APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	5500	99.96%	0	Fig.1
802.11n HT20	5500	99.93%	0	Fig.2
802.11ac VHT20	5500	99.92%	0	Fig.3
802.11n HT40	5510	99.87%	0	Fig.4
802.11ac VHT40	5510	99.87%	0	Fig.5
802.11ac VHT80	5530	99.79%	0	Fig.6

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

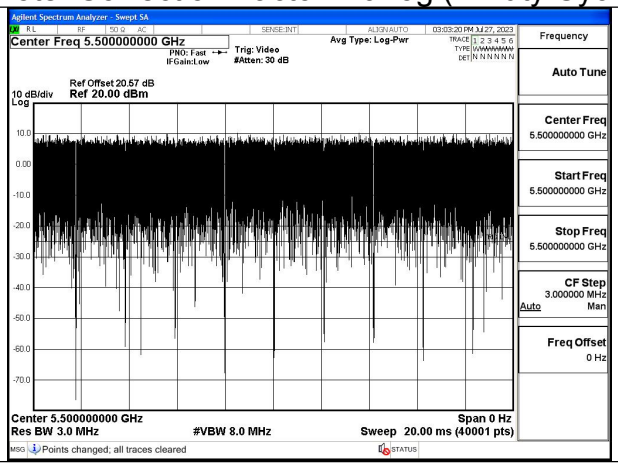


Fig.1

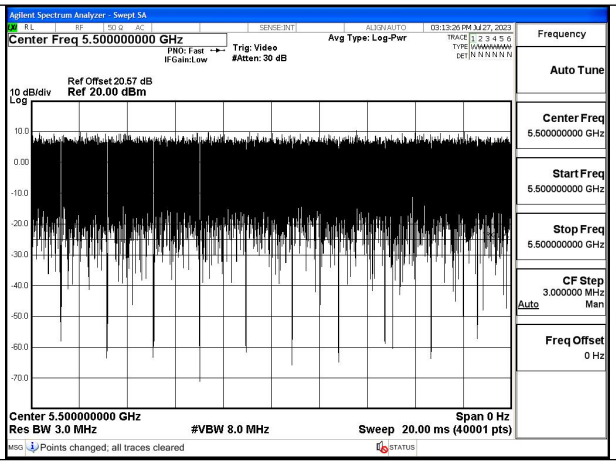


Fig.2

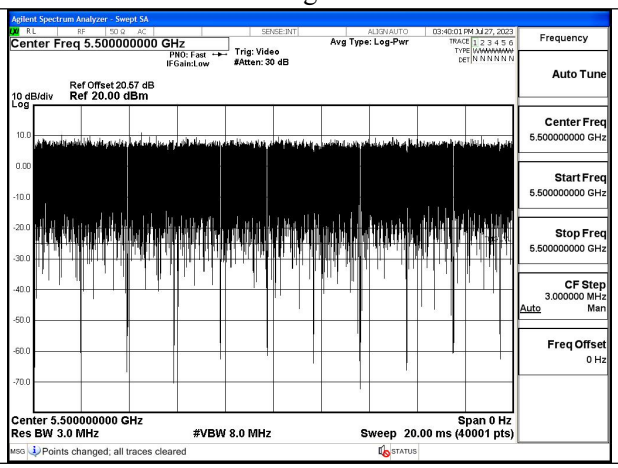


Fig.3

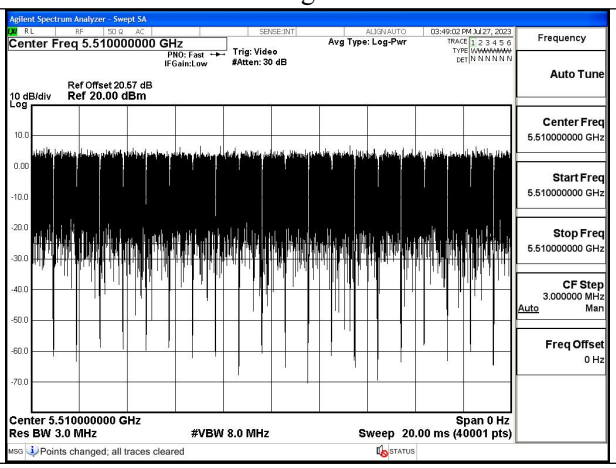


Fig.4

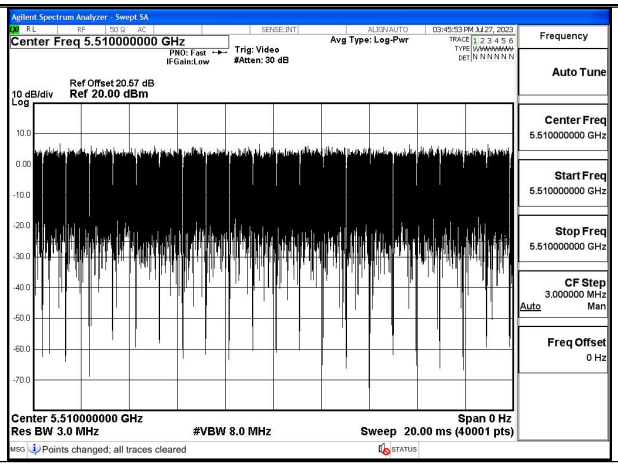

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.510000000 GHz
PNO: Fast
IFGain:Low
Trig: Video
#Atten: 30 dB
Avg Type: Log-Pwr
03:45:53 PM Jul 27, 2023
Ref Offset 20.57 dB
10 dB/div
Ref 20.00 dBm
Log
Frequency
Auto Tune
Center Freq
5.510000000 GHz
Start Freq
5.510000000 GHz
Stop Freq
5.510000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz
Center 5.510000000 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

