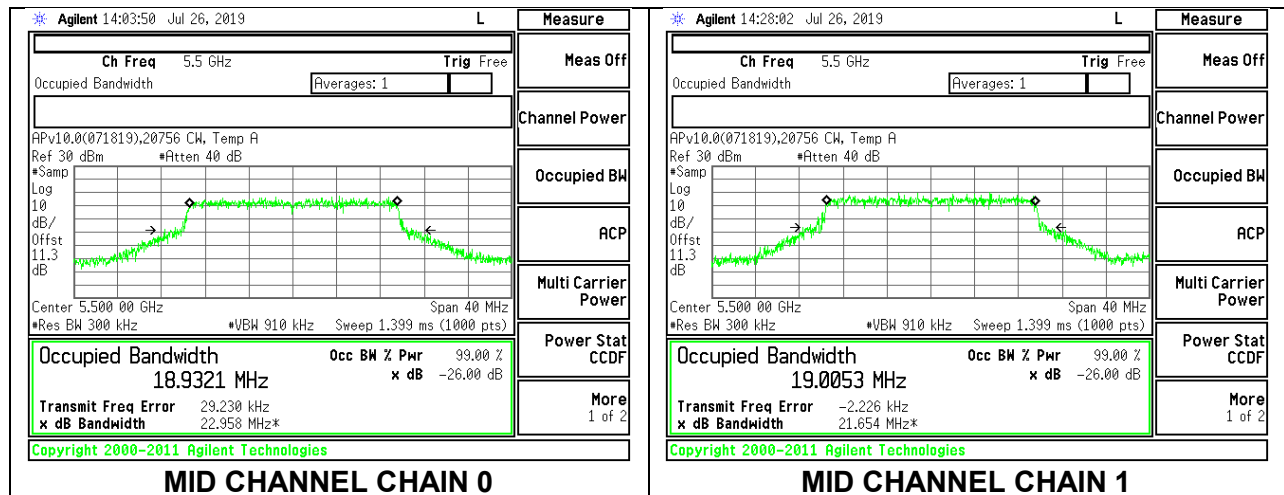
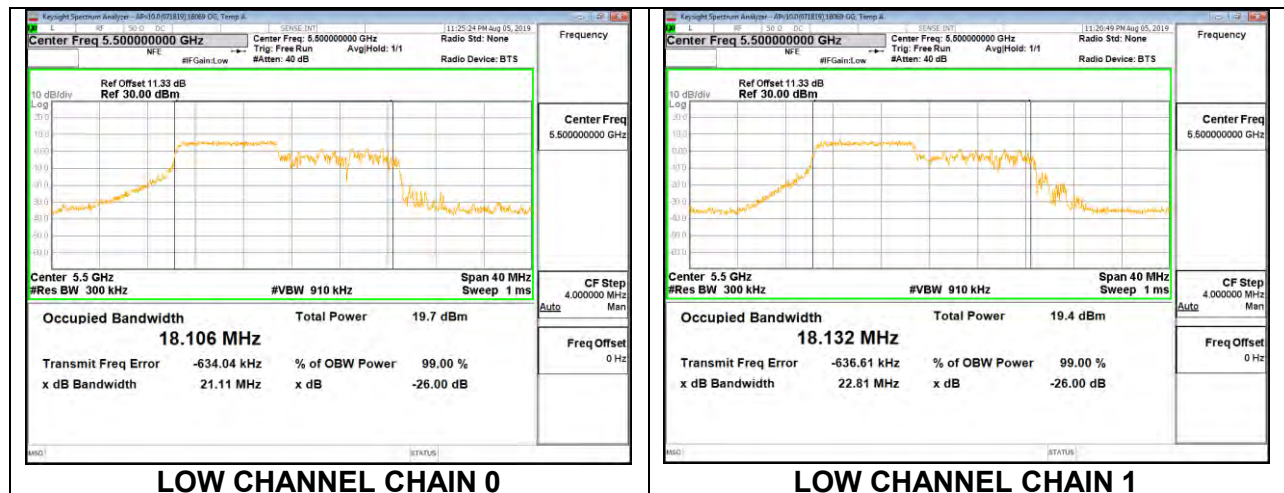


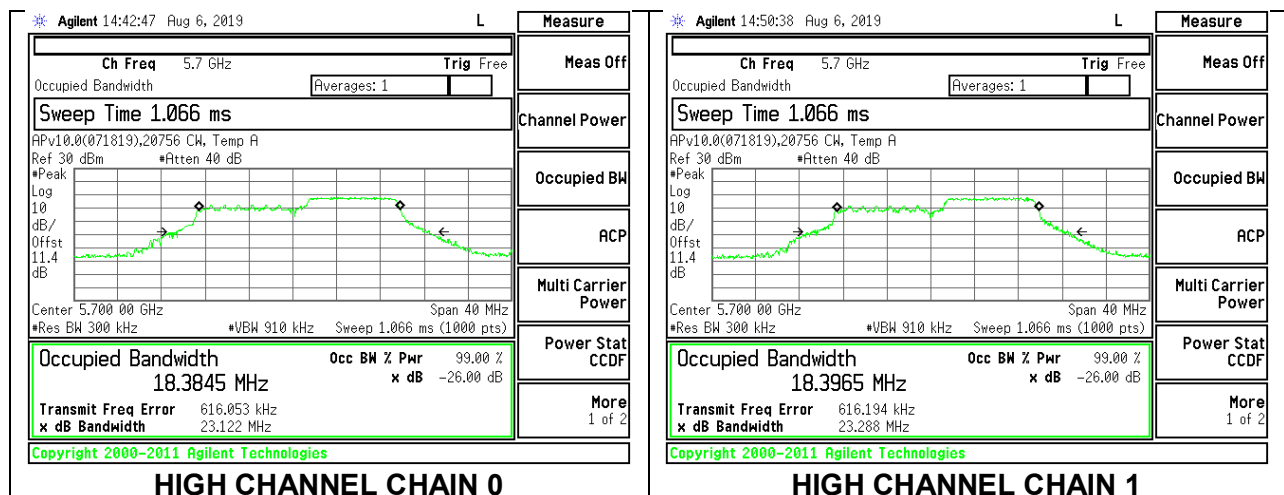
242-Tones, RU Index 61



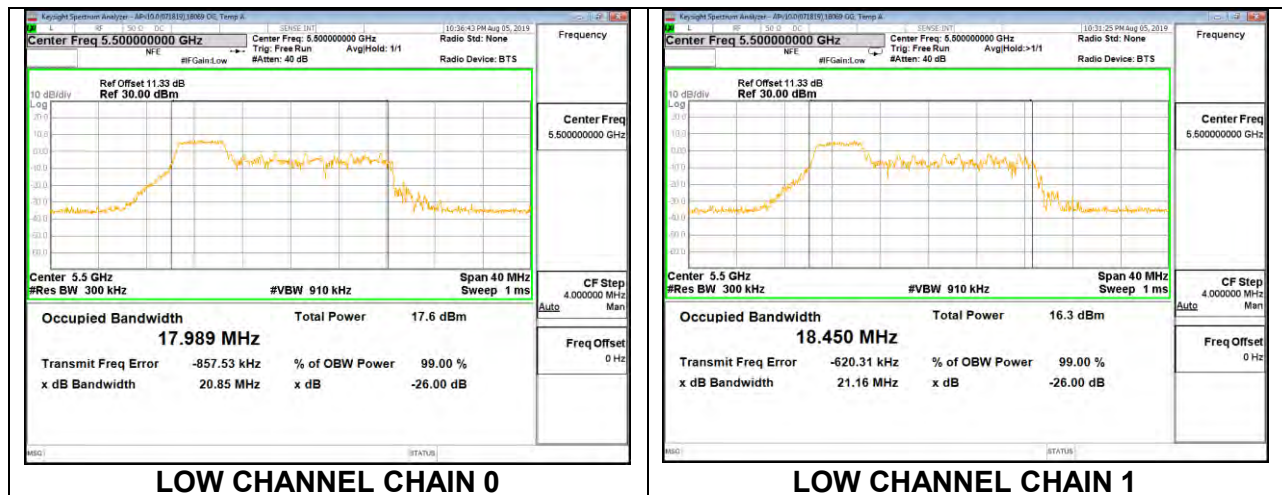
106-Tones, RU Index 53



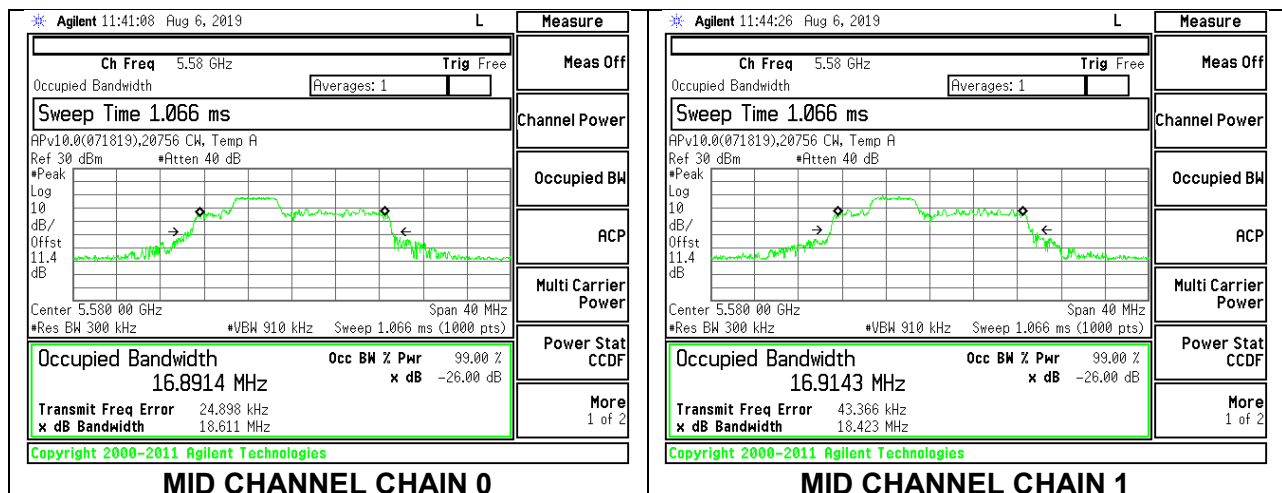
106-Tones, RU Index 54



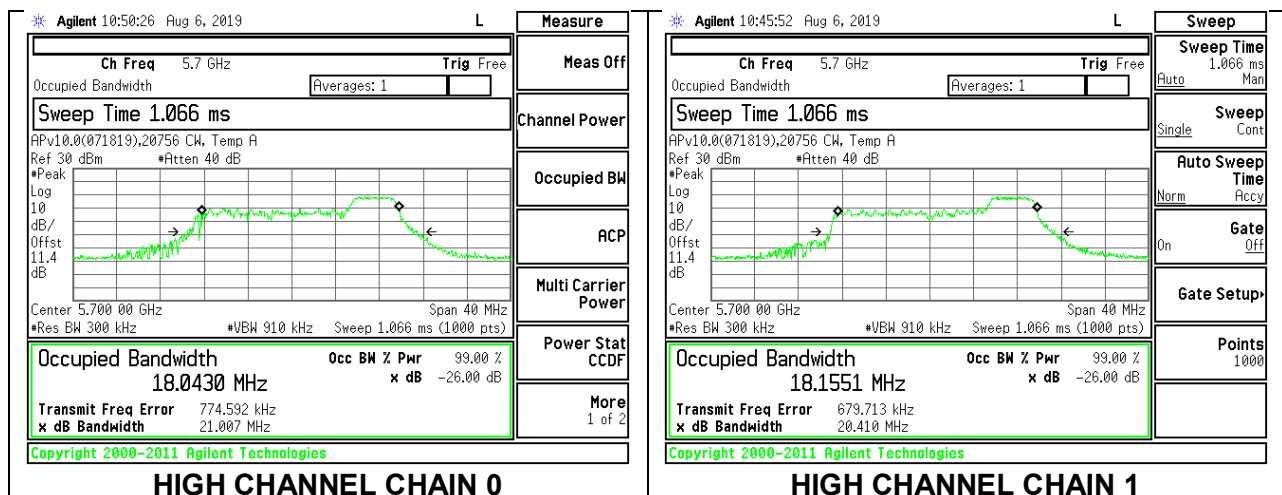
52-Tones, RU Index 37



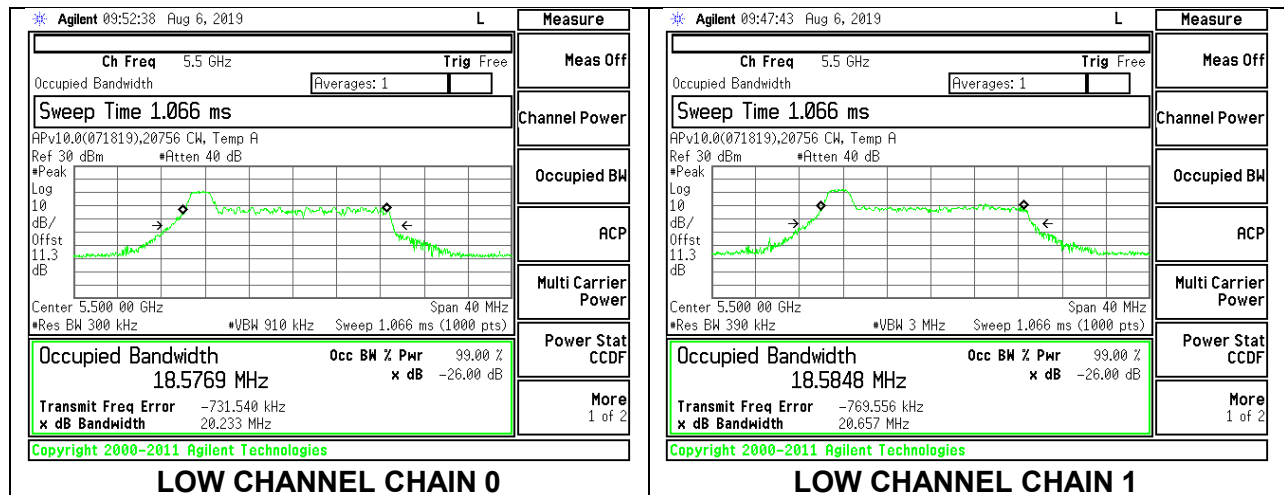
52-Tones, RU Index 38



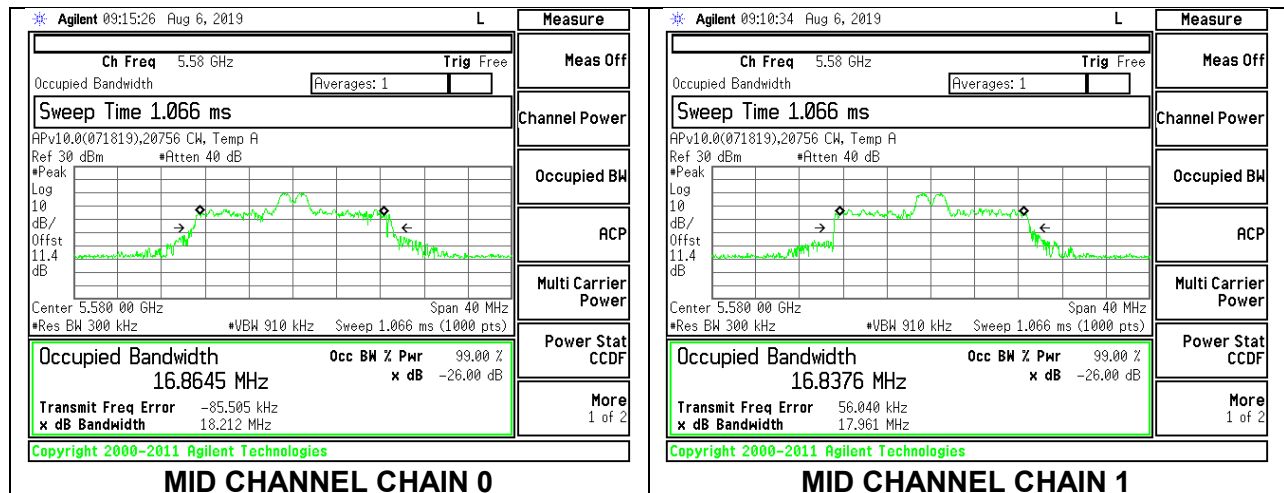
52-Tones, RU Index 40



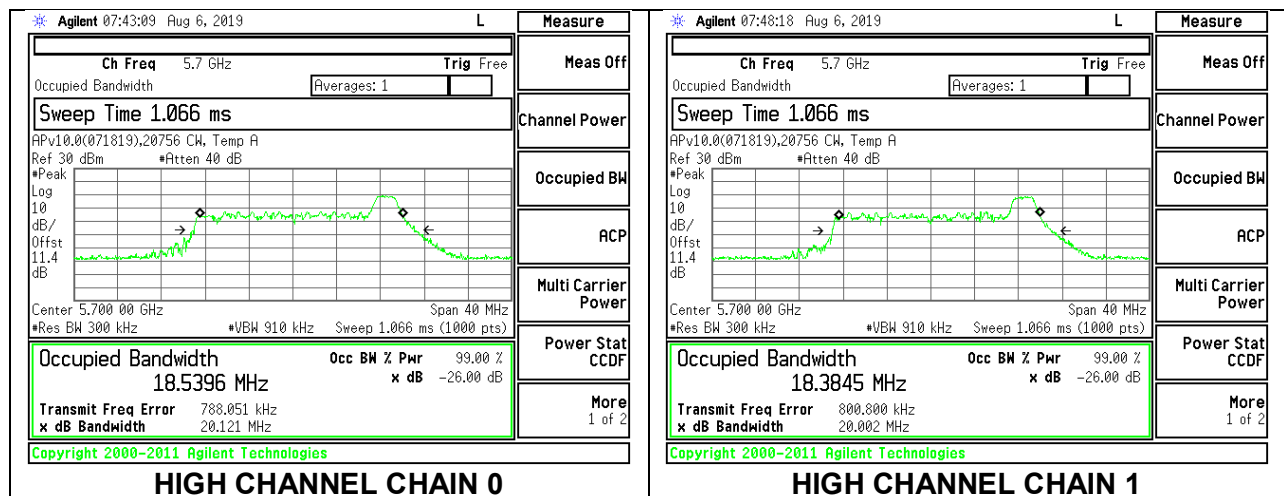
26-Tones, RU Index 0



26-Tones, RU Index 4



26-Tones, RU Index 8

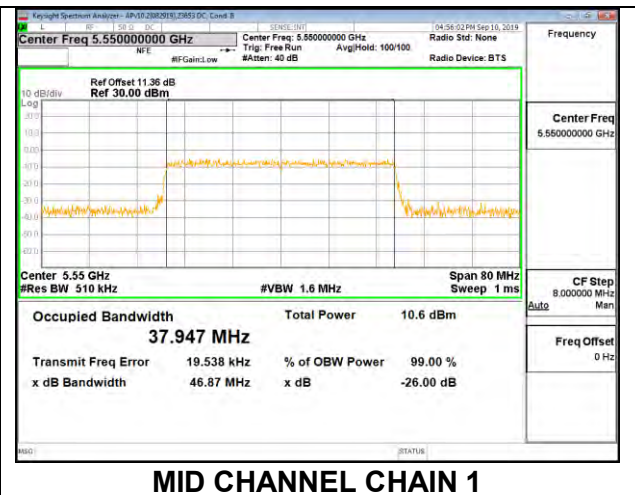
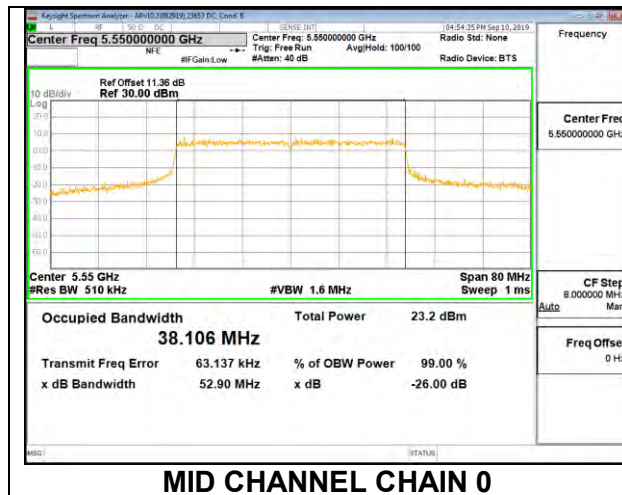


8.3.2. 802.11ax HE40 MODE IN THE 5.6 GHz BAND

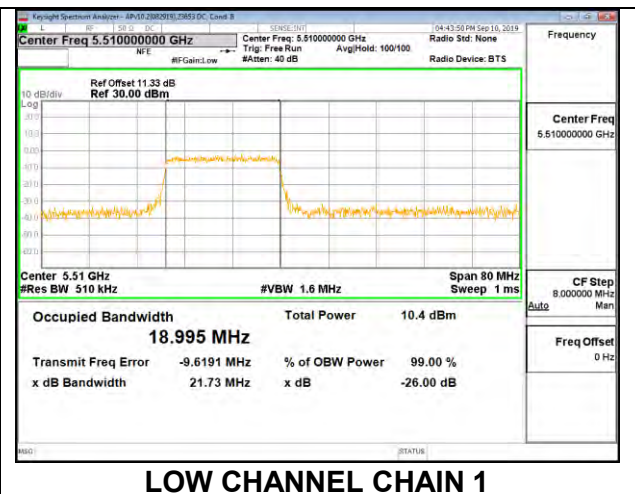
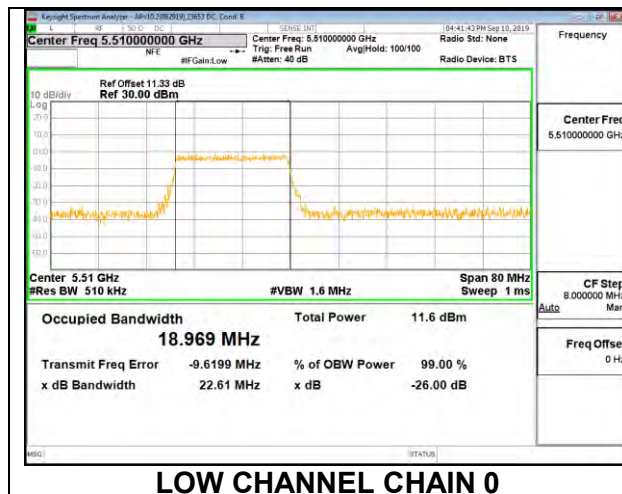
2TX Chain 0 + Chain 1 OFDMA MODE

