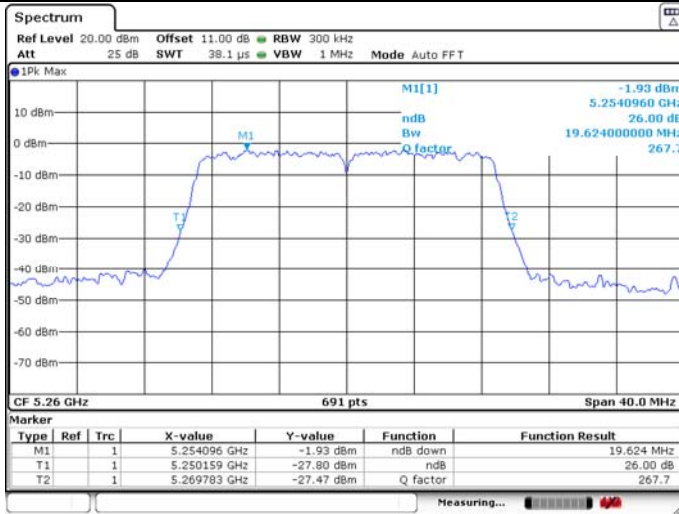
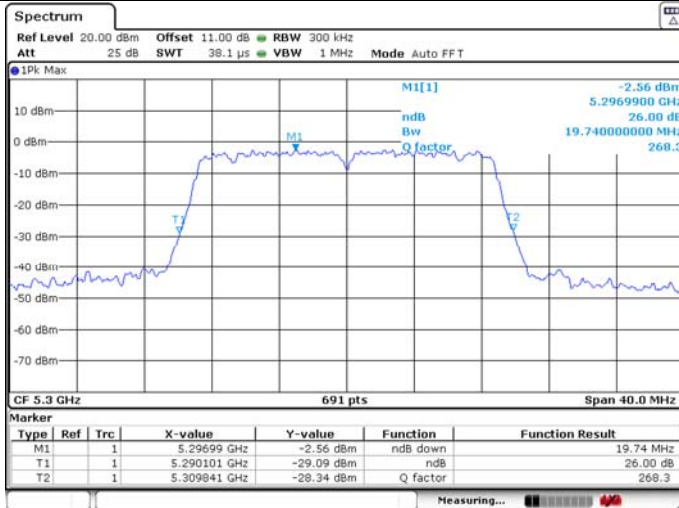
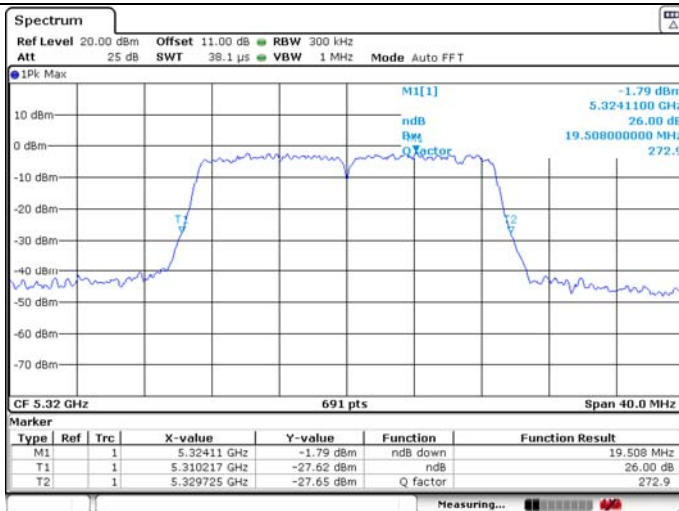
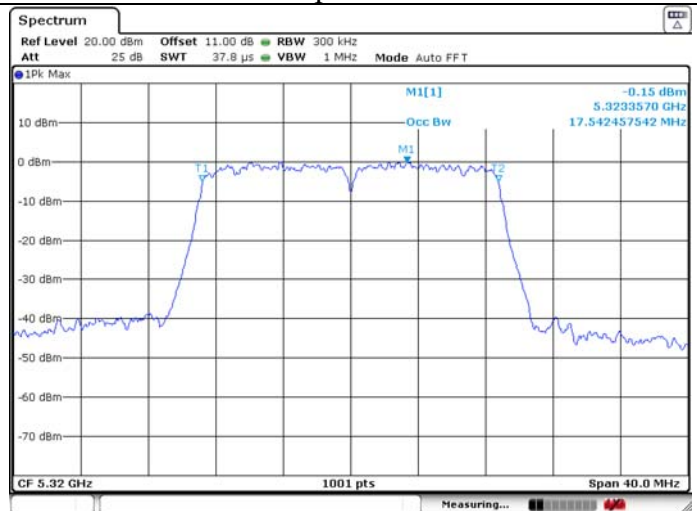
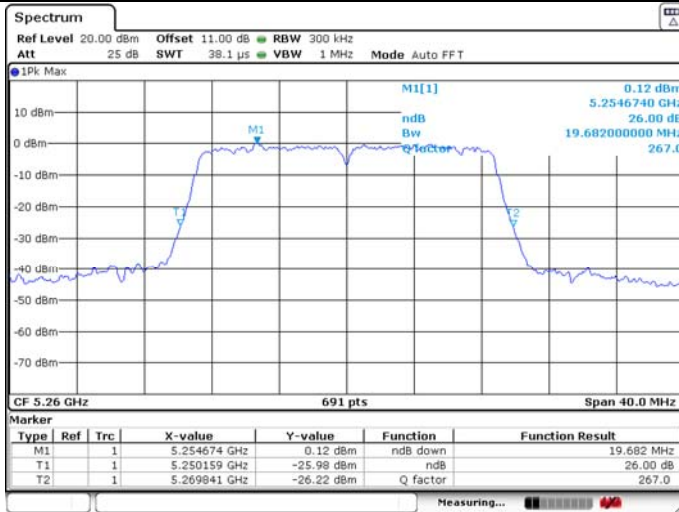


U-NII-2A IEEE 802.11n HT20 5260MHz**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2A IEEE 802.11n HT20 5300MHz****26dB Bandwidth****99% Occupied Bandwidth****U-NII-2A IEEE 802.11n HT20 5320MHz****26dB Bandwidth****99% Occupied Bandwidth**

U-NII-2A IEEE 802.11ac VHT20 5260MHz

26dB Bandwidth

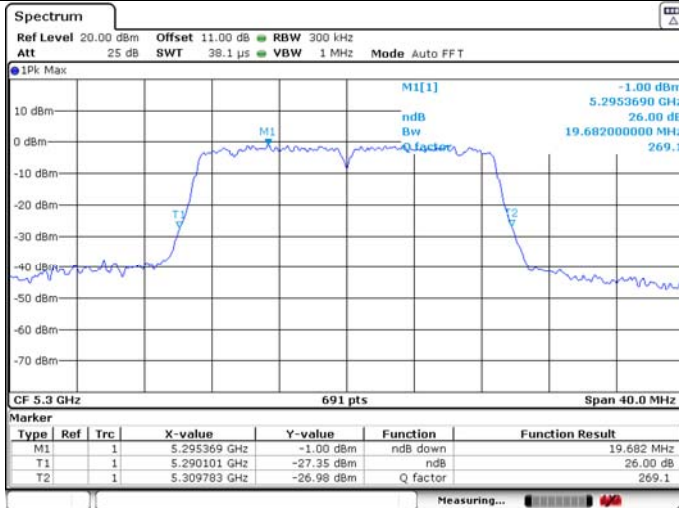


99% Occupied Bandwidth

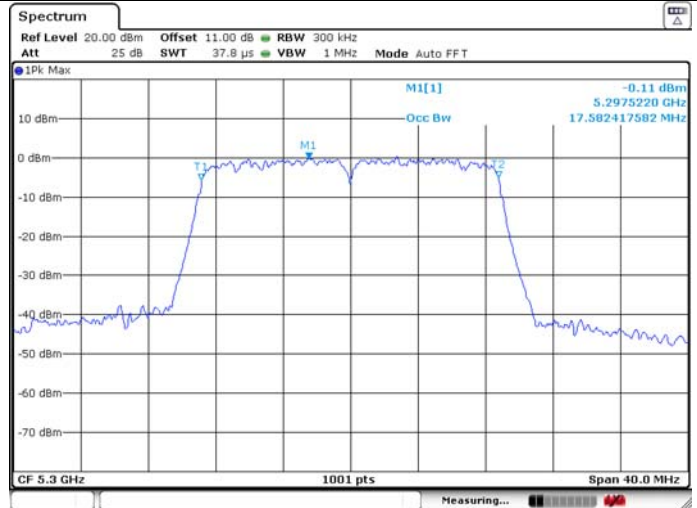


U-NII-2A IEEE 802.11ac VHT20 5300MHz

26dB Bandwidth

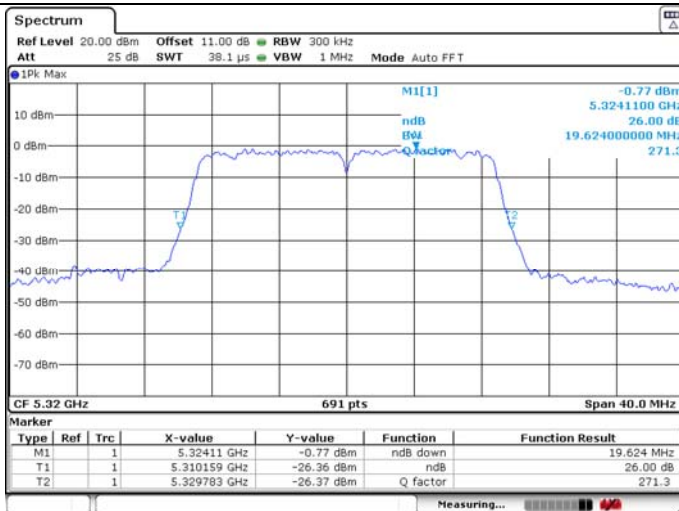


99% Occupied Bandwidth

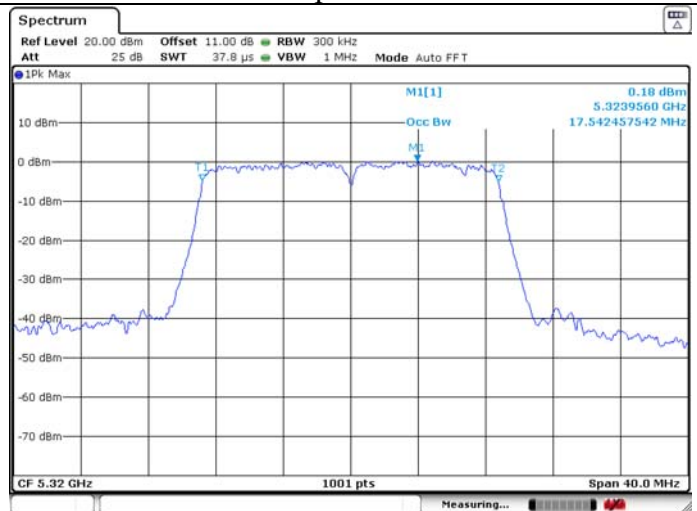


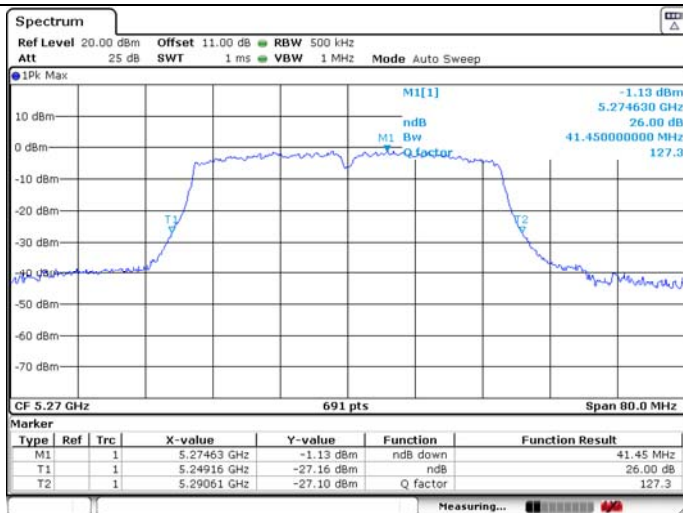
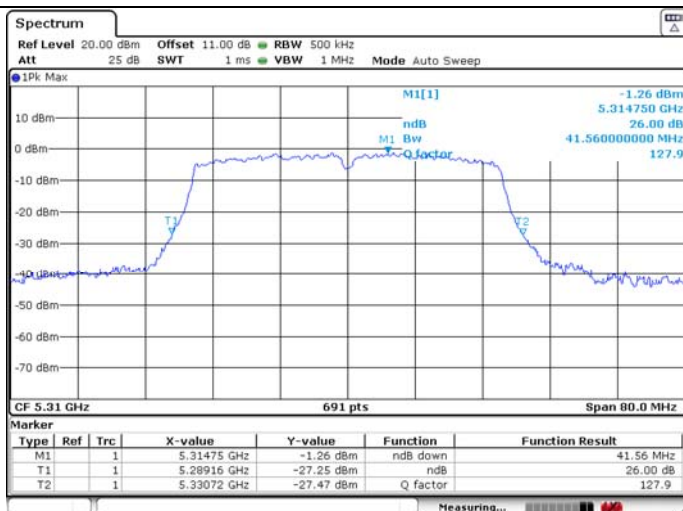
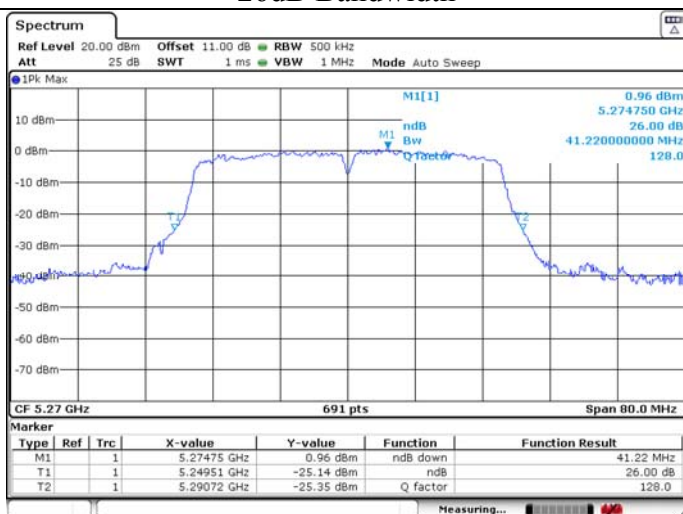
U-NII-2A IEEE 802.11ac VHT20 5320MHz

