8.86.2. 99% BANDWIDTH

LIMITS

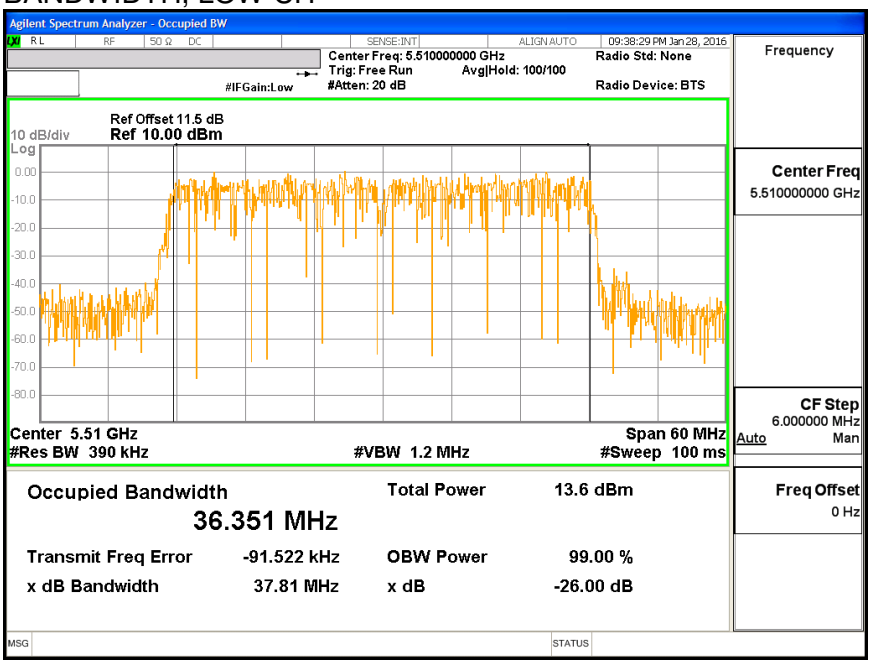
None; for reporting purposes only.

RESULTS

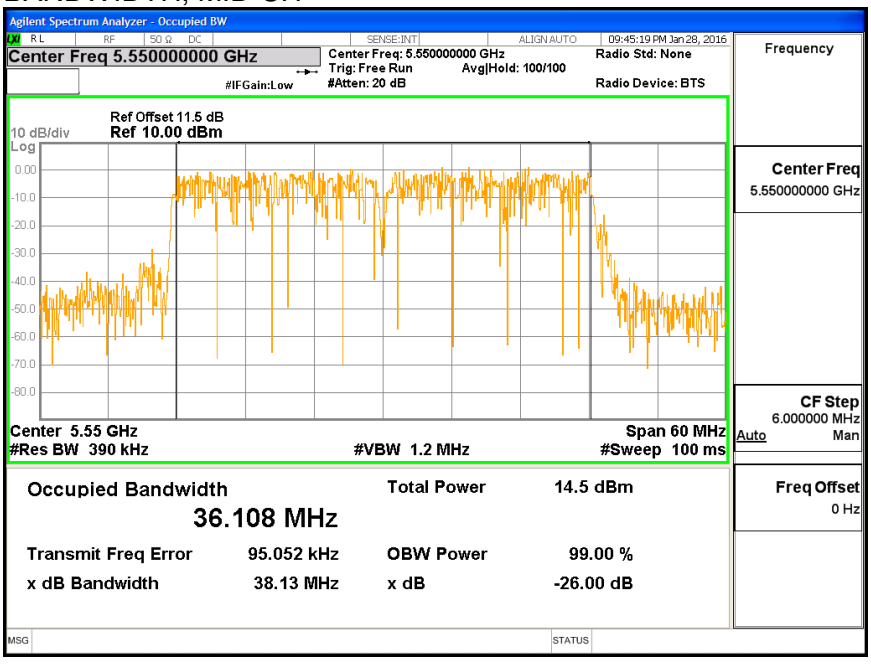
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5510	36.351
Mid	5550	36.108
High	5670	36.257
142	5710	36.220

99% BANDWIDTH

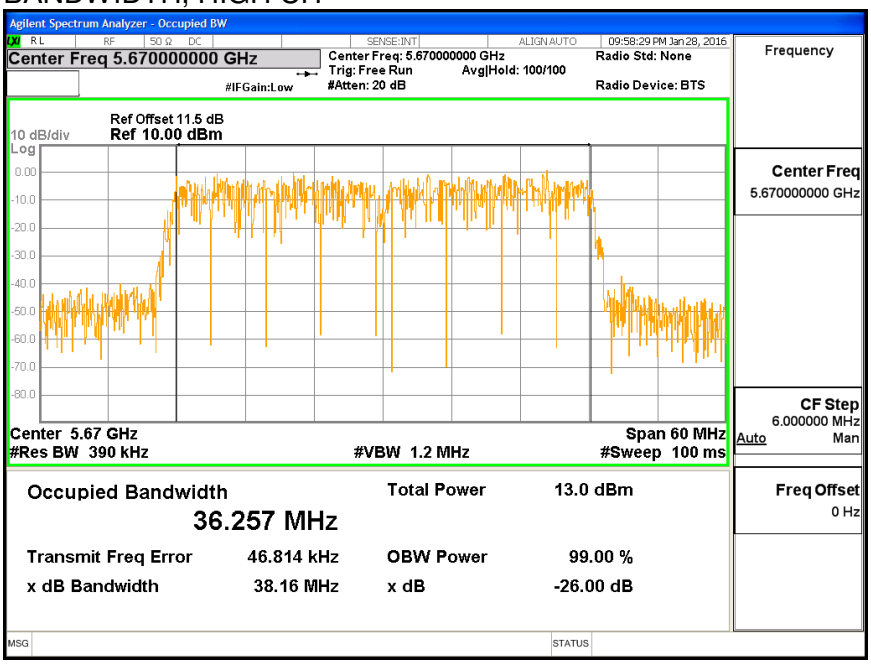
BANDWIDTH, LOW CH



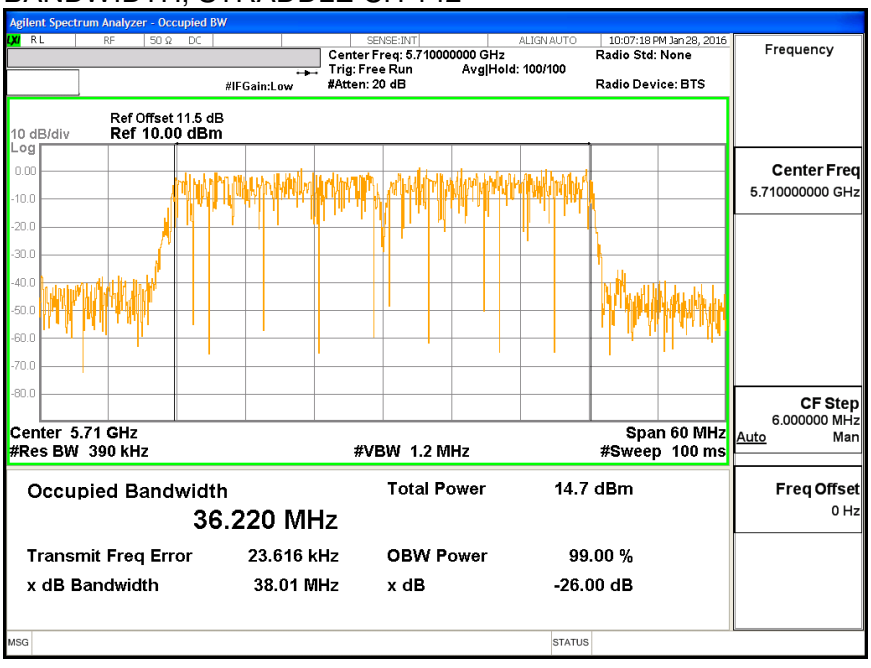
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



BANDWIDTH, STRADDLE CH 142



8.86.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5510	13.90
Mid	5550	14.94
High	5670	14.93
142	5710	14.87

8.86.4. 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 peak power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5510	40.56	36.351	4.16	24.00	11.00
Mid	5550	40.56	36.108	4.16	24.00	11.00
High	5670	40.62	36.257	4.16	24.00	11.00

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

Output Power Results

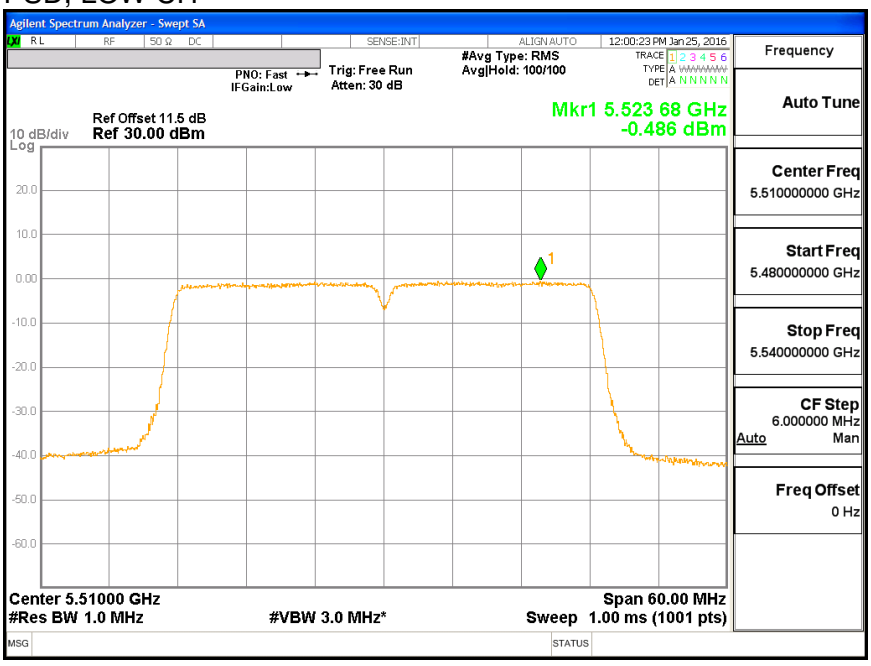
Channel	Frequency (MHz)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	13.90	13.90	24.00	-10.10
Mid	5550	14.94	14.94	24.00	-9.06
High	5670	14.93	14.93	24.00	-9.07

PSD Results

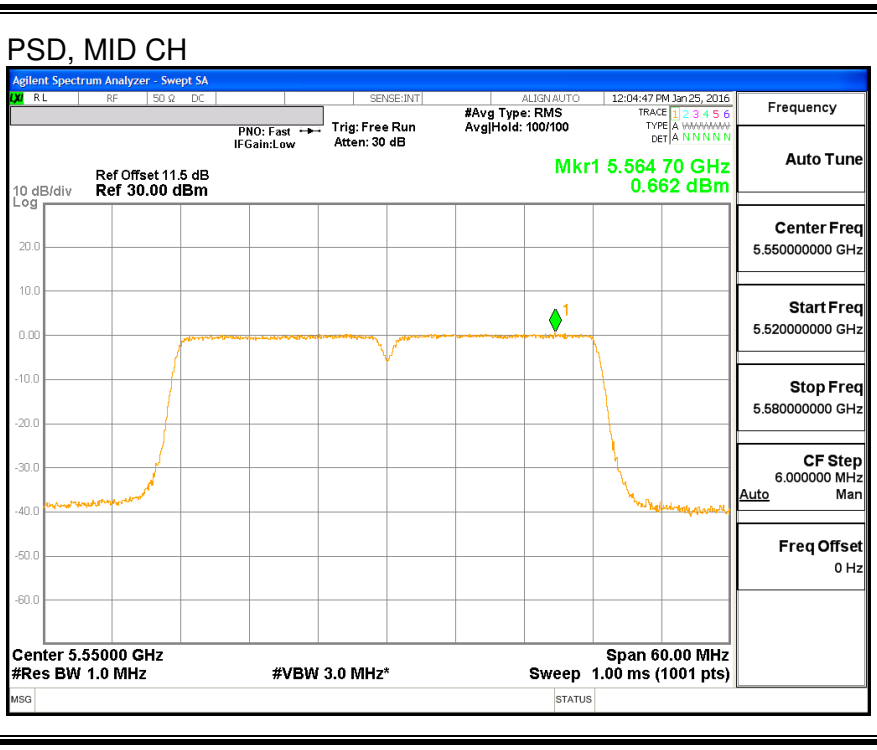
Channel	Frequency (MHz)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	-0.49	-0.49	11.00	-11.49
Mid	5550	0.66	0.66	11.00	-10.34
High	5670	0.40	0.40	11.00	-10.60

PSD

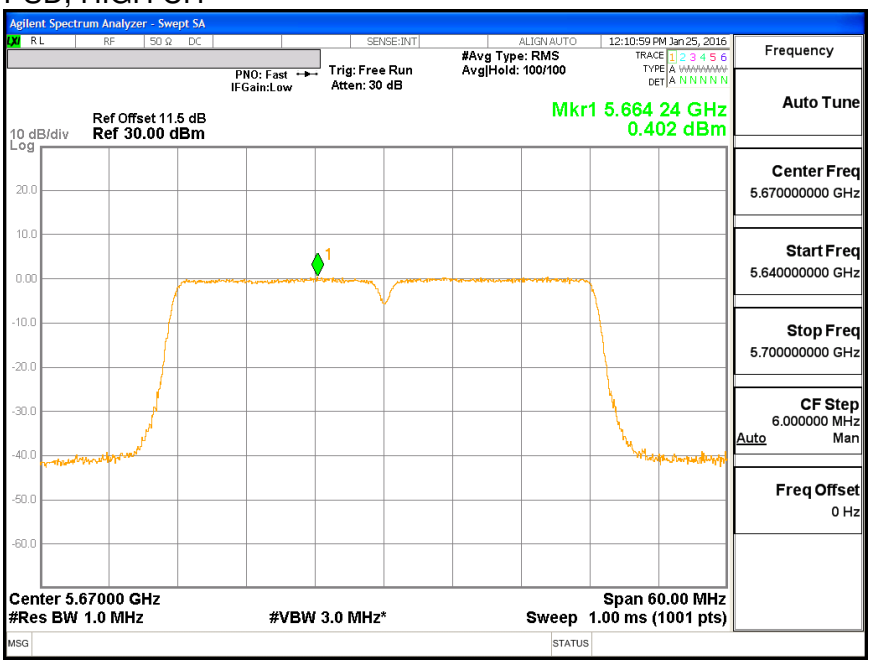
PSD, LOW CH



PSD, MID CH



PSD, HIGH CH



8.87. 802.11ac VHT40 ANTENNA - C STRADDLE CH 142 RESULTS

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)
142	5710	35.19	4.16	4.16	24.00	11.00

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

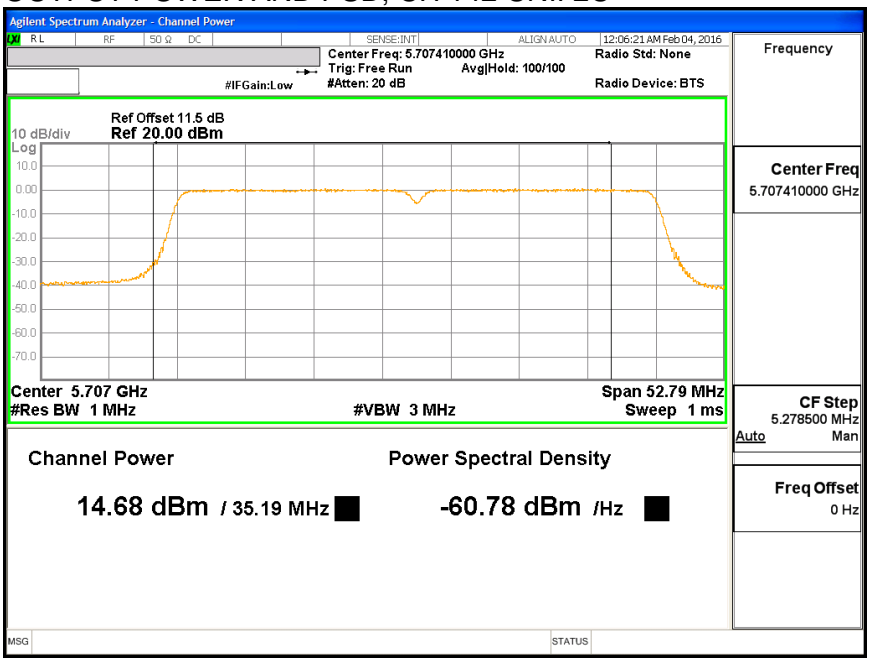
Output Power Results

Channel	Frequency (MHz)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	14.68	14.68	24.00	-9.32

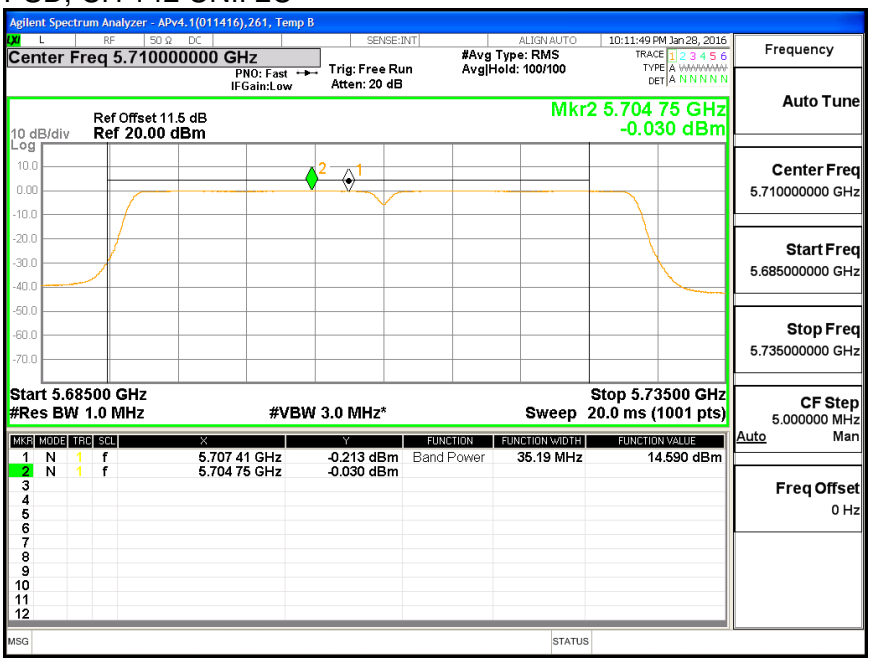
PSD Results

Channel	Frequency (MHz)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-0.03	-0.03	11.00	-11.03

OUTPUT POWER AND PSD, CH 142 UNII 2C



PSD, CH 142 UNII 2C



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
142	5710	5.19	4.16	30.00	30.00

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

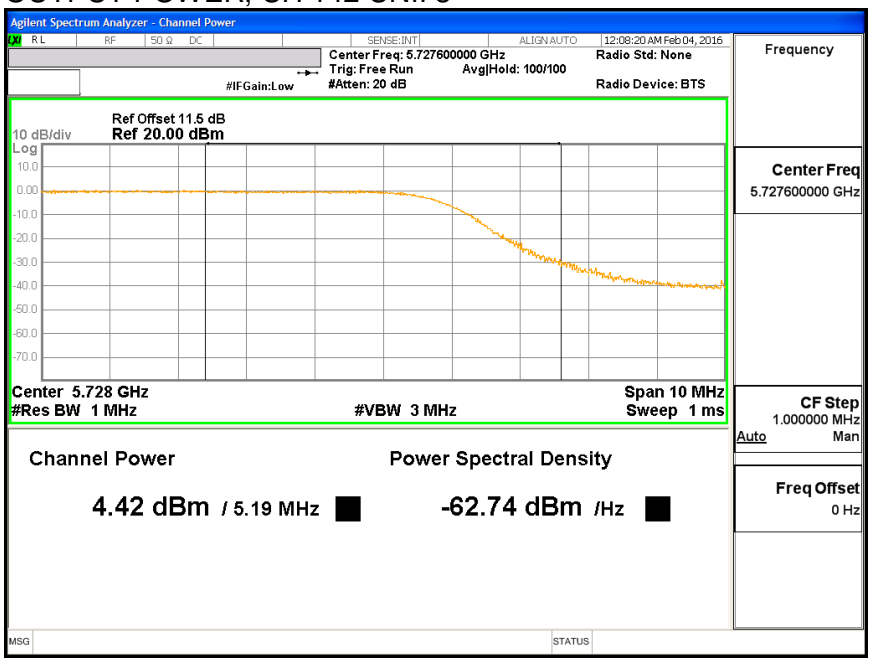
Output Power Results

Channel	Frequency (MHz)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	4.42	4.42	30.00	-25.58

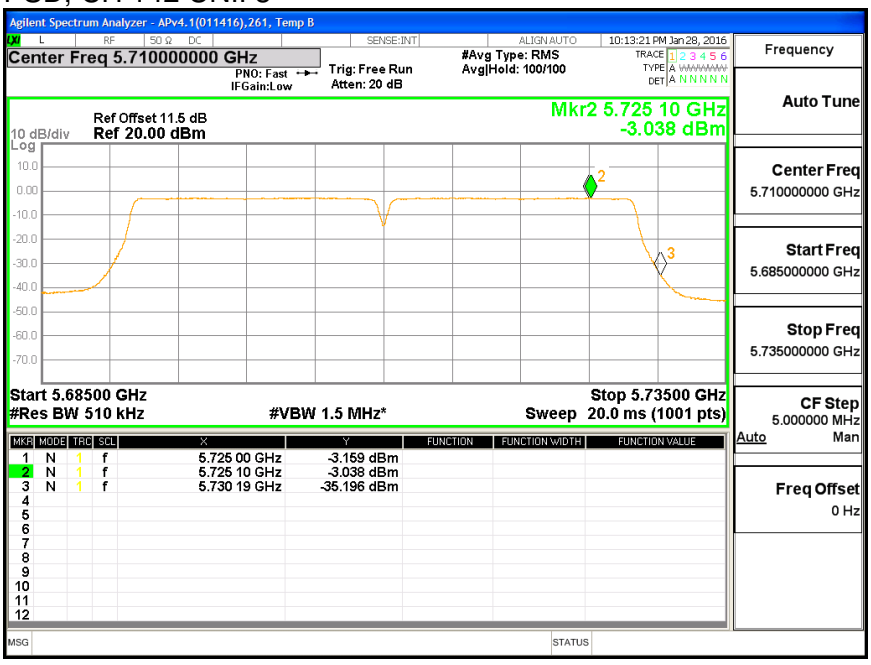
PSD Results

Channel	Frequency (MHz)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-3.04	-3.04	30.00	-33.04

OUTPUT POWER, CH 142 UNII 3



PSD, CH 142 UNII 3



8.87.1. 6 dB BANDWIDTH

LIMITS

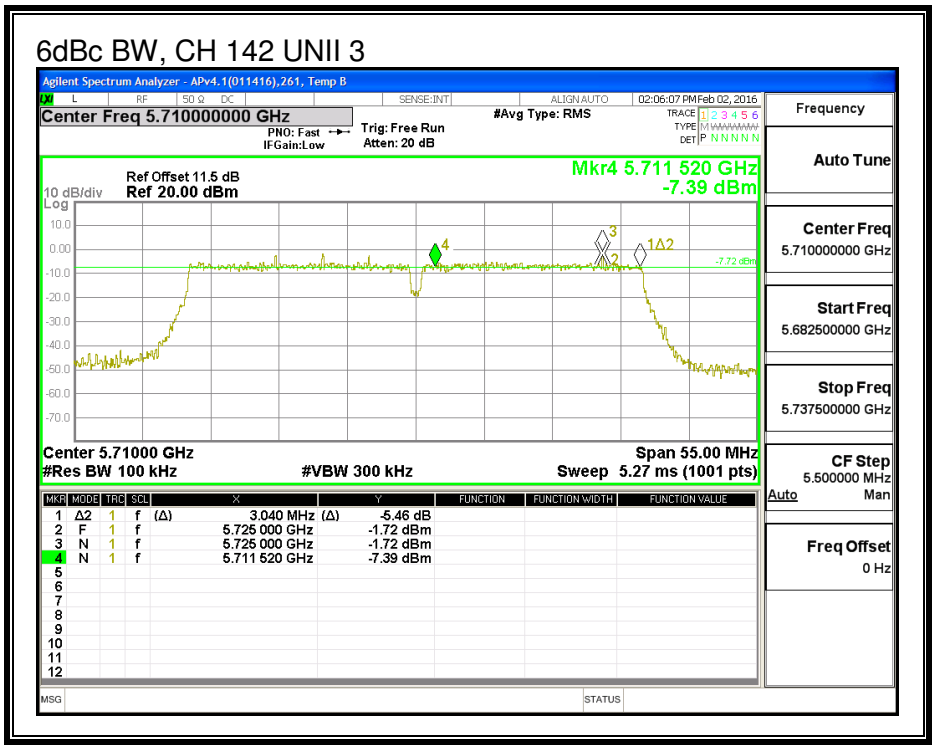
FCC §15.407 (e)

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

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
142	5710	3.04

6 dB BANDWIDTH



8.88. 802.11n HT40 ANTENNA B+A CDD MODE IN THE 5.6 GHz BAND

8.88.1. 26 dB BANDWIDTH

LIMITS

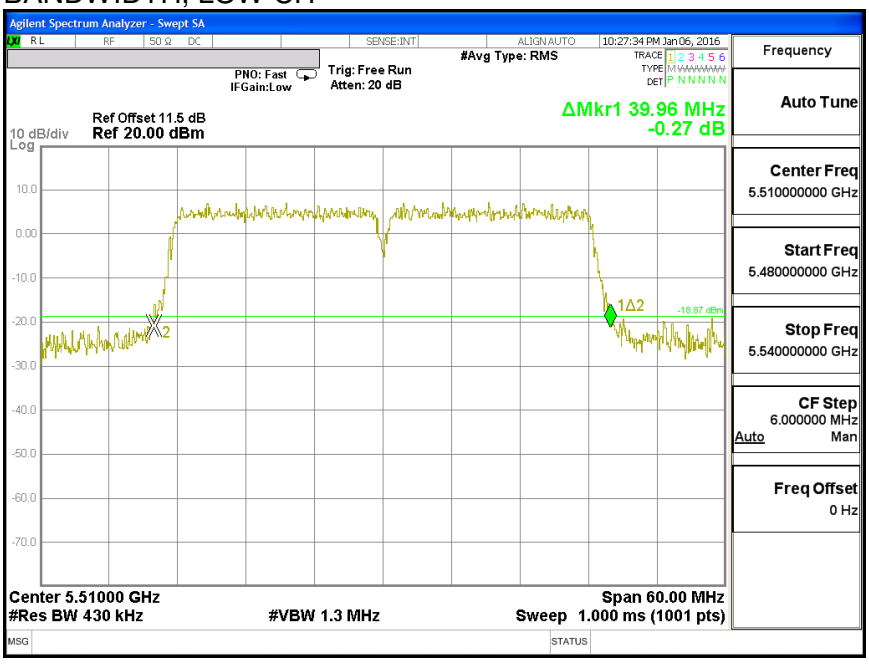
None; for reporting purposes only.

RESULTS

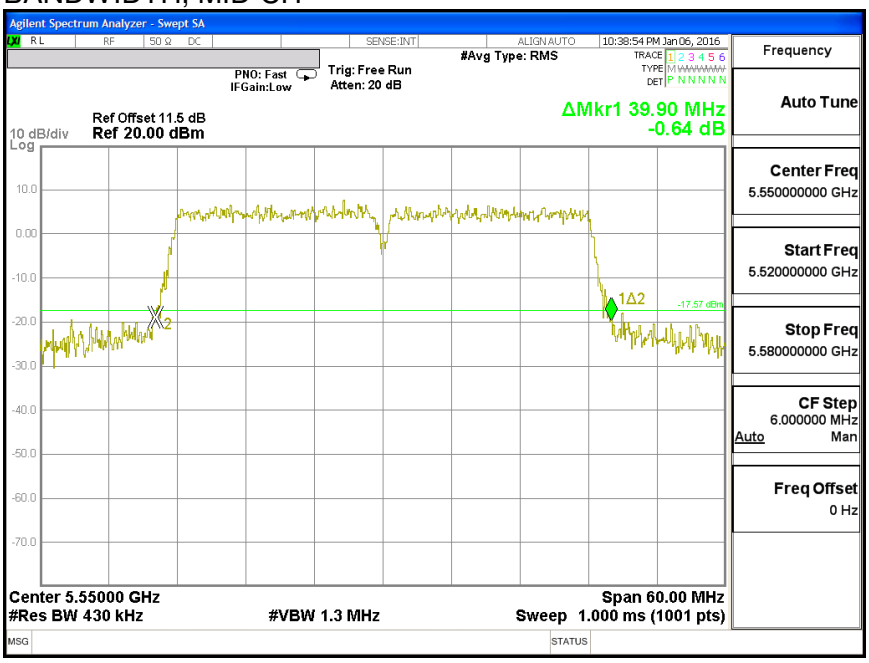
Channel	Frequency (MHz)	26 dB BW Antenna B (MHz)	26 dB BW Antenna A (MHz)
Low	5510	39.96	39.66
Mid	5550	39.90	39.60
High	5670	40.02	39.72
142	5710	39.48	39.66

