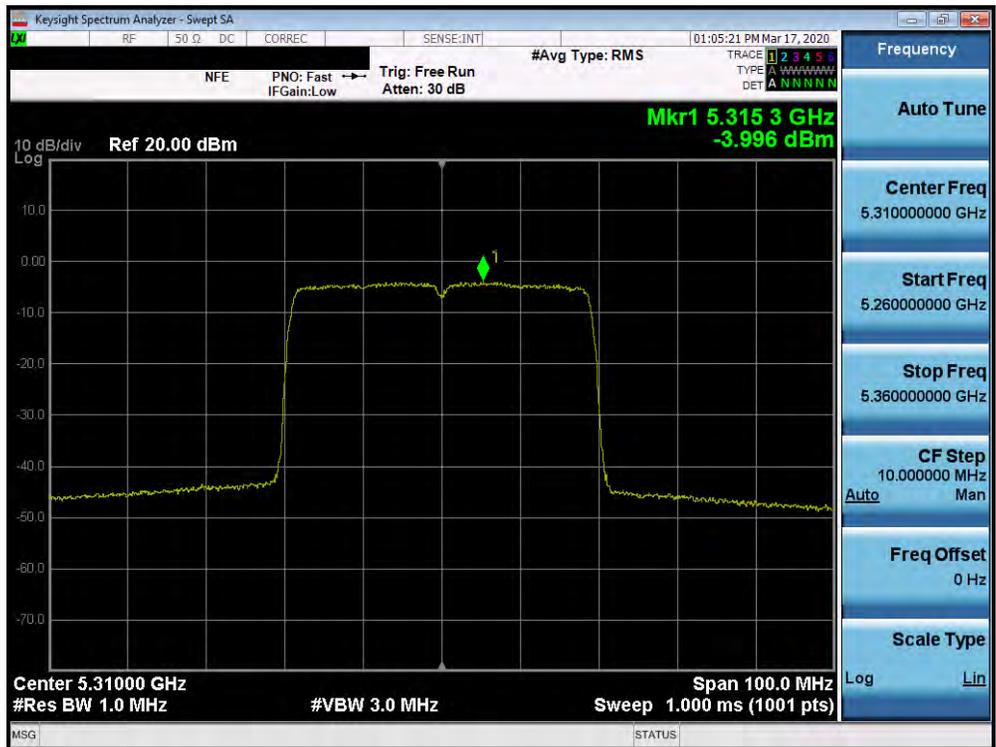
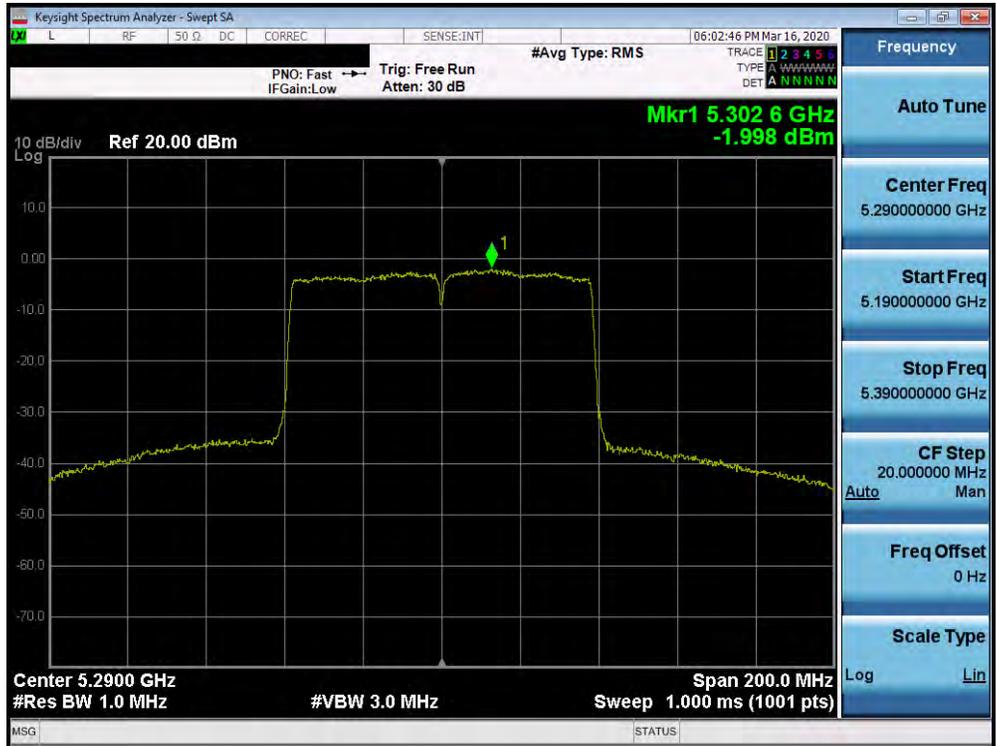


Plot 7-159. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2A) – Ch. 54)

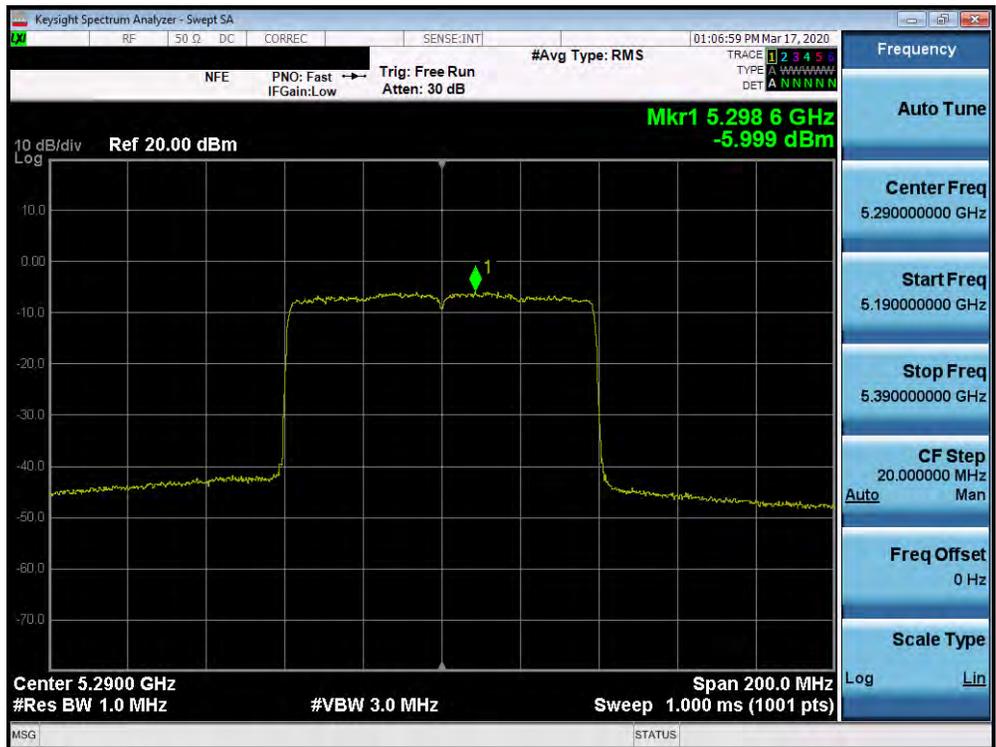


Plot 7-160. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 109 of 238

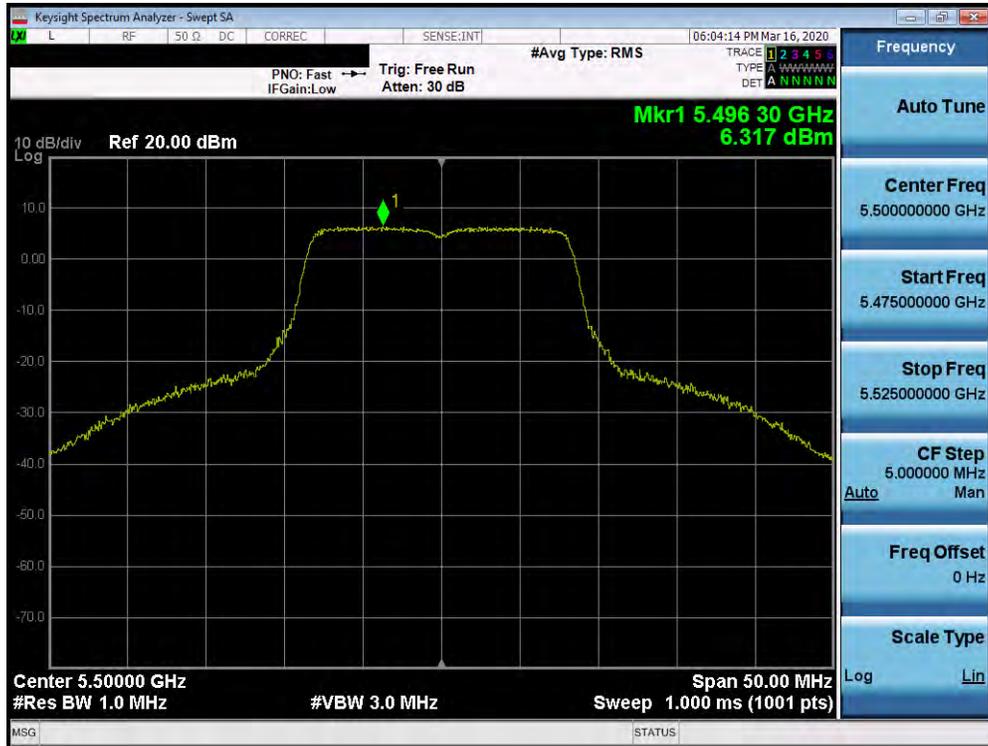


Plot 7-161. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)

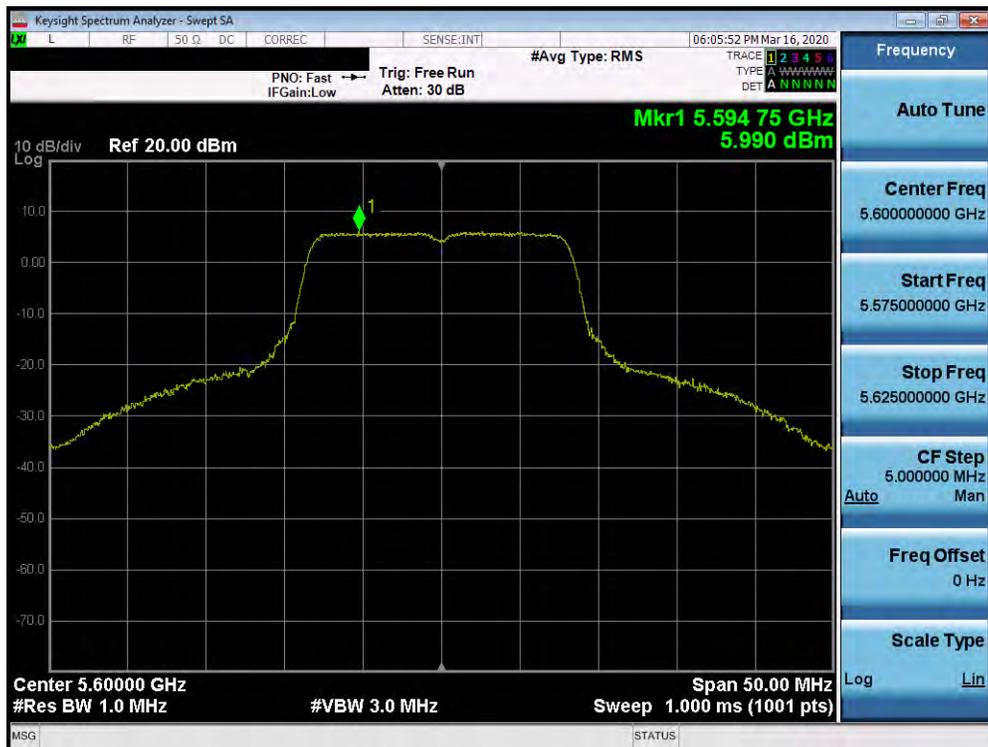


Plot 7-162. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 110 of 238

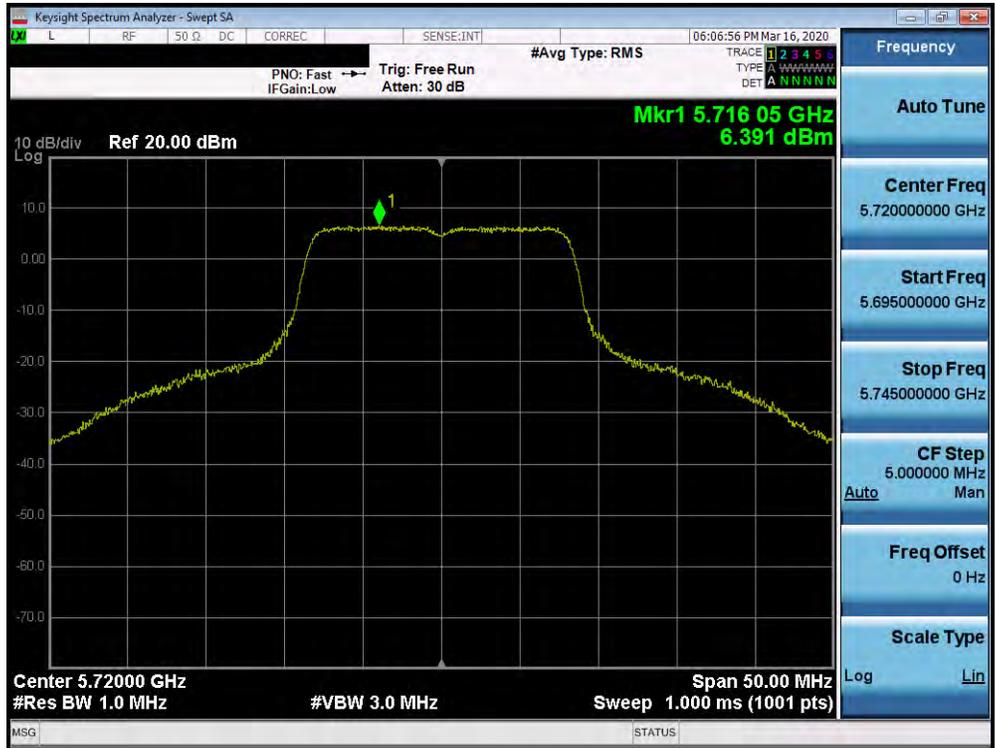


Plot 7-163. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) – Ch. 100)

