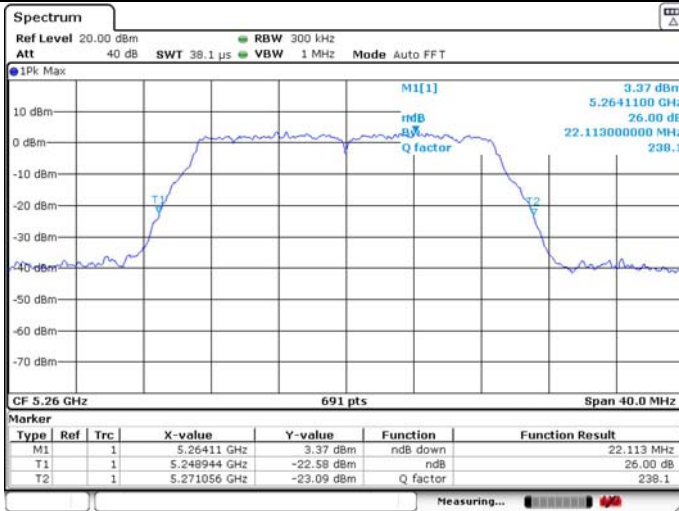


U-NII-2A 802.11n HT20 5260MHz_Ant 2

26dB Bandwidth

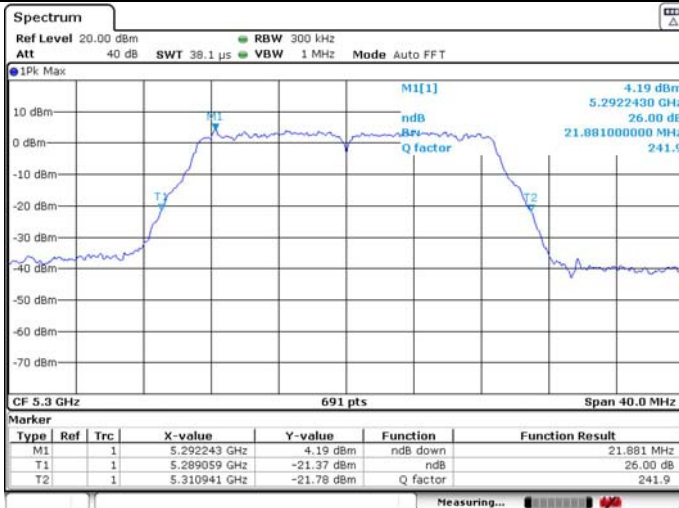
99% Occupied Bandwidth



U-NII-2A 802.11n HT20 5300MHz_Ant 2

26dB Bandwidth

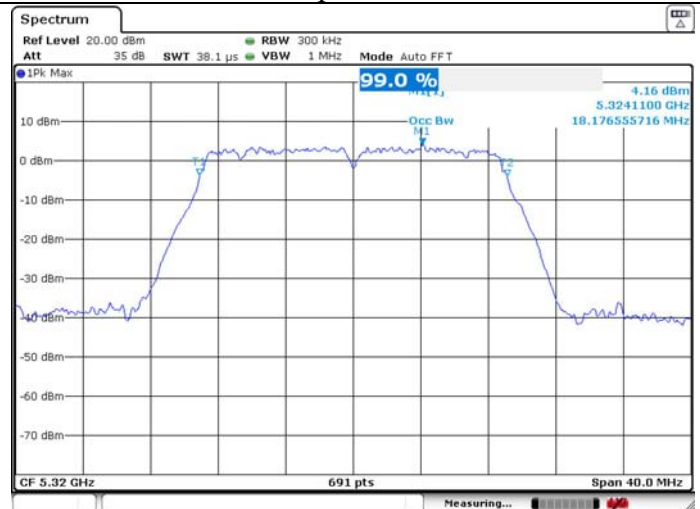
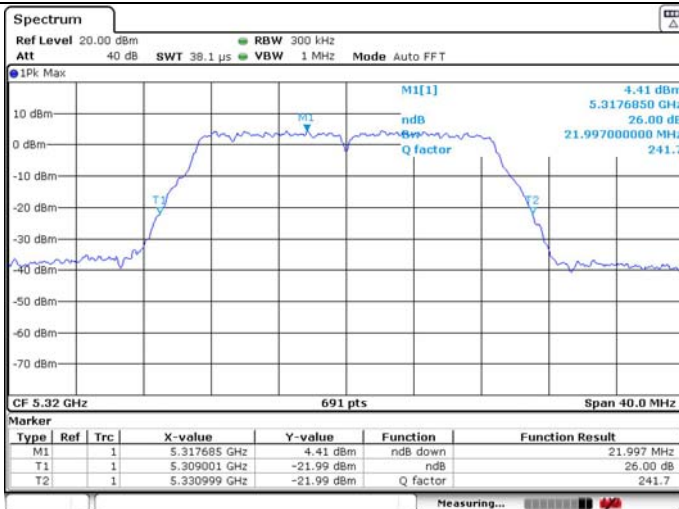
99% Occupied Bandwidth



U-NII-2A 802.11n HT20 5320MHz_Ant 2

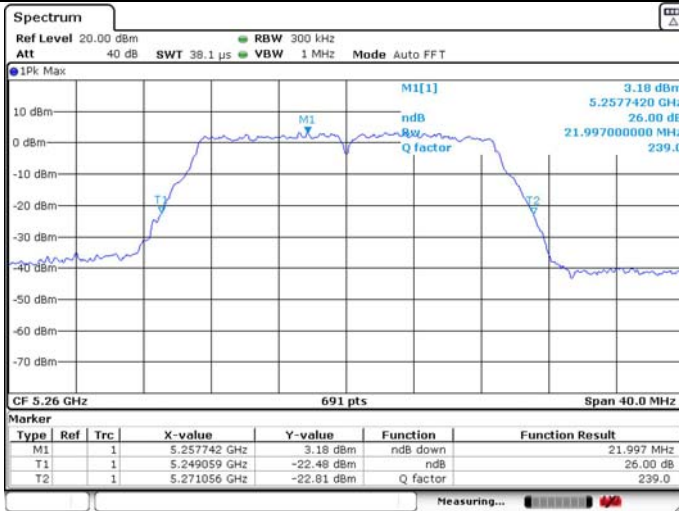
26dB Bandwidth

99% Occupied Bandwidth



U-NII-2A 802.11ac VHT20 5260MHz_Ant 2

26dB Bandwidth

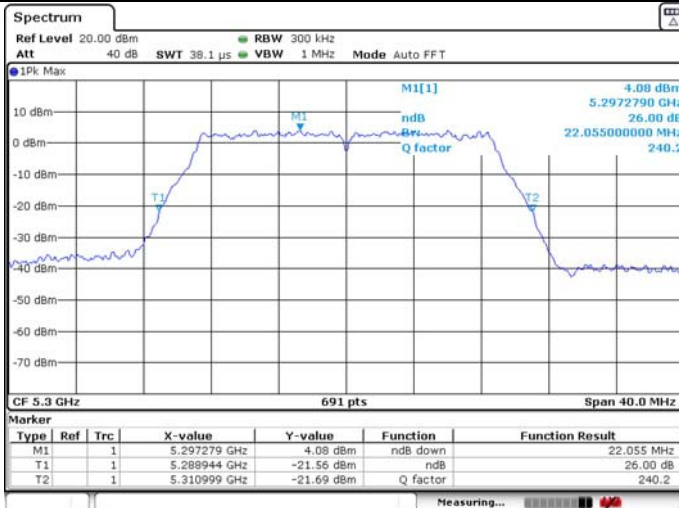


99% Occupied Bandwidth



U-NII-2A 802.11ac VHT20 5300MHz_Ant 2

26dB Bandwidth

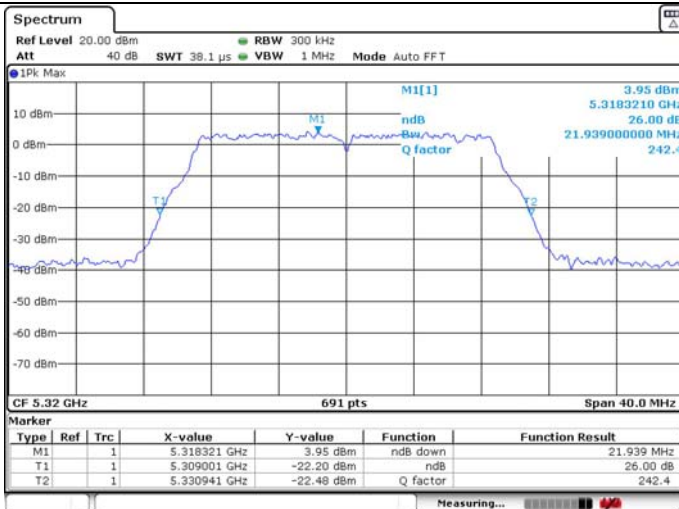


99% Occupied Bandwidth



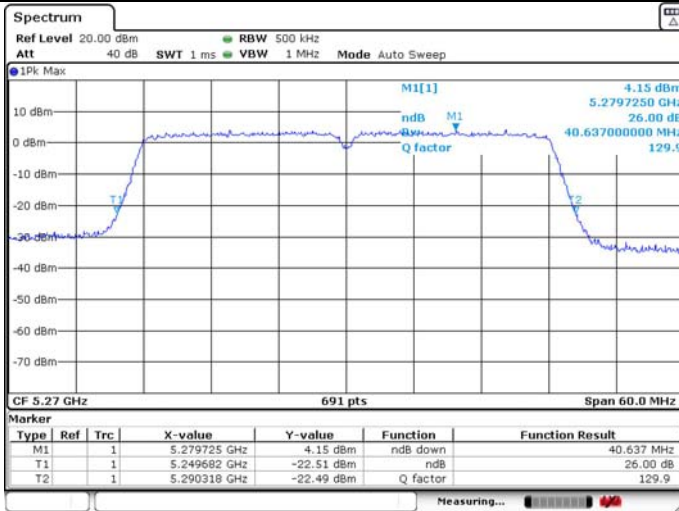
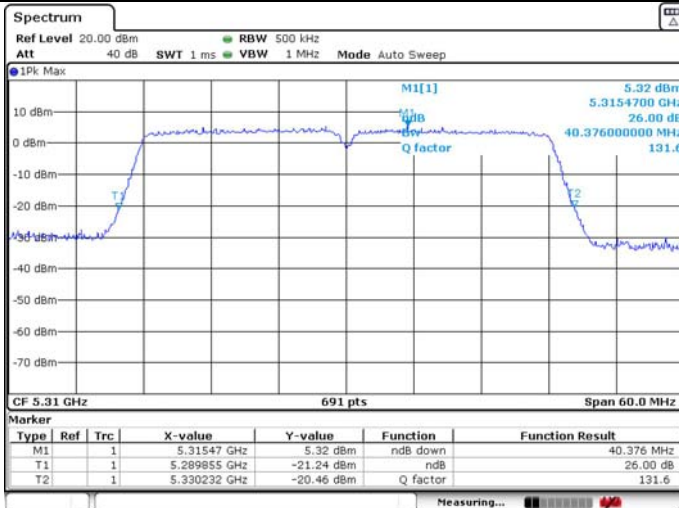
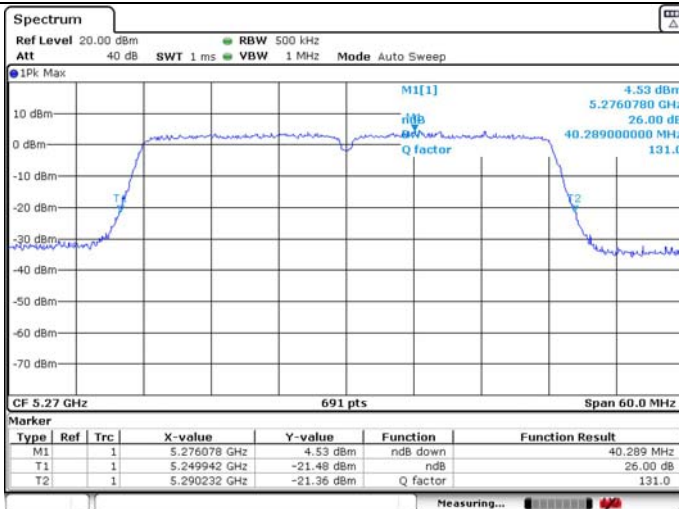
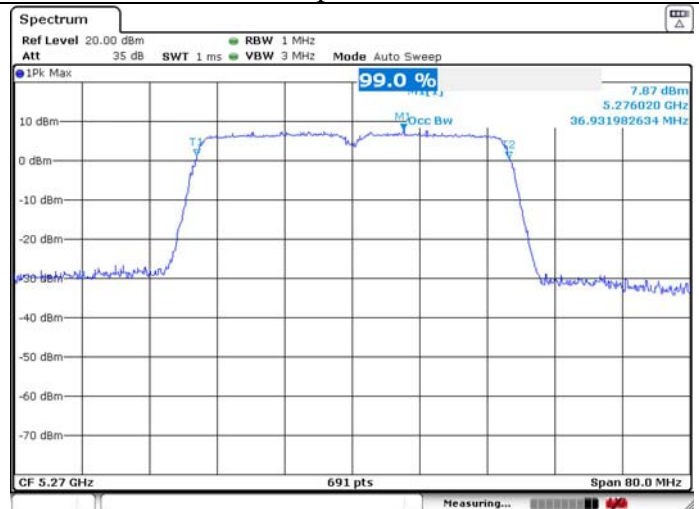
U-NII-2A 802.11ac VHT20 5320MHz_Ant 2

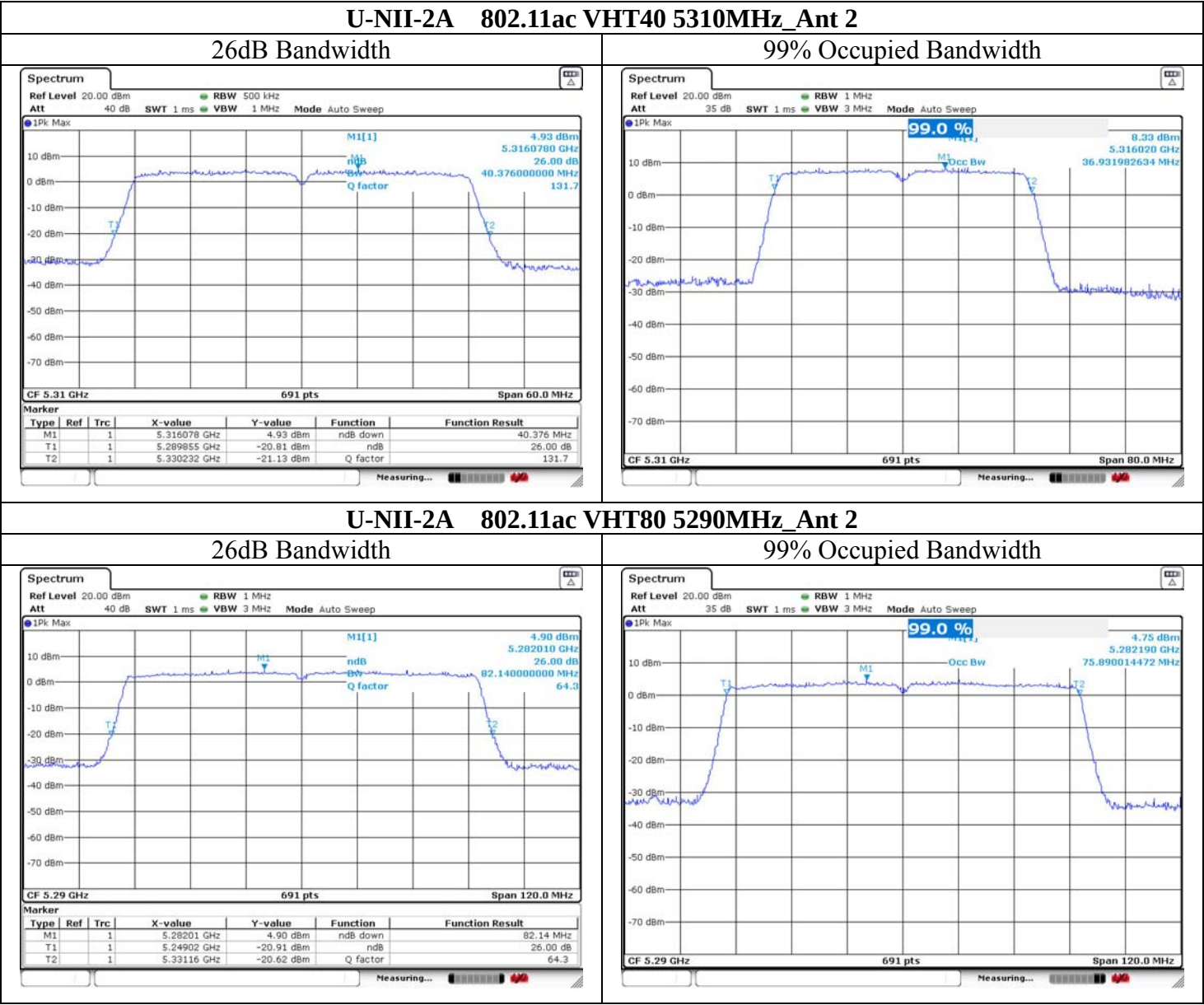
26dB Bandwidth



99% Occupied Bandwidth

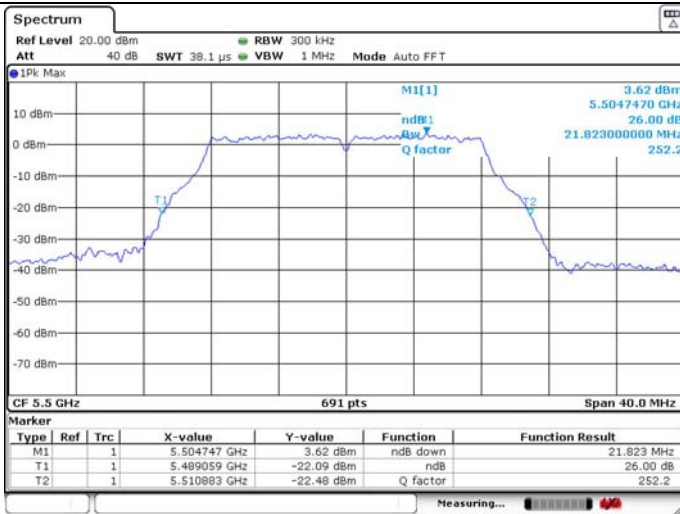


U-NII-2A 802.11n HT40 5270MHz_Ant 2**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2A 802.11n HT40 5310MHz_Ant 2****26dB Bandwidth****99% Occupied Bandwidth****U-NII-2A 802.11ac VHT40 5270MHz_Ant 2****26dB Bandwidth****99% Occupied Bandwidth**