26 dB BANDWIDTH, ANTENNA - B

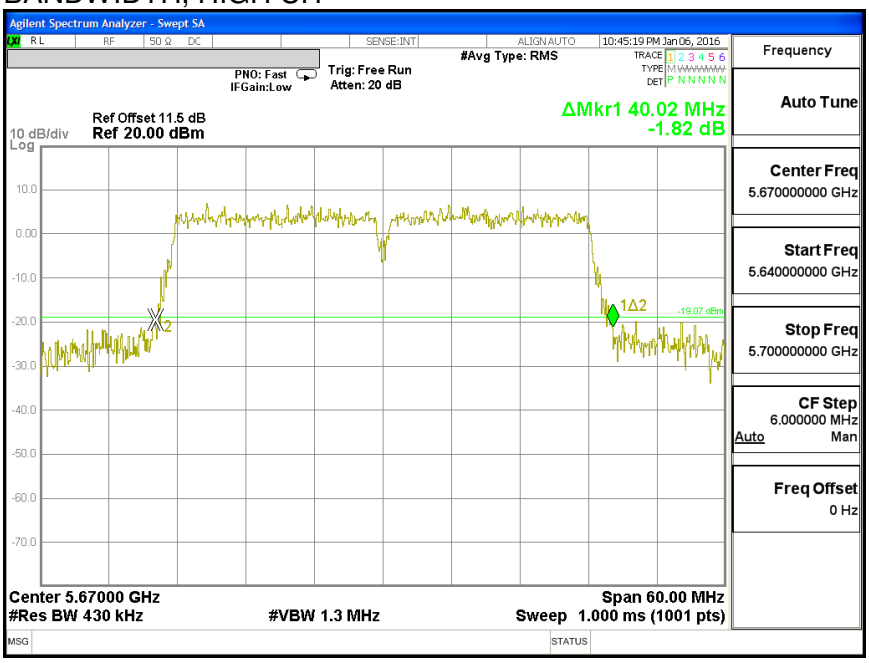
BANDWIDTH, LOW CH



BANDWIDTH, MID CH



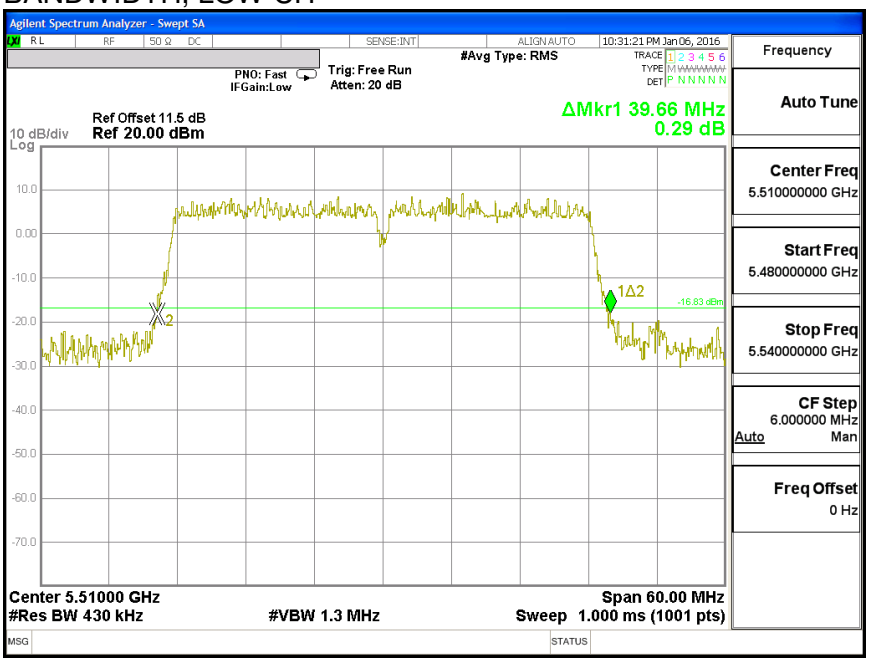
BANDWIDTH, HIGH CH



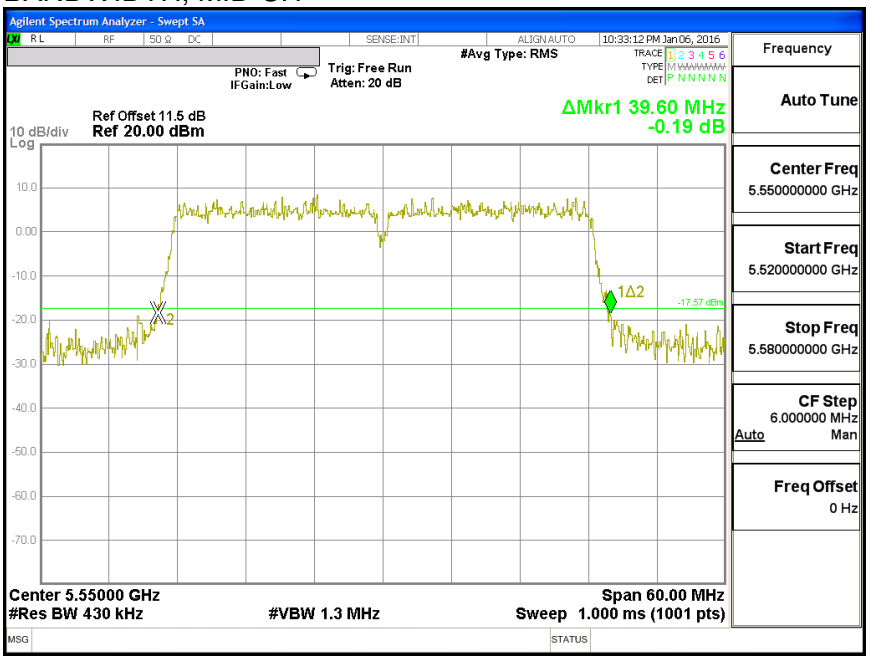
BANDWIDTH, STRADDLE CH 142

26 dB BANDWIDTH, ANTENNA - A

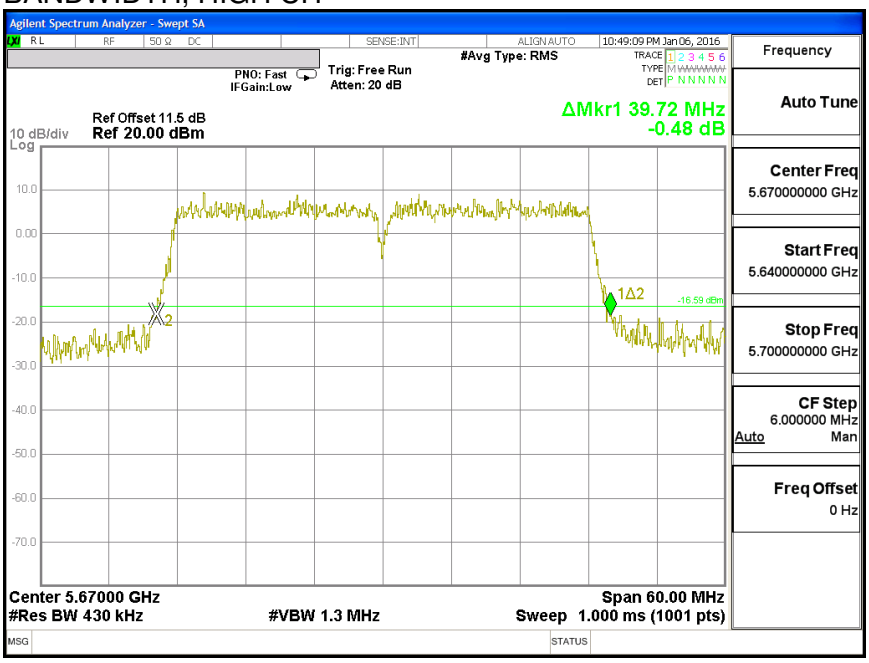
BANDWIDTH, LOW CH



BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



BANDWIDTH, STRADDLE CH 142

8.88.2. 99% BANDWIDTH

LIMITS

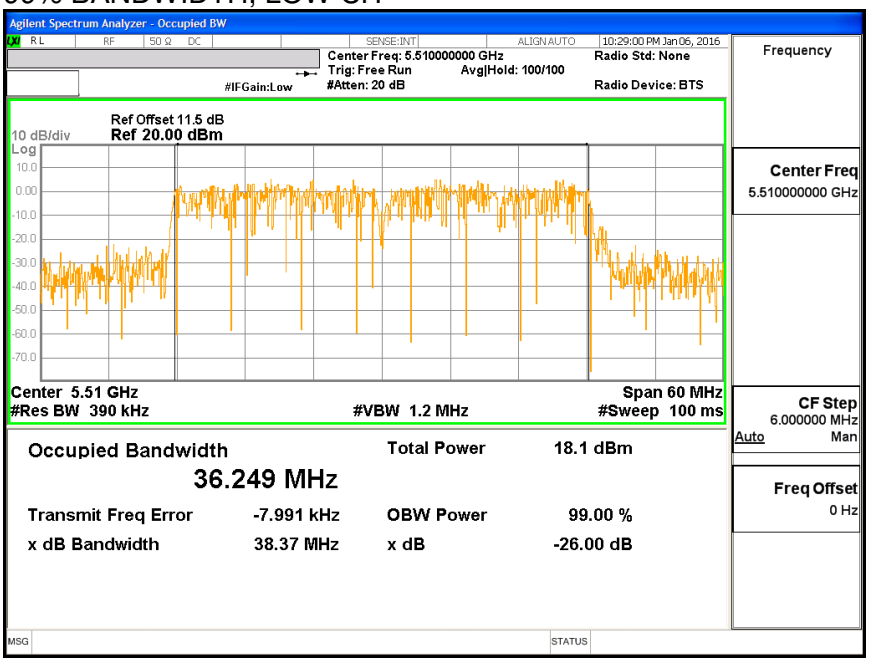
None; for reporting purposes only.

RESULTS

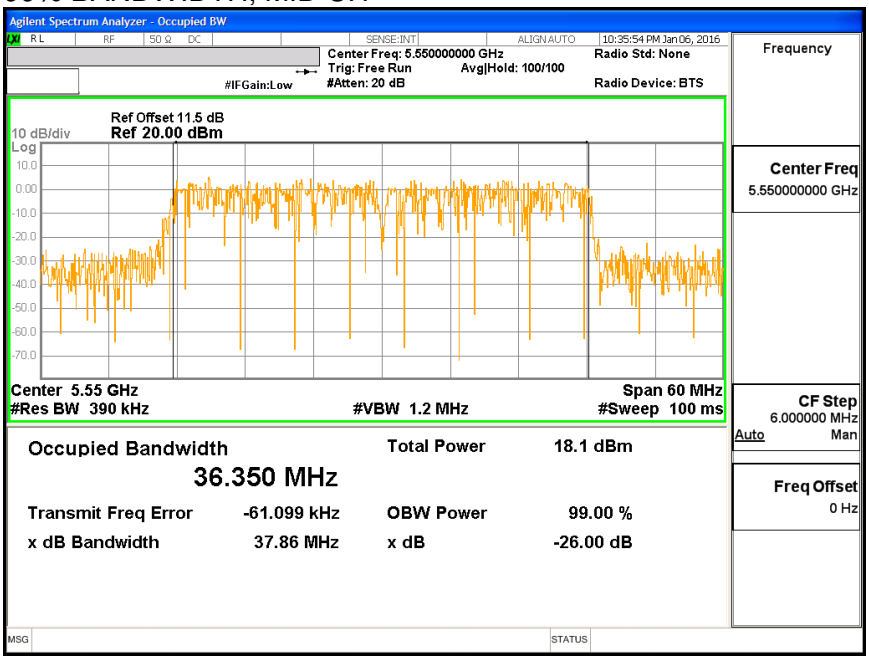
Channel	Frequency (MHz)	99% BW Antenna B (MHz)	99% BW Antenna A (MHz)
Low	5510	36.249	36.474
Mid	5550	36.350	36.297
High	5670	36.354	36.290
142	5710	36.299	36.341

99% BANDWIDTH, ANTENNA - B

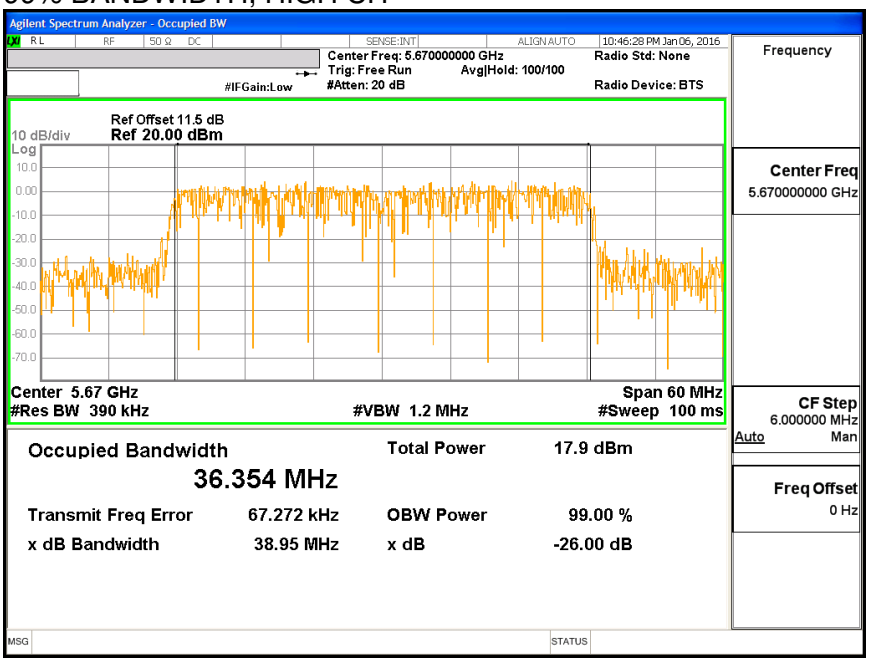
99% BANDWIDTH, LOW CH



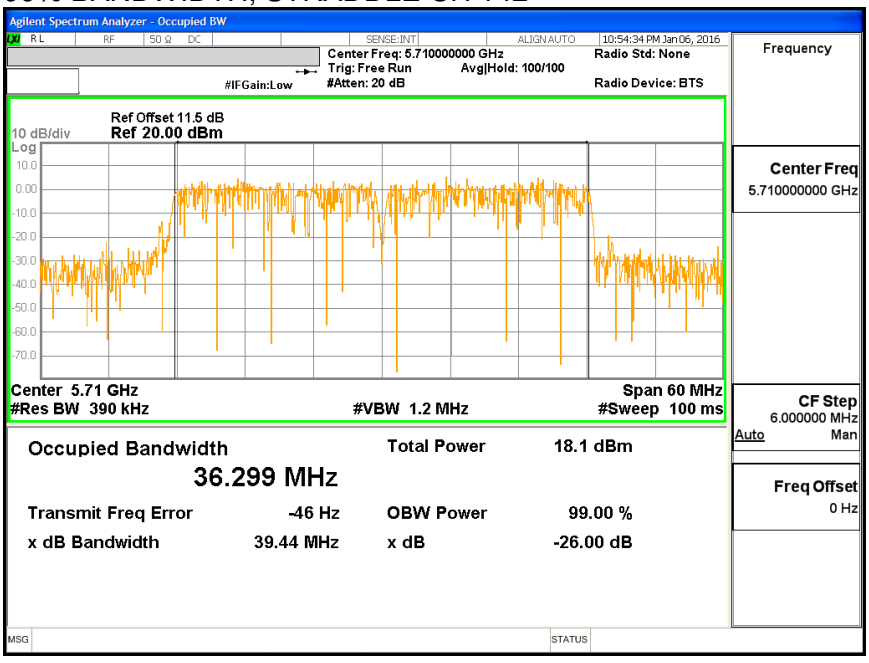
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH

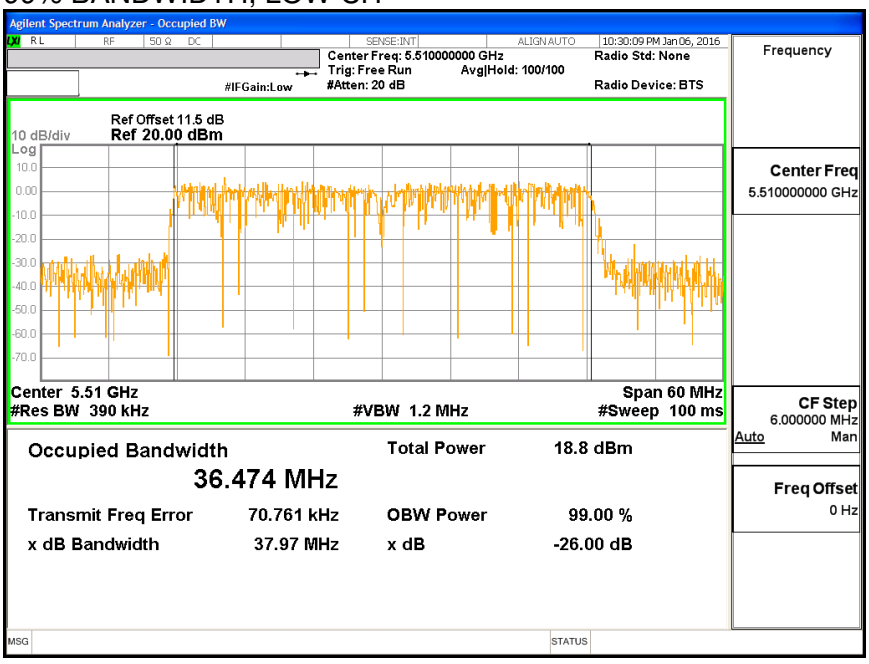


99% BANDWIDTH, STRADDLE CH 142

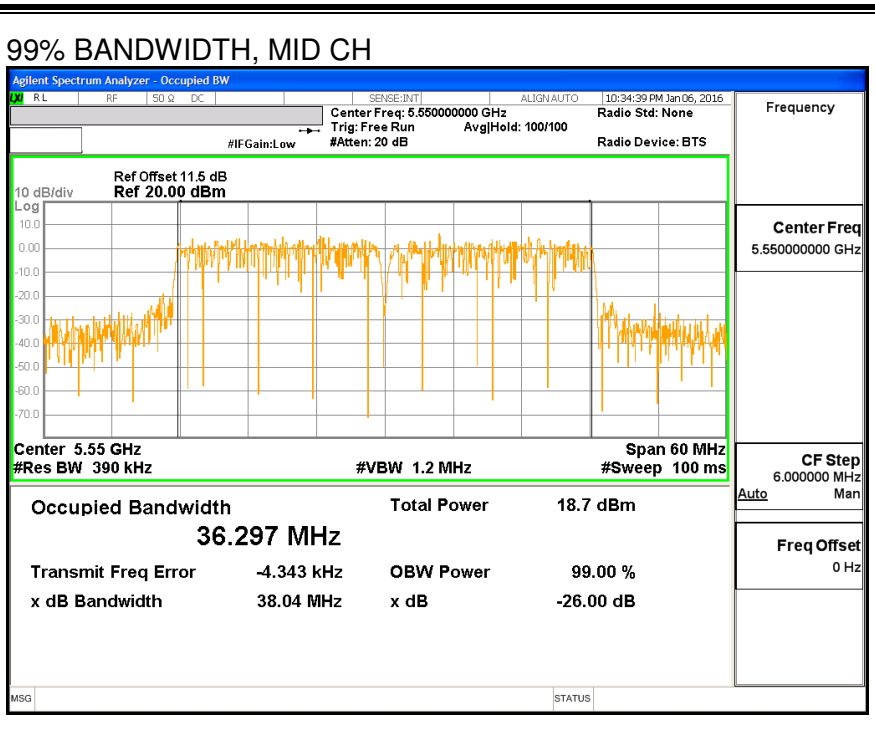


99% BANDWIDTH, ANTENNA - A

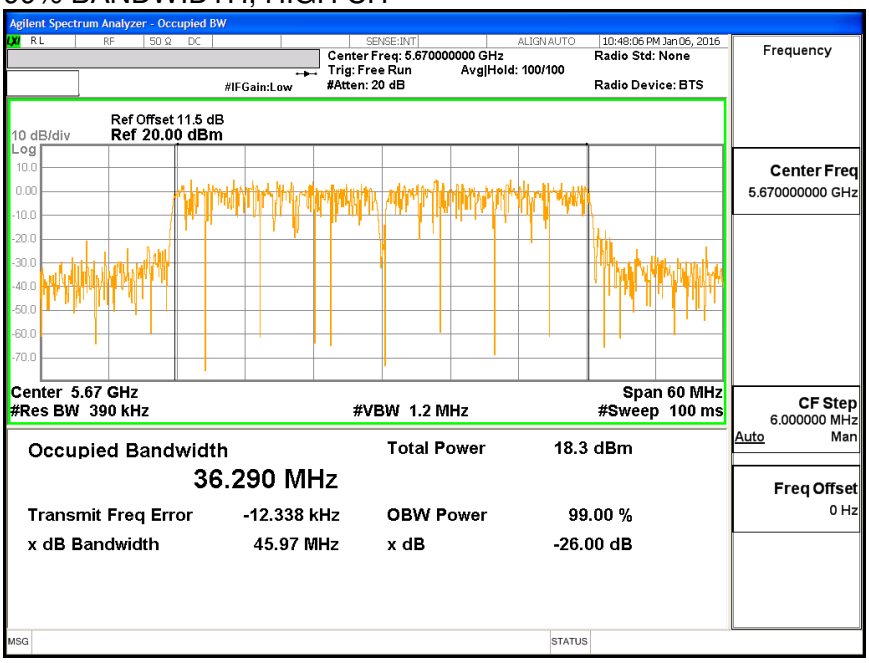
99% BANDWIDTH, LOW CH



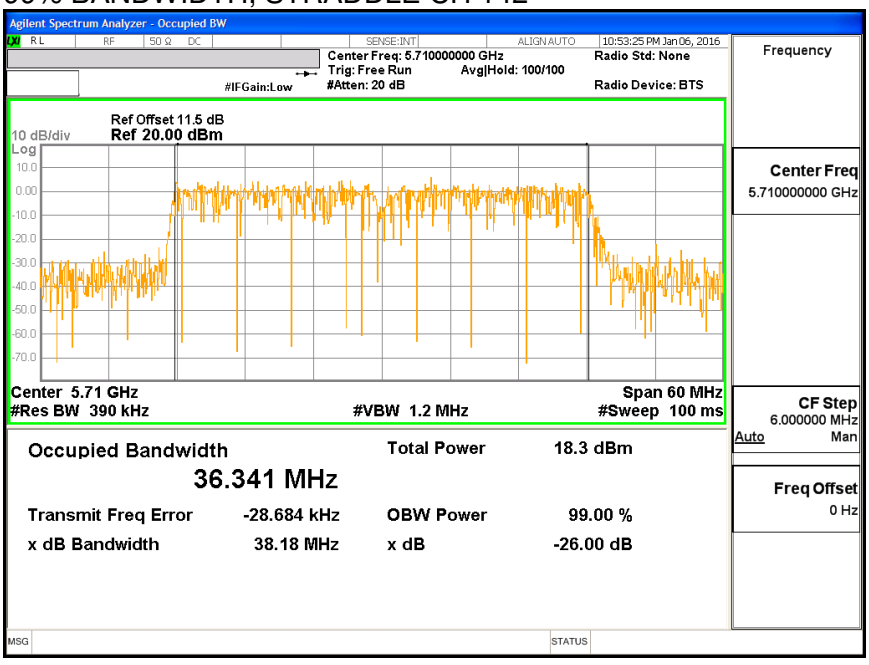
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH



99% BANDWIDTH, STRADDLE CH 142



8.88.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Antenna B Power (dBm)	Antenna A Power (dBm)	Total Power (dBm)
Low	5510	12.83	12.94	15.90
Mid	5590	14.92	14.81	17.88
High	5670	14.83	14.85	17.85
142	5710	14.89	14.92	17.92

8.88.4. 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.

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:

Antenna B Gain (dBi)	Anetnna A Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.83	4.03	3.47

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

Antenna B Gain (dBi)	Antenna A Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.83	4.03	6.46

RESULTS

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	5510	39.96	36.474	3.47	6.46	24.00	10.54
Mid	5550	39.90	36.350	3.47	6.46	24.00	10.54
High	5670	40.02	36.354	3.47	6.46	24.00	10.54

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

Output Power Results

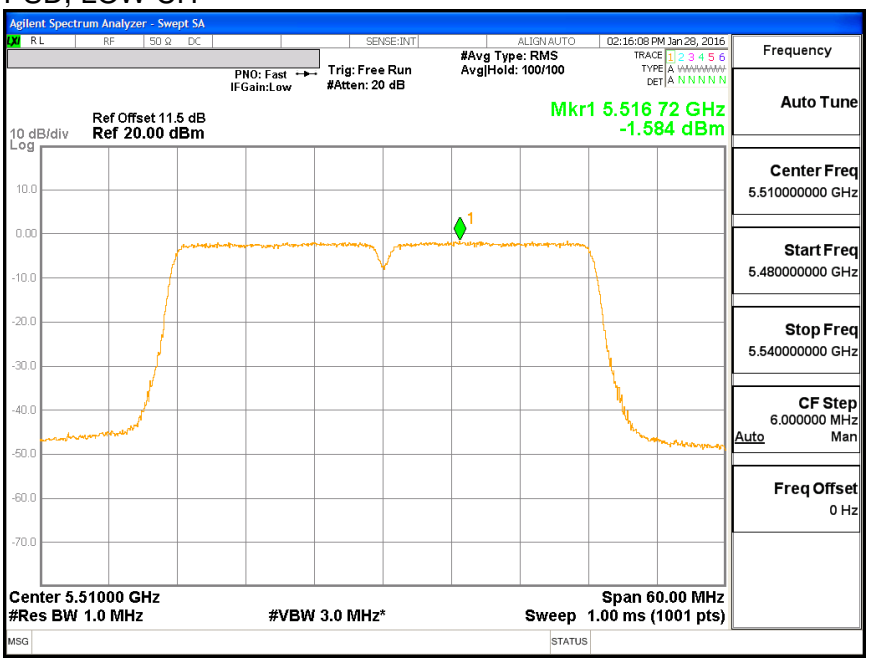
Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	12.83	12.94	15.90	24.00	-8.10
Mid	5550	14.92	14.81	17.88	24.00	-6.12
High	5670	14.83	14.85	17.85	24.00	-6.15

PSD Results

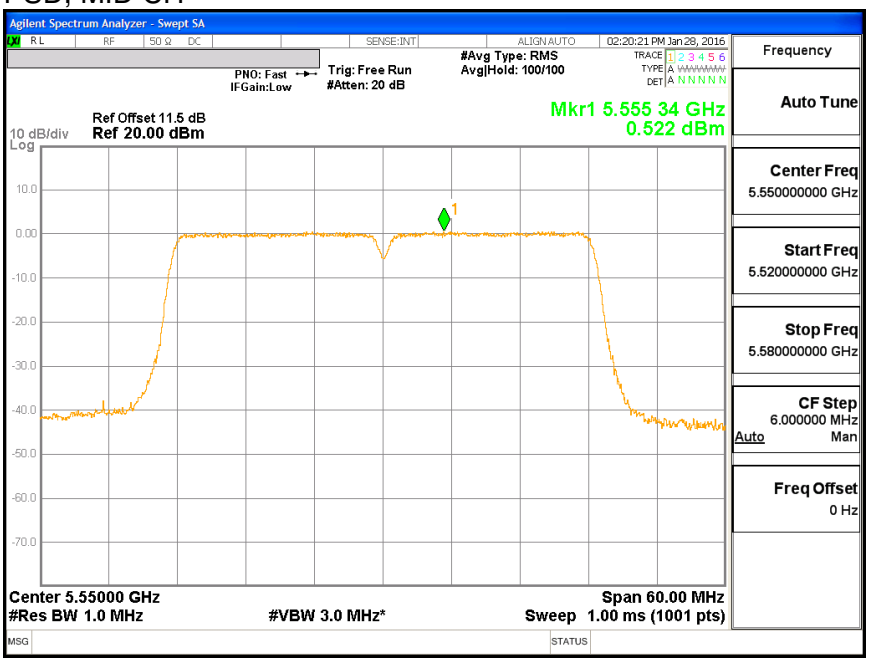
Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	-1.58	-1.46	1.49	10.54	-9.05
Mid	5550	0.52	0.37	3.46	10.54	-7.08
High	5670	0.34	0.46	3.41	10.54	-7.13

PSD, ANTENNA - B

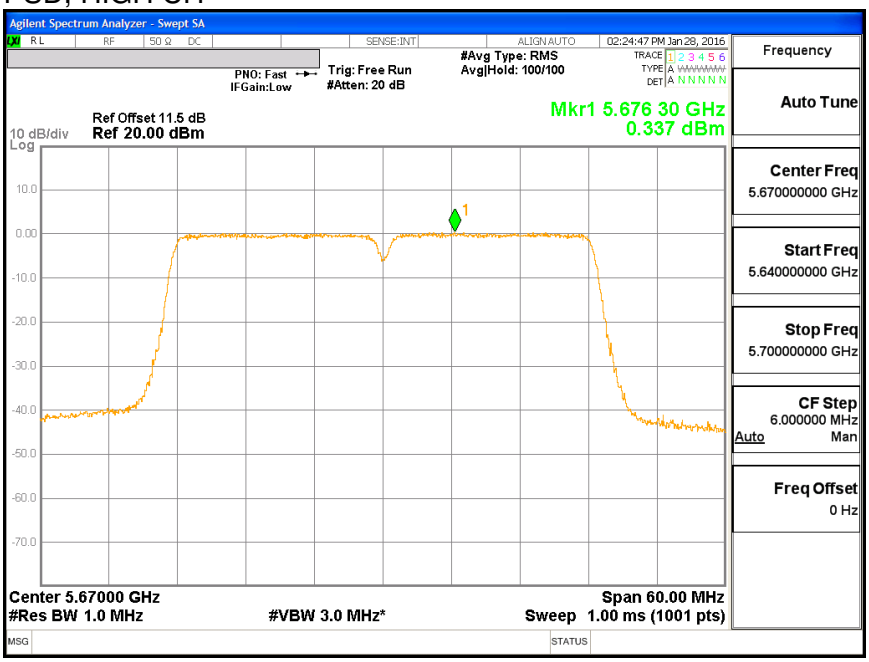
PSD, LOW CH



PSD, MID CH

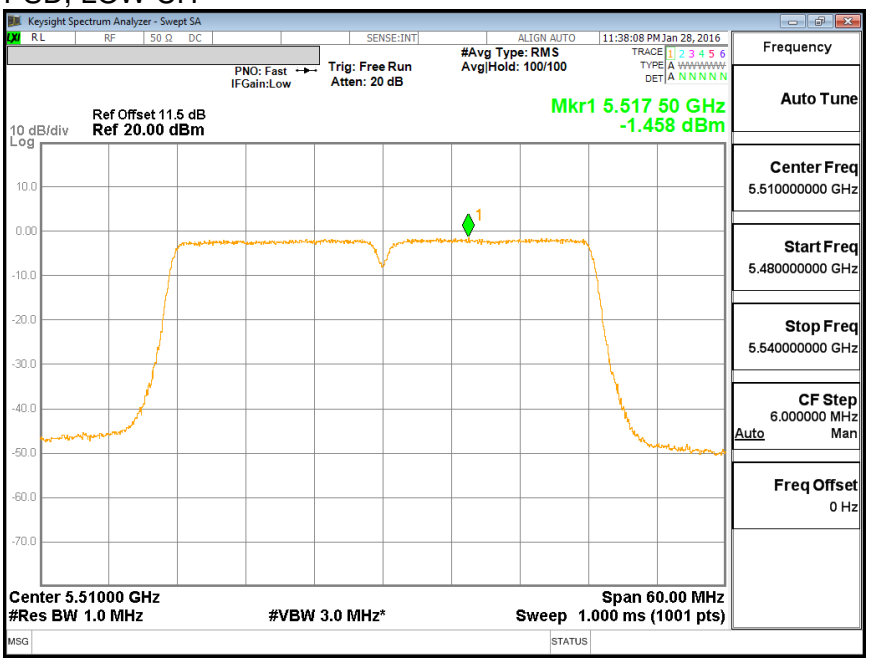


PSD, HIGH CH

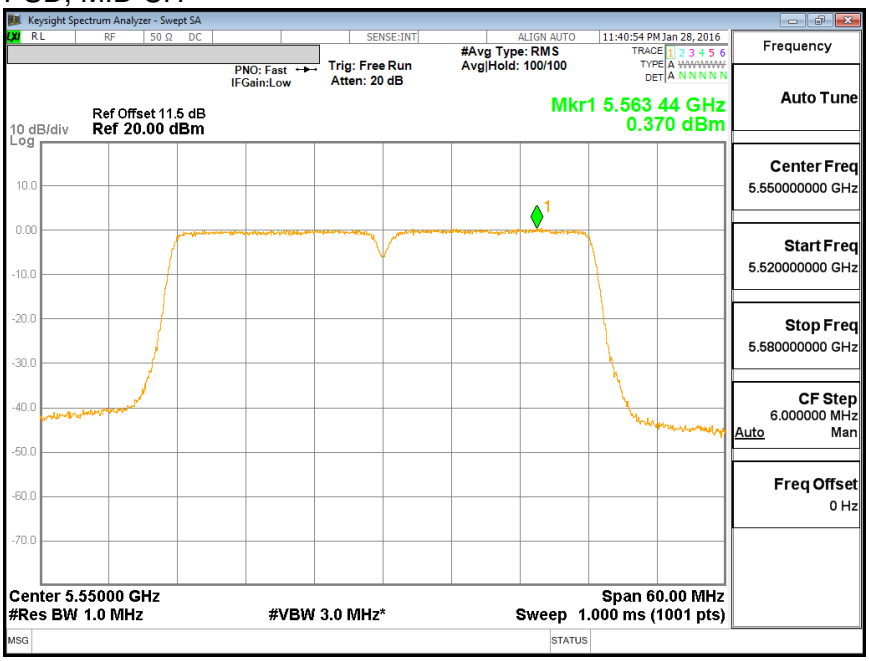


PSD, ANTENNA - A

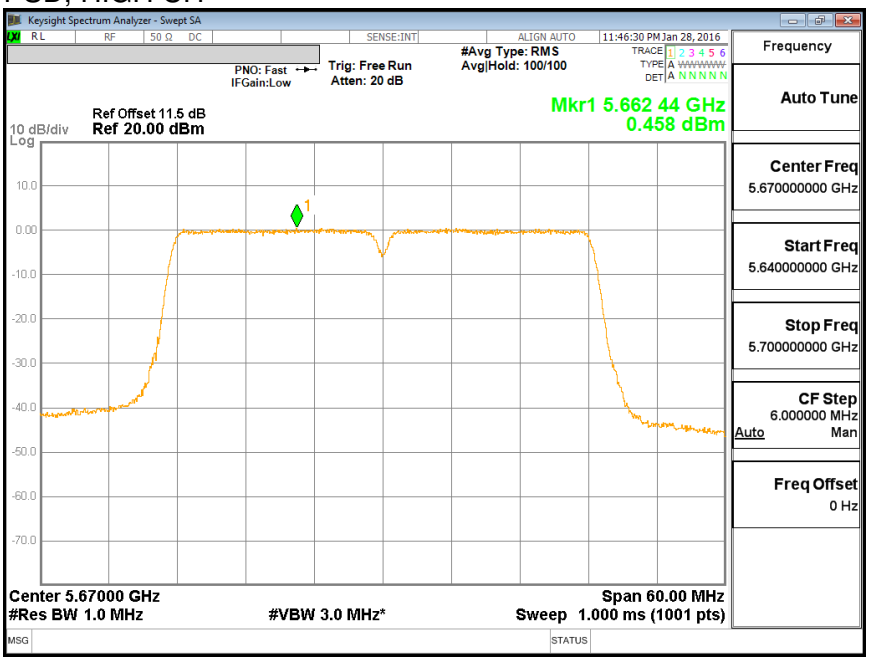
PSD, LOW CH



PSD, MID CH



PSD, HIGH CH



8.89. 802.11ac VHT40 ANTENNA B+A CDD STRADDLE CHANNEL 142 RESULTS

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)
142	5710	34.74	3.47	6.46	24.00	10.54

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

Output Power Results

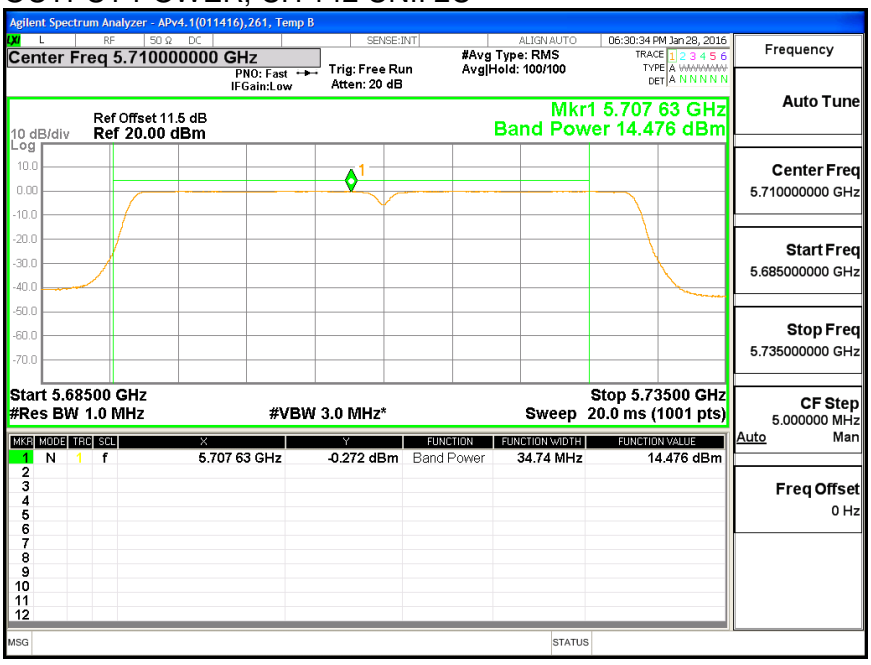
Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	14.48	14.36	17.43	24.00	-6.57