RU Size (Tones)	RU Index	Channel	Frequency (MHz)	99% Bandwidth Chain 0 (MHz)	99% Bandwidth Chain 1 (MHz)
484T	65	Low	5510	37.946	37.928
		Mid	5550	38.106	37.947
		High	5670	37.797	37.881
		142	5710	37.972	37.658
242T	61	Low	5510	18.969	18.995
		Mid	5550	18.965	18.972
	62	High	5670	19.378	19.252
		142	5710	19.075	18.974
106T	53	Low	5510	17.575	17.861
	54	Mid	5550	18.310	18.148
	56	High	5670	18.105	17.794
		142	5710	18.226	18.508
52T	37	Low	5510	18.079	17.723
	40	Mid	5550	18.837	17.887
	44	High	5670	18.172	18.110
		142	5710	18.275	18.146
26T	0	Low	5510	18.225	18.113
	8	Mid	5550	18.883	18.733
	17	High	5670	18.300	17.908
		142	5710	18.545	18.367

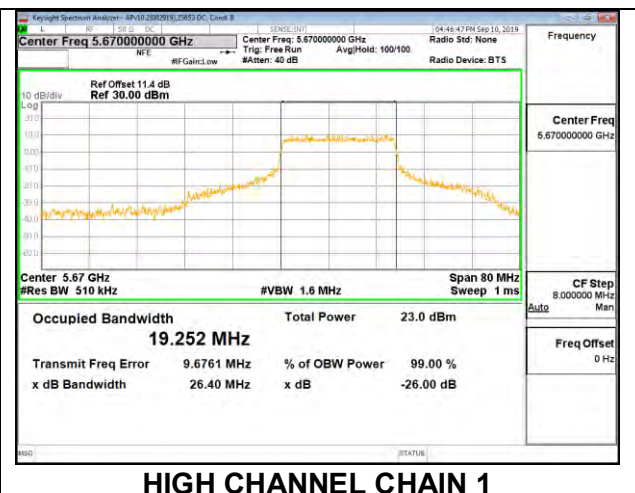
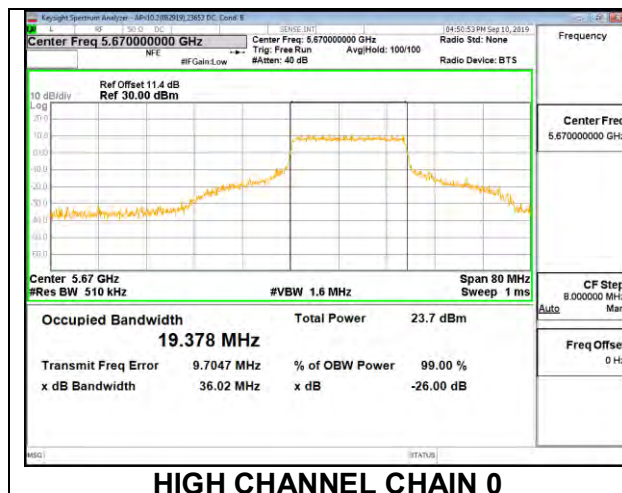
484-Tones, RU Index 65



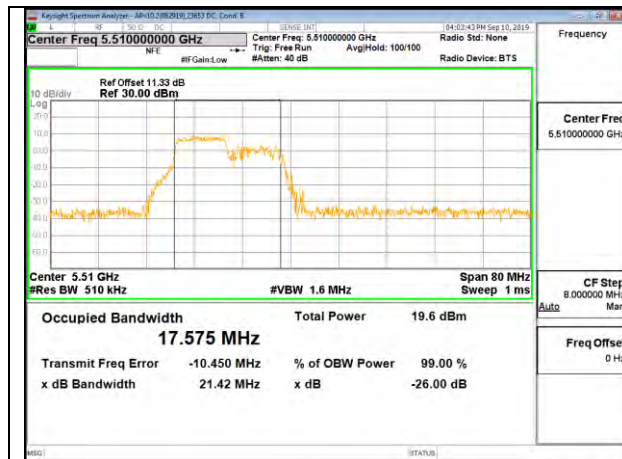
242-Tones, RU Index 61



242-Tones, RU Index 62



106-Tones, RU Index 53

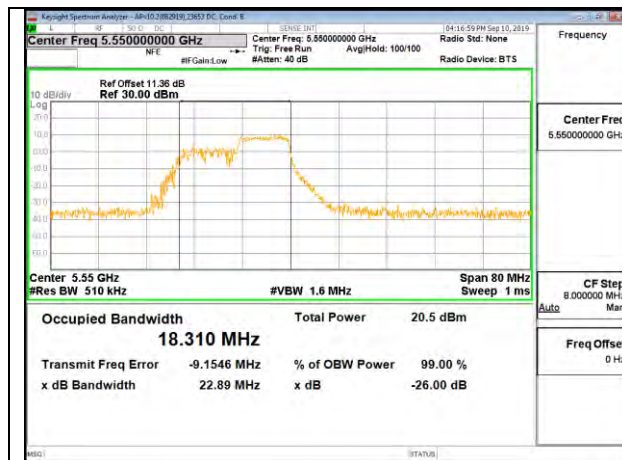


LOW CHANNEL CHAIN 0



LOW CHANNEL CHAIN 1

106-Tones, RU Index 54

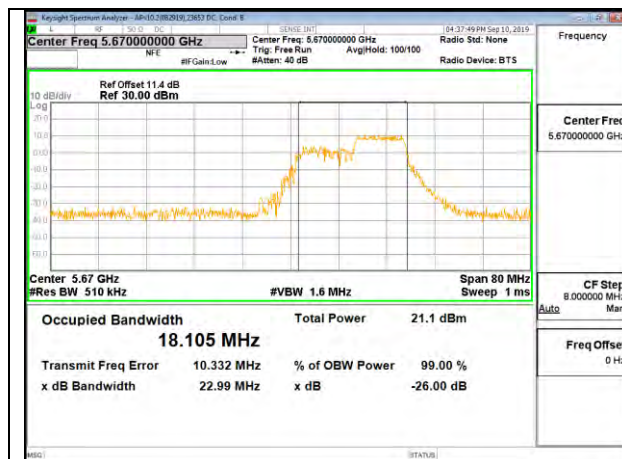


MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

106-Tones, RU Index 56

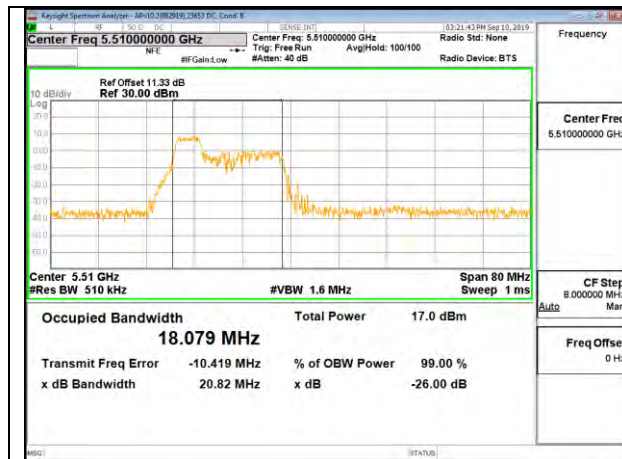


HIGH CHANNEL CHAIN 0

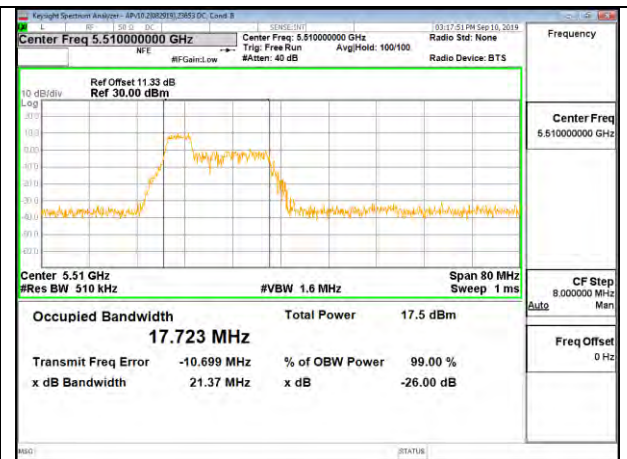


HIGH CHANNEL CHAIN 1

52-Tones, RU Index 37

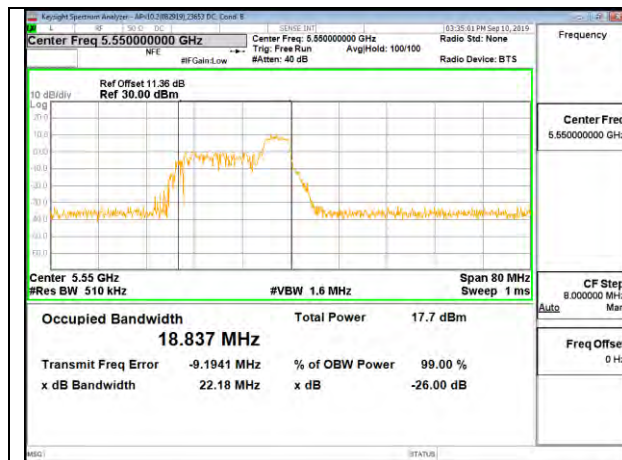


LOW CHANNEL CHAIN 0

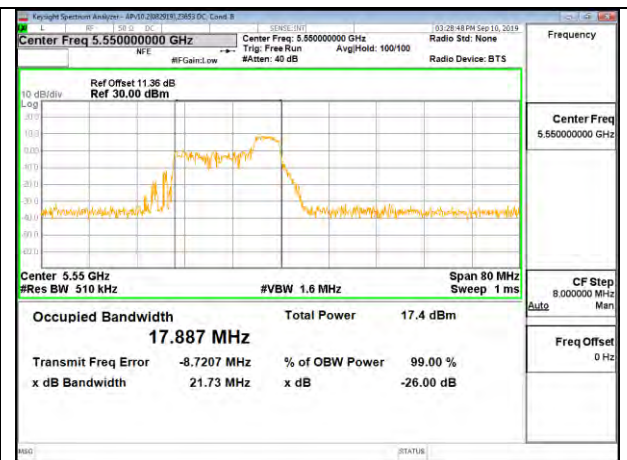


LOW CHANNEL CHAIN 1

52-Tones, RU Index 40

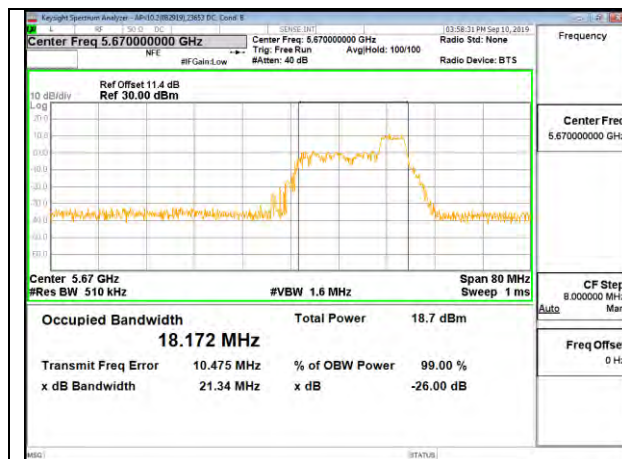


MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

52-Tones, RU Index 44

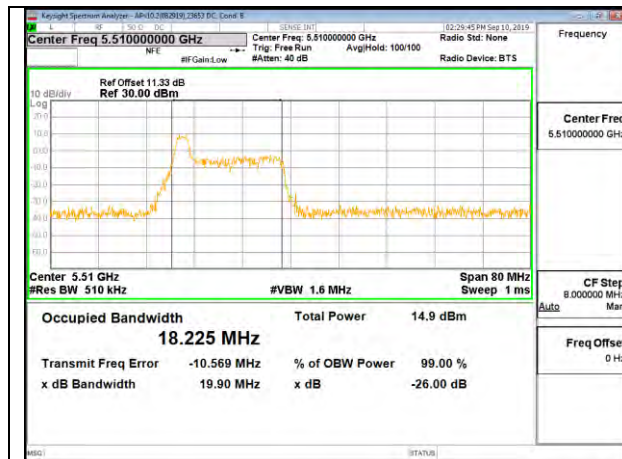


HIGH CHANNEL CHAIN 0



HIGH CHANNEL CHAIN 1

26-Tones, RU Index 0

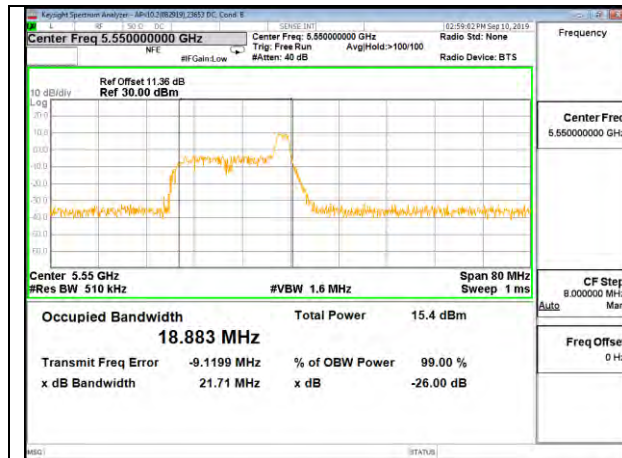


LOW CHANNEL CHAIN 0

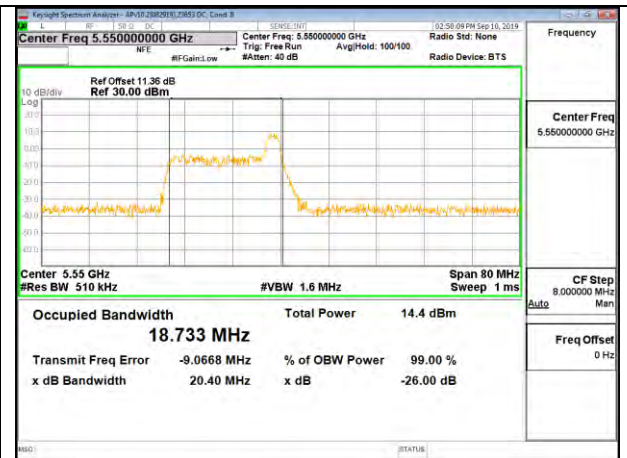


LOW CHANNEL CHAIN 1

26-Tones, RU Index 8

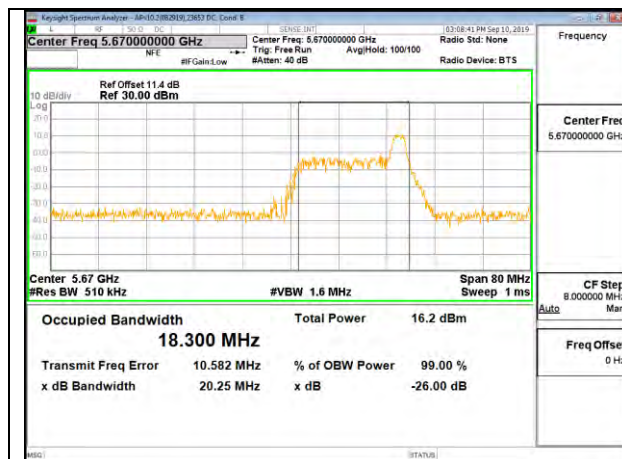


MID CHANNEL CHAIN 0



MID CHANNEL CHAIN 1

26-Tones, RU Index 17



HIGH CHANNEL CHAIN 0



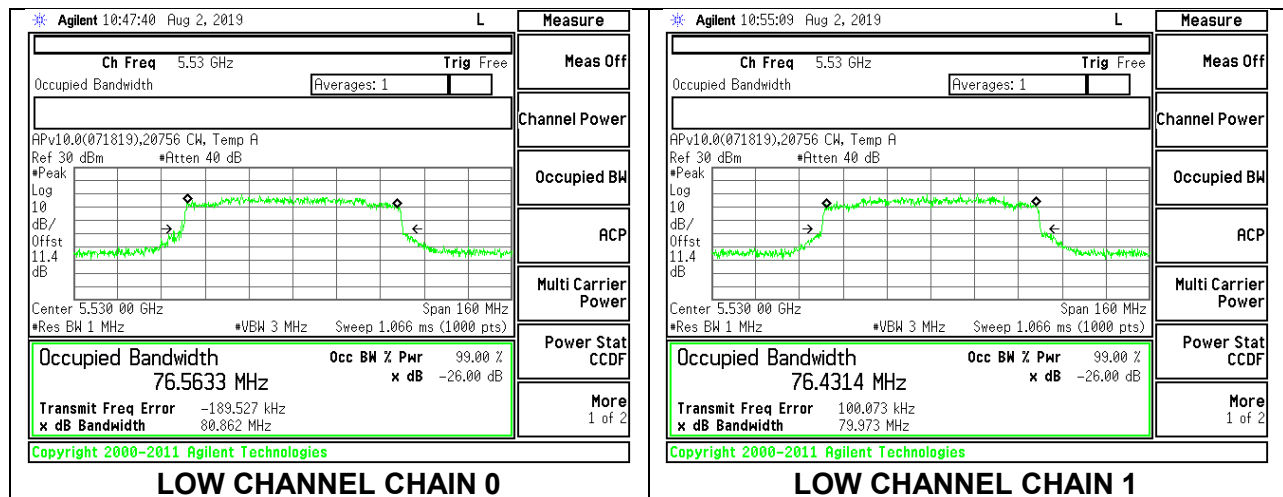
HIGH CHANNEL CHAIN 1

8.3.3. 802.11ax HE80 MODE IN THE 5.6 GHz BAND

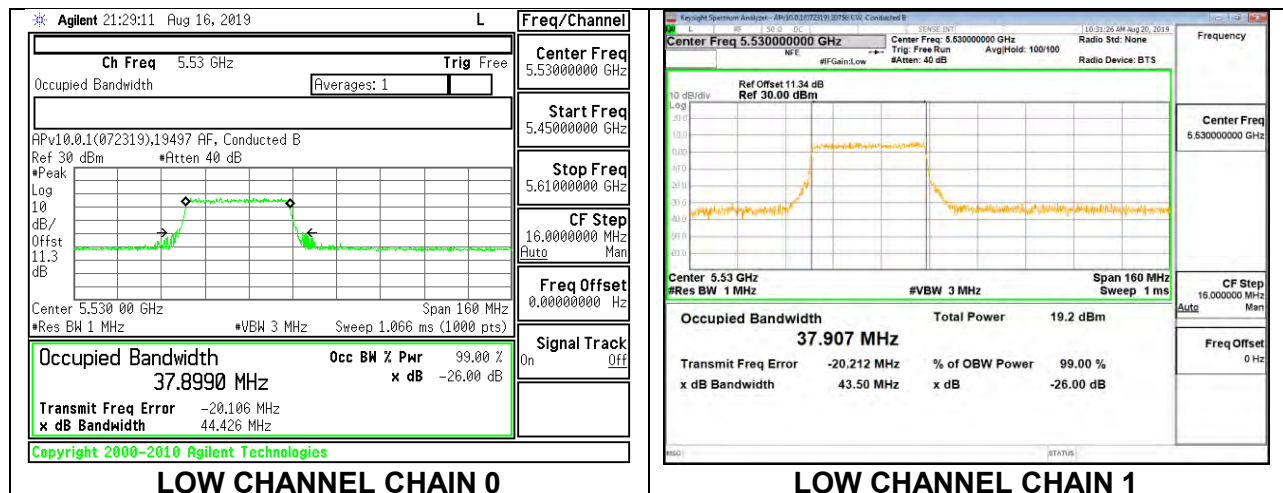
2TX Chain 0 + Chain 1 OFDMA MODE

RU Size (Tones)	RU Index	Channel	Frequency (MHz)	99% Bandwidth Chain 0 (MHz)	99% Bandwidth Chain 1 (MHz)
996T	67	Low	5530	76.5633	76.4314
		High	5610	76.6110	76.3591
		138	5690	76.662	77.054
484T	65	Low	5530	37.8990	37.907
	66	High	5610	37.6607	37.6573
		138	5690	37.630	37.834
242T	61	Low	5530	18.9045	18.8708
	62	Low	5530	36.9941	36.9865
	64	High	5610	19.3568	19.2017
		138	5690	18.873	18.845
106T	53	Low	5530	18.0732	18.1385
	56	Low	5530	17.321	17.302
	60	High	5610	17.765	17.756
		138	5690	18.2264	18.5028
52T	37	Low	5530	18.003	17.901
	44	Low	5530	17.344	16.723
	52	High	5610	17.827	17.840
		138	5690	17.992	17.921
26T	0	Low	5530	18.286	18.236
	18	Low	5530	36.2303	36.5449
	36	High	5610	18.040	18.116
		138	5690	18.041	18.105

