8.18. 11ac HT80 2TX CDD MIMO MODE IN THE 5.3GHz BAND

8.18.1. 26 dB BANDWIDTH

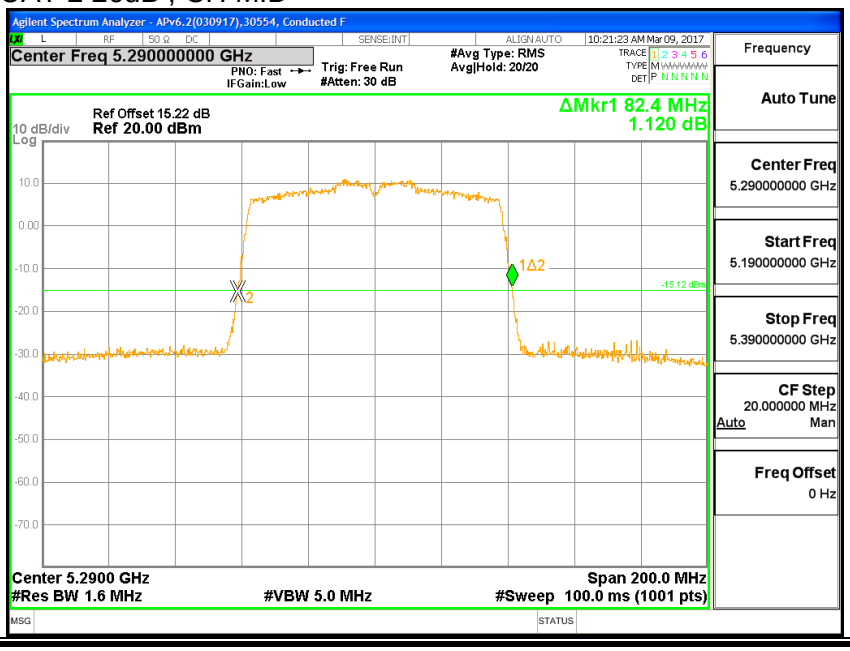
LIMITS

None; for reporting purposes only.

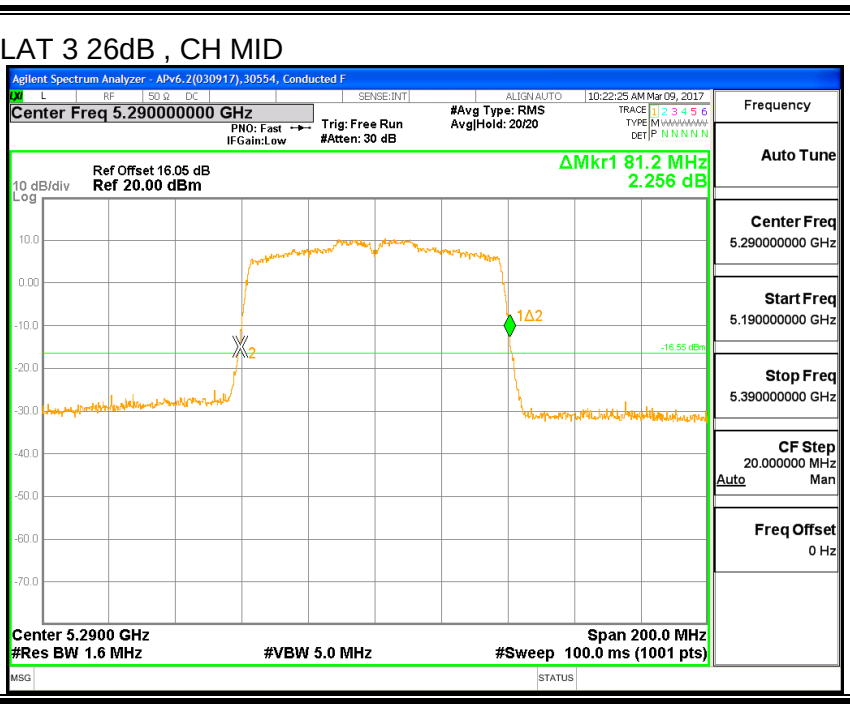
RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)	26 dB BW LAT 3 (MHz)
Mid	5290	82.4	81.2

UAT 2 26dB , CH MID



LAT 3 26dB , CH MID



8.18.2. 99% BANDWIDTH

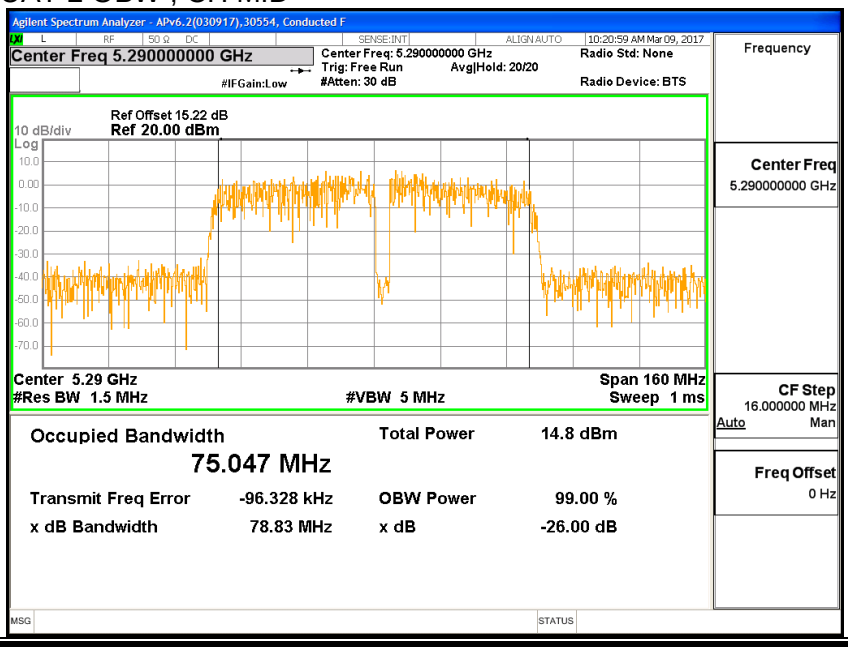
LIMITS

None; for reporting purposes only.

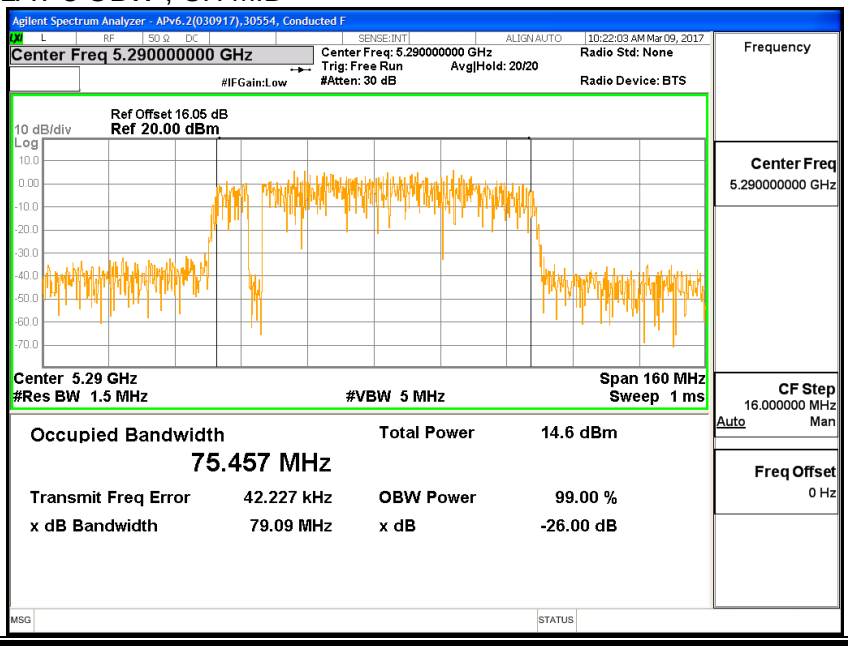
RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)	99% BW LAT 3 (MHz)
Mid	5290	75.047	75.457

UAT 2 OBW , CH MID



LAT 3 OBW , CH MID



8.18.3. AVERAGE POWER

ID:	30554	Date:	3/8/2017

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power UAT 2 (dBm)	Power LAT 3 (dBm)	Total Power (dBm)
Mid	5290	14.48	14.42	17.46

8.18.4. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.25–5.35 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.

PSD Test Procedure: KDB 789033 D02 v01r04 Section F (Method SA-2)

DIRECTIONAL ANTENNA GAIN

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

UAT 2 Antenna Gain (dBi)	LAT 3 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-3.74	-1.09	-2.22

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

UAT 2 Antenna Gain (dBi)	LAT 3 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
-3.74	-1.09	0.70

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)
Mid	5290	81.20	75.05	-2.22	0.70	24	11.0

Duty Cycle CF (dB)	0.20	Included in Calculations of Corr'd PSD

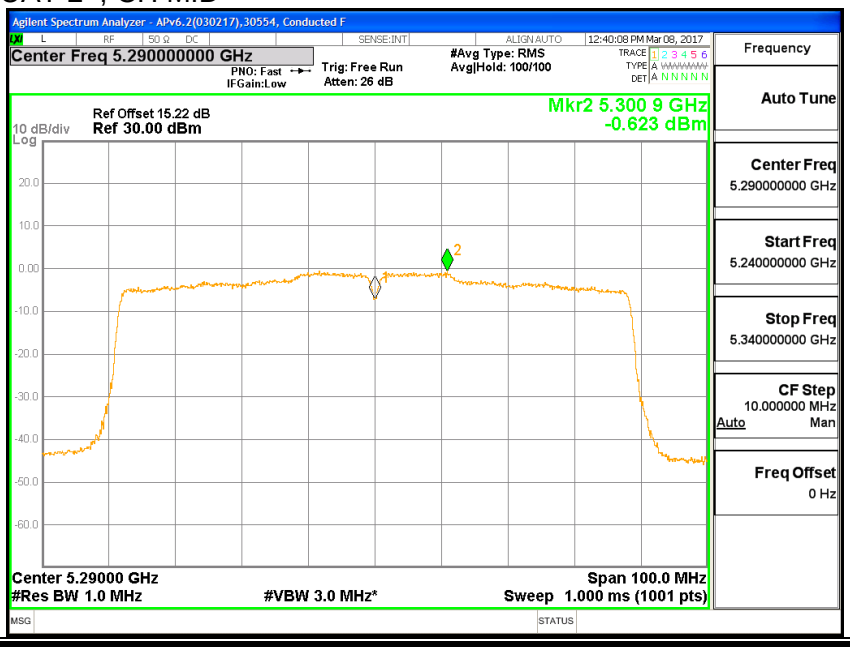
Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5290	14.48	14.42	17.46	24.00	-6.54

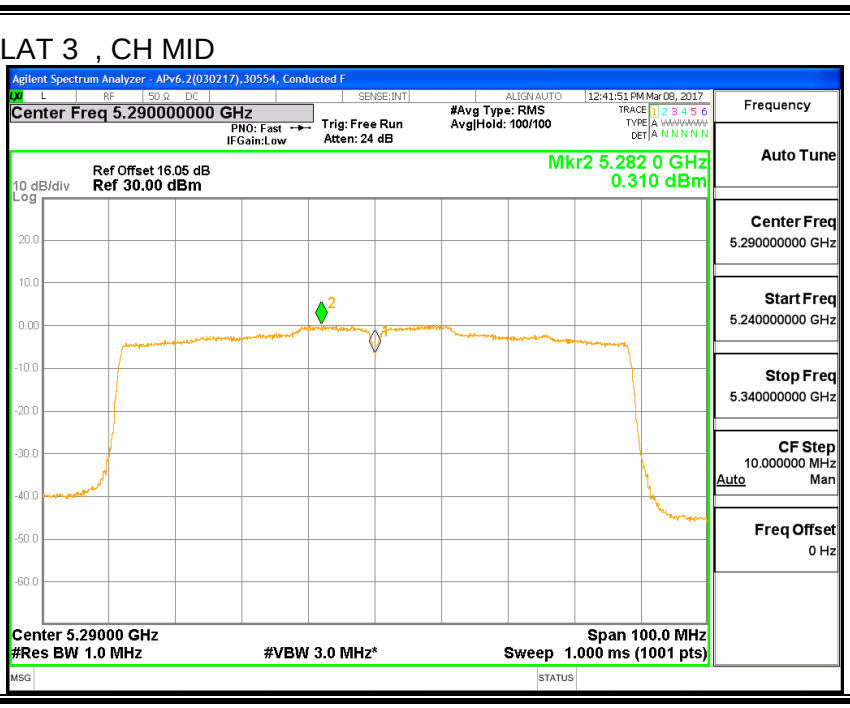
PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/MHz)	LAT 3 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
Mid	5290	-0.62	0.31	3.08	11.00	-7.92

UAT 2 , CH MID



LAT 3 , CH MID



8.19. 11n HT20 UAT 2 SISO MODE IN THE 5.6GHz BAND

8.19.1. 26 dB BANDWIDTH

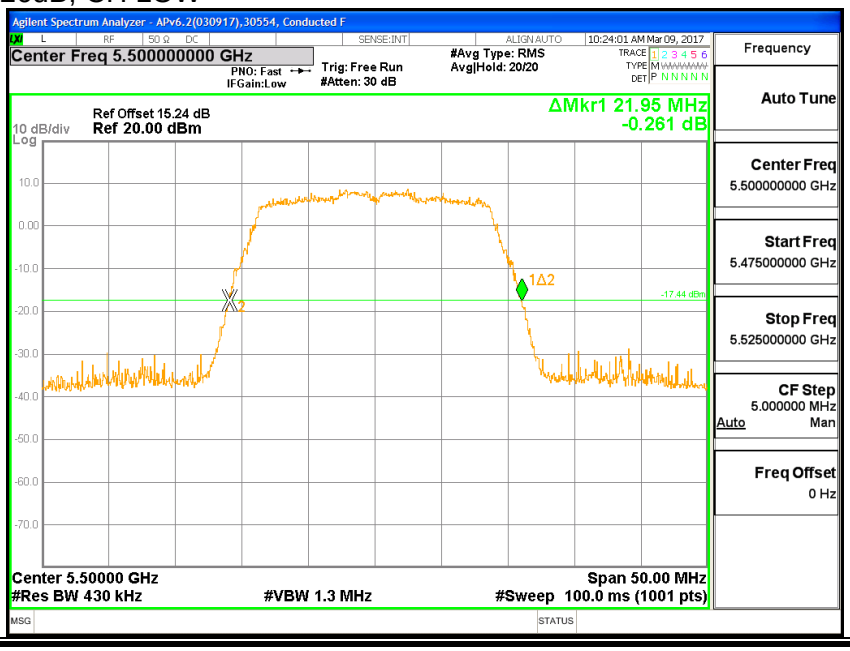
LIMITS

None; for reporting purposes only.

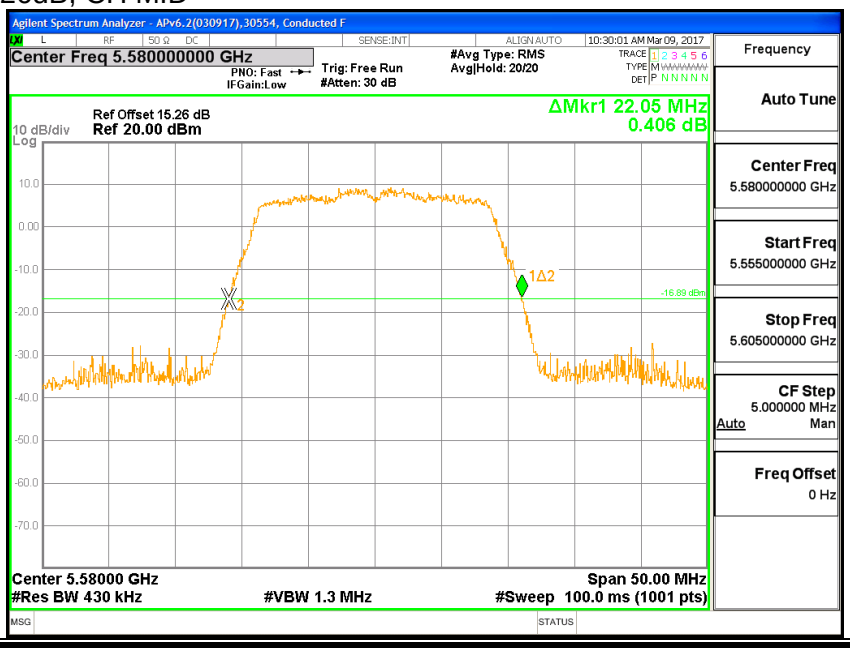
RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)
Low	5500	21.95
Mid	5580	22.05
High	5700	22.05
144	5720	22.00

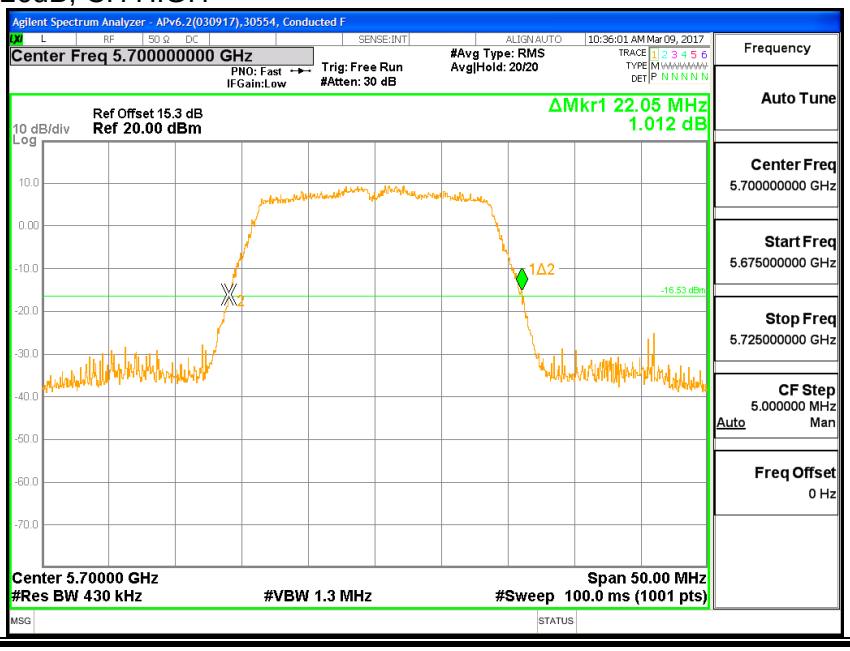
26dB, CH LOW



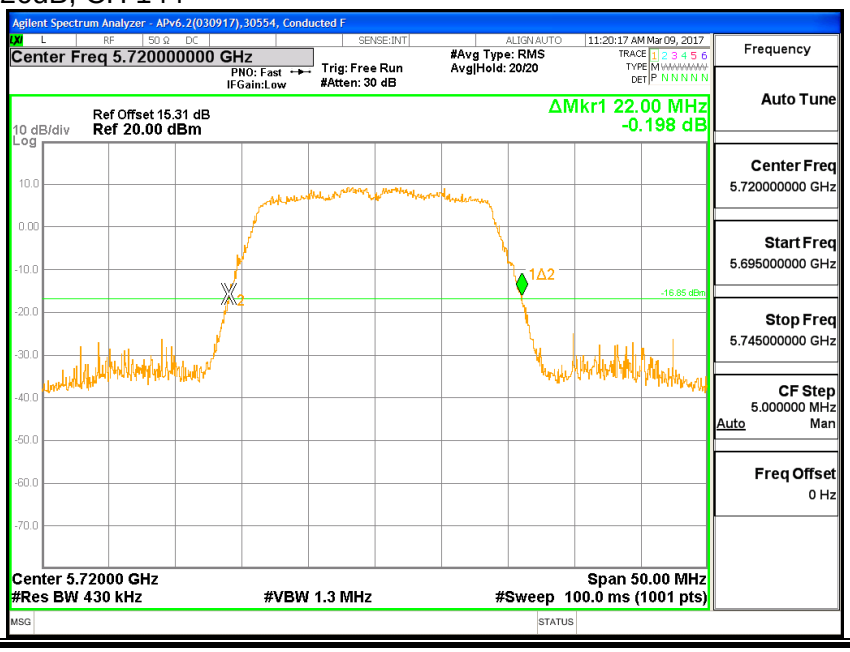
26dB, CH MID



26dB, CH HIGH



26dB, CH 144



8.19.2. 99% BANDWIDTH

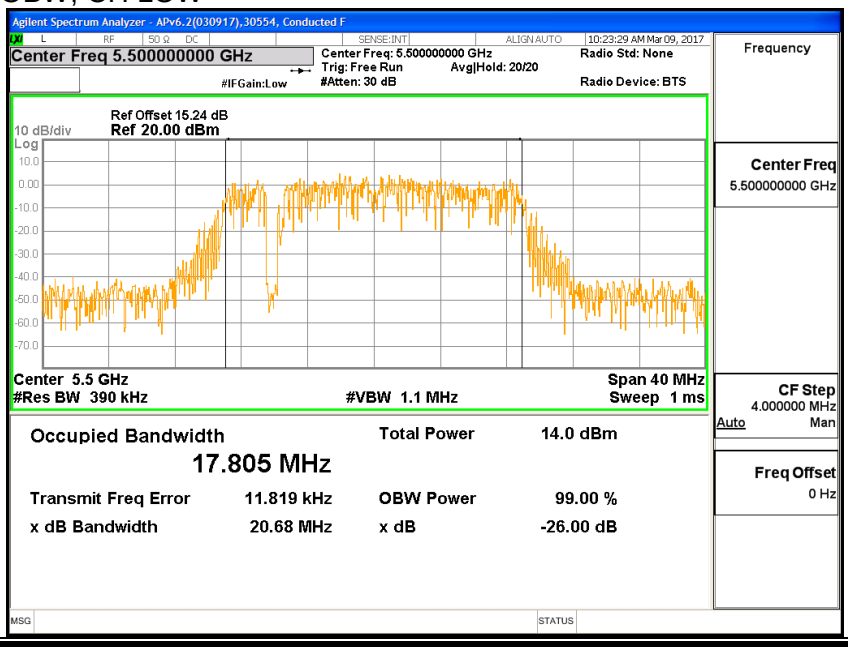
LIMITS

None; for reporting purposes only.

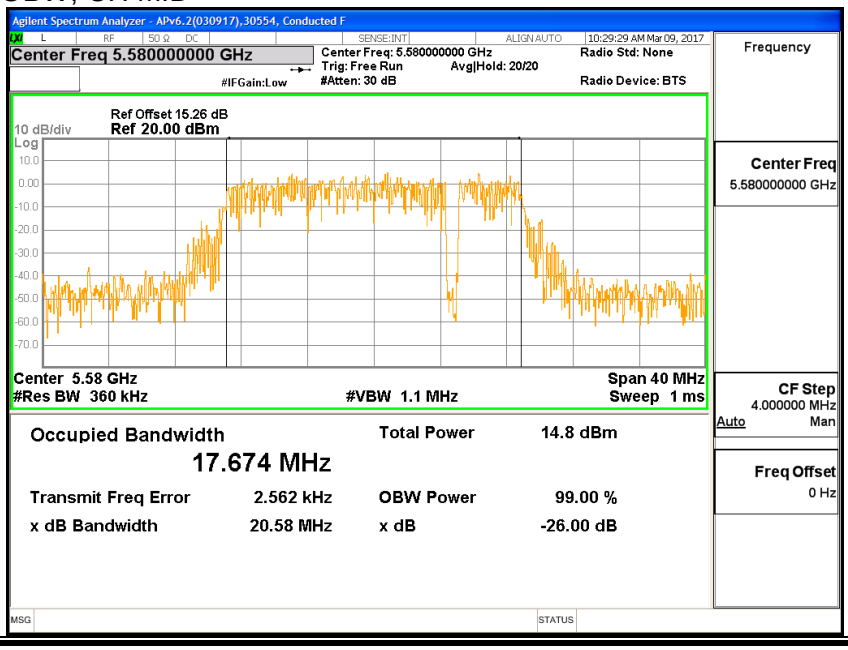
RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)
Low	5500	17.805
Mid	5580	17.674
High	5700	17.804
144	5720	17.817

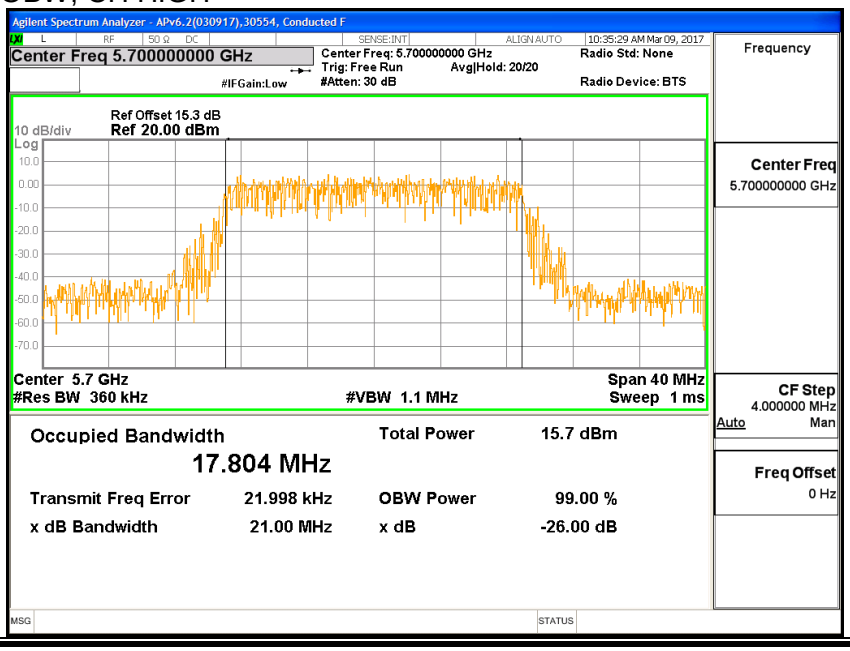
OBW, CH LOW



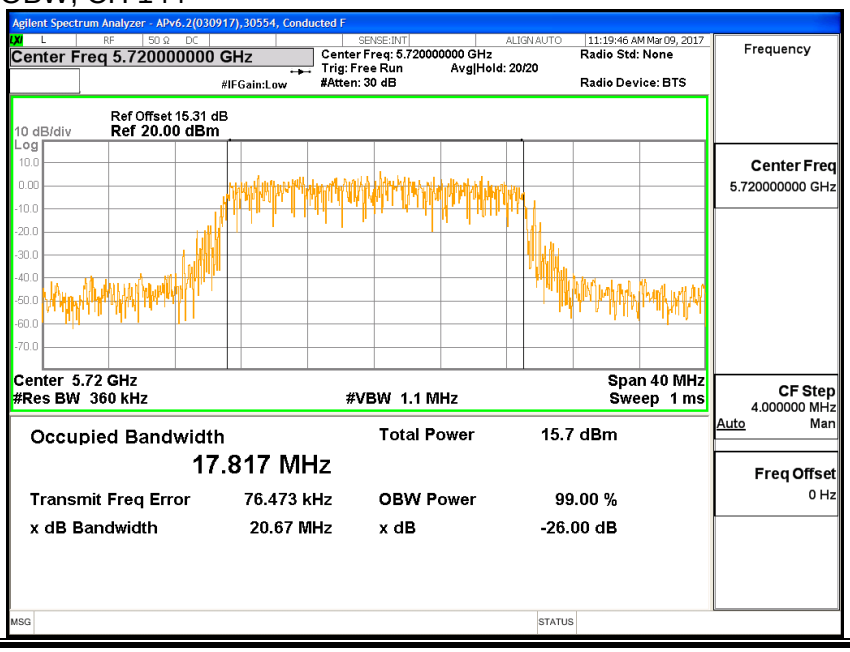
OBW, CH MID



OBW, CH HIGH



OBW, CH 144



8.19.3. AVERAGE POWER

ID:	30554	Date:	3/8/2017

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power UAT 2 (dBm)
Low	5500	16.79
Mid	5580	20.75
High	5700	16.81
144	5720	20.69

8.19.4. OUTPUT POWER AND PPSD

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.

