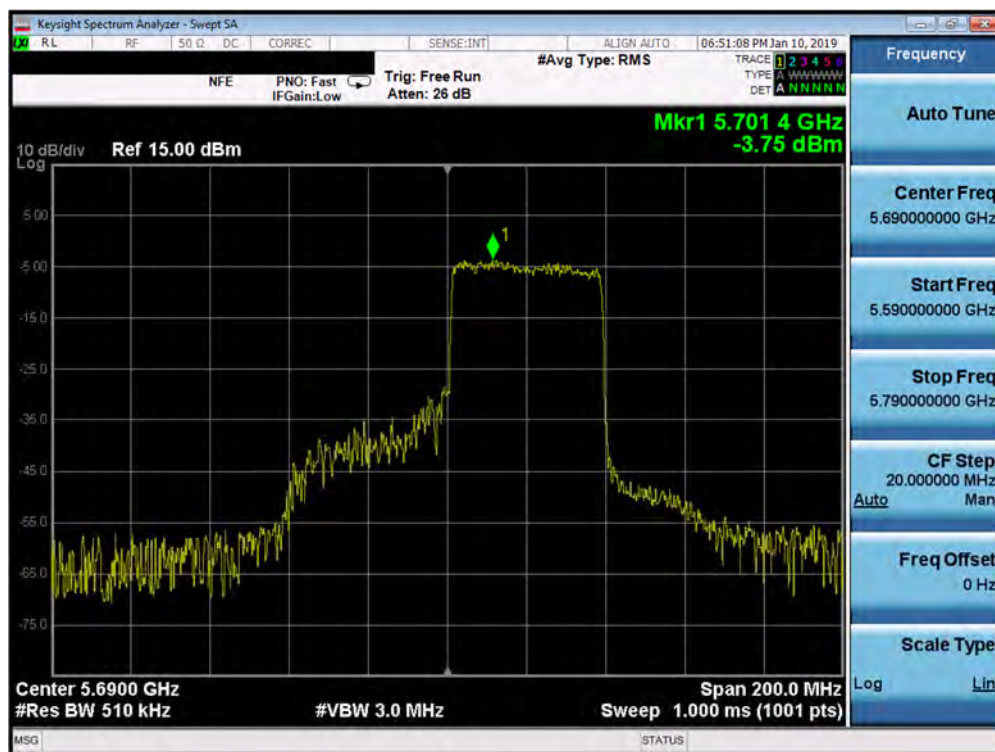


Plot 7-355. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 251 of 516

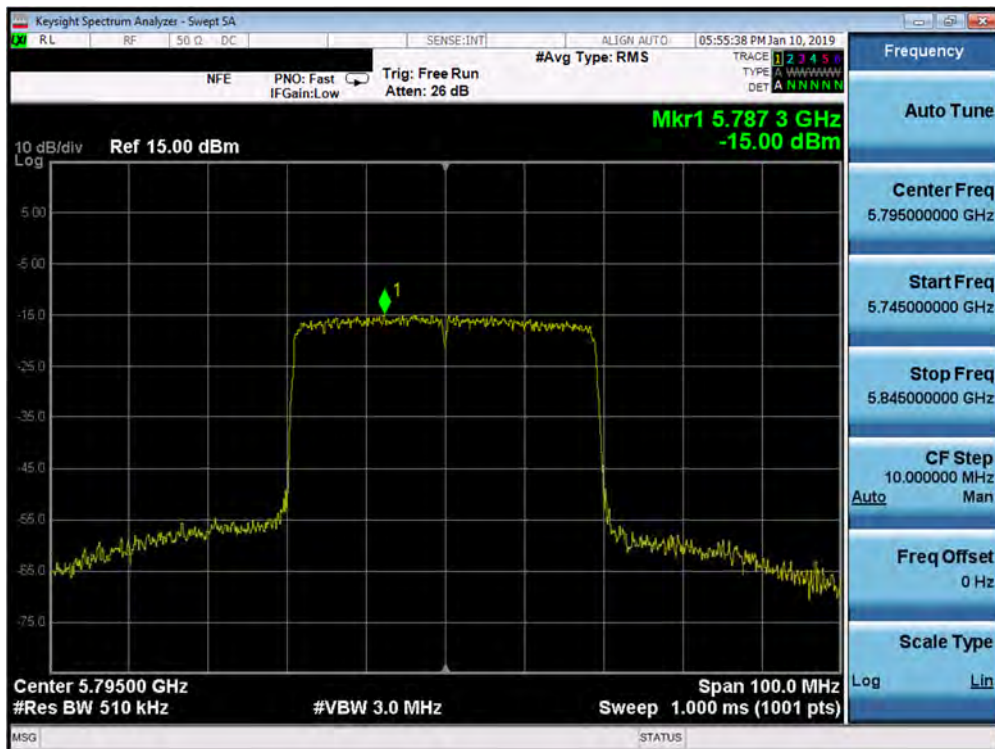


Plot 7-356. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 122)

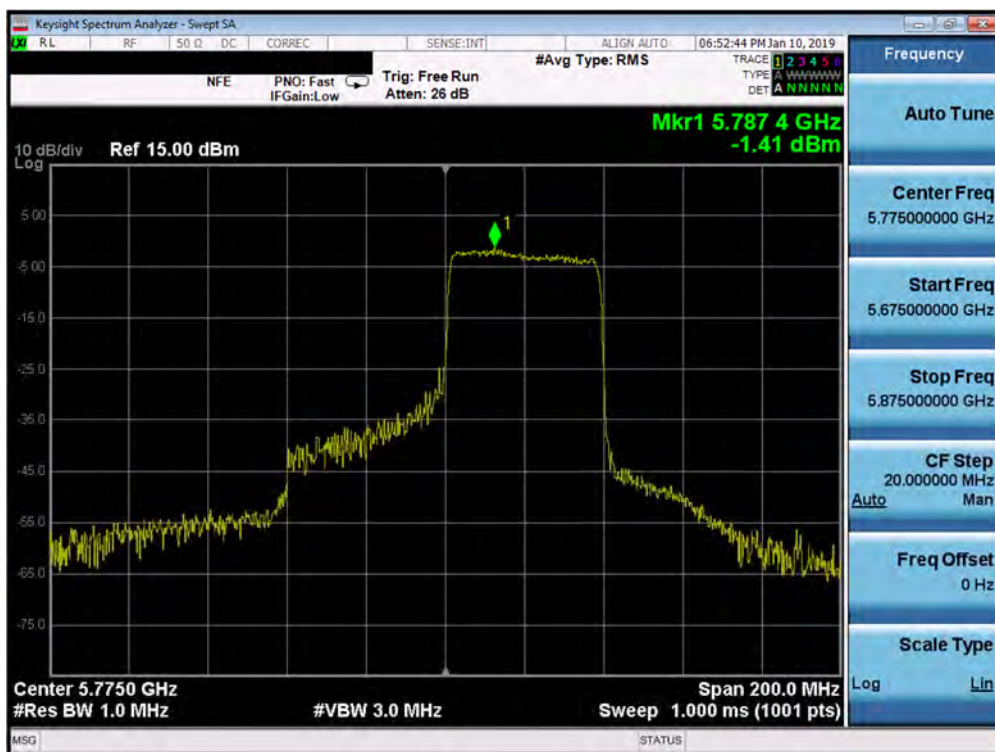


Plot 7-357. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 252 of 516



Plot 7-359. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 159)



Plot 7-360. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 254 of 516

SISO Antenna-2 Power Spectral Density Measurements (996 Tones)

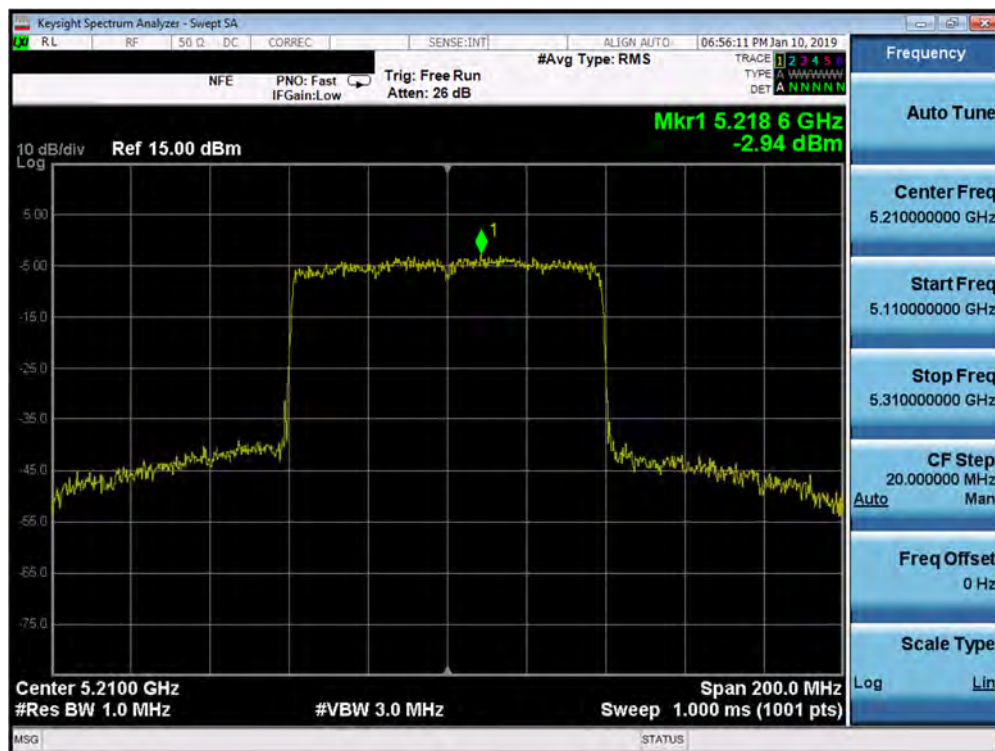
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5210	42	ax (80MHz)	996T	MCS0	-2.94	11.0	-13.94
Band 2A	5290	58	ax (80MHz)	996T	MCS0	-3.67	11.0	-14.67
Band 2C	5530	106	ax (80MHz)	996T	MCS0	-3.03	11.0	-14.03
	5610	122	ax (80MHz)	996T	MCS0	-3.16	11.0	-14.16
	5690	138	ax (80MHz)	996T	MCS0	-5.18	11.0	-16.18

Table 7-96. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT2 (996 Tones)

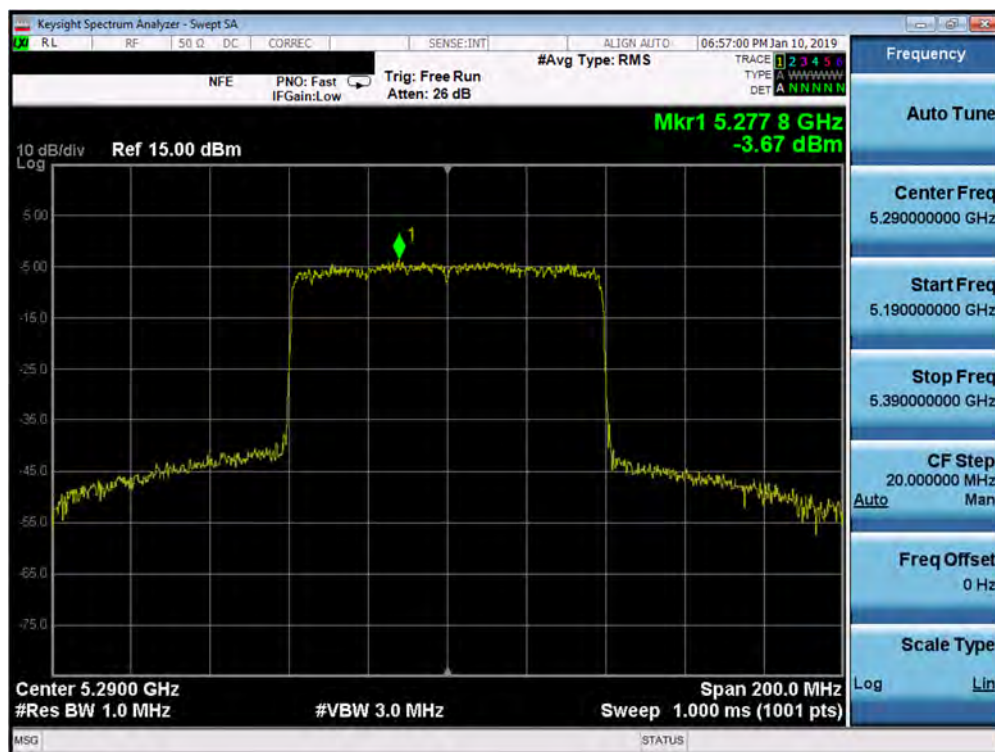
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power	Margin [dB]
Band 1	5210	42	ax (80MHz)	996T	MCS0	-2.94	-8.34	-11.28	10.0	-21.28

Table 7-97. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 996 Tones)

FCC ID: A3LSMG9750		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 255 of 516

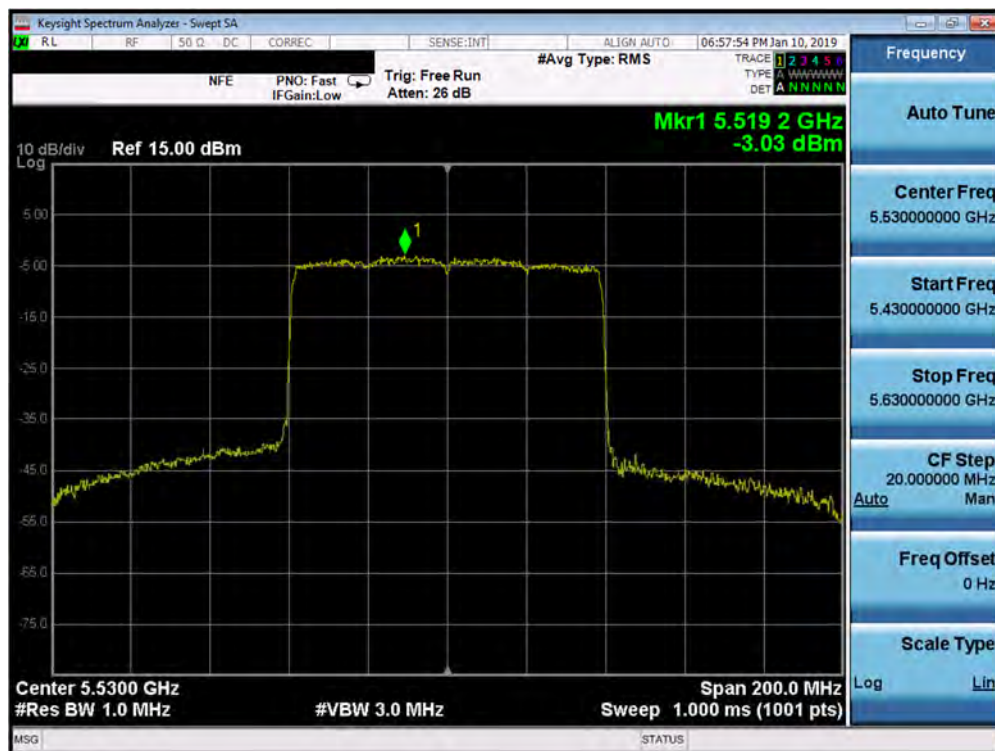


Plot 7-361. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 1) – Ch. 42)



Plot 7-362. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 256 of 516

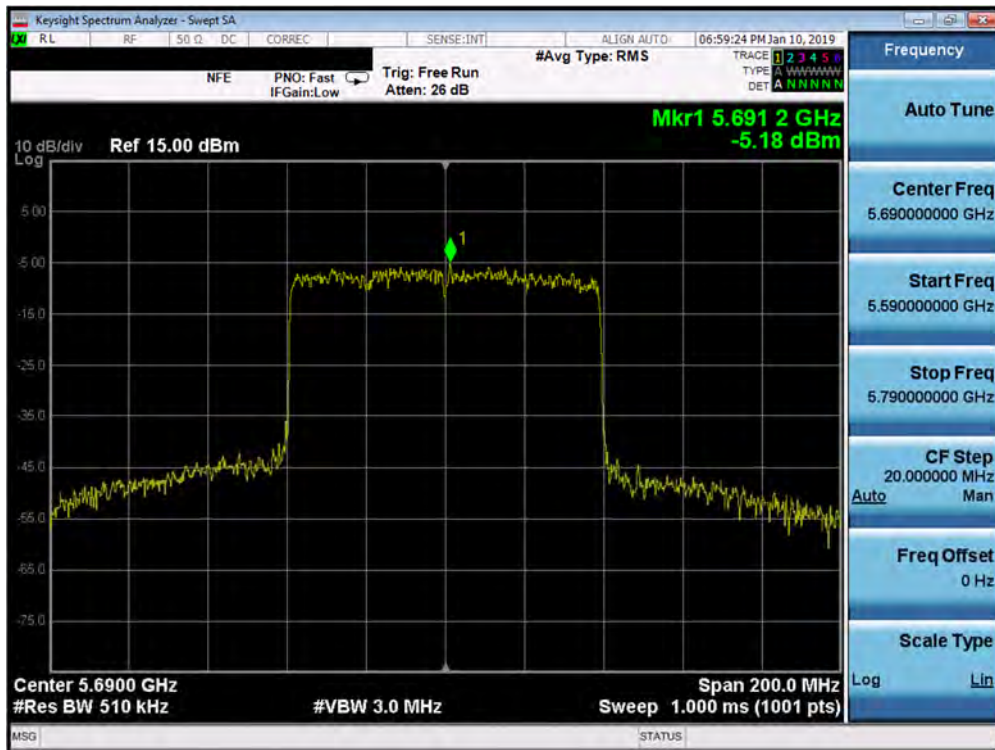


Plot 7-363. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 106)



Plot 7-364. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 122)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 257 of 516



	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5775	155	ax (80MHz)	996T	MCS0	-3.37	30.0	-33.37

Table 7-98. Band 3 Conducted Power Spectral Density Measurements SISO ANT2 (996 Tones)



Plot 7-366. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 996 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 259 of 516

MIMO Power Spectral Density Measurements (26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	26T	MCS0	5.39	6.05	8.74	11.0	-2.26
	5200	40	ax (20MHz)	26T	MCS0	5.63	6.05	8.86	11.0	-2.14
	5240	48	ax (20MHz)	26T	MCS0	5.30	5.97	8.66	11.0	-2.34
	5190	38	ax (40MHz)	26T	MCS0	5.11	6.32	8.77	11.0	-2.23
	5230	46	ax (40MHz)	26T	MCS0	5.36	6.59	9.03	11.0	-1.97
	5210	42	ax (80MHz)	26T	MCS0	5.60	6.19	8.92	11.0	-2.08
Band 2A	5260	52	ax (20MHz)	26T	MCS0	6.02	6.01	9.03	11.0	-1.97
	5280	56	ax (20MHz)	26T	MCS0	5.51	6.16	8.86	11.0	-2.14
	5320	64	ax (20MHz)	26T	MCS0	6.02	5.63	8.84	11.0	-2.16
	5270	54	ax (40MHz)	26T	MCS0	5.70	5.83	8.78	11.0	-2.22
	5310	62	ax (40MHz)	26T	MCS0	6.05	6.10	9.09	11.0	-1.91
	5290	58	ax (80MHz)	26T	MCS0	5.87	6.19	9.04	11.0	-1.96
Band 2C	5500	100	ax (20MHz)	26T	MCS0	4.98	4.82	7.91	11.0	-3.09
	5600	120	ax (20MHz)	26T	MCS0	5.22	4.32	7.80	11.0	-3.20
	5720	144	ax (20MHz)	26T	MCS0	5.50	4.14	7.88	11.0	-3.12
	5510	102	ax (40MHz)	26T	MCS0	5.92	5.63	8.79	11.0	-2.21
	5590	118	ax (40MHz)	26T	MCS0	6.31	6.15	9.24	11.0	-1.76
	5710	142	ax (40MHz)	26T	MCS0	6.45	5.35	8.95	11.0	-2.05
	5530	106	ax (80MHz)	26T	MCS0	6.00	5.19	8.62	11.0	-2.38
	5610	122	ax (80MHz)	26T	MCS0	6.16	5.72	8.96	11.0	-2.04
	5690	138	ax (80MHz)	26T	MCS0	3.06	4.99	7.14	11.0	-3.86

Table 7-99. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements MIMO (26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	26T	MCS0	5.39	6.05	8.74	-3.91	4.83	10.0	-5.17
	5200	40	ax (20MHz)	26T	MCS0	5.63	6.05	8.86	-3.97	4.89	10.0	-5.11
	5240	48	ax (20MHz)	26T	MCS0	5.30	5.97	8.66	-3.83	4.83	10.0	-5.17
	5190	38	ax (40MHz)	26T	MCS0	5.11	6.32	8.77	-3.91	4.86	10.0	-5.14
	5230	46	ax (40MHz)	26T	MCS0	5.36	6.59	9.03	-3.97	5.06	10.0	-4.94
	5210	42	ax (80MHz)	26T	MCS0	5.60	6.19	8.92	-3.83	5.09	10.0	-4.91

Table 7-100. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	ax (20MHz)	26T	MCS0	2.50	2.69	5.61	30.0	-24.39
	5785	157	ax (20MHz)	26T	MCS0	3.14	2.67	5.92	30.0	-24.08
	5825	165	ax (20MHz)	26T	MCS0	3.41	2.16	5.84	30.0	-24.16
	5755	151	ax (40MHz)	26T	MCS0	3.54	3.20	6.38	30.0	-23.62
	5795	159	ax (40MHz)	26T	MCS0	3.37	2.90	6.15	30.0	-23.85
	5775	155	ax (80MHz)	26T	MCS0	4.96	4.43	7.71	30.0	-22.29

Table 7-101. Bands 3 Conducted Power Spectral Density Measurements MIMO (26 Tones)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 260 of 516

