

8.31.2. 99% BANDWIDTH

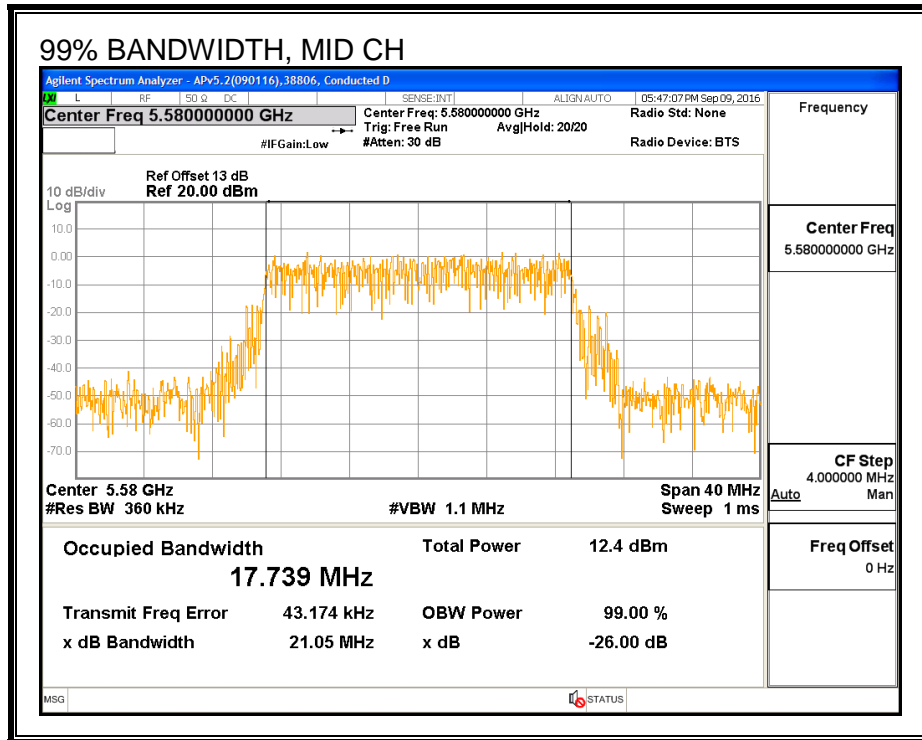
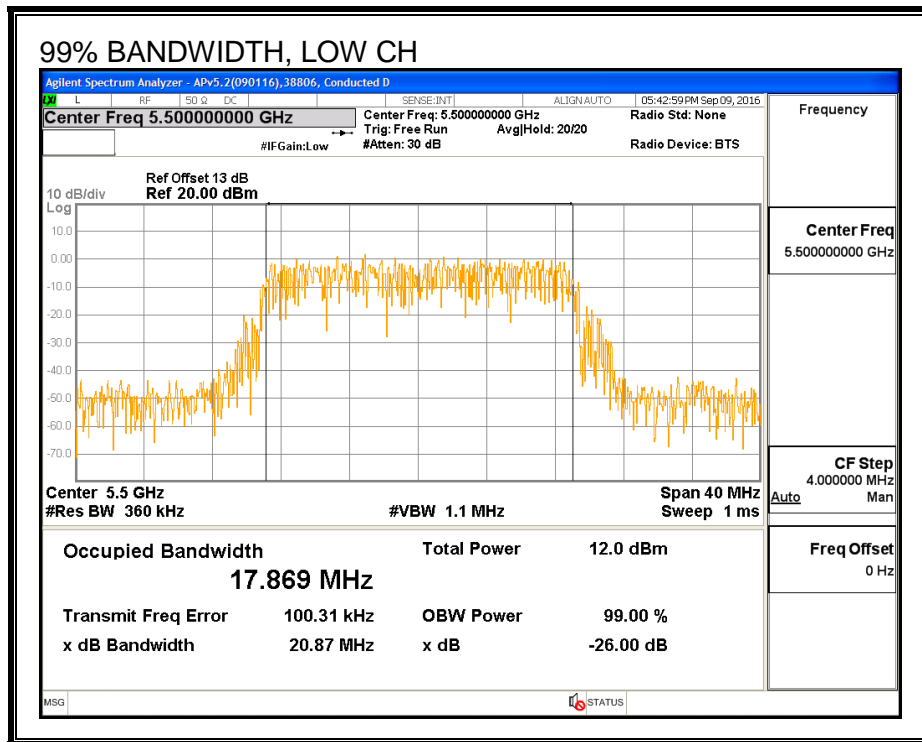
LIMITS

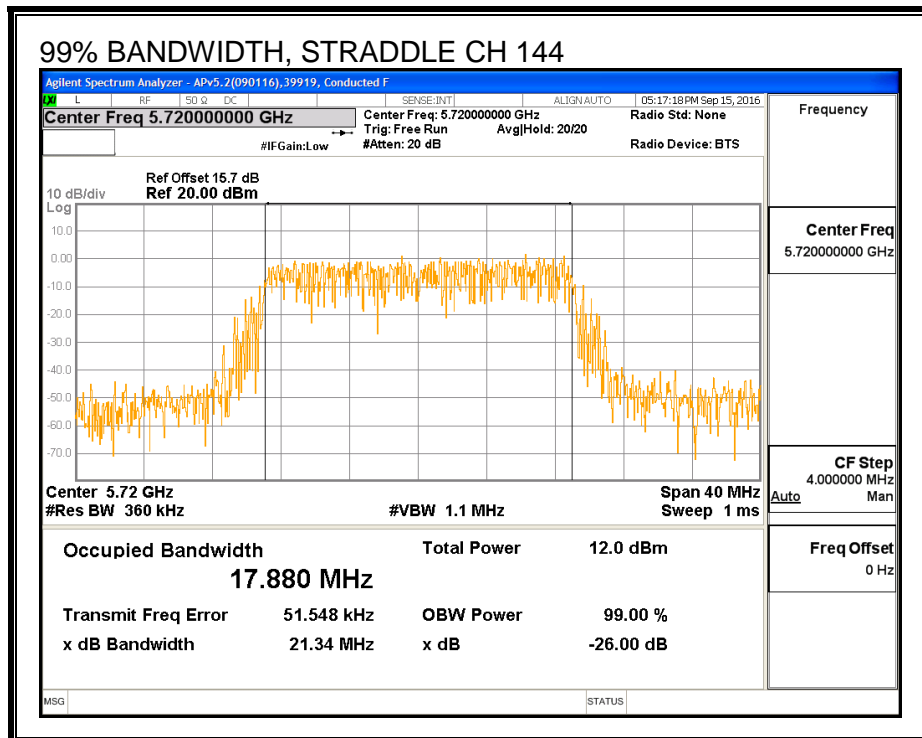
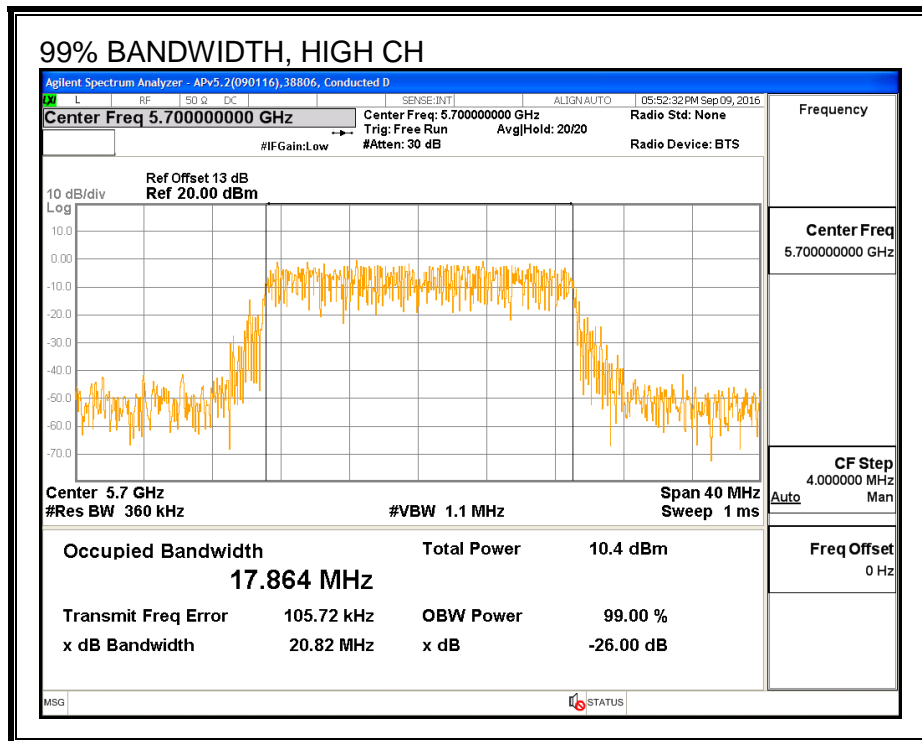
None; for reporting purposes only.

RESULTS

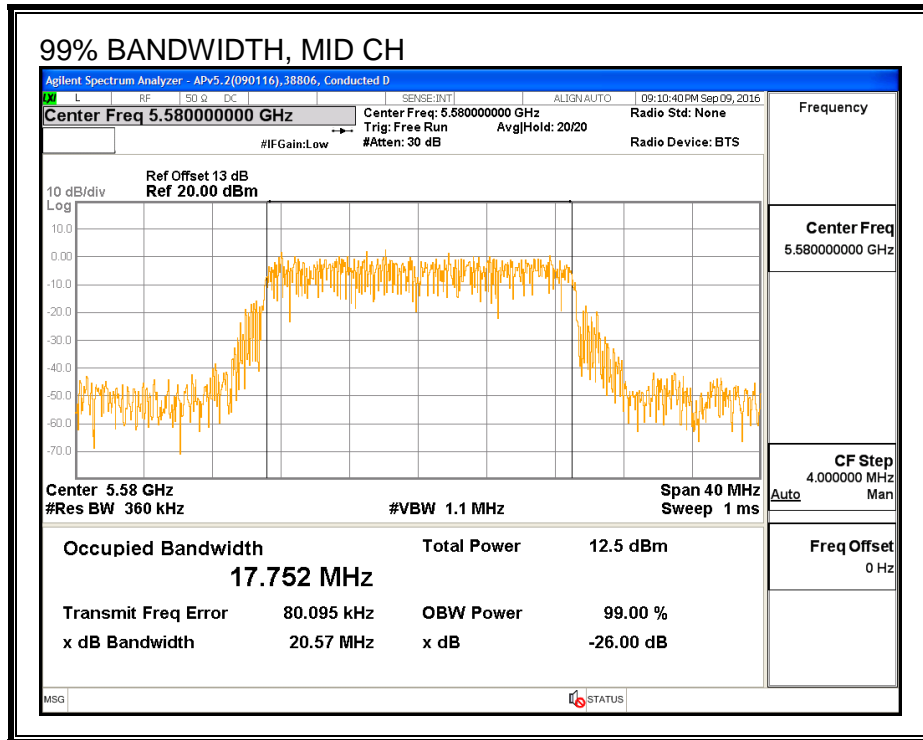
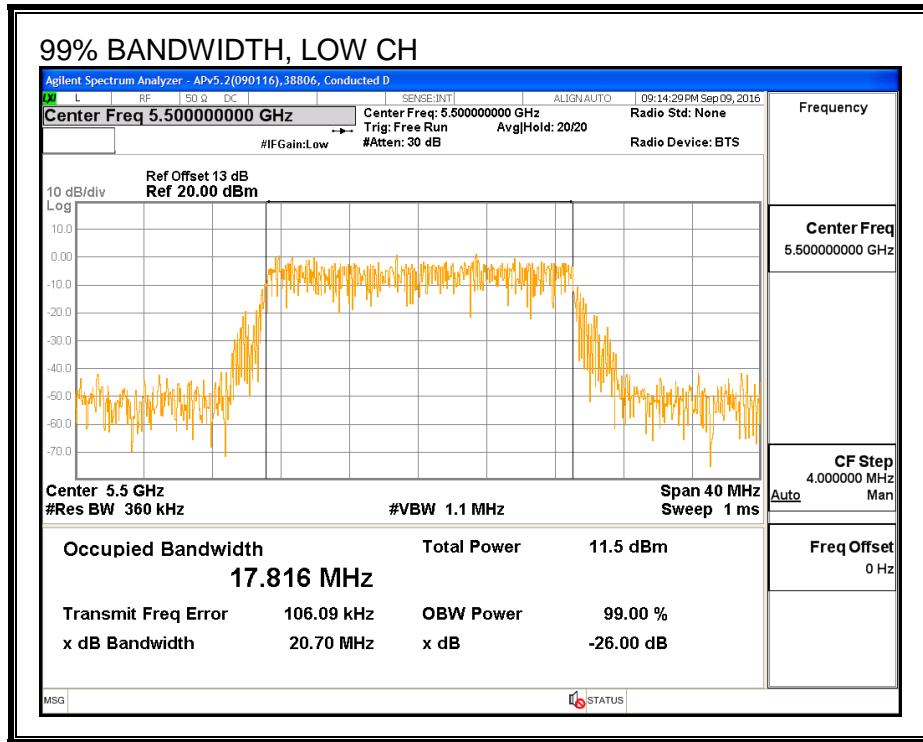
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 2 (MHz)
Low	5500	17.869	17.816
Mid	5580	17.739	17.752
High	5700	17.864	17.901
144	5720	17.880	17.754

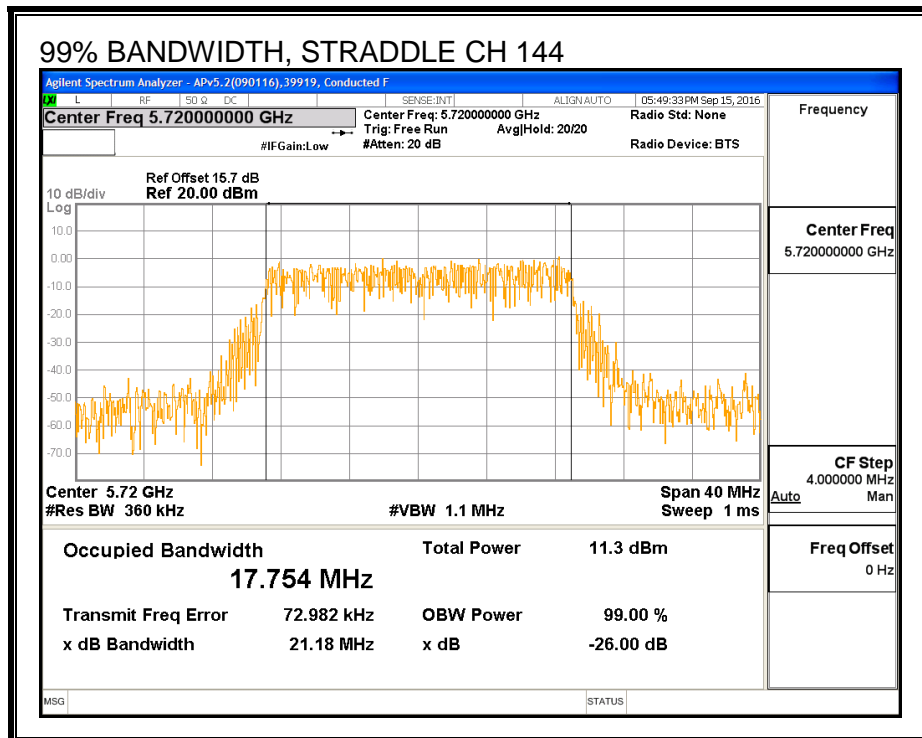
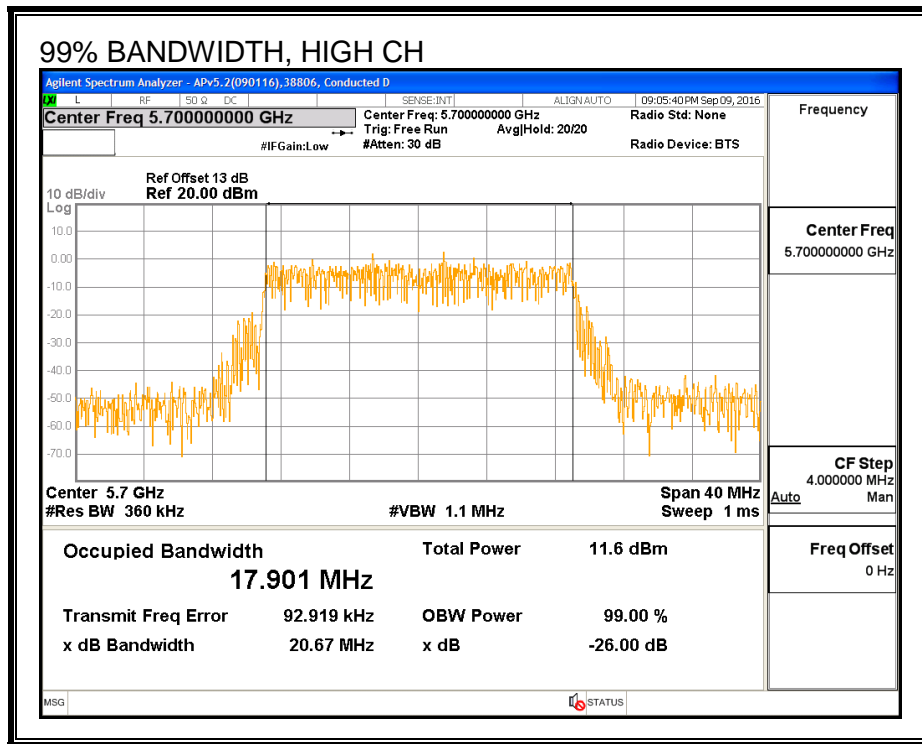
99% BANDWIDTH, CHAIN 0





99% BANDWIDTH, CHAIN 2





8.31.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	44353	Date:	9/9/16
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Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5500	11.82	11.87	14.85
Mid	5580	11.98	11.93	14.97
High	5700	10.45	10.35	13.41
144	5720	11.88	11.84	14.87

8.31.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band 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 MHz. In addition, the maximum 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.

IC RSS-247 (6.2.3) (1)

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.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

Straddle channel power is measured using PXA spectrum analyzer, duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
4.90	5.20	8.06

RESULTS

ID:	44353	Date:	9/9/16
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Bandwidth, Antenna Gain and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5500	21.68	17.816	8.06	8.06	21.45	8.94
Mid	5580	21.78	17.739	8.06	8.06	21.43	8.94
High	5700	21.81	17.864	8.06	8.06	21.46	8.94

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd PSD
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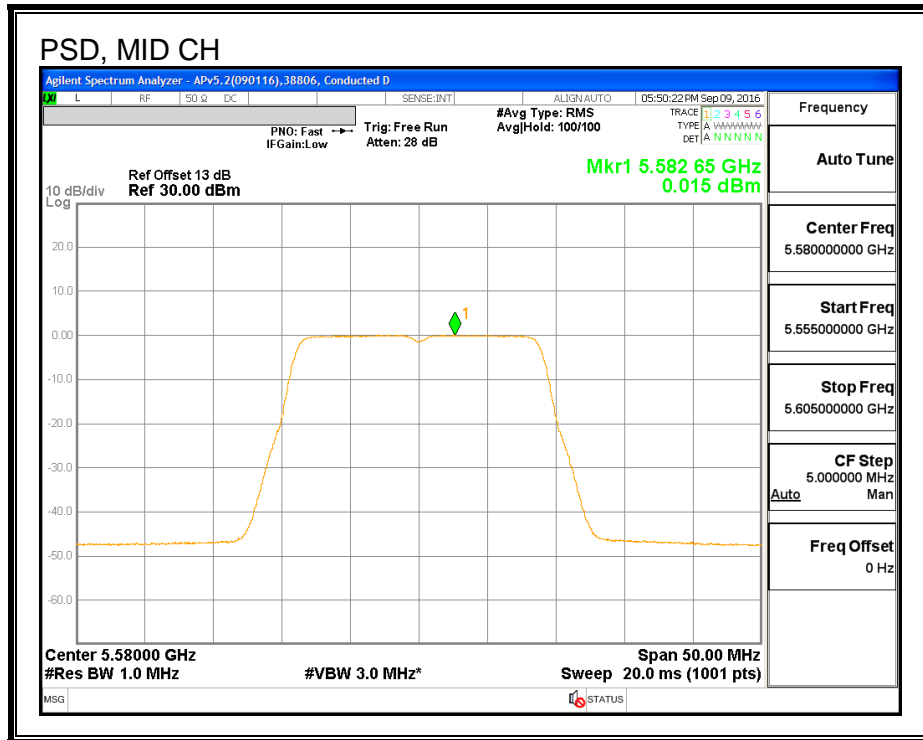
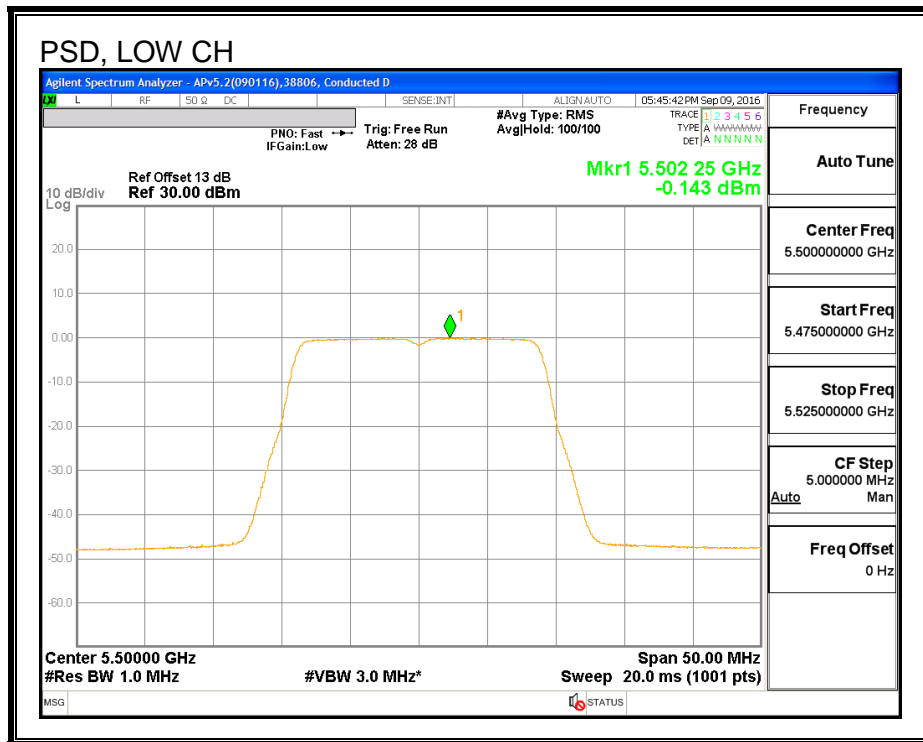
Output Power Results

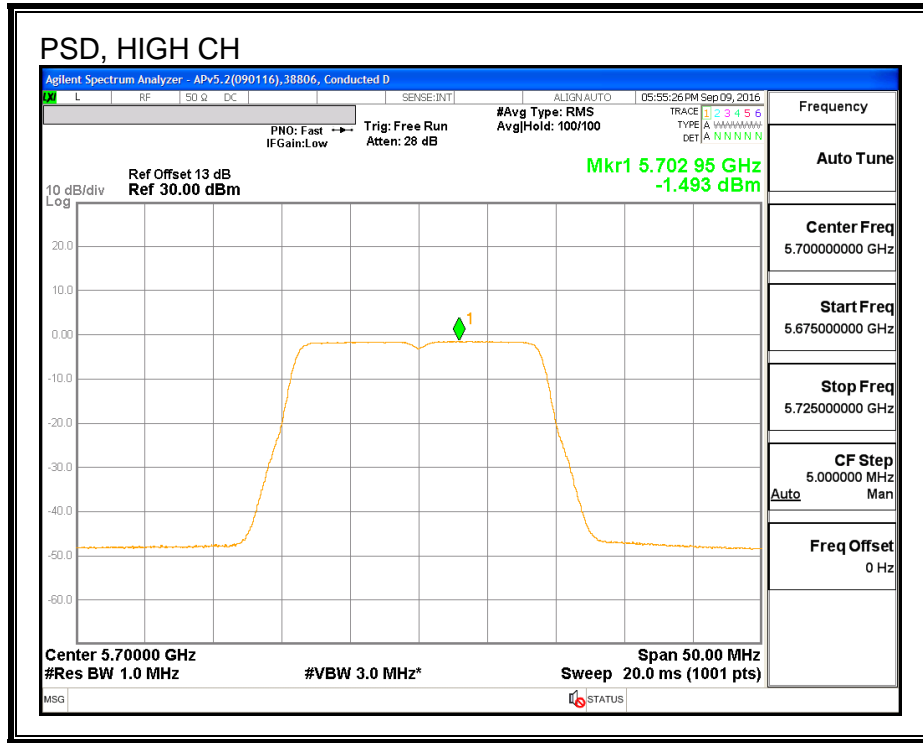
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	11.82	11.867	14.85	21.45	-6.59
Mid	5580	11.98	11.932	14.97	21.43	-6.46
High	5700	10.454	10.348	13.41	21.46	-8.05

PSD Results

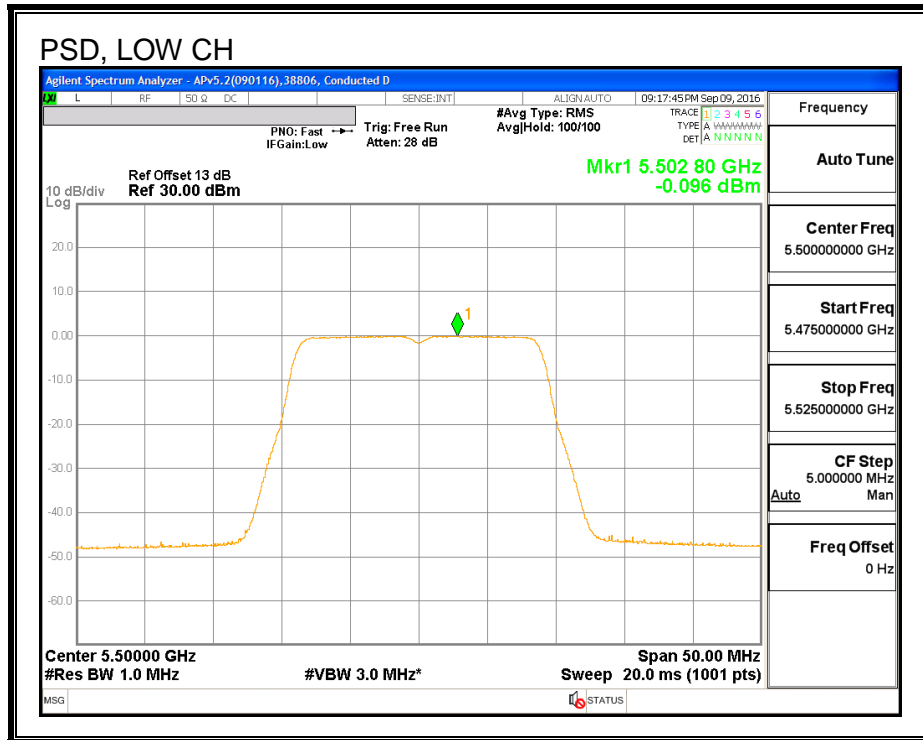
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	-0.143	-0.096	3.94	8.94	-5.00
Mid	5580	0.015	-0.02	4.06	8.94	-4.88
High	5700	-1.493	-1.606	2.51	8.94	-6.43

