



Plot 7-189. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 106 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## SISO Antenna-1 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]
	5180	36	ax (20MHz)	242T	MCS0	3.30	11.00	-7.70
_	5200	40	ax (20MHz)	242T	MCS0	6.19	11.00	-4.81
d 1	5240	48	ax (20MHz)	242T	MCS0	7.55	11.00	-3.45
Band 1	5190	38	ax (40MHz)	242T	MCS0	0.89	11.00	-10.11
	5230	46	ax (40MHz)	242T	MCS0	5.37	11.00	-5.63
	5210	42	ax (80MHz)	242T	MCS0	-0.57	11.00	-11.57
	5260	52	ax (20MHz)	242T	MCS0	7.56	11.00	-3.44
⊲	5280	56	ax (20MHz)	242T	MCS0	8.05	11.00	-2.95
d 2	5320	64	ax (20MHz)	242T	MCS0	5.00	11.00	-6.00
Band 2A	5270	54	ax (40MHz)	242T	MCS0	5.39	11.00	-5.61
-	5310	62	ax (40MHz)	242T	MCS0	0.39	11.00	-10.61
	5290	58	ax (80MHz)	242T	MCS0	-0.54	11.00	-11.54
	5500	100	ax (20MHz)	242T	MCS0	7.93	11.00	-3.07
	5600	120	ax (20MHz)	242T	MCS0	6.54	11.00	-4.46
	5720	144	ax (20MHz)	242T	MCS0	6.66	11.00	-4.34
2C	5510	102	ax (40MHz)	242T	MCS0	0.11	11.00	-10.89
Bnad	5590	118	ax (40MHz)	242T	MCS0	4.24	11.00	-6.76
Bn	5710	142	ax (40MHz)	242T	MCS0	4.61	11.00	-6.39
	5530	106	ax (80MHz)	242T	MCS0	0.64	11.00	-10.36
	5610	122	ax (80MHz)	242T	MCS0	6.19	11.00	-4.81
	5690	138	ax (80MHz)	242T	MCS0	6.44	11.00	-4.56

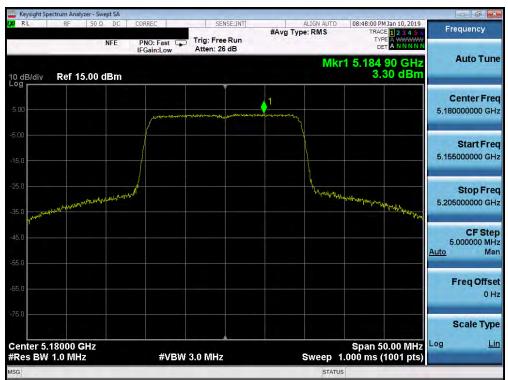
Table 7-72. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1 (242 Tones)

	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 [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	242T	MCS0	3.30	-7.94	-4.64	10.0	-14.64
	5200	40	ax (20MHz)	242T	MCS0	6.19	-7.51	-1.32	10.0	-11.32
d 1	5240	48	ax (20MHz)	242T	MCS0	7.55	-7.44	0.11	10.0	-9.89
Band	5190	38	ax (40MHz)	242T	MCS0	0.89	-7.94	-7.05	10.0	-17.05
	5230	46	ax (40MHz)	242T	MCS0	5.37	-7.44	-2.07	10.0	-12.07
	5210	42	ax (80MHz)	242T	MCS0	-0.57	-7.94	-8.51	10.0	-18.51

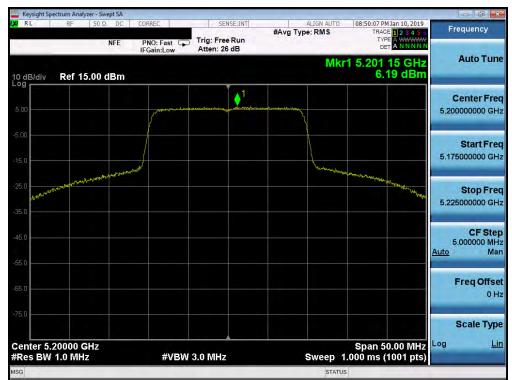
Table 7-73. Bands 1 e.r.i.p Conducted Power Spectral Density Measurements (ISED 242 Tones)

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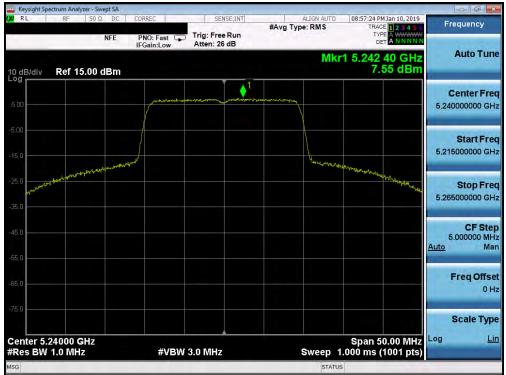
Plot 7-190. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 1) - Ch. 36)



Plot 7-191. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 1) - Ch. 40)

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Plot 7-192. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 1) - Ch. 48)



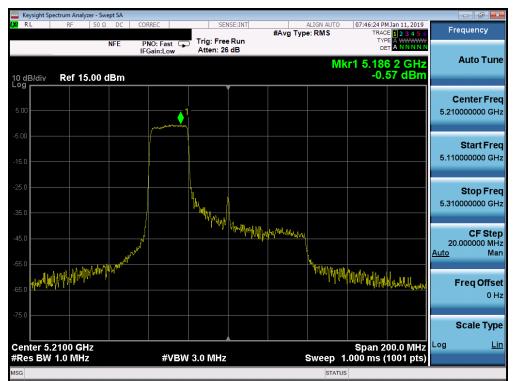
Plot 7-193. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 1) - Ch. 38)

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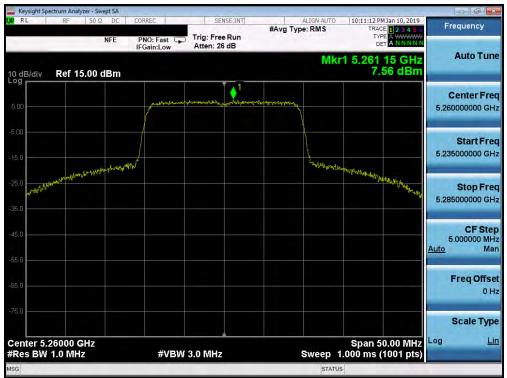
Plot 7-194. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 1) - Ch. 46)



Plot 7-195. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 242 Tones (UNII Band 1) - Ch. 42)

