

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Antenna	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	Chain0	5180	99.18%	0	Fig.1
802.11n HT20	Chain0	5180	99.17%	0	Fig.2
802.11ac VHT20	Chain0	5180	99.09%	0	Fig.3
802.11n HT40	Chain0	5190	98.33%	0	Fig.4
802.11ac VHT40	Chain0	5190	98.33%	0	Fig.5
802.11ac VHT80	Chain0	5210	96.69%	0.15	Fig.6

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

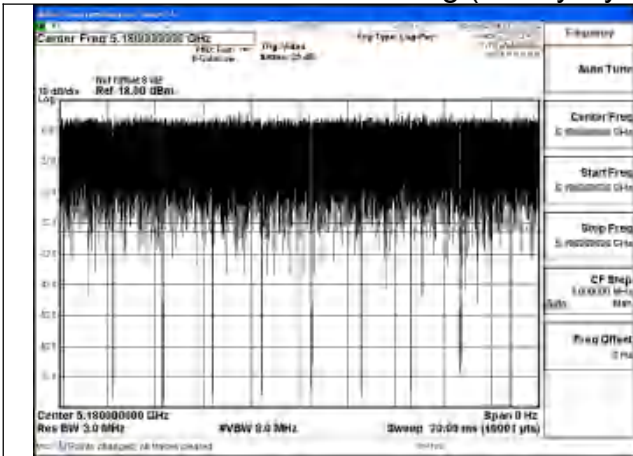


Fig.1

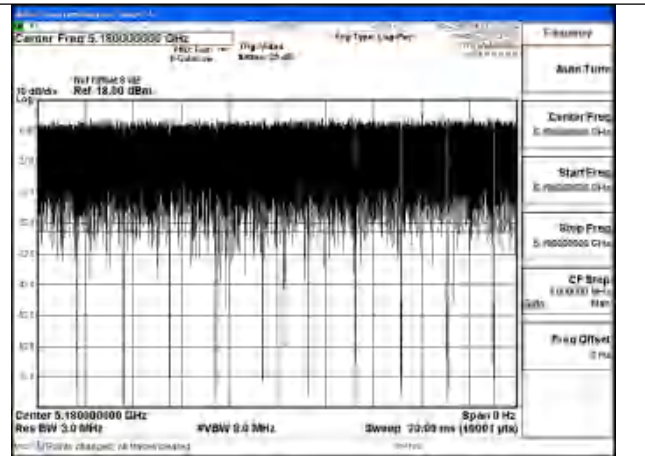


Fig.2

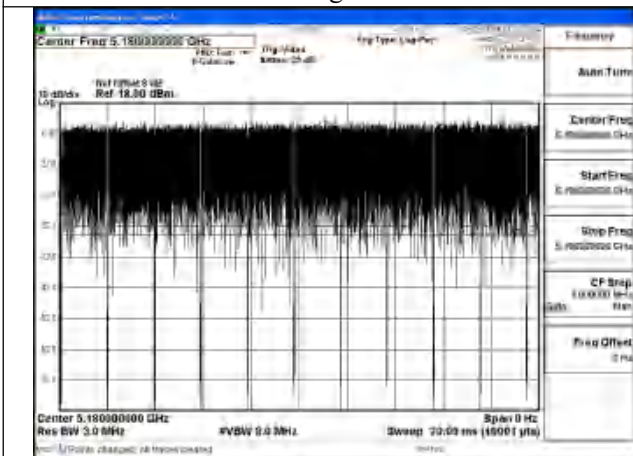


Fig.3

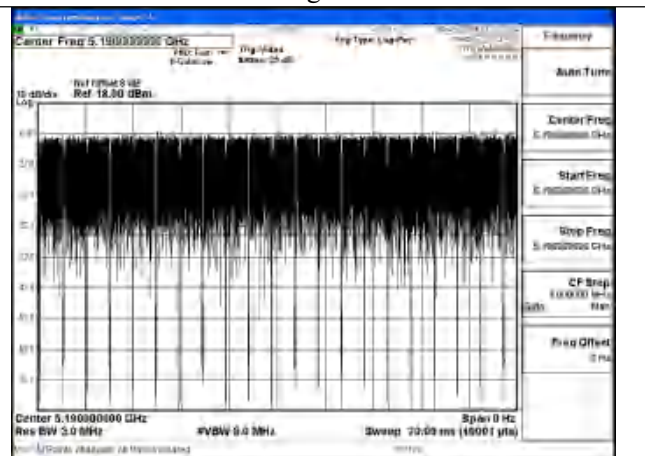


Fig.4

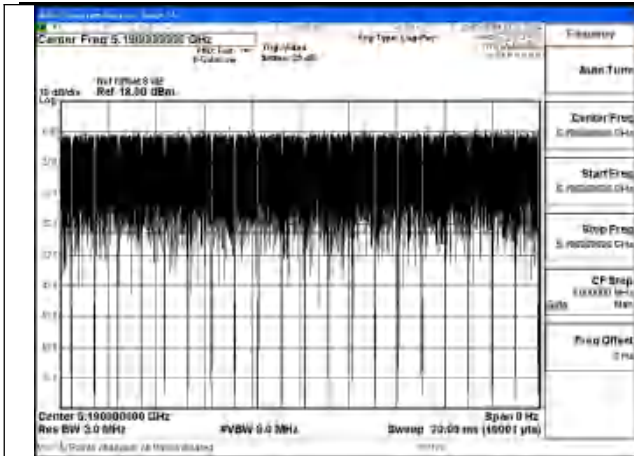


Fig.5

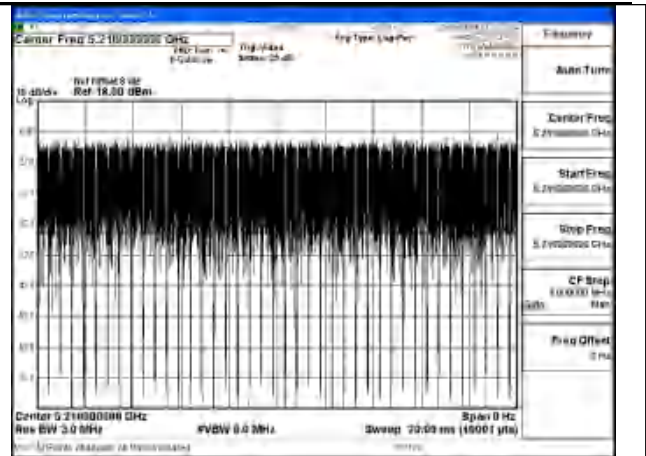


Fig.6

Output Power

Mode	Tones/ RU Index	Frequency (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5180	Chain0	10.62	9.42
802.11a	NA	5220	Chain0	10.10	8.90
802.11a	NA	5240	Chain0	10.24	9.04
802.11n HT20	NA	5180	Chain0	10.45	9.25
802.11n HT20	NA	5220	Chain0	10.95	9.75
802.11n HT20	NA	5240	Chain0	10.86	9.66
802.11ac VHT20	NA	5180	Chain0	10.20	9.00
802.11ac VHT20	NA	5220	Chain0	10.93	9.73
802.11ac VHT20	NA	5240	Chain0	10.43	9.23
802.11n HT40	NA	5190	Chain0	10.93	9.73
802.11n HT40	NA	5230	Chain0	10.88	9.68
802.11ac VHT40	NA	5190	Chain0	10.21	9.01
802.11ac VHT40	NA	5230	Chain0	10.99	9.79
802.11ac VHT80	NA	5210	Chain0	10.78	9.58



