



Plot 7-115. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 52)



Plot 7-116. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 56)

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Plot 7-117. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 64)



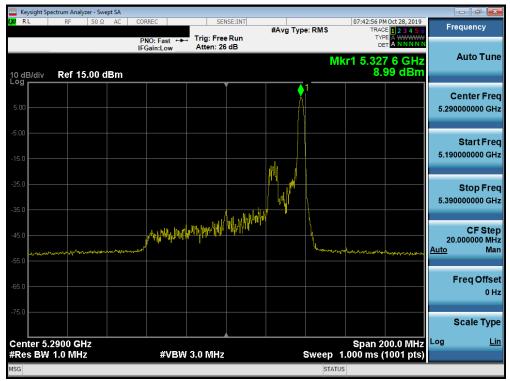
Plot 7-118. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-119. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 62)



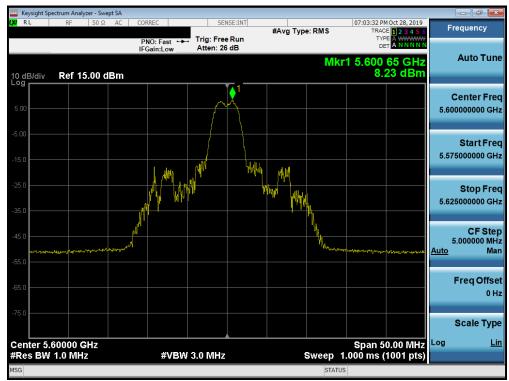
Plot 7-120. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 58)

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Plot 7-121. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 100)



Plot 7-122. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 120)

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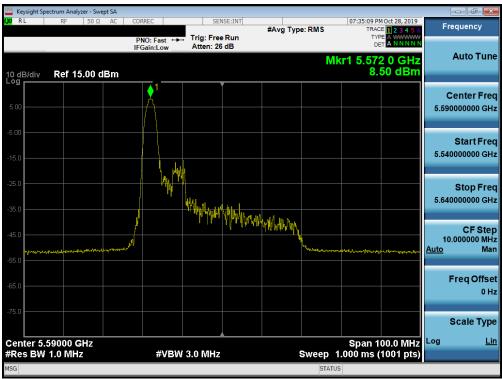
Plot 7-123. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 144)



Plot 7-124. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 102)

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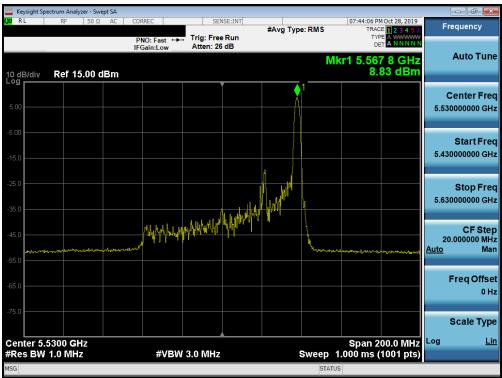
Plot 7-125. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 118)



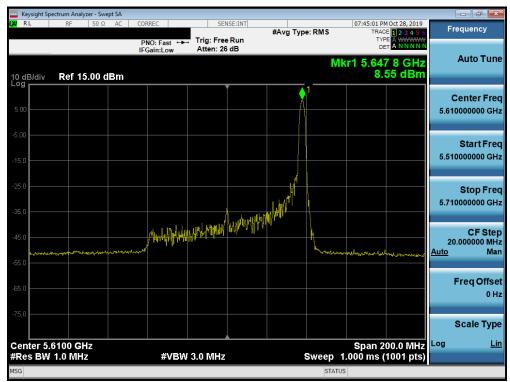
Plot 7-126. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
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Plot 7-127. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 106)



Plot 7-128. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 107 of 265	
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🔤 Keysight Sp	ectrum Analyzer	- Swept SA						
LXI RL	RF	50 Ω AC	CORREC	SENSE:	#Avg Typ	e: RMS	07:48:11 PM Oct 28, 2019 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
10 dB/div	Ref 15.0	10 dBm	IFGain:Low	Atten: 26 dE		М	kr1 5.727 4 GHz 6.48 dBm	Auto Tune
5.00						1		Center Freq 5.690000000 GHz
-5.00								Start Freq 5.590000000 GHz
-25.0								Stop Freq 5.790000000 GHz
-45.0	an along the second	anter of the approx	Man Man Mar		WHAT N A	however	1964119-11-19641 - 11-11-1	CF Step 20.000000 MHz <u>Auto</u> Man
-55.0								Freq Offset 0 Hz
-75.0								Scale Type
Center 5. #Res BW	6900 GHz 510 kHz		#VBW	3.0 MHz		Sweep '	Span 200.0 MHz 1.000 ms (1001 pts)	Log <u>Lin</u>
MSG						STATU	S	

Plot 7-129. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 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	Margin [dB]
	5745	149	ax (20MHz)	26T	MCS0	5.83	30.00	-24.17
<u>س</u>	5785	157	ax (20MHz)	26T	MCS0	5.91	30.00	-24.09
	5825	165	ax (20MHz)	26T	MCS0	5.55	30.00	-24.45
Band	5755	151	ax (40MHz)	26T	MCS0	6.71	30.00	-23.29
	5795	159	ax (40MHz)	26T	MCS0	6.96	30.00	-23.04
	5775	155	ax (80MHz)	26T	MCS0	9.08	30.00	-20.92

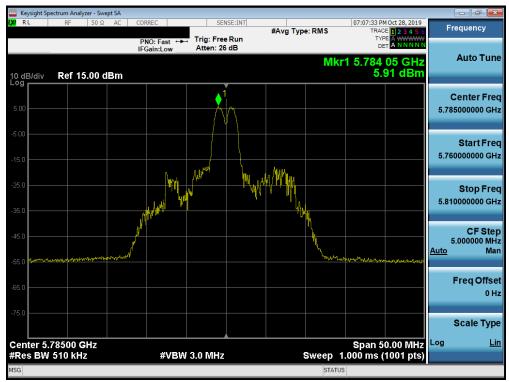
Table 7-56. Band 3 Conducted Power Spectral Density Measurements SISO ANT2 (26 Tones)

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Plot 7-130. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 149)



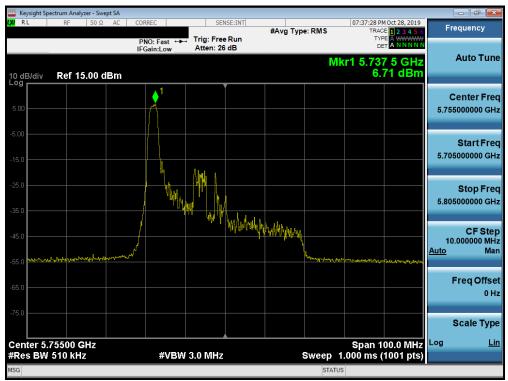
Plot 7-131. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-132. Power Spectral Density Plot SISO ANT2 (20 MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)



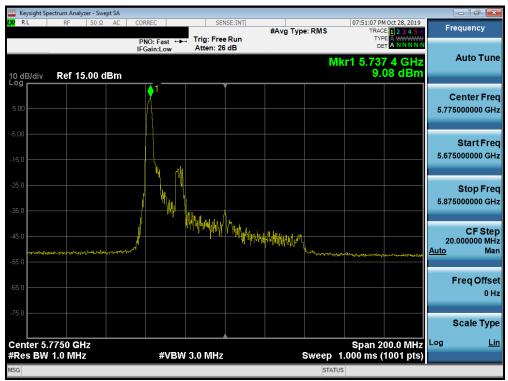
Plot 7-133. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG986U	MEASUREMENT REPORT (CERTIFICATION)		SAMSUNG	
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Plot 7-134. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 159)



Plot 7-135. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 155)

