APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Antenna	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)	Plot
802.11a	Chain0	5260	99.99%	0	Fig.1
802.11a	Chain1	5260	99.96%	0	Fig.2
802.11n HT20	Chain0	5260	99.98%	0	Fig.3
802.11n HT20	Chain1	5260	99.97%	0	Fig.4
802.11ac VHT20	Chain0	5260	99.97%	0	Fig.5
802.11ac VHT20	Chain1	5260	99.97%	0	Fig.6
802.11n HT40	Chain0	5270	99.93%	0	Fig.7
802.11n HT40	Chain1	5270	99.92%	0	Fig.8
802.11ac VHT40	Chain0	5270	99.94%	0	Fig.9
802.11ac VHT40	Chain1	5270	99.94%	0	Fig.10
802.11ac VHT80	Chain0	5290	99.93%	0	Fig.11
802.11ac VHT80	Chain1	5290	99.90%	0	Fig.12

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

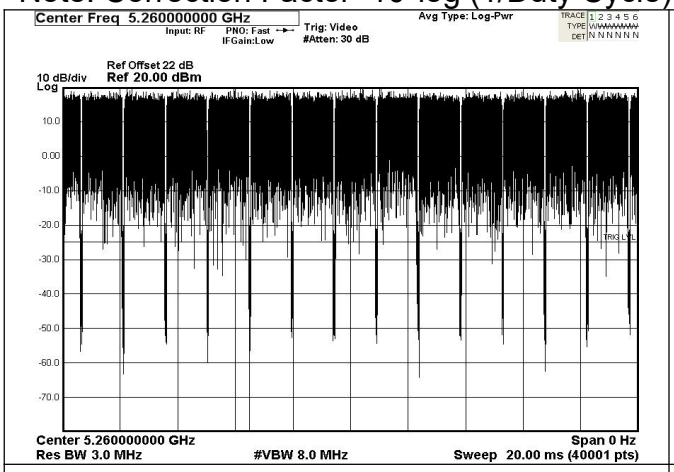


Fig.1

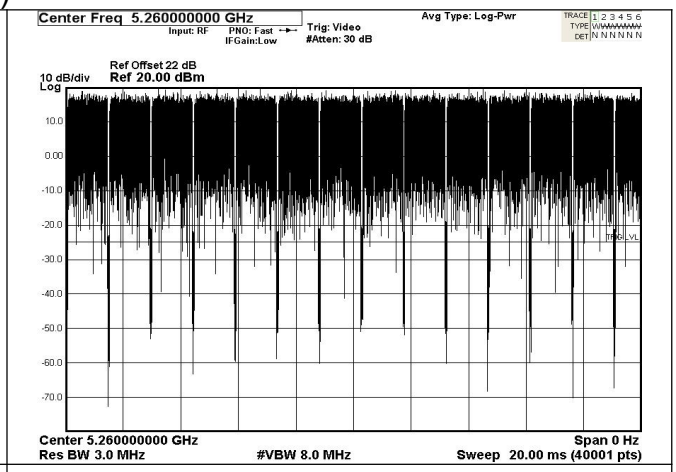


Fig.2

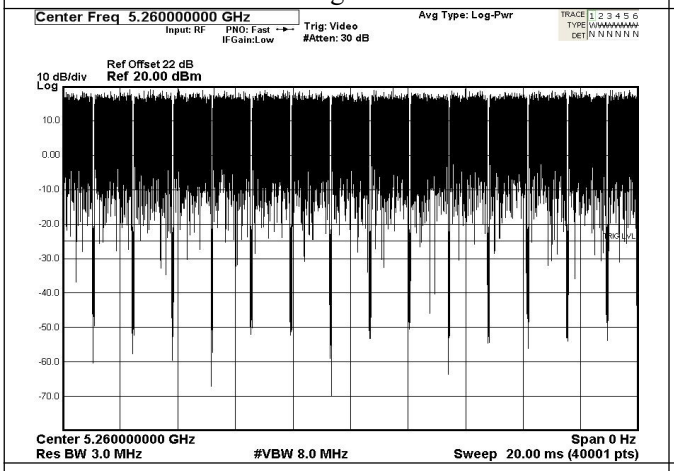


Fig.3

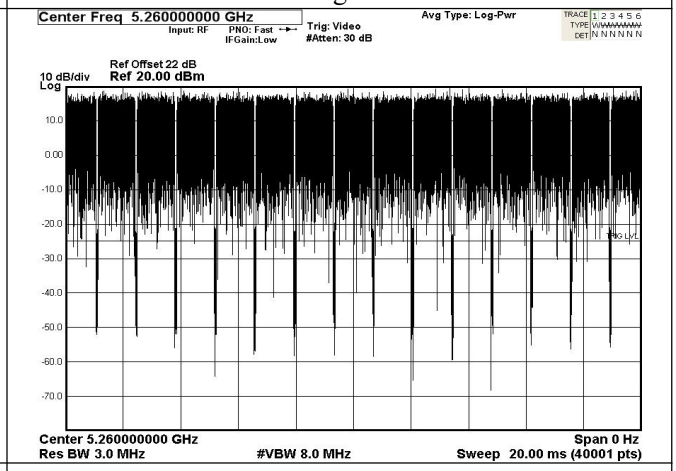


Fig.4

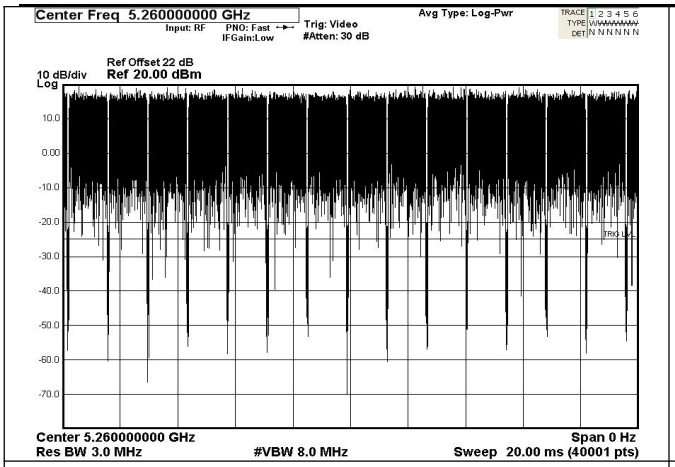


Fig.5

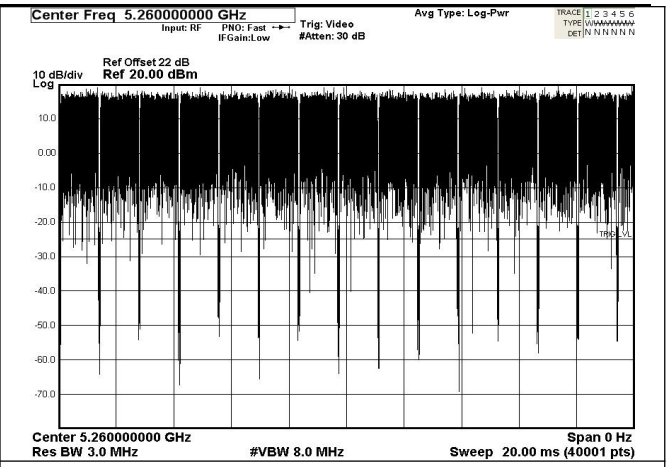


Fig.6

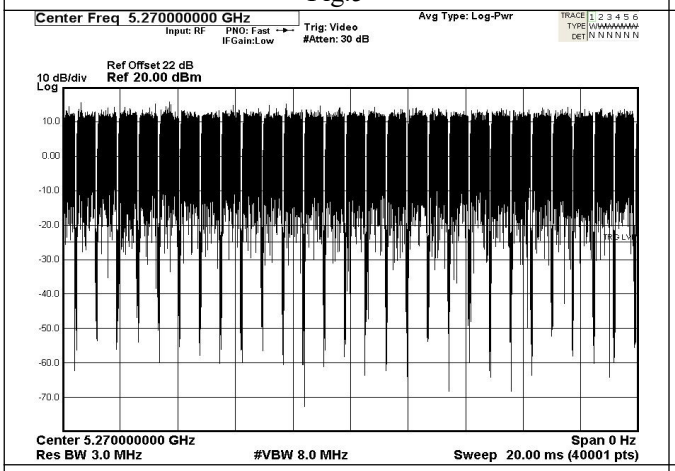


Fig.7

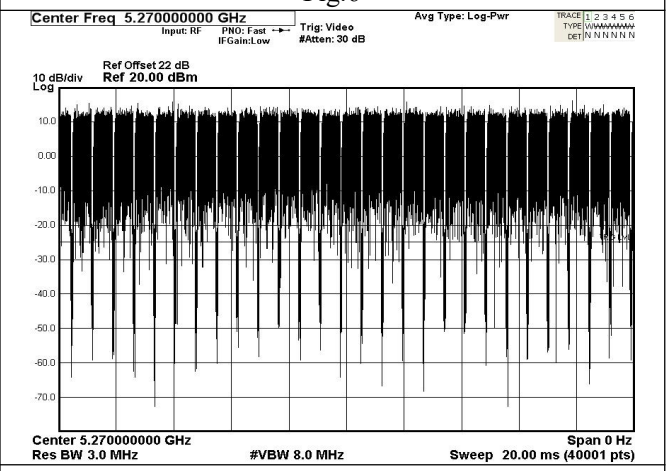


Fig.8

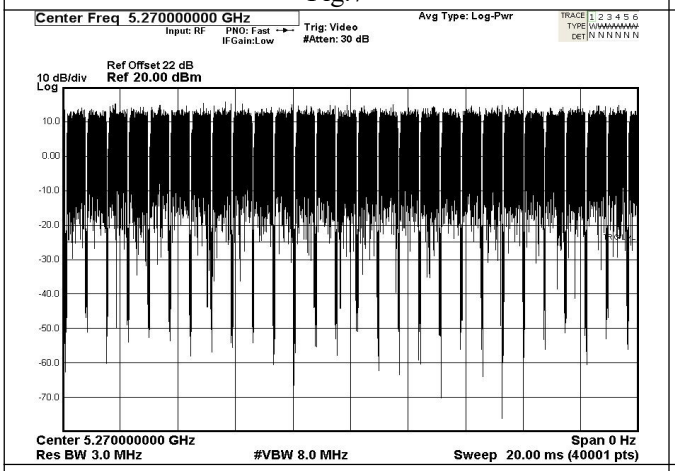


Fig.9

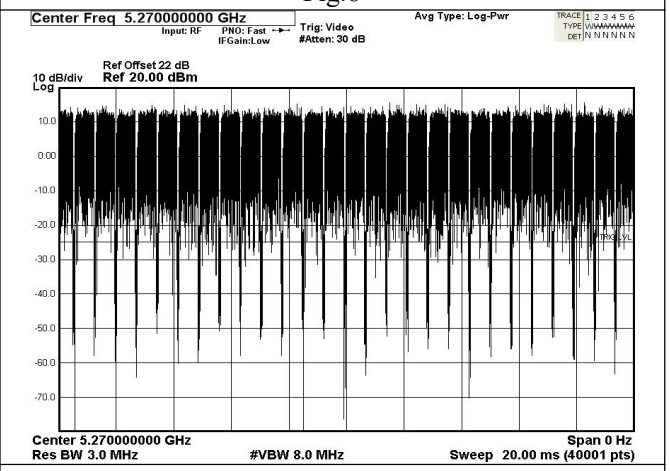


Fig.10

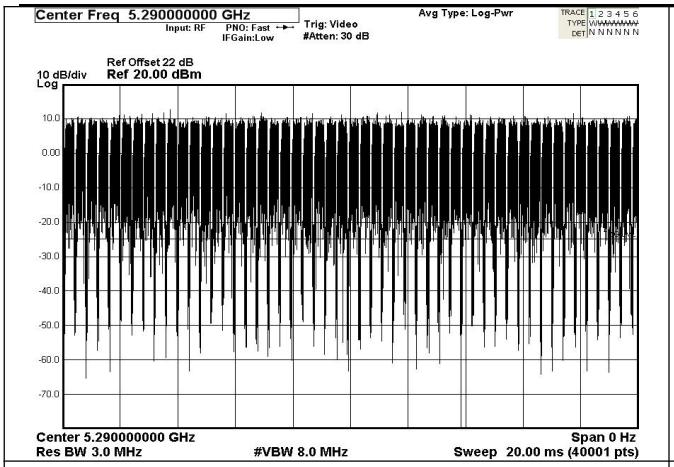

Center Freq 5.290000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Video
#Atten: 30 dB
Avg Type: Log-Pwr
Ref Offset 22 dB
10 dB/div
Ref 20.00 dBm
Log
Center 5.290000000 GHz
Span 0 Hz
Res BW 3.0 MHz
#VBW 8.0 MHz
Sweep 20.00 ms (40001 pts)

Fig.11

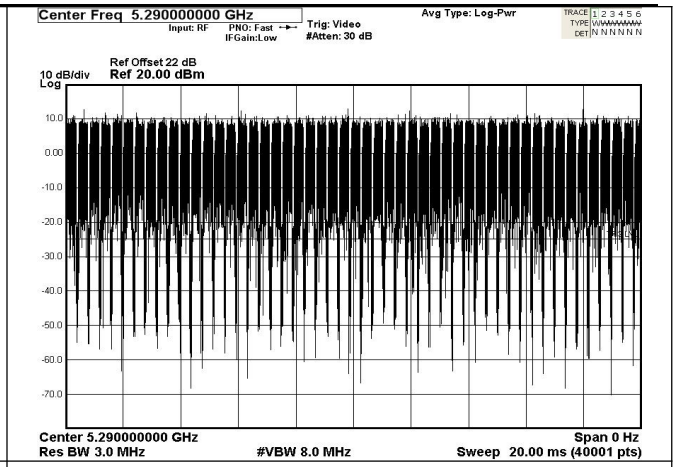

Center Freq 5.290000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Video
#Atten: 30 dB
Avg Type: Log-Pwr
Ref Offset 22 dB
10 dB/div
Ref 20.00 dBm
Log
Center 5.290000000 GHz
Span 0 Hz