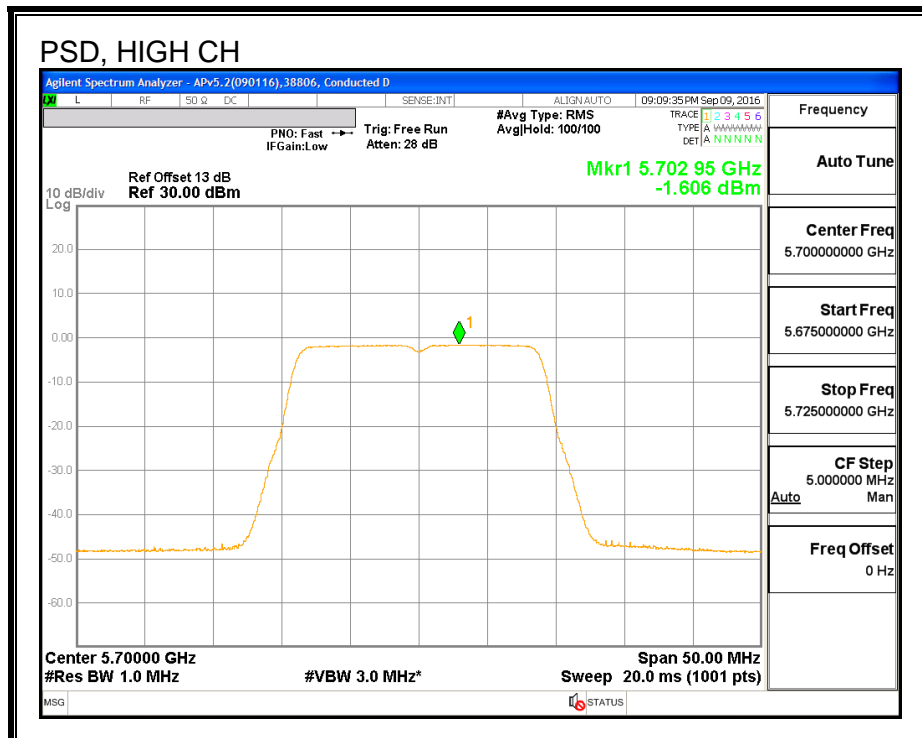
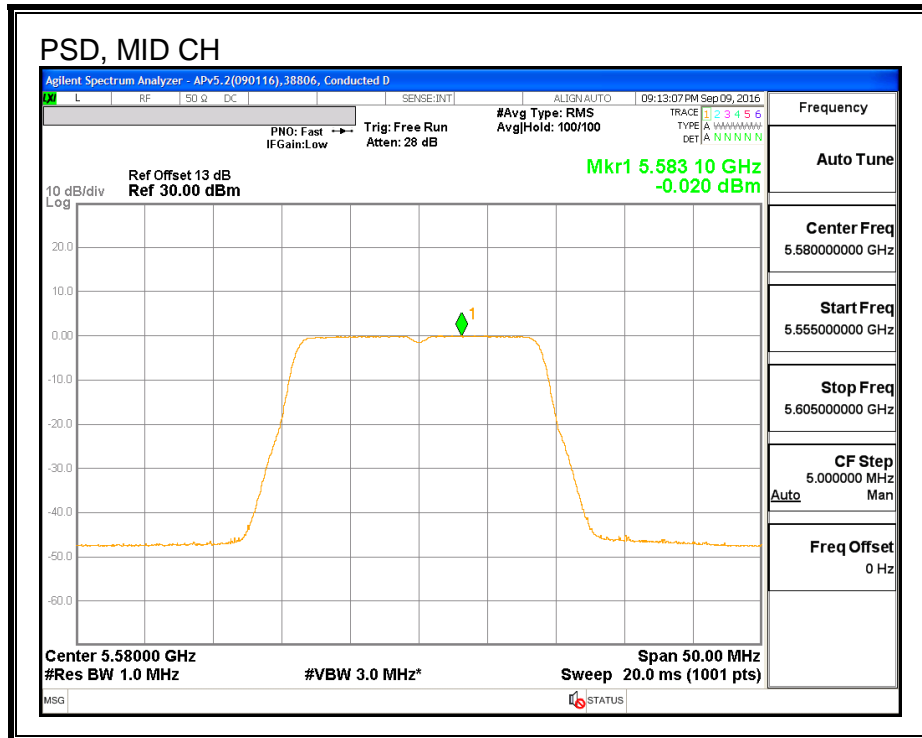
PSD, CHAIN 0





PSD, CHAIN 2





8.32. 802.11ac VHT20 2Tx (CHAIN 0 + CHAIN 2) BEAM FORMING STRADDLE CHANNEL 144 RESULTS (FCC)

8.32.1. OUTPUT POWER AND PSD

UNII-2C BAND

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)
144	5720	16.05	8.06	8.06	20.99	8.94

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd Power & PSD
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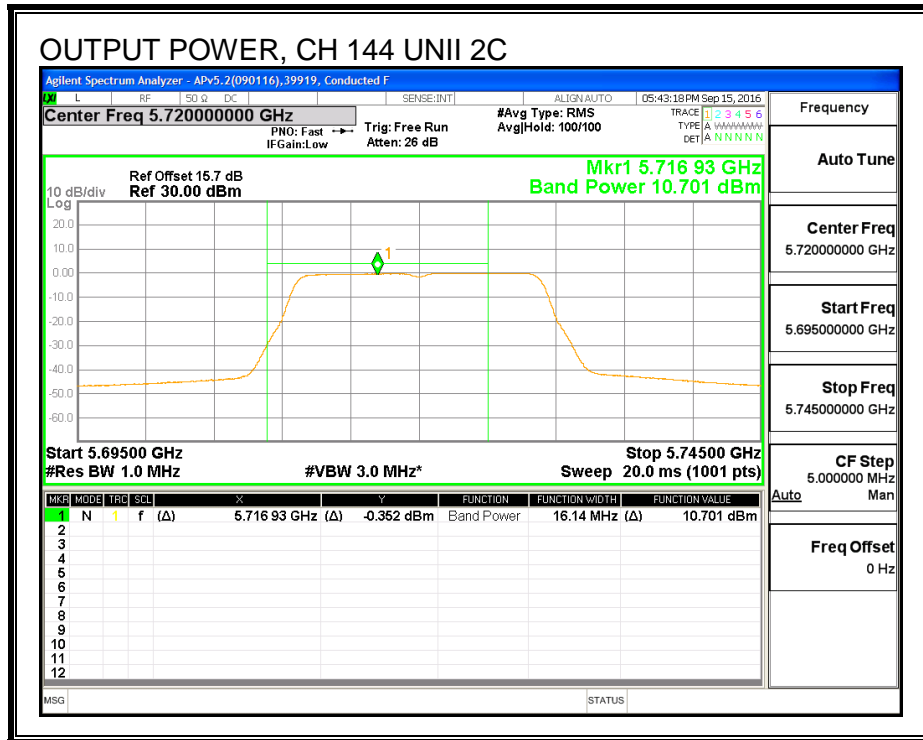
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.70	10.66	14.74	20.99	-6.25

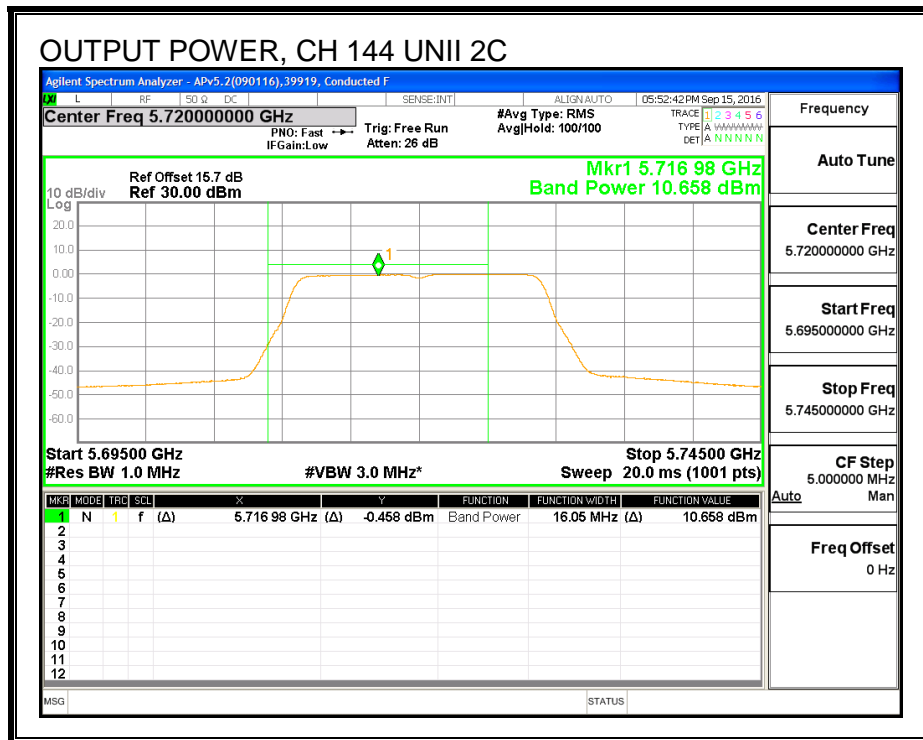
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-0.07	-0.094	3.98	8.94	-4.96

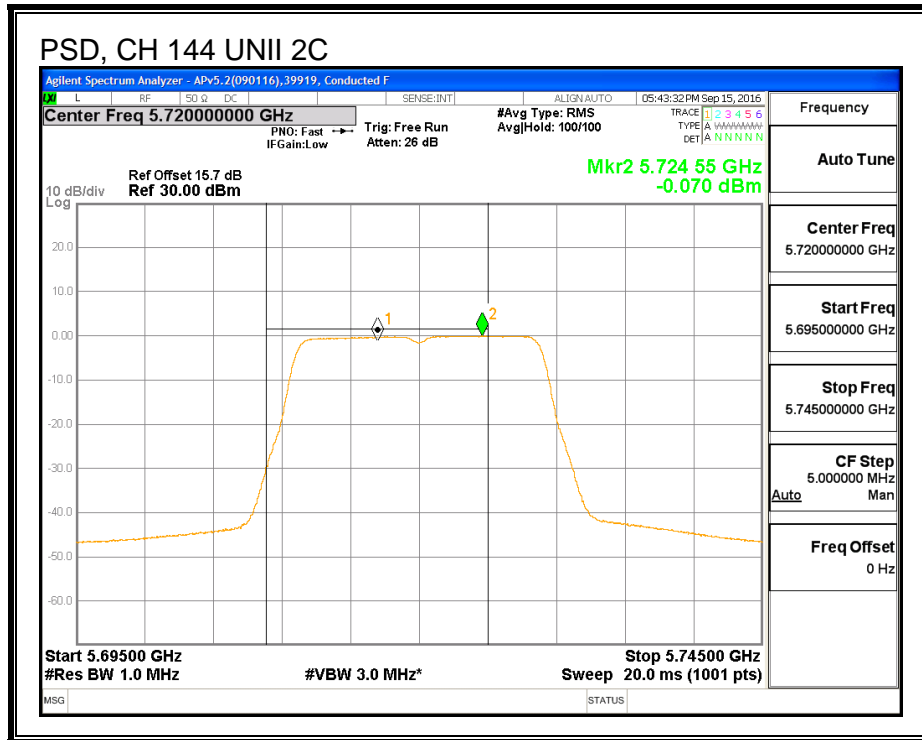
OUTPUT POWER, CHAIN 0



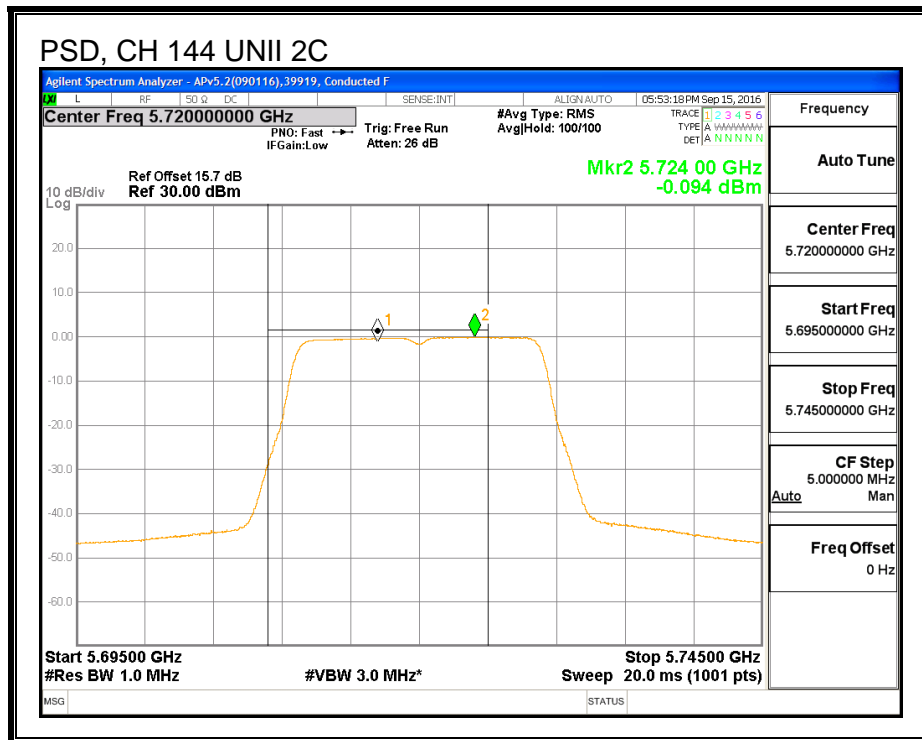
OUTPUT POWER, CHAIN 2



PSD, CHAIN 0



PSD, CHAIN 2



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	6.05	8.06	8.06	27.94	27.94

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd Power & PSD
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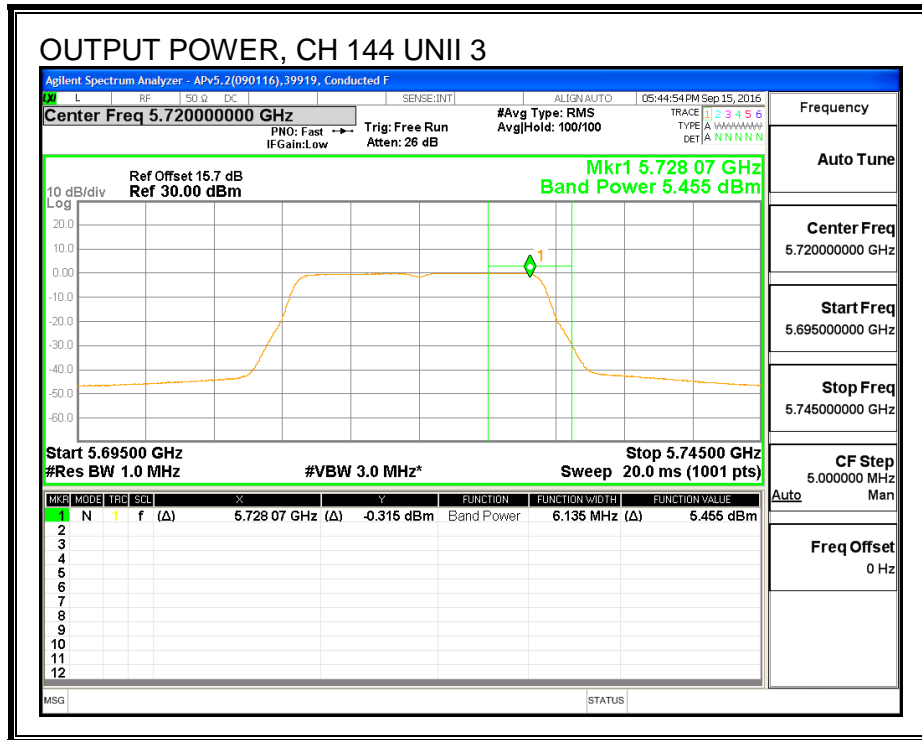
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.46	5.41	9.49	27.94	-18.45

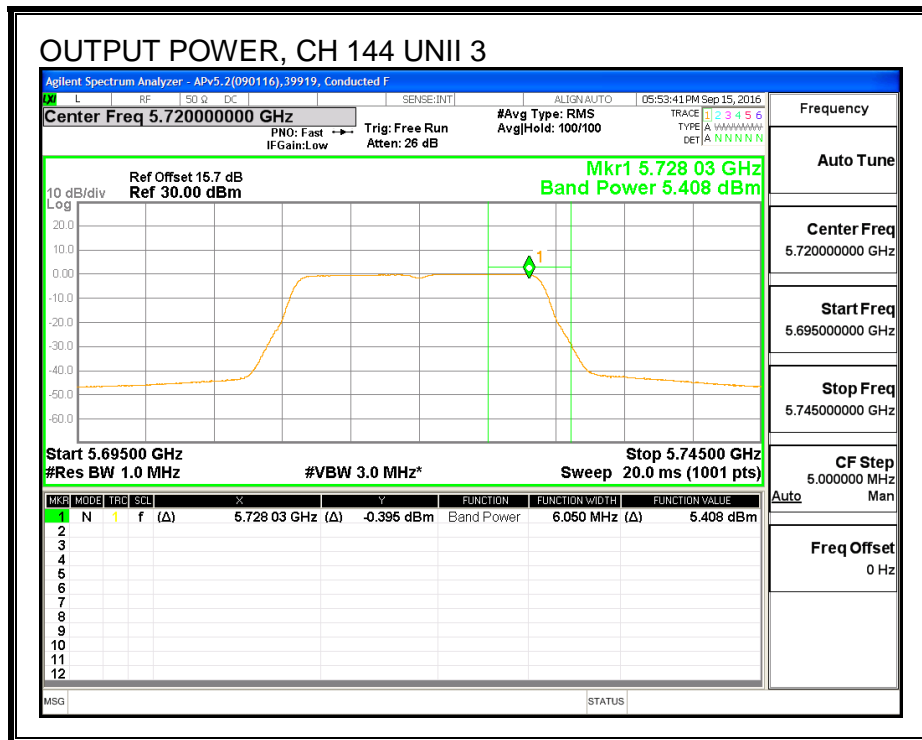
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-2.72	-2.65	1.37	27.94	-26.57

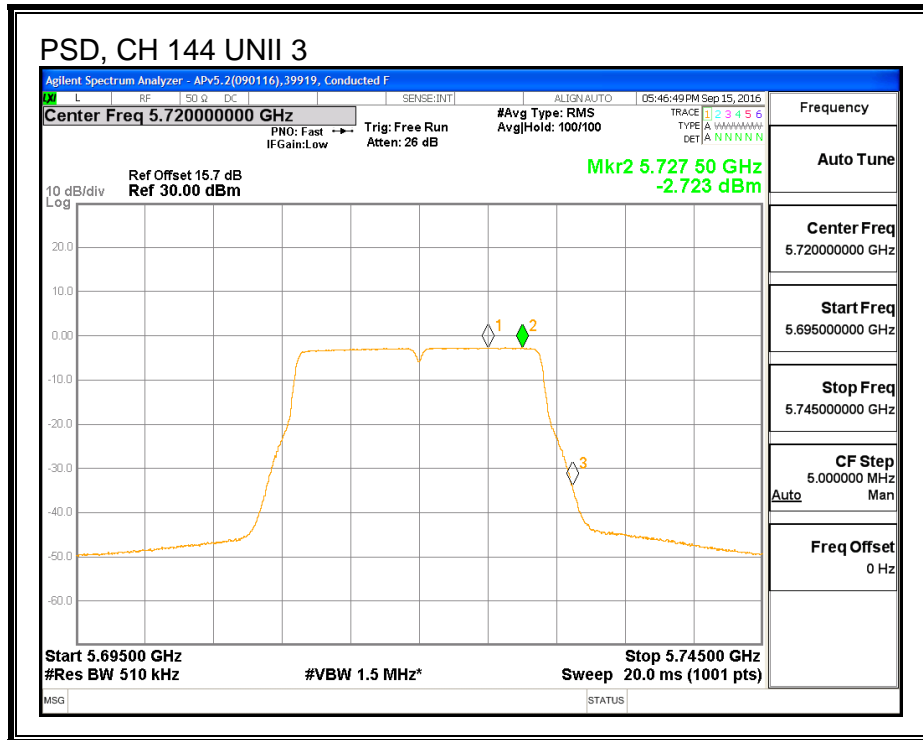
OUTPUT POWER, CHAIN 0



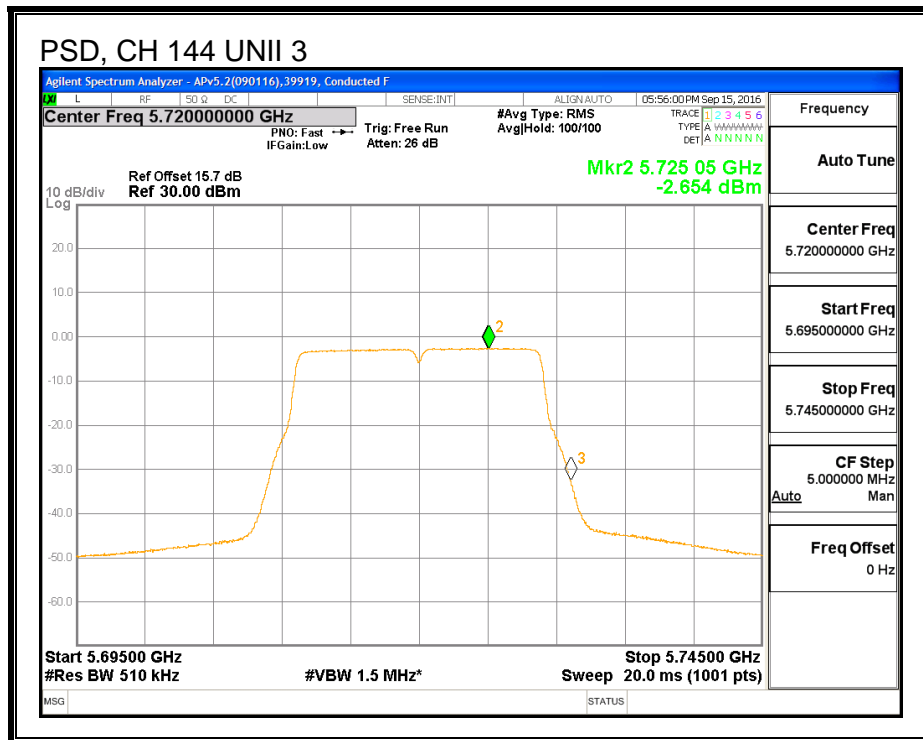
OUTPUT POWER, CHAIN 2



PSD, CHAIN 0



PSD, CHAIN 2



8.33. 802.11ac VHT20 2Tx (CHAIN 0 + CHAIN 2) BEAM FORMING STRADDLE CHANNEL 144 RESULTS (IC)

8.33.1. OUTPUT POWER AND PSD

UNII-2C BAND

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)
144	5720	13.880	8.06	8.06	20.36	8.94

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd Power & PSD
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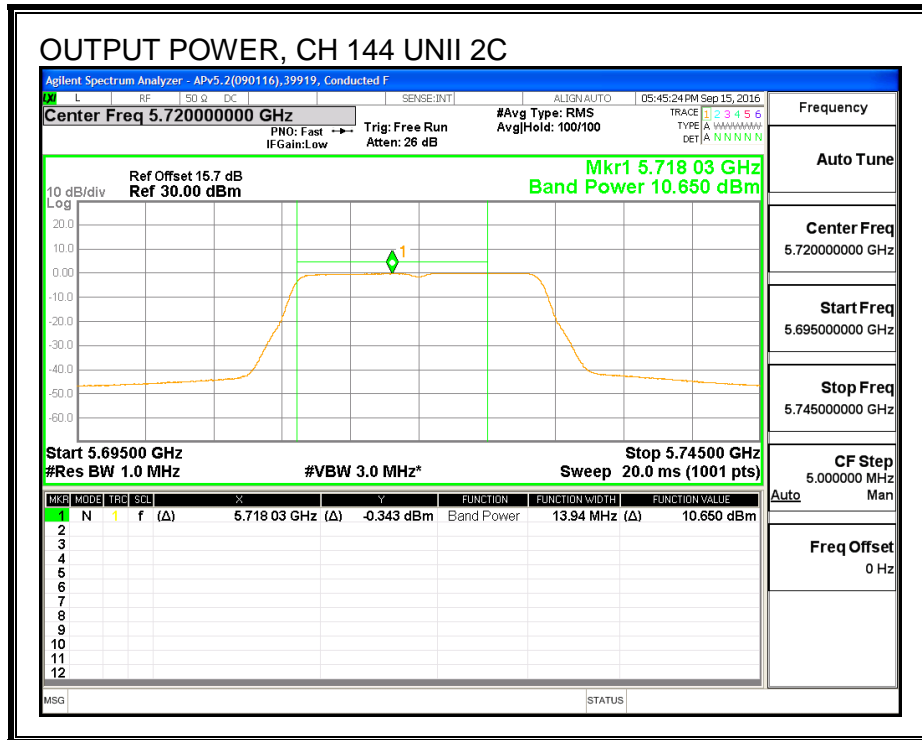
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.65	10.60	14.68	20.36	-5.68

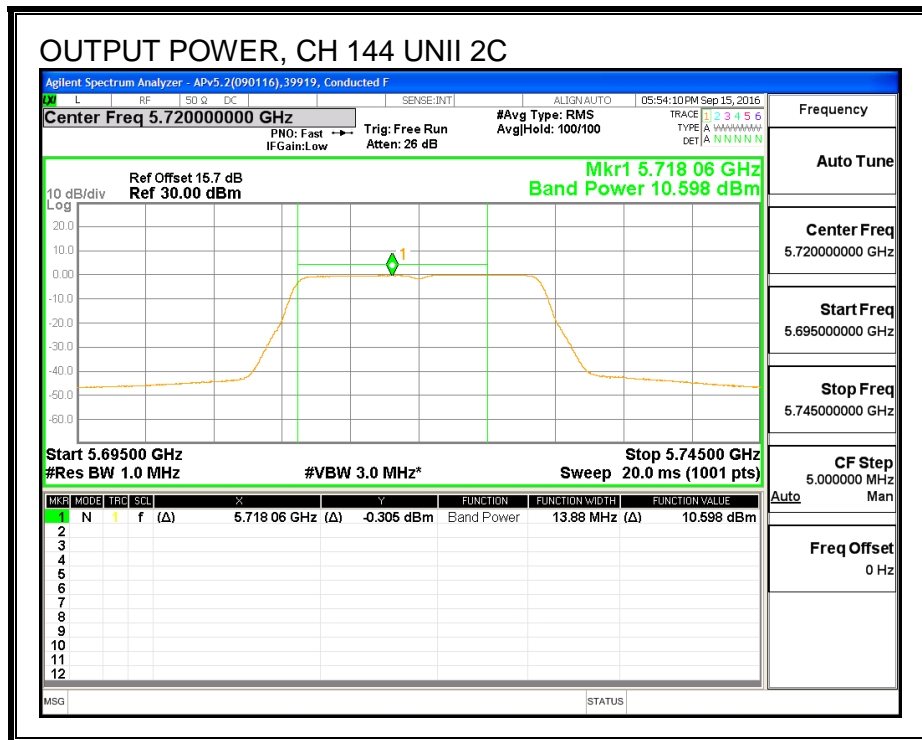
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-0.07	-0.09	3.98	8.94	-4.96

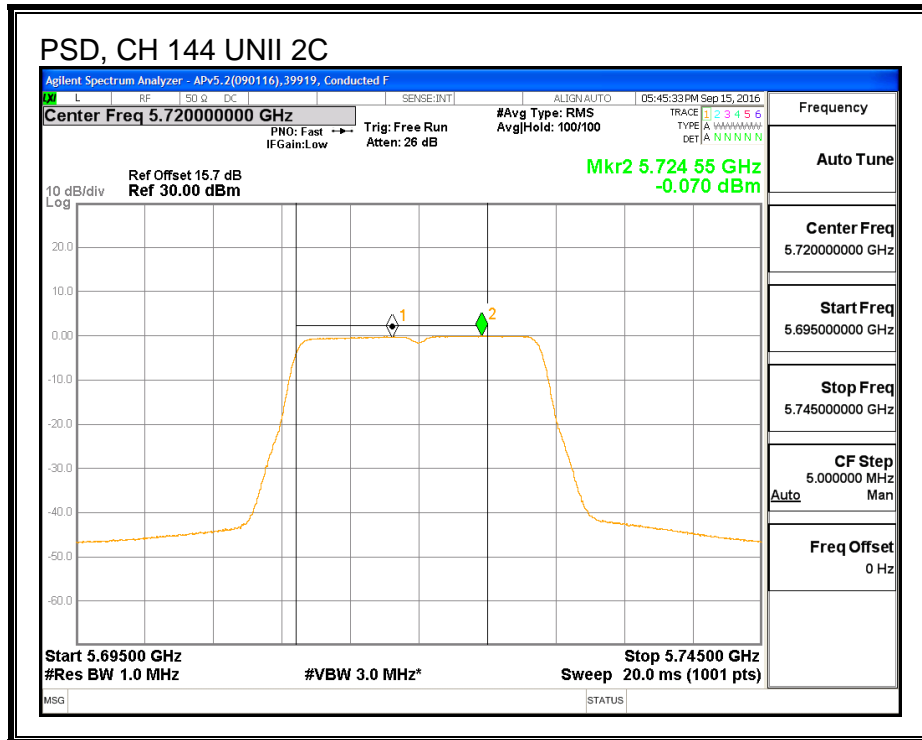
OUTPUT POWER, CHAIN 0



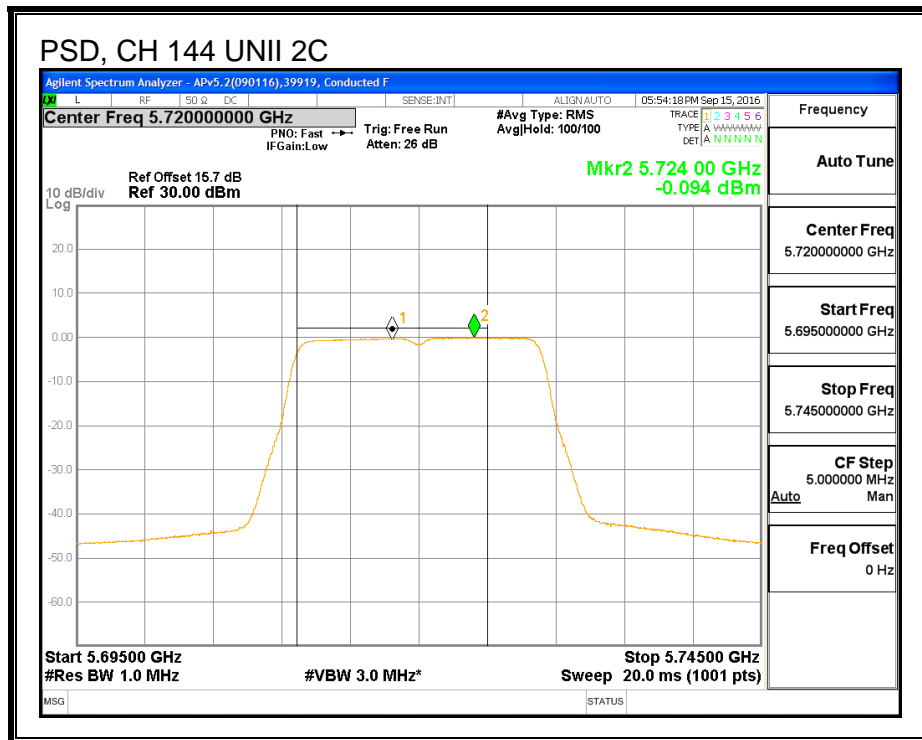
OUTPUT POWER, CHAIN 2



PSD, CHAIN 0



PSD, CHAIN 2



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	3.877	8.06	8.06	27.94	27.94

