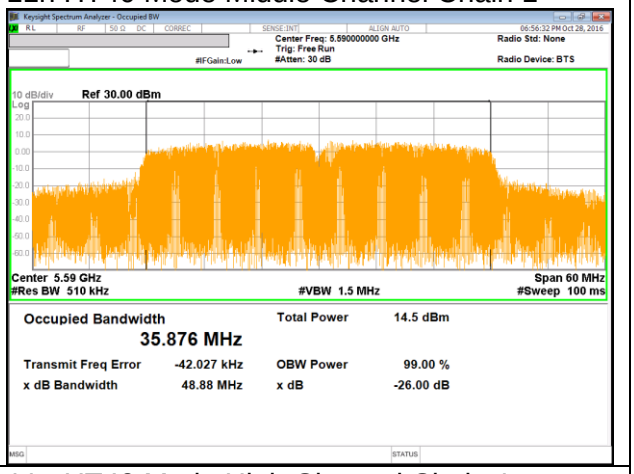
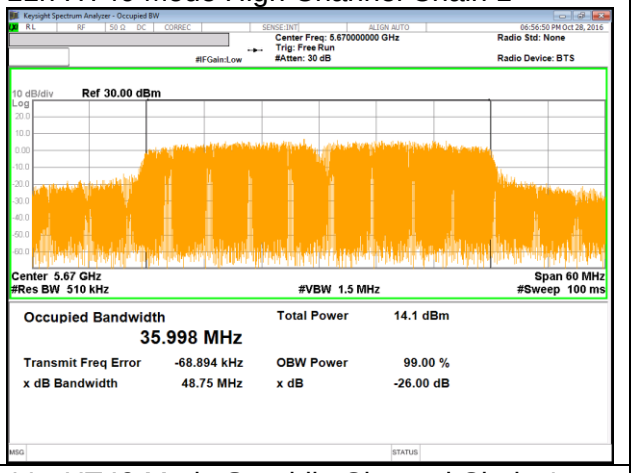
11n HT40 Mode Middle Channel Chain 0

11n HT40 Mode Middle Channel Chain 1



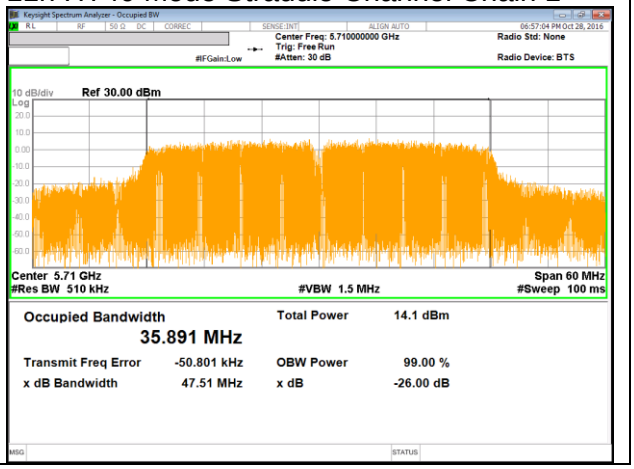
11n HT40 Mode High Channel Chain 0

11n HT40 Mode High Channel Chain 1



11n HT40 Mode Straddle Channel Chain 0

11n HT40 Mode Straddle Channel Chain 1



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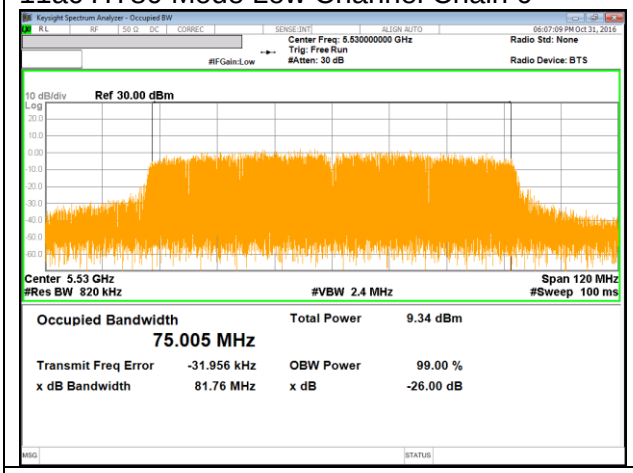
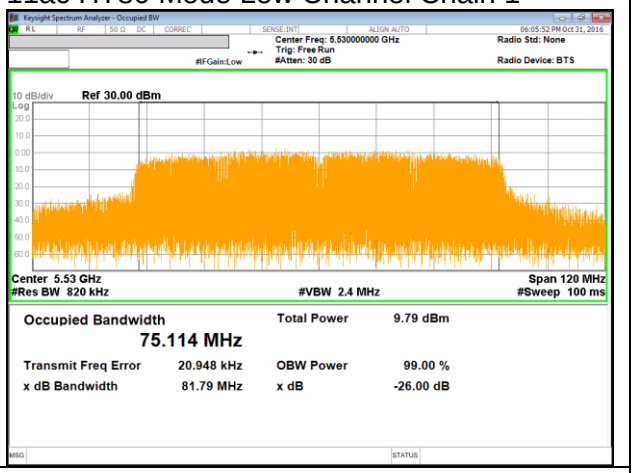
UNII 5.5 GHz IEEE 802.11ac VHT80 mode

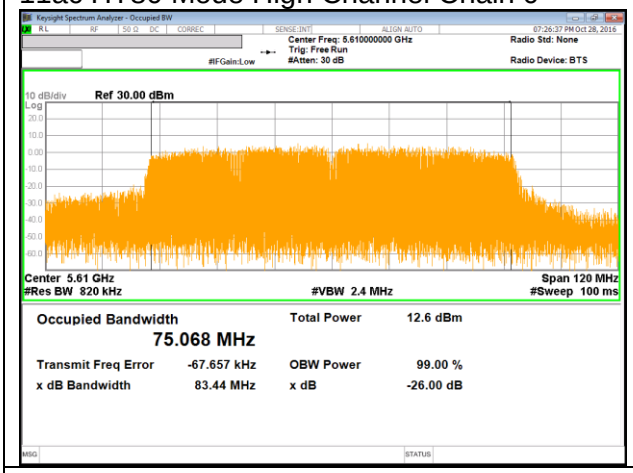
11ac HT80 Mode Low Channel Chain 0



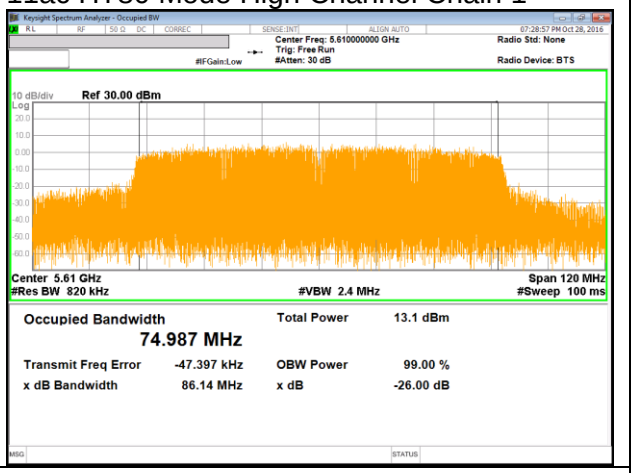
11ac HT80 Mode Low Channel Chain 1



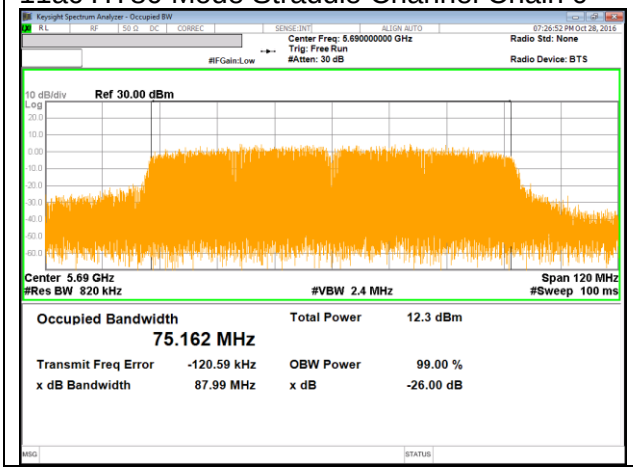
11ac HT80 Mode High Channel Chain 0



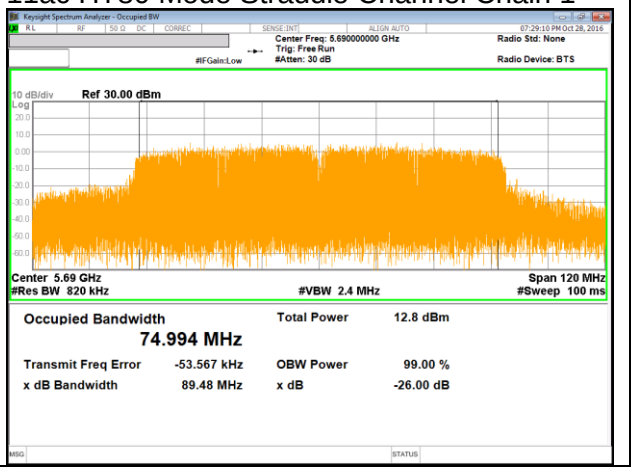
11ac HT80 Mode High Channel Chain 1



11ac HT80 Mode Straddle Channel Chain 0



11ac HT80 Mode Straddle Channel Chain 1



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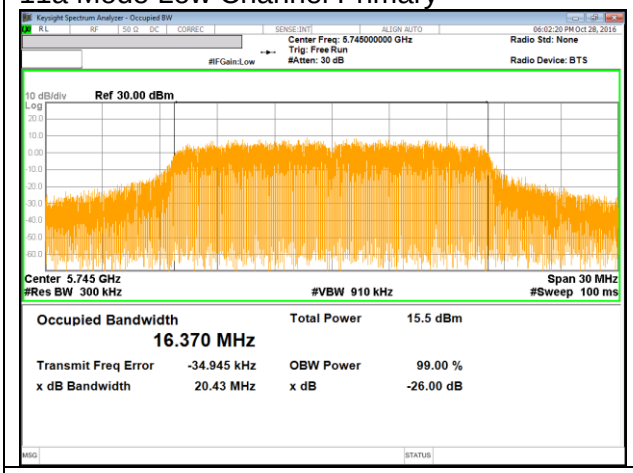
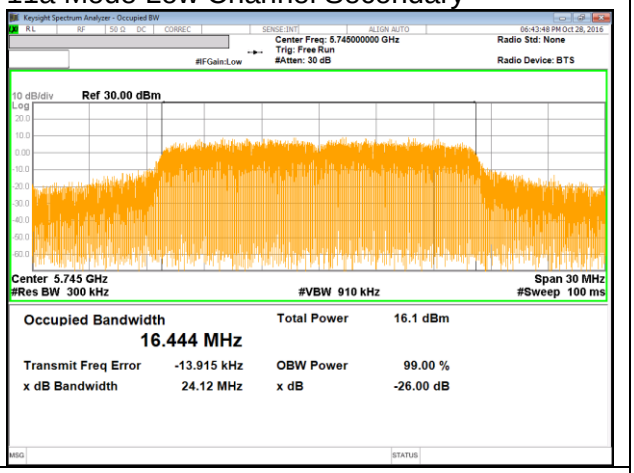
UNII 5.8 GHz IEEE 802.11a mode