PSD Test Procedure: KDB 789033 D02 v01r04 Section F (Method SA-2)

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	5500	21.95	17.81	-0.75	23.51	11.00
Mid	5580	22.05	17.67	-0.75	23.47	11.00
High	5700	22.05	17.80	-0.75	23.51	11.00

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

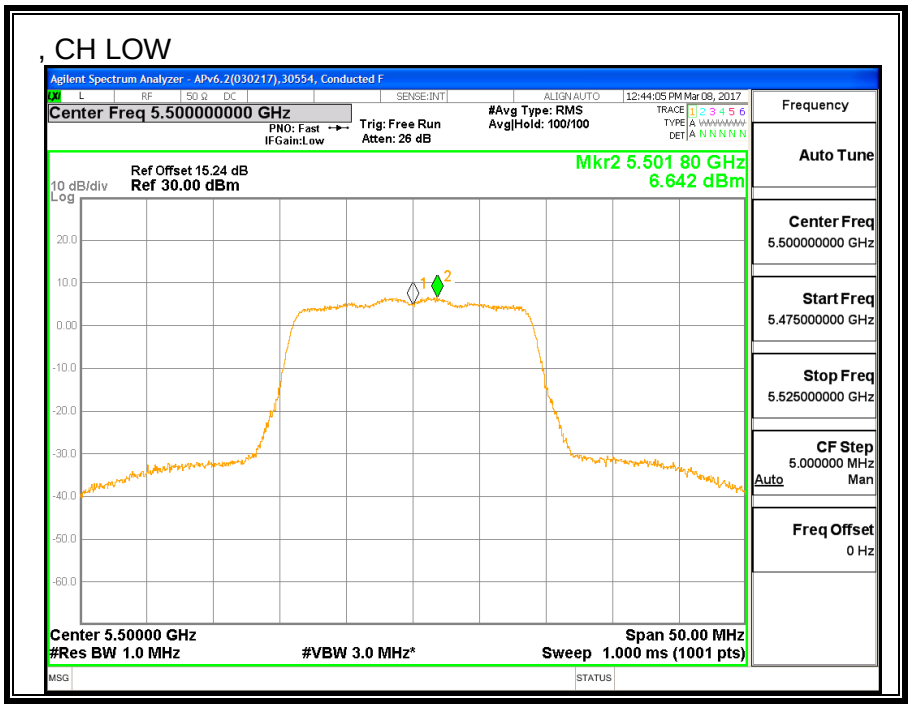
Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	16.79	16.79	23.51	-6.72
Mid	5580	20.75	20.75	23.47	-2.72
High	5700	16.81	16.81	23.51	-6.70

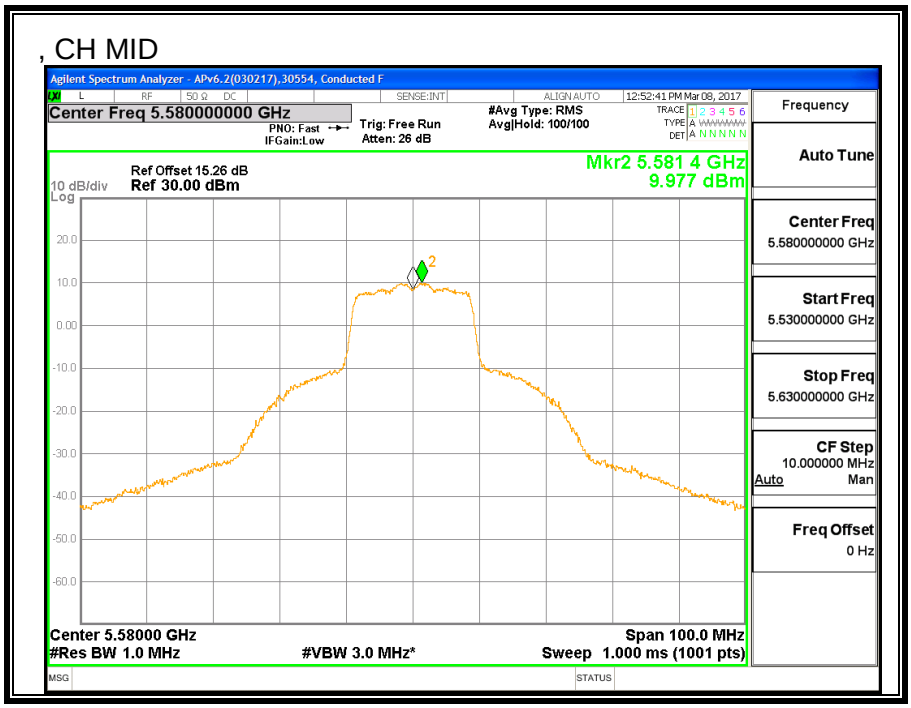
PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
Low	5500	6.64	6.64	11.00	-4.36
Mid	5580	9.98	9.98	11.00	-1.02
High	5700	7.62	7.62	11.00	-3.38

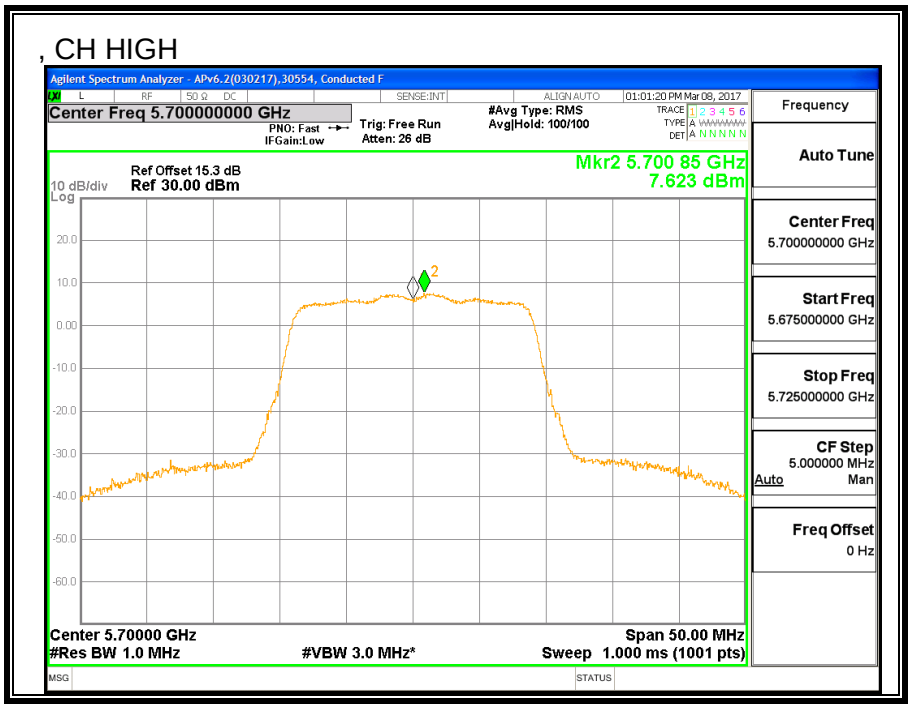
, CH LOW



, CH MID



, CH HIGH



8.20. 11ac HT20 UAT 2 SISO STRADDLE CHANNEL 144

8.20.1. OUTPUT POWER AND PPSD

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	22.00	-0.75	-0.75	24.00	11.00

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

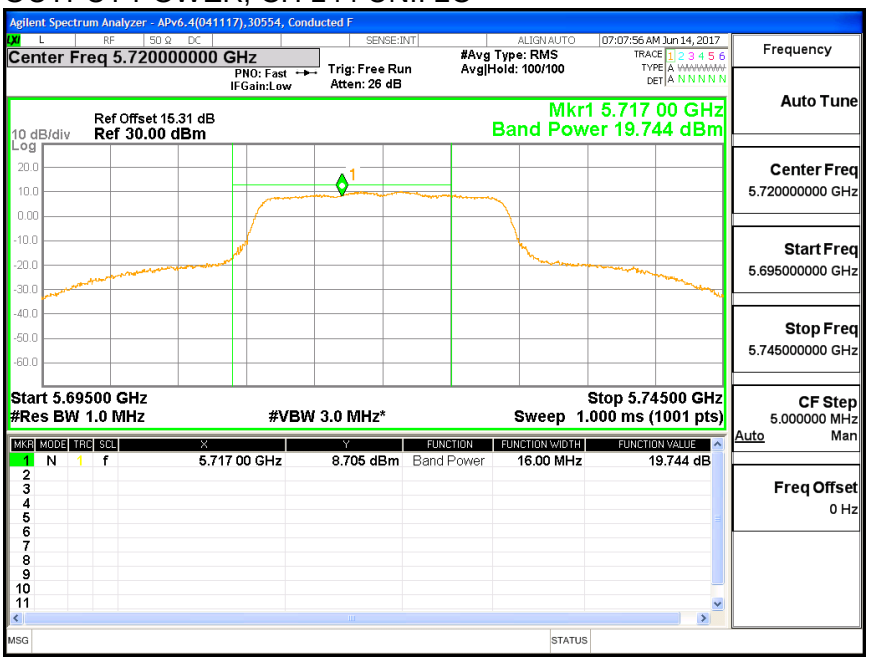
Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	19.74	19.74	24.00	-4.26

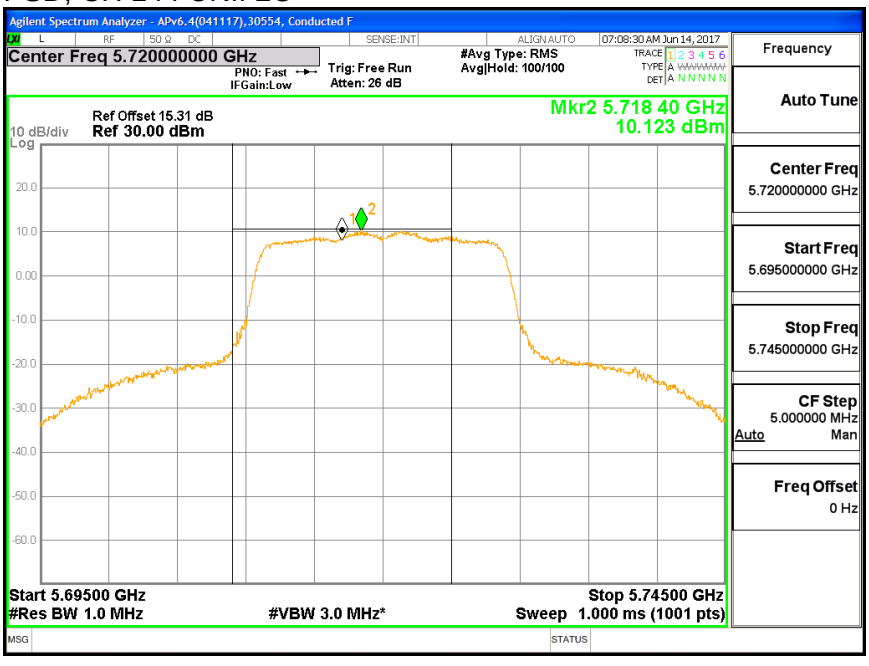
PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
144	5720	10.12	10.12	11.00	-0.88

OUTPUT POWER, CH 144 UNII 2C



PSD, CH 144 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)
144	5720	22.00	0.68	30.00	30.00

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

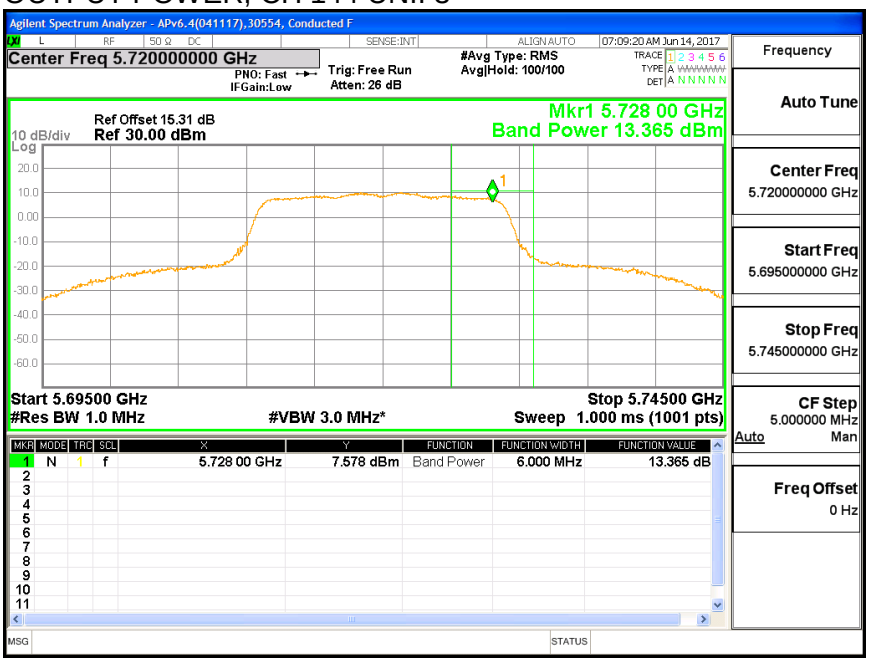
Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	13.365	13.365	30.00	-16.64

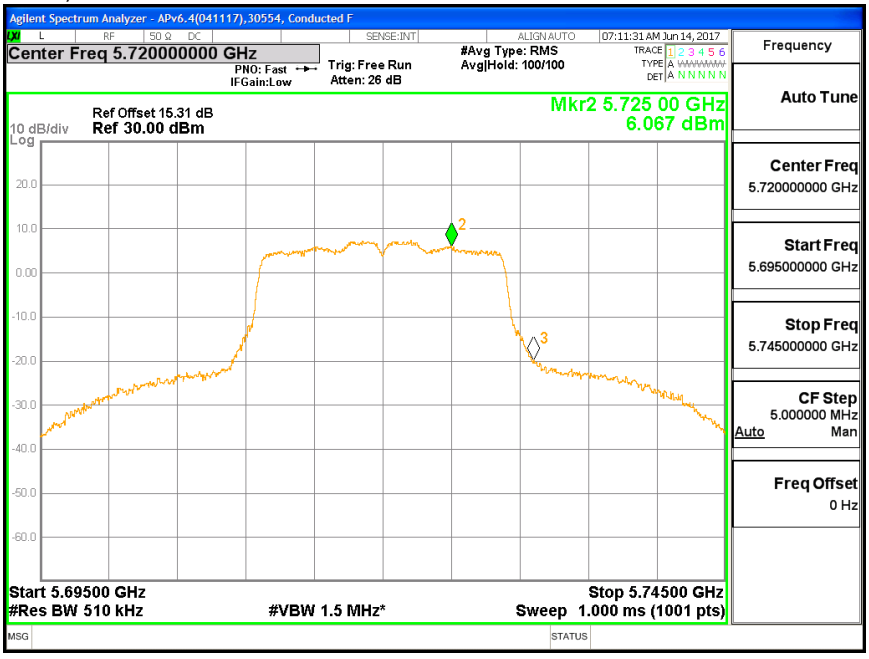
PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	6.067	6.067	30.00	-23.93

OUTPUT POWER, CH 144 UNII 3



PSD, CH 144 UNII 3



8.21. 11n HT20 LAT 3 SISO MODE IN THE 5.6GHz BAND

8.21.1. 26 dB BANDWIDTH

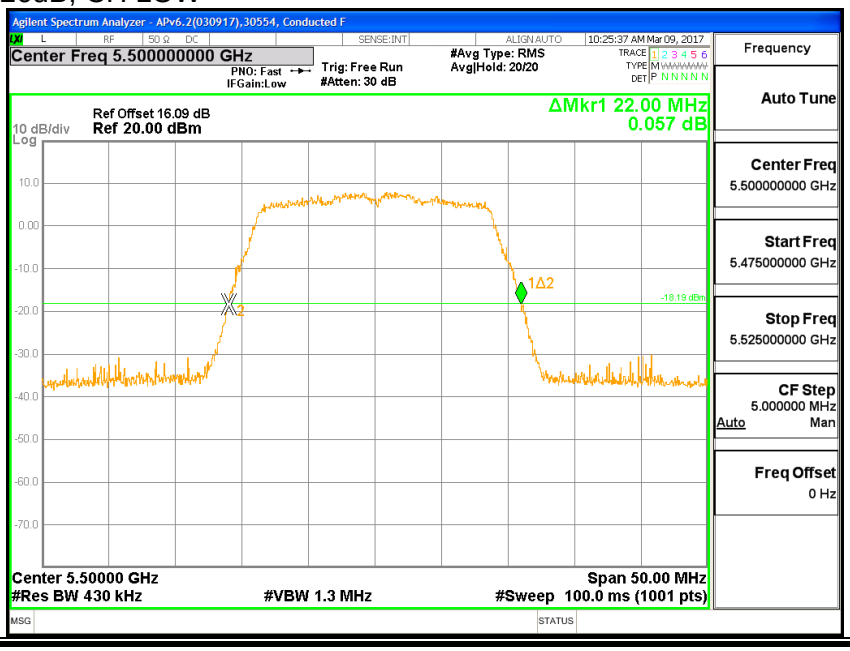
LIMITS

None; for reporting purposes only.

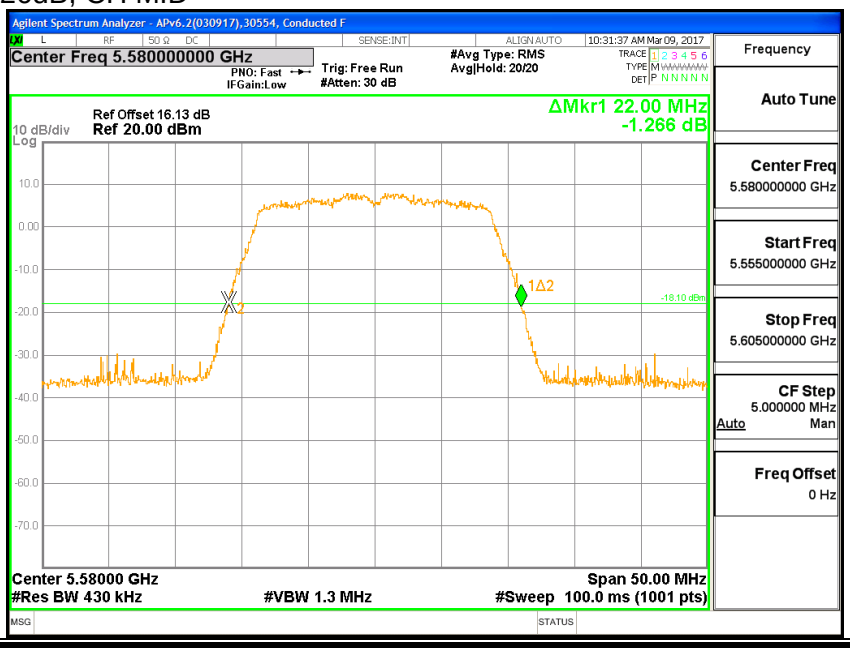
RESULTS

Channel	Frequency	26 dB BW LAT 3 (MHz)
Low	5500	22.00
Mid	5580	22.00
High	5700	21.85
144	5720	22.10

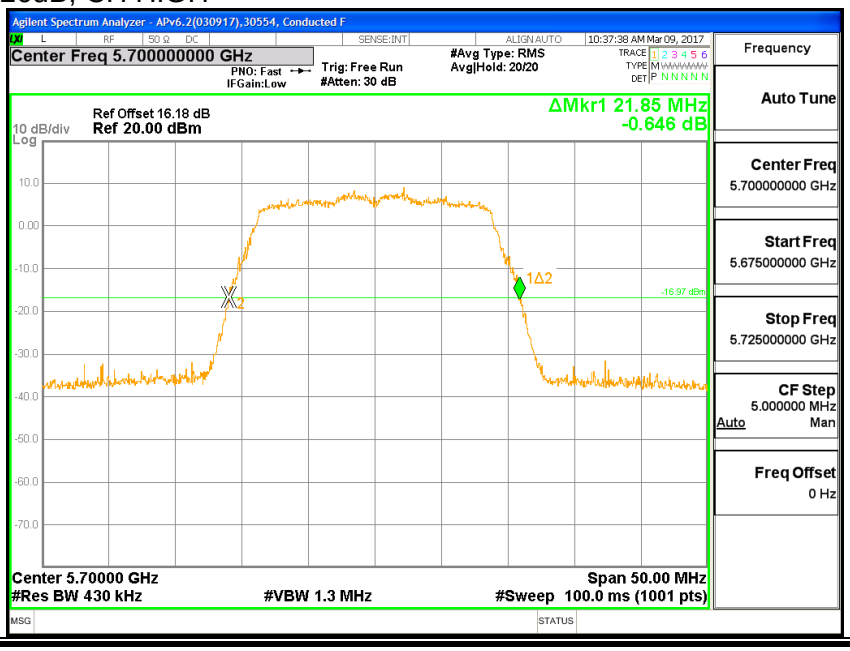
26dB, CH LOW



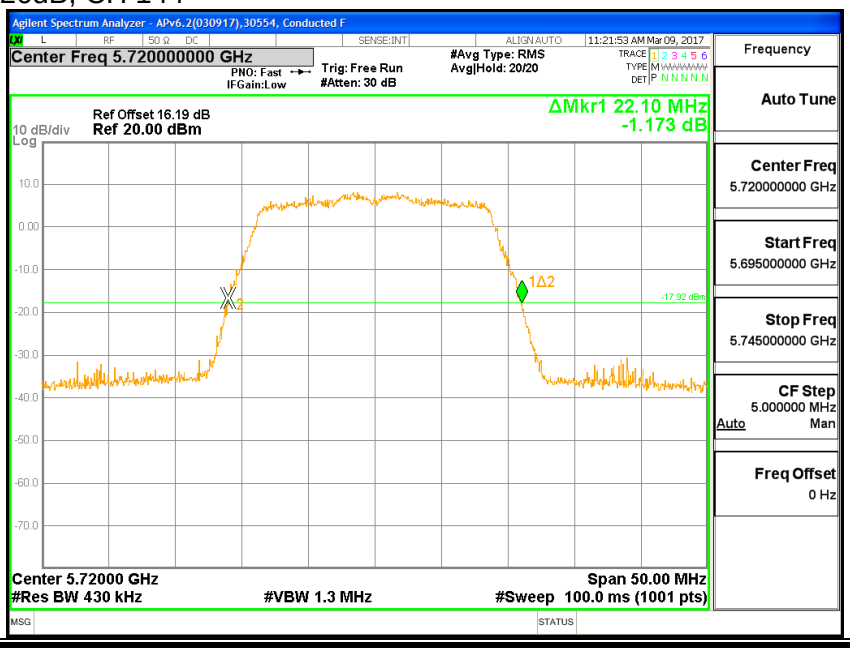
26dB, CH MID



26dB, CH HIGH



26dB, CH 144



8.21.2. 99% BANDWIDTH

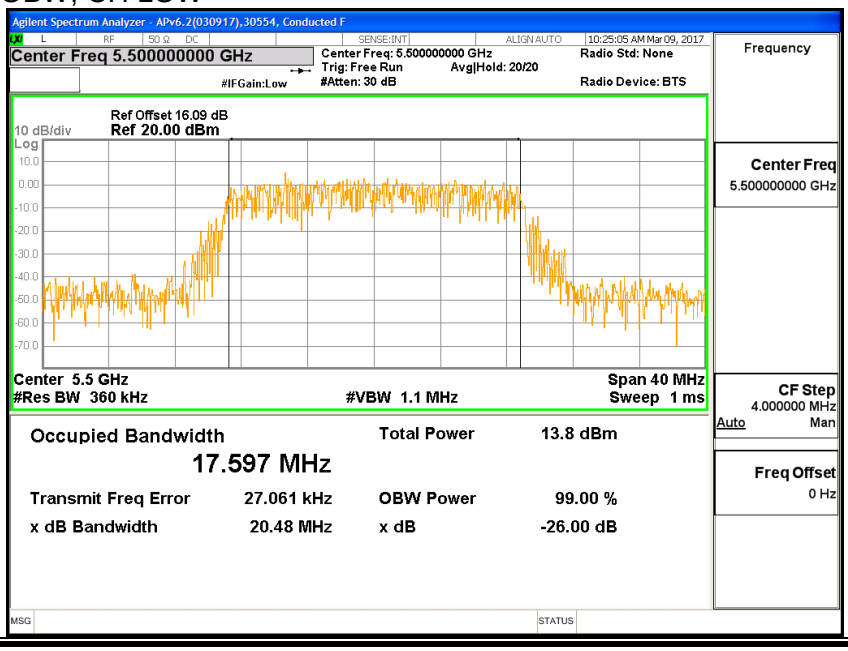
LIMITS

None; for reporting purposes only.

