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**APPENDIX A**

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# APPENDIX A

## TEST PLOTS

(Model: AEX-AR9590-NI)

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## A.1 EMISSION BANDWIDTH MEASUREMENT

Test Date	2016/04/14 ~ 05/20	Temp./Hum.	25 ~ 26°C/54 ~ 60%
Cable Loss	N/A	Test Voltage	DC 3.3V

### A.1.1 Emission Bandwidth Result

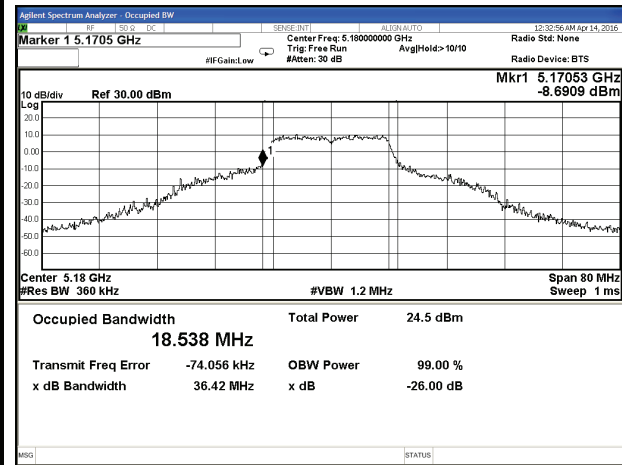
Modulation Type	UNII Band	Centre Frequency (MHz)	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit
802.11a	I	5180	36.42	18.538	Reference only
		5200	34.79	18.715	
		5240	36.57	18.758	
	II-2A	5260	27.95	16.692	
		5280	28.07	16.683	
		5320	28.84	16.648	
802.11n-HT20	I	5180	22.66	17.818	
		5200	31.56	18.522	
		5240	33.10	18.389	
	II-2A	5260	25.13	17.740	
		5280	23.62	17.707	
		5320	23.40	17.703	
802.11n-HT40	I	5190	57.65	36.392	Reference only
		5230	59.83	36.356	
	II-2A	5270	50.98	36.355	
		5310	40.87	36.147	

Modulation Type	UNII Band	Centre Frequency (MHz)	6dB Bandwidth (MHz)	Limit
802.11a	III	5745	16.35	≥ 500kHz
		5785	16.33	
		5825	16.30	
802.11n-HT20	III	5745	17.07	
		5785	16.08	
		5825	15.80	
802.11n-HT40	III	5755	35.27	
		5795	35.82	