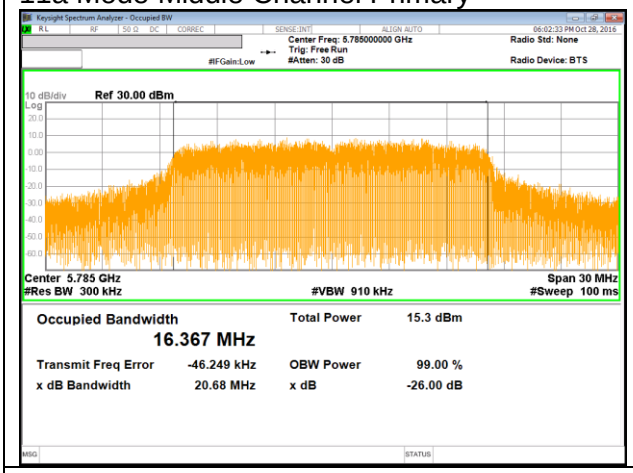
11a Mode Low Channel Primary



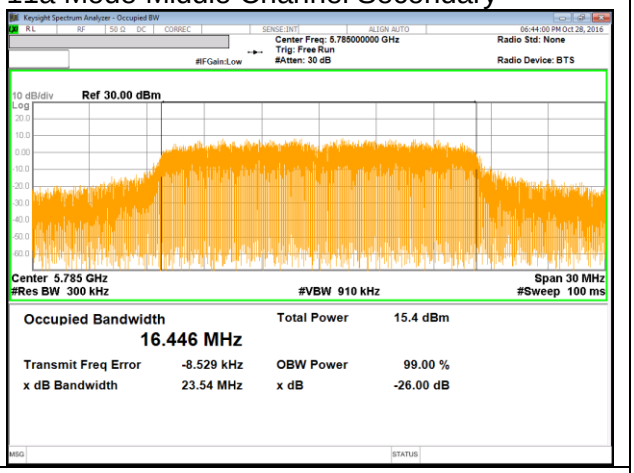
11a Mode Low Channel Secondary



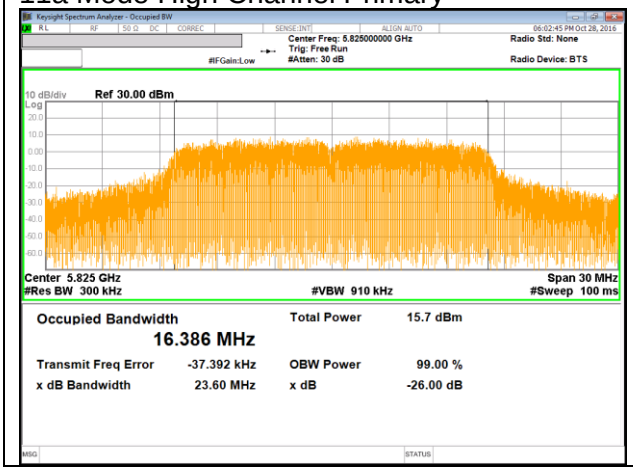
11a Mode Middle Channel Primary



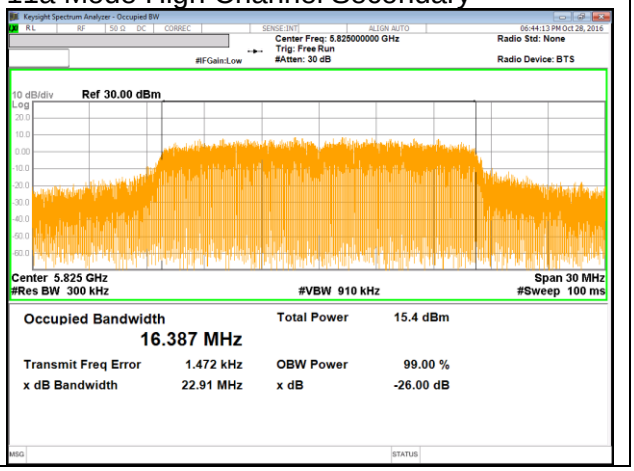
11a Mode Middle Channel Secondary



11a Mode High Channel Primary



11a Mode High Channel Secondary



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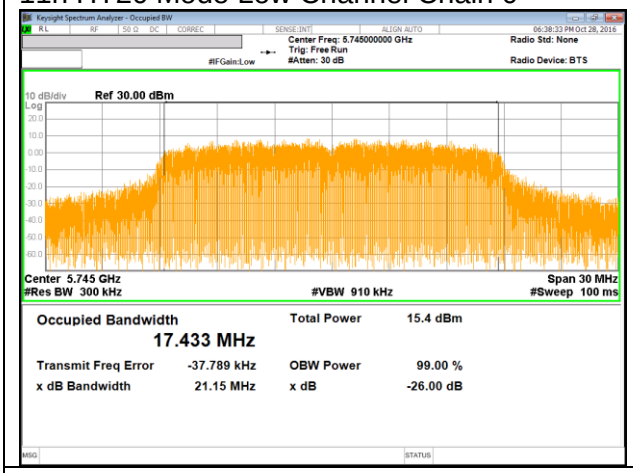
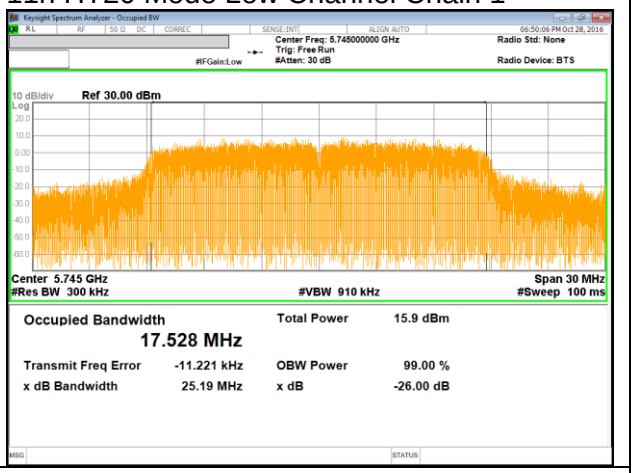
UNII 5.8 GHz IEEE 802.11n HT20 mode

