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Appendix A for SHEM190801587601

1. Duty Cycle

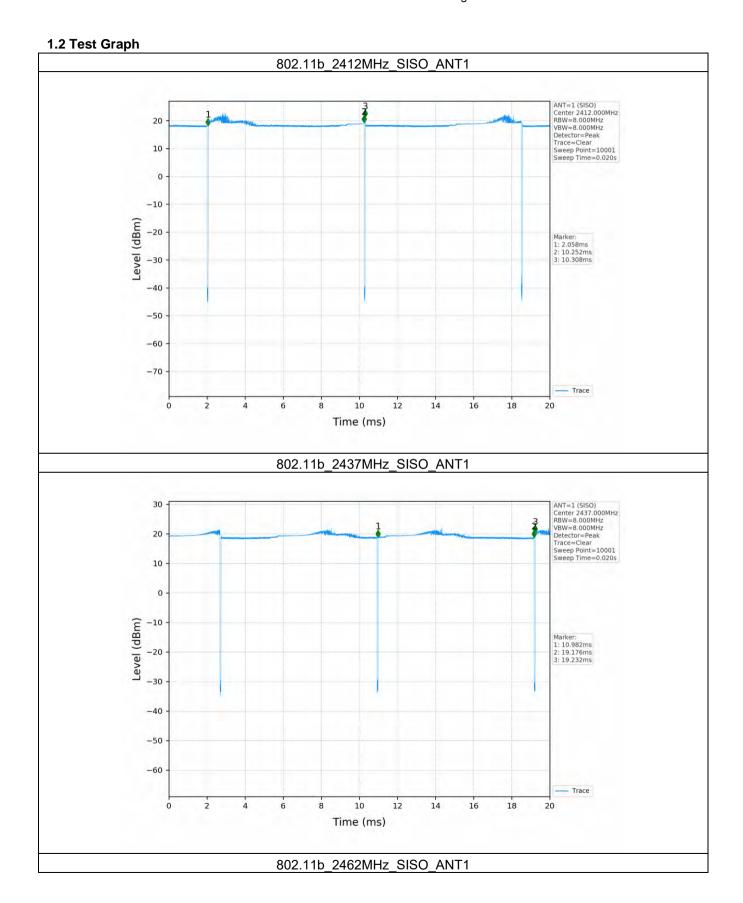
1.1 Test Result

Test Mode	Channel Frequenc y(MHz)	ТХ Туре	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
	2412	SISO	1	8.194	8.250	99.32	0.03
802.11b	2437	SISO	1	8.194	8.250	99.32	0.03
	2462	SISO	1	8.194	8.250	99.32	0.03
	2412	SISO	1	1.360	1.414	96.18	0.17
802.11g	2437	SISO	1	1.360	1.414	96.18	0.17
	2462	SISO	1	1.360	1.414	96.18	0.17
000 44 (11700	2412	SISO	1	1.272	1.326	95.93	0.18
802.11n(HT20	2437	SISO	1	1.272	1.326	95.93	0.18
,	2462	SISO	1	1.272	1.326	95.93	0.18
802.11n(HT40	2422	SISO	1	0.632	0.686	92.13	0.36
	2437	SISO	1	0.632	0.686	92.13	0.36
	2452	SISO	1	0.632	0.686	92.13	0.36



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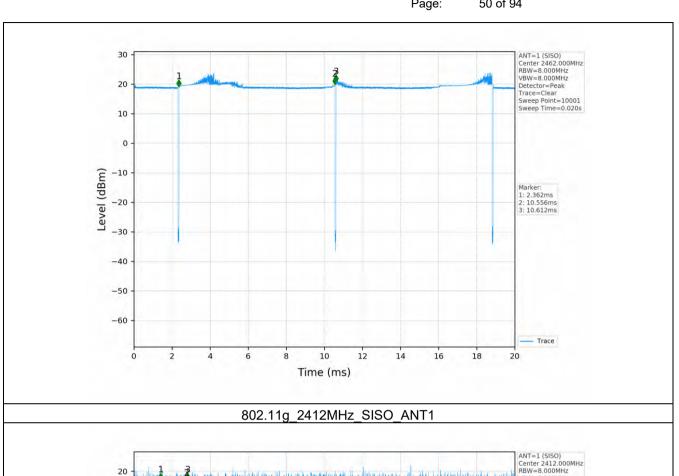
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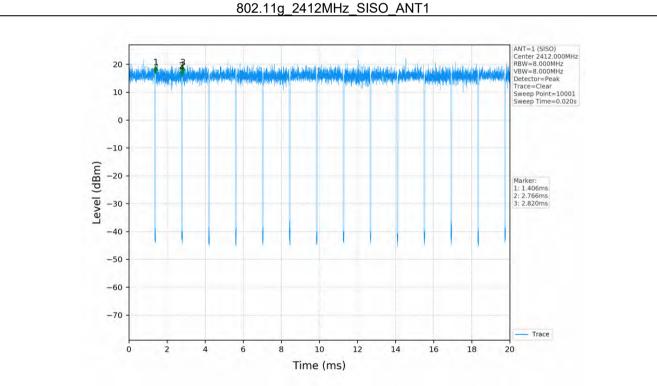




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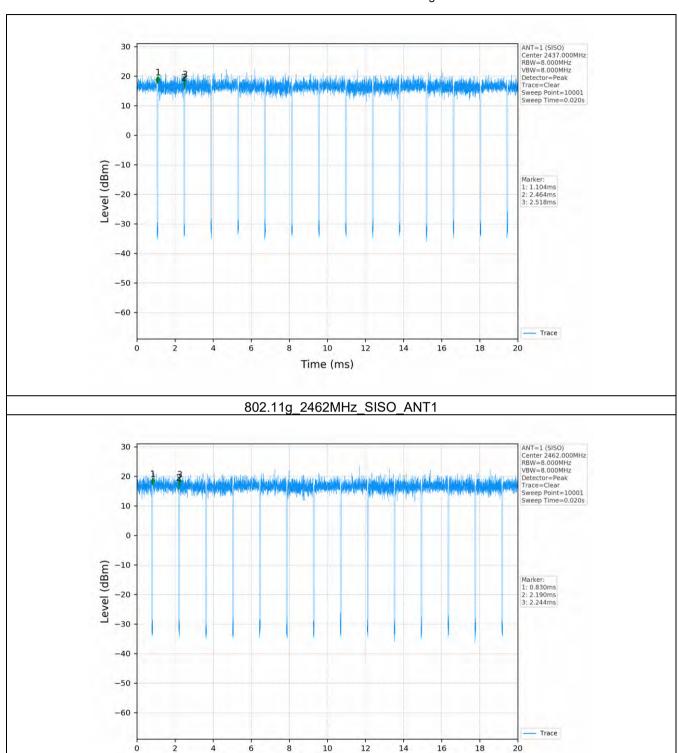


802.11g_2437MHz_SISO_ANT1



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Time (ms)

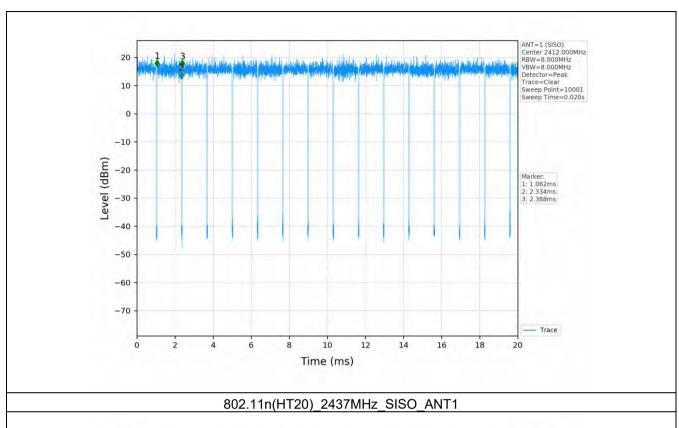
802.11n(HT20)_2412MHz_SISO_ANT1

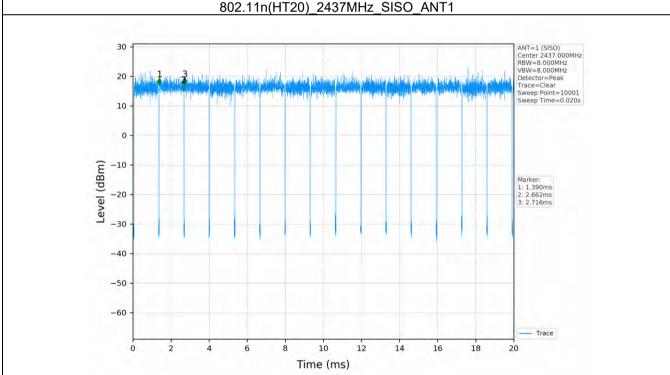
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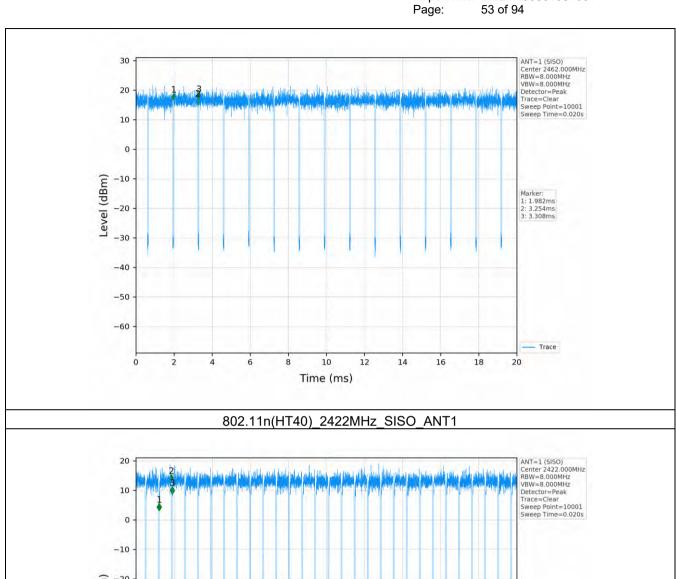


