

Annex C. Conducted Test Results

Maximum Conducted Output Power and Transmit power control Measurement

Test Mode		Mode 2: IEEE 802.11a Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5260.0	6 M	16.02	0.040	15.81	0.038	18.93	0.078	≤ 23.75
5280.0		16.11	0.041	15.91	0.039	19.02	0.080	
5300.0		16.06	0.040	16.01	0.040	19.05	0.080	
5320.0		16.08	0.041	16.21	0.042	19.16	0.082	
5500.0		16.92	0.049	17.05	0.051	20.00	0.100	≤ 23.78
5520.0		16.76	0.047	16.95	0.050	19.87	0.097	
5540.0		16.68	0.047	16.91	0.049	19.81	0.096	
5560.0		16.74	0.047	16.96	0.050	19.86	0.097	
5580.0		16.71	0.047	17.14	0.052	19.94	0.099	
5660.0		16.81	0.048	17.26	0.053	20.05	0.101	
5680.0		16.73	0.047	17.23	0.053	20.00	0.100	
5700.0		15.95	0.039	16.42	0.044	19.20	0.083	

Test Mode		Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5260.0	13 M	18.97	0.079	18.79	0.076	21.89	0.155	≤ 24.00
5280.0		19.08	0.081	18.91	0.078	22.01	0.159	
5300.0		18.92	0.078	18.97	0.079	21.96	0.157	
5320.0		17.94	0.062	18.17	0.066	21.07	0.128	
5500.0		17.58	0.057	17.89	0.062	20.75	0.119	≤ 24.00
5520.0		17.48	0.056	17.80	0.060	20.65	0.116	
5540.0		17.51	0.056	17.81	0.060	20.67	0.117	
5560.0		17.57	0.057	17.93	0.062	20.76	0.119	
5580.0		17.61	0.058	18.02	0.063	20.83	0.121	
5660.0		17.60	0.058	18.13	0.065	20.88	0.123	
5680.0		17.59	0.057	18.12	0.065	20.87	0.122	
5700.0		16.55	0.045	17.28	0.053	19.94	0.099	

Test Mode		Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5270.0	27 M	16.99	0.050	17.00	0.050	20.01	0.100	≤ 24.00
5310.0		16.09	0.041	16.08	0.041	19.10	0.081	
5510.0		15.83	0.038	16.06	0.040	18.96	0.079	≤ 24.00
5550.0		19.82	0.096	19.92	0.098	22.88	0.194	
5670.0		19.82	0.096	20.01	0.100	22.93	0.196	

Note: The relevant measured result has the offset with cable loss already.

Test Mode		Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5260.0	13 M	19.08	0.081	18.81	0.076	21.96	0.157	≤ 24.00
5280.0		19.11	0.081	18.92	0.078	22.03	0.159	
5300.0		19.05	0.080	18.99	0.079	22.03	0.160	
5320.0		18.04	0.064	18.17	0.066	21.12	0.129	
5500.0		17.71	0.059	18.02	0.063	20.88	0.122	≤ 24.00
5520.0		17.61	0.058	17.91	0.062	20.77	0.119	
5540.0		17.65	0.058	17.95	0.062	20.81	0.121	
5560.0		17.62	0.058	17.99	0.063	20.82	0.121	
5580.0		17.64	0.058	18.04	0.064	20.85	0.122	
5660.0		17.66	0.058	18.15	0.065	20.92	0.124	
5680.0		17.65	0.058	18.21	0.066	20.95	0.124	
5700.0		16.68	0.047	17.32	0.054	20.02	0.101	

Test Mode		Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5270.0	27 M	17.11	0.051	17.01	0.050	20.07	0.102	≤ 24.00
5310.0		16.13	0.041	16.21	0.042	19.18	0.083	
5510.0		15.89	0.039	16.15	0.041	19.03	0.080	≤ 24.00
5550.0		19.91	0.098	20.01	0.100	22.97	0.198	
5670.0		19.91	0.098	20.11	0.103	23.02	0.201	

Test Mode		Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5290.0	58.6 M	16.01	0.040	15.95	0.039	18.99	0.079	≤ 24.00
5530.0		16.56	0.045	16.97	0.050	19.78	0.095	≤ 24.00

Note: The relevant measured result has the offset with cable loss already.

Beamforming on

Test Mode		Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5260.0	13 M	15.56	0.036	15.33	0.034	18.46	0.070	≤ 21.07
5280.0		15.59	0.036	15.45	0.035	18.53	0.071	
5300.0		15.55	0.036	15.48	0.035	18.53	0.071	
5320.0		14.61	0.029	14.64	0.029	17.64	0.058	
5500.0		14.11	0.026	14.44	0.028	17.29	0.054	≤ 22.57
5520.0		14.16	0.026	14.44	0.028	17.31	0.054	
5540.0		14.14	0.026	14.41	0.028	17.29	0.054	
5560.0		14.13	0.026	14.46	0.028	17.31	0.054	
5580.0		14.12	0.026	14.51	0.028	17.33	0.054	
5660.0		14.14	0.026	14.59	0.029	17.38	0.055	
5680.0		14.13	0.026	14.68	0.029	17.42	0.055	
5700.0		13.11	0.020	13.76	0.024	16.46	0.044	

Test Mode		Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5270.0	27 M	13.62	0.023	13.53	0.023	16.59	0.046	≤ 21.07
5310.0		12.63	0.018	12.74	0.019	15.70	0.037	
5510.0		12.26	0.017	12.63	0.018	15.46	0.035	≤ 22.57
5550.0		16.34	0.043	16.48	0.044	19.42	0.088	
5670.0		16.45	0.044	16.56	0.045	19.52	0.089	

Test Mode		Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode						
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	
5290.0	58.6 M	12.52	0.018	12.48	0.018	15.51	0.036	≤ 21.07
5530.0		12.98	0.020	13.43	0.022	16.22	0.042	≤ 22.57

Note: The relevant measured result has the offset with cable loss already.



26 dB RF Bandwidth

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5260.0	19.290	18.840
5280.0	19.220	18.930
5320.0	19.220	19.100
5500.0	19.210	18.960
5560.0	19.070	19.090
5700.0	19.300	19.070

Test Mode	Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5260.0	20.210	20.250
5280.0	20.250	20.140
5320.0	20.190	20.120
5500.0	20.090	20.210
5560.0	20.240	20.260
5700.0	20.200	20.200

Test Mode	Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5270.0	40.140	40.640
5310.0	40.170	40.070
5510.0	39.910	40.060
5550.0	40.310	40.250
5670.0	40.120	58.650



Test Mode	Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5260.0	20.240	20.420
5280.0	20.330	20.300
5320.0	20.070	20.160
5500.0	20.300	20.280
5560.0	20.180	20.030
5700.0	20.260	20.110

Test Mode	Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5270.0	40.320	40.480
5310.0	40.260	40.320
5510.0	40.060	40.340
5550.0	40.160	40.660
5670.0	40.440	58.730

Test Mode	Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5290.0	83.340	83.090
5530.0	83.250	83.230

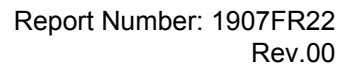


Beamforming on

Test Mode	Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5260.0	20.110	20.170
5280.0	20.190	20.050
5320.0	20.010	20.160
5500.0	20.120	20.200
5560.0	20.120	20.090
5700.0	20.130	20.030

Test Mode	Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5270.0	40.050	40.350
5310.0	40.180	40.030
5510.0	39.940	40.150
5550.0	40.160	40.300
5670.0	40.210	40.110

Test Mode	Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode	
Frequency (MHz)	ANT-0	ANT-1
5290.0	83.240	82.820
5530.0	83.300	83.010



Mode 2: IEEE 802.11a Continuous TX mode_ANT-0

Agilent Spectrum Analyzer - Occupied BW

File Edit View Window Help

GENE: 1/1/1 03:16:16 PM 3/1/2019

Center Freq: 5.260000000 GHz Radio Std: None
 Trig: Free Run Avg/Hold: 1/1
 #Att: 36 dB Radio Device: BTS

#F Gain: low

Ref Offset 12 dB
 Ref 30.00 dBm

10 dB/div
 Log

Center 5.26 GHz
 #Res BW 300 kHz

#VBW 1 MHz

Span 40 MHz
 Sweep 1 ms

Occupied Bandwidth		Total Power	
	16.457 MHz		22.7 dBm
Transmit Freq Error	-9.100 kHz	OBW Power	99.00 %
x dB Bandwidth	19.29 MHz	x dB	-26.00 dB

File <BBB.png> saved

STATUS

Frequency

Center Freq
 5.260000000 GHz

CF Step
 4.000000 MHz

Auto

Freq Offset
 0 Hz

Agilent Spectrum Analyzer - Occupied BW

File 1521_002

Offset (Hz) 0.000000000000 #VBW AUTO 0.000000000000 0.000000000000 2019

Center Freq: 5.2800000000 GHz Radio Std: None Frequency

Trig: Free Run Avg/Hold: 1/1

#IF Gain: Low #Atten: 30 dB

Radio Device: BTS

Ref Offset 12 dB
Ref 30.00 dBm

10 dB/div

Log

0 dB

10 dB

20 dB

30 dB

40 dB

50 dB

60 dB

Center 5.28 GHz

#Res BW 300 kHz

#VBW 1 MHz

Span 40 MHz

Sweep 1 ms

Auto

CF Step 4.000000 MHz

Mar

Freq Offset 0 Hz

Occupied Bandwidth		Total Power	
16.452 MHz		22.3 dBm	

Transmit Freq Error		OBW Power	
-4.756 kHz		99.00 %	
x dB Bandwidth	19.22 MHz	x dB	-26.00 dB

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STATUS

Agilent Spectrum Analyzer - Occupied BW

File Edit View Window Help

03/30/20 PM 3:02, 2019

Center Freq: 5.320000000 GHz

Trig: Free Run

Avg/Hold: 1/1

Radio Std: None

Frequency

#IF Gain: Low

#Atten: 30 dB

Radio Device: BTS

Ref Offset 12 dB

Ref 30.00 dBm

10 dB/div

Log

Center 5.32 GHz

#Res BW 300 kHz

#VBW 1 MHz

Span 40 MHz

Sweep 1 ms

Occupied Bandwidth

16.467 MHz

Total Power

22.4 dBm

Transmit Freq Error

-6.971 kHz

OBW Power

99.00 %

x dB Bandwidth

19.22 MHz

x dB

-26.00 dB

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STATUS

CF Step

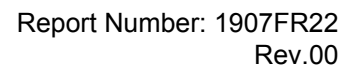
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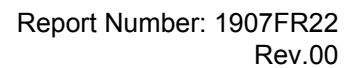
Auto

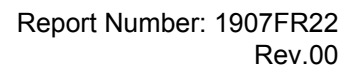
Mar

Freq Offset

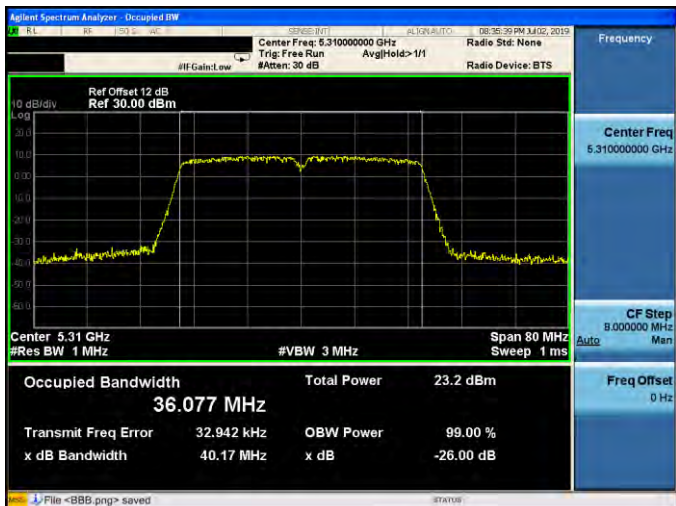
0 Hz

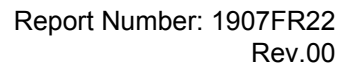
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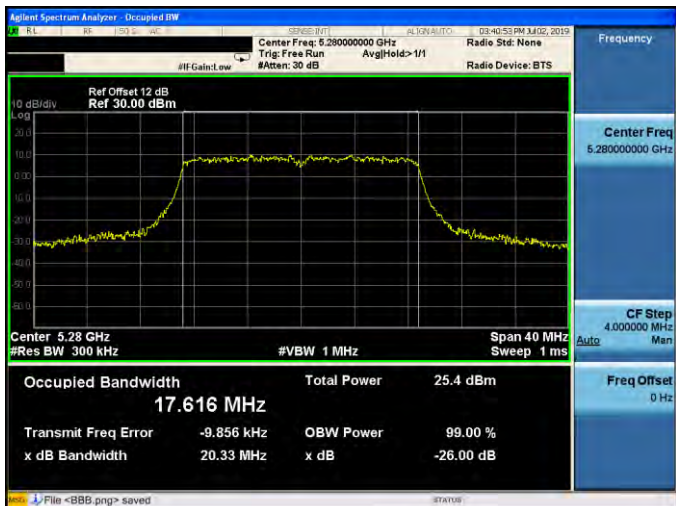
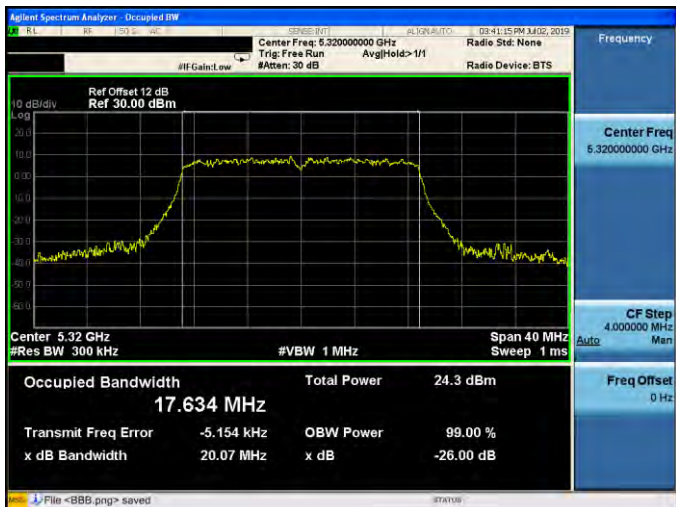
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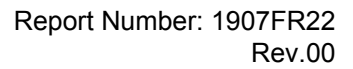