PSD Results

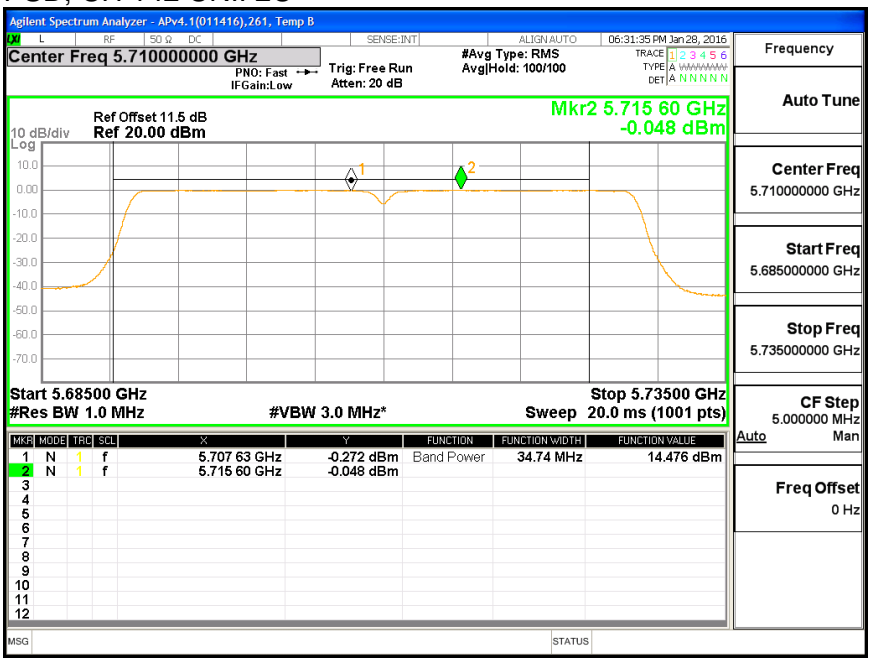
Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-0.05	-0.15	2.91	10.54	-7.63

ANTENNA - B

OUTPUT POWER, CH 142 UNII 2C

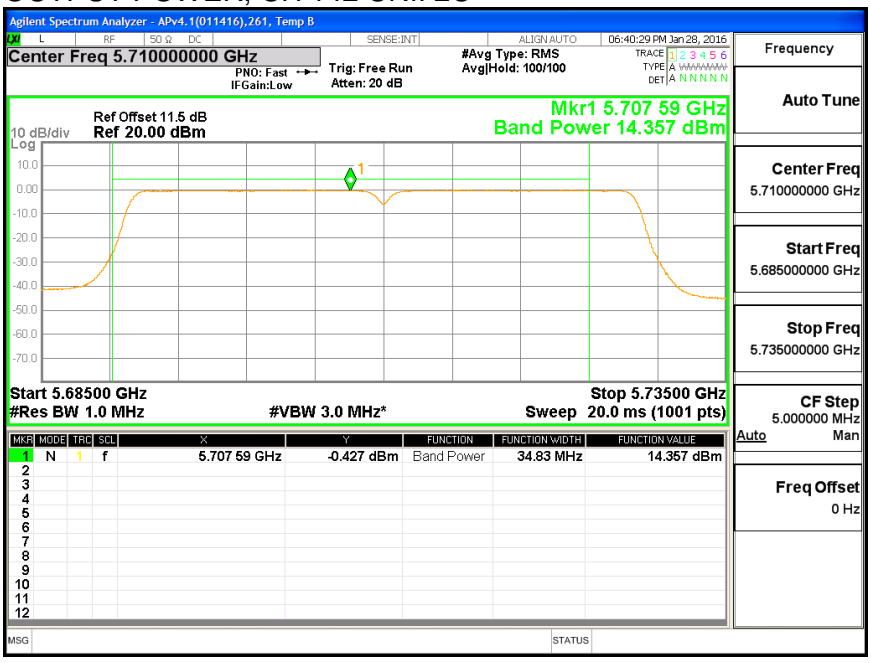


PSD, CH 142 UNII 2C

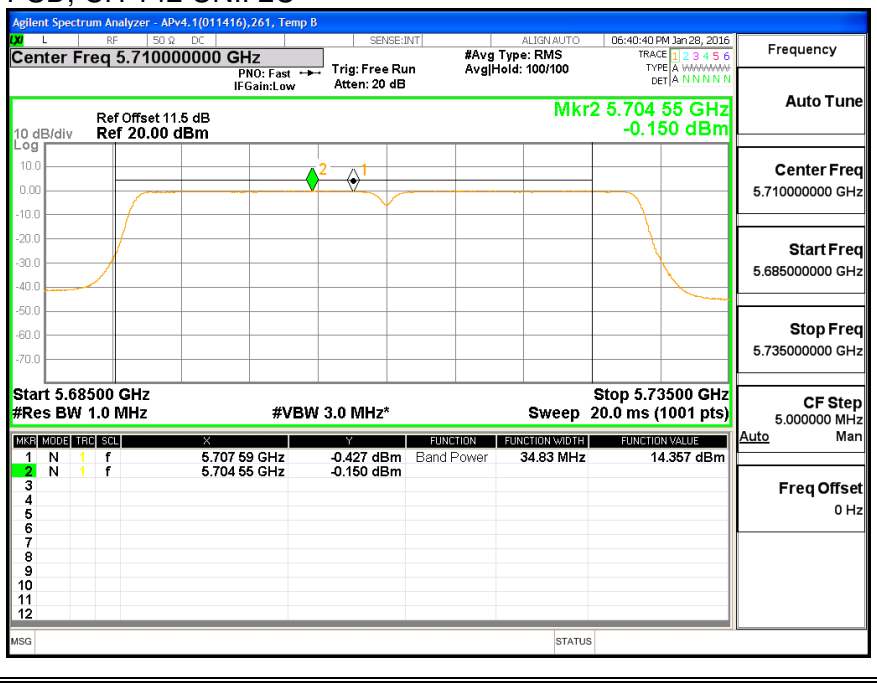


ANTENNA - A

OUTPUT POWER, CH 142 UNII 2C



PSD, CH 142 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)
142	5710	4.74	3.47	6.46	30.00	29.54

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

Output Power Results

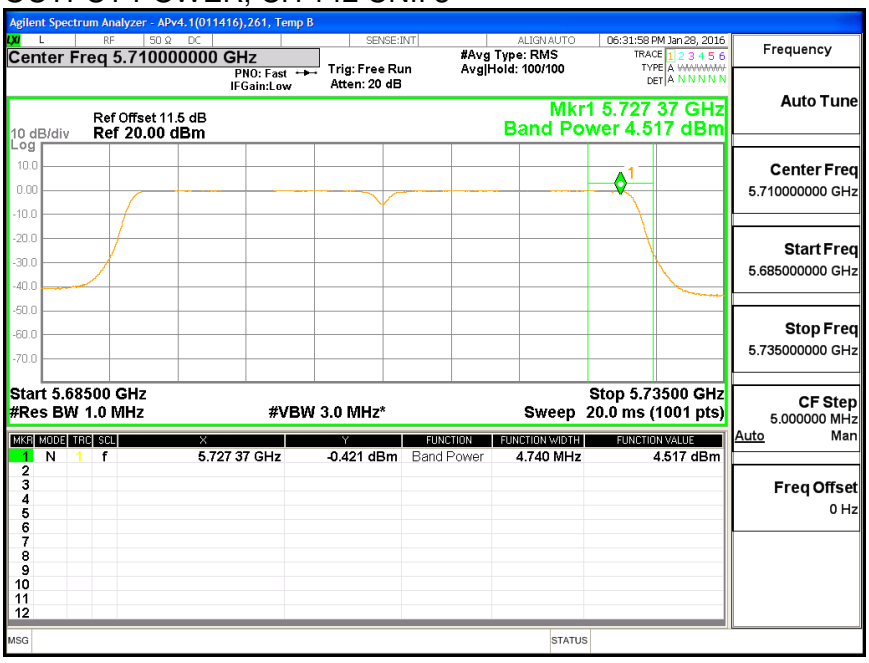
Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	4.52	4.39	7.46	30.00	-22.54

PSD Results

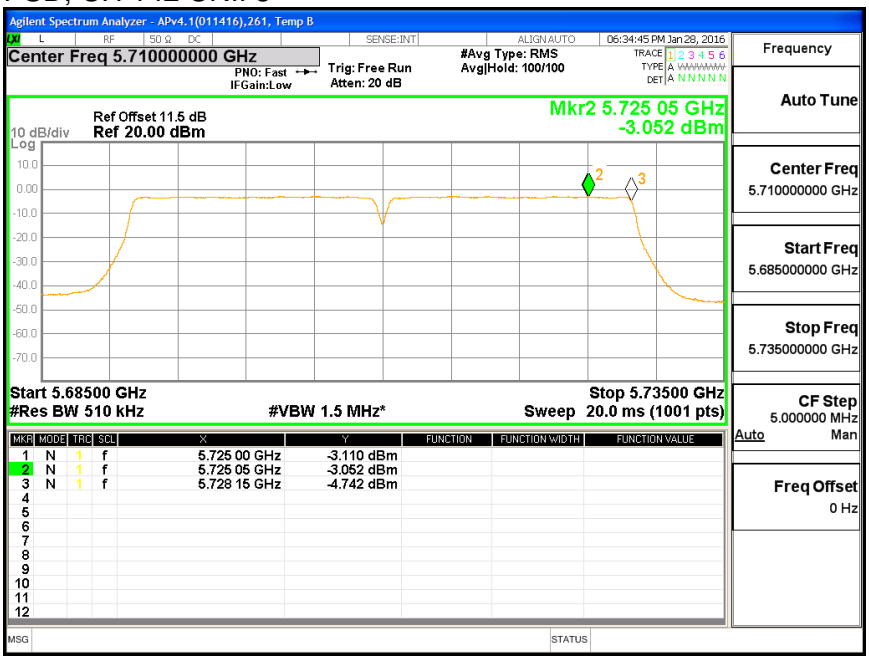
Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-3.05	-3.07	-0.05	29.54	-29.59

ANTENNA - B

OUTPUT POWER, CH 142 UNII 3

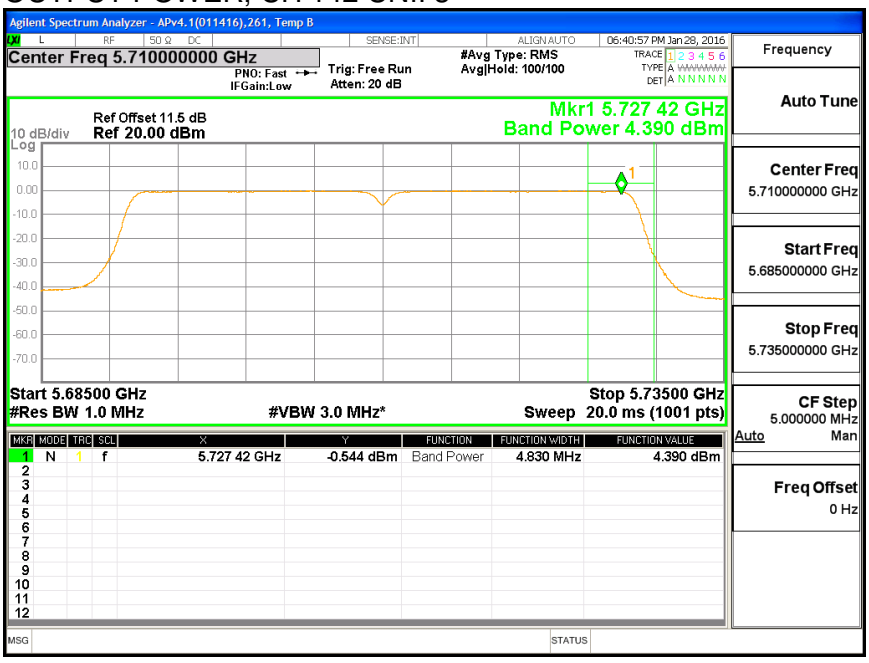


PSD, CH 142 UNII 3

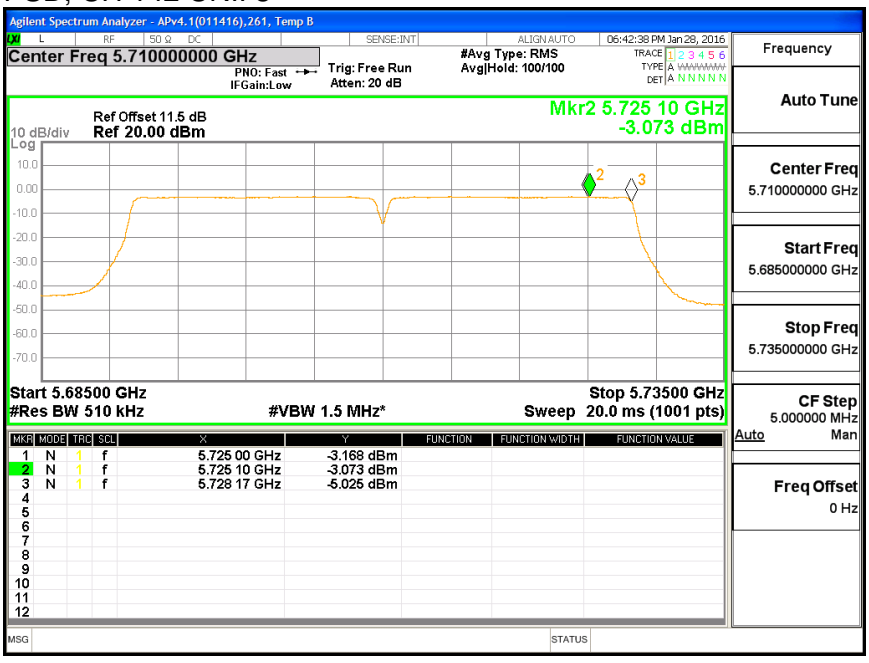


ANTENNA - A

OUTPUT POWER, CH 142 UNII 3



PSD, CH 142 UNII 3



8.89.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

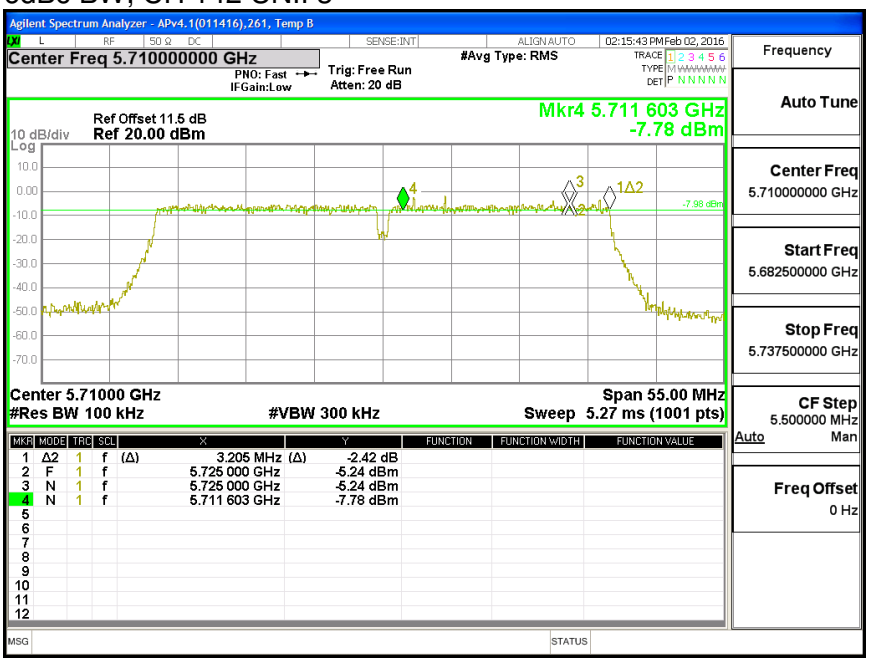
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB BW Antenna B (MHz)	6 dB BW Antenna A (MHz)
142	5710	3.21	3.21

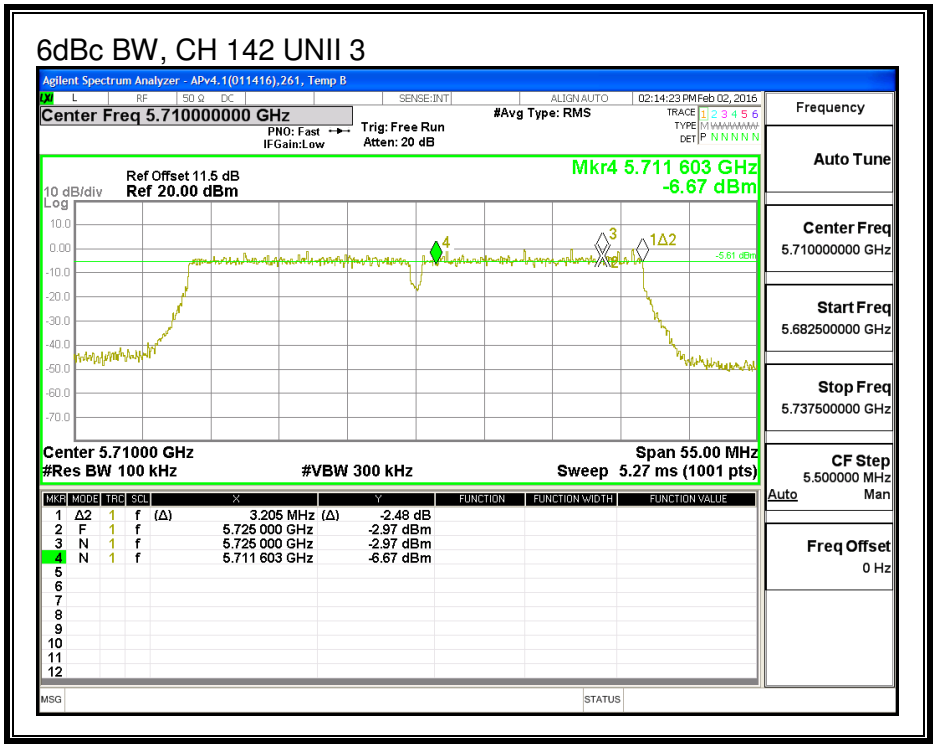
ANTENNA - B

6dBc BW, CH 142 UNII 3



ANTENNA - A

6dBc BW, CH 142 UNII 3



8.90. 802.11n HT40 ANTENNA A + C CDD MODE IN THE 5.6 GHz BAND

8.90.1. 26 dB BANDWIDTH

LIMITS

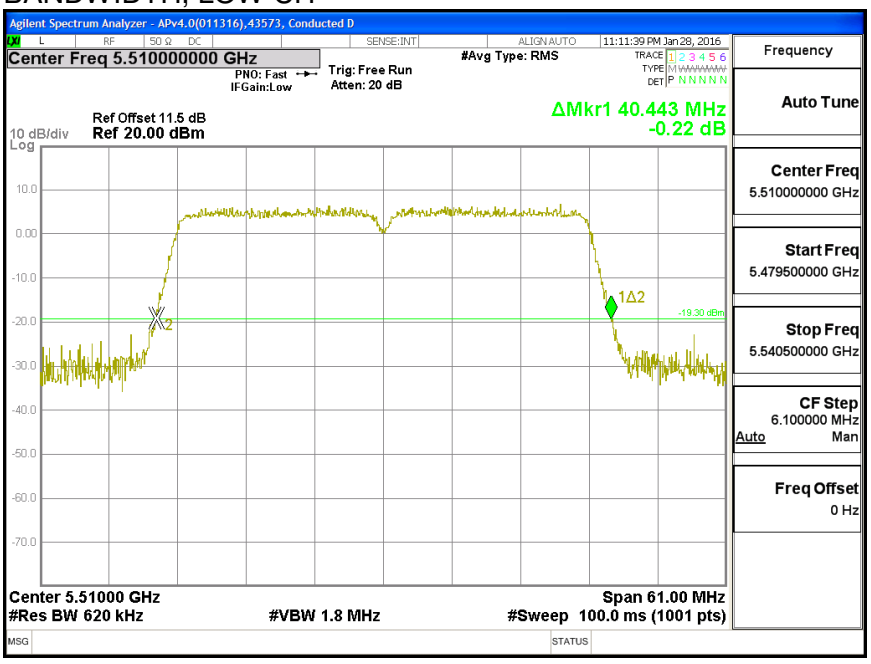
None; for reporting purposes only.

RESULTS

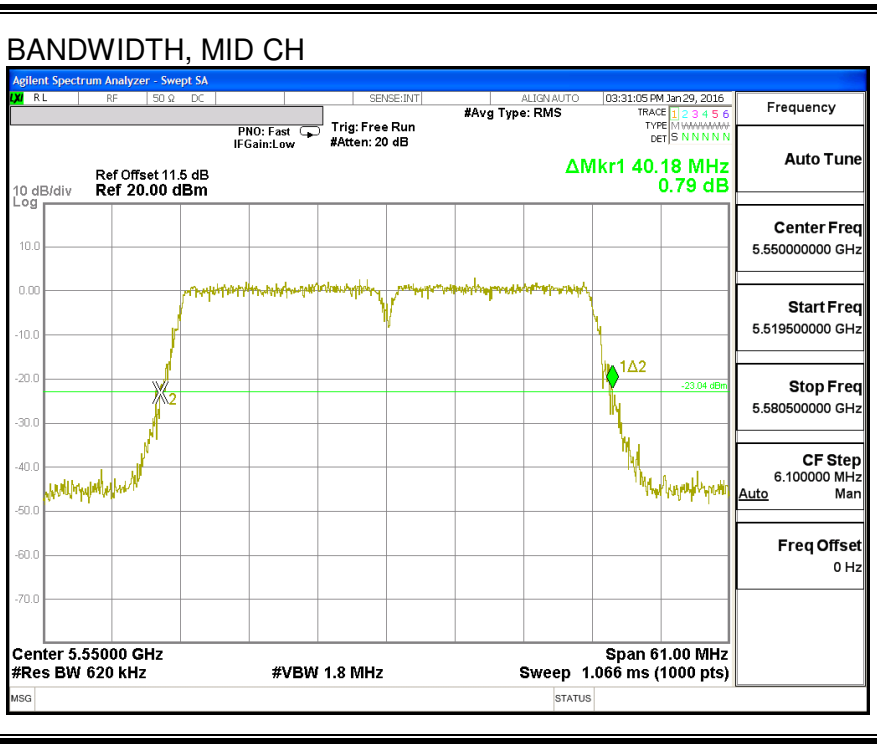
Channel	Frequency (MHz)	26 dB BW Antenna A (MHz)	26 dB BW Antenna C (MHz)
Low	5510	40.44	40.08
Mid	5550	40.18	40.30
High	5670	40.63	40.08
142	5710	40.57	39.96

26 dB BANDWIDTH, ANTENNA - A

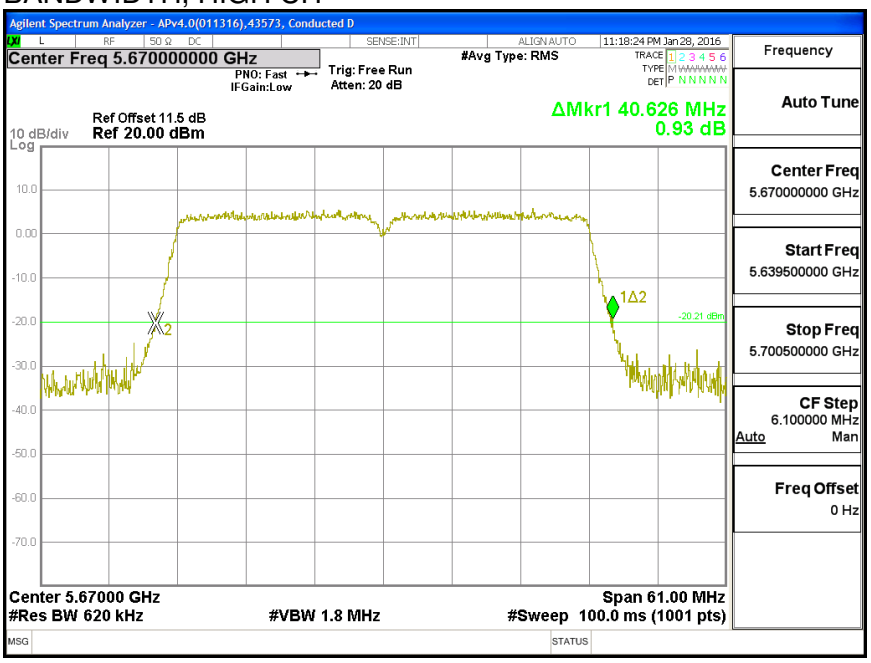
BANDWIDTH, LOW CH



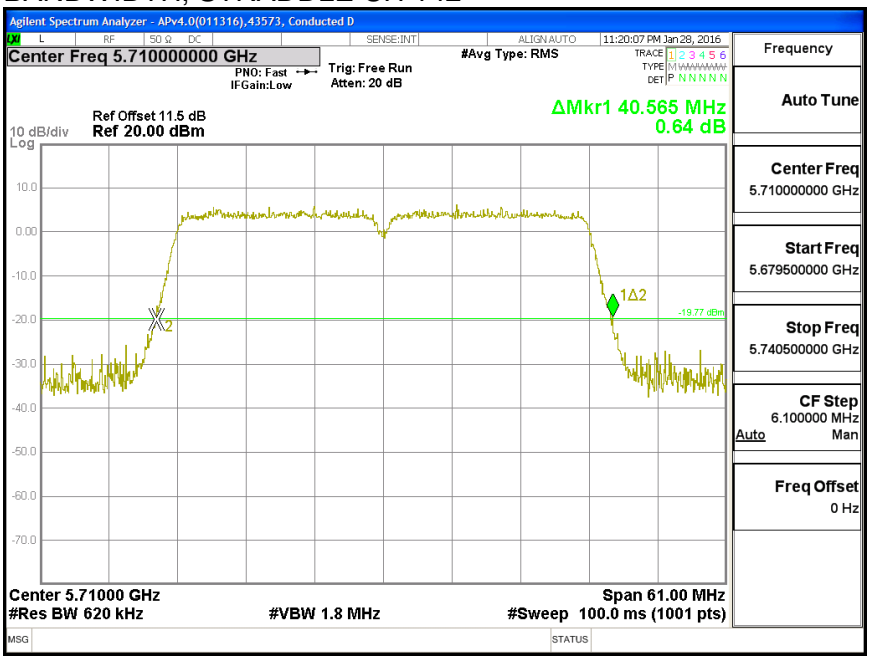
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH

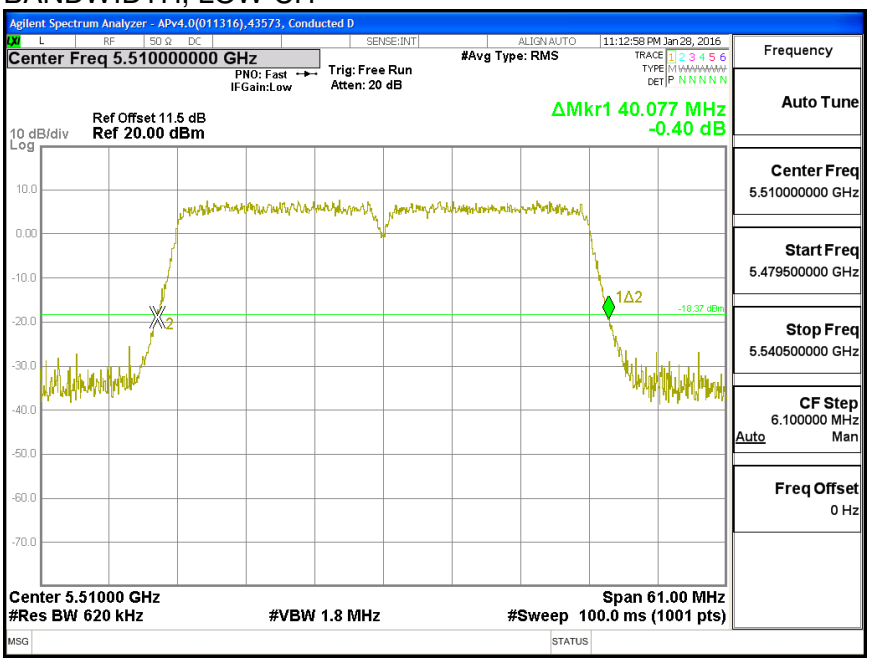


BANDWIDTH, STRADDLE CH 142

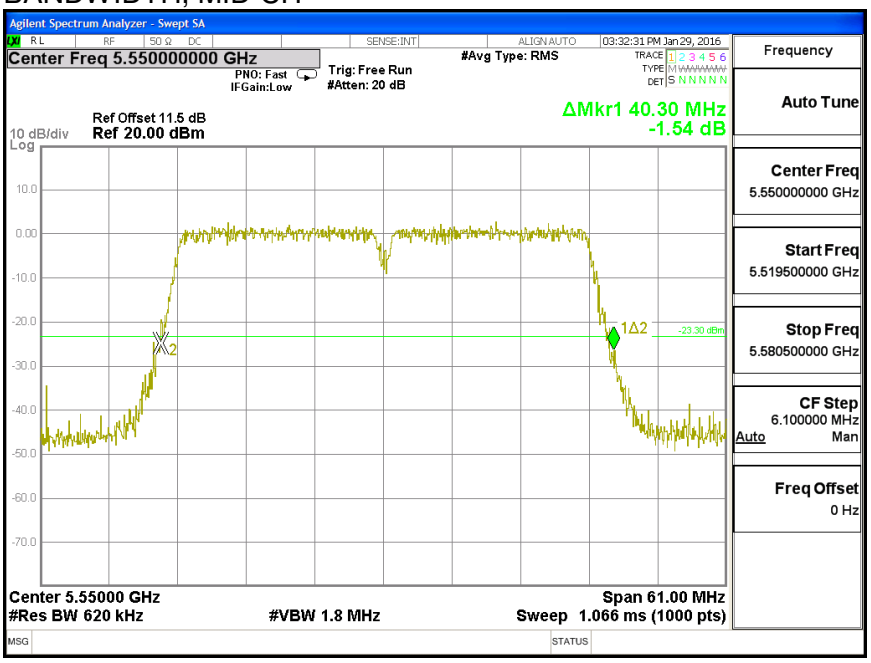


26 dB BANDWIDTH, ANTENNA - C

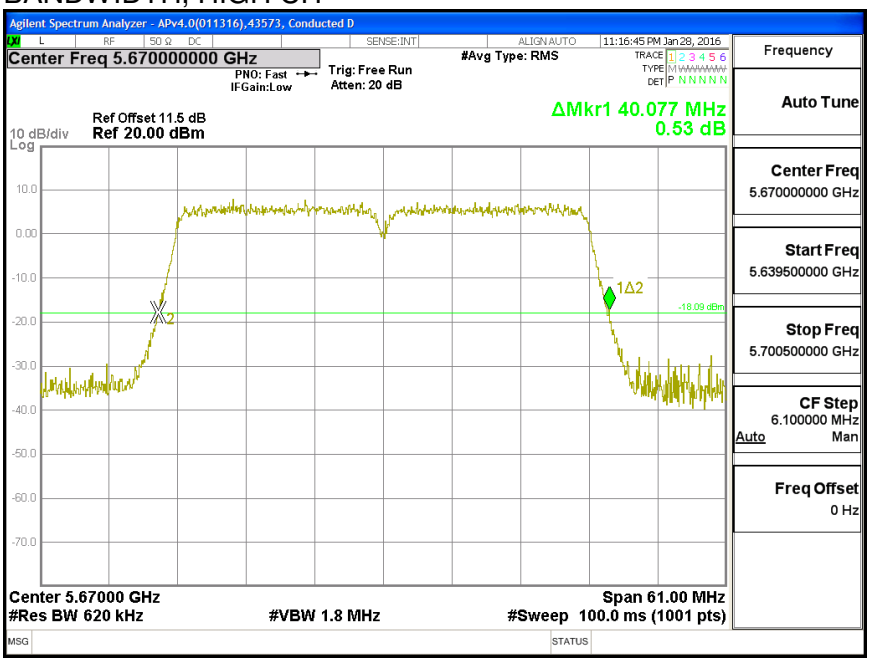
BANDWIDTH, LOW CH



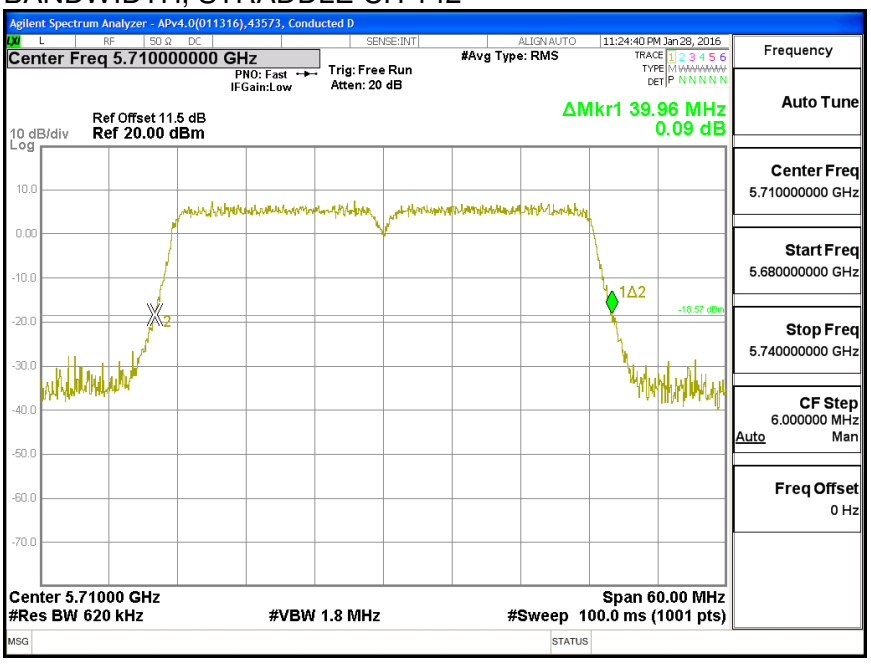
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



BANDWIDTH, STRADDLE CH 142



8.90.2. 99% BANDWIDTH

LIMITS

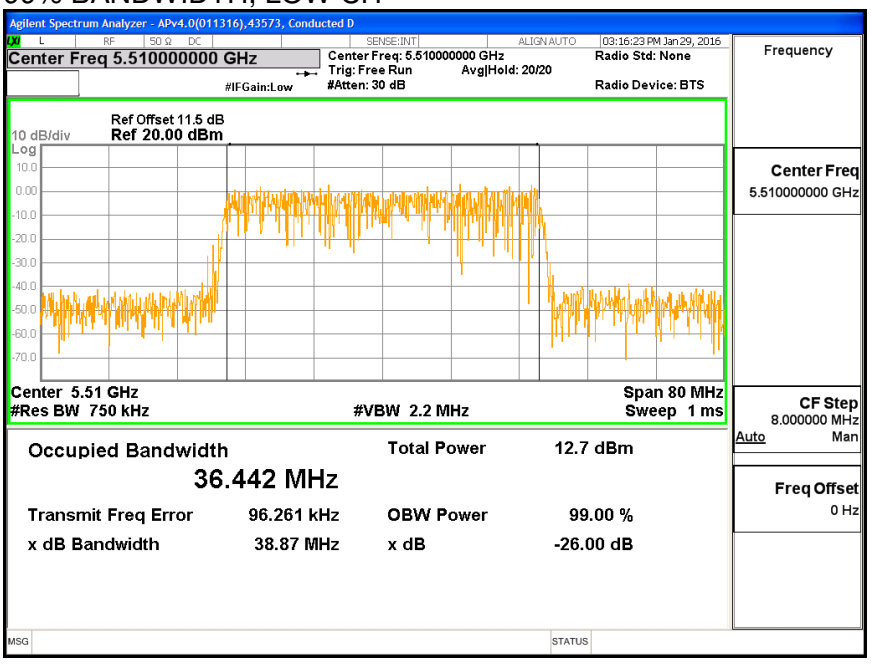
None; for reporting purposes only.