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd Power & PSD
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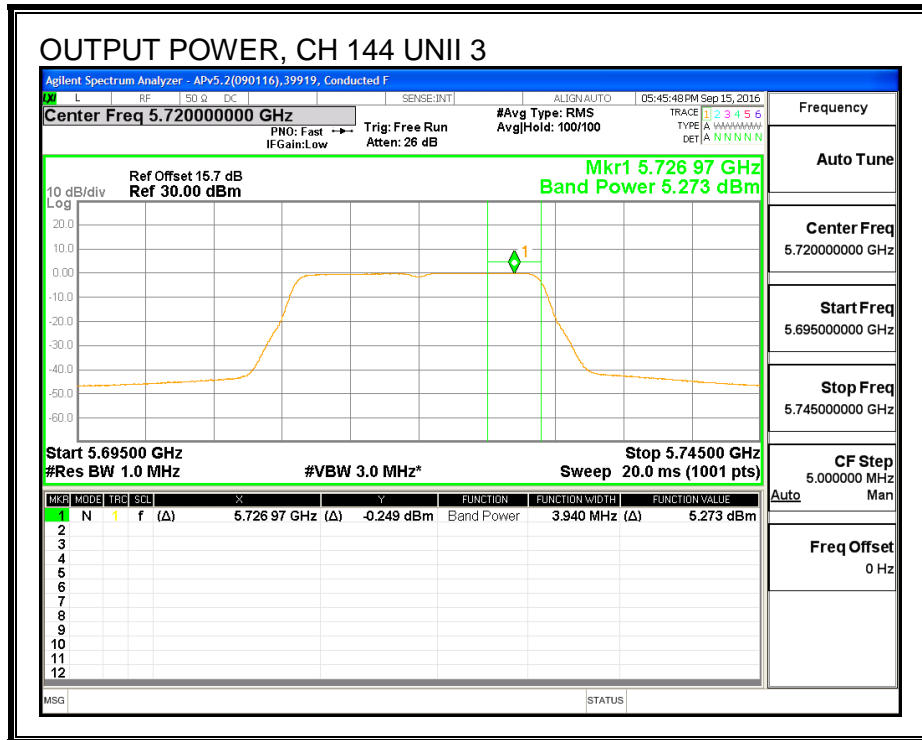
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.27	5.19	9.29	27.94	-18.65

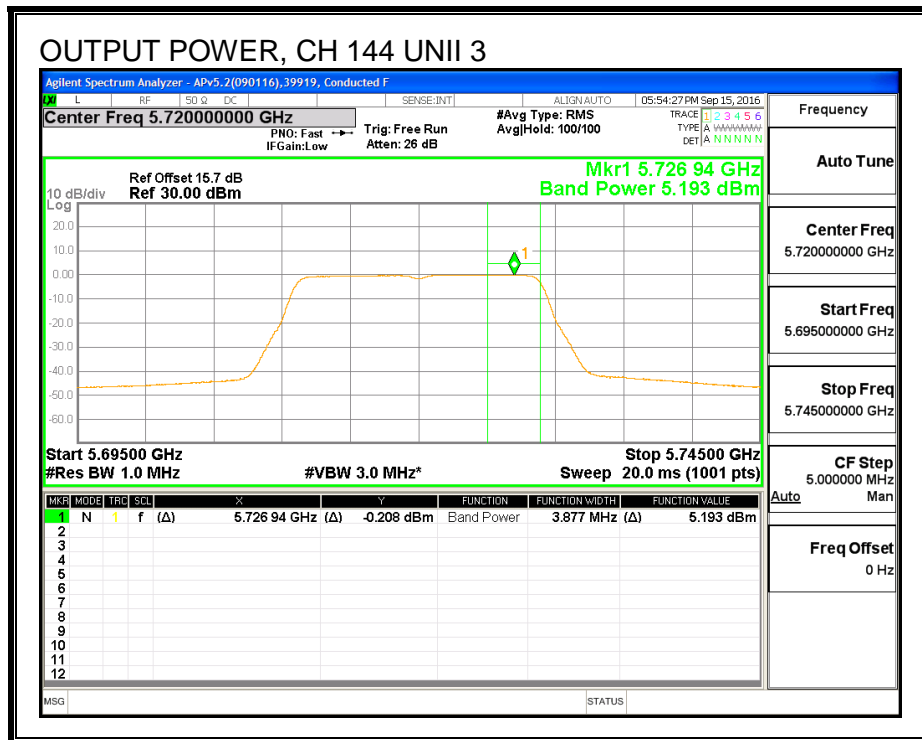
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-2.72	-2.65	1.37	27.94	-26.57

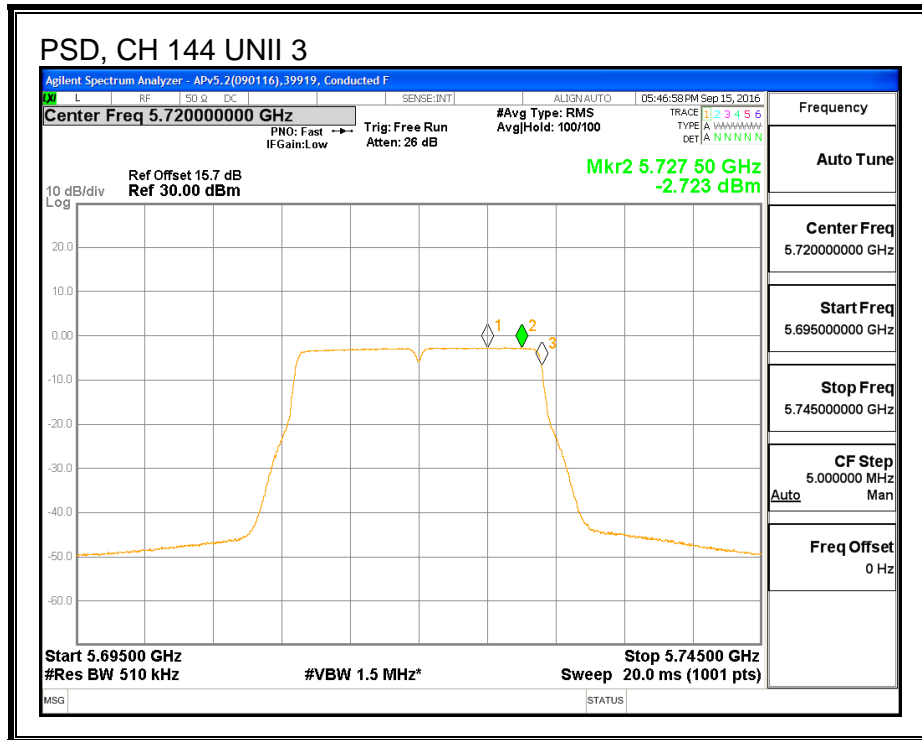
OUTPUT POWER, CHAIN 0



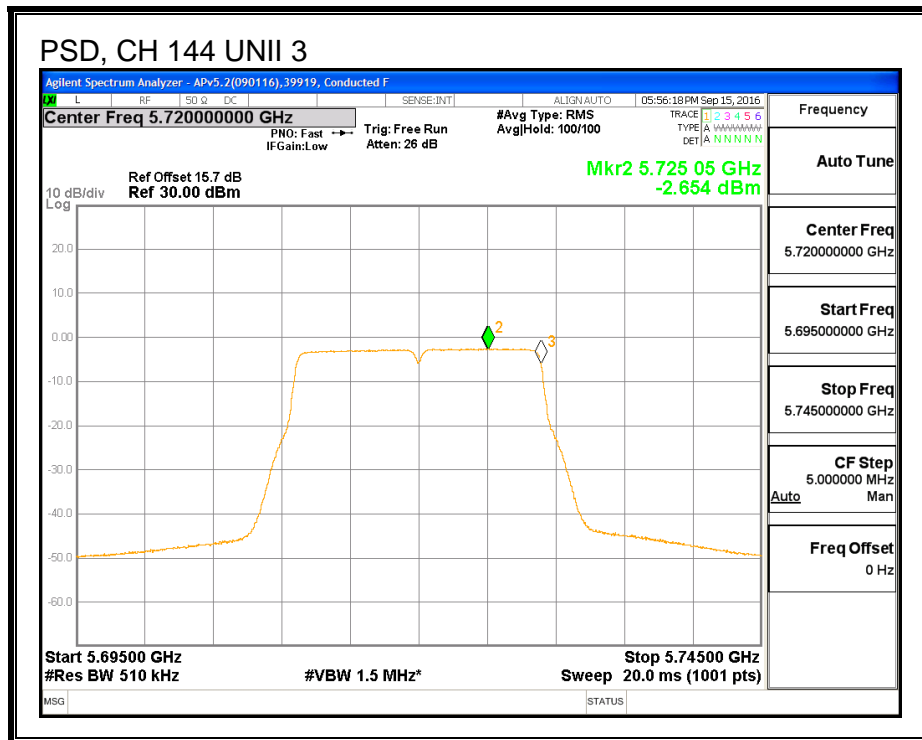
OUTPUT POWER, CHAIN 2



PSD, CHAIN 0



PSD, CHAIN 2



8.33.2. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

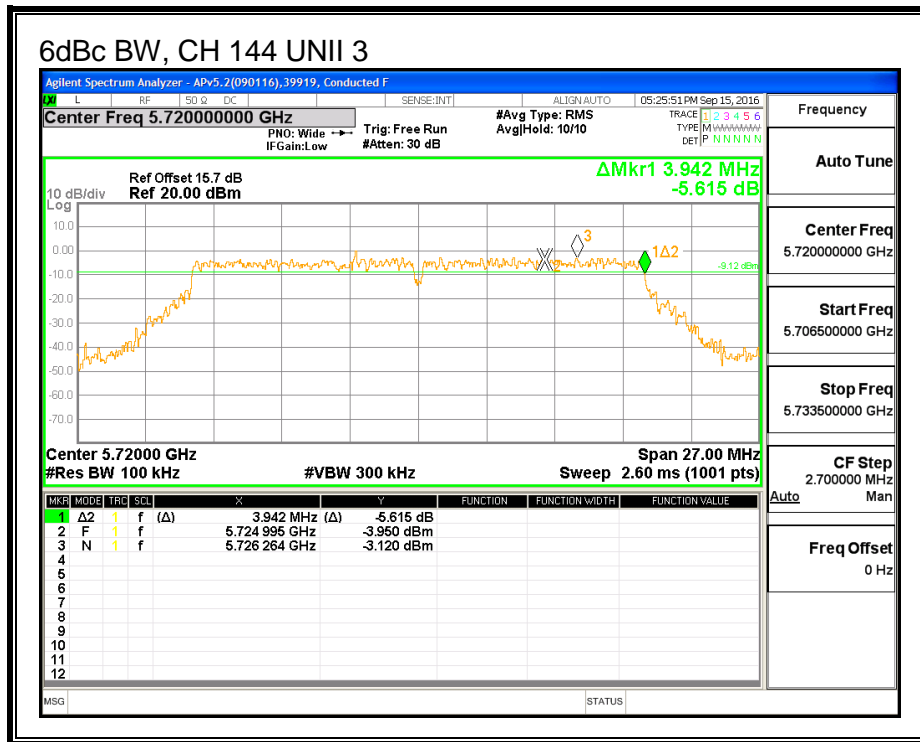
IC RSS-247 (6.2.4) (1)

The minimum 6 dB bandwidth shall be at least 500 kHz.

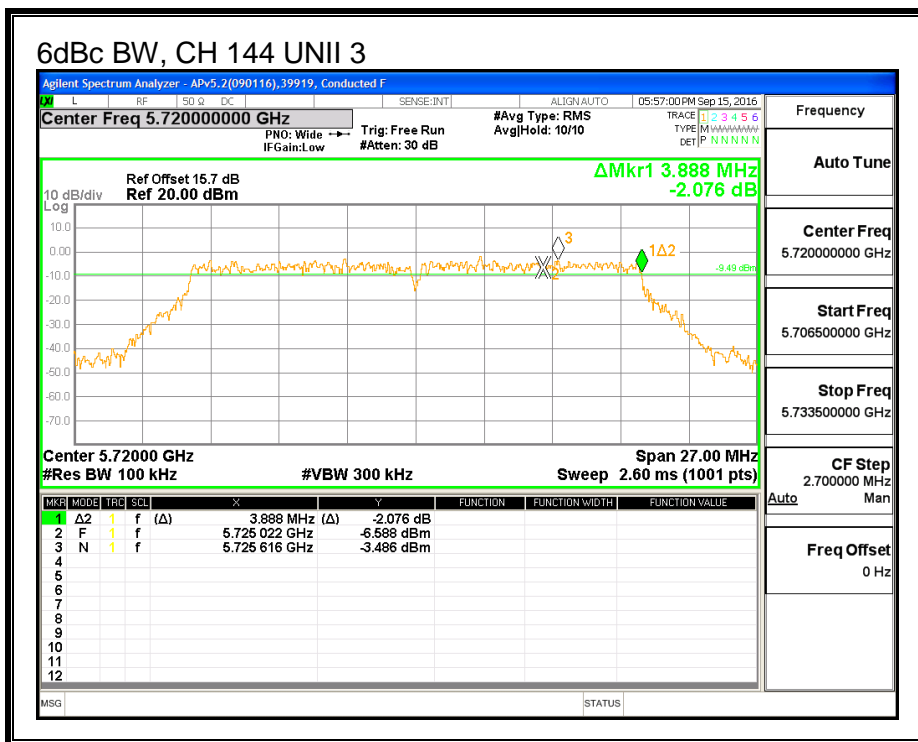
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 2 (MHz)
144	5720	3.942	3.888

CHAIN 0



CHAIN 2



8.34. 802.11n HT20 2Tx (CHAIN 1 + CHAIN 2) BEAM FORMING MODE IN THE 5.6 GHz BAND

8.34.1. 26 dB BANDWIDTH

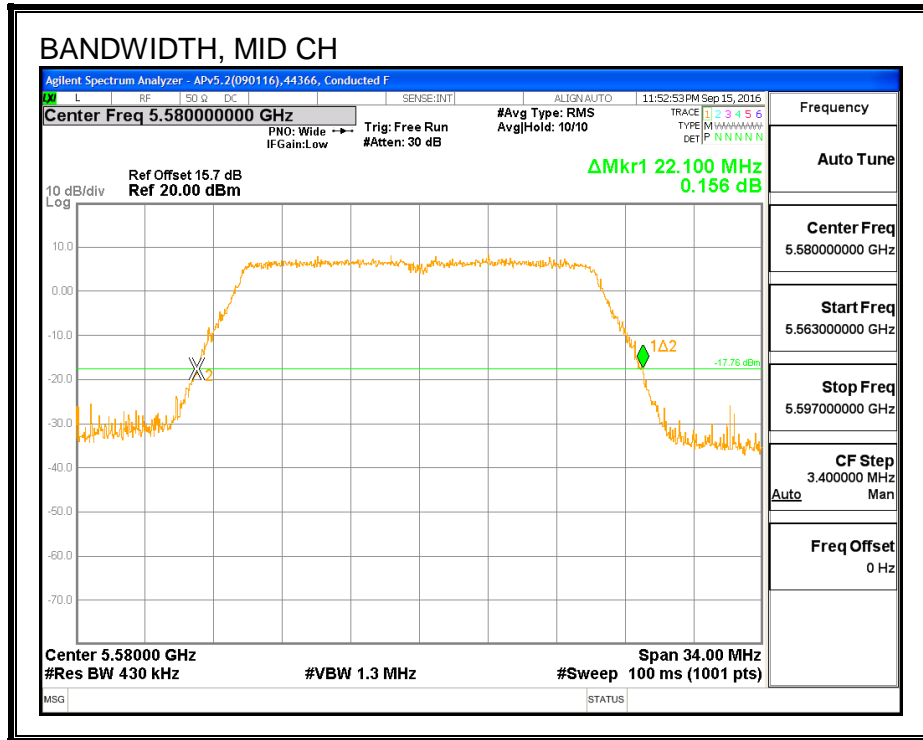
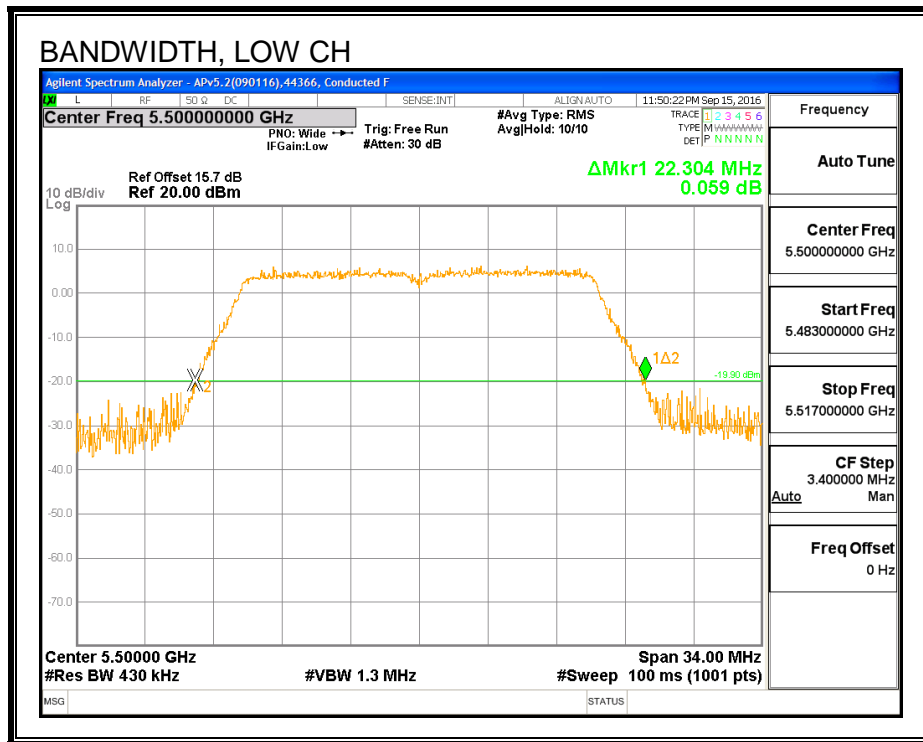
LIMITS

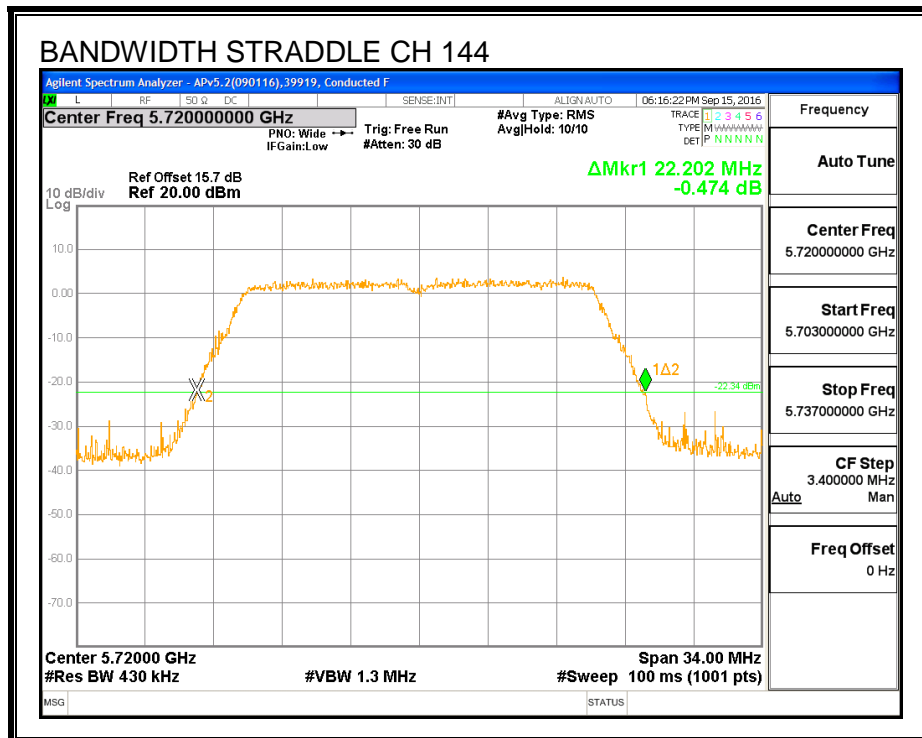
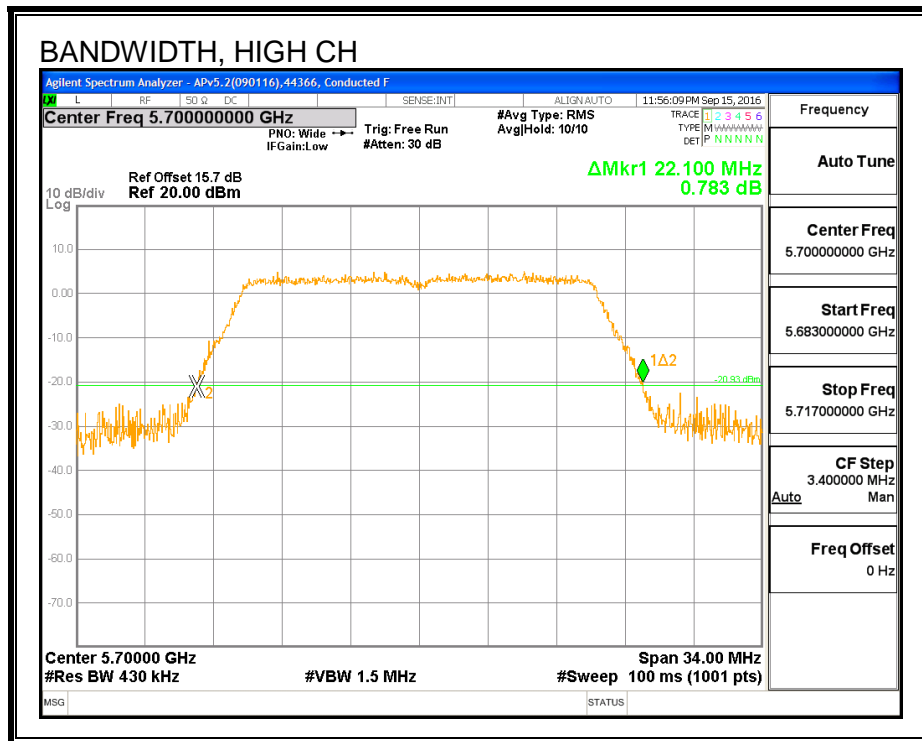
None; for reporting purposes only.

RESULTS

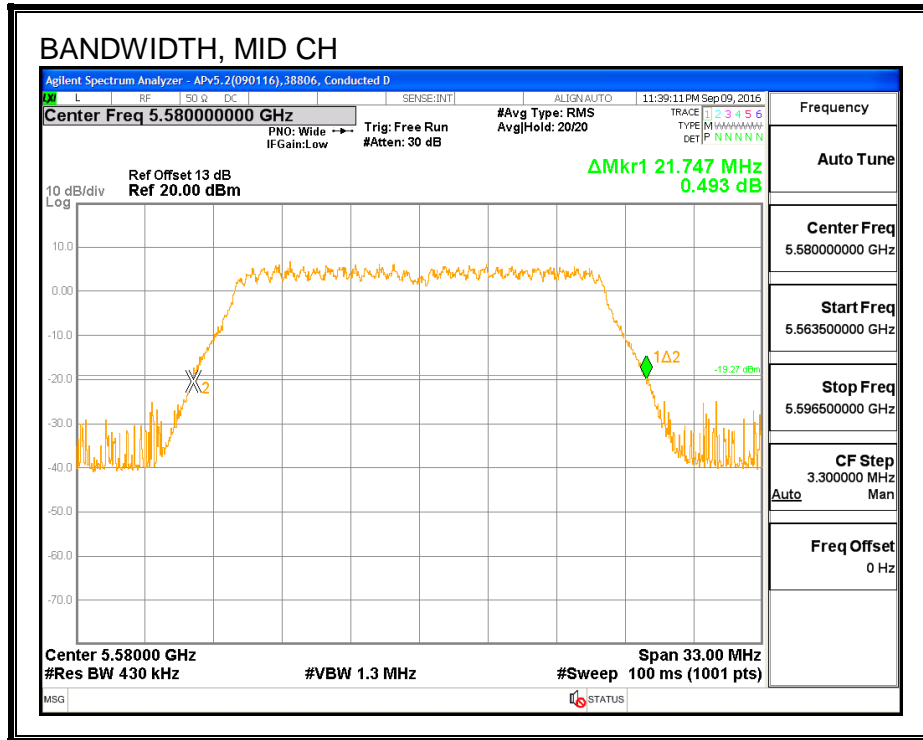
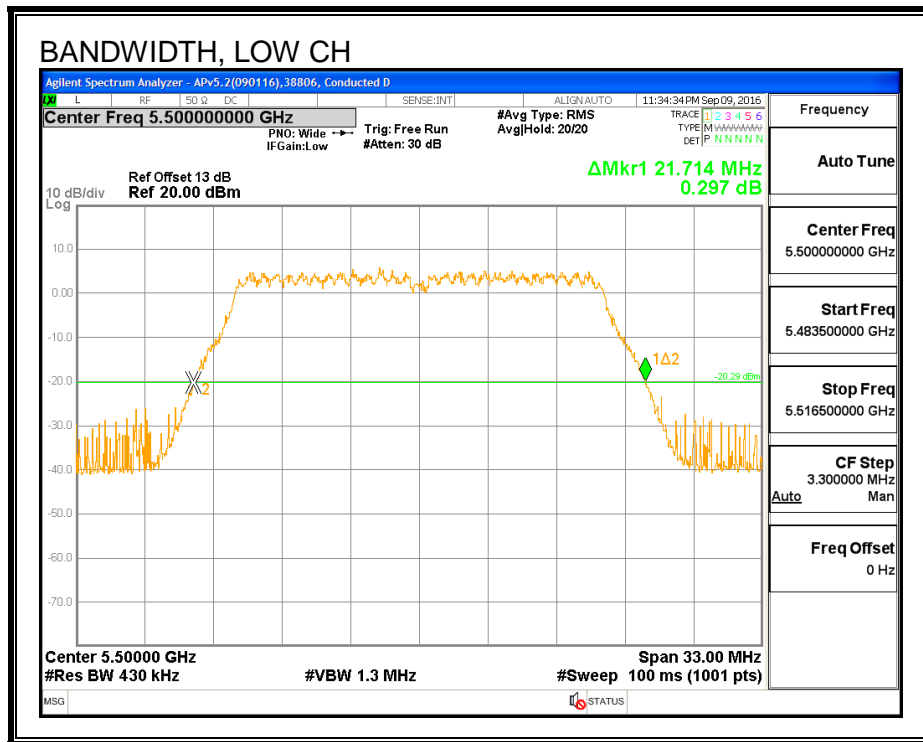
Channel	Frequency (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5500	22.304	21.714
Mid	5580	22.100	21.747
High	5700	22.100	22.338
144	5720	22.202	22.032