Res BW 3.0 MHz
#VBW 8.0 MHz
Sweep 20.00 ms (40001 pts)

Fig.12

Output Power

Mode	Tones/ RU Index	Frequency (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5260	Chain0	16.41	16.91
802.11a	NA	5260	Chain1	16.12	16.57
802.11a	NA	5280	Chain0	16.42	16.92
802.11a	NA	5280	Chain1	16.14	16.59
802.11a	NA	5320	Chain0	16.32	16.82
802.11a	NA	5320	Chain1	16.13	16.58
802.11n HT20	NA	5260	Chain0	16.35	16.85
802.11n HT20	NA	5260	Chain1	16.02	16.47
802.11n HT20	NA	5260	MIMO	19.20	19.68
802.11n HT20	NA	5280	Chain0	16.09	16.59
802.11n HT20	NA	5280	Chain1	15.99	16.44
802.11n HT20	NA	5280	MIMO	19.05	19.53
802.11n HT20	NA	5320	Chain0	16.32	16.82
802.11n HT20	NA	5320	Chain1	16.06	16.51
802.11n HT20	NA	5320	MIMO	19.20	19.68
802.11ac VHT20	NA	5260	Chain0	15.72	16.22
802.11ac VHT20	NA	5260	Chain1	15.97	16.42
802.11ac VHT20	NA	5260	MIMO	18.86	19.34
802.11ac VHT20	NA	5280	Chain0	15.64	16.14
802.11ac VHT20	NA	5280	Chain1	16.02	16.47
802.11ac VHT20	NA	5280	MIMO	18.84	19.32
802.11ac VHT20	NA	5320	Chain0	15.52	16.02
802.11ac VHT20	NA	5320	Chain1	16.09	16.54
802.11ac VHT20	NA	5320	MIMO	18.82	19.30
802.11n HT40	NA	5270	Chain0	15.09	15.59
802.11n HT40	NA	5270	Chain1	15.13	15.58
802.11n HT40	NA	5270	MIMO	18.12	18.60
802.11n HT40	NA	5310	Chain0	14.92	15.42
802.11n HT40	NA	5310	Chain1	15.16	15.61
802.11n HT40	NA	5310	MIMO	18.05	18.53
802.11ac VHT40	NA	5270	Chain0	15.07	15.57
802.11ac VHT40	NA	5270	Chain1	14.85	15.30
802.11ac VHT40	NA	5270	MIMO	17.97	18.45
802.11ac VHT40	NA	5310	Chain0	15.12	15.62
802.11ac VHT40	NA	5310	Chain1	15.12	15.57
802.11ac VHT40	NA	5310	MIMO	18.13	18.61
802.11ac VHT80	NA	5290	Chain0	13.99	14.49
802.11ac VHT80	NA	5290	Chain1	14.37	14.82
802.11ac VHT80	NA	5290	MIMO	17.19	17.67