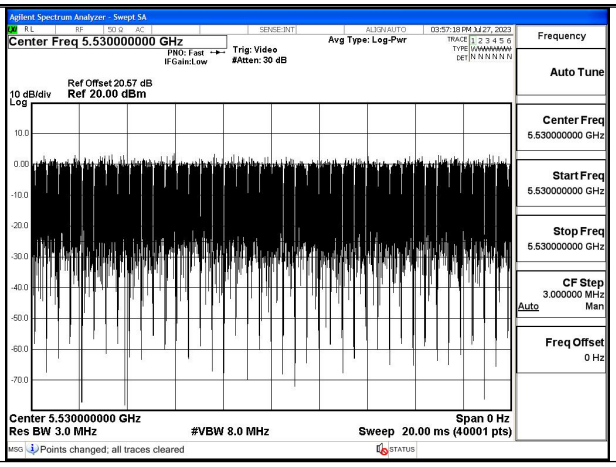

Agilent Spectrum Analyzer - Swept SA
Center Freq 5.530000000 GHz
PNO: Fast
IFGain:Low
Trig: Video
#Atten: 30 dB
Avg Type: Log-Pwr
03:57:18 PM Jul 27, 2023
Ref Offset 20.57 dB
10 dB/div
Ref 20.00 dBm
Log
Frequency
Auto Tune
Center Freq
5.530000000 GHz
Start Freq
5.530000000 GHz
Stop Freq
5.530000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz
Center 5.530000000 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	5500	Chain0	10.25	10.15
802.11a	NA	5580	Chain0	10.02	9.92
802.11a	NA	5700	Chain0	10.46	10.36
802.11n HT20	NA	5500	Chain0	10.14	10.04
802.11n HT20	NA	5580	Chain0	10.09	9.99
802.11n HT20	NA	5700	Chain0	10.35	10.25
802.11ac VHT20	NA	5500	Chain0	10.14	10.04
802.11ac VHT20	NA	5580	Chain0	10.03	9.93
802.11ac VHT20	NA	5700	Chain0	10.32	10.22
802.11n HT40	NA	5510	Chain0	10.19	10.09
802.11n HT40	NA	5590	Chain0	10.18	10.08
802.11n HT40	NA	5670	Chain0	10.11	10.01
802.11ac VHT40	NA	5510	Chain0	10.21	10.11
802.11ac VHT40	NA	5590	Chain0	10.23	10.13
802.11ac VHT40	NA	5670	Chain0	10.13	10.03
802.11ac VHT80	NA	5530	Chain0	10.21	10.11
802.11ac VHT80	NA	5610	Chain0	10.24	10.14

Emission Bandwidth

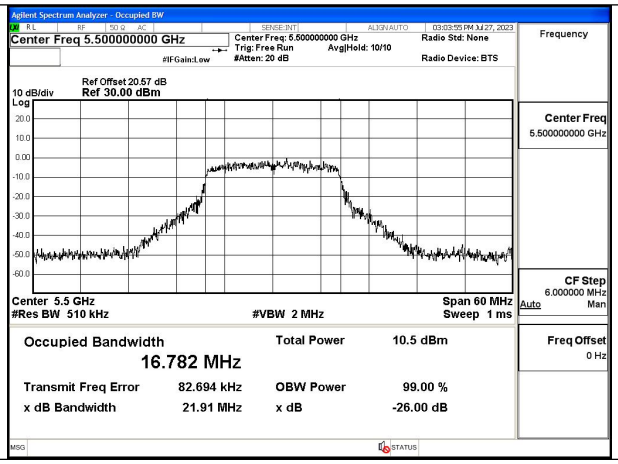
Offset 20.57dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5500MHz	5580MHz	5700MHz
802.11a	Chain0	21.91	22.69	22.16
802.11n HT20	Chain0	23.51	22.60	24.63
802.11ac VHT20	Chain0	24.23	22.36	22.74

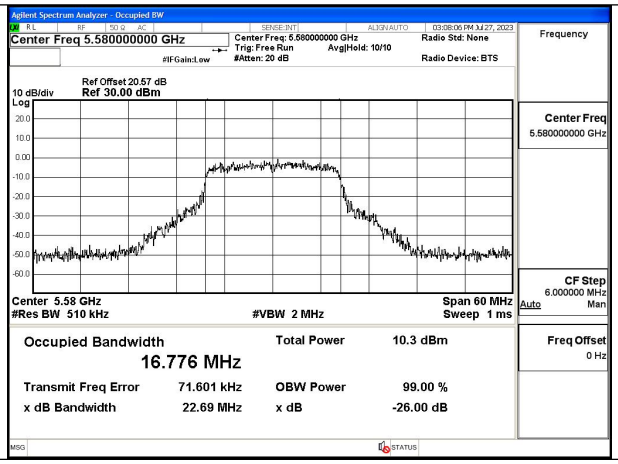
Test Mode	Antenna	26dB Bandwidth (MHz)		
		5510MHz	5590MHz	5670MHz
802.11n HT40	Chain0	41.15	40.59	41.34
802.11ac VHT40	Chain0	40.90	41.16	40.95

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5530MHz	---	5610MHz
802.11ac VHT80	Chain0	81.94	---	82.68

