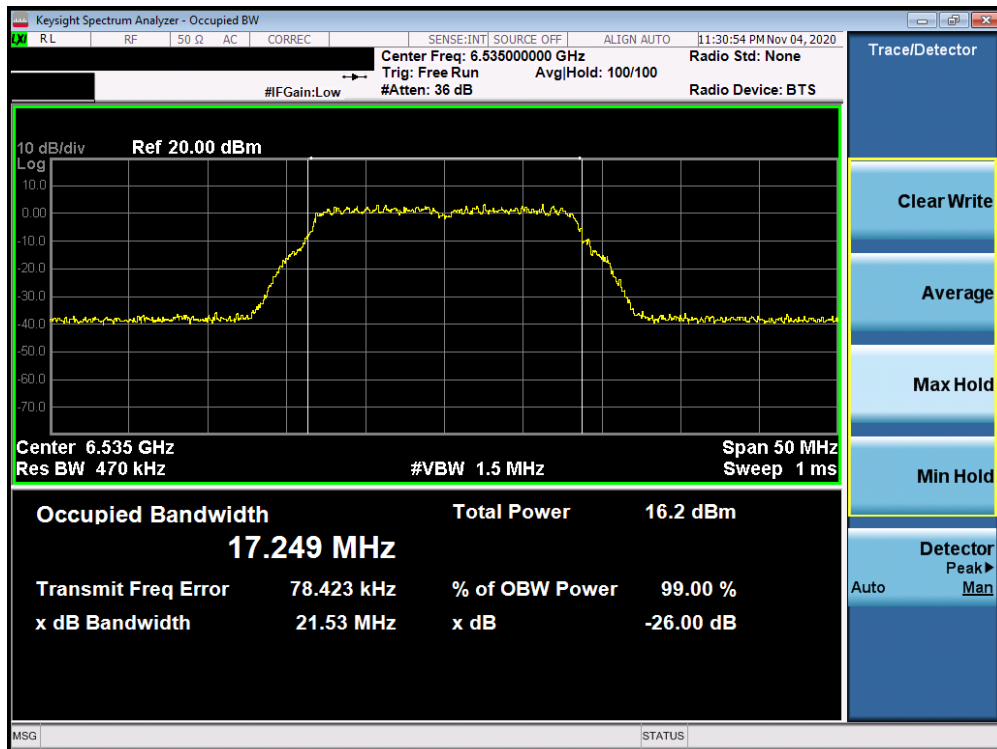
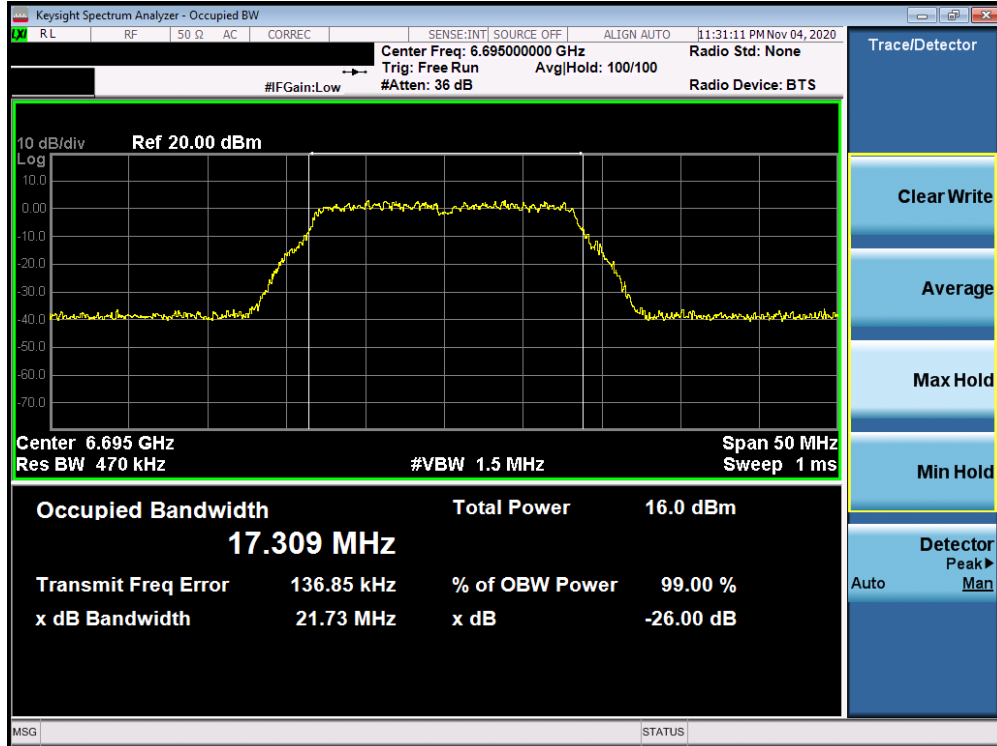


Plot 7-75. Power Spectral Density Plot MIMO ANT2 (160MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 111)

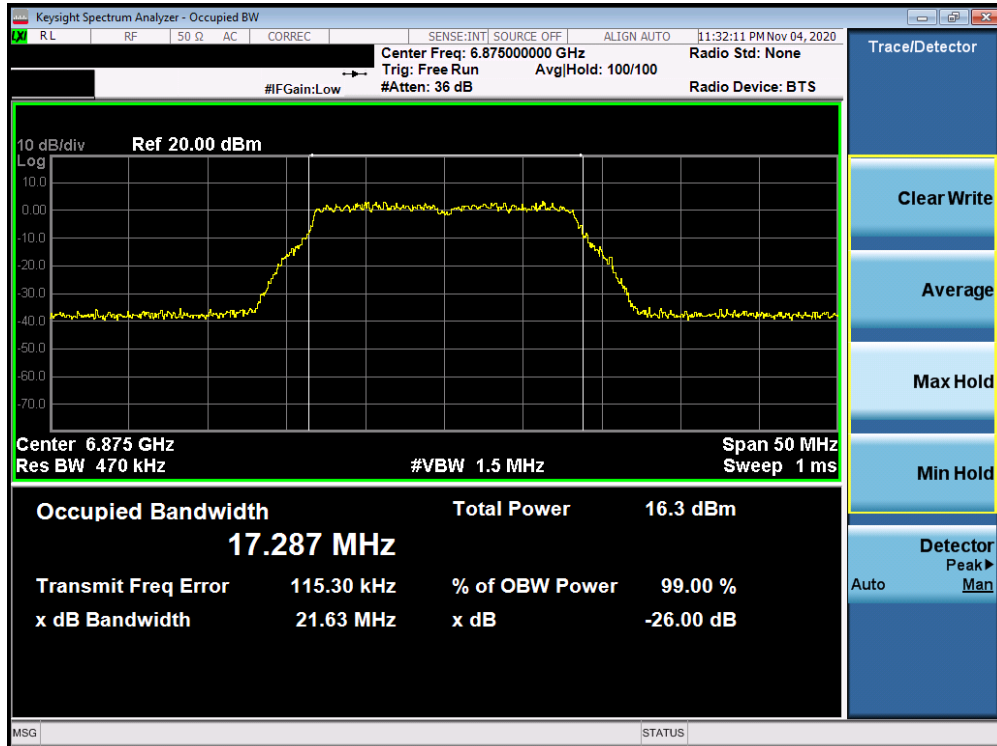


Plot 7-76. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11a (UNII Band 7) – Ch. 117)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Technical Manager
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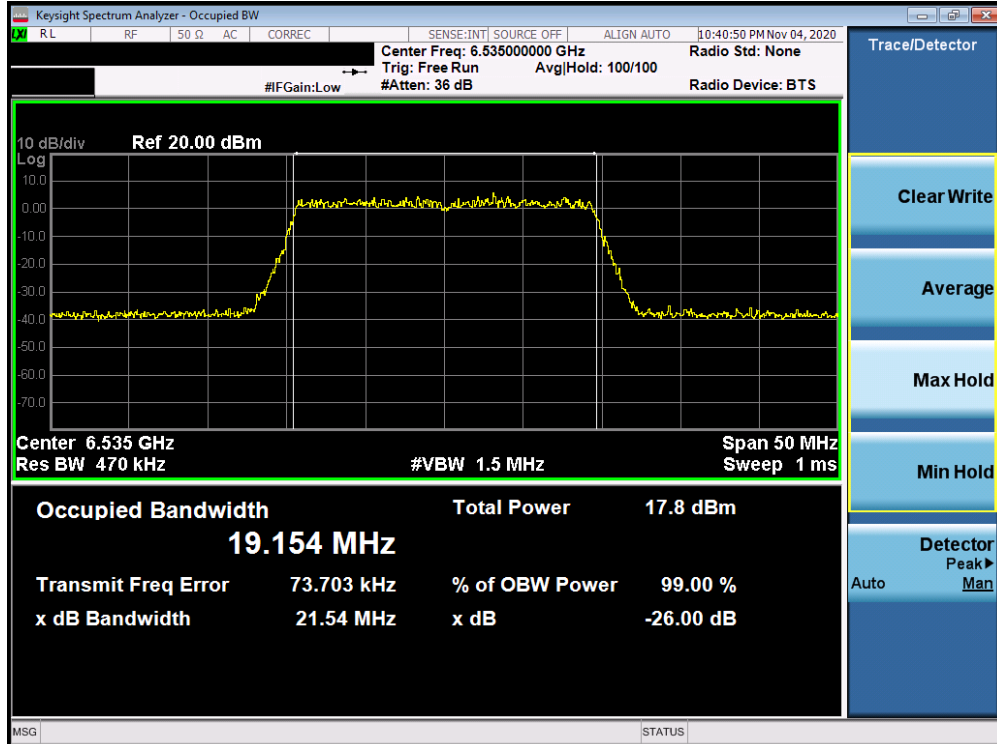


Plot 7-77. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11a (UNII Band 7) – Ch. 149)

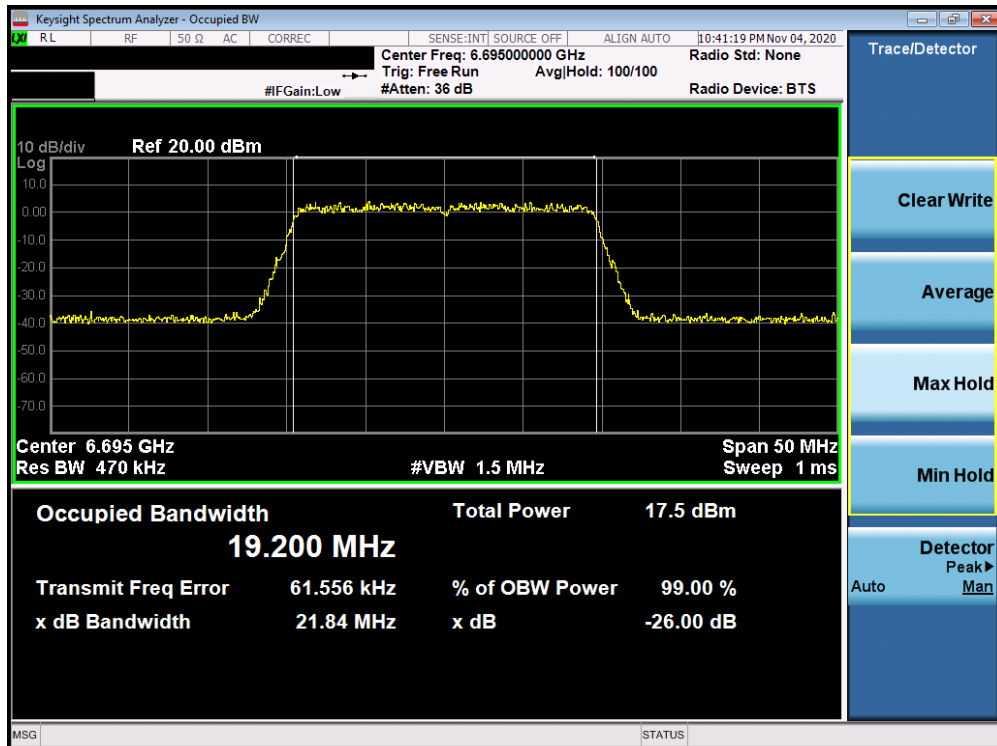


Plot 7-78. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11a (UNII Band 7) – Ch. 185)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 55 of 215

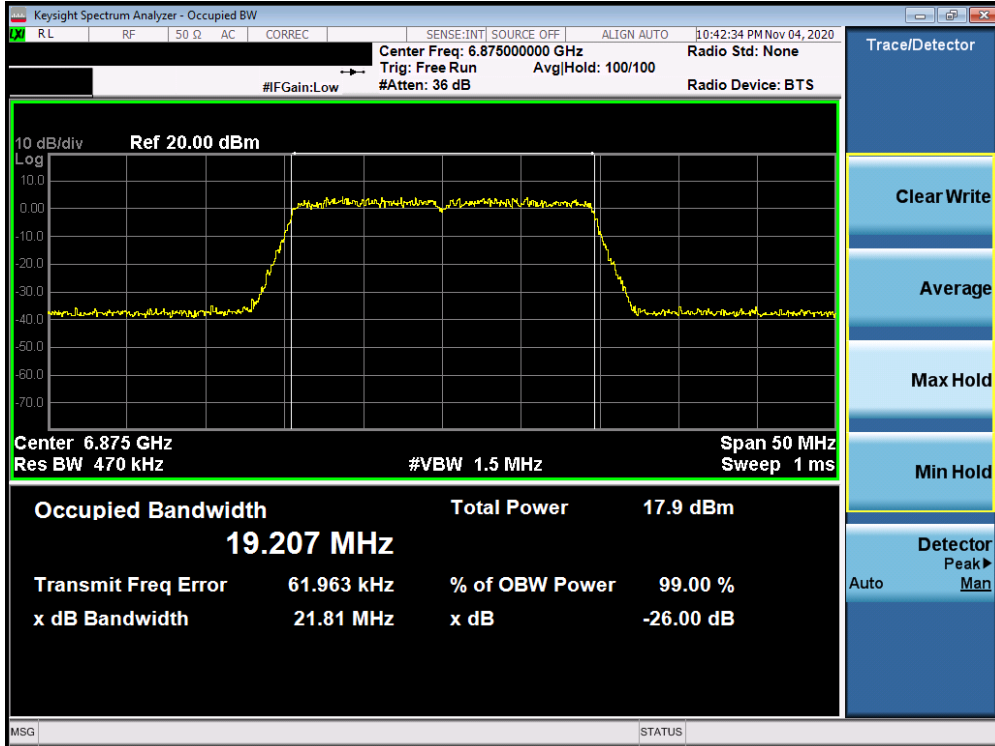


Plot 7-79. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 7) – Ch. 117)

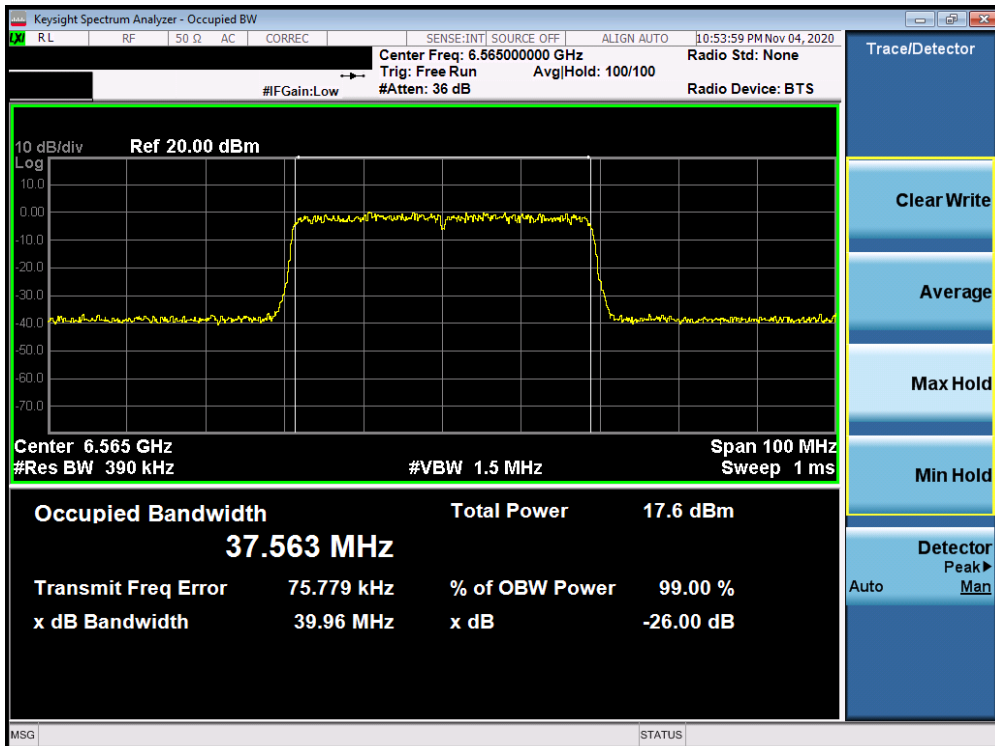


Plot 7-80. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 7) – Ch. 149)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 56 of 215

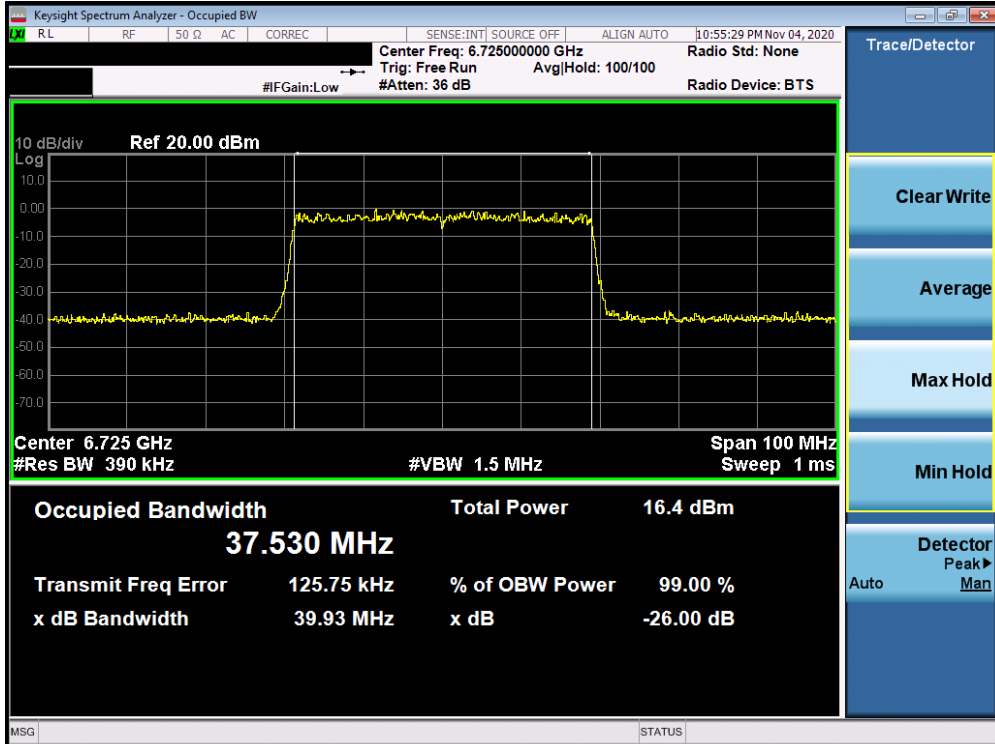


Plot 7-81. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 7) – Ch. 185)

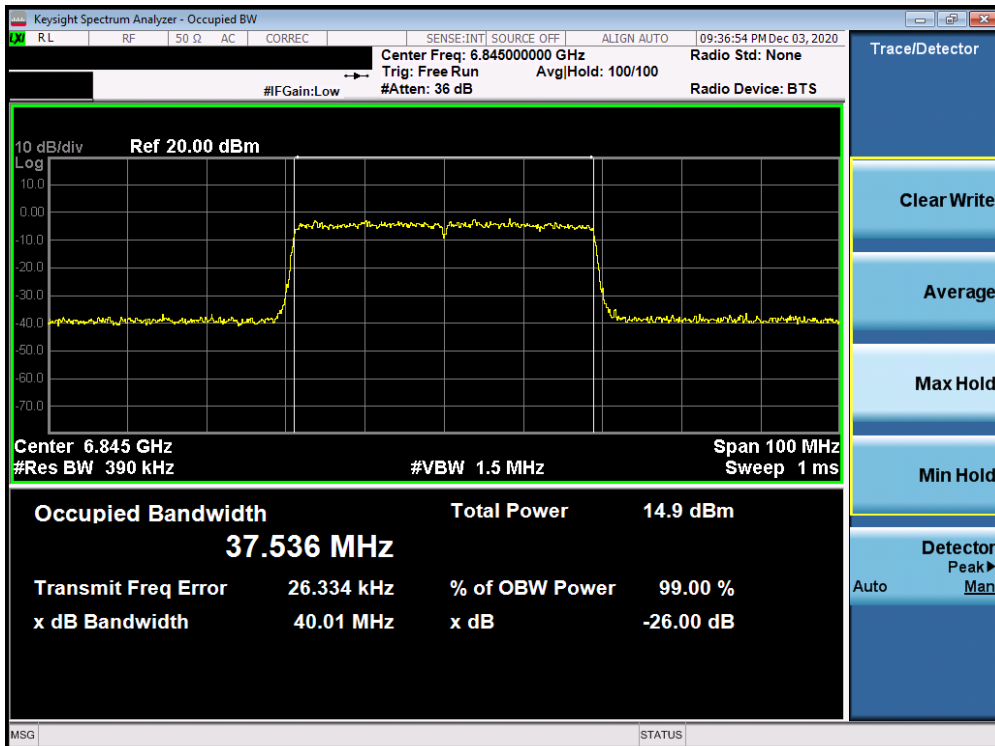


Plot 7-82. 26dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 7) – Ch. 123)

FCC ID: A3LSMG998B	Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 57 of 215

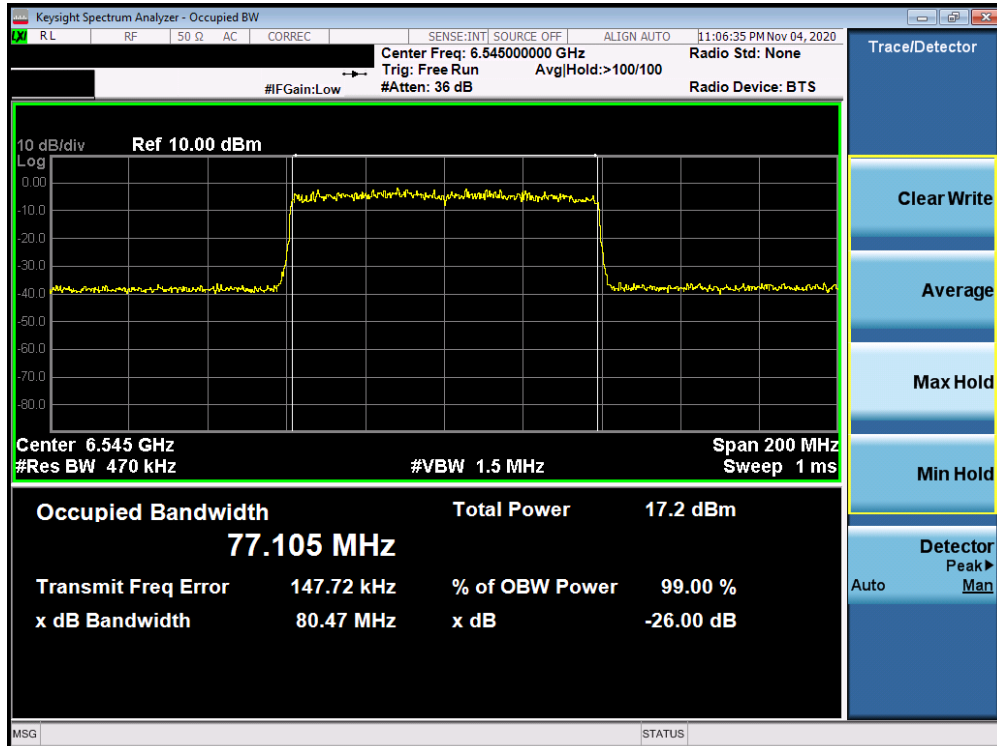


Plot 7-83. 26dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 7) – Ch. 155)

