

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

Duty Cycle

Test Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor(dB)
802.11a	5260	99.10%	0
802.11a	5260	99.14%	0
802.11n HT20	5260	99.09%	0
802.11n HT20	5260	99.11%	0
802.11n HT40	5270	98.16%	0
802.11n HT40	5270	98.30%	0
802.11ac VHT20	5260	99.10%	0
802.11ac VHT20	5260	99.20%	0
802.11ac VHT40	5270	98.21%	0
802.11ac VHT40	5270	98.23%	0
802.11ac VHT80	5290	96.52%	0.15
802.11ac VHT80	5290	96.55%	0.15

**Output Power
NII2A**

Mode	Tones/ RUIndex	Freq (MHz)	Chain	Conducted average power output(dBm)	EIRP (dBm)
802.11a	NA	5260	Chain0	14.65	15.25
			Chain1	15.14	15.74
			Chain0+Chain1	17.91	18.51
		5280	Chain0	14.88	15.48
			Chain1	15.23	15.83
			Chain0+Chain1	18.07	18.67
		5320	Chain0	15.05	15.65
			Chain1	15.22	15.82
			Chain0+Chain1	18.15	18.75
802.11n20M	NA	5260	Chain0	14.57	15.17
			Chain1	14.98	15.58
			Chain0+Chain1	17.79	18.39
		5280	Chain0	14.78	15.38
			Chain1	15.00	15.60
			Chain0+Chain1	17.90	18.50
		5320	Chain0	14.97	15.57
			Chain1	15.00	15.60
			Chain0+Chain1	18.00	18.60
802.11n40M	NA	5270	Chain0	14.56	15.16
			Chain1	15.02	15.62
			Chain0+Chain1	17.81	18.41
		5310	Chain0	14.85	15.45
			Chain1	15.05	15.65
			Chain0+Chain1	17.96	18.56
802.11ac20M	NA	5260	Chain0	14.52	15.12
			Chain1	15.09	15.69
			Chain0+Chain1	17.82	18.42
		5280	Chain0	14.65	15.25
			Chain1	15.05	15.65
			Chain0+Chain1	17.86	18.46
		5320	Chain0	14.91	15.51
			Chain1	15.01	15.61
			Chain0+Chain1	17.97	18.57
802.11ac40M	NA	5270	Chain0	14.55	15.15

			Chain1	14.92	15.52
			Chain0+Chain1	17.75	18.35
		5310	Chain0	14.79	15.39
			Chain1	15.01	15.61
			Chain0+Chain1	17.91	18.51
		802.11ac80M	5290	Chain0	14.28
Chain1	14.58			15.18	
Chain0+Chain1	17.44			18.04	

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	20.48
	Chain1	20.23
5280	Chain0	19.97
	Chain1	20.45
5320	Chain0	20.00
	Chain1	20.03

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	20.35
	Chain1	20.68
5280	Chain0	20.58
	Chain1	20.29
5320	Chain0	20.74
	Chain1	20.54

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	40.06
	Chain1	39.91
5310	Chain0	39.59
	Chain1	40.34

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 VHT20

Carrier frequency (MHz)	Chain	26dB Bandwidth (MHz)
5260	Chain0	20.49
	Chain1	20.41
5280	Chain0	20.73
	Chain1	20.47
5320	Chain0	20.44
	Chain1	20.70

