

11N20MIMO Ant2 5745



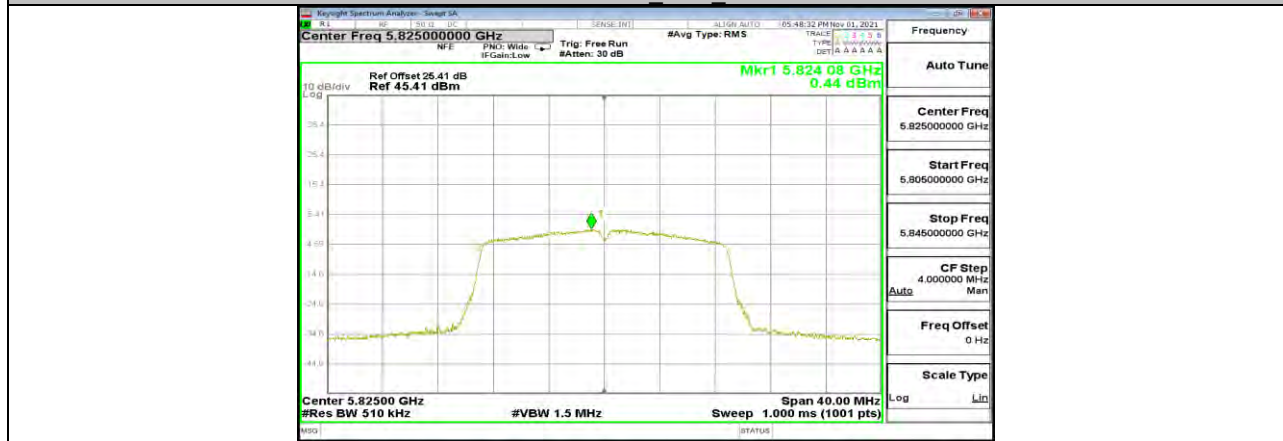
11N20MIMO Ant1 5785



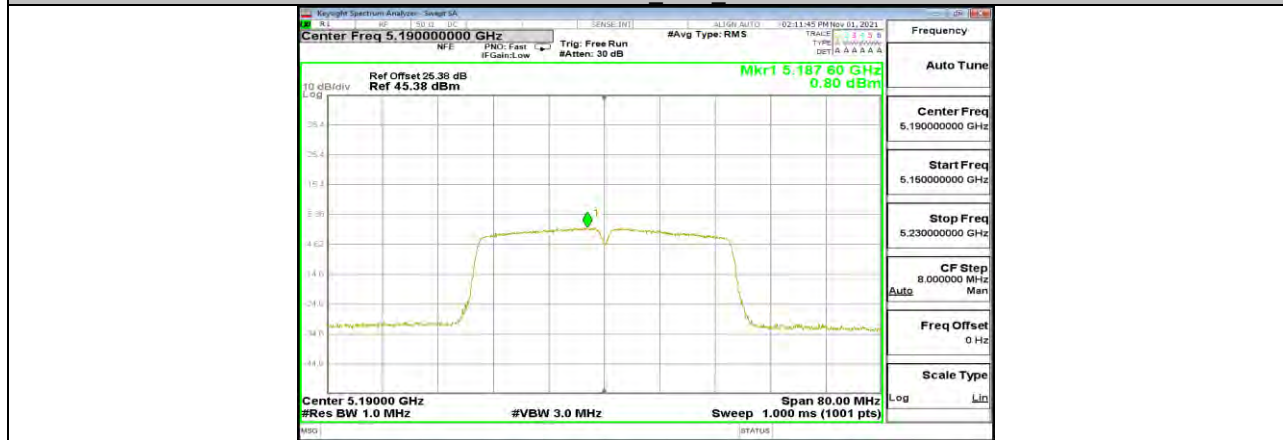
11N20MIMO Ant2 5785



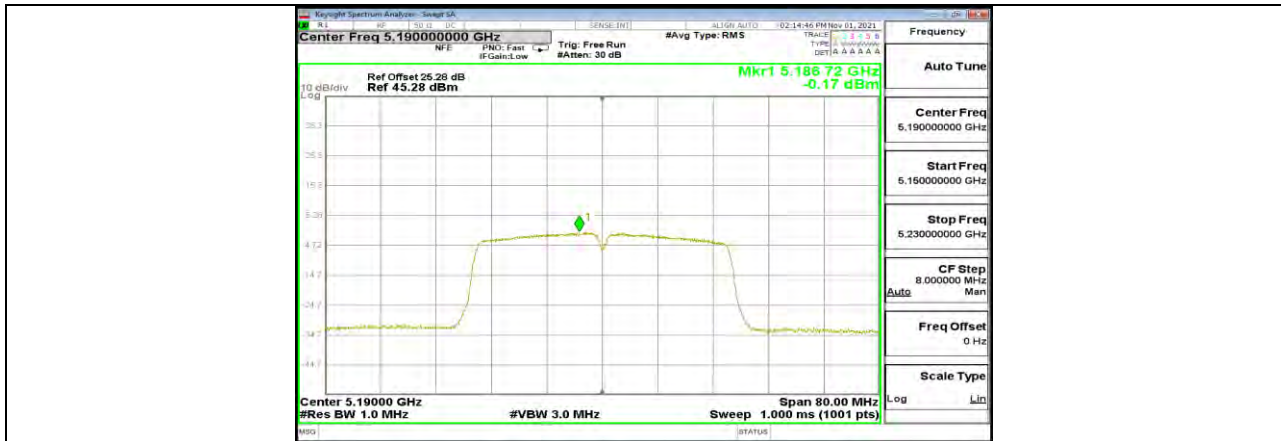
11N20MIMO Ant1 5825



11N20MIMO Ant2 5825



11N40MIMO Ant1 5190



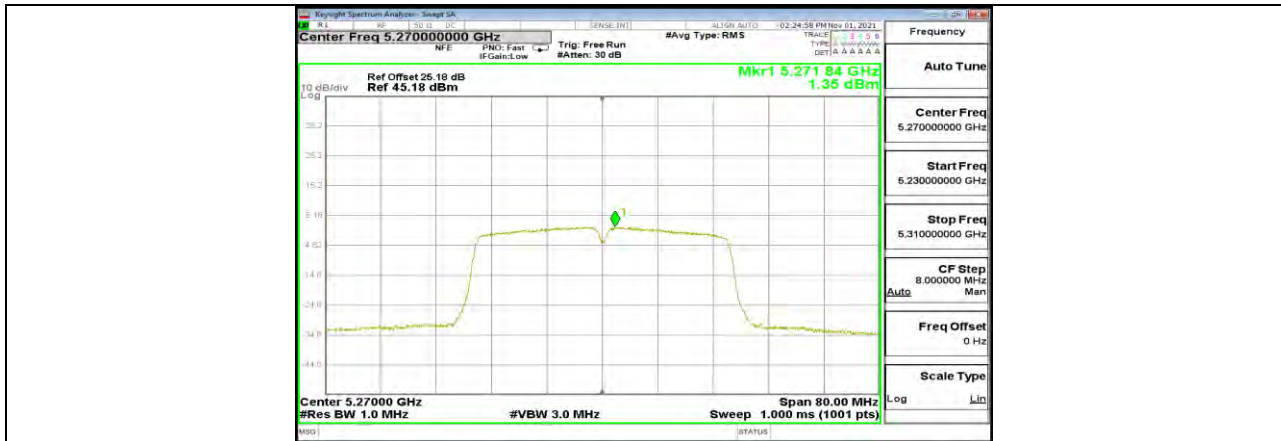
