

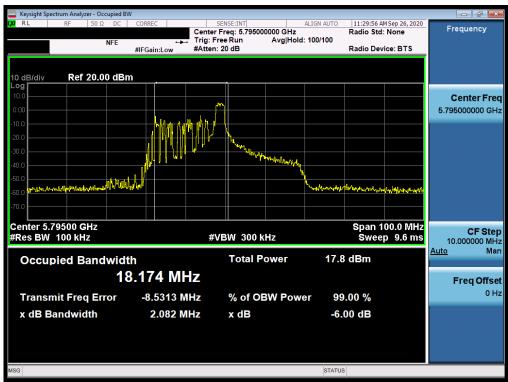
Plot 7-87. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)



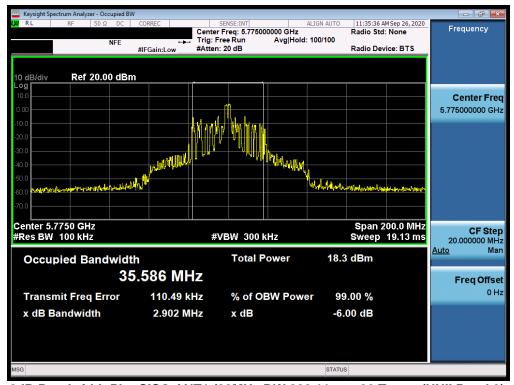
Plot 7-88. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-89. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 159)



Plot 7-90. 6dB Bandwidth Plot SISO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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O COOC POTEOT			110000010110010

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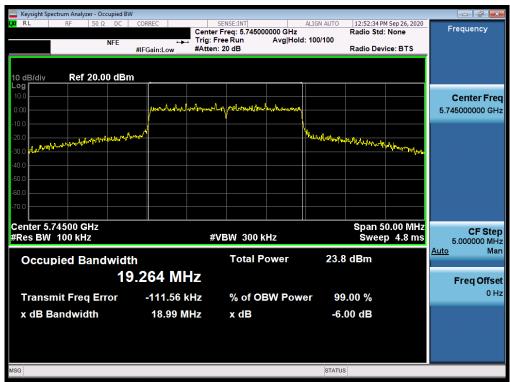
# SISO Antenna-1 6 dB Bandwidth Measurements (Full Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
	5745	149	ax (20MHz)	242T	MCS0	18.99
	5785	157	ax (20MHz)	242T	MCS0	18.88
5 pc	5825	165	ax (20MHz)	242T	MCS0	18.91
Band	5755	151	ax (40MHz)	484T	MCS0	37.51
	5795	159	ax (40MHz)	484T	MCS0	37.40
	5775	155	ax (80MHz)	996T	MCS0	77.66

Table 7-7. Conducted Bandwidth Measurements SISO ANT1 (Full Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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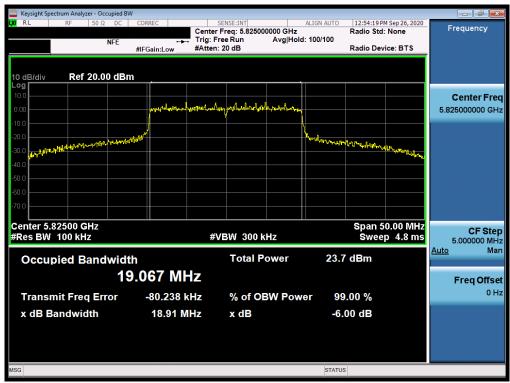
Plot 7-91. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 149)



Plot 7-92. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 60 of 207
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Plot 7-93. 6dB Bandwidth Plot SISO ANT1 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 165)



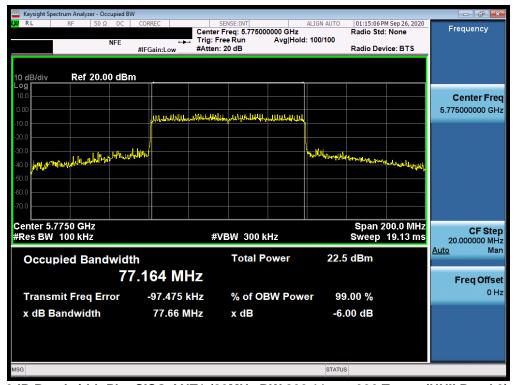
Plot 7-94. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11ax - 484 Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-95. 6dB Bandwidth Plot SISO ANT1 (40MHz BW 802.11ax - 484 Tones (UNII Band 3) - Ch. 159)



Plot 7-96. 6dB Bandwidth Plot SISO ANT1 (80MHz BW 802.11ax - 996 Tones (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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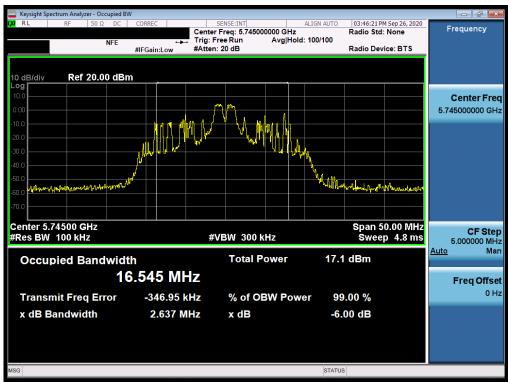
# SISO Antenna-2 6dB Bandwidth Measurements (26 Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
	5745	149	ax (20MHz)	26T	MCS0	2.64
•	5785	157	ax (20MHz)	26T	MCS0	2.61
р р	5825	165	ax (20MHz)	26T	MCS0	2.63
Band	5755	151	ax (40MHz)	26T	MCS0	2.12
_	5795	159	ax (40MHz)	26T	MCS0	2.13
	5775	155	ax (80MHz)	26T	MCS0	2.80

Table 7-8. Conducted Bandwidth Measurements SISO ANT2 (26 Tones)

FCC ID: A3LSMG996U	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-97. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 149)



Plot 7-98. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 72 of 207
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Plot 7-99. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)



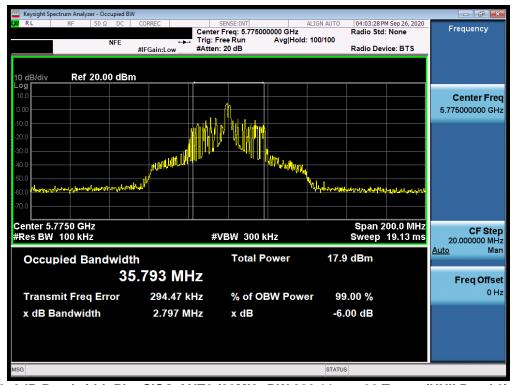
Plot 7-100. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-101. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 159)



Plot 7-102. 6dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG996U	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-2 6dB Bandwidth Measurements (Full Tones)

	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
	5745	149	ax (20MHz)	242T	MCS0	19.03
	5785	157	ax (20MHz)	242T	MCS0	18.99
5 pc	5825	165	ax (20MHz)	242T	MCS0	19.05
Band	5755	151	ax (40MHz)	484T	MCS0	37.40
	5795	159	ax (40MHz)	484T	MCS0	37.07
	5775	155	ax (80MHz)	996T	MCS0	77.57

Table 7-9. Conducted Bandwidth Measurements SISO ANT2 (Full Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-103. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 149)

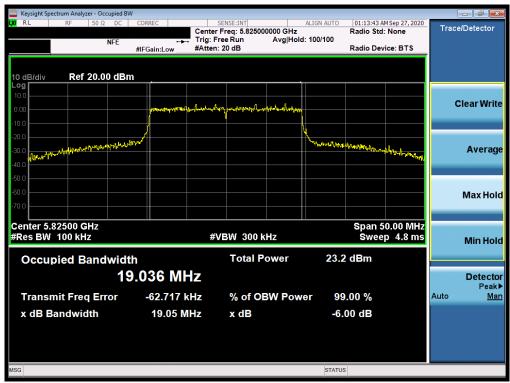


Plot 7-104. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Do an 77 of 207
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Plot 7-105. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax - 242 Tones (UNII Band 3) - Ch. 165)



Plot 7-106. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax - 484 Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Plot 7-107. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax - 484 Tones (UNII Band 3) - Ch. 159)



Plot 7-108. 6dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ax - 996 Tones (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 70 of 207
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# 7.4 UNII Output Power Measurement – 802.11ax OFDMA §15.407(a.1.iv) §15.407(a.2) §15.407(a.3); RSS-247 [6.2]

#### **Test Overview and Limits**

A transmitter antenna terminal of the EUT is connected to the input of an RF pulse power sensor. Measurement is made using a broadband average power meter while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies.

In the 5.15 – 5.25GHz band, the maximum permissible conducted output power is 250mW (23.98dBm). The maximum e.i.r.p. shall not exceed the lesser of 200 mW or 10 + 10 log10B, dBm.

In the 5.25-5.35GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) or 11 dBm +  $10\log_{10}(26$ dB BW) = 11 dBm +  $10\log_{10}(36.12)$  = 26.58dBm. The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or  $17 + 10\log_{10}(36.12)$  dBm.

In the 5.47 – 5.725GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) or 11 dBm +  $10\log_{10}(26dB \ BW) = 11 \ dBm + 10\log_{10}(18.58) = 23.69dBm$ . The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or 17 + 10 log10B, dBm.

In the 5.725 – 5.850GHz band, the maximum permissible conducted output power is 1W (30dBm). The maximum e.i.r.p. is 36 dBm.

### **Test Procedure Used**

ANSI C63.10-2013 – Section 12.3.3.2 Method PM-G KDB 789033 D02 v02r01 – Section E)3)b) Method PM-G ANSI C63.10-2013 – Section 14.2 Measure-and-Sum Technique KDB 662911 v02r01 – Section E)1) Measure-and-Sum Technique

#### **Test Settings**

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

#### **Test Setup**

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



Figure 7-3. Test Instrument & Measurement Setup

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# SISO Antenna-1 Conducted Output Power Measurements (26 Tones)

	Freq [MHz]	Channel	Detector	Tones	RU Index		Conducted Power Limit	Conducted Power	
					0	4	8	[dBm]	Margin [dB]
N (	5180	36	AVG	26T	10.39	10.83	10.56	23.98	-13.15
$\pm$ $\subseteq$	5200	40	AVG	26T	10.16	10.54	10.39	23.98	-13.44
oM id id i	5240	48	AVG	26T	10.21	10.52	10.37	23.98	-13.46
	5260	52	AVG	26T	10.19	10.47	10.30	23.47	-13.00
≥ (2)	5280	56	AVG	26T	10.23	10.50	10.39	23.47	-12.97
N S	5320	64	AVG	26T	10.30	10.60	10.36	23.47	-12.87
一声	5500	100	AVG	26T	10.41	10.72	10.52	22.80	-12.08
C W	5600	120	AVG	26T	10.49	10.69	10.39	22.80	-12.11
5	5720	144	AVG	26T	10.33	10.72	10.42	22.80	-12.08
	5745	149	AVG	26T	10.63	10.90	10.54	30.00	-19.10
	5785	157	AVG	26T	10.52	10.92	10.67	30.00	-19.08
	5825	165	AVG	26T	10.47	10.87	10.61	30.00	-19.13

Table 7-10. SISO ANT1 20MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

N	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit	Conducted Power
HZ (C					0	8	17	[dBm]	Margin [dB]
	5190	38	AVG	26T	10.68	10.86	10.83	23.98	-13.12
5 5	5230	46	AVG	26T	10.72	10.93	10.76	23.98	-13.05
(40M) width	5270	54	AVG	26T	10.45	10.63	10.62	23.47	-12.84
_	5310	62	AVG	26T	10.62	10.71	10.56	23.47	-12.76
HZ and	5510	102	AVG	26T	10.76	10.84	10.18	22.80	-11.96
4	5590	118	AVG	26T	10.77	10.86	10.99	22.80	-11.81
5G B	5710	142	AVG	26T	10.82	10.97	10.89	22.80	-11.83
	5755	151	AVG	26T	10.25	10.33	10.33	30.00	-19.67
	5795	159	AVG	26T	10.58	10.36	10.71	30.00	-19.29

Table 7-11. SISO ANT1 40MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

Z	N Freq [MHz] Chai		Channel Detector		RU Index			Conducted Power Limit	Conducted Power
[ 윤 (윤)					0	18	36	[dBm]	Margin [dB]
(80MHz width)	5210	42	AVG	26T	10.73	10.58	10.81	23.98	-13.17
	5290	58	AVG	26T	10.54	10.26	10.69	23.47	-12.78
5GHz Band	5530	106	AVG	26T	10.99	10.78	10.99	22.80	-11.81
G G	5610	122	AVG	26T	10.87	10.65	10.83	22.80	-11.93
5	5690	138	AVG	26T	10.89	10.65	10.83	22.80	-11.91
	5775	155	AVG	26T	10.99	10.93	10.30	30.00	-19.01

