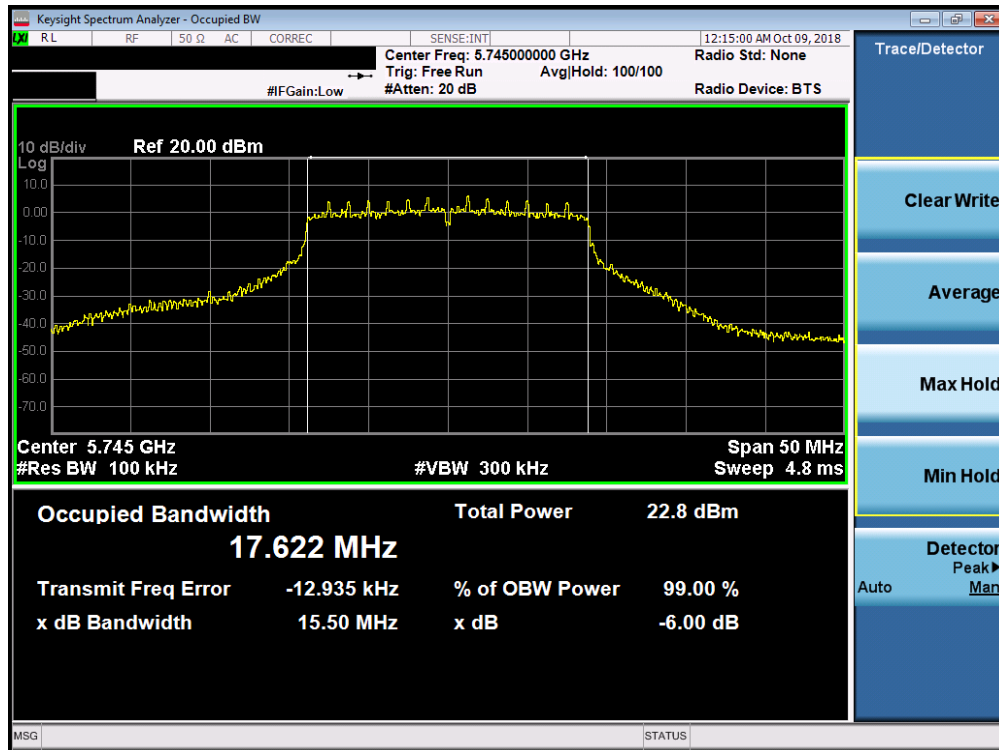
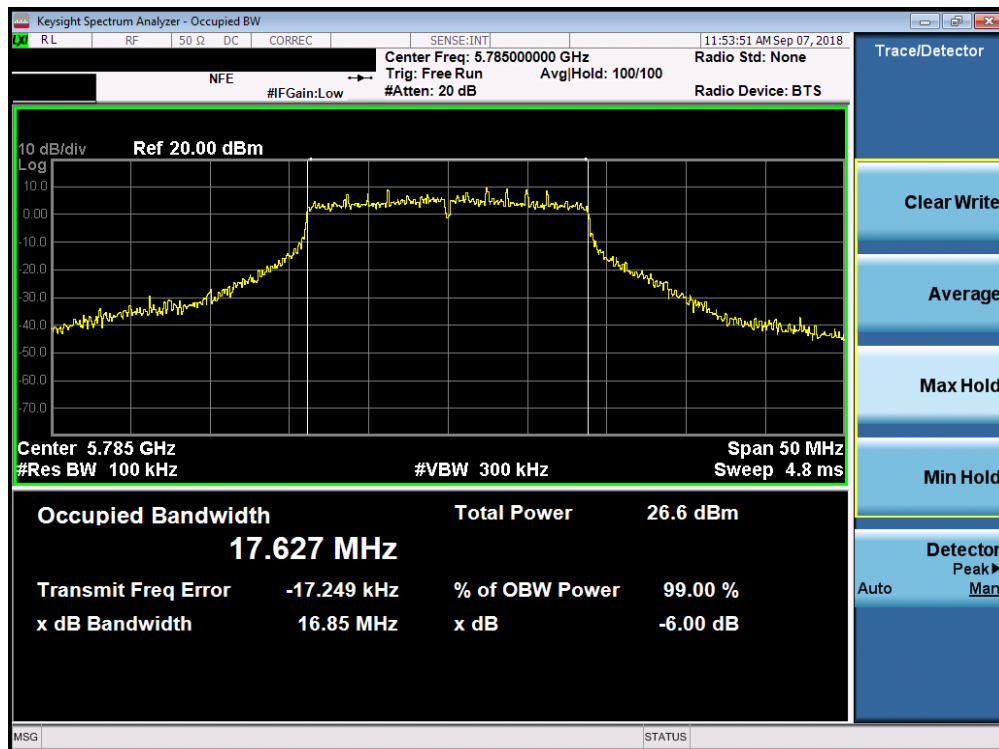


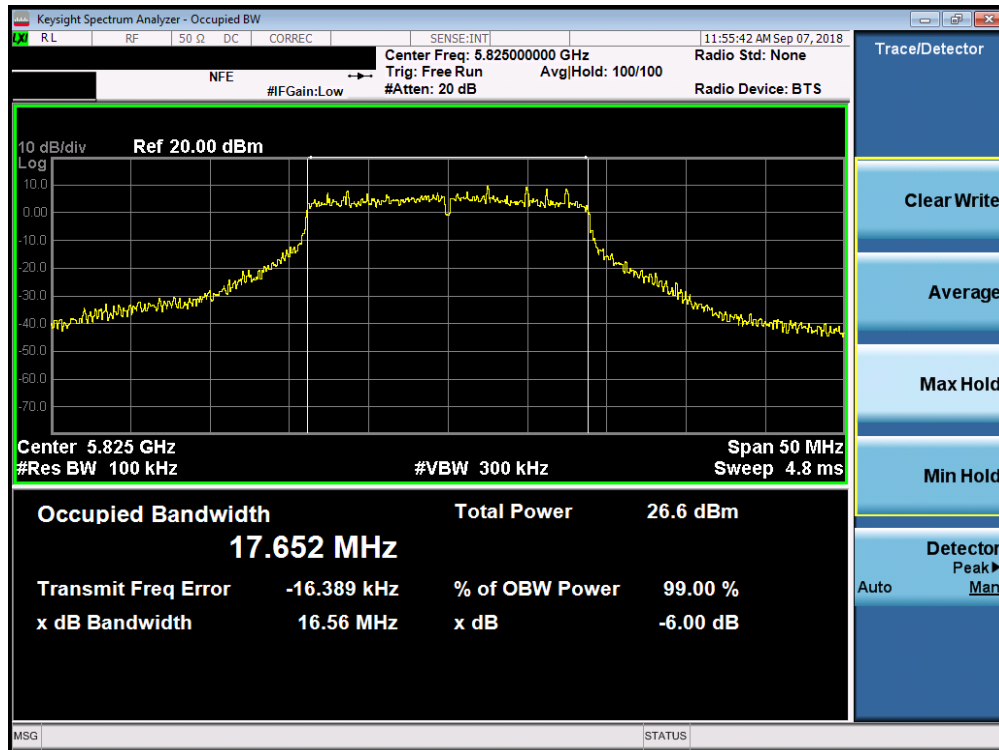


Plot 7-73. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

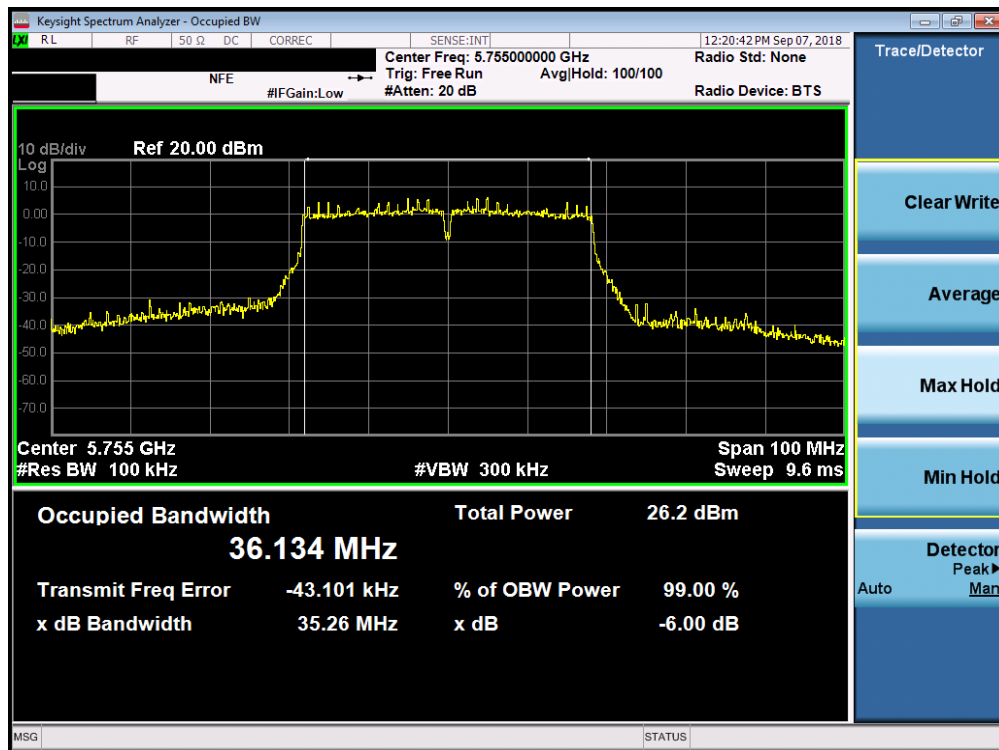


Plot 7-74. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 55 of 171

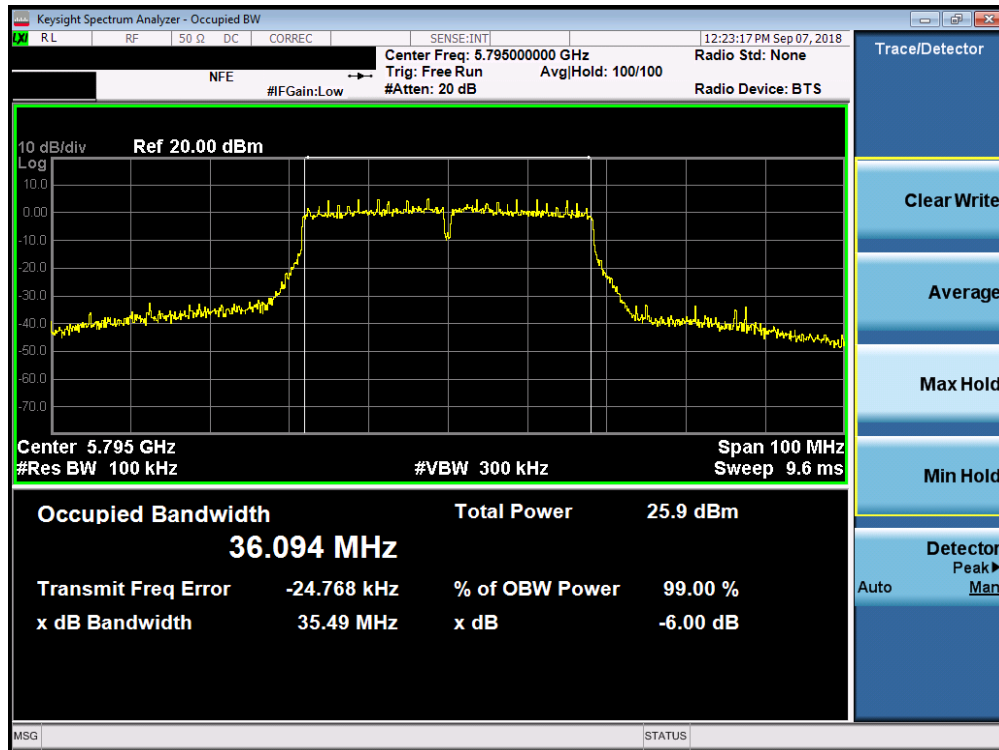


Plot 7-75. 6dB Bandwidth Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

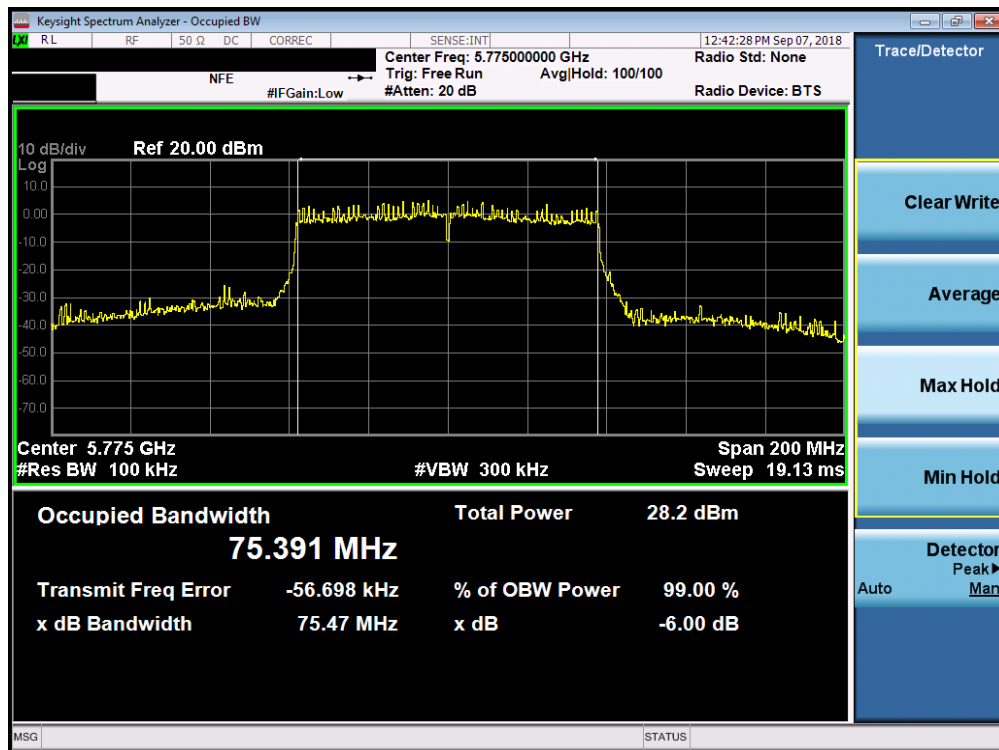


Plot 7-76. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 56 of 171	



Plot 7-77. 6dB Bandwidth Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)



Plot 7-78. 6dB Bandwidth Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 57 of 171	

7.4 UNII Output Power Measurement – 802.11a/n/ac §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 $10 + 10 \log_{10}B$, dBm.

In the 5.25 – 5.35GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) and $11 \text{ dBm} + 10\log_{10}(26\text{dB BW}) = 11 \text{ dBm} + 10\log_{10}(21.29) = 24.28\text{dBm}$. The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or $17 + 10 \log_{10}B$, dBm.

In the 5.47 – 5.725GHz band, the maximum permissible conducted output power is the lesser of 250mW (23.98dBm) and $11 \text{ dBm} + 10\log_{10}(26\text{dB BW}) = 11 \text{ dBm} + 10\log_{10}(20.93) = 24.21\text{dBm}$. The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or $17 + 10 \log_{10}B$, 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

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 58 of 171

SISO Antenna-1 Conducted Output Power Measurements

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	IEEE Transmission Mode			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				802.11a	802.11n	802.11ac		
	5180	36	AVG	14.29	13.17	13.20	23.98	-9.69
	5200	40	AVG	16.37	15.38	15.37	23.98	-7.61
	5220	44	AVG	16.62	15.54	15.51	23.98	-7.36
	5240	48	AVG	16.61	15.55	15.62	23.98	-7.37
	5260	52	AVG	16.40	15.37	15.35	23.98	-7.58
	5280	56	AVG	16.98	15.84	15.78	23.98	-7.00
	5300	60	AVG	16.92	15.78	15.89	23.98	-7.06
	5320	64	AVG	15.97	13.96	13.93	23.98	-8.01
	5500	100	AVG	16.92	15.65	15.68	23.98	-7.06
	5600	120	AVG	16.90	15.75	15.73	23.98	-7.08
	5620	124	AVG	16.11	15.82	15.83	23.98	-7.87
	5720	144	AVG	15.77	15.48	15.58	23.98	-8.21
	5745	149	AVG	16.03	15.86	15.86	30.00	-13.97
	5785	157	AVG	16.12	15.19	15.13	30.00	-13.88
	5825	165	AVG	15.99	14.95	14.95	30.00	-14.01

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

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	IEEE Transmission Mode		Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				802.11n	802.11ac		
	5190	38	AVG	11.13	11.03	23.98	-12.85
	5230	46	AVG	14.27	14.25	23.98	-9.71
	5270	54	AVG	14.32	14.30	23.98	-9.66
	5310	62	AVG	12.04	11.99	23.98	-11.94
	5510	102	AVG	14.46	14.53	23.98	-9.45
	5590	118	AVG	14.91	14.91	23.98	-9.07
	5630	126	AVG	14.76	14.73	23.98	-9.22
	5710	142	AVG	14.22	14.20	23.98	-9.76
	5755	151	AVG	14.24	14.17	30.00	-15.76
	5795	159	AVG	14.80	14.10	30.00	-15.20

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

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 59 of 171

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	IEEE Transmission Mode	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				802.11ac		
	5210	42	AVG	10.14	23.98	-13.84
	5290	58	AVG	10.54	23.98	-13.44
	5530	106	AVG	11.70	23.98	-12.28
	5610	122	AVG	14.34	23.98	-9.64
	5690	138	AVG	14.08	23.98	-9.90
	5775	155	AVG	14.58	30.00	-15.42

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

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 60 of 171

SISO Antenna-2 Conducted Output Power Measurements

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	IEEE Transmission Mode			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				802.11a	802.11n	802.11ac		
	5180	36	AVG	14.10	13.47	13.51	23.98	-9.88
	5200	40	AVG	16.00	14.87	14.92	23.98	-7.98
	5220	44	AVG	16.12	15.00	15.04	23.98	-7.86
	5240	48	AVG	16.32	15.14	15.25	23.98	-7.66
	5260	52	AVG	16.25	14.99	15.11	23.98	-7.73
	5280	56	AVG	16.24	15.08	15.14	23.98	-7.74
	5300	60	AVG	15.84	14.60	14.97	23.98	-8.14
	5320	64	AVG	16.48	12.95	13.04	23.98	-7.50
	5500	100	AVG	15.97	15.54	15.85	23.98	-8.01
	5600	120	AVG	15.98	15.73	15.84	23.98	-8.00
	5620	124	AVG	16.23	15.97	14.95	23.98	-7.75
	5720	144	AVG	16.64	15.09	15.34	23.98	-7.34
	5745	149	AVG	16.95	15.41	15.64	30.00	-13.05
	5785	157	AVG	16.99	15.57	15.71	30.00	-13.01
	5825	165	AVG	15.95	15.78	15.84	30.00	-14.05

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

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	IEEE Transmission Mode		Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				802.11n	802.11ac		
	5190	38	AVG	11.08	11.01	23.98	-12.90
	5230	46	AVG	13.84	14.21	23.98	-9.77
	5270	54	AVG	14.62	14.23	23.98	-9.36
	5310	62	AVG	12.67	12.70	23.98	-11.28
	5510	102	AVG	14.72	14.18	23.98	-9.26
	5590	118	AVG	14.81	14.46	23.98	-9.17
	5630	126	AVG	14.23	14.56	23.98	-9.42
	5710	142	AVG	14.24	14.62	23.98	-9.36
	5755	151	AVG	14.35	14.81	30.00	-15.19
	5795	159	AVG	14.11	14.40	30.00	-15.60

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

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 61 of 171

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	IEEE Transmission Mode	Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				802.11ac		
	5210	42	AVG	10.62	23.98	-13.36
	5290	58	AVG	10.36	23.98	-13.62
	5530	106	AVG	11.51	23.98	-12.47
	5610	122	AVG	14.13	23.98	-9.85
	5690	138	AVG	14.26	23.98	-9.72
	5775	155	AVG	14.57	30.00	-15.43

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

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 62 of 171

MIMO Maximum Conducted Output Power Measurements

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5180	36	AVG	14.29	14.10	17.21	23.98	-6.77
	5200	40	AVG	16.37	16.00	19.20	23.98	-4.78
	5220	44	AVG	16.62	16.12	19.39	23.98	-4.59
	5240	48	AVG	16.61	16.32	19.48	23.98	-4.50
	5260	52	AVG	16.40	16.25	19.34	23.98	-4.64
	5280	56	AVG	16.98	16.24	19.64	23.98	-4.34
	5300	60	AVG	16.92	15.84	19.42	23.98	-4.56
	5320	64	AVG	15.97	16.48	19.24	23.98	-4.74
	5500	100	AVG	16.92	15.97	19.48	23.98	-4.50
	5600	120	AVG	16.90	15.98	19.47	23.98	-4.50
	5620	124	AVG	16.11	16.23	19.18	23.98	-4.80
	5720	144	AVG	15.77	16.64	19.24	23.98	-4.74
	5745	149	AVG	16.03	16.95	19.52	30.00	-10.48
	5785	157	AVG	16.12	16.99	19.59	30.00	-10.41
	5825	165	AVG	15.99	15.95	18.98	30.00	-11.02

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

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5180	36	AVG	13.17	13.47	16.33	23.98	-7.65
	5200	40	AVG	15.38	14.87	18.14	23.98	-5.84
	5220	44	AVG	15.54	15.00	18.29	23.98	-5.69
	5240	48	AVG	15.55	15.14	18.36	23.98	-5.62
	5260	52	AVG	15.37	14.99	18.19	23.98	-5.78
	5280	56	AVG	15.84	15.08	18.49	23.98	-5.49
	5300	60	AVG	15.78	14.60	18.24	23.98	-5.74
	5320	64	AVG	13.96	12.95	16.49	23.98	-7.49
	5500	100	AVG	15.65	15.54	18.61	23.98	-5.37
	5600	120	AVG	15.75	15.73	18.75	23.98	-5.23
	5620	124	AVG	15.82	15.97	18.91	23.98	-5.07
	5720	144	AVG	15.48	15.09	18.30	23.98	-5.68
	5745	149	AVG	15.86	15.41	18.65	30.00	-11.35
	5785	157	AVG	15.19	15.57	18.39	30.00	-11.61
	5825	165	AVG	14.95	15.78	18.40	30.00	-11.60

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

FCC ID: A3LSMA9200			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 63 of 171		

5GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5180	36	AVG	13.20	13.51	16.37	23.98	-7.61
	5200	40	AVG	15.37	14.92	18.16	23.98	-5.82
	5220	44	AVG	15.51	15.04	18.29	23.98	-5.69
	5240	48	AVG	15.62	15.25	18.45	23.98	-5.53
	5260	52	AVG	15.35	15.11	18.24	23.98	-5.74
	5280	56	AVG	15.78	15.14	18.48	23.98	-5.50
	5300	60	AVG	15.89	14.97	18.46	23.98	-5.51
	5320	64	AVG	13.93	13.04	16.52	23.98	-7.46
	5500	100	AVG	15.68	15.85	18.78	23.98	-5.20
	5600	120	AVG	15.73	15.84	18.80	23.98	-5.18
	5620	124	AVG	15.83	14.95	18.42	23.98	-5.56
	5720	144	AVG	15.58	15.34	18.47	23.98	-5.51
	5745	149	AVG	15.86	15.64	18.76	30.00	-11.24
	5785	157	AVG	15.13	15.71	18.44	30.00	-11.56
	5825	165	AVG	14.95	15.84	18.43	30.00	-11.57

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

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5190	38	AVG	11.13	11.08	14.12	23.98	-9.86
	5230	46	AVG	14.27	13.84	17.07	23.98	-6.91
	5270	54	AVG	14.32	14.62	17.48	23.98	-6.50
	5310	62	AVG	12.04	12.67	15.38	23.98	-8.60
	5510	102	AVG	14.46	14.72	17.60	23.98	-6.38
	5590	118	AVG	14.91	14.81	17.87	23.98	-6.11
	5630	126	AVG	14.76	14.23	17.51	23.98	-6.47
	5710	142	AVG	14.22	14.24	17.24	23.98	-6.74
	5755	151	AVG	14.24	14.35	17.31	30.00	-12.69
	5795	159	AVG	14.80	14.11	17.48	30.00	-12.52

Table 7-15. MIMO 40MHz BW 802.11n (UNII) Maximum Conducted Output Power

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 64 of 171

5GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5190	38	AVG	11.03	11.01	14.03	23.98	-9.95
	5230	46	AVG	14.25	14.21	17.24	23.98	-6.74
	5270	54	AVG	14.30	14.23	17.28	23.98	-6.70
	5310	62	AVG	11.99	12.70	15.37	23.98	-8.61
	5510	102	AVG	14.53	14.18	17.37	23.98	-6.61
	5590	118	AVG	14.91	14.46	17.70	23.98	-6.28
	5630	126	AVG	14.73	14.56	17.66	23.98	-6.32
	5710	142	AVG	14.20	14.62	17.43	23.98	-6.55
	5755	151	AVG	14.17	14.81	17.51	30.00	-12.49
	5795	159	AVG	14.10	14.40	17.26	30.00	-12.74

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

5GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Detector	Conducted Power [dBm]			Conducted Power Limit [dBm]	Conducted Power Margin [dB]
				ANT1	ANT2	MIMO		
	5210	42	AVG	10.14	10.62	13.40	23.98	-10.58
	5290	58	AVG	10.54	10.36	13.46	23.98	-10.52
	5530	106	AVG	11.70	11.51	14.62	23.98	-9.36
	5610	122	AVG	14.34	14.13	17.25	23.98	-6.73
	5690	138	AVG	14.08	14.26	17.18	23.98	-6.80
	5775	155	AVG	14.58	14.57	17.59	30.00	-12.41