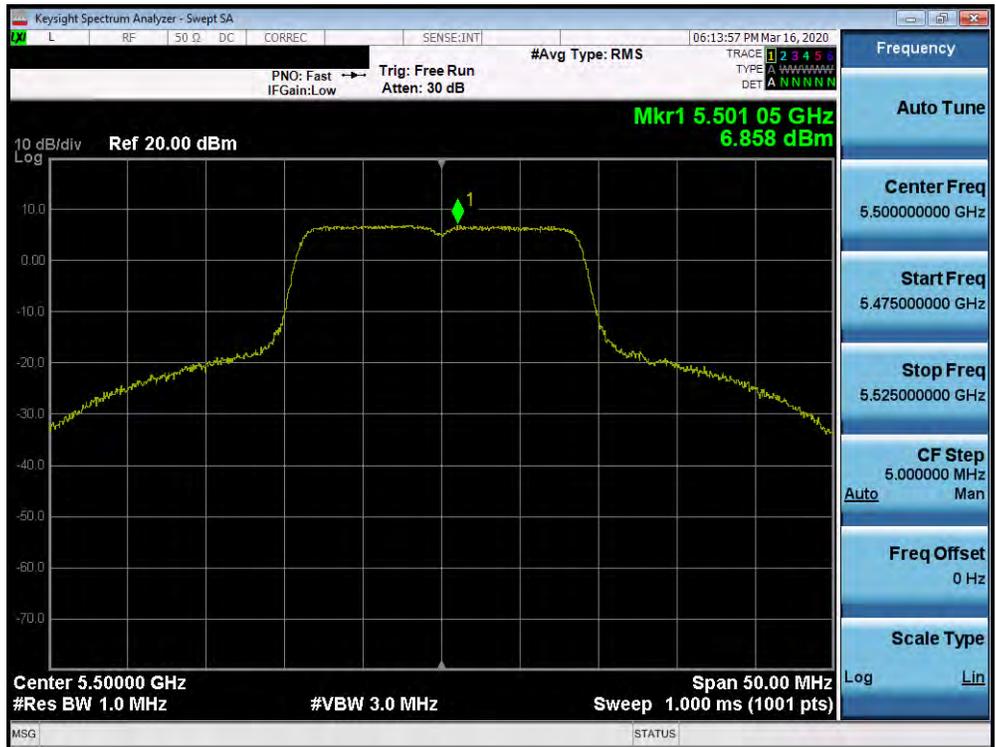


Plot 7-164. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) – Ch. 120)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 111 of 238

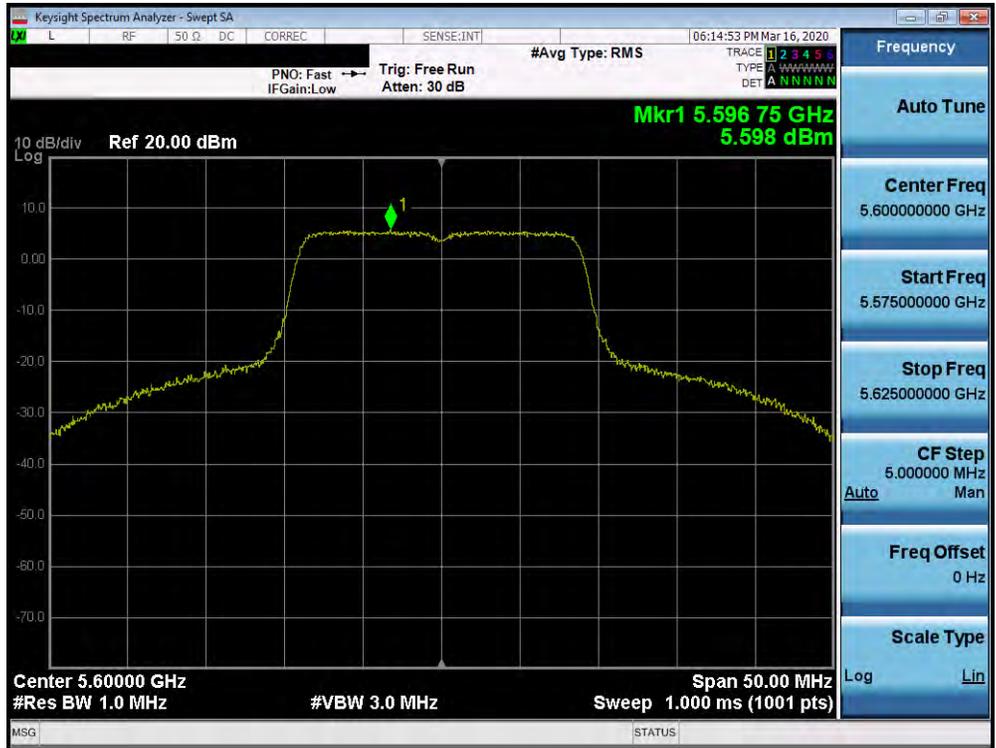


Plot 7-165. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) – Ch. 144)

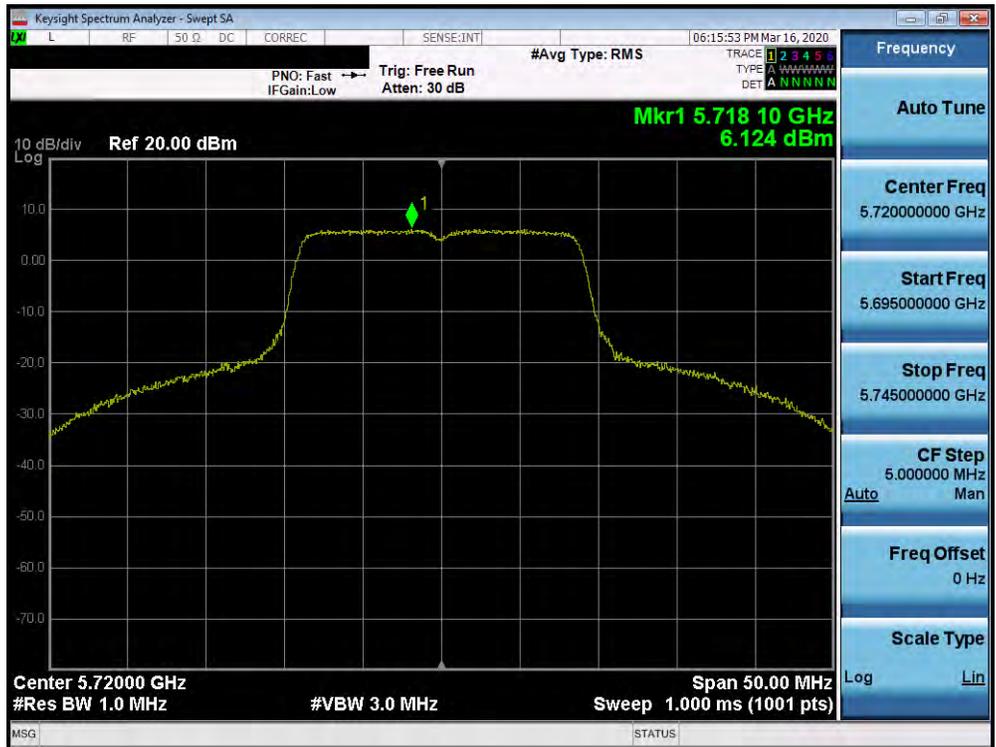


Plot 7-166. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 112 of 238

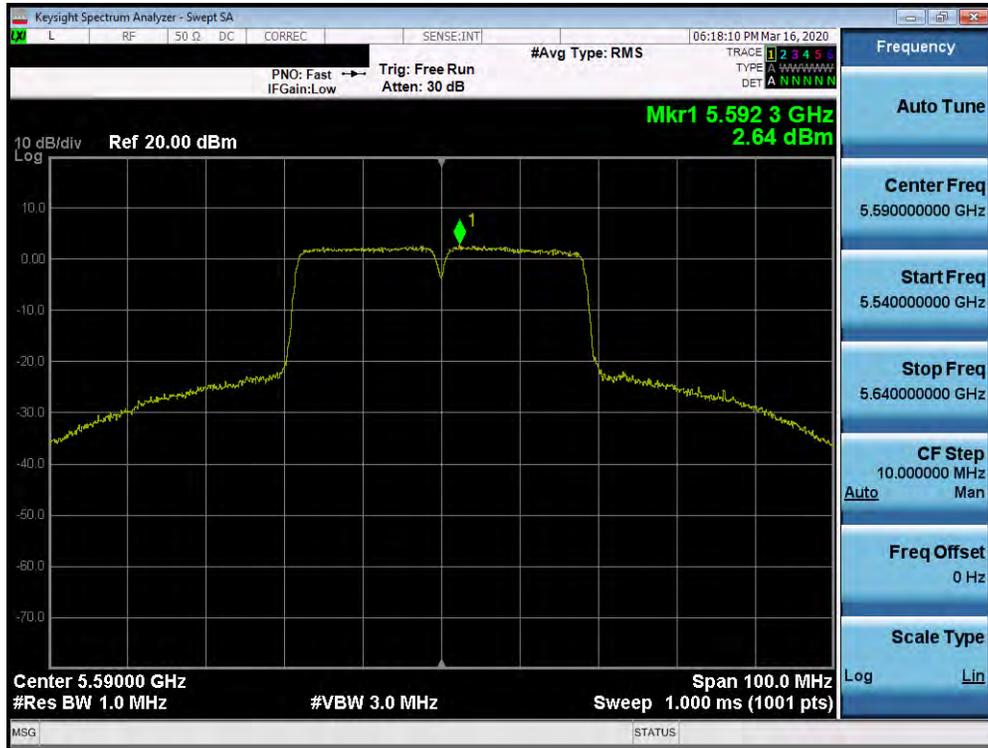


Plot 7-167. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 120)

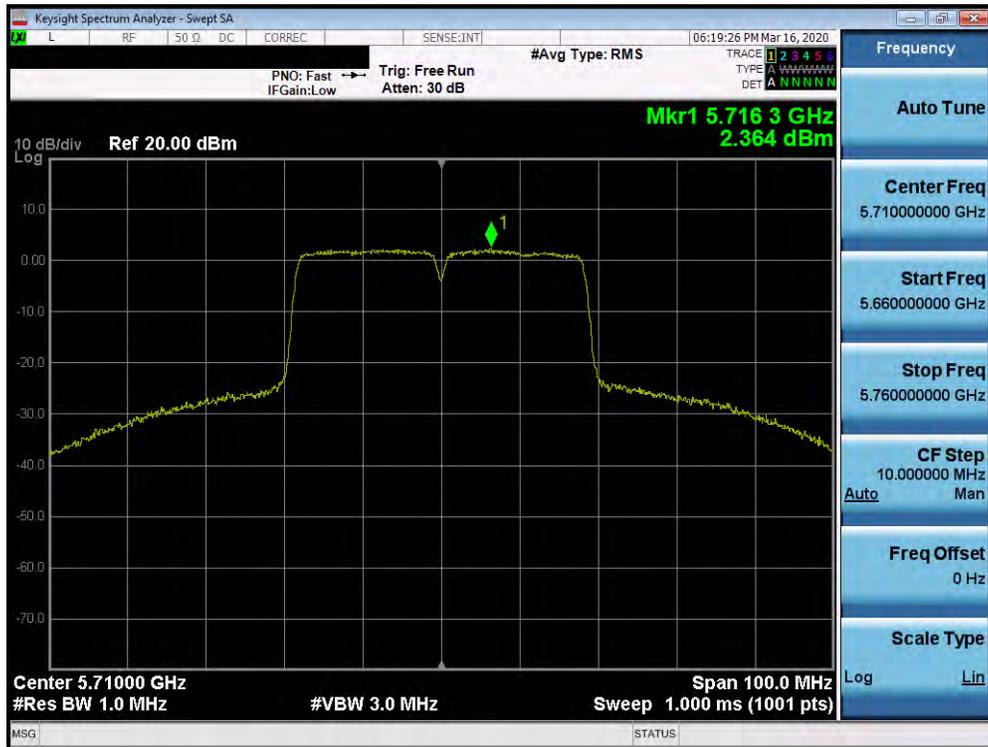


Plot 7-168. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 113 of 238

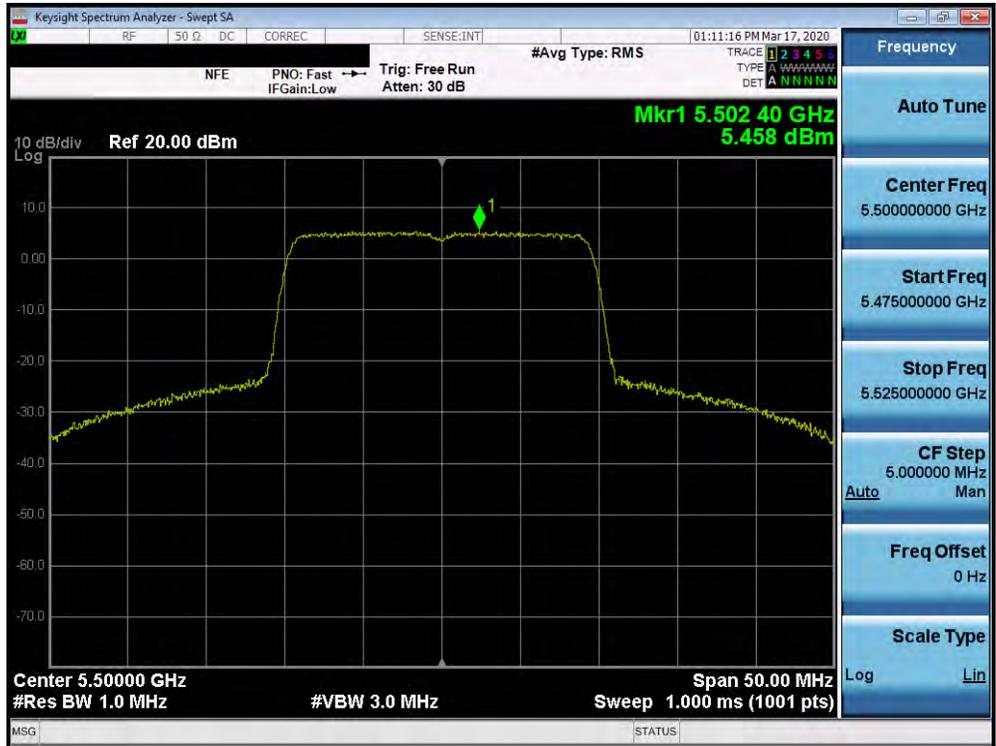


Plot 7-173. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) – Ch. 110118)