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SISO Antenna-2 Power Spectral Density Measurements (Full 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	4.89	11.0	-6.11
_	5200	40	ax (20MHz)	242T	MCS0	5.24	11.0	-5.76
p p	5240	48	ax (20MHz)	242T	MCS0	5.18	11.0	-5.82
Band 1	5190	38	ax (40MHz)	242T	MCS0	-0.84	11.0	-11.84
	5230	46	ax (40MHz)	242T	MCS0	-0.73	11.0	-11.73
	5210	42	ax (80MHz)	242T	MCS0	-4.94	11.0	-15.94
	5260	52	ax (20MHz)	242T	MCS0	3.82	11.0	-7.18
∢	5280	56	ax (20MHz)	242T	MCS0	4.05	11.0	-6.95
d 2	5320	64	ax (20MHz)	242T	MCS0	4.40	11.0	-6.60
Band 2A	5270	54	ax (40MHz)	242T	MCS0	-0.87	11.0	-11.87
ш	5310	62	ax (40MHz)	242T	MCS0	-0.77	11.0	-11.77
	5290	58	ax (80MHz)	242T	MCS0	-4.31	11.0	-15.31
	5500	100	ax (20MHz)	242T	MCS0	3.85	11.0	-7.15
	5600	120	ax (20MHz)	242T	MCS0	4.15	11.0	-6.85
	5720	144	ax (20MHz)	242T	MCS0	4.11	11.0	-6.89
2C	5510	102	ax (40MHz)	242T	MCS0	-0.80	11.0	-11.80
Band 2C	5590	118	ax (40MHz)	242T	MCS0	-1.08	11.0	-12.08
Ba	5710	142	ax (40MHz)	242T	MCS0	-0.63	11.0	-11.63
	5530	106	ax (80MHz)	242T	MCS0	-4.16	11.0	-15.16
	5610	122	ax (80MHz)	242T	MCS0	-4.19	11.0	-15.19
	5690	138	ax (80MHz)	242T	MCS0	-7.25	11.0	-18.25

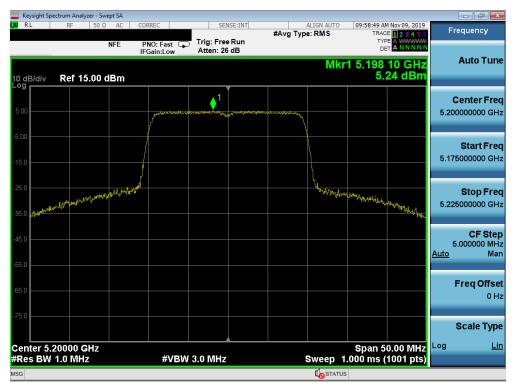
Table 7-57. Conducted Power Spectral Density Measurements SISO ANT2 (Full Tones)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
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Plot 7-136. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 36)



Plot 7-137. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 40)

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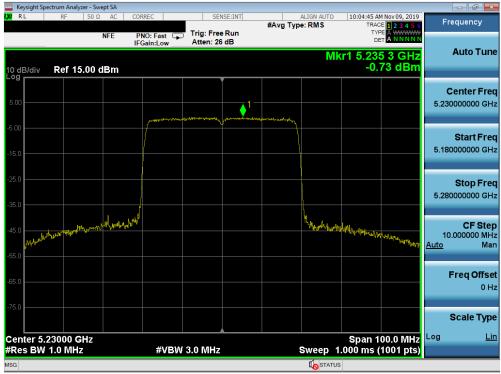
Plot 7-138. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 48)



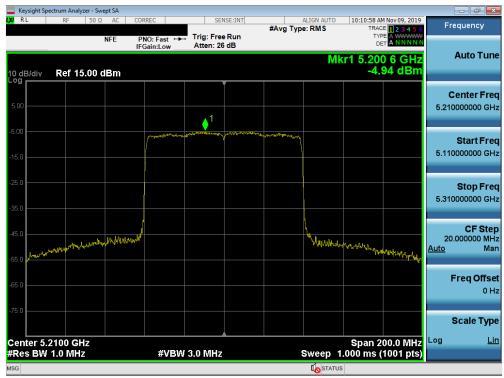
Plot 7-139. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)		SAMSUNG		Approved by: Quality Manager
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Plot 7-140. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 46)



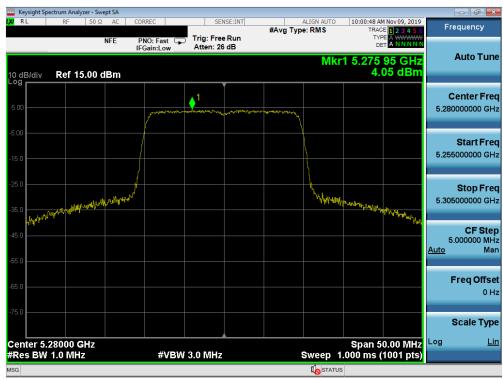
Plot 7-141. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 42)

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🔤 Keysight Spectrum Analyzer - Sv										
LX/ RL RF 50 Ω	Ω AC COF	REC	SENS	SE:INT	#Avg Type	ALIGN AUTO e: RMS		Nov 09, 2019	Fr	equency
	NFE PI	NO: Fast 🖵 Gain:Low	Trig: Free Atten: 26		•		TYP DE			A
10 dB/div Ref 15.00	dBm					Mkr	1 5.256 3.8	90 GHz 82 dBm		Auto Tune
5.00			1	يىرىغىدىدەت.ر	advorance allow					Center Freq 0000000 GHz
-15.0									5.23	Start Freq 5000000 GHz
-25.0	Anger Mally and					June for	Murtherportung	Holy Way Marke	5.28	Stop Freq 5000000 GHz
-45.0 -55.0									5 <u>Auto</u>	CF Step 5.000000 MHz Man
-65.0										Freq Offset 0 Hz
-75.0										Scale Type
Center 5.26000 GHz #Res BW 1.0 MHz		#VBW	3.0 MHz			Sweep 1.	Span 5 000 ms (0.00 MHz 1001 pts)	Log	<u>Lin</u>
MSG						I STATUS				

Plot 7-142. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 52)



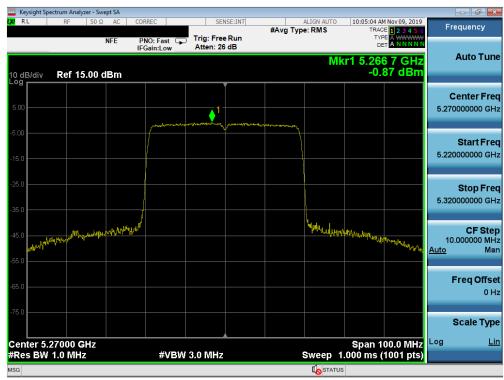
Plot 7-143. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 56)

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Plot 7-144. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 64)



Plot 7-145. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 54)

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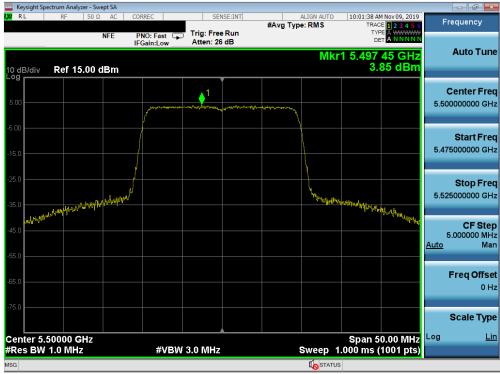
Plot 7-146. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 62)



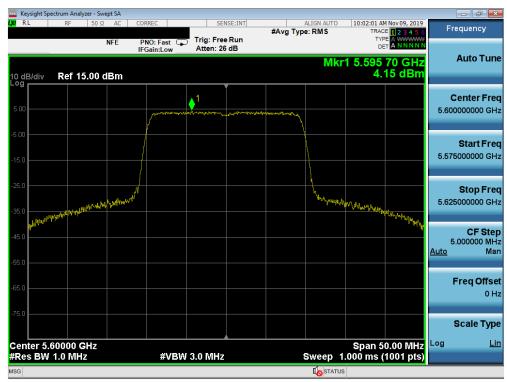
Plot 7-147. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 58)

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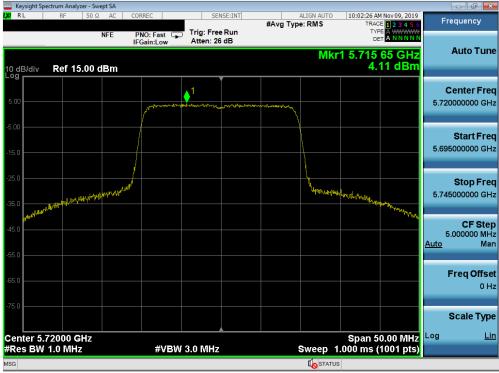
Plot 7-148. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 100)



