8.23. 802.11ac VHT20 2Tx (CHAIN 0 + CHAIN 2) STBC STRADDLE CHANNEL 144 RESULTS (FCC)

8.23.1. 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	15.92	5.05	5.05	23.02	11.00

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

Output Power Results

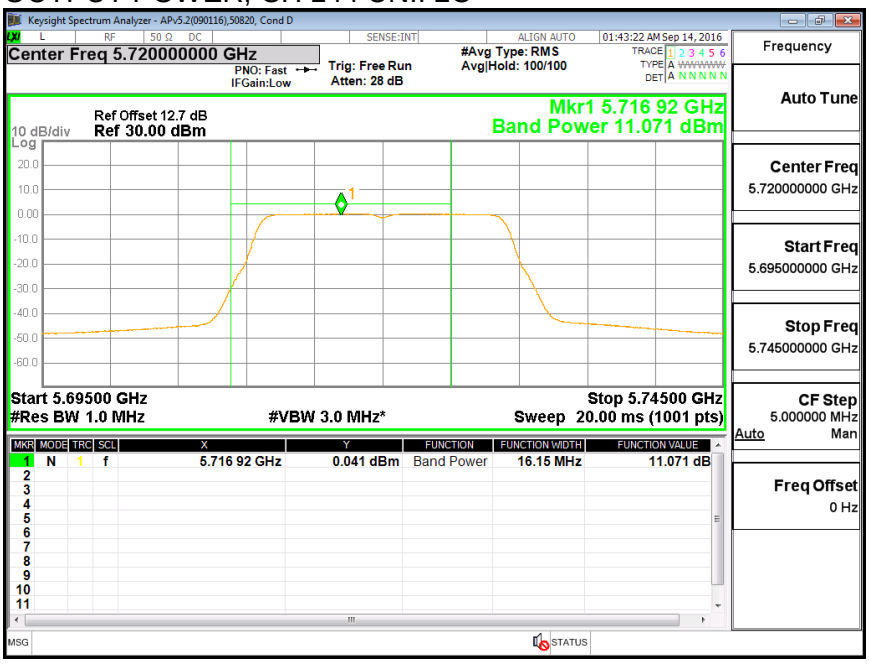
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	11.07	11.09	14.09	23.02	-8.93

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	0.146	0.185	3.18	11.00	-7.82

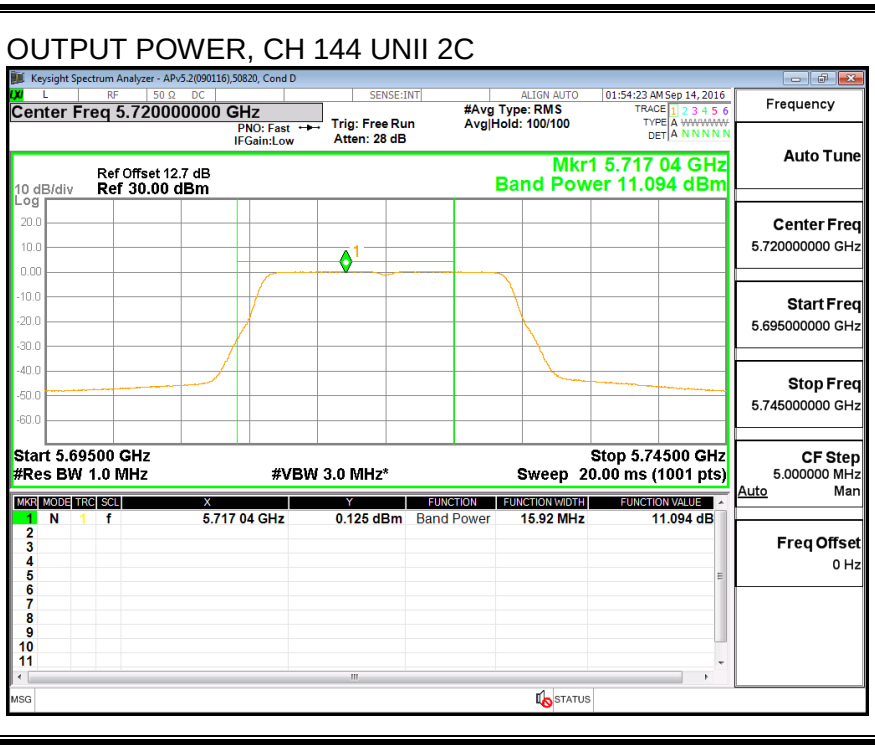
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 144 UNII 2C



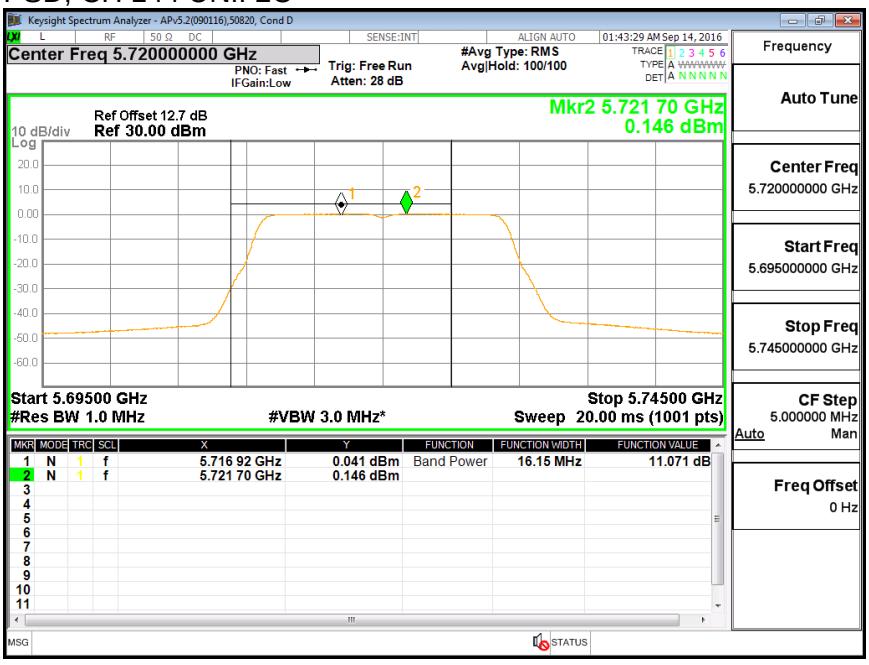
OUTPUT POWER, CHAIN 2

OUTPUT POWER, CH 144 UNII 2C



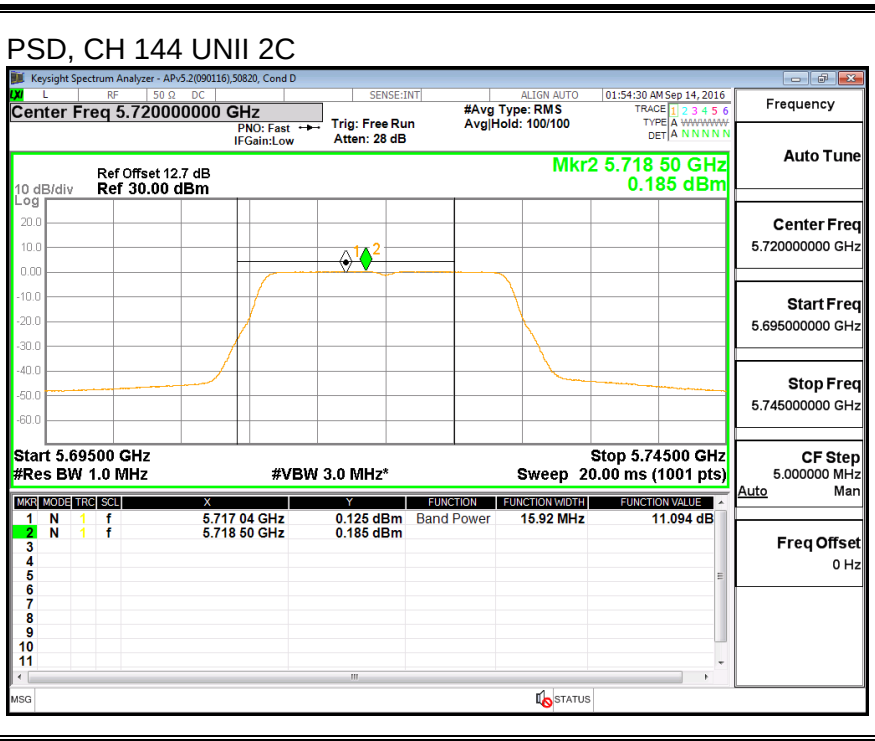
PSD, CHAIN 0

PSD, CH 144 UNII 2C



PSD, CHAIN 2

PSD, CH 144 UNII 2C



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	5.92	5.05	5.05	30.00	30.00

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

Output Power Results

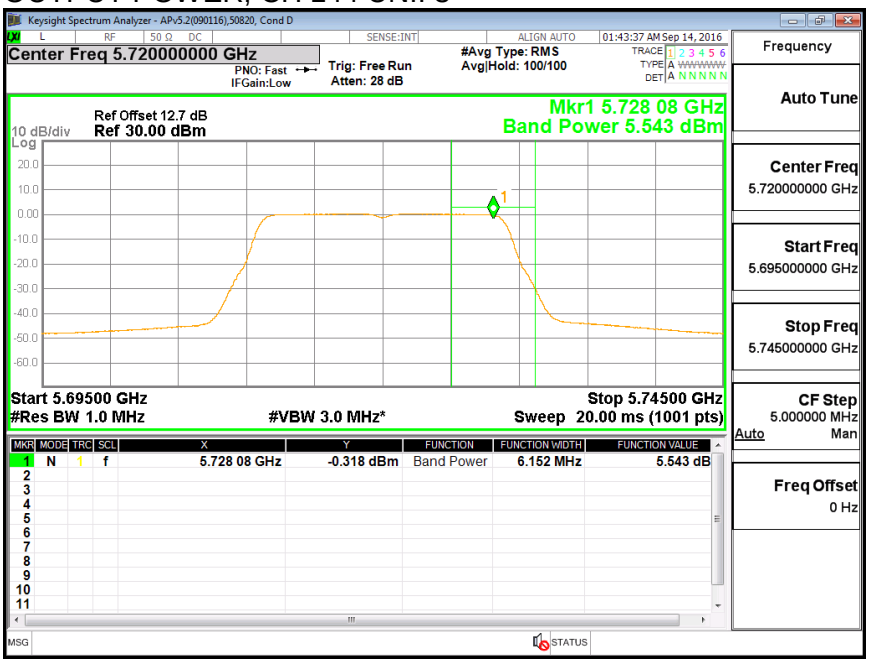
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.54	5.56	8.56	30.00	-21.44

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	-2.86	-2.77	0.19	30.00	-29.81

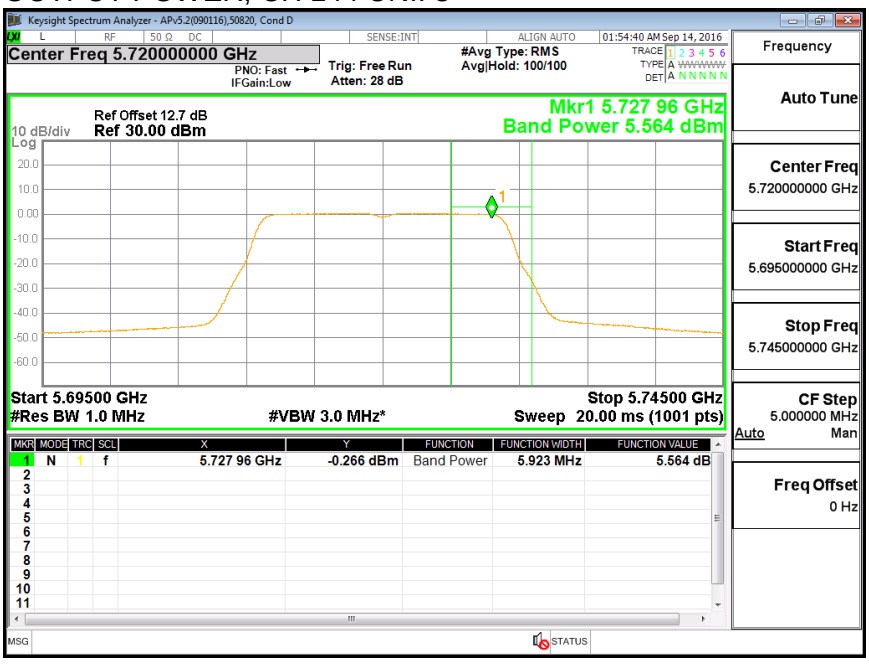
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 144 UNII 3



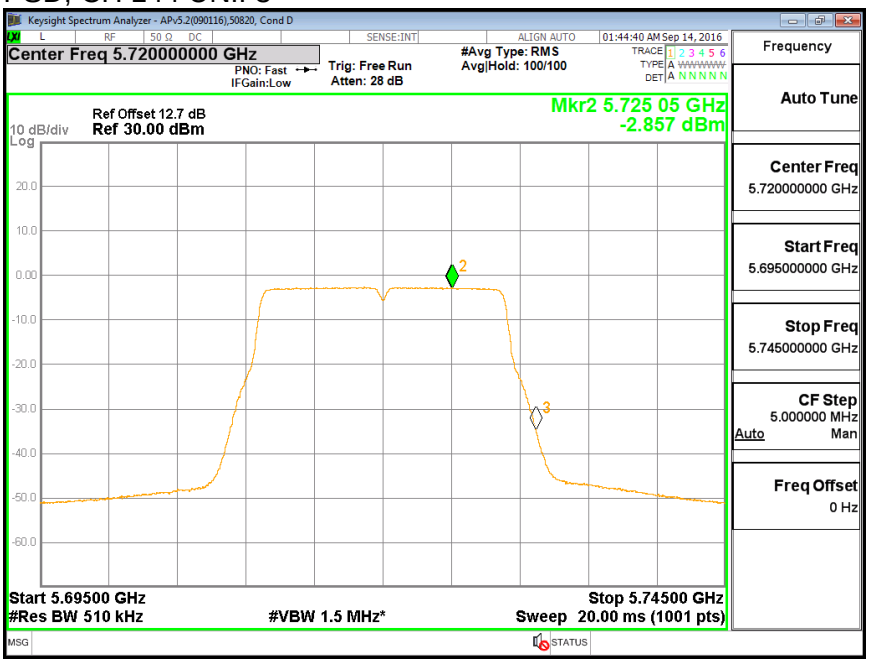
OUTPUT POWER, CHAIN 2

OUTPUT POWER, CH 144 UNII 3



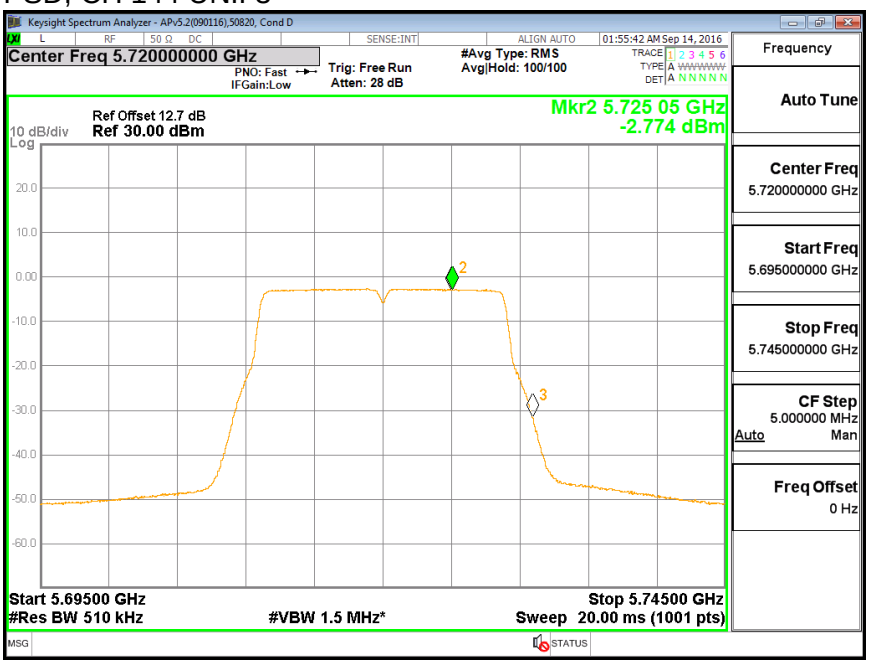
PSD, CHAIN 0

PSD, CH 144 UNII 3



PSD, CHAIN 2

PSD, CH 144 UNII 3



8.24. 802.11ac VHT20 2Tx (CHAIN 0 + CHAIN 2) STBC STRADDLE CHANNEL 144 RESULTS (IC)

8.24.1. 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	5.05	5.05	22.43	11.00

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

Output Power Results

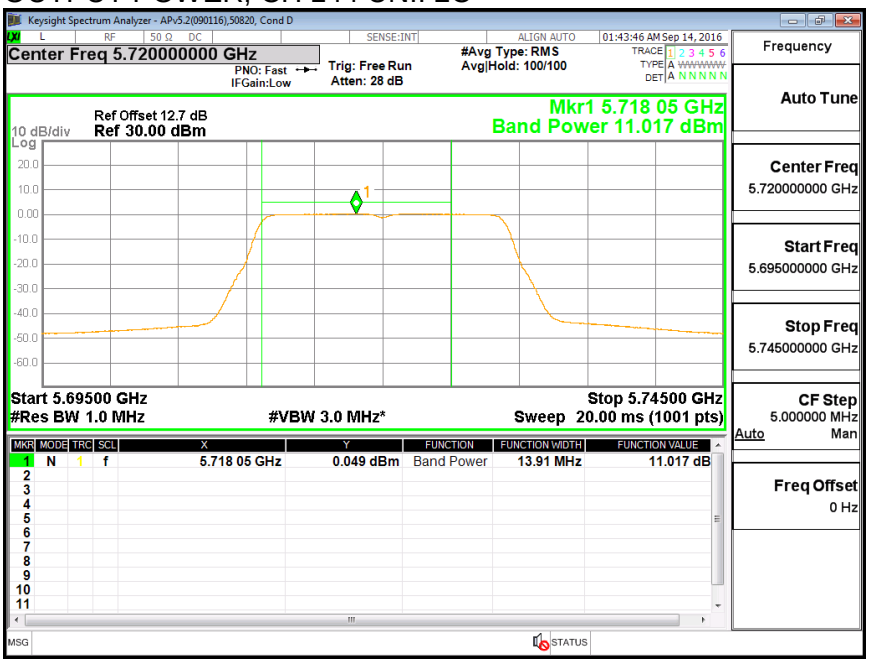
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	11.02	11.04	14.04	22.43	-8.39

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	0.15	0.19	3.18	11.00	-7.82

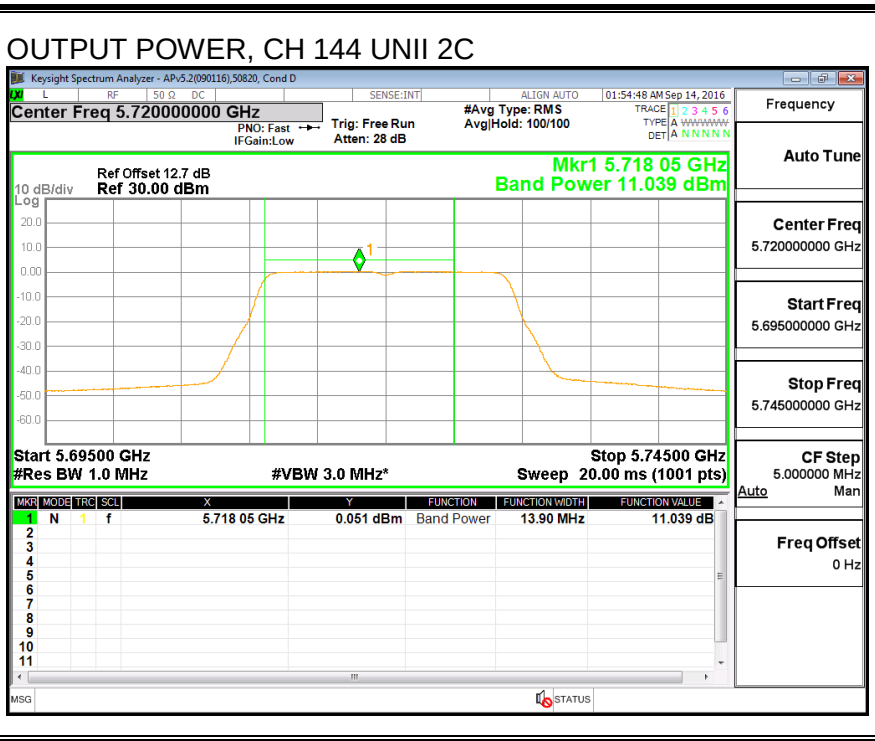
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 144 UNII 2C



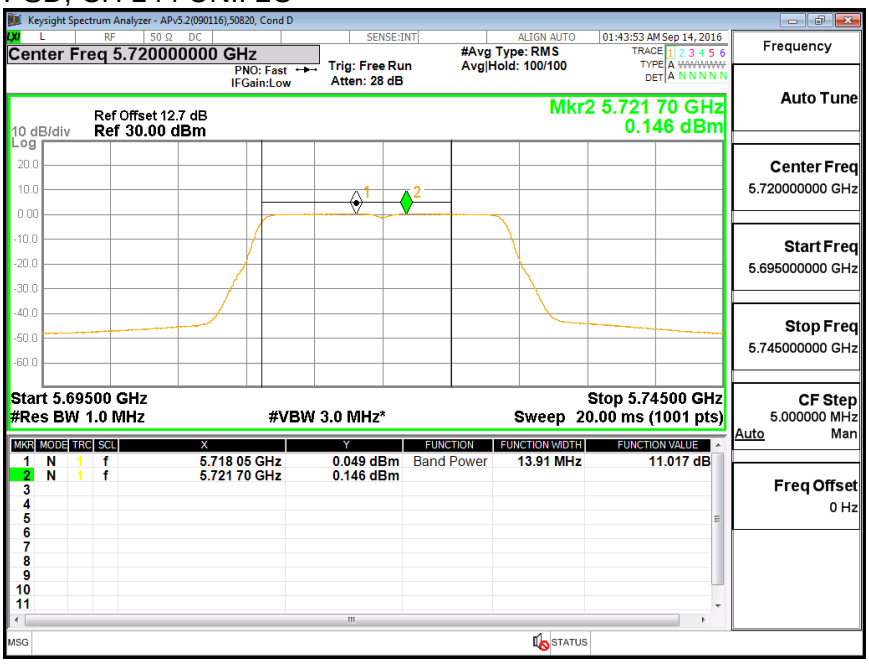
OUTPUT POWER, CHAIN 2

OUTPUT POWER, CH 144 UNII 2C



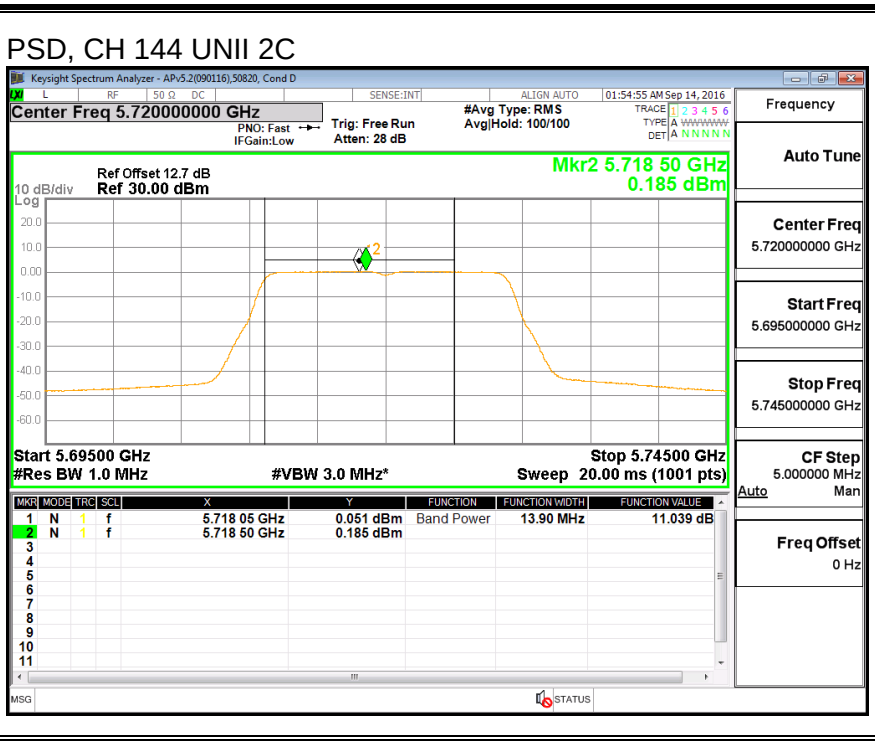
PSD, CHAIN 0

PSD, CH 144 UNII 2C



PSD, CHAIN 2

PSD, CH 144 UNII 2C



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	3.901	5.05	5.05	30.00	30.00

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

Output Power Results

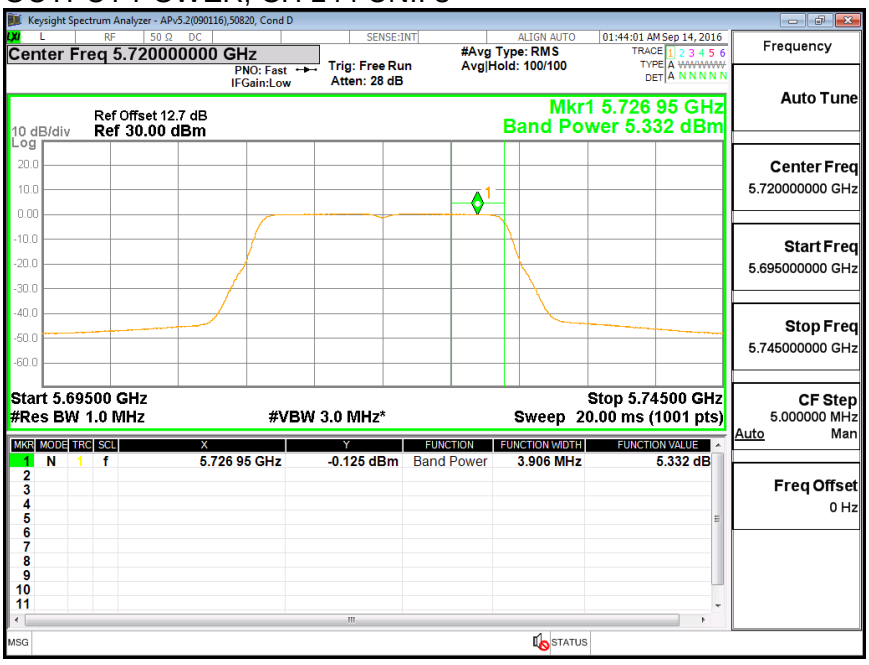
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.33	5.35	8.35	30.00	-21.65