Table 7-17. MIMO 80MHz BW 802.11ac (UNII) Maximum Conducted Output Power

FCC ID: A3LSMA9200			MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset			Page 65 of 171

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 13.17 dBm for Antenna-1 and 13.47 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

$$(13.17 \text{ dBm} + 13.47 \text{ dBm}) = (20.75 \text{ mW} + 22.23 \text{ mW}) = 42.98 \text{ mW} = 16.33 \text{ dBm}$$

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 66 of 171

7.5 Maximum Power Spectral Density – 802.11a/n/ac §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 – 5.25GHz, 5.25 – 5.35GHz, 5.47 – 5.725GHz bands, the maximum permissible power spectral density is 11dBm/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 $\geq 2 \times (\text{span}/\text{RBW})$
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

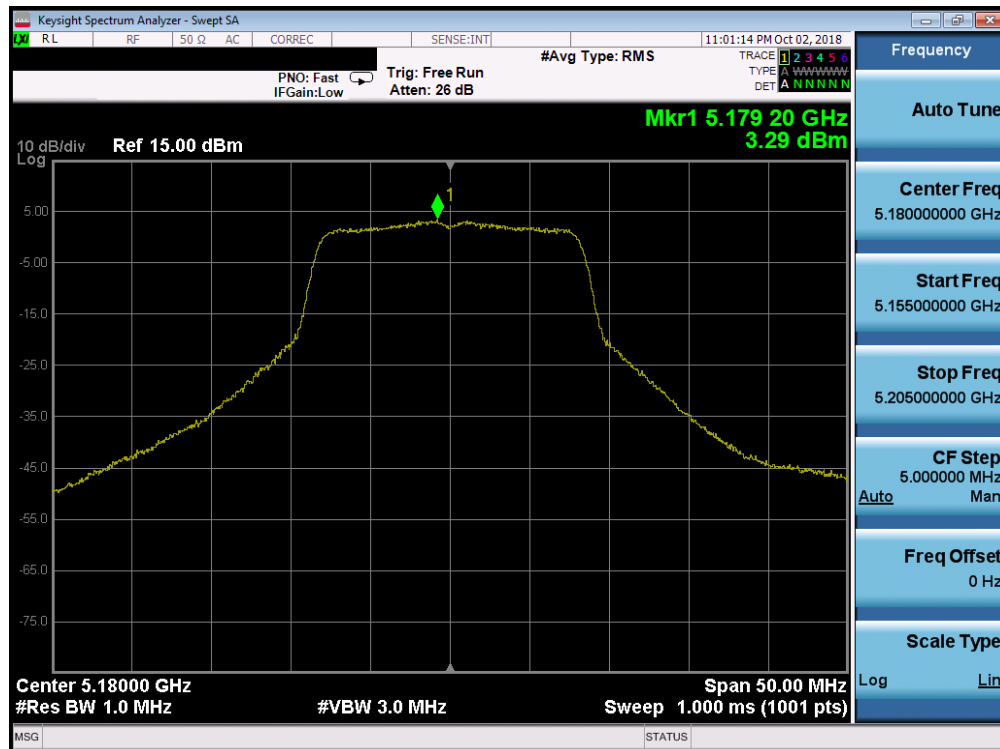
FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 67 of 171

SISO Antenna-1 Power Spectral Density Measurements

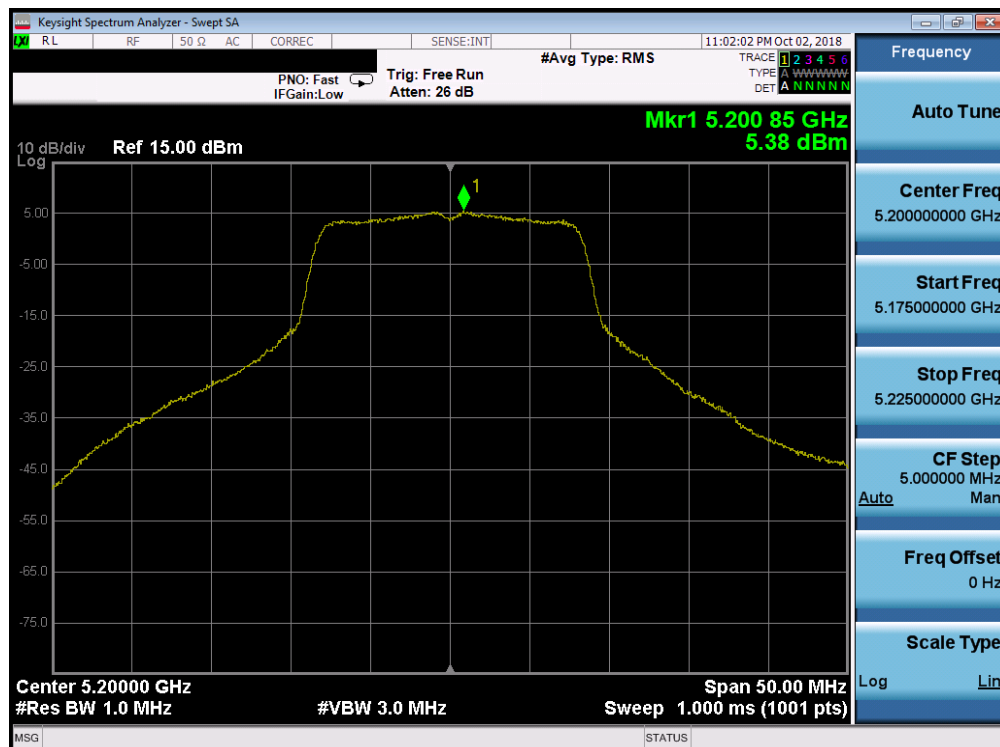
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	a	6	3.29	11.0	-7.71
	5200	40	a	6	5.38	11.0	-5.62
	5240	48	a	6	5.54	11.0	-5.46
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	3.01	11.0	-7.99
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	3.66	11.0	-7.34
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	4.50	11.0	-6.50
	5190	38	n (40MHz)	13.5/15 (MCS0)	-3.55	11.0	-14.55
	5230	46	n (40MHz)	13.5/15 (MCS0)	0.20	11.0	-10.80
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-7.89	11.0	-18.89
Band 2A	5260	52	a	6	5.54	11.0	-5.46
	5280	56	a	6	5.81	11.0	-5.19
	5320	64	a	6	6.13	11.0	-4.87
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	4.23	11.0	-6.77
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	4.42	11.0	-6.58
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	4.31	11.0	-6.69
	5270	54	n (40MHz)	13.5/15 (MCS0)	0.10	11.0	-10.90
	5310	62	n (40MHz)	13.5/15 (MCS0)	-2.56	11.0	-13.56
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-7.23	11.0	-18.23
Band 2C	5500	100	a	6	6.24	11.0	-4.76
	5600	120	a	6	5.94	11.0	-5.06
	5720	144	a	6	5.64	11.0	-5.36
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	5.87	11.0	-5.13
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	5.50	11.0	-5.50
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	5.44	11.0	-5.56
	5510	102	n (40MHz)	13.5/15 (MCS0)	0.25	11.0	-10.75
	5590	118	n (40MHz)	13.5/15 (MCS0)	0.69	11.0	-10.31
	5710	142	n (40MHz)	13.5/15 (MCS0)	-0.78	11.0	-11.78
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-4.38	11.0	-15.38
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-1.73	11.0	-12.73
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-6.45	11.0	-17.45

Table 7-18. Bands 1, 2A, 2C Conducted Power Spectral Density Measurements SISO ANT1

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 68 of 171

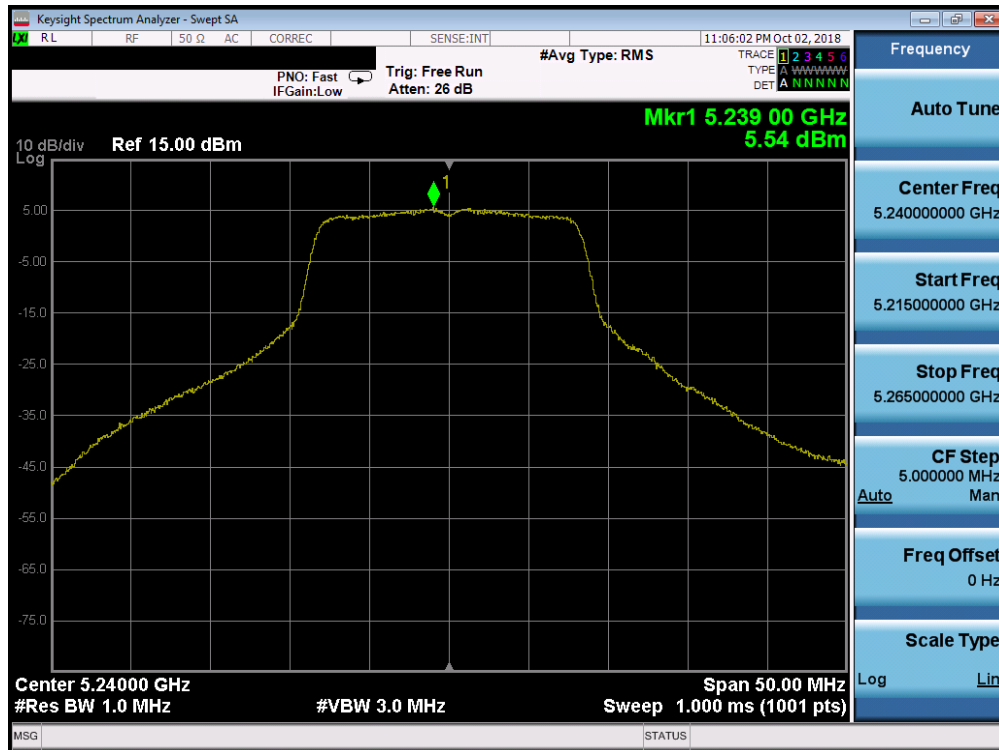


Plot 7-79. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) – Ch. 36)

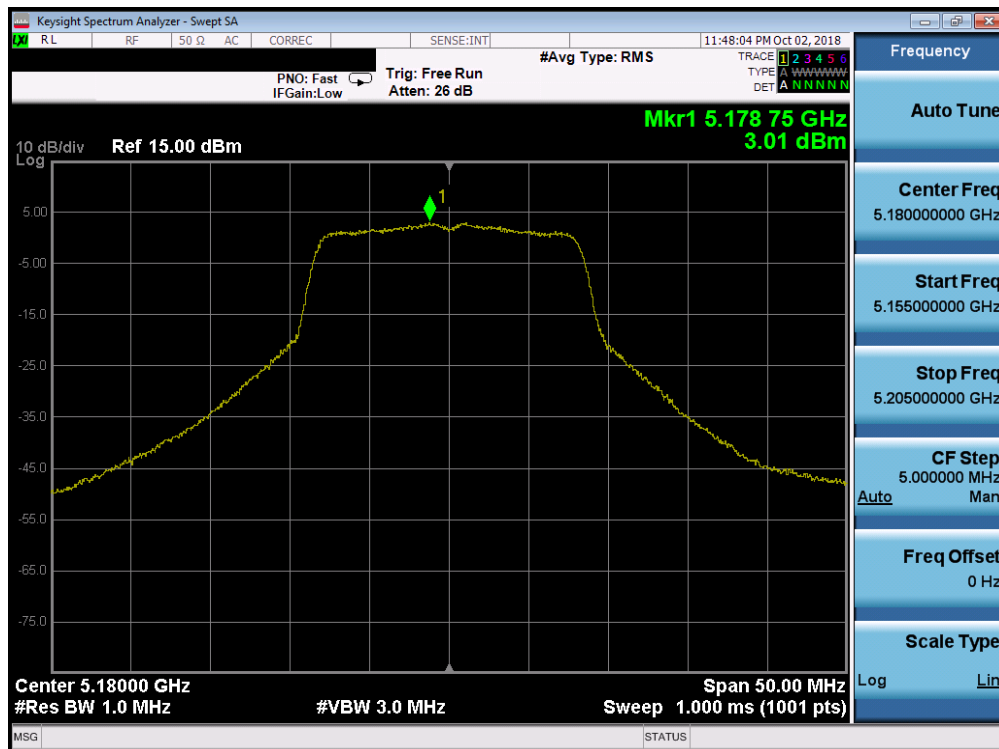


Plot 7-80. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) – Ch. 40)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 69 of 171

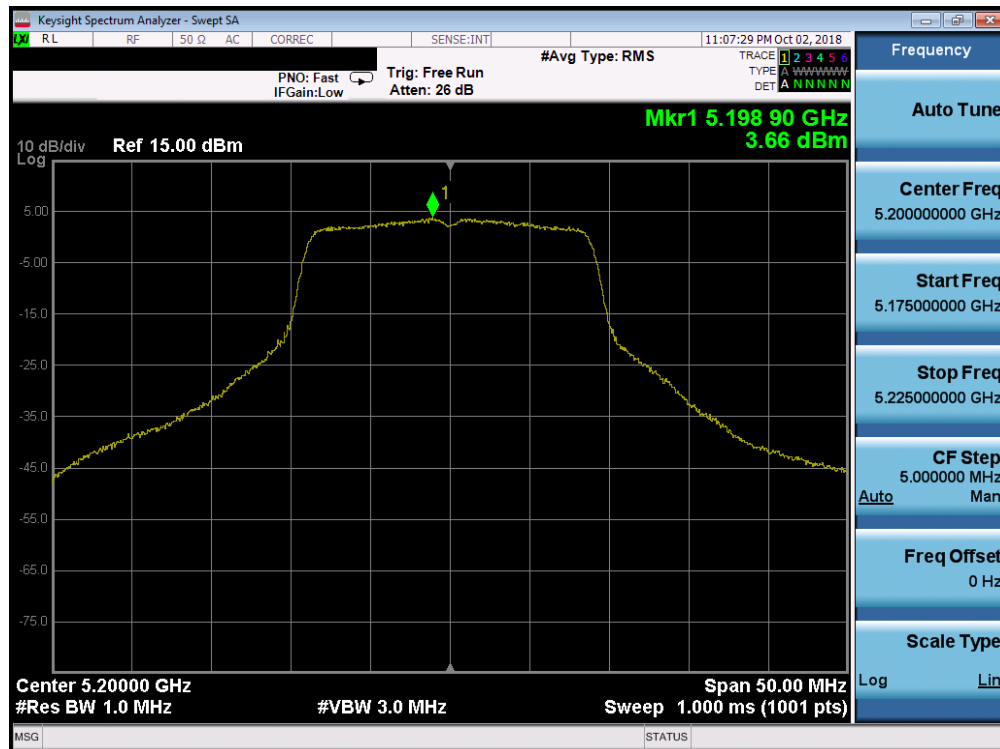


Plot 7-81. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 1) – Ch. 48)

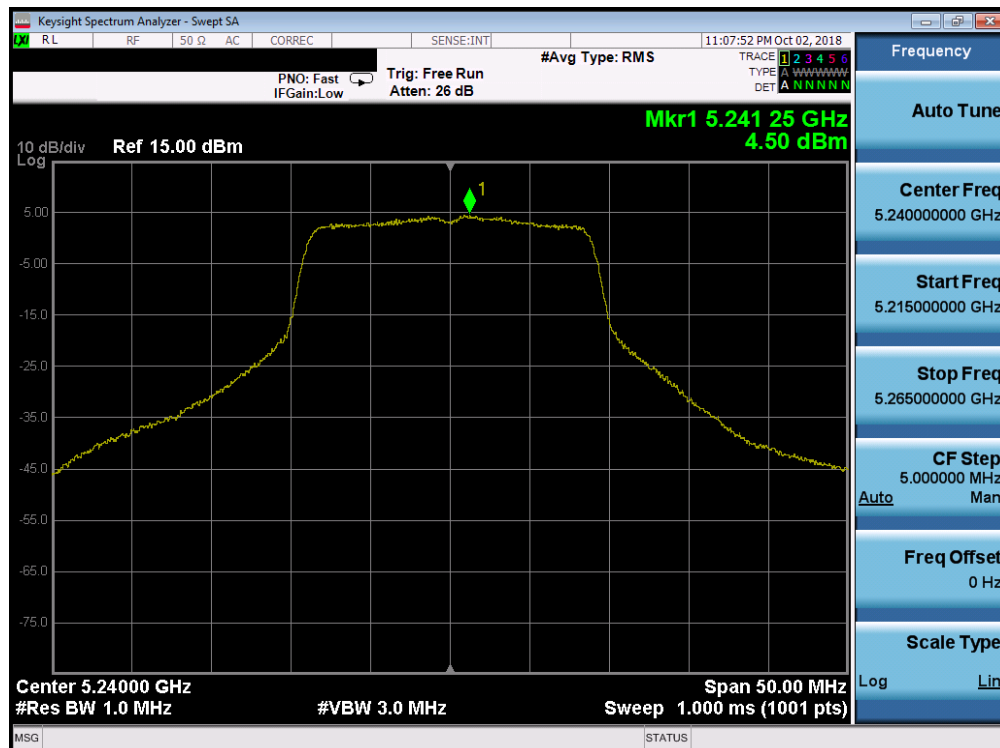


Plot 7-82. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 36)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 70 of 171

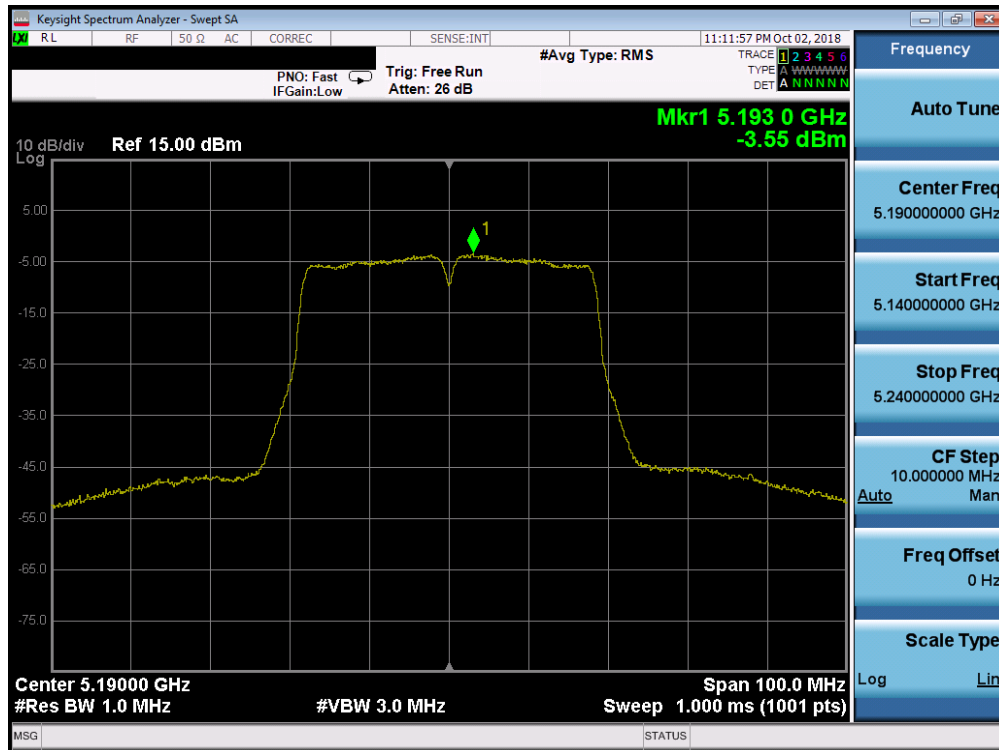


Plot 7-83. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 40)

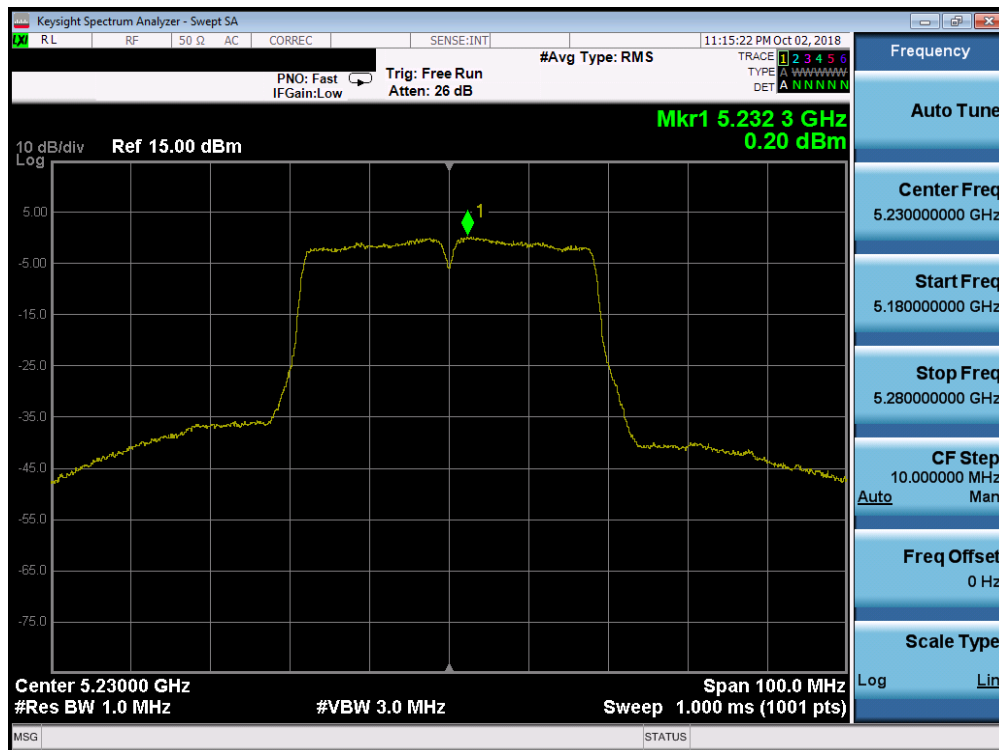


Plot 7-84. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 1) – Ch. 48)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 71 of 171

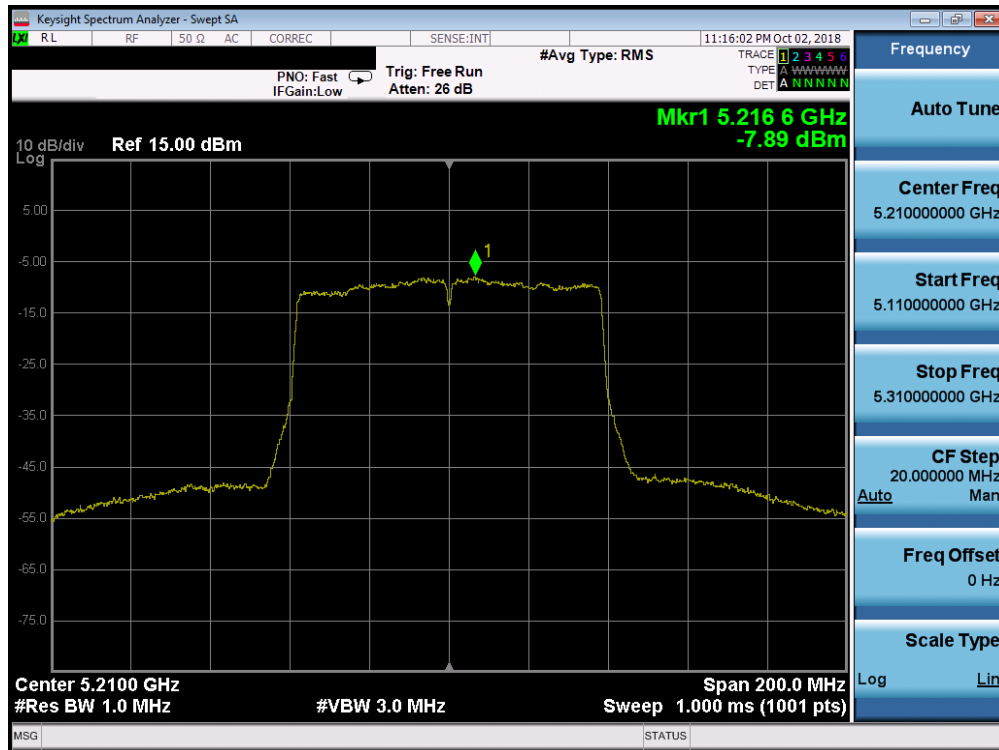


Plot 7-85. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 1) – Ch. 38)