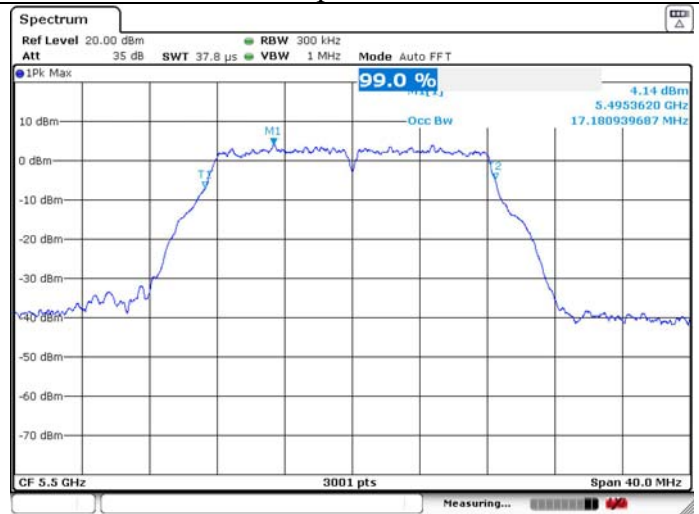


U-NII-2C 802.11a 5500MHz_Ant 1

26dB Bandwidth

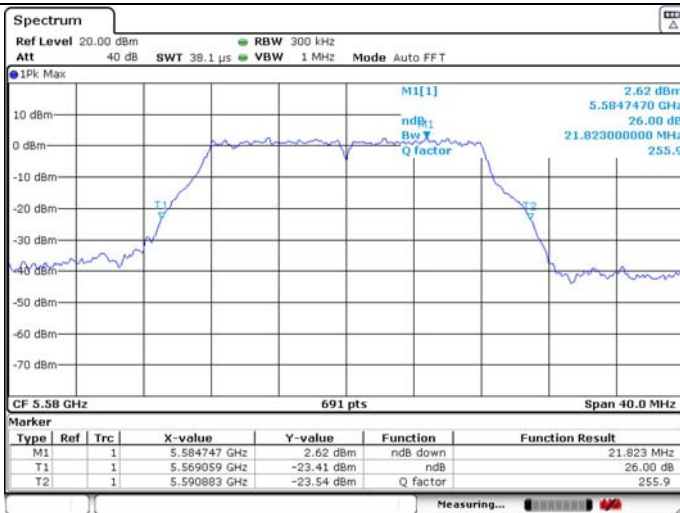


99% Occupied Bandwidth

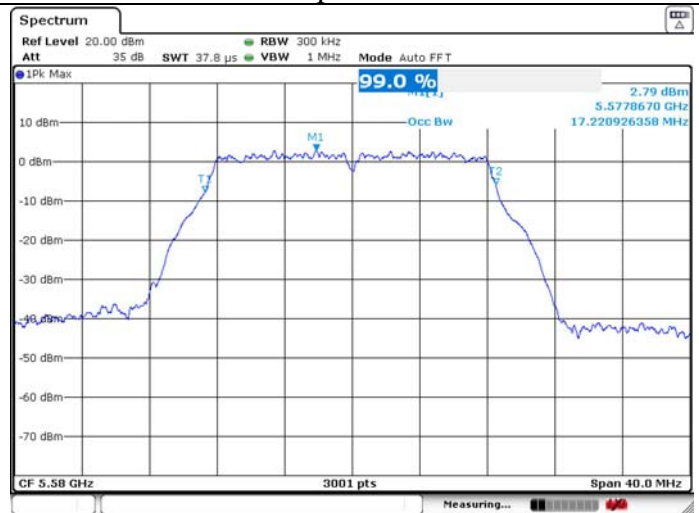


U-NII-2C 802.11a 5580MHz_Ant 1

26dB Bandwidth

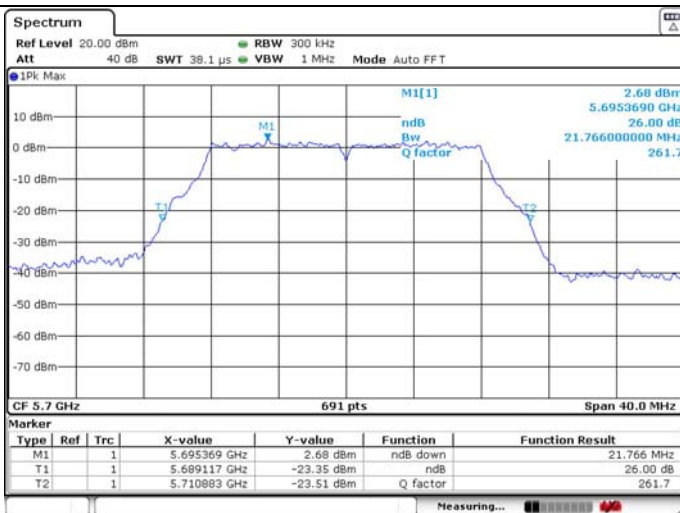


99% Occupied Bandwidth

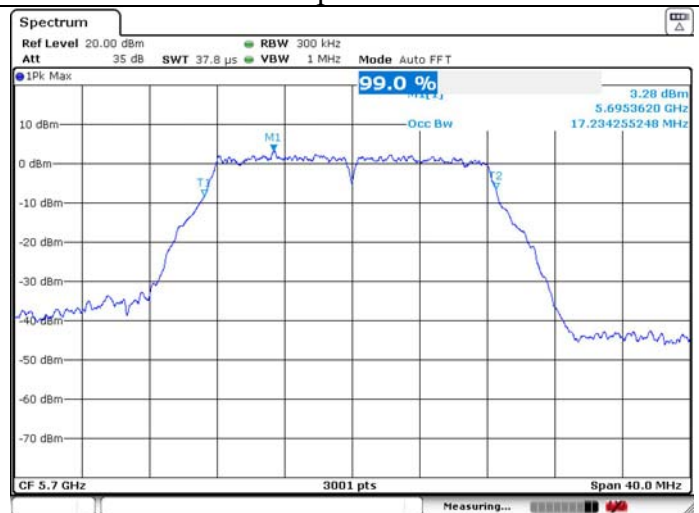


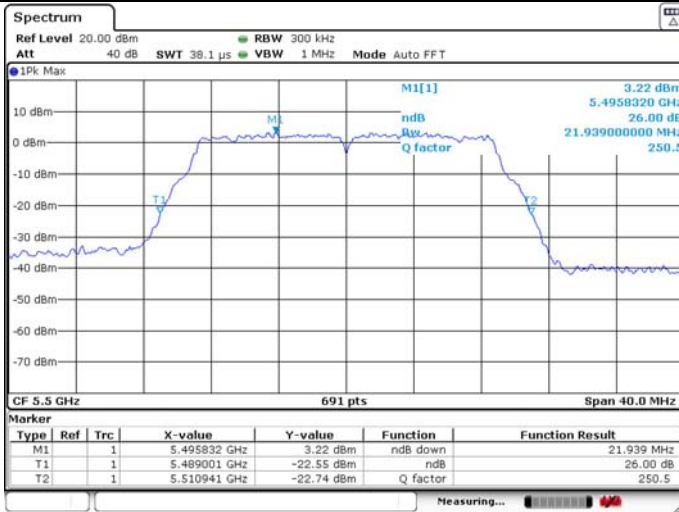
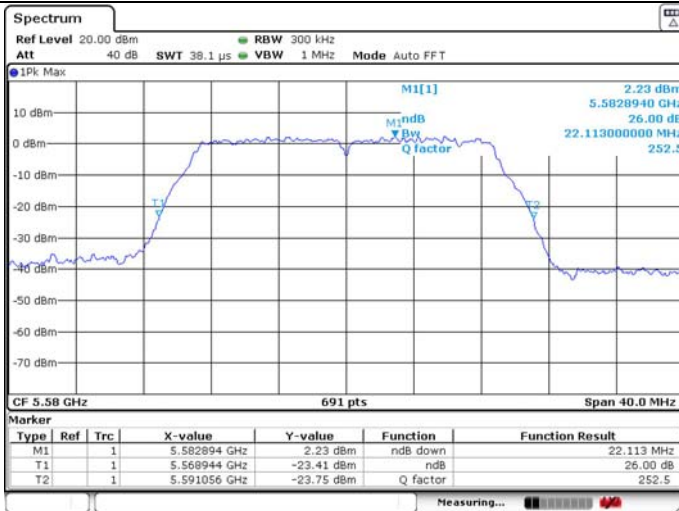
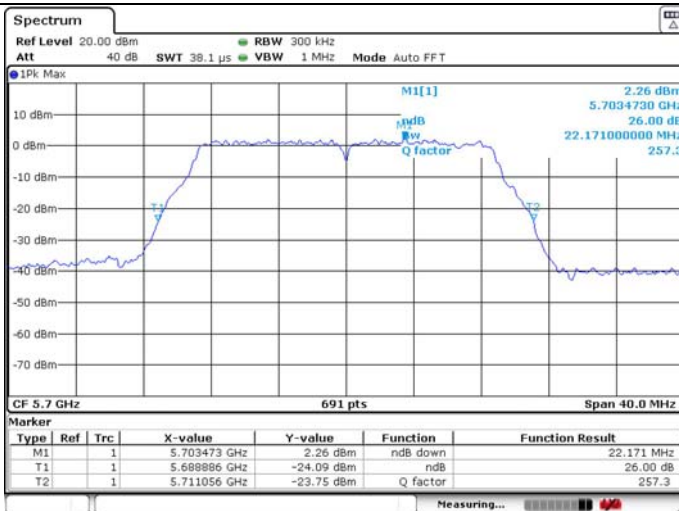
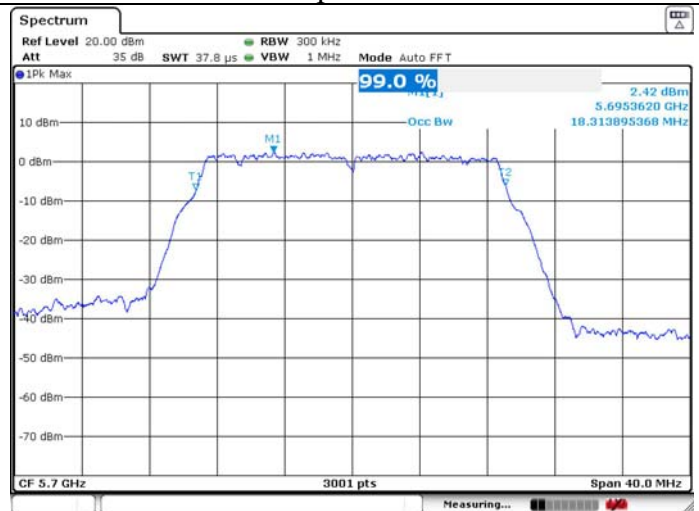
U-NII-2C 802.11a 5700MHz_Ant 1

26dB Bandwidth



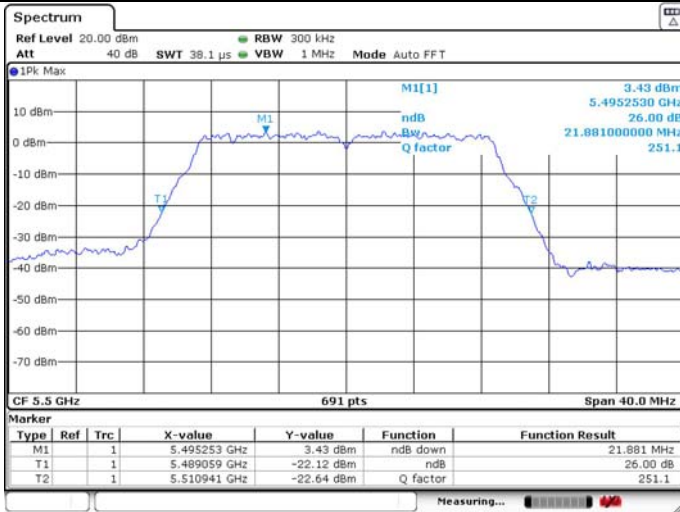
99% Occupied Bandwidth



U-NII-2C 802.11n HT20 5500MHz_Ant 1**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C 802.11n HT20 5580MHz_Ant 1****26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C 802.11n HT20 5700MHz_Ant 1****26dB Bandwidth****99% Occupied Bandwidth**