Test Mode:802. 11ac VHT20 Chain0



Test Mode:802. 11ac VHT20 Chain0



Test Mode:802. 11ac VHT20 Chain0



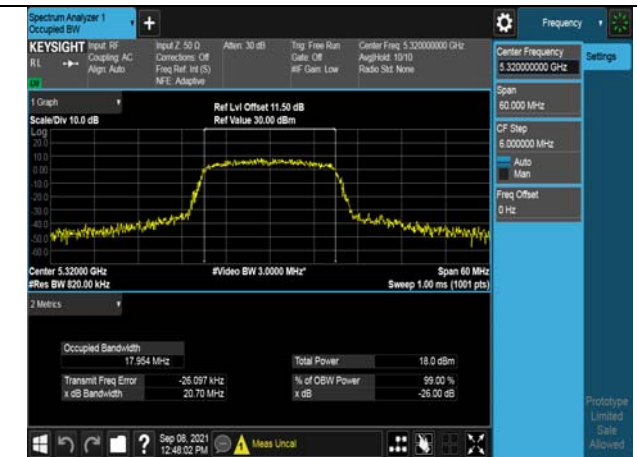
Test Mode:802. 11ac VHT20 Chain1



Test Mode:802. 11ac VHT20 Chain1



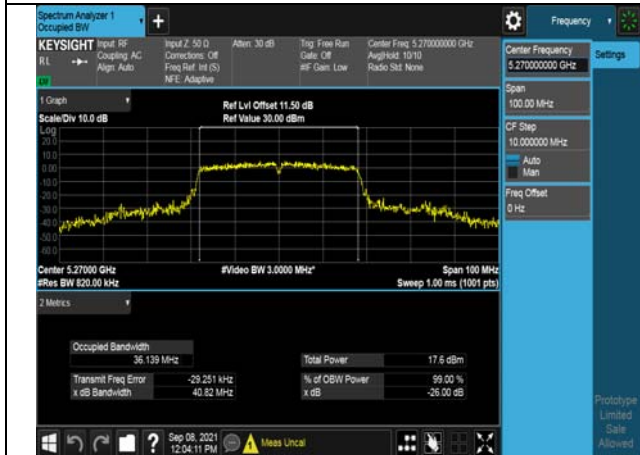
Test Mode:802. 11ac VHT20 Chain1



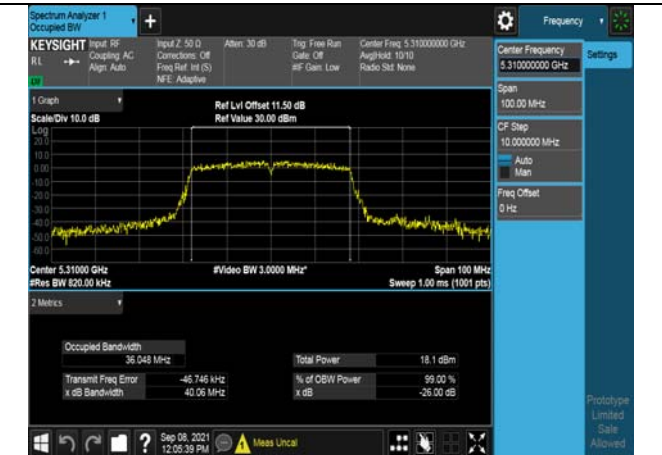
Test Mode:802. 11ac VHT40

Carrier frequency (MHz)	Chain	26dB Bandwidth (MHz)
5270	Chain0	40.82
	Chain1	40.49
5310	Chain0	40.06
	Chain1	40.23

Test Mode:802. 11ac VHT40 Chain0



Test Mode:802. 11ac VHT40 Chain0



Test Mode:802. 11ac VHT40 Chain1



Test Mode:802. 11ac VHT40 Chain1



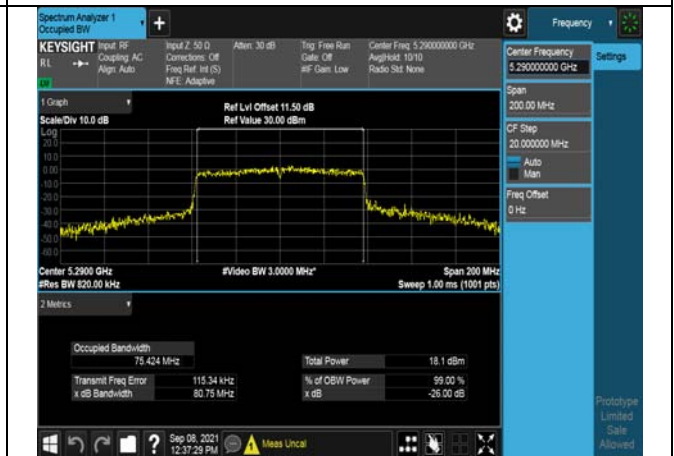
Test Mode:802.11ac VHT80

Carrier frequency (MHz)	Chain	26dB Bandwidth (MHz)
5290	Chain0	79.77
	Chain1	80.75