Emission Bandwidth

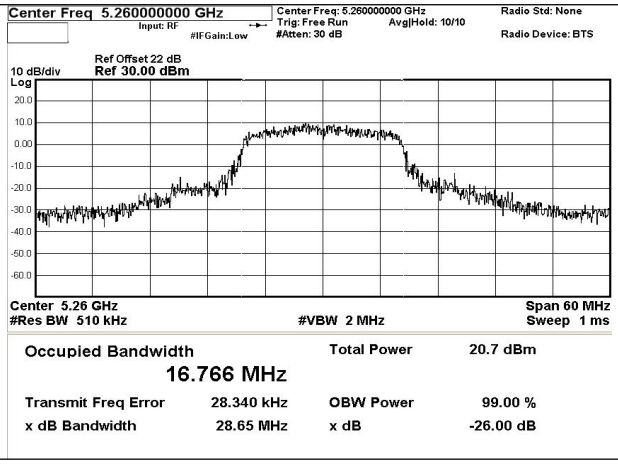
Offset 22dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5260MHz	5280MHz	5320MHz
802.11a	Chain0	28.65	23.87	20.12
802.11a	Chain1	19.99	19.59	20.28
802.11n HT20	Chain0	26.67	26.15	20.12
802.11n HT20	Chain1	20.38	20.72	20.34
802.11ac VHT20	Chain0	24.28	24.85	27.72
802.11ac VHT20	Chain1	20.34	20.46	20.47

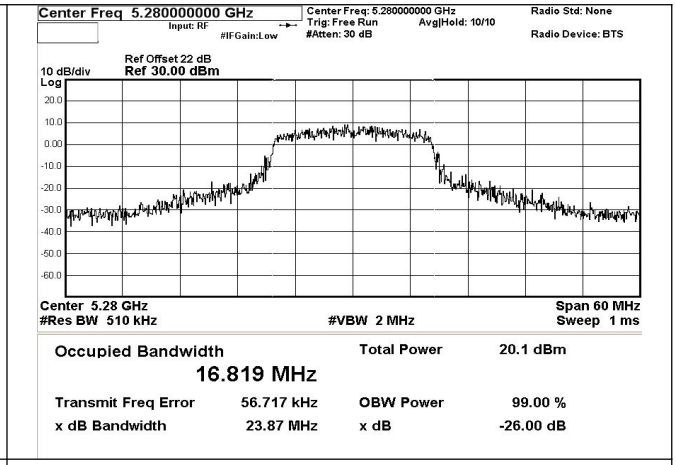
Test Mode	Antenna	26dB Bandwidth (MHz)		
		5270MHz	---	5310MHz
802.11n HT40	Chain0	43.45	---	39.99
802.11n HT40	Chain1	40.46	---	40.35
802.11ac VHT40	Chain0	48.12	---	40.85
802.11ac VHT40	Chain1	40.42	---	39.78

Test Mode	Antenna	26dB Bandwidth (MHz)		
		5290MHz	---	---
802.11ac VHT80	Chain0	81.03	---	---
802.11ac VHT80	Chain1	81.41	---	---

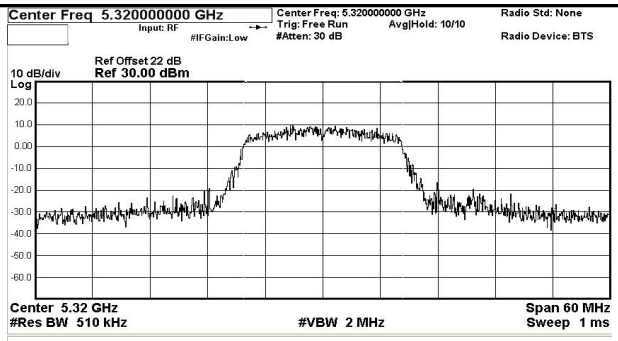
Test Mode: 802.11a



Mode:802.11a Frequency:5260MHz Ant:Chain0

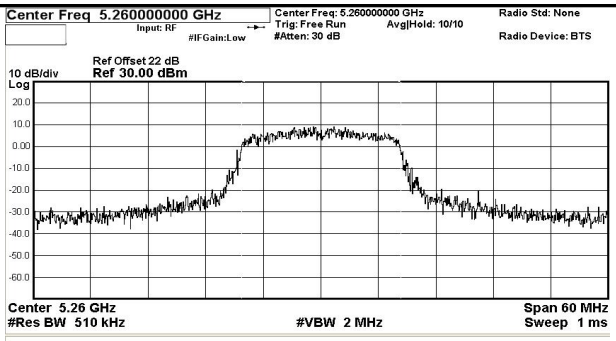


Mode:802.11a Frequency:5280MHz Ant:Chain0



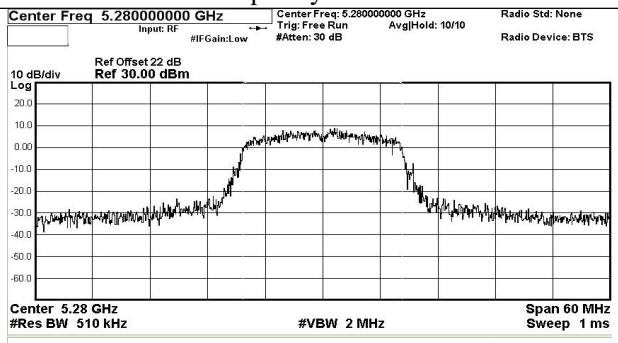
Occupied Bandwidth		Total Power	20.8 dBm
16.611 MHz			
Transmit Freq Error	57.496 kHz	OBW Power	99.00 %
x dB Bandwidth	20.12 MHz	x dB	-26.00 dB

Mode:802.11a Frequency:5320MHz Ant:Chain0



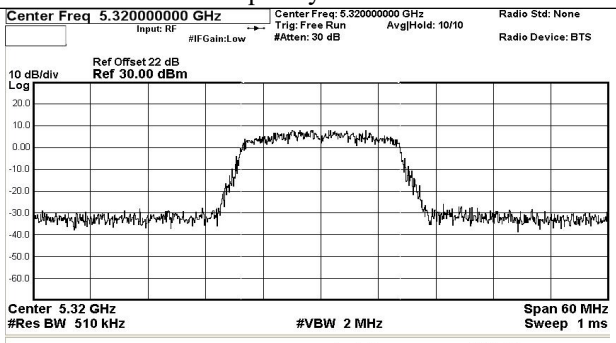
Occupied Bandwidth		Total Power	20.2 dBm
16.542 MHz			
Transmit Freq Error	37.081 kHz	OBW Power	99.00 %
x dB Bandwidth	19.99 MHz	x dB	-26.00 dB