11N40MIMO Ant2 5190



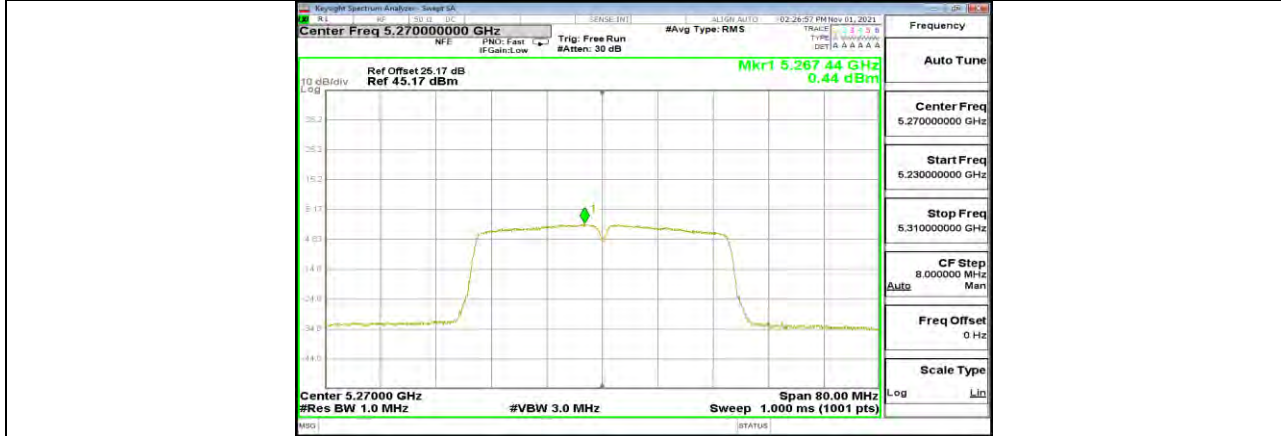
11N40MIMO Ant1 5230



11N40MIMO Ant2 5230



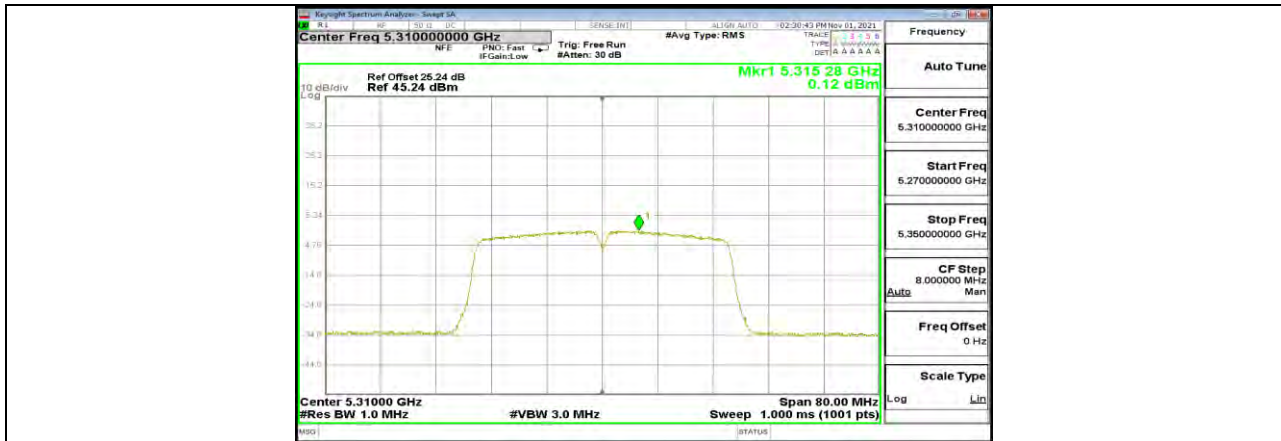
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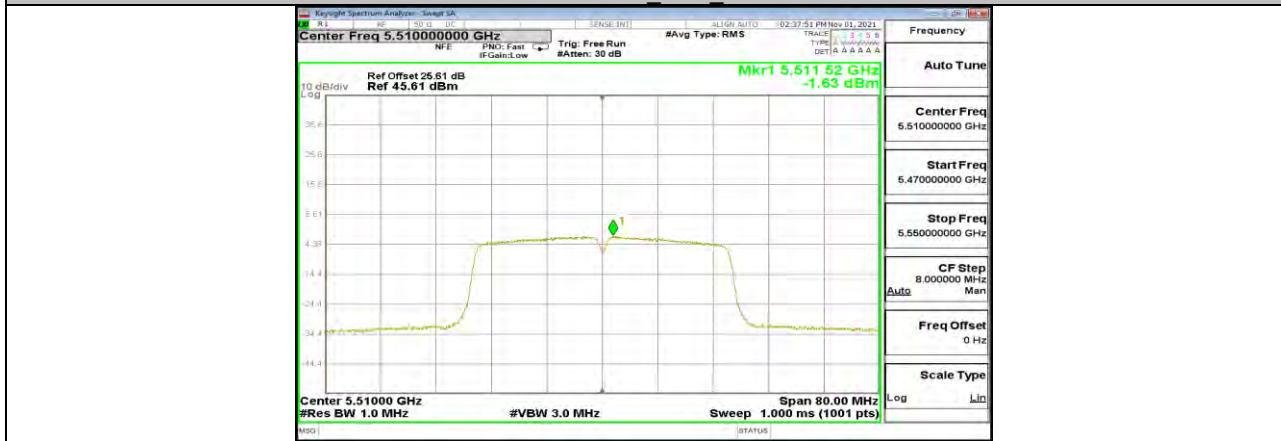