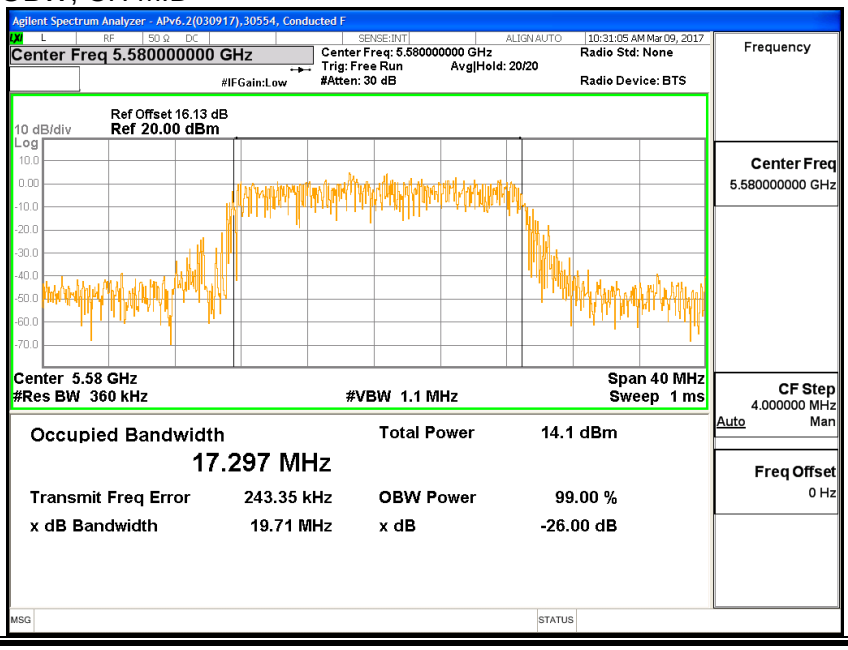
RESULTS

Channel	Frequency	99% BW LAT 3 (MHz)
Low	5500	17.597
Mid	5580	17.297
High	5700	17.729
144	5720	17.696

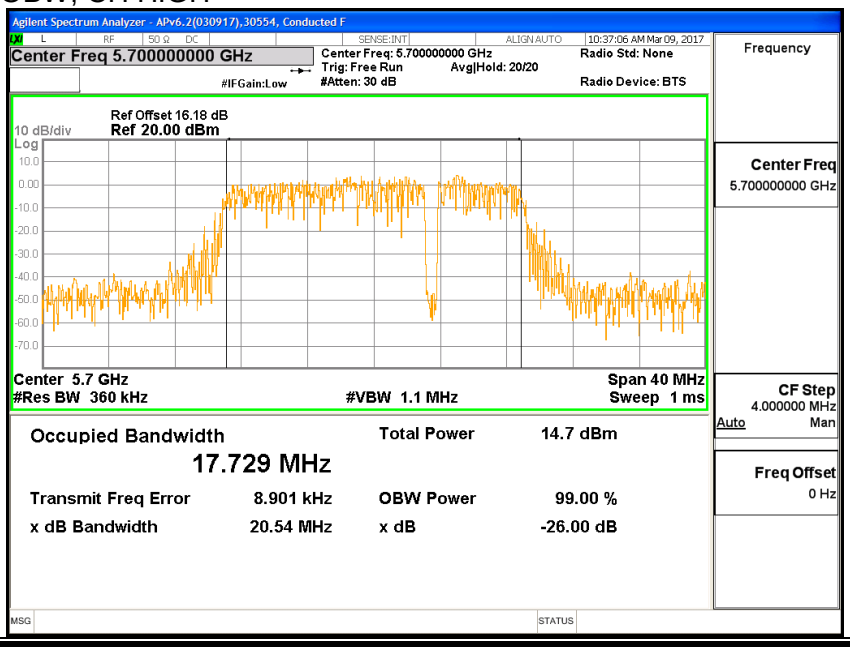
OBW, CH LOW



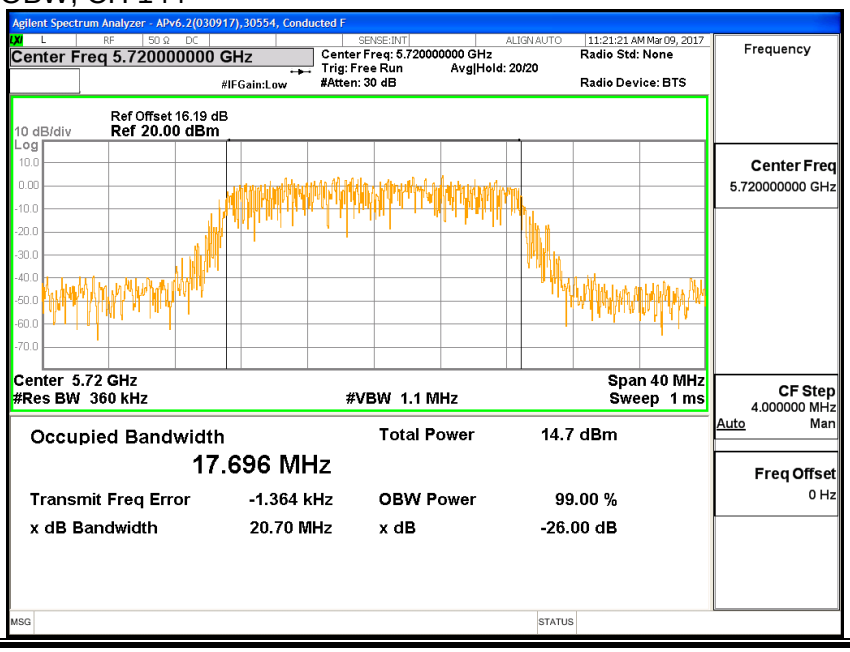
OBW, CH MID



OBW, CH HIGH



OBW, CH 144



8.21.3. AVERAGE POWER

ID:	30554	Date:	3/8/2017

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power LAT 3 (dBm)
Low	5500	16.96
Mid	5580	20.81
High	5700	16.85
144	5720	20.69

8.21.4. OUTPUT POWER AND PPSD

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.

PSD Test Procedure: KDB 789033 D02 v01r04 Section F (Method SA-2)

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	5500	22.00	17.60	-0.96	23.45	11.00
Mid	5580	22.00	17.30	-0.96	23.38	11.00
High	5700	21.85	17.73	-0.96	23.49	11.00

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

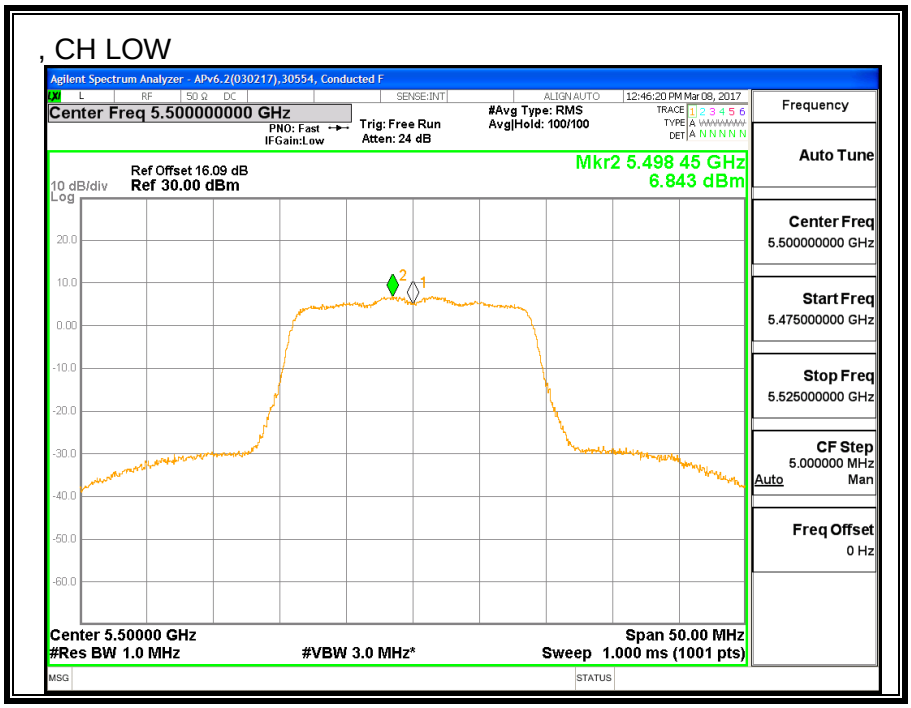
Output Power Results

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	16.96	16.96	23.45	-6.49
Mid	5580	20.81	20.81	23.38	-2.57
High	5700	16.85	16.85	23.49	-6.64

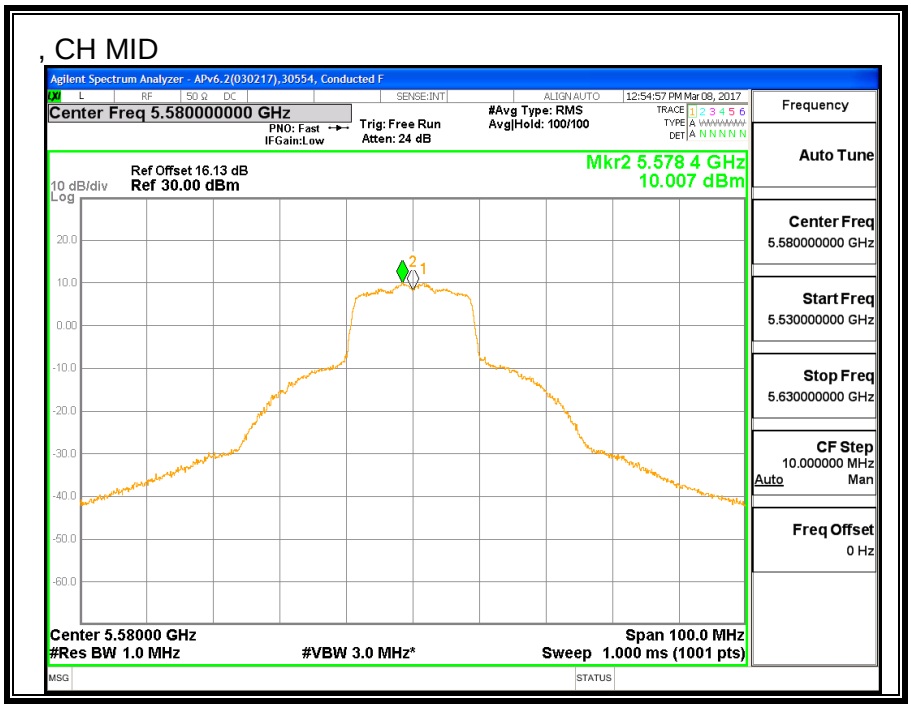
PSD Results

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
Low	5500	6.84	6.84	11.00	-4.16
Mid	5580	10.01	10.01	11.00	-0.99
High	5700	7.42	7.42	11.00	-3.59

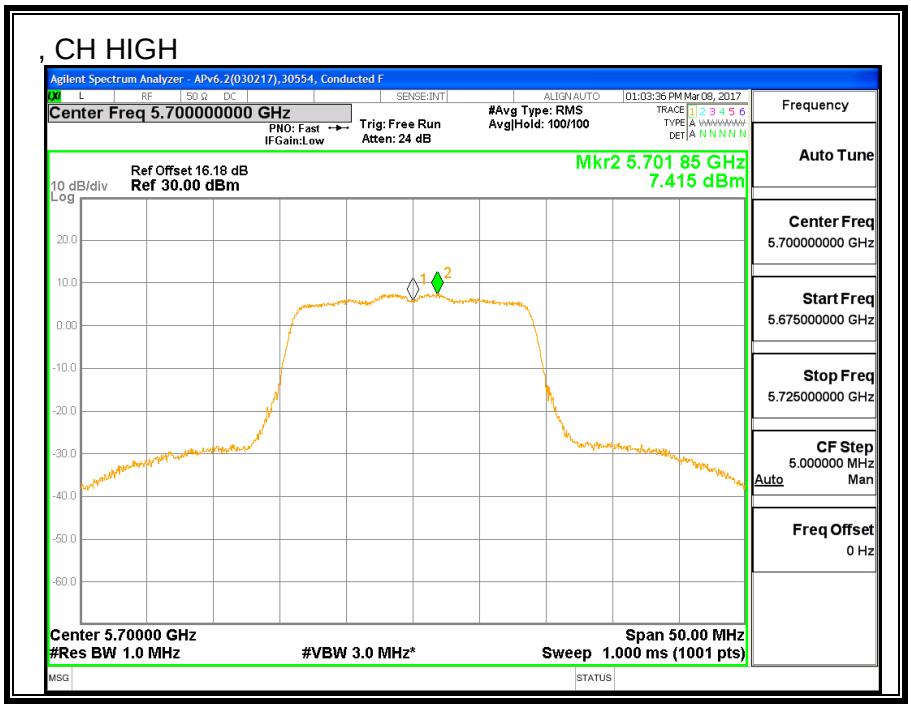
, CH LOW



, CH MID



, CH HIGH



8.22. 11ac HT20 LAT 3 SISO STRADDLE CHANNEL 144

8.22.1. OUTPUT POWER AND PPSD

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	22.10	-0.96	-0.96	24.00	11.00

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

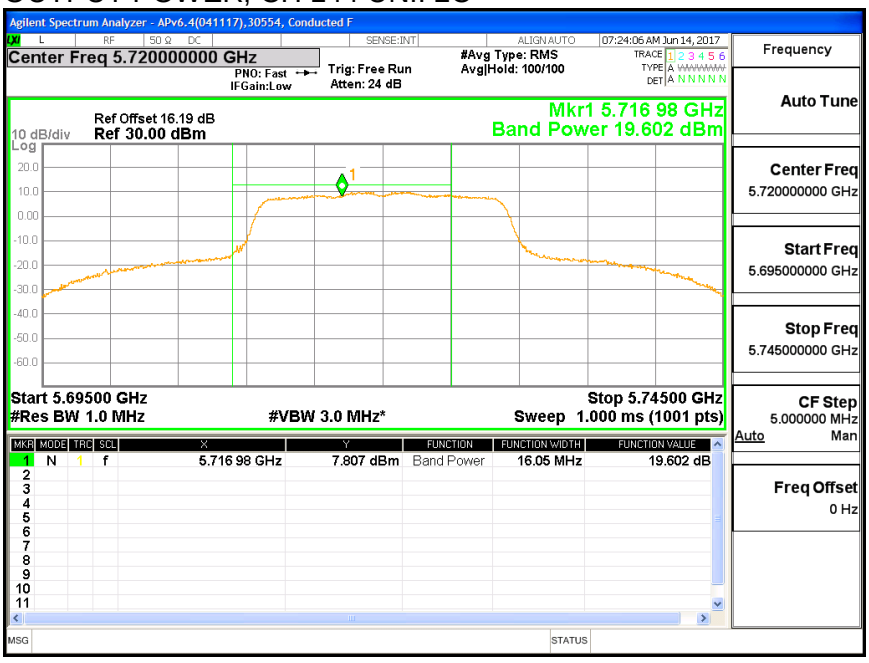
Output Power Results

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	19.60	19.60	24.00	-4.40

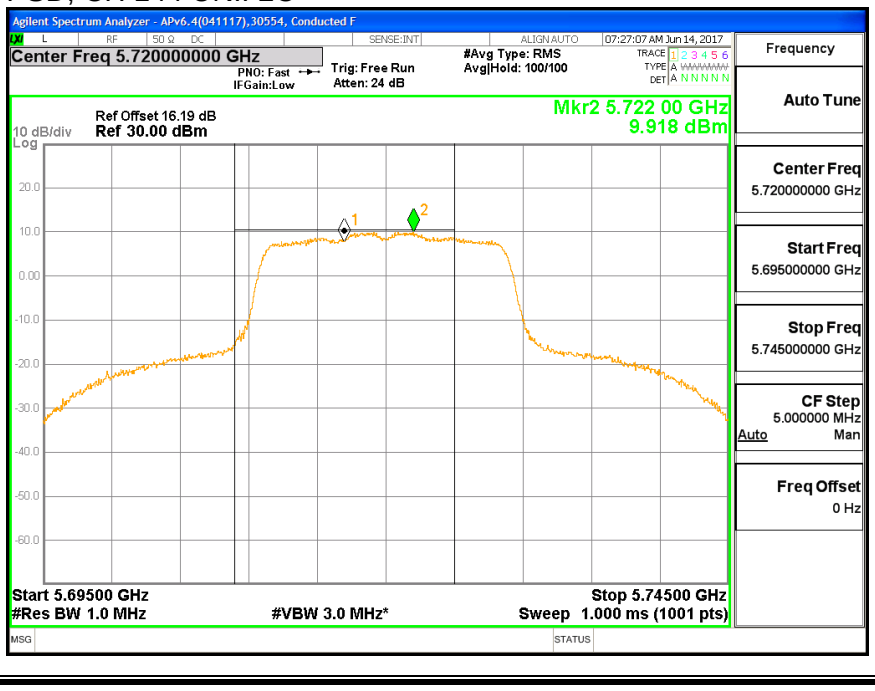
PSD Results

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	9.92	9.92	11.00	-1.08

OUTPUT POWER, CH 144 UNII 2C



PSD, CH 144 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)
144	5720	22.10	-0.93	30.00	30.00

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

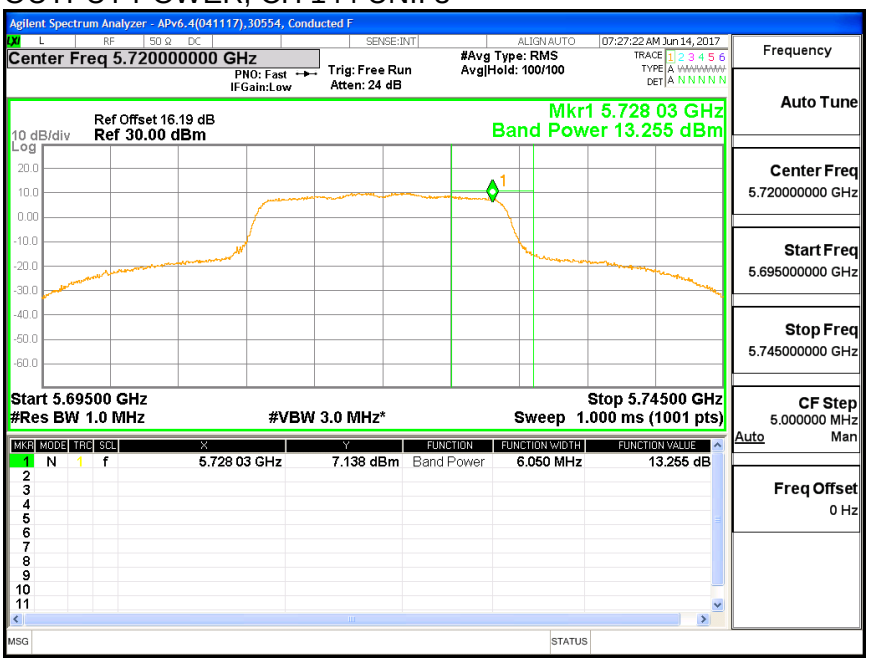
Output Power Results

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	13.255	13.255	30.00	-16.75

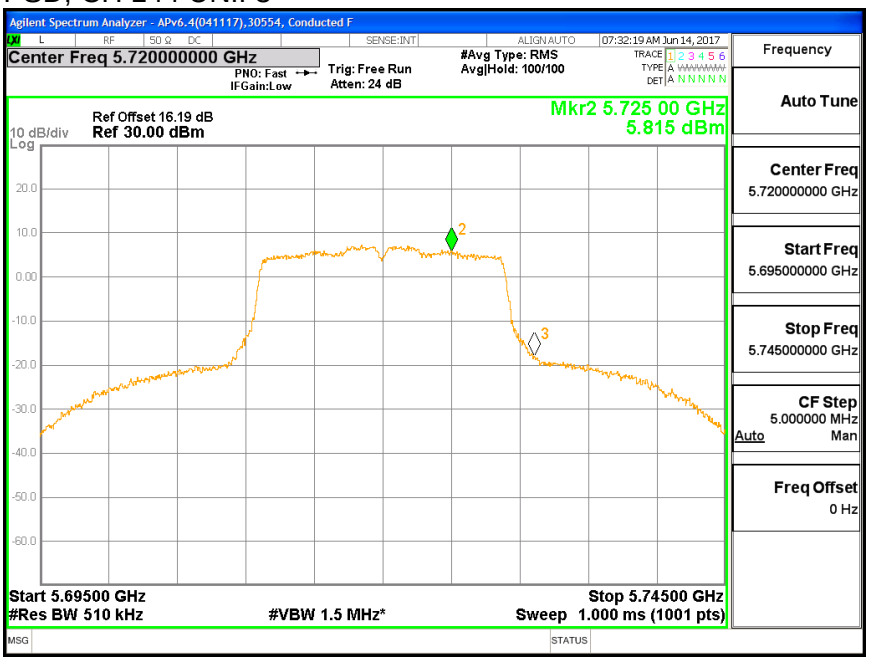
PSD Results

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	5.815	5.815	30.00	-24.19

OUTPUT POWER, CH 144 UNII 3



PSD, CH 144 UNII 3



8.23. 11n HT20 2TX CDD MIMO MODE IN THE 5.6GHz BAND

8.23.1. 26 dB BANDWIDTH

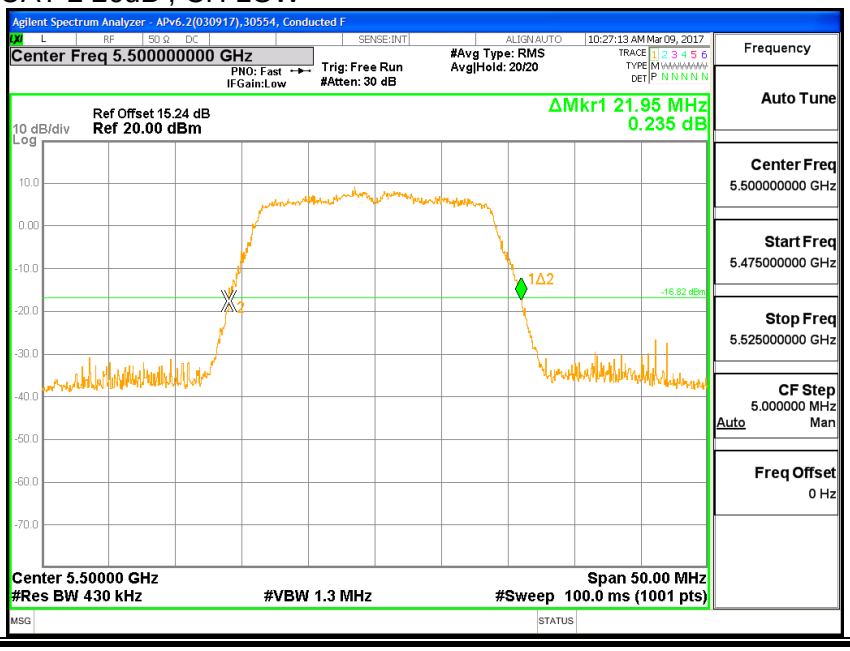
LIMITS

None; for reporting purposes only.

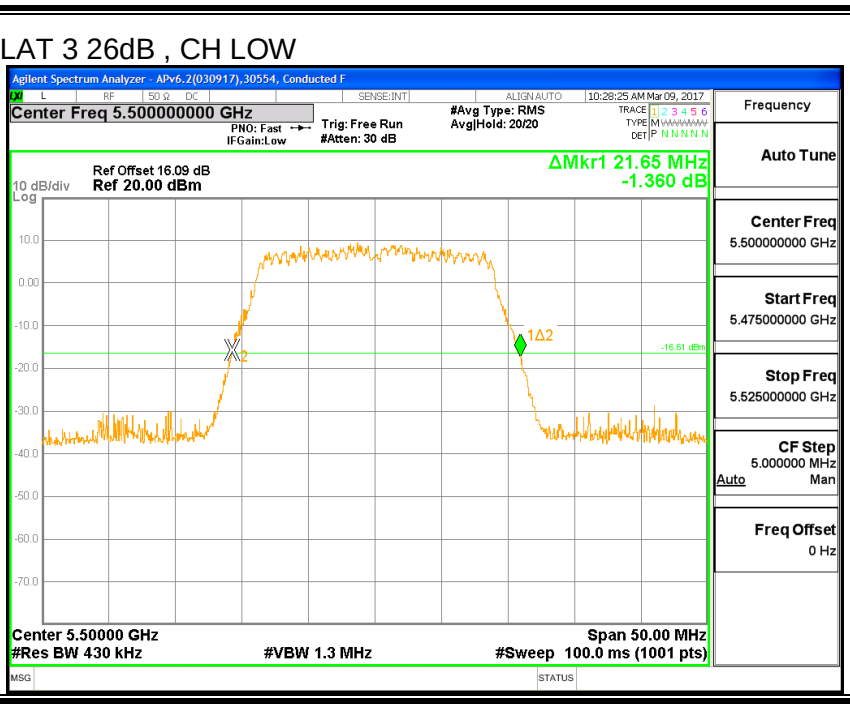
RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)	26 dB BW LAT 3 (MHz)
Low	5500	21.95	21.65
Mid	5580	22.10	21.45
High	5700	22.10	21.50
144	5720	22.05	21.45

