

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Output Power
UNII-2A

Mode	Freq (MHz)	Chain	Conducted average power output(dBm)
802.11a	5260	Chain0	15.18
		Chain1	15.34
	5280	Chain0	15.20
		Chain1	15.26
	5320	Chain0	15.34
		Chain1	15.45
802.11n20M	5260	Chain0	14.45
		Chain1	14.70
		Chain0+Chain1	17.59
	5280	Chain0	14.32
		Chain1	14.63
		Chain0+Chain1	17.49
	5320	Chain0	14.44
		Chain1	14.75
		Chain0+Chain1	17.61
802.11n40M	5270	Chain0	13.98
		Chain1	14.68
		Chain0+Chain1	17.35
	5310	Chain0	14.26
		Chain1	14.66
		Chain0+Chain1	17.47
802.11ac20M	5260	Chain0	14.37
		Chain1	14.64
		Chain0+Chain1	17.52
	5280	Chain0	14.38
		Chain1	14.77
		Chain0+Chain1	17.59
	5320	Chain0	14.29
		Chain1	14.53
		Chain0+Chain1	17.42
802.11ac40M	5270	Chain0	14.51
		Chain1	14.37
		Chain0+Chain1	17.45

	5310	Chain0	14.33
		Chain1	14.19
		Chain0+Chain1	17.27
802.11ac80M	5290	Chain0	13.93
		Chain1	14.30
		Chain0+Chain1	17.13

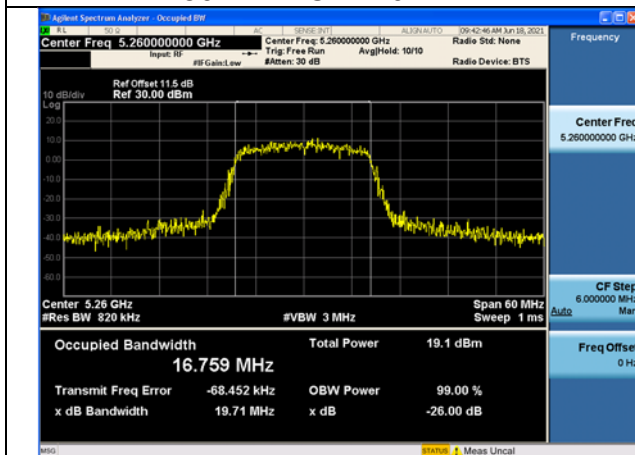
Emission Bandwidth

Offset 11.5dB = Attenuator 10dB+ Temporary antenna connector loss 0.5dB+ Cable loss 1dB

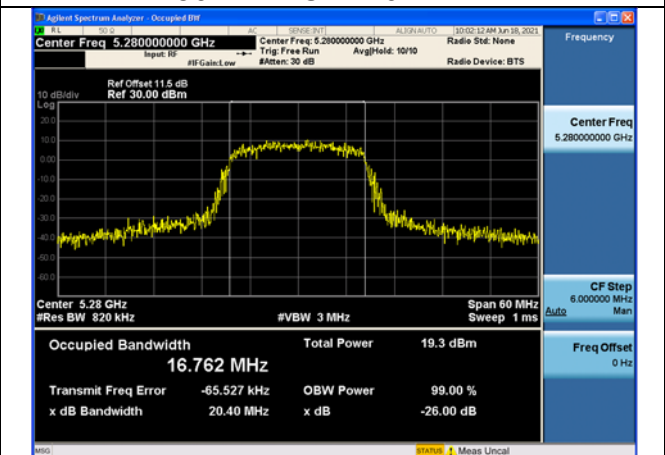
Test Mode:802.11a

Carrier frequency (MHz)	Chain	26dB Bandwidth (MHz)
5260	Chain0	19.71
	Chain1	20.03
5280	Chain0	20.40
	Chain1	20.20
5320	Chain0	19.86
	Chain1	20.25