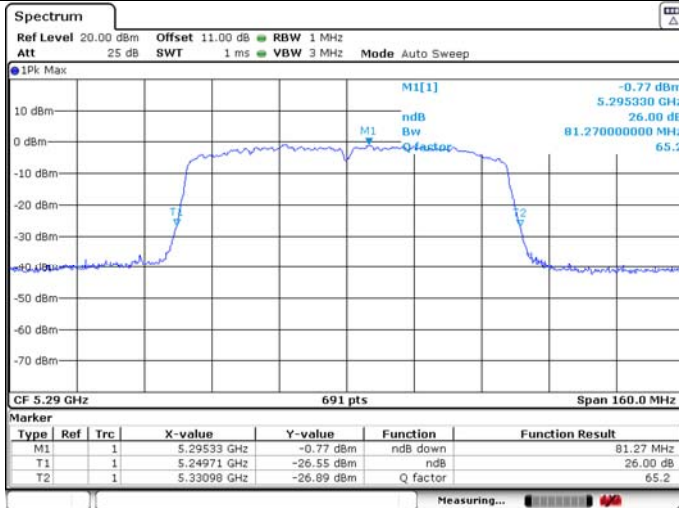
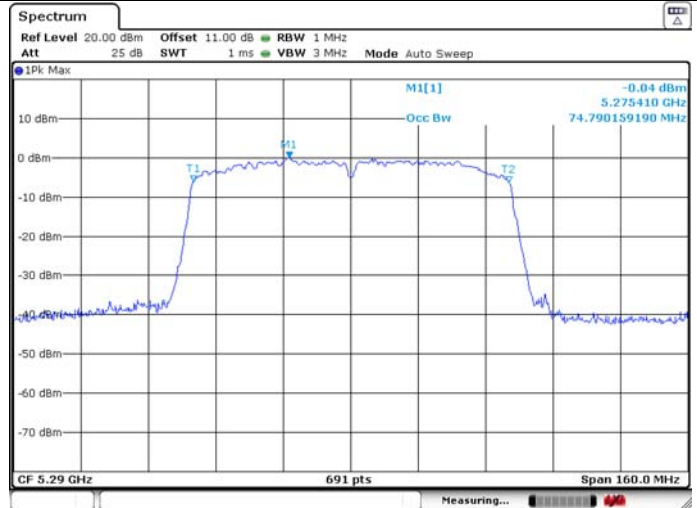
26dB Bandwidth



99% Occupied Bandwidth

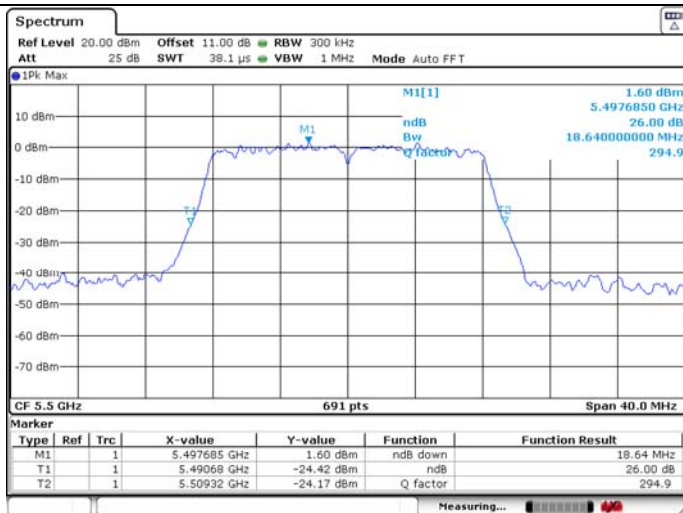


U-NII-2A IEEE 802.11n HT40 5270MHz**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2A IEEE 802.11n HT40 5310MHz****26dB Bandwidth****99% Occupied Bandwidth****U-NII-2A IEEE 802.11ac VHT40 5270MHz****26dB Bandwidth****99% Occupied Bandwidth**

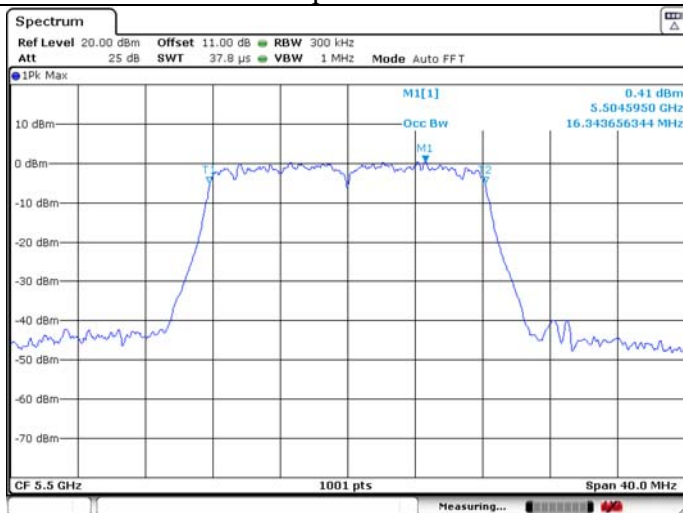
U-NII-2A IEEE 802.11ac VHT40 5310MHz**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2A IEEE 802.11ac VHT80 5290MHz****26dB Bandwidth****99% Occupied Bandwidth**

U-NII-2C IEEE 802.11a 5500MHz

26dB Bandwidth

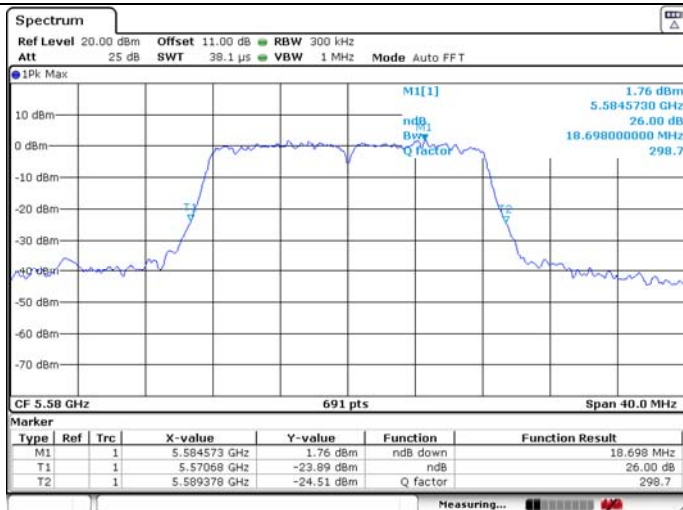


99% Occupied Bandwidth

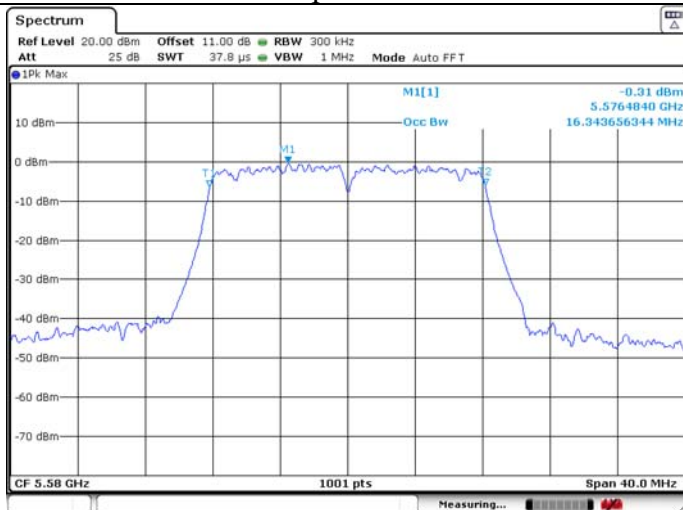


U-NII-2C IEEE 802.11a 5580MHz

26dB Bandwidth

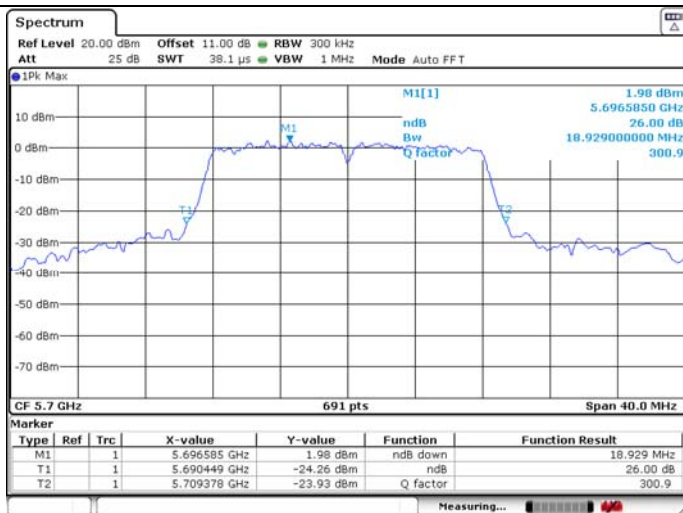


99% Occupied Bandwidth



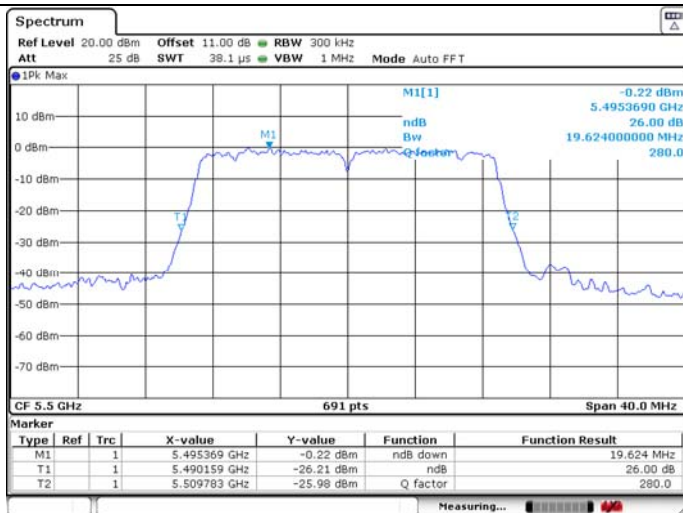
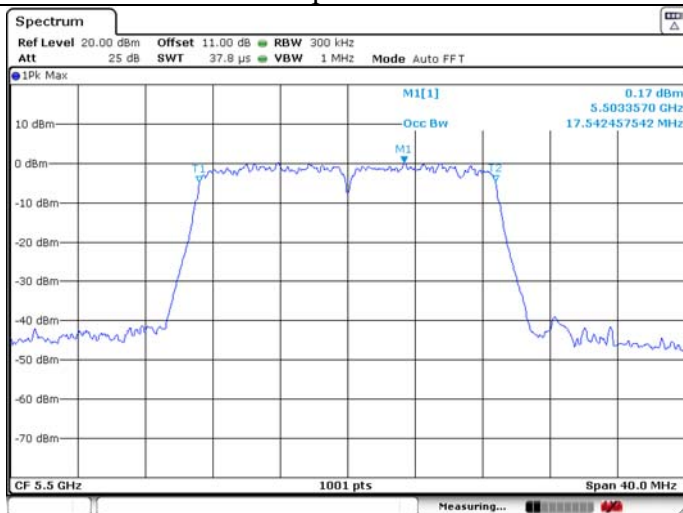
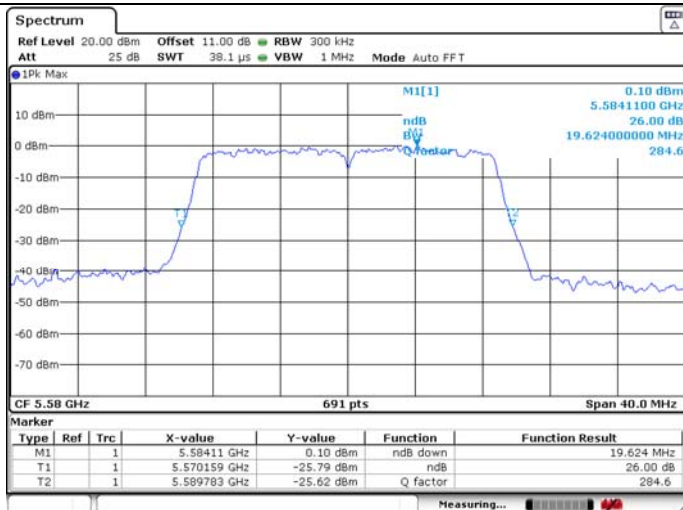
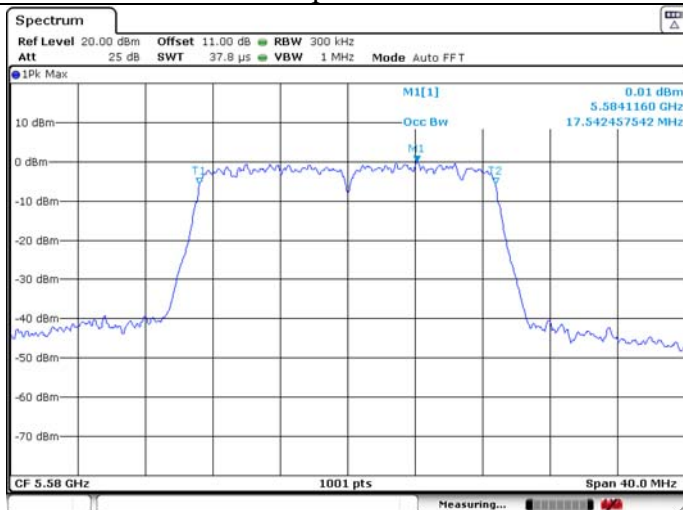
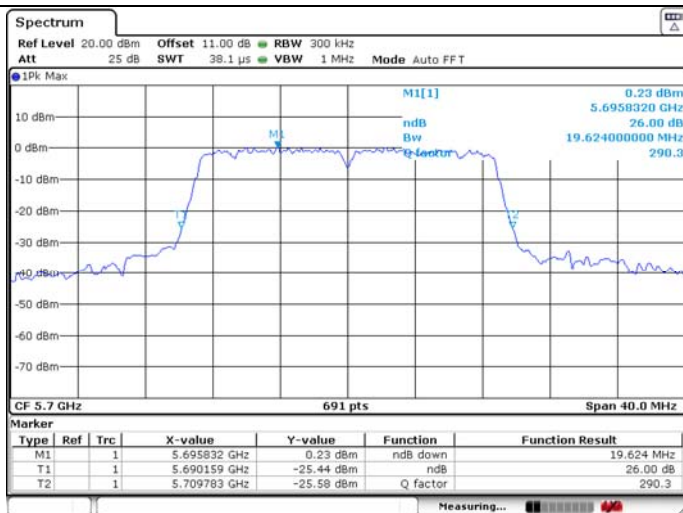
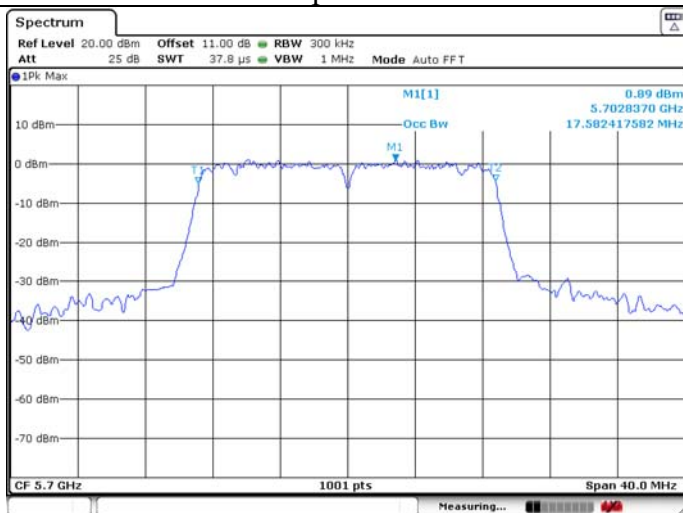
U-NII-2C IEEE 802.11a 5700MHz