RESULTS

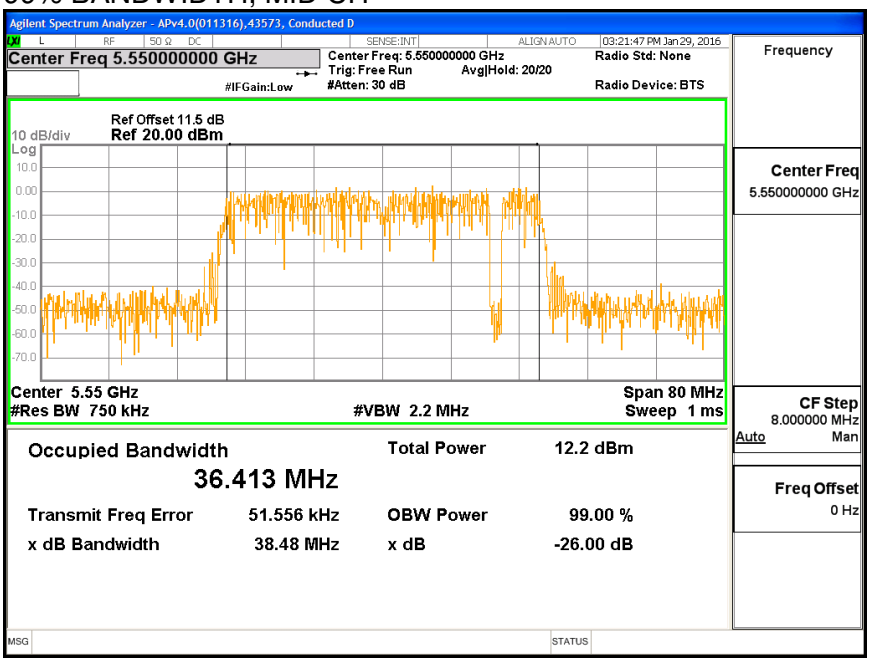
Channel	Frequency (MHz)	99% BW Antenna A (MHz)	99% BW Antenna C (MHz)
Low	5510	36.442	36.364
Mid	5550	36.413	36.573
High	5670	36.418	36.318
142	5710	36.271	36.473

99% BANDWIDTH, ANTENNA - A

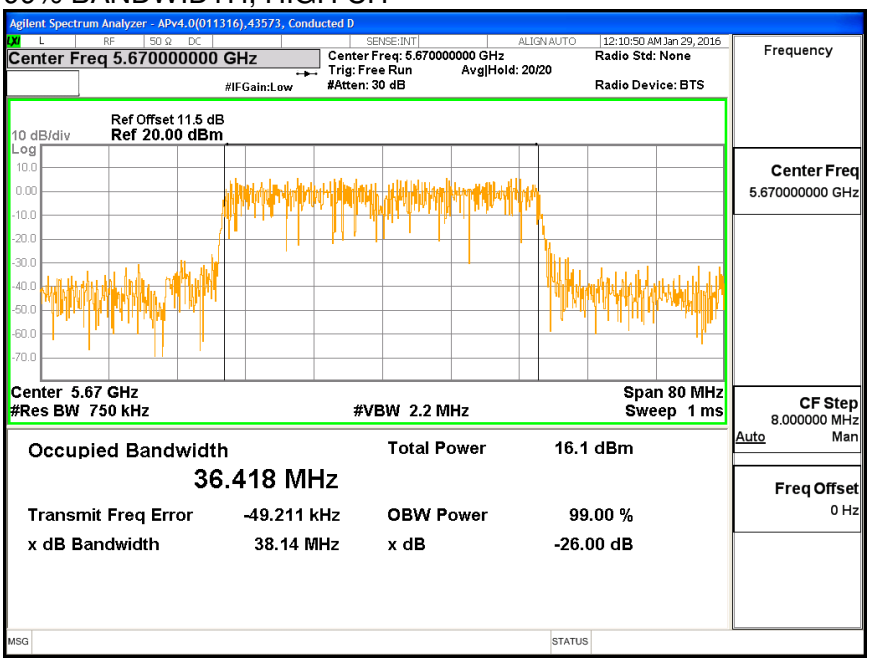
99% BANDWIDTH, LOW CH



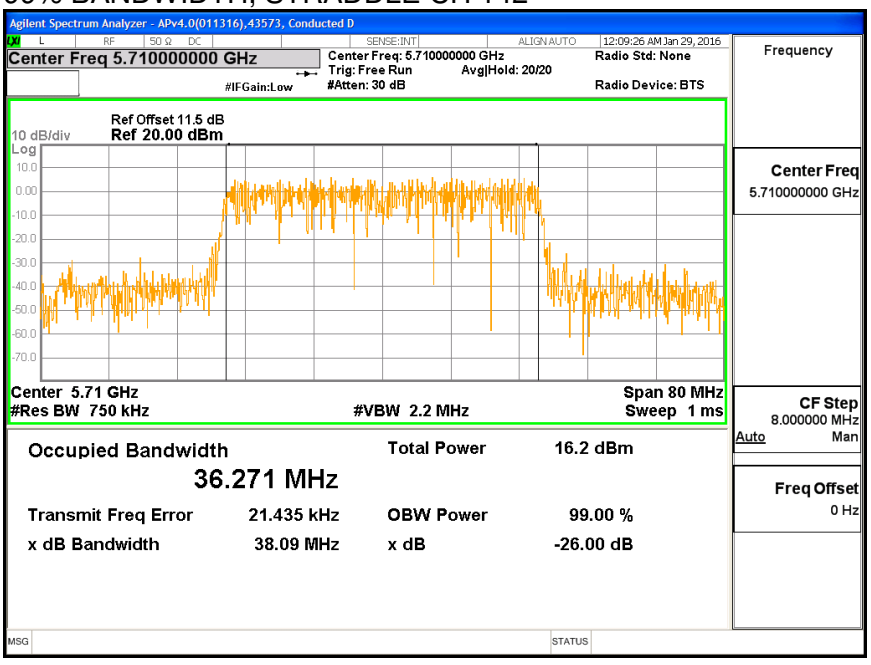
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH

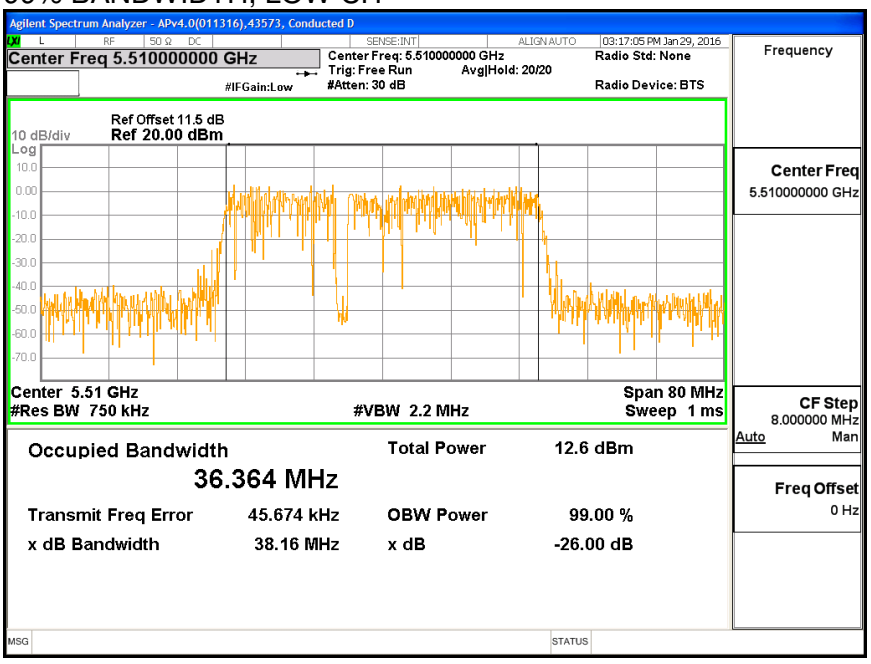


99% BANDWIDTH, STRADDLE CH 142

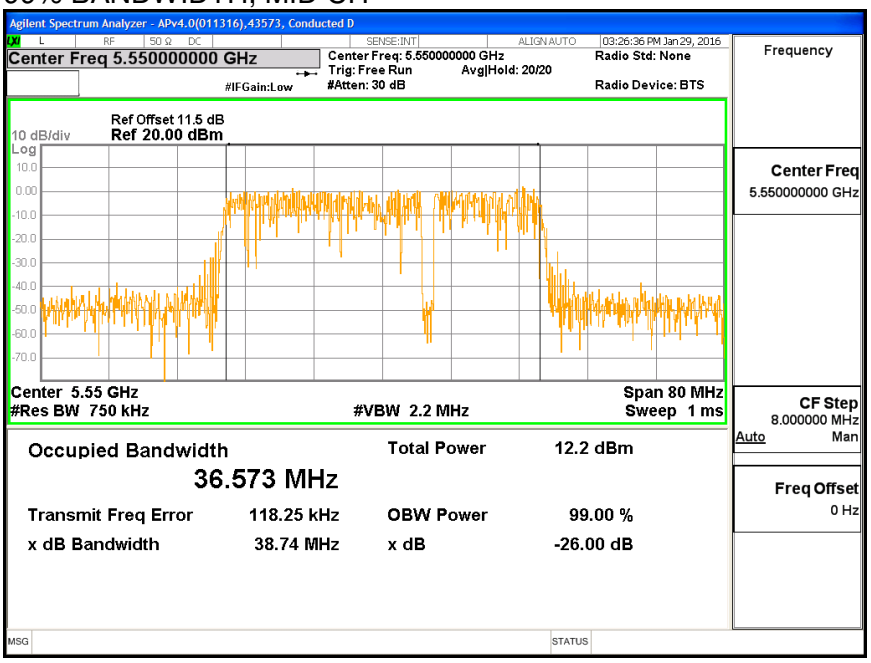


99% BANDWIDTH, ANTENNA - C

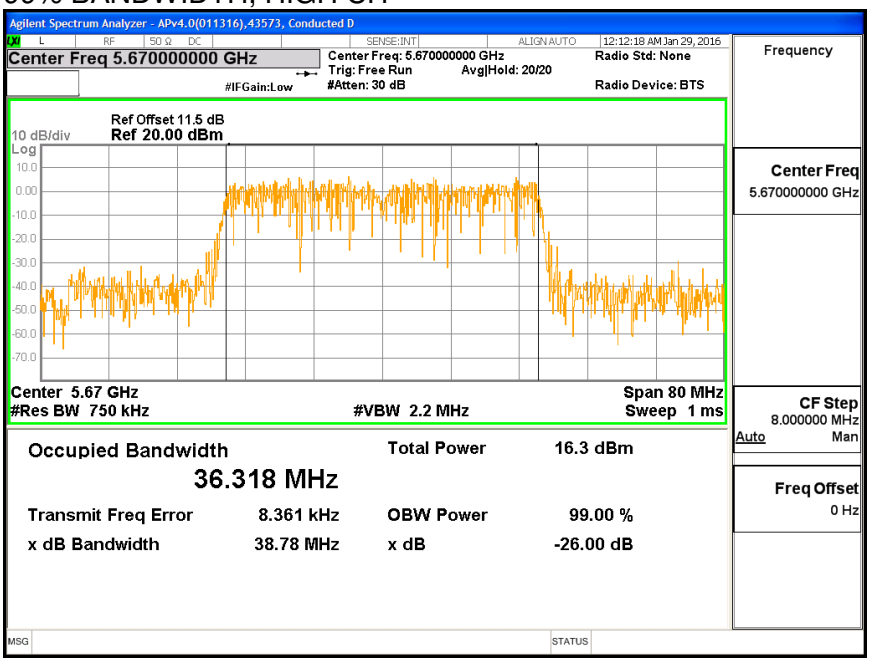
99% BANDWIDTH, LOW CH



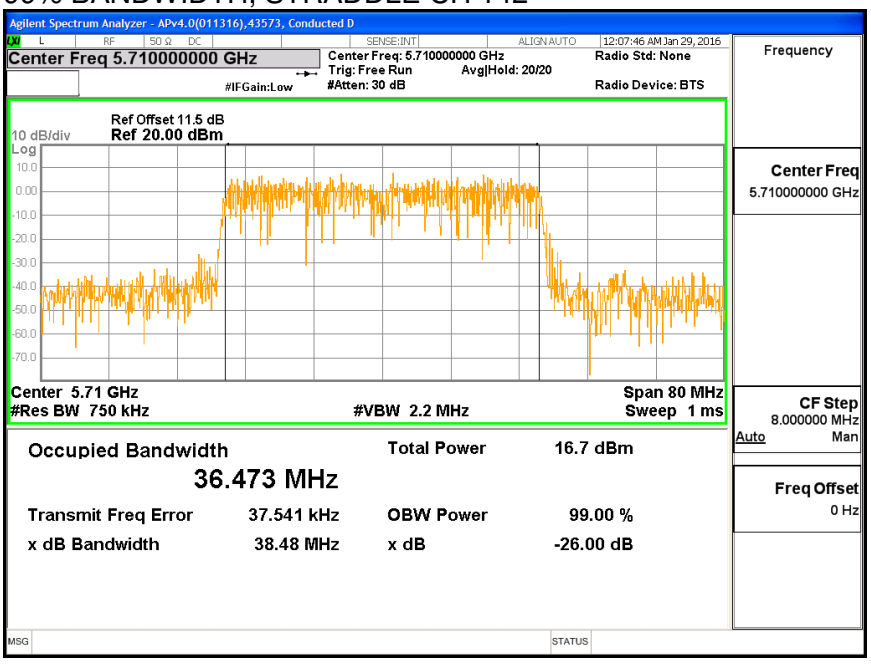
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH



99% BANDWIDTH, STRADDLE CH 142



8.90.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Antenna A Power (dBm)	Antenna C Power (dBm)	Total Power (dBm)
Low	5510	12.92	12.96	15.95
Mid	5590	15.00	14.95	17.99
High	5670	14.98	14.87	17.94
142	5710	14.99	14.82	17.92

8.90.4. 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.

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:

Antenna A Gain (dBi)	Anetnna C Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
4.03	4.16	4.10

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

Antenna A Gain (dBi)	Antenna C Gain (dBi)	Correlated Chains Directional Gain (dBi)
4.03	4.16	7.11

RESULTS

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	5510	40.44	36.442	4.10	7.11	24.00	9.89
Mid	5550	40.30	36.573	4.10	7.11	24.00	9.89
High	5670	40.63	36.418	4.10	7.11	24.00	9.89

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

Output Power Results

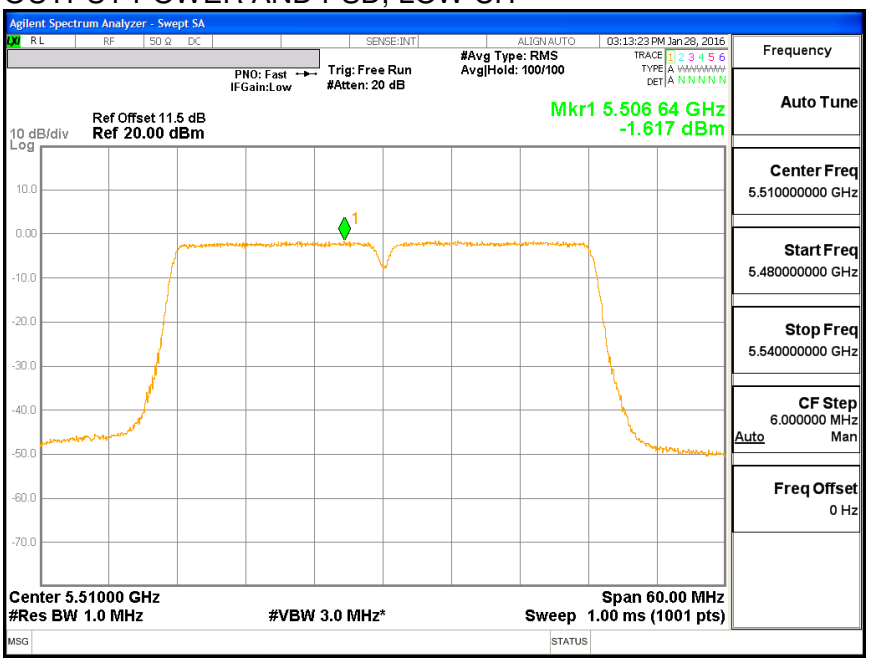
Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	12.92	12.96	15.95	24.00	-8.05
Mid	5550	15.00	14.95	17.99	24.00	-6.01
High	5670	14.98	14.87	17.94	24.00	-6.06

PSD Results

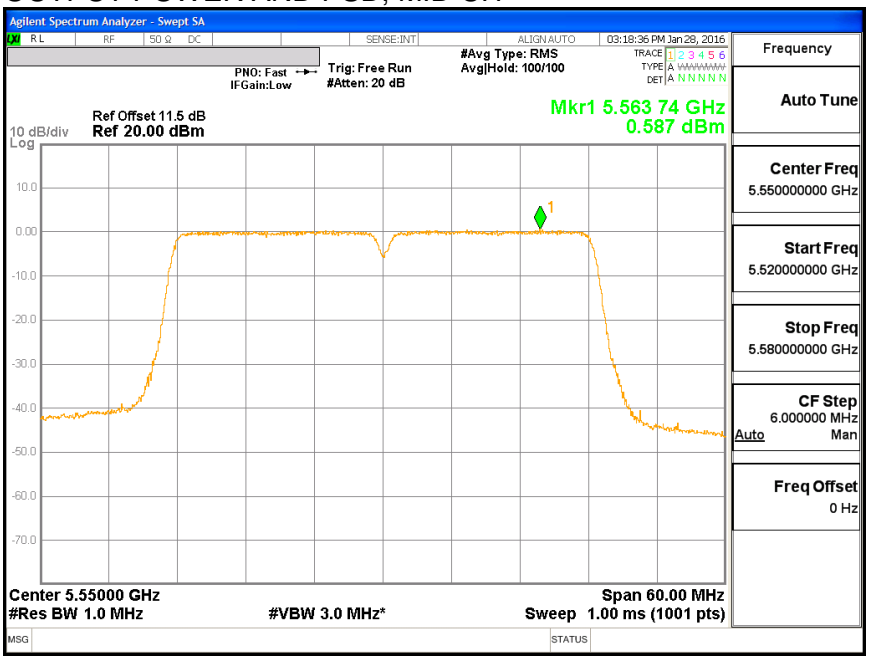
Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	-1.62	-1.43	1.49	9.89	-8.40
Mid	5550	0.59	0.48	3.54	9.89	-6.35
High	5670	0.48	0.42	3.46	9.89	-6.43

OUTPUT POWER AND PSD, ANTENNA - A

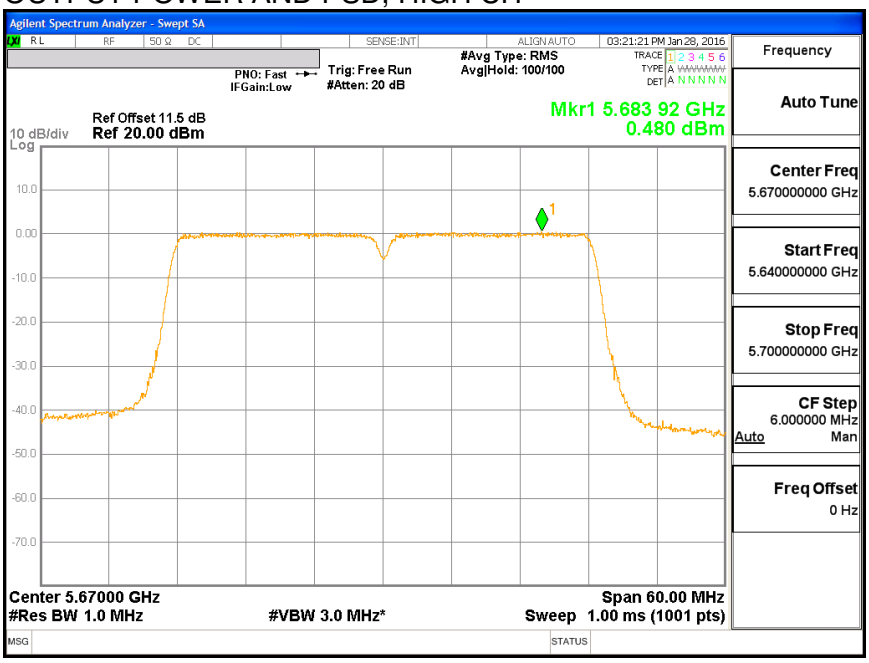
OUTPUT POWER AND PSD, LOW CH



OUTPUT POWER AND PSD, MID CH

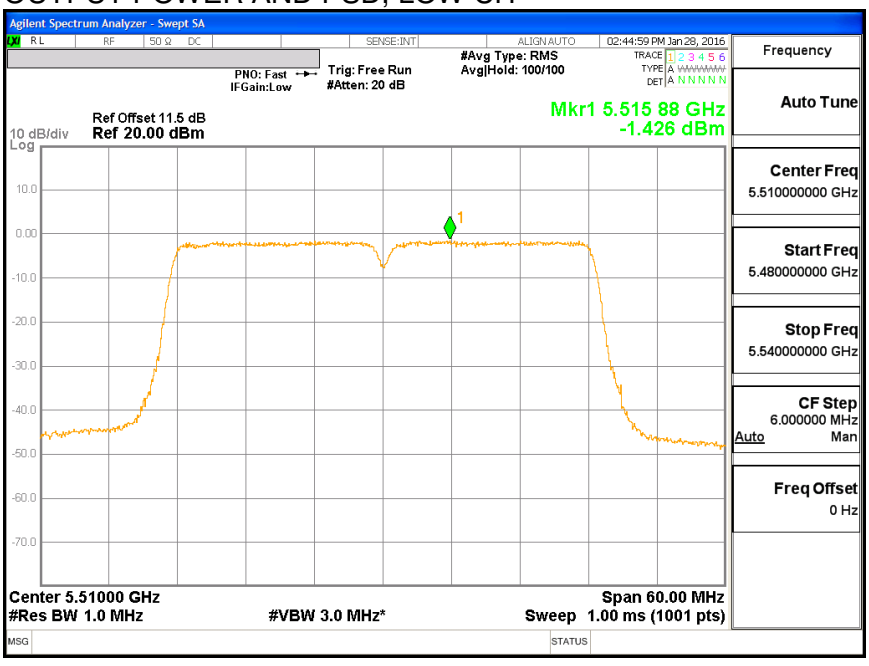


OUTPUT POWER AND PSD, HIGH CH

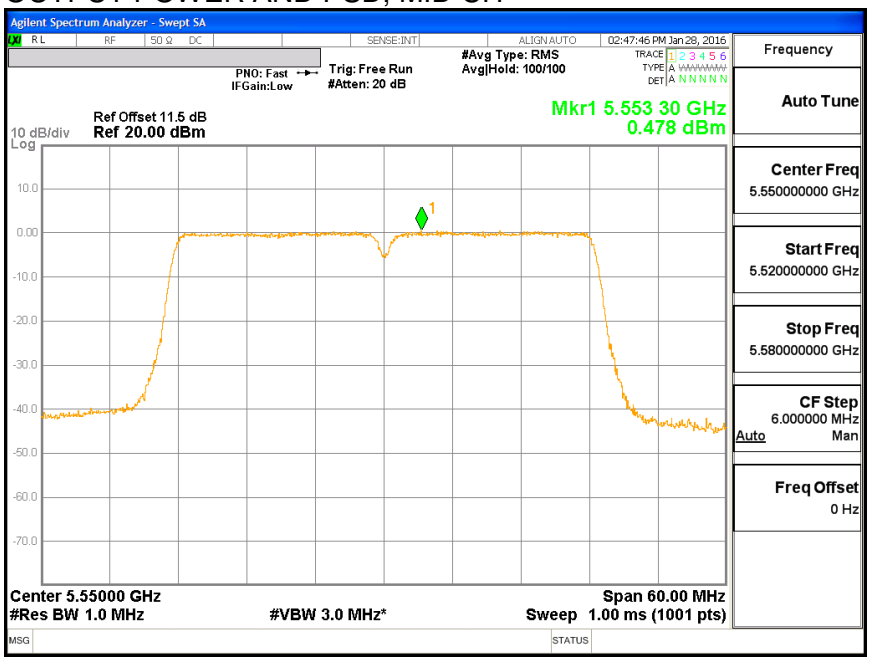


OUTPUT POWER AND PSD, ANTENNA - C

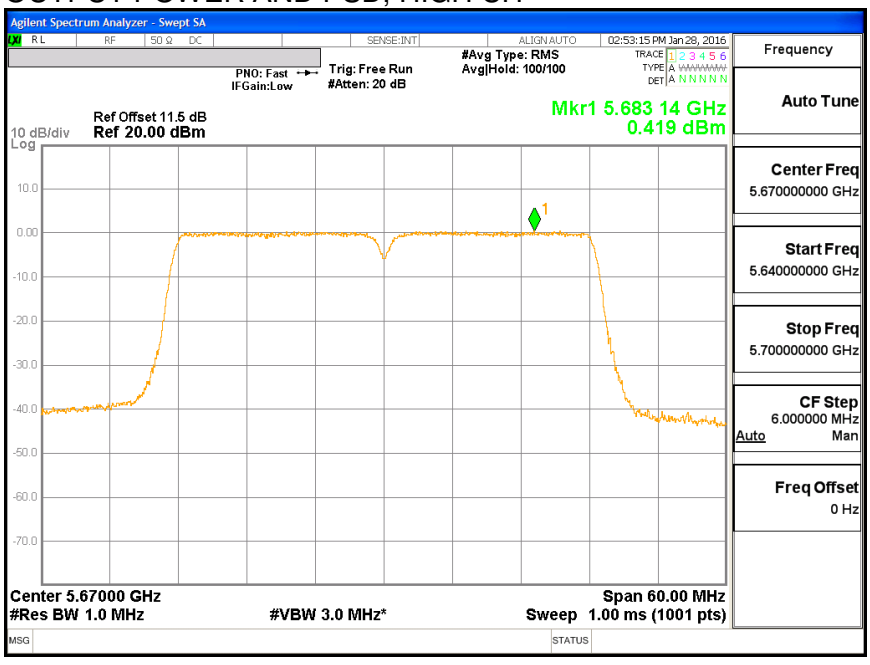
OUTPUT POWER AND PSD, LOW CH



OUTPUT POWER AND PSD, MID CH



OUTPUT POWER AND PSD, HIGH CH



8.91. 802.11ac VHT40 ANTENNA A+C CDD STRADDLE CHANNEL 142 RESULTS

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)
142	5710	35.28	4.10	7.11	24.00	9.89

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

Output Power Results

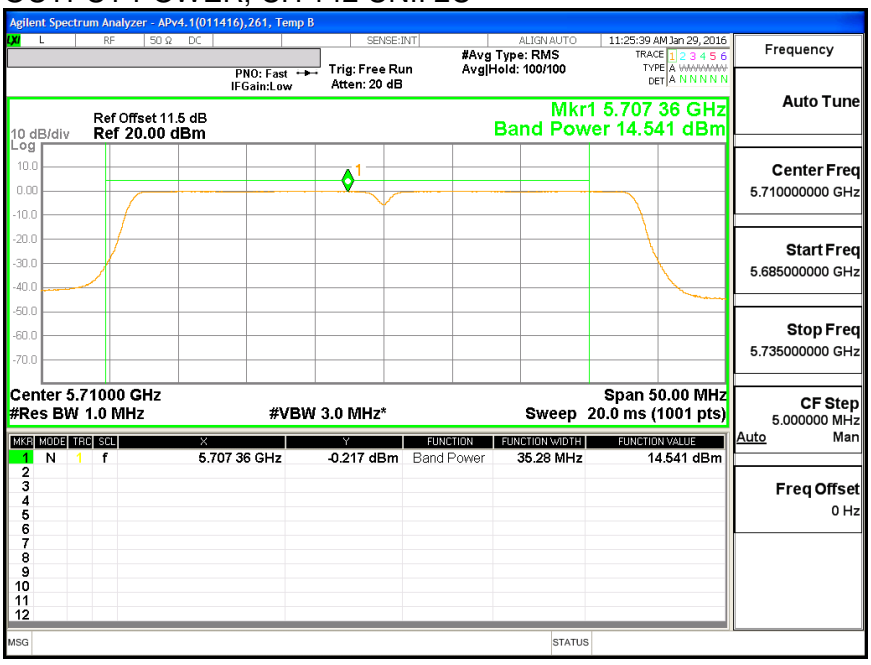
Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	14.54	14.30	17.43	24.00	-6.57

PSD Results

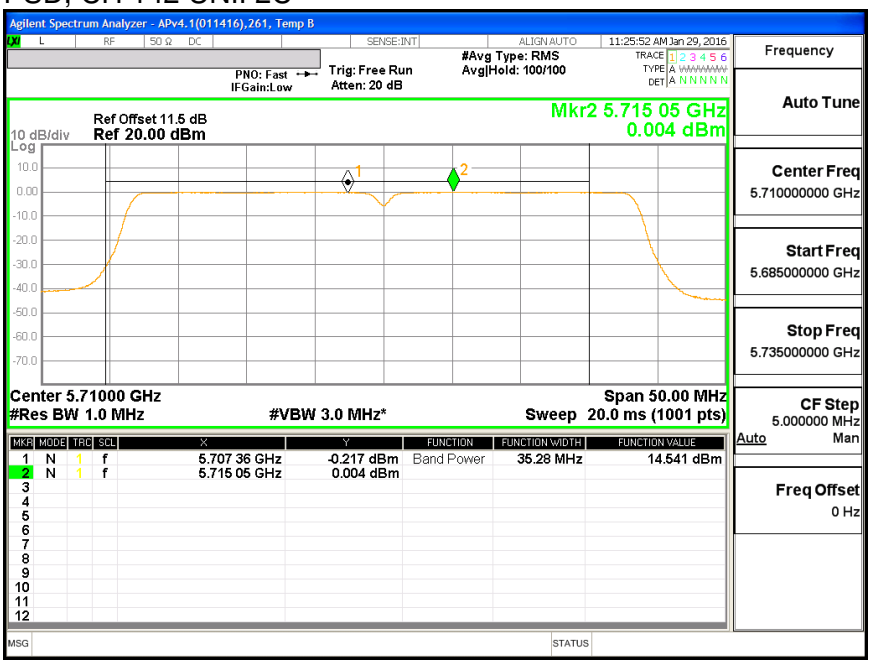
Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	0.00	-0.16	2.93	9.89	-6.96