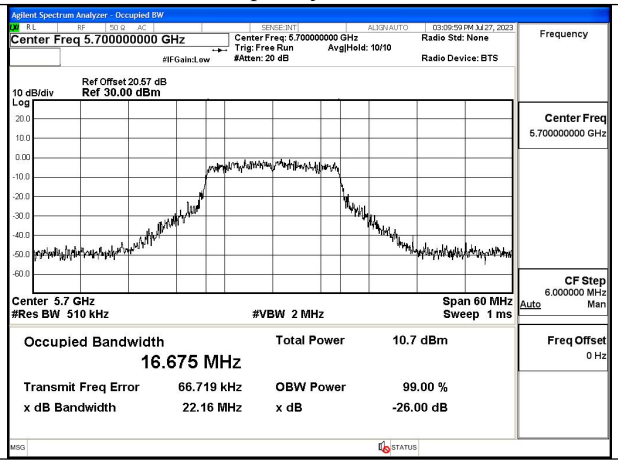
Test Mode: 802.11a



Mode:802.11a Frequency:5500MHz Ant:Chain0

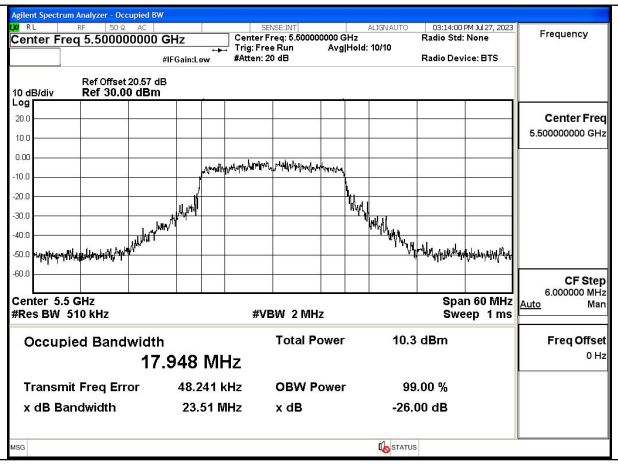


Mode:802.11a Frequency:5580MHz Ant:Chain0

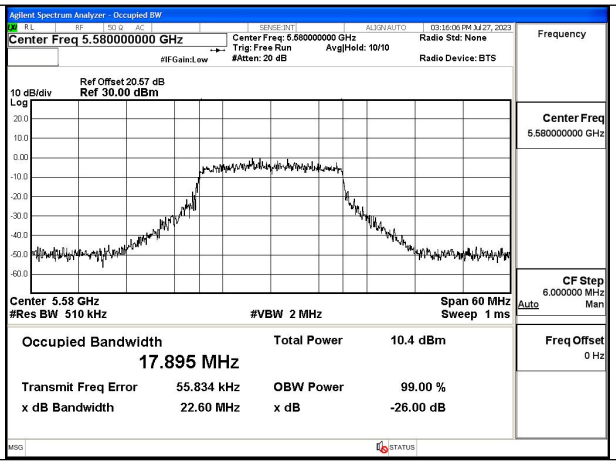


Mode:802.11a Frequency:5700MHz Ant:Chain0

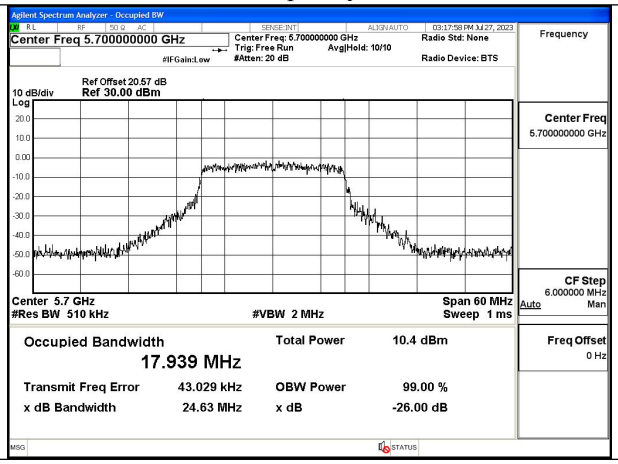
Test Mode: 802.11n HT20



Mode:802.11n HT20 Frequency:5500MHz Ant:Chain0

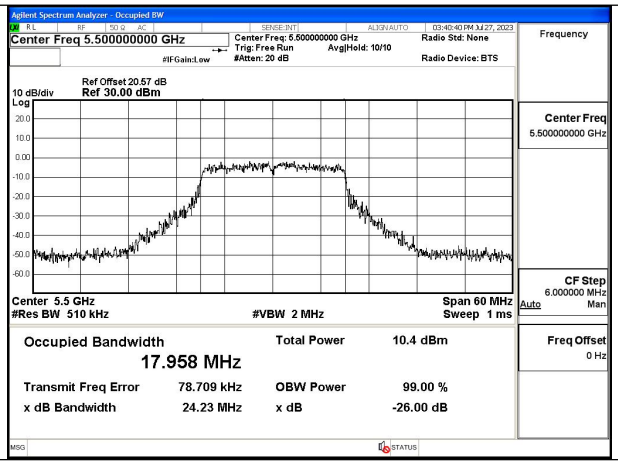


Mode:802.11n HT20 Frequency:5580MHz Ant:Chain0