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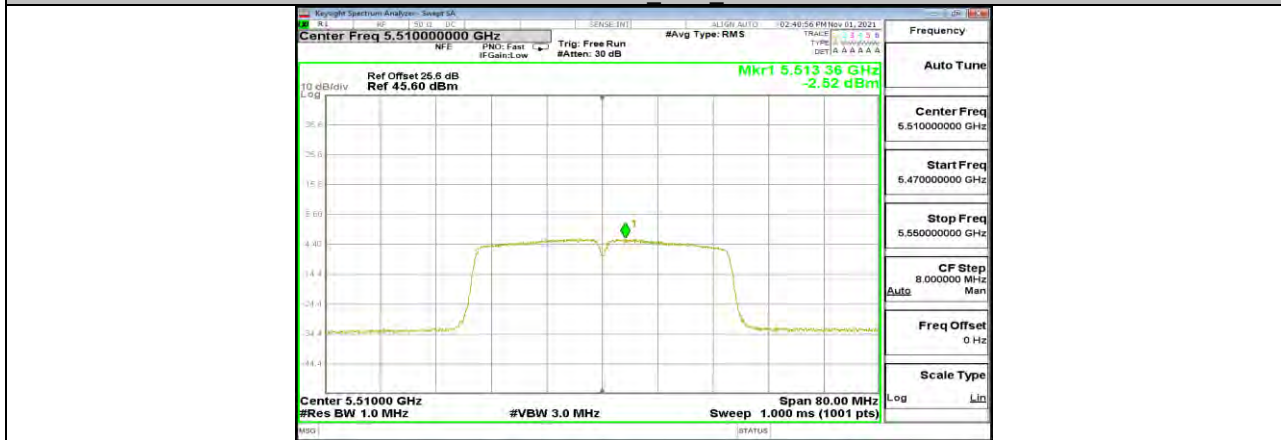
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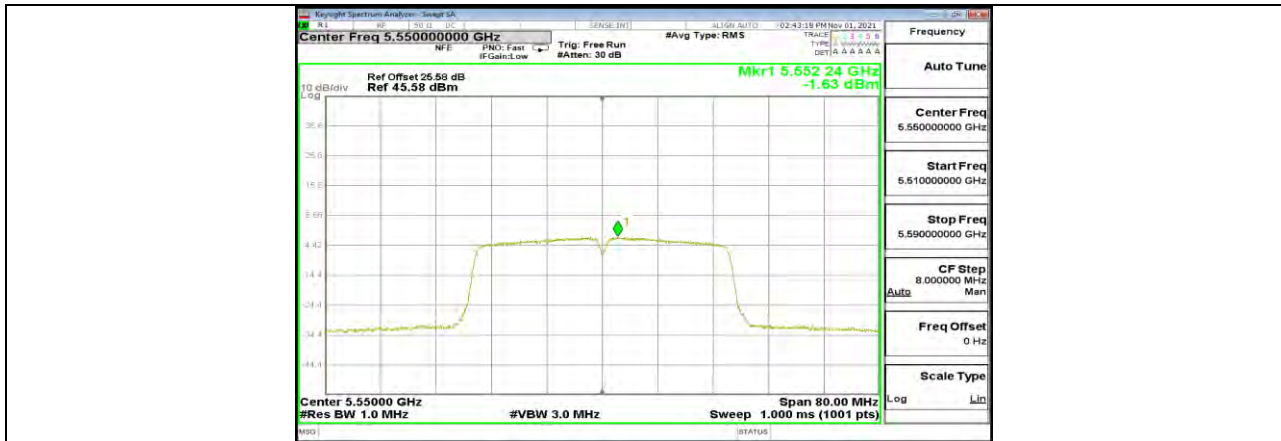
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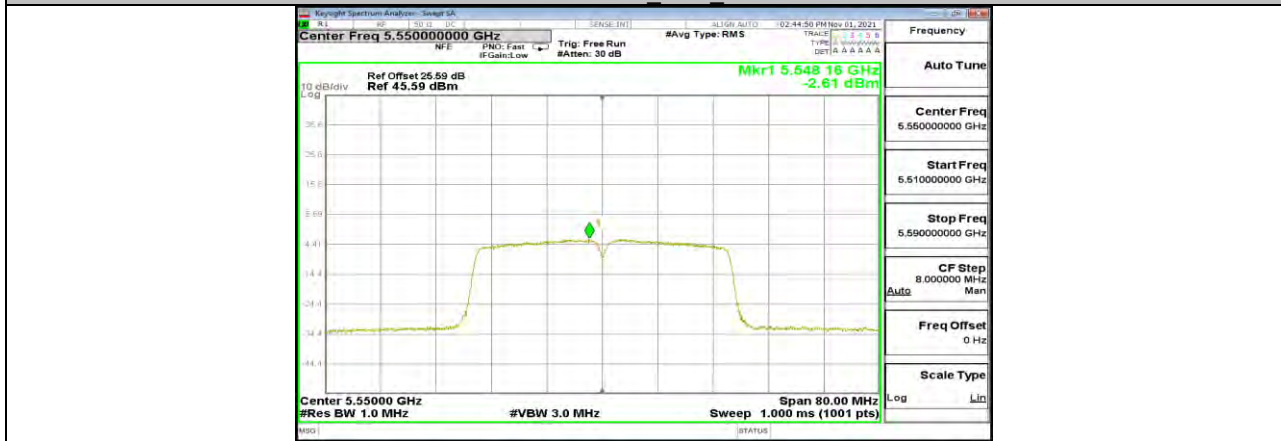
11N40MIMO Ant1 5510