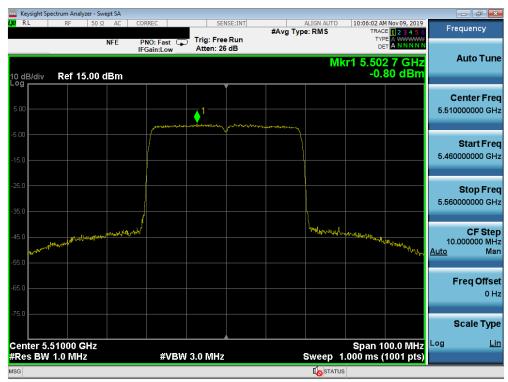
Plot 7-149. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 120)

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Plot 7-150. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 144)



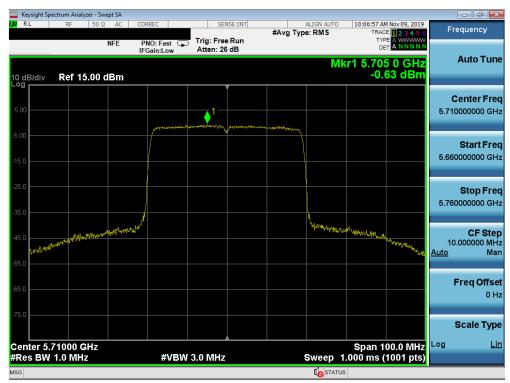
Plot 7-151. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 102)

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Keysight Spectrum Analyzer - Swept SA					
IX RL RF 50Ω AC COR		#Avg Typ		M Nov 09, 2019 CE 1 2 3 4 5 6	Frequency
NFE PN IFG	IO: Fast Trig: Free Gain:Low Atten: 26		Mkr1 5.58		Auto Tune
10 dB/div Ref 15.00 dBm			-1.	08 dBm	
5.00	1	and a start a start and a start a start a start a start a start			Center Freq 5.590000000 GHz
-5.00					Start Freq 5.540000000 GHz
-25.0					Stop Freq 5.64000000 GHz
-45.0			When we and the second second	where where a	CF Step 10.000000 MHz <u>Auto</u> Man
-65.0					Freq Offset 0 Hz
-75,0					Scale Type
Center 5.59000 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz		Span 1 Sweep 1.000 ms	00.0 MHz (1001 pts)	Log <u>Lin</u>
MSG			STATUS		

Plot 7-152. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 118)



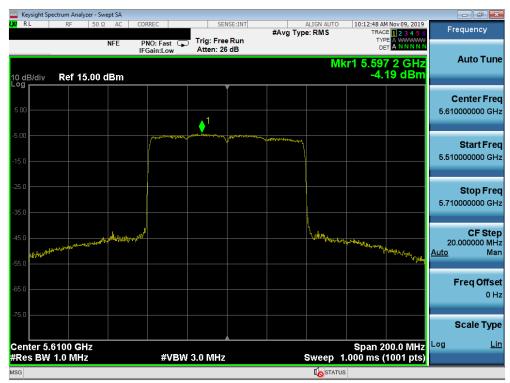
Plot 7-153. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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🔤 Keysight Spectrum Analyzer - S										×
LXI RL RF 50	Ω AC	CORREC		ISE:INT	#Avg Typ	ALIGN AUTO e: RMS	TRAC	MNov 09, 2019	Frequency	
	NFE	PNO: Fast IFGain:Low	Trig: Free Atten: 26				TYF DE		Auto Tu	
10 dB/div Ref 15.00	dBm					Mk	r1 5.51 -4.	7 4 GHz 16 dBm	Auto Tu	ne
									Center Fr	
5.00			♦ ¹						5.530000000 G	Hz
-5.00		(and a second and a	an min many	Contraction of the second	mare and				Start Fr	
-15.0									5.430000000 G	Hz
-25.0									Stop Fr	
-35.0									5.630000000 G	Hz
-45.0	wight Western	A							CF St 20.000000 M	
-55.0 Arey Martine Martine	44))					Lat	and the constant	undered where		lan
									Freq Offs	set
-65.0									-	Hz
-75.0									Scale Ty	ре
Center 5.5300 GHz			,				Span 2	00.0 MHz	Log <u>I</u>	Lin
#Res BW 1.0 MHz		#VBW	3.0 MHz				.000 ms (1001 pts)		
MSG							5			

Plot 7-154. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 106)



Plot 7-155. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 102 of 205	
1M1910220166-09.A3L	10/11/19 - 01/15/20	Portable Handset		Page 123 of 265	
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www.www.com Keysight Spectrum Analyzer - Swe										J X
<mark>.X</mark> RL RF 50 Ω	AC CO	RREC		SE:INT	#Avg Typ	ALIGN AUTO	TRAC	1 Nov 09, 2019 E 1 2 3 4 5 6	Frequen	су
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-5.00		- multimente	man	pa ^{na} lang ^{ing d} an ^{ging} agan	mmmny				Star 5.59000000	t Freq 00 GHz
-25.0									Stor 5.79000000) Freq 00 GHz
-45.0	Most wat	<u></u>				-	hunsen en alla	when the state of	CF 20.00000 <u>Auto</u>	Step 0 MHz Man
-65.0									Freq	Offset 0 Hz
Center 5.6900 GHz #Res BW 510 kHz		#VBW	3.0 MHz			Sweep 1	Span 2 .000 ms (00.0 MHz 1001 pts)	Scale	Type <u>Lin</u>
MSG						I STATUS	;			

Plot 7-156. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 104 of DCE
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	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density	Margin [dB]
	5745	149	ax (20MHz)	242T	MCS0	1.25	30.00	-28.75
<u>س</u>	5785	157	ax (20MHz)	242T	MCS0	1.31	30.00	-28.69
	5825	165	ax (20MHz)	242T	MCS0	1.39	30.00	-28.61
Band	5755	151	ax (40MHz)	242T	MCS0	-3.16	30.00	-33.16
	5795	159	ax (40MHz)	242T	MCS0	-3.38	30.00	-33.38
	5775	155	ax (80MHz)	242T	MCS0	-4.88	30.00	-34.88

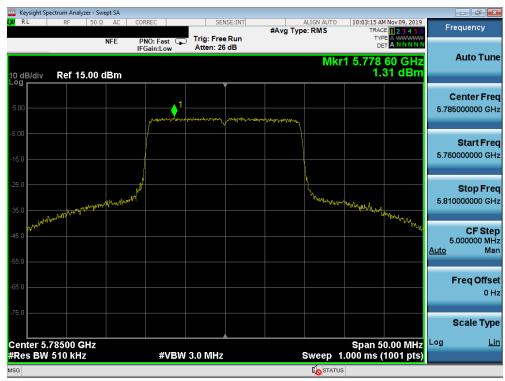
Table 7-58. Band 3 Conducted Power Spectral Density Measurements SISO ANT2 (Full Tones)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 125 of 265
1M1910220166-09.A3L	0220166-09.A3L 10/11/19 – 01/15/20 Portable Handset			Page 125 of 265
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Plot 7-157. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 149)



Plot 7-158. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 106 of 265	
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Plot 7-159. Power Spectral Density Plot SISO ANT2 (20 MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 165)



Plot 7-160. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 107 of 205	
1M1910220166-09.A3L	10/11/19 - 01/15/20	Portable Handset		Page 127 of 265	
© 2020 PCTEST Engineering Labo	ratory, Inc.	•		V 9.0 02/01/2019	



Keysight Spectrum Analyzer - S										- 6 ×
LXI RL RF 50	Ω AC	CORREC		ISE:INT	#Avg Typ	ALIGN AUTO	TRAC	HNOV 09, 2019 E 1 2 3 4 5 6	Fre	quency
	NFE	PNO: Fast IFGain:Low	Trig: Free Atten: 26							
10 dB/div Ref 15.00	dBm					Mk	r1 5.78	37 GHz 38 dBm	4	Auto Tune
			,							
5.00										enter Freq
			↓ 1	a. a. S. S. comit					5.795	000000 GHz
-5.00		A providence	the I with		All a grant of the state of the					Start Freq
-15.0									5.745	000000 GHz
-25.0										Stop Freq
-35.0									5.845	000000 GHz
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all will all and a second								- My my why	<u>Auto</u>	Man
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Center 5.79500 GHz				_		a	Span 1	00.0 MHz	Log	Lin
#Res BW 510 kHz		#VBW	3.0 MHz			Sweep 1		1001 pts)		
MSG						STATUS				

Plot 7-161. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 159)