ANTENNA - A

OUTPUT POWER, CH 142 UNII 2C

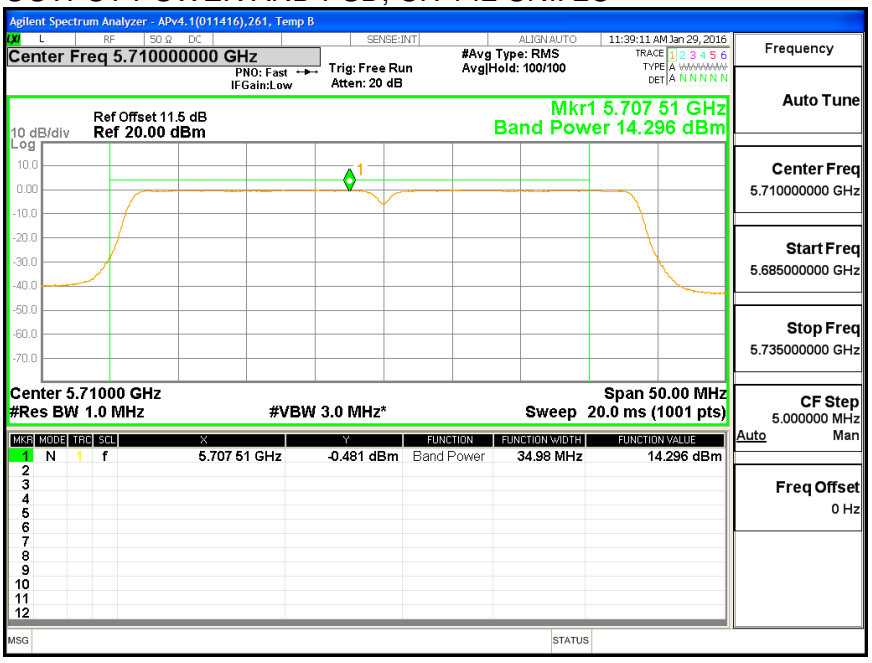


PSD, CH 142 UNII 2C

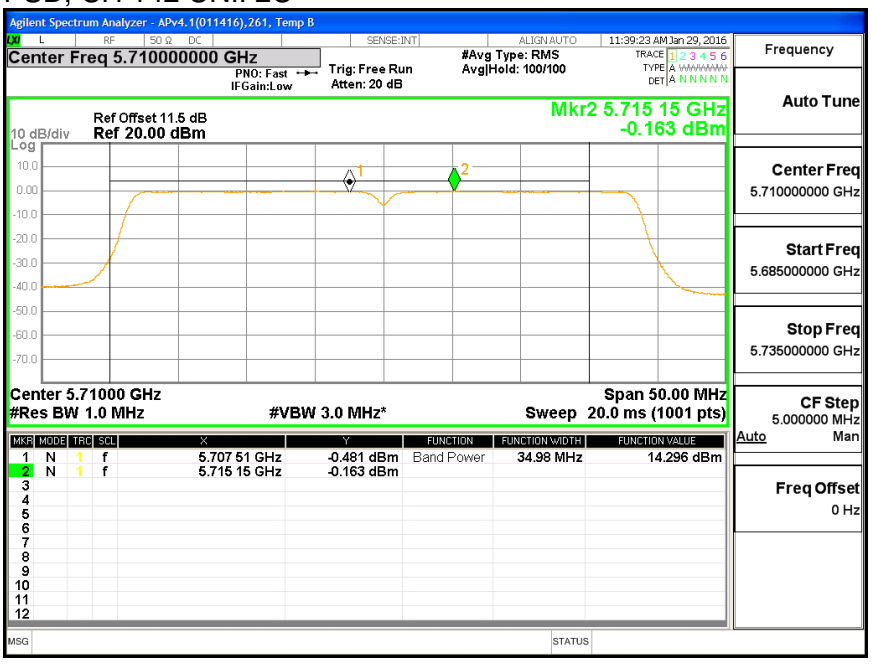


ANTENNA C

OUTPUT POWER AND PSD, CH 142 UNII 2C



PSD, CH 142 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)
142	5710	5.28	4.10	7.11	30.00	28.89

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

Output Power Results

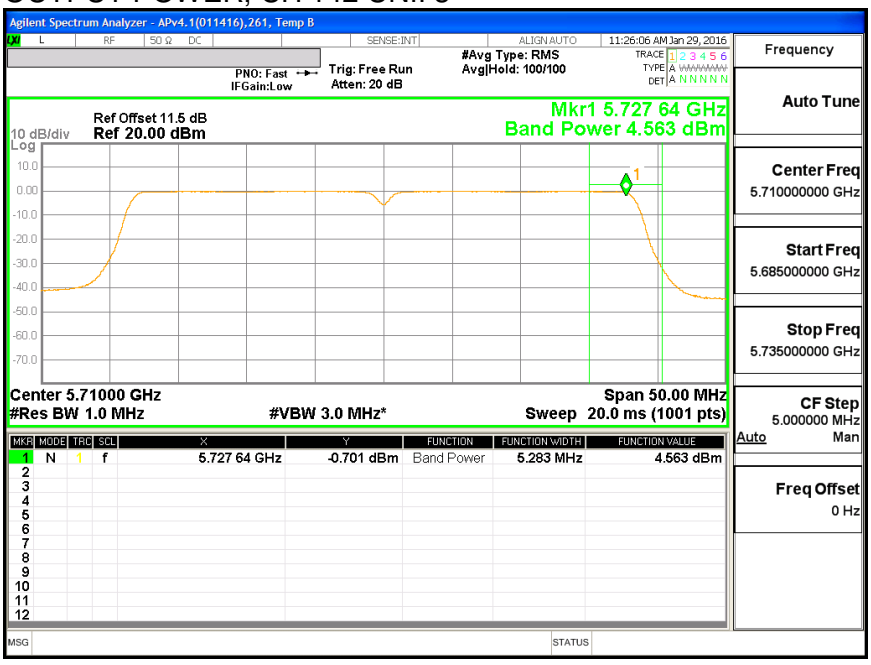
Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	4.56	4.30	7.44	30.00	-22.56

PSD Results

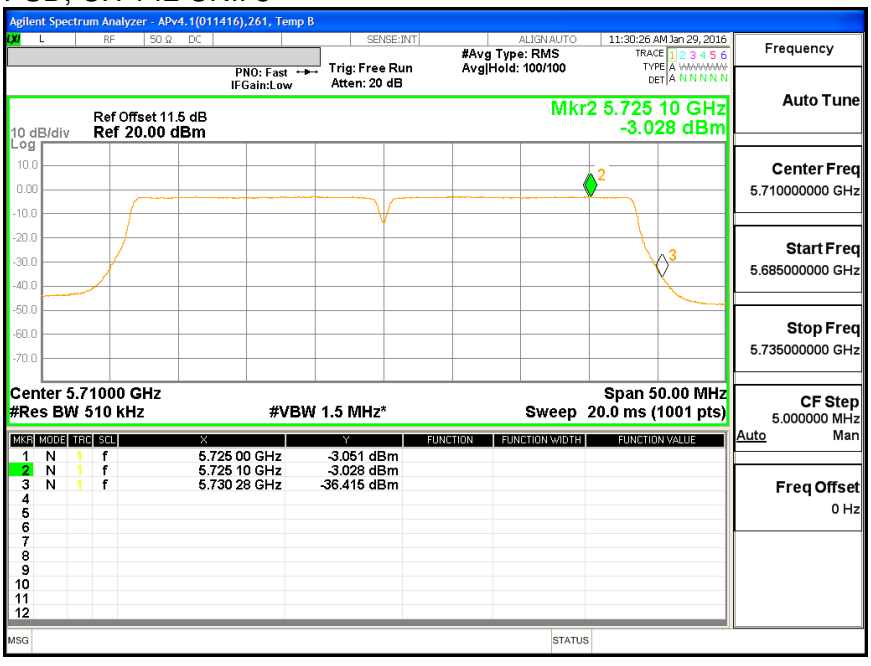
Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-3.03	-3.18	-0.09	28.89	-28.98

ANTENNA - A

OUTPUT POWER, CH 142 UNII 3

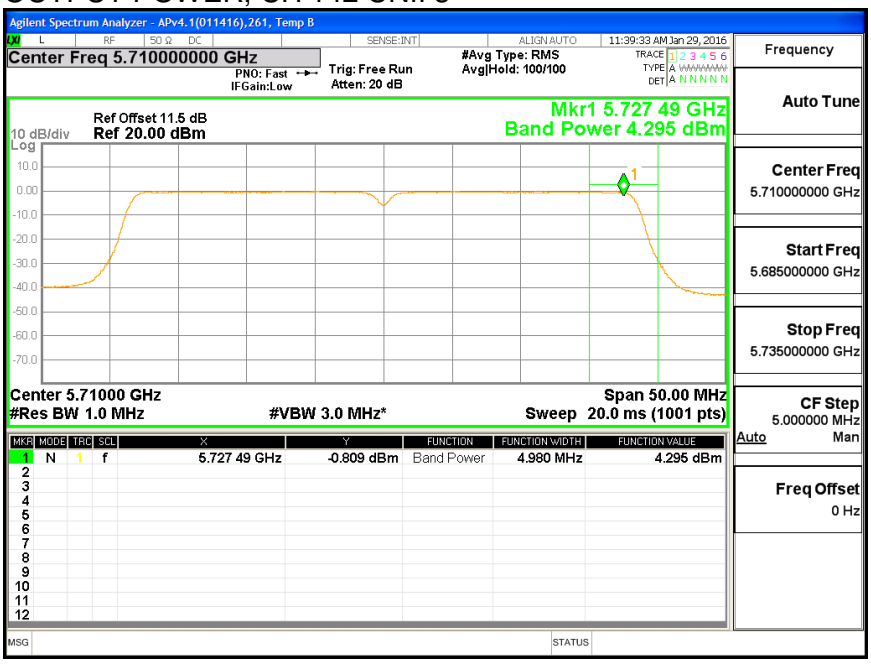


PSD, CH 142 UNII 3

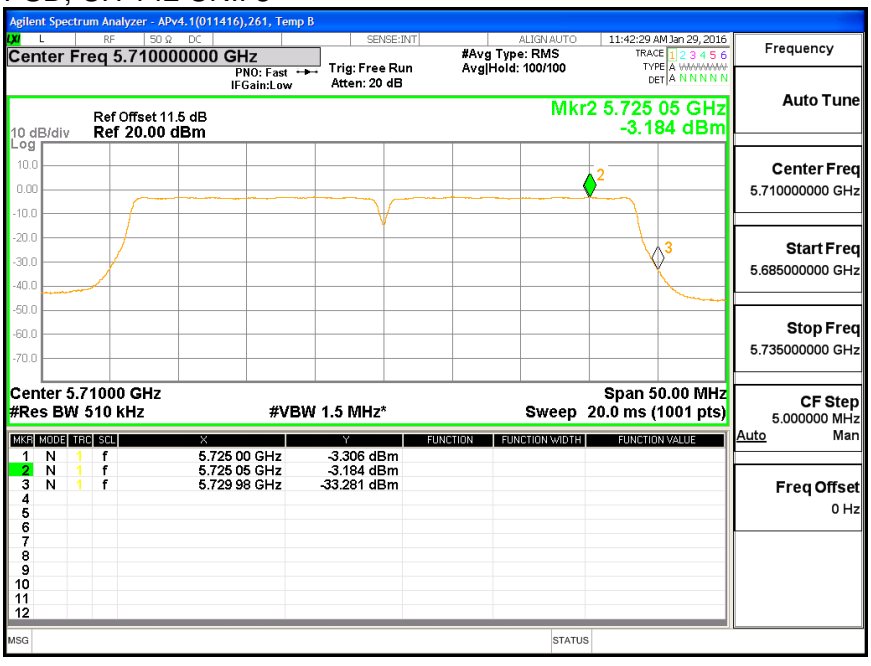


ANTENNA - C

OUTPUT POWER, CH 142 UNII 3



PSD, CH 142 UNII 3



8.91.1. 6 dB BANDWIDTH

LIMITS

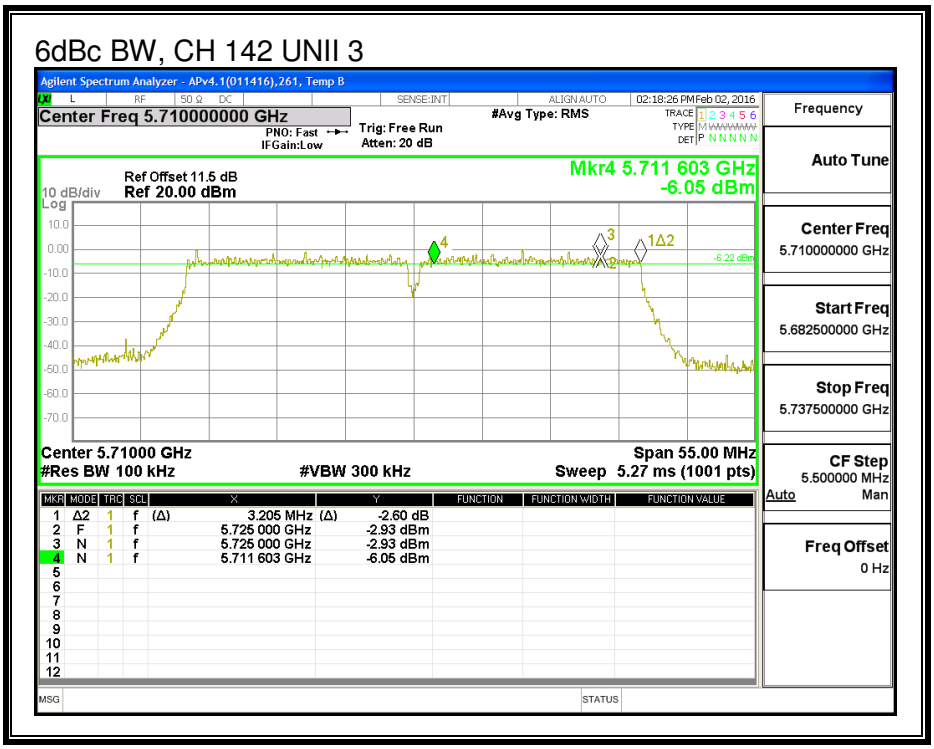
FCC §15.407 (e)

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

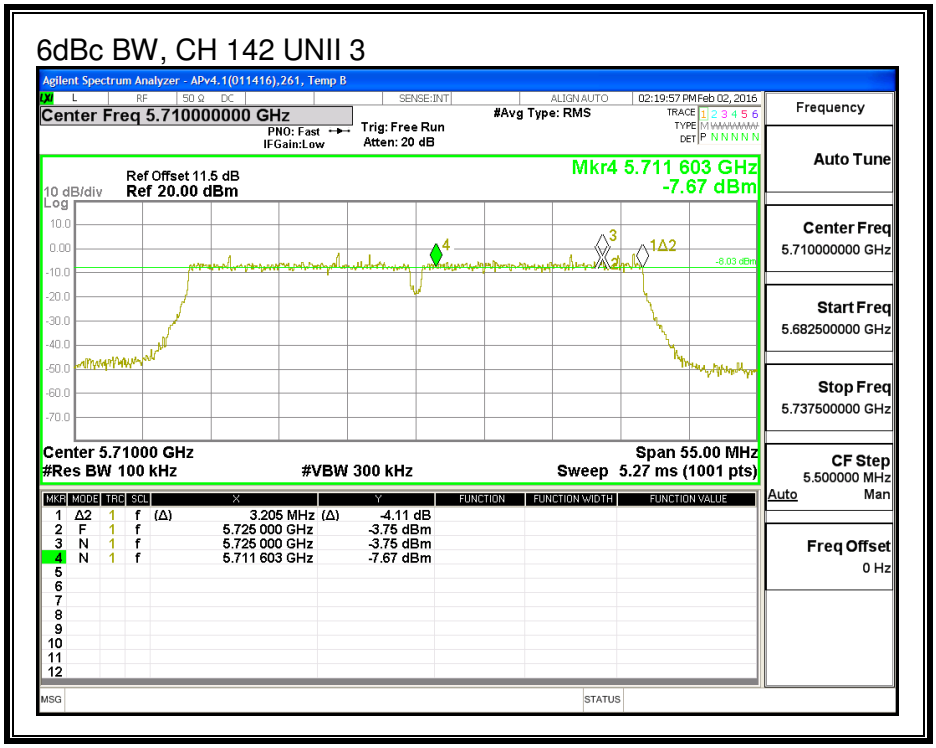
RESULTS

Channel	Frequency (MHz)	6 dB BW Antenna A (MHz)	6 dB BW Antenna C (MHz)
142	5710	3.21	3.21

ANTENNA - A



ANTENNA - C



8.92. 802.11n HT40 ANTENNA B+A STBC MODE IN THE 5.6 GHz BAND

8.92.1. 26 dB BANDWIDTH

LIMITS

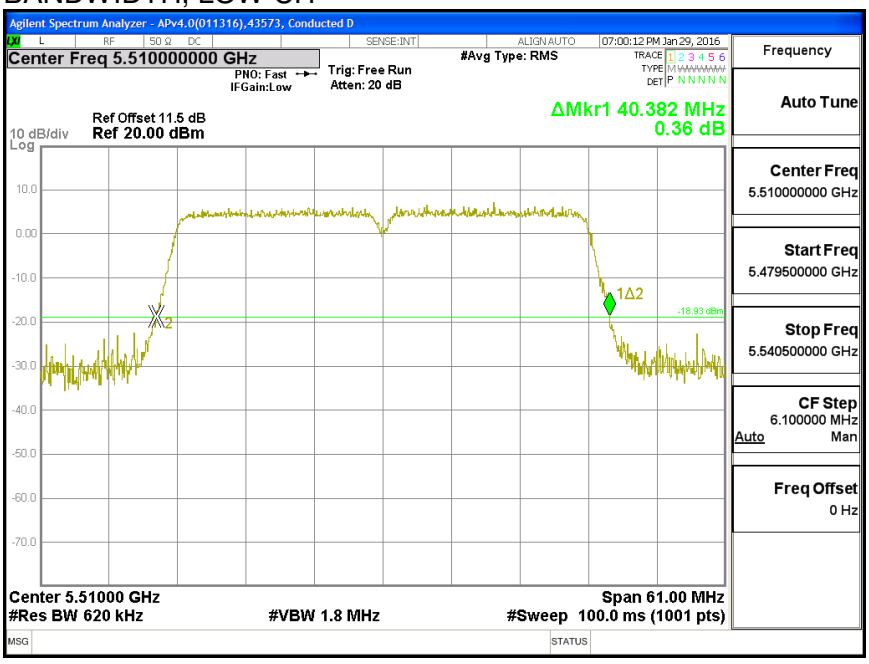
None; for reporting purposes only.

RESULTS

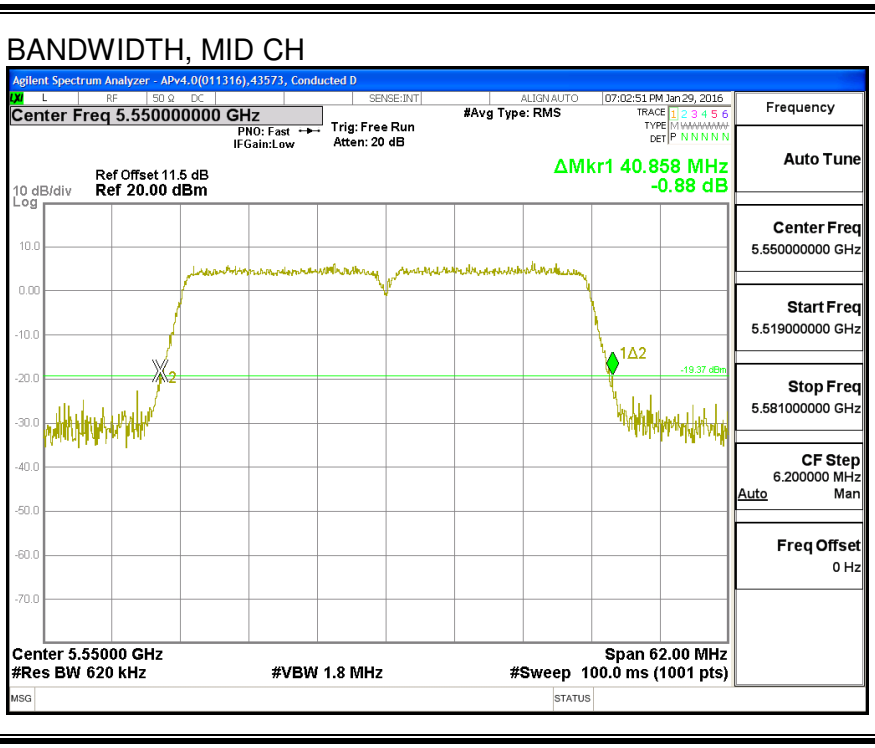
Channel	Frequency (MHz)	26 dB BW Antenna B (MHz)	26 dB BW Antenna A (MHz)
Low	5510	40.38	40.08
Mid	5550	40.86	40.14
High	5670	40.38	39.90
142	5710	40.57	39.96

26 dB BANDWIDTH, ANTENNA - B

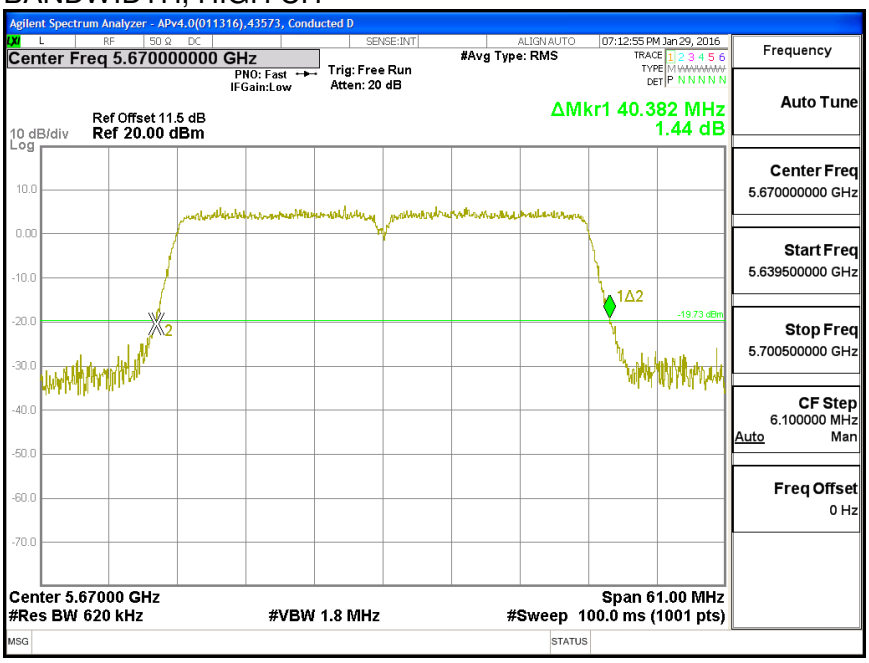
BANDWIDTH, LOW CH



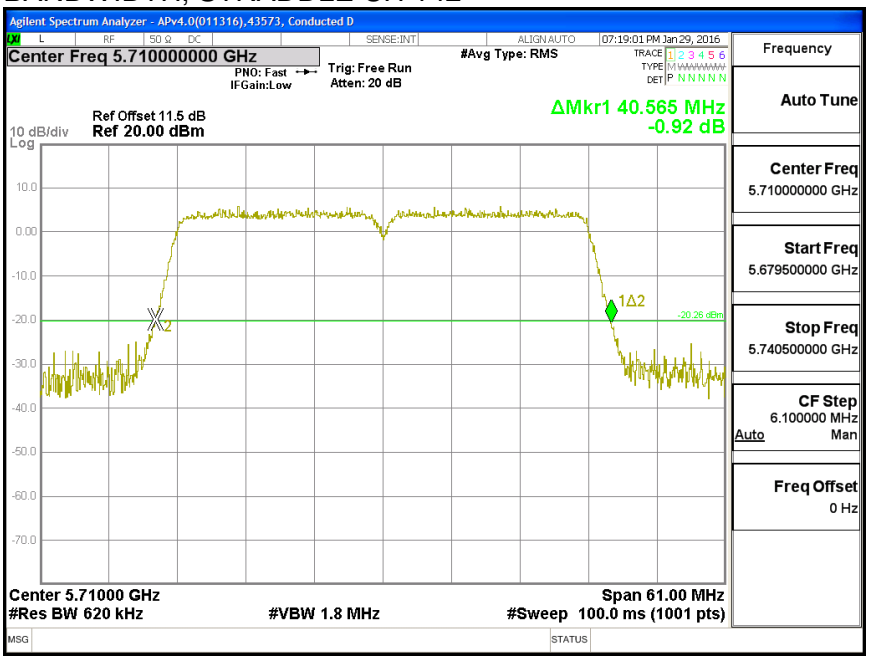
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH

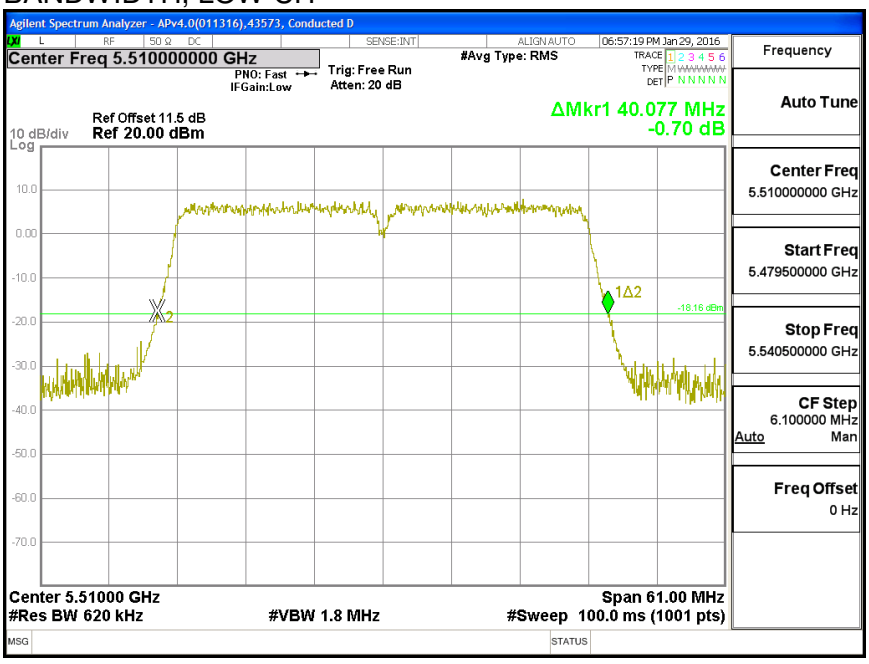


BANDWIDTH, STRADDLE CH 142

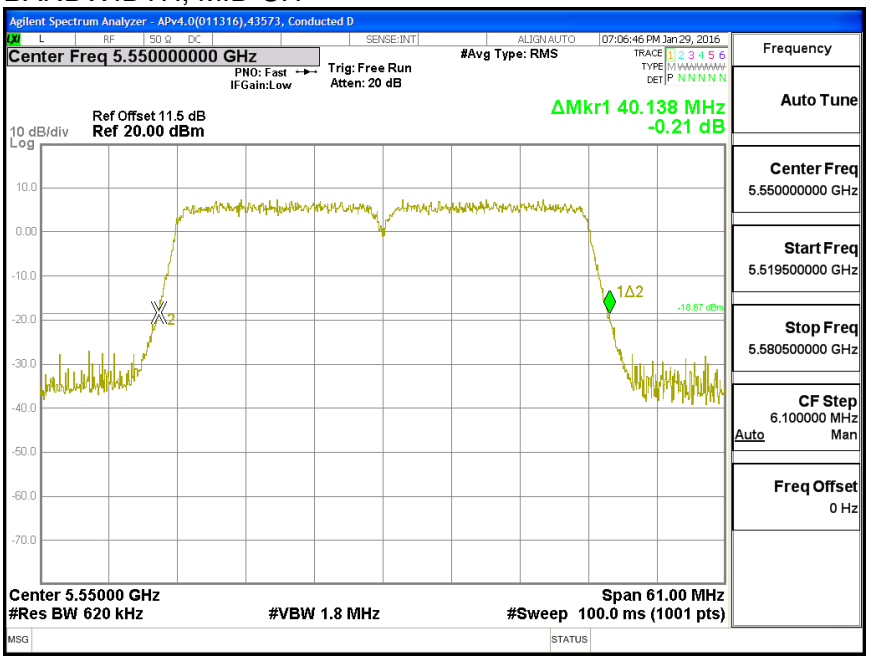


26 dB BANDWIDTH, ANTENNA - A

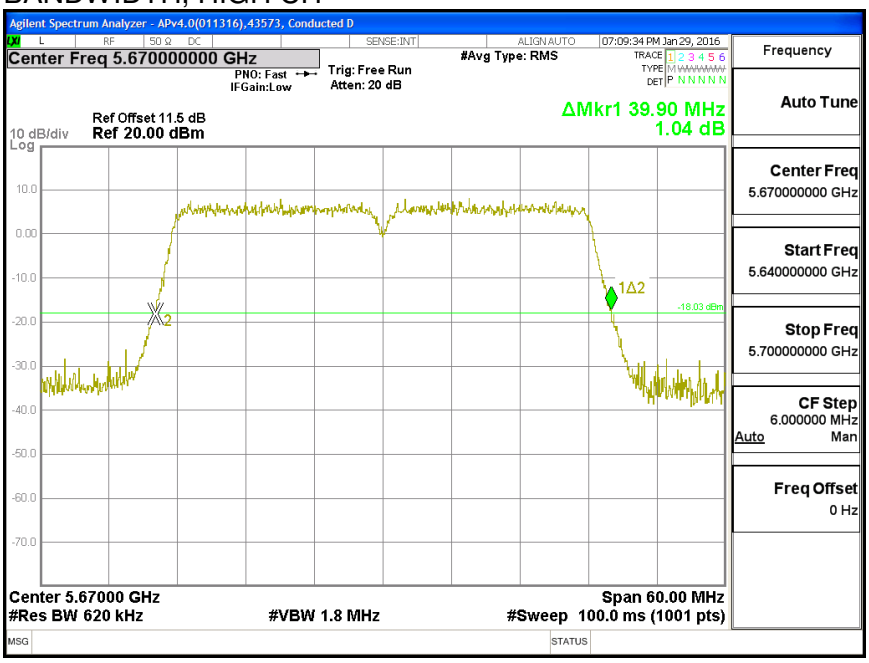
BANDWIDTH, LOW CH



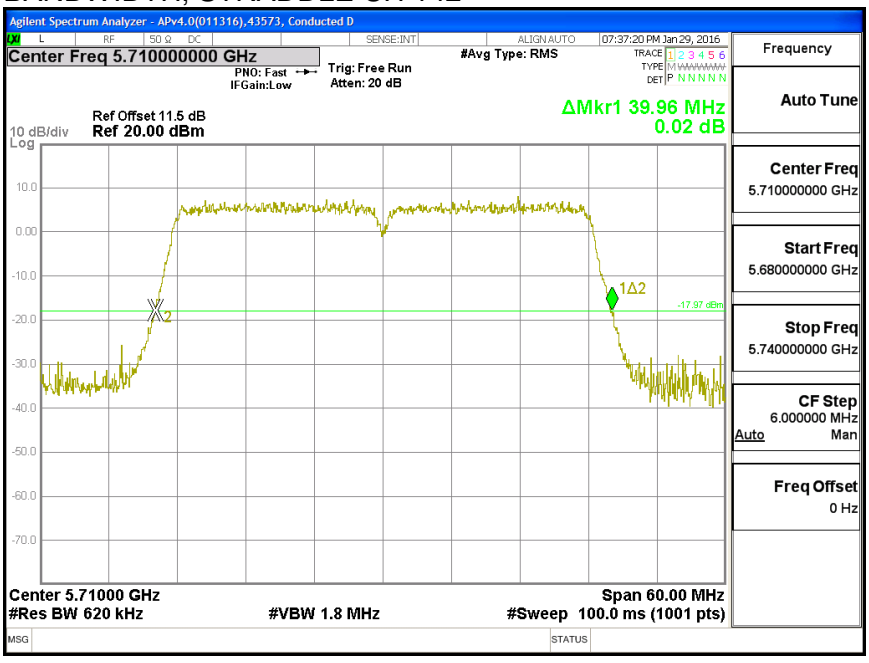
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



BANDWIDTH, STRADDLE CH 142



8.92.2. 99% BANDWIDTH

LIMITS

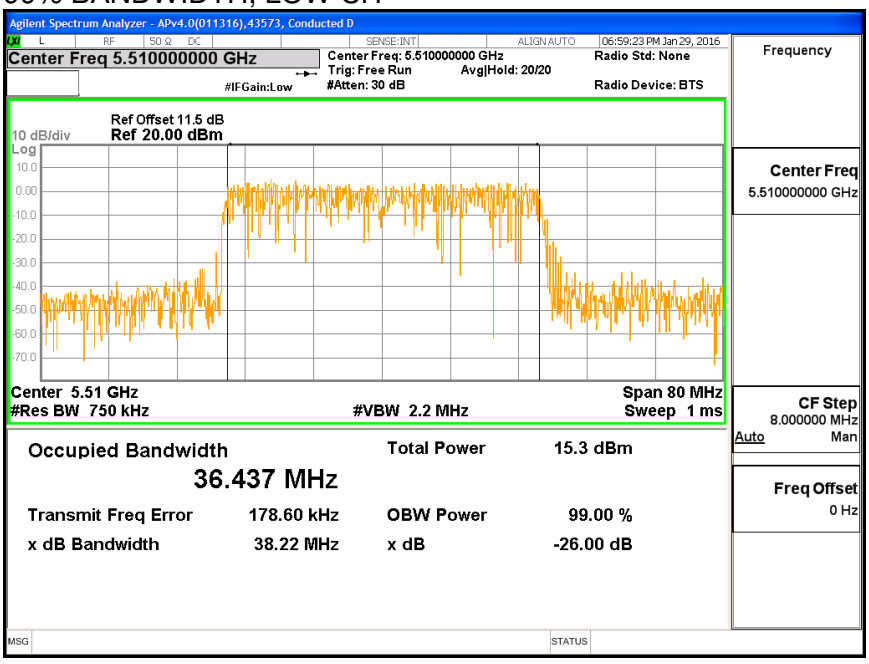
None; for reporting purposes only.

