8.5.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC) MOBILE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5190	4.75	4.75	24.00	11.00
High	5230	4.75	4.75	24.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

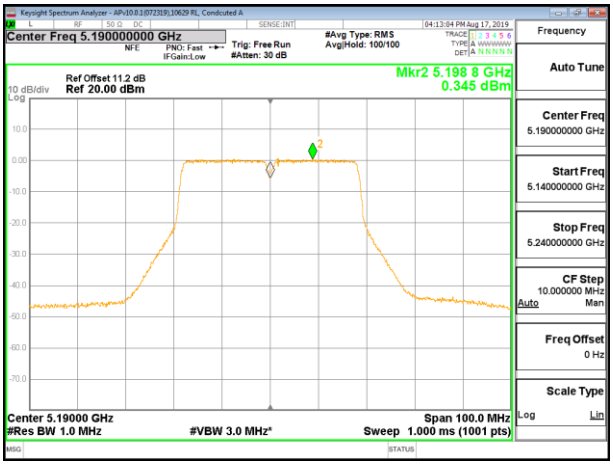
Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	14.37	14.46	17.43	24.00	-6.57
High	5230	14.51	14.62	17.58	24.00	-6.42

PSD Results

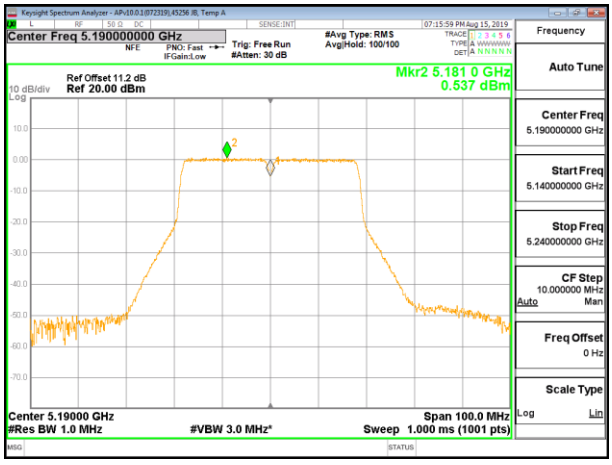
Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5190	0.35	0.54	3.45	11.00	-7.55
High	5230	0.02	0.21	3.13	11.00	-7.87

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

LOW CHANNEL

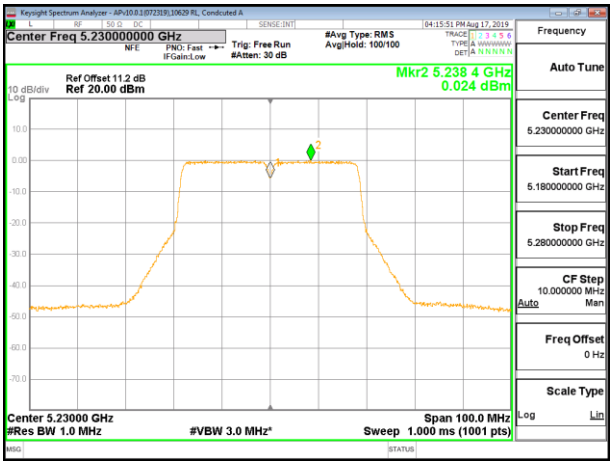


LOW CHANNEL CHAIN 0

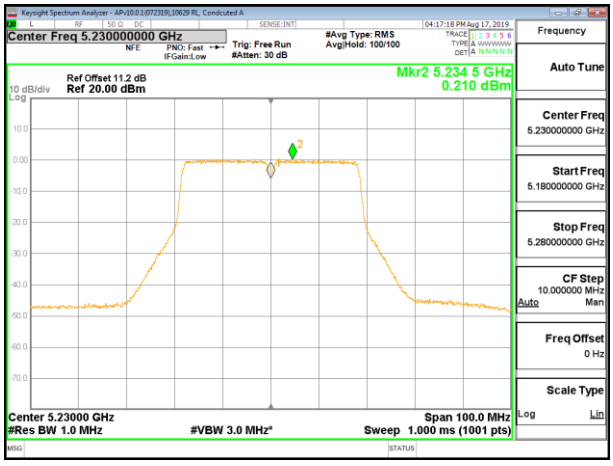


LOW CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	EIRP Power Limit (dBm)	Power Limit (dBm)	EIRP PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5190	36.241	4.75	4.75	23.00	18.25	10.00	5.25
High	5230	36.280	4.75	4.75	23.00	18.25	10.00	5.25

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

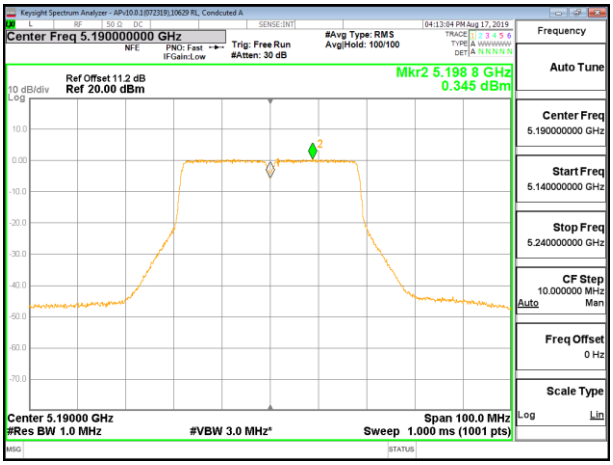
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5190	14.37	14.46	17.43	18.25	-0.82
High	5230	14.51	14.62	17.58	18.25	-0.67

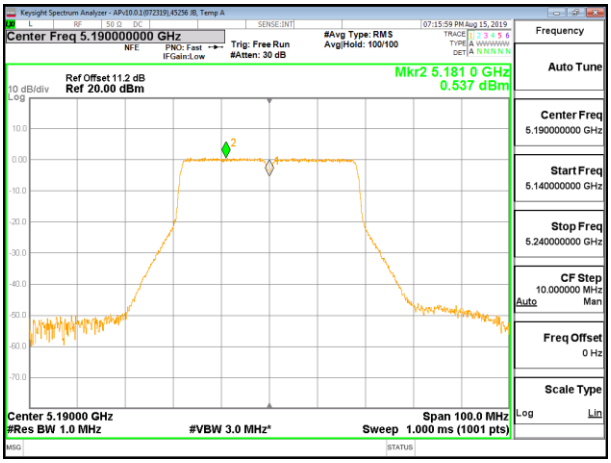
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5190	0.35	0.54	3.45	5.25	-1.80
High	5230	0.02	0.21	3.13	5.25	-2.12

LOW CHANNEL

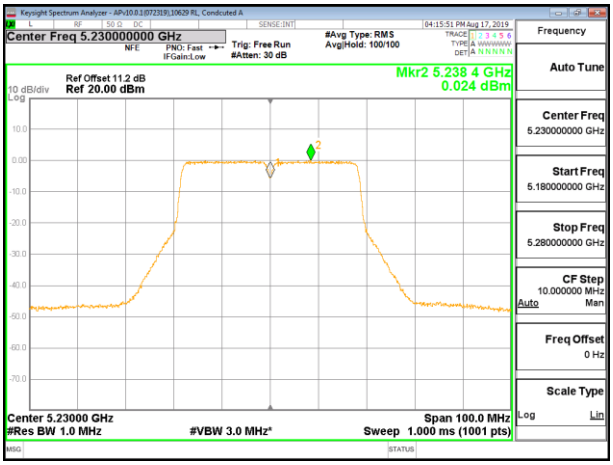


LOW CHANNEL CHAIN 0

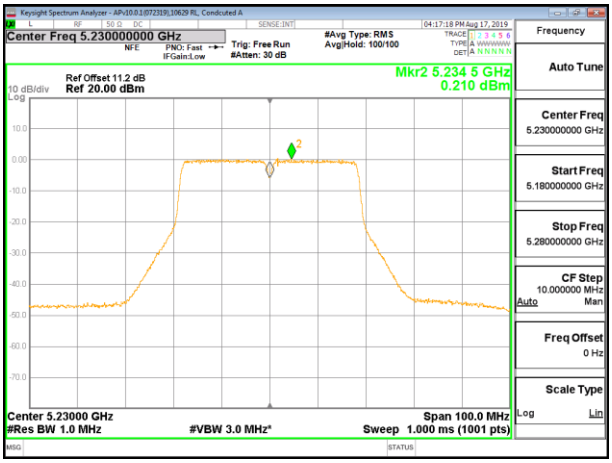


LOW CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

8.5.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC) MOBILE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Mid	5210	4.75	4.75	24.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

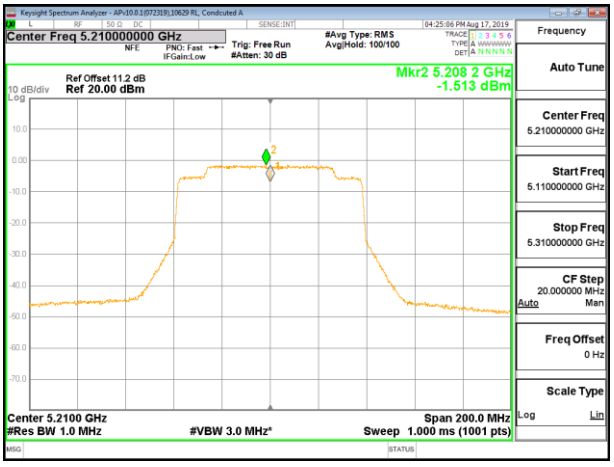
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	14.44	14.63	17.55	24.00	-6.45

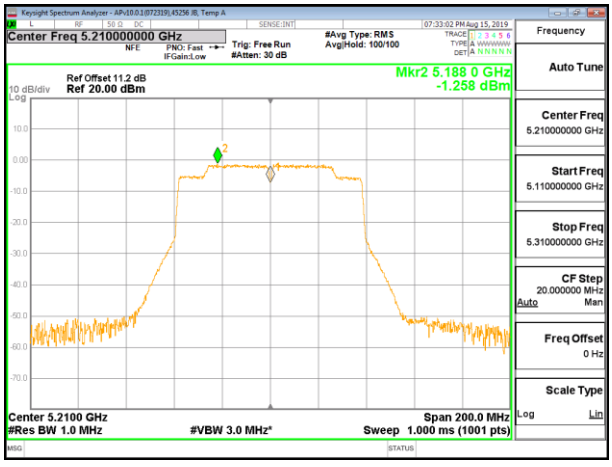
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5210	-1.51	-1.26	1.63	11.00	-9.37

MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	EIRP Power Limit (dBm)	Power Limit (dBm)	EIRP PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Mid	5210	75.1240	4.75	4.75	23.00	18.25	10.00	5.25

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

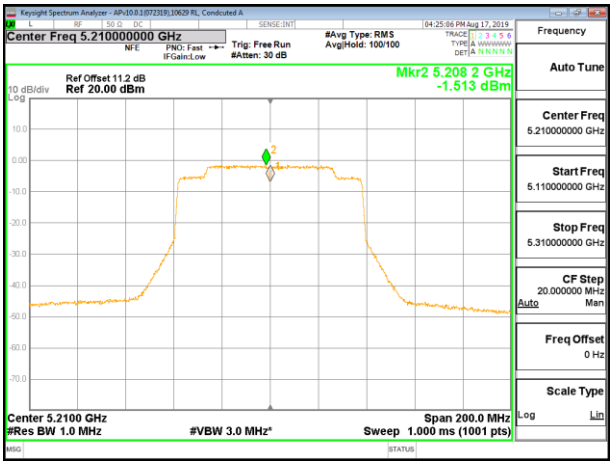
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5210	14.44	14.63	17.55	18.25	-0.70

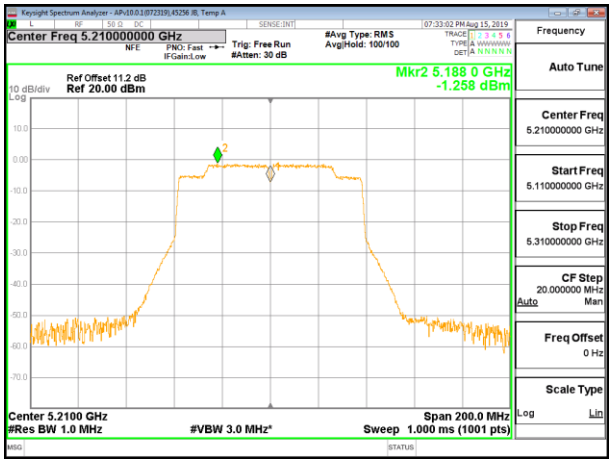
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5210	-1.51	-1.26	1.63	5.25	-3.62

MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

8.5.5. 802.11ac VHT160 MODE IN THE 5.2 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC) MOBILE

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Mid	5250	4.75	4.75	24.00	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

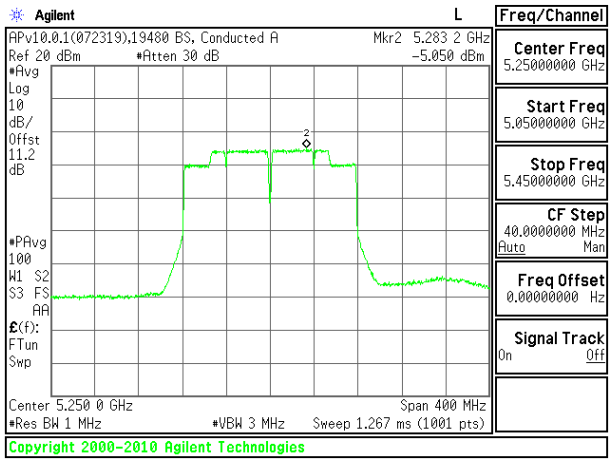
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5250	13.72	14.12	16.93	24.00	-7.07

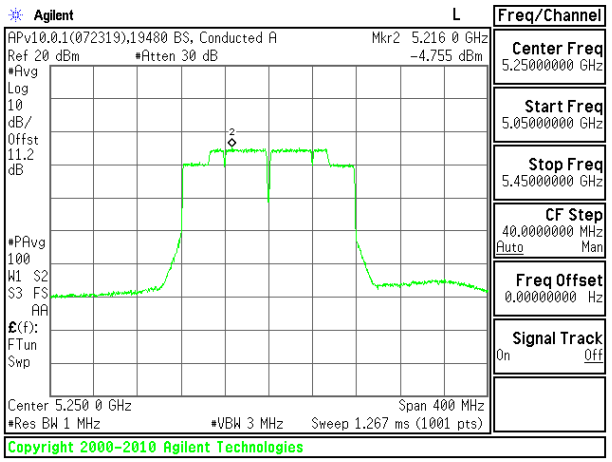
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5250	-5.05	-4.76	-1.89	11.00	-12.89

MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	EIRP Power Limit (dBm)	Power Limit (dBm)	EIRP PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Mid	5250	152.9260	4.75	7.64	23.00	18.25	10.00	2.36