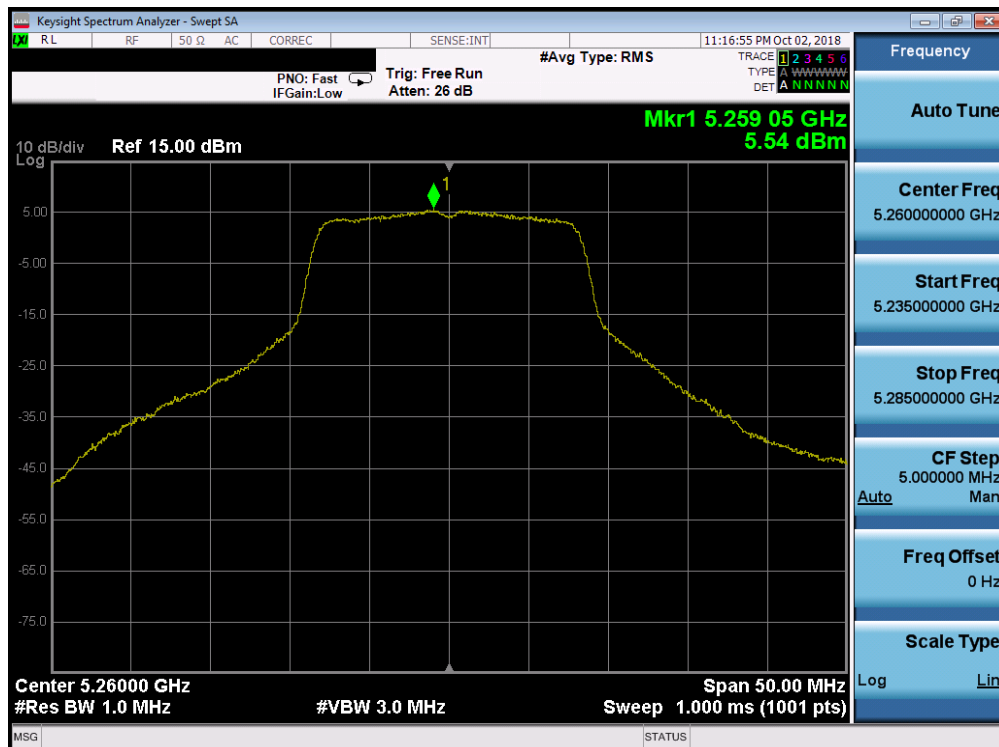


Plot 7-86. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 72 of 171	

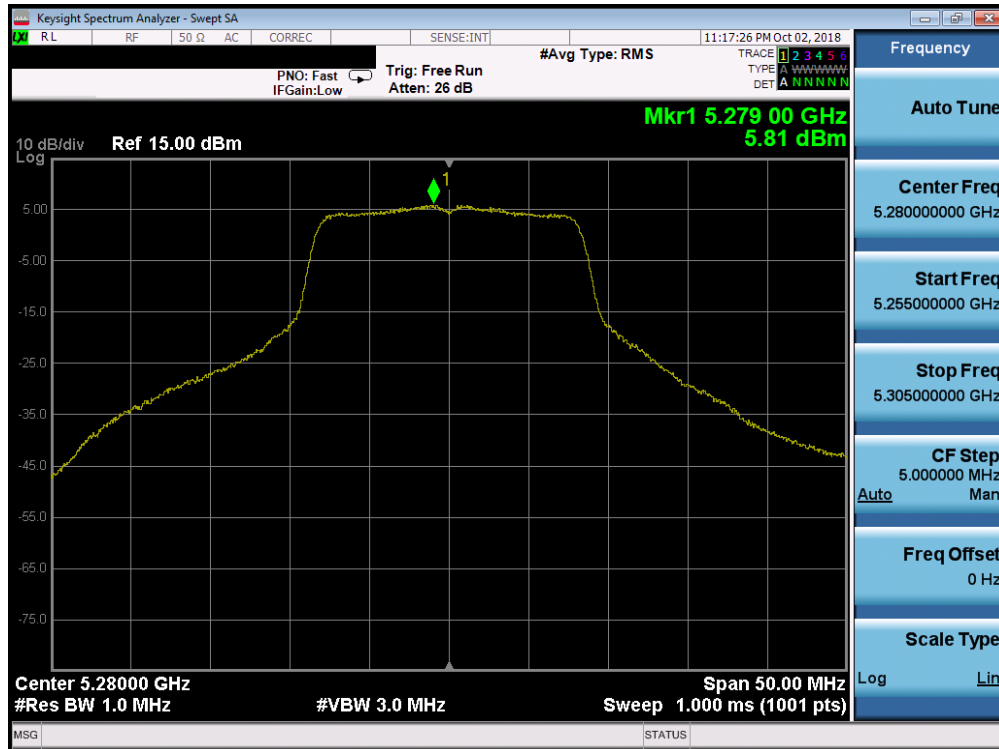


Plot 7-87. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 1) – Ch. 42)

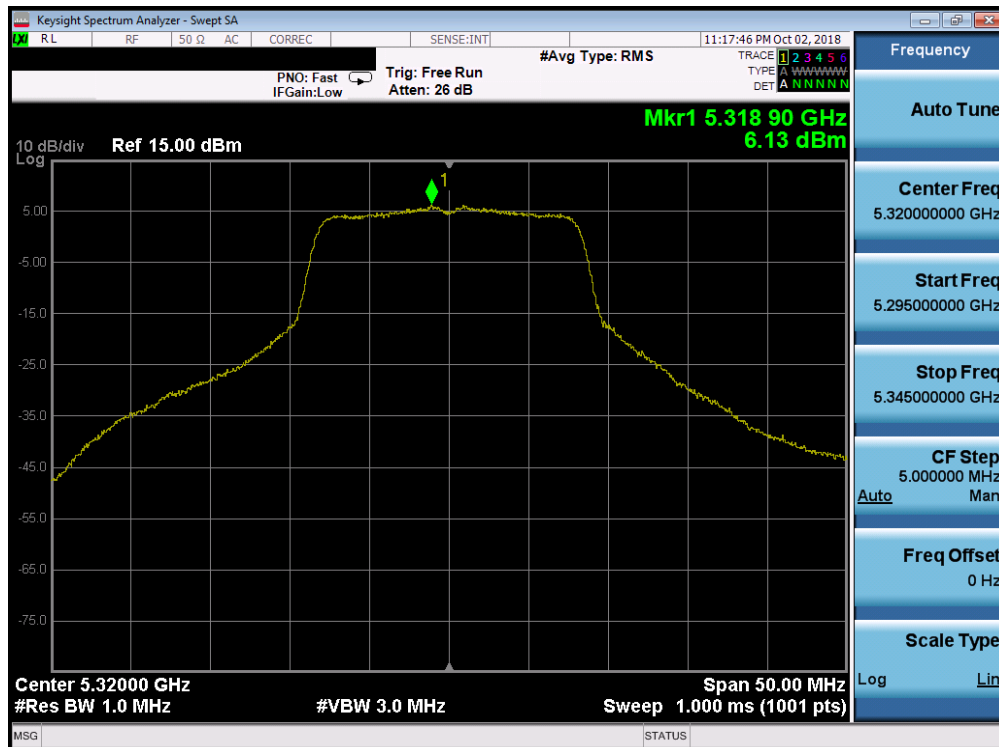


Plot 7-88. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) – Ch. 52)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 73 of 171	

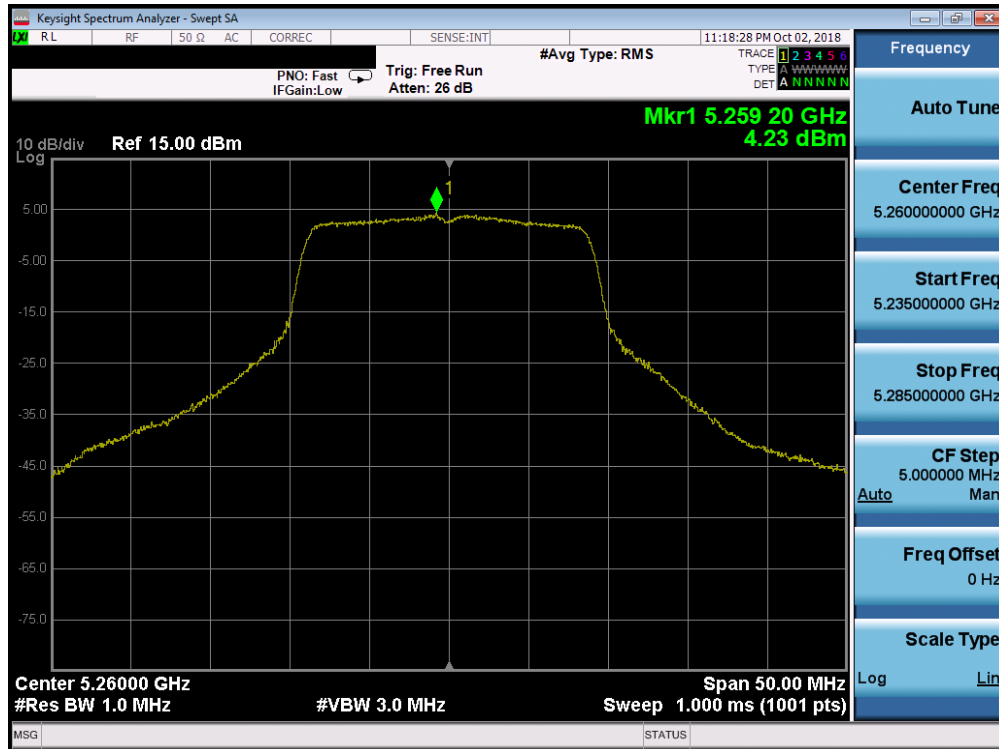


Plot 7-89. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) – Ch. 56)

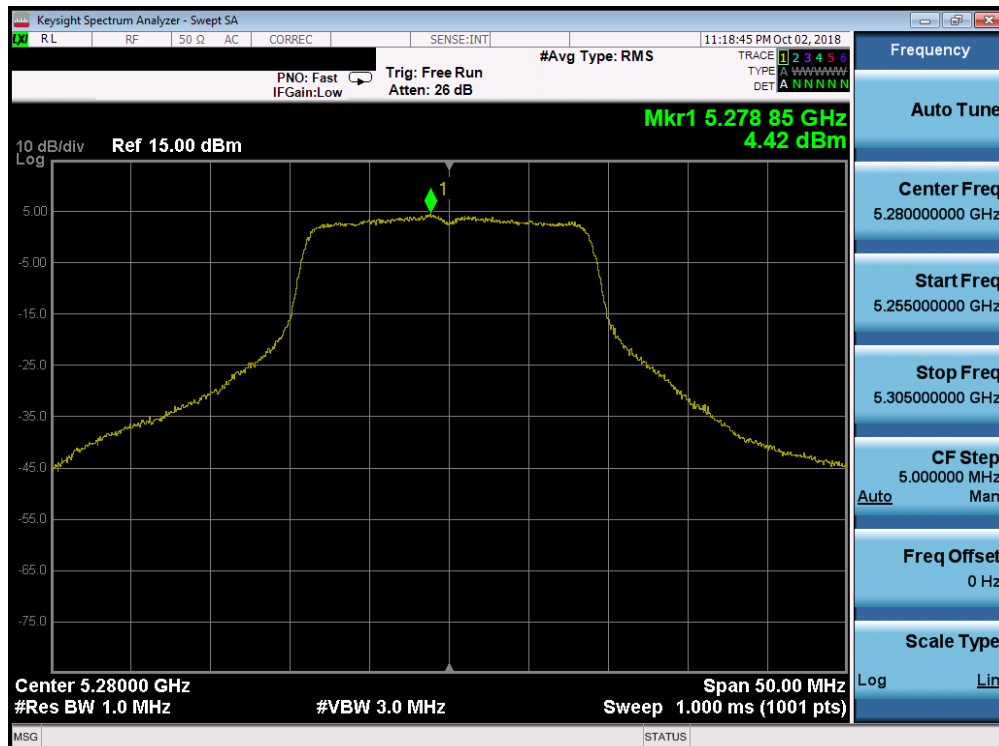


Plot 7-90. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2A) – Ch. 64)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 74 of 171

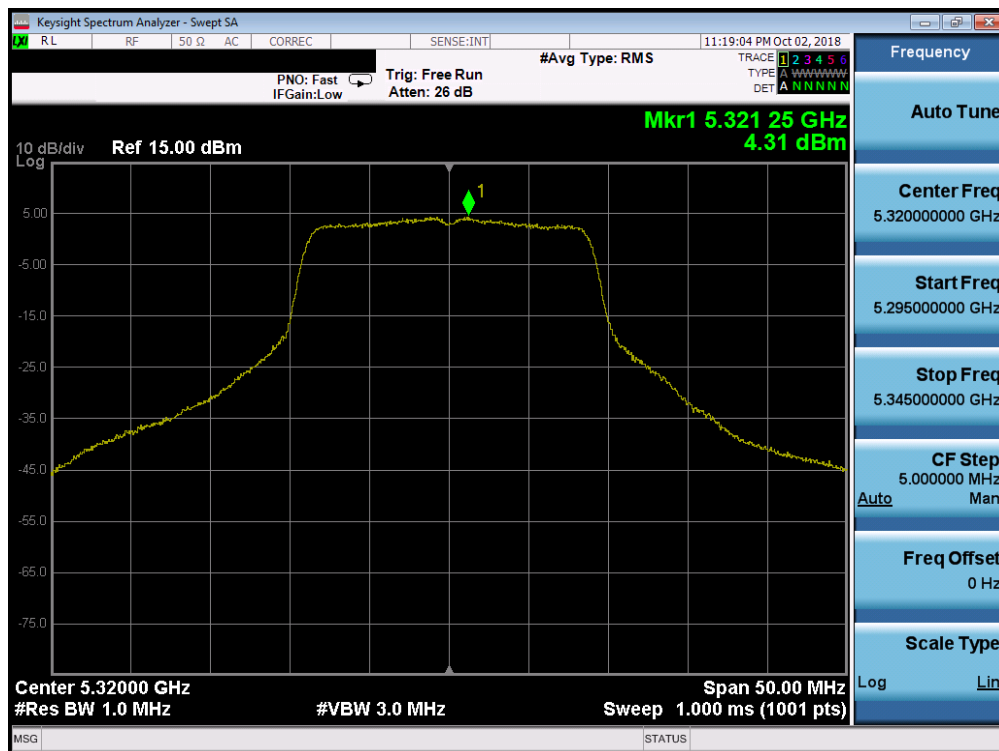


Plot 7-91. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)

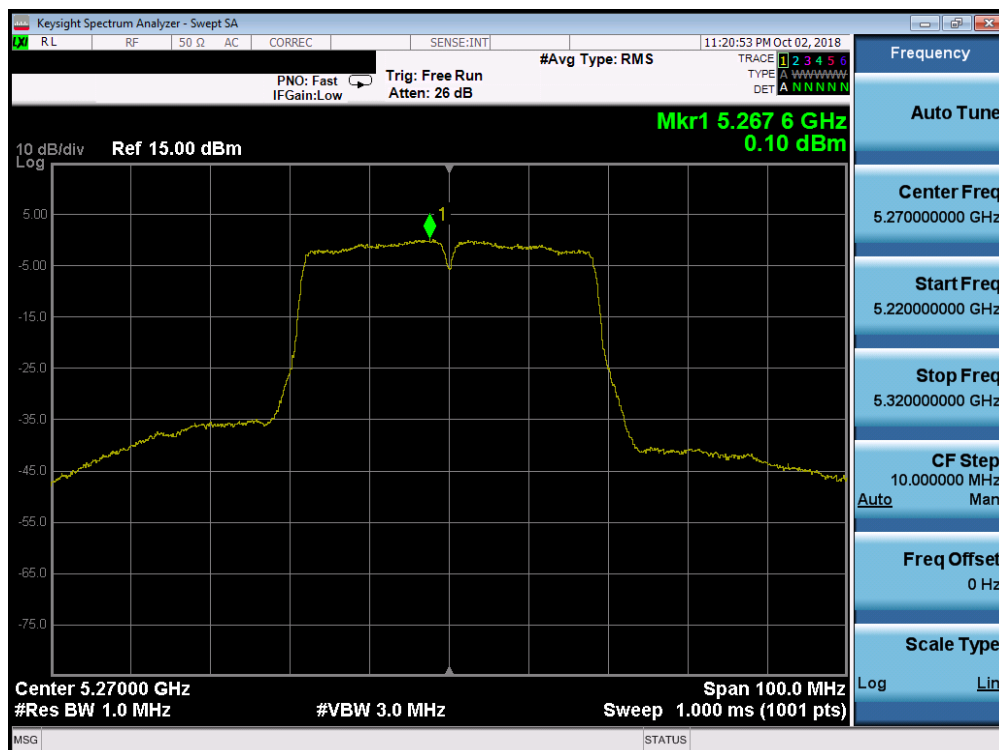


Plot 7-92. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 56)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 75 of 171

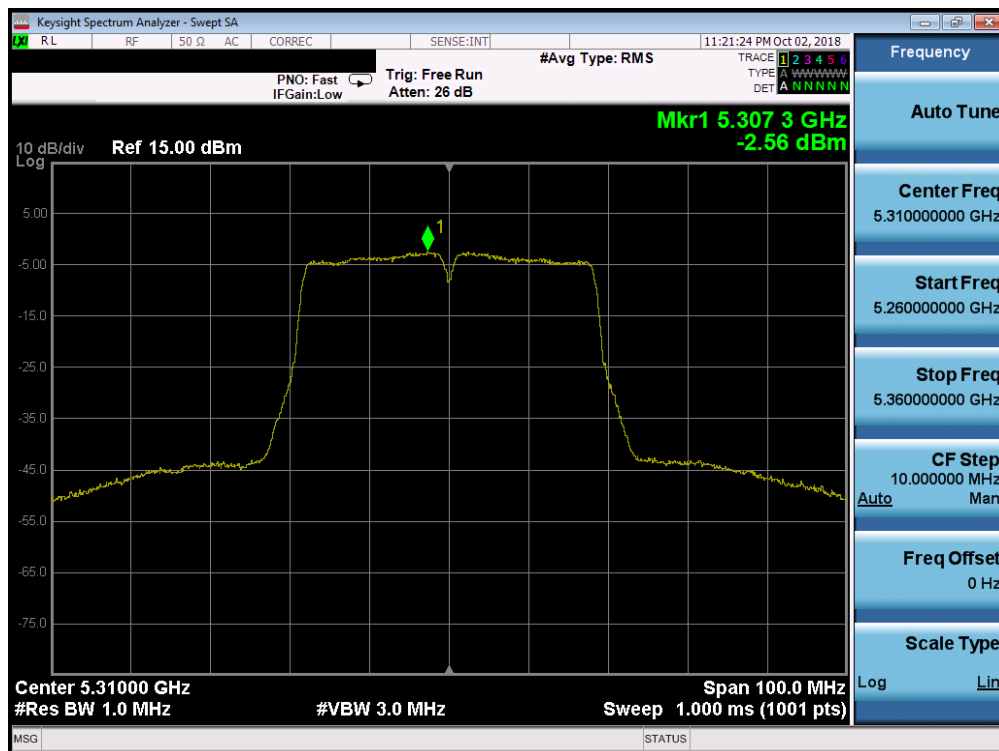


Plot 7-93. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2A) – Ch. 64)

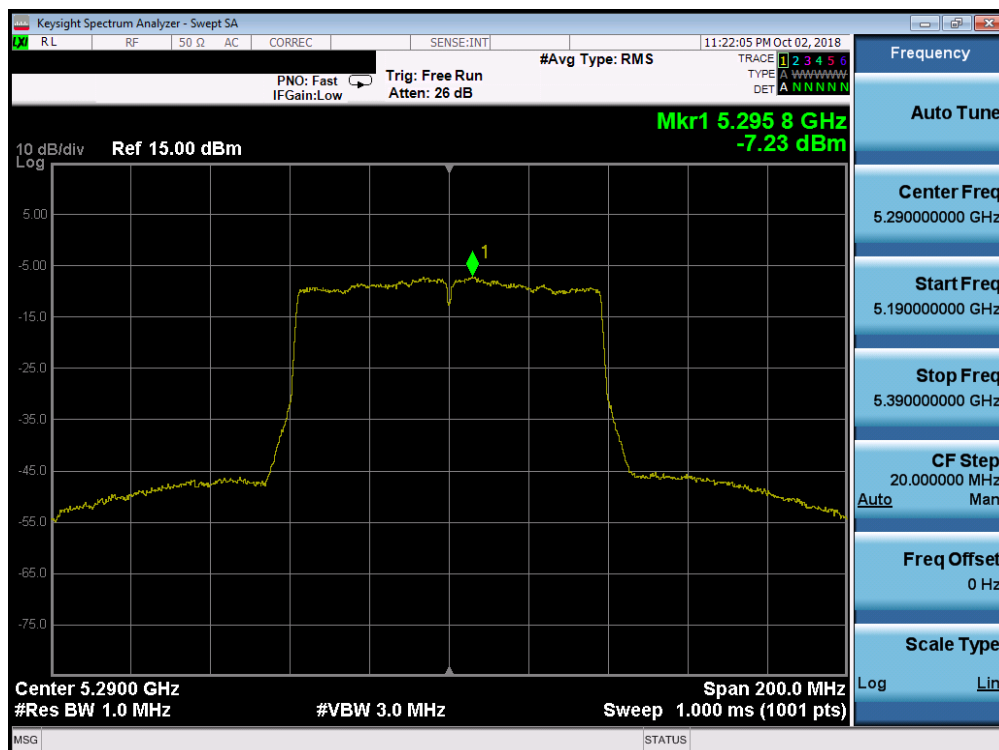


Plot 7-94. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 76 of 171

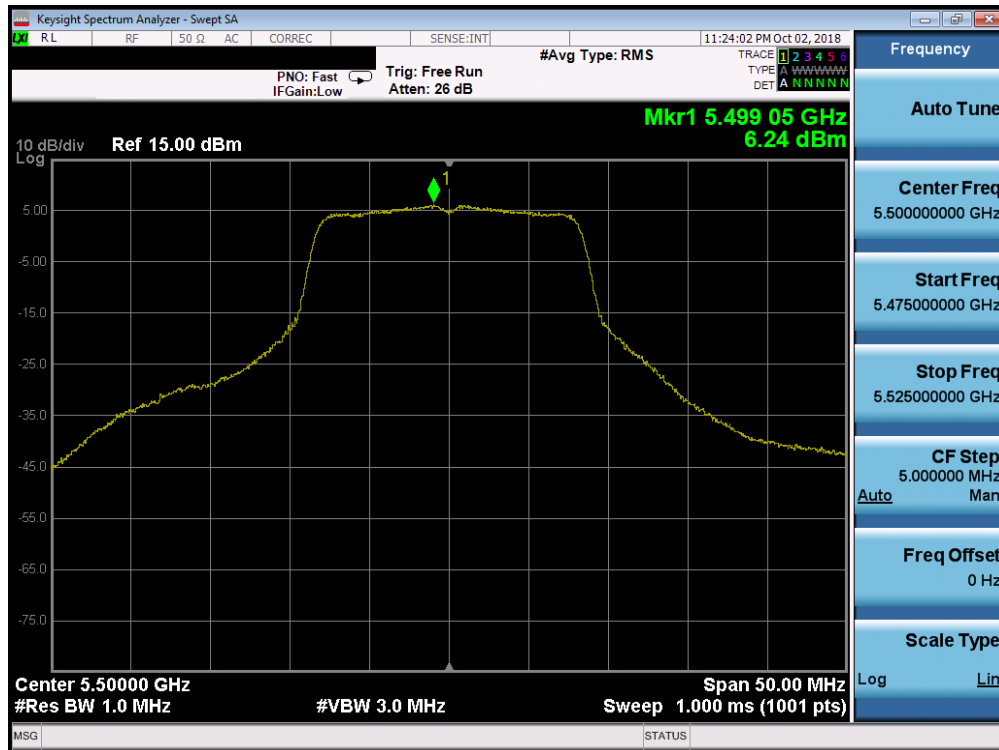


Plot 7-95. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)

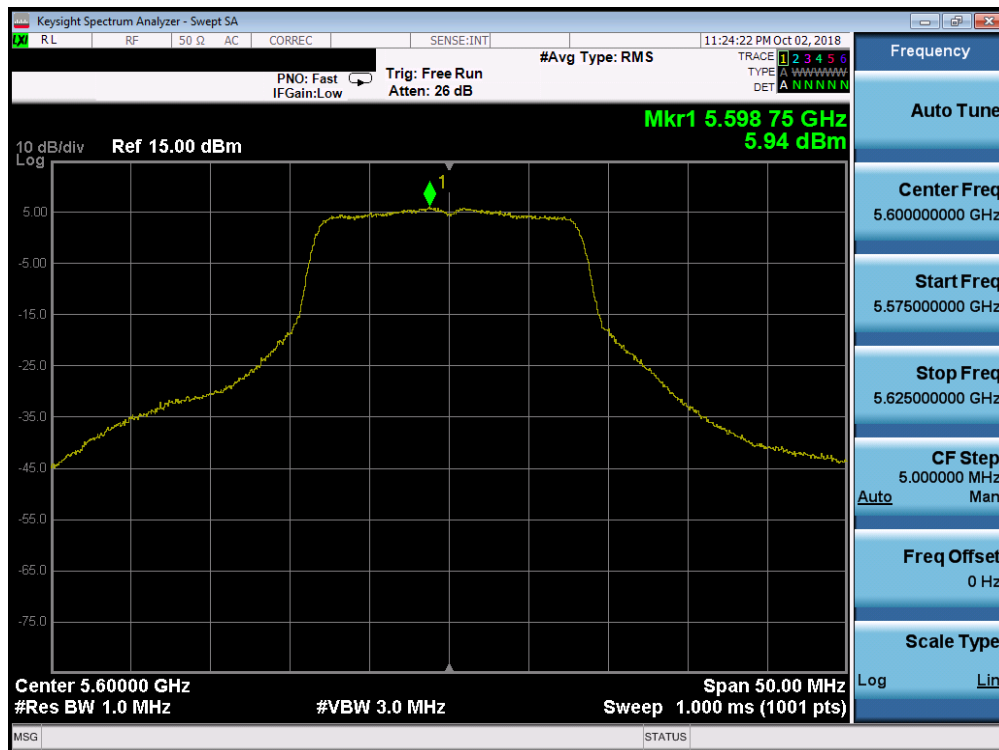


Plot 7-96. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 77 of 171

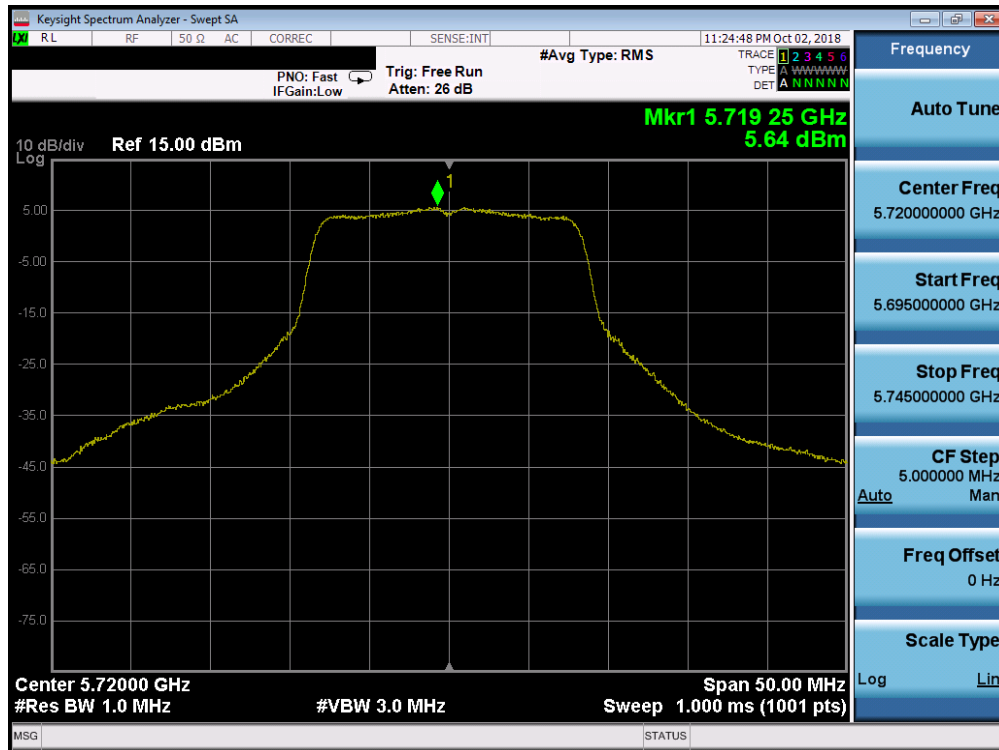


Plot 7-97. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) – Ch. 100)