11N40MIMO Ant2 5510



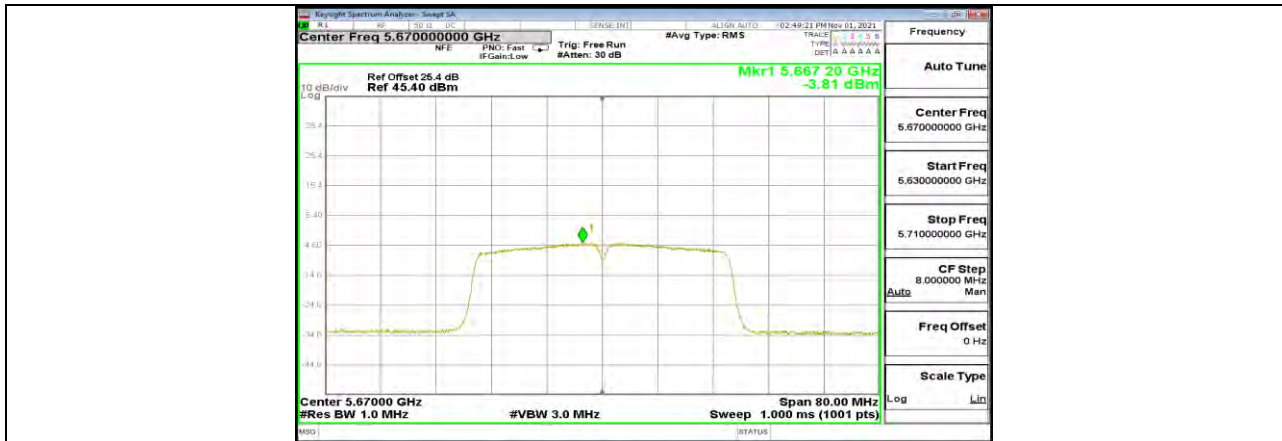
11N40MIMO Ant1 5550



11N40MIMO Ant2 5550



11N40MIMO Ant1 5670



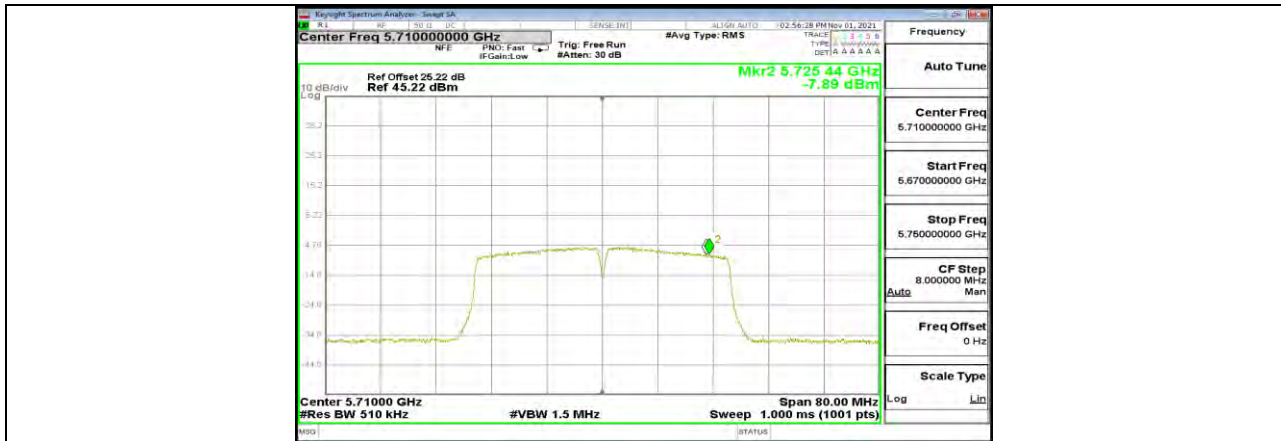
11N40MIMO Ant2 5670



11N40MIMO Ant1 5710 UNII-2C



11N40MIMO Ant2 5710 UNII-2C



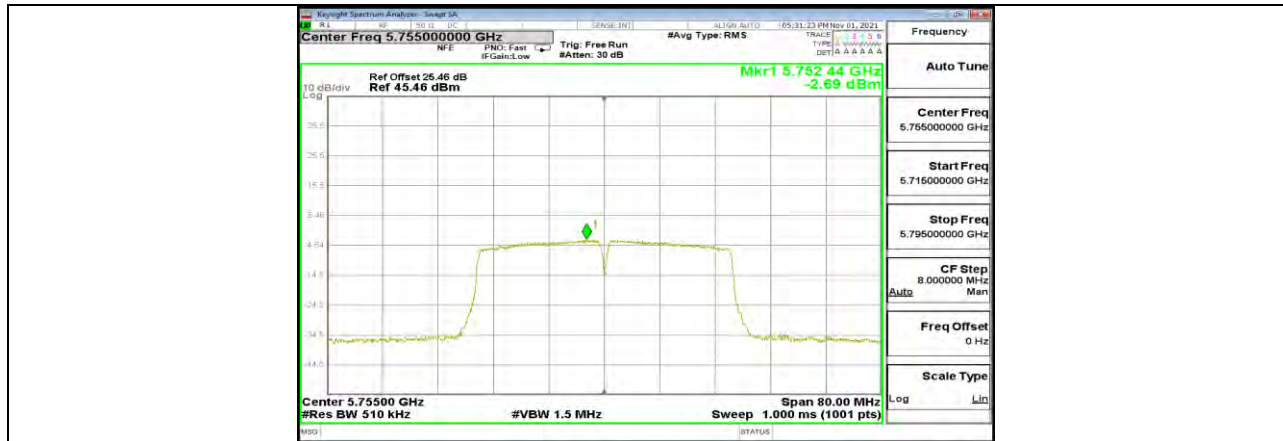
11N40MIMO Ant1 5710 UNII-3



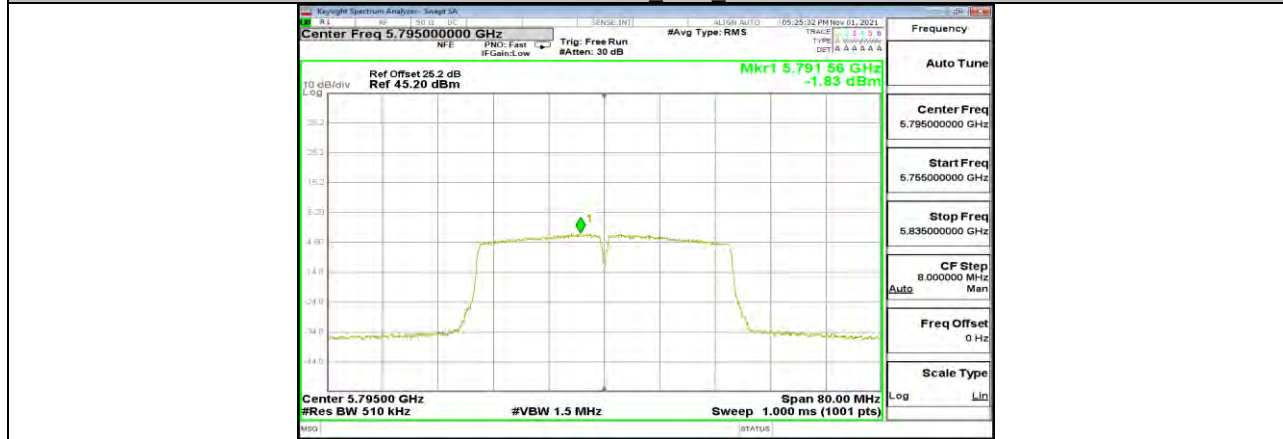
11N40MIMO Ant2 5710 UNII-3



11N40MIMO Ant1 5755



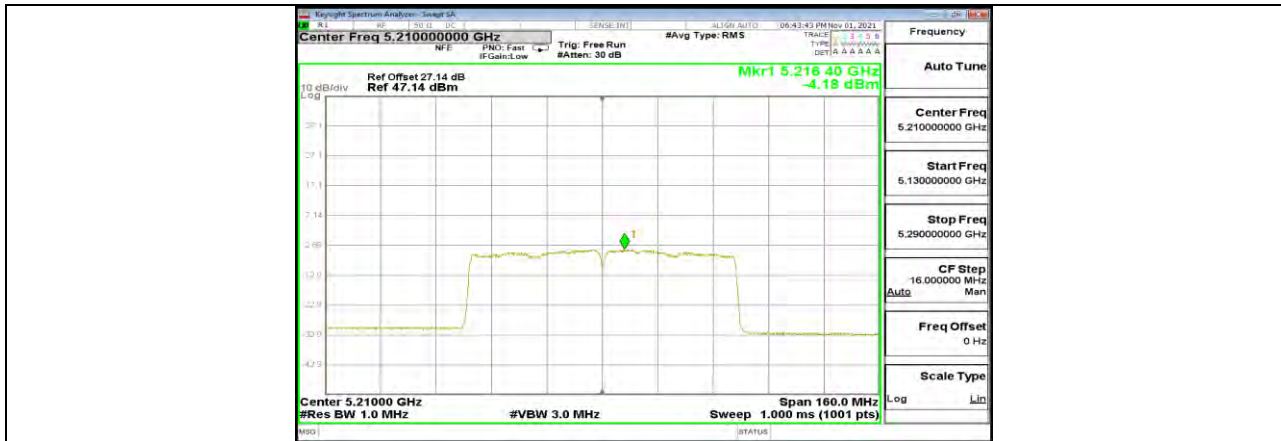
11N40MIMO Ant2 5755



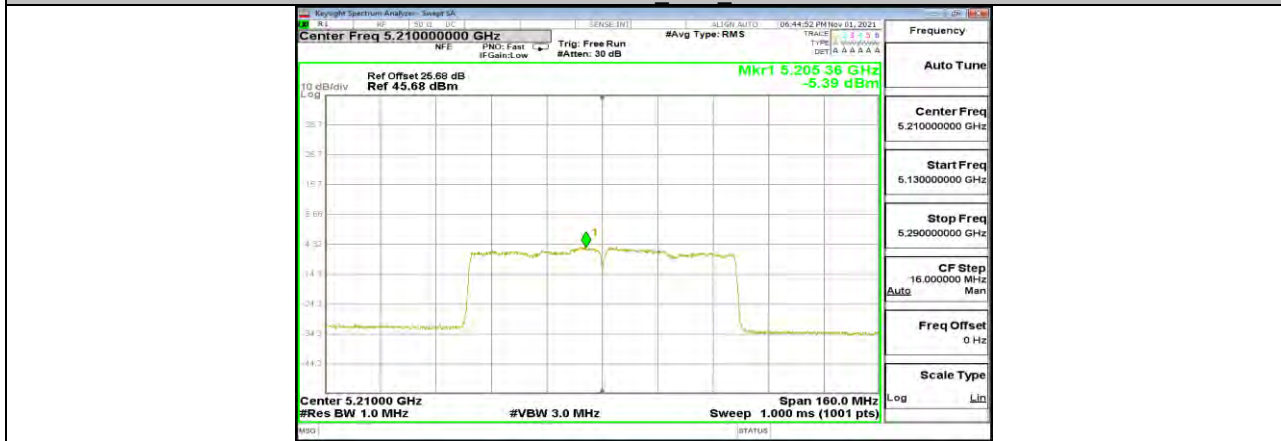