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	16.819
	Chain1	16.808
5280	Chain0	16.658
	Chain1	16.730
5320	Chain0	16.769
	Chain1	16.883

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	17.848
	Chain1	17.904
5280	Chain0	17.891
	Chain1	17.879
5320	Chain0	17.913
	Chain1	17.867

Test Mode:802. 11n HT20 Chain0



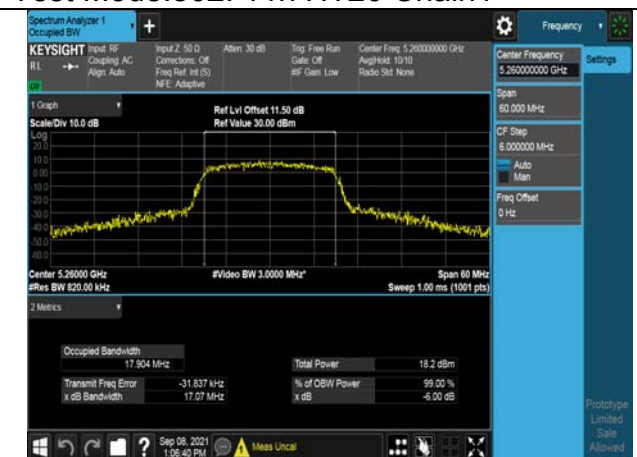
Test Mode:802. 11n HT20 Chain0



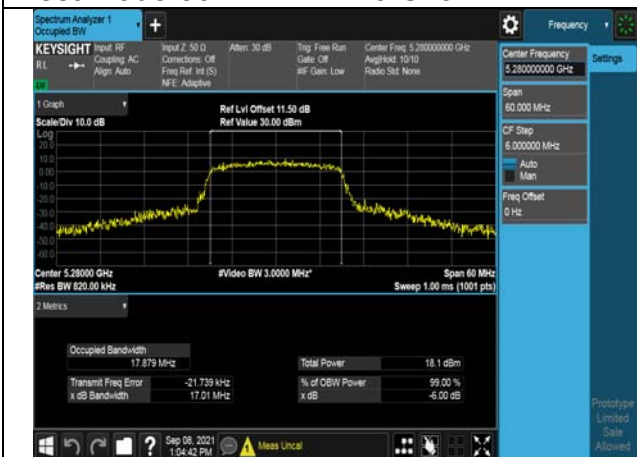
Test Mode:802. 11n HT20 Chain0



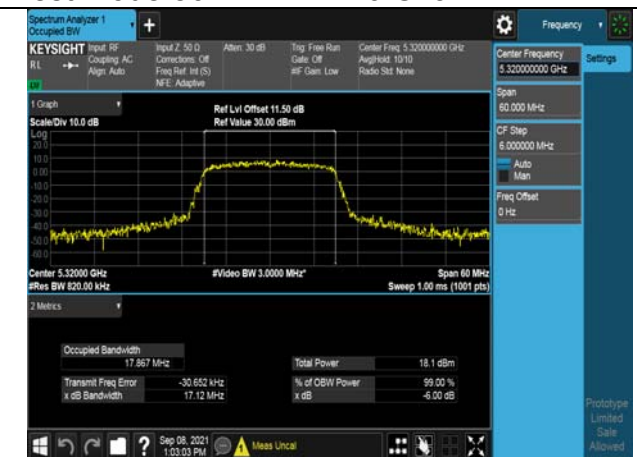
Test Mode:802. 11n HT20 Chain1



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	36.091
	Chain1	36.061
5310	Chain0	36.054
	Chain1	35.984