Emission Bandwidth

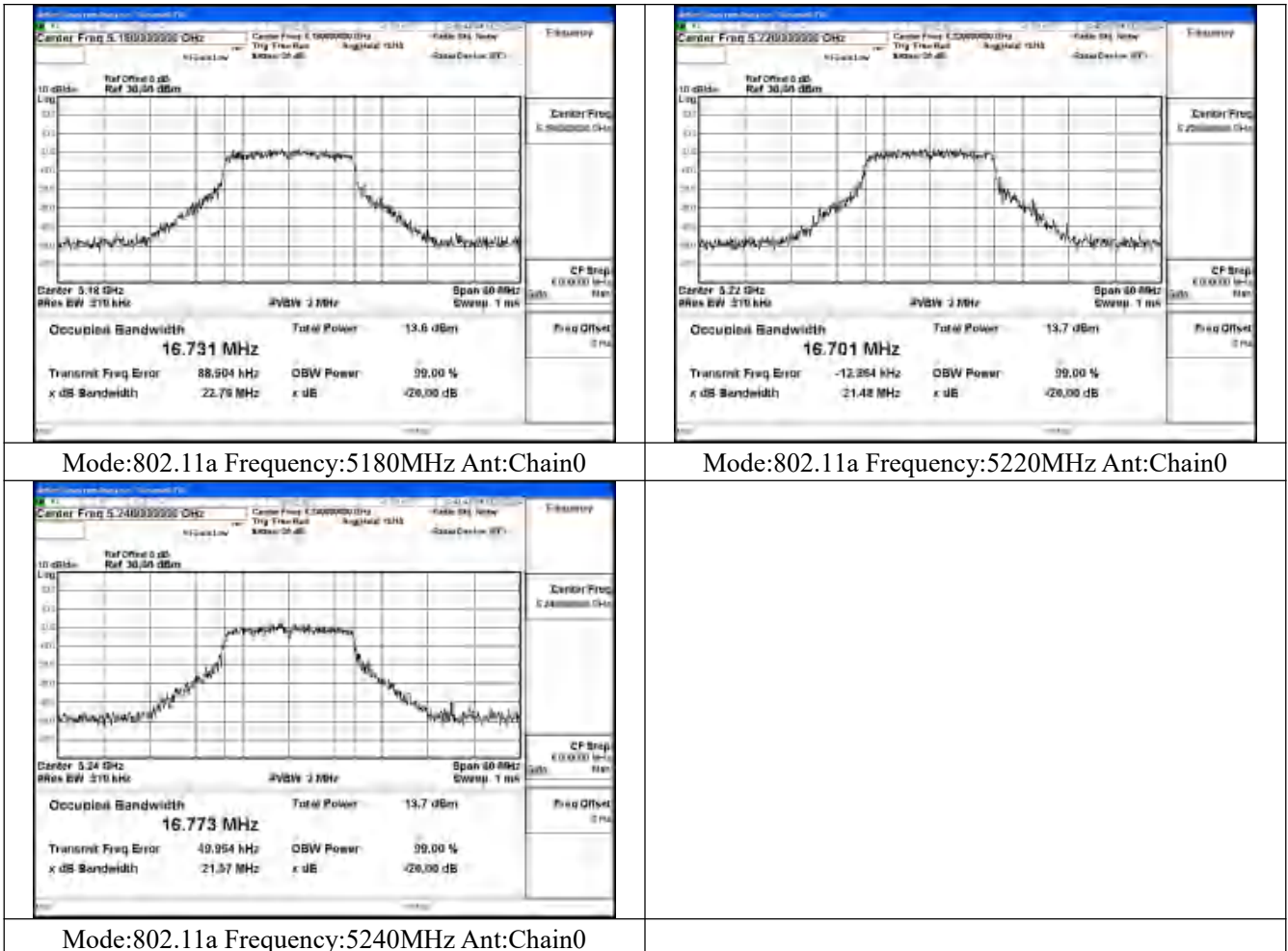
Offset 8dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	22.79	21.48	21.57
802.11n HT20	Chain0	23.01	22.80	22.85
802.11ac VHT20	Chain0	23.19	23.44	22.41

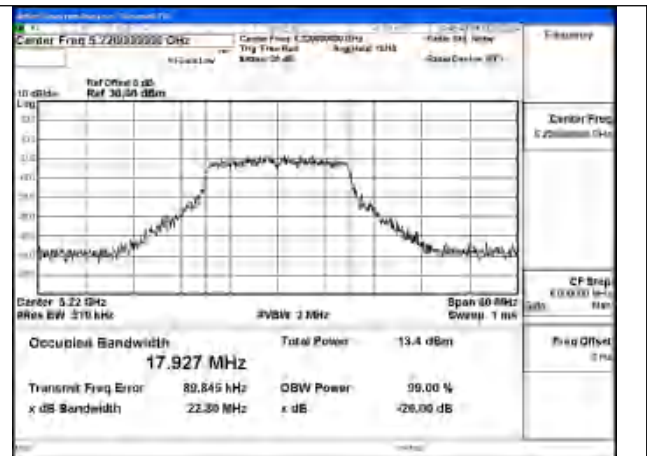
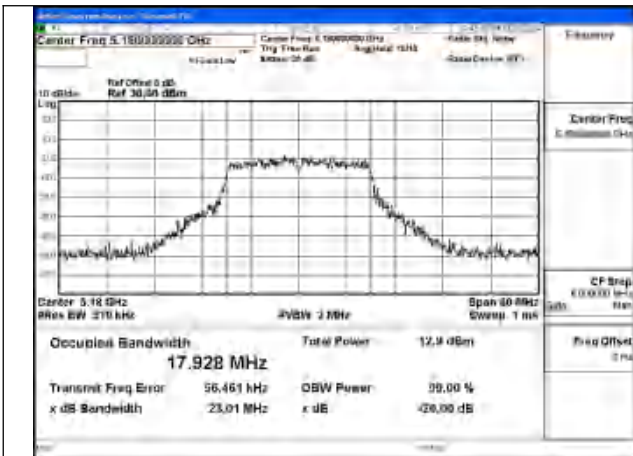
Test Mode	Antenna	26dB Bandwidth (MHz)		
		5190MHz	---	5230MHz
802.11n HT40	Chain0	40.90	---	40.23
802.11ac VHT40	Chain0	41.02	---	40.52