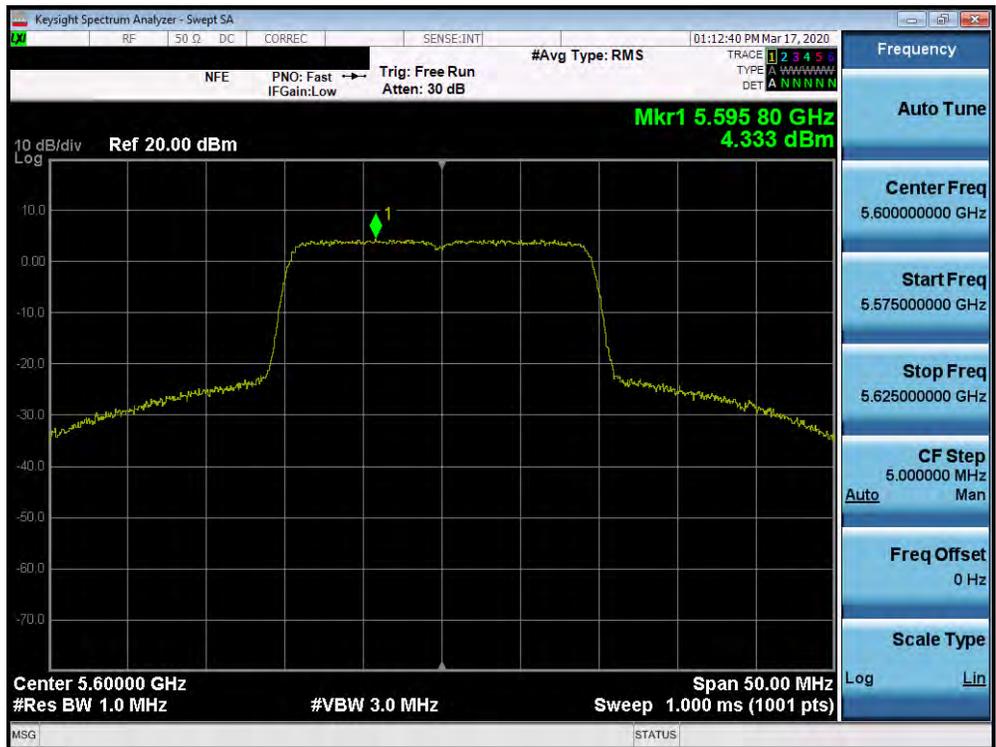


Plot 7-174. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 116 of 238



Plot 7-175. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2C) – Ch. 102)



Plot 7-176. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 117 of 238



Plot 7-179. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 122)



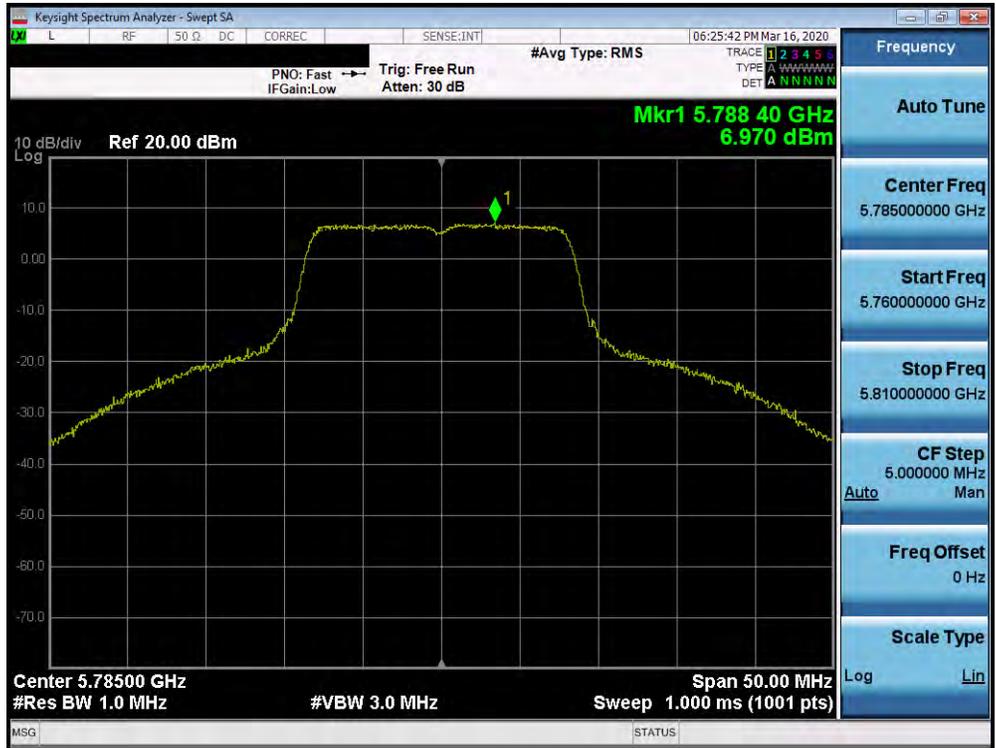
Plot 7-180. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 119 of 238

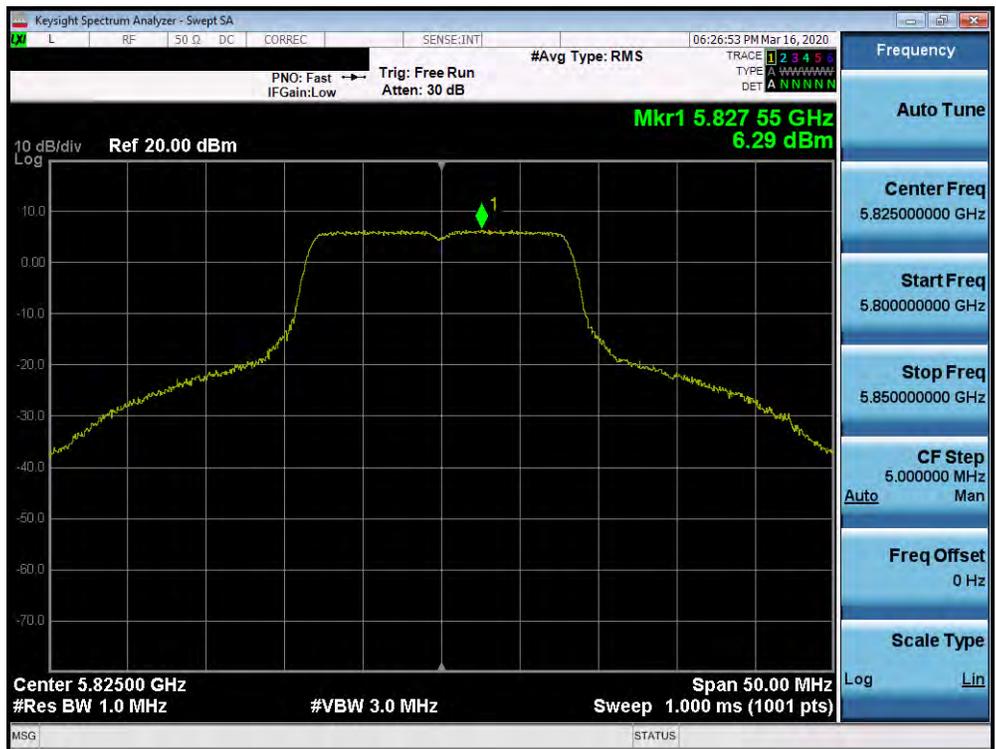


Plot 7-183. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 - 5/8/2020	EUT Type: Portable Handset		Page 121 of 238

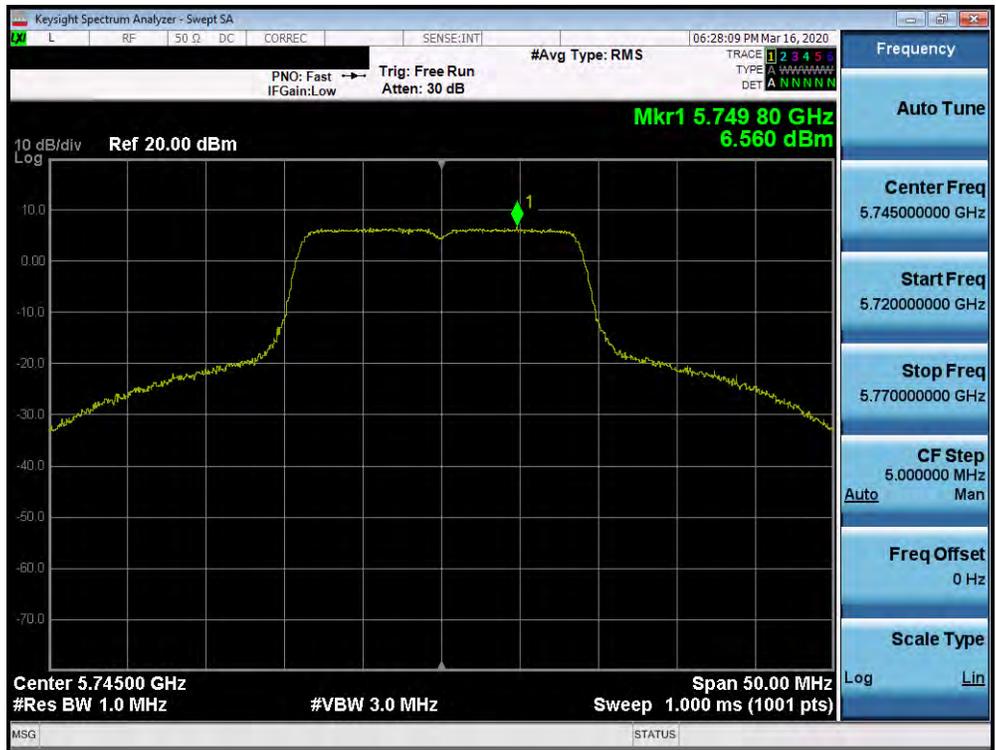


Plot 7-185. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) – Ch. 157)

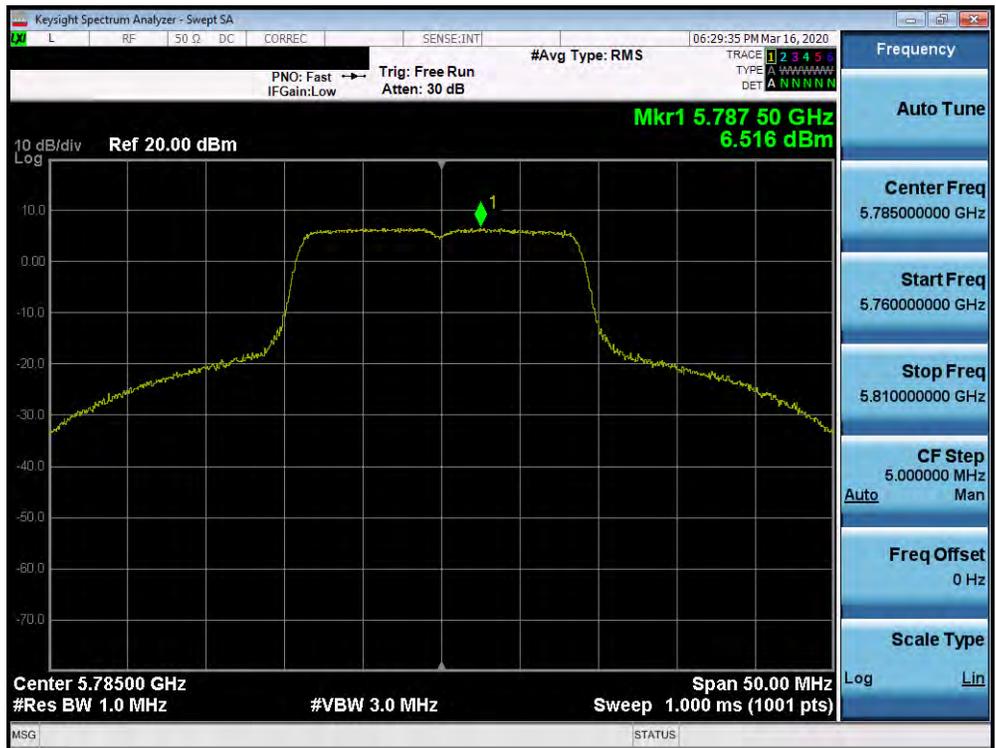


Plot 7-186. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) – Ch. 165)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 123 of 238