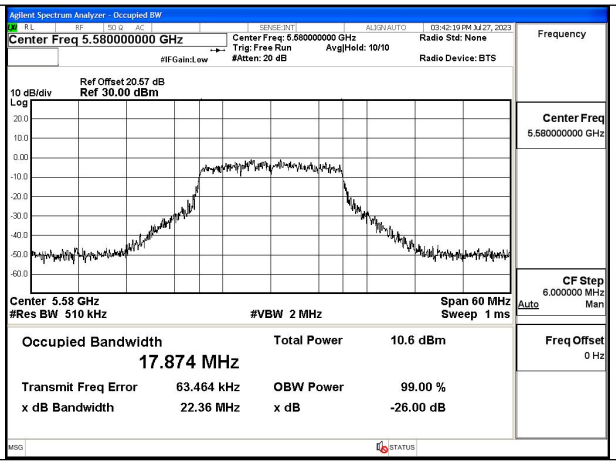


Mode:802.11n HT20 Frequency:5700MHz Ant:Chain0

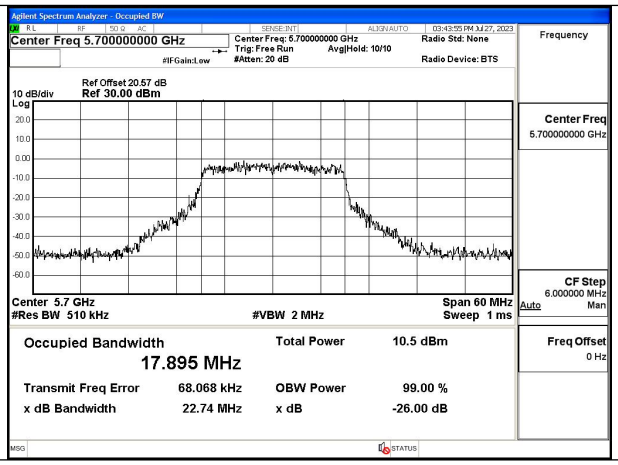
Test Mode: 802.11ac VHT20



Mode:802.11ac VHT20 Frequency:5500MHz
Ant:Chain0

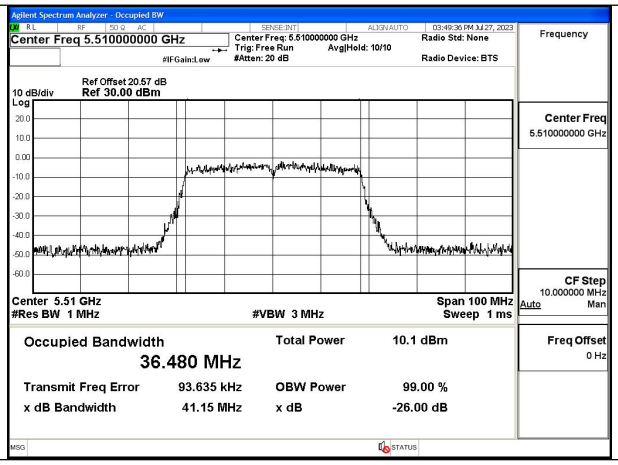


Mode:802.11ac VHT20 Frequency:5580MHz
Ant:Chain0

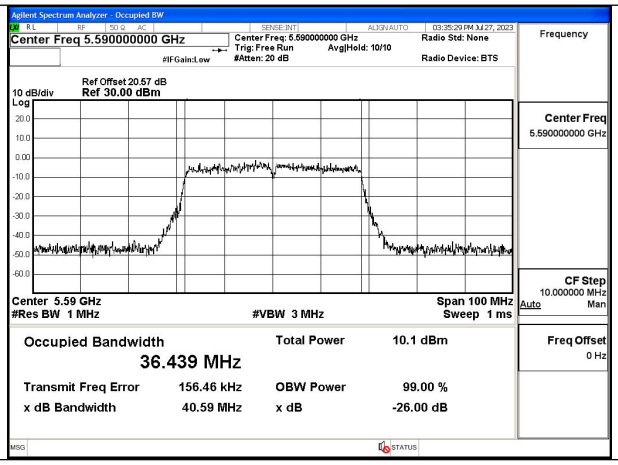


Mode:802.11ac VHT20 Frequency:5700MHz
Ant:Chain0

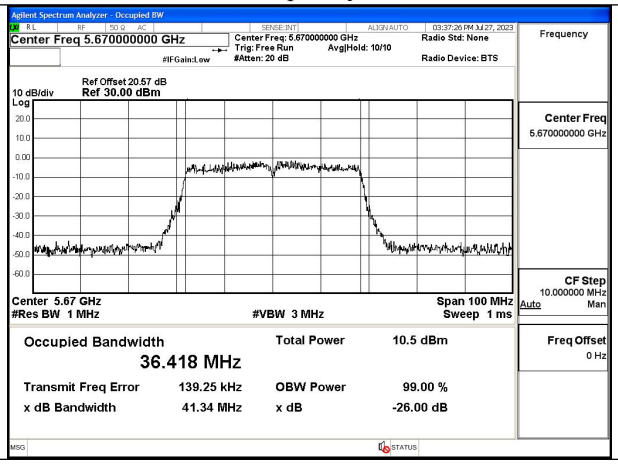
Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:5510MHz Ant:Chain0