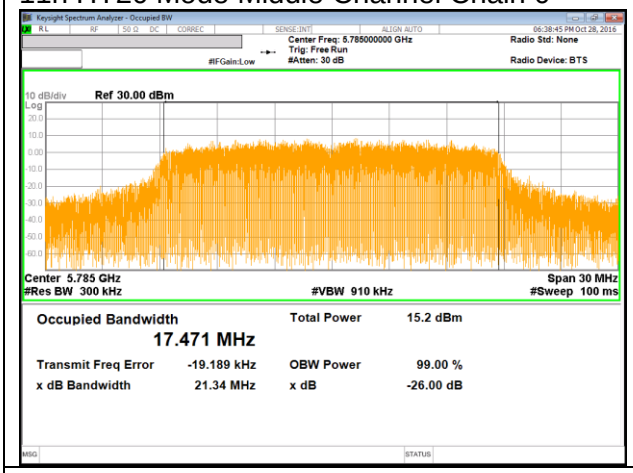
11n HT20 Mode Low Channel Chain 0



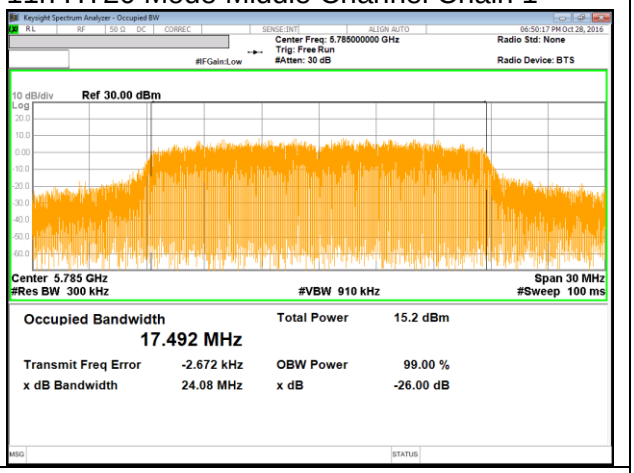
11n HT20 Mode Low Channel Chain 1



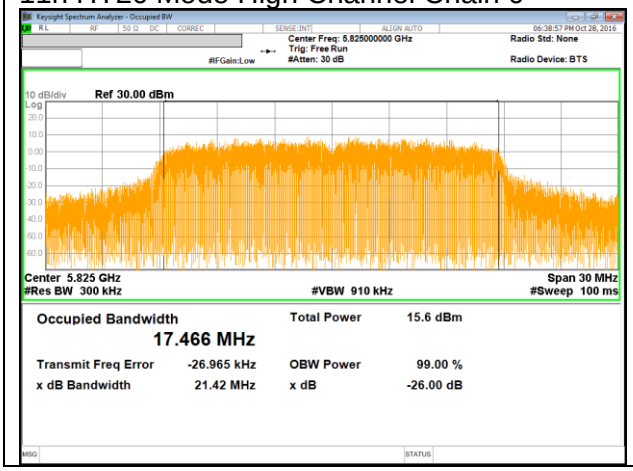
11n HT20 Mode Middle Channel Chain 0



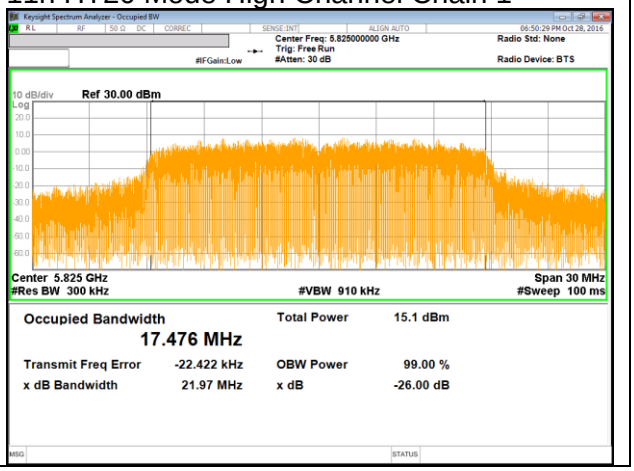
11n HT20 Mode Middle Channel Chain 1



11n HT20 Mode High Channel Chain 0



11n HT20 Mode High Channel Chain 1



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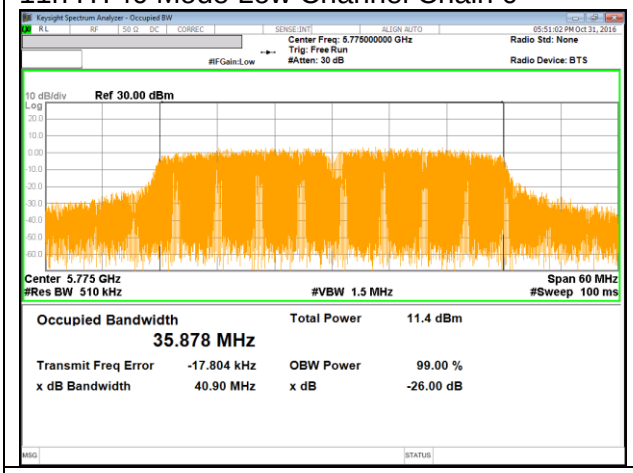
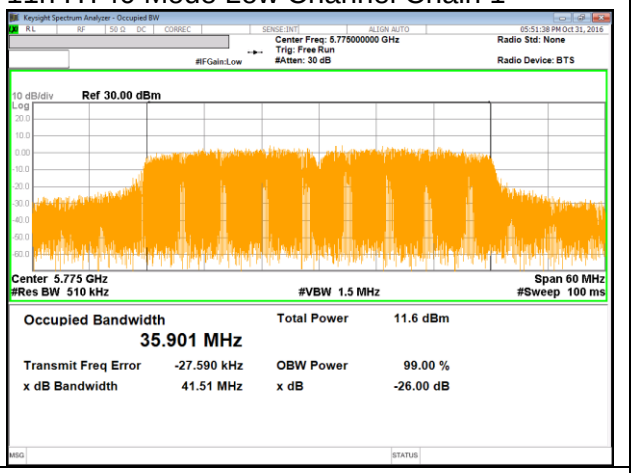
UNII 5.8 GHz IEEE 802.11n HT40 mode

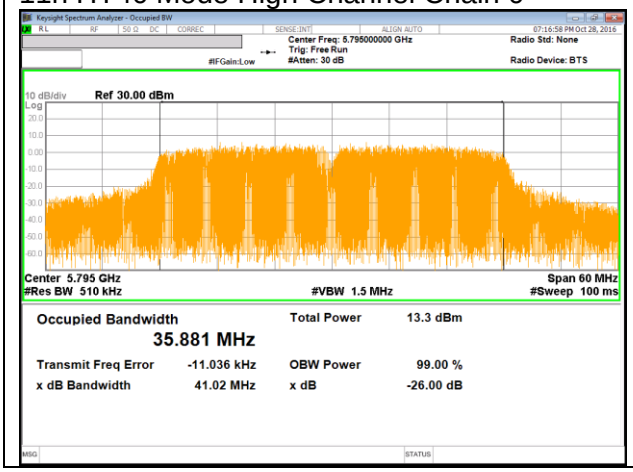
11n HT40 Mode Low Channel Chain 0



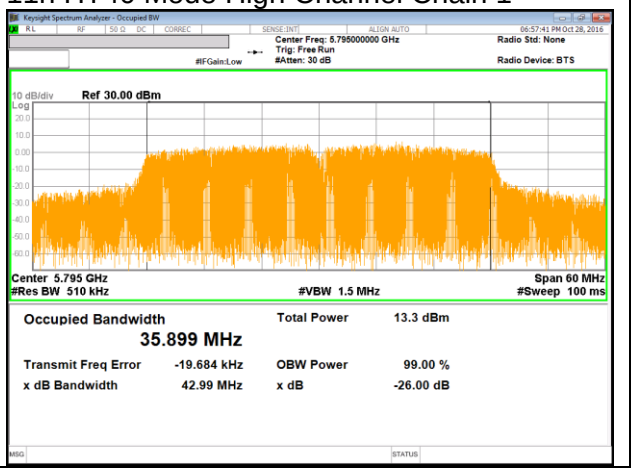
11n HT40 Mode Low Channel Chain 1



11n HT40 Mode High Channel Chain 0



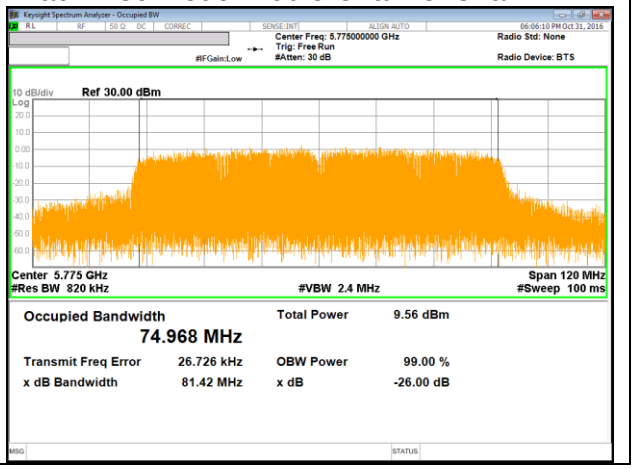
11n HT40 Mode High Channel Chain 1



UNII 5.8 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel Chain 0

11ac HT80 Mode Middle Channel Chain 1



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10.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (1) (2) (3)

FCC

For the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

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DIRECTIONAL ANTENNA GAIN

For OUTPUT POWER and PSD: The TX chains are correlated and the antenna gains are unequal among the chains. The directional gain is:

Frequency Band [MHz]	Chain 0 Antenna Gain [dBi]	Chain 1 Antenna Gain [dBi]	Correlated Chains Directional Gain [dBi]
5150 - 5250	1.10	-0.10	3.53
5250 - 5350	1.60	1.90	4.76
5470 - 5725	1.10	2.40	4.78
5725 - 5850	0.60	3.00	4.89

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RESULTS

10.4.1. 802.11a MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5180	21.31	16.39	3.53	3.53
Mid	5200	21.41	16.39	3.53	3.53
High	5240	21.60	16.38	3.53	3.53

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC EIRP Limit [dBm]	Max IC Power Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC eirp PSD Limit [dBm]	PPSD Limit [dBm]
Low	5180	24.00	22.15	18.62	18.62	11.00	6.47	6.47
Mid	5200	24.00	22.14	18.61	18.61	11.00	6.47	6.47
High	5240	24.00	22.14	18.61	18.61	11.00	6.47	6.47

Duty Cycle CF [dB]	1.66	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Primary Antenna 1 Power [dBm]	Secondary Antenna 2 Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5180	10.77	11.40	15.77	18.62	-2.85
Mid	5200	10.70	10.87	15.46	18.61	-3.16
High	5240	10.96	11.44	15.88	18.61	-2.74

PPSD Results

Channel	Frequency [MHz]	Primary Antenna 1 PPSD [dBm]	Secondary Antenna 2 PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5180	1.22	1.56	6.06	6.47	-0.41
Mid	5200	1.21	1.24	5.89	6.47	-0.58
High	5240	1.16	1.61	6.06	6.47	-0.41

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10.4.2. 802.11n HT20 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5180	22.67	17.50	3.53	3.53
Mid	5200	21.38	17.49	3.53	3.53
High	5240	20.74	17.48	3.53	3.53

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC EIRP Limit [dBm]	Max IC Power Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC eirp PSD Limit [dBm]	PPSD Limit [dBm]
Low	5180	24.00	22.43	18.90	18.90	11.00	6.47	6.47
Mid	5200	24.00	22.43	18.90	18.90	11.00	6.47	6.47
High	5240	24.00	22.43	18.89	18.89	11.00	6.47	6.47

Duty Cycle CF [dB]	1.65	Included in Calculations of Corr'd Power & PPSD

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	5180	10.44	11.07	15.43	18.90	-3.47
Mid	5200	10.50	11.07	15.46	18.90	-3.44
High	5240	10.73	11.32	15.69	18.89	-3.20

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5180	0.63	1.17	5.57	6.47	-0.90
Mid	5200	0.87	1.54	5.88	6.47	-0.59
High	5240	0.78	1.59	5.86	6.47	-0.60

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10.4.3. 802.11n HT40 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5190	48.75	30.00	3.53	3.53
High	5230	55.93	36.00	3.53	3.53

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC EIRP Limit [dBm]	Max IC Power Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC eirp PSD Limit [dBm]	PPSD Limit [dBm]
Low	5190	24.00	23.00	19.47	19.47	11.00	6.47	6.47
High	5230	24.00	23.00	19.47	19.47	11.00	6.47	6.47

Duty Cycle CF [dB]	2.53	Included in Calculations of Corr'd Power & PPSD

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	5190	11.05	10.83	16.49	19.47	-2.98
High	5230	13.29	13.07	18.73	19.47	-0.74

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5190	-1.44	-2.07	3.80	6.47	-2.67
High	5230	0.63	0.14	5.93	6.47	-0.54

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10.4.4. 802.11ac VHT80 MODE IN THE 5.2 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Middle	5210	93.60	75.19	3.53	3.53

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC EIRP Limit [dBm]	Max IC Power Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC eirp PSD Limit [dBm]	PPSD Limit [dBm]
Middle	5210	24.00	23.00	19.47	19.47	11.00	6.47	6.47

Duty Cycle CF [dB]	3.34	Included in Calculations of Corr'd Power & PPSD

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]
Middle	5210	9.00	8.66	15.18	19.47	-4.29

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Middle	5210	-6.36	-6.37	-0.01	6.47	-6.48

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10.4.5. 802.11a MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5260	30.11	16.47	4.76	4.76
Mid	5300	30.17	16.49	4.76	4.76
High	5320	31.68	16.48	4.76	4.76

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5260	24.00	23.17	29.17	23.17	11.00	11.00	11.00
Mid	5300	24.00	23.17	29.17	23.17	11.00	11.00	11.00
High	5320	24.00	23.39	29.17	23.39	11.00	11.00	11.00

Duty Cycle CF [dB]	1.66	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Primary Antenna 1 Power [dBm]	Secendary Antenna 2 Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5260	15.67	15.63	20.32	23.17	-2.85
Mid	5300	15.96	15.00	20.18	23.17	-3.00
High	5320	15.74	15.07	20.09	23.39	-3.30

PPSD Results

Channel	Frequency [MHz]	Primary Antenna 1 PPSD [dBm]	Secendary Antenna 2 PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5260	5.80	6.02	10.58	11.00	-0.42
Mid	5300	6.11	5.32	10.41	11.00	-0.59
High	5320	6.04	5.49	10.45	11.00	-0.55

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10.4.6. 802.11n HT20 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5260	30.09	17.58	4.76	4.76
Mid	5300	30.16	17.54	4.76	4.76
High	5320	30.16	17.49	4.76	4.76

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5260	24.00	23.45	29.45	23.45	11.00	11.00	11.00
Mid	5300	24.00	23.44	29.44	23.44	11.00	11.00	11.00
High	5320	24.00	23.43	29.43	23.43	11.00	11.00	11.00

