APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	5260	99.94%	0	Fig.1
802.11n HT20	5260	99.95%	0	Fig.2
802.11ac VHT20	5260	99.93%	0	Fig.3
802.11n HT40	5270	99.90%	0	Fig.4
802.11ac VHT40	5270	99.89%	0	Fig.5
802.11ac VHT80	5290	99.81%	0	Fig.6

Note: Correction Factor=10*log (1/Duty Cycle)

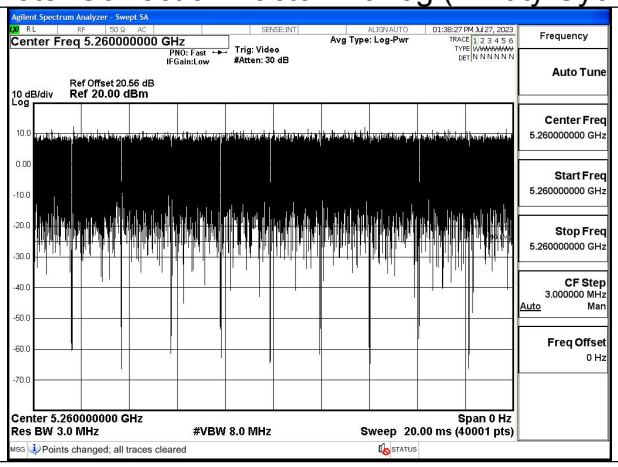


Fig.1

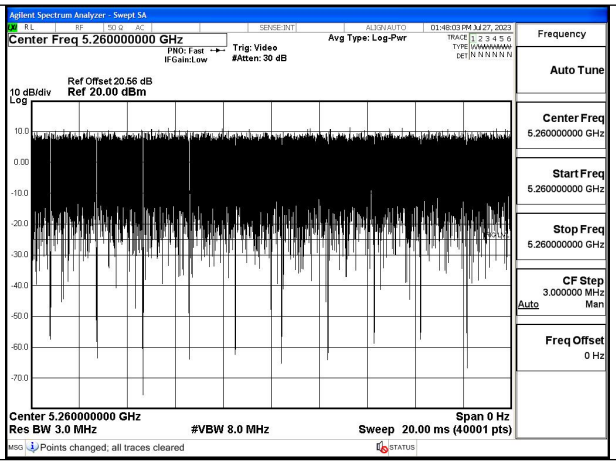


Fig.2

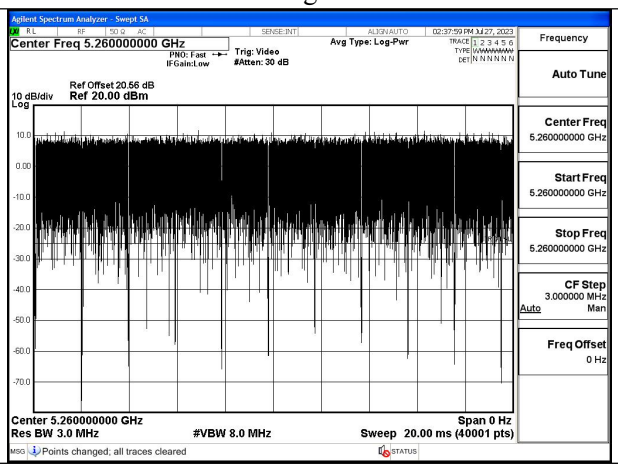


Fig.3

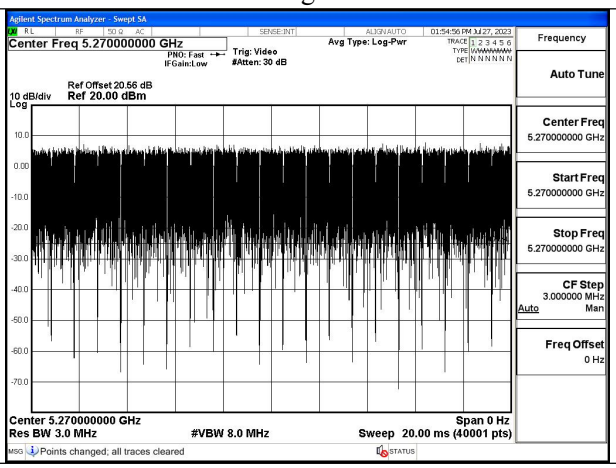


Fig.4

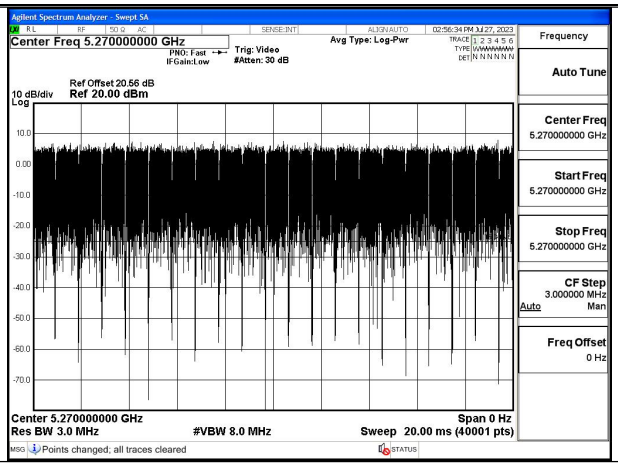

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.270000000 GHz
PNO: Fast
IFGain:Low
Trig: Video
#Atten: 30 dB
Avg Type: Log-Pwr
02:56:34 PM Jul 27, 2023
Ref Offset 20.56 dB
10 dB/div
Ref 20.00 dBm
Log
Frequency
Auto Tune
Center Freq
5.270000000 GHz
Start Freq
5.270000000 GHz
Stop Freq
5.270000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz
Center 5.270000000 GHz
Span 0 Hz
Res BW 3.0 MHz
#VBW 8.0 MHz
Sweep 20.00 ms (40001 pts)
Points changed; all traces cleared