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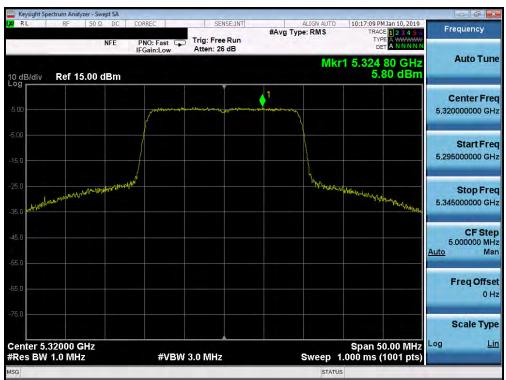
Plot 7-196. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 52)



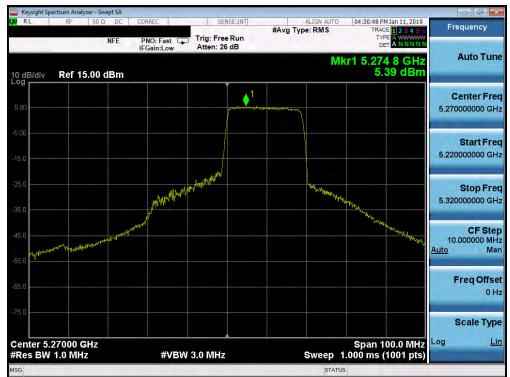
Plot 7-197. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 2A) – Ch. 56)

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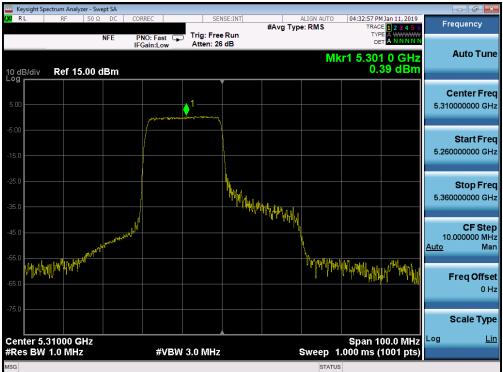
Plot 7-198. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 2A) - Ch. 64)



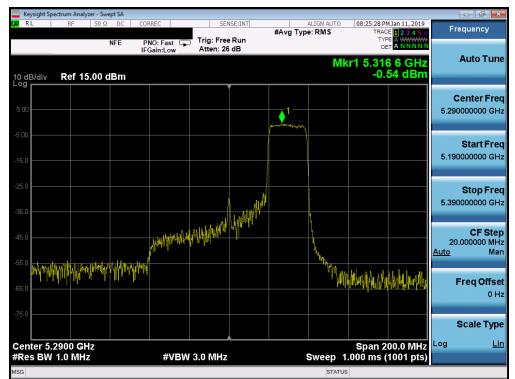
Plot 7-199. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 2A) - Ch. 54)

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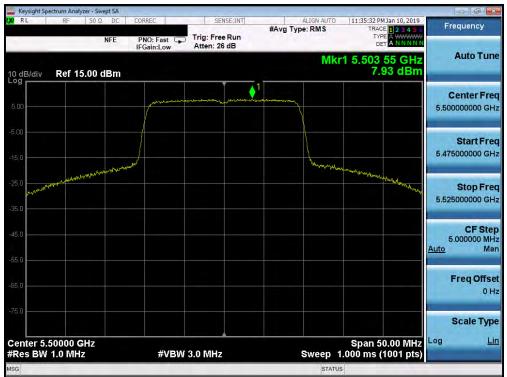
Plot 7-200. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 2A) - Ch. 62)



Plot 7-201. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 242 Tones (UNII Band 2A) - Ch. 58)

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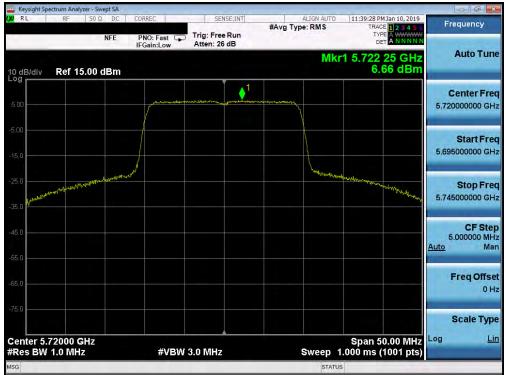
Plot 7-202. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 2C) - Ch. 100)



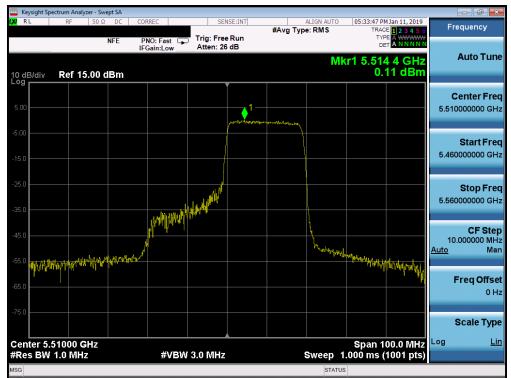
Plot 7-203. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 2C) - Ch. 120)

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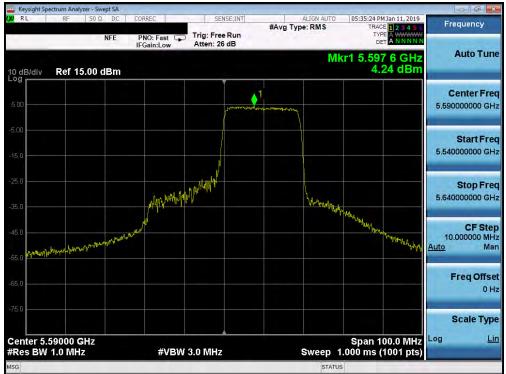
Plot 7-204. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 2C) - Ch. 144)



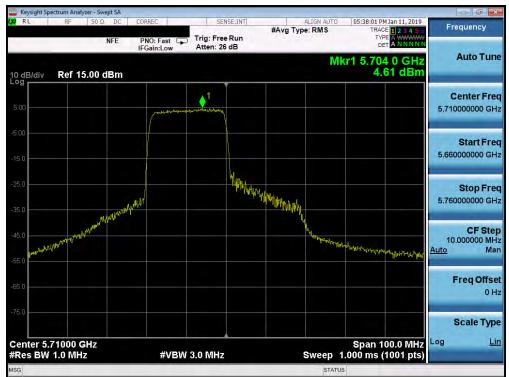
Plot 7-205. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 2C) - Ch. 102)

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Plot 7-206. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 2C) - Ch. 118)



Plot 7-207. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 2C) - Ch. 142)

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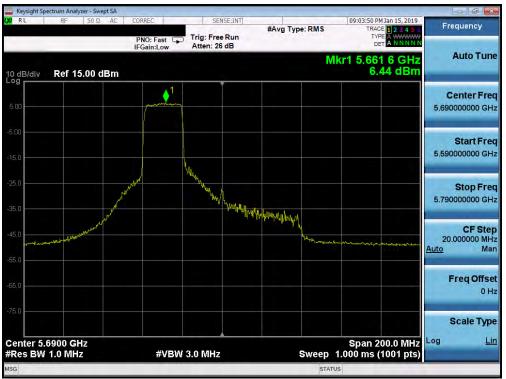
Plot 7-208. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 242 Tones (UNII Band 2C) - Ch. 106)