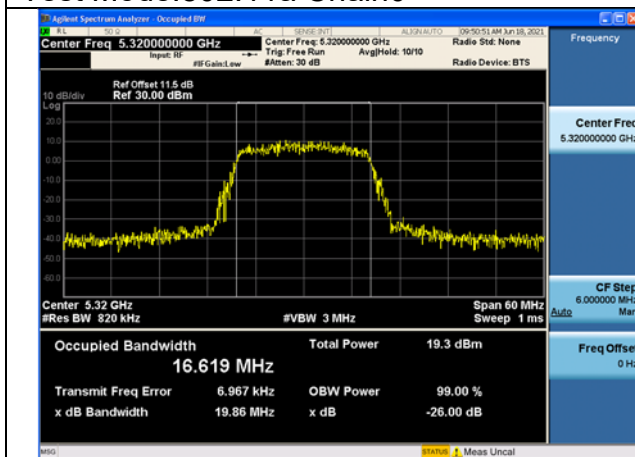
Test Mode:802.11a Chain0



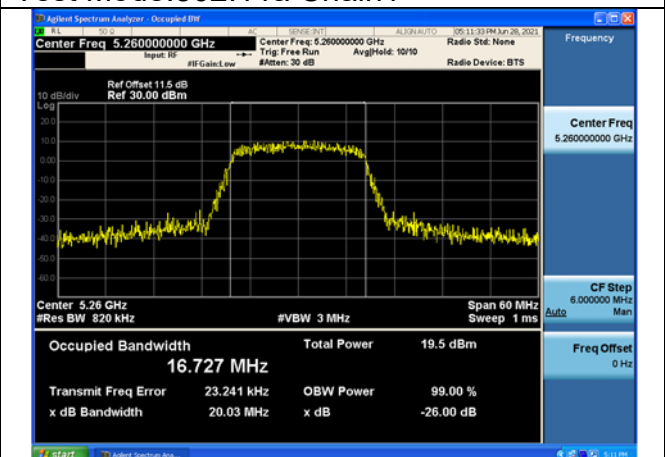
Test Mode:802.11a Chain0



Test Mode:802.11a Chain0

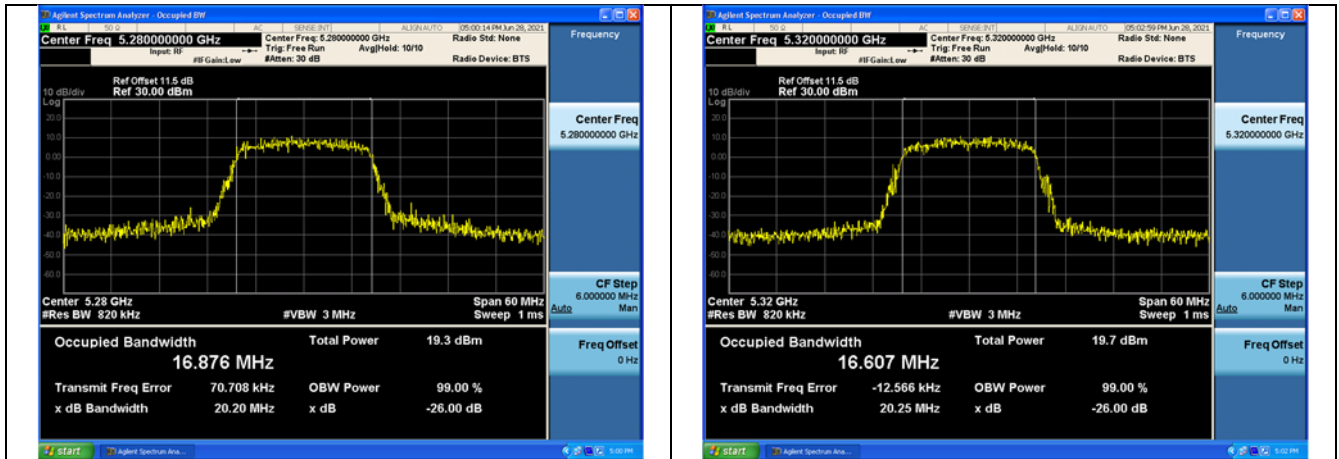


Test Mode:802.11a Chain1



Test Mode:802.11a Chain1

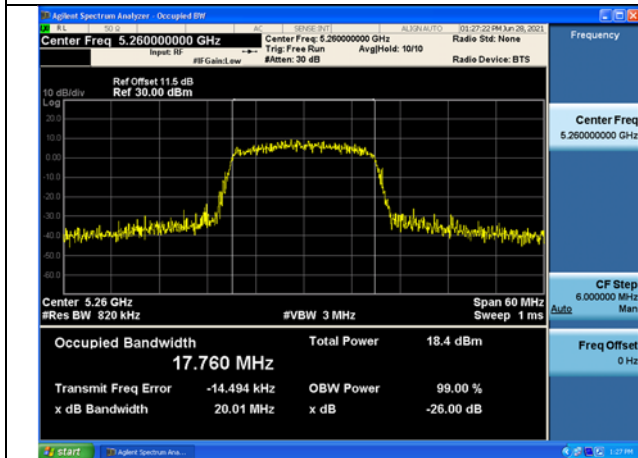
Test Mode:802.11a Chain1



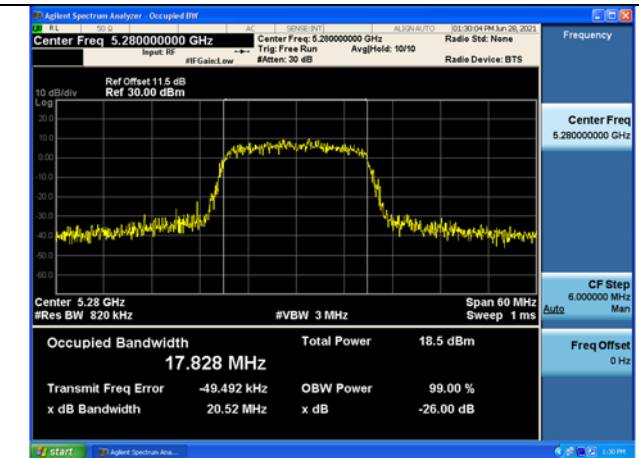
Test Mode:802. 11n HT20

Carrier frequency (MHz)	Chain	26dB Bandwidth (MHz)
5260	Chain0	20.01
	Chain1	20.46
5280	Chain0	20.52
	Chain1	20.53
5320	Chain0	20.22
	Chain1	20.57

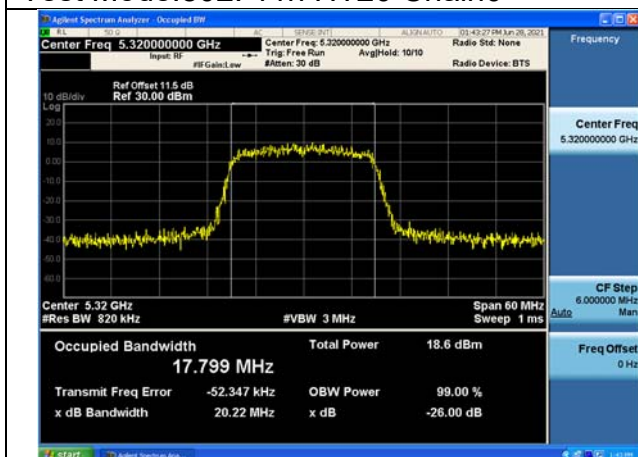
Test Mode:802. 11n HT20 Chain0



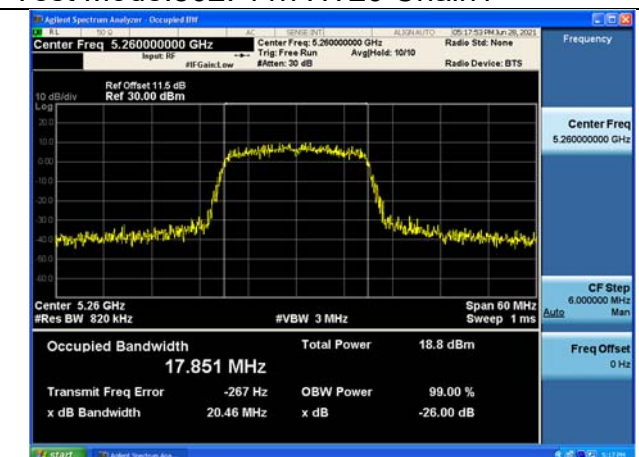
Test Mode:802. 11n HT20 Chain0



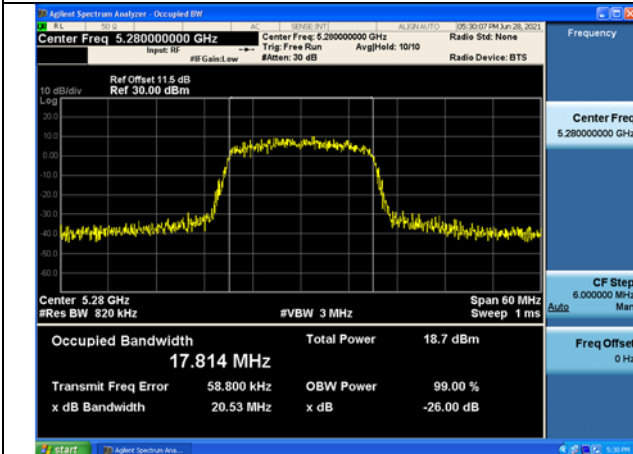
Test Mode:802. 11n HT20 Chain0



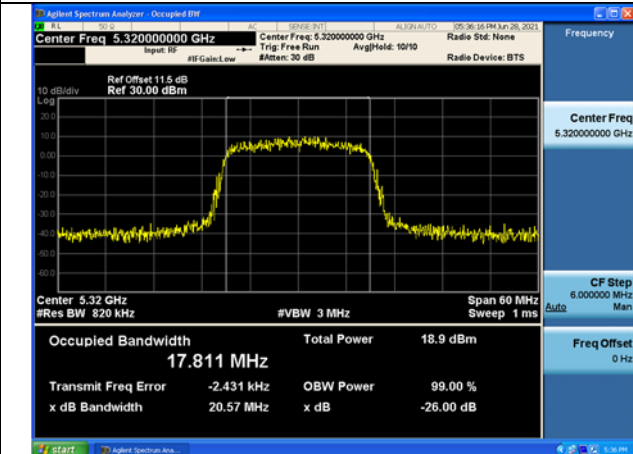
Test Mode:802. 11n HT20 Chain1



Test Mode:802. 11n HT20 Chain1



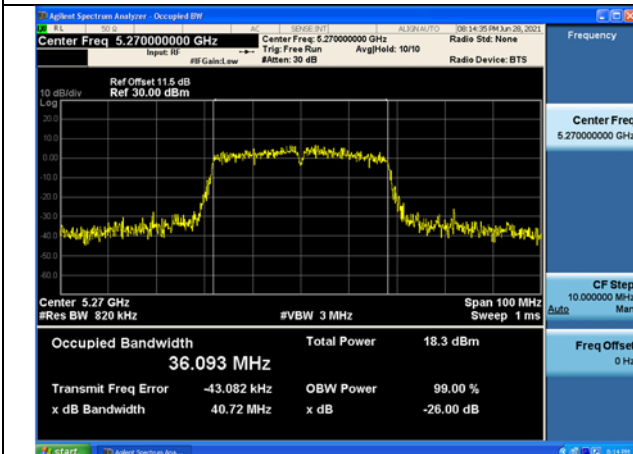
Test Mode:802. 11n HT20 Chain1



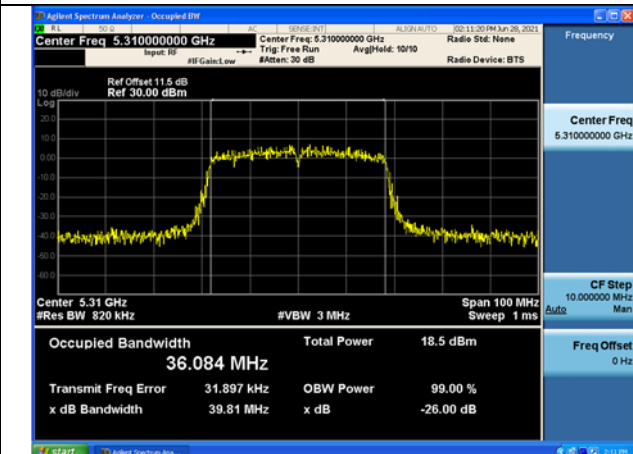
Test Mode:802. 11n HT40

Carrier frequency (MHz)	Chain	26dB Bandwidth (MHz)
5270	Chain0	40.72
	Chain1	39.98
5310	Chain0	39.81
	Chain1	39.76