Fig.5

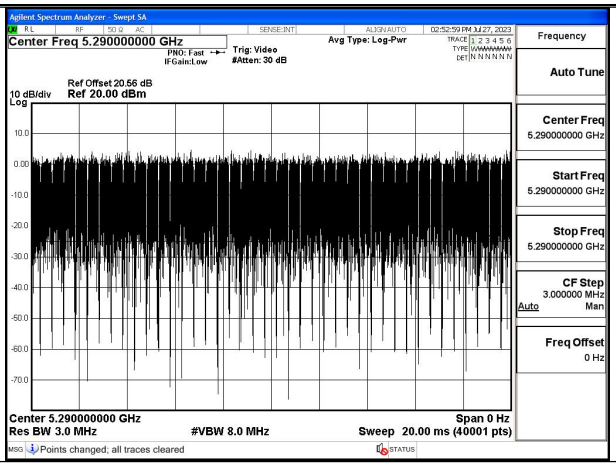

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.290000000 GHz
PNO: Fast
IFGain:Low
Trig: Video
#Atten: 30 dB
Avg Type: Log-Pwr
02:52:59 PM Jul 27, 2023
Ref Offset 20.56 dB
10 dB/div
Ref 20.00 dBm
Log
Frequency
Auto Tune
Center Freq
5.290000000 GHz
Start Freq
5.290000000 GHz
Stop Freq
5.290000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz
Center 5.290000000 GHz
Span 0 Hz
Res BW 3.0 MHz
#VBW 8.0 MHz
Sweep 20.00 ms (40001 pts)
Points changed; all traces cleared

Fig.6

Output Power

Mode	Tones/ RU Index	Frequency (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5260	Chain0	11.08	8.68
802.11a	NA	5280	Chain0	11.17	8.77
802.11a	NA	5320	Chain0	11.07	8.67
802.11n HT20	NA	5260	Chain0	10.99	8.59
802.11n HT20	NA	5280	Chain0	11.01	8.61
802.11n HT20	NA	5320	Chain0	10.95	8.55
802.11ac VHT20	NA	5260	Chain0	11.02	8.62
802.11ac VHT20	NA	5280	Chain0	11.02	8.62
802.11ac VHT20	NA	5320	Chain0	10.96	8.56
802.11n HT40	NA	5270	Chain0	11.09	8.69
802.11n HT40	NA	5310	Chain0	11.02	8.62
802.11ac VHT40	NA	5270	Chain0	11.09	8.69
802.11ac VHT40	NA	5310	Chain0	11.03	8.63
802.11ac VHT80	NA	5290	Chain0	10.80	8.40

Emission Bandwidth

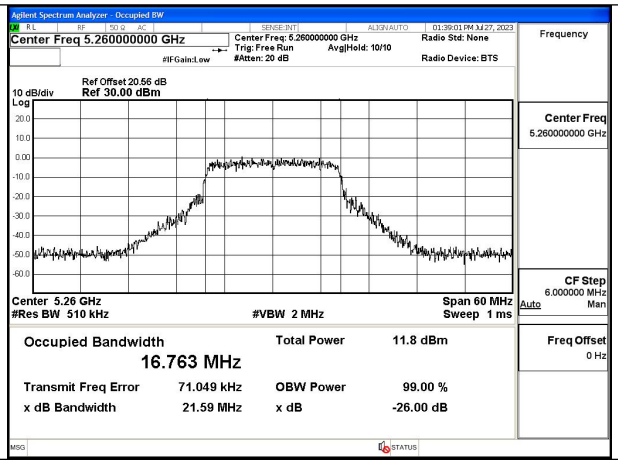
Offset 20.56dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5260MHz	5280MHz	5320MHz
802.11a	Chain0	21.59	21.42	22.35
802.11n HT20	Chain0	24.04	24.02	24.77
802.11ac VHT20	Chain0	23.48	21.64	23.08

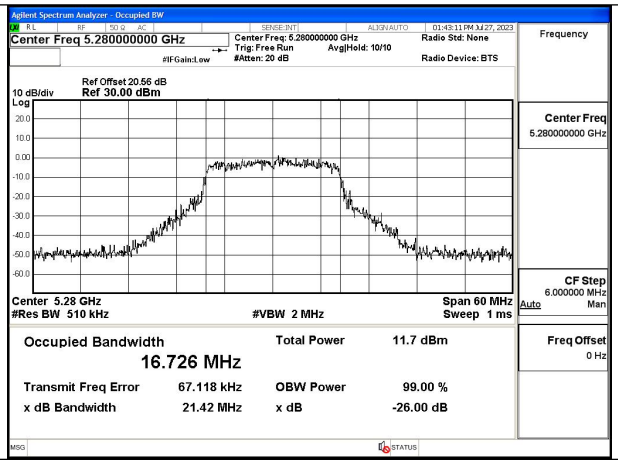
Test Mode	Antenna	26dB Bandwidth (MHz)		
		5270MHz	---	5310MHz
802.11n HT40	Chain0	40.25	---	40.09
802.11ac VHT40	Chain0	41.51	---	40.68

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5290MHz	---	---
802.11ac VHT80	Chain0	82.71	---	---