Plot 7-209. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 242 Tones (UNII Band 2C) - Ch. 122)

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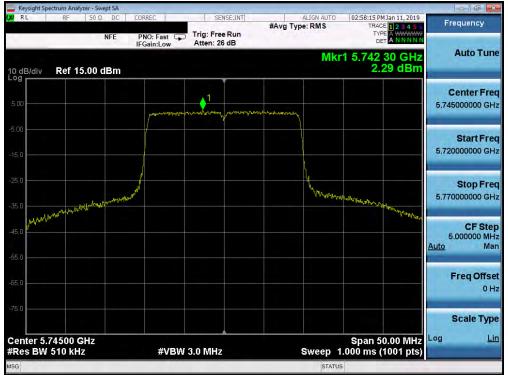
Plot 7-210. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 2C) – Ch. 138)

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-	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	ax (20MHz)	242T	MCS0	2.29	30.00	-27.71
	5785	157	ax (20MHz)	242T	MCS0	3.71	30.00	-26.29
9 9	5825	165	ax (20MHz)	242T	MCS0	2.37	30.00	-27.63
Band	5755	151	ax (40MHz)	242T	MCS0	2.33	30.00	-27.67
_	5795	159	ax (40MHz)	242T	MCS0	2.89	30.00	-27.11
	5775	155	ax (80MHz)	242T	MCS0	7.25	30.00	-22.75

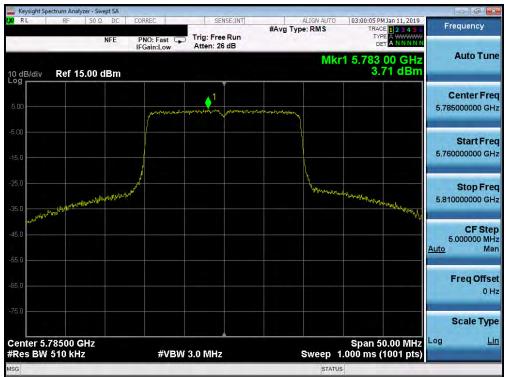
Table 7-74. Band 3 Conducted Power Spectral Density Measurements SISO ANT1 (242 Tones)



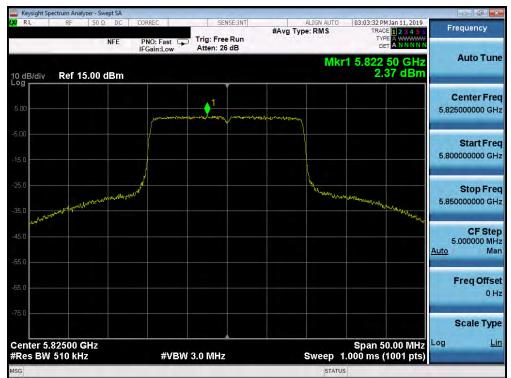
Plot 7-211. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 149)

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Plot 7-212. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 157)



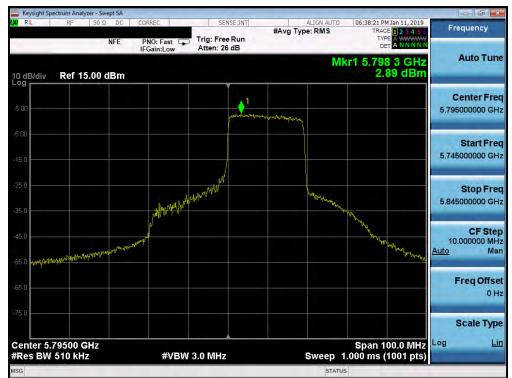
Plot 7-213. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 165)

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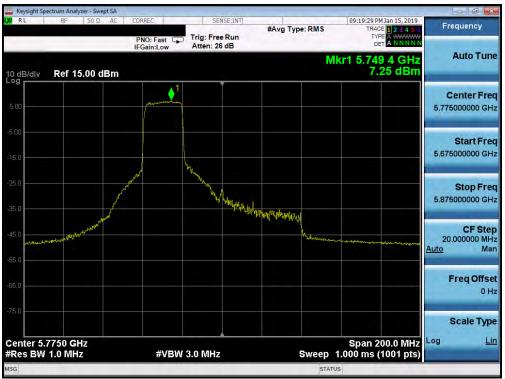
Plot 7-214. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 151)



Plot 7-215. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 159)

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Plot 7-216. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 242 Tones (UNII Band 3) – Ch. 155)

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SISO Antenna-1 Power Spectral	Density Measurements (484 Tones)
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
-	5190	38	ax (40MHz)	484T	MCS0	-2.15	11.00	-13.15
Band	5230	46	ax (40MHz)	484T	MCS0	0.95	11.00	-10.05
ä	5210	42	ax (80MHz)	484T	MCS0	-3.65	11.00	-14.65
σ	5270	54	ax (40MHz)	484T	MCS0	1.48	11.00	-9.52
Band 2A	5310	62	ax (40MHz)	484T	MCS0	-2.02	11.00	-13.02
ш	5290	58	ax (80MHz)	484T	MCS0	-3.52	11.00	-14.52
	5510	102	ax (40MHz)	484T	MCS0	-3.29	11.00	-14.29
SC	5590	118	ax (40MHz)	484T	MCS0	0.19	11.00	-10.81
	5710	142	ax (40MHz)	484T	MCS0	0.49	11.00	-10.51
Band	5530	106	ax (80MHz)	484T	MCS0	-2.25	11.00	-13.25
ш	5610	122	ax (80MHz)	484T	MCS0	2.45	11.00	-8.55
	5690	138	ax (80MHz)	484T	MCS0	3.13	11.00	-7.87

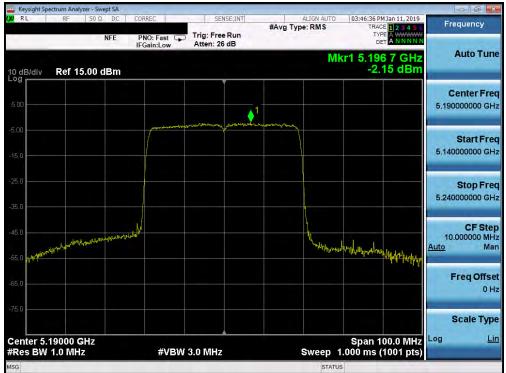
Table 7-75. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1 (484 Tones)

	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 [dBm/MHz]	Margin [dB]
<del>.</del>	5190	38	ax (40MHz)	484T	MCS0	-2.15	-7.94	-10.09	10.0	-20.09
pu	5230	46	ax (40MHz)	484T	MCS0	0.95	-7.44	-6.49	10.0	-16.49
Baı	5210	42	ax (80MHz)	484T	MCS0	-3.65	-7.94	-11.59	10.0	-21.59