26dB Bandwidth



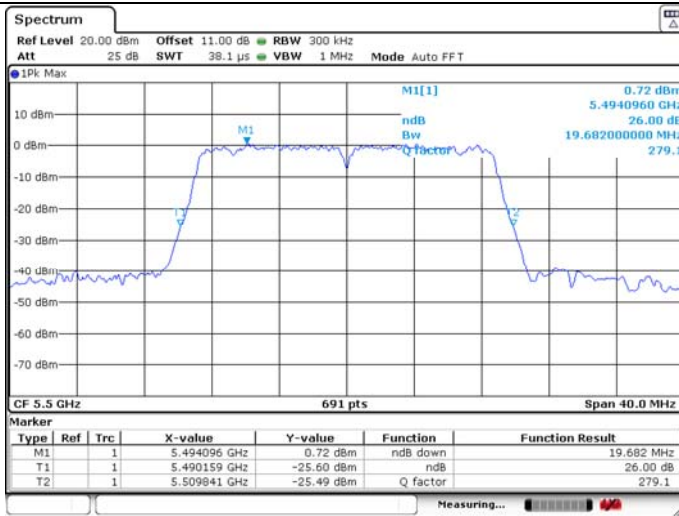
99% Occupied Bandwidth



U-NII-2C IEEE 802.11n HT20 5500MHz**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C IEEE 802.11n HT20 5580MHz****26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C IEEE 802.11n HT20 5700MHz****26dB Bandwidth****99% Occupied Bandwidth**

U-NII-2C IEEE 802.11ac VHT20 5500MHz

26dB Bandwidth

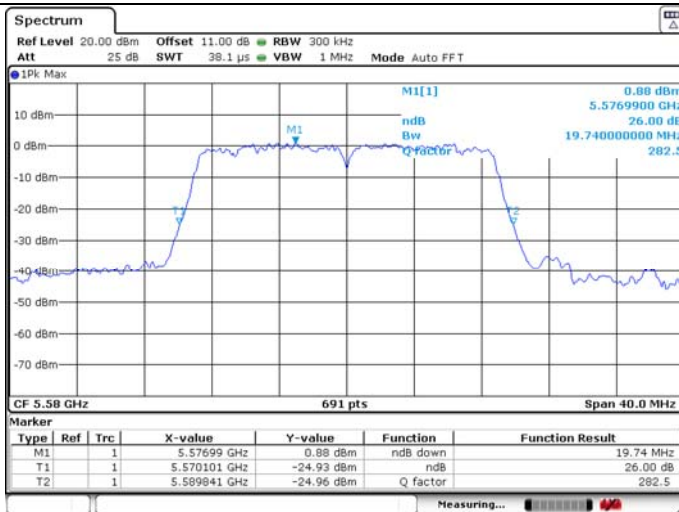


99% Occupied Bandwidth

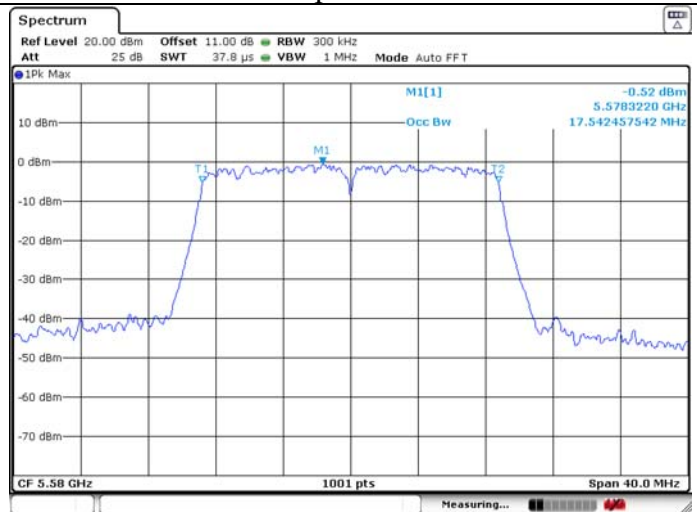


U-NII-2C IEEE 802.11ac VHT20 5580MHz

26dB Bandwidth

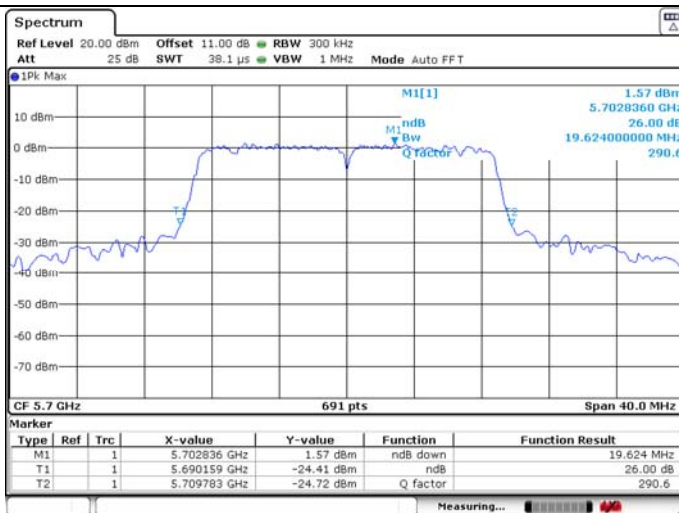


99% Occupied Bandwidth

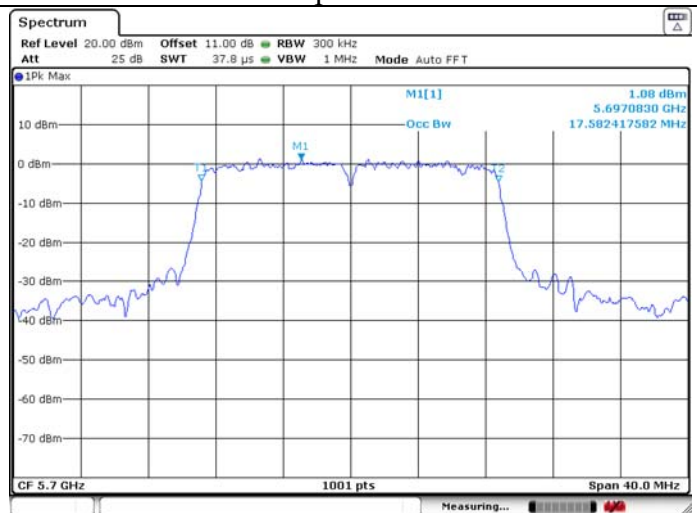


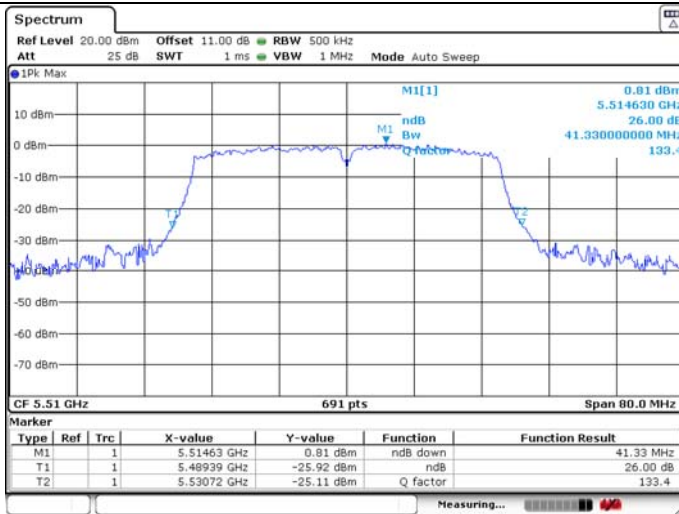
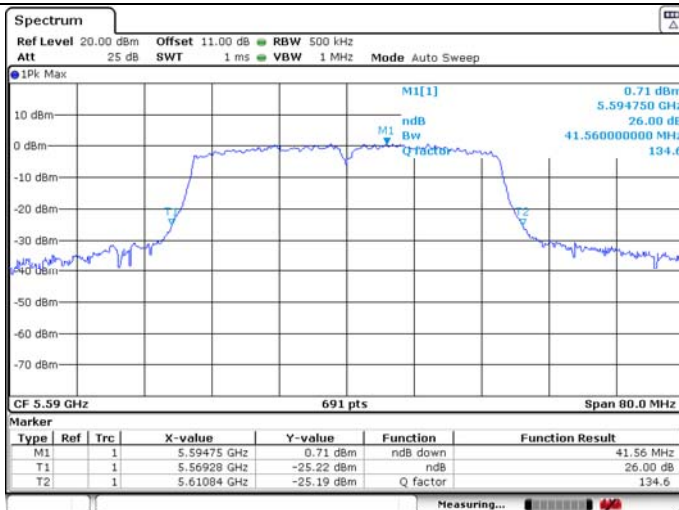
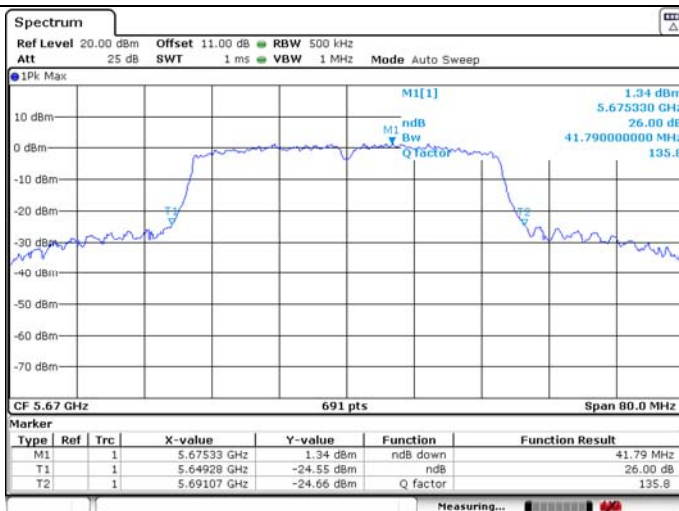
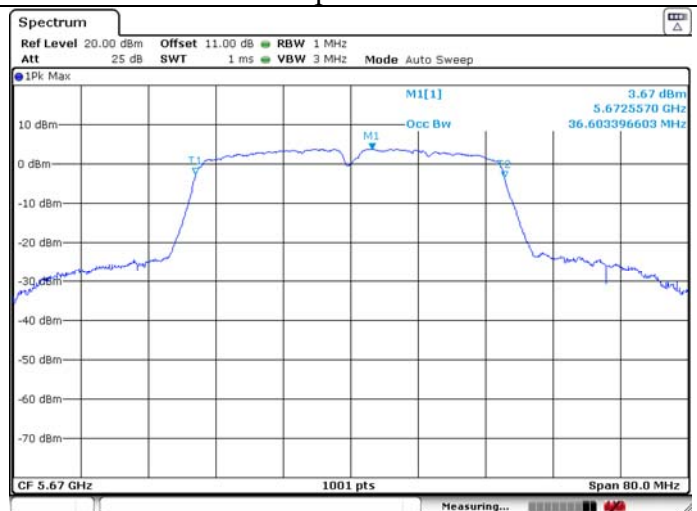
U-NII-2C IEEE 802.11ac VHT20 5700MHz

26dB Bandwidth



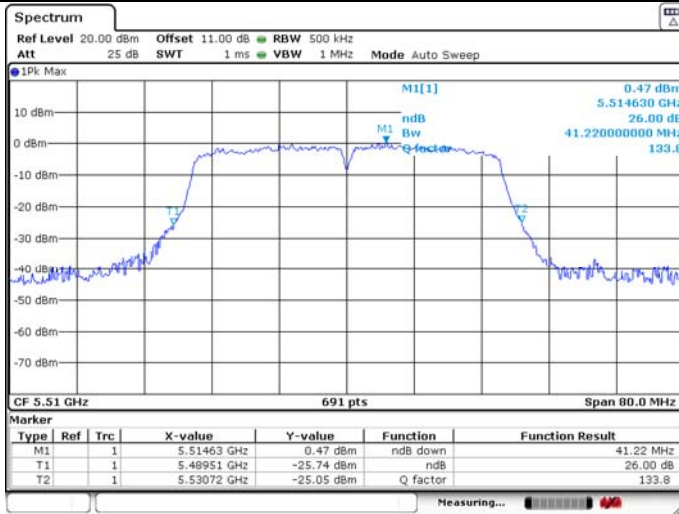
99% Occupied Bandwidth



U-NII-2C IEEE 802.11n HT40 5510MHz**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C IEEE 802.11n HT40 5590MHz****26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C IEEE 802.11n HT40 5670MHz****26dB Bandwidth****99% Occupied Bandwidth**