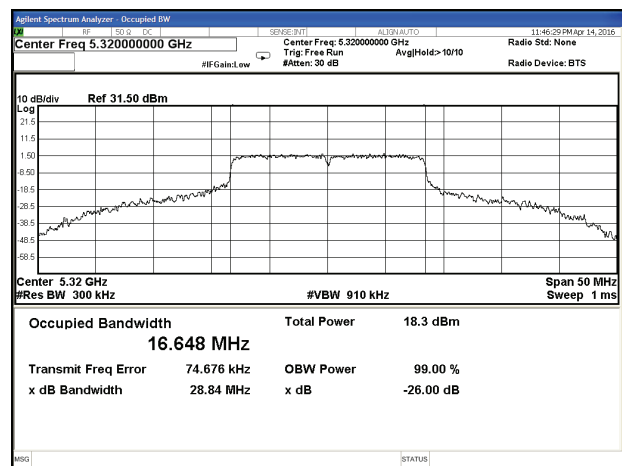
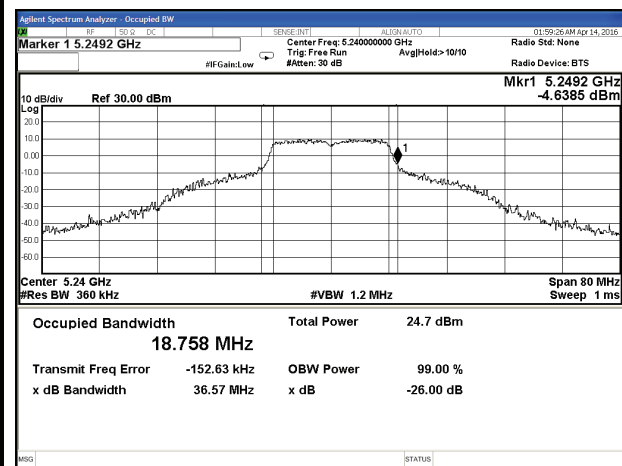
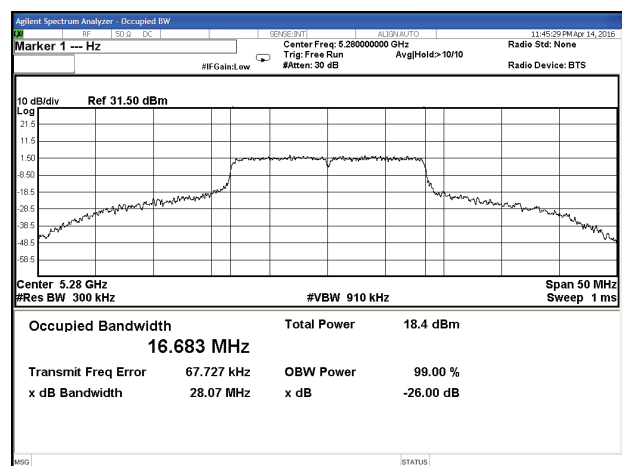
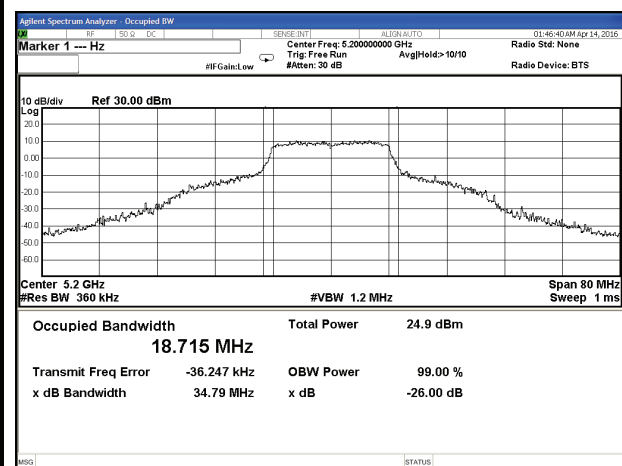
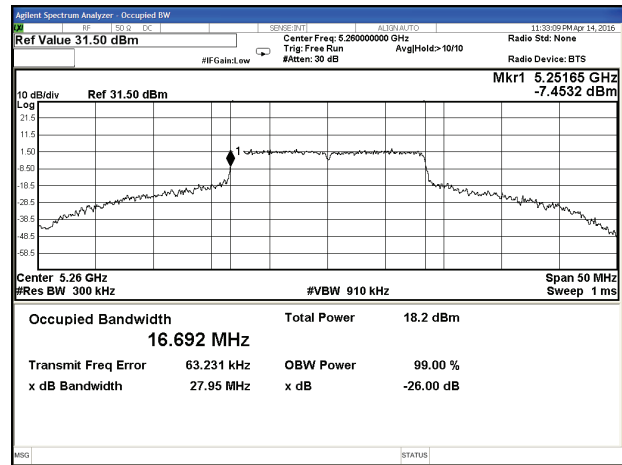
## A.1.2 Measurement Plots