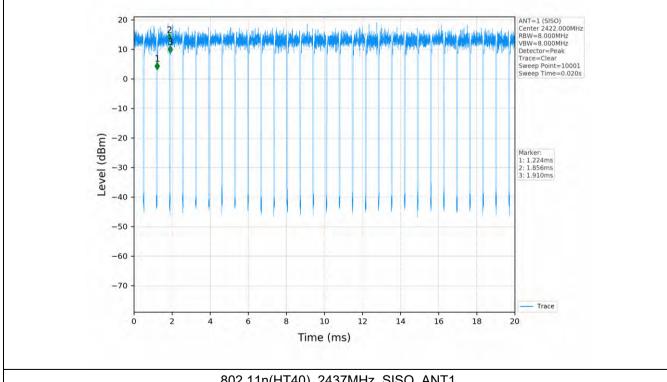
802.11n(HT20) 2462MHz SISO ANT1

NO.588 West Jindu Road, Songjiang District, Shanghal, China 201612 中国・上海・松江区金都西路588号 邮编: 201612 t(86-21)61915666 f(86-21)61915678 www.sgsgroup.com.cn t(86-21)61915666 f(86-21)61915678 e sgs.china@sgs.com



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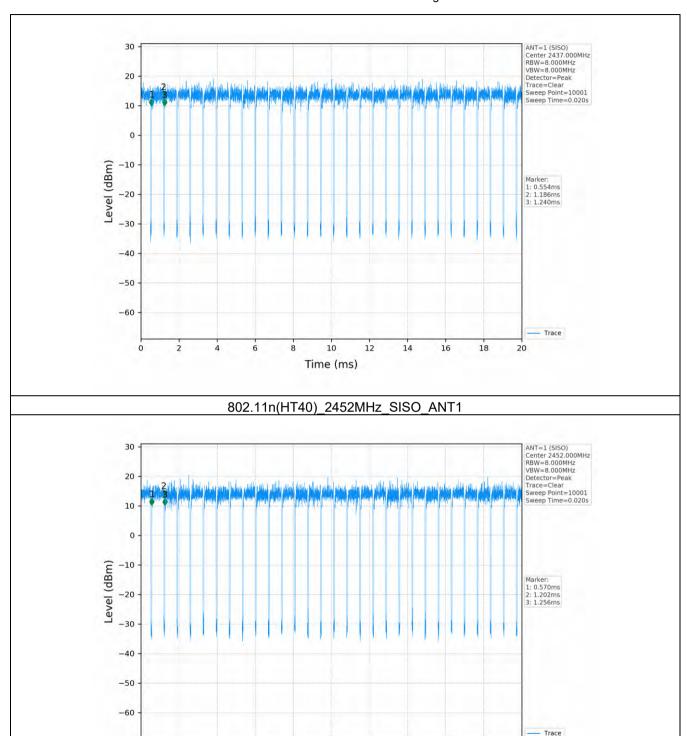


802.11n(HT40)_2437MHz_SISO_ANT1



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10

Time (ms)

12

18



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2. Bandwidth

2.1 Test Result

	Frequenc y (MHz)	TX Type	ANT No.	6dB Ba		
Test Mode				Test Result (MHz)	Limits (MHz)	Verdict
	2412	SISO	1	10.060	≥0.5	PASS
802.11b	2437	SISO	1	10.060	≥0.5	PASS
	2462	SISO	1	10.070	≥0.5	PASS
	2412	SISO	1	16.390	≥0.5	PASS
802.11g	2437	SISO	1	16.390	≥0.5	PASS
	2462	SISO	1	16.410	≥0.5	PASS
000 44 (1170	2412	SISO	1	17.380	≥0.5	PASS
802.11n(HT2	2437	SISO	1	17.590	≥0.5	PASS
0)	2462	SISO	1	17.340	≥0.5	PASS
802.11n(HT4 0)	2422	SISO	1	35.150	≥0.5	PASS
	2437	SISO	1	35.390	≥0.5	PASS
	2452	SISO	1	35.160	≥0.5	PASS

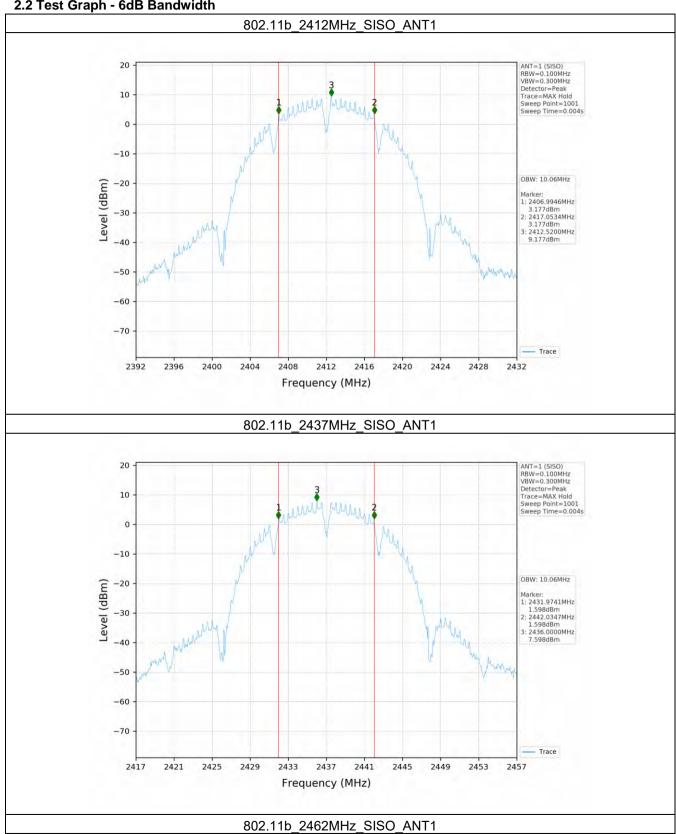
TaskMada	Frequenc	TX Type	ANT No.	99% Occupied Bandwidth			
Test Mode	y (MHz)			Test Result (MHz)			
	2412	SISO	1	14.960	Only for Report Use		
802.11b	2437	SISO	1	15.040	Only for Report Use		
	2462	SISO	1	14.900	Only for Report Use		
	2412	SISO	1	16.880	Only for Report Use		
802.11g	2437	SISO	1	16.860	Only for Report Use		
	2462	SISO	1	16.860	Only for Report Use		
000 44 (UT0	2412	SISO	1	17.960	Only for Report Use		
802.11n(HT2	2437	SISO	1	17.860	Only for Report Use		
0)	2462	SISO	1	17.900	Only for Report Use		
802.11n(HT4 0)	2422	SISO	1	36.190	Only for Report Use		
	2437	SISO	1	36.350	Only for Report Use		
	2452	SISO	1	36.310	Only for Report Use		



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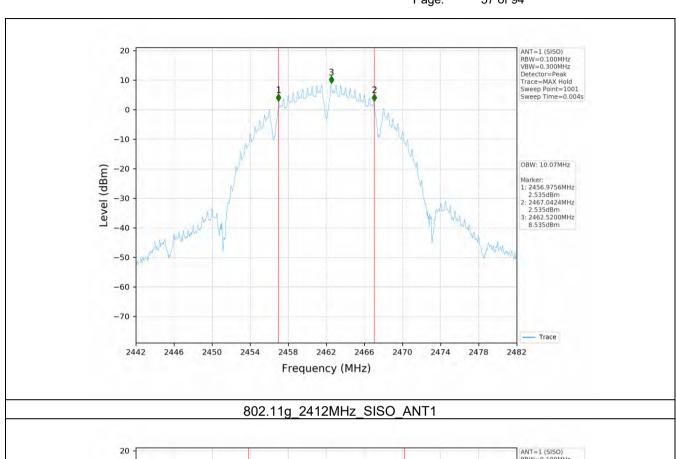
2.2 Test Graph - 6dB Bandwidth

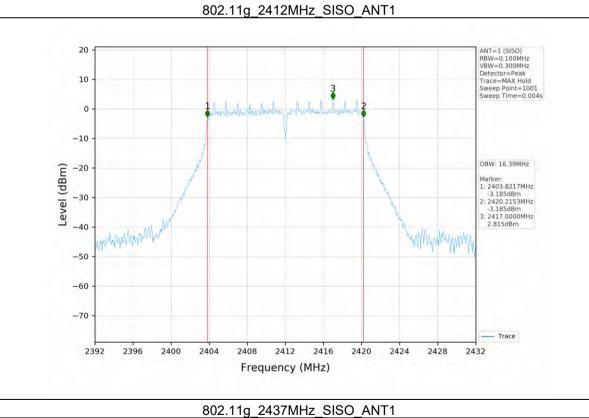




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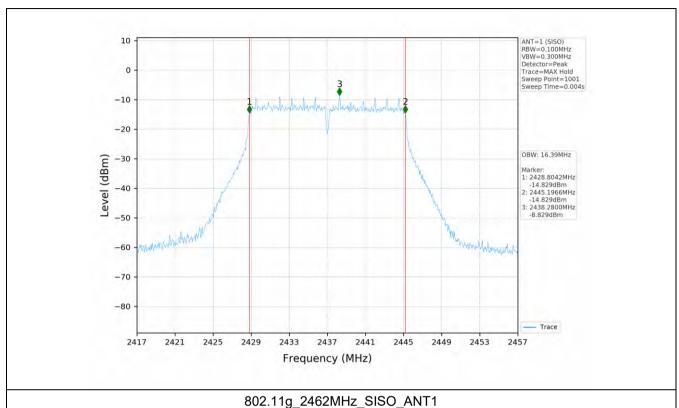