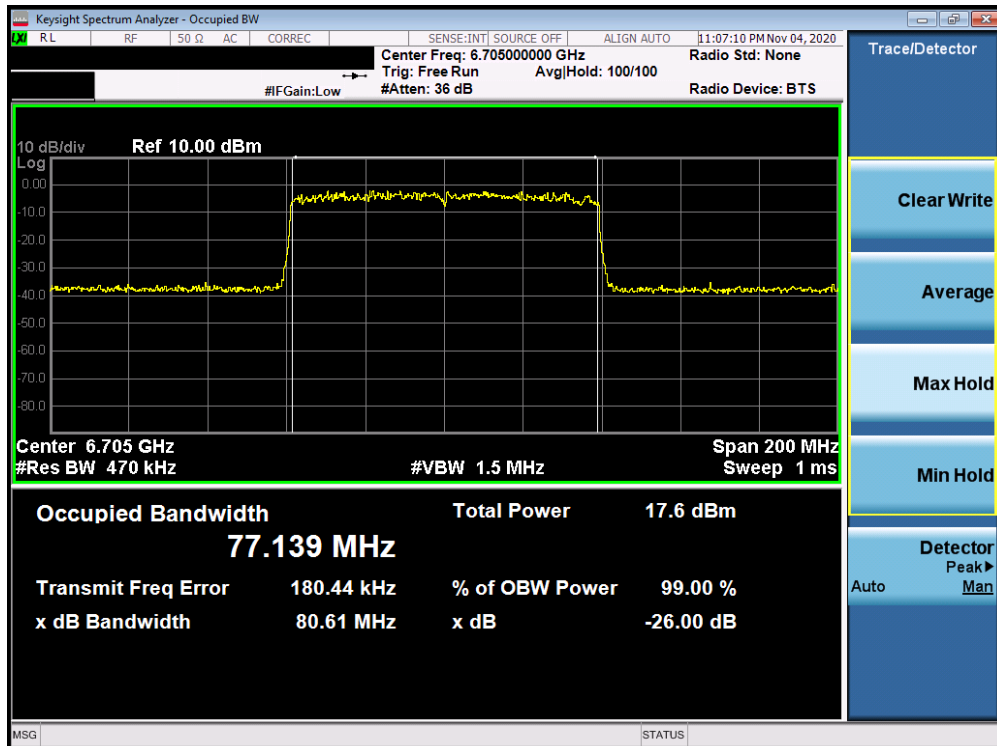


Plot 7-84. 26dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 7) – Ch. 179)

FCC ID: A3LSMG998B	Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 58 of 215

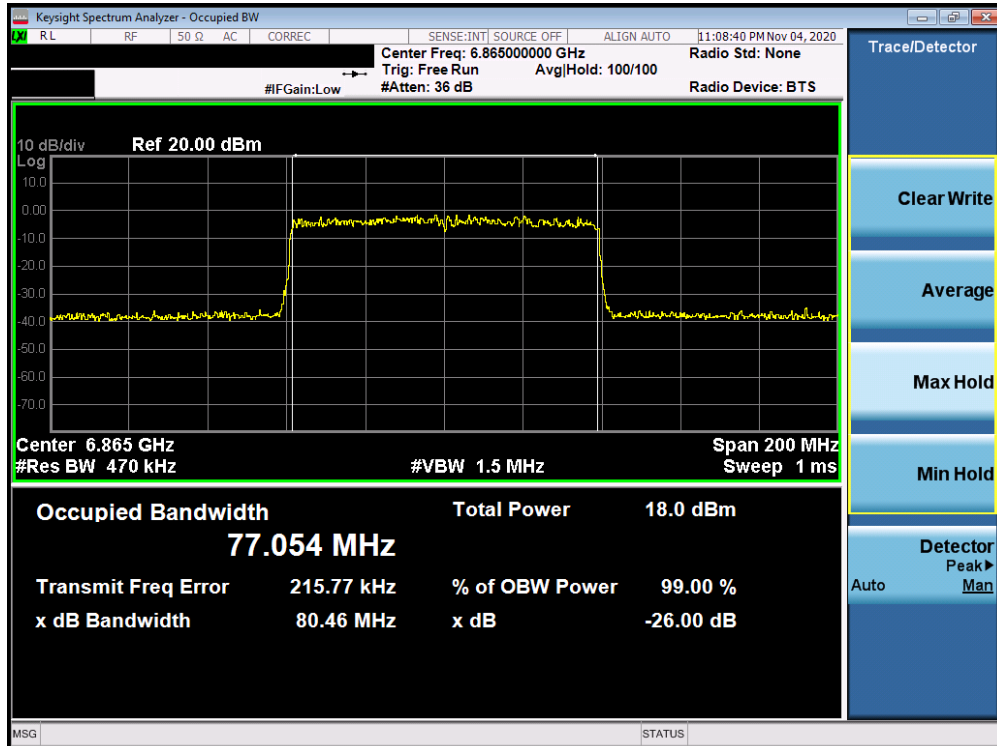


Plot 7-85. 26dB Bandwidth Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 7) – Ch. 119)

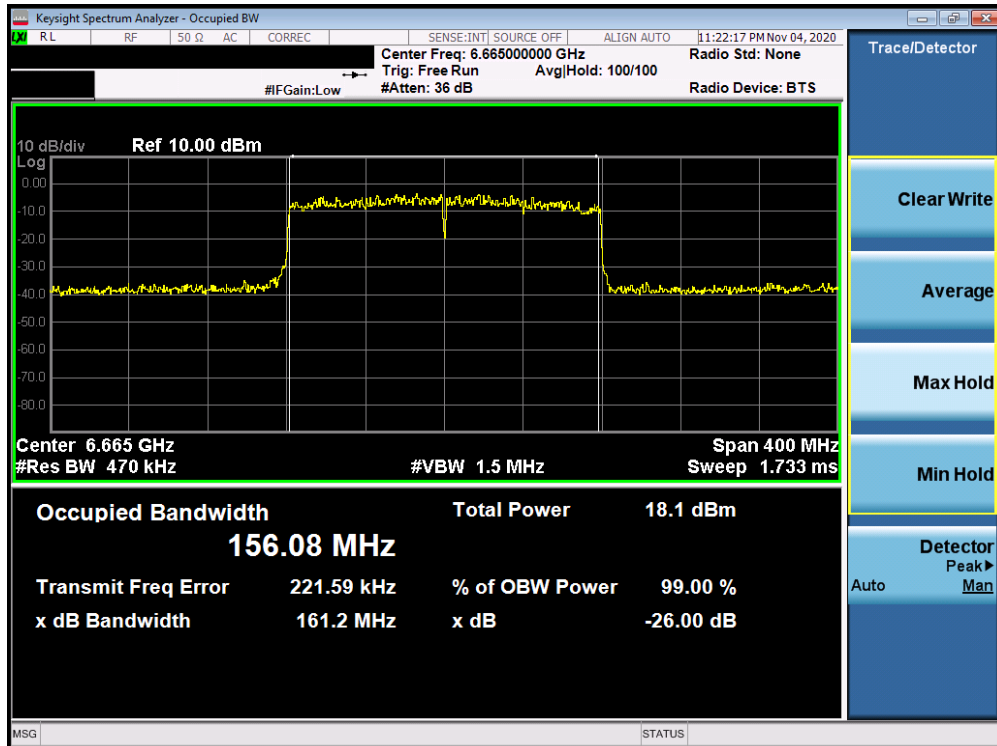


Plot 7-86. 26dB Bandwidth Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 7) – Ch. 151)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of  element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 59 of 215



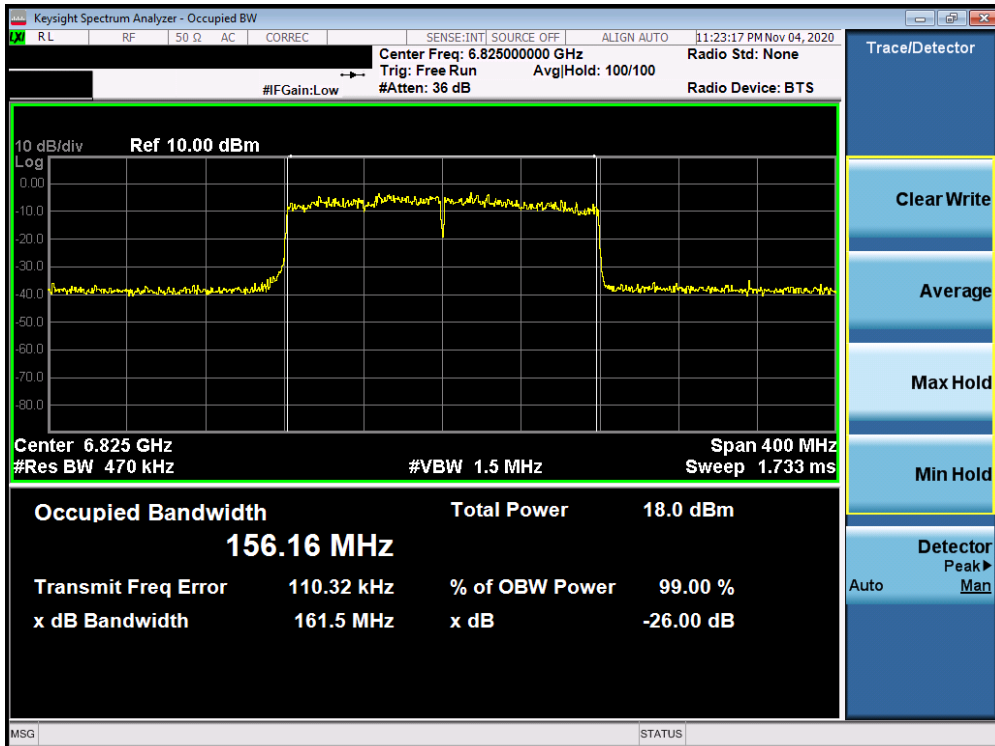
Plot 7-87. 26dB Bandwidth Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 7) – Ch. 183)



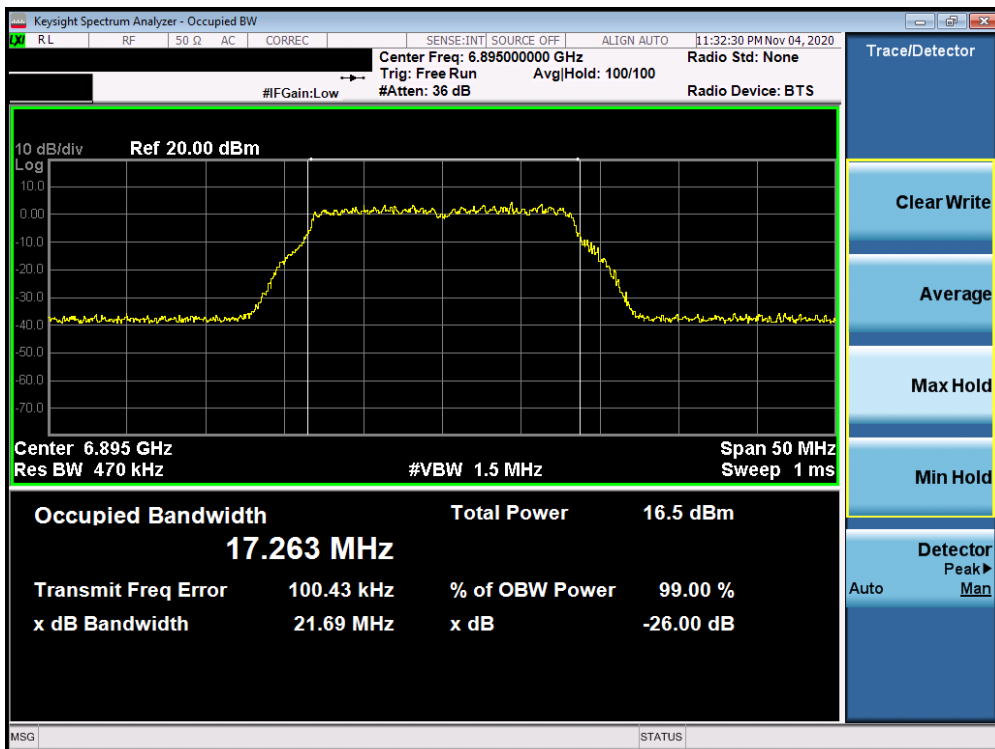
Plot 7-88. 26dB Bandwidth Plot MIMO ANT2 (160MHz BW 802.11ax (UNII Band 7) – Ch. 143)

FCC ID: A3LSMG998B	Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 60 of 215





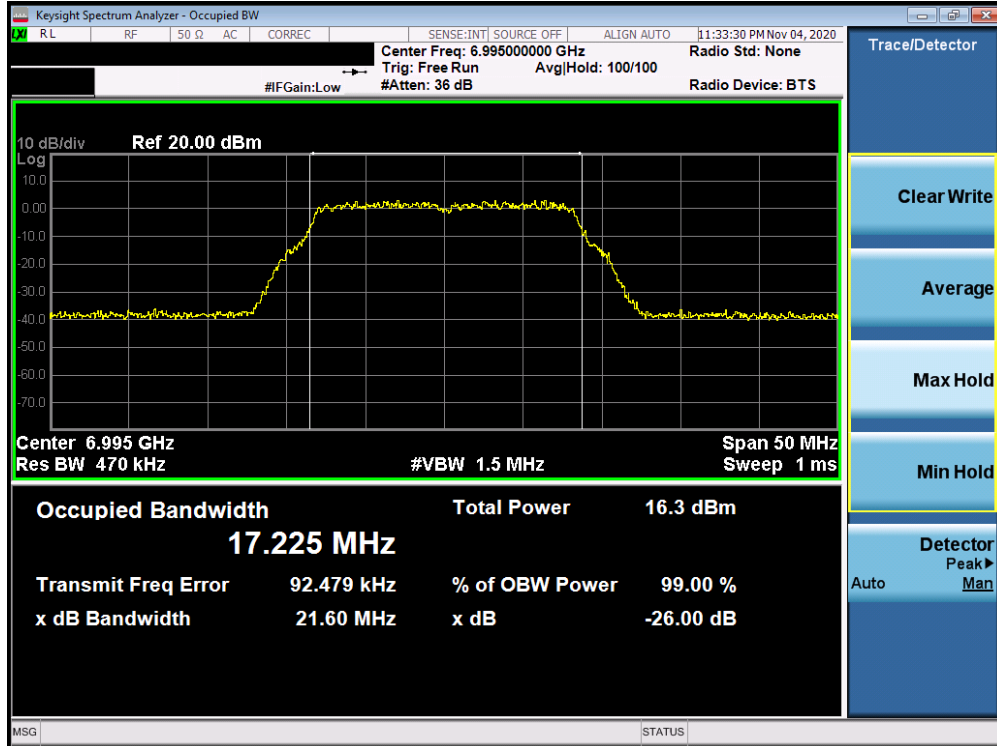
Plot 7-89. 26dB Bandwidth Plot MIMO ANT2 (160MHz BW 802.11ax (UNII Band 7) – Ch. 175)



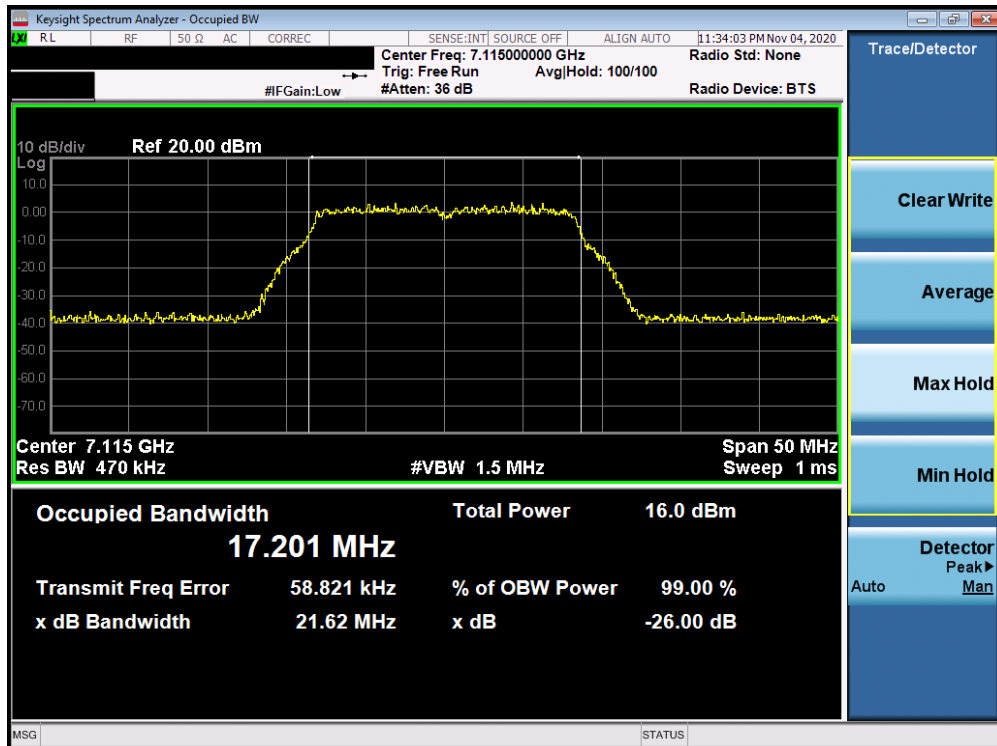
Plot 7-90. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11a (UNII Band 8) – Ch. 189)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 61 of 215



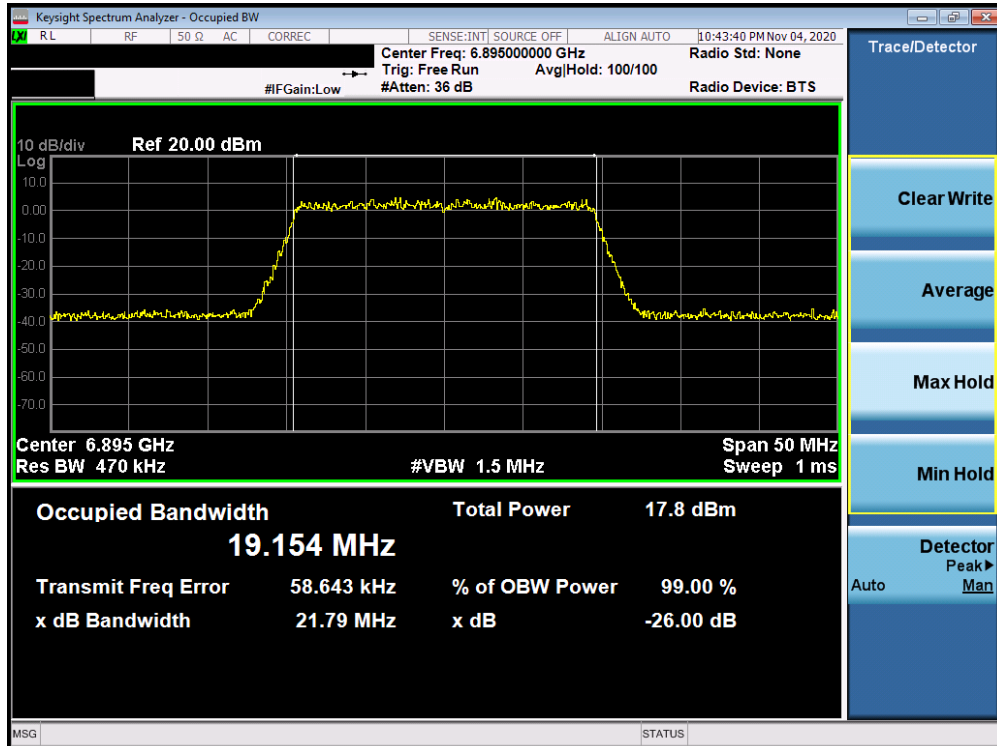


Plot 7-91. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11a (UNII Band 8) – Ch. 209)

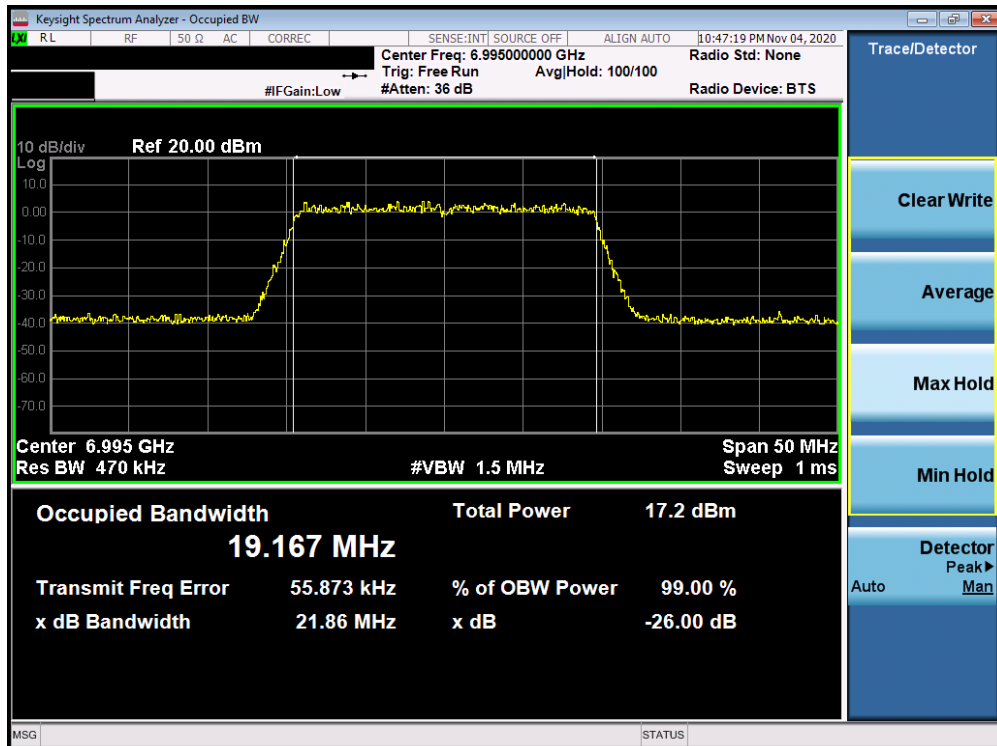


Plot 7-92. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11a (UNII Band 8) – Ch. 233)