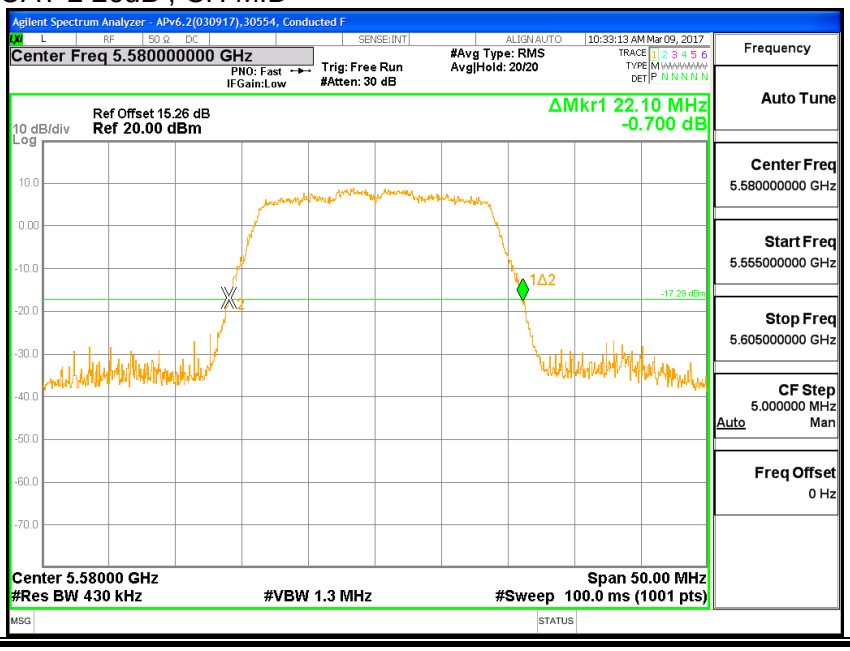
UAT 2 26dB , CH LOW



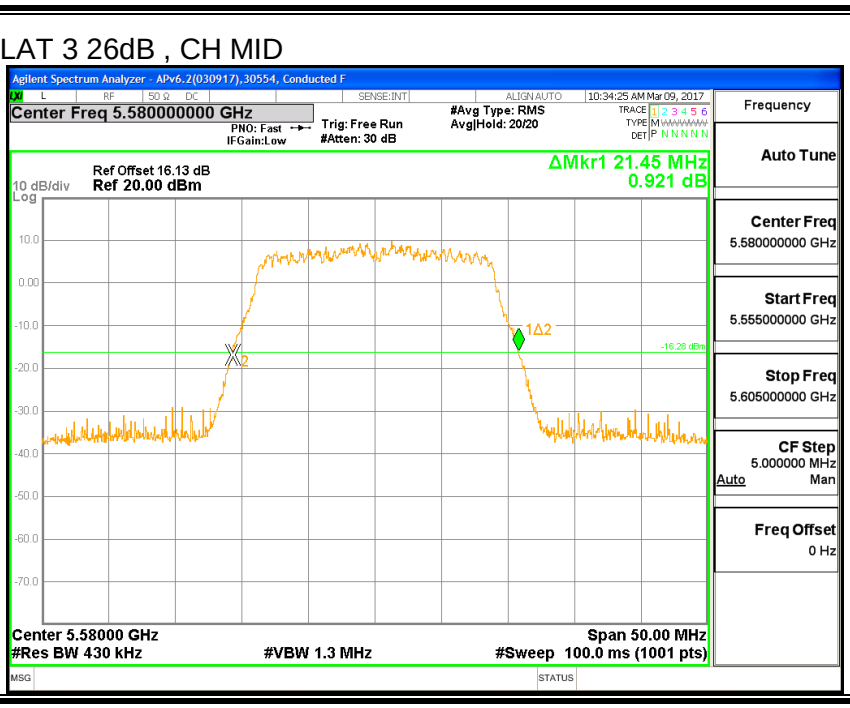
LAT 3 26dB , CH LOW



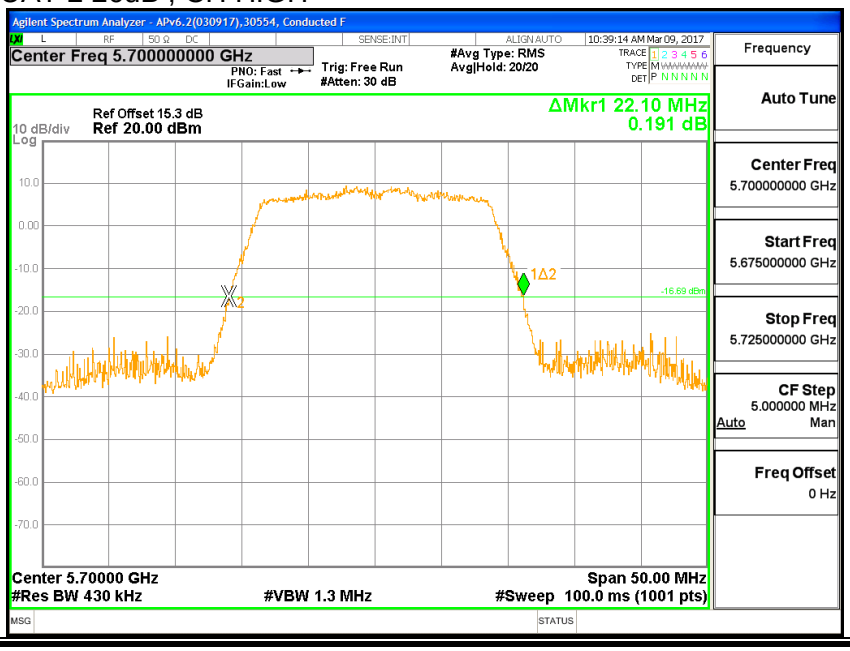
UAT 2 26dB , CH MID



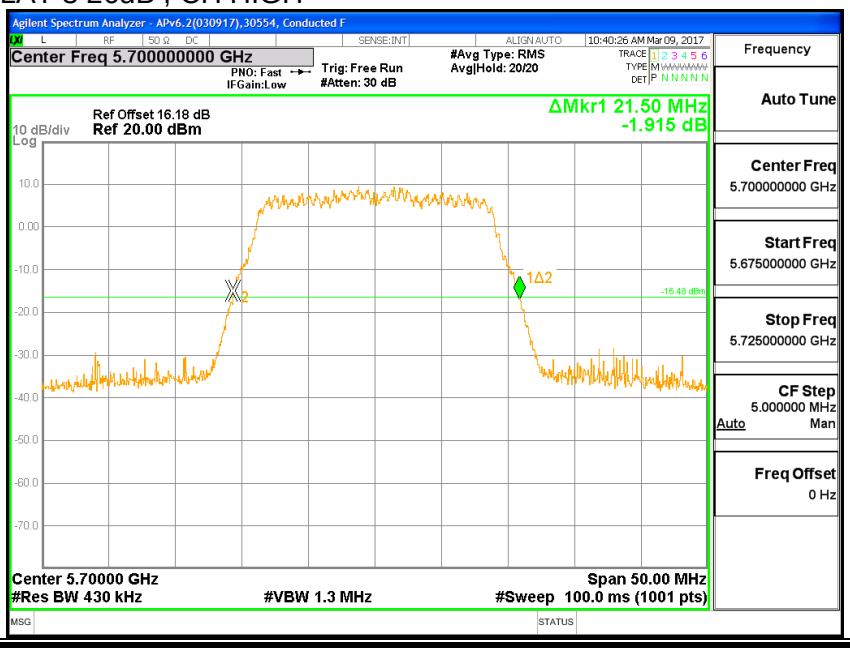
LAT 3 26dB , CH MID



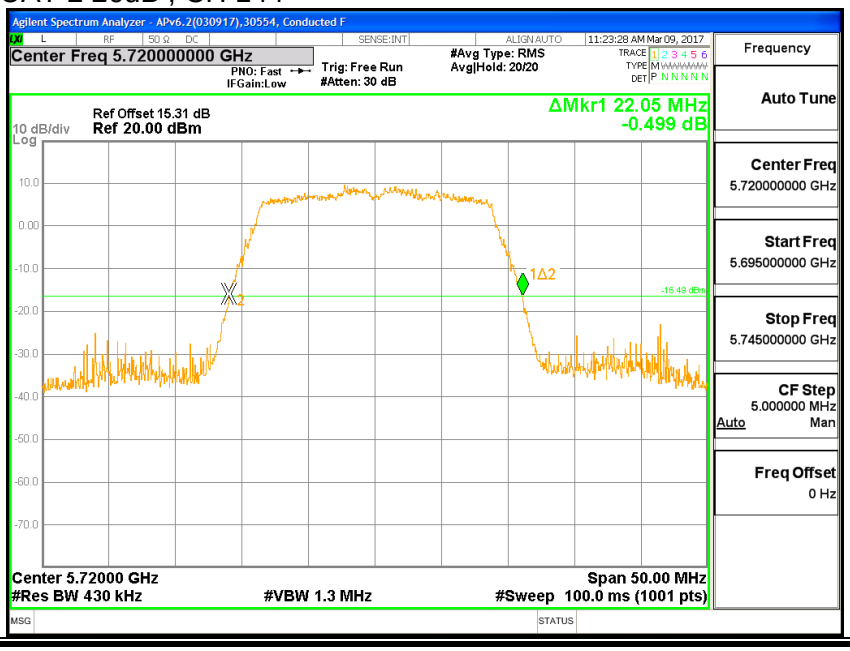
UAT 2 26dB , CH HIGH



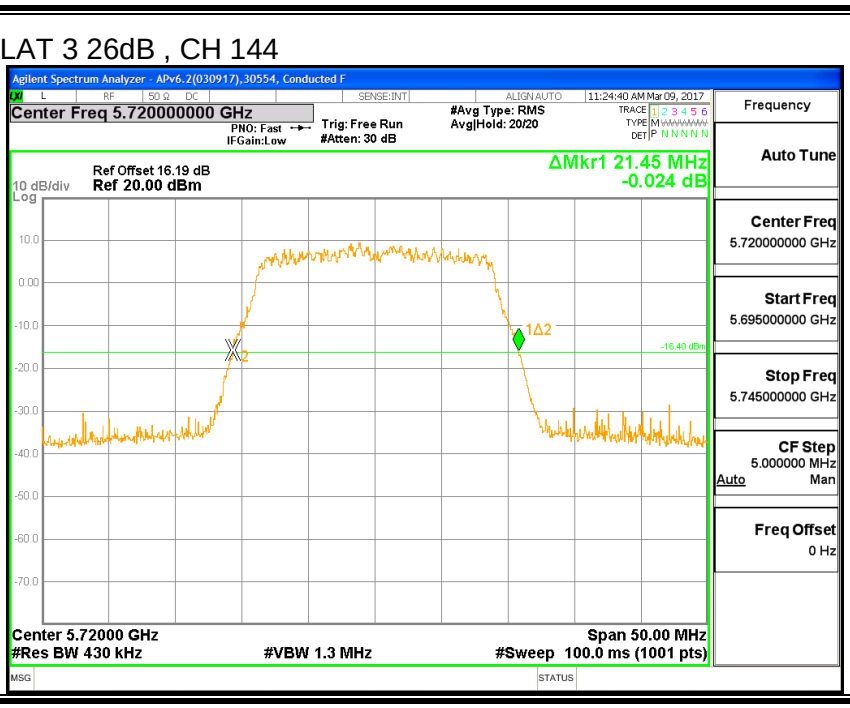
LAT 3 26dB , CH HIGH



UAT 2 26dB , CH 144



LAT 3 26dB , CH 144



8.23.2. 99% BANDWIDTH

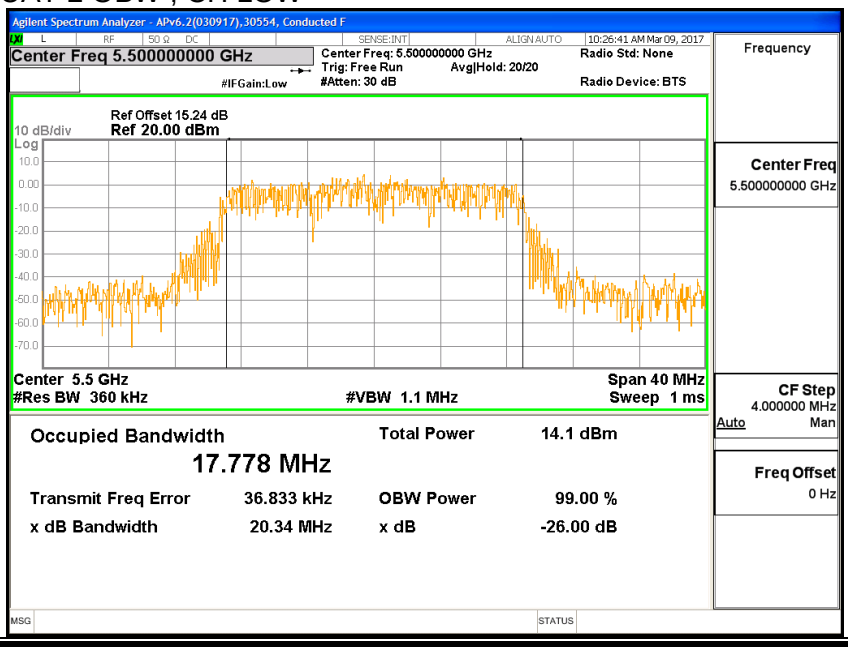
LIMITS

None; for reporting purposes only.

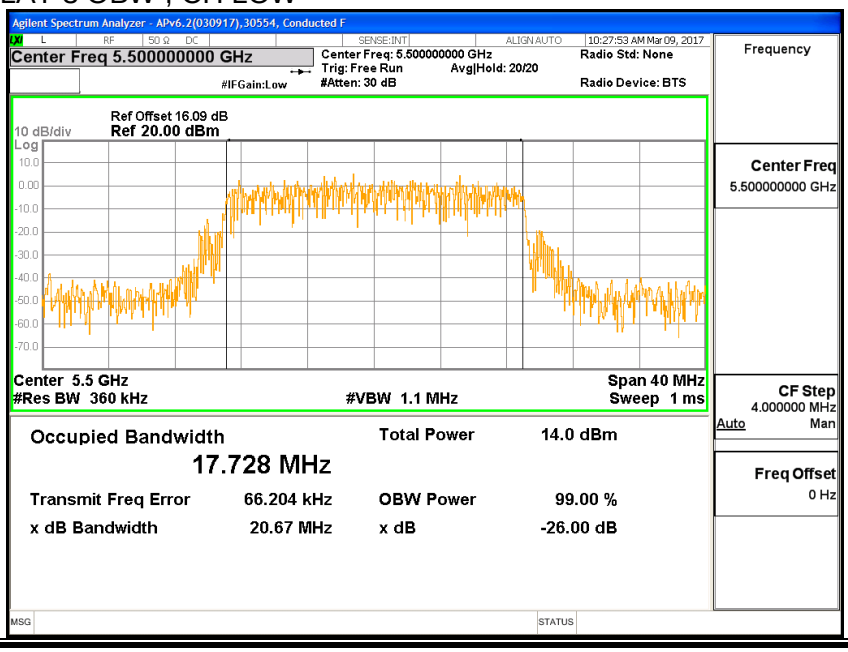
RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)	99% BW LAT 3 (MHz)
Low	5500	17.778	17.728
Mid	5580	17.716	16.962
High	5700	17.704	17.649
144	5720	17.798	17.783

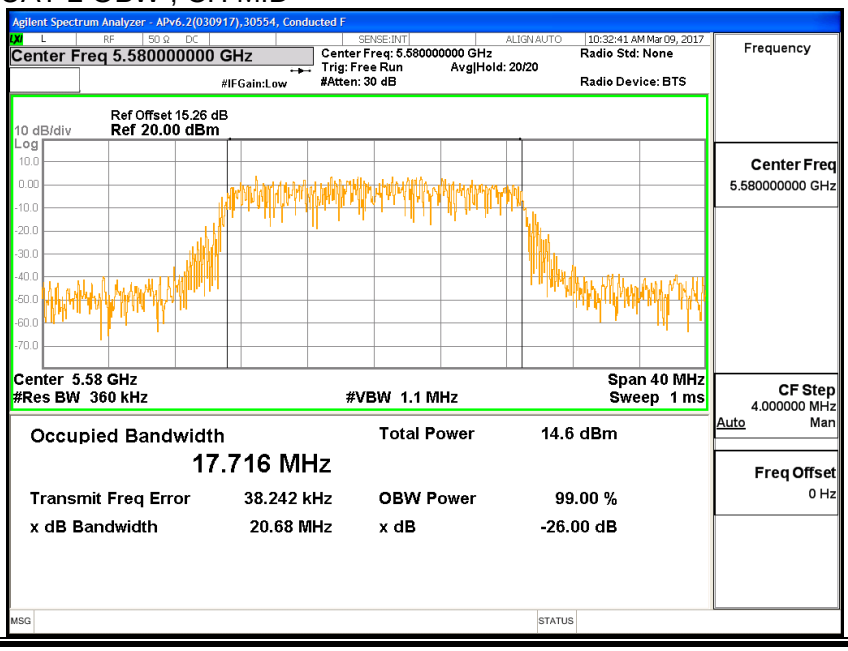
UAT 2 OBW , CH LOW



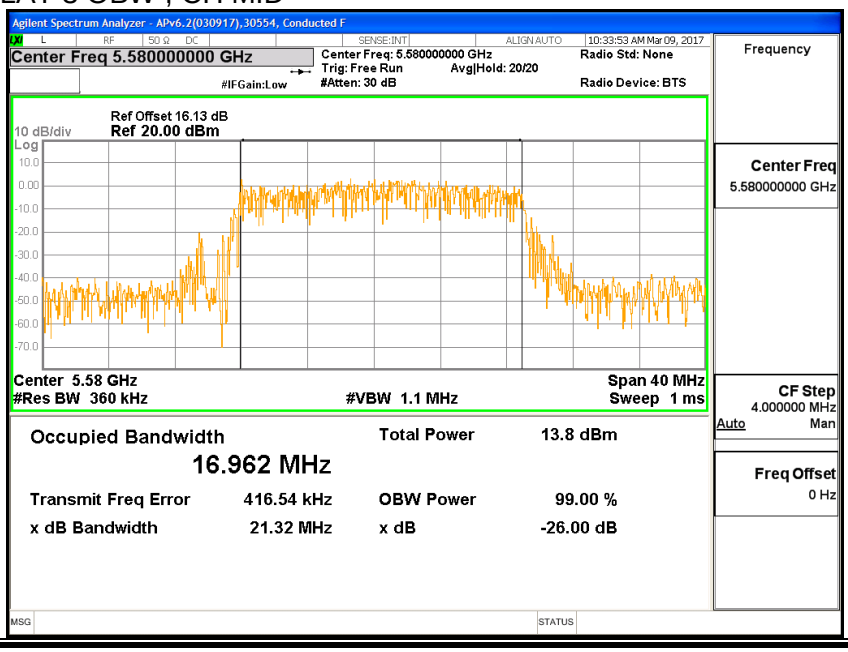
LAT 3 OBW , CH LOW



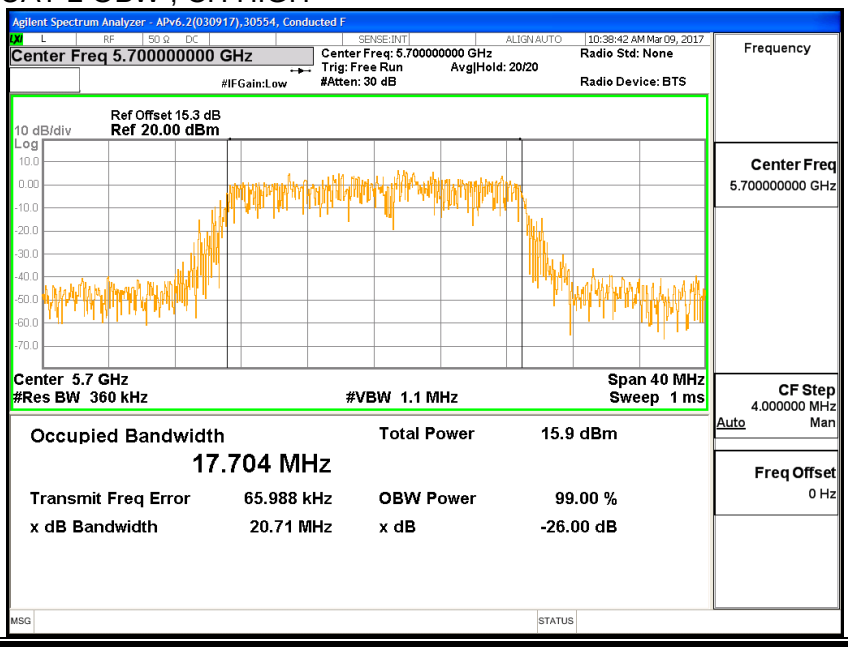
UAT 2 OBW , CH MID



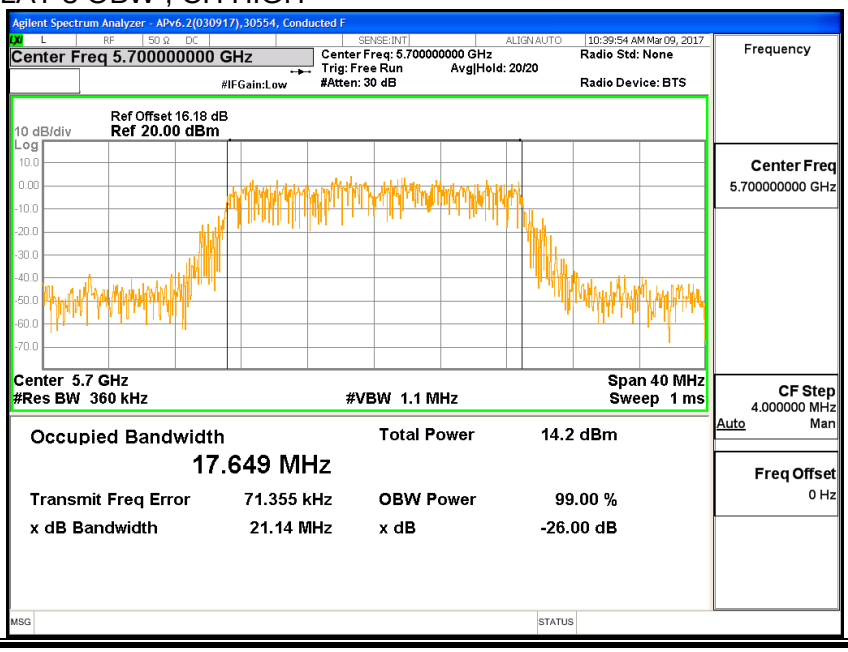
LAT 3 OBW , CH MID



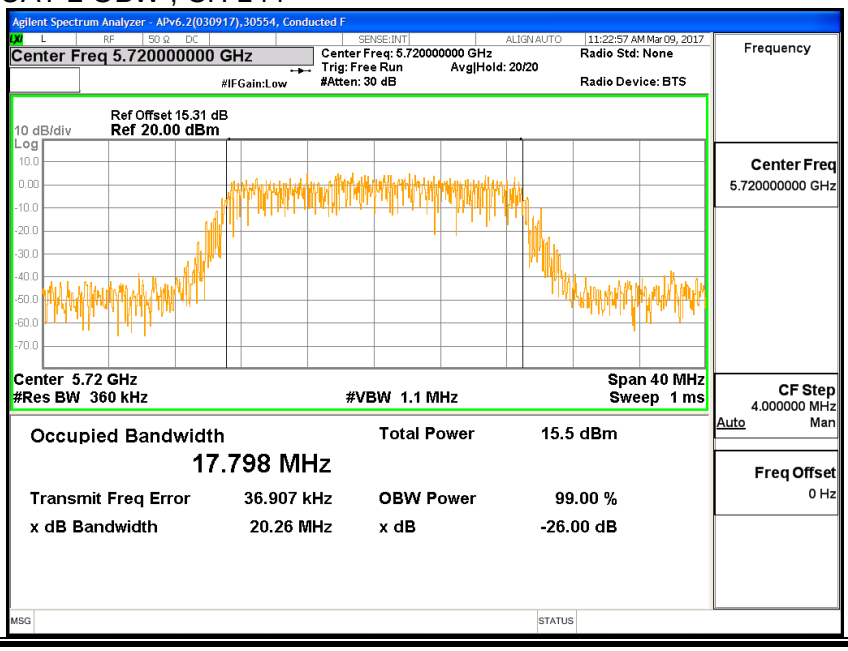
UAT 2 OBW , CH HIGH



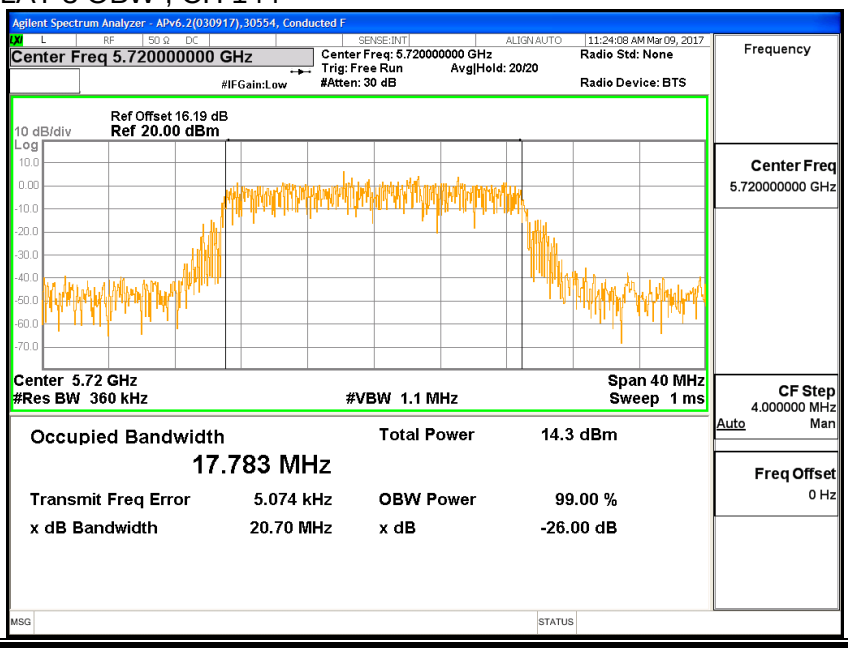
LAT 3 OBW , CH HIGH



UAT 2 OBW , CH 144



LAT 3 OBW , CH 144



8.23.3. AVERAGE POWER

ID:	30554	Date:	3/8/2017

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power UAT 2 (dBm)	Power LAT 3 (dBm)	Total Power (dBm)
Low	5500	16.97	16.82	19.91
Mid	5580	17.84	17.83	20.85
High	5700	16.45	16.39	19.43
144	5720	17.82	17.91	20.88

8.23.4. OUTPUT POWER AND PPSD

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.

PSD Test Procedure: KDB 789033 D02 v01r04 Section F (Method SA-2)

DIRECTIONAL ANTENNA GAIN

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

UAT 2 Antenna Gain (dBi)	LAT 3 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-0.75	-0.96	-0.85

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

UAT 2 Antenna Gain (dBi)	LAT 3 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
-0.75	-0.96	2.16

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	5500	21.65	17.728	-0.85	2.16	23.49	11.00
Mid	5580	21.45	16.962	-0.85	2.16	23.29	11.00
High	5700	21.50	17.649	-0.85	2.16	23.47	11.00

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

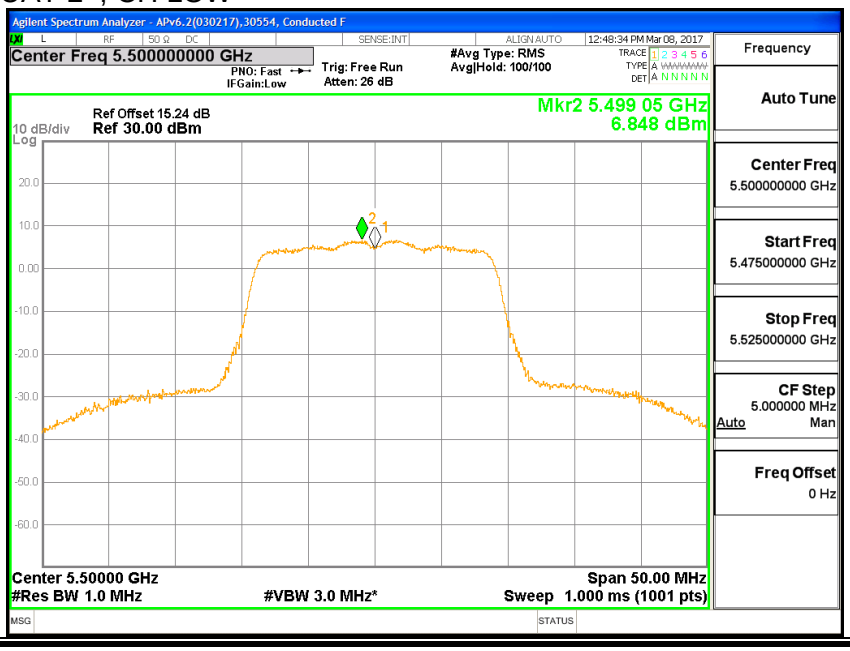
Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	16.97	16.82	19.91	23.49	-3.58
Mid	5580	17.84	17.83	20.85	23.29	-2.45
High	5700	16.45	16.39	19.43	23.47	-4.04

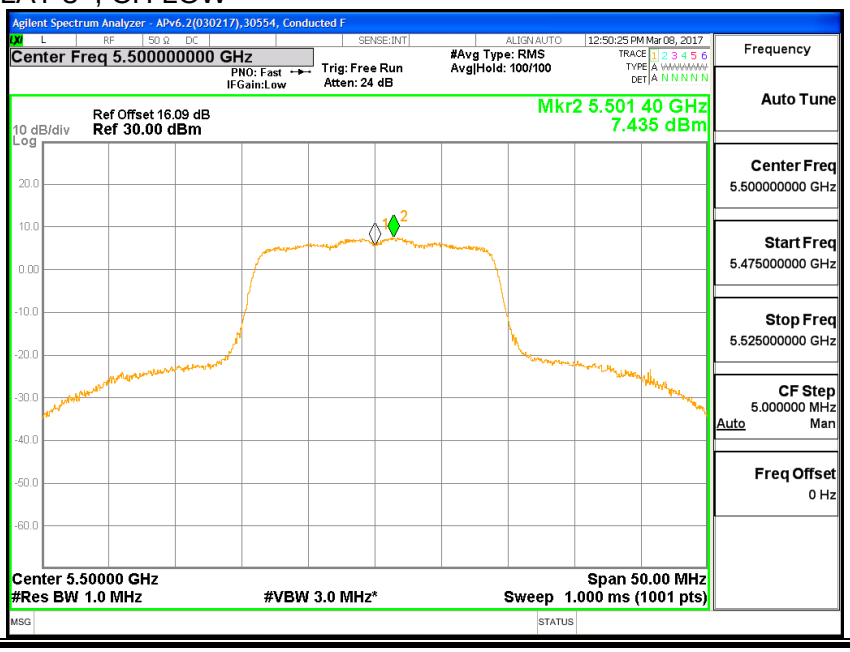
PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/MHz)	LAT 3 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
Low	5500	6.85	7.44	10.16	11.00	-0.84
Mid	5580	6.92	7.66	10.31	11.00	-0.69
High	5700	6.13	7.16	9.69	11.00	-1.31