Mode:802.11a Frequency:5260MHz Ant:Chain1



Occupied Bandwidth		Total Power	19.6 dBm
16.536 MHz			
Transmit Freq Error	-26.618 kHz	OBW Power	99.00 %
x dB Bandwidth	19.59 MHz	x dB	-26.00 dB

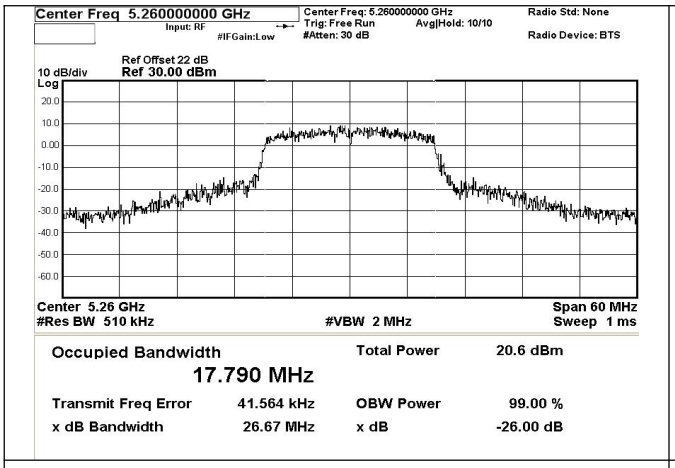
Mode:802.11a Frequency:5280MHz Ant:Chain1



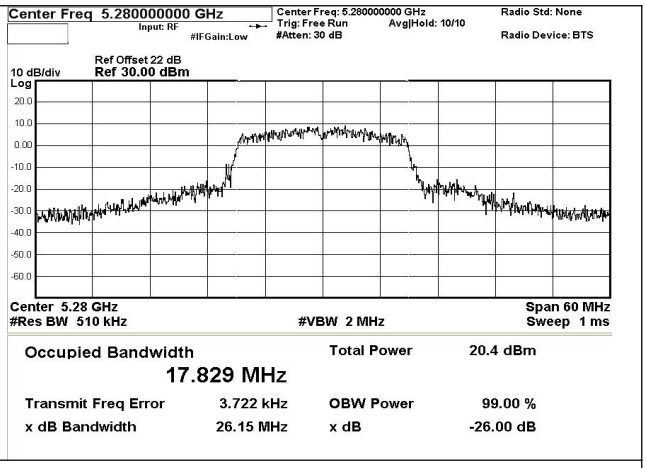
Occupied Bandwidth		Total Power	19.6 dBm
16.559 MHz			
Transmit Freq Error	-9.814 kHz	OBW Power	99.00 %
x dB Bandwidth	20.28 MHz	x dB	-26.00 dB

Mode:802.11a Frequency:5320MHz Ant:Chain1

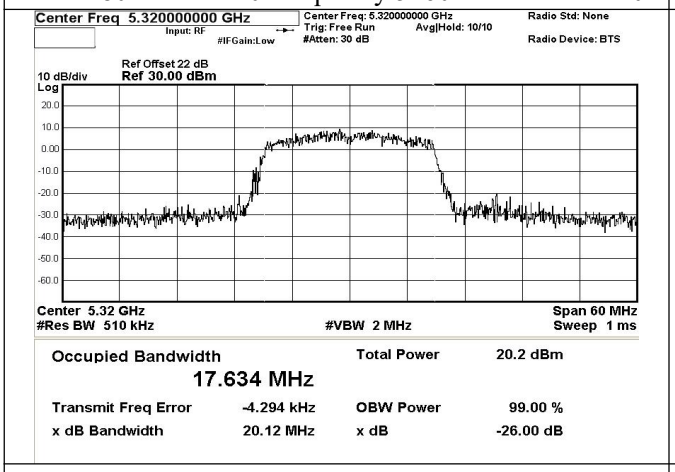
Test Mode: 802.11n HT20



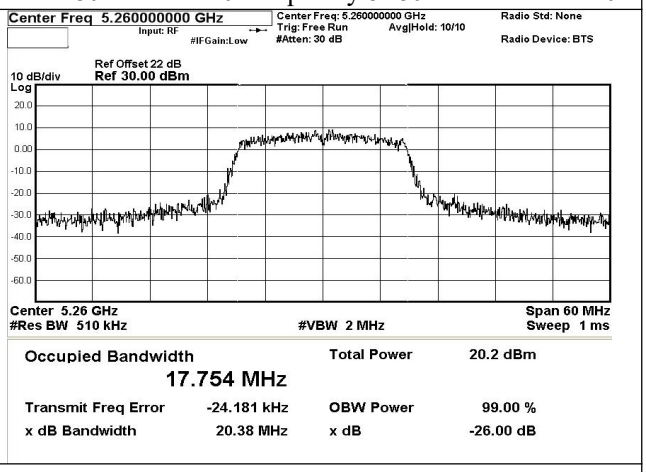
Mode:802.11n HT20 Frequency:5260MHz Ant:Chain0



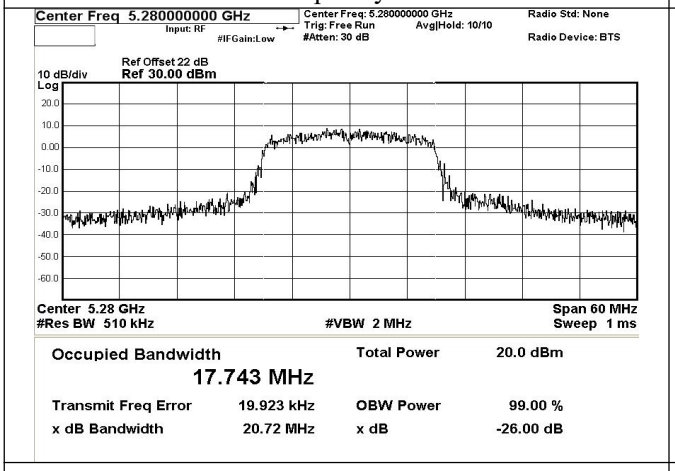
Mode:802.11n HT20 Frequency:5280MHz Ant:Chain0



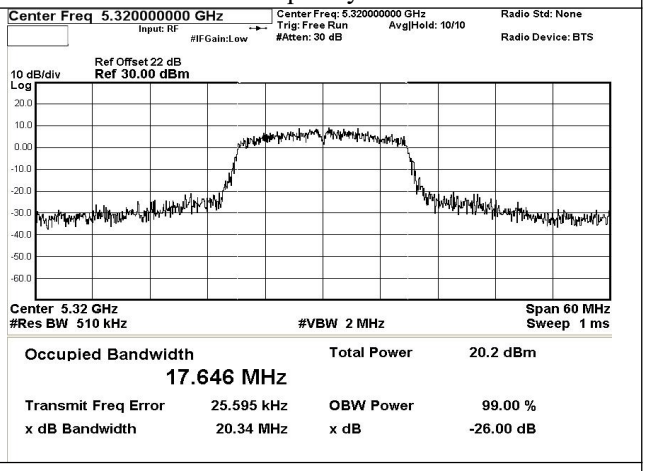
Mode:802.11n HT20 Frequency:5320MHz Ant:Chain0