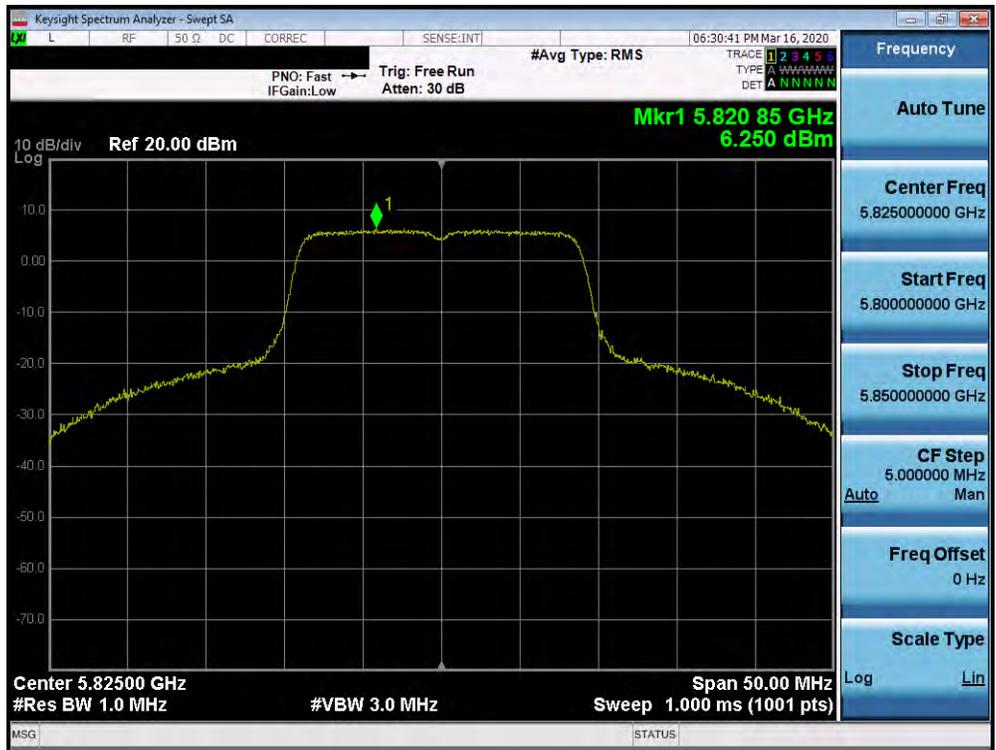


Plot 7-187. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

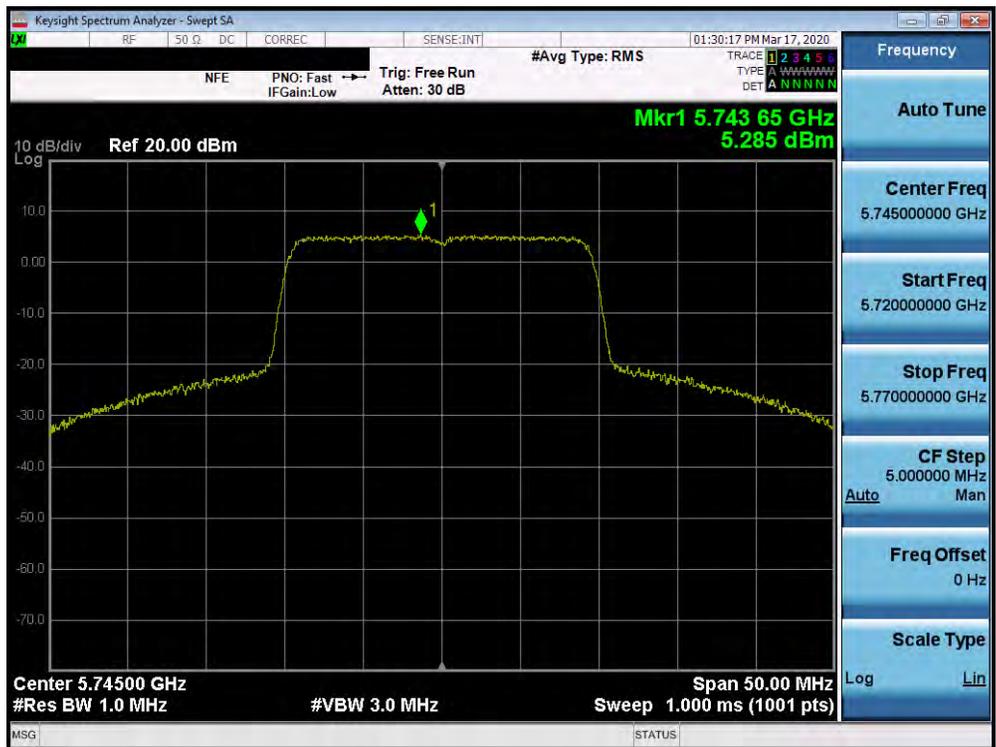


Plot 7-188. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 124 of 238



Plot 7-189. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

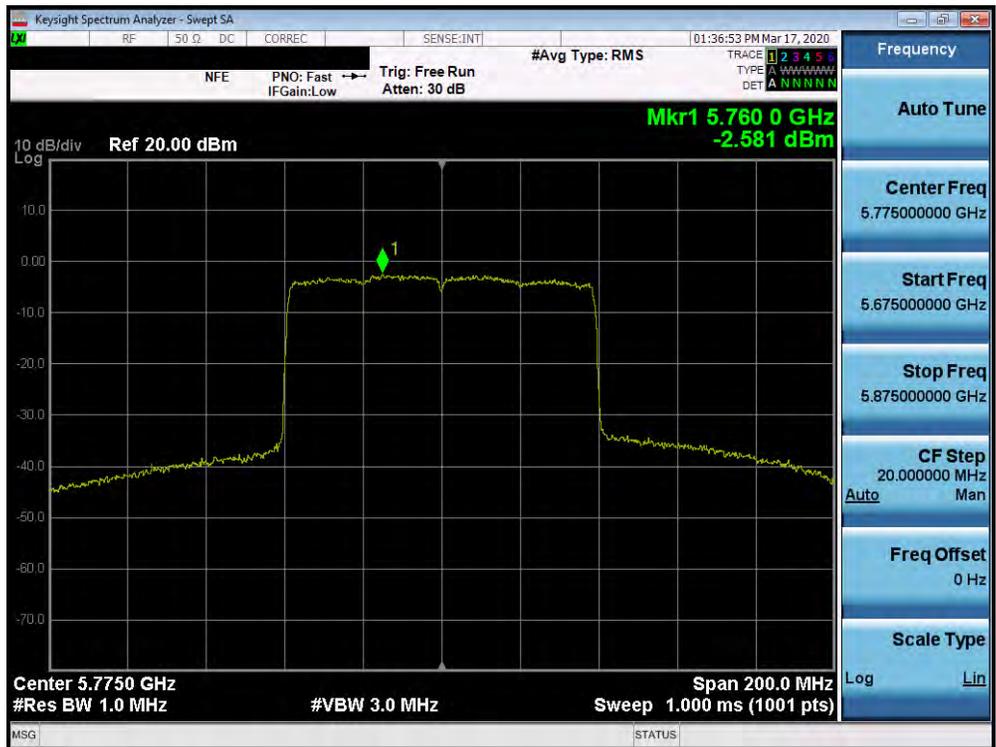


Plot 7-190. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) – Ch. 149)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 125 of 238



Plot 7-197. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)



Plot 7-198. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 3) – Ch. 155)

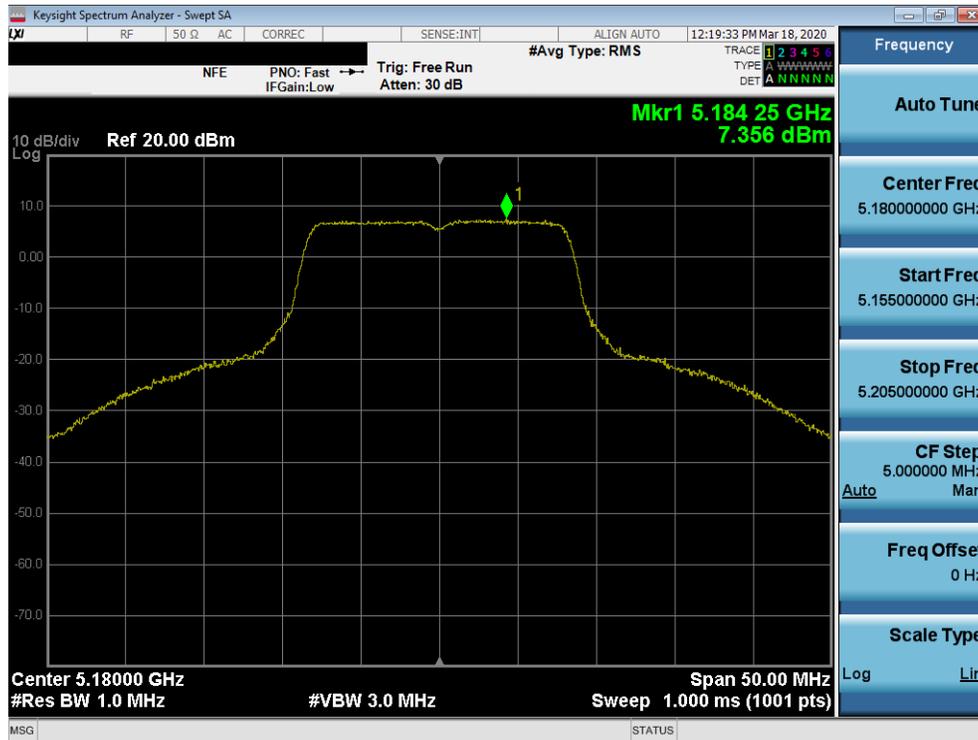
FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 129 of 238

SISO Antenna-2 Power Spectral Density Measurements

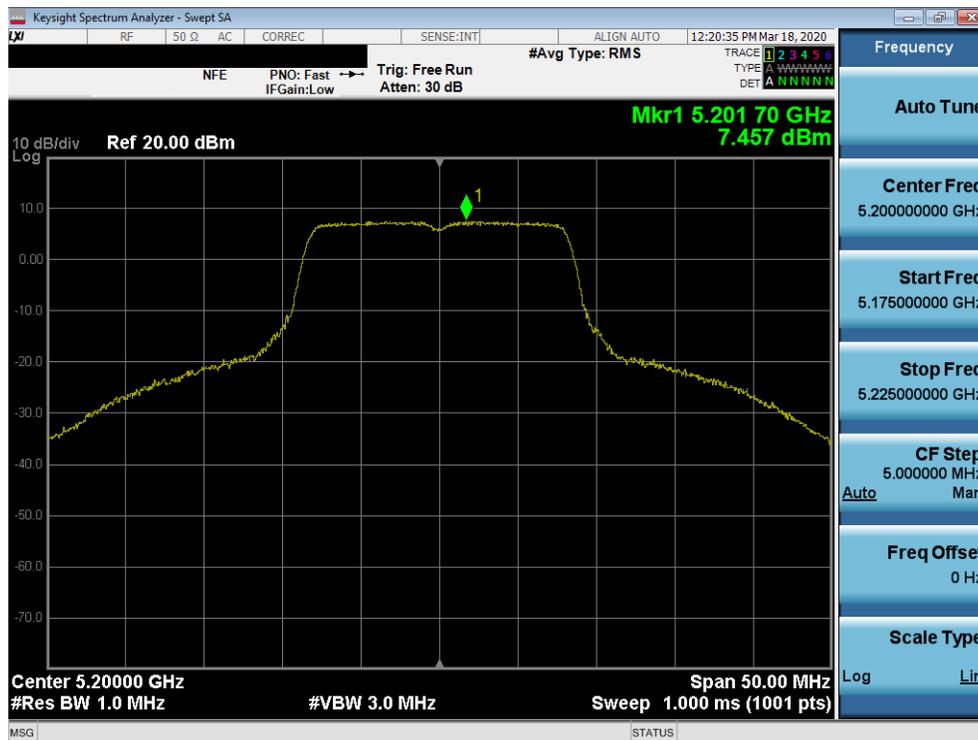
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	a	6	7.36	11.0	-3.64
	5200	40	a	6	7.46	11.0	-3.54
	5240	48	a	6	7.44	11.0	-3.56
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	6.98	11.0	-4.02
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	6.96	11.0	-4.04
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	7.21	11.0	-3.80
	5180	36	ax (20MHz)	6.5/7.2 (MCS0)	3.32	11.0	-7.69
	5200	40	ax (20MHz)	6.5/7.2 (MCS0)	5.40	11.0	-5.60
	5240	48	ax (20MHz)	6.5/7.2 (MCS0)	5.55	11.0	-5.45
	5190	38	n (40MHz)	13.5/15 (MCS0)	3.27	11.0	-7.73
	5230	46	n (40MHz)	13.5/15 (MCS0)	3.29	11.0	-7.72
	5190	38	ax (40MHz)	13.5/15 (MCS0)	-2.43	11.0	-13.43
	5230	46	ax (40MHz)	13.5/15 (MCS0)	2.73	11.0	-8.27
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-1.50	11.0	-12.50
5210	42	ax (80MHz)	29.3/32.5 (MCS0)	-5.54	11.0	-16.54	
Band 2A	5260	52	a	6	7.28	11.0	-3.72
	5280	56	a	6	7.19	11.0	-3.81
	5320	64	a	6	7.60	11.0	-3.40
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	7.08	11.0	-3.92
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	7.22	11.0	-3.78
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	7.55	11.0	-3.45
	5260	52	ax (20MHz)	6.5/7.2 (MCS0)	5.58	11.0	-5.42
	5280	56	ax (20MHz)	6.5/7.2 (MCS0)	5.39	11.0	-5.61
	5320	64	ax (20MHz)	6.5/7.2 (MCS0)	4.17	11.0	-6.84
	5270	54	n (40MHz)	13.5/15 (MCS0)	3.27	11.0	-7.73
	5310	62	n (40MHz)	13.5/15 (MCS0)	3.77	11.0	-7.23
	5270	54	ax (40MHz)	13.5/15 (MCS0)	1.31	11.0	-9.69
	5310	62	ax (40MHz)	13.5/15 (MCS0)	-3.42	11.0	-14.42
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-0.01	11.0	-11.01
5290	58	ax (80MHz)	29.3/32.5 (MCS0)	-6.18	11.0	-17.18	
Band 2C	5500	100	a	6	6.94	11.0	-4.06
	5600	120	a	6	7.28	11.0	-3.72
	5720	144	a	6	6.85	11.0	-4.15
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	6.83	11.0	-4.18
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	7.00	11.0	-4.00
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	6.64	11.0	-4.36
	5500	100	ax (20MHz)	6.5/7.2 (MCS0)	6.01	11.0	-4.99
	5600	120	ax (20MHz)	6.5/7.2 (MCS0)	5.97	11.0	-5.03
	5720	144	ax (20MHz)	6.5/7.2 (MCS0)	5.89	11.0	-5.11
	5510	102	n (40MHz)	13.5/15 (MCS0)	3.10	11.0	-7.91
	5590	118	n (40MHz)	13.5/15 (MCS0)	4.06	11.0	-6.94
	5710	142	n (40MHz)	13.5/15 (MCS0)	4.00	11.0	-7.00
	5510	102	ax (40MHz)	13.5/15 (MCS0)	0.22	11.0	-10.78
	5590	118	ax (40MHz)	13.5/15 (MCS0)	1.94	11.0	-9.06
	5710	142	ax (40MHz)	13.5/15 (MCS0)	1.78	11.0	-9.23
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-0.52	11.0	-11.52
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-0.59	11.0	-11.59
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-0.51	11.0	-11.51
5530	106	ax (80MHz)	29.3/32.5 (MCS0)	-4.26	11.0	-15.26	
5610	122	ax (80MHz)	29.3/32.5 (MCS0)	-1.41	11.0	-12.41	
5690	138	ax (80MHz)	29.3/32.5 (MCS0)	-1.24	11.0	-12.24	