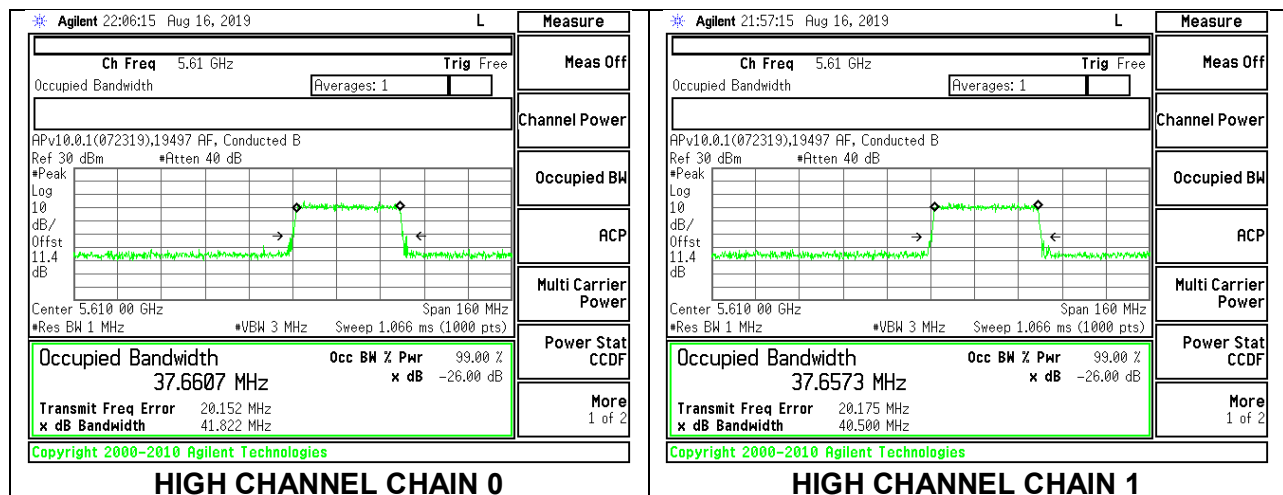
996-Tones, RU Index 67



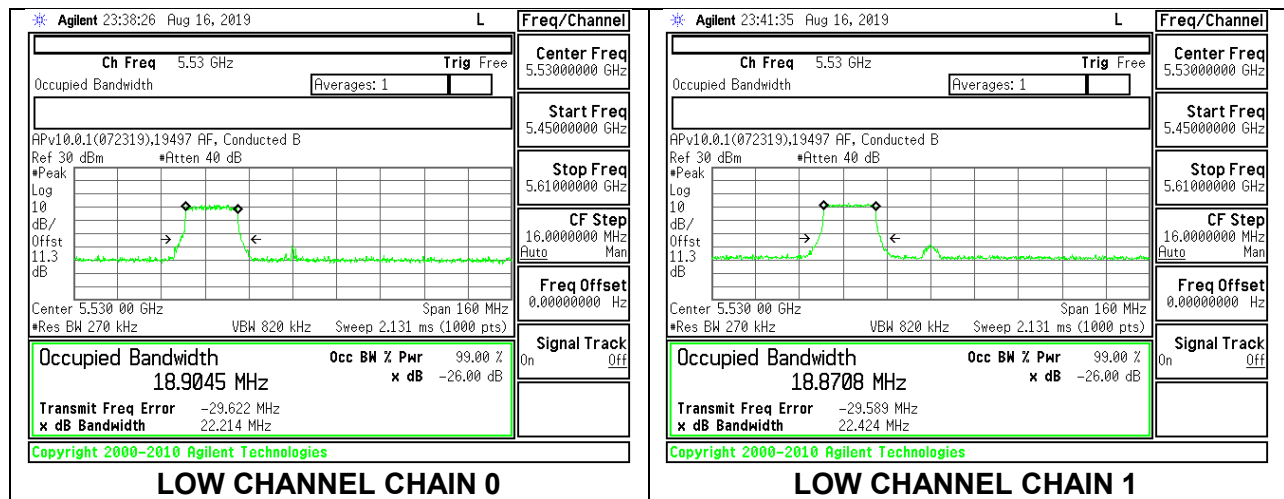
484-Tones, RU Index 65



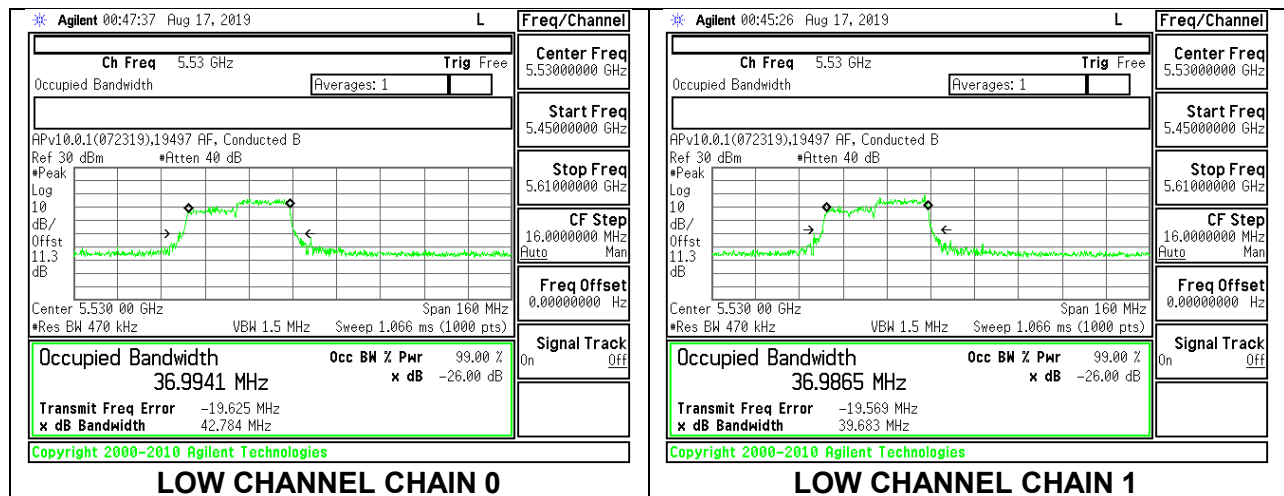
484-Tones, RU Index 66



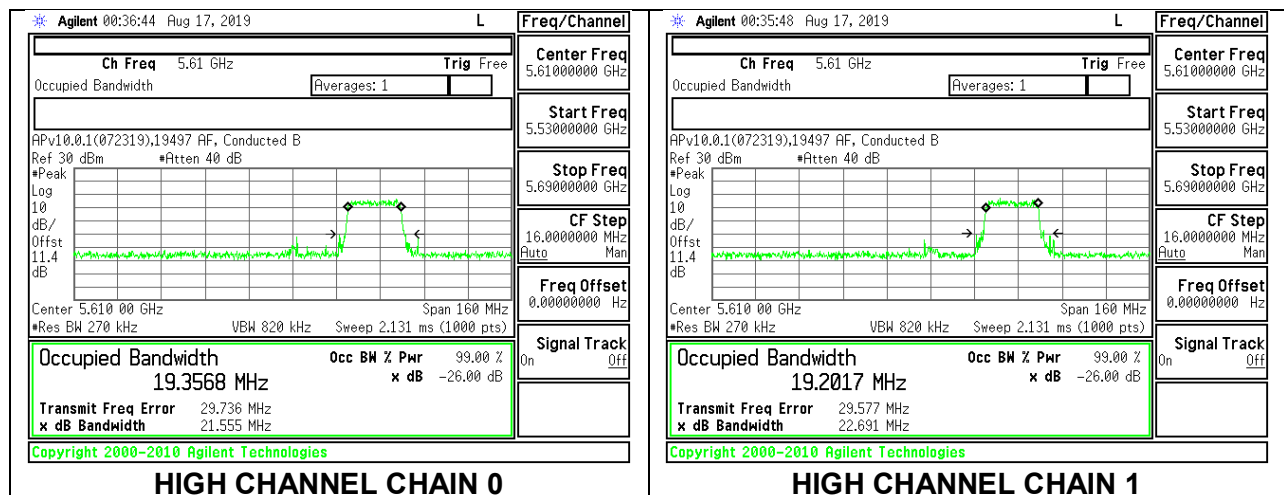
242-Tones, RU Index 61



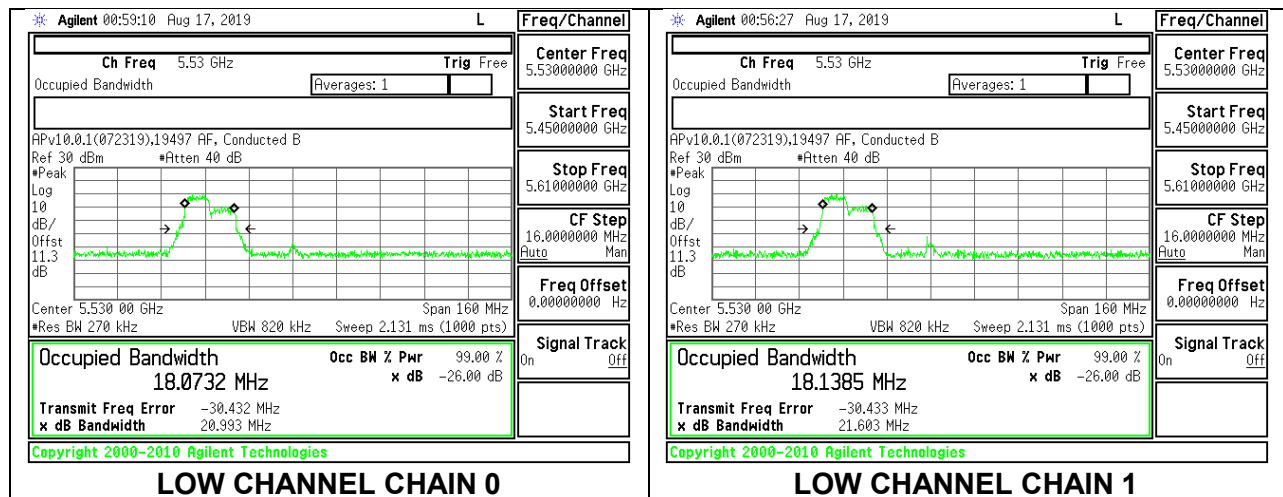
242-Tones, RU Index 62



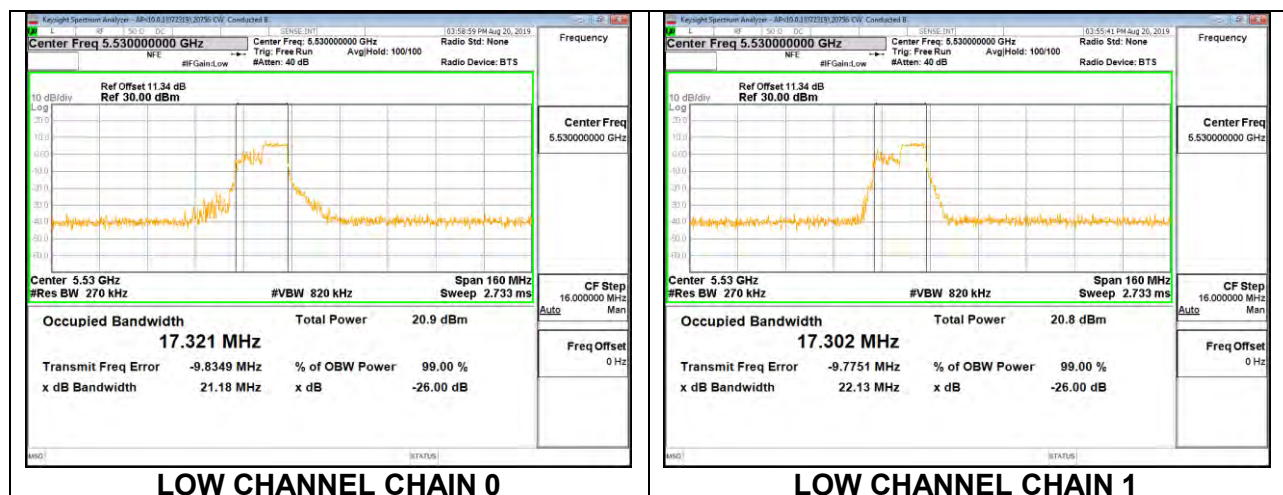
242-Tones, RU Index 64



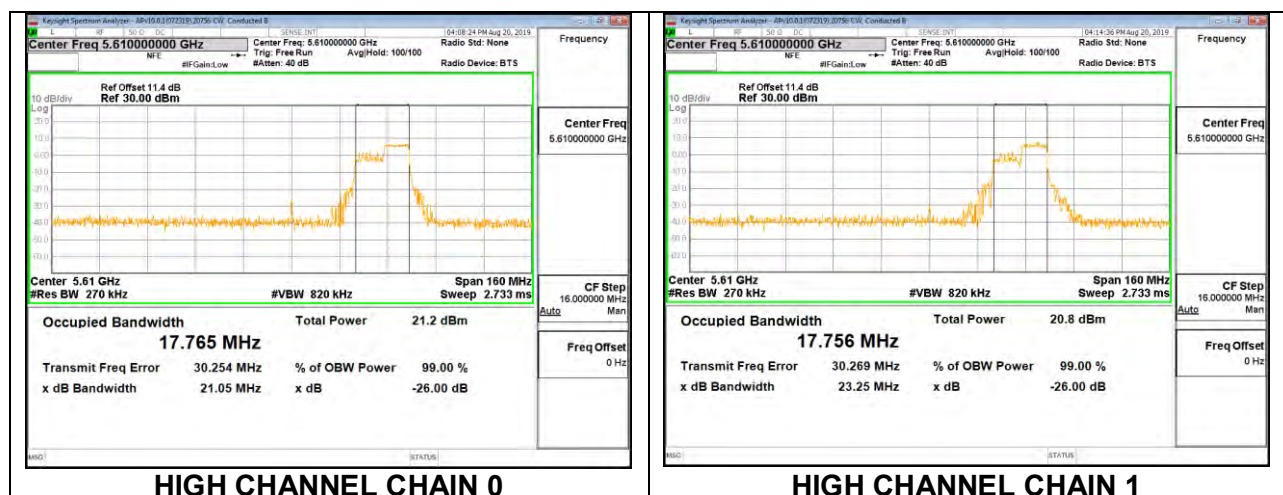
106-Tones, RU Index 53



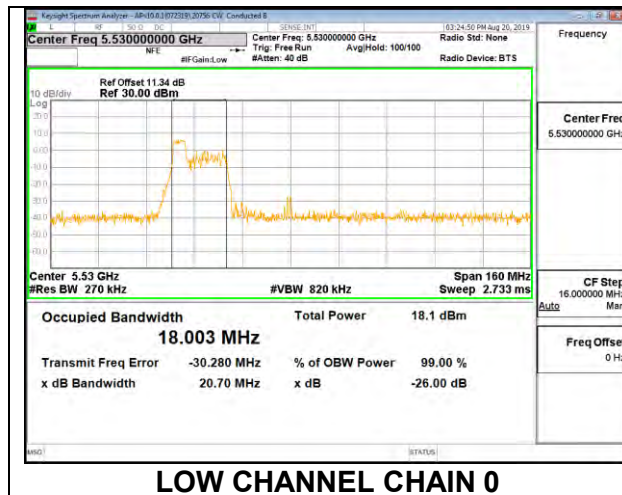
106-Tones, RU Index 56



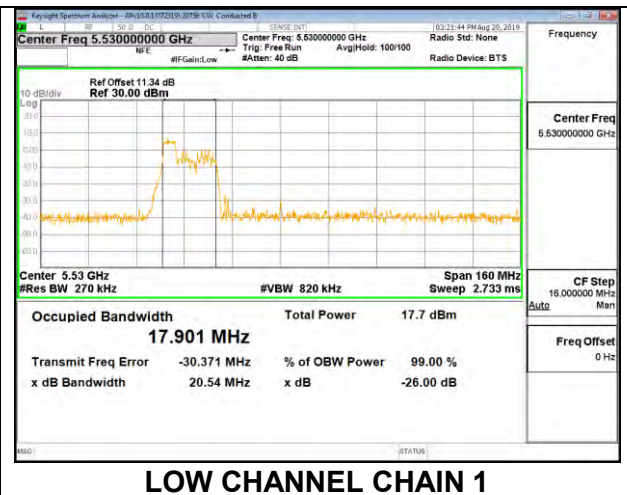
106-Tones, RU Index 60



52-Tones, RU Index 37

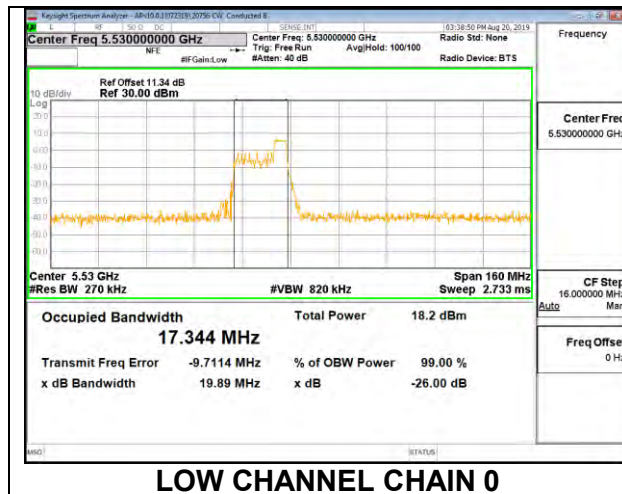


LOW CHANNEL CHAIN 0

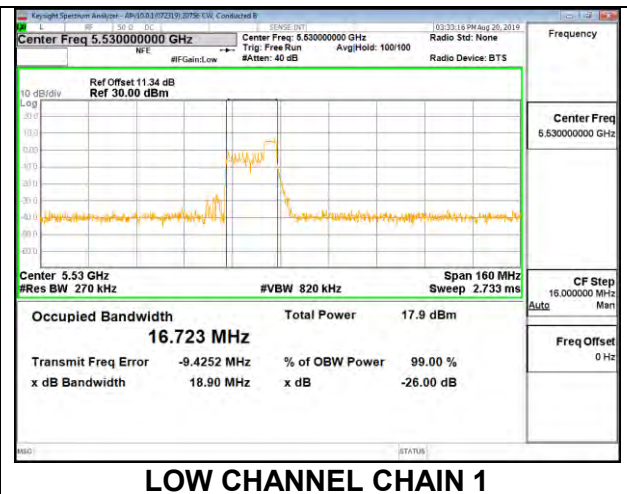


LOW CHANNEL CHAIN 1

52-Tones, RU Index 44

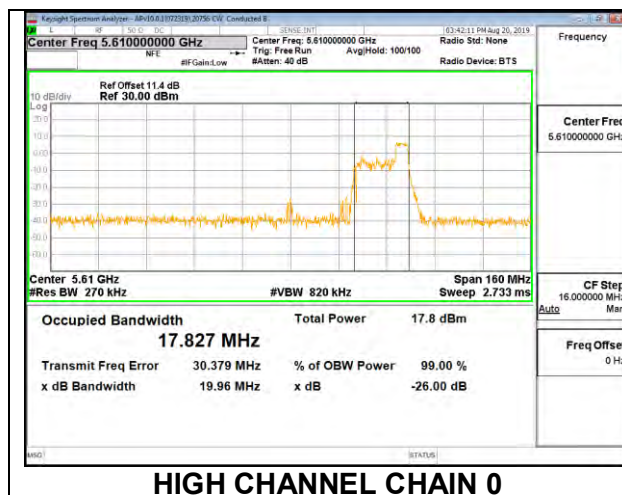


LOW CHANNEL CHAIN 0

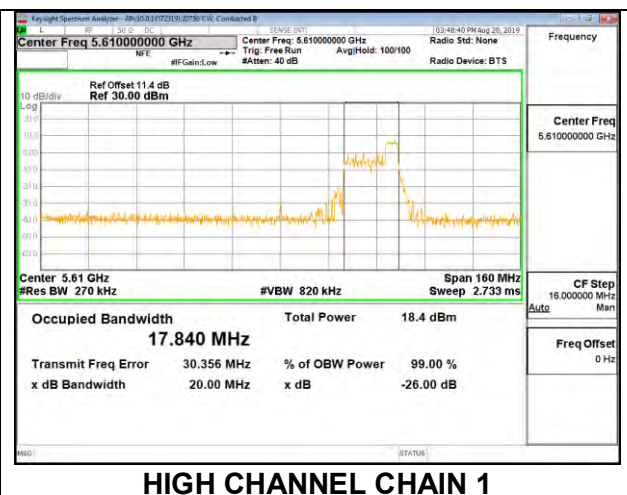


LOW CHANNEL CHAIN 1

52-Tones, RU Index 52

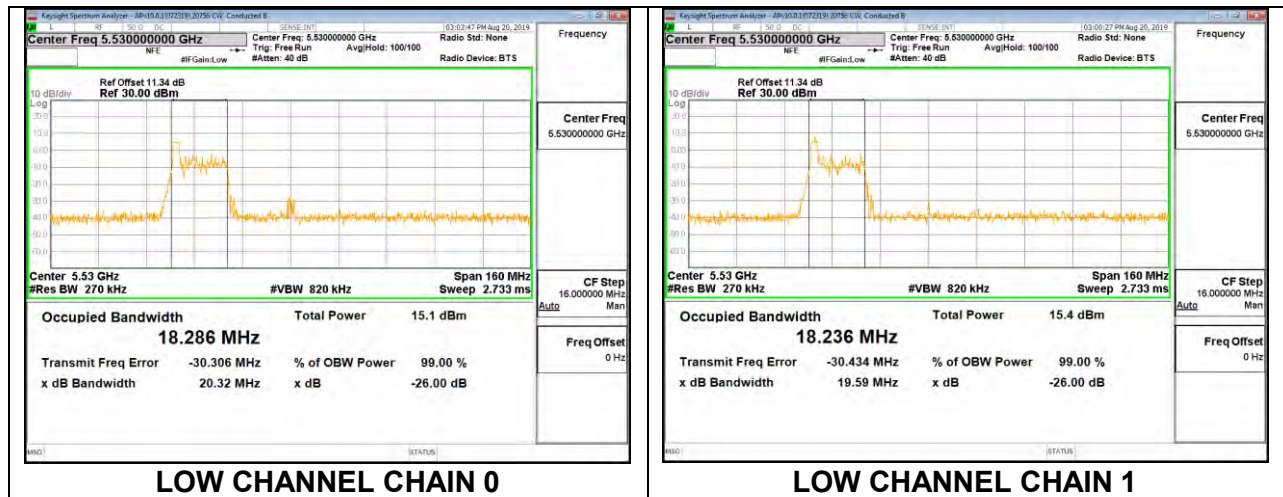


HIGH CHANNEL CHAIN 0

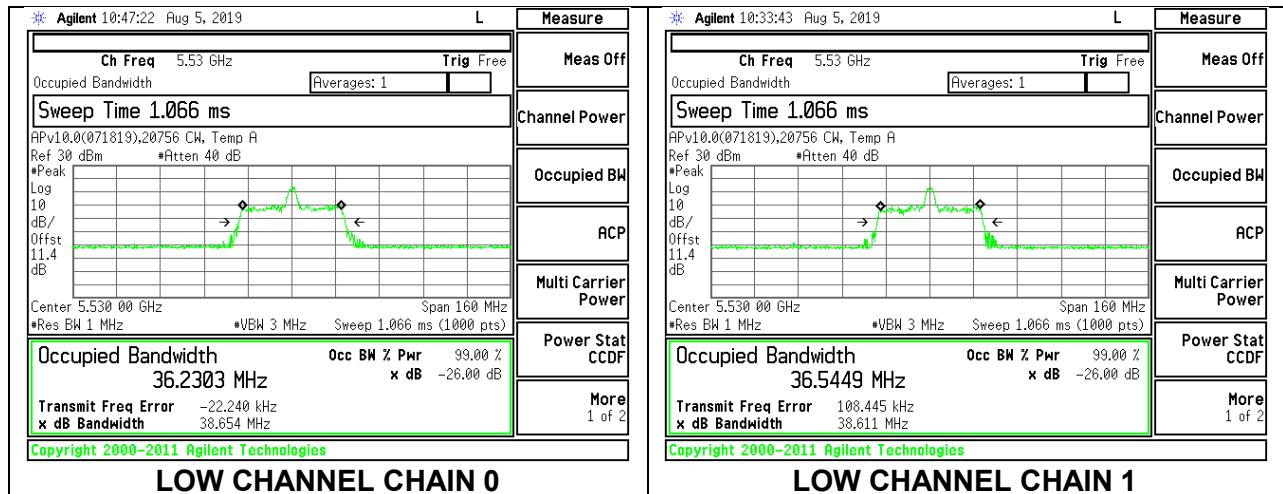


HIGH CHANNEL CHAIN 1

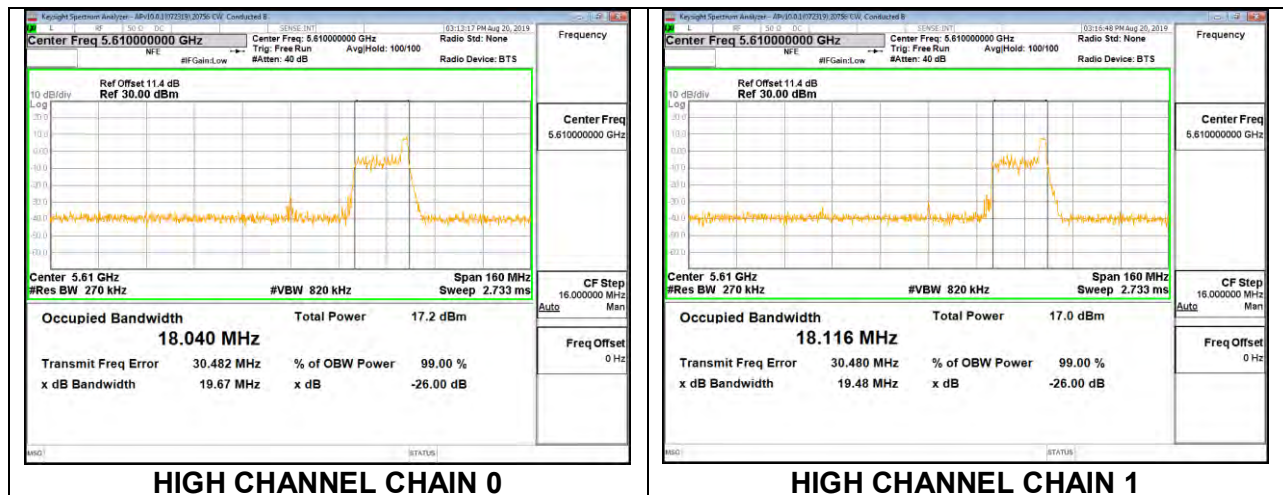
26-Tones, RU Index 0



26-Tones, RU Index 18



26-Tones, RU Index 36

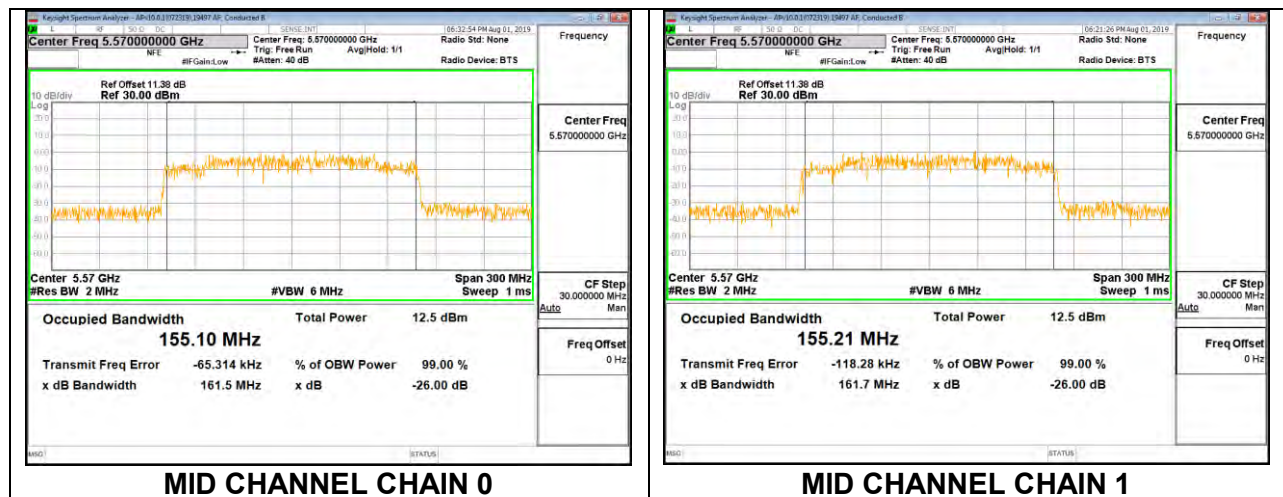


8.3.4. 802.11ax HE160 MODE IN THE 5.6 GHz BAND

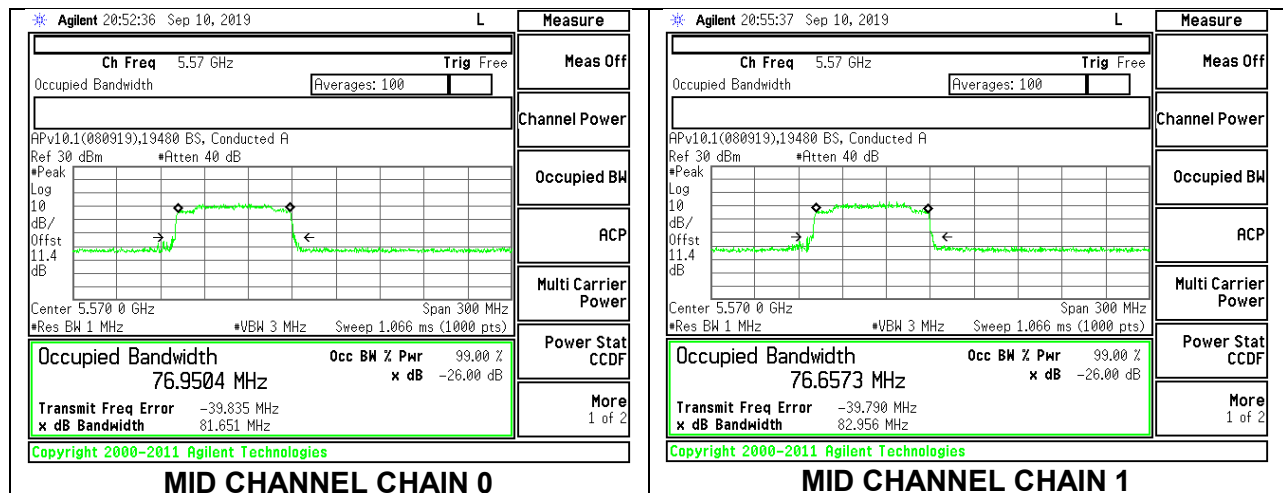
2TX Chain 0 + Chain 1 OFDMA MODE

RU Size (Tones)	RU Index	Channel	Frequency (MHz)	99% Bandwidth Chain 0 (MHz)	99% Bandwidth Chain 1 (MHz)
2*996T	68	Mid	5570	155.10	155.21
996T	67	Mid	5570	76.9504	76.6573
	S67	Mid	5570	77.0471	77.5171
484T	65	Mid	5570	37.7630	37.7783
	66	Mid	5570	37.8457	37.6899
	S66	Mid	5570	37.6123	37.9542
242T	61	Mid	5570	18.958	19.084
	64	Mid	5570	19.051	19.041
	S64	Mid	5570	18.867	18.888
106T	53	Mid	5570	17.891	18.057
	60	Mid	5570	18.017	17.326
	S53	Mid	5570	18.005	17.930
52T	37	Mid	5570	17.935	18.038
	52	Mid	5570	18.040	17.884
	S52	Mid	5570	18.020	18.004
26T	0	Mid	5570	18.243	18.357
	36	Mid	5570	18.123	17.839
	S36	Mid	5570	18.246	18.322