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	-2.86	-2.77	0.19	30.00	-29.81

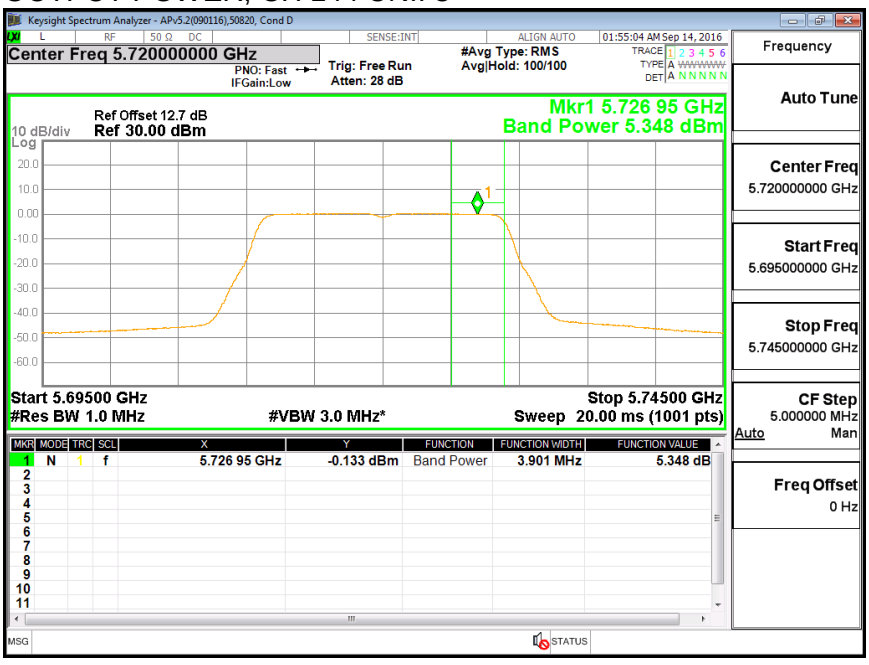
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 144 UNII 3



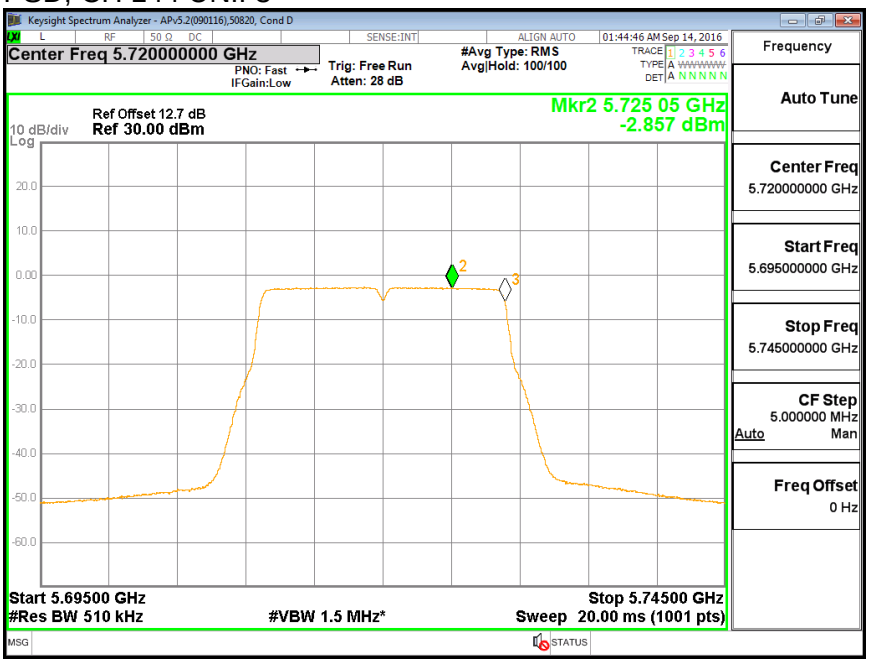
OUTPUT POWER, CHAIN 2

OUTPUT POWER, CH 144 UNII 3



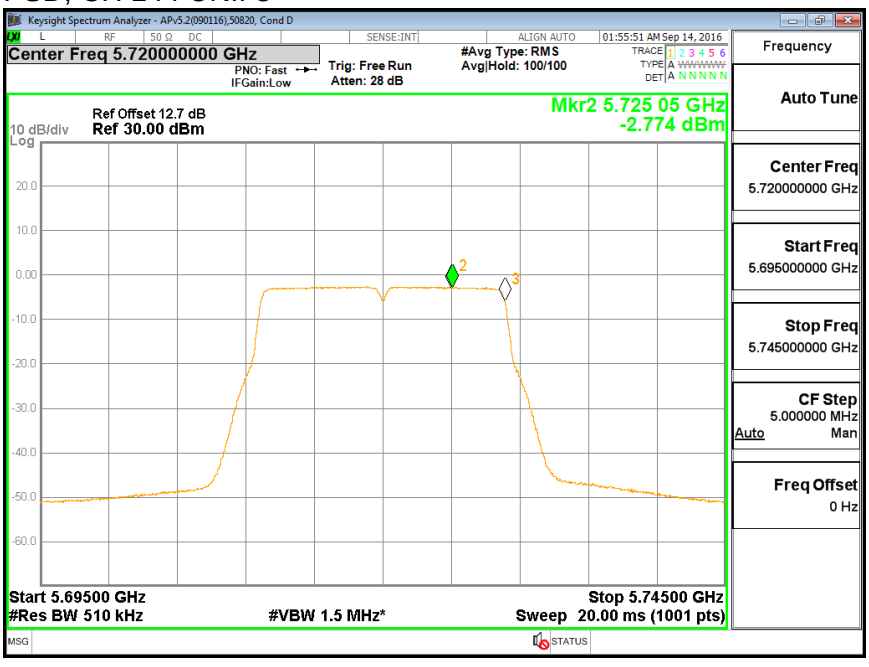
PSD, CHAIN 0

PSD, CH 144 UNII 3



PSD, CHAIN 2

PSD, CH 144 UNII 3



8.24.2. **6 dB BANDWIDTH**

LIMITS

FCC §15.407 (e)

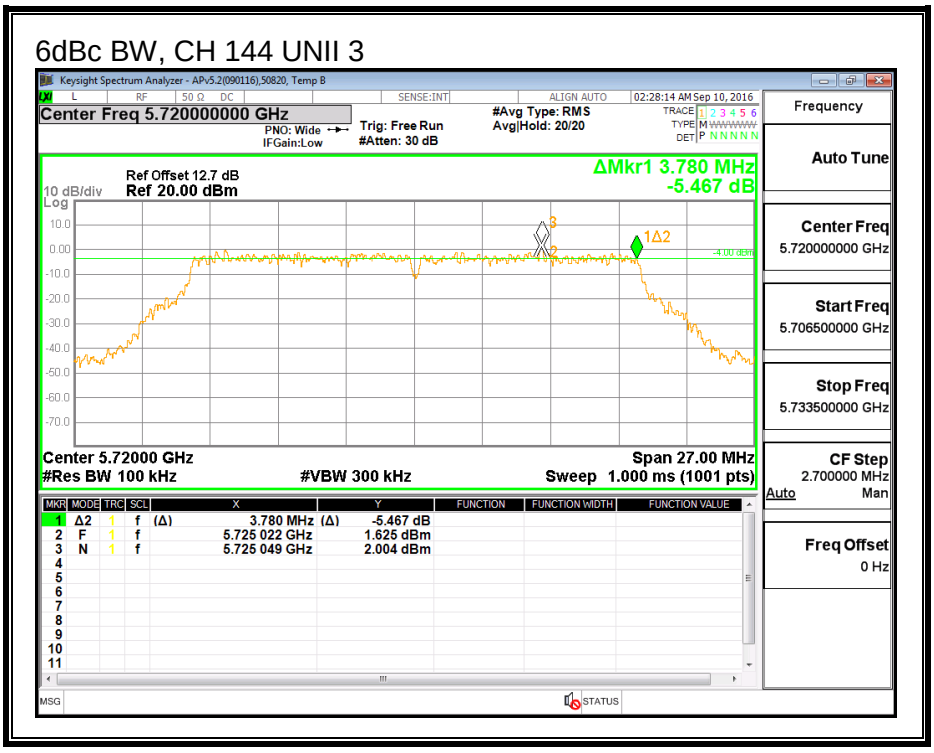
IC RSS-247 (6.2.4) (1)

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

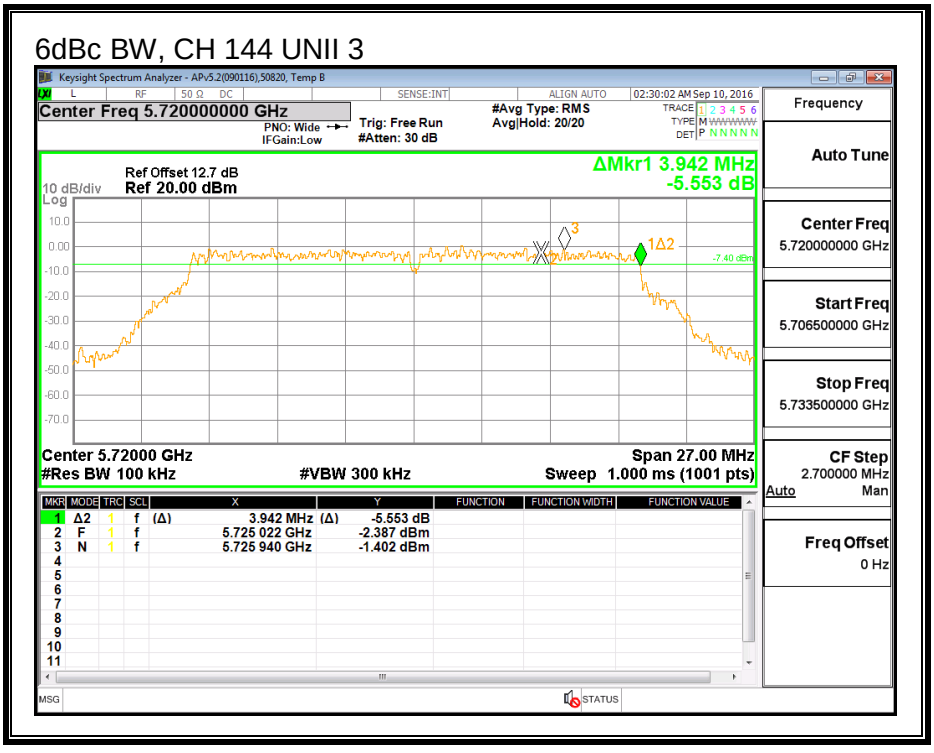
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 2 (MHz)
144	5720	3.780	3.942

CHAIN 0



CHAIN 2



8.25. 802.11n HT20 2Tx (CHAIN 1 + CHAIN 2) STBC MODE IN THE 5.6 GHz BAND

8.25.1. 26 dB BANDWIDTH

LIMITS

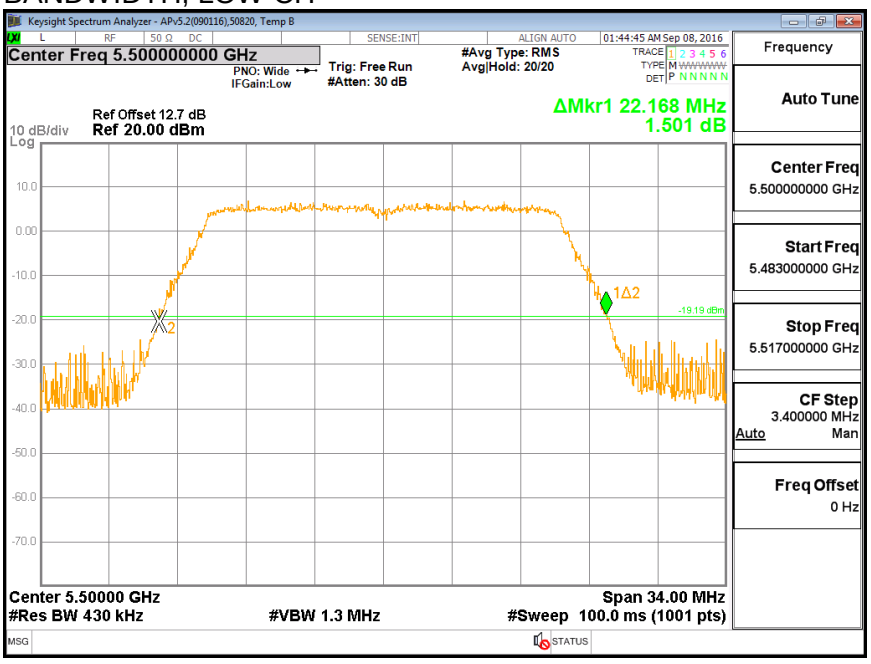
None; for reporting purposes only.

RESULTS

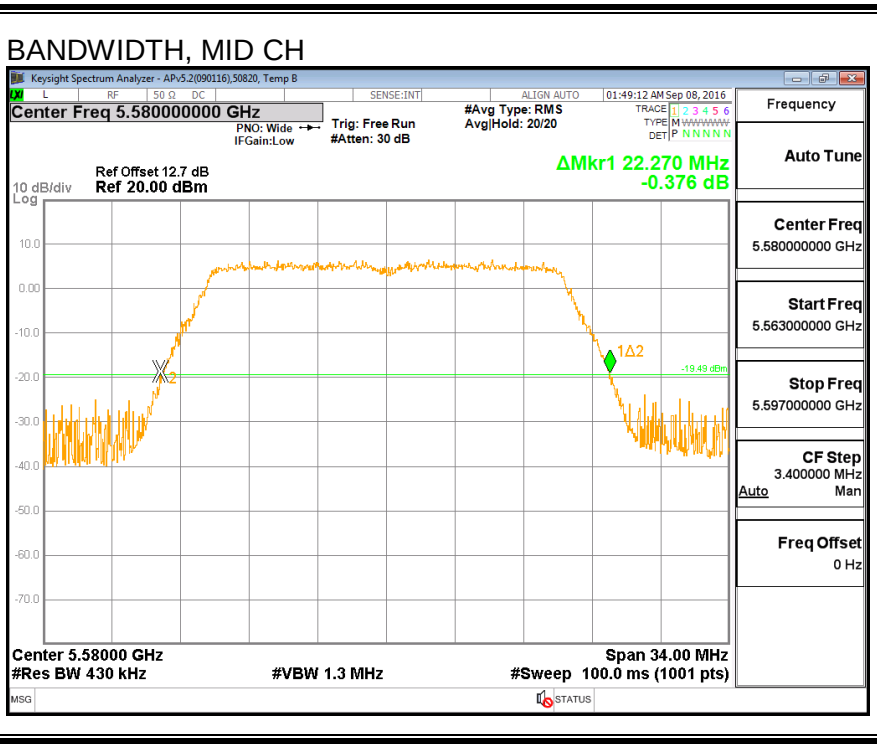
Channel	Frequency (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5500	22.168	21.681
Mid	5580	22.270	21.879
High	5700	22.134	21.846
144	5720	22.338	21.813

26 dB BANDWIDTH, CHAIN 1

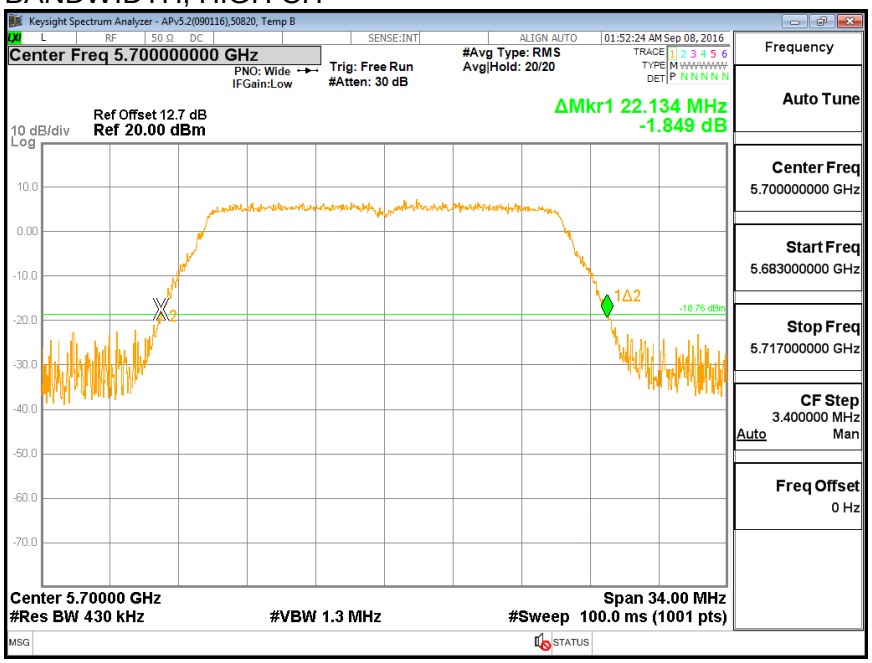
BANDWIDTH, LOW CH



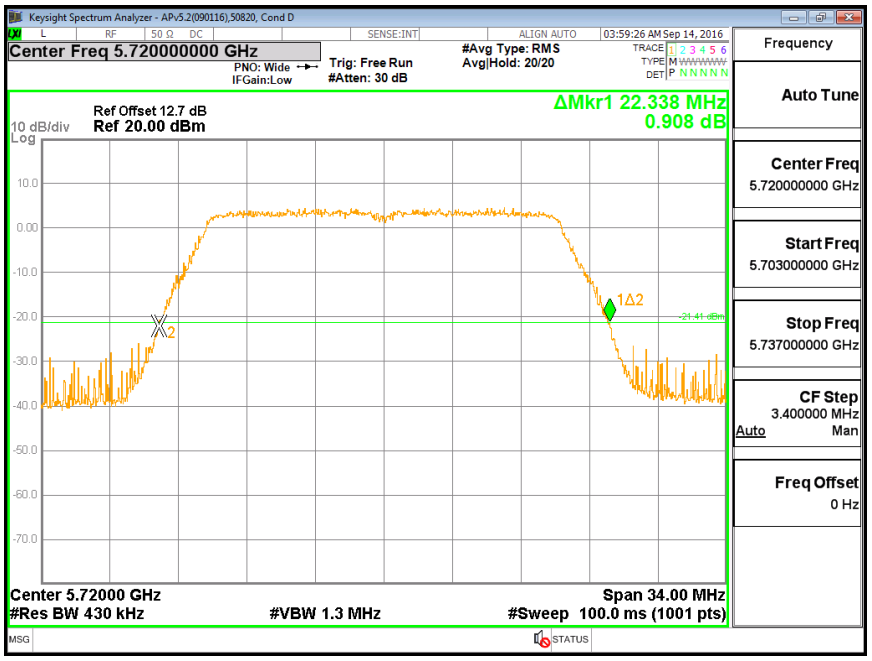
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH

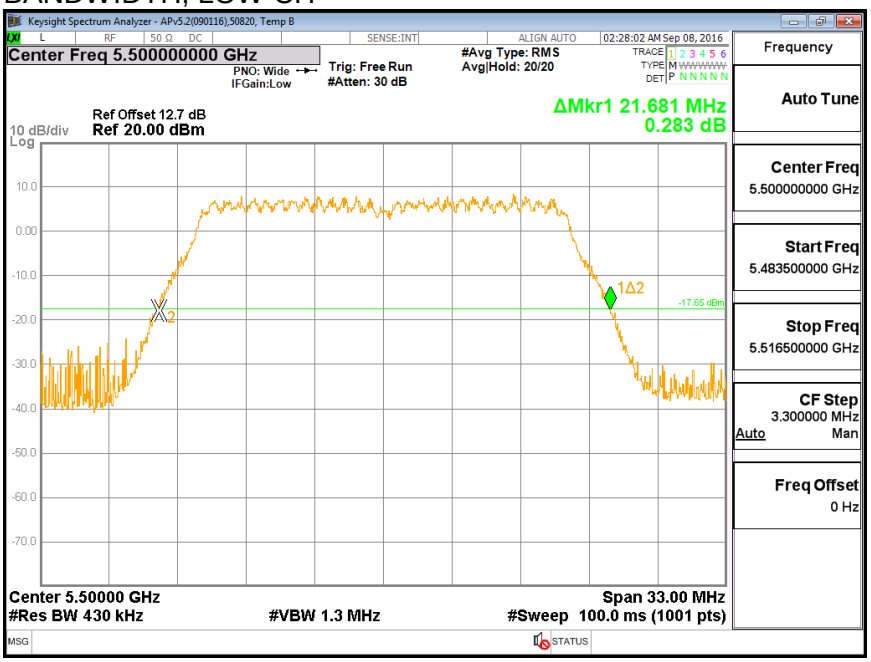


BANDWIDTH STRADDLE CH 144

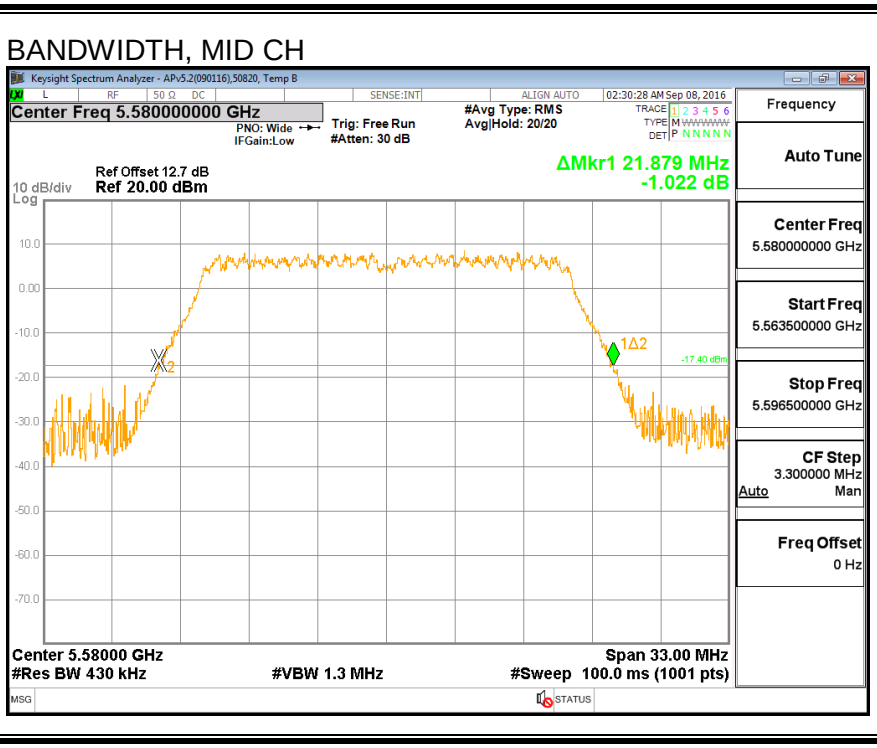


26 dB BANDWIDTH, CHAIN 2

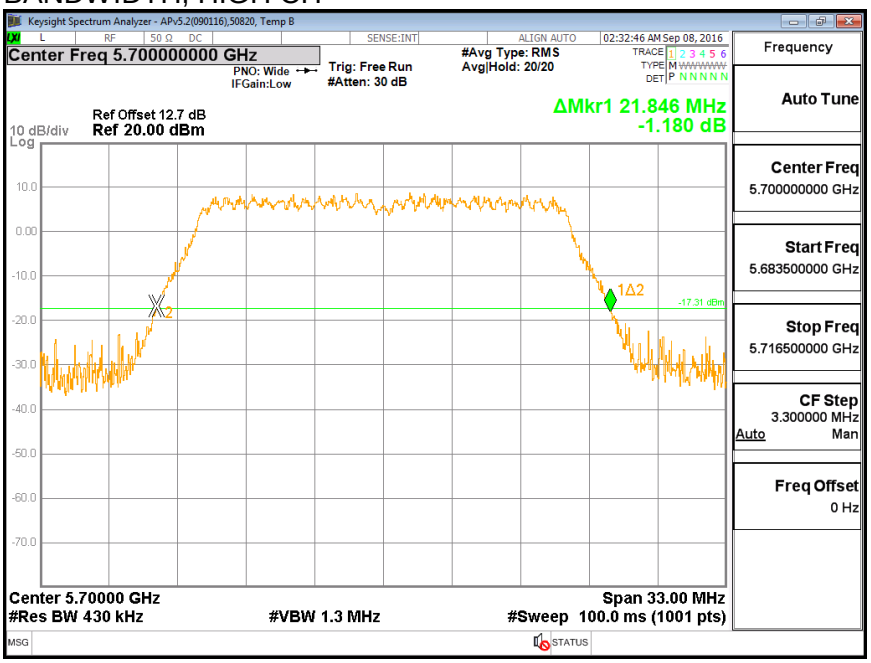
BANDWIDTH, LOW CH



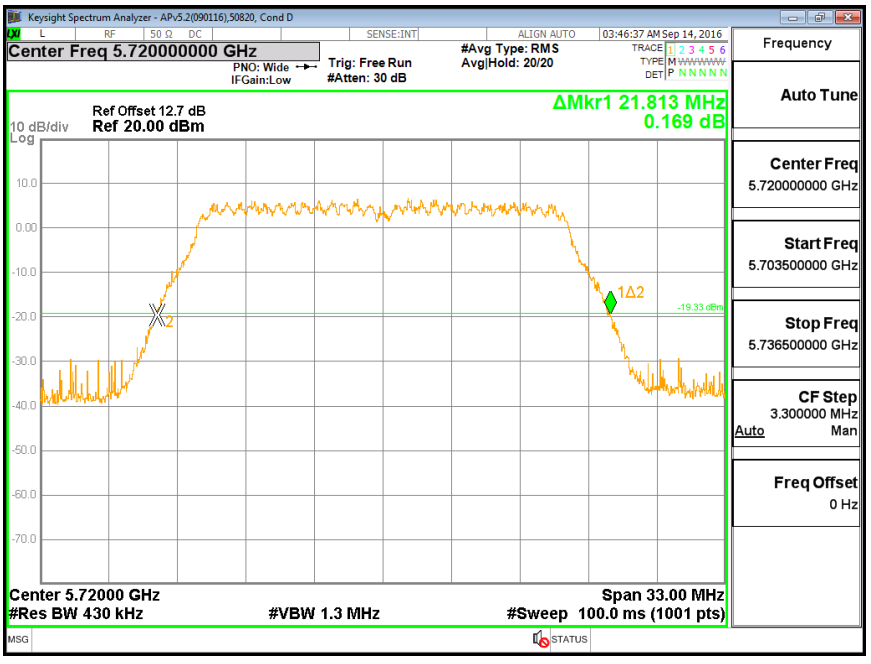
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



BANDWIDTH STRADDLE CH 144



8.25.2. **99% BANDWIDTH**

LIMITS

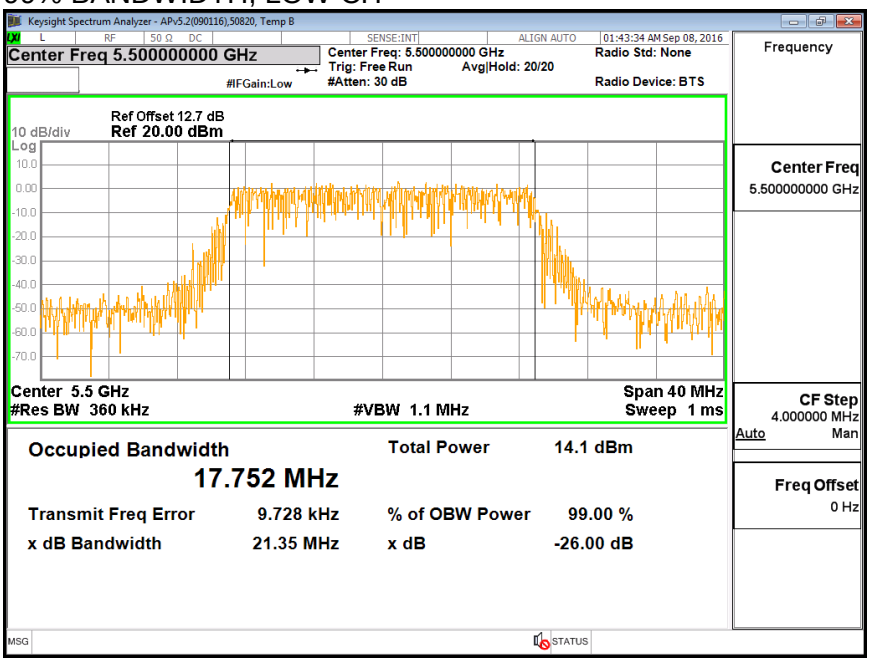
None; for reporting purposes only.