FCC ID: A3LSMG998B	Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 62 of 215

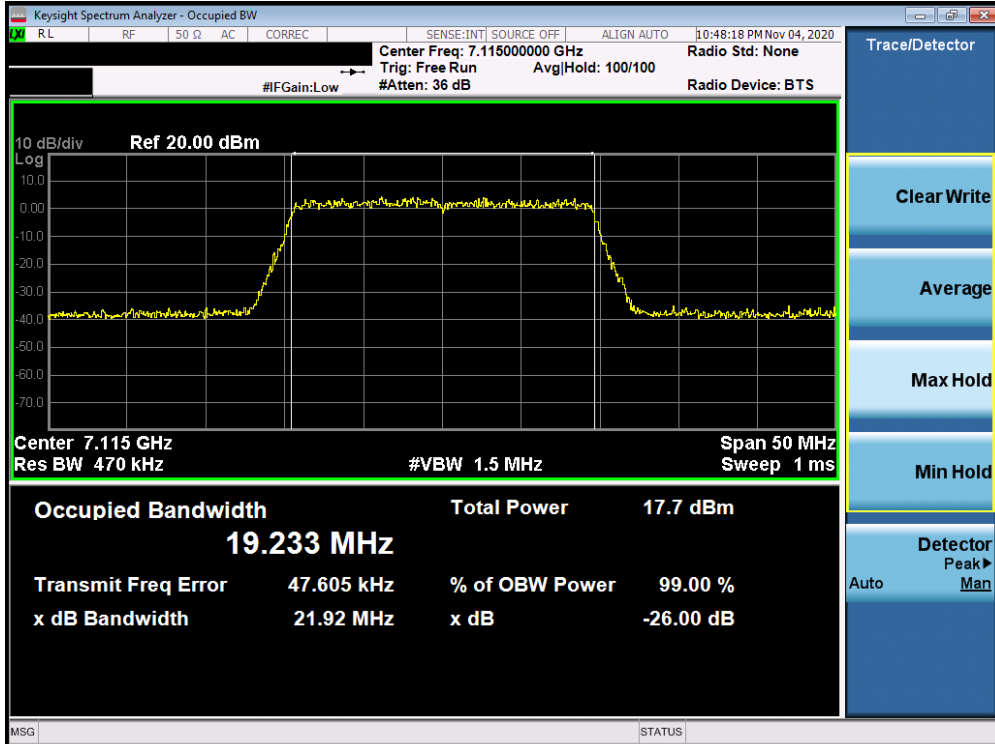


Plot 7-93. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 8) – Ch. 189)

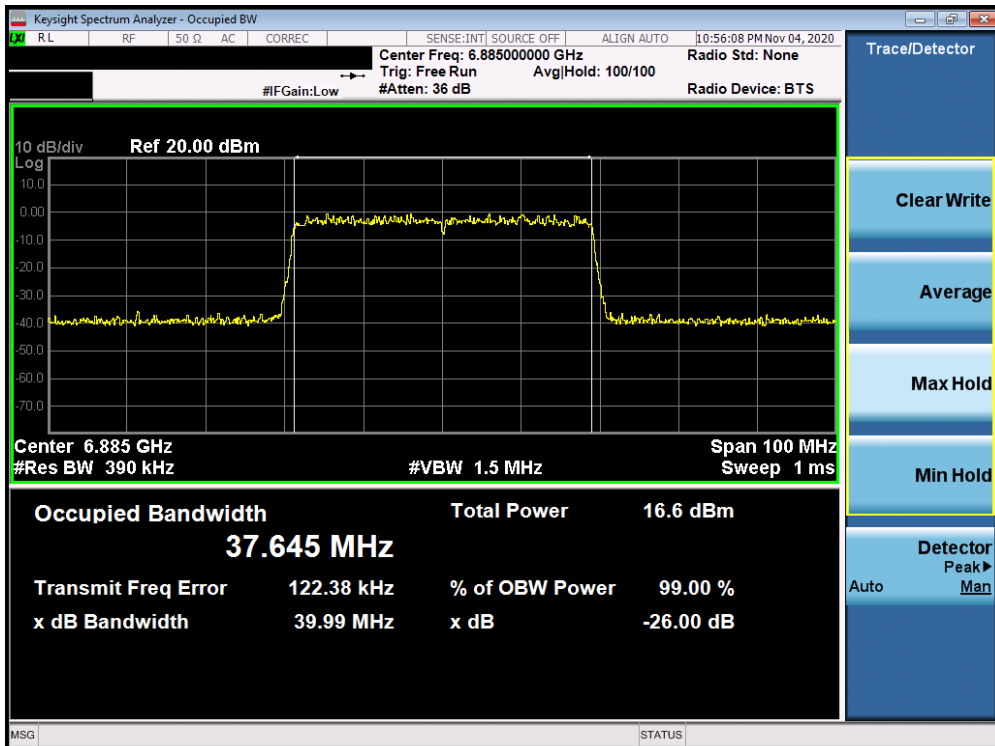


Plot 7-94. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 8) – Ch. 209)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of  element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 63 of 215

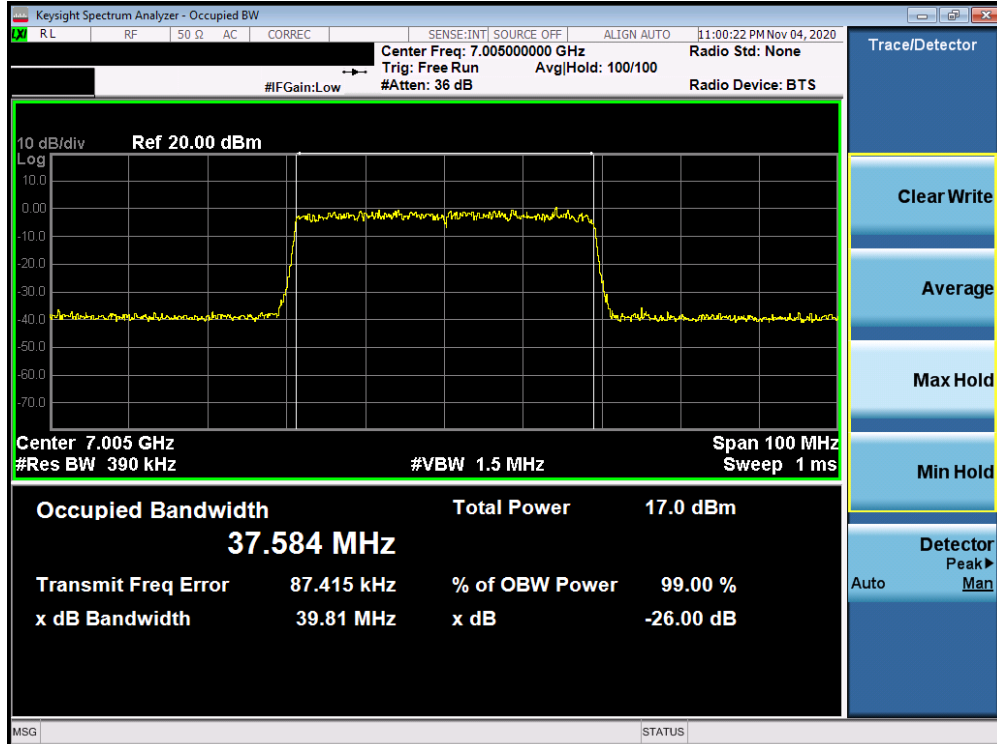


Plot 7-95. 26dB Bandwidth Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 8) – Ch. 233)

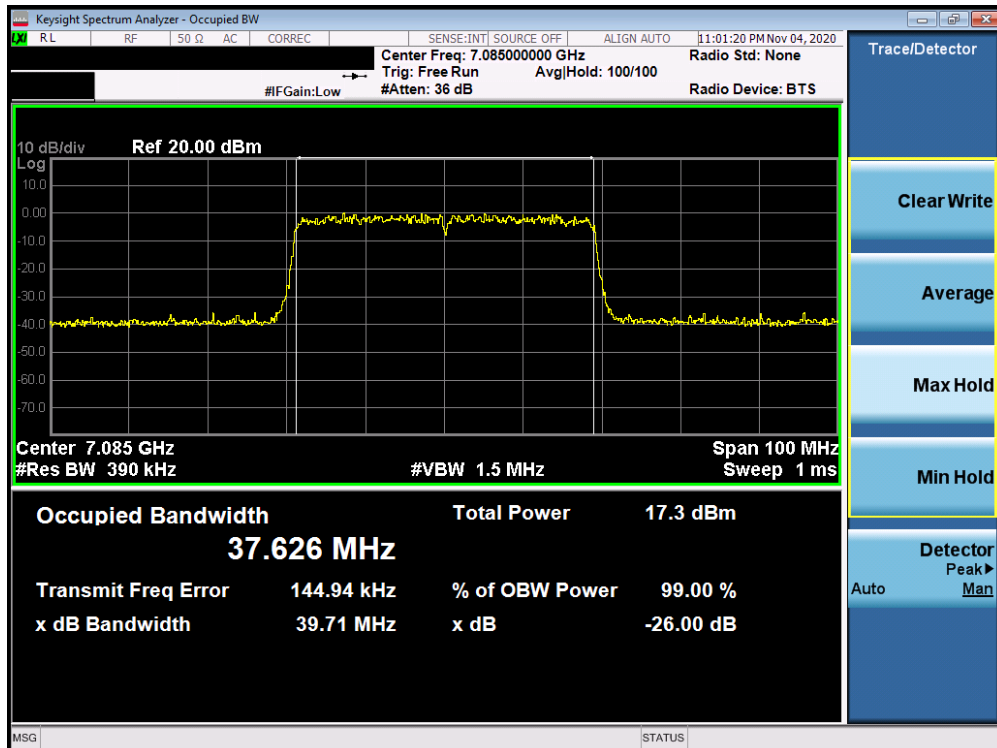


Plot 7-96. 26dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 8) – Ch. 195)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 64 of 215

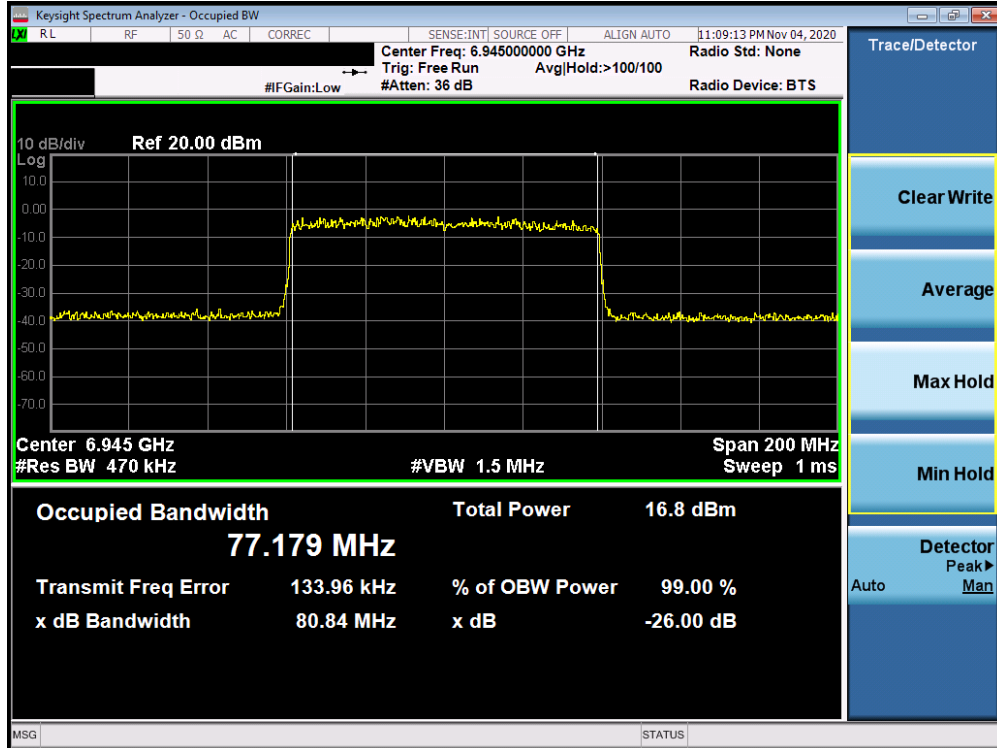


Plot 7-97. 26dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 8) – Ch. 211)

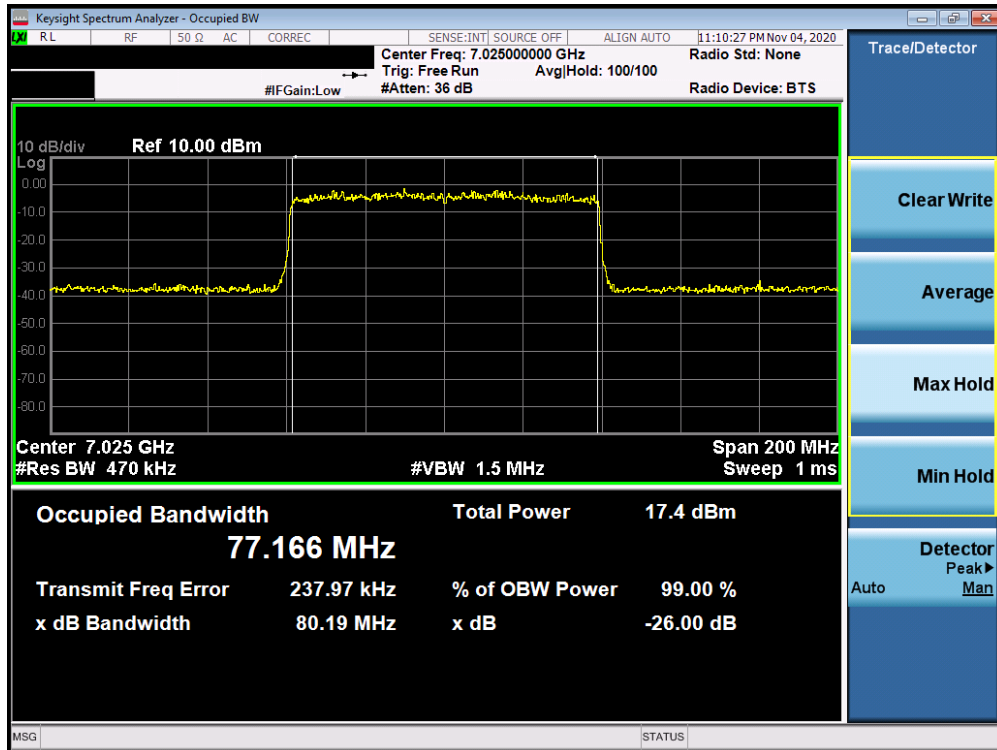


Plot 7-98. 26dB Bandwidth Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 8) – Ch. 227)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 65 of 215

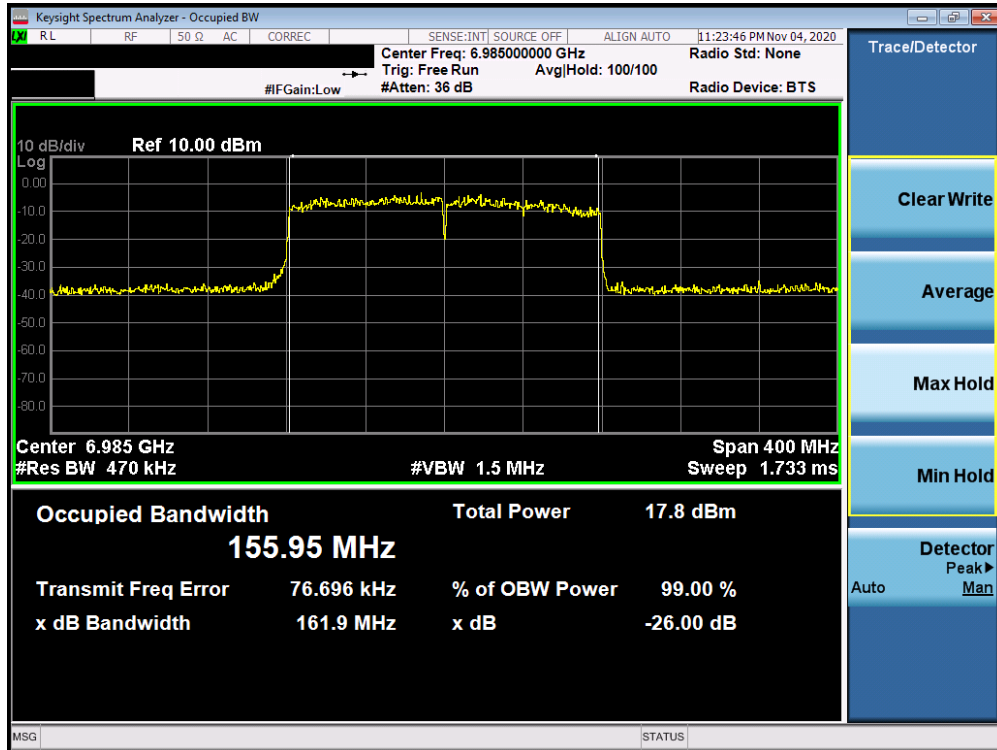


Plot 7-99. 26dB Bandwidth Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 8) – Ch. 199)



Plot 7-100. 26dB Bandwidth Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 8) – Ch. 215)

FCC ID: A3LSMG998B	 <b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 66 of 215



Plot 7-101. 26dB Bandwidth Plot MIMO ANT2 (160MHz BW 802.11ax (UNII Band 8) – Ch. 207)

FCC ID: A3LSMG998B	 <b>PCTEST</b> Proud to be part of 	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 67 of 215

### 7.3 UNII Output Power Measurement – 802.11a/ax § 2.1046, §15.407(a)(11), §15.407(a)(8)

#### 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.

#### 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 7-2. Test Instrument & Measurement Setup**

#### Test Notes

None.

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## MIMO Maximum Conducted Output Power Measurements

6GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Conducted Power [dBm]			Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
			ANT1	ANT2	MIMO				
	5935	2	5.82	5.94	8.89	-0.89	8.00	24.00	-16.00
	6175	45	5.52	6.01	8.78	-0.89	7.89	24.00	-16.11
	6415	93	5.28	5.86	8.59	-0.89	7.70	24.00	-16.30
	6435	97	5.30	6.06	8.71	-1.55	7.16	24.00	-16.84
	6475	105	5.39	6.02	8.73	-1.55	7.18	24.00	-16.82
	6515	113	5.62	6.01	8.83	-1.55	7.28	24.00	-16.72
	6535	117	5.85	5.67	8.77	-1.55	7.22	24.00	-16.78
	6695	149	5.64	5.57	8.62	-1.55	7.07	24.00	-16.93
6875	185	5.76	5.66	8.72	-1.55	7.17	24.00	-16.83	
6895	189	5.81	5.95	8.89	-1.71	7.18	24.00	-16.82	
6995	209	5.52	5.80	8.67	-1.71	6.96	24.00	-17.04	
7115	233	5.54	5.20	8.38	-1.71	6.67	24.00	-17.33	

Table 7-2. MIMO 20MHz BW 802.11a (UNII) Maximum Conducted Output Power

6GHz (20MHz Bandwidth)	Freq [MHz]	Channel	Conducted Power [dBm]			Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
			ANT1	ANT2	MIMO				
	5935	2	5.93	5.98	8.97	-0.89	8.08	24.00	-15.92
	6175	45	5.59	6.14	8.88	-0.89	7.99	24.00	-16.01
	6195	49	5.63	6.17	8.92	-0.89	8.03	24.00	-15.97
	6415	93	5.56	6.19	8.90	-0.89	8.01	24.00	-15.99
	6435	97	5.72	6.17	8.96	-1.55	7.41	24.00	-16.59
	6475	105	5.76	5.93	8.86	-1.55	7.31	24.00	-16.69
	6515	113	5.30	5.91	8.63	-1.55	7.08	24.00	-16.92
	6535	117	5.94	5.77	8.87	-1.55	7.32	24.00	-16.68
6695	149	5.97	5.72	8.86	-1.55	7.31	24.00	-16.69	
6875	185	5.92	5.88	8.91	-1.55	7.36	24.00	-16.64	
6895	189	6.10	5.82	8.97	-1.71	7.26	24.00	-16.74	
6995	209	5.55	5.69	8.63	-1.71	6.92	24.00	-17.08	
7115	233	5.45	5.58	8.53	-1.71	6.82	24.00	-17.18	

Table 7-3. MIMO 20MHz BW 802.11ax (UNII) Maximum Conducted Output Power

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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6GHz (40MHz Bandwidth)	Freq [MHz]	Channel	Conducted Power [dBm]			Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
			ANT1	ANT2	MIMO				
	5965	3	8.47	8.72	11.61	-0.89	10.72	24.00	-13.28
	6165	43	8.04	8.45	11.26	-0.89	10.37	24.00	-13.63
	6205	51	8.01	8.57	11.31	-0.89	10.42	24.00	-13.58
	6405	91	8.06	8.57	11.33	-0.89	10.44	24.00	-13.56
	6445	99	7.91	9.00	11.50	-1.55	9.95	24.00	-14.05
	6485	107	8.05	8.76	11.43	-1.55	9.88	24.00	-14.12
	6525	115	8.18	8.81	11.52	-1.55	9.97	24.00	-14.03
	6565	123	8.42	8.54	11.49	-1.55	9.94	24.00	-14.06
	6685	147	8.15	8.49	11.33	-1.55	9.78	24.00	-14.22
	6845	179	8.30	8.62	11.47	-1.55	9.92	24.00	-14.08
	6885	187	8.33	8.56	11.46	-1.71	9.75	24.00	-14.25
	6965	203	8.22	8.58	11.41	-1.71	9.70	24.00	-14.30
	7005	211	8.04	8.56	11.32	-1.71	9.61	24.00	-14.39
	7085	227	8.08	8.51	11.31	-1.71	9.60	24.00	-14.40

Table 7-4. MIMO 40MHz BW 802.11ax (UNII) Maximum Conducted Output Power

6GHz (80MHz Bandwidth)	Freq [MHz]	Channel	Conducted Power [dBm]			Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
			ANT1	ANT2	MIMO				
	5985	7	8.46	8.86	11.67	-0.89	10.78	24.00	-13.22
	6145	39	8.21	8.65	11.45	-0.89	10.56	24.00	-13.44
	6225	55	8.21	8.74	11.49	-0.89	10.60	24.00	-13.40
	6385	87	8.39	8.74	11.58	-0.89	10.69	24.00	-13.31
	6465	103	8.33	9.02	11.70	-1.55	10.15	24.00	-13.85
	6545	119	8.65	8.54	11.61	-1.55	10.06	24.00	-13.94
	6705	151	8.48	8.51	11.51	-1.55	9.96	24.00	-14.04
	6865	183	8.49	8.49	11.50	-1.55	9.95	24.00	-14.05
	6945	199	8.45	8.51	11.49	-1.71	9.78	24.00	-14.22
	7025	215	8.15	8.37	11.27	-1.71	9.56	24.00	-14.44