Plot 7-162. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 108 of 265	
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Summed 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]
	5180	36	ax (20MHz)	26T	MCS0	5.16	6.17	8.70	11.00	-2.30
	5200	40	ax (20MHz)	26T	MCS0	5.07	6.33	8.76	11.00	-2.24
p 1	5240	48	ax (20MHz)	26T	MCS0	5.83	6.50	9.19	11.00	-1.81
Band	5190	38	ax (40MHz)	26T	MCS0	5.92	6.01	8.97	11.00	-2.03
	5230	46	ax (40MHz)	26T	MCS0	6.29	6.29	9.30	11.00	-1.70
	5210	42	ax (80MHz)	26T	MCS0	6.36	6.32	9.35	11.00	-1.65
	5260	52	ax (20MHz)	26T	MCS0	4.36	5.04	7.72	11.00	-3.28
∢	5280	56	ax (20MHz)	26T	MCS0	4.44	4.88	7.67	11.00	-3.33
d 2A	5320	64	ax (20MHz)	26T	MCS0	5.28	5.61	8.46	11.00	-2.54
Band	5270	54	ax (40MHz)	26T	MCS0	5.18	5.03	8.12	11.00	-2.88
	5310	62	ax (40MHz)	26T	MCS0	5.85	5.88	8.87	11.00	-2.13
	5290	58	ax (80MHz)	26T	MCS0	5.53	6.01	8.79	11.00	-2.21
	5500	100	ax (20MHz)	26T	MCS0	4.92	4.30	7.63	11.00	-3.37
	5600	120	ax (20MHz)	26T	MCS0	4.18	4.65	7.43	11.00	-3.57
	5720	144	ax (20MHz)	26T	MCS0	4.68	4.90	7.80	11.00	-3.20
SC	5510	102	ax (40MHz)	26T	MCS0	5.59	4.99	8.31	11.00	-2.69
Band 2C	5590	118	ax (40MHz)	26T	MCS0	6.72	5.68	9.24	11.00	-1.76
Ba	5710	142	ax (40MHz)	26T	MCS0	5.91	5.01	8.49	11.00	-2.51
	5530	106	ax (80MHz)	26T	MCS0	6.66	5.47	9.12	11.00	-1.88
	5610	122	ax (80MHz)	26T	MCS0	6.79	5.45	9.18	11.00	-1.82
	5690	138	ax (80MHz)	26T	MCS0	4.37	3.02	6.76	11.00	-4.24

Table 7-59. Bands 1, 2A, 2C MIMO 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]	Max Permissible Power Density	Margin [dB]
	5745	149	ax (20MHz)	26T	MCS0	2.69	3.73	6.25	30.00	-23.75
	5785	157	ax (20MHz)	26T	MCS0	2.67	3.04	5.87	30.00	-24.13
-	5825	165	ax (20MHz)	26T	MCS0	2.29	2.91	5.62	30.00	-24.38
Ban	5755	151	ax (40MHz)	26T	MCS0	2.67	2.85	5.77	30.00	-24.23
	5795	159	ax (40MHz)	26T	MCS0	2.85	3.49	6.19	30.00	-23.81
	5775	155	ax (80MHz)	26T	MCS0	6.10	6.47	9.30	30.00	-20.70

Table 7-60. Band 3 MIMO Conducted Power Spectral Density Measurements MIMO (26 Tones)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 100 of 265	
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	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]
	5180	36	ax (20MHz)	242T	MCS0	0.62	0.89	3.77	11.00	-7.23
_	5200	40	ax (20MHz)	242T	MCS0	0.77	1.12	3.96	11.00	-7.04
1 pc	5240	48	ax (20MHz)	242T	MCS0	1.68	1.42	4.56	11.00	-6.44
Band	5190	38	ax (40MHz)	242T	MCS0	-1.84	-1.46	1.36	11.00	-9.64
	5230	46	ax (40MHz)	242T	MCS0	-2.44	-1.99	0.80	11.00	-10.20
	5210	42	ax (80MHz)	242T	MCS0	-6.16	-4.94	-2.50	11.00	-13.50
	5260	52	ax (20MHz)	242T	MCS0	2.15	1.57	4.88	11.00	-6.12
∢	5280	56	ax (20MHz)	242T	MCS0	3.00	1.47	5.31	11.00	-5.69
d 2	5320	64	ax (20MHz)	242T	MCS0	2.78	1.28	5.10	11.00	-5.90
Band 2A	5270	54	ax (40MHz)	242T	MCS0	-2.97	-2.68	0.19	11.00	-10.81
	5310	62	ax (40MHz)	242T	MCS0	-2.15	-2.41	0.73	11.00	-10.27
	5290	58	ax (80MHz)	242T	MCS0	-6.01	-4.31	-2.07	11.00	-13.07
	5500	100	ax (20MHz)	242T	MCS0	2.35	1.97	5.17	11.00	-5.83
	5600	120	ax (20MHz)	242T	MCS0	1.78	0.63	4.25	11.00	-6.75
	5720	144	ax (20MHz)	242T	MCS0	1.16	-0.19	3.55	11.00	-7.45
5C	5510	102	ax (40MHz)	242T	MCS0	-2.67	-3.10	0.13	11.00	-10.87
Band	5590	118	ax (40MHz)	242T	MCS0	-3.10	-3.54	-0.30	11.00	-11.30
Ba	5710	142	ax (40MHz)	242T	MCS0	-1.51	-2.22	1.16	11.00	-9.84
	5530	106	ax (80MHz)	242T	MCS0	-6.41	-6.83	-3.60	11.00	-14.60
	5610	122	ax (80MHz)	242T	MCS0	-7.14	-7.38	-4.25	11.00	-15.25
	5690	138	ax (80MHz)	242T	MCS0	-9.58	-7.25	-5.25	11.00	-16.25

Table 7-61. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements MIMO (Full 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 Permissible Power Density	Margin [dB]
	5745	149	ax (20MHz)	242T	MCS0	-0.88	-0.87	2.13	30.00	-27.87
	5785	157	ax (20MHz)	242T	MCS0	-1.36	-0.89	1.89	30.00	-28.11
	5825	165	ax (20MHz)	242T	MCS0	-1.33	-1.57	1.56	30.00	-28.44
Band	5755	151	ax (40MHz)	242T	MCS0	-4.52	-4.22	-1.36	30.00	-31.36
	5795	159	ax (40MHz)	242T	MCS0	-5.82	-6.07	-2.93	30.00	-32.93
	5775	155	ax (80MHz)	242T	MCS0	-7.66	-6.26	-3.89	30.00	-33.89

Table 7-62. Band 3 MIMO Conducted Power Spectral Density Measurements MIMO (Full Tones)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 120 of 265	
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Note:

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 v02r01 Section E)2), the power spectral density at Antenna 1 and Antenna 2 were first measured separately with reduced Antenna 1 and Antenna 2 powers per manufacture's tune-up document. The measured values were then summed in linear power units then converted back to dBm.

Sample MIMO Calculation:

Assuming the average conducted power spectral density was measured to be 5.88 dBm for Antenna-1 and 6.27 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

(5.88 dBm + 6.27 dBm) = (3.87 mW + 4.24 mW) = 8.11mW = 9.09 dBm

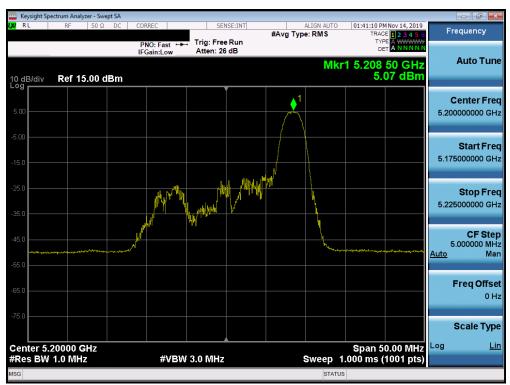
FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dege 121 of 205	
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Keysight Spectrum Analyzer - Swept SA 01:42:25 PM Nov 14, 2019 TRACE 1 2 3 4 5 6 RI ALIGN AUTO Frequency #Avg Type: RMS TYPE Trig: Free Run PNO: Fast IFGain:Low Atten: 26 dB Auto Tune Mkr1 5.188 10 GHz 5.16 dBm Ref 15.00 dBm 10 dB/div **Center Freq** 5.180000000 GHz Start Freq 5.155000000 GHz Stop Freq 5.205000000 GHz WA CF Step 5.000000 MHz Auto Man Freq Offset 0 Hz Scale Type Center 5.18000 GHz #Res BW 1.0 MHz Span 50.00 MHz Sweep 1.000 ms (1001 pts) Log Lin #VBW 3.0 MHz ASG STATUS

