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### **8.35.6. POWER SPECTRAL DENSITY**

#### **LIMITS**

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **TEST PROCEDURE**

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

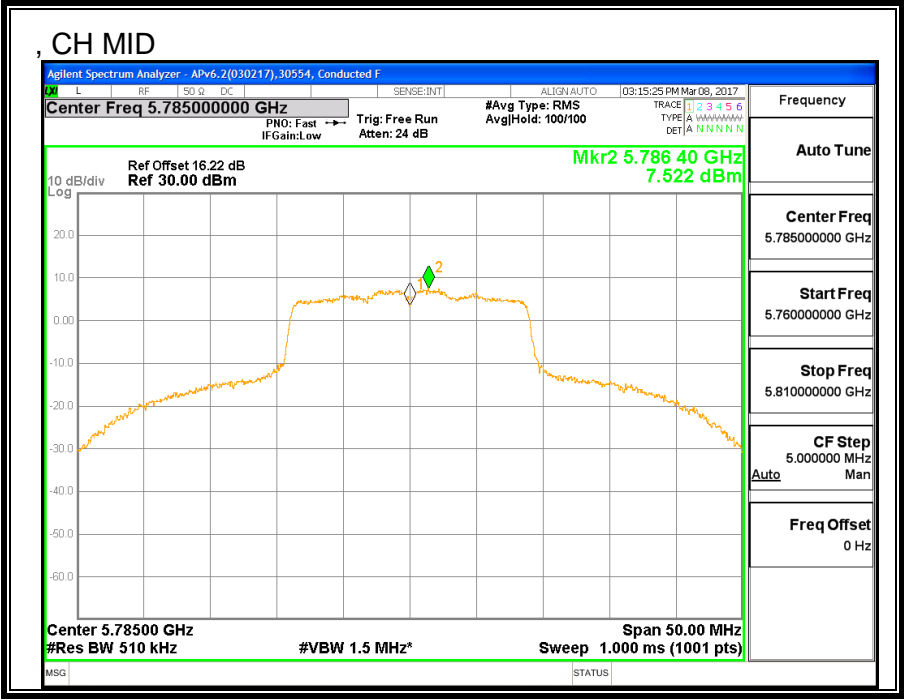
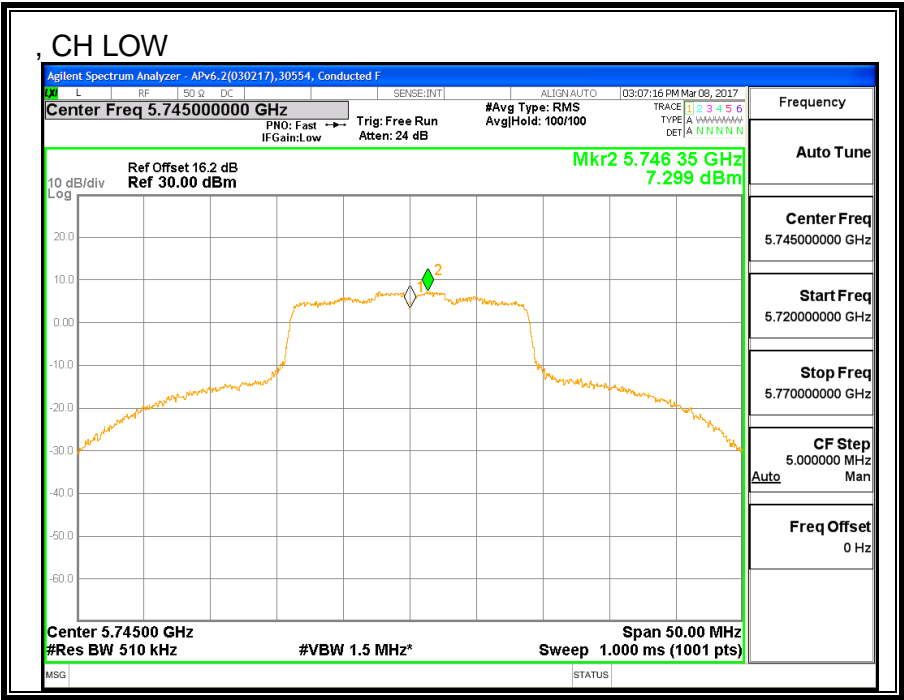
### Antenna Gain and Limits

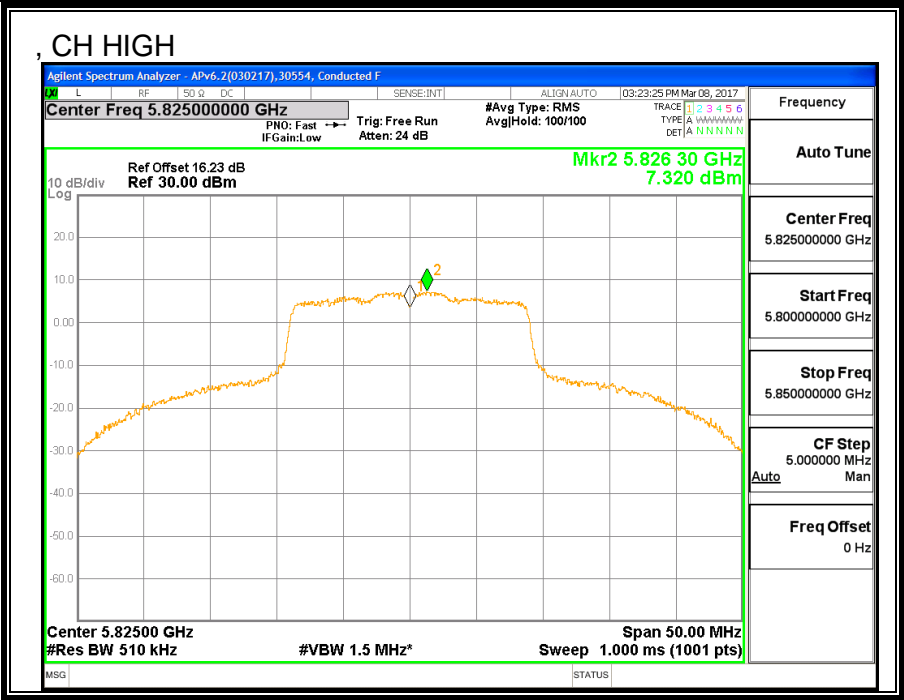
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	-0.93	30.00
Mid	5785	-0.93	30.00
High	5825	-0.93	30.00

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

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm/500k Hz)	Total Corr'd PSD (dBm/500k Hz)	PSD Limit (dBm/500k Hz)	PSD Margin (dB)
Low	5745	7.30	7.30	30.00	-22.70
Mid	5785	7.52	7.52	30.00	-22.48
High	5825	7.32	7.32	30.00	-22.68





## **8.36. 11n HT20 2TX CDD MIMO MODE IN THE 5.8GHz BAND**

### **8.36.1. 6 dB BANDWIDTH**

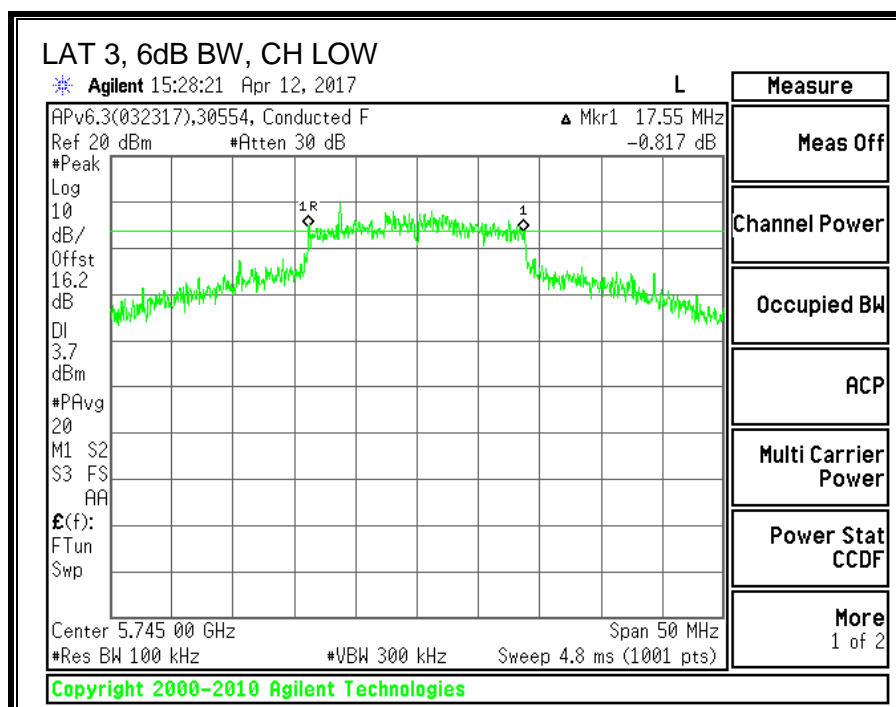
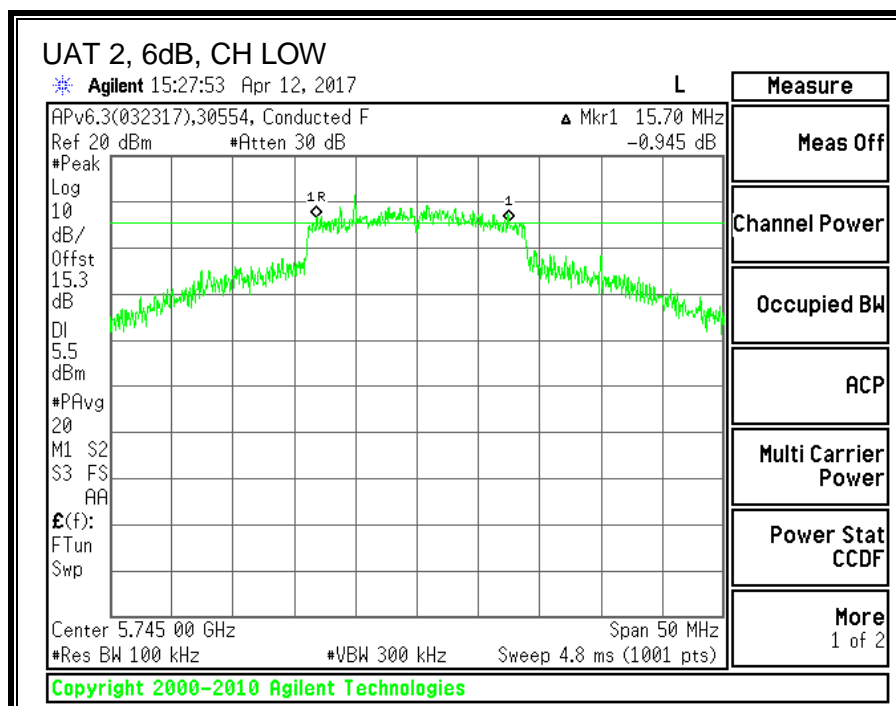
#### **LIMITS**

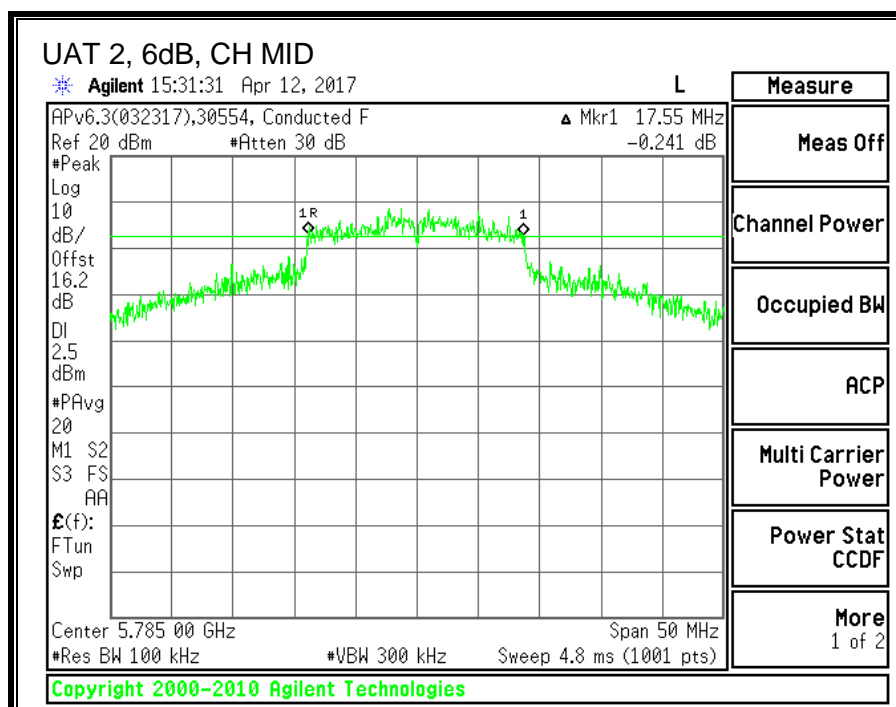
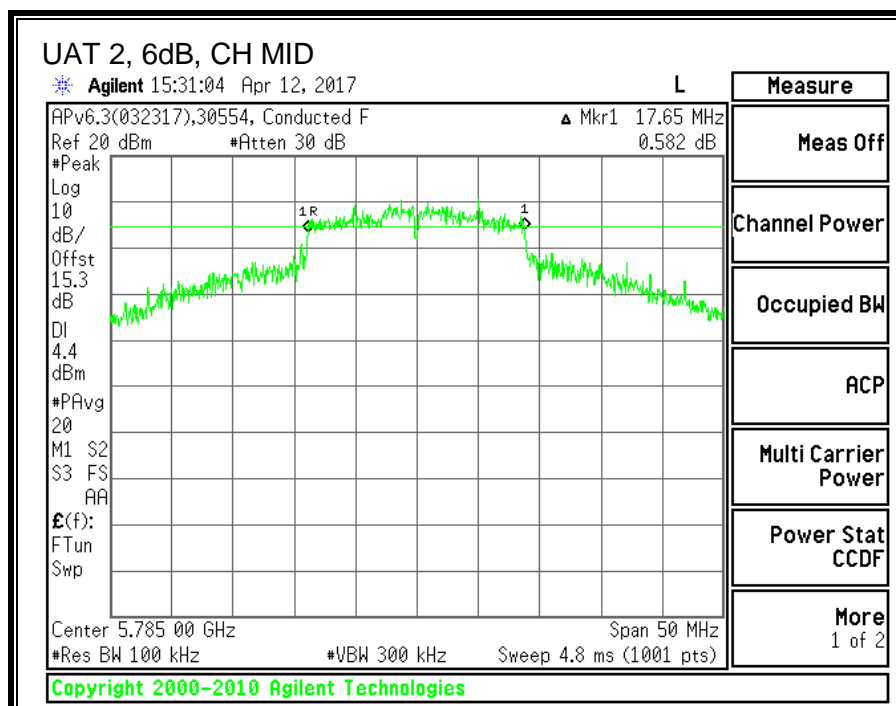
FCC §15.407 (e)