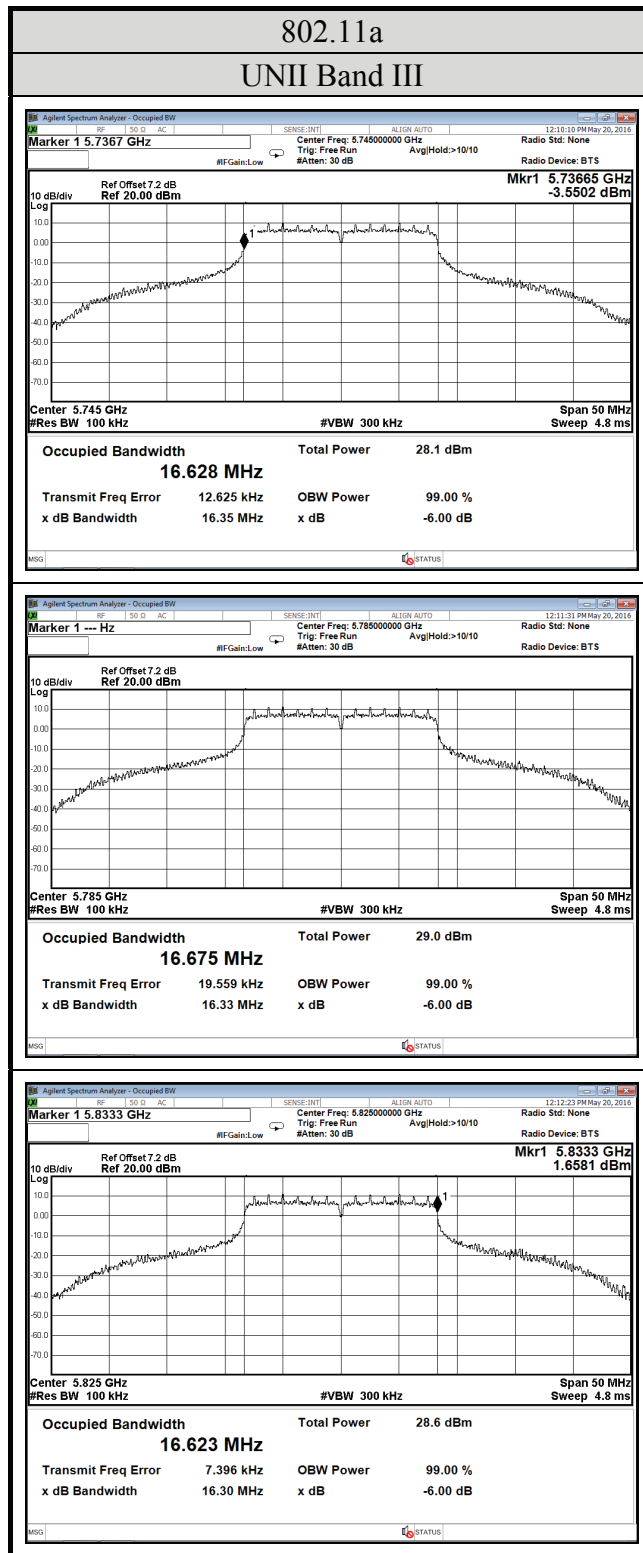
802.11a

### UNII Band I



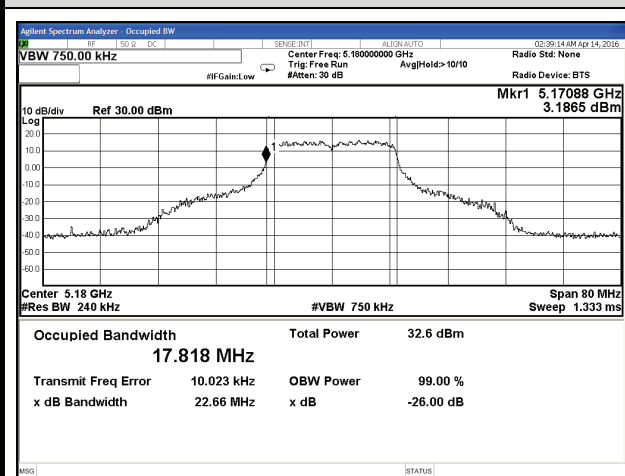
### UNII Band II-2A



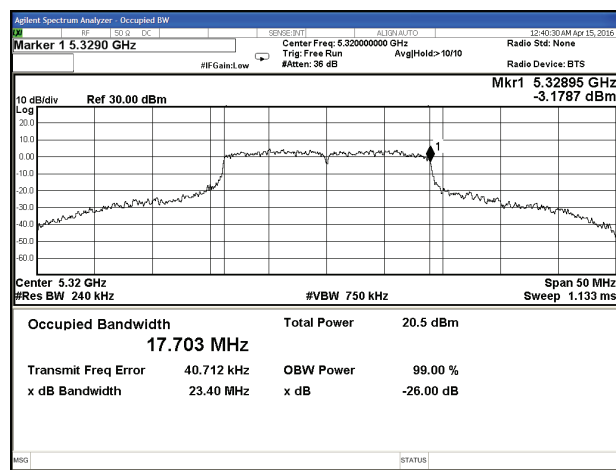