RESULTS

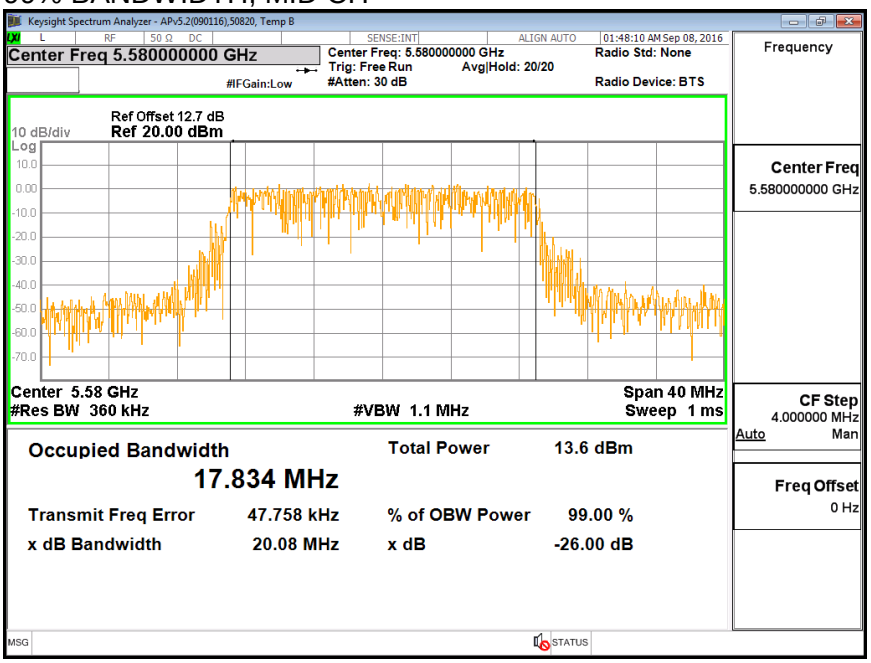
Channel	Frequency (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5500	17.752	17.795
Mid	5580	17.834	17.746
High	5700	16.471	17.732
144	5720	17.732	16.885

99% BANDWIDTH, CHAIN 1

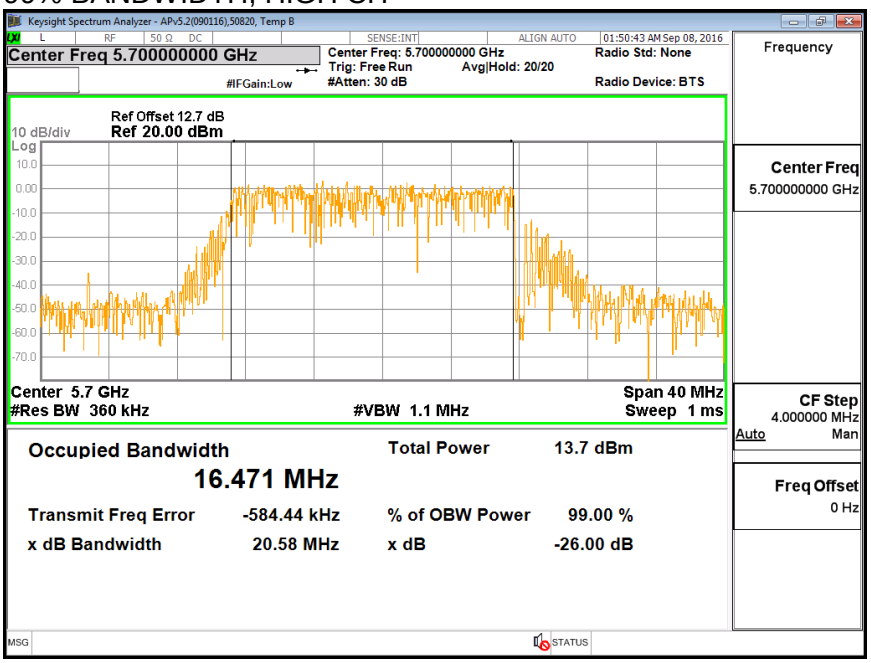
99% BANDWIDTH, LOW CH



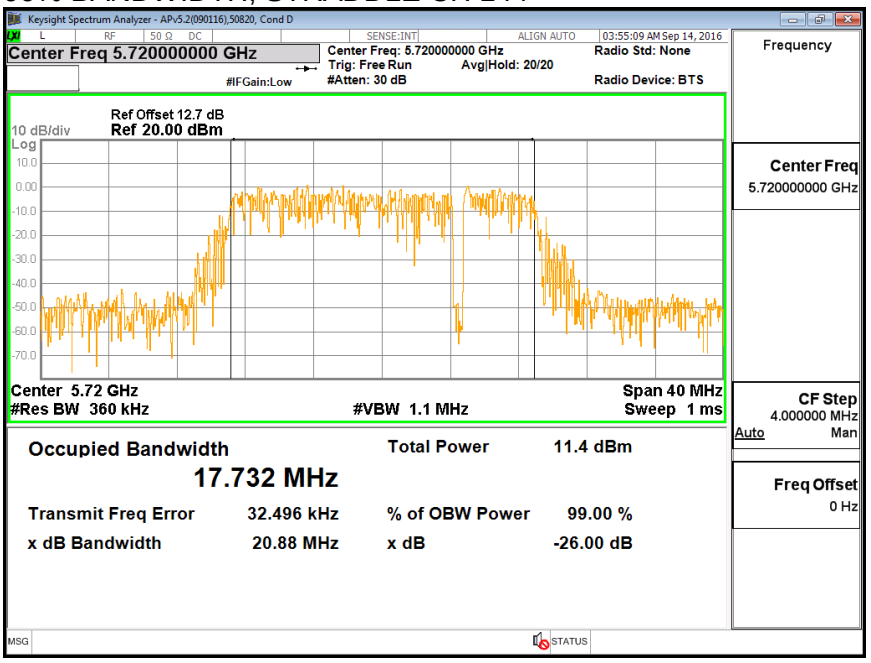
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH

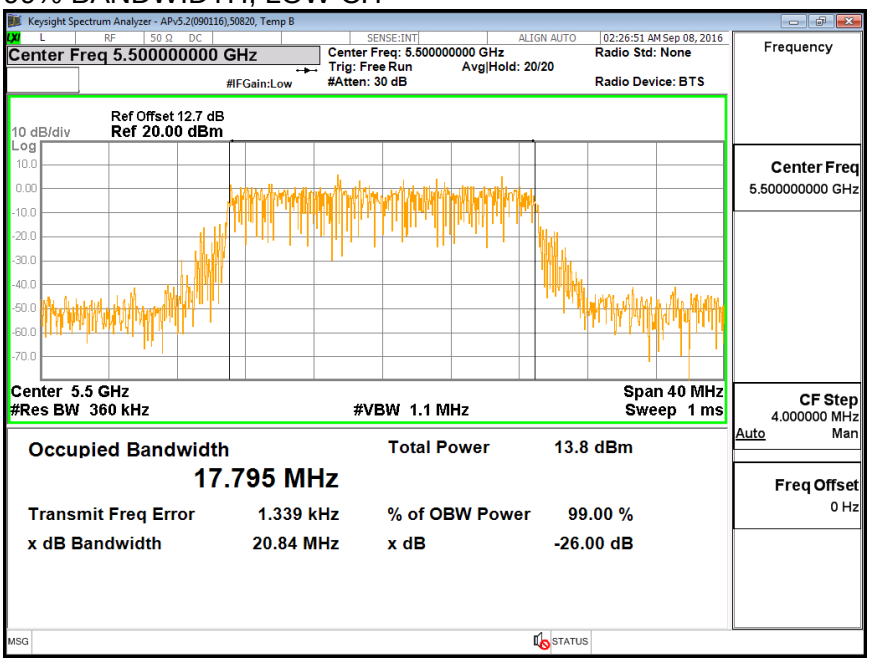


99% BANDWIDTH, STRADDLE CH 144

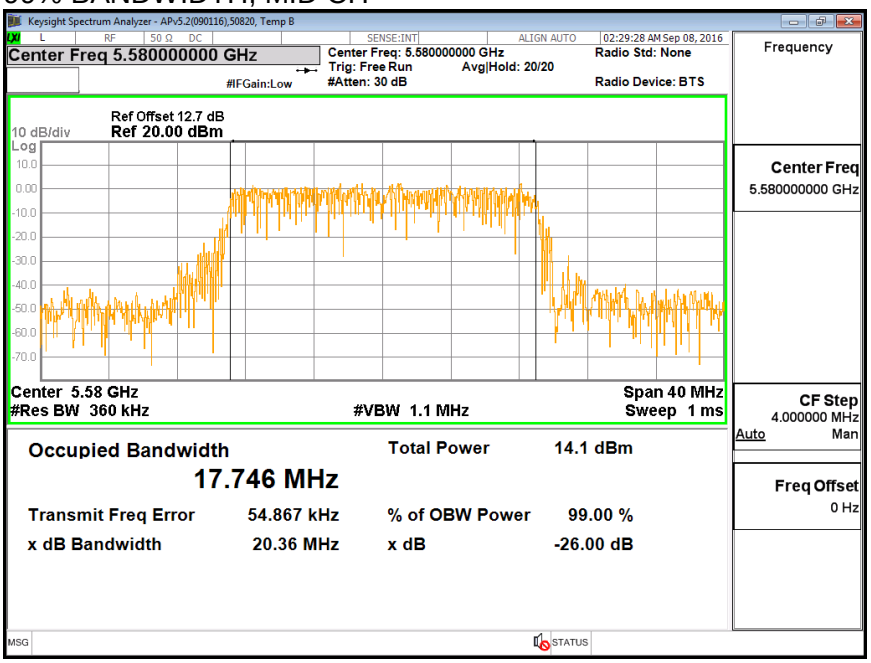


99% BANDWIDTH, CHAIN 2

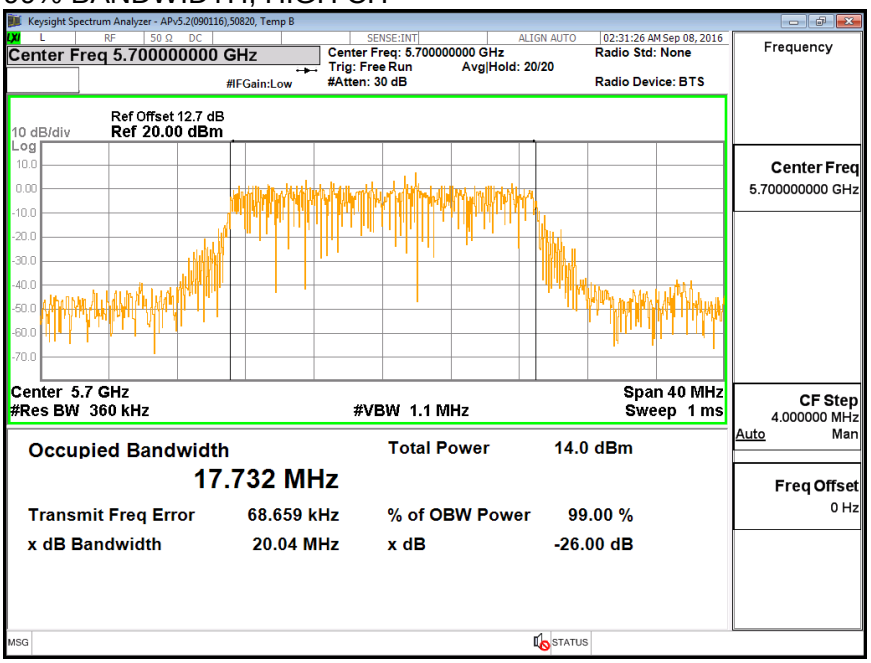
99% BANDWIDTH, LOW CH



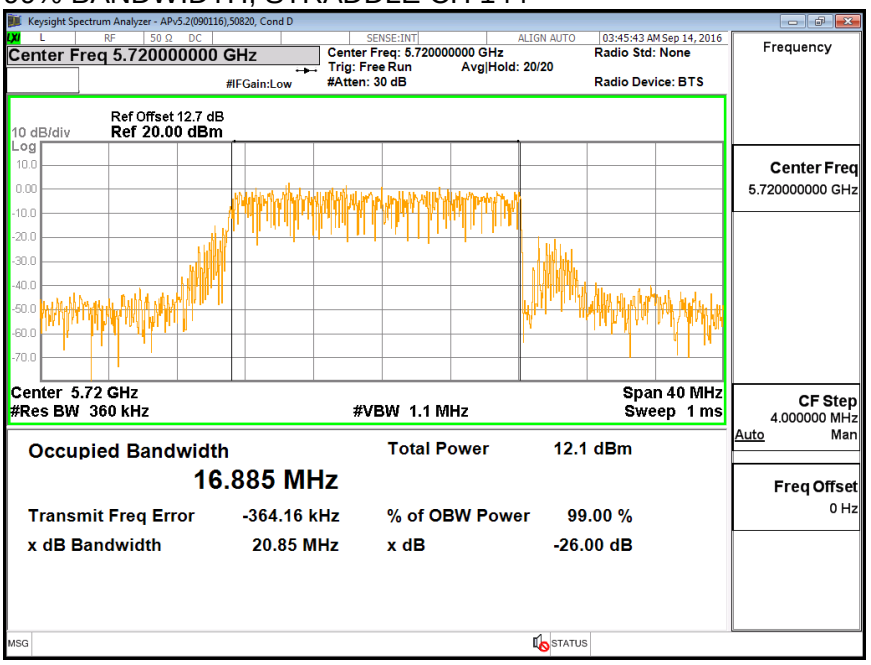
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH



99% BANDWIDTH, STRADDLE CH 144



8.25.3. **AVERAGE POWER**

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	43573	Date:	9/7/16

Average Power Results

Channel	Frequency (MHz)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5500	12.20	12.15	15.19
Mid	5580	12.21	12.19	15.21
High	5700	12.19	12.25	15.23
144	5720	12.19	12.23	15.22

8.25.4. 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 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 log10B, 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 log10B, 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 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
7.40	5.20	6.44

RESULTS

ID:	43573	Date:	9/7/16

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	17.752	6.44	6.44	23.05	10.56
Mid	5580	21.88	17.746	6.44	6.44	23.05	10.56
High	5700	21.85	16.471	6.44	6.44	22.73	10.56

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

Output Power Results

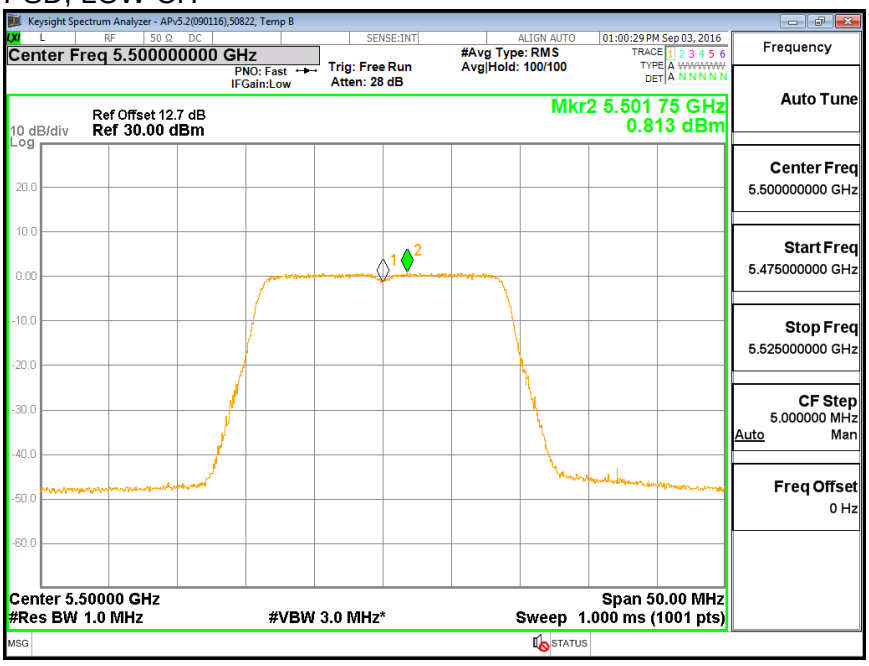
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	12.2	12.15	15.19	23.05	-7.87
Mid	5580	12.21	12.19	15.21	23.05	-7.84
High	5700	12.19	12.25	15.23	22.73	-7.50

PSD Results

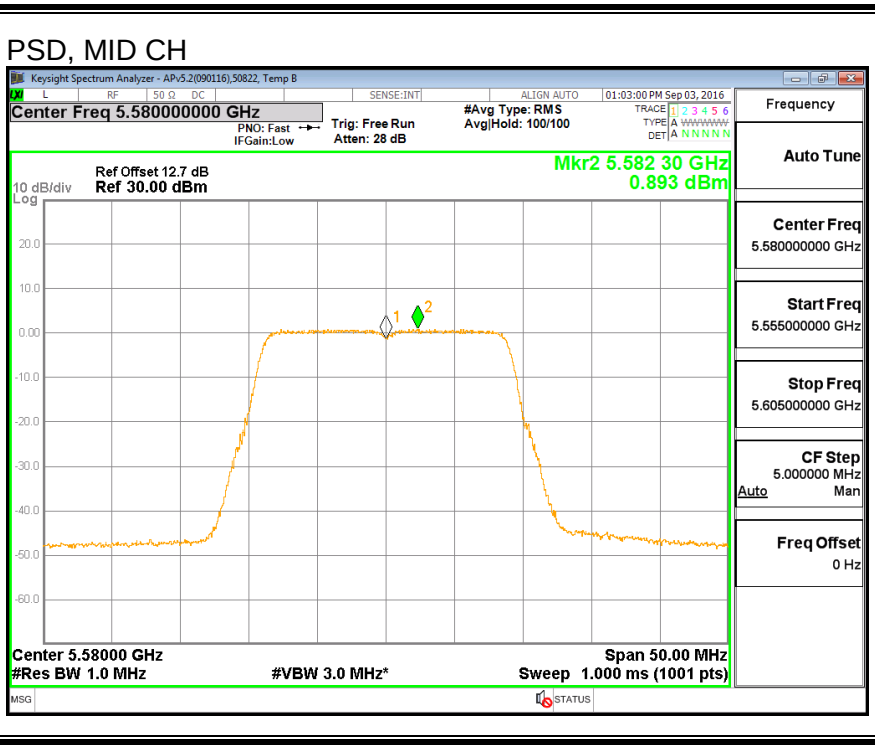
Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	0.813	0.874	3.85	10.56	-6.71
Mid	5580	0.893	0.88	3.90	10.56	-6.66
High	5700	0.794	0.901	3.86	10.56	-6.70

PSD, CHAIN 1

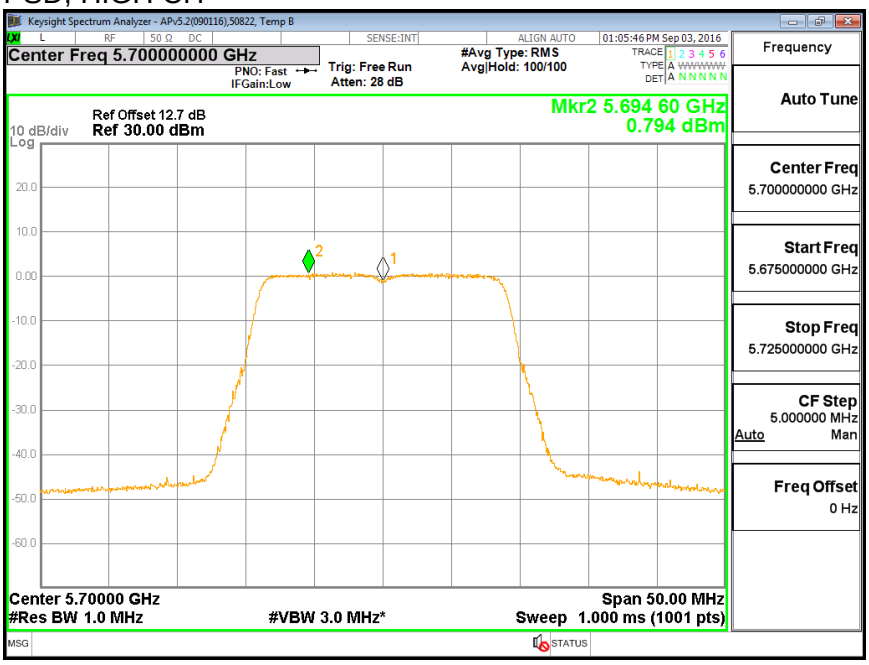
PSD, LOW CH



PSD, MID CH

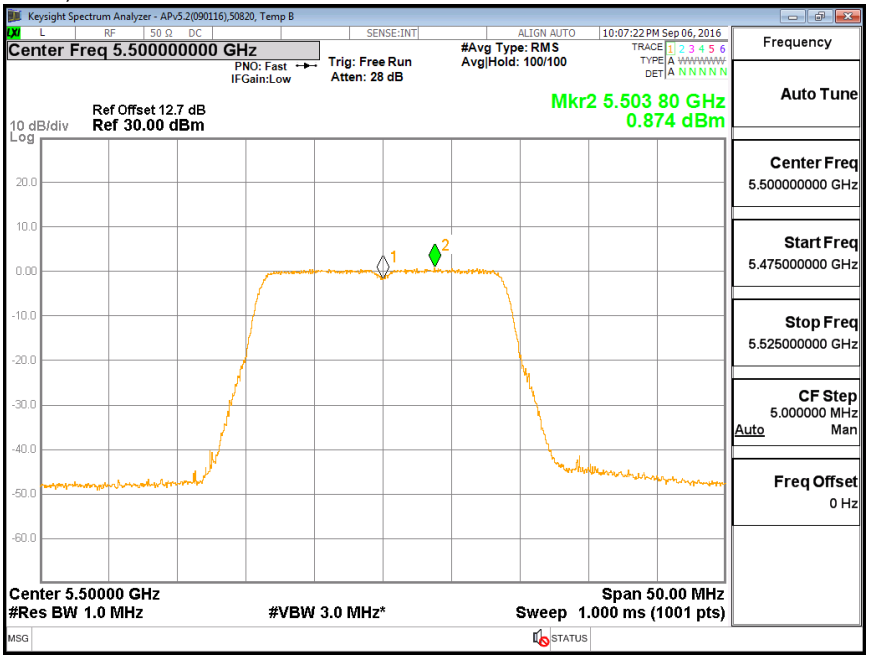


PSD, HIGH CH

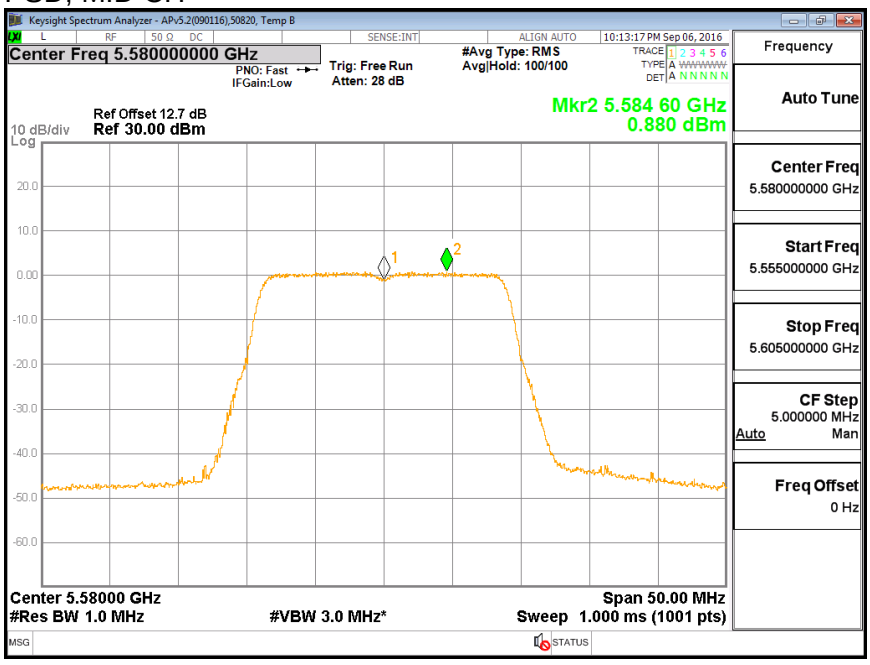


PSD, CHAIN 2

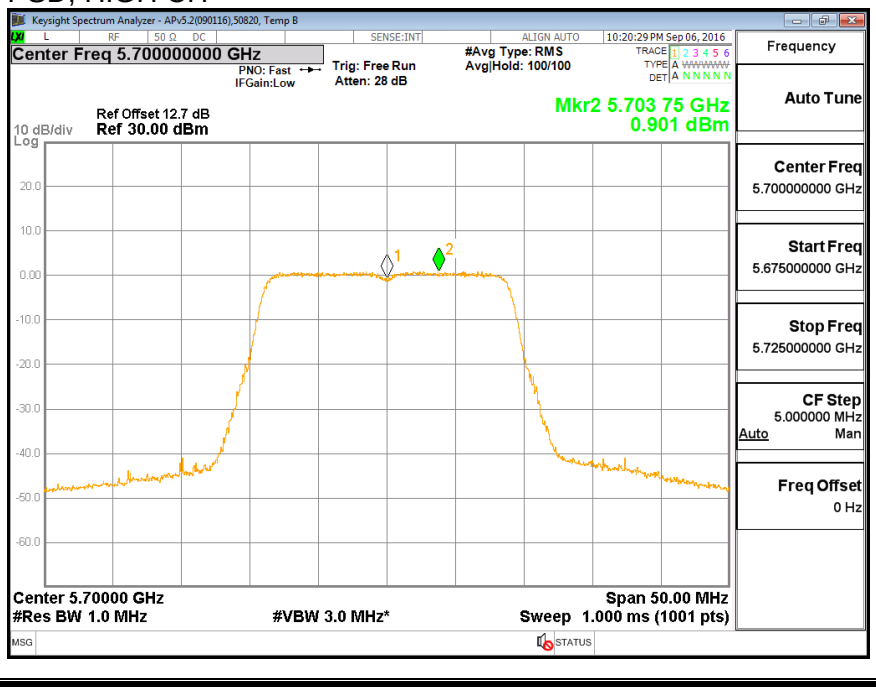
PSD, LOW CH



PSD, MID CH



PSD, HIGH CH



8.26. 802.11ac VHT20 2Tx (CHAIN 1 + CHAIN 2) STBC STRADDLE CHANNEL 144 RESULTS (FCC)