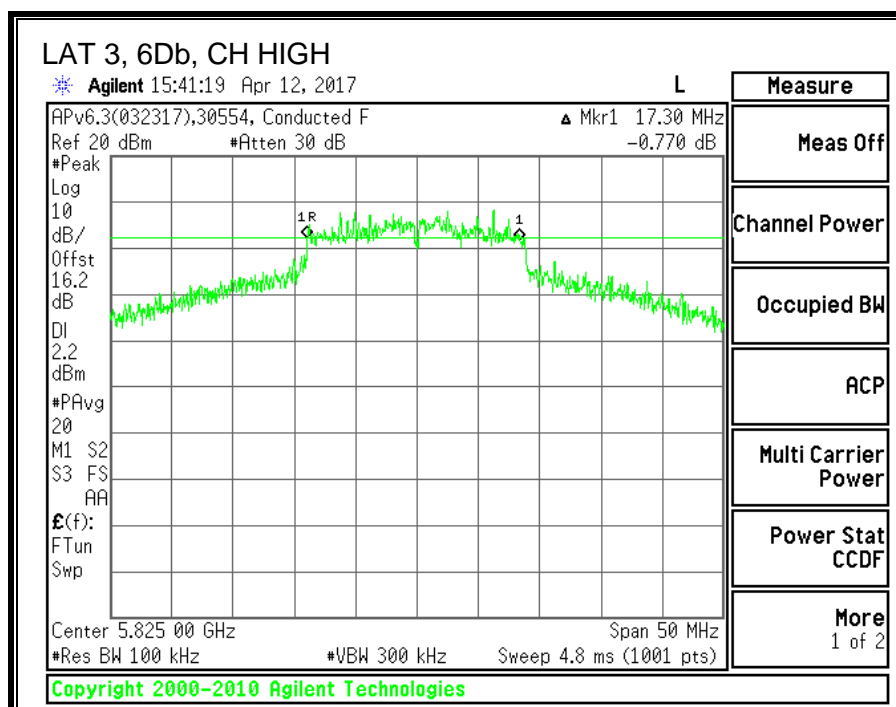
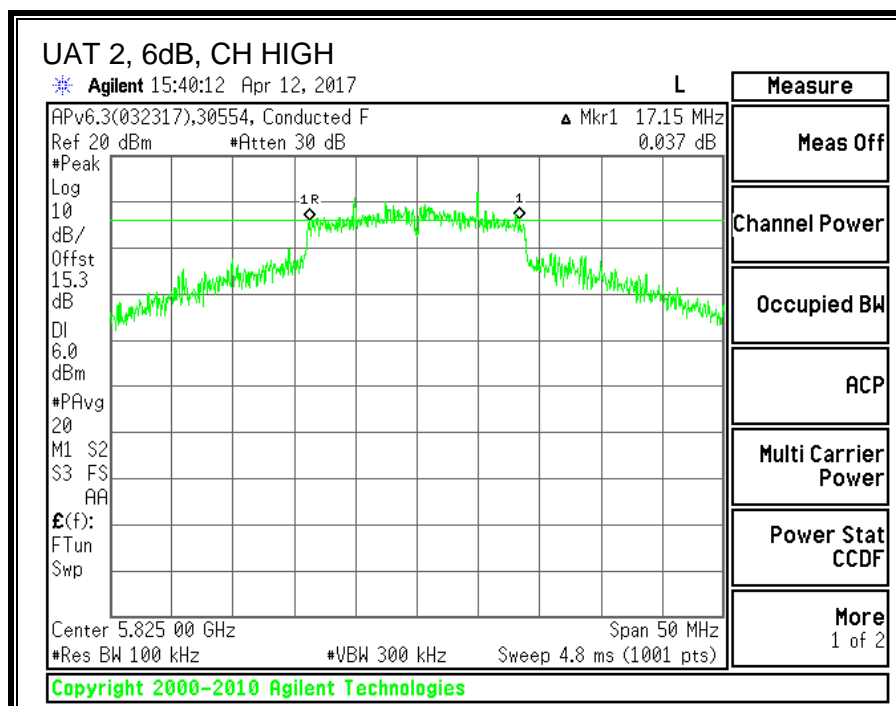
The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **RESULTS**

<b>Channel</b>	<b>Frequency</b>	<b>6 dB BW UAT 2 (MHz)</b>	<b>6 dB BW LAT 3 (MHz)</b>	<b>Minimum Limit (MHz)</b>
Low	5745	15.70	17.55	0.5
Mid	5785	17.65	17.55	0.5
High	5825	17.15	17.30	0.5









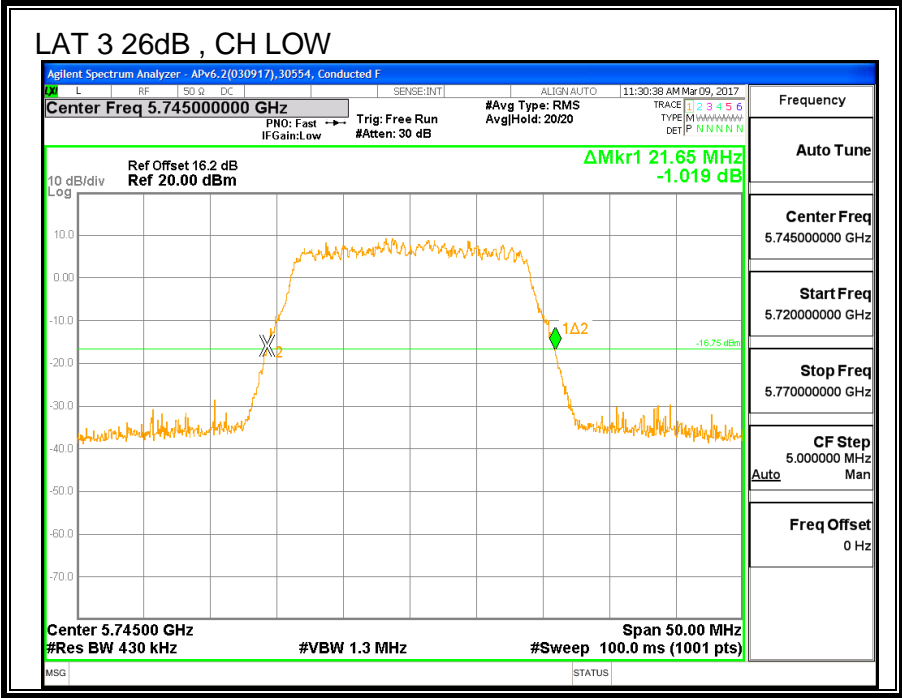
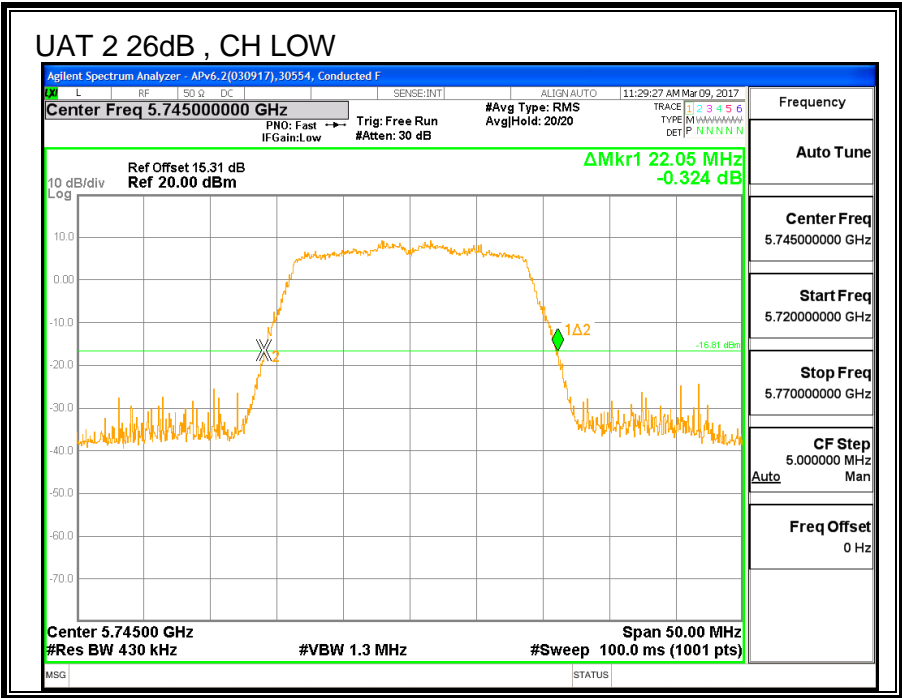
### 8.36.2. 26 dB BANDWIDTH

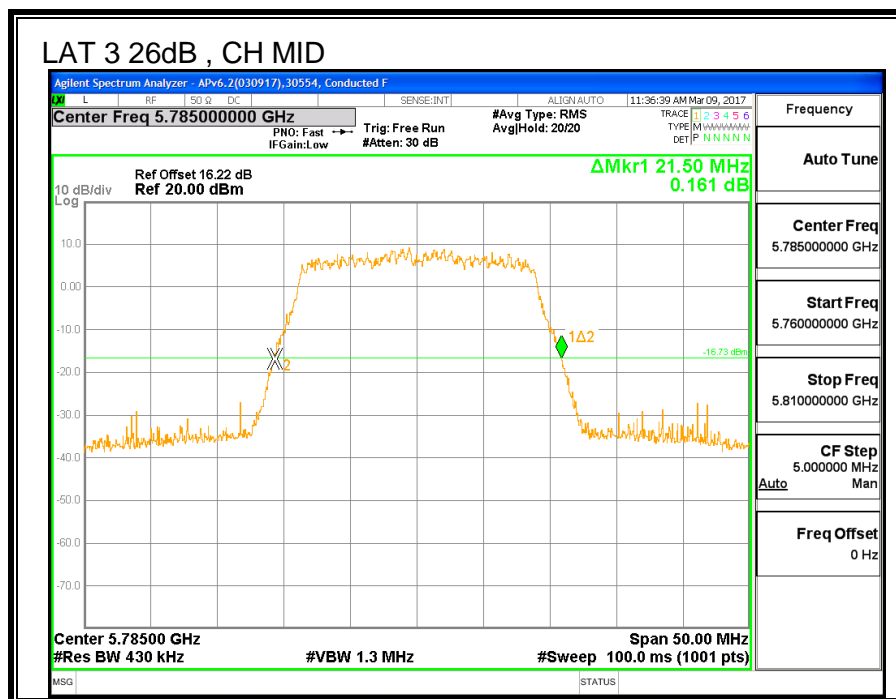
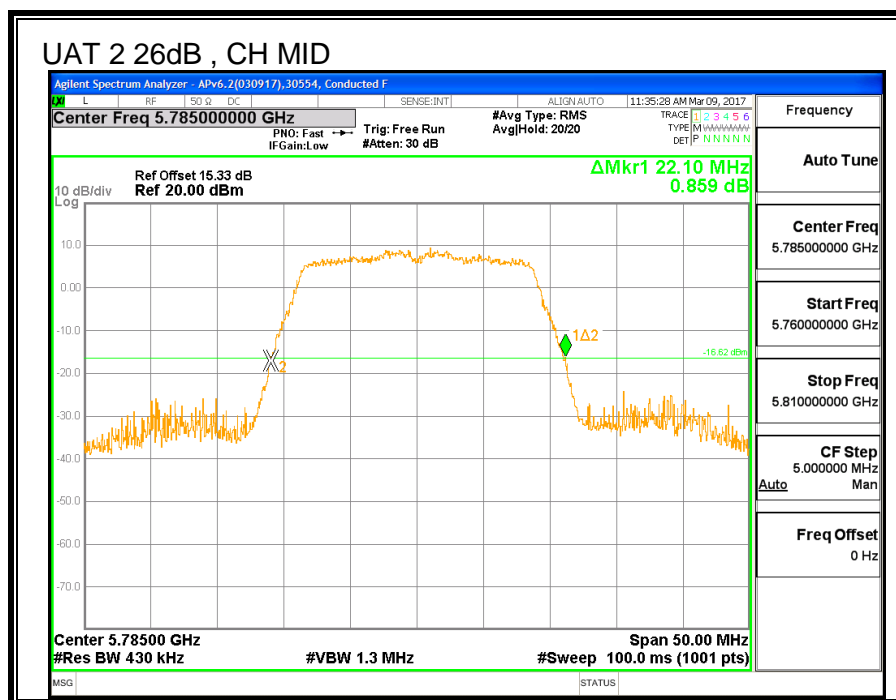
#### LIMITS

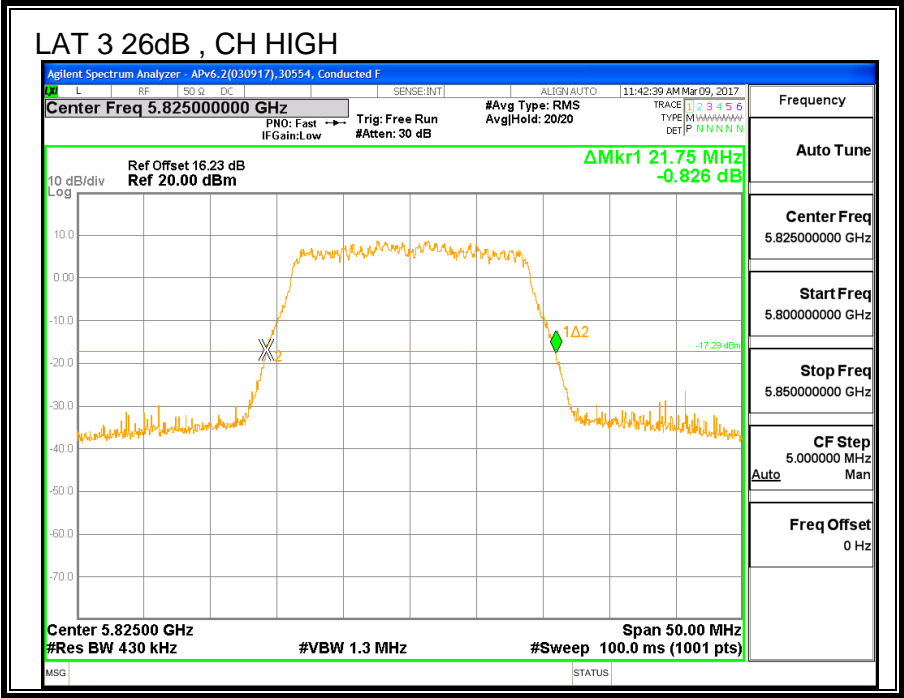
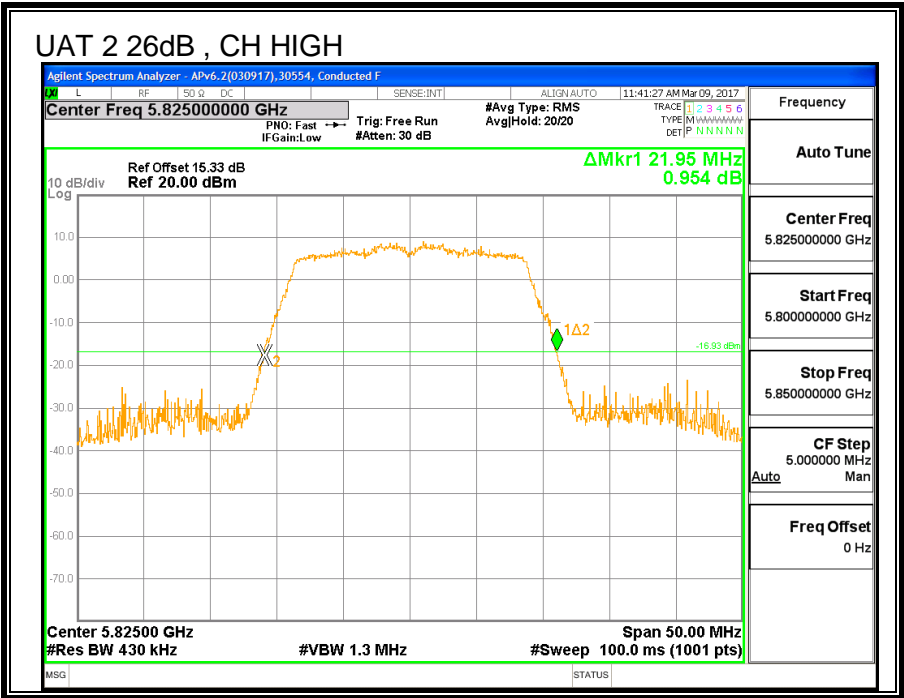
None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)	26 dB BW LAT 3 (MHz)
Low	5745	22.05	21.65
Mid	5785	22.10	21.50
High	5825	21.95	21.75