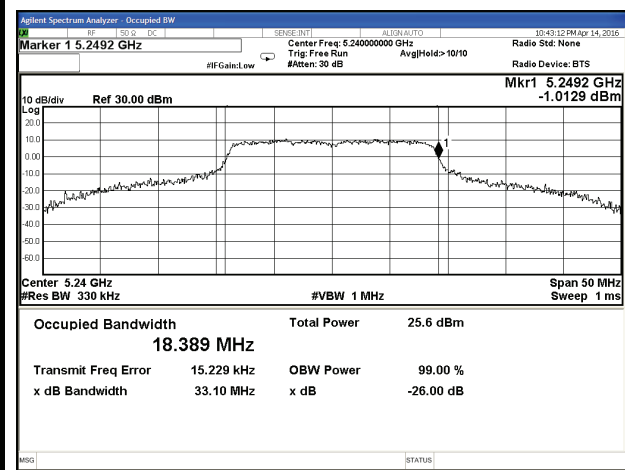
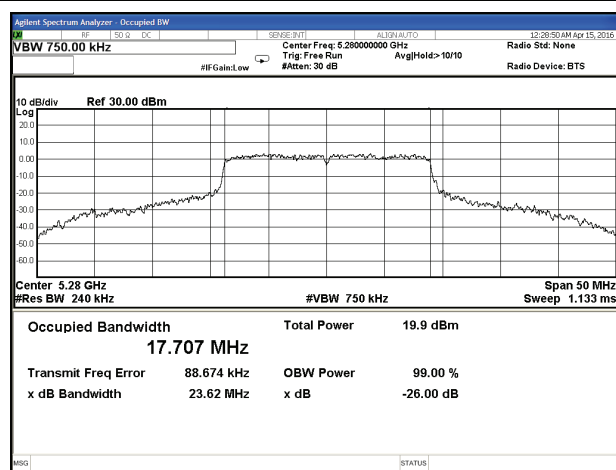
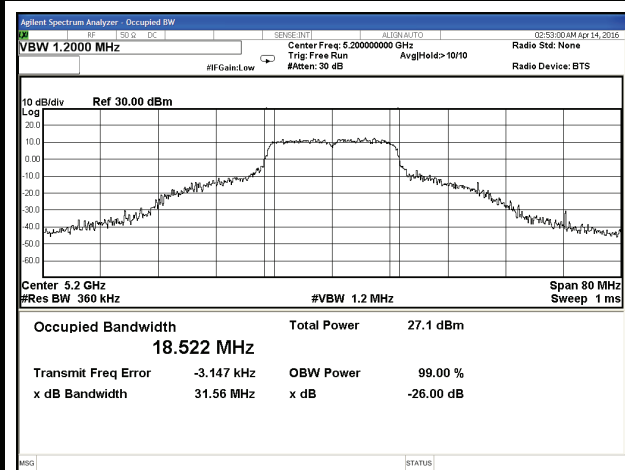
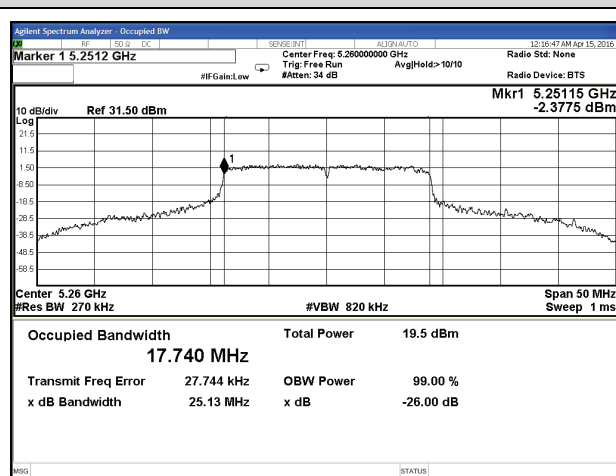