U-NII-2C 802.11ac VHT20 5500MHz_Ant 1

26dB Bandwidth

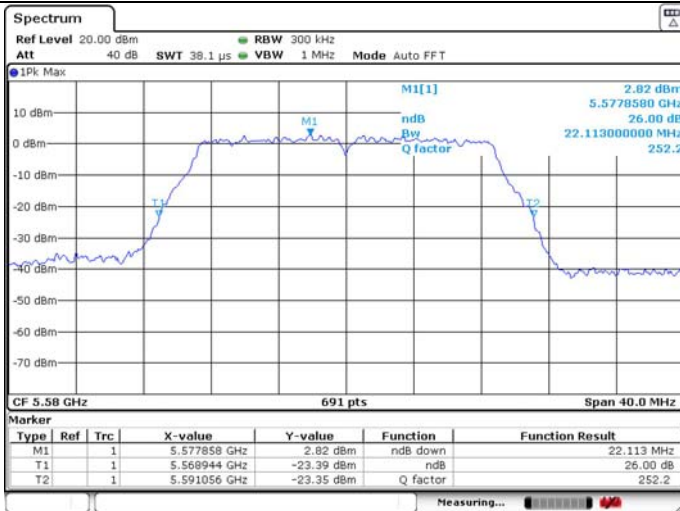


99% Occupied Bandwidth



U-NII-2C 802.11ac VHT20 5580MHz_Ant 1

26dB Bandwidth

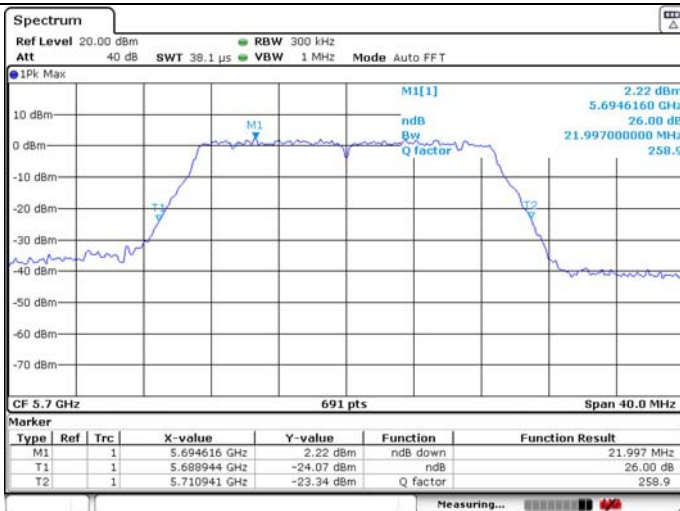


99% Occupied Bandwidth

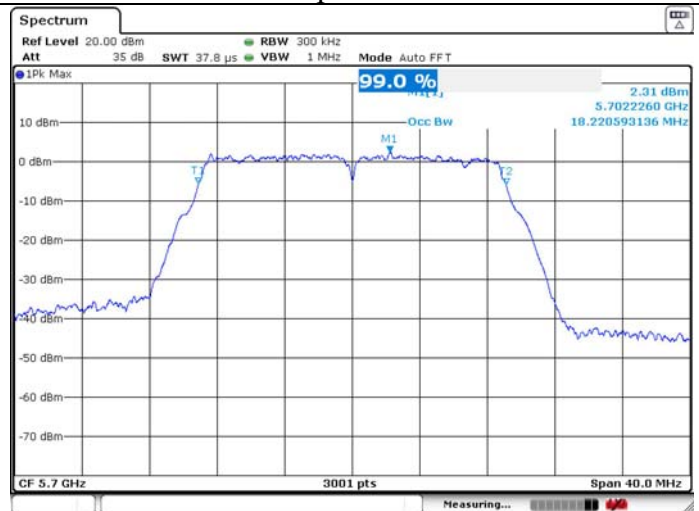


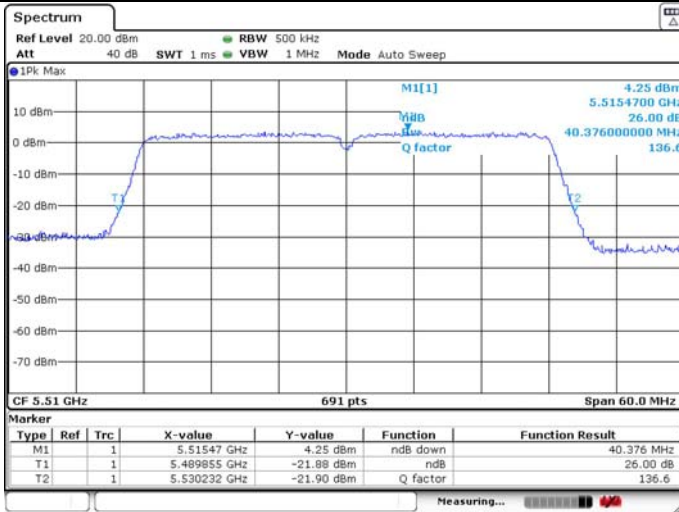
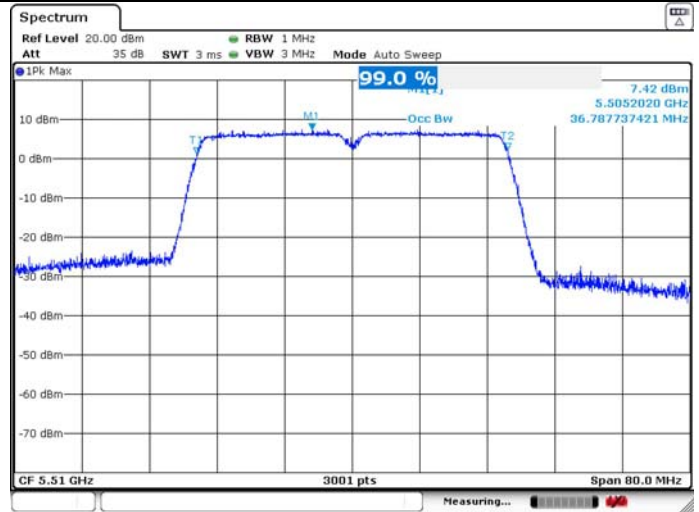
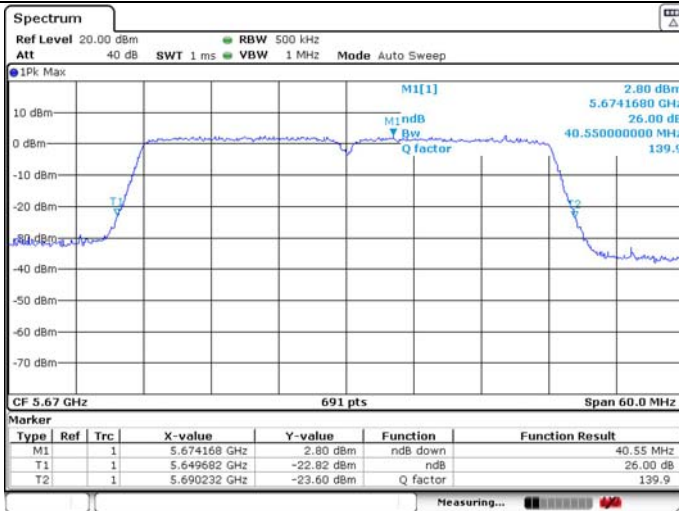
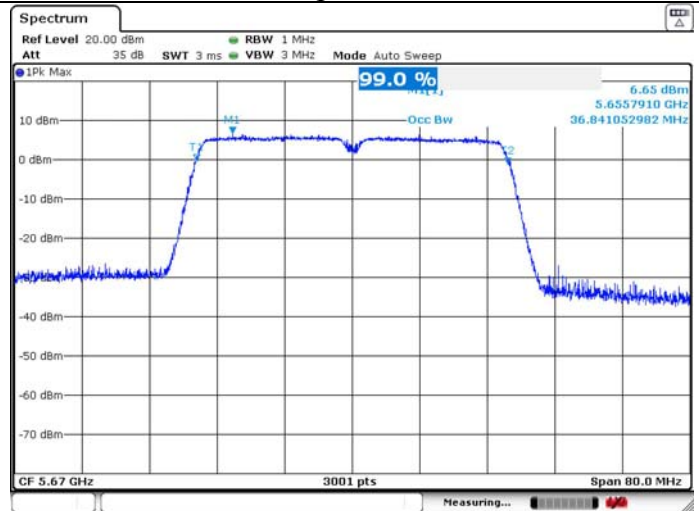
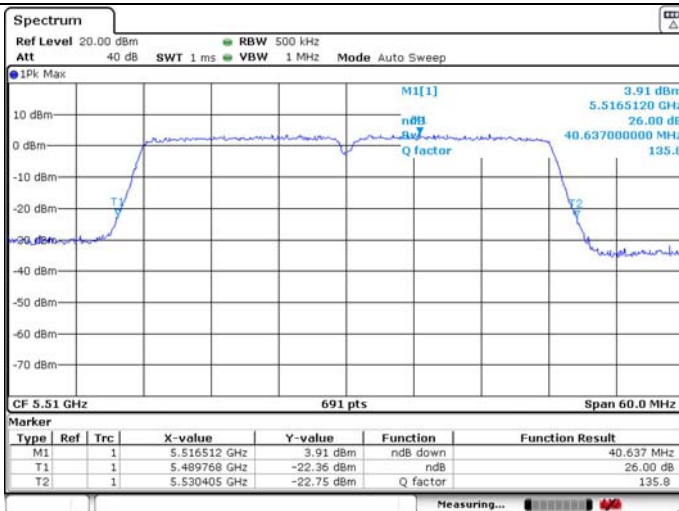
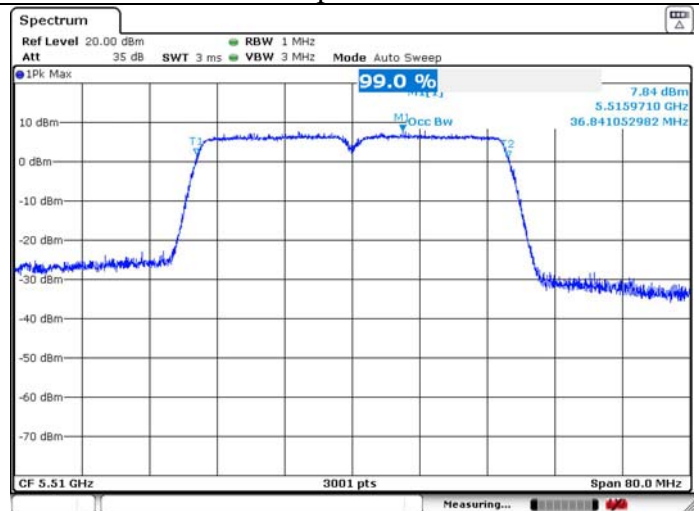
U-NII-2C 802.11ac VHT20 5700MHz_Ant 1

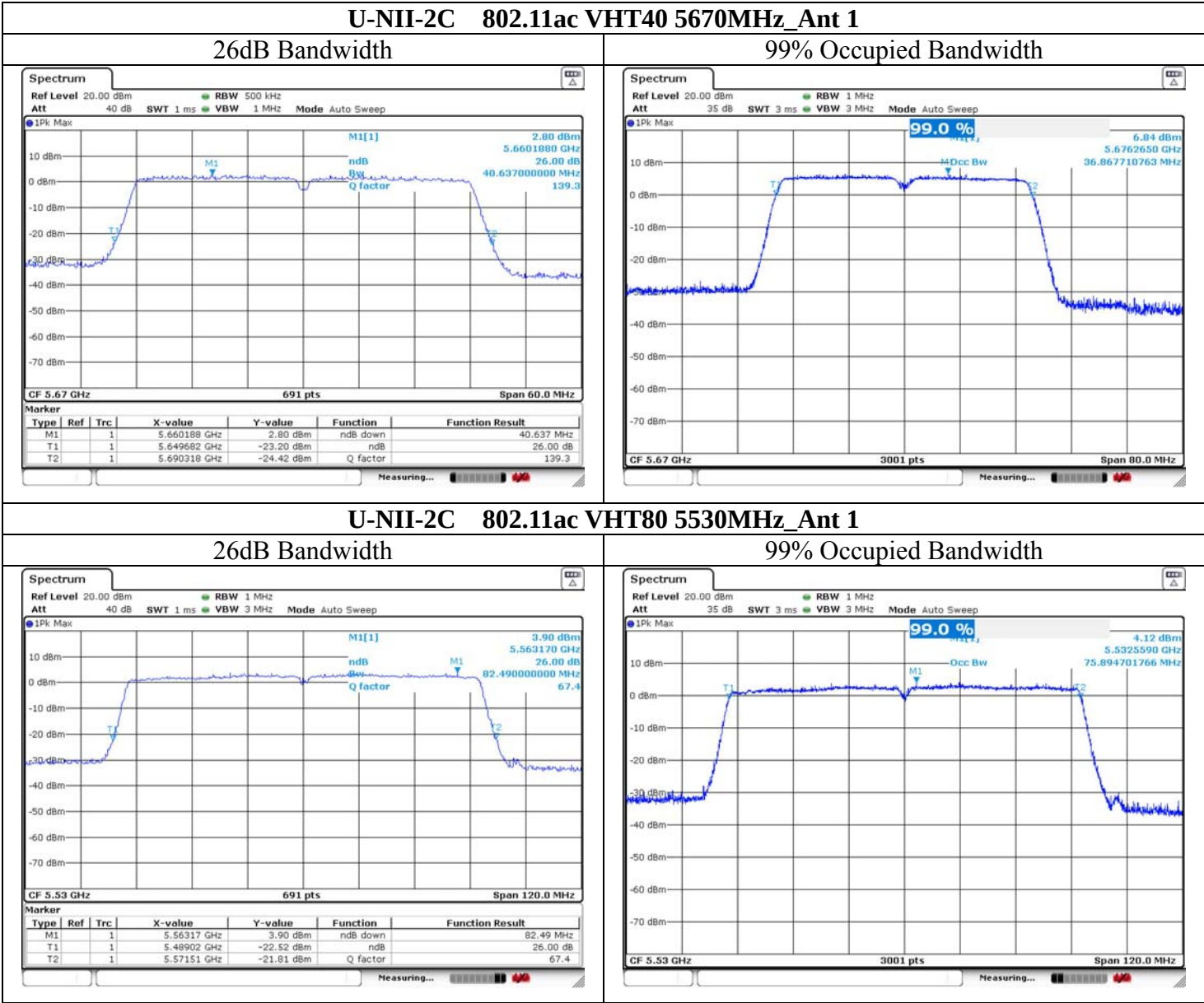
26dB Bandwidth



99% Occupied Bandwidth

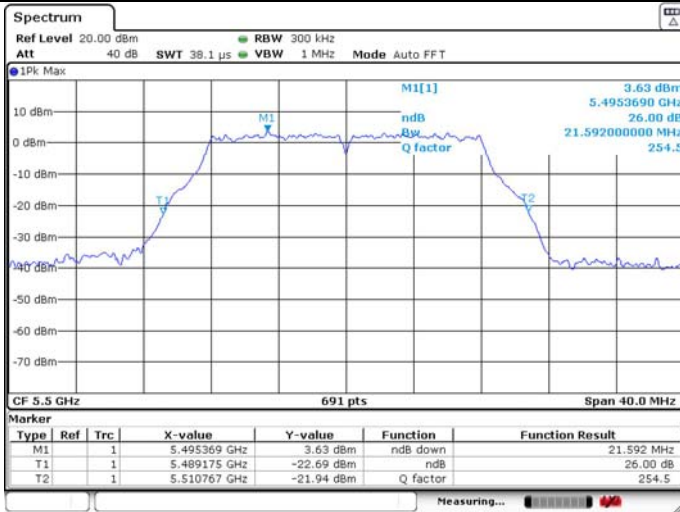


U-NII-2C 802.11n HT40 5510MHz_Ant 1**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C 802.11n HT40 5670MHz_Ant 1****26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C 802.11ac VHT40 5510MHz_Ant 1****26dB Bandwidth****99% Occupied Bandwidth**



U-NII-2C 802.11a 5500MHz_Ant 2

26dB Bandwidth

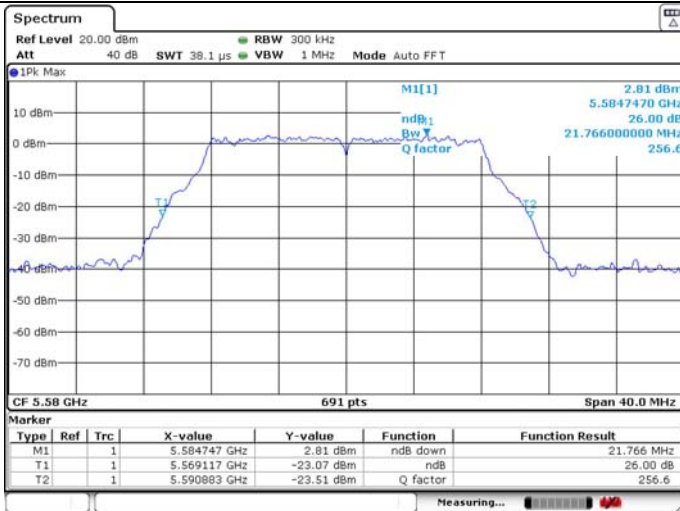


99% Occupied Bandwidth

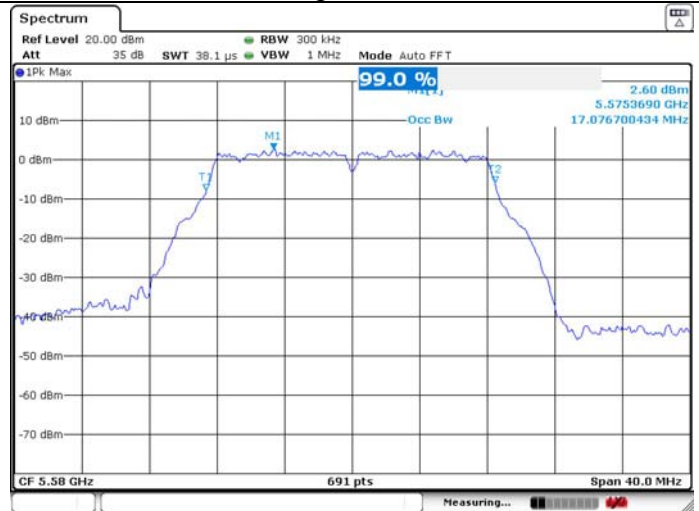


U-NII-2C 802.11a 5580MHz_Ant 2

26dB Bandwidth

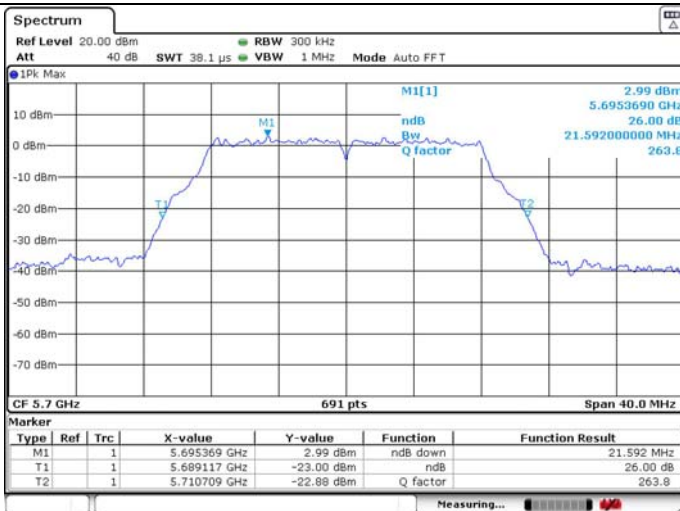


99% Occupied Bandwidth

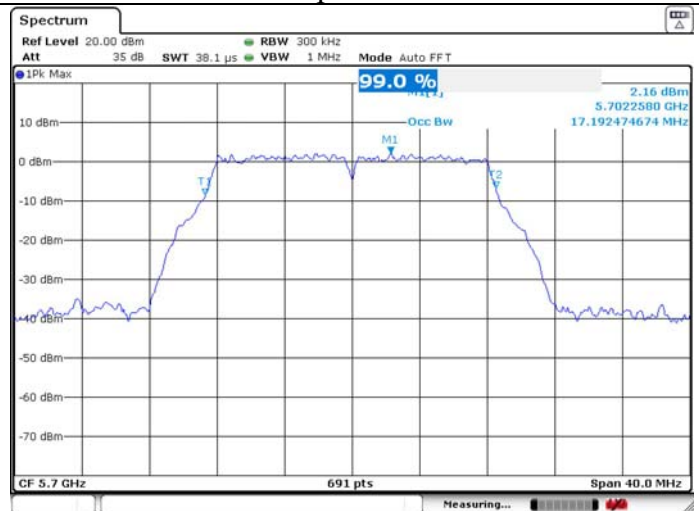


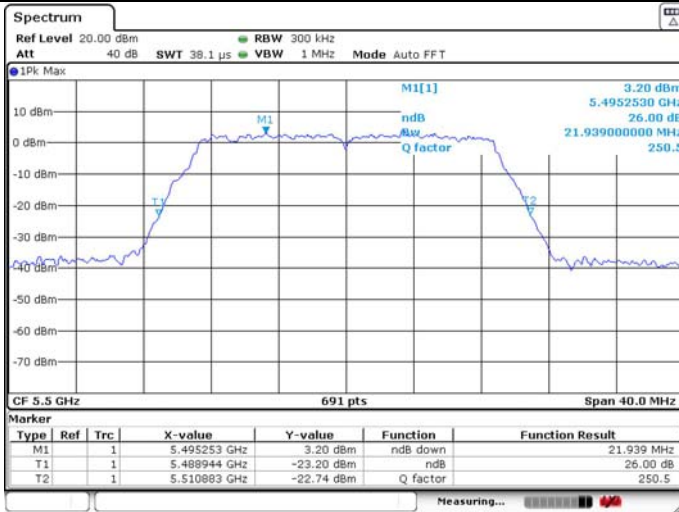
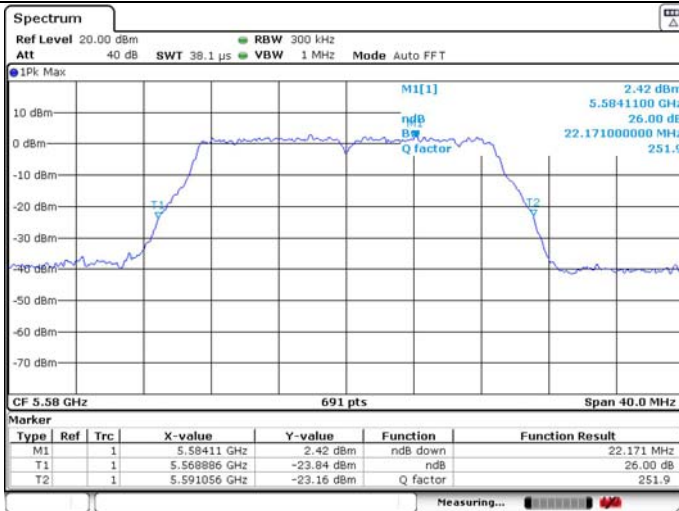
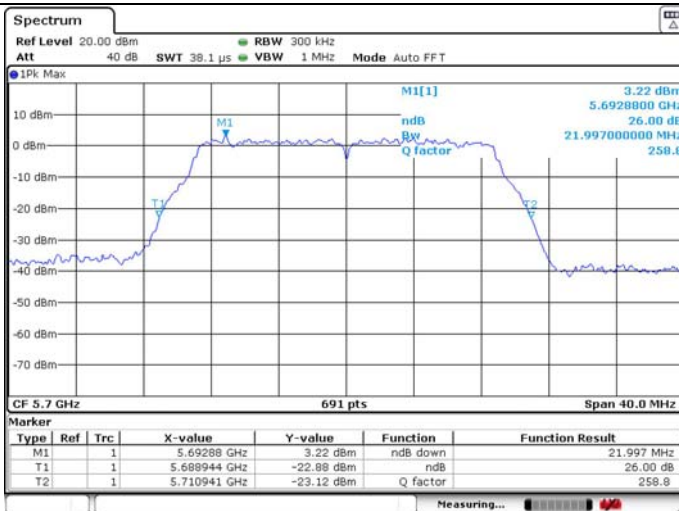
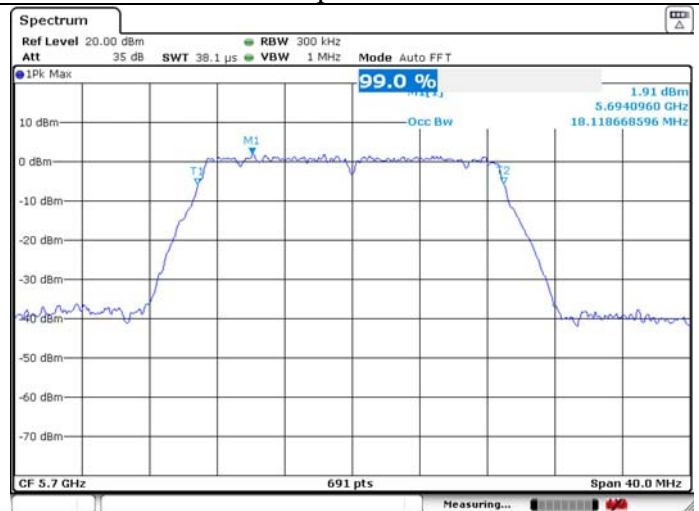
U-NII-2C 802.11a 5700MHz_Ant 2