Table 7-5. MIMO 80MHz BW 802.11ax (UNII) Maximum Conducted Output Power

6GHz (160MHz Bandwidth)	Freq [MHz]	Channel	Conducted Power [dBm]			Ant. Gain [dBi]	Max e.i.r.p. [dBm]	Max e.i.r.p. Limit [dBm]	e.i.r.p. Margin [dB]
			ANT1	ANT2	MIMO				
	6025	15	8.02	8.60	11.33	-0.89	10.44	24.00	-13.56
	6185	47	7.94	8.49	11.23	-0.89	10.34	24.00	-13.66
	6345	79	8.38	9.04	11.73	-0.89	10.84	24.00	-13.16
	6505	111	7.92	9.05	11.53	-1.55	9.98	24.00	-14.02
	6665	143	8.50	8.69	11.61	-1.55	10.06	24.00	-13.94
	6825	175	8.29	8.67	11.49	-1.55	9.94	24.00	-14.06
	6985	207	8.42	8.58	11.51	-1.71	9.80	24.00	-14.20

Table 7-6. MIMO 160MHz BW 802.11ax (UNII) Maximum Conducted Output Power

Sample MIMO Calculation:

At 5935MHz in 802.11ax (20MHz BW) mode, the average conducted output power was measured to be 5.93 dBm for Antenna-1 and 5.98 dBm for Antenna-2.

$$\text{Antenna 1} + \text{Antenna 2} = \text{MIMO}$$

$$(5.93 \text{ dBm} + 5.98 \text{ dBm}) = (3.92 \text{ mW} + 3.96 \text{ mW}) = 7.88 \text{ mW} = 8.97 \text{ dBm}$$

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## 7.4 Maximum Power Spectral Density – 802.11a/ax §15.407(a)(8)

### 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 5.925-7.125 GHz bands, the maximum power spectral density must not exceed –1 dBm e.i.r.p. in any 1-megahertz band***

### 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 7-3. Test Instrument & Measurement Setup**

### Test Notes

None

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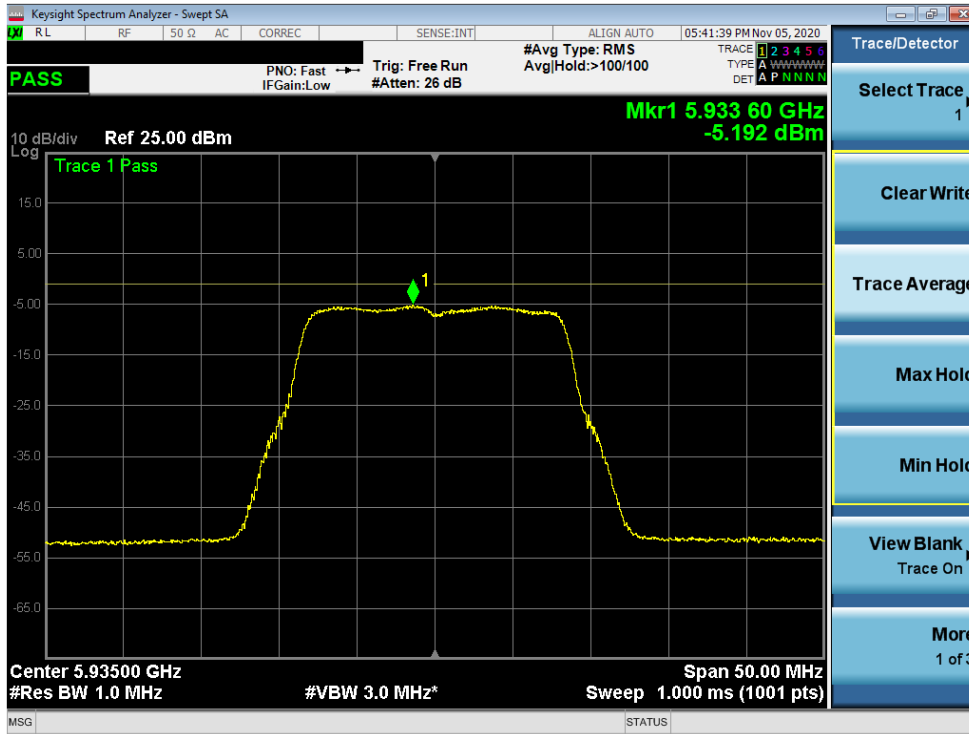
## MIMO Power Spectral Density Measurements

	Frequency [MHz]	Channel	802.11 MODE	Antenna-1 Power Density [dBm/MHz]	Antenna-1 Power Density [dBm/MHz]	Summed MIMO Power Density [dBm/MHz]	Directional Gain [dBi]	e.i.r.p Density [dBm/MHz]	Max EIRP Density [dBm/MHz]	Margin [dB]
Band 5	5935	2	a	-5.19	-5.03	-2.10	-0.89	-2.99	-1	-1.99
	6175	45	a	-6.46	-5.64	-3.02	-0.89	-3.91	-1	-2.91
	6415	93	a	-5.88	-5.24	-2.54	-0.89	-3.43	-1	-2.43
	5935	2	ax (20MHz)	-5.47	-5.66	-2.55	-0.89	-3.44	-1	-2.44
	6175	45	ax (20MHz)	-6.50	-5.45	-2.93	-0.89	-3.82	-1	-2.82
	6415	93	ax (20MHz)	-6.24	-5.39	-2.78	-0.89	-3.67	-1	-2.67
	5695	3	ax (40MHz)	-5.32	-6.08	-2.67	-0.89	-3.56	-1	-2.56
	6165	43	ax (40MHz)	-5.47	-5.88	-2.66	-0.89	-3.55	-1	-2.55
	6405	91	ax (40MHz)	-5.15	-5.90	-2.50	-0.89	-3.39	-1	-2.39
	5985	7	ax (80MHz)	-8.09	-9.21	-5.60	-0.89	-6.49	-1	-5.49
	6145	39	ax (80MHz)	-7.94	-7.88	-4.90	-0.89	-5.79	-1	-4.79
	6385	87	ax (80MHz)	-8.17	-8.71	-5.42	-0.89	-6.31	-1	-5.31
	6025	15	ax (160MHz)	-10.11	-10.90	-7.47	-0.89	-8.36	-1	-7.36
6185	47	ax (160MHz)	-10.51	-11.15	-7.81	-0.89	-8.70	-1	-7.70	
6345	79	ax (160MHz)	-9.77	-10.03	-6.89	-0.89	-7.77	-1	-6.77	
Band 6	6435	97	a	-5.57	-4.60	-2.05	-1.61	-3.66	-1	-2.66
	6475	105	a	-5.36	-4.90	-2.12	-1.61	-3.73	-1	-2.73
	6515	113	a	-5.59	-4.80	-2.17	-1.61	-3.78	-1	-2.78
	6345	97	ax (20MHz)	-6.11	-4.85	-2.43	-1.61	-4.04	-1	-3.04
	6475	105	ax (20MHz)	-5.68	-5.30	-2.48	-1.61	-4.09	-1	-3.09
	6515	113	ax (20MHz)	-6.00	-4.85	-2.38	-1.61	-3.99	-1	-2.99
	6445	99	ax (40MHz)	-5.00	-5.10	-2.04	-1.61	-3.65	-1	-2.65
	6485	107	ax (40MHz)	-5.28	-5.56	-2.41	-1.61	-4.02	-1	-3.02
	6525	115	ax (40MHz)	-5.22	-5.37	-2.28	-1.61	-3.89	-1	-2.89
	6465	103	ax (80MHz)	-8.11	-8.54	-5.31	-1.61	-6.92	-1	-5.92
6505	111	ax (160MHz)	-10.14	-10.30	-7.21	-1.61	-8.82	-1	-7.82	
Band 7	6535	117	a	-5.28	-5.30	-2.28	-1.55	-3.83	-1	-2.83
	6695	149	a	-5.56	-5.51	-2.53	-1.55	-4.07	-1	-3.07
	6875	185	a	-5.67	-5.48	-2.56	-1.55	-4.11	-1	-3.11
	6535	117	ax (20MHz)	-6.00	-5.64	-2.81	-1.55	-4.36	-1	-3.36
	6695	149	ax (20MHz)	-5.61	-5.91	-2.75	-1.55	-4.29	-1	-3.29
	6875	185	ax (20MHz)	-5.89	-5.94	-2.91	-1.55	-4.46	-1	-3.46
	6565	123	ax (40MHz)	-4.92	-5.69	-2.28	-1.55	-3.83	-1	-2.83
	6685	155	ax (40MHz)	-4.64	-5.98	-2.25	-1.55	-3.80	-1	-2.80
	6845	187	ax (40MHz)	-5.05	-5.87	-2.43	-1.55	-3.98	-1	-2.98
	6545	119	ax (80MHz)	-7.52	-9.12	-5.24	-1.55	-6.78	-1	-5.78
	6705	151	ax (80MHz)	-7.70	-8.98	-5.28	-1.55	-6.83	-1	-5.83
	6865	183	ax (80MHz)	-7.54	-8.08	-4.79	-1.55	-6.34	-1	-5.34
	6665	143	ax (160MHz)	-9.88	-10.89	-7.35	-1.55	-8.89	-1	-7.89
	6825	175	ax (160MHz)	-9.81	-10.47	-7.12	-1.55	-8.67	-1	-7.67
Band 8	6895	189	a	-5.29	-5.26	-2.27	-1.84	-4.11	-1	-3.11
	6995	209	a	-5.37	-5.54	-2.45	-1.84	-4.29	-1	-3.29
	7115	233	a	-5.37	-5.50	-2.42	-1.84	-4.26	-1	-3.26
	6895	189	ax (20MHz)	-5.42	-5.82	-2.61	-1.84	-4.45	-1	-3.45
	6995	209	ax (20MHz)	-5.24	-6.32	-2.73	-1.84	-4.57	-1	-3.57
	7115	233	ax (20MHz)	-5.51	-5.79	-2.63	-1.84	-4.47	-1	-3.47
	6885	195	ax (40MHz)	-4.92	-5.59	-2.23	-1.84	-4.07	-1	-3.07
	6965	211	ax (40MHz)	-5.18	-5.59	-2.37	-1.84	-4.21	-1	-3.21
	7085	227	ax (40MHz)	-5.18	-6.03	-2.57	-1.84	-4.41	-1	-3.41
	6945	199	ax (80MHz)	-7.65	-9.01	-5.27	-1.84	-7.11	-1	-6.11
	7025	215	ax (80MHz)	-7.76	-9.05	-5.35	-1.84	-7.19	-1	-6.19
6985	207	ax (160MHz)	-9.69	-10.70	-7.15	-1.84	-8.99	-1	-7.99	

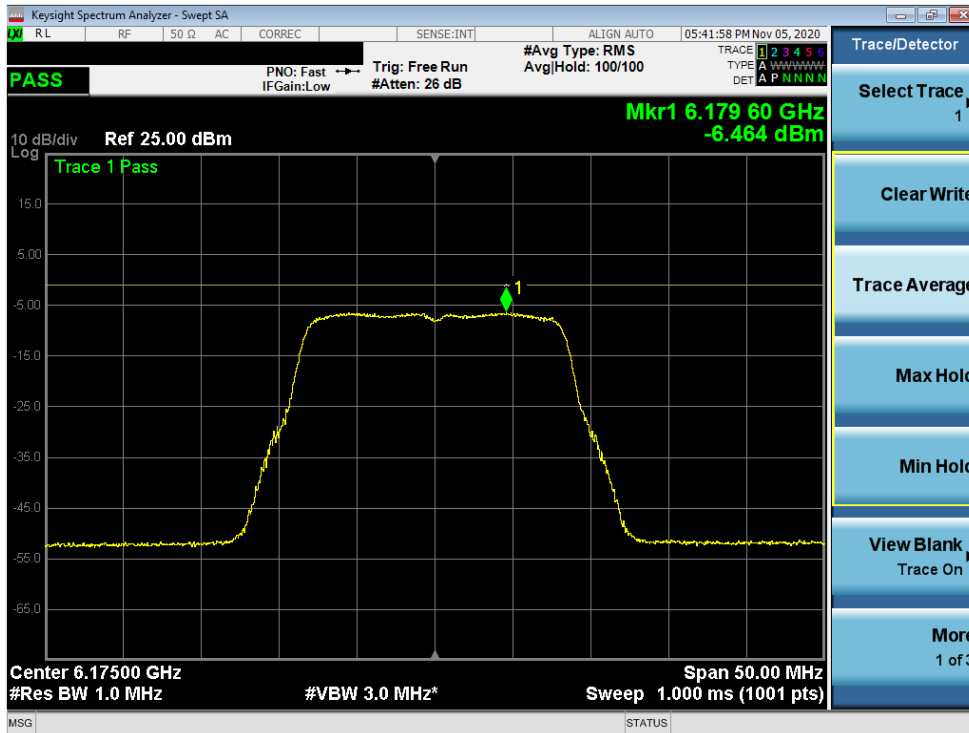
Table 7-7. MIMO e.i.r.p. Conducted Power Spectral Density Measurements

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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**MIMO Antenna-1 Power Spectral Density Measurements**



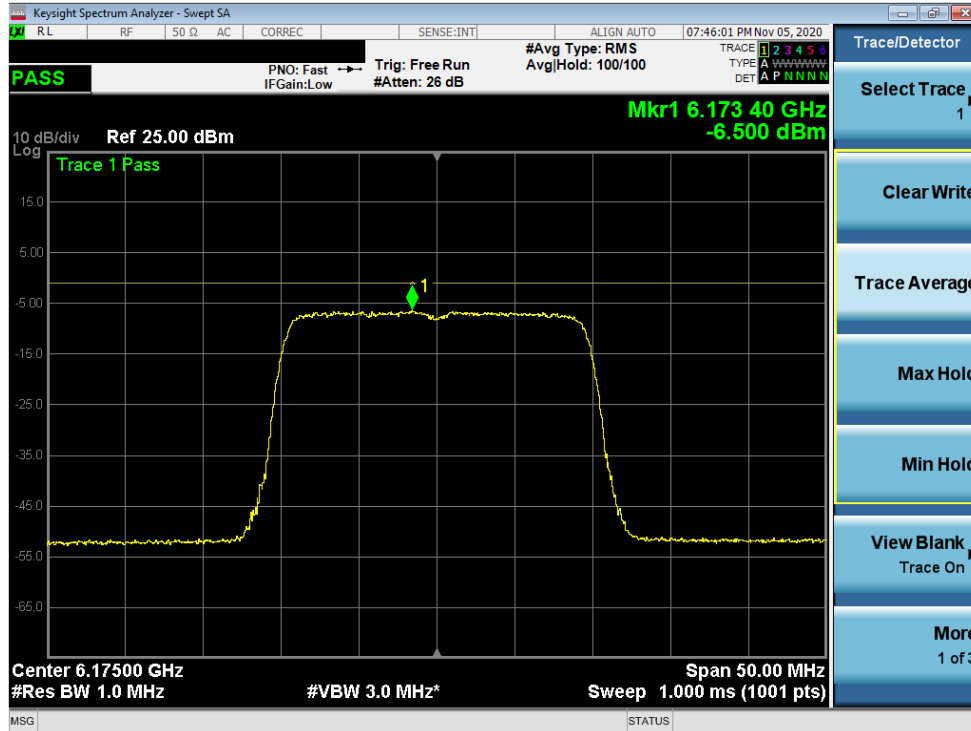
**Plot 7-102. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11a UNII Band 5) – Ch. 2)**



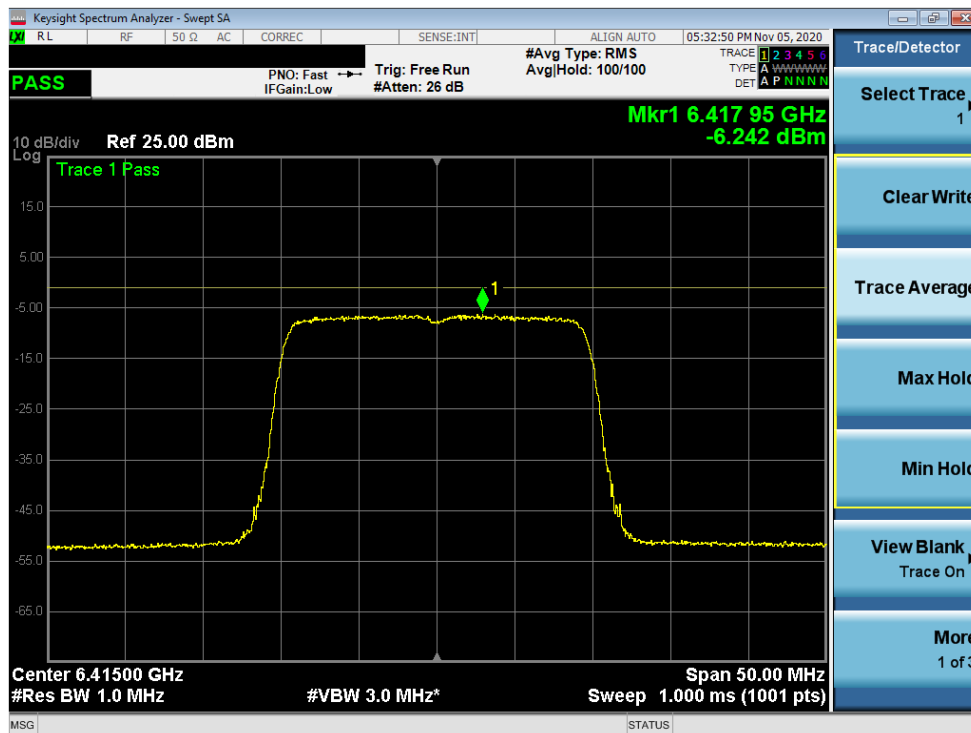
**Plot 7-103. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11a (UNII Band 5) – Ch. 45)**

FCC ID: A3LSMG998B	Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 73 of 215





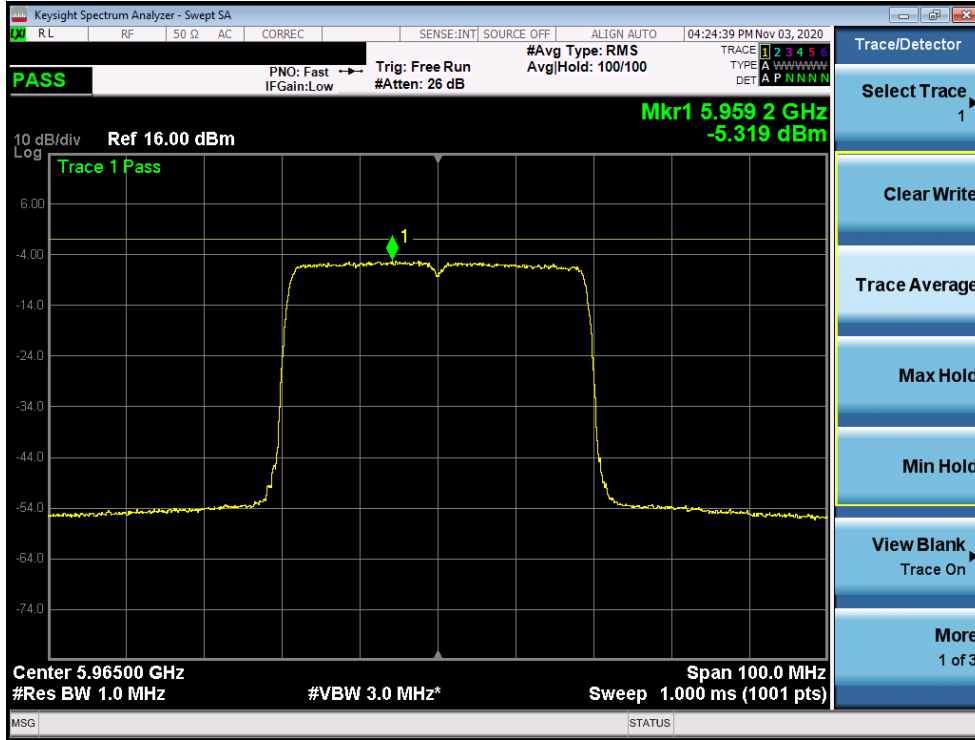
Plot 7-106. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax (UNII Band 5) – Ch. 45)



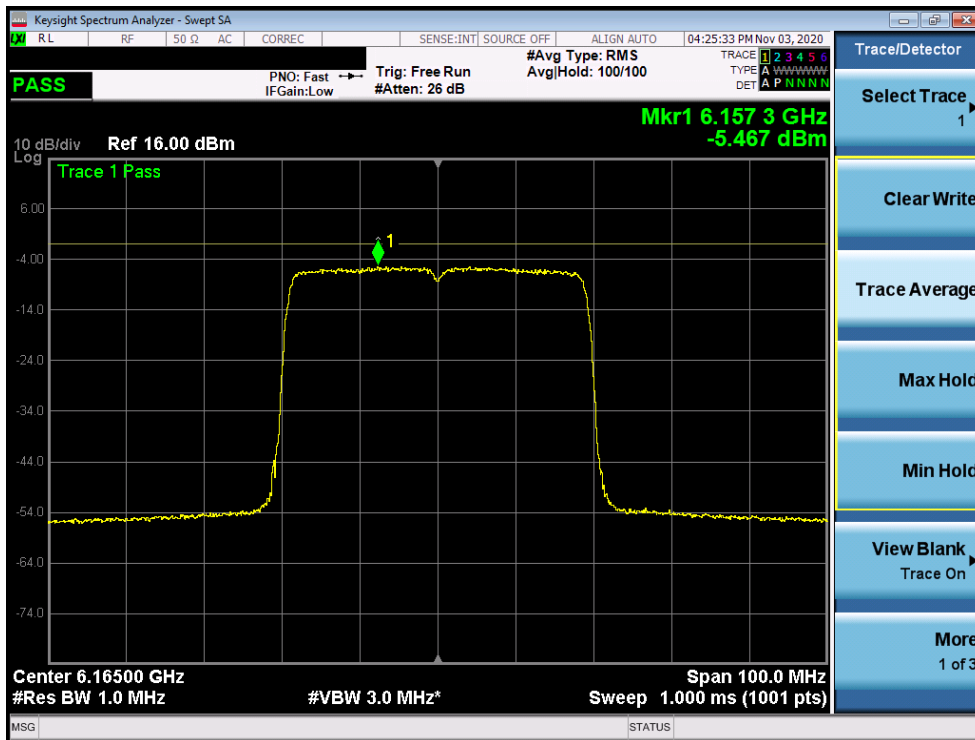
Plot 7-107. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax UNII Band 5) – Ch. 93)

FCC ID: A3LSMG998B	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 75 of 215