8.26.1. 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	15.91	6.44	6.44	22.58	10.56

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

Output Power Results

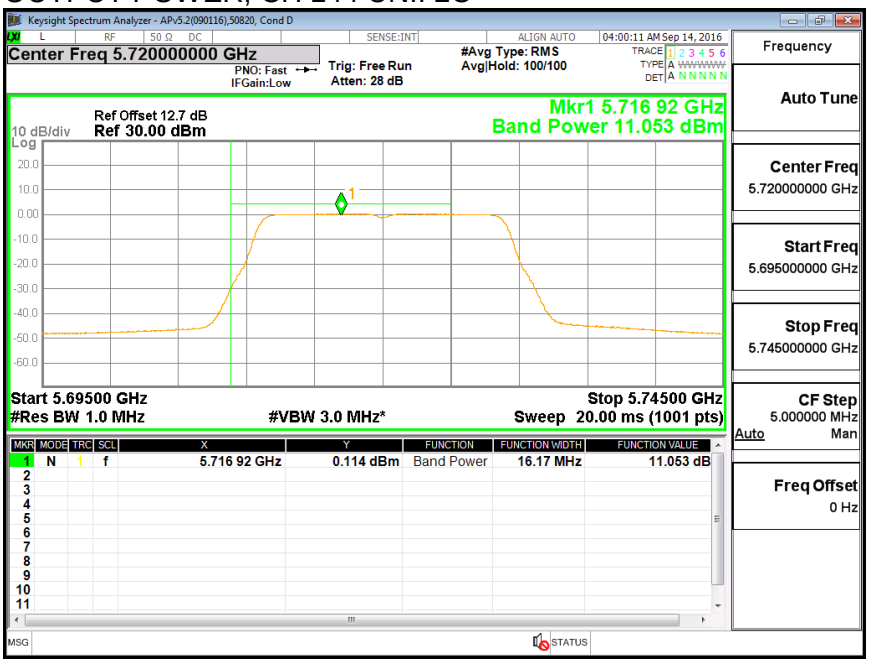
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	11.05	11.14	14.11	22.58	-8.47

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	0.16	0.23	3.21	10.56	-7.35

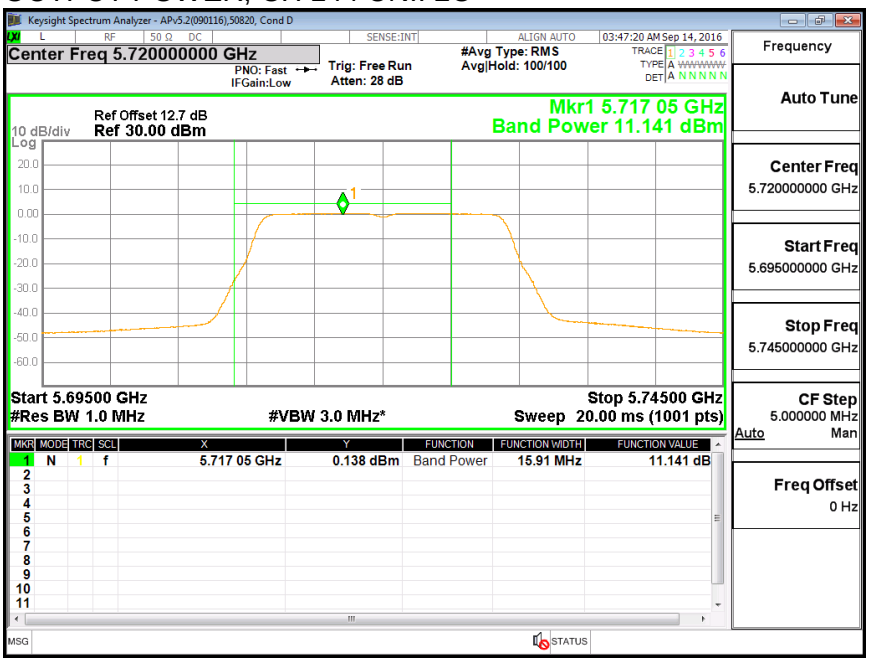
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 144 UNII 2C



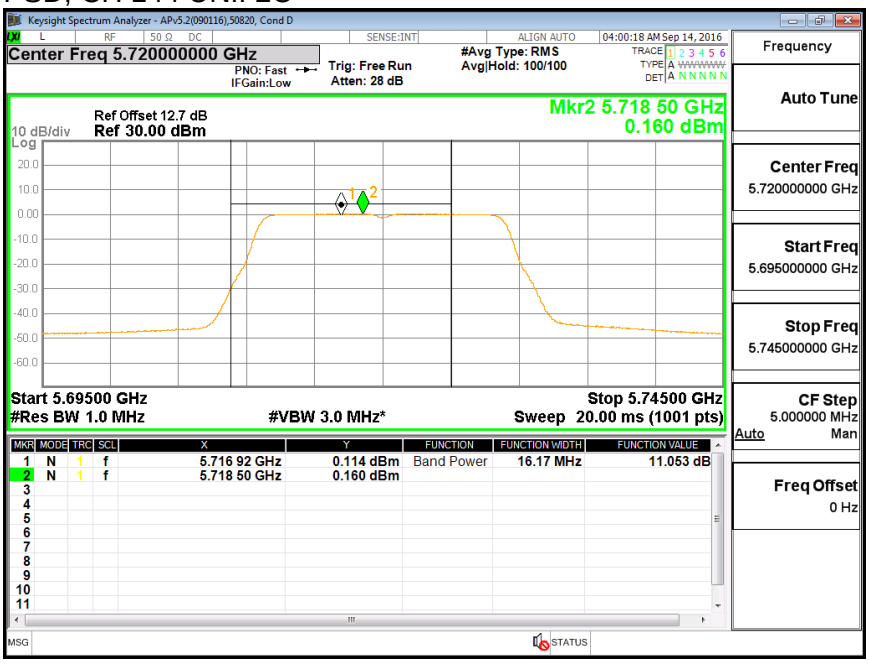
OUTPUT POWER, CHAIN 2

OUTPUT POWER, CH 144 UNII 2C



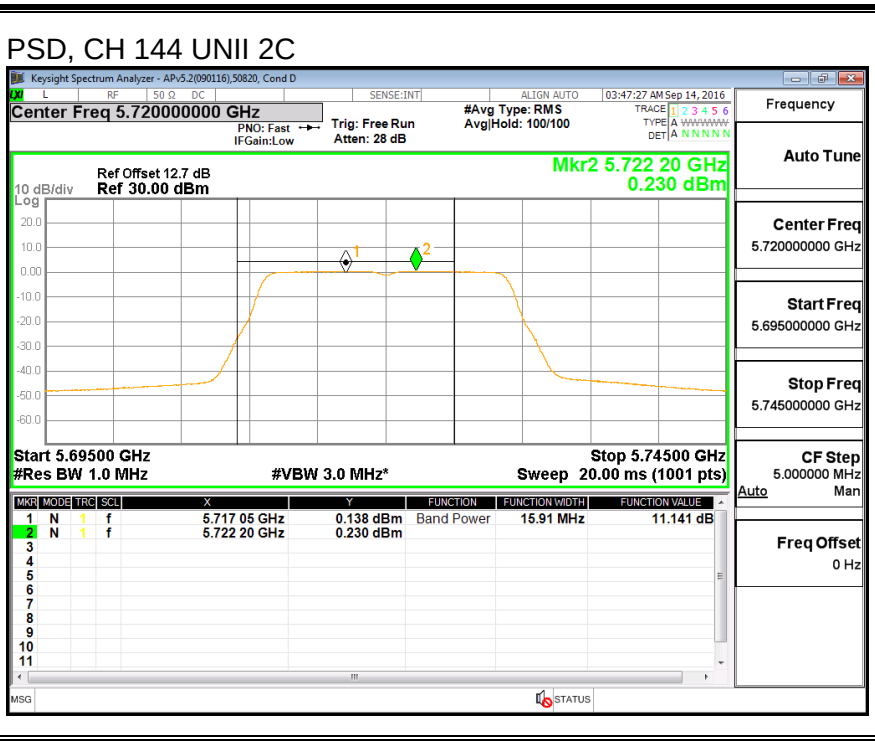
PSD, CHAIN 1

PSD, CH 144 UNII 2C



PSD, CHAIN 2

PSD, CH 144 UNII 2C



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	5.91	6.44	6.44	29.56	29.56

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

Output Power Results

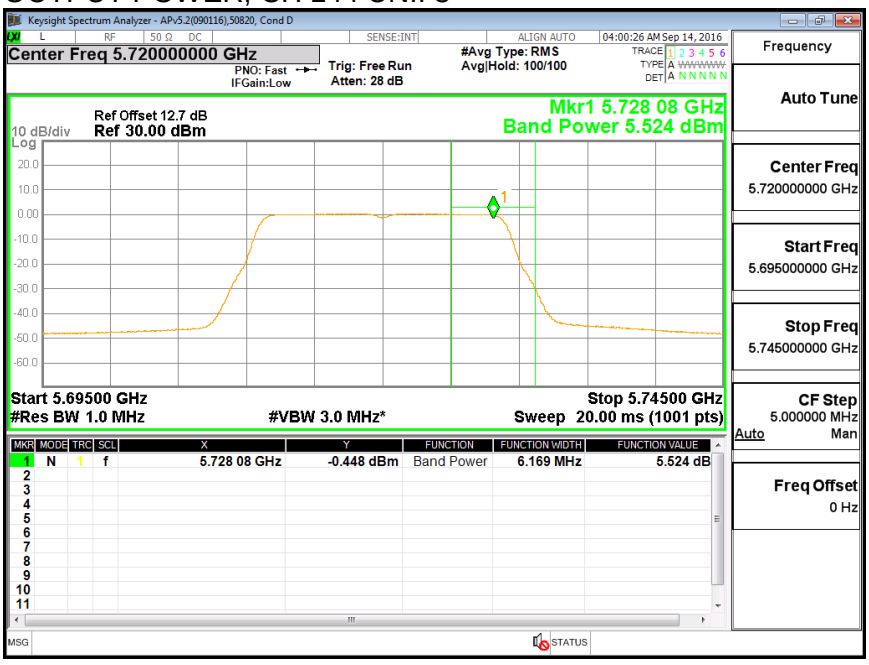
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.52	5.61	8.58	29.56	-20.98

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	-2.89	-2.72	0.21	29.56	-29.35

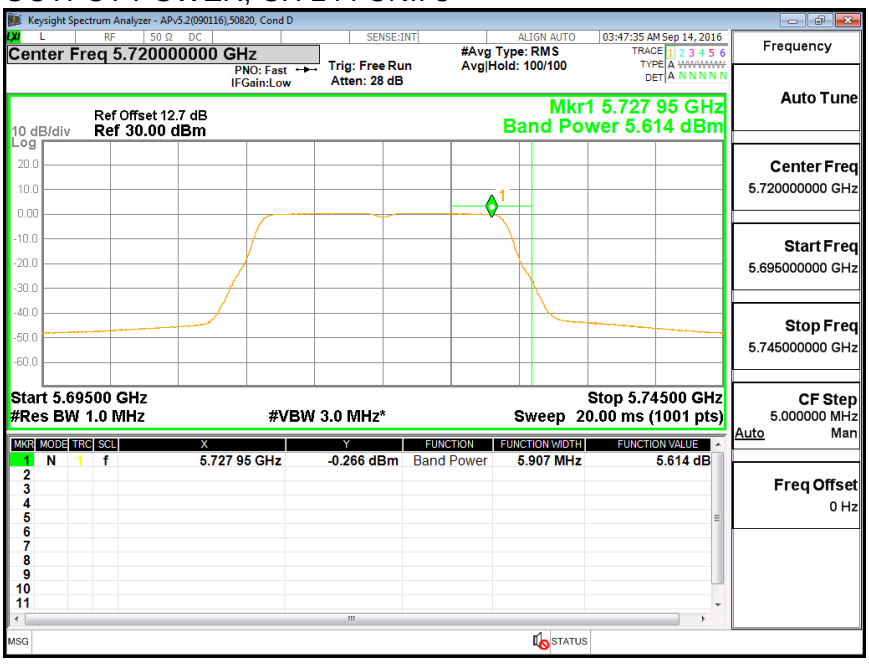
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 144 UNII 3

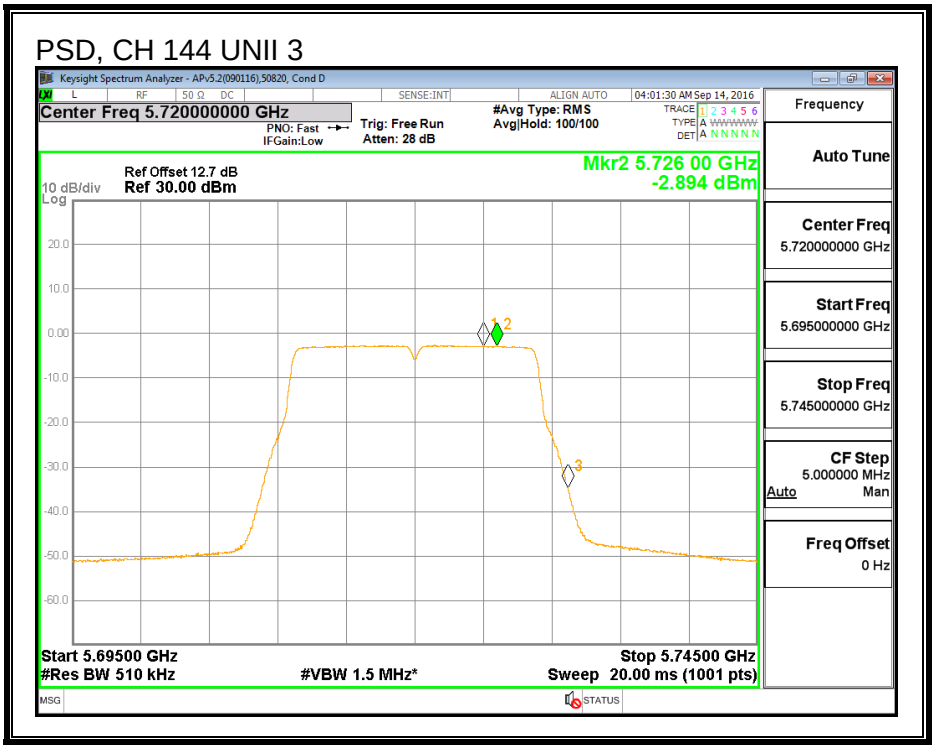


OUTPUT POWER, CHAIN 2

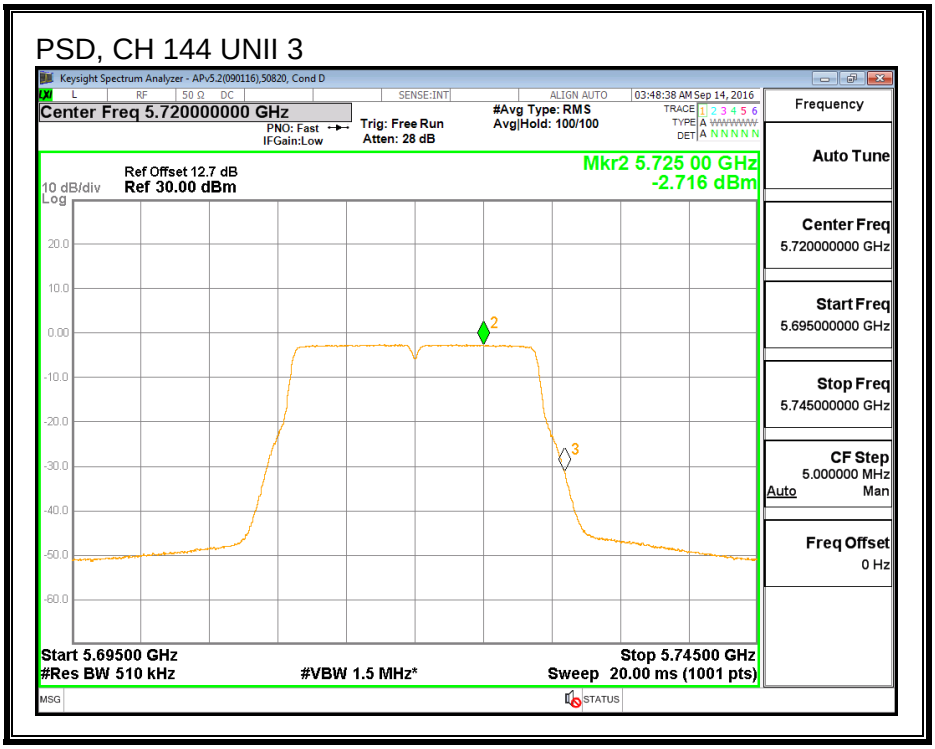
OUTPUT POWER, CH 144 UNII 3



PSD, CHAIN 1



PSD, CHAIN 2



8.27. 802.11ac VHT20 2Tx (CHAIN 1 + CHAIN 2) STBC STRADDLE CHANNEL 144 RESULTS (IC)

8.27.1. 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	13.440	6.44	6.44	21.84	10.56

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

Output Power Results

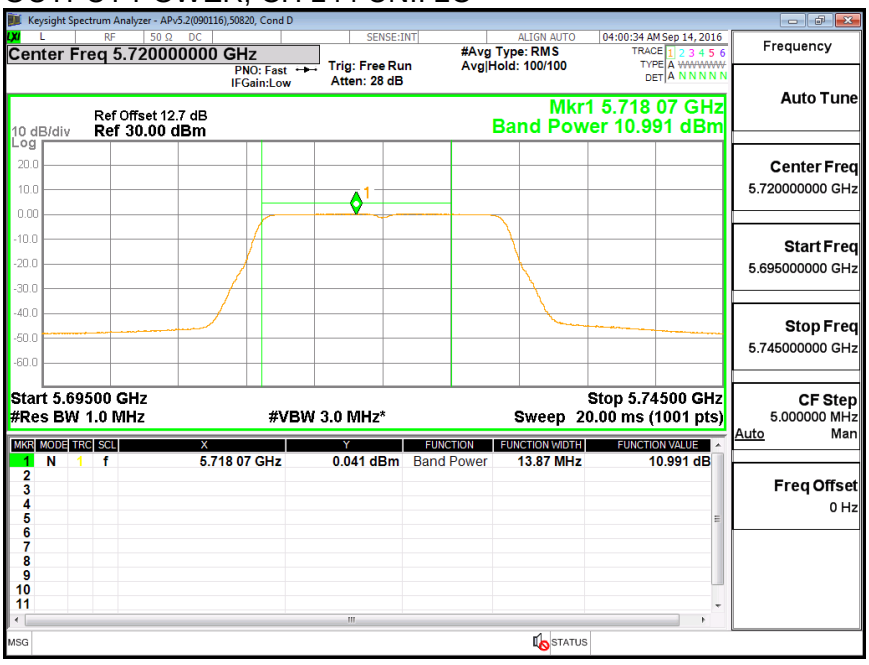
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.99	10.99	14.00	21.84	-7.84

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	0.16	0.23	3.21	10.56	-7.35

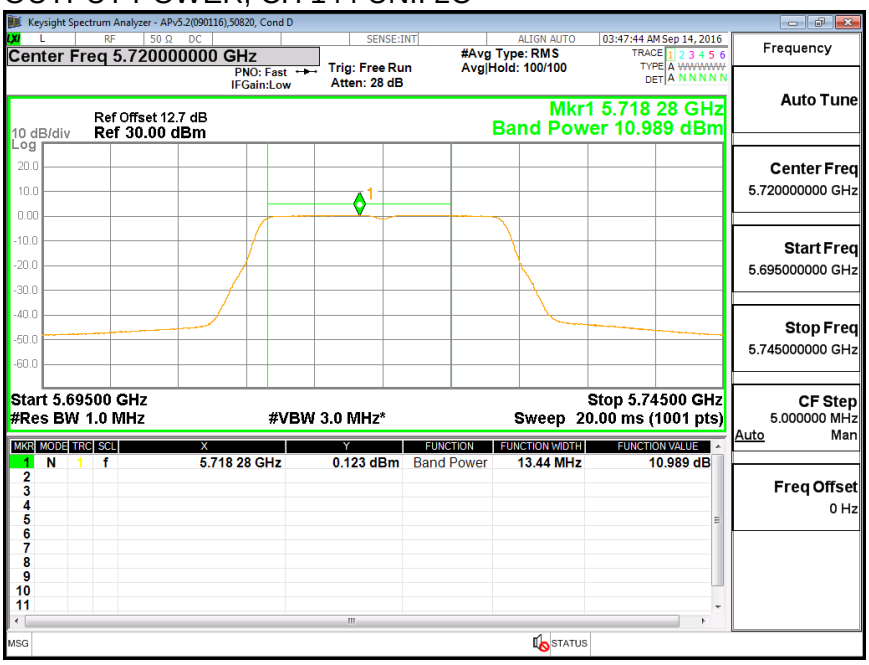
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 144 UNII 2C



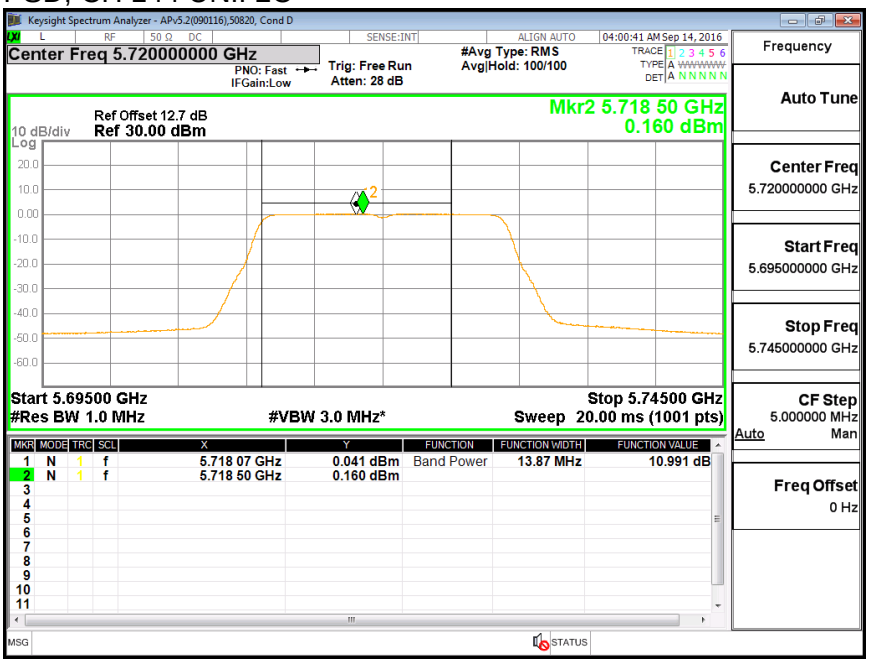
OUTPUT POWER, CHAIN 2

OUTPUT POWER, CH 144 UNII 2C



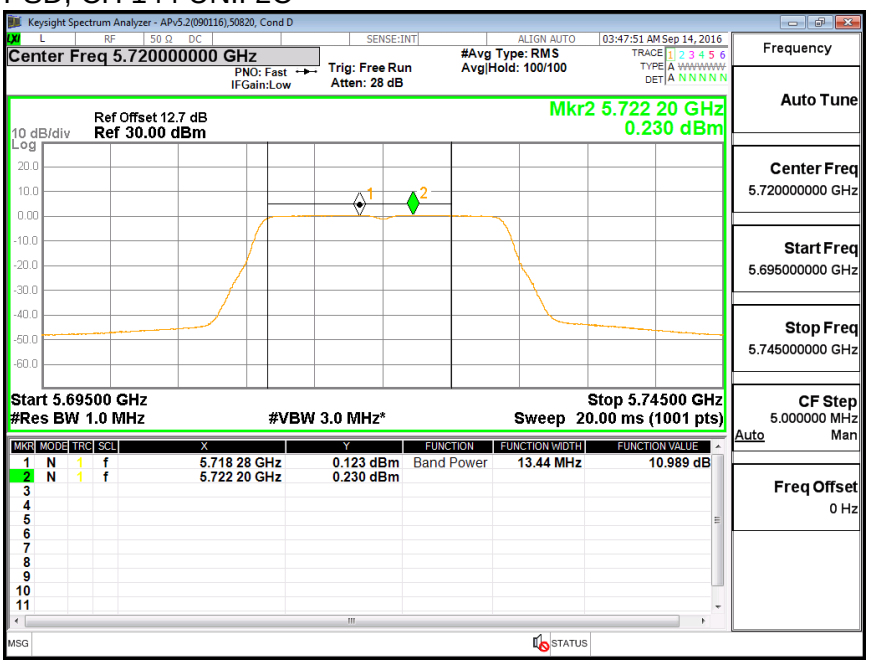
PSD, CHAIN 1

PSD, CH 144 UNII 2C



PSD, CHAIN 2

PSD, CH 144 UNII 2C



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	3.443	6.44	6.44	29.56	29.56

