

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)
802.11a	5260	96.98%	0.13
802.11n HT20	5260	97.22%	0.12
802.11n HT40	5270	95.05%	0.22
802.11ac VHT80	5290	91.23%	0.40

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

Output Power

Mode	Tones/ RUIndex	Freq (MHz)	Antenna	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5260	Chain0	7.60	7.21
802.11a	NA	5280	Chain0	8.21	7.82
802.11a	NA	5320	Chain0	8.71	8.32
802.11ac VHT80	NA	5290	Chain0	4.61	4.22
802.11n HT20	NA	5260	Chain0	8.46	8.07
802.11n HT20	NA	5280	Chain0	8.47	8.08
802.11n HT20	NA	5320	Chain0	8.74	8.35
802.11n HT40	NA	5270	Chain0	7.57	7.18
802.11n HT40	NA	5310	Chain0	8.03	7.64

Emission Bandwidth

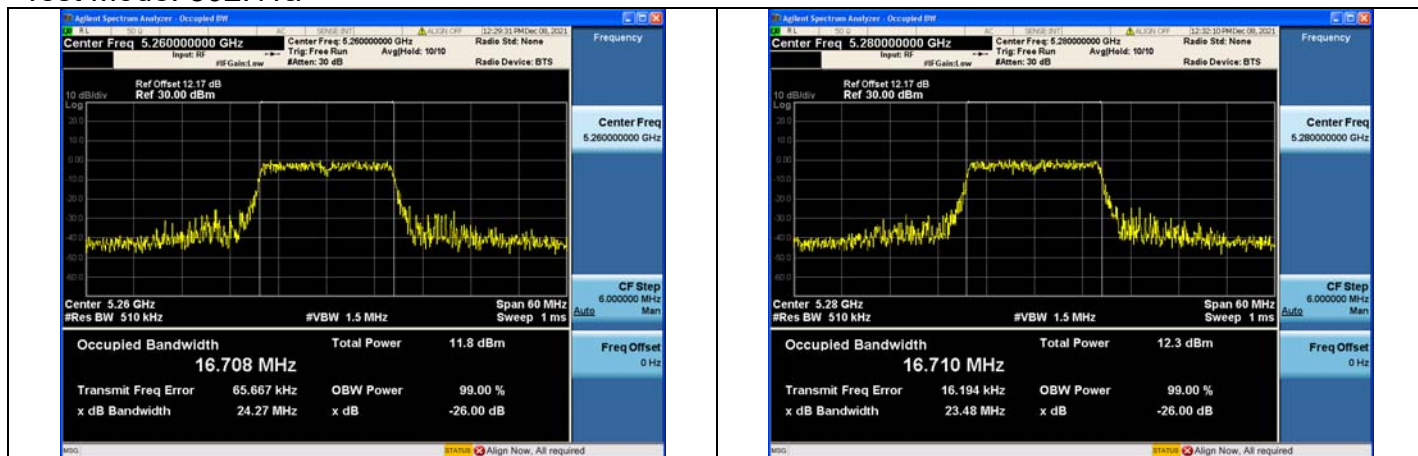
Offset 12.17dB = Attenuator 10dB+ Temporary antenna connector loss 0.5dB+ Cable loss 1.67dB

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.570	Channel No.574	Channel No.582
		5260MHz	5280MHz	5320MHz
802.11a	Chain0	24.27	23.48	24.22
802.11n HT20	Chain0	23.98	20.74	26.97

Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.572	---	Channel No.580
		5270MHz	---	5310MHz
802.11n HT40	Chain0	40.77	---	39.06

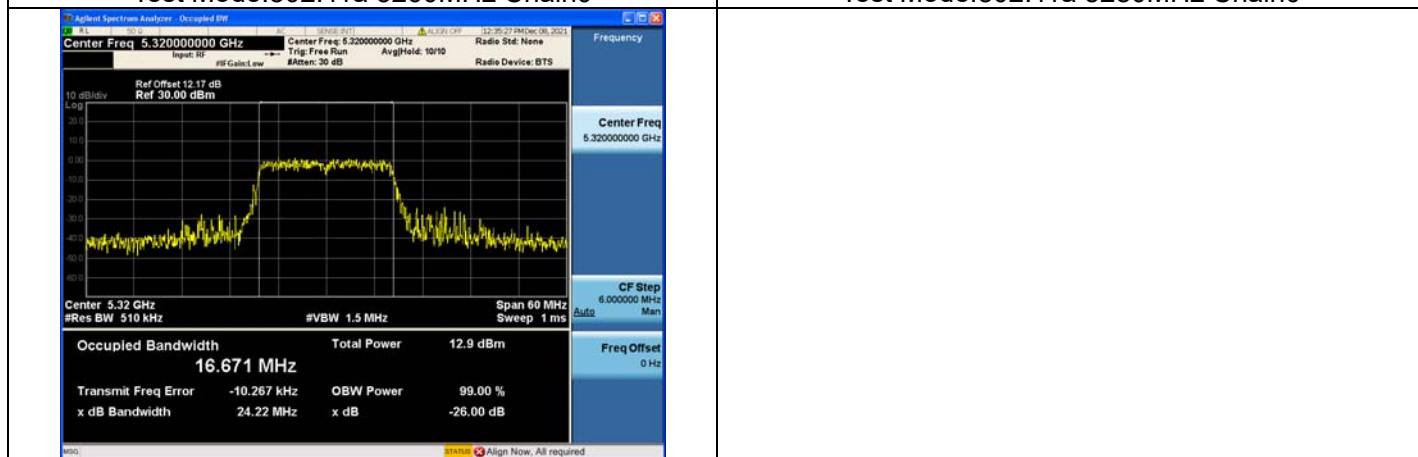
Test Mode	Antenna	26dB Bandwidth (MHz)		
		Channel No.576	---	---
		5290MHz	---	---
802.11ac VHT80	Chain0	80.67	---	---