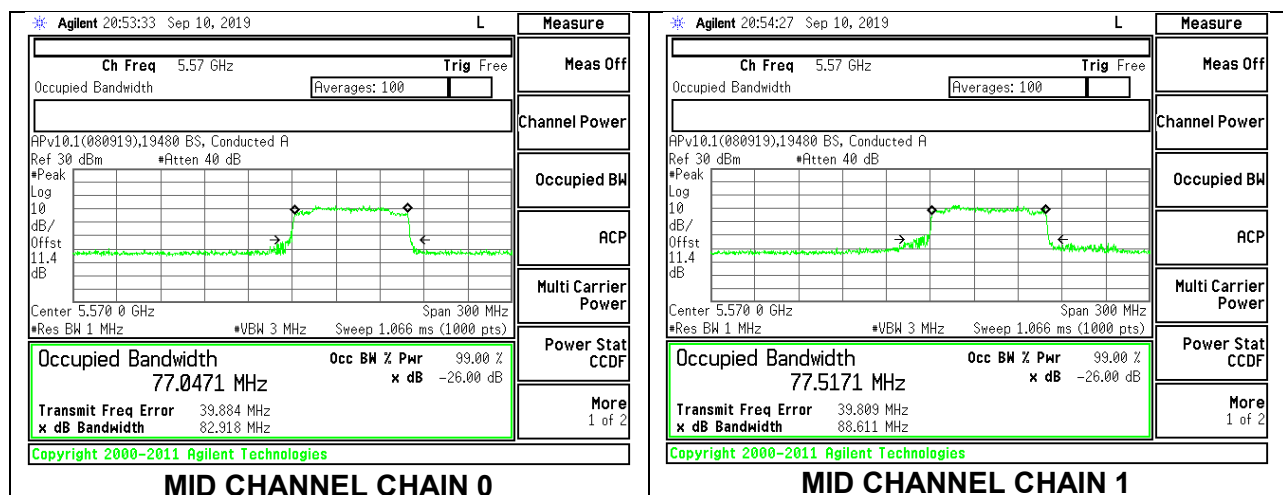
2*996-Tones, RU Index 68



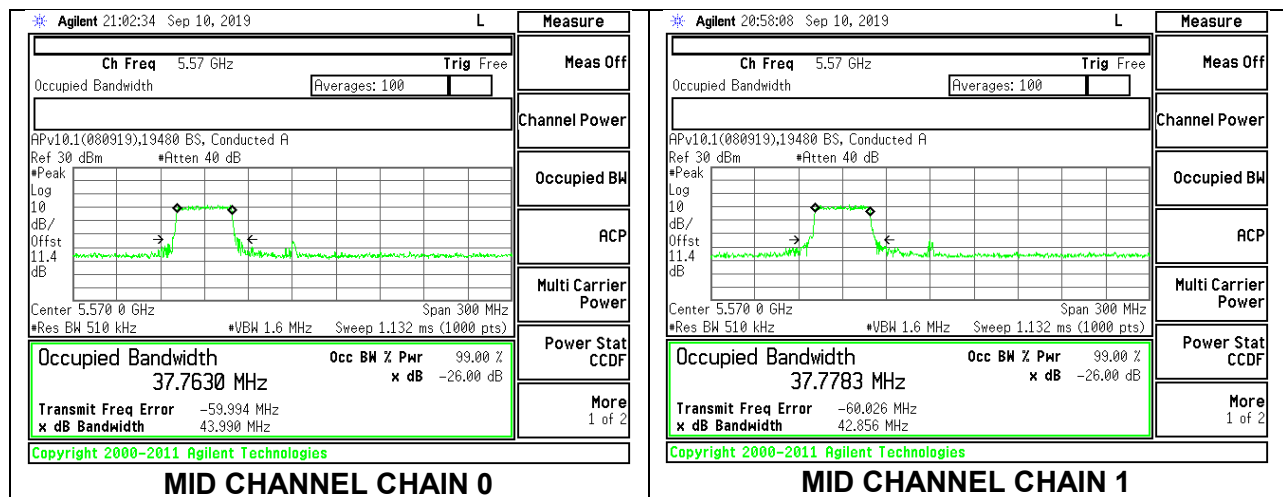
996-Tones, RU Index 67



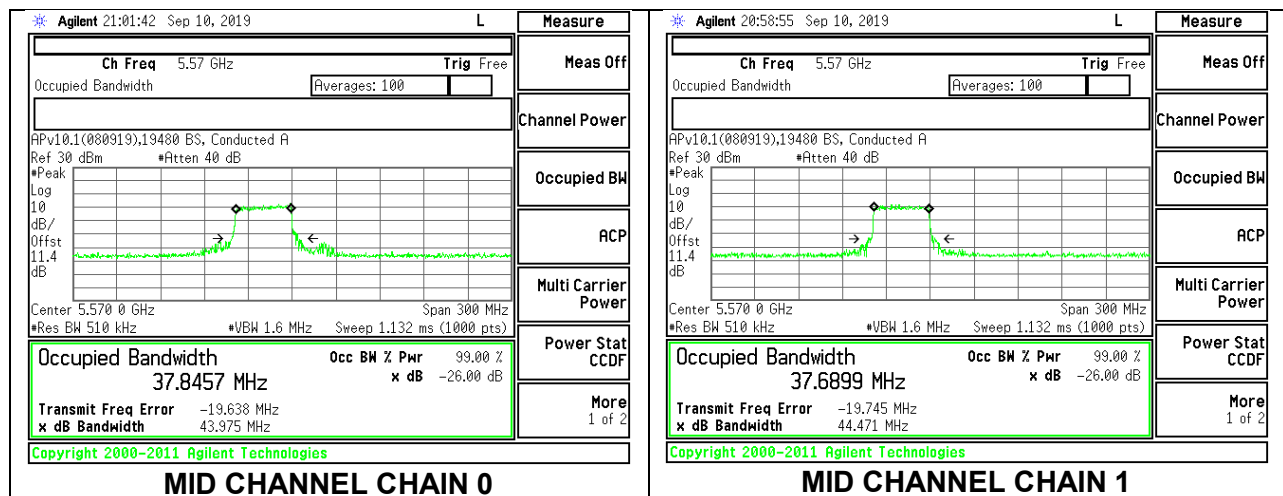
996-Tones, RU Index S67



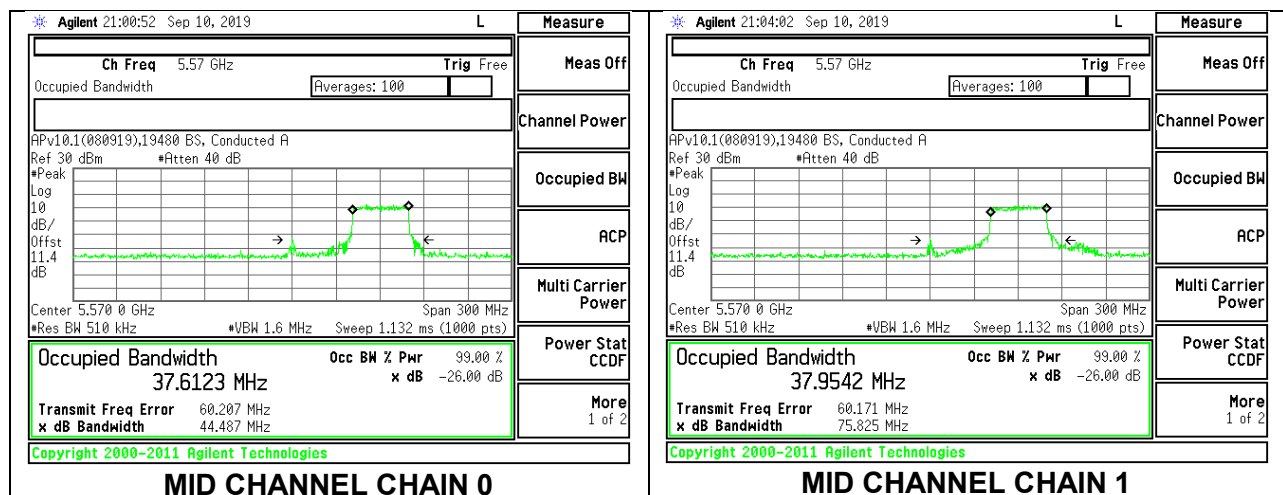
484-Tones, RU Index 65



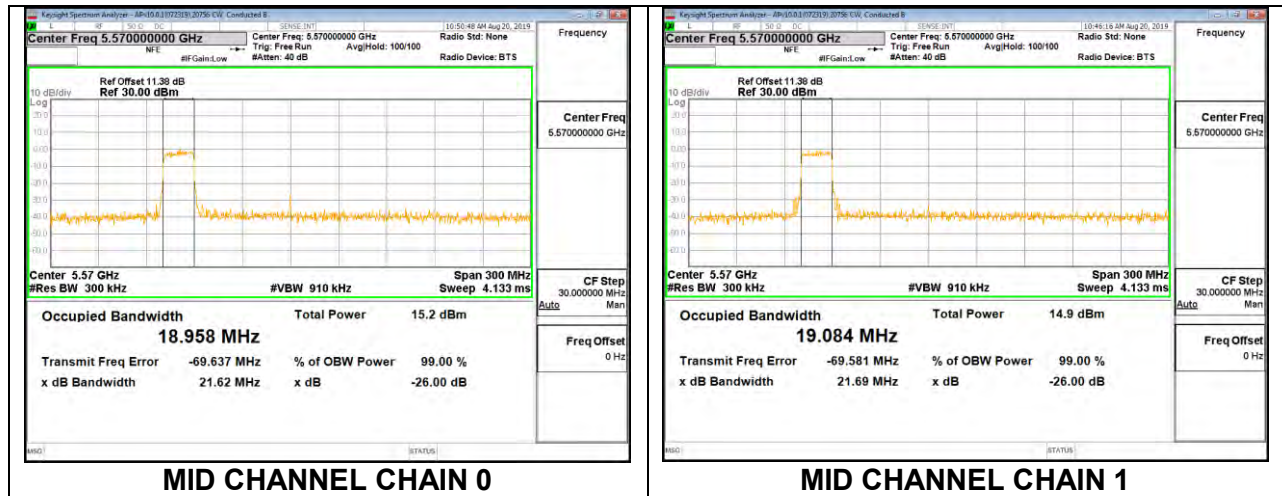
484-Tones, RU Index 66



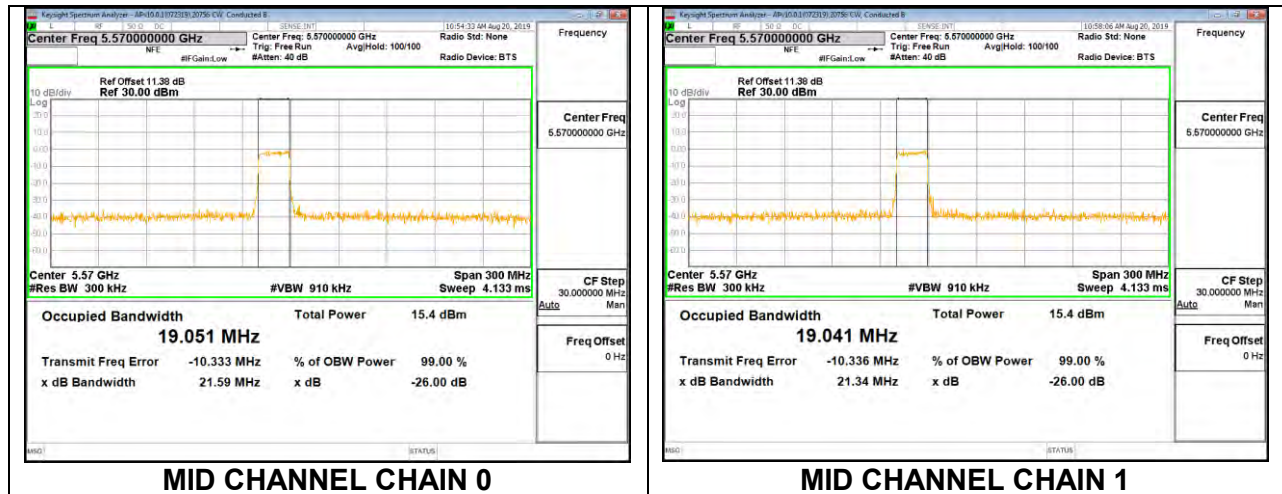
484-Tones, RU Index S66



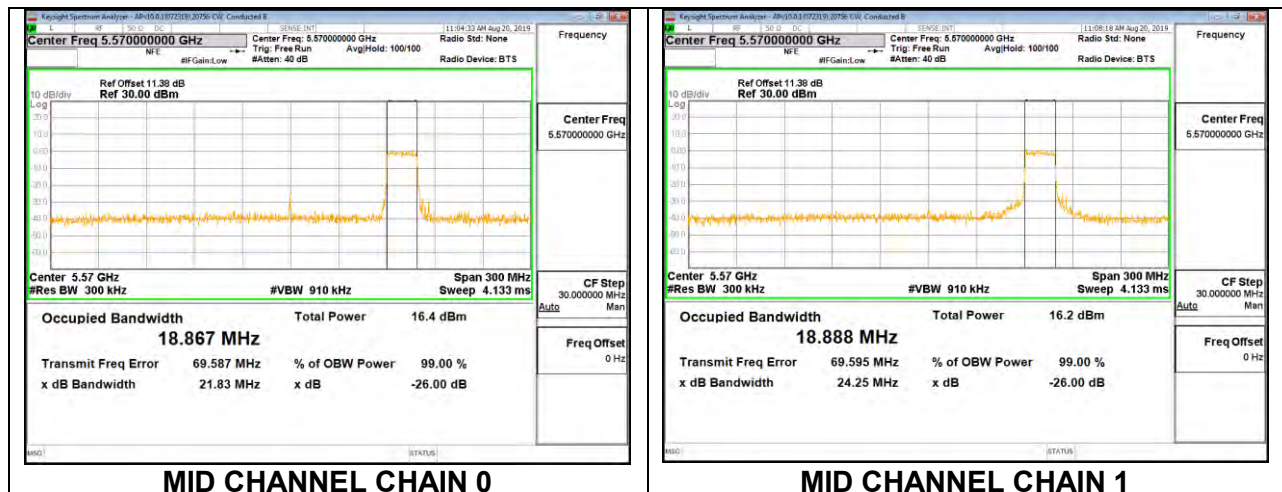
242-Tones, RU Index 61



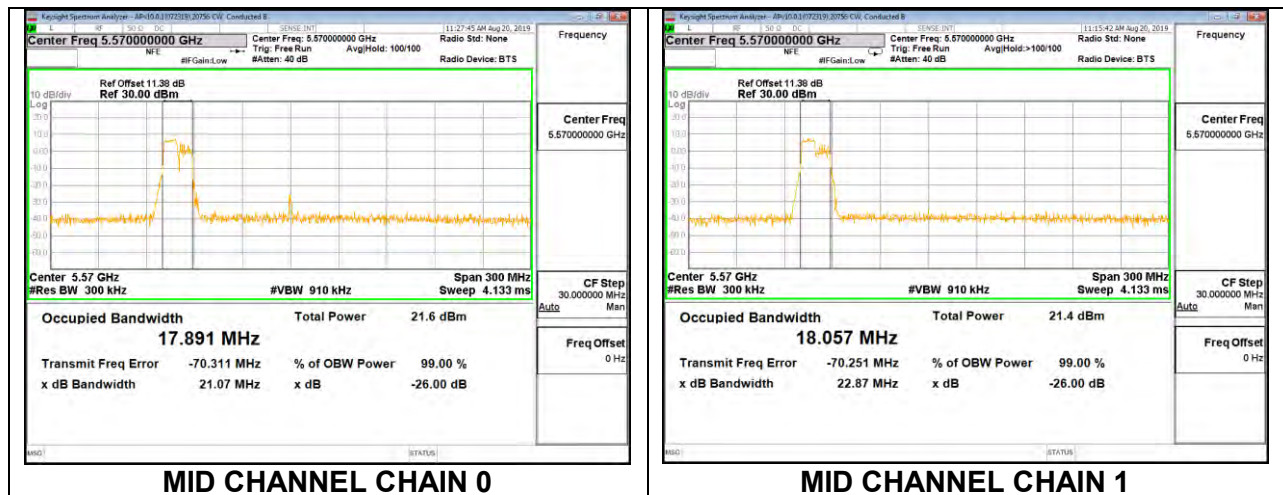
242-Tones, RU Index 64



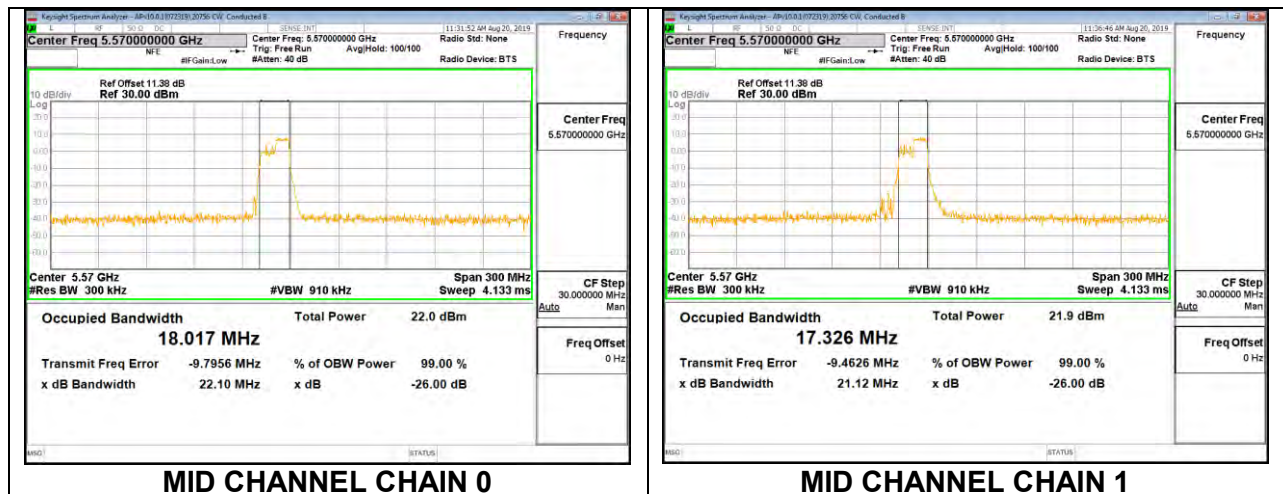
242-Tones, RU Index S64



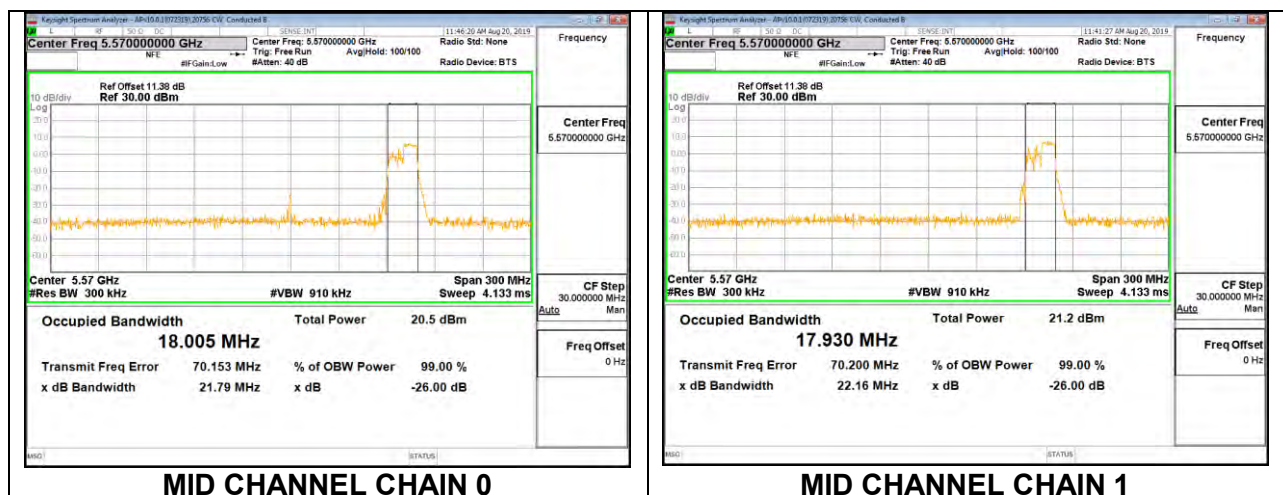
106-Tones, RU Index 53



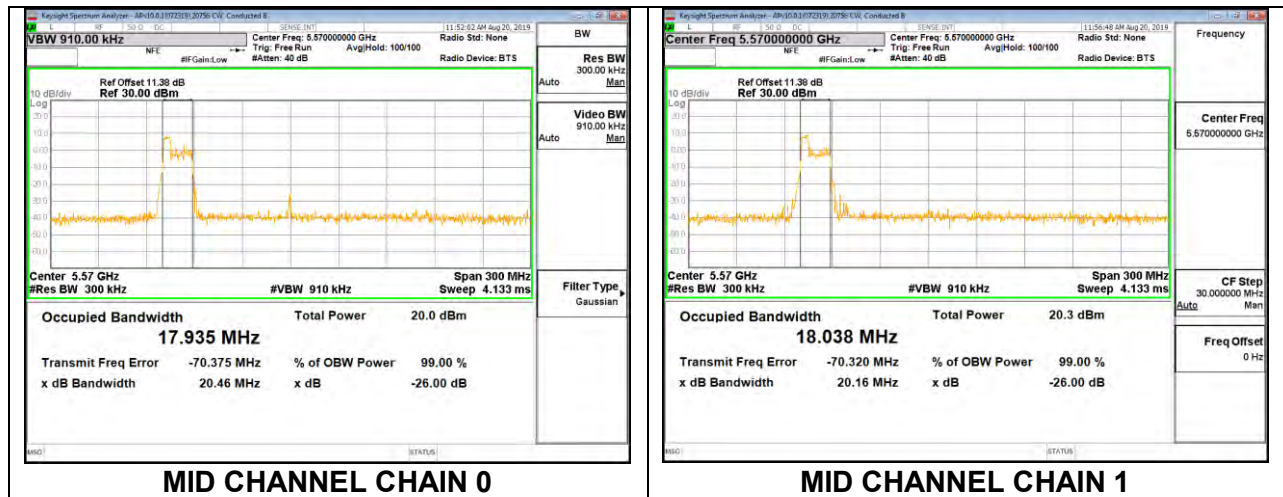
106-Tones, RU Index 60



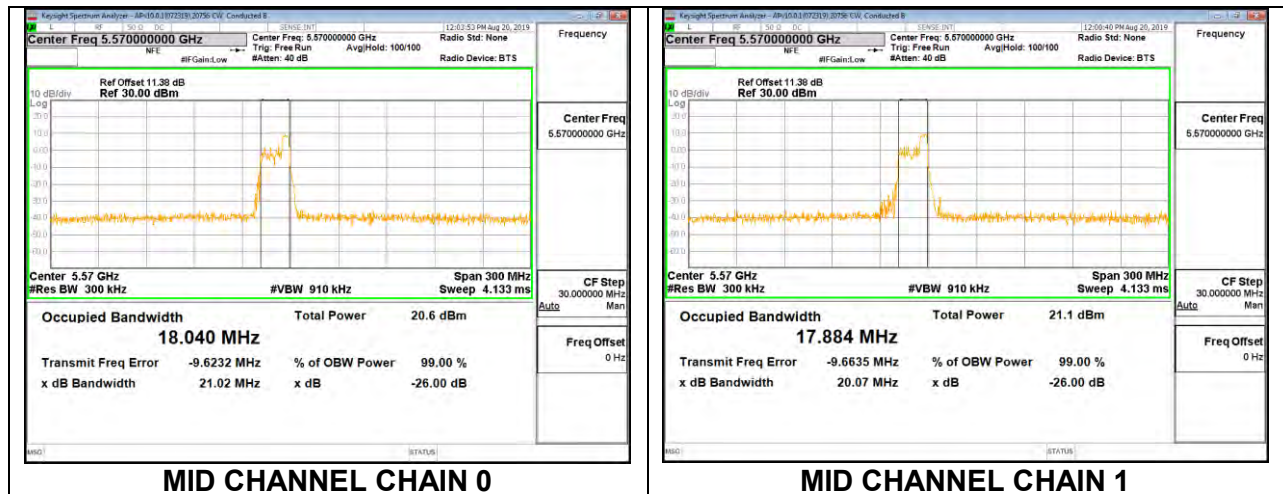
106-Tones, RU Index S60



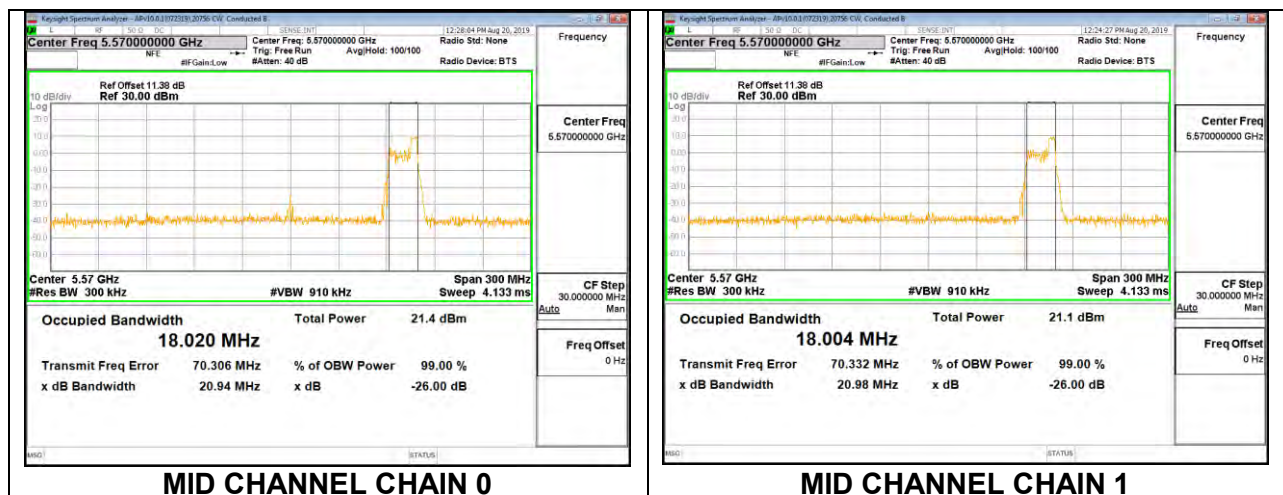
52-Tones, RU Index 37



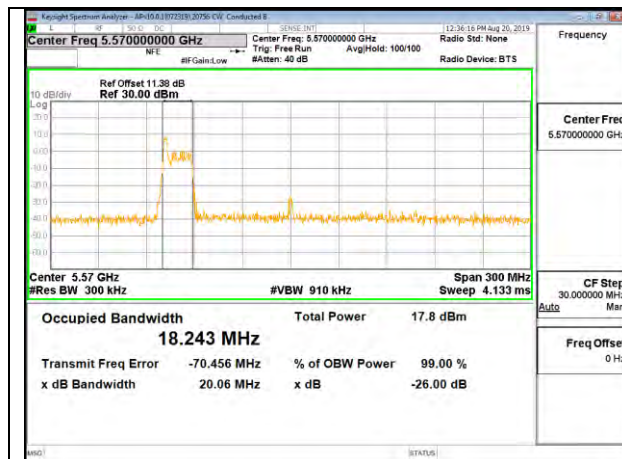
52-Tones, RU Index 52



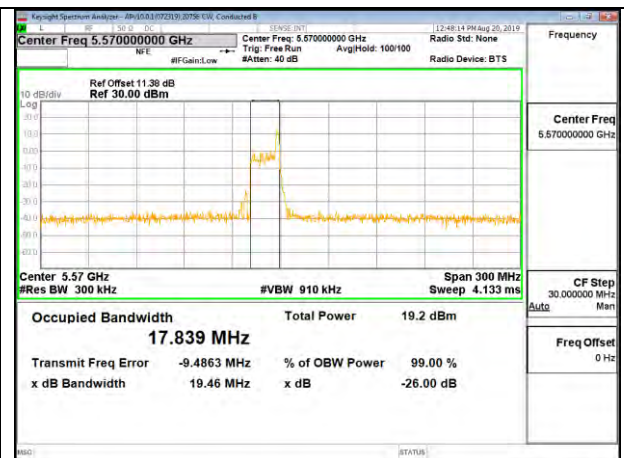
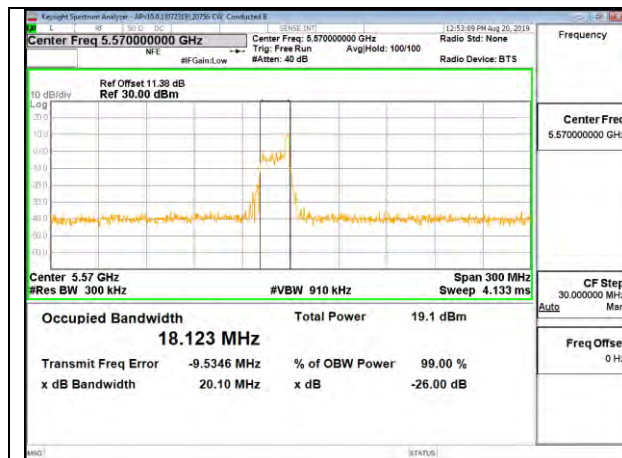
52-Tones, RU Index S52



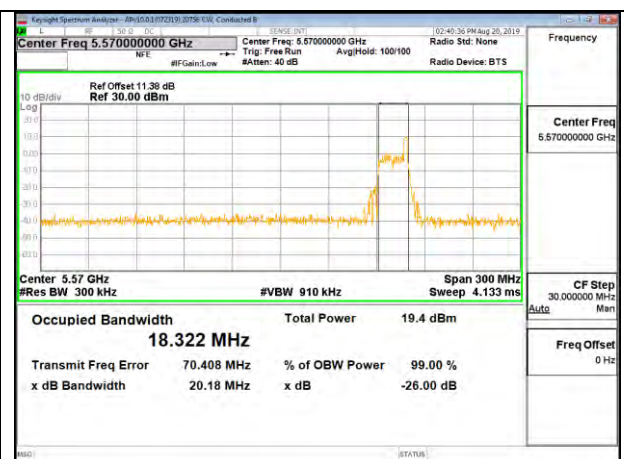
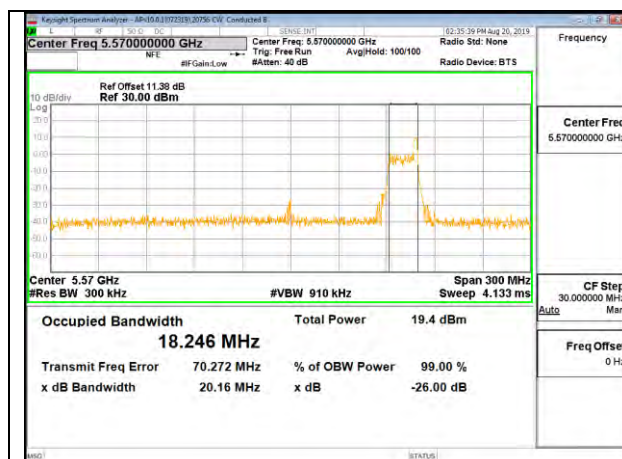
26-Tones, RU Index 0



26-Tones, RU Index 36



26-Tones, RU Index S36



8.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407

Band 5.15–5.25 GHz

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. 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.

Bands 5.25-5.35 GHz and 5.47-5.725 GHz

The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, 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.

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. 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

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Band 5.15-5.25 GHz

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

Band 5.25-5.35 GHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

Bands 5.47-5.6 GHz and 5.65-5.725 GHz

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

Note: 160Mhz mode results comparisons to ISED limits are for informational purposes. Canada does not permit transmission in the TDWR band.

Band 5.725-5.85 GHz

The maximum conducted output power shall not exceed 1 W. The power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

TEST PROCEDURE

The measurement method used for output power is KDB 789033 D02 v02r01, Section E.3.b (Method PM-G) and for straddles channels KDB 789033 D02 v02r01, Section E.2.b (Method SA-1) was used.

The measurement method used for power spectral density is KDB 789033 D02 v02r01, Section F

DIRECTIONAL ANTENNA GAIN

For 2 TX:

Tx chains are uncorrelated for power and PSD due to the device supporting SDM in all 11ax MIMO modes. The directional gains are as follows:

Band (GHz)	Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.2	6.00	3.00	4.75
5.3	7.80	3.50	6.16
5.6	8.00	4.00	6.45
5.8	8.30	4.60	6.83

RESULTS

8.4.1. 802.11ax HE20 MODE IN THE 5.6 GHz BAND (FCC+IC)