RESULTS

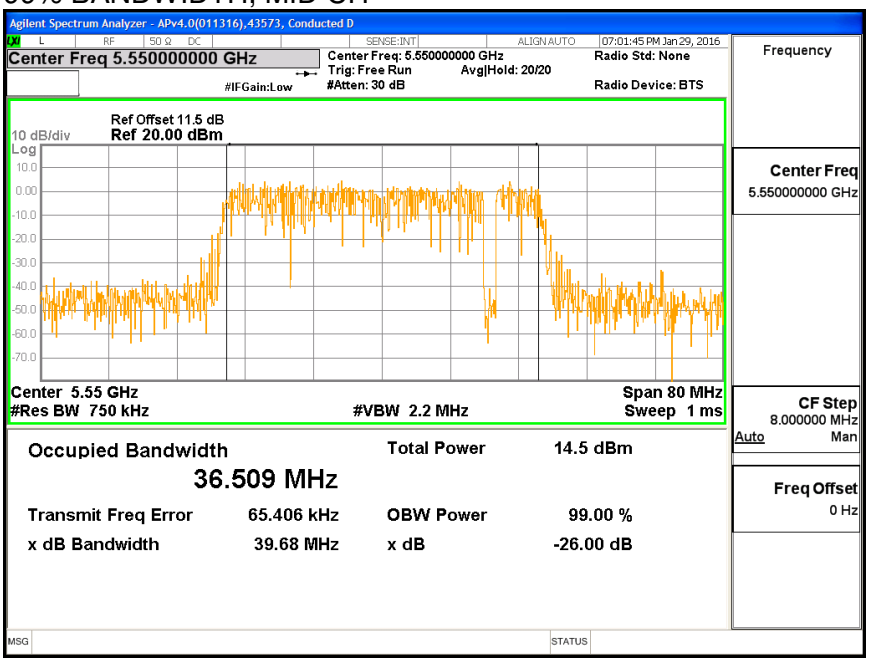
Channel	Frequency (MHz)	99% BW Antenna B (MHz)	99% BW Antenna A (MHz)
Low	5510	36.437	36.514
Mid	5550	36.509	36.434
High	5670	36.429	36.455
142	5710	36.375	36.356

99% BANDWIDTH, ANTENNA - B

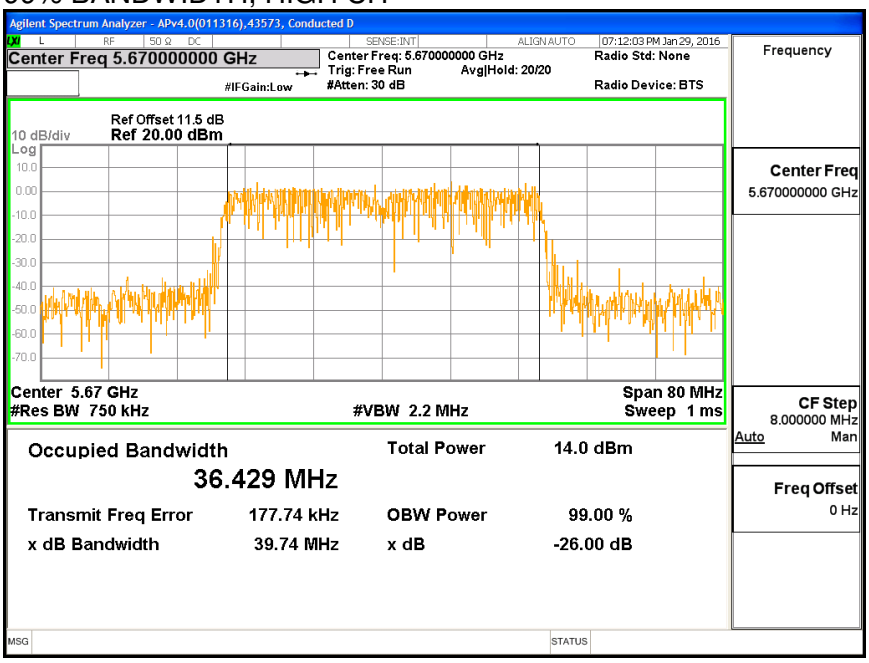
99% BANDWIDTH, LOW CH



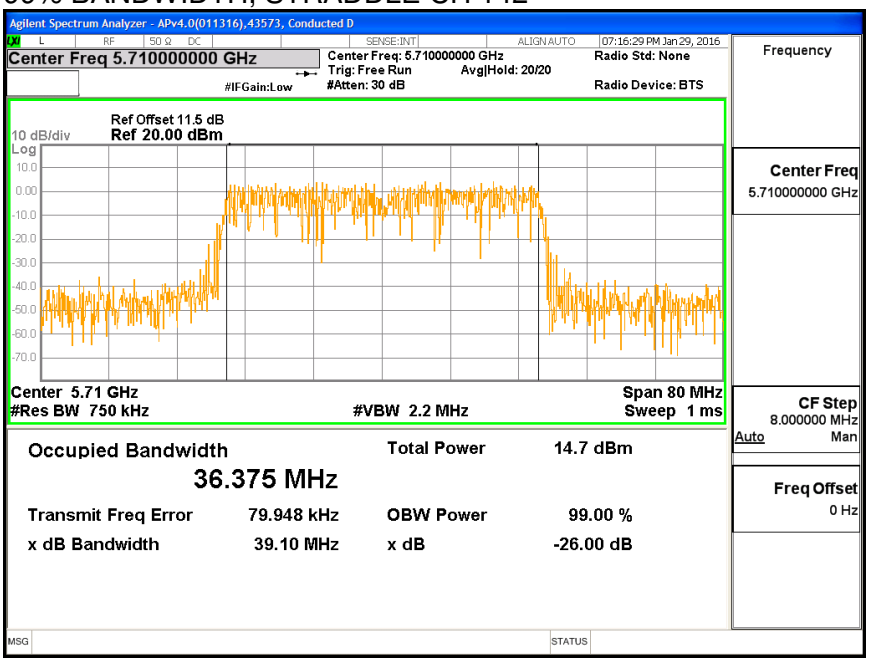
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH

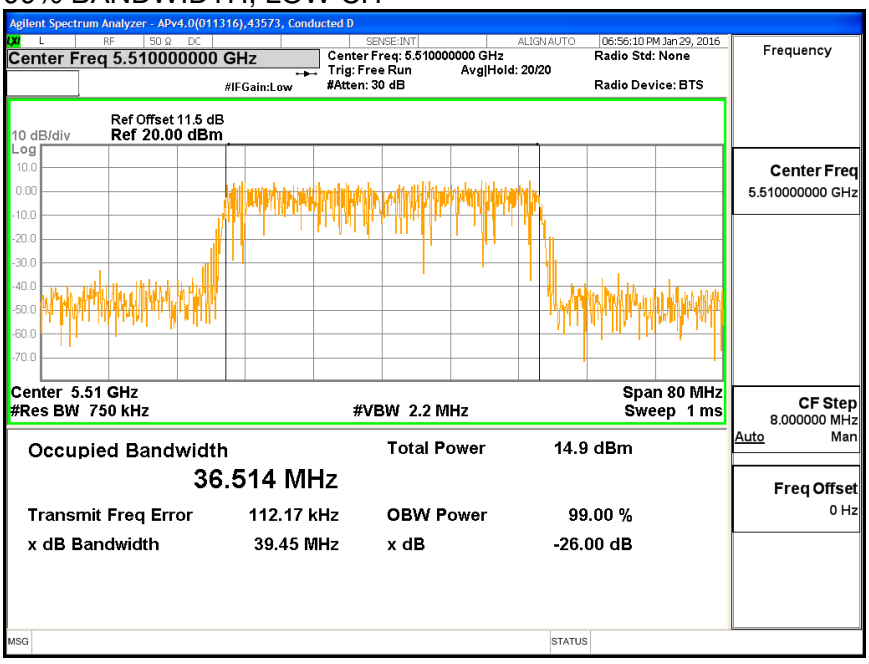


99% BANDWIDTH, STRADDLE CH 142

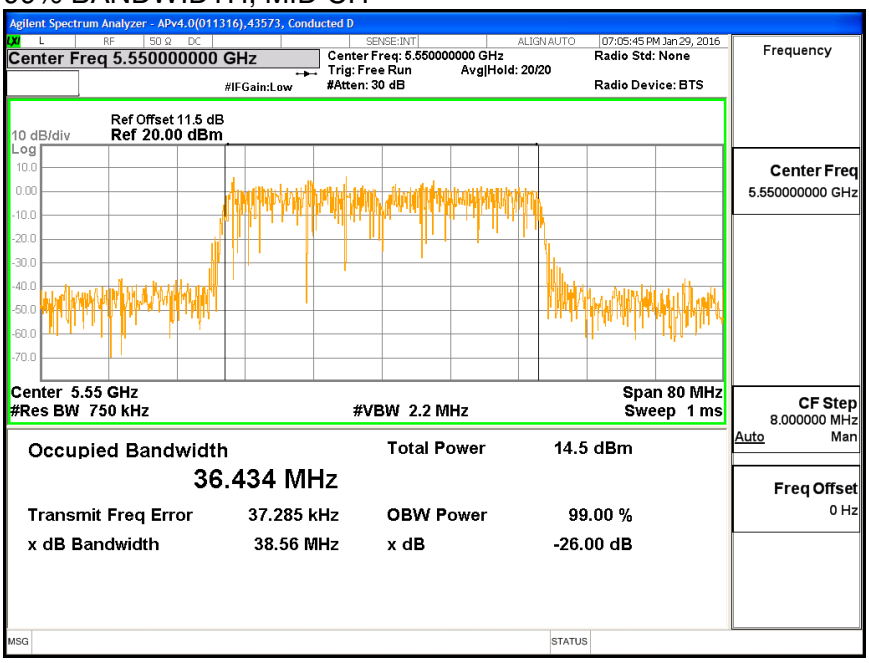


99% BANDWIDTH, ANTENNA - A

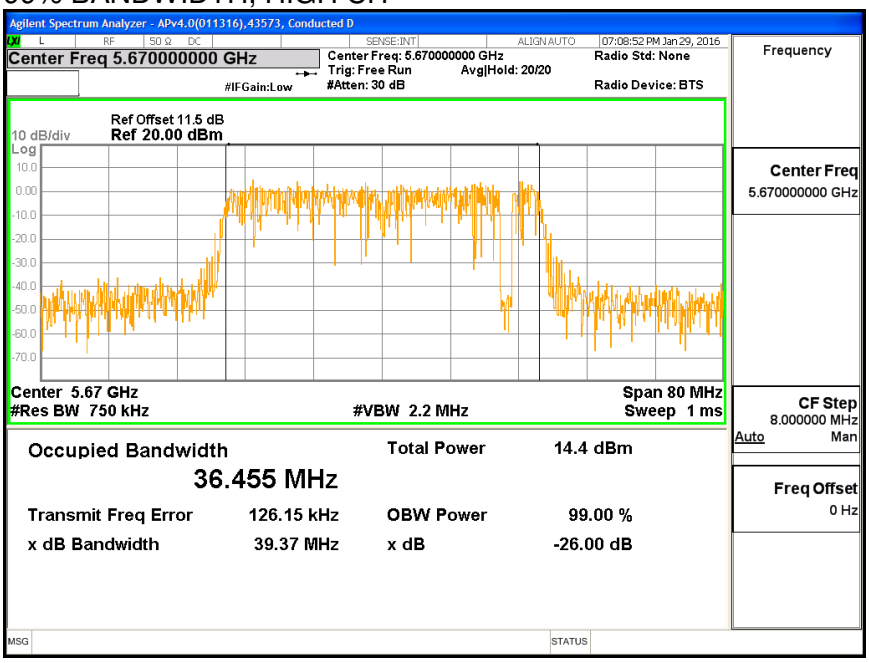
99% BANDWIDTH, LOW CH



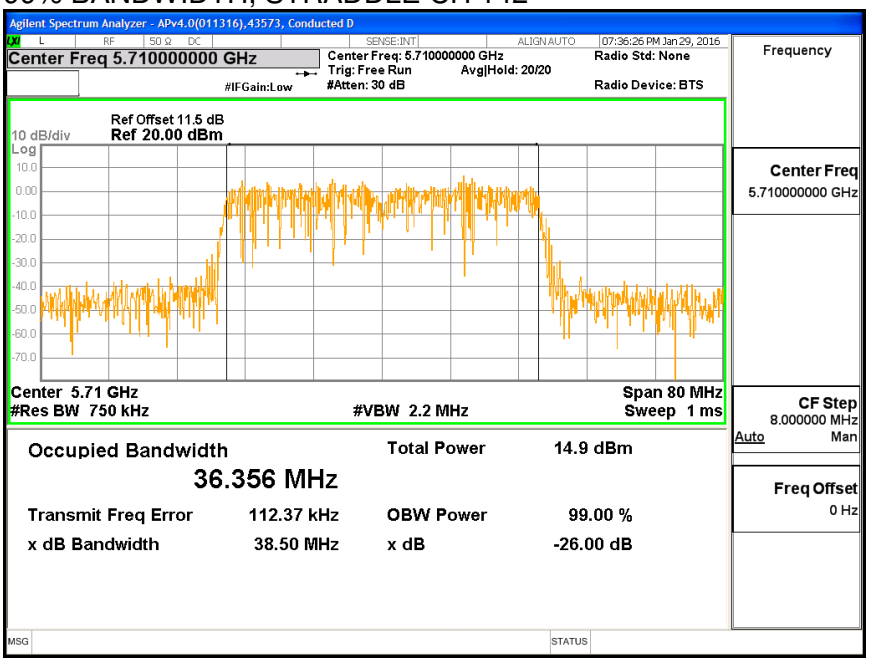
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH



99% BANDWIDTH, STRADDLE CH 142



8.92.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Antenna B Power (dBm)	Antenna A Power (dBm)	Total Power (dBm)
Low	5510	12.99	12.82	15.92
Mid	5590	16.35	16.00	19.19
High	5670	14.96	14.98	17.98
142	5710	16.41	15.94	19.19

8.92.4. 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.

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:

Antenna B Gain (dBi)	Anetnna A Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.83	4.03	3.47

RESULTS

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	5510	40.38	36.514	3.47	3.47	24.00	11.00
Mid	5550	40.86	36.509	3.47	3.47	24.00	11.00
High	5670	40.38	36.455	3.47	3.47	24.00	11.00

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

Output Power Results

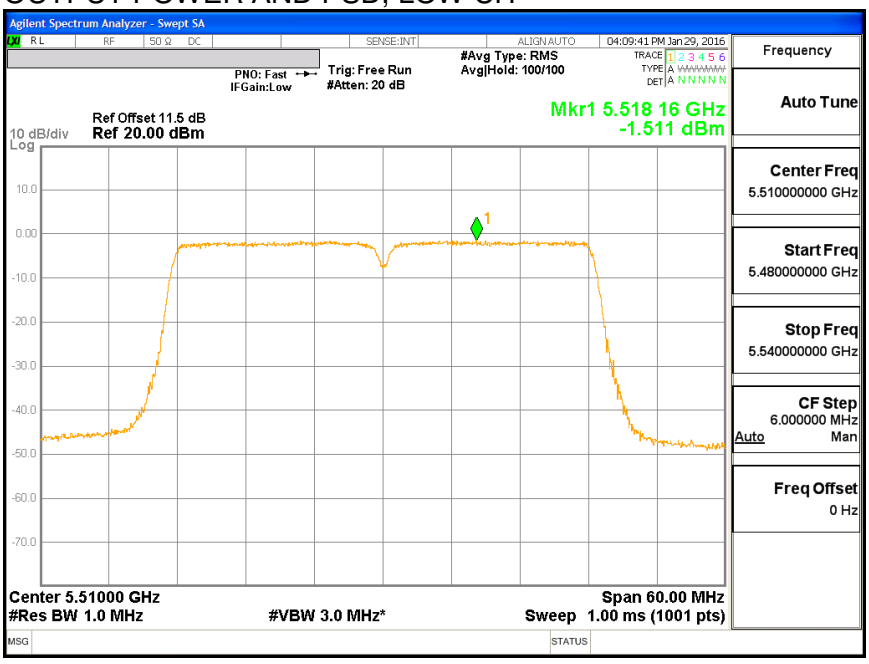
Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	12.99	12.82	15.92	24.00	-8.08
Mid	5550	16.35	16.00	19.19	24.00	-4.81
High	5670	14.96	14.98	17.98	24.00	-6.02

PSD Results

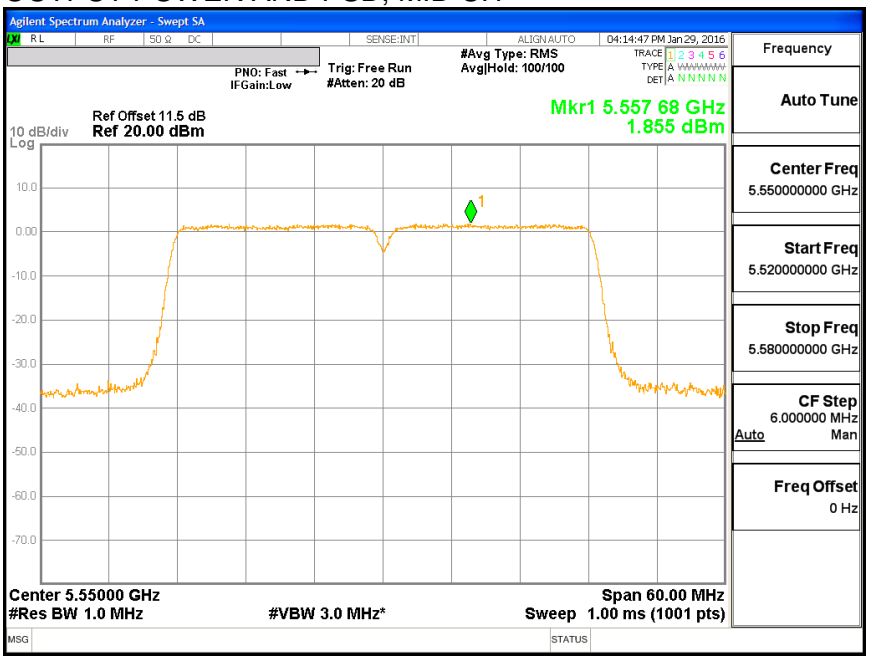
Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	-1.51	-1.63	1.44	11.00	-9.56
Mid	5550	1.86	1.43	4.66	11.00	-6.34
High	5670	0.44	0.46	3.46	11.00	-7.54

OUTPUT POWER AND PSD, ANTENNA - B

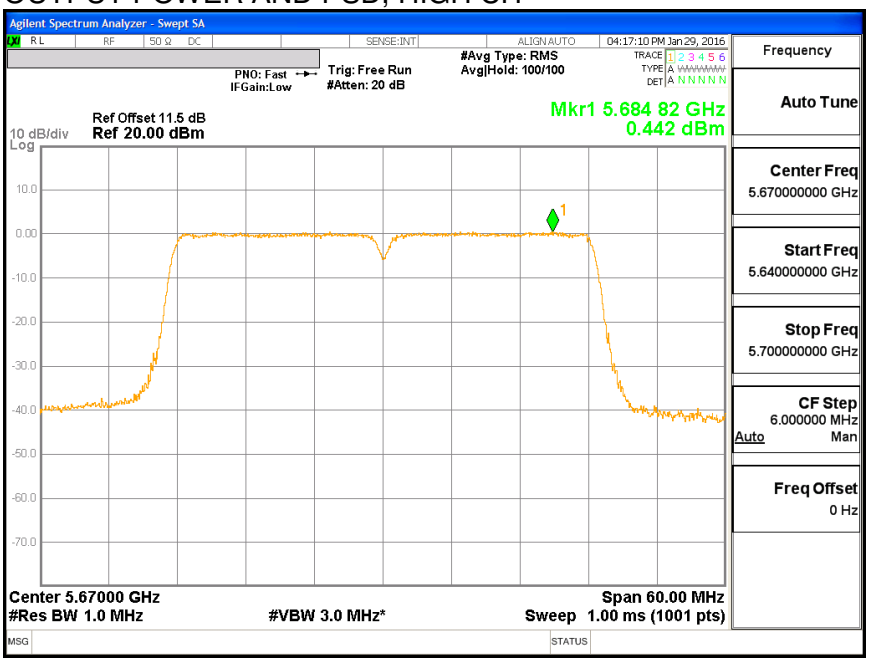
OUTPUT POWER AND PSD, LOW CH



OUTPUT POWER AND PSD, MID CH

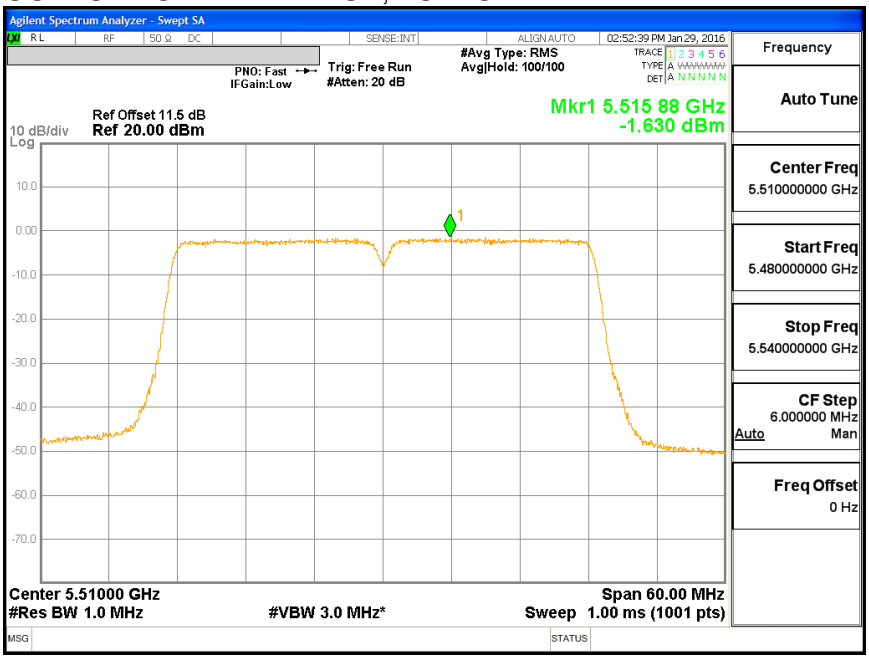


OUTPUT POWER AND PSD, HIGH CH

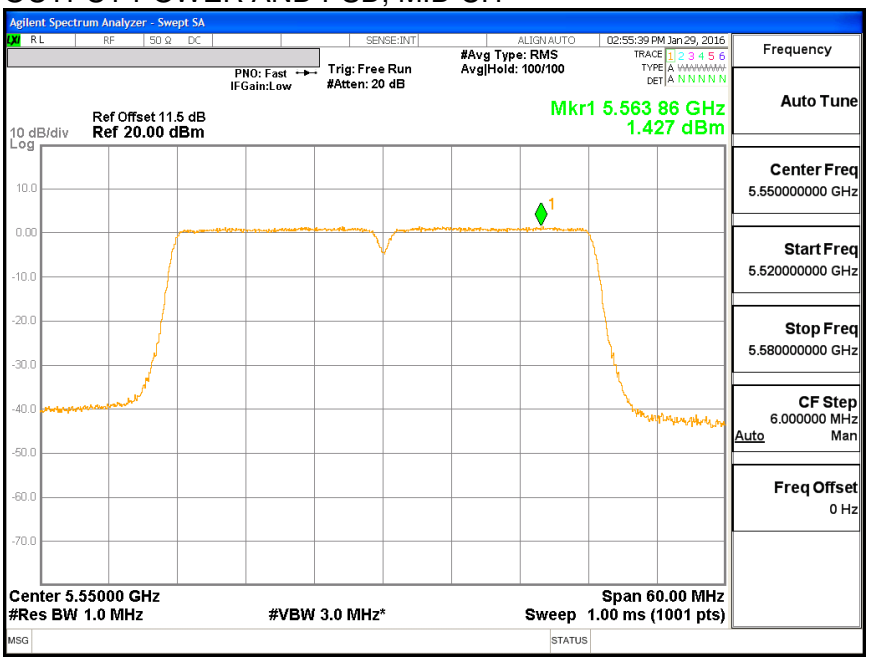


OUTPUT POWER AND PSD, ANTENNA - A

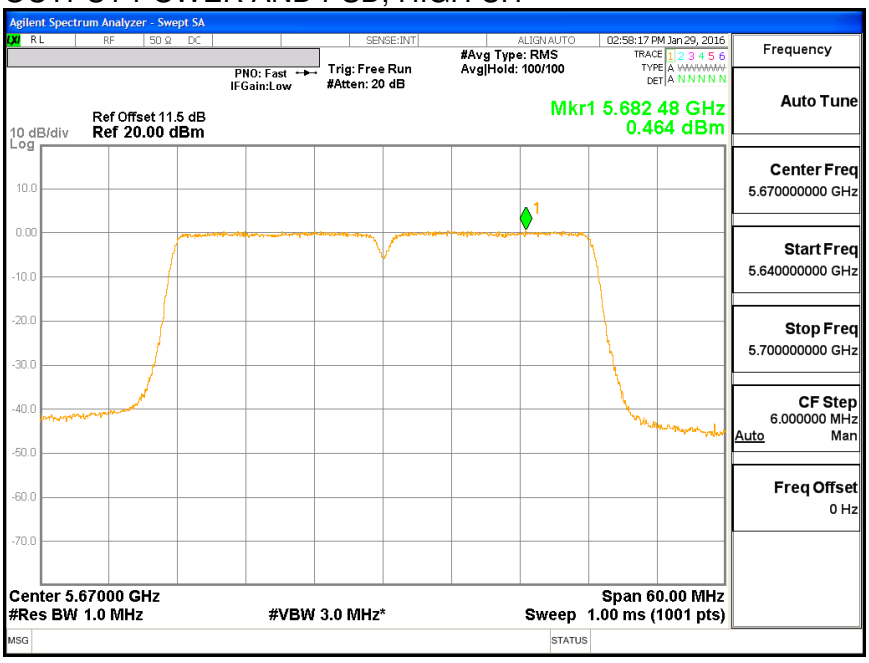
OUTPUT POWER AND PSD, LOW CH



OUTPUT POWER AND PSD, MID CH



OUTPUT POWER AND PSD, HIGH CH



8.93. 802.11ac VHT40 ANTENNA B+A STBC STRADDLE CHANNEL 142 RESULTS

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)
142	5710	35.28	3.47	3.47	24.00	11.00

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

Output Power Results

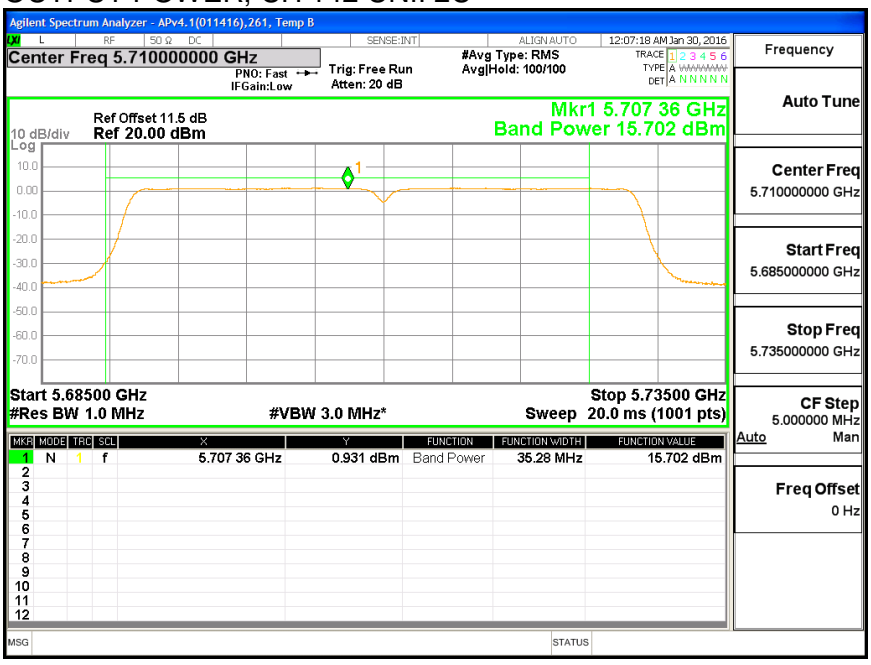
Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	15.70	15.37	18.55	24.00	-5.45

PSD Results

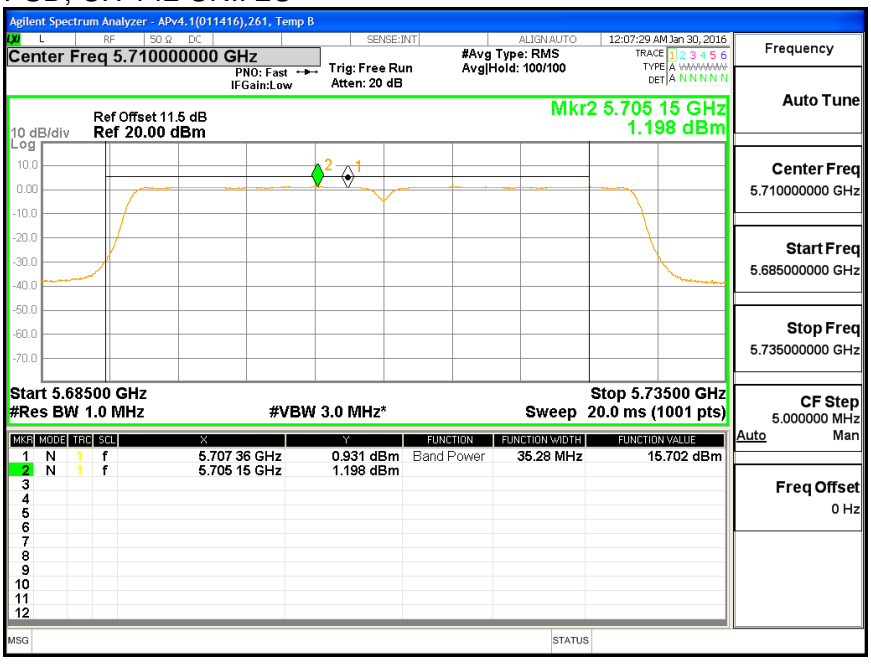
Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	1.20	0.83	4.03	11.00	-6.97