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5210MHz	---	---
802.11ac VHT80	Chain0	82.69	---	---

Test Mode: 802.11a

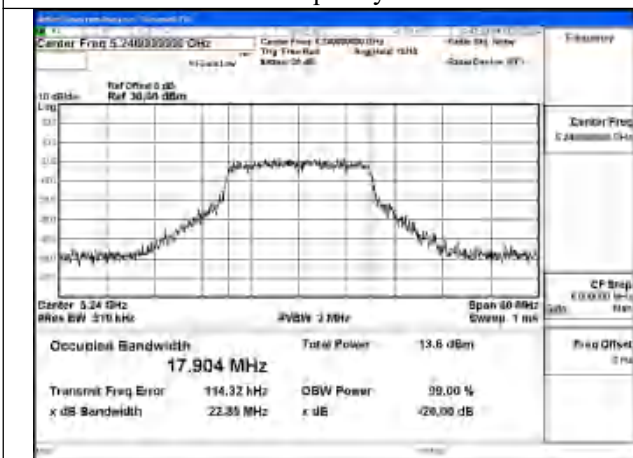


Test Mode: 802.11n HT20



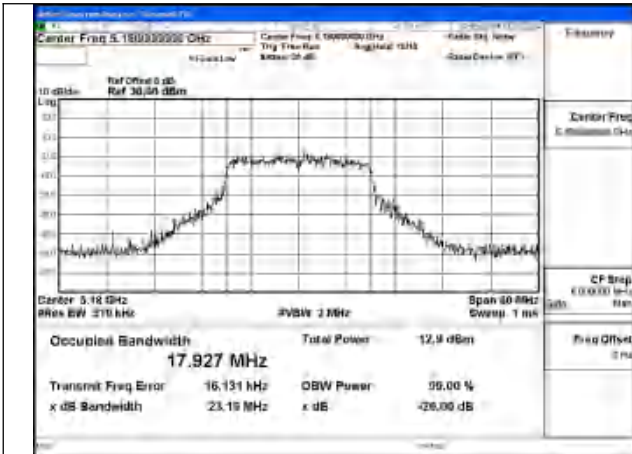
Mode:802.11n HT20 Frequency:5180MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5220MHz Ant:Chain0