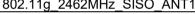


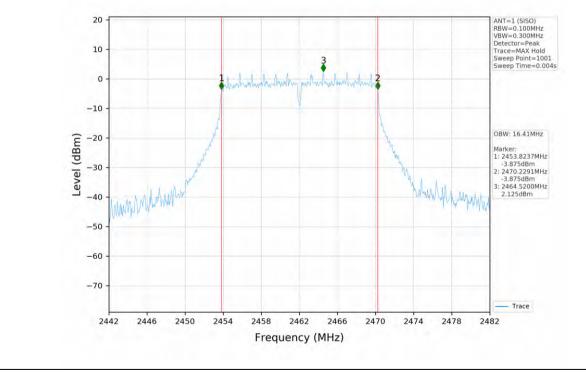


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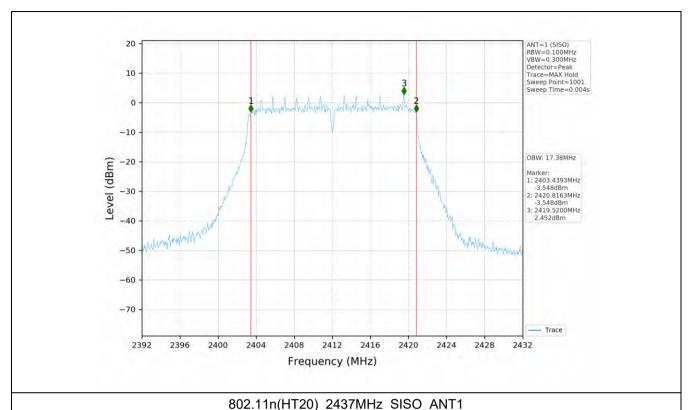


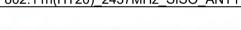
802.11n(HT20)_2412MHz_SISO_ANT1

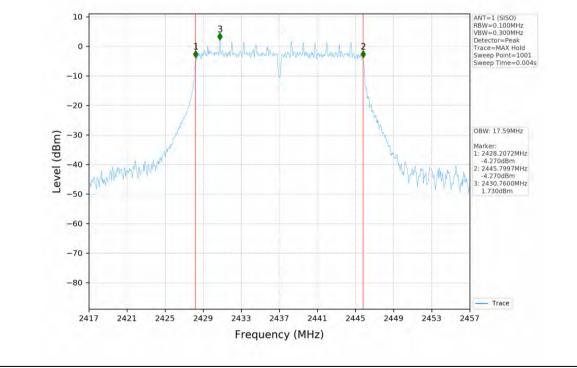


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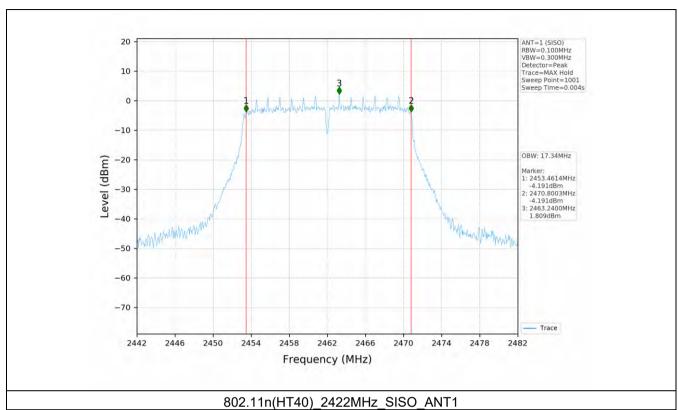


802.11n(HT20)_2462MHz_SISO_ANT1

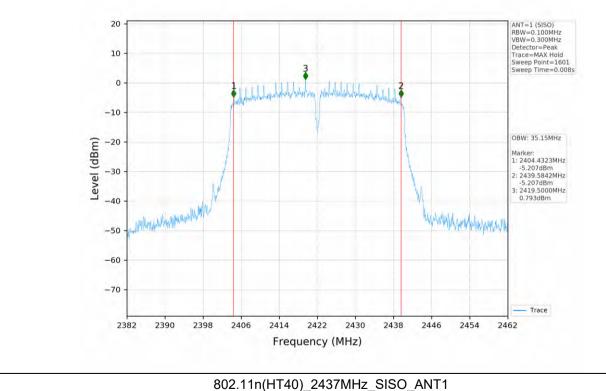


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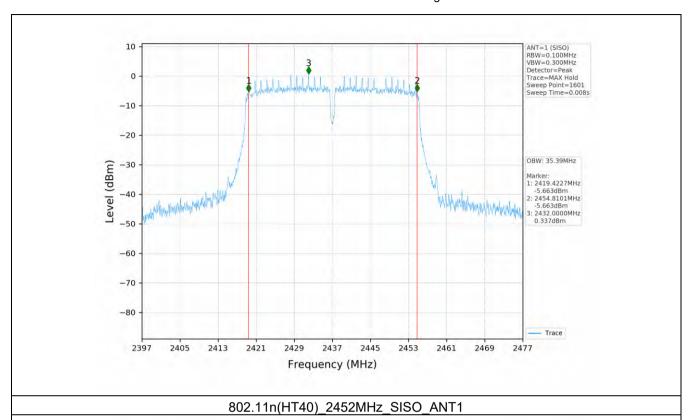
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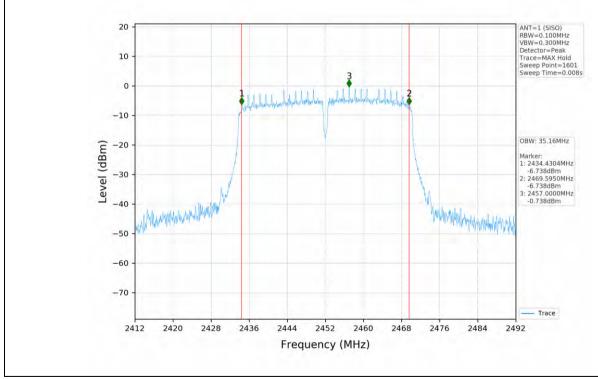
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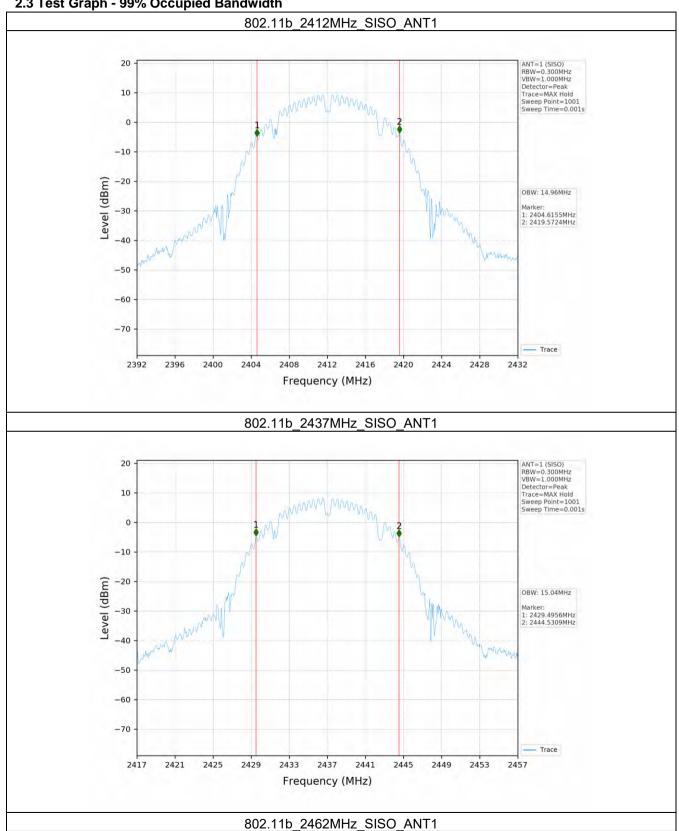




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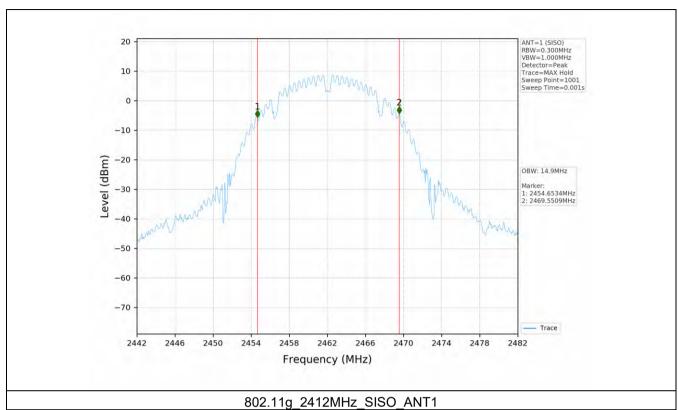
2.3 Test Graph - 99% Occupied Bandwidth

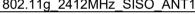


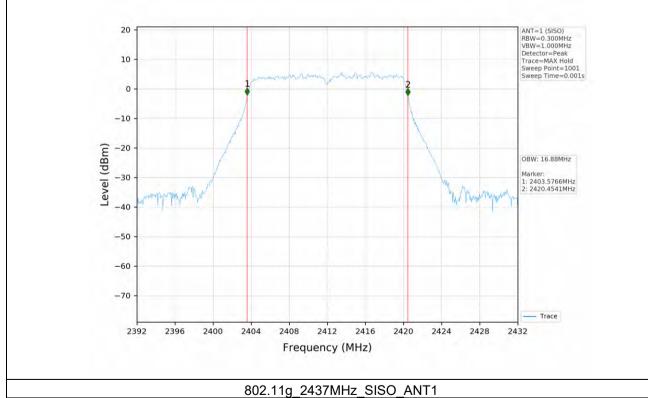


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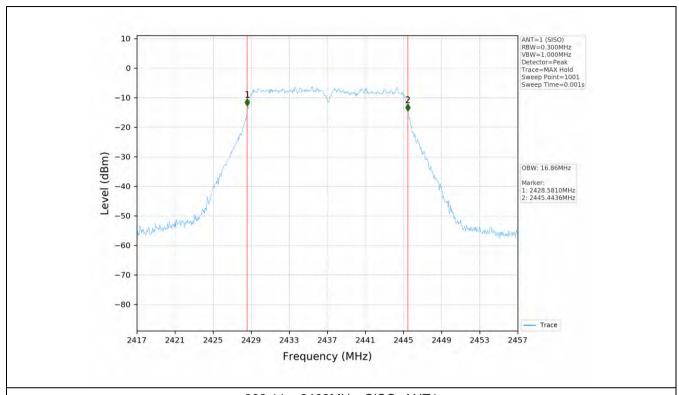
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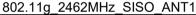
t(86-21) 61915666 f(86-21) 61915678 www.sgsgroup.com.cn t(86-21) 61915666 f(86-21) 61915678 e sgs.china@sgs.com

