



Plot 7-116. 6dB Bandwidth Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)



Plot 7-117. 6dB Bandwidth Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 77 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 77 of 242



SISO Antenna-2 6dB Bandwidth Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured 6dB Bandwidth [MHz]
	5745	149	а	6	16.44
	5785	157	а	6	16.37
	5825	165	а	6	16.39
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	17.61
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	17.62
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	17.30
က	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	19.10
Band	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	18.99
ä	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	19.11
	5755	151	n (40MHz)	13.5/15 (MCS0)	36.37
	5795	159	n (40MHz)	13.5/15 (MCS0)	36.31
	5755	151	ax (40MHz)	13.5/15 (MCS0)	37.75
	5795	159	ax (40MHz)	13.5/15 (MCS0)	37.56
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	75.55
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	77.10

Table 7-5. Conducted Bandwidth Measurements SISO ANT2

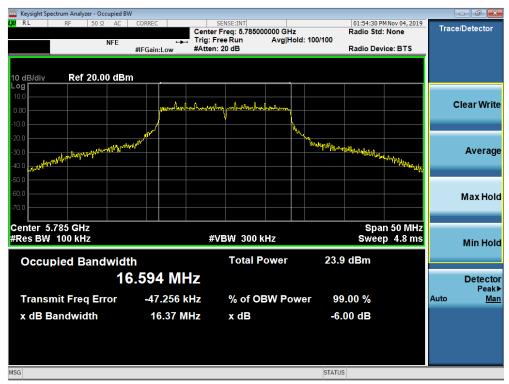


Plot 7-118. 6dB Bandwidth Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 149)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 70 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset		Page 78 of 242
© 2020 PCTEST				V 9.0 02/01/2019

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.





Plot 7-119. 6dB Bandwidth Plot SISO ANT2 (802.11a (UNII Band 3) - Ch. 157)

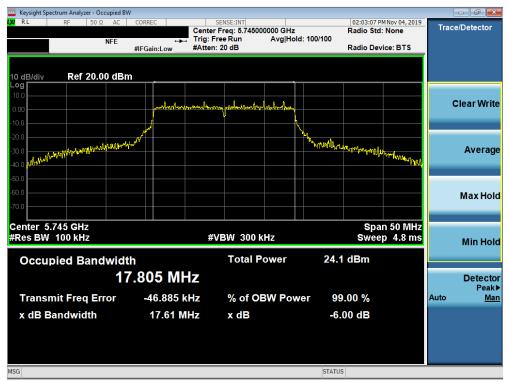


Plot 7-120. 6dB Bandwidth Plot SISO ANT2 (802.11a (UNII Band 3) - Ch. 165)

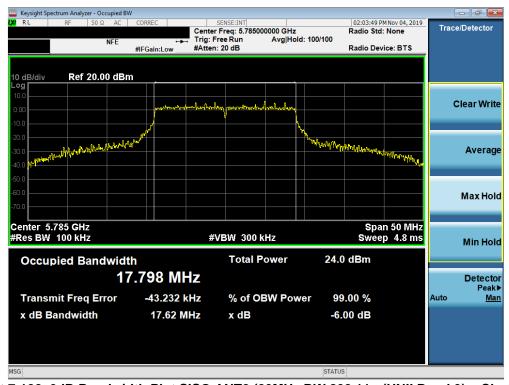
FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 79 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Fage 79 01 242

© 2020 PCTEST





Plot 7-121. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 149)



Plot 7-122. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 90 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 80 of 242

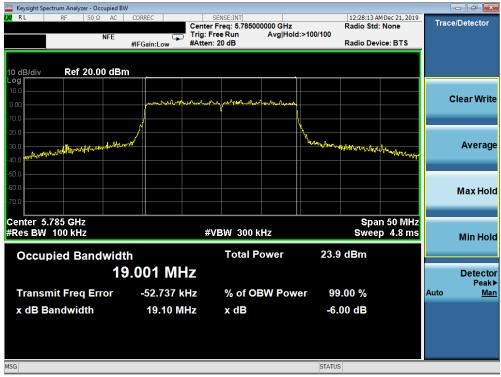
© 2020 PCTEST

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.





Plot 7-123. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) - Ch. 165)



Plot 7-124. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 149)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 91 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 81 of 242

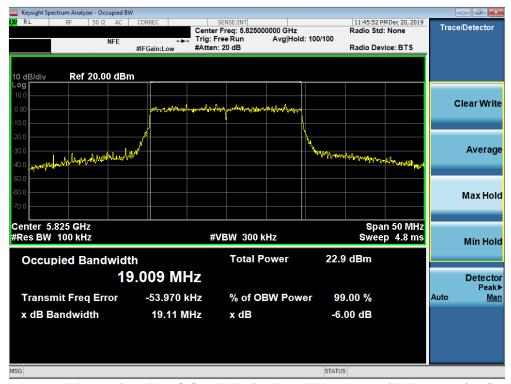
© 2020 PCTEST

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.





Plot 7-125. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 157)



Plot 7-126. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 3) - Ch. 165)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 92 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 82 of 242





Plot 7-127. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) - Ch. 151)



Plot 7-128. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) - Ch. 159)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 83 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Fage 03 01 242

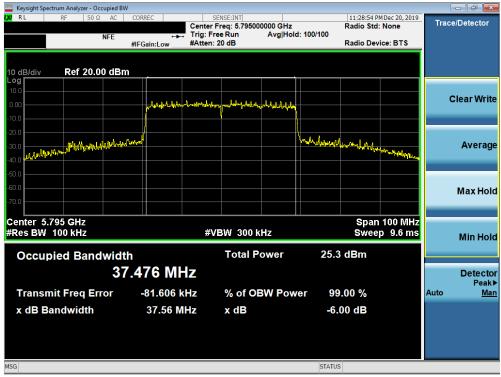
© 2020 PCTEST

All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTEST.COM.





Plot 7-129. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 3) - Ch. 151)

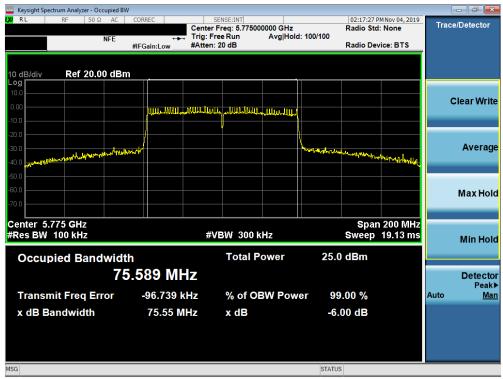


Plot 7-130. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 3) - Ch. 159)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 94 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 84 of 242

PCTEST V 9.0 02/01/2015





Plot 7-131. 6dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)



Plot 7-132. 6dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 95 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 85 of 242



7.4 UNII Output Power Measurement – 802.11a/n/ac/ax

§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 + $10\log_{10}(25.82) = 25.12$ dBm. The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or 17 + 10 log10B, dBm.

In the 5.47 – 5.725GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) or 11 dBm + $10\log_{10}(26dB \ BW) = 11 \ dBm + 10\log_{10}(21.75) = 24.37dBm$. 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

Test Notes

Per RSS-247 Section 6.2.3, transmission on channels which overlap the 5600-5650 MHz is prohibited. This device operates under these frequencies only under the control of a certified master device and does not support active scanning on these channels. This device does not transmit any beacons or initiate any transmissions in UNII Bands 2A or 2C.

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 86 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	rage of 01 242



SISO Antenna-1 Conducted Output Power Measurements

	Freq [MHz]	Channel	Detector		IEEE Transmission Mode				Conducted Power
Ţ.	<u> </u>			802.11a	802.11n	802.11ac	802.11ax	[dBm]	Margin [dB]
<u>5</u>	5180	36	AVG	16.23	16.19	16.31	13.54	23.98	-7.67
₹	5200	40	AVG	16.15	16.27	16.35	16.48	23.98	-7.63
Bandwidth)	5220	44	AVG	16.23	16.26	16.32	15.59	23.98	-7.66
a	5240	48	AVG	16.25	16.42	16.32	15.57	23.98	-7.56
<u>m</u>	5260	52	AVG	16.46	16.43	16.41	15.67	23.98	-7.52
Ž	5280	56	AVG	16.40	16.47	16.44	15.79	23.98	-7.51
\$	5300	60	AVG	16.47	16.37	16.48	15.66	23.98	-7.50
(20MHz	5320	64	AVG	16.17	16.12	16.13	14.78	23.98	-7.81
2	5500	100	AVG	15.80	15.78	15.72	16.05	23.98	-8.18
<u>N</u>	5600	120	AVG	15.94	15.98	15.91	16.07	23.98	-8.00
GH	5720	144	AVG	15.64	15.61	15.70	15.77	23.98	-8.28
50	5745	149	AVG	15.77	15.59	15.57	15.62	30.00	-14.23
	5785	157	AVG	16.07	16.23	16.20	16.26	30.00	-13.77
	5825	165	AVG	15.97	16.09	16.11	15.95	30.00	-13.89

Table 7-6. SISO ANT1 20MHz BW (UNII) Maximum Conducted Output Power

	Freq [MHz] Channel	Channel	Detector	IEEE	IEEE Transmission Mode			Conducted Power
N _				802.11n	802.11ac	802.11ax	[dBm]	Margin [dB]
I	5190	38	AVG	13.91	13.87	11.38	23.98	-10.07
(40M widt	5230	46	AVG	15.25	15.22	15.30	23.98	-8.73
4 <u>×</u>	5270	54	AVG	15.26	15.39	15.51	23.98	-8.59
—	5310	62	AVG	14.07	14.07	10.38	23.98	-9.91
Hz	5510	102	AVG	14.77	14.94	13.32	23.98	-9.04
O M	5590	118	AVG	15.10	15.09	15.27	23.98	-8.88
2	5710	142	AVG	15.68	15.66	15.74	23.98	-8.30
	5755	151	AVG	15.74	15.70	15.82	30.00	-14.26
	5795	159	AVG	15.88	15.86	15.97	30.00	-14.12

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

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 97 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 87 of 242



	Freq [MHz]	Channel	Detector	IEEE Transn	nission Mode	Conducted Power Limit	Conducted Power
H (c				802.11ac	802.11ax	[dBm]	Margin [dB]
(80MH.	5210	42	AVG	12.96	12.29	23.98	-11.02
5GHz (80MHz Bandwidth)	5290	58	AVG	13.03	10.44	23.98	-10.95
GHz Band	5530	106	AVG	13.73	12.15	23.98	-10.25
5G B:	5610	122	AVG	15.46	14.94	23.98	-8.52
	5690	138	AVG	15.13	14.59	23.98	-8.85
	5775	155	AVG	15.51	14.97	30.00	-14.49

Table 7-8. SISO ANT1 80MHz BW (UNII) Maximum Conducted Output Power

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 88 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Fage 66 01 242