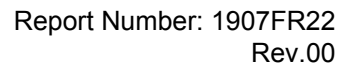
Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode_ANT-0	
5270	
5310	

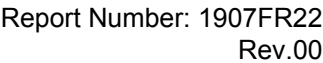
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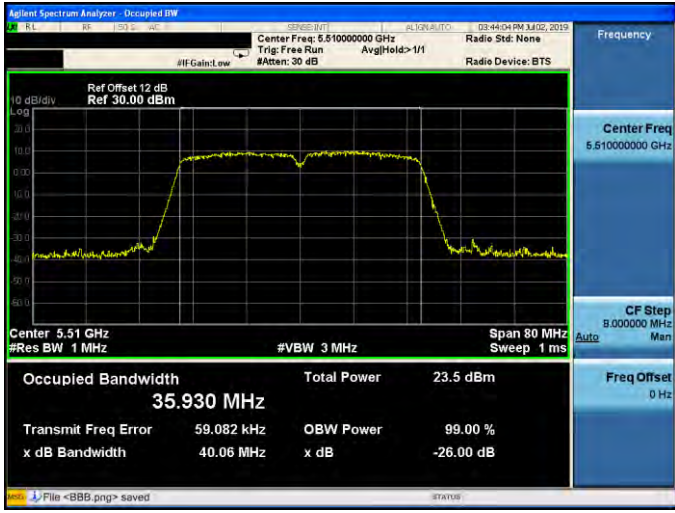
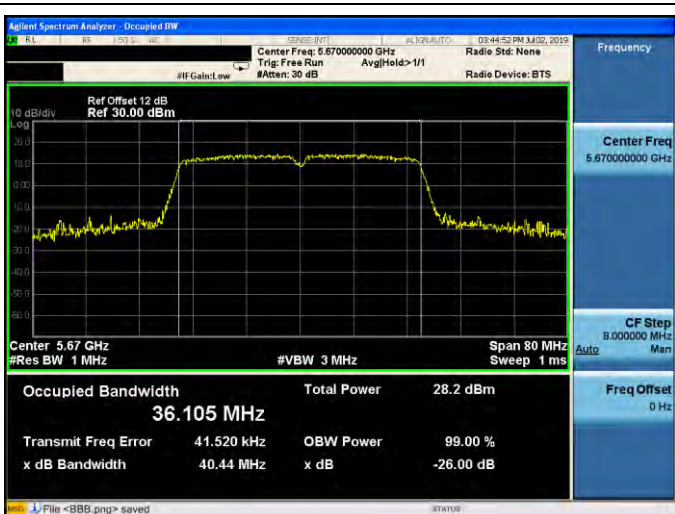
Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0	
5260	
5280	
5320	

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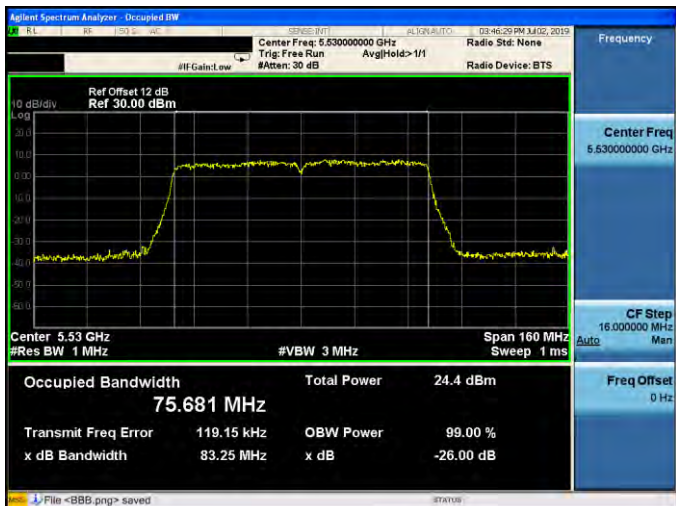
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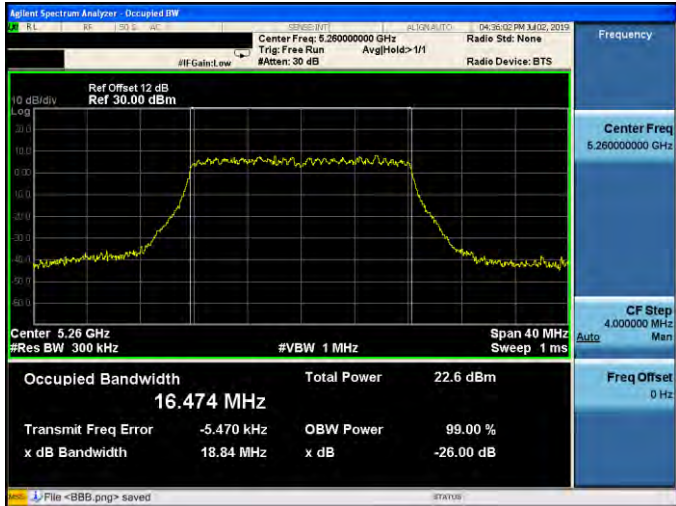
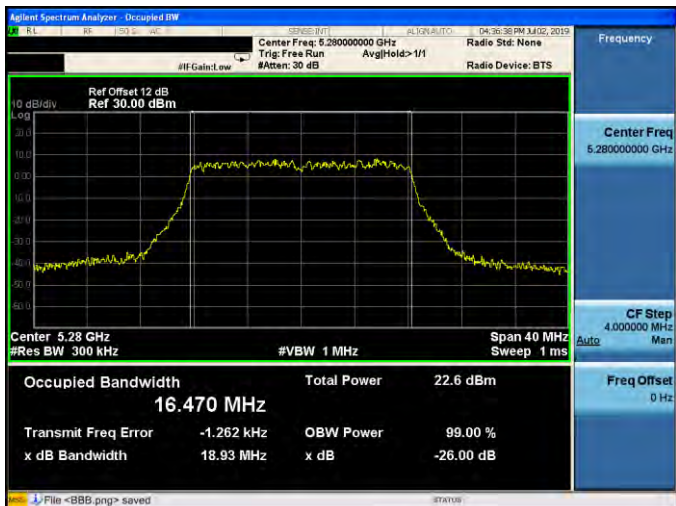
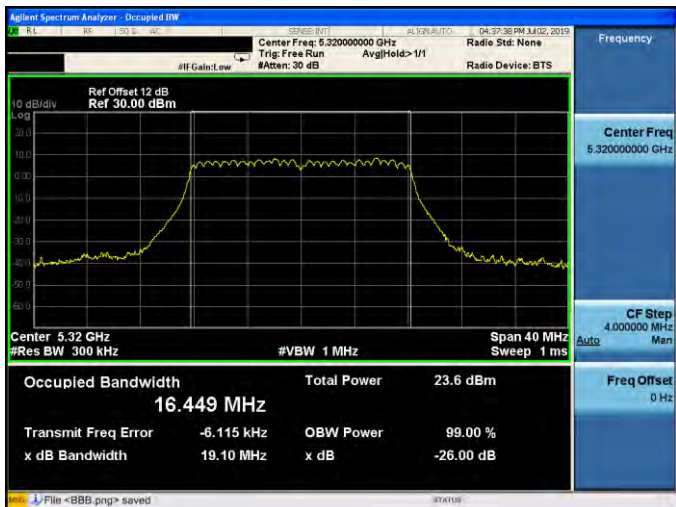
Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-0

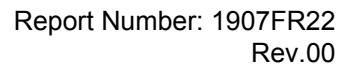
5510	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.510000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 30.00 dBm Center 5.51 GHz #Res BW 1 MHz #VBW 3 MHz Span 80 MHz Sweep 1 ms Occupied Bandwidth 35.930 MHz Total Power 23.5 dBm Transmit Freq Error 59.082 kHz OBW Power 99.00 % x dB Bandwidth 40.06 MHz x dB -26.00 dB File <BBB.png> saved Frequency Center Freq 5.510000000 GHz CF Step 8.0000000 MHz Freq Offset 0 Hz
5550	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.550000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 30.00 dBm Center 5.55 GHz #Res BW 1 MHz #VBW 3 MHz Span 80 MHz Sweep 1 ms Occupied Bandwidth 36.001 MHz Total Power 28.0 dBm Transmit Freq Error 92.798 kHz OBW Power 99.00 % x dB Bandwidth 40.16 MHz x dB -26.00 dB File <BBB.png> saved Frequency Center Freq 5.550000000 GHz CF Step 8.0000000 MHz Freq Offset 0 Hz
5670	 Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.670000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 12 dB Ref 30.00 dBm Center 5.67 GHz #Res BW 1 MHz #VBW 3 MHz Span 80 MHz Sweep 1 ms Occupied Bandwidth 36.105 MHz Total Power 28.2 dBm Transmit Freq Error 41.520 kHz OBW Power 99.00 % x dB Bandwidth 40.44 MHz x dB -26.00 dB File <BBB.png> saved Frequency Center Freq 5.670000000 GHz CF Step 8.0000000 MHz Freq Offset 0 Hz



Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0	
5290	
5530	



Mode 2: IEEE 802.11a Continuous TX mode_ANT-1	
5260	
5280	
5320	

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Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-1