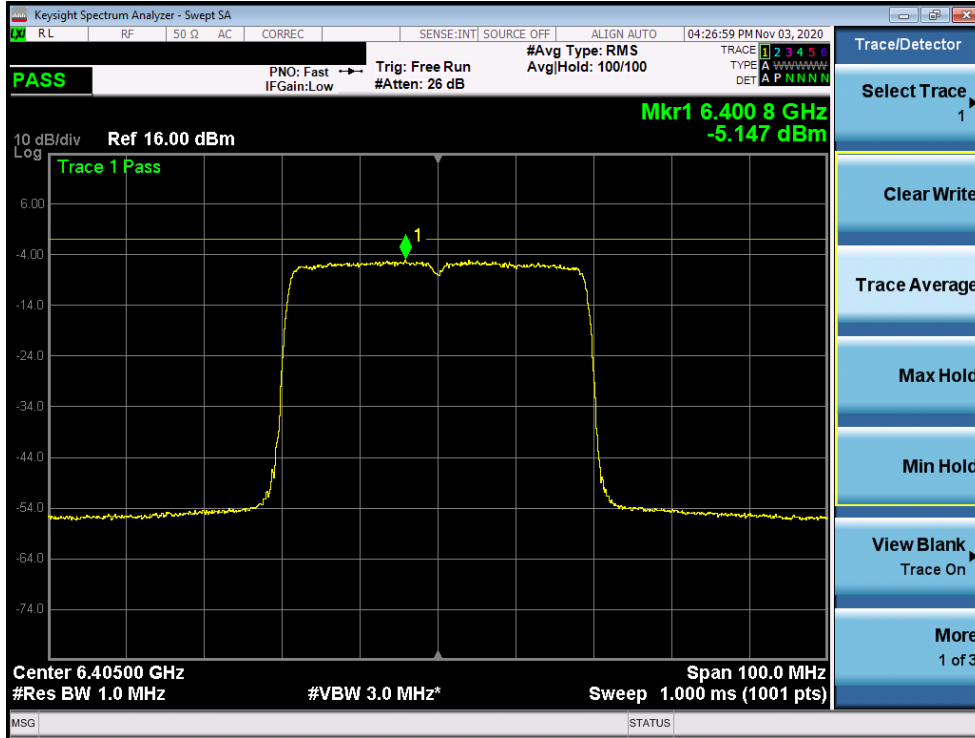


Plot 7-108. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 5) – Ch. 3)



Plot 7-109. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 5) – Ch. 43)

FCC ID: A3LSMG998B	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 76 of 215

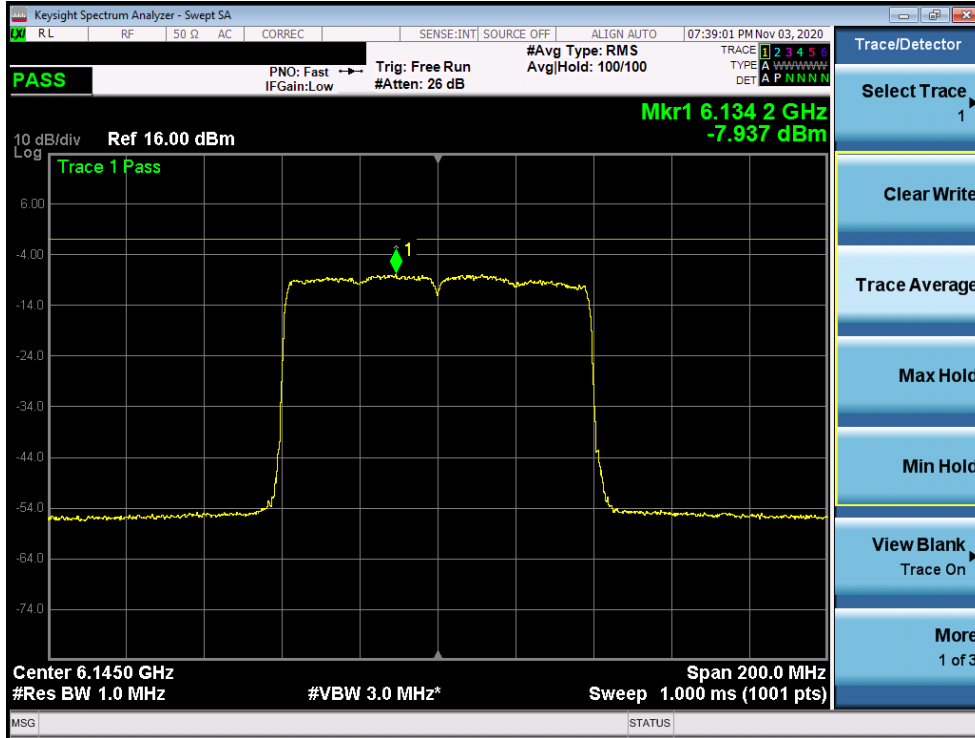


Plot 7-110. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 5) – Ch. 91)

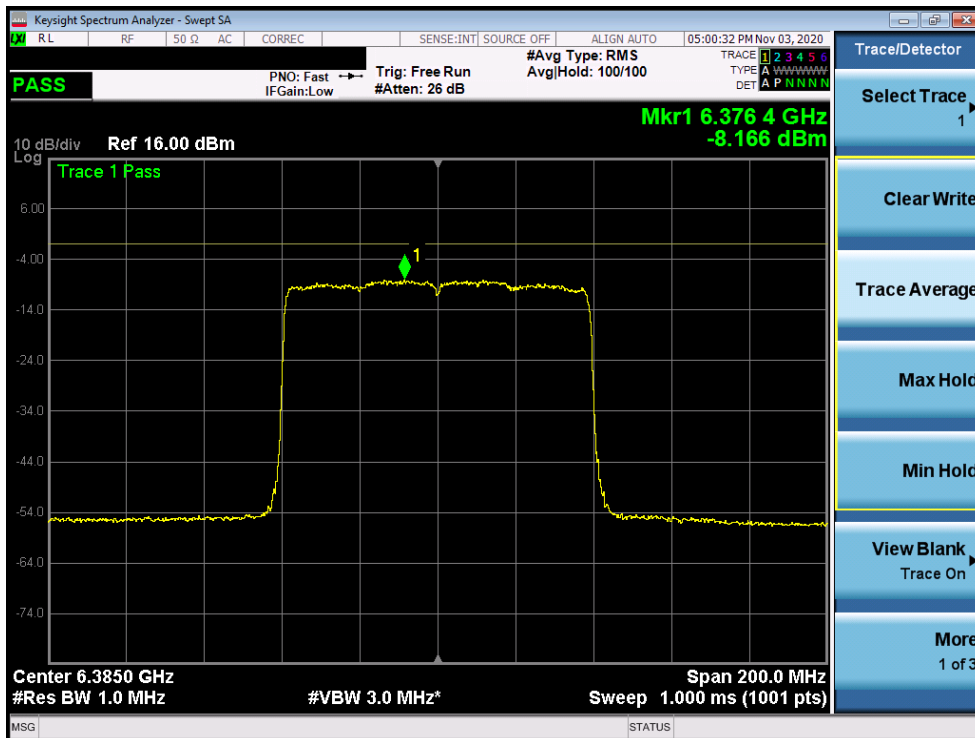


Plot 7-111. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax (UNII Band 5) – Ch. 7)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 77 of 215

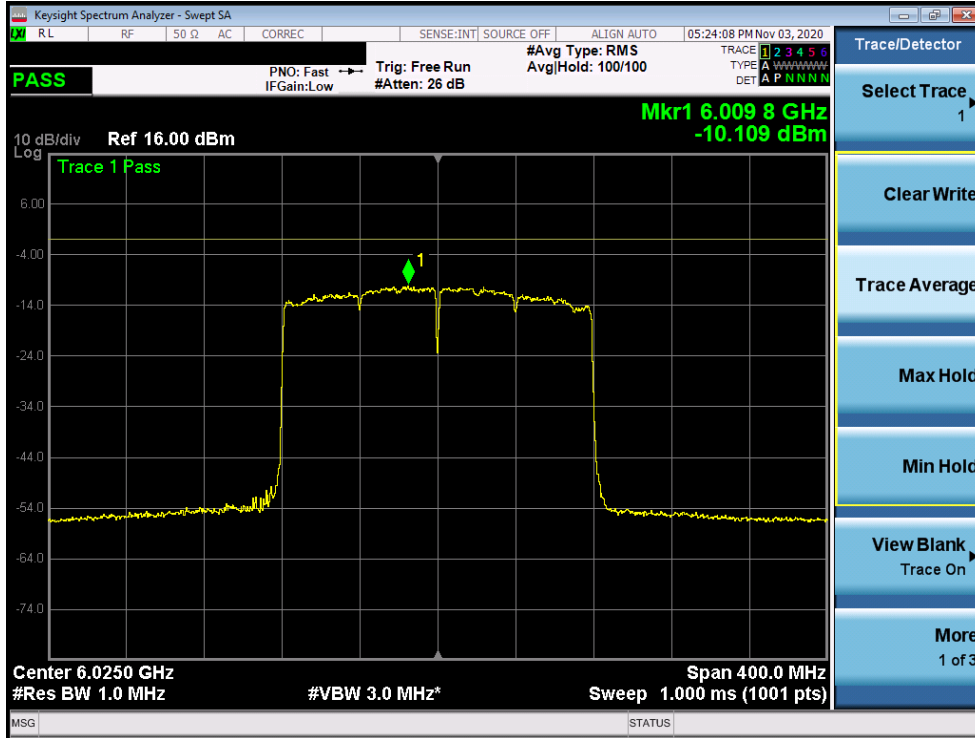


Plot 7-112. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax (UNII Band 5) – Ch. 39)

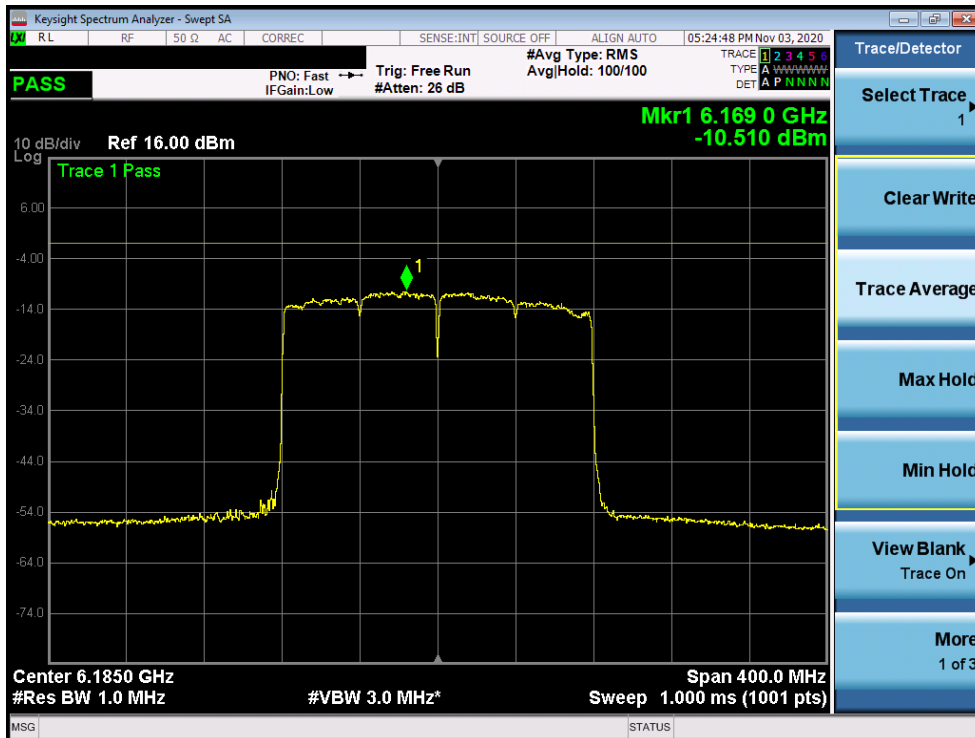


Plot 7-113. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax (UNII Band 5) – Ch. 87)

FCC ID: A3LSMG998B	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 78 of 215



Plot 7-114. Power Spectral Density MIMO ANT1 (160MHz BW 802.11ax (UNII Band 5) – Ch. 15)



Plot 7-115. Power Spectral Density MIMO ANT1 (160MHz BW 802.11ax (UNII Band 5) – Ch. 47)

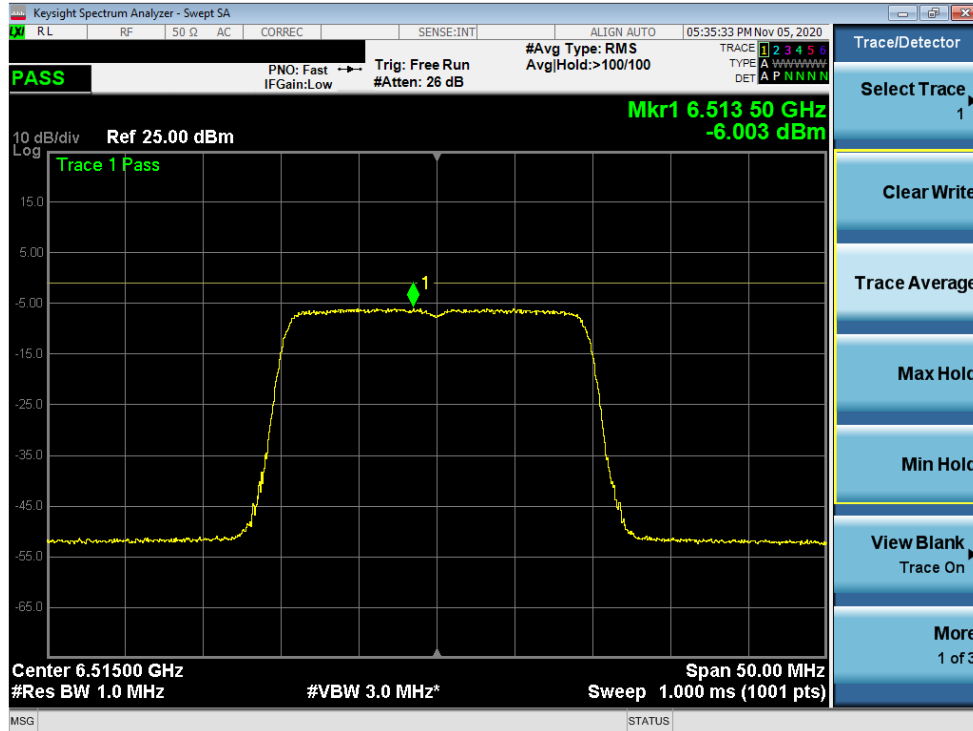
FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 79 of 215



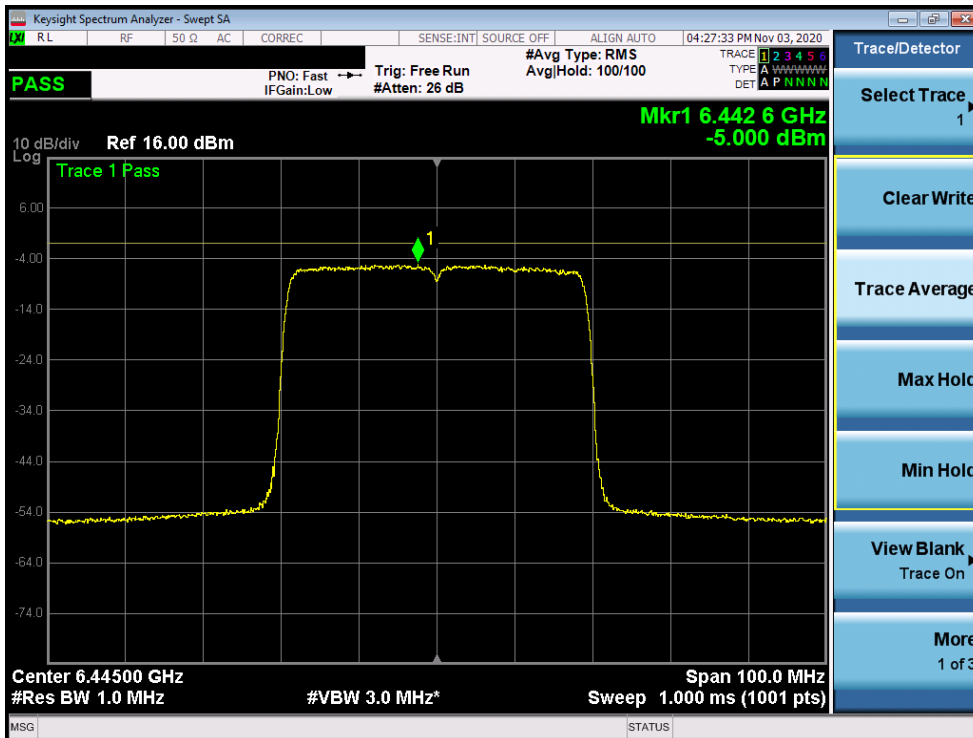






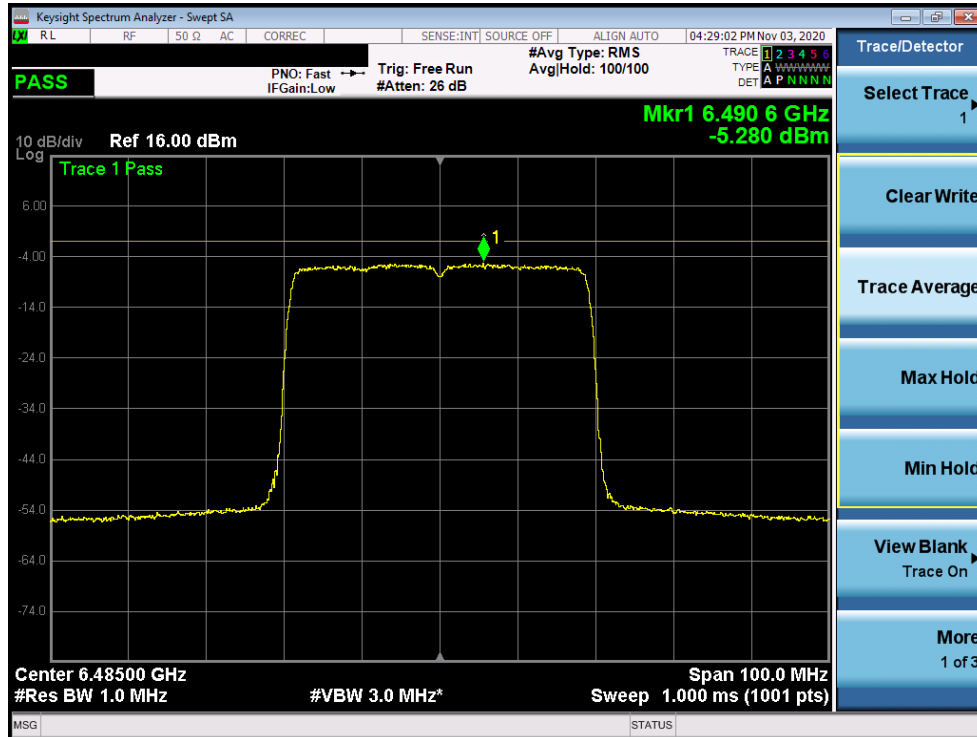


Plot 7-122. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax (UNII Band 6) – Ch. 113)

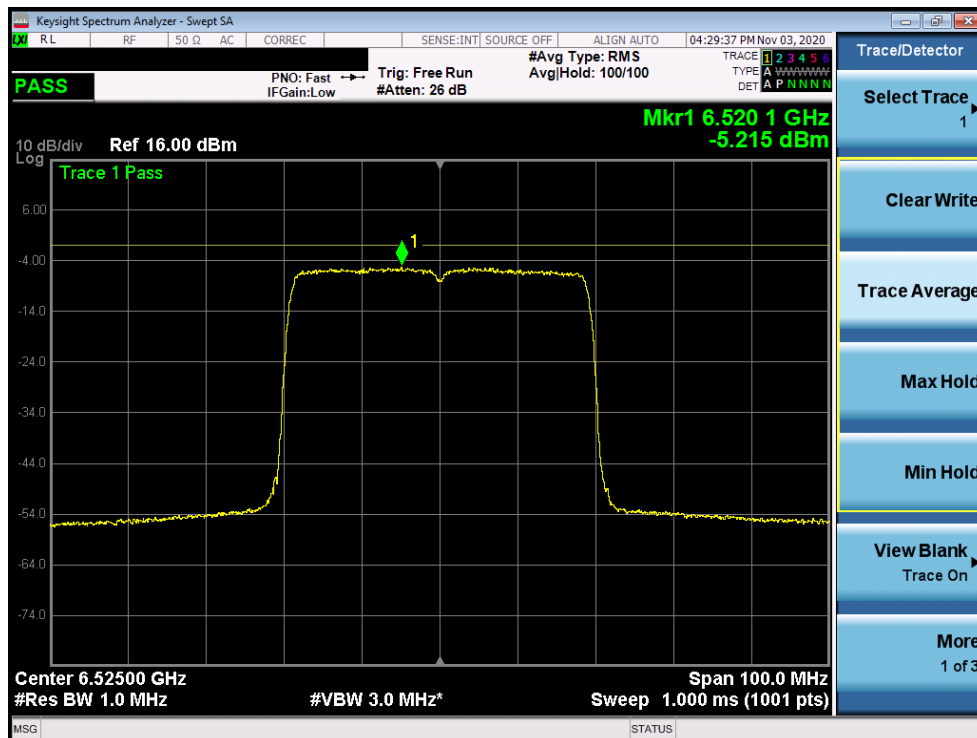


Plot 7-123. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 6) – Ch. 99)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 83 of 215

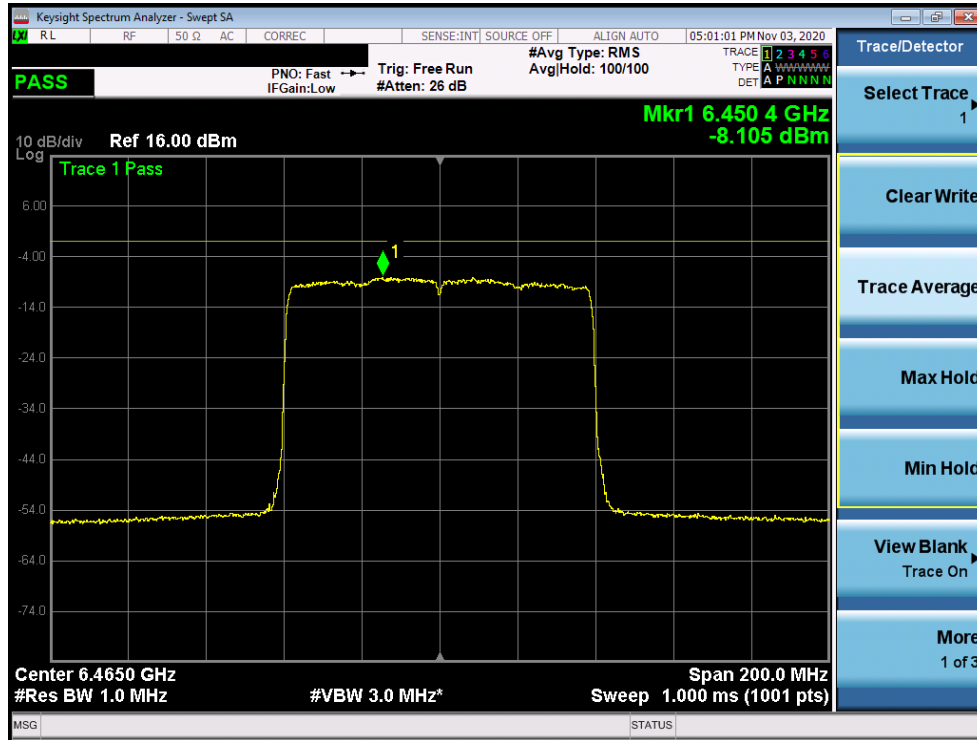


Plot 7-124. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 6) – Ch. 107)