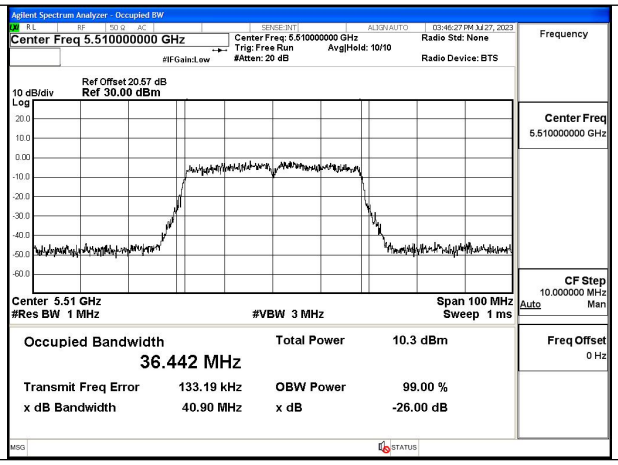


Mode:802.11n HT40 Frequency:5590MHz Ant:Chain0

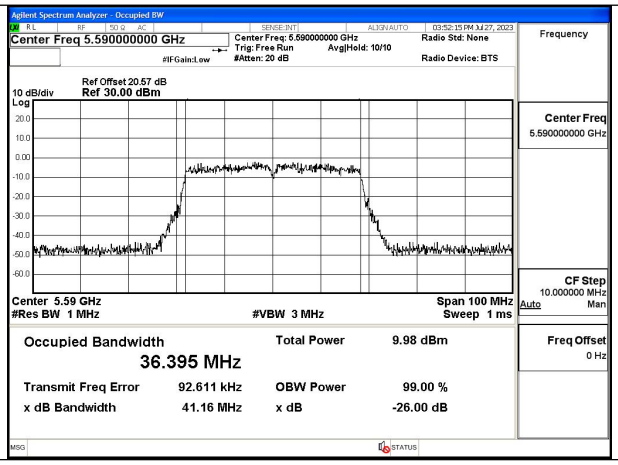


Mode:802.11n HT40 Frequency:5670MHz Ant:Chain0

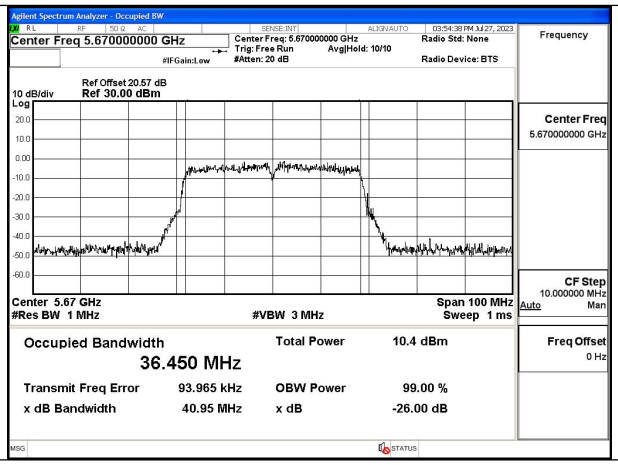
Test Mode: 802.11ac VHT40



Mode:802.11ac VHT40 Frequency:5510MHz
Ant:Chain0

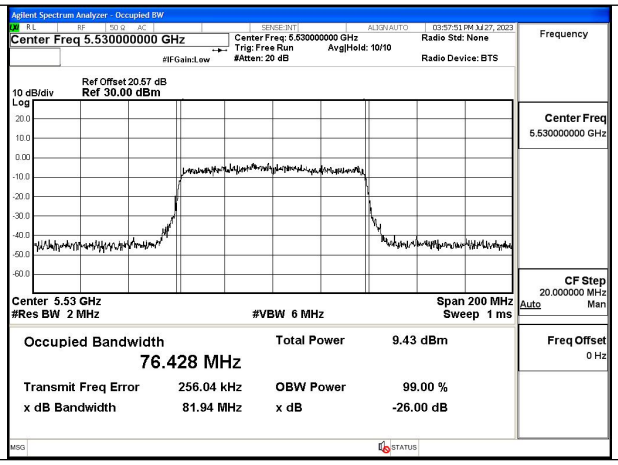


Mode:802.11ac VHT40 Frequency:5590MHz
Ant:Chain0

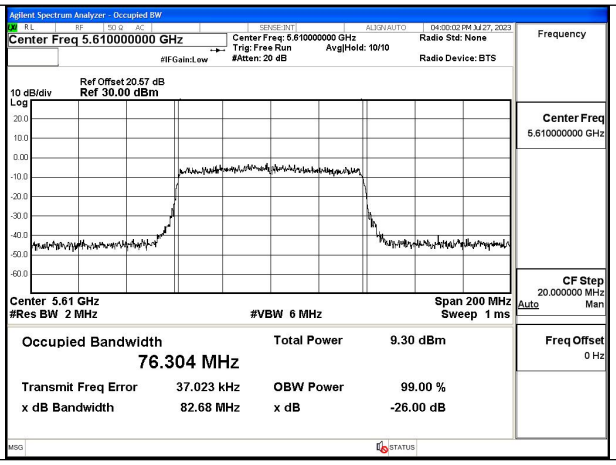


Mode:802.11ac VHT40 Frequency:5670MHz
Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5530MHz
Ant:Chain0



Mode:802.11ac VHT80 Frequency:5610MHz
Ant:Chain0

Occupied Bandwidth

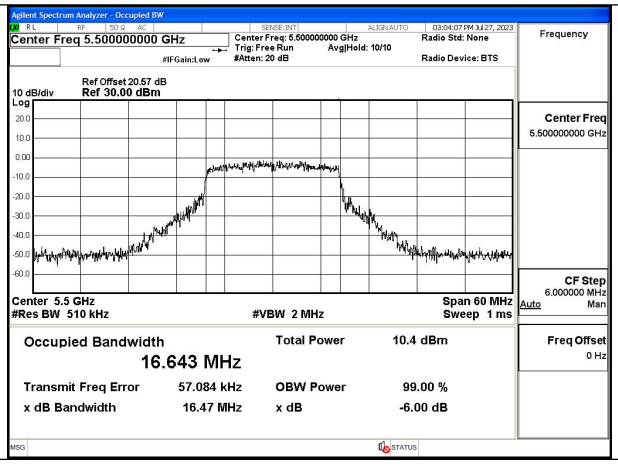
Offset 20.57dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5500MHz	5580MHz	5700MHz
802.11a	Chain0	16.643	16.700	16.763
802.11n HT20	Chain0	17.911	17.913	17.897
802.11ac VHT20	Chain0	17.838	17.902	17.917

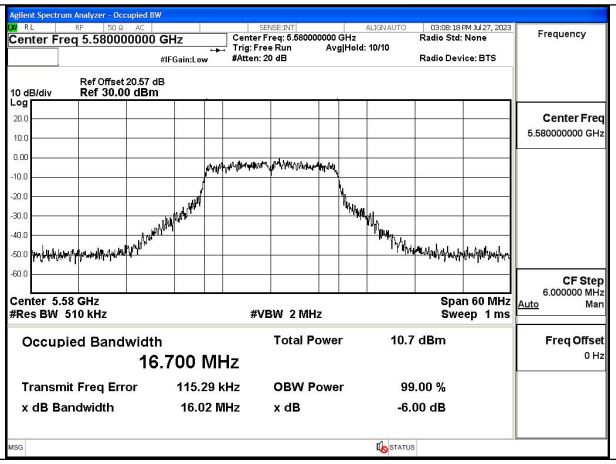
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5510MHz	5590MHz	5670MHz
802.11n HT40	Chain0	36.476	36.493	36.472
802.11ac VHT40	Chain0	36.505	36.474	36.419

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5530MHz	---	5610MHz
802.11ac VHT80	Chain0	76.349	---	76.292