Duty Cycle CF [dB]	1.65	Included in Calculations of Corr'd Power & PPSD

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	15.48	15.42	20.11	23.45	-3.34
Mid	5300	15.68	14.84	19.94	23.44	-3.50
High	5320	15.48	15.44	20.12	23.43	-3.31

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5260	5.89	5.57	10.39	11.00	-0.61
Mid	5300	6.01	5.03	10.21	11.00	-0.79
High	5320	5.55	5.80	10.34	11.00	-0.66

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10.4.7. 802.11n HT40 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5270	56.23	36.18	4.76	4.76
High	5310	48.32	35.90	4.76	4.76

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5270	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5310	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF [dB]	2.53	Included in Calculations of Corr'd Power & PPSD

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	5270	15.42	15.09	20.80	24.00	-3.20
High	5310	11.55	11.20	16.92	24.00	-7.08

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5270	2.76	2.67	8.26	11.00	-2.74
High	5310	-1.18	-1.60	4.16	11.00	-6.84

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10.4.8. 802.11ac VHT80 MODE IN THE 5.3 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Middle	5290	92.83	75.14	4.76	4.76

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Middle	5290	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF [dB]	3.34	Included in Calculations of Corr'd Power & PPSD

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]
Middle	5290	8.47	8.01	14.60	24.00	-9.40

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Middle	5290	-6.43	-7.08	-0.39	11.00	-11.39

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10.4.9. 802.11a MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5500	22.56	16.44	4.78	4.78
Mid	5580	23.53	16.45	4.78	4.78
High	5700	24.00	16.45	4.78	4.78

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5500	24.00	23.16	29.16	23.16	11.00	11.00	11.00
Mid	5580	24.00	23.38	29.16	23.38	11.00	11.00	11.00
High	5700	24.00	23.38	29.16	23.38	11.00	11.00	11.00

Duty Cycle CF [dB]	1.66	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Primary Antenna 1 Power [dBm]	Secendary Antenna 2 Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5500	15.91	15.09	20.19	23.16	-2.97
Mid	5580	15.59	15.17	20.06	23.38	-3.32
High	5700	15.22	15.51	20.03	23.38	-3.35

PPSD Results

Channel	Frequency [MHz]	Primary Antenna 1 PPSD [dBm]	Secendary Antenna 2 PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5500	5.89	5.30	10.27	11.00	-0.73
Mid	5580	5.79	5.86	10.49	11.00	-0.51
High	5700	5.87	5.62	10.41	11.00	-0.59

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10.4.10. 802.11n HT20 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5500	22.50	17.54	4.78	4.78
Mid	5580	22.04	17.55	4.78	4.78
High	5700	22.74	17.50	4.78	4.78

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5500	24.00	23.44	29.44	23.44	11.00	11.00	11.00
Mid	5580	24.00	23.44	29.44	23.44	11.00	11.00	11.00
High	5700	24.00	23.43	29.43	23.43	11.00	11.00	11.00

Duty Cycle CF [dB]	1.65	Included in Calculations of Corr'd Power & PPSD

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	5500	15.56	15.30	20.09	23.44	-3.35
Mid	5580	15.65	15.50	20.23	23.44	-3.21
High	5700	15.75	15.85	20.46	23.43	-2.97

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5500	5.97	5.48	10.39	11.00	-0.61
Mid	5580	5.79	5.82	10.47	11.00	-0.53
High	5700	5.67	6.13	10.56	11.00	-0.44

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10.4.11. 802.11n HT40 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5510	45.75	35.88	4.78	4.78
Mid	5590	48.00	35.88	4.78	4.78
High	5670	48.86	36.00	4.78	4.78

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5510	24.00	24.00	30.00	24.00	11.00	11.00	11.00
Mid	5590	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5670	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF [dB]	2.53	Included in Calculations of Corr'd Power & PPSD

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	5510	13.09	12.50	18.35	24.00	-5.65
Mid	5590	15.41	15.30	20.90	24.00	-3.10
High	5670	15.65	15.26	21.00	24.00	-3.00

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5510	0.58	0.02	5.85	11.00	-5.15
Mid	5590	3.03	2.25	8.20	11.00	-2.80
High	5670	2.97	2.45	8.26	11.00	-2.74

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10.4.12. 802.11ac VHT80 MODE IN THE 5.5 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5530	89.88	75.11	4.78	4.78
High	5610	92.57	75.07	4.78	4.78

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5530	24.00	24.00	30.00	24.00	11.00	11.00	11.00
High	5610	24.00	24.00	30.00	24.00	11.00	11.00	11.00

Duty Cycle CF [dB]	3.34	Included in Calculations of Corr'd Power & PPSD

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	5530	10.83	10.24	16.89	24.00	-7.11
High	5610	12.75	13.34	19.40	24.00	-4.60

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5530	-4.63	-5.14	1.47	11.00	-9.53
High	5610	-2.46	-0.79	4.80	11.00	-6.20

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10.4.13. 802.11a MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5745	23.91	16.44	4.89	4.89
Mid	5785	21.25	16.45	4.89	4.89
High	5825	21.76	16.39	4.89	4.89

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	Max IC Power Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5745	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Mid	5785	30.00	30.00	30.00	30.00	30.00	30.00	30.00
High	5825	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Duty Cycle CF [dB]	1.66	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Channel	Frequency [MHz]	Primary Antenna 1 Power [dBm]	Secendary Antenna 2 Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
Low	5745	15.83	15.53	20.35	30.00	-9.65
Mid	5785	15.49	15.47	20.15	30.00	-9.85
High	5825	15.68	15.17	20.10	30.00	-9.90

PPSD Results

Channel	Frequency [MHz]	Primary Antenna 1 PPSD [dBm]	Secendary Antenna 2 PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5745	3.08	2.81	7.61	30.00	-22.39
Mid	5785	2.94	2.90	7.59	30.00	-22.41
High	5825	3.12	2.42	7.45	30.00	-22.55

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10.4.14. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5745	23.12	17.53	4.89	4.89
Mid	5785	21.71	17.49	4.89	4.89
High	5825	21.95	17.48	4.89	4.89

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	Max IC Power Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5745	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Mid	5785	30.00	30.00	30.00	30.00	30.00	30.00	30.00
High	5825	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Duty Cycle CF [dB]	1.65	Included in Calculations of Corr'd Power & PPSD

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	5745	15.62	15.78	20.36	30.00	-9.64
Mid	5785	15.29	15.17	19.89	30.00	-10.11
High	5825	15.48	15.16	19.98	30.00	-10.02

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5745	2.92	3.25	7.75	30.00	-22.25
Mid	5785	2.62	2.88	7.41	30.00	-22.59
High	5825	2.97	3.20	7.75	30.00	-22.25

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10.4.15. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Low	5755	43.29	35.90	4.89	4.89
High	5795	47.42	35.90	4.89	4.89

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	Max IC Power Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Low	5755	30.00	30.00	30.00	30.00	30.00	30.00	30.00
High	5795	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Duty Cycle CF [dB]	2.53	Included in Calculations of Corr'd Power & PPSD

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	5755	12.55	13.05	18.35	30.00	-11.65
High	5795	14.36	14.50	19.97	30.00	-10.03

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Low	5755	-2.72	-1.89	3.26	30.00	-26.74
High	5795	-0.91	-0.52	4.84	30.00	-25.16

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10.4.16. 802.11ac VHT80 MODE IN THE 5.8 GHz BAND

Bandwidth and Antenna Gain

Channel	Frequency [MHz]	Min 26 dB BW [MHz]	Min 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
Middle	5775	84.71	75.05	4.89	4.89

Limits

Channel	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	Max IC Power Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
Middle	5775	30.00	30.00	30.00	30.00	30.00	30.00	30.00

Duty Cycle CF [dB]	3.34	Included in Calculations of Corr'd Power & PPSD

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]
Middle	5775	10.59	11.00	17.15	30.00	-12.85

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
Middle	5775	-7.54	-6.89	-0.85	30.00	-30.85

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10.4.17. 802.11a MODE AT STRADDLE CHANNEL

Bandwidth and Antenna Gain

Portion	Frequency [MHz]	Antenna 1 26 dB BW [MHz]	Antenna 2 26 dB BW [MHz]	Antenna 1 99% BW [MHz]	Antenna 2 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
UNII-2C	5720	15.17	16.49	13.18	13.20	4.78	4.78
UNII-3	5720	5.17	6.49	3.18	3.20	4.78	4.78
Whole	5720	20.34	22.99	16.36	16.40	4.78	4.78

Limits

Portion	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	IC EIRP Limit [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
UNII-2C	5720	22.81	22.20	28.81	22.20	11.00	11.00	11.00
UNII-3	5720	30.00	30.00		30.00	30.00	30.00	30.00
Whole	5720	24.00	23.14	30.00	23.14	11.00	11.00	11.00

Duty Cycle CF [dB]	1.66	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Portion	Frequency [MHz]	Primary Antenna 1 Power [dBm]	Secendary Antenna 2 Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
UNII-2C	5720	15.23	14.86	19.72	22.20	-2.48
UNII-3	5720	7.81	7.73	12.44	30.00	-17.56
Whole	5720	15.95	15.63	20.46	23.14	-2.67

PPSD Results

Channel	Frequency [MHz]	Primary Antenna 1 PPSD [dBm]	Secendary Antenna 2 PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
144	5720	6.23	5.57	10.58	11.00	-0.42

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10.4.18. 802.11n HT20 MODE AT STRADDLE CHANNEL

Bandwidth and Antenna Gain

Portion	Frequency [MHz]	Chain 0 26 dB BW [MHz]	Chain 1 26 dB BW [MHz]	Chain 0 99% BW [MHz]	Chain 1 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
UNII-2C	5720	14.99	15.98	13.71	13.74	4.78	4.78
UNII-3	5720	4.99	5.98	3.71	3.74	4.78	4.78
Whole	5720	19.97	21.96	17.42	17.49	4.78	4.78

Limits

Portion	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	Max IC Power [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
UNII-2C	5720	22.76	22.37	28.76	22.76	11.00	11.00	11.00
UNII-3	5720	30.00	30.00		30.00	30.00	30.00	30.00
Whole	5720	24.00	23.41	30.00	23.41	11.00	11.00	11.00

Duty Cycle CF [dB]	1.65	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Portion	Frequency [MHz]	Chain 0 Meas Power [dBm]	Chain 1 Meas Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
UNII-2C	5720	14.71	14.65	19.34	22.76	-3.42
UNII-3	5720	7.36	7.96	12.33	30.00	-17.67
Whole	5720	15.45	15.49	20.13	23.41	-3.28

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
144	5720	5.81	5.54	10.34	11.00	-0.66

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10.4.19. 802.11n HT40 MODE AT STRADDLE CHANNEL

Bandwidth and Antenna Gain

Portion	Frequency [MHz]	Chain 0 26 dB BW [MHz]	Chain 1 26 dB BW [MHz]	Chain 0 99% BW [MHz]	Chain 1 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
UNII-2C	5710	36.65	38.45	32.94	32.95	4.78	4.78
UNII-3	5710	6.65	8.45	2.94	2.95	4.78	4.78
Whole	5710	43.31	46.90	35.87	35.89	4.78	4.78