Test Mode: 802.11a



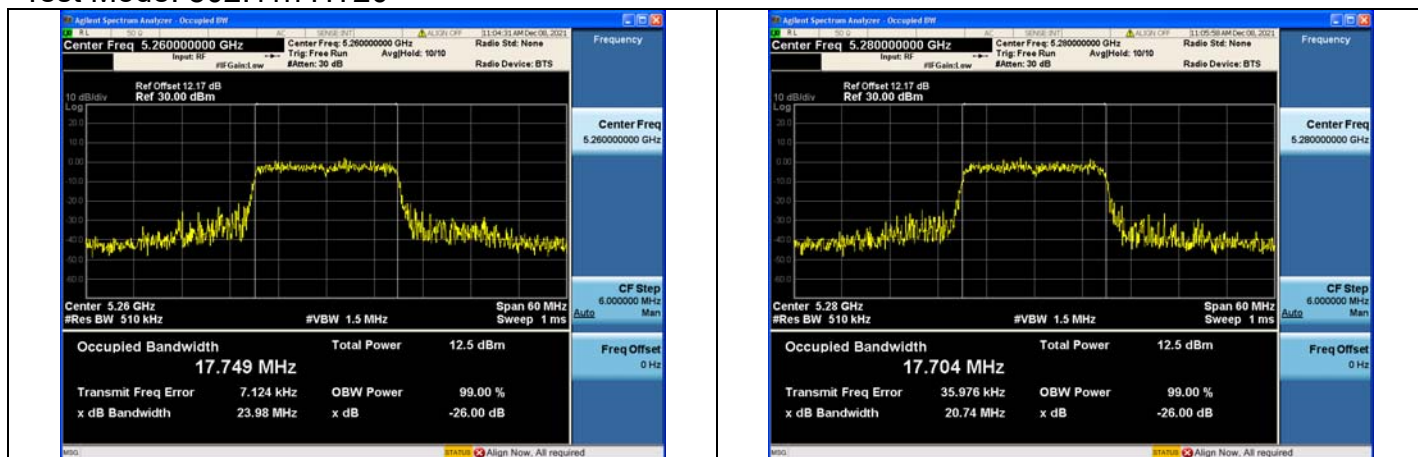
Test Mode:802.11a 5260MHz Chain0

Test Mode:802.11a 5280MHz Chain0



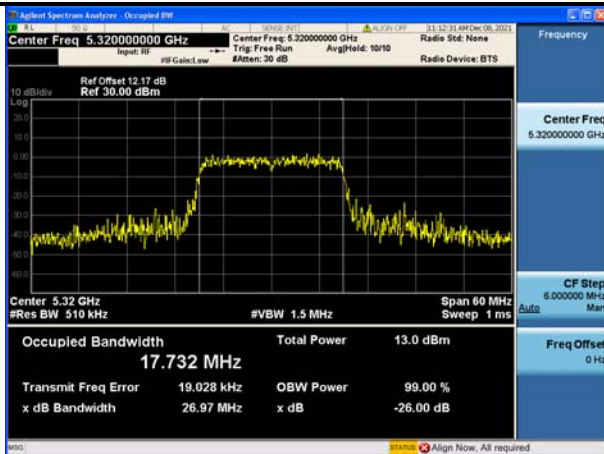
Test Mode:802.11a 5320MHz Chain0

Test Mode: 802.11n HT20



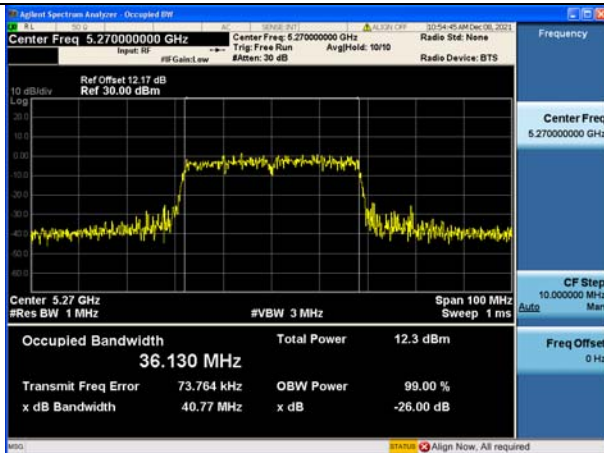
Test Mode:802.11n HT20 5260MHz Chain0

Test Mode:802.11n HT20 5280MHz Chain0

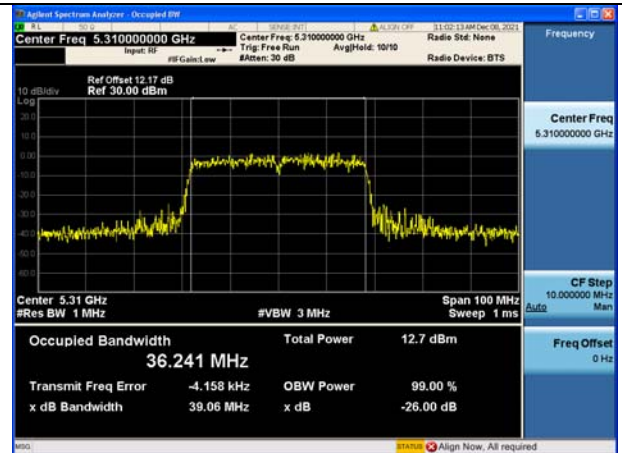


Test Mode:802.11n HT20 5320MHz Chain0

Test Mode: 802.11n HT40

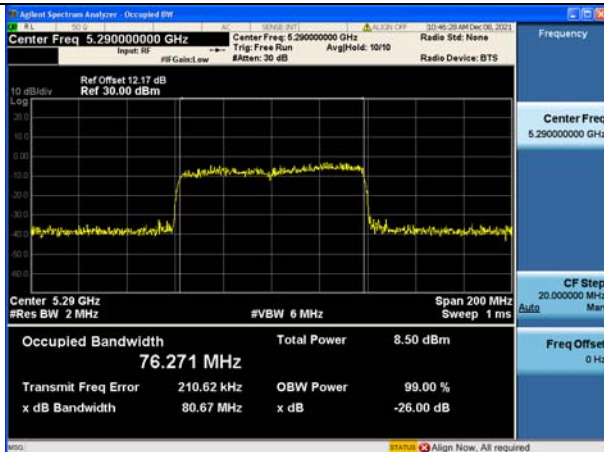


Test Mode:802.11n HT40 5270MHz Chain0



Test Mode:802.11n HT40 5310MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5290MHz Chain0