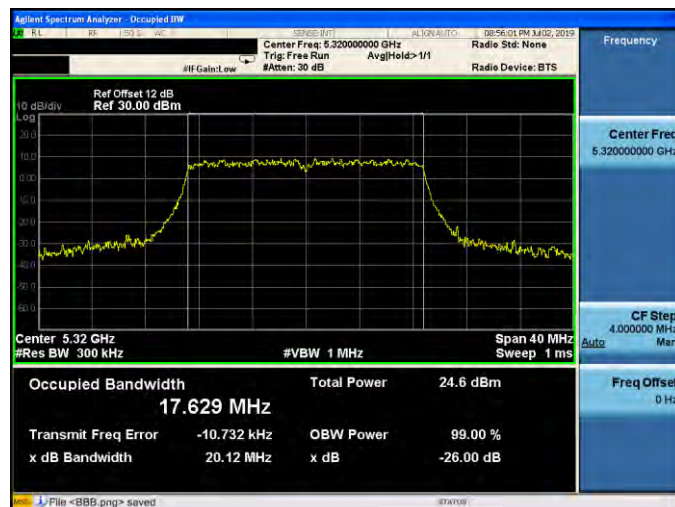
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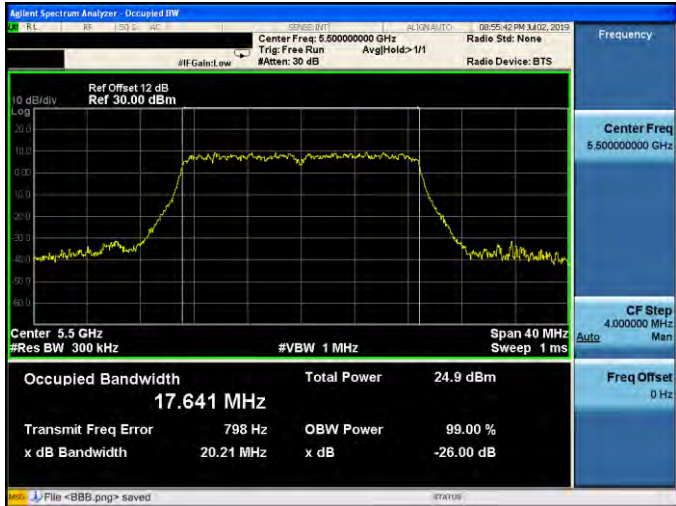
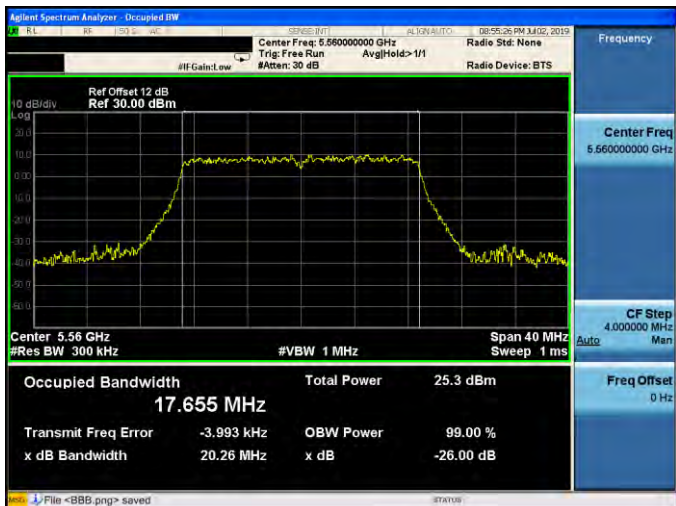
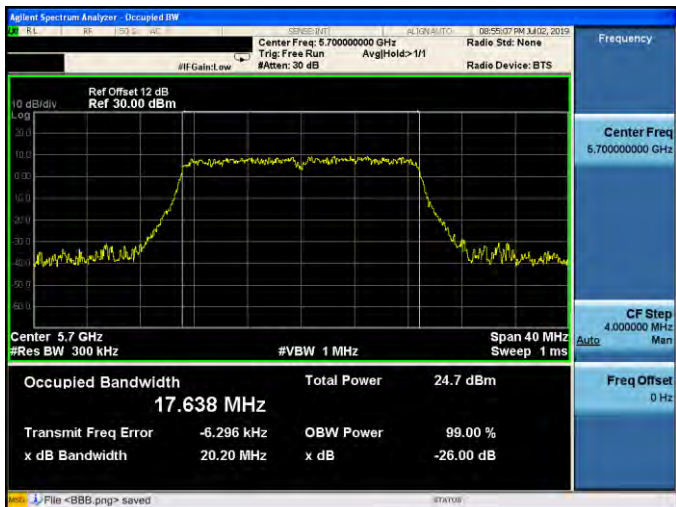
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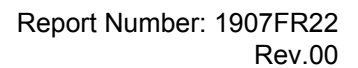


5320

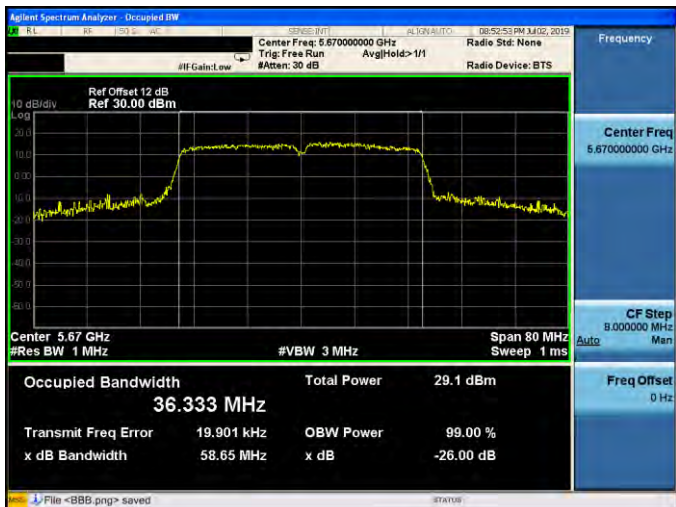


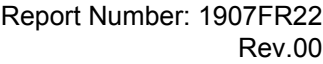


Mode 3: IEEE 802.11n 5 GHz 20 MHz Continuous TX mode_ANT-1	
5500	
5560	
5700	

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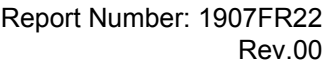


Mode 4: IEEE 802.11n 5 GHz 40 MHz Continuous TX mode_ANT-1	
5510	
5550	
5670	



Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1

5260	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.260000000 GHz Trig: Free Run Attenu: 30 dB Radio Device: BTS Ref Offset 12 dB Ref 30.00 dBm Center 5.26 GHz Res BW 300 kHz VBW 1 MHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.652 MHz Total Power 25.5 dBm Transmit Freq Error -13.694 kHz OBW Power 99.00 % x dB Bandwidth 20.42 MHz x dB -26.00 dB File <BBB.png> saved STATUS Frequency Center Freq 5.260000000 GHz CF Step 4.000000 MHz Freq Offset 0 Hz
5280	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.280000000 GHz Trig: Free Run Attenu: 30 dB Radio Device: BTS Ref Offset 12 dB Ref 30.00 dBm Center 5.28 GHz Res BW 300 kHz VBW 1 MHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.656 MHz Total Power 25.5 dBm Transmit Freq Error -16.353 kHz OBW Power 99.00 % x dB Bandwidth 20.30 MHz x dB -26.00 dB File <BBB.png> saved STATUS Frequency Center Freq 5.280000000 GHz CF Step 4.000000 MHz Freq Offset 0 Hz
5320	Agilent Spectrum Analyzer - Occupied BW Center Freq: 5.320000000 GHz Trig: Free Run Attenu: 30 dB Radio Device: BTS Ref Offset 12 dB Ref 30.00 dBm Center 5.32 GHz Res BW 300 kHz VBW 1 MHz Span 40 MHz Sweep 1 ms Occupied Bandwidth 17.654 MHz Total Power 24.8 dBm Transmit Freq Error -17.605 kHz OBW Power 99.00 % x dB Bandwidth 20.16 MHz x dB -26.00 dB File <BBB.png> saved STATUS Frequency Center Freq 5.320000000 GHz CF Step 4.000000 MHz Freq Offset 0 Hz



Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1

5500

Agilent Spectrum Analyzer - Occupied BW

Center Freq: 5.500000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg/Hold: 1/1
Radio Std: None
Radio Device: BTS

Ref Offset 12 dB
Ref 30.00 dBm

Center 5.5 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 40 MHz
Sweep 1 ms

Occupied Bandwidth: 17.636 MHz
Total Power: 25.0 dBm
Transmit Freq Error: -7.464 kHz
OBW Power: 99.00 %
x dB Bandwidth: 20.28 MHz
x dB: -26.00 dB

Frequency: Center Freq 5.500000000 GHz
CF Step 4.0000000 MHz
FREQ Offset 0 Hz

File <BBB.png> saved

5560

Agilent Spectrum Analyzer - Occupied BW

Center Freq: 5.560000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg/Hold: 1/1
Radio Std: None
Radio Device: BTS

Ref Offset 12 dB
Ref 30.00 dBm

Center 5.56 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 40 MHz
Sweep 1 ms

Occupied Bandwidth: 17.640 MHz
Total Power: 25.5 dBm
Transmit Freq Error: -7.035 kHz
OBW Power: 99.00 %
x dB Bandwidth: 20.03 MHz
x dB: -26.00 dB

Frequency: Center Freq 5.560000000 GHz
CF Step 4.0000000 MHz
FREQ Offset 0 Hz

File <BBB.png> saved

5700

Agilent Spectrum Analyzer - Occupied BW

Center Freq: 5.700000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg/Hold: 1/1
Radio Std: None
Radio Device: BTS

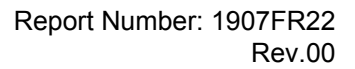
Ref Offset 12 dB
Ref 30.00 dBm

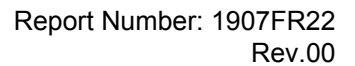
Center 5.7 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 40 MHz
Sweep 1 ms

Occupied Bandwidth: 17.599 MHz
Total Power: 25.2 dBm
Transmit Freq Error: -9.402 kHz
OBW Power: 99.00 %
x dB Bandwidth: 20.11 MHz
x dB: -26.00 dB

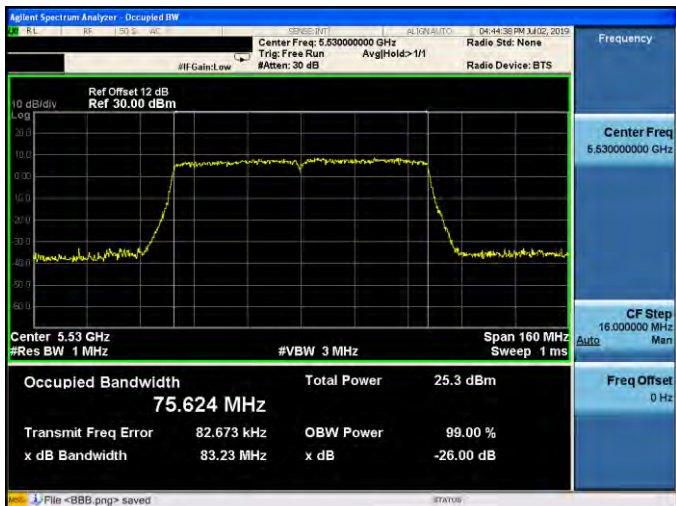
Frequency: Center Freq 5.700000000 GHz
CF Step 4.0000000 MHz
FREQ Offset 0 Hz

File <BBB.png> saved

255 of 298

256 of 298



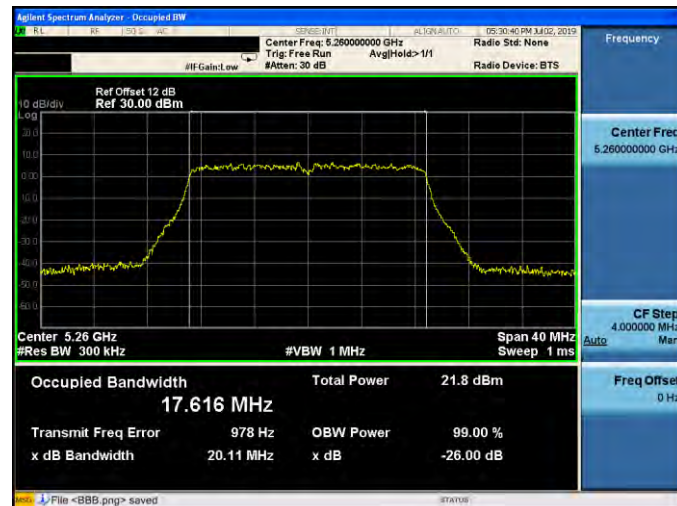
Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-1	
5290	
5530	