Table 7-23. Conducted Power Spectral Density Measurements SISO ANT2

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset	Page 130 of 238	

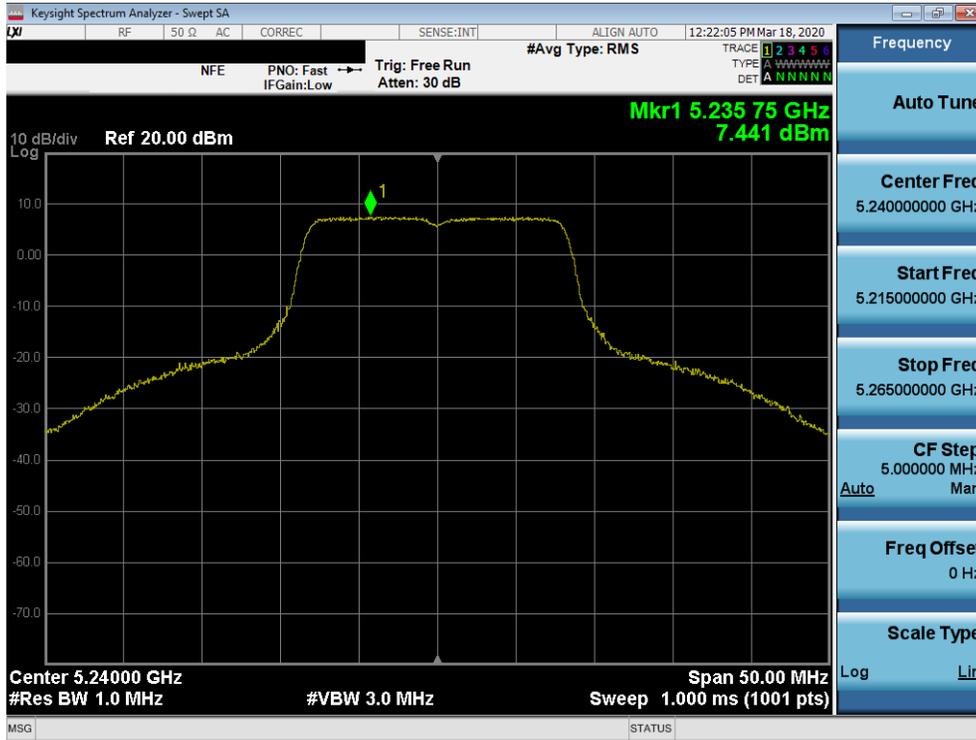


Plot 7-199. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) – Ch. 36)

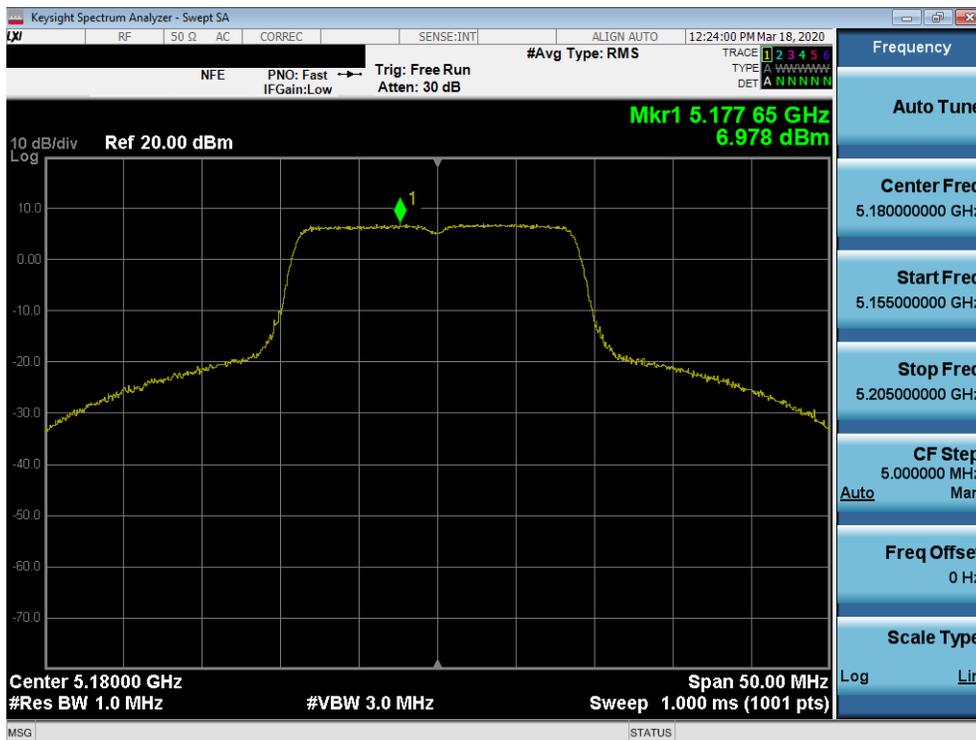


Plot 7-200. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) – Ch. 40)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 131 of 238

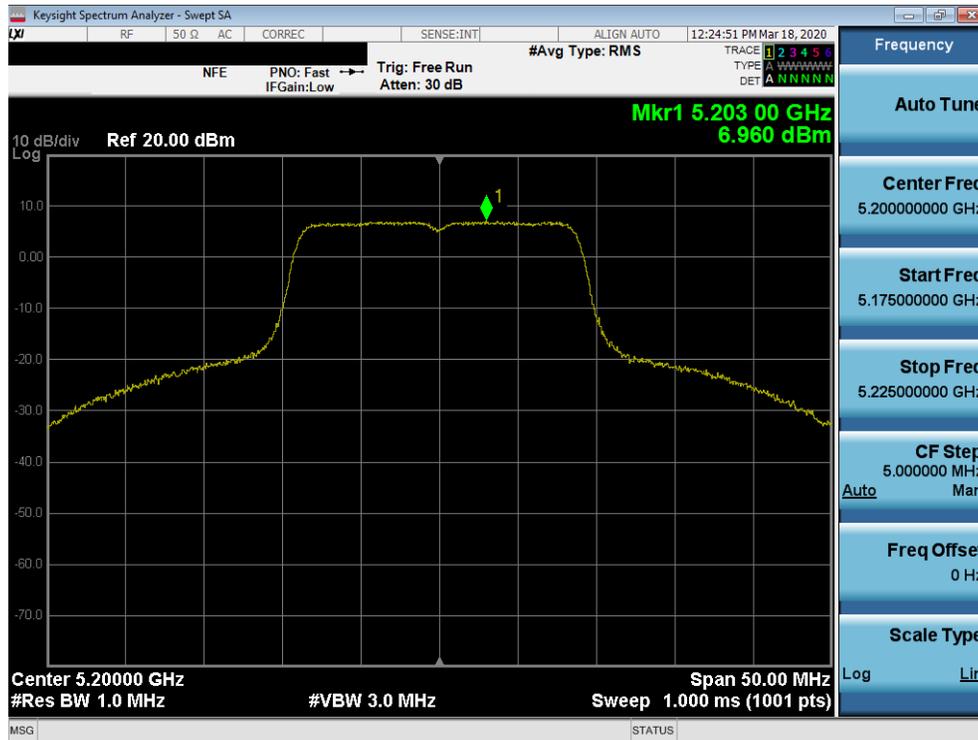


Plot 7-201. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) – Ch. 48)

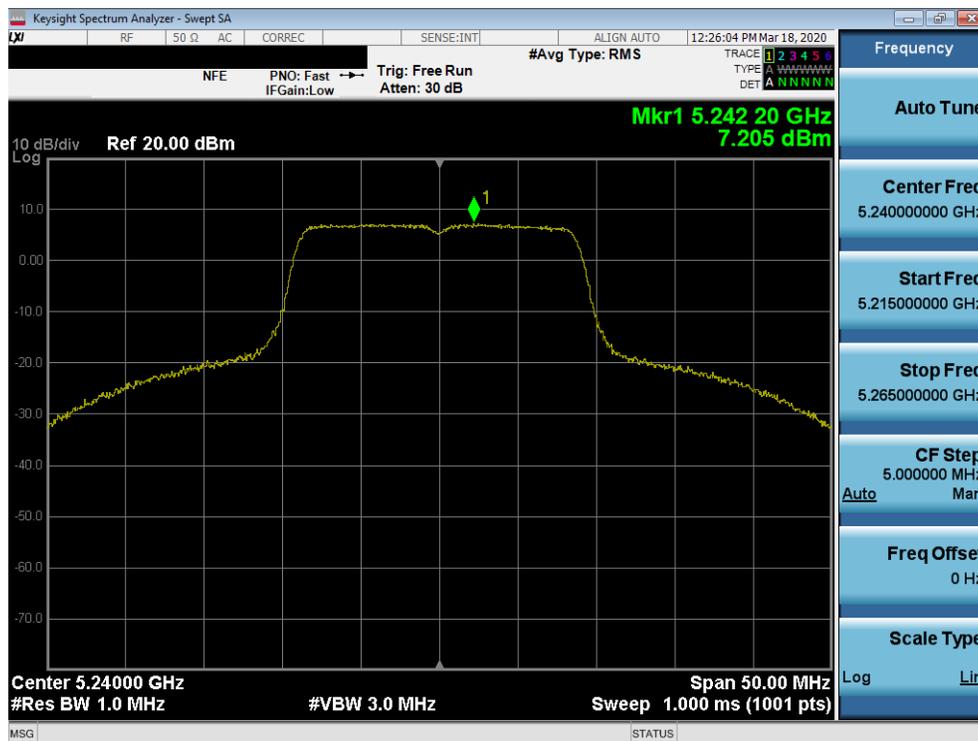


Plot 7-202. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 36)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 132 of 238

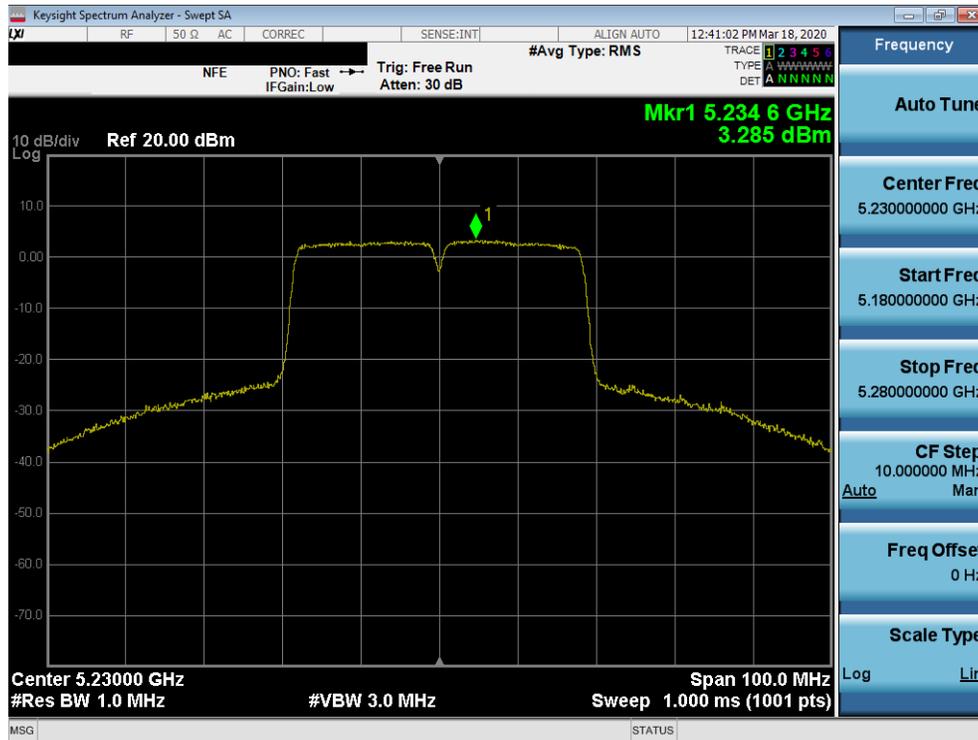


Plot 7-203. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 40)