MIMO Antenna-1 Power Spectral Density Measurements (26 Tones)

Plot 7-163. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 36)



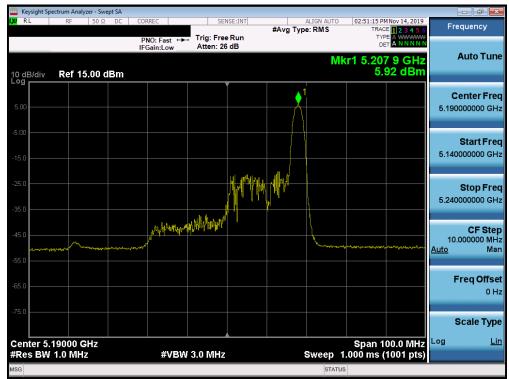
Plot 7-164. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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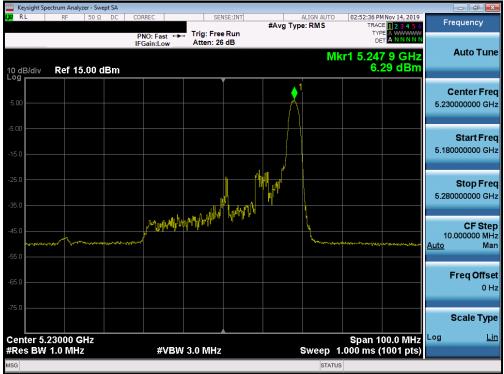
Plot 7-165. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 48)



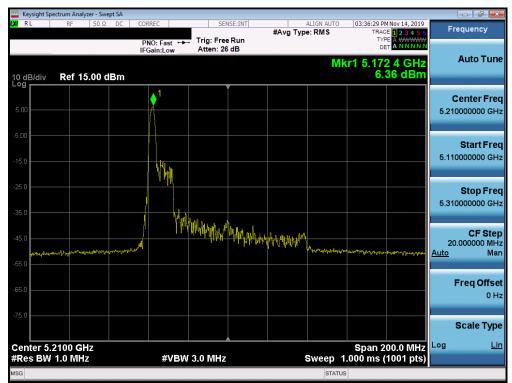
Plot 7-166. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 133 of 265	
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Plot 7-167. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 46)



Plot 7-168. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 42)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 124 of 205
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Plot 7-169. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 52)



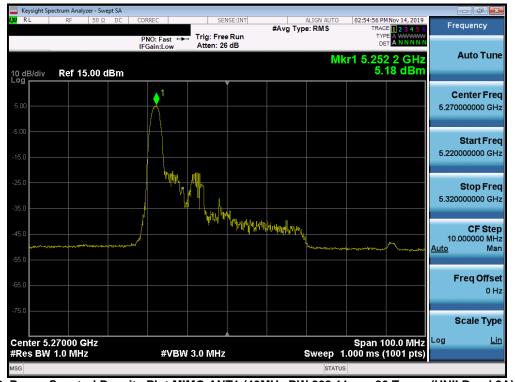
Plot 7-170. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 125 of 265	
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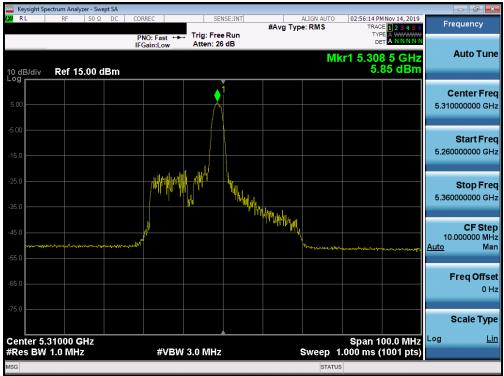
Plot 7-171. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 64)



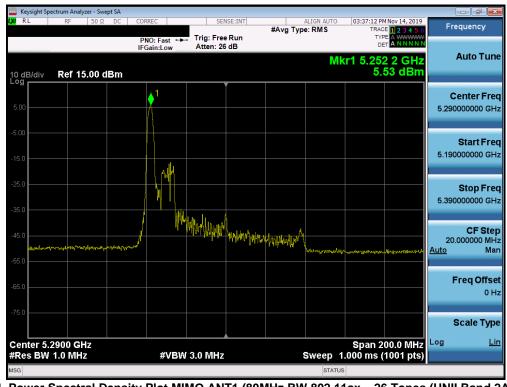
Plot 7-172. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 136 of 265
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Plot 7-173. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 62)



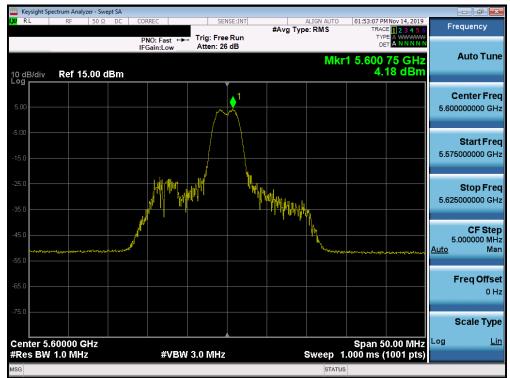
Plot 7-174. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 58)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-175. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 100)



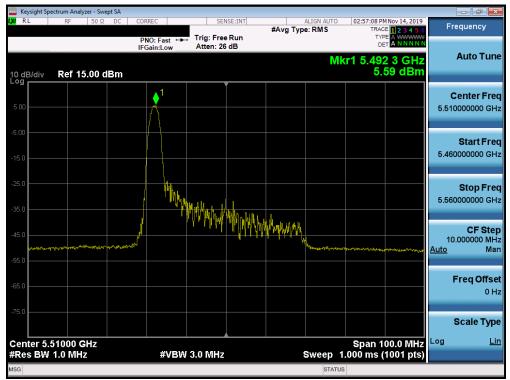
Plot 7-176. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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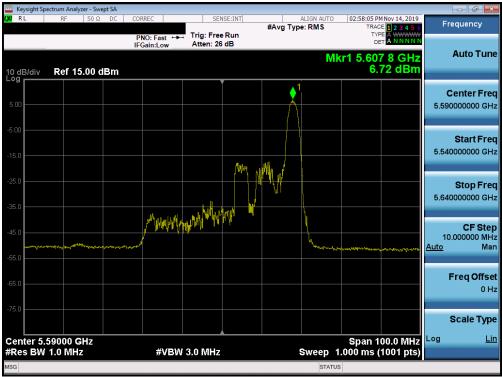
Plot 7-177. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 144)



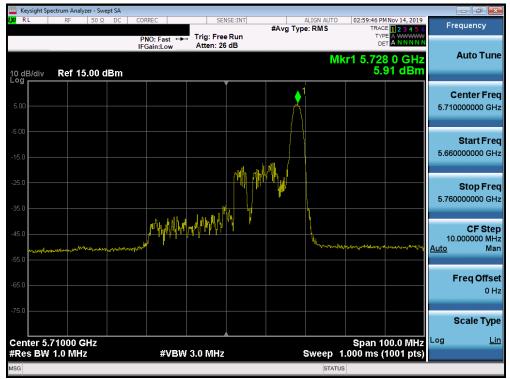
Plot 7-178. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 102)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 120 of 265
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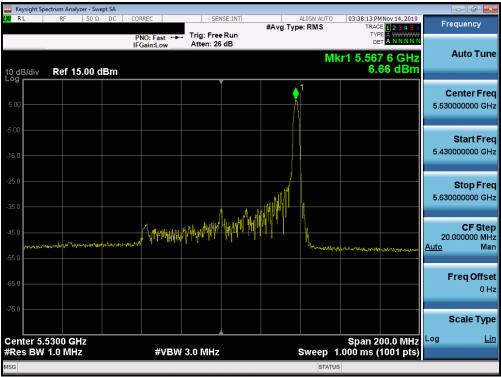
Plot 7-179. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 118)