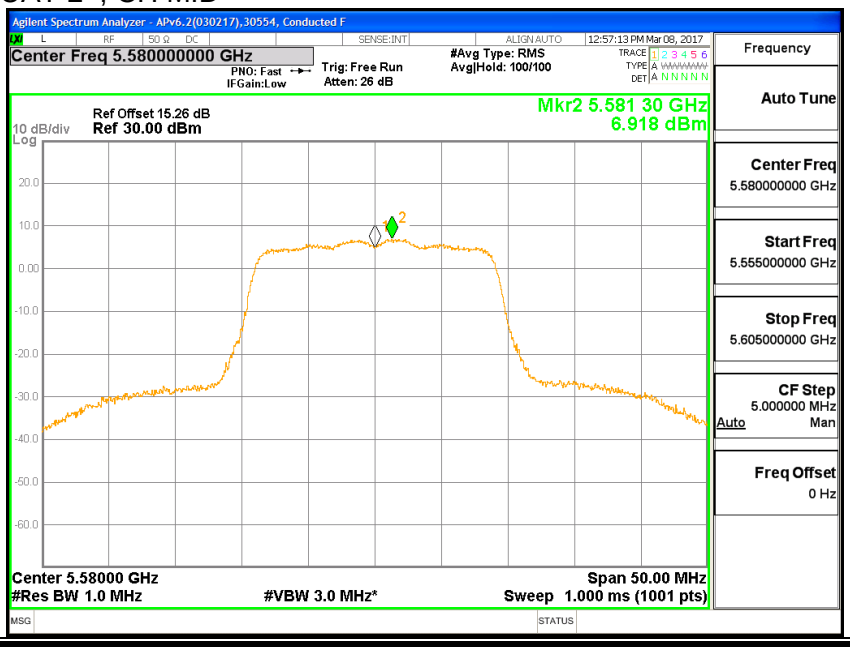
UAT 2 , CH LOW



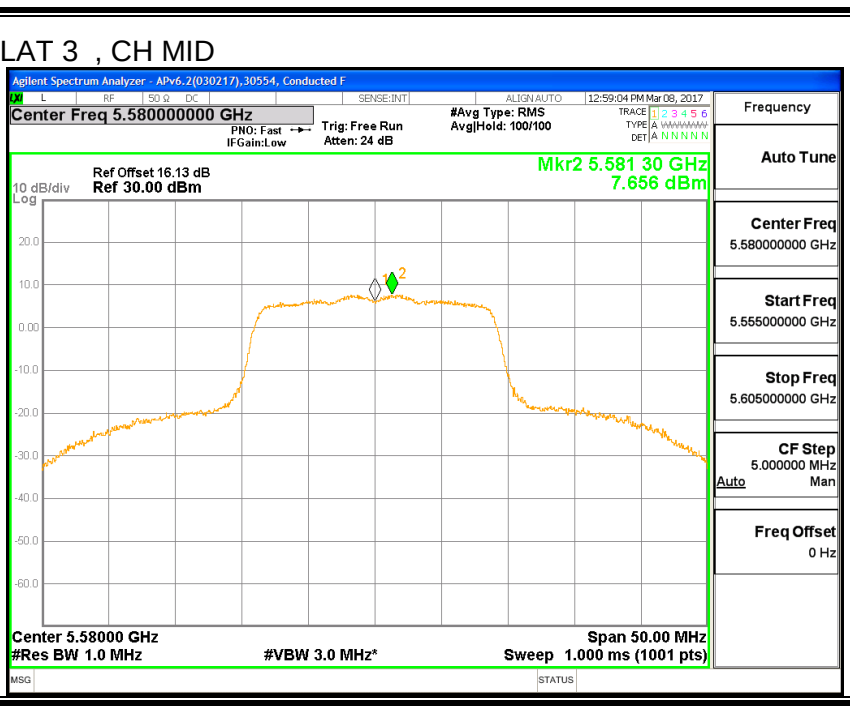
LAT 3 , CH LOW



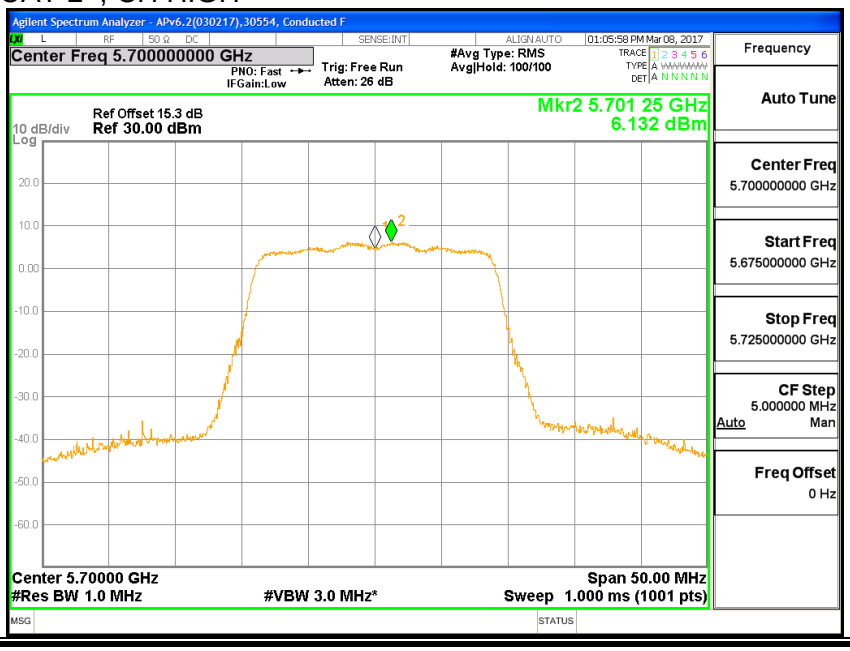
UAT 2 , CH MID



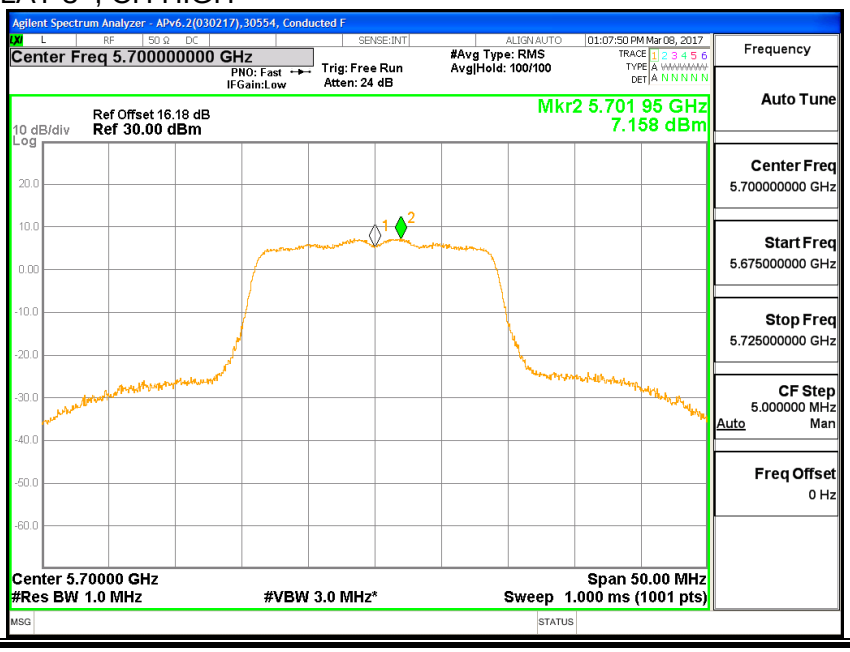
LAT 3 , CH MID



UAT 2 , CH HIGH



LAT 3 , CH HIGH



8.24. 11ac HT20 2TX CDD MIMO STRADDLE CHANNEL 144

8.24.1. OUTPUT POWER AND PPSD

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	21.45	-0.85	2.16	24.00	11.00

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

Output Power Results

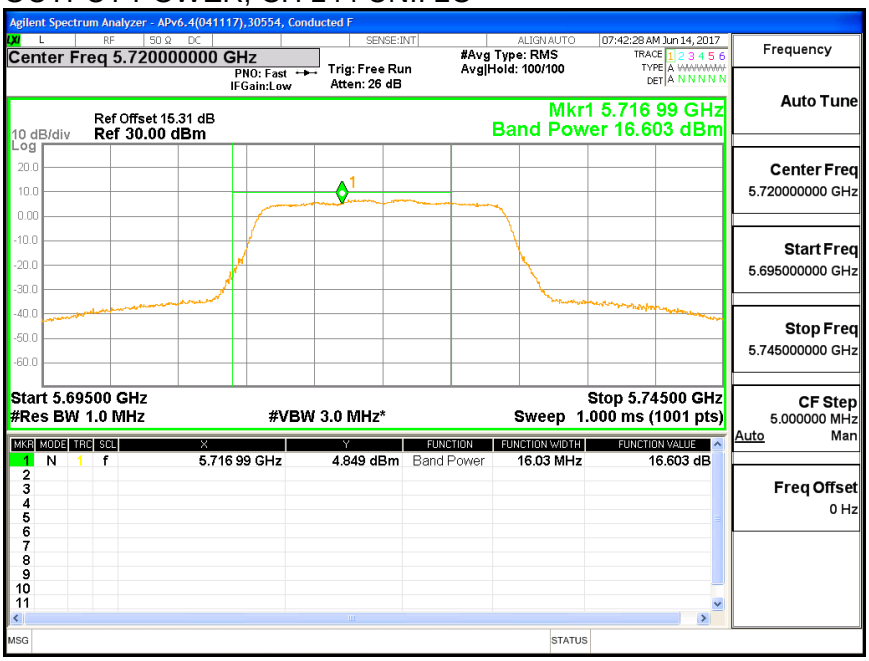
Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	16.60	16.51	19.56	24.00	-4.44

PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/MHz)	LAT 3 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
144	5720	6.79	7.02	9.92	11.00	-1.08

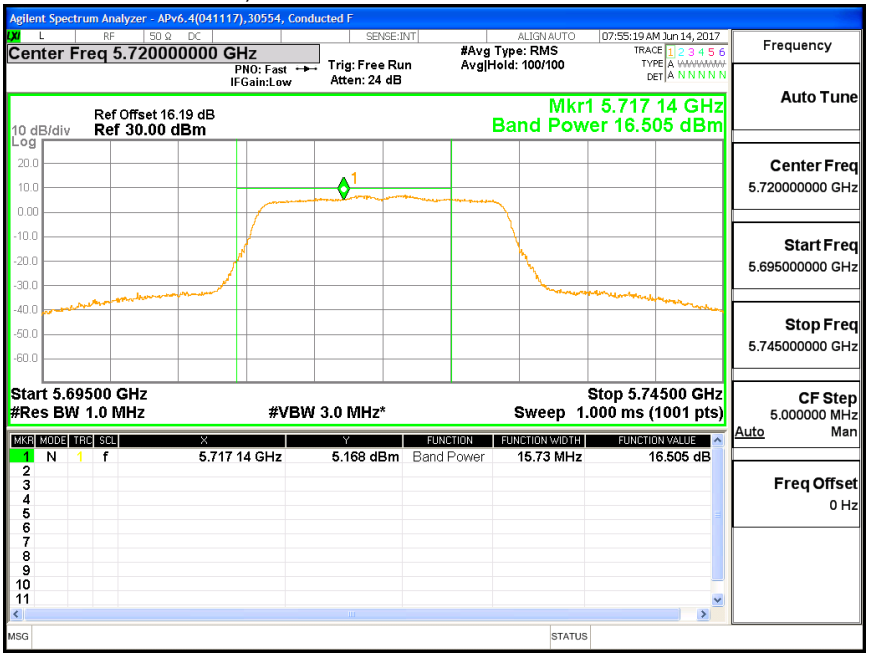
OUTPUT POWER, UAT 2

OUTPUT POWER, CH 144 UNII 2C



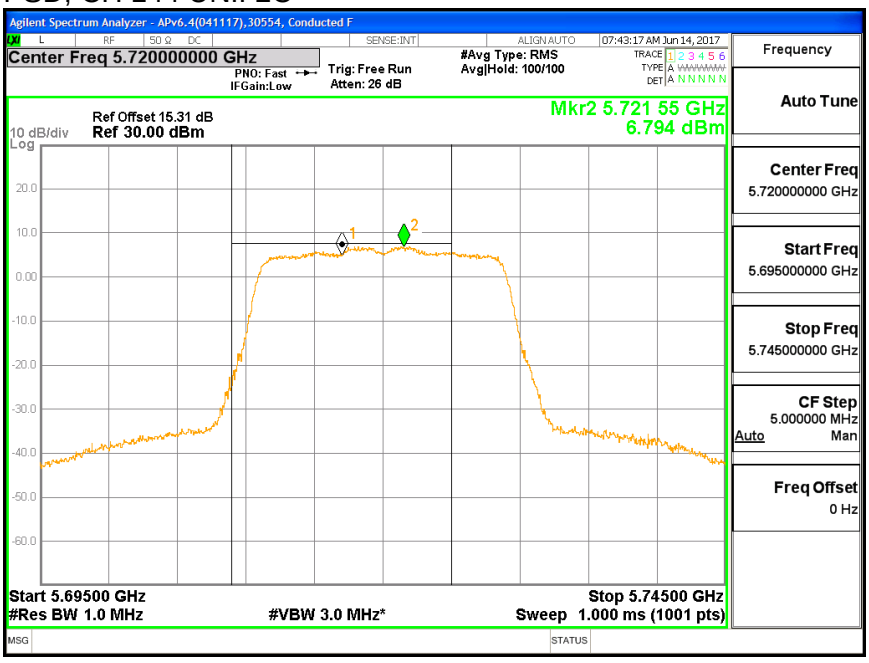
OUTPUT POWER, LAT 3

OUTPUT POWER, CH 144 UNII 2C



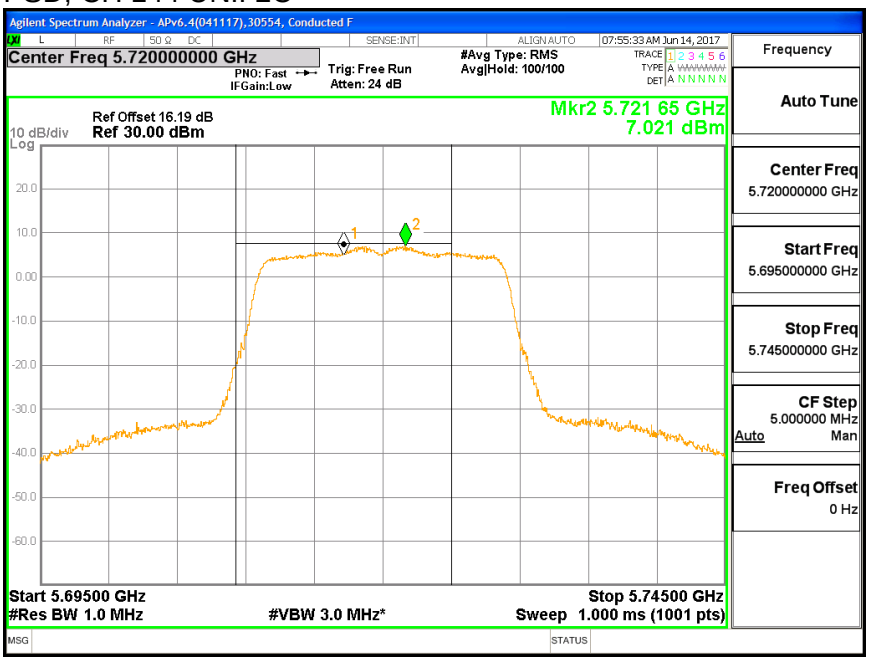
PSD, UAT 2

PSD, CH 144 UNII 2C



PSD, LAT 3

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	21.45	-0.05	2.92	30.00	30.00

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

Output Power Results

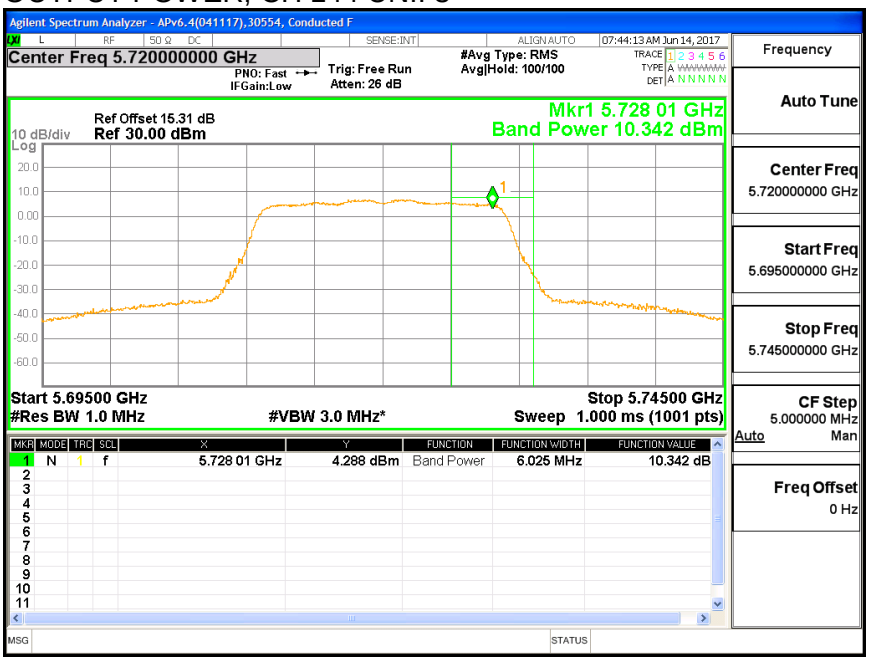
Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.34	10.30	13.33	30.00	-16.67

PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	2.90	3.21	6.07	30.00	-23.93

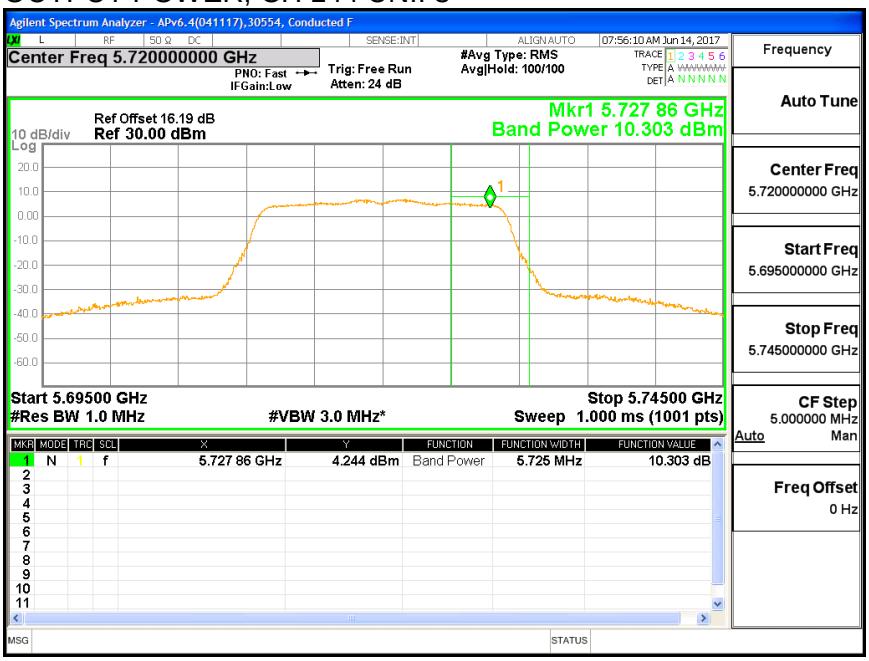
OUTPUT POWER, UAT 2

OUTPUT POWER, CH 144 UNII 3



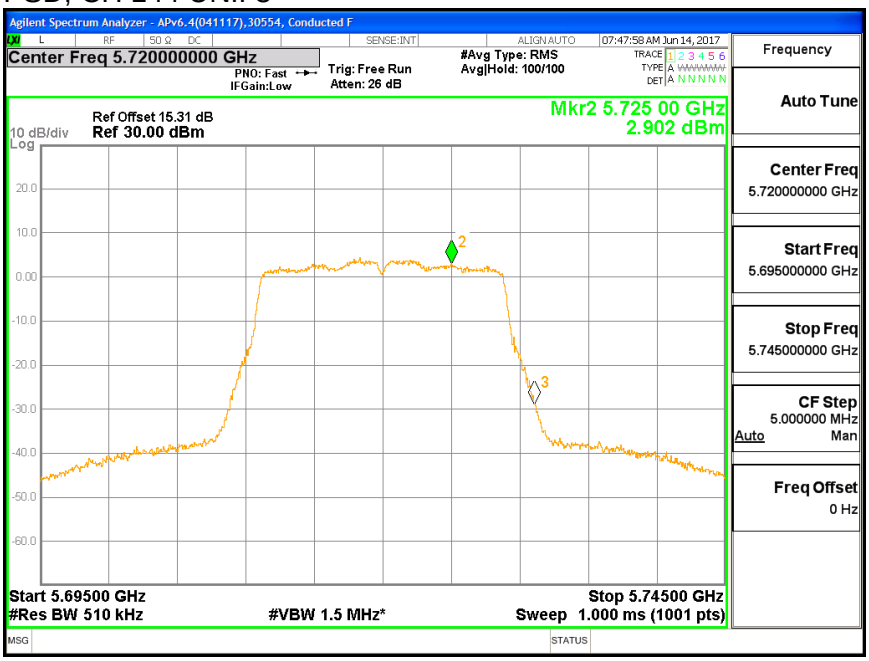
OUTPUT POWER, LAT 3

OUTPUT POWER, CH 144 UNII 3



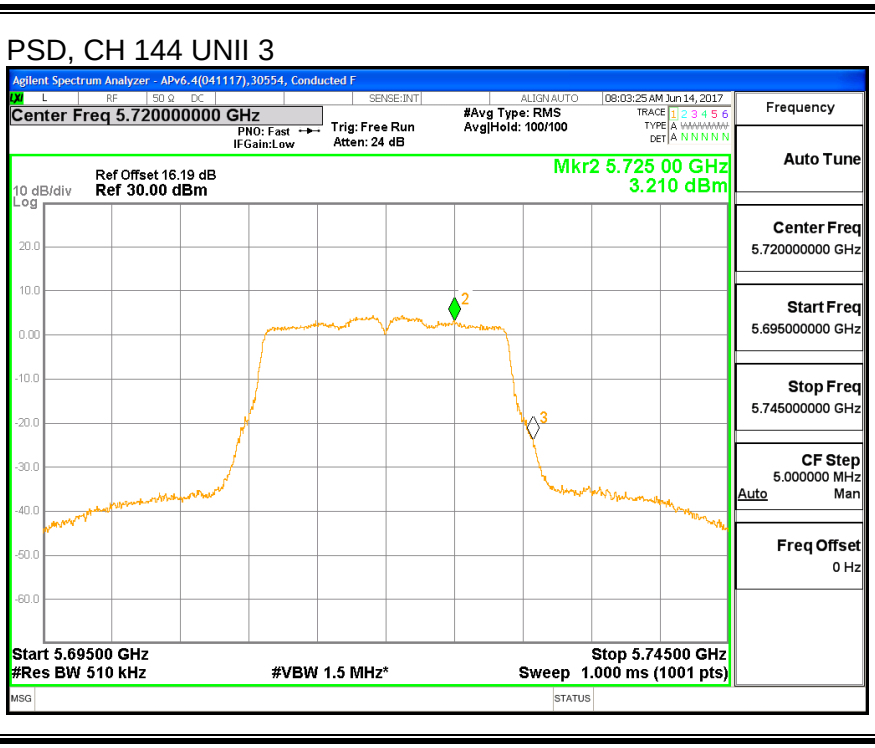
PSD, UAT 2

PSD, CH 144 UNII 3



PSD, LAT 3

PSD, CH 144 UNII 3



8.25. 11n HT40 UAT 2 SISO MODE IN THE 5.6GHz BAND

8.25.1. 26 dB BANDWIDTH

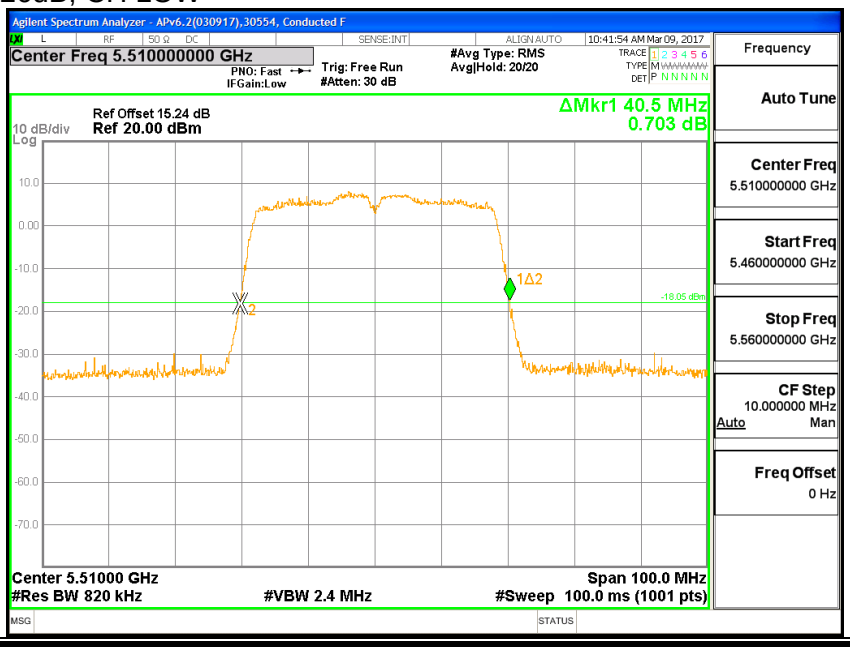
LIMITS

None; for reporting purposes only.