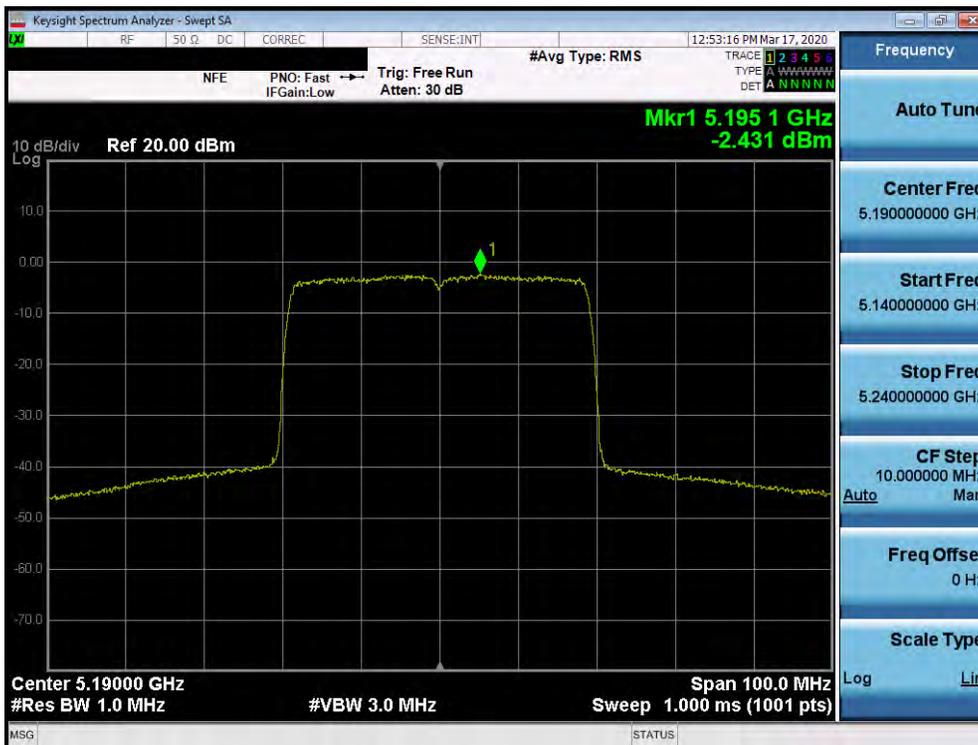


Plot 7-204. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 48)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 133 of 238

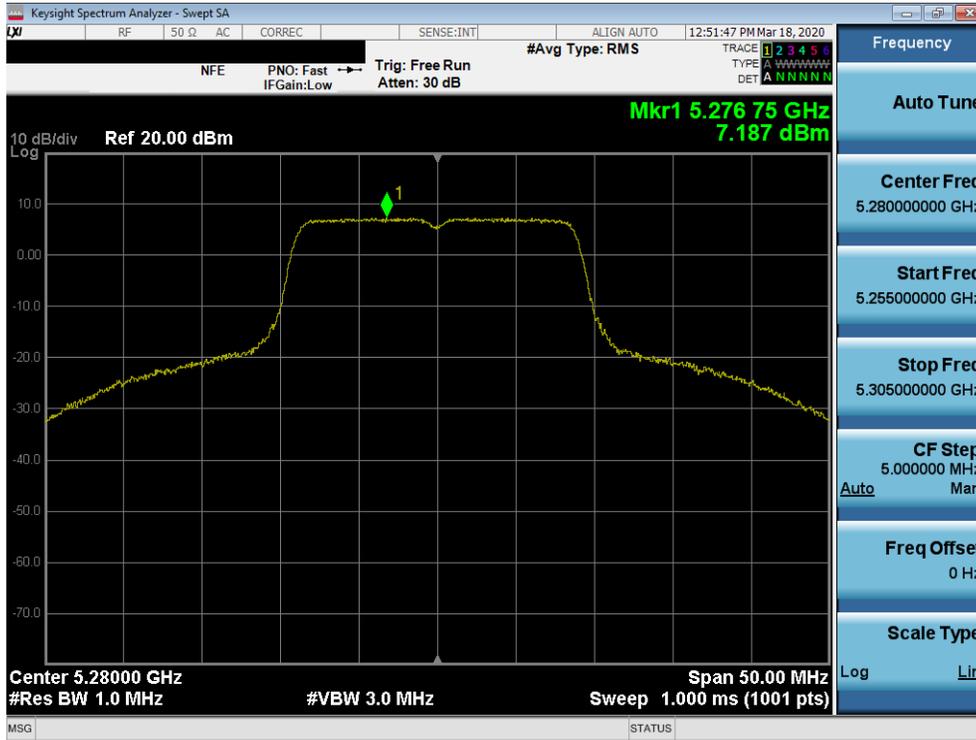


Plot 7-209. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

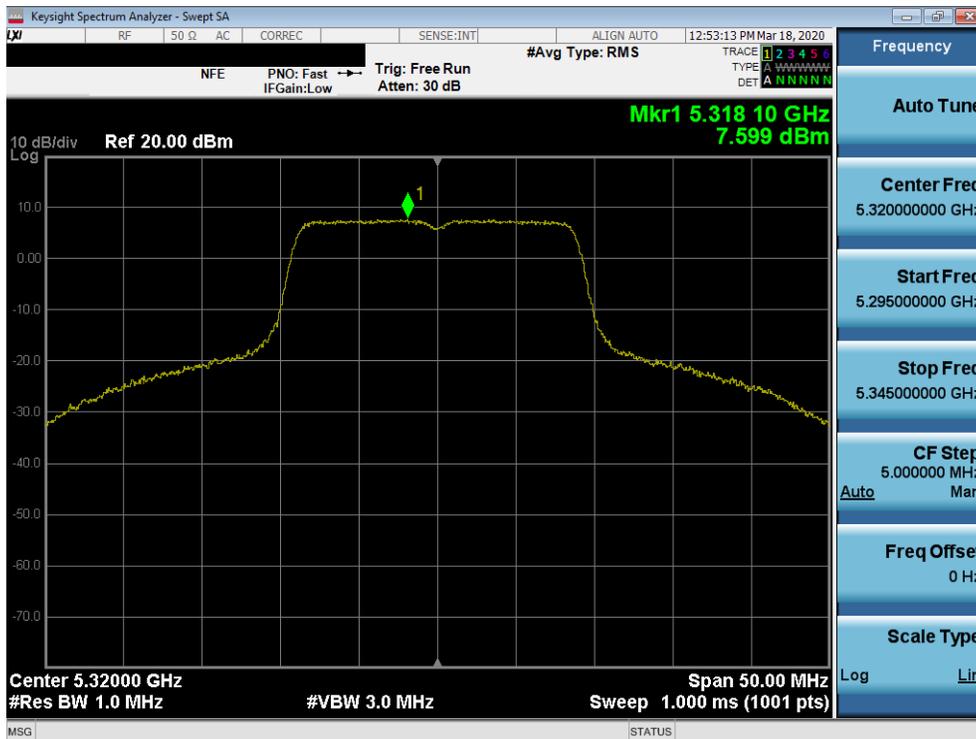


Plot 7-210. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 136 of 238

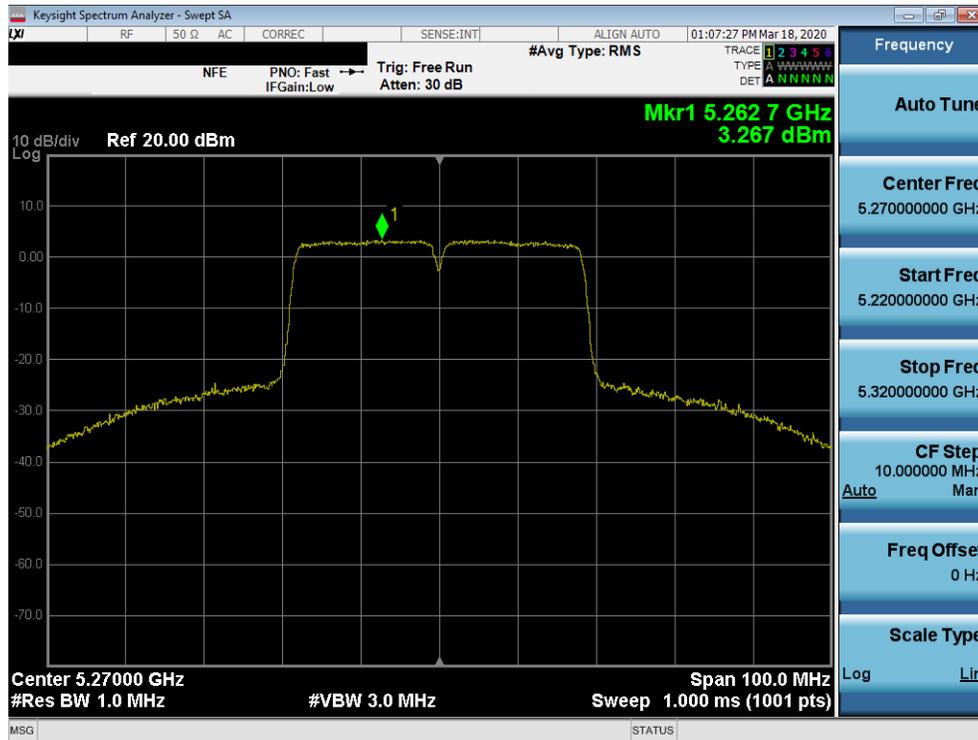


Plot 7-215. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) – Ch. 56)

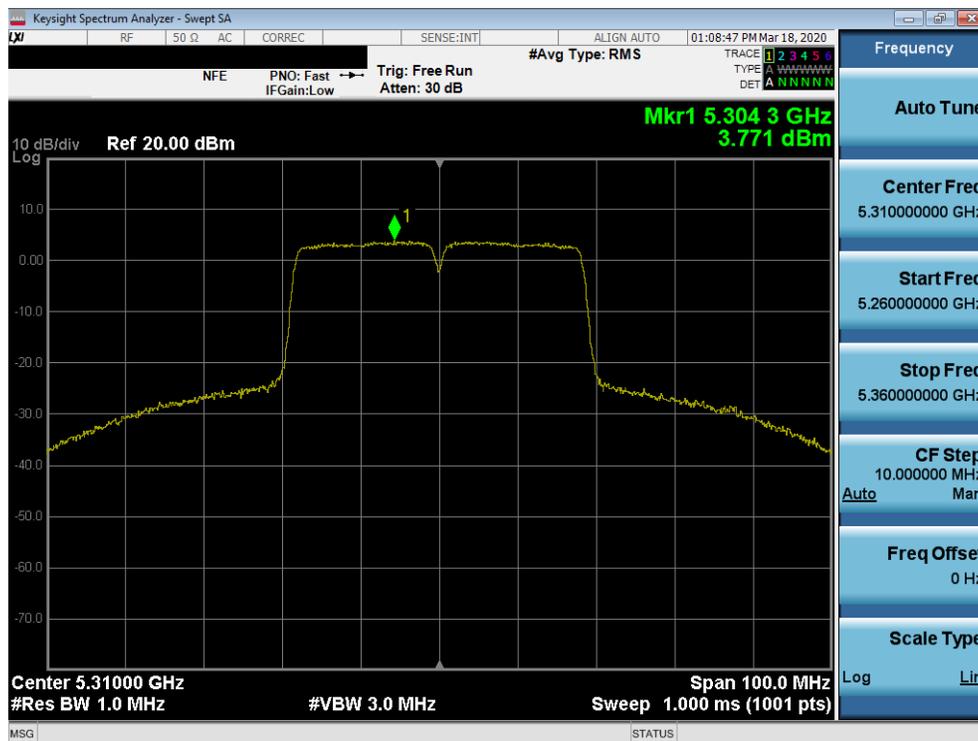


Plot 7-216. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) – Ch. 64)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 139 of 238

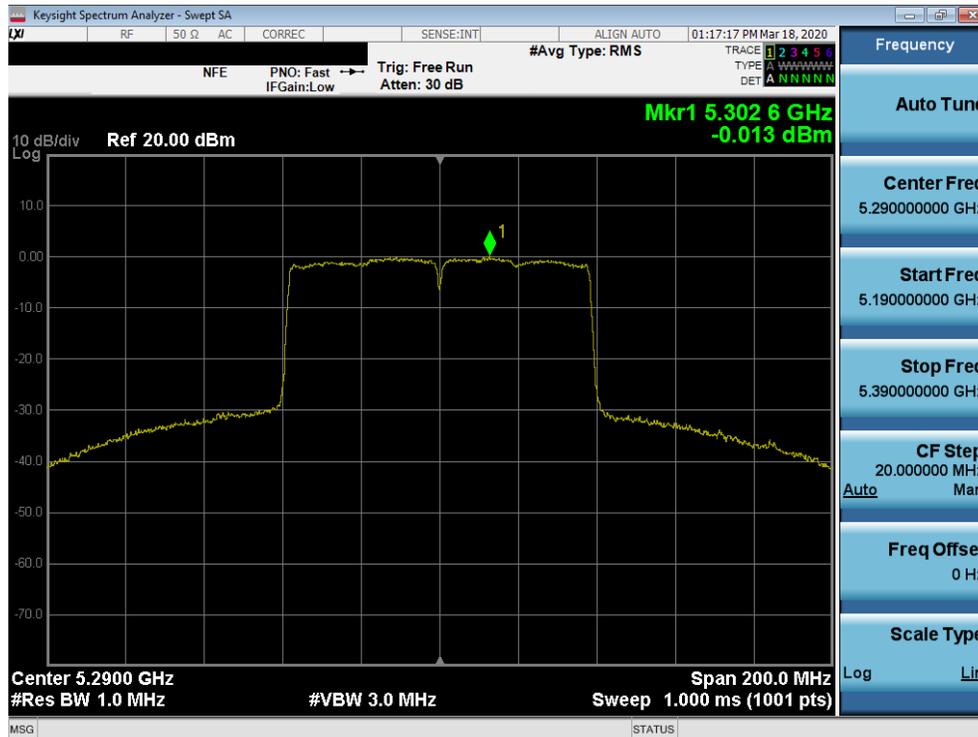


Plot 7-223. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)