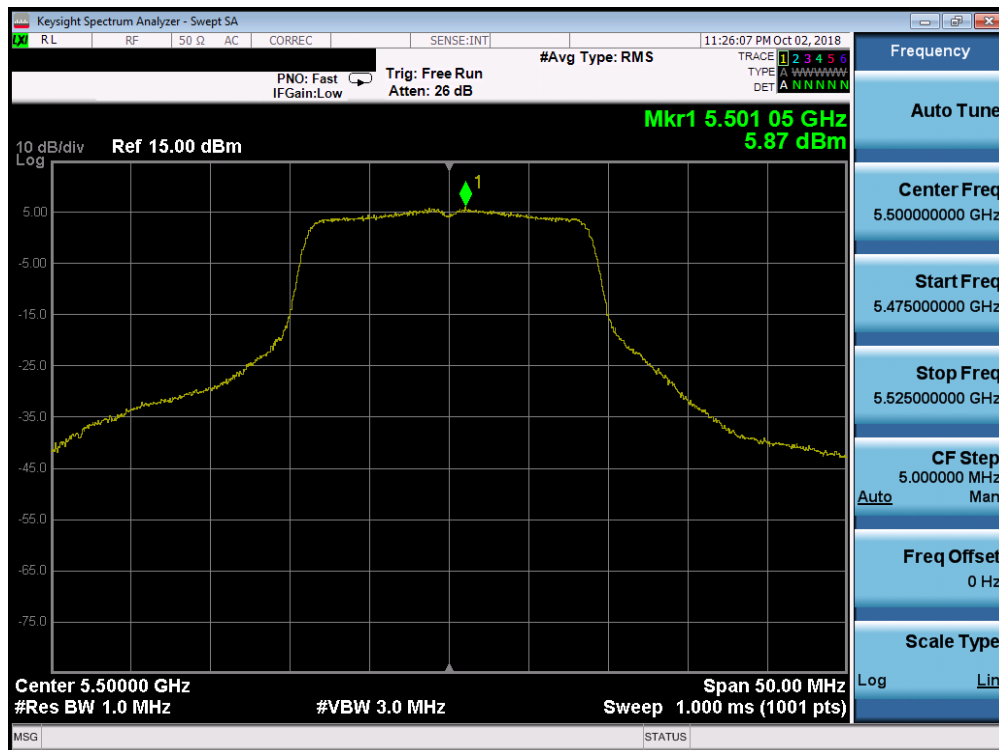


Plot 7-98. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) – Ch. 120)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 78 of 171	

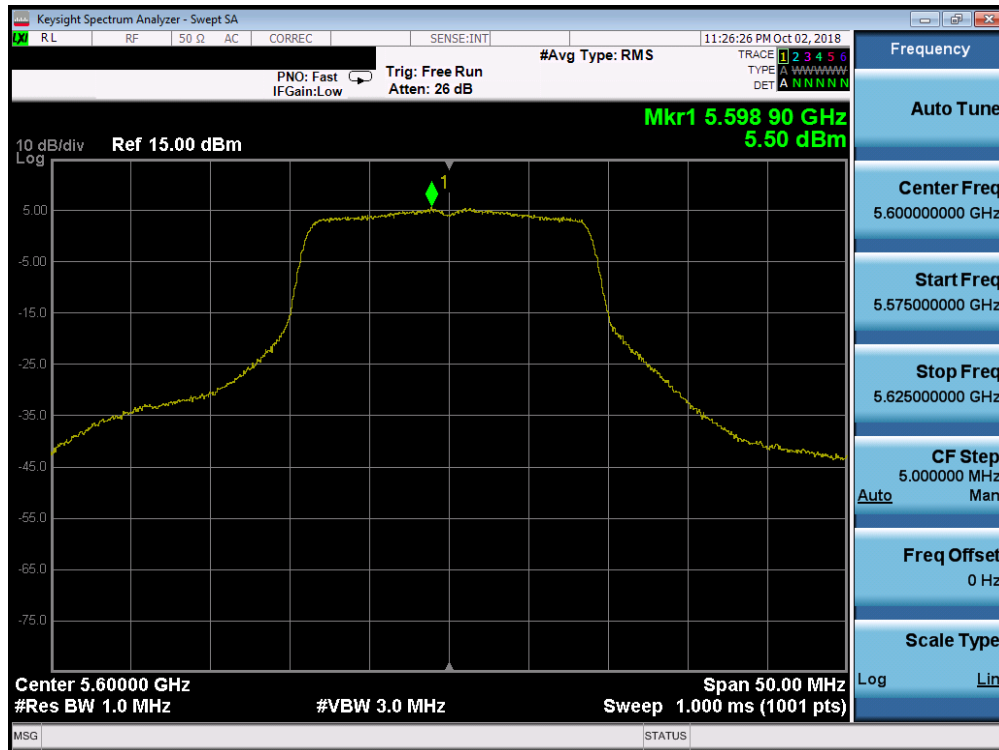


Plot 7-99. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 2C) – Ch. 144)

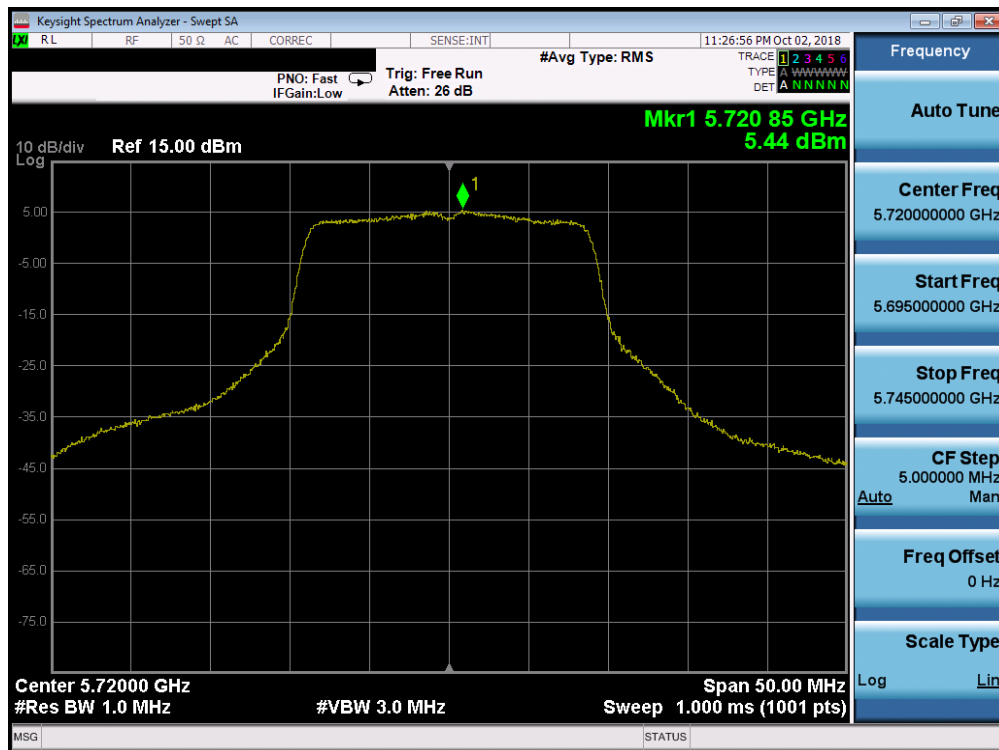


Plot 7-100. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 79 of 171

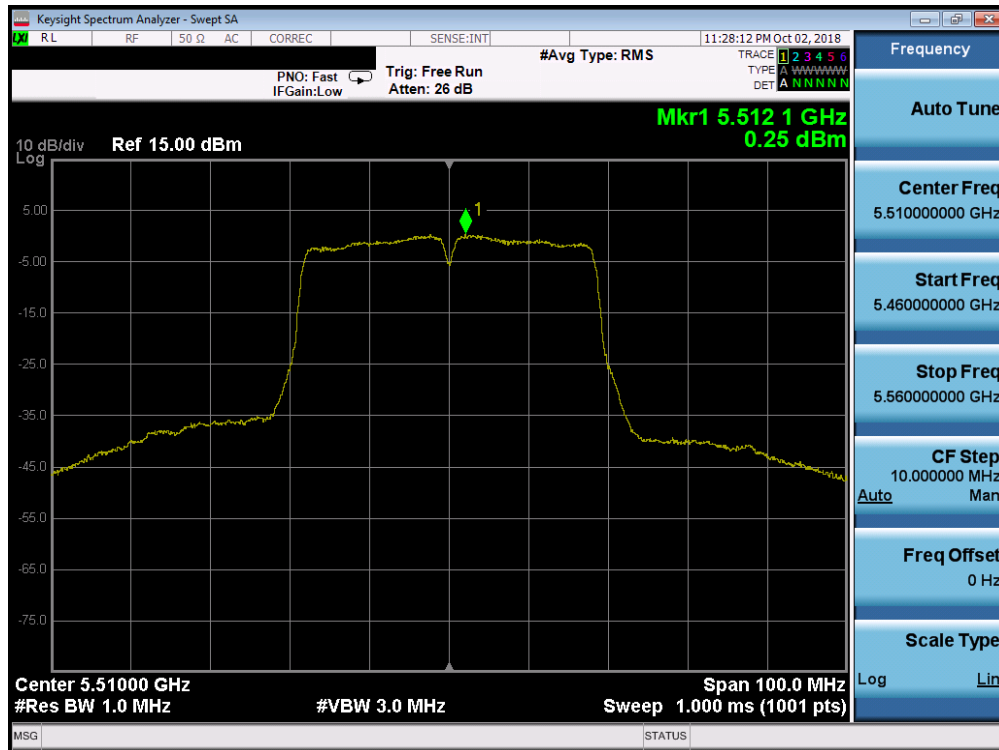


Plot 7-101. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 120)

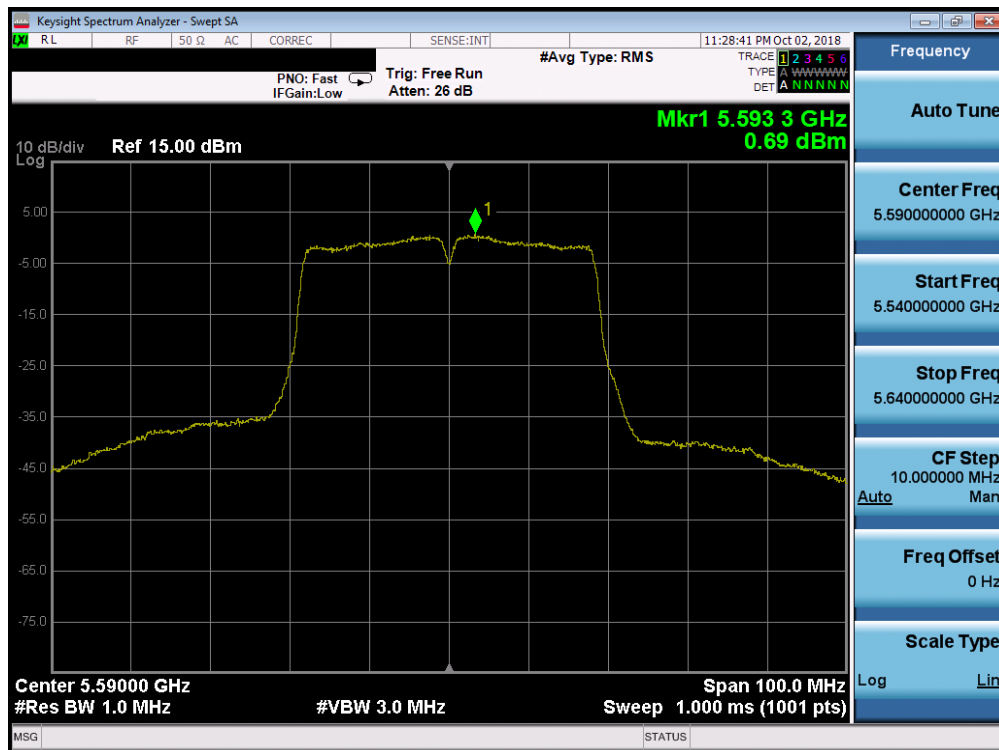


Plot 7-102. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 80 of 171	

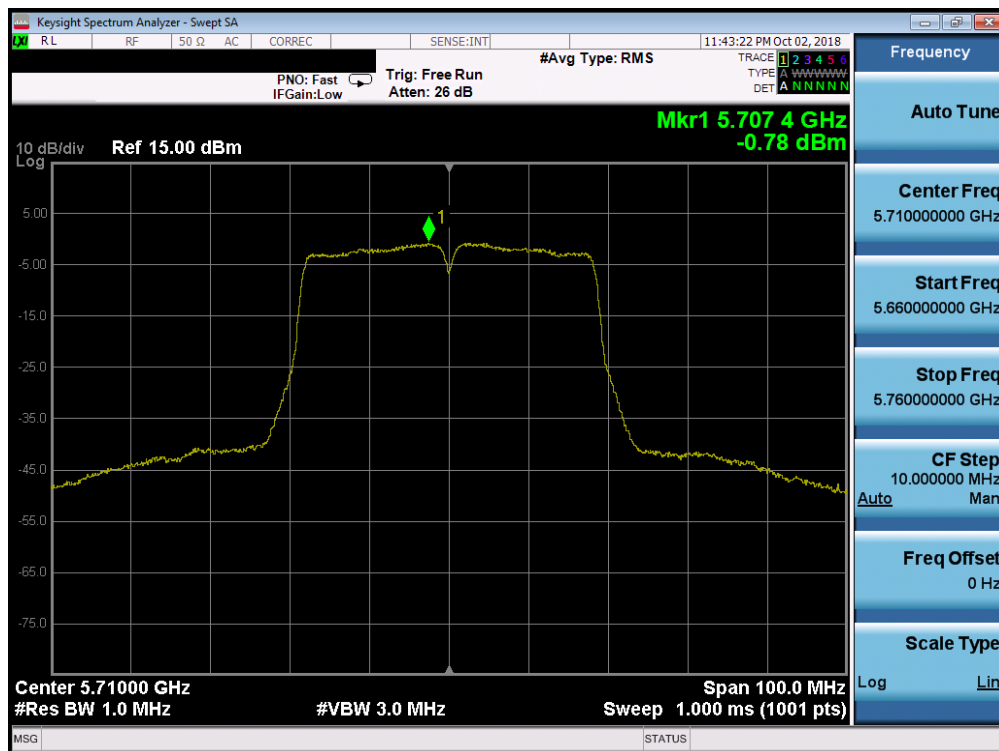


Plot 7-103. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) – Ch. 102)

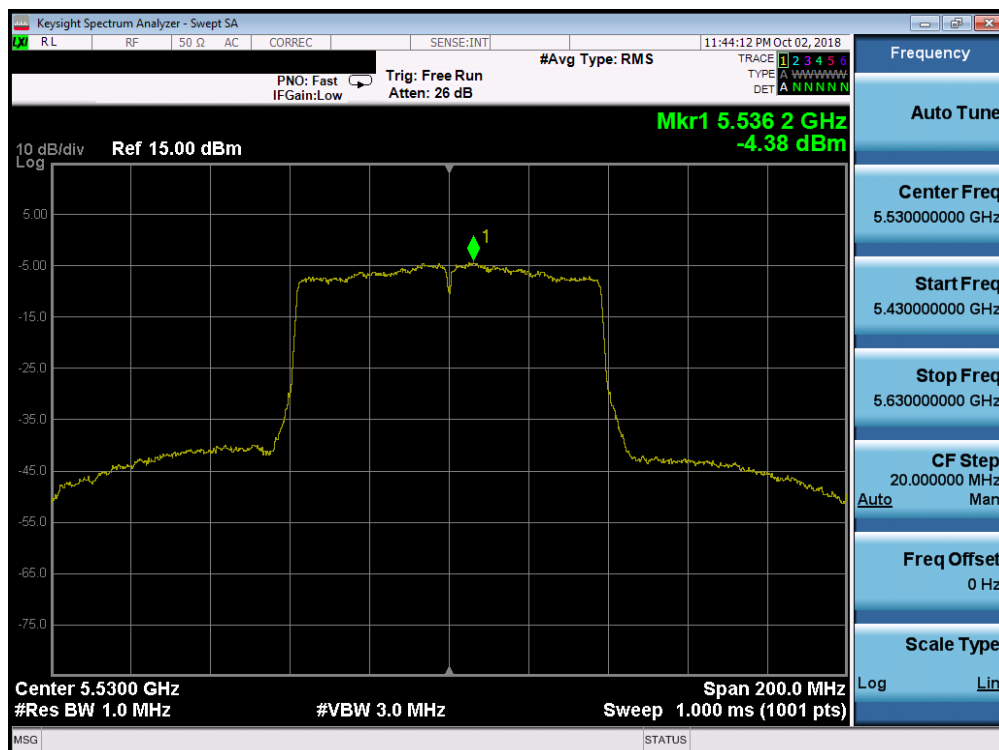


Plot 7-104. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 81 of 171

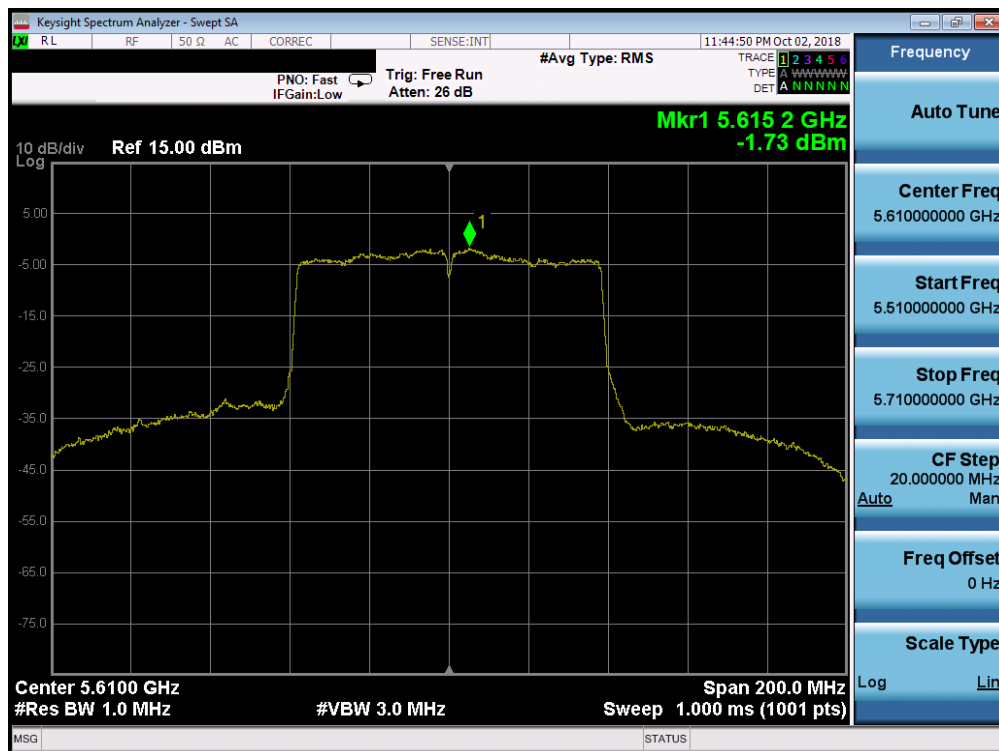


Plot 7-105. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)

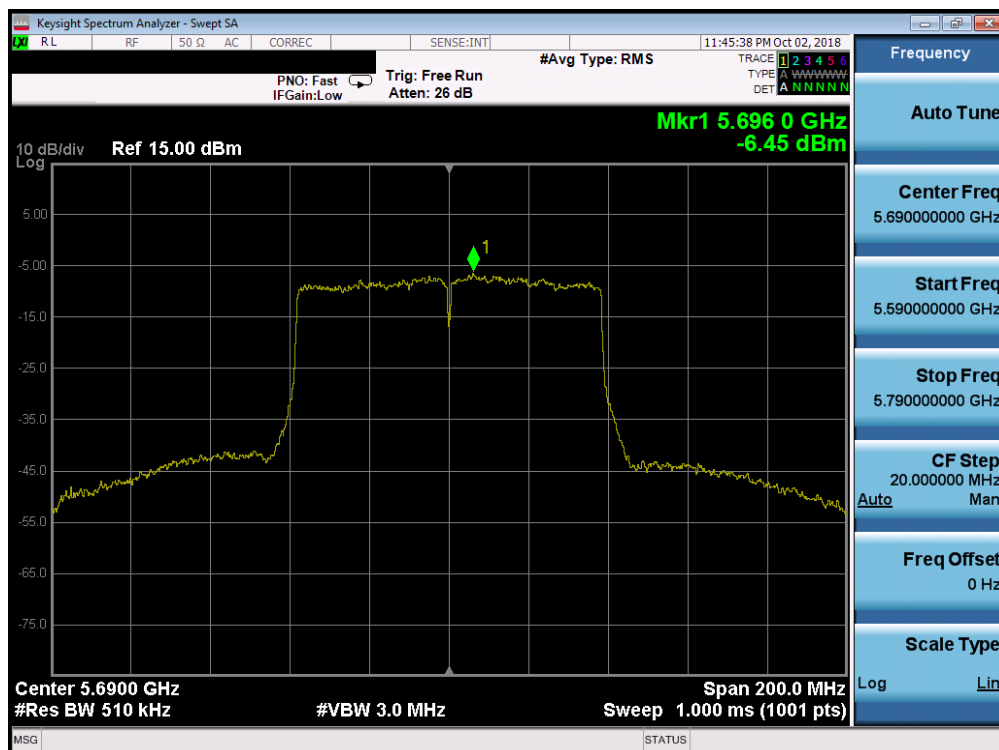


Plot 7-106. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 82 of 171



Plot 7-107. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 122)