Test Mode:802. 11n HT40 Chain0



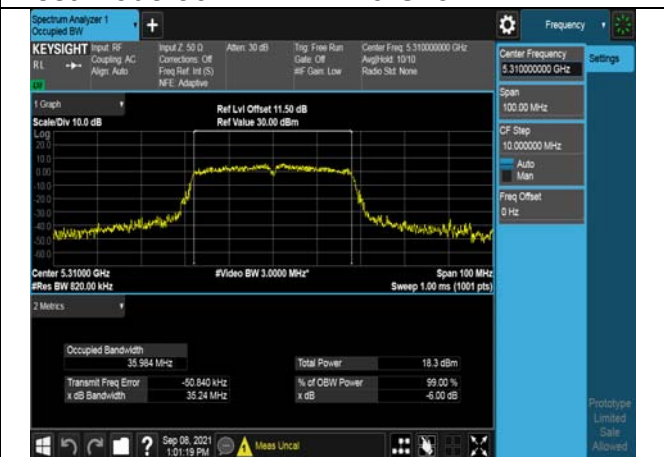
Test Mode:802. 11n HT40 Chain0



Test Mode:802. 11n HT40 Chain1



Test Mode:802. 11n HT40 Chain1



Test Mode:802. 11ac VHT20

Carrier frequency (MHz)	Chain	Occupied Bandwidth (MHz)
5260	Chain0	17.862
	Chain1	17.848
5280	Chain0	17.918
	Chain1	17.853
5320	Chain0	17.771
	Chain1	17.897

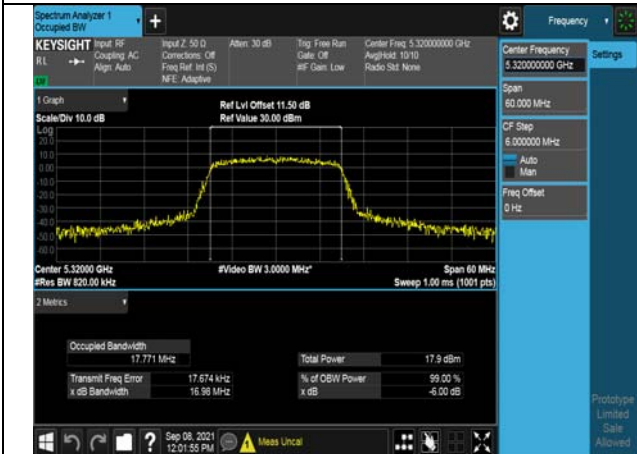
Test Mode:802. 11ac VHT20 Chain0



Test Mode:802. 11ac VHT20 Chain0



Test Mode:802. 11ac VHT20 Chain0



Test Mode:802. 11ac VHT20 Chain1



Test Mode:802. 11ac VHT20 Chain1



Test Mode:802. 11ac VHT20 Chain1



Test Mode:802. 11ac VHT40

Carrier frequency (MHz)	Chain	Occupied Bandwidth (MHz)
5270	Chain0	36.216
	Chain1	36.169
5310	Chain0	36.123
	Chain1	36.054