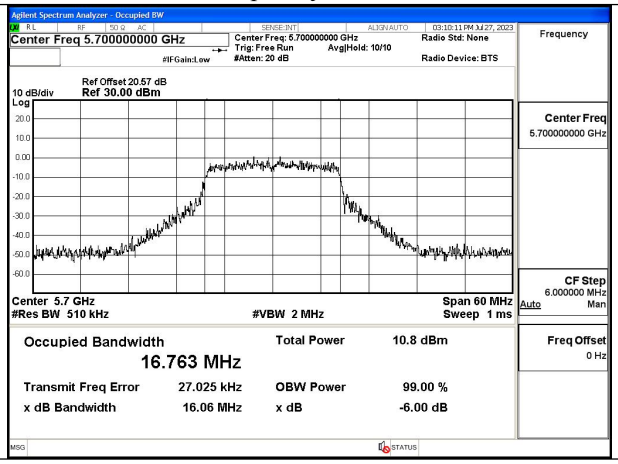
Test Mode: 802.11a



Mode:802.11a Frequency:5500MHz Ant:Chain0

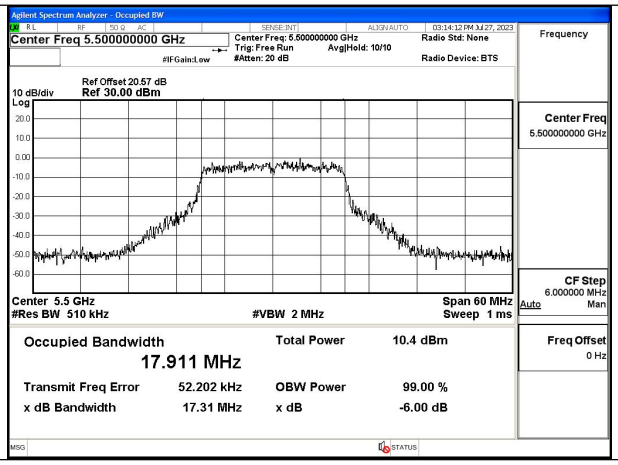


Mode:802.11a Frequency:5580MHz Ant:Chain0

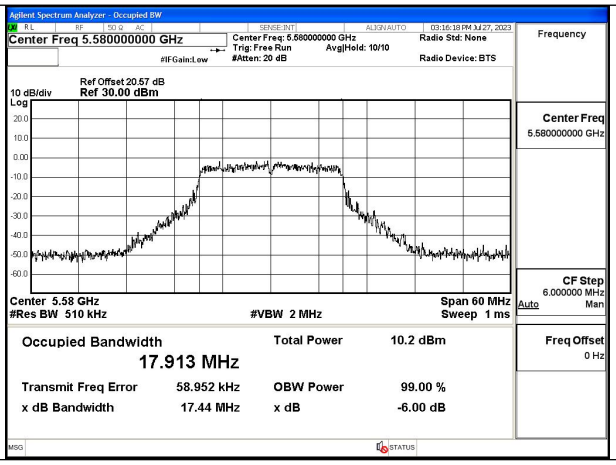


Mode:802.11a Frequency:5700MHz Ant:Chain0

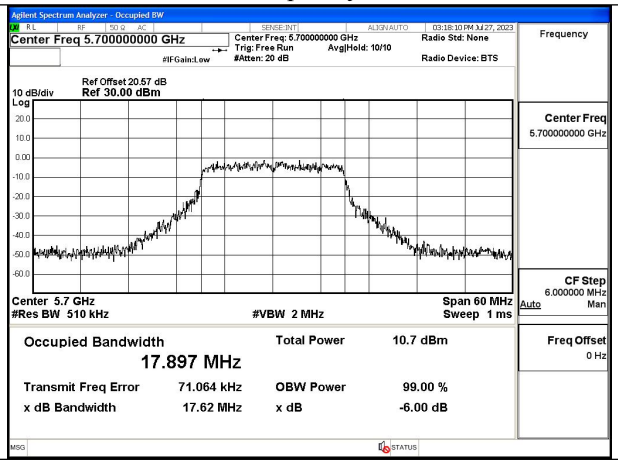
Test Mode: 802.11n HT20



Mode:802.11n HT20 Frequency:5500MHz Ant:Chain0

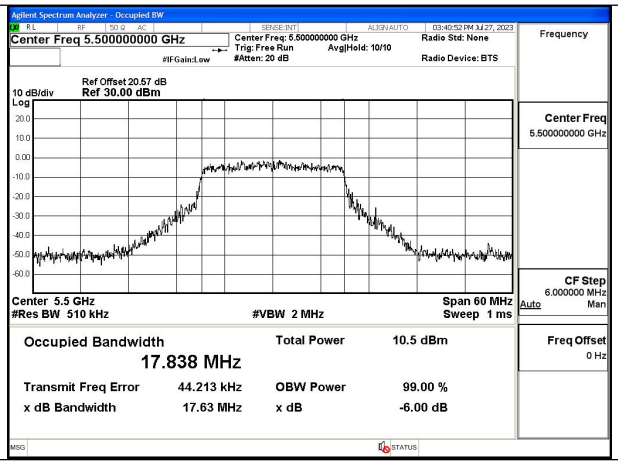


Mode:802.11n HT20 Frequency:5580MHz Ant:Chain0

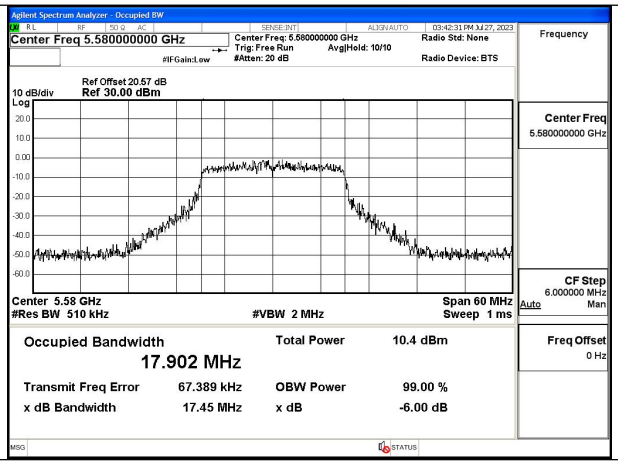


Mode:802.11n HT20 Frequency:5700MHz Ant:Chain0

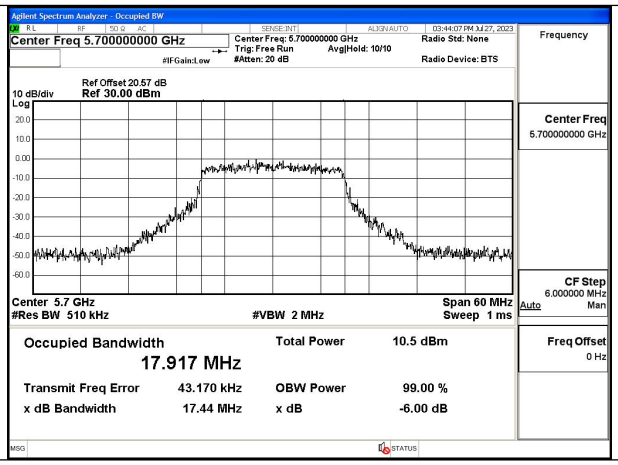
Test Mode: 802.11ac VHT20



Mode:802.11ac VHT20 Frequency:5500MHz
Ant:Chain0

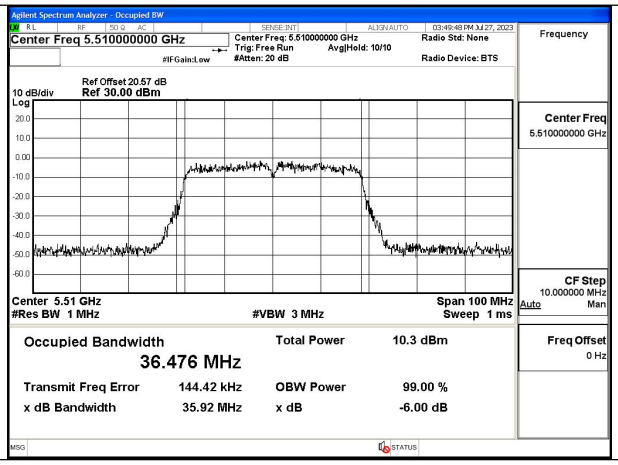


Mode:802.11ac VHT20 Frequency:5580MHz
Ant:Chain0

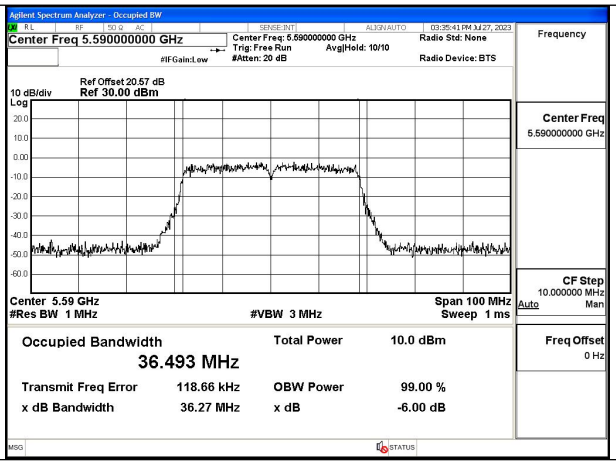


Mode:802.11ac VHT20 Frequency:5700MHz