Table 7-76. Bands 1 e.r.i.p Conducted Power Spectral Density Measurements (ISED 484 Tones)

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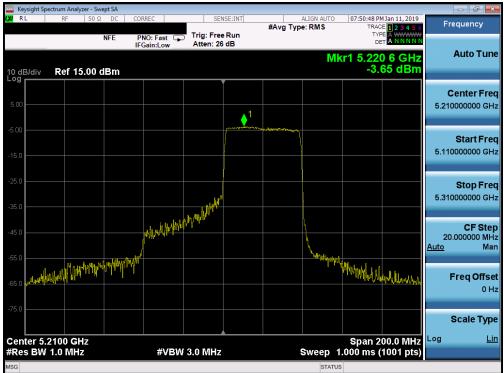
Plot 7-217. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 484 Tones (UNII Band 1) - Ch. 38)

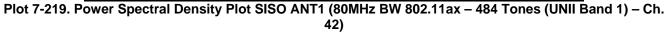


Plot 7-218. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 484 Tones (UNII Band 1) - Ch. 46)

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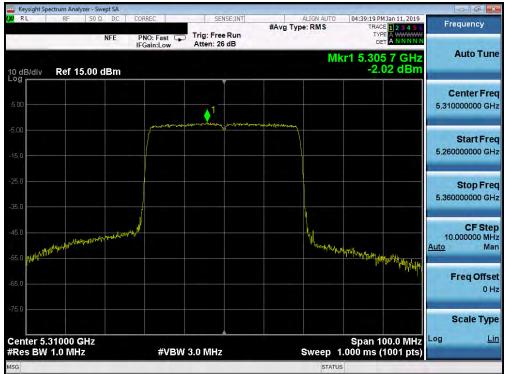




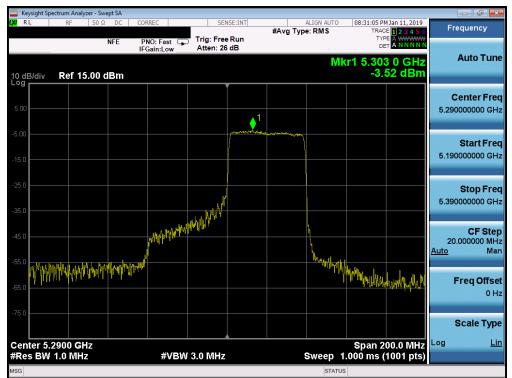
Plot 7-220. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 54)

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Plot 7-221. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 62)

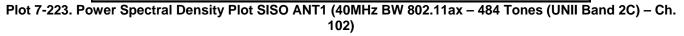


Plot 7-222. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2A) – Ch. 58)

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Keysight Spectrum Analyzer - Swept SA				The second second second	
XIRL RF 50Ω DC	PNO: Fast	Trig: Free Run Atten: 26 dB	ALIGN AUTO #Avg Type: RMS	05:41:46 PM Jan 11, 2019 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
IO dB/div Ref 15.00 dBm			М	kr1 5.516 8 GHz -3.29 dBm	Auto Tune
5.00		•			Center Fred 5.510000000 GH2
5.00		cap with any port and a			Start Free 5.460000000 GH:
15.0					Stop Free 5.560000000 GH
15.0				and the state of t	CF Step 10.000000 MH <u>Auto</u> Mar
65.0					Freq Offse 0 H:
75.0 Center 5.51000 GHz				Span 100.0 MHz	Scale Type
Res BW 1.0 MHz	#VBW	3.0 MHz	V	1.000 ms (1001 pts)	
SG			STATU	S	





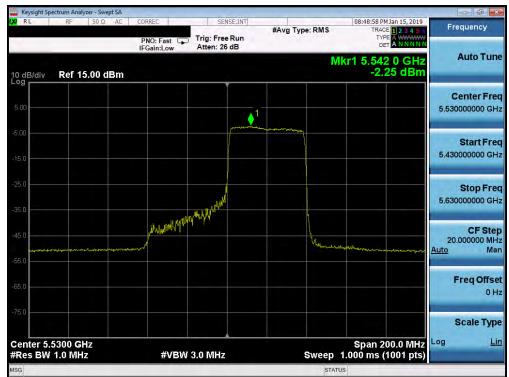
Plot 7-224. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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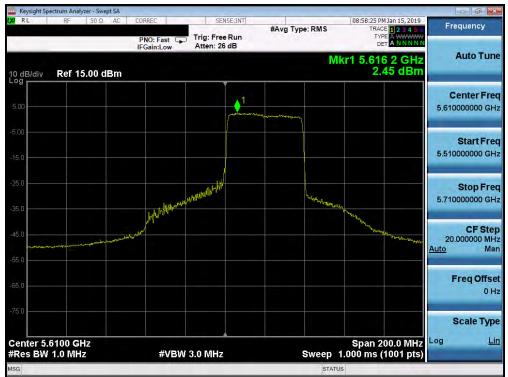
Plot 7-225. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 142)



Plot 7-226. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 484 Tones (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 172 of 514
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Plot 7-227. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 484 Tones (UNII Band 2C) - Ch. 122)



Plot 7-228. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 484 Tones (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 174 of 514
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]		Max Permissible Power Density [dBm/500kHz]	Margin [dB]
e	5755	151	ax (40MHz)	484T	MCS0	-1.69	30.00	-31.69
Band	5795	159	ax (40MHz)	484T	MCS0	-1.19	30.00	-31.19
ä	5775	155	ax (80MHz)	484T	MCS0	3.43	30.00	-26.57

Table 7-77. Band 3 Conducted Power Spectral Density Measurements SISO ANT1 (484 Tones)



Plot 7-229. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax – 484 Tones (UNII Band 3) – Ch. 151)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 175 of 514
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Plot 7-230. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 484 Tones (UNII Band 3) - Ch. 159)



Plot 7-231. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 484 Tones (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 176 of 514
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## SISO Antenna-1 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	-5.73	11.00	-16.73
Band 2A	5290	58	ax (80MHz)	996T	MCS0	-6.40	11.00	-17.40
SC	5530	106	ax (80MHz)	996T	MCS0	-5.43	11.00	-16.43
pr (	5610	122	ax (80MHz)	996T	MCS0	-1.60	11.00	-12.60
Band	5690	138	ax (80MHz)	996T	MCS0	-5.03	11.00	-16.03

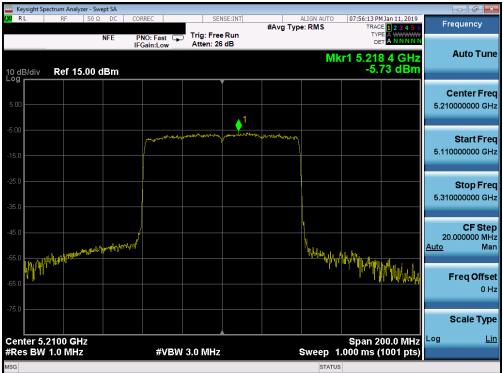
Table 7-78. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1 (996 Tones)