SISO Antenna-2 Conducted Output Power Measurements

	Freq [MHz]	Channel	Detector		IEEE Transmission Mode				Conducted Power
Ë				802.11a	802.11n	802.11ac	802.11ax	[dBm]	Margin [dB]
<u>5</u>	5180	36	AVG	16.29	16.09	16.13	13.80	23.98	-7.69
₹	5200	40	AVG	16.29	16.19	16.20	16.48	23.98	-7.69
Bandwidth)	5220	44	AVG	16.12	16.12	16.21	16.46	23.98	-7.77
ar	5240	48	AVG	16.11	16.10	16.16	16.43	23.98	-7.82
a	5260	52	AVG	15.83	15.90	15.89	16.16	23.98	-8.08
Å	5280	56	AVG	15.97	16.00	15.96	16.10	23.98	-7.98
\$	5300	60	AVG	15.95	15.91	15.98	16.22	23.98	-8.00
(20MHz	5320	64	AVG	15.95	15.86	15.88	14.48	23.98	-8.03
2	5500	100	AVG	15.88	15.78	15.79	16.20	23.98	-8.10
ΗZ	5600	120	AVG	15.96	15.98	15.98	16.31	23.98	-8.00
F G	5720	144	AVG	16.21	16.13	16.10	16.45	23.98	-7.77
50	5745	149	AVG	16.29	16.39	16.34	15.70	30.00	-13.61
	5785	157	AVG	16.42	16.30	16.40	15.69	30.00	-13.58
	5825	165	AVG	16.22	16.26	16.23	16.47	30.00	-13.74

Table 7-9. SISO ANT2 20MHz BW (UNII) Maximum Conducted Output Power

	Freq [MHz] Ch	Freq [MHz] Channel	Detector	IEEE	Transmission	Conducted Power Limit	Conducted Power	
N _				802.11n	802.11ac	802.11ax	[dBm]	Margin [dB]
IZ	5190	38	AVG	14.14	14.14	11.54	23.98	-9.84
(40MI	5230	46	AVG	15.13	15.14	15.32	23.98	-8.84
4 .i×	5270	54	AVG	15.84	15.81	15.21	23.98	-8.14
$\overline{}$	5310	62	AVG	13.78	13.80	10.16	23.98	-10.18
Hz	5510	102	AVG	15.01	15.00	13.26	23.98	-8.97
9 m	5590	118	AVG	15.81	15.84	15.25	23.98	-8.14
2	5710	142	AVG	15.39	15.31	15.55	23.98	-8.59
	5755	151	AVG	15.38	15.31	15.54	30.00	-14.62
	5795	159	AVG	15.21	15.22	15.45	30.00	-14.78

Table 7-10. SISO ANT2 40MHz BW (UNII) Maximum Conducted Output Power

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 90 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 89 of 242



	Freq [MHz]	Channel	Detector	IEEE Transn	nission Mode	Conducted Power Limit	Conducted Power
(80MHz lwidth)				802.11ac	802.11ax	[dBm]	Margin [dB]
g j	5210	42	AVG	12.89	12.30	23.98	-11.09
GHz (80MH Bandwidth)	5290	58	AVG	13.23	10.60	23.98	-10.75
5GHz Band	5530	106	AVG	13.28	11.72	23.98	-10.70
5G B:	5610	122	AVG	15.15	14.69	23.98	-8.83
	5690	138	AVG	15.36	14.79	23.98	-8.62
	5775	155	AVG	15.65	14.94	30.00	-14.35

Table 7-11. SISO ANT2 80MHz BW (UNII) Maximum Conducted Output Power

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 90 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Fage 90 01 242



MIMO Maximum Conducted Output Power Measurements

	Freq [MHz]	Channel	Detector	Conc	lucted Power [Power Limit		Conducted Power
				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
<u> </u>	5180	36	AVG	16.23	16.29	19.27	23.98	-4.71
ĭ <u>₹</u>	5200	40	AVG	16.15	16.29	19.23	23.98	-4.75
andwidth	5220	44	AVG	16.23	16.12	19.19	23.98	-4.79
ar	5240	48	AVG	16.25	16.11	19.19	23.98	-4.79
m	5260	52	AVG	16.46	15.83	19.17	23.98	-4.81
Ň	5280	56	AVG	16.40	15.97	19.20	23.98	-4.78
Ξ	5300	60	AVG	16.47	15.95	19.23	23.98	-4.75
6	5320	64	AVG	16.17	15.95	19.07	23.98	-4.91
(20	5500	100	AVG	15.10	15.36	18.24	23.98	-5.74
<u>N</u>	5600	120	AVG	15.17	14.95	18.07	23.98	-5.91
五	5720	144	AVG	15.24	14.73	18.00	23.98	-5.98
56	5745	149	AVG	14.43	13.88	17.17	30.00	-12.83
	5785	157	AVG	14.44	13.93	17.20	30.00	-12.80
	5825	165	AVG	14.33	13.83	17.10	30.00	-12.90

Table 7-12. MIMO 20MHz BW 802.11a (UNII) Maximum Conducted Output Power

	Freq [MHz]	Freq [MHz] Channel		Cond	lucted Power [dBm]	Conducted Power Limit Power	
<u> </u>				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
5	5180	36	AVG	16.19	16.09	19.15	23.98	-4.83
\$	5200	40	AVG	16.27	16.19	19.24	23.98	-4.74
andwidth)	5220	44	AVG	16.26	16.12	19.20	23.98	-4.78
ar	5240	48	AVG	16.42	16.10	19.27	23.98	-4.71
m	5260	52	AVG	16.43	15.90	19.18	23.98	-4.80
Ň	5280	56	AVG	16.47	16.00	19.25	23.98	-4.73
¥	5300	60	AVG	16.37	15.91	19.16	23.98	-4.82
Mo	5320	64	AVG	16.12	15.86	19.00	23.98	-4.98
(2)	5500	100	AVG	14.97	15.20	18.10	23.98	-5.88
<u>N</u>	5600	120	AVG	15.01	14.98	18.00	23.98	-5.98
五	5720	144	AVG	15.07	14.58	17.84	23.98	-6.14
56	5745	149	AVG	14.42	13.73	17.10	30.00	-12.90
	5785	157	AVG	14.38	13.92	17.17	30.00	-12.83
	5825	165	AVG	14.22	13.78	17.02	30.00	-12.98

Table 7-13. MIMO 20MHz BW 802.11n (UNII) Maximum Conducted Output Power

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 01 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 91 of 242



	Freq [MHz]	Channel	Detector	Conc	lucted Power [dBm]	Conducted Power Limit	Conducted Power
<u> </u>				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
<u> </u>	5180	36	AVG	16.31	16.13	19.23	23.98	-4.75
<u>\<u>\</u></u>	5200	40	AVG	16.35	16.20	19.29	23.98	-4.69
andwidth)	5220	44	AVG	16.32	16.21	19.28	23.98	-4.70
ar	5240	48	AVG	16.32	16.16	19.25	23.98	-4.73
a	5260	52	AVG	16.41	15.89	19.17	23.98	-4.81
HZ	5280	56	AVG	16.44	15.96	19.22	23.98	-4.76
	5300	60	AVG	16.48	15.98	19.25	23.98	-4.73
Mo	5320	64	AVG	16.13	15.88	19.02	23.98	-4.96
(2)	5500	100	AVG	14.97	15.25	18.12	23.98	-5.86
<u>N</u>	5600	120	AVG	15.00	14.94	17.98	23.98	-6.00
GH	5720	144	AVG	15.10	14.65	17.89	23.98	-6.09
56	5745	149	AVG	14.31	13.74	17.04	30.00	-12.96
	5785	157	AVG	14.28	13.79	17.05	30.00	-12.95
	5825	165	AVG	14.21	13.84	17.04	30.00	-12.96

Table 7-14. MIMO 20MHz BW 802.11ac (UNII) Maximum Conducted Output Power

	Freq [MHz]	Freq [MHz] Channel	Detector	Conducted Power [dBm]			Conducted Power Limit	Conducted Power
Ţ.				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
<u> </u>	5180	36	AVG	10.42	10.84	13.65	23.98	-10.33
andwidth	5200	40	AVG	13.39	13.89	16.66	23.98	-7.32
D	5220	44	AVG	13.27	13.80	16.55	23.98	-7.43
a	5240	48	AVG	13.35	13.71	16.54	23.98	-7.44
m	5260	52	AVG	13.56	13.42	16.50	23.98	-7.48
N	5280	56	AVG	13.65	13.38	16.53	23.98	-7.45
Ξ	5300	60	AVG	13.64	13.38	16.52	23.98	-7.46
0	5320	64	AVG	11.70	11.47	14.60	23.98	-9.38
(20	5500	100	AVG	13.23	13.64	16.45	23.98	-7.53
<u>N</u>	5600	120	AVG	13.77	13.55	16.67	23.98	-7.31
GH	5720	144	AVG	12.69	13.76	16.27	23.98	-7.71
50	5745	149	AVG	12.31	14.06	16.28	30.00	-13.72
	5785	157	AVG	12.78	13.97	16.43	30.00	-13.57
	5825	165	AVG	13.13	13.90	16.54	30.00	-13.46

Table 7-15. MIMO 20MHz BW 802.11ax (UNII) Maximum Conducted Output Power

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 02 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 92 of 242



	Freq [MHz]	Channel	Detector	Conducted Power [dBm]		Conducted Power Limit	Conducted Power	
N _				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
I C	5190	38	AVG	13.91	14.14	17.04	23.98	-6.94
ĕ j	5230	46	AVG	15.25	15.13	18.20	23.98	-5.78
(40 Wic	5270	54	AVG	15.26	15.84	18.57	23.98	-5.41
N O	5310	62	AVG	14.07	13.78	16.94	23.98	-7.04
H7 an	5510	102	AVG	14.13	14.46	17.90	23.98	-6.08
\mathbf{O} \mathbf{M}	5590	118	AVG	14.12	14.01	18.48	23.98	-5.50
2	5710	142	AVG	14.08	13.95	18.55	23.98	-5.43
	5755	151	AVG	13.50	12.89	16.66	30.00	-13.34
	5795	159	AVG	13.48	12.85	16.65	30.00	-13.35

Table 7-16. MIMO 40MHz BW 802.11n (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	Power Lin		Conducted Power Limit	Conducted Power	
N _				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
I C	5190	38	AVG	13.87	14.14	17.02	23.98	-6.96
OM idt	5230	46	AVG	15.22	15.14	18.19	23.98	-5.79
(40M widt	5270	54	AVG	15.39	15.81	18.62	23.98	-5.36
て	5310	62	AVG	14.07	13.80	16.95	23.98	-7.03
HZ an	5510	102	AVG	14.02	14.32	17.98	23.98	-6.00
6 8	5590	118	AVG	14.10	14.02	18.49	23.98	-5.49
	5710	142	AVG	13.97	14.06	18.50	23.98	-5.48
	5755	151	AVG	13.42	12.93	16.63	30.00	-13.37
	5795	159	AVG	13.43	12.79	16.64	30.00	-13.36

Table 7-17. MIMO 40MHz BW 802.11ac (UNII) Maximum Conducted Output Power

	Freq [MHz]	Channel	Detector	Conc	lucted Power [dBm]	Conducted Power Limit	Conducted Power
N _				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
I	5190	38	AVG	8.21	8.81	11.53	23.98	-12.45
OM id <u>f</u>	5230	46	AVG	11.75	12.57	15.19	23.98	-8.79
(40M widt	5270	54	AVG	12.32	12.41	15.38	23.98	-8.60
N 0	5310	62	AVG	7.04	6.40	9.74	23.98	-14.24
ah ah	5510	102	AVG	10.54	10.53	13.55	23.98	-10.43
\mathbf{O} \mathbf{m}	5590	118	AVG	12.76	12.34	15.57	23.98	-8.41
2	5710	142	AVG	11.82	12.52	15.19	23.98	-8.79
	5755	151	AVG	11.70	12.92	15.36	30.00	-14.64
	5795	159	AVG	11.79	12.96	15.42	30.00	-14.58