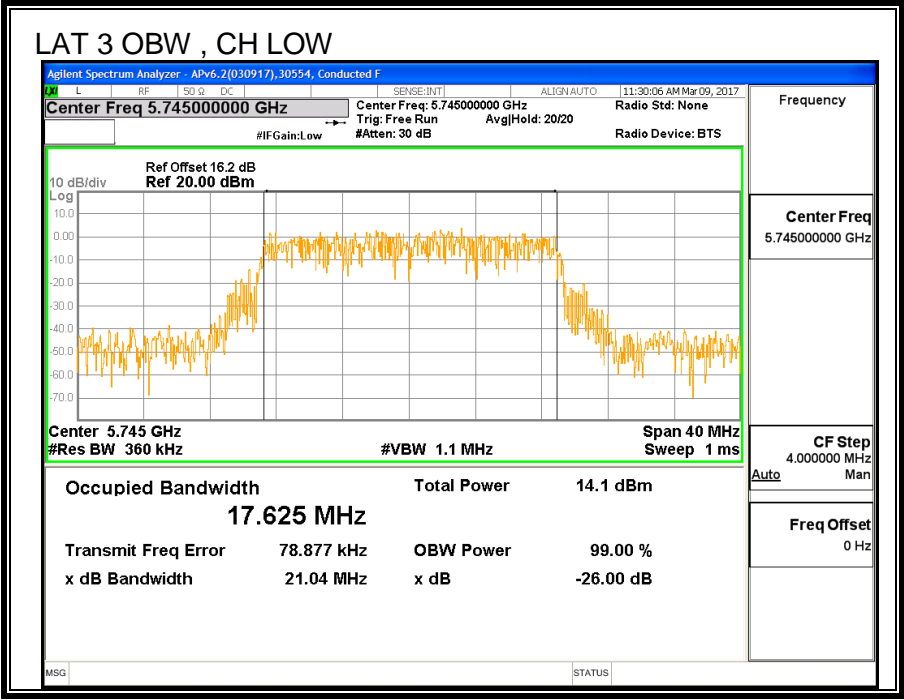
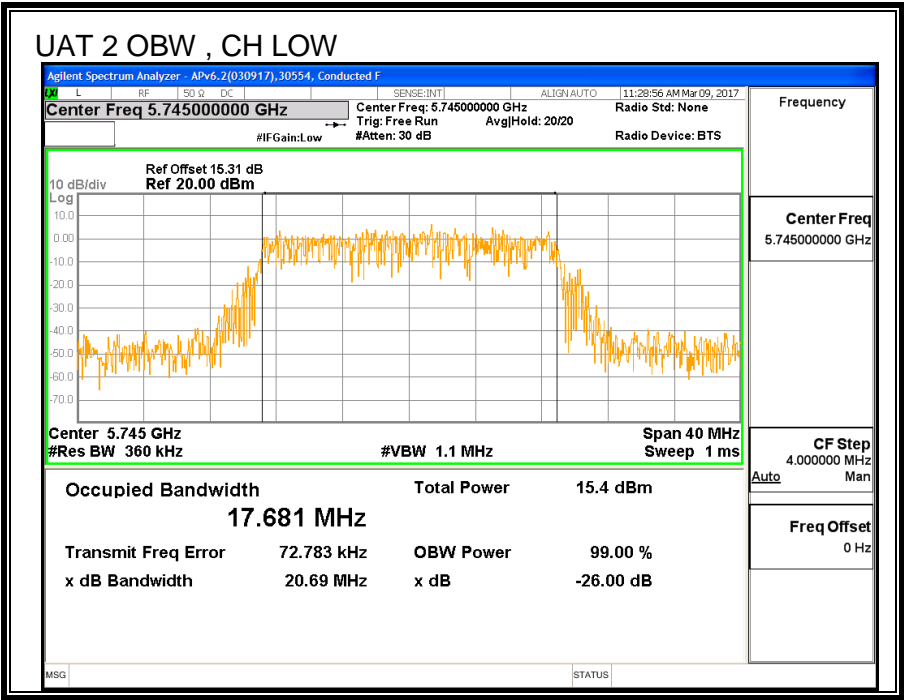
### 8.36.3. 99% BANDWIDTH

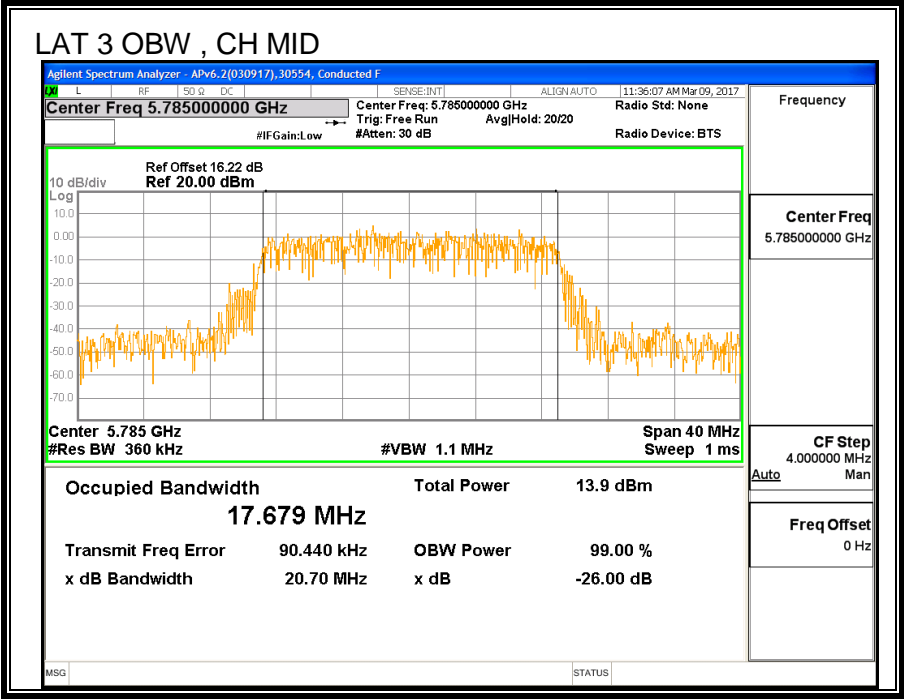
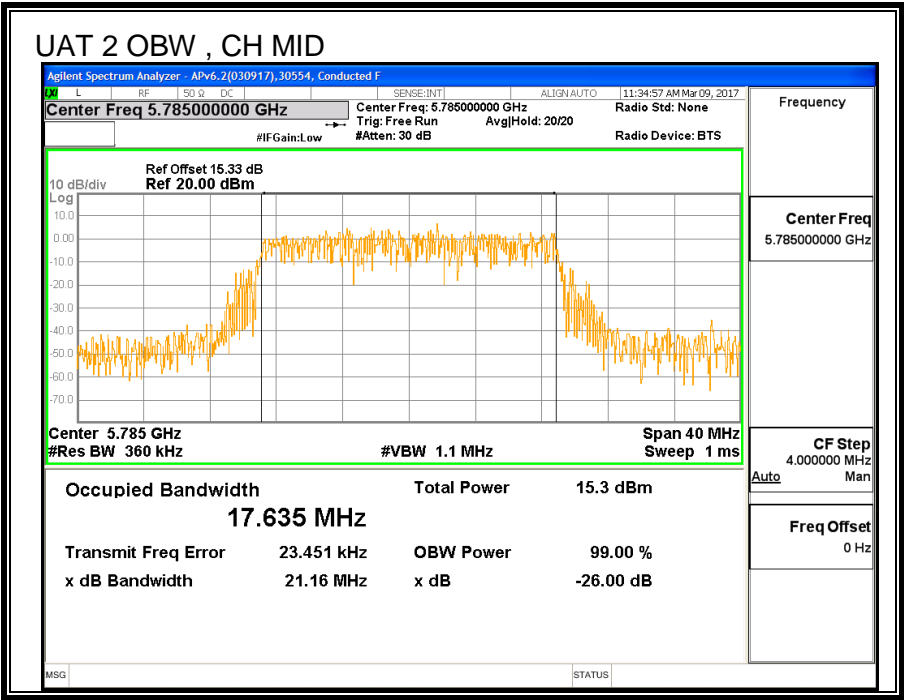
#### LIMITS

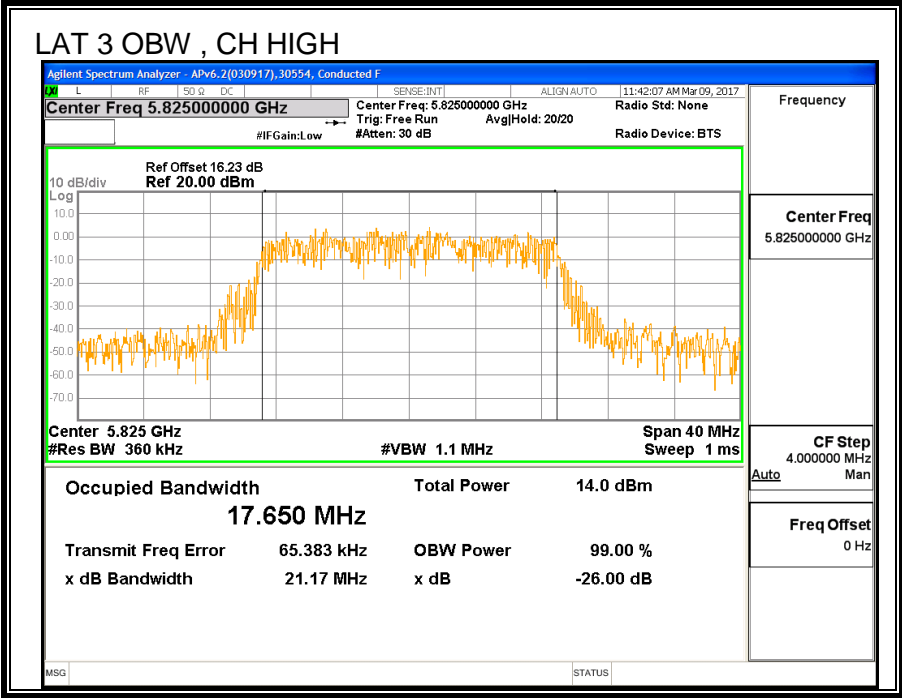
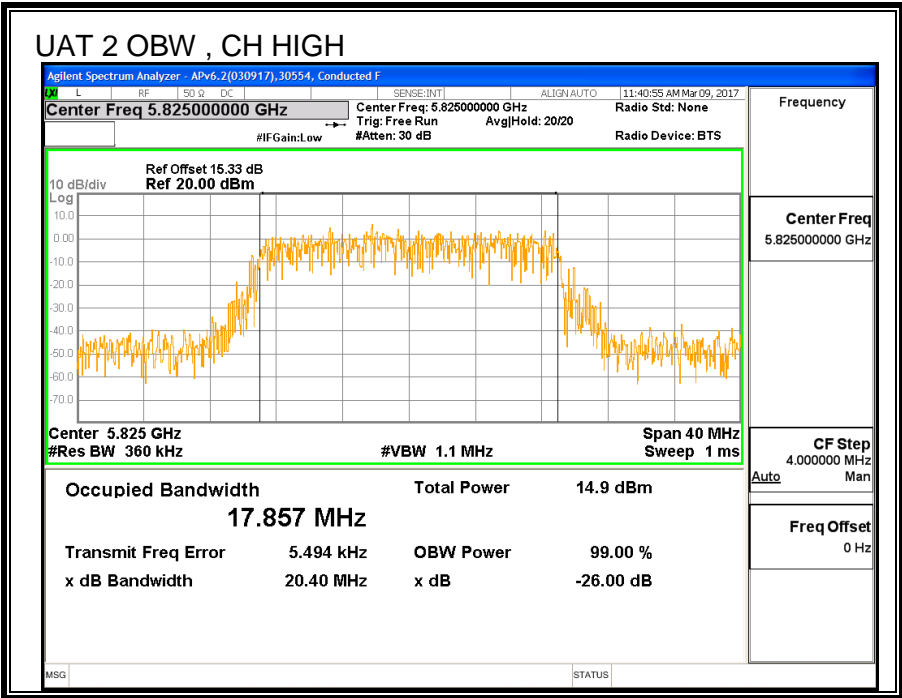
None; for reporting purposes only.

#### RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)	99% BW LAT 3 (MHz)
Low	5745	17.681	17.625
Mid	5785	17.635	17.679
High	5825	17.857	17.65









#### 8.36.4. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### 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	5745	19.78	19.82	22.81
Mid	5785	20.89	20.78	23.85
High	5825	19.41	19.39	22.41

### 8.36.5. OUTPUT POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 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.