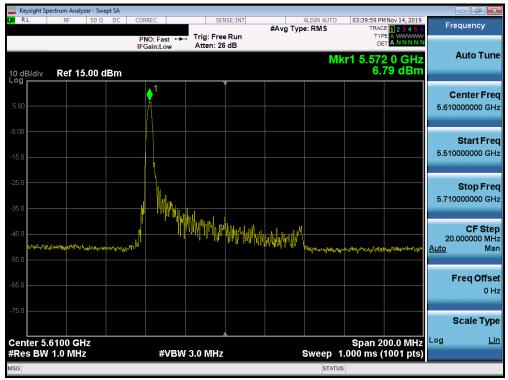
Plot 7-180. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 140 of 205
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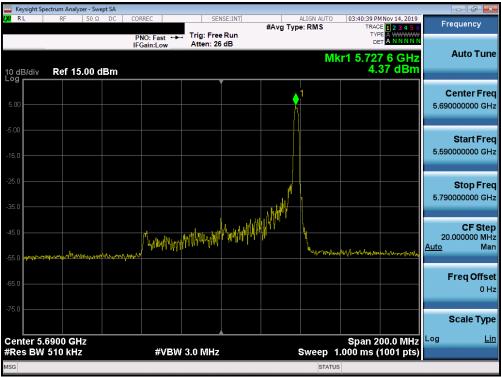
Plot 7-181. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 106)



Plot 7-182. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 111 of 205
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Plot 7-183. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 138)



Plot 7-184. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 149)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 142 of 265
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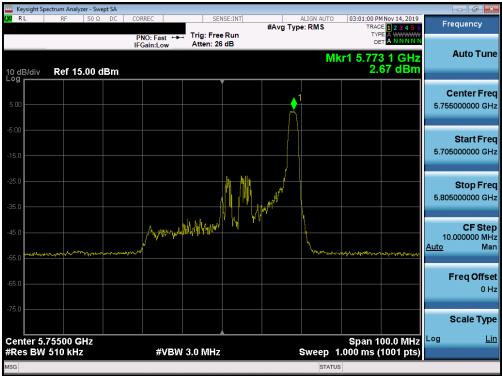
Plot 7-185. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 157)



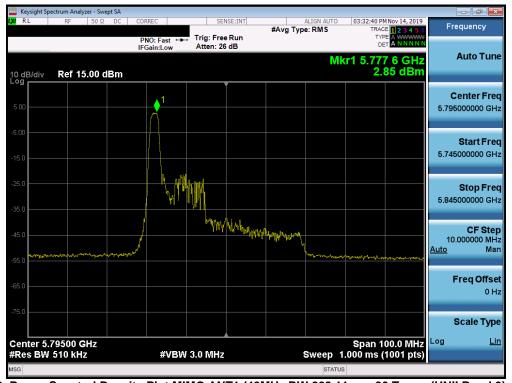
Plot 7-186. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 142 of 265
1M1910220166-09.A3L 10/11/19 – 01/15/20		Portable Handset		Page 143 of 265
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Plot 7-187. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 151)



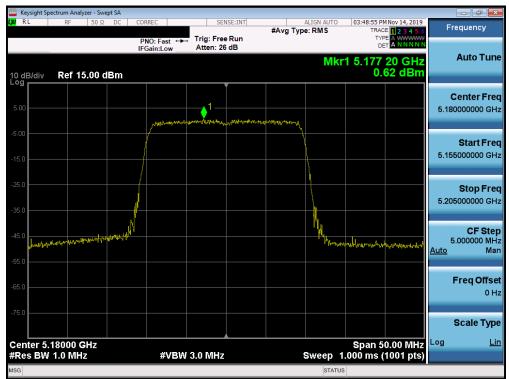
Plot 7-188. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 159)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 111 of 205
1M1910220166-09.A3L	10/11/19 - 01/15/20	Portable Handset		Page 144 of 265
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	ctrum Analyzer - Sv										×
LXVI RL	RF 50 S	Ω DC	CORREC	SEI	NSE:INT	#Avg Typ	ALIGN AUTO e: RMS	TRAC	Nov 14, 2019	Frequency	
			PNO: Fast ++	. Trig: Free Atten: 26				TYP DE	E A WWWWW T A N N N N N		
			I Guilleon				Mk	r1 5.737	2 GHz	Auto Tu	une
10 dB/div	Ref 15.00	dBm						6.1	10 dBm		
			1		Ĭ					Center F	rea
5.00			<mark>X</mark>							5.775000000 0	
-5.00										Start F	rea
-15.0										5.675000000	
			WH I								
-25.0			<u> </u>							Stop F	req
										5.875000000	GHz
-35.0			/ M/m	http://www.	<u>i</u> .						
-45.0			/ I'	"" "WAAYAY	lad half a particulation of the	Which is the selection of the				CF St 20.000000 M	
and the second	with the second second	n gar ann an	r'			the first of an a	and and a second second	antranan in	Norman Made and Sugar		Man
-55.0											
-65.0										Freq Off	
										C) Hz
-75.0										O colo To	
										Scale Ty	ype
Center 5.7			10.0					Span 2	00.0 MHz	Log	Lin
#Res BW	1.0 MHz		#VBW	3.0 MHz				.000 ms (1001 pts)		
MSG							STATUS				

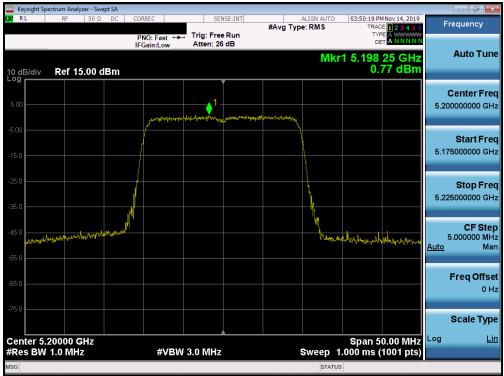
Plot 7-189. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 155)



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

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 145 of 265
1M1910220166-09.A3L 10/11/19 – 01/15/20		Portable Handset		Page 145 of 265
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Plot 7-191. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 40)



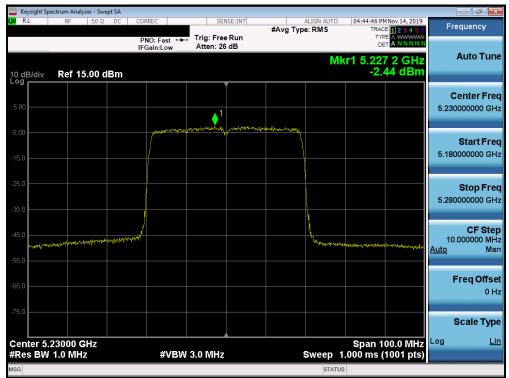
Plot 7-192. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 48)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 146 of 265
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	ight Spectrum	Analyzer - Sw	vept SA									×
LXI RL	F	F 50 S	2 DC	CORREC	SEI	ISE:INT	#Avg Typ	ALIGN AUTO		Nov 14, 2019	Frequency	
				PNO: Fast ← IFGain:Low	➡ Trig: Free Atten: 26				TYF DE		Auto Tu	
10 dB/ Log r	ldiv R e	f 15.00	dBm					Mł	(r1 5.19) -1.3	6 7 GHz 84 dBm	Auto Tur	1e
5.00 -					Bully Milly Marchen		-				Center Fre 5.190000000 GH	
-5.00 -											Start Fre 5.140000000 GH	
-25.0 - -35.0 -											Stop Fre 5.240000000 GH	
-45.0	and work of the state of the st	, AMULAUTAN	ulinininini					Mulanik dage	rtenner-proverhyd	178 ⁴ WWW. Amalanaile	CF Ste 10.000000 MH <u>Auto</u> Ma	
-65.0 -											Freq Offs 0 H	
-75.0											Scale Typ	ре
	er 5.190 BW 1.0			#VB	W 3.0 MHz			Sweep 1	Span 1 .000 ms (00.0 MHz 1001 pts)	Log <u>L</u>	<u>.in</u>
MSG								STATUS	3			