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

Output Power Results

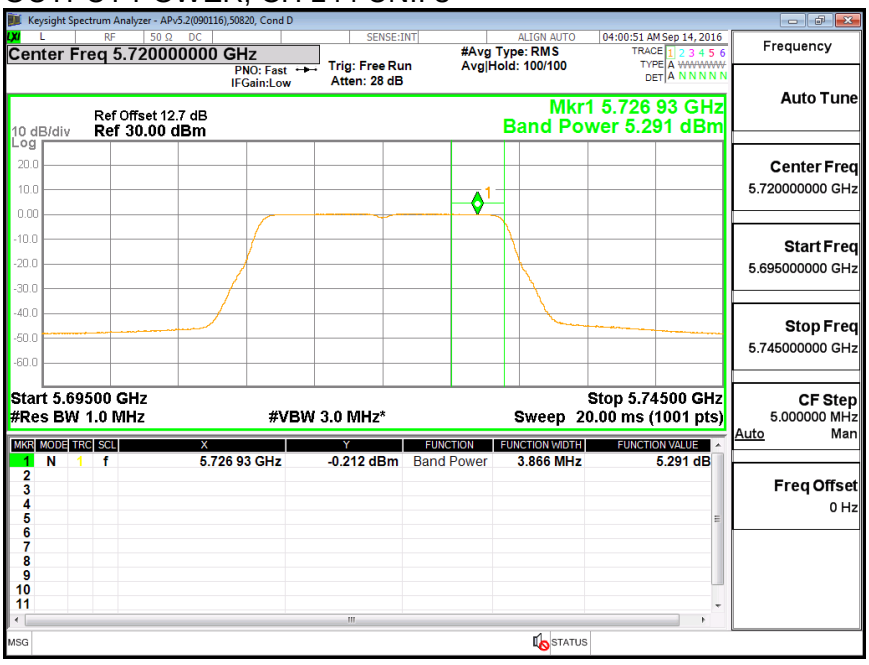
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.29	5.02	8.17	29.56	-21.39

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	-2.89	-2.72	0.21	29.56	-29.35

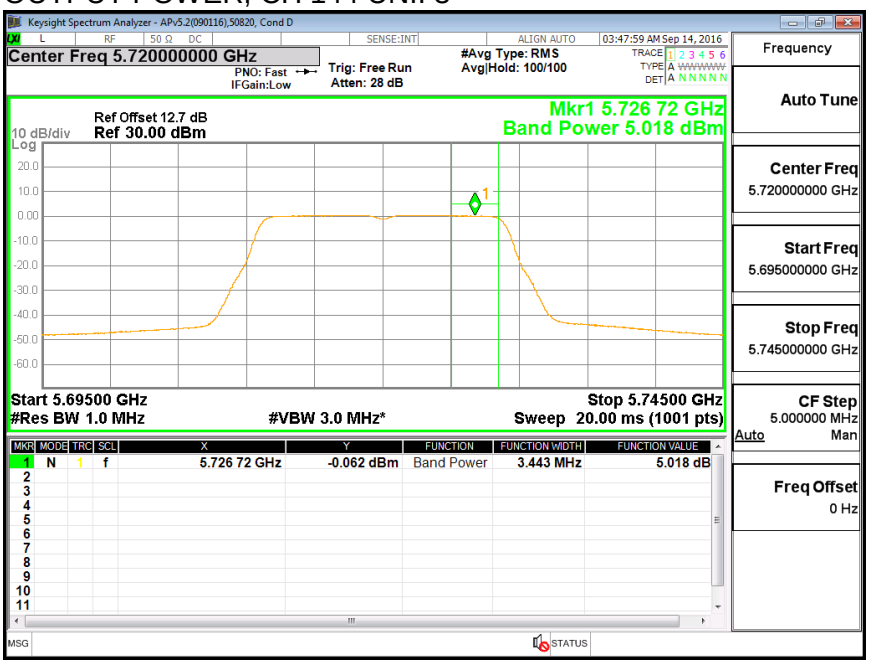
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 144 UNII 3



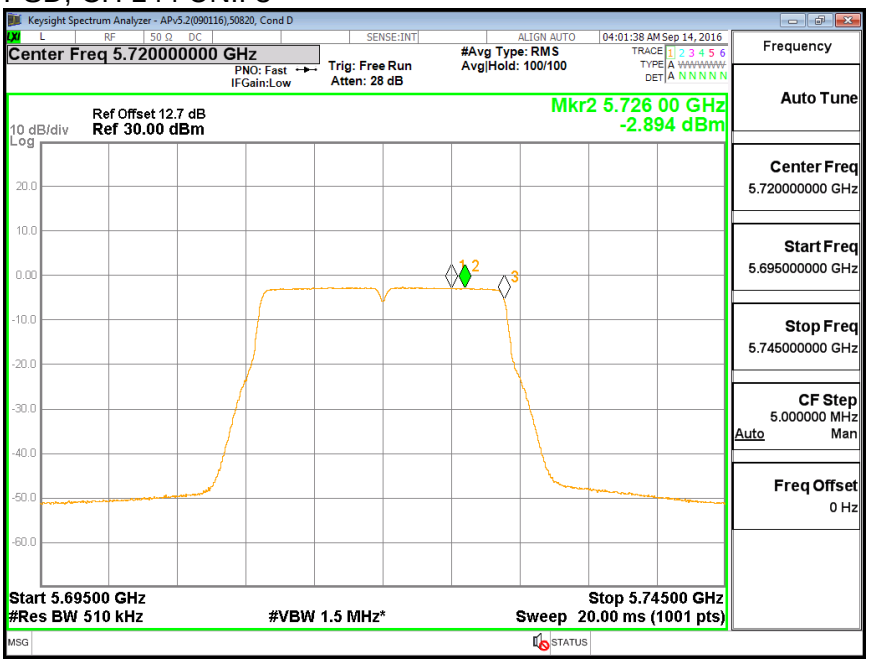
OUTPUT POWER, CHAIN 2

OUTPUT POWER, CH 144 UNII 3



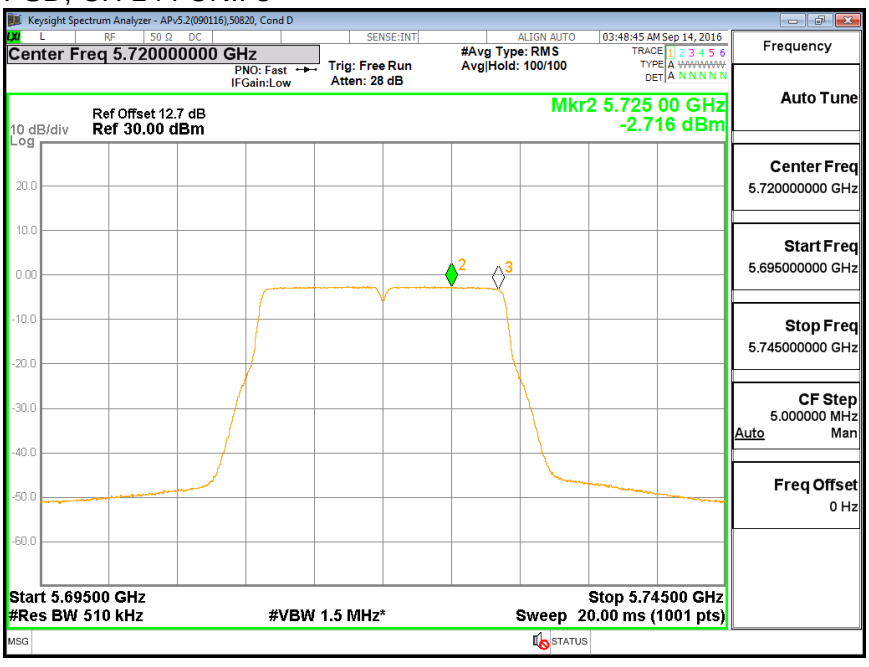
PSD, CHAIN 1

PSD, CH 144 UNII 3



PSD, CHAIN 2

PSD, CH 144 UNII 3



8.27.2. **6 dB BANDWIDTH**

LIMITS

FCC §15.407 (e)

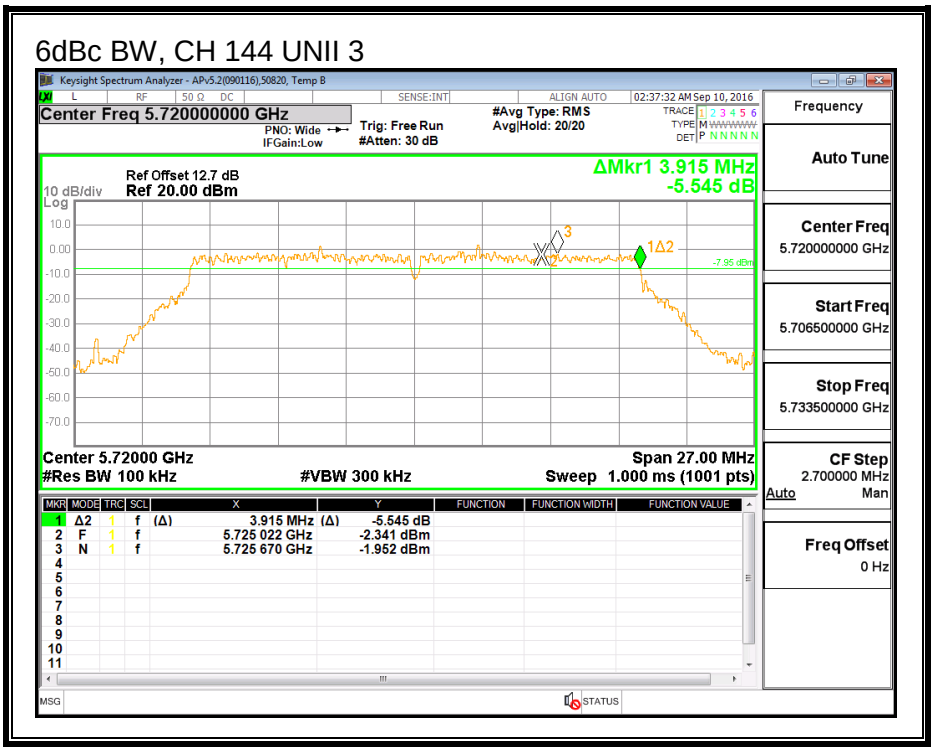
IC RSS-247 (6.2.4) (1)

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

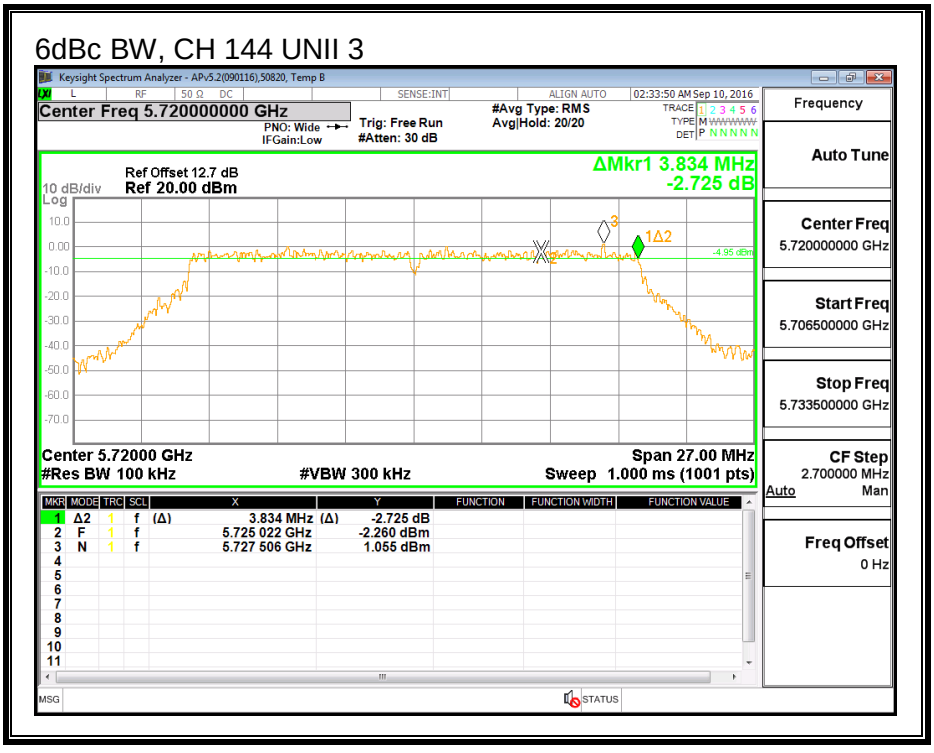
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 1 (MHz)	6 dB BW Chain 2 (MHz)
144	5720	3.915	3.834

CHAIN 1



CHAIN 2



8.28. 802.11ac VHT20 2Tx (CHAIN 0 + CHAIN 1) BEAM FORMING MODE IN THE 5.6 GHz BAND

8.28.1. 26 dB BANDWIDTH

LIMITS

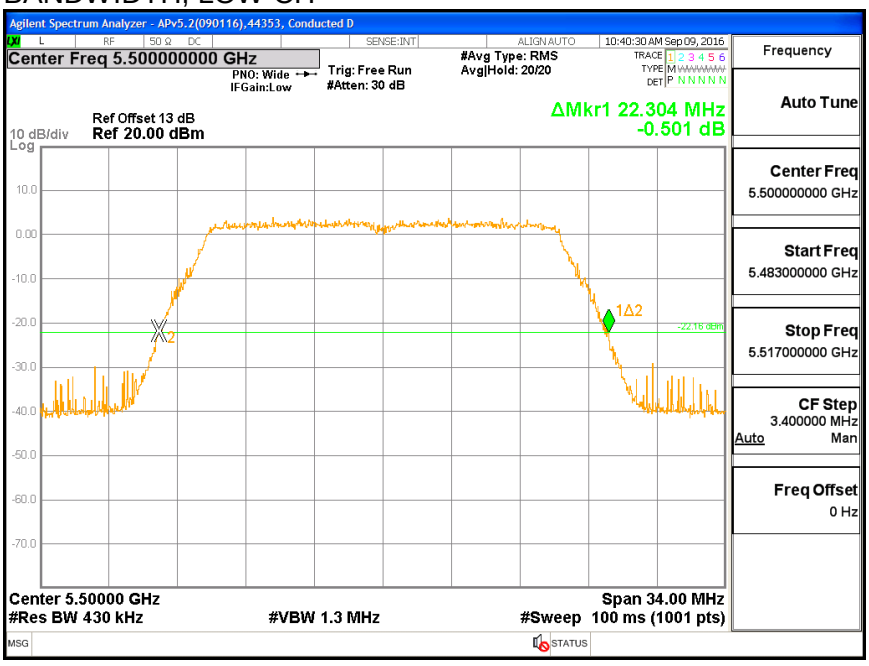
None; for reporting purposes only.

RESULTS

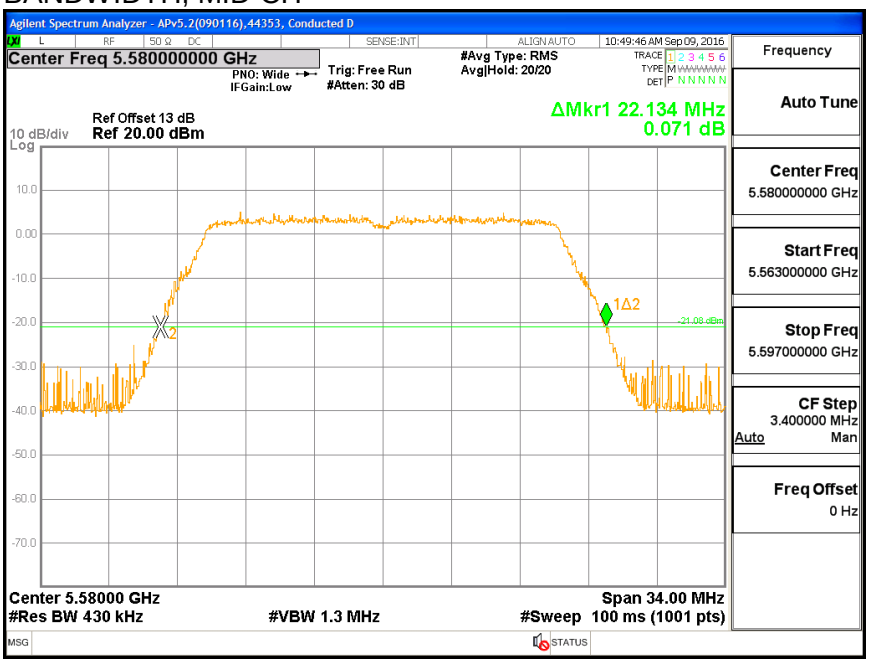
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	22.304	21.780
Mid	5580	22.134	21.978
High	5700	22.304	21.714
144	5720	22.338	22.336

26 dB BANDWIDTH, CHAIN 0

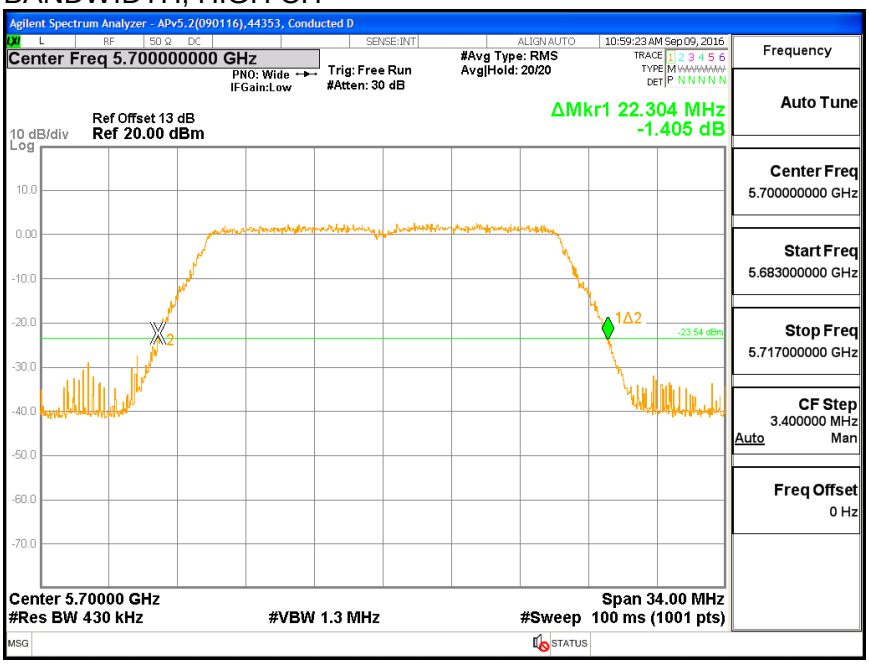
BANDWIDTH, LOW CH



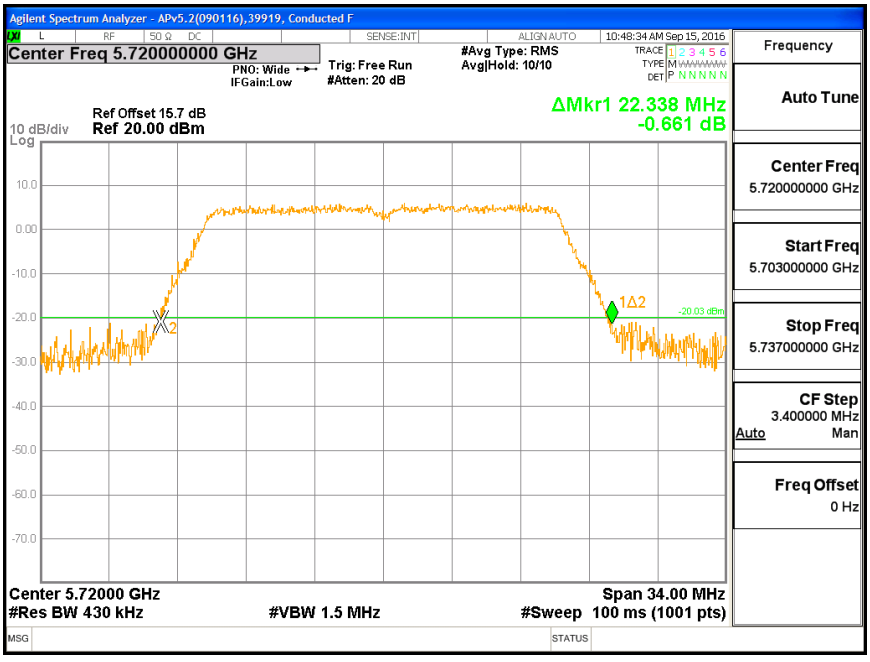
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH

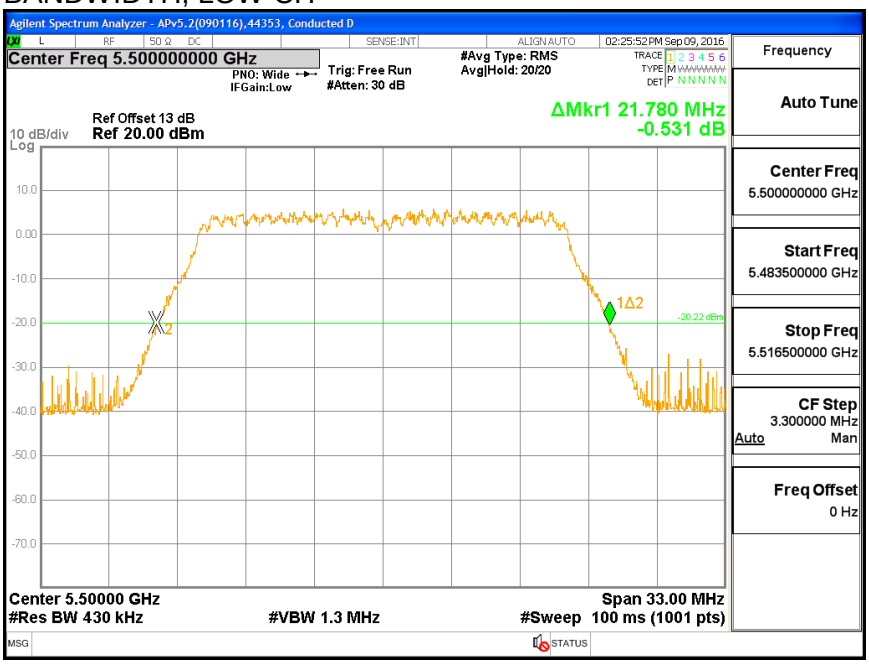


BANDWIDTH STRADDLE CH 144

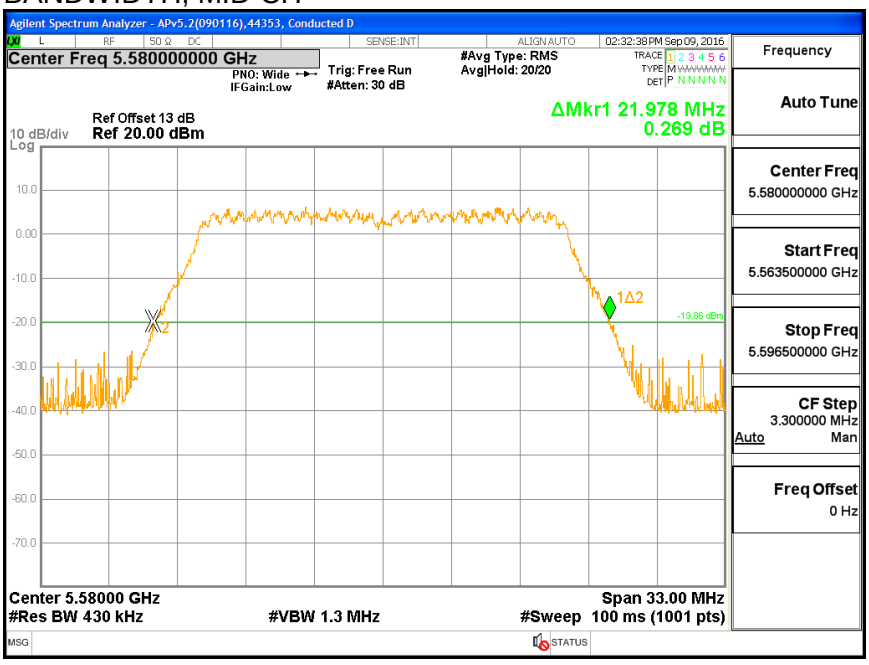


26 dB BANDWIDTH, CHAIN 1

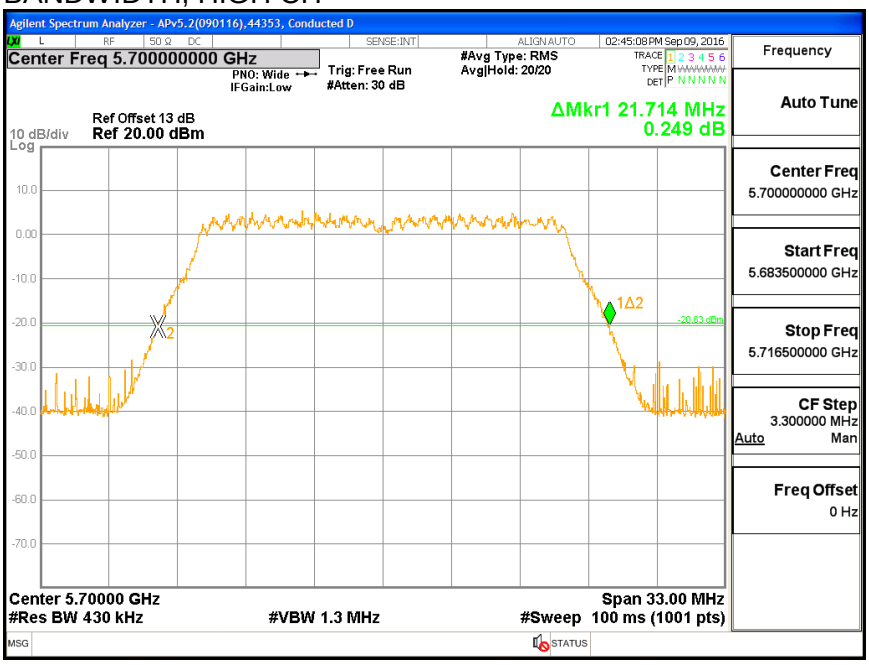
BANDWIDTH, LOW CH



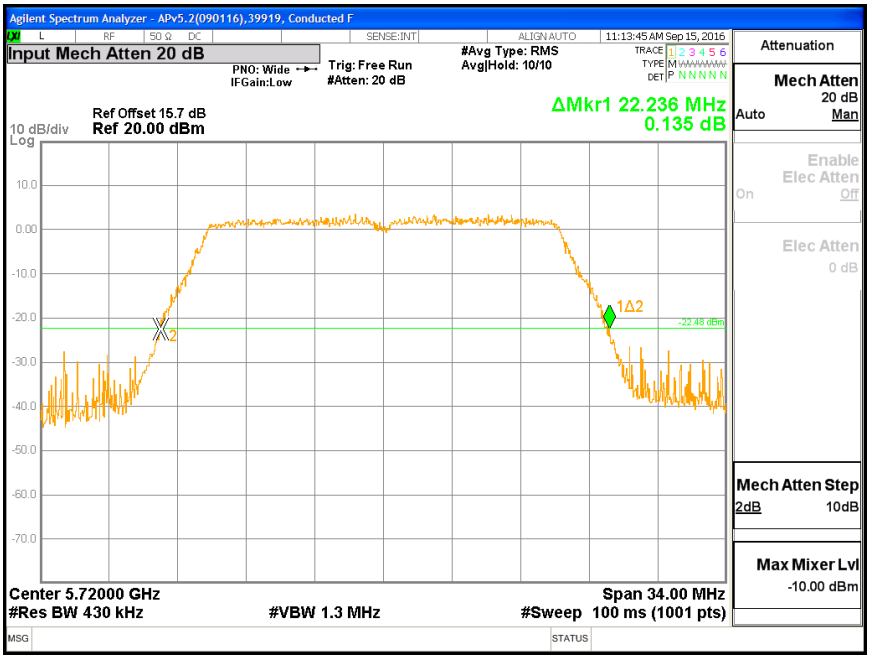
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



BANDWIDTH STRADDLE CH 144



8.28.2. **99% BANDWIDTH**

LIMITS

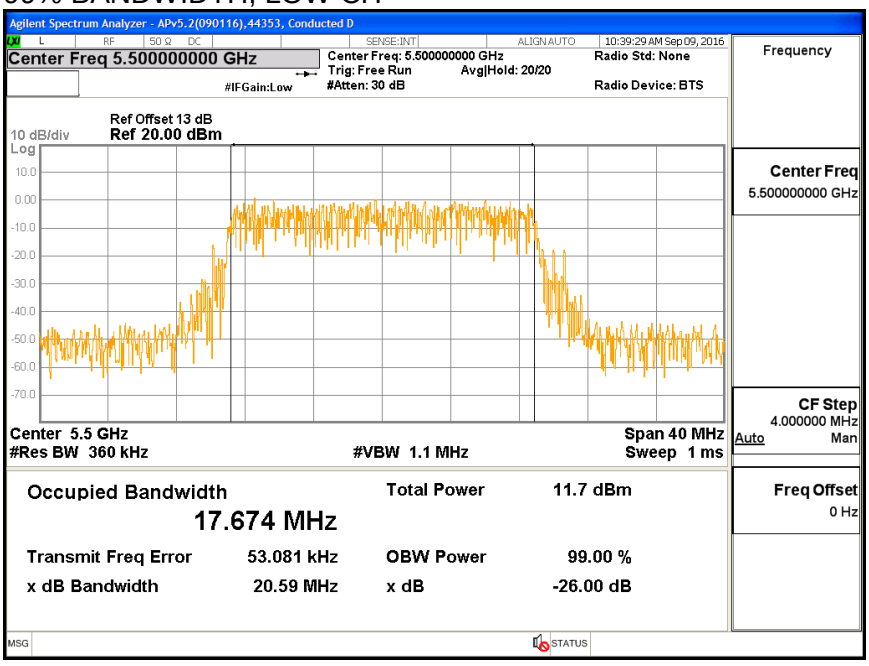
None; for reporting purposes only.

RESULTS

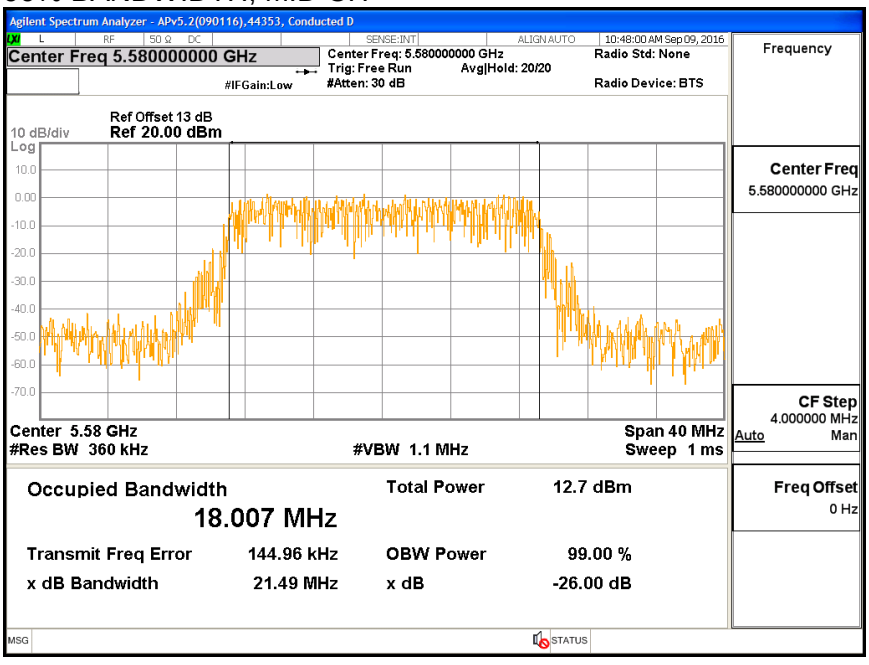
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	17.674	17.851
Mid	5580	18.007	17.916
High	5700	17.869	17.742
144	5720	17.787	17.789

99% BANDWIDTH, CHAIN 0

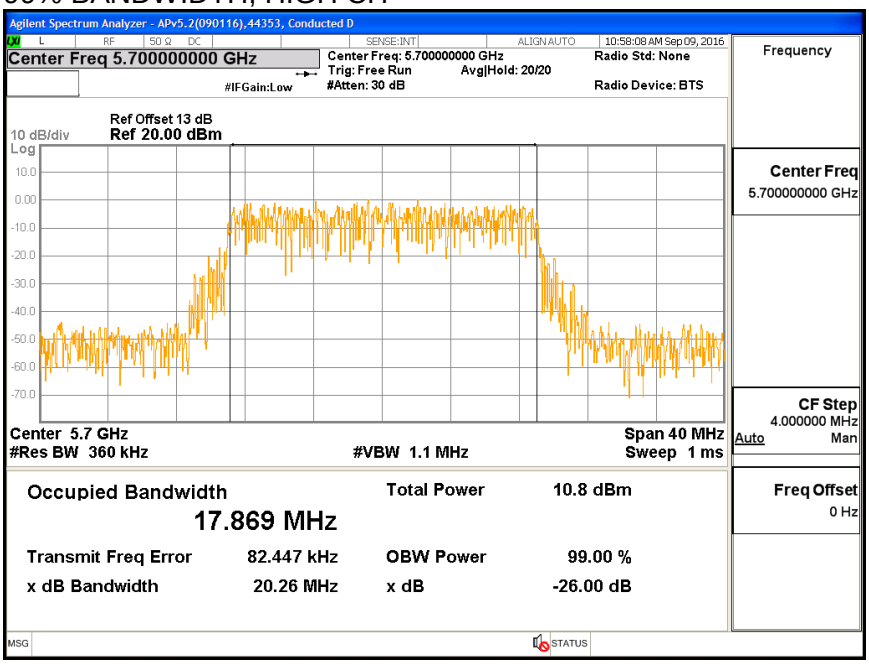
99% BANDWIDTH, LOW CH



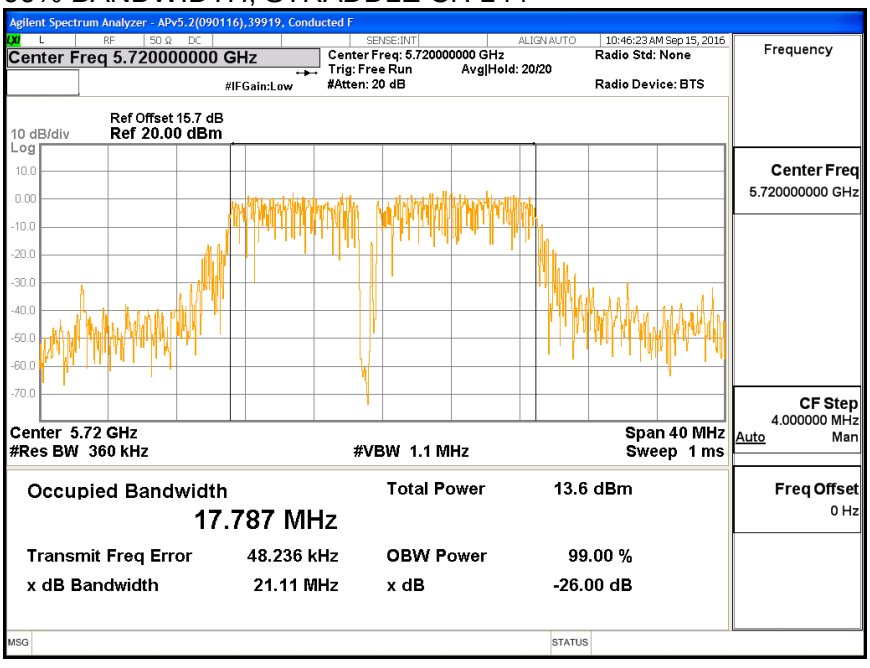
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH

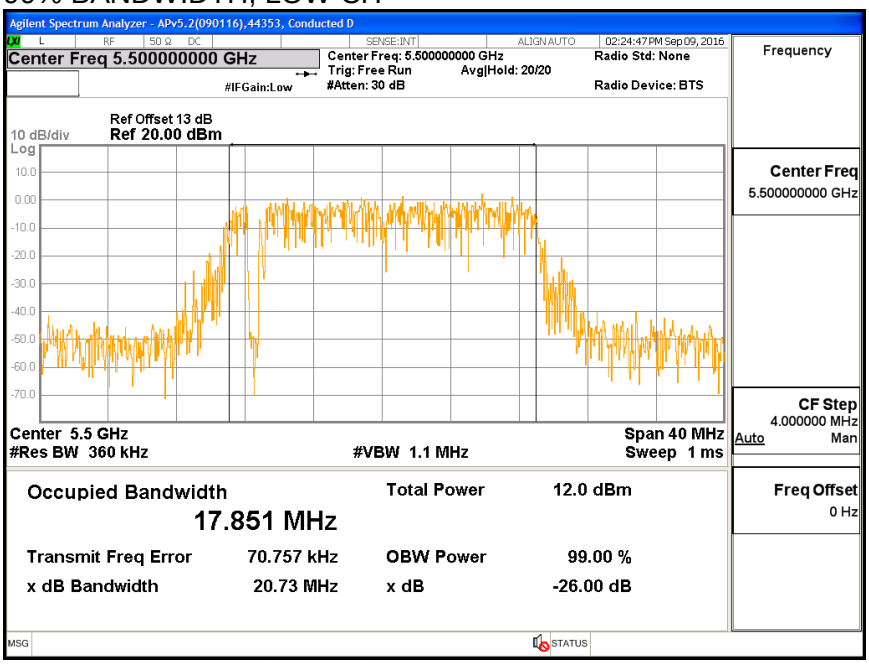


99% BANDWIDTH, STRADDLE CH 144

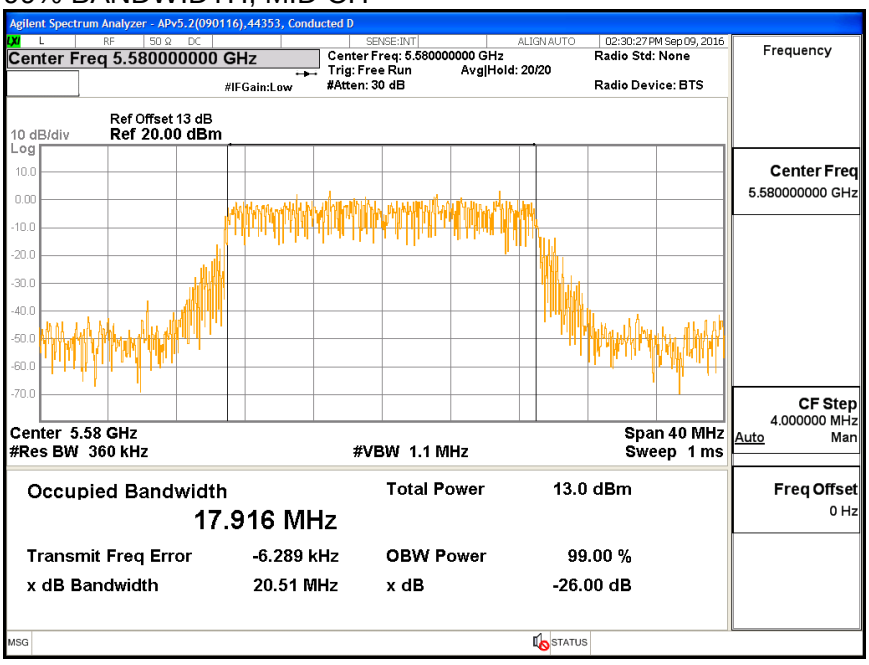


99% BANDWIDTH, CHAIN 1

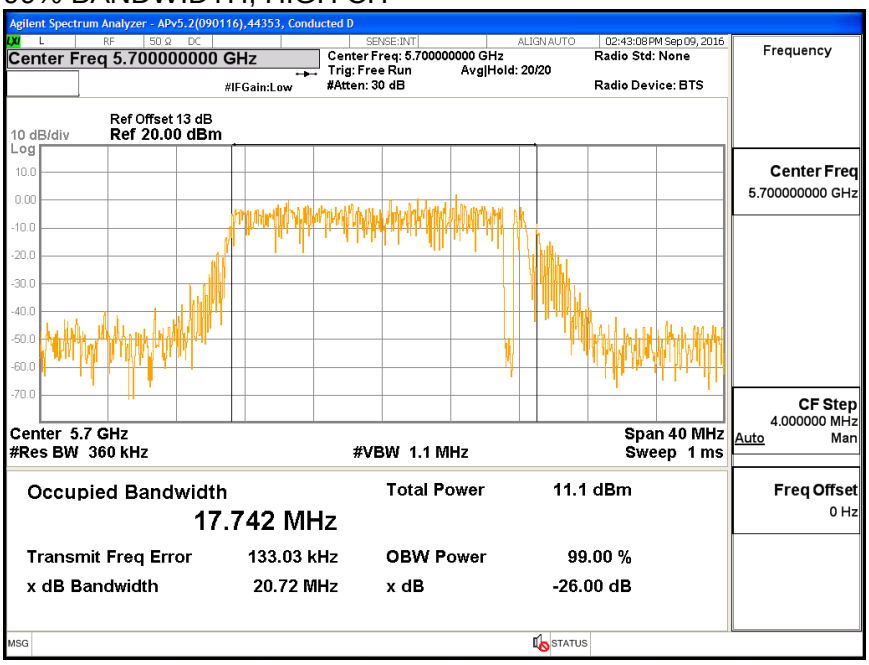
99% BANDWIDTH, LOW CH



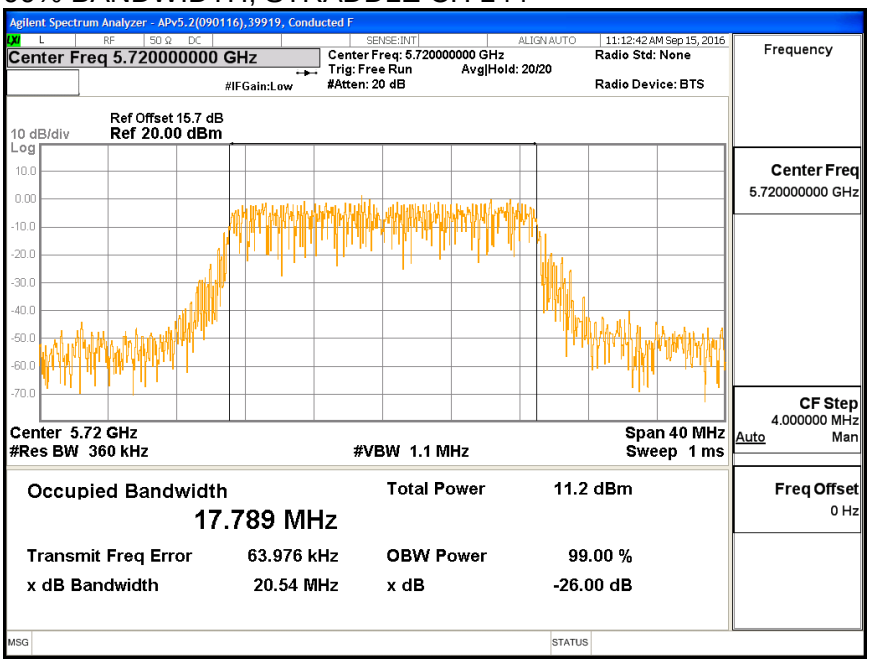
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH



99% BANDWIDTH, STRADDLE CH 144



8.28.3. **AVERAGE POWER**

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	44353	**Date:**	9/9/216

Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5500	11.83	11.92	14.88
Mid	5580	11.99	11.97	14.99
High	5700	10.42	10.20	13.32
144	5720	11.78	11.80	14.80

8.28.4. 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 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 log10B, 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 log10B, 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 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
4.90	7.40	9.25

RESULTS

ID:	44353	Date:	9/9/216

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	21.78	17.674	9.25	9.25	20.22	7.75
Mid	5580	21.98	17.916	9.25	9.25	20.28	7.75
High	5700	21.71	17.742	9.25	9.25	20.24	7.75

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

Output Power Results

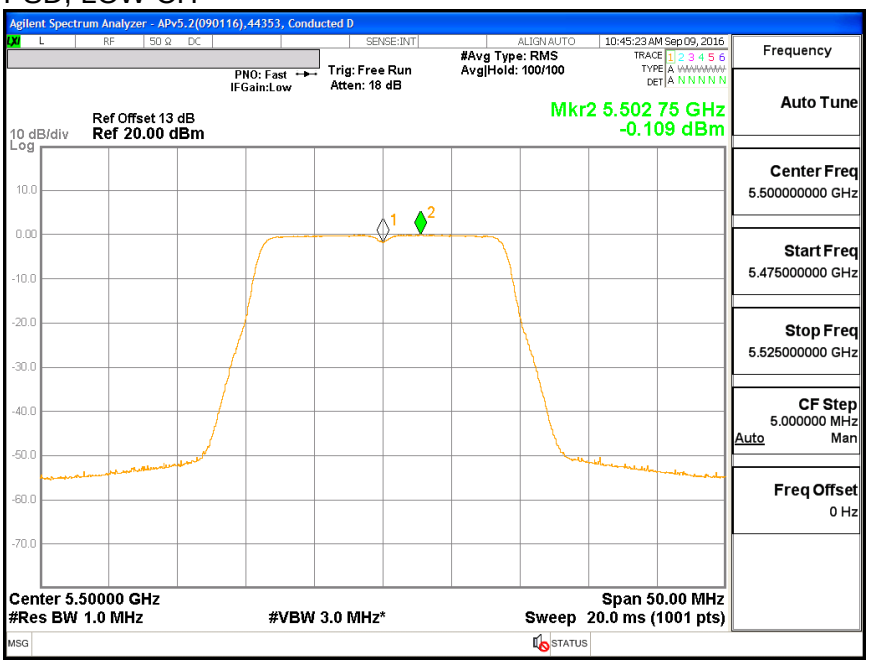
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	11.829	11.915	14.88	20.22	-5.34
Mid	5580	11.99	11.966	14.99	20.28	-5.29
High	5700	10.416	10.2	13.32	20.24	-6.92

PSD Results

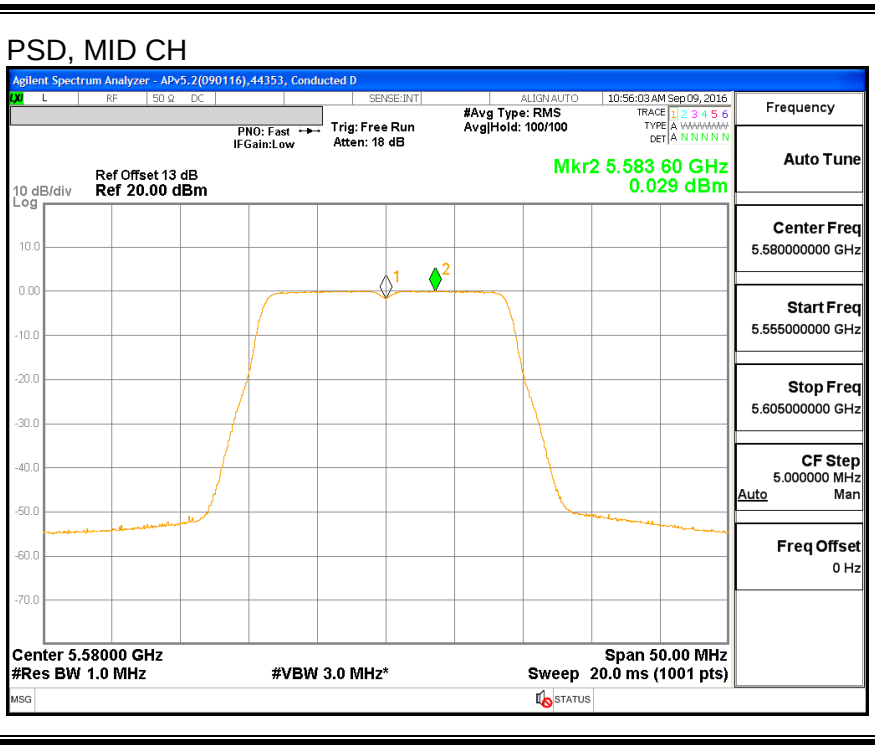
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	-0.109	0.013	4.01	7.75	-3.74
Mid	5580	0.029	0.034	4.09	7.75	-3.66
High	5700	-1.486	-1.676	2.48	7.75	-5.27