MIMO Power Spectral Density Measurements (52 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	52T	MCS0	4.58	5.42	8.03	11.0	-2.97
	5200	40	ax (20MHz)	52T	MCS0	4.68	5.35	8.04	11.0	-2.96
	5240	48	ax (20MHz)	52T	MCS0	4.59	5.27	7.95	11.0	-3.05
	5190	38	ax (40MHz)	52T	MCS0	3.90	4.42	7.18	11.0	-3.82
	5230	46	ax (40MHz)	52T	MCS0	3.85	4.52	7.21	11.0	-3.79
	5210	42	ax (80MHz)	52T	MCS0	3.23	3.83	6.55	11.0	-4.45
Band 2A	5260	52	ax (20MHz)	52T	MCS0	4.74	5.25	8.01	11.0	-2.99
	5280	56	ax (20MHz)	52T	MCS0	5.29	4.93	8.12	11.0	-2.88
	5320	64	ax (20MHz)	52T	MCS0	5.08	4.95	8.03	11.0	-2.97
	5270	54	ax (40MHz)	52T	MCS0	4.20	4.26	7.24	11.0	-3.76
	5310	62	ax (40MHz)	52T	MCS0	4.03	4.47	7.27	11.0	-3.73
	5290	58	ax (80MHz)	52T	MCS0	3.23	3.17	6.21	11.0	-4.79
Band 2C	5500	100	ax (20MHz)	52T	MCS0	4.93	4.52	7.74	11.0	-3.26
	5600	120	ax (20MHz)	52T	MCS0	5.41	4.26	7.88	11.0	-3.12
	5720	144	ax (20MHz)	52T	MCS0	5.42	4.50	7.99	11.0	-3.01
	5510	102	ax (40MHz)	52T	MCS0	4.39	3.48	6.97	11.0	-4.03
	5590	118	ax (40MHz)	52T	MCS0	4.30	3.80	7.07	11.0	-3.93
	5710	142	ax (40MHz)	52T	MCS0	4.44	3.29	6.91	11.0	-4.09
	5530	106	ax (80MHz)	52T	MCS0	3.12	2.33	5.75	11.0	-5.25
	5610	122	ax (80MHz)	52T	MCS0	3.13	2.40	5.79	11.0	-5.21
	5690	138	ax (80MHz)	52T	MCS0	0.69	2.49	4.69	11.0	-6.31

Table 7-102. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements MIMO (52 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	52T	MCS0	4.58	5.42	8.03	-3.91	4.12	10.0	-5.88
	5200	40	ax (20MHz)	52T	MCS0	4.68	5.35	8.04	-3.97	4.07	10.0	-5.93
	5240	48	ax (20MHz)	52T	MCS0	4.59	5.27	7.95	-3.83	4.13	10.0	-5.87
	5190	38	ax (40MHz)	52T	MCS0	3.90	4.42	7.18	-3.91	3.27	10.0	-6.73
	5230	46	ax (40MHz)	52T	MCS0	3.85	4.52	7.21	-3.97	3.24	10.0	-6.76
	5210	42	ax (80MHz)	52T	MCS0	3.23	3.83	6.55	-3.83	2.72	10.0	-7.28

Table 7-103. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 52 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	ax (20MHz)	26T	MCS0	2.46	1.64	5.08	30.0	-24.92
	5785	157	ax (20MHz)	26T	MCS0	2.63	1.93	5.30	30.0	-24.70
	5825	165	ax (20MHz)	26T	MCS0	2.34	1.37	4.89	30.0	-25.11
	5755	151	ax (40MHz)	26T	MCS0	1.32	1.00	4.17	30.0	-25.83
	5795	159	ax (40MHz)	26T	MCS0	1.68	0.95	4.34	30.0	-25.66
	5775	155	ax (80MHz)	26T	MCS0	3.31	2.90	6.12	30.0	-23.88

Table 7-104. Bands 3 Conducted Power Spectral Density Measurements MIMO (52 Tones)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 261 of 516

MIMO Power Spectral Density Measurements (106 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	106T	MCS0	3.91	4.02	6.98	11.0	-4.02
	5200	40	ax (20MHz)	106T	MCS0	3.50	4.11	6.83	11.0	-4.17
	5240	48	ax (20MHz)	106T	MCS0	3.72	4.25	7.00	11.0	-4.00
	5190	38	ax (40MHz)	106T	MCS0	1.82	2.38	5.12	11.0	-5.88
	5230	46	ax (40MHz)	106T	MCS0	1.72	2.81	5.31	11.0	-5.69
Band 2A	5210	42	ax (80MHz)	106T	MCS0	0.61	0.97	3.80	11.0	-7.20
	5260	52	ax (20MHz)	106T	MCS0	3.64	3.88	6.77	11.0	-4.23
	5280	56	ax (20MHz)	106T	MCS0	4.22	4.21	7.23	11.0	-3.77
	5320	64	ax (20MHz)	106T	MCS0	4.13	3.96	7.06	11.0	-3.94
	5270	54	ax (40MHz)	106T	MCS0	1.94	2.18	5.07	11.0	-5.93
Band 2C	5310	62	ax (40MHz)	106T	MCS0	1.99	2.12	5.07	11.0	-5.93
	5290	58	ax (80MHz)	106T	MCS0	1.06	1.45	4.27	11.0	-6.73
	5500	100	ax (20MHz)	106T	MCS0	3.73	3.24	6.50	11.0	-4.50
	5600	120	ax (20MHz)	106T	MCS0	4.18	3.11	6.69	11.0	-4.31
	5720	144	ax (20MHz)	106T	MCS0	4.50	3.18	6.90	11.0	-4.10
	5510	102	ax (40MHz)	106T	MCS0	2.39	1.87	5.15	11.0	-5.85
	5590	118	ax (40MHz)	106T	MCS0	2.17	2.01	5.10	11.0	-5.90
	5710	142	ax (40MHz)	106T	MCS0	3.08	1.61	5.42	11.0	-5.58
	5530	106	ax (80MHz)	106T	MCS0	0.94	0.21	3.60	11.0	-7.40
	5610	122	ax (80MHz)	106T	MCS0	1.07	0.04	3.60	11.0	-7.40
	5690	138	ax (80MHz)	106T	MCS0	-1.76	-0.17	2.12	11.0	-8.88

Table 7-105. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements MIMO (106 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	106T	MCS0	3.91	4.02	6.98	-3.91	3.07	10.0	-6.93
	5200	40	ax (20MHz)	106T	MCS0	3.50	4.11	6.83	-3.97	2.86	10.0	-7.14
	5240	48	ax (20MHz)	106T	MCS0	3.72	4.25	7.00	-3.83	3.18	10.0	-6.82
	5190	38	ax (40MHz)	106T	MCS0	1.82	2.38	5.12	-3.91	1.21	10.0	-8.79
	5230	46	ax (40MHz)	106T	MCS0	1.72	2.81	5.31	-3.97	1.34	10.0	-8.66
	5210	42	ax (80MHz)	106T	MCS0	0.61	0.97	3.80	-3.83	-0.02	10.0	-10.02

Table 7-106. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 106 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	ax (20MHz)	106T	MCS0	1.19	0.63	3.93	30.0	-26.07
	5785	157	ax (20MHz)	106T	MCS0	1.79	0.91	4.38	30.0	-25.62
	5825	165	ax (20MHz)	106T	MCS0	1.33	0.24	3.83	30.0	-26.17
	5755	151	ax (40MHz)	106T	MCS0	-0.54	-1.08	2.21	30.0	-27.79
	5795	159	ax (40MHz)	106T	MCS0	-0.32	-0.90	2.41	30.0	-27.59
	5775	155	ax (80MHz)	106T	MCS0	1.59	0.59	4.13	30.0	-25.87

Table 7-107. Bands 3 Conducted Power Spectral Density Measurements MIMO (106 Tones)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 262 of 516

MIMO Power Spectral Density Measurements (242 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	242T	MCS0	1.03	1.49	4.28	11.0	-6.72
	5200	40	ax (20MHz)	242T	MCS0	1.16	1.68	4.44	11.0	-6.56
	5240	48	ax (20MHz)	242T	MCS0	1.12	2.29	4.75	11.0	-6.25
	5190	38	ax (40MHz)	242T	MCS0	-0.38	0.26	2.96	11.0	-8.04
	5230	46	ax (40MHz)	242T	MCS0	-0.66	0.35	2.88	11.0	-8.12
Band 2A	5210	42	ax (80MHz)	242T	MCS0	-1.55	-1.04	1.72	11.0	-9.28
	5260	52	ax (20MHz)	242T	MCS0	1.32	1.44	4.39	11.0	-6.61
	5280	56	ax (20MHz)	242T	MCS0	1.28	1.48	4.39	11.0	-6.61
	5320	64	ax (20MHz)	242T	MCS0	1.39	1.79	4.60	11.0	-6.40
	5270	54	ax (40MHz)	242T	MCS0	0.06	-0.29	2.90	11.0	-8.10
Band 2C	5310	62	ax (40MHz)	242T	MCS0	-0.27	0.25	3.01	11.0	-7.99
	5290	58	ax (80MHz)	242T	MCS0	-1.33	-1.09	1.80	11.0	-9.20
	5500	100	ax (20MHz)	242T	MCS0	1.33	0.79	4.08	11.0	-6.92
	5600	120	ax (20MHz)	242T	MCS0	1.52	0.99	4.27	11.0	-6.73
	5720	144	ax (20MHz)	242T	MCS0	1.56	0.72	4.17	11.0	-6.83
	5510	102	ax (40MHz)	242T	MCS0	-0.51	-0.40	2.56	11.0	-8.44
	5590	118	ax (40MHz)	242T	MCS0	-0.35	-0.72	2.48	11.0	-8.52
	5710	142	ax (40MHz)	242T	MCS0	-0.03	-0.62	2.70	11.0	-8.30
	5530	106	ax (80MHz)	242T	MCS0	-1.03	-2.01	1.52	11.0	-9.48
	5610	122	ax (80MHz)	242T	MCS0	-1.21	-2.02	1.41	11.0	-9.59
	5690	138	ax (80MHz)	242T	MCS0	-1.06	-2.22	1.41	11.0	-9.59

Table 7-108. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements MIMO (242 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	ax (20MHz)	242T	MCS0	1.03	1.49	4.28	-3.91	0.37	10.0	-9.63
	5200	40	ax (20MHz)	242T	MCS0	1.16	1.68	4.44	-3.97	0.47	10.0	-9.53
	5240	48	ax (20MHz)	242T	MCS0	1.12	2.29	4.75	-3.83	0.93	10.0	-9.07
	5190	38	ax (40MHz)	242T	MCS0	-0.38	0.26	2.96	-3.91	-0.95	10.0	-10.95
	5230	46	ax (40MHz)	242T	MCS0	-0.66	0.35	2.88	-3.97	-1.08	10.0	-11.08
	5210	42	ax (80MHz)	242T	MCS0	-1.55	-1.04	1.72	-3.83	-2.10	10.0	-12.10

Table 7-109. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 242 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	ax (20MHz)	242T	MCS0	-1.34	-1.68	1.50	30.0	-28.50
	5785	157	ax (20MHz)	242T	MCS0	-0.97	-1.92	1.59	30.0	-28.41
	5825	165	ax (20MHz)	242T	MCS0	-0.95	-2.00	1.57	30.0	-28.43
	5755	151	ax (40MHz)	242T	MCS0	-2.86	-3.46	-0.14	30.0	-30.14
	5795	159	ax (40MHz)	242T	MCS0	-2.79	-3.49	-0.12	30.0	-30.12
	5775	155	ax (80MHz)	242T	MCS0	-1.17	-1.94	1.47	30.0	-28.53

Table 7-110. Bands 3 Conducted Power Spectral Density Measurements MIMO (242 Tones)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 263 of 516

MIMO Power Spectral Density Measurements (484 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5190	38	ax (40MHz)	484T	MCS0	-3.71	-3.08	-0.37	11.0	-11.37
	5230	46	ax (40MHz)	484T	MCS0	-3.31	-2.99	-0.14	11.0	-11.14
	5210	42	ax (80MHz)	484T	MCS0	-4.47	-3.76	-1.09	11.0	-12.09
Band 2A	5270	54	ax (40MHz)	484T	MCS0	-3.53	-3.11	-0.30	11.0	-11.30
	5310	62	ax (40MHz)	484T	MCS0	-3.40	-3.12	-0.25	11.0	-11.25
	5290	58	ax (80MHz)	484T	MCS0	-3.92	-3.75	-0.82	11.0	-11.82
Band 2C	5510	102	ax (40MHz)	484T	MCS0	-3.54	-3.59	-0.55	11.0	-11.55
	5590	118	ax (40MHz)	484T	MCS0	-3.17	-3.67	-0.40	11.0	-11.40
	5710	142	ax (40MHz)	484T	MCS0	-2.92	-3.97	-0.40	11.0	-11.40
	5530	106	ax (80MHz)	484T	MCS0	-4.30	-4.85	-1.56	11.0	-12.56
	5610	122	ax (80MHz)	484T	MCS0	-4.24	-4.98	-1.58	11.0	-12.58
	5690	138	ax (80MHz)	484T	MCS0	-4.01	-5.03	-1.48	11.0	-12.48

Table 7-111. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements MIMO (484 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
Band 1	5190	38	ax (40MHz)	484T	MCS0	-3.71	-3.08	-0.37	-3.91	-4.28	10.0	-14.28
	5230	46	ax (40MHz)	484T	MCS0	-3.31	-2.99	-0.14	-3.97	-4.10	10.0	-14.10
	5210	42	ax (80MHz)	484T	MCS0	-4.47	-3.76	-1.09	-3.83	-4.92	10.0	-14.92

Table 7-112. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 484 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5755	151	ax (40MHz)	484T	MCS0	-6.19	-6.45	-3.31	30.0	-33.31
	5795	159	ax (40MHz)	484T	MCS0	-6.07	-6.03	-3.04	30.0	-33.04
	5775	155	ax (80MHz)	484T	MCS0	-3.38	-4.05	-0.69	30.0	-30.69

Table 7-113. Bands 3 Conducted Power Spectral Density Measurements MIMO (484 Tones)

FCC ID: A3LSMG9750	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset	Page 264 of 516

MIMO Power Spectral Density Measurements (996 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5210	42	ax (80MHz)	996T	MCS0	-7.46	-7.18	-4.31	11.0	-15.31
Band 2A	5290	58	ax (80MHz)	996T	MCS0	-6.58	-7.12	-3.83	11.0	-14.83
Band 2C	5530	106	ax (80MHz)	996T	MCS0	-7.37	-7.69	-4.52	11.0	-15.52
	5610	122	ax (80MHz)	996T	MCS0	-7.34	-8.05	-4.67	11.0	-15.67
	5690	138	ax (80MHz)	996T	MCS0	-7.07	-7.74	-4.38	11.0	-15.38

Table 7-114. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements MIMO (996 Tones)

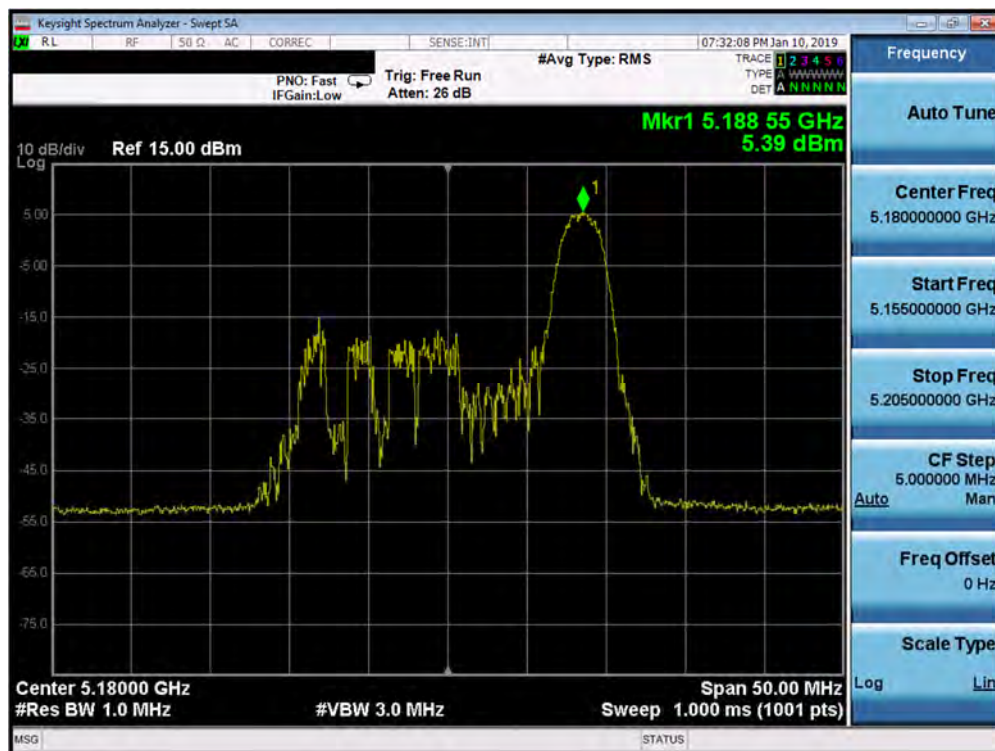
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Directional Antenna Gain [dBi]	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
Band 1	5210	42	ax (80MHz)	996T	MCS0	-7.46	-7.18	-4.31	-3.83	-8.13	10.0	-18.13

Table 7-115. Bands 1 e.i.r.p Conducted Power Spectral Density Measurements (ISED 996 Tones)

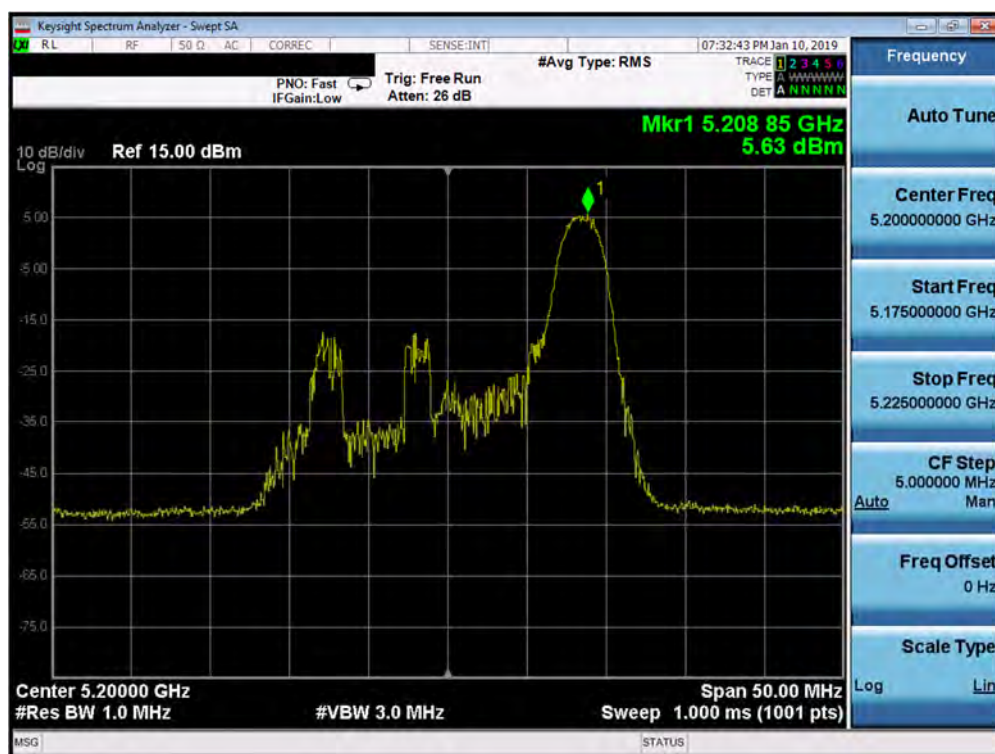
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5775	155	ax (80MHz)	996T	MCS0	-6.62	-7.40	-3.98	30.0	-33.98

Table 7-116. Bands 3 Conducted Power Spectral Density Measurements MIMO (996 Tones)

FCC ID: A3LSMG9750		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 265 of 516

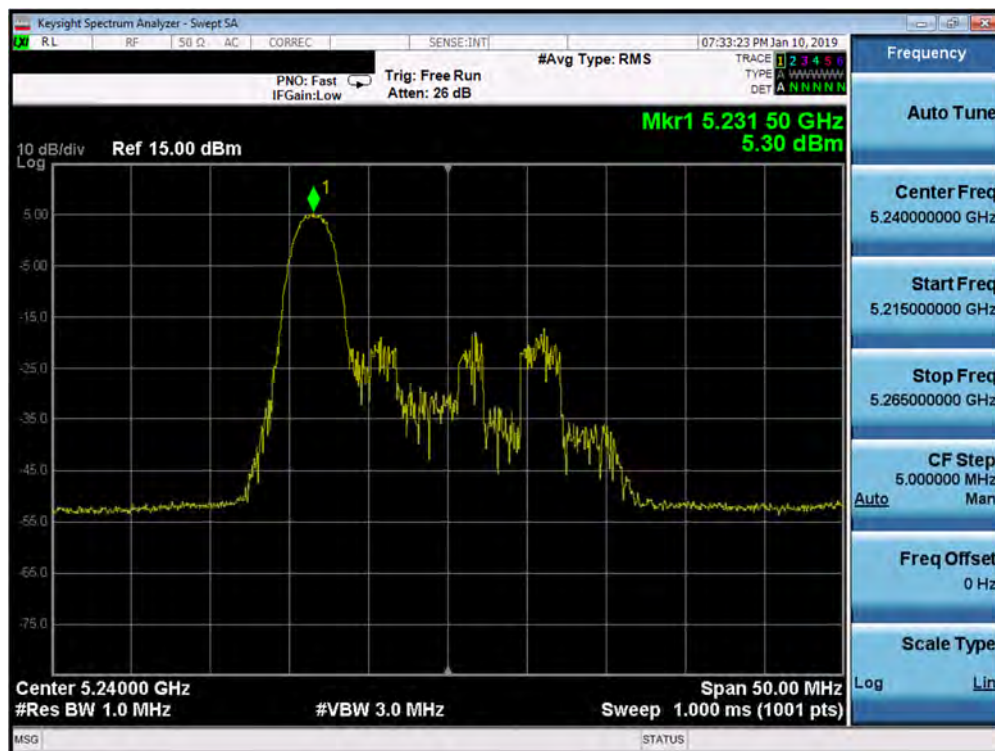


Plot 7-367. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 36)