Limits

Portion	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	Max IC Power [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
UNII-2C	5710	24.00	23.00	19.22	19.22	11.00	11.00	11.00
UNII-3	5710	30.00	30.00		30.00	30.00	30.00	30.00
Whole	5710	24.00	23.00	19.22	19.22	11.00	11.00	11.00

Duty Cycle CF [dB]	2.53	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Portion	Frequency [MHz]	Chain 0 Meas Power [dBm]	Chain 1 Meas Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
UNII-2C	5710	15.39	15.19	20.84	24.00	-3.16
UNII-3	5710	3.32	3.44	8.92	30.00	-21.08
Whole	5710	15.65	15.47	21.11	24.00	-2.89

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
142	5710	2.94	3.08	8.56	11.00	-2.44

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10.4.20. 802.11ac VHT80 MODE AT STRADDLE CHANNEL

Bandwidth and Antenna Gain

Portion	Frequency [MHz]	Chain 0 26 dB BW [MHz]	Chain 1 26 dB BW [MHz]	Chain 0 99% BW [MHz]	Chain 1 99% BW [MHz]	Directional Gain for Power [dBi]	Directional Gain for PPSD [dBi]
UNII-2C	5690	77.39	77.39	72.58	72.50	4.78	4.78
UNII-3	5690	7.39	7.39	2.58	2.50	4.78	4.78
Whole	5690	84.77	84.77	75.16	74.99	4.78	4.78

Limits

Portion	Frequency [MHz]	FCC Power Limit [dBm]	IC Power Limit [dBm]	Max IC Power [dBm]	Power Limit [dBm]	FCC PPSD Limit [dBm]	IC PSD Limit [dBm]	PPSD Limit [dBm]
UNII-2C	5690	24.00	23.00	19.22	19.22	11.00	11.00	11.00
UNII-3	5690	30.00	30.00		30.00	30.00	30.00	30.00
Whole	5690	24.00	23.00	19.22	19.22	11.00	11.00	11.00

Duty Cycle CF [dB]	3.34	Included in Calculations of Corr'd Power & PPSD

Output Power Results

Portion	Frequency [MHz]	Chain 0 Meas Power [dBm]	Chain 1 Meas Power [dBm]	Total Corr'd Power [dBm]	Power Limit [dBm]	Power Margin [dB]
UNII-2C	5690	12.81	13.35	19.44	24.00	-4.56
UNII-3	5690	-2.89	-2.98	3.41	30.00	-26.59
Whole	5690	12.93	13.45	19.55	24.00	-4.45

PPSD Results

Channel	Frequency [MHz]	Chain 0 Meas PPSD [dBm]	Chain 1 Meas PPSD [dBm]	Total Corr'd PPSD [dBm]	PPSD Limit [dBm]	PPSD Margin [dB]
138	5690	-2.21	-1.72	4.39	11.00	-6.61

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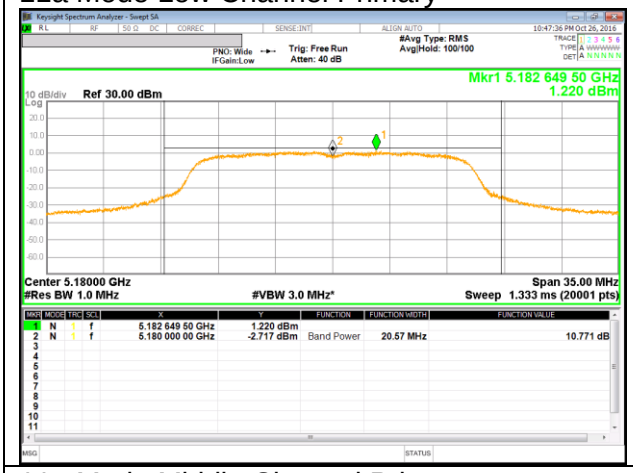
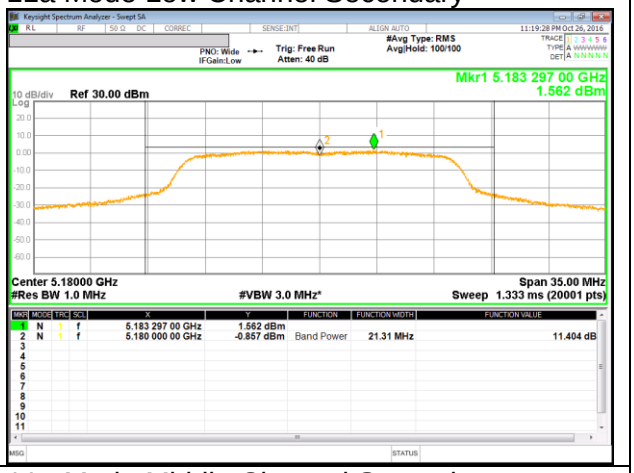
10.4.21. OUTPUT POWER AND PPSD PLOTS

UNII 5.2 GHz IEEE 802.11a mode

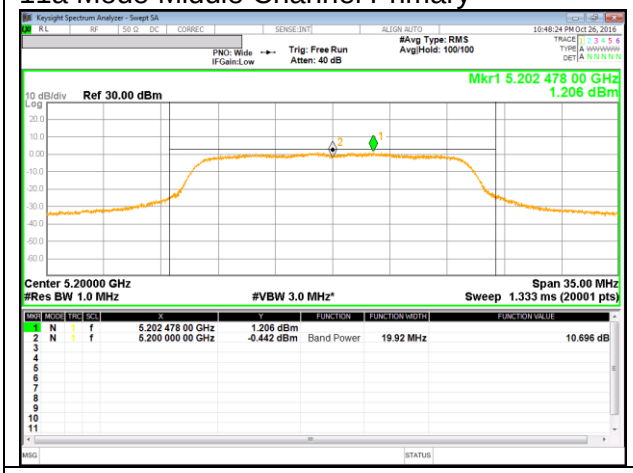
11a Mode Low Channel Primary



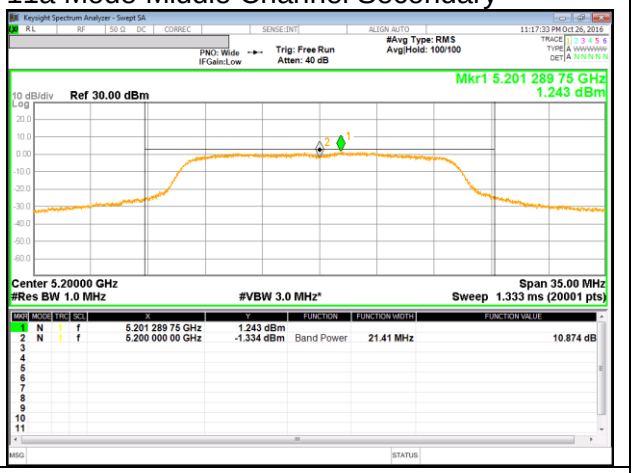
11a Mode Low Channel Secondary



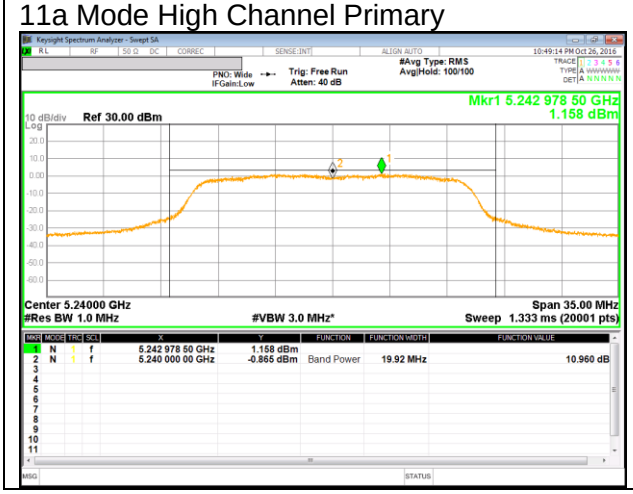
11a Mode Middle Channel Primary



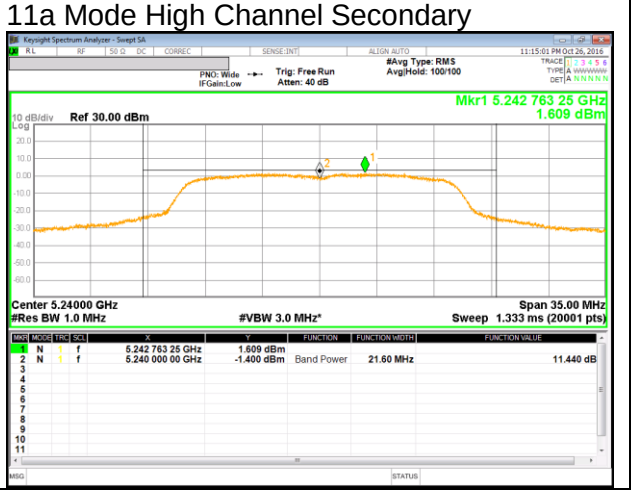
11a Mode Middle Channel Secondary



11a Mode High Channel Primary



11a Mode High Channel Secondary



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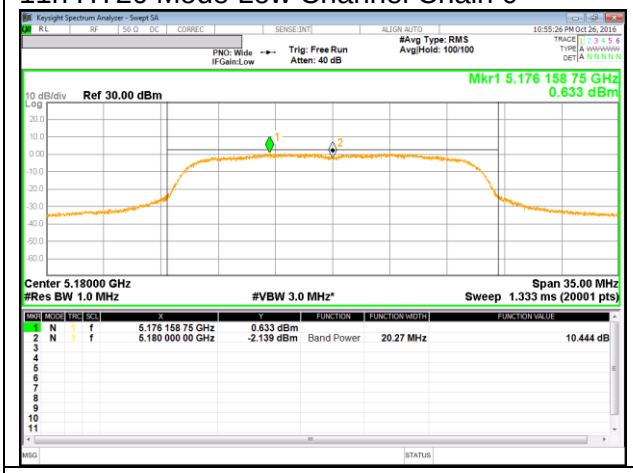
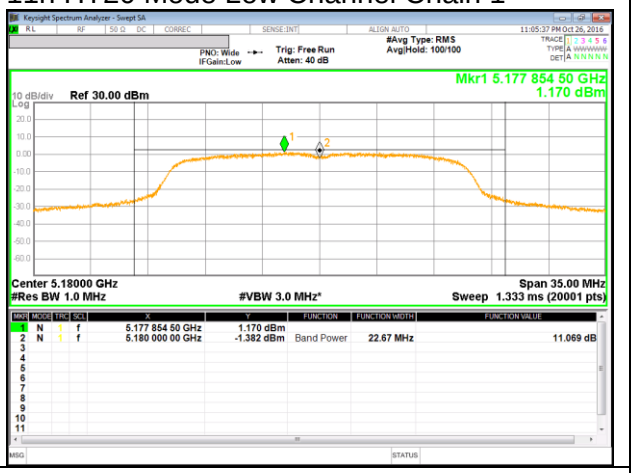
UNII 5.2 GHz IEEE 802.11n HT20 mode