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



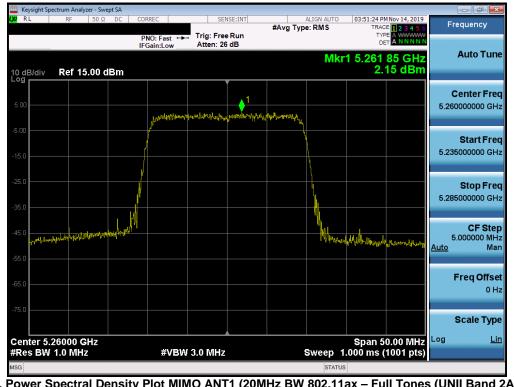
Plot 7-194. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 46)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 147 of 205	
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Keysight Spectrum Analyzer - Swept SA								
LXI RL RF 50Ω DC CO	RREC	SEI	NSE:INT	#Avg Typ	ALIGN AUTO e: RMS		Nov 14, 2019	Frequency
	NO: Fast ↔ Gain:Low	Trig: Free Atten: 26				TYPE DE	AWWWWW	Auto Tune
			.1					Center Freq 5.210000000 GHz
-5.00	paral production of	panytownodernity/s	ylu/yrthannuy	gerout Charles				Start Freq 5.110000000 GHz
-25.0								Stop Freq 5.310000000 GHz
-45.0 ปลายไหญเป็นอาการเป็นหาวารไปสุดครามการไ					h Mary Mandrew Myry	bernany insurants	httory (Numbe	CF Step 20.000000 MHz <u>Auto</u> Man
-65.0								Freq Offset 0 Hz
-75.0 Center 5.2100 GHz	#\/B\M	2.0.844				Span 20	00.0 MHz	Scale Type Log <u>Lin</u>
#Res BW 1.0 MHz	#VBW	3.0 MHz			SWEED 1	.000 ms (1	out pts)	

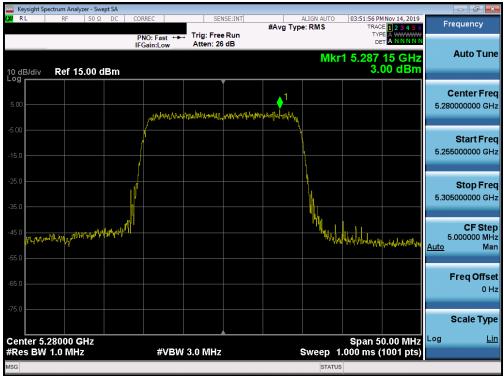
Plot 7-195. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 42)



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

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	pe:	
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Plot 7-197. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 56)



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

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 140 of 265
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Plot 7-199. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 54)



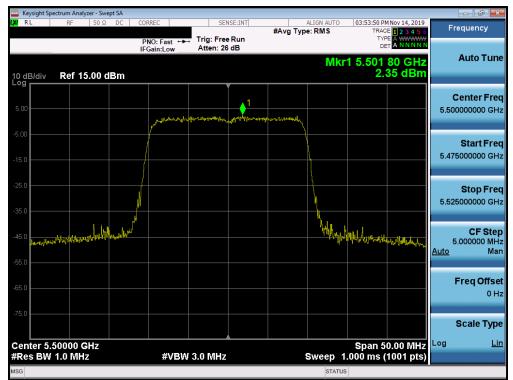
Plot 7-200. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 62)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 150 of 205	
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	ectrum Analyz										
XI RL	RF	50 Ω		DRREC		ENSE:INT	#Avg Typ	ALIGN AUTO	TRAC	E 1 2 3 4 5 6	Frequency
10 dB/div Log	Ref 15	.00 dB		PNO: Fast Gain:Low	Atten: :			M	(r1 5.28	5 8 GHz 01 dBm	Auto Tune
5.00						1					Center Fre 5.290000000 GH
-5.00				Manunit	marthand	to galation and the	Marnhollyanty				Start Fre 5.190000000 GH
-25.0											Stop Fre 5.390000000 GH
45.0 ••••••••	_{վիդի} դուտ-դրեվ	legen parket	er alanar	/				minument	nopulingenerated	ywalthaaqabaqq	CF Ste 20.000000 MH <u>Auto</u> Ma
75.0											Freq Offso 0 ⊦
											Scale Typ
Center 5. Res BW				#VE	3W 3.0 MH	z		Sweep 1	Span 2 .000 ms (00.0 MHz 1001 pts)	Log <u>Li</u>
ISG								STATUS	5		

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



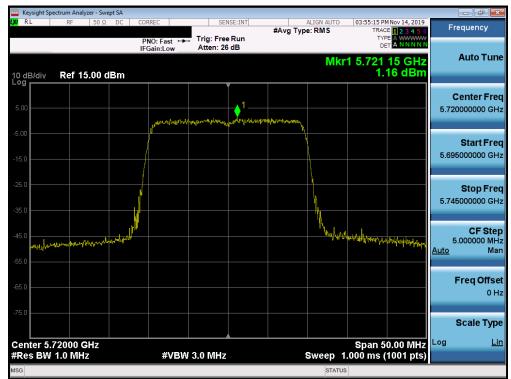
Plot 7-202. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 100)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 151 of 265	
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Plot 7-203. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 120)



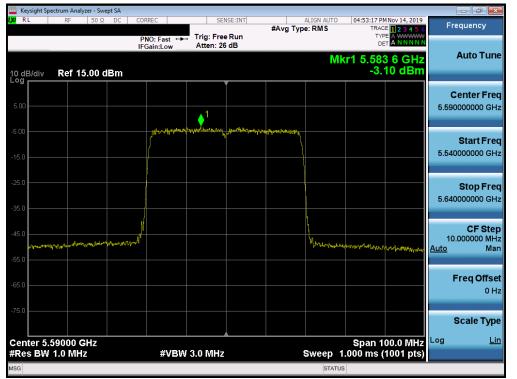
Plot 7-204. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 144)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 152 of 265	
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		ctrum Analy	zer - Swept	t SA										
LXI RI	L	RF	50 Ω	DC	CORREC		SE	NSE:INT	#Avg Typ	ALIGN AUTO		MNov 14, 2019 DE 1 2 3 4 5 6	Fr	equency
					PNO: Fa	ast ↔ .ow	Trig: Fre Atten: 2		#/19 I JF	e. Ring	TY			
10 dE Log	3/div	Ref 15	.00 dE	3m						MI	kr1 5.51: -2.	2 3 GHz 67 dBm		Auto Tune
5.00								1						Center Freq 0000000 GHz
-5.00						nter that is	and a star of a		new contraction of the second				5.460	Start Freq 0000000 GHz
-25.0													5.560	Stop Freq 0000000 GHz
-45.0	ngar (ggan sellar da	newsprend	un nu Man	and the second						Report Second	ann han an a	Josenny Weigering and	10 <u>Auto</u>	CF Step 0.000000 MHz Man
-55.0													1	F req Offset 0 Hz
-75.0														Scale Type
		1000 G 1.0 MHz			#	¢vbw	3.0 MHz			Sweep 1	Span 1 1.000 ms (00.0 MHz (1001 pts)	Log	<u>Lin</u>
MSG										STATU	S			

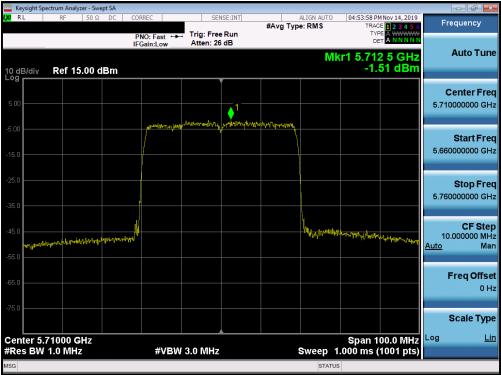
Plot 7-205. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 102)



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

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Plot 7-207. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 142)



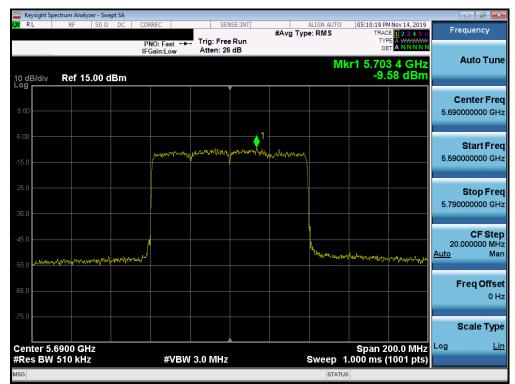
Plot 7-208. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 106)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 154 of 265	
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🔤 Keysight S	pectrum Analyzer -	Swept SA								- 6 🗾
X/RL	RF 5	0Ω DC	CORREC			#Avg Typ	ALIGN AUTO e: RMS	TRACE	Nov 14, 2019	Frequency
10 dB/div	Ref 15.0	0 dBm	PNO: Fast ↔ IFGain:Low	Atten: 26			Mk	r1 5.613	8 GHz 4 dBm	Auto Tun
5.00										Center Fre 5.610000000 GH
-5.00				anthe town when y	And the Assessment	- and the second second				Start Fre 5.510000000 GH
-25.0										Stop Fre 5.710000000 GH
45.0 		uhuanaha jiliyahad	المر				Herryer, mayor	hyrneshaaliy	1104maanthaf	CF Ste 20.000000 M⊢ <u>Auto</u> Ma
65.0										Freq Offso 0 ⊦
-75.0	6400 CH-							Dran 3		Scale Typ
	.6100 GHz / 1.0 MHz		#VBW	3.0 MHz			Sweep 1	Span 20 .000 ms (1	00.0 MHz 1001 pts)	
ISG							STATUS			