Ant:Chain0

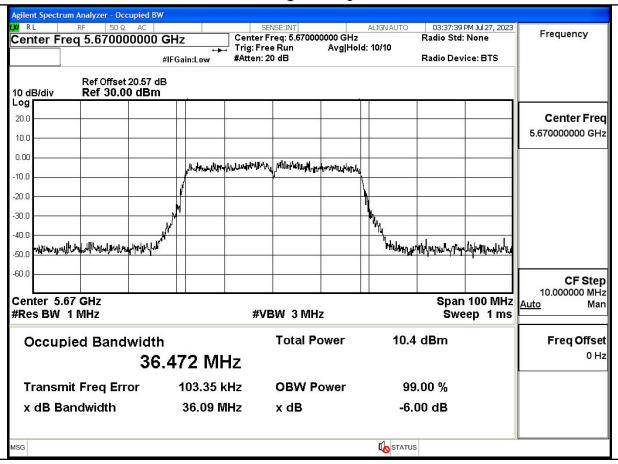
Test Mode: 802.11n HT40



Mode:802.11n HT40 Frequency:5510MHz Ant:Chain0

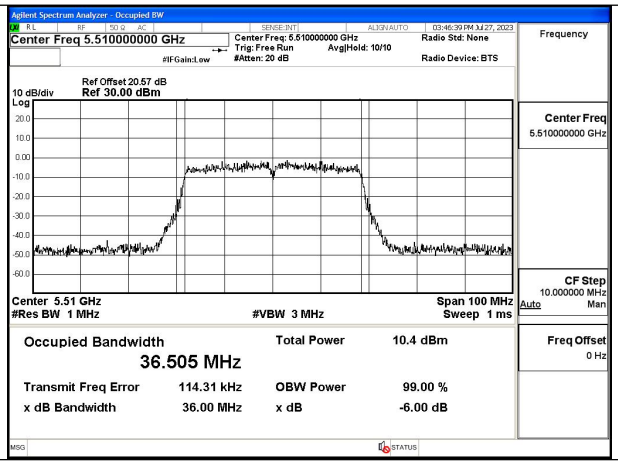


Mode:802.11n HT40 Frequency:5590MHz Ant:Chain0

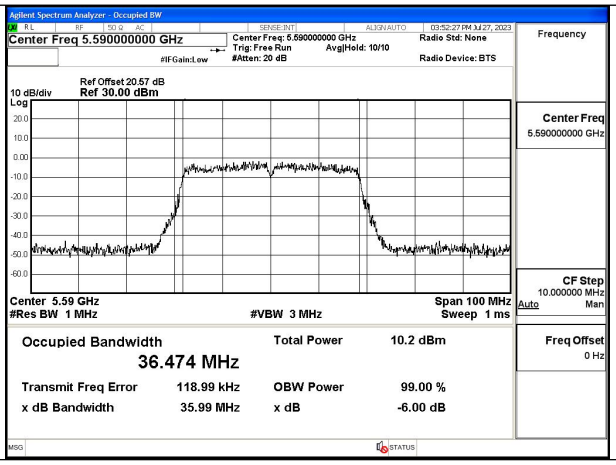


Mode:802.11n HT40 Frequency:5670MHz Ant:Chain0

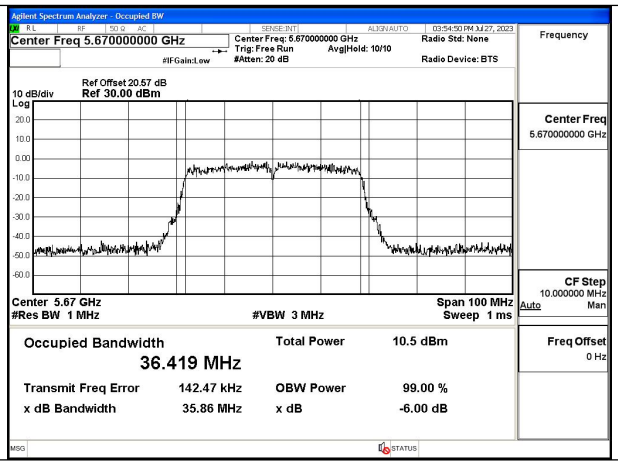
Test Mode: 802.11ac VHT40



Mode:802.11ac VHT40 Frequency:5510MHz
Ant:Chain0

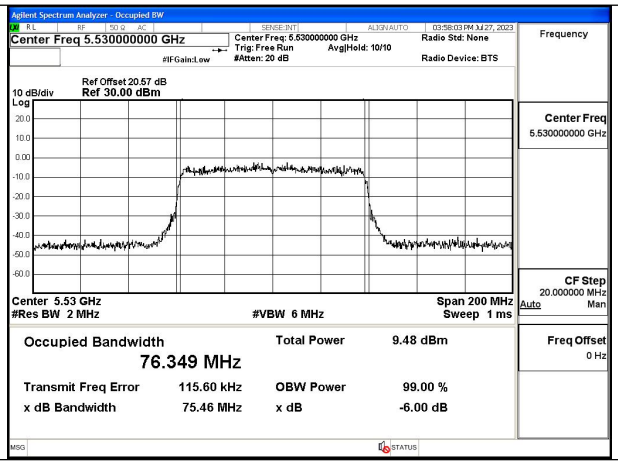


Mode:802.11ac VHT40 Frequency:5590MHz
Ant:Chain0

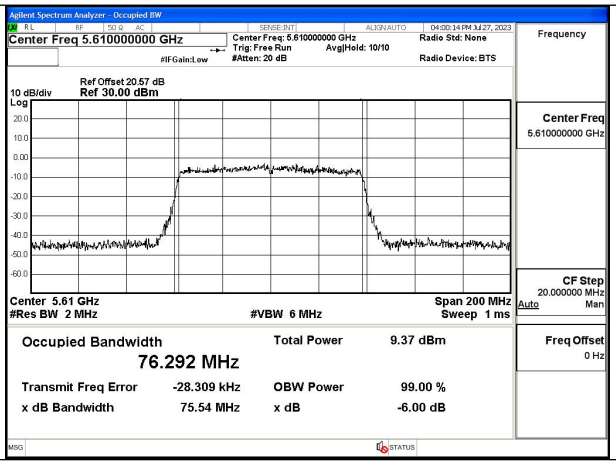


Mode:802.11ac VHT40 Frequency:5670MHz
Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5530MHz
Ant:Chain0



Mode:802.11ac VHT80 Frequency:5610MHz
Ant:Chain0

Transmitter Power Spectral Density

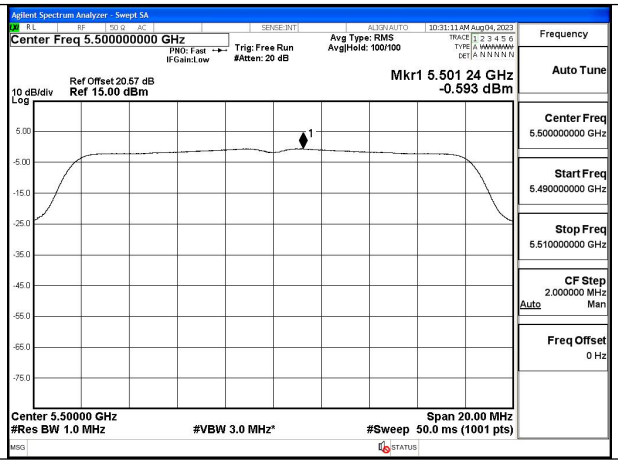