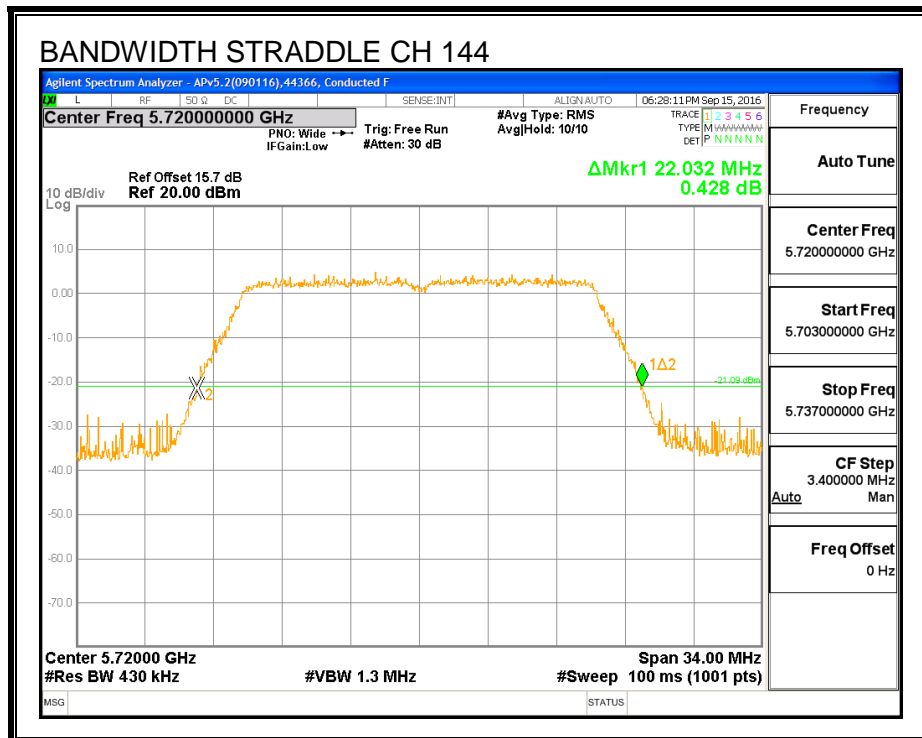
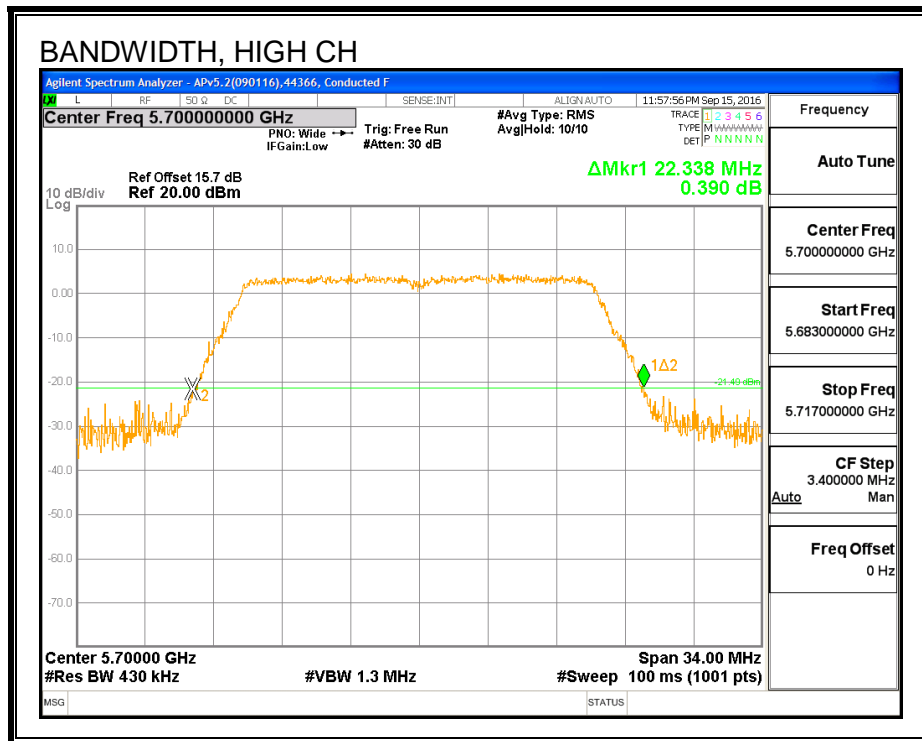
26 dB BANDWIDTH, CHAIN 1





26 dB BANDWIDTH, CHAIN 2





8.34.2. 99% BANDWIDTH

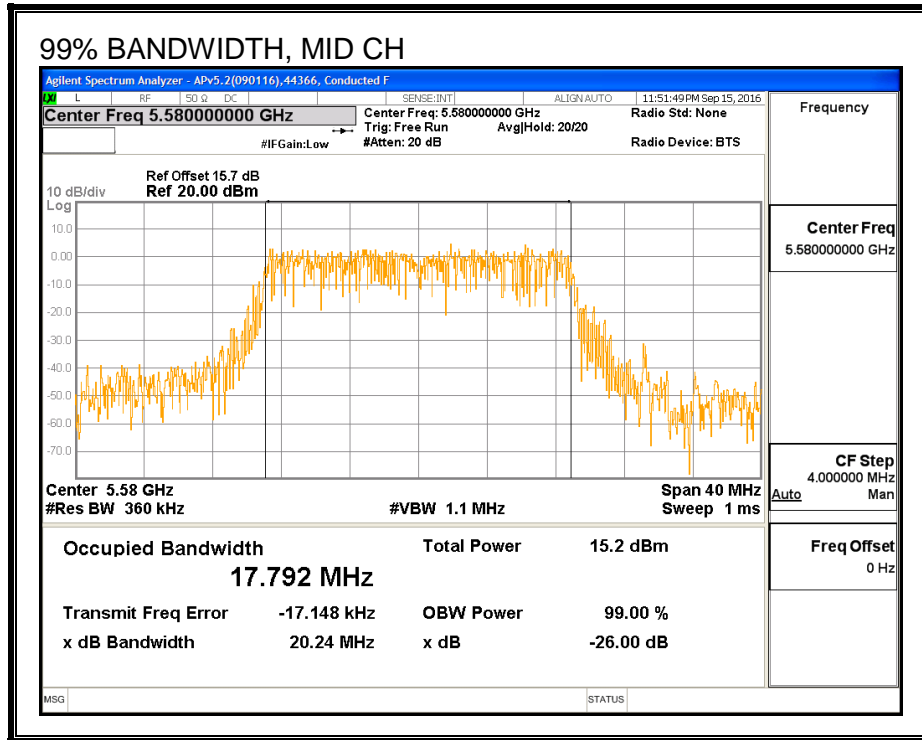
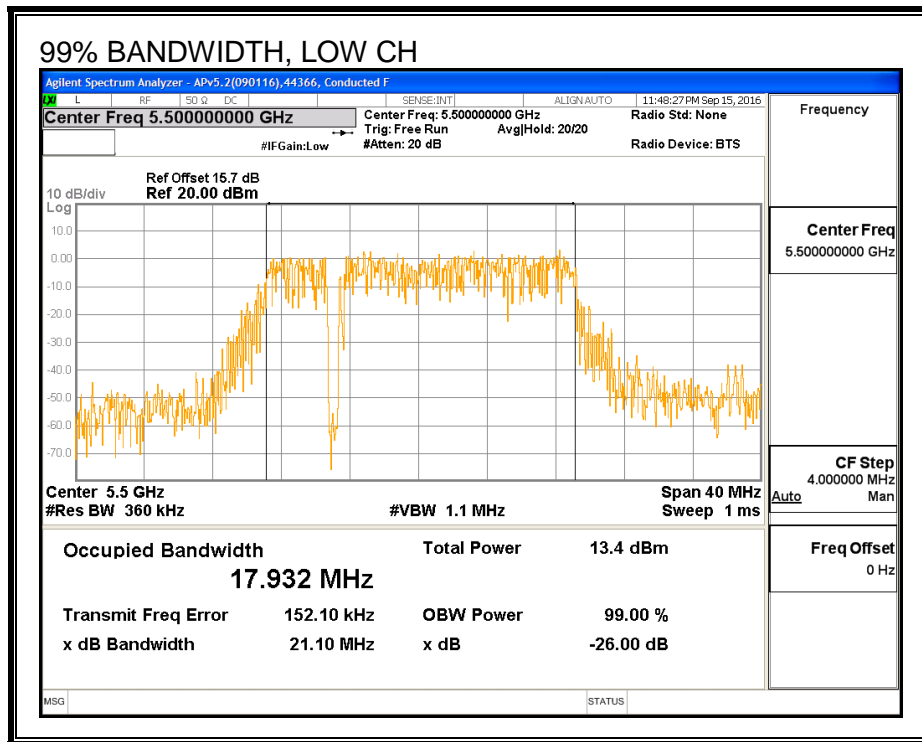
LIMITS

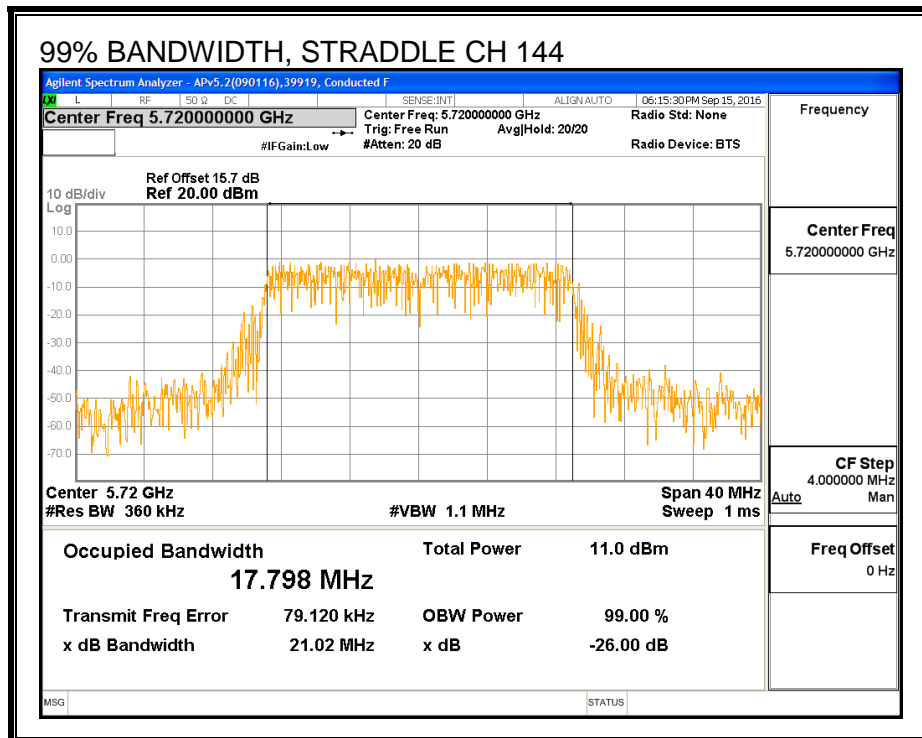
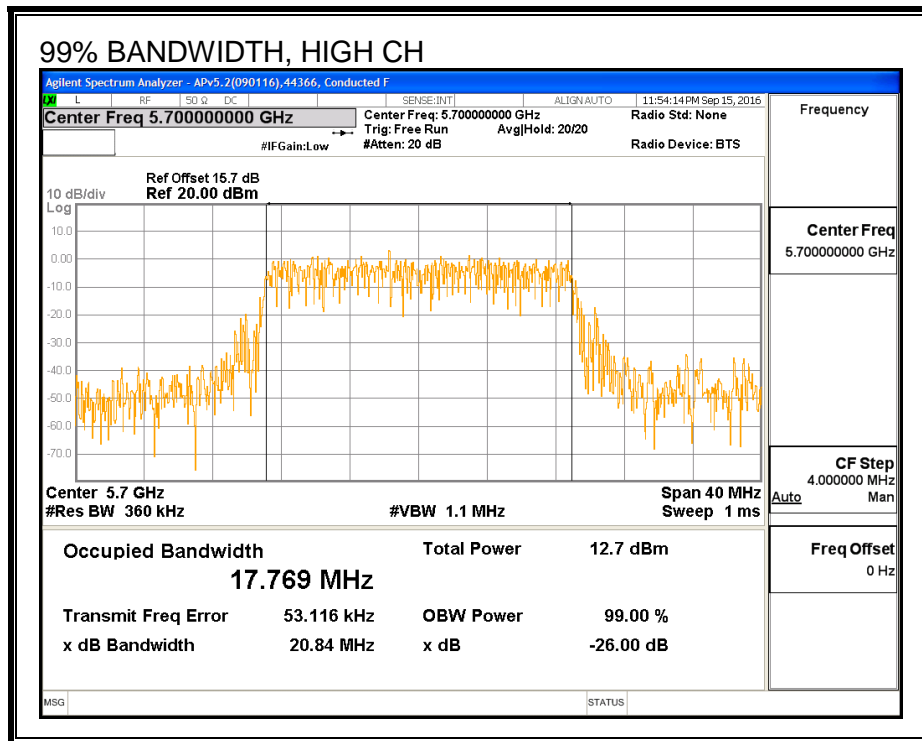
None; for reporting purposes only.

RESULTS

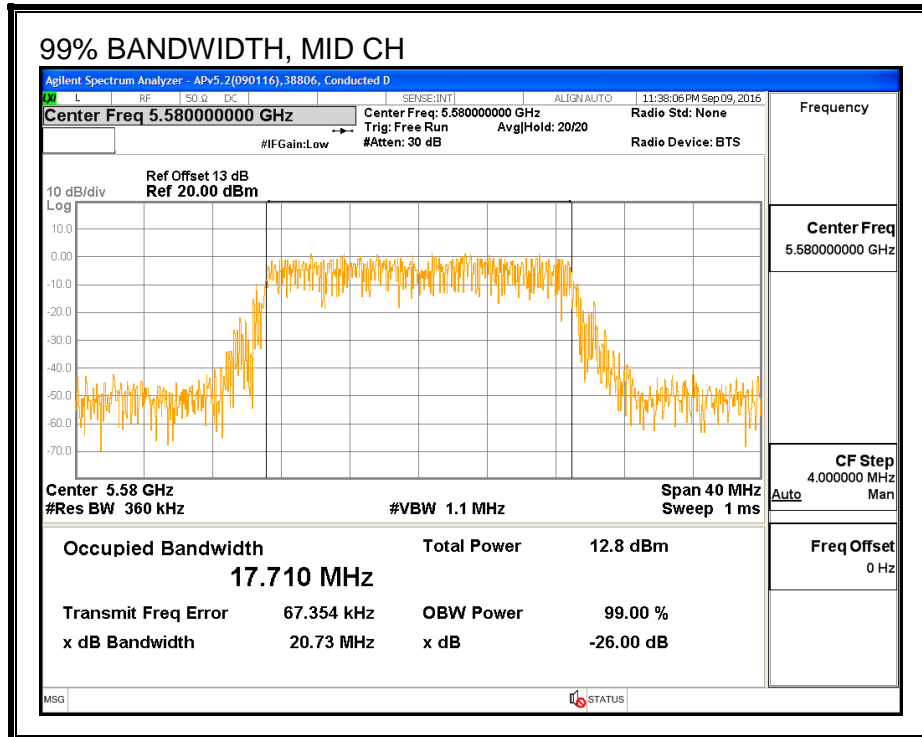
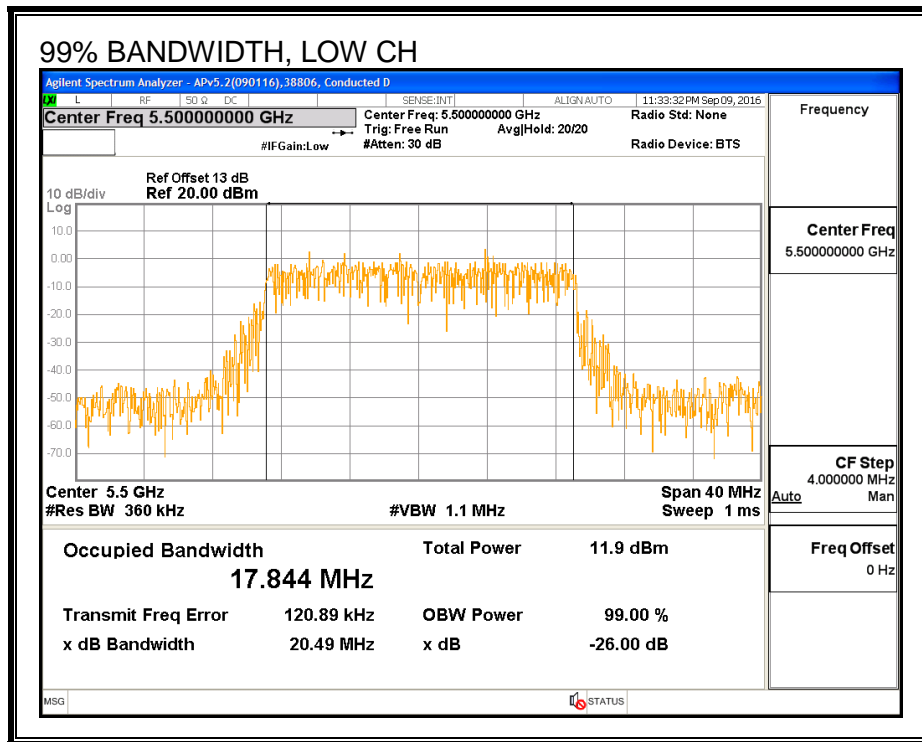
Channel	Frequency (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5500	17.932	17.844
Mid	5580	17.792	17.710
High	5700	17.769	17.880
144	5720	17.798	17.796

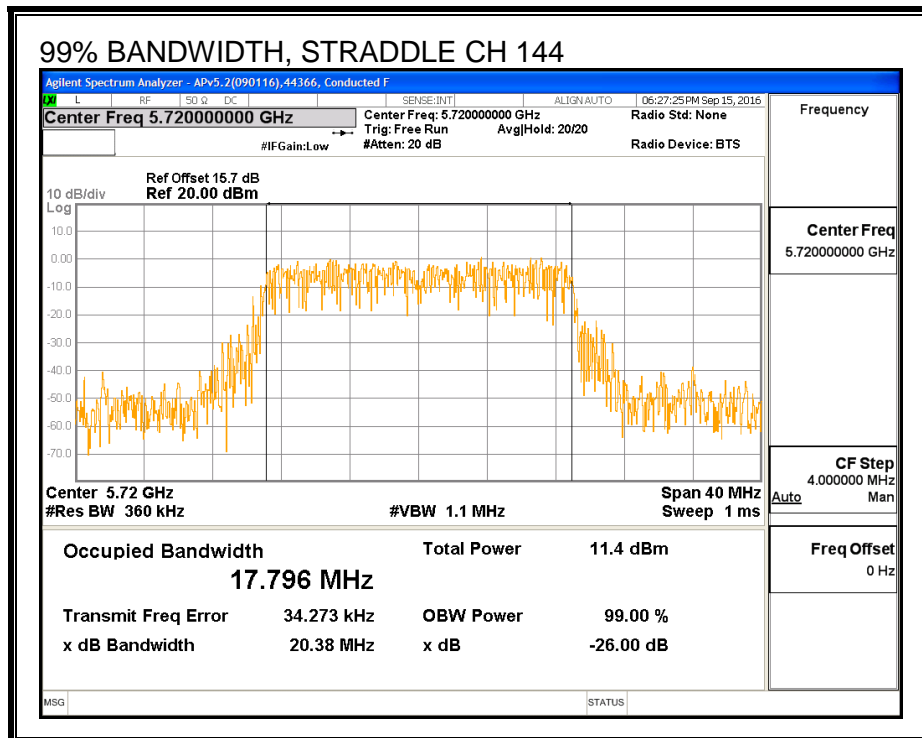
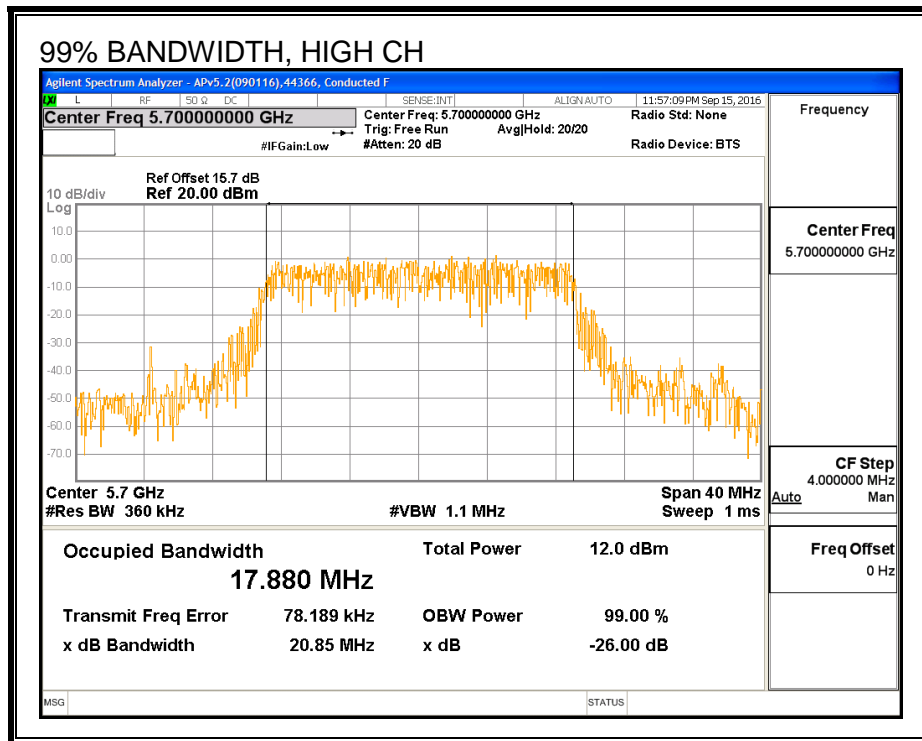
99% BANDWIDTH, CHAIN 1





99% BANDWIDTH, CHAIN 2





8.34.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	44366	Date:	9/12/16
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Average Power Results

Channel	Frequency (MHz)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5500	11.96	11.91	14.95
Mid	5580	11.84	11.61	14.74
High	5700	10.46	10.40	13.44
144	5720	12.00	11.91	14.97

8.34.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band 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 MHz. In addition, the maximum 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.

IC RSS-247 (6.2.3) (1)

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.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

Straddle channel power is measured using PXA spectrum analyzer, duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
7.40	5.20	9.38

RESULTS

ID:	44366	Date:	9/12/16
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Bandwidth, Antenna Gain and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5500	21.71	17.844	9.38	9.38	20.13	7.62
Mid	5580	21.75	17.71	9.38	9.38	20.10	7.62
High	5700	22.10	17.769	9.38	9.38	20.12	7.62

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd PSD
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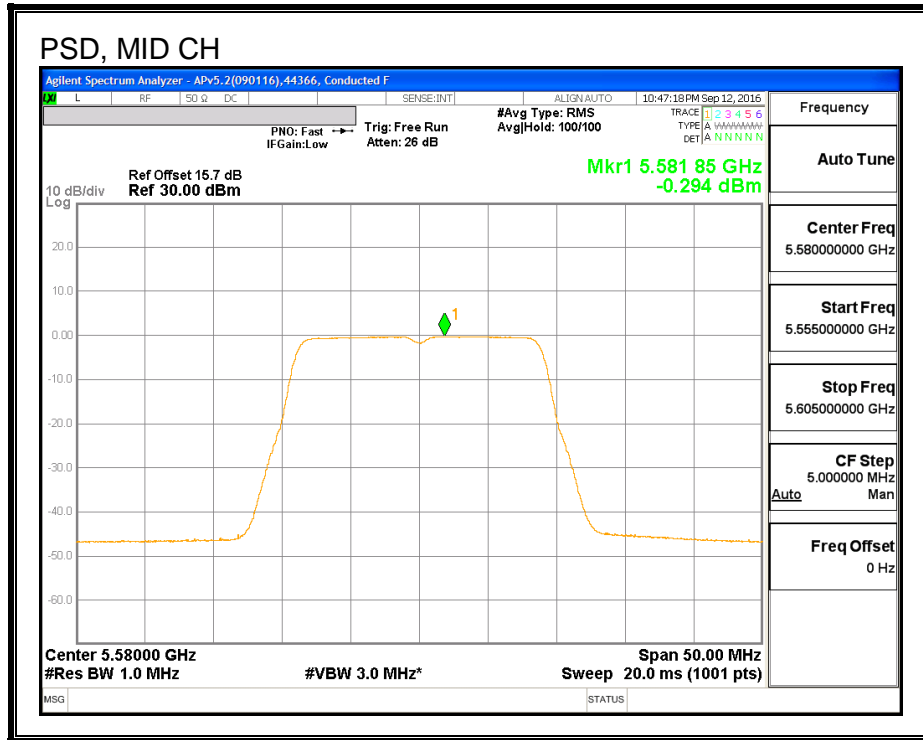
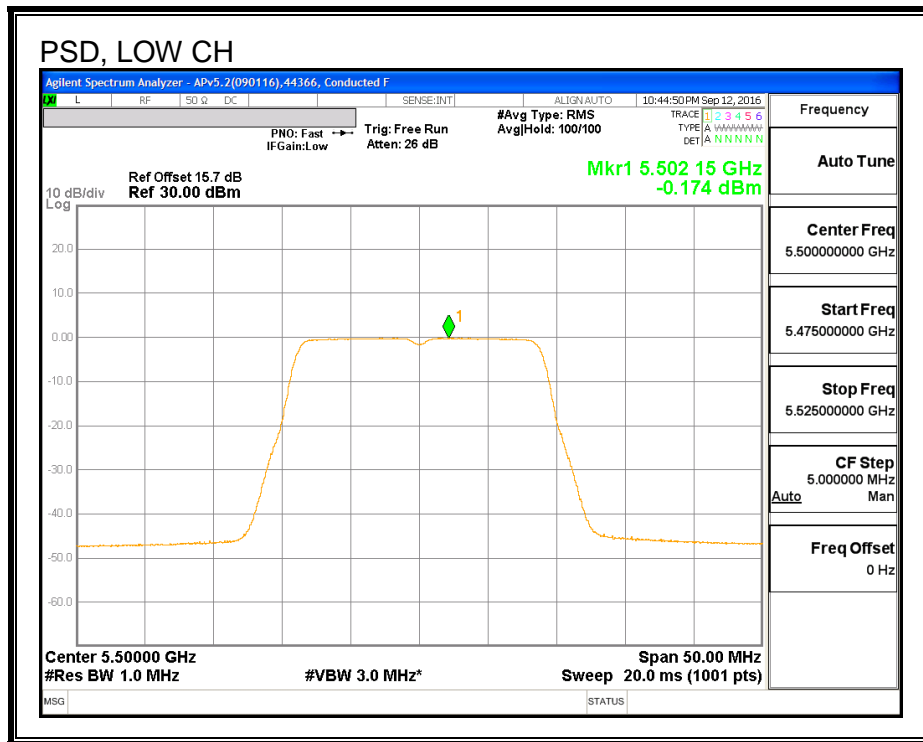
Output Power Results

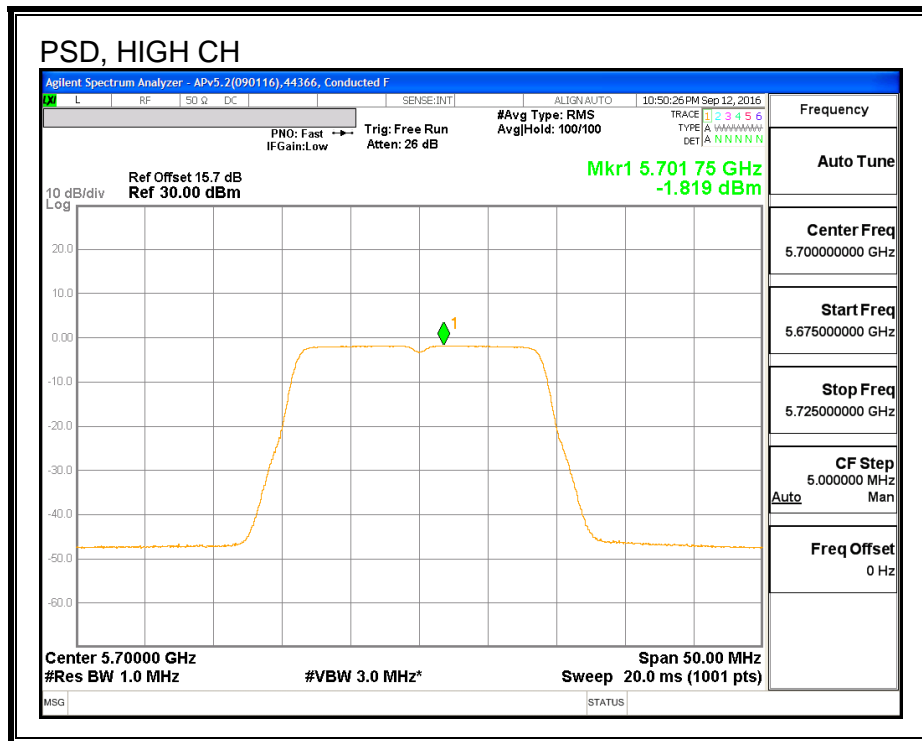
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	11.96	11.912	14.95	20.13	-5.19
Mid	5580	11.84	11.607	14.74	20.10	-5.37
High	5700	10.46	10.4	13.44	20.12	-6.68