#### 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:

<b>UAT 2 Antenna Gain (dBi)</b>	<b>LAT 3 Antenna Gain (dBi)</b>	<b>Uncorrelated Chains Directional Gain (dBi)</b>
0.68	-0.93	-0.05

## RESULTS

### Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	-0.05	30.00
Mid	5785	-0.05	30.00
High	5825	-0.05	30.00

### 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	5745	19.78	19.82	22.81	30.00	-7.19
Mid	5785	20.89	20.78	23.85	30.00	-6.15
High	5825	19.41	19.39	22.41	30.00	-7.59

### 8.36.6. POWER SPECTRAL DENSITY

#### **LIMITS**

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **TEST PROCEDURE**

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

#### **DIRECTIONAL ANTENNA GAIN**

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

<b>UAT 2 Antenna Gain (dBi)</b>	<b>LAT 3 Antenna Gain (dBi)</b>	<b>Correlated Chains Directional Gain (dBi)</b>
0.68	-0.93	2.92

## RESULTS

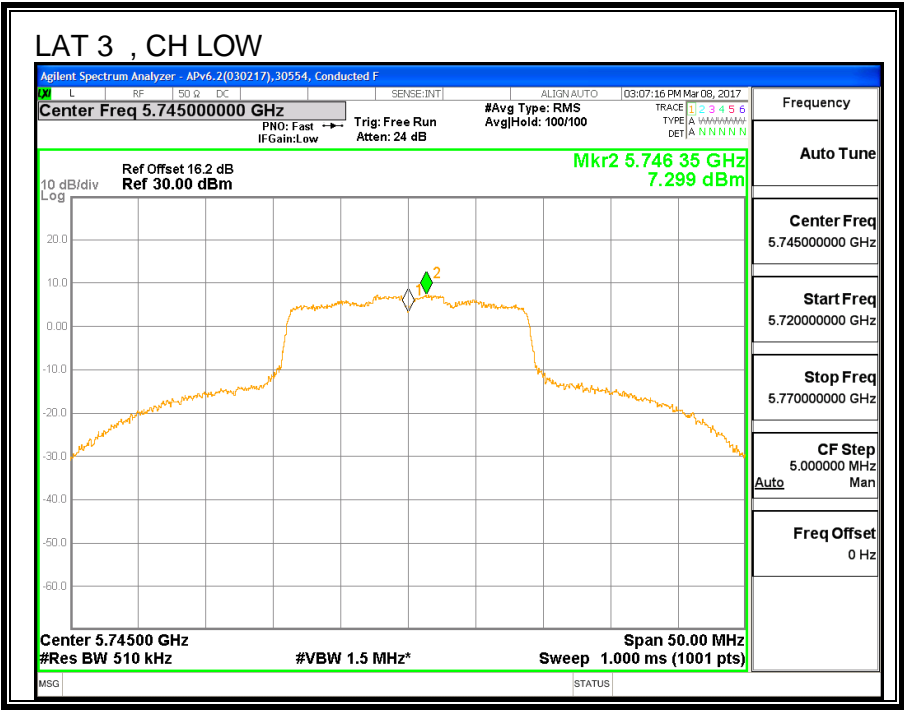
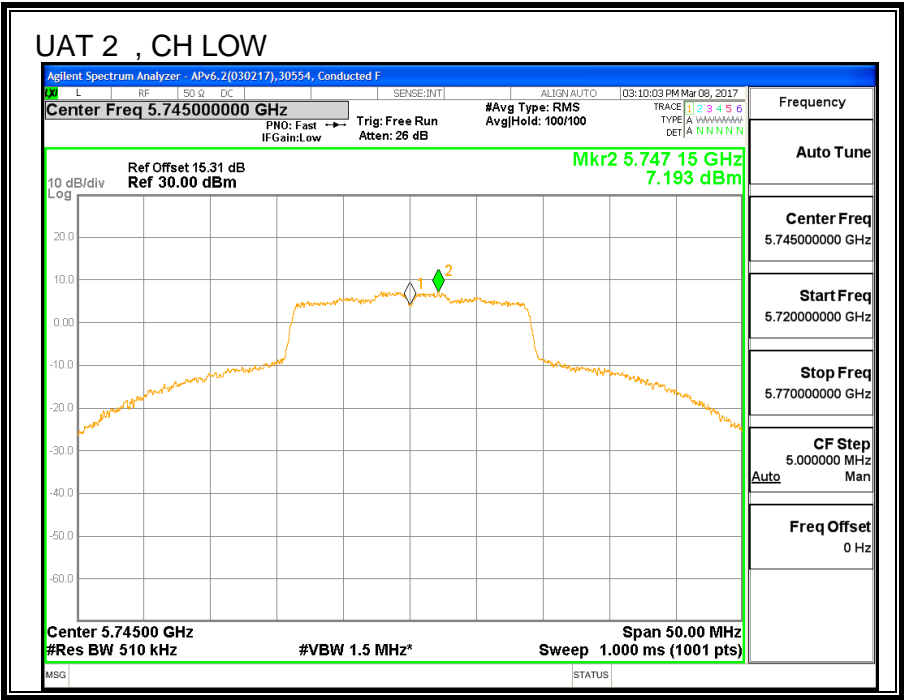
### Antenna Gain and Limits

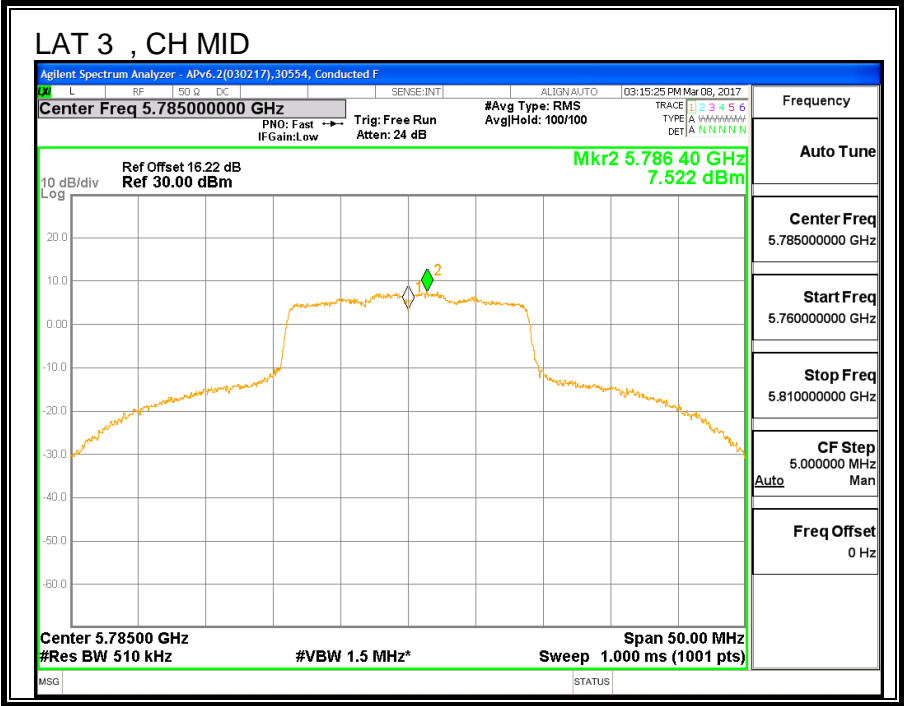
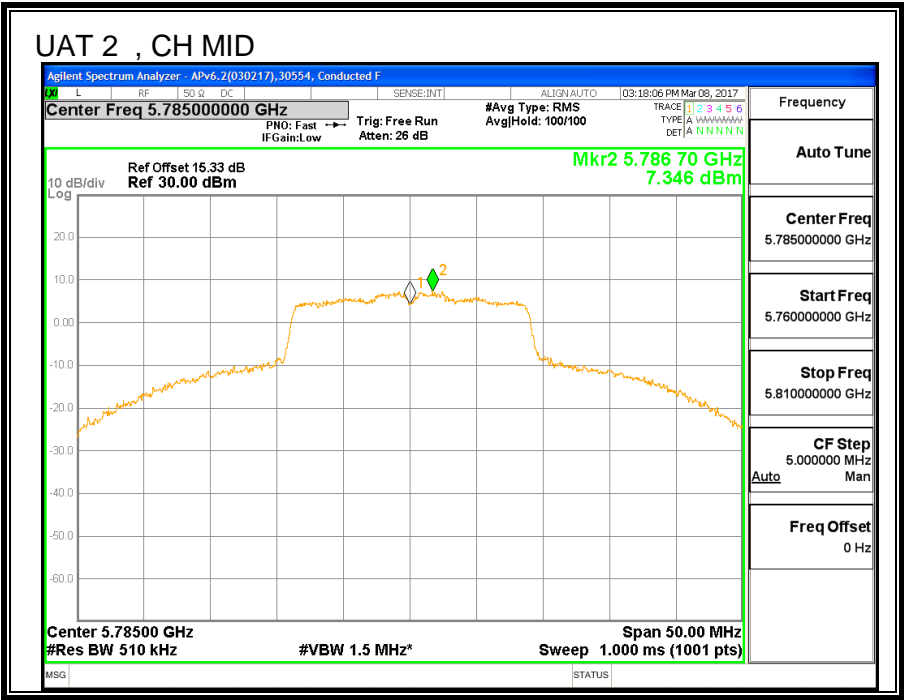
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	2.92	30.00
Mid	5785	2.92	30.00
High	5825	2.92	30.00

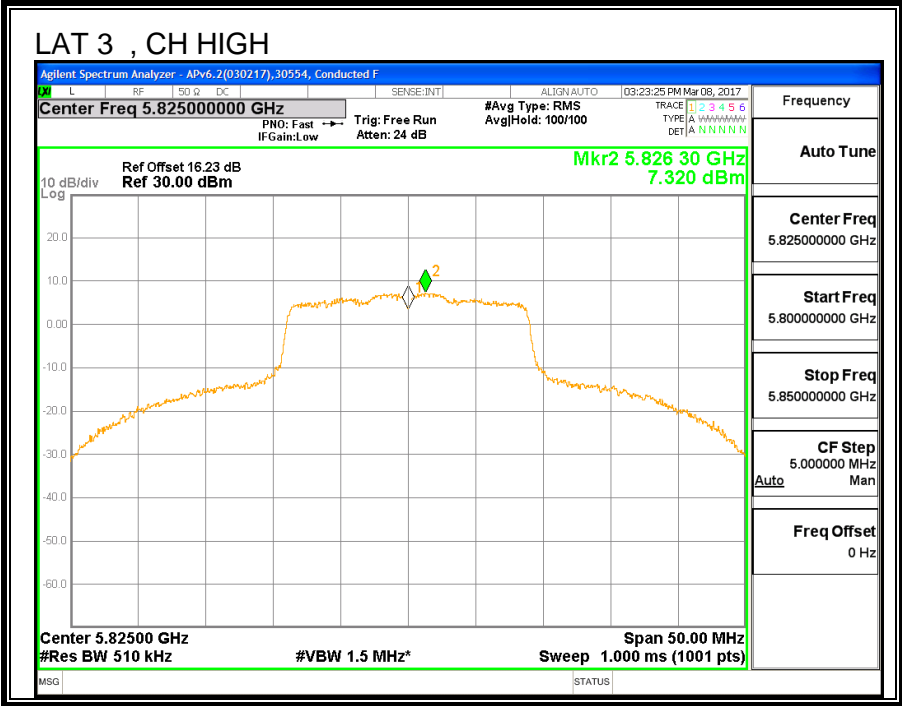
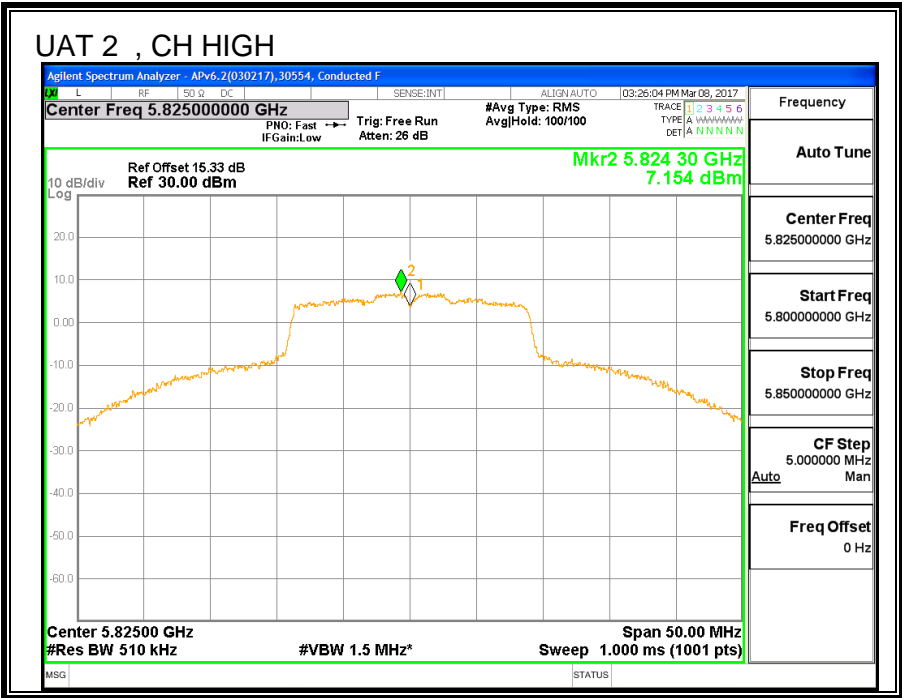
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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### PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/500k Hz)	LAT 3 Meas PSD (dBm/500k Hz)	Total Corr'd PSD (dBm/500k Hz)	PSD Limit (dBm/500k Hz)	PSD Margin (dB)
Low	5745	7.19	7.30	10.26	30.00	-19.74
Mid	5785	7.35	7.52	10.45	30.00	-19.55
High	5825	7.15	7.32	10.25	30.00	-19.75