Table 7-12. SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-1 Conducted Output Power Measurements (52 Tones)

	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit	Conducted Power
					37	39	40	[dBm]	Margin [dB]
N (	5180	36	AVG	52T	12.25	12.52	12.51	23.98	-11.46
$\Xi$	5200	40	AVG	52T	12.31	12.52	12.34	23.98	-11.46
₹ <b>₹</b>	5240	48	AVG	52T	12.25	12.53	12.38	23.98	-11.45
<b>O</b> :=	5260	52	AVG	52T	12.20	12.43	12.35	23.47	-11.04
<u>≥</u> (2)	5280	56	AVG	52T	12.36	12.53	12.41	23.47	-10.94
N S	5320	64	AVG	52T	12.41	12.62	12.45	23.47	-10.85
a ∓	5500	100	AVG	52T	12.51	12.63	12.49	22.80	-10.17
(D) m	5600	120	AVG	52T	12.41	12.64	12.43	22.80	-10.16
<b>5</b>	5720	144	AVG	52T	12.36	12.54	12.38	22.80	-10.26
	5745	149	AVG	52T	12.50	12.61	12.44	30.00	-17.39
	5785	157	AVG	52T	12.44	12.64	12.53	30.00	-17.36
	5825	165	AVG	52T	12.43	12.65	12.50	30.00	-17.35

Table 7-13. SISO ANT1 20MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

N -	Freq [MHz] Channel Detector		Tones	RU Index			Conducted Power Limit	Conducted Power	
<b>17</b>					37	40	44	[dBm]	Margin [dB]
巨茧	5190	38	AVG	52T	12.99	12.84	12.99	23.98	-10.99
2.0	5230	46	AVG	52T	12.99	12.93	12.99	23.98	-10.99
4 3	5270	54	AVG	52T	12.79	12.77	12.86	23.47	-10.61
<b>5</b>	5310	62	AVG	52T	12.83	12.76	12.81	23.47	-10.64
7	5510	102	AVG	52T	12.14	12.99	12.31	22.80	-9.81
注 Sa	5590	118	AVG	52T	12.13	12.83	12.99	22.80	-9.81
5G B	5710	142	AVG	52T	12.95	12.78	12.92	22.80	-9.85
	5755	151	AVG	52T	12.29	12.99	12.39	30.00	-17.01
	5795	159	AVG	52T	12.70	12.99	12.91	30.00	-17.01

Table 7-14. SISO ANT1 40MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

z	Freq [MHz]	Freq [MHz] Channel		Tones		RU Index	Conducted Power Limit	Conducted Power	
(80MHz width)					37	37 44 52		[dBm]	Margin [dB]
	5210	42	AVG	52T	12.99	12.27	12.98	23.98	-10.99
	5290	58	AVG	52T	12.67	12.30	12.81	23.47	-10.66
5GHz Band	5530	106	AVG	52T	12.26	12.63	12.19	22.80	-10.17
GE	5610	122	AVG	52T	12.97	12.35	12.96	22.80	-9.83
50	5690	138	AVG	52T	12.98	12.29	12.75	22.80	-9.82
	5775	155	AVG	52T	12.17	12.62	12.33	30.00	-17.38

Table 7-15. SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-1 Conducted Output Power Measurements (106 Tones)

	Freq [MHz]	Channel	Detector	Tones	RU Index		Conducted Power Limit	Conducted Power
					53	54	[dBm]	Margin [dB]
N	5180	36	AVG	106T	14.23	14.37	23.98	-9.61
Image: Control of the	5200	40	AVG	106T	14.24	14.32	23.98	-9.66
<b>E E</b>	5240	48	AVG	106T	14.25	14.40	23.98	-9.58
) 	5260	52	AVG	106T	14.99	14.99	23.47	-8.48
<u>≤</u> (2)	5280	56	AVG	106T	14.99	14.18	23.47	-8.48
N S	5320	64	AVG	106T	14.34	14.99	23.47	-8.48
五声	5500	100	AVG	106T	14.26	14.19	22.80	-8.54
(D)	5600	120	AVG	106T	14.25	14.25	22.80	-8.55
5	5720	144	AVG	106T	14.75	14.86	22.80	-7.94
	5745	149	AVG	106T	14.38	14.32	30.00	-15.62
	5785	157	AVG	106T	14.38	14.49	30.00	-15.51
	5825	165	AVG	106T	14.33	14.40	30.00	-15.60

Table 7-16. SISO ANT1 20MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

Ν	Freq [MHz] Channel Det		nannel Detector			RU Index	Conducted Power Limit	Conducted Power		
17						53	54	56	[dBm]	Margin [dB]
<b> </b> ₹ ;	+	5190	38	AVG	106T	14.15	14.77	14.10	23.98	-9.21
	O	5230	46	AVG	106T	14.20	14.75	14.11	23.98	-9.23
4	⋛	5270	54	AVG	106T	14.88	14.48	14.97	23.47	-8.50
	σ	5310	62	AVG	106T	14.90	14.70	14.88	23.47	-8.57
Ÿ.		5510	102	AVG	106T	14.18	14.70	14.37	22.80	-8.10
古	S S	5590	118	AVG	106T	14.19	14.55	14.11	22.80	-8.25
50	<b>m</b>	5710	142	AVG	106T	14.76	14.47	14.98	22.80	-7.82
		5755	151	AVG	106T	14.34	14.90	14.50	30.00	-15.10
		5795	159	AVG	106T	14.87	14.81	14.17	30.00	-15.13

Table 7-17. SISO ANT1 40MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

N	Freq [MHz] Chan		Detector	r Tones		RU Index	Conducted Power Limit	Conducted Power	
₹ €					53	56	60	[dBm]	Margin [dB]
(80MH)	5210	42	AVG	106T	14.99	14.38	14.99	23.98	-8.99
	5290	58	AVG	106T	14.69	14.22	14.83	23.47	-8.64
5GHz Band	5530	106	AVG	106T	14.99	14.45	14.99	22.80	-7.81
G Ba	5610	122	AVG	106T	14.90	14.29	14.78	22.80	-7.90
5	5690	138	AVG	106T	14.79	14.94	14.68	22.80	-7.86
	5775	155	AVG	106T	14.17	14.49	14.33	30.00	-15.51

Table 7-18. SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-1 Conducted Output Power Measurements (242 Tones)

	Freq [MHz]	Channel	Detector	Tones	RU Index	Conducted Power Limit	Conducted Power
					61	[dBm]	Margin [dB]
N	5180	36	AVG	242T	15.45	23.98	-8.53
王 三	5200	40	AVG	242T	17.86	23.98	-6.12
(20MH width)	5240	48	AVG	242T	17.86	23.98	-6.12
20 12	5260	52	AVG	242T	17.52	23.47	-5.95
<b>≥</b> (2)	5280	56	AVG	242T	17.65	23.47	-5.82
<b>Z</b> 2	5320	64	AVG	242T	14.47	23.47	-9.00
Hz	5500	100	AVG	242T	15.48	22.80	-7.32
(D)	5600	120	AVG	242T	17.50	22.80	-5.30
5	5720	144	AVG	242T	17.31	22.80	-5.49
	5745	149	AVG	242T	17.14	30.00	-12.86
	5785	157	AVG	242T	17.41	30.00	-12.59
	5825	165	AVG	242T	17.25	30.00	-12.75

Table 7-19. SISO ANT1 20MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

N	Freq [MHz]	Channel	Detector	Tones	RU I	ndex	Conducted Power Limit	Conducted Power
II C					61	62	[dBm]	Margin [dB]
	5190	38	AVG	242T	16.22	16.20	23.98	-7.76
(40M widtl	5230	46	AVG	242T	16.22	16.13	23.98	-7.76
4 3	5270	54	AVG	242T	16.94	16.91	23.47	-6.53
7	5310	62	AVG	242T	16.99	16.81	23.47	-6.48
Hz	5510	102	AVG	242T	16.80	16.96	22.80	-5.84
	5590	118	AVG	242T	16.68	16.75	22.80	-6.05
5G B	5710	142	AVG	242T	16.65	16.76	22.80	-6.04
	5755	151	AVG	242T	16.44	16.50	30.00	-13.50
	5795	159	AVG	242T	16.19	16.38	30.00	-13.62

Table 7-20. SISO ANT1 40MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

Z	Freq [MHz]	Channel Detector		Tones		RU Index	Conducted Power Limit	Conducted Power	
<b>₹</b>					61	62	64	[dBm]	Margin [dB]
(80MHz width)	5210	42	AVG	242T	15.32	15.55	15.25	23.98	-8.43
	5290	58	AVG	242T	15.97	15.36	15.93	23.47	-7.50
5GHz Band	5530	106	AVG	242T	15.88	15.39	15.94	22.80	-6.86
GE	5610	122	AVG	242T	15.74	15.18	15.73	22.80	-7.06
5 _	5690	138	AVG	242T	15.62	15.20	15.65	22.80	-7.15
	5775	155	AVG	242T	15.30	15.63	15.46	30.00	-14.37

Table 7-21. SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-1 Conducted Output Power Measurements (484 Tones)

N	Freq [MHz]	Channel	Detector	Tones	RU Index	Conducted Power Limit	Conducted Power
Hz h)					65	[dBm]	Margin [dB]
₹ ‡	5190	38	AVG	484T	13.31	23.98	-10.67
(40M widtl	5230	46	AVG	484T	16.99	23.98	-6.99
4 ≥	5270	54	AVG	484T	16.71	23.47	-6.76
	5310	62	AVG	484T	13.22	23.47	-10.25
Hz	5510	102	AVG	484T	12.97	22.80	-9.83
1	5590	118	AVG	484T	16.77	22.80	-6.03
5G B	5710	142	AVG	484T	16.74	22.80	-6.06
	5755	151	AVG	484T	16.38	30.00	-13.62
	5795	159	AVG	484T	16.33	30.00	-13.67

Table 7-22. SISO ANT1 40MHz BW (UNII) Maximum Conducted Output Power (484 Tones)

Z	Freq [MHz]	Channel Detector		Tones	RU I	ndex	Conducted Power Limit	Conducted Power
(80MHz lwidth)					65	66	[dBm]	Margin [dB]
	5210	42	AVG	484T	13.31	13.27	23.98	-10.67
	5290	58	AVG	484T	12.23	12.29	23.47	-11.18
Hz	5530	106	AVG	484T	12.84	12.91	22.80	-9.89
5GF Ba	5610	122	AVG	484T	15.80	15.99	22.80	-6.81
5	5690	138	AVG	484T	15.87	15.99	22.80	-6.81
	5775	155	AVG	484T	15.18	15.26	30.00	-14.74

Table 7-23. SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power (484 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-1 Conducted Output Power Measurements (996 Tones)

N	Freq [MHz]	Channel	Detector	Tones	RU Index	Conducted Power Limit	Conducted Power
₹ ₹					67	[dBm]	Margin [dB]
(80MH)	5210	42	AVG	996T	13.35	23.98	-10.63
<u>8</u> <u>8</u> <u>8</u>	5290	58	AVG	996T	12.31	23.47	-11.16
4z Ind	5530	106	AVG	996T	12.92	22.80	-9.88
GF Ba	5610	122	AVG	996T	15.52	22.80	-7.28
5	5690	138	AVG	996T	15.50	22.80	-7.30
	5775	155	AVG	996T	15.10	30.00	-14.90

Table 7-24. SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power (996 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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# SISO Antenna-2 Conducted Output Power Measurements (26 Tones)

	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit	Conducted Power
					0	4	8	[dBm]	Margin [dB]
N _	5180	36	AVG	26T	10.13	10.50	10.31	23.98	-13.48
ے <u>ت</u>	5200	40	AVG	26T	10.21	10.59	10.36	23.98	-13.39
₹ E	5240	48	AVG	26T	10.28	10.62	10.40	23.98	-13.36
<b>O</b> .—	5260	52	AVG	26T	10.22	10.56	10.27	23.47	-12.91
<u>S</u> ≥	5280	56	AVG	26T	10.23	10.67	10.43	23.47	-12.80
N S	5320	64	AVG	26T	10.74	10.76	10.61	23.47	-12.71
あ エ	5500	100	AVG	26T	10.27	10.50	10.24	22.80	-12.30
(D) m	5600	120	AVG	26T	10.30	10.45	10.10	22.80	-12.35
5	5720	144	AVG	26T	10.99	10.16	10.92	22.80	-11.81
	5745	149	AVG	26T	10.72	10.78	10.41	30.00	-19.22
	5785	157	AVG	26T	10.50	10.92	10.56	30.00	-19.08
	5825	165	AVG	26T	10.27	10.64	10.27	30.00	-19.36