Table 7-18. MIMO 40MHz BW 802.11ax (UNII) Maximum Conducted Output Power

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 93 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Fage 93 01 242



Hz (t	Freq [MHz] Channel		Channel Detector		Conducted Power [dBm]			Conducted Power
				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
4z (80MHz ndwidth)	5210	42	AVG	12.96	12.89	15.94	23.98	-8.04
<u>®</u> <u>\bar{\bar{\bar{\bar{\bar{\bar{\bar{</u>	5290	58	AVG	13.03	13.23	16.14	23.98	-7.84
~	5530	106	AVG	13.48	13.63	16.52	23.98	-7.46
5GF Ba	5610	122	AVG	14.44	13.56	18.32	23.98	-5.66
	5690	138	AVG	14.43	13.50	18.26	23.98	-5.72
	5775	155	AVG	13.65	12.60	16.70	30.00	-13.30

Table 7-19. MIMO 80MHz BW 802.11ac (UNII) Maximum Conducted Output Power

N	Freq [MHz]	Freq [MHz] Channel		Conducted Power [dBm]			Conducted Power Limit	Conducted Power
				ANT1	ANT2	MIMO	[dBm]	Margin [dB]
(80MH; width)	5210	42	AVG	9.16	9.45	12.32	23.98	-11.66
8) <u>×</u>	5290	58	AVG	8.06	7.81	10.95	23.98	-13.03
GHz	5530	106	AVG	8.63	8.90	11.78	23.98	-12.20
5G B2	5610	122	AVG	11.00	11.60	14.32	23.98	-9.66
	5690	138	AVG	10.35	11.62	14.04	23.98	-9.94
	5775	155	AVG	11.92	9.89	14.03	30.00	-15.97

Table 7-20. MIMO 80MHz BW 802.11ax (UNII) Maximum Conducted Output Power

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 04 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 94 of 242



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.

Sample MIMO Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted output power was measured to be 16.19 dBm for Antenna-1 and 16.09 dBm for Antenna-2.

(16.19 dBm + 16.09 dBm) = (41.59 mW + 40.64 mW) = 82.24 mW = 19.15 dBm

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 95 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Fage 95 01 242



7.5 Maximum Power Spectral Density – 802.11a/n/ac/ax

§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 $\geq 2 x$ (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

None

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 96 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Fage 90 01 242



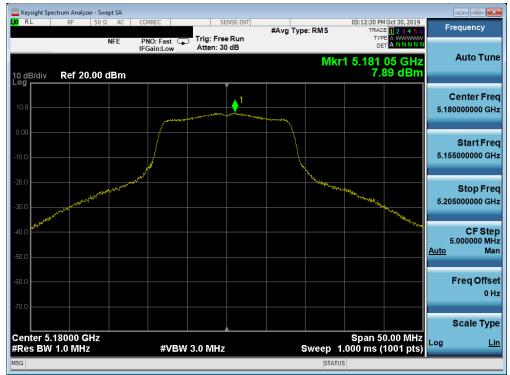
SISO Antenna-1 Power Spectral Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	а	6	7.89	11.0	-3.11
	5200	40	а	6	6.55	11.0	-4.45
	5240	48	а	6	7.28	11.0	-3.72
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	7.53	11.0	-3.47
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	6.53	11.0	-4.47
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	6.89	11.0	-4.11
~	5180	36	ax (20MHz)	6.5/7.2 (MCS0)	3.83	11.0	-7.17
Band	5200	40	ax (20MHz)	6.5/7.2 (MCS0)	3.93	11.0	-7.07
ĕ	5240	48	ax (20MHz)	6.5/7.2 (MCS0)	4.60	11.0	-6.40
	5190	38	n (40MHz)	13.5/15 (MCS0)	3.68	11.0	-7.32
	5230	46	n (40MHz)	13.5/15 (MCS0)	3.01	11.0	-7.99
	5190	38	ax (40MHz)	13.5/15 (MCS0)	1.87	11.0	-9.13
	5230	46	ax (40MHz)	13.5/15 (MCS0)	2.09	11.0	-8.91
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-0.27	11.0	-11.27
	5210	42	ax (80MHz)	29.3/32.5 (MCS0)	-1.82	11.0	-12.82
	5260	52	а	6	7.09	11.0	-3.91
	5280	56	а	6	6.89	11.0	-4.11
	5320	64	а	6	7.96	11.0	-3.04
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	6.45	11.0	-4.55
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	6.34	11.0	-4.66
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	7.62	11.0	-3.38
₹	5260	52	ax (20MHz)	6.5/7.2 (MCS0)	4.61	11.0	-6.39
Band 2A	5280	56	ax (20MHz)	6.5/7.2 (MCS0)	4.55	11.0	-6.45
Bal	5320	64	ax (20MHz)	6.5/7.2 (MCS0)	4.57	11.0	-6.43
	5270	54	n (40MHz)	13.5/15 (MCS0)	2.60	11.0	-8.40
	5310	62	n (40MHz)	13.5/15 (MCS0)	3.56	11.0	-7.44
	5270	54	ax (40MHz)	13.5/15 (MCS0)	2.07	11.0	-8.93
	5310	62	ax (40MHz)	13.5/15 (MCS0)	1.67	11.0	-9.33
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-0.55	11.0	-11.55
	5290	58	ax (80MHz)	29.3/32.5 (MCS0)	-2.00	11.0	-13.00
	5500	100	а	6	7.74	11.0	-3.26
	5600	120	а	6	6.80	11.0	-4.20
	5720	144	а	6	7.17	11.0	-3.83
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	7.73	11.0	-3.27
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	6.40	11.0	-4.60
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	6.85	11.0	-4.15
	5500	100	ax (20MHz)	6.5/7.2 (MCS0)	4.66	11.0	-6.34
	5600	120	ax (20MHz)	6.5/7.2 (MCS0)	4.52	11.0	-6.48
	5720	144	ax (20MHz)	6.5/7.2 (MCS0)	4.93	11.0	-6.07
ည္က	5510	102	n (40MHz)	13.5/15 (MCS0)	3.88	11.0	-7.12
Band 2C	5590	118	n (40MHz)	13.5/15 (MCS0)	2.36	11.0	-8.64
Bal	5710	142	n (40MHz)	13.5/15 (MCS0)	2.65	11.0	-8.35
	5510	102	ax (40MHz)	13.5/15 (MCS0)	2.95	11.0	-8.05
	5590	118	ax (40MHz)	13.5/15 (MCS0)	1.29	11.0	-9.71
	5710	142	ax (40MHz)	13.5/15 (MCS0)	1.82	11.0	-9.18
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-0.38	11.0	-11.38
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-2.01	11.0	-13.01
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-4.22	11.0	-15.22
	5530	106	ax (80MHz)	29.3/32.5 (MCS0)	-1.73	11.0	-12.73
	5610	122	ax (80MHz)	29.3/32.5 (MCS0)	-2.25	11.0	-13.25
	5690	138	ax (80MHz)	29.3/32.5 (MCS0)	-4.98	11.0	-15.98
7_21	D 1 - 4	04 00	O	Dower Spec	I D '4.	N	-1- 0100

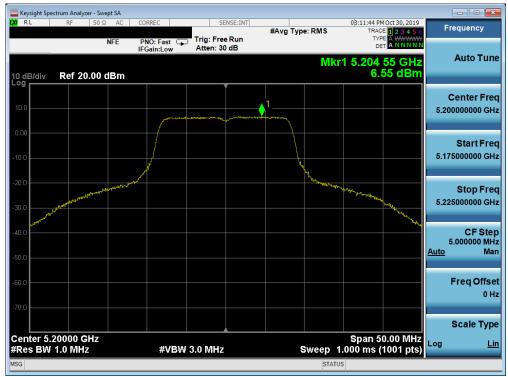
Table 7-21. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 07 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 97 of 242





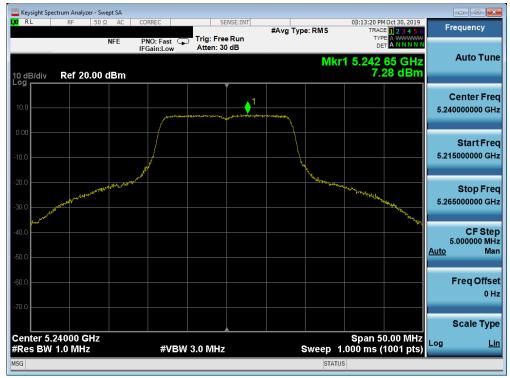
Plot 7-133. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) - Ch. 36)



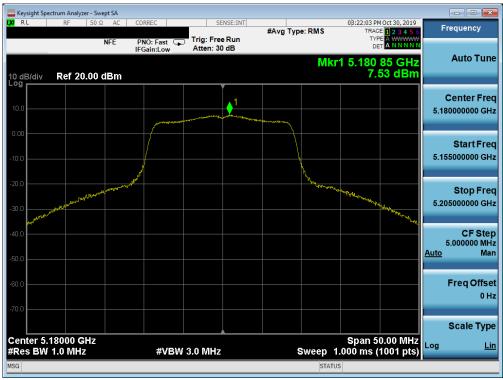
Plot 7-134. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 00 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset		Page 98 of 242
© 2020 PCTEST	•			V 9.0 02/01/2019





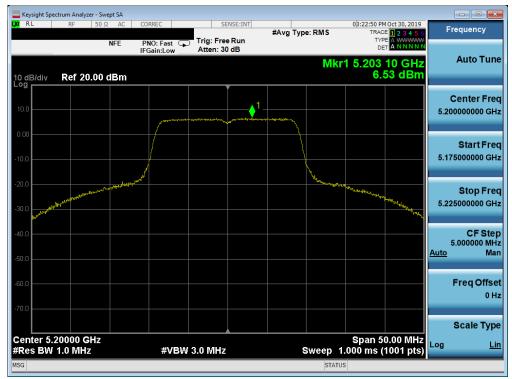
Plot 7-135. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) - Ch. 48)



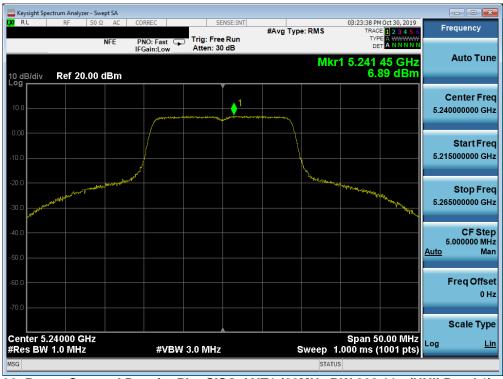
Plot 7-136. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) - Ch. 36)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 00 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 99 of 242





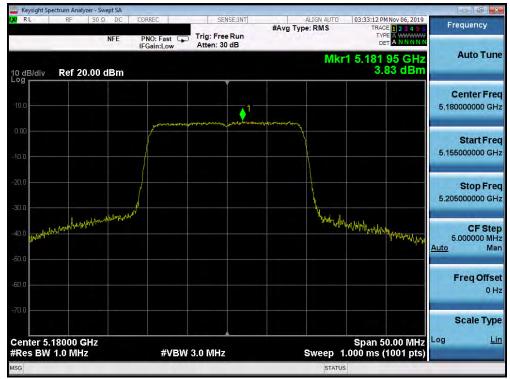
Plot 7-137. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) - Ch. 40)