## **8.37. 11n HT40 UAT 2 SISO MODE IN THE 5.8GHz BAND**

### **8.37.1. 6 dB BANDWIDTH**

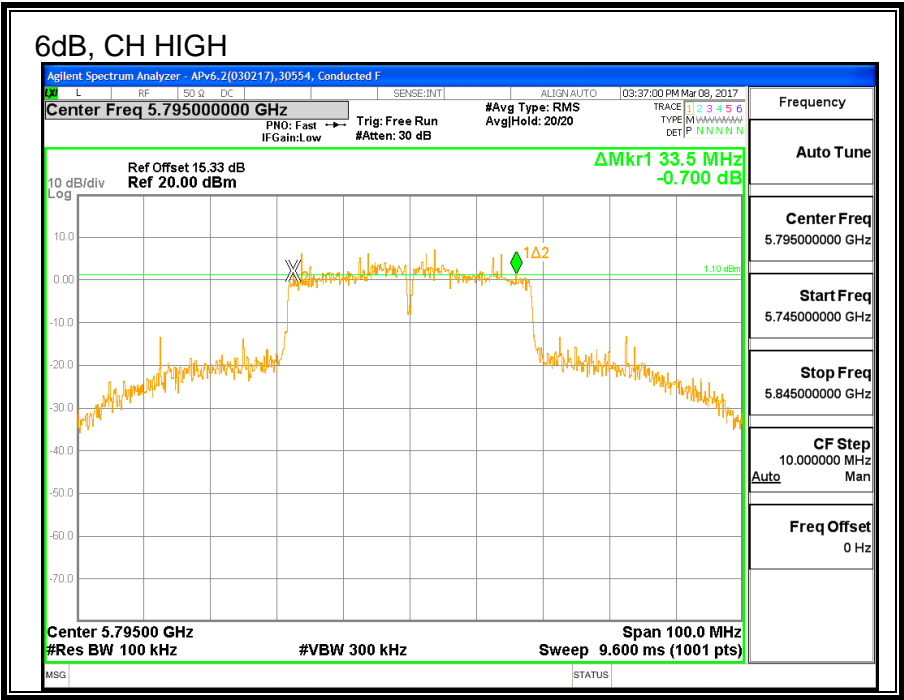
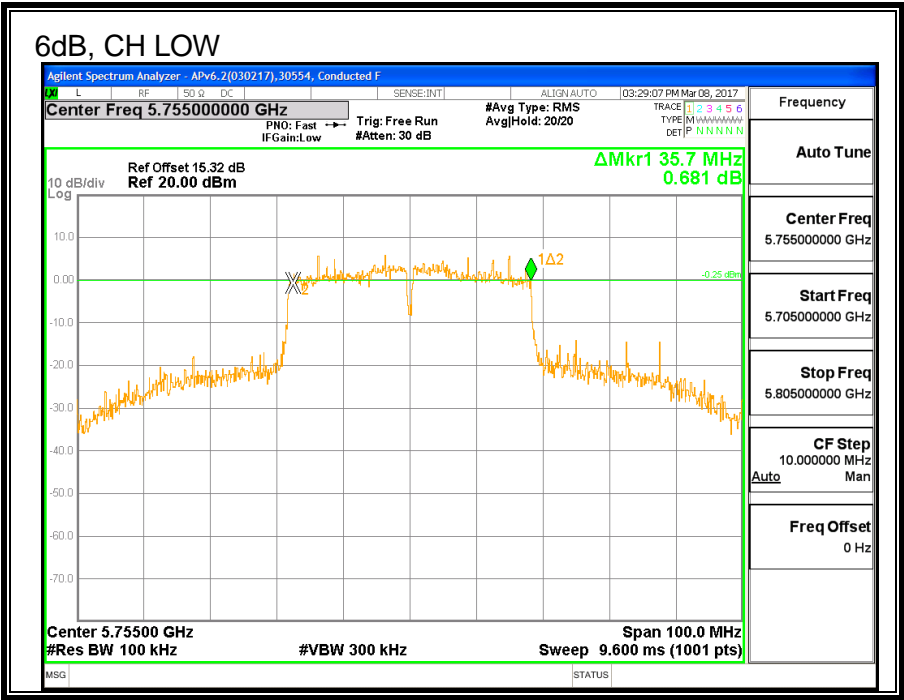
#### **LIMITS**

FCC §15.407 (e)

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

#### **RESULTS**

Channel	Frequency	6 dB BW UAT 2 (MHz)	Minimum Limit (MHz)
Low	5755	35.7	0.5
High	5795	33.5	0.5



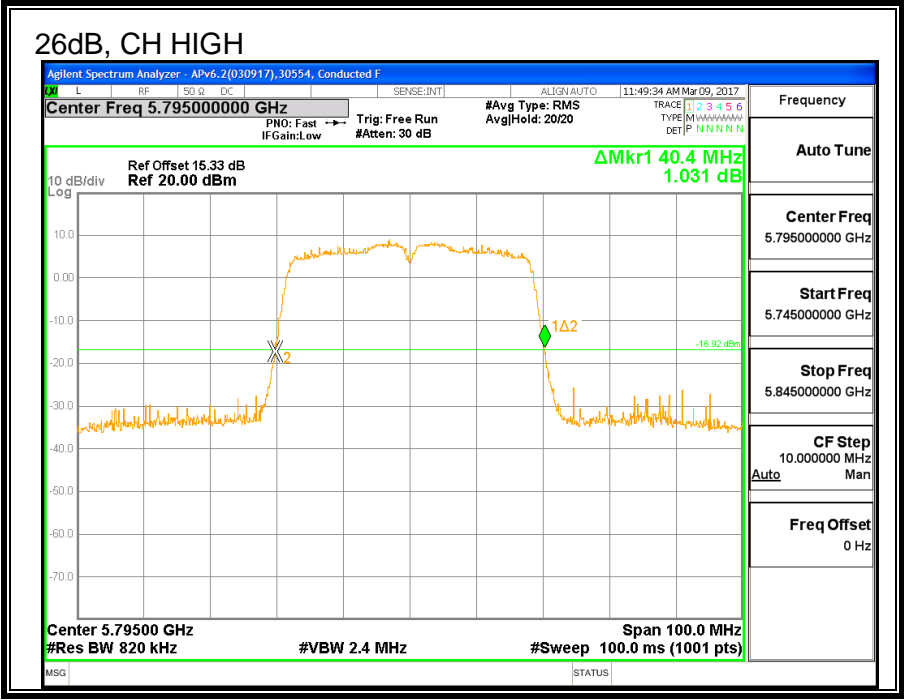
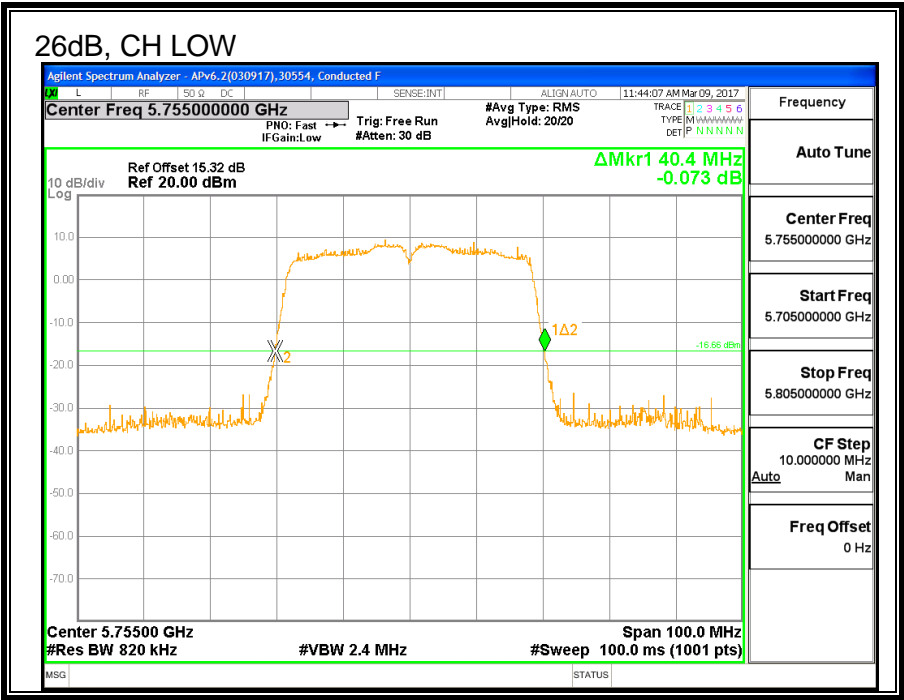
### 8.37.2. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)
Low	5755	40.4
High	5795	40.4



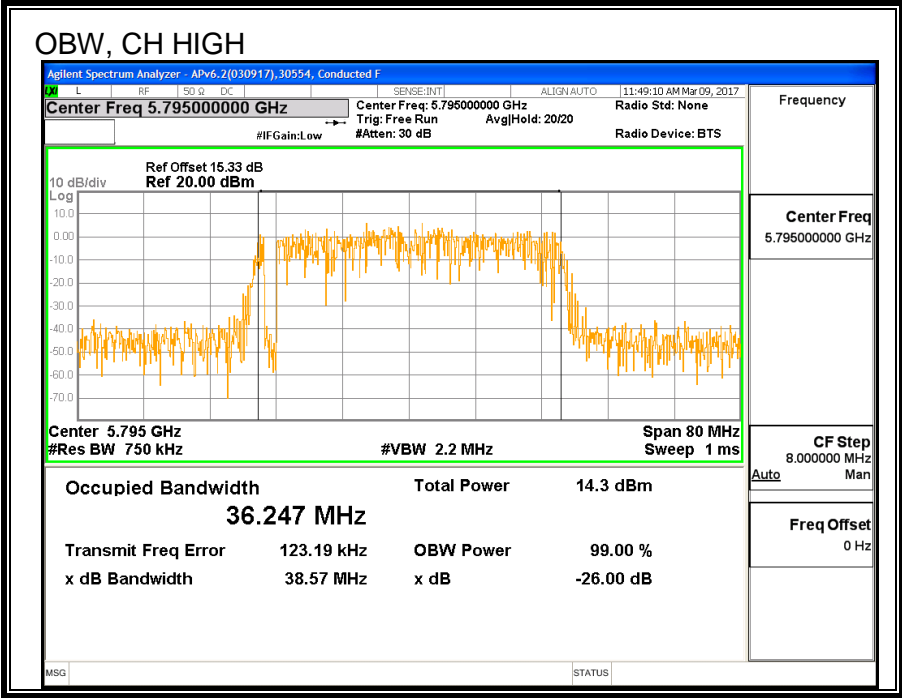
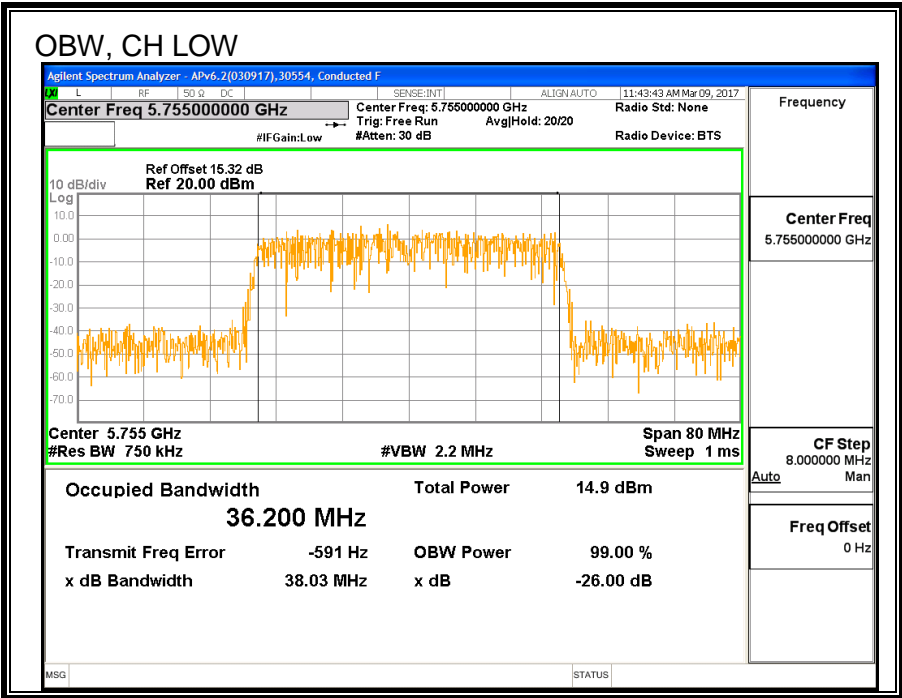
### 8.37.3. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)
Low	5755	36.200
High	5795	36.247



#### 8.37.4. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### 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	5755	19.40
High	5795	19.42

### 8.37.5. OUTPUT POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### **LIMITS**

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **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.

#### **DIRECTIONAL ANTENNA GAIN**

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



## **RESULTS**

### **Antenna Gain and Limit**

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	0.68	30.00
High	5795	0.68	30.00

### **Output Power Results**

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	19.40	19.40	30.00	-10.60
High	5795	19.42	19.42	30.00	-10.58

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### **8.37.6. POWER SPECTRAL DENSITY**

#### **LIMITS**

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **TEST PROCEDURE**

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

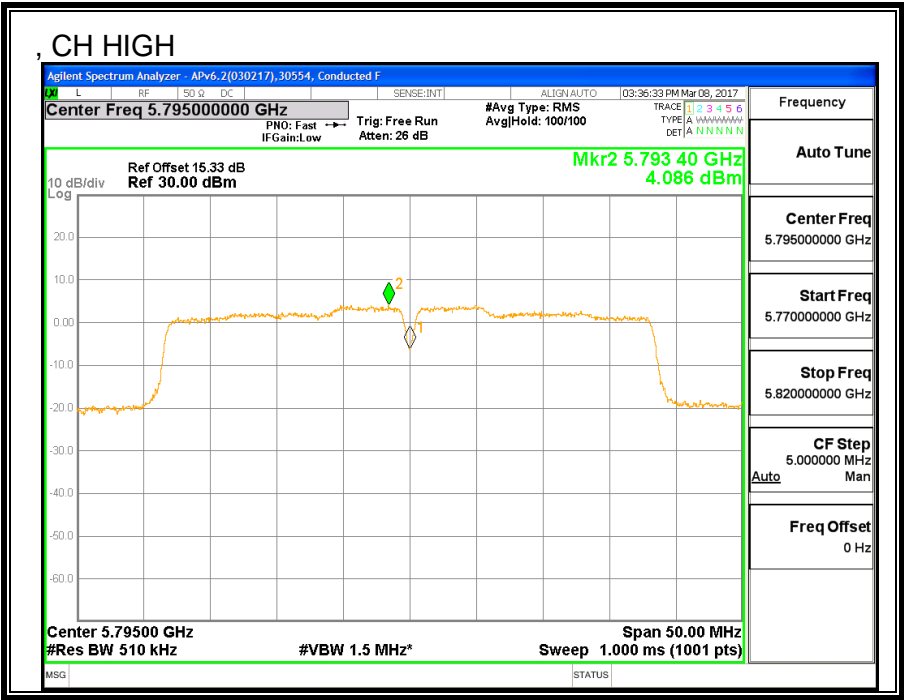
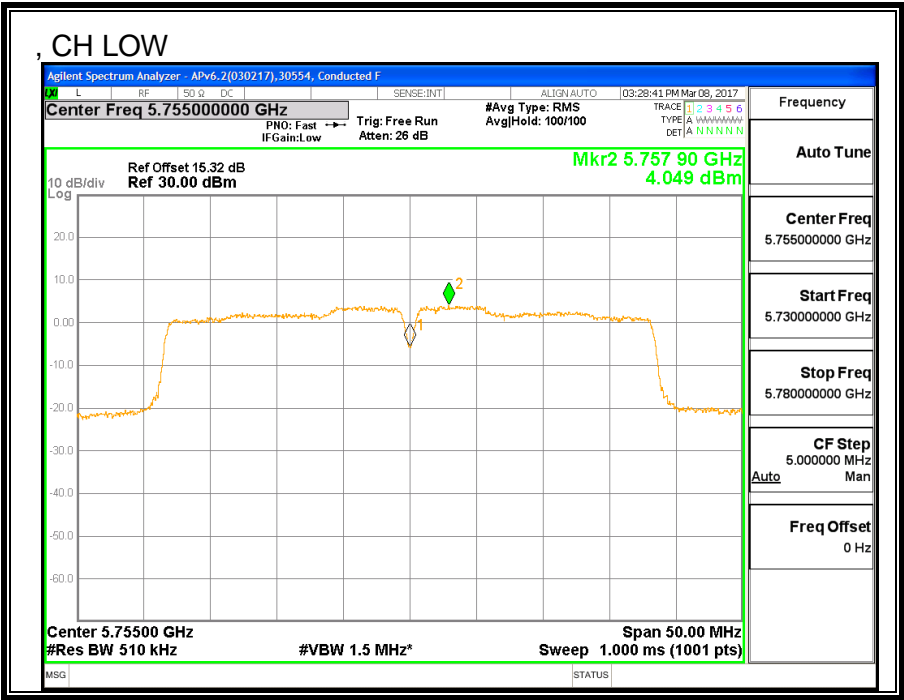
### Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	0.68	30.00
High	5795	0.68	30.00