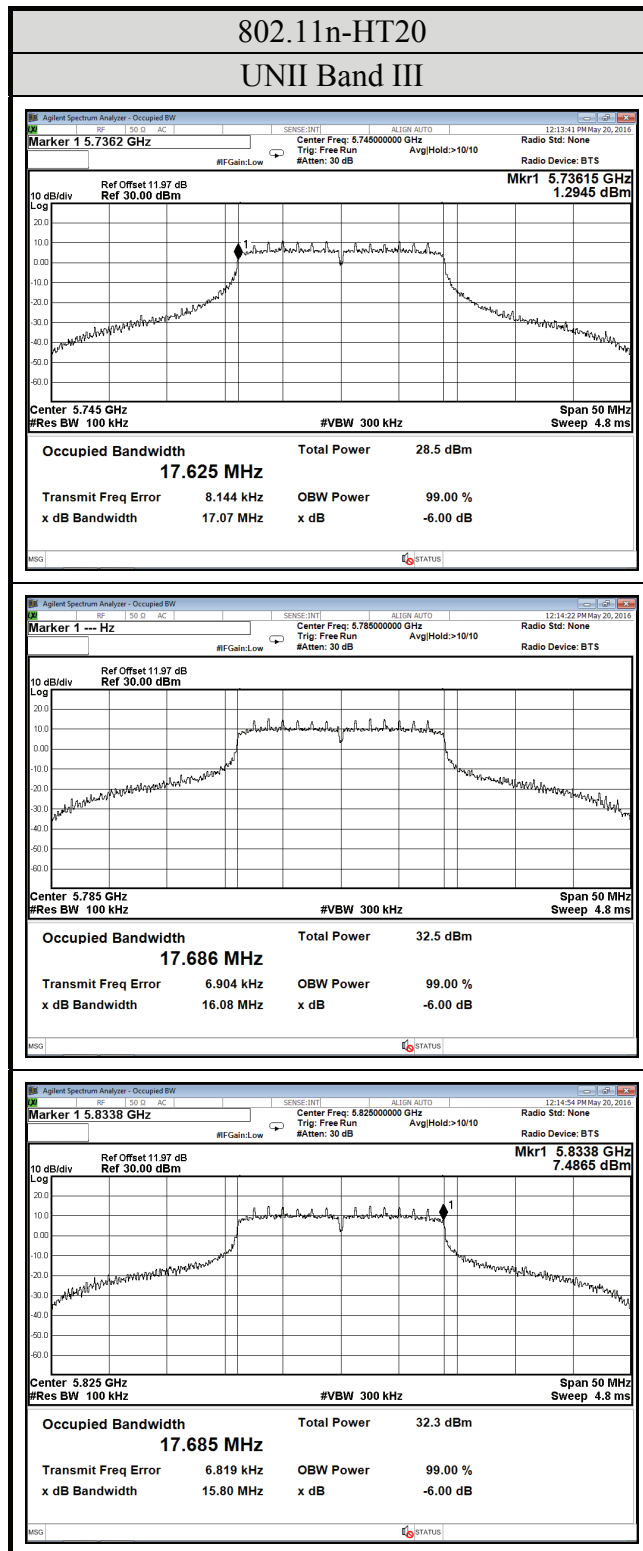
## 802.11n-HT20

### UNII Band I



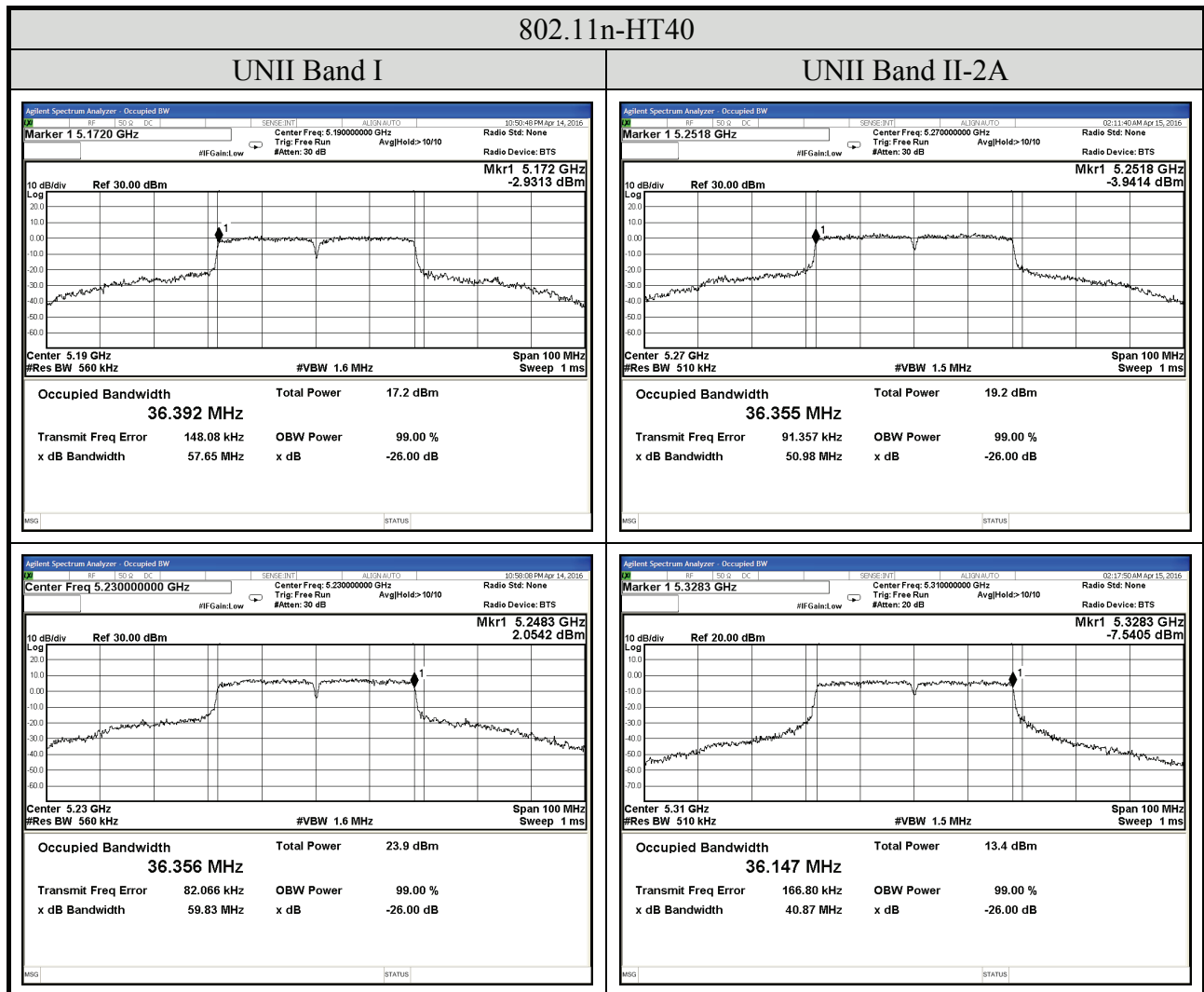
### UNII Band II-2A



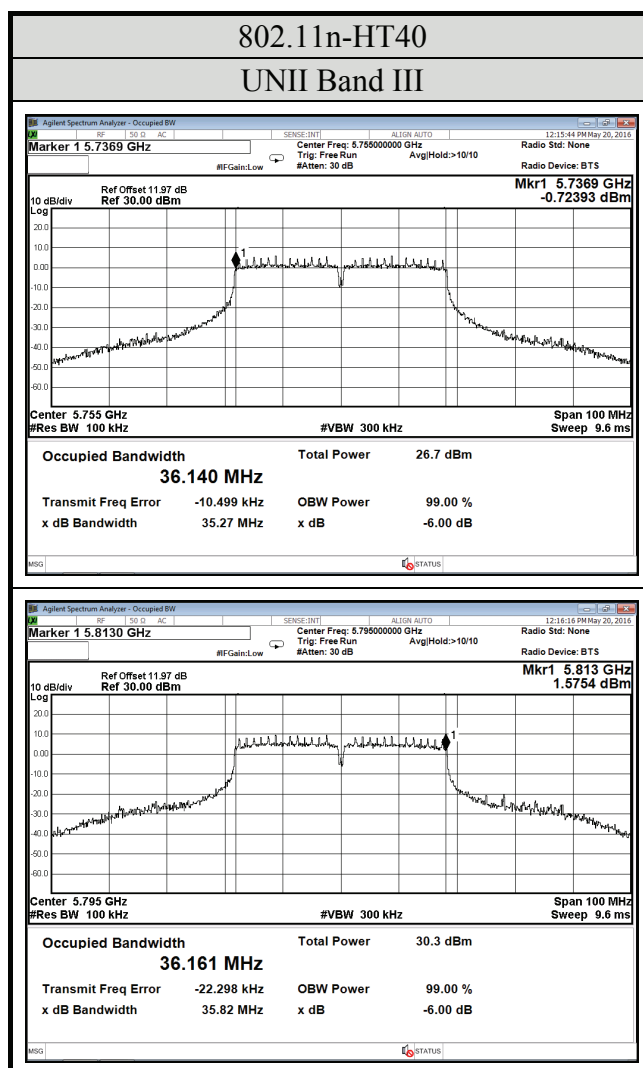


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## A.2 MAXIMUM OUTPUT POWER MEASUREMENT

### A.2.1 Emission Bandwidth Result

Test Date	2016/05/15	Temp./Hum.	26°C/54%
Cable Loss	N/A	Test Voltage	DC 3.3V

Modulation Type	UNII Band	Centre Frequency (MHz)	Output Power	10log (1/X)	MAX Output Power		Limit	Limit without TPC Function
			(dBm)		(dBm)	(W)		
802.11a	I	5180	14.24	0.22	<b>14.46</b>	0.028	< 250 mW (24 dBm)	---
		5200	14.20		<b>14.42</b>	0.028		
		5240	15.45		<b>15.67</b>	0.037		
	II-2A	5260	15.50		<b>15.72</b>	0.037	< 250 mW (24 dBm)	< 500mW (26.99dBm)
		5280	14.85		<b>15.07</b>	0.032		