PSD Results

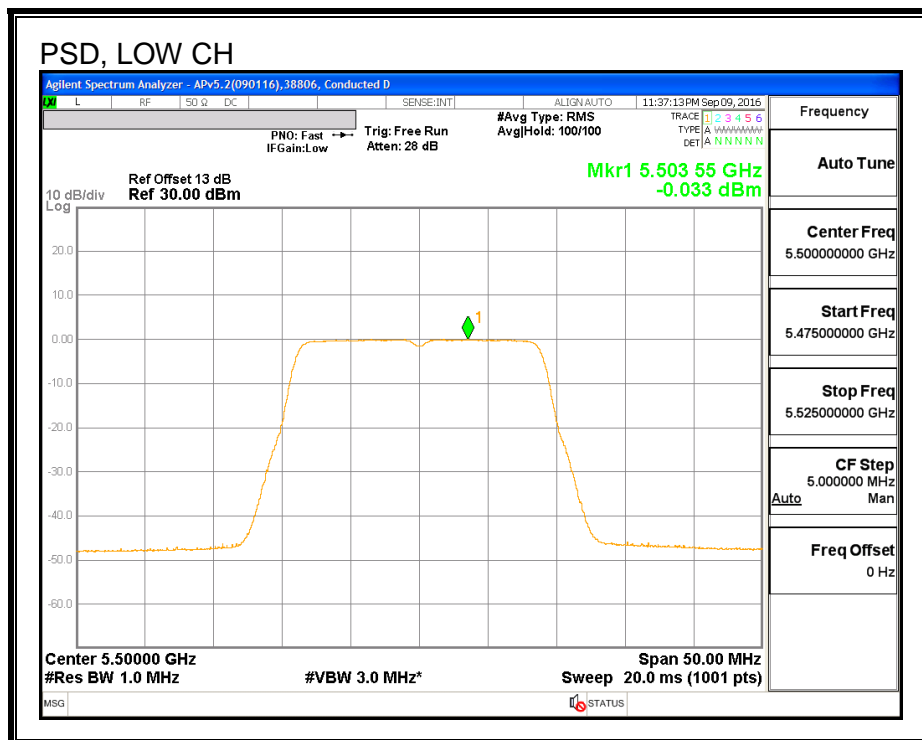
Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	-0.174	-0.033	3.96	7.62	-3.66
Mid	5580	-0.294	-0.307	3.76	7.62	-3.86
High	5700	-1.819	-1.773	2.26	7.62	-5.36

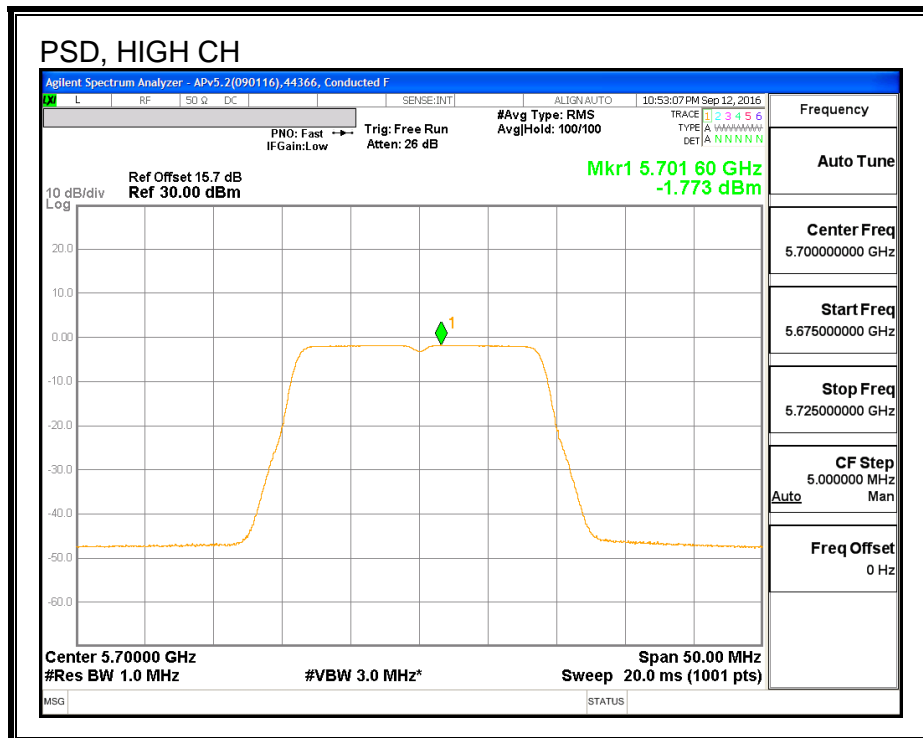
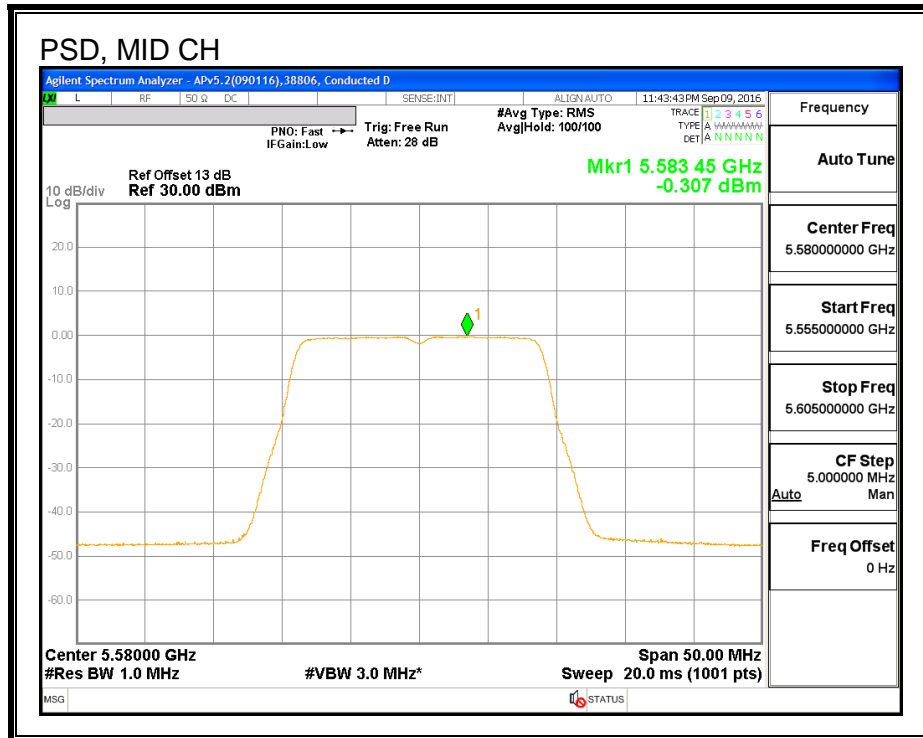
PSD, CHAIN 1





PSD, CHAIN 2





8.35. 802.11ac VHT20 2Tx (CHAIN 1 + CHAIN 2) BEAM FORMING STRADDLE CHANNEL 144 RESULTS (FCC)

8.35.1. OUTPUT POWER AND PSD

UNII-2C BAND

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)
144	5720	16.02	9.38	9.38	19.67	7.62

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd Power & PSD
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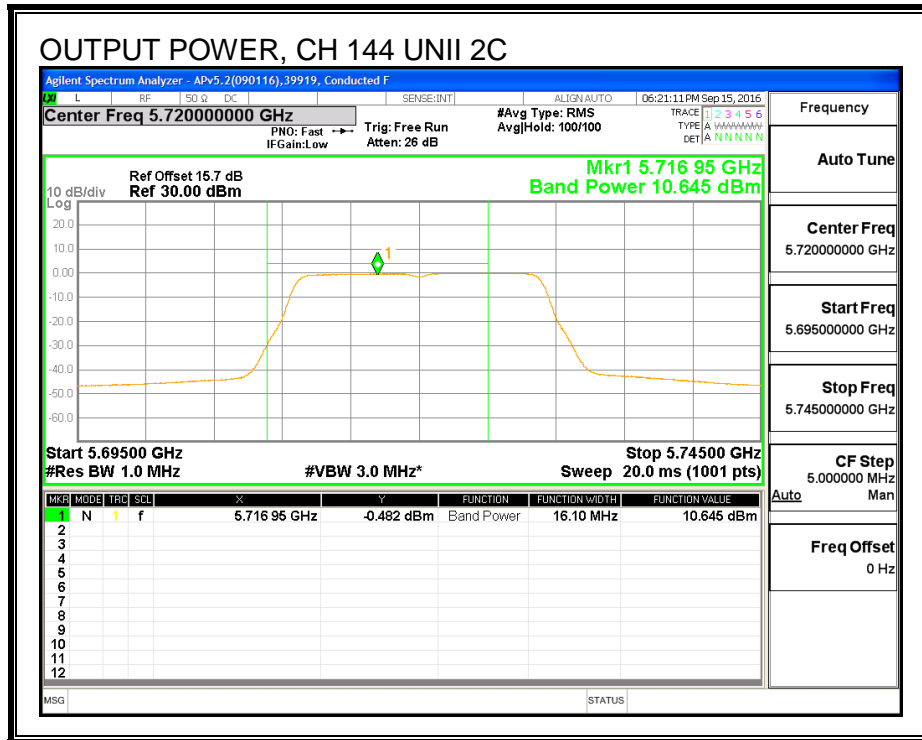
Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.65	10.73	14.75	19.67	-4.92

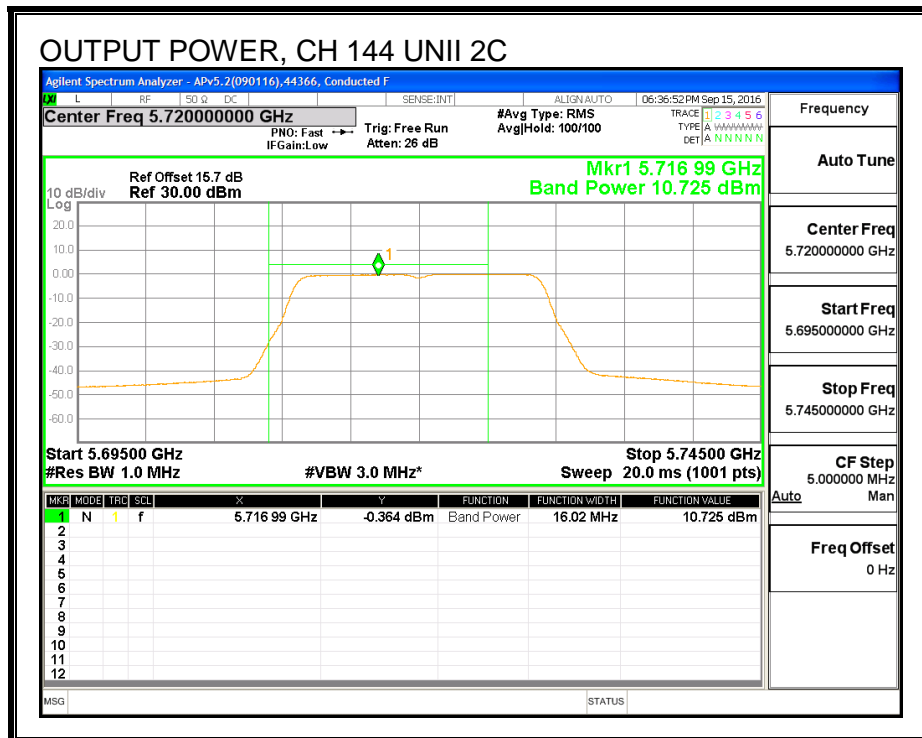
PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-0.142	-0.058	3.96	7.62	-3.66

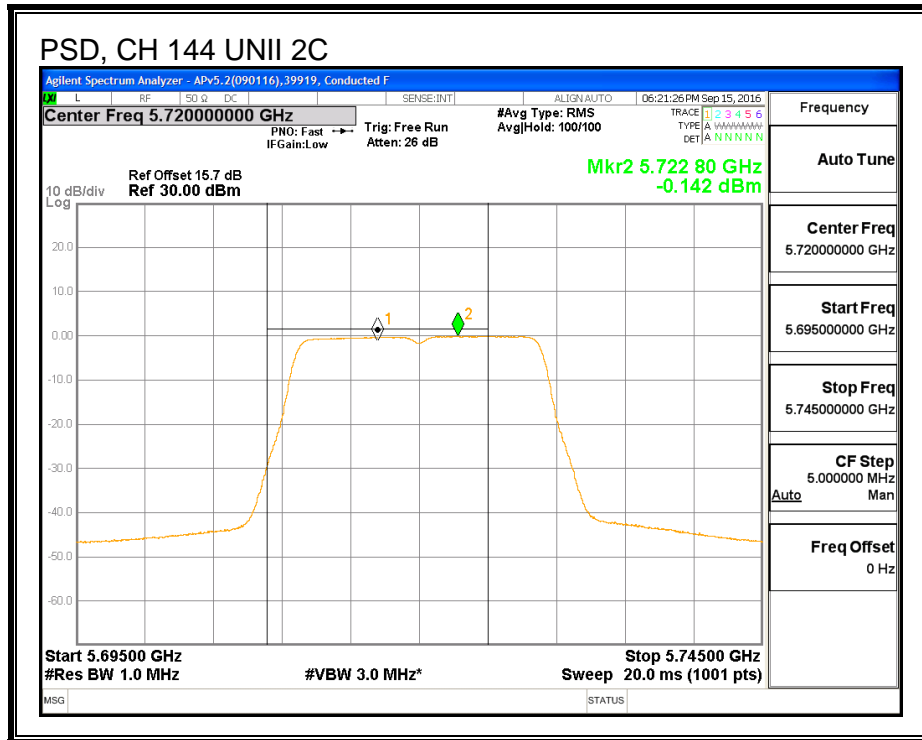
OUTPUT POWER, CHAIN 1



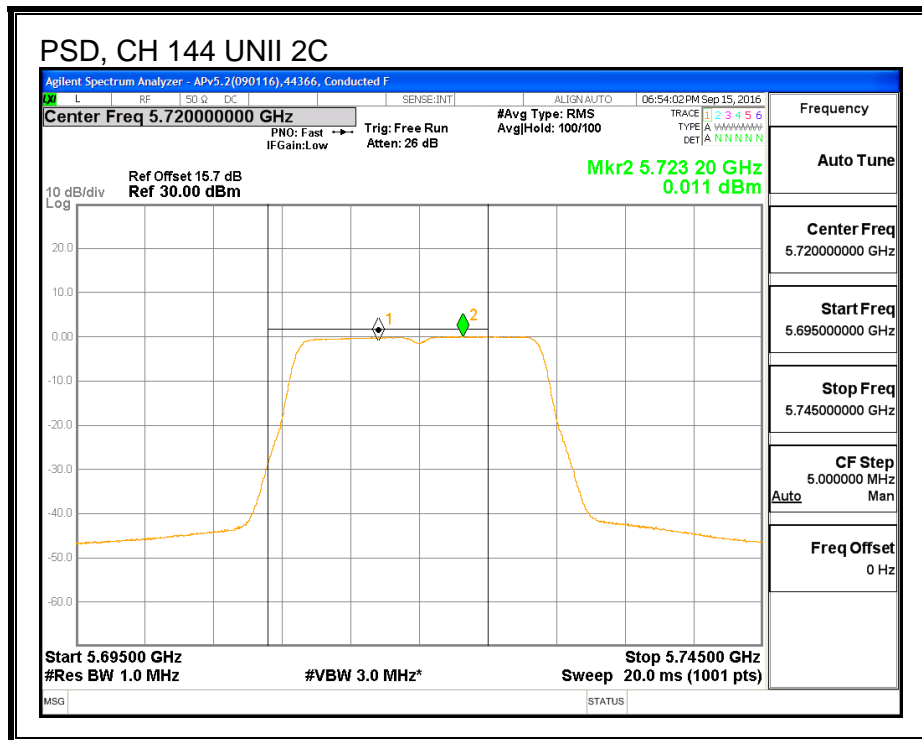
OUTPUT POWER, CHAIN 2



PSD, CHAIN 1



PSD, CHAIN 2



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	6.02	9.38	9.38	26.62	26.62

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd Power & PSD
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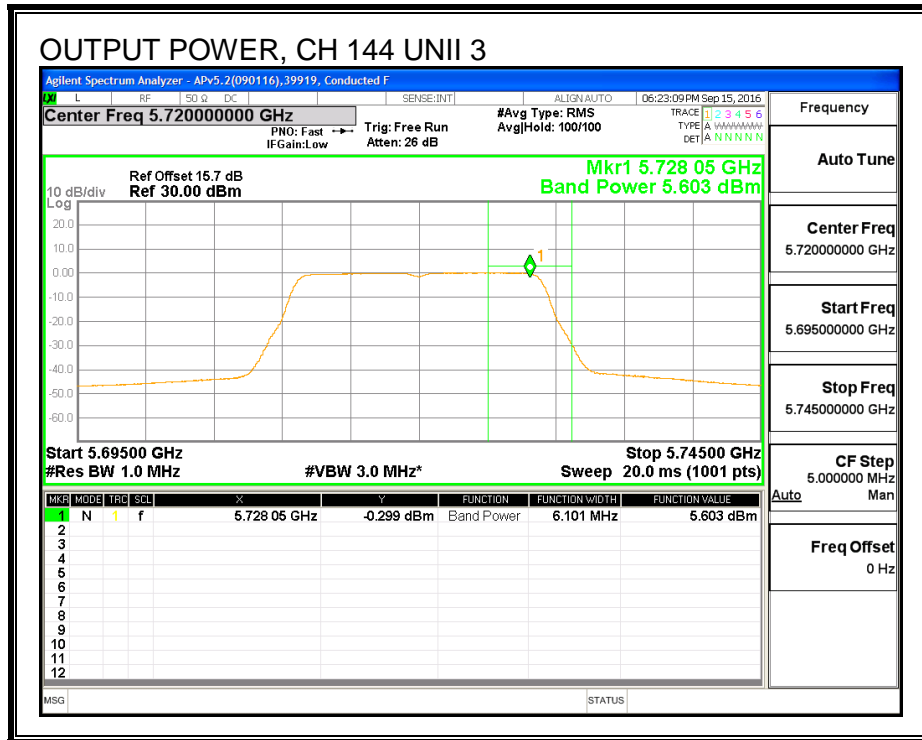
Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.60	5.47	9.60	26.62	-17.02

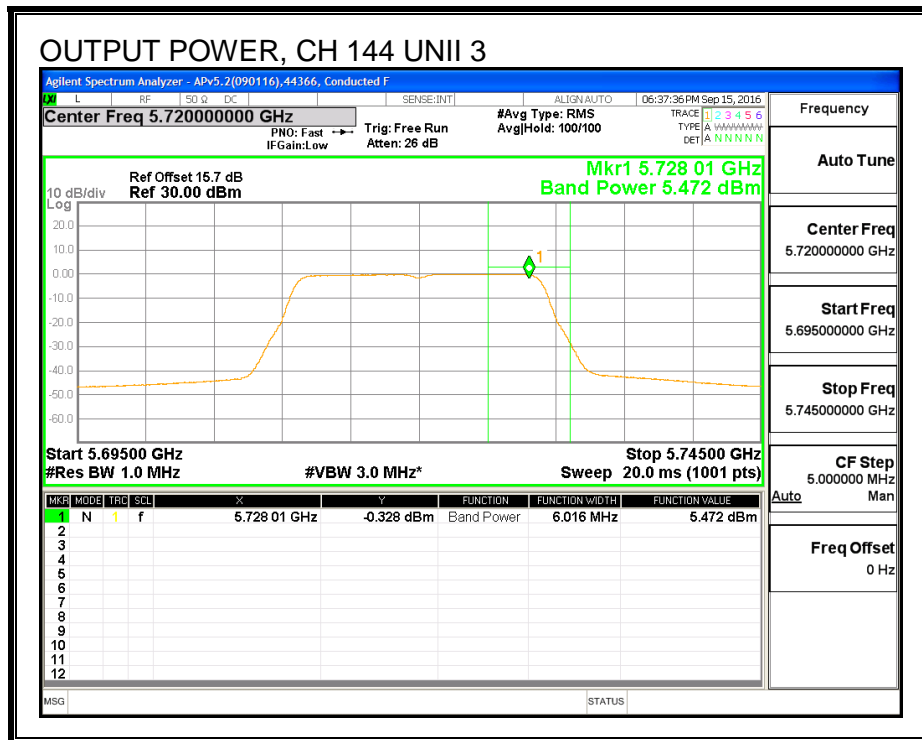
PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-2.73	-2.91	1.24	26.62	-25.38

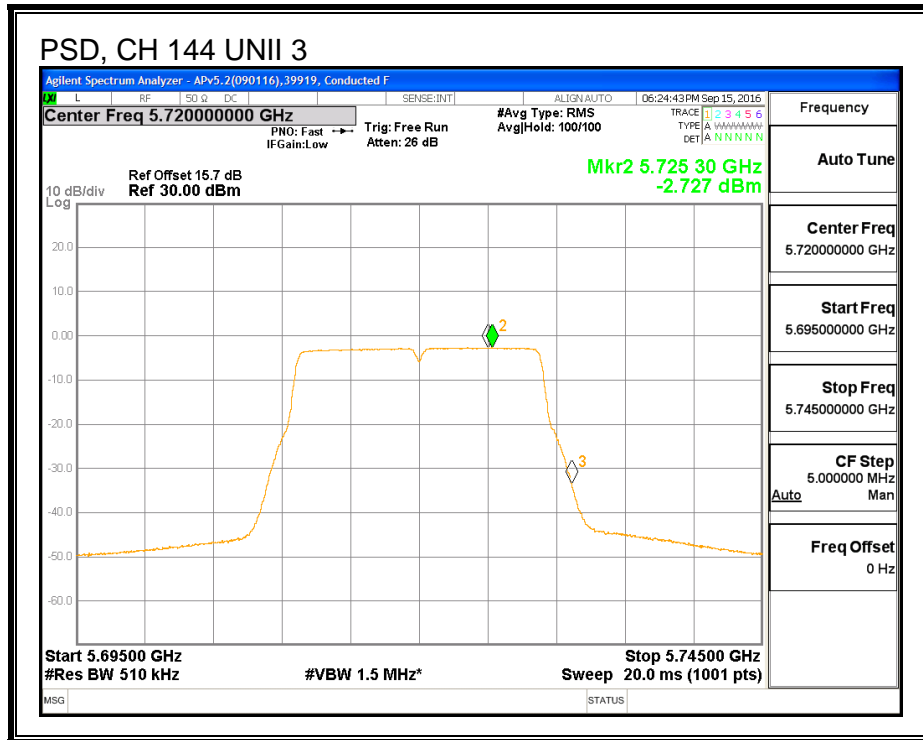
OUTPUT POWER, CHAIN 1



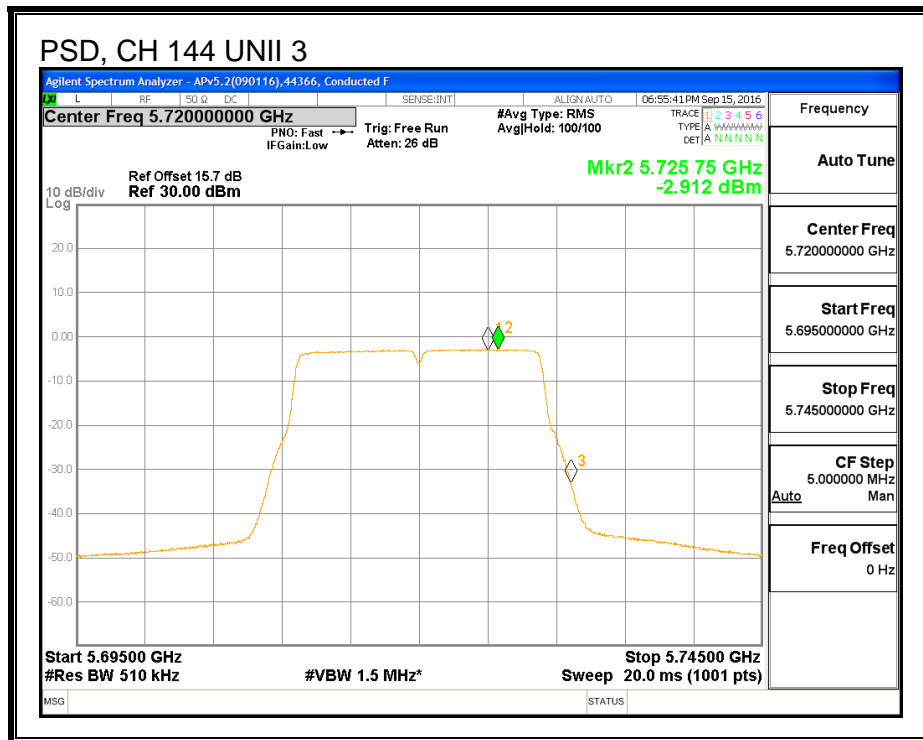
OUTPUT POWER, CHAIN 2



PSD, CHAIN 1



PSD, CHAIN 2



8.36. 802.11ac VHT20 2Tx (CHAIN 1 + CHAIN 2) BEAM FORMING STRADDLE CHANNEL 144 RESULTS (IC)

8.36.1. OUTPUT POWER AND PSD

UNII-2C BAND

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)
144	5720	13.900	9.38	9.38	19.05	7.62

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd Power & PSD
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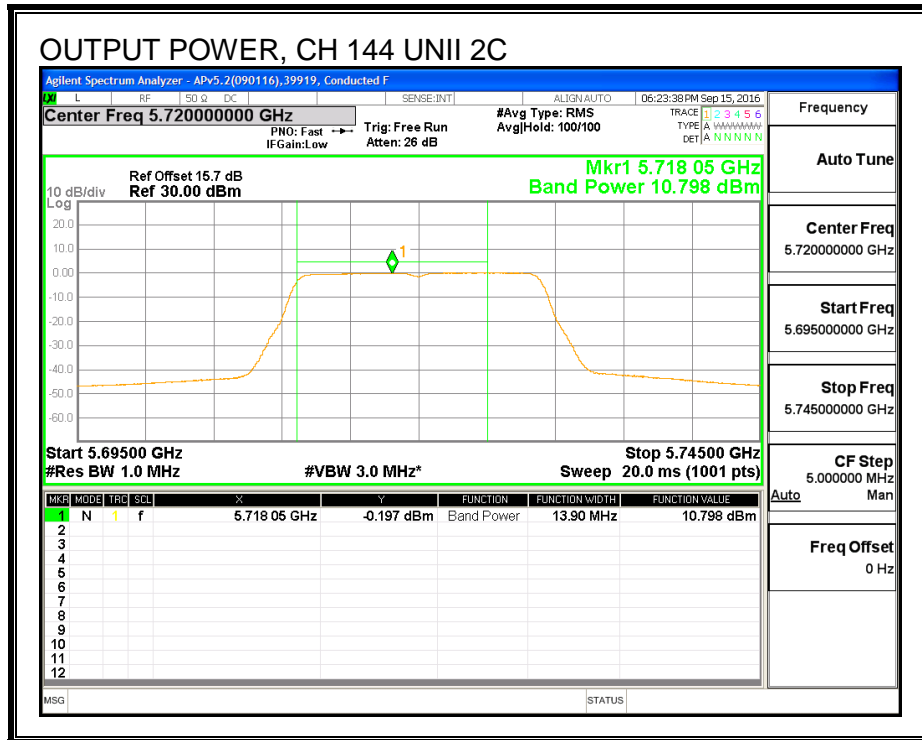
Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.80	10.67	14.79	19.05	-4.26