ANTENNA - B

OUTPUT POWER, CH 142 UNII 2C

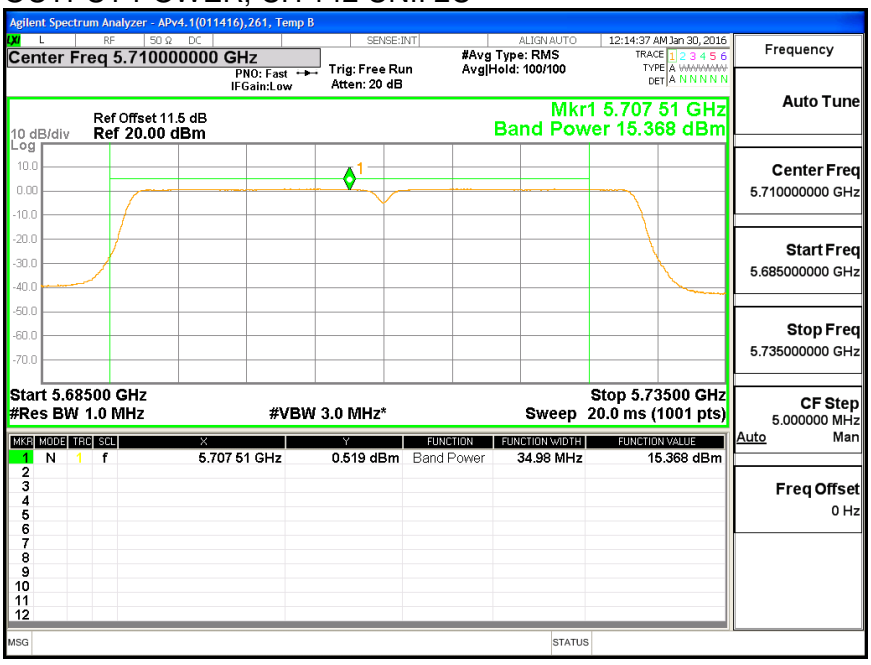


PSD, CH 142 UNII 2C

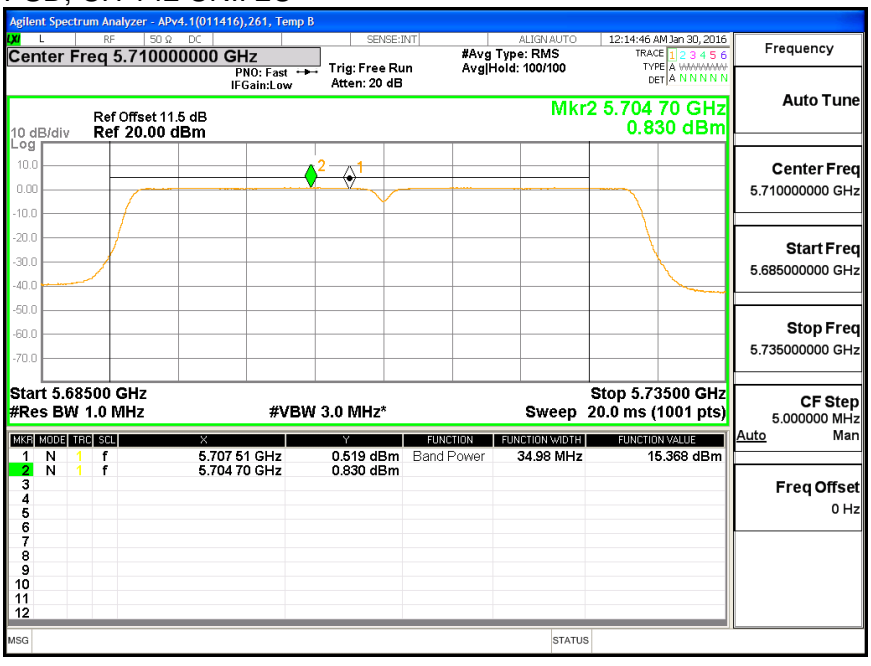


ANTENNA - A

OUTPUT POWER, CH 142 UNII 2C



PSD, CH 142 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)
142	5710	5.28	3.47	3.47	30.00	30.00

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

Output Power Results

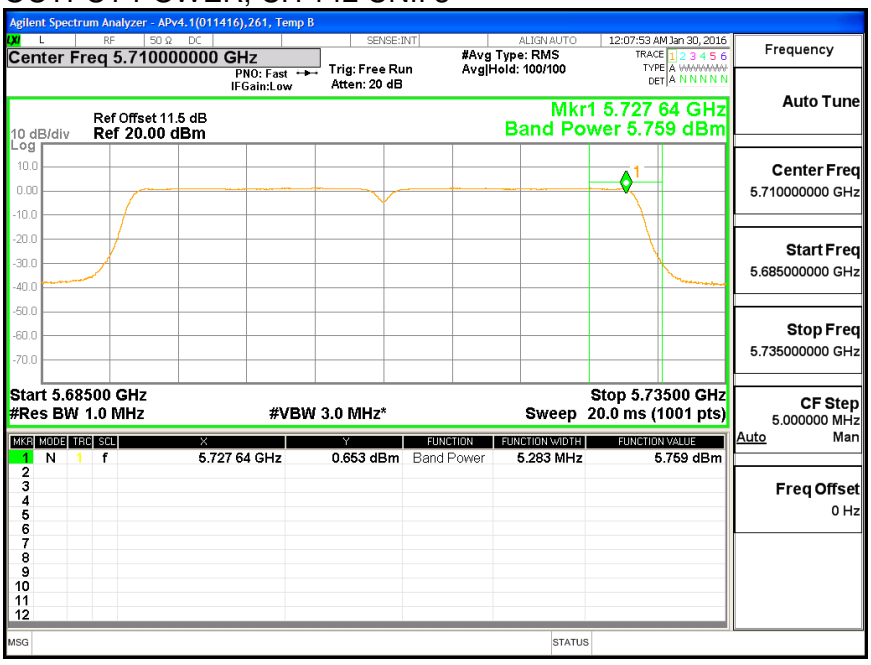
Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	5.76	5.38	8.58	30.00	-21.42

PSD Results

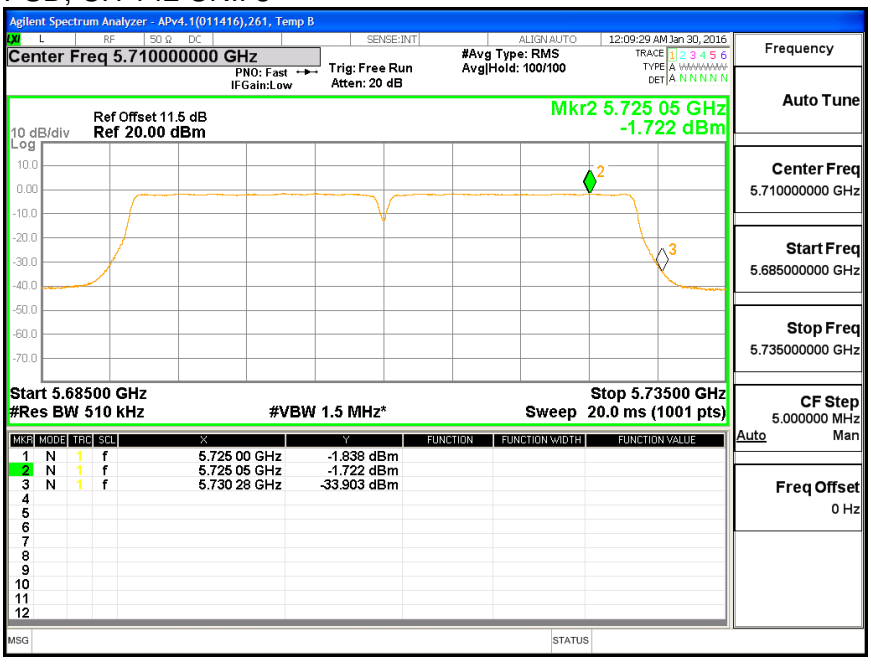
Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-1.72	-2.19	1.06	30.00	-28.94

ANTENNA - B

OUTPUT POWER, CH 142 UNII 3

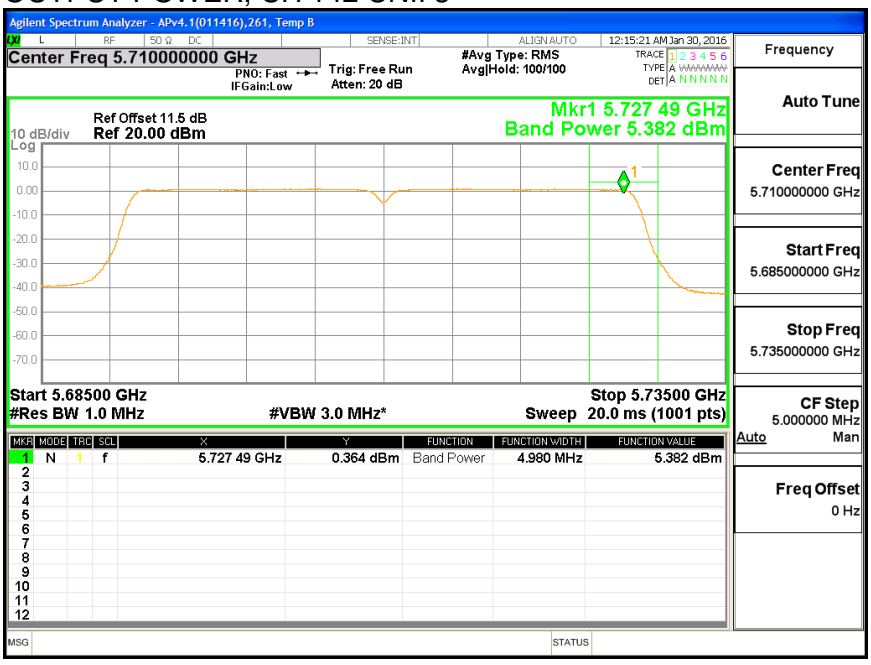


PSD, CH 142 UNII 3

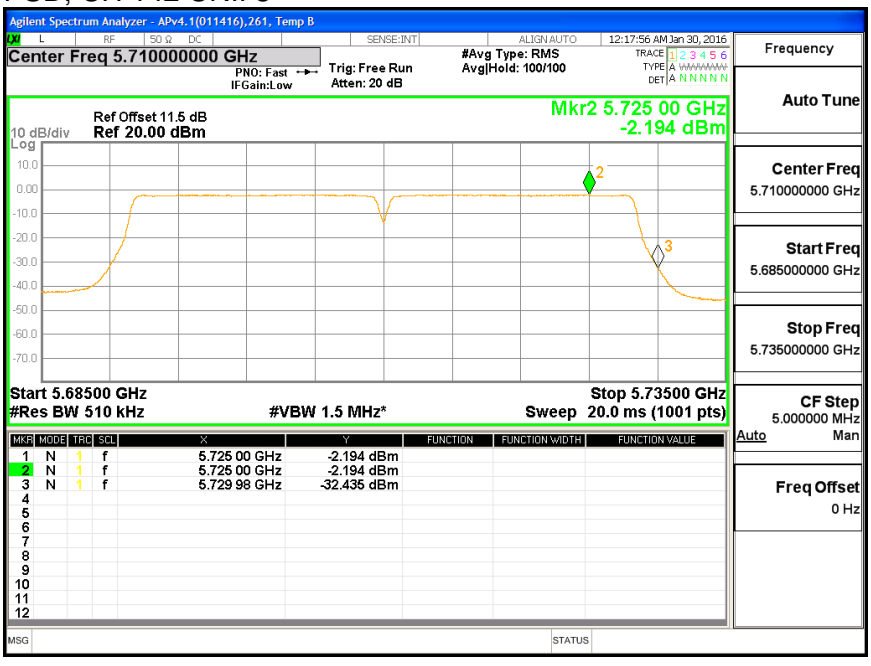


ANTENNA - A

OUTPUT POWER, CH 142 UNII 3



PSD, CH 142 UNII 3



8.93.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

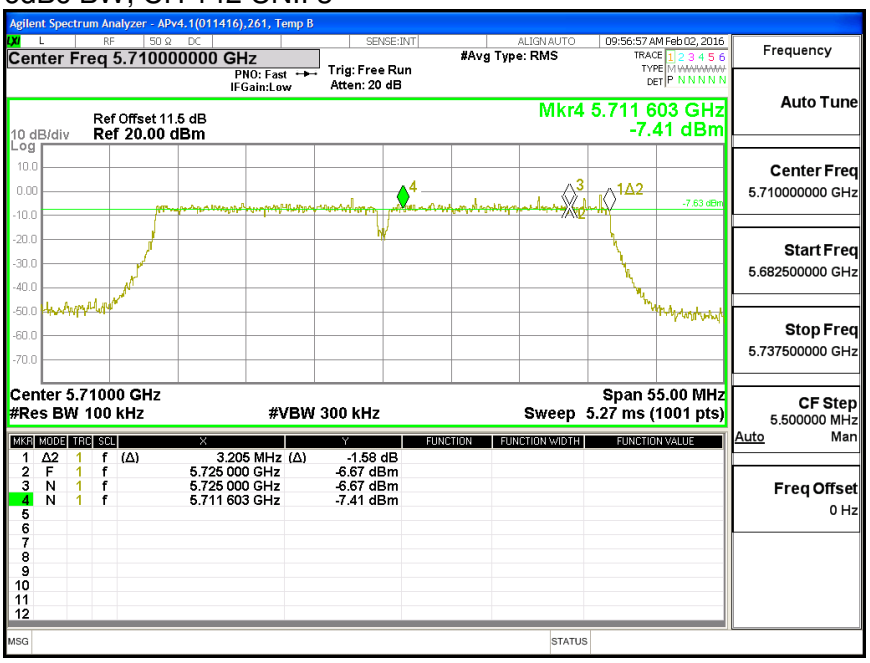
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB BW Antenna B (MHz)	6 dB BW Antenna A (MHz)
142	5710	3.21	3.21

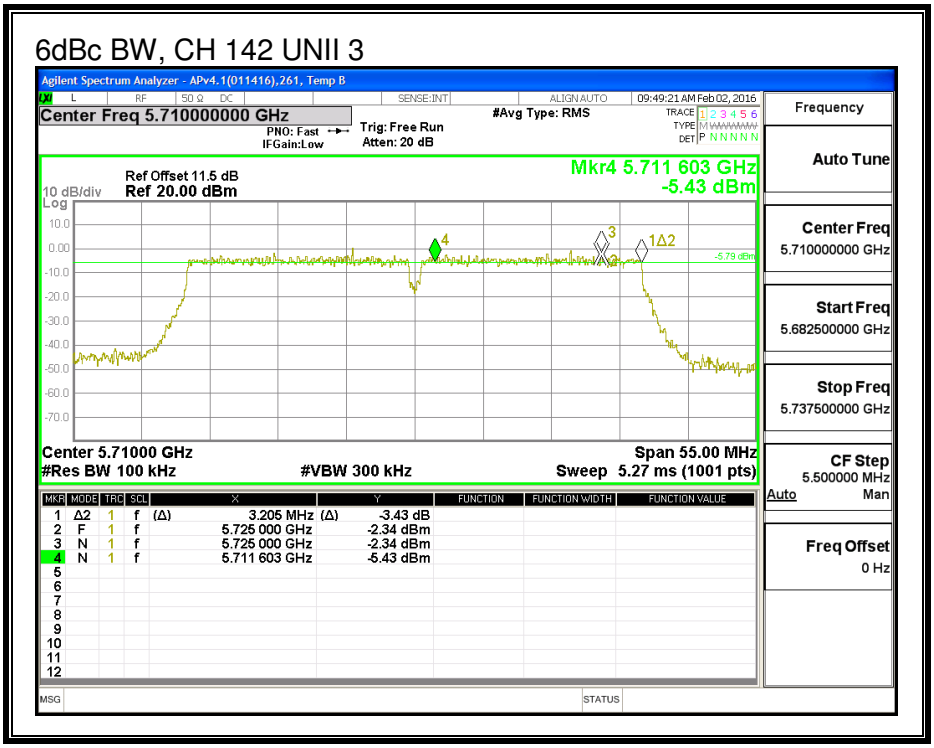
ANTENNA - B

6dBc BW, CH 142 UNII 3



ANTENNA – A

6dBc BW, CH 142 UNII 3



8.94. 802.11n HT40 ANTENNA A+C STBC MODE IN THE 5.6 GHz BAND

8.94.1. 26 dB BANDWIDTH

LIMITS

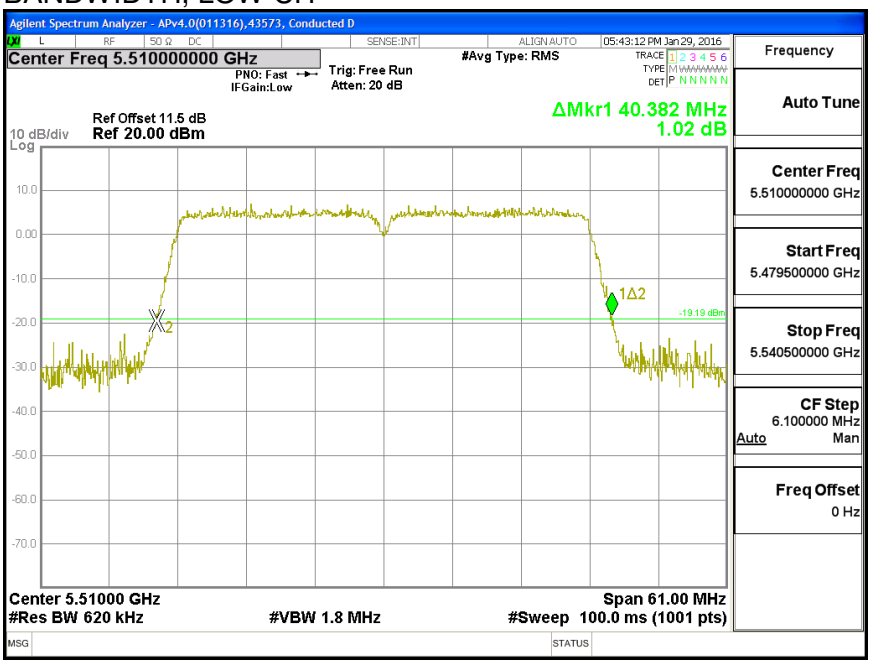
None; for reporting purposes only.

RESULTS

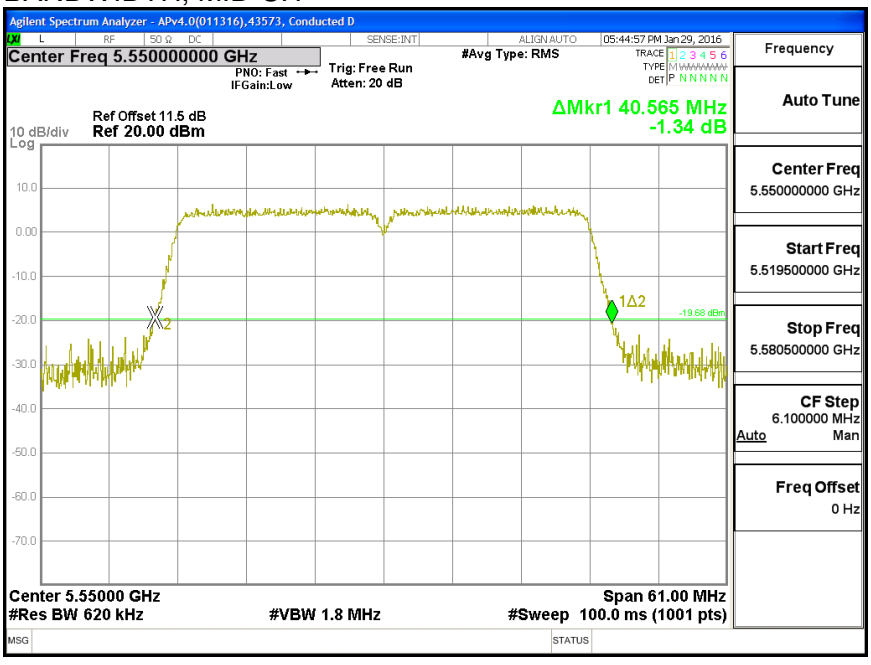
Channel	Frequency (MHz)	26 dB BW Antenna A (MHz)	26 dB BW Antenna C (MHz)
Low	5510	40.38	40.08
Mid	5550	40.57	40.14
High	5670	40.38	39.90
142	5710	40.57	40.08

26 dB BANDWIDTH, ANTENNA - A

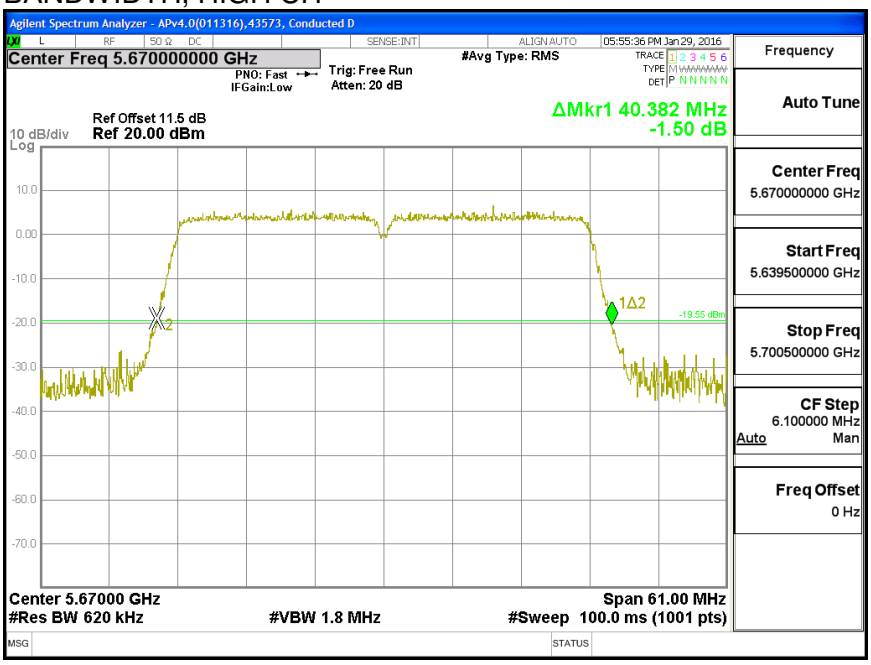
BANDWIDTH, LOW CH



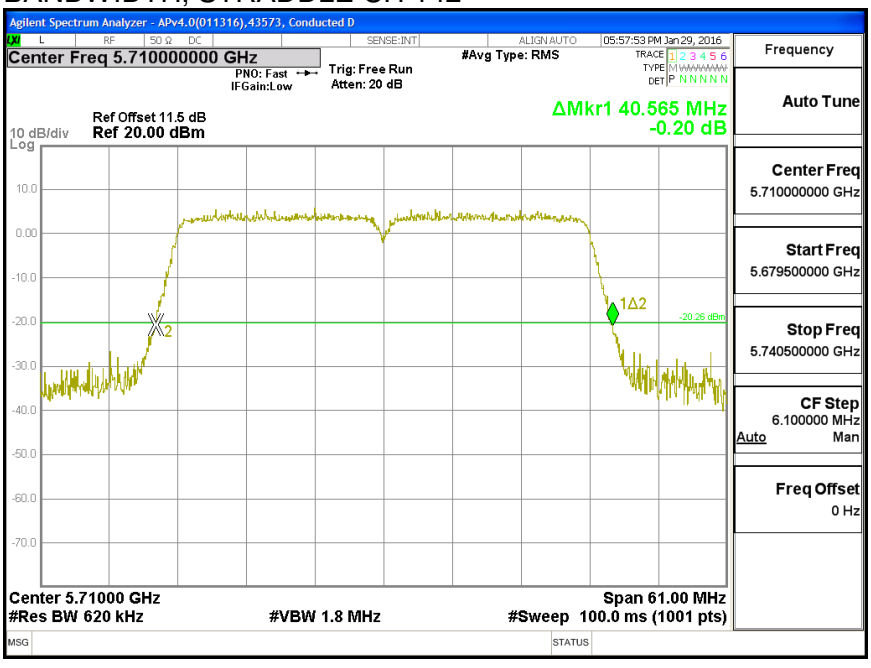
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH

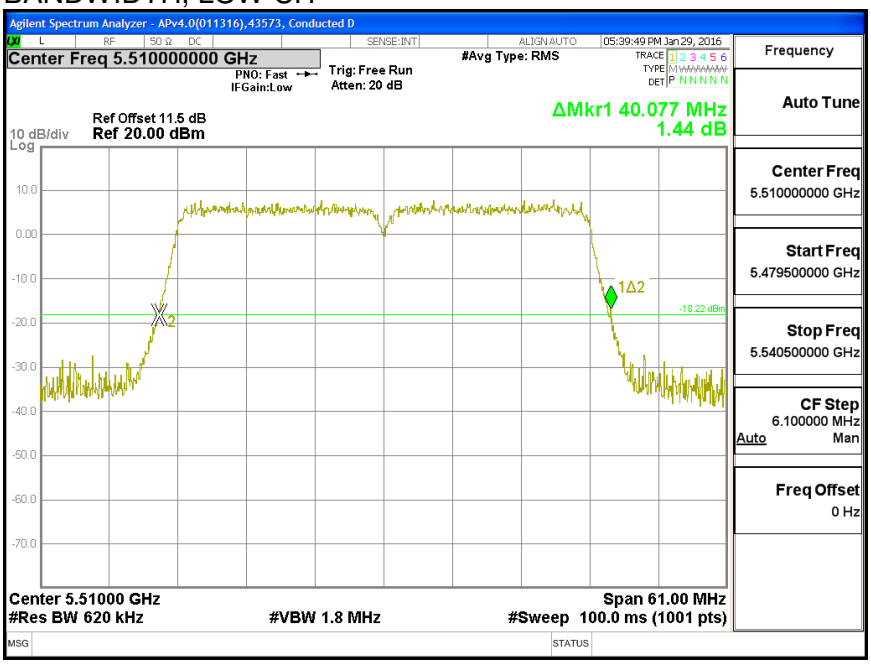


BANDWIDTH, STRADDLE CH 142

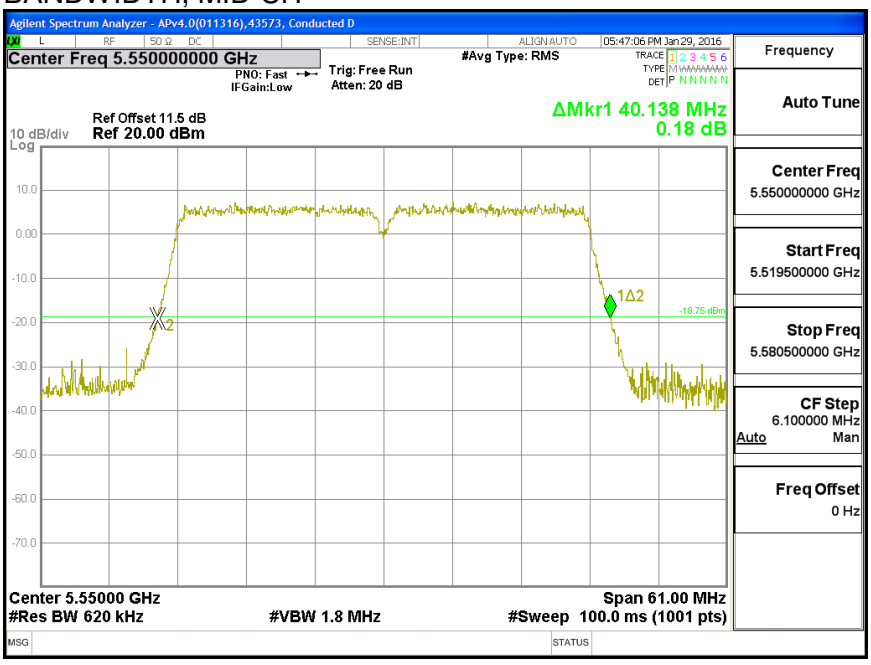


26 dB BANDWIDTH, ANTENNA - C

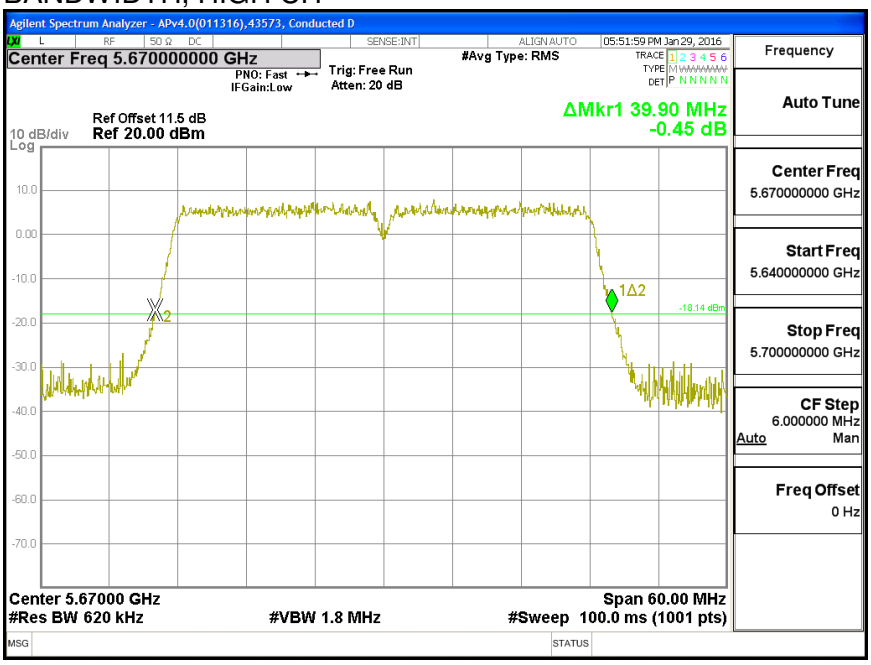
BANDWIDTH, LOW CH



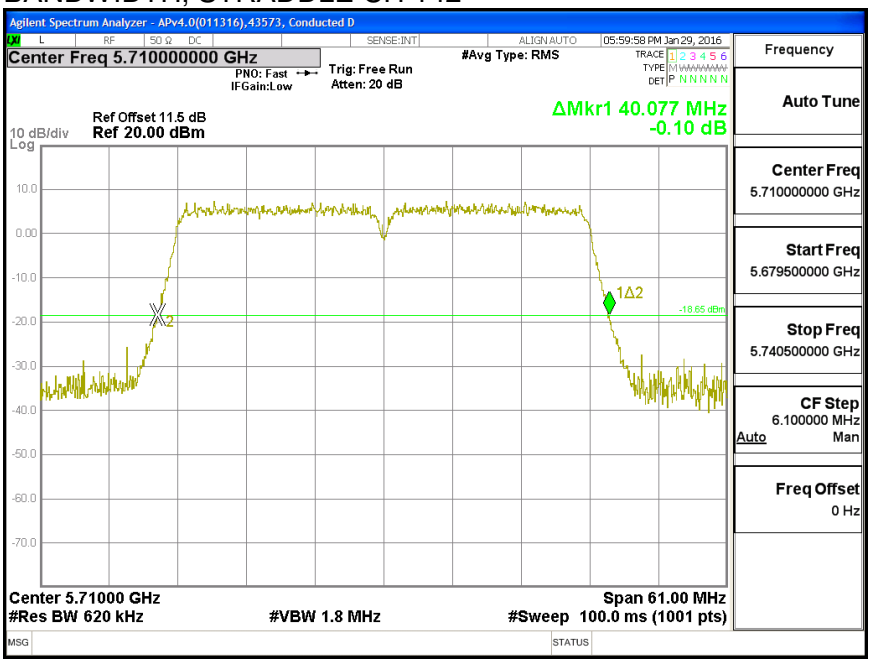
BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



BANDWIDTH, STRADDLE CH 142



8.94.2. 99% BANDWIDTH

LIMITS

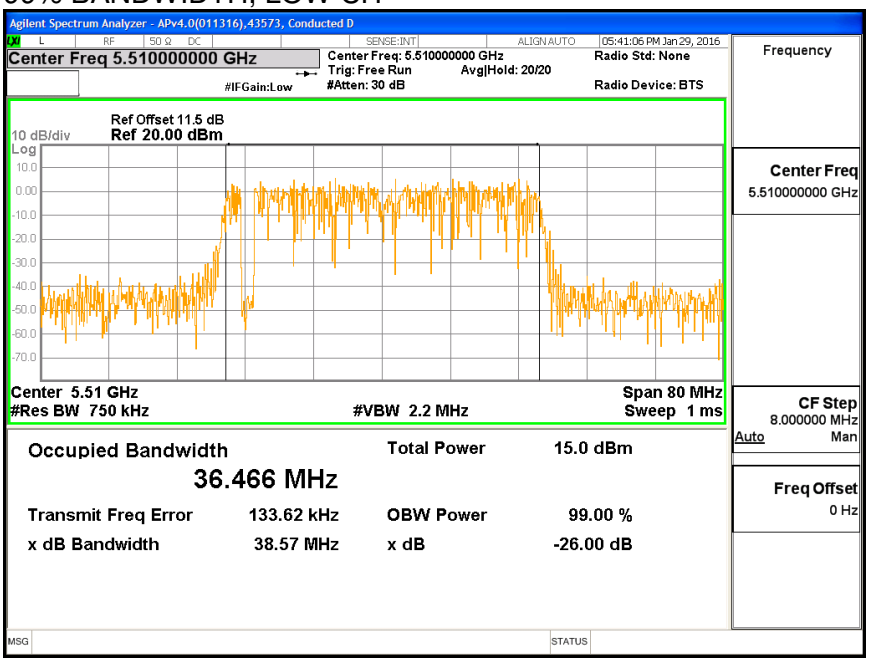
None; for reporting purposes only.