Test Mode:802. 11ac VHT40 Chain0



Test Mode:802. 11ac VHT40 Chain0



Test Mode:802. 11ac VHT40 Chain1

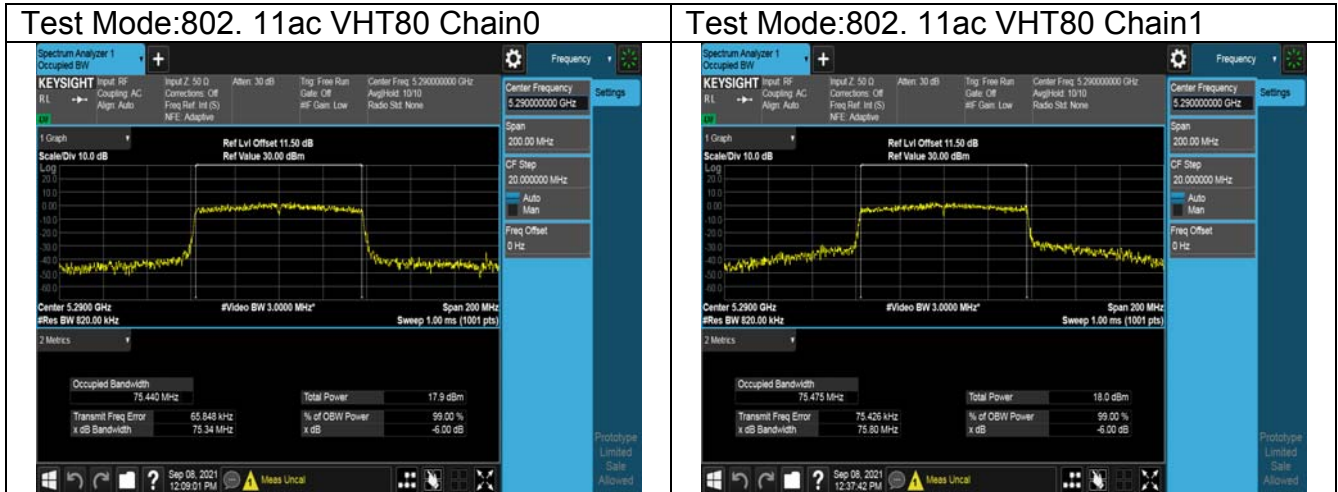


Test Mode:802. 11ac VHT40 Chain1



Test Mode:802. 11ac VHT80

Carrier frequency (MHz)	Chain	Occupied Bandwidth (MHz)
5290	Chain0	75.440
	Chain1	75.475



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	Chain0	4.267
		Chain1	4.731
		Chain0+Chain1	7.515
5280		Chain0	4.442
		Chain1	4.72
		Chain0+Chain1	7.594
5320		Chain0	4.641
		Chain1	4.73
		Chain0+Chain1	7.696

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	Chain0	3.982
		Chain1	4.419
		Chain0+Chain1	7.216
5280		Chain0	4.071
		Chain1	4.322
		Chain0+Chain1	7.209
5320		Chain0	4.281
		Chain1	4.426
		Chain0+Chain1	7.364

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	Chain0	1.025
		Chain1	1.491
		Chain0+Chain1	4.275
5310	0	Chain0	1.302
		Chain1	1.43
		Chain0+Chain1	4.377

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 VHT20

Carrier frequency (MHz)	Correction Factor(dB)	Chain	Power Density (dBm)
5260	0	Chain0	3.827
		Chain1	4.433
		Chain0+Chain1	7.151
5280		Chain0	4.003
		Chain1	4.445
		Chain0+Chain1	7.240
5320		Chain0	4.274
		Chain1	4.456
		Chain0+Chain1	7.376

Test Mode:802. 11ac VHT20 Chain0



Test Mode:802. 11ac VHT20 Chain0



Test Mode:802. 11ac VHT20 Chain0



Test Mode:802. 11ac VHT20 Chain1



Test Mode:802. 11ac VHT20 Chain1



Test Mode:802. 11ac VHT20 Chain1



Test Mode:802. 11ac VHT40

Carrier frequency (MHz)	Correction Factor(dB)	Chain	Power Density (dBm)
5270	0	Chain0	0.988
		Chain1	1.276
		Chain0+Chain1	4.145
5310		Chain0	1.085
		Chain1	1.342
		Chain0+Chain1	4.226

Test Mode:802. 11ac VHT40 Chain0



Test Mode:802. 11ac VHT40 Chain0



Test Mode:802. 11ac VHT40 Chain1



Test Mode:802. 11ac VHT40 Chain1



Test Mode:802. 11ac VHT80

Carrier frequency (MHz)	Correction Factor(dB)	Chain	Power Density (dBm)
5290	0.15	Chain0	-2.276
		Chain1	-1.852
		Chain0+Chain1	0.951