PSD, CHAIN 0

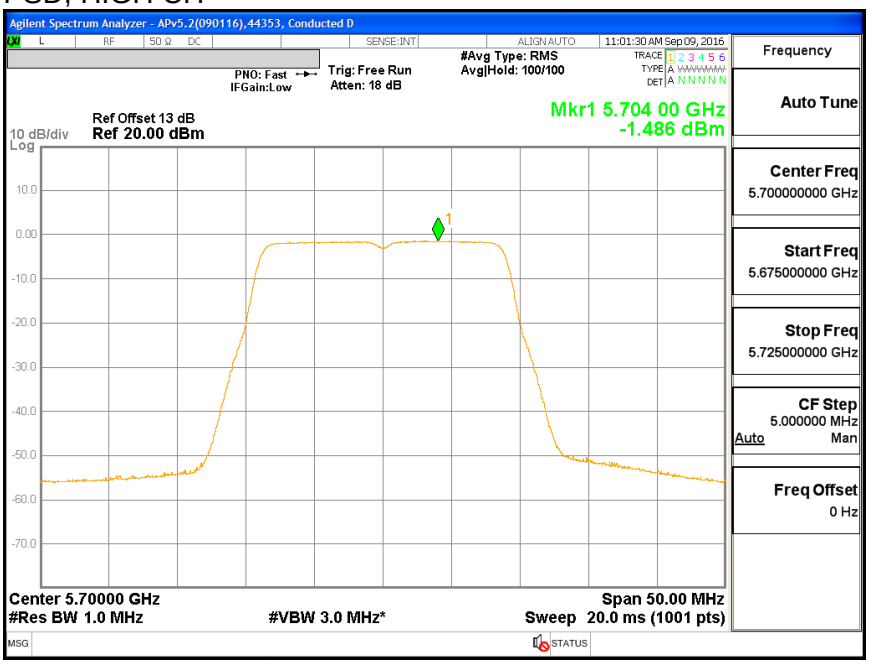
PSD, LOW CH



PSD, MID CH

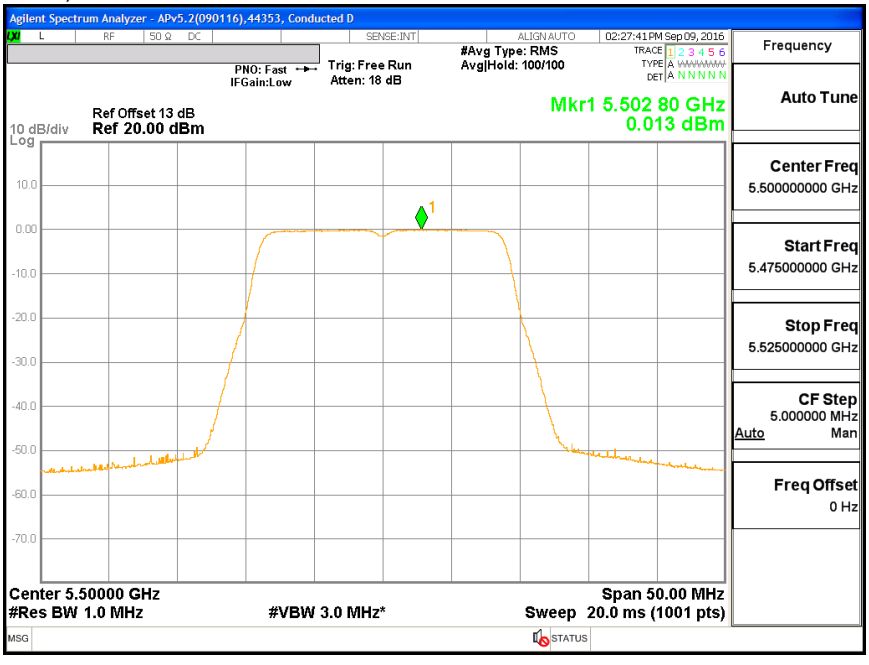


PSD, HIGH CH

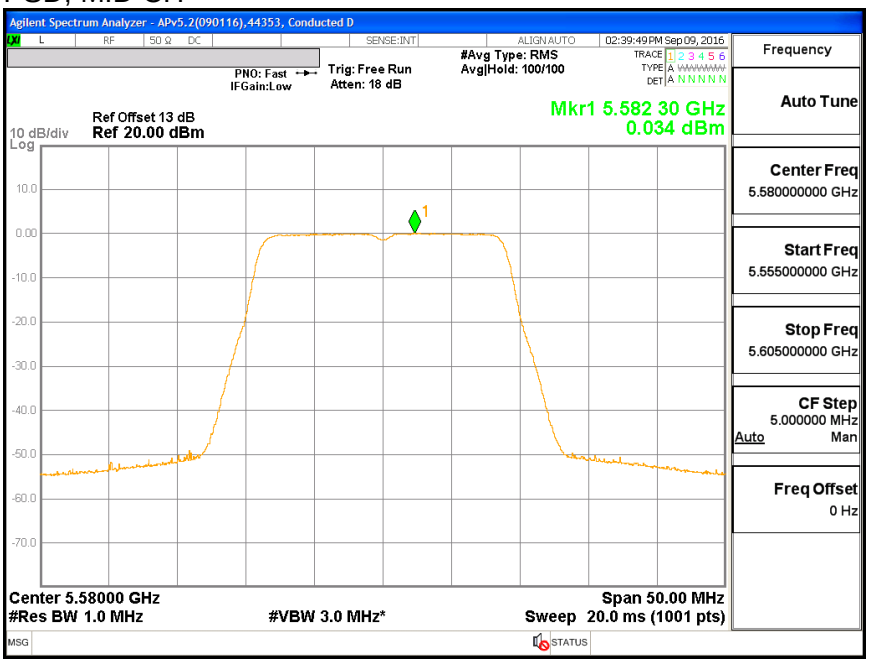


PSD, CHAIN 1

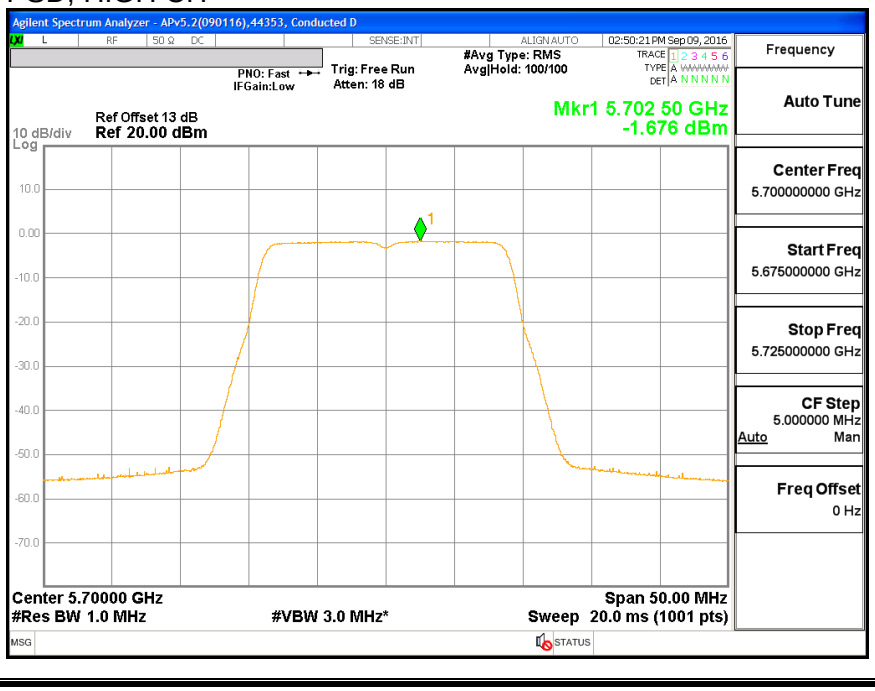
PSD, LOW CH



PSD, MID CH



PSD, HIGH CH



8.29. 802.11ac VHT20 2Tx (CHAIN 0 + CHAIN 1) BEAM FORMING STRADDLE CHANNEL 144 RESULTS (FCC)

8.29.1. 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	16.12	9.25	9.25	19.82	7.75

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

Output Power Results

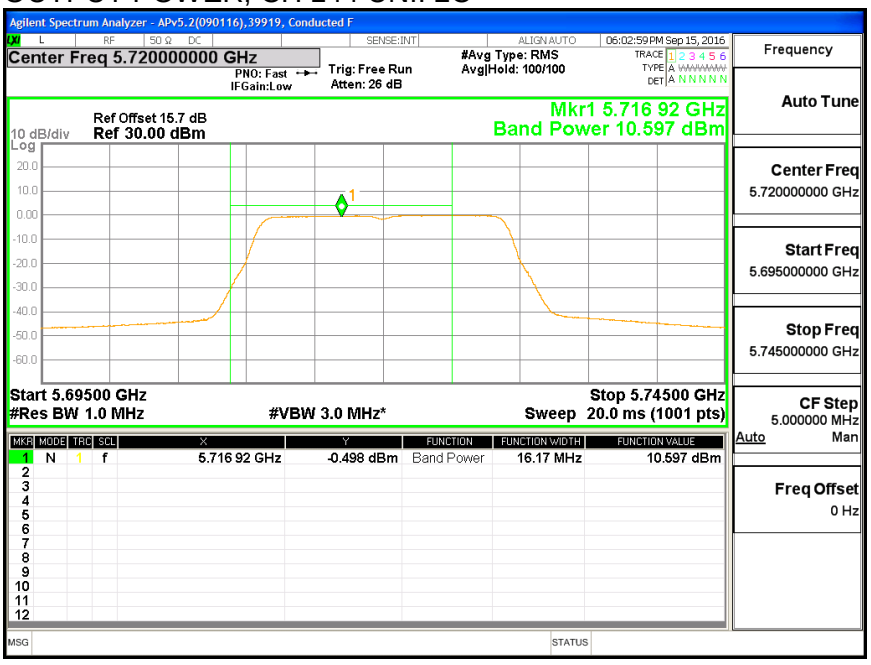
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.60	10.59	14.65	19.82	-5.17

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-0.18	-0.17	3.88	7.75	-3.87

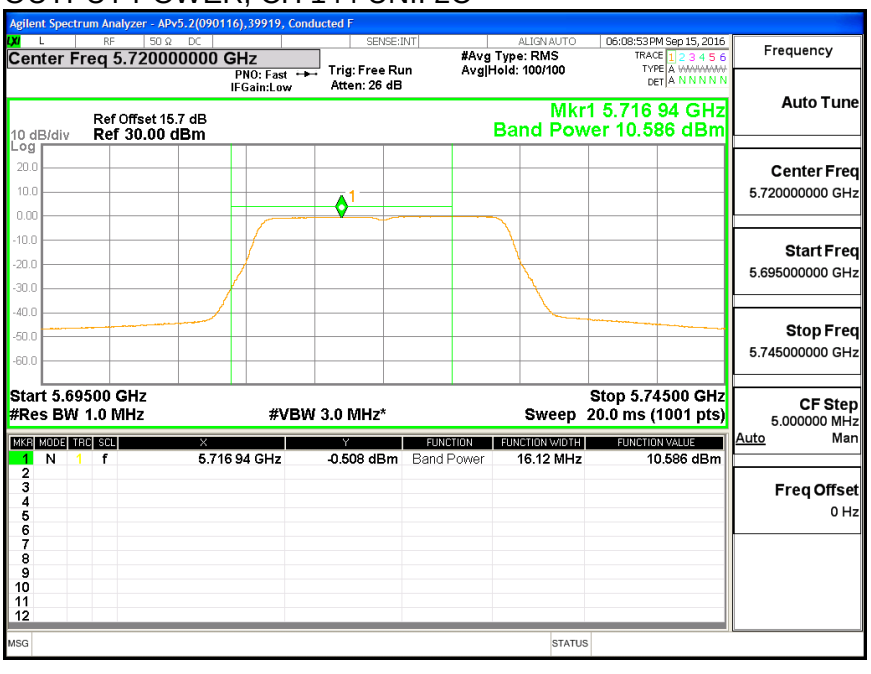
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 144 UNII 2C



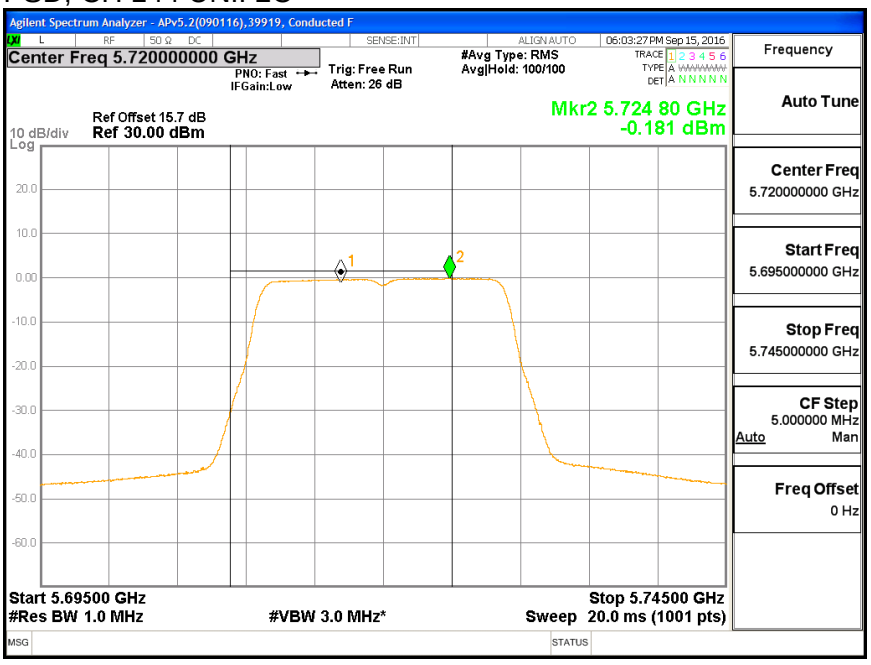
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 144 UNII 2C



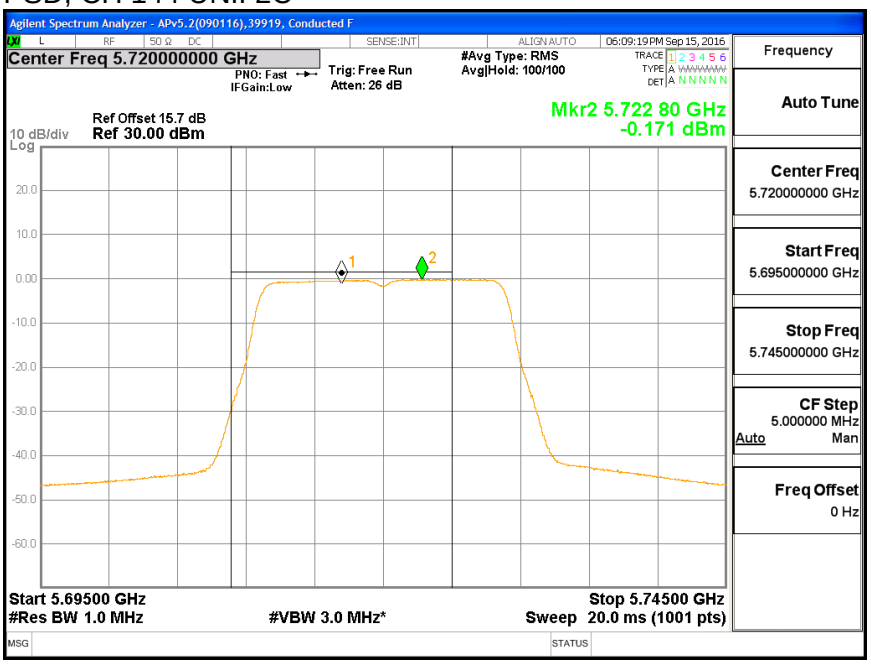
PSD, CHAIN 0

PSD, CH 144 UNII 2C



PSD, CHAIN 1

PSD, CH 144 UNII 2C



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	6.12	9.25	9.25	26.75	26.75

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

Output Power Results

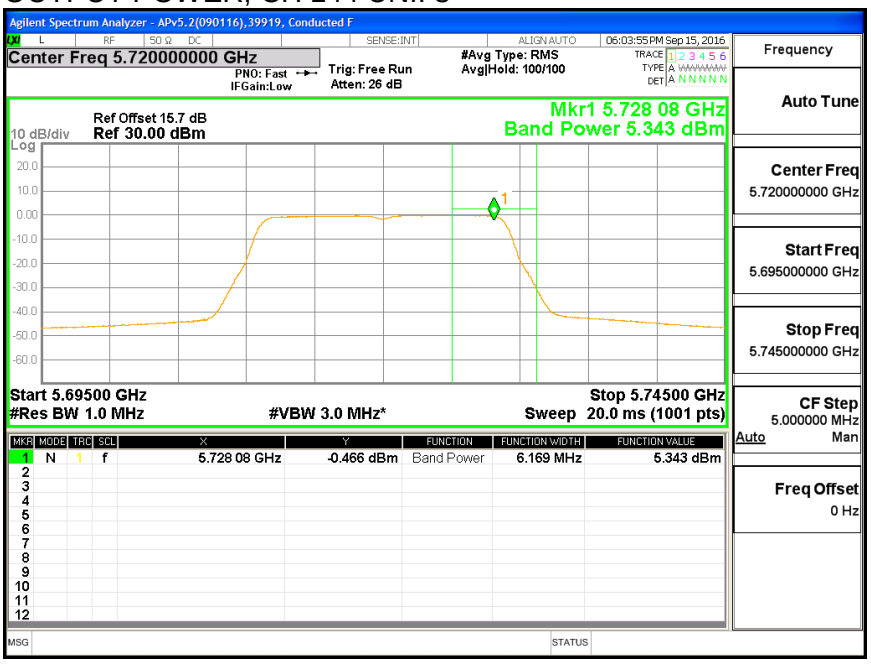
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.34	5.34	9.40	26.75	-17.35

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-3.12	-3.09	0.96	26.75	-25.79

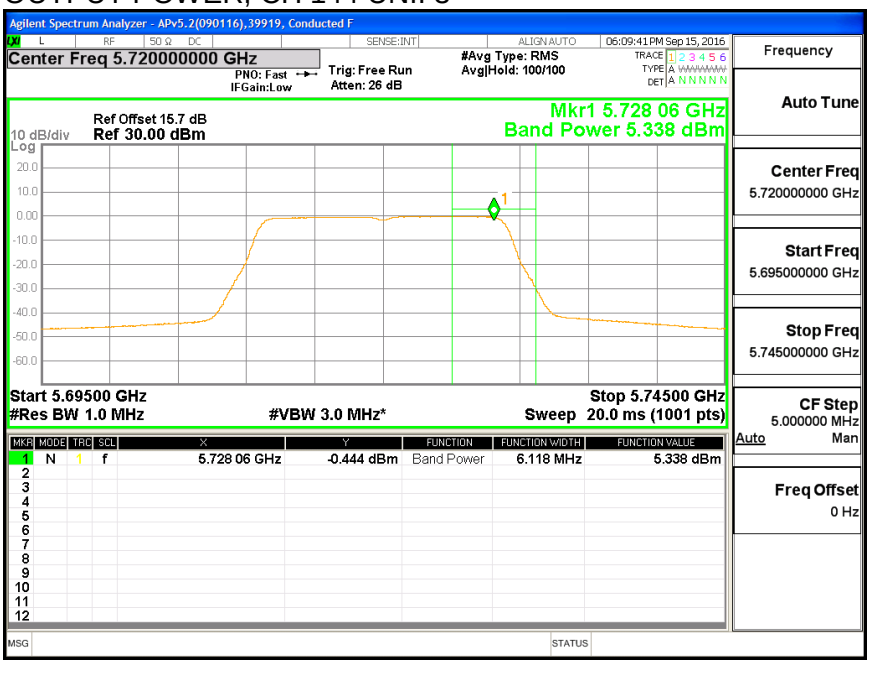
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 144 UNII 3



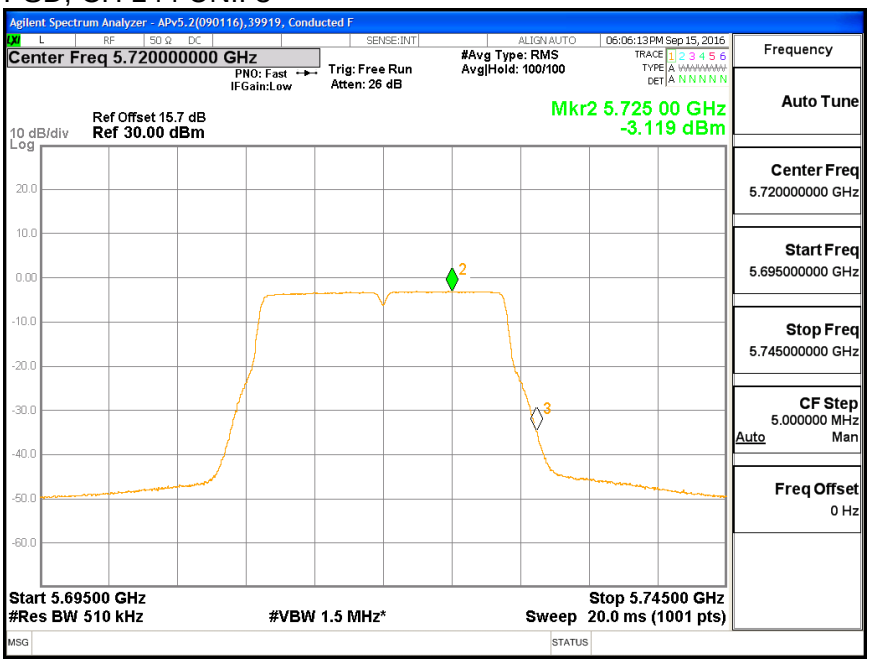
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 144 UNII 3



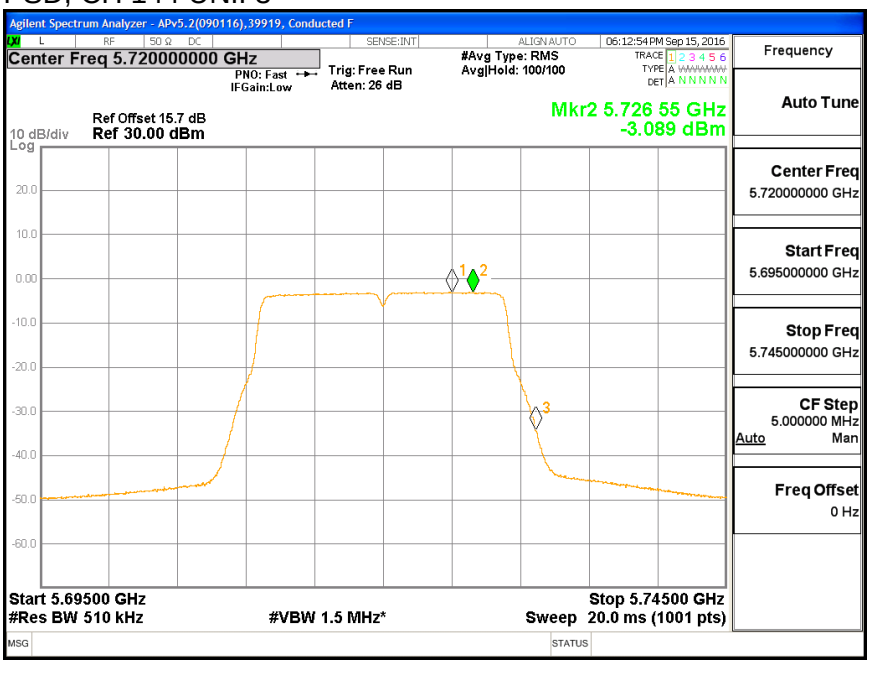
PSD, CHAIN 0

PSD, CH 144 UNII 3



PSD, CHAIN 1

PSD, CH 144 UNII 3



8.30. 802.11ac VHT20 2Tx (CHAIN 0 + CHAIN 1)BEAM FORMING STRADDLE CHANNEL 144 RESULTS (IC)

8.30.1. 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	13.890	9.25	9.25	19.18	7.75

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

Output Power Results

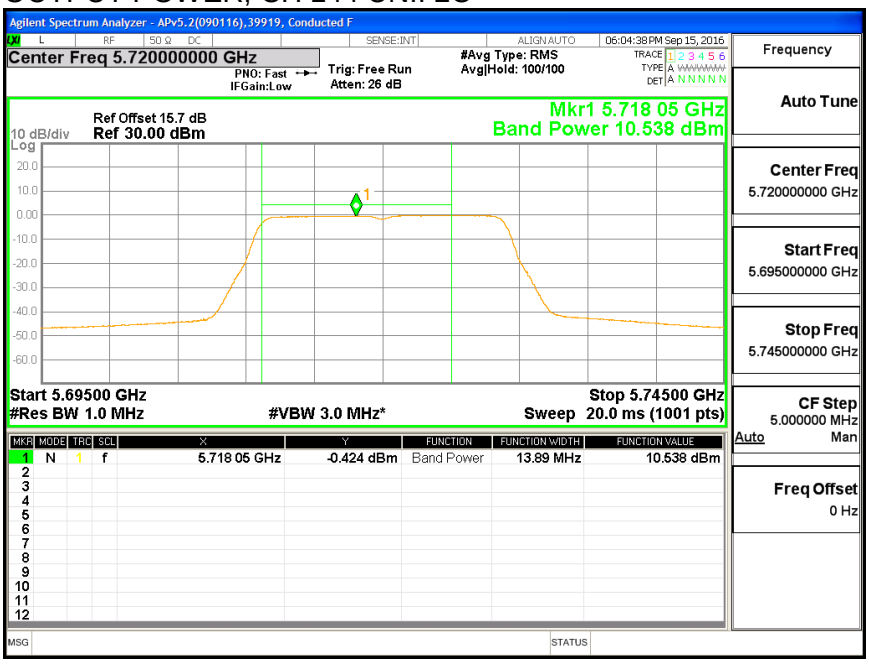
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.54	10.53	14.59	19.18	-4.58

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-0.18	-0.17	3.88	7.75	-3.87

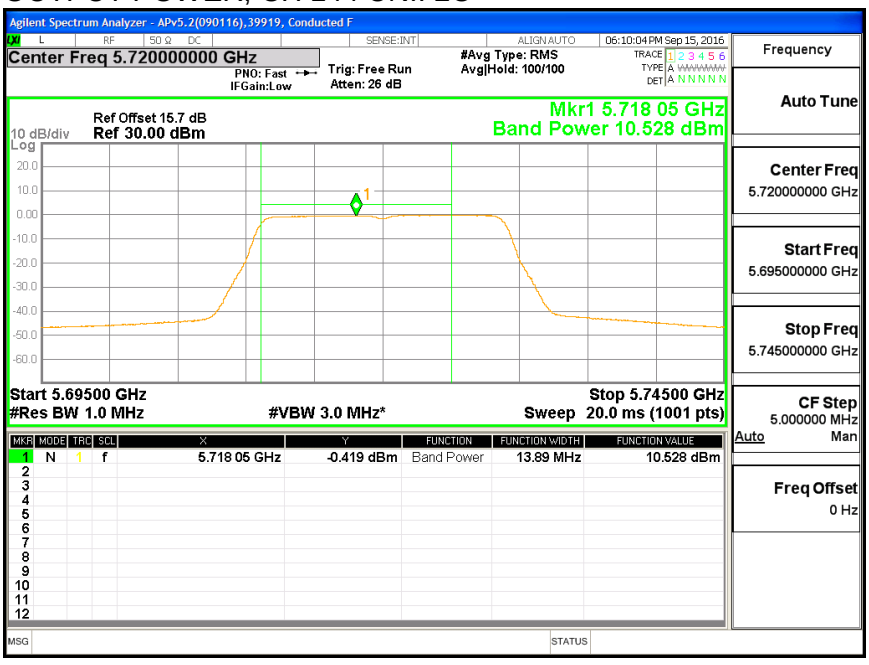
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 144 UNII 2C