Offset 20.57dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Tones	5500MHz		5580MHz		5700MHz	
			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	-0.593	0.00	-0.818	0.00	-0.348
802.11n HT20	Chain0	NA	0.00	-0.973	0.00	-1.200	0.00	-0.704
802.11ac VHT20	Chain0	NA	0.00	-0.996	0.00	-1.204	0.00	-0.736

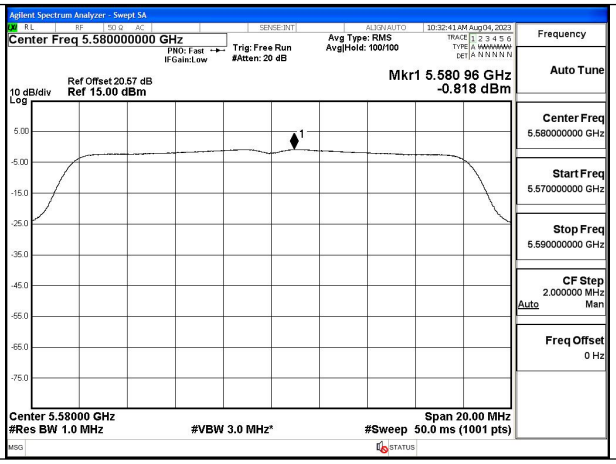
Test Mode	Antenna	Tones	5510MHz		5590MHz		5670MHz	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11n HT40	Chain0	NA	0.00	-3.910	0.00	-4.068	0.00	-3.961
802.11ac VHT40	Chain0	NA	0.00	-3.823	0.00	-4.081	0.00	-3.964

Test Mode	Antenna	Tones	5530MHz		---		5610MHz	
			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	-6.990	---	---	0.00	-6.983

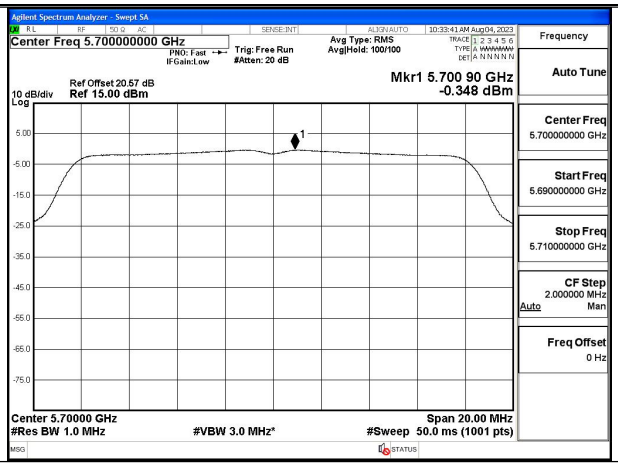
Test Mode: 802.11a



Mode:802.11a Frequency:5500MHz Ant:Chain0



Mode:802.11a Frequency:5580MHz Ant:Chain0



Mode:802.11a Frequency:5700MHz Ant:Chain0