Mode:802.11n HT20 Frequency:5260MHz Ant:Chain1

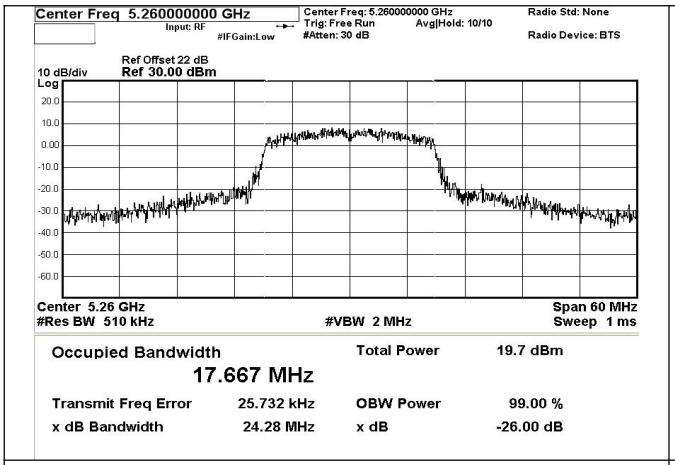


Mode:802.11n HT20 Frequency:5280MHz Ant:Chain1

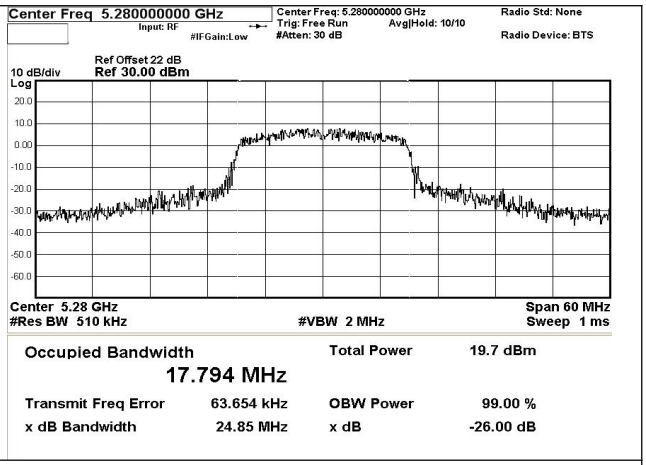


Mode:802.11n HT20 Frequency:5320MHz Ant:Chain1

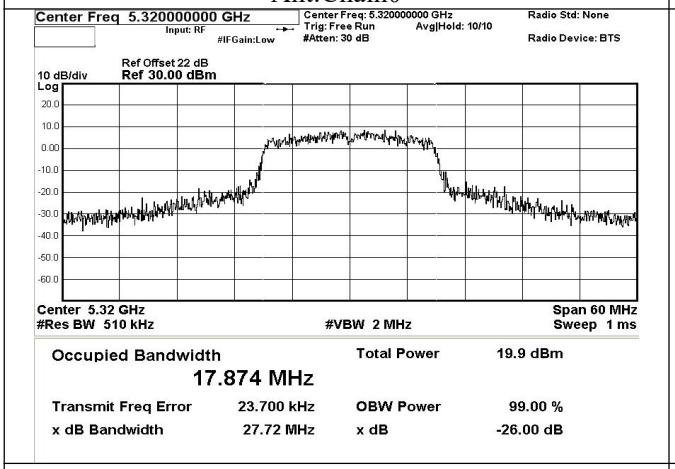
Test Mode: 802.11ac VHT20



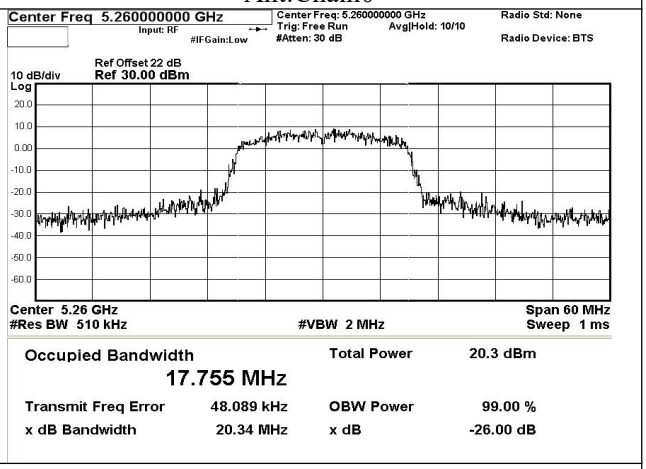
Mode:802.11ac VHT20 Frequency:5260MHz
Ant:Chain0



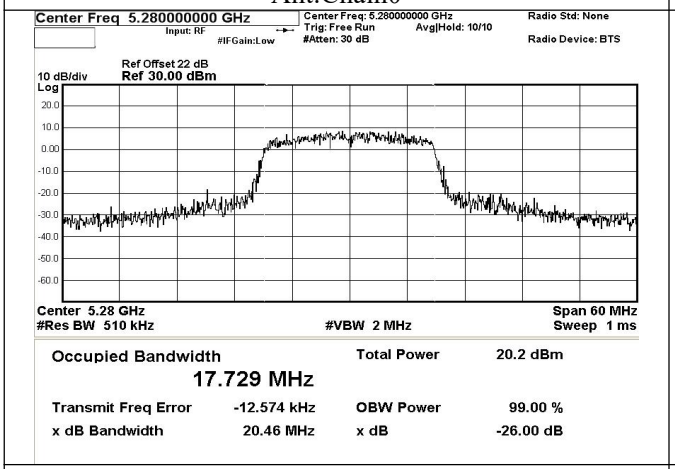
Mode:802.11ac VHT20 Frequency:5280MHz
Ant:Chain0



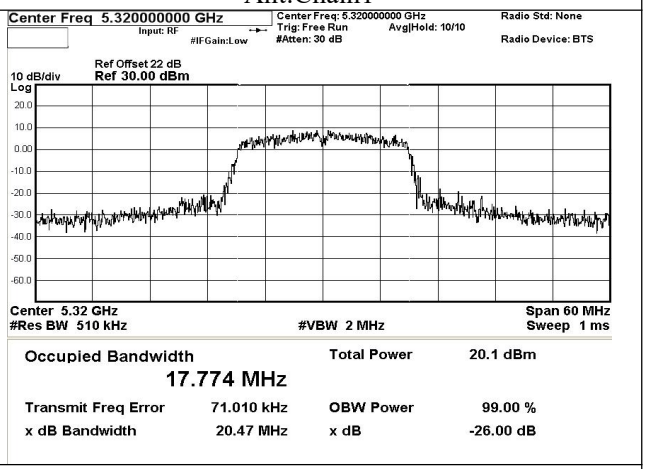
Mode:802.11ac VHT20 Frequency:5320MHz
Ant:Chain0