Test Mode:802. 11ac VHT80 Chain0



Test Mode:802. 11ac VHT80 Chain1



Dynamic Frequency Selection

DESCRIPTION OF Master Device

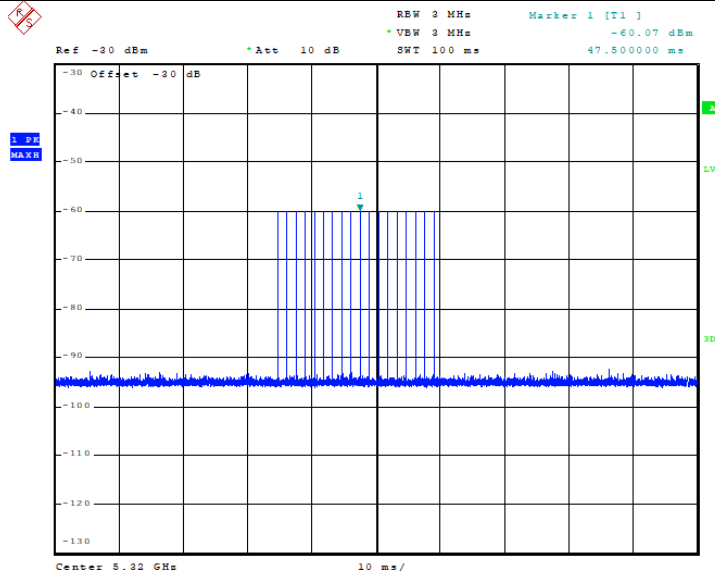
The Master Device is a SKSpruce Technologies Co., Ltd., Indoor Access Point, FCC ID: 2AHKT-WIA3300-20. The rated output power of the Master unit is > 23dBm (EIRP).

Therefore the required interference threshold level is -60 dBm.