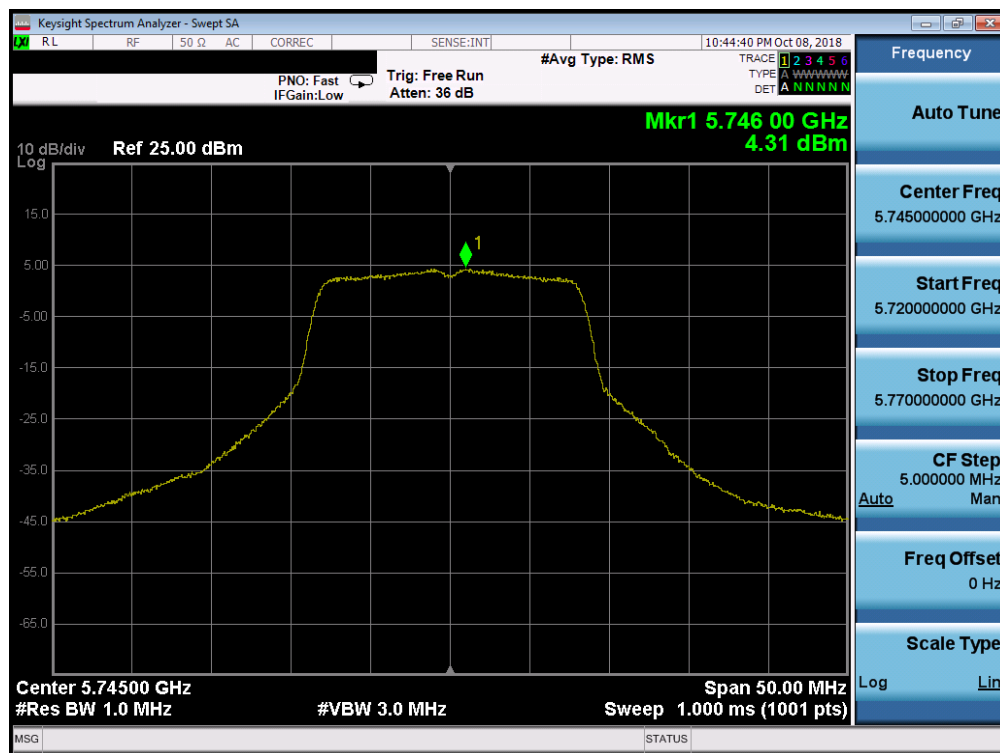


Plot 7-108. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 83 of 171

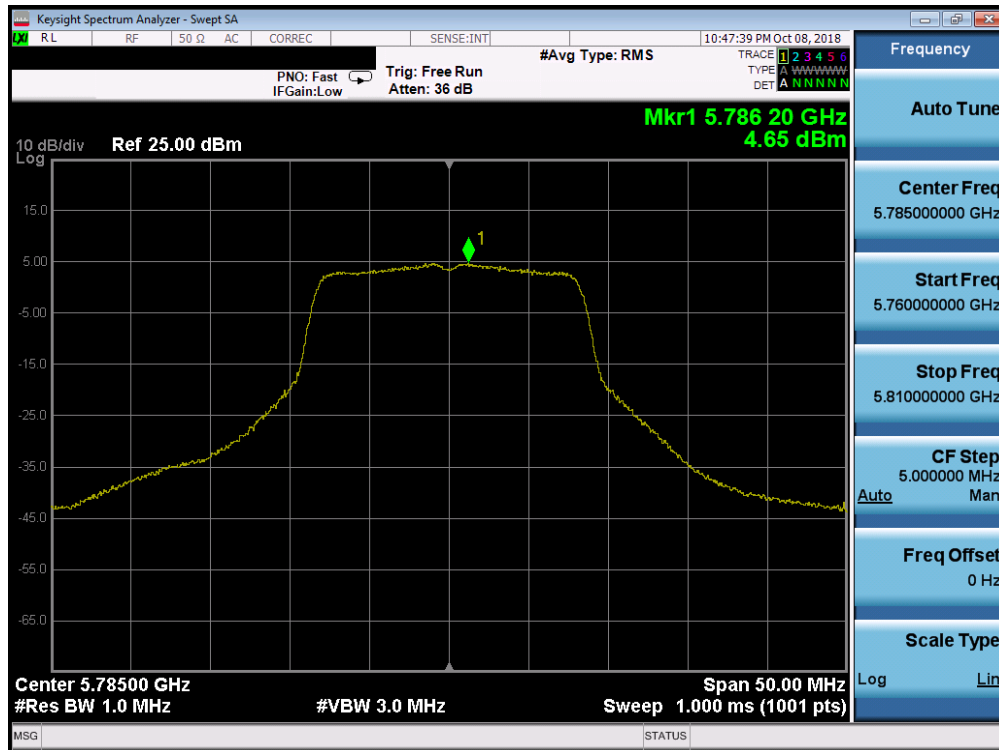
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6	4.31	30.0	-25.69
	5785	157	a	6	4.65	30.0	-25.35
	5825	165	a	6	4.99	30.0	-25.01
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	4.11	30.0	-25.89
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	3.47	30.0	-26.53
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	3.29	30.0	-26.71
	5755	151	n (40MHz)	13.5/15 (MCS0)	-0.70	30.0	-30.70
	5795	159	n (40MHz)	13.5/15 (MCS0)	0.12	30.0	-29.88
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-3.43	30.0	-33.43

Table 7-19. Band 3 Conducted Power Spectral Density Measurements SISO ANT1

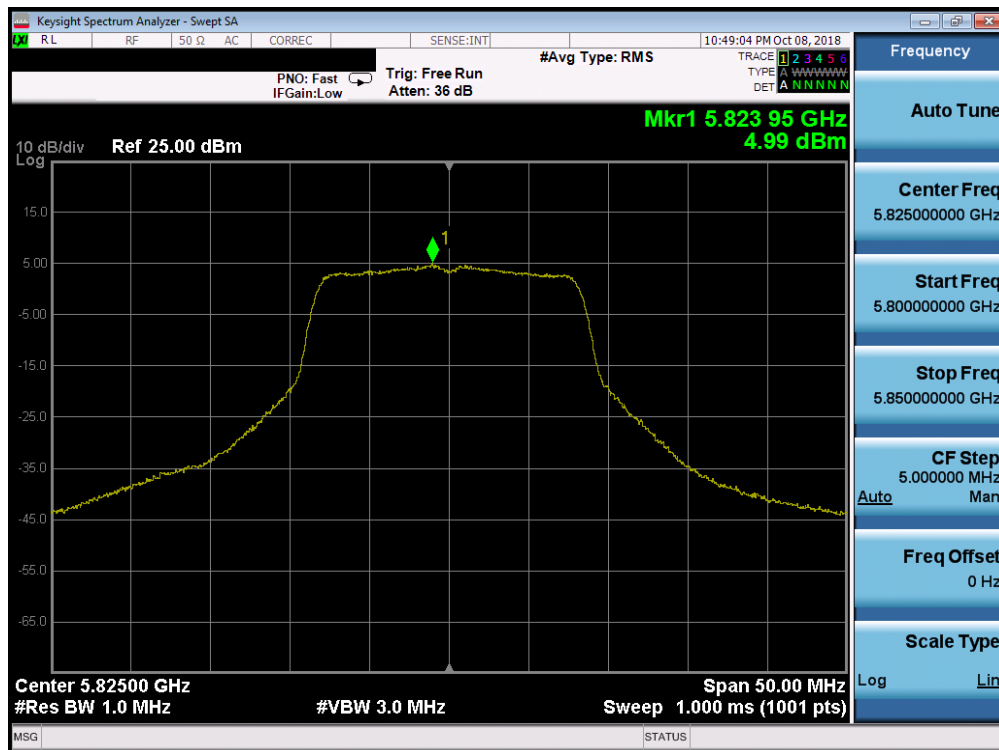


Plot 7-109. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) – Ch. 149)

FCC ID: A3LSMA9200	PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 84 of 171

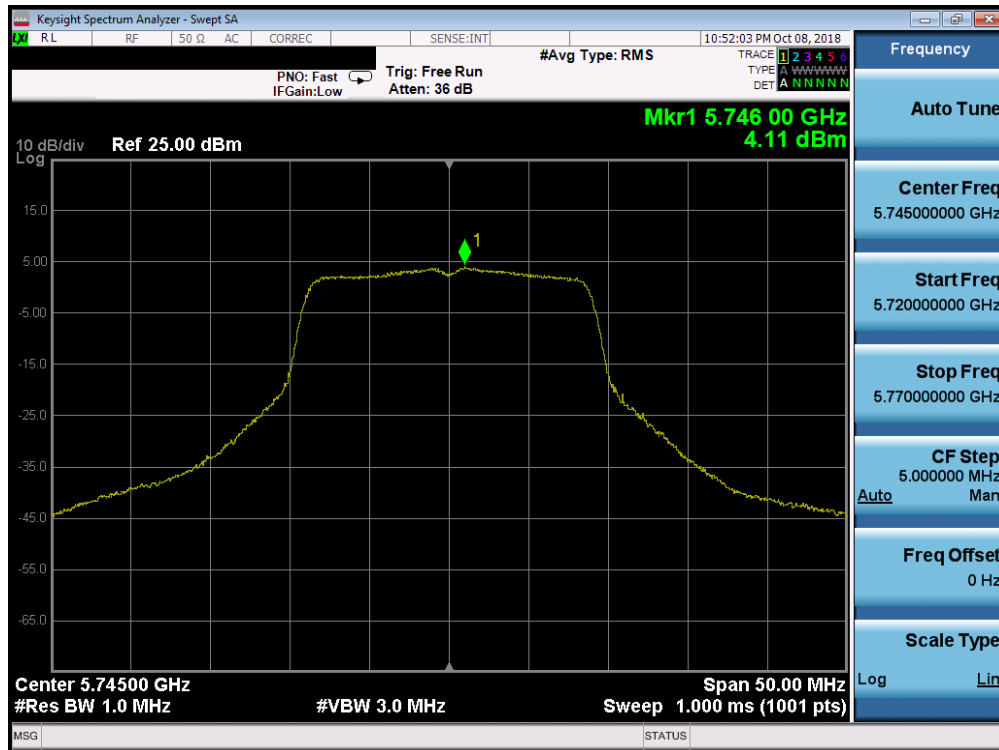


Plot 7-110. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) – Ch. 157)

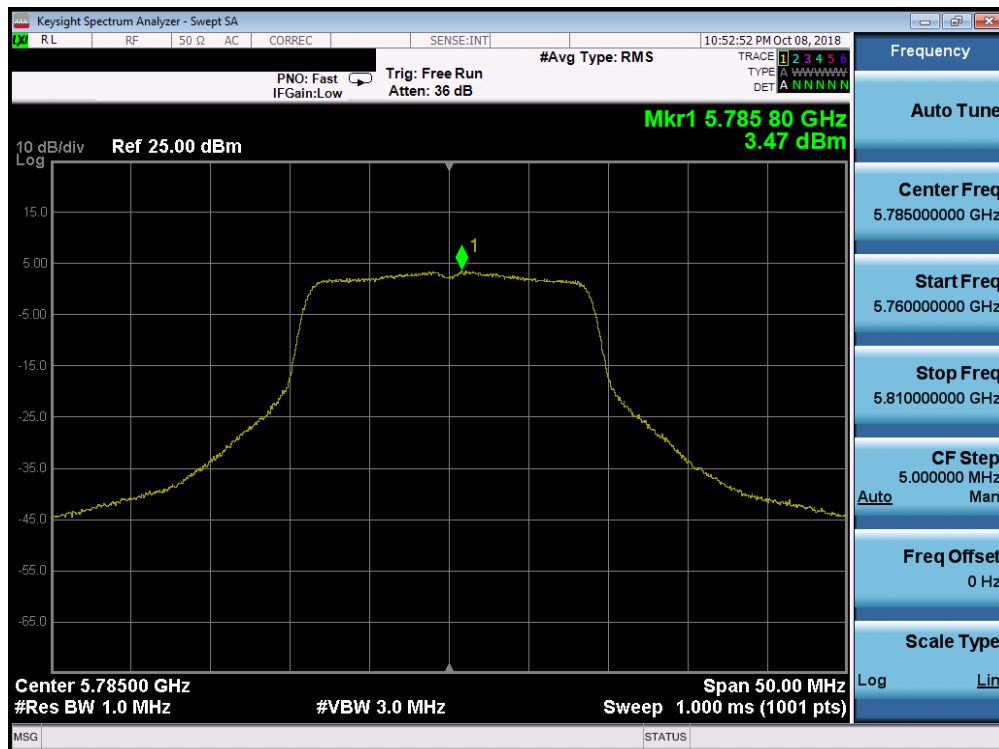


Plot 7-111. Power Spectral Density Plot SISO ANT1 (802.11a (UNII Band 3) – Ch. 165)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 85 of 171

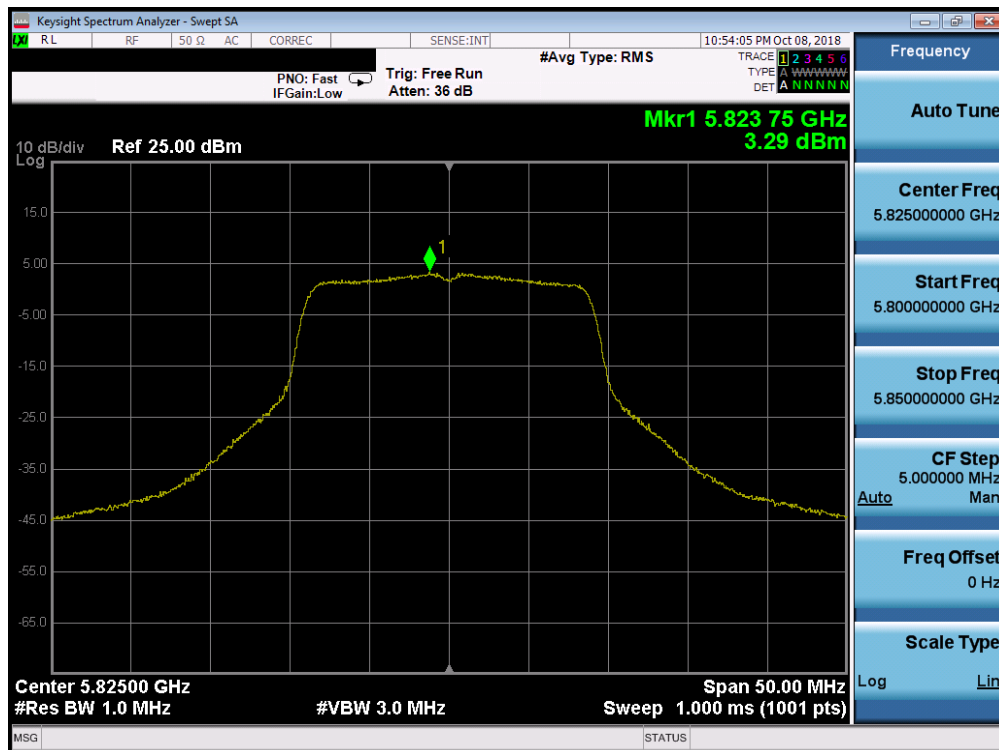


Plot 7-112. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 149)

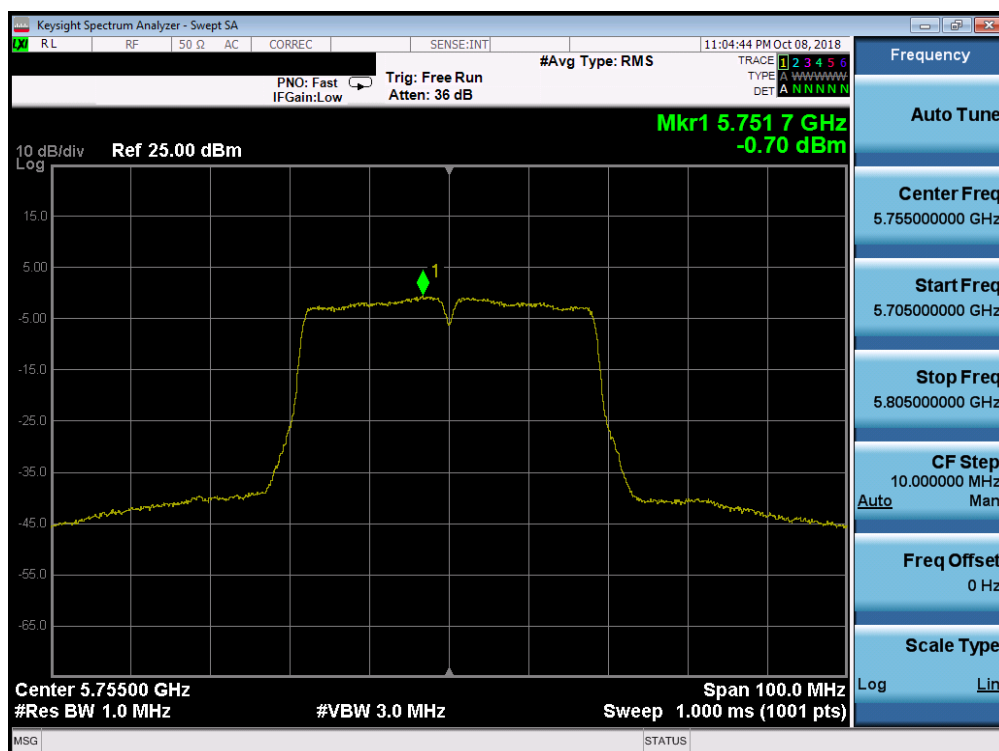


Plot 7-113. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 86 of 171

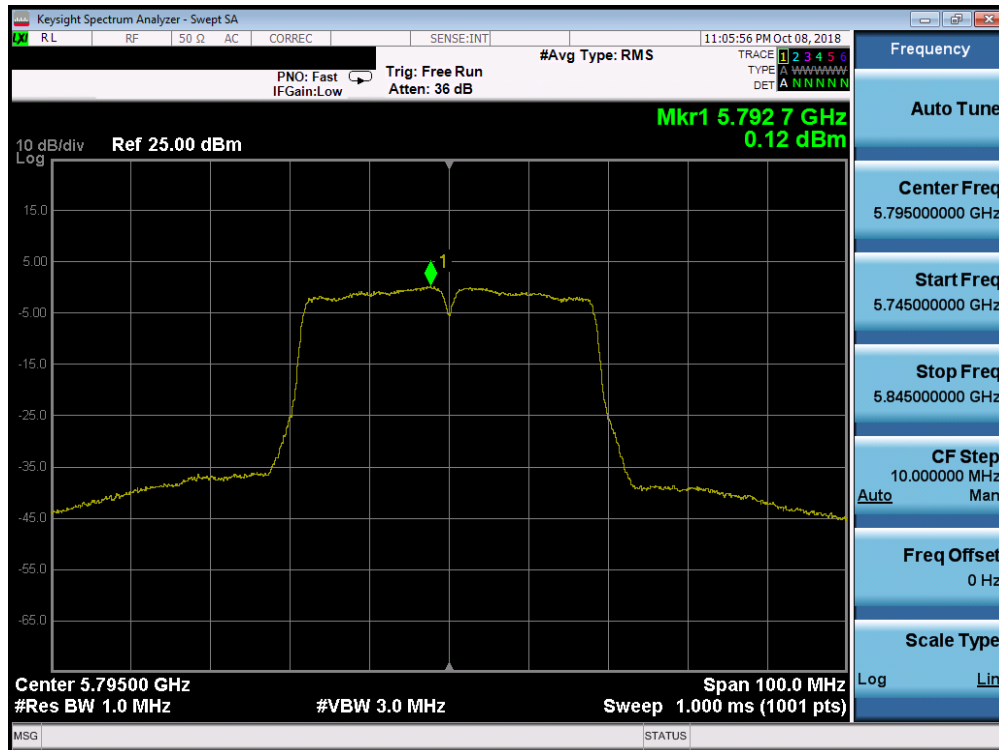


Plot 7-114. Power Spectral Density Plot SISO ANT1 (20MHz BW 802.11n (UNII Band 3) – Ch. 165)

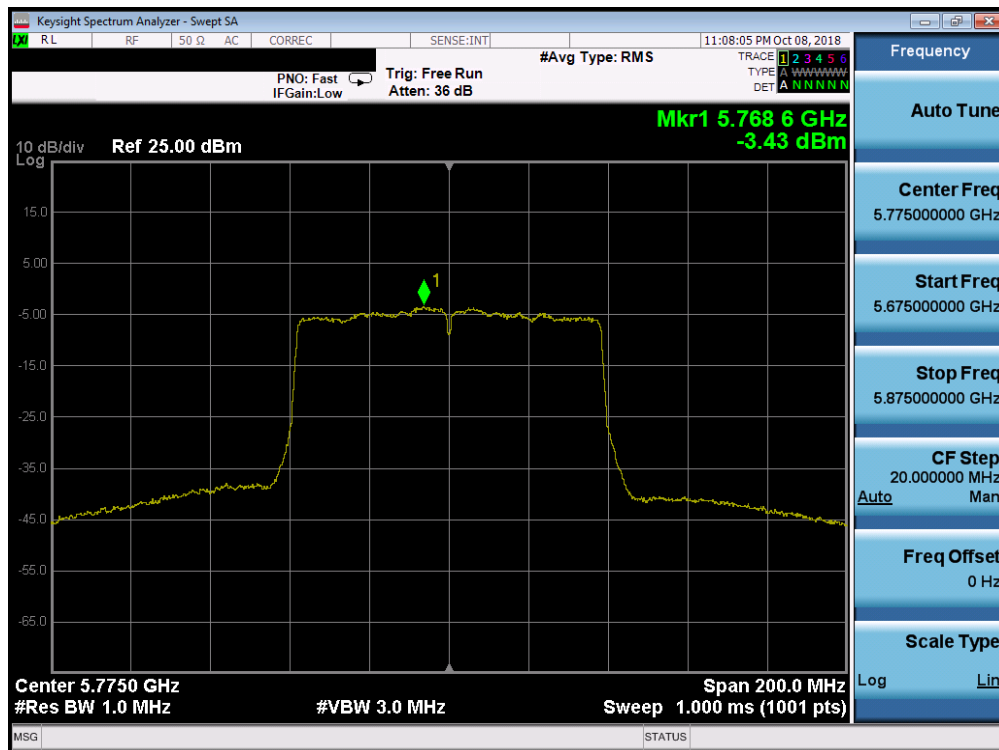


Plot 7-115. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 87 of 171



Plot 7-116. Power Spectral Density Plot SISO ANT1 (40MHz BW 802.11n (UNII Band 3) – Ch. 159)



Plot 7-117. Power Spectral Density Plot SISO ANT1 (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

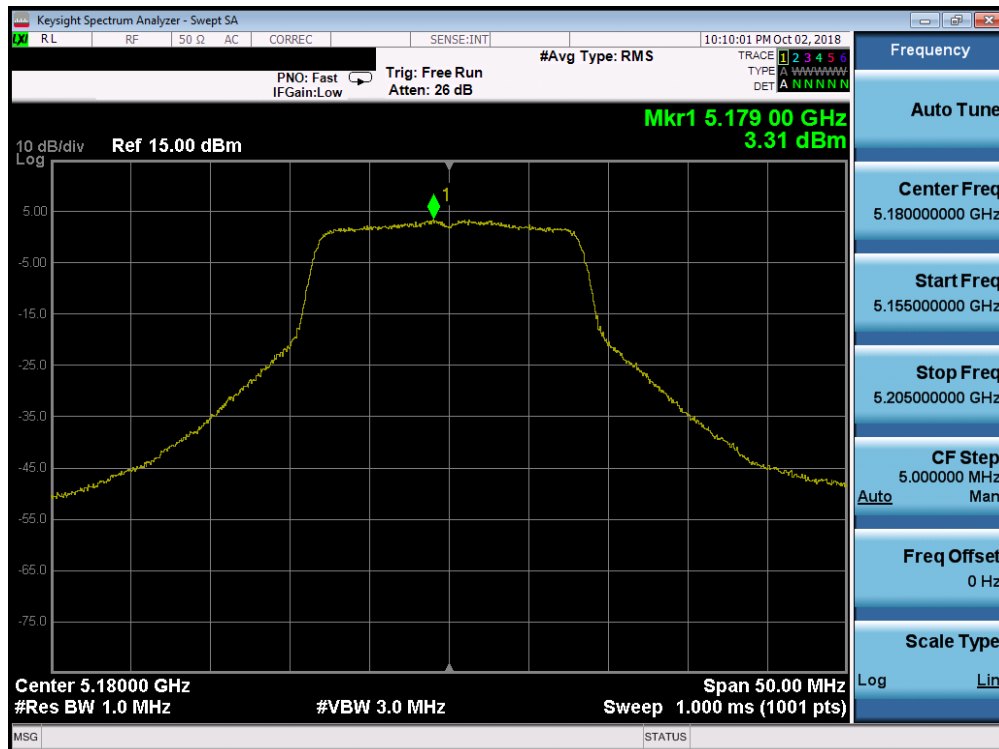
FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 88 of 171	

SISO Antenna-2 Power Spectral Density Measurements

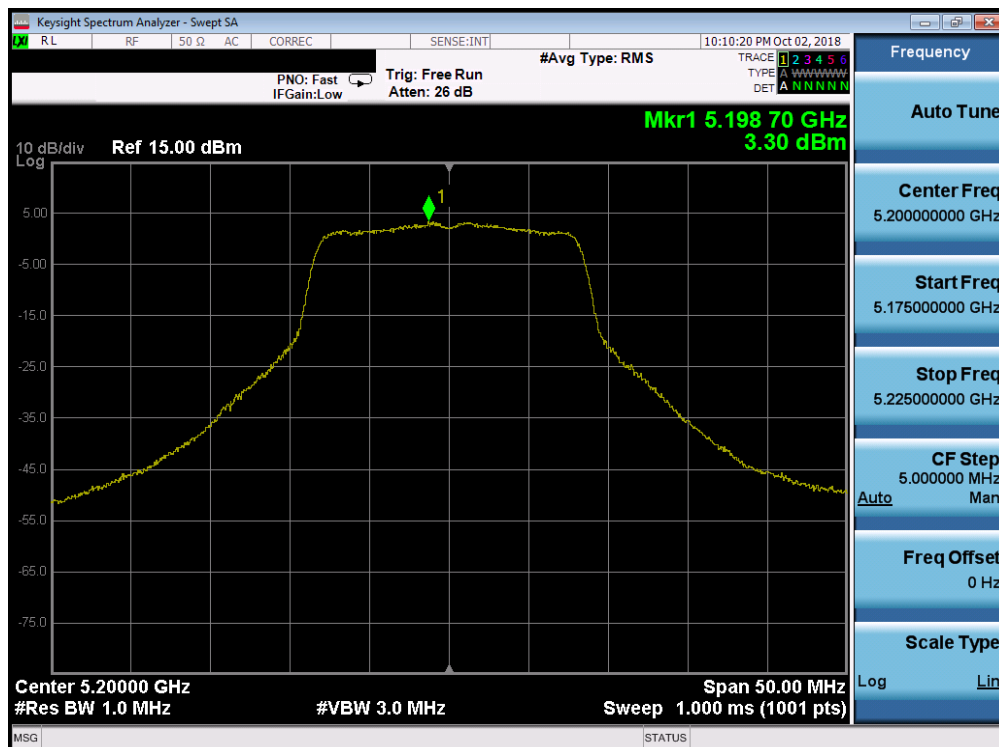
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	a	6	3.31	11.0	-7.69
	5200	40	a	6	3.30	11.0	-7.70
	5240	48	a	6	3.16	11.0	-7.84
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	4.50	11.0	-6.50
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	3.86	11.0	-7.14
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	4.75	11.0	-6.25
	5190	38	n (40MHz)	13.5/15 (MCS0)	-3.56	11.0	-14.56
	5230	46	n (40MHz)	13.5/15 (MCS0)	-0.21	11.0	-11.21
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-7.66	11.0	-18.66
Band 2A	5260	52	a	6	5.10	11.0	-5.90
	5280	56	a	6	4.71	11.0	-6.29
	5320	64	a	6	4.37	11.0	-6.63
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	3.56	11.0	-7.44
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	3.29	11.0	-7.71
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	3.43	11.0	-7.57
	5270	54	n (40MHz)	13.5/15 (MCS0)	0.53	11.0	-10.47
	5310	62	n (40MHz)	13.5/15 (MCS0)	0.34	11.0	-10.66
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-7.64	11.0	-18.64
Band 2C	5500	100	a	6	4.90	11.0	-6.10
	5600	120	a	6	4.52	11.0	-6.48
	5720	144	a	6	5.16	11.0	-5.84
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	4.22	11.0	-6.78
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	4.06	11.0	-6.94
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	3.40	11.0	-7.60
	5510	102	n (40MHz)	13.5/15 (MCS0)	0.54	11.0	-10.46
	5590	118	n (40MHz)	13.5/15 (MCS0)	0.69	11.0	-10.31
	5710	142	n (40MHz)	13.5/15 (MCS0)	0.42	11.0	-10.58
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-7.19	11.0	-18.19
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-4.18	11.0	-15.18
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-6.36	11.0	-17.36