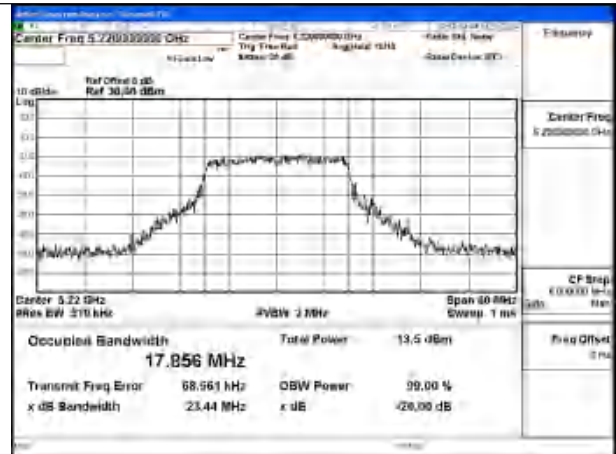


Mode:802.11n HT20 Frequency:5240MHz Ant:Chain0

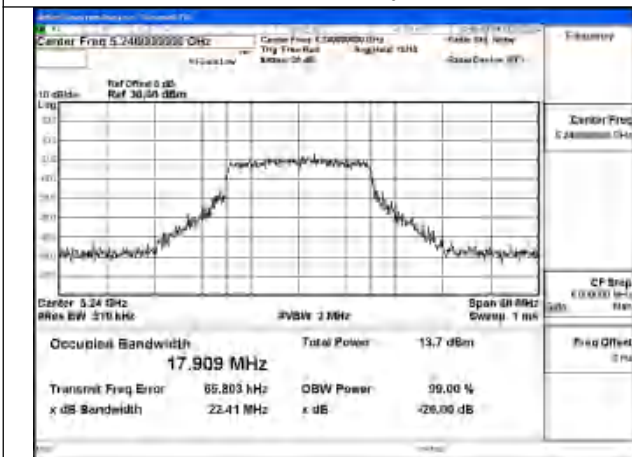
Test Mode: 802.11ac VHT20



Mode:802.11ac VHT20 Frequency:5180MHz
Ant:Chain0

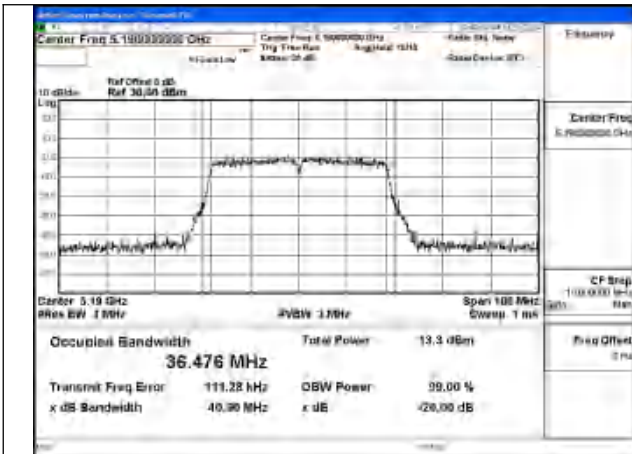


Mode:802.11ac VHT20 Frequency:5220MHz
Ant:Chain0

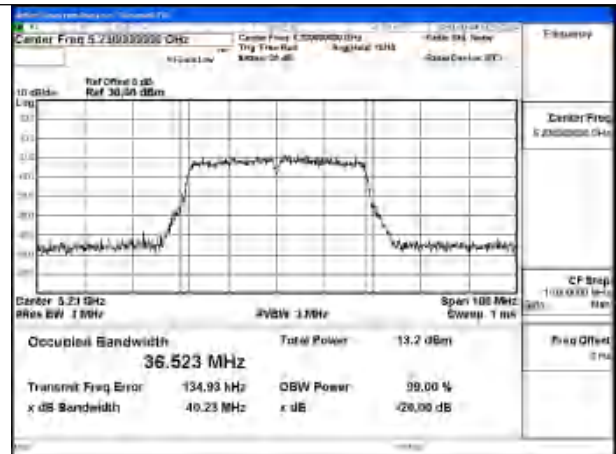


Mode:802.11ac VHT20 Frequency:5240MHz
Ant:Chain0

Test Mode: 802.11n HT40

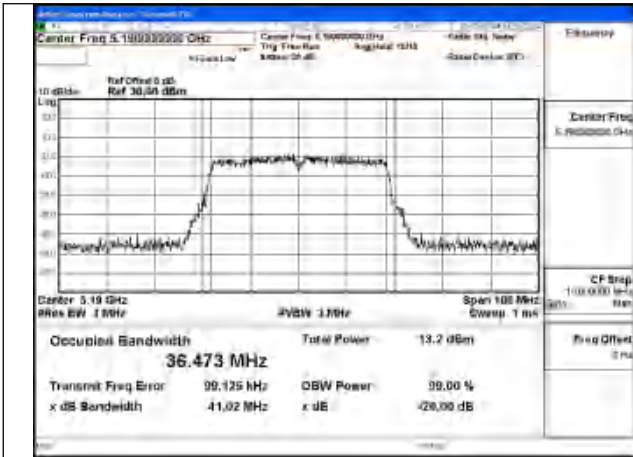


Mode:802.11n HT40 Frequency:5190MHz Ant:Chain0

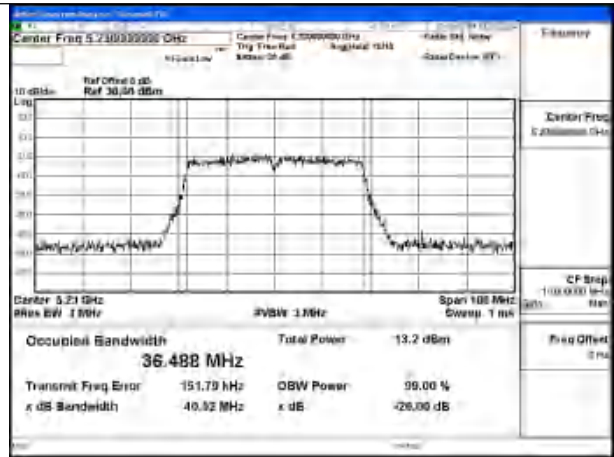


Mode:802.11n HT40 Frequency:5230MHz Ant:Chain0

Test Mode: 802.11ac VHT40

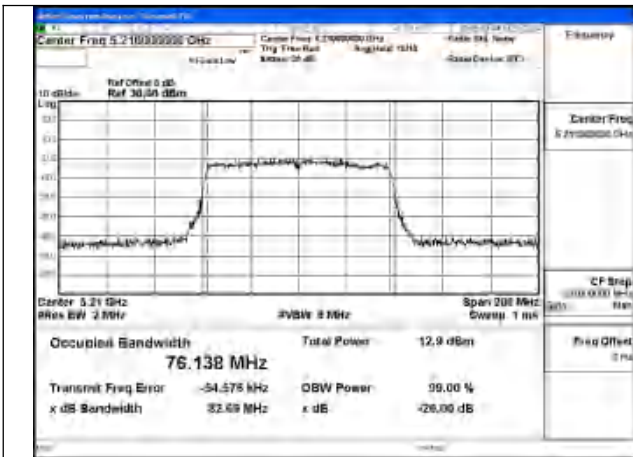


Mode:802.11ac VHT40 Frequency:5190MHz
 Ant:Chain0



Mode:802.11ac VHT40 Frequency:5230MHz
 Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5210MHz
 Ant:Chain0



Occupied Bandwidth

Offset 8dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5180MHz	5220MHz	5240MHz
802.11a	Chain0	16.731	16.677	16.632
802.11n HT20	Chain0	17.986	17.939	17.915
802.11ac VHT20	Chain0	17.899	17.816	17.866

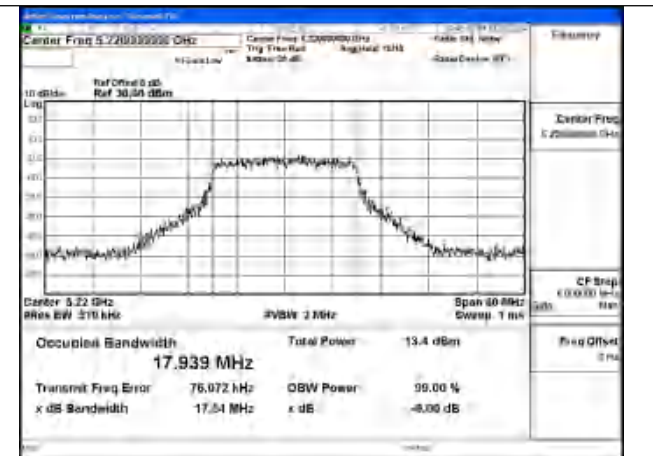
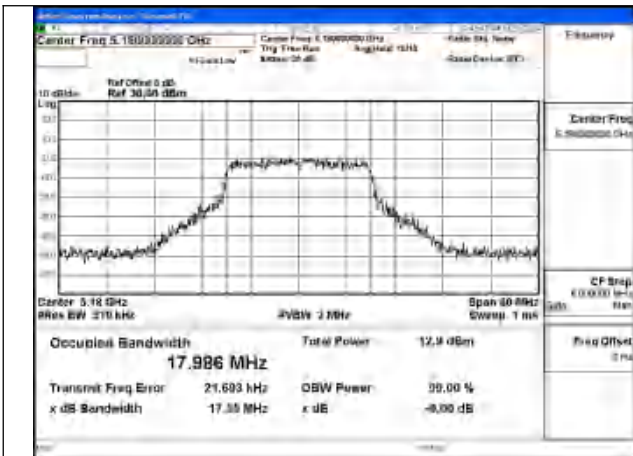
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5190MHz	---	5230MHz
802.11n HT40	Chain0	36.438	---	36.441
802.11ac VHT40	Chain0	36.400	---	36.536

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5210MHz	---	---
802.11ac VHT80	Chain0	76.154	---	---