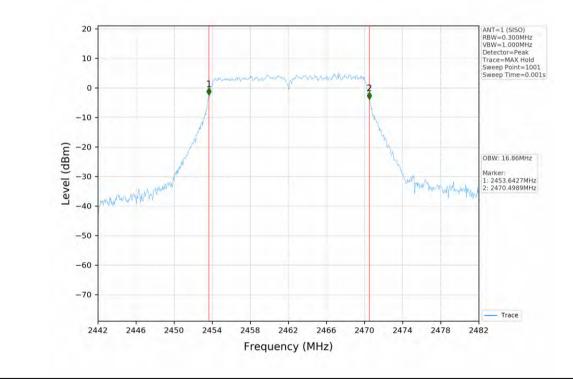


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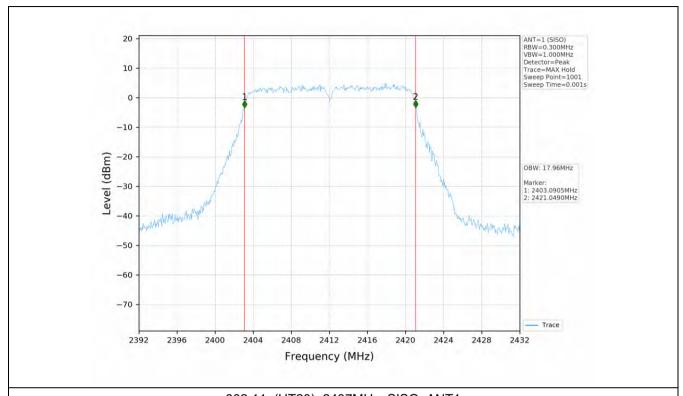


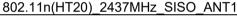
802.11n(HT20)_2412MHz_SISO_ANT1

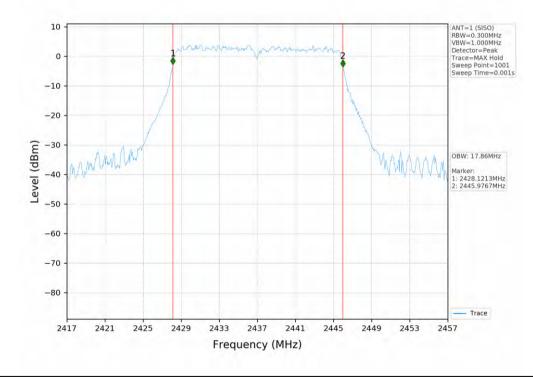


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802.11n(HT20)_2462MHz_SISO_ANT1



-60

-70

2382

2390

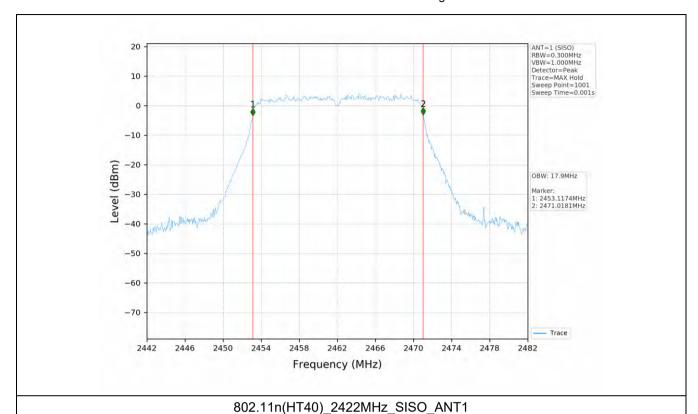
2398

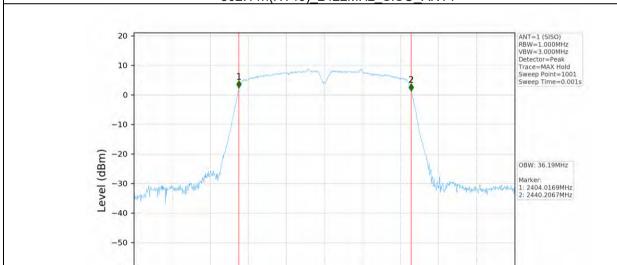
2406

SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch

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802.11n(HT40)_2437MHz_SISO_ANT1

2430

2438

2446

2454

2462

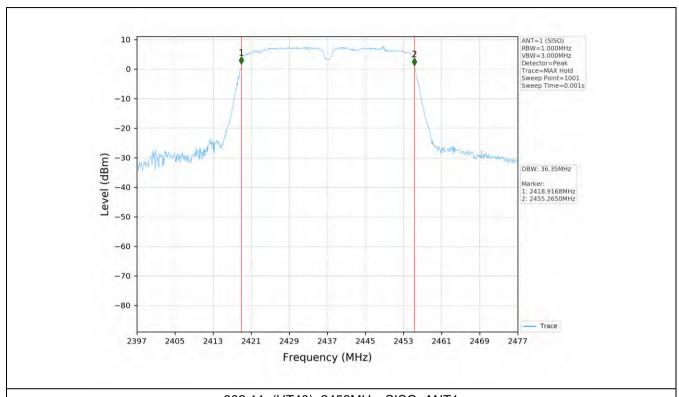
2422

Frequency (MHz)

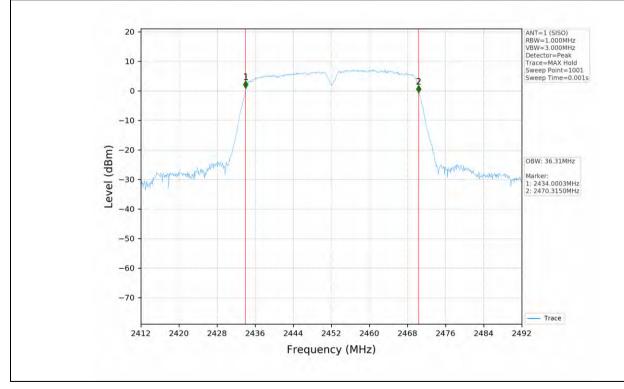


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3. Maximum Conducted Output Power

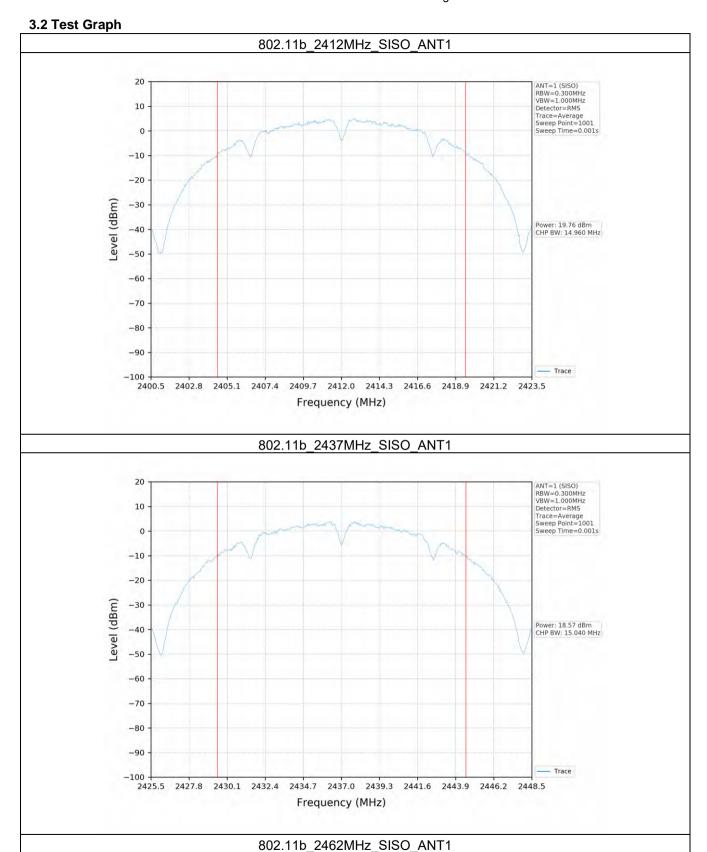
3.1 Test Result

Test Mode	Frequenc y (MHz)	Тх Туре	Duty Cycle Correctio n Factor (dB)	Level (dBm)	Maximum Conducted Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1	Ant 1	Ant 1		
	2412	SISO	0.03	19.76	19.79	≤30	PASS
802.11b	2437	SISO	0.03	18.57	18.60	≤30	PASS
	2462	SISO	0.03	19.16	19.19	≤30	PASS
	2412	SISO	0.17	14.03	14.20	≤30	PASS
802.11g	2437	SISO	0.17	14.46	14.63	≤30	PASS
	2462	SISO	0.17	13.42	13.59	≤30	PASS
000 44 (UT00	2412	SISO	0.18	13.53	13.71	≤30	PASS
802.11n(HT20)	2437	SISO	0.18	12.73	12.91	≤30	PASS
	2462	SISO	0.18	12.78	12.96	≤30	PASS
802.11n(HT40)	2422	SISO	0.36	14.20	14.56	≤30	PASS
	2437	SISO	0.36	13.84	14.20	≤30	PASS
	2452	SISO	0.36	13.03	13.39	≤30	PASS



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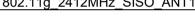


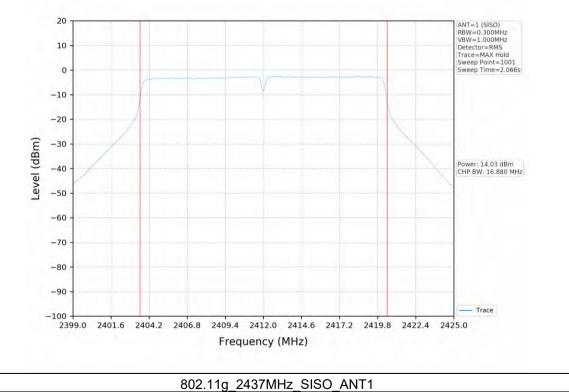


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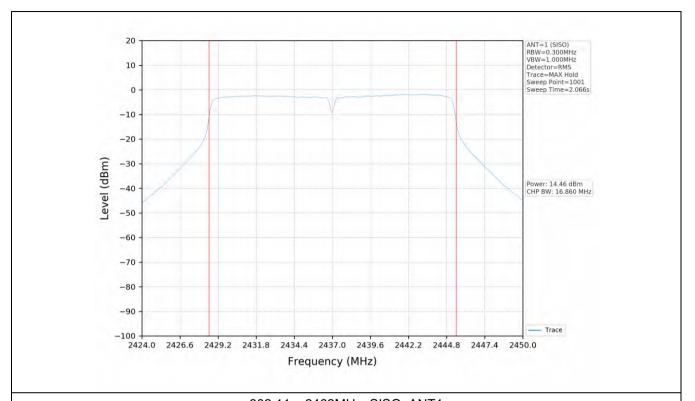