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

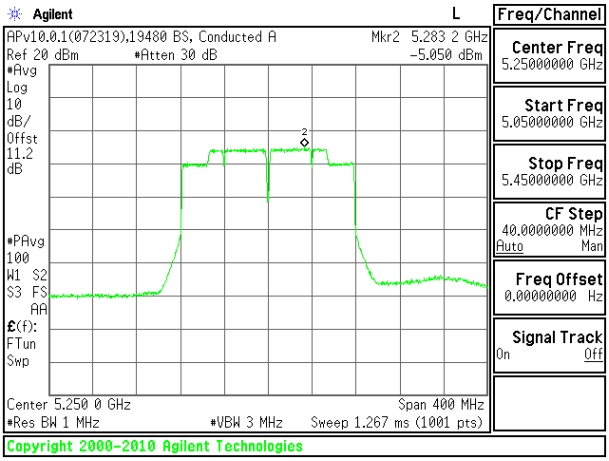
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5250	13.72	14.12	16.93	18.25	-1.32

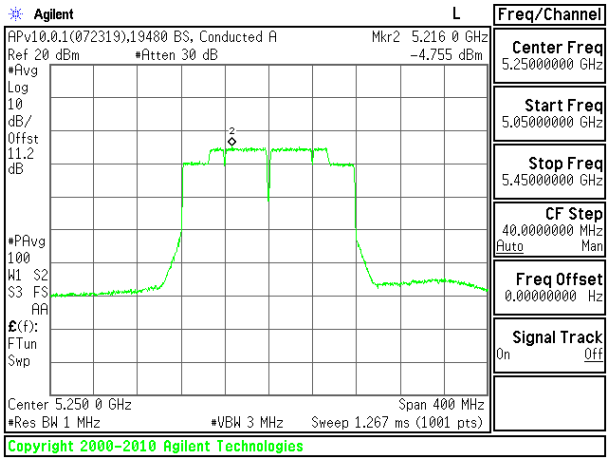
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Mid	5250	-5.05	-4.76	-1.89	2.36	-4.25

MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

8.5.6. 802.11a MODE IN THE 5.3 GHz BAND

2TX Antenna 1 + Antenna 2 CDD MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	24.35	6.16	8.92	23.84	8.08
Mid	5300	24.85	6.16	8.92	23.84	8.08
High	5320	25.40	6.16	8.92	23.84	8.08

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

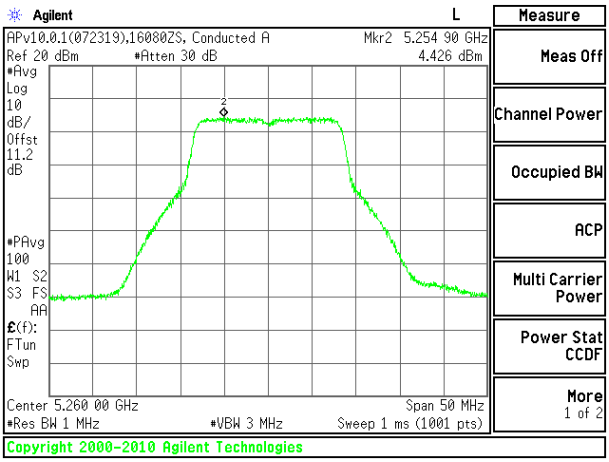
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.23	14.82	17.55	23.84	-6.29
Mid	5300	14.41	14.71	17.57	23.84	-6.27
High	5320	14.32	14.67	17.51	23.84	-6.33

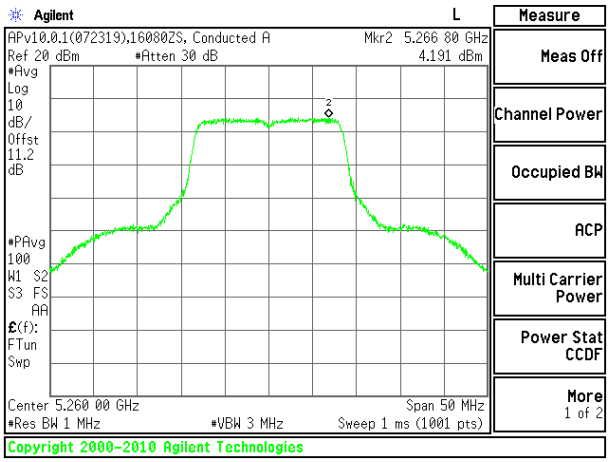
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm/1MHz)	Chain 1 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	4.43	4.19	7.32	8.08	-0.76
Mid	5300	4.28	4.81	7.56	8.08	-0.52
High	5320	4.11	4.45	7.30	8.08	-0.78

LOW CHANNEL

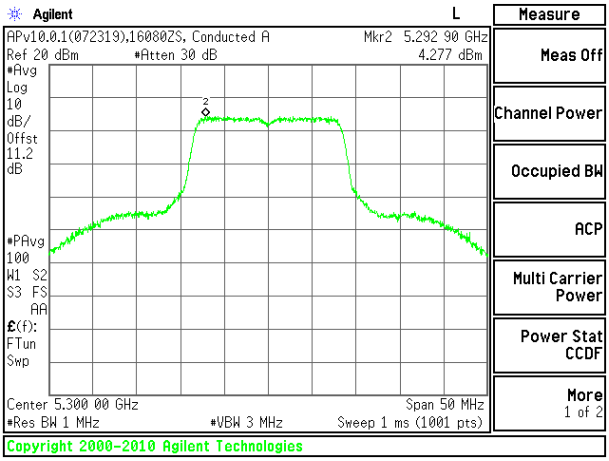


LOW CHANNEL CHAIN 0

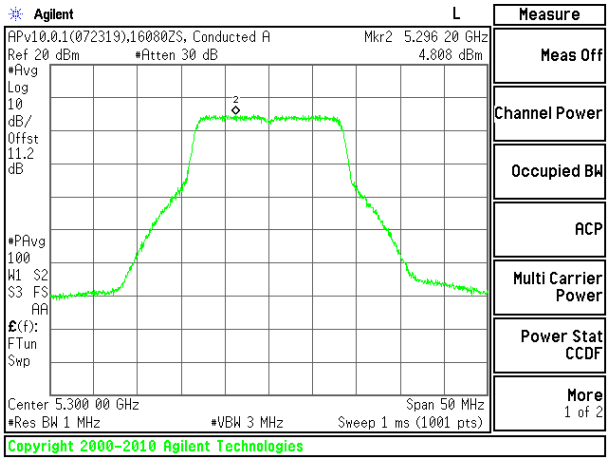


LOW CHANNEL CHAIN 1

MID CHANNEL

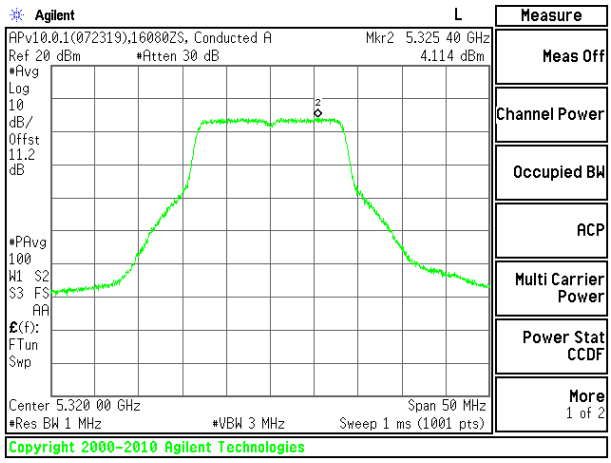


MID CHANNEL CHAIN 0

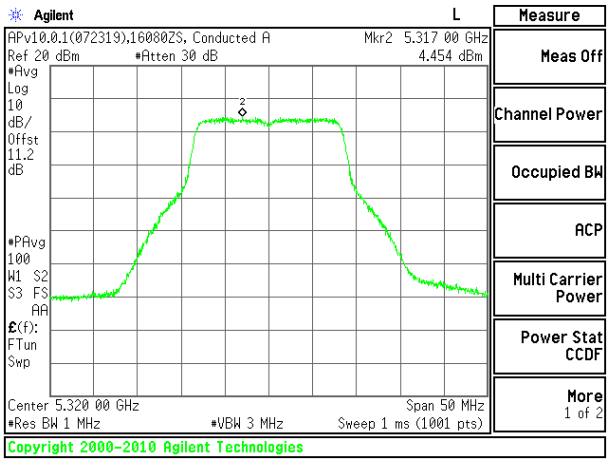


MID CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 CDD MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	16.6440	6.16	8.92	23.05	11.00
Mid	5300	16.6550	6.16	8.92	23.06	11.00
High	5320	16.6090	6.16	8.92	23.04	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

Output Power Results

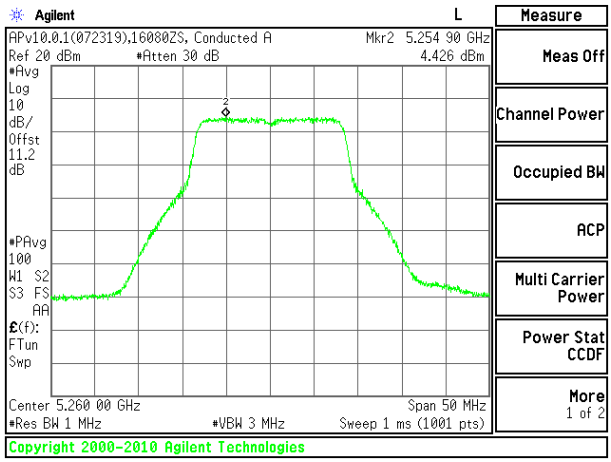
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.23	14.82	17.55	23.05	-5.51
Mid	5300	14.41	14.71	17.57	23.06	-5.48
High	5320	14.32	14.67	17.51	23.04	-5.53

PSD Results

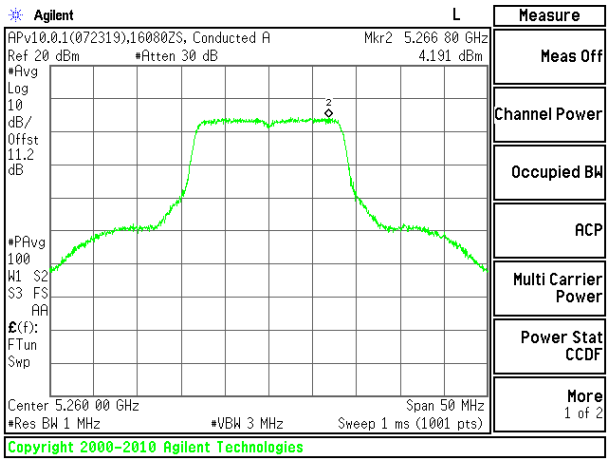
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm/1MHz)	Chain 1 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	4.43	4.19	7.32	11.00	-3.68
Mid	5300	4.28	4.81	7.56	11.00	-3.44
High	5320	4.11	4.45	7.30	11.00	-3.70

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

LOW CHANNEL

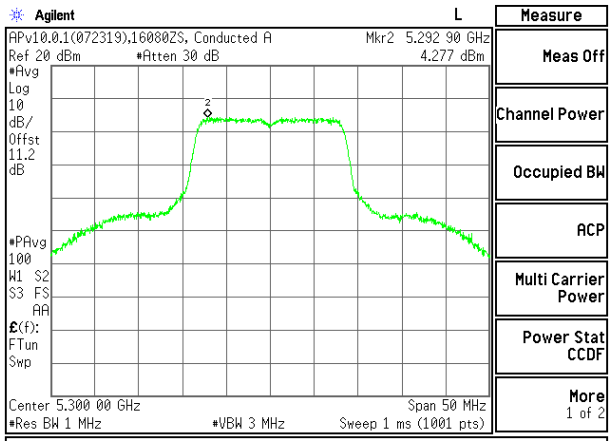


LOW CHANNEL CHAIN 0

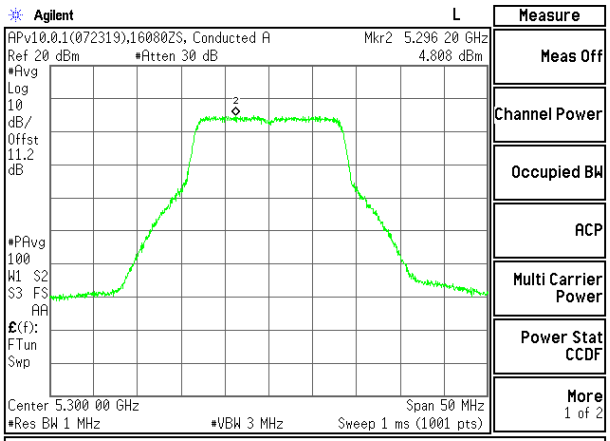


LOW CHANNEL CHAIN 1

MID CHANNEL

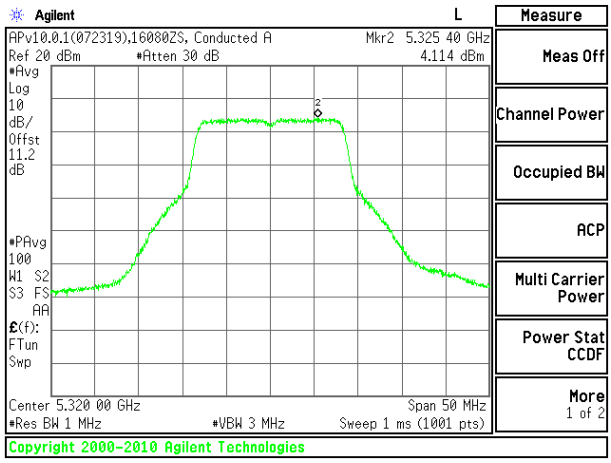


MID CHANNEL CHAIN 0

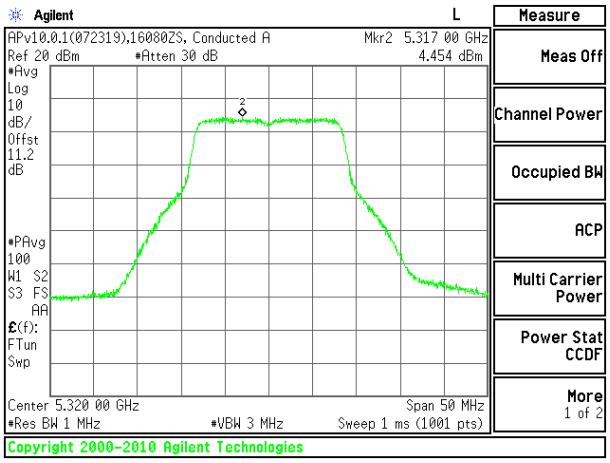


MID CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

8.5.7. 802.11n HT20 MODE IN THE 5.3 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	25.40	6.16	6.16	23.84	10.84
Mid	5300	25.35	6.16	6.16	23.84	10.84
High	5320	24.40	6.16	6.16	23.84	10.84

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

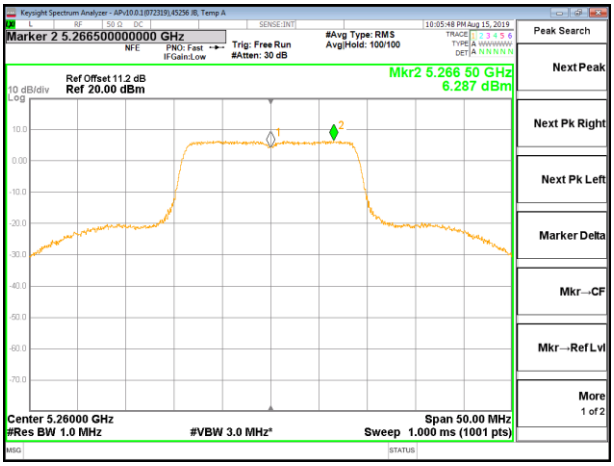
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	17.73	18.16	20.96	23.84	-2.88
Mid	5300	17.85	18.11	20.99	23.84	-2.85
High	5320	16.86	17.07	19.98	23.84	-3.86