U-NII-2C IEEE 802.11ac VHT40 5510MHz

26dB Bandwidth



99% Occupied Bandwidth



U-NII-2C IEEE 802.11ac VHT40 5590MHz

26dB Bandwidth

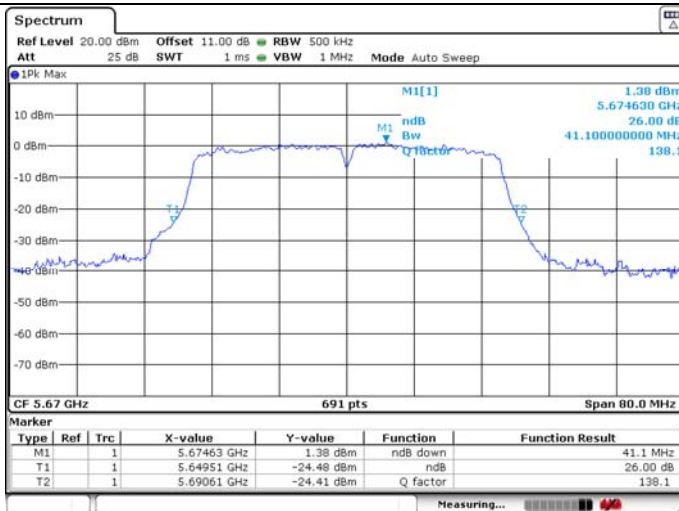


99% Occupied Bandwidth



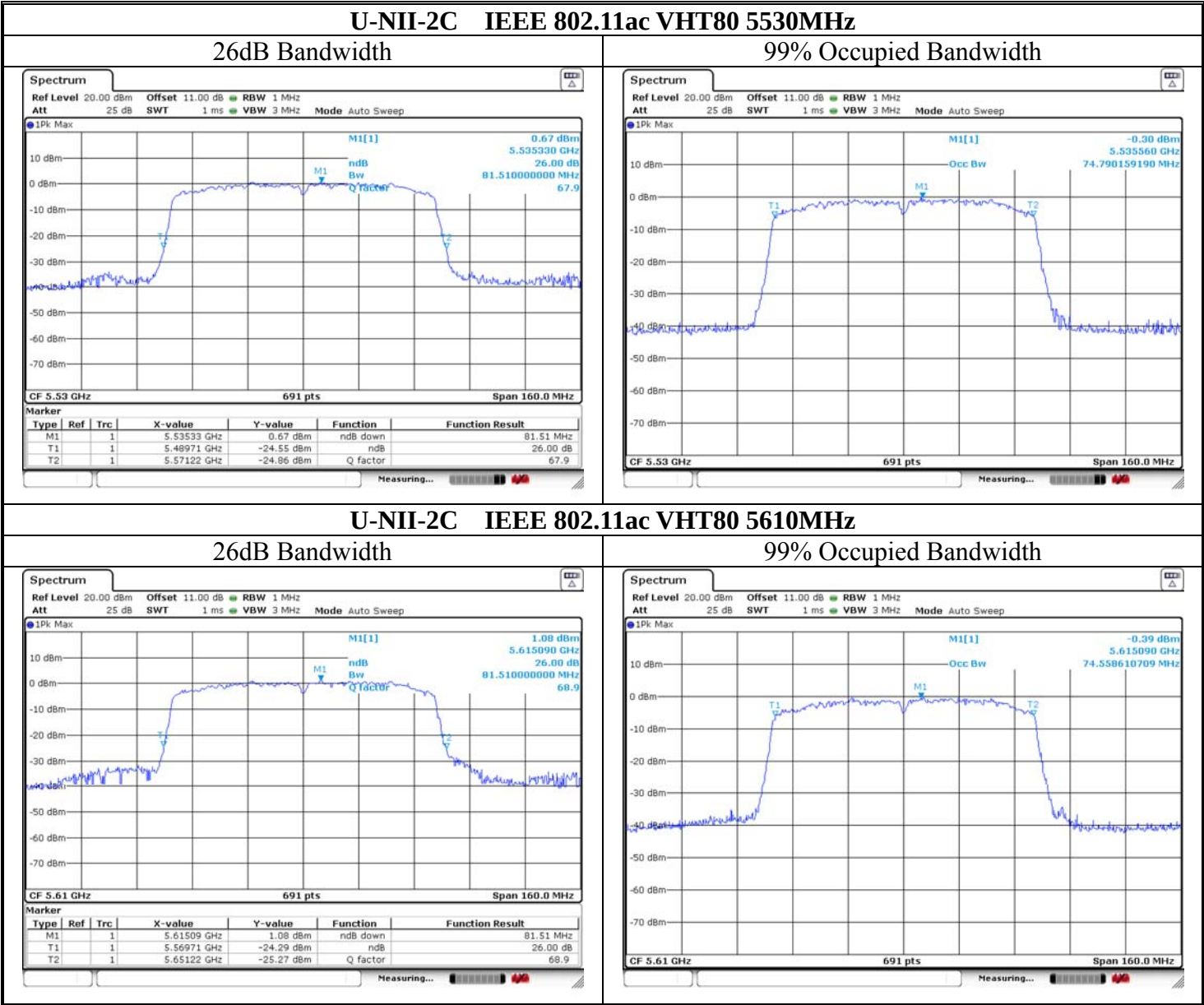
U-NII-2C IEEE 802.11ac VHT40 5670MHz

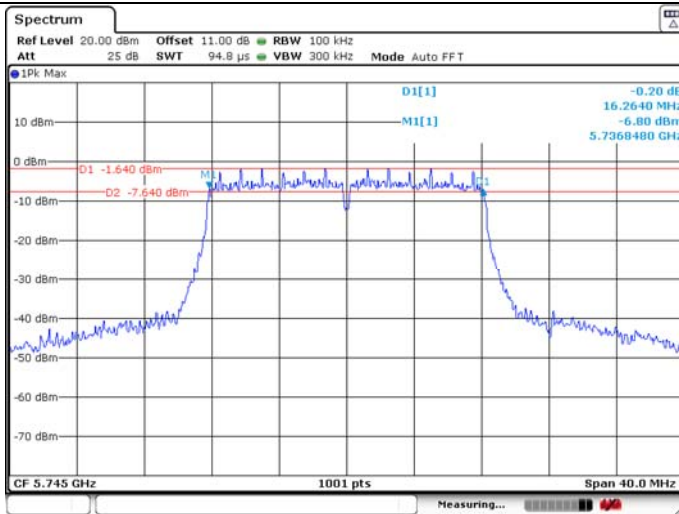
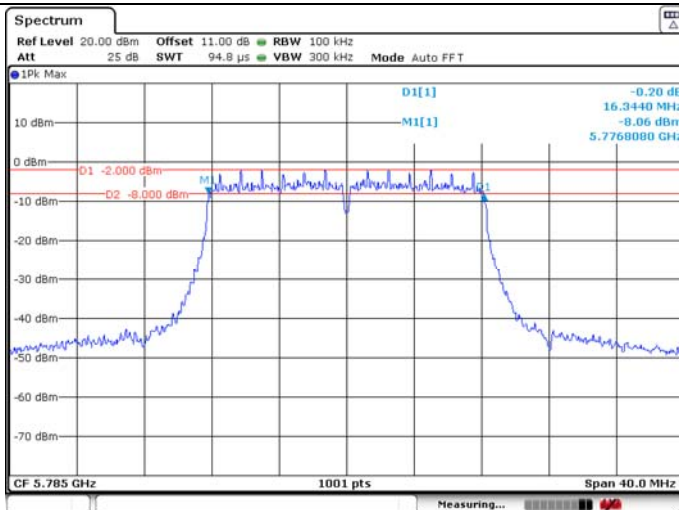
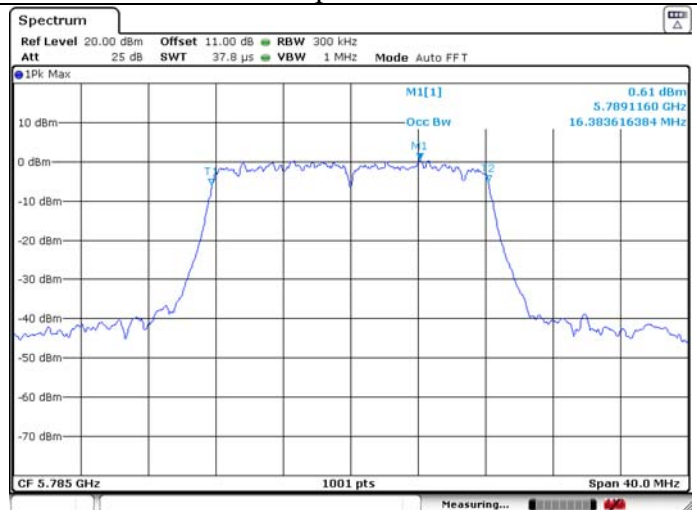
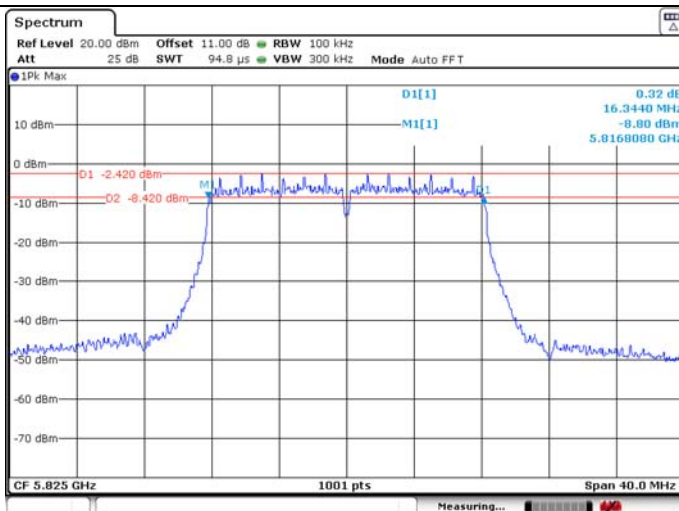
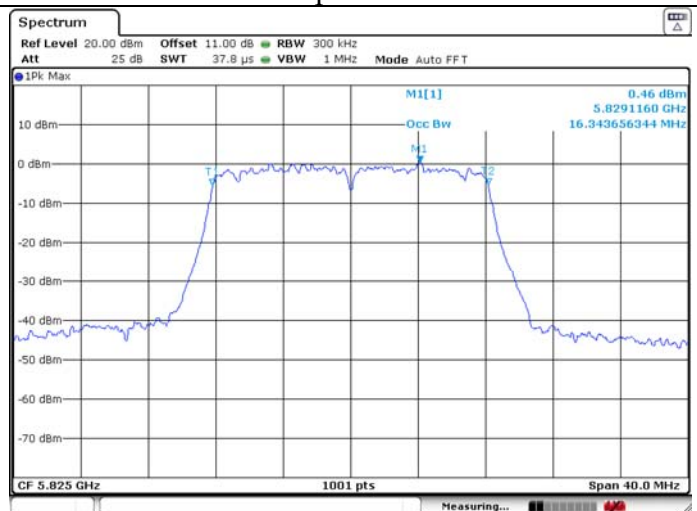
26dB Bandwidth

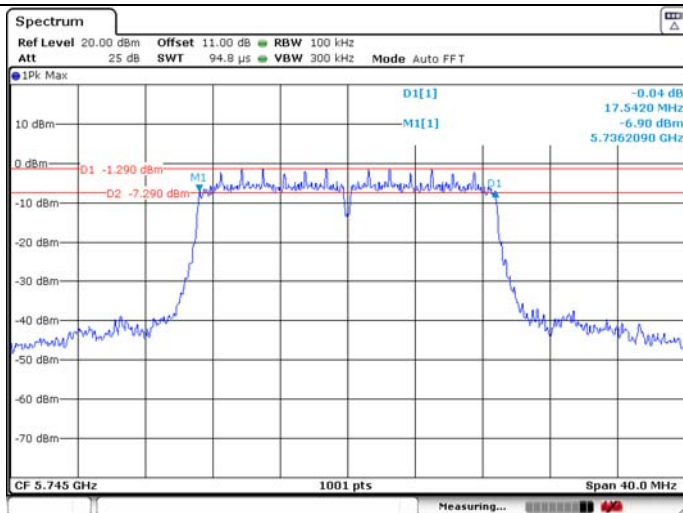
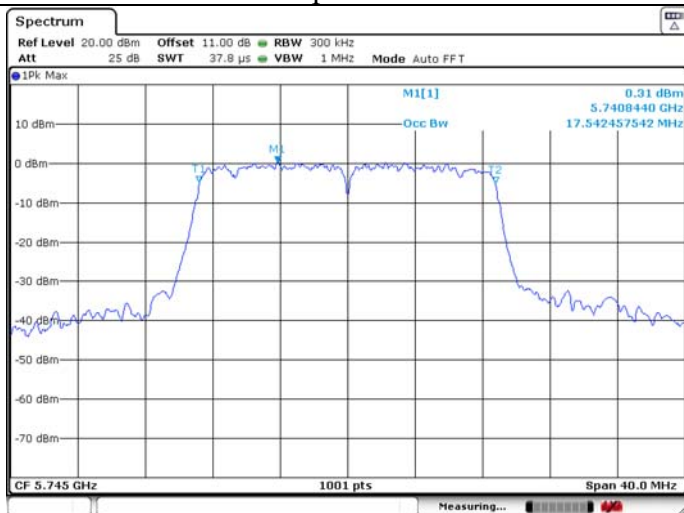
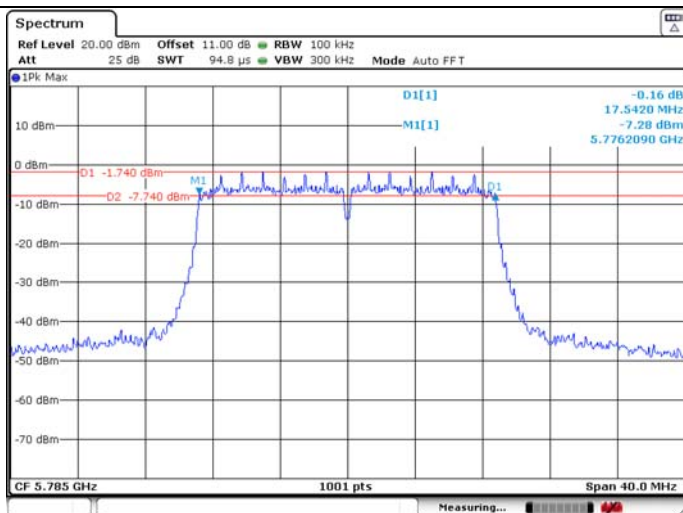
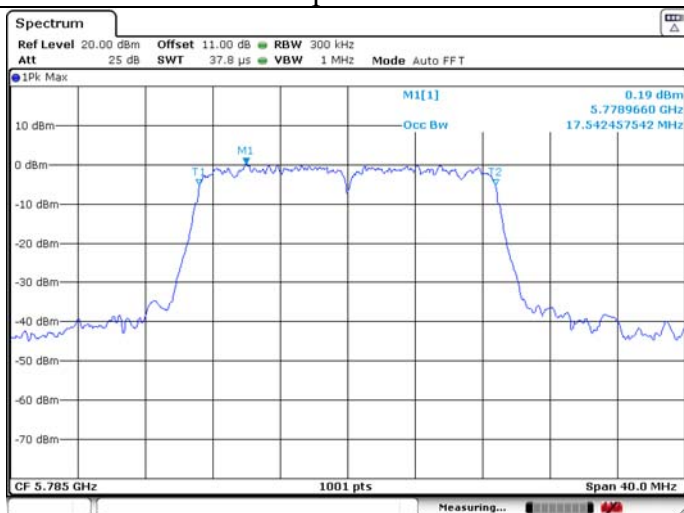
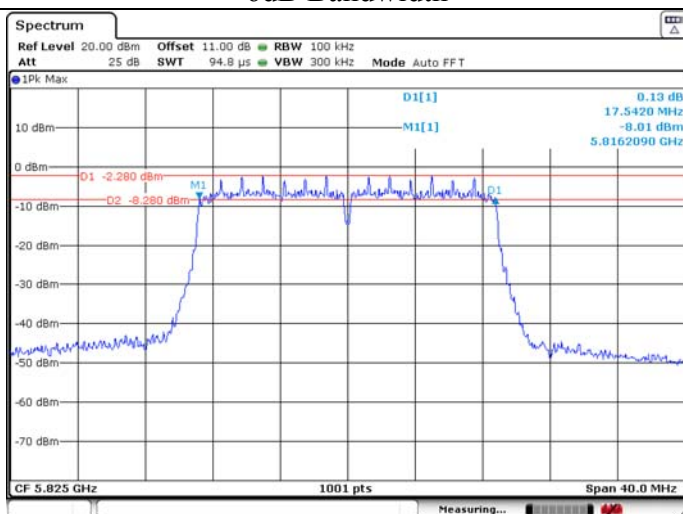
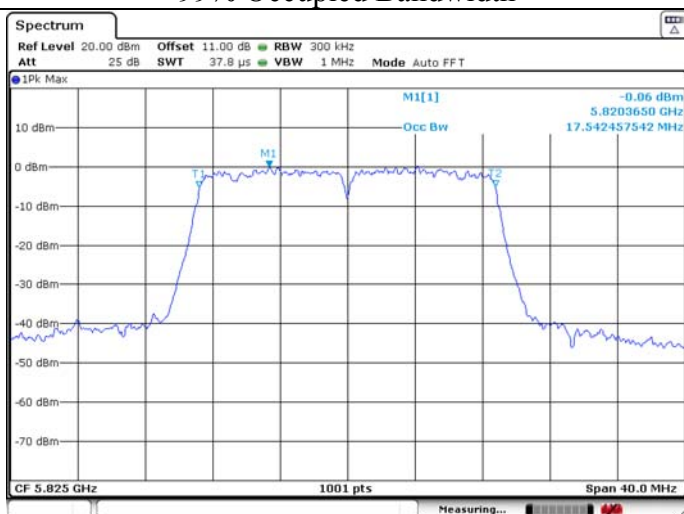