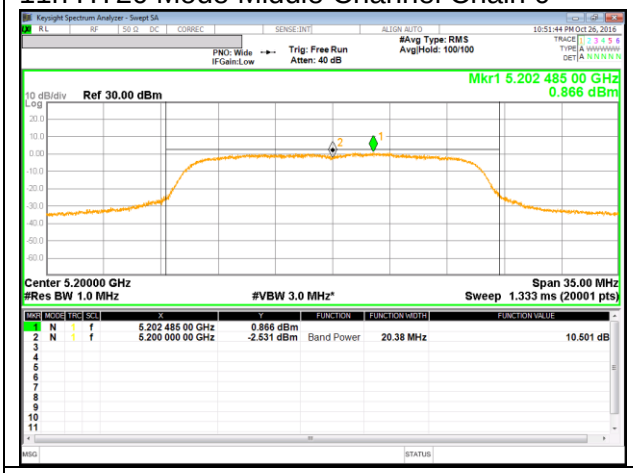
11n HT20 Mode Low Channel Chain 0



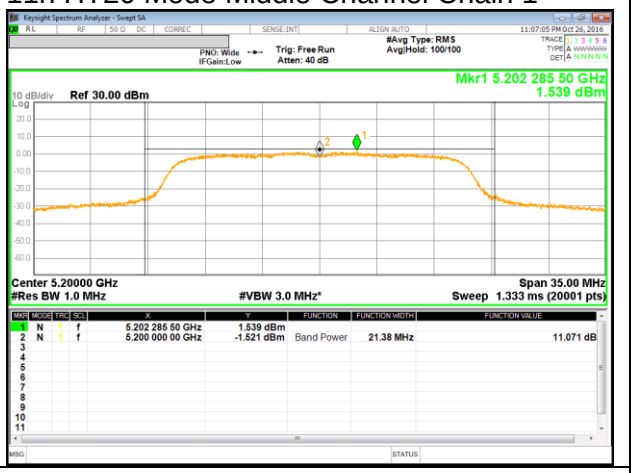
11n HT20 Mode Low Channel Chain 1



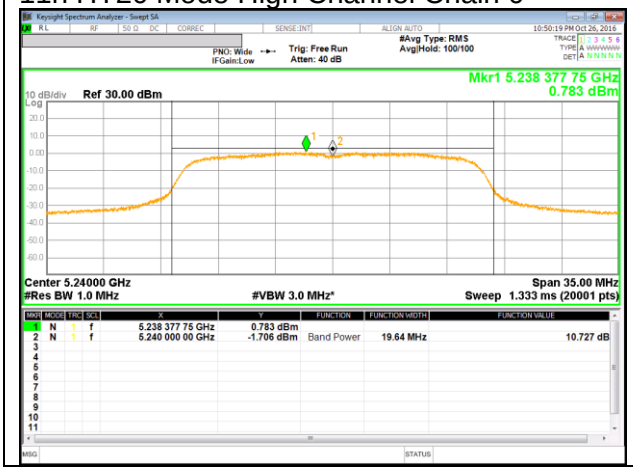
11n HT20 Mode Middle Channel Chain 0



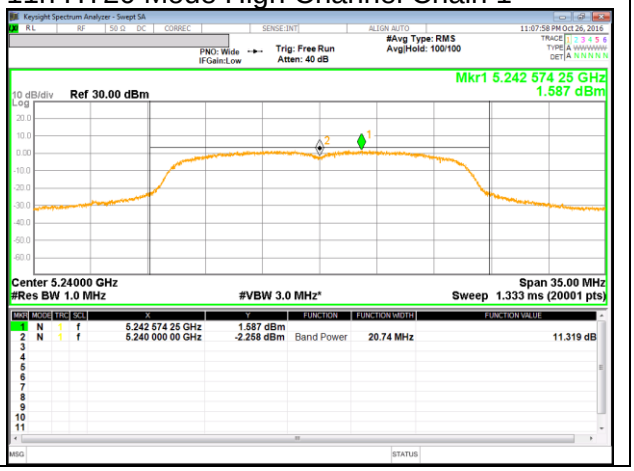
11n HT20 Mode Middle Channel Chain 1



11n HT20 Mode High Channel Chain 0



11n HT20 Mode High Channel Chain 1



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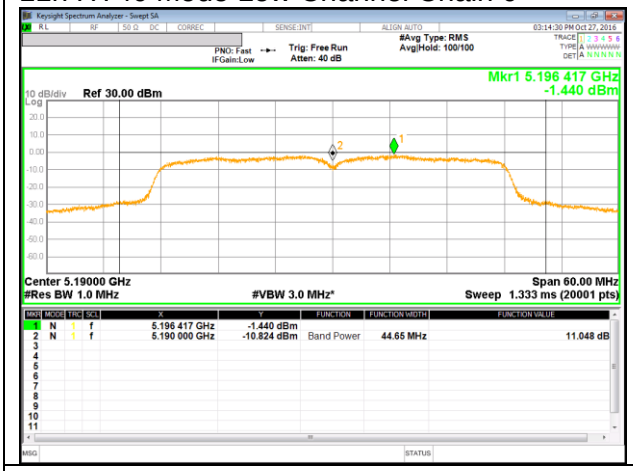
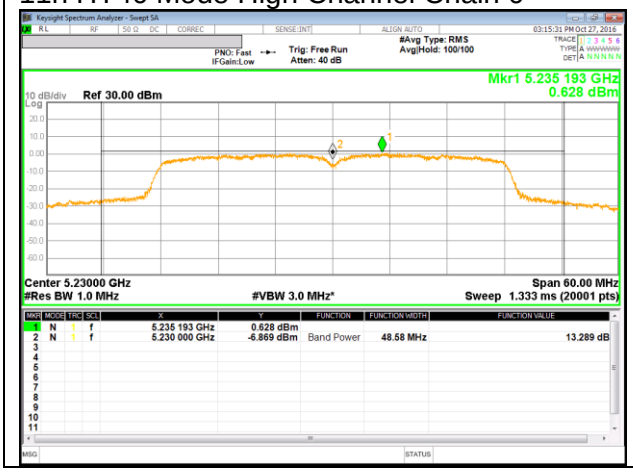
UNII 5.2 GHz IEEE 802.11n HT40 mode

11n HT40 Mode Low Channel Chain 0

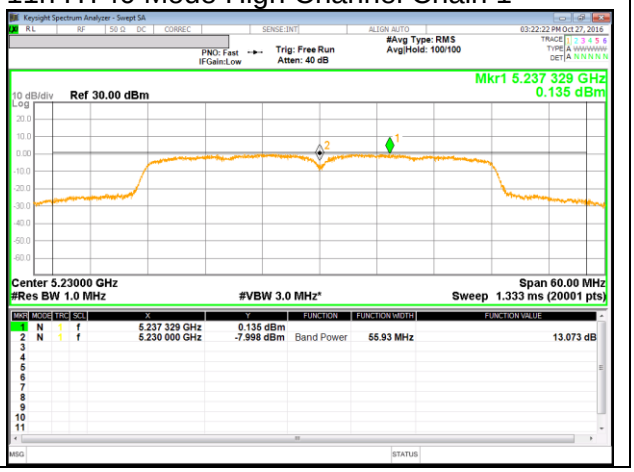


11n HT40 Mode Low Channel Chain 1

11n HT40 Mode High Channel Chain 0

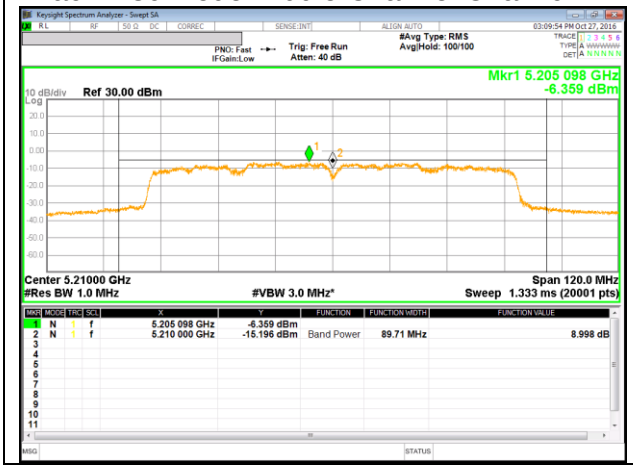


11n HT40 Mode High Channel Chain 1



UNII 5.2 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel Chain 0



11ac HT80 Mode Middle Channel Chain 1

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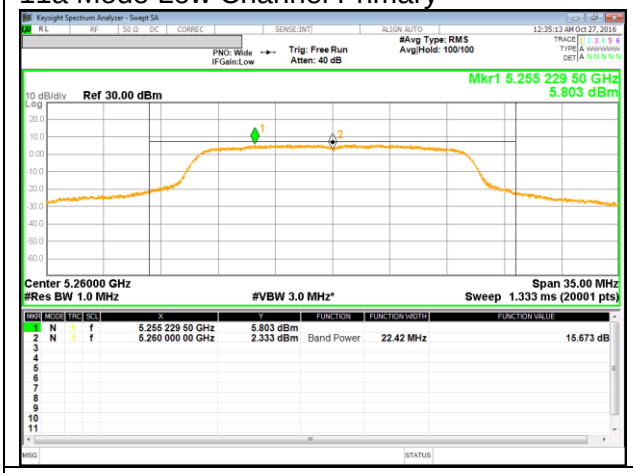
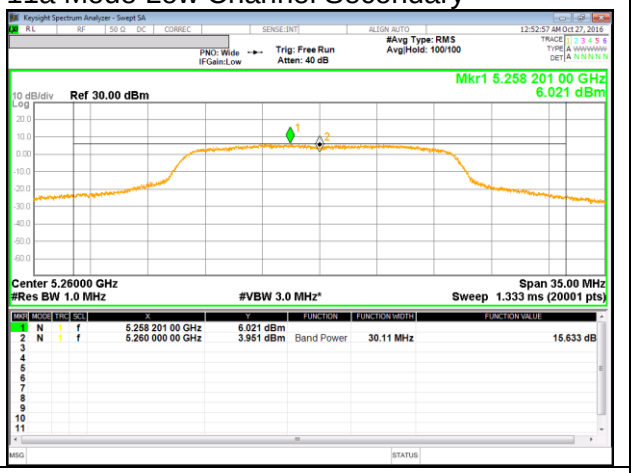
UNII 5.3 GHz IEEE 802.11a mode