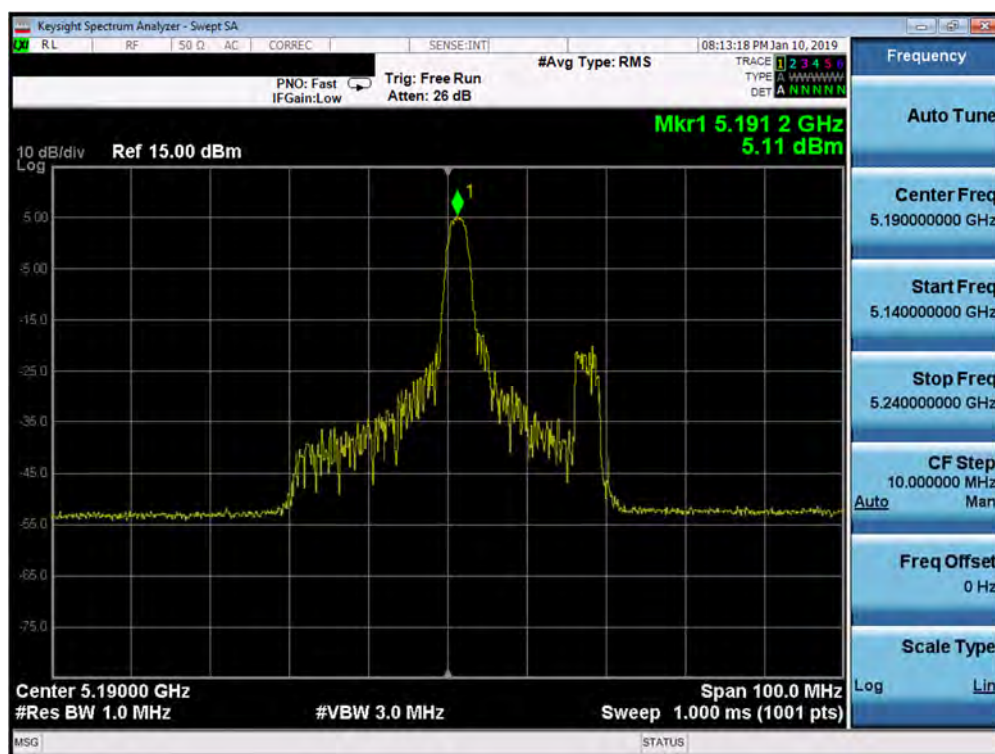


Plot 7-368. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 40)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 266 of 516

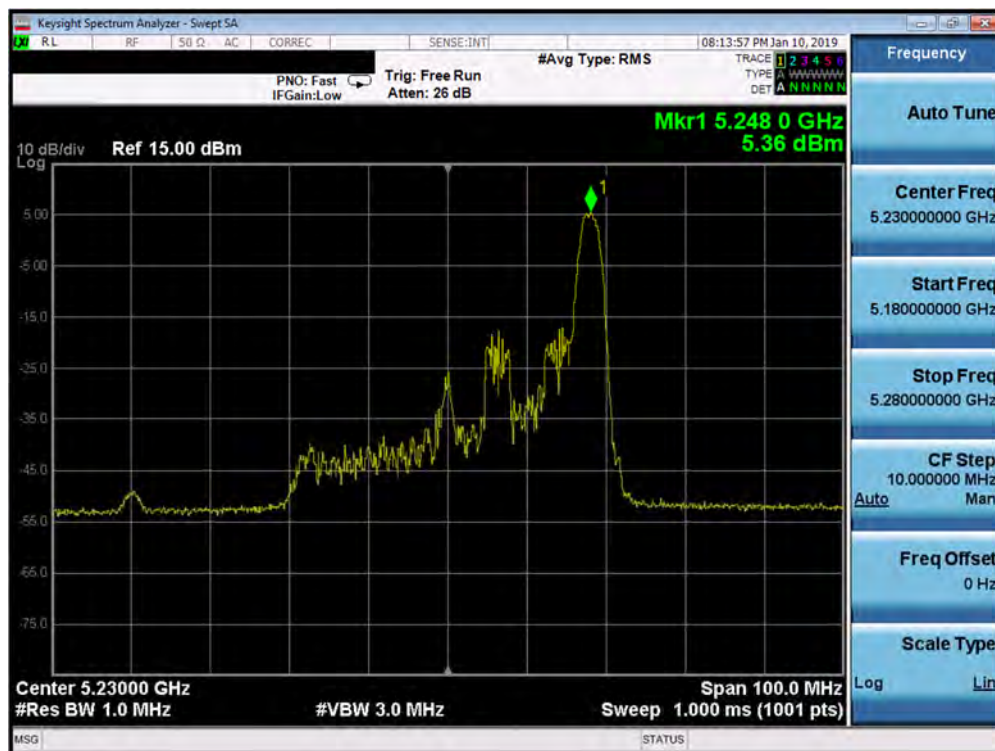


Plot 7-369. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 48)

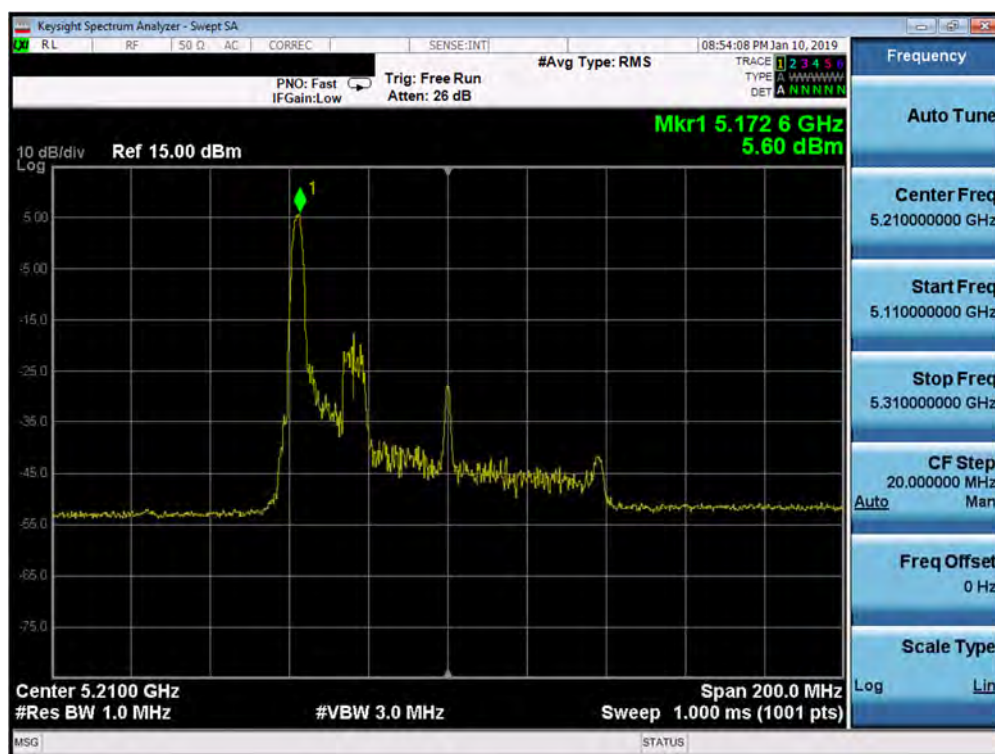


Plot 7-370. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 267 of 516

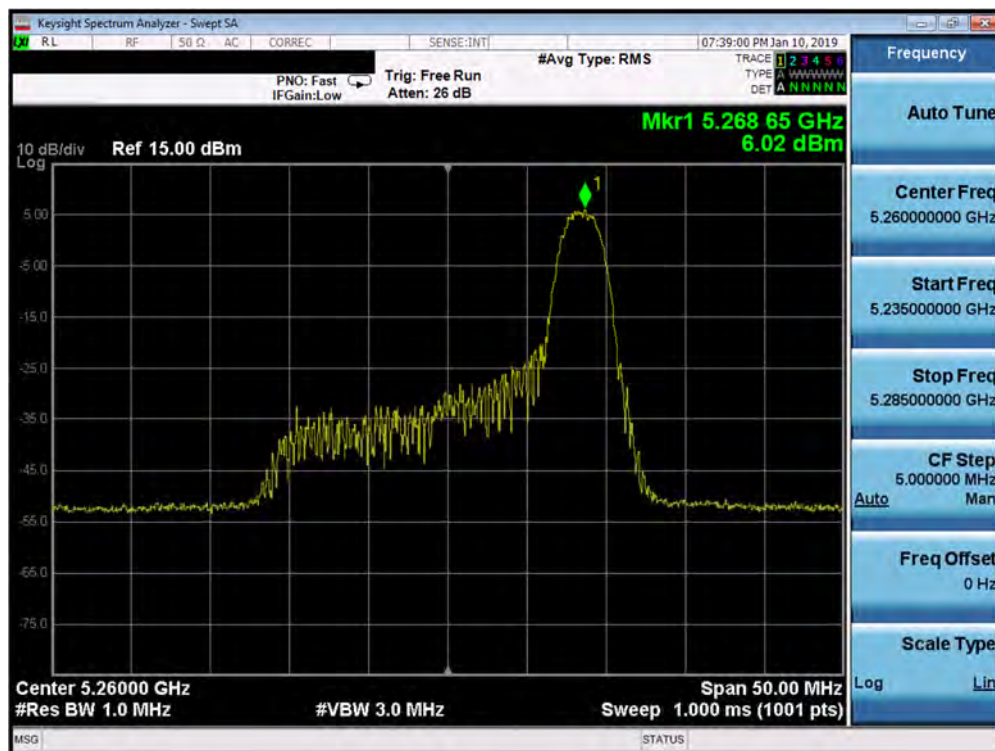


Plot 7-371. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 46)

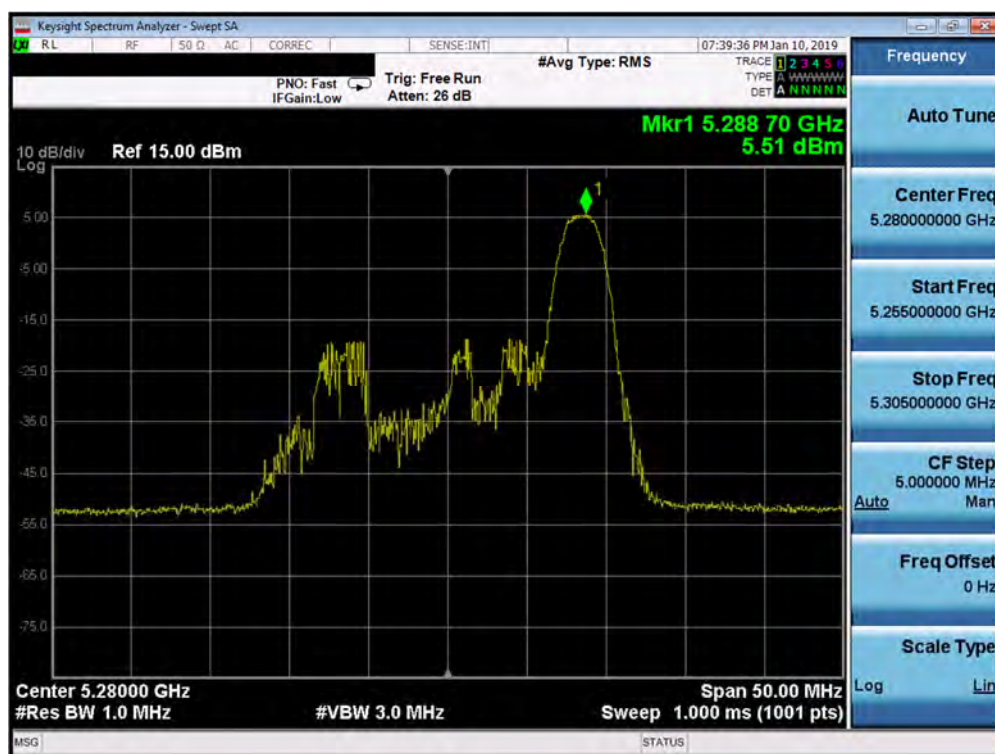


Plot 7-372. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 268 of 516



Plot 7-373. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 52)

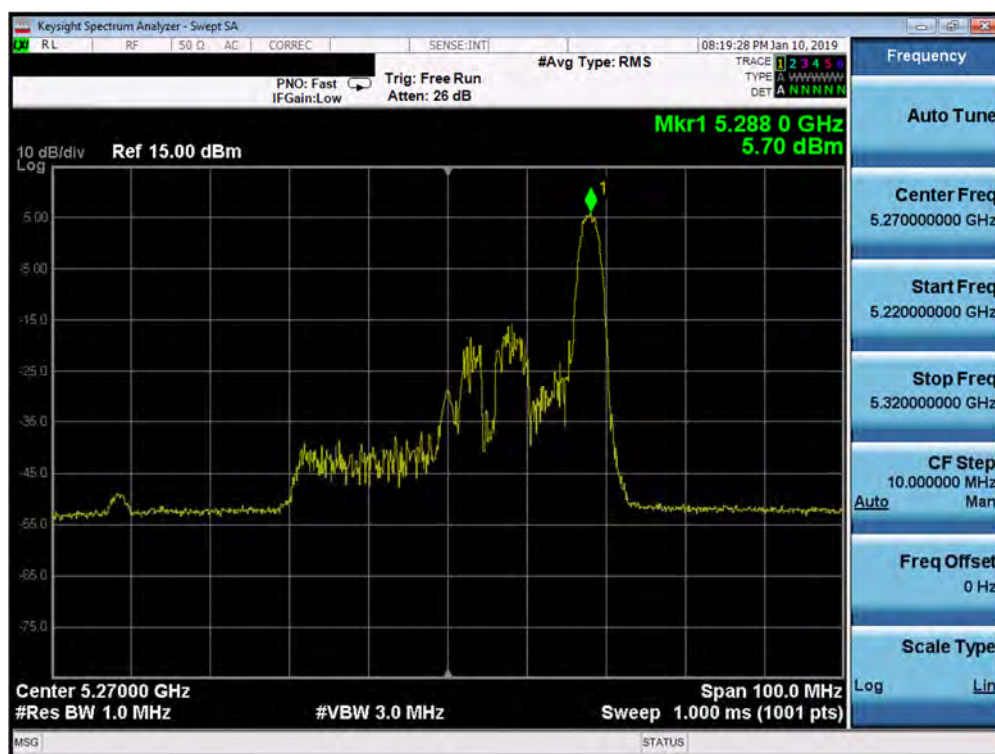


Plot 7-374. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 56)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 269 of 516

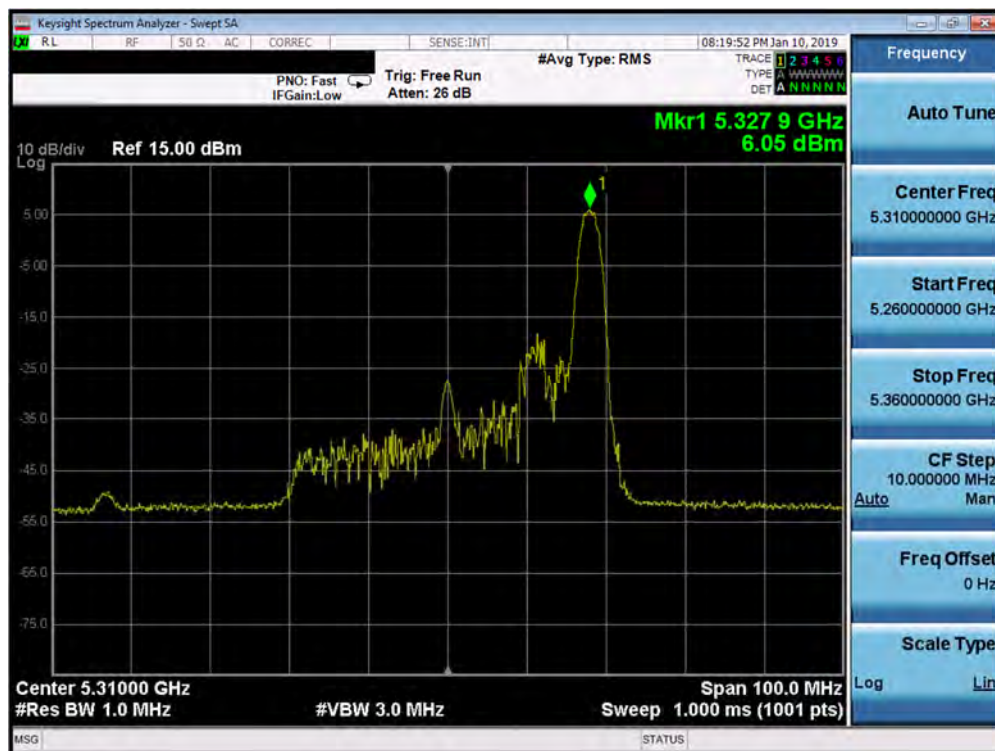


Plot 7-375. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 64)

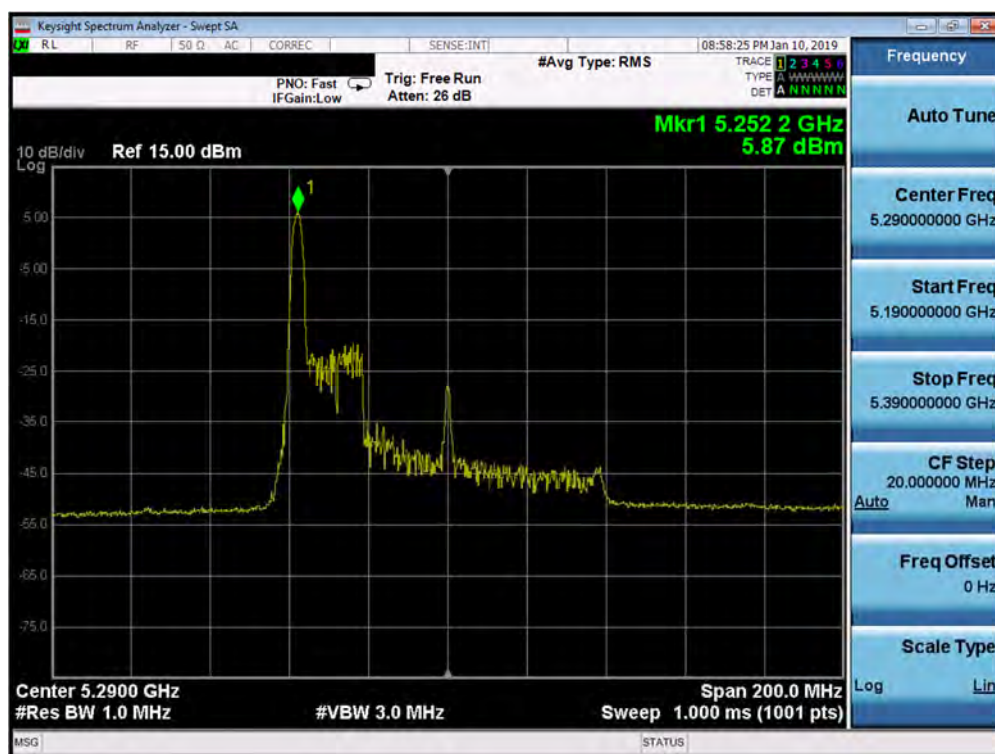


Plot 7-376. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 54)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 270 of 516

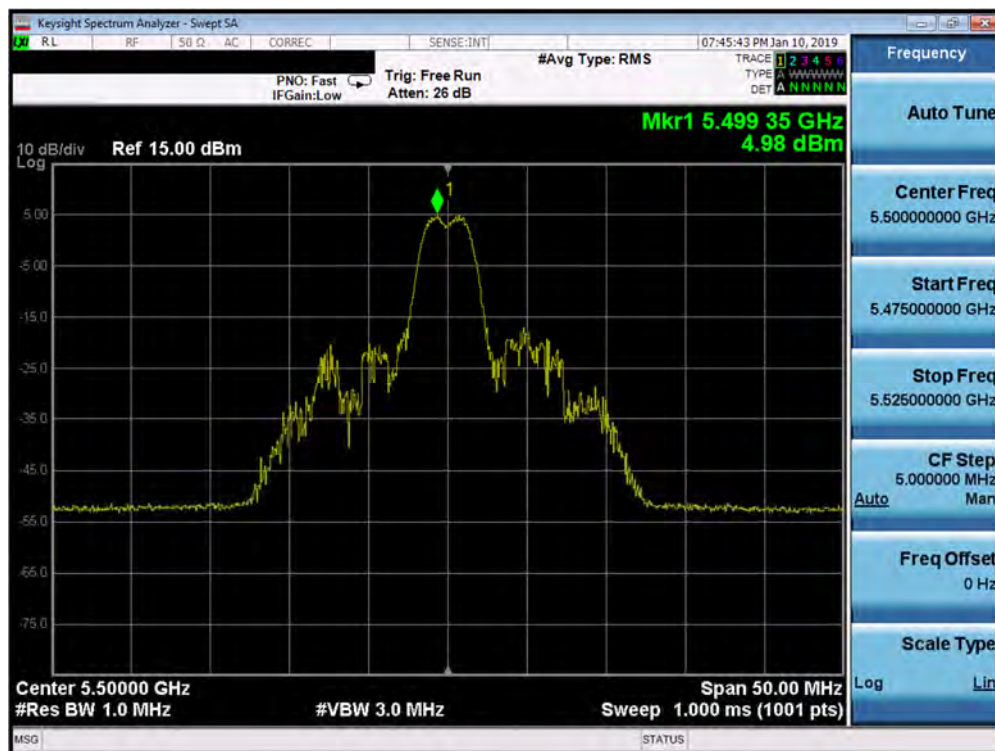


Plot 7-377. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 62)