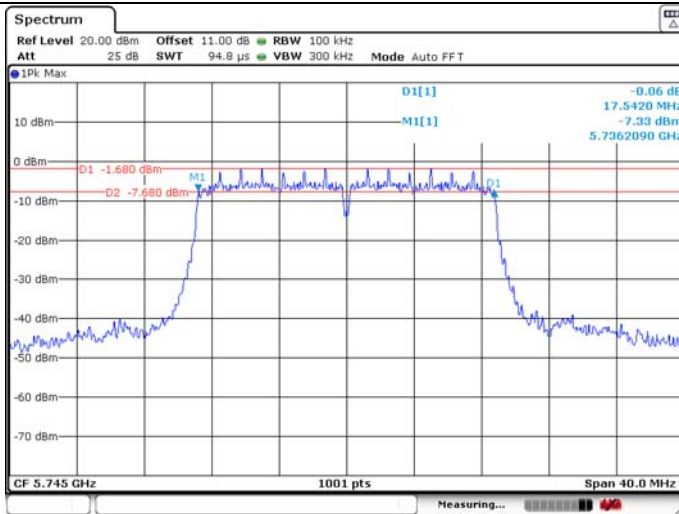
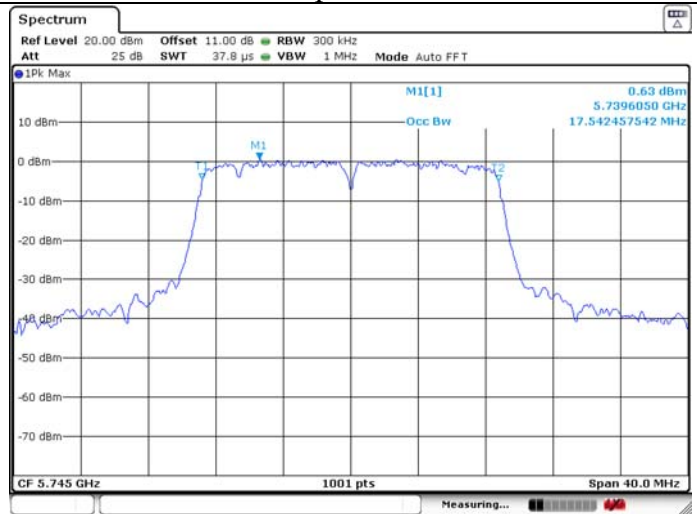
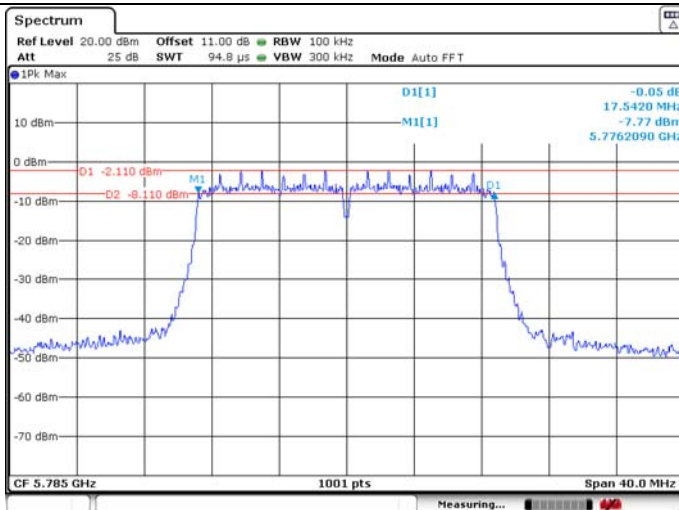
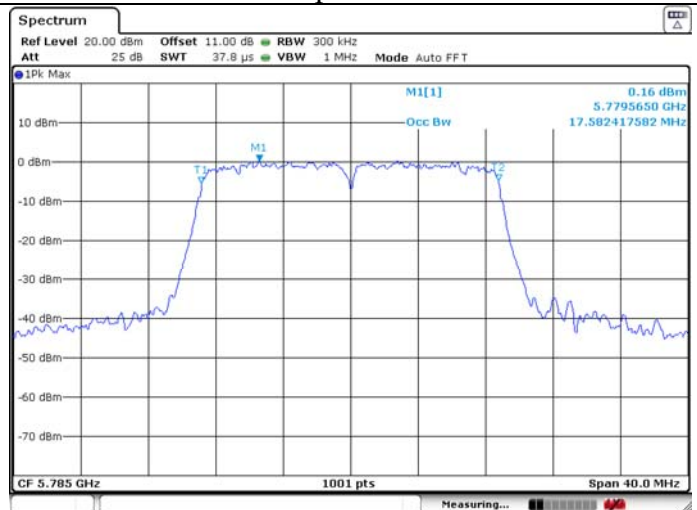
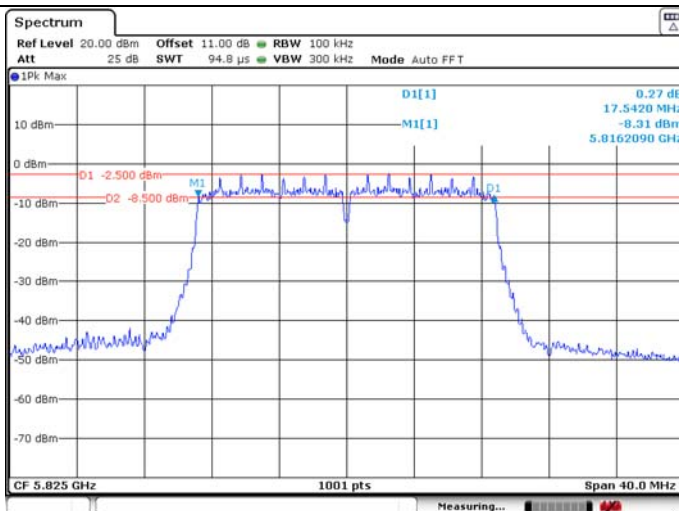
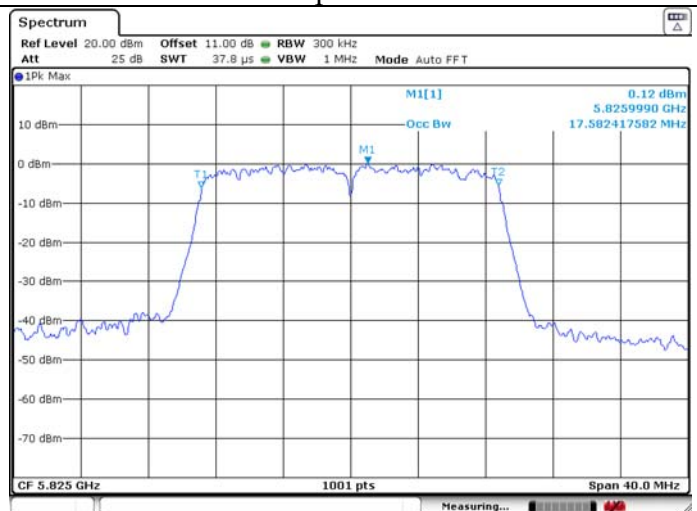
99% Occupied Bandwidth

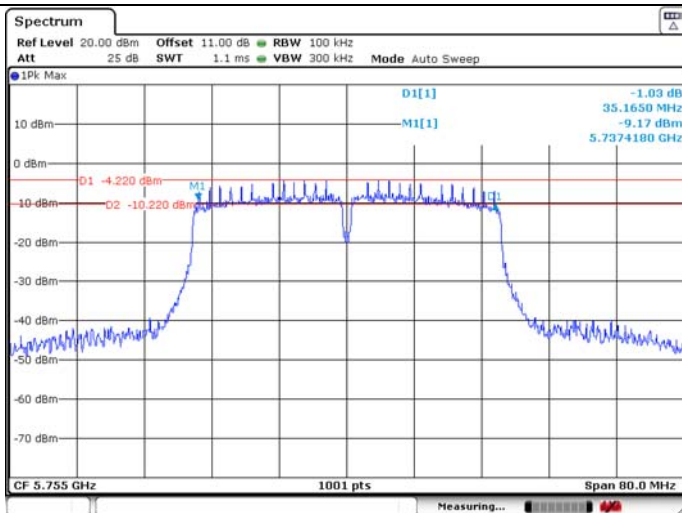
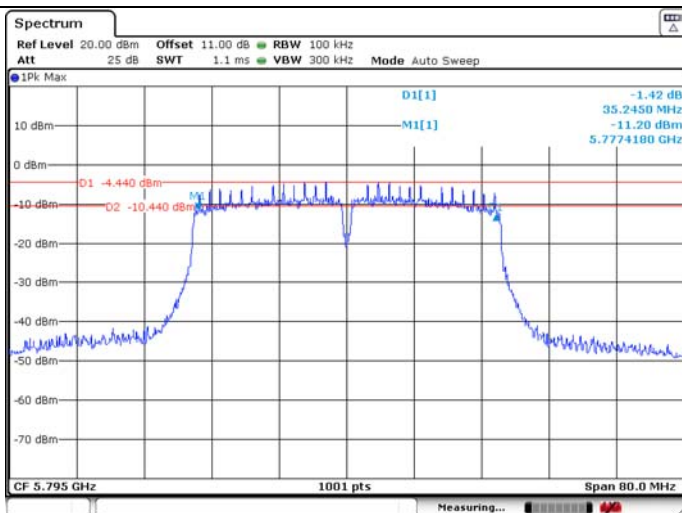
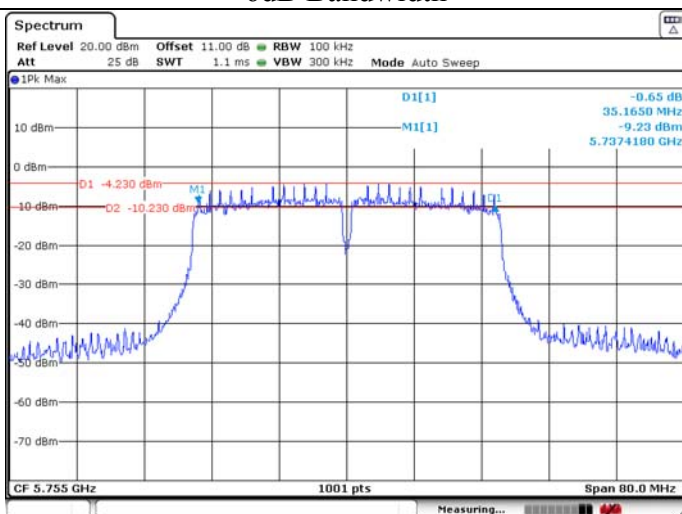


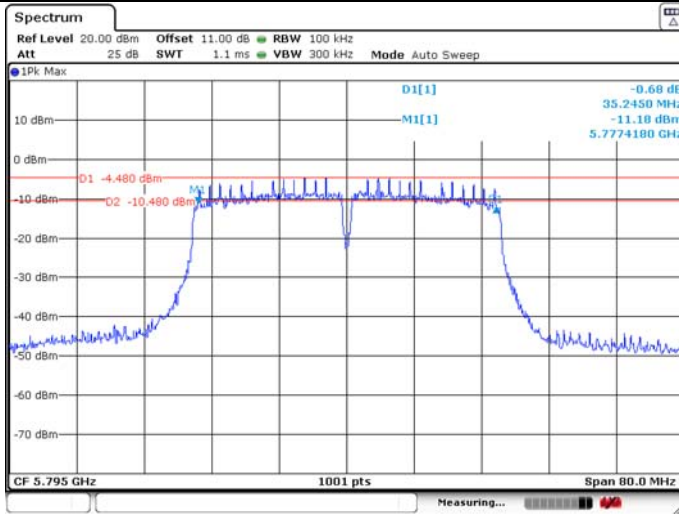
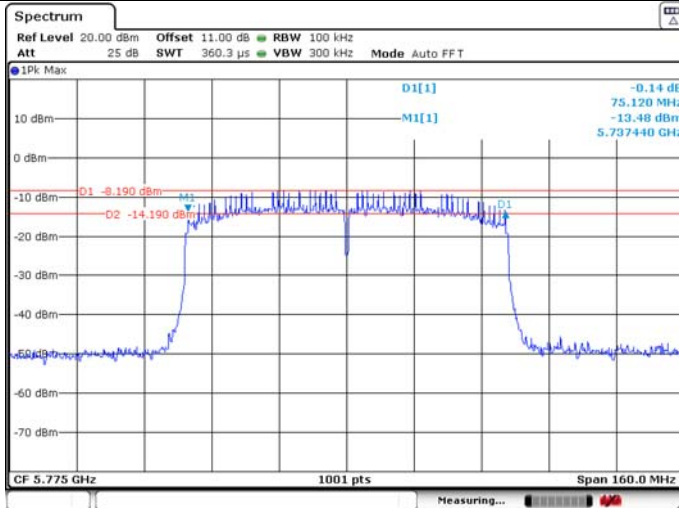
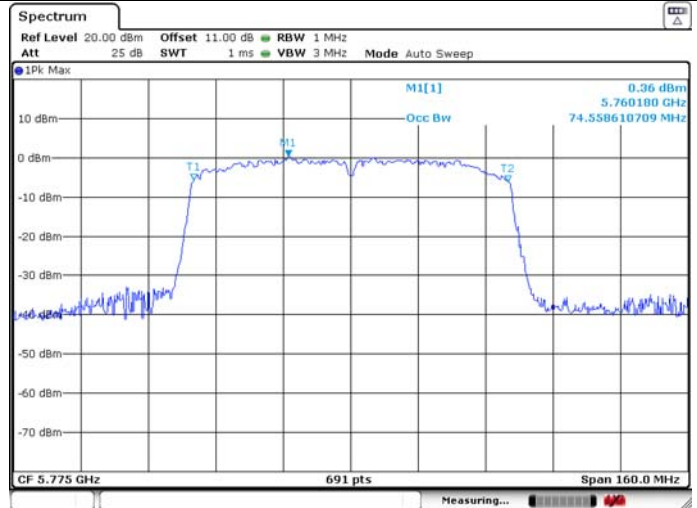