Test Mode: 802.11a

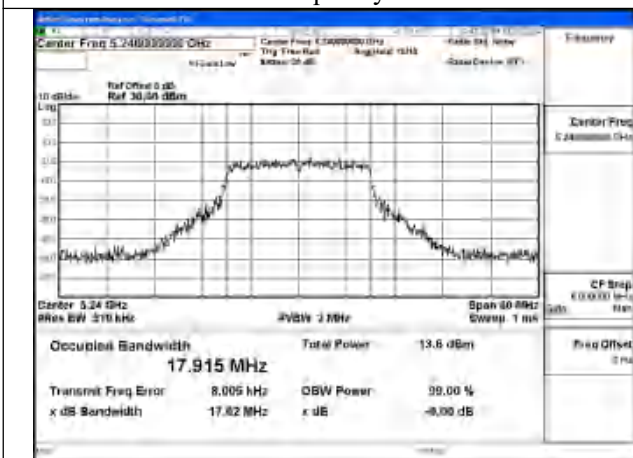
<p>Center Freq: 5.18000000 GHz Occupied Bandwidth: 16.731 MHz Total Power: 13.3 dBm Transmit Freq Error: 31.127 kHz x dB Bandwidth: 16.16 MHz x dB: -8.00 dB</p>	<p>Center Freq: 5.22000000 GHz Occupied Bandwidth: 16.677 MHz Total Power: 13.6 dBm Transmit Freq Error: 63.740 kHz x dB Bandwidth: 16.16 MHz x dB: -8.00 dB</p>
<p>Mode:802.11a Frequency:5180MHz Ant:Chain0</p>	<p>Mode:802.11a Frequency:5220MHz Ant:Chain0</p>
<p>Center Freq: 5.24000000 GHz Occupied Bandwidth: 16.632 MHz Total Power: 13.8 dBm Transmit Freq Error: 27.542 kHz x dB Bandwidth: 16.44 MHz x dB: -8.00 dB</p>	
<p>Mode:802.11a Frequency:5240MHz Ant:Chain0</p>	

Test Mode: 802.11n HT20



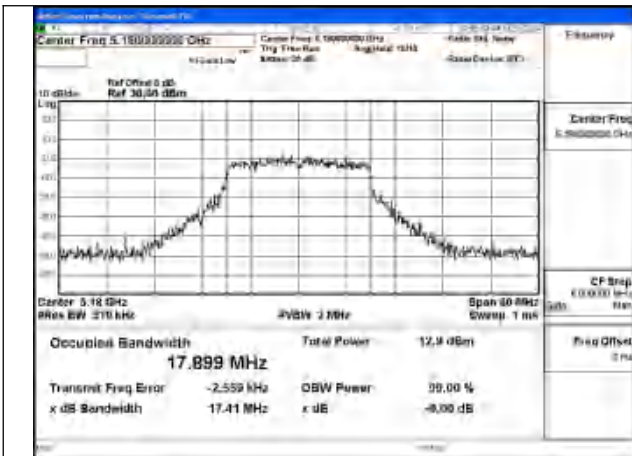
Mode:802.11n HT20 Frequency:5180MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5220MHz Ant:Chain0