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

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/500k Hz)	Total Corr'd PSD (dBm/500k Hz)	PSD Limit (dBm/500k Hz)	PSD Margin (dB)
Low	5755	4.41	4.51	30.00	-25.49
High	5795	4.09	4.19	30.00	-25.81



## **8.38. 11n HT40 LAT 3 SISO MODE IN THE 5.8GHz BAND**

### **8.38.1. 6 dB BANDWIDTH**

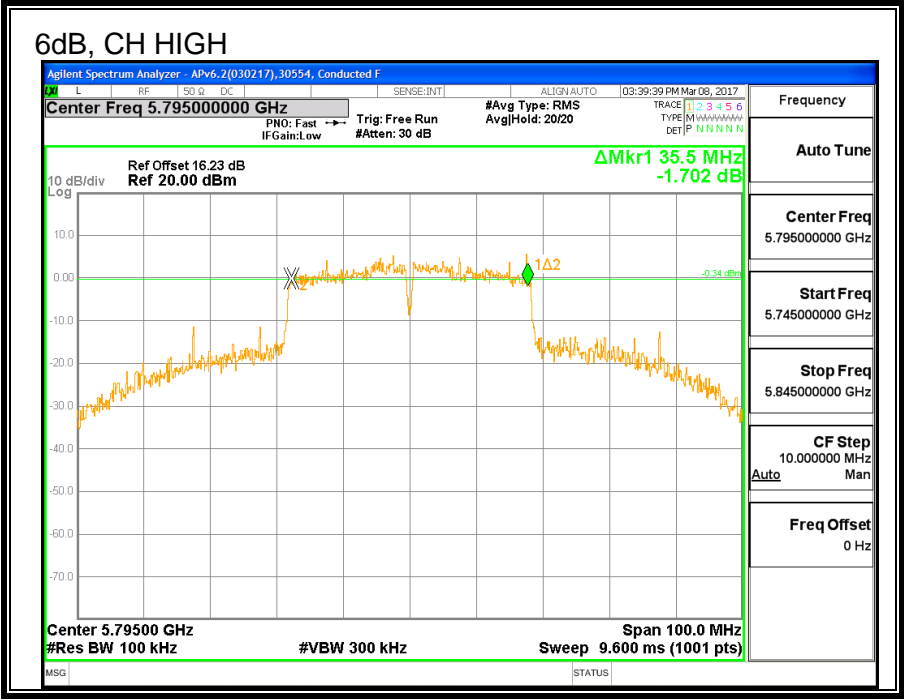
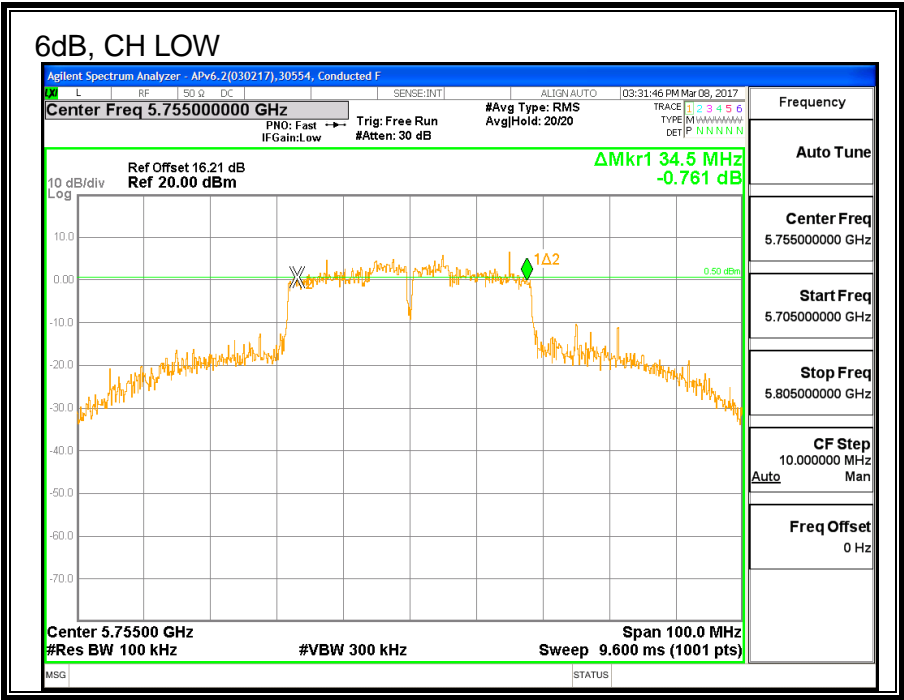
#### **LIMITS**

FCC §15.407 (e)

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

#### **RESULTS**

<b>Channel</b>	<b>Frequency</b>	<b>6 dB BW LAT 3 (MHz)</b>	<b>Minimum Limit (MHz)</b>
Low	5755	34.5	0.5
High	5795	35.5	0.5



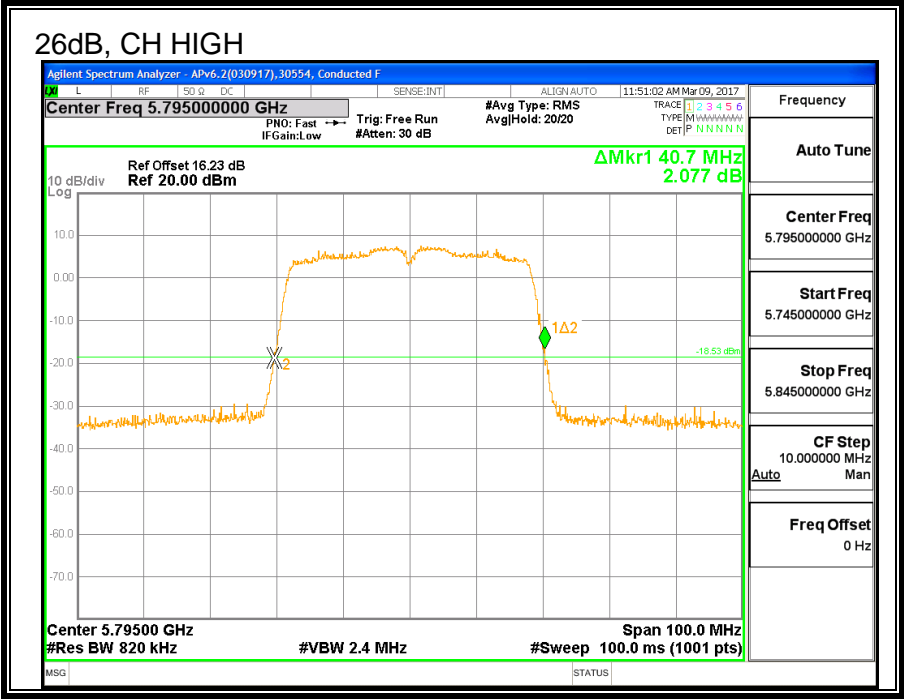
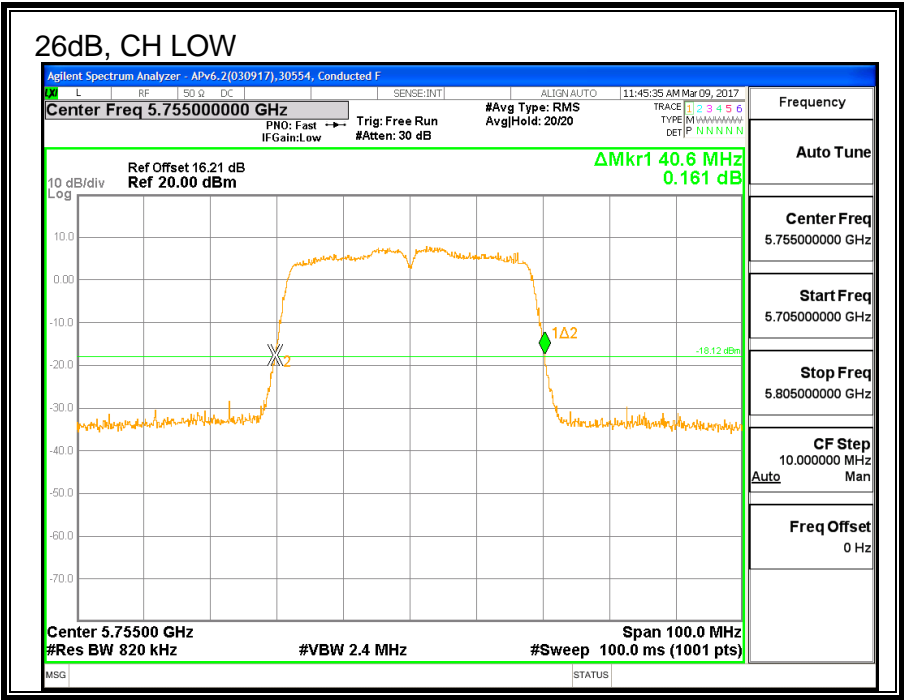
### 8.38.2. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW LAT 3 (MHz)
Low	5755	40.6
High	5795	40.7





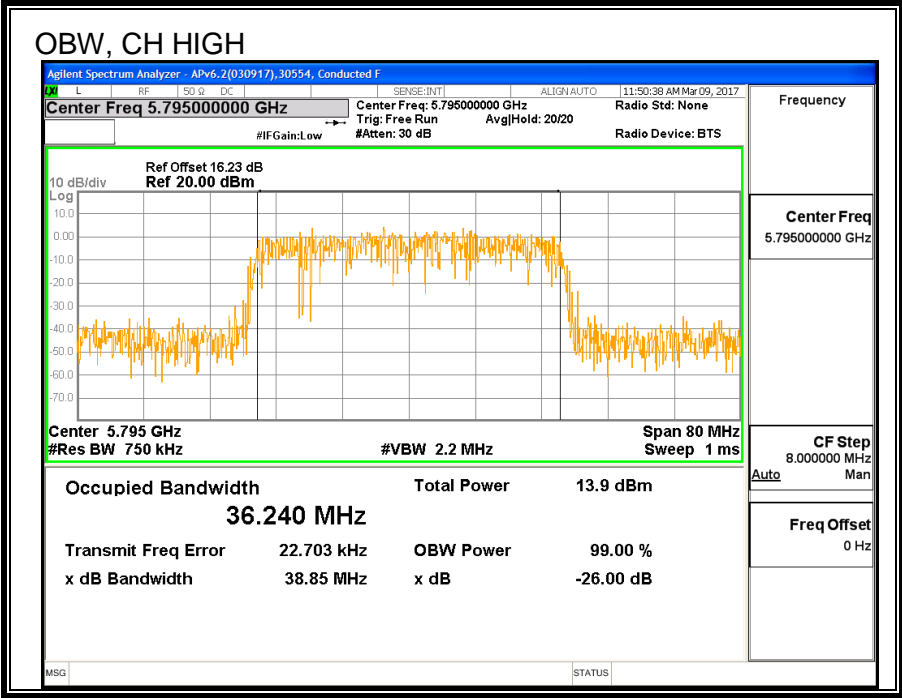
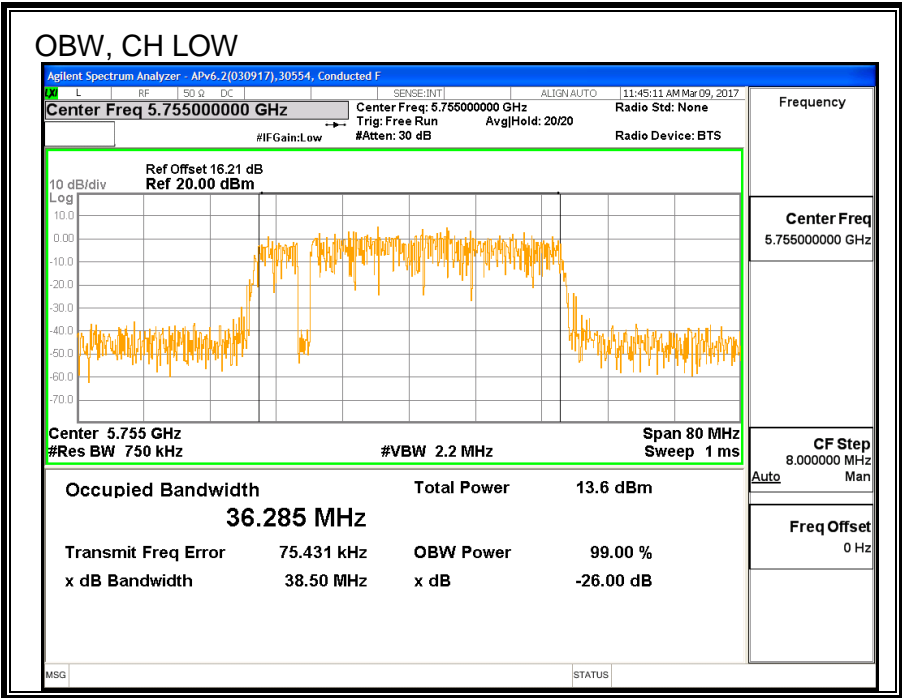
### 8.38.3. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	99% BW LAT 3 (MHz)
Low	5755	36.285
High	5795	36.240



#### 8.38.4. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### 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	5755	19.36
High	5795	19.42

### 8.38.5. OUTPUT POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 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.