26dB Bandwidth



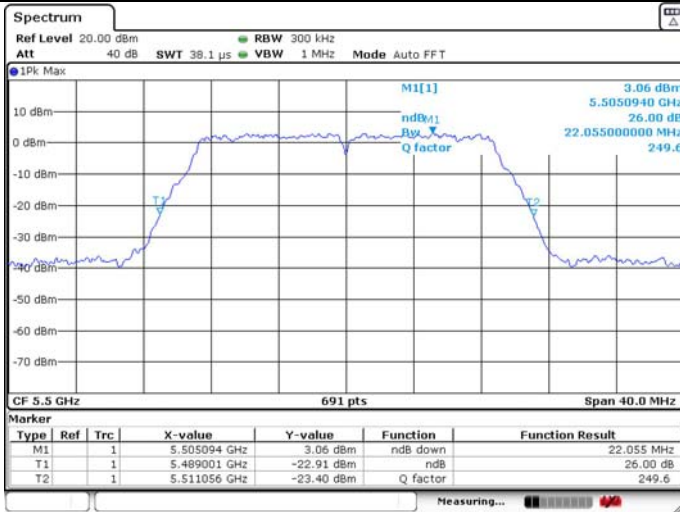
99% Occupied Bandwidth



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

U-NII-2C 802.11ac VHT20 5500MHz_Ant 2

26dB Bandwidth

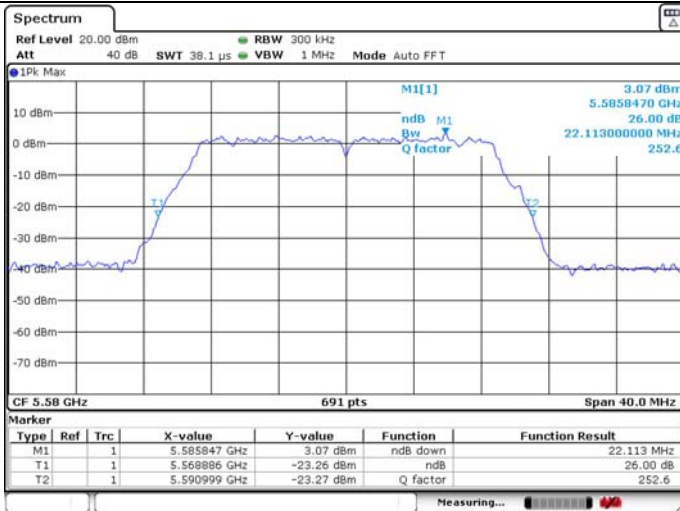


99% Occupied Bandwidth



U-NII-2C 802.11ac VHT20 5580MHz_Ant 2

26dB Bandwidth

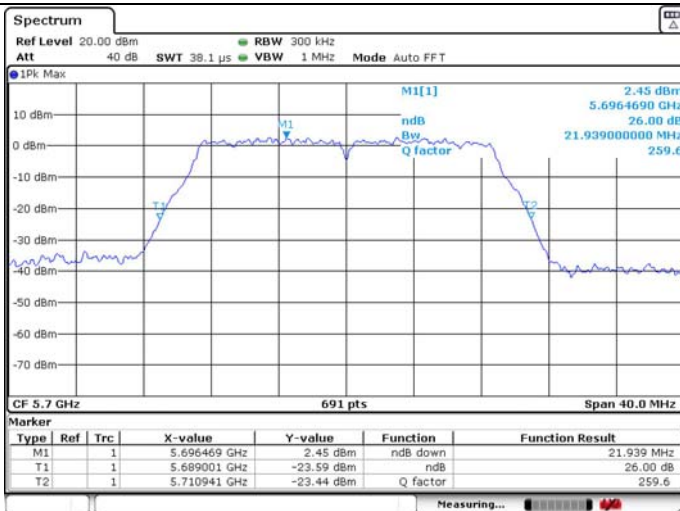


99% Occupied Bandwidth

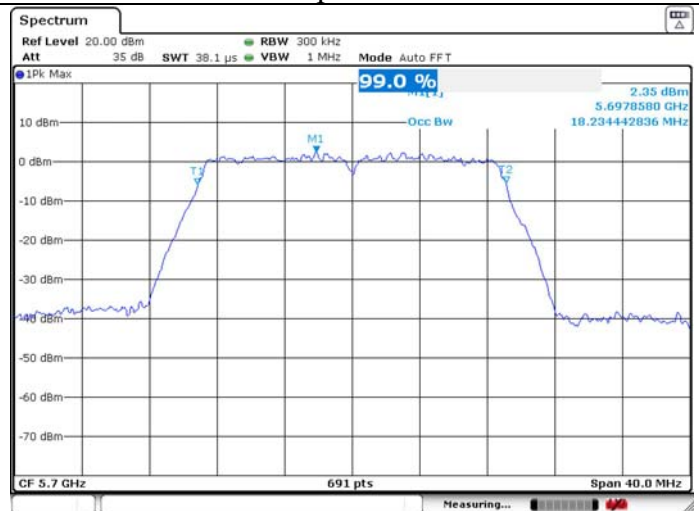


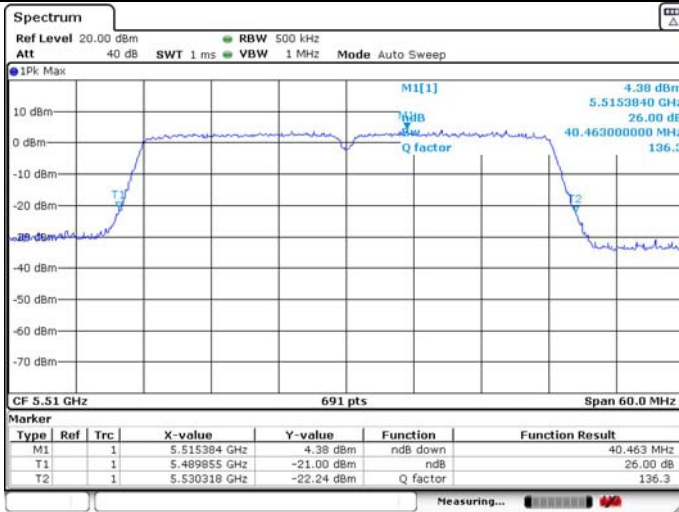
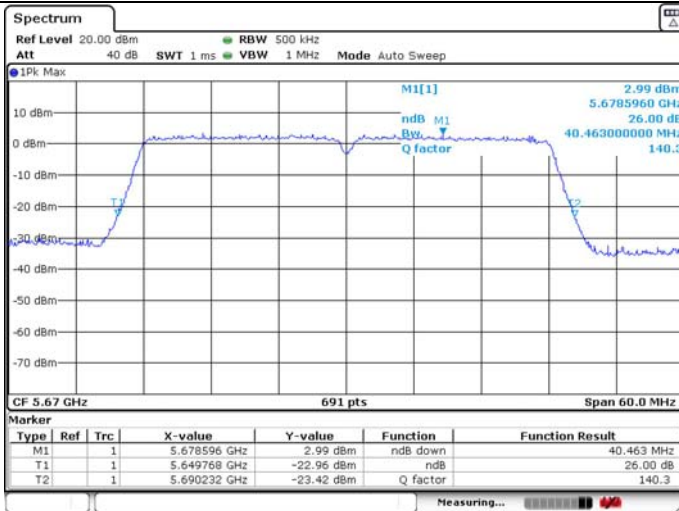
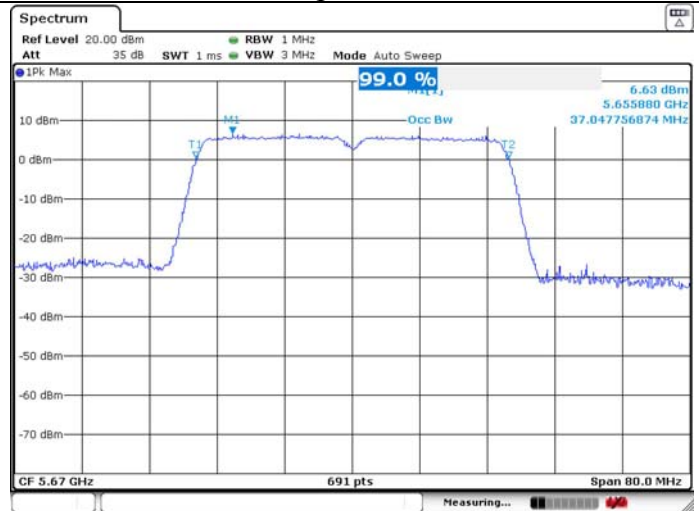
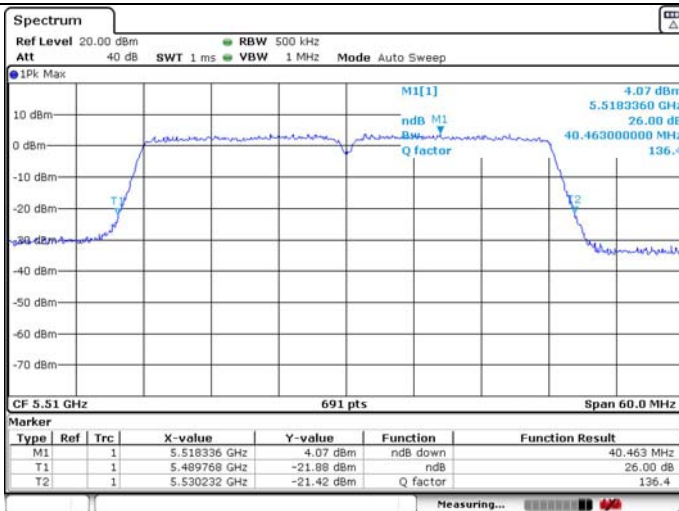
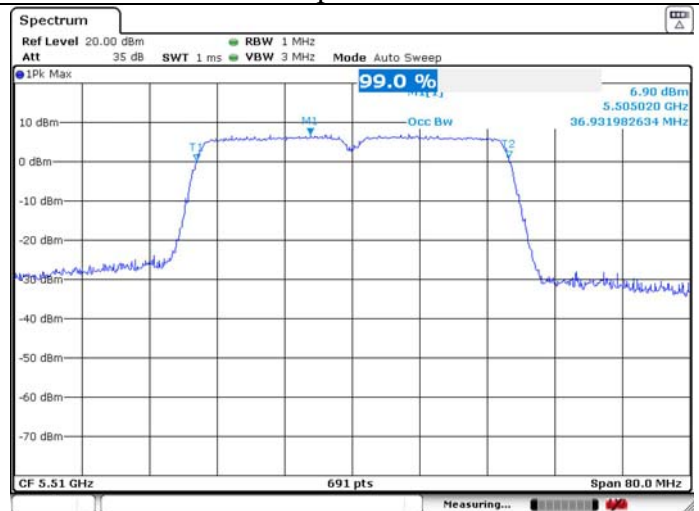
U-NII-2C 802.11ac VHT20 5700MHz_Ant 2

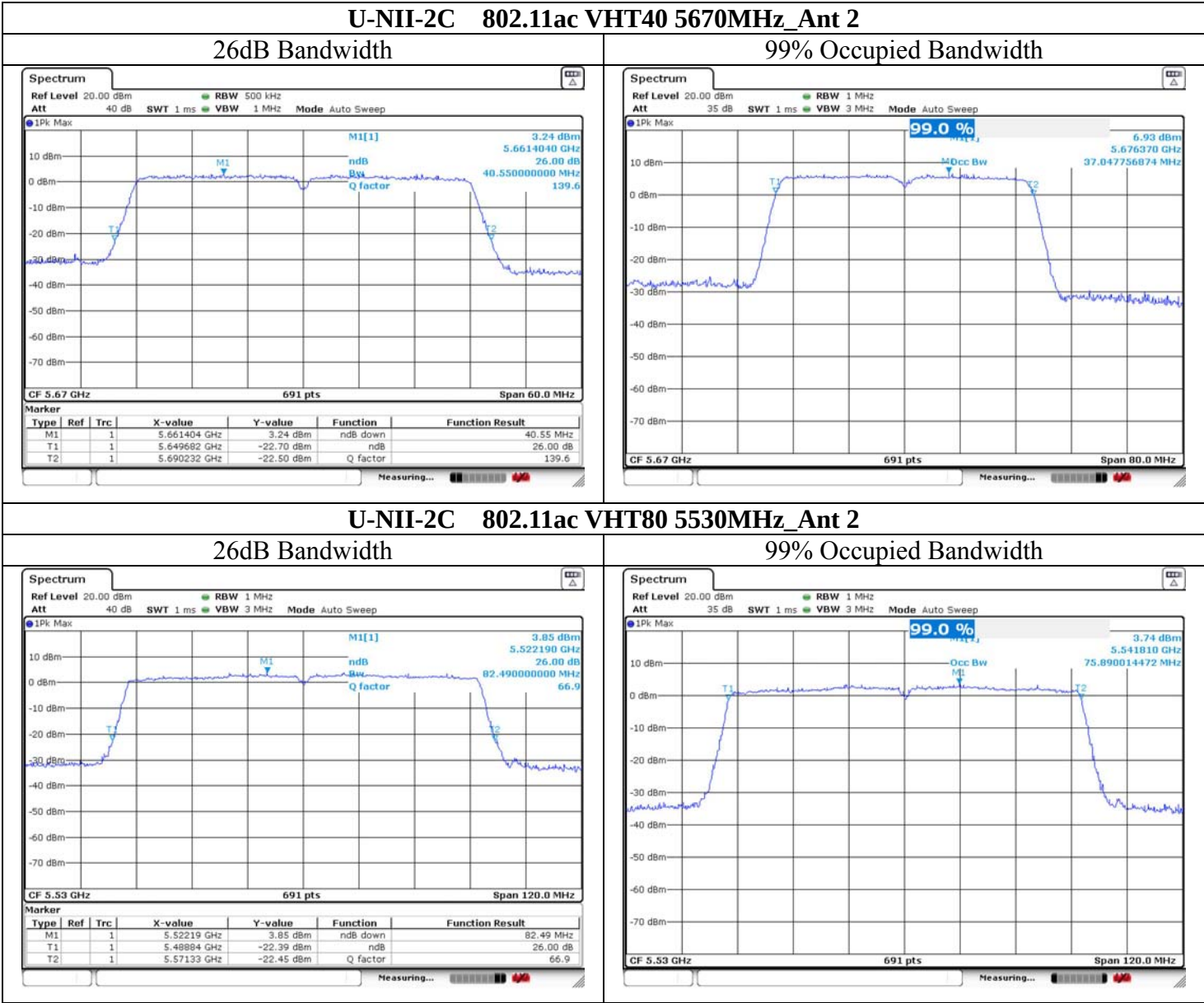
26dB Bandwidth



99% Occupied Bandwidth

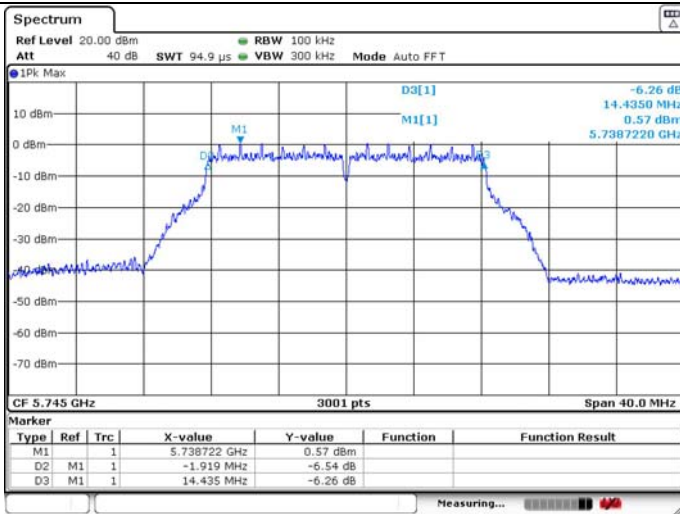


U-NII-2C 802.11n HT40 5510MHz_Ant 2**26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C 802.11n HT40 5670MHz_Ant 2****26dB Bandwidth****99% Occupied Bandwidth****U-NII-2C 802.11ac VHT40 5510MHz_Ant 2****26dB Bandwidth****99% Occupied Bandwidth**