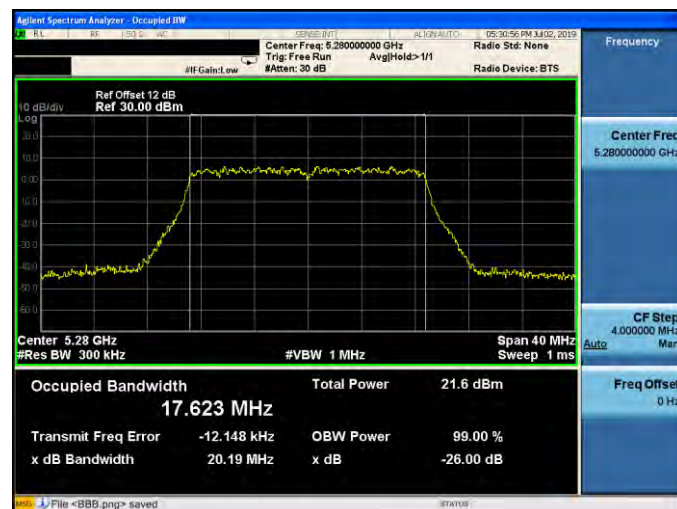
Beamforming on

Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0

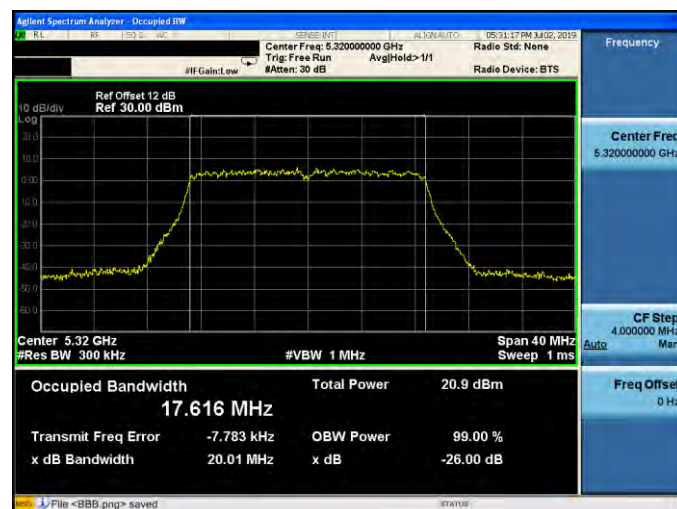
5260

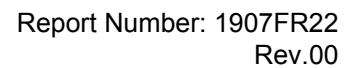


5280

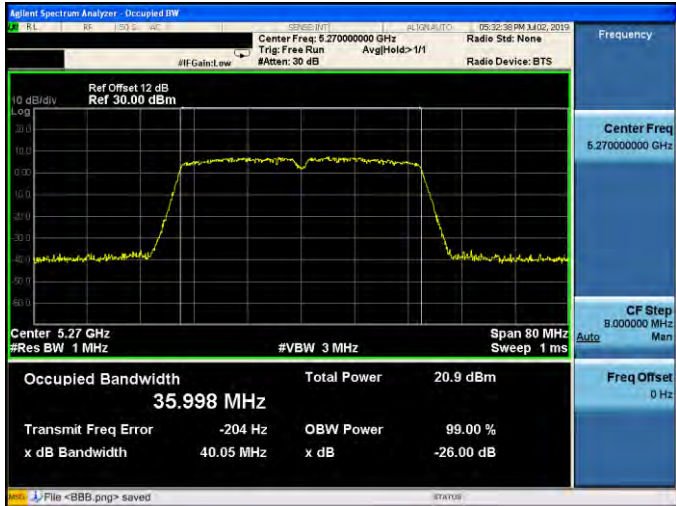
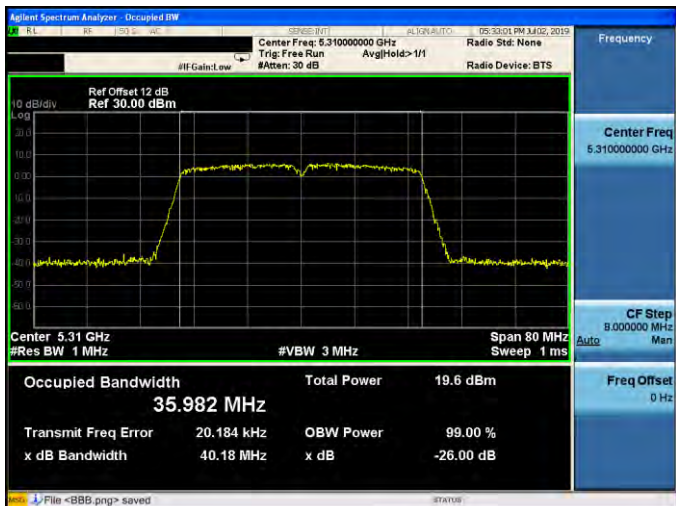


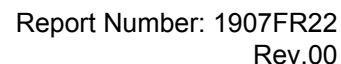
5320



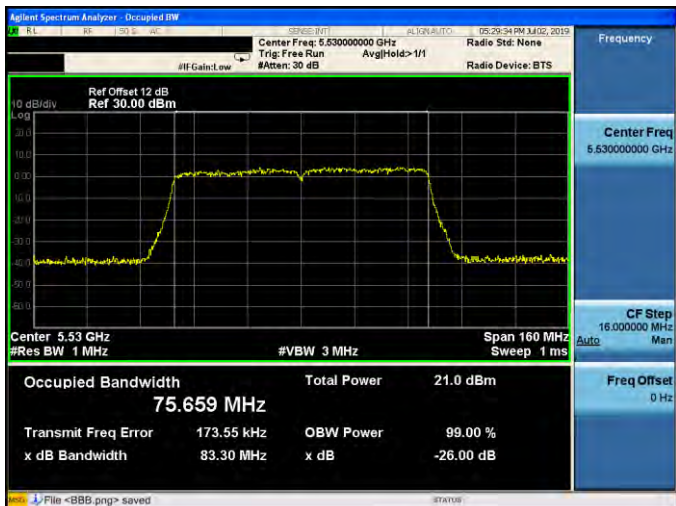
259 of 298

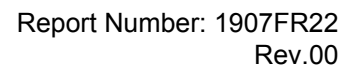


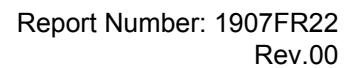
Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-0	
5270	
5310	

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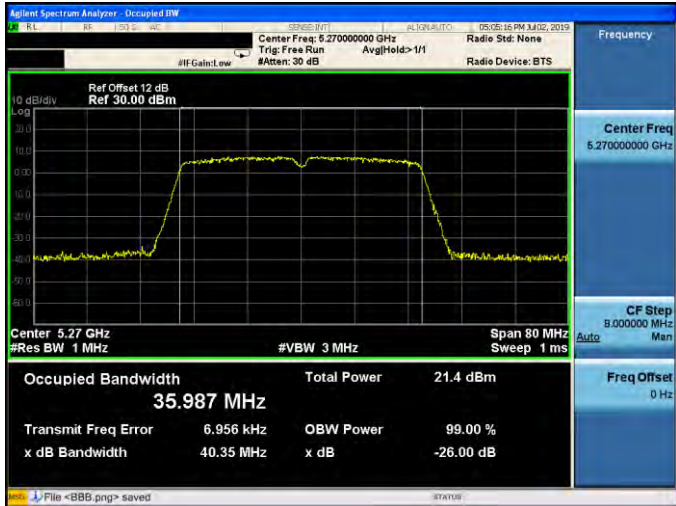
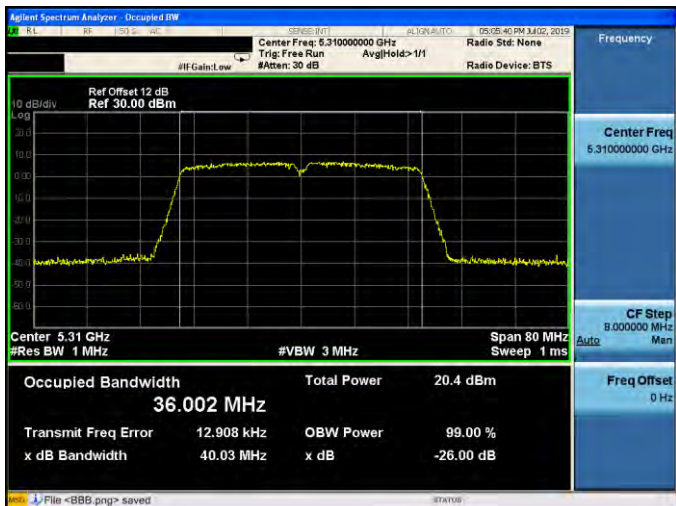


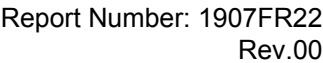
Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0	
5290	
5530	

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Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1	
5270	
5310	



Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1

5510

Agilent Spectrum Analyzer - Occupied BW

Center Freq: 5.51000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg/Hold: 1/1
Radio Std: None
Radio Device: BTS

Ref Offset 12 dB
Ref 30.00 dBm

Center 5.51 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1 ms

Occupied Bandwidth 35.963 MHz
Total Power 20.5 dBm
Transmit Freq Error 39.226 kHz
x dB Bandwidth 40.15 MHz
OBW Power 99.00 %
x dB -26.00 dB

Frequency
Center Freq 5.51000000 GHz
CF Step 8.000000 MHz
Freq Offset 0 Hz

File <BBB.png> saved

5550

Agilent Spectrum Analyzer - Occupied BW

Center Freq: 5.55000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg/Hold: 1/1
Radio Std: None
Radio Device: BTS

Ref Offset 12 dB
Ref 30.00 dBm

Center 5.55 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1 ms

Occupied Bandwidth 36.038 MHz
Total Power 25.0 dBm
Transmit Freq Error 34.553 kHz
x dB Bandwidth 40.30 MHz
OBW Power 99.00 %
x dB -26.00 dB

Frequency
Center Freq 5.55000000 GHz
CF Step 8.000000 MHz
Freq Offset 0 Hz

File <BBB.png> saved

5670

Agilent Spectrum Analyzer - Occupied BW

Center Freq: 5.67000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg/Hold: 1/1
Radio Std: None
Radio Device: BTS

Ref Offset 12 dB
Ref 30.00 dBm

Center 5.67 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1 ms

Occupied Bandwidth 36.023 MHz
Total Power 26.0 dBm
Transmit Freq Error 36.036 kHz
x dB Bandwidth 40.11 MHz
OBW Power 99.00 %
x dB -26.00 dB

Frequency
Center Freq 5.67000000 GHz
CF Step 8.000000 MHz
Freq Offset 0 Hz

File <BBB.png> saved



Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-1	
5290	
5530	



Maximum Power Spectral Density Measurement

Test Mode	Mode 2: IEEE 802.11a Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	4.581	0.124	4.705	≤ 8.07
5280.0	4.593	0.124	4.717	
5320.0	4.558	0.124	4.682	
5500.0	5.641	0.124	5.765	≤ 9.57
5560.0	6.007	0.124	6.131	
5700.0	5.539	0.124	5.663	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	4.968	0.124	5.092	≤ 8.07
5280.0	5.108	0.124	5.232	
5320.0	5.212	0.124	5.336	
5500.0	6.368	0.124	6.492	≤ 9.57
5560.0	6.766	0.124	6.890	
5700.0	6.538	0.124	6.662	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5260.0	7.913			≤ 8.07
5280.0	7.992			
5320.0	8.031			
5500.0	9.153			≤ 9.57
5560.0	9.537			
5700.0	9.201			

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	7.537	0.043	7.580	≤ 11.00
5280.0	7.380	0.043	7.423	
5320.0	6.315	0.043	6.358	
5500.0	6.228	0.043	6.271	
5560.0	6.802	0.043	6.845	
5700.0	6.181	0.043	6.224	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	7.702	0.043	7.745	≤ 11.00
5280.0	7.876	0.043	7.919	
5320.0	7.014	0.043	7.057	
5500.0	7.153	0.043	7.196	
5560.0	8.749	0.043	8.792	
5700.0	7.547	0.043	7.590	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5260.0	10.673			≤ 11.00
5280.0	10.688			
5320.0	9.732			
5500.0	9.768			
5560.0	10.937			
5700.0	9.971			

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5270.0	2.776	0.123	2.899	≤ 11.00
5310.0	1.743	0.123	1.866	
5510.0	2.189	0.123	2.312	
5550.0	6.396	0.123	6.519	
5670.0	6.603	0.123	6.726	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5270.0	3.254	0.123	3.377	≤ 11.00
5310.0	2.239	0.123	2.362	
5510.0	2.598	0.123	2.721	
5550.0	6.895	0.123	7.018	
5670.0	7.786	0.123	7.909	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5270.0	6.155			≤ 11.00
5310.0	5.131			
5510.0	5.531			
5550.0	9.786			
5670.0	10.368			

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5290.0	-1.718	0.254	-1.464	≤ 11.00
5530.0	-0.464	0.254	-0.210	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5290.0	-1.303	0.254	-1.049	≤ 11.00
5530.0	0.529	0.254	0.783	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5290.0	1.759			≤ 11.00
5530.0	3.326			

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.