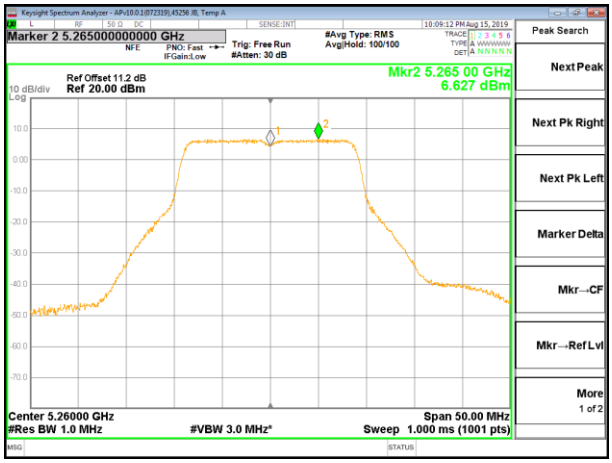
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	6.29	6.63	9.47	10.84	-1.37
Mid	5300	6.47	6.45	9.47	10.84	-1.37
High	5320	5.53	5.39	8.47	10.84	-2.37

LOW CHANNEL

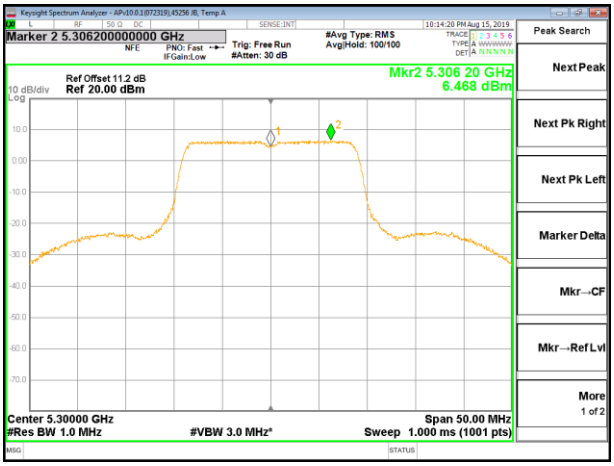


LOW CHANNEL CHAIN 0

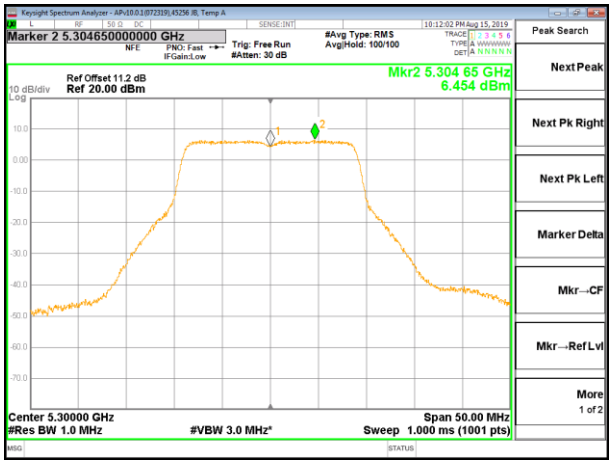


LOW CHANNEL CHAIN 1

MID CHANNEL

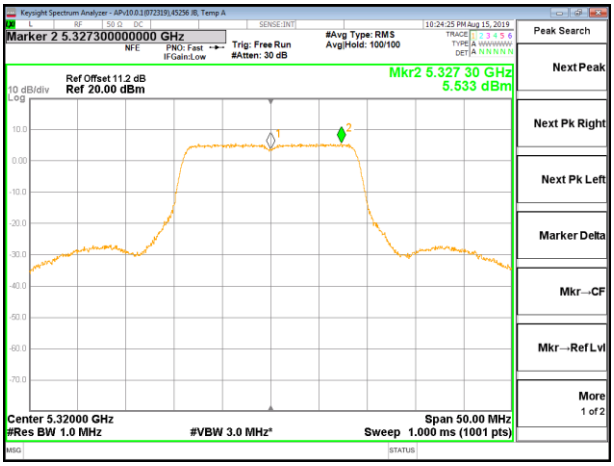


MID CHANNEL CHAIN 0

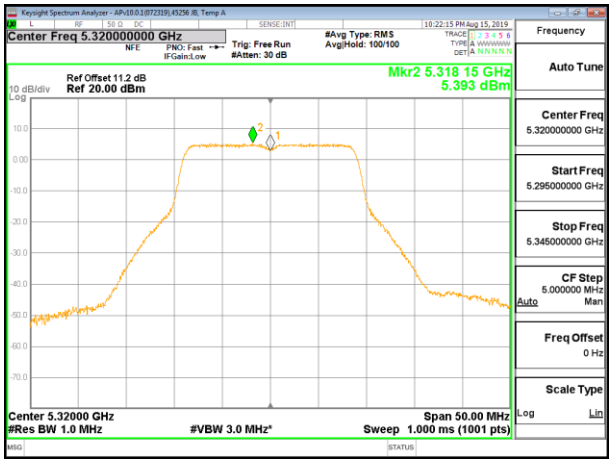


MID CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5260	17.856	6.16	6.16	23.36	11.00
Mid	5300	17.821	6.16	6.16	23.35	11.00
High	5320	17.859	6.16	6.16	23.36	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

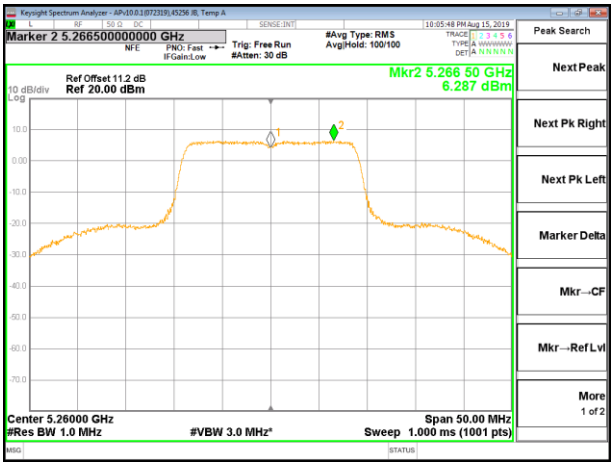
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	17.73	18.16	20.96	23.36	-2.40
Mid	5300	17.85	18.11	20.99	23.35	-2.36
High	5320	16.86	17.07	19.98	23.36	-3.38

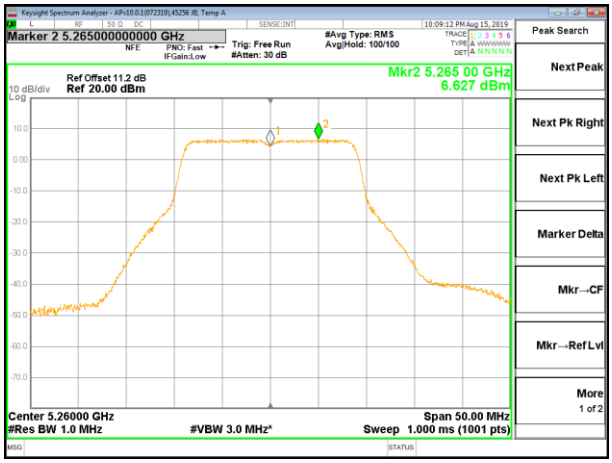
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5260	6.29	6.63	9.47	11.00	-1.53
Mid	5300	6.47	6.45	9.47	11.00	-1.53
High	5320	5.53	5.39	8.47	11.00	-2.53

LOW CHANNEL

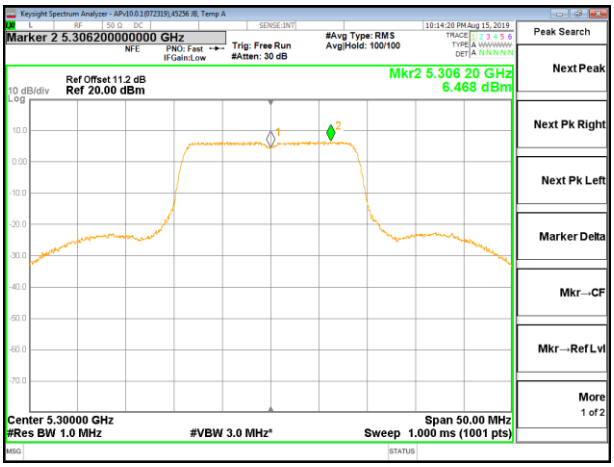


LOW CHANNEL CHAIN 0

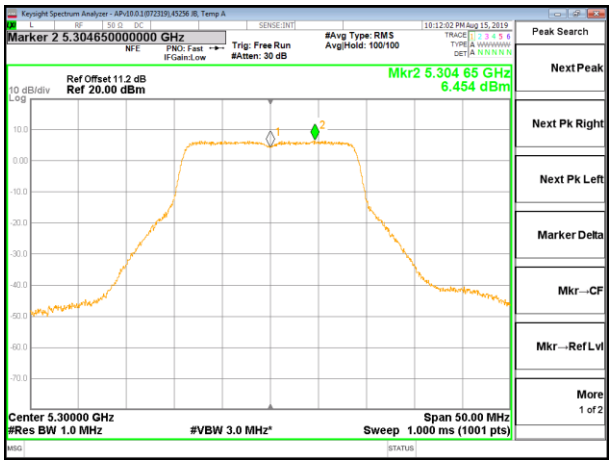


LOW CHANNEL CHAIN 1

MID CHANNEL

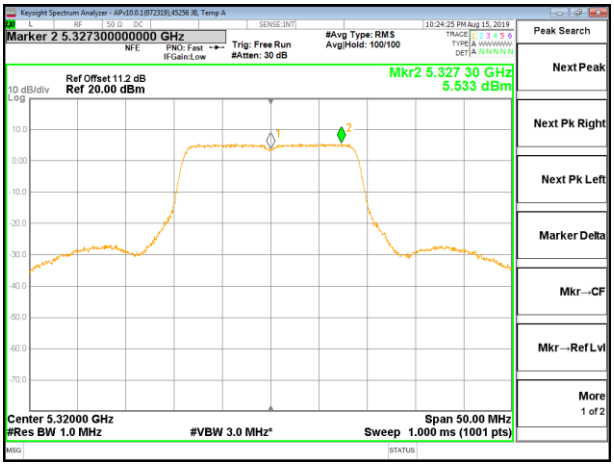


MID CHANNEL CHAIN 0

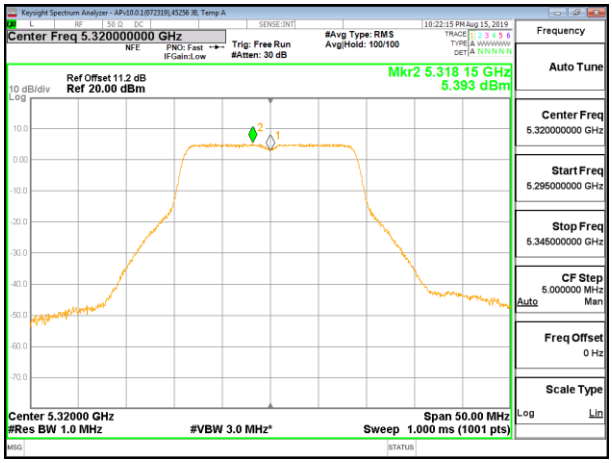


MID CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

8.5.8. 802.11n HT40 MODE IN THE 5.3 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5270	44.80	6.16	6.16	23.84	10.84
High	5310	45.20	6.16	6.16	23.84	10.84

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

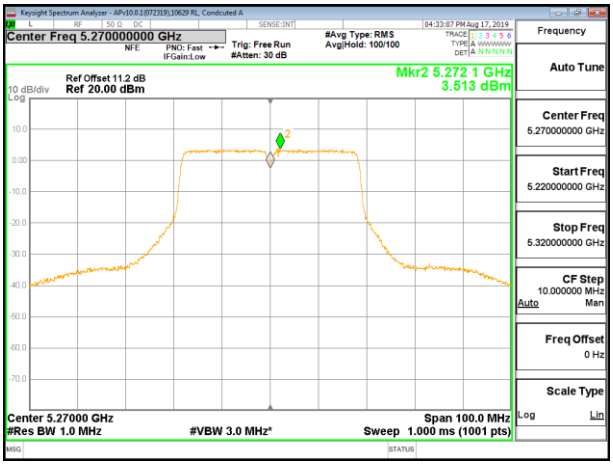
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	19.56	19.87	22.73	23.84	-1.11
High	5310	15.23	15.56	18.41	23.84	-5.43

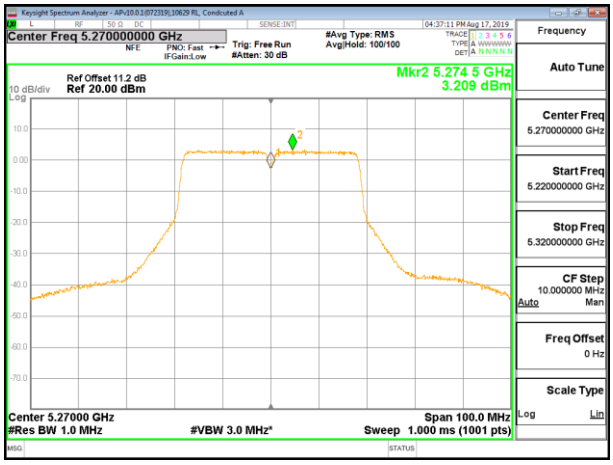
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5270	3.51	3.21	6.37	10.84	-4.47
High	5310	2.27	2.08	5.19	10.84	-5.65

LOW CHANNEL

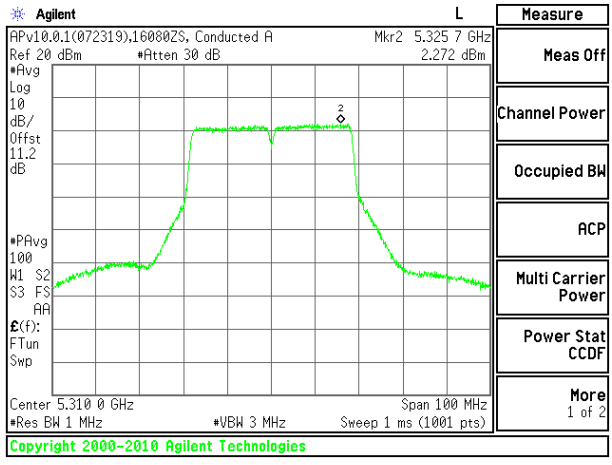


LOW CHANNEL CHAIN 0

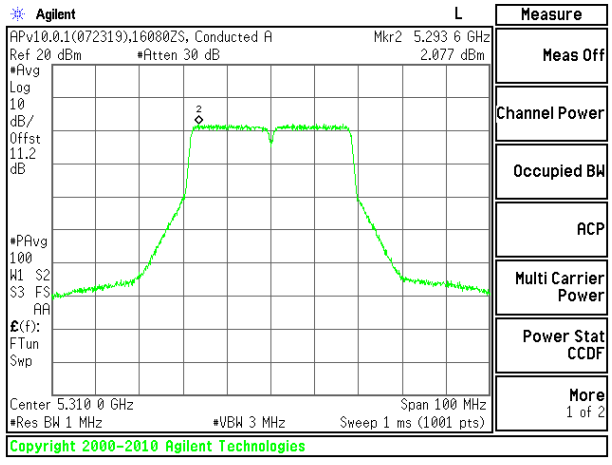


LOW CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Low	5270	36.221	6.16	6.16	23.84	11.00
High	5310	36.264	6.16	6.16	23.84	11.00