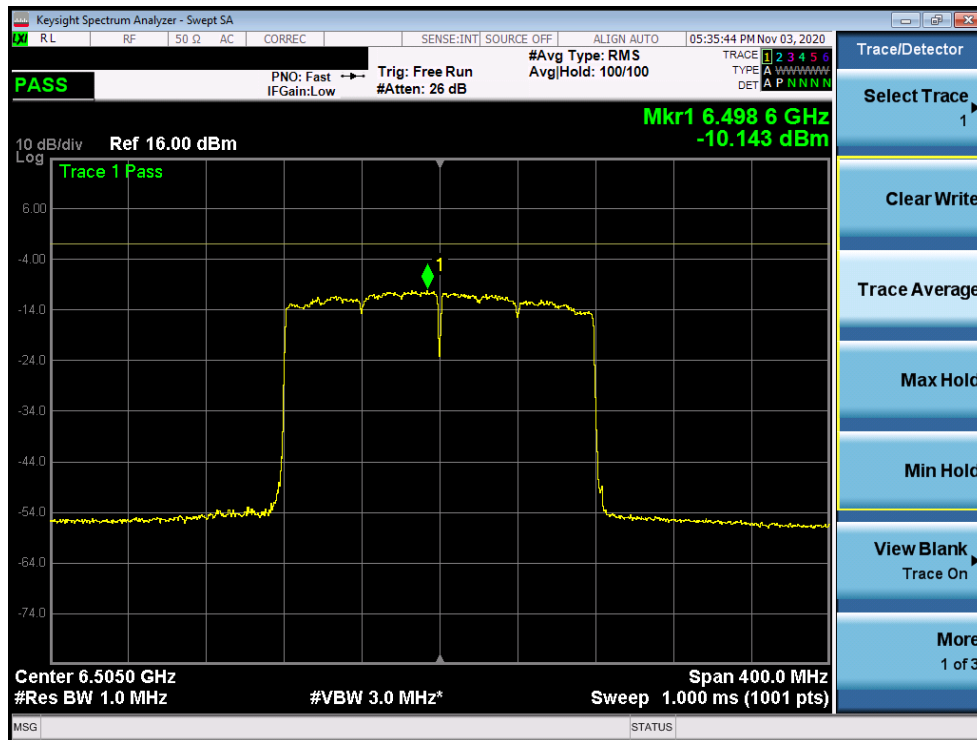


Plot 7-125. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 6) – Ch. 115)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 84 of 215

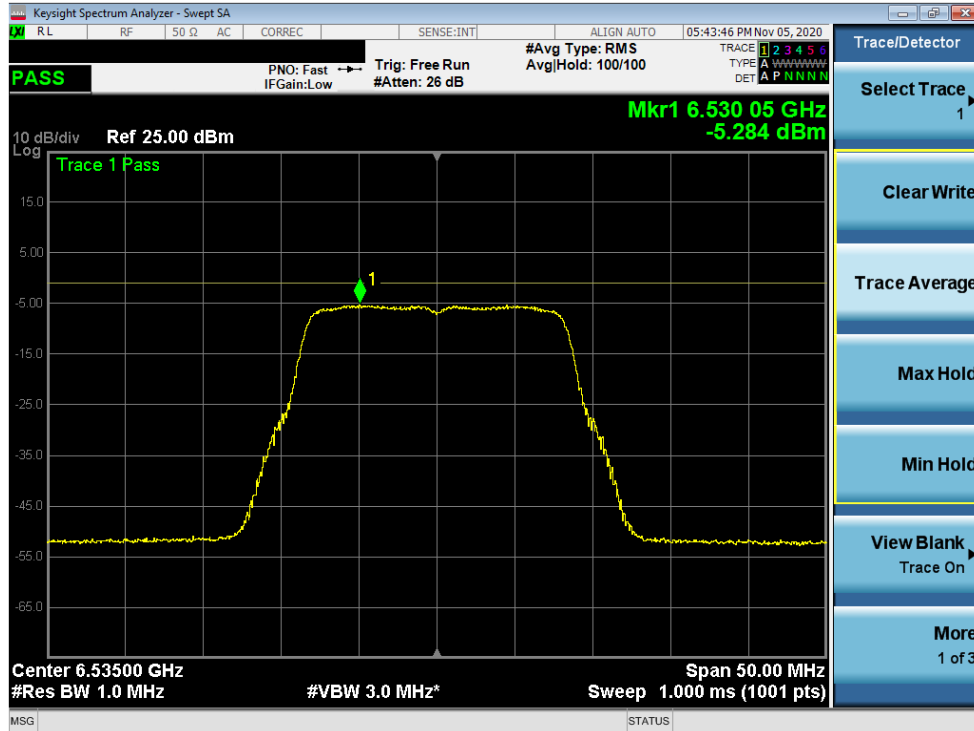


Plot 7-126. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax (UNII Band 6) – Ch. 103)

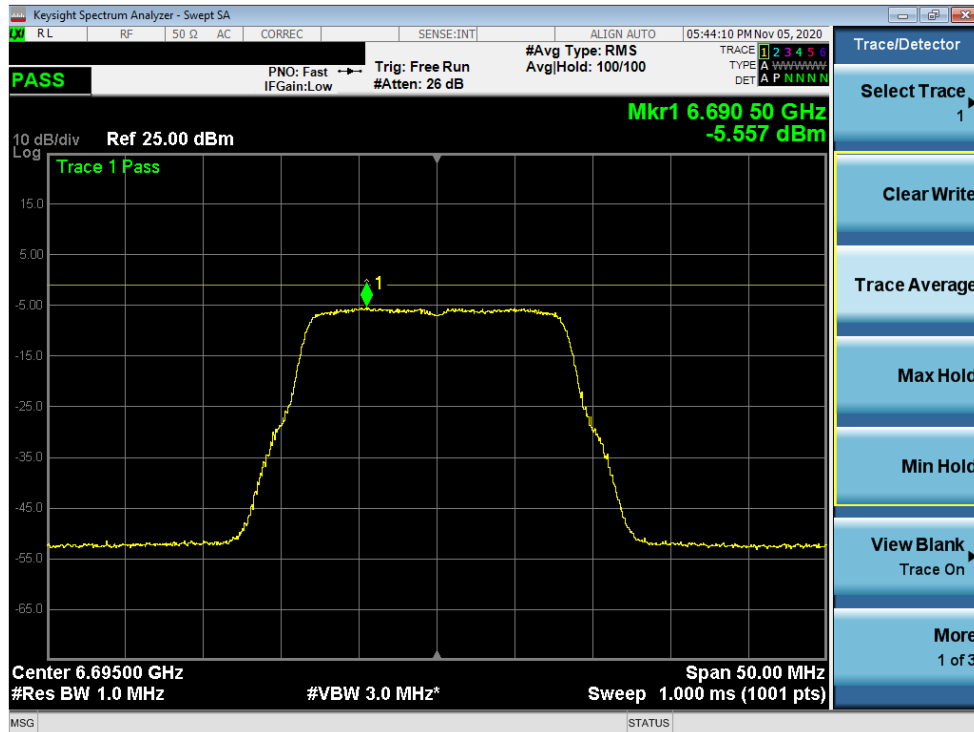


Plot 7-127. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 111)

FCC ID: A3LSMG998B	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 85 of 215

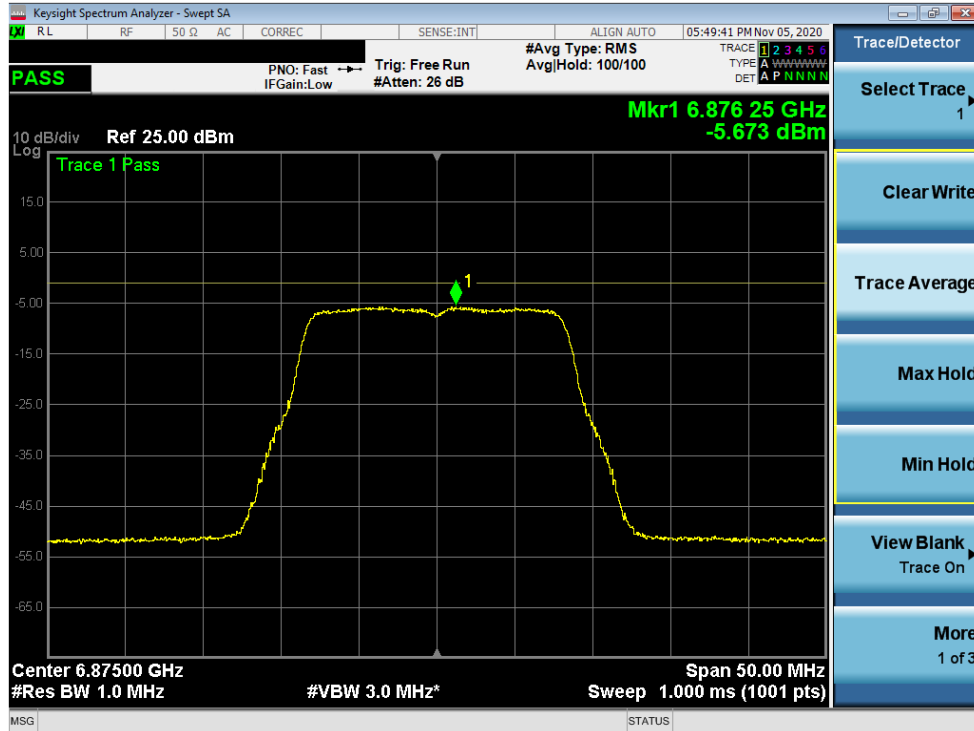


Plot 7-128. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11a (UNII Band 7) – Ch. 117)

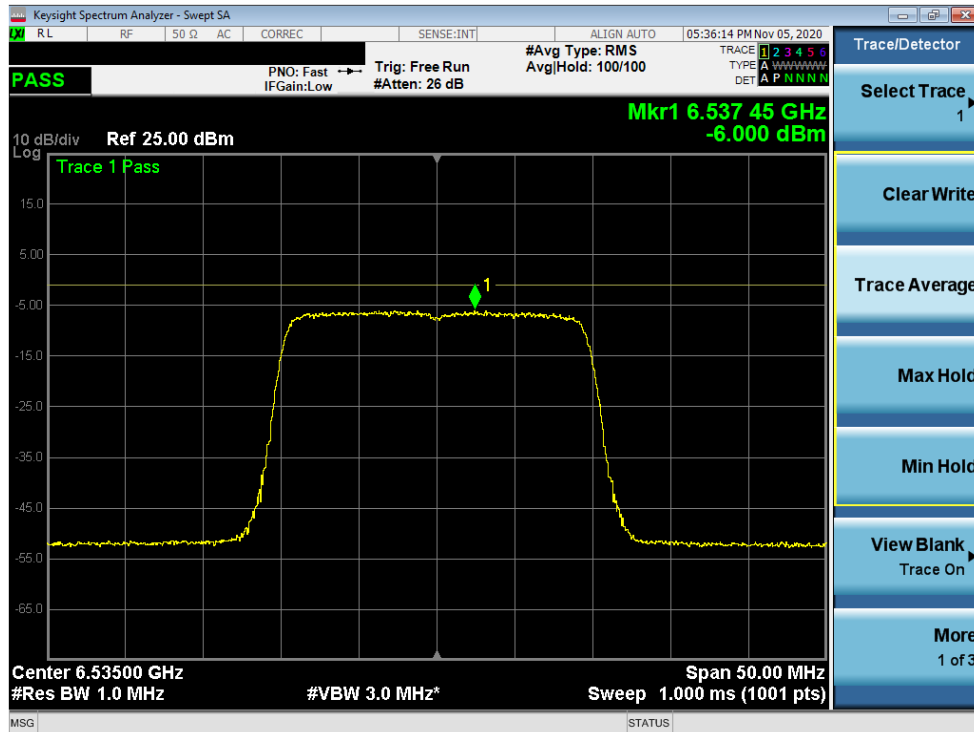


Plot 7-129. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11a (UNII Band 7) – Ch. 149)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 86 of 215

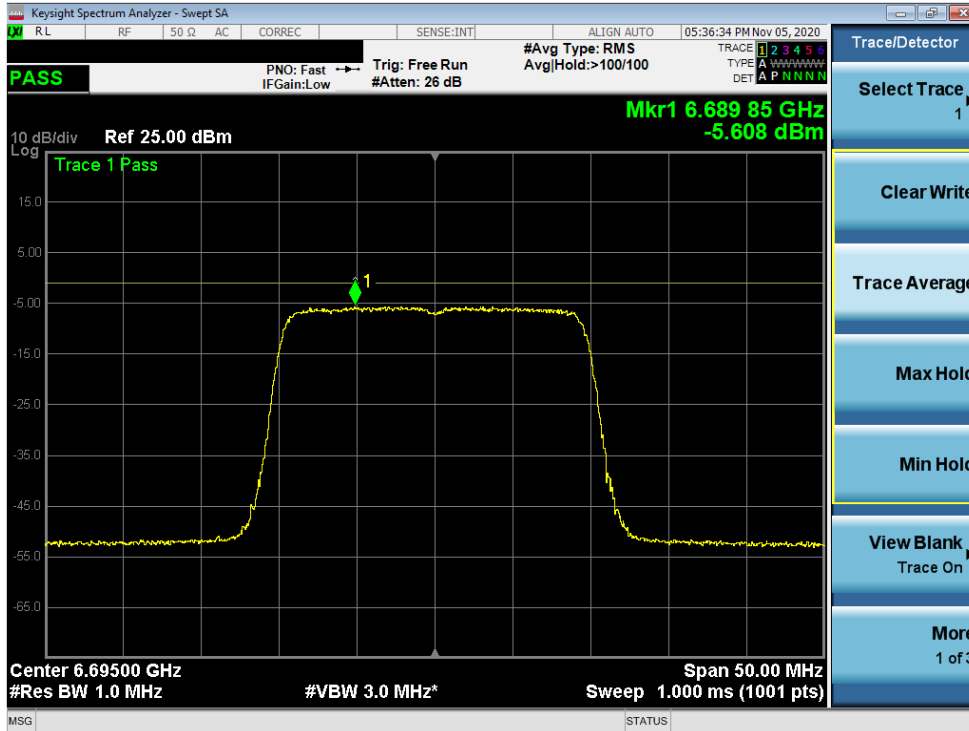


Plot 7-130. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11a (UNII Band 7) – Ch. 185)

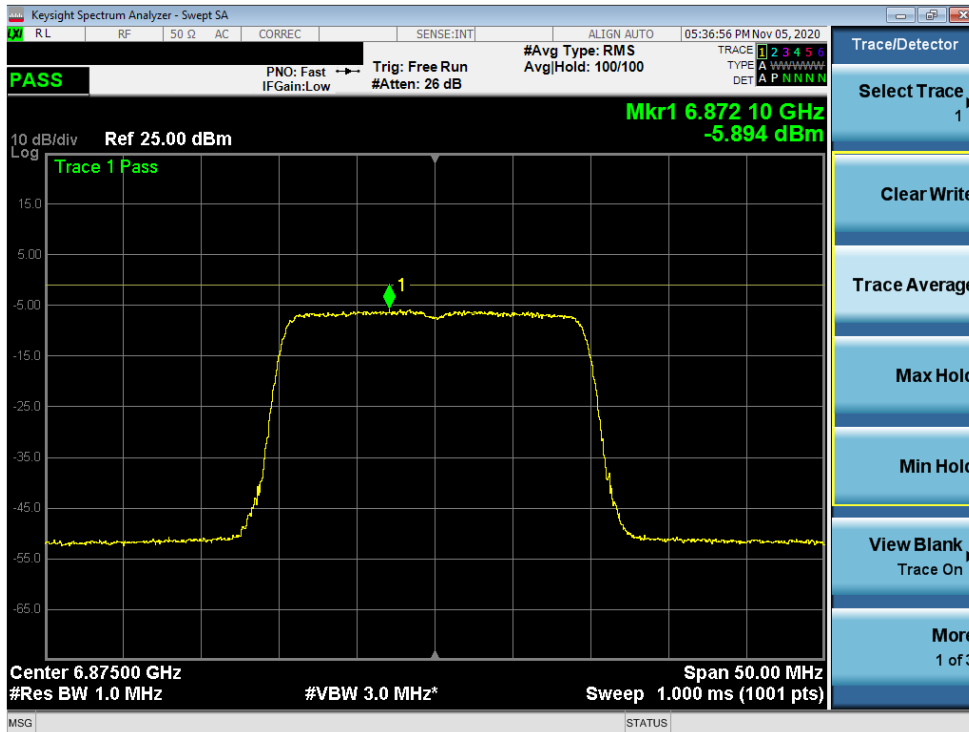


Plot 7-131. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax (UNII Band 7) – Ch. 117)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of  element	<b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 87 of 215

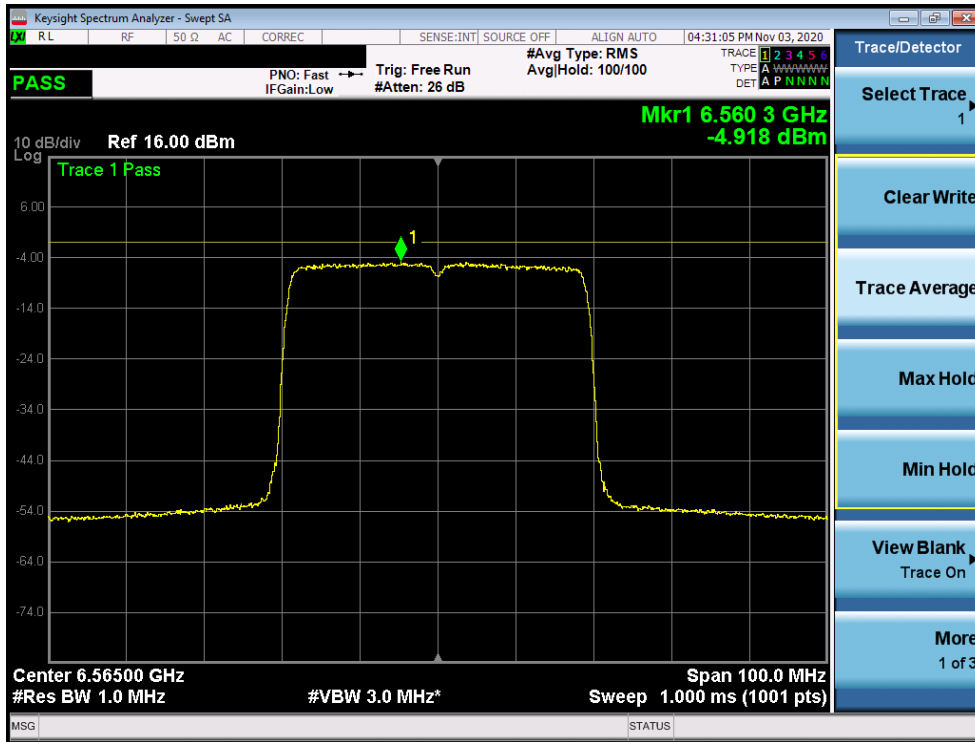


Plot 7-132. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax (UNII Band 7) – Ch. 149)

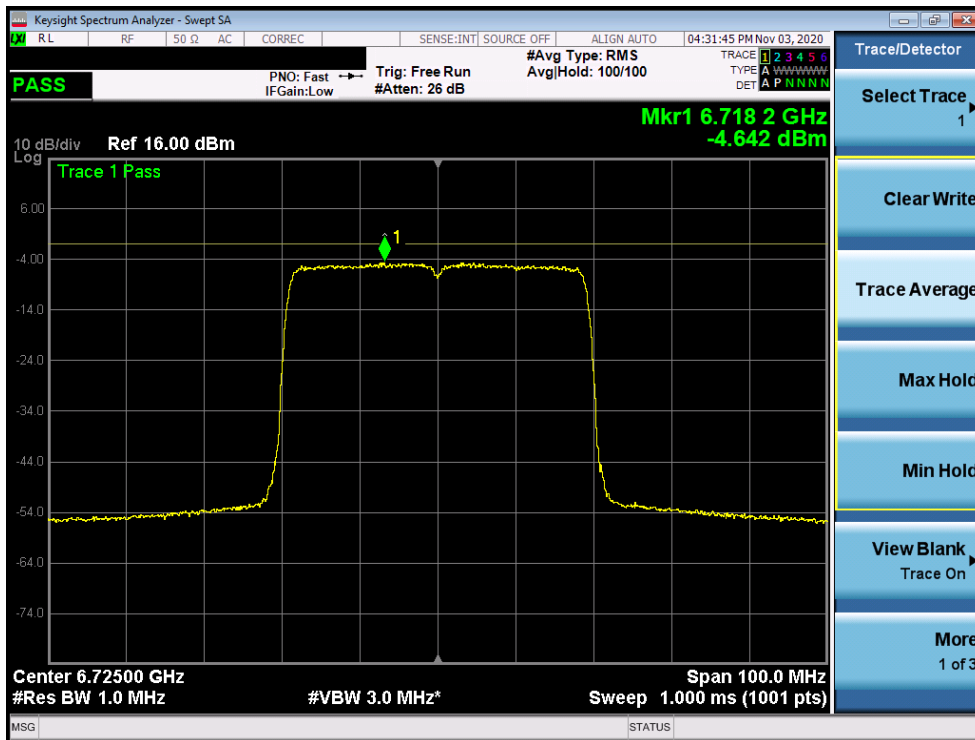


Plot 7-133. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax (UNII Band 7) – Ch. 185)

FCC ID: A3LSMG998B	PCTEST Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 88 of 215



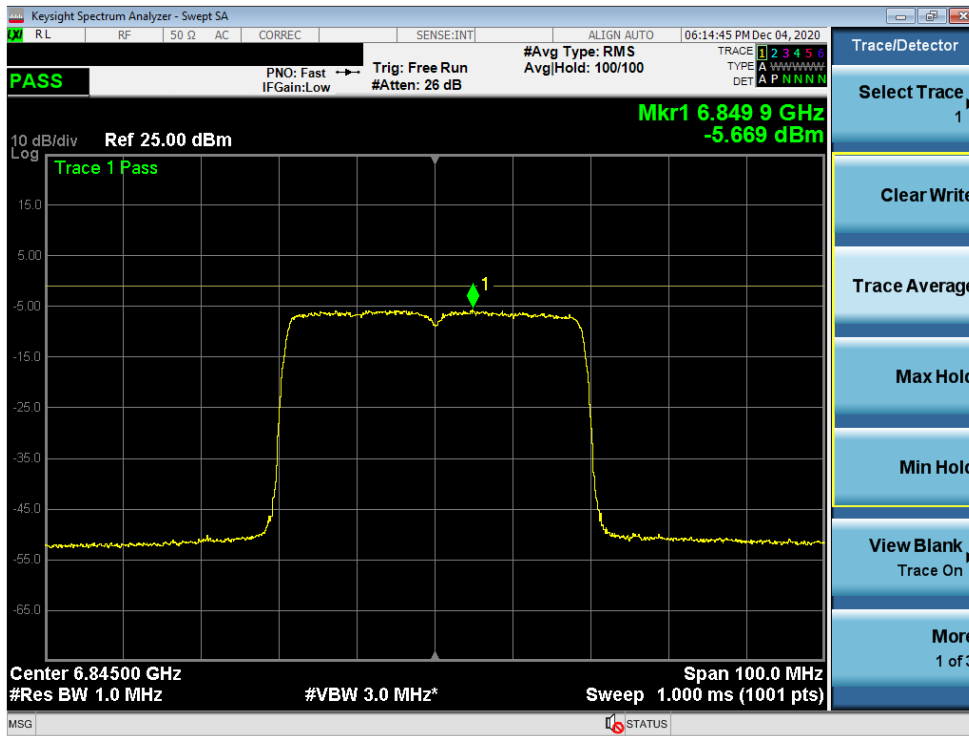
Plot 7-134. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 7) – Ch. 123)