		5320	15.11		<b>15.33</b>	0.034		
	III	5745	16.65		<b>16.87</b>	0.049	< 1 W (30 dBm)	---
		5785	18.03		<b>18.25</b>	0.067		
		5825	17.85		<b>18.07</b>	0.064		

Note: The results have been included cable loss.

Modulation Type	UNII Band	Centre Frequency (MHz)	Output Power			10log (1/X)	MAX Output Power		Limit	Limit without TPC Function
			Chain 0	Chain 1	Chain 2		(dBm)	(W)		
802.11n-HT20	I	5180	10.24	10.46	9.62	0.51	<b>15.40</b>	0.035	<0.105 W (20.23 dBm) Note 2	---
		5200	10.22	10.29	10.04		<b>15.46</b>	0.035		
		5240	10.36	10.43	10.32		<b>15.65</b>	0.037		
	II-2A	5260	10.87	11.15	11.02		<b>16.29</b>	0.043	<0.105 W (20.23 dBm) Note 2	< 500mW (26.99dBm)
		5280	10.25	10.43	11.37		<b>15.99</b>	0.040		
		5320	10.12	10.03	10.58		<b>15.53</b>	0.036		
	III	5745	13.23	13.65	13.76		<b>18.83</b>	0.076	< 0.420 W (26.23 dBm) Note 3	---
		5785	16.62	17.24	16.82		<b>22.18</b>	0.165		
		5825	16.74	17.28	16.84		<b>22.24</b>	0.167		
802.11n-HT40	I	5190	9.79	9.83	8.86	0.76	<b>15.04</b>	0.032	<0.105 W (20.23 dBm) Note 2	---
		5230	14.91	13.63	13.94		<b>19.72</b>	0.094		
	II-2A	5270	14.85	13.63	13.85		<b>19.67</b>	0.093	<0.105 W (20.23 dBm) Note 2	< 500mW (26.99dBm)
		5310	9.80	8.67	9.65		<b>14.93</b>	0.031		
	III	5755	10.24	11.19	11.40		<b>16.50</b>	0.045	< 0.420 W (26.23 dBm) Note 3	---
		5795	14.02	14.17	14.51		<b>19.77</b>	0.095		

Note 1: The results have been included cable loss.

Note 2: 802.11n Directional gain is 9.77dBi > 6dBi, the Limit is 24 – (9.77-6) = 20.23 dBm

Note 3: 802.11n Directional gain is 9.77dBi > 6dBi, the Limit is 30 – (9.77-6) = 26.23dBm