Radar Waveform Calibration Result

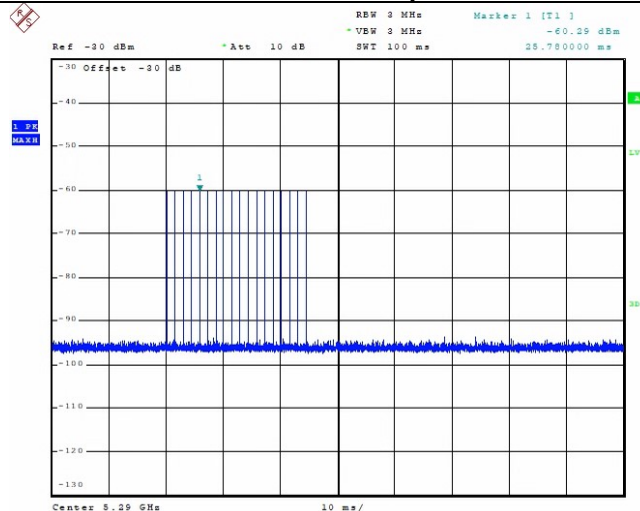
<20MHz / 5320 MHz> Radar Type 0

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

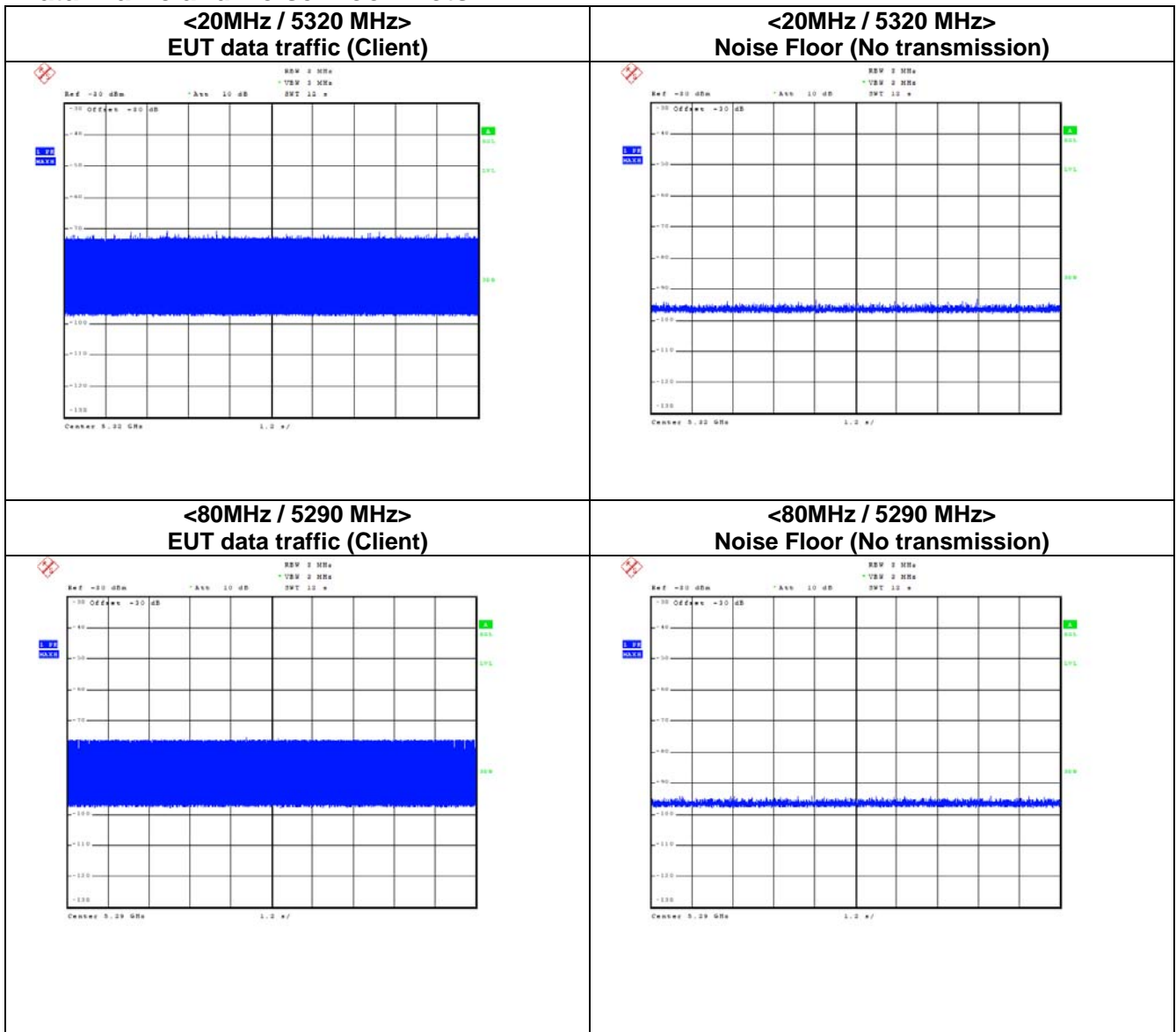


<80MHz / 5290 MHz> Radar Type 0

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

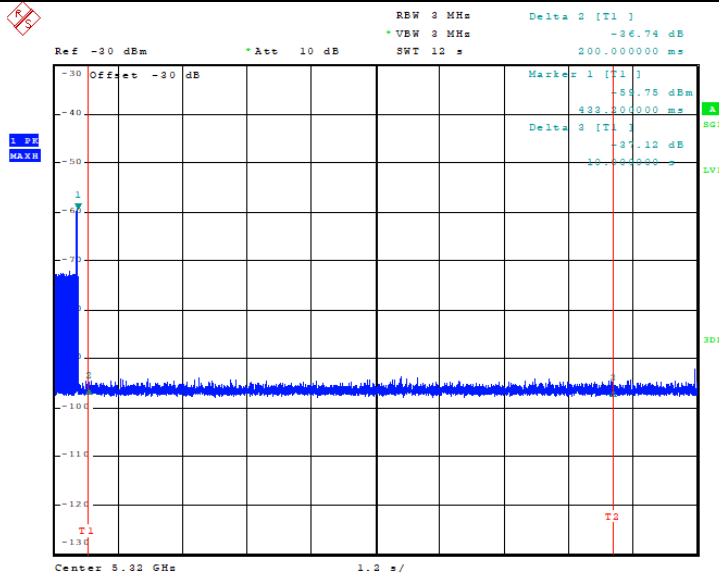
Frequency	Test Item	Test Result	Limit	Pass/Fail
5320MHz	Channel Move Time	< 10s*	< 10s	Pass
	Channel Closing Transmission Time	200ms	< 260ms	Pass
	Non-Occupancy Period	≥ 30	≥ 30 min	Pass
5290MHz	Channel Move Time	< 10s*	< 10s	Pass
	Channel Closing Transmission Time	200ms	< 260ms	Pass
	Non-Occupancy Period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