#### DIRECTIONAL ANTENNA GAIN

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

## **RESULTS**

### **Antenna Gain and Limit**

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	-0.93	30.00
High	5795	-0.93	30.00

### **Output Power Results**

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	19.36	19.36	30.00	-10.64
High	5795	19.42	19.42	30.00	-10.58

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### **8.38.6. POWER SPECTRAL DENSITY**

#### **LIMITS**

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **TEST PROCEDURE**

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

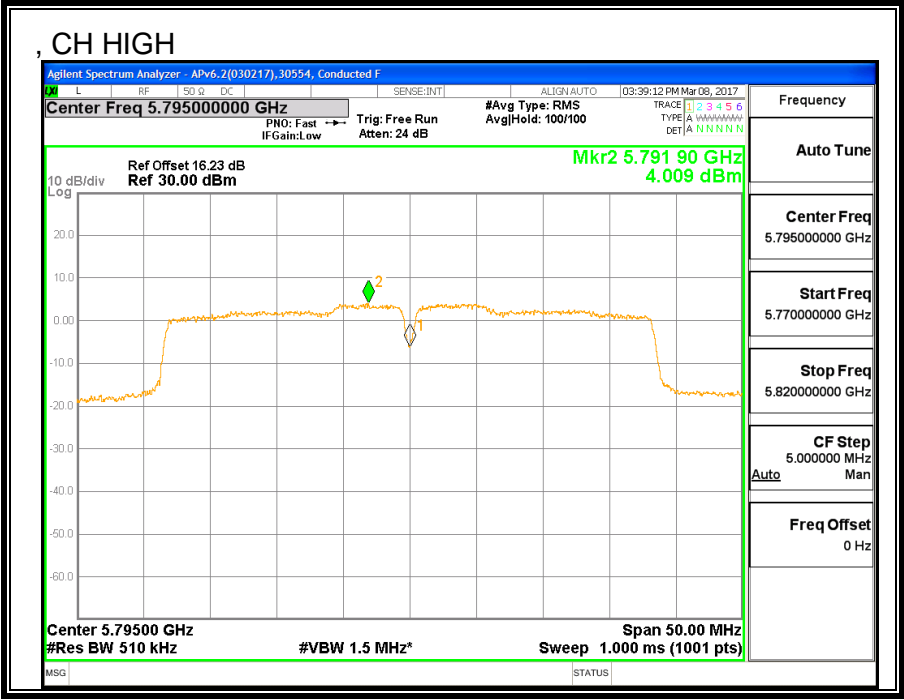
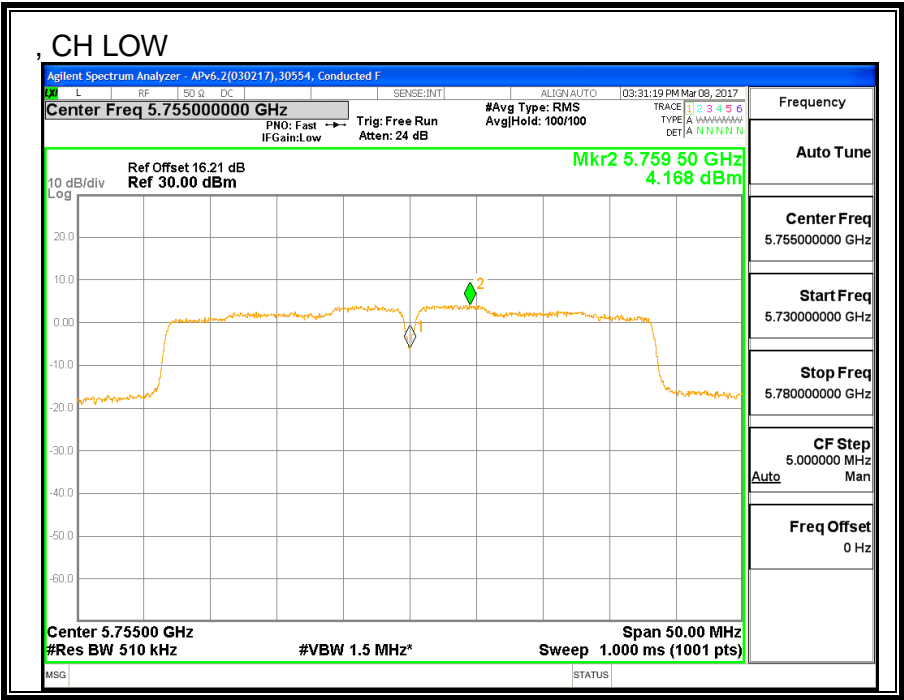
### Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	-0.93	30.00
High	5795	-0.93	30.00

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

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm/500k Hz)	Total Corr'd PSD (dBm/500k Hz)	PSD Limit (dBm/500k Hz)	PSD Margin (dB)
Low	5755	4.17	4.27	30.00	-25.73
High	5795	4.01	4.11	30.00	-25.89





## **8.39. 11n HT40 2TX CDD MIMO MODE IN THE 5.8GHz BAND**

### **8.39.1. 6 dB BANDWIDTH**

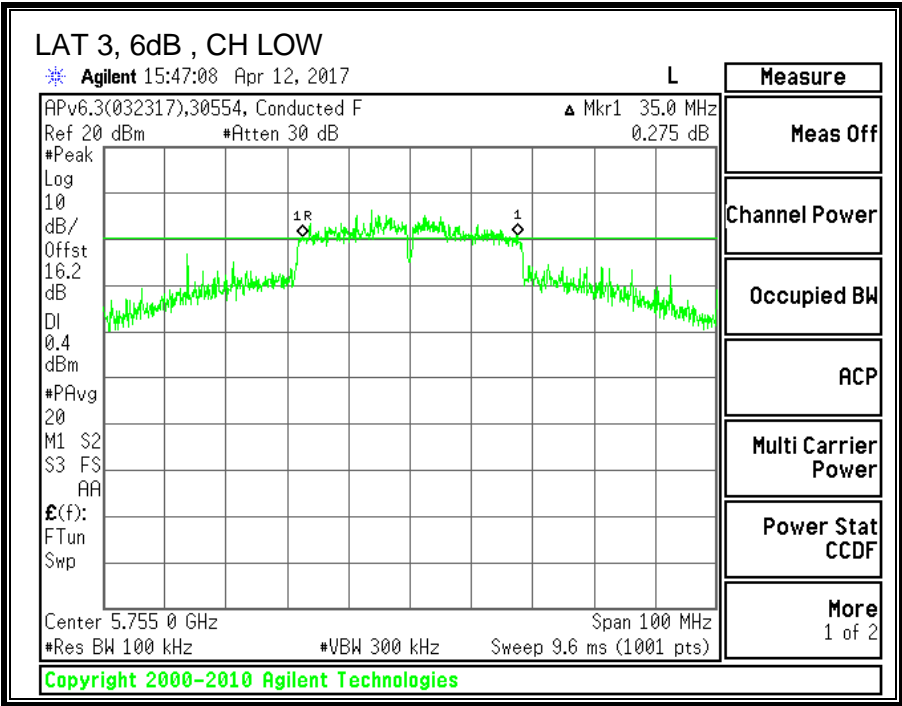
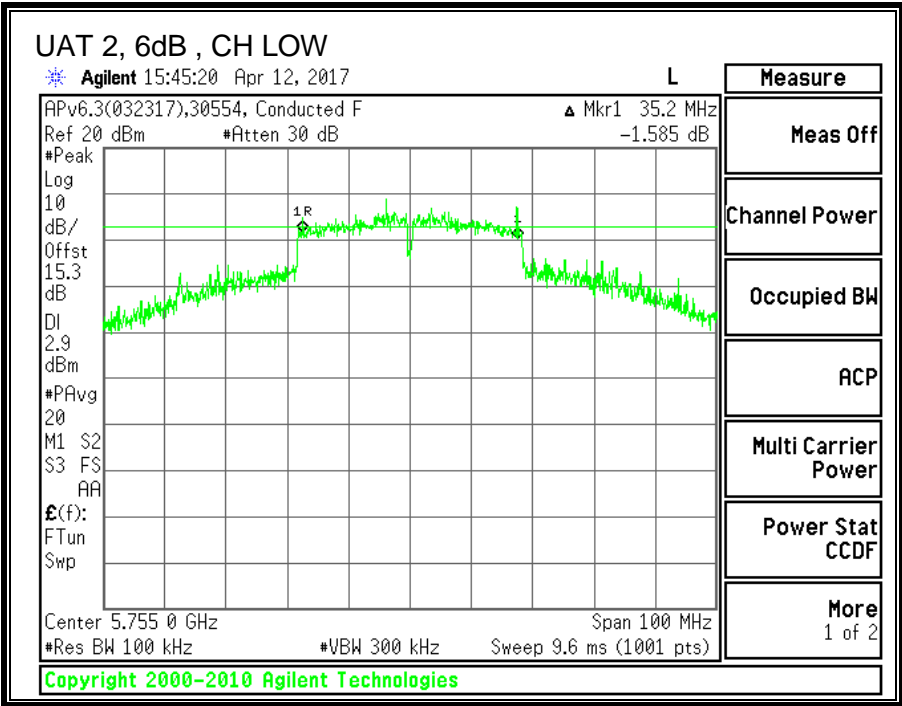
#### **LIMITS**

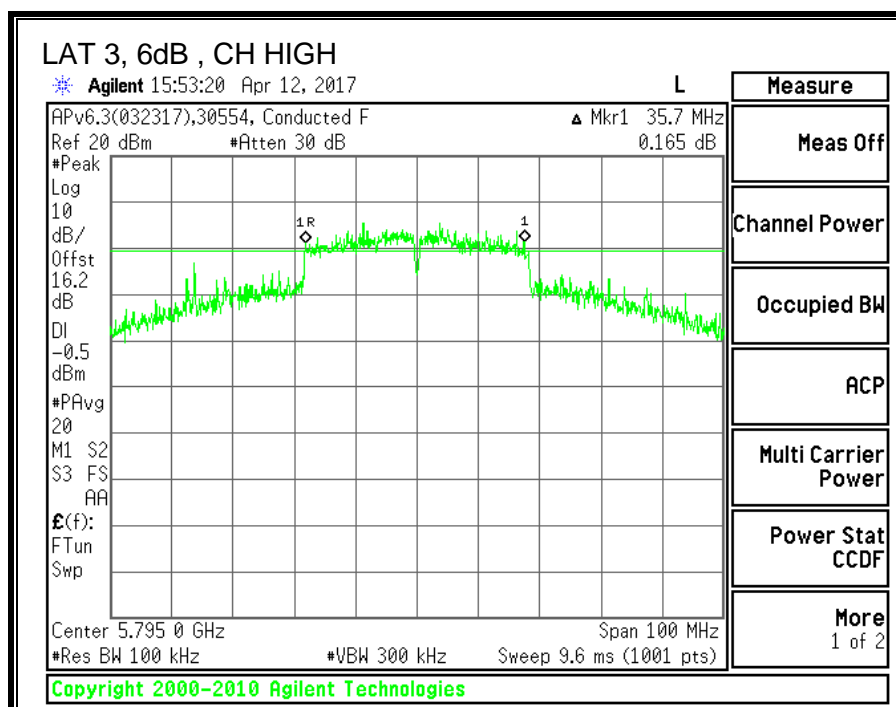
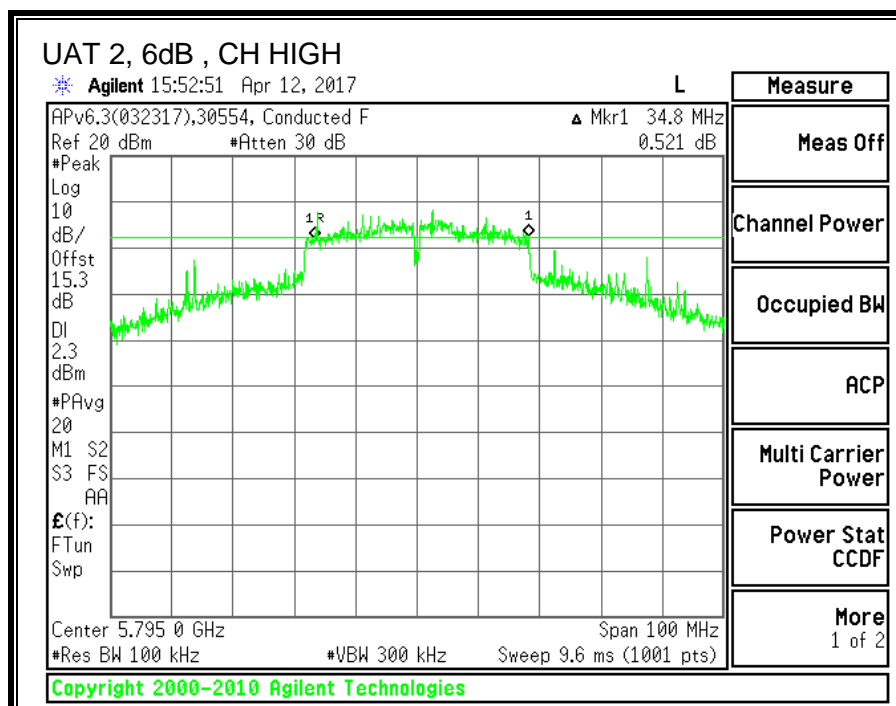
FCC §15.407 (e)

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

#### **RESULTS**

<b>Channel</b>	<b>Frequency</b>	<b>6 dB BW UAT 2 (MHz)</b>	<b>6 dB BW LAT 3 (MHz)</b>	<b>Minimum Limit (MHz)</b>
Low	5755	35.2	35.0	0.5
High	5795	34.8	35.7	0.5





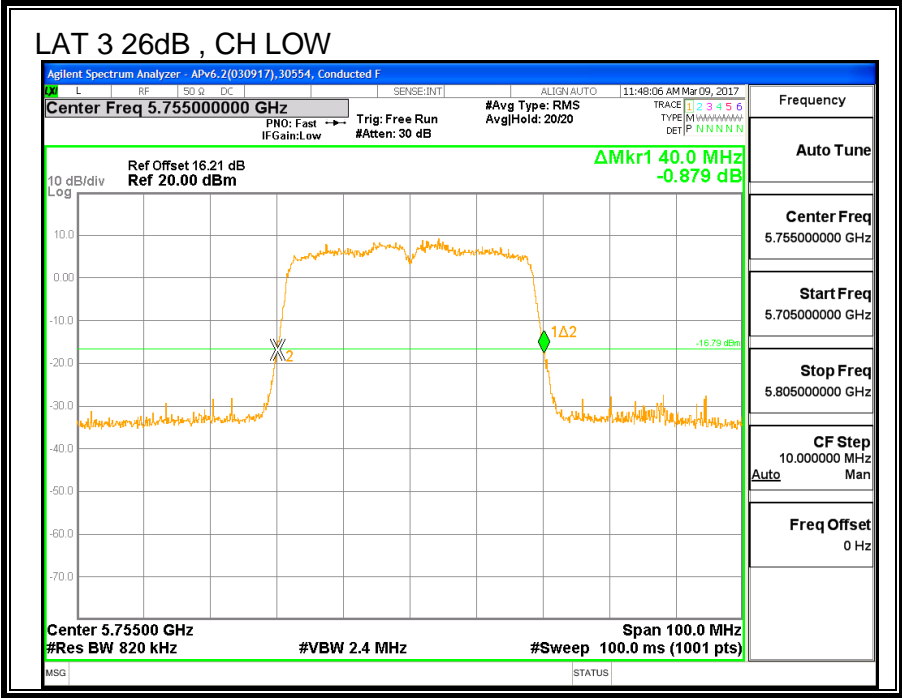
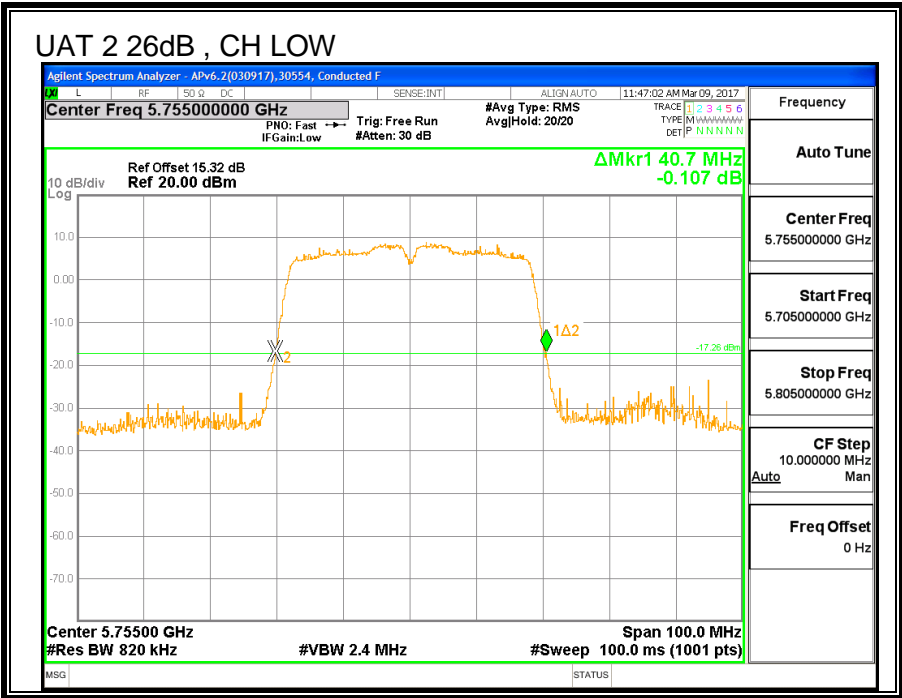
### 8.39.2. 26 dB BANDWIDTH