11a Mode Low Channel Primary

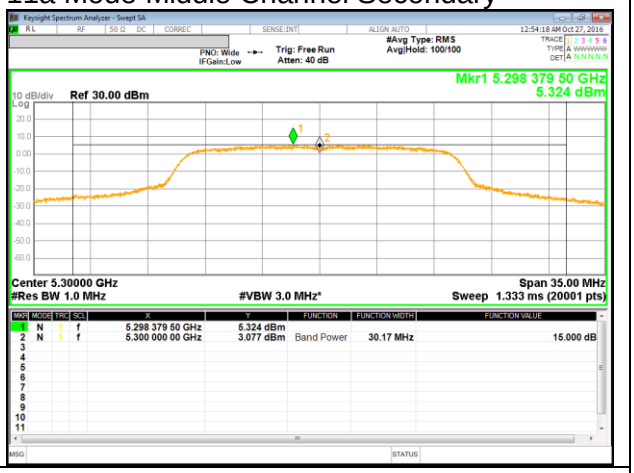


11a Mode Low Channel Secondary

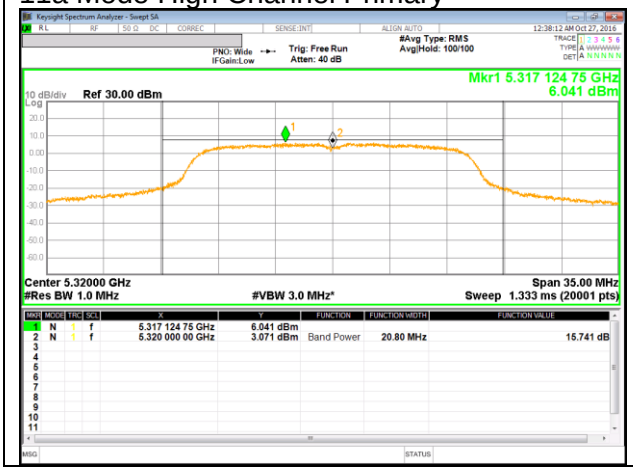


11a Mode Middle Channel Primary

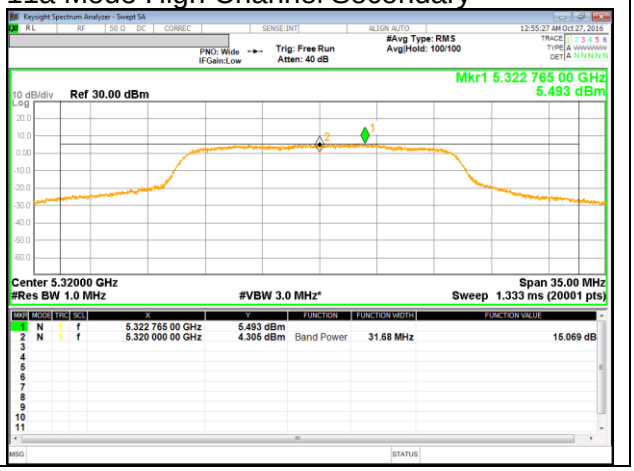
11a Mode Middle Channel Secondary



11a Mode High Channel Primary



11a Mode High Channel Secondary



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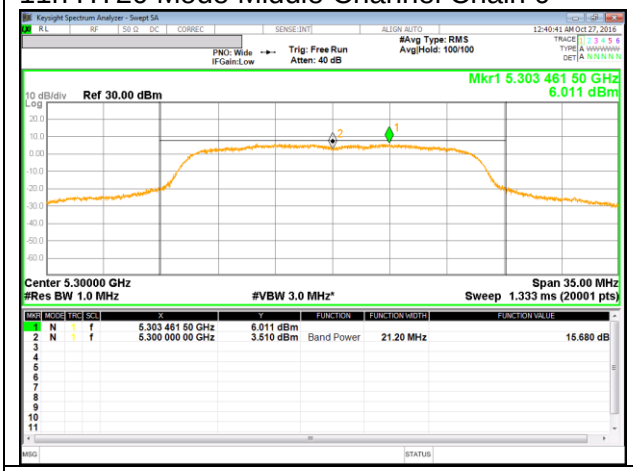
UNII 5.3 GHz IEEE 802.11n HT20 mode

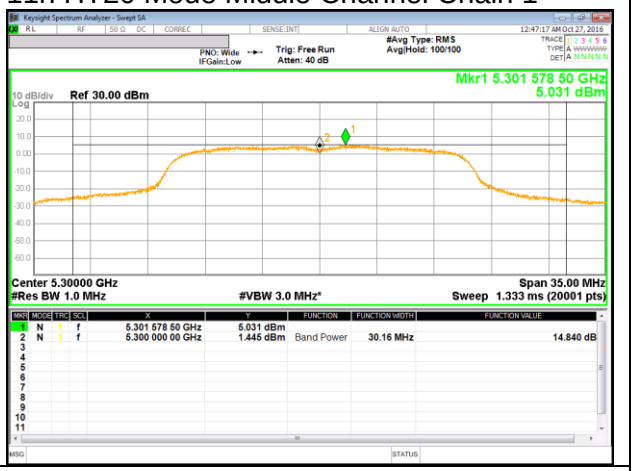
11n HT20 Mode Low Channel Chain 0

11n HT20 Mode Low Channel Chain 1

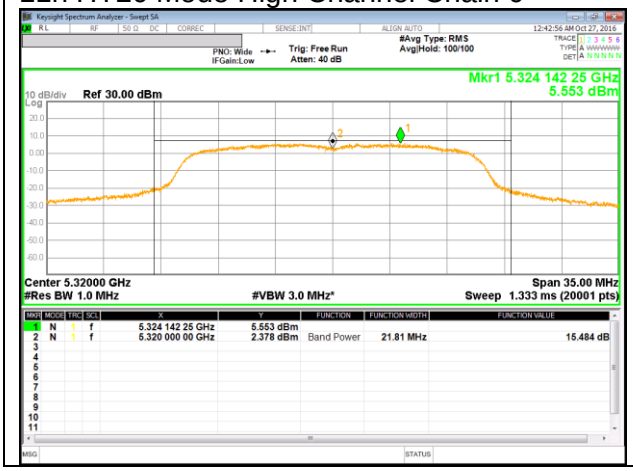
11n HT20 Mode Middle Channel Chain 0



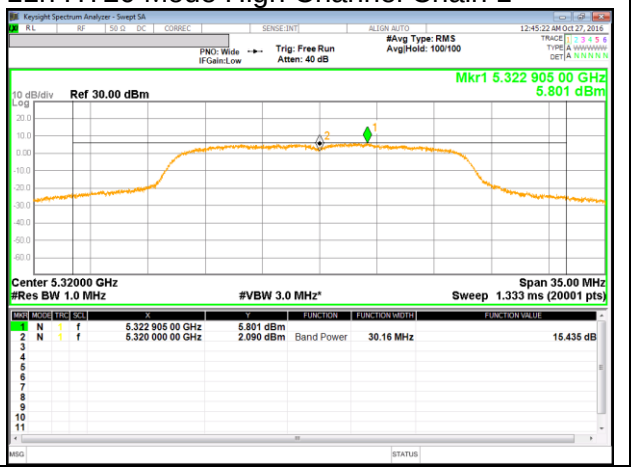
11n HT20 Mode Middle Channel Chain 1



11n HT20 Mode High Channel Chain 0



11n HT20 Mode High Channel Chain 1



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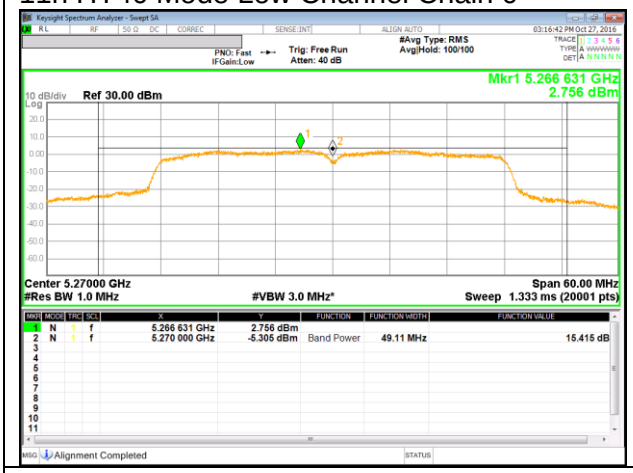
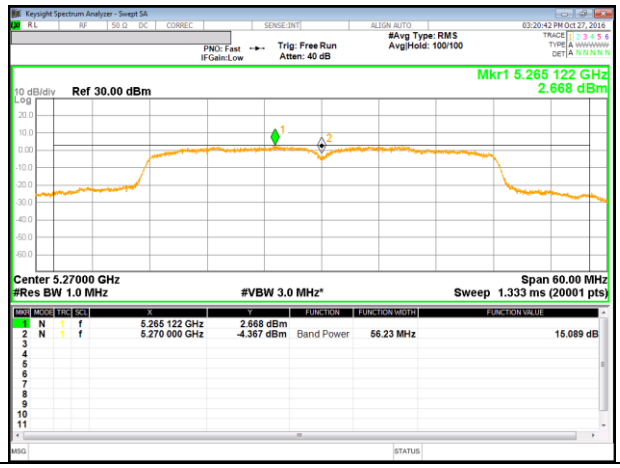
UNII 5.3 GHz IEEE 802.11n HT40 mode