U-NII-3 IEEE 802.11a 5745MHz**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11a 5785MHz****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11a 5825MHz****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11n HT20 5745MHz**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11n HT20 5785MHz****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11n HT20 5825MHz****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11ac VHT20 5745MHz**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT20 5785MHz****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT20 5825MHz****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11n HT40 5755MHz**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11n HT40 5795MHz****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT40 5755MHz****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11ac VHT40 5795MHz**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT80 5775MHz****6dB Bandwidth****99% Occupied Bandwidth**

4. MAXIMUM CONDUCTED OUTPUT POWER

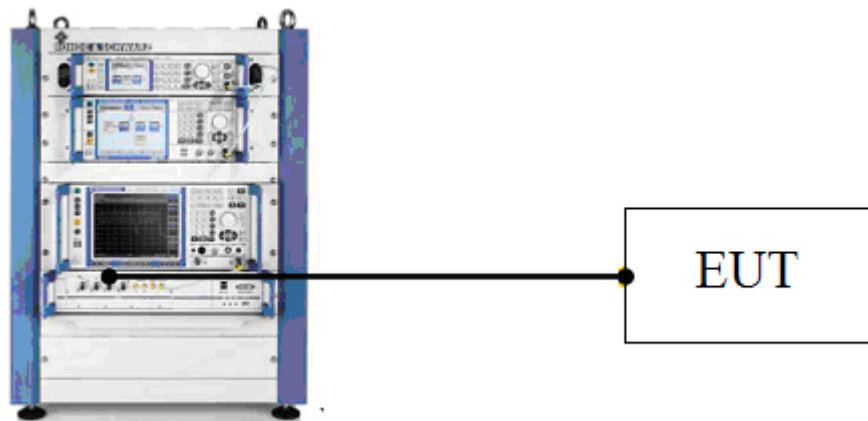
4.1. Limit

Band	EUT Type	Limit
U-NII-1	Outdoor Access Point	1W(30dBm) (Max. e.i.r.p $\leq 125\text{mW}$ at any elevation angle above 30 degrees as measured from the horizon)
	Indoor Access Point	1W(30dBm)
	Fixed point-to-point Access Point	1W(30dBm)
	Mobile and Portable Client Device	250mW(23.98dBm)
U-NII-2A	All Device	250mW(23.98dBm) or $11\text{dBm} + 10 \log B$, Which is lesser. (B is 26dB Bandwidth in MHz)
U-NII-2C	All Device	250mW(23.98dBm) or $11\text{dBm} + 10 \log B$, Which is lesser. (B is 26dB Bandwidth in MHz)
U-NII-3	All Device	1W(30dBm)

Note:

For the Band U-NII-2A and U-NII-2C, the maximum conducted output power limit calculate result refer to section 3.5.

4.2. Test Setup



4.3. Test Procedure

- Connect EUT antenna terminal to the OSP-B157WB with RF cable.
- Set the EUT transmit continuously with maximum output power.
- Through the test software in TS8897 to control a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

4.4. Test Result

Temperature	25.4℃	Relative Humidity			56%	Test Voltage	DC 3.3V	
BAND	Test Mode	Fre (MHz)	Conducted AVG Output Power (dBm)		Total Conducted Output Power (W)	Total Conducted Output Power (dBm)	Limit (dBm)	Result
			Ant 1	Ant 2				
U-NII-1	IEEE 802.11a	5180	10.337	8.425	/	/	23.98	PASS
		5200	10.149	8.362	/	/	23.98	PASS
		5240	10.234	8.576	/	/	23.98	PASS
	IEEE 802.11n HT20	5180	8.506	7.350	0.01252	10.98	22.19	PASS
		5200	8.448	7.333	0.01241	10.94	22.19	PASS
		5240	8.497	7.560	0.01278	11.06	22.19	PASS
	IEEE 802.11ac VHT20	5180	10.175	9.723	0.01979	12.97	22.19	PASS
		5200	10.299	9.871	0.02042	13.10	22.19	PASS
		5240	10.567	10.149	0.02174	13.37	22.19	PASS
	IEEE 802.11n HT40	5190	10.120	10.597	0.02175	13.38	22.19	PASS
		5230	10.385	10.747	0.02280	13.58	22.19	PASS
	IEEE 802.11ac VHT40	5190	10.858	10.542	0.02351	13.71	22.19	PASS
		5230	11.033	10.822	0.02477	13.94	22.19	PASS
	IEEE 802.11ac VHT80	5210	11.181	11.124	0.02608	14.16	22.19	PASS
U-NII-2A	IEEE 802.11a	5260	14.205	15.349	/	/	23.72	PASS
		5300	14.081	15.181	/	/	23.69	PASS
		5320	13.997	15.083	/	/	23.70	PASS
	IEEE 802.11n HT20	5260	14.111	14.677	0.05513	17.41	22.19	PASS
		5300	13.998	14.632	0.05416	17.34	22.19	PASS
		5320	13.942	14.495	0.05294	17.24	22.19	PASS
	IEEE 802.11ac VHT20	5260	10.677	10.232	0.02224	13.47	22.19	PASS
		5300	10.777	10.356	0.02281	13.58	22.19	PASS
		5320	10.832	10.429	0.02315	13.65	22.19	PASS
	IEEE 802.11n HT40	5270	10.571	10.886	0.02367	13.74	22.19	PASS
		5310	10.753	10.996	0.02447	13.89	22.19	PASS
	IEEE 802.11ac VHT40	5270	11.181	11.004	0.02573	14.10	22.19	PASS
		5310	11.255	11.119	0.02629	14.20	22.19	PASS
	IEEE 802.11ac VHT80	5290	10.887	11.452	0.02624	14.19	22.19	PASS

BAND	Test Mode	Fre (MHz)	Conducted AVG Output Power (dBm)		Total Conducted Output Power (W)	Total Conducted Output Power (dBm)	Limit (dBm)	Result
			Ant 1	Ant 2				
U-NII-2C	IEEE 802.11a	5500	12.593	12.929	/	/	23.70	PASS
		5580	12.661	12.952	/	/	23.72	PASS
		5700	13.147	13.415	/	/	23.77	PASS
	IEEE 802.11n HT20	5500	12.558	14.799	0.04821	16.83	22.19	PASS
		5580	12.590	15.100	0.05051	17.03	22.19	PASS
		5700	13.040	11.960	0.03584	15.54	22.19	PASS
	IEEE 802.11ac VHT20	5500	11.250	11.503	0.02747	14.39	22.19	PASS
		5580	11.573	11.710	0.02919	14.65	22.19	PASS
		5700	12.158	12.274	0.03332	15.23	22.19	PASS
	IEEE 802.11n HT40	5510	11.209	11.455	0.02719	14.34	22.19	PASS
		5590	11.547	11.783	0.02936	14.68	22.19	PASS
		5670	11.943	12.173	0.03214	15.07	22.19	PASS
	IEEE 802.11ac VHT40	5510	11.691	11.593	0.02919	14.65	22.19	PASS
		5590	12.014	11.917	0.03145	14.98	22.19	PASS
		5670	12.402	12.331	0.03449	15.38	22.19	PASS
	IEEE 802.11ac VHT80	5530	11.270	12.000	0.02925	14.66	22.19	PASS
		5610	11.860	12.350	0.03253	15.12	22.19	PASS
U-NII-3	IEEE 802.11a	5745	15.204	15.030	/	/	30.0	PASS
		5785	15.100	14.949	/	/	30.0	PASS
		5825	15.074	14.938	/	/	30.0	PASS
	IEEE 802.11n HT20	5745	13.839	12.034	0.04018	16.04	28.19	PASS
		5785	13.740	12.092	0.03985	16.00	28.19	PASS
		5825	13.745	12.160	0.04013	16.03	28.19	PASS
	IEEE 802.11ac VHT20	5745	12.373	12.467	0.03492	15.43	28.19	PASS
		5785	12.454	12.537	0.03553	15.51	28.19	PASS
		5825	12.527	12.600	0.03609	15.57	28.19	PASS
	IEEE 802.11n HT40	5755	12.296	12.552	0.03496	15.44	28.19	PASS
		5795	12.378	12.607	0.03552	15.50	28.19	PASS
	IEEE 802.11ac VHT40	5755	12.760	12.710	0.03754	15.75	28.19	PASS
		5795	12.819	12.781	0.03811	15.81	28.19	PASS
	IEEE 802.11ac VHT80	5775	12.940	13.039	0.03981	16.00	28.19	PASS

5. PEAK POWER SPECTRAL DENSITY

5.1. Limit

Band	EUT Type	Limit
U-NII-1	Outdoor Access Point	17dBm/MHz
	Indoor Access Point	17dBm/MHz
	Fixed point-to-point Access Point	17dBm/MHz
	Mobile and Portable Client Device	11dBm/MHz
U-NII-2A	All Device	11dBm/MHz
U-NII-2C	All Device	11dBm/MHz
U-NII-3	All Device	30dBm/500KHz

5.2. Test Setup



5.3. Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	1MHz(For U-NII-1&U-NII-2A&U-NII-2C) 500KHz(For U-NII-3)
VBW	3MHz(For U-NII-1&U-NII-2A&U-NII-2C) 2MHz(For U-NII-3)
Span	encompass the entire 26 dB EBW or 99% OBW of the signal
Sweep Time	Auto
Number of Sweep Point	$\geq 2 \times \text{SPAN}/\text{RBW}$
Detector	RMS(power averaging)
Trace Average	≥ 100 traces

5.4. Test Procedure

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 5.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, use the marker-to-peak function to set the marker to the average of the emission.
- If the duty cycle of test signal $< 98\%$, the result = max measured value + $10 \times \log(1/\text{duty cycle})$;
If the duty cycle of test signal $\geq 98\%$, the result = max measured value.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

5.5. Test Result

Temperature		25.4℃	Relative Humidity		56%	Test Voltage	DC 3.3V	
BAND	Test Mode	Fre (MHz)	Power Density (dBm/MHz)		Duty Factor (dB)	Total Power Density (dBm/MHz)	Limit (dBm/MHz)	Result
			Ant 1	Ant 2				
U-NII-1	IEEE 802.11a	5180	2.90	2.57	1.28	/	11.0	PASS
		5200	3.10	2.34	1.28	/	11.0	PASS
		5240	3.17	1.89	1.28	/	11.0	PASS
	IEEE 802.11n HT20	5180	-0.07	-0.22	1.39	4.26	9.19	PASS
		5200	-0.77	-0.09	1.39	3.99	9.19	PASS
		5240	-1.01	-0.36	1.39	3.73	9.19	PASS
	IEEE 802.11ac VHT20	5180	-0.83	-0.14	1.39	3.92	9.19	PASS
		5200	-0.83	-0.65	1.39	3.66	9.19	PASS
		5240	-0.92	-1.27	1.39	3.30	9.19	PASS
	IEEE 802.11n HT40	5190	-1.45	-1.59	2.36	3.86	9.19	PASS
		5230	-1.27	-1.71	2.36	3.89	9.19	PASS
	IEEE 802.11ac VHT40	5190	-1.78	-1.42	2.42	3.84	9.19	PASS
		5230	-1.93	-1.56	2.42	3.69	9.19	PASS
	IEEE 802.11ac VHT80	5210	-2.88	-2.65	3.51	3.76	9.19	PASS
U-NII-2A	IEEE 802.11a	5260	6.28	6.32	1.28	/	11.0	PASS
		5300	6.29	5.95	1.28	/	11.0	PASS
		5320	6.18	5.97	1.28	/	11.0	PASS
	IEEE 802.11n HT20	5260	3.95	4.28	1.39	8.52	9.19	PASS
		5300	4.03	3.86	1.39	8.35	9.19	PASS
		5320	4.04	3.60	1.39	8.23	9.19	PASS
	IEEE 802.11ac VHT20	5260	3.98	4.33	1.39	8.55	9.19	PASS
		5300	3.73	3.82	1.39	8.17	9.19	PASS
		5320	2.93	3.71	1.39	7.73	9.19	PASS
	IEEE 802.11n HT40	5270	3.06	3.64	2.36	8.73	9.19	PASS
		5310	2.93	3.48	2.36	8.59	9.19	PASS
	IEEE 802.11ac VHT40	5270	3.39	3.64	2.42	8.95	9.19	PASS
		5310	3.57	3.40	2.42	8.92	9.19	PASS
	IEEE 802.11ac VHT80	5290	2.08	2.10	3.51	8.61	9.19	PASS

BAND	Test Mode	Fre (MHz)	Power Density (dBm/MHz)		Duty Factor (dB)	Total Power Density (dBm/MHz)	Limit (dBm/MHz)	Result
			Ant 1	Ant 2				
U-NII-2C	IEEE 802.11a	5500	6.28	6.33	1.28	/	11.0	PASS
		5580	6.62	5.72	1.28	/	11.0	PASS
		5700	6.55	6.76	1.28	/	11.0	PASS
	IEEE 802.11n HT20	5500	3.69	4.18	1.39	8.35	9.19	PASS
		5580	4.16	3.41	1.39	8.21	9.19	PASS
		5700	4.70	3.92	1.39	8.73	9.19	PASS
	IEEE 802.11ac VHT20	5500	4.50	4.17	1.39	8.73	9.19	PASS
		5580	4.91	3.61	1.39	8.70	9.19	PASS
		5700	4.98	3.92	1.39	8.88	9.19	PASS
	IEEE 802.11n HT40	5510	4.20	3.38	2.36	9.18	9.19	PASS
		5590	4.27	2.59	2.36	8.89	9.19	PASS
		5670	4.39	2.80	2.36	9.04	9.19	PASS
	IEEE 802.11ac VHT40	5510	3.30	3.65	2.42	8.91	9.19	PASS
		5590	3.33	2.61	2.42	8.42	9.19	PASS
		5670	3.47	3.01	2.42	8.68	9.19	PASS
	IEEE 802.11ac VHT80	5530	2.33	2.17	3.51	8.77	9.19	PASS
		5610	2.20	1.13	3.51	8.22	9.19	PASS