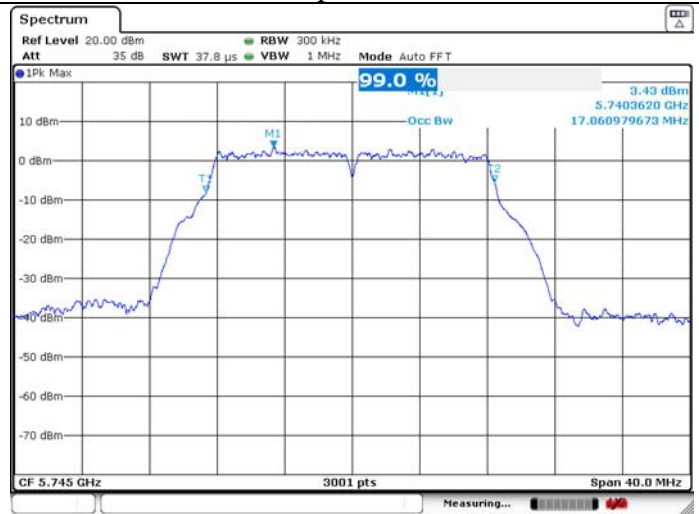


U-NII-3 802.11a 5745MHz_Ant 1

6dB Bandwidth

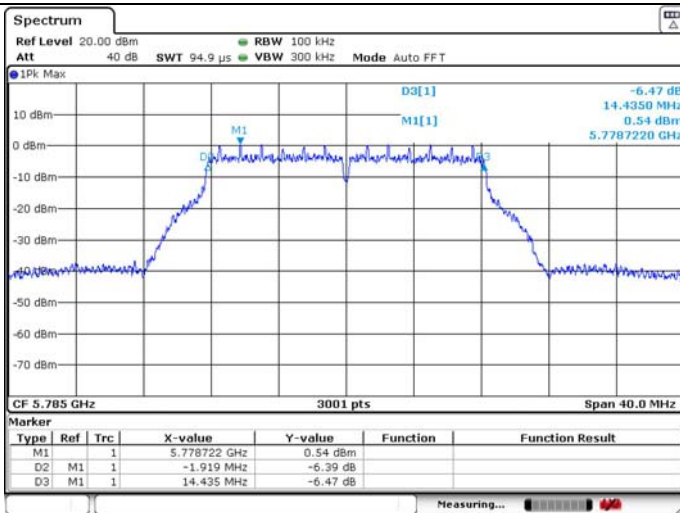


99% Occupied Bandwidth

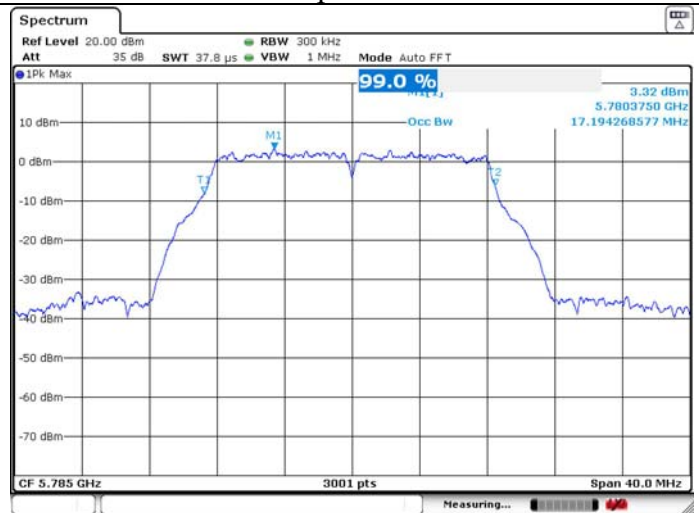


U-NII-3 802.11a 5785MHz_Ant 1

6dB Bandwidth

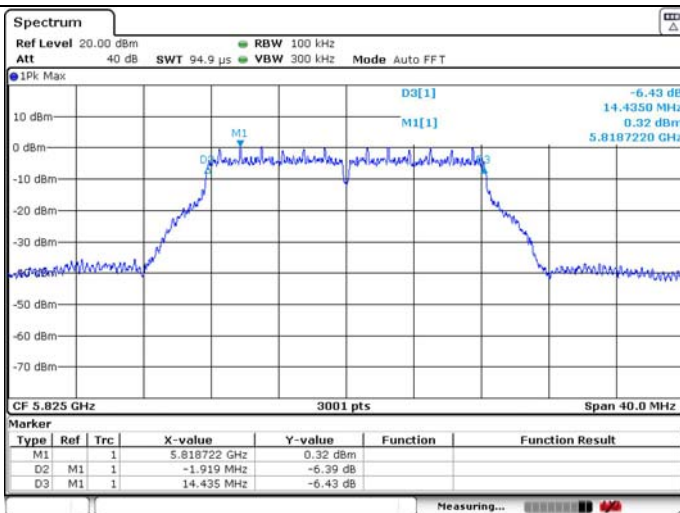


99% Occupied Bandwidth

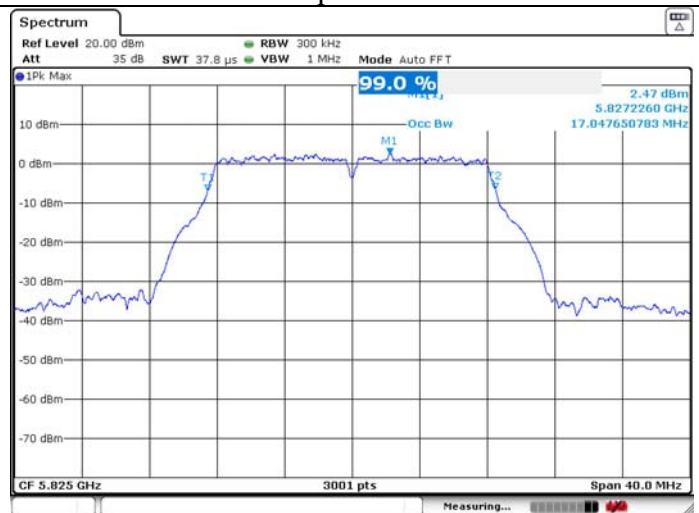


U-NII-3 802.11a 5825MHz_Ant 1

6dB Bandwidth

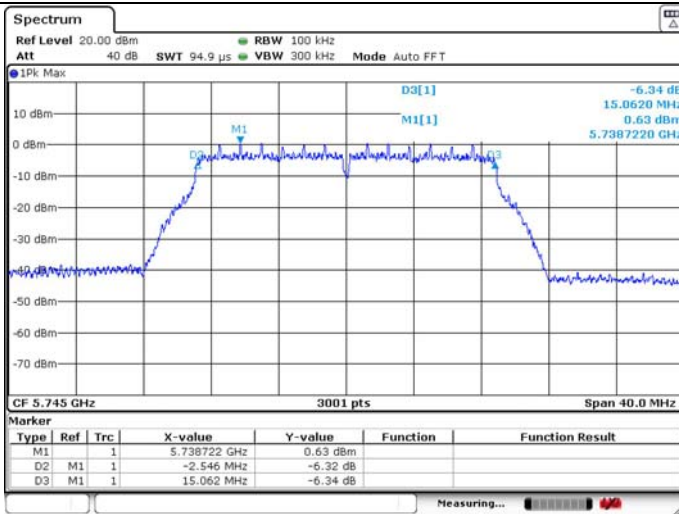


99% Occupied Bandwidth

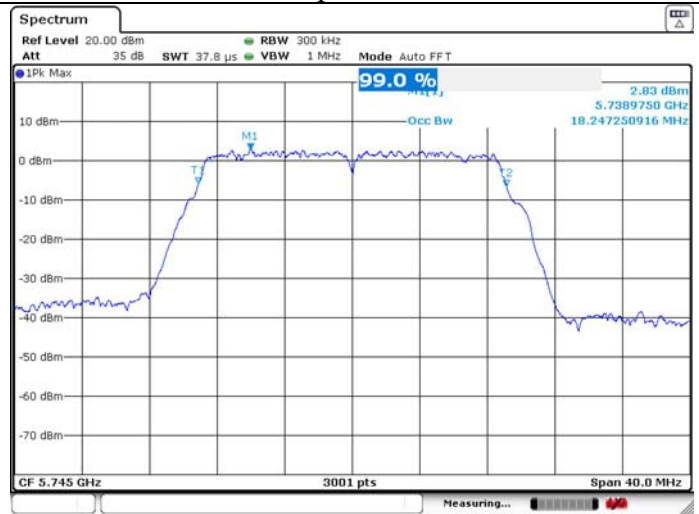


U-NII-3 802.11n HT20 5745MHz_Ant 1

6dB Bandwidth

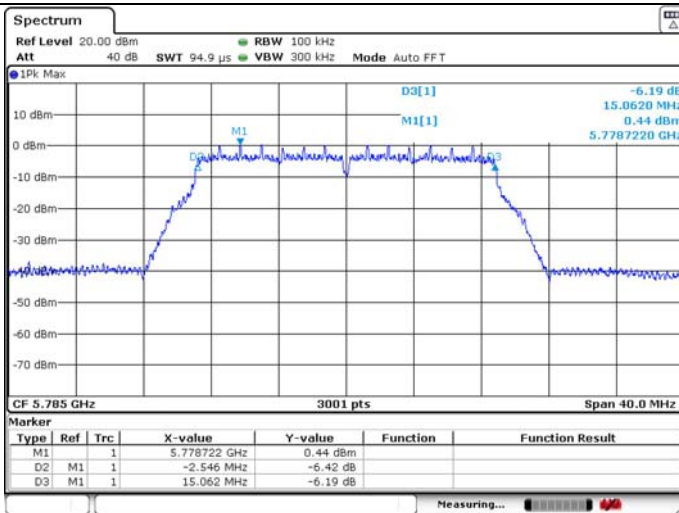


99% Occupied Bandwidth



U-NII-3 802.11n HT20 5785MHz_Ant 1

6dB Bandwidth

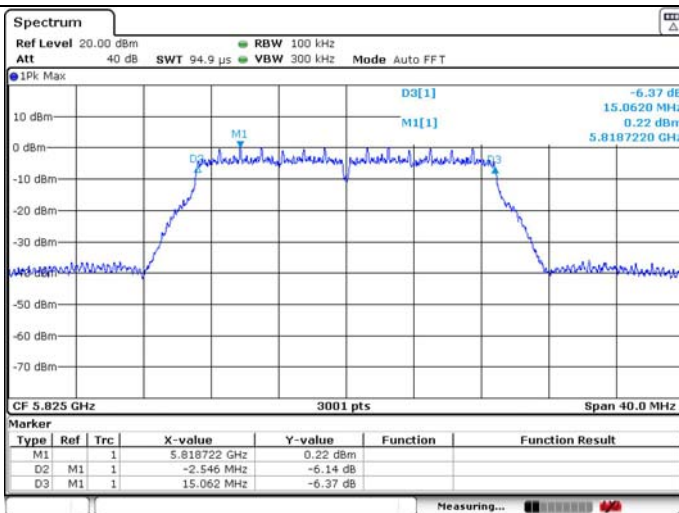


99% Occupied Bandwidth

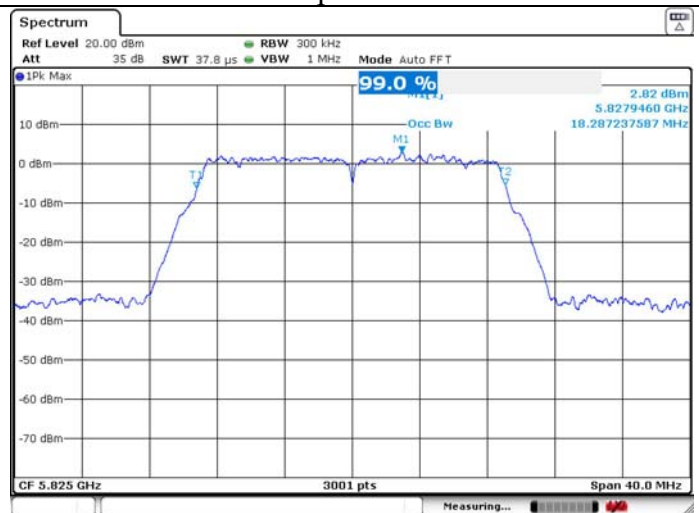


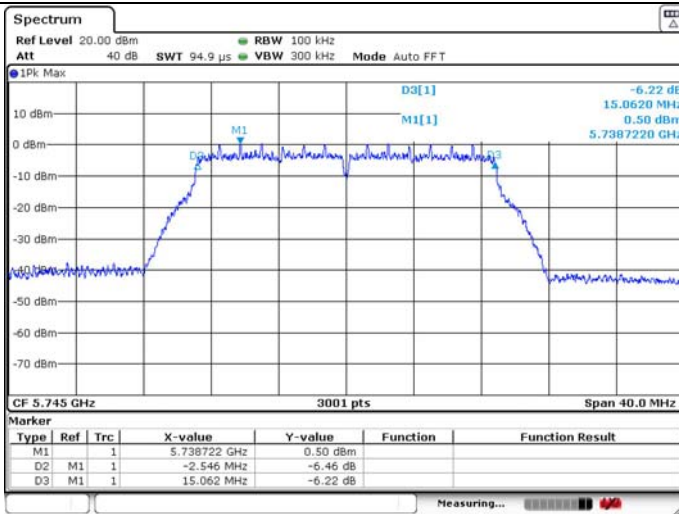
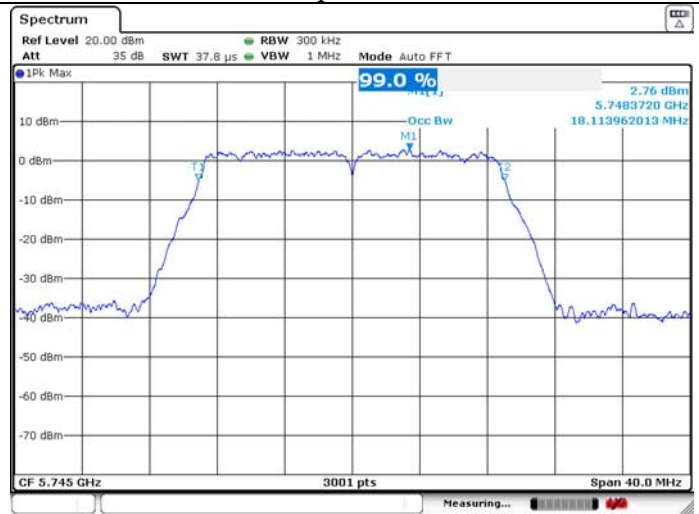
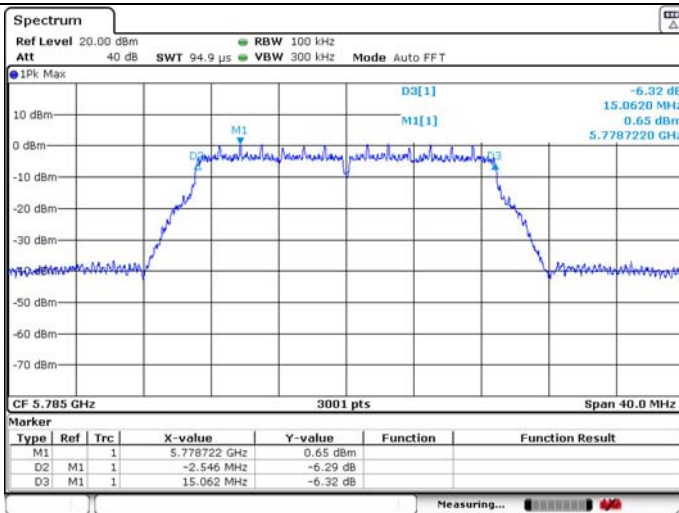
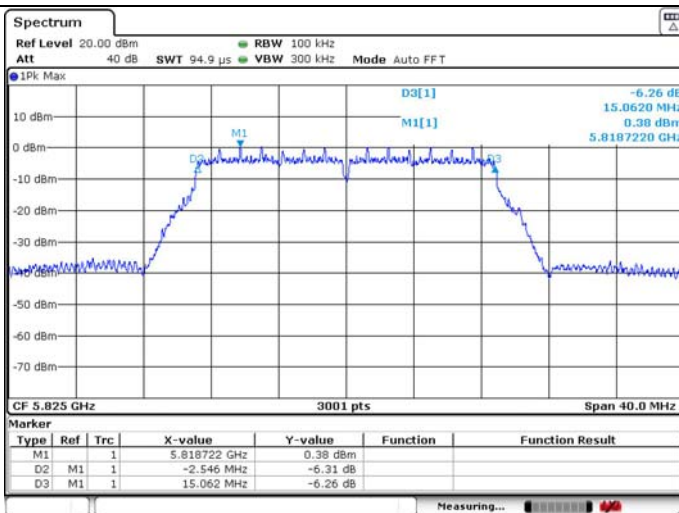
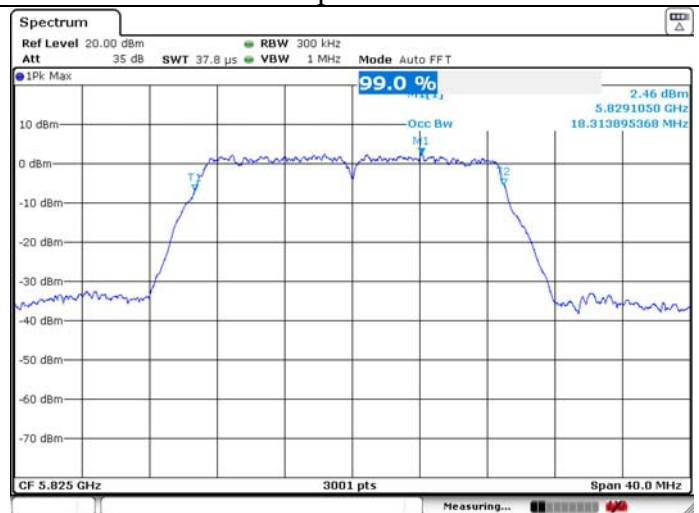
U-NII-3 802.11n HT20 5825MHz_Ant 1