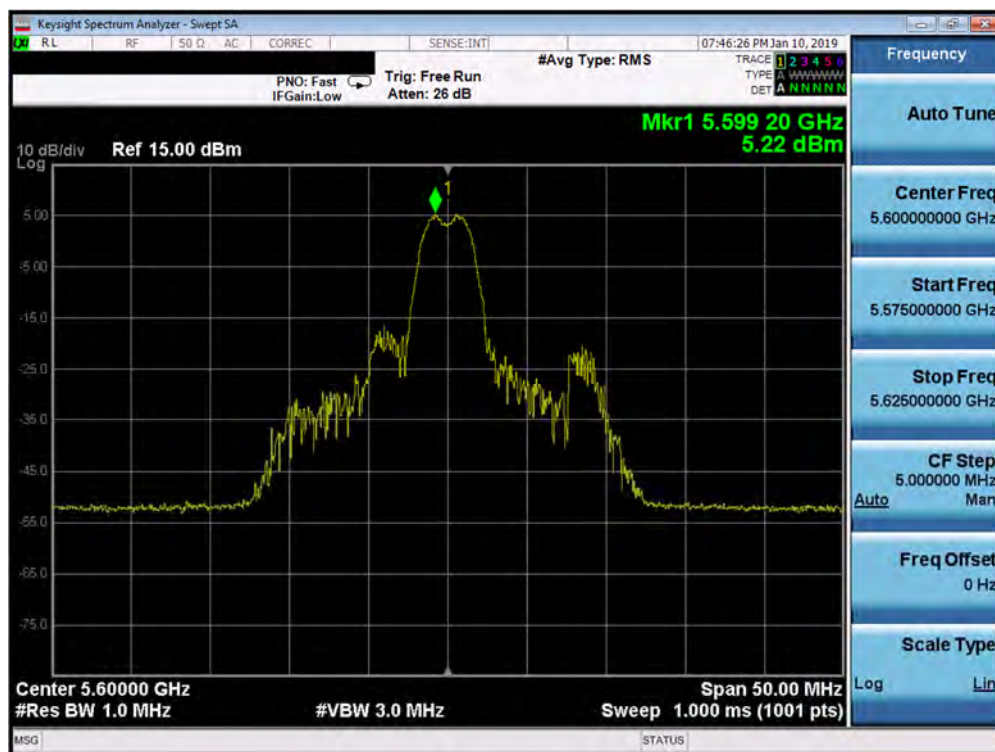


Plot 7-378. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 271 of 516

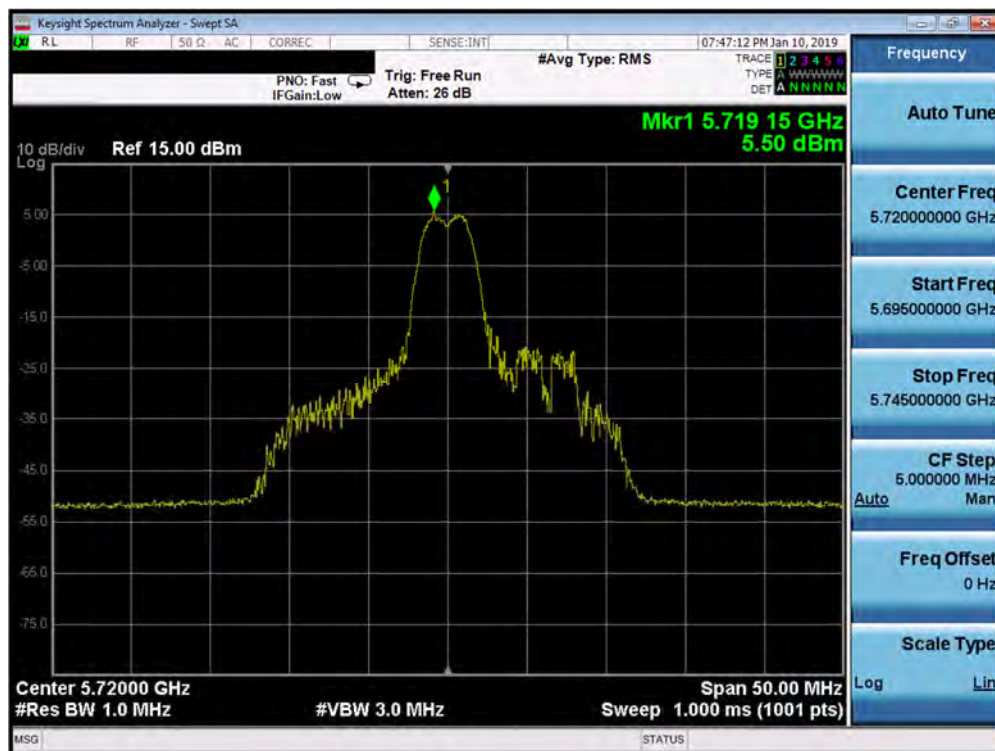


Plot 7-379. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 100)

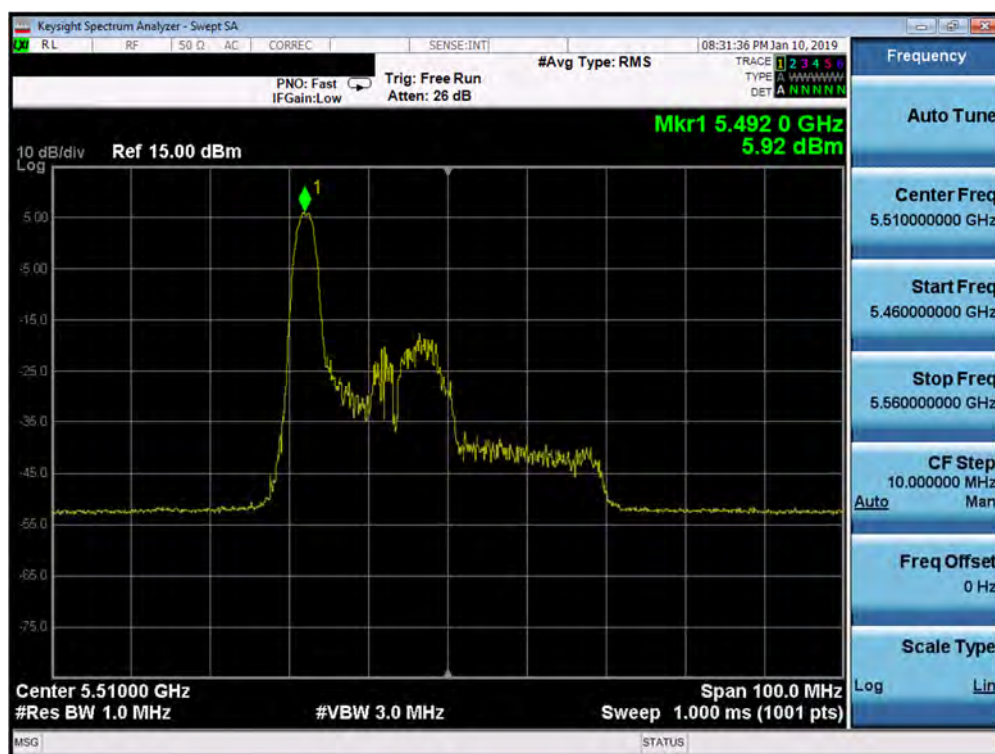


Plot 7-380. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 120)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 272 of 516

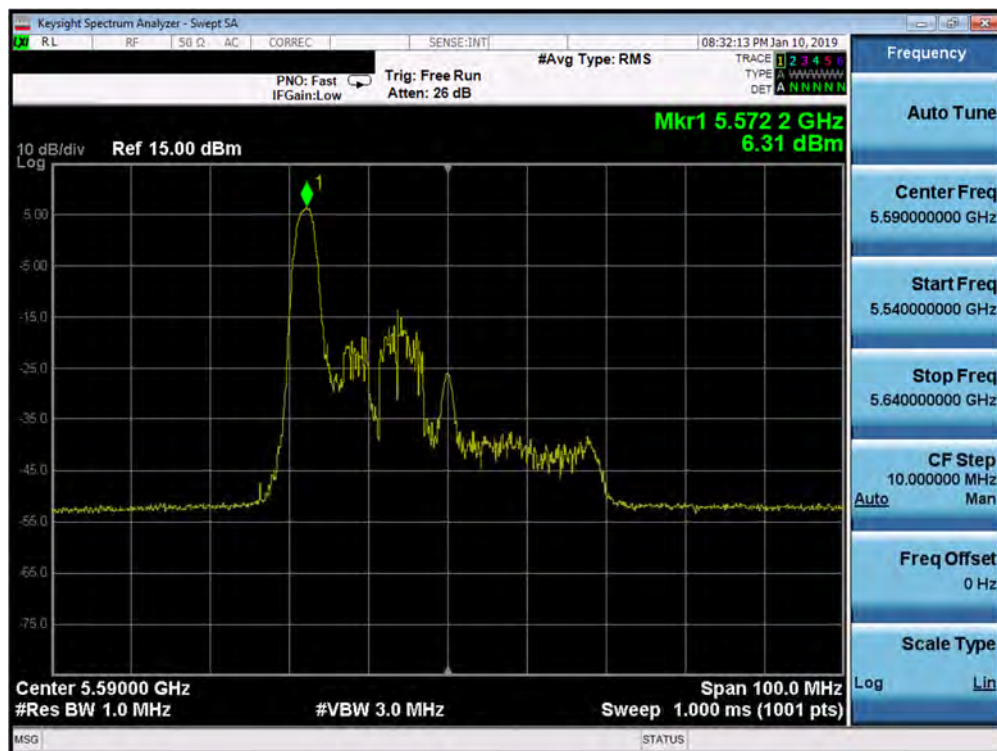


Plot 7-381. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 144)

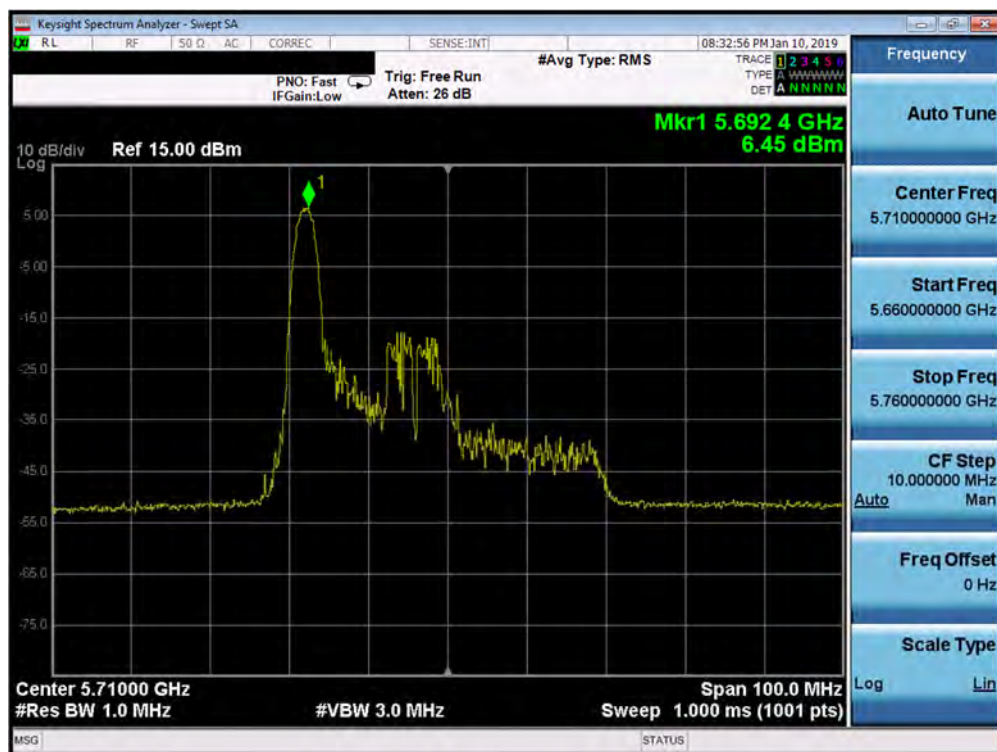


Plot 7-382. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 102)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 273 of 516

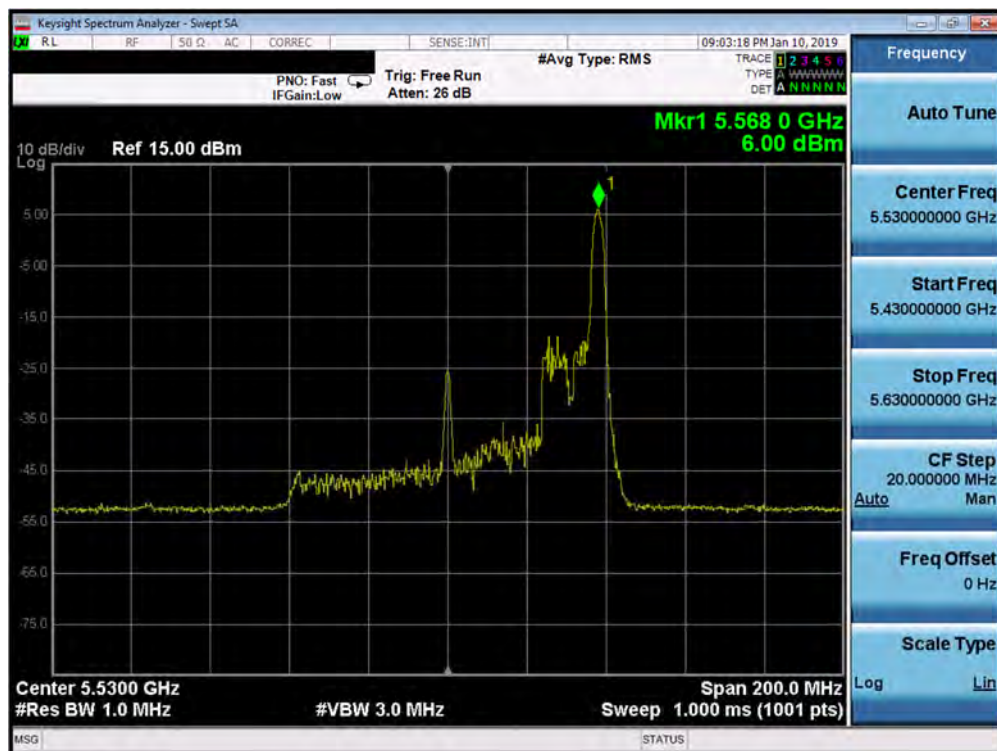


Plot 7-383. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 118)

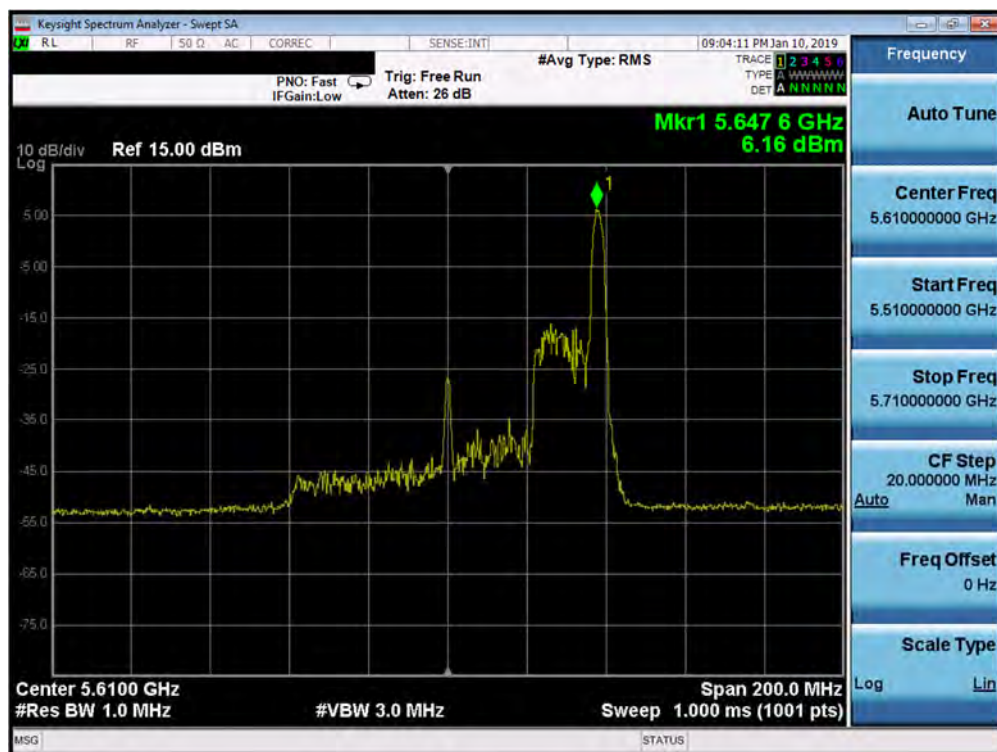


Plot 7-384. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 142)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 274 of 516

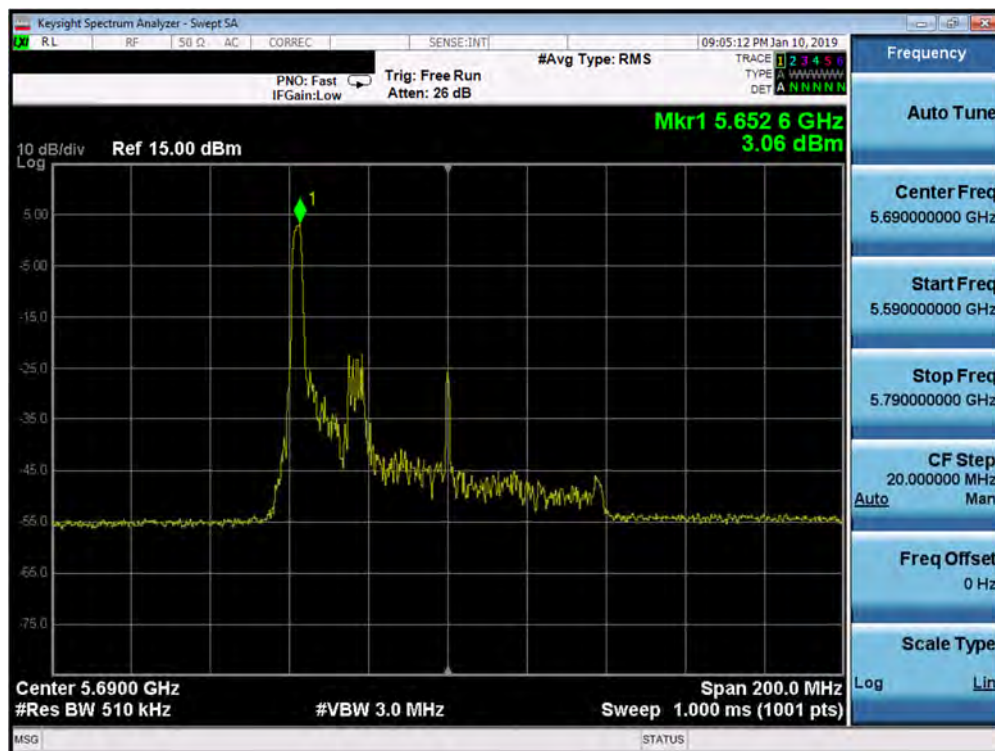


Plot 7-385. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 106)



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

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 275 of 516

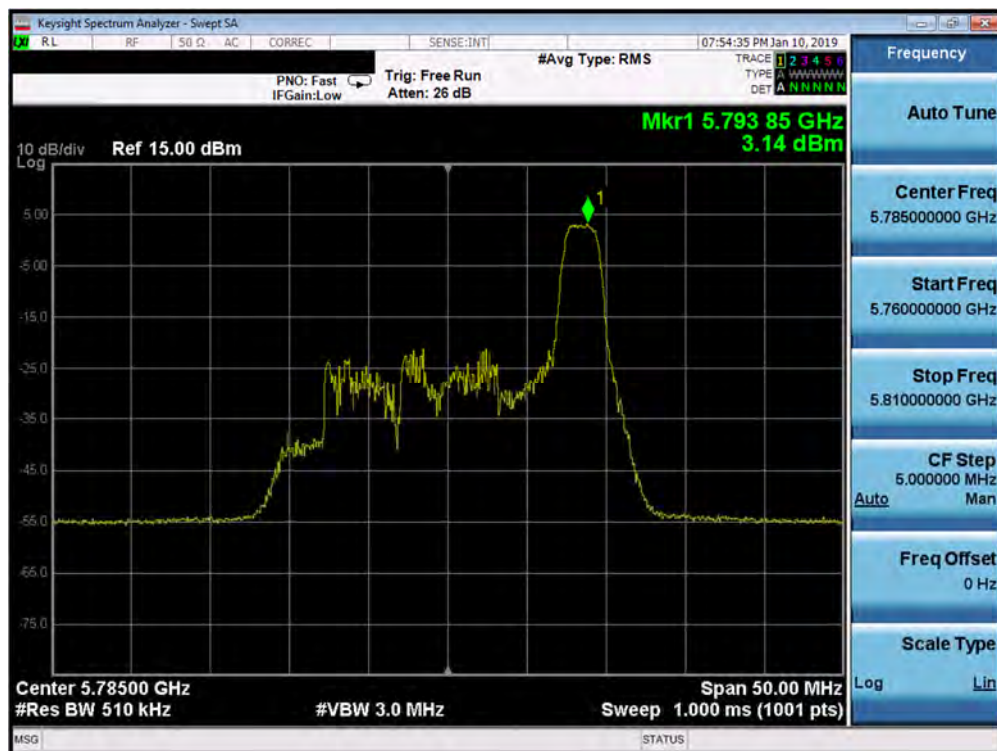


Plot 7-387. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 138)

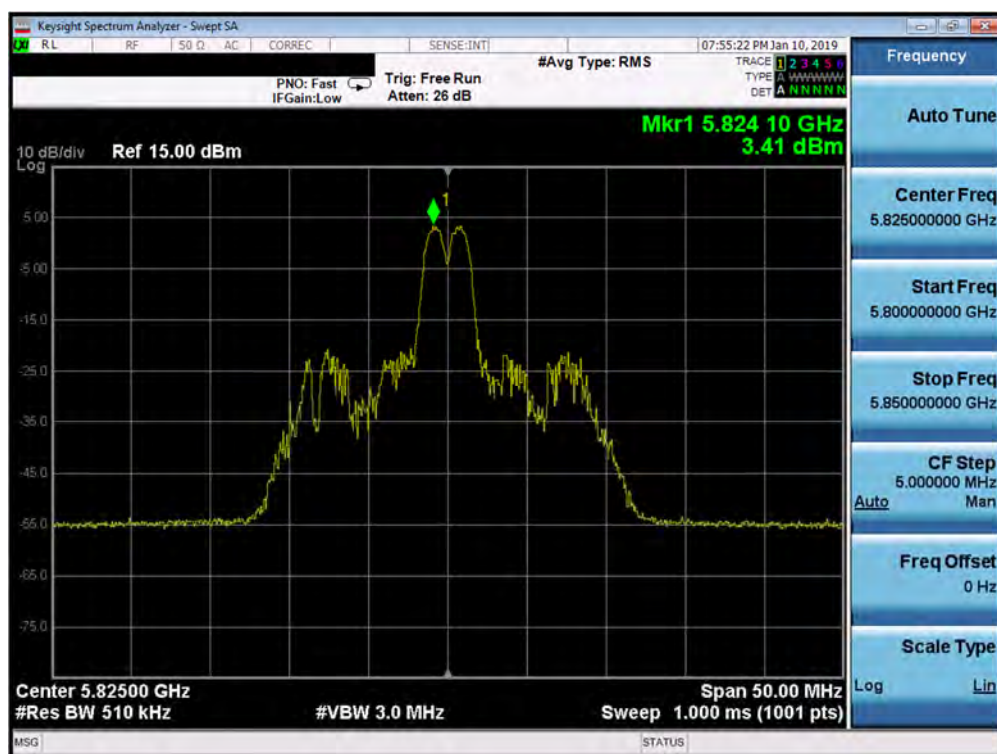


Plot 7-388. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 149)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 276 of 516