	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 Density [dBm/MHz]	Margin [dB]
Band 1	5210	42	ax (80MHz)	996T	MCS0	-5.73	-7.94	-13.67	10.0	-23.67

Table 7-79. Bands 1 e.r.i.p Conducted Power Spectral Density Measurements (ISED 996 Tones)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-232. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 1) – Ch. 42)



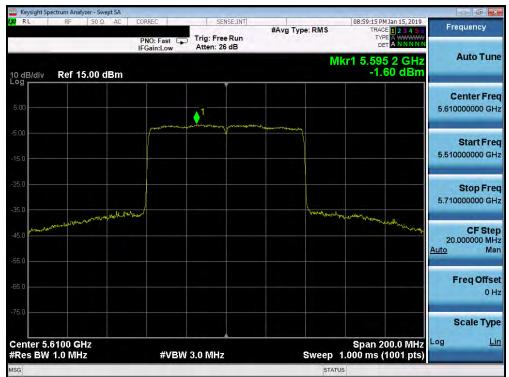
Plot 7-233. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 179 of 514
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Keysight Spectrum Analyzer - Swept SA C RL RF 50 Ω AC	CORREC	SENSE:INT			08:49:49 PM Jan 15, 2019	
		Trig: Free Run Atten: 26 dB	#Avg Type	e: RMS	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	Frequency
0 dB/div Ref 15.00 dBm	IFGain:Low 7	Atten: 20 0D		Mki	1 5.522 0 GHz -5.43 dBm	Auto Tune
5.00		<u></u> 1				Center Fred 5.53000000 GH
5.0		**************************************	marshine			Start Free 5.430000000 GH
35.0						<b>Stop Fre</b> 5.630000000 GH
45.0 	J			e electron mary		CF Ste 20.000000 MH <u>Auto</u> Ma
36.0						Freq Offse 0 H
75.0						Scale Type
Center 5.5300 GHz Res BW 1.0 MHz	#VBW 3.	0 MHz		Sweep 1.	Span 200.0 MHz 000 ms (1001 pts)	Log <u>Lir</u>
SG				STATUS		

Plot 7-234. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 996 Tones (UNII Band 2C) - Ch. 106)



Plot 7-235. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 996 Tones (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-236. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]		Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5775	155	ax (80MHz)	996T	MCS0	-0.57	30.00	-30.57

 Table 7-80. Band 3 Conducted Power Spectral Density Measurements SISO ANT1 (996 Tones)



Plot 7-237. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax – 996 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## SISO Antenna-2 Power Spectral Density Measurements (26 Tones)

-	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	26T	MCS0	9.15	11.00	-1.85
	5200	40	ax (20MHz)	26T	MCS0	8.84	11.00	-2.16
p 7	5240	48	ax (20MHz)	26T	MCS0	8.98	11.00	-2.02
Band 1	5190	38	ax (40MHz)	26T	MCS0	8.02	11.00	-2.98
_	5230	46	ax (40MHz)	26T	MCS0	8.55	11.00	-2.45
	5210	42	ax (80MHz)	26T	MCS0	9.39	11.00	-1.61
	5260	52	ax (20MHz)	26T	MCS0	8.71	11.00	-2.29
⊲	5280	56	ax (20MHz)	26T	MCS0	8.62	11.00	-2.38
d 2/	5320	64	ax (20MHz)	26T	MCS0	8.79	11.00	-2.21
Band 2A	5270	54	ax (40MHz)	26T	MCS0	8.26	11.00	-2.74
	5310	62	ax (40MHz)	26T	MCS0	8.10	11.00	-2.90
	5290	58	ax (80MHz)	26T	MCS0	10.01	11.00	-0.99
	5500	100	ax (20MHz)	26T	MCS0	9.53	11.00	-1.47
	5600	120	ax (20MHz)	26T	MCS0	9.51	11.00	-1.49
	5720	144	ax (20MHz)	26T	MCS0	9.36	11.00	-1.64
2C	5510	102	ax (40MHz)	26T	MCS0	8.40	11.00	-2.60
Bnad 2C	5590	118	ax (40MHz)	26T	MCS0	8.47	11.00	-2.53
Bn	5710	142	ax (40MHz)	26T	MCS0	8.40	11.00	-2.60
	5530	106	ax (80MHz)	26T	MCS0	9.98	11.00	-1.02
	5610	122	ax (80MHz)	26T	MCS0	10.10	11.00	-0.90
	5690	138	ax (80MHz)	26T	MCS0	10.42	11.00	-0.58

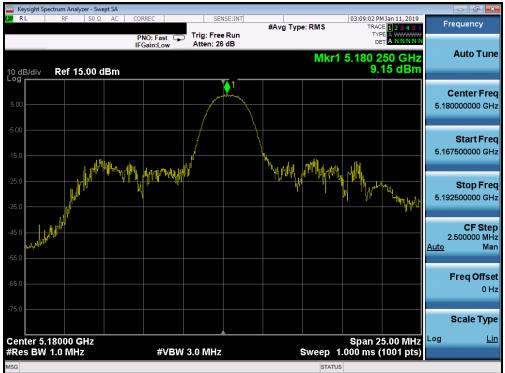
Table 7-81. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT2 (26 Tones)

-		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 [dBm/MHz]	Margin [dB]
		5180	36	ax (20MHz)	26T	MCS0	9.15	-7.70	1.45	10.0	-8.55
	~	5200	40	ax (20MHz)	26T	MCS0	8.84	-7.57	1.27	10.0	-8.73
		5240	48	ax (20MHz)	26T	MCS0	8.98	-8.01	0.97	10.0	-9.03
	Band	5190	38	ax (40MHz)	26T	MCS0	8.02	-7.57	0.45	10.0	-9.55
		5230	46	ax (40MHz)	26T	MCS0	8.55	-8.01	0.54	10.0	-9.46
		5210	42	ax (80MHz)	26T	MCS0	9.39	-7.57	1.82	10.0	-8.18

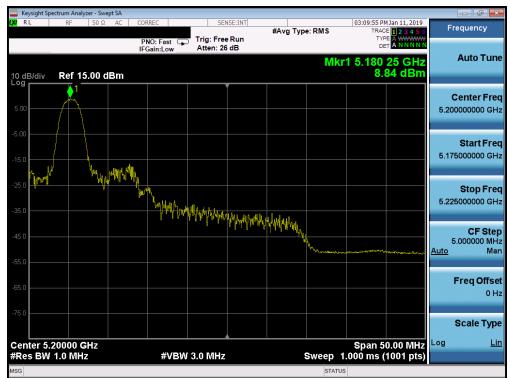
Table 7-82. Bands 1 e.r.i.p Conducted Power Spectral Density Measurements (ISED 26 Tones)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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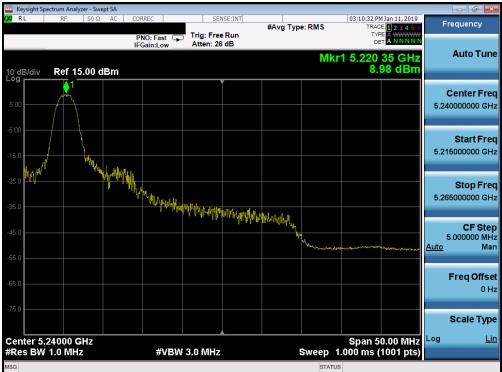
Plot 7-238. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 36)