Beamforming on

Test Mode	Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	3.965	0.043	4.008	≤ 8.07
5280.0	4.274	0.043	4.317	
5320.0	3.254	0.043	3.297	
5500.0	2.893	0.043	2.936	≤ 9.57
5560.0	3.055	0.043	3.098	
5700.0	2.797	0.043	2.840	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5260.0	4.480	0.043	4.523	≤ 8.07
5280.0	4.451	0.043	4.494	
5320.0	3.347	0.043	3.390	
5500.0	3.413	0.043	3.456	≤ 9.57
5560.0	4.261	0.043	4.304	
5700.0	3.891	0.043	3.934	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5260.0	7.283			≤ 8.07
5280.0	7.417			
5320.0	6.354			
5500.0	6.214			≤ 9.57
5560.0	6.753			
5700.0	6.432			

Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5270.0	-0.738	0.123	-0.615	≤ 8.07
5310.0	-1.818	0.123	-1.695	
5510.0	-1.466	0.123	-1.343	≤ 9.57
5550.0	2.787	0.123	2.910	
5670.0	3.115	0.123	3.238	
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5270.0	-0.458	0.123	-0.335	≤ 8.07
5310.0	-0.948	0.123	-0.825	
5510.0	-0.832	0.123	-0.709	≤ 9.57
5550.0	3.774	0.123	3.897	
5670.0	4.624	0.123	4.747	
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5270.0	2.537			≤ 8.07
5310.0	1.772			
5510.0	1.996			≤ 9.57
5550.0	6.442			
5670.0	7.068			

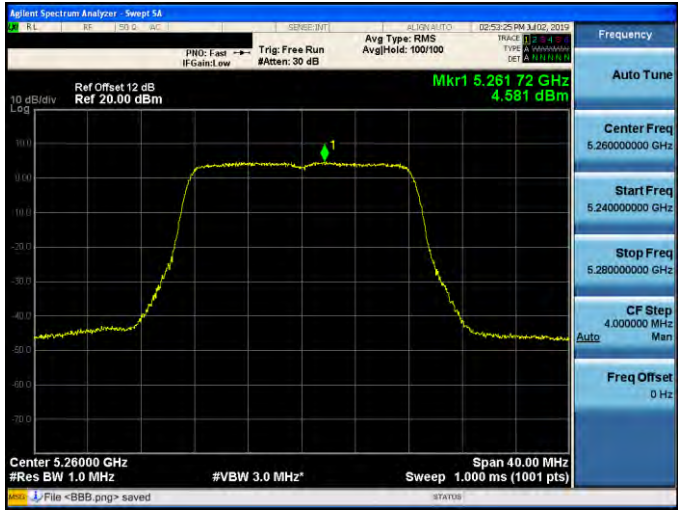
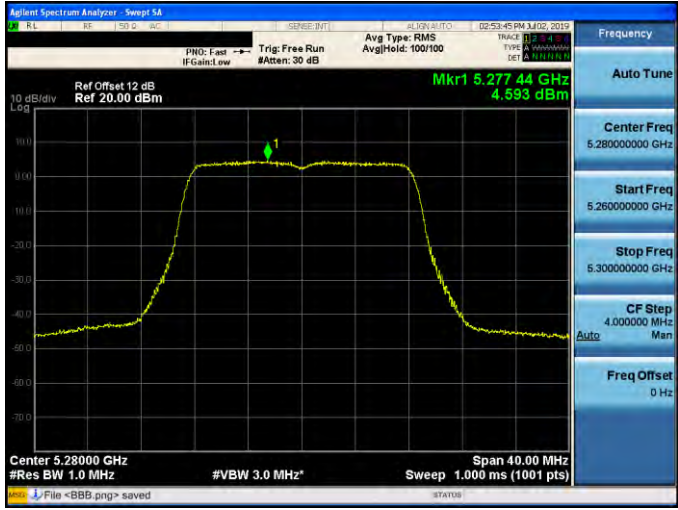
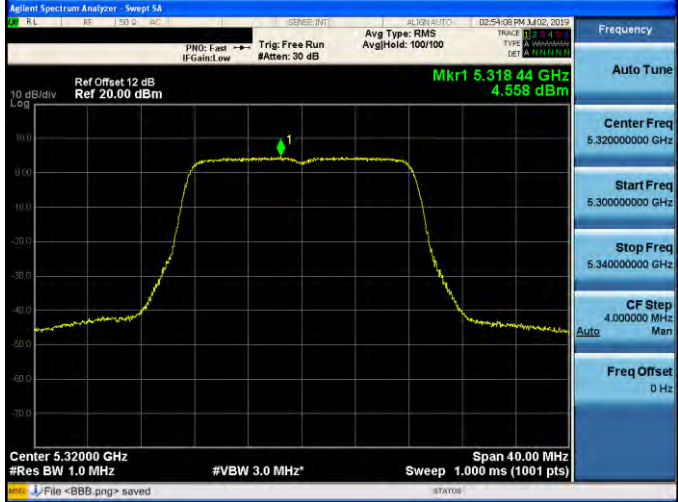
Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Test Mode	Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5290.0	-5.374	0.254	-5.120	≤ 8.07
5530.0	-4.024	0.254	-3.770	≤ 9.57
Frequency (MHz)	ANT-1			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5290.0	-4.920	0.254	-4.666	≤ 8.07
5530.0	-3.322	0.254	-3.068	≤ 9.57
Frequency (MHz)	ANT-0+1			Limit (dBm/MHz)
	Calculated (dBm/MHz)			
5290.0	-1.876			≤ 8.07
5530.0	-0.394			≤ 9.57

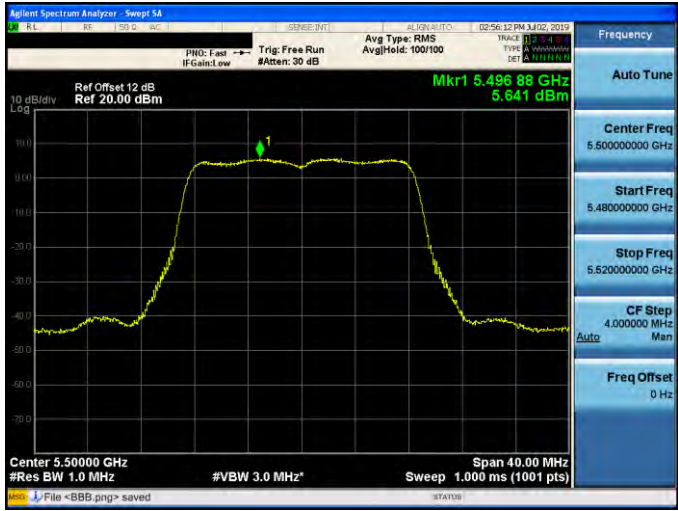
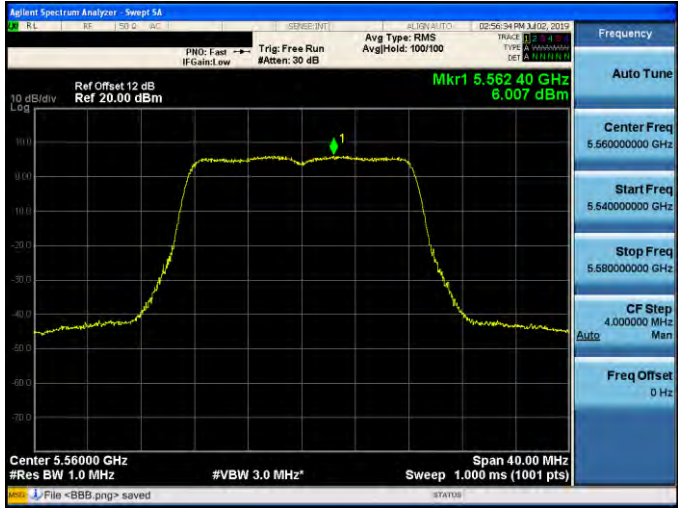
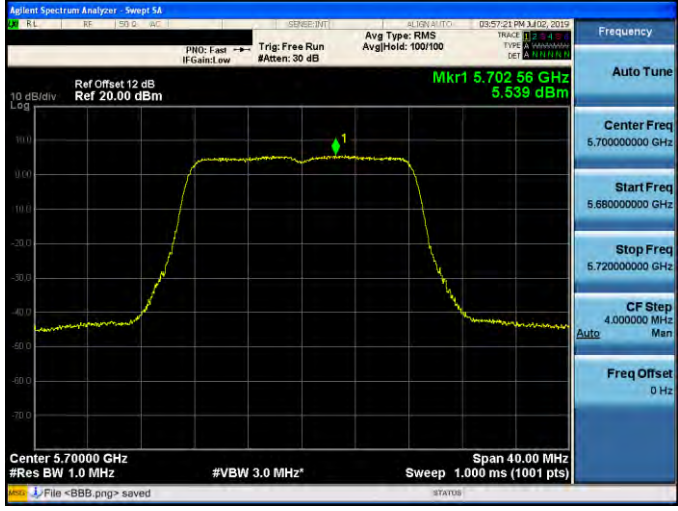
Note: Method SA-2, Power density = measured result + 10 log(1/duty cycle) + Conversion ratio = measured result + duty factor.



■ Test Graphs

Mode 2: IEEE 802.11a Continuous TX mode_ANT-0	
5260	
5280	
5320	

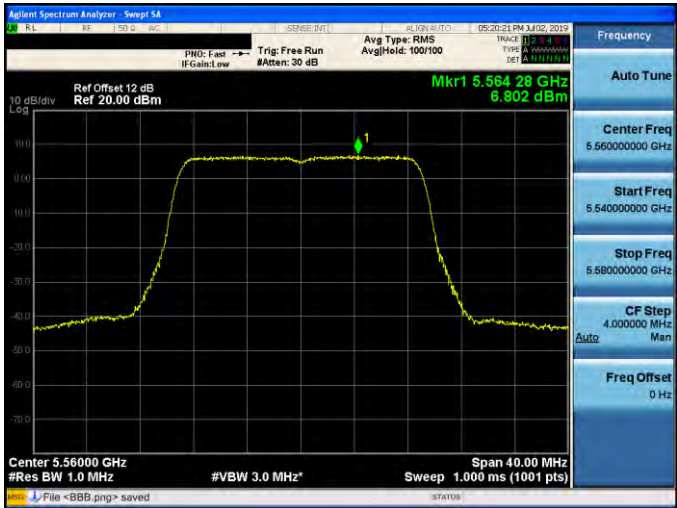
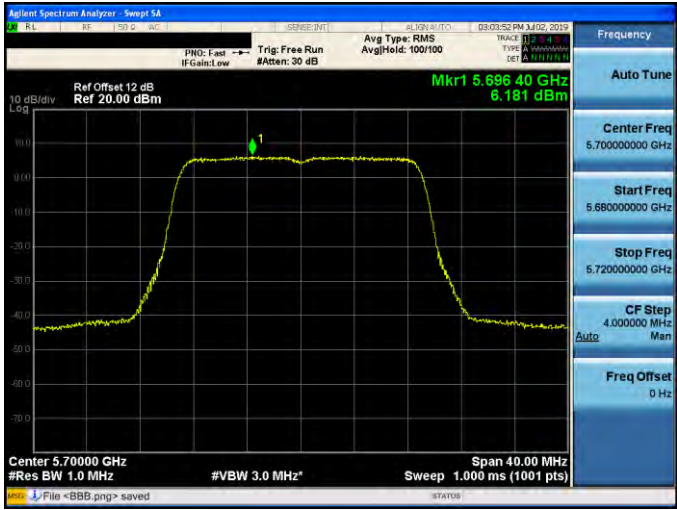