BAND	Test Mode	Fre (MHz)	Power Density (dBm/500KHz)		Duty Factor (dB)	Total Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Result
			Ant 1	Ant 2				
U-NII-3	IEEE 802.11a	5745	6.12	6.22	1.28	/	30.0	PASS
		5785	6.24	6.26	1.28	/	30.0	PASS
		5825	6.09	5.94	1.28	/	30.0	PASS
	IEEE 802.11n HT20	5745	4.26	4.52	1.39	8.80	28.19	PASS
		5785	3.89	4.45	1.39	8.58	28.19	PASS
		5825	3.56	4.08	1.39	8.23	28.19	PASS
	IEEE 802.11ac VHT20	5745	3.94	4.33	1.39	8.54	28.19	PASS
		5785	3.69	4.64	1.39	8.59	28.19	PASS
		5825	3.36	4.36	1.39	8.28	28.19	PASS
	IEEE 802.11n HT40	5755	3.88	3.55	2.36	9.09	28.19	PASS
		5795	3.91	3.06	2.36	8.88	28.19	PASS
	IEEE 802.11ac VHT40	5755	3.08	4.81	2.42	9.46	28.19	PASS
		5795	2.76	3.94	2.42	8.82	28.19	PASS
	IEEE 802.11ac VHT80	5775	2.39	2.22	3.51	8.83	28.19	PASS

U-NII-1 IEEE 802.11a 5180MHz

ANT 1



ANT 2



U-NII-1 IEEE 802.11a 5200MHz

ANT 1



ANT 2

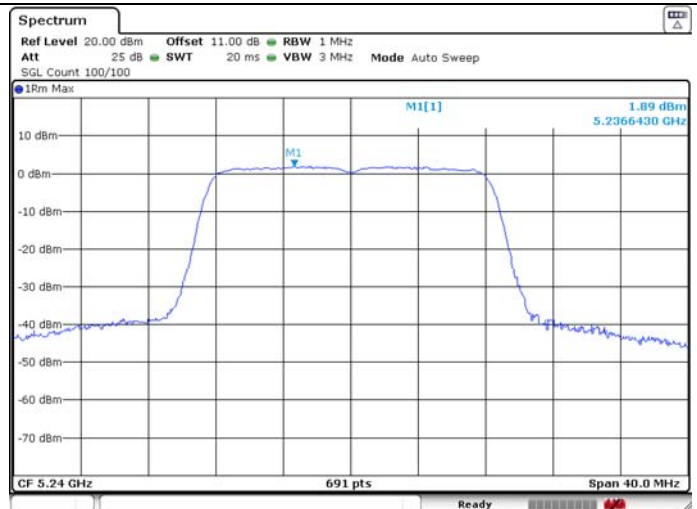


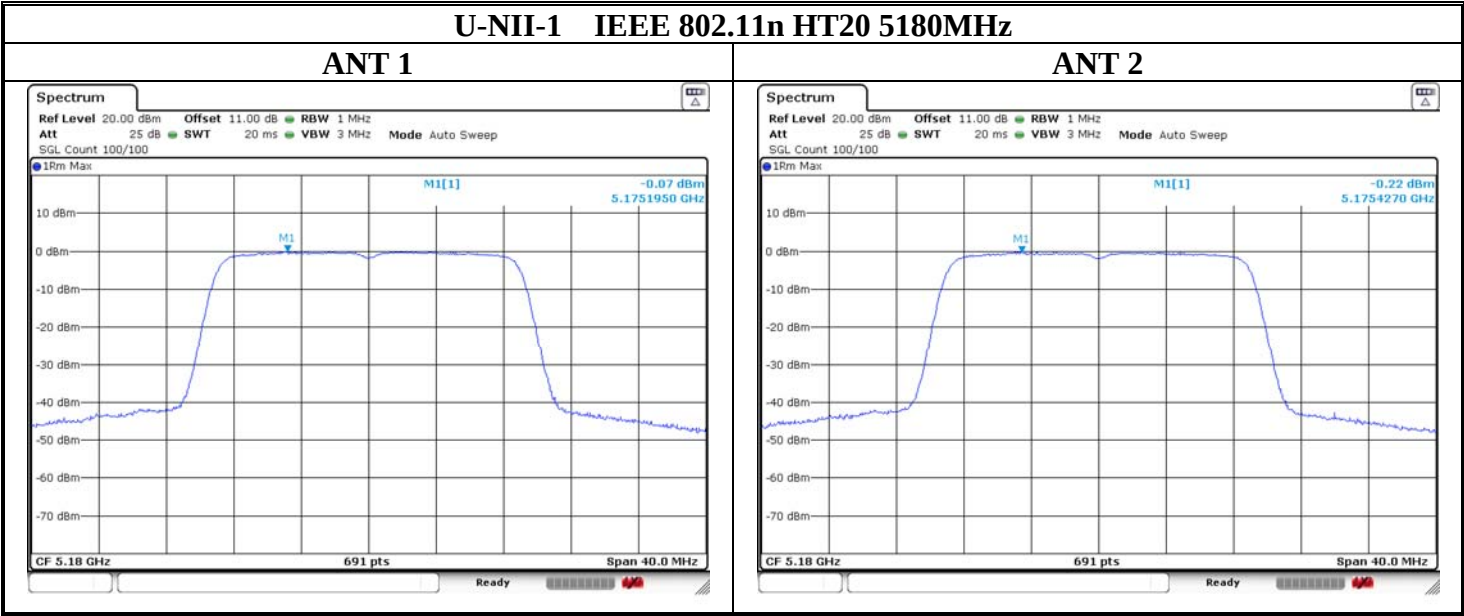
U-NII-1 IEEE 802.11a 5240MHz

ANT 1



ANT 2





U-NII-1 IEEE 802.11n HT20 5200MHz

ANT 1

ANT 2



U-NII-1 IEEE 802.11n HT20 5240MHz

ANT 1

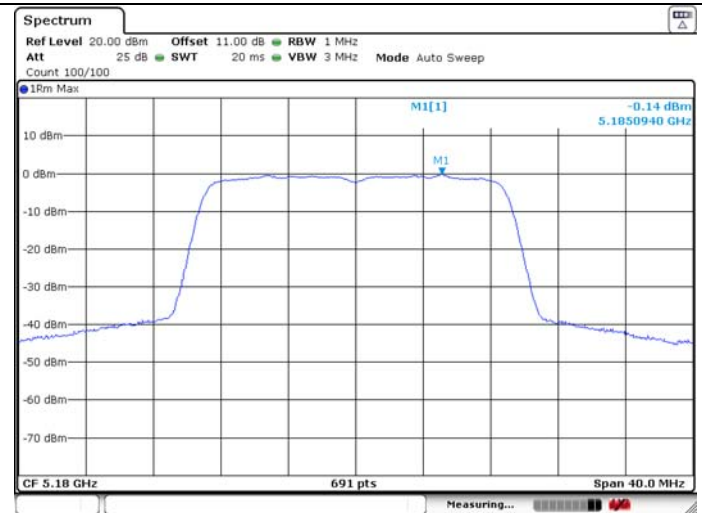
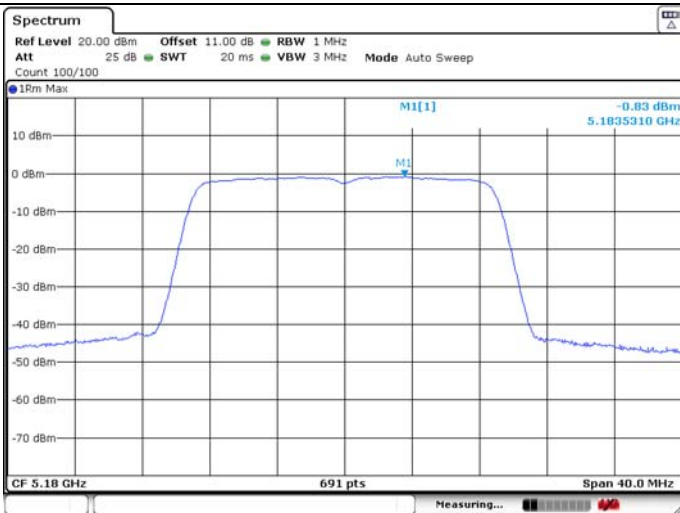
ANT 2



U-NII-1 IEEE 802.11ac VHT20 5180MHz

ANT 1

ANT 2



U-NII-1 IEEE 802.11ac VHT20 5200MHz

ANT 1

ANT 2



U-NII-1 IEEE 802.11ac VHT20 5240MHz

ANT 1

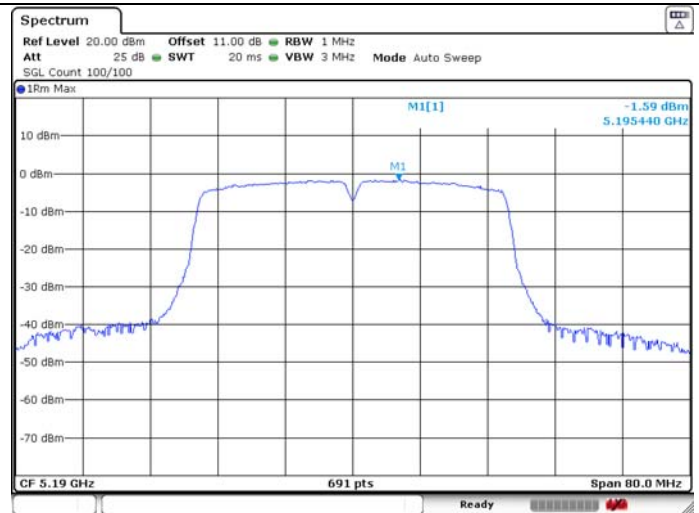
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U-NII-1 IEEE 802.11n HT40 5190MHz

ANT 1

ANT 2



U-NII-1 IEEE 802.11n HT40 5230MHz

ANT 1



ANT 2



U-NII-1 IEEE 802.11ac VHT40 5190MHz

ANT 1



ANT 2



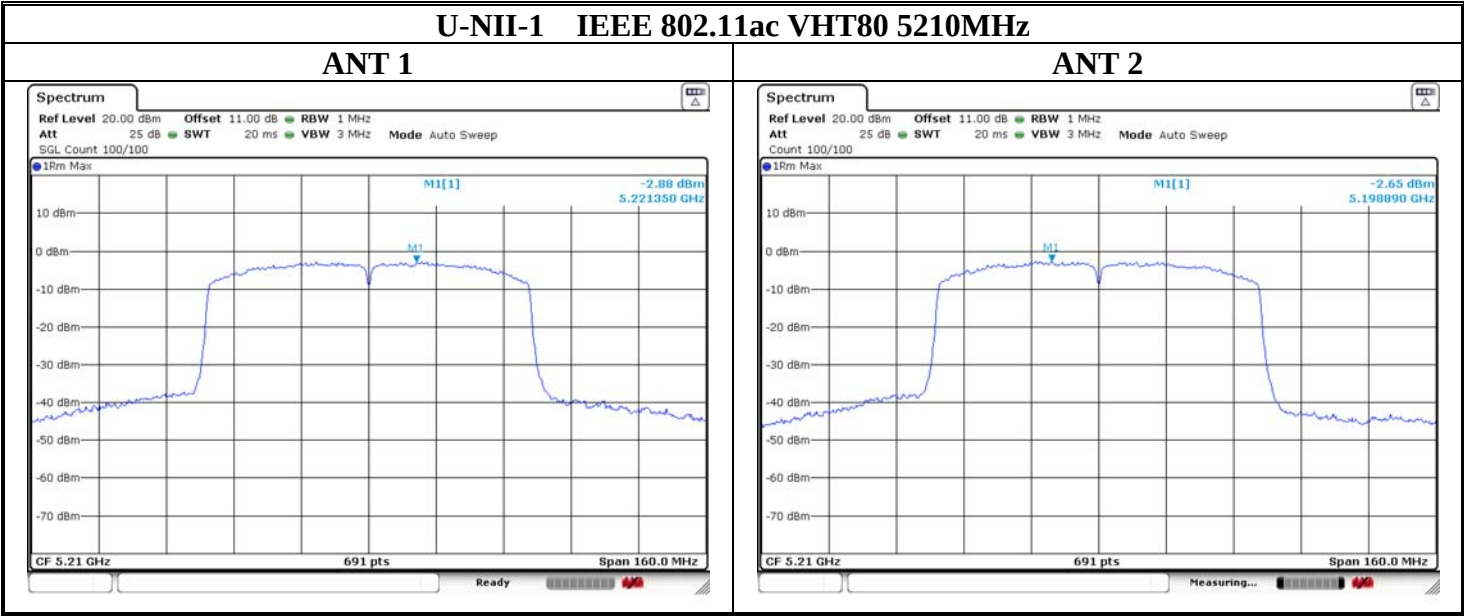
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ANT 1



ANT 2





U-NII-2A IEEE 802.11a 5260MHz

ANT 1



ANT 2

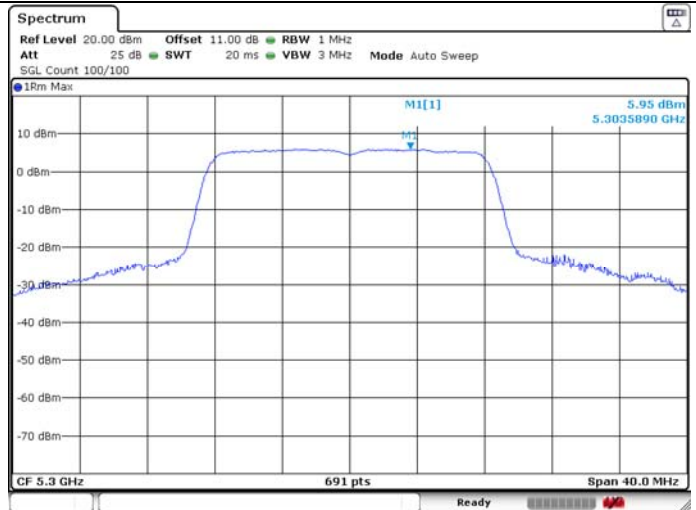


U-NII-2A IEEE 802.11a 5300MHz

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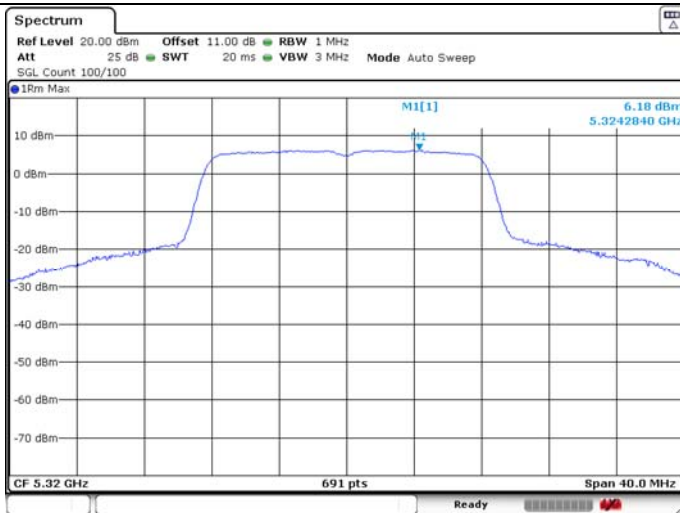