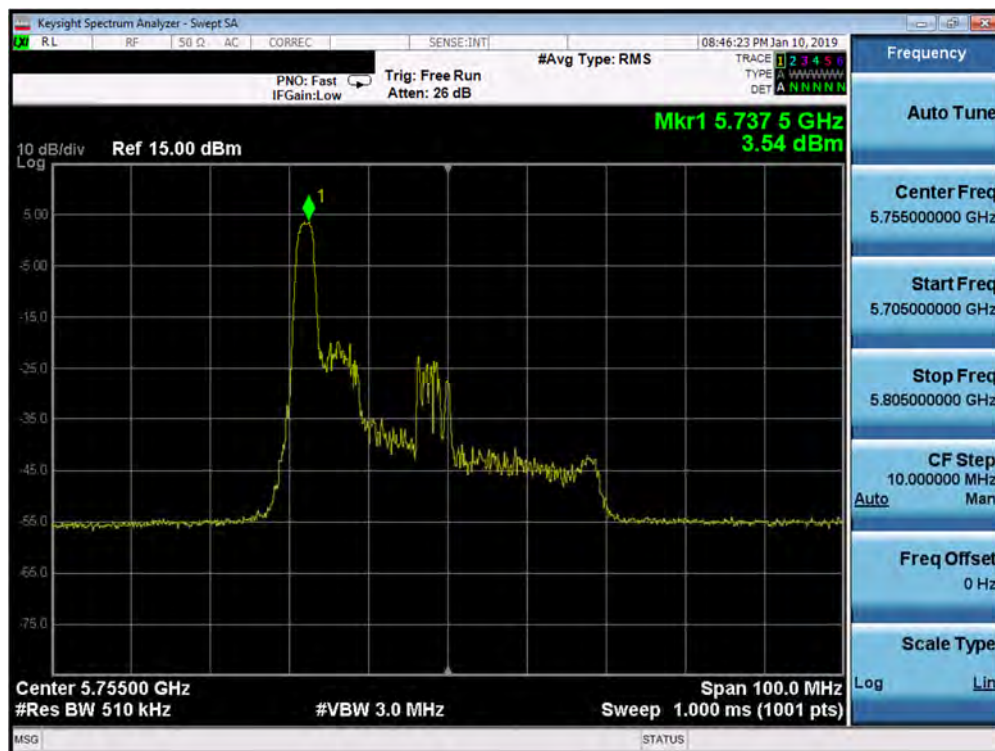


Plot 7-389. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 157)

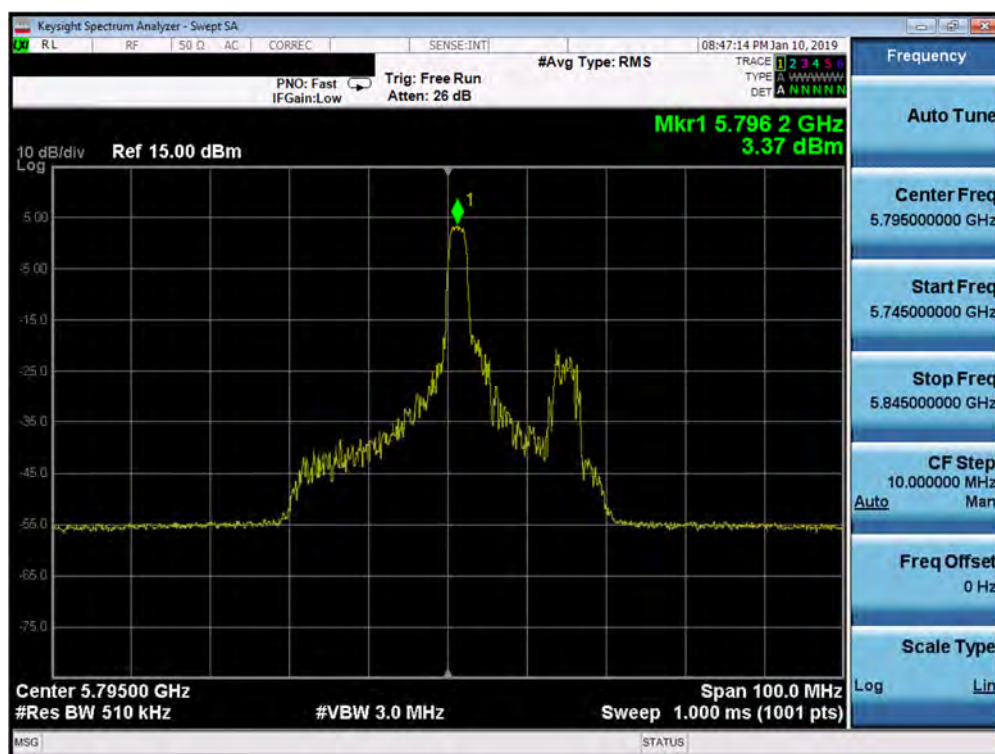


Plot 7-390. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 165)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 277 of 516

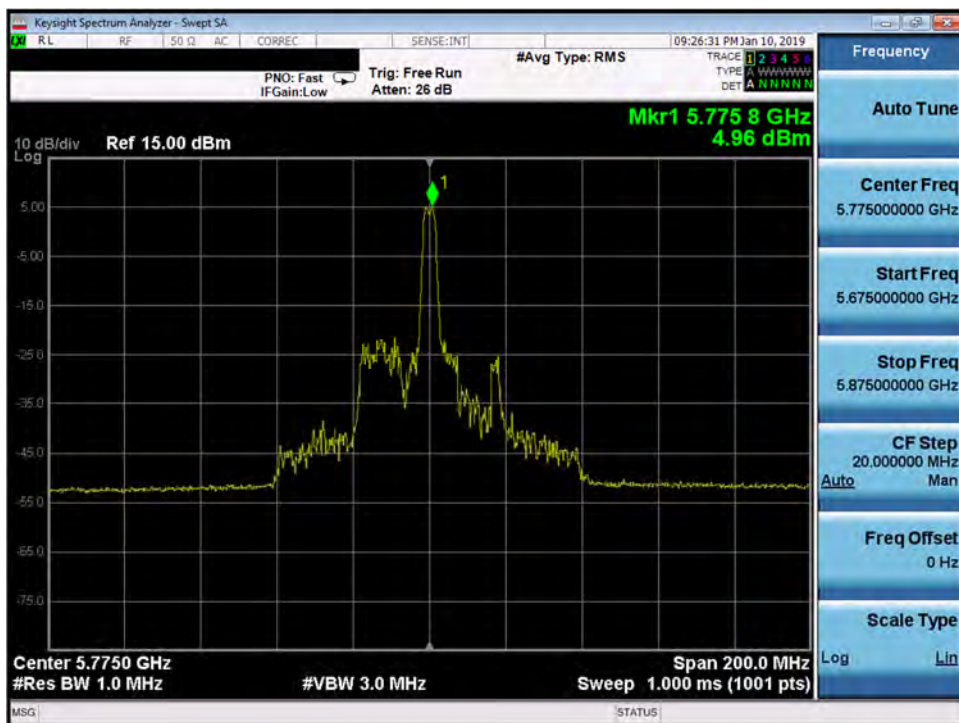


Plot 7-391. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 151)

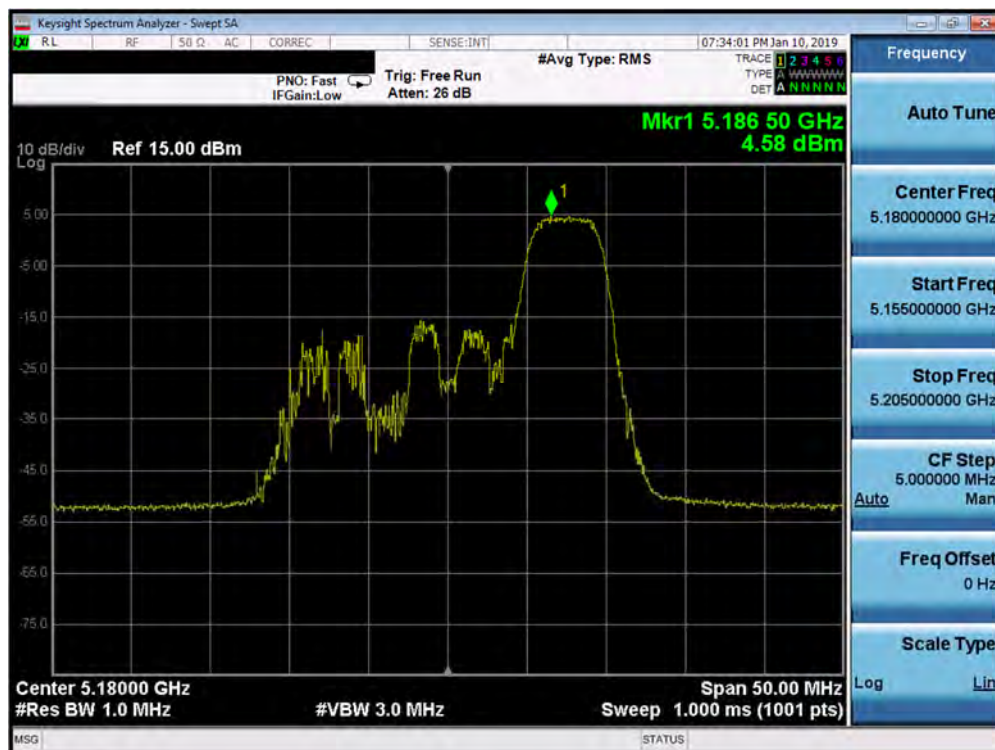


Plot 7-392. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 159)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 278 of 516

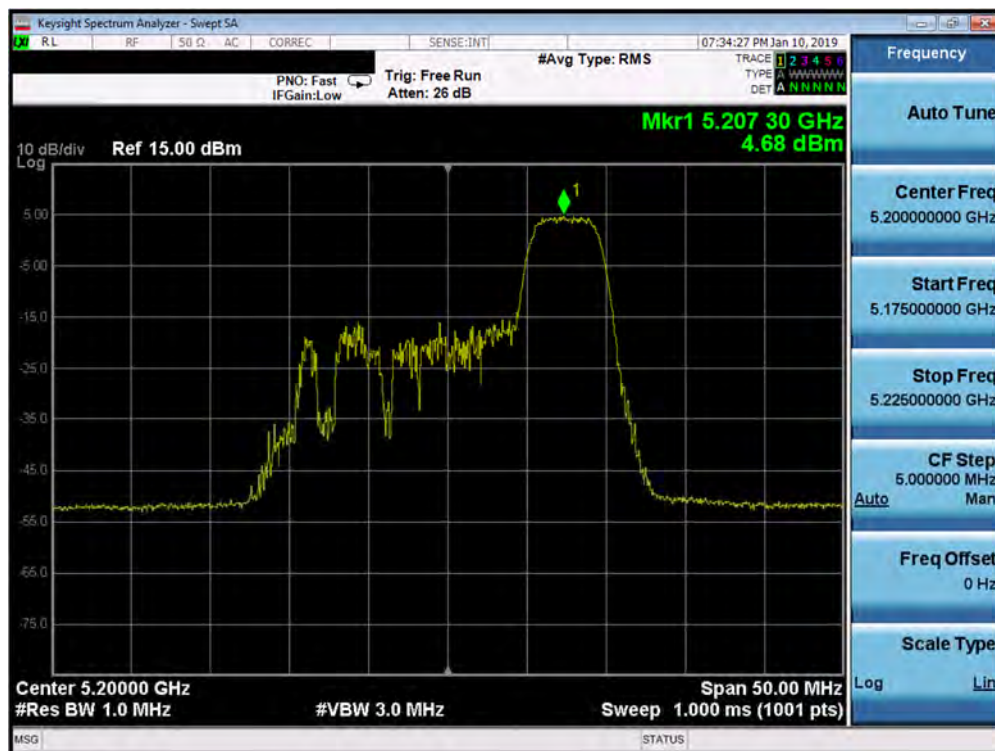


Plot 7-393. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 155)

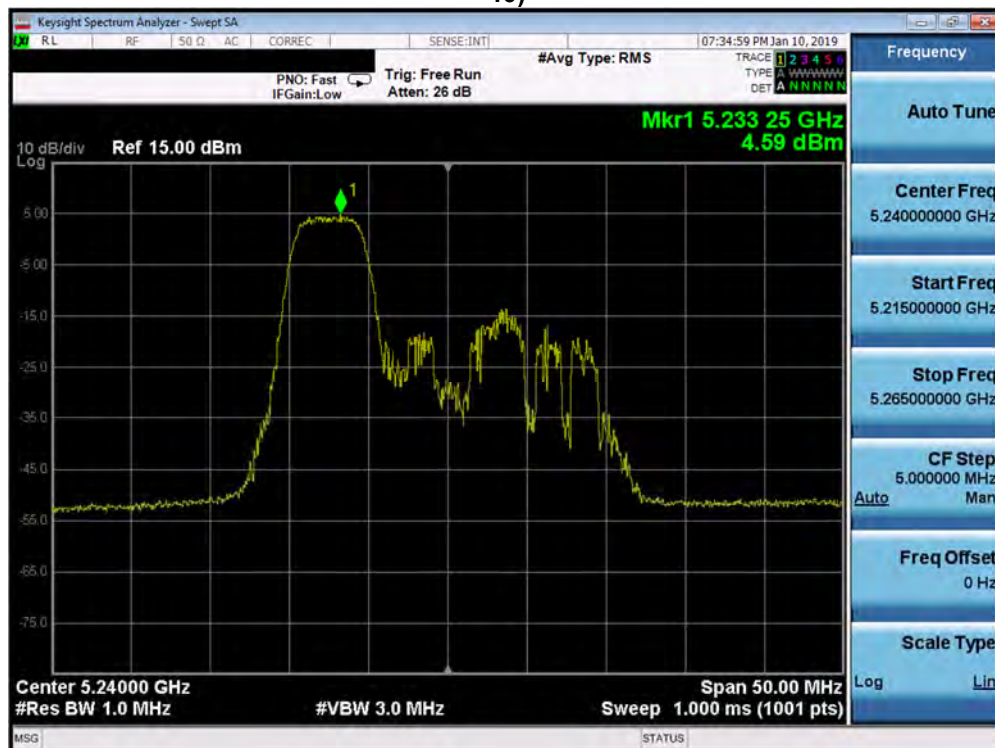


Plot 7-394. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 36)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 279 of 516

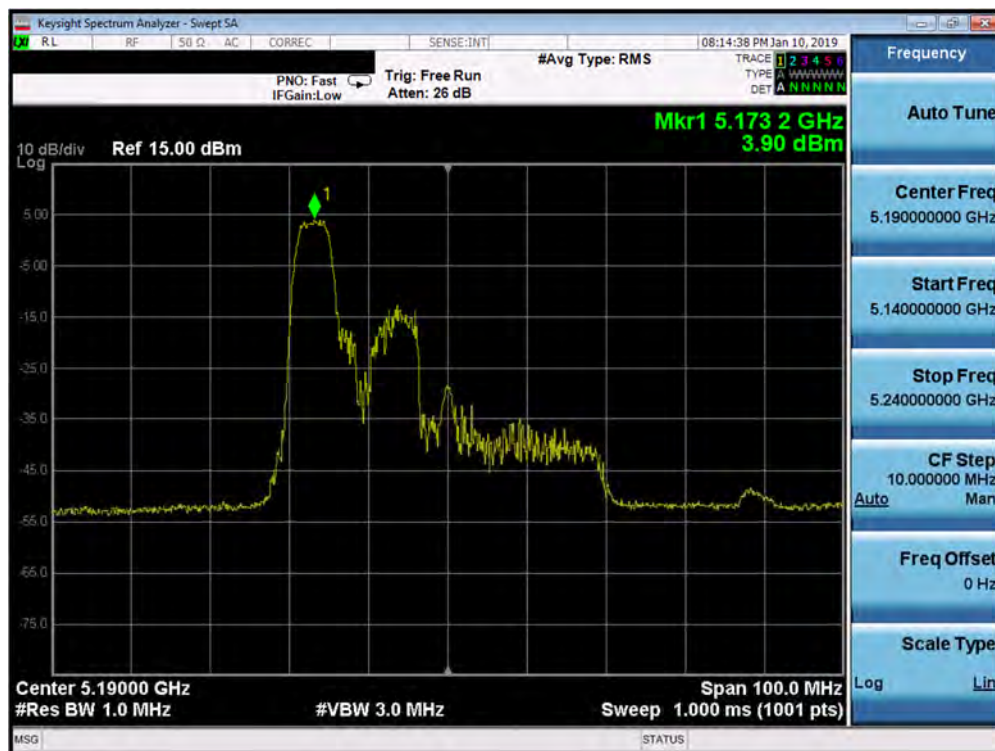


Plot 7-395. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 40)

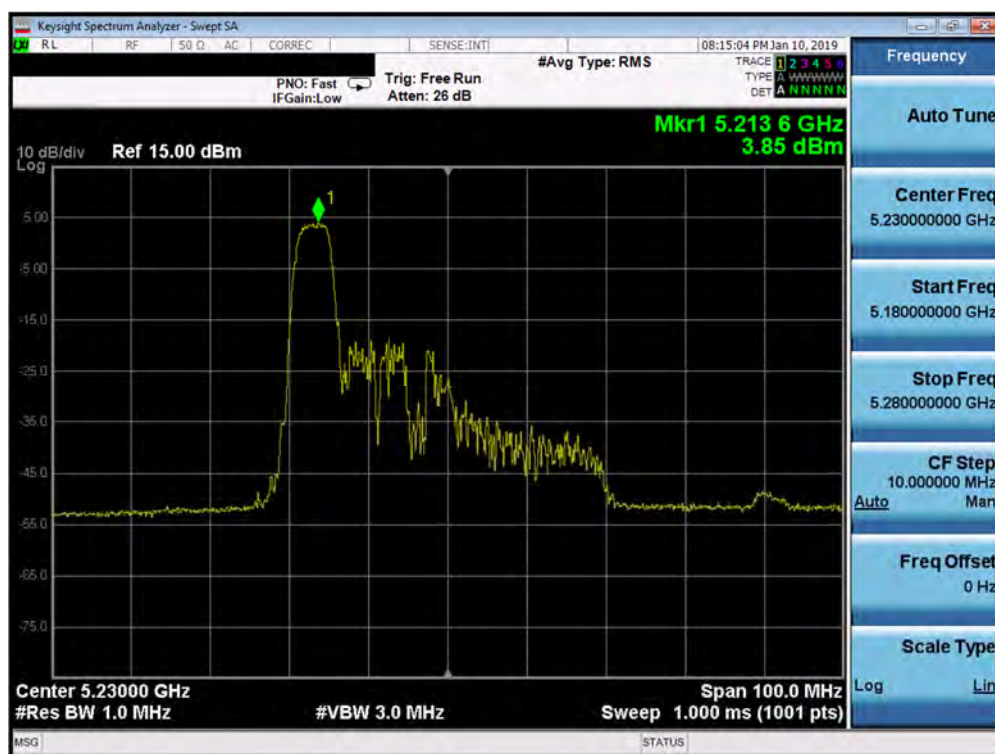


Plot 7-396. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 48)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 280 of 516

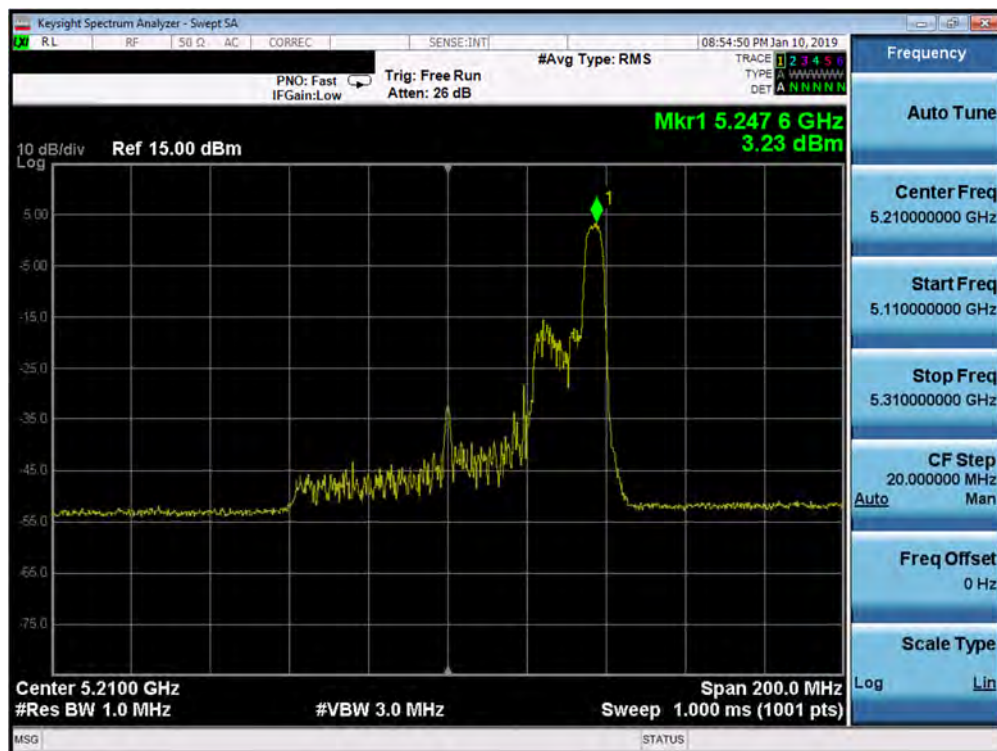


Plot 7-397. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 38)

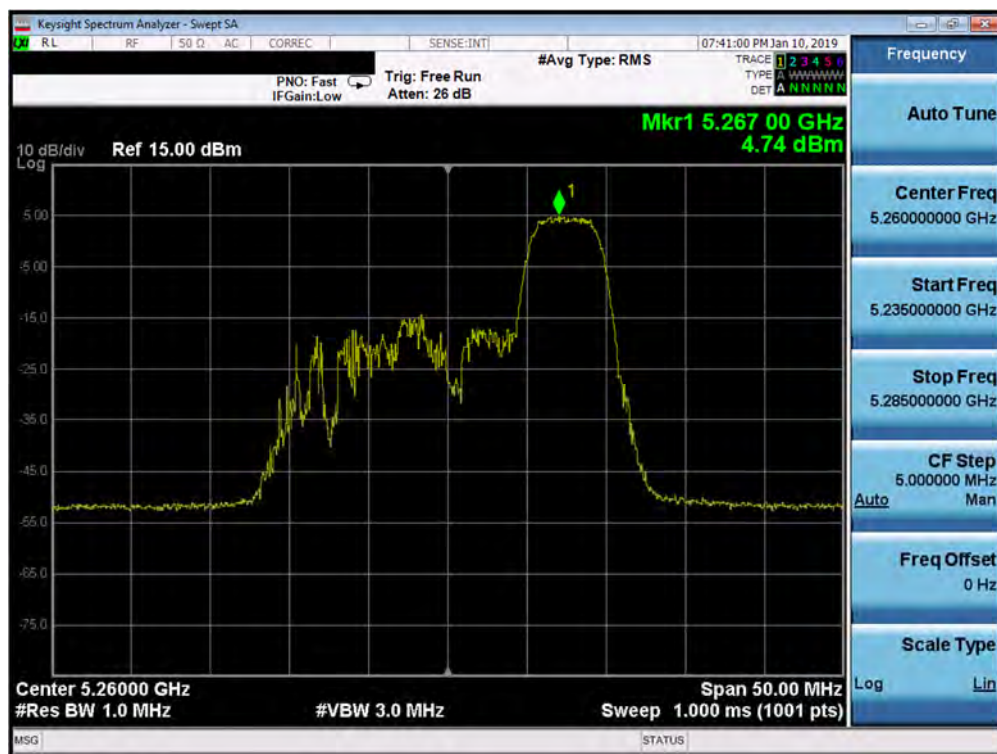


Plot 7-398. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 46)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 281 of 516