Mode:802.11ac VHT20 Frequency:5260MHz
Ant:Chain1

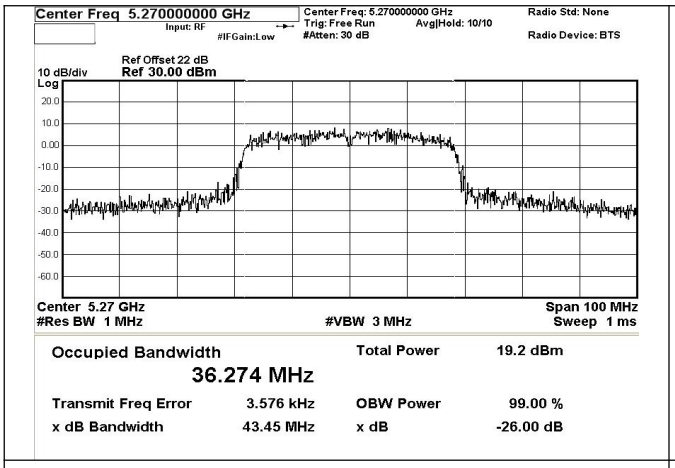


Mode:802.11ac VHT20 Frequency:5280MHz
Ant:Chain1

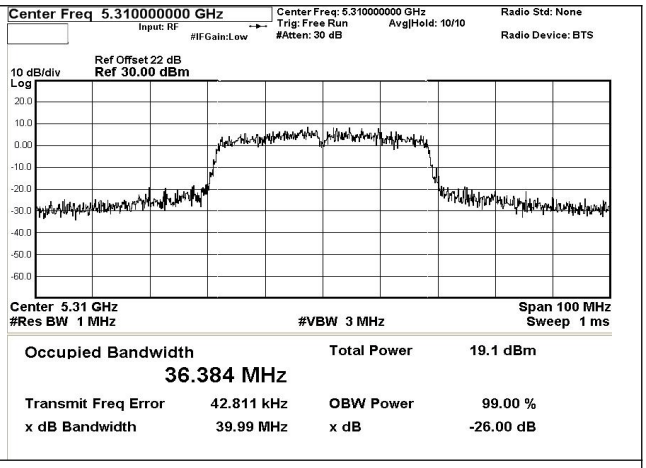


Mode:802.11ac VHT20 Frequency:5320MHz
Ant:Chain1

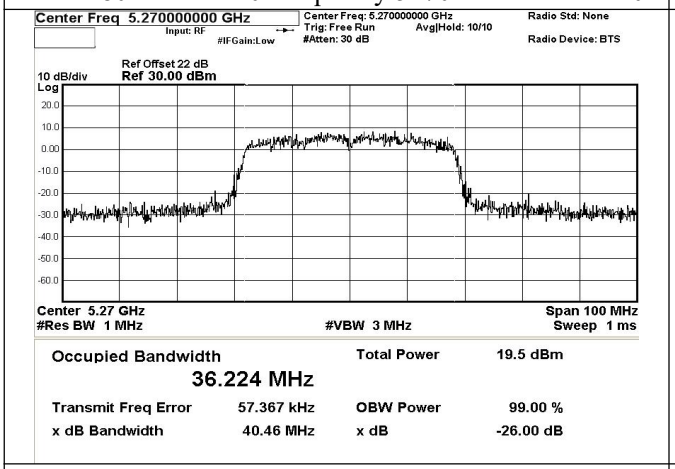
Test Mode: 802.11n HT40



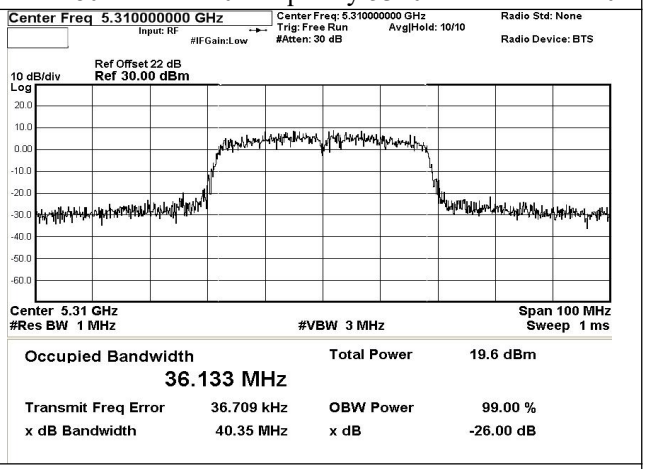
Mode:802.11n HT40 Frequency:5270MHz Ant:Chain0



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

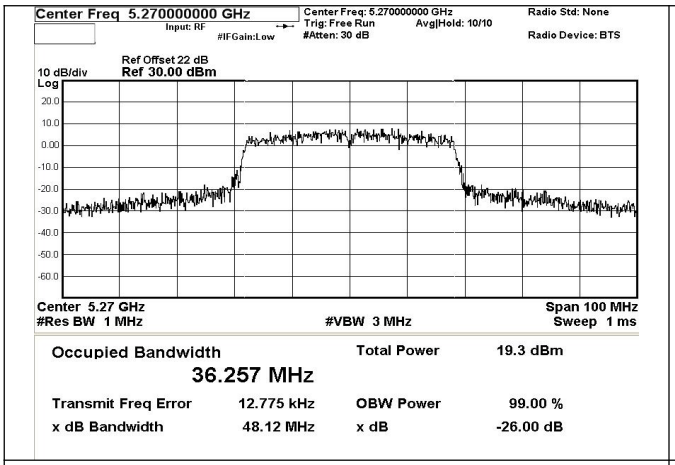


Mode:802.11n HT40 Frequency:5270MHz Ant:Chain1

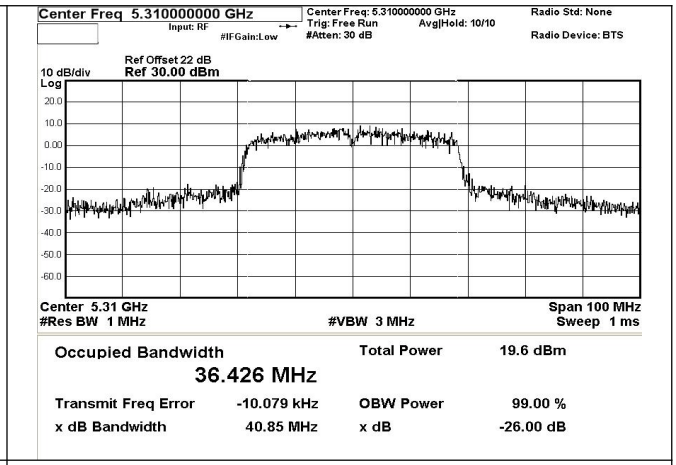


Mode:802.11n HT40 Frequency:5310MHz Ant:Chain1

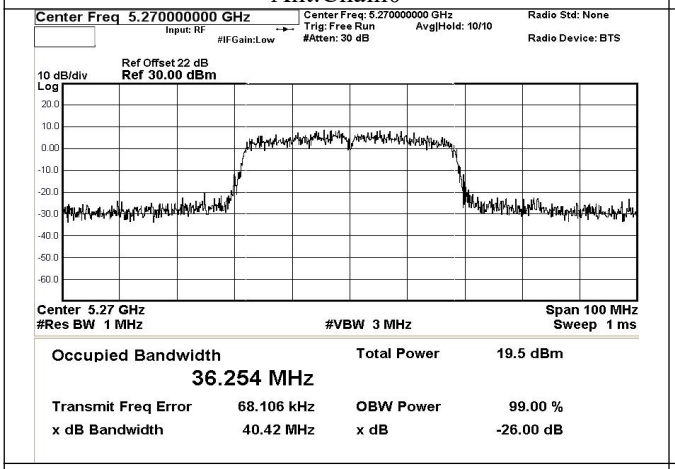
Test Mode: 802.11ac VHT40



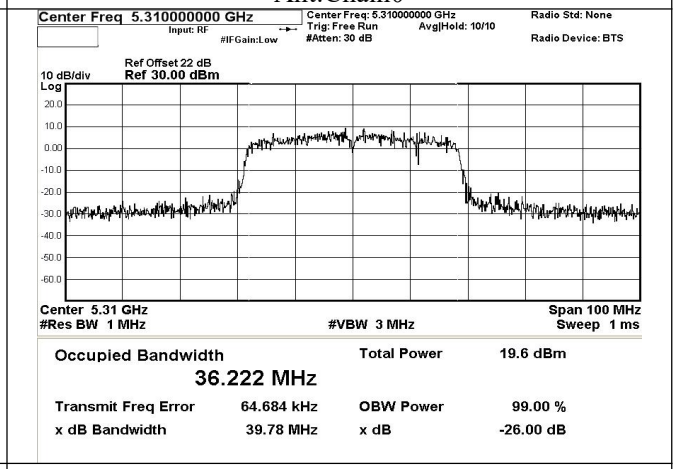
Mode:802.11ac VHT40 Frequency:5270MHz
Ant:Chain0