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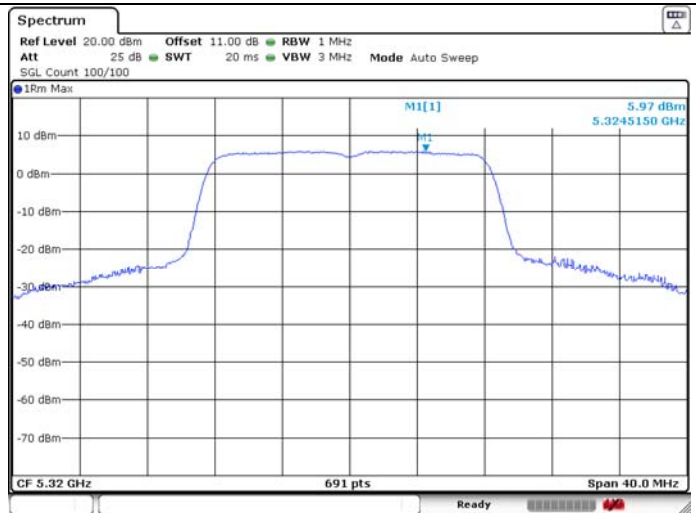


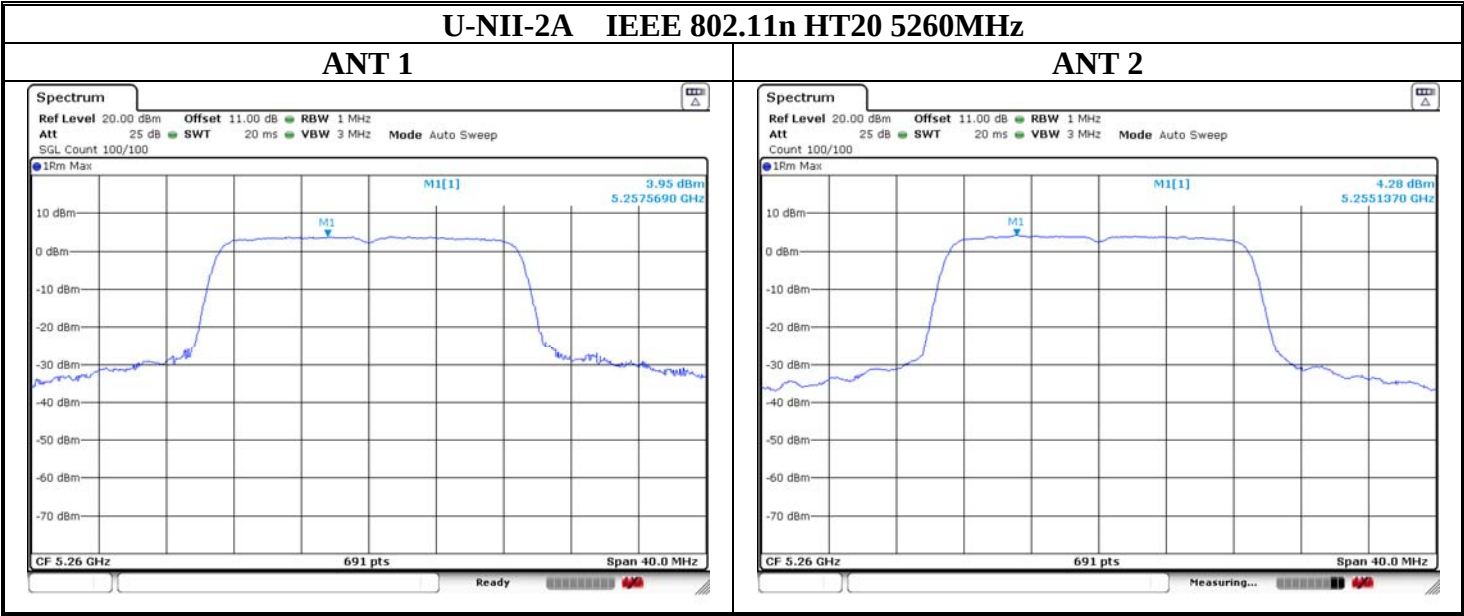
U-NII-2A IEEE 802.11a 5320MHz

ANT 1



ANT 2





U-NII-2A IEEE 802.11n HT20 5300MHz

ANT 1



ANT 2

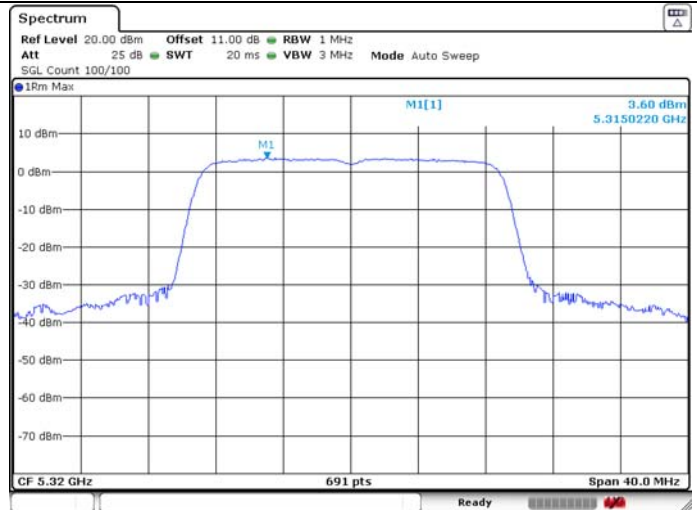


U-NII-2A IEEE 802.11n HT20 5320MHz

ANT 1



ANT 2

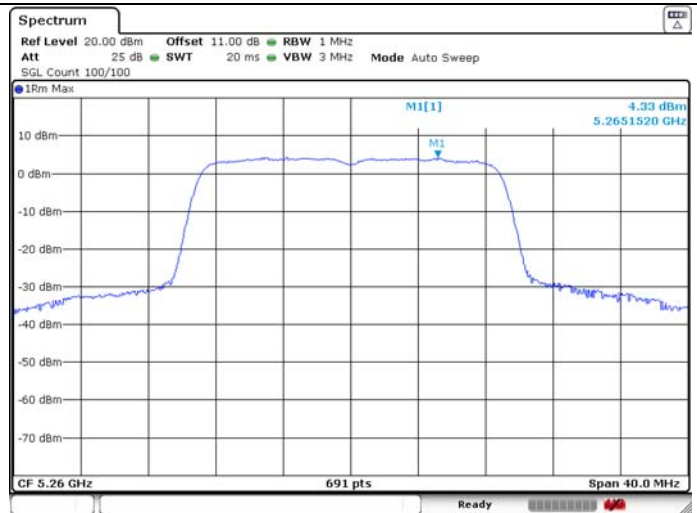


U-NII-2A IEEE 802.11ac VHT20 5260MHz

ANT 1



ANT 2



U-NII-2A IEEE 802.11ac VHT20 5300MHz

ANT 1



ANT 2



U-NII-2A IEEE 802.11ac VHT20 5320MHz

ANT 1

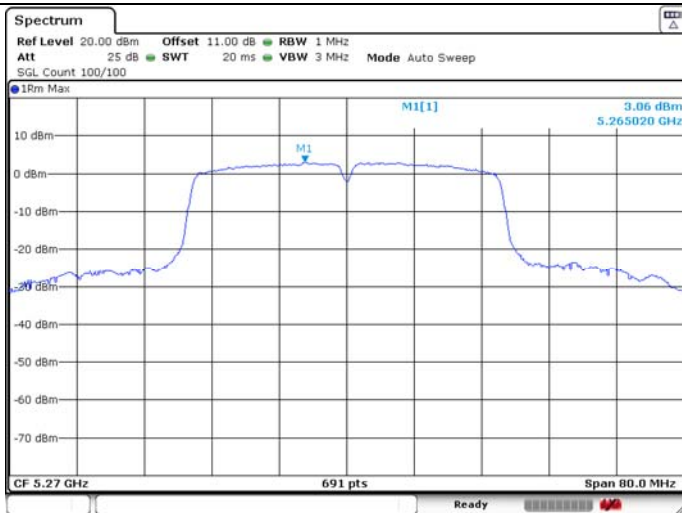


ANT 2



U-NII-2A IEEE 802.11n HT40 5270MHz

ANT 1



ANT 2



U-NII-2A IEEE 802.11n HT40 5310MHz

ANT 1

ANT 2



U-NII-2A IEEE 802.11ac VHT40 5270MHz

ANT 1

ANT 2

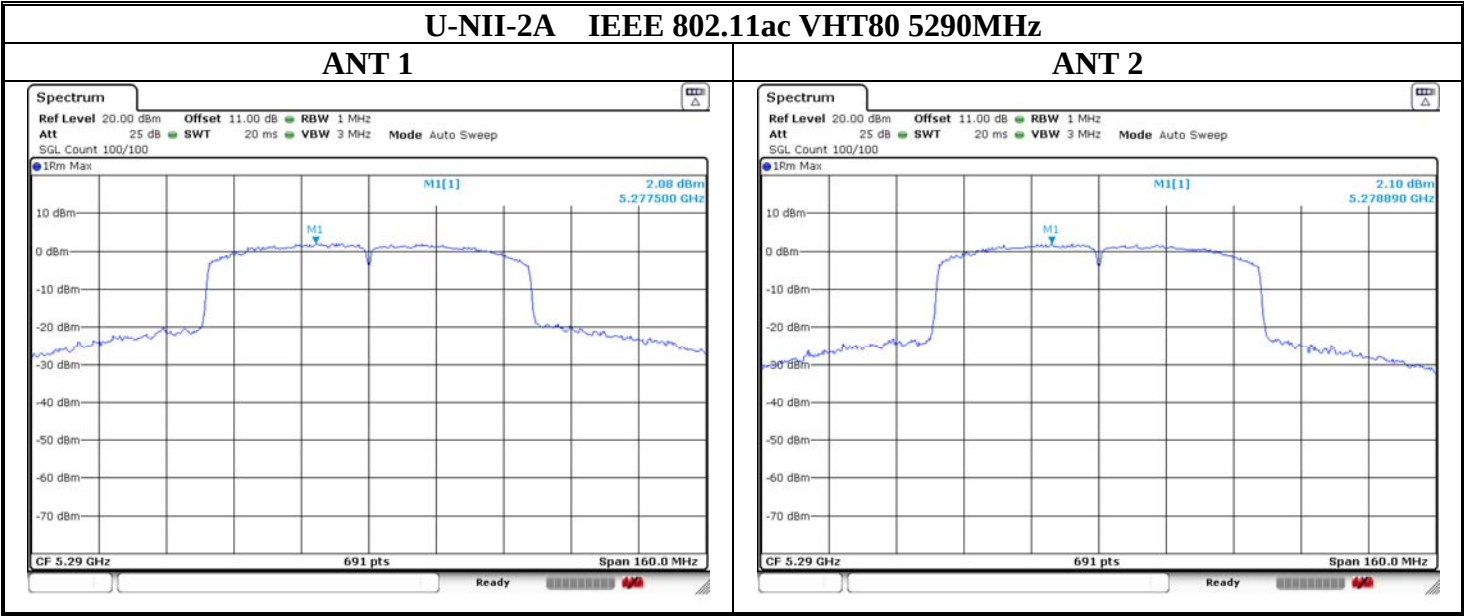


U-NII-2A IEEE 802.11ac VHT40 5310MHz

ANT 1

ANT 2





U-NII-2C 802.11a IEEE 5500MHz

ANT 1



ANT 2



U-NII-2C IEEE 802.11a 5580MHz

ANT 1



ANT 2

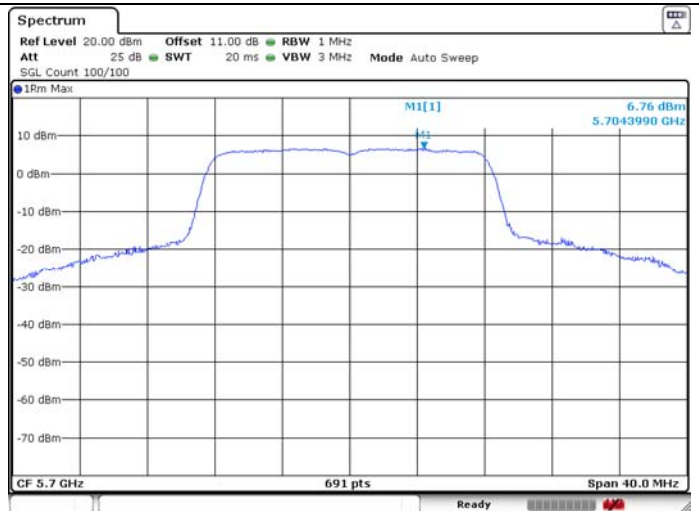


U-NII-2C IEEE 802.11a 5700MHz

ANT 1



ANT 2



U-NII-2C IEEE 802.11n HT20 5500MHz

ANT 1



ANT 2

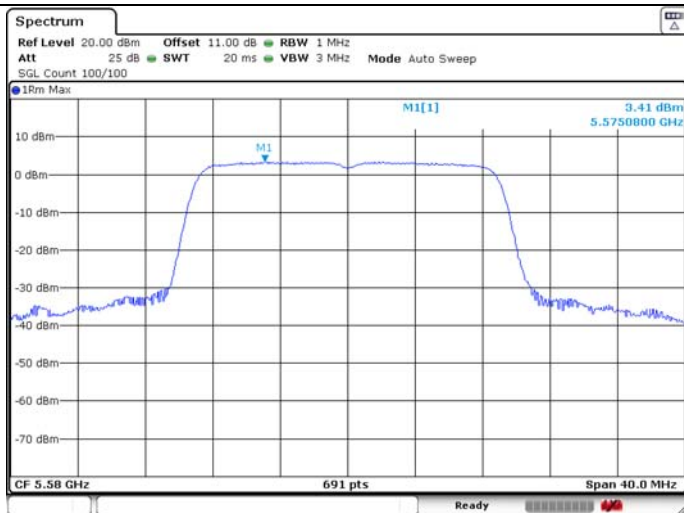


U-NII-2C IEEE 802.11n HT20 5580MHz

ANT 1



ANT 2



U-NII-2C IEEE 802.11n HT20 5700MHz

ANT 1



ANT 2