Plot 7-239. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 40)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-240. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 48)



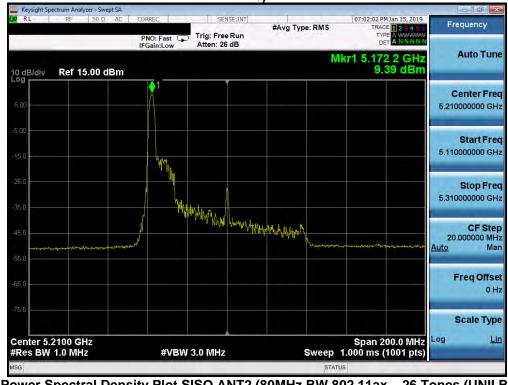
Plot 7-241. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 194 of 514	
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Plot 7-242. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 46)



Plot 7-243. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 42)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-244. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 52)



Plot 7-245. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 2A) – Ch. 56)

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Plot 7-246. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 64)



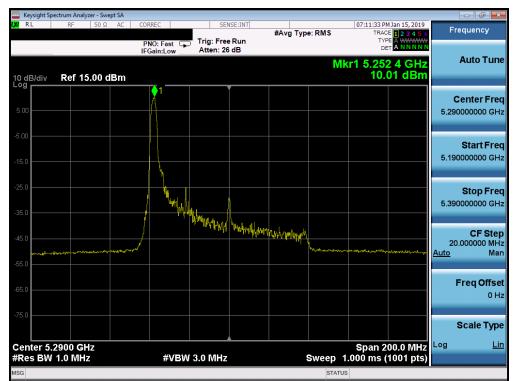
Plot 7-247. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 197 of 514
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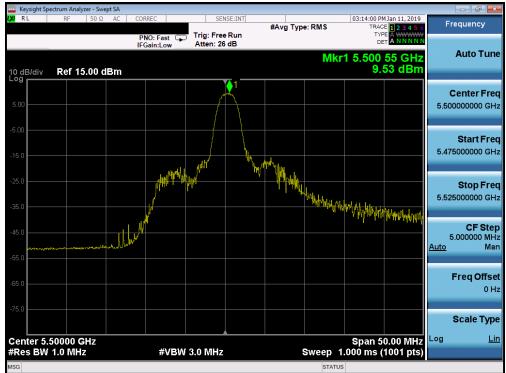
Plot 7-248. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 62)



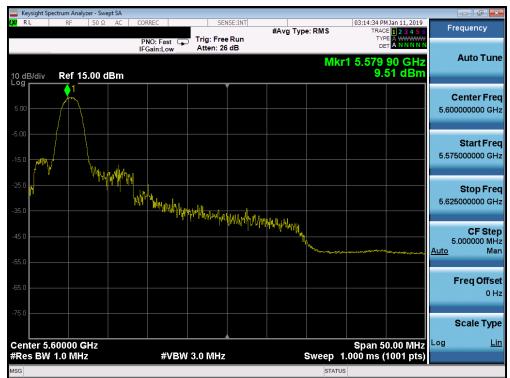
Plot 7-249. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 58)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
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1M1811230206-15.A3L	10/23 - 1/26/2018	Portable Handset	Page 188 of 514			
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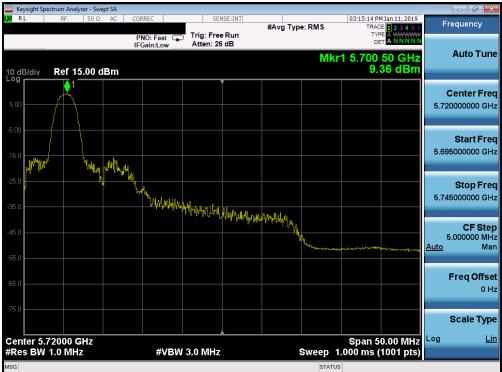
Plot 7-250. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 100)



Plot 7-251. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-252. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 144)



Plot 7-253. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 102)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
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Plot 7-254. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 118)



Plot 7-255. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Page 191 of 514		
1M1811230206-15.A3L	10/23 - 1/26/2018	Portable Handset				
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5.00										<b>Center Fr</b> 5.530000000 G	
-5.00										Start Fr 5.430000000 G	
-25.0			↓ W		<u></u>					<b>Stop Fr</b> 5.630000000 G	
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-65.0										Freq Offs 0	set Hz
-75.0										Scale Ty	
Center 5. #Res BW			#VBV	V 3.0 MHz			Sweep 1	Span 2 ( 000 ms.	00.0 10112	Log	Lin
MSG							STATUS				

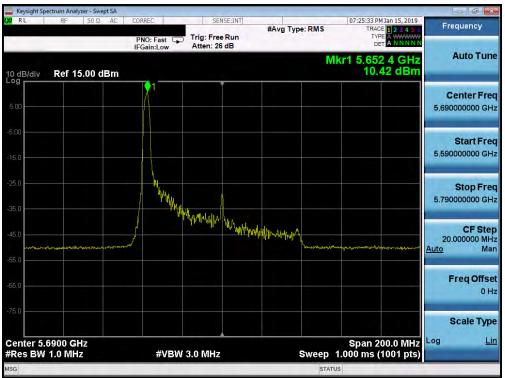
Plot 7-256. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 106)



Plot 7-257. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:	EUT Type:			
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Plot 7-258. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	ax (20MHz)	26T	MCS0	6.79	30.00	-23.21
	5785	157	ax (20MHz)	26T	MCS0	6.88	30.00	-23.12
d 3	5825	165	ax (20MHz)	26T	MCS0	6.63	30.00	-23.37
Band	5755	151	ax (40MHz)	26T	MCS0	6.34	30.00	-23.66
	5795	159	ax (40MHz)	26T	MCS0	6.34	30.00	-23.66
	5775	155	ax (80MHz)	26T	MCS0	10.52	30.00	-19.48

Table 7-83. Band 3 Conducted Power Spectral Density Measurements SISO ANT2 (26 Tones)