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd PSD**

Output Power Results

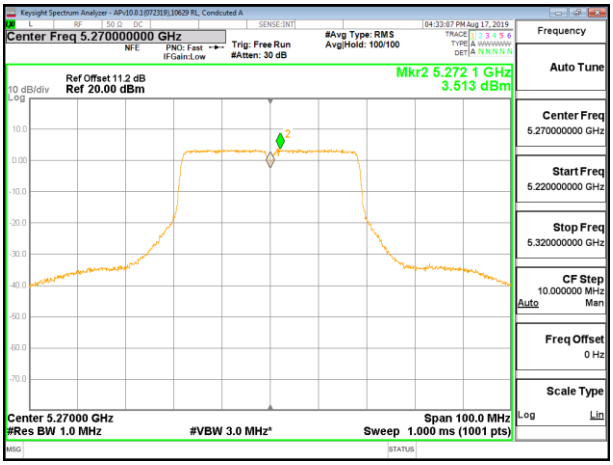
Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5270	19.56	20.39	23.01	23.84	-0.83
High	5310	15.23	15.56	18.41	23.84	-5.43

PSD Results

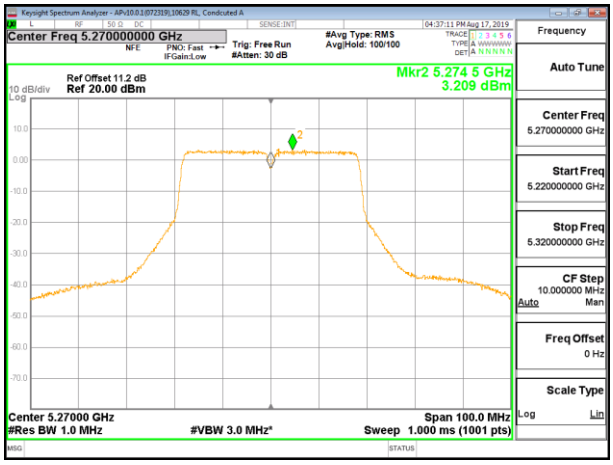
Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low	5270	3.51	3.21	6.37	11.00	-4.63
High	5310	2.27	2.08	5.19	11.00	-5.81

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

LOW CHANNEL

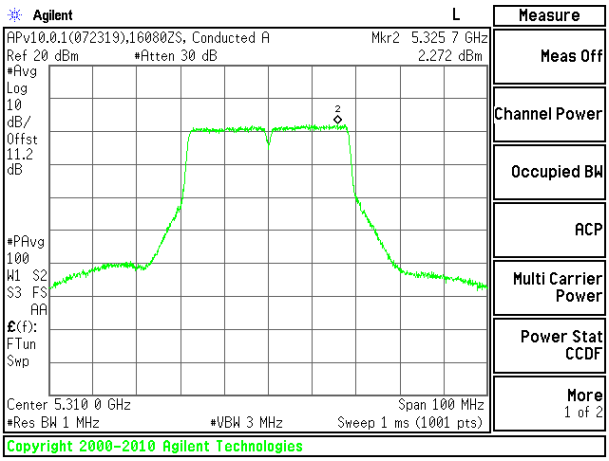


LOW CHANNEL CHAIN 0

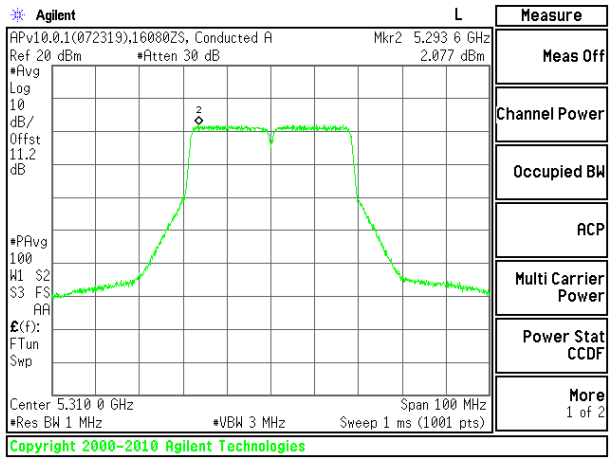


LOW CHANNEL CHAIN 1

HIGH CHANNEL



HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

8.5.9. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Mid	5290	86.00	6.16	6.16	23.84	10.84

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

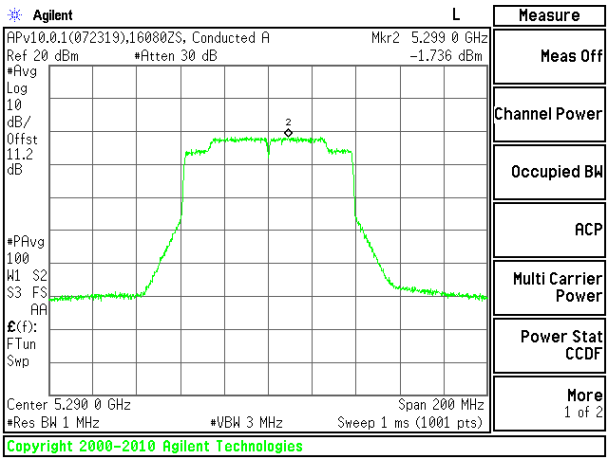
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5290	14.31	14.55	17.44	23.84	-6.40

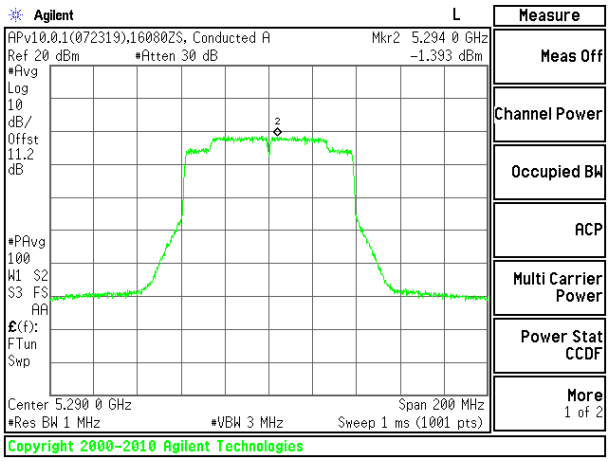
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Mid	5290	-1.74	-1.39	1.45	10.84	-9.39

MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/1MHz)
Mid	5290	75.073	6.16	6.16	23.84	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

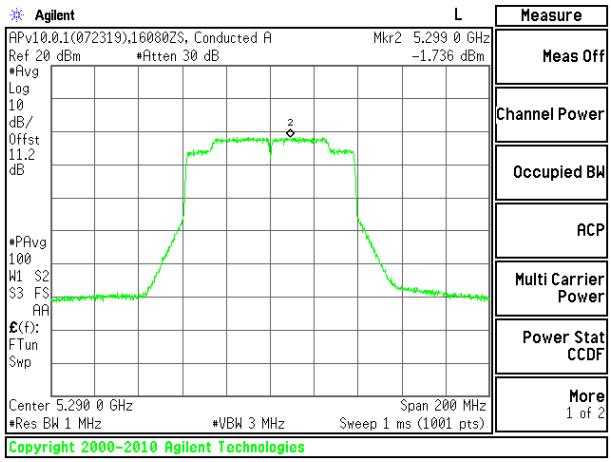
Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5290	14.31	14.55	17.44	23.84	-6.40

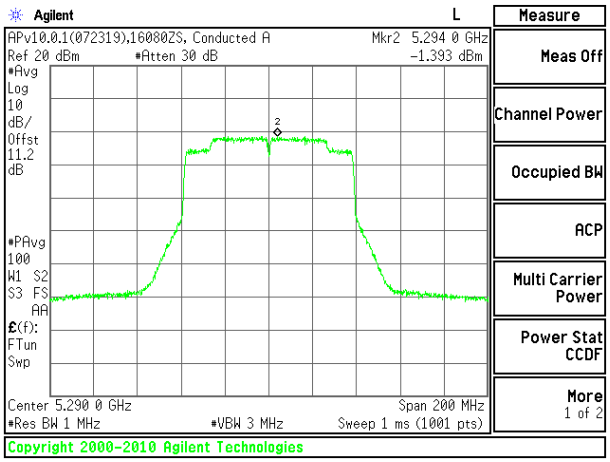
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/1MHz)	Antenna 2 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Mid	5290	-1.74	-1.39	1.45	11.00	-9.55

MID CHANNEL



MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

8.5.10. 802.11a MODE IN THE 5.6 GHz BAND

2TX Antenna 1 + Antenna 2 CDD MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5500	25.15	6.45	9.24	23.55	7.76
Mid	5580	24.65	6.45	9.24	23.55	7.76
High	5700	25.05	6.45	9.24	23.55	7.76
*144	5720	24.70	6.45	9.24	23.55	7.76

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	13.84	14.27	17.07	23.55	-6.48
Mid	5580	14.01	14.55	17.30	23.55	-6.25
High	5700	14.20	14.33	17.28	23.55	-6.27
*144	5720	14.68	14.83	17.77	23.55	-5.78

PSD Results

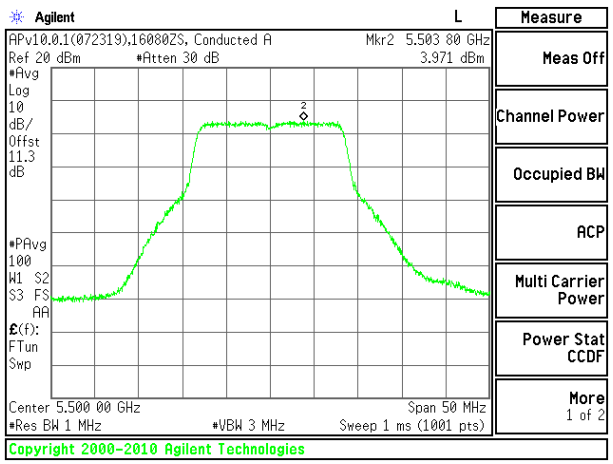
Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	3.97	4.01	7.00	7.76	-0.76
Mid	5580	4.04	4.05	7.06	7.76	-0.70
High	5700	4.19	3.98	7.10	7.76	-0.66
*144	5720	4.13	3.90	7.03	7.76	-0.73

* As per the calculated formula, measured total bandwidth (MHz) /2 +5MHz, the worst bandwidth is 17.35MHz.

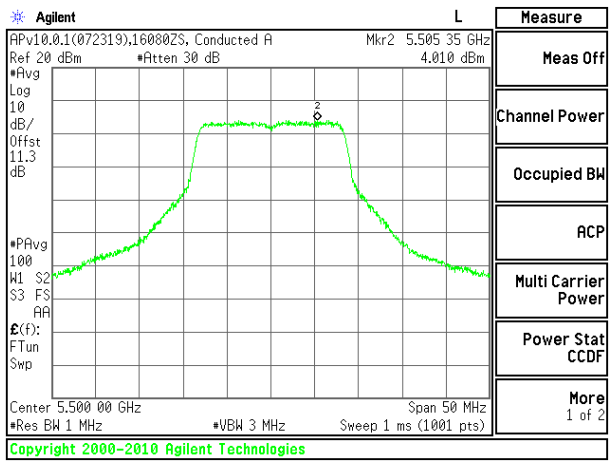
Based on the 17.35MHz bandwidth for the portion that the straddle channel occupied in the UNII-2C band, the calculated power limit is 11+10*log(17.35) = 23.39 dBm. The total signal power is 17.77dBm which is less than the limit of 23.39dBm.

UL VERIFICATION SERVICES INC.
47173 Benicia Street, Fremont, CA 94538; USA TEL:(510) 319-4000 FAX:(510) 661-0888