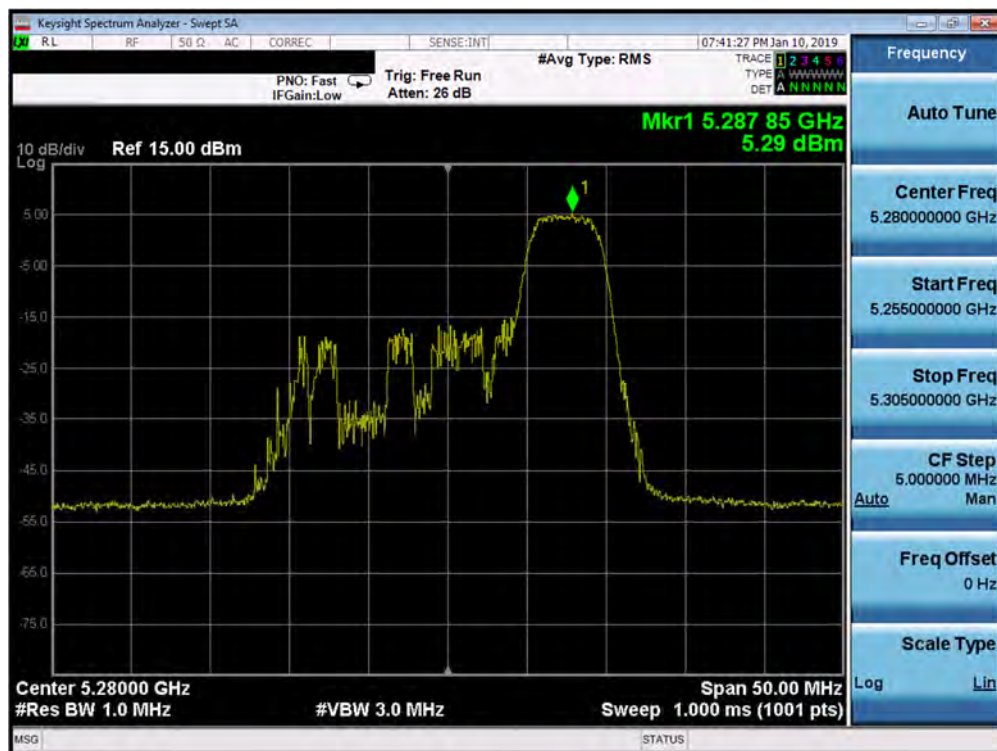


Plot 7-399. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 42)

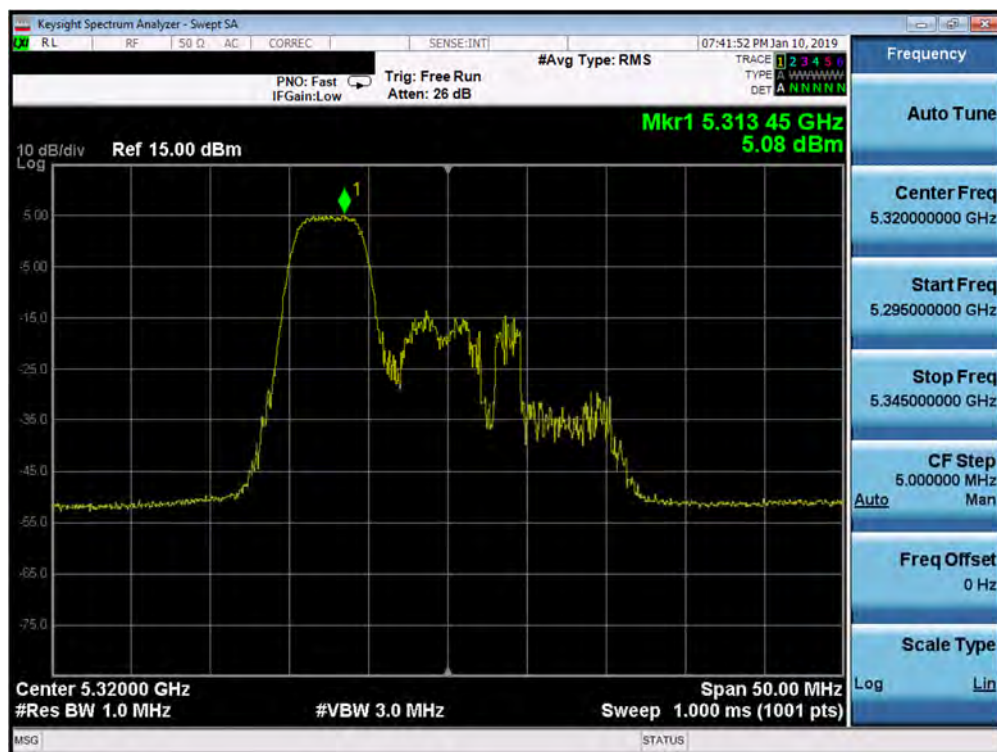


Plot 7-400. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 52)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 282 of 516

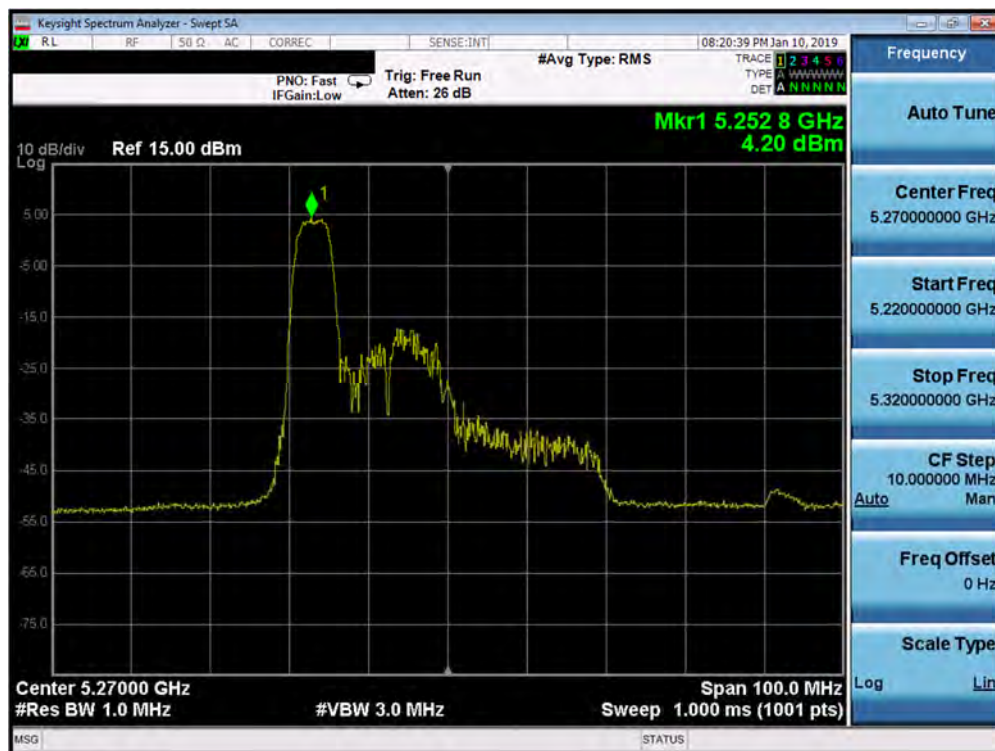


Plot 7-401. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 56)

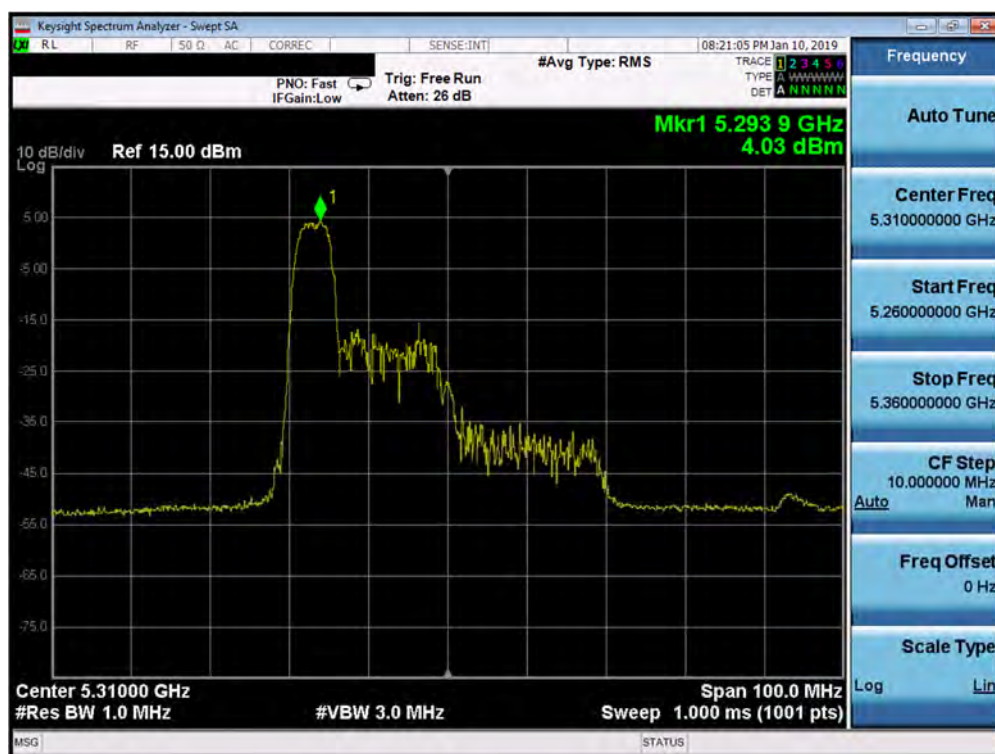


Plot 7-402. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 64)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 283 of 516

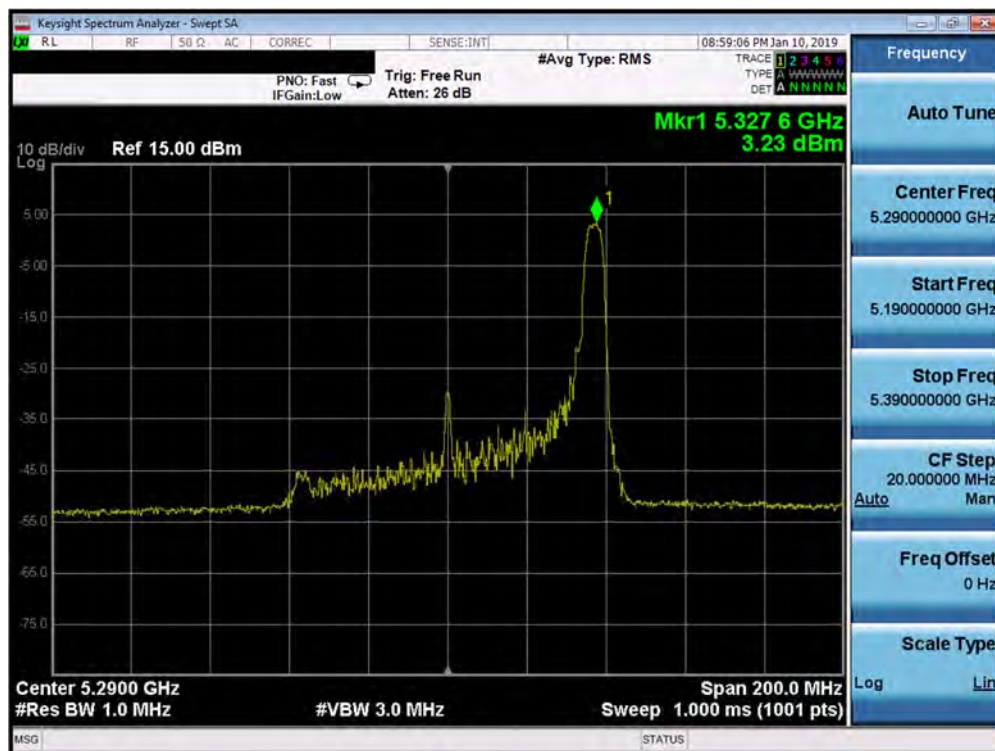


Plot 7-403. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 54)

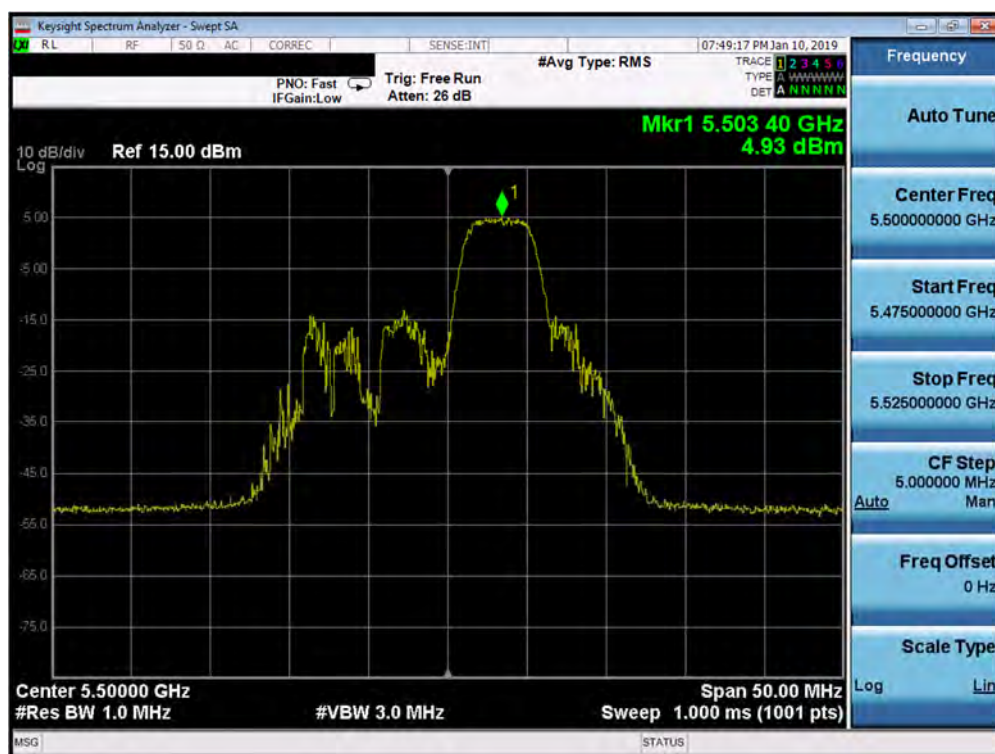


Plot 7-404. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 284 of 516

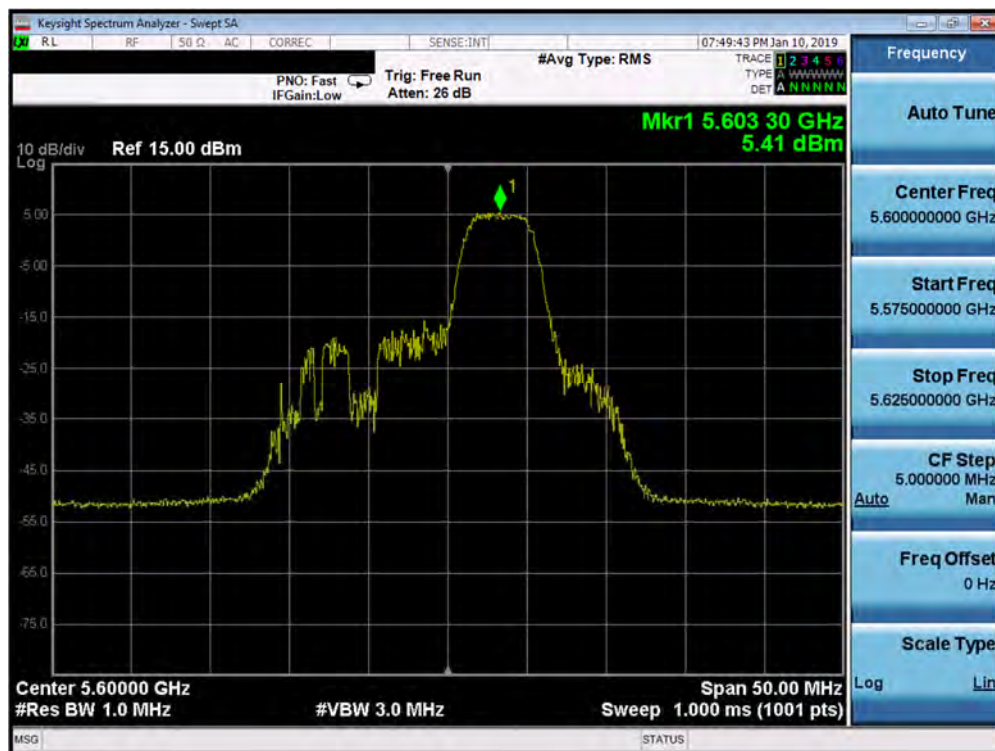


Plot 7-405. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 58)

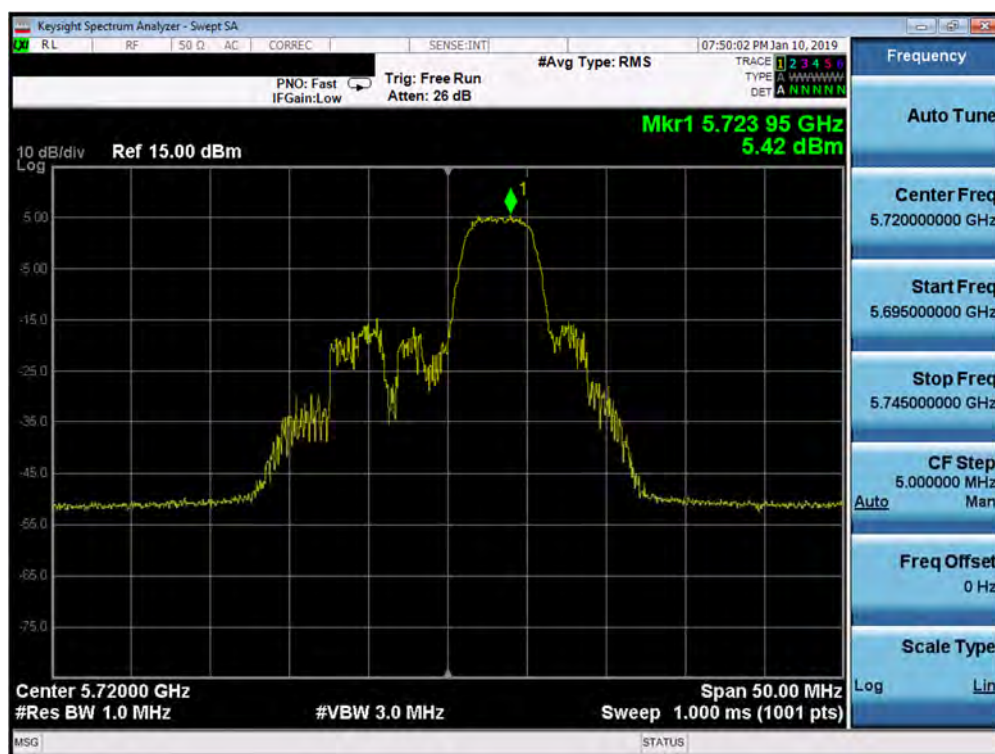


Plot 7-406. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 285 of 516

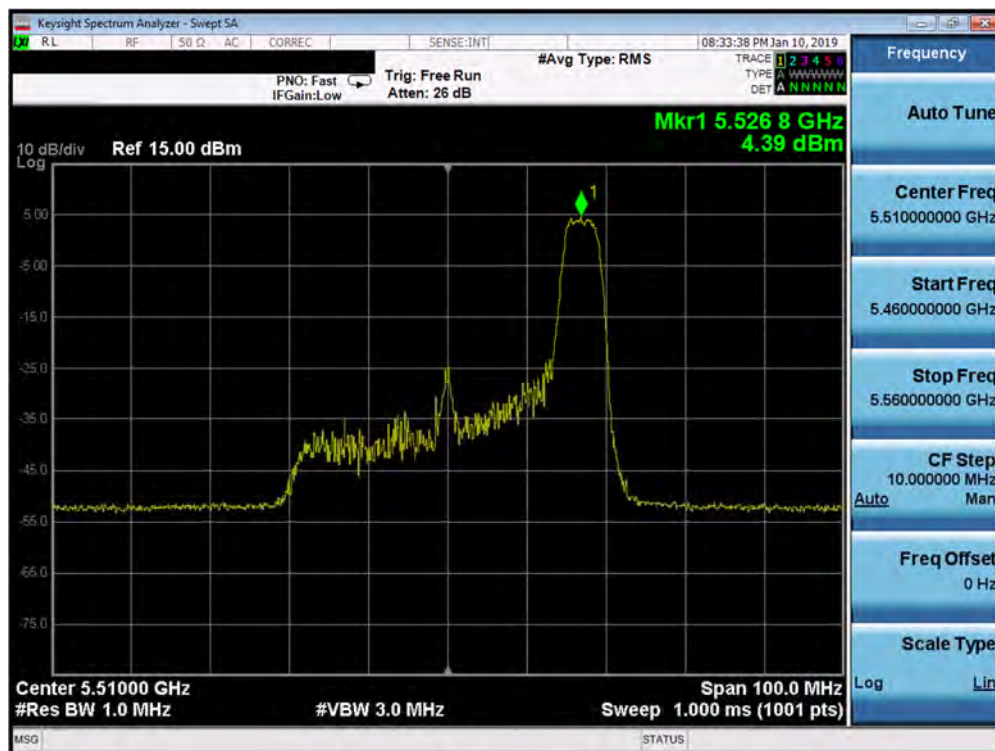


Plot 7-407. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 120)