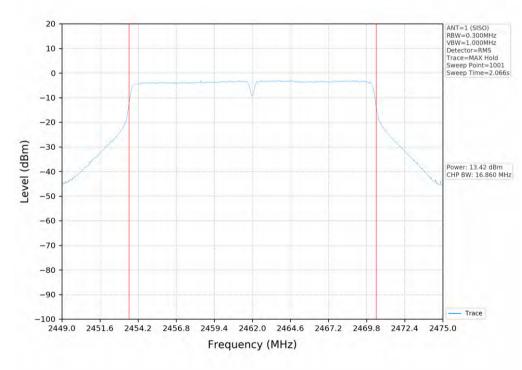


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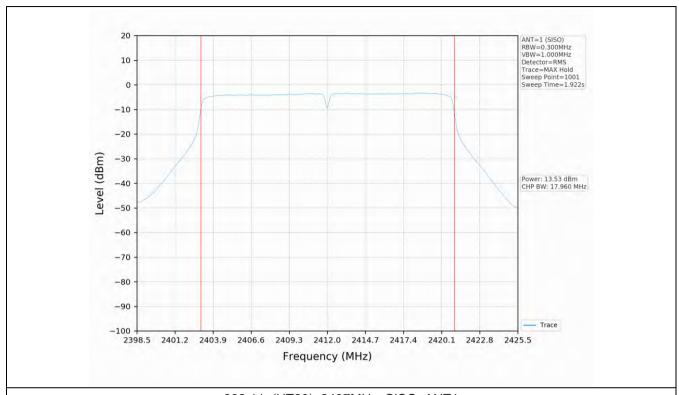


802.11n(HT20)_2412MHz_SISO_ANT1

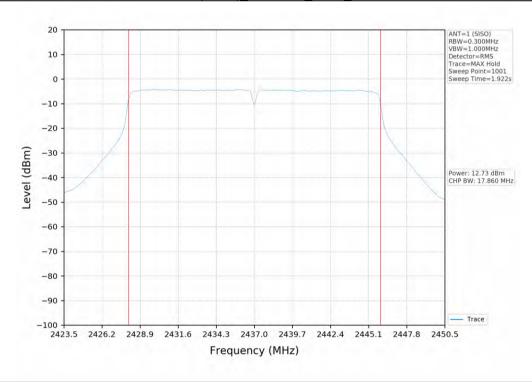


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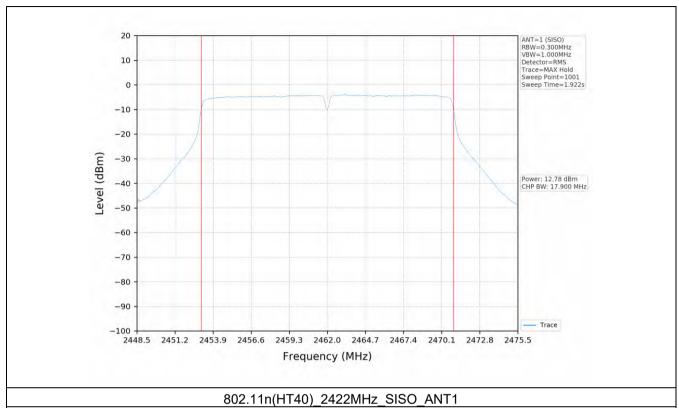


802.11n(HT20)_2462MHz_SISO_ANT1



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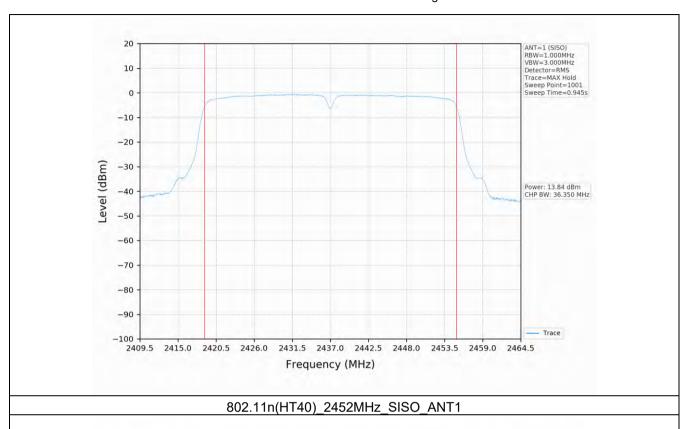


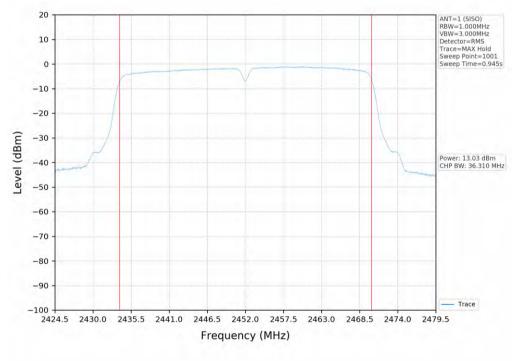
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4. Maximum Power Spectral Density (PSD)

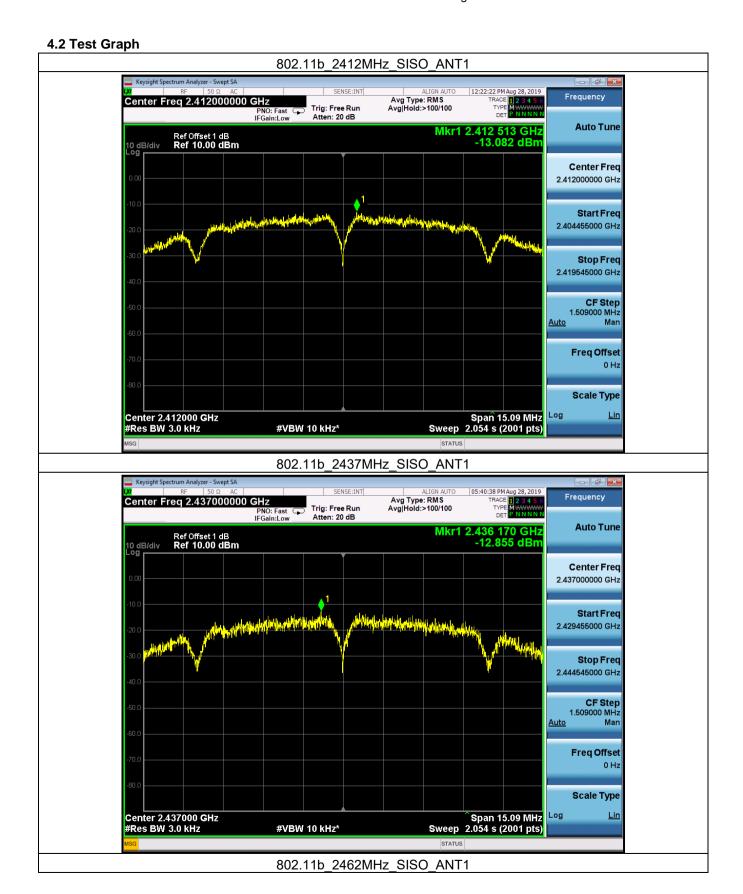
4.1 Test Result

Test Mode	Frequenc y (MHz)	Тх Туре	Duty Cycle Correctio n Factor (dB)	Level (dBm/3K Hz)	Maximu m Power Spectral Density (dBm/3K Hz)	Limits (dBm/3k Hz)	Verdict
			Ant 1	Ant 1	Ant 1		
	2412	SISO	0.03	-13.082	-13.052	≤8	PASS
802.11b	2437	SISO	0.03	-12.855	-12.825	≤8	PASS
	2462	SISO	0.03	-13.096	-13.066	≤8	PASS
	2412	SISO	0.17	-17.622	-17.452	≤8	PASS
802.11g	2437	SISO	0.17	-19.253	-19.083	≤8	PASS
	2462	SISO	0.17	-17.947	-17.777	≤8	PASS
000 44 (11700	2412	SISO	0.18	-17.004	-16.824	≤8	PASS
802.11n(HT20	2437	SISO	0.18	-17.273	-17.093	≤8	PASS
)	2462	SISO	0.18	-18.406	-18.226	≤8	PASS
802.11n(HT40)	2422	SISO	0.36	-22.116	-21.756	≤8	PASS
	2437	SISO	0.36	-21.800	-21.440	≤8	PASS
	2452	SISO	0.36	-18.406	-18.046	≤8	PASS



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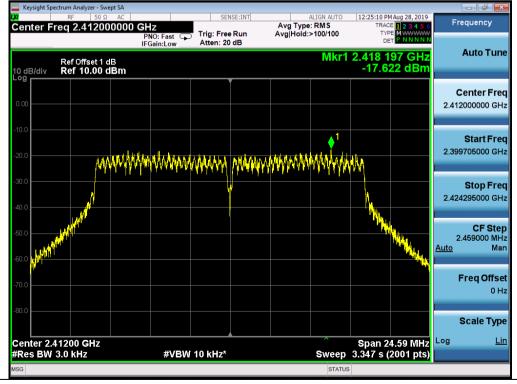