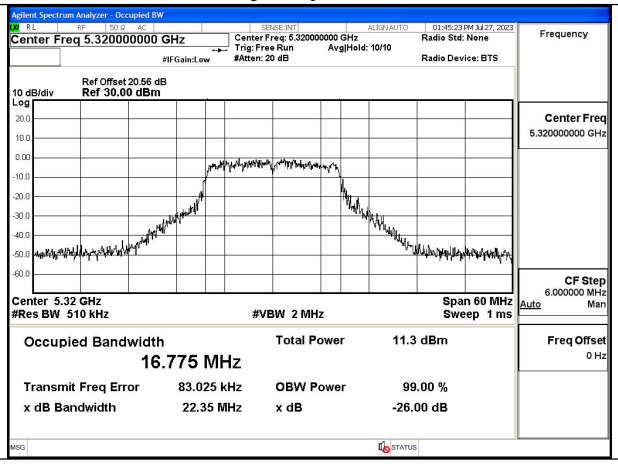
Test Mode: 802.11a



Mode:802.11a Frequency:5260MHz Ant:Chain0

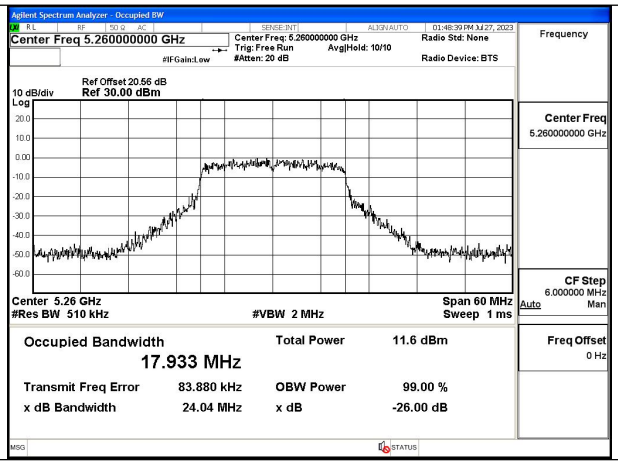


Mode:802.11a Frequency:5280MHz Ant:Chain0

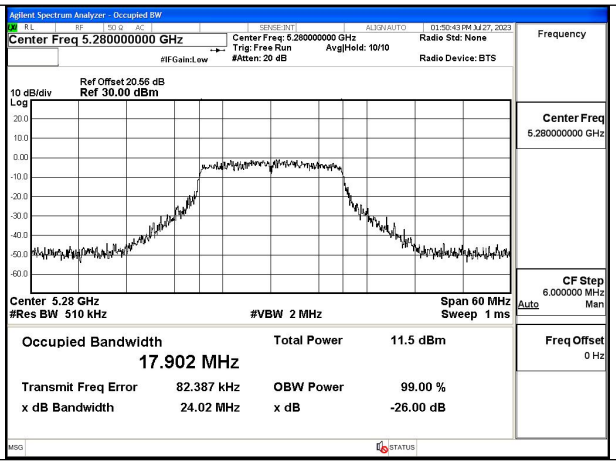


Mode:802.11a Frequency:5320MHz Ant:Chain0

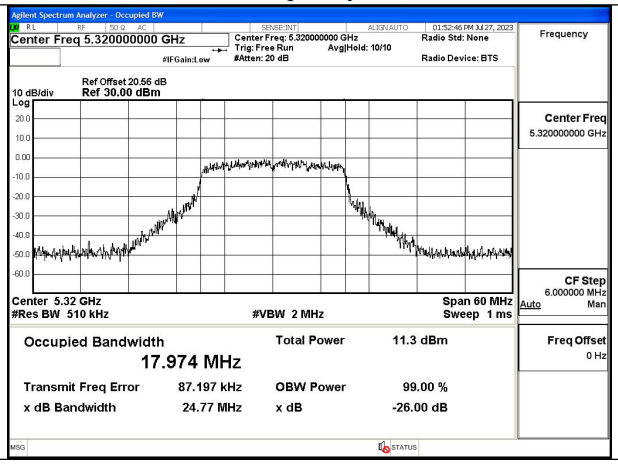
Test Mode: 802.11n HT20



Mode:802.11n HT20 Frequency:5260MHz Ant:Chain0

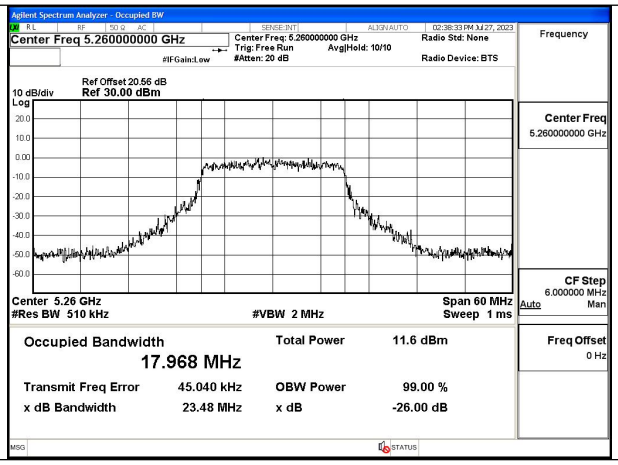


Mode:802.11n HT20 Frequency:5280MHz Ant:Chain0

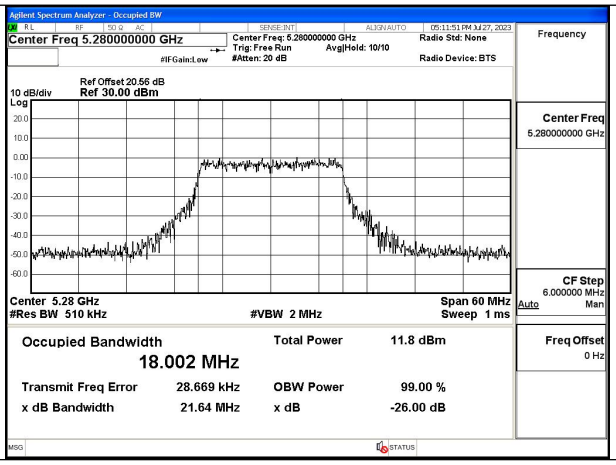


Mode:802.11n HT20 Frequency:5320MHz Ant:Chain0

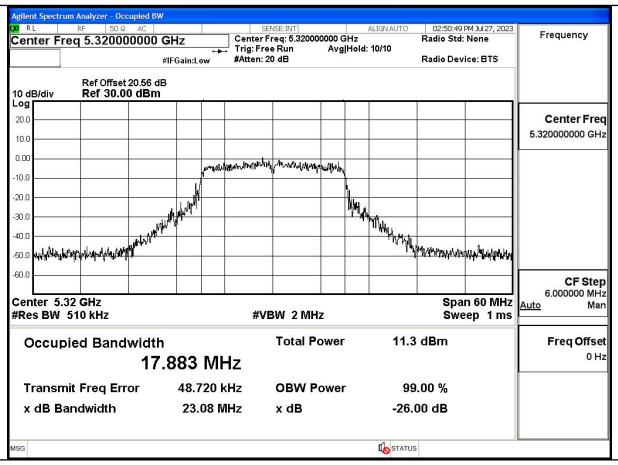
Test Mode: 802.11ac VHT20



Mode:802.11ac VHT20 Frequency:5260MHz
Ant:Chain0

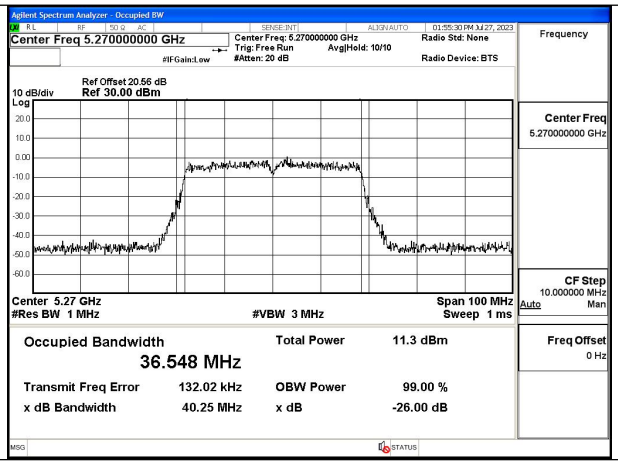


Mode:802.11ac VHT20 Frequency:5280MHz
Ant:Chain0