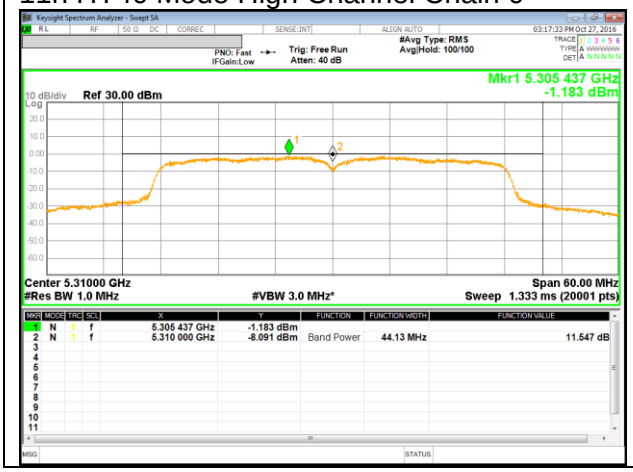
11n HT40 Mode Low Channel Chain 0



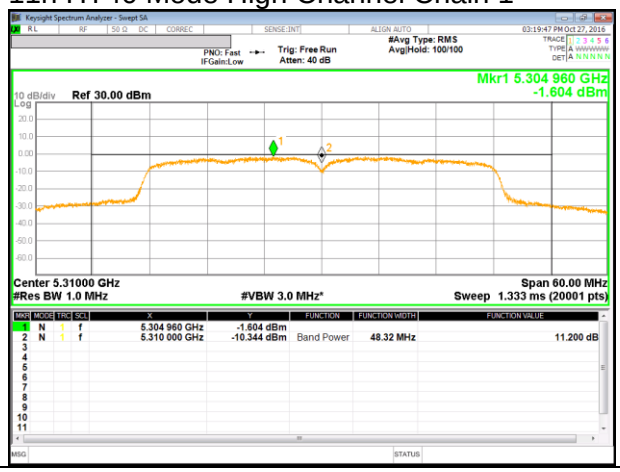
11n HT40 Mode Low Channel Chain 1



11n HT40 Mode High Channel Chain 0

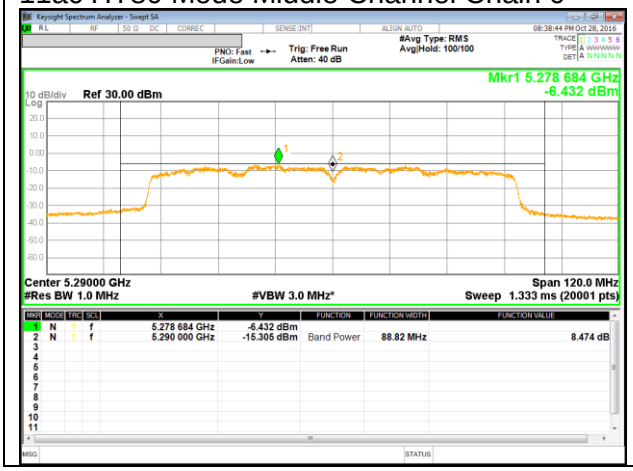


11n HT40 Mode High Channel Chain 1

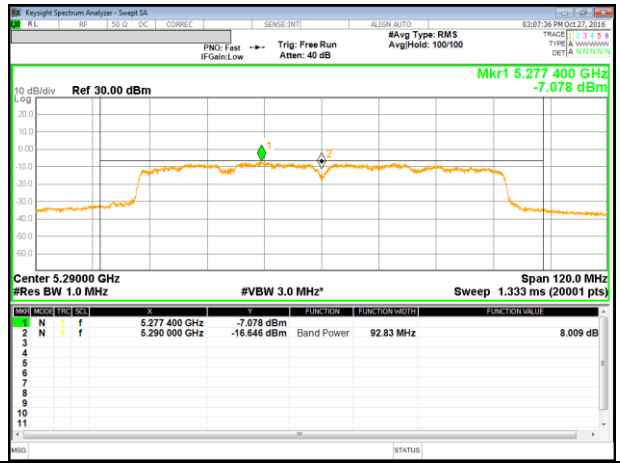


UNII 5.3 GHz IEEE 802.11ac VHT80 mode

11ac HT80 Mode Middle Channel Chain 0



11ac HT80 Mode Middle Channel Chain 1



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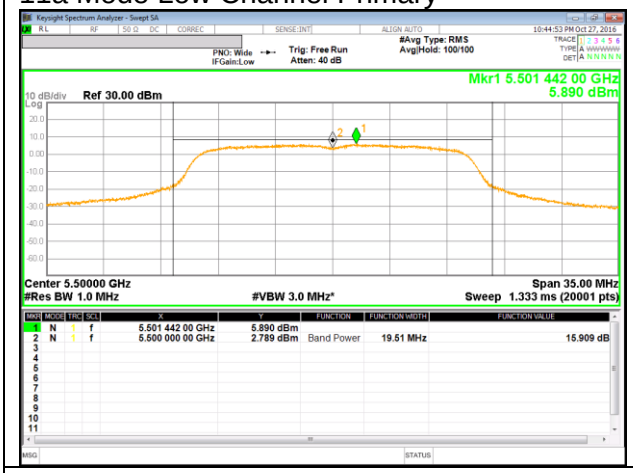
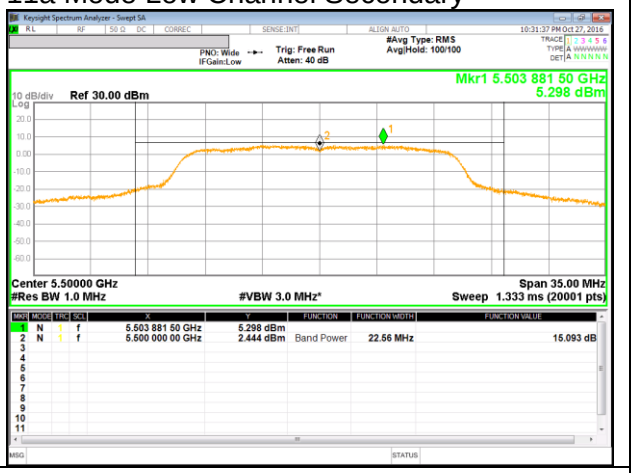
UNII 5.5 GHz IEEE 802.11a mode

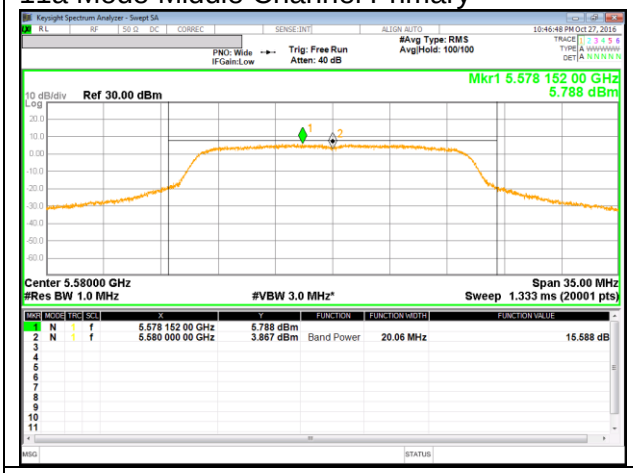
11a Mode Low Channel Primary



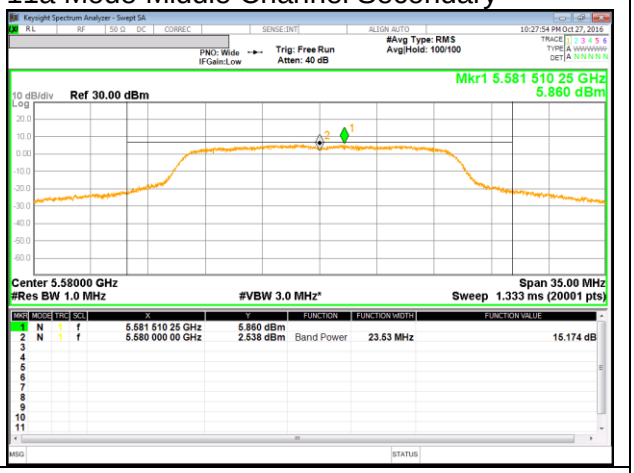
11a Mode Low Channel Secondary



11a Mode Middle Channel Primary

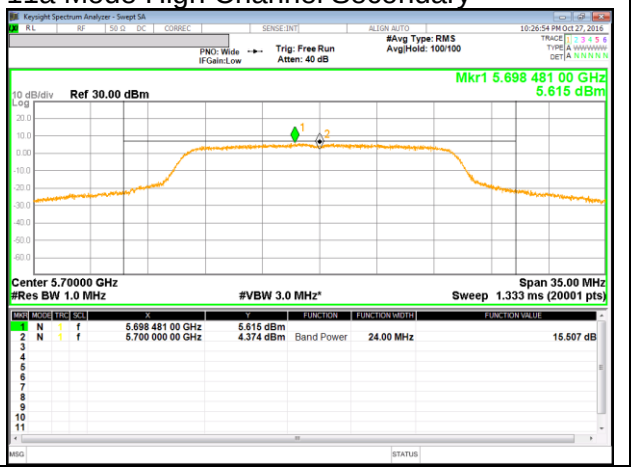


11a Mode Middle Channel Secondary



11a Mode High Channel Primary

11a Mode High Channel Secondary



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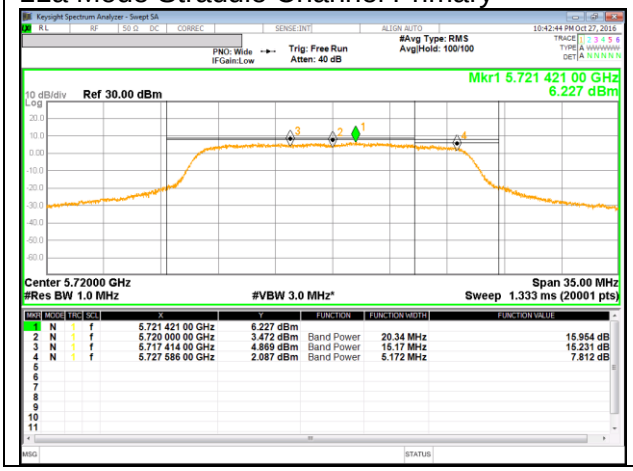
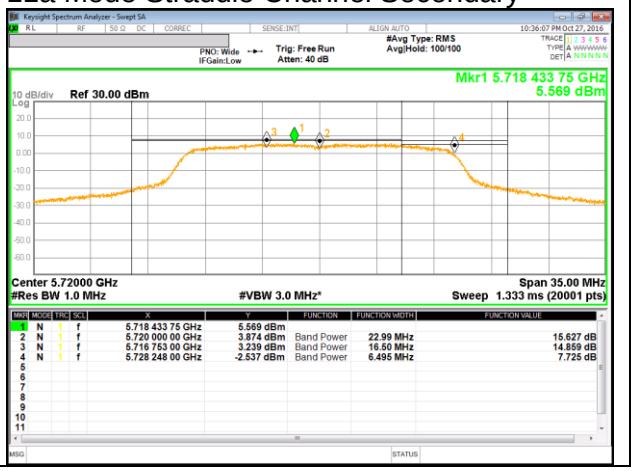
11a Mode Straddle Channel Primary

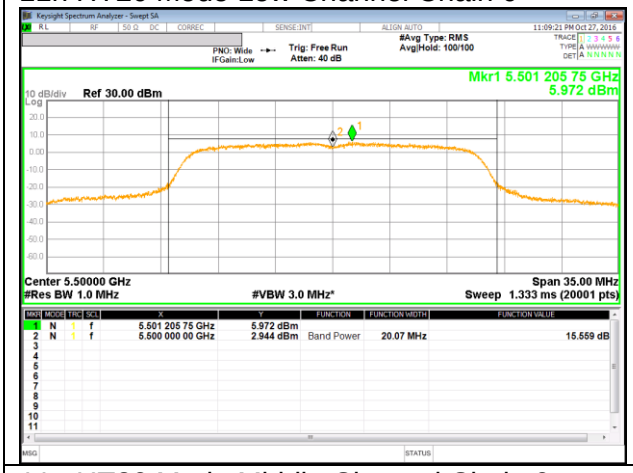


11a Mode Straddle Channel Secondary



UNII 5.5 GHz IEEE 802.11n HT20 mode

11n HT20 Mode Low Channel Chain 0



11n HT20 Mode Low Channel Chain 1

11n HT20 Mode Middle Channel Chain 0

11n HT20 Mode Middle Channel Chain 1

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