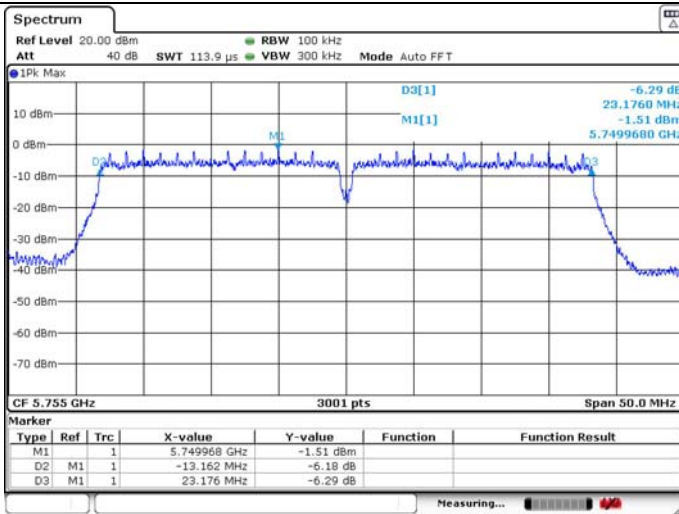
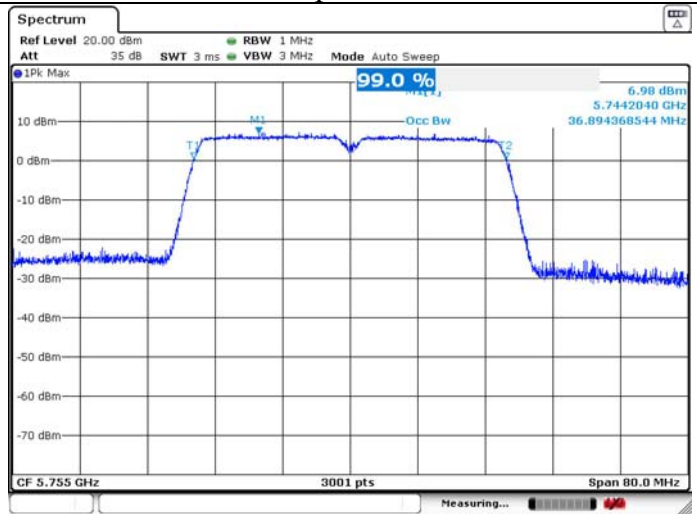
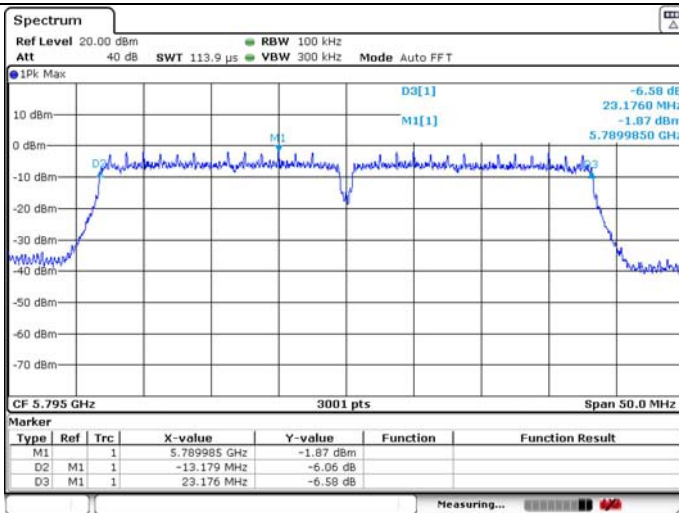
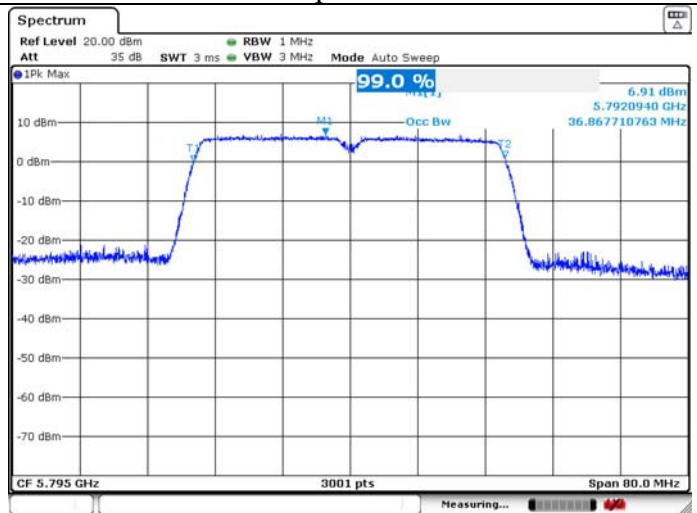
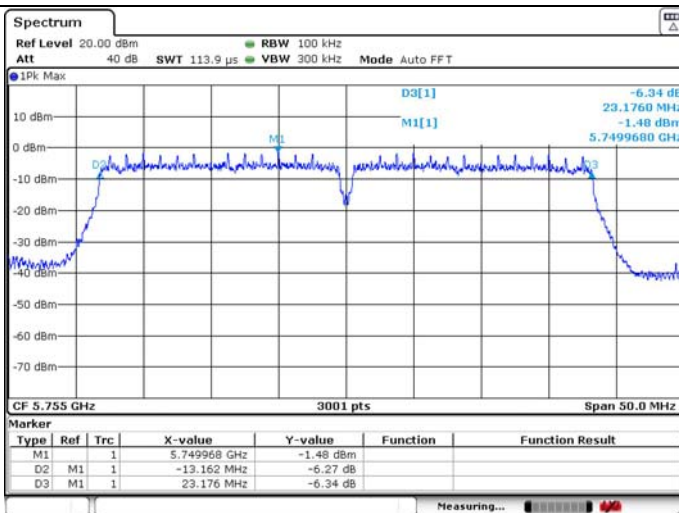
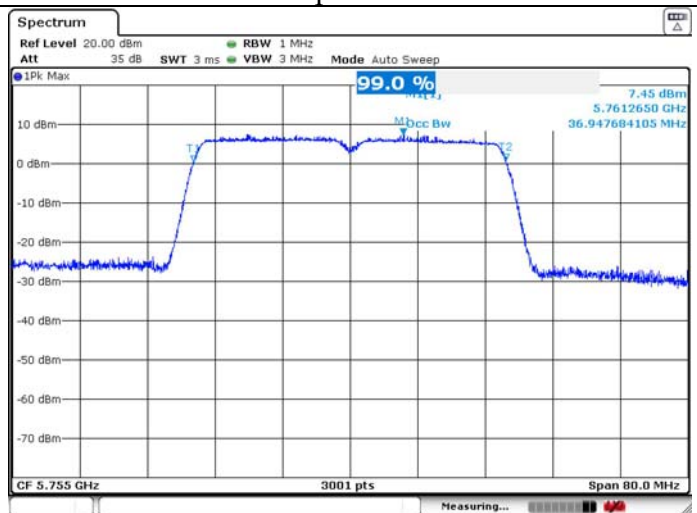
6dB Bandwidth



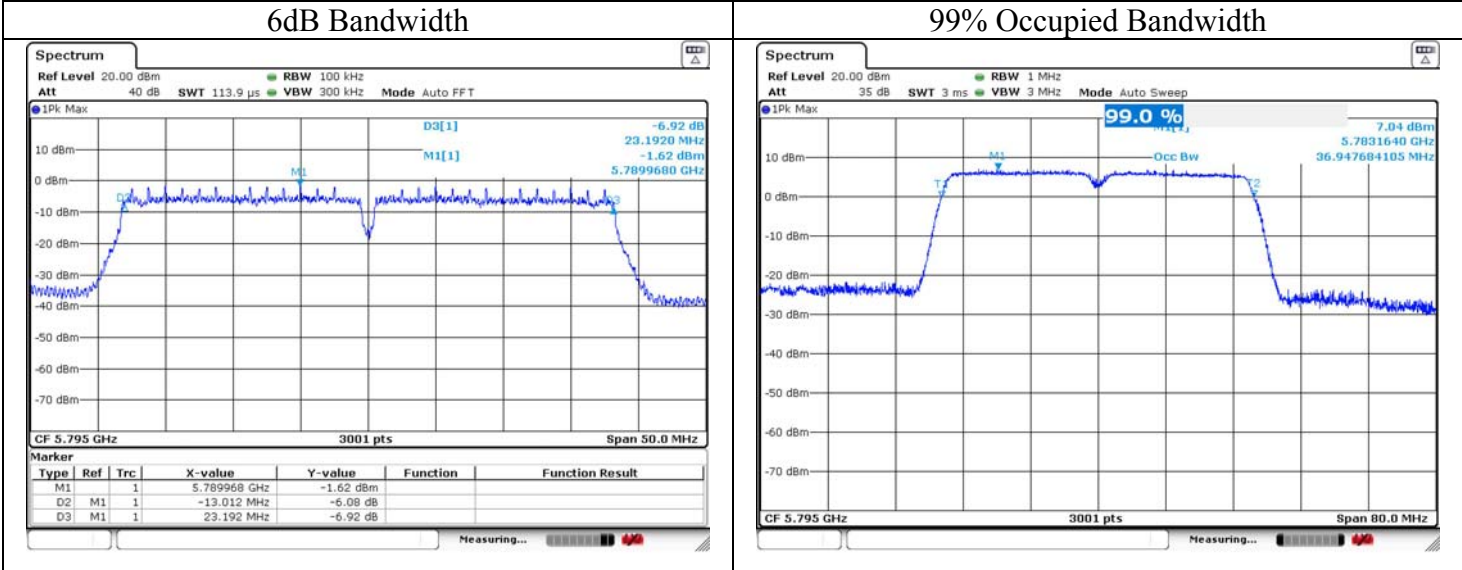
99% Occupied Bandwidth



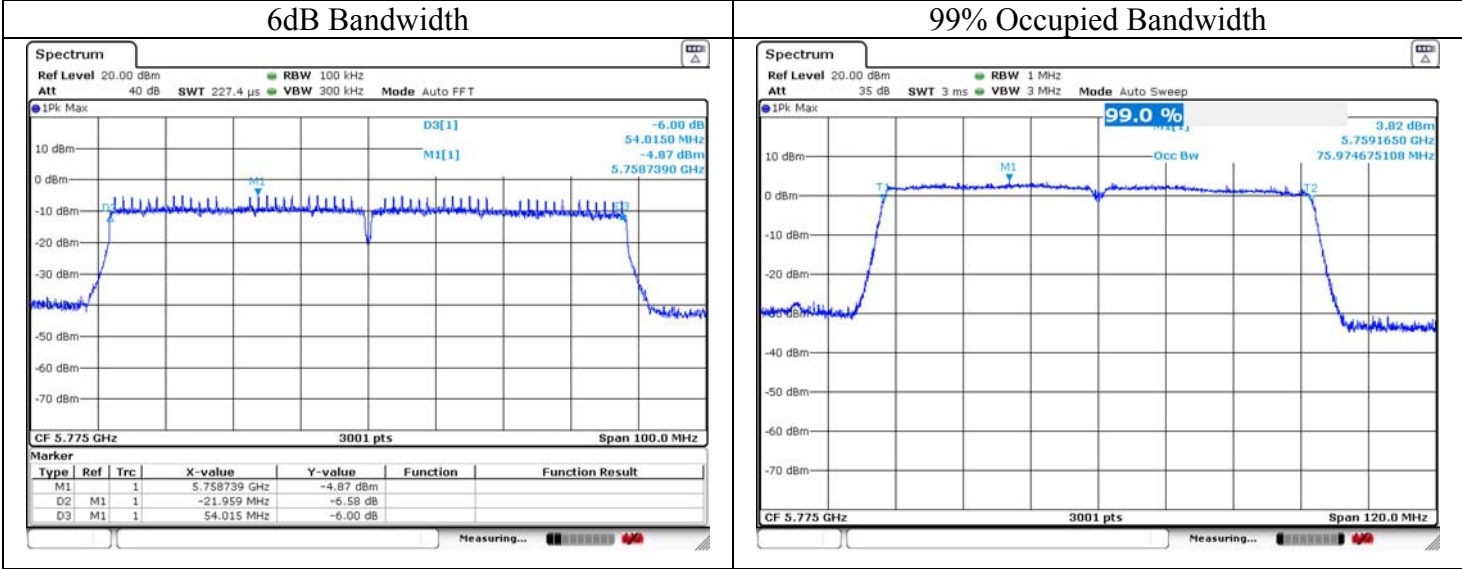
U-NII-3 802.11ac VHT20 5745MHz_Ant 1**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 802.11ac VHT20 5785MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 802.11ac VHT20 5825MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 802.11n HT40 5755MHz_Ant 1**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 802.11n HT40 5795MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 802.11ac VHT40 5755MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 802.11ac VHT40 5795MHz_Ant 1