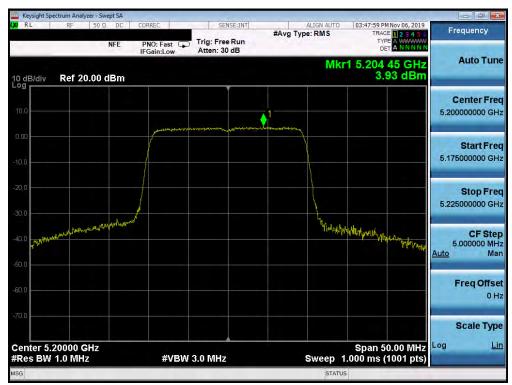
Plot 7-138. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) - Ch. 48)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 100 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 100 of 242





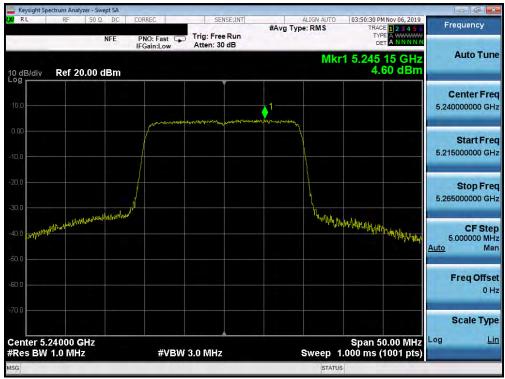
Plot 7-139. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 1) - Ch. 36)



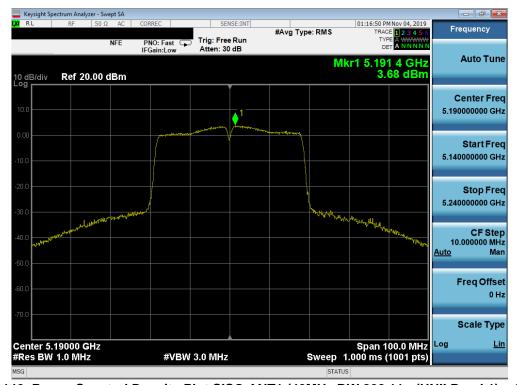
Plot 7-140. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 101 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 101 of 242





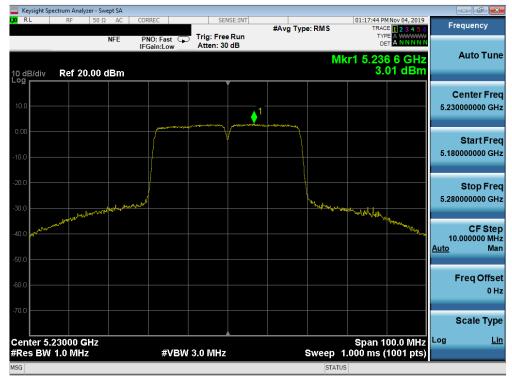
Plot 7-141. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 1) - Ch. 48)



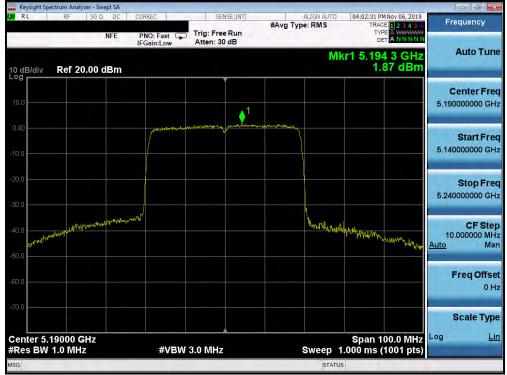
Plot 7-142. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 102 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 102 of 242





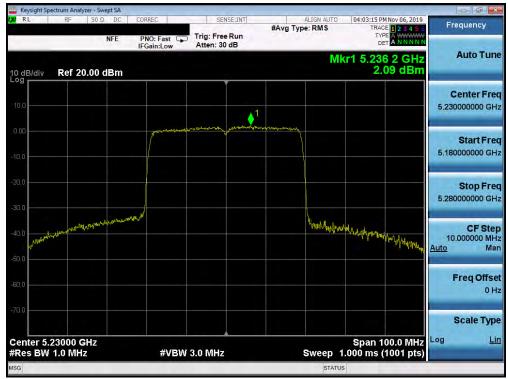
Plot 7-143. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 1) - Ch. 46)



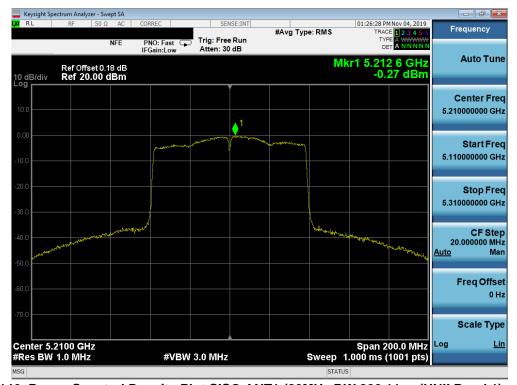
Plot 7-144. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 102 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 103 of 242





Plot 7-145. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 1) - Ch. 46)



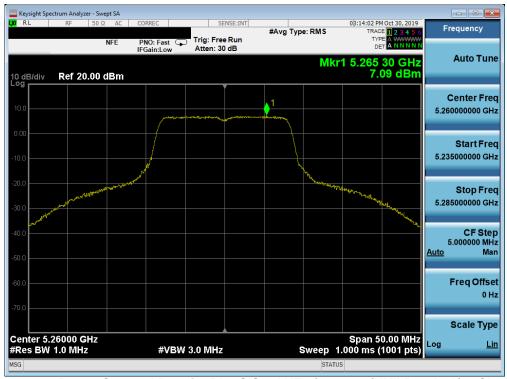
Plot 7-146. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 1) - Ch. 42)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 104 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 104 of 242





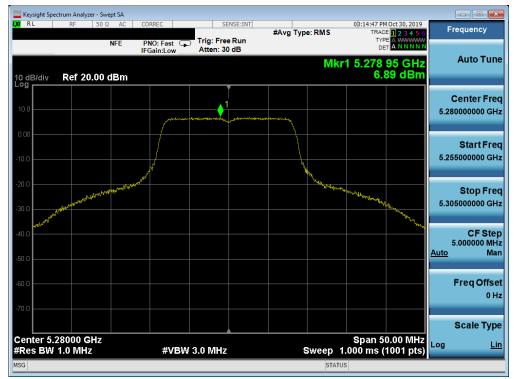
Plot 7-147. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11aax (UNII Band 1) - Ch. 42)



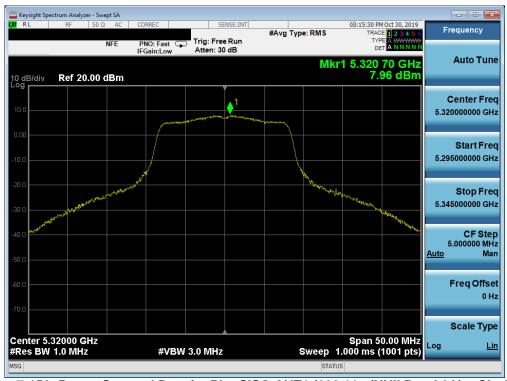
Plot 7-148. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) - Ch. 52)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 105 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 105 of 242





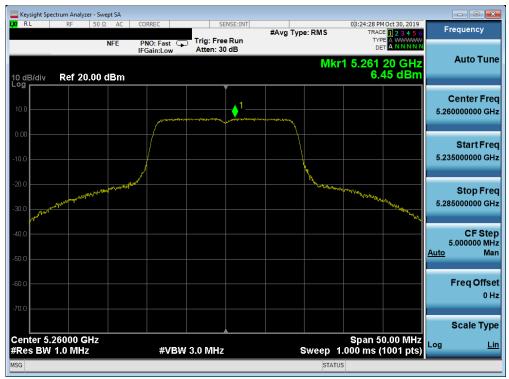
Plot 7-149. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) - Ch. 56)



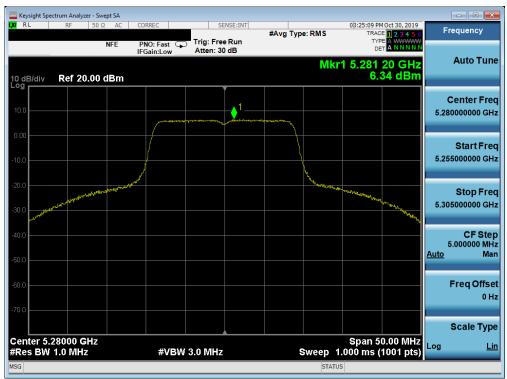
Plot 7-150. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) - Ch. 64)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 100 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset		Page 106 of 242
© 2020 PCTEST				V 9.0 02/01/2019





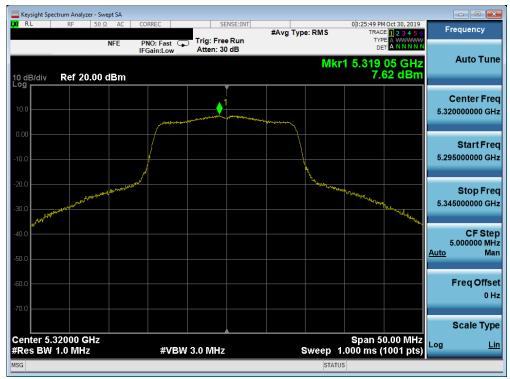
Plot 7-151. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) - Ch. 52)



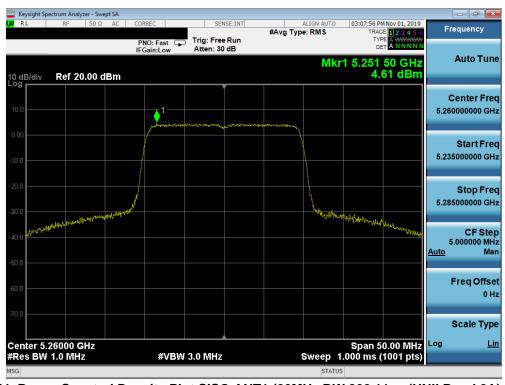
Plot 7-152. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 107 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 107 of 242





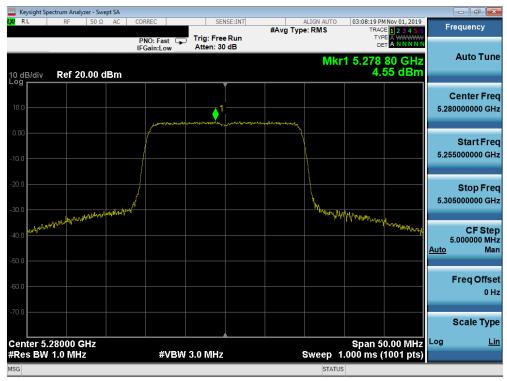
Plot 7-153. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) - Ch. 64)