11N40MIMO Ant1 5795



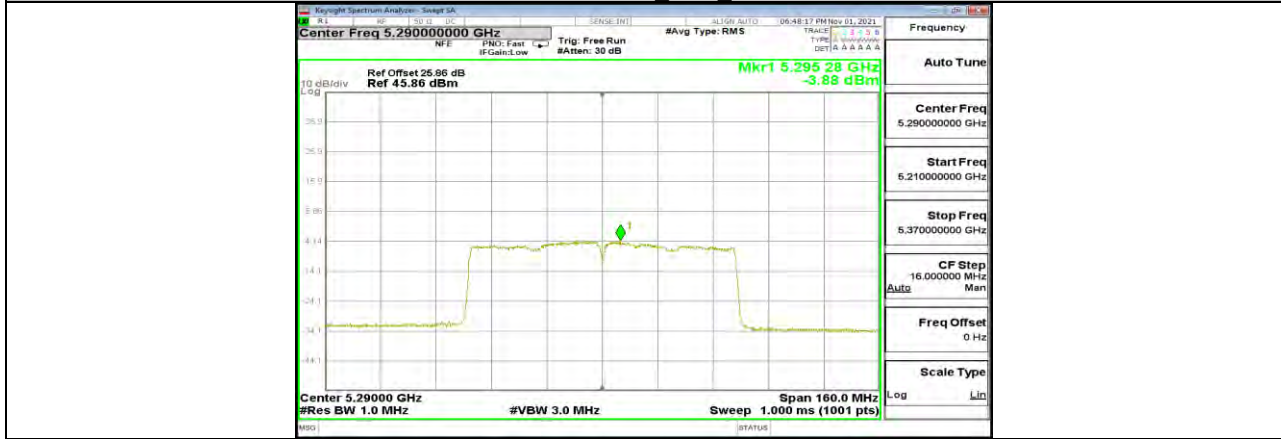
11N40MIMO Ant2 5795



11AC80MIMO Ant1 5210



11AC80MIMO Ant2 5210



11AC80MIMO Ant1 5290



11AC80MIMO_Ant2_5290



11AC80MIMO_Ant1_5530



11AC80MIMO_Ant2_5530



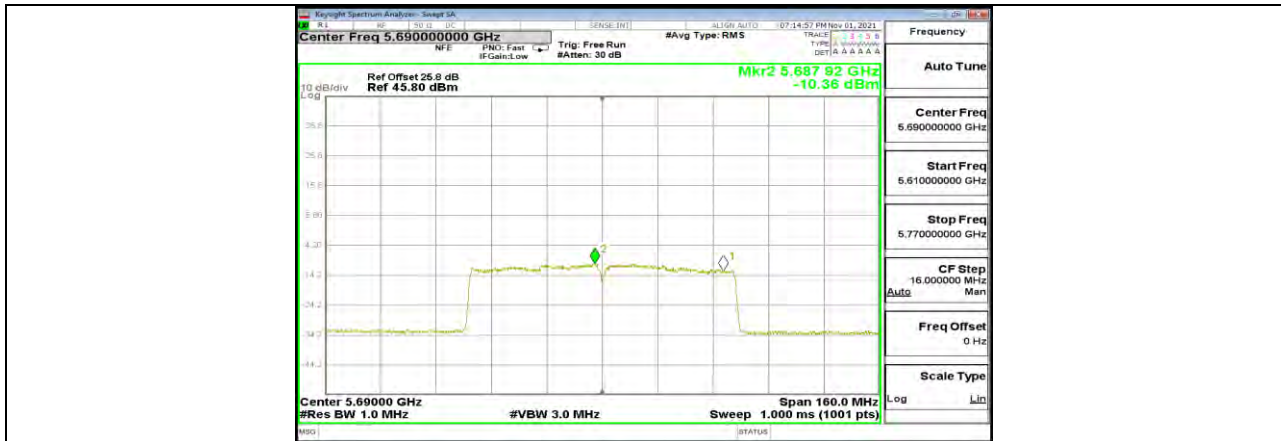
11AC80MIMO Ant1 5610



11AC80MIMO Ant2 5610



11AC80MIMO Ant1 5690 UNII-2C



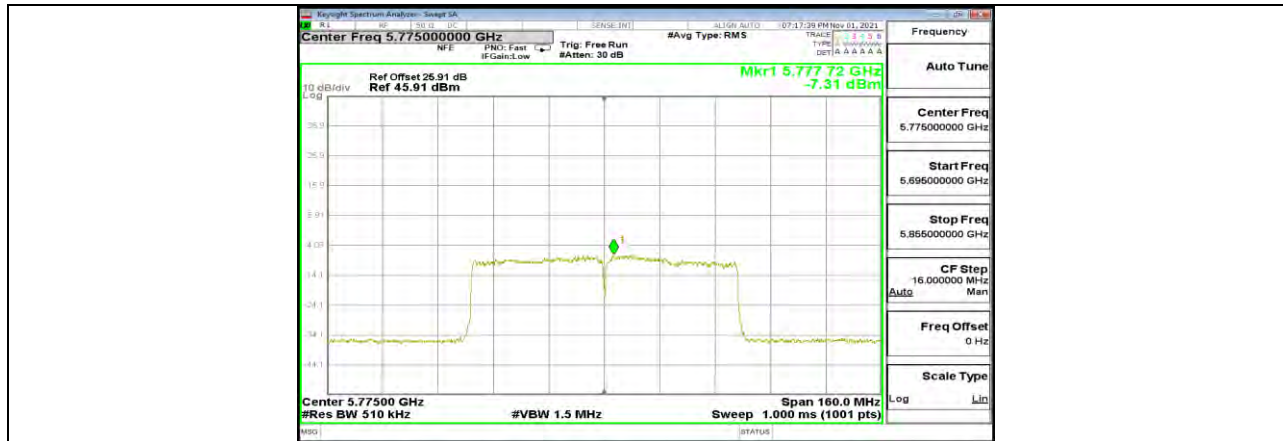
11AC80MIMO Ant2 5690 UNII-2C



11AC80MIMO Ant1 5690 UNII-3



11AC80MIMO Ant2 5690 UNII-3



11AC80MIMO_Ant1_5775



11AC80MIMO_Ant2_5775