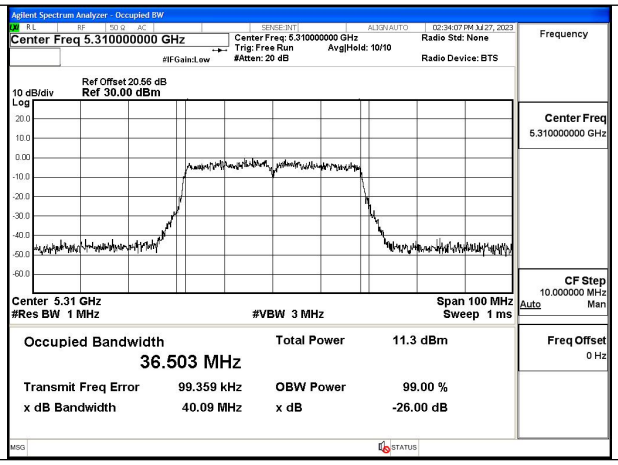


Mode:802.11ac VHT20 Frequency:5320MHz
Ant:Chain0

Test Mode: 802.11n HT40

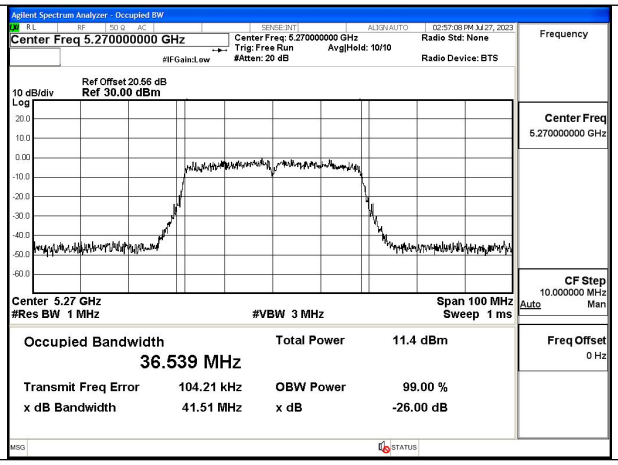


Mode:802.11n HT40 Frequency:5270MHz Ant:Chain0

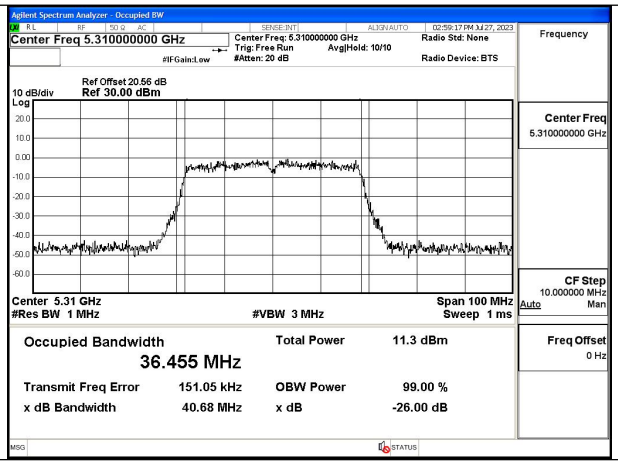


Mode:802.11n HT40 Frequency:5310MHz Ant:Chain0

Test Mode: 802.11ac VHT40

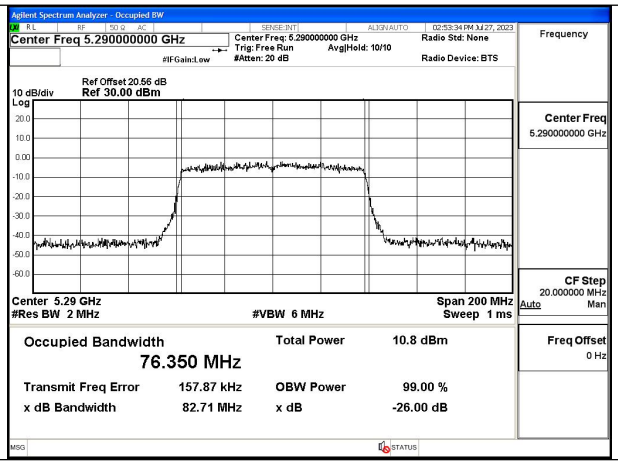


Mode:802.11ac VHT40 Frequency:5270MHz
Ant:Chain0



Mode:802.11ac VHT40 Frequency:5310MHz
Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5290MHz
Ant:Chain0

Occupied Bandwidth

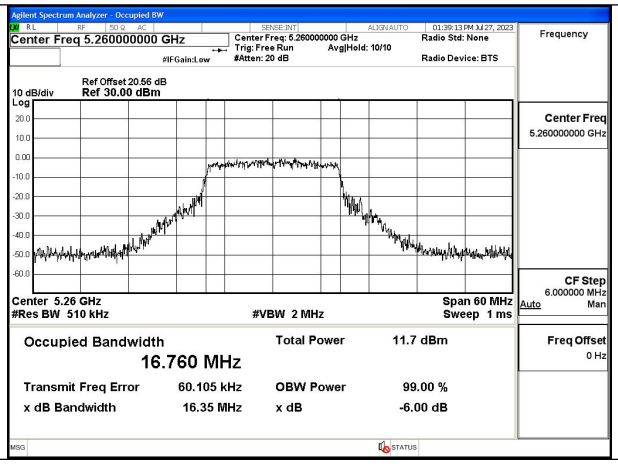
Offset 20.56dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5260MHz	5280MHz	5320MHz
802.11a	Chain0	16.760	16.828	16.807
802.11n HT20	Chain0	18.011	17.939	17.904
802.11ac VHT20	Chain0	17.930	17.967	17.913