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

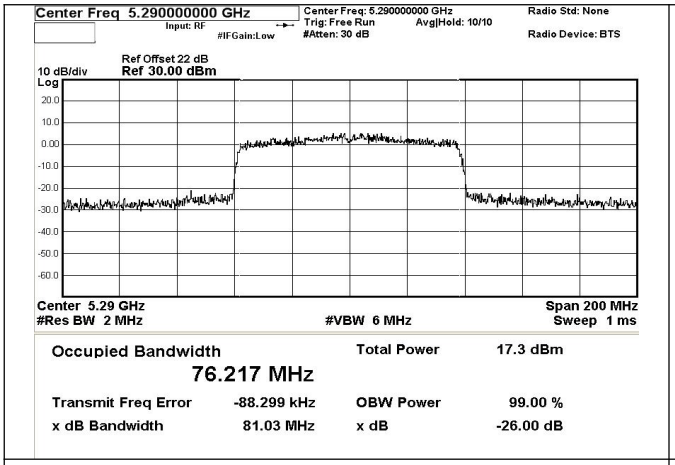


Mode:802.11ac VHT40 Frequency:5270MHz
Ant:Chain1

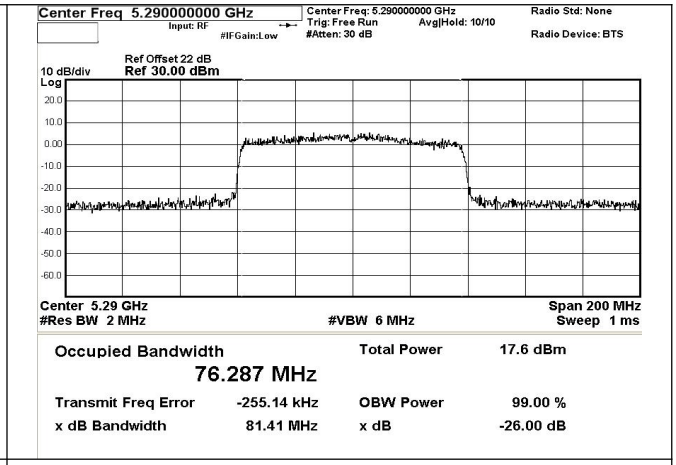


Mode:802.11ac VHT40 Frequency:5310MHz
Ant:Chain1

Test Mode: 802.11ac VHT80



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



Mode:802.11ac VHT80 Frequency:5290MHz
Ant:Chain1

Occupied Bandwidth

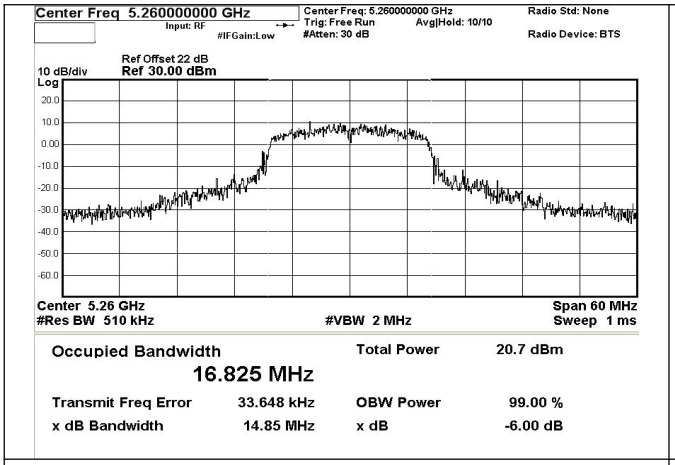
Offset 22dB = Attenuator + Temporary antenna connector loss + Cable loss

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5260MHz	5280MHz	5320MHz
802.11a	Chain0	16.825	16.828	16.635
802.11a	Chain1	16.742	16.616	16.634
802.11n HT20	Chain0	17.872	18.042	17.718
802.11n HT20	Chain1	17.819	17.691	17.728
802.11ac VHT20	Chain0	17.899	17.796	17.918
802.11ac VHT20	Chain1	17.857	17.730	17.701

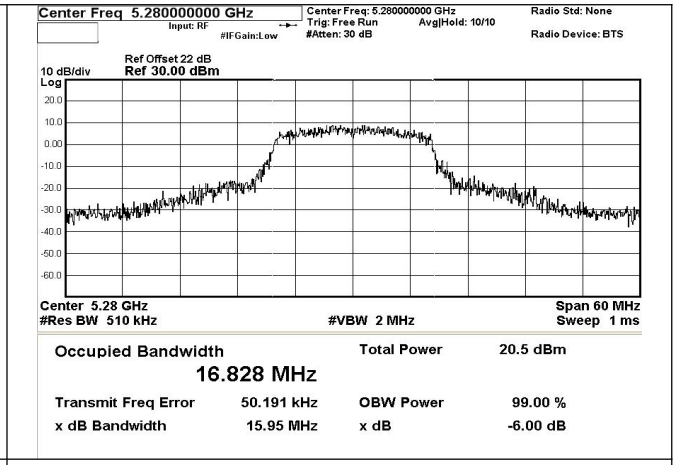
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5270MHz	---	5310MHz
802.11n HT40	Chain0	36.339	---	36.223
802.11n HT40	Chain1	36.255	---	36.184
802.11ac VHT40	Chain0	36.303	---	36.344
802.11ac VHT40	Chain1	36.159	---	36.235

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		5290MHz	---	---
802.11ac VHT80	Chain0	76.316	---	---
802.11ac VHT80	Chain1	76.203	---	---

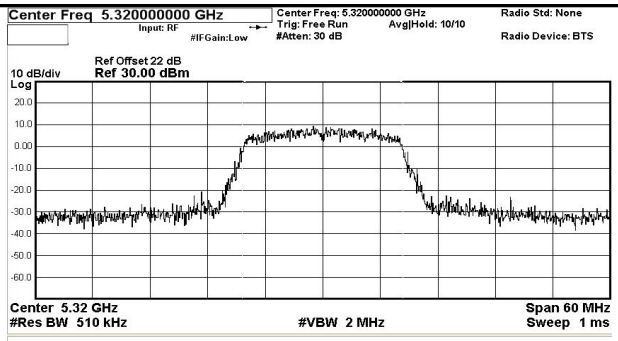
Test Mode: 802.11a



Mode:802.11a Frequency:5260MHz Ant:Chain0

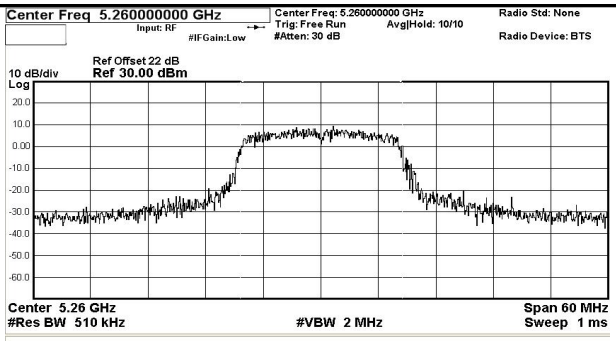


Mode:802.11a Frequency:5280MHz Ant:Chain0



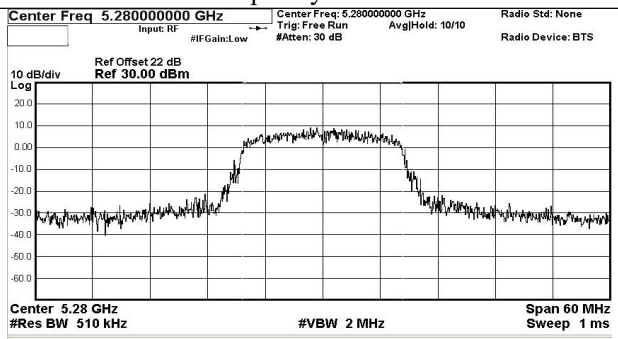
Occupied Bandwidth		Total Power	20.3 dBm
16.635 MHz			
Transmit Freq Error	32.486 kHz	OBW Power	99.00 %
x dB Bandwidth	15.92 MHz	x dB	-6.00 dB