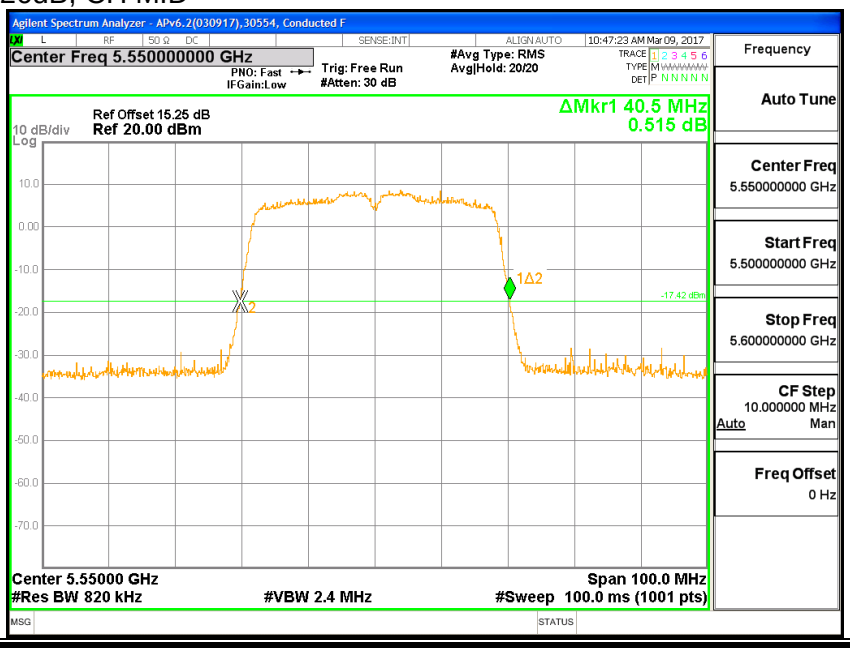
RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)
Low	5510	40.5
Mid	5550	40.5
Mid	5590	40.8
High	5670	40.5
142	5710	40.5

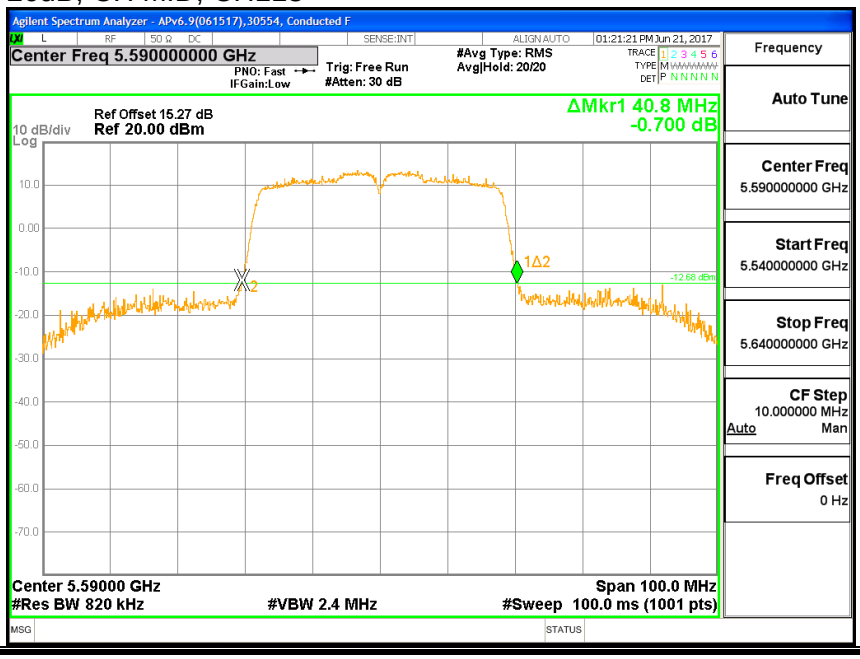
26dB, CH LOW



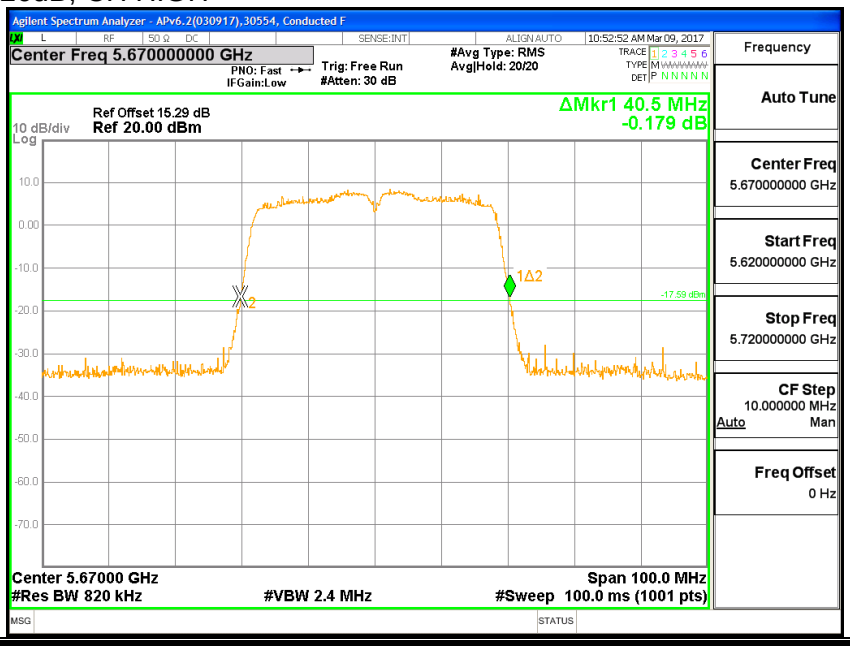
26dB, CH MID



26dB, CH MID, CH118



26dB, CH HIGH



26dB, CH 142

8.25.2. 99% BANDWIDTH

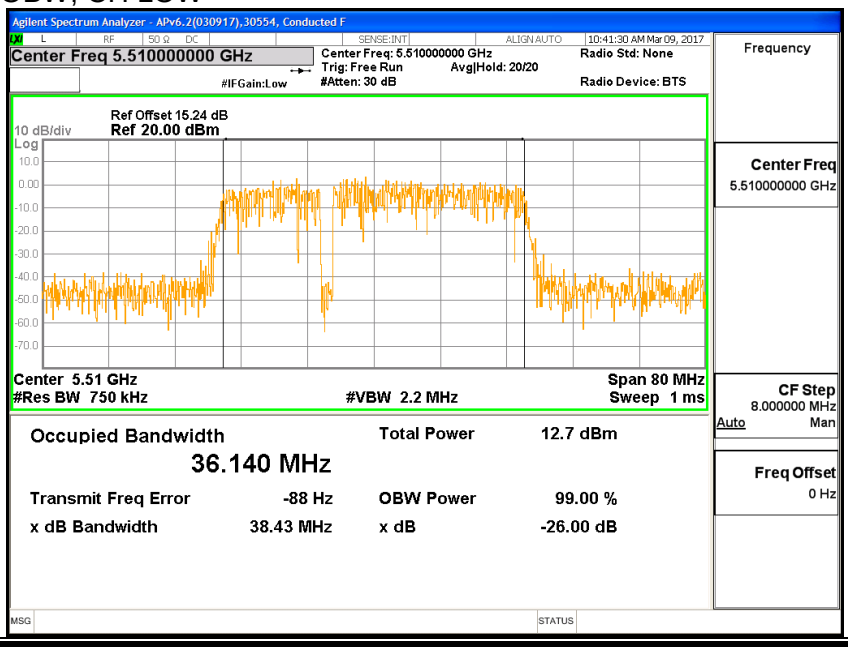
LIMITS

None; for reporting purposes only.

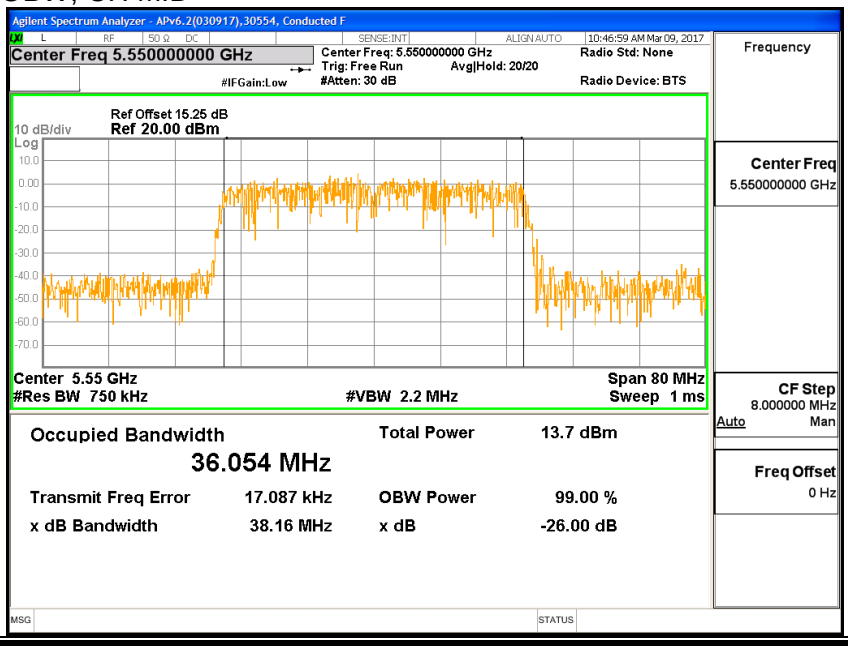
RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)
Low	5510	36.140
Mid	5550	36.054
Mid	5590	36.315
High	5670	36.243
142	5710	36.247

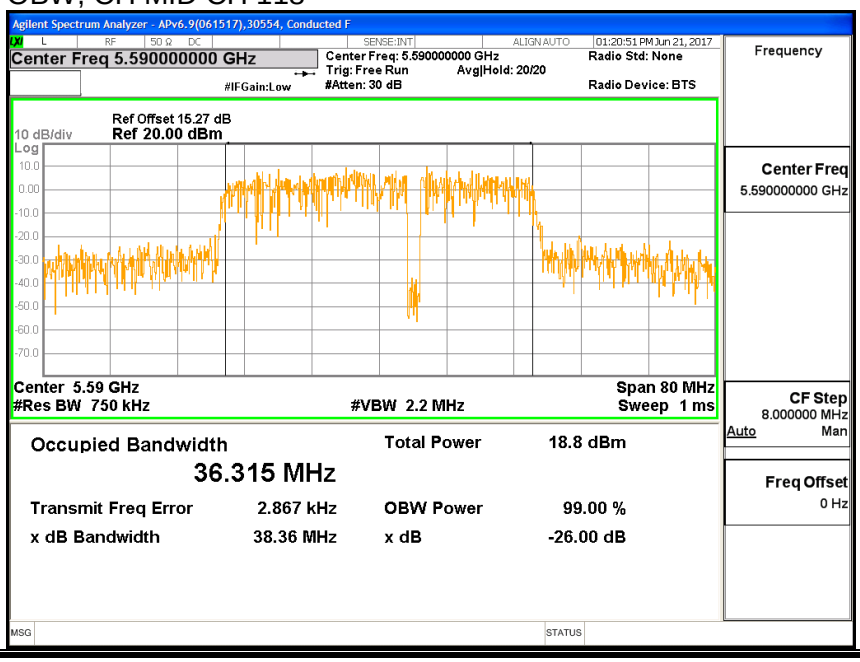
OBW, CH LOW



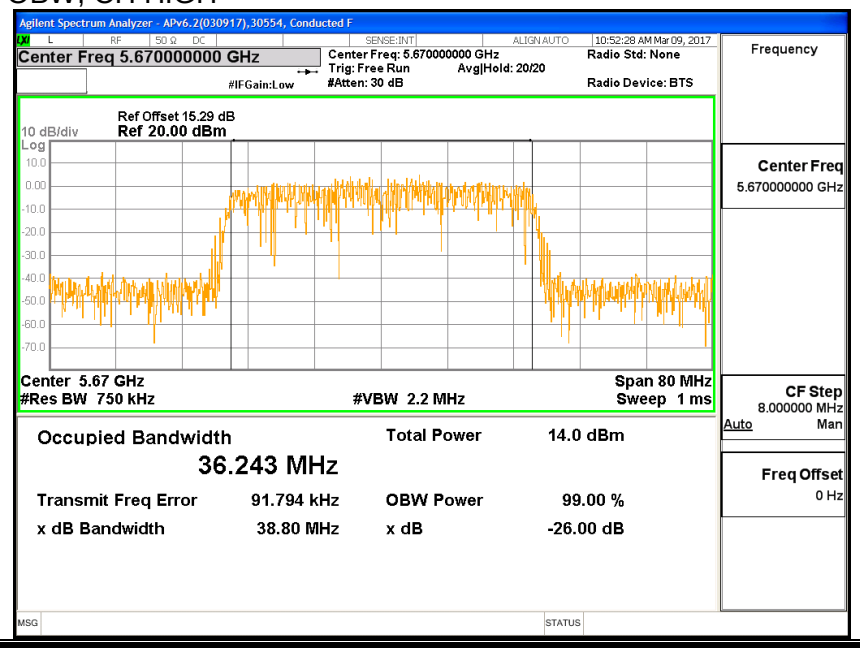
OBW, CH MID



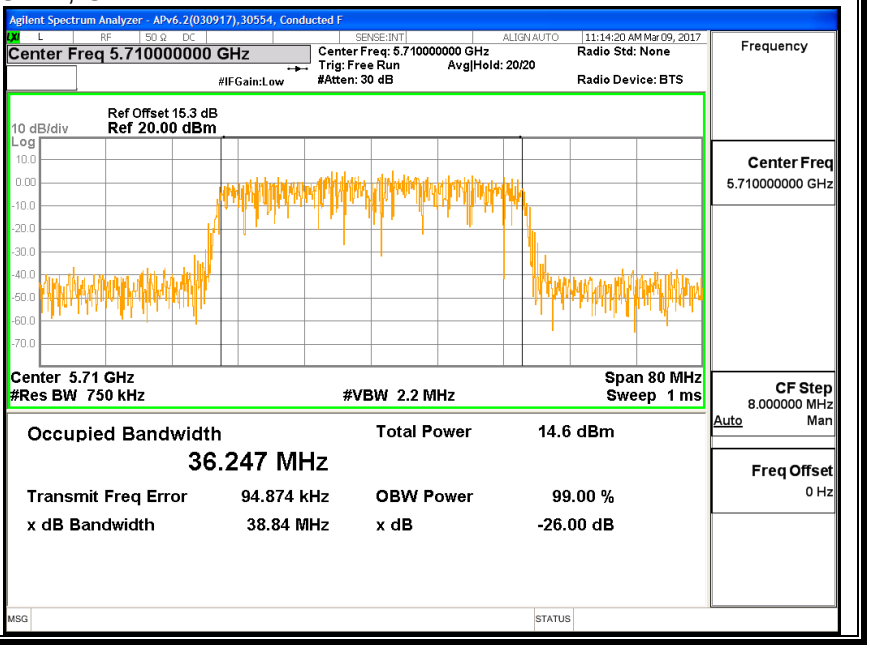
OBW, CH MID CH 118



OBW, CH HIGH



OBW, CH 142



8.25.3. AVERAGE POWER

ID:	30554	Date:	3/8/2017

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power UAT 2 (dBm)
Low	5510	15.89
Mid	5550	18.92
Mid	5590	19.36
High	5670	17.36
142	5710	19.34

8.25.4. OUTPUT POWER AND PPSD

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.

PSD Test Procedure: KDB 789033 D02 v01r04 Section F (Method SA-2)

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	40.50	36.140	-0.75	24.00	11.00
Mid	5550	40.50	36.054	-0.75	24.00	11.00
Mid	5590	40.50	36.054	-0.75	24.00	11.00
High	5670	40.50	36.243	-0.75	24.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

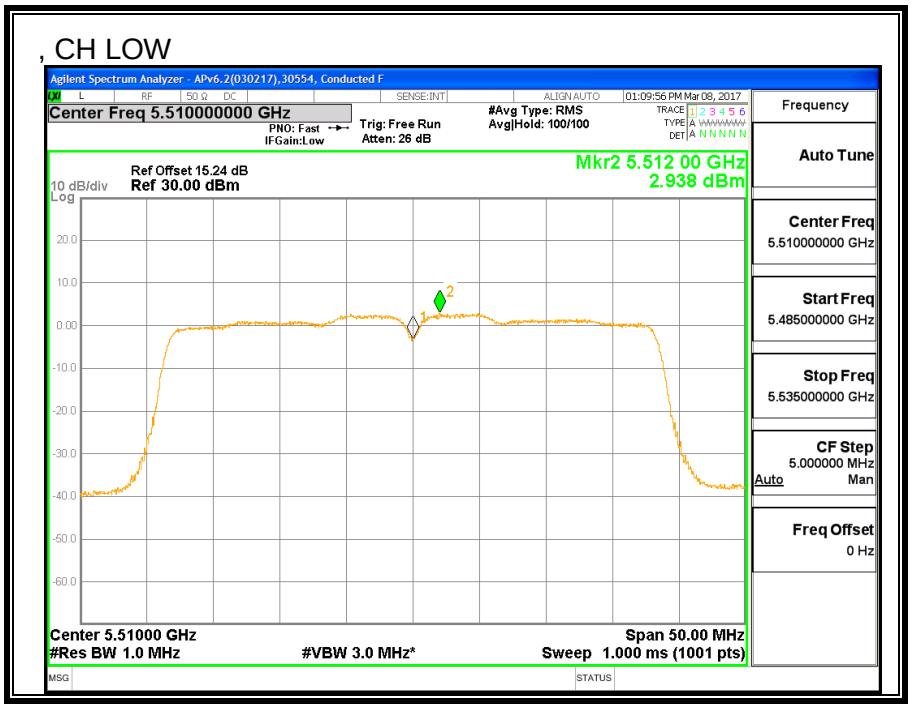
Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	15.89	15.89	24.00	-8.11
Mid	5550	18.92	18.92	24.00	-5.08
Mid	5590	19.36	19.36	24.00	-4.64
High	5670	17.36	17.36	24.00	-6.64

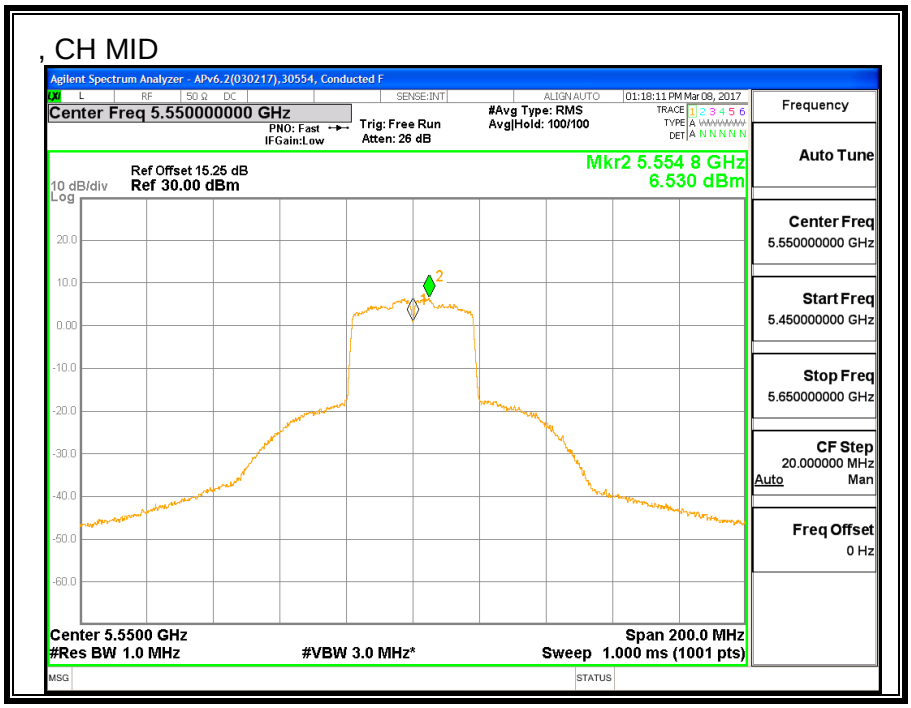
PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
Low	5510	2.94	3.04	11.00	-7.96
Mid	5550	6.53	6.63	11.00	-4.37
Mid	5590	5.09	5.19	11.00	-5.81
High	5670	5.61	5.71	11.00	-5.29

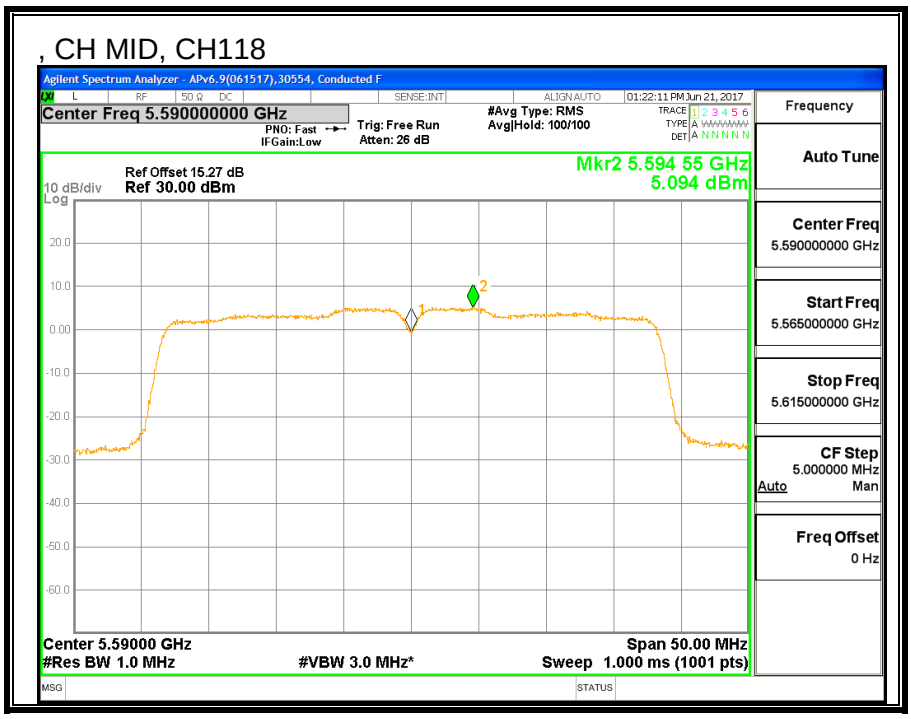
, CH LOW



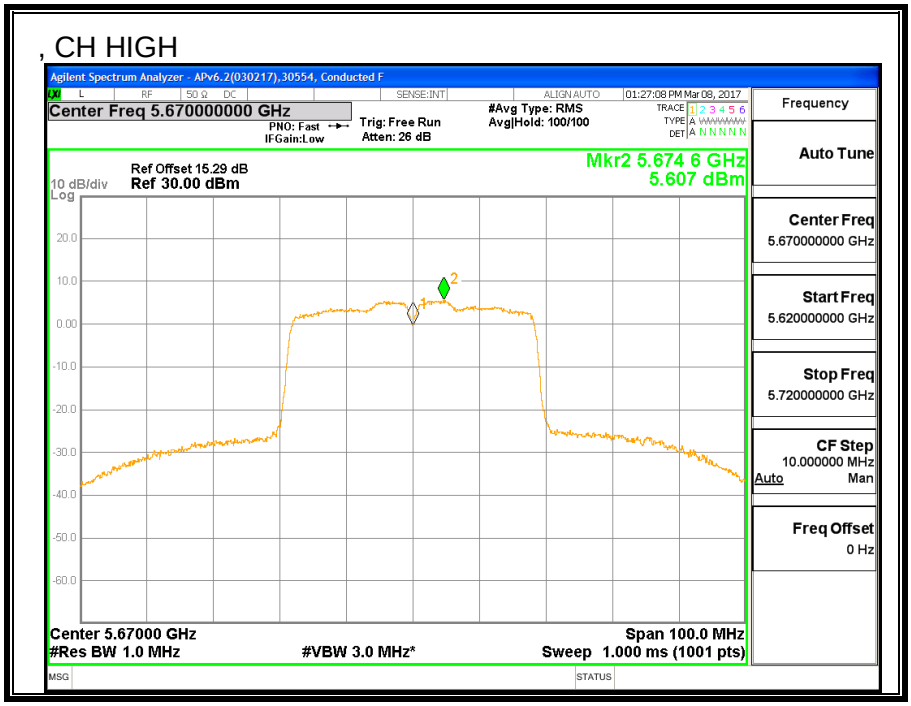
, CH MID



, CH MID, CH118



, CH HIGH



8.26. 11ac HT40 UAT 2 SISO STRADDLE CHANNEL 142

8.26.1. OUTPUT POWER AND PPSD

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	40.50	-0.75	-0.75	24.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD

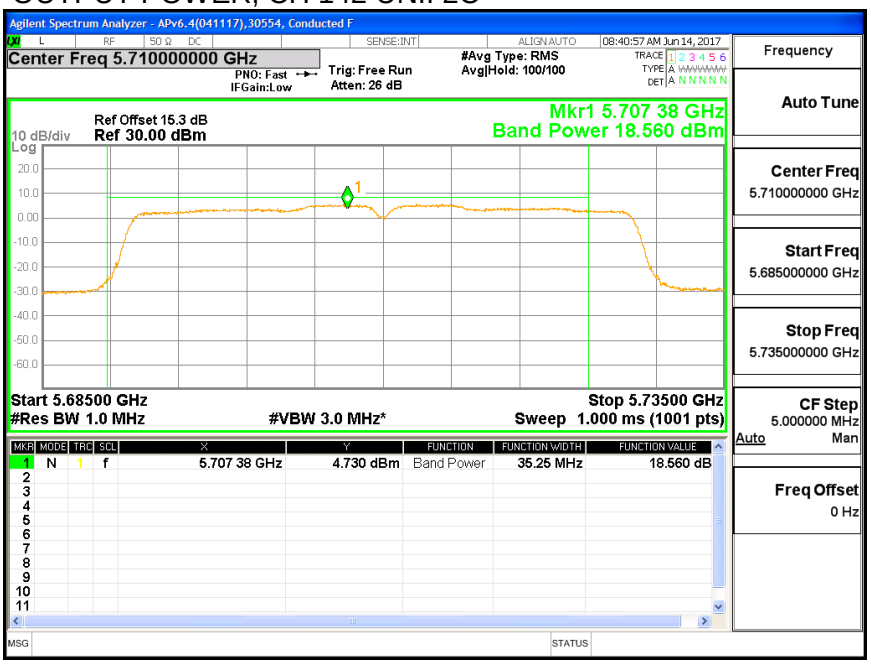
Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	18.56	18.66	24.00	-5.34

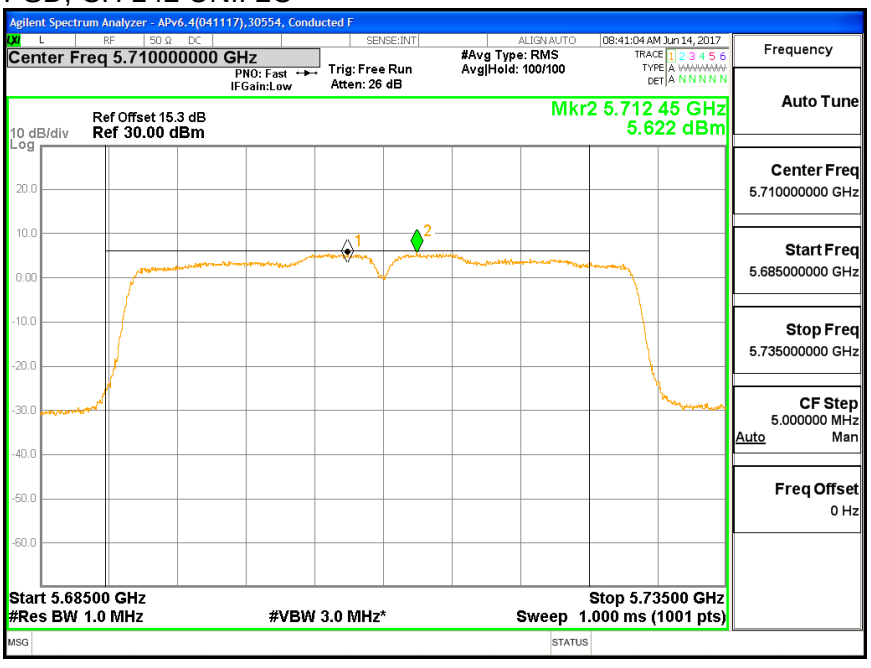
PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
142	5710	5.62	5.72	11.00	-5.28

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 (dBi)	Power Limit (dBm)	PSD Limit (dBm)
142	5710	40.50	0.68	30.00	30.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD

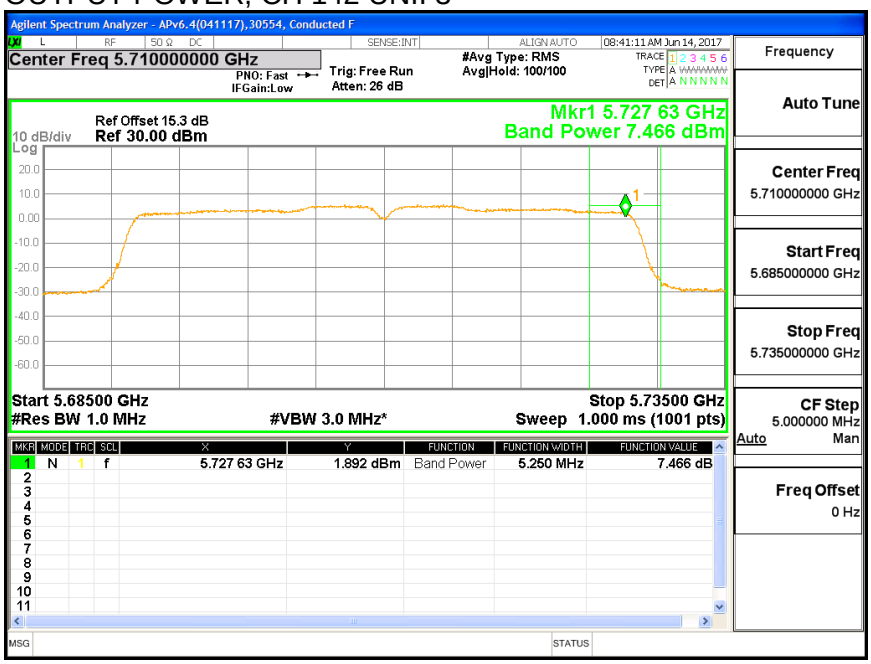
Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	7.47	7.57	30.00	-22.43