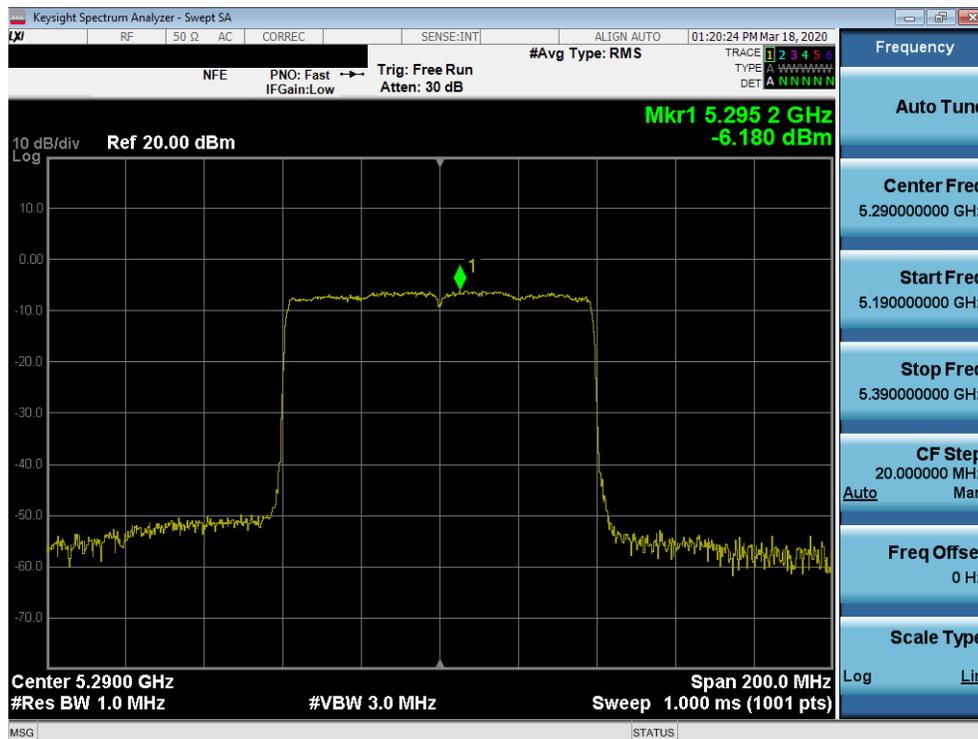


Plot 7-224. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 143 of 238

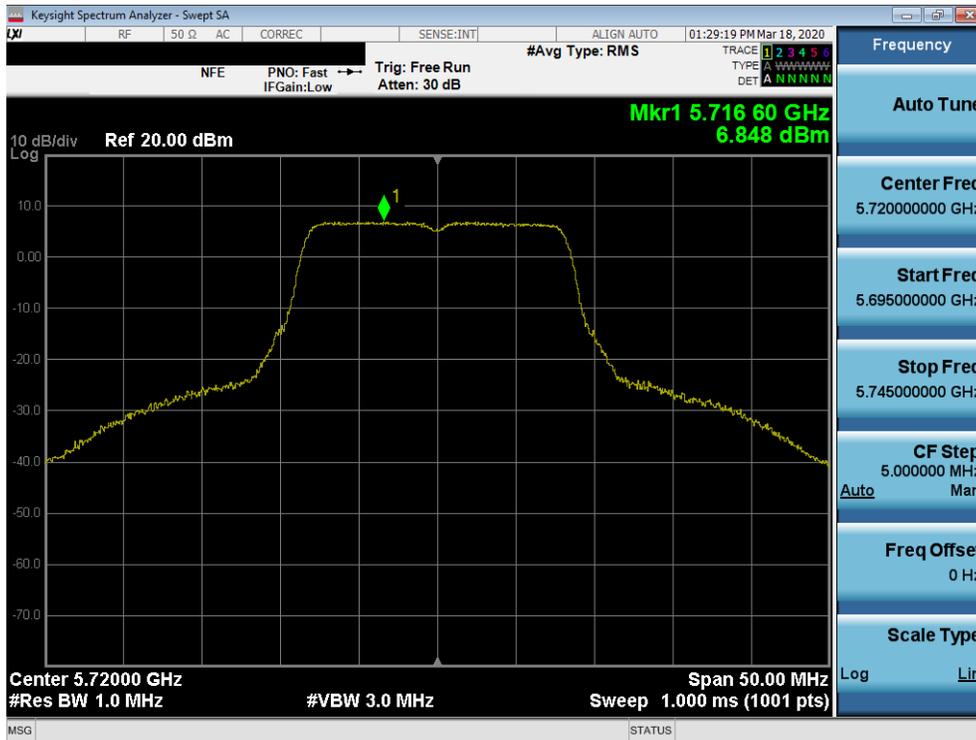


Plot 7-227. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)

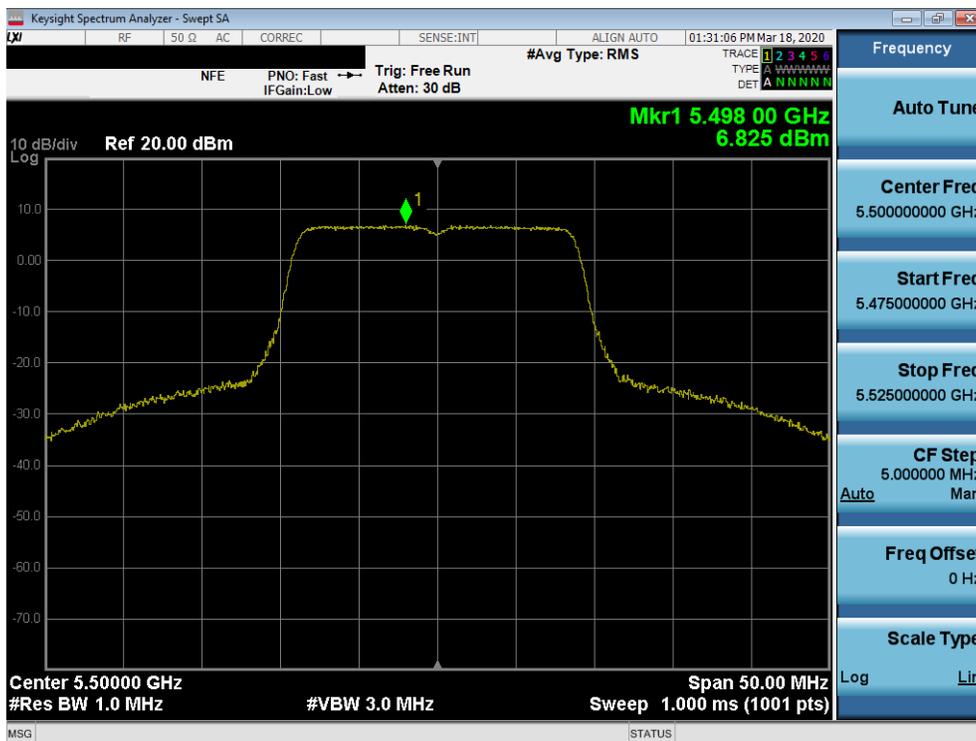


Plot 7-228. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 145 of 238

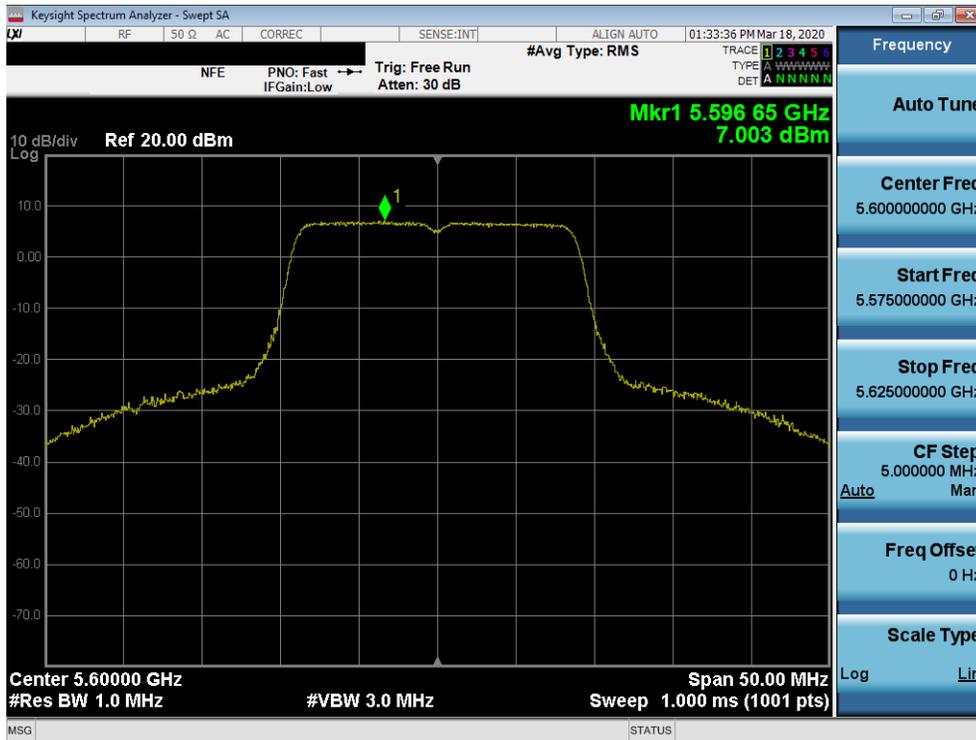


Plot 7-231. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) – Ch. 144)



Plot 7-232. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 147 of 238

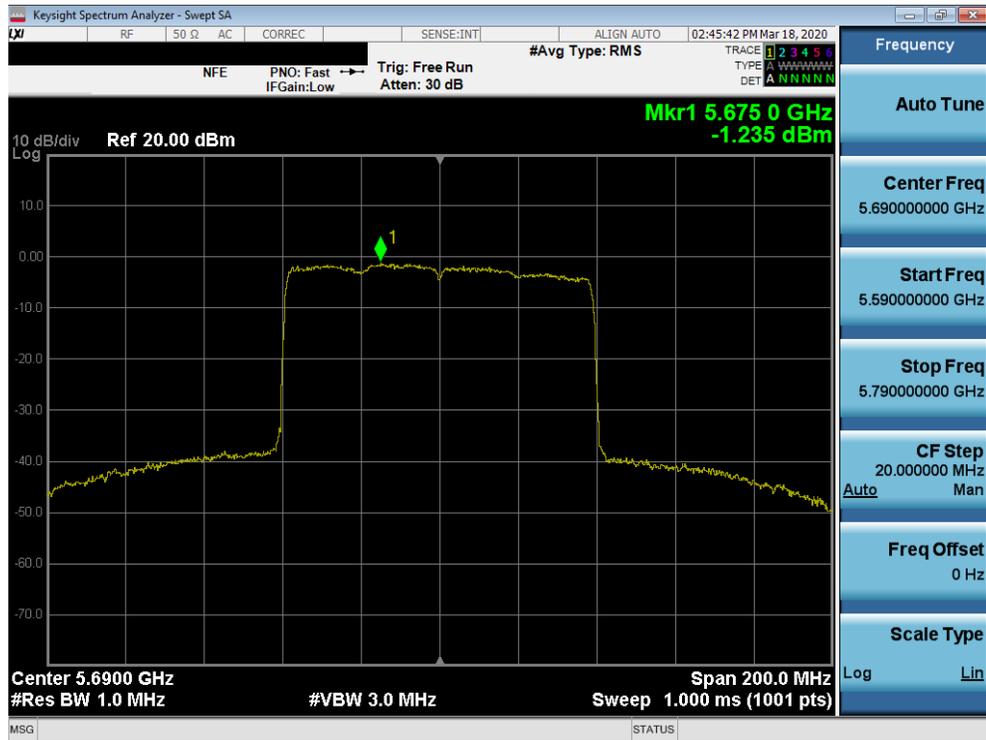


Plot 7-233. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 116120)



Plot 7-234. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMG981V	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 148 of 238