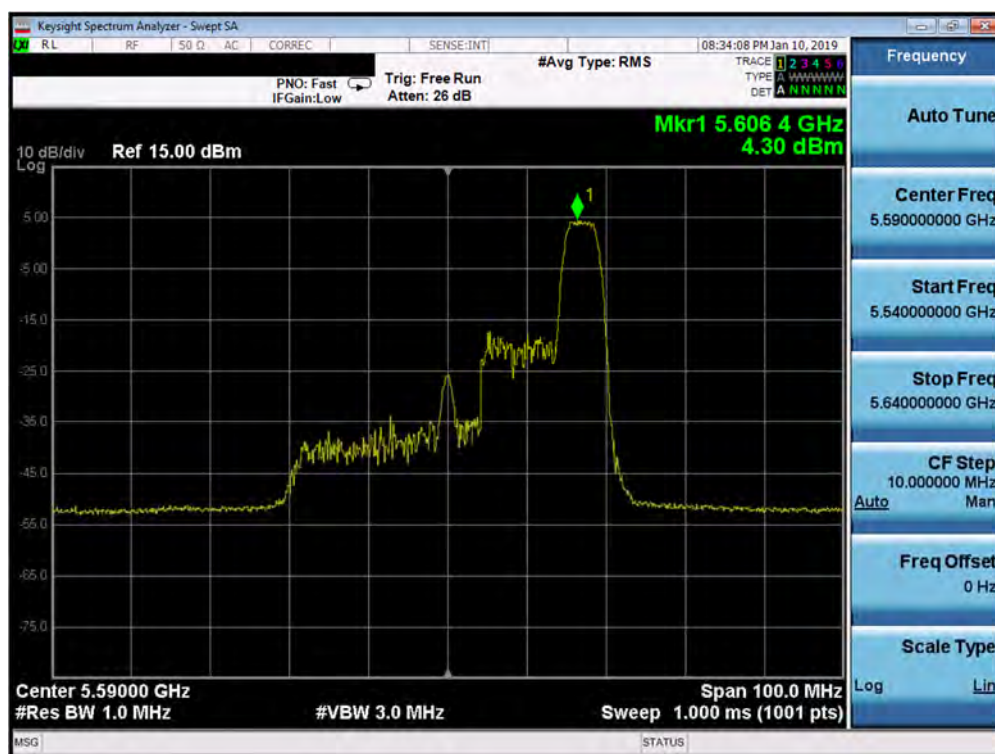


Plot 7-408. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 286 of 516

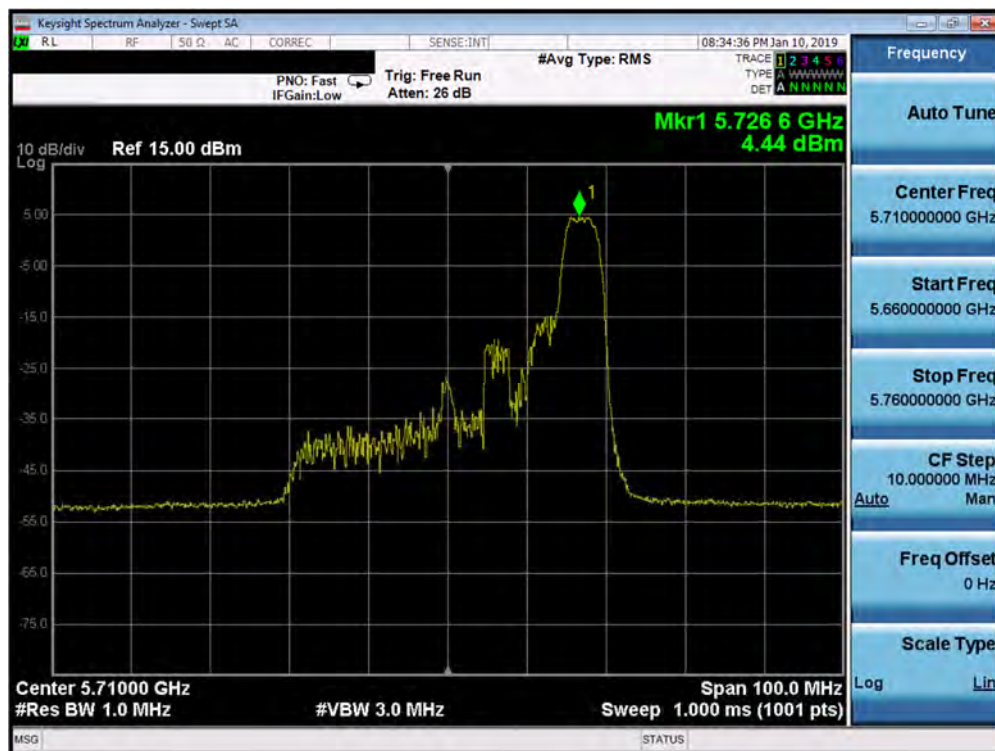


Plot 7-409. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 102)

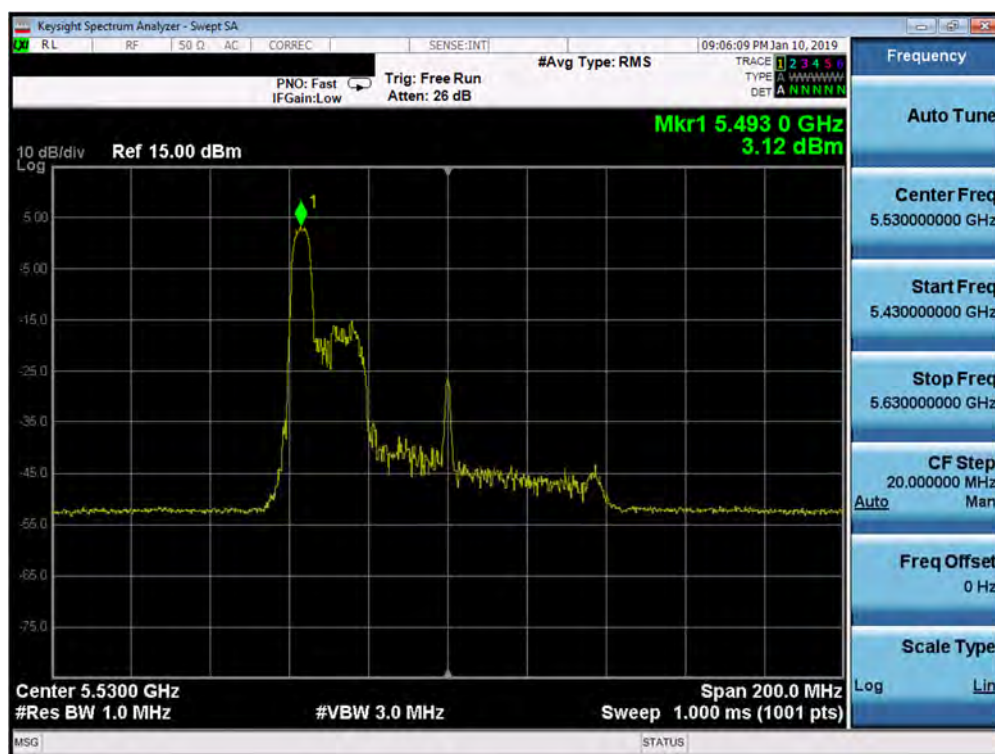


Plot 7-410. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 287 of 516

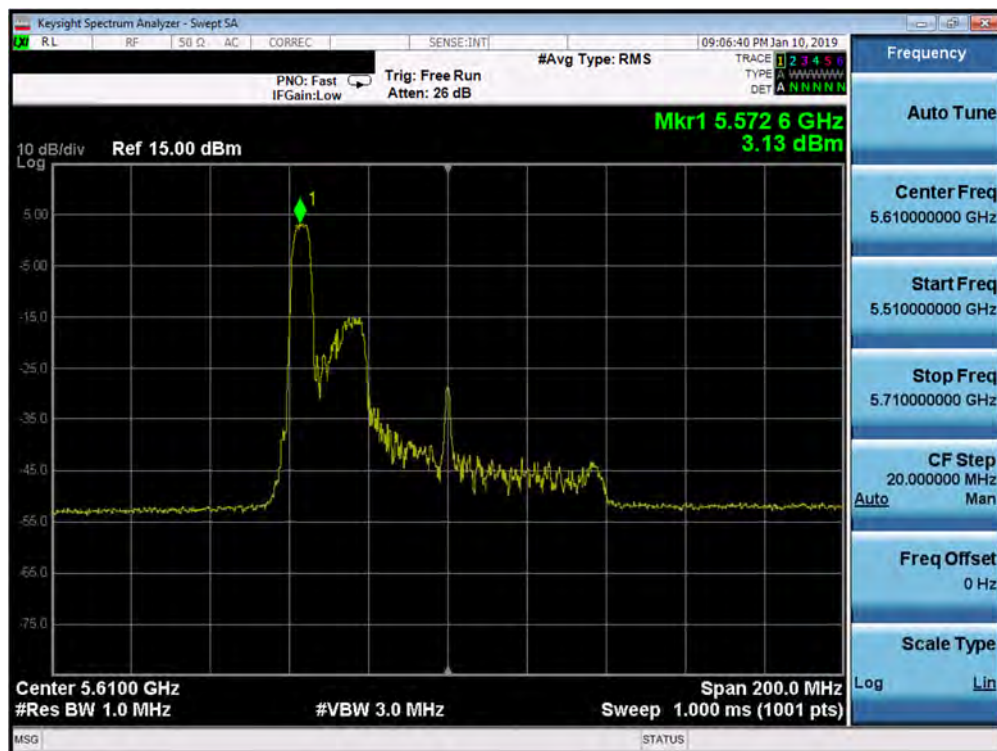


Plot 7-411. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 142)

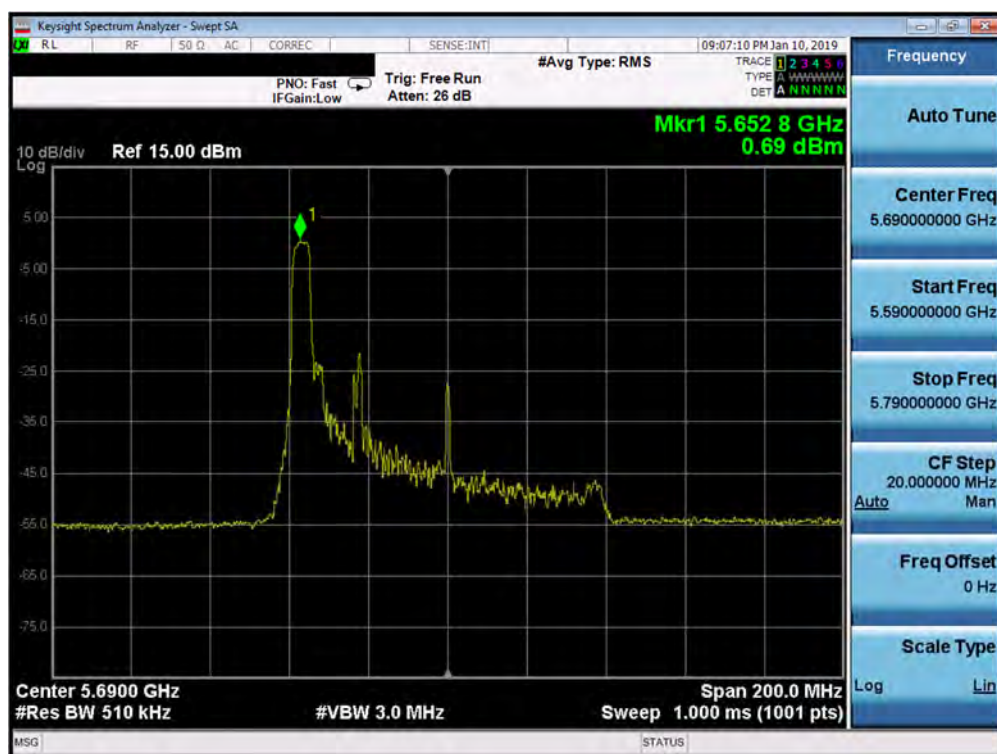


Plot 7-412. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 288 of 516

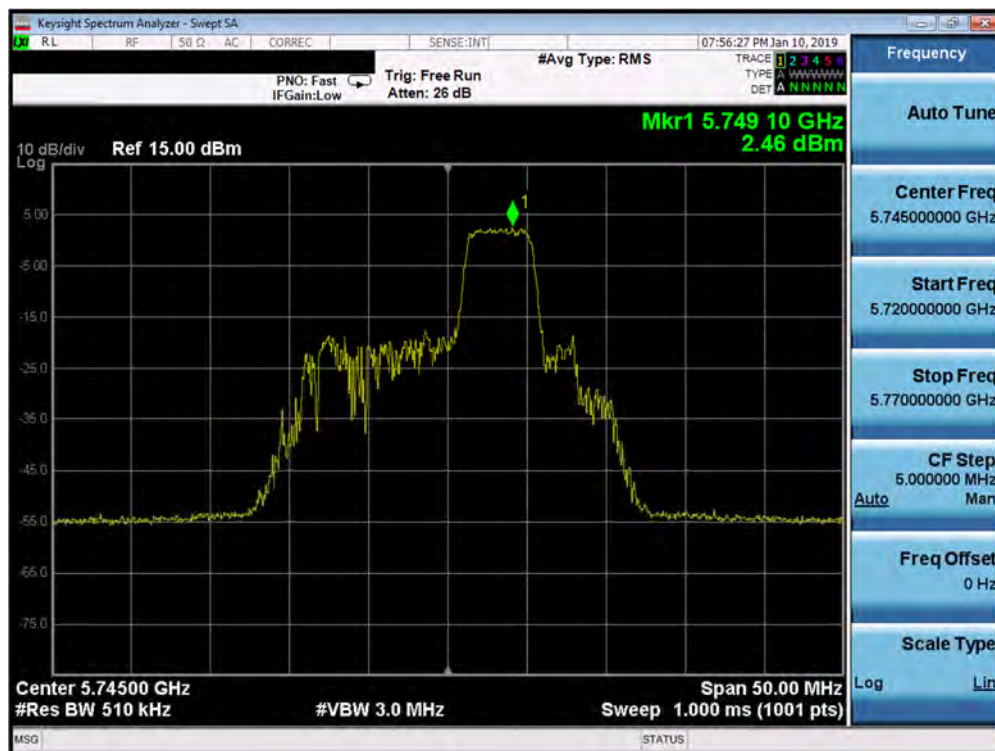


Plot 7-413. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 2C) – Ch. 122)



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

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 289 of 516



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

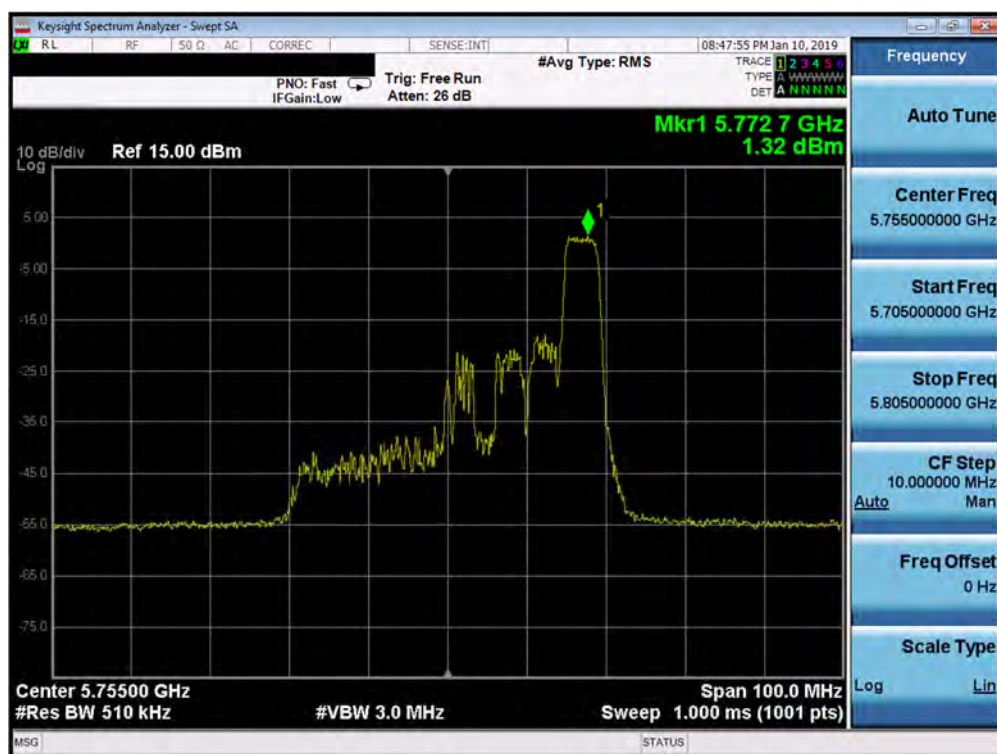


Plot 7-416. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 157)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 290 of 516

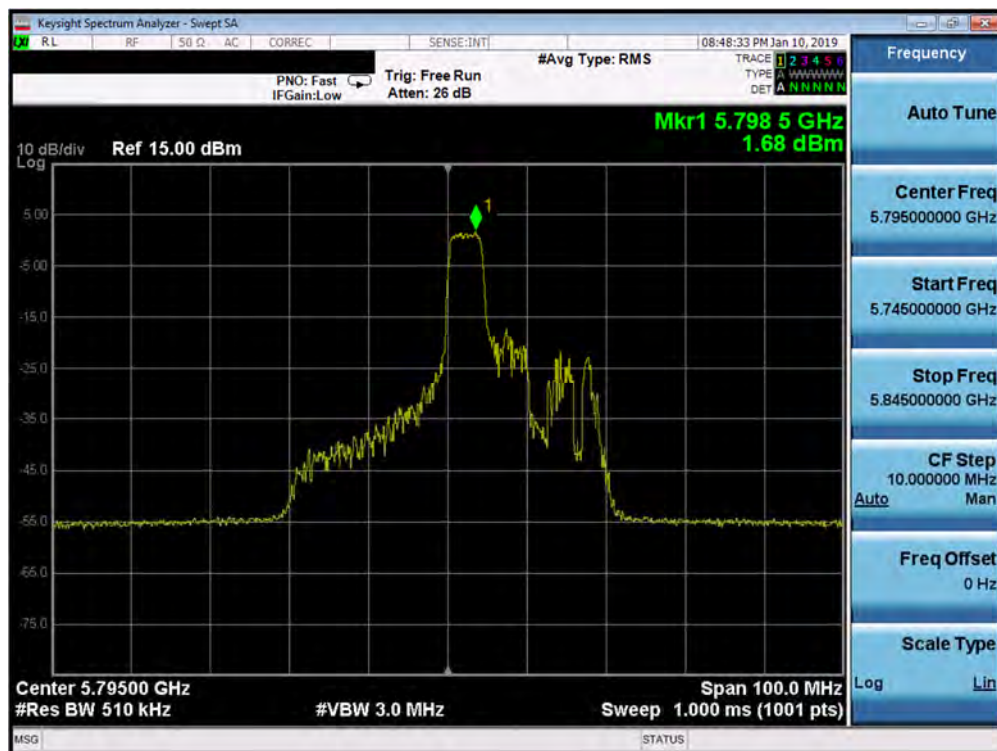


Plot 7-417. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 165)

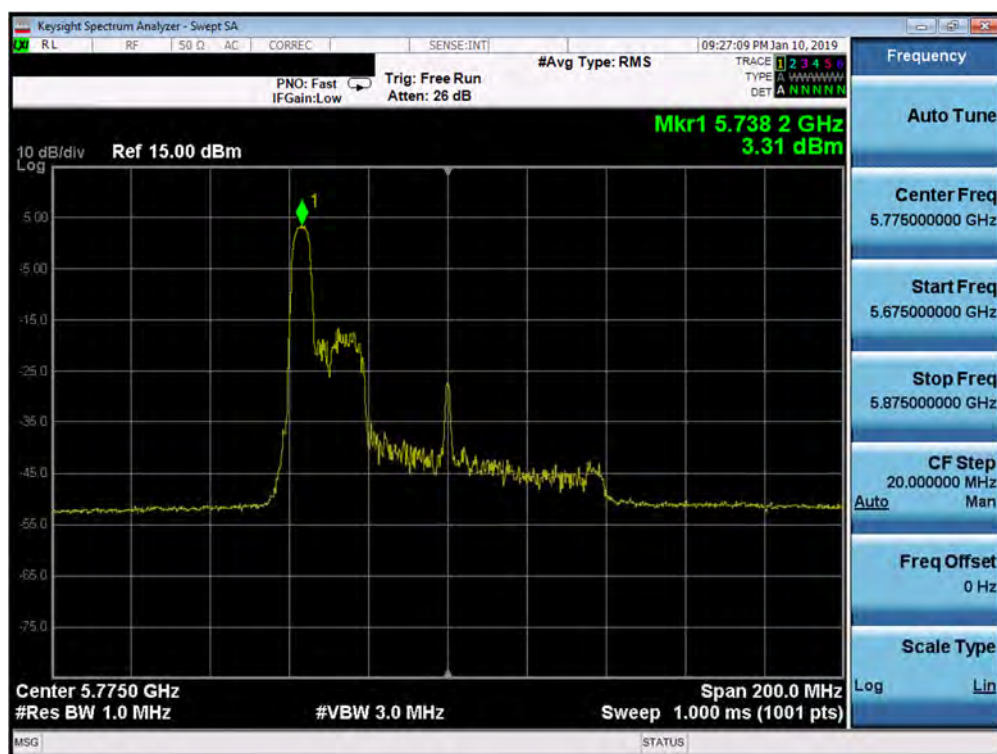


Plot 7-418. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 291 of 516

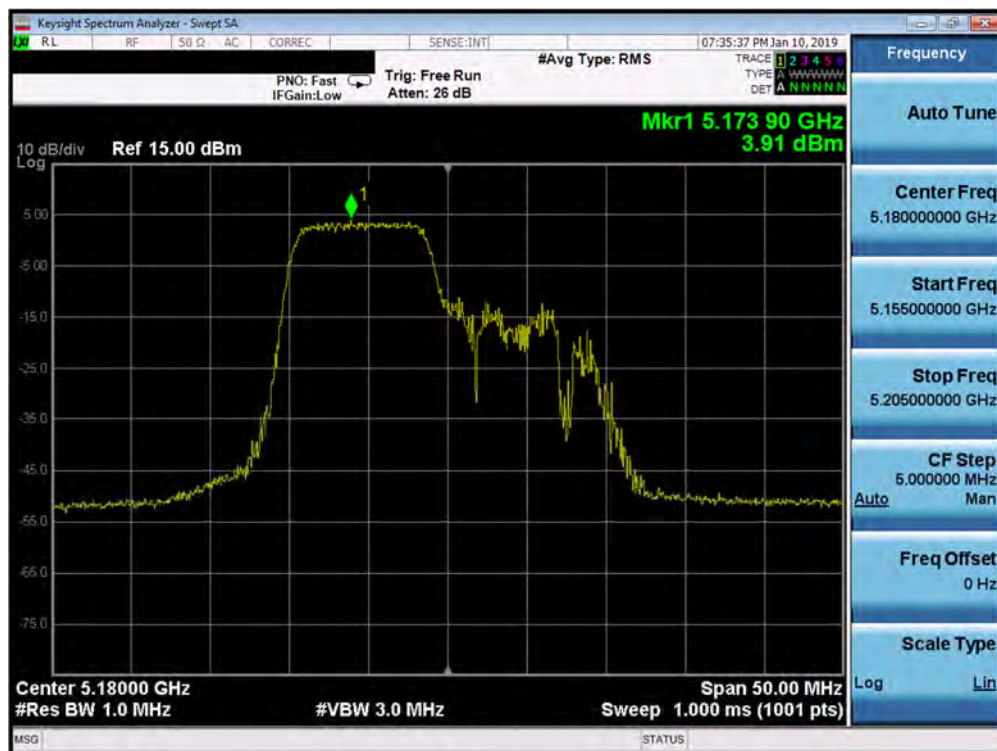


Plot 7-419. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 159)