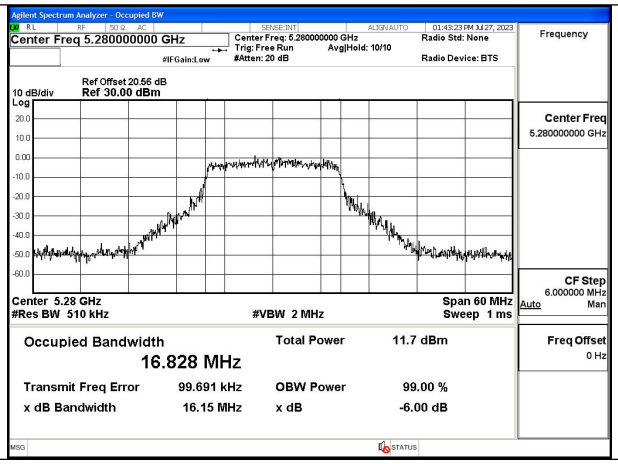
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5270MHz	---	5310MHz
802.11n HT40	Chain0	36.469	---	36.473
802.11ac VHT40	Chain0	36.577	---	36.519

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5290MHz	---	---
802.11ac VHT80	Chain0	76.360	---	---

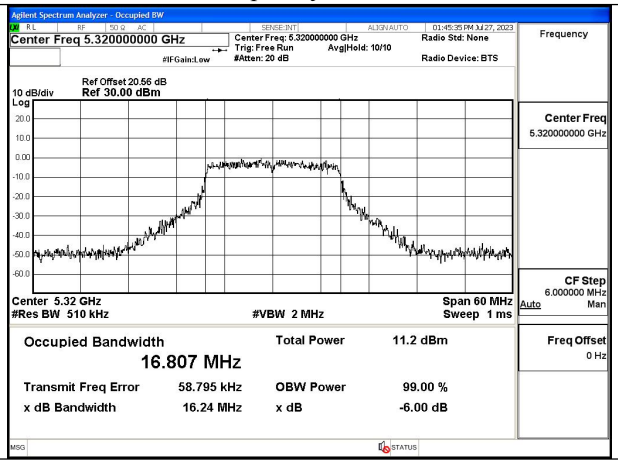
Test Mode: 802.11a



Mode:802.11a Frequency:5260MHz Ant:Chain0

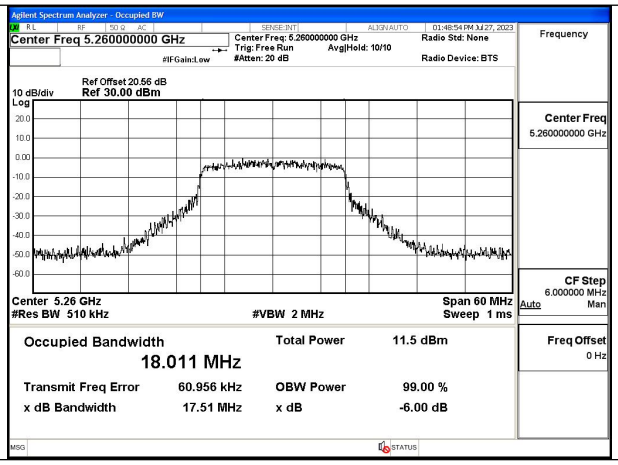


Mode:802.11a Frequency:5280MHz Ant:Chain0

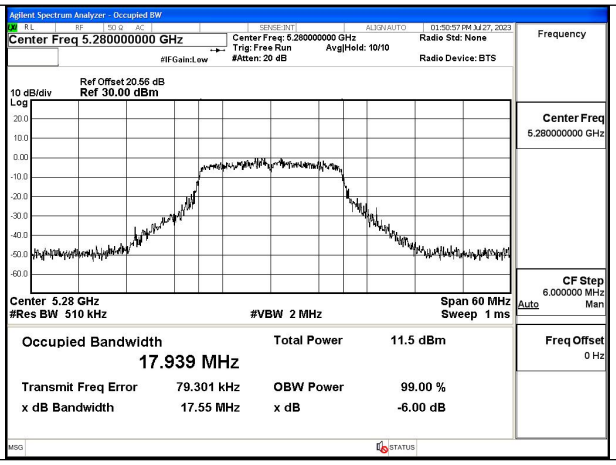


Mode:802.11a Frequency:5320MHz Ant:Chain0

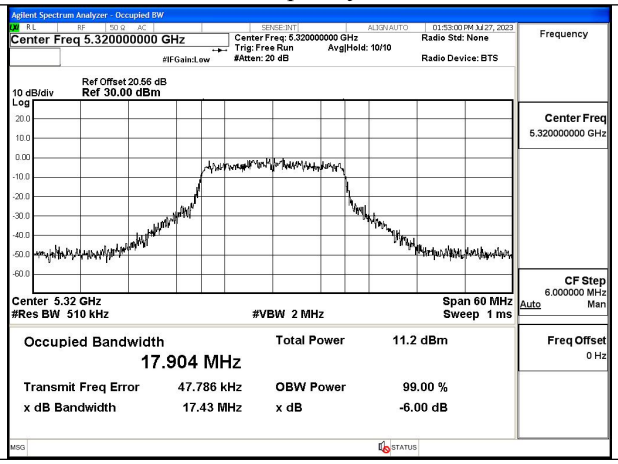
Test Mode: 802.11n HT20