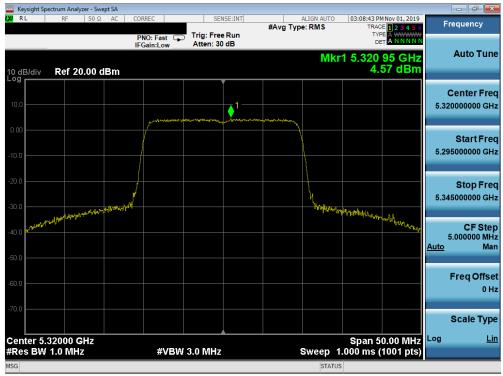
Plot 7-154. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 52)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 109 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 108 of 242





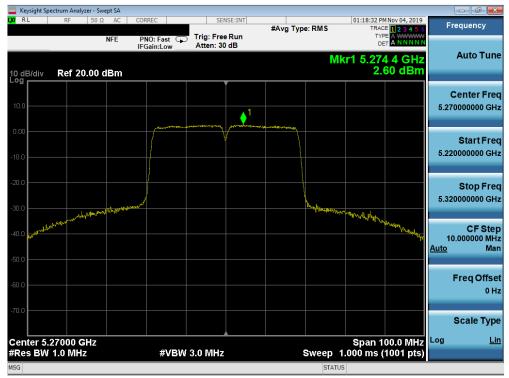
Plot 7-155. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 56)



Plot 7-156. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 64)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 100 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 109 of 242





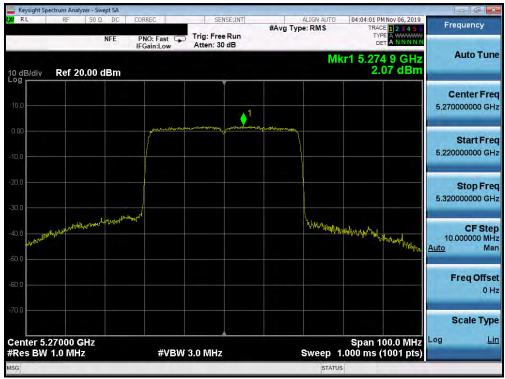
Plot 7-157. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2A) - Ch. 54)



Plot 7-158. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2A) - Ch. 62)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 110 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 110 of 242





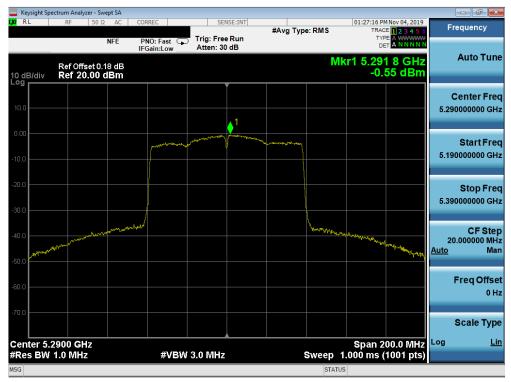
Plot 7-159. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2A) - Ch. 54)



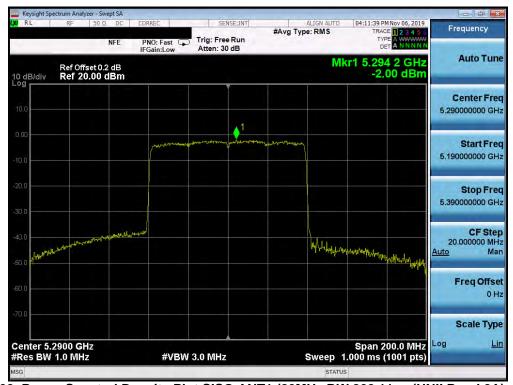
Plot 7-160. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2A) - Ch. 62)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 111 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 111 of 242





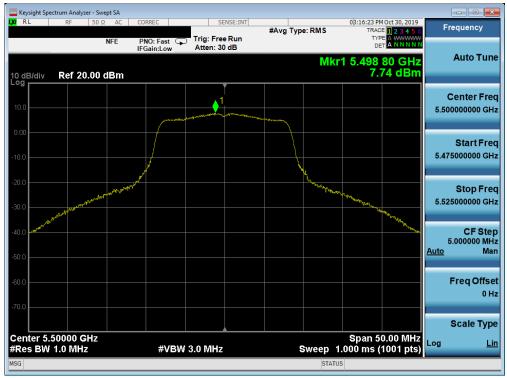
Plot 7-161. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2A) - Ch. 58)



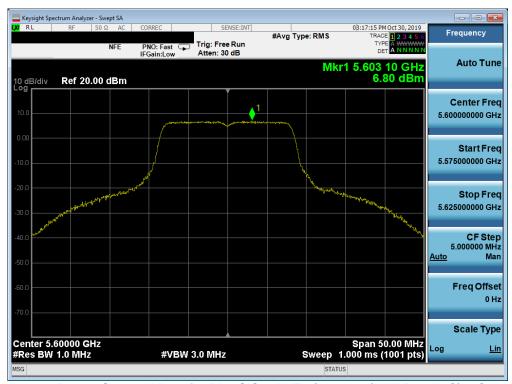
Plot 7-162. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 2A) - Ch. 58)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 112 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 112 of 242





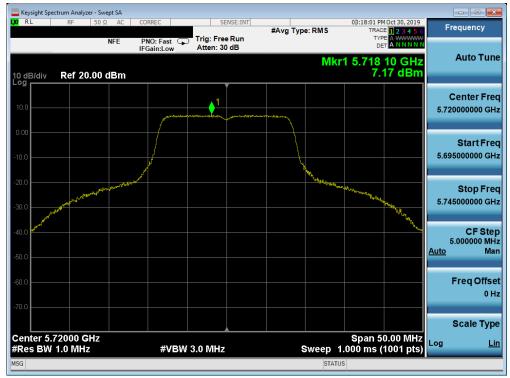
Plot 7-163. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) - Ch. 100)



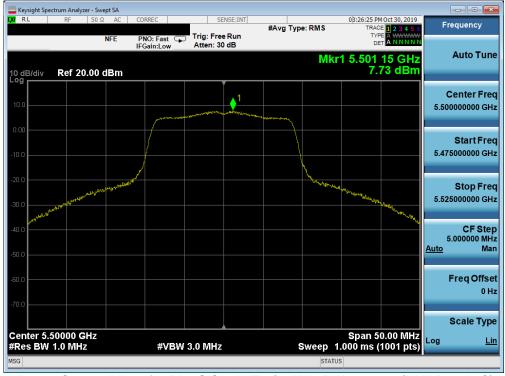
Plot 7-164. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 112 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset		Page 113 of 242
© 2020 PCTEST				V 9.0 02/01/2019





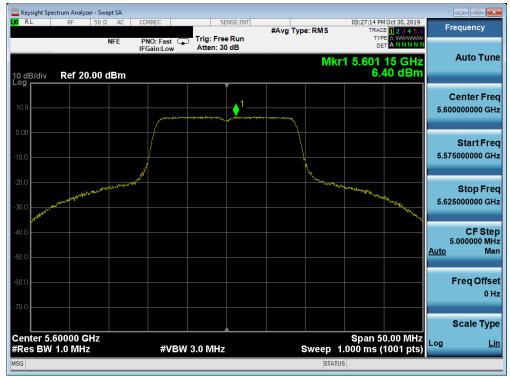
Plot 7-165. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) - Ch. 144)



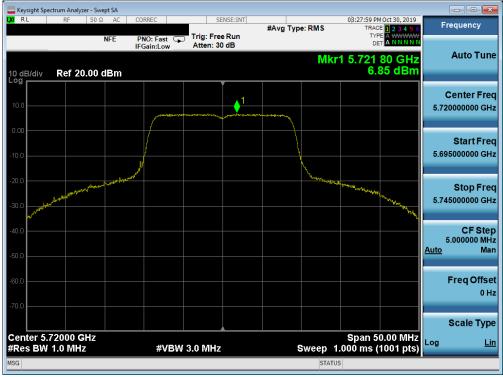
Plot 7-166. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) - Ch. 100)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 114 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 114 of 242





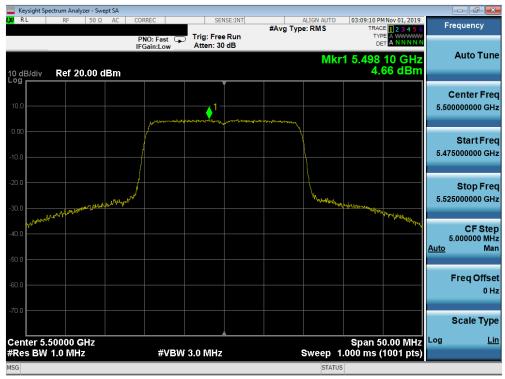
Plot 7-167. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) - Ch. 120)



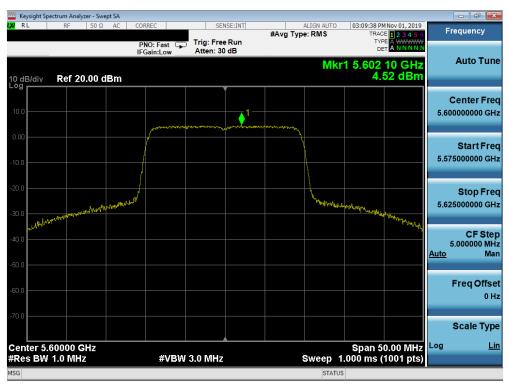
Plot 7-168. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) - Ch. 144)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 115 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 115 of 242





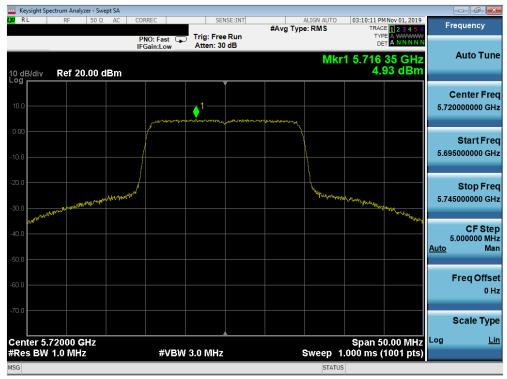
Plot 7-169. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 100)



Plot 7-170. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 120)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 116 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 116 of 242





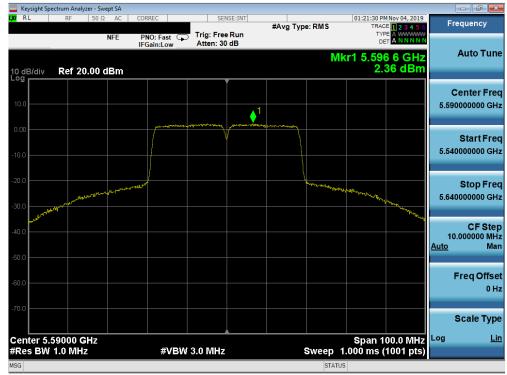
Plot 7-171. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 2C) - Ch. 144)



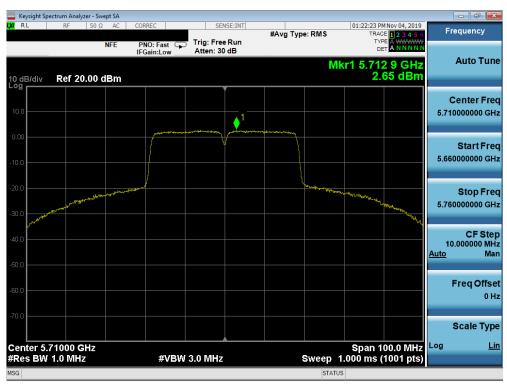
Plot 7-172. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) - Ch. 102)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 117 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 117 of 242