Table 7-25. SISO ANT2 20MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

N	Freq [MHz]	Channel	Detector	Tones		RU Index	Conducted Power Limit	Conducted Power	
Ϊ́Ξ 🤝					0	8	17	[dBm]	Margin [dB]
三世	5190	38	AVG	26T	10.65	10.68	10.68	23.98	-13.30
<b>5 5</b>	5230	46	AVG	26T	10.83	10.84	10.71	23.98	-13.14
<b>4</b> ≥	5270	54	AVG	26T	10.48	10.69	10.62	23.47	-12.78
<b>5</b>	5310	62	AVG	26T	10.56	10.82	10.58	23.47	-12.65
12 2	5510	102	AVG	26T	10.43	10.39	10.48	22.80	-12.32
注 Sa	5590	118	AVG	26T	10.51	10.40	10.23	22.80	-12.29
5G B	5710	142	AVG	26T	10.25	10.24	10.14	22.80	-12.55
	5755	151	AVG	26T	10.85	10.78	10.76	30.00	-19.15
	5795	159	AVG	26T	10.51	10.83	10.46	30.00	-19.17

Table 7-26. SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

z	Freq [MHz]	Channel	Detector	Tones		RU Index	Conducted Power Limit	Conducted Power	
₹ <b>(</b> £					0	18	[dBm]	Margin [dB]	
(80MHz width)	5210	42	AVG	26T	10.56	10.25	10.75	23.98	-13.23
	5290	58	AVG	26T	10.50	10.23	10.71	23.47	-12.76
Hz	5530	106	AVG	26T	10.65	10.22	10.52	22.80	-12.15
5GF Ba	5610	122	AVG	26T	10.60	10.99	10.26	22.80	-11.81
5	5690	138	AVG	26T	10.50	10.86	10.17	22.80	-11.94
	5775	155	AVG	26T	10.99	10.73	10.87	30.00	-19.01

Table 7-27. SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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# SISO Antenna-2 Conducted Output Power Measurements (52 Tones)

	Freq [MHz]	Channel	Detector	Tones		RU Index	Conducted Power Limit	Conducted Power	
					37	39	40	[dBm]	Margin [dB]
N	5180	36	AVG	52T	12.17	12.45	12.34	23.98	-11.53
I C	5200	40	AVG	52T	12.29	12.48	12.32	23.98	-11.50
<b>E E</b>	5240	48	AVG	52T	12.31	12.49	12.40	23.98	-11.49
2 :	5260	52	AVG	52T	12.27	12.50	12.38	23.47	-10.97
<u>≥</u> (2)	5280	56	AVG	52T	12.35	12.63	12.55	23.47	-10.84
N   S	5320	64	AVG	52T	12.53	12.89	12.64	23.47	-10.58
₹ ₹	5500	100	AVG	52T	12.40	12.51	12.29	22.80	-10.29
C M	5600	120	AVG	52T	12.31	12.35	12.18	22.80	-10.45
5	5720	144	AVG	52T	12.99	12.14	12.85	22.80	-9.81
	5745	149	AVG	52T	12.52	12.55	12.32	30.00	-17.45
	5785	157	AVG	52T	12.47	12.60	12.37	30.00	-17.40
	5825	165	AVG	52T	12.26	12.48	12.19	30.00	-17.52

Table 7-28. SISO ANT2 20MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

N	Freq [MHz]	Channel	Detector	Tones		RU Index	Conducted Power Limit	Conducted Power	
T C					37	40	44	[dBm]	Margin [dB]
<b>\$</b>	5190	38	AVG	52T	12.90	12.69	12.89	23.98	-11.08
ĕ Ħ	5230	46	AVG	52T	12.87	12.73	12.95	23.98	-11.03
4 ≥	5270	54	AVG	52T	12.90	12.77	12.99	23.47	-10.48
<b>—</b> <del>—</del> —	5310	62	AVG	52T	12.99	12.88	12.99	23.47	-10.48
12 4	5510	102	AVG	52T	12.86	12.55	12.92	22.80	-9.88
Sa Sa	5590	118	AVG	52T	12.74	12.47	12.63	22.80	-10.06
5G B	5710	142	AVG	52T	12.65	12.35	12.52	22.80	-10.15
	5755	151	AVG	52T	12.20	12.91	12.15	30.00	-17.09
	5795	159	AVG	52T	12.59	12.83	12.54	30.00	-17.17

Table 7-29. SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

N	Freq [MHz]	Channel	Detector	Tones		RU Index	Conducted Power Limit	Conducted Power	
₹ €					37	44	[dBm]	Margin [dB]	
(80MHz width)	5210	42	AVG	52T	12.73	12.14	12.86	23.98	-11.12
	5290	58	AVG	52T	12.71	12.20	12.99	23.47	-10.48
Hz	5530	106	AVG	52T	12.91	12.12	12.73	22.80	-9.89
5GF Ba	5610	122	AVG	52T	12.74	12.89	12.51	22.80	-9.91
5	5690	138	AVG	52T	12.71	12.77	12.28	22.80	-10.03
	5775	155	AVG	52T	12.99	12.31	12.81	30.00	-17.01

Table 7-30. SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-2 Conducted Output Power Measurements (106 Tones)

	Freq [MHz]	Freq [MHz] Channel		Tones	RU I	ndex	Conducted Power Limit	Conducted Power
					53	54	[dBm]	Margin [dB]
N	5180	36	AVG	106T	14.14	14.32	23.98	-9.66
王 三	5200	40	AVG	106T	14.27	14.28	23.98	-9.70
o id i	5240	48	AVG	106T	14.32	14.47	23.98	-9.51
2 :	5260	52	AVG	106T	14.31	14.33	23.47	-9.14
<u>≤</u> (2)	5280	56	AVG	106T	14.46	14.58	23.47	-8.89
N 2	5320	64	AVG	106T	14.60	14.65	23.47	-8.82
E E	5500	100	AVG	106T	14.43	14.39	22.80	-8.37
C m	5600	120	AVG	106T	14.38	14.23	22.80	-8.42
5	5720	144	AVG	106T	14.96	14.83	22.80	-7.84
	5745	149	AVG	106T	14.44	14.20	30.00	-15.56
	5785	157	AVG	106T	14.39	14.33	30.00	-15.61
·	5825	165	AVG	106T	14.99	14.99	30.00	-15.01

Table 7-31. SISO ANT2 20MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

N _	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit	Conducted Power
Ϊ́ C					53	54	56	[dBm]	Margin [dB]
	5190	38	AVG	106T	14.93	14.67	14.91	23.98	-9.05
(40M widtl	5230	46	AVG	106T	14.98	14.66	14.97	23.98	-9.00
4 3	5270	54	AVG	106T	14.14	14.67	14.18	23.47	-8.80
<b>—</b>	5310	62	AVG	106T	14.16	14.84	14.17	23.47	-8.63
HZ and	5510	102	AVG	106T	14.09	14.52	14.18	22.80	-8.28
1	5590	118	AVG	106T	14.99	14.41	14.88	22.80	-7.81
5G B	5710	142	AVG	106T	14.76	14.22	14.65	22.80	-8.04
	5755	151	AVG	106T	14.22	14.74	14.19	30.00	-15.26
	5795	159	AVG	106T	14.85	14.59	14.78	30.00	-15.15

Table 7-32. SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

Z	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit	Conducted Power
(80MHz width)				53 56		60	[dBm]	Margin [dB]	
<u>ig</u> 0	5210	42	AVG	106T	14.79	14.17	14.85	23.98	-9.13
	5290	58	AVG	106T	14.89	14.25	14.99	23.47	-8.48
5GHz Band	5530	106	AVG	106T	14.11	14.16	14.99	22.80	-7.81
G G	5610	122	AVG	106T	14.99	14.99	14.68	22.80	-7.81
5	5690	138	AVG	106T	14.82	14.87	14.47	22.80	-7.93
	5775	155	AVG	106T	14.99	14.22	14.89	30.00	-15.01

Table 7-33. SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-2 Conducted Output Power Measurements (242 Tones)

	Freq [MHz]	Channel	Detector	Tones	RU Index	Conducted Power Limit	Conducted Power
					61	[dBm]	Margin [dB]
N (	5180	36	AVG	242T	15.21	23.98	-8.77
OMH, idth)	5200	40	AVG	242T	16.75	23.98	-7.23
₹ d	5240	48	AVG	242T	16.71	23.98	-7.27
	5260	52	AVG	242T	16.78	23.47	-6.69
<u>₹</u> (2	5280	56	AVG	242T	16.89	23.47	-6.58
N   2	5320	64	AVG	242T	14.49	23.47	-8.98
Hz	5500	100	AVG	242T	15.31	22.80	-7.49
C M	5600	120	AVG	242T	16.87	22.80	-5.93
5	5720	144	AVG	242T	16.43	22.80	-6.37
	5745	149	AVG	242T	16.67	30.00	-13.33
	5785	157	AVG	242T	16.38	30.00	-13.62
	5825	165	AVG	242T	16.21	30.00	-13.79

Table 7-34. SISO ANT2 20MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

N (	Freq [MHz]	Channel	Detector	Tones	RU Index		Conducted Power Limit	Conducted Power
T C					61	62	[dBm]	Margin [dB]
<b>     </b>	5190	38	AVG	242T	15.84	15.72	23.98	-8.14
5 5	5230	46	AVG	242T	15.85	15.73	23.98	-8.13
(40M) widt	5270	54	AVG	242T	15.97	15.94	23.47	-7.50
$\overline{}$	5310	62	AVG	242T	15.32	15.34	23.47	-8.13
Hz	5510	102	AVG	242T	15.99	15.99	22.80	-6.81
4	5590	118	AVG	242T	15.87	15.90	22.80	-6.90
5G B	5710	142	AVG	242T	15.65	15.68	22.80	-7.12
	5755	151	AVG	242T	15.81	15.97	30.00	-14.03
	5795	159	AVG	242T	15.66	15.72	30.00	-14.28

Table 7-35. SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

N	Freq [MHz]	Channel	Detector	Tones	RU Index			Conducted Power Limit	Conducted Power
₹ €					61	61 62 64		[dBm]	Margin [dB]
(80MHz width)	5210	42	AVG	242T	14.74	14.95	14.76	23.98	-9.03
	5290	58	AVG	242T	14.86	14.15	14.83	23.47	-8.61
GHz Band	5530	106	AVG	242T	14.99	14.99	14.99	22.80	-7.81
G G	5610	122	AVG	242T	14.98	14.93	14.82	22.80	-7.82
5	5690	138	AVG	242T	14.81	14.78	14.63	22.80	-7.99
	5775	155	AVG	242T	14.84	14.93	14.82	30.00	-15.07

Table 7-36. SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-2 Conducted Output Power Measurements (484 Tones)

N	Freq [MHz]	Channel	Detector	Tones	RU Index	Conducted Power Limit	Conducted Power
E E					65	[dBm]	Margin [dB]
	5190	38	AVG	484T	13.26	23.98	-10.72
(40MHz width)	5230	46	AVG	484T	15.72	23.98	-8.26
4 3	5270	54	AVG	484T	15.61	23.47	-7.86
<b>—</b>	5310	62	AVG	484T	13.38	23.47	-10.09
Hz	5510	102	AVG	484T	13.48	22.80	-9.32
	5590	118	AVG	484T	15.75	22.80	-7.05
5G B	5710	142	AVG	484T	15.61	22.80	-7.19
	5755	151	AVG	484T	15.94	30.00	-14.06
	5795	159	AVG	484T	15.44	30.00	-14.56

Table 7-37. SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power (484 Tones)

N	Freq [MHz]	Channel	Detector	Tones	RU Index		Conducted Power Limit	Conducted Power
(80MH)					65	66	[dBm]	Margin [dB]
	5210	42	AVG	484T	13.11	13.17	23.98	-10.81
	5290	58	AVG	484T	12.17	12.23	23.47	-11.24
4z Ind	5530	106	AVG	484T	13.27	13.47	22.80	-9.33
GH Bar	5610	122	AVG	484T	14.62	14.65	22.80	-8.15
5	5690	138	AVG	484T	14.53	14.42	22.80	-8.27
	5775	155	AVG	484T	14.68	14.65	30.00	-15.32