LOW CHANNEL

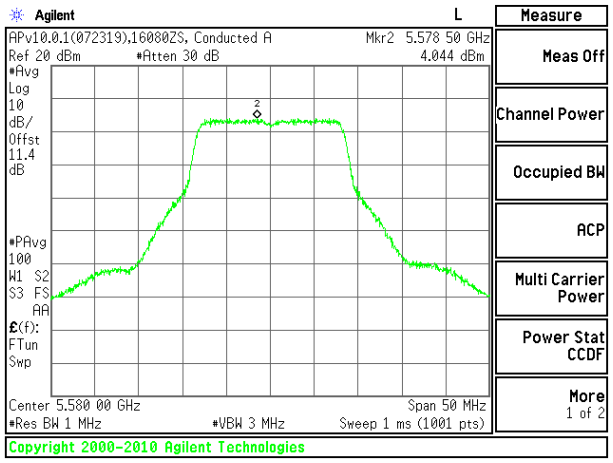


LOW CHANNEL CHAIN 0

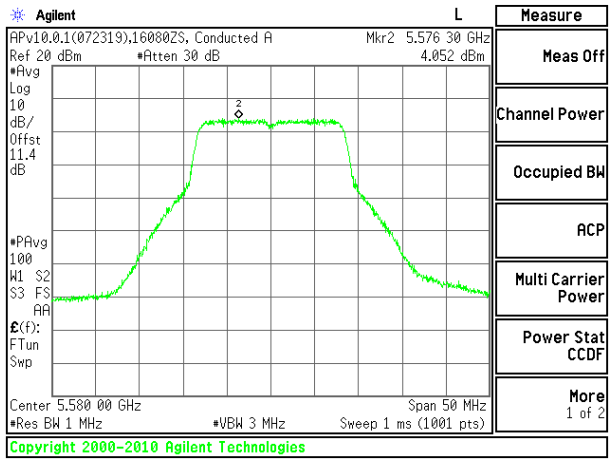


LOW CHANNEL CHAIN 1

MID CHANNEL

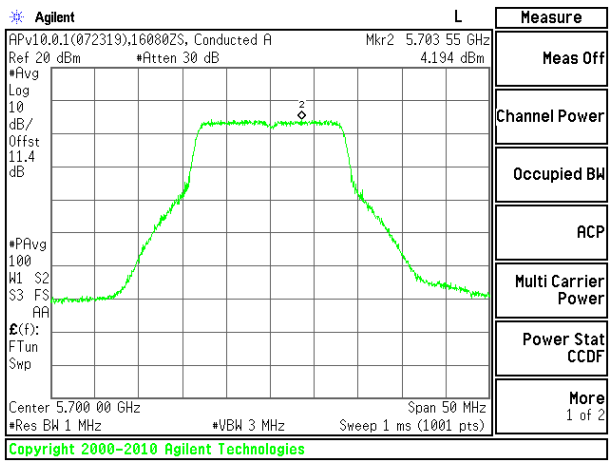


MID CHANNEL CHAIN 0

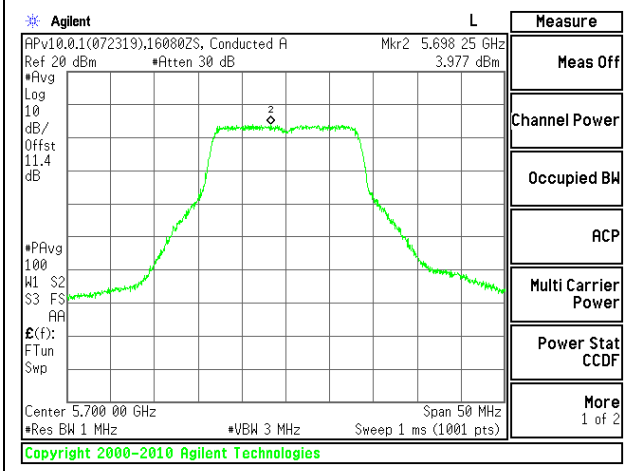


MID CHANNEL CHAIN 1

HIGH CHANNEL

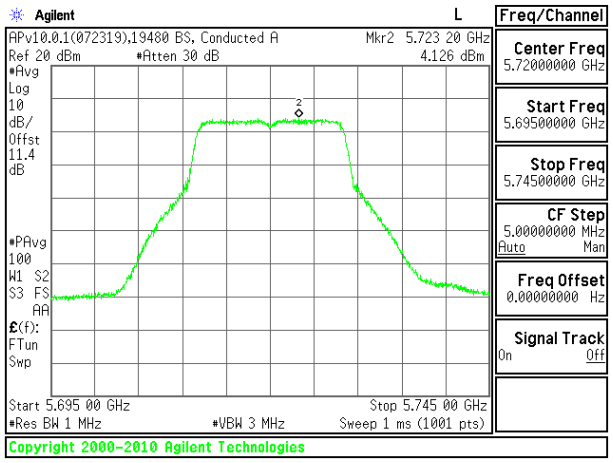


HIGH CHANNEL CHAIN 0

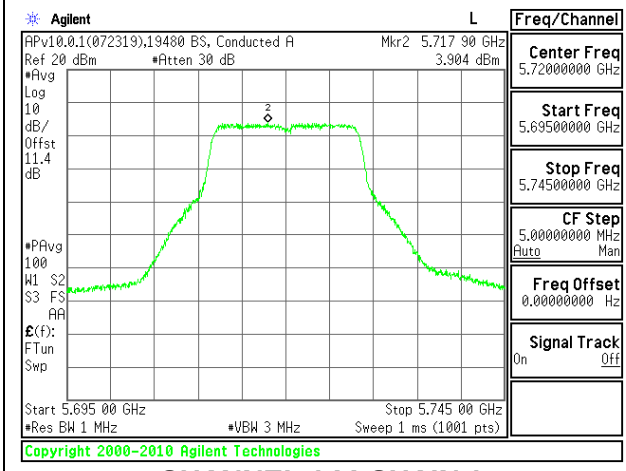


HIGH CHANNEL CHAIN 1

CHANNEL 144



CHANNEL 144 CHAIN 0



CHANNEL 144 CHAIN 1

2TX Antenna 1 + Antenna 2 CDD MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5500	16.68	6.45	9.24	22.77	11.00
Mid	5580	16.64	6.45	9.24	22.76	11.00
High	5700	16.65	6.45	9.24	22.76	11.00
*144	5720	16.64	6.45	9.24	22.76	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	13.84	14.27	17.07	22.77	-5.70
Mid	5580	14.01	14.55	17.30	22.76	-5.46
High	5700	14.20	14.33	17.28	22.76	-5.49
*144	5720	14.68	14.83	17.77	22.76	-4.99

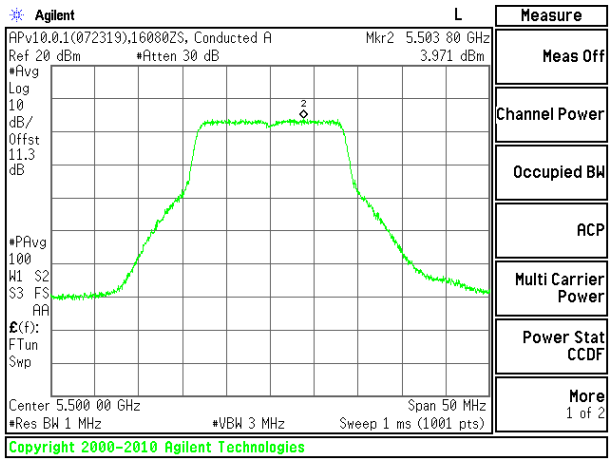
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	3.97	4.01	7.00	11.00	-4.00
Mid	5580	4.04	4.05	7.06	11.00	-3.94
High	5700	4.19	3.98	7.10	11.00	-3.90
*144	5720	4.13	3.90	7.03	11.00	-3.97

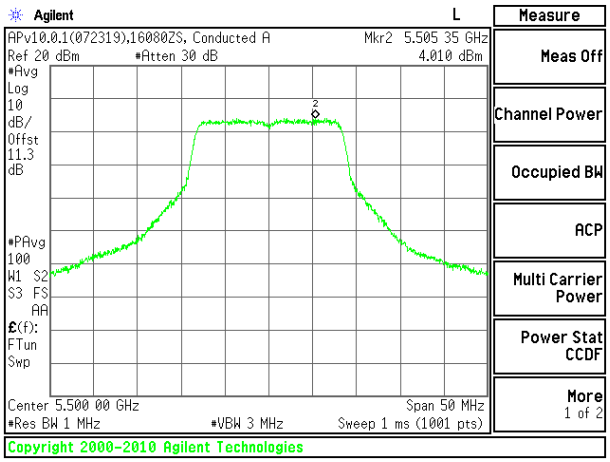
* As per the calculated formula, measured total bandwidth (MHz) /2 +5MHz, the worst bandwidth is 13.32MHz.

Based on the 17.35MHz bandwidth for the portion that the straddle channel occupied in the UNII-2C band, the calculated power limit is 17+10*log(13.32) -6.5 = 21.79 dBm. The total signal power is 17.77dBm which is less than the limit of 21.79dBm.

LOW CHANNEL

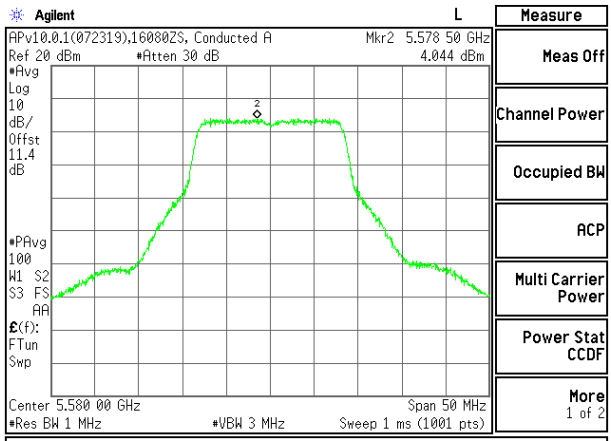


LOW CHANNEL CHAIN 0

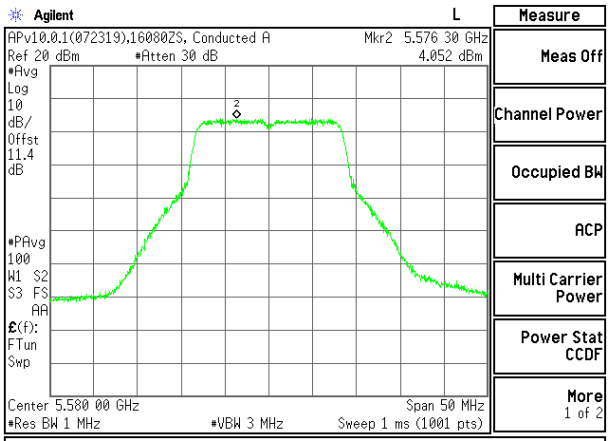


LOW CHANNEL CHAIN 1

MID CHANNEL

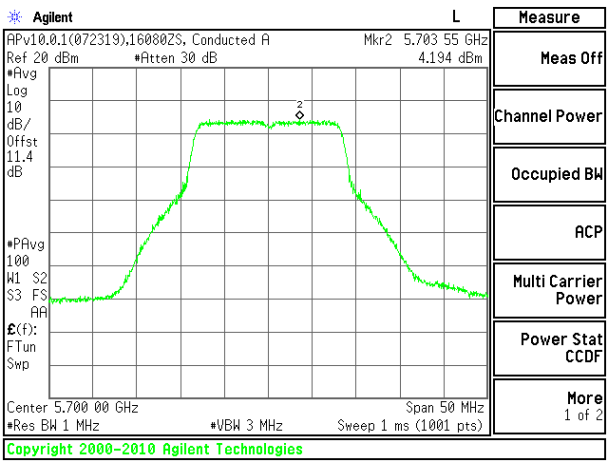


MID CHANNEL CHAIN 0

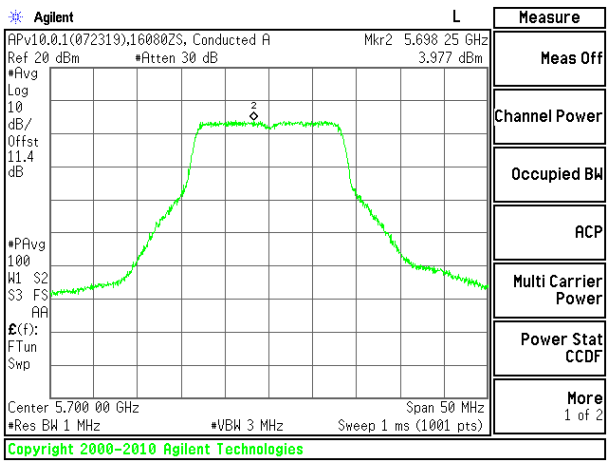


MID CHANNEL CHAIN 1

HIGH CHANNEL

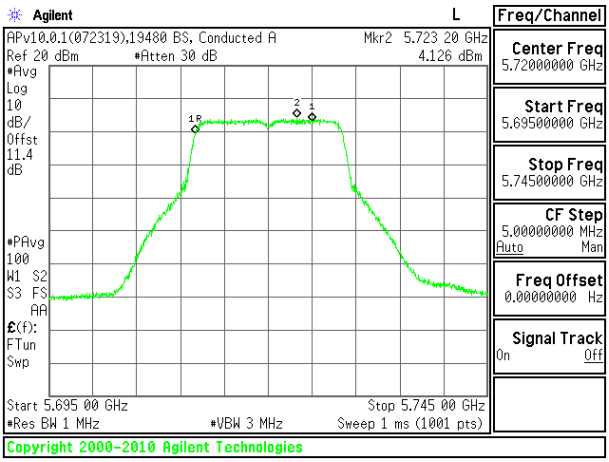


HIGH CHANNEL CHAIN 0

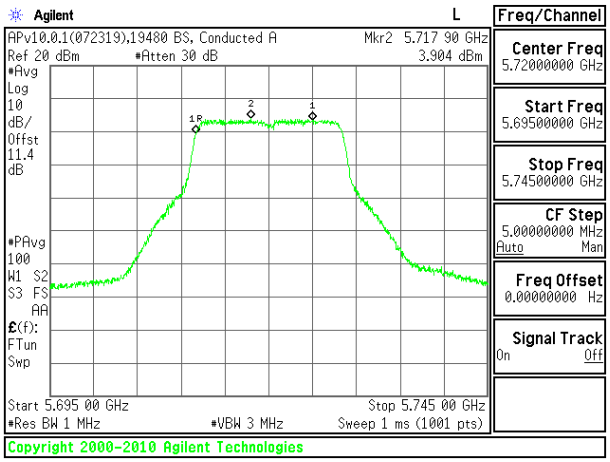


HIGH CHANNEL CHAIN 1

CHANNEL 144



CHANNEL 144 CHAIN 0



CHANNEL 144 CHAIN 1

8.5.11. 802.11n HT20 MODE IN THE 5.6 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5500	25.50	6.45	6.45	23.55	10.55
Mid	5580	25.25	6.45	6.45	23.55	10.55
High	5700	25.30	6.45	6.45	23.55	10.55
144	5720	25.45	6.45	6.45	23.55	10.55

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	17.83	18.11	20.98	23.55	-2.57
Mid	5580	18.12	18.27	21.21	23.55	-2.34
High	5700	15.72	15.95	18.85	23.55	-4.70
144	5720	17.98	17.90	20.95	23.55	-2.60

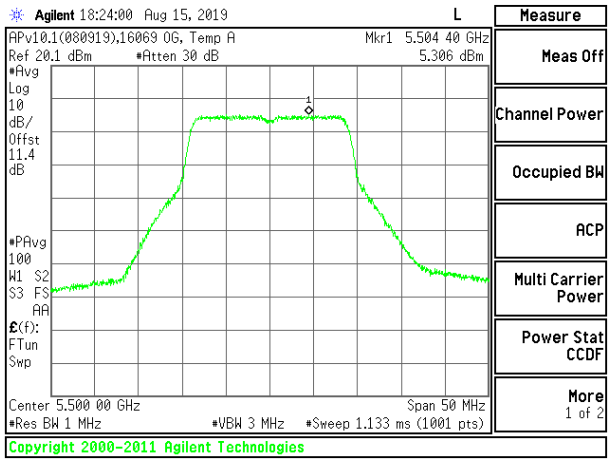
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	5.31	5.11	8.22	10.55	-2.33
Mid	5580	5.45	5.34	8.41	10.55	-2.14
High	5700	5.41	5.05	8.24	10.55	-2.31
144	5720	6.31	7.35	9.87	10.55	-0.68

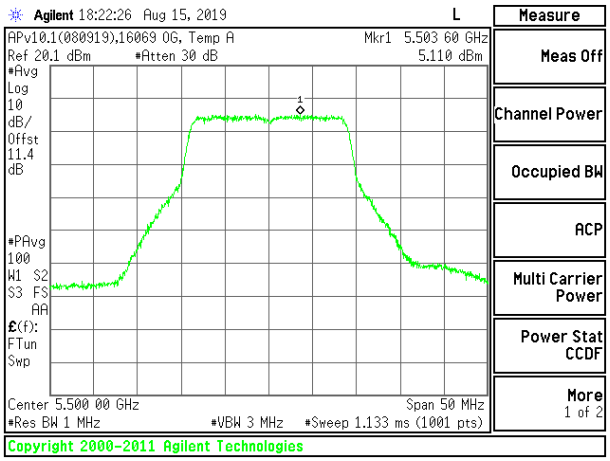
* As per the calculated formula, measured total bandwidth (MHz) /2 +5MHz, the worst bandwidth is 17.72MHz.

Based on the 17.35MHz bandwidth for the portion that the straddle channel occupied in the UNII-2C band, the calculated power limit is 11+10*log(17.72) = 23.48 dBm. The total signal power is 20.95 dBm which is less than the limit of 23.48dBm.