Occupied Bandwidth

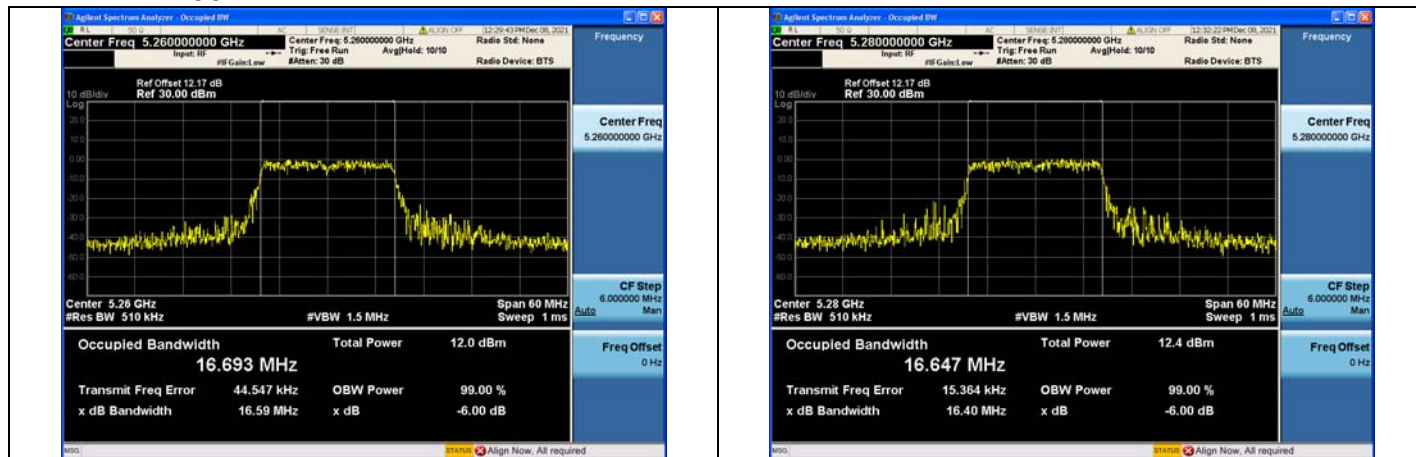
Offset 12.17dB = Attenuator 10dB+ Temporary antenna connector loss 0.5dB+ Cable loss 1.67dB

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.570	Channel No.574	Channel No.582
		5260MHz	5280MHz	5320MHz
802.11a	Chain0	16.693	16.647	16.754
802.11n HT20	Chain0	17.836	17.749	17.759

Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.572	---	Channel No.580
		5270MHz	---	5310MHz
802.11n HT40	Chain0	36.271	---	36.133

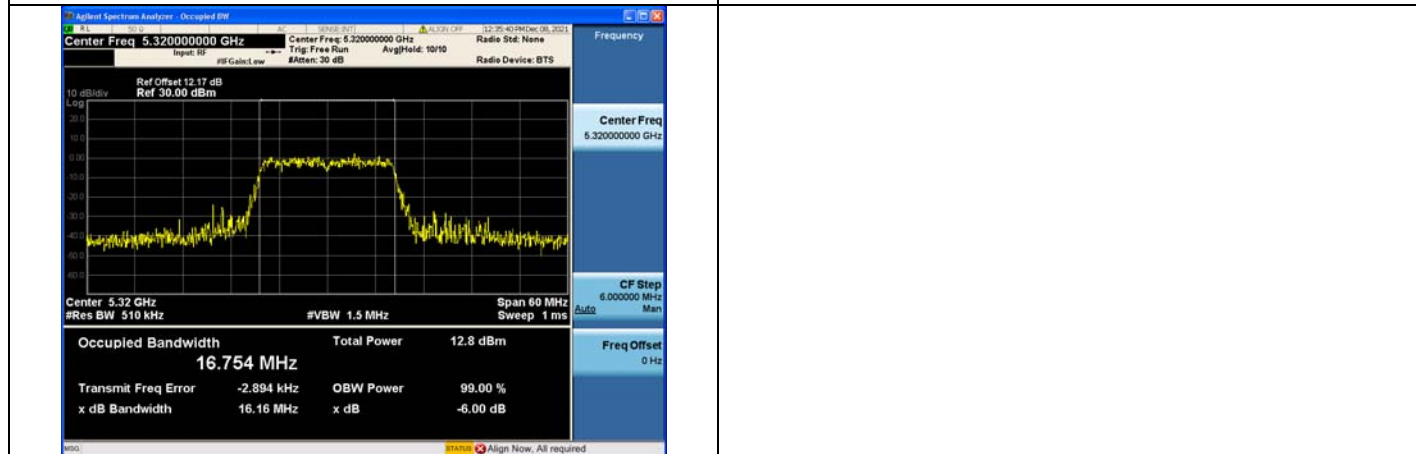
Test Mode	Antenna	Occupied Bandwidth (MHz)		
		Channel No.576	---	---
		5290MHz	---	---
802.11ac VHT80	Chain0	76.500	---	---