Table 7-38. SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power (484 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# SISO Antenna-2 Conducted Output Power Measurements (996 Tones)

N	Freq [MHz]	Channel	Detector	Tones	RU Index	Conducted Power Limit	Conducted Power
<b>₹ ₹</b>					67	[dBm]	Margin [dB]
(80MH)	5210	42	AVG	996T	13.04	23.98	-10.94
80 ≥	5290	58	AVG	996T	11.82	23.47	-11.65
4z Ind	5530	106	AVG	996T	12.97	22.80	-9.83
5GH Bar	5610	122	AVG	996T	14.99	22.80	-7.81
5	5690	138	AVG	996T	14.67	22.80	-8.13
	5775	155	AVG	996T	14.99	30.00	-15.01

Table 7-39. SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power (996 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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# **MIMO Maximum Conducted Output Power Measurements (26 Tones)**

									RU Index					Conducted	Conducted
	Freq [MHz]	Channel	Detector	Tones		0			4			8		Power Limit	Power
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
N _	5180	36	AVG	26T	7.99	7.92	10.97	7.45	7.31	10.39	7.39	7.18	10.30	23.98	-13.01
$\Xi \subseteq$	5200	40	AVG	26T	7.12	7.00	10.07	7.36	7.31	10.35	7.23	7.24	10.25	23.98	-13.63
Σ≍	5240	48	AVG	26T	7.11	7.28	10.21	7.54	7.68	10.62	7.21	7.29	10.26	23.98	-13.36
2 ₹	5260	52	AVG	26T	6.93	7.17	10.06	7.28	7.15	10.23	7.14	7.24	10.20	23.47	-13.24
<u>₹</u> Ø	5280	56	AVG	26T	7.96	7.99	10.99	7.28	7.33	10.32	7.16	7.43	10.31	23.47	-12.48
N	5320	64	AVG	26T	7.05	7.10	10.09	7.39	7.45	10.43	7.14	7.33	10.25	23.47	-13.04
工声	5500	100	AVG	26T	7.58	7.11	10.36	7.77	7.39	10.59	7.54	7.10	10.34	22.80	-12.21
C W	5600	120	AVG	26T	7.56	6.91	10.26	7.82	7.04	10.46	7.67	6.79	10.26	22.80	-12.34
<u>2</u>	5720	144	AVG	26T	7.55	6.82	10.21	7.84	7.03	10.46	7.74	6.77	10.29	22.80	-12.34
	5745	149	AVG	26T	6.73	8.05	10.45	6.95	8.06	10.55	6.86	7.87	10.40	30.00	-19.45
	5785	157	AVG	26T	6.86	7.72	10.32	7.21	8.11	10.69	7.01	7.69	10.37	30.00	-19.31
	5825	165	AVG	26T	6.62	7.65	10.18	7.20	8.03	10.65	6.83	7.59	10.24	30.00	-19.35

Table 7-40. MIMO 20MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

									RU Index					Conducted	Conducted
N	Freq [MHz]	Channel	Detector	Tones		0			8			17		Power Limit	Power
÷ 🖘					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
₹₽	5190	38	AVG	26T	7.52	7.31	10.43	7.68	7.37	10.54	7.67	7.76	10.73	23.98	-13.25
등 교	5230	46	AVG	26T	7.73	7.64	10.70	7.64	7.45	10.56	7.74	8.02	10.89	23.98	-13.09
4 ≦	5270	54	AVG	26T	7.54	7.41	10.49	7.47	7.51	10.50	7.58	7.72	10.66	23.47	-12.81
∵ <del>б</del>	5310	62	AVG	26T	7.56	7.84	10.71	7.41	7.64	10.54	7.57	7.75	10.67	23.47	-12.76
우호	5510	102	AVG	26T	8.05	7.75	10.91	7.93	7.44	10.70	8.27	7.61	10.96	22.80	-11.84
さ を	5590	118	AVG	26T	8.04	7.54	10.81	7.88	7.24	10.58	8.12	7.46	10.81	22.80	-11.99
В П	5710	142	AVG	26T	8.06	7.12	10.63	8.03	7.05	10.58	8.15	7.16	10.69	22.80	-12.11
~,	5755	151	AVG	26T	7.24	8.14	10.72	7.41	8.32	10.90	7.43	8.13	10.80	30.00	-19.10
	5795	159	AVG	26T	6.80	7.79	10.33	7.45	8.28	10.90	7.10	7.83	10.49	30.00	-19.10

Table 7-41. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

									RU Index					Conducted	Conducted
N _	Freq [MHz]	Channel	Detector	Tones		0			18			36		Power Limit	Power
€ €					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
<u>≅</u> ≅	5210	42	AVG	26T	7.31	7.18	10.26	7.11	7.01	10.07	7.39	7.50	10.46	23.98	-13.52
∞ ≥	5290	58	AVG	26T	7.26	7.36	10.32	6.84	7.16	10.01	7.39	7.55	10.48	23.47	-12.99
무입	5530	106	AVG	26T	7.91	7.53	10.73	7.45	6.99	10.24	7.89	7.37	10.65	22.80	-12.07
5G Ba	5610	122	AVG	26T	7.75	7.31	10.55	7.39	6.88	10.15	7.82	7.20	10.53	22.80	-12.25
5 _	5690	138	AVG	26T	7.85	7.08	10.49	7.57	6.41	10.04	7.88	6.71	10.34	22.80	-12.31
	5775	155	AVG	26T	7.03	8.10	10.61	6.75	7.43	10.11	7.30	7.95	10.65	30.00	-19.35

Table 7-42. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (26 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# **MIMO Conducted Output Power Measurements (52 Tones)**

									RU Index					Conducted	Conducted
	Freq [MHz]	Channel	Detector	Tones		37			39			40		Power Limit	Power
					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
N _	5180	36	AVG	52T	9.94	9.89	12.93	9.27	9.09	12.19	9.37	9.13	12.26	23.98	-11.05
I C	5200	40	AVG	52T	10.00	9.94	12.98	9.32	9.07	12.21	9.15	9.11	12.14	23.98	-11.00
$\geq \mp$	5240	48	AVG	52T	9.91	10.03	12.98	9.34	9.28	12.32	9.22	9.18	12.21	23.98	-11.00
<u>0. ₹</u>	5260	52	AVG	52T	9.85	10.07	12.97	8.99	9.17	12.09	9.05	9.14	12.11	23.47	-10.50
<u> </u>	5280	56	AVG	52T	9.76	9.94	12.86	9.14	9.22	12.19	9.05	9.06	12.07	23.47	-10.61
N D	5320	64	AVG	52T	9.14	9.13	12.15	9.23	9.64	12.45	9.17	9.31	12.25	23.47	-11.02
I E	5500	100	AVG	52T	9.40	9.26	12.34	9.65	9.37	12.52	9.58	9.12	12.37	22.80	-10.28
C W	5600	120	AVG	52T	9.48	9.01	12.26	9.64	8.97	12.33	9.54	8.74	12.17	22.80	-10.47
5	5720	144	AVG	52T	9.41	8.79	12.12	9.34	8.80	12.09	9.37	8.61	12.02	22.80	-10.68
	5745	149	AVG	52T	8.55	9.63	12.13	8.81	9.74	12.31	8.54	9.63	12.13	30.00	-17.69
	5785	157	AVG	52T	8.55	9.50	12.06	8.76	9.73	12.28	8.67	9.47	12.10	30.00	-17.72
	5825	165	AVG	52T	8.50	9.46	12.02	8.73	9.46	12.12	8.85	9.42	12.15	30.00	-17.85

Table 7-43. MIMO 20MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

									RU Index					Conducted	Conducted
N.	Freq [MHz]	Channel	Detector	Tones		37			40			44		Power Limit	Power
÷ 🖘					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
₹₽	5190	38	AVG	52T	9.88	9.54	12.72	9.48	9.31	12.41	9.88	9.89	12.90	23.98	-11.08
등 교	5230	46	AVG	52T	9.72	9.49	12.62	9.73	9.51	12.63	9.97	9.97	12.98	23.98	-11.00
4 ≦	5270	54	AVG	52T	9.59	9.62	12.62	9.35	9.28	12.33	9.71	9.78	12.76	23.47	-10.71
∵ ຄົ	5310	62	AVG	52T	9.76	9.81	12.80	9.49	9.63	12.57	9.58	10.08	12.85	23.47	-10.62
우호	5510	102	AVG	52T	10.06	9.85	12.97	9.87	9.60	12.75	9.33	8.68	12.03	22.80	-9.83
光層	5590	118	AVG	52T	10.02	9.65	12.85	9.78	9.24	12.53	9.96	9.79	12.89	22.80	-9.91
20 E	5710	142	AVG	52T	9.87	9.35	12.63	9.83	9.04	12.46	9.99	9.36	12.70	22.80	-10.10
~,	5755	151	AVG	52T	9.39	10.15	12.80	8.95	9.72	12.36	9.40	10.07	12.76	30.00	-17.20
	5795	159	AVG	52T	9.01	9.77	12.42	9.15	9.96	12.58	9.17	9.65	12.43	30.00	-17.42

Table 7-44. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

									RU Index					Conducted	Conducted
N _	Freq [MHz]	Channel	Detector	Tones		37			44			52		Power Limit	Power
l € €					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
돌	5210	42	AVG	52T	9.47	9.31	12.40	9.90	9.91	12.92	9.69	9.70	12.71	23.98	-11.06
∞ ≥	5290	58	AVG	52T	9.31	9.32	12.33	9.89	9.81	12.86	9.41	9.66	12.55	23.47	-10.61
무유	5530	106	AVG	52T	10.02	9.85	12.95	9.71	9.47	12.60	10.04	9.19	12.65	22.80	-9.85
5G	5610	122	AVG	52T	9.56	9.30	12.44	9.80	9.45	12.64	9.48	9.36	12.43	22.80	-10.16
- C	5690	138	AVG	52T	9.67	9.30	12.50	10.01	9.34	12.70	9.61	9.12	12.38	22.80	-10.10
	5775	155	AVG	52T	8.95	9.85	12.43	9.50	10.14	12.84	9.29	9.81	12.57	30.00	-17.16

Table 7-45. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (52 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# **MIMO Conducted Output Power Measurements (106 Tones)**

								RU I	ndex			Conducted	Conducted
		Freq [MHz]	Channel	Detector	Tones		53			54		Power Limit	Power
						ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
N		5180	36	AVG	106T	11.63	11.66	14.66	11.91	11.89	14.91	23.98	-9.07
王	h	5200	40	AVG	106T	11.28	10.75	14.03	11.95	11.88	14.93	23.98	-9.05
$\mathbf{\Sigma}$	d	5240	48	AVG	106T	10.95	11.46	14.22	10.93	11.46	14.21	23.98	-9.76
		5260	52	AVG	106T	11.70	11.97	14.85	11.33	11.60	14.48	23.47	-8.62
(2)	≥	5280	56	AVG	106T	11.76	11.47	14.63	11.38	11.50	14.45	23.47	-8.84
N	<b>J</b> C	5320	64	AVG	106T	11.55	11.48	14.53	11.51	11.83	14.68	23.47	-8.79
I	ar	5500	100	AVG	106T	11.74	11.55	14.66	11.86	11.47	14.68	22.80	-8.12
G	m	5600	120	AVG	106T	11.55	11.31	14.44	11.60	11.44	14.53	22.80	-8.27
5		5720	144	AVG	106T	11.61	11.34	14.49	11.36	11.31	14.35	22.80	-8.31
		5745	149	AVG	106T	11.52	11.81	14.68	11.43	12.43	14.97	30.00	-15.03
		5785	157	AVG	106T	11.65	11.64	14.66	11.60	11.64	14.63	30.00	-15.34
		5825	165	AVG	106T	10.73	11.62	14.21	10.77	11.54	14.18	30.00	-15.79