LOW CHANNEL

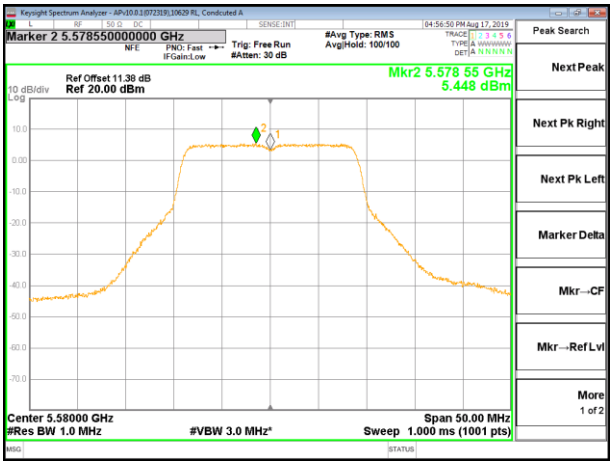


LOW CHANNEL CHAIN 0

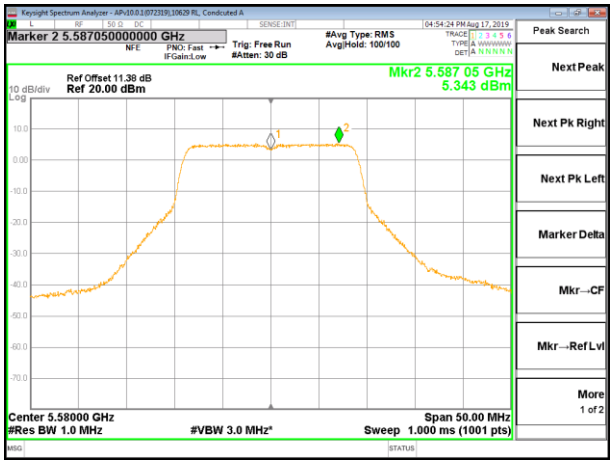


LOW CHANNEL CHAIN 1

MID CHANNEL

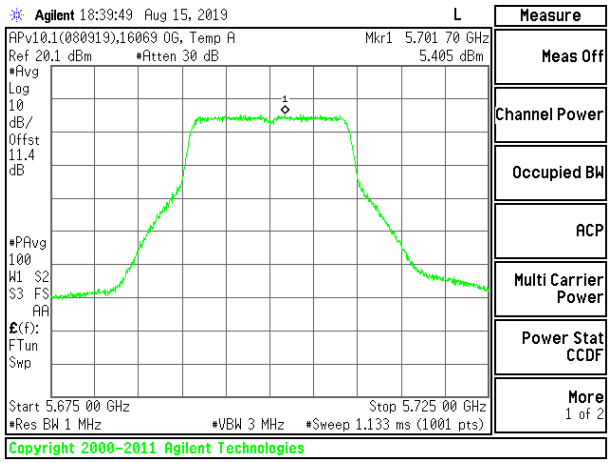


MID CHANNEL CHAIN 0

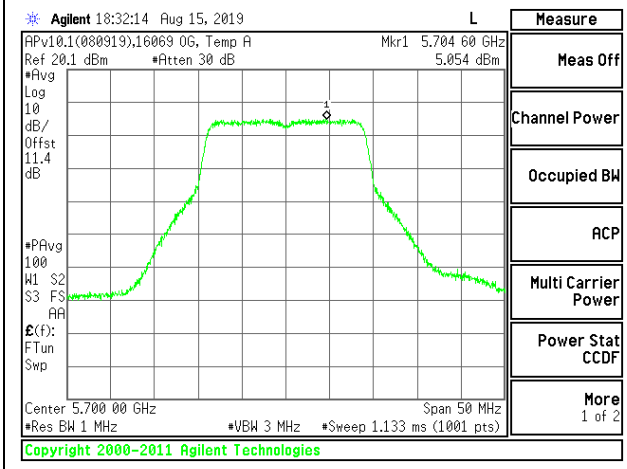


MID CHANNEL CHAIN 1

HIGH CHANNEL

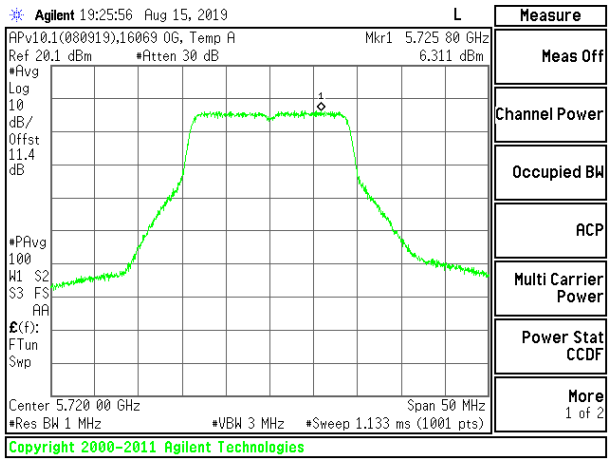


HIGH CHANNEL CHAIN 0

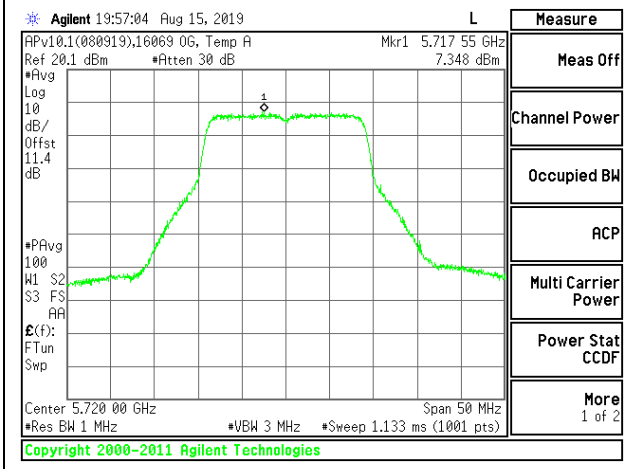


HIGH CHANNEL CHAIN 1

CHANNEL 144



CHANNEL 144 CHAIN 0



CHANNEL 144 CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5500	17.83	6.45	6.45	23.06	11.00
Mid	5580	17.83	6.45	6.45	23.06	11.00
High	5700	17.86	6.45	6.45	23.07	11.00
*144	5720	17.84	6.45	6.45	23.06	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	17.83	18.11	20.98	23.06	-2.08
Mid	5580	18.12	18.27	21.21	23.06	-1.86
High	5700	15.72	15.95	18.85	23.07	-4.22
*144	5720	17.98	17.90	20.95	23.06	-2.12

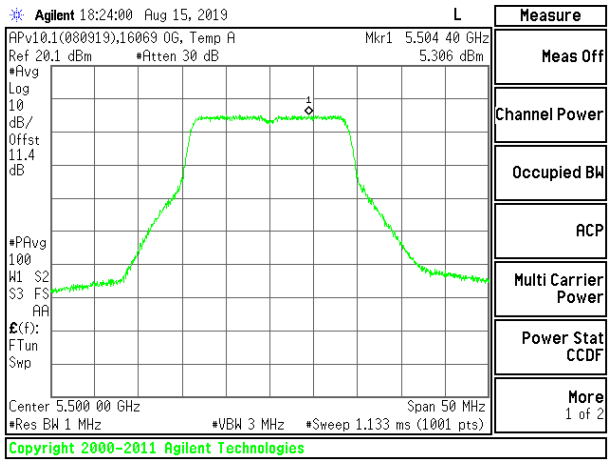
PSD Results

Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	5.31	5.11	8.22	11.00	-2.78
Mid	5580	5.45	5.34	8.41	11.00	-2.59
High	5700	5.41	5.05	8.24	11.00	-2.76
*144	5720	6.31	7.35	9.87	11.00	-1.13

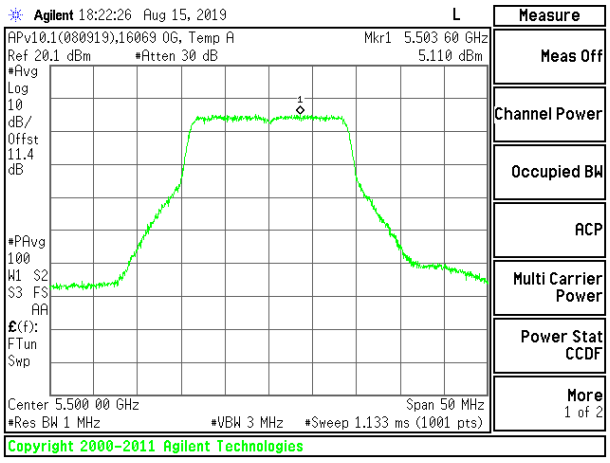
* As per the calculated formula, measured total bandwidth (MHz) /2 +5MHz, the worst bandwidth is 13.92MHz.

Based on the 13.92MHz bandwidth for the portion that the straddle channel occupied in the UNII-2C band, the calculated power limit is 17+10*log(13.92) -6.5 = 21.98 dBm.The total signal power is20.95 dBm which is less than the limit of 21.98dBm.

LOW CHANNEL

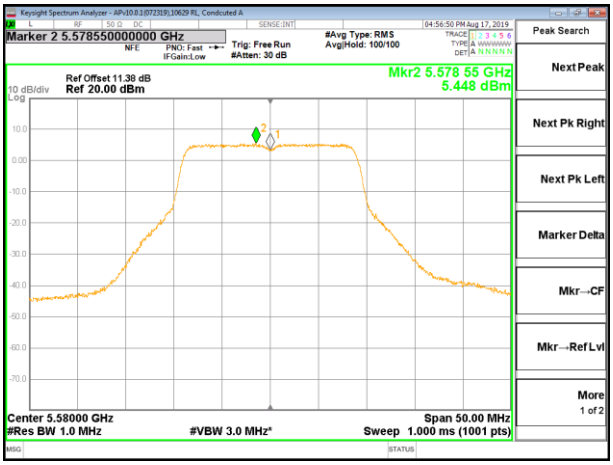


LOW CHANNEL CHAIN 0

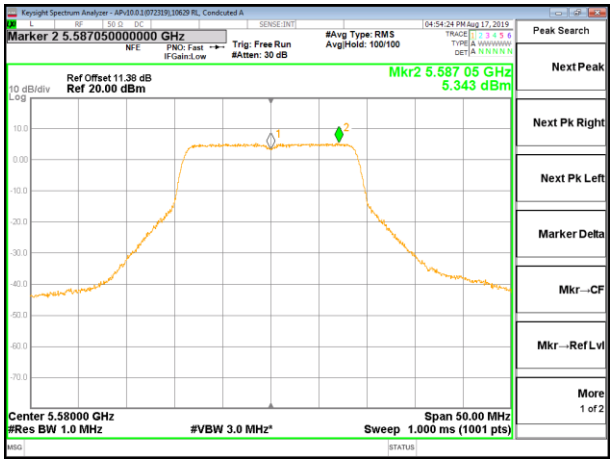


LOW CHANNEL CHAIN 1

MID CHANNEL

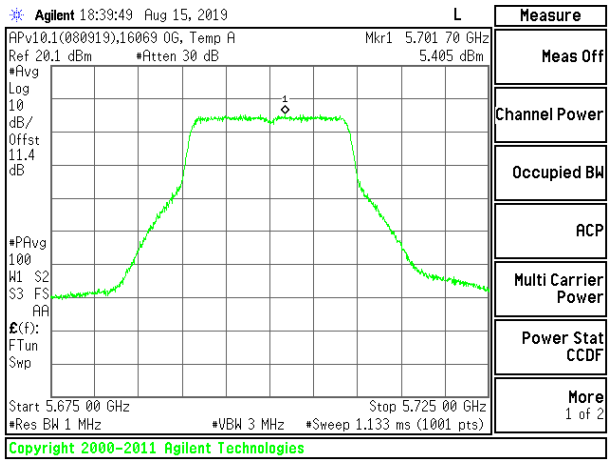


MID CHANNEL CHAIN 0

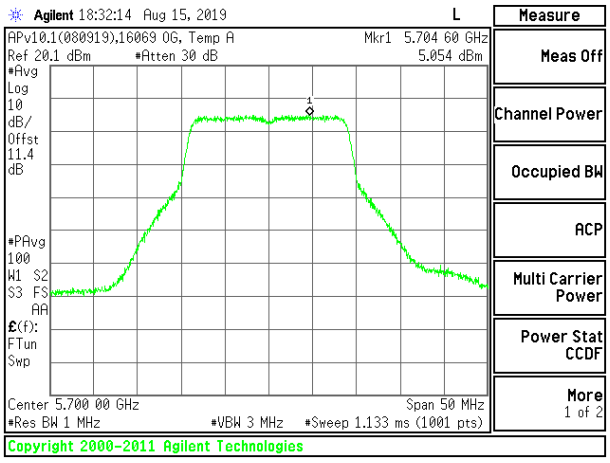


MID CHANNEL CHAIN 1

HIGH CHANNEL

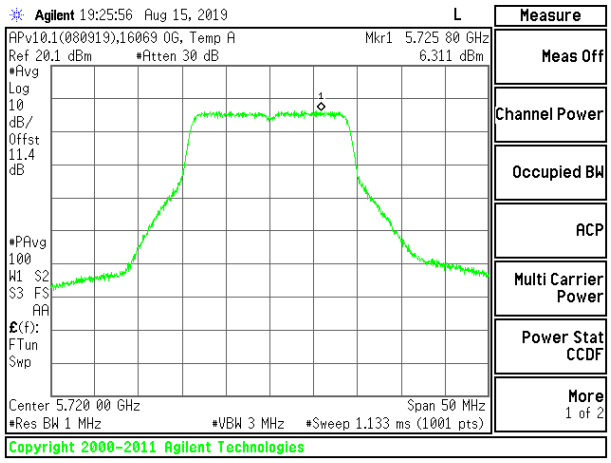


HIGH CHANNEL CHAIN 0

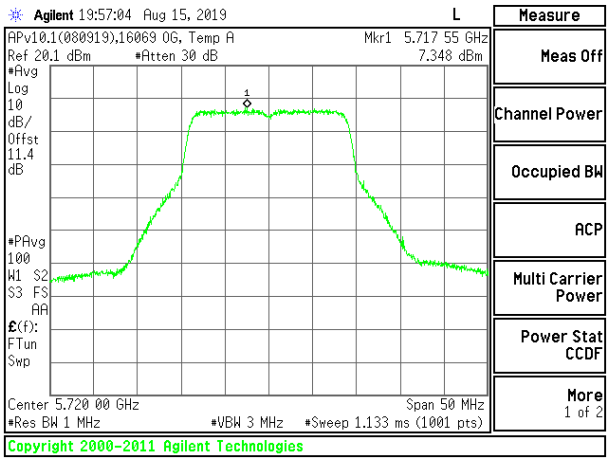


HIGH CHANNEL CHAIN 1

CHANNEL 144



CHANNEL 144 CHAIN 0



CHANNEL 144 CHAIN 1

8.5.12. 802.11n HT40 MODE IN THE 5.6 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5510	45.50	6.45	6.45	23.55	10.55
Mid	5550	44.80	6.45	6.45	23.55	10.55
High	5670	45.40	6.45	6.45	23.55	10.55
*142	5710	47.60	6.45	6.45	23.55	10.55

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

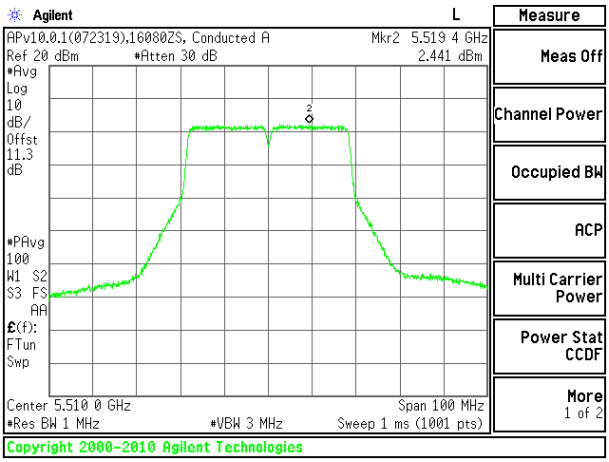
Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	15.53	15.81	18.68	23.55	-4.87
Mid	5550	18.13	18.29	21.22	23.55	-2.33
High	5670	17.14	17.22	20.19	23.55	-3.36
*142	5710	18.56	18.41	21.50	23.55	-2.05

PSD Results

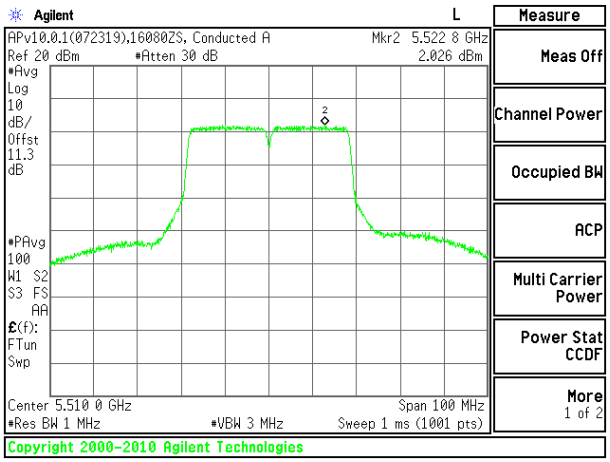
Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5510	2.44	2.03	5.25	10.55	-5.30
Mid	5550	4.42	4.32	7.38	10.55	-3.17
High	5670	3.65	3.58	6.62	10.55	-3.93
*142	5710	5.03	4.84	7.94	10.55	-2.61

*The 26dB signal bandwidth wthin the 5470 -5725 MHz band clearly exceed 20MHz and so the limit for the power within the 5470-5725MHz band is 23.55dBm.