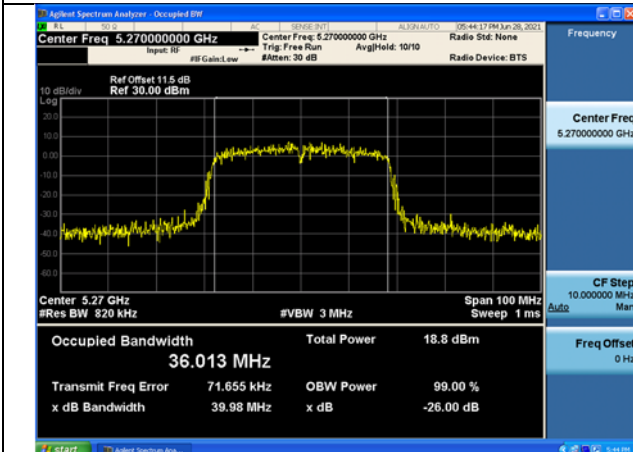
Test Mode:802. 11n HT40 Chain0



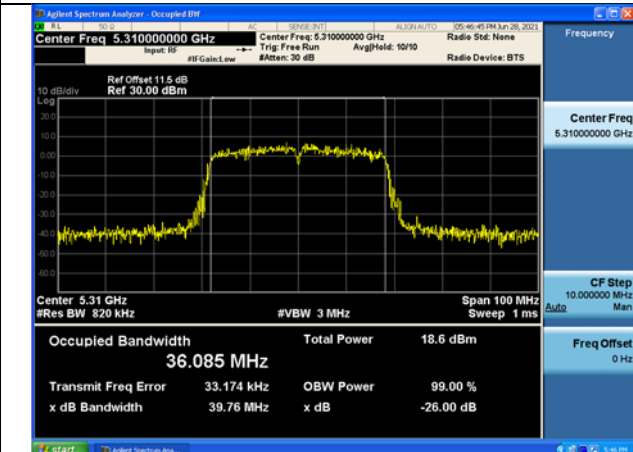
Test Mode:802. 11n HT40 Chain0



Test Mode:802. 11n HT40 Chain1



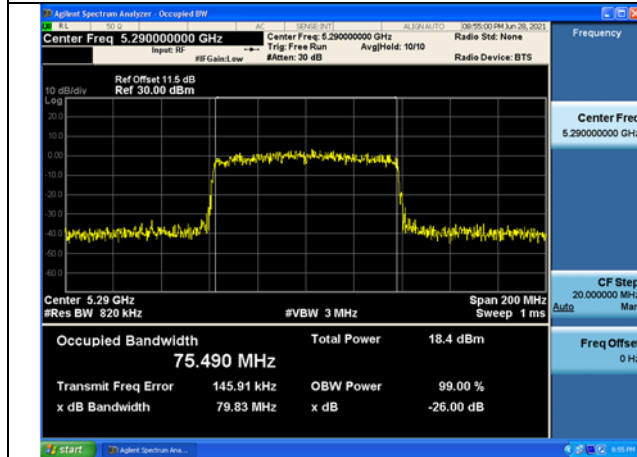
Test Mode:802. 11n HT40 Chain1



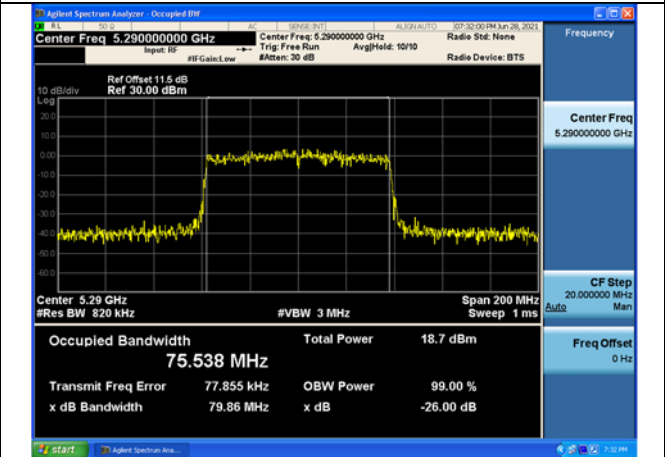
Test Mode:802. 11ac VHT80

Carrier frequency (MHz)	Chain	26dB Bandwidth (MHz)
5290	Chain0	79.83
	Chain1	79.86

Test Mode:802. 11ac VHT80 Chain0



Test Mode:802. 11ac VHT80 Chain1



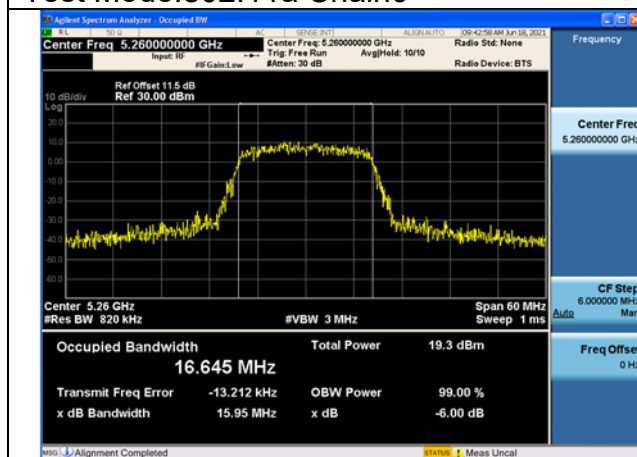
Occupied Bandwidth

Offset 11.5dB = Attenuator 10dB+ Temporary antenna connector loss 0.5dB+ Cable loss 1dB

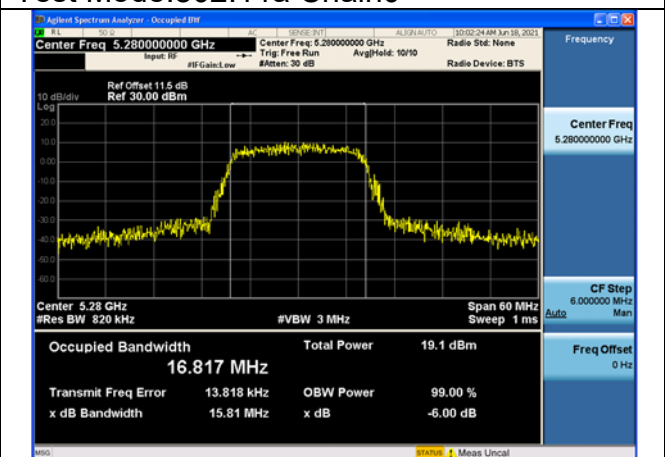
Test Mode:802.11a

Carrier frequency (MHz)	Chain	Occupied Bandwidth (MHz)
5260	Chain0	16.645
	Chain1	16.685
5280	Chain0	16.817
	Chain1	16.801
5320	Chain0	16.710
	Chain1	16.657