Test Mode: 802.11a



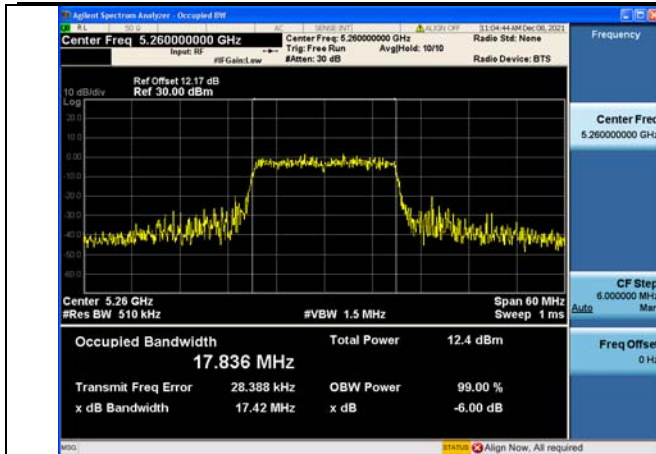
Test Mode:802.11a 5260MHz Chain0

Test Mode:802.11a 5280MHz Chain0

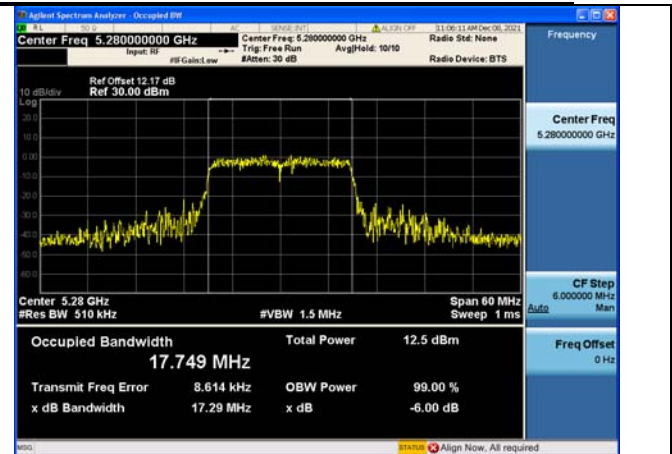


Test Mode:802.11a 5320MHz Chain0

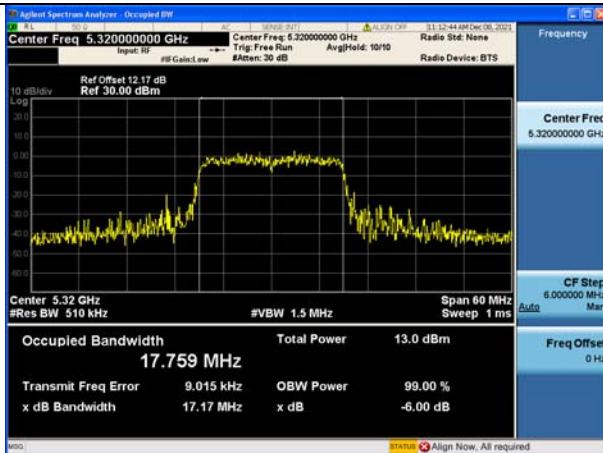
Test Mode: 802.11n HT20



Test Mode:802.11n HT20 5260MHz Chain0

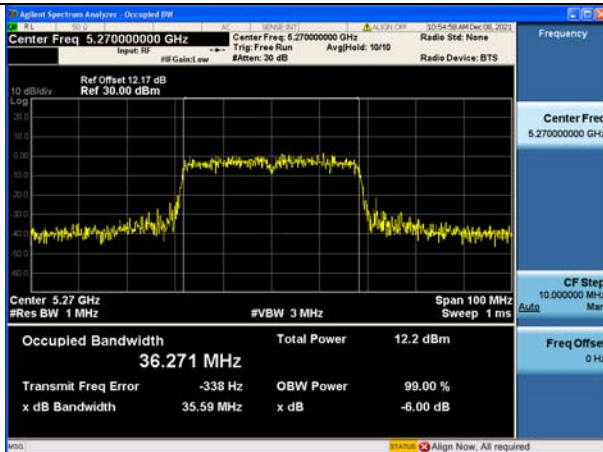


Test Mode:802.11n HT20 5280MHz Chain0

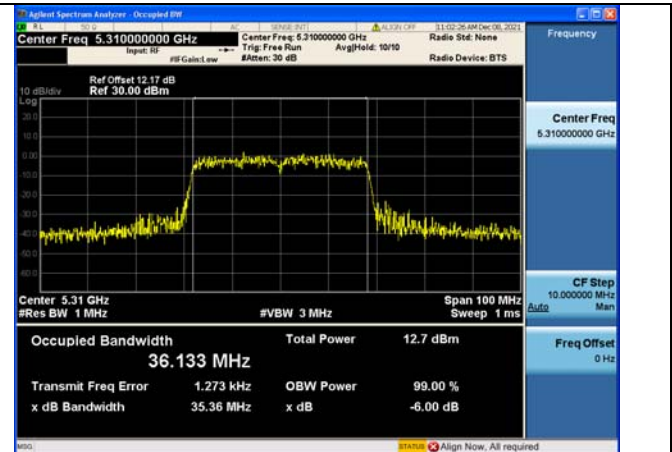


Test Mode:802.11n HT20 5320MHz Chain0

Test Mode: 802.11n HT40

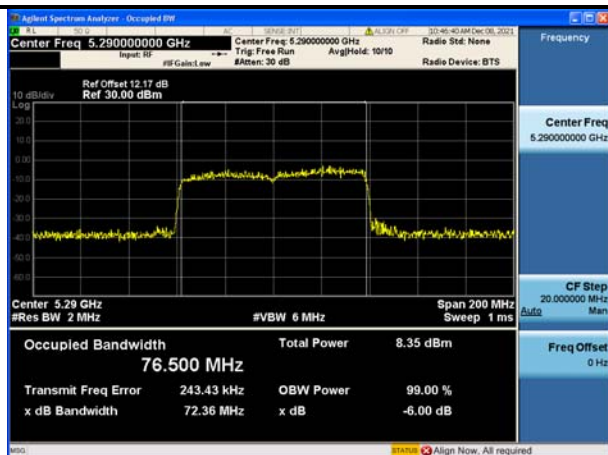


Test Mode:802.11n HT40 5270MHz Chain0



Test Mode:802.11n HT40 5310MHz Chain0

Test Mode: 802.11ac VHT80



Test Mode:802.11ac VHT80 5290MHz Chain0

Transmitter Power Spectral Density

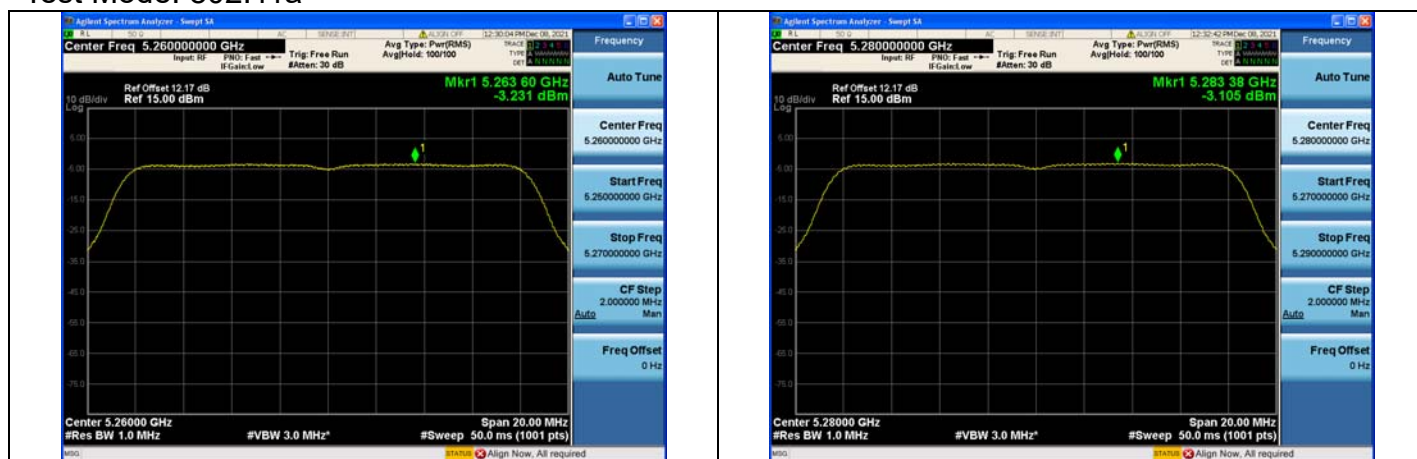
Offset 12.17dB = Attenuator 10dB+ Temporary antenna connector loss 0.5dB+ Cable loss 1.67dB