Mode:802.11a Frequency:5320MHz Ant:Chain0



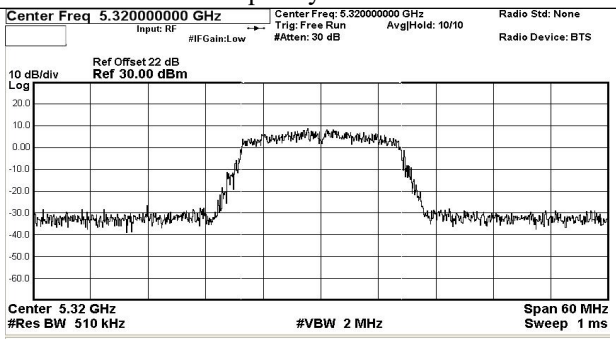
Occupied Bandwidth		Total Power	20.1 dBm
16.742 MHz			
Transmit Freq Error	72.628 kHz	OBW Power	99.00 %
x dB Bandwidth	16.05 MHz	x dB	-6.00 dB

Mode:802.11a Frequency:5260MHz Ant:Chain1



Occupied Bandwidth		Total Power	19.8 dBm
16.616 MHz			
Transmit Freq Error	-8.239 kHz	OBW Power	99.00 %
x dB Bandwidth	15.51 MHz	x dB	-6.00 dB

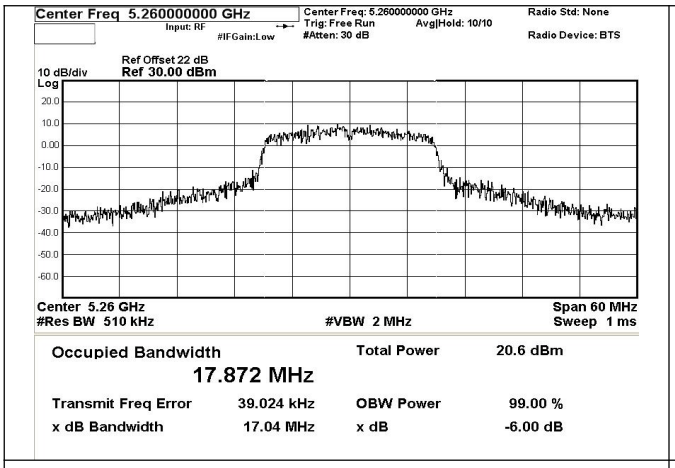
Mode:802.11a Frequency:5280MHz Ant:Chain1



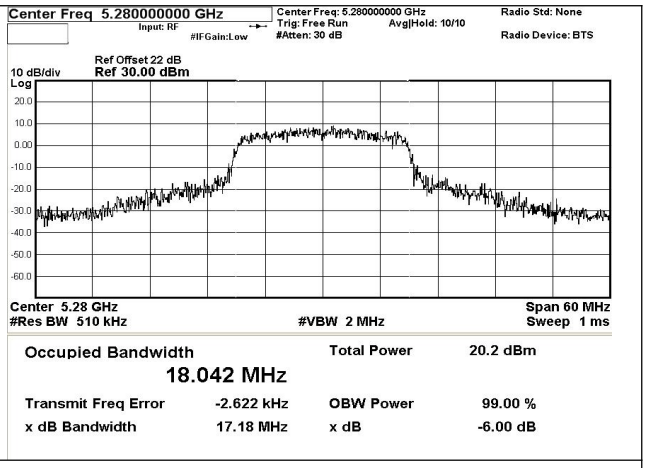
Occupied Bandwidth		Total Power	19.6 dBm
16.634 MHz			
Transmit Freq Error	57.828 kHz	OBW Power	99.00 %
x dB Bandwidth	16.23 MHz	x dB	-6.00 dB

Mode:802.11a Frequency:5320MHz Ant:Chain1

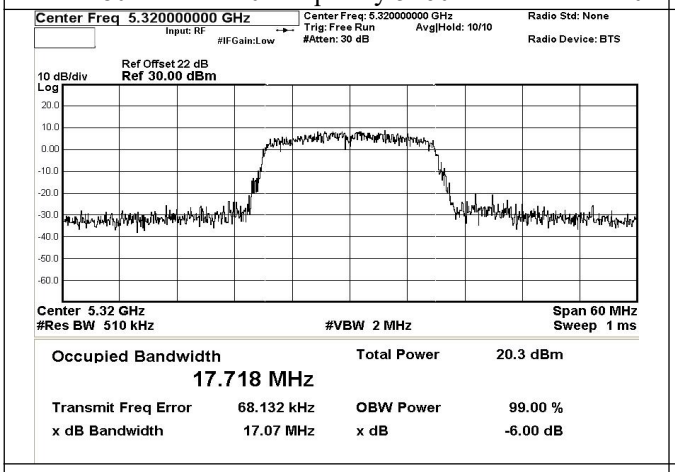
Test Mode: 802.11n HT20



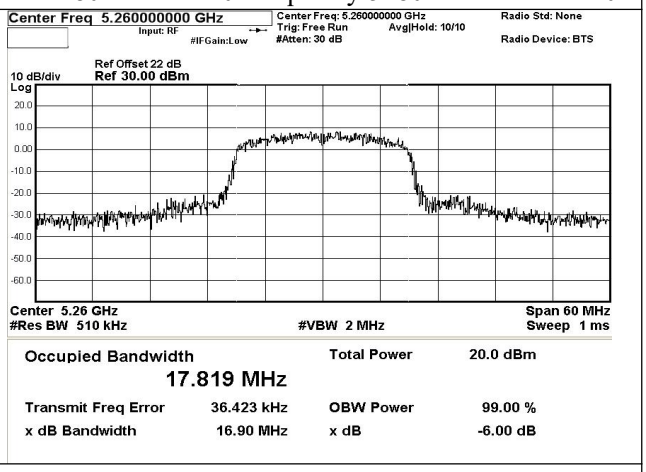
Mode:802.11n HT20 Frequency:5260MHz Ant:Chain0



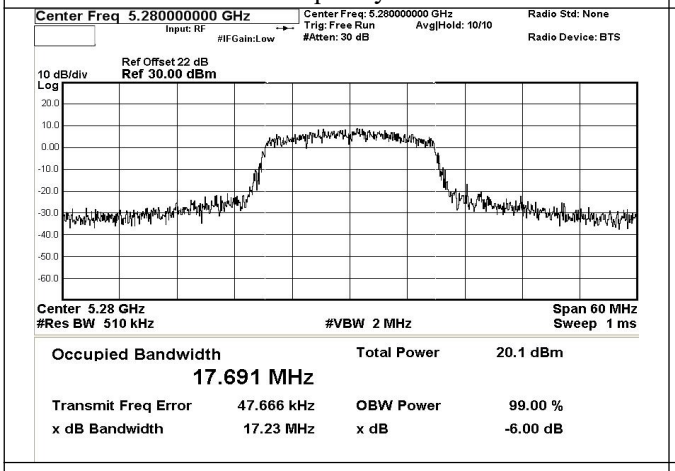
Mode:802.11n HT20 Frequency:5280MHz Ant:Chain0



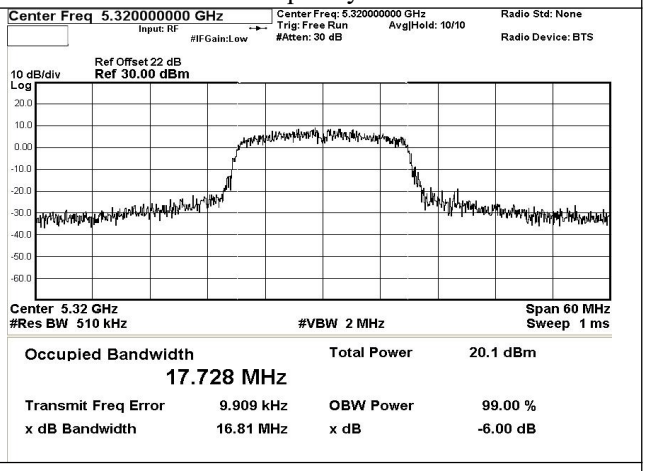
Mode:802.11n HT20 Frequency:5320MHz Ant:Chain0



Mode:802.11n HT20 Frequency:5260MHz Ant:Chain1



Mode:802.11n HT20 Frequency:5280MHz Ant:Chain1



Mode:802.11n HT20 Frequency:5320MHz Ant:Chain1