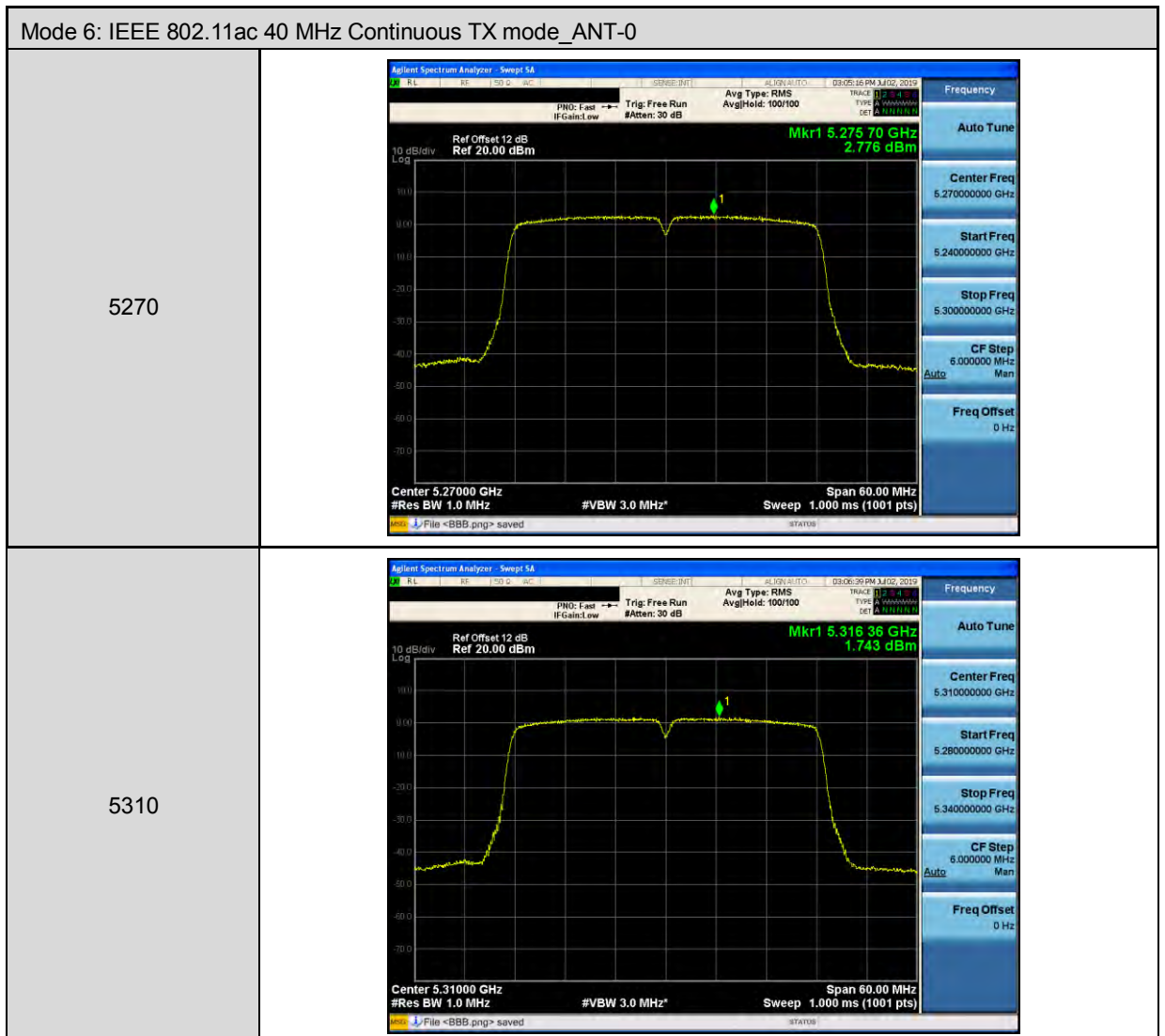
Mode 2: IEEE 802.11a Continuous TX mode_ANT-0	
5500	
5560	
5700	



Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0	
5260	
5280	
5320	



Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0	
5500	
5560	
5700	



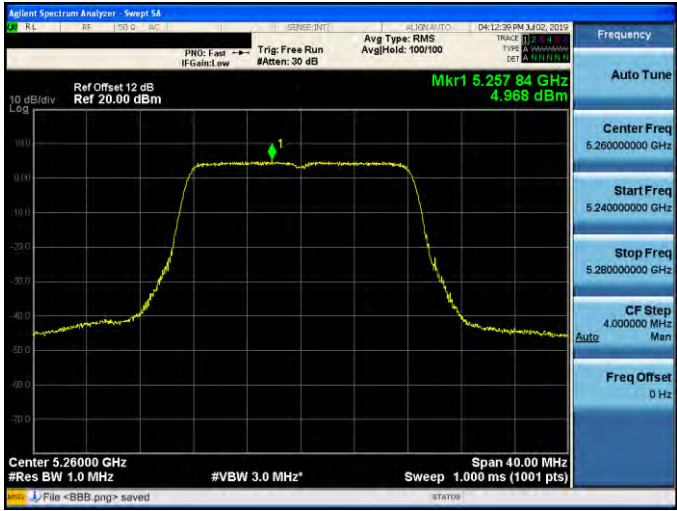
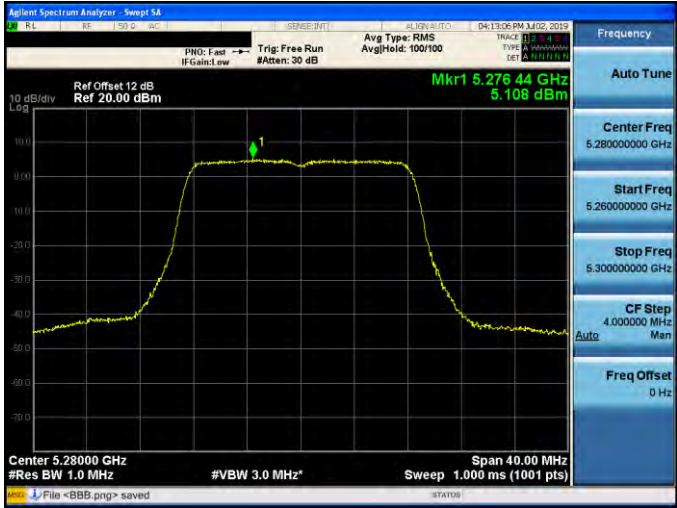
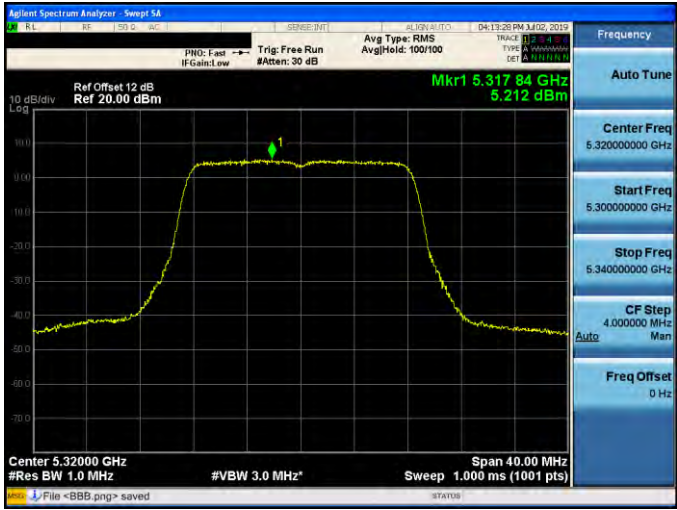


Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-0	
5510	
5550	
5670	



Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0	
5290	
5530	

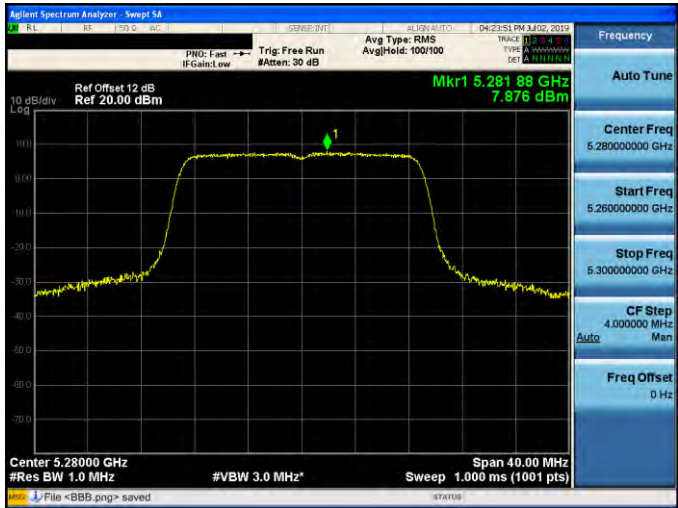
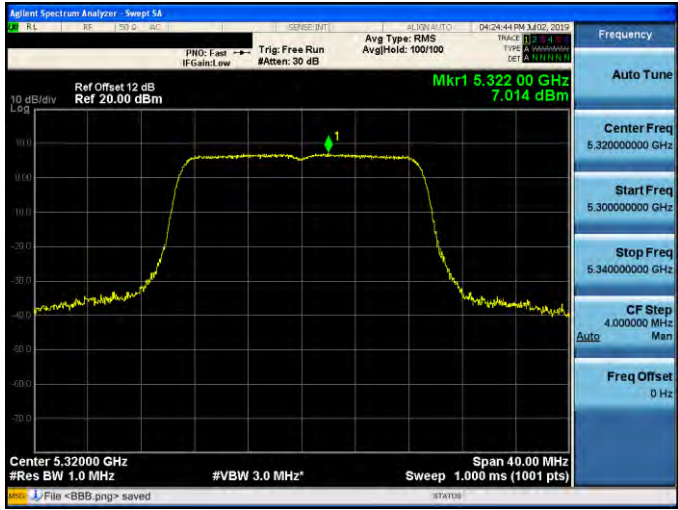


Mode 2: IEEE 802.11a Continuous TX mode_ANT-1	
5260	
5280	
5320	

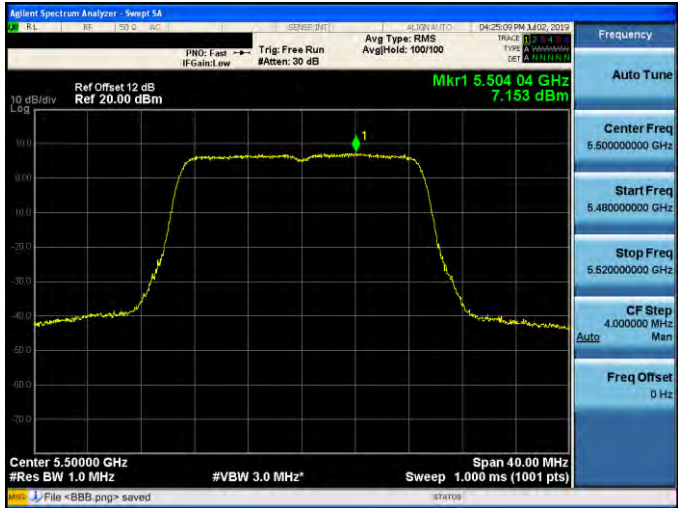
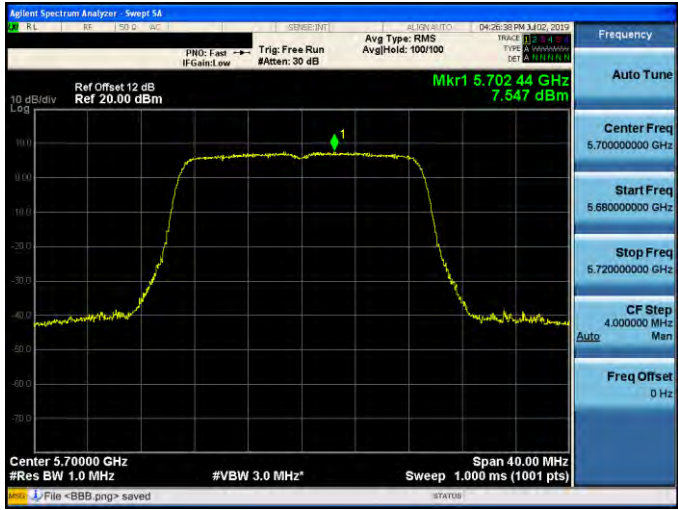


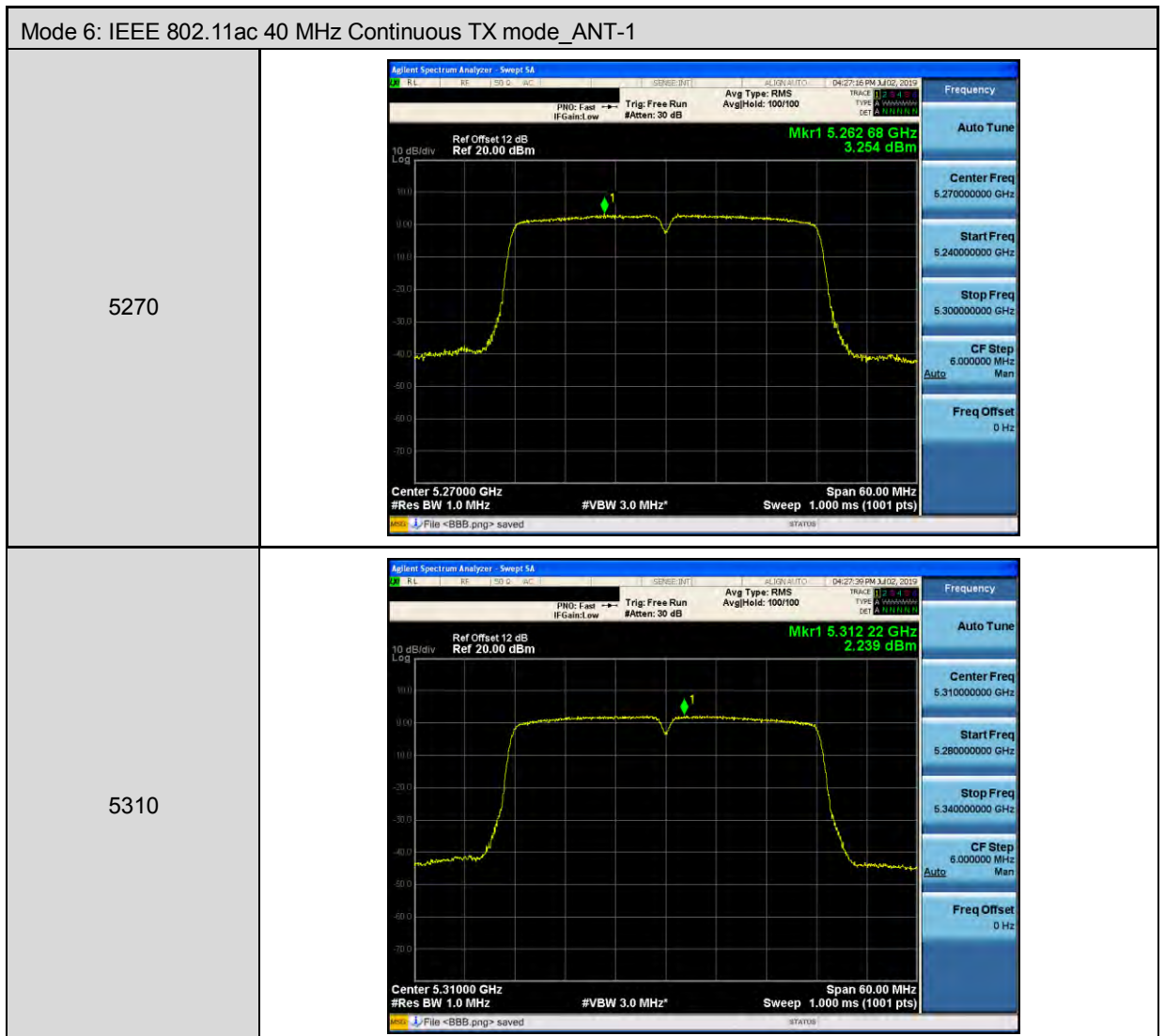
Mode 2: IEEE 802.11a Continuous TX mode_ANT-1	
5500	
5560	
5700	



Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1	
5260	
5280	
5320	

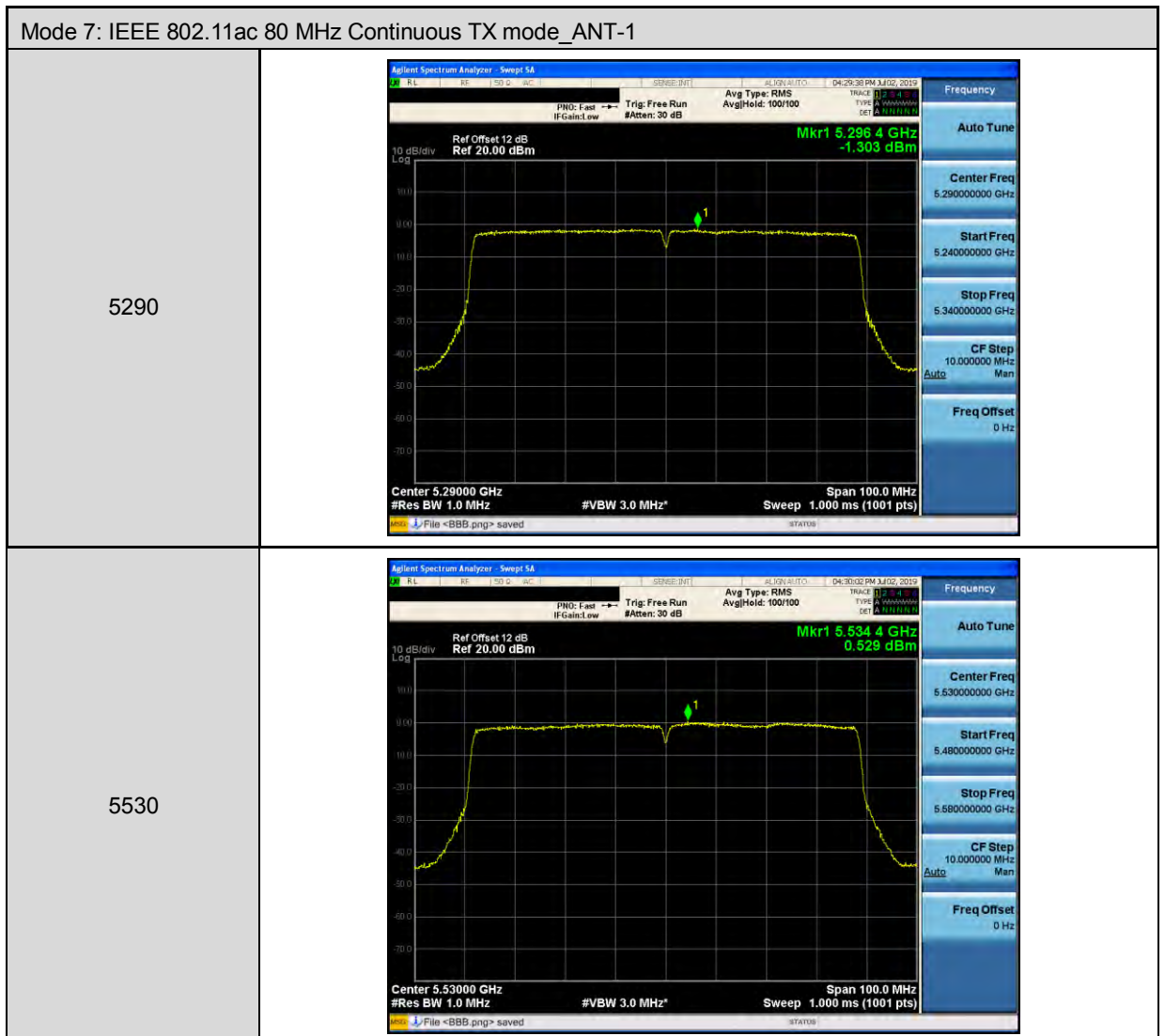


Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1	
5500	
5560	
5700	





Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1	
5510	
5550	
5670	

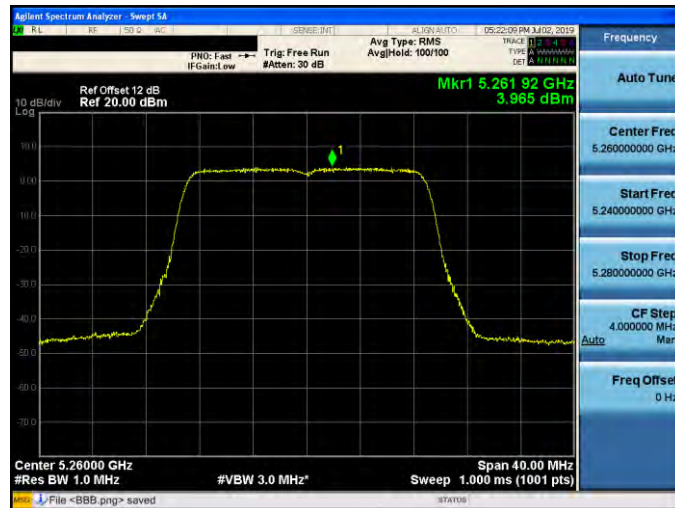




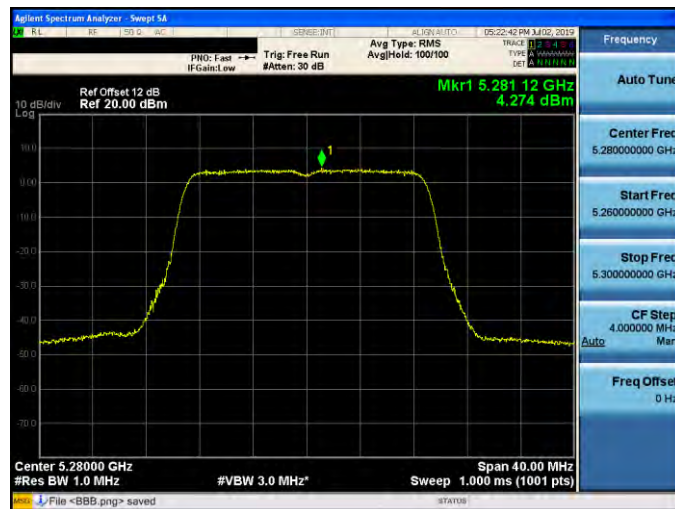
Beamforming on

Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0

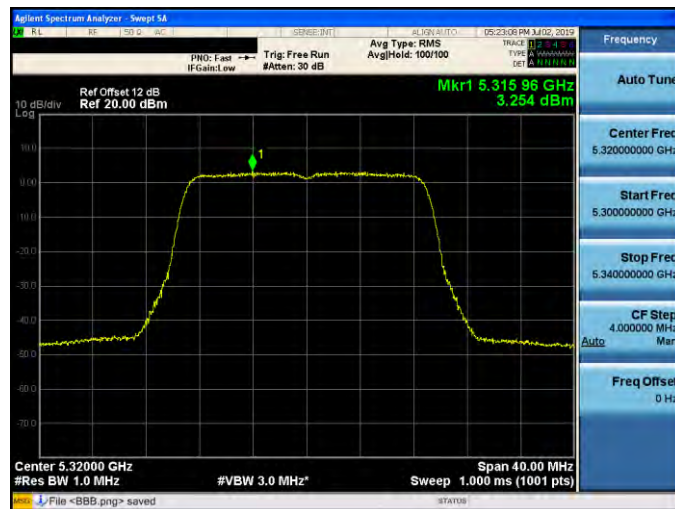
5260



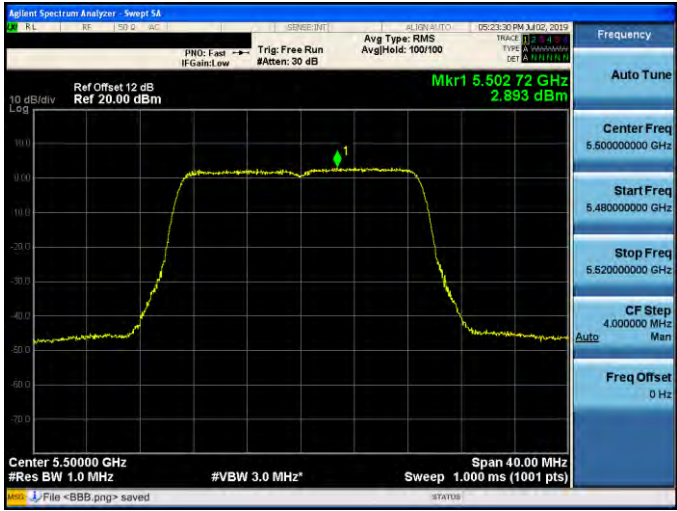
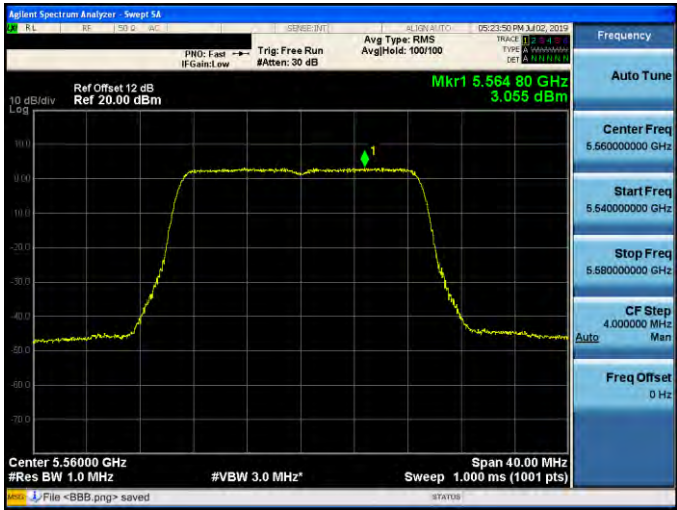
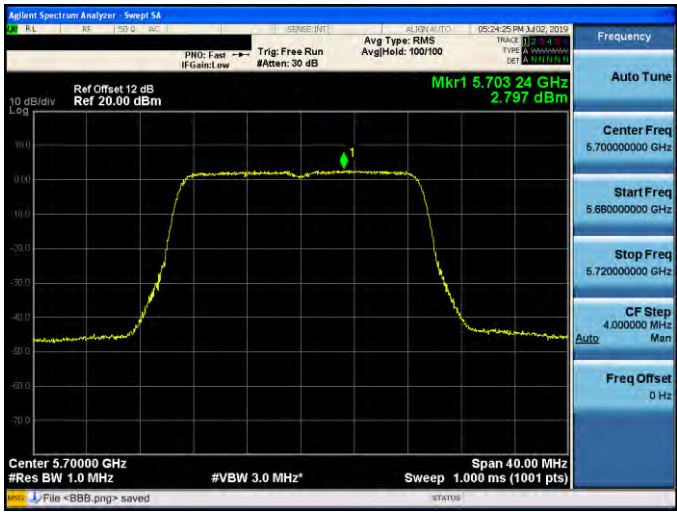
5280