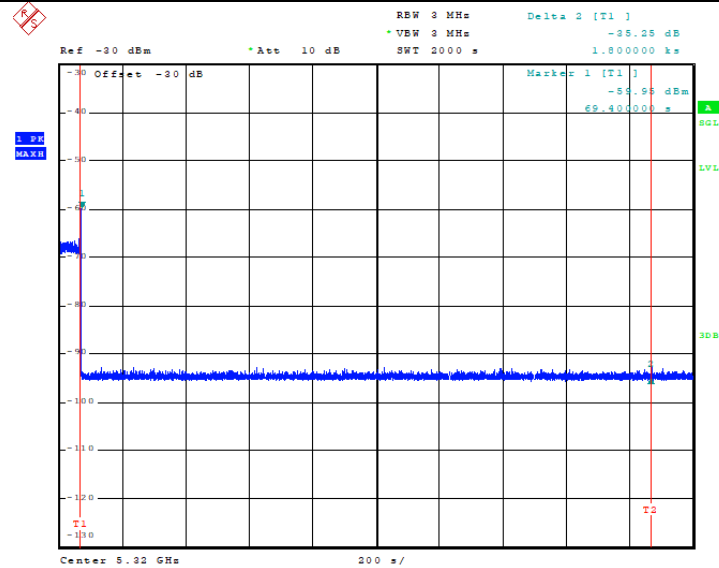
Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period for Client Beacon Test Plots

<20MHz / 5320 MHz>

Channel Move Time & Channel Closing Transmission Time



Non-Occupancy Period

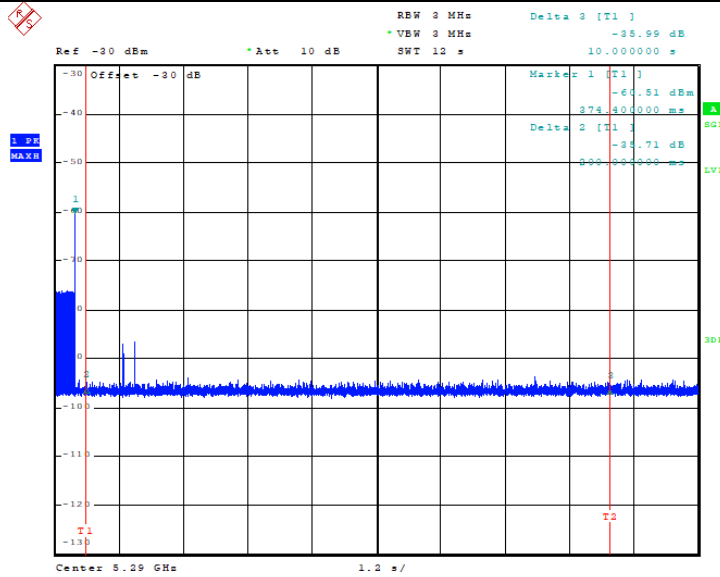


Note:

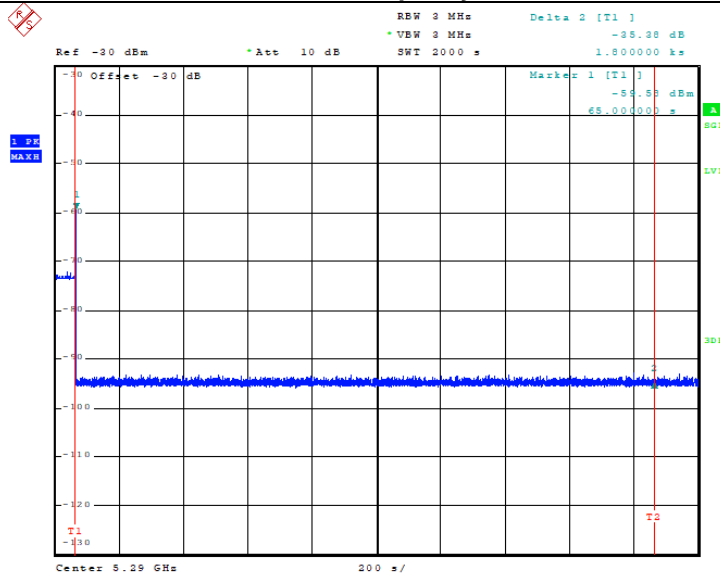
Dwell (1.2 ms) = Sweep Time (12000 ms) / Sweep Point Bins (10000)

<80MHz / 5290MHz>

Channel Move Time & Channel Closing Transmission Time



Non-Occupancy Period



Note:

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