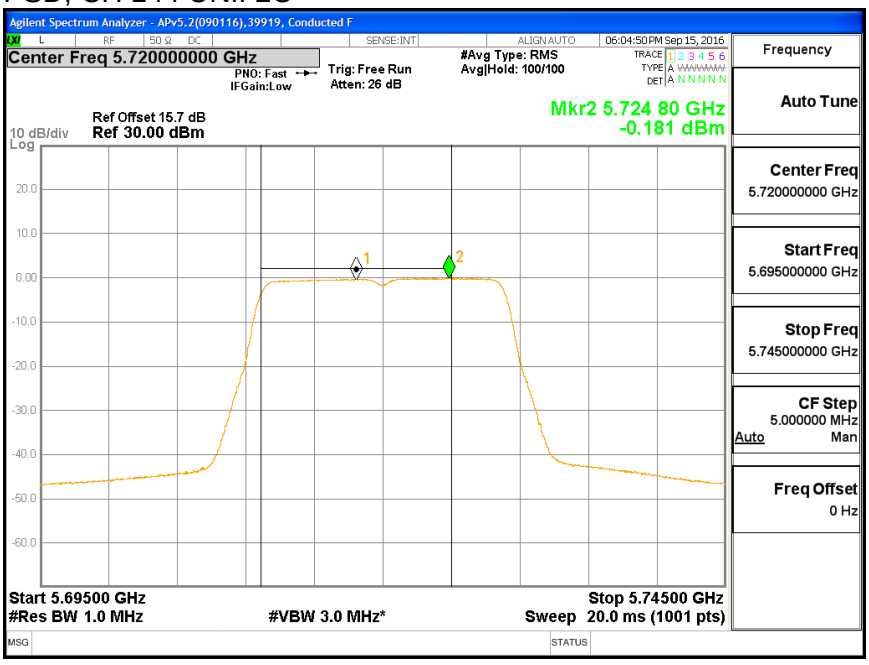
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 144 UNII 2C



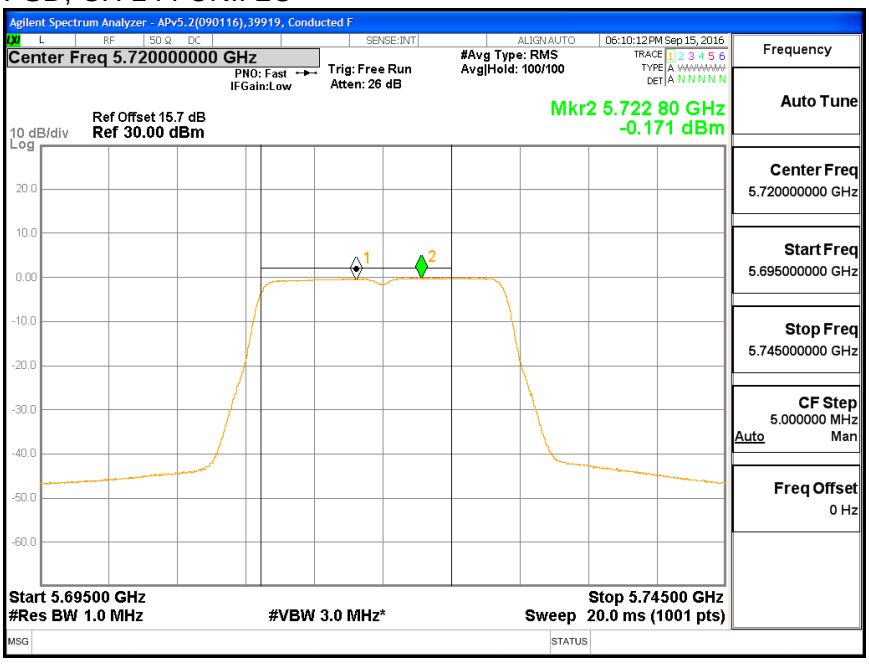
PSD, CHAIN 0

PSD, CH 144 UNII 2C



PSD, CHAIN 1

PSD, CH 144 UNII 2C



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	3.894	9.25	9.25	26.75	26.75

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

Output Power Results

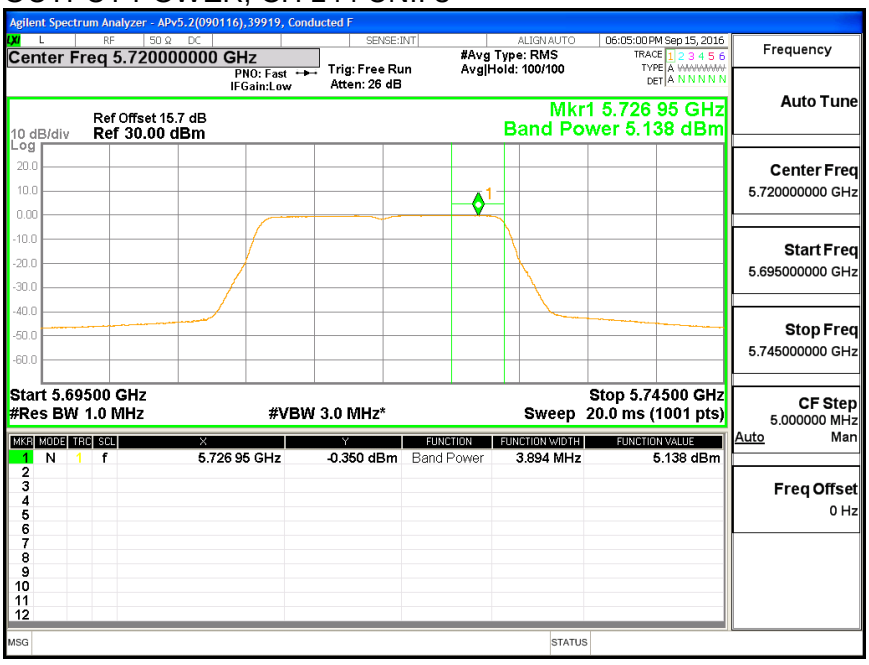
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	5.14	5.13	9.20	26.75	-17.55

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	-3.12	-3.09	0.96	26.75	-25.79

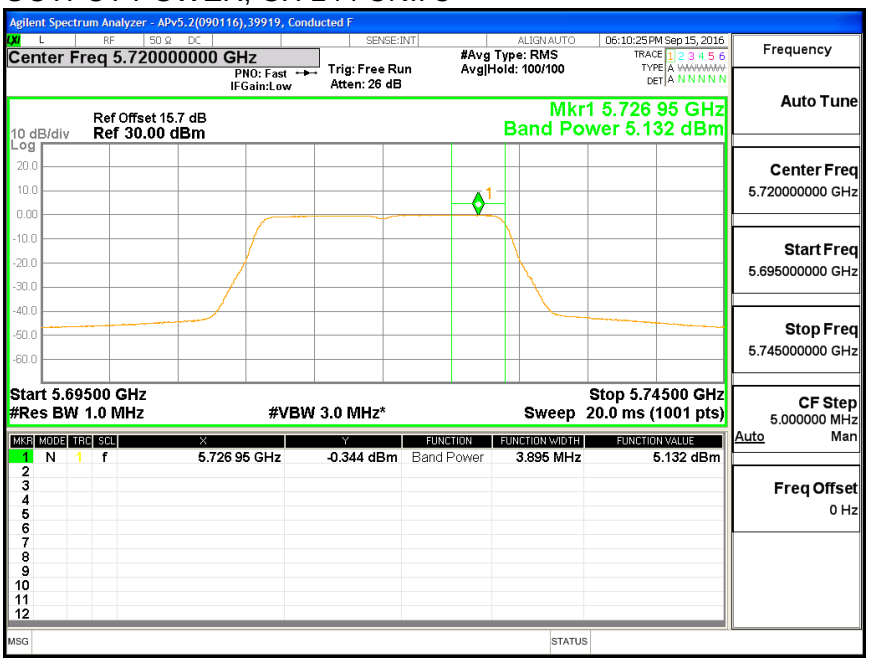
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 144 UNII 3



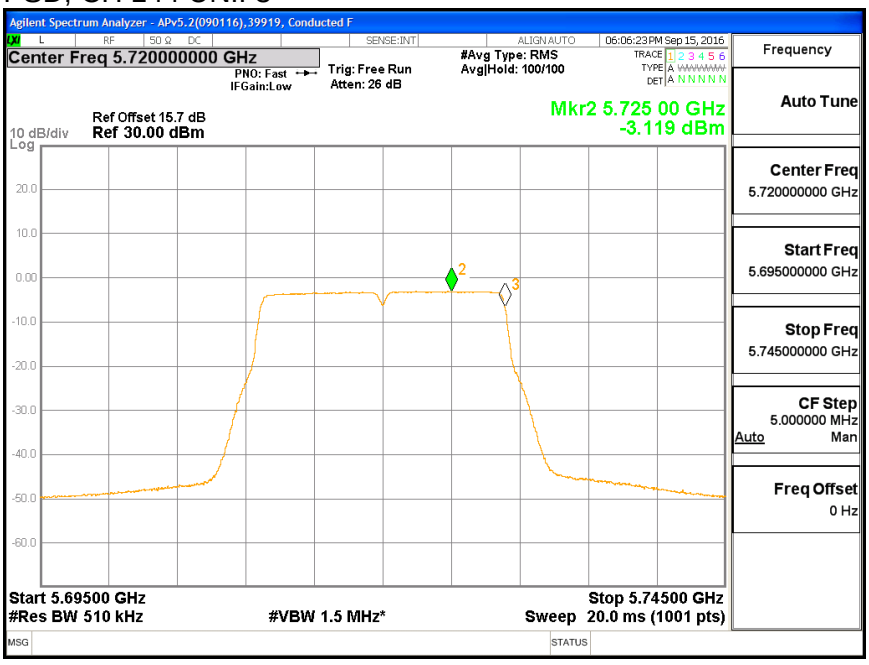
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 144 UNII 3



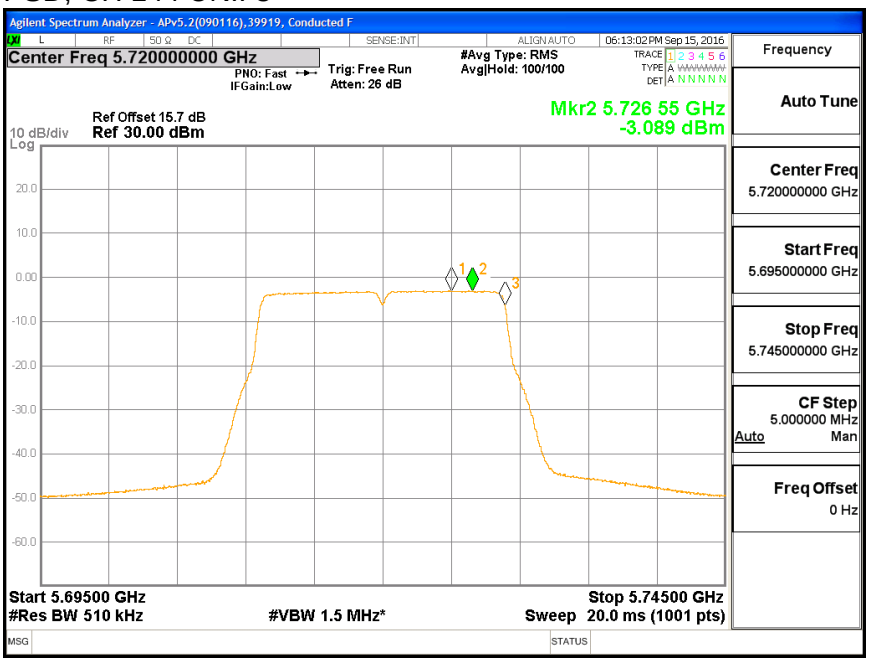
PSD, CHAIN 0

PSD, CH 144 UNII 3



PSD, CHAIN 1

PSD, CH 144 UNII 3



8.30.2. **6 dB BANDWIDTH**

LIMITS

FCC §15.407 (e)

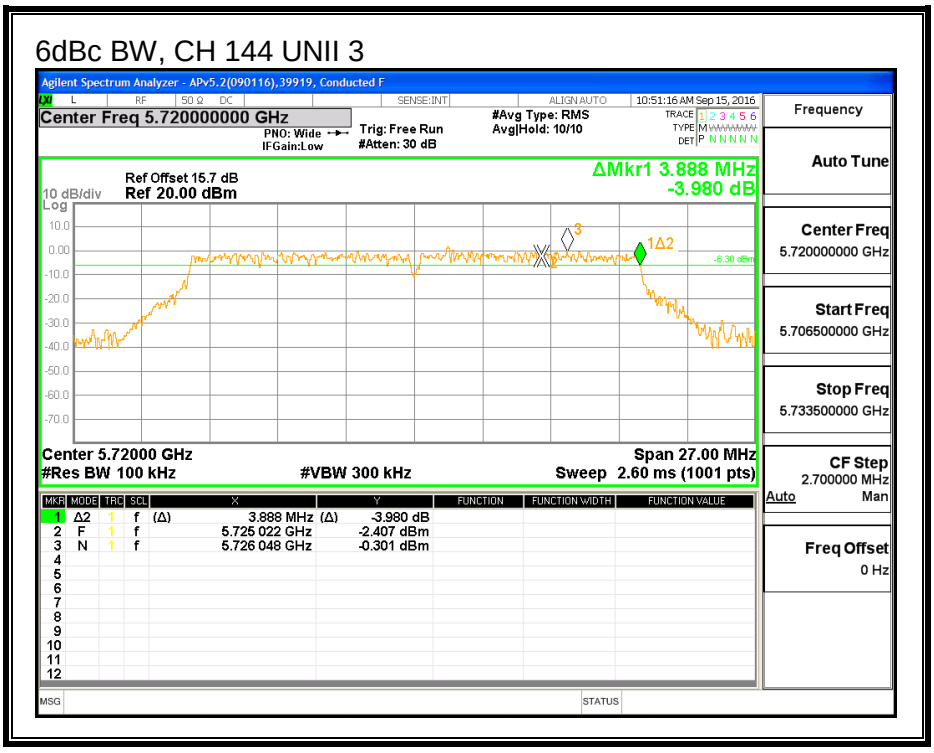
IC RSS-247 (6.2.4) (1)

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

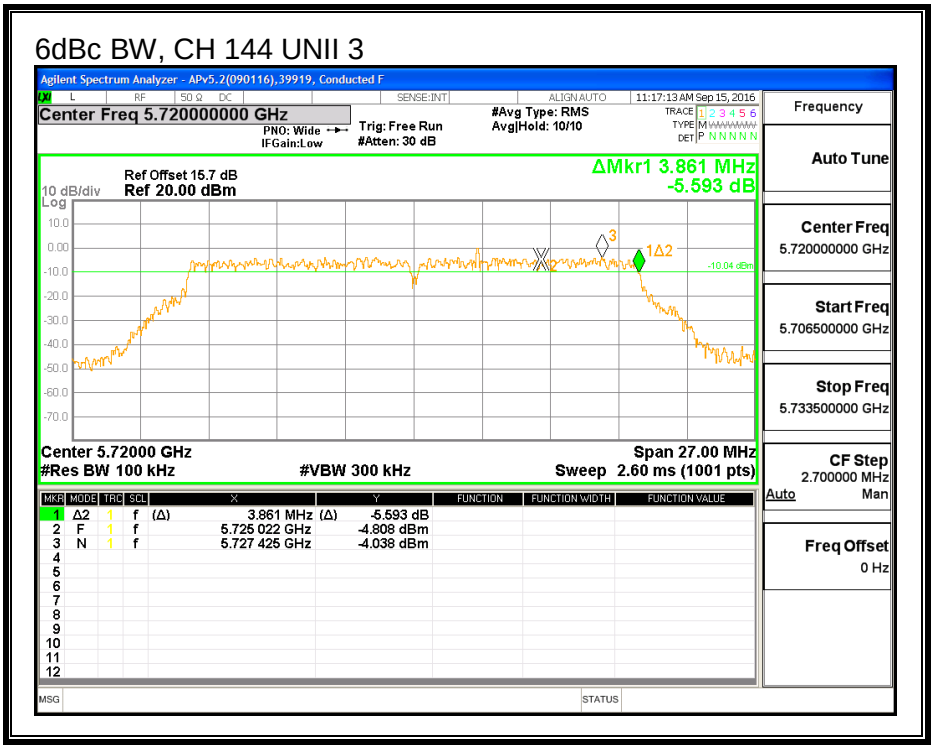
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)
144	5720	3.89	3.86

CHAIN 0



CHAIN 1



8.31. 802.11n HT20 2Tx (CHAIN 0 + CHAIN 2) BEAM FORMING MODE IN THE 5.6 GHz BAND

8.31.1. 26 dB BANDWIDTH

LIMITS

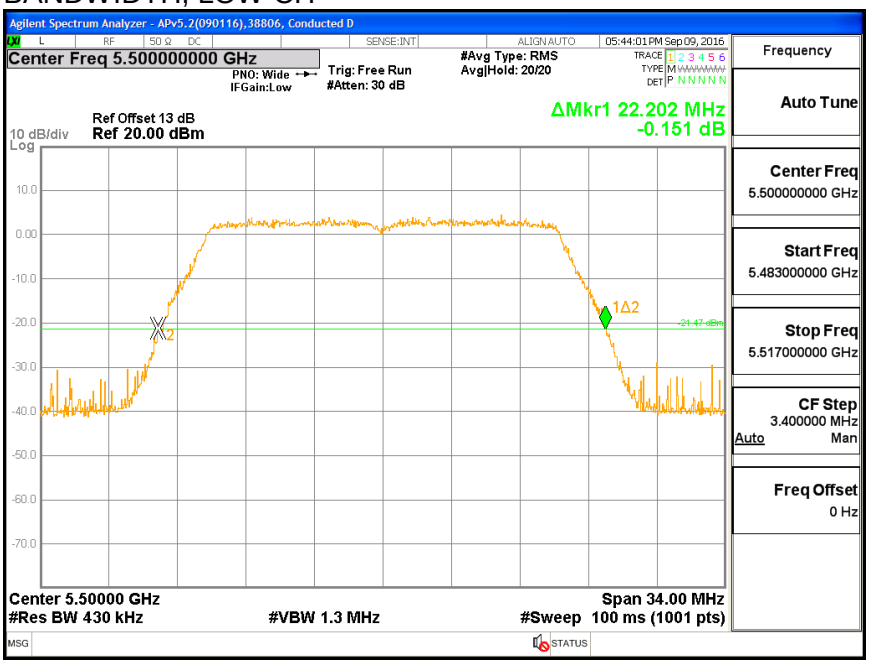
None; for reporting purposes only.

RESULTS

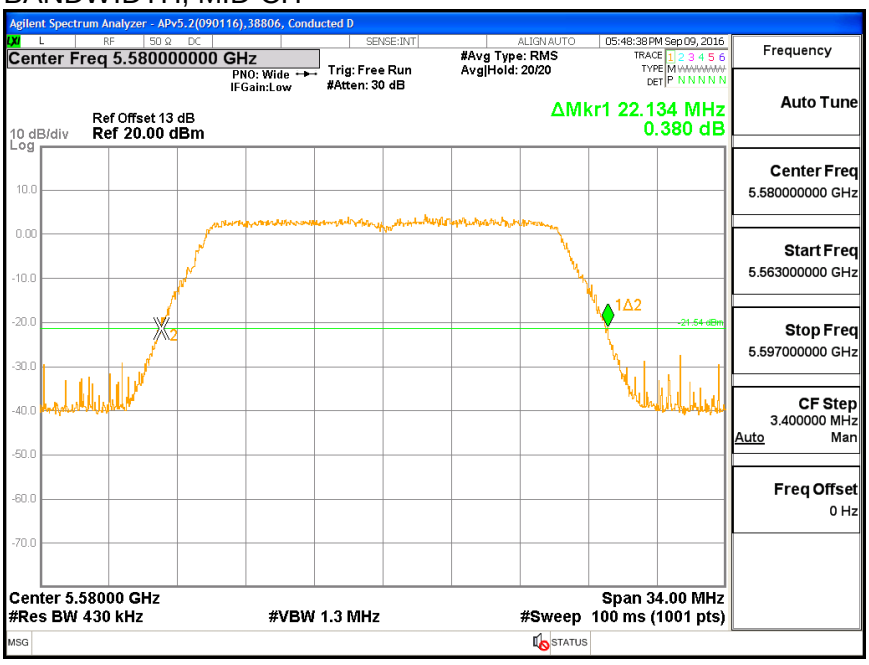
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 2 (MHz)
Low	5500	22.202	21.681
Mid	5580	22.134	21.780
High	5700	22.100	21.813
144	5720	22.304	21.846

26 dB BANDWIDTH, CHAIN 0

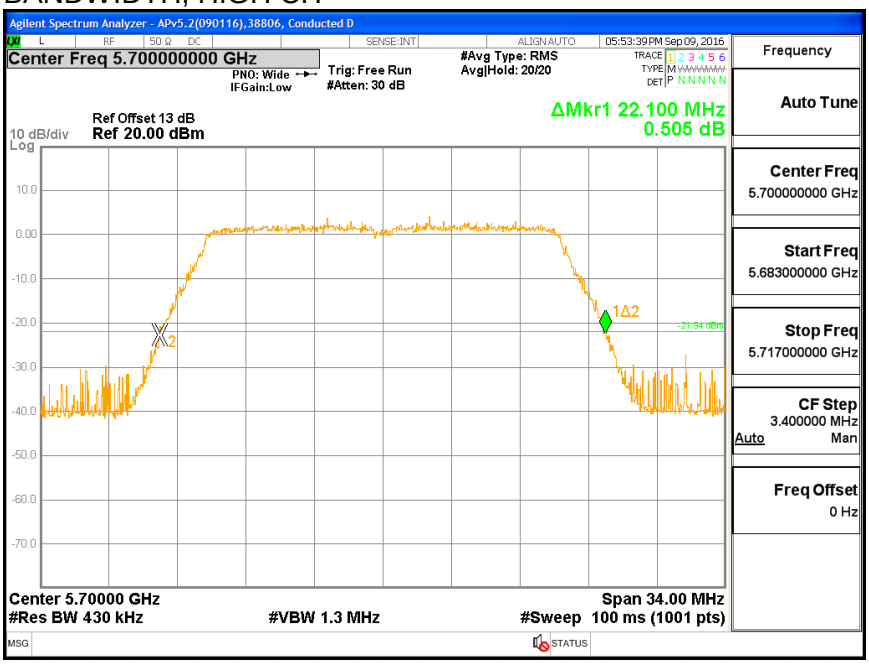
BANDWIDTH, LOW CH



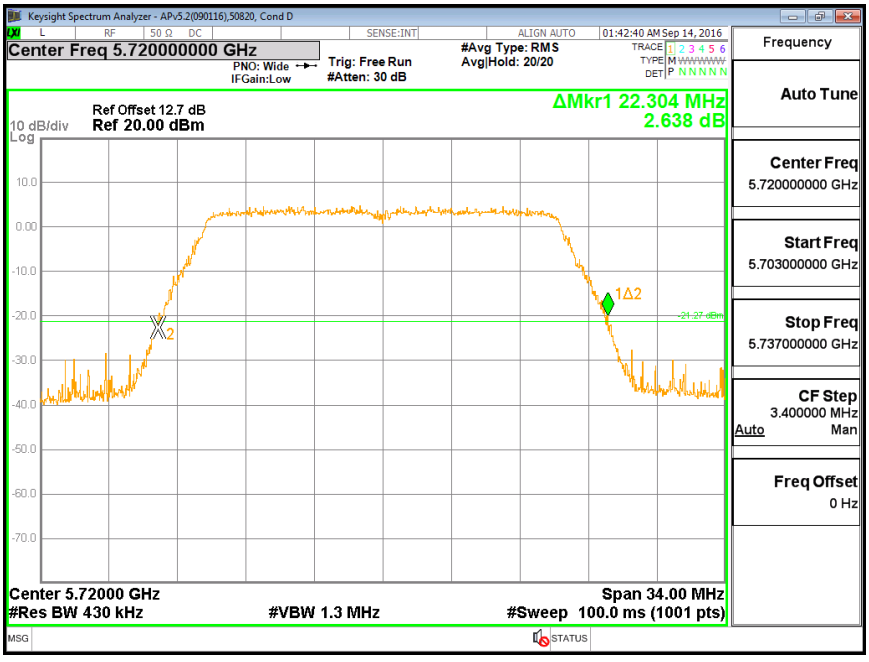
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH

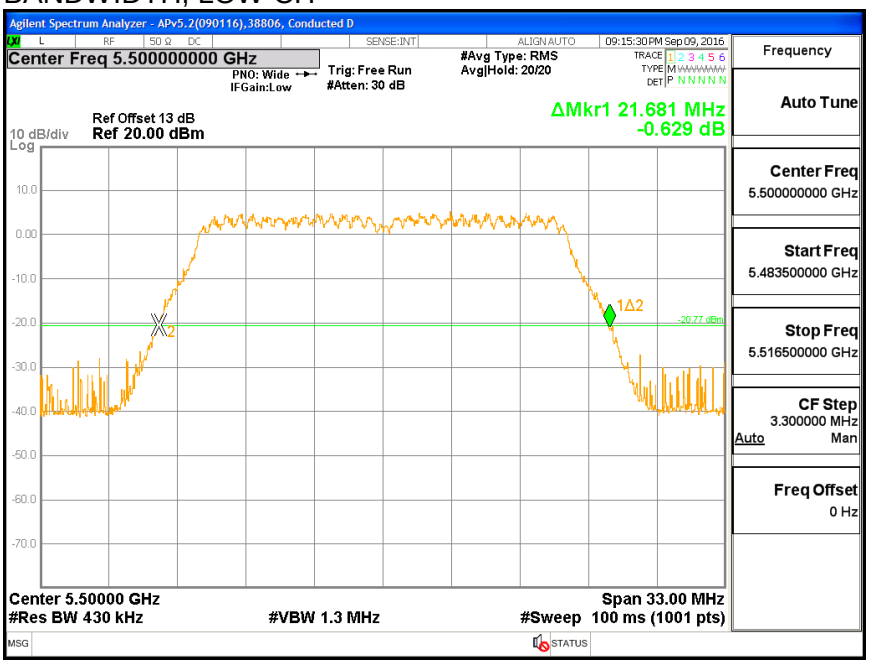


BANDWIDTH STRADDLE CH 144



26 dB BANDWIDTH, CHAIN 2

BANDWIDTH, LOW CH



BANDWIDTH, MID CH