Test Mode	Antenna	5260MHz		5280MHz		5320MHz	
		Correction Factor(dB)	Power Density (dBm/MkHz)	Correction Factor(dB)	Power Density (dBm/MkHz)	Correction Factor(dB)	Power Density (dBm/MkHz)
802.11a	Chain0	0.13	-3.231	0.13	-3.105	0.13	-2.631
802.11n HT20	Chain0	0.12	-3.114	0.12	-3.019	0.12	-2.489

Test Mode	Antenna	5270MHz		---		5310MHz	
		Correction Factor(dB)	Power Density (dBm/MkHz)	Correction Factor(dB)	Power Density (dBm/MkHz)	Correction Factor(dB)	Power Density (dBm/MkHz)
802.11n HT40	Chain0	0.22	-6.619	---	---	0.22	-6.156

Test Mode	Antenna	5290MHz		---		---	
		Correction Factor(dB)	Power Density (dBm/MkHz)	Correction Factor(dB)	Power Density (dBm/MkHz)	Correction Factor(dB)	Power Density (dBm/MkHz)
802.11ac VHT80	Chain0	0.40	-11.689	---	---	---	---

Test Mode: 802.11a



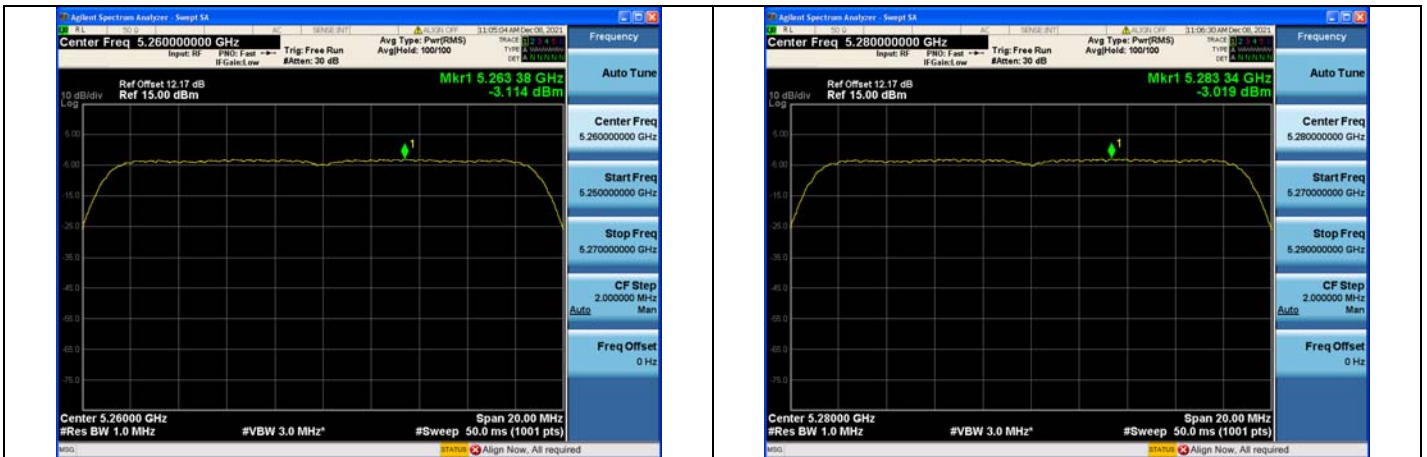