Note for Straddle Channel: Total power and Highest PSD across the entire channel meets the UNII-2C limits thus UNII-3 limits and therefore compliant.

2TX Chain 0 + Chain 1 SU MODE

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Direction Gain for PSD (dBi)
Low	5500	24.65	19.060	6.45	6.45
Mid	5580	24.55	18.983	6.45	6.45
High	5700	24.65	18.963	6.45	6.45
144*	5720	25.05	18.996	6.45	6.45

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low	5500	23.55	23.80	29.80	23.35	10.55	11.00
Mid	5580	23.55	23.78	29.78	23.33	10.55	11.00
High	5700	23.55	23.78	29.78	23.33	10.55	11.00
144*	5720	23.55	23.79	29.79	23.34	10.55	11.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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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	17.51	17.82	20.68	23.35	-2.67
Mid	5580	18.31	18.23	21.28	23.33	-2.05
High	5700	15.49	15.23	18.37	23.33	-4.96
144*	5720	18.48	18.43	21.47	23.34	-1.87

*As per the calculation in this formula, Measured total bandwidth(99%) / 2 + 5 MHz, the worst case bandwidth is 14.498 MHz.

Based on the 14.498 MHz bandwidth for the portion that the straddle channel occupies in the UNII-2C band, the calculated worst case power limit is $17 + 10 \cdot \log(14.498) - 6.45 = 22.16$ dBm. The total signal power is 21.47 dBm which is less than the limit of 22.16 dBm.

2TX Chain 0 + Chain 1 OFDMA MODE – 242-Tones, RU Index 61

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Direction Gain for PSD (dBi)
Low	5500	25.45	18.9321	6.45	6.45
Mid	5580	25.10	19.0412	6.45	6.45
High	5700	25.00	18.9954	6.45	6.45
144*	5720	24.75	18.9645	6.45	6.45

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low	5500	23.55	23.77	29.77	23.32	10.55	11.00
Mid	5580	23.55	23.80	29.80	23.35	10.55	11.00
High	5700	23.55	23.79	29.79	23.34	10.55	11.00
144*	5720	23.55	23.78	29.78	23.33	10.55	11.00

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

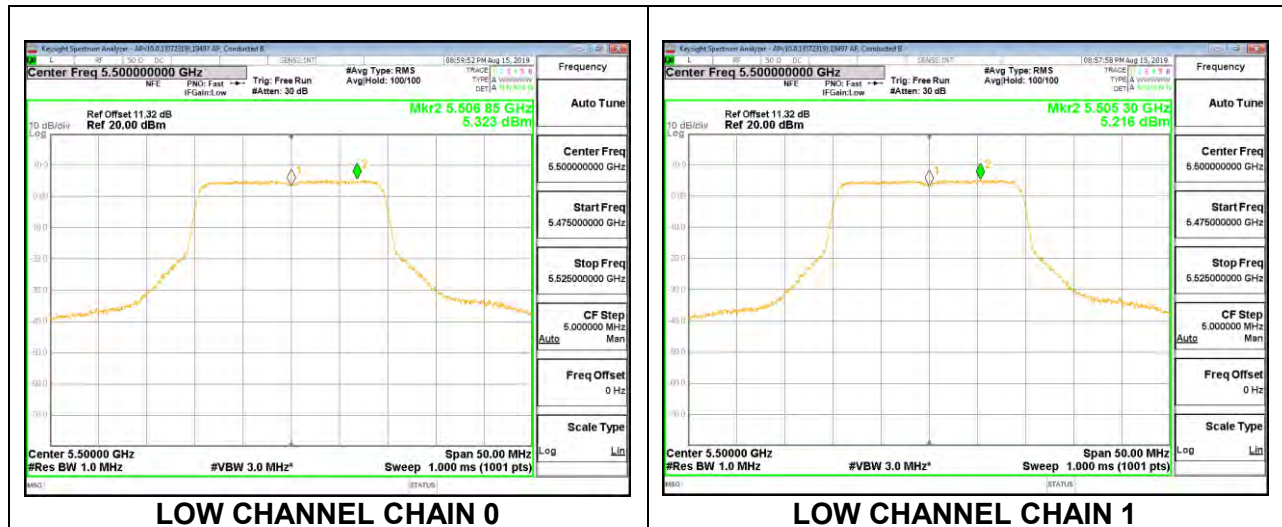
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	17.80	17.87	20.85	23.32	-2.48
Mid	5580	18.41	18.27	21.35	23.35	-2.00
High	5700	15.50	15.37	18.45	23.34	-4.89
144*	5720	18.54	18.46	21.51	23.33	-1.82

PSD Results

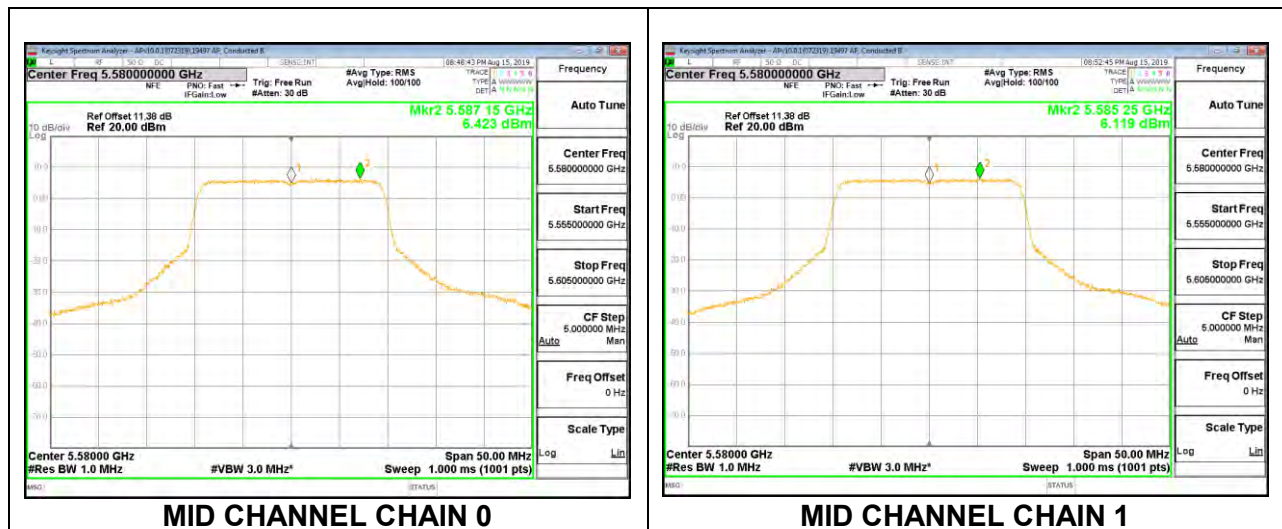
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm/ 1MHz)	Chain 1 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5500	5.323	5.216	8.280	10.55	-2.27
Mid	5580	6.423	6.119	9.284	10.55	-1.27
High	5700	3.296	3.424	6.371	10.55	-4.18
144*	5720	6.465	6.517	9.501	10.55	-1.05

*As per the calculation in this formula, Measured total bandwidth(99%) / 2 + 5 MHz, the worst case bandwidth is 14.4823 MHz.
Based on the 14.4823 MHz bandwidth for the portion that the straddle channel occupies in the UNII-2C band, the calculated worst case power limit is $17 + 10 \cdot \log(14.4823) - 6.45 = 22.16$ dBm.
The total signal power is 21.51 dBm which is less than the limit of 22.16 dBm.