Table 7-46. MIMO 20MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

									RU Index					Conducted	Conducted
NI.	Freq [MHz]	Channel	Detector	Tones		53			54			56		Power Limit	Power
7 0					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
₹ ₹	5190	38	AVG	106T	11.54	11.47	14.52	11.16	11.33	14.26	11.71	11.94	14.84	23.98	-9.14
<u>e</u> . 5	5230	46	AVG	106T	11.52	11.53	14.54	11.32	11.24	14.29	11.74	12.05	14.91	23.98	-9.07
<b>4</b> ≥	5270	54	AVG	106T	11.57	11.60	14.60	11.15	11.09	14.13	11.66	11.83	14.76	23.47	-8.71
<del>6</del>	5310	62	AVG	106T	11.65	11.93	14.80	11.28	11.45	14.38	11.72	11.95	14.85	23.47	-8.62
우	5510	102	AVG	106T	11.97	11.85	14.92	11.48	11.25	14.38	12.10	11.85	14.99	22.80	-7.81
二 二 二	5590	118	AVG	106T	11.82	11.58	14.71	11.30	11.05	14.19	11.86	11.71	14.80	22.80	-8.00
5G B	5710	142	AVG	106T	11.57	11.37	14.48	11.30	10.81	14.07	11.84	11.34	14.61	22.80	-8.19
~,	5755	151	AVG	106T	11.05	11.86	14.48	10.67	11.41	14.07	11.11	11.89	14.53	30.00	-15.47
	5795	159	AVG	106T	10.87	11.35	14.13	10.64	11.55	14.13	10.87	11.71	14.32	30.00	-15.68

Table 7-47. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

									RU Index					Conducted	Conducted
N _	Freq [MHz]	Channel	Detector	Tones		53			56			60		Power Limit	Power
<u>₹</u> €					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
€ ₹	5210	42	AVG	106T	11.35	11.24	14.31	11.63	11.61	14.63	11.49	11.47	14.49	23.98	-9.35
(80 <u>¥</u> ig	5290	58	AVG	106T	11.47	11.45	14.47	11.51	11.74	14.64	11.45	11.55	14.51	23.47	-8.83
무유	5530	106	AVG	106T	11.67	11.50	14.60	11.87	11.76	14.83	11.56	11.40	14.49	22.80	-7.97
5G	5610	122	AVG	106T	11.61	11.44	14.54	11.75	11.49	14.63	11.44	11.15	14.31	22.80	-8.17
5 _	5690	138	AVG	106T	11.50	11.20	14.36	11.63	11.20	14.43	11.28	10.95	14.13	22.80	-8.37
	5775	155	AVG	106T	10.96	11.80	14.41	10.96	11.81	14.42	11.21	11.86	14.56	30.00	-15.44

Table 7-48. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (106 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# **MIMO Conducted Output Power Measurements (242 Tones)**

						RU Index		Conducted	Conducted
	Freq [MHz]	Channel	Detector	Tones		61		Power Limit	Power
					ANT1	ANT2	MIMO	[dBm]	Margin [dB]
N ~	5180	36	AVG	242T	12.57	11.43	15.05	23.98	-8.93
I C	5200	40	AVG	242T	14.54	14.53	17.55	23.98	-6.43
<b>₹</b>	5240	48	AVG	242T	14.52	14.59	17.57	23.98	-6.41
S   S   S   S   S   S   S   S   S   S	5260	52	AVG	242T	14.08	14.32	17.21	23.47	-6.26
2 ≥	5280	56	AVG	242T	14.15	14.42	17.30	23.47	-6.17
N S	5320	64	AVG	242T	11.87	10.59	14.29	23.47	-9.18
五声	5500	100	AVG	242T	12.98	12.77	15.89	22.80	-6.91
(J) m	5600	120	AVG	242T	14.28	14.21	17.26	22.80	-5.54
5	5720	144	AVG	242T	14.04	14.03	17.05	22.80	-5.75
	5745	149	AVG	242T	14.39	15.32	17.89	30.00	-12.11
	5785	157	AVG	242T	14.41	15.15	17.81	30.00	-12.19
	5825	165	AVG	242T	14.30	15.04	17.70	30.00	-12.30

Table 7-49. MIMO 20MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

								RU I	ndex			Conducted	Conducted
N		Freq [MHz]	Channel	Detector	Tones		61			62		Power Limit	Power
17	~					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
Ē	÷	5190	38	AVG	242T	13.51	13.45	16.49	13.37	13.55	16.47	23.98	-7.49
5	<u>0</u>	5230	46	AVG	242T	13.61	13.36	16.50	13.37	13.63	16.51	23.98	-7.47
4	₹	5270	54	AVG	242T	13.40	13.28	16.35	13.32	13.53	16.44	23.47	-7.03
$\sim$	Ó	5310	62	AVG	242T	14.42	13.45	16.97	14.31	13.44	16.91	23.47	-6.50
4	⊆	5510	102	AVG	242T	13.52	13.45	16.50	13.59	13.76	16.69	22.80	-6.11
六	g	5590	118	AVG	242T	13.56	13.27	16.43	13.31	13.48	16.41	22.80	-6.37
	ш	5710	142	AVG	242T	13.29	13.02	16.17	13.07	13.21	16.15	22.80	-6.63
		5755	151	AVG	242T	12.75	13.43	16.11	12.79	13.46	16.15	30.00	-13.85
		5795	159	AVG	242T	12.73	13.41	16.09	12.67	13.49	16.11	30.00	-13.89

Table 7-50. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

						RU Index									Conducted
N	Freq [MHz]	Channel	Detector	Tones		61			62			64		Power Limit	Power
≣ ਦੇ					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
OM idt	5210	42	AVG	242T	12.27	12.10	15.20	12.51	12.37	15.45	12.19	12.39	15.30	23.98	-8.53
∞ ≥	5290	58	AVG	242T	12.25	12.52	15.40	12.38	12.50	15.45	12.19	12.55	15.38	23.47	-8.02
우일	5530	106	AVG	242T	12.40	12.35	15.39	12.54	12.49	15.53	12.36	12.44	15.41	22.80	-7.27
5G Ba	5610	122	AVG	242T	12.00	12.21	15.12	12.67	12.43	15.56	12.45	12.38	15.43	22.80	-7.24
5 _	5690	138	AVG	242T	12.36	12.08	15.23	12.35	12.05	15.21	12.09	12.07	15.09	22.80	-7.57
	5775	155	AVG	242T	11.65	12.63	15.18	11.61	12.62	15.15	11.71	12.35	15.05	30.00	-14.82

Table 7-51. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (242 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# **MIMO Conducted Output Power Measurements (484 Tones)**

						RU Index	Conducted	Conducted	
N_	Freq [MHz]	Channel	Detector	Tones		65		Power Limit	Power
Ϊ́ c	•				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
<b>₹</b>	5190	38	AVG	484T	10.25	9.49	12.90	23.98	-11.08
(40M) width	5230	46	AVG	484T	13.25	13.26	16.27	23.98	-7.71
4 3	5270	54	AVG	484T	12.98	13.40	16.21	23.47	-7.26
_	5310	62	AVG	484T	10.35	9.54	12.97	23.47	-10.50
Hz	5510	102	AVG	484T	10.22	9.89	13.07	22.80	-9.73
10	5590	118	AVG	484T	13.16	13.04	16.11	22.80	-6.69
5G B	5710	142	AVG	484T	13.88	13.65	16.78	22.80	-6.02
4,	5755	151	AVG	484T	13.37	14.19	16.81	30.00	-13.19
	5795	159	AVG	484T	13.10	14.00	16.58	30.00	-13.42

Table 7-52. MIMO 40MHz BW (UNII) Maximum Conducted Output Power (484 Tones)

							RU I	ndex			Conducted	Conducted
N	Freq [MHz]	Channel	Detector	Tones		65			66		Power Limit	Power
₹ €					ANT1	ANT2	MIMO	ANT1	ANT2	MIMO	[dBm]	Margin [dB]
<u>6</u> 5	5210	42	AVG	484T	10.16	9.32	12.77	10.34	9.65	13.02	23.98	-10.96
∞ ≥	5290	58	AVG	484T	10.21	9.27	12.78	10.27	9.48	12.90	23.47	-10.57
무	5530	106	AVG	484T	10.07	9.65	12.88	10.13	9.87	13.01	22.80	-9.79
Ba G	5610	122	AVG	484T	12.87	12.86	15.88	12.08	11.93	15.02	22.80	-6.92
5	5690	138	AVG	484T	12.78	12.57	15.69	12.81	12.50	15.67	22.80	-7.11
	5775	155	AVG	484T	12.12	13.08	15.64	12.22	13.08	15.68	30.00	-14.32

Table 7-53. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (484 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# **MIMO Conducted Output Power Measurements (996 Tones)**

						RU Index		Conducted	Conducted
N	Freq [MHz]	Channel	Detector	Tones		67		Power Limit	Power
(80MHz width)					ANT1	ANT2	MIMO	[dBm]	Margin [dB]
<u> </u>	5210	42	AVG	996T	10.33	9.31	12.86	23.98	-11.12
	5290	58	AVG	996T	9.31	8.17	11.79	23.47	-11.68
Hz	5530	106	AVG	996T	10.02	10.25	13.15	22.80	-9.65
5GF Ba	5610	122	AVG	996T	11.84	12.25	15.06	22.80	-7.74
5	5690	138	AVG	996T	12.70	12.96	15.84	22.80	-6.96
	5775	155	AVG	996T	11.99	13.38	15.75	30.00	-14.25

Table 7-54. MIMO 80MHz BW (UNII) Maximum Conducted Output Power (996 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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### Note:

Per ANSI C63.10-2013 and KDB 662911 v02r01 Section E)1), the conducted powers at Antenna 1 and Antenna 2 were first measured separately during MIMO transmission as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

Per ANSI C63.10-2013 Section 14.4.3, the directional gain is calculated using the following formula, where  $G_N$  is the gain of the nth antenna and  $N_{ANT}$ , the total number of antennas used.

Directional gain =  $10 \log[(10^{G_1/20} + 10^{G_2/20} + ... + 10^{G_N/20})^2 / N_{ANT}] dBi$ 

#### **Sample MIMO Calculation:**

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted output power was measured to be 16.83 dBm for Antenna-1 and 16.82 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

(16.83 dBm + 16.82 dBm) = (48.19 mW + 48.08 mW) = 96.28 mW = 19.84 dBm

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# 7.5 Maximum Power Spectral Density – 802.11ax OFDMA

§15.407(a.1.iv) §15.407(a.2) §15.407(a.3); RSS-247 [6.2]

#### **Test Overview and Limit**

The spectrum analyzer was connected to the antenna terminal while the EUT was operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. Method SA-1, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, was used to measure the power spectral density.

In the 5.15 - 5.25 GHz, 5.25 - 5.35 GHz, 5.47 - 5.725 GHz bands, the maximum permissible power spectral density is 11 dBm/MHz.

In the 5.725 – 5.850GHz band, the maximum permissible power spectral density is 30dBm/500kHz.

### **Test Procedure Used**

ANSI C63.10-2013 – Section 12.3.2.2 KDB 789033 D02 v02r01 – Section F ANSI C63.10-2013 – Section 14.3.2.2 Measure-and-Sum Technique KDB 662911 v02r01 – Section E)2) Measure-and-Sum Technique

#### **Test Settings**

- 1. Analyzer was set to the center frequency of the UNII channel under investigation
- 2. Span was set to encompass the entire emission bandwidth of the signal
- 3. RBW = 1MHz
- 4. VBW = 3MHz
- 5. Number of sweep points  $\geq 2 \times (\text{span/RBW})$
- 6. Sweep time = auto
- 7. Detector = power averaging (RMS)
- 8. Trigger was set to free run for all modes
- 9. Trace was averaged over 100 sweeps
- 10. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

### **Test Setup**

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



Figure 7-4. Test Instrument & Measurement Setup

### **Test Notes**

The power spectral density for each channel was measured with the RU index showing the highest conducted power

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# SISO Antenna-1 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	5.82	11.0	-5.18
	5200	40	ax (20MHz)	26T	MCS0	6.18	11.0	-4.82
Band 1	5240	48	ax (20MHz)	26T	MCS0	6.30	11.0	-4.70
Bar	5190	38	ax (40MHz)	26T	MCS0	7.82	11.0	-3.18
_	5230	46	ax (40MHz)	26T	MCS0	7.74	11.0	-3.26
	5210	42	ax (80MHz)	26T	MCS0	6.14	11.0	-4.86
	5260	52	ax (20MHz)	26T	MCS0	6.43	11.0	-4.57
4	5280	56	ax (20MHz)	26T	MCS0	6.47	11.0	-4.53
Band 2A	5320	64	ax (20MHz)	26T	MCS0	6.59	11.0	-4.41
an	5270	54	ax (40MHz)	26T	MCS0	8.21	11.0	-2.79
ш	5310	62	ax (40MHz)	26T	MCS0	7.65	11.0	-3.35
	5290	58	ax (80MHz)	26T	MCS0	6.46	11.0	-4.54
	5500	100	ax (20MHz)	26T	MCS0	6.67	11.0	-4.33
	5600	120	ax (20MHz)	26T	MCS0	6.20	11.0	-4.80
	5720	144	ax (20MHz)	26T	MCS0	6.32	11.0	-4.68
2C	5510	102	ax (40MHz)	26T	MCS0	8.02	11.0	-2.98
Band 2C	5590	118	ax (40MHz)	26T	MCS0	8.84	11.0	-2.16
Ва	5710	142	ax (40MHz)	26T	MCS0	7.66	11.0	-3.34
	5530	106	ax (80MHz)	26T	MCS0	7.47	11.0	-3.53
	5610	122	ax (80MHz)	26T	MCS0	5.99	11.0	-5.01
	5690	138	ax (80MHz)	26T	MCS0	5.56	11.0	-5.44