Test Mode:802.11a 5260MHz Chain0

Test Mode:802.11a 5280MHz Chain0



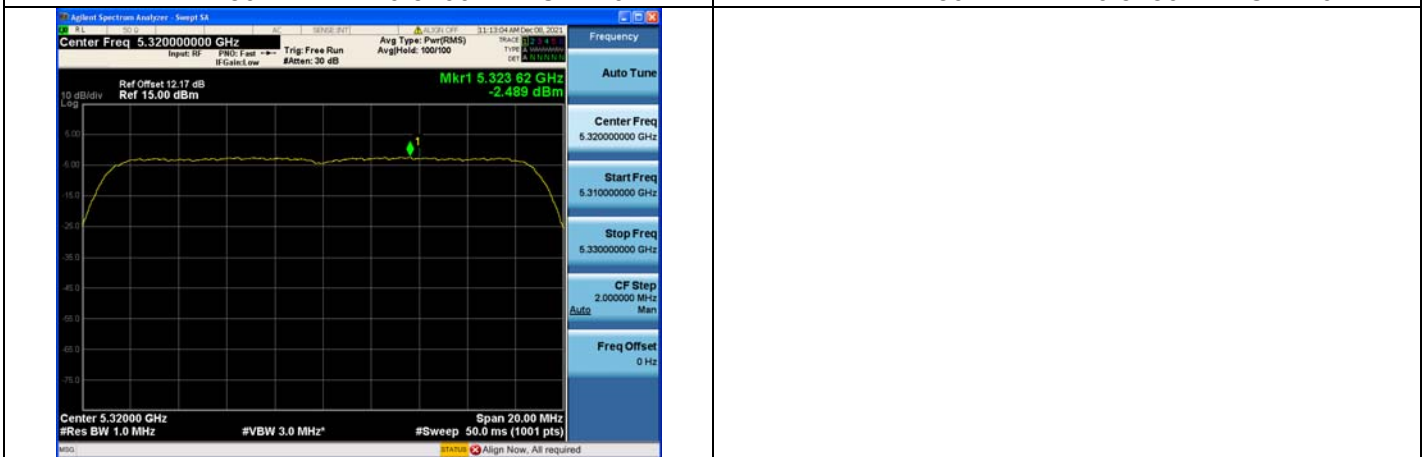
Test Mode:802.11a 5320MHz Chain0

Test Mode: 802.11n HT20



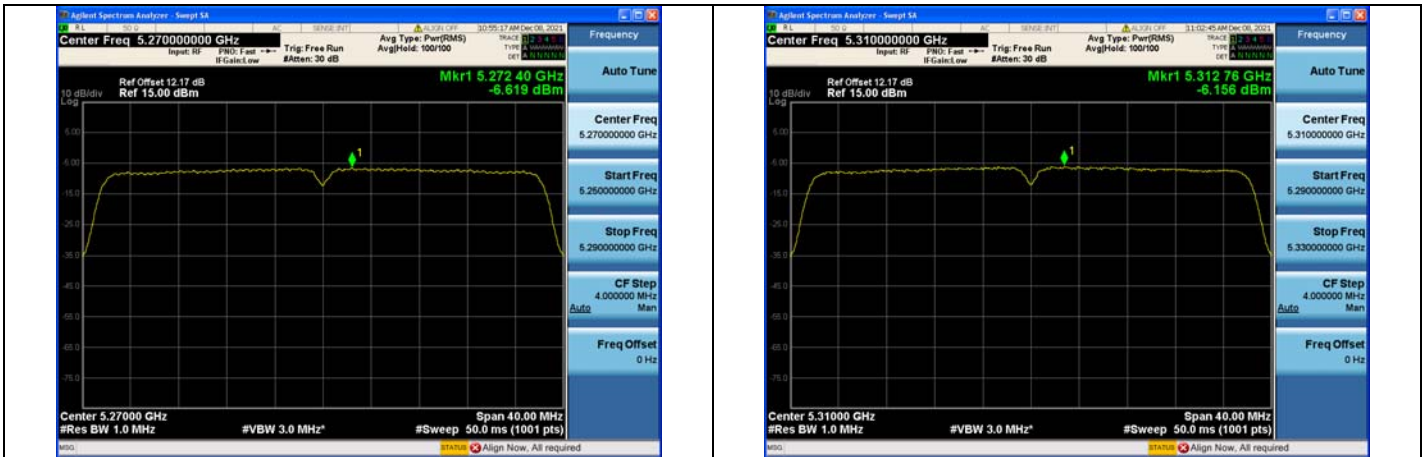
Test Mode:802.11n HT20 5260MHz Chain0

Test Mode:802.11n HT20 5280MHz Chain0



Test Mode:802.11n HT20 5320MHz Chain0

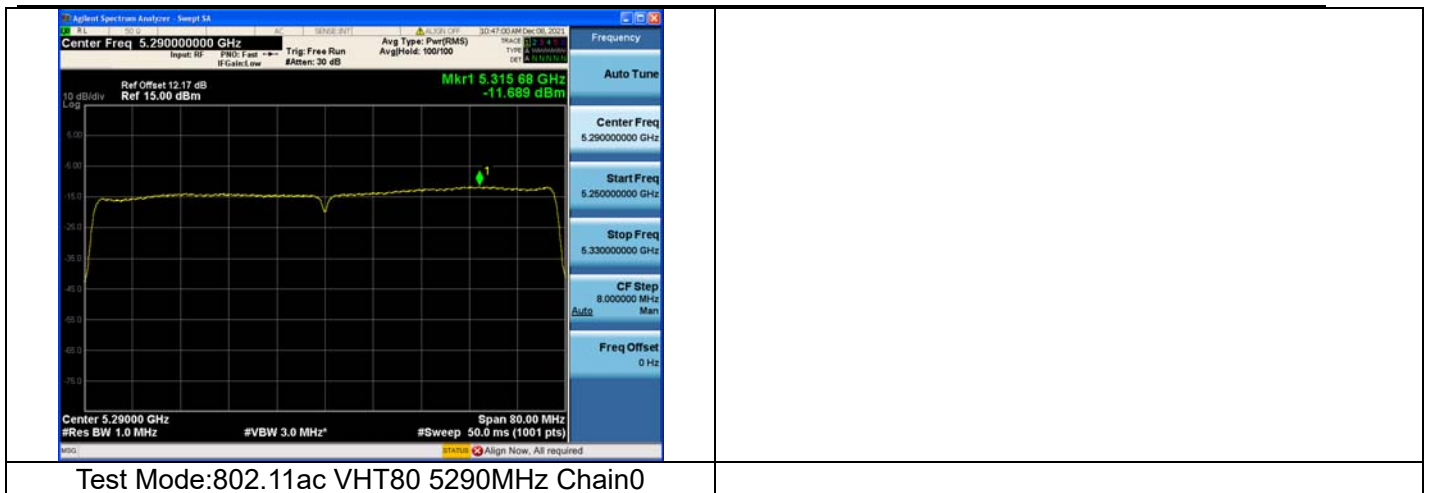
Test Mode: 802.11n HT40



Test Mode:802.11n HT40 5270MHz Chain0

Test Mode:802.11n HT40 5310MHz Chain0

Test Mode: 802.11ac VHT80



Dynamic Frequency Selection

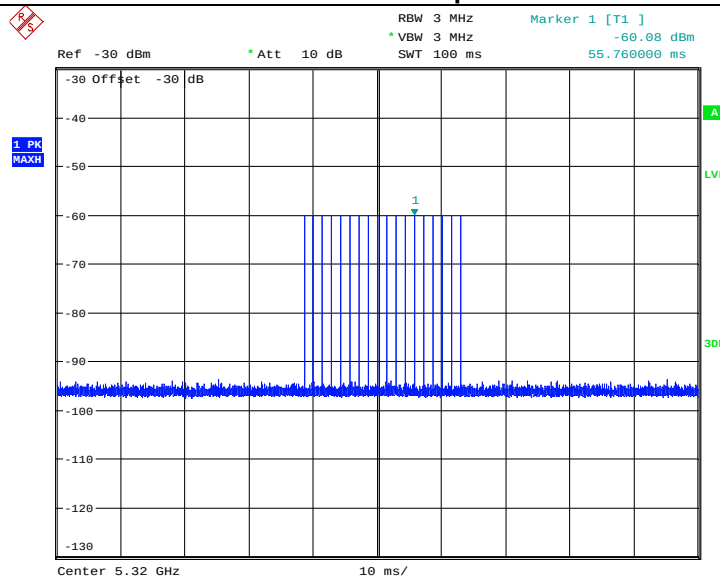
DESCRIPTION OF Master Device

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

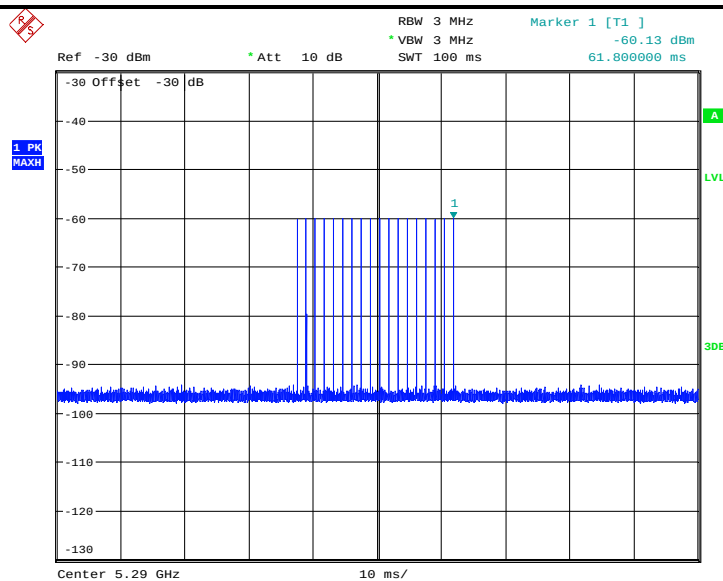
Radar / DFS detection threshold level and the burst of pulses on the Channel frequency