12.6. Appendix D: Duty Cycle

12.6.1. Test Result

Test Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11A	1.40	1.43	0.9790	97.90	0.09	0.71	1
11N20MIMO	1.30	1.33	0.9774	97.74	0.10	0.77	1
11N40MIMO	0.65	0.68	0.9559	95.59	0.20	1.54	2
11AC80MIMO	0.96	1.56	0.6154	61.54	2.11	1.04	2

Note:

Duty Cycle Correction Factor=10log (1/x).

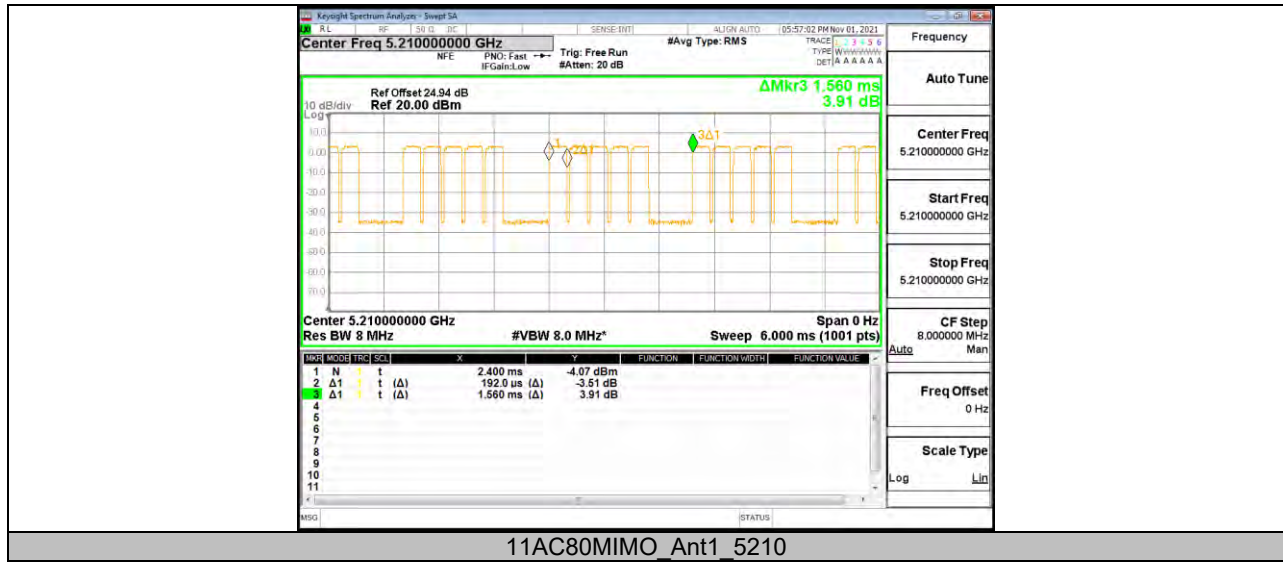
Where: x is Duty Cycle (Linear)

Where: T is On Time

If that calculated VBW is not available on the analyzer then the next higher value should be used.