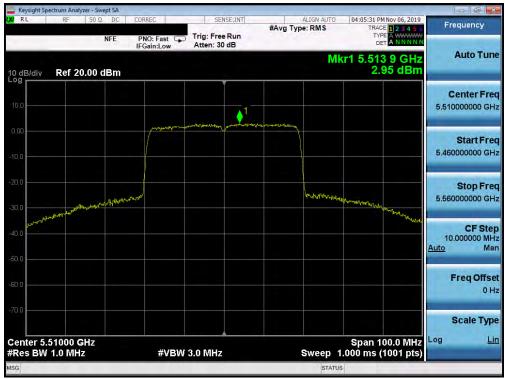
Plot 7-173. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) - Ch. 118)



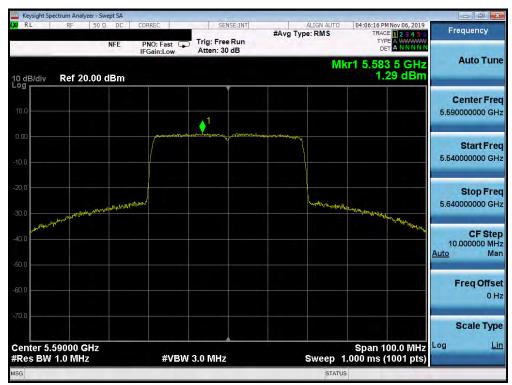
Plot 7-174. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) - Ch. 142)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 119 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 118 of 242





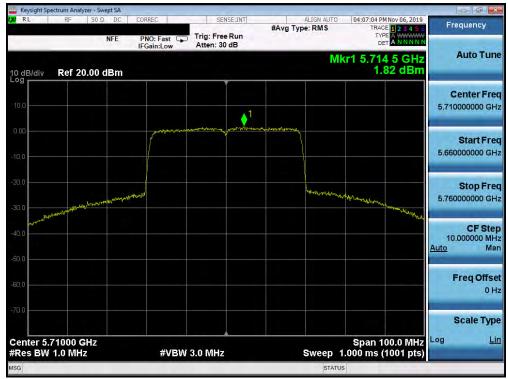
Plot 7-175. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2C) - Ch. 102)



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

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 110 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 119 of 242





Plot 7-177. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 2C) - Ch. 142)



Plot 7-178. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 106)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 120 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 120 of 242





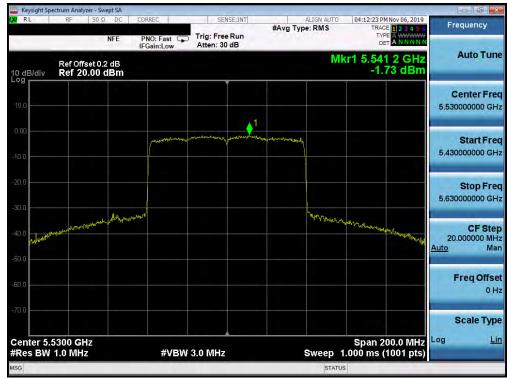
Plot 7-179. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 122)



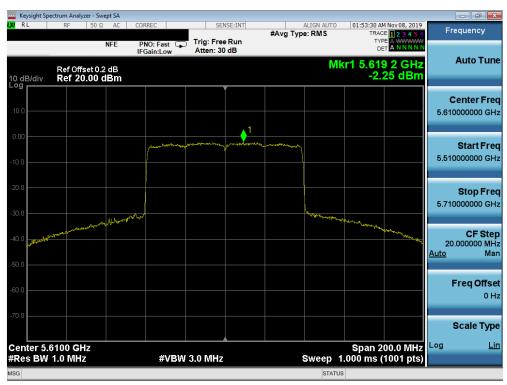
Plot 7-180. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 121 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 121 of 242





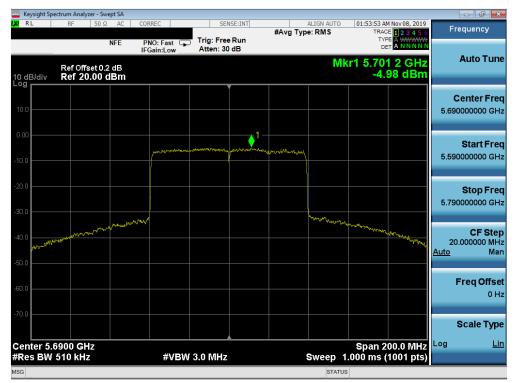
Plot 7-181. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 106)



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

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 122 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 122 of 242





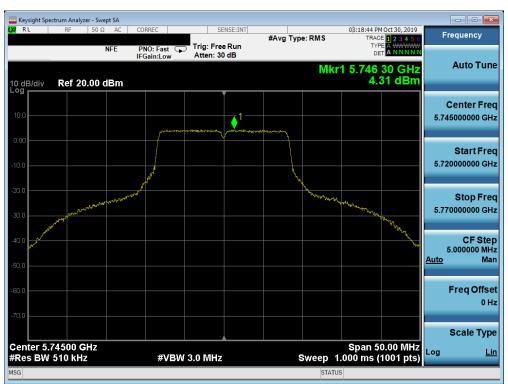
Plot 7-183. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ax (UNII Band 2C) - Ch. 138)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 122 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 123 of 242



	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
	5745	149	а	6	4.31	30.0	-25.69
	5785	157	а	6	4.18	30.0	-25.82
	5825	165	а	6	4.40	30.0	-25.60
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.91	30.0	-26.09
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	3.70	30.0	-26.30
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	3.72	30.0	-26.28
က	5745	149	ax (20MHz)	6.5/7.2 (MCS0)	2.55	30.0	-27.45
Band	5785	157	ax (20MHz)	6.5/7.2 (MCS0)	2.55	30.0	-27.45
m	5825	165	ax (20MHz)	6.5/7.2 (MCS0)	-0.65	30.0	-30.65
	5755	151	n (40MHz)	13.5/15 (MCS0)	0.04	30.0	-29.96
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.40	30.0	-30.40
	5755	151	ax (40MHz)	13.5/15 (MCS0)	-0.59	30.0	-30.59
	5795	159	ax (40MHz)	13.5/15 (MCS0)	0.34	30.0	-29.66
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-1.43	30.0	-31.43
	5775	155	ax (80MHz)	29.3/32.5 (MCS0)	-2.24	30.0	-32.24

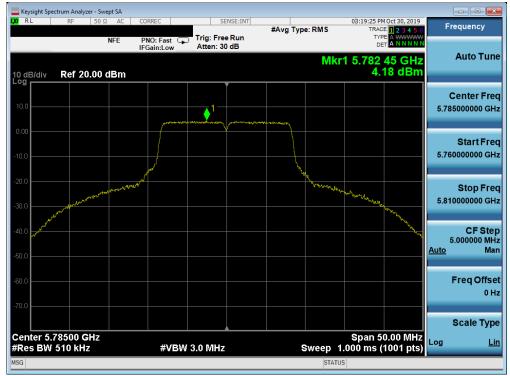
Table 7-22. Band 3 Conducted Power Spectral Density Measurements SISO ANT1



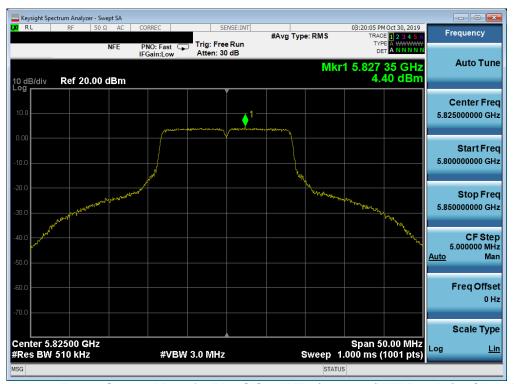
Plot 7-184. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) - Ch. 149)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 124 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 124 of 242





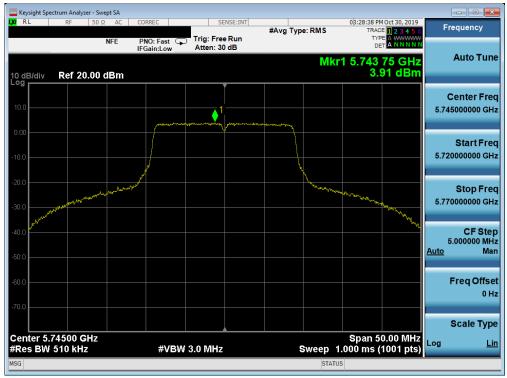
Plot 7-185. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) - Ch. 157)



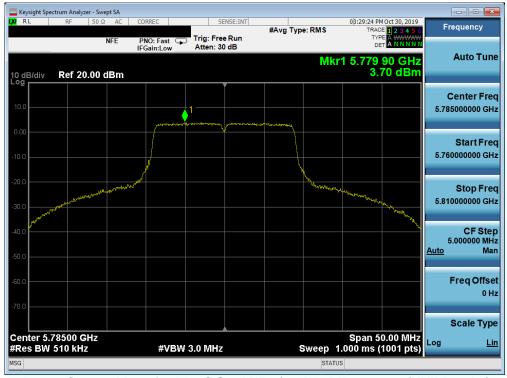
Plot 7-186. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) - Ch. 165)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 105 of 040
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset		Page 125 of 242
© 2020 PCTEST				V 9.0 02/01/2019





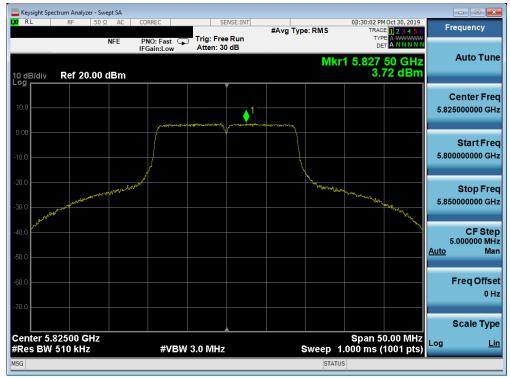
Plot 7-187. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) - Ch. 149)



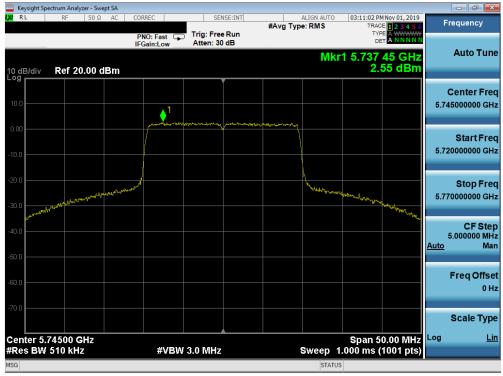
Plot 7-188. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 126 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 126 of 242





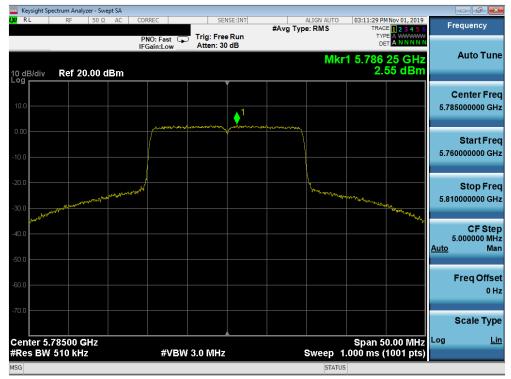
Plot 7-189. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) - Ch. 165)