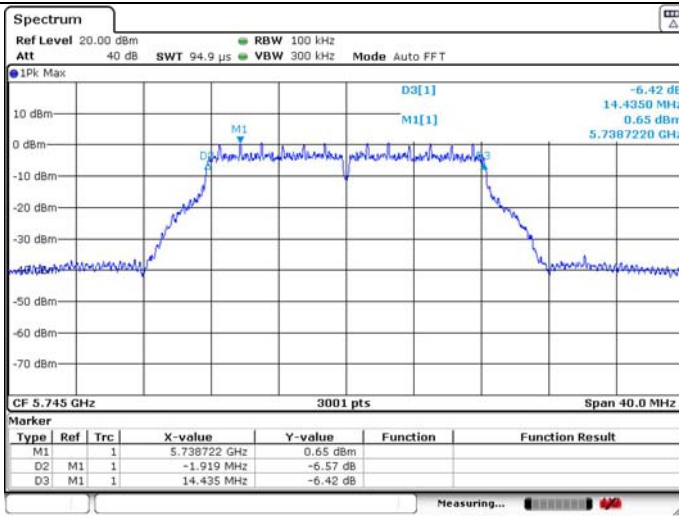


U-NII-3 802.11ac VHT80 5775MHz_Ant 1

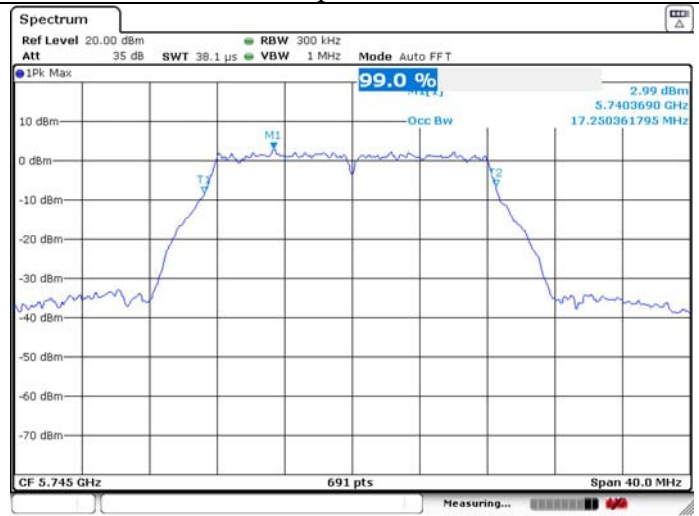


U-NII-3 802.11a 5745MHz_Ant 2

6dB Bandwidth

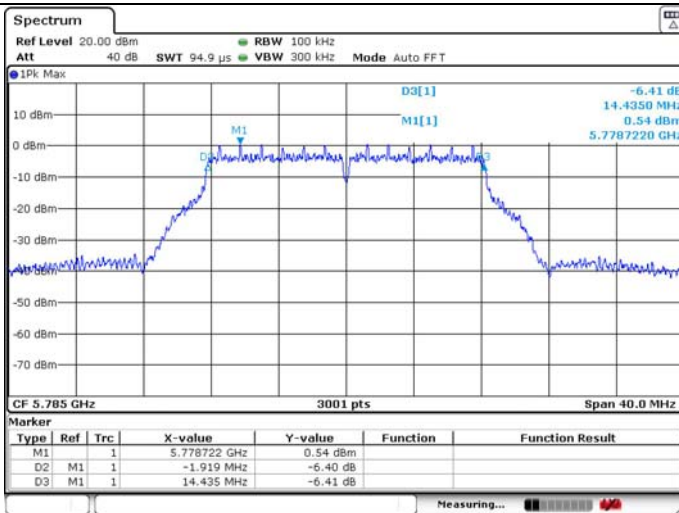


99% Occupied Bandwidth

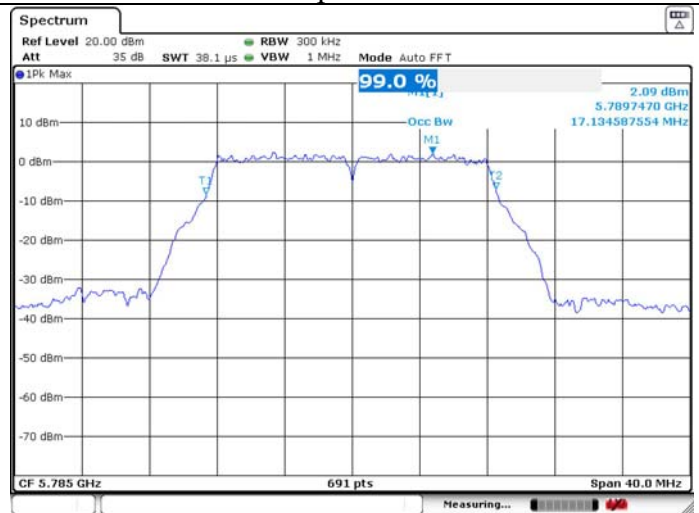


U-NII-3 802.11a 5785MHz_Ant 2

6dB Bandwidth

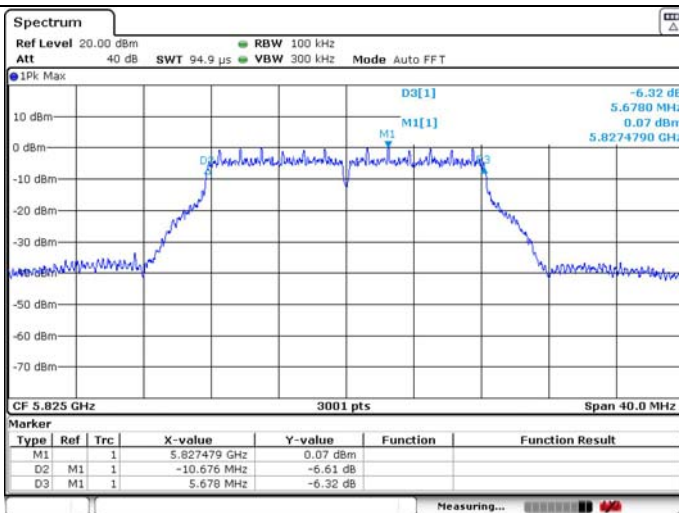


99% Occupied Bandwidth

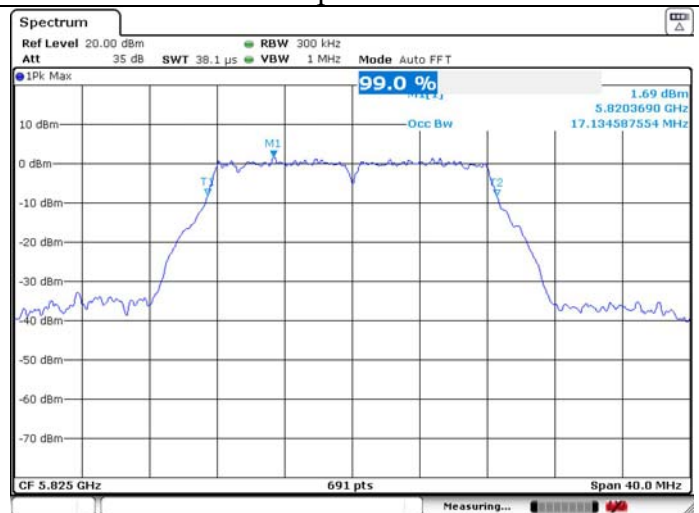


U-NII-3 802.11a 5825MHz_Ant 2

6dB Bandwidth

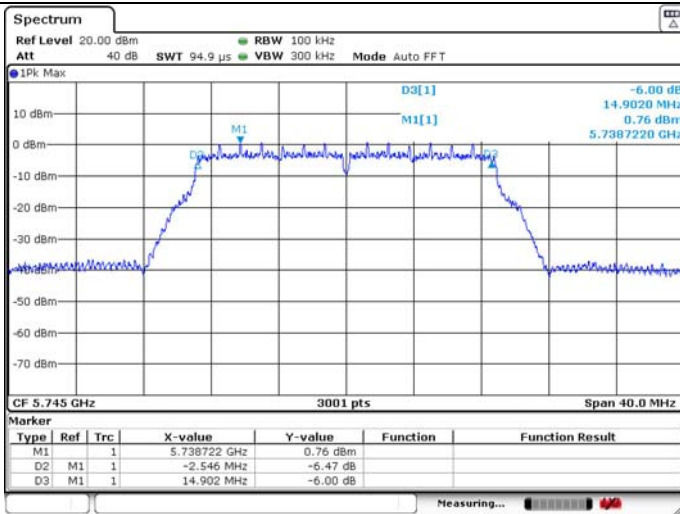


99% Occupied Bandwidth

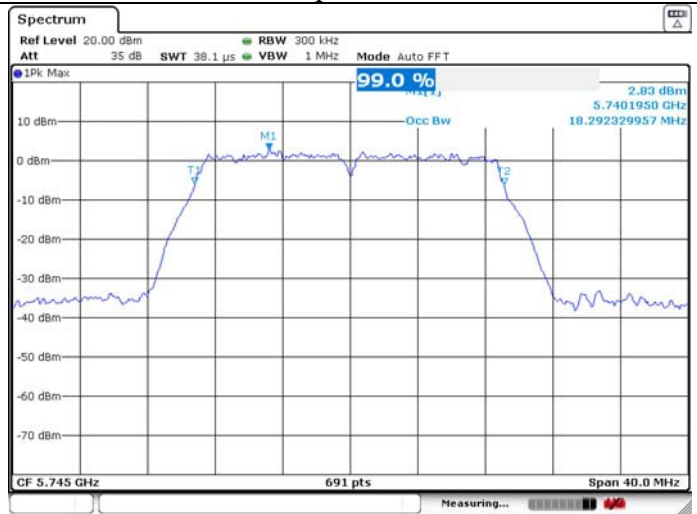


U-NII-3 802.11n HT20 5745MHz_Ant 2

6dB Bandwidth

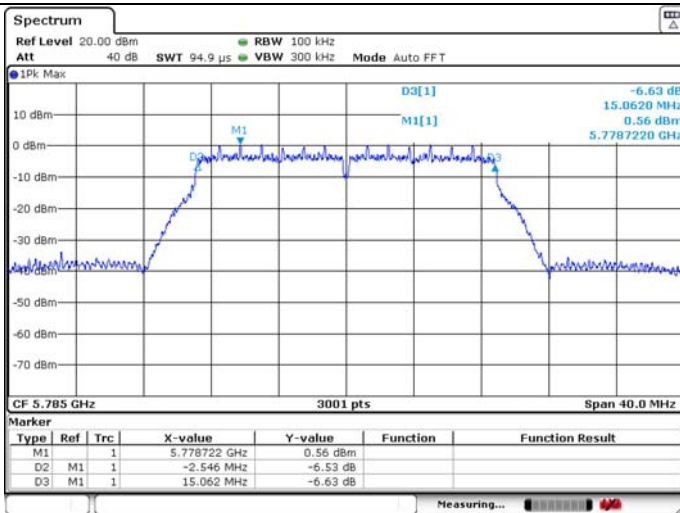


99% Occupied Bandwidth



U-NII-3 802.11n HT20 5785MHz_Ant 2

6dB Bandwidth

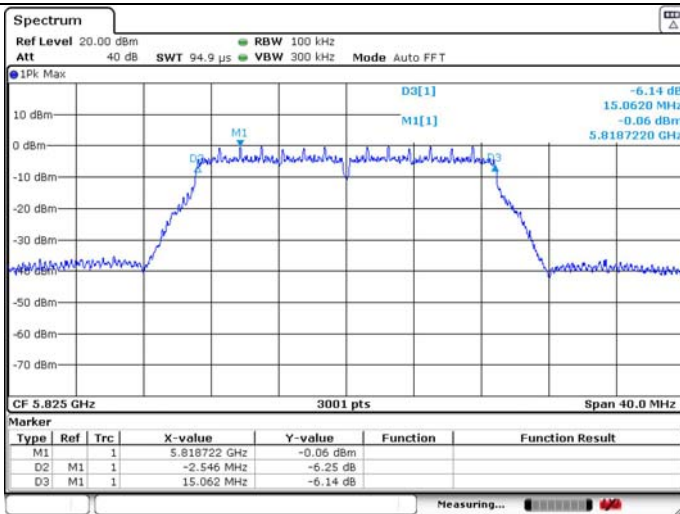


99% Occupied Bandwidth

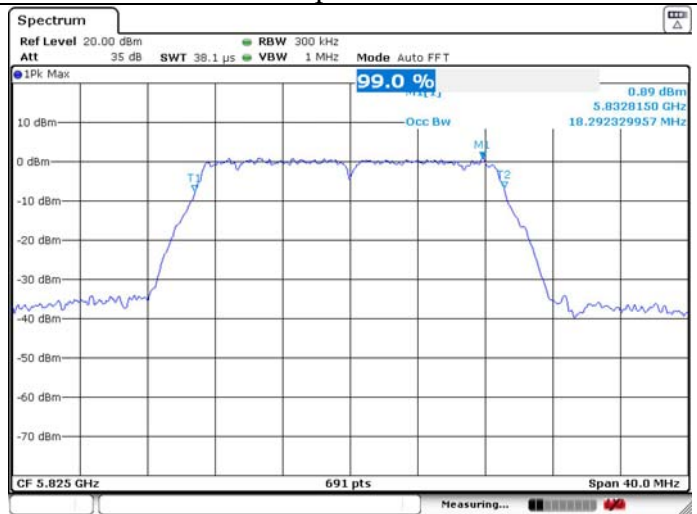


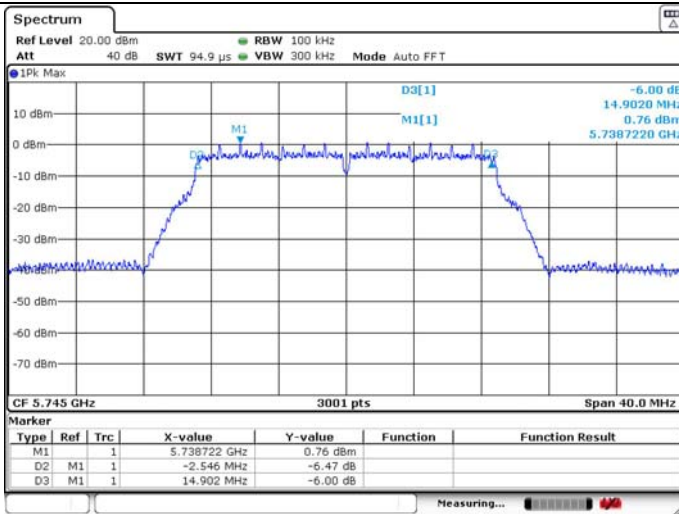
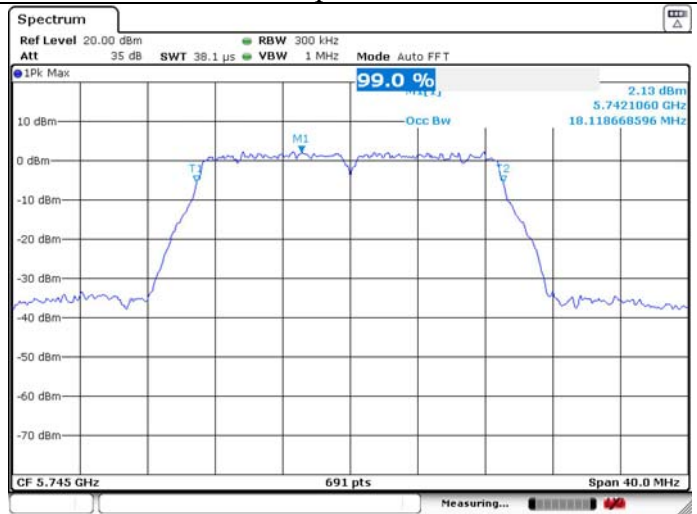
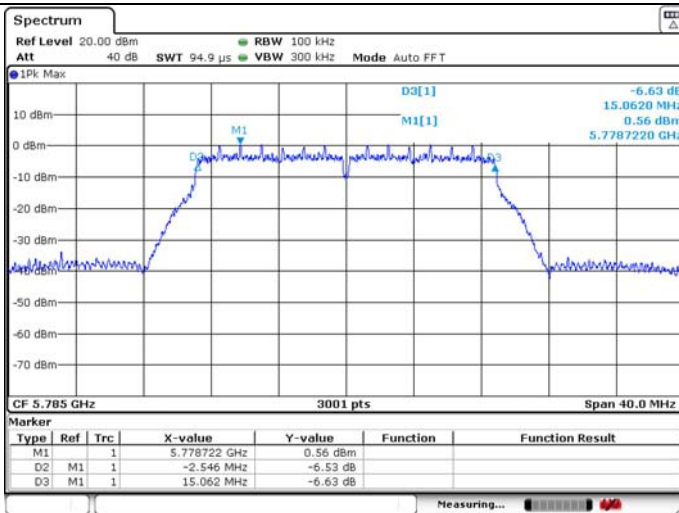
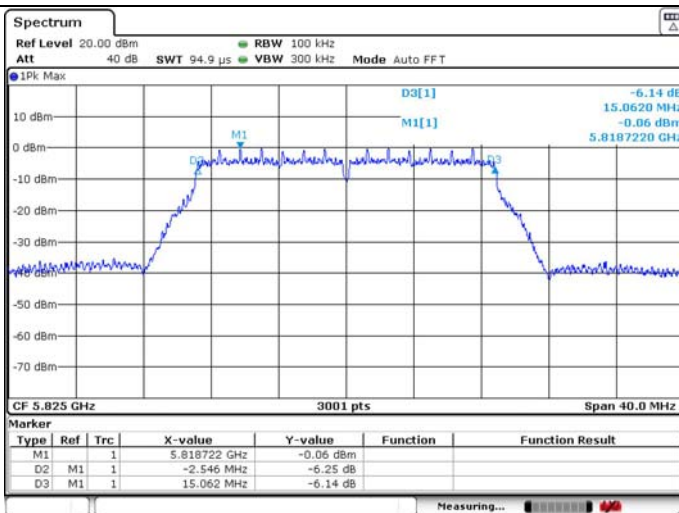
U-NII-3 802.11n HT20 5825MHz_Ant 2

6dB Bandwidth



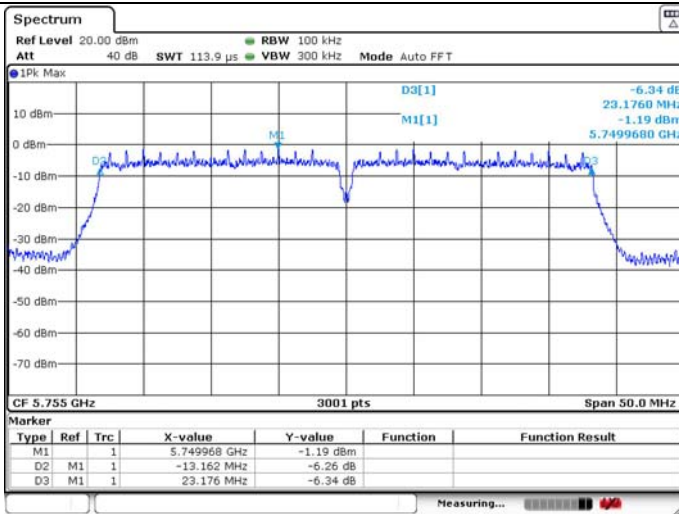
99% Occupied Bandwidth



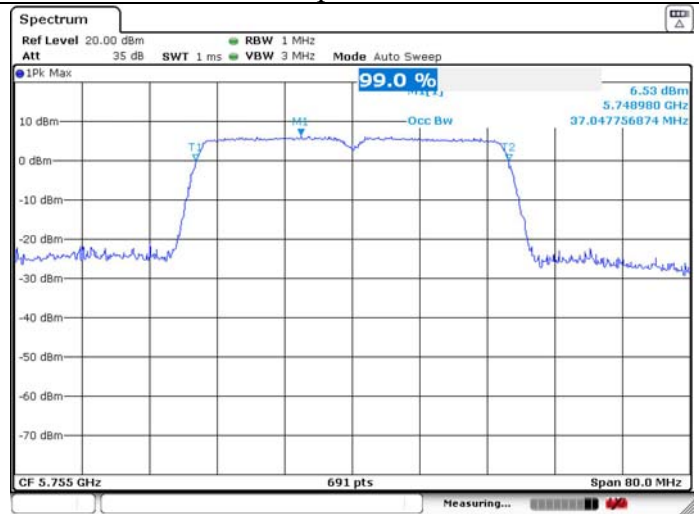
U-NII-3 802.11ac VHT20 5745MHz_Ant 2**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 802.11ac VHT20 5785MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 802.11ac VHT20 5825MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 802.11n HT40 5755MHz_Ant 2