Table 7-20. Conducted Power Spectral Density Measurements SISO ANT2

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 89 of 171

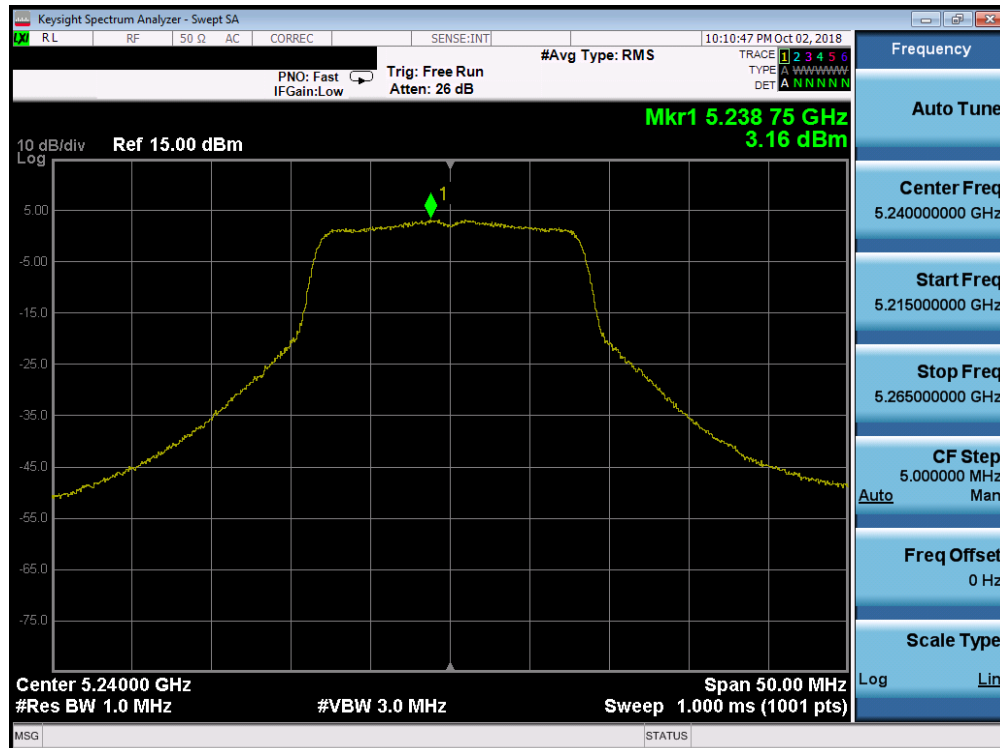


Plot 7-118. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) – Ch. 36)

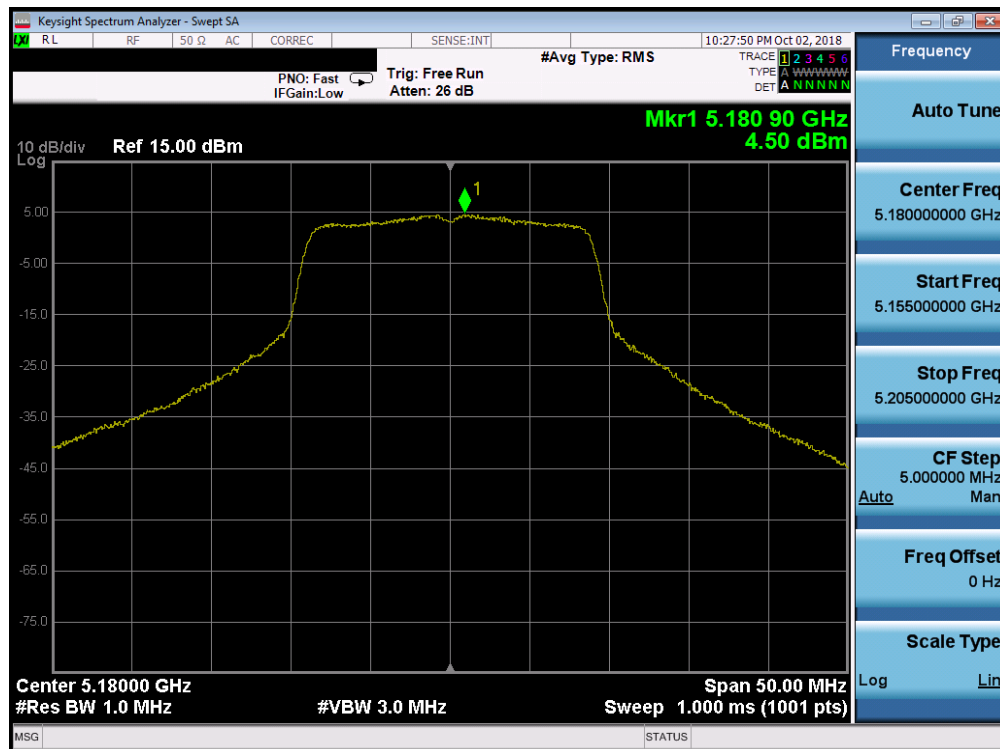


Plot 7-119. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) – Ch. 40)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 90 of 171

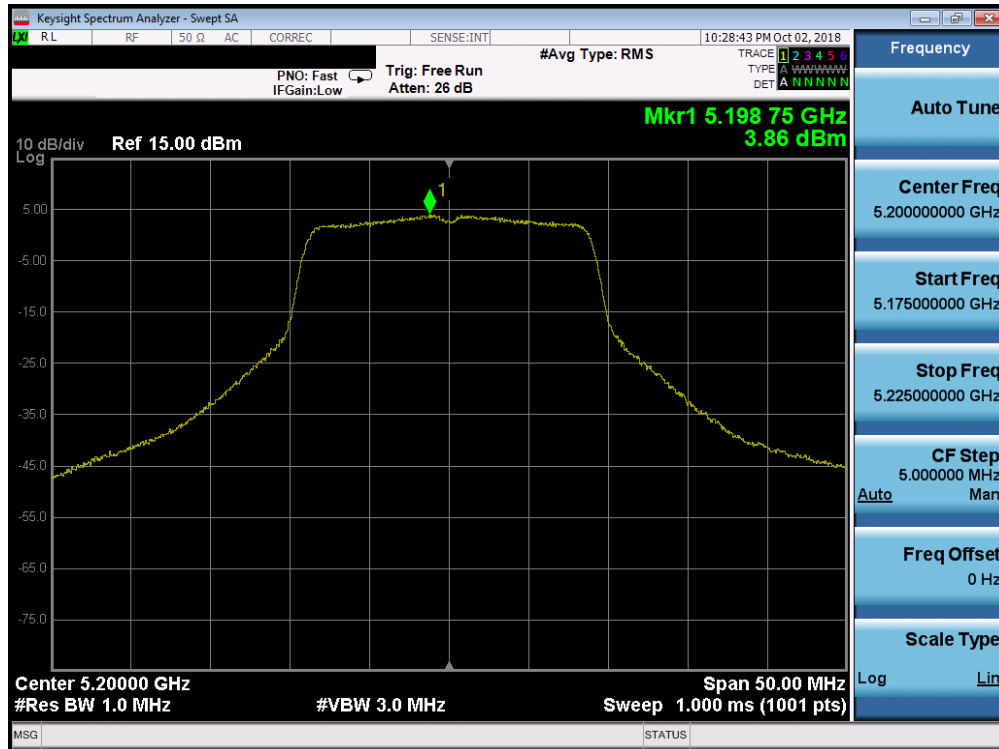


Plot 7-120. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 1) – Ch. 48)

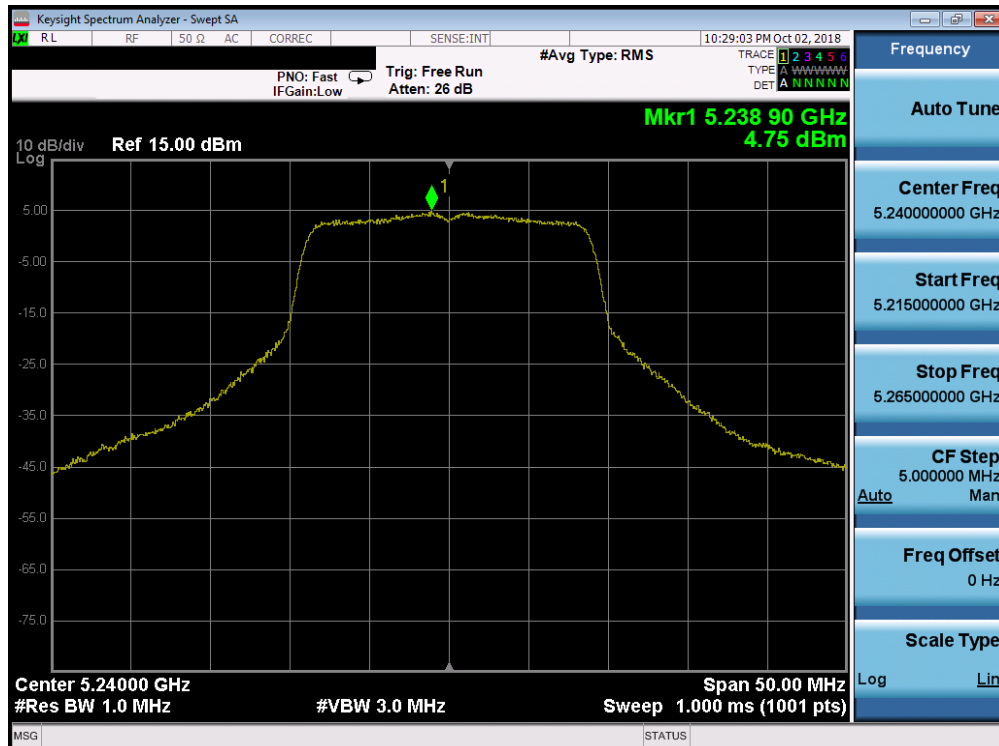


Plot 7-121. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 36)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 91 of 171

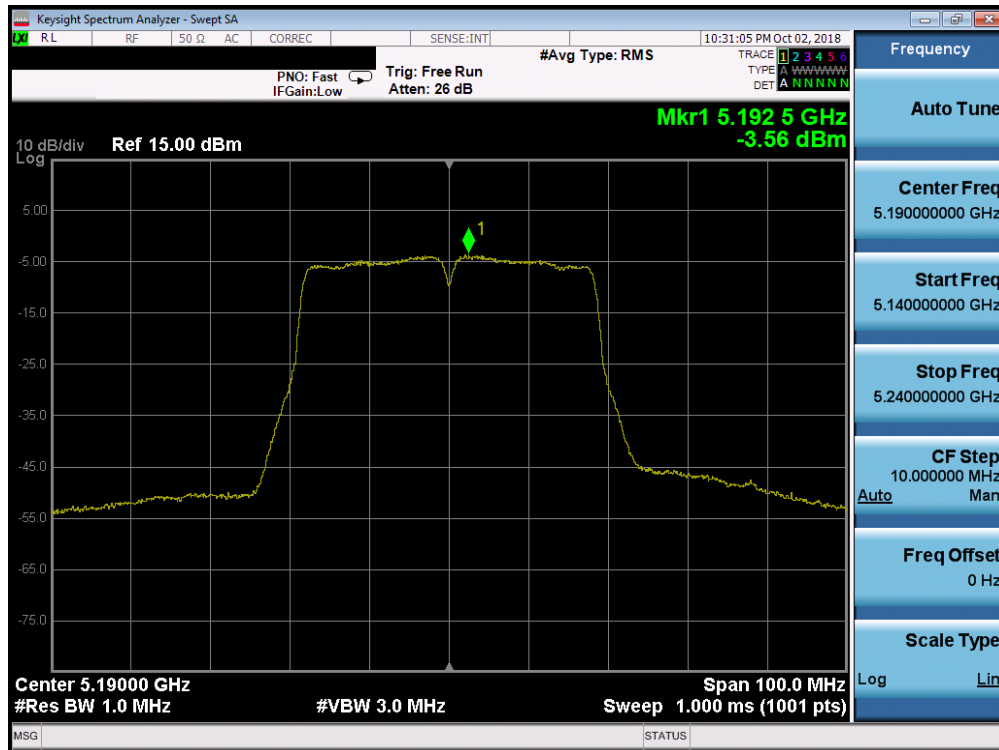


Plot 7-122. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 40)

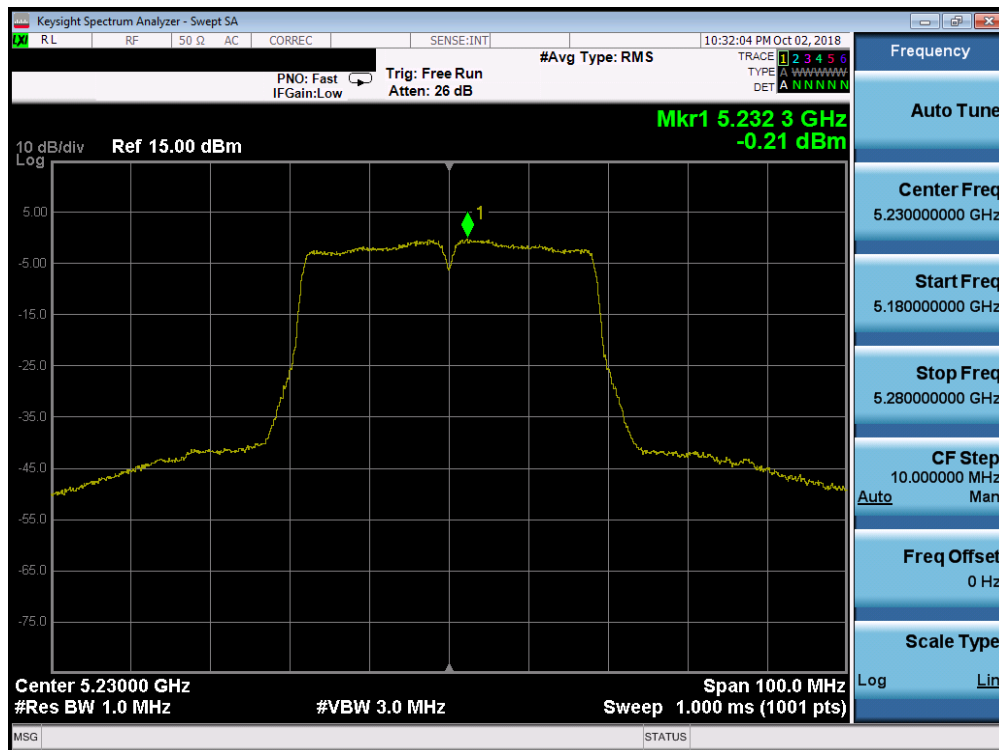


Plot 7-123. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 1) – Ch. 48)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 92 of 171

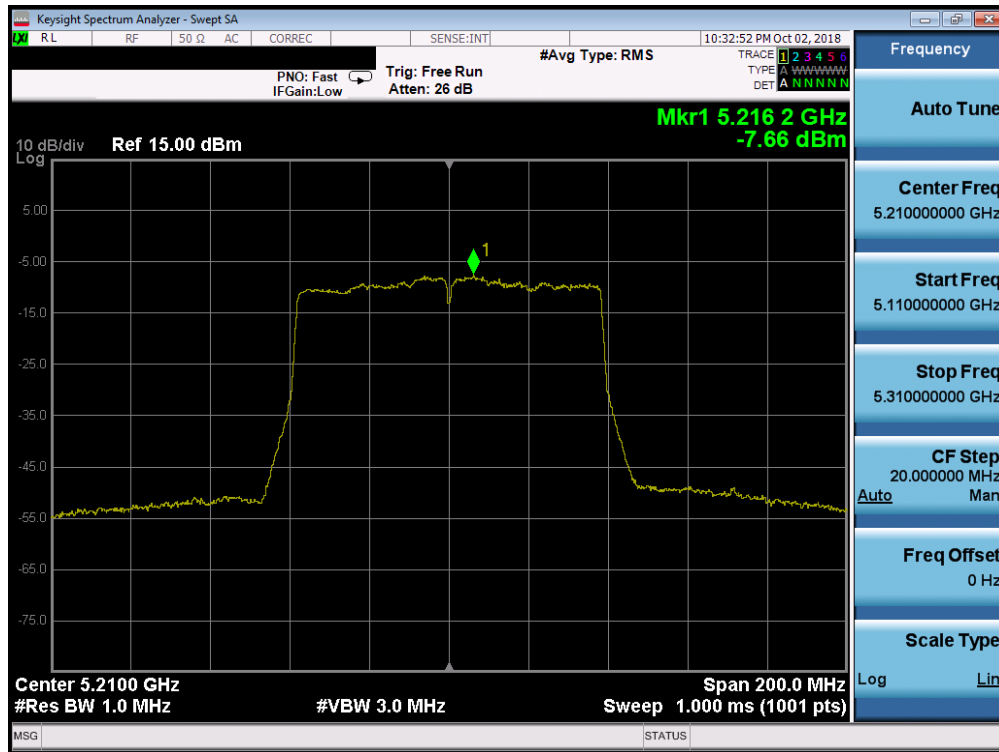


Plot 7-124. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) – Ch. 38)

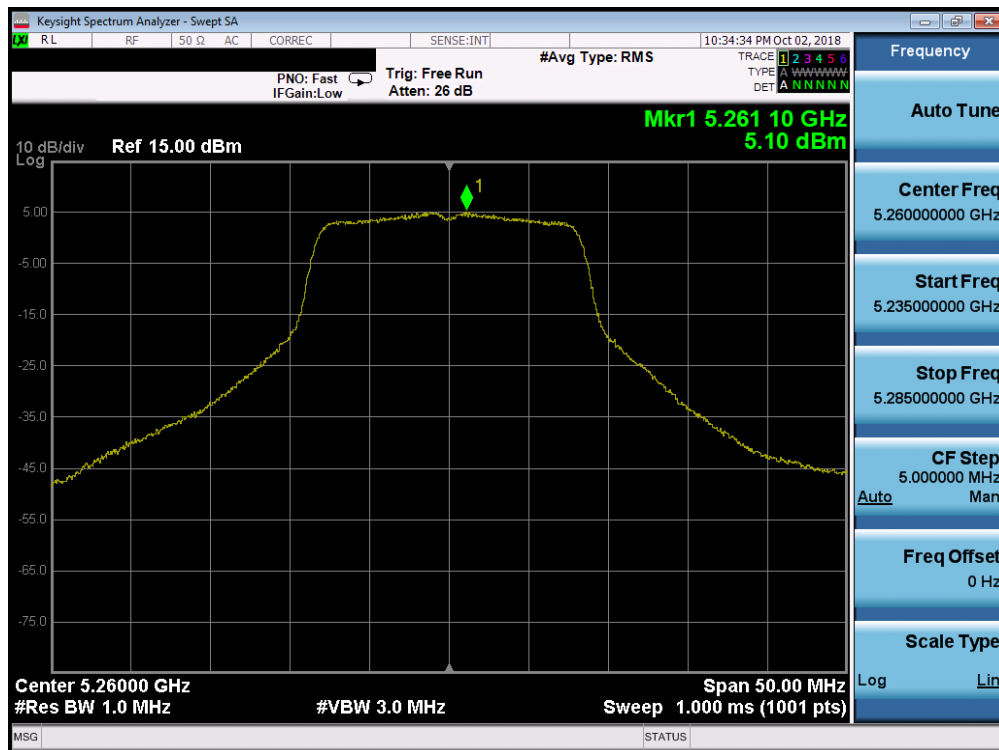


Plot 7-125. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 93 of 171

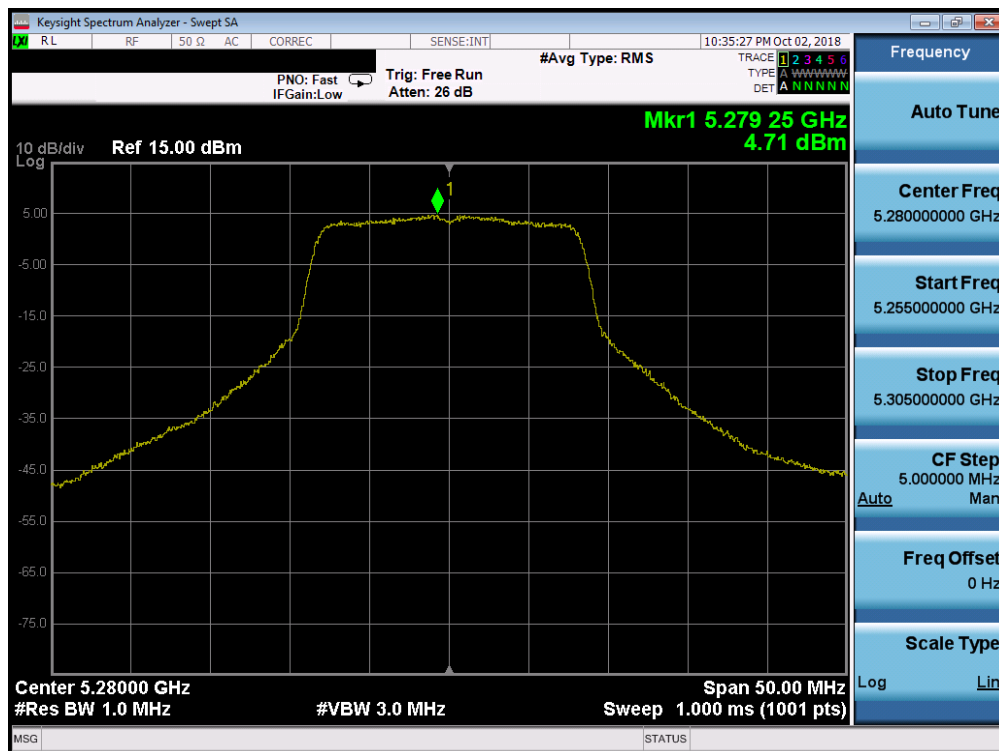


Plot 7-126. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 1) – Ch. 42)

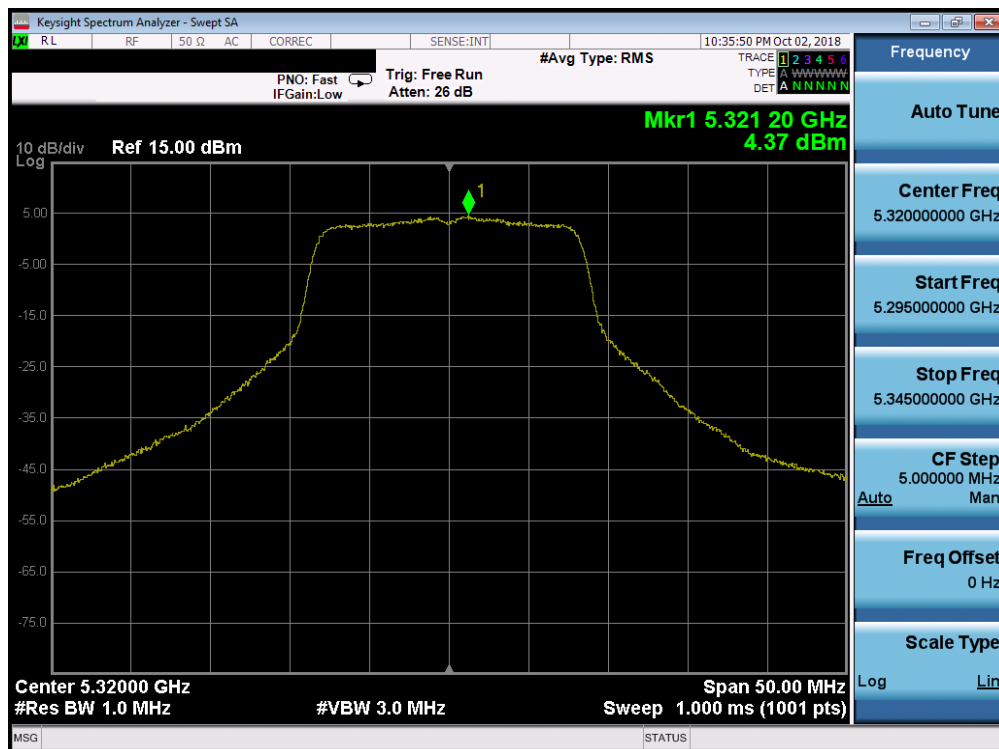


Plot 7-127. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) – Ch. 52)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 94 of 171	