LOW CHANNEL

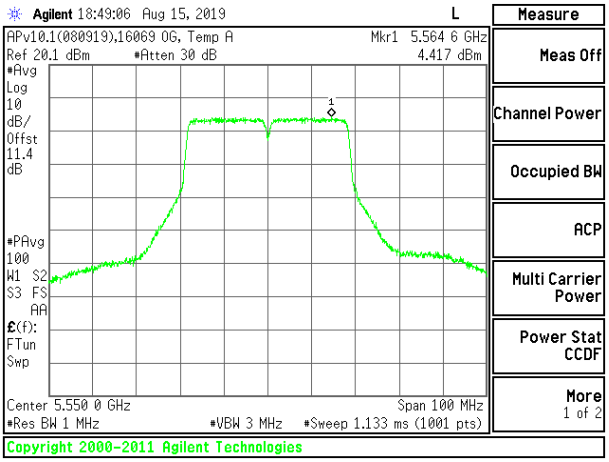


LOW CHANNEL CHAIN 0

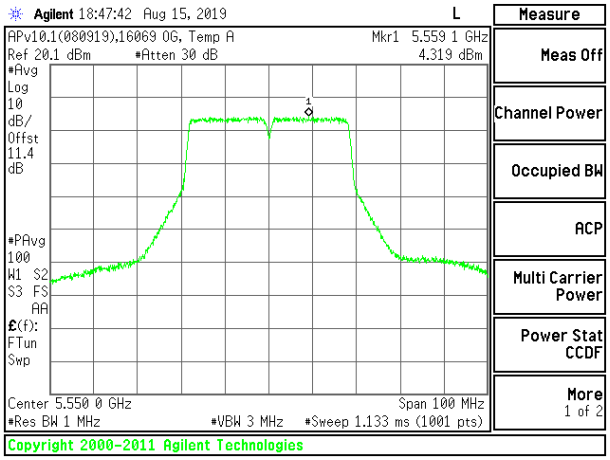


LOW CHANNEL CHAIN 1

MID CHANNEL

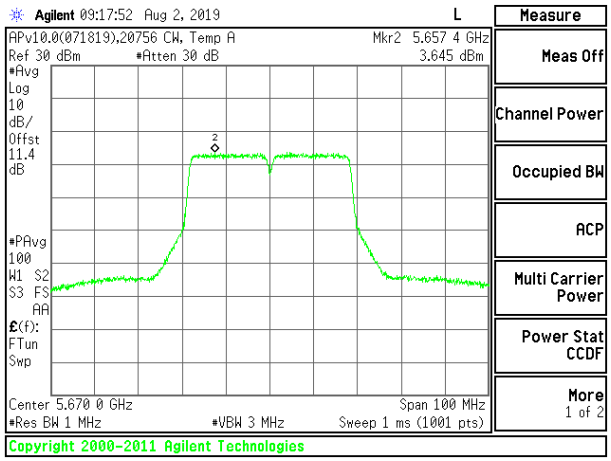


MID CHANNEL CHAIN 0

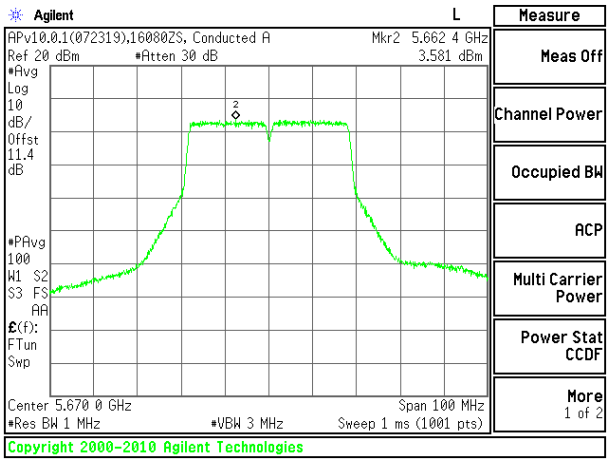


MID CHANNEL CHAIN 1

HIGH CHANNEL

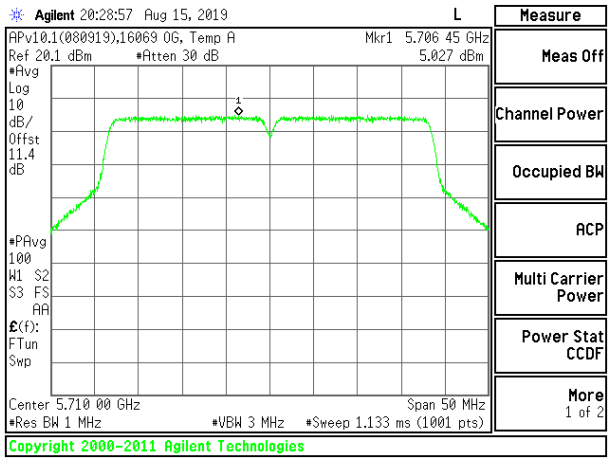


HIGH CHANNEL CHAIN 0

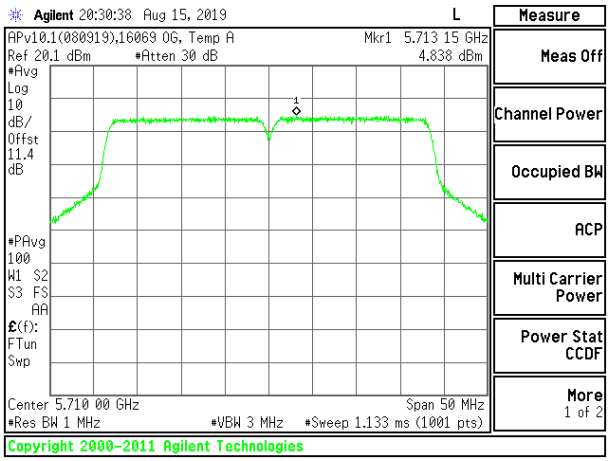


HIGH CHANNEL CHAIN 1

CHANNEL 142



CHANNEL 142 CHAIN 0



CHANNEL 142 CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5510	36.39	6.45	6.45	23.55	11.00
Mid	5550	36.27	6.45	6.45	23.55	11.00
High	5670	36.25	6.45	6.45	23.55	11.00
142	5710	36.36	6.45	6.45	23.55	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

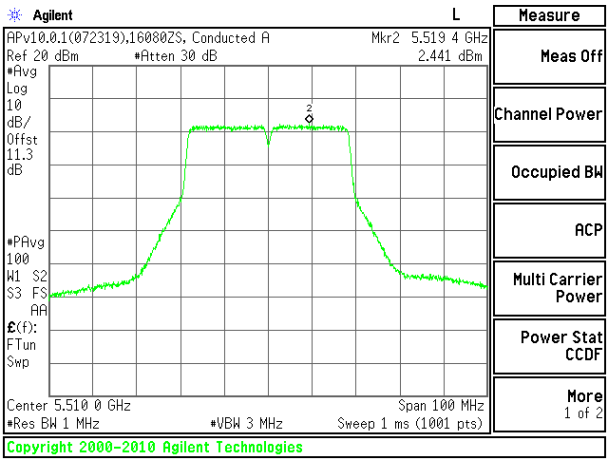
Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	15.53	15.81	18.68	23.55	-4.87
Mid	5550	18.13	18.29	21.22	23.55	-2.33
High	5670	17.14	17.22	20.19	23.55	-3.36
142	5710	18.56	18.41	21.50	23.55	-2.05

PSD Results

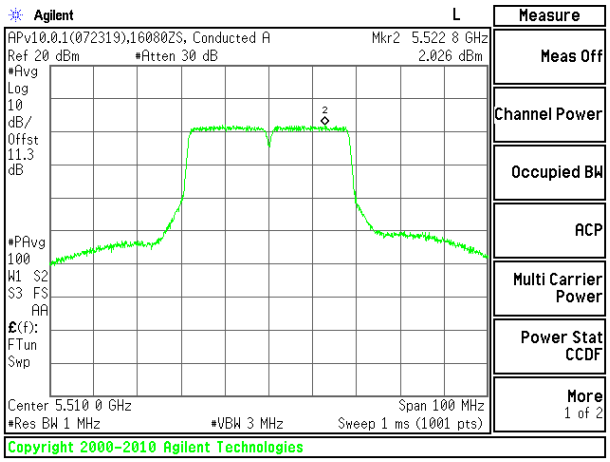
Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5510	2.44	2.03	5.25	11.00	-5.75
Mid	5550	4.42	4.32	7.38	11.00	-3.62
High	5670	3.65	3.58	6.62	11.00	-4.38
142	5710	5.03	4.84	7.94	11.00	-3.06

*The 99% signal bandwidth wthin the 5470 -5725 MHz band clearly exceed 20MHz and so the limit for the power within the 5470-5725MHz band is 23.55dBm.

LOW CHANNEL

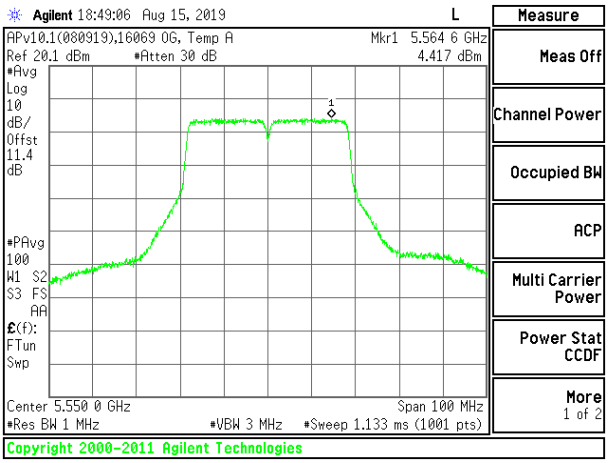


LOW CHANNEL CHAIN 0

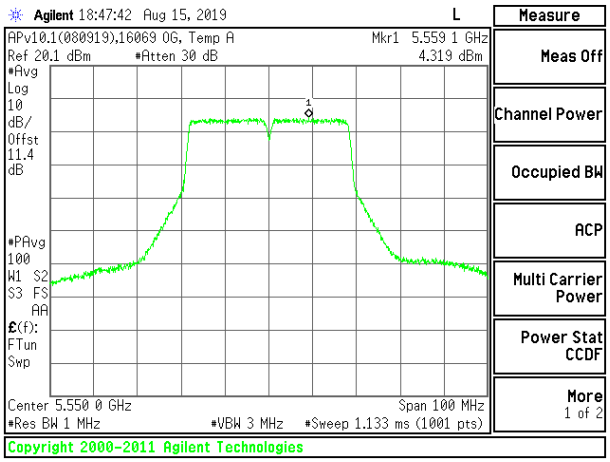


LOW CHANNEL CHAIN 1

MID CHANNEL

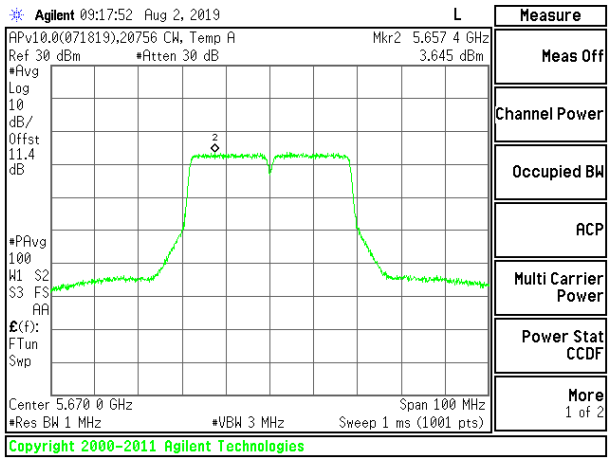


MID CHANNEL CHAIN 0

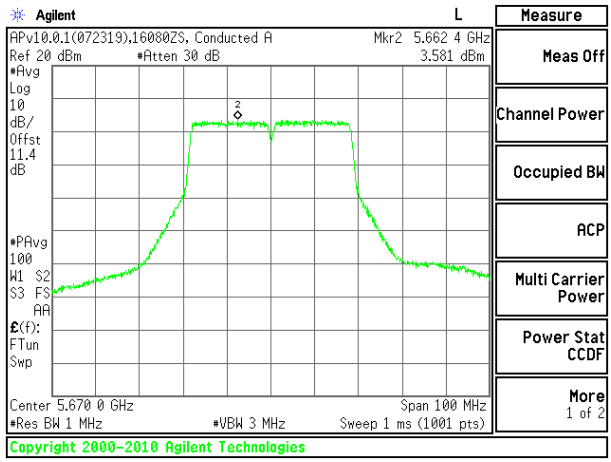


MID CHANNEL CHAIN 1

HIGH CHANNEL

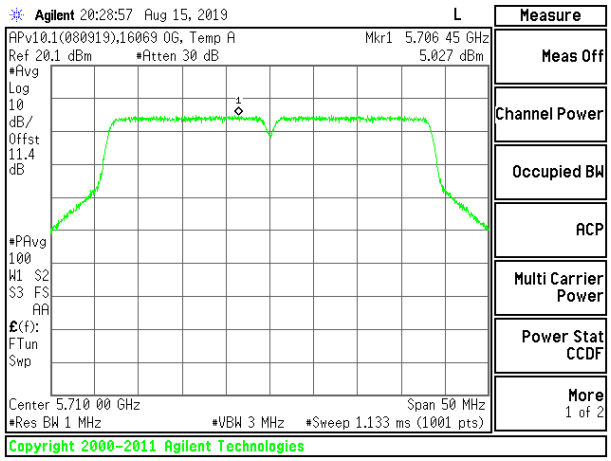


HIGH CHANNEL CHAIN 0

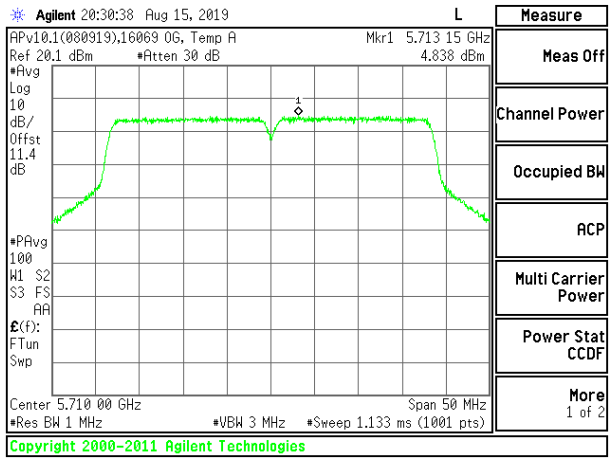


HIGH CHANNEL CHAIN 1

CHANNEL 142



CHANNEL 142 CHAIN 0



CHANNEL 142 CHAIN 1

8.5.13. 802.11ac VHT80 MODE IN THE 5.6 GHz BAND

2TX Antenna 1 + Antenna 2 SDM MODE (FCC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5530	85.40	6.45	6.45	23.55	10.55
High	5610	85.20	6.45	6.45	23.55	10.55
138	5690	85.80	6.45	6.45	23.55	10.55