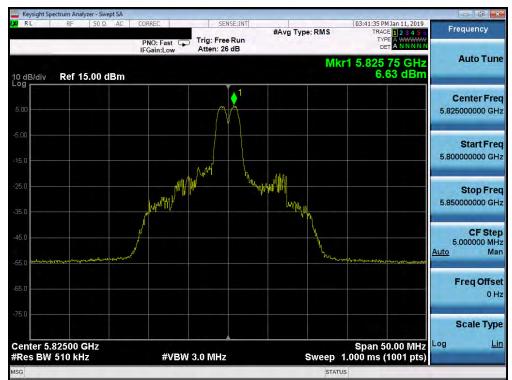
Plot 7-259. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 149)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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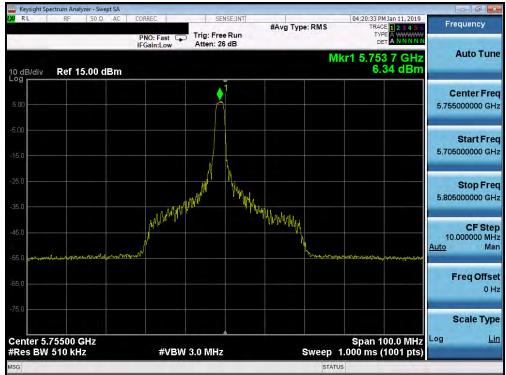
Plot 7-260. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 157)



Plot 7-261. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-262. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 151)



Plot 7-263. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 159)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-264. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 155)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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## SISO Antenna-2 Power Spectral Density Measurements (52 Tones)

-	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	52T	MCS0	7.69	11.00	-3.31
	5200	40	ax (20MHz)	52T	MCS0	7.79	11.00	-3.21
d 1	5240	48	ax (20MHz)	52T	MCS0	7.88	11.00	-3.12
Band 1	5190	38	ax (40MHz)	52T	MCS0	7.60	11.00	-3.40
_	5230	46	ax (40MHz)	52T	MCS0	7.79	11.00	-3.21
	5210	42	ax (80MHz)	52T	MCS0	9.40	11.00	-1.60
	5260	52	ax (20MHz)	52T	MCS0	7.63	11.00	-3.37
⊲	5280	56	ax (20MHz)	52T	MCS0	7.64	11.00	-3.36
q 2	5320	64	ax (20MHz)	52T	MCS0	8.06	11.00	-2.94
Band 2A	5270	54	ax (40MHz)	52T	MCS0	7.29	11.00	-3.71
	5310	62	ax (40MHz)	52T	MCS0	7.65	11.00	-3.35
	5290	58	ax (80MHz)	52T	MCS0	8.76	11.00	-2.24
	5500	100	ax (20MHz)	52T	MCS0	8.60	11.00	-2.40
	5600	120	ax (20MHz)	52T	MCS0	8.60	11.00	-2.40
	5720	144	ax (20MHz)	52T	MCS0	8.19	11.00	-2.81
2C	5510	102	ax (40MHz)	52T	MCS0	7.78	11.00	-3.22
Bnad	5590	118	ax (40MHz)	52T	MCS0	7.78	11.00	-3.22
Bn	5710	142	ax (40MHz)	52T	MCS0	7.53	11.00	-3.47
	5530	106	ax (80MHz)	52T	MCS0	9.03	11.00	-1.97
	5610	122	ax (80MHz)	52T	MCS0	9.70	11.00	-1.30
	5690	138	ax (80MHz)	52T	MCS0	9.50	11.00	-1.50

Table 7-84. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT2 (52 Tones)

		Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Antonno	e.i.r.p. Power Density [dBm/MHz]	ISED Max e.i.r.p. Power Density [dBm/MHz]	Margin [dB]
ſ		5180	36	ax (20MHz)	52T	MCS0	7.69	-7.70	-0.01	10.0	-10.01
	-	5200	40	ax (20MHz)	52T	MCS0	7.79	-7.57	0.22	10.0	-9.78
	, pu	5240	48	ax (20MHz)	52T	MCS0	7.88	-8.01	-0.13	10.0	-10.13
	Ban	5190	38	ax (40MHz)	52T	MCS0	7.60	-7.57	0.03	10.0	-9.97
		5230	46	ax (40MHz)	52T	MCS0	7.79	-8.01	-0.22	10.0	-10.22
		5210	42	ax (80MHz)	52T	MCS0	9.40	-7.57	1.83	10.0	-8.17

Table 7-85. Bands 1 e.r.i.p Conducted Power Spectral Density Measurements (ISED 52 Tones)

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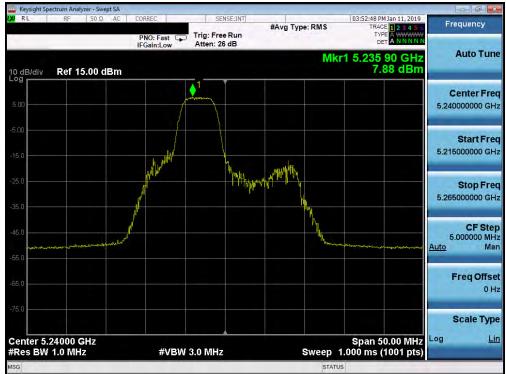
Plot 7-265. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 52 Tones (UNII Band 1) - Ch. 36)



Plot 7-266. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 52 Tones (UNII Band 1) - Ch. 40)

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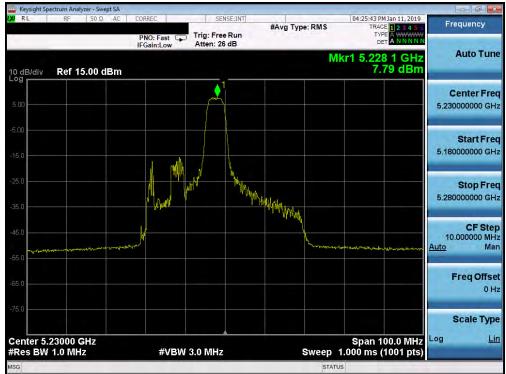
Plot 7-267. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 48)



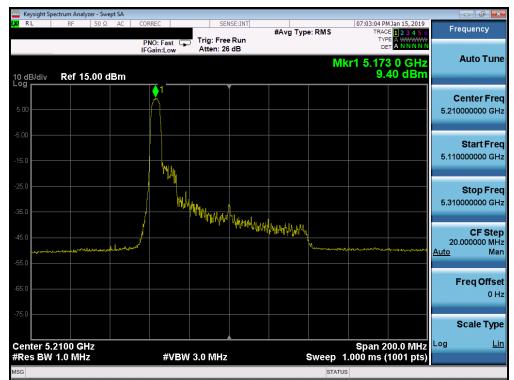
Plot 7-268. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax – 52 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
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Plot 7-269. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 52 Tones (UNII Band 1) - Ch. 46)