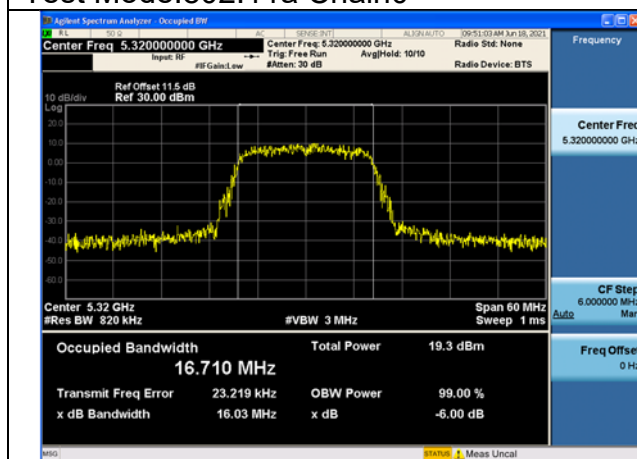
Test Mode:802.11a Chain0



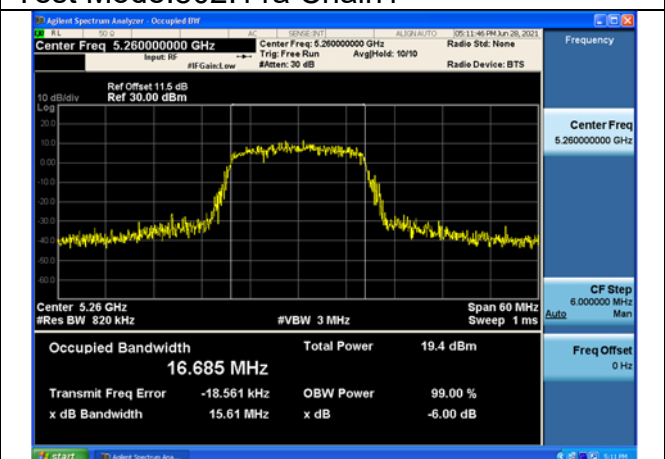
Test Mode:802.11a Chain0



Test Mode:802.11a Chain0

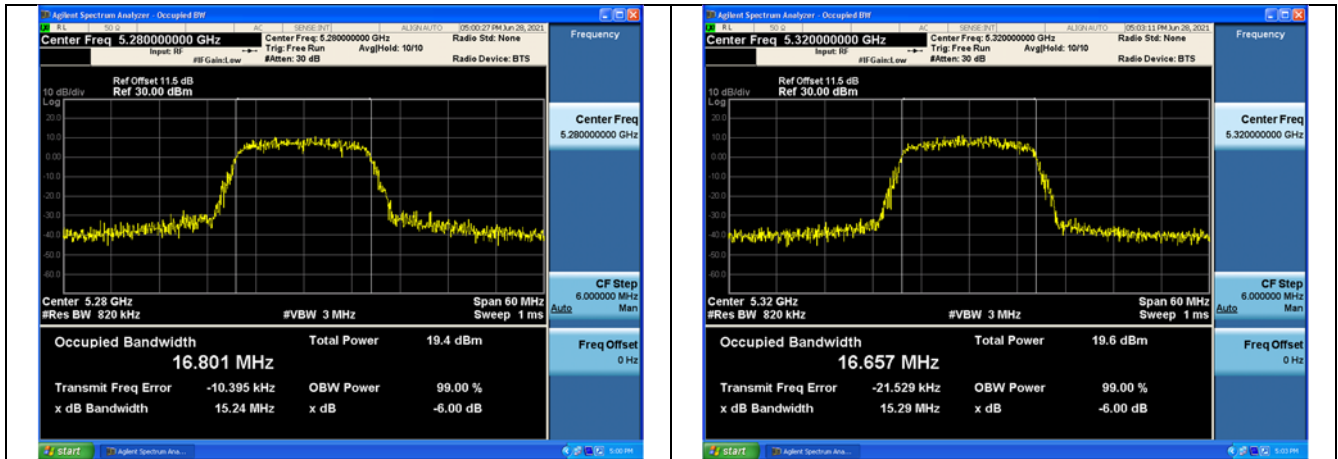


Test Mode:802.11a Chain1



Test Mode:802.11a Chain1

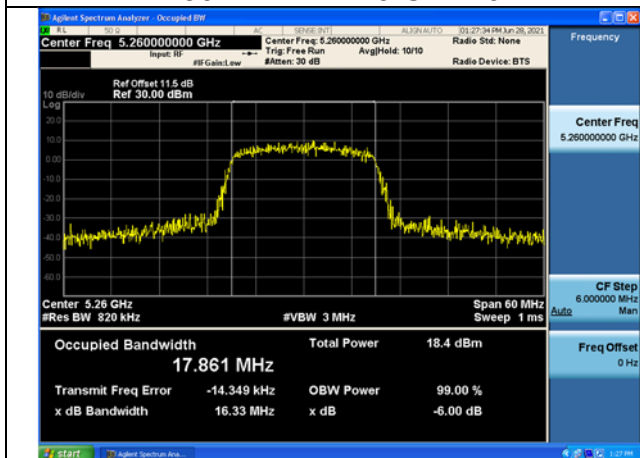
Test Mode:802.11a Chain1



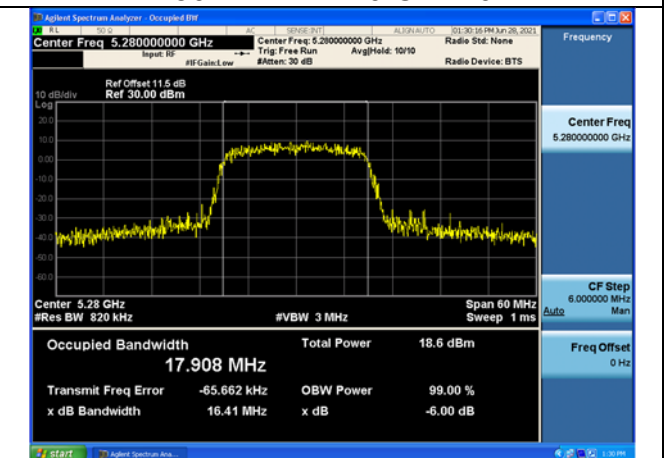
Test Mode:802. 11n HT20

Carrier frequency (MHz)	Chain	Occupied Bandwidth (MHz)
5260	Chain0	17.861
	Chain1	17.795
5280	Chain0	17.908
	Chain1	17.894
5320	Chain0	17.827
	Chain1	17.895