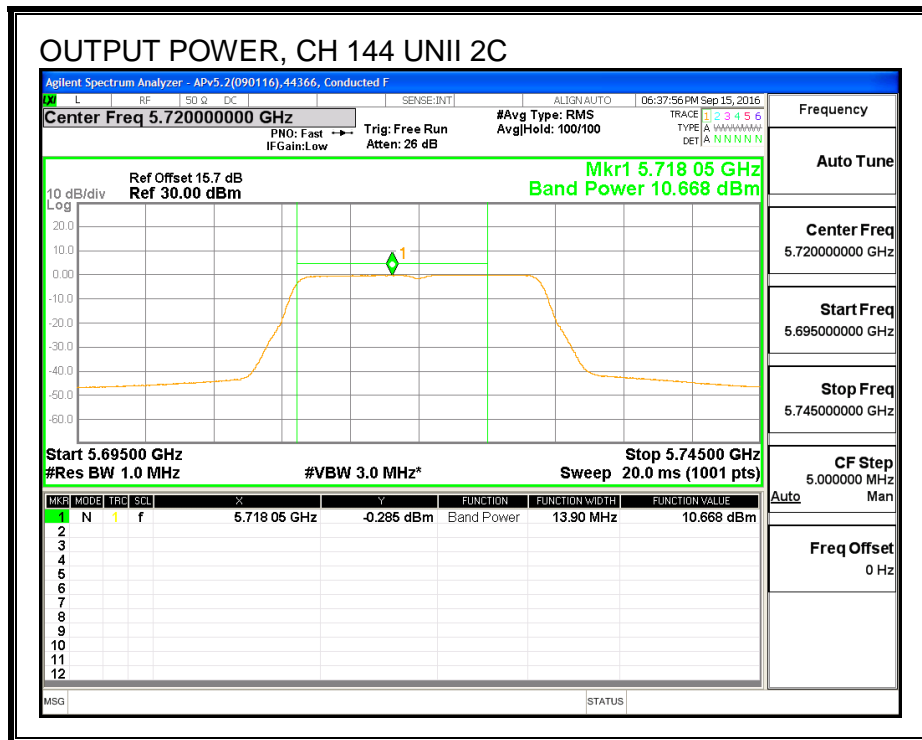
PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	0.07	0.01	4.10	7.62	-3.52

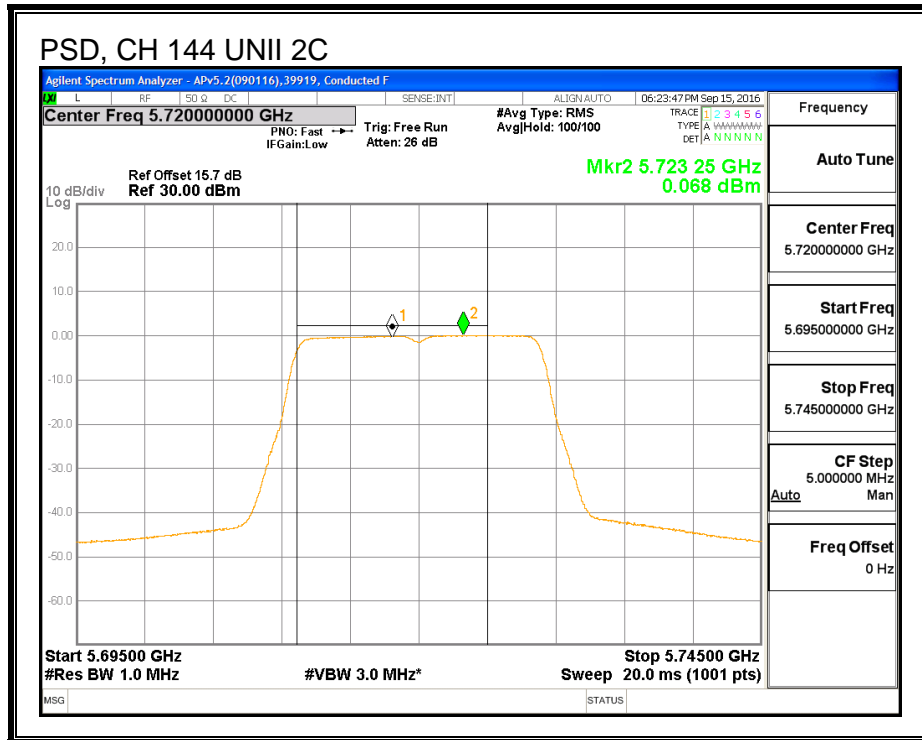
OUTPUT POWER, CHAIN 1



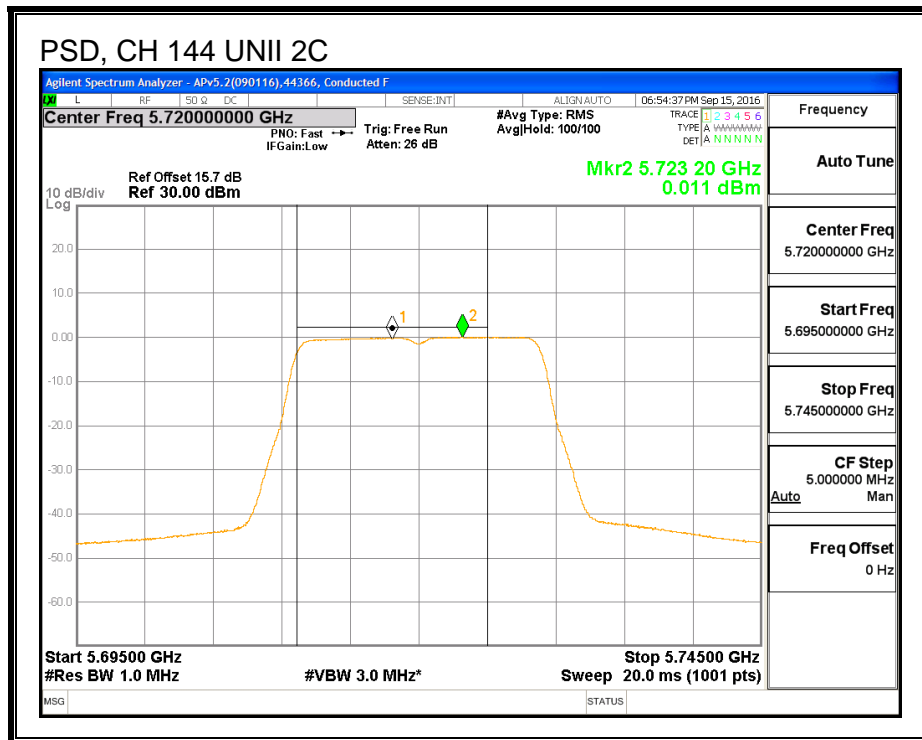
OUTPUT POWER, CHAIN 2



PSD, CHAIN 1



PSD, CHAIN 2



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	3.898	9.38	9.38	26.62	26.62

Duty Cycle CF (dB)	1.05	Included in Calculations of Corr'd Power & PSD
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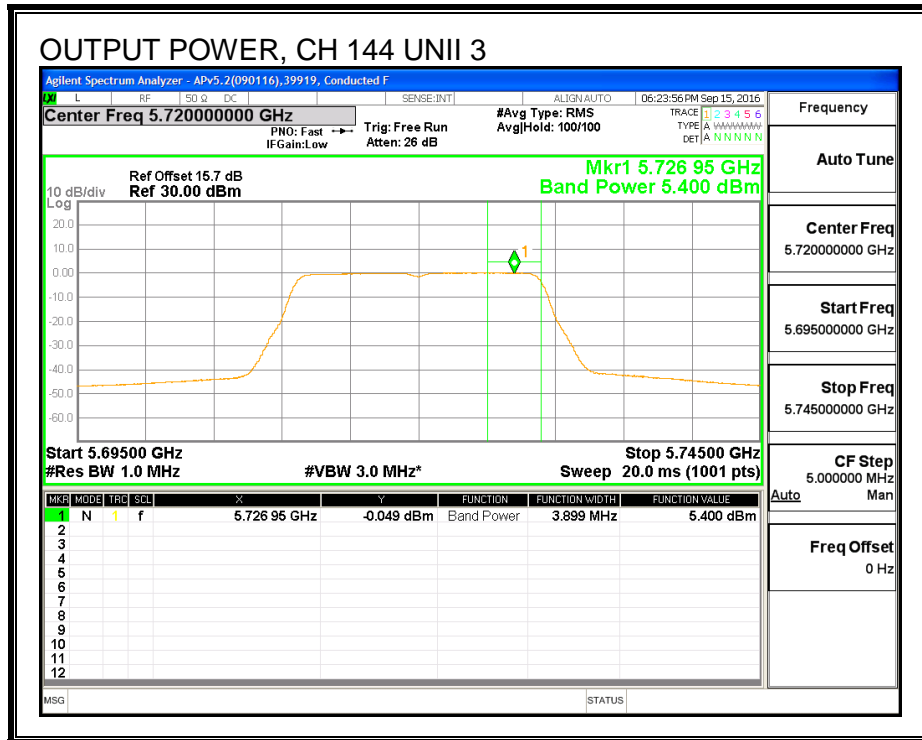
Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.40	5.33	9.43	26.62	-17.19

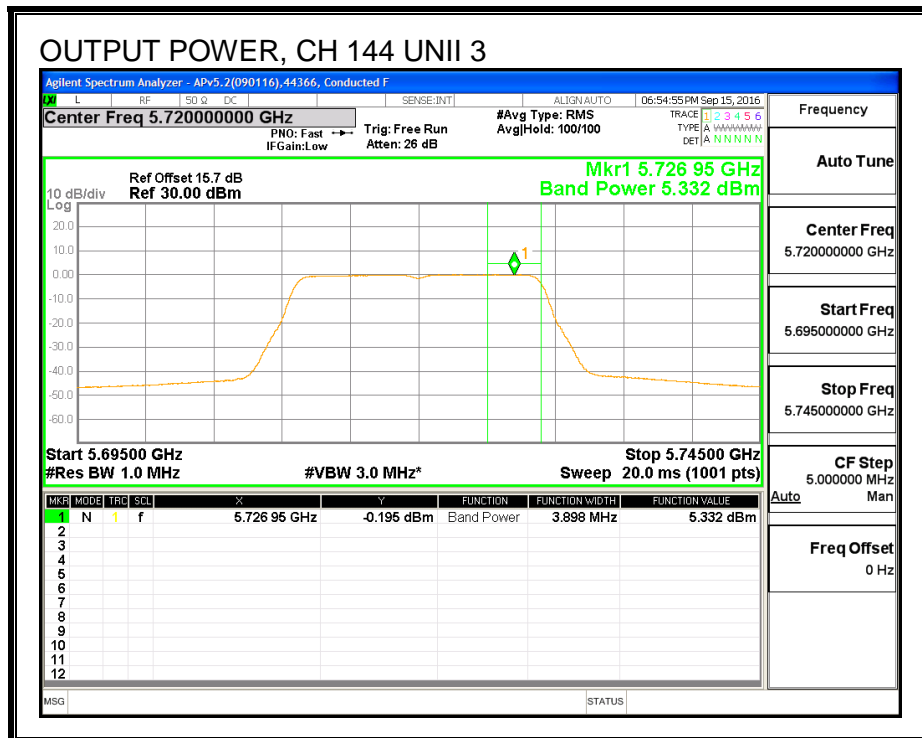
PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-2.73	-2.91	1.24	26.62	-25.38

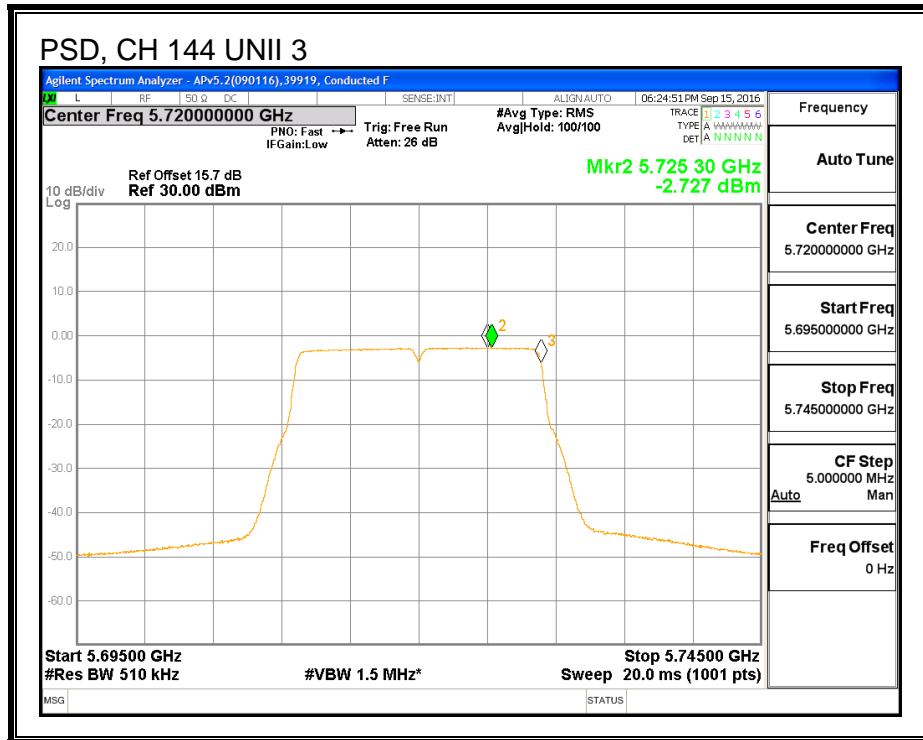
OUTPUT POWER, CHAIN 1



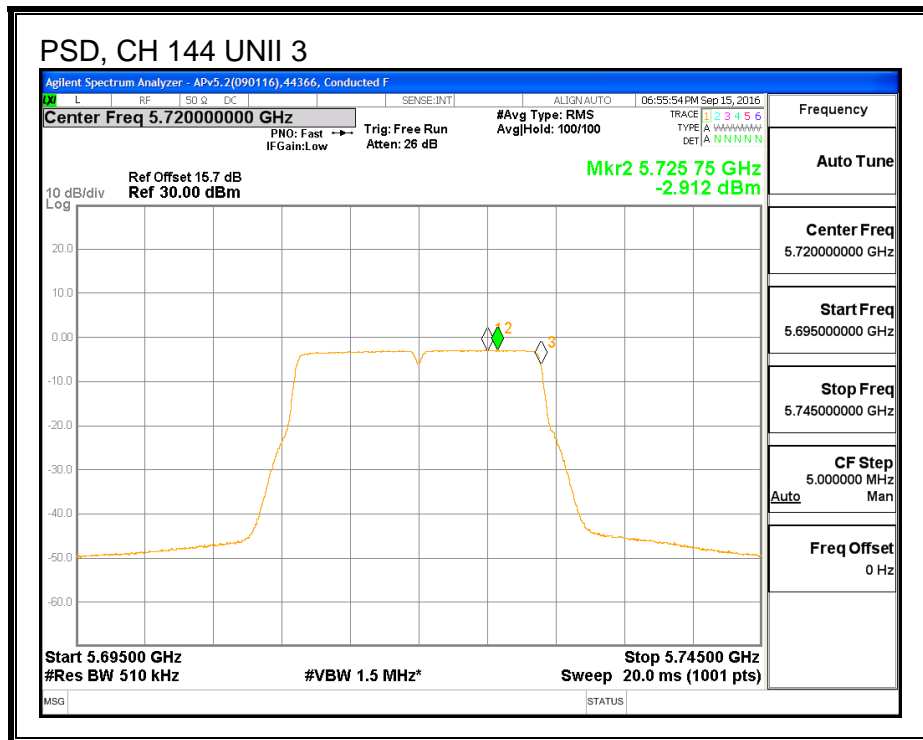
OUTPUT POWER, CHAIN 2



PSD, CHAIN 1



PSD, CHAIN 2



8.36.2. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

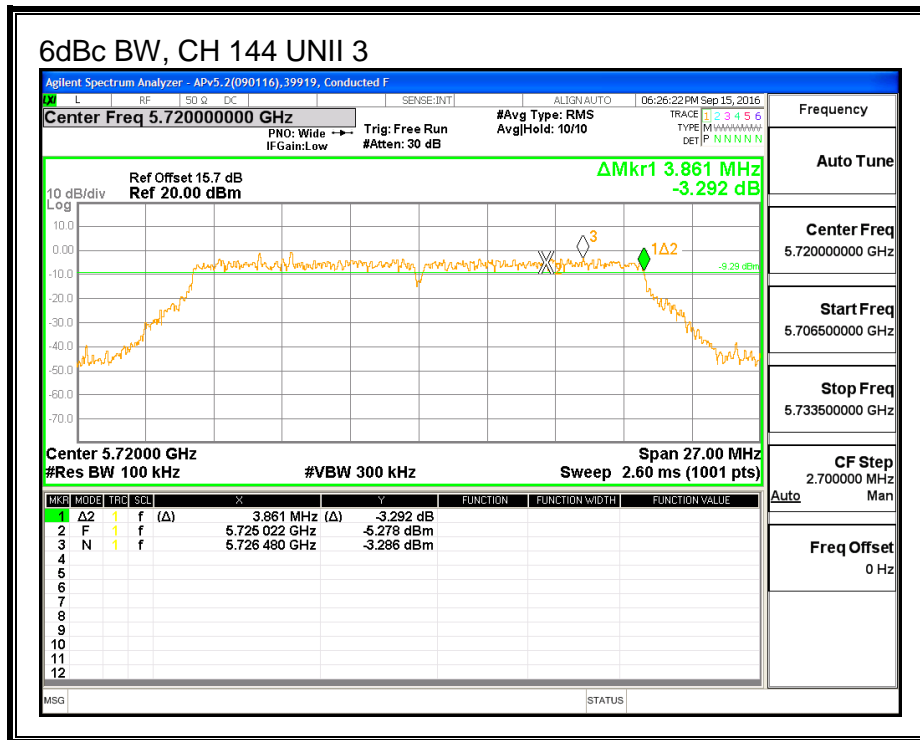
IC RSS-247 (6.2.4) (1)

The minimum 6 dB bandwidth shall be at least 500 kHz.

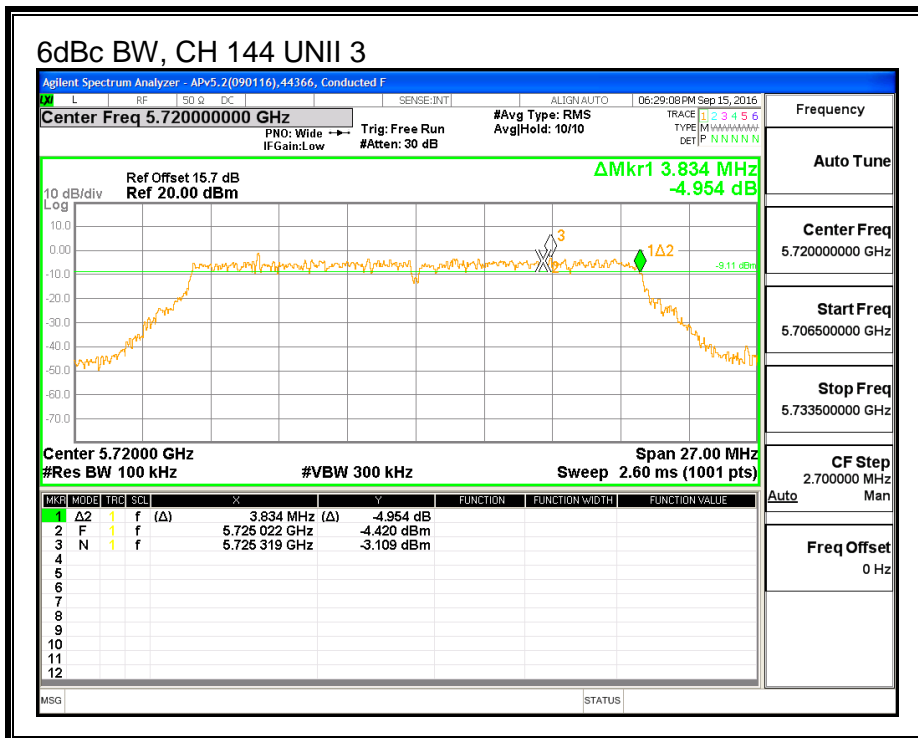
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 1 (MHz)	6 dB BW Chain 2 (MHz)
144	5720	3.861	3.834

CHAIN 1



CHAIN 2



8.37. 802.11n HT20 3Tx CDD MODE IN THE 5.6 GHz BAND

8.37.1. 26 dB BANDWIDTH

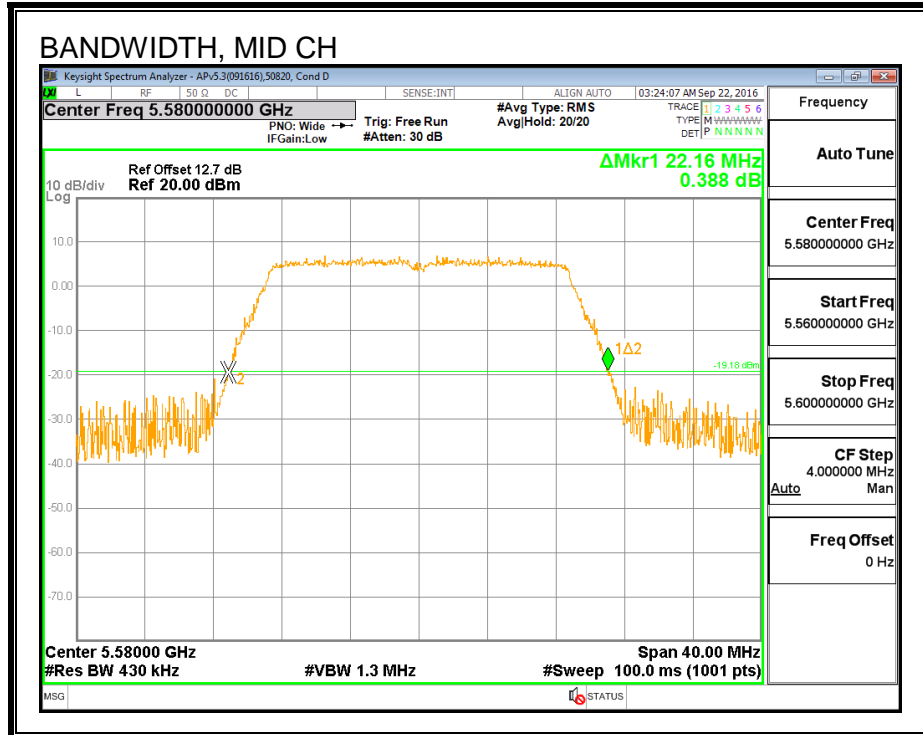
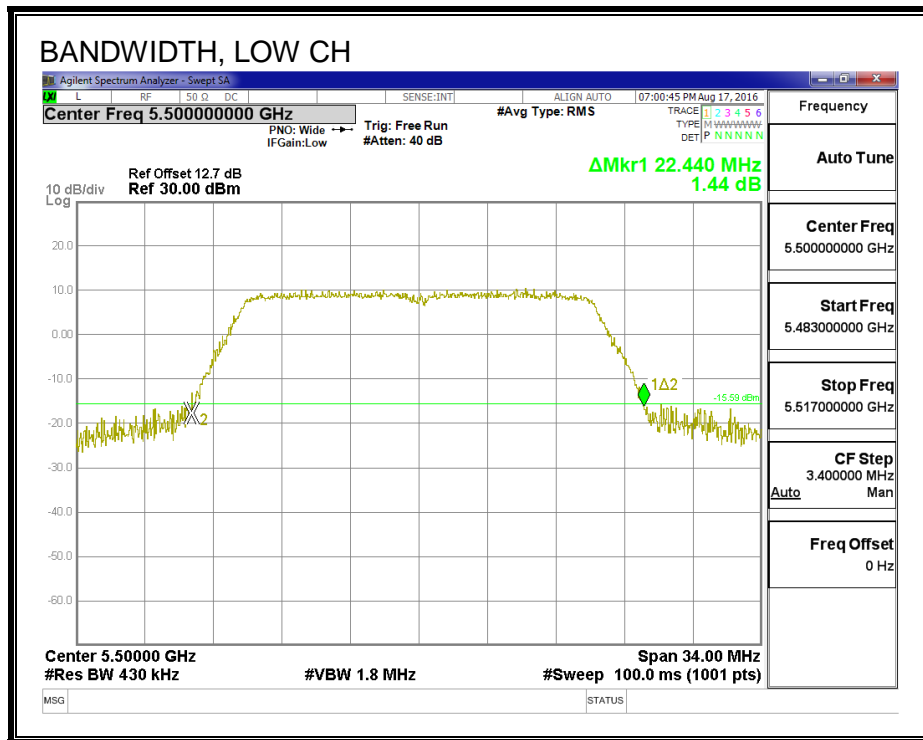
LIMITS

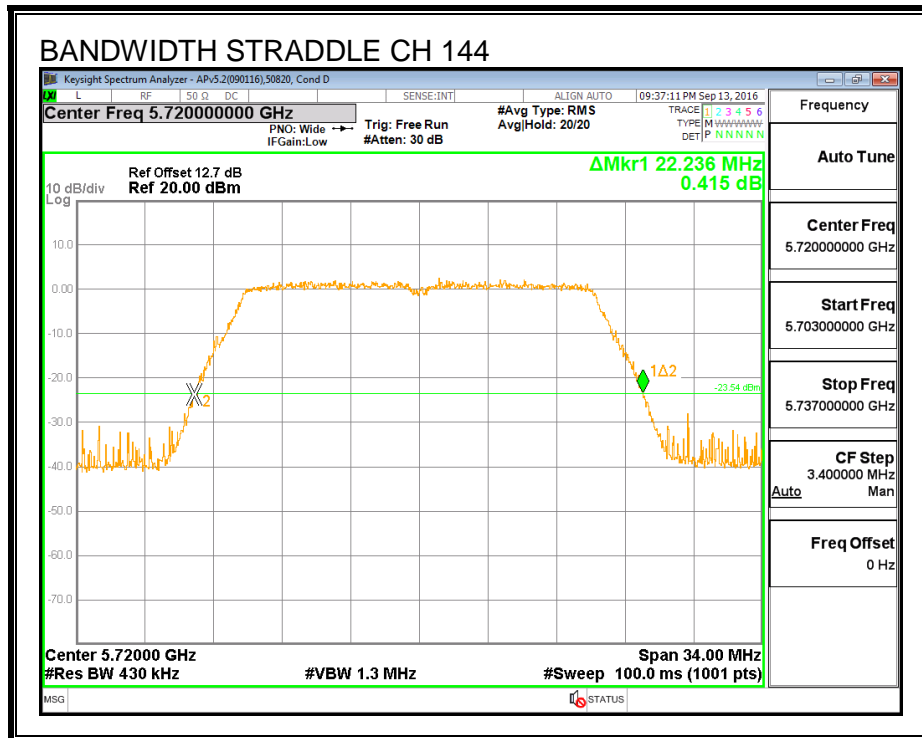
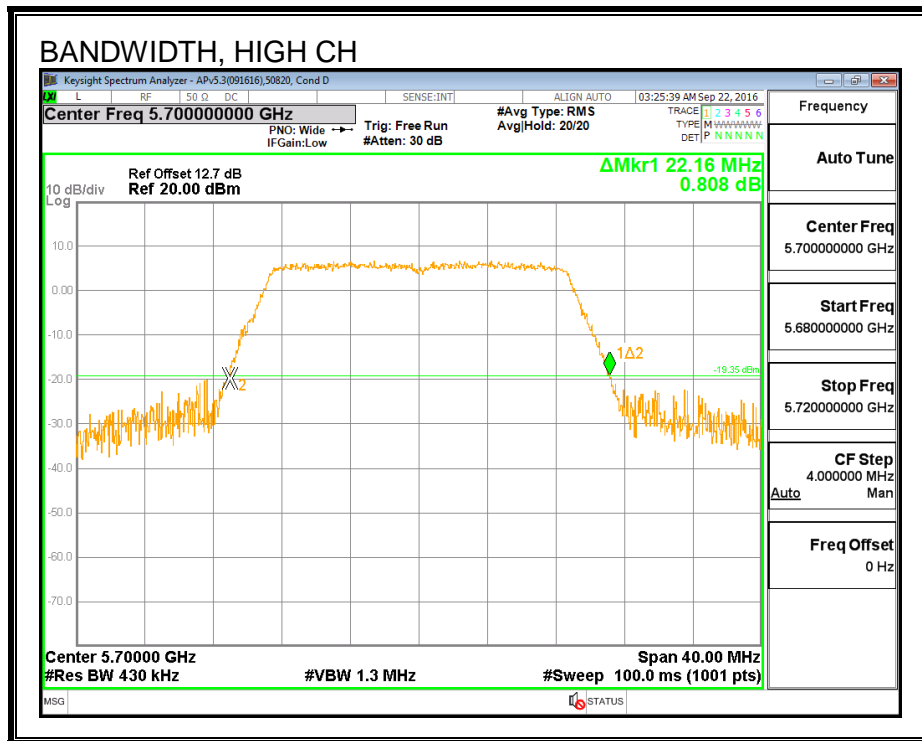
None; for reporting purposes only.