12.6.2. Test Graphs



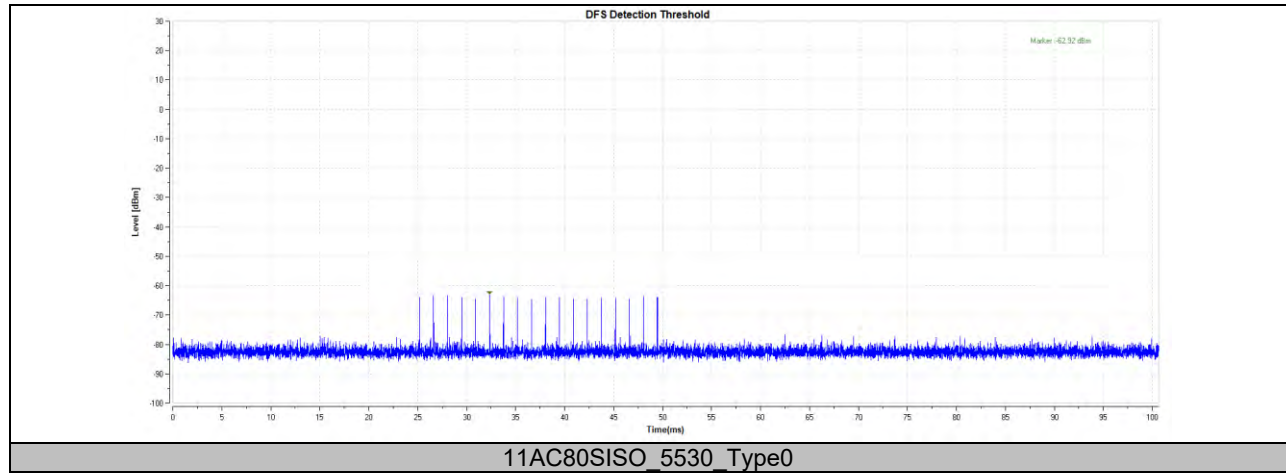


12.7. Appendix E: Dynamic Frequency Selection

Radar Signal Test Result

Test Mode	Channel	Radar Type	Result	Limit[dbm]	Verdict
11AC80SISO	5530	Type0	-62.92	-59.00	PASS

Radar Signal Test Graphs





DFS In-Service Monitoring (5530 MHz;802.11ac VHT 80 Mode)

Test according to FCC title 47 part 15 §15.407(h), KDB 905462 D02 U-NII DFS Compliance Procedures New Rules v02

Measurement Summary

DUT Frequency (MHz)	Radar Type No.	Type of Measurement value	Overall Result
5530.000000	0	Channel Move Time	PASS
5530.000000	0	Channel Closing Transmission Time	PASS
5530.000000	0	Non-occupancy period	PASS

Channel Move Time Detailed Results

DUT Frequency (MHz)	Radar Type No.	CMT Tx Time (s)	CMT Limit (s)	CMT Result
5530.000000	0	0.471	10.000	PASS

(continuation of the "Channel Move Time Detailed Results" table from column 5 ...)

DUT Frequency (MHz)	CMT Comment
5530.000000	Tx Time value is last trailing edge found within sweep. See Note 1.

Channel Closing Transmission Time Detailed Results

DUT Frequency (MHz)	Radar Type No.	CCTT Type of Value	CCTT No. of Pulses found	CCTT Tx Time (ms)
5530.000000	0	first 200 ms	2	0.604
5530.000000	0	remaining 10.0 second(s) period	3	0.900

(continuation of the "Channel Closing Transmission Time Detailed Results" table from column 5 ...)

DUT Frequency (MHz)	CCTT Tx Time Limit (ms)	CCTT Result	CCTT Comment
5530.000000	200.000	PASS	See Note 1.
5530.000000	60.000	PASS	See Note 1.



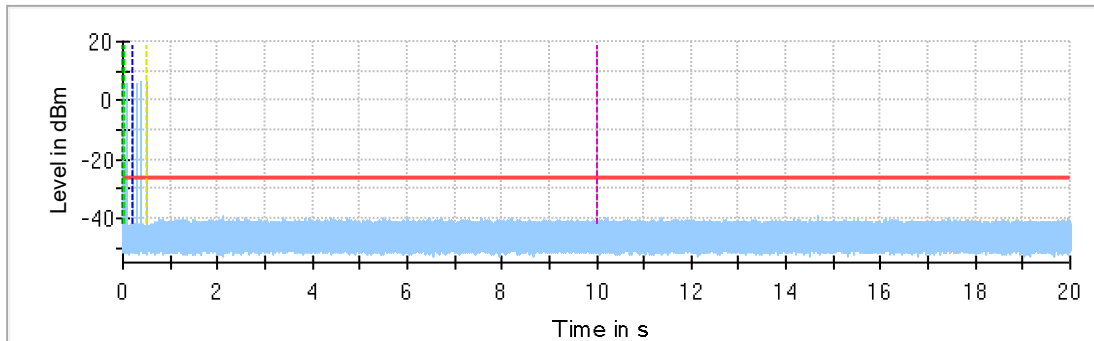
Non-occupancy period Detailed Results

DUT Frequency (MHz)	Radar Type No.	NOP No. of Pulses found	NOP No. of Pulses Limit	NOP Tx Time (s)	NOP Tx Time Limit (s)
5530.000000	0	0	0	0.000	0.000

(continuation of the "Non-occupancy period Detailed Results" table from column 6 ...)