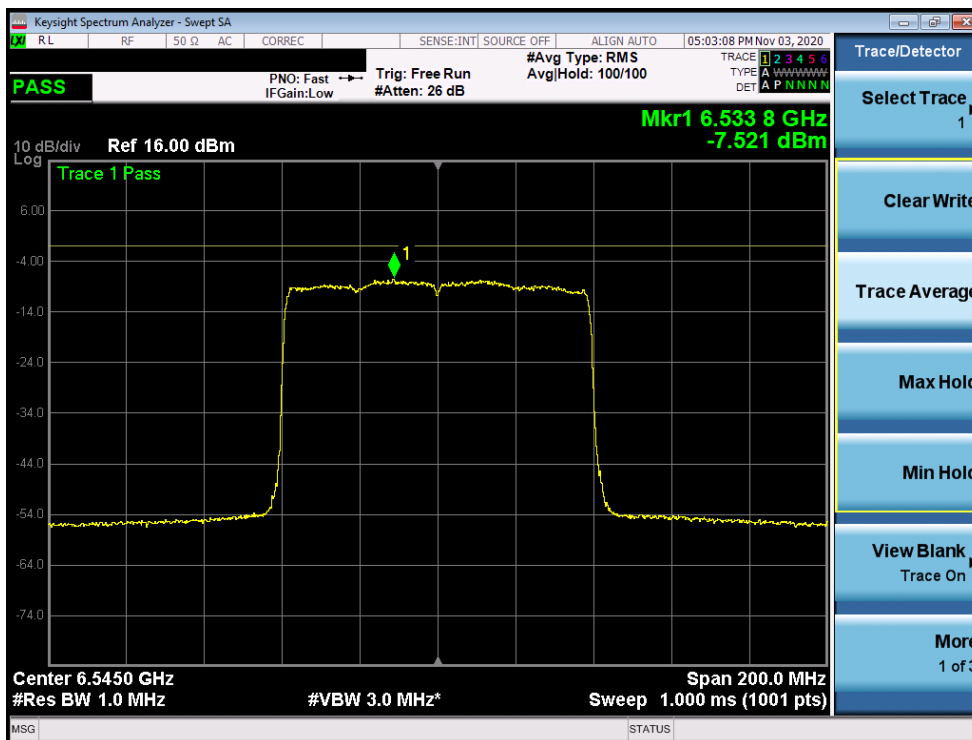
Plot 7-135. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 7) – Ch. 155)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of  element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 89 of 215



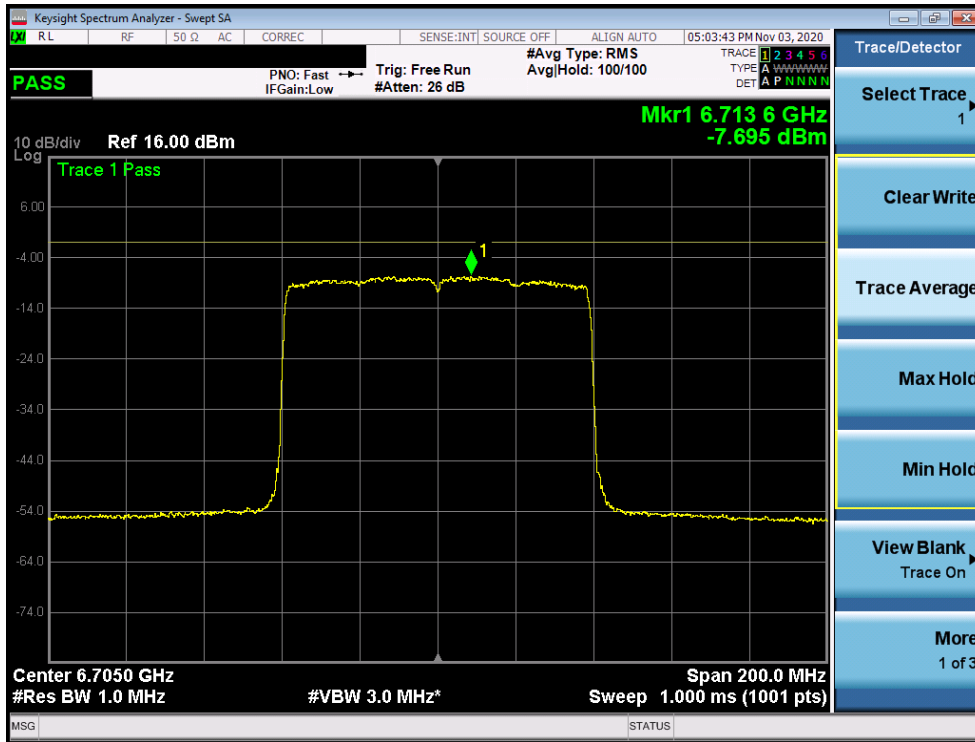


Plot 7-136. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 7) – Ch. 179)

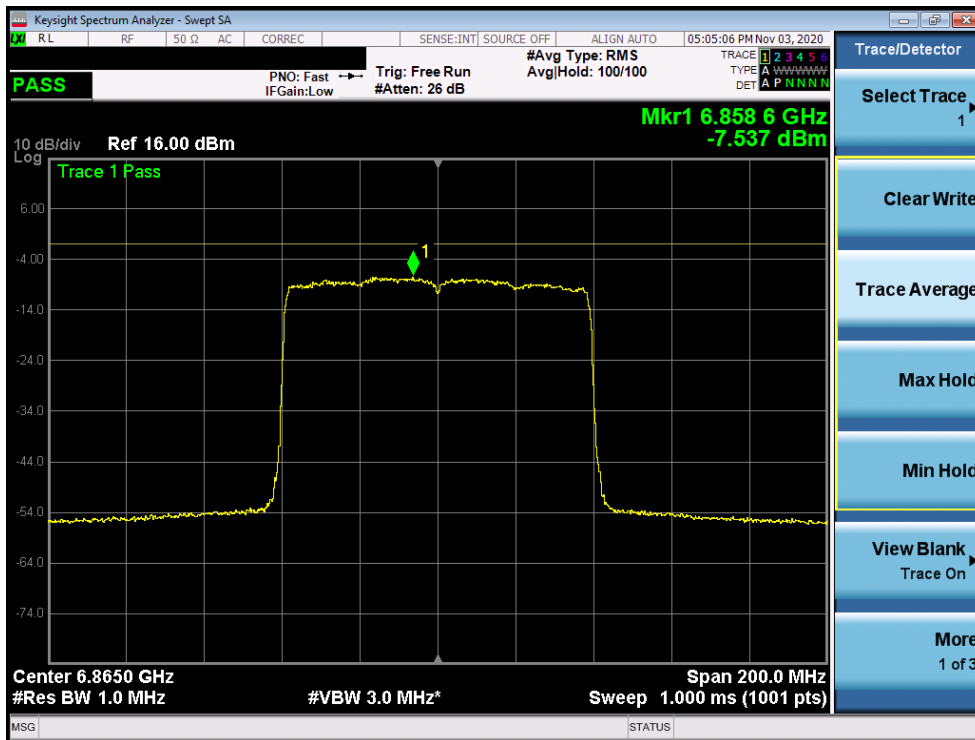


Plot 7-137. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax (UNII Band 7) – Ch. 119)

FCC ID: A3LSMG998B		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 90 of 215

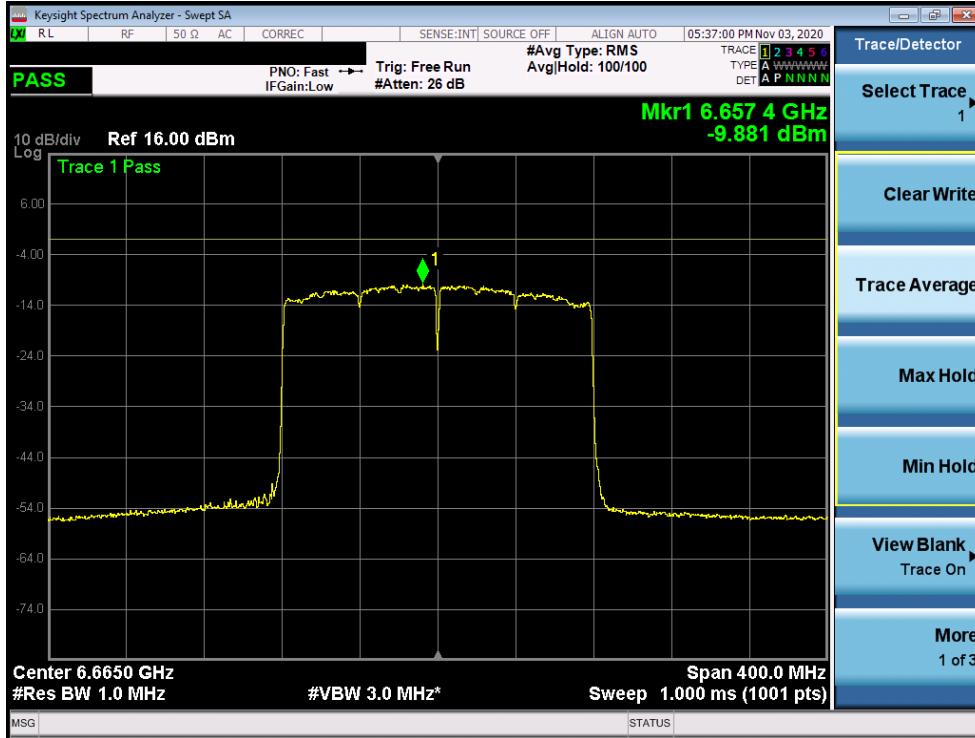


Plot 7-138. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax (UNII Band 7) – Ch. 151)

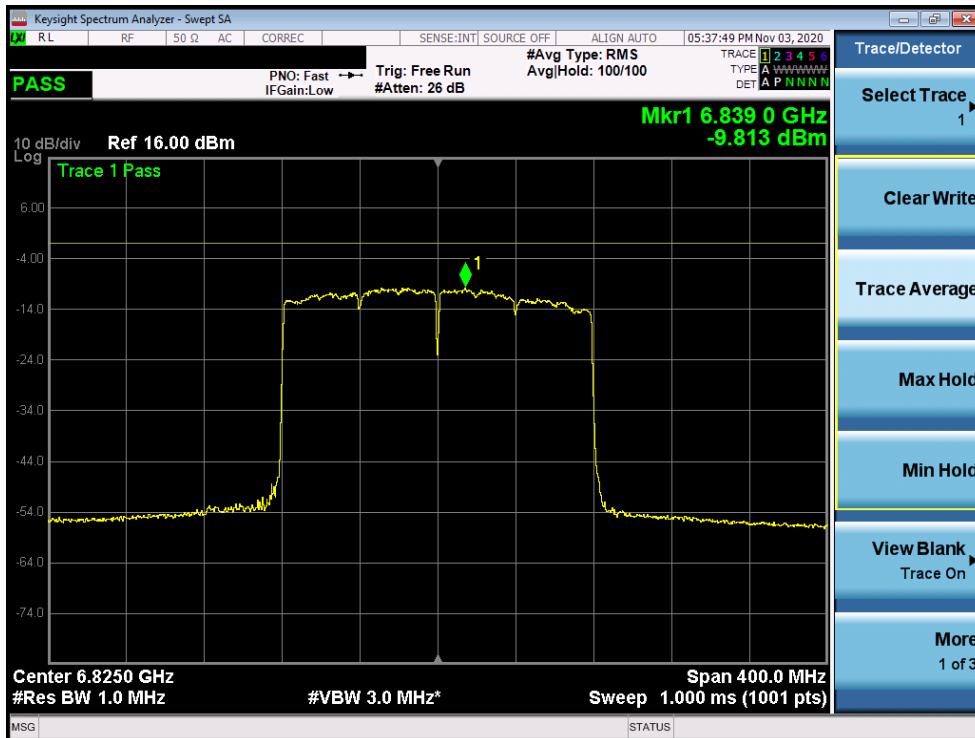


Plot 7-139. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax (UNII Band 7) – Ch. 183)

FCC ID: A3LSMG998B	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 91 of 215



Plot 7-140. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802.11ax (UNII Band 7) – Ch. 143)

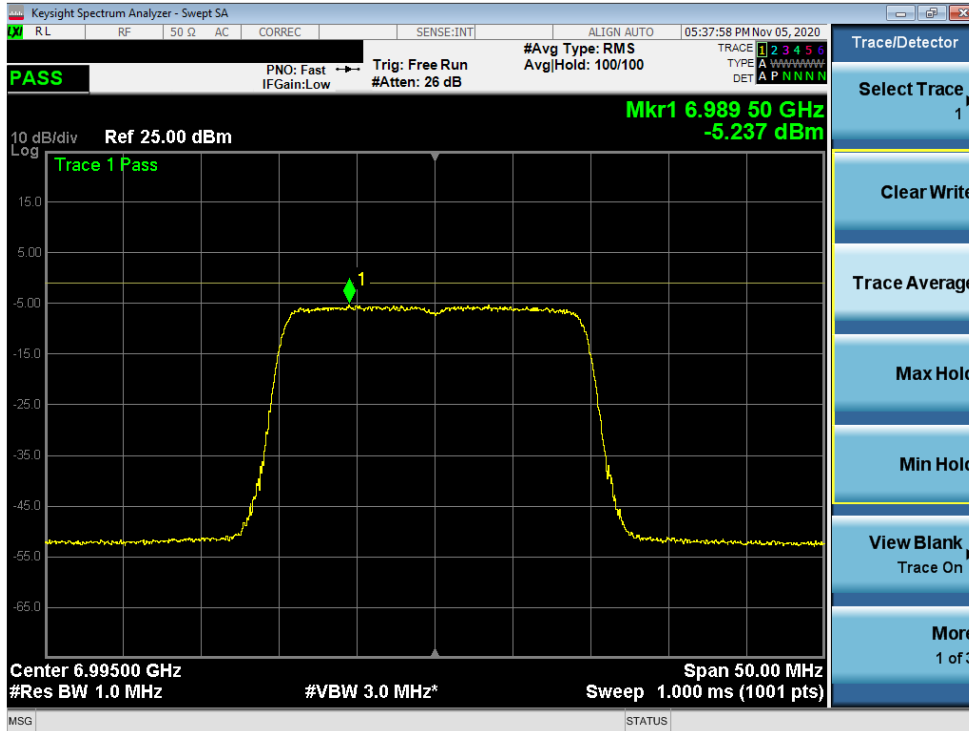


Plot 7-141. Power Spectral Density Plot MIMO ANT1 (160MHz BW 802.11ax (UNII Band 7) – Ch. 175)

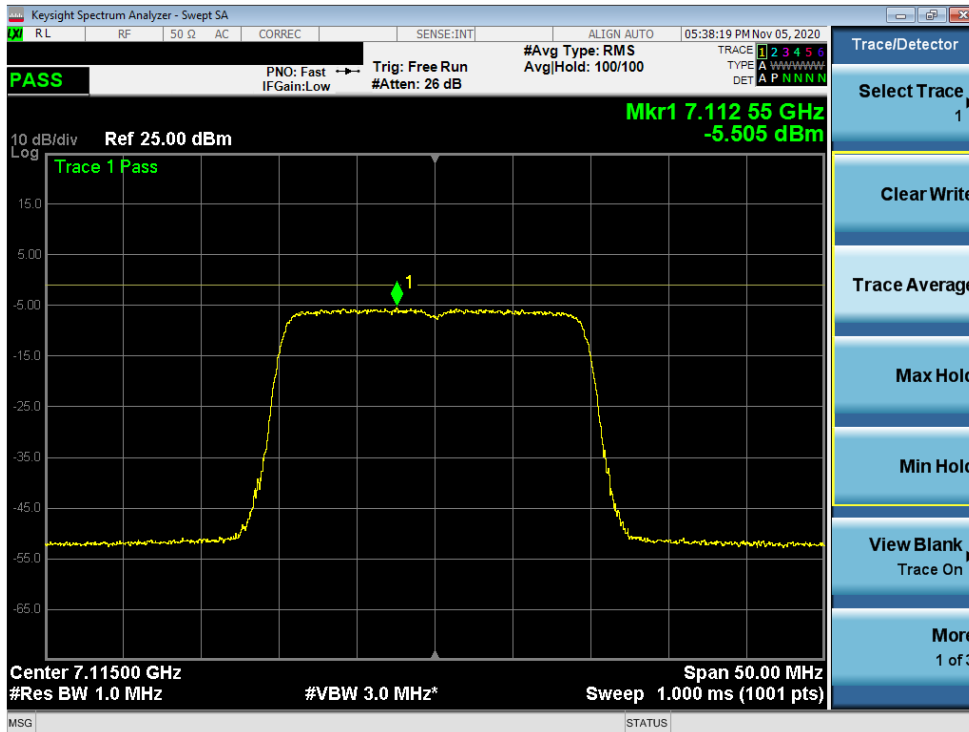
FCC ID: A3LSMG998B	 Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 92 of 215







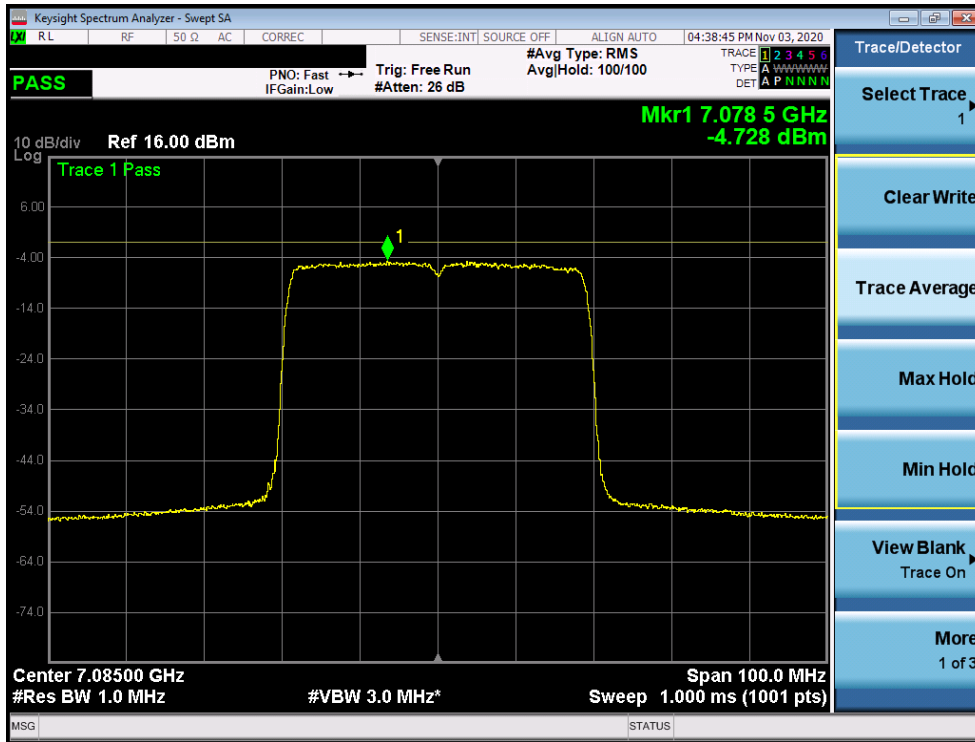
Plot 7-146. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax (UNII Band 8) – Ch. 209)



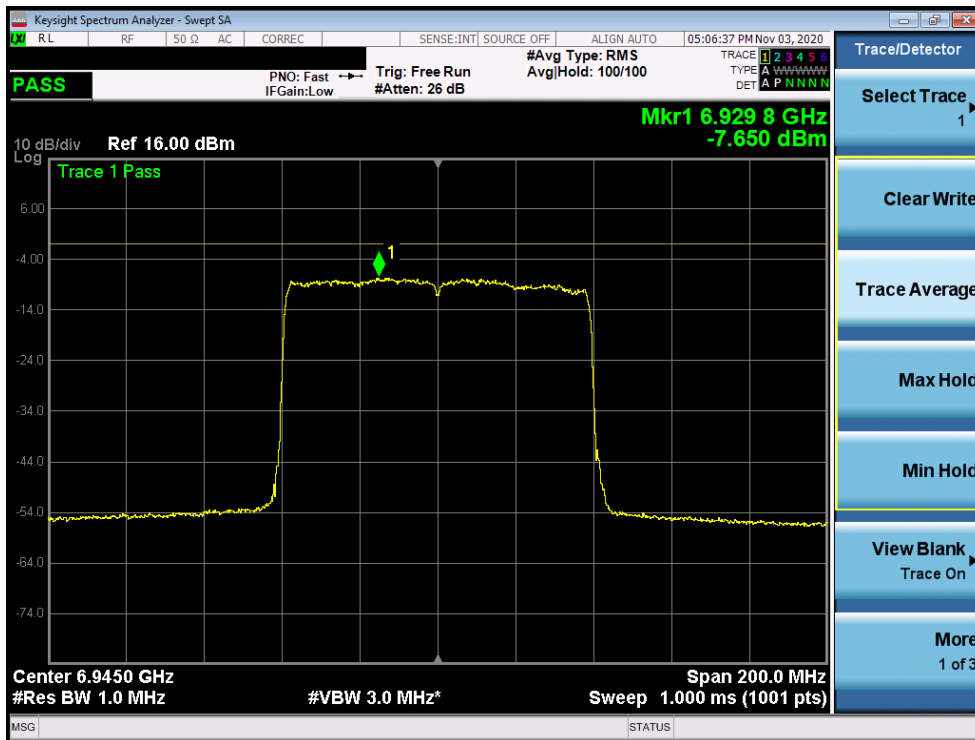
Plot 7-147. Power Spectral Density Plot MIMO ANT1 (20MHz BW 802.11ax (UNII Band 8) – Ch. 233)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 95 of 215





Plot 7-150. Power Spectral Density Plot MIMO ANT1 (40MHz BW 802.11ax (UNII Band 8) – Ch. 227)



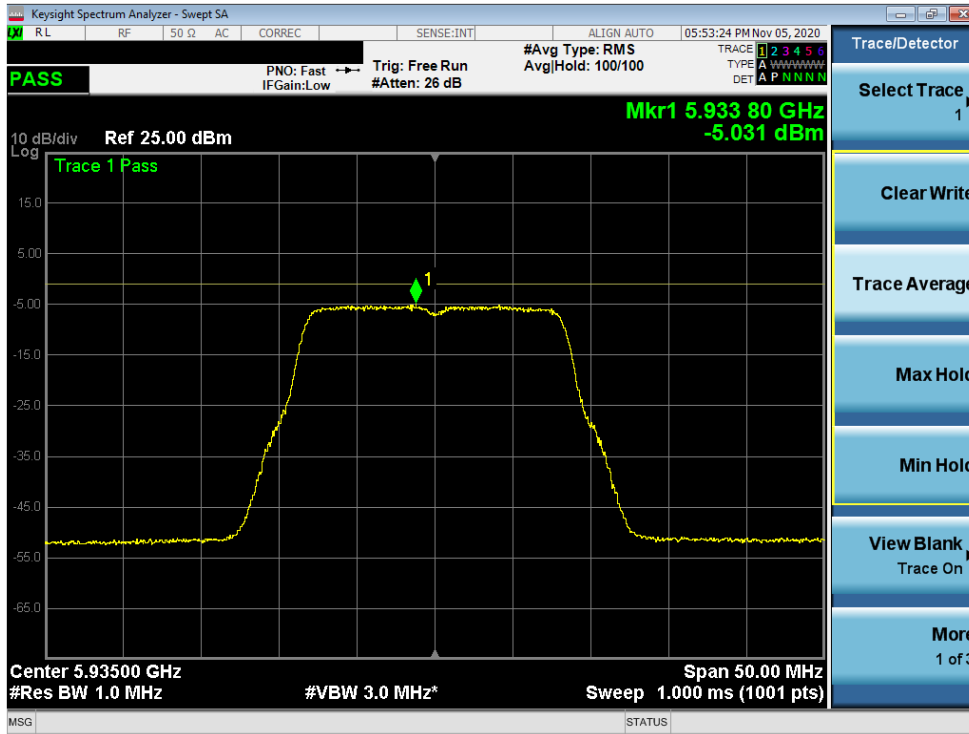
Plot 7-151. Power Spectral Density Plot MIMO ANT1 (80MHz BW 802.11ax (UNII Band 8) – Ch. 199)