Mode:802.11n HT20 Frequency:5260MHz Ant:Chain0

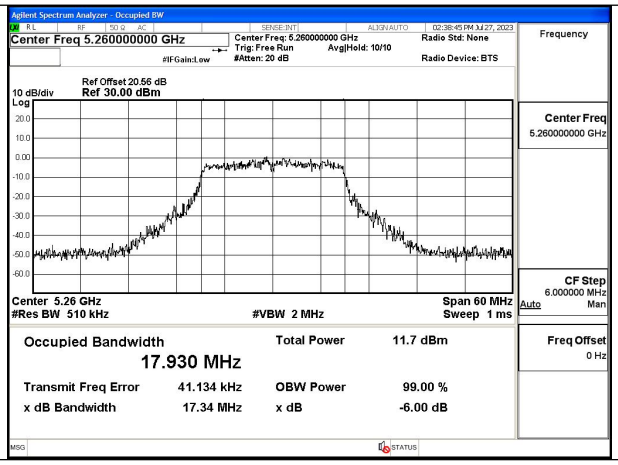


Mode:802.11n HT20 Frequency:5280MHz Ant:Chain0

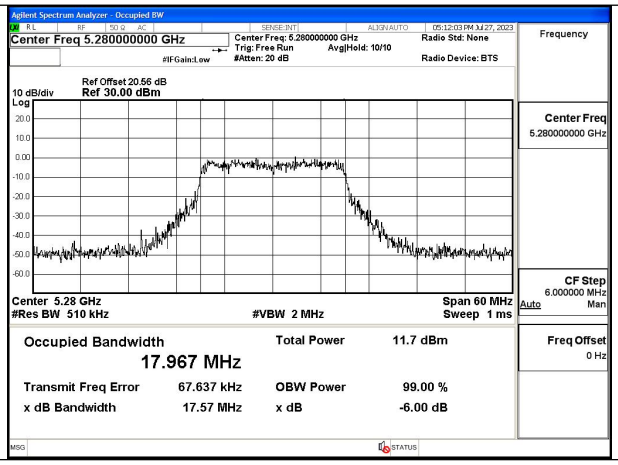


Mode:802.11n HT20 Frequency:5320MHz Ant:Chain0

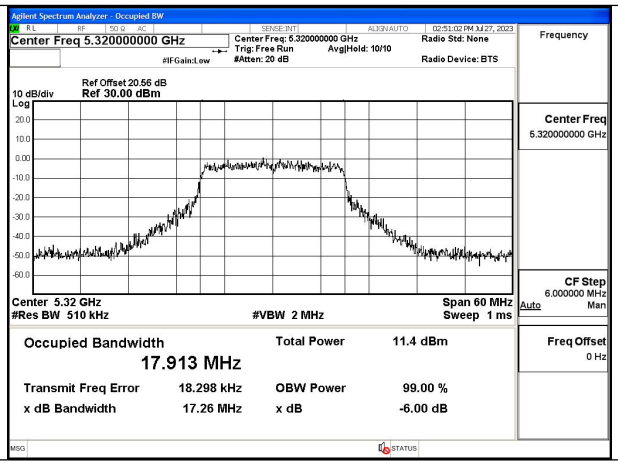
Test Mode: 802.11ac VHT20



Mode:802.11ac VHT20 Frequency:5260MHz
Ant:Chain0

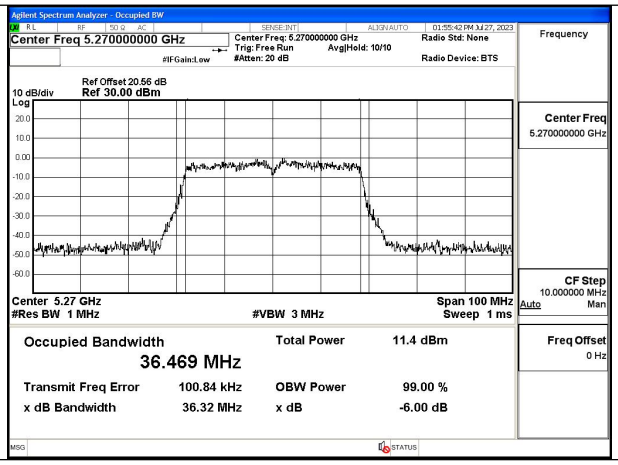


Mode:802.11ac VHT20 Frequency:5280MHz
Ant:Chain0

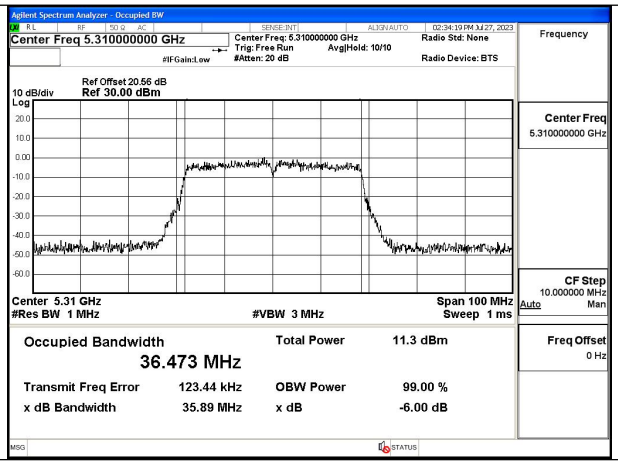


Mode:802.11ac VHT20 Frequency:5320MHz
Ant:Chain0

Test Mode: 802.11n HT40

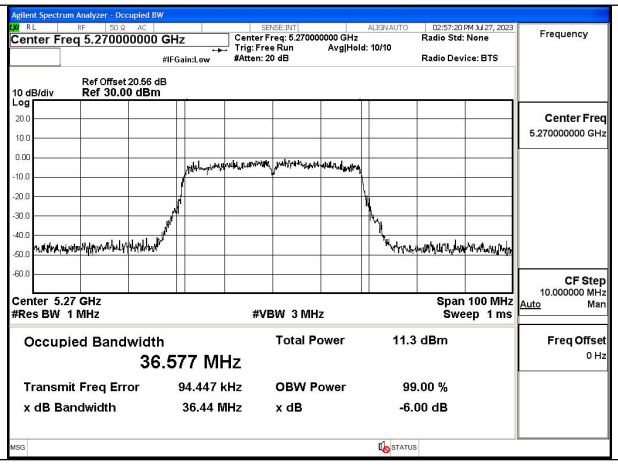
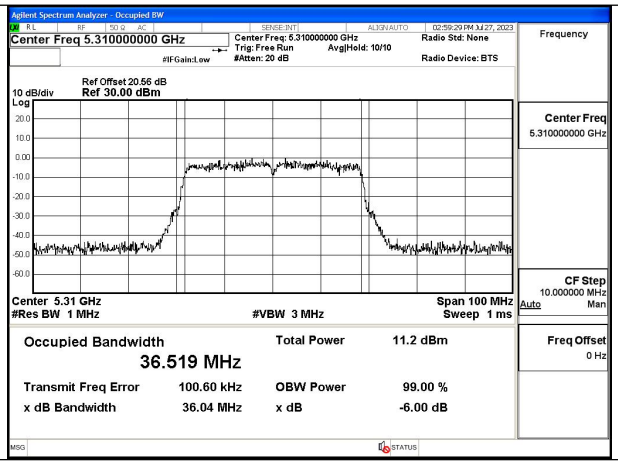