Plot 7-270. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 52 Tones (UNII Band 1) - Ch. 42)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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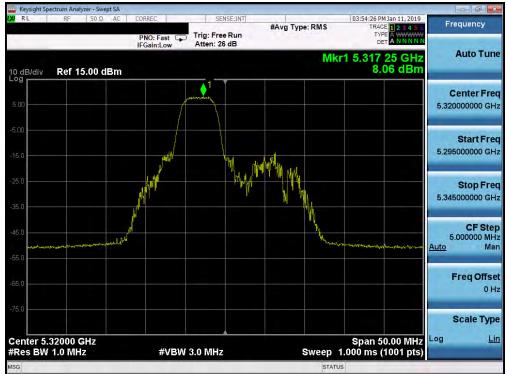
Plot 7-271. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 52)



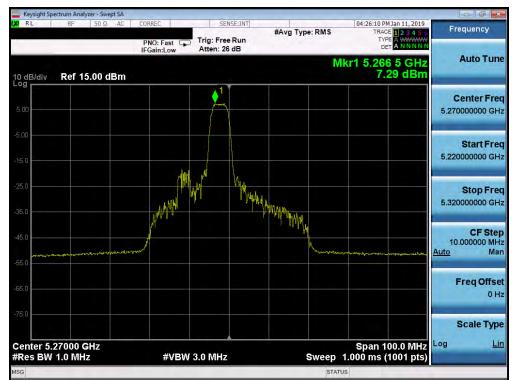
Plot 7-272. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax – 52 Tones (UNII Band 2A) – Ch. 56)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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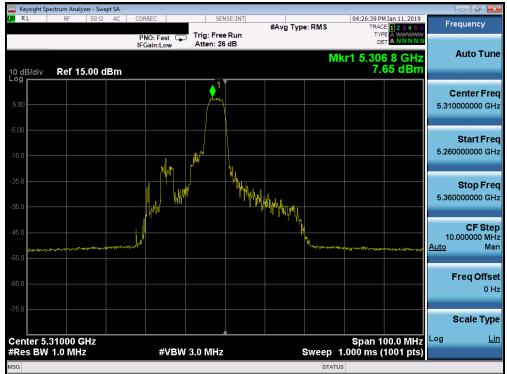
Plot 7-273. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 52 Tones (UNII Band 2A) - Ch. 64)



Plot 7-274. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 52 Tones (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-275. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 52 Tones (UNII Band 2A) - Ch. 62)



Plot 7-276. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 52 Tones (UNII Band 2A) - Ch. 58)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-277. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 52 Tones (UNII Band 2C) - Ch. 100)



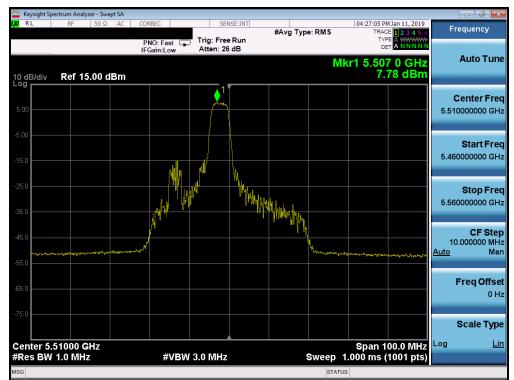
Plot 7-278. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 52 Tones (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
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Plot 7-279. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 52 Tones (UNII Band 2C) - Ch. 144)



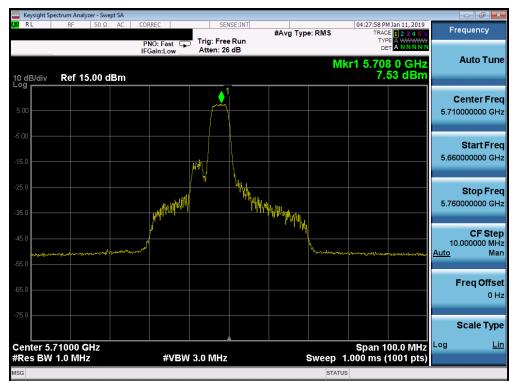
Plot 7-280. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 52 Tones (UNII Band 2C) - Ch. 102)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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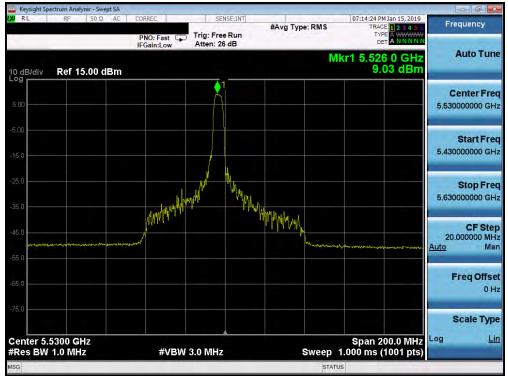
Plot 7-281. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 52 Tones (UNII Band 2C) - Ch. 118)



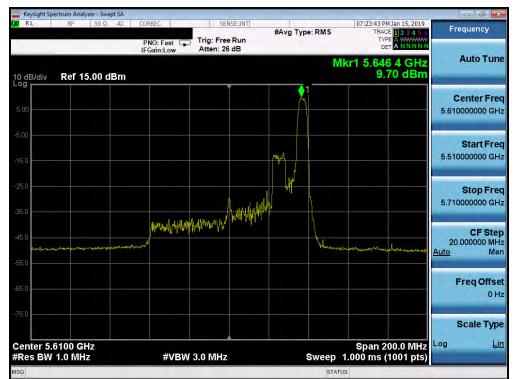
Plot 7-282. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 52 Tones (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-283. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 52 Tones (UNII Band 2C) - Ch. 106)



Plot 7-284. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 52 Tones (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA					
XURL RF 50Ω AC	CORREC	SENSE:INT	#Avg Type: RMS	07:26:09 PM Jan 15, 2019 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	Frequency
10 dB/div Ref 15.00 dBm	IFGain:Low	Atten: 26 dB	M	kr1 5.727 0 GHz 9.50 dBm	Auto Tune
5.00					Center Free 5,69000000 GH
15.0					Start Free 5.59000000 GH
35.0		he welder			Stop Fre 5.790000000 GH
15.0	horadannadan 	dirtempted planting after		ารใหญ่สารารุณญาตรีการที่สาราราชการการเป็นสารารร	<b>CF Ste</b> 20.000000 MH <u>Auto</u> Ma
5.0					Freq Offse 0 H
center 5.6900 GHz				Span 200.0 MHz	Scale Typ
Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep 7	1.000 ms (1001 pts)	1
SG			STATU	s	

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

FCC ID: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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-	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	ax (20MHz)	52T	MCS0	5.44	30.00	-24.56
	5785	157	ax (20MHz)	52T	MCS0	5.76	30.00	-24.24
9 9	5825	165	ax (20MHz)	52T	MCS0	5.47	30.00	-24.53
Band	5755	151	ax (40MHz)	52T	MCS0	5.18	30.00	-24.82
_	5795	159	ax (40MHz)	52T	MCS0	5.03	30.00	-24.97
	5775	155	ax (80MHz)	52T	MCS0	10.24	30.00	-19.76

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: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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: A3LSMG9730		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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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)

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