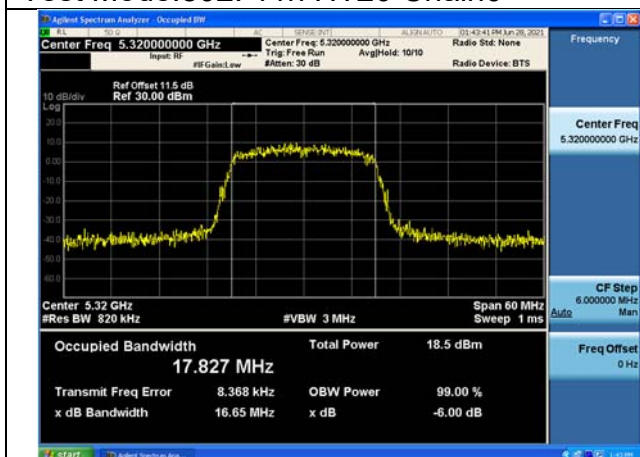
Test Mode:802. 11n HT20 Chain0



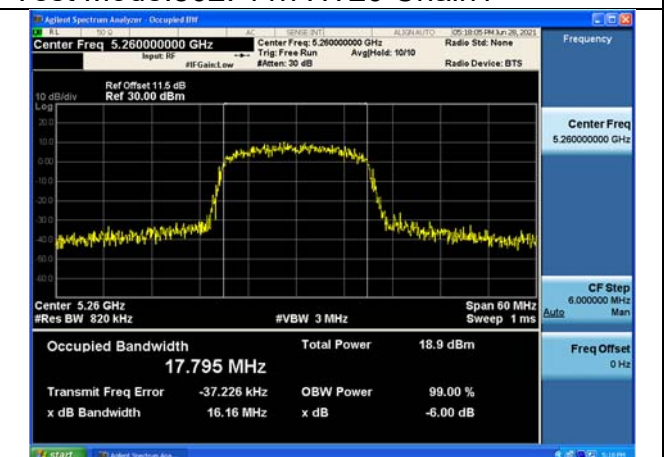
Test Mode:802. 11n HT20 Chain0



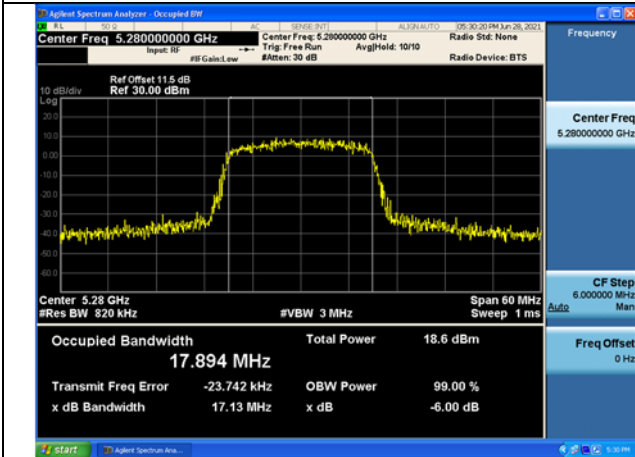
Test Mode:802. 11n HT20 Chain0



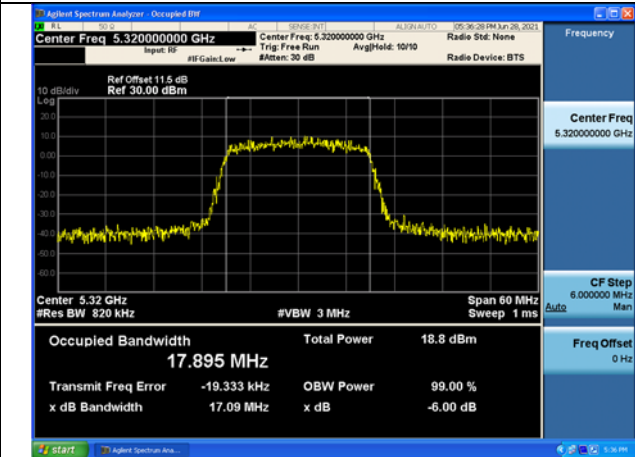
Test Mode:802. 11n HT20 Chain1



Test Mode:802. 11n HT20 Chain1



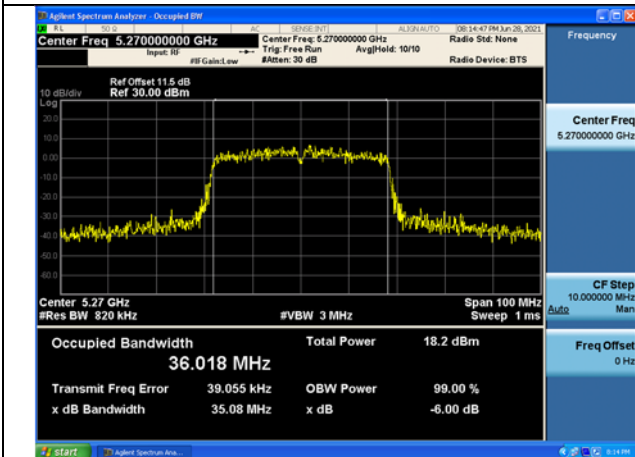
Test Mode:802. 11n HT20 Chain1



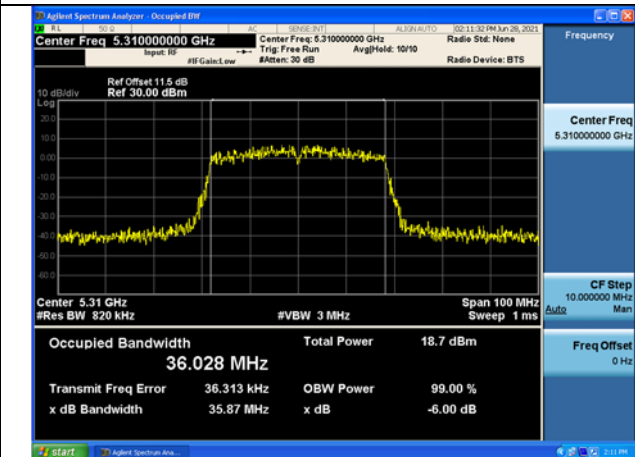
Test Mode:802. 11n HT40

Carrier frequency (MHz)	Chain	Occupied Bandwidth (MHz)
5270	Chain0	36.018
	Chain1	35.979
5310	Chain0	36.028
	Chain1	35.971

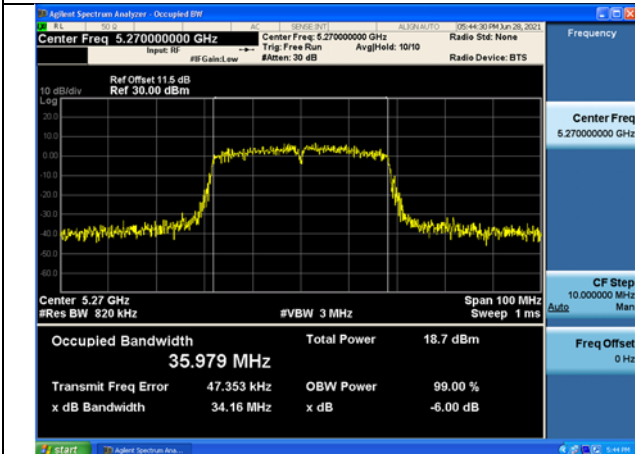
Test Mode:802. 11n HT40 Chain0



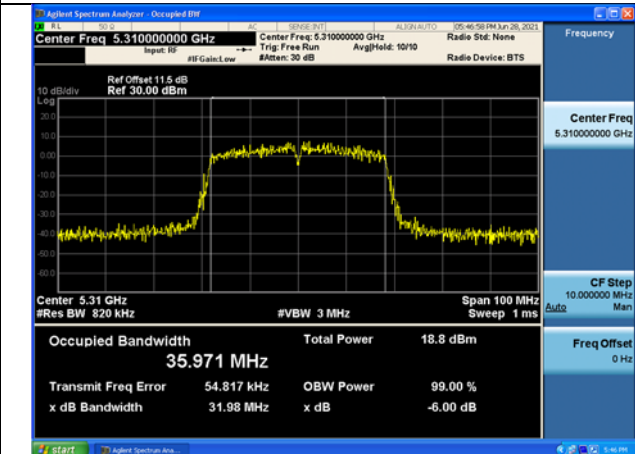
Test Mode:802. 11n HT40 Chain0



Test Mode:802. 11n HT40 Chain1



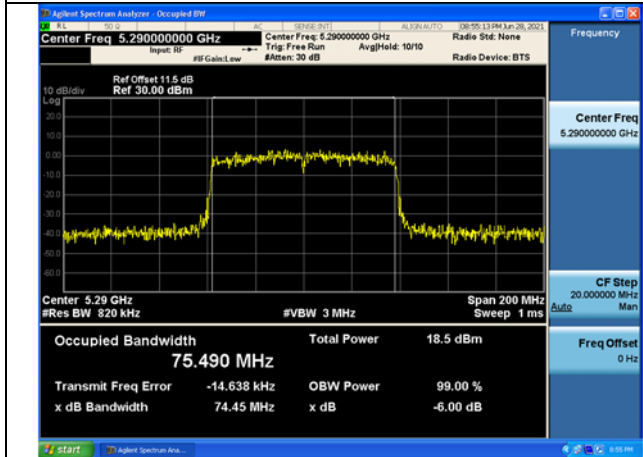
Test Mode:802. 11n HT40 Chain1



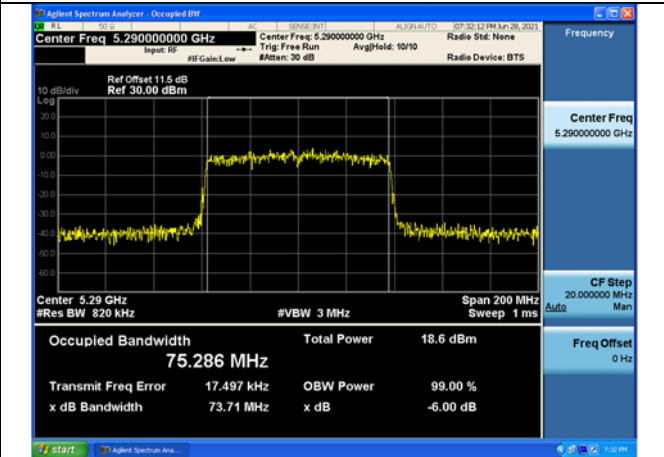
Test Mode:802. 11ac VHT80

Carrier frequency (MHz)	Chain	Occupied Bandwidth (MHz)
5290	Chain0	75.490
	Chain1	75.286