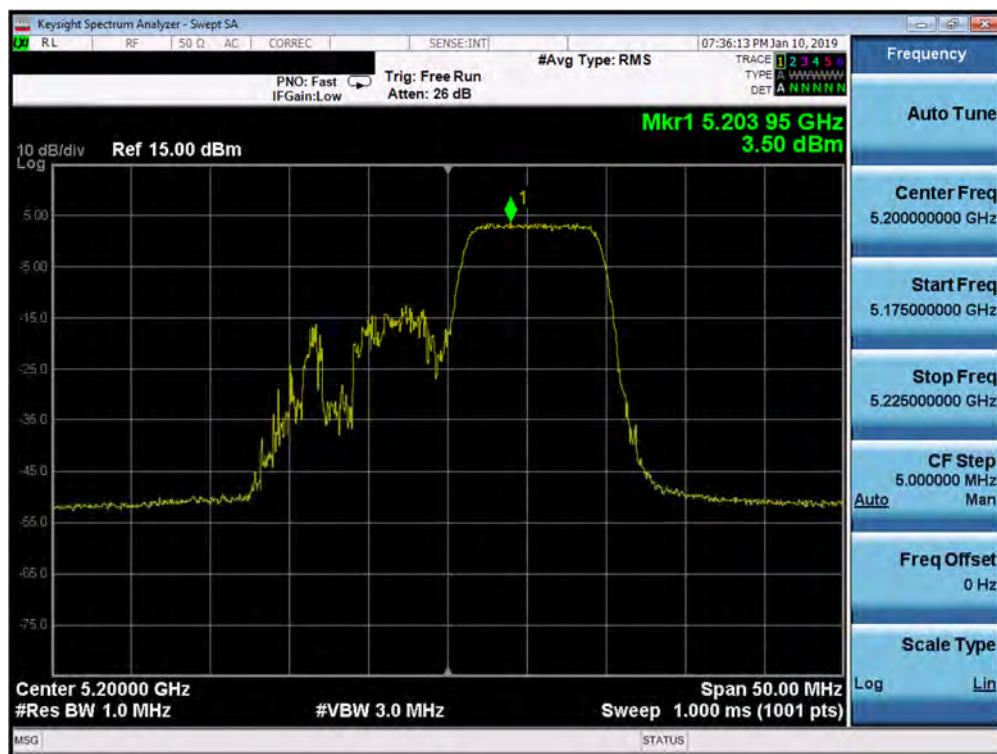


Plot 7-420. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 52 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 292 of 516

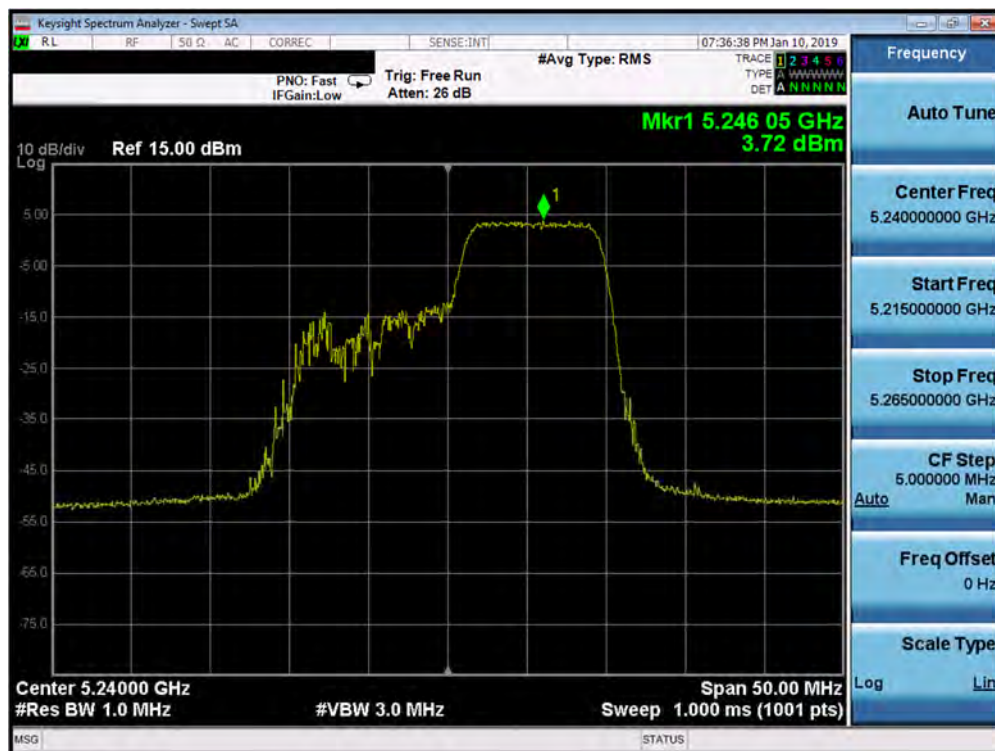


Plot 7-421. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 36)

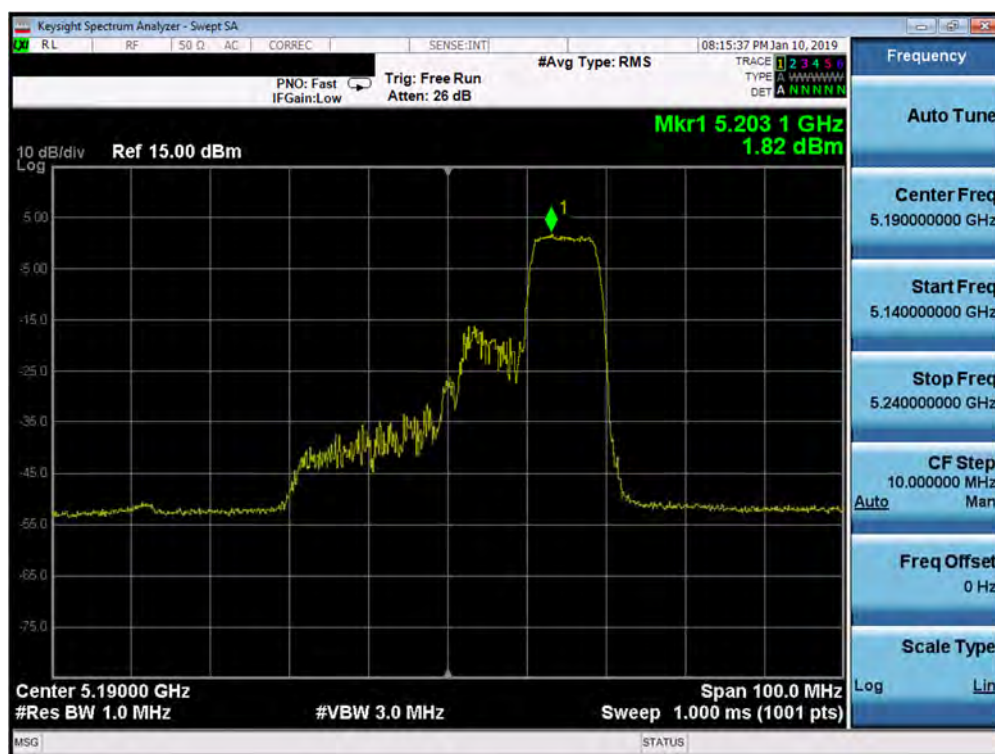


Plot 7-422. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 40)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 293 of 516

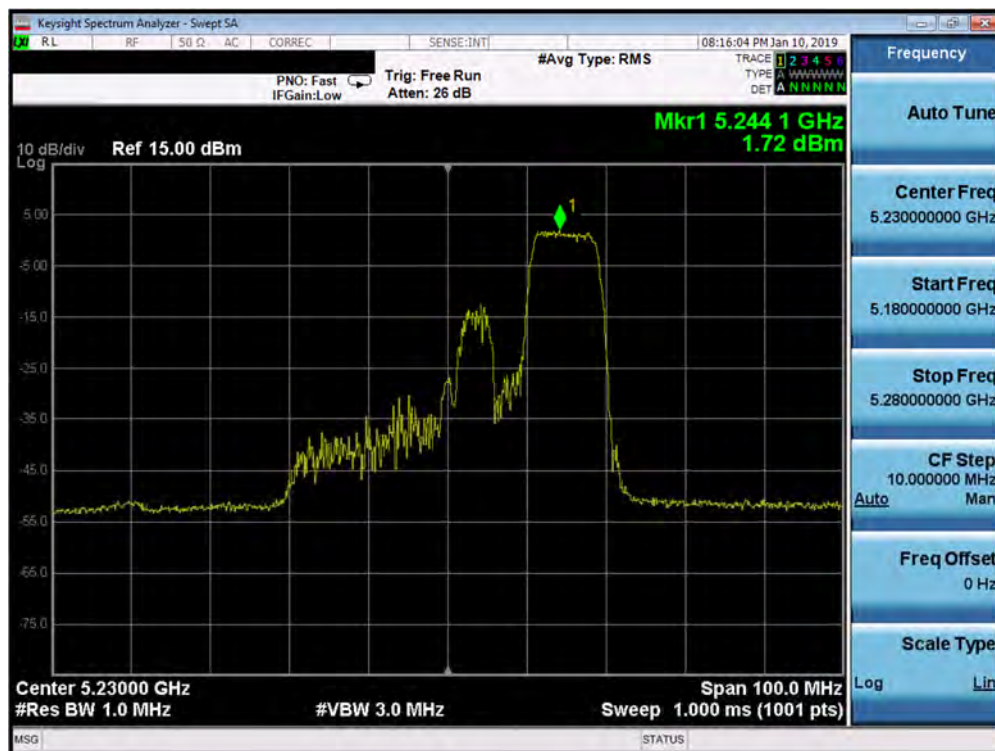


Plot 7-423. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 48)

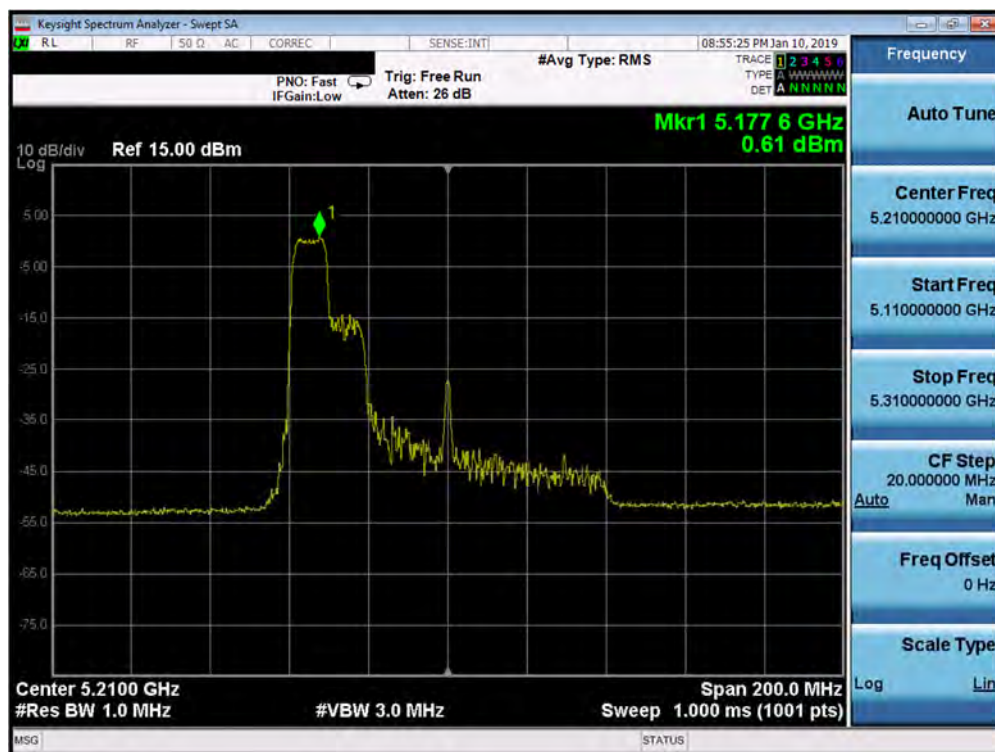


Plot 7-424. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 294 of 516

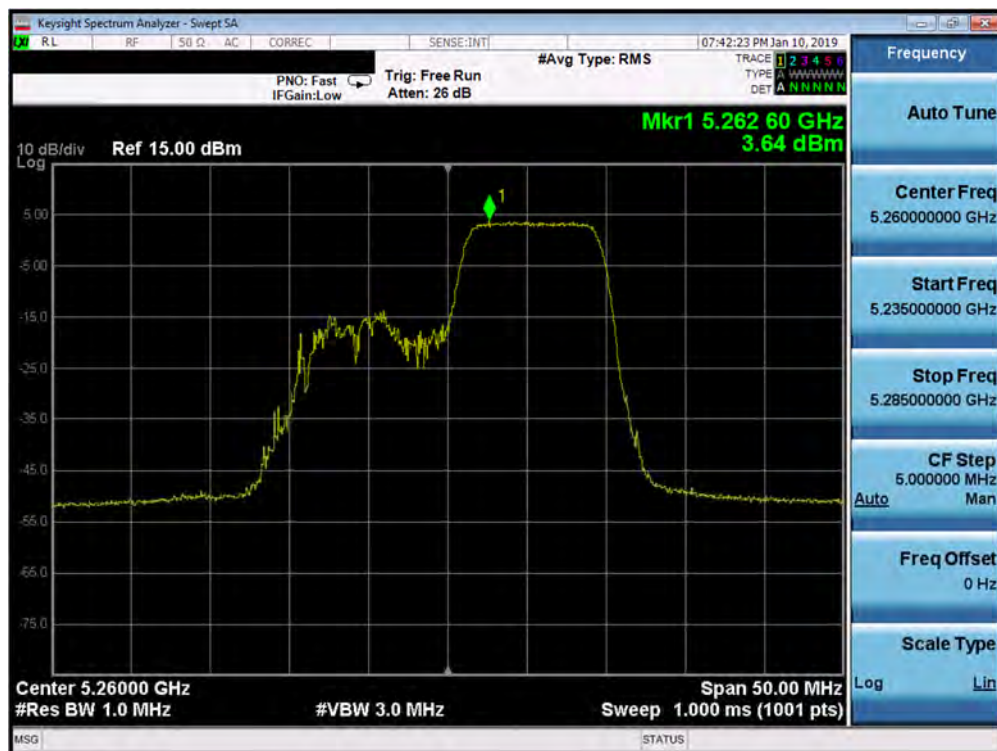


Plot 7-425. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 46)

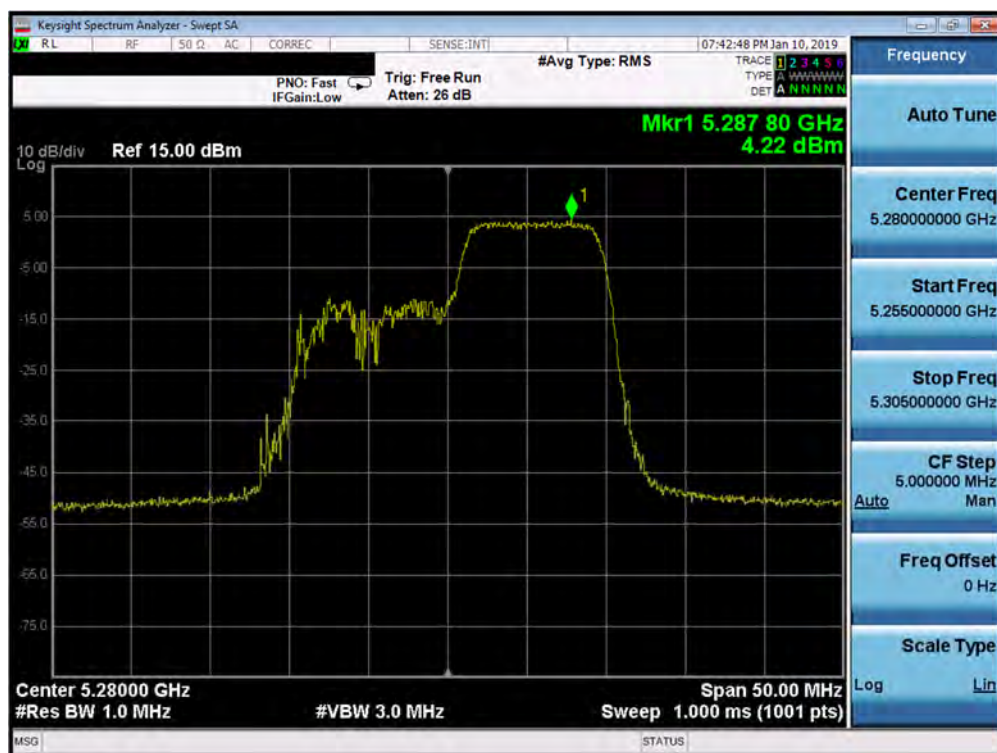


Plot 7-426. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax – 106 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 295 of 516

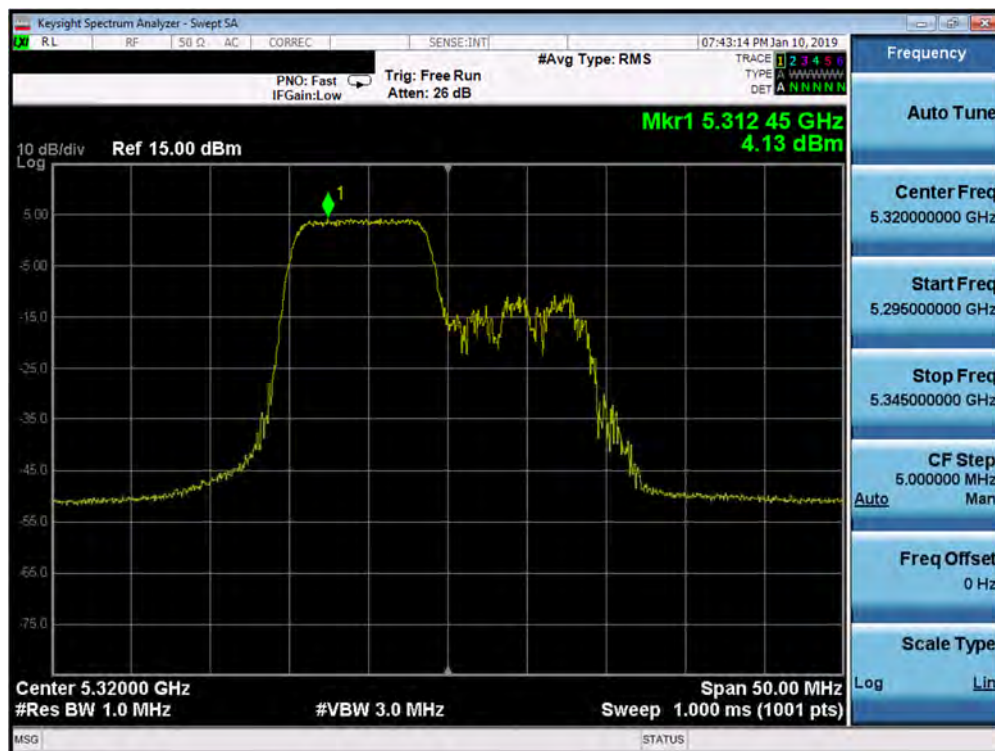


Plot 7-427. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 52)

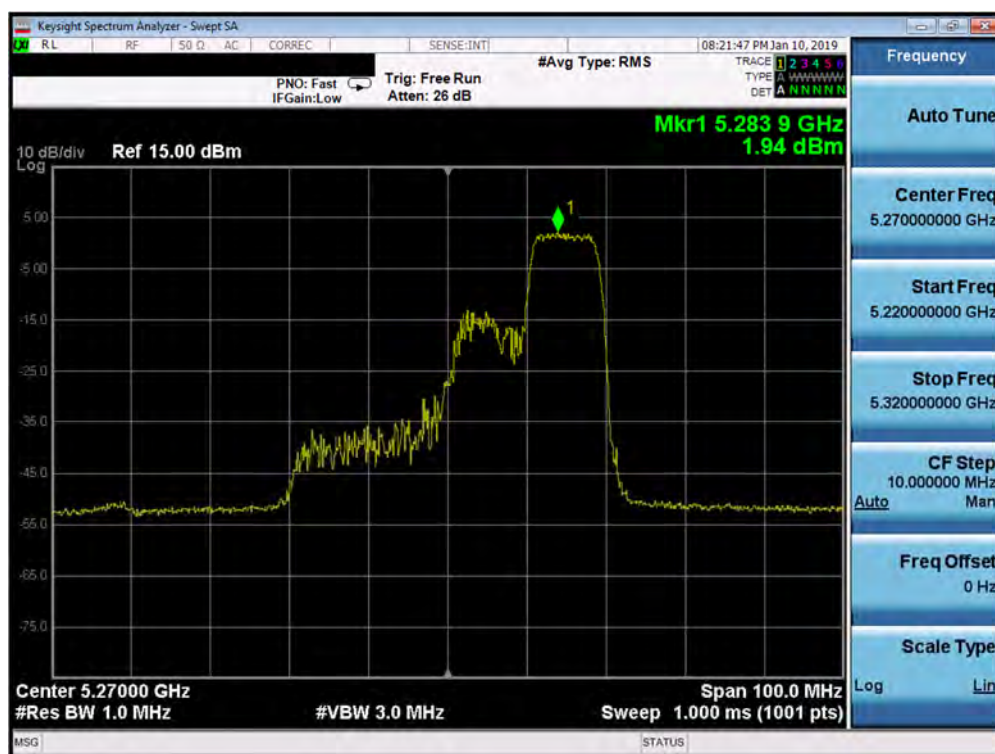


Plot 7-428. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 106 Tones (UNII Band 2A) – Ch. 56)

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 296 of 516



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



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

FCC ID: A3LSMG9750	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1811120202-15.A3L	Test Dates: 10/31/2018-1/17/2019	EUT Type: Portable Handset		Page 297 of 516