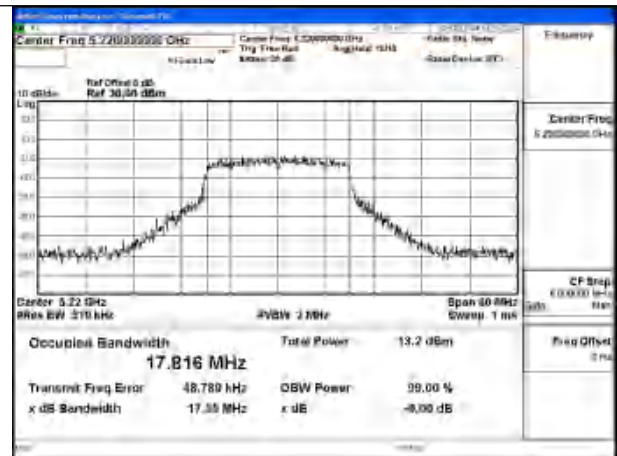


Mode:802.11n HT20 Frequency:5240MHz Ant:Chain0

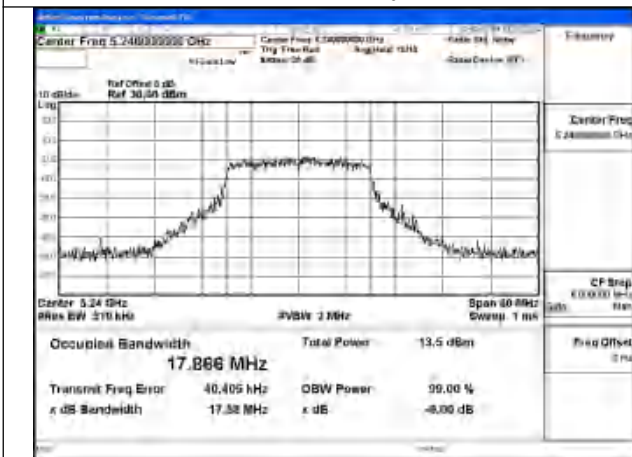
Test Mode: 802.11ac VHT20



Mode:802.11ac VHT20 Frequency:5180MHz
Ant:Chain0

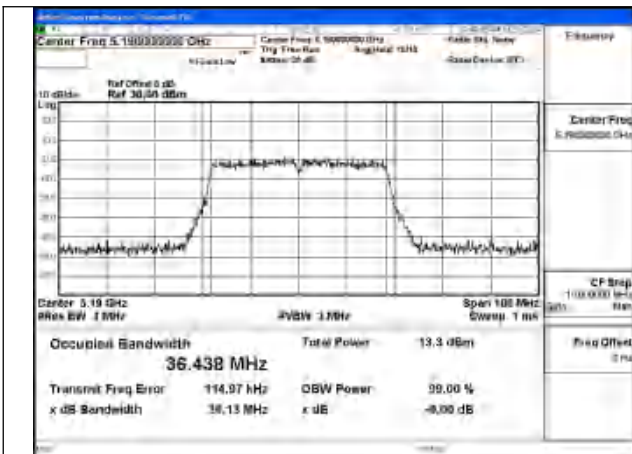


Mode:802.11ac VHT20 Frequency:5220MHz
Ant:Chain0

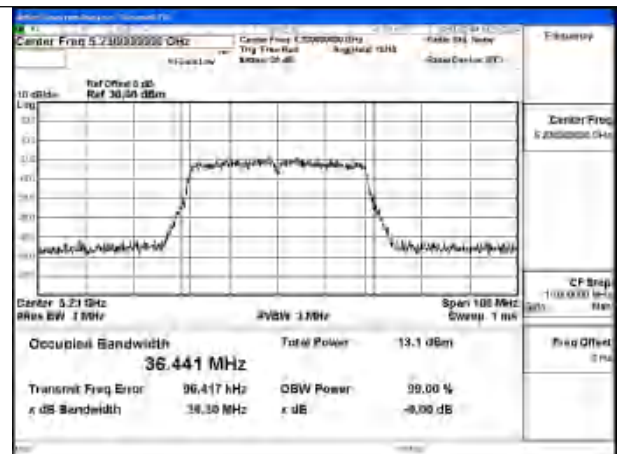


Mode:802.11ac VHT20 Frequency:5240MHz
Ant:Chain0

Test Mode: 802.11n HT40

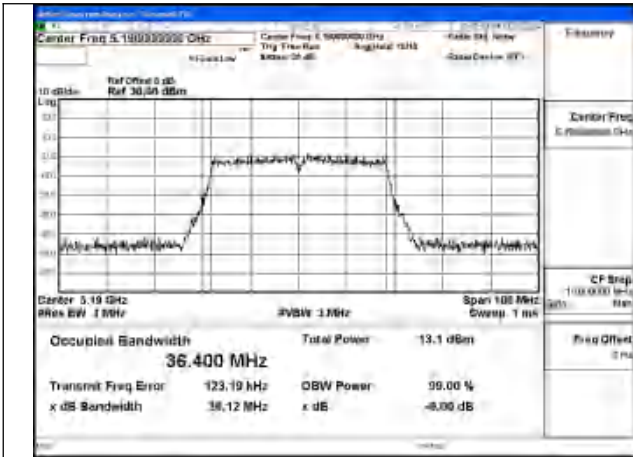


Mode:802.11n HT40 Frequency:5190MHz Ant:Chain0

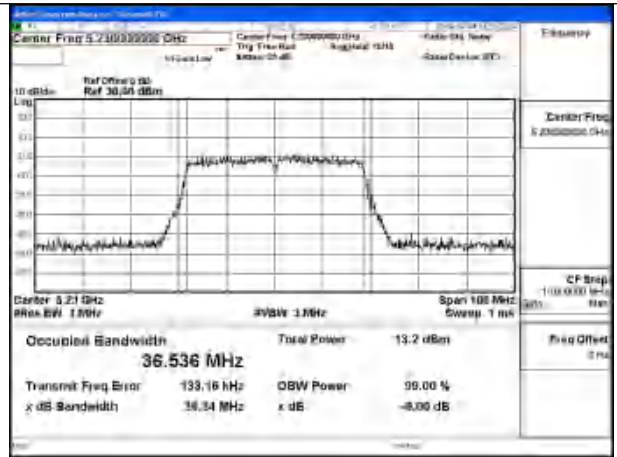


Mode:802.11n HT40 Frequency:5230MHz Ant:Chain0

Test Mode: 802.11ac VHT40

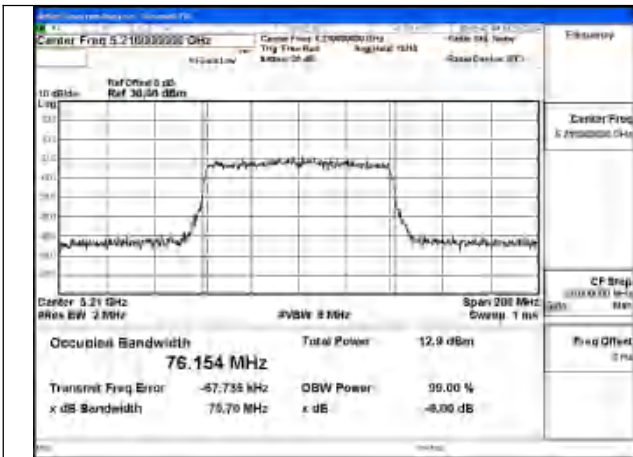


Mode:802.11ac VHT40 Frequency:5190MHz
 Ant:Chain0

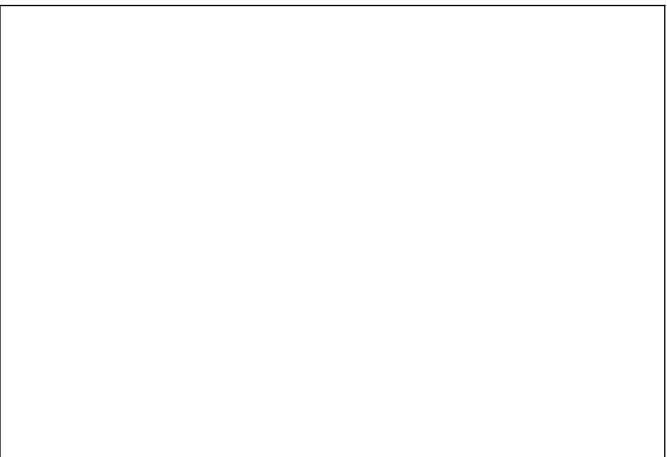


Mode:802.11ac VHT40 Frequency:5230MHz
 Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5210MHz
 Ant:Chain0





Transmitter Power Spectral Density

Offset 8dB = Attenuator + Temporary antenna connector loss + Cable loss

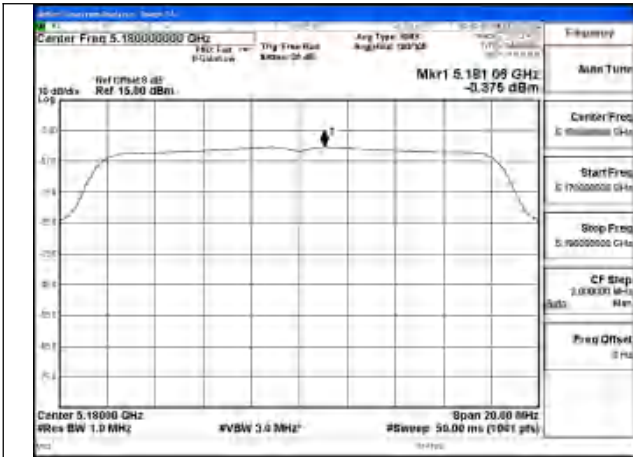
Test Mode	Antenna	Tones	5180MHz		5220MHz		5240MHz	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11a	Chain0	NA	0	-0.375	0	-0.599	0	-0.604
802.11n HT20	Chain0	NA	0	-0.956	0	-1.058	0	-1.027
802.11ac VHT20	Chain0	NA	0	-1.227	0	-1.044	0	-1.092

Test Mode	Antenna	Tones	5190MHz		---		5230MHz	
			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	-3.891	---	---	0	-3.968
802.11ac VHT40	Chain0	NA	0	-3.922	---	---	0	-3.917

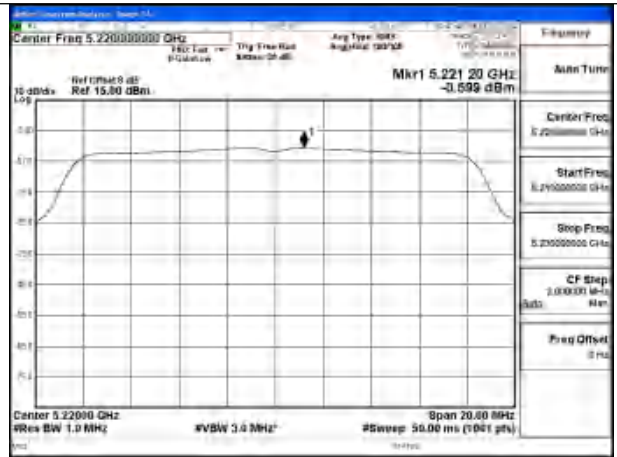
Test Mode	Antenna	Tones	5210MHz		---		---	
			Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)	Correction Factor(dB)	Power Density (dBm/MHz)
802.11ac VHT80	Chain0	NA	0.15	-7.221	---	---	---	---