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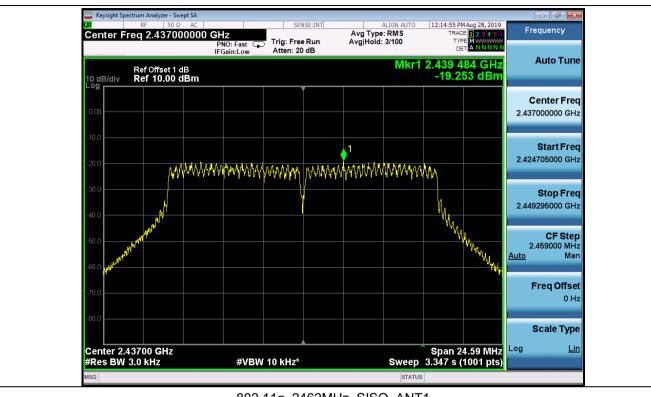


802.11g 2437MHz SISO ANT1

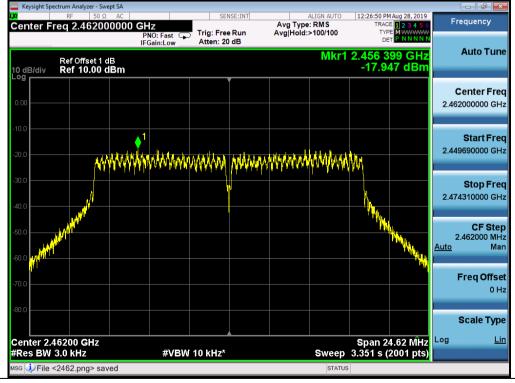


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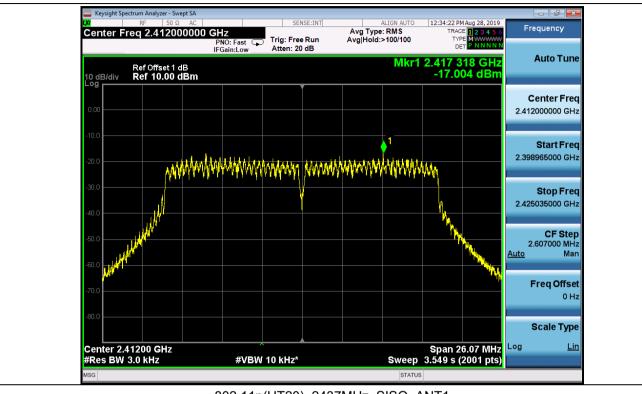


802.11n(HT20)_2412MHz_SISO_ANT1



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802.11n(HT20) 2437MHz SISO ANT1

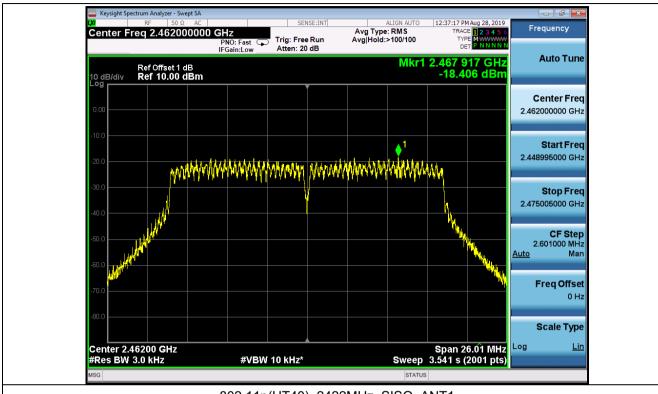


802.11n(HT20) 2462MHz SISO ANT1

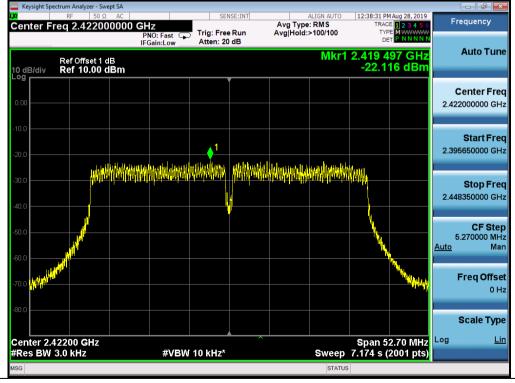


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802.11n(HT40) 2422MHz SISO ANT1

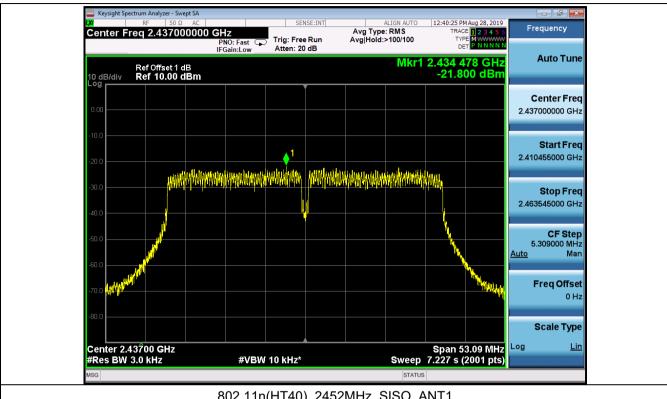


802.11n(HT40)_2437MHz_SISO_ANT1

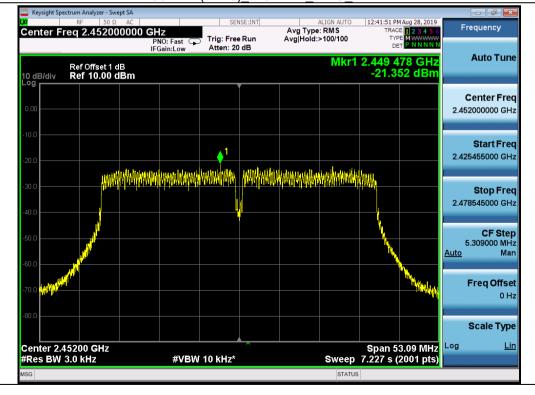


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802.11n(HT40) 2452MHz SISO ANT1





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5. Unwanted Emissions in Non-restricted Frequency Bands

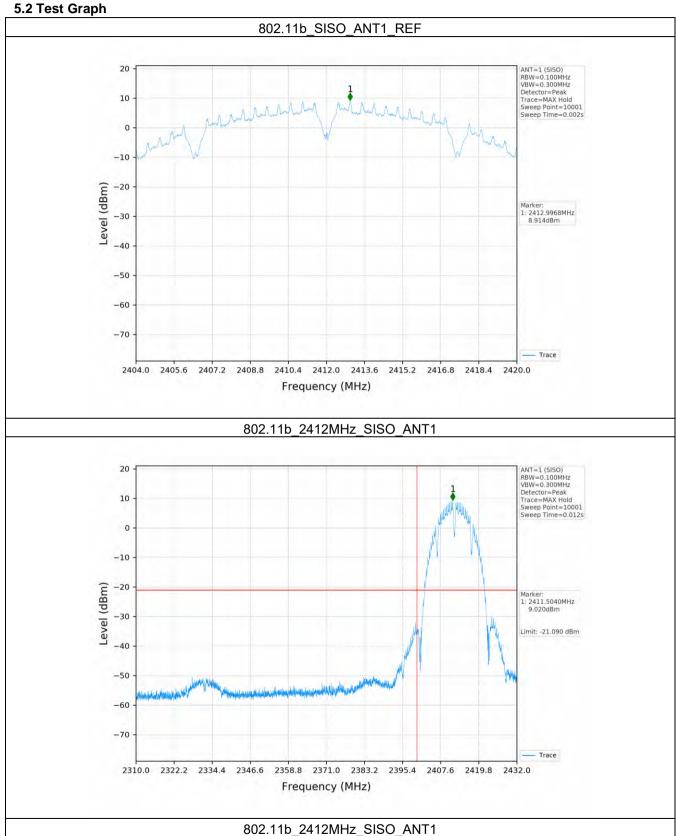
5.1 Test Result

Test Mode	Frequenc y (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBc)	Limits (dBc)	Verdict
	2412	SISO	1	Refer to test graph	≤-30	PASS
802.11b	2437	SISO	1	Refer to test graph	≤-30	PASS
	2462	SISO	1	Refer to test graph	≤-30	PASS
	2412	SISO	1	Refer to test graph	≤-30	PASS
802.11g	2437	SISO	1	Refer to test graph	≤-30	PASS
	2462	SISO	1	Refer to test graph	≤-30	PASS
	2412	SISO	1	Refer to test graph	≤-30	PASS
802.11n(HT20)	2437	SISO	1	Refer to test graph	≤-30	PASS
	2462	SISO	1	Refer to test graph	≤-30	PASS
802.11n(HT40)	2422	SISO	1	Refer to test graph	≤-30	PASS
	2437	SISO	1	Refer to test graph	≤-30	PASS
	2452	SISO	1	Refer to test graph	≤-30	PASS