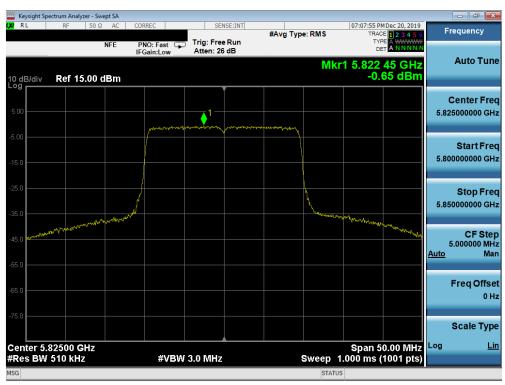
Plot 7-190. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) - Ch. 149)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 127 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 127 of 242





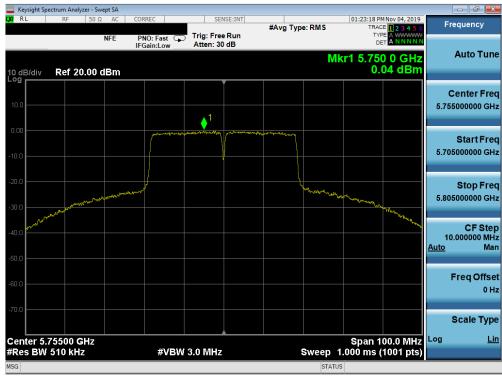
Plot 7-191. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) - Ch. 157)



Plot 7-192. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11ax (UNII Band 3) - Ch. 165)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 129 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 128 of 242





Plot 7-193. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 3) - Ch. 151)



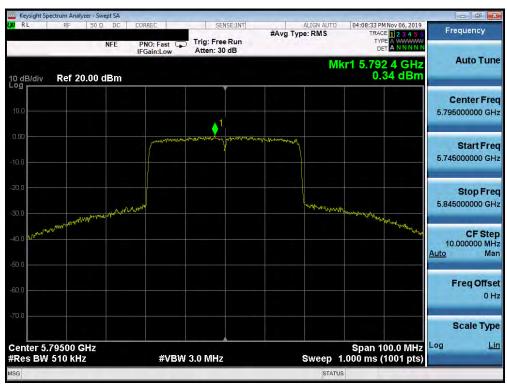
Plot 7-194. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 3) - Ch. 159)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 120 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 129 of 242





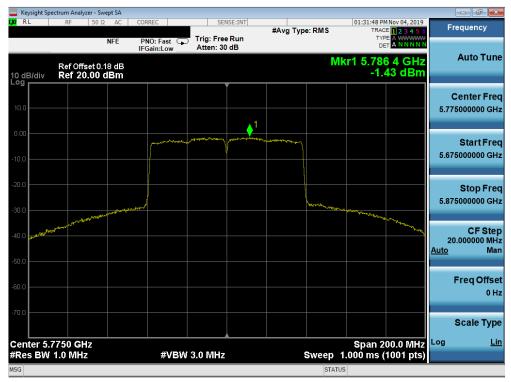
Plot 7-195. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 3) - Ch. 151)



Plot 7-196. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11ax (UNII Band 3) - Ch. 159)

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 120 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 130 of 242





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



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

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 121 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 131 of 242



SISO Antenna-2 Power Spectral Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
	5180	36	а	6	6.75	11.0	-4.25
	5200	40	а	6	5.94	11.0	-5.06
	5240	48	а	6	5.96	11.0	-5.04
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	6.66	11.0	-4.34
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	5.63	11.0	-5.37
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	5.82	11.0	-5.18
-	5180	36	ax (20MHz)	6.5/7.2 (MCS0)	4.89	11.0	-6.11
Band 1	5200	40	ax (20MHz)	6.5/7.2 (MCS0)	4.79	11.0	-6.21
Ä	5240	48	ax (20MHz)	6.5/7.2 (MCS0)	4.76	11.0	-6.24
	5190	38	n (40MHz)	13.5/15 (MCS0)	3.72	11.0	-7.28
	5230	46	n (40MHz)	13.5/15 (MCS0)	3.13	11.0	-7.87
	5190	38	ax (40MHz)	13.5/15 (MCS0)	1.75	11.0	-9.25
	5230	46	ax (40MHz)	13.5/15 (MCS0)	1.79	11.0	-9.21
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-0.08	11.0	-11.08
	5210	42	ax (80MHz)	29.3/32.5 (MCS0)	-2.33	11.0	-13.33
	5260	52	a	6	5.84	11.0	-5.16
	5280	56	а	6	5.89	11.0	-5.11
	5320	64	а	6	7.02	11.0	-3.98
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	5.67	11.0	-5.33
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	5.59	11.0	-5.41
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	6.97	11.0	-4.03
≾	5260	52	ax (20MHz)	6.5/7.2 (MCS0)	4.63	11.0	-6.37
Band 2A	5280	56	ax (20MHz)	6.5/7.2 (MCS0)	4.53	11.0	-6.47
Bar	5320	64	ax (20MHz)	6.5/7.2 (MCS0)	4.71	11.0	-6.29
	5270	54	n (40MHz)	13.5/15 (MCS0)	2.80	11.0	-8.20
	5310	62	n (40MHz)	13.5/15 (MCS0)	4.00	11.0	-7.00
	5270	54	ax (40MHz)	13.5/15 (MCS0)	1.60	11.0	-9.40
	5310	62	ax (40MHz)	13.5/15 (MCS0)	1.80	11.0	-9.20
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-0.75	11.0	-11.75
	5290	58	ax (80MHz)	29.3/32.5 (MCS0)	-2.34	11.0	-13.34
	5500	100	а	6	7.01	11.0	-3.99
	5600	120	а	6	5.91	11.0	-5.09
	5720	144	a	6	6.22	11.0	-4.78
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	6.66	11.0	-4.34
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	5.74	11.0	-5.26
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	5.93	11.0	-5.07
	5500	100	ax (20MHz)	6.5/7.2 (MCS0)	4.55	11.0	-6.45
	5600	120	ax (20MHz)	6.5/7.2 (MCS0)	4.67	11.0	-6.33
	5720	144	ax (20MHz)	6.5/7.2 (MCS0)	4.87	11.0	-6.13
ပ	5510	102	n (40MHz)	13.5/15 (MCS0)	3.77	11.0	-7.23
Band 2C	5590	118	n (40MHz)	13.5/15 (MCS0)	2.58	11.0	-8.42
3an	5710	142	n (40MHz)	13.5/15 (MCS0)	3.07	11.0	-7.93
_	5510	102	ax (40MHz)	13.5/15 (MCS0)	1.76	11.0	-9.24
	5590	118	ax (40MHz)	13.5/15 (MCS0)	1.76	11.0	-9.24
	5710	142	ax (40MHz)	13.5/15 (MCS0)	1.87	11.0	-9.13
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	0.25	11.0	-10.75
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-1.39	11.0	-12.39
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-3.81	11.0	-14.81
	5530	106	ax (80MHz)	29.3/32.5 (MCS0)	-1.43	11.0	-12.43
	5610	122	ax (80MHz)	29.3/32.5 (MCS0)	-1.43	11.0	-12.43
	5690	138	ax (80MHz)	29.3/32.5 (MCS0)	-4.00	11.0	-12.34
_				Spectral Dens			

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

FCC ID: A3LSMG981JPN		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 132 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 132 01 242





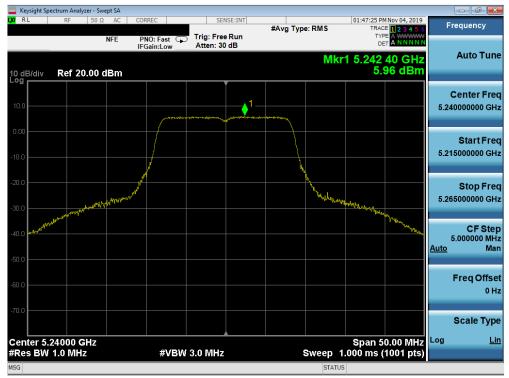
Plot 7-199. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) - Ch. 36)



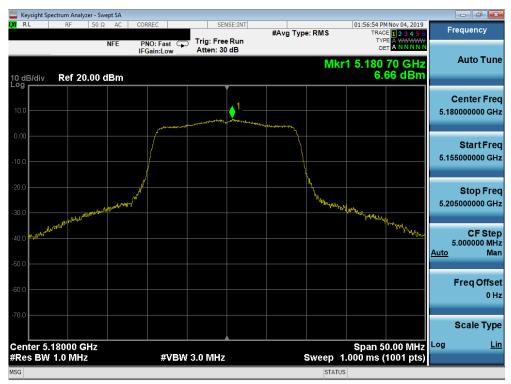
Plot 7-200. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 122 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 133 of 242





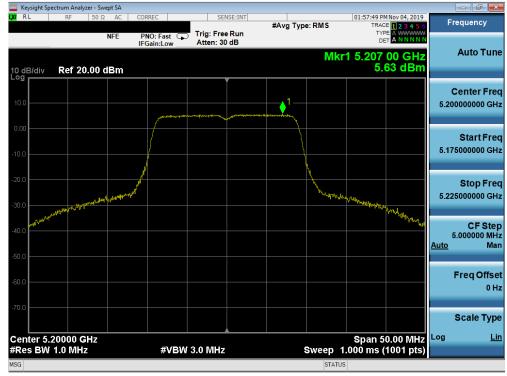
Plot 7-201. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) - Ch. 48)



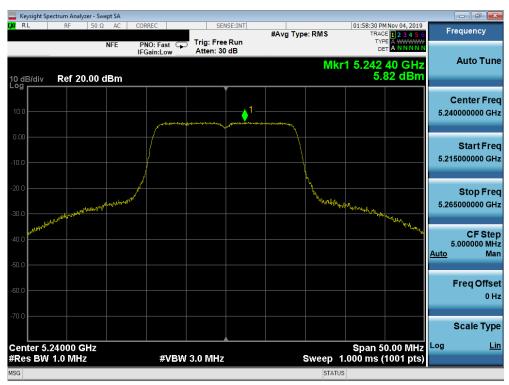
Plot 7-202. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) - Ch. 36)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 124 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset		Page 134 of 242
© 2020 PCTEST				V 9.0 02/01/2019





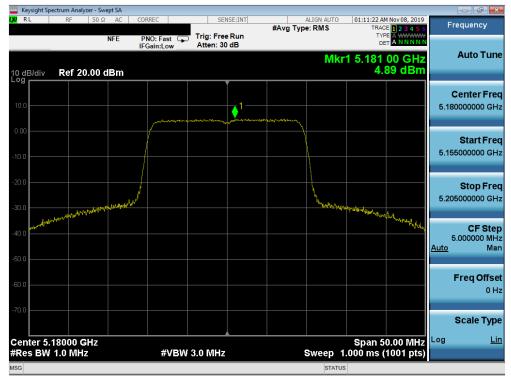
Plot 7-203. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) - Ch. 40)