Mode:802.11n HT40 Frequency:5270MHz Ant:Chain0

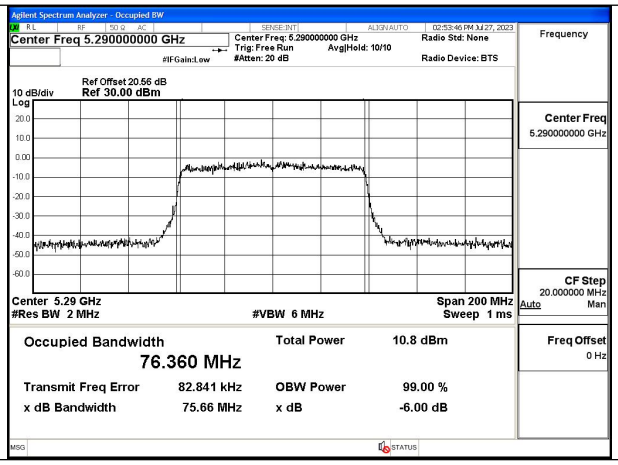


Mode:802.11n HT40 Frequency:5310MHz Ant:Chain0

Test Mode: 802.11ac VHT40

	
Mode:802.11ac VHT40 Frequency:5270MHz Ant:Chain0	Mode:802.11ac VHT40 Frequency:5310MHz Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5290MHz
Ant:Chain0

Transmitter Power Spectral Density

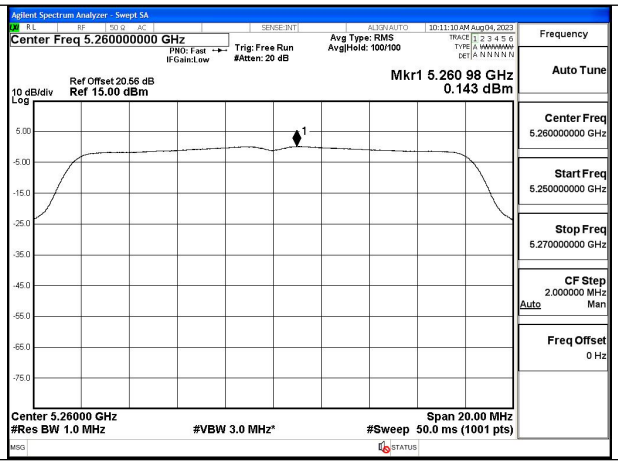
Offset 20.56dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Tones	5260MHz		5280MHz		5320MHz	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11a	Chain0	NA	0.00	0.143	0.00	0.107	0.00	0.065
802.11n HT20	Chain0	NA	0.00	-0.165	0.00	-0.181	0.00	-0.191
802.11ac VHT20	Chain0	NA	0.00	-0.177	0.00	-0.156	0.00	-0.187

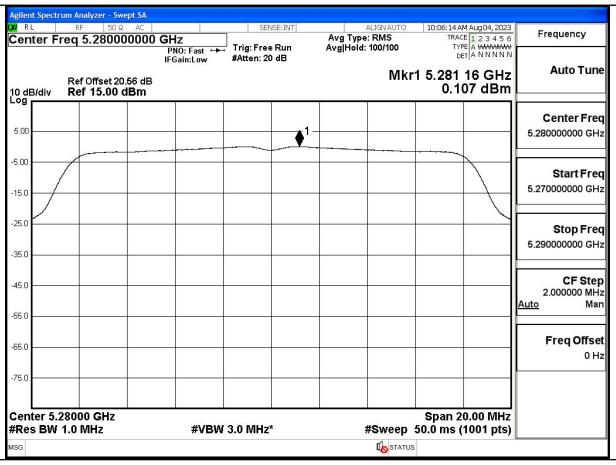
Test Mode	Antenna	Tones	5270MHz		---		5310MHz	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11n HT40	Chain0	NA	0.00	-3.026	---	---	0.00	-3.081
802.11ac VHT40	Chain0	NA	0.00	-3.064	---	---	0.00	-3.082

Test Mode	Antenna	Tones	5290MHz		---		---	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11ac VHT80	Chain0	NA	0.00	-6.412	---	---	---	---