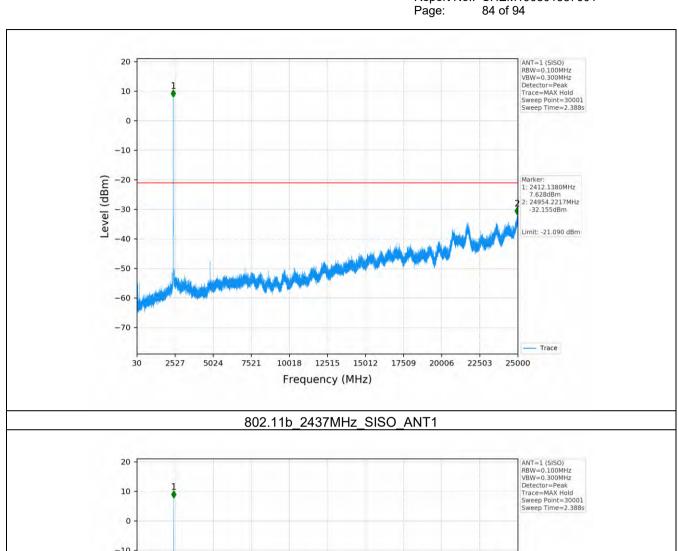
Report No.: SHEM190801587601

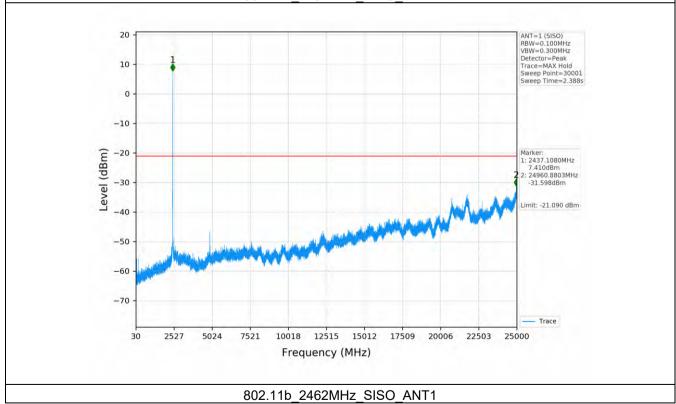
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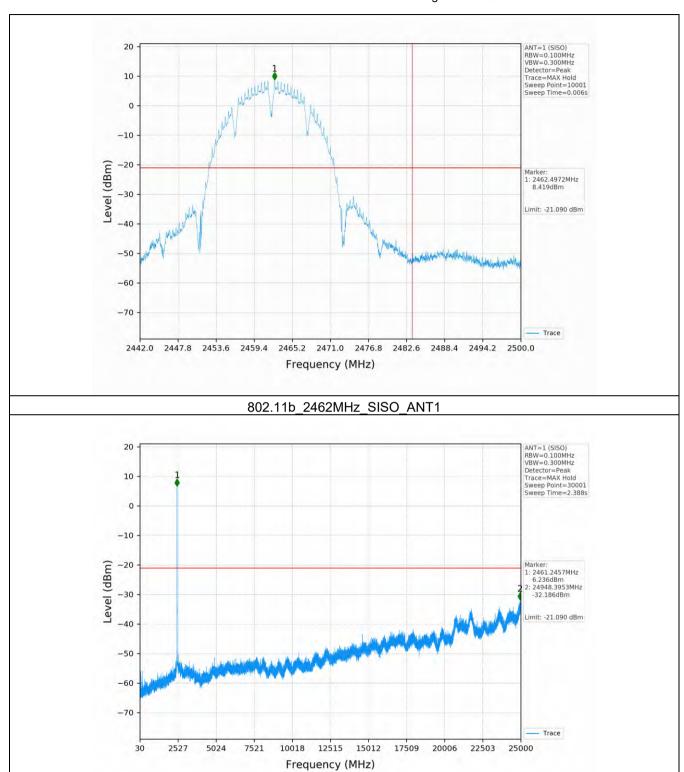






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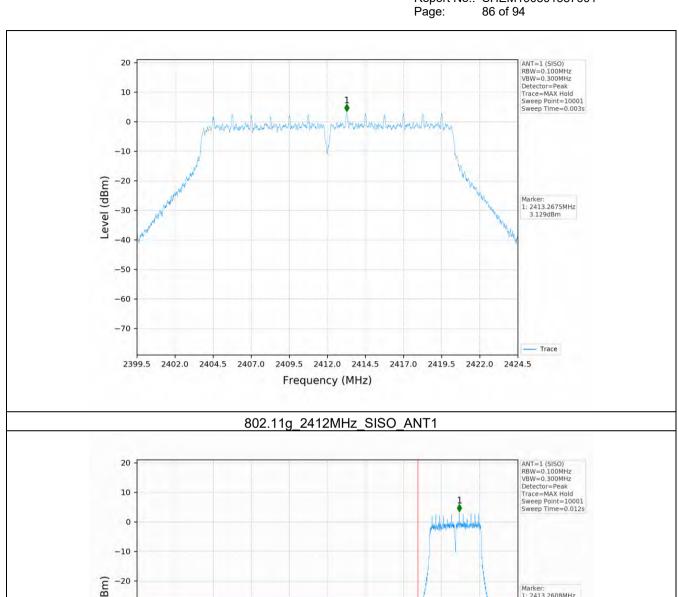
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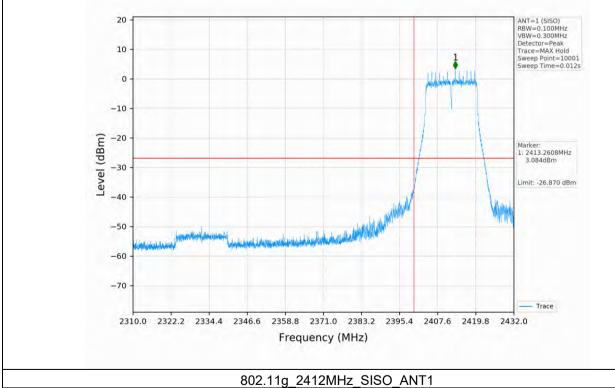


802.11g_SISO_ANT1_REF



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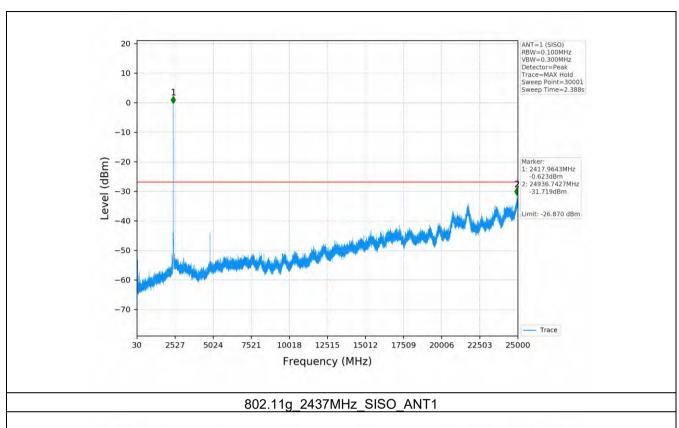


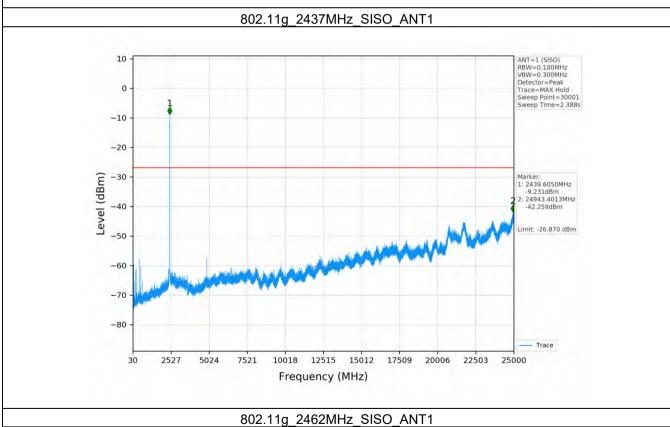




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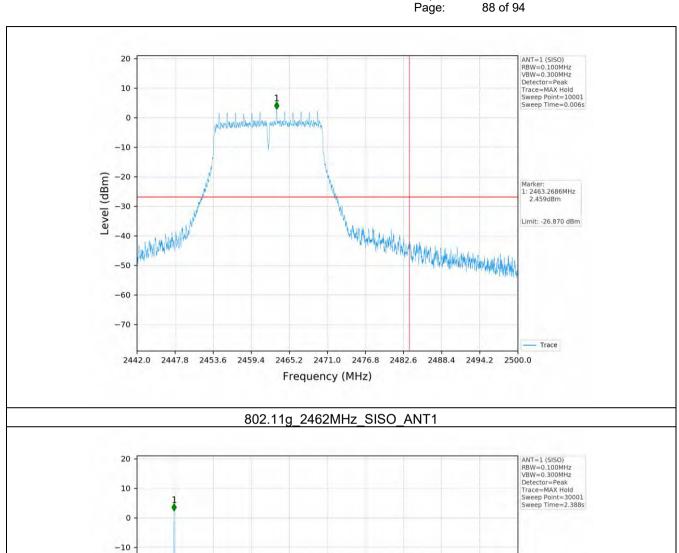


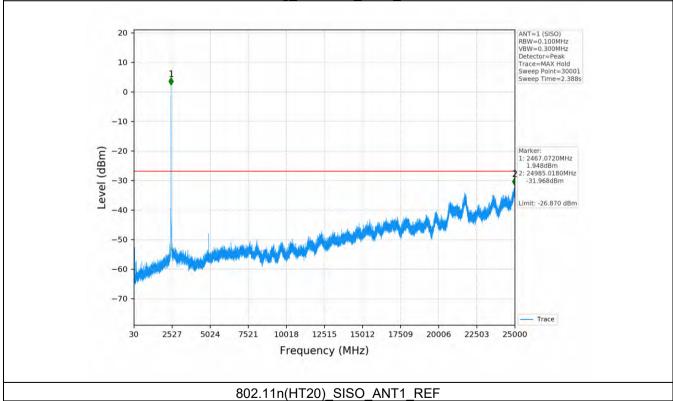




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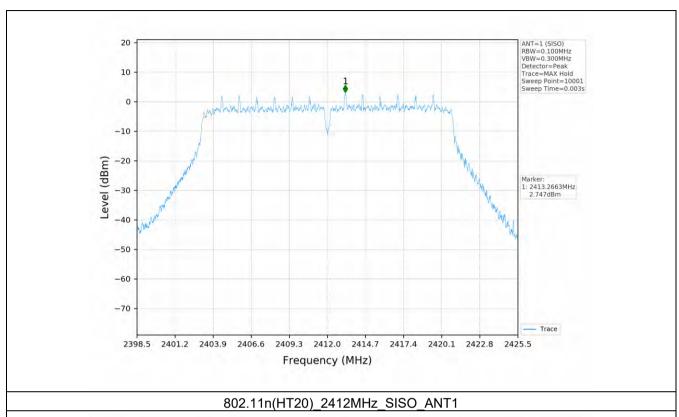