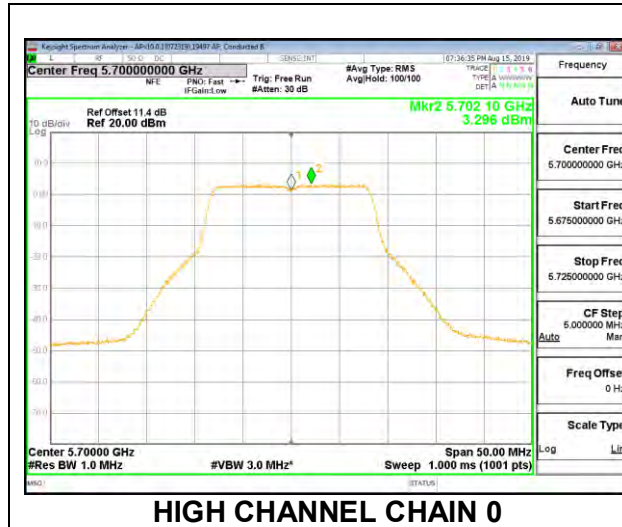
LOW CHANNEL



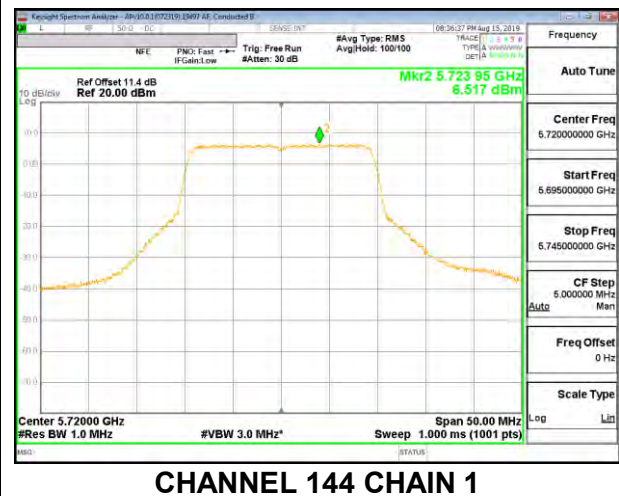
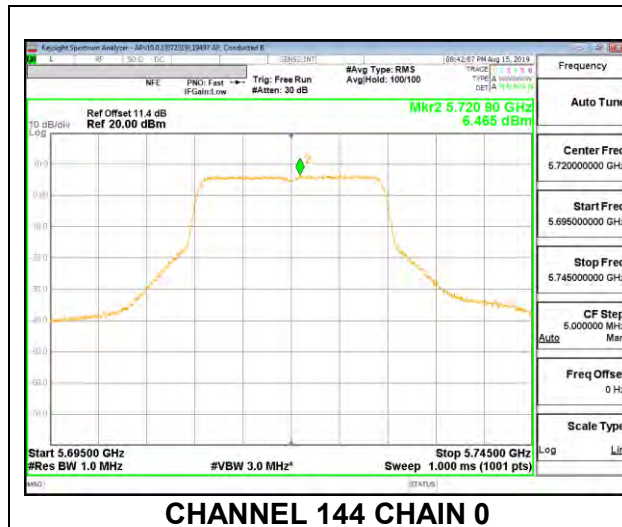
MID CHANNEL



HIGH CHANNEL



CHANNEL 144



2TX Chain 0 + Chain 1 OFDMA MODE – 106-Tones

Bandwidth and Antenna Gain

Channel / RU Index	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low / RU53	5500	22.20	18.106	6.45	6.45
Mid / RU53	5580	20.65	17.502	6.45	6.45
High / RU54	5700	23.25	18.3845	6.45	6.45
144 / RU54*	5720	22.90	18.1732	6.45	6.45

Limits

Channel / RU Index	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low / RU53	5500	23.55	23.58	29.58	23.13	10.55	11.00
Mid / RU53	5580	23.55	23.43	29.43	22.98	10.55	11.00
High / RU54	5700	23.55	23.64	29.64	23.19	10.55	11.00
144 / RU54*	5720	23.55	23.59	29.59	23.14	10.55	11.00

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

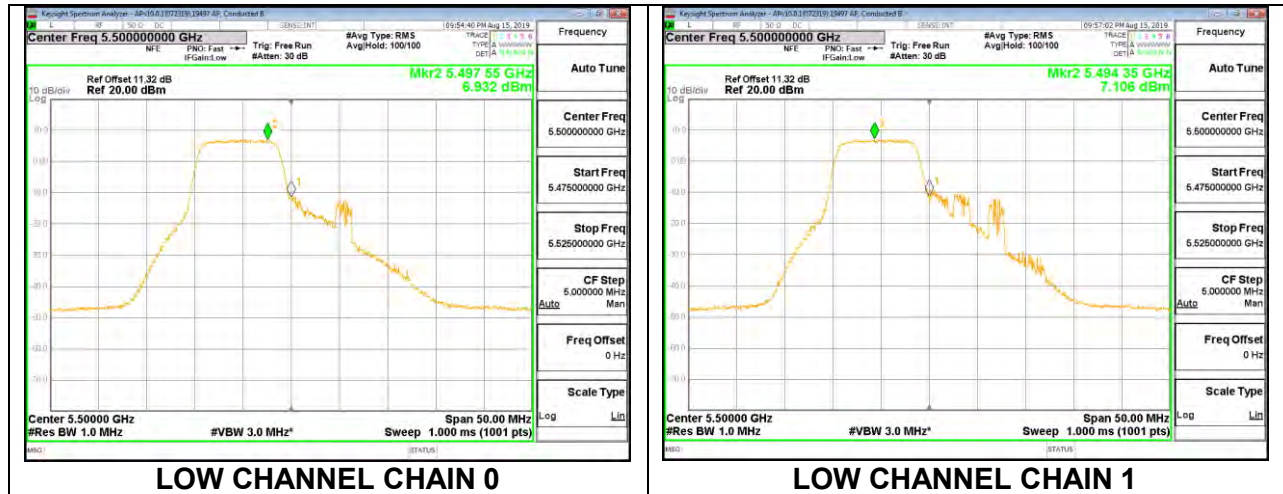
Channel / RU Index	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low / RU53	5500	16.76	17.00	19.89	23.13	-3.24
Mid / RU53	5580	17.58	17.60	20.60	22.98	-2.38
High / RU54	5700	16.51	16.32	19.43	23.19	-3.77
144 / RU54*	5720	16.83	16.66	19.76	23.14	-3.39

PSD Results

Channel / RU Index	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 / RU53	5500	6.932	7.106	10.030	10.55	-0.52
Mid / RU53	5580	6.902	7.066	9.995	10.55	-0.55
High / RU54	5700	6.893	6.791	9.853	10.55	-0.70
144 / RU54*	5720	6.570	6.583	9.587	10.55	-0.96

*As per the calculation in this formula, Measured total bandwidth(99%) / 2 + 5 MHz, the worst case bandwidth is 14.0866 MHz.
Based on the 14.0866 MHz bandwidth for the portion that the straddle channel occupies in the UNII-2C band, the calculated worst case power limit is $17 + 10 \cdot \log(14.0866) - 6.45 = 22.04$ dBm.
The total signal power is 19.76 dBm which is less than the limit of 22.04 dBm.

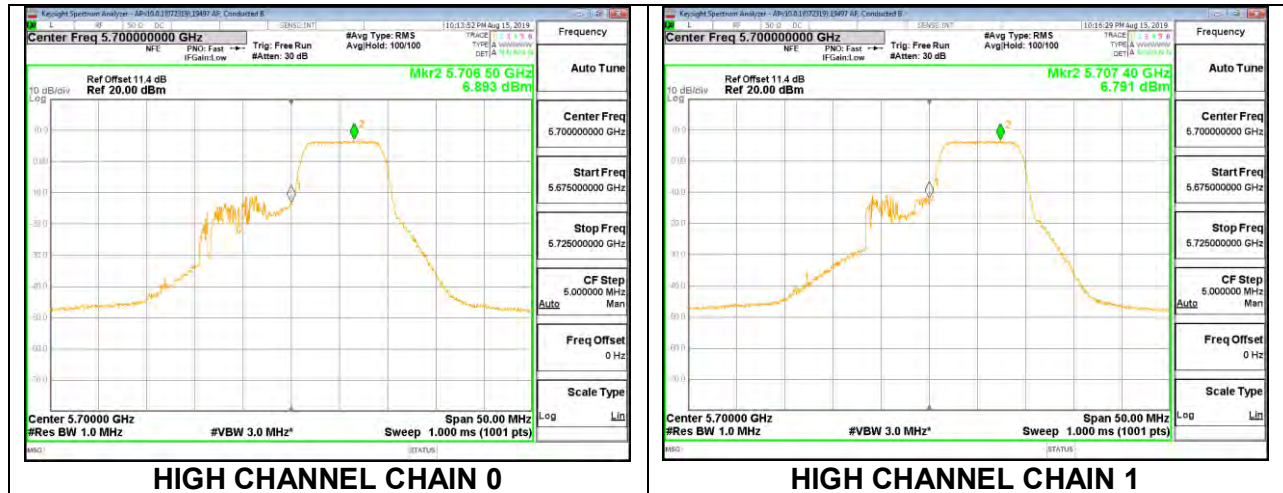
RU Index 53



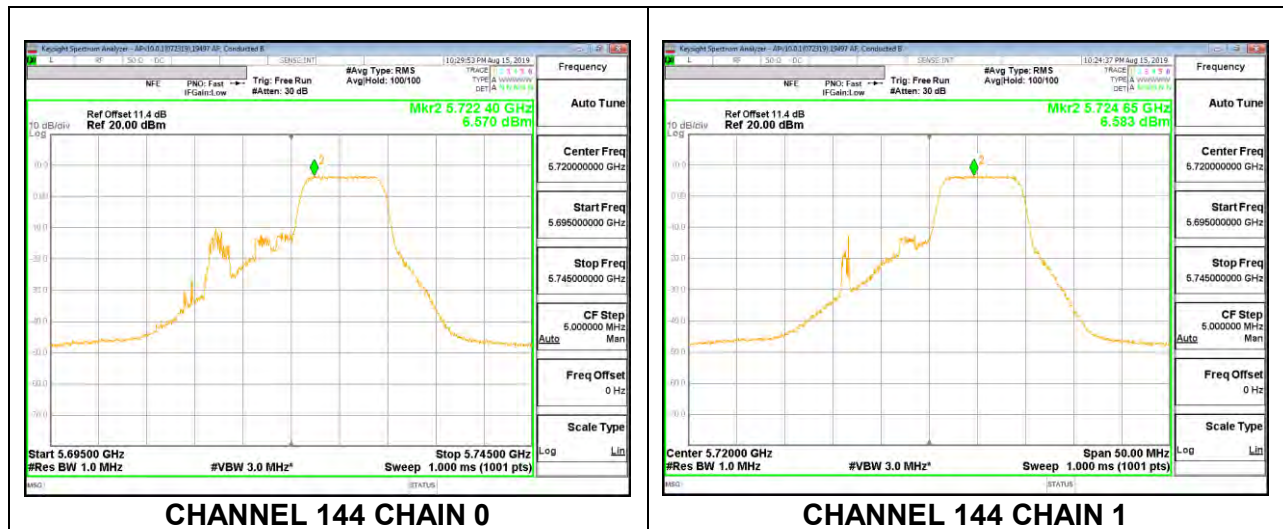
RU Index 53



RU Index 54



RU Index 54



2TX Chain 0 + Chain 1 OFDMA MODE – 52-Tones

Bandwidth and Antenna Gain

Channel / RU Index	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Direction Gain for PSD (dBi)
Low / RU37	5500	21.10	17.989	6.45	6.45
Mid / RU38	5580	19.50	16.8914	6.45	6.45
High / RU40	5700	20.15	18.0430	6.45	6.45
144 / RU40*	5720	20.45	18.1883	6.45	6.45

Limits

Channel / RU Index	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low / RU37	5500	23.55	23.55	29.55	23.10	10.55	11.00
Mid / RU38	5580	23.45	23.28	29.28	22.83	10.55	11.00
High / RU40	5700	23.55	23.56	29.56	23.11	10.55	11.00
144 / RU40*	5720	23.55	23.60	29.60	23.15	10.55	11.00

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

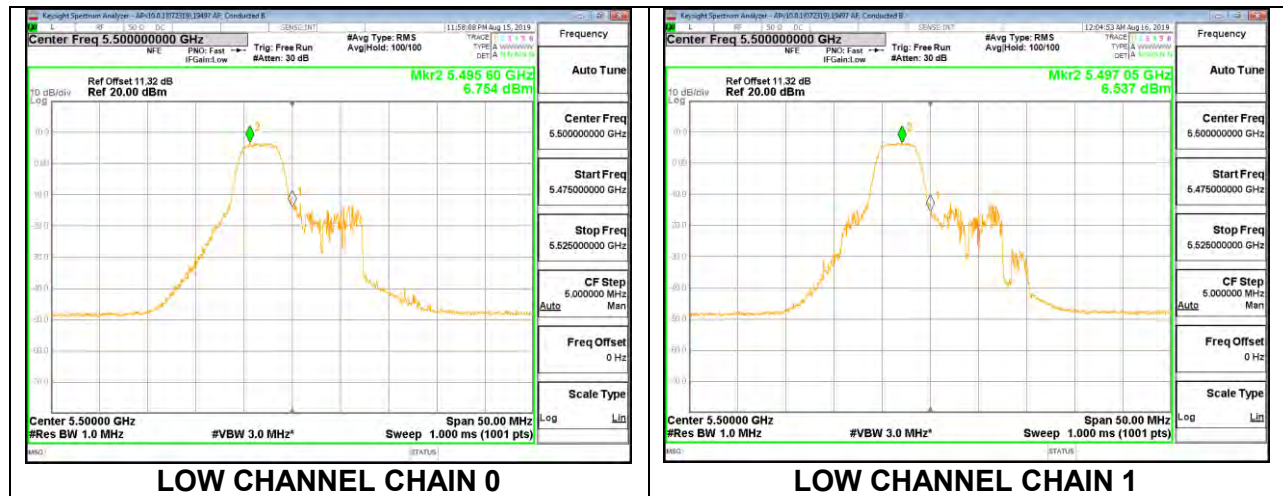
Channel / RU Index	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low / RU37	5500	14.42	14.20	17.32	23.10	-5.78
Mid / RU38	5580	14.90	14.75	17.84	22.83	-4.99
High / RU40	5700	14.41	14.28	17.36	23.11	-5.76
144 / RU40*	5720	13.75	13.80	16.79	23.15	-6.36

PSD Results

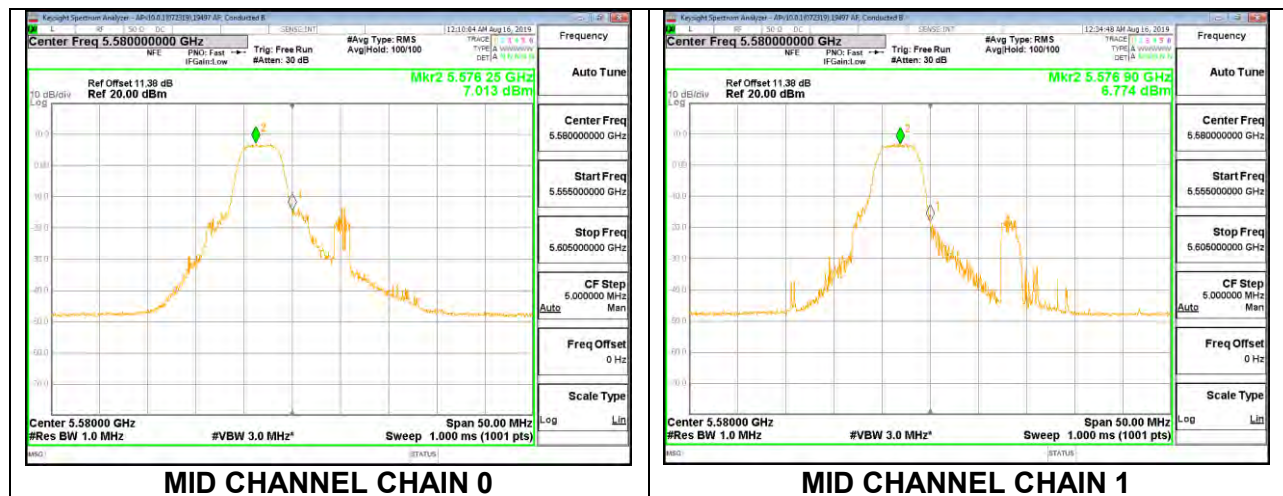
Channel / RU Index	Frequency (MHz)	Chain 0 Meas PSD (dBm/ 1MHz)	Chain 1 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low / RU37	5500	6.754	6.537	9.657	10.55	-0.89
Mid / RU38	5580	7.013	6.774	9.905	10.55	-0.64
High / RU40	5700	7.146	6.562	9.874	10.55	-0.68
144 / RU40*	5720	6.850	7.156	10.016	10.55	-0.53

*As per the calculation in this formula, Measured total bandwidth(99%) / 2 + 5 MHz, the worst case bandwidth is 14.0942 MHz.
Based on the 14.0942 MHz bandwidth for the portion that the straddle channel occupies in the UNII-2C band, the calculated worst case power limit is $17 + 10 \cdot \log(14.0942) - 6.45 = 22.04$ dBm.
The total signal power is 16.79 dBm which is less than the limit of 22.04 dBm.