Test Mode:802. 11ac VHT80 Chain0



Test Mode:802. 11ac VHT80 Chain1



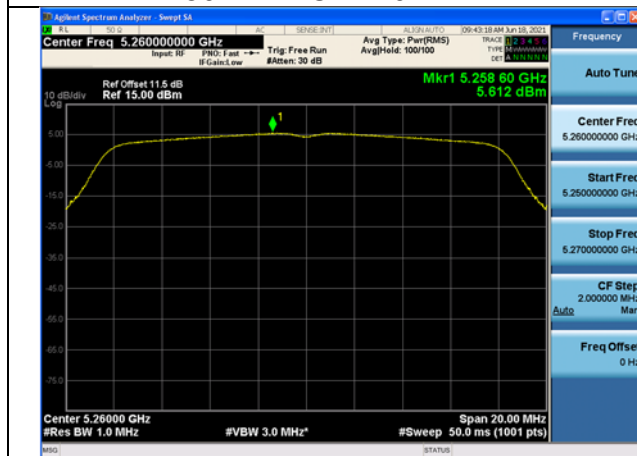
Transmitter Power Spectral Density

Offset 11.5dB = Attenuator 10dB+ Temporary antenna connector loss 0.5dB+ Cable loss 1dB

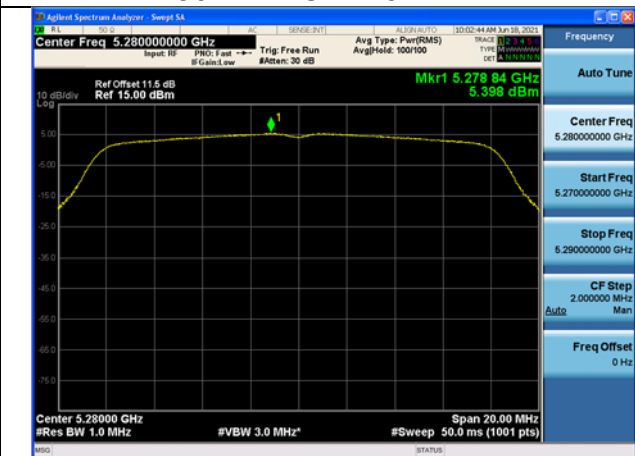
Test Mode:802.11a

Carrier frequency (MHz)	Correction Factor(dB)	Chain	Power Density (dBm)
5260	0.17	Chain0	5.782
		Chain1	5.694
5280		Chain0	5.568
		Chain1	5.694
5320		Chain0	5.777
		Chain1	5.667

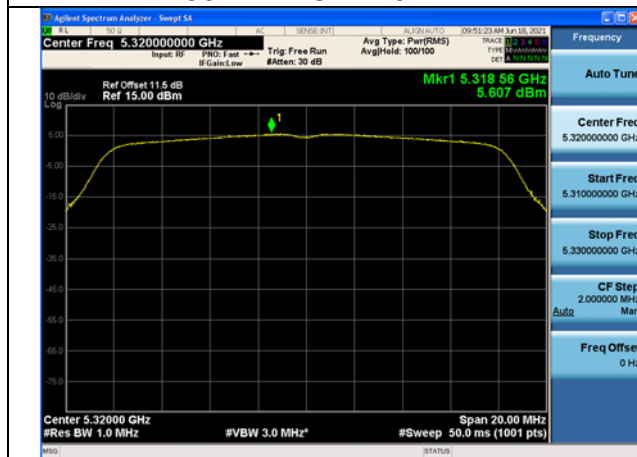
Test Mode:802.11a Chain0



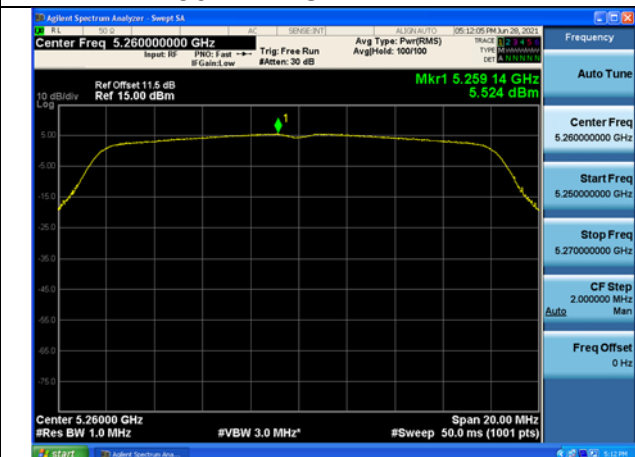
Test Mode:802.11a Chain0



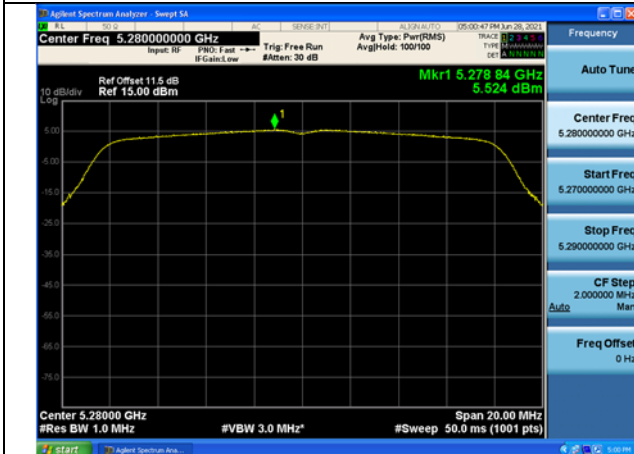
Test Mode:802.11a Chain0



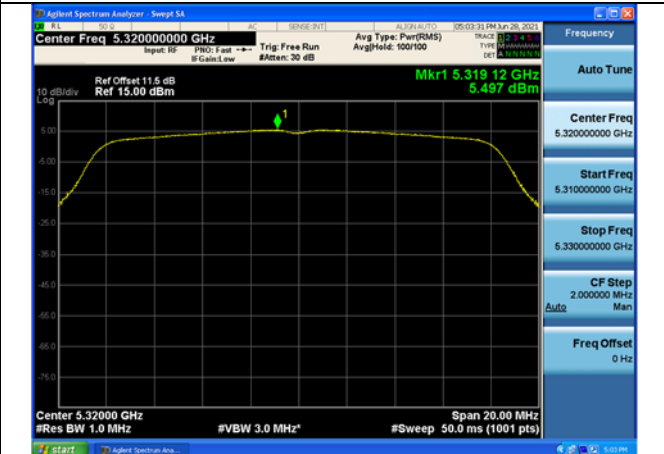
Test Mode:802.11a Chain1



Test Mode:802.11a Chain1



Test Mode:802.11a Chain1



Test Mode:802.11n HT20

Carrier frequency (MHz)	Correction Factor(dB)	Chain	Power Density (dBm)
5260	0.18	Chain0	4.857
		Chain1	5.030
		Chain0+Chain1	7.955
5280		Chain0	4.734
		Chain1	4.896
		Chain0+Chain1	7.826
5320		Chain0	4.695
		Chain1	4.998
		Chain0+Chain1	7.859