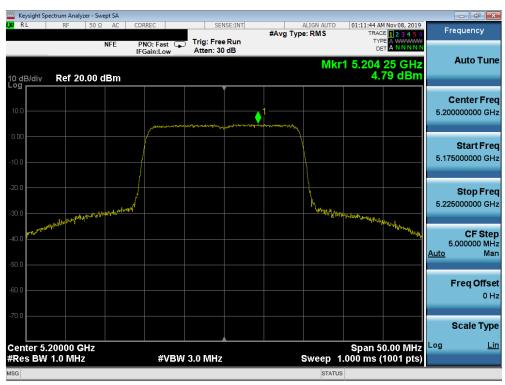
Plot 7-204. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) - Ch. 48)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 125 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 135 of 242





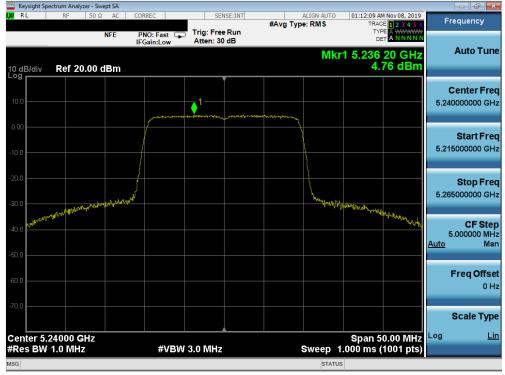
Plot 7-205. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 1) - Ch. 36)



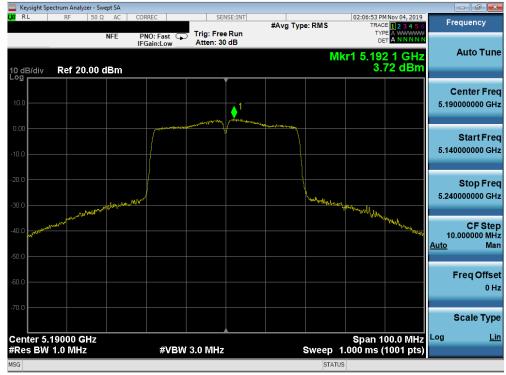
Plot 7-206. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 1) - Ch. 40)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 126 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 136 of 242





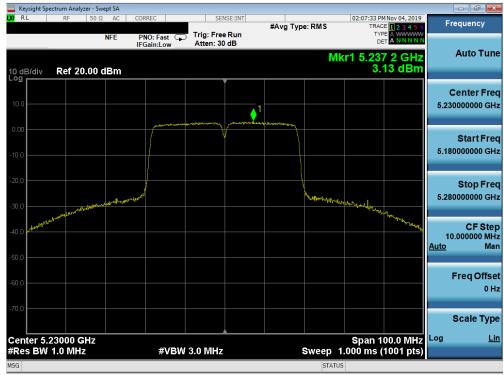
Plot 7-207. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 1) - Ch. 48)



Plot 7-208. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 127 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 137 of 242





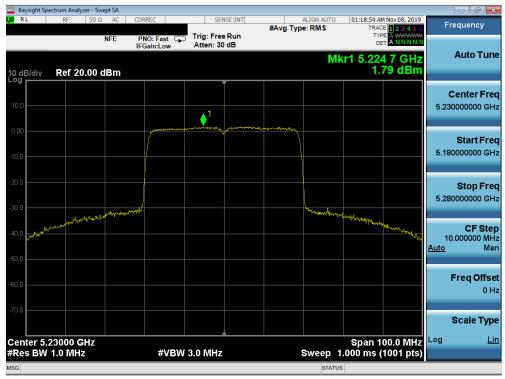
Plot 7-209. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) - Ch. 46)



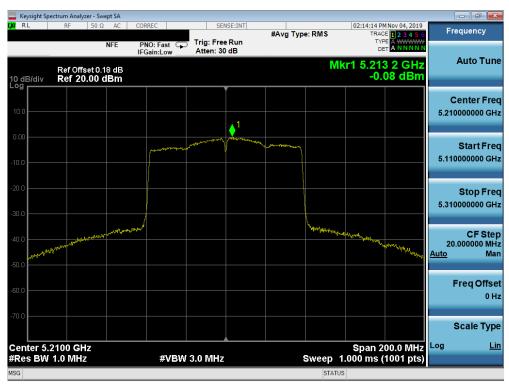
Plot 7-210. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 1) - Ch. 38)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 129 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 138 of 242





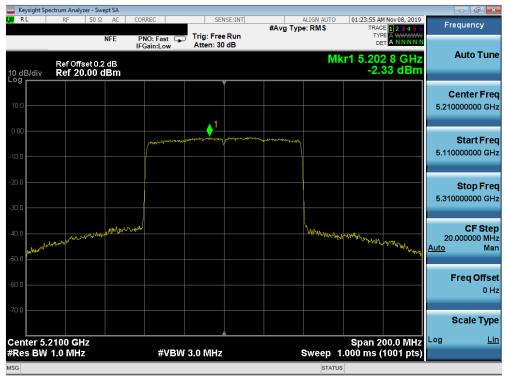
Plot 7-211. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 1) - Ch. 46)



Plot 7-212. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 1) - Ch. 42)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 120 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 139 of 242





Plot 7-213. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ax (UNII Band 1) - Ch. 42)



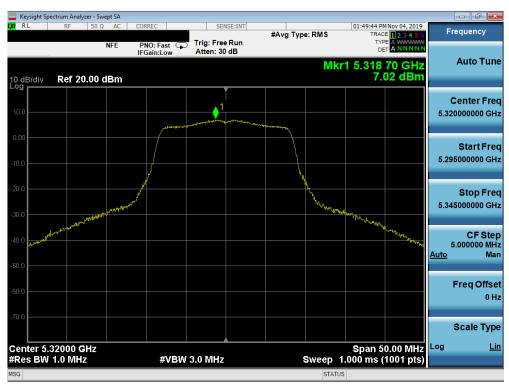
Plot 7-214. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) - Ch. 52)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 140 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 140 of 242





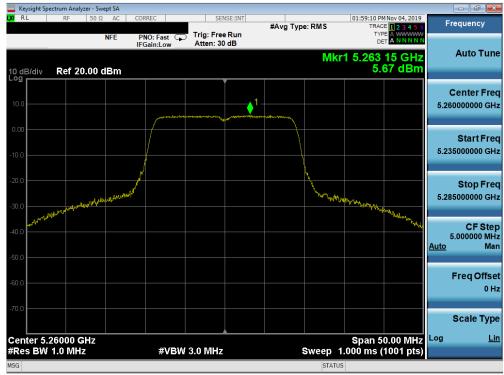
Plot 7-215. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) - Ch. 56)



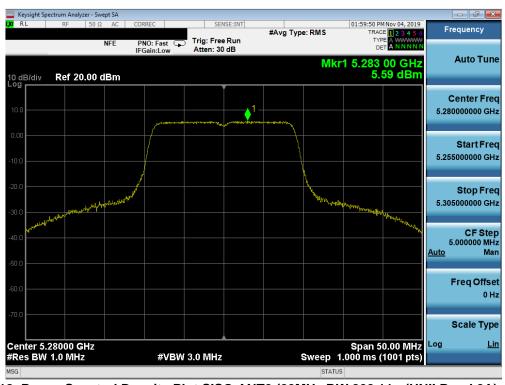
Plot 7-216. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) - Ch. 64)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 141 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 141 of 242





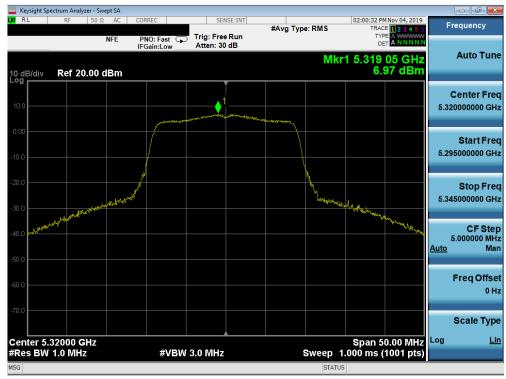
Plot 7-217. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) - Ch. 52)



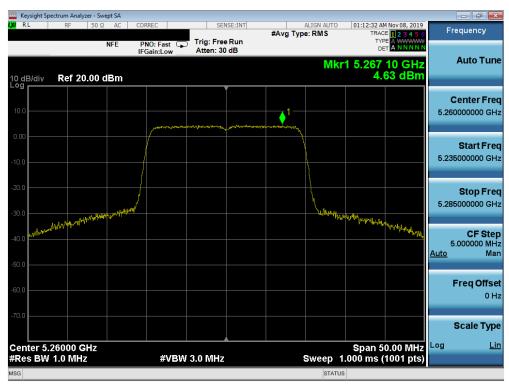
Plot 7-218. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) - Ch. 56)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 142 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 142 of 242





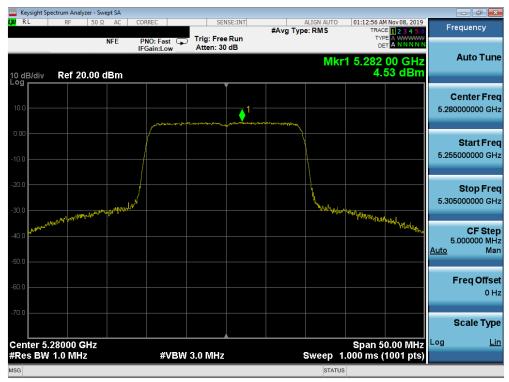
Plot 7-219. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) - Ch. 64)



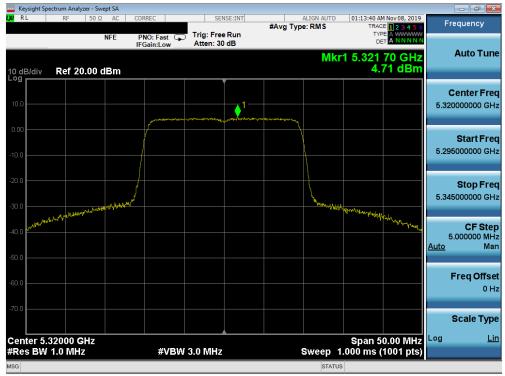
Plot 7-220. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 52)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 142 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 143 of 242





Plot 7-221. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 56)



Plot 7-222. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11ax (UNII Band 2A) - Ch. 64)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 144 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 144 of 242





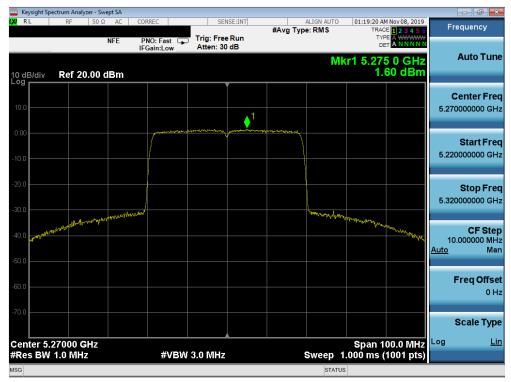
Plot 7-223. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) - Ch. 54)



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

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 145 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 145 of 242





Plot 7-225. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2A) - Ch. 54)



Plot 7-226. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11ax (UNII Band 2A) - Ch. 62)

FCC ID: A3LSMG981JPN	PCTEST	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 146 of 242
1M1911260209-06.A3L	10/22/2019 - 1/28/2020	Portable Handset	Page 146 of 242