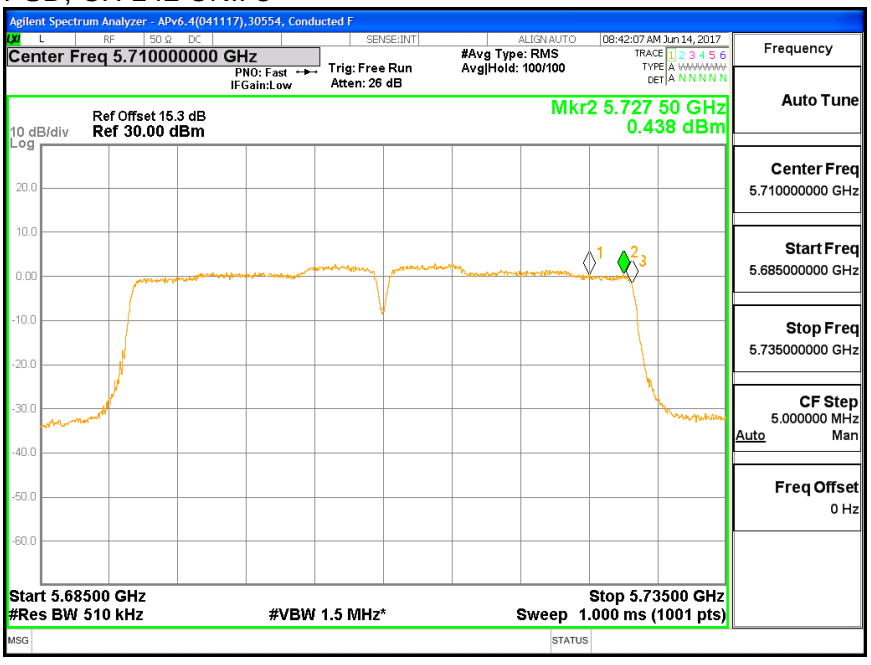
PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	0.44	0.54	30.00	-29.46

OUTPUT POWER, CH 142 UNII 3



PSD, CH 142 UNII 3



8.27. 11n HT40 LAT 3 SISO MODE IN THE 5.6GHz BAND

8.27.1. 26 dB BANDWIDTH

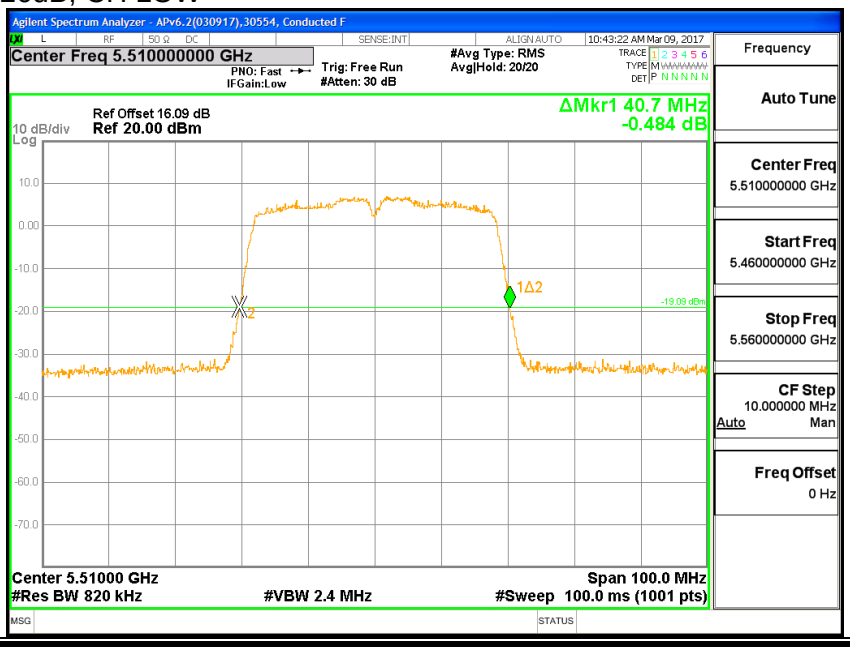
LIMITS

None; for reporting purposes only.

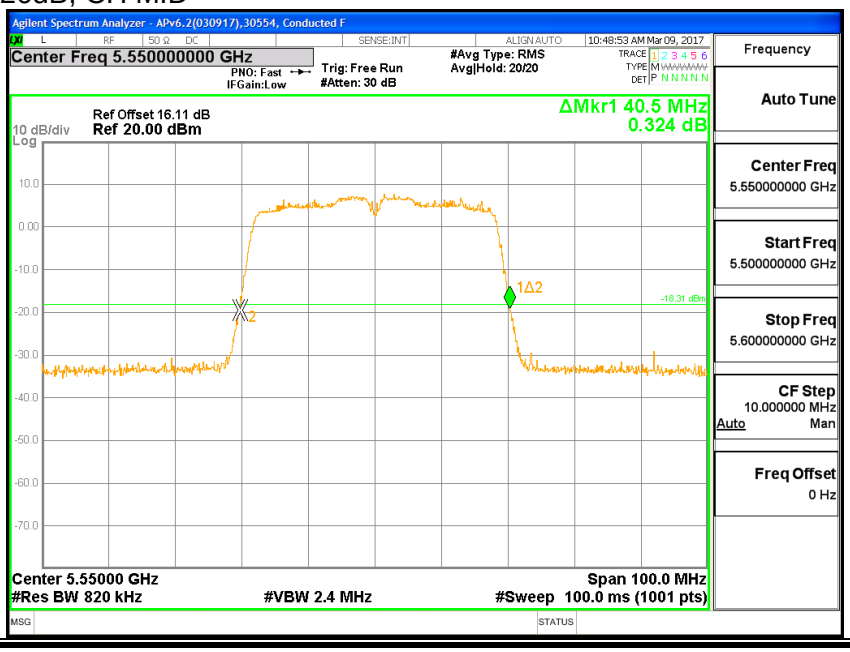
RESULTS

Channel	Frequency	26 dB BW LAT 3 (MHz)
Low	5510	40.7
Mid	5550	40.5
Mid	5590	40.7
High	5670	40.7
142	5710	40.7

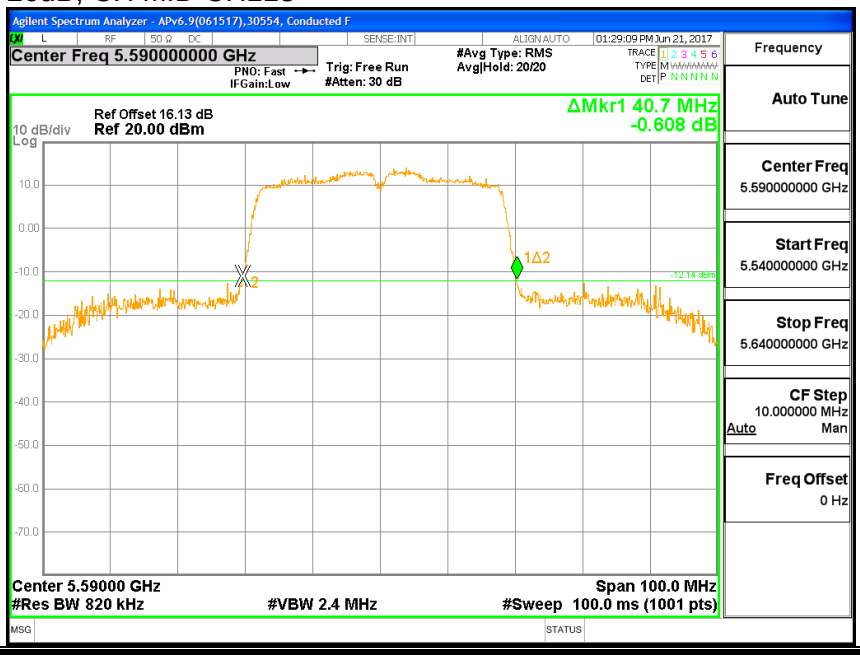
26dB, CH LOW



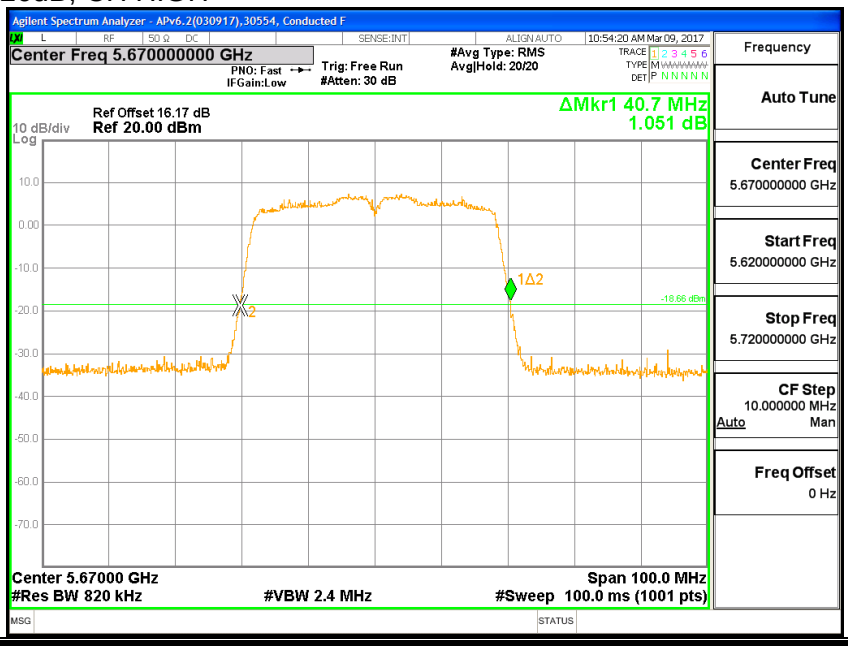
26dB, CH MID



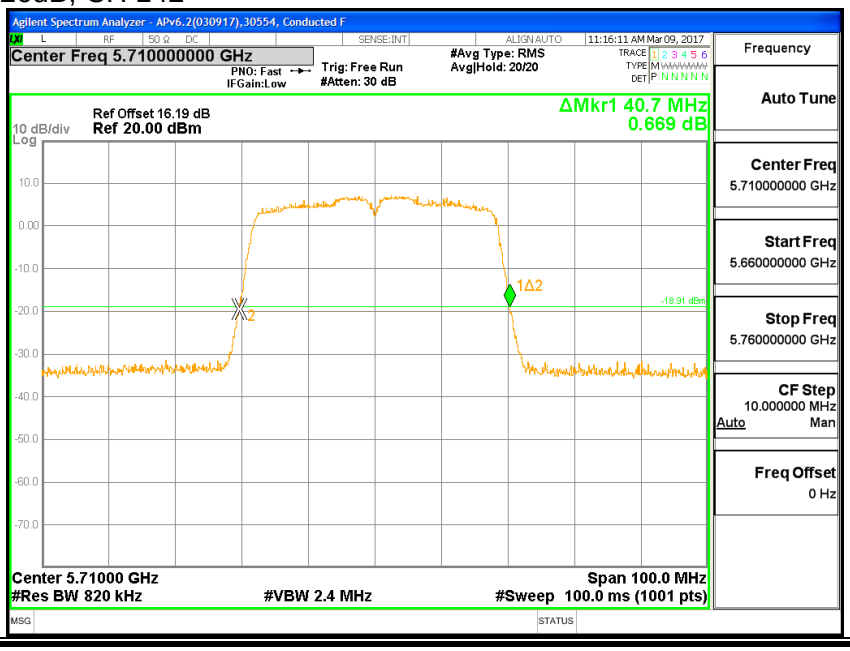
26dB, CH MID CH118



26dB, CH HIGH



26dB, CH 142



8.27.2. 99% BANDWIDTH

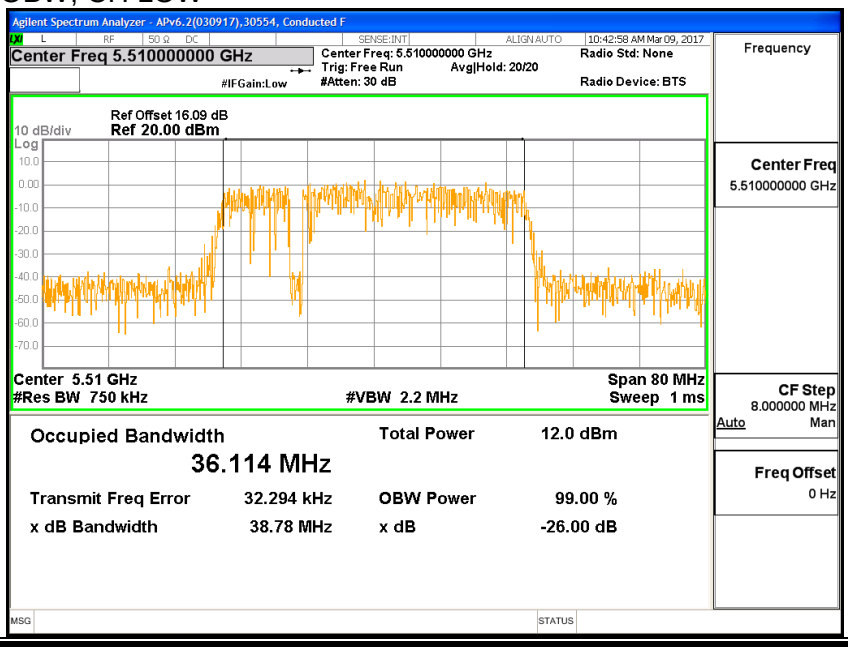
LIMITS

None; for reporting purposes only.

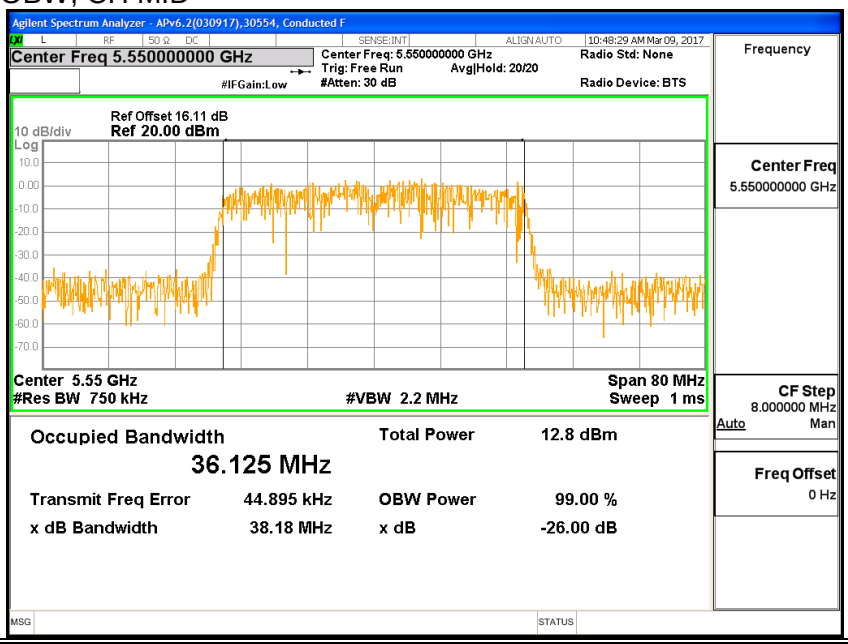
RESULTS

Channel	Frequency	99% BW LAT 3 (MHz)
Low	5510	36.114
Mid	5550	36.125
Mid	5590	36.223
High	5670	36.378
142	5710	36.136

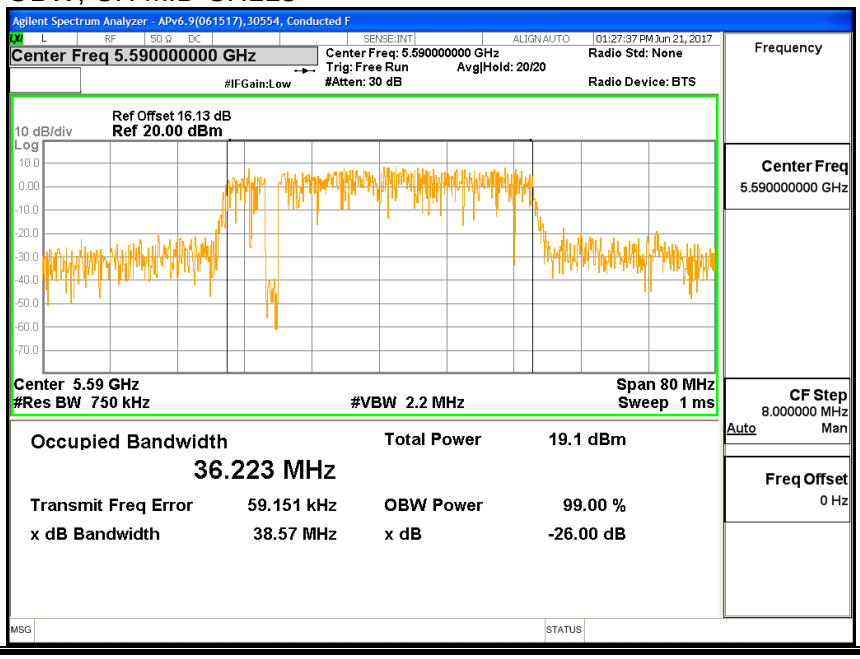
OBW, CH LOW



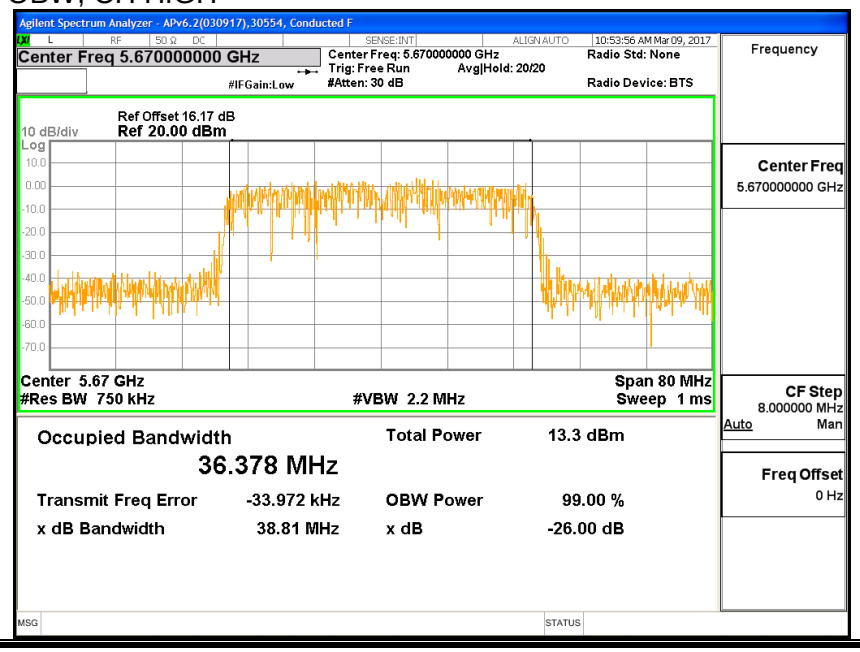
OBW, CH MID



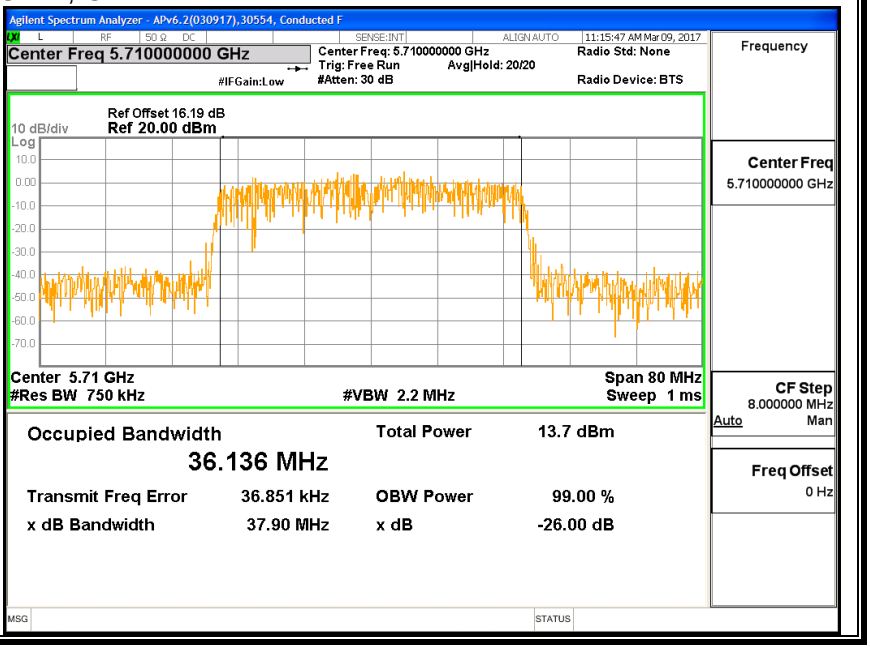
OBW, CH MID CH118



OBW, CH HIGH



OBW, CH 142



8.27.3. AVERAGE POWER

ID:	30554	Date:	3/8/2017

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power LAT 3 (dBm)
Low	5510	15.91
Mid	5550	18.78
Mid	5590	19.34
High	5670	17.35
142	5710	19.41

8.27.4. OUTPUT POWER AND PPSD

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.

PSD Test Procedure: KDB 789033 D02 v01r04 Section F (Method SA-2)

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	40.70	36.11	-0.96	24.00	11.00
Mid	5550	40.50	36.13	-0.96	24.00	11.00
Mid	5590	40.50	36.13	-0.96	24.00	11.00
High	5670	40.70	36.38	-0.96	24.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD

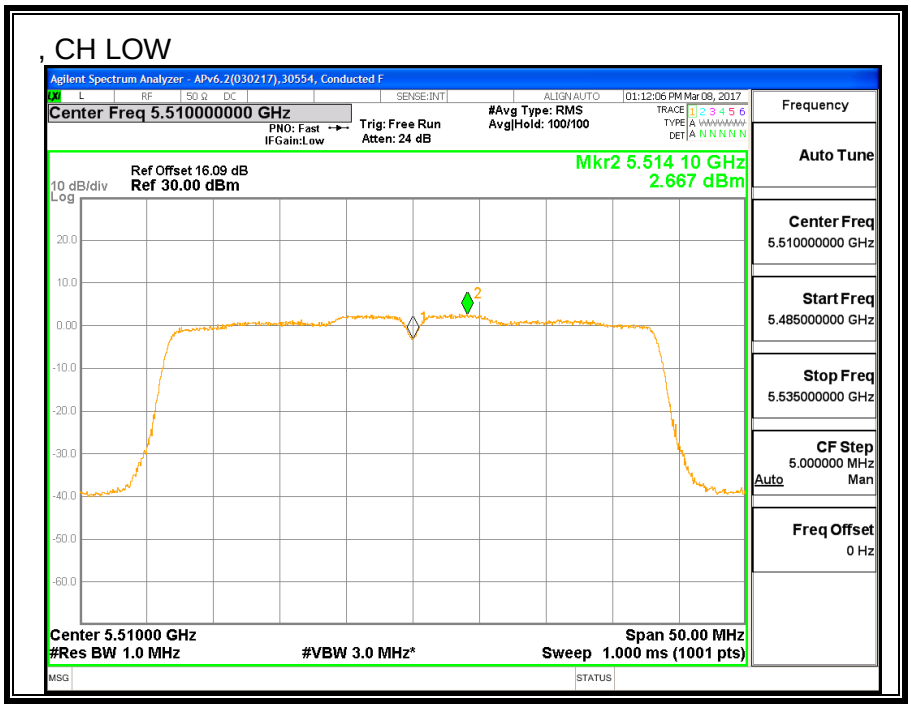
Output Power Results

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	15.91	15.91	24.00	-8.09
Mid	5550	18.78	18.78	24.00	-5.22
Mid	5590	19.34	19.34	24.00	-4.66
High	5670	17.35	17.35	24.00	-6.65

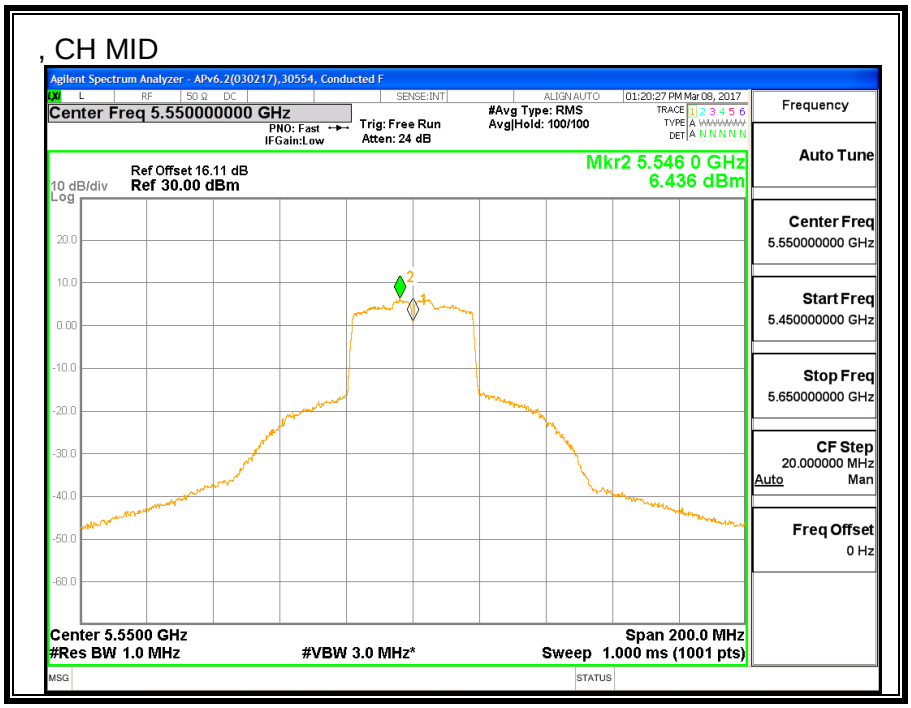
PSD Results

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
Low	5510	2.67	2.77	11.00	-8.23
Mid	5550	6.44	6.54	11.00	-4.46
Mid	5590	5.08	5.18	12.00	-6.82
High	5670	5.46	5.56	11.00	-5.44