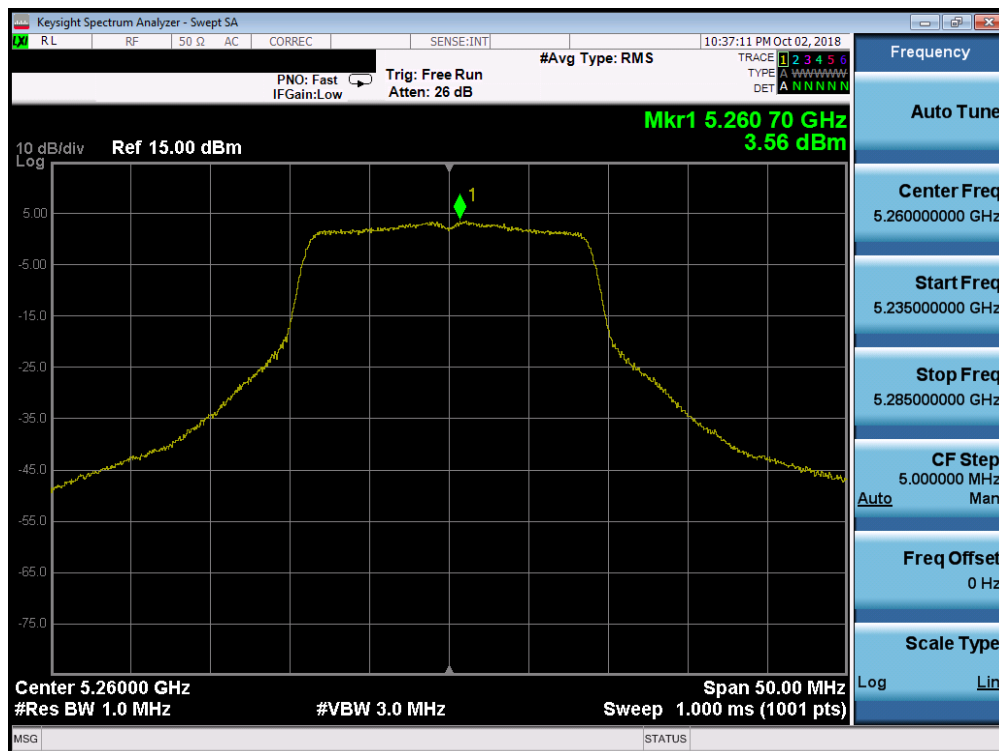


Plot 7-128. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) – Ch. 56)

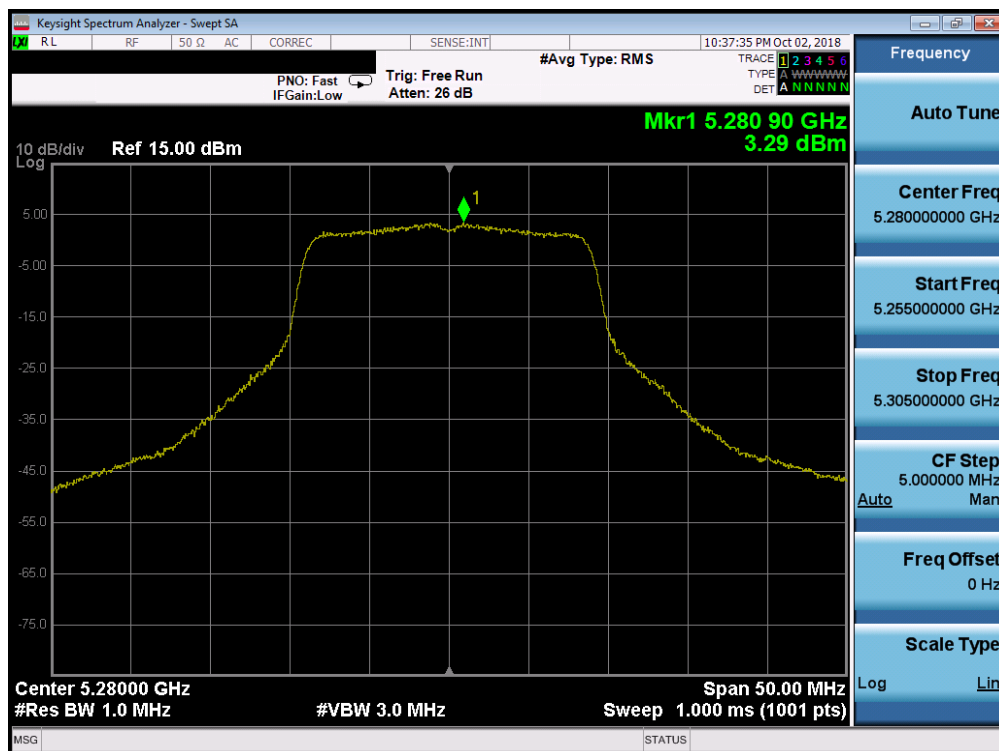


Plot 7-129. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2A) – Ch. 64)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 95 of 171

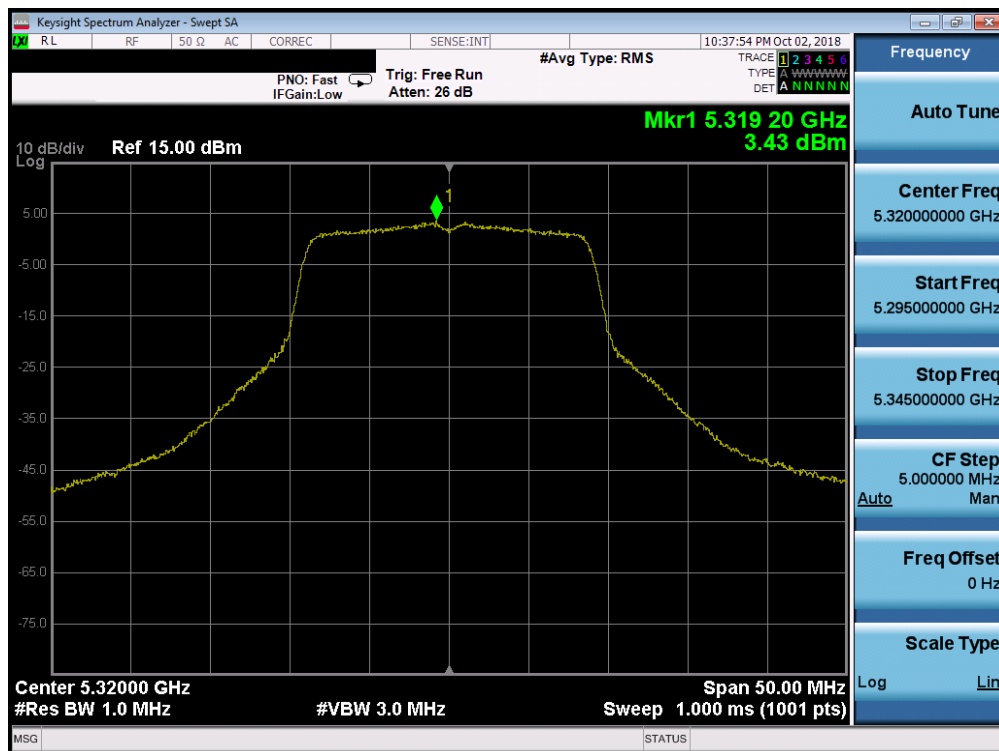


Plot 7-130. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)

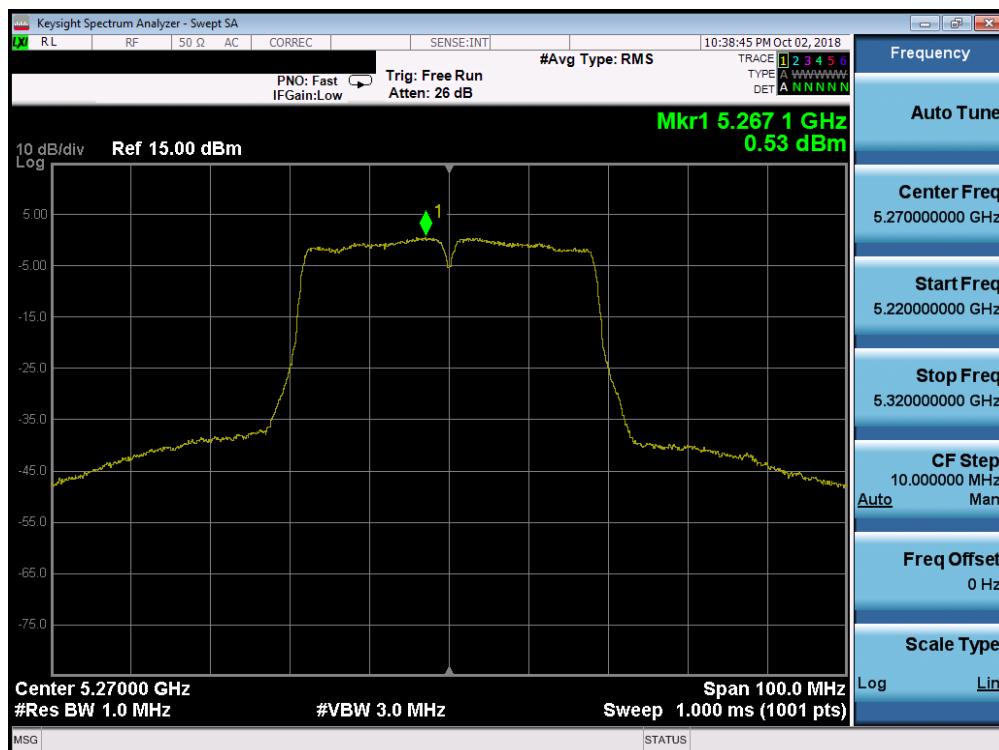


Plot 7-131. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) – Ch. 56)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 96 of 171

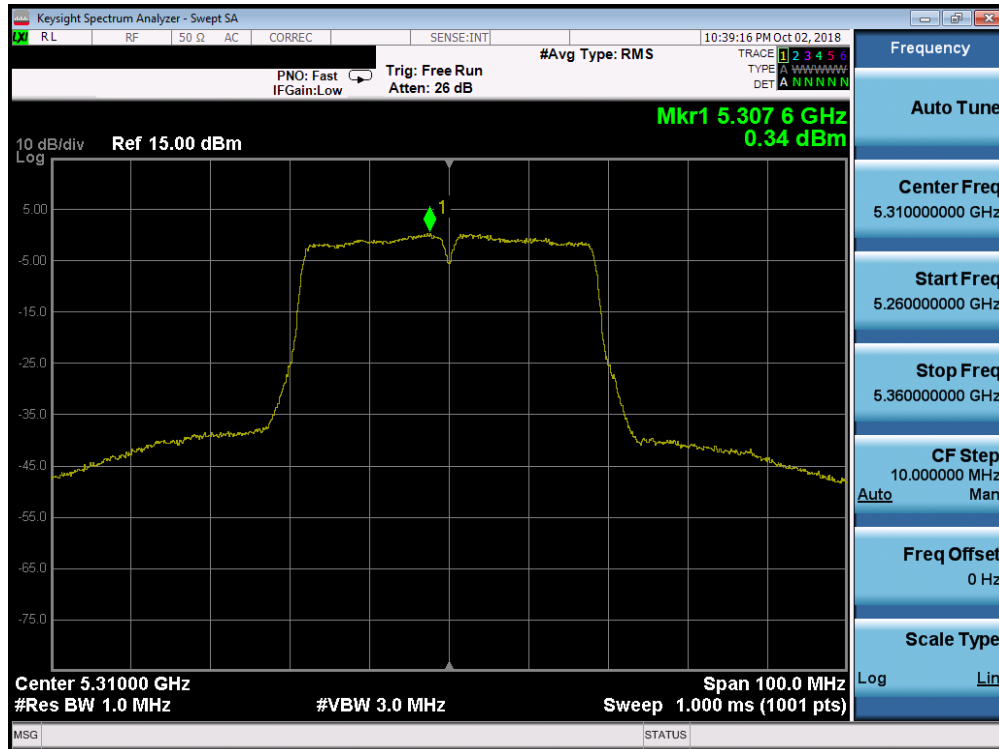


Plot 7-132. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2A) – Ch. 64)

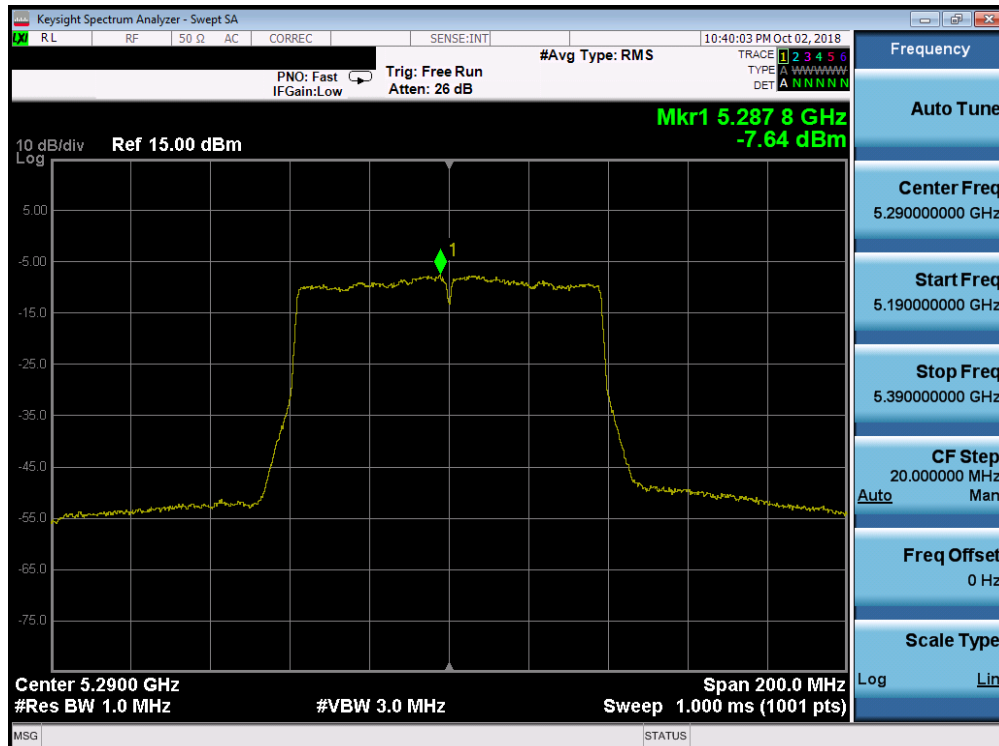


Plot 7-133. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 97 of 171

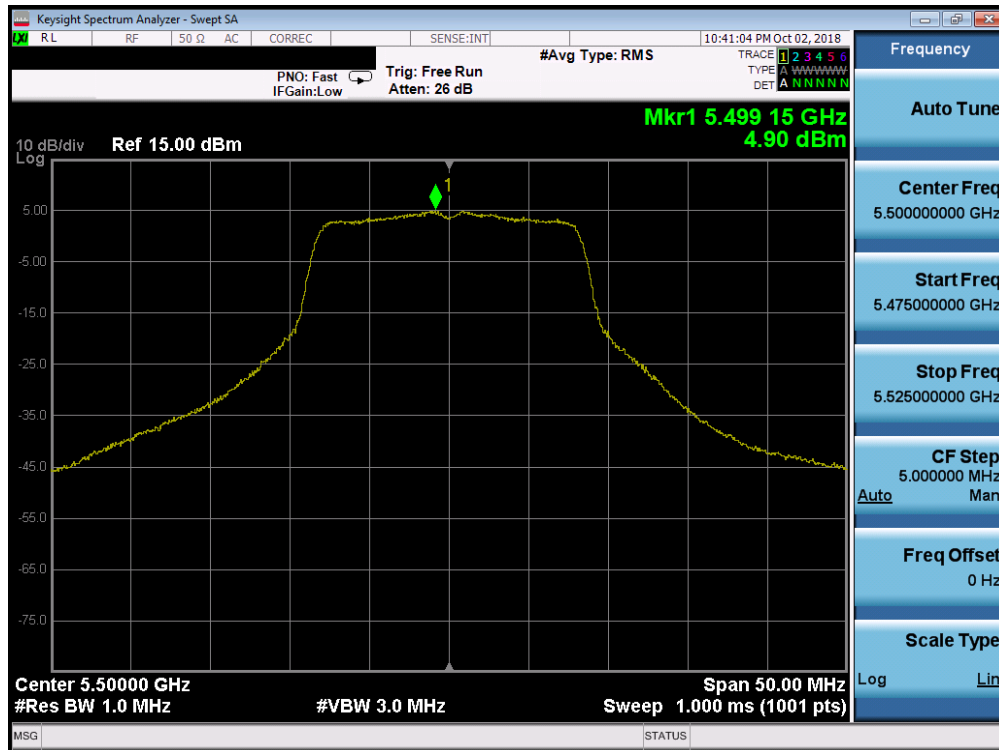


Plot 7-134. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)

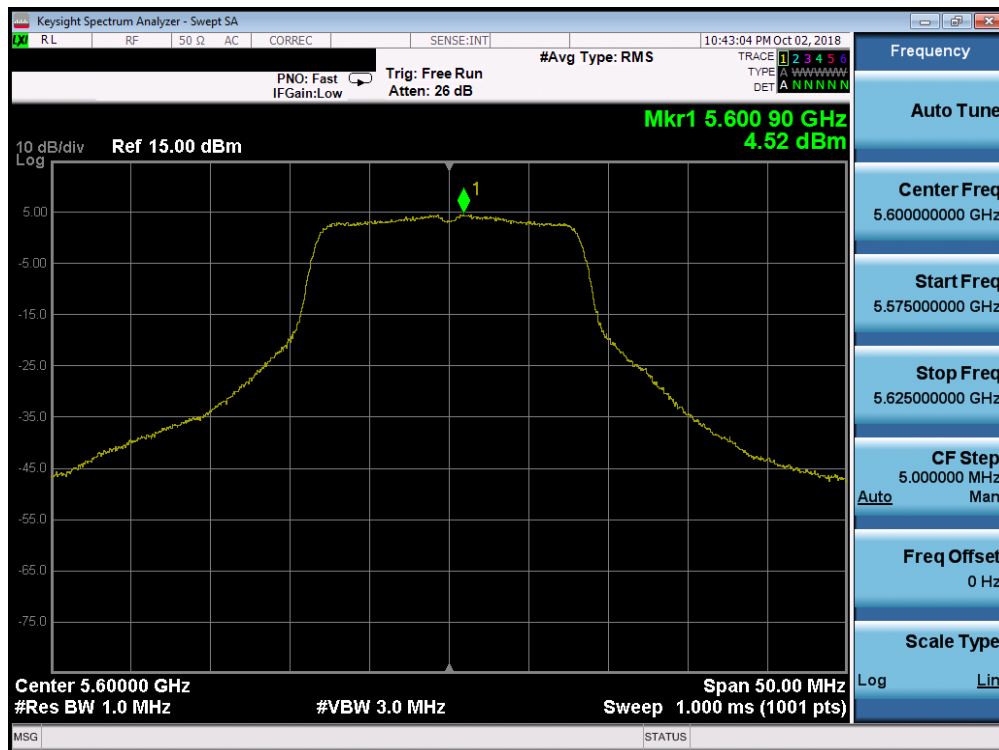


Plot 7-135. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 98 of 171

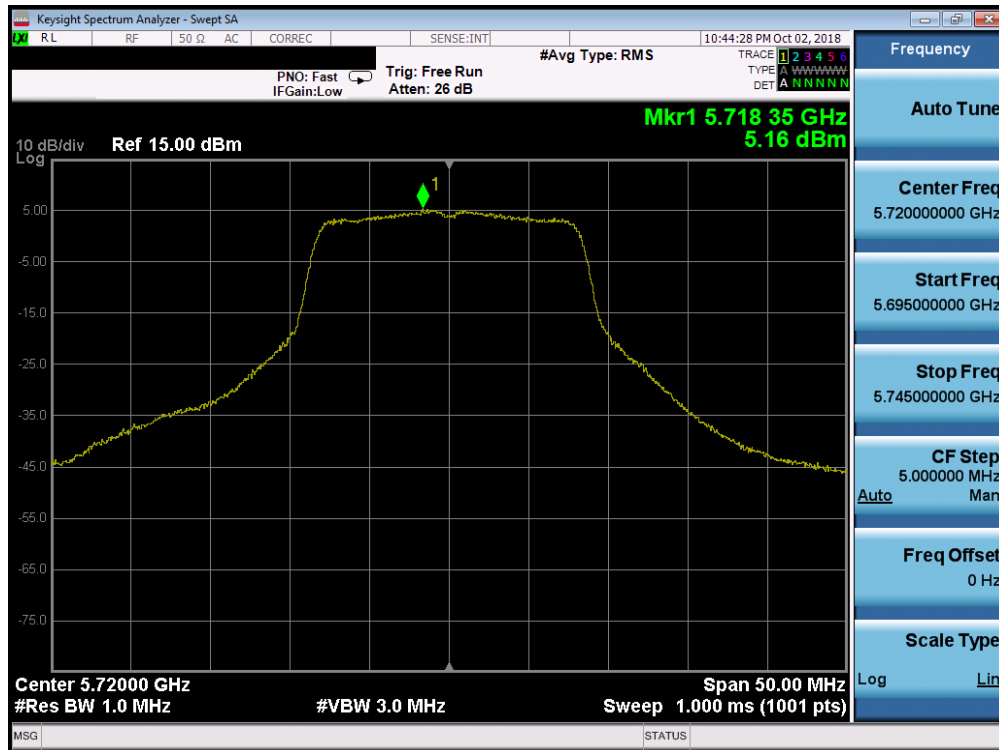


Plot 7-136. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) – Ch. 100)

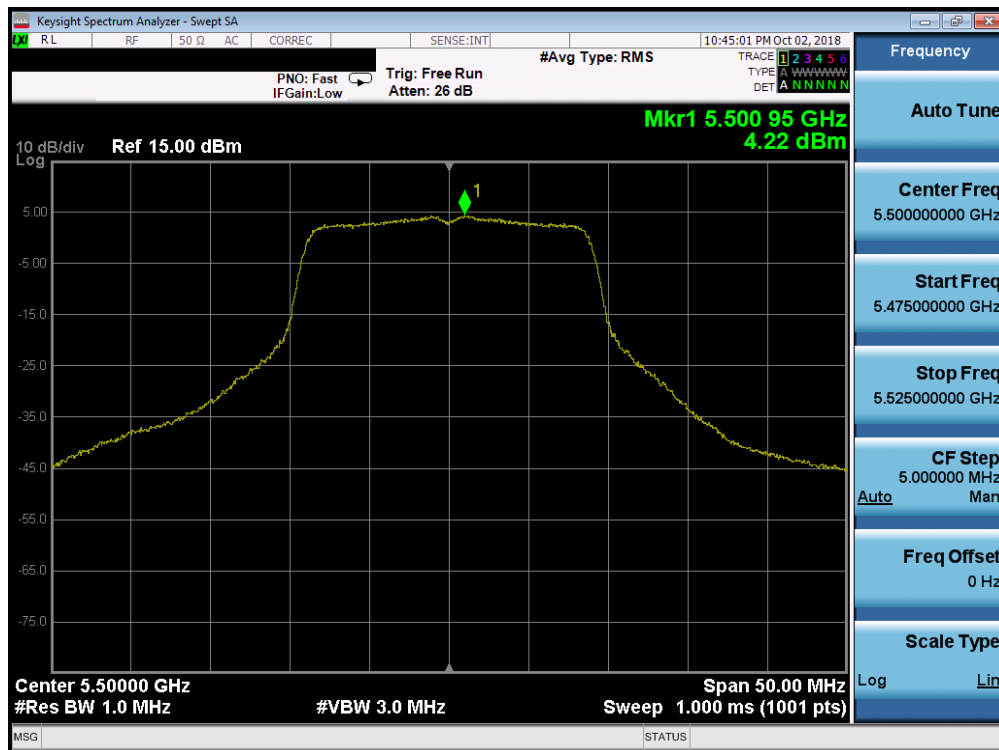


Plot 7-137. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) – Ch. 120)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 99 of 171	

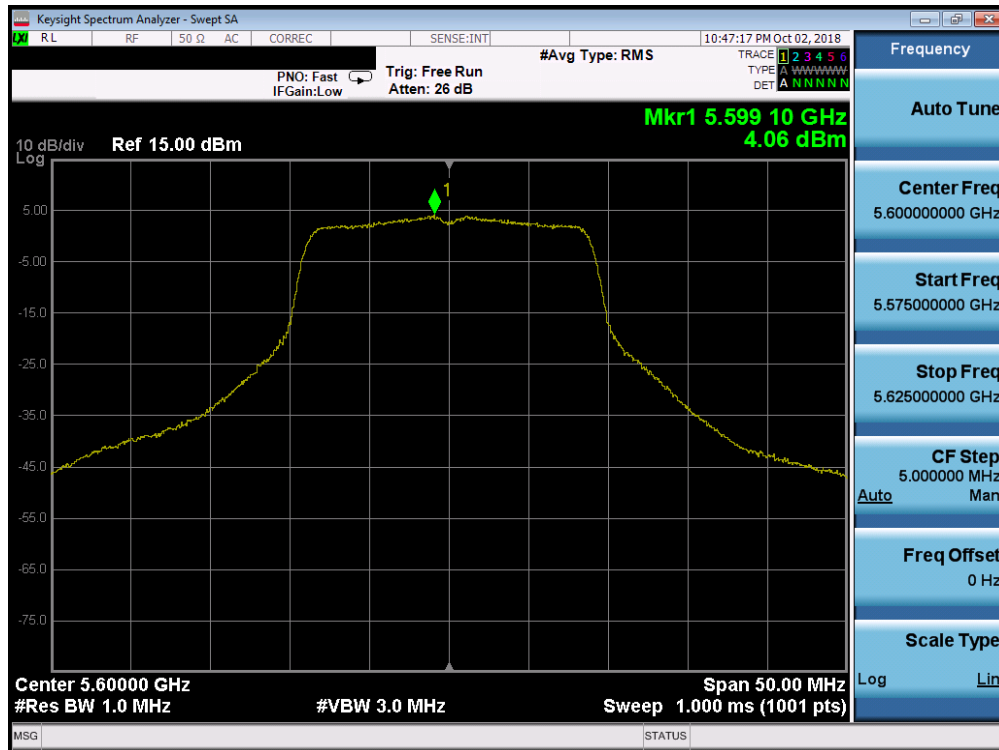


Plot 7-138. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 2C) – Ch. 144)