RESULTS

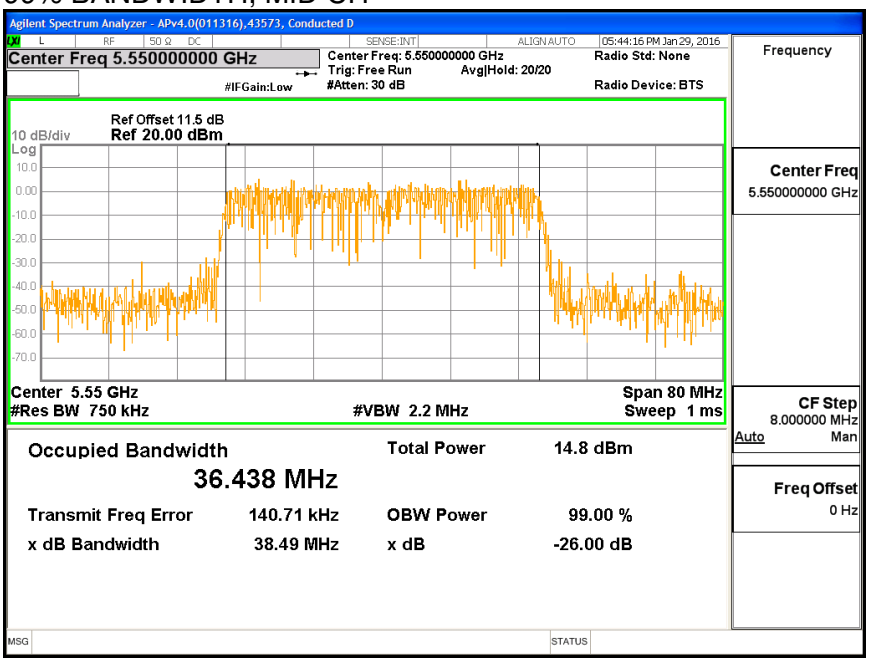
Channel	Frequency (MHz)	99% BW Antenna A (MHz)	99% BW Antenna C (MHz)
Low	5510	36.466	36.346
Mid	5550	36.438	36.636
High	5670	36.466	36.438
142	5710	36.237	36.396

99% BANDWIDTH, ANTENNA - A

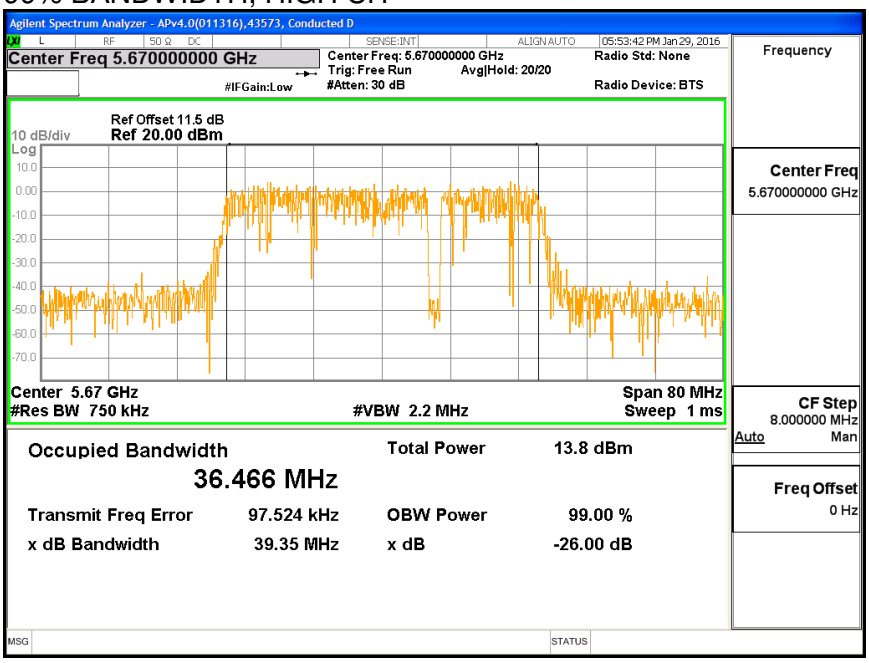
99% BANDWIDTH, LOW CH



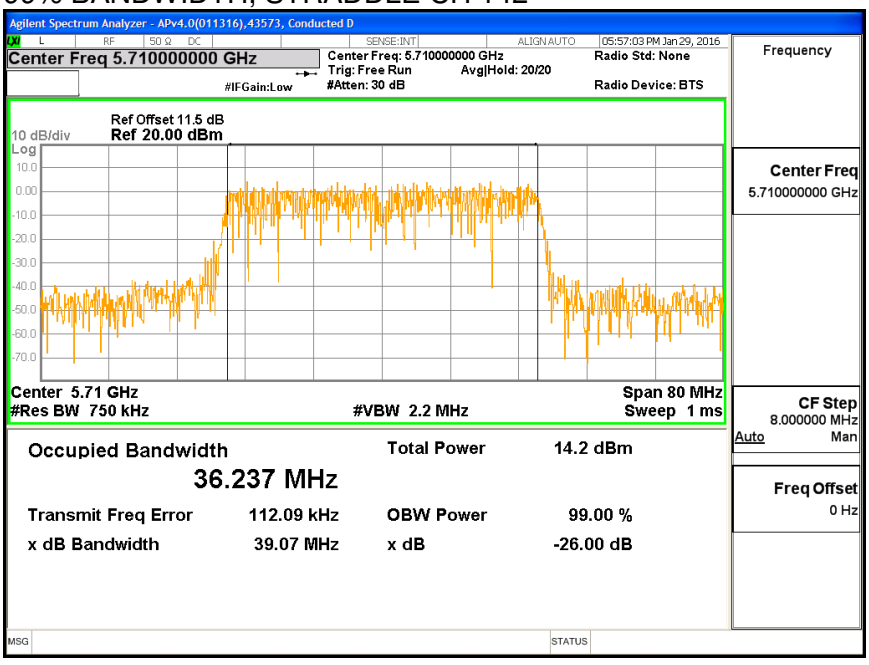
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH

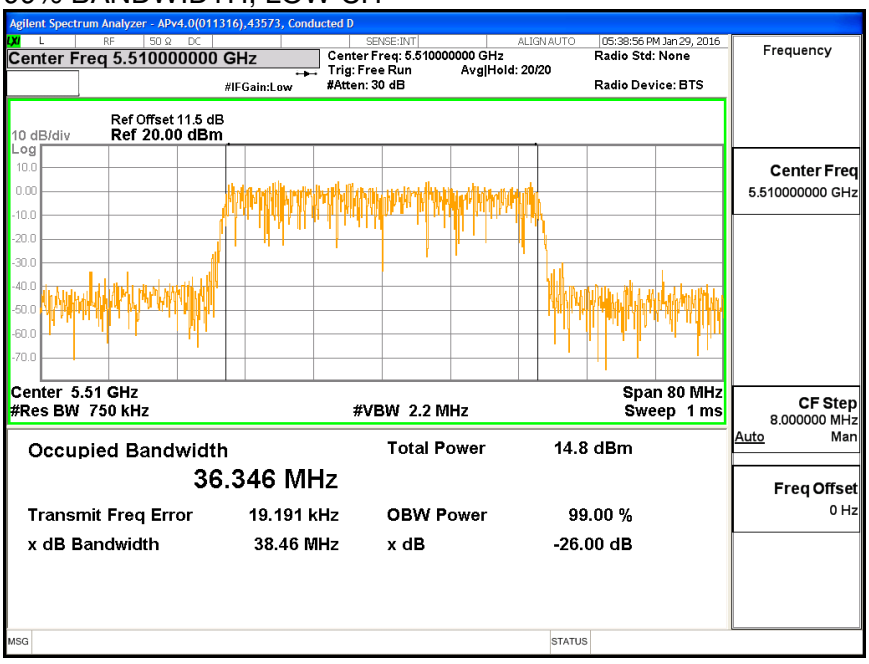


99% BANDWIDTH, STRADDLE CH 142

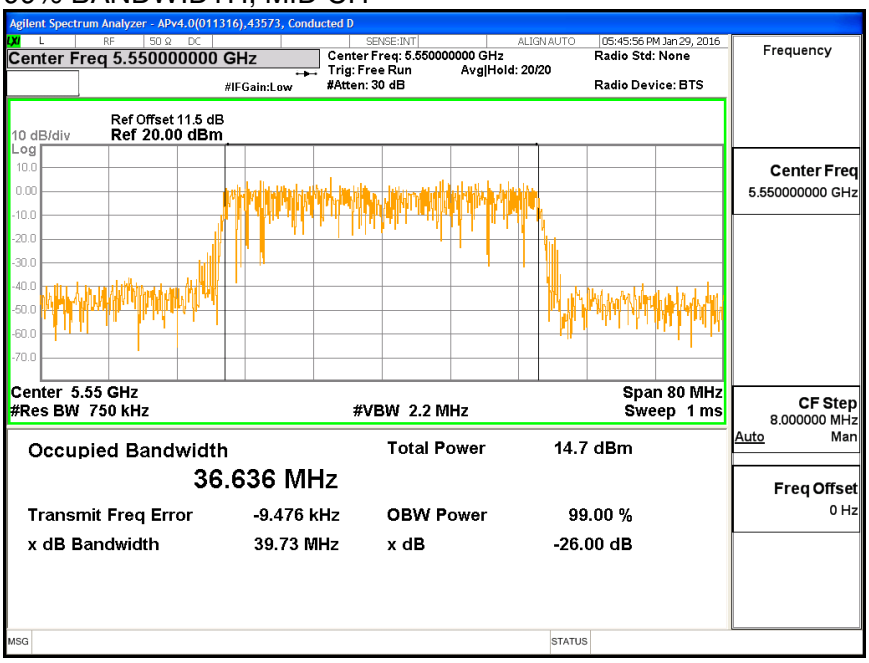


99% BANDWIDTH, ANTENNA - C

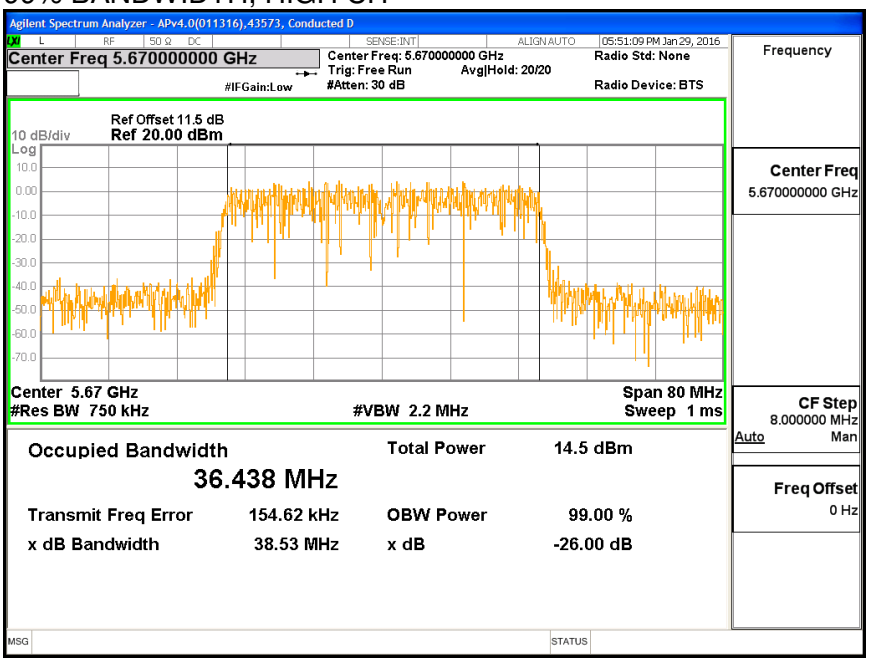
99% BANDWIDTH, LOW CH



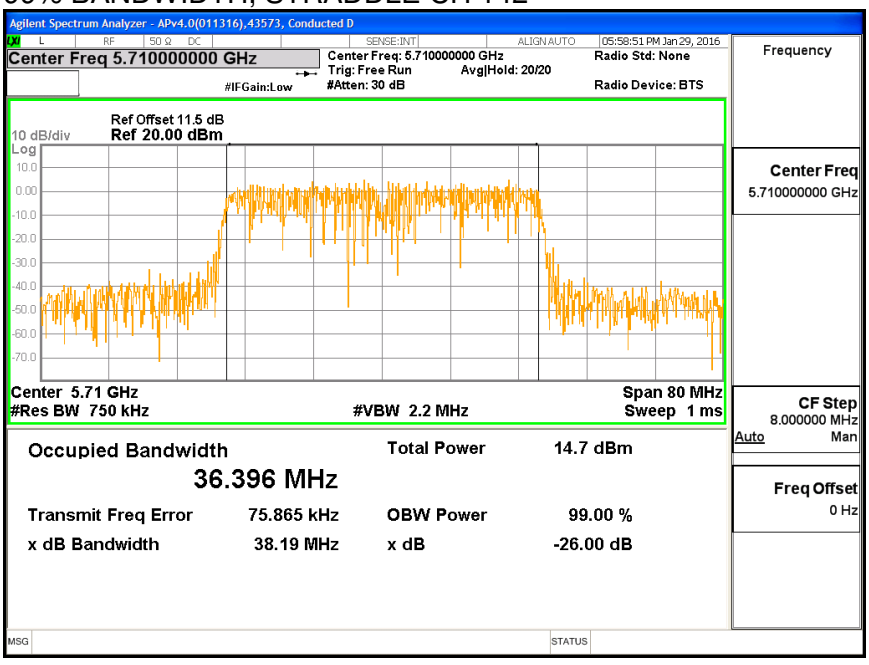
99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH



99% BANDWIDTH, STRADDLE CH 142



8.94.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Antenna A Power (dBm)	Antenna C Power (dBm)	Total Power (dBm)
Low	5510	12.94	13.00	15.98
Mid	5590	15.95	14.81	18.43
High	5670	14.91	14.91	17.92
142	5710	15.84	14.93	18.42

8.94.4. 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.

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:

Antenna A Gain (dBi)	Anetnna C Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
4.03	4.16	4.10

RESULTS

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	5510	40.38	36.466	4.10	4.10	24.00	11.00
Mid	5550	40.57	36.636	4.10	4.10	24.00	11.00
High	5670	40.38	36.466	4.10	4.10	24.00	11.00

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

Output Power Results

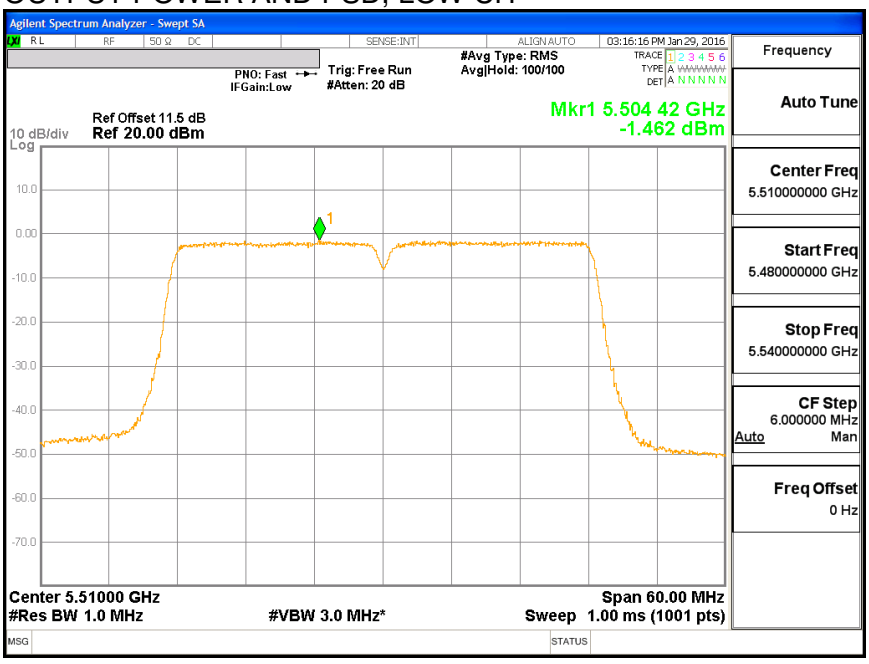
Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	12.94	13.00	15.98	24.00	-8.02
Mid	5550	15.95	14.81	18.43	24.00	-5.57
High	5670	14.91	14.91	17.92	24.00	-6.08

PSD Results

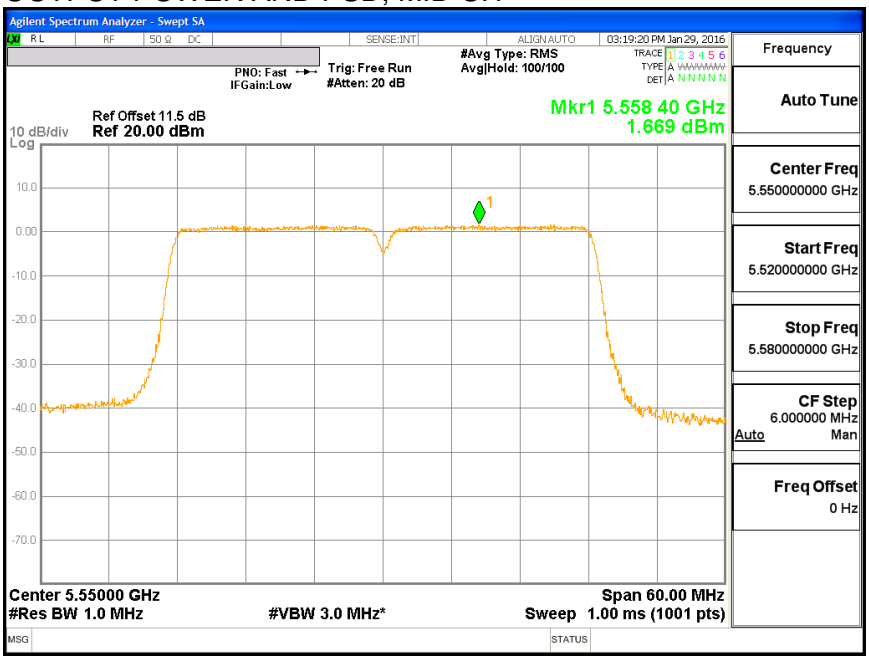
Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	-1.46	-1.29	1.64	11.00	-9.36
Mid	5550	1.67	0.30	4.05	11.00	-6.95
High	5670	0.47	0.28	3.39	11.00	-7.61

OUTPUT POWER AND PSD, ANTENNA - A

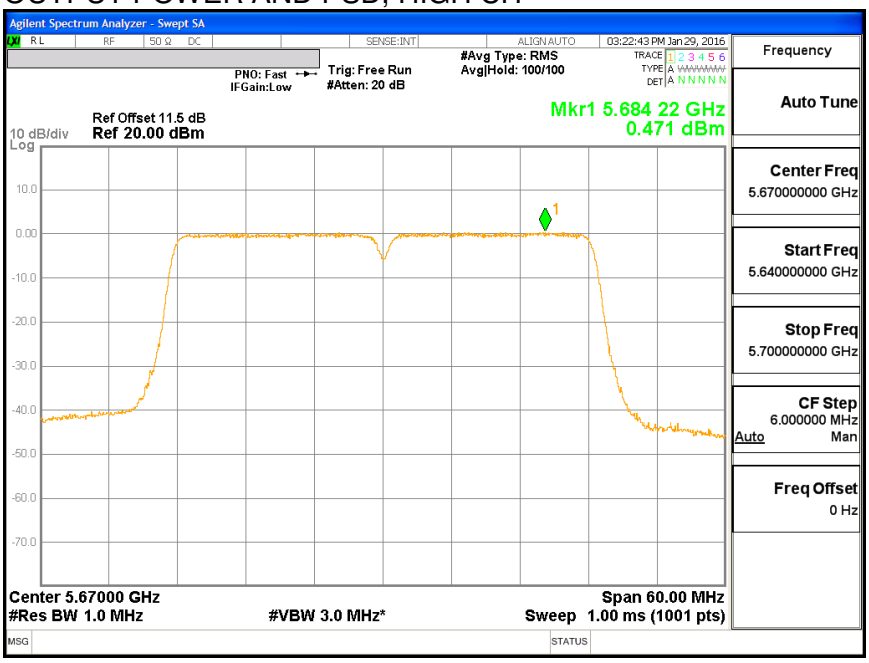
OUTPUT POWER AND PSD, LOW CH



OUTPUT POWER AND PSD, MID CH

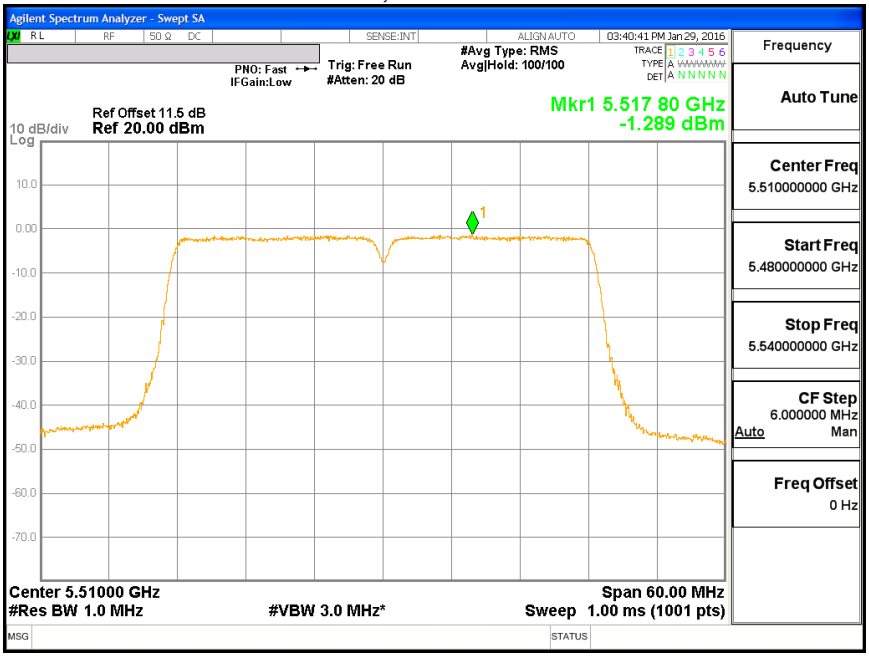


OUTPUT POWER AND PSD, HIGH CH

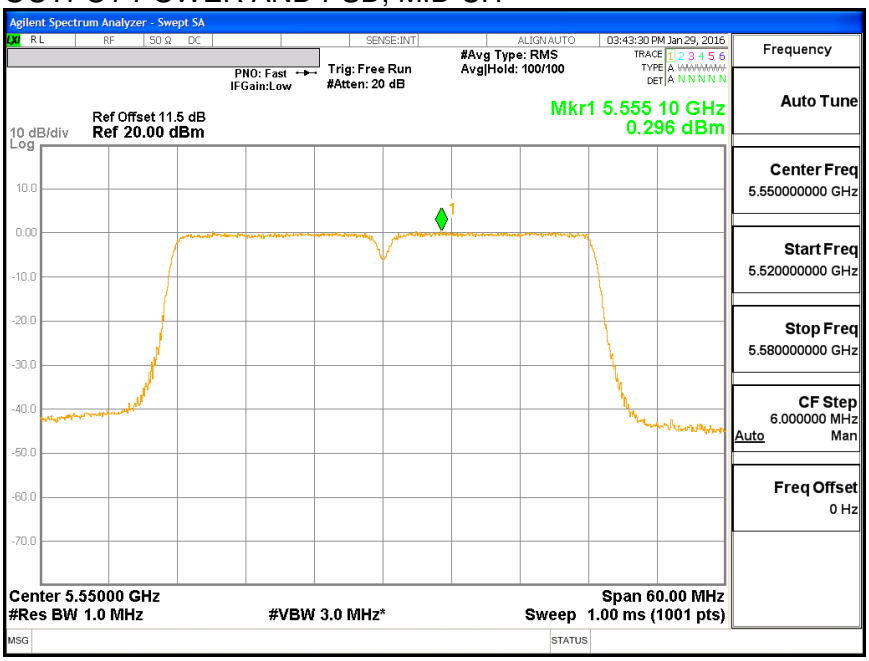


OUTPUT POWER AND PSD, ANTENNA - C

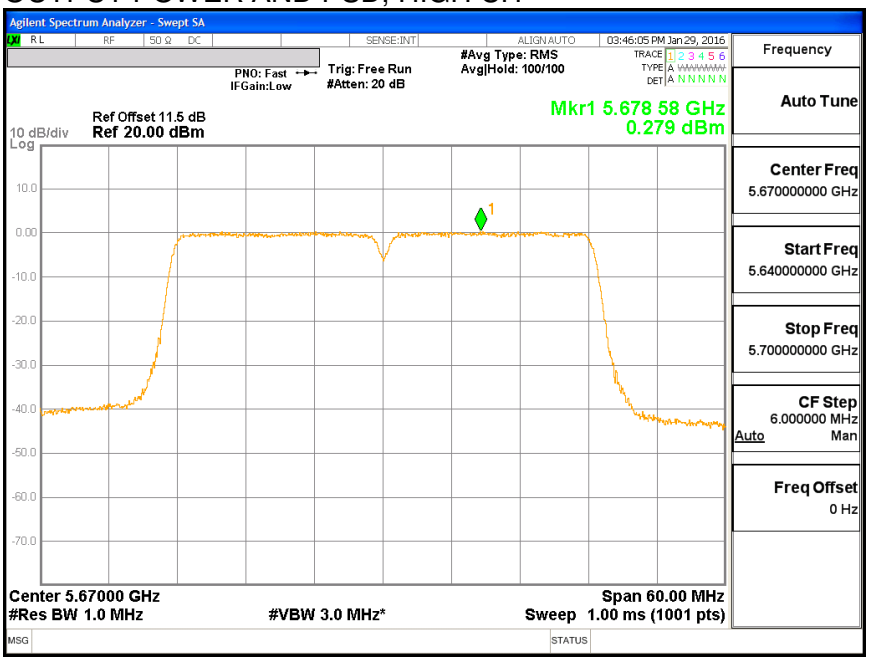
OUTPUT POWER AND PSD, LOW CH



OUTPUT POWER AND PSD, MID CH



OUTPUT POWER AND PSD, HIGH CH



8.95. 802.11ac VHT40 ANTENNA A+C STBC STRADDLE CHANNEL 142 RESULTS

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)
142	5710	35.04	4.10	4.10	24.00	11.00

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

Output Power Results

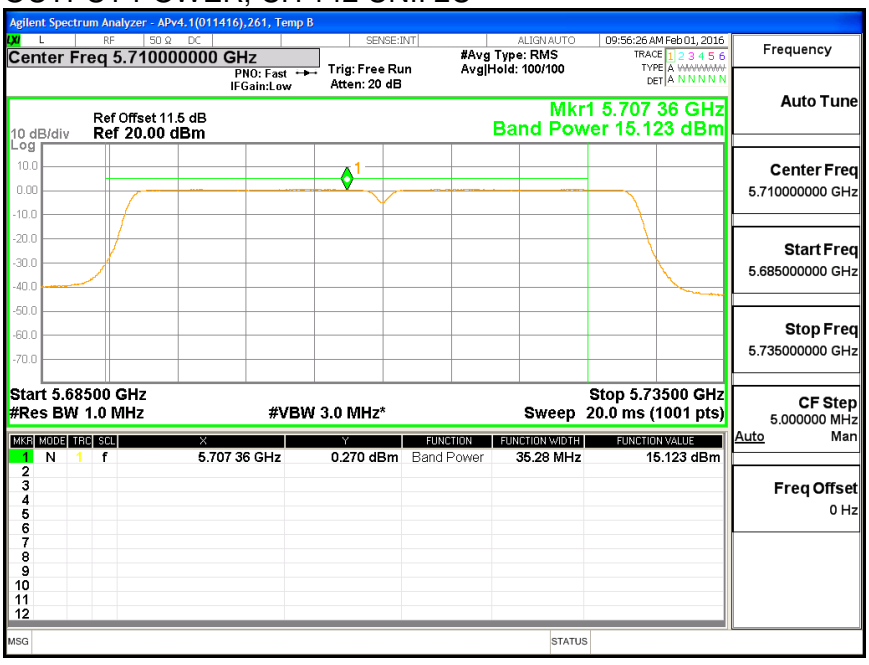
Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	15.12	14.82	17.98	24.00	-6.02

PSD Results

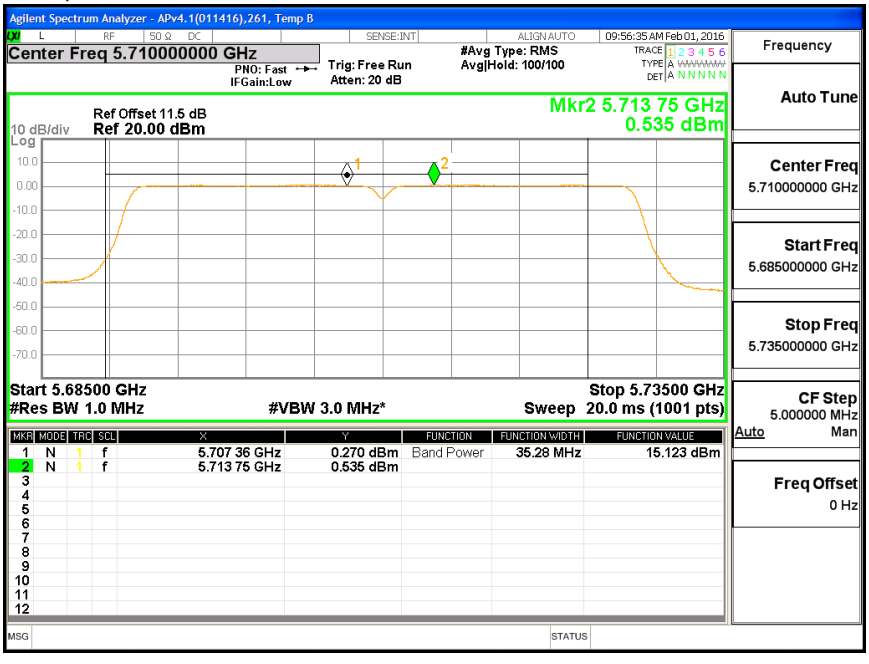
Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	0.54	0.28	3.42	11.00	-7.58

ANTENNA - A

OUTPUT POWER, CH 142 UNII 2C

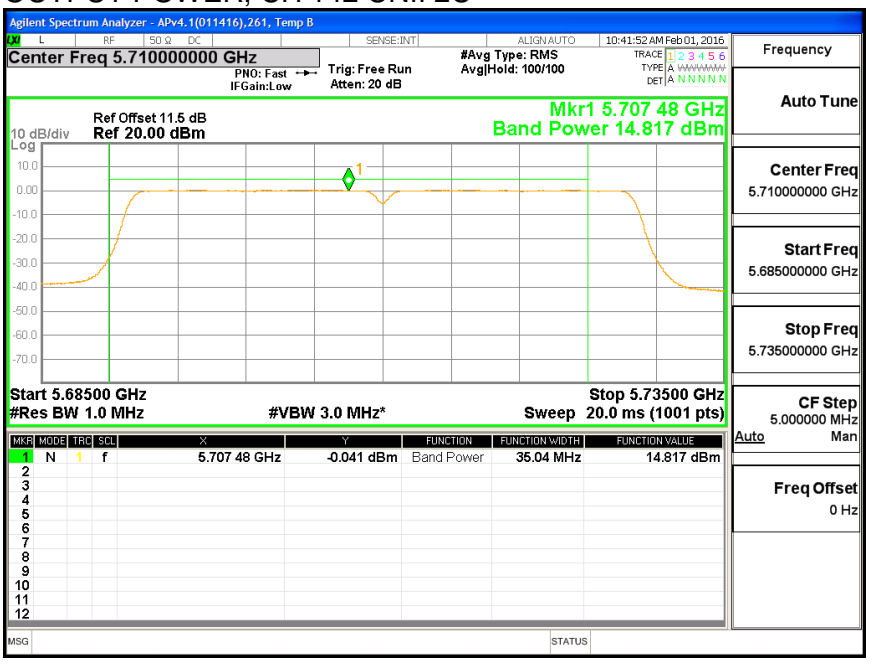


PSD, CH 142 UNII 2C

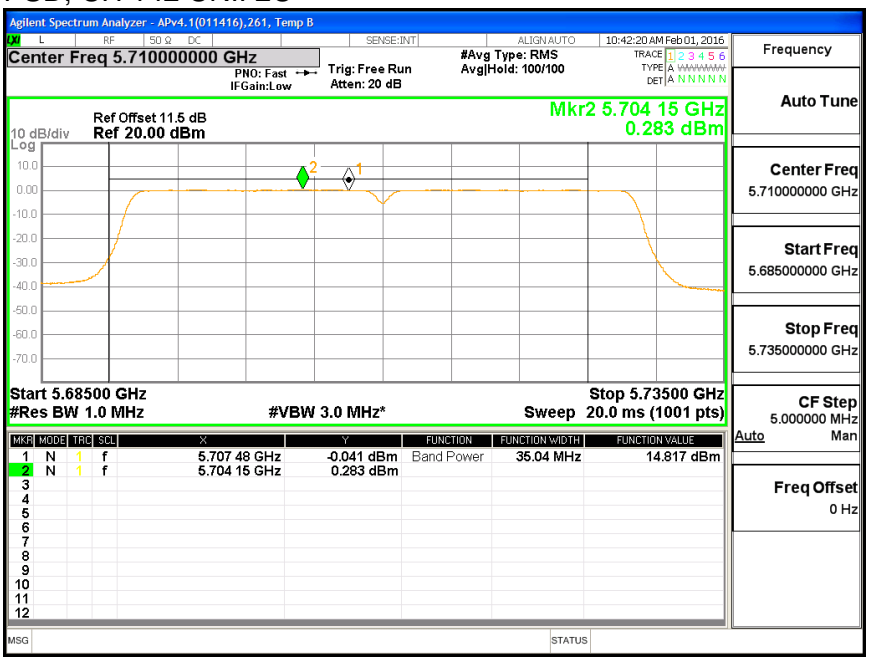


ANTENNA - C

OUTPUT POWER, CH 142 UNII 2C



PSD, CH 142 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)
142	5710	5.04	4.10	4.10	30.00	30.00

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

Output Power Results

Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	5.12	4.72	7.93	30.00	-22.07

PSD Results

Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-2.38	-2.80	0.43	30.00	-29.57