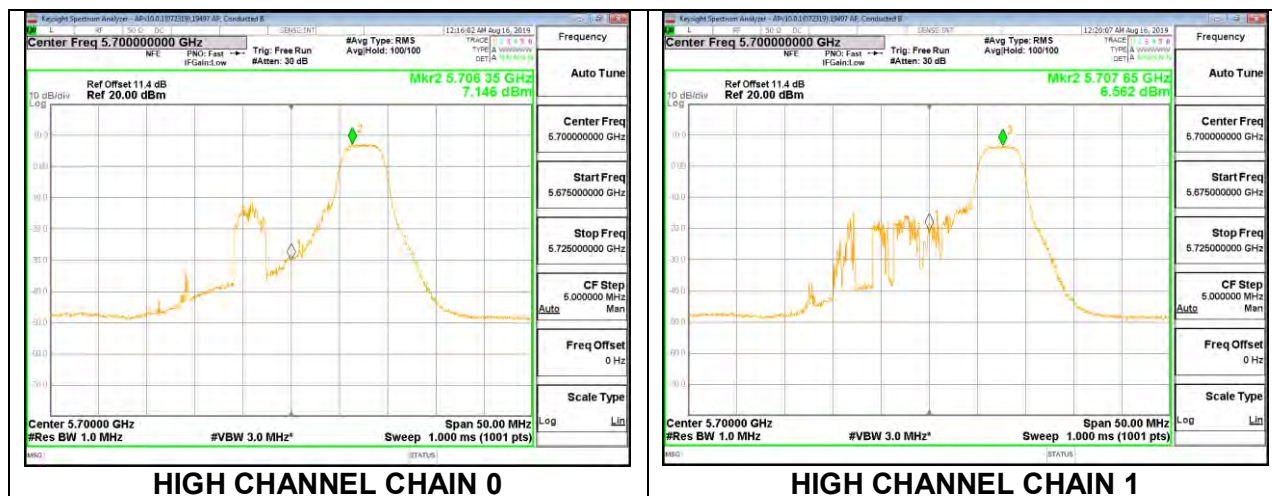
RU Index 37



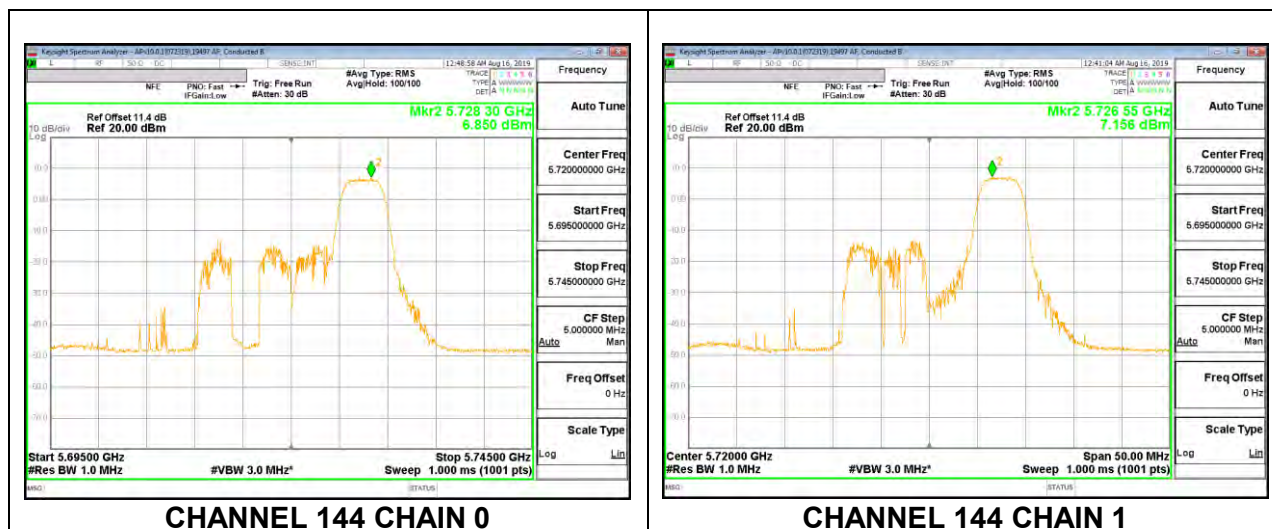
RU Index 38



RU Index 40



RU Index 40



2TX Chain 0 + Chain 1 OFDMA MODE – 26-Tones

Bandwidth and Antenna Gain

Channel / RU Index	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low / RU0	5500	20.40	18.5769	6.45	6.45
Mid / RU4	5580	18.25	18.8376	6.45	6.45
High / RU8	5700	19.95	18.3845	6.45	6.45
144 / RU8*	5720	20.35	18.4001	6.45	6.45

Limits

Channel / RU Index	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low / RU0	5500	23.55	23.69	29.69	23.24	10.55	11.00
Mid / RU4	5580	23.16	23.75	29.75	23.16	10.55	11.00
High / RU8	5700	23.55	23.64	29.64	23.19	10.55	11.00
144 / RU8*	5720	23.55	23.65	29.65	23.20	10.55	11.00

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

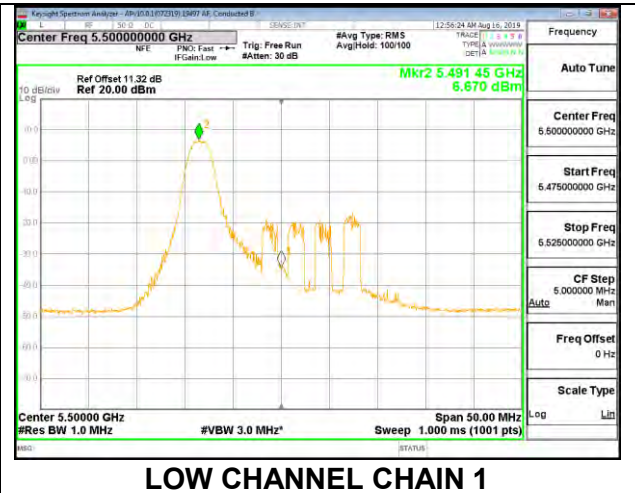
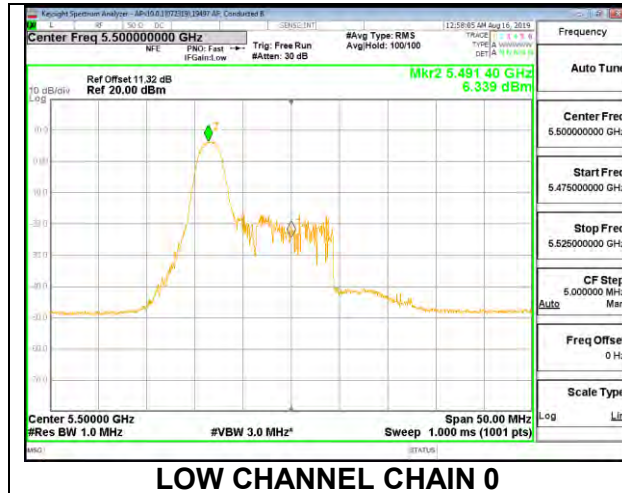
Channel / RU Index	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low / RU0	5500	10.85	10.42	13.65	23.24	-9.59
Mid / RU4	5580	11.05	10.65	13.86	23.16	-9.30
High / RU8	5700	11.05	10.54	13.81	23.19	-9.38
144 / RU8*	5720	11.11	10.62	13.88	23.20	-9.32

PSD Results

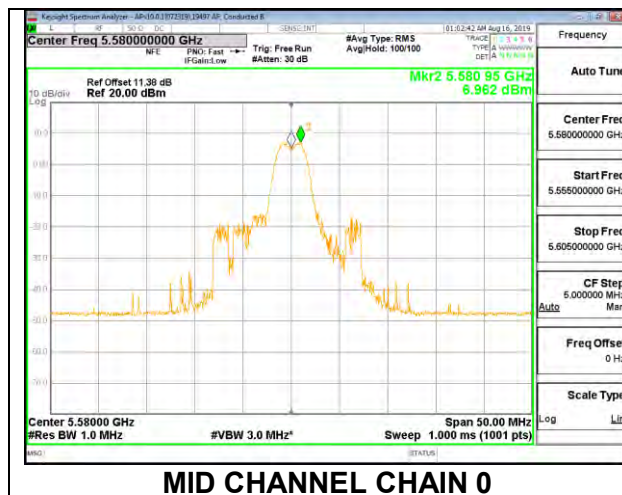
Channel / RU Index	Frequency (MHz)	Chain 0 Meas PSD (dBm/1MHz)	Chain 1 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low / RU0	5500	6.339	6.670	9.518	10.55	-1.03
Mid / RU4	5580	6.962	6.966	9.974	10.55	-0.58
High / RU8	5700	6.978	7.030	10.014	10.55	-0.54
144 / RU8*	5720	7.216	6.821	10.033	10.55	-0.52

*As per the calculation in this formula, Measured total bandwidth(99%) / 2 + 5 MHz, the worst case bandwidth is 14.2001 MHz.
Based on the 14.2001 MHz bandwidth for the portion that the straddle channel occupies in the UNII-2C band, the calculated worst case power limit is $17 + 10 \cdot \log(14.2001) - 6.45 = 22.07$ dBm.
The total signal power is 13.88 dBm which is less than the limit of 22.07 dBm.

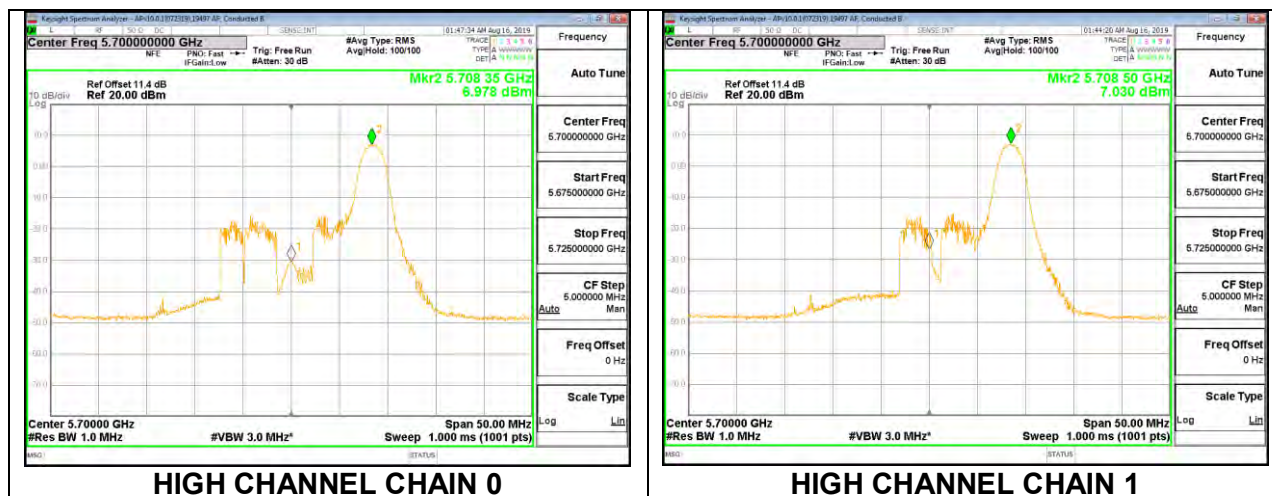
RU Index 0



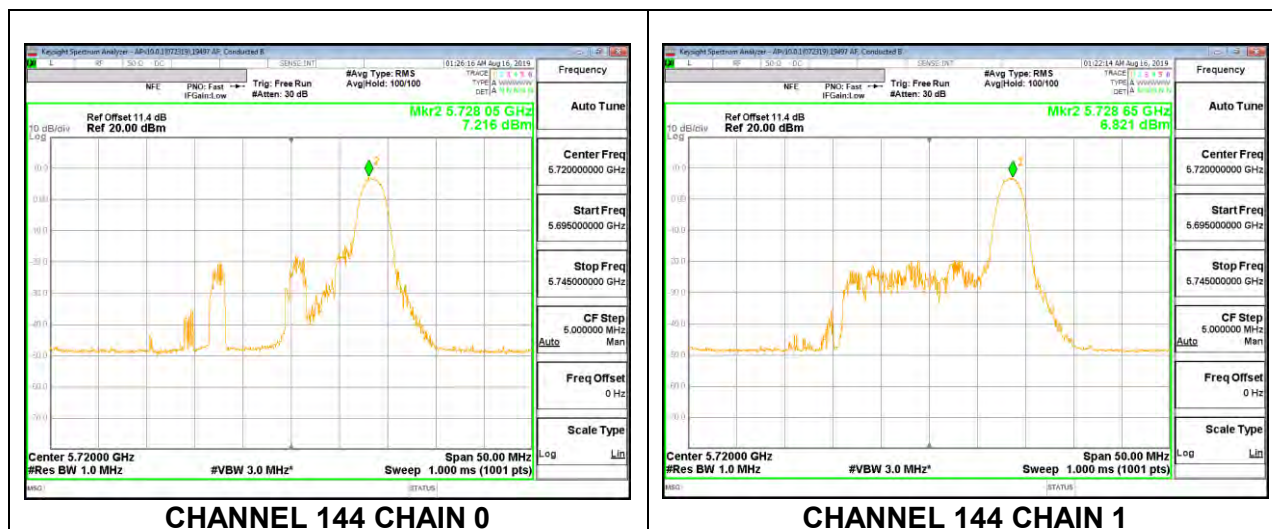
RU Index 4



RU Index 8



RU Index 8



8.4.2. 802.11ax HE40 MODE IN THE 5.6 GHz BAND (FCC+IC)

Note for Straddle Channel: Total power and Highest PSD across the entire channel meets the UNII-2C limits thus UNII-3 limits and therefore compliant.

2TX Chain 0 + Chain 1 SU MODE

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5510	43.80	37.7952	6.45	6.45
Mid	5550	44.10	37.7370	6.45	6.45
High	5670	44.20	37.6121	6.45	6.45
142*	5710	43.80	37.788	6.45	6.45

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5510	23.55	24.00	30.00	23.55	10.55	11.00	10.55
Mid	5550	23.55	24.00	30.00	23.55	10.55	11.00	10.55
High	5670	23.55	24.00	30.00	23.55	10.55	11.00	10.55
142*	5710	23.55	24.00	30.00	23.55	10.55	11.00	10.55

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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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	15.99	15.82	18.92	23.55	-4.63
Mid	5550	18.25	17.94	21.11	23.55	-2.44
High	5670	17.60	17.13	20.38	23.55	-3.17
142*	5710	18.61	18.00	21.33	23.55	-2.22

*The 26dB & 99% signal bandwidth within the 5470-5725 MHz band clearly exceed 20MHz and so the limit for the power within the 5470-5725MHz band is 23.55dBm

2TX Chain 0 + Chain 1 OFDMA MODE – 484-Tones, RU Index 65

Bandwidth and Antenna Gain

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low	5510	44.80	37.928	6.45	6.45
Mid	5550	44.10	37.947	6.45	6.45
High	5670	44.50	37.797	6.45	6.45
142*	5710	44.50	37.658	6.45	6.45

Limits

Channel	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/ 1MHz)	ISED PSD Limit (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)
Low	5510	23.55	24.00	30.00	23.55	10.55	11.00	10.55
Mid	5550	23.55	24.00	30.00	23.55	10.55	11.00	10.55
High	5670	23.55	24.00	30.00	23.55	10.55	11.00	10.55
142*	5710	23.55	24.00	30.00	23.55	10.55	11.00	10.55

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

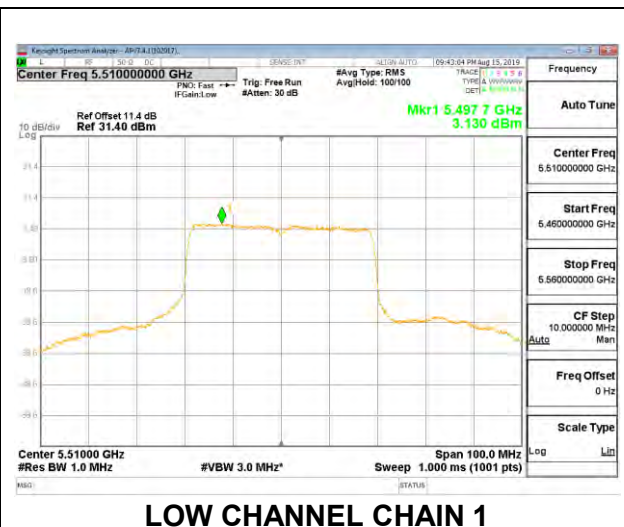
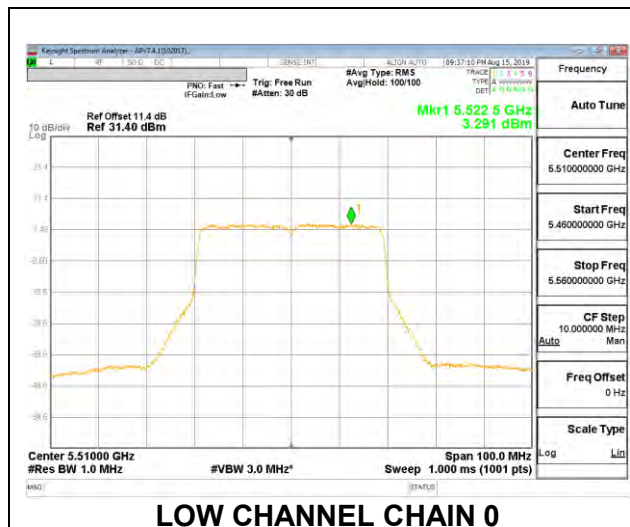
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	16.15	16.05	19.11	23.55	-4.44
Mid	5550	18.50	18.18	21.35	23.55	-2.20
High	5670	17.99	17.82	20.92	23.55	-2.63
142*	5710	18.77	18.44	21.62	23.55	-1.93

PSD Results

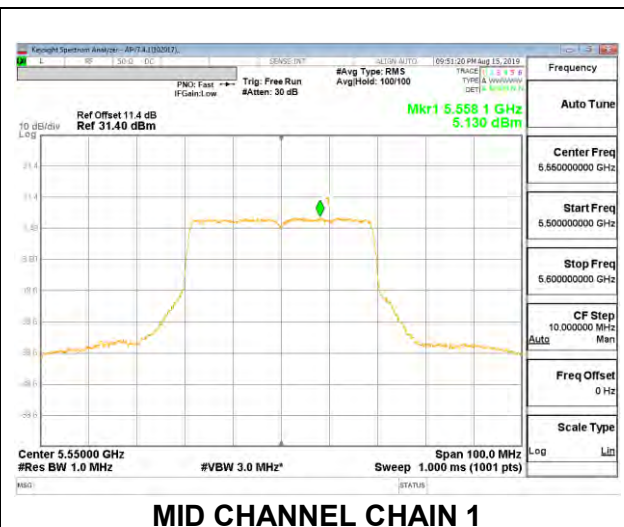
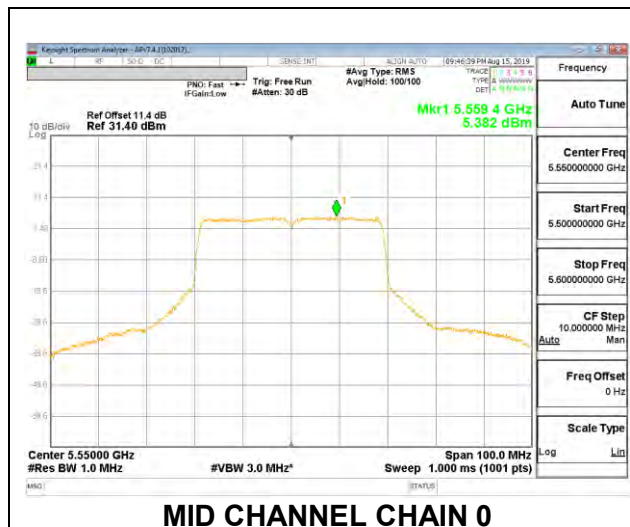
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm/ 1MHz)	Chain 1 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low	5510	3.291	3.130	6.22	10.55	-4.33
Mid	5550	5.382	5.130	8.27	10.55	-2.28
High	5670	5.000	5.007	8.01	10.55	-2.54
142*	5710	5.728	5.427	8.59	10.55	-1.96

*The 26dB & 99% signal bandwidth within the 5470-5725 MHz band clearly exceed 20MHz and so the limit for the power within the 5470-5725MHz band is 23.55dBm

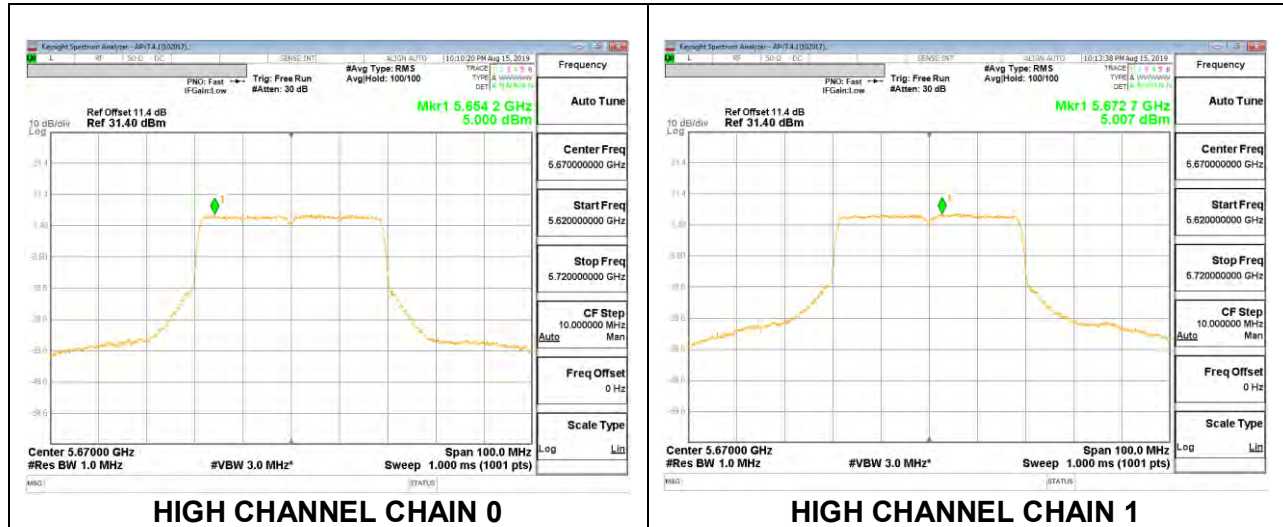
LOW CHANNEL



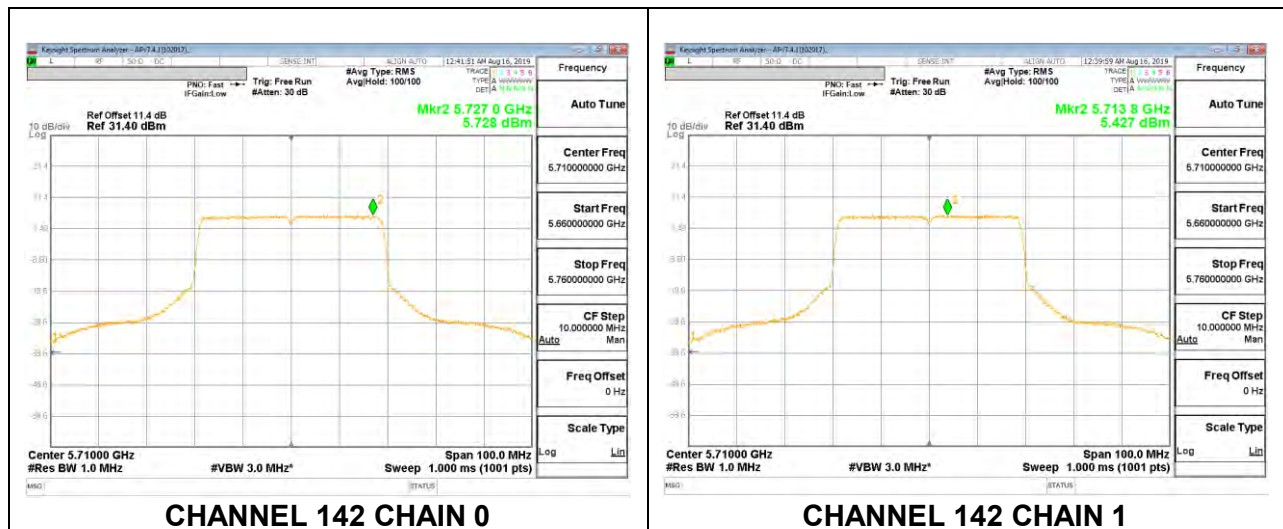
MID CHANNEL



HIGH CHANNEL



CHANNEL 142



2TX Chain 0 + Chain 1 OFDMA MODE – 242-Tones

Bandwidth and Antenna Gain

Channel / RU Index	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)
Low / RU61	5510	23.00	18.969	6.45	6.45
Mid / RU61	5550	23.20	18.965	6.45	6.45
High / RU62	5670	22.30	19.252	6.45	6.45
142 / RU62*	5710	22.50	18.974	6.45	6.45

Limits

Channel / RU Index	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low / RU61	5510	23.55	23.78	29.78	23.33	10.55	11.00
Mid / RU61	5550	23.55	23.78	29.78	23.33	10.55	11.00
High / RU62	5670	23.55	23.84	29.84	23.39	10.55	11.00
142 / RU62*	5710	23.55	23.78	29.78	23.33	10.55	11.00

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

Channel / RU Index	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low / RU61	5510	17.89	17.71	20.81	23.33	-2.52
Mid / RU61	5550	18.27	18.13	21.21	23.33	-2.12
High / RU62	5670	18.50	18.38	21.45	23.39	-1.94
142 / RU62*	5710	18.57	18.50	21.55	23.33	-1.79

PSD Results

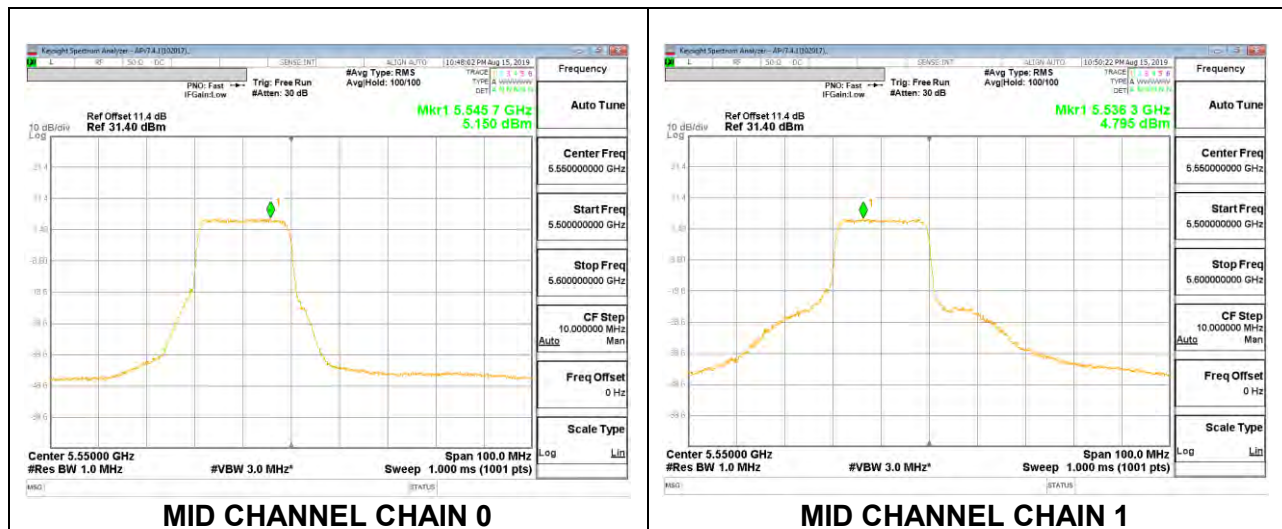
Channel / RU Index	Frequency (MHz)	Chain 0 Meas PSD (dBm/1MHz)	Chain 1 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low / RU61	5510	4.987	4.781	7.896	10.55	-2.65
Mid / RU61	5550	5.150	4.795	7.986	10.55	-2.56
High / RU62	5670	5.210	5.043	8.138	10.55	-2.41
142 / RU62*	5710	5.845	5.660	8.764	10.55	-1.79

*As per the calculation in this formula, Measured total bandwidth(99%) / 2 + 5 MHz, the worst case bandwidth is 14.487 MHz.
Based on the 14.487 MHz bandwidth for the portion that the straddle channel occupies in the UNII-2C band, the calculated worst case power limit is $17 + 10 \cdot \log(14.487) - 6.45 = 22.16$ dBm.
The total signal power is 21.55 dBm which is less than the limit of 22.16 dBm.