6dB Bandwidth

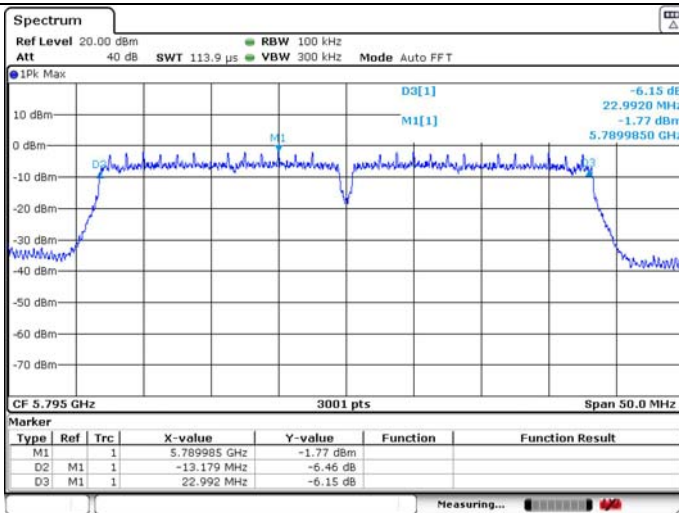


99% Occupied Bandwidth

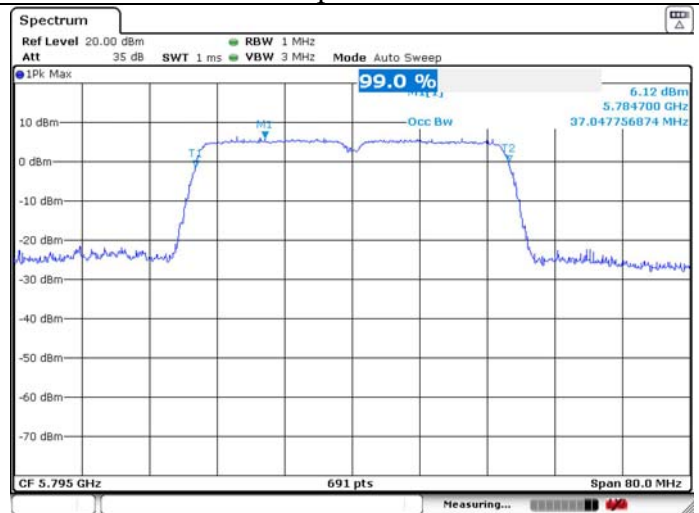


U-NII-3 802.11n HT40 5795MHz_Ant 2

6dB Bandwidth

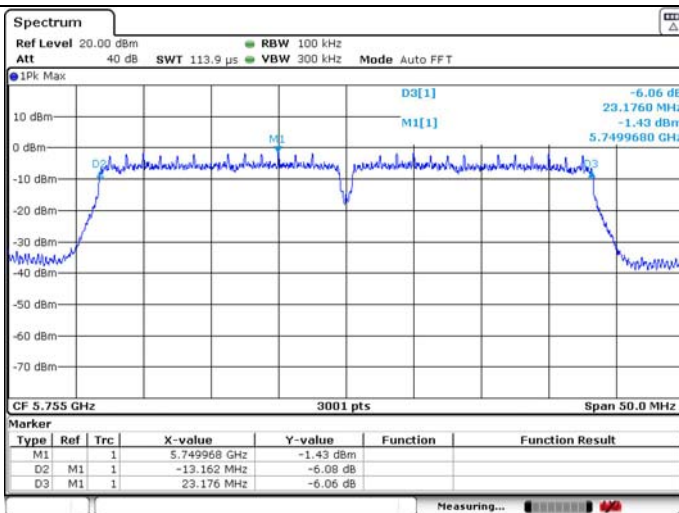


99% Occupied Bandwidth

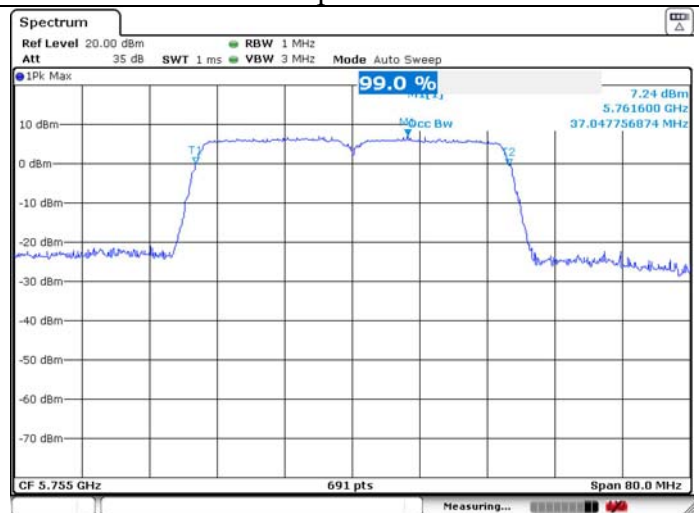


U-NII-3 802.11ac VHT40 5755MHz_Ant 2

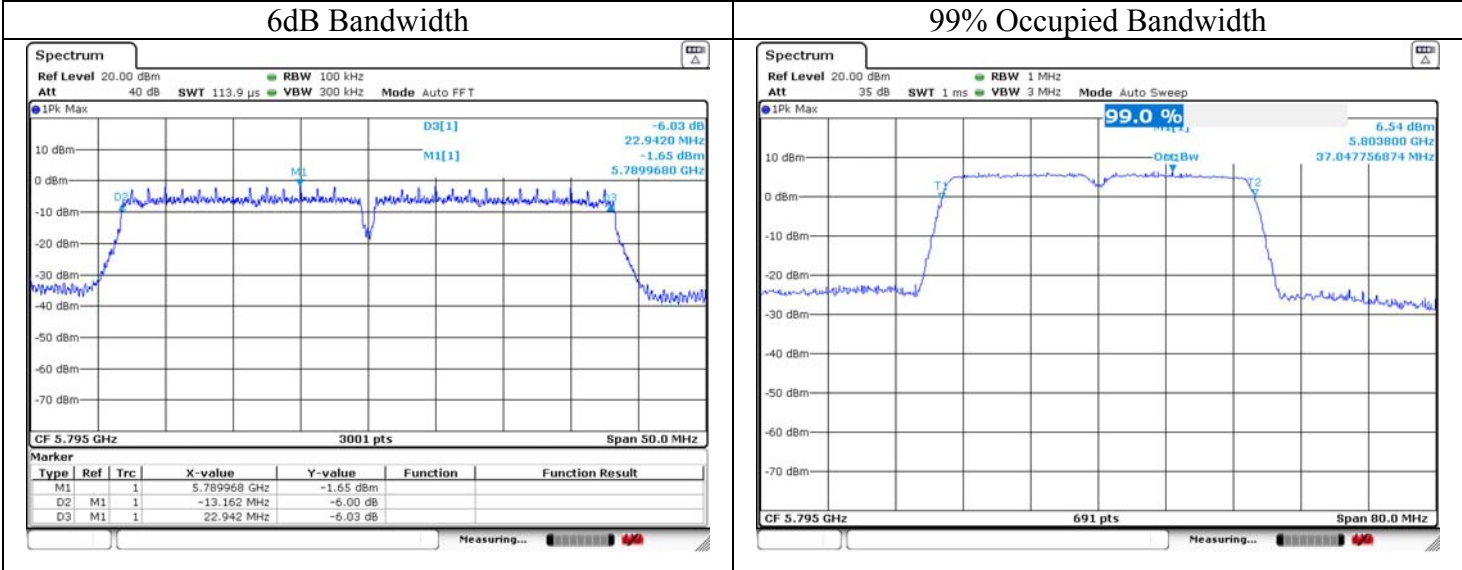
6dB Bandwidth



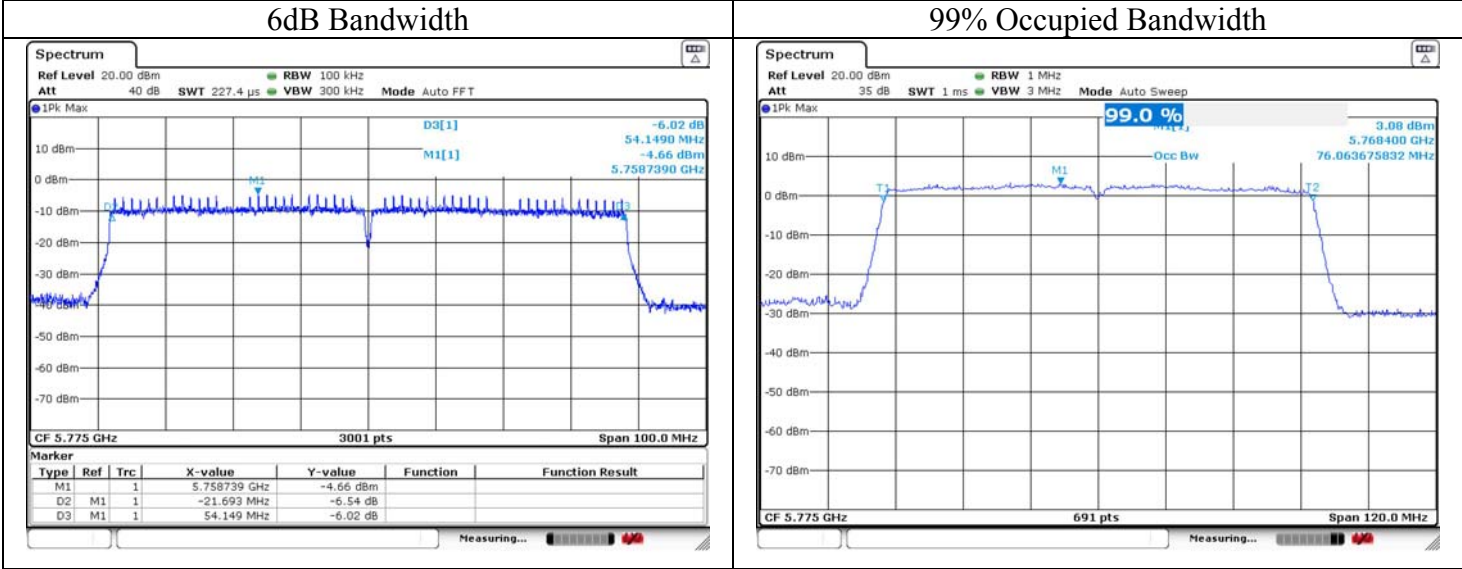
99% Occupied Bandwidth



U-NII-3 802.11ac VHT40 5795MHz_Ant 2



U-NII-3 802.11ac VHT80 5775MHz_Ant 2



4. MAXIMUM CONDUCTED OUTPUT POWER

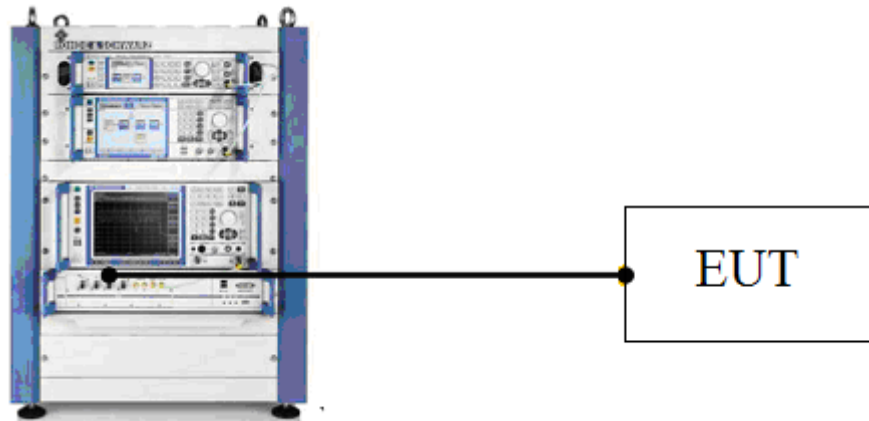
4.1. Limit

Band	EUT Type	Limit
U-NII-1	Outdoor Access Point	1W(30dBm) (Max. e.i.r.p $\leq$ 125mW 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 11dBm+10 log B, Which is lesser. (B is 26dB Bandwidth in MHz)
U-NII-2C	All Device	250mW(23.98dBm) or 11dBm+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℃	Relative Humidity			55%	Test Voltage	120V/60Hz	
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	802.11a	5180	12.149	11.457	/	/	23.98	PASS
		5200	12.042	11.485	/	/	23.98	PASS
		5240	12.001	11.246	/	/	23.98	PASS
	802.11n HT20	5180	11.915	11.112	0.028	14.542	23.98	PASS
		5200	12.012	11.147	0.029	14.611	23.98	PASS
		5240	11.986	11.112	0.029	14.581	23.98	PASS
	802.11ac VHT20	5180	12.166	11.129	0.029	14.689	23.98	PASS
		5200	12.142	11.142	0.029	14.681	23.98	PASS
		5240	12.362	11.364	0.031	14.902	23.98	PASS
	802.11n HT40	5190	11.461	10.984	0.027	14.239	23.98	PASS
		5230	11.410	10.958	0.026	14.200	23.98	PASS
	802.11ac VHT40	5190	11.803	10.950	0.028	14.408	23.98	PASS
		5230	11.842	10.996	0.028	14.450	23.98	PASS
	802.11ac VHT80	5210	10.976	10.389	0.023	13.703	23.98	PASS
U-NII-2A	802.11a	5260	12.005	12.124	/	/	23.98	PASS
		5300	11.996	12.099	/	/	23.98	PASS
		5320	12.092	12.133	/	/	23.98	PASS
	802.11n HT20	5260	12.268	11.458	0.031	14.892	23.98	PASS
		5300	12.452	11.647	0.032	15.078	23.98	PASS
		5320	12.243	11.728	0.032	15.003	23.98	PASS
	802.11ac VHT20	5260	11.856	11.852	0.031	14.864	23.98	PASS
		5300	11.897	11.086	0.028	14.521	23.98	PASS
		5320	11.897	11.808	0.031	14.863	23.98	PASS
	802.11n HT40	5270	12.854	12.467	0.037	15.675	23.98	PASS
		5310	12.799	12.427	0.037	15.627	23.98	PASS
	802.11ac VHT40	5270	12.398	12.638	0.036	15.530	23.98	PASS
		5310	12.578	12.585	0.036	15.592	23.98	PASS
	802.11ac VHT80	5290	11.780	11.723	0.030	14.762	23.98	PASS

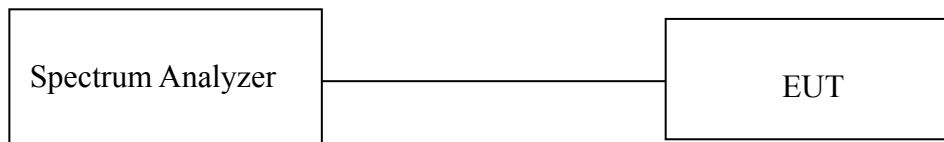
BAND	Test Mode	Fre (MHz)	Conducted AVG Output Power (dBm)		Total Conducted Output Power (W)	Total Conducted Output Power (dBm)	Limit (dBm)	Result
			Ant 1	Ant 2				
U-NII-2C	802.11a	5500	11.090	11.231	/	/	23.98	PASS
		5580	11.024	11.635	/	/	23.98	PASS
		5700	10.145	10.098	/	/	23.98	PASS
	802.11n HT20	5500	11.168	10.966	0.026	14.078	23.98	PASS
		5580	11.163	10.546	0.024	13.876	23.98	PASS
		5700	9.738	10.122	0.020	12.945	23.98	PASS
	802.11ac VHT20	5500	11.007	11.012	0.025	14.020	23.98	PASS
		5580	10.968	10.864	0.025	13.927	23.98	PASS
		5700	9.974	10.143	0.020	13.070	23.98	PASS
	802.11n HT40	5510	11.739	11.847	0.030	14.804	23.98	PASS
		5670	9.659	10.203	0.020	12.950	23.98	PASS
	802.11ac VHT40	5510	11.836	11.811	0.030	14.834	23.98	PASS
		5670	9.753	9.905	0.019	12.840	23.98	PASS
	802.11ac VHT80	5530	10.773	10.872	0.024	13.833	23.98	PASS
U-NII-3	802.11a	5745	11.235	11.369	/	/	30.00	PASS
		5785	11.005	11.325	/	/	30.00	PASS
		5825	11.654	11.689	/	/	30.00	PASS
	802.11n HT20	5745	11.000	10.998	0.025	14.009	30.00	PASS
		5785	10.963	10.987	0.025	13.985	30.00	PASS
		5825	11.658	11.258	0.028	14.473	30.00	PASS
	802.11ac VHT20	5745	10.987	10.993	0.025	14.000	30.00	PASS
		5785	10.369	10.127	0.021	13.260	30.00	PASS
		5825	10.450	10.658	0.023	13.566	30.00	PASS
	802.11n HT40	5755	11.213	11.145	0.026	14.189	30.00	PASS
		5795	11.256	10.145	0.024	13.746	30.00	PASS
	802.11ac VHT40	5755	11.144	11.475	0.027	14.323	30.00	PASS
		5795	10.189	10.289	0.021	13.250	30.00	PASS
	802.11ac VHT80	5775	11.236	10.479	0.024	13.884	30.00	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	$\geq 2 \times \text{SPAN/RBW}$
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℃	Relative Humidity			55%	Test Voltage	120V/60Hz
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	802.11a	5180	6.61	5.83	0.00	6.61	11.00	PASS
		5200	6.75	6.04	0.00	6.75	11.00	PASS
		5240	7.13	6.85	0.00	7.13	11.00	PASS
	802.11n HT20	5180	6.99	6.51	0.00	9.77	11.00	PASS
		5200	7.05	6.06	0.00	9.59	11.00	PASS
		5240	7.44	7.21	0.00	10.34	11.00	PASS
	802.11ac VHT20	5180	6.93	6.18	0.00	9.58	11.00	PASS
		5200	7.04	6.43	0.00	9.76	11.00	PASS
		5240	7.43	7.70	0.00	10.58	11.00	PASS
	802.11n HT40	5190	4.06	3.37	0.00	6.74	11.00	PASS
		5230	4.15	3.24	0.00	6.73	11.00	PASS
	802.11ac VHT40	5190	4.24	3.52	0.11	7.02	11.00	PASS
		5230	4.18	3.59	0.11	7.02	11.00	PASS
	802.11ac VHT80	5210	0.45	0.18	0.21	3.54	11.00	PASS
U-NII-2A	802.11a	5260	6.60	6.48	0.00	6.60	11.00	PASS
		5300	7.00	6.86	0.00	7.00	11.00	PASS
		5320	7.05	6.96	0.00	7.05	11.00	PASS
	802.11n HT20	5260	7.32	6.87	0.00	10.11	11.00	PASS
		5300	7.42	7.13	0.00	10.29	11.00	PASS
		5320	7.05	7.20	0.00	10.14	11.00	PASS
	802.11ac VHT20	5260	6.70	6.88	0.00	9.80	11.00	PASS
		5300	7.28	7.17	0.00	10.24	11.00	PASS
		5320	7.18	7.62	0.00	10.42	11.00	PASS
	802.11n HT40	5270	4.40	4.20	0.00	7.31	11.00	PASS
		5310	4.89	4.86	0.00	7.89	11.00	PASS
	802.11ac VHT40	5270	5.48	4.54	0.11	8.16	11.00	PASS
		5310	5.06	4.98	0.11	8.14	11.00	PASS
	802.11ac VHT80	5290	1.45	1.70	0.21	4.80	11.00	PASS
U-NII-3C	IEEE 802.11a	5500	6.26	5.86	0.00	6.26	11.00	PASS
		5580	5.19	5.41	0.00	5.41	11.00	PASS
		5700	4.96	5.26	0.00	5.26	11.00	PASS
	IEEE 802.11n HT20	5500	6.52	6.92	0.00	9.73	11.00	PASS
		5580	5.44	5.60	0.00	8.53	11.00	PASS
		5700	4.95	5.44	0.00	8.21	11.00	PASS
	IEEE 802.11ac VHT20	5500	6.05	6.16	0.00	9.12	11.00	PASS
		5580	5.41	5.64	0.00	8.54	11.00	PASS
		5700	5.30	5.50	0.00	8.41	11.00	PASS
	IEEE 802.11n HT40	5510	3.72	4.12	0.00	6.93	11.00	PASS
		5670	2.91	3.25	0.00	6.09	11.00	PASS
	IEEE 802.11ac VHT40	5510	4.11	3.99	0.11	7.17	11.00	PASS
		5670	3.03	3.36	0.11	6.32	11.00	PASS
	IEEE 802.11ac VHT80	5530	0.02	0.63	0.21	3.56	11.00	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	802.11a	5745	4.02	4.33	0.00	4.33	30.00	PASS
		5785	4.15	3.93	0.00	4.15	30.00	PASS
		5825	3.59	3.32	0.00	3.59	30.00	PASS
	802.11n HT20	5745	4.36	4.67	0.00	7.53	30.00	PASS
		5785	3.81	5.23	0.00	7.59	30.00	PASS
		5825	3.87	3.80	0.00	6.85	30.00	PASS
	802.11ac VHT20	5745	5.34	4.09	0.00	7.77	30.00	PASS
		5785	5.47	3.89	0.00	7.76	30.00	PASS
		5825	3.96	3.45	0.00	6.72	30.00	PASS
	802.11n HT40	5755	1.87	2.16	0.00	5.03	30.00	PASS
		5795	1.80	1.59	0.00	4.71	30.00	PASS
	802.11ac VHT40	5755	1.82	2.48	0.11	5.28	30.00	PASS
		5795	1.73	1.88	0.11	4.93	30.00	PASS
	802.11ac VHT80	5775	-1.69	-2.00	0.21	1.38	30.00	PASS