Date: 16.DEC.2021 17:24:46

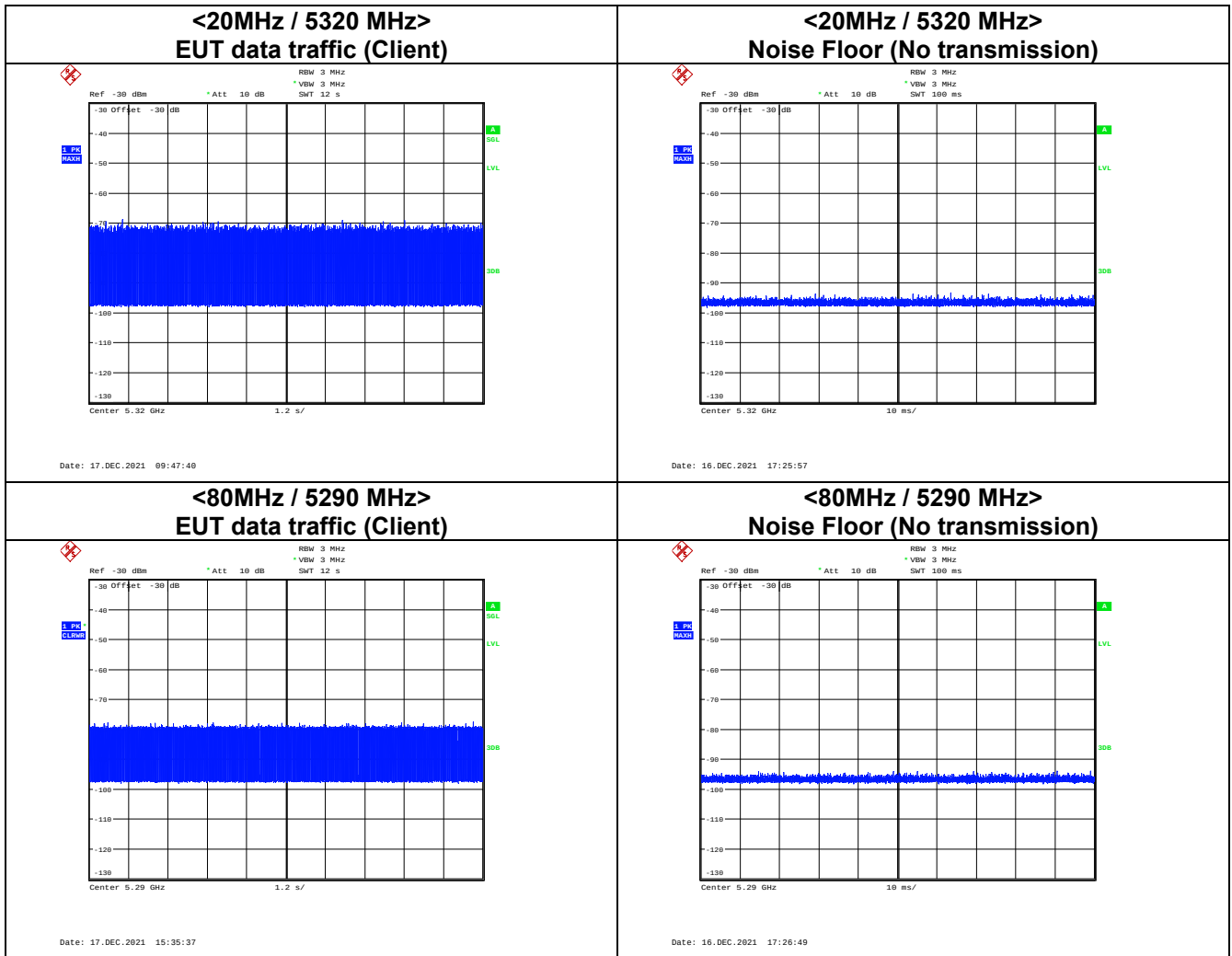
<80MHz / 5290 MHz> Radar Type 0

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



Date: 16.DEC.2021 17:28:18

Data Traffic and Noise Floor Plots

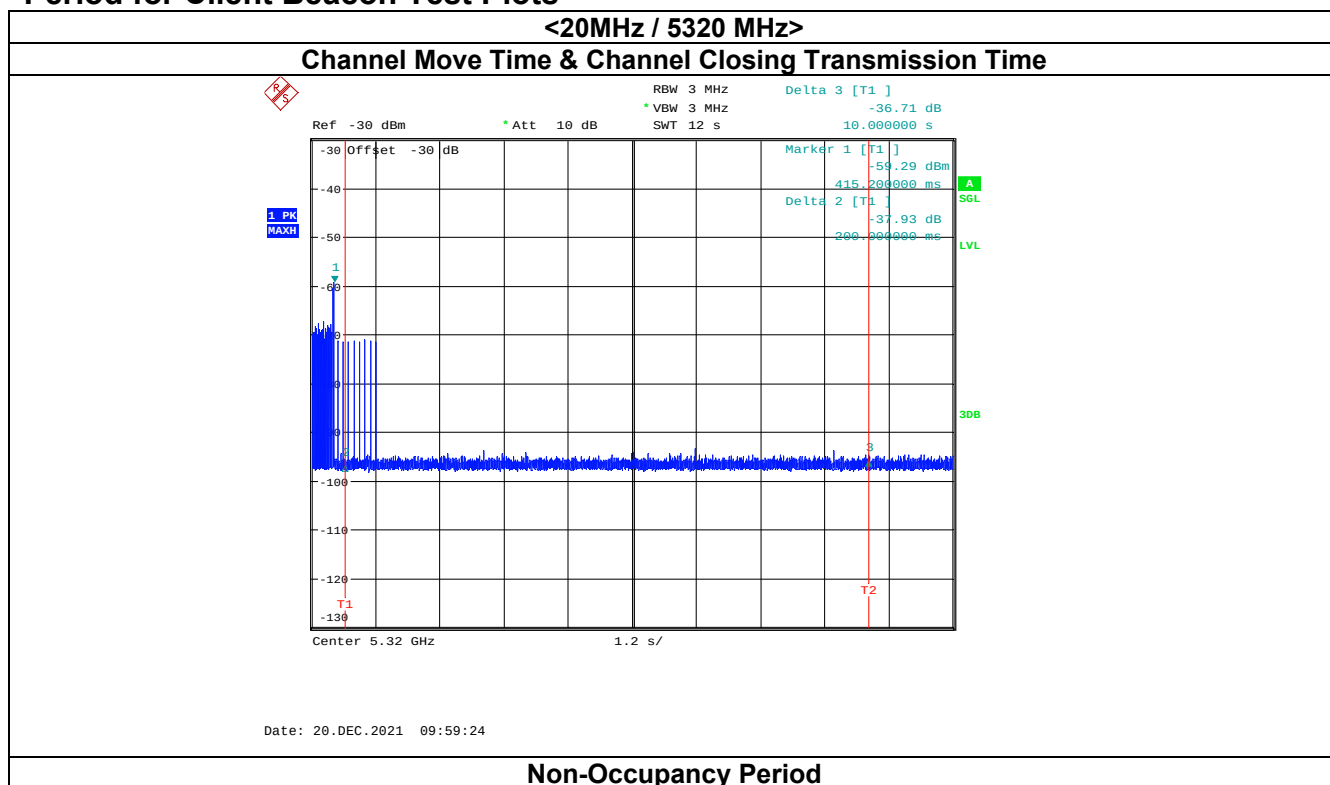


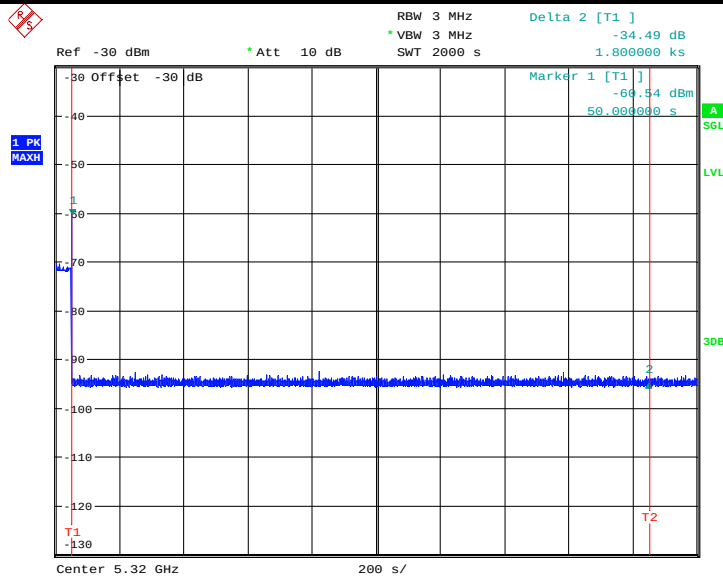
Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test

Frequency	Test Item	Test Result	Limit	Pass/Fail
5320MHz	Channel Move Time	< 10s*	< 10s	Pass
	Channel Closing Transmission Time	200ms +7.2ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass
5290MHz	Channel Move Time	< 10s*	< 10s	Pass
	Channel Closing Transmission Time	200ms +7.2ms	< 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.