Table 7-55. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1 (26 Tones)

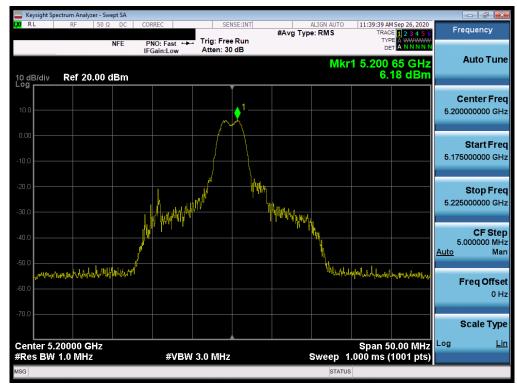
FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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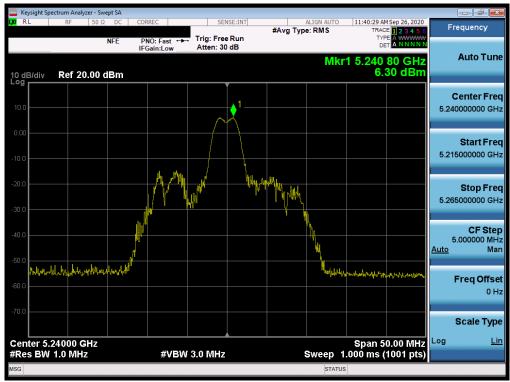
Plot 7-109. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 36)



Plot 7-110. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 40)

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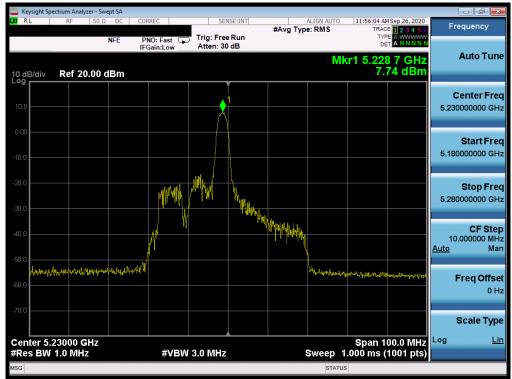
Plot 7-111. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 48)



Plot 7-112. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-113. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 46)



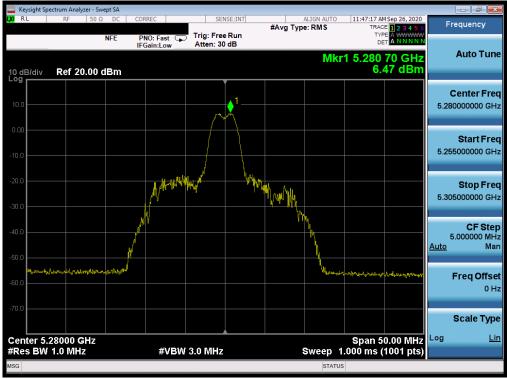
Plot 7-114. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 42)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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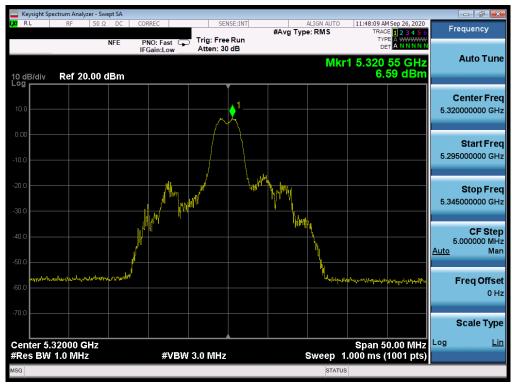
Plot 7-115. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 52)



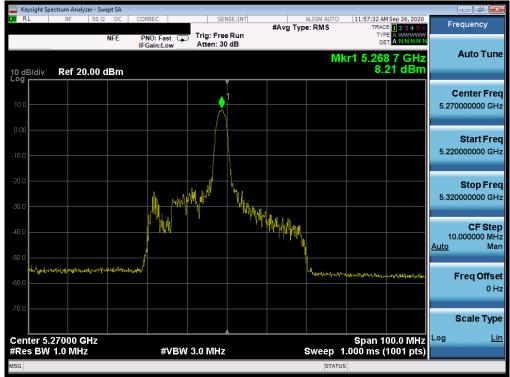
Plot 7-116. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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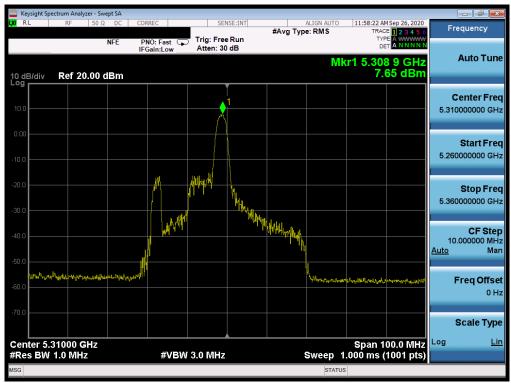
Plot 7-117. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 64)



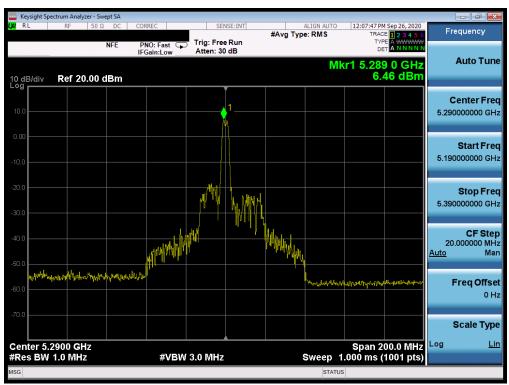
Plot 7-118. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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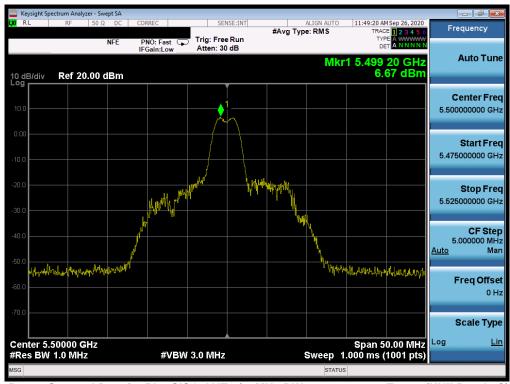
Plot 7-119. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 62)



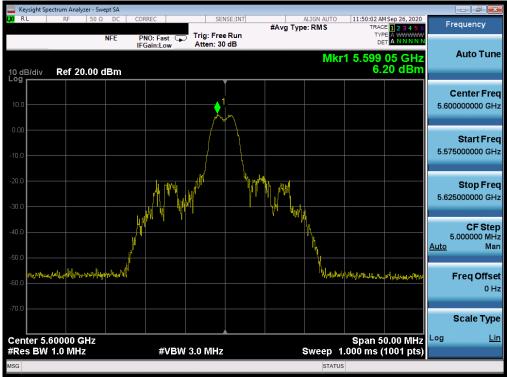
Plot 7-120. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 58)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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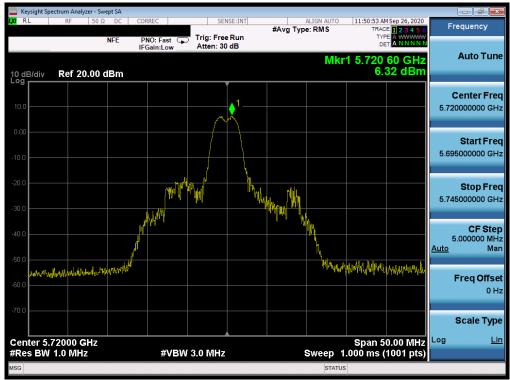
Plot 7-121. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 100)



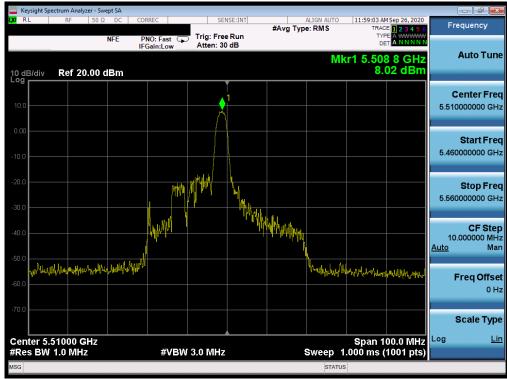
Plot 7-122. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSING	
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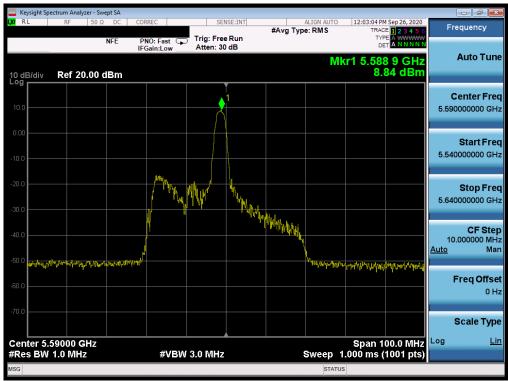
Plot 7-123. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 144)



Plot 7-124. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 102)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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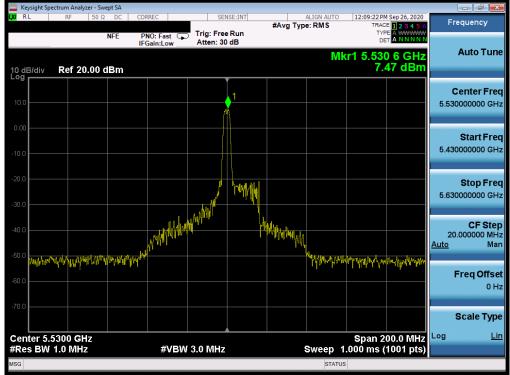
Plot 7-125. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 118)



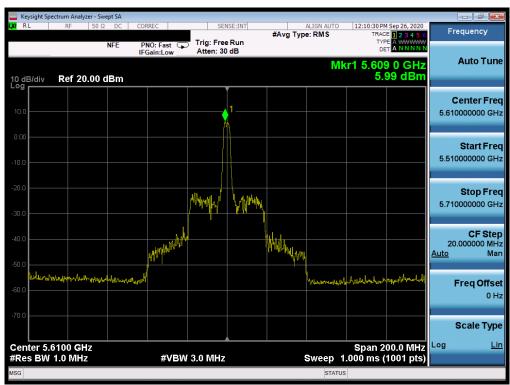
Plot 7-126. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG996U	Proud to be part of @ element	SAMSUNG		Approved by: Quality Manager
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Plot 7-127. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 106)



Plot 7-128. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG996U	Proud to be part of @ element	SAMSUNG		Approved by: Quality Manager
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Plot 7-129. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG996U	Proud to be part of @ element	SAMSUNG		Approved by: Quality Manager
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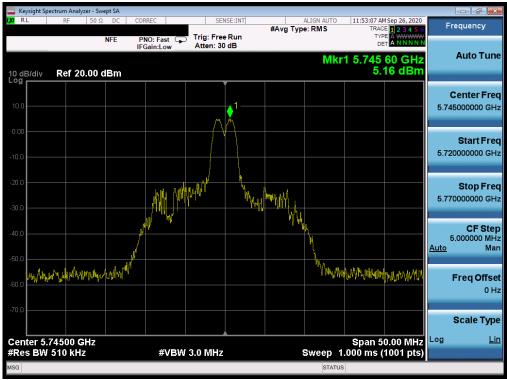


	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	ax (20MHz)	26T	MCS0	5.16	30.00	-24.84
	5785	157	ax (20MHz)	26T	MCS0	5.25	30.00	-24.75
9 3 10 3	5825	165	ax (20MHz)	26T	MCS0	4.75	30.00	-25.25
Band	5755	151	ax (40MHz)	26T	MCS0	4.66	30.00	-25.34
_	5795	159	ax (40MHz)	26T	MCS0	4.86	30.00	-25.15
	5775	155	ax (80MHz)	26T	MCS0	6.58	30.00	-23.42