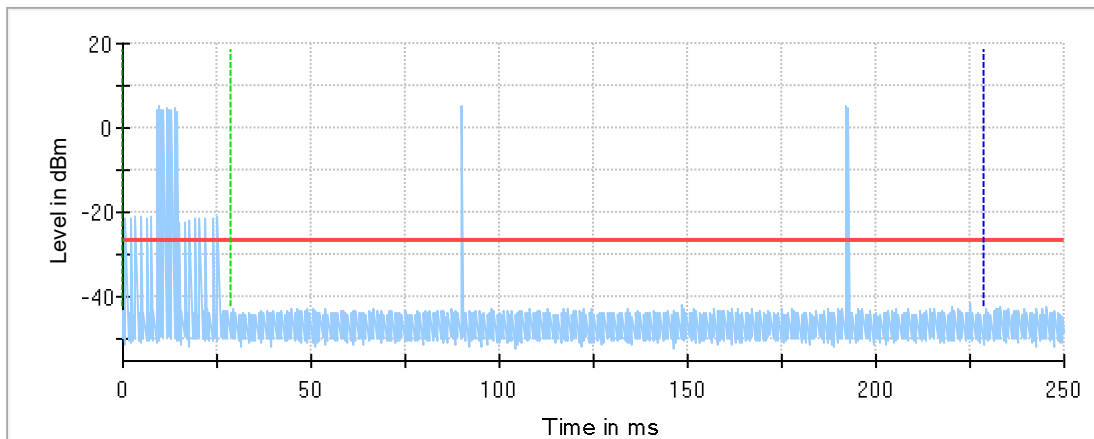
DUT Frequency (MHz)	NOP Result
5530.000000	PASS

Channel Move Time



- Channel Move Time
- Threshold
- - - Start of Radar
- . . . Trigger at end of Radar
- - - First 200ms of Channel Closing Tx Time
- | 10sec Channel Move Time Limit
- - - Last measured edge of Channel Closing Tx Time

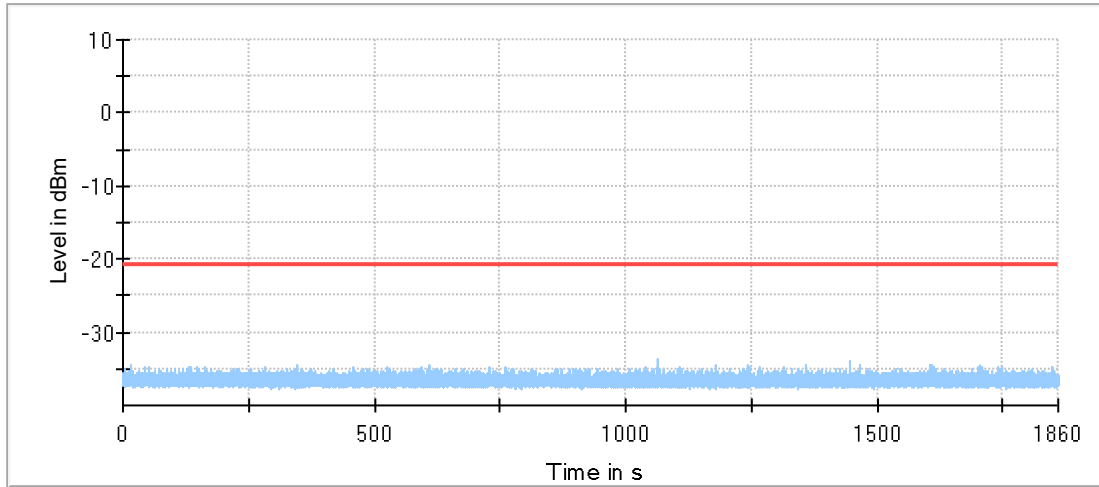
Channel Move Time first 200ms



- Channel Move Time first 200ms
- Threshold
- - - Start of Radar
- . . . Trigger at end of Radar
- - - First 200ms of Channel Closing Tx Time



Non-occupancy period



— Non-occupancy period — Threshold



12.8. Appendix H: Frequency Stability

12.8.1. Test Result

Frequency Error vs. Voltage									
802.11a 20: 5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5199.9833	-3.22	5199.9845	-2.98	5200.0101	1.94	5200.0227	4.36
TN	VN	5200.0111	2.13	5199.9873	-2.45	5199.9798	-3.89	5199.9840	-3.07
TN	VH	5199.9919	-1.55	5199.9947	-1.02	5199.9865	-2.60	5199.9860	-2.68
Frequency Error vs. Temperature									
802.11a 20: 5200MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
70	VN	5200.0039	0.74	5200.0249	4.79	5200.0100	1.92	5199.9975	-0.48
60	VN	5200.0070	1.34	5200.0183	3.51	5199.9776	-4.31	5199.9802	-3.80
50	VN	5199.9761	-4.60	5199.9894	-2.03	5200.0172	3.30	5199.9904	-1.85
40	VN	5200.0084	1.61	5199.9857	-2.75	5200.0204	3.92	5199.9879	-2.34
30	VN	5199.9971	-0.56	5199.9762	-4.57	5199.9964	-0.69	5199.9784	-4.15
20	VN	5200.0040	0.76	5200.0147	2.83	5199.9767	-4.47	5200.0198	3.82
10	VN	5199.9972	-0.54	5200.0142	2.73	5199.9852	-2.84	5199.9923	-1.47
0	VN	5200.0201	3.86	5200.0214	4.11	5199.9942	-1.11	5200.0136	2.62

Note:

1. All antennas and test modes have been tested, only the worst data record in the report.
2. For the detail Test Conditions, please refer to section 10 TEST ENVIRONMENT.



Frequency Error vs. Voltage									
802.11a:5825MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
TN	VL	5825.0001	0.02	5824.9771	-3.93	5824.9983	-0.29	5825.0011	0.19
TN	VN	5825.0135	2.32	5824.9992	-0.13	5825.0037	0.64	5825.0215	3.69
TN	VH	5824.9758	-4.15	5824.9751	-4.27	5824.9885	-1.97	5824.9822	-3.06

Frequency Error vs. Temperature									
802.11a:5825MHz									
Temp.	Volt.	0 Minute		2 Minute		5 Minute		10 Minute	
		Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)	Freq.Error (MHz)	Tolerance (ppm)
70	VN	5825.0223	3.83	5824.9936	-1.10	5824.9983	-0.29	5825.0141	2.42
60	VN	5824.9917	-1.42	5824.9986	-0.25	5825.0006	0.10	5825.0203	3.48
50	VN	5825.0083	1.43	5825.0229	3.93	5824.9884	-2.00	5824.9961	-0.67
40	VN	5825.0159	2.72	5825.0016	0.27	5825.0239	4.10	5825.0233	4.00
30	VN	5825.0066	1.13	5825.0002	0.04	5824.9865	-2.32	5825.0044	0.76
20	VN	5824.9765	-4.04	5825.0010	0.17	5825.0072	1.24	5825.0130	2.24
10	VN	5824.9822	-3.06	5825.0237	4.07	5824.9782	-3.74	5824.9913	-1.49
0	VN	5825.0239	4.10	5824.9922	-1.34	5824.9829	-2.93	5824.9772	-3.92

Note:

1. All antennas and test modes have been tested, only the worst data record in the report.
2. For the detail Test Conditions, please refer to section 10 TEST ENVIRONMENT.

END OF REPORT