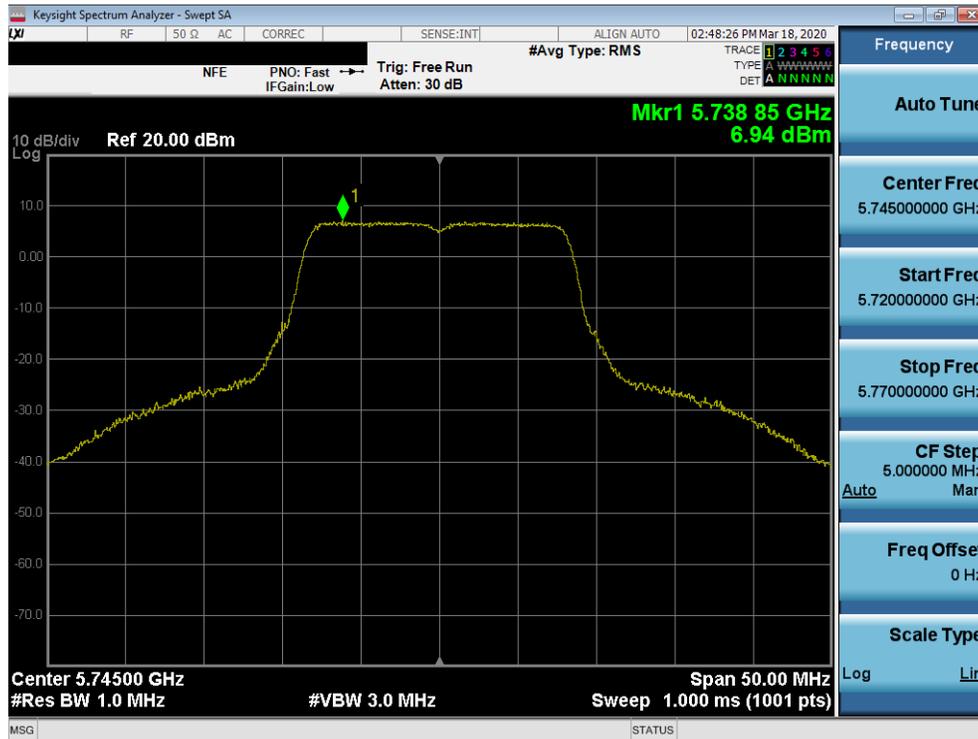


Plot 7-249. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 156 of 238

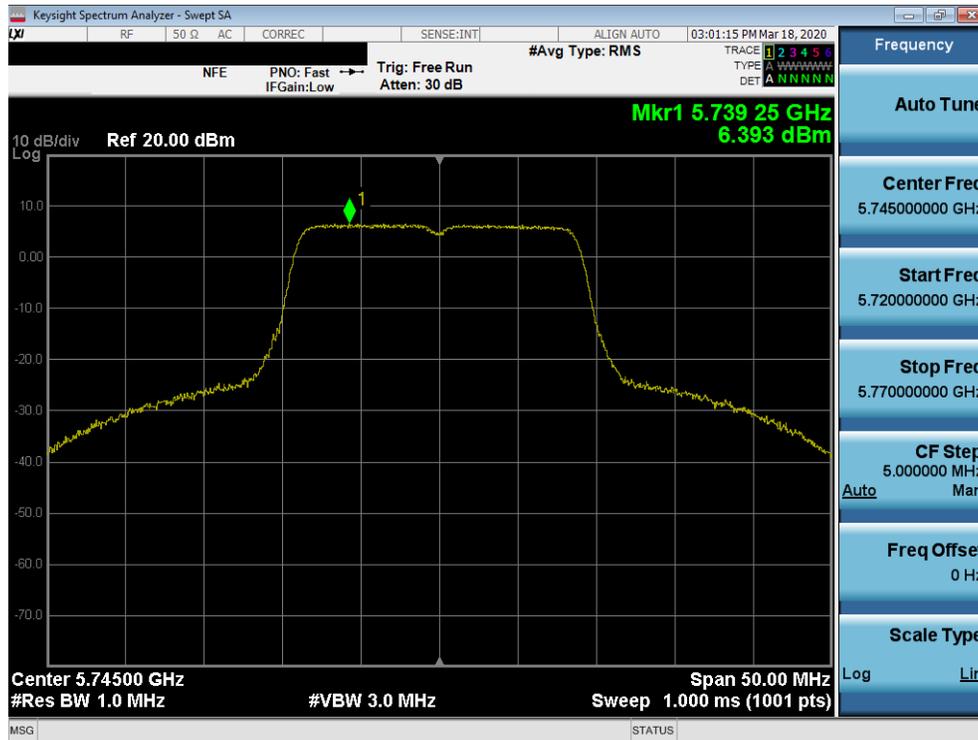
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6	6.94	30.0	-23.06
	5785	157	a	6	7.08	30.0	-22.92
	5825	165	a	6	7.50	30.0	-22.50
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	6.39	30.0	-23.61
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	7.63	30.0	-22.37
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	7.18	30.0	-22.82
	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	5.52	30.0	-24.48
	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	5.77	30.0	-24.23
	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	5.31	30.0	-24.69
	5755	151	n (40MHz)	13.5/15 (MCS0)	3.80	30.0	-26.20
	5795	159	n (40MHz)	13.5/15 (MCS0)	3.80	30.0	-26.20
	5755	151	ax (40MHz)	13.5/15 (MCS0)	1.88	30.0	-28.12
	5795	159	ax (40MHz)	13.5/15 (MCS0)	1.59	30.0	-28.41
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	0.13	30.0	-29.87
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	-1.76	30.0	-31.76

Table 7-24. Band 3 Conducted Power Spectral Density Measurements SISO ANT2

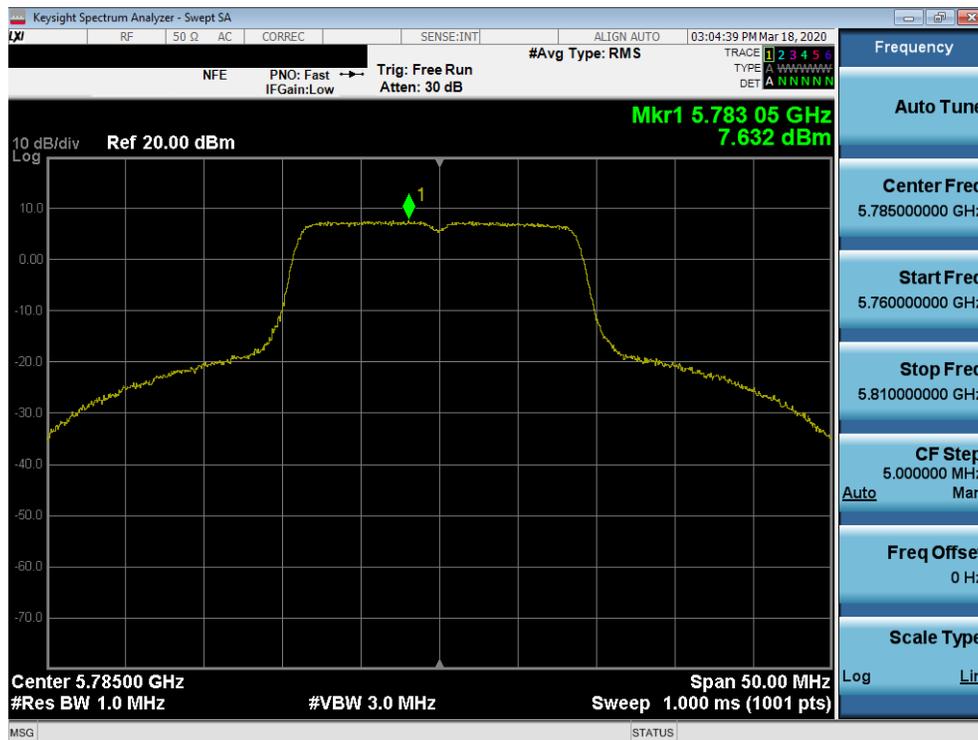


Plot 7-250. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 149)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 157 of 238

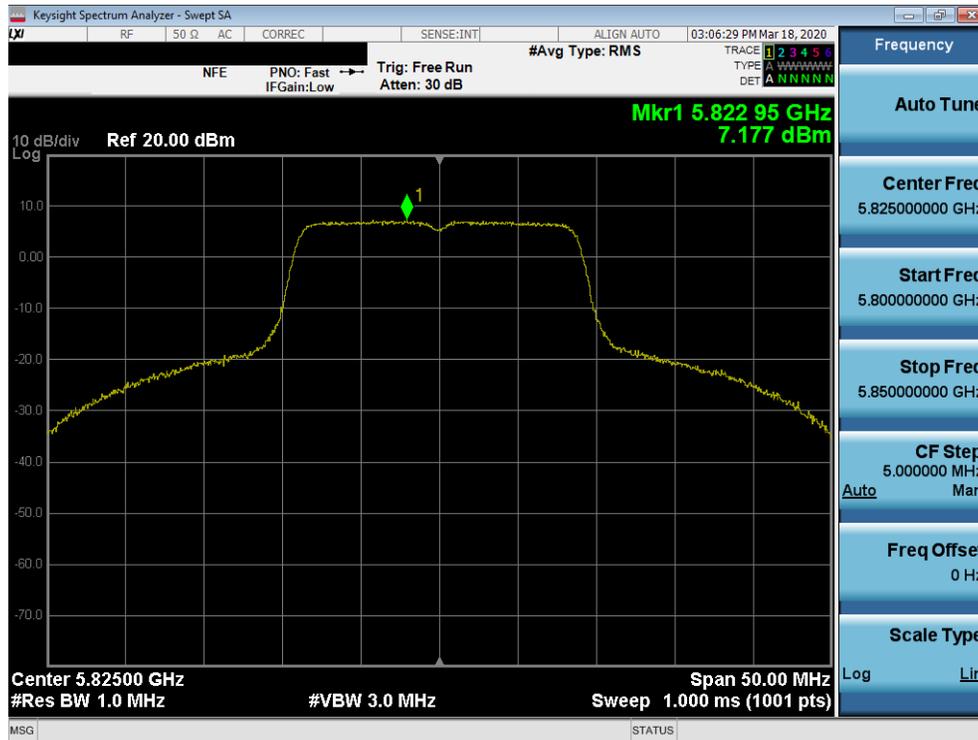


Plot 7-253. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

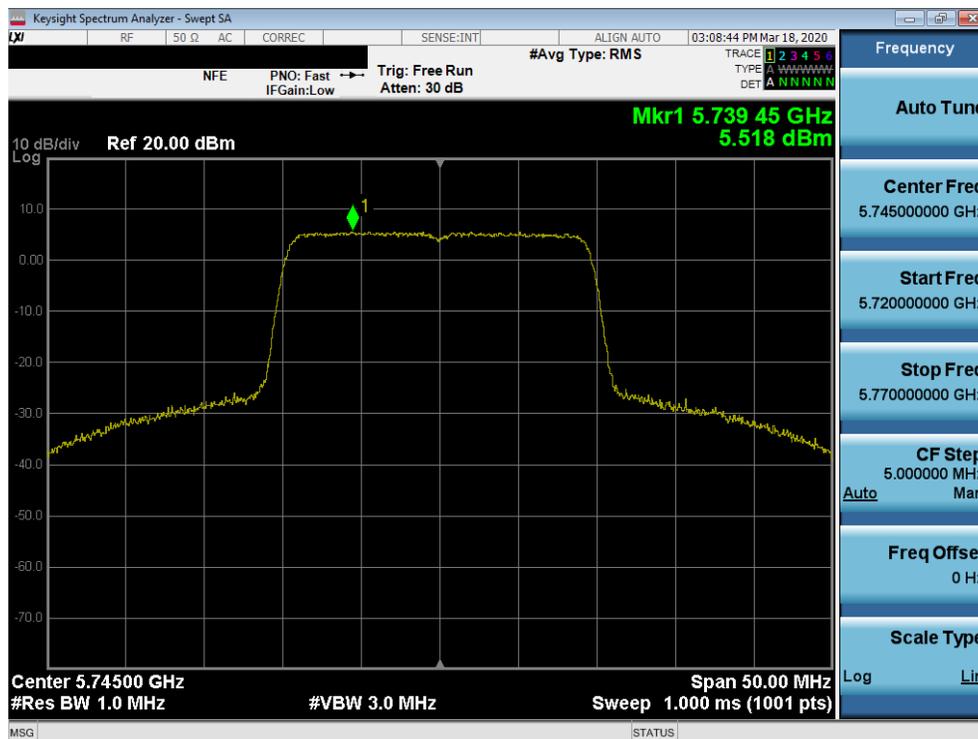


Plot 7-254. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 159 of 238



Plot 7-255. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

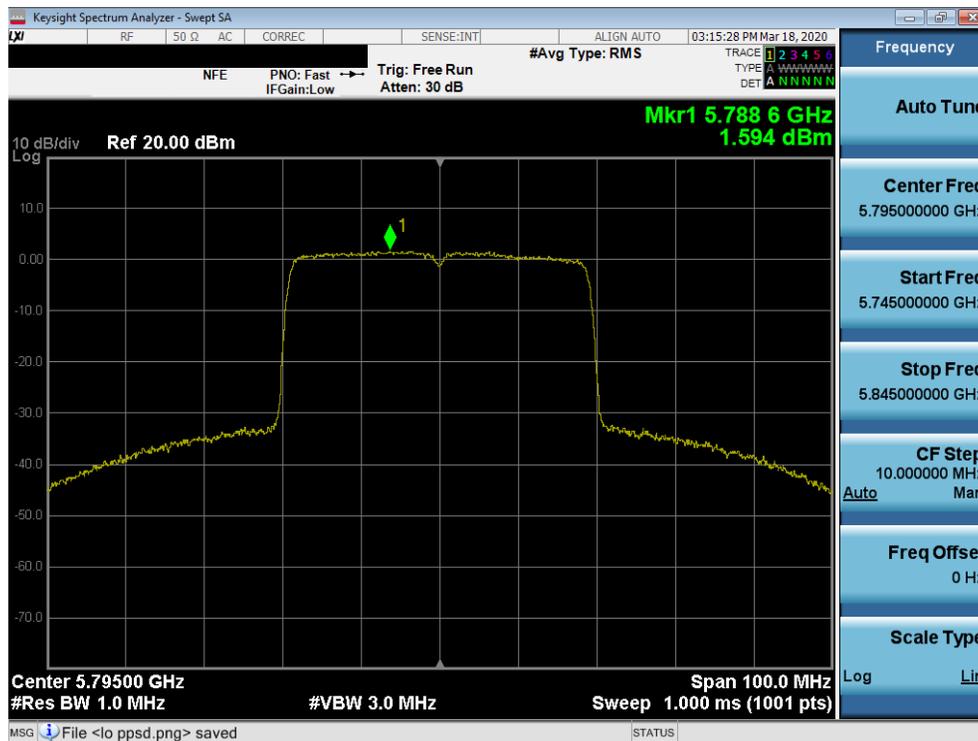


Plot 7-256. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) – Ch. 149)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 160 of 238



Plot 7-261. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 3) – Ch. 151)



Plot 7-262. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 3) – Ch. 159)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M2003090034-08.A3L	Test Dates: 3/11 – 5/8/2020	EUT Type: Portable Handset		Page 163 of 238