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

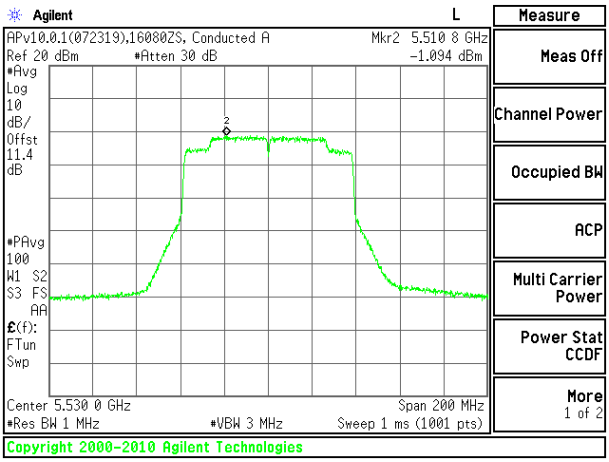
Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	15.34	15.73	18.55	23.55	-5.00
High	5610	18.36	18.57	21.48	23.55	-2.07
138	5690	18.82	18.62	21.73	23.55	-1.82

PSD Results

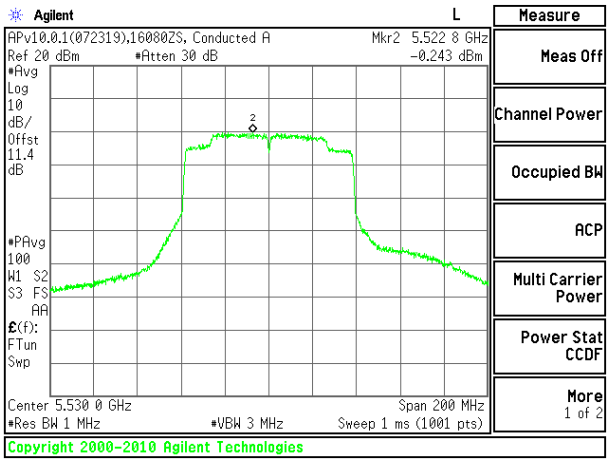
Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5530	-1.09	-0.24	2.36	10.55	-8.19
High	5610	2.96	2.52	5.75	10.55	-4.80
138	5690	3.09	2.81	5.96	10.55	-4.59

*The 26dB signal bandwidth wthin the 5470 -5725 MHz band clearly exceed 20MHz and so the limit for the power within the 5470-5725MHz band is 23.55dBm.

LOW CHANNEL

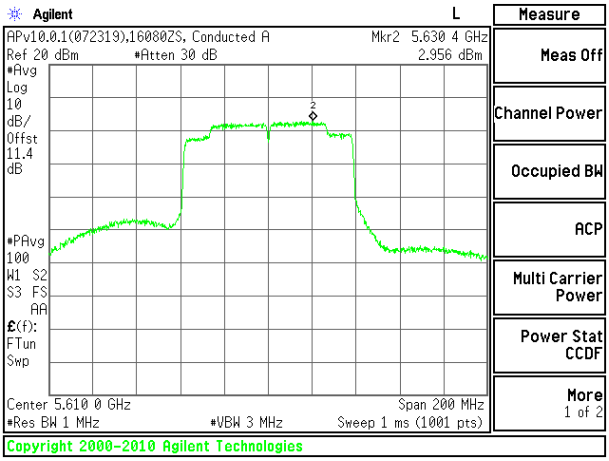


LOW CHANNEL CHAIN 0

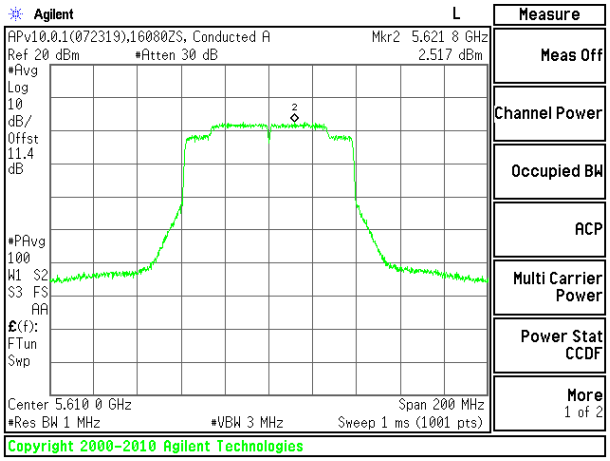


LOW CHANNEL CHAIN 1

HIGH CHANNEL

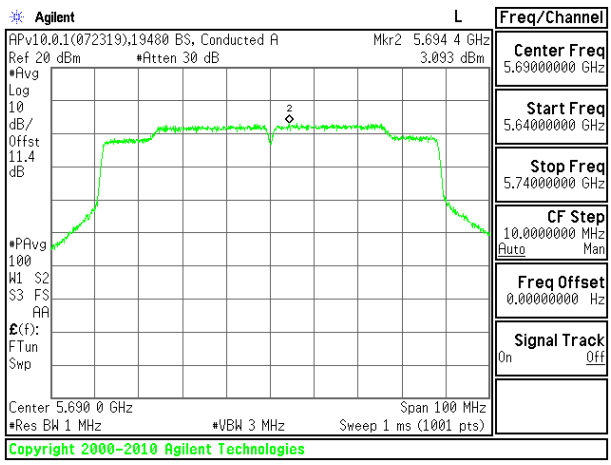


HIGH CHANNEL CHAIN 0

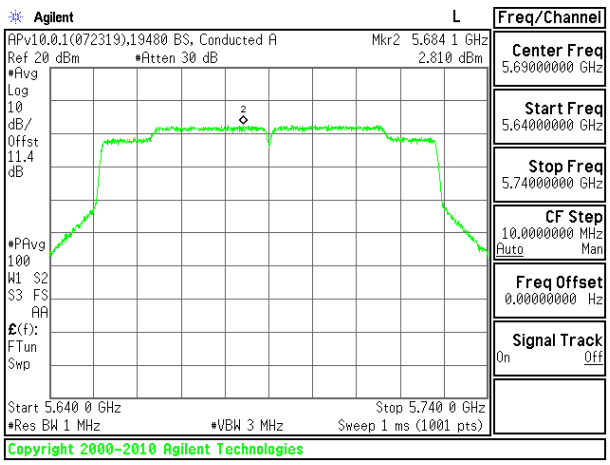


HIGH CHANNEL CHAIN 1

CHANNEL 138



CHANNEL 138 CHAIN 0



CHANNEL 138 CHAIN 1

2TX Antenna 1 + Antenna 2 SDM MODE (IC)

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm/ 1MHz)
Low	5530	75.13	6.45	6.45	23.55	11.00
High	5610	74.85	6.45	6.45	23.55	11.00
138	5690	75.06	6.45	6.45	23.55	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD

Output Power Results

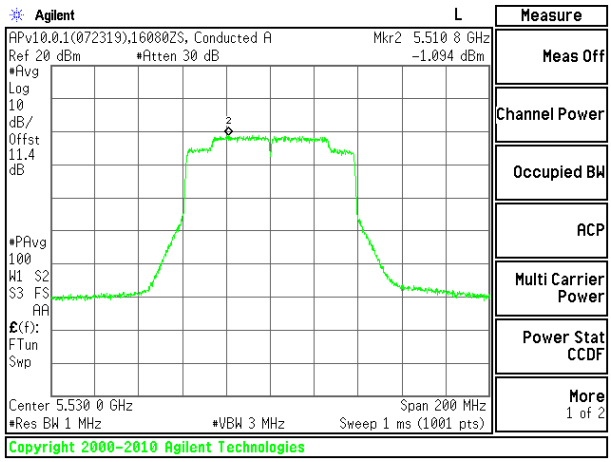
Channel	Frequency (MHz)	Antenna 1 Meas Power (dBm)	Antenna 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	15.34	15.73	18.55	23.55	-5.00
High	5610	18.36	18.57	21.48	23.55	-2.07
138	5690	18.82	18.62	21.73	23.55	-1.82

PSD Results

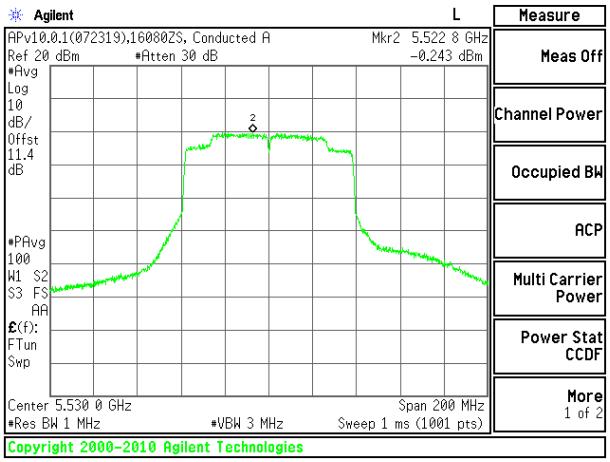
Channel	Frequency (MHz)	Antenna 1 Meas PSD (dBm/ 1MHz)	Antenna 2 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5530	-1.09	-0.24	2.36	11.00	-8.64
High	5610	2.96	2.52	5.75	11.00	-5.25
138	5690	3.09	2.81	5.96	11.00	-5.04

*The 99% signal bandwidth wthin the 5470 -5725 MHz band clearly exceed 20MHz and so the limit for the power within the 5470-5725MHz band is 23.55dBm.

LOW CHANNEL

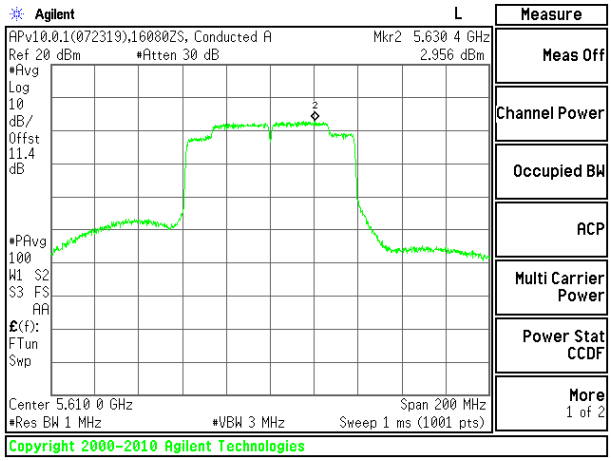


LOW CHANNEL CHAIN 0

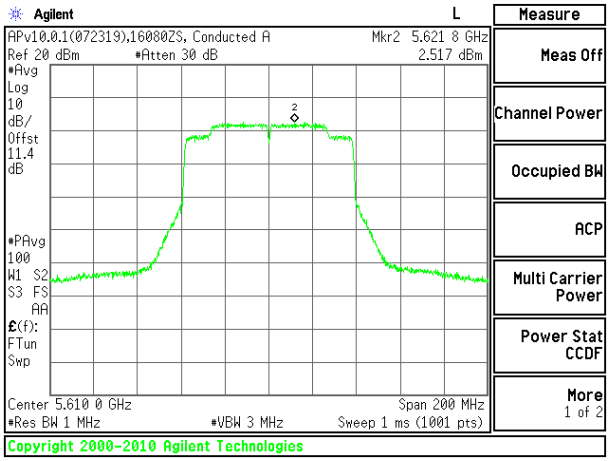


LOW CHANNEL CHAIN 1

HIGH CHANNEL

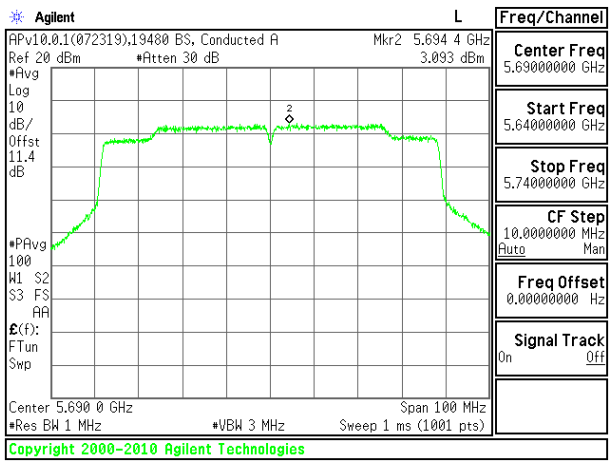


HIGH CHANNEL CHAIN 0

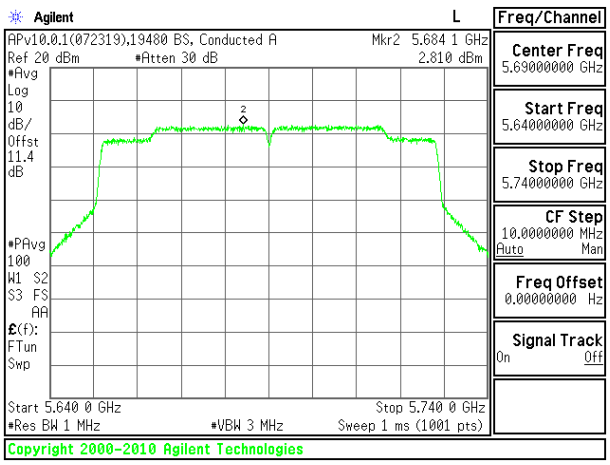


HIGH CHANNEL CHAIN 1

CHANNEL 138



CHANNEL 138 CHAIN 0



CHANNEL 138 CHAIN 1