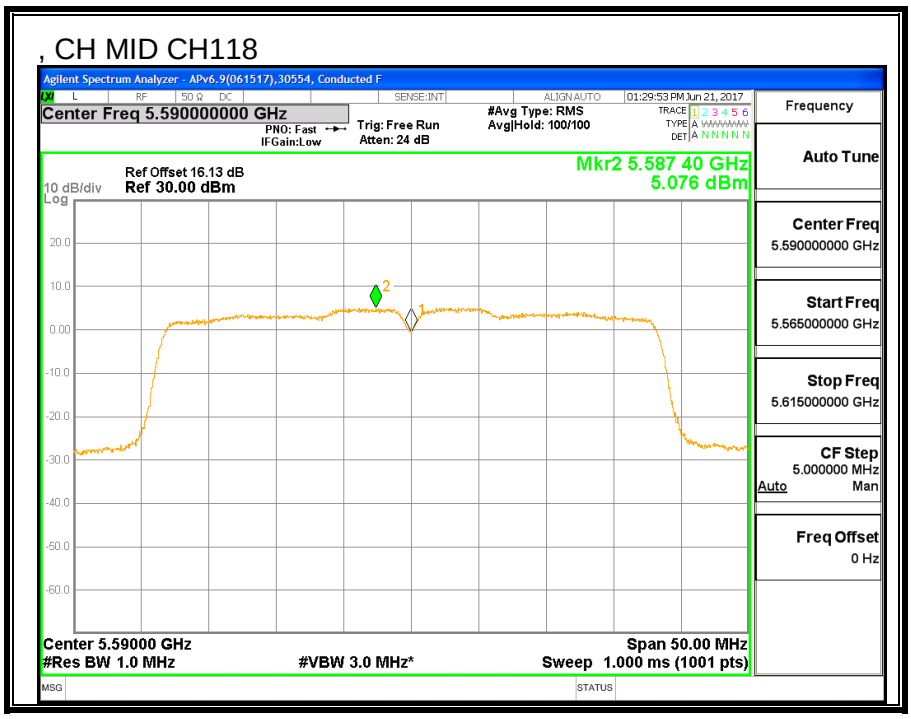
, CH LOW



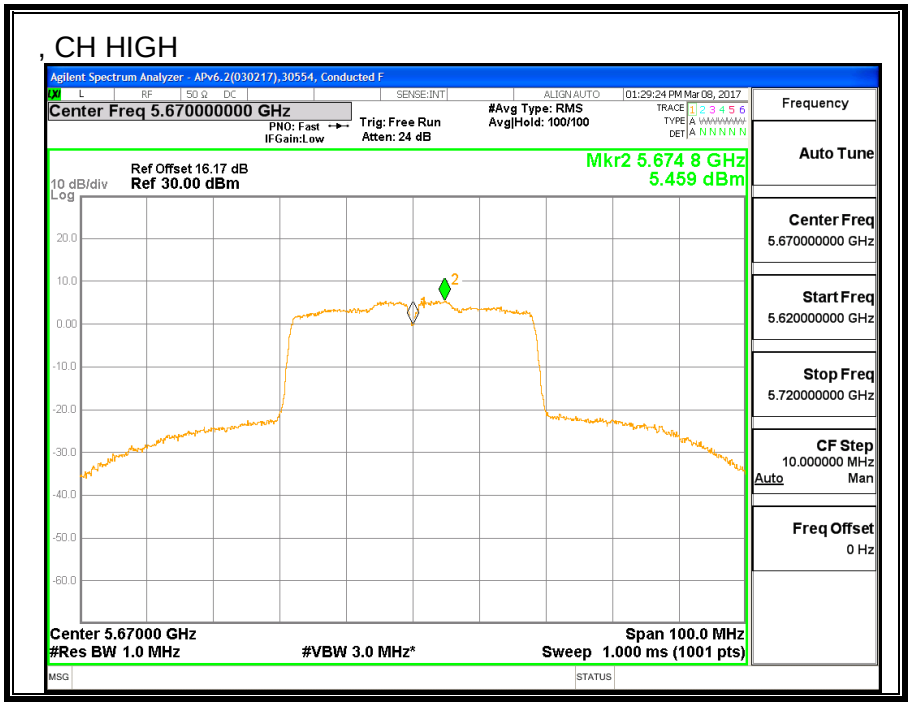
, CH MID



, CH MID CH118



, CH HIGH



8.28. 11ac HT40 LAT 3 SISO STRADDLE CHANNEL 142

8.28.1. OUTPUT POWER AND PPSD

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	40.70	-0.96	-0.96	24.00	11.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD

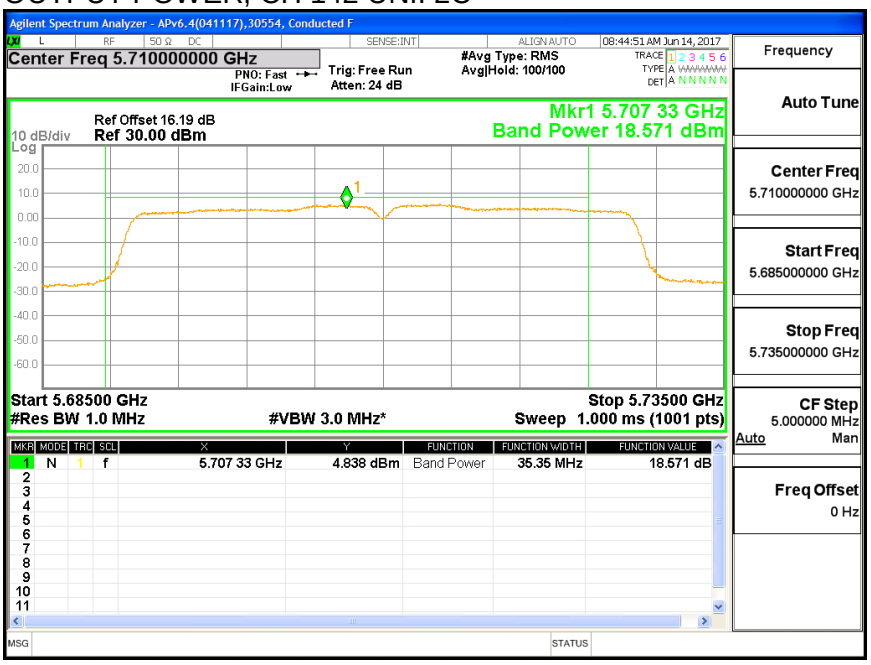
Output Power Results

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	18.57	18.67	24.00	-5.33

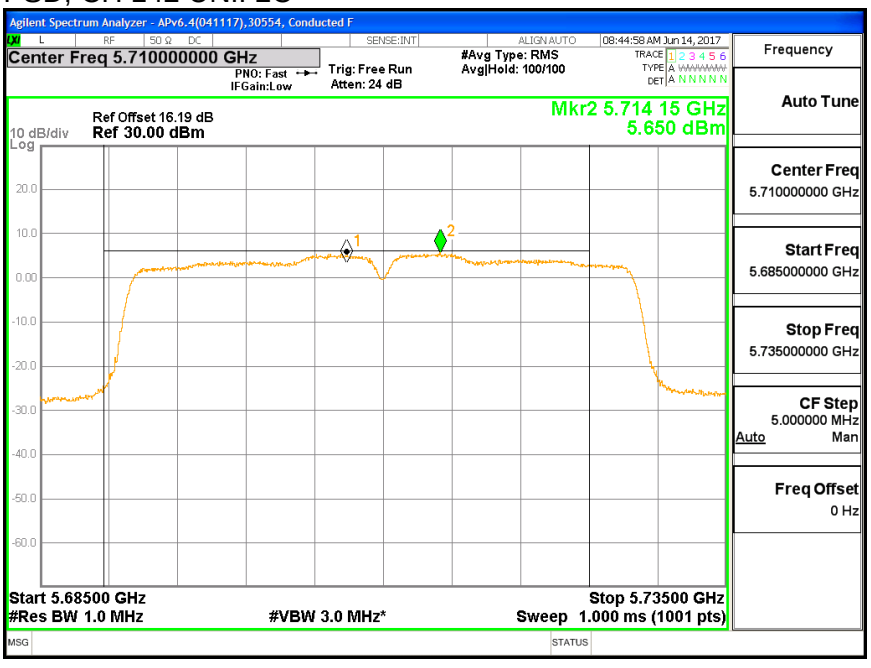
PSD Results

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm/MHz)	Total Corr'd PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PSD Margin (dB)
142	5710	5.65	5.75	11.00	-5.25

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 (dBi)	Power Limit (dBm)	PSD Limit (dBm)
142	5710	40.70	-0.93	30.00	30.00

Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD

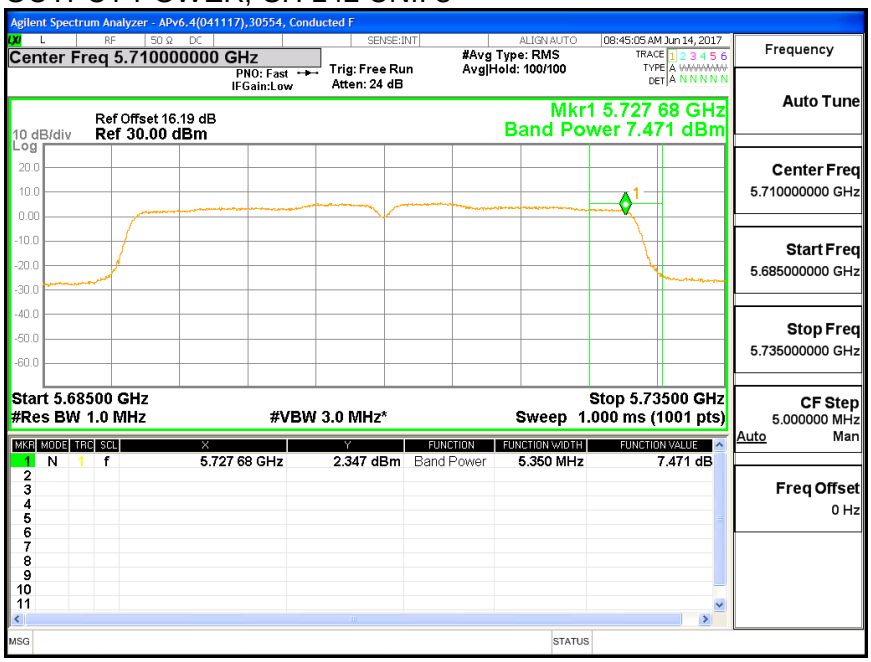
Output Power Results

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	7.47	7.57	30.00	-22.43

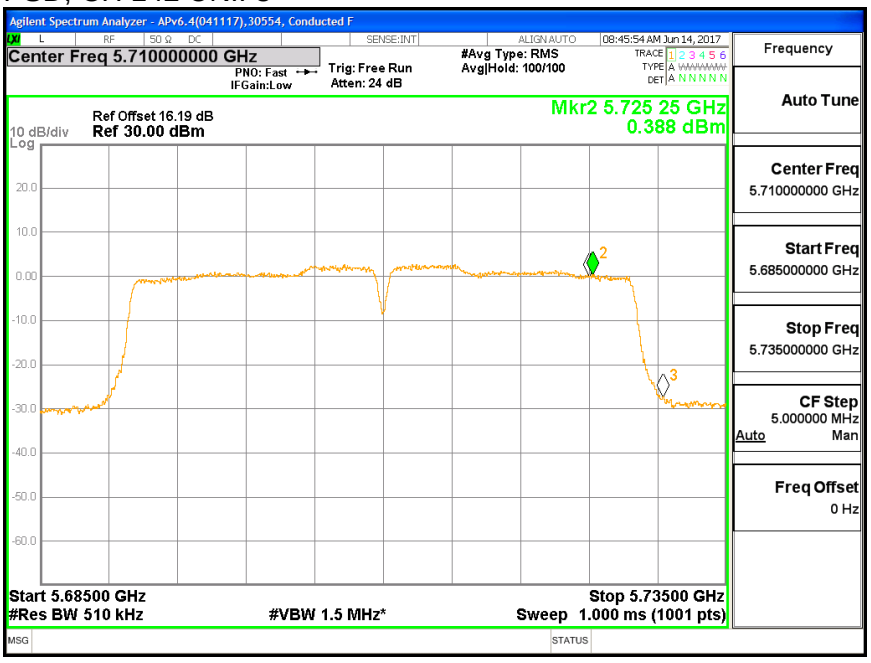
PSD Results

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	0.39	0.49	30.00	-29.51

OUTPUT POWER, CH 142 UNII 3



PSD, CH 142 UNII 3



8.29. 11n HT40 2TX CDD MIMO MODE IN THE 5.6GHz BAND

8.29.1. 26 dB BANDWIDTH

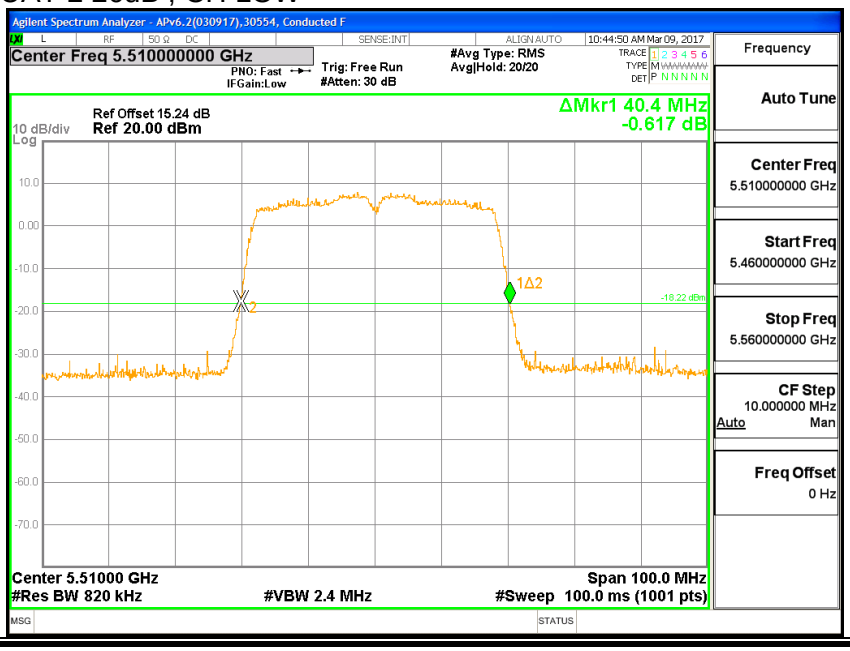
LIMITS

None; for reporting purposes only.

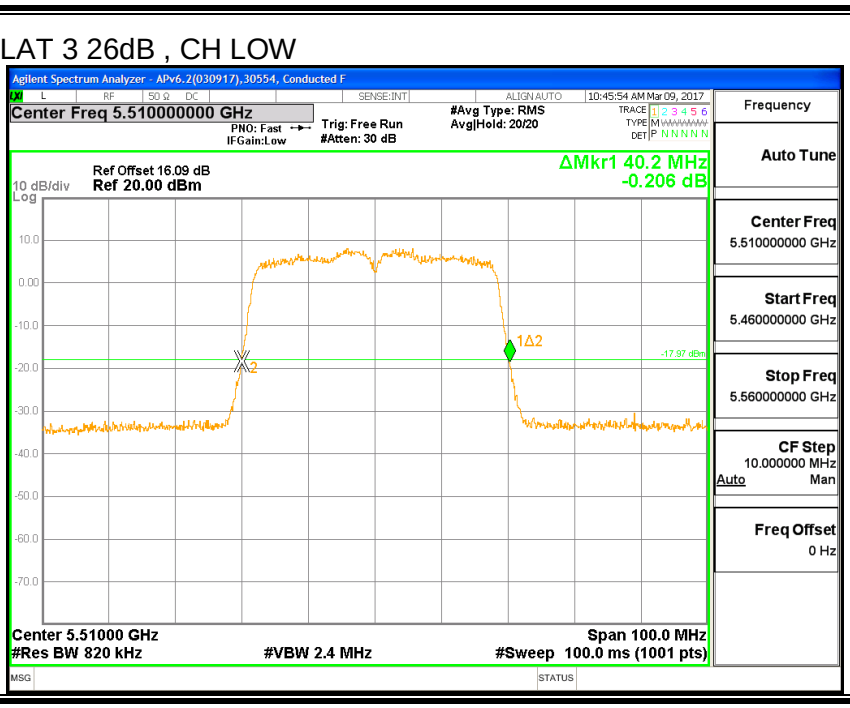
RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)	26 dB BW LAT 3 (MHz)
Low	5510	40.4	40.2
Mid	5550	40.5	40.0
Mid	5590	40.8	40.8
High	5670	40.5	40.2
142	5710	40.5	40.1

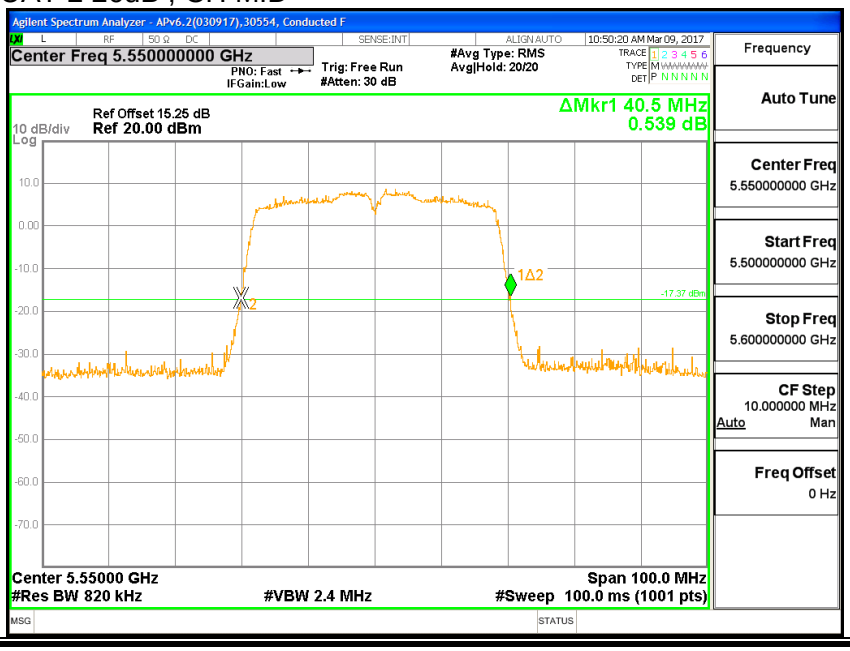
UAT 2 26dB , CH LOW



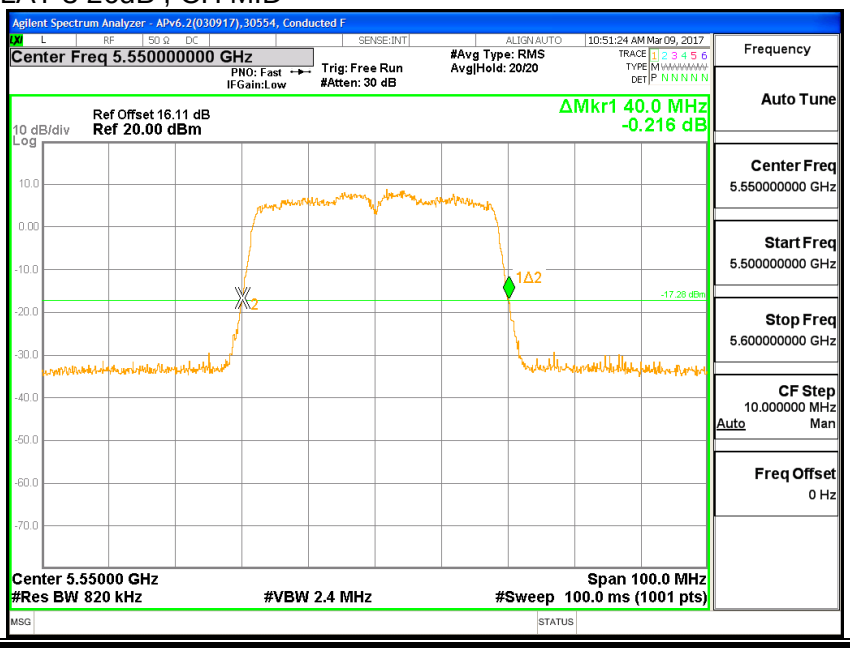
LAT 3 26dB , CH LOW



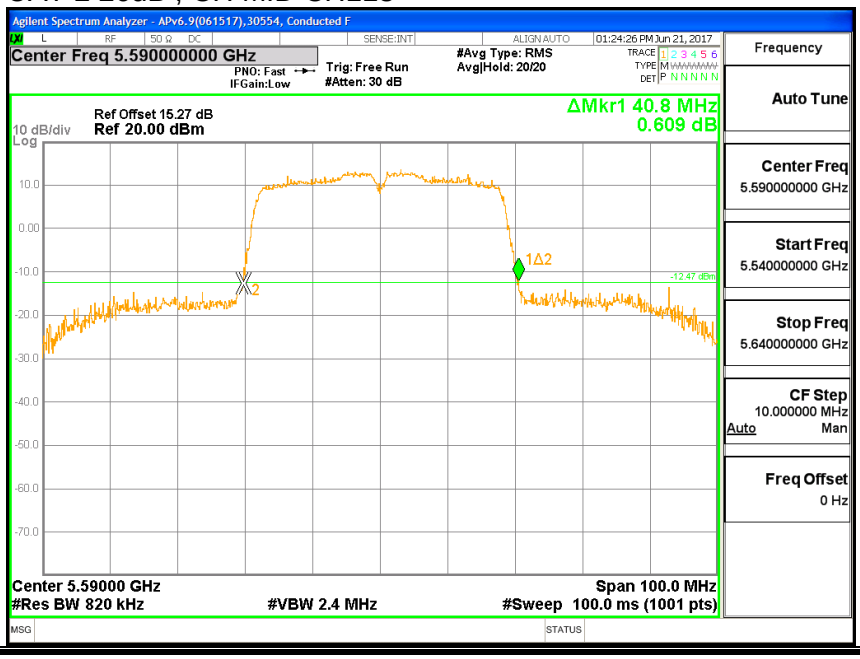
UAT 2 26dB , CH MID



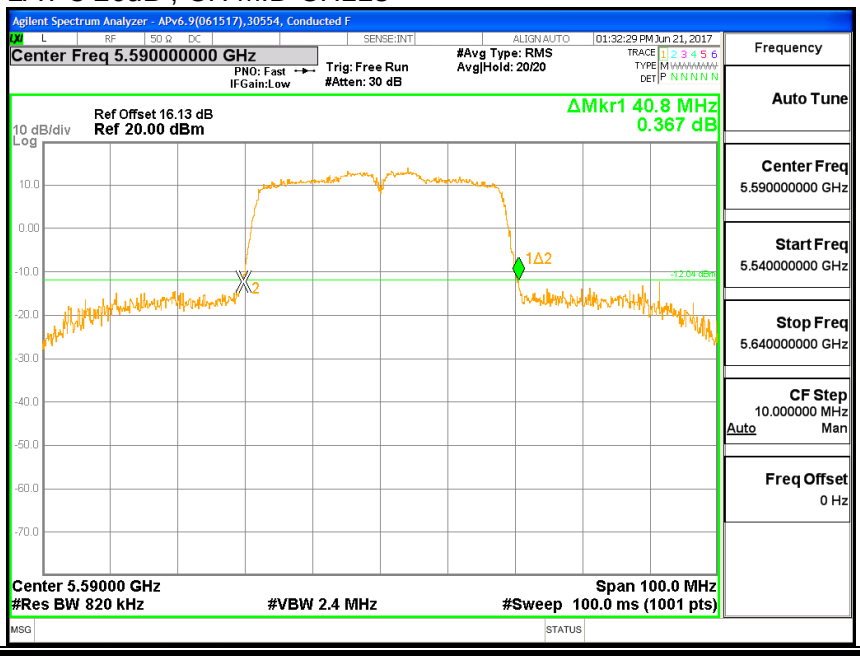
LAT 3 26dB , CH MID



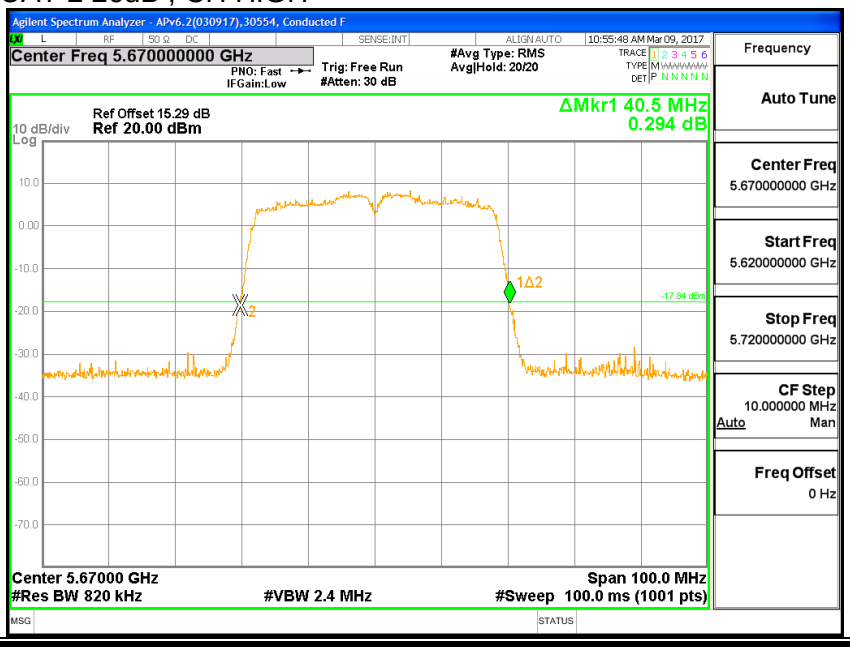
UAT 2 26dB , CH MID CH118



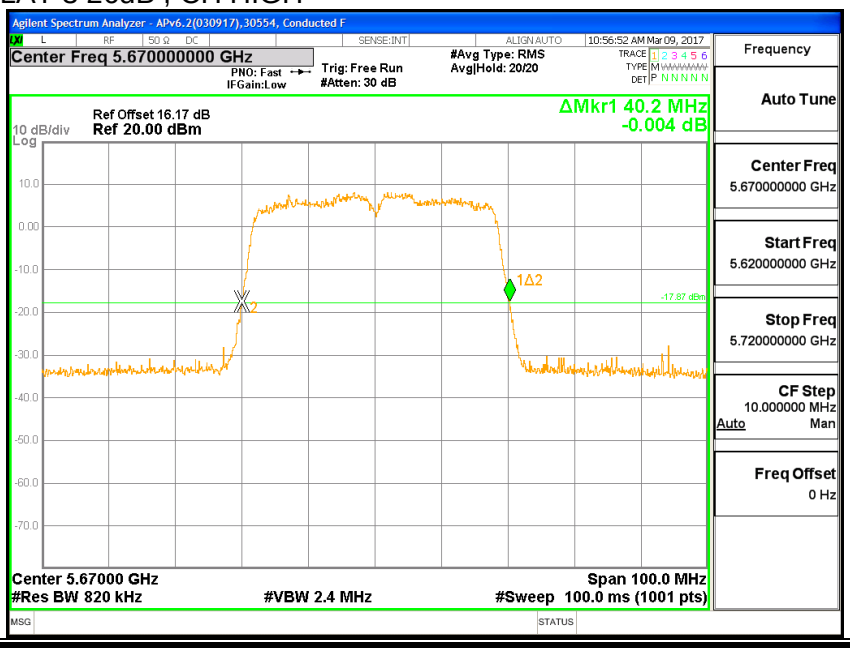
LAT 3 26dB , CH MID CH118



UAT 2 26dB , CH HIGH



LAT 3 26dB , CH HIGH



UAT 2 26dB , CH 142

LAT 3 26dB , CH 142