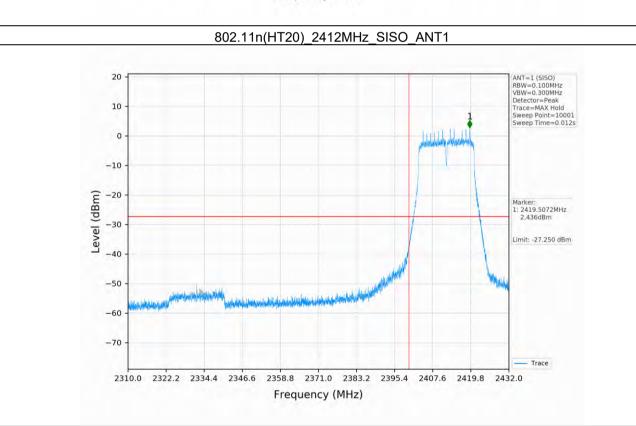




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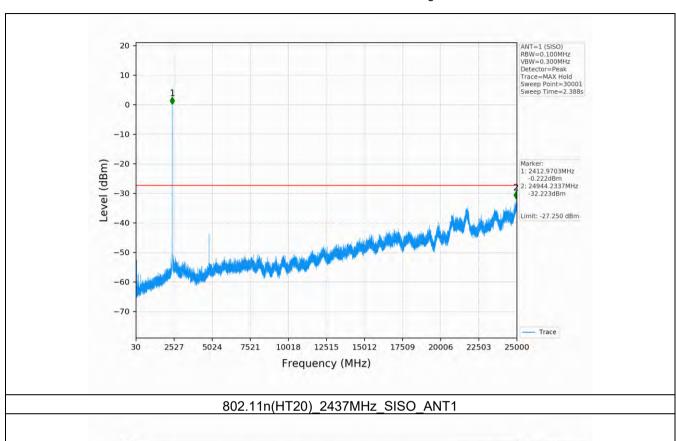


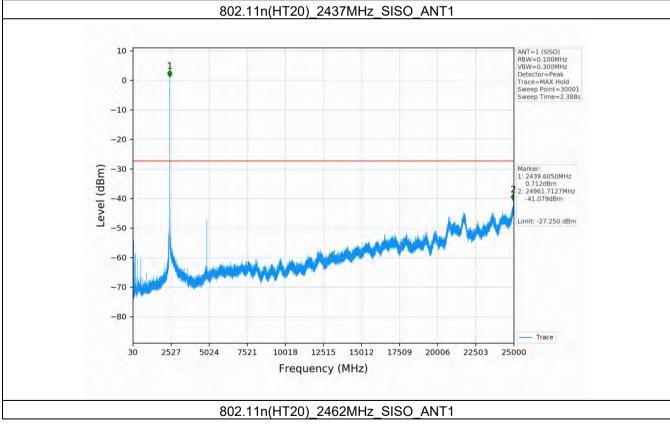
802.11n(HT20)_2412MHz_SISO_ANT1



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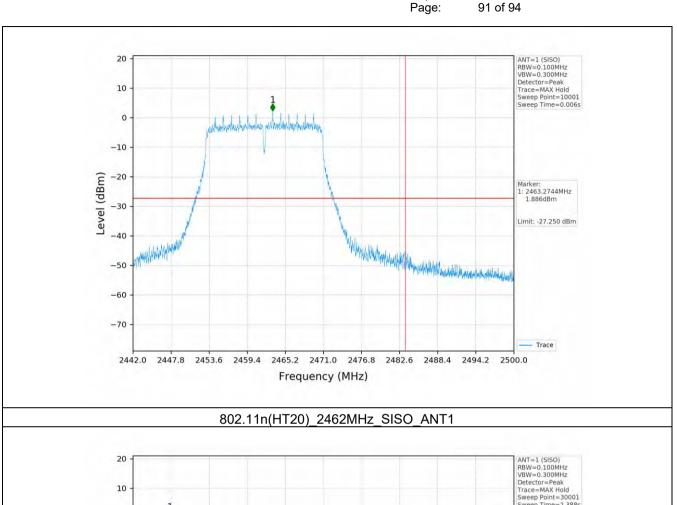


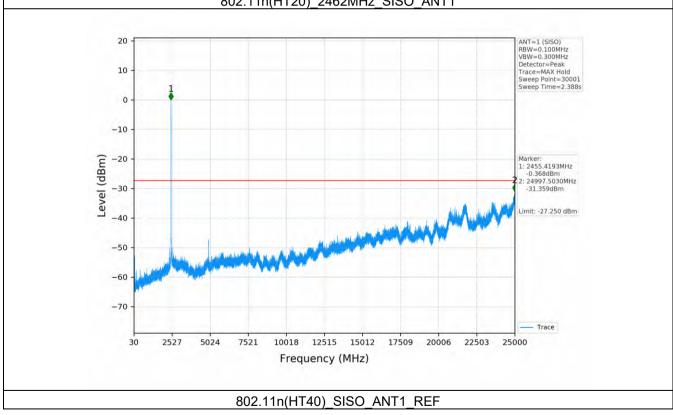




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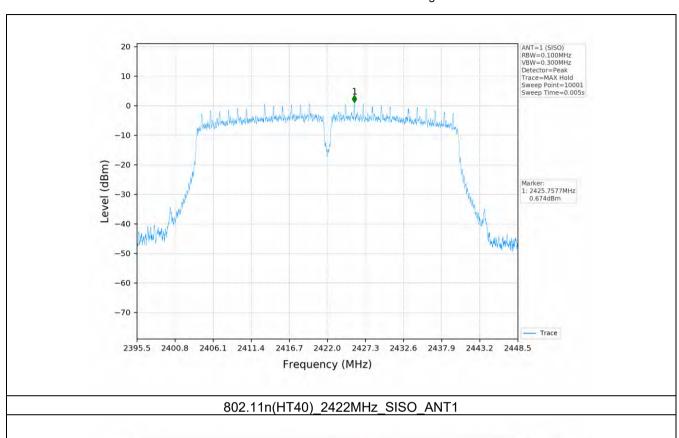


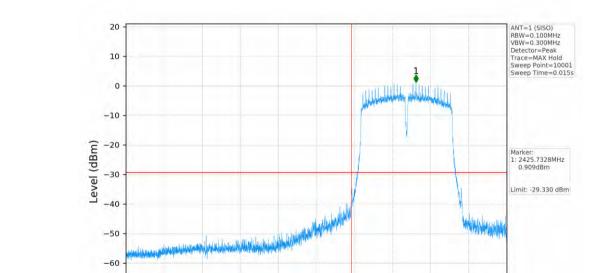
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802.11n(HT40)_2422MHz_SISO_ANT1

2416.4 2431.6

2446.8 2462.0

2370.8 2386.0 2401.2

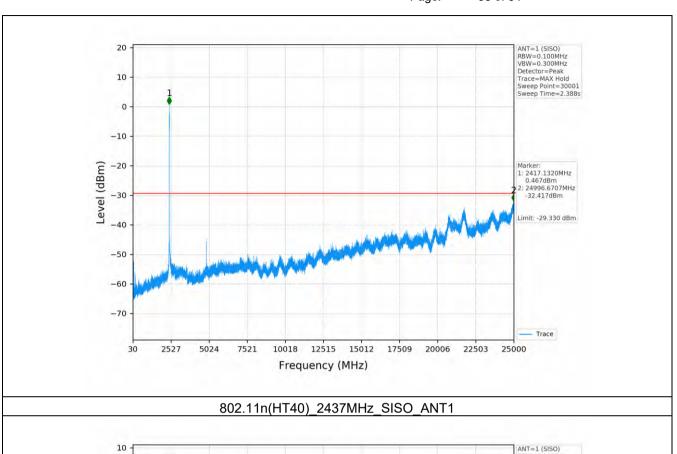
Frequency (MHz)

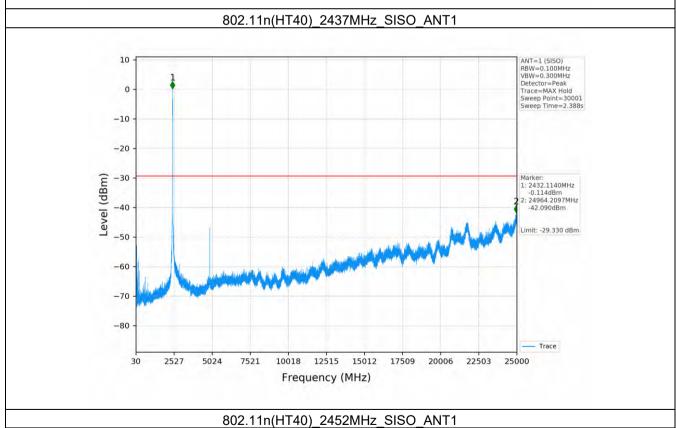
2340.4 2355.6



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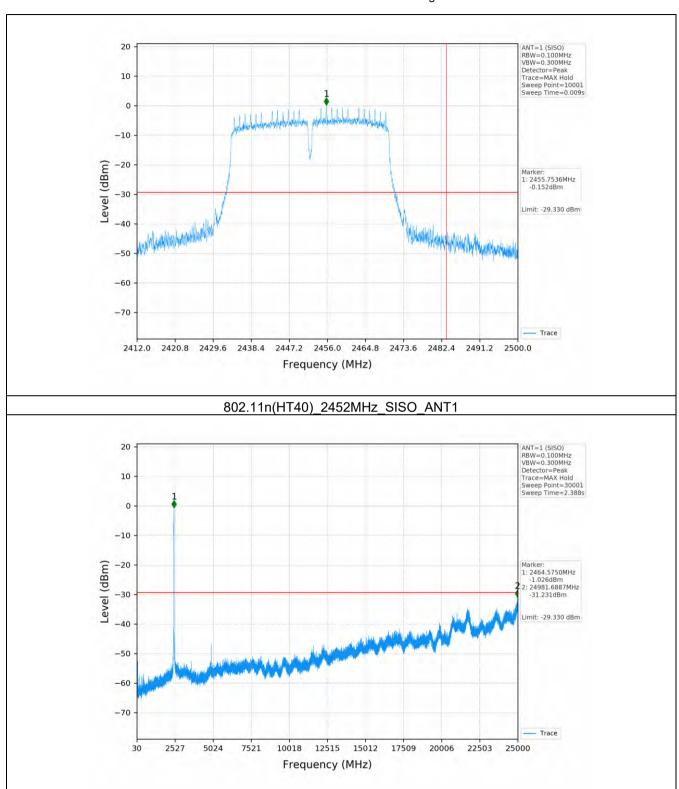






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- End of the Report -