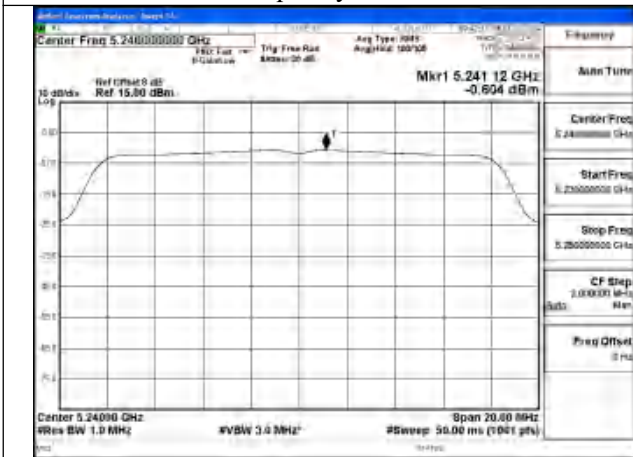
Test Mode: 802.11a



Mode:802.11a Frequency:5180MHz Ant:Chain0



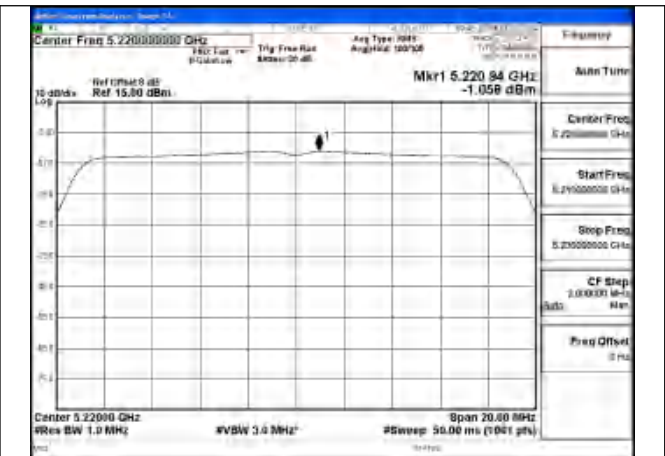
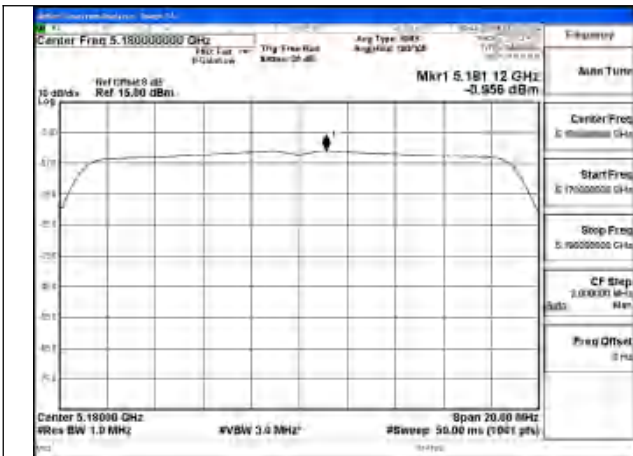
Mode:802.11a Frequency:5220MHz Ant:Chain0



Mode:802.11a Frequency:5240MHz Ant:Chain0

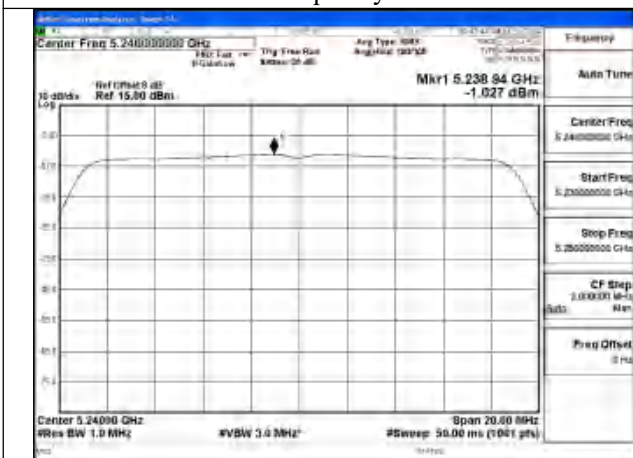


Test Mode: 802.11n HT20



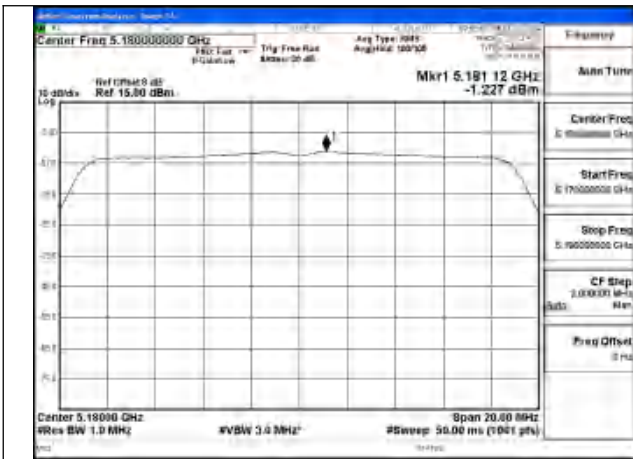
Mode:802.11n HT20 Frequency:5180MHz Ant:Chain0