5320





Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-0	
5500	
5560	
5700	



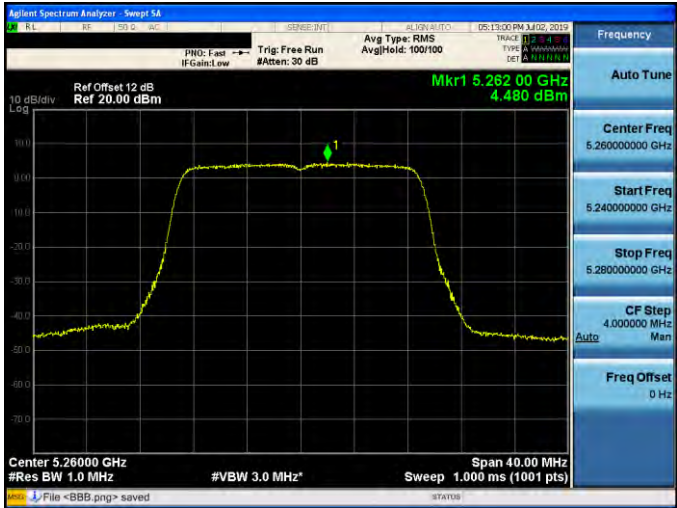
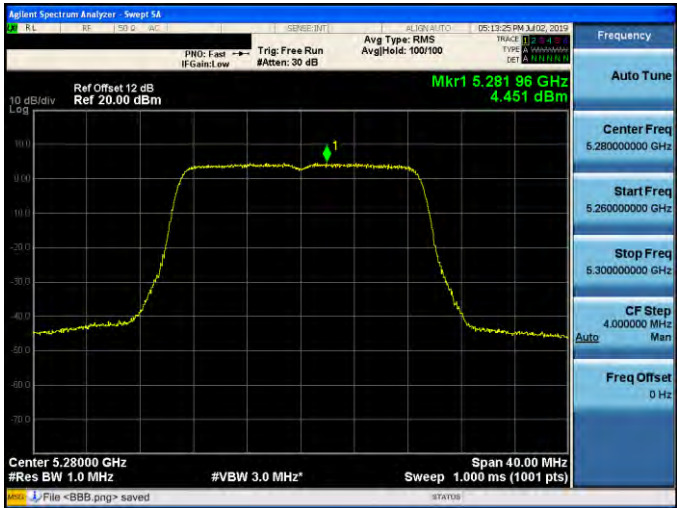
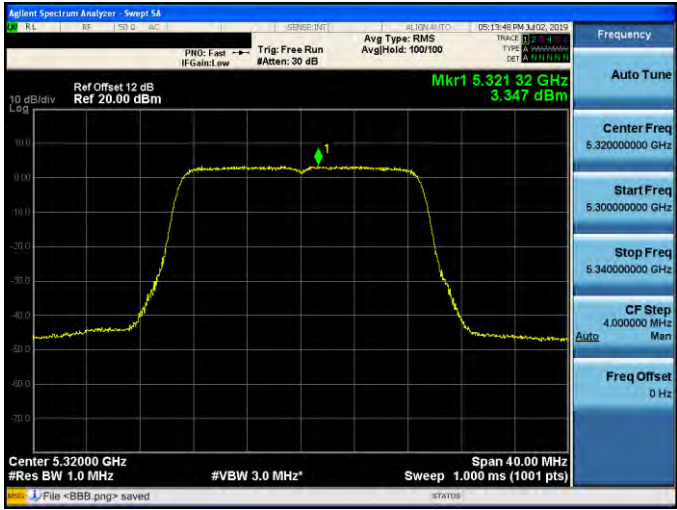


Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-0	
5510	
5550	
5670	

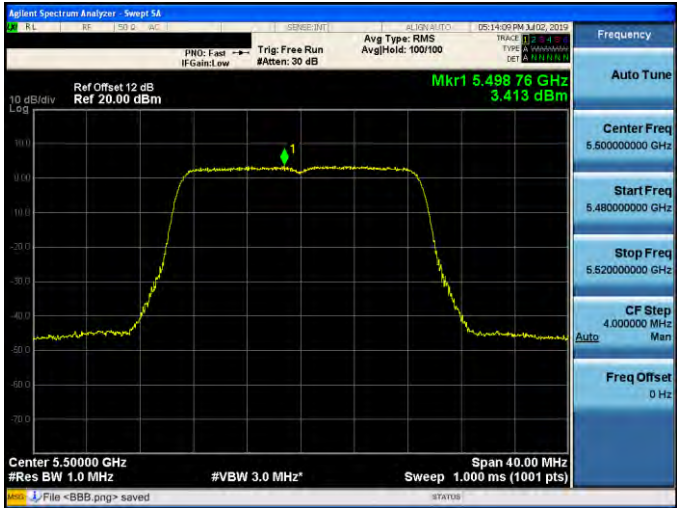
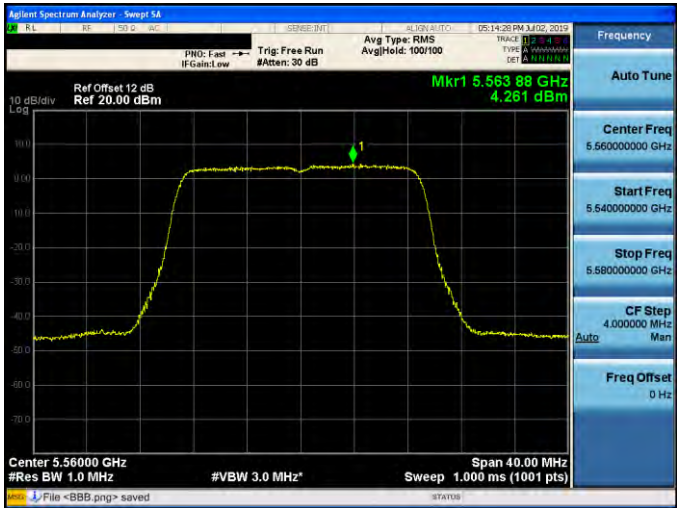
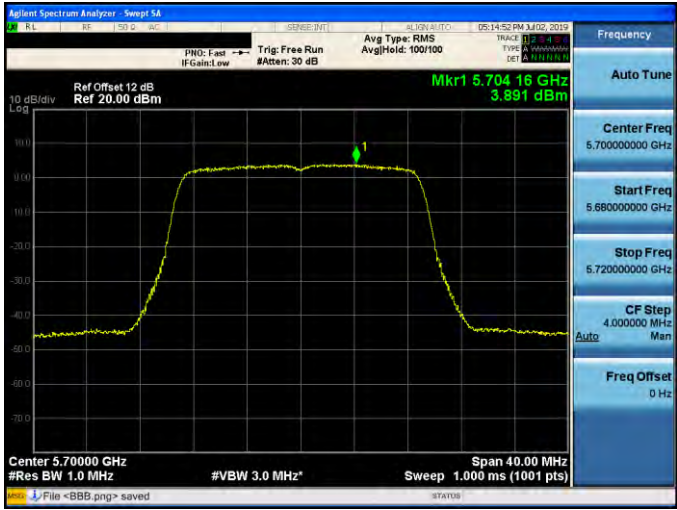


Mode 7: IEEE 802.11ac 80 MHz Continuous TX mode_ANT-0	
5290	
5530	



Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1	
5260	
5280	
5320	

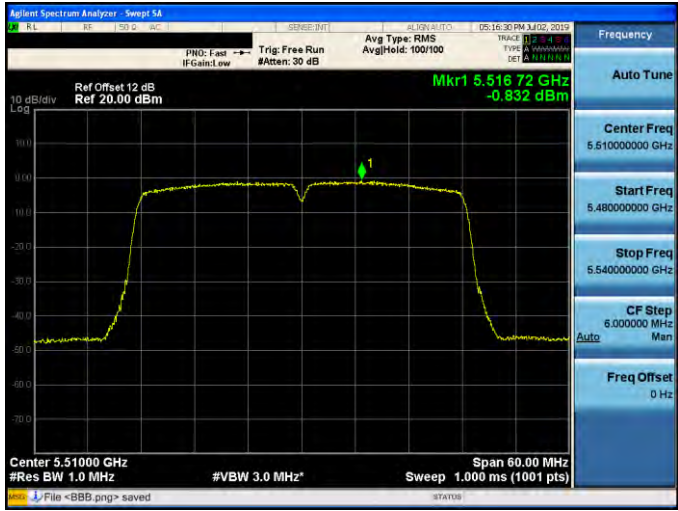


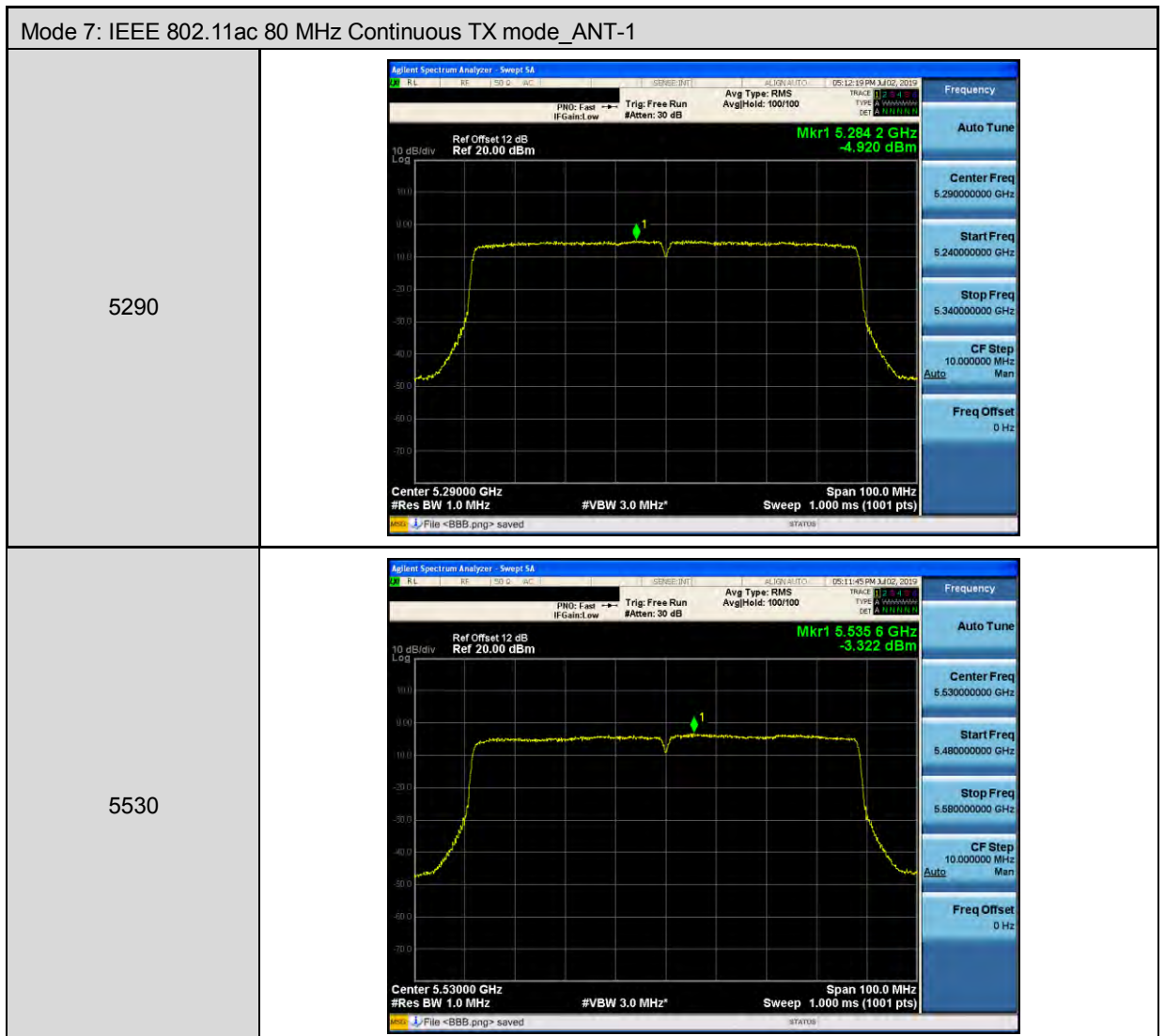
Mode 5: IEEE 802.11ac 20 MHz Continuous TX mode_ANT-1	
5500	
5560	
5700	



Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1	
5270	
5310	



Mode 6: IEEE 802.11ac 40 MHz Continuous TX mode_ANT-1	
5510	
5550	
5670	



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