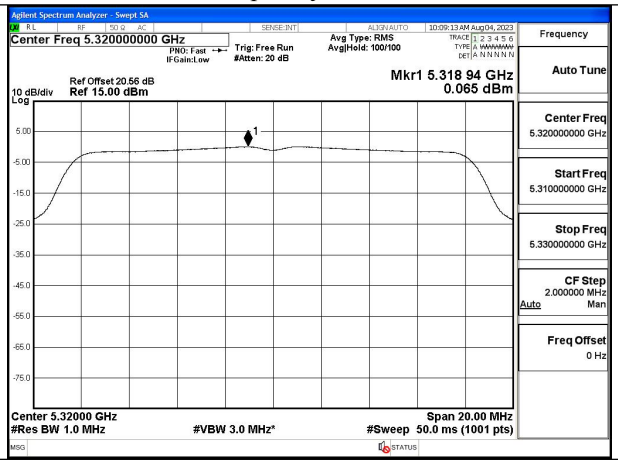
Test Mode: 802.11a



Mode:802.11a Frequency:5260MHz Ant:Chain0

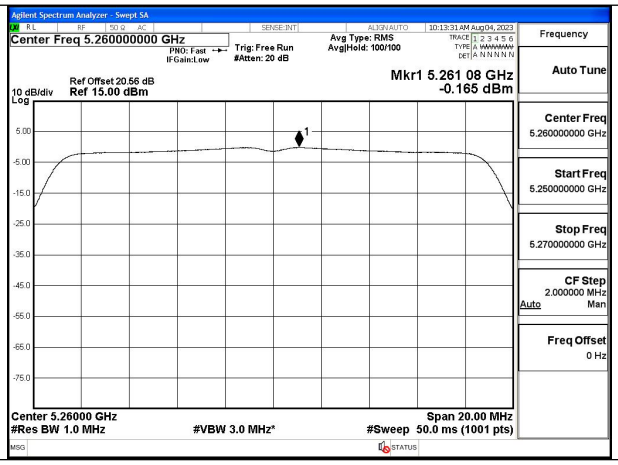


Mode:802.11a Frequency:5280MHz Ant:Chain0

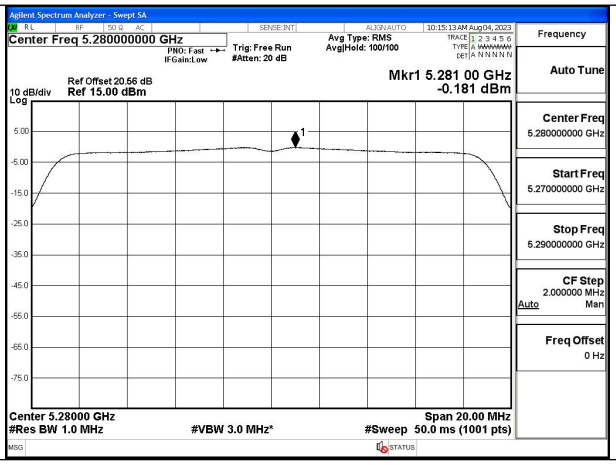


Mode:802.11a Frequency:5320MHz Ant:Chain0

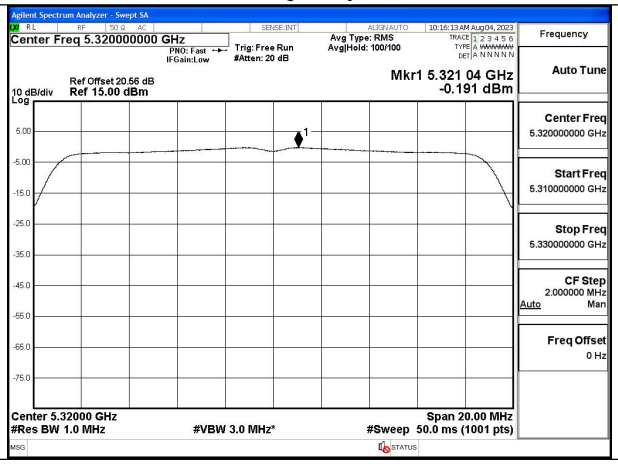
Test Mode: 802.11n HT20



Mode:802.11n HT20 Frequency:5260MHz Ant:Chain0

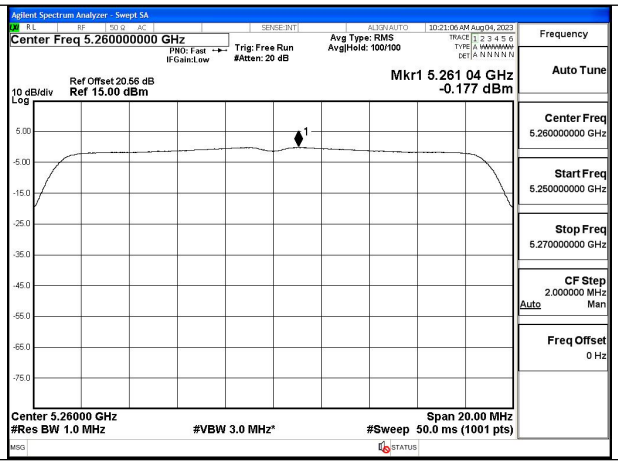


Mode:802.11n HT20 Frequency:5280MHz Ant:Chain0

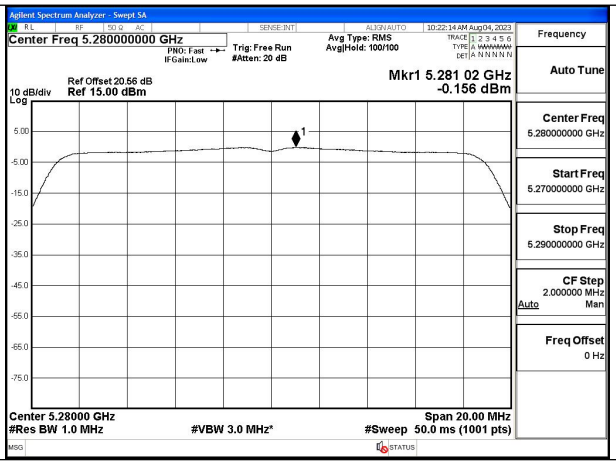


Mode:802.11n HT20 Frequency:5320MHz Ant:Chain0

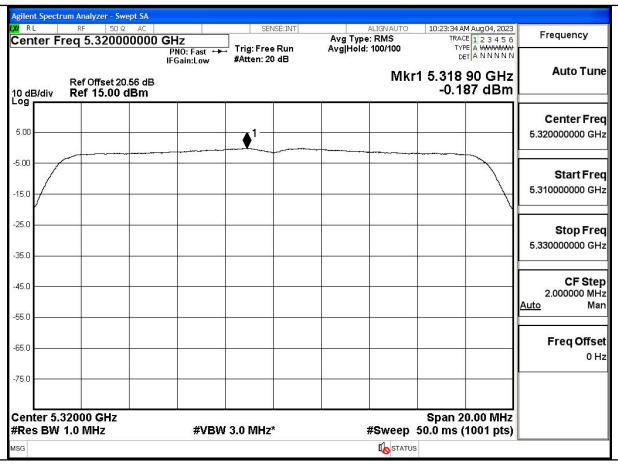
Test Mode: 802.11ac VHT20



Mode:802.11ac VHT20 Frequency:5260MHz
Ant:Chain0



Mode:802.11ac VHT20 Frequency:5280MHz
Ant:Chain0



Mode:802.11ac VHT20 Frequency:5320MHz
Ant:Chain0