RESULTS

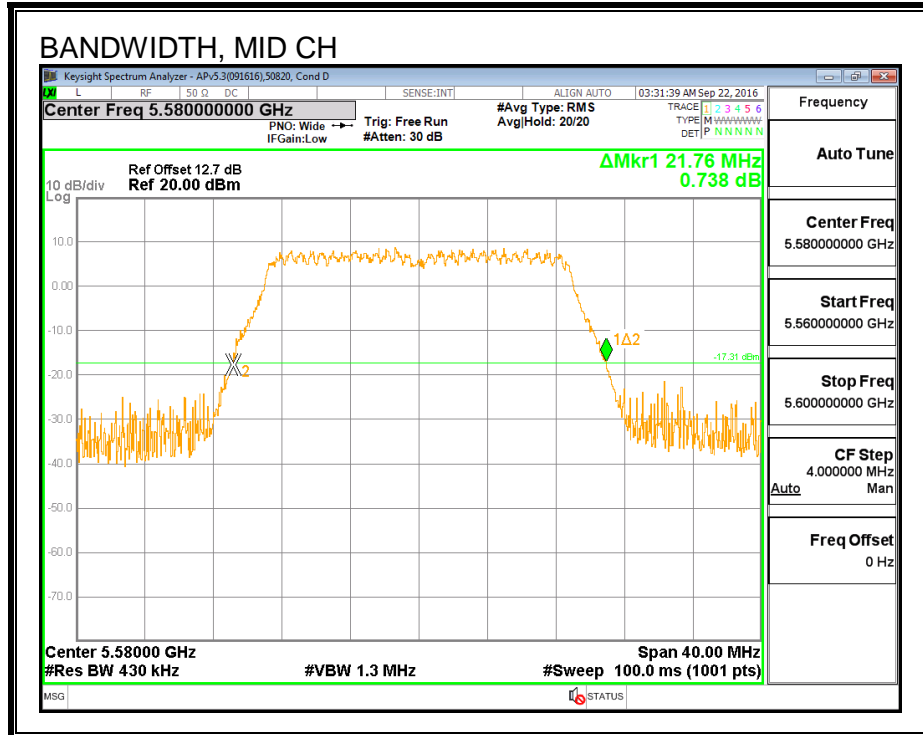
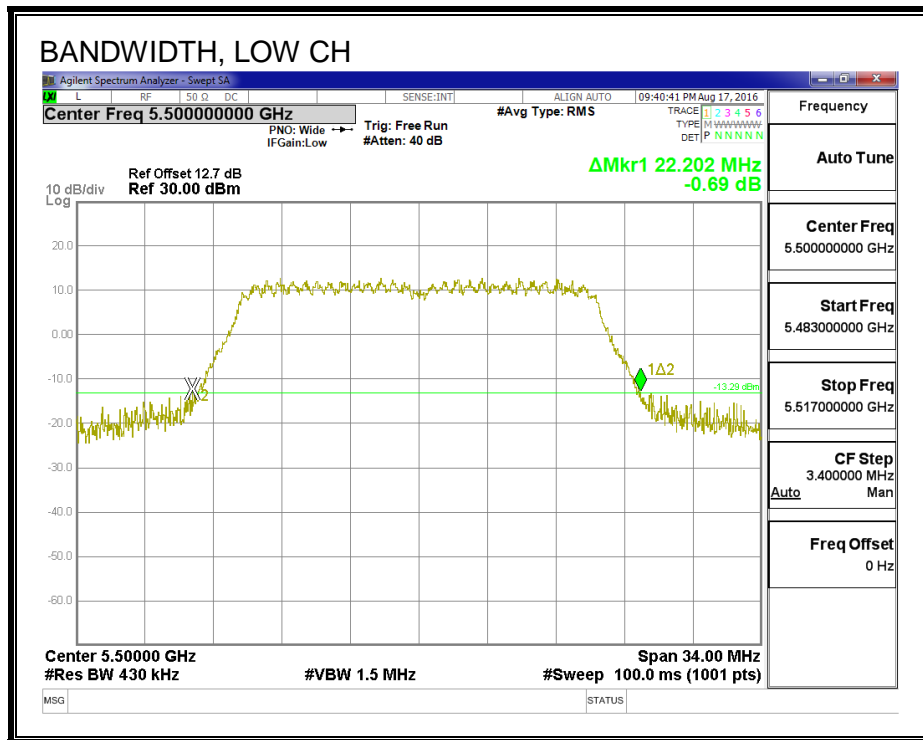
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5500	22.440	22.202	21.800
Mid	5580	22.160	21.760	21.880
High	5700	22.160	22.032	21.880
144	5720	22.238	21.747	21.912

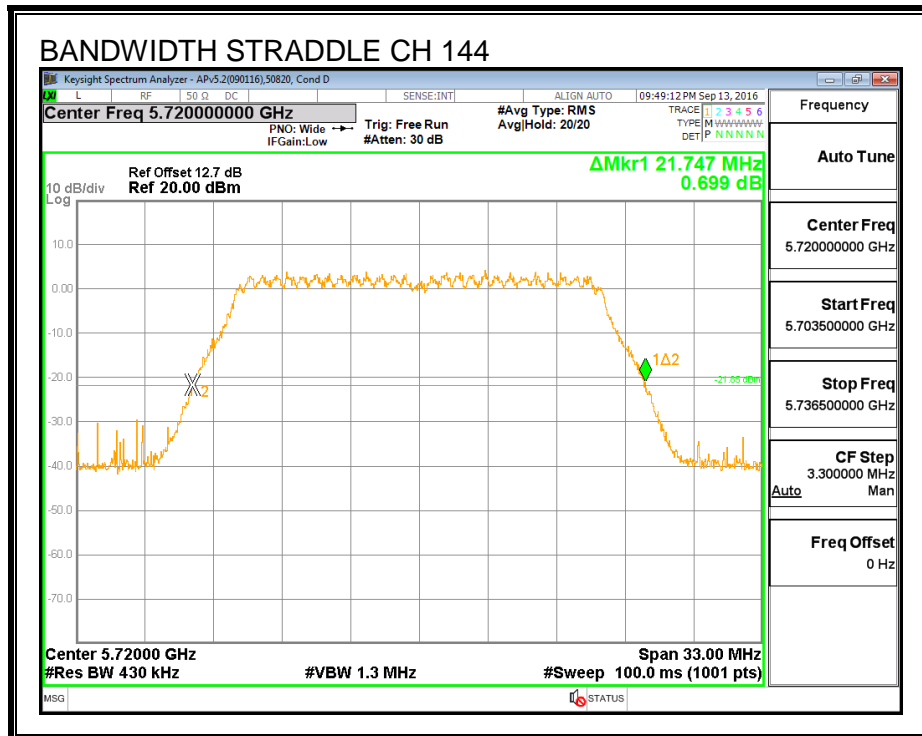
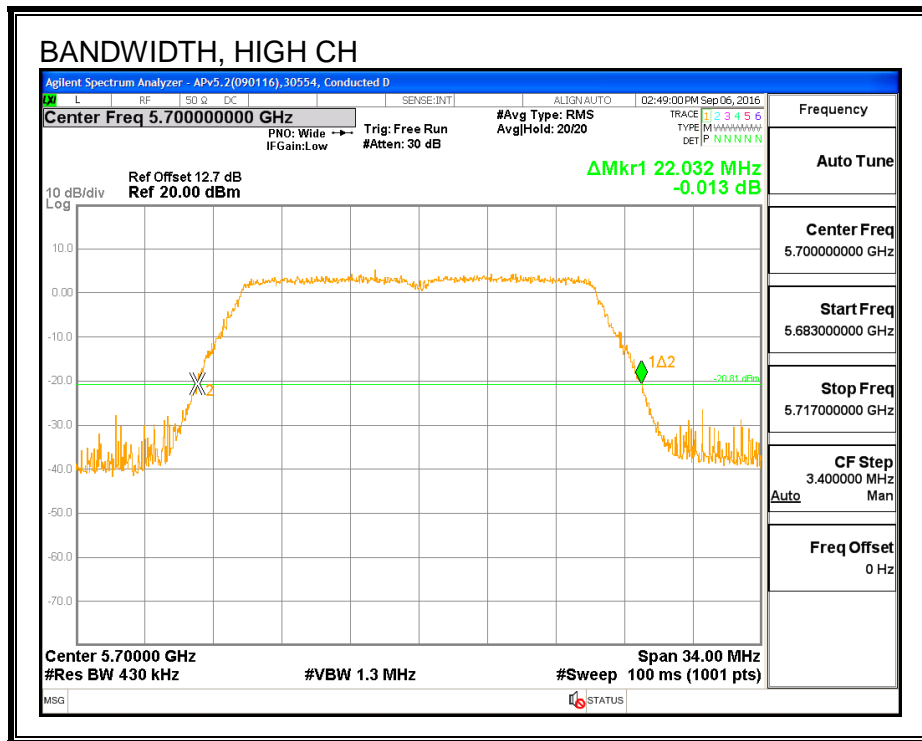
26 dB BANDWIDTH, CHAIN 0



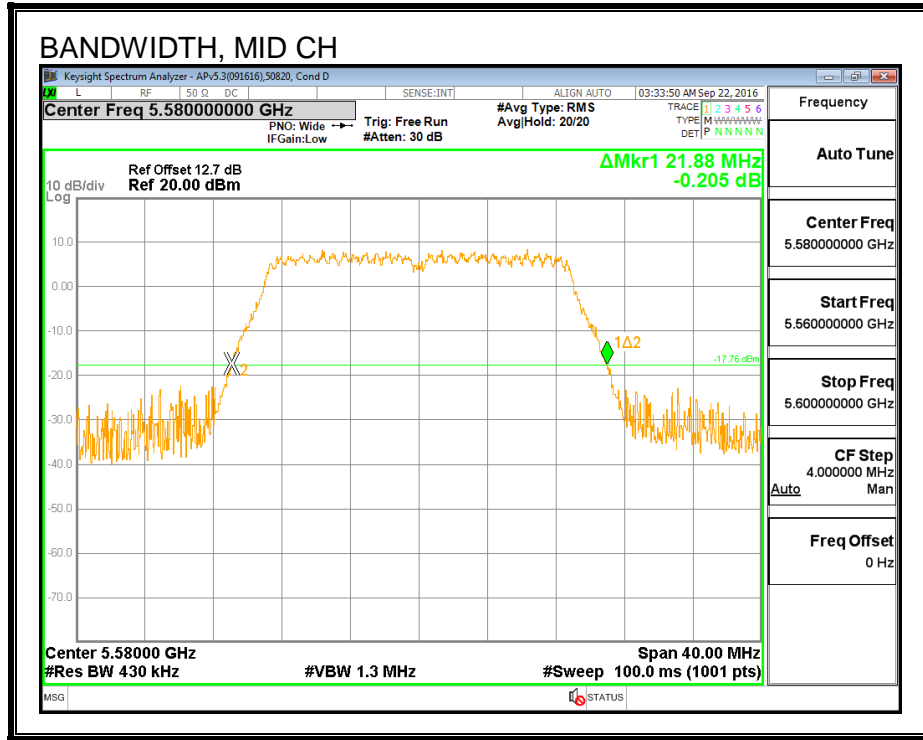
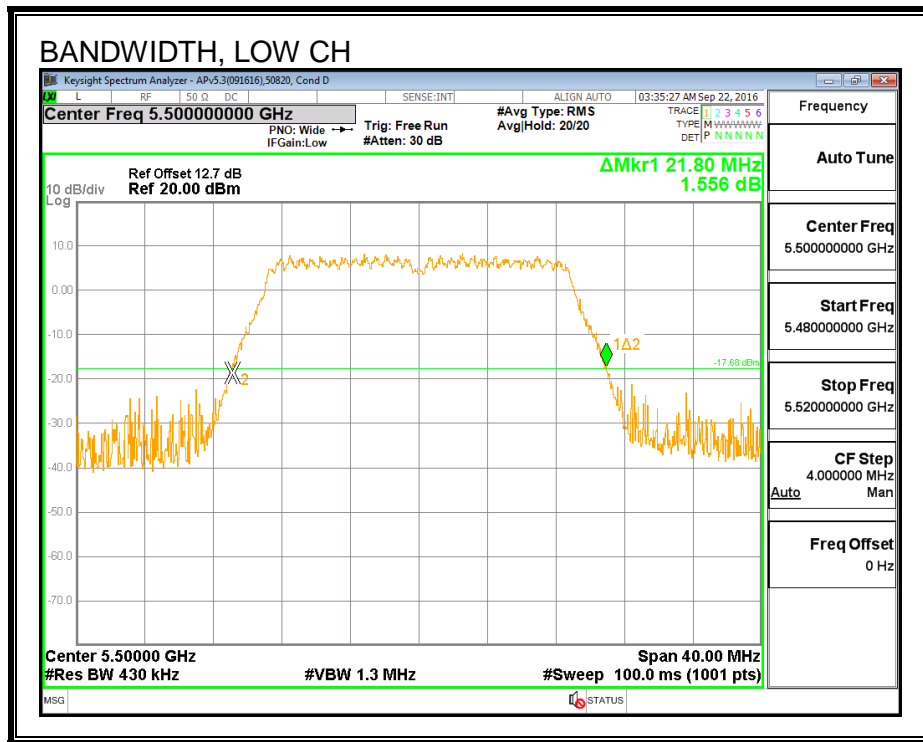


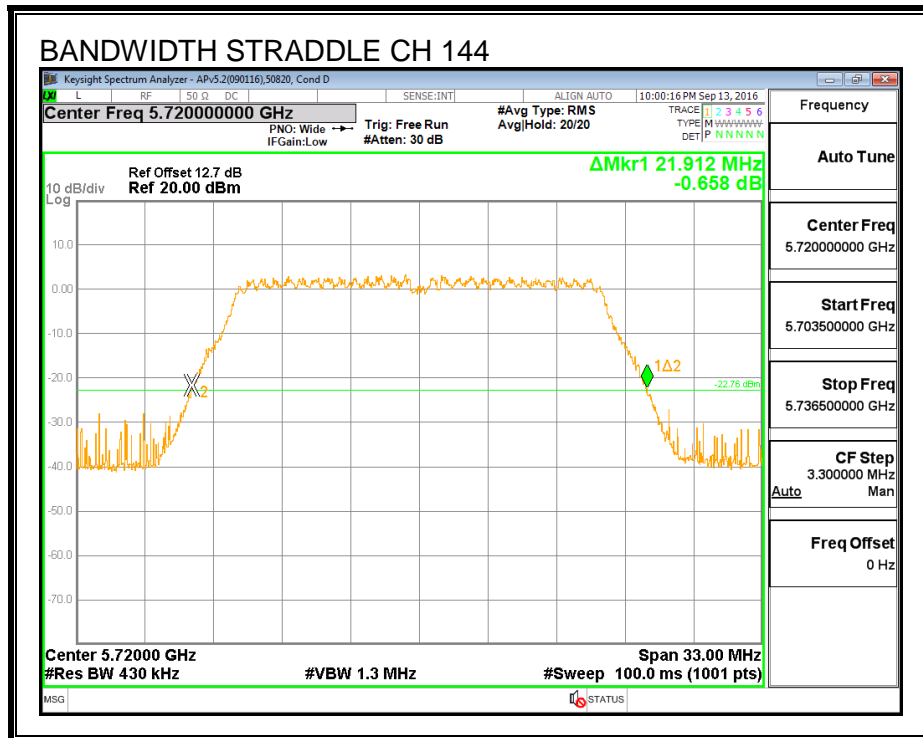
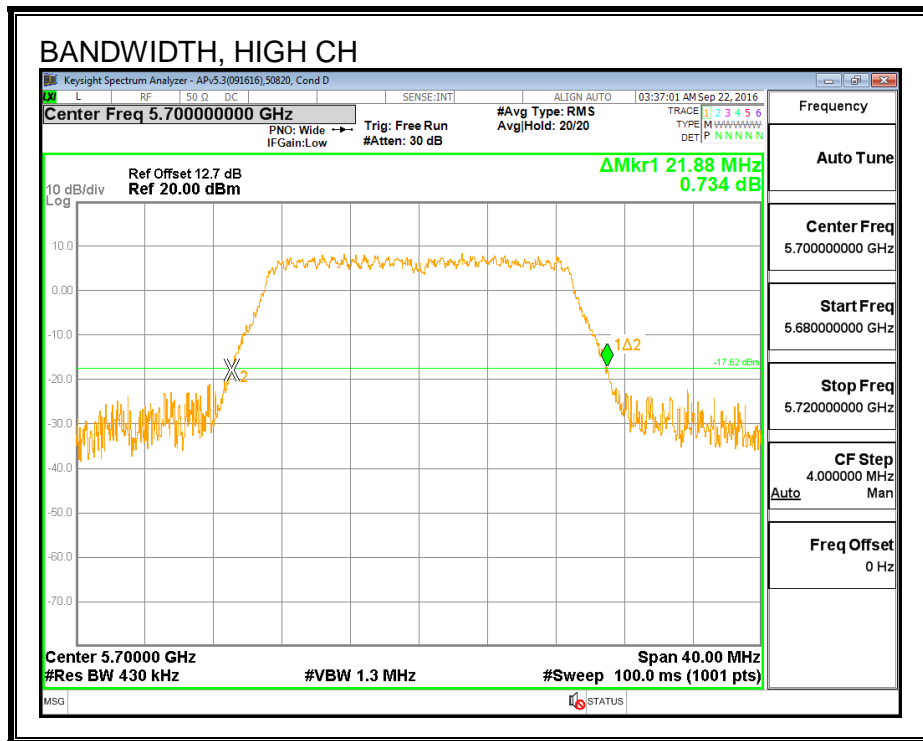
26 dB BANDWIDTH, CHAIN 1





26 dB BANDWIDTH, CHAIN 2





8.37.2. 99% BANDWIDTH

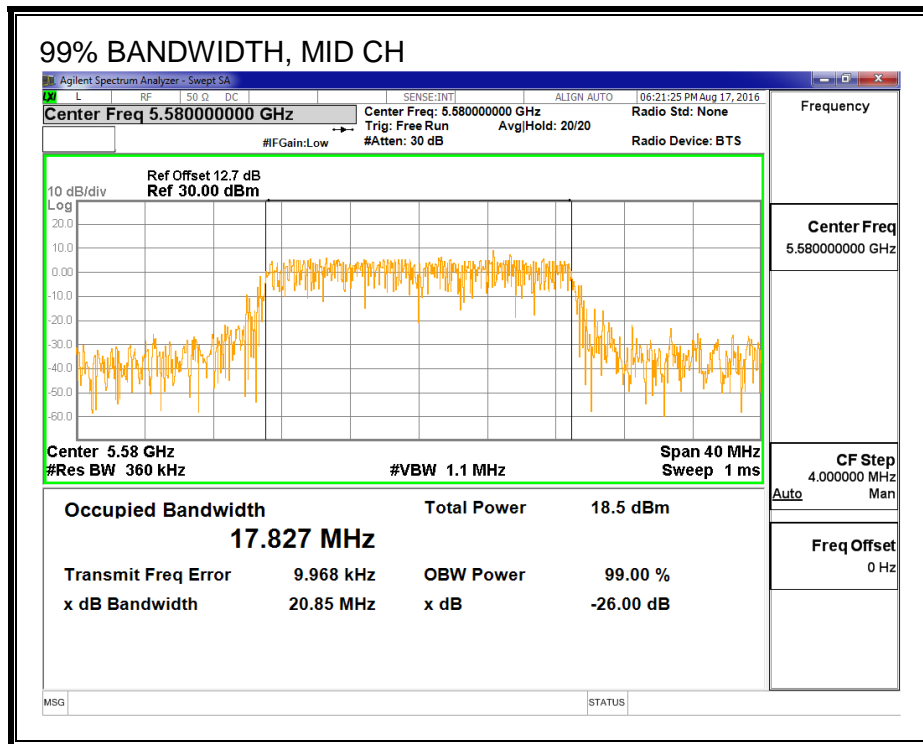
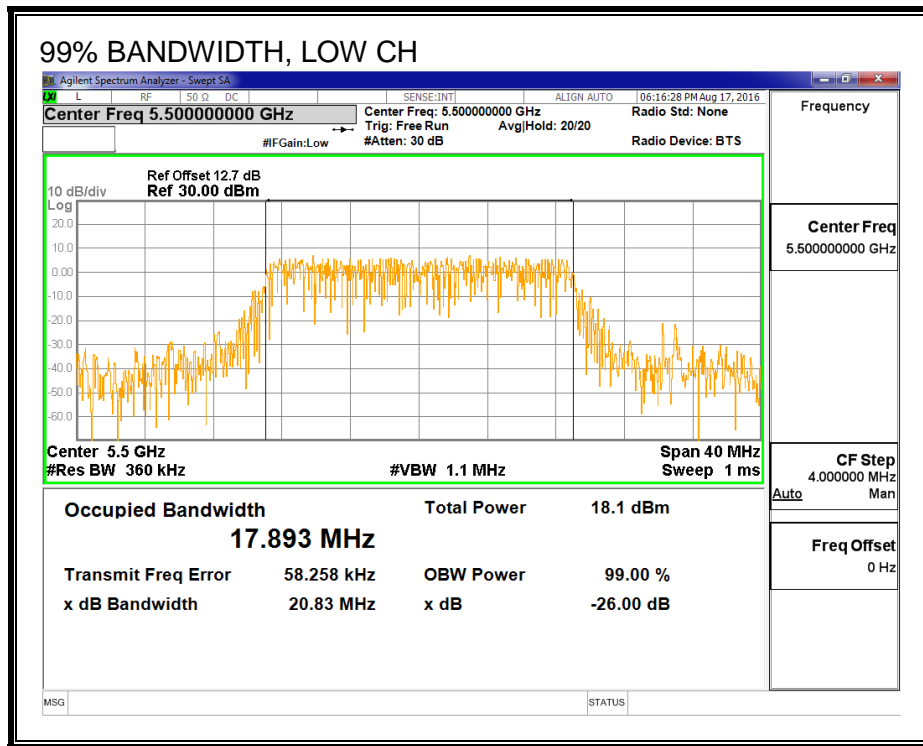
LIMITS

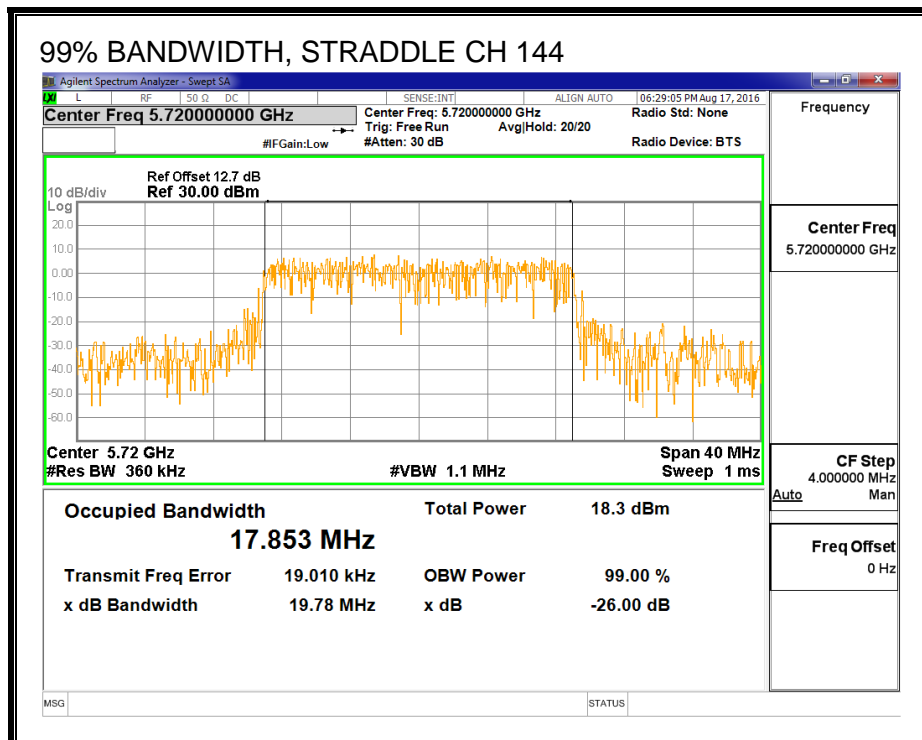
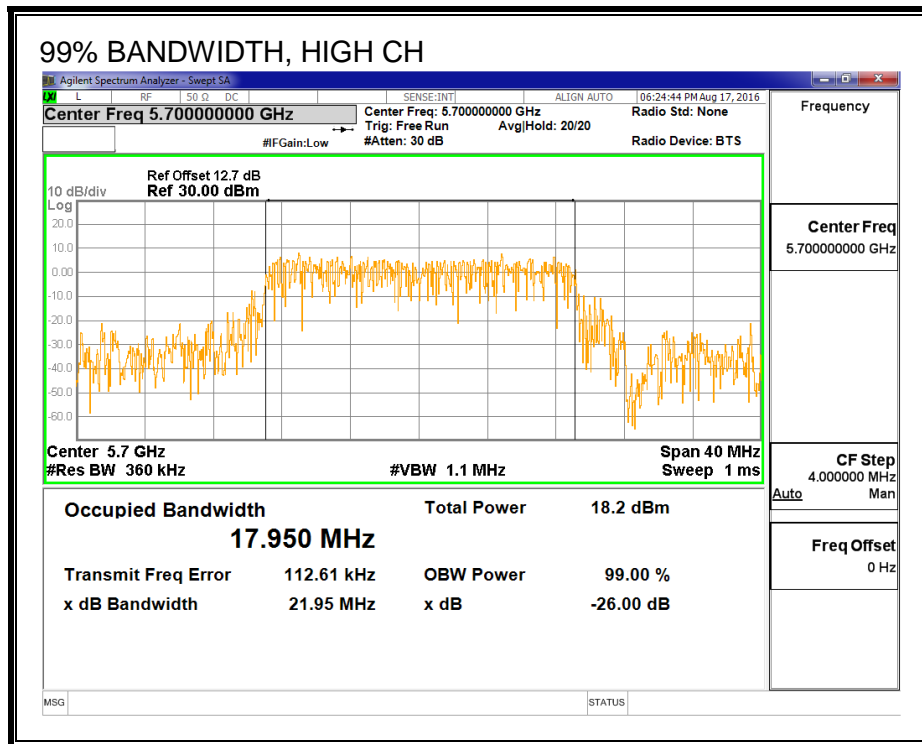
None; for reporting purposes only.