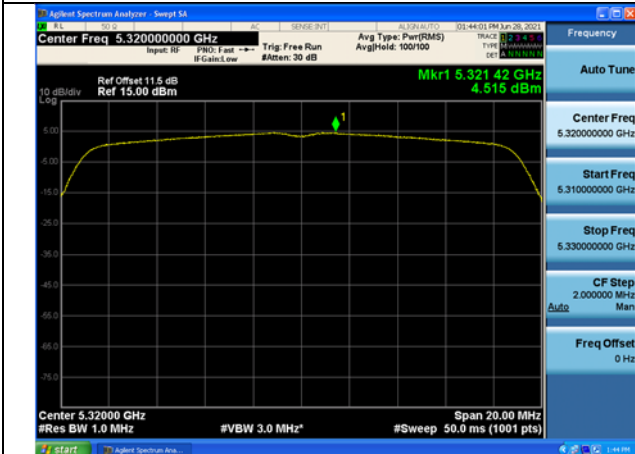
Test Mode:802.11n HT20 Chain0



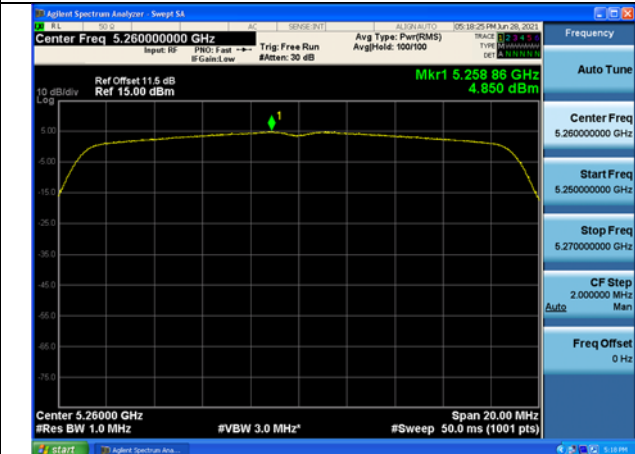
Test Mode:802.11n HT20 Chain0



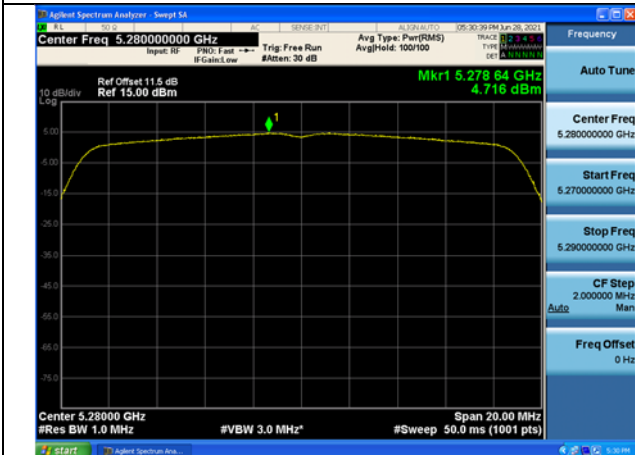
Test Mode:802. 11n HT20 Chain0



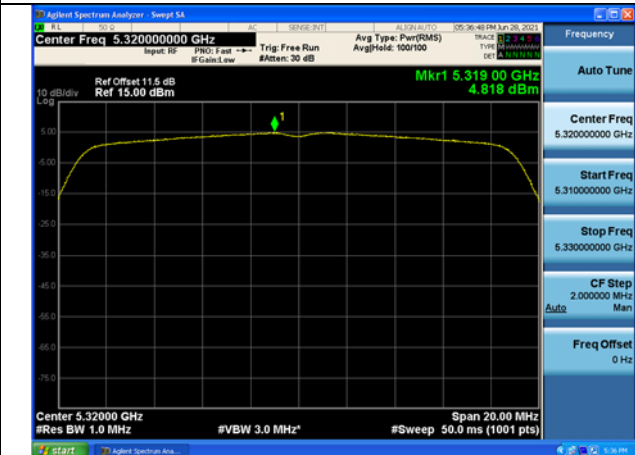
Test Mode:802. 11n HT20 Chain1



Test Mode:802. 11n HT20 Chain1



Test Mode:802. 11n HT20 Chain1



Test Mode:802. 11n HT40

Carrier frequency (MHz)	Correction Factor(dB)	Chain	Power Density (dBm)
5270	0.37	Chain0	1.721
		Chain1	2.335
		Chain0+Chain1	5.049
5310		Chain0	1.890
		Chain1	2.227
		Chain0+Chain1	5.072

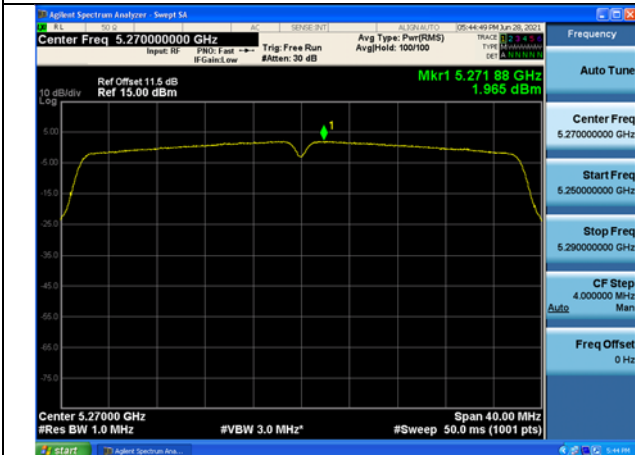
Test Mode:802. 11n HT40 Chain0



Test Mode:802. 11n HT40 Chain0



Test Mode:802. 11n HT40 Chain1



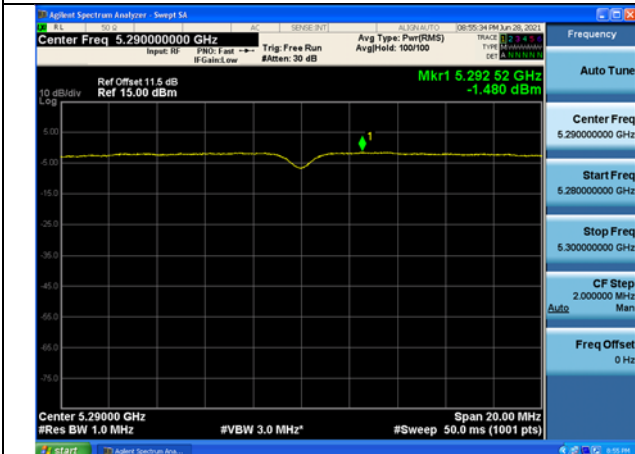
Test Mode:802. 11n HT40 Chain1



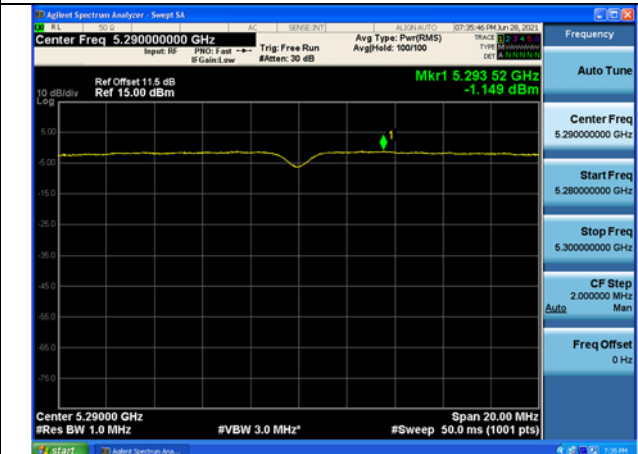
Test Mode:802. 11ac VHT80

Carrier frequency (MHz)	Correction Factor(dB)	Chain	Power Density (dBm)
5290	0.74	Chain0	-0.740
		Chain1	-0.409
		Chain0+Chain1	2.319

Test Mode:802. 11ac VHT80 Chain0



Test Mode:802. 11ac VHT80 Chain1



Frequency Stability
UNII-2A

Mode	Data Rate	Chain	Center Frequency (MHz)	Measured Frequency (MHz)	Frequency Stability (ppm)	Voltage (V)	Temperature (°C)
802.11a	6Mbps	Chain0	5260	5260.078840	14.99	NV	-10
			5260	5260.014080	2.68	NV	0
			5260	5260.076365	14.52	NV	+10
			5260	5259.957747	-8.03	NV	+20
			5260	5259.992082	-1.51	HV	+20
			5260	5259.930386	-13.23	LV	+20
			5260	5259.961070	-7.40	NV	+30
			5260	5260.044898	8.54	NV	+40
			5260	5259.944548	-10.54	NV	+50
			5260	5260.002225	0.42	NV	+60
		Chain1	5260	5260.033510	6.37	NV	+70
			5260	5260.055385	10.53	NV	-10
			5260	5259.949561	-9.59	NV	0
			5260	5260.064458	12.25	NV	+10
			5260	5259.991934	-1.53	NV	+20
			5260	5259.949663	-9.57	HV	+20
			5260	5259.999589	-0.08	LV	+20
			5260	5260.025814	4.91	NV	+30
			5260	5259.967737	-6.13	NV	+40
			5260	5259.958793	-7.83	NV	+50
			5260	5259.927079	-13.86	NV	+60
			5260	5260.077015	14.64	NV	+70