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





Date: 20.DEC.2021 10:35:41

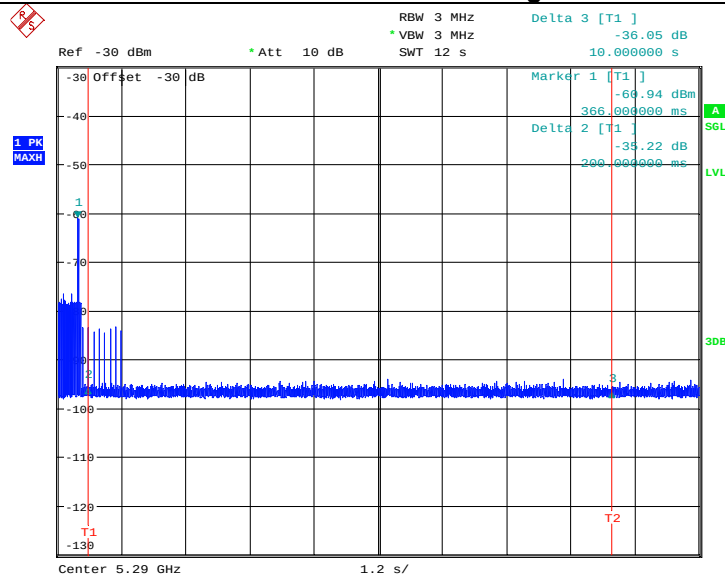
Note:

Dwell (1.2 ms)= Sweep Time (12000 ms) / Sweep Point Bins (10000)

Channel Closing Transmission Time (200 + 7.2 ms) = 200 + Number of beacon after 200ms(6) X Dwell (1.2 ms) < 260ms

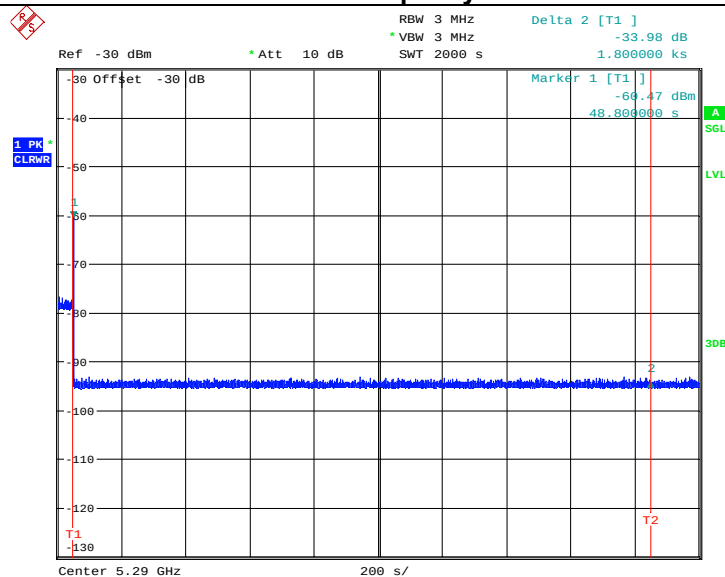
<80MHz / 5290MHz>

Channel Move Time & Channel Closing Transmission Time



Date: 20.DEC.2021 09:49:17

Non-Occupancy Period



Date: 17.DEC.2021 17:44:17

Note:

Dwell (1.2 ms) = Sweep Time (12000 ms) / Sweep Point Bins (10000)

Channel Closing Transmission Time (200 + 7.2 ms) = 200 + Number of beacon after 200ms(6) X Dwell (1.2 ms) < 260ms