RESULTS

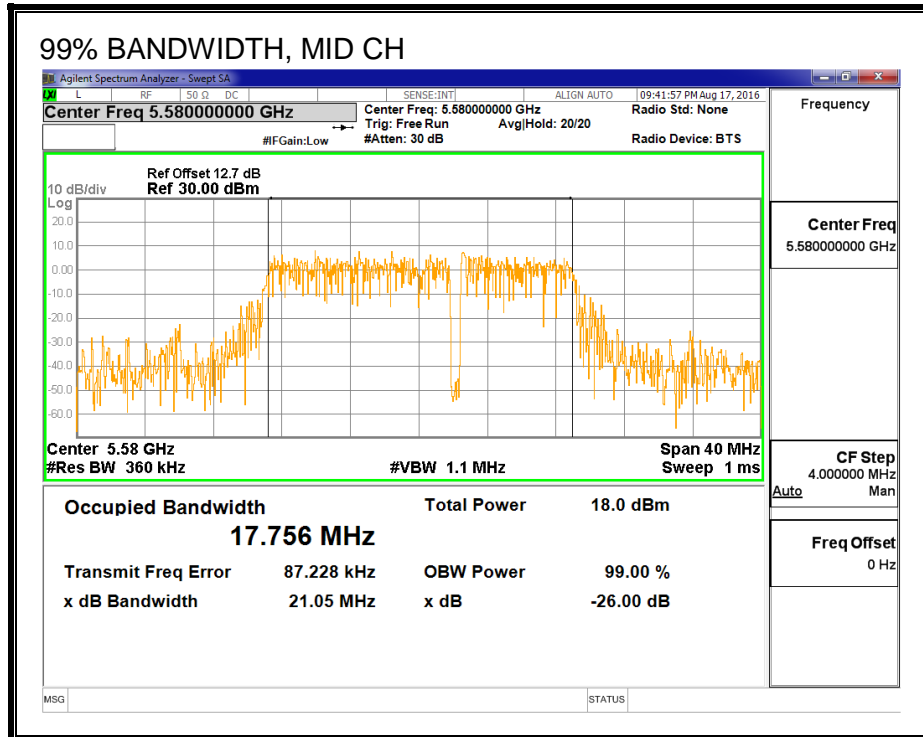
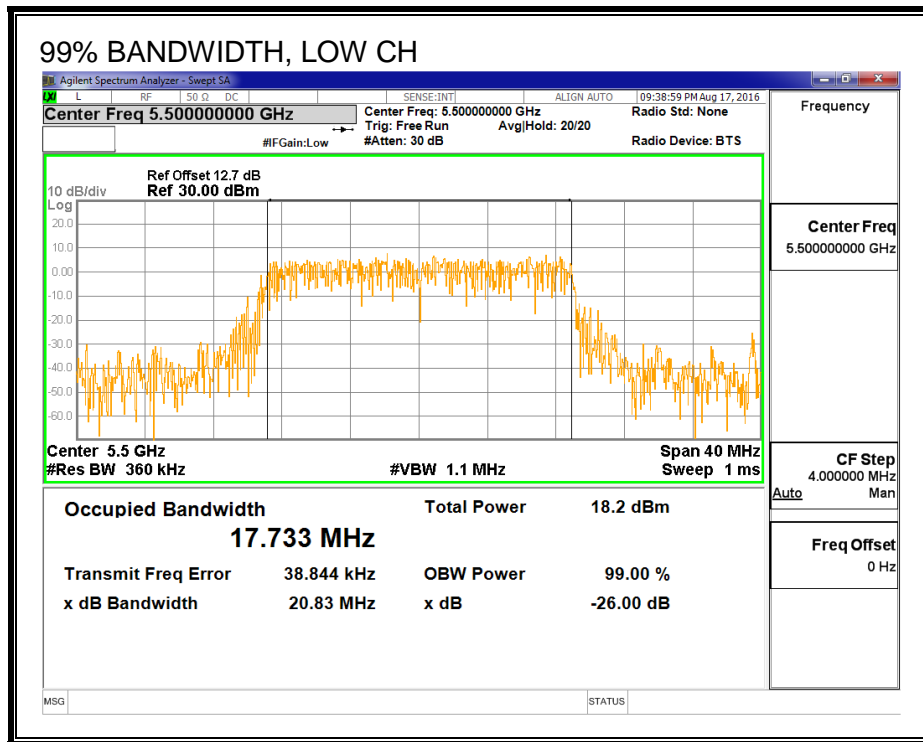
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5500	17.893	17.733	17.786
Mid	5580	17.827	17.756	17.687
High	5700	17.950	17.814	17.831
144	5720	17.853	17.867	17.841

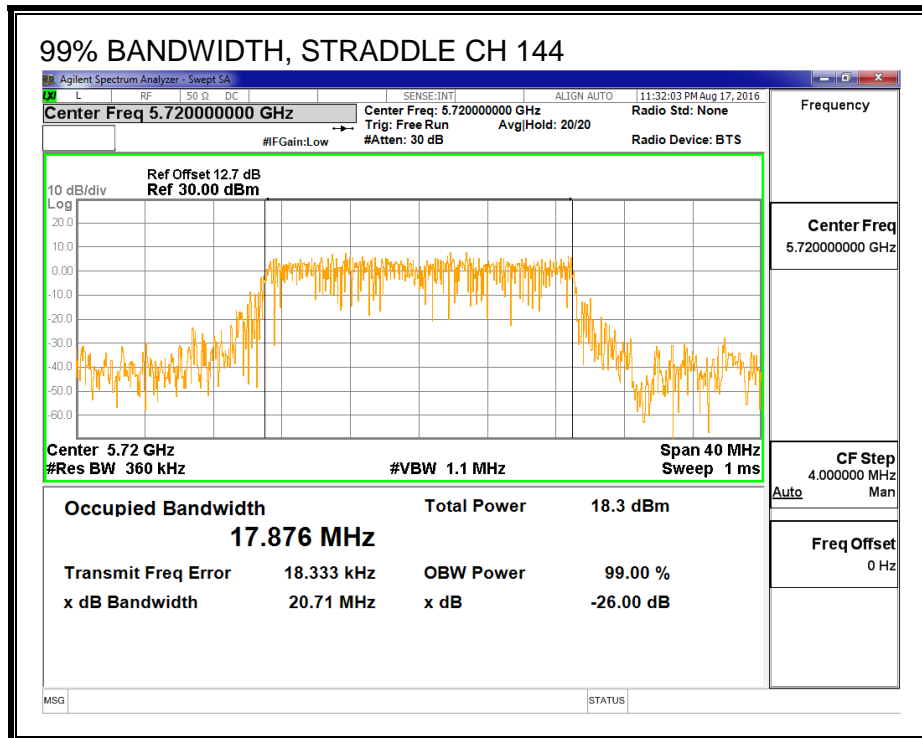
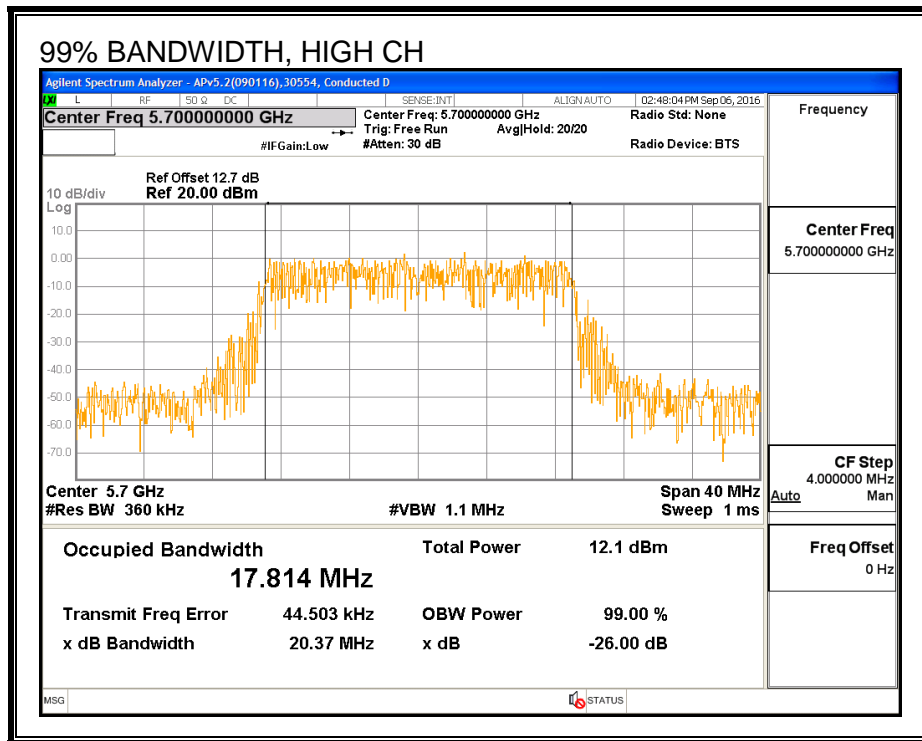
99% BANDWIDTH, CHAIN 0



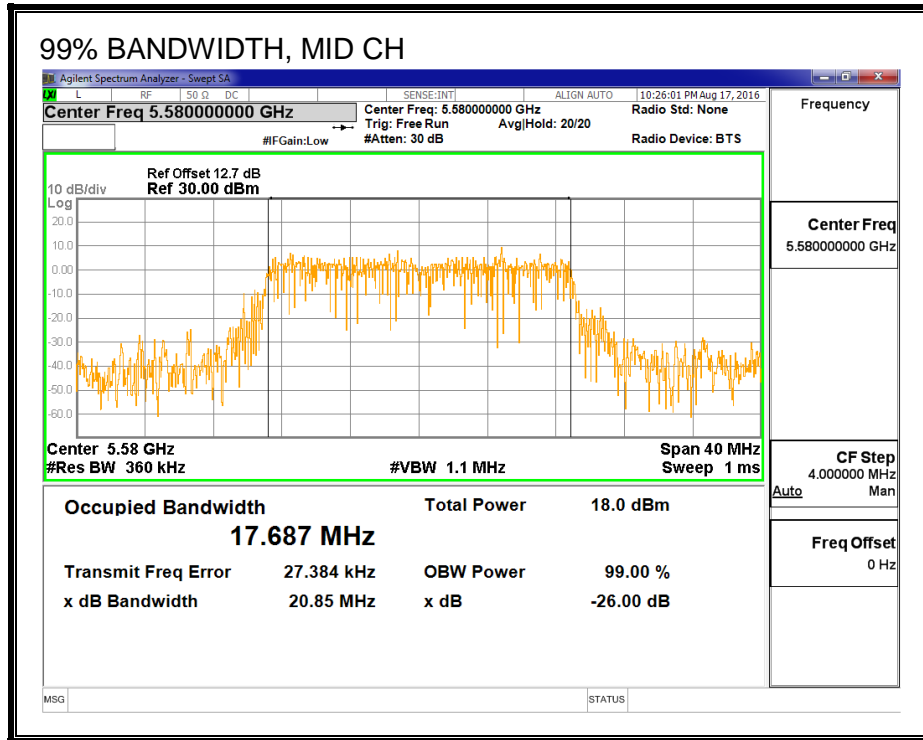
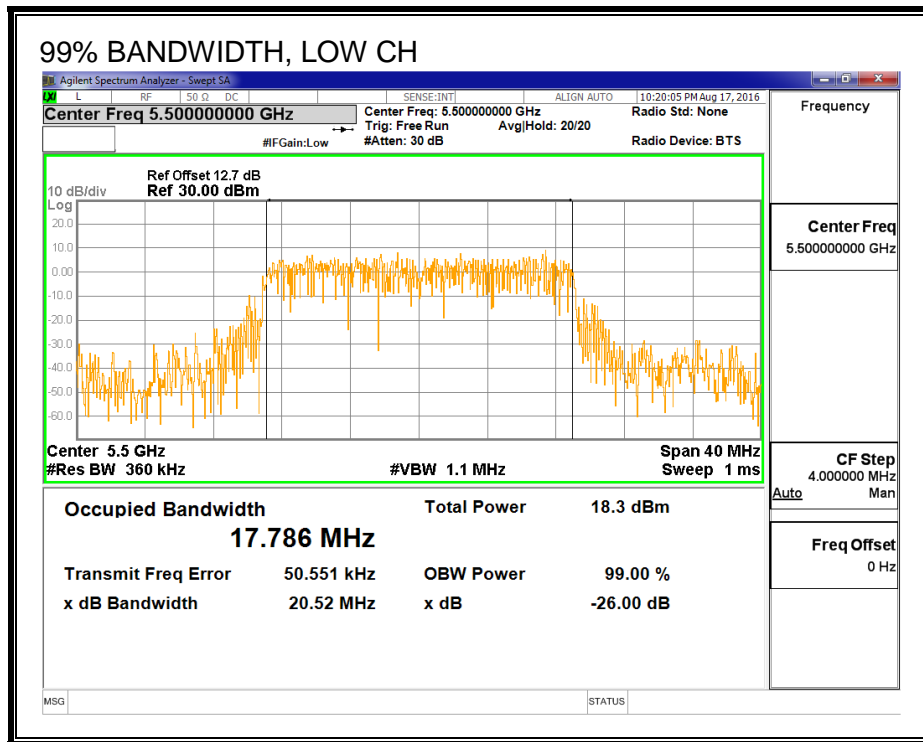


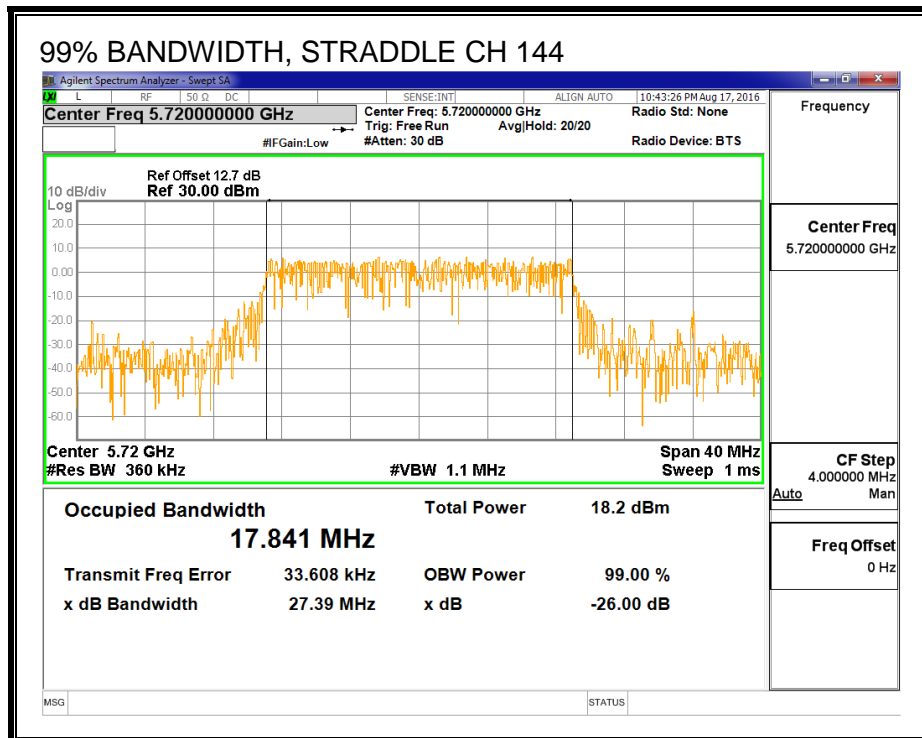
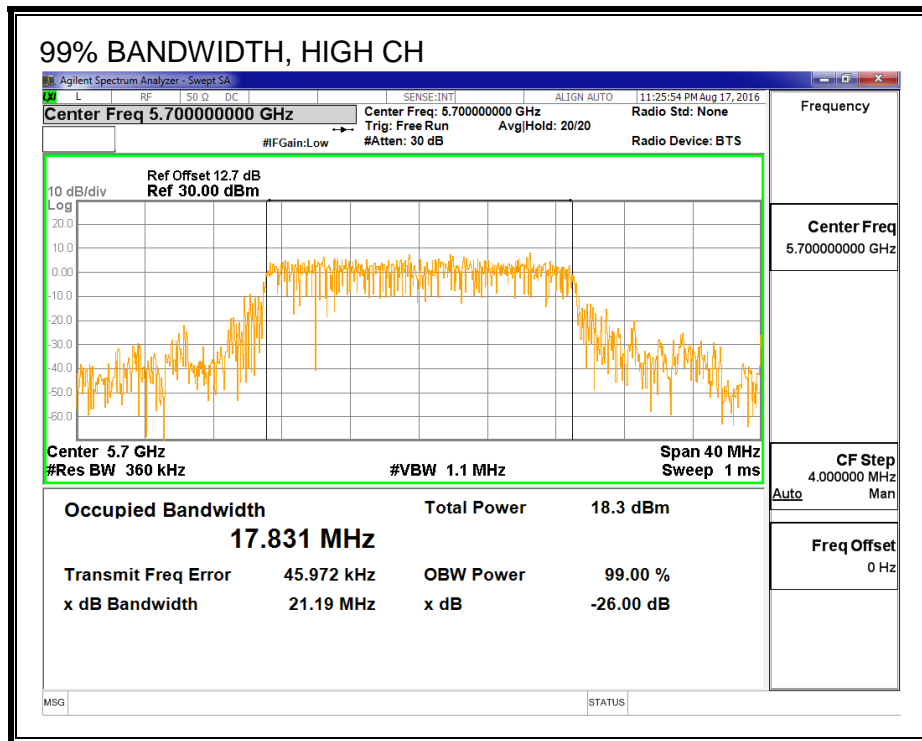
99% BANDWIDTH, CHAIN 1





99% BANDWIDTH, CHAIN 2





8.37.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	30606	Date:	9/1/16
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Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5500	9.38	9.37	9.49	14.18
Mid	5580	9.45	9.50	9.43	14.23
High	5700	9.40	9.47	9.50	14.23
144	5720	9.37	9.44	9.34	14.15

8.37.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band 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 MHz. In addition, the maximum 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.

IC RSS-247 (6.2.3) (1)

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.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

Straddle channel power is measured using PXA spectrum analyzer, duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
4.90	7.40	5.20	5.98

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
4.90	7.40	5.20	10.68

RESULTS

ID:	30606	Date:	9/1/16
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Bandwidth, Antenna Gain and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5500	22.20	17.733	5.98	10.68	23.49	6.32
Mid	5580	24.46	17.687	5.98	10.68	23.48	6.32
High	5700	22.03	17.814	5.98	10.68	23.51	6.32

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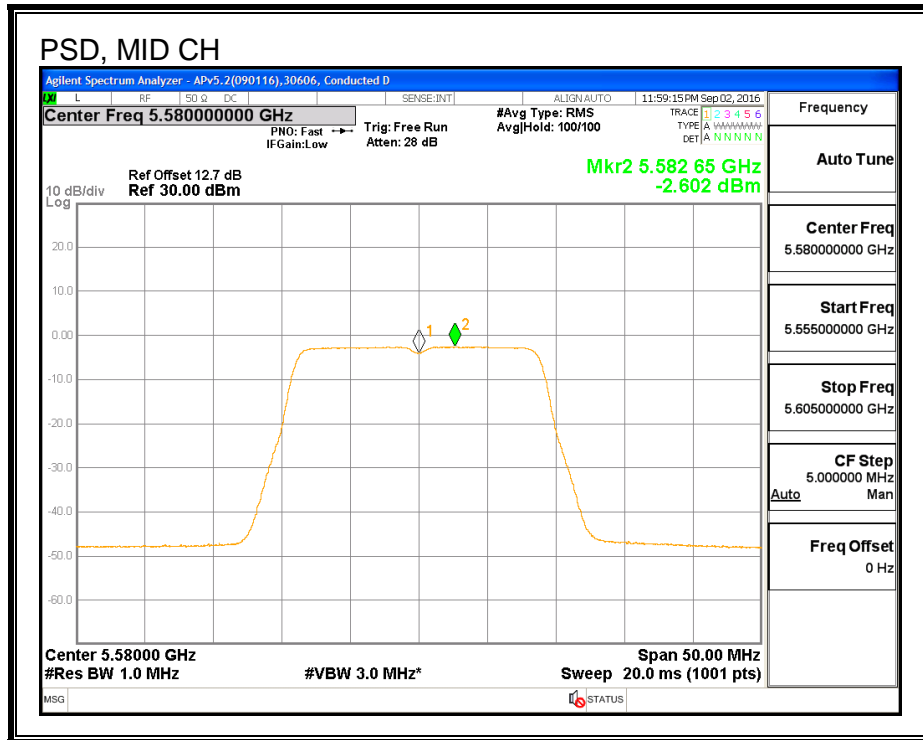
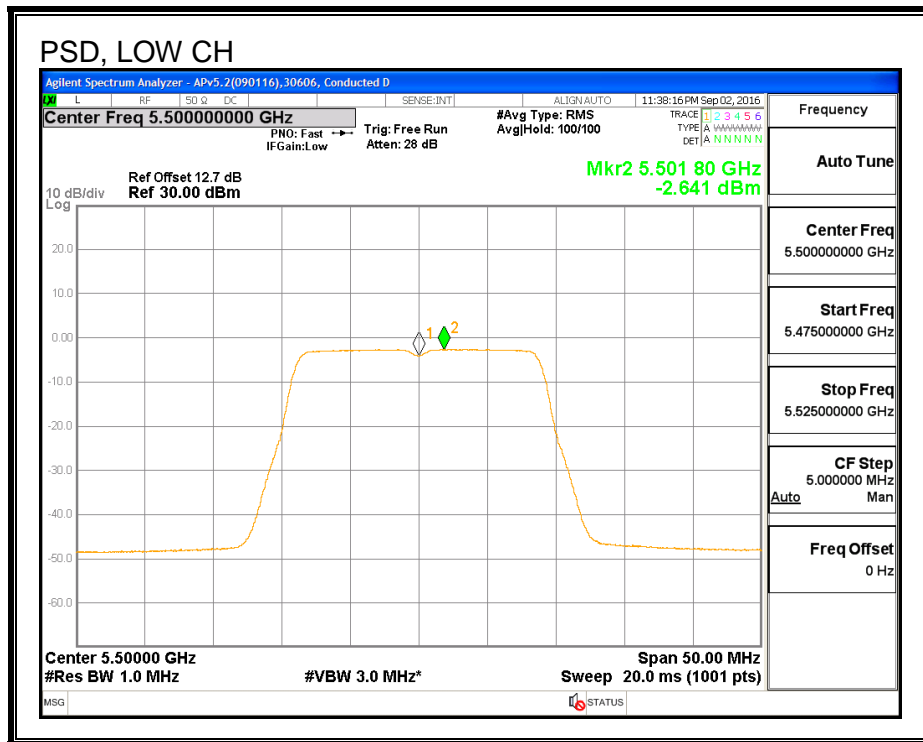
Output Power Results

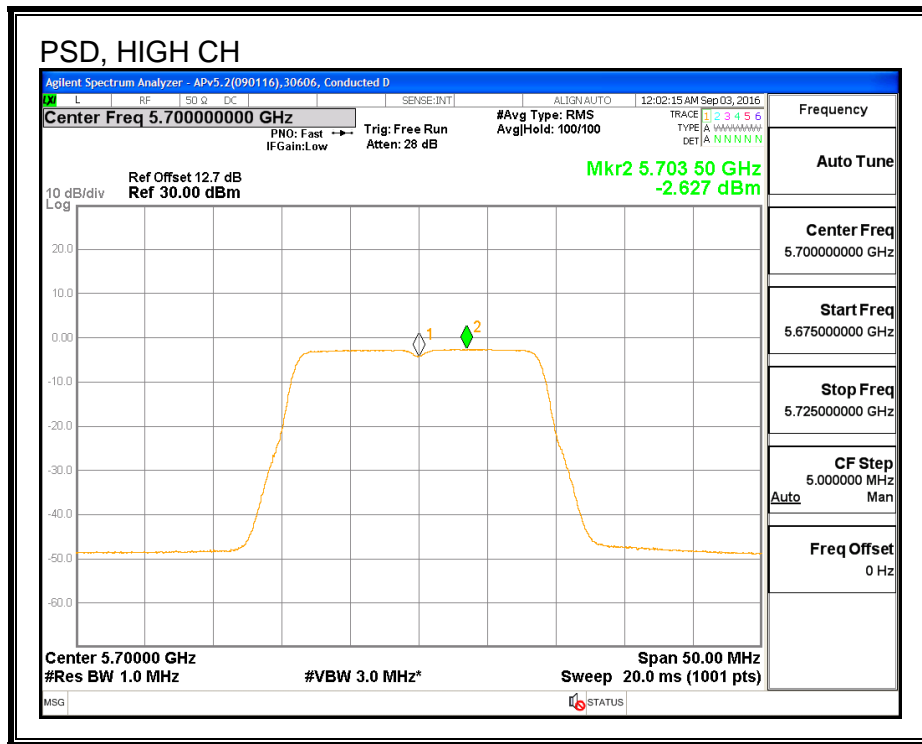
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	9.38	9.37	9.49	14.18	23.49	-9.30
Mid	5580	9.45	9.5	9.43	14.23	23.48	-9.25
High	5700	9.4	9.47	9.5	14.23	23.51	-9.28

PSD Results

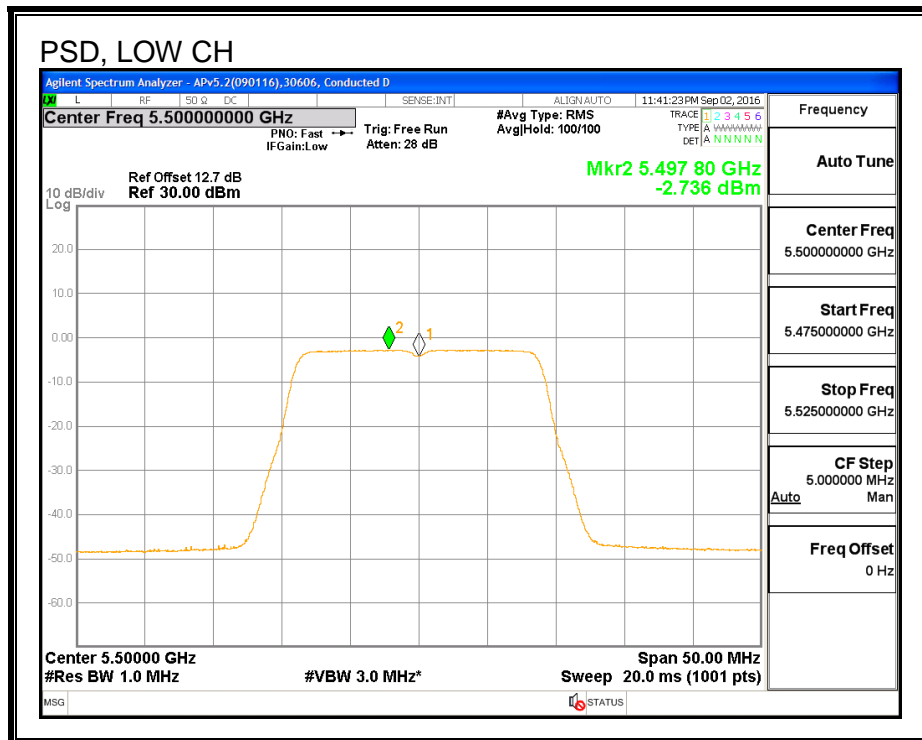
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	-2.641	-2.736	-2.449	2.16	6.32	-4.16
Mid	5580	-2.602	-2.857	-2.602	2.09	6.32	-4.23
High	5700	-2.627	-2.388	-2.606	2.23	6.32	-4.09

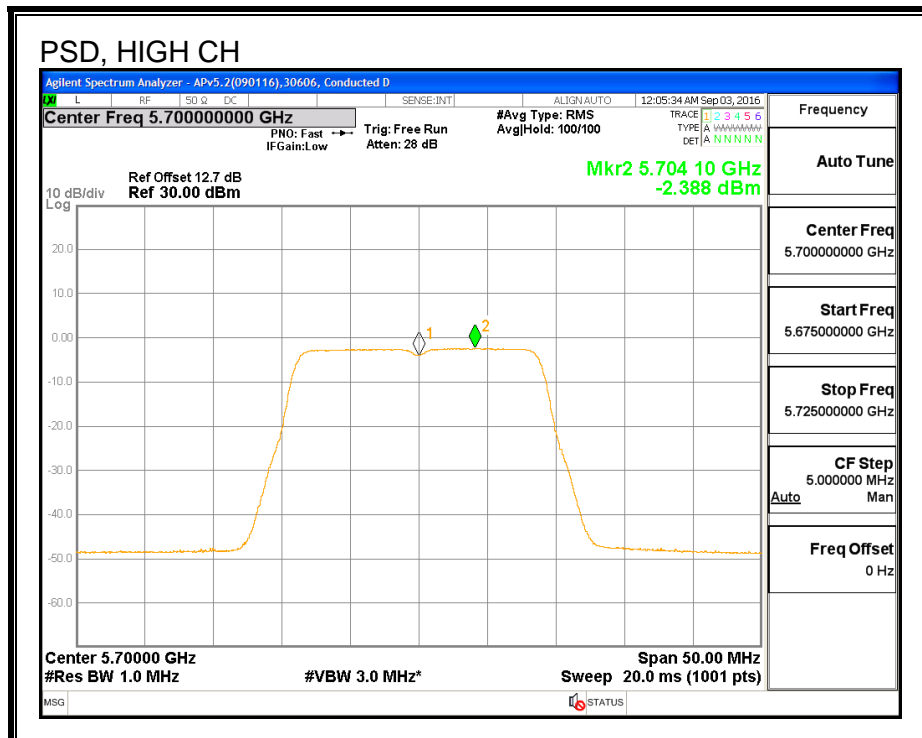
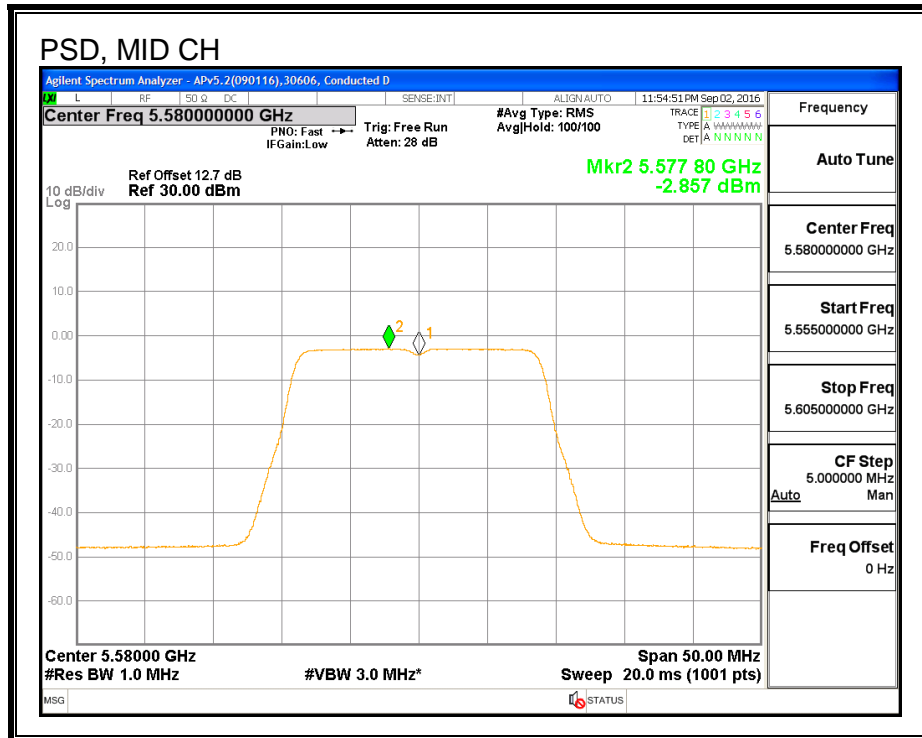
PSD, CHAIN 0





PSD, CHAIN 1





PSD, CHAIN 2