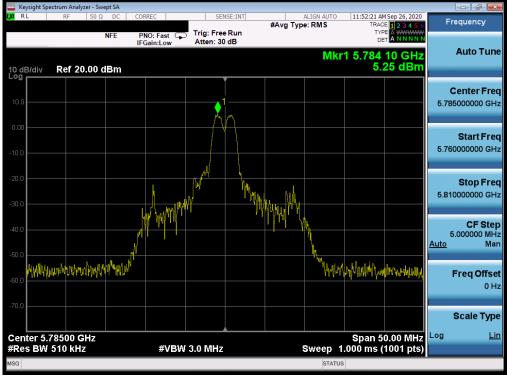
Table 7-56. Band 3 Conducted Power Spectral Density Measurements SISO ANT1 (26 Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-130. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 149)



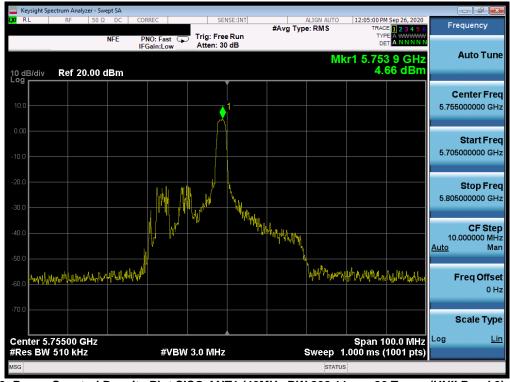
Plot 7-131. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	MSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 444 of 207
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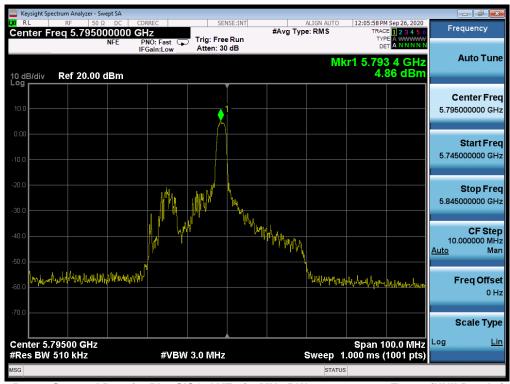
Plot 7-132. Power Spectral Density Plot SISO ANT1 (20 MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 165)



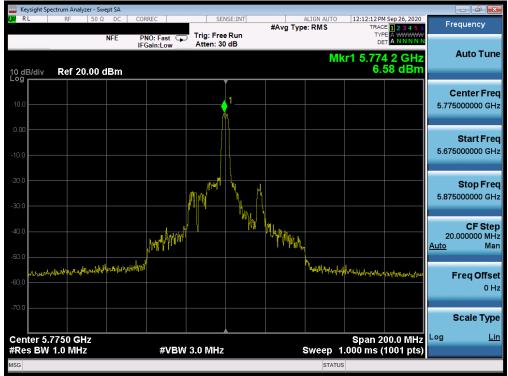
Plot 7-133. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 115 of 307
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Plot 7-134. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax – 26 Tones (UNII Band 3) – Ch. 159)



Plot 7-135. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - 26 Tones (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## SISO Antenna-1 Power Spectral Density Measurements (Full Tones)

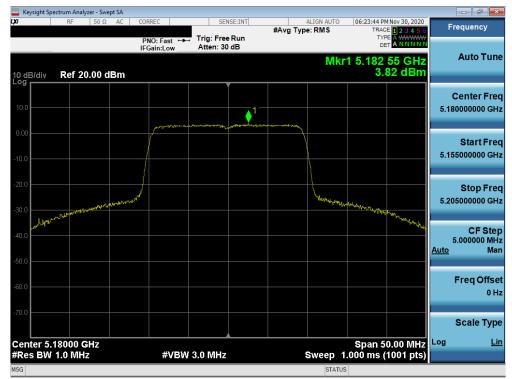
	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	ax (20MHz)	242T	MCS0	3.82	11.0	-7.18
	5200	40	ax (20MHz)	242T	MCS0	4.40	11.0	-6.60
Band 1	5240	48	ax (20MHz)	242T	MCS0	4.58	11.0	-6.42
Bar	5190	38	ax (40MHz)	484T	MCS0	0.89	11.0	-10.11
	5230	46	ax (40MHz)	484T	MCS0	1.33	11.0	-9.67
	5210	42	ax (80MHz)	996T	MCS0	-2.89	11.0	-13.89
	5260	52	ax (20MHz)	242T	MCS0	4.54	11.0	-6.46
	5280	56	ax (20MHz)	242T	MCS0	4.89	11.0	-6.11
Band 2A	5320	64	ax (20MHz)	242T	MCS0	4.65	11.0	-6.35
Ban	5270	54	ax (40MHz)	484T	MCS0	1.43	11.0	-9.57
	5310	62	ax (40MHz)	484T	MCS0	0.80	11.0	-10.21
	5290	58	ax (80MHz)	996T	MCS0	-2.73	11.0	-13.73
	5500	100	ax (20MHz)	242T	MCS0	3.74	11.0	-7.26
	5600	120	ax (20MHz)	242T	MCS0	3.12	11.0	-7.88
	5720	144	ax (20MHz)	242T	MCS0	3.08	11.0	-7.93
ပ္က	5510	102	ax (40MHz)	484T	MCS0	0.54	11.0	-10.46
Band 2C	5590	118	ax (40MHz)	484T	MCS0	0.40	11.0	-10.60
Ä	5710	142	ax (40MHz)	484T	MCS0	0.12	11.0	-10.89
	5530	106	ax (80MHz)	996T	MCS0	-3.61	11.0	-14.61
	5610	122	ax (80MHz)	996T	MCS0	-4.03	11.0	-15.03
	5690	138	ax (80MHz)	996T	MCS0	-3.13	11.0	-14.13

Table 7-57. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1 (Full Tones)

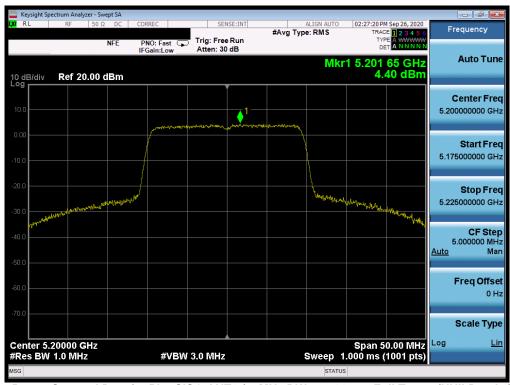
FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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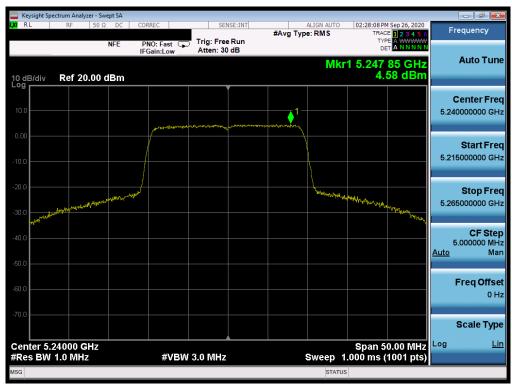
Plot 7-136. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 36)



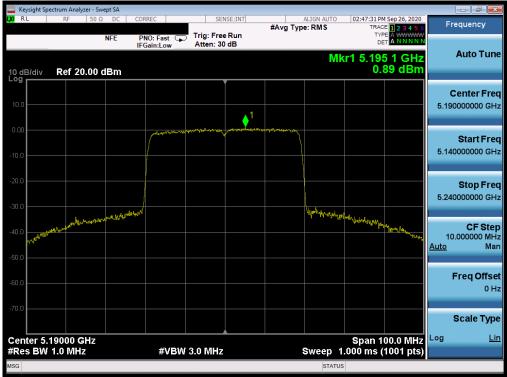
Plot 7-137. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-138. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 48)



Plot 7-139. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 440 of 207
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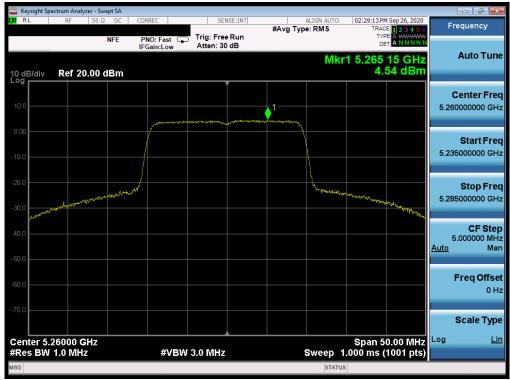
Plot 7-140. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 46)



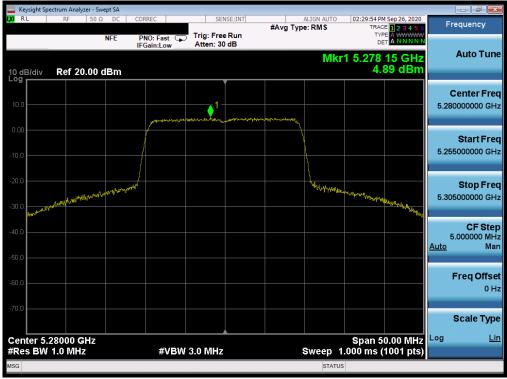
Plot 7-141. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 1) - Ch. 42)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 120 of 207
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O COCCO POTEOT				110000010110010





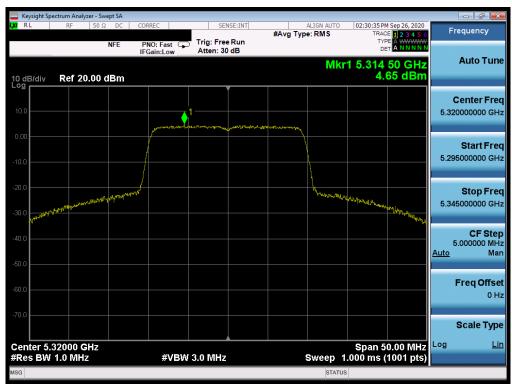
Plot 7-142. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 52)



Plot 7-143. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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O COCCO DOTEOT			1100000010110010





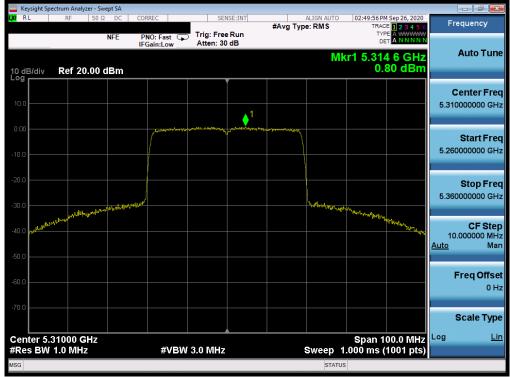
Plot 7-144. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 64)



Plot 7-145. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Domo 422 of 207
1M2009140143-09.A3L	09/15 - 12/01/2020	Portable Handset	Page 122 of 307
O COOC DOTEOT			1/00000101/0010





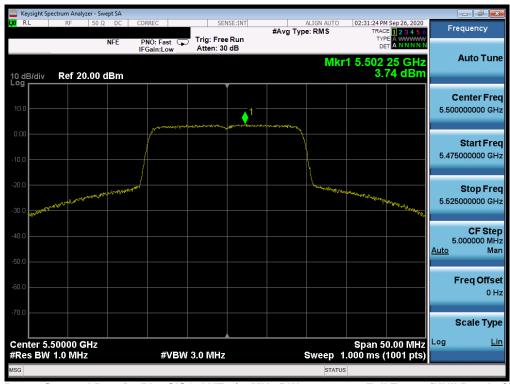
Plot 7-146. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 62)



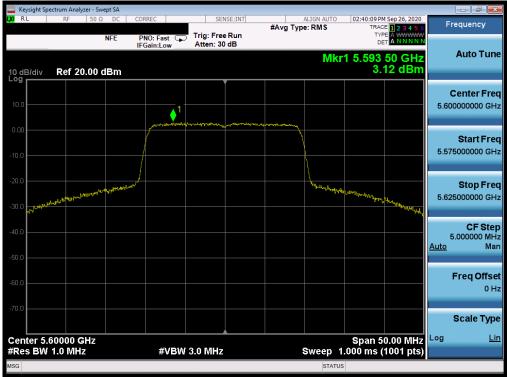
Plot 7-147. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 2A) - Ch. 58)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dome 122 of 207
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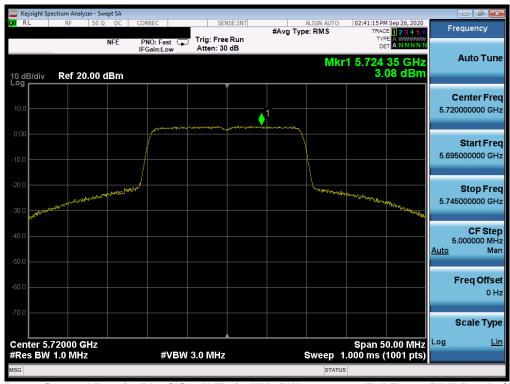
Plot 7-148. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 100)