FCC ID: A3LSMG998B	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 97 of 215

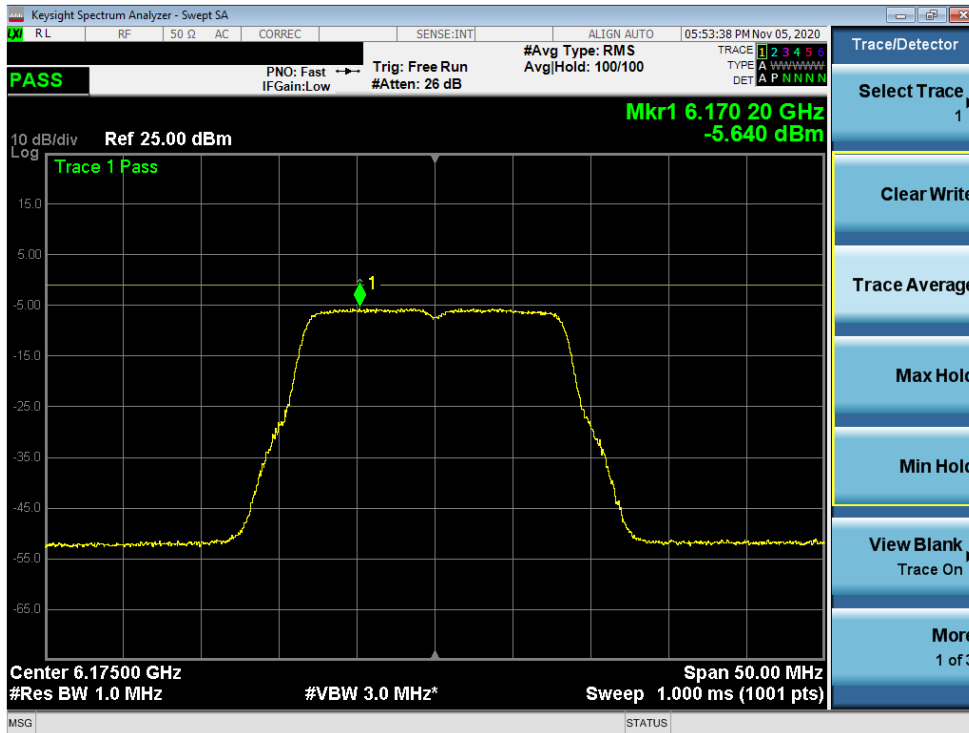




**MIMO Antenna-2 Power Spectral Density Measurements**

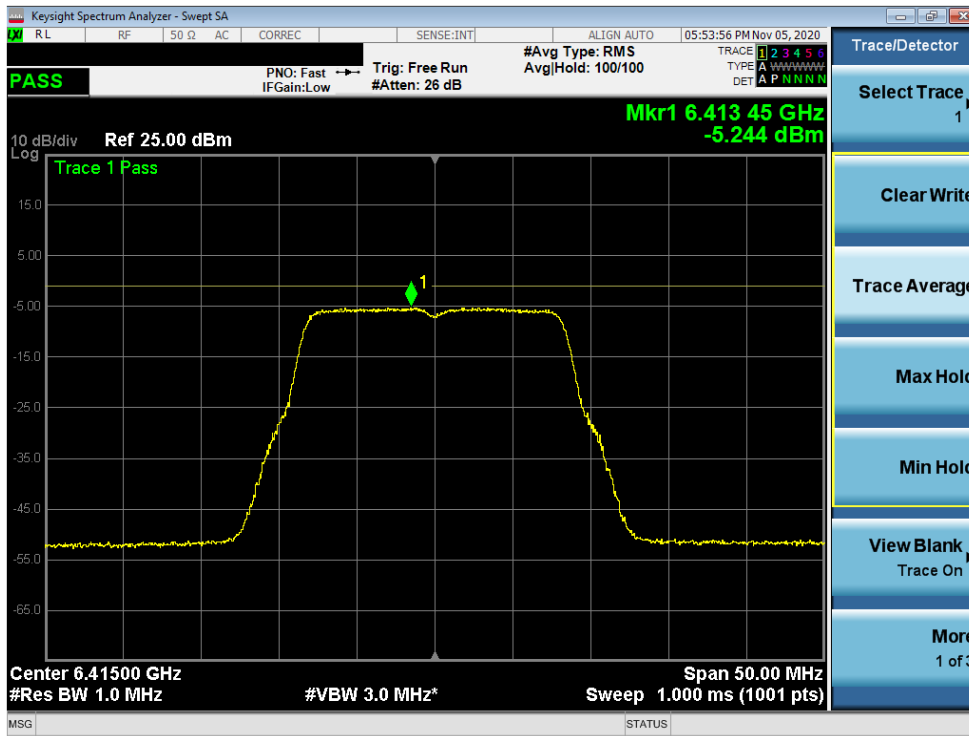


**Plot 7-154. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11a UNII Band 5) – Ch. 2)**

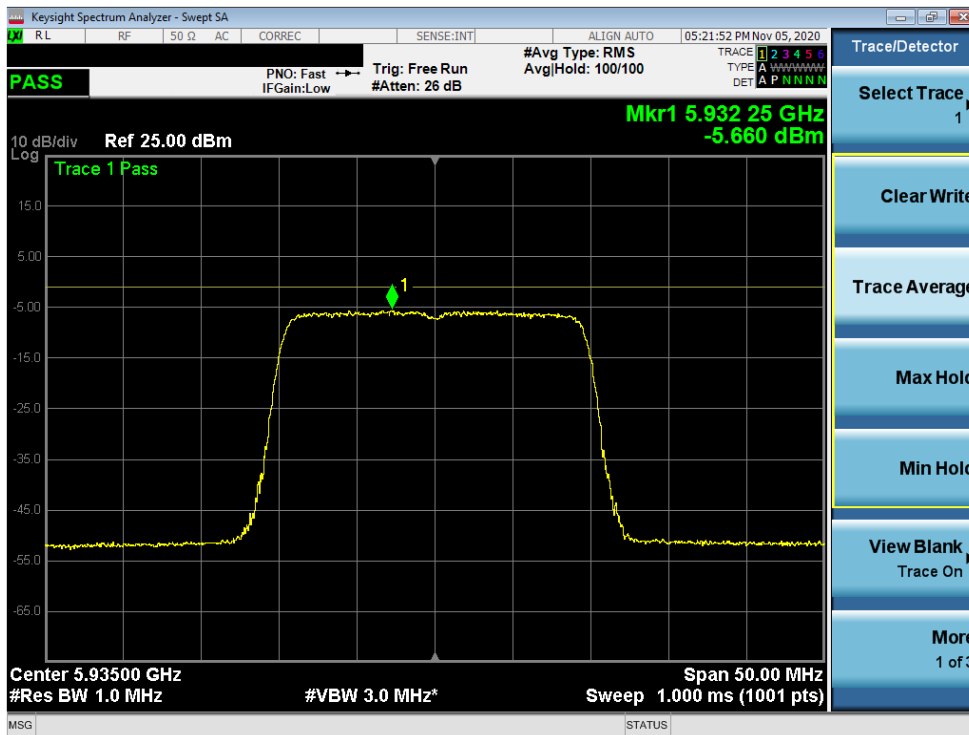


**Plot 7-155. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11a (UNII Band 5) – Ch. 45)**

FCC ID: A3LSMG998B	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 99 of 215

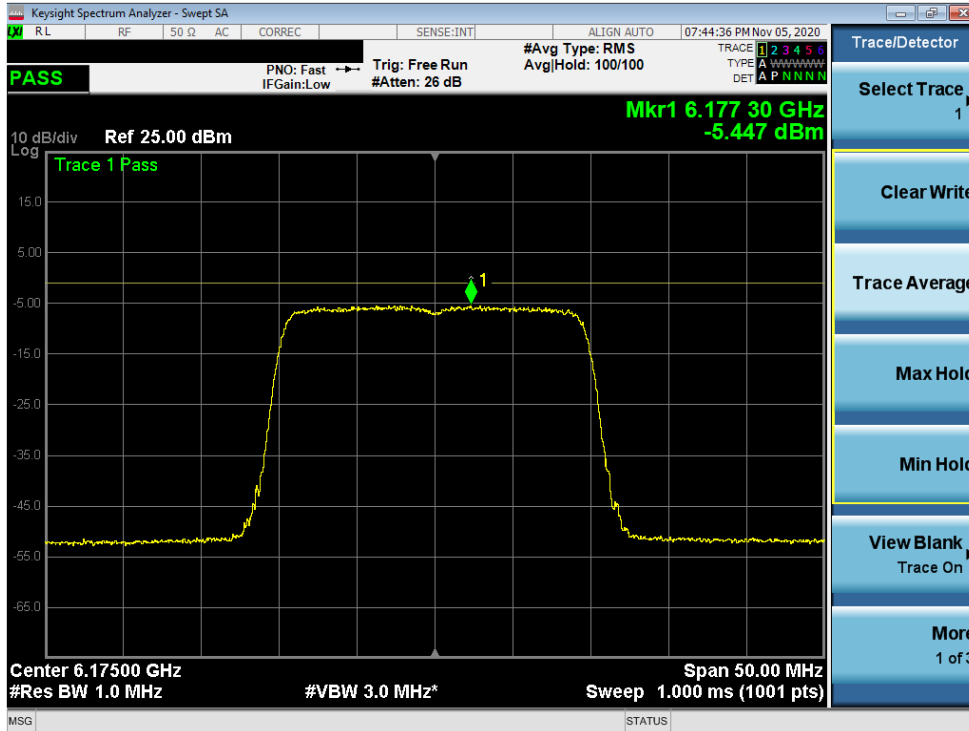


Plot 7-156. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11a UNII Band 5) – Ch. 93)

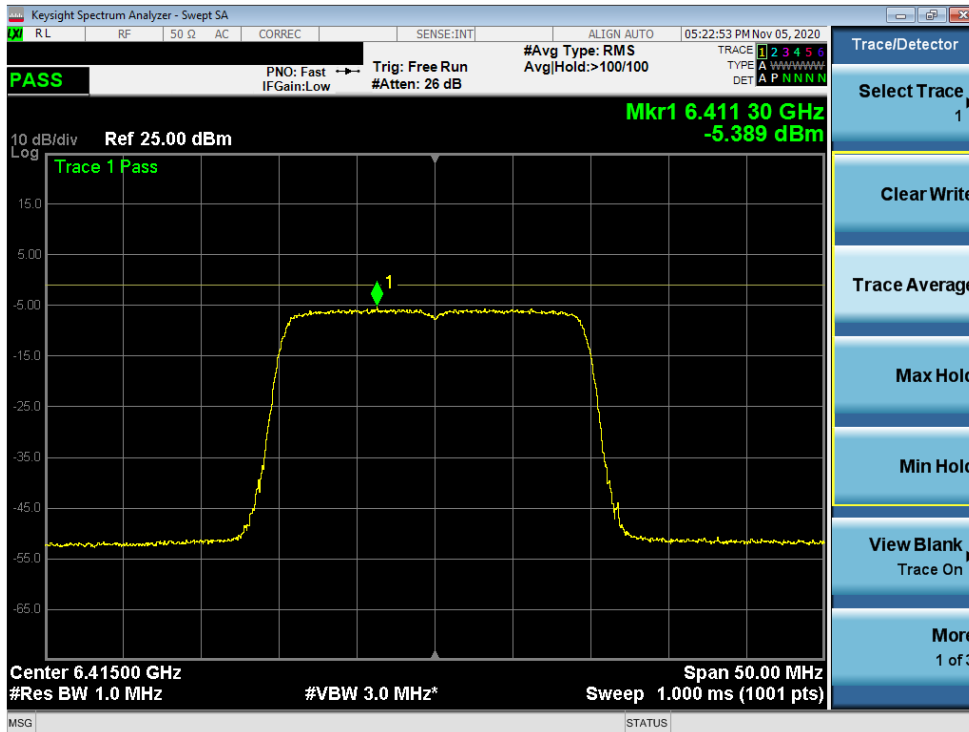


Plot 7-157. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax UNII Band 5) – Ch. 2)

FCC ID: A3LSMG998B	 <b>PCTEST</b> Proud to be part of 	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 100 of 215

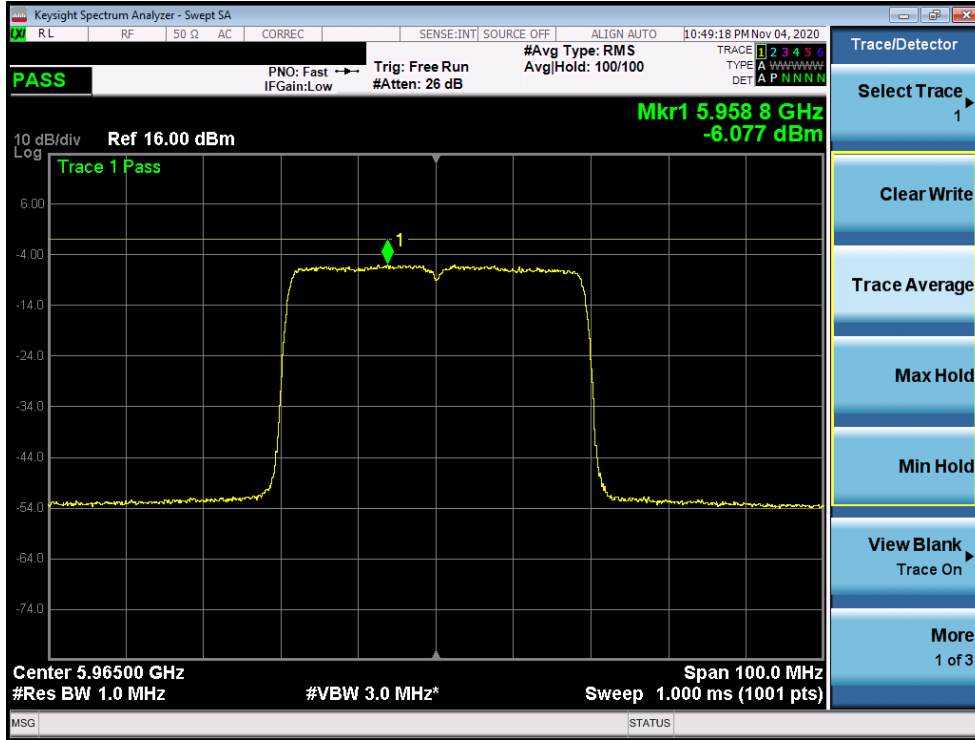


Plot 7-158. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax (UNII Band 5) – Ch. 45)

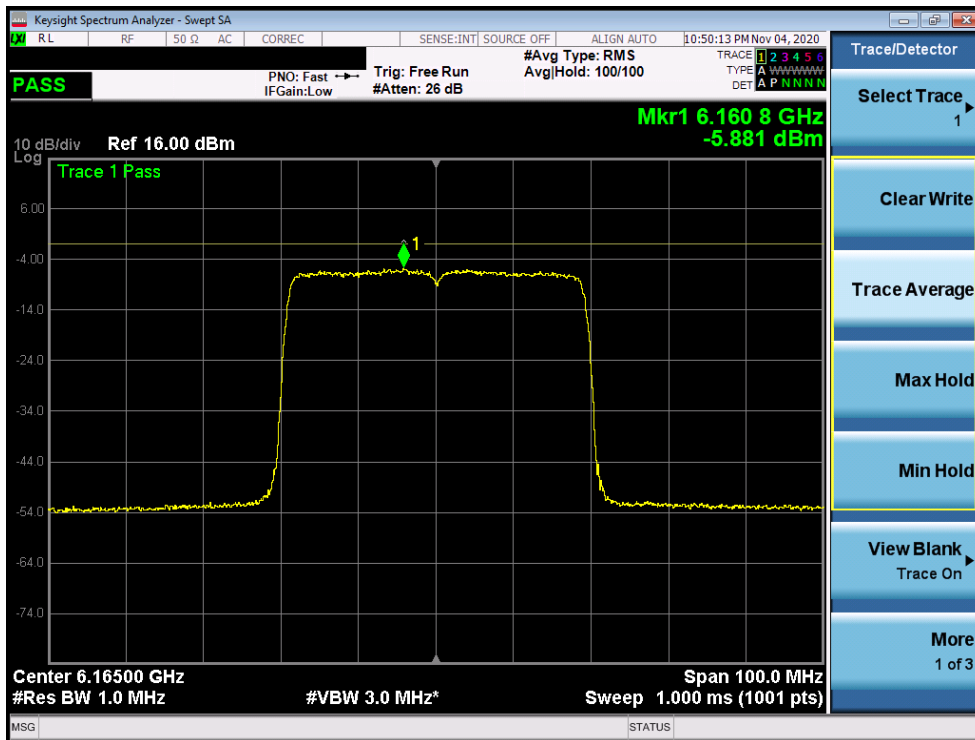


Plot 7-159. Power Spectral Density Plot MIMO ANT2 (20MHz BW 802.11ax UNII Band 5) – Ch. 93)

FCC ID: A3LSMG998B	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 101 of 215

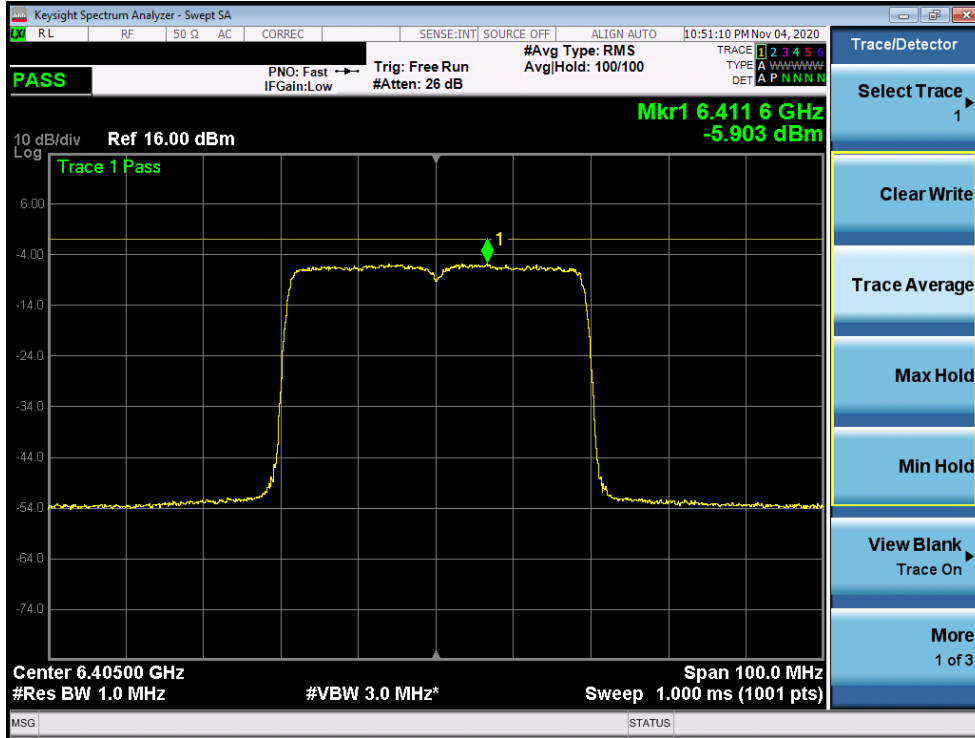


Plot 7-160. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 5) – Ch. 3)

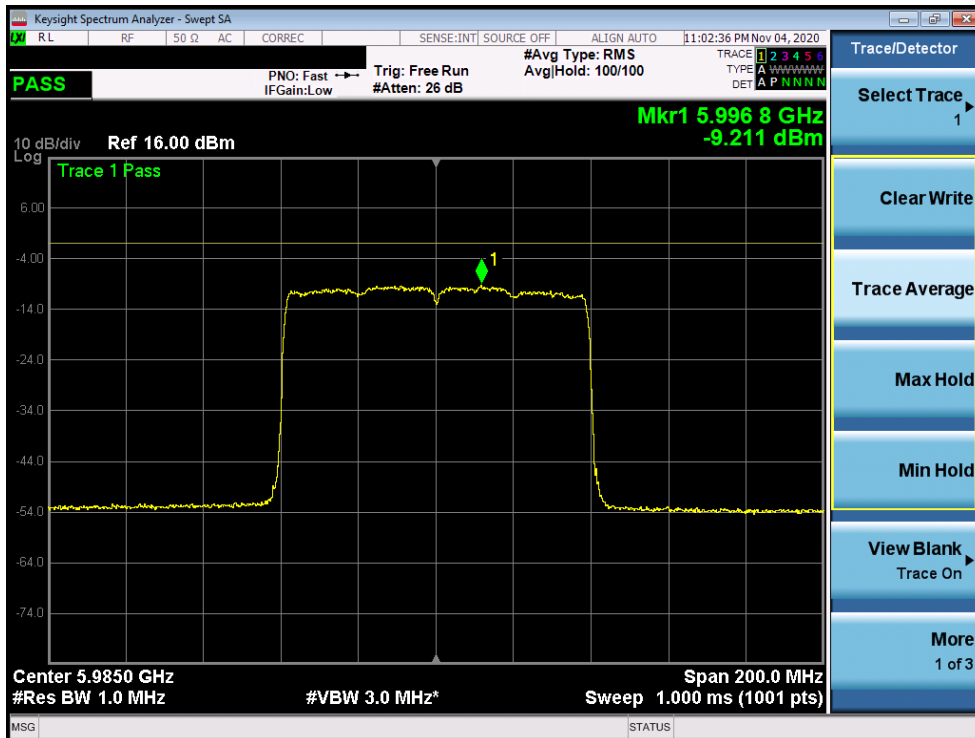


Plot 7-161. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 5) – Ch. 43)

FCC ID: A3LSMG998B	<b>PCTEST</b> Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 102 of 215



Plot 7-162. Power Spectral Density Plot MIMO ANT2 (40MHz BW 802.11ax (UNII Band 5) – Ch. 91)



Plot 7-163. Power Spectral Density Plot MIMO ANT2 (80MHz BW 802.11ax (UNII Band 5) – Ch. 7)

FCC ID: A3LSMG998B	PCTEST Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2009280154-26.A3L	Test Dates: 10/05 - 12/14/2020	EUT Type: Portable Handset		Page 103 of 215