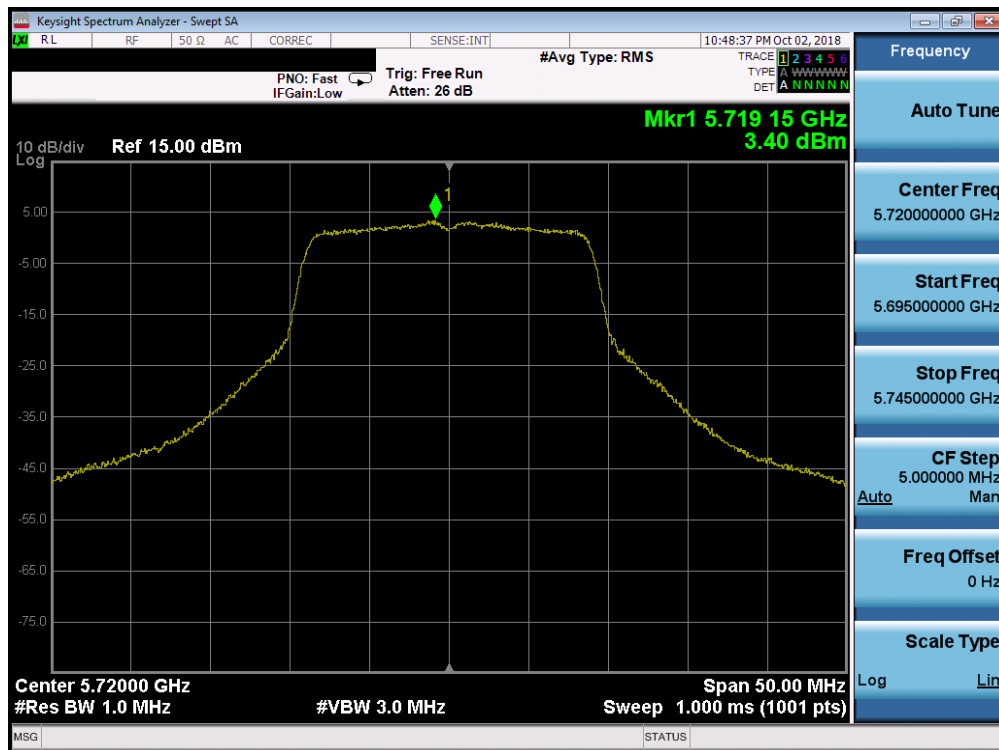


Plot 7-139. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 100)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 100 of 171	

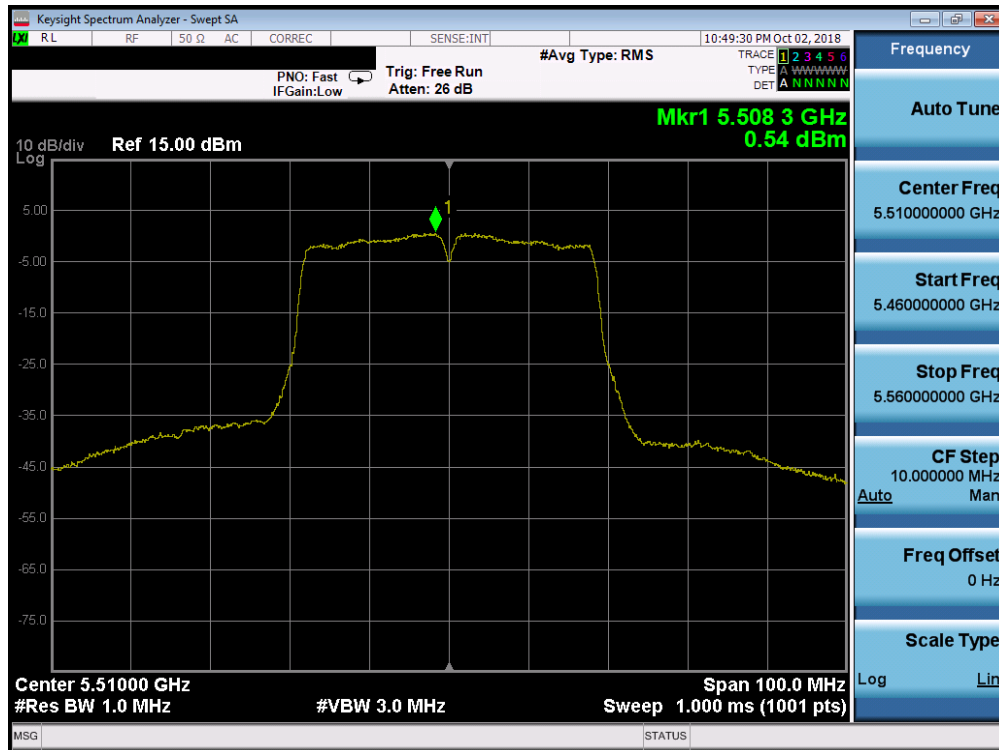


Plot 7-140. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 120)

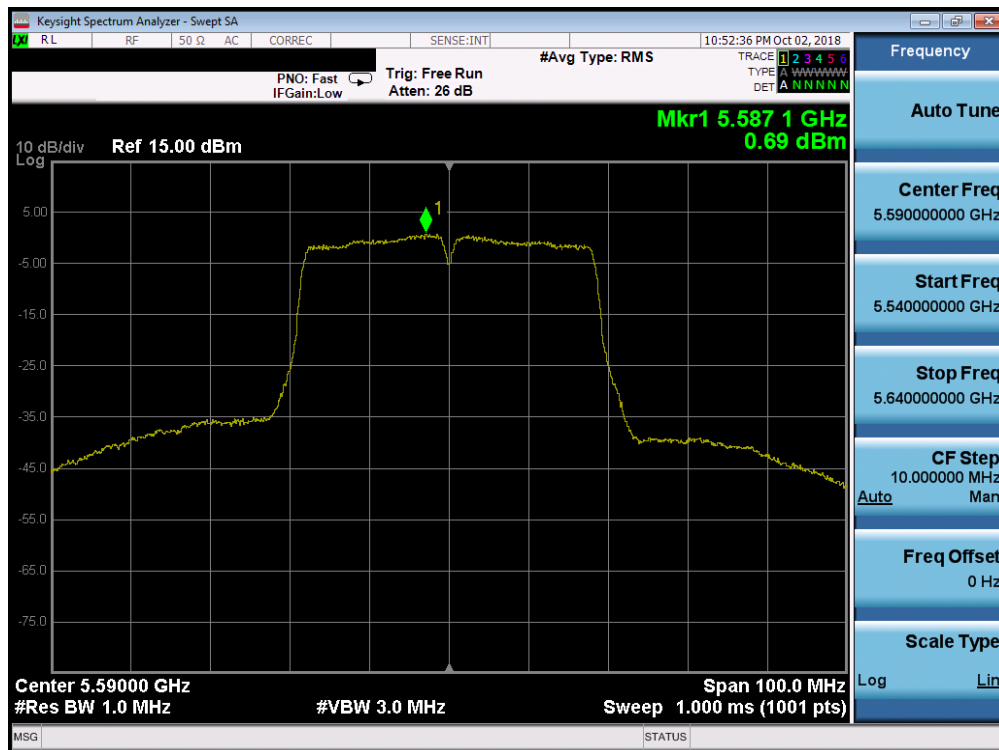


Plot 7-141. Power Spectral Density Plot SISO ANT2 (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 101 of 171	

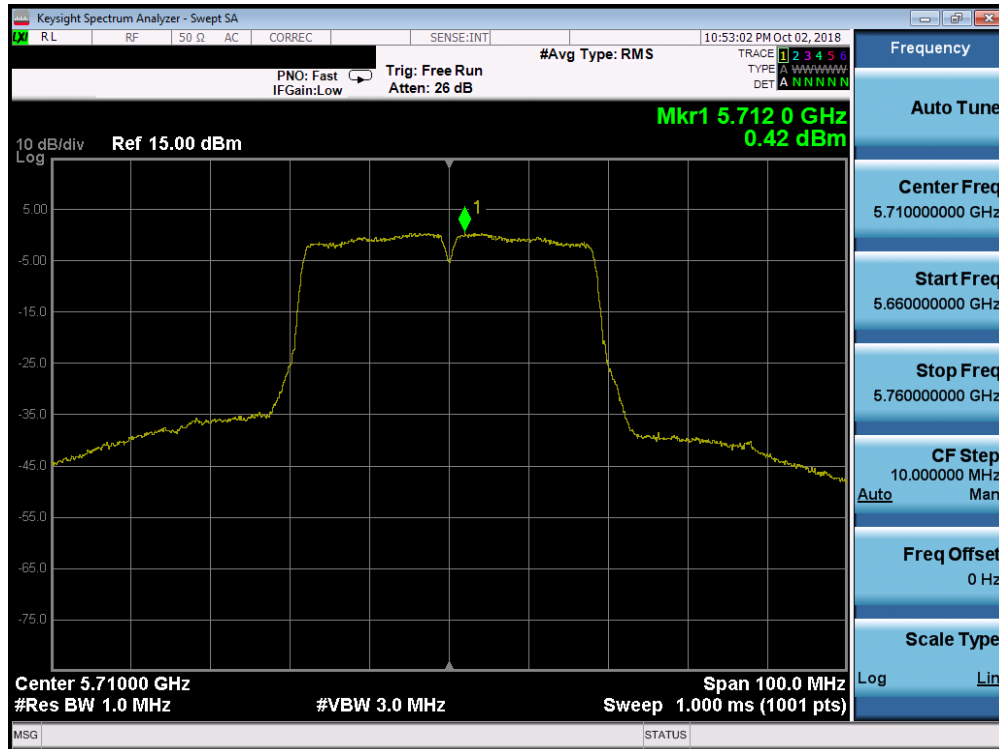


Plot 7-142. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) – Ch. 102)

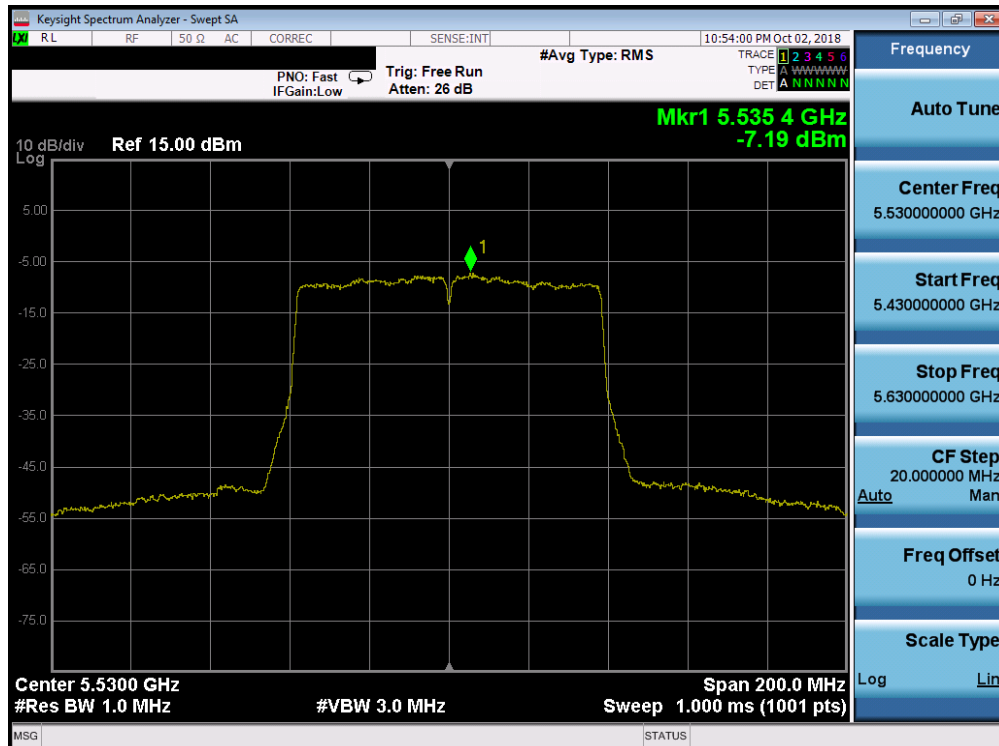


Plot 7-143. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) – Ch. 118)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 102 of 171

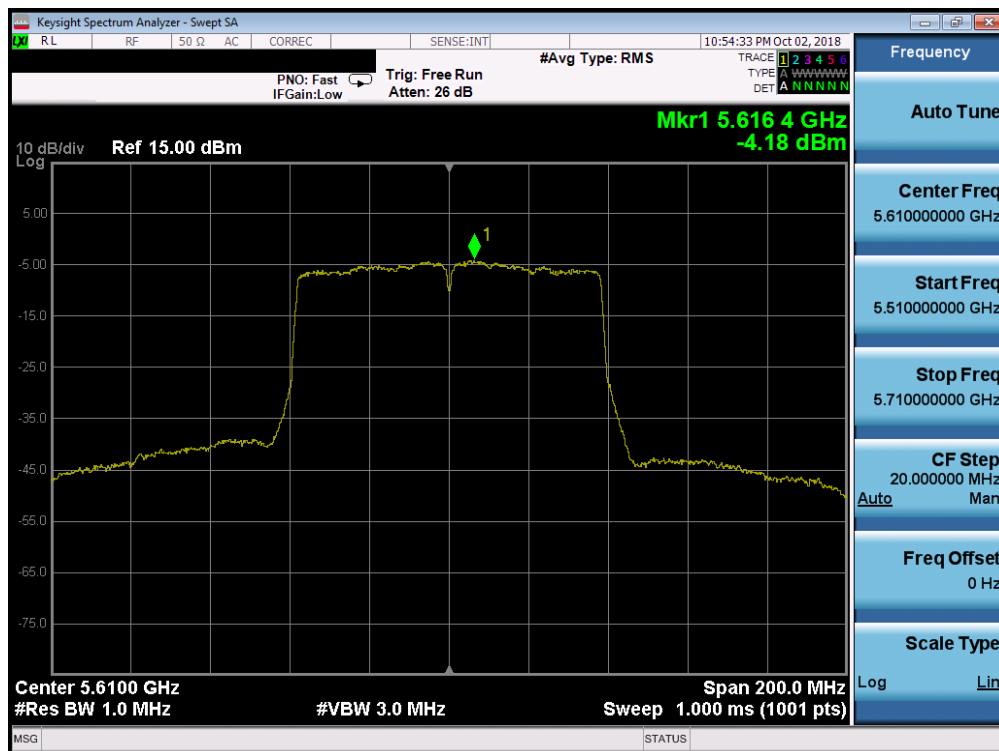


Plot 7-144. Power Spectral Density Plot SISO ANT2 (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)

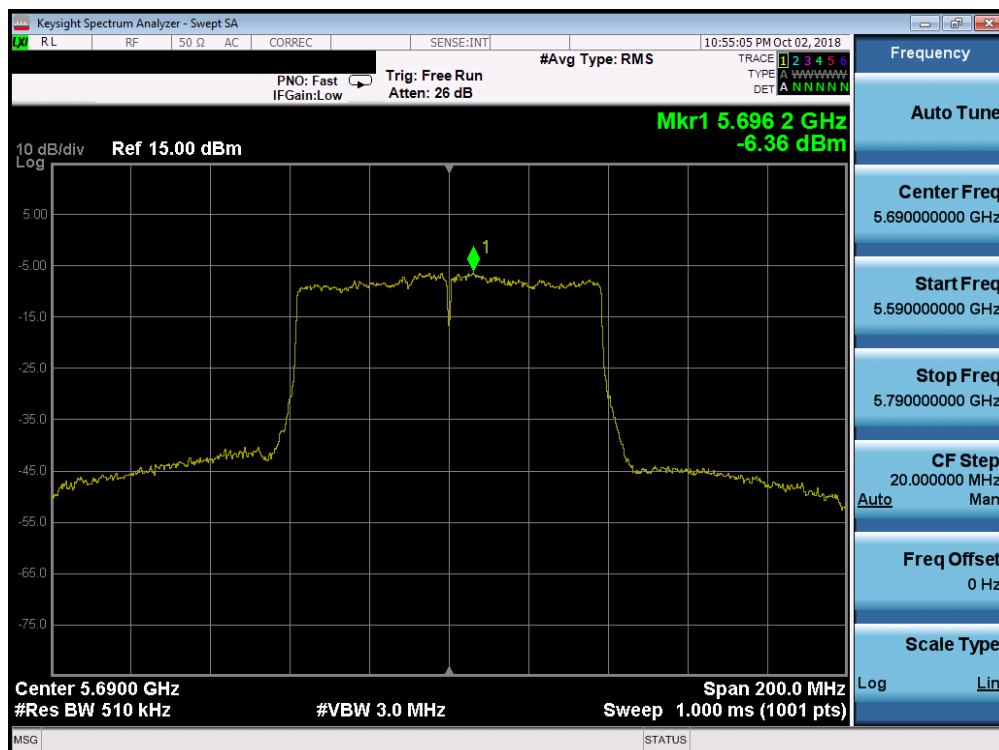


Plot 7-145. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 106)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 103 of 171



Plot 7-146. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 122)

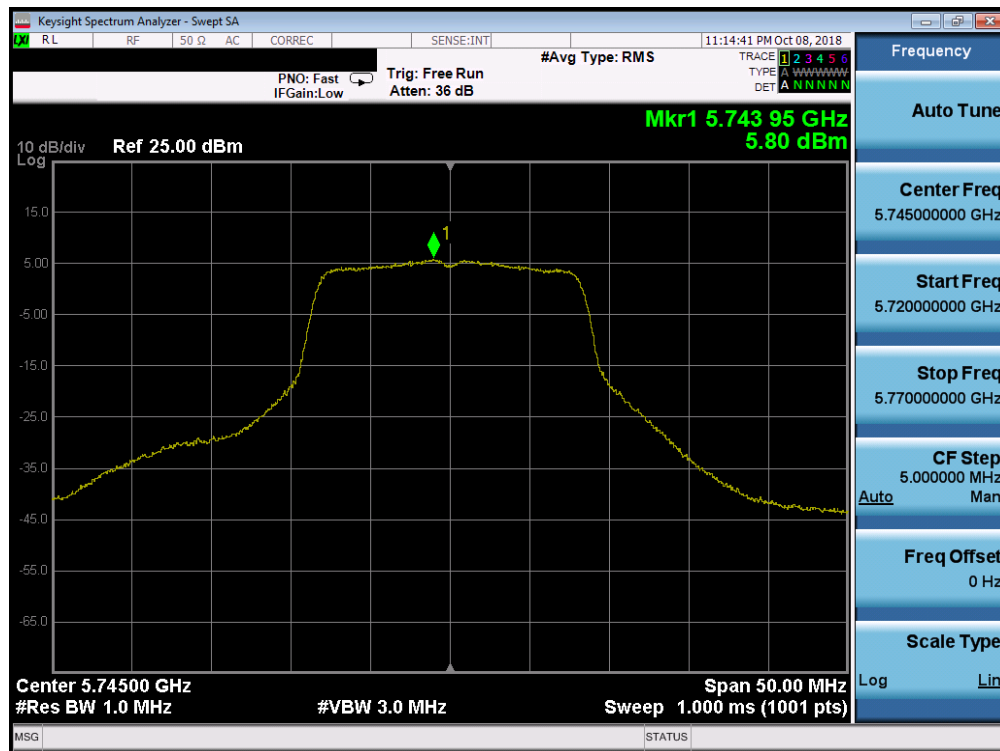


Plot 7-147. Power Spectral Density Plot SISO ANT2 (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

FCC ID: A3LSMA9200	 MEASUREMENT REPORT (CERTIFICATION) 		Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 104 of 171

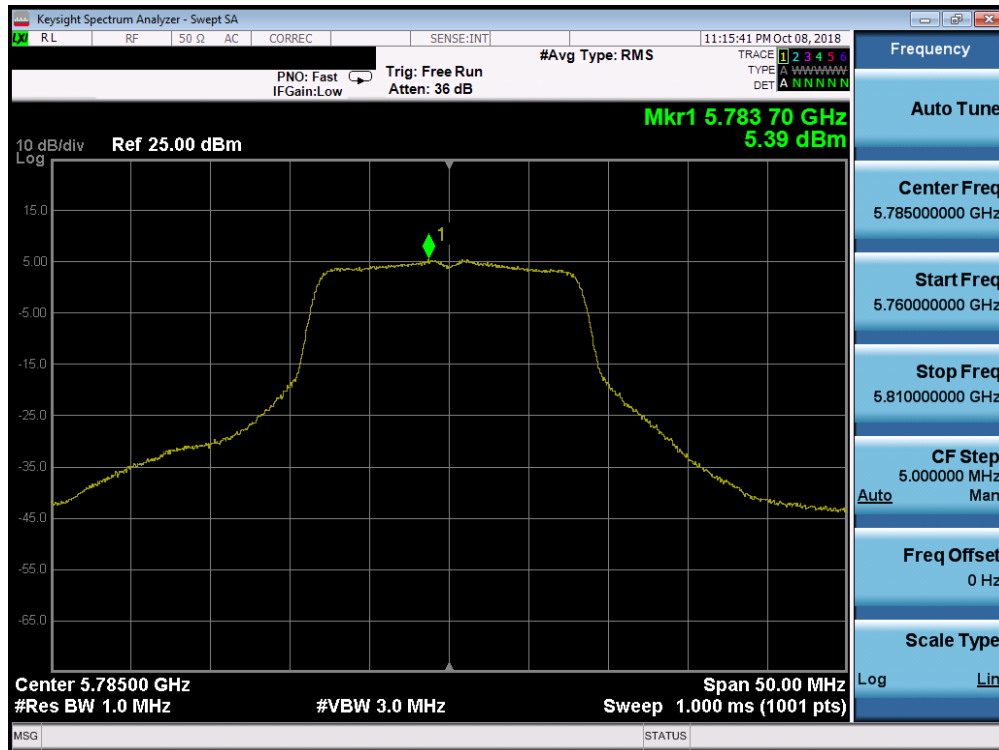
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6	5.80	30.0	-24.20
	5785	157	a	6	5.39	30.0	-24.61
	5825	165	a	6	5.45	30.0	-24.55
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	5.40	30.0	-24.60
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	4.72	30.0	-25.28
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	4.87	30.0	-25.13
	5755	151	n (40MHz)	13.5/15 (MCS0)	0.02	30.0	-29.98
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.61	30.0	-30.61
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-2.24	30.0	-32.24

Table 7-21. Band 3 Conducted Power Spectral Density Measurements SISO ANT2

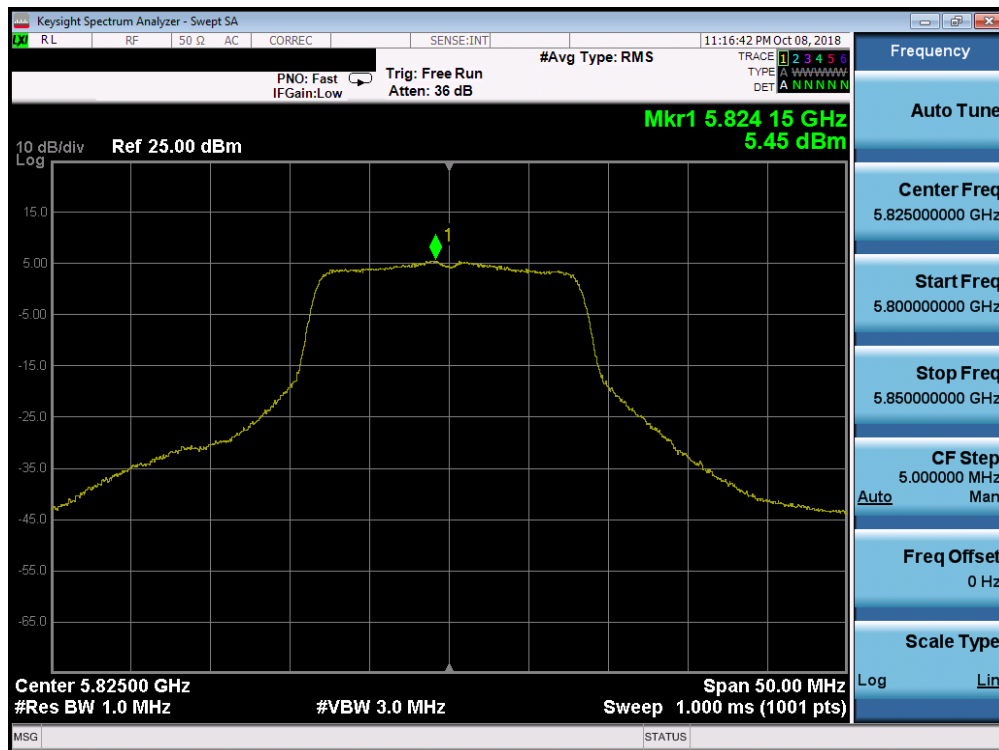


Plot 7-148. Power Spectral Density Plot SISO ANT2 (802.11a) (UNII Band 3) – Ch. 149)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset		Page 105 of 171



Plot 7-149. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 157)



Plot 7-150. Power Spectral Density Plot SISO ANT2 (802.11a (UNII Band 3) – Ch. 165)

FCC ID: A3LSMA9200	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1M1809140179-05.A3L	Test Dates: 8/30 - 10/13/2018	EUT Type: Portable Handset	Page 106 of 171	