Mode:802.11n HT20 Frequency:5220MHz Ant:Chain0

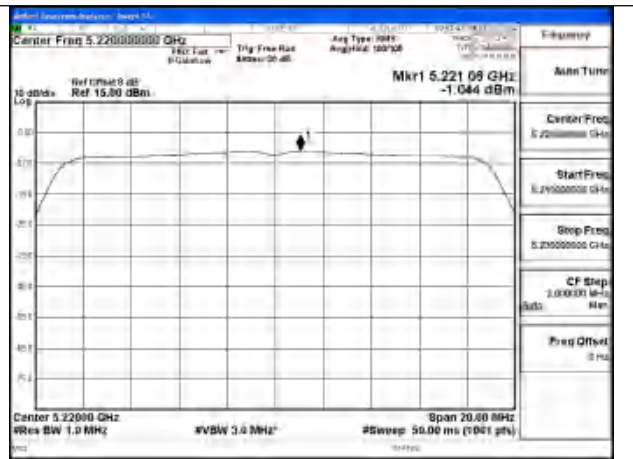


Mode:802.11n HT20 Frequency:5240MHz Ant:Chain0

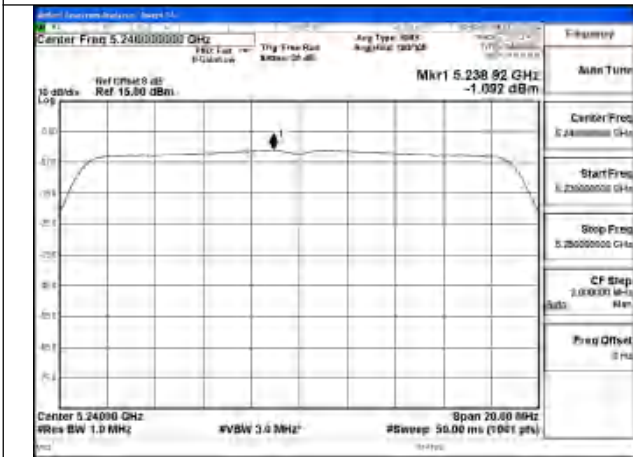
Test Mode: 802.11ac VHT20



Mode:802.11ac VHT20 Frequency:5180MHz
Ant:Chain0

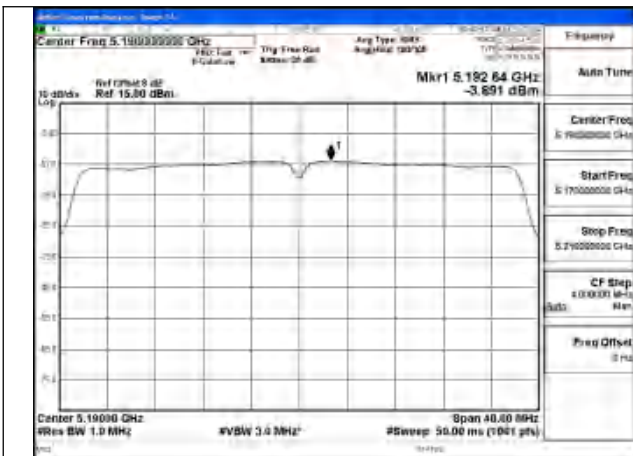


Mode:802.11ac VHT20 Frequency:5220MHz
Ant:Chain0

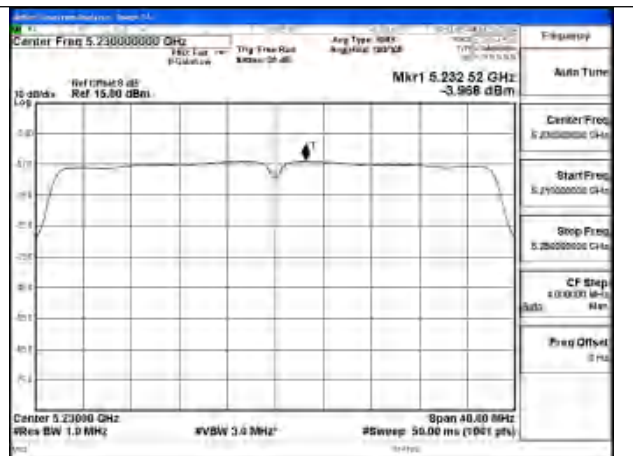


Mode:802.11ac VHT20 Frequency:5240MHz
Ant:Chain0

Test Mode: 802.11n HT40

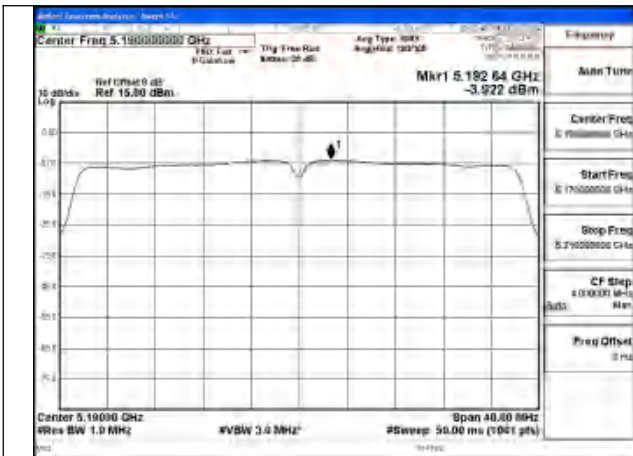


Mode:802.11n HT40 Frequency:5190MHz Ant:Chain0

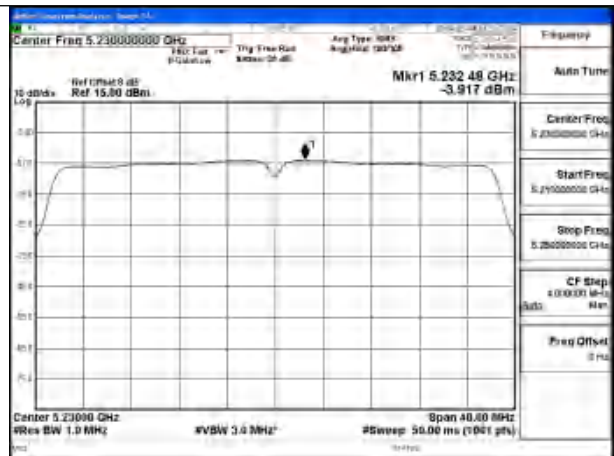


Mode:802.11n HT40 Frequency:5230MHz Ant:Chain0

Test Mode: 802.11ac VHT40

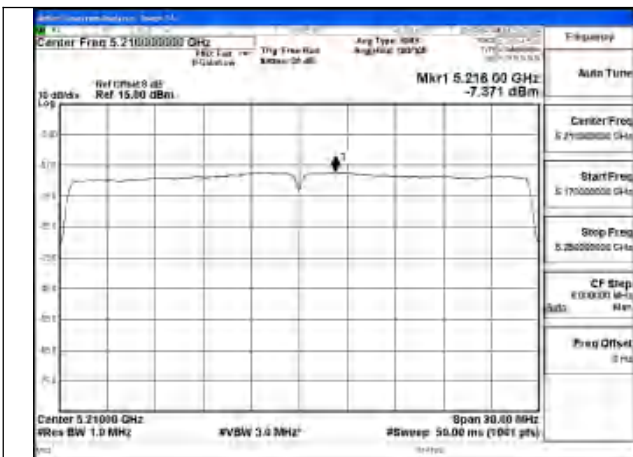


Mode:802.11ac VHT40 Frequency:5190MHz
 Ant:Chain0



Mode:802.11ac VHT40 Frequency:5230MHz
 Ant:Chain0

Test Mode: 802.11ac VHT80



Mode:802.11ac VHT80 Frequency:5210MHz
 Ant:Chain0