RU Index 61



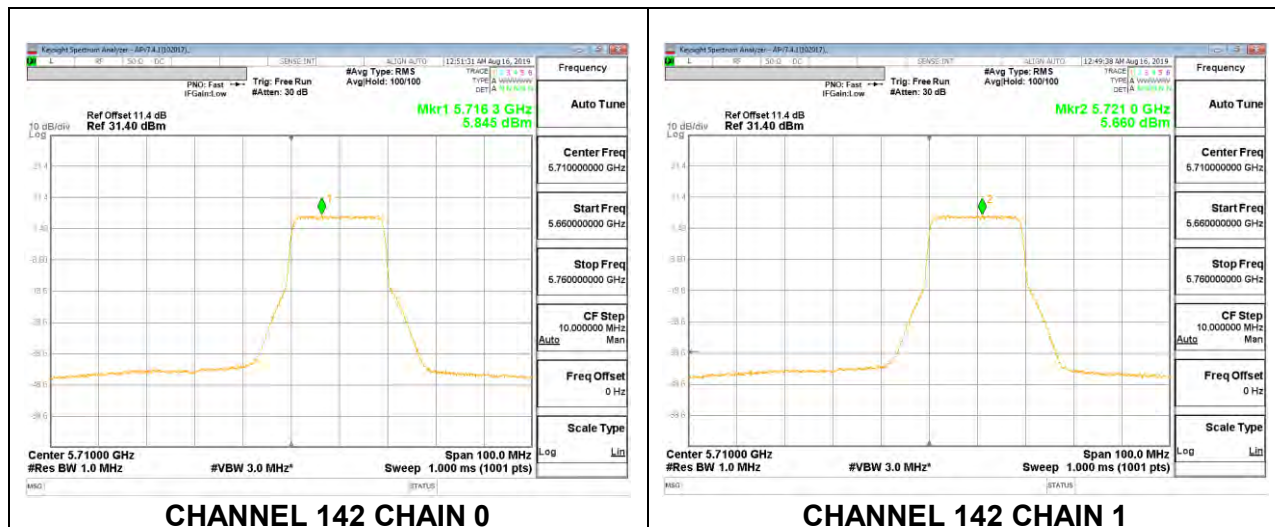
RU Index 61



RU Index 62



RU Index 62



2TX Chain 0 + Chain 1 OFDMA MODE – 106-Tones

Bandwidth and Antenna Gain

Channel / RU Index	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Direction Gain for PSD (dBi)
Low / RU53	5510	22.20	17.575	6.45	6.45
Mid / RU54	5550	21.10	18.310	6.45	6.45
High / RU56	5670	20.60	17.794	6.45	6.45
142 / RU56*	5710	20.20	18.226	6.45	6.45

Limits

Channel / RU Index	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low / RU53	5510	23.55	23.45	29.45	23.00	10.55	11.00
Mid / RU54	5550	23.55	23.63	29.63	23.18	10.55	11.00
High / RU56	5670	23.55	23.50	29.50	23.05	10.55	11.00
142 / RU56*	5710	23.55	23.61	29.61	23.16	10.55	11.00

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

Channel / RU Index	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low / RU53	5510	15.06	14.98	18.03	23.00	-4.97
Mid / RU54	5550	15.28	14.91	18.11	23.18	-5.07
High / RU56	5670	15.01	14.89	17.96	23.05	-5.09
142 / RU56*	5710	15.22	15.01	18.13	23.16	-5.03

PSD Results

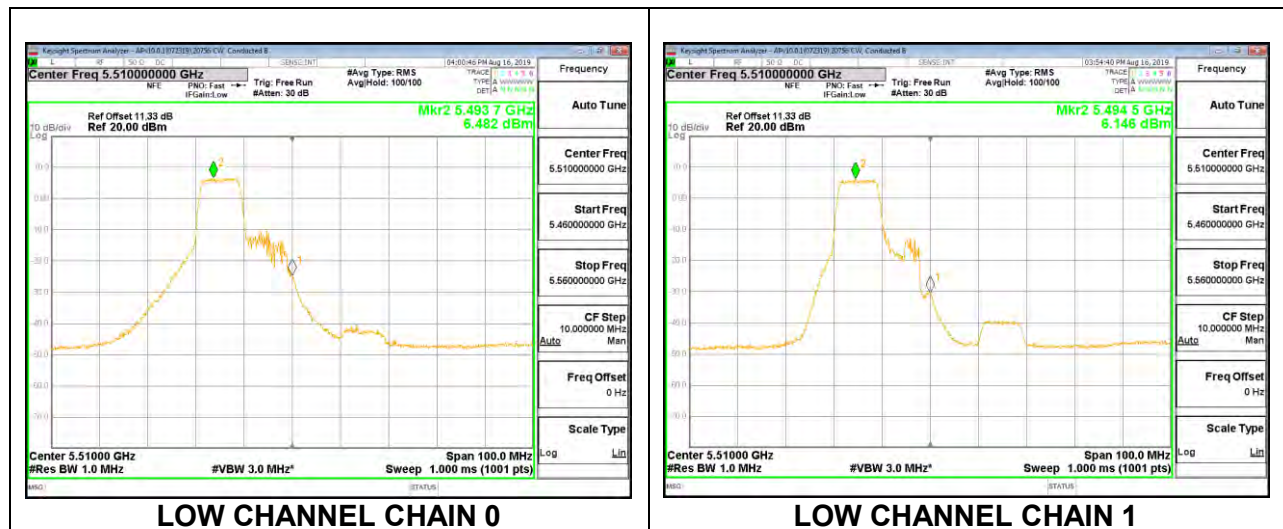
Channel / RU Index	Frequency (MHz)	Chain 0 Meas PSD (dBm/1MHz)	Chain 1 Meas PSD (dBm/1MHz)	Total Corr'd PSD (dBm/1MHz)	PSD Limit (dBm/1MHz)	PSD Margin (dB)
Low / RU53	5510	6.482	6.146	9.328	10.55	-1.22
Mid / RU54	5550	6.384	6.300	9.353	10.55	-1.20
High / RU56	5670	6.599	6.635	9.627	10.55	-0.92
142 / RU56*	5710	6.312	6.191	9.262	10.55	-1.29

*As per the calculation in this formula, Measured total bandwidth(99%) / 2 MHz, the worst case bandwidth is 9.113 MHz.

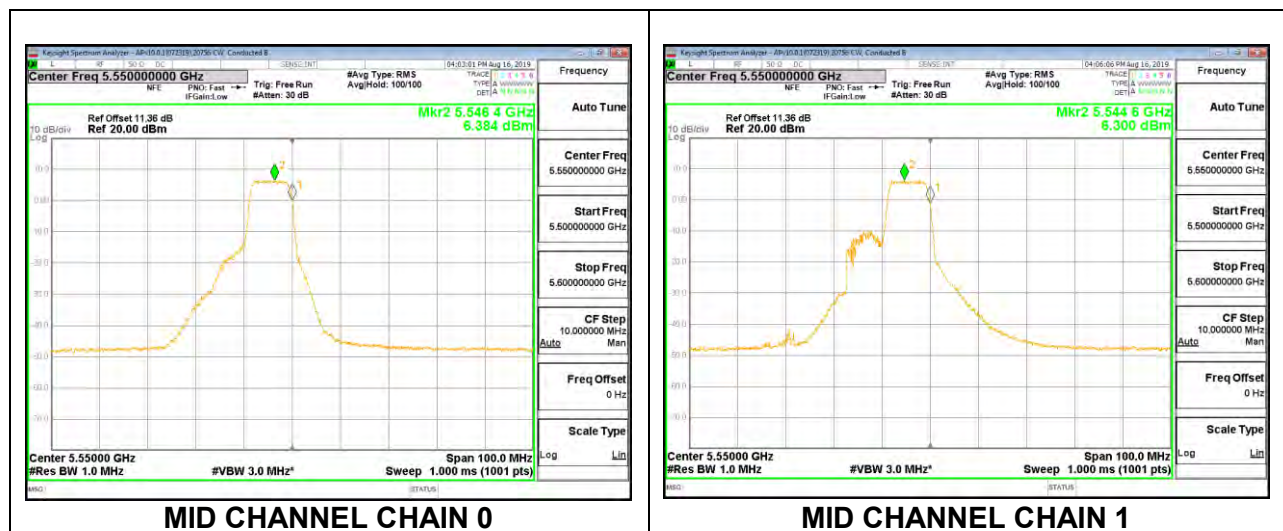
Based on the 9.113 MHz bandwidth for the portion that the straddle channel occupies in the UNII-2C band, the calculated worst case power limit is $17 + 10 \cdot \log(9.113) - 6.45 = 20.15$ dBm.

The total signal power is 18.13 dBm which is less than the limit of 20.15 dBm.

RU Index 53



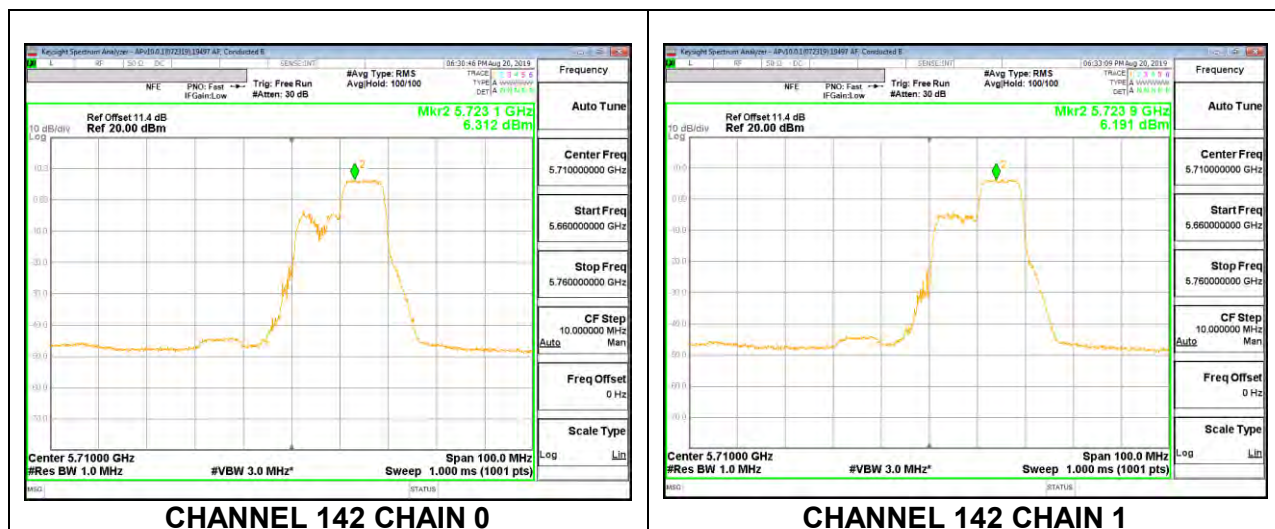
RU Index 54



RU Index56



RU index 56



2TX Chain 0 + Chain 1 OFDMA MODE – 52-Tones

Bandwidth and Antenna Gain

Channel / RU Index	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Direction Gain for PSD (dBi)
Low / RU37	5510	20.00	17.723	6.45	6.45
Mid / RU40	5550	21.80	17.887	6.45	6.45
High / RU44	5670	20.50	18.110	6.45	6.45
142 / RU44*	5710	21.10	18.146	6.45	6.45

Limits

Channel / RU Index	Frequency (MHz)	FCC Power Limit (dBm)	ISED Power Limit (dBm)	ISED EIRP Limit (dBm)	Power Limit (dBm)	FCC PSD Limit (dBm/1MHz)	ISED PSD Limit (dBm/1MHz)
Low / RU37	5510	23.55	23.49	29.49	23.04	10.55	11.00
Mid / RU40	5550	23.55	23.53	29.53	23.08	10.55	11.00
High / RU44	5670	23.55	23.58	29.58	23.13	10.55	11.00
142 / RU44*	5710	23.55	23.59	29.59	23.14	10.55	11.00

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

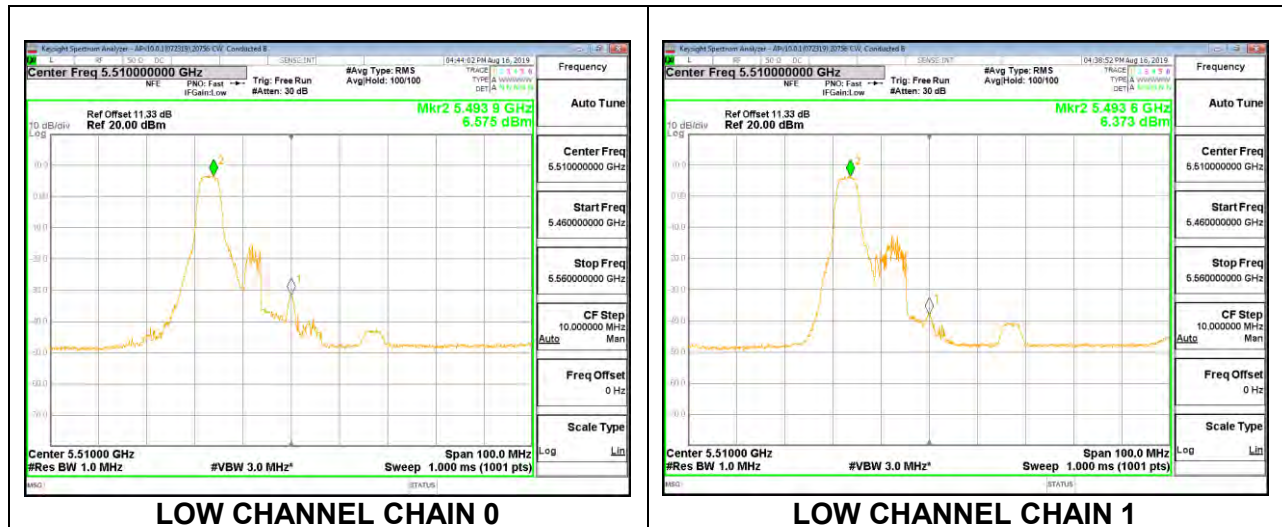
Channel / RU Index	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low / RU37	5510	11.91	11.61	14.77	23.04	-8.26
Mid / RU40	5550	12.00	11.71	14.87	23.08	-8.21
High / RU44	5670	11.56	11.26	14.42	23.13	-8.71
142 / RU44*	5710	12.00	11.70	14.86	23.14	-8.27

PSD Results

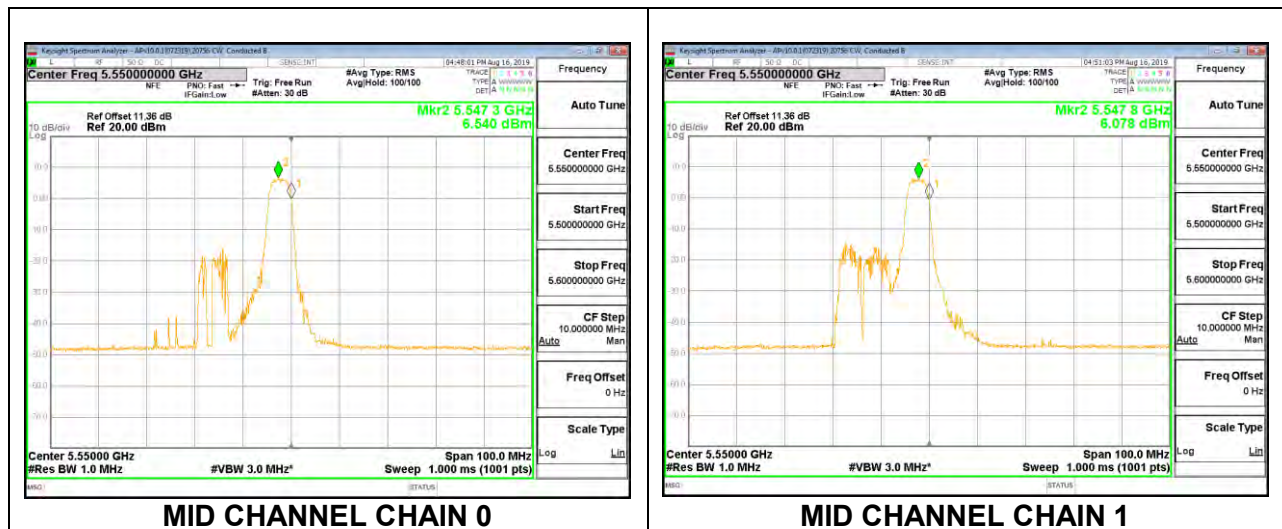
Channel / RU Index	Frequency (MHz)	Chain 0 Meas PSD (dBm/ 1MHz)	Chain 1 Meas PSD (dBm/ 1MHz)	Total Corr'd PSD (dBm/ 1MHz)	PSD Limit (dBm/ 1MHz)	PSD Margin (dB)
Low / RU37	5510	6.575	6.373	9.485	10.55	-1.06
Mid / RU40	5550	6.540	6.078	9.325	10.55	-1.22
High / RU44	5670	7.014	6.313	9.688	10.55	-0.86
142 / RU44*	5710	6.391	6.520	9.466	10.55	-1.08

*As per the calculation in this formula, Measured total bandwidth(99%) / 2 - 2 MHz, the worst case bandwidth is 7.073 MHz.
Based on the 7.073 MHz bandwidth for the portion that the straddle channel occupies in the UNII-2C band, the calculated worst case power limit is $17 + 10 \cdot \log(7.073) - 6.45 = 19.05$ dBm.
The total signal power is 14.86 dBm which is less than the limit of 19.05 dBm.

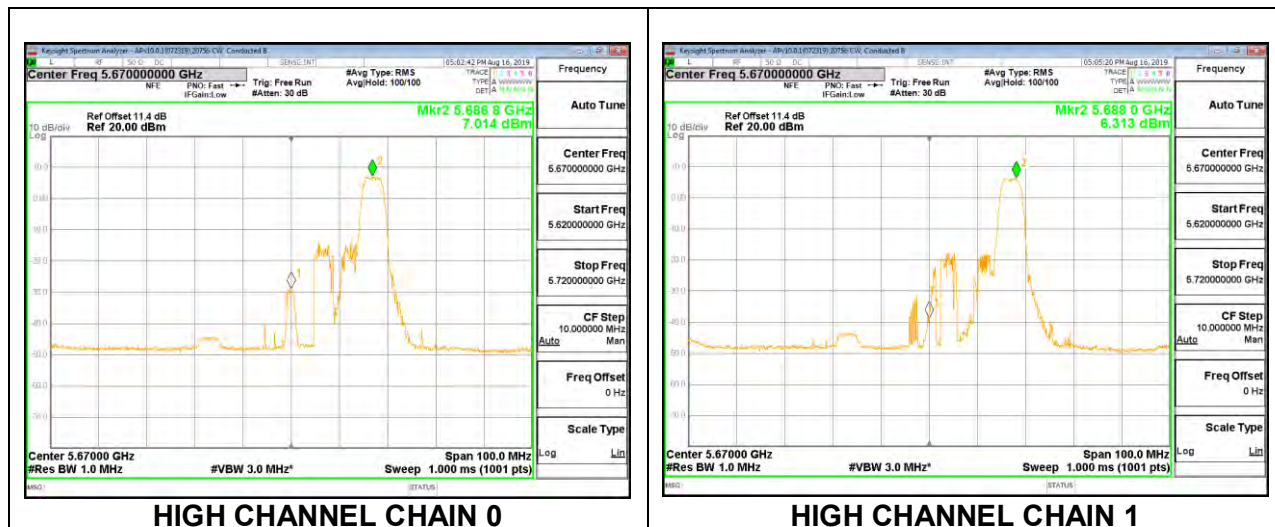
RU Index 37



RU Index 40



RU Index 44



RU Index 44