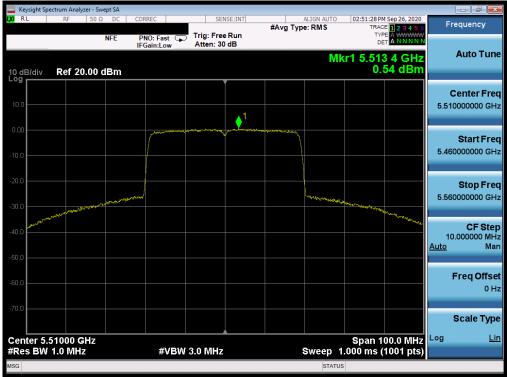
Plot 7-149. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SUNG	Approved by: Quality Manager
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O COCCO DOTEOT				1100000010110010





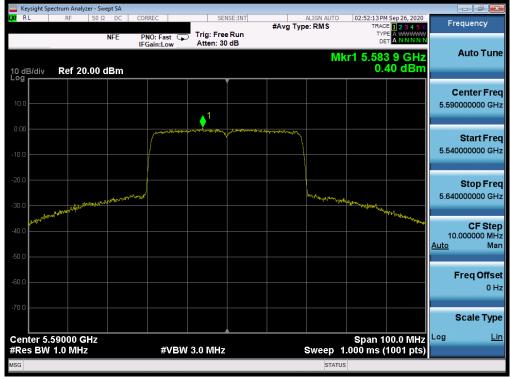
Plot 7-150. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 144)



Plot 7-151. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 102)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-152. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 118)



Plot 7-153. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-154. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 106)



Plot 7-155. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 122)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dog 107 of 207
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Plot 7-156. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by:  Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Domo 120 of 207
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O COCCO DOTEOT			110000010110010

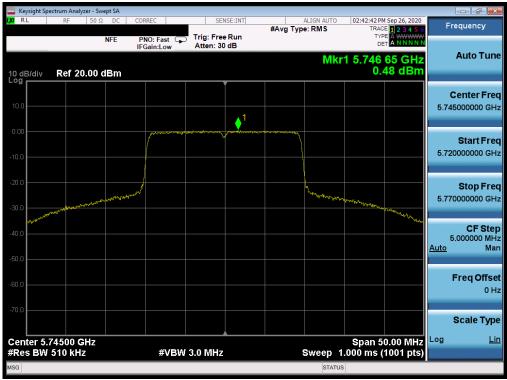


	Frequency [MHz]	Channel No.	802.11 Mode	Tones	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	ax (20MHz)	242T	MCS0	0.48	30.00	-29.52
	5785	157	ax (20MHz)	242T	MCS0	0.92	30.00	-29.08
5 pg	5825	165	ax (20MHz)	242T	MCS0	0.63	30.00	-29.37
Band	5755	151	ax (40MHz)	484T	MCS0	-2.48	30.00	-32.48
	5795	159	ax (40MHz)	484T	MCS0	-2.58	30.00	-32.58
	5775	155	ax (80MHz)	996T	MCS0	-3.97	30.00	-33.97

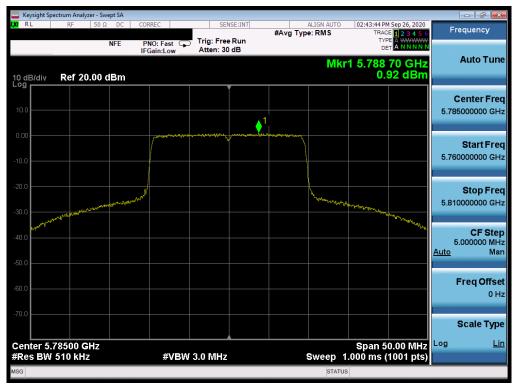
Table 7-58. Band 3 Conducted Power Spectral Density Measurements SISO ANT1 (Full Tones)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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O COCCO DOTEOT				110000010110010





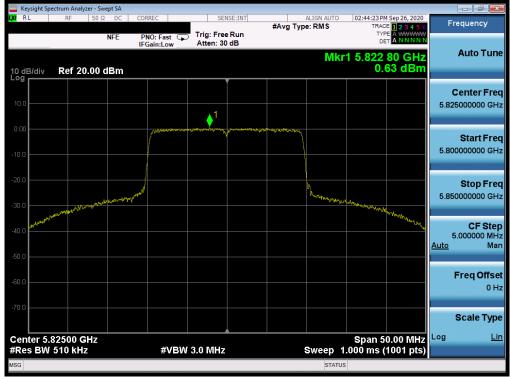
Plot 7-157. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 149)



Plot 7-158. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-159. Power Spectral Density Plot SISO ANT1 (20 MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 165)



Plot 7-160. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 151)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-161. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 159)



Plot 7-162. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax - Full Tones (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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O COCCO DOTEOT			110000010110010



## 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	4.70	11.0	-6.30
	5200	40	ax (20MHz)	26T	MCS0	5.16	11.0	-5.84
pt 1	5240	48	ax (20MHz)	26T	MCS0	5.75	11.0	-5.25
Band 1	5190	38	ax (40MHz)	26T	MCS0	6.62	11.0	-4.38
	5230	46	ax (40MHz)	26T	MCS0	7.04	11.0	-3.96
	5210	42	ax (80MHz)	26T	MCS0	5.43	11.0	-5.58
	5260	52	ax (20MHz)	26T	MCS0	5.54	11.0	-5.46
∢	5280	56	ax (20MHz)	26T	MCS0	5.76	11.0	-5.24
d 2A	5320	64	ax (20MHz)	26T	MCS0	5.84	11.0	-5.16
Band	5270	54	ax (40MHz)	26T	MCS0	7.27	11.0	-3.73
Ш	5310	62	ax (40MHz)	26T	MCS0	6.87	11.0	-4.13
	5290	58	ax (80MHz)	26T	MCS0	5.37	11.0	-5.63
	5500	100	ax (20MHz)	26T	MCS0	5.58	11.0	-5.42
	5600	120	ax (20MHz)	26T	MCS0	5.02	11.0	-5.98
	5720	144	ax (20MHz)	26T	MCS0	5.34	11.0	-5.66
2C	5510	102	ax (40MHz)	26T	MCS0	7.21	11.0	-3.79
Band 2C	5590	118	ax (40MHz)	26T	MCS0	6.80	11.0	-4.20
Ba	5710	142	ax (40MHz)	26T	MCS0	7.40	11.0	-3.60
	5530	106	ax (80MHz)	26T	MCS0	5.37	11.0	-5.63
	5610	122	ax (80MHz)	26T	MCS0	6.51	11.0	-4.49
	5690	138	ax (80MHz)	26T	MCS0	5.32	11.0	-5.68

Table 7-59. Conducted Power Spectral Density Measurements SISO ANT2 (26 Tones)

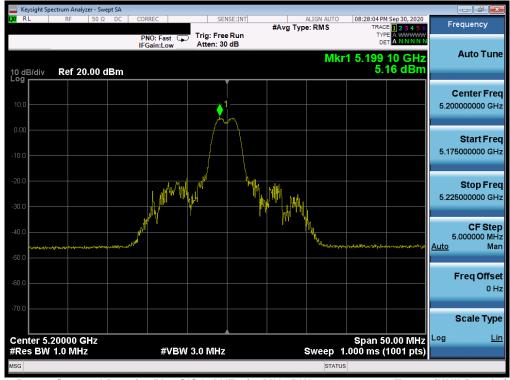
FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-163. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 36)



Plot 7-164. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-165. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 48)



Plot 7-166. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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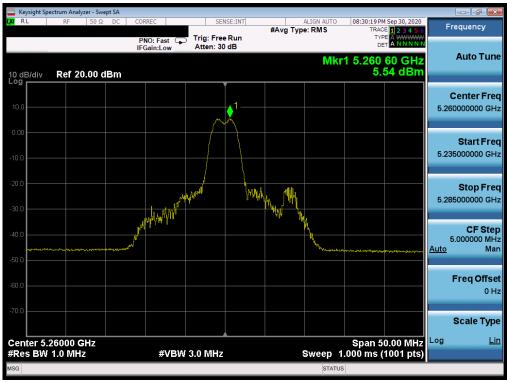
Plot 7-167. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 46)



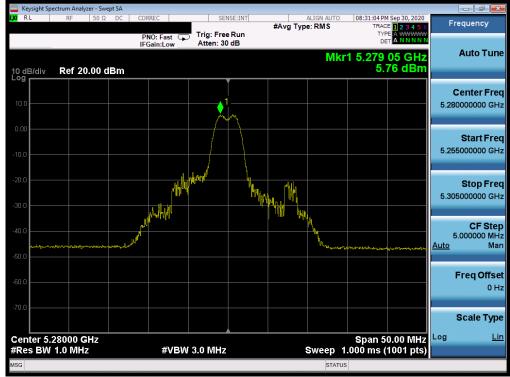
Plot 7-168. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 1) - Ch. 42)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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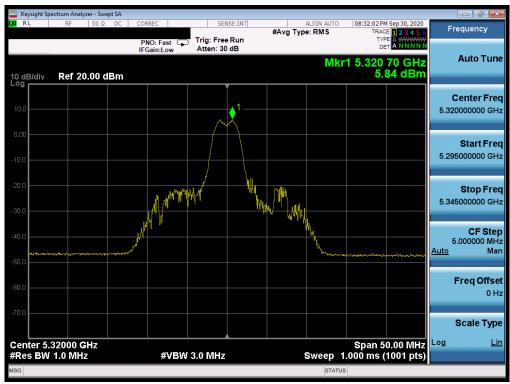
Plot 7-169. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 52)



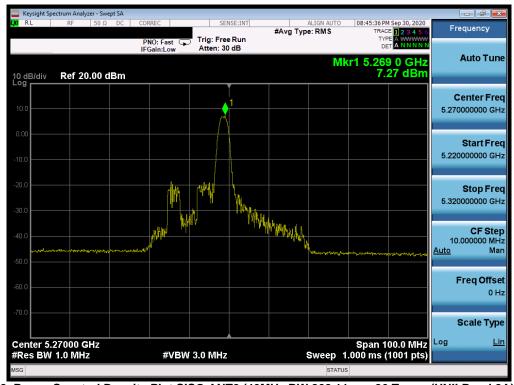
Plot 7-170. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 56)

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Plot 7-171. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 64)



Plot 7-172. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 54)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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O COCC POTEOT			1/00000104/0040





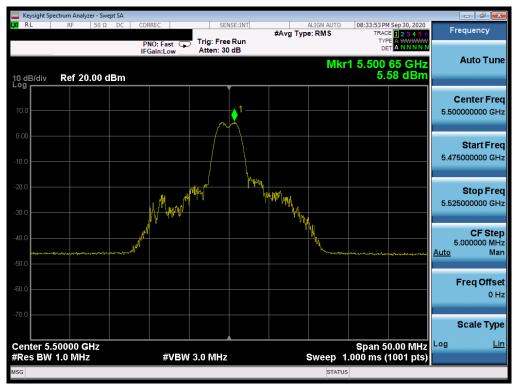
Plot 7-173. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 62)



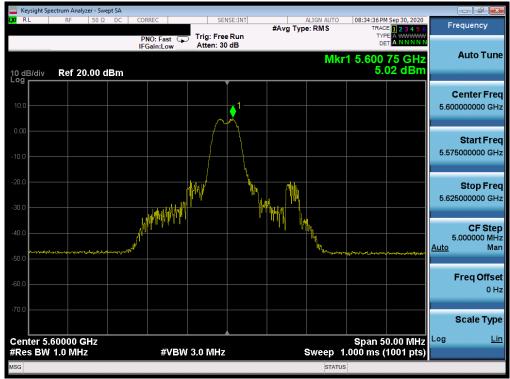
Plot 7-174. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax - 26 Tones (UNII Band 2A) - Ch. 58)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-175. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 100)



Plot 7-176. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax - 26 Tones (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG996U	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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O COCCO DOTEOT			110000010110010