Dynamic Frequency Selection

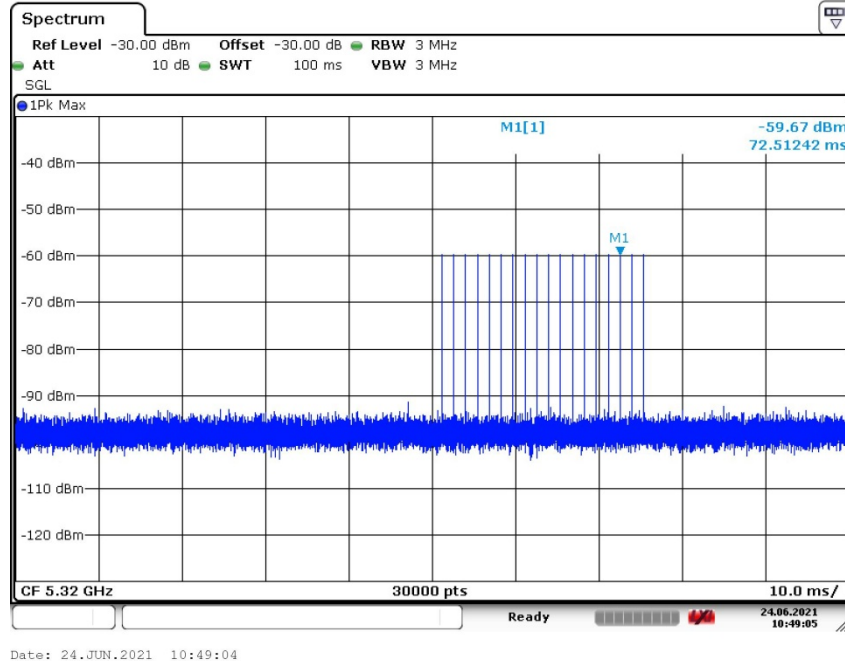
DESCRIPTION OF Master Device

The Master Device is a SKSpruce Technologies Co., Ltd., Indoor Access Point, FCC ID: 2AHKT-WIA3300-20. The rated output power of the Master unit is > 23dBm (EIRP). Therefore the required interference threshold level is -60 dBm.

Radar Waveform Calibration Result

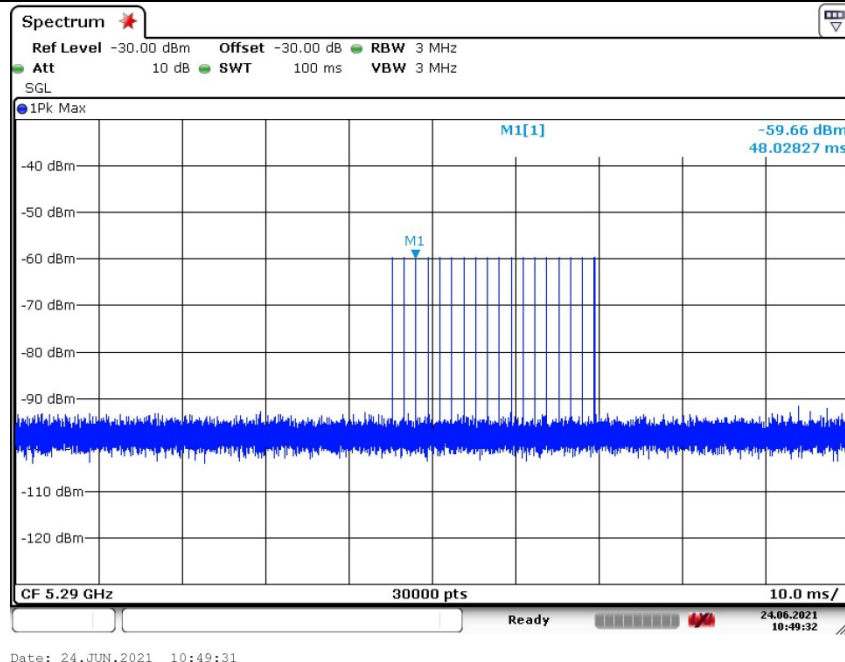
<20MHz / 5320 MHz> Radar Type 0

Radar / DFS detection threshold level and the burst of pulses on the Channel frequency

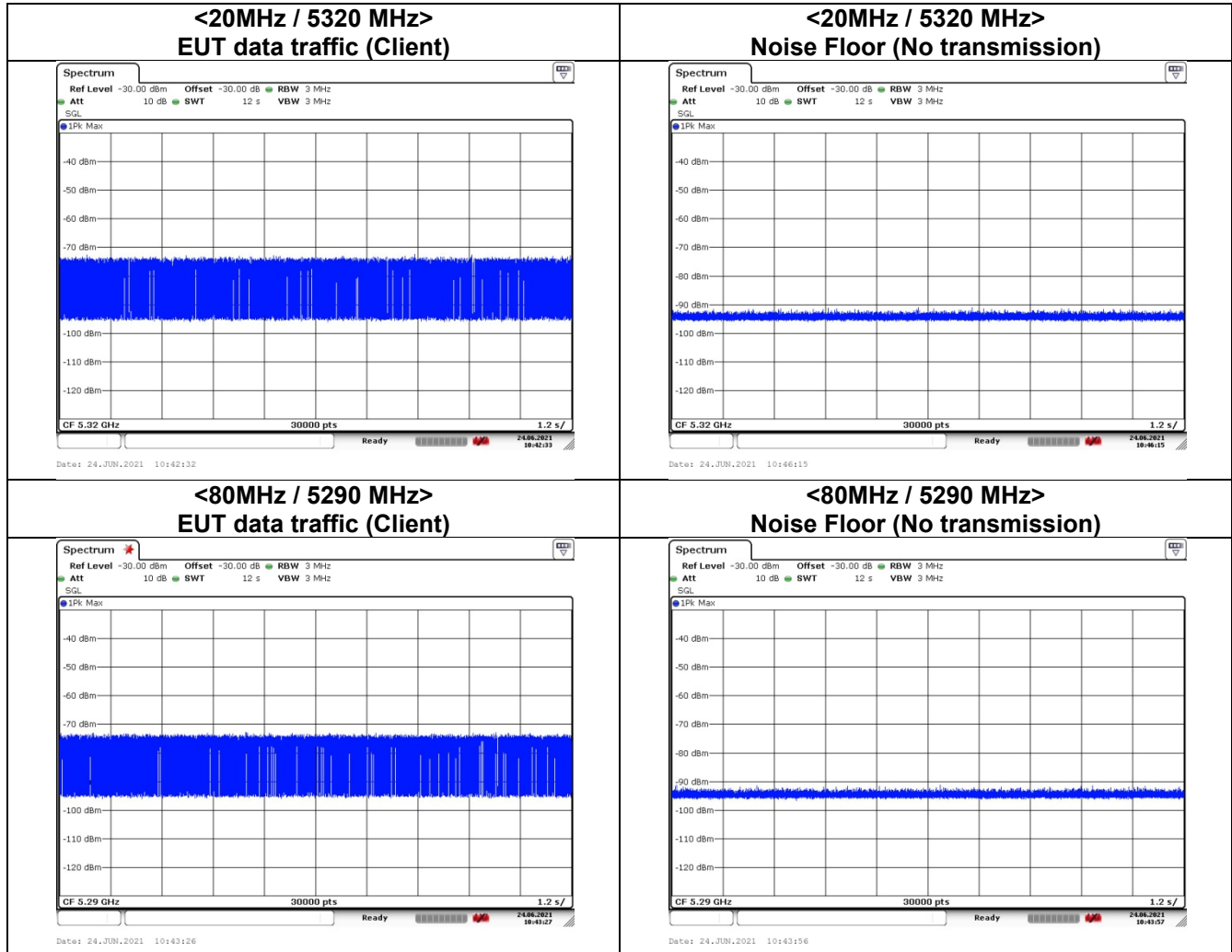


<80MHz / 5290 MHz> Radar Type 0

Radar / DFS detection threshold level and the burst of pulses on the Channel frequency



Data Traffic and Noise Floor Plots



Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test

Frequency	Test Item	Test Result	Limit	Pass/Fail
5320MHz	Channel Move Time	< 10s*	< 10s	Pass
	Channel Closing Transmission Time	200ms +2.8ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass
5290MHz	Channel Move Time	< 10s*	< 10s	Pass
	Channel Closing Transmission Time	200ms +2.4ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass

Note*: We notice clearly that “Channel Move Time” is less than 10s from the figure. The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.