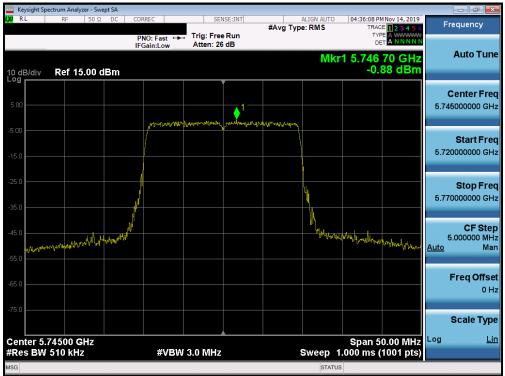
Plot 7-209. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 122)



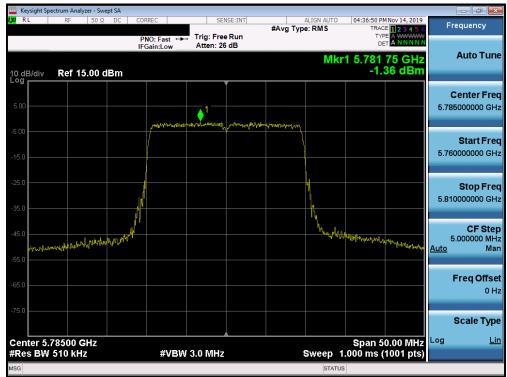
Plot 7-210. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		
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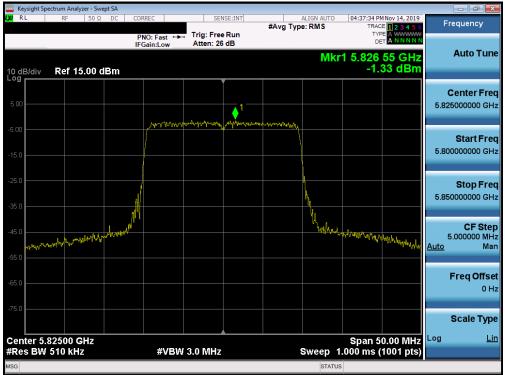
Plot 7-211. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 149)



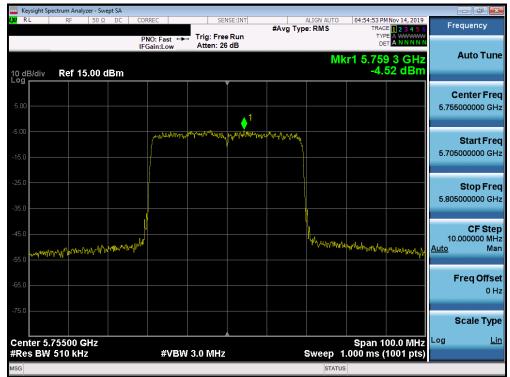
Plot 7-212. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 156 of 265
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Plot 7-213. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 165)



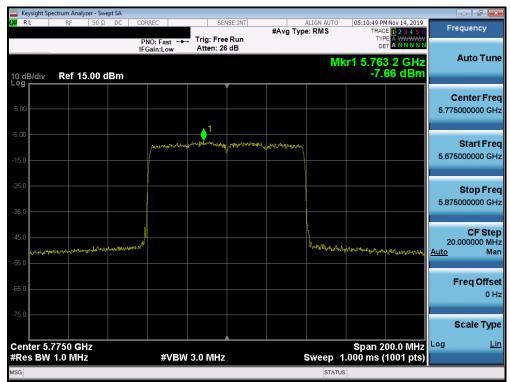
Plot 7-214. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 157 of 205
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	pectrum Analyzer	- Swept SA						
X/RL	RF	50Ω DC	CORREC	SENSE:IN	#Avg Typ	ALIGN AUTO	04:55:25 PM Nov 14, 2019 TRACE 1 2 3 4 5 6	Frequency
10 dB/div	Ref 15.0	0 dBm	PNO: Fast ↔ IFGain:Low	Atten: 26 dB		Mk	r1 5.799 8 GHz -5.82 dBm	Auto Tun
5.00					1			Center Fre 5.795000000 GH
15.0			for which the	multi-many paper	white where where			Start Fre 5.745000000 G⊦
25.0 35.0								Stop Fre 5.845000000 G⊦
45.0 55.0 1111	m Maning Lake by	LAN MAY MURIAM	l vrr ^{dl}			Marrow Marrow	mannantrag	CF Ste 10.000000 MH <u>Auto</u> Ma
65.0								Freq Offs 0 F
75.0								Scale Typ
	.79500 GH / 510 kHz	Z	#VBV	v 3.0 MHz		Sweep 1.	Span 100.0 MHz .000 ms (1001 pts)	Log <u>Li</u>
ISG						STATUS		

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



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

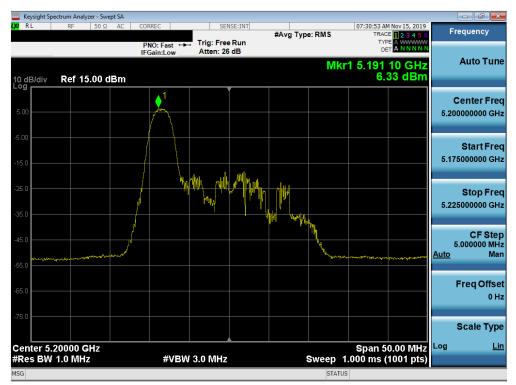
FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 159 of 265
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MIMO Antenna-2 Power Spectral Density Measurements (26 Tones)



Plot 7-217. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 36)



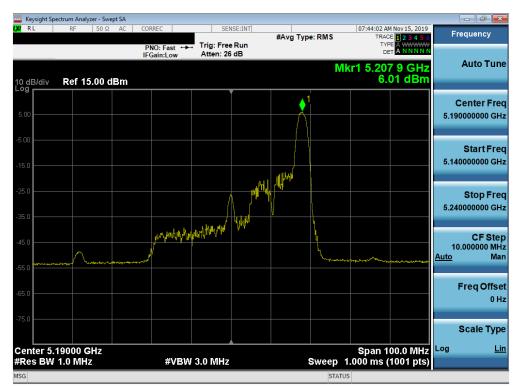
Plot 7-218. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 450 of 205
1M1910220166-09.A3L	10/11/19 - 01/15/20	Portable Handset		Page 159 of 265
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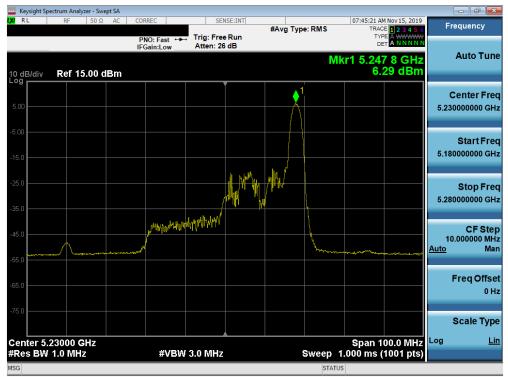
Plot 7-219. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 48)



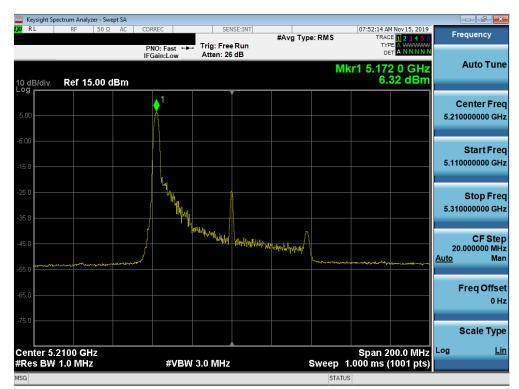
Plot 7-220. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax – 26 Tones (UNII Band 1) – Ch. 38)

FCC ID: A3LSMG986U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-221. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 46)



Plot 7-222. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 42)

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Test Report S/N:	Test Dates:	EUT Type:		Dage 161 of 265
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