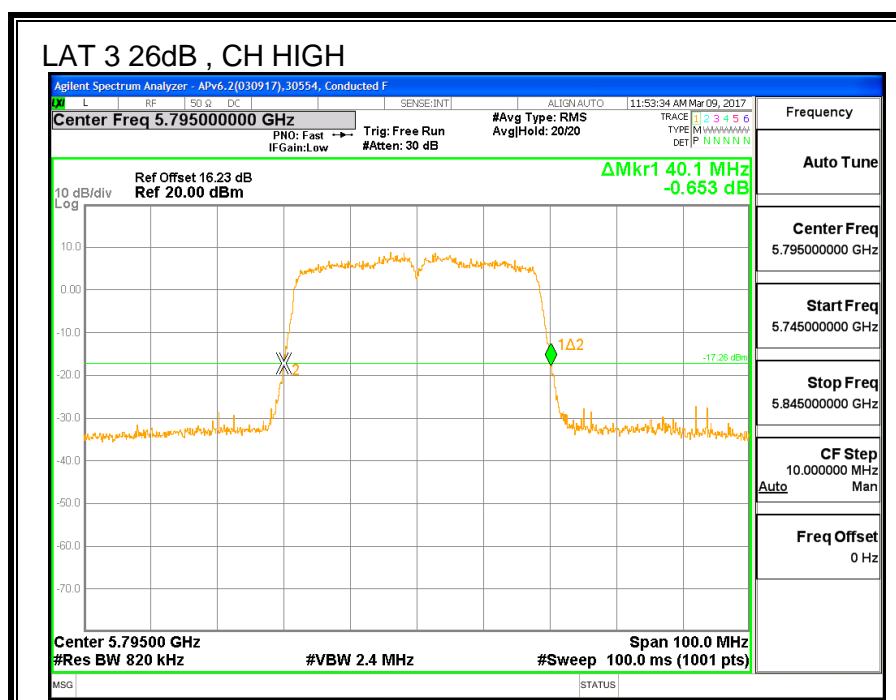
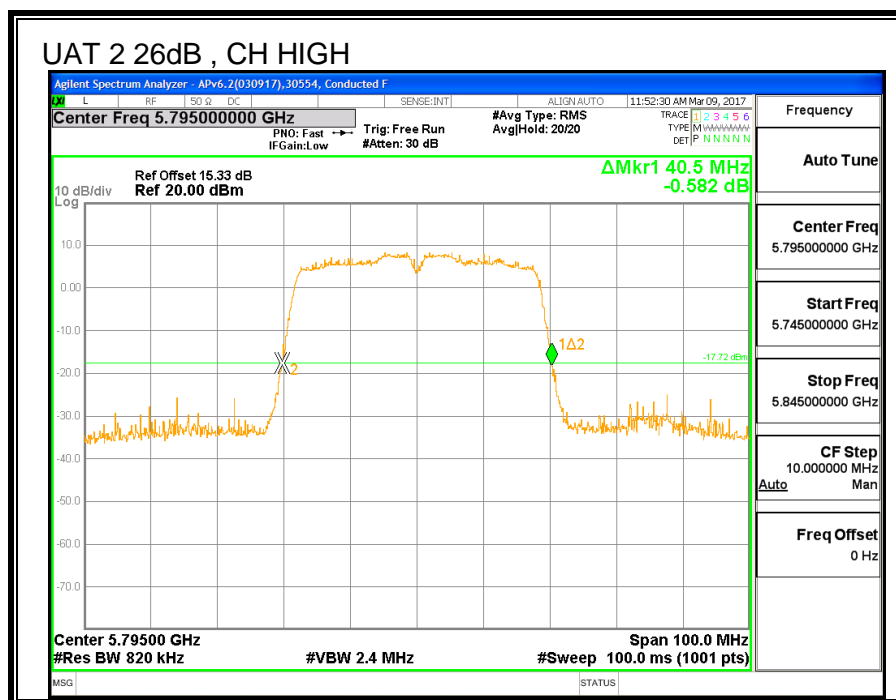
#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)	26 dB BW LAT 3 (MHz)
Low	5755	40.7	40.0
High	5795	40.5	40.1





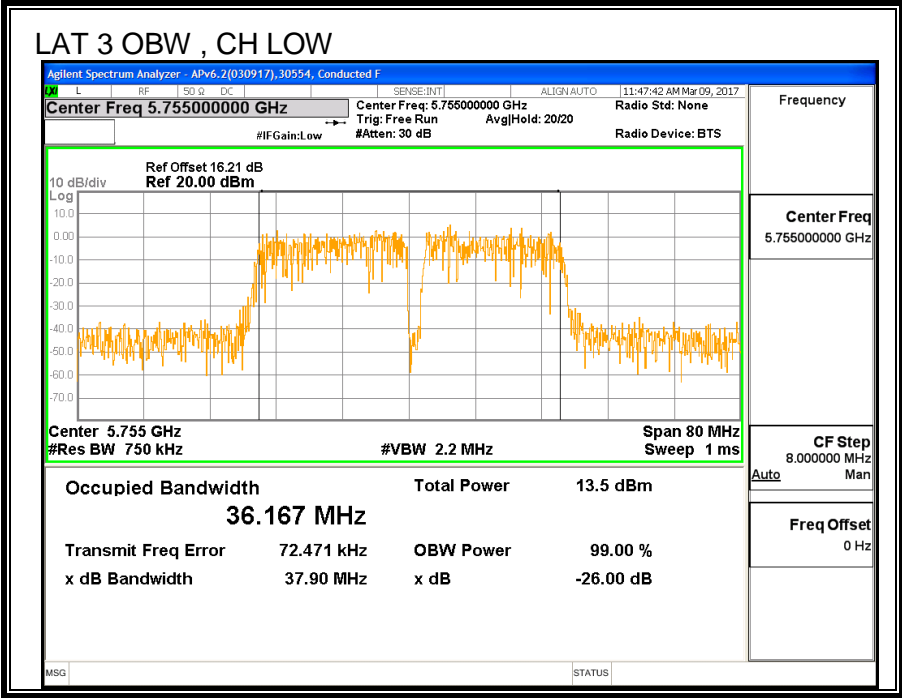
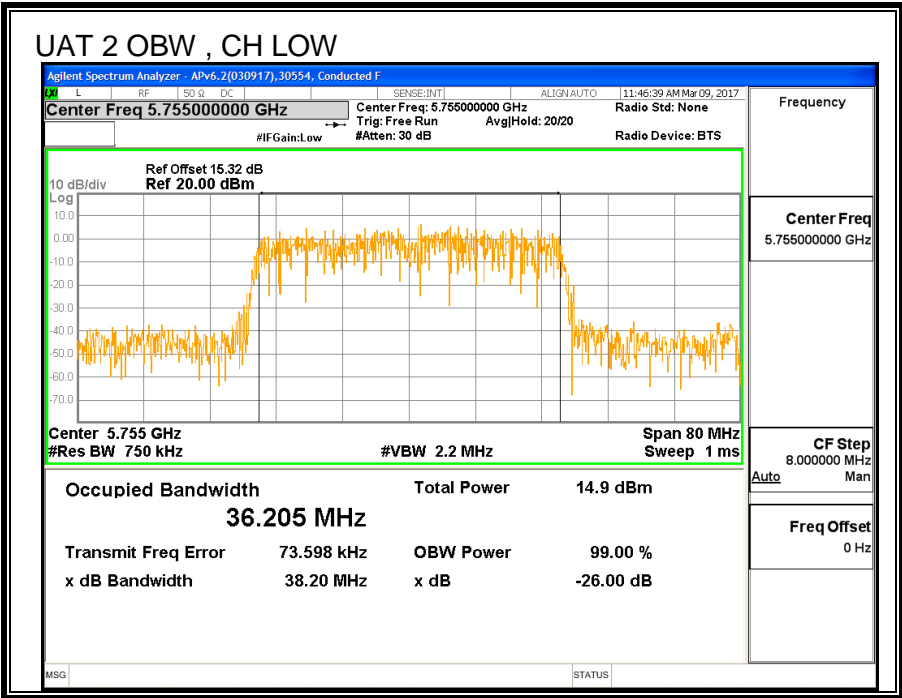
### 8.39.3. 99% BANDWIDTH

#### LIMITS

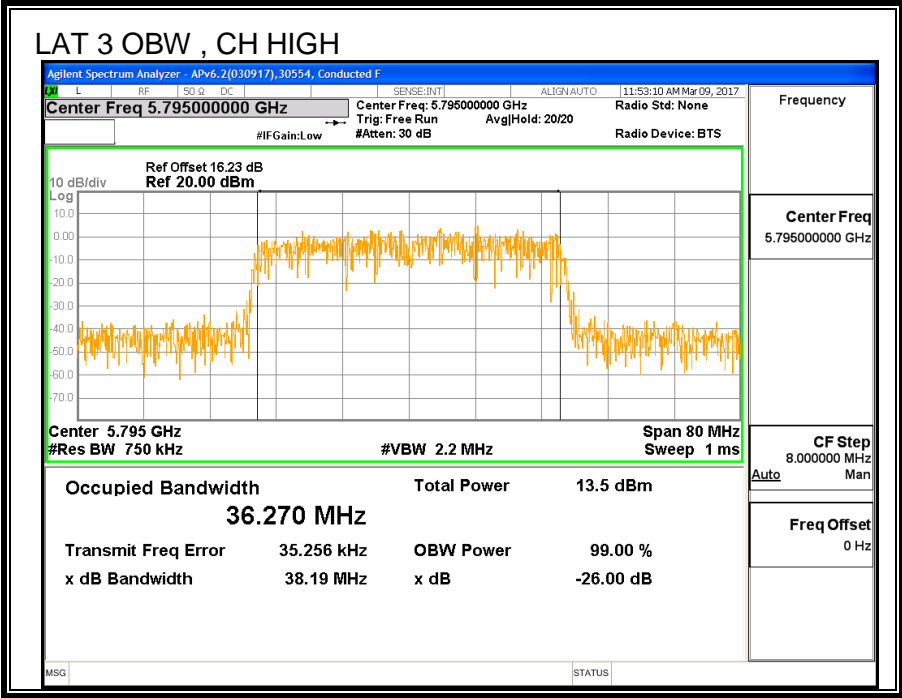
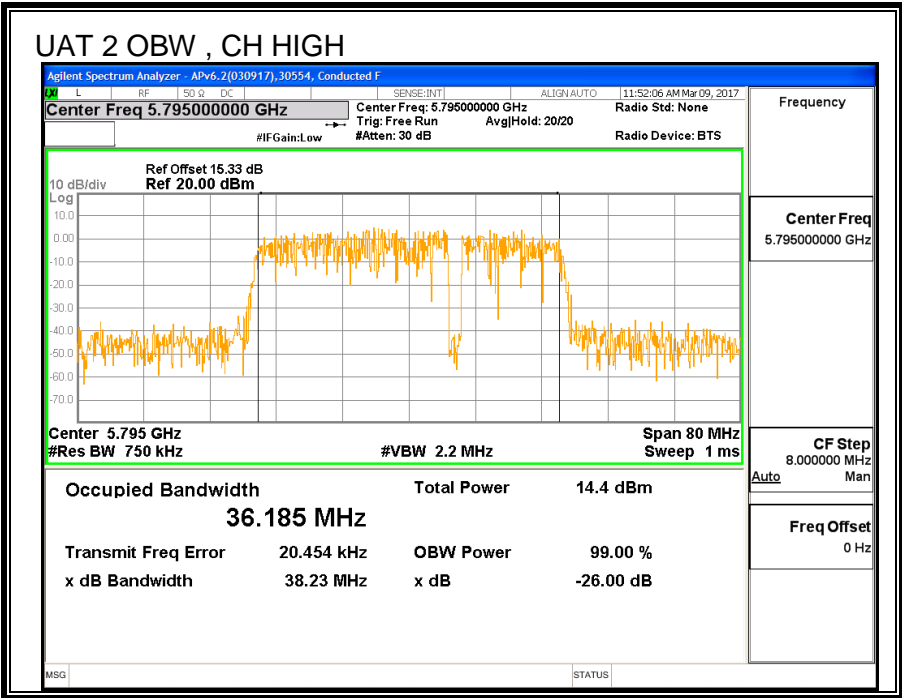
None; for reporting purposes only.

#### RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)	99% BW LAT 3 (MHz)
Low	5755	36.205	36.167
High	5795	36.185	36.27







#### 8.39.4. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### 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	5755	19.48	19.41	22.46
High	5795	19.39	19.38	22.40

### 8.39.5. OUTPUT POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 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.

#### 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:

<b>UAT 2 Antenna Gain (dBi)</b>	<b>LAT 3 Antenna Gain (dBi)</b>	<b>Uncorrelated Chains Directional Gain (dBi)</b>
0.68	-0.93	-0.05

## RESULTS

### Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	-0.05	30.00
High	5795	-0.05	30.00

### 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	5755	19.48	19.41	22.46	30.00	-7.54
High	5795	19.39	19.38	22.40	30.00	-7.60

### 8.39.6. POWER SPECTRAL DENSITY

#### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### TEST PROCEDURE

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

#### DIRECTIONAL ANTENNA GAIN

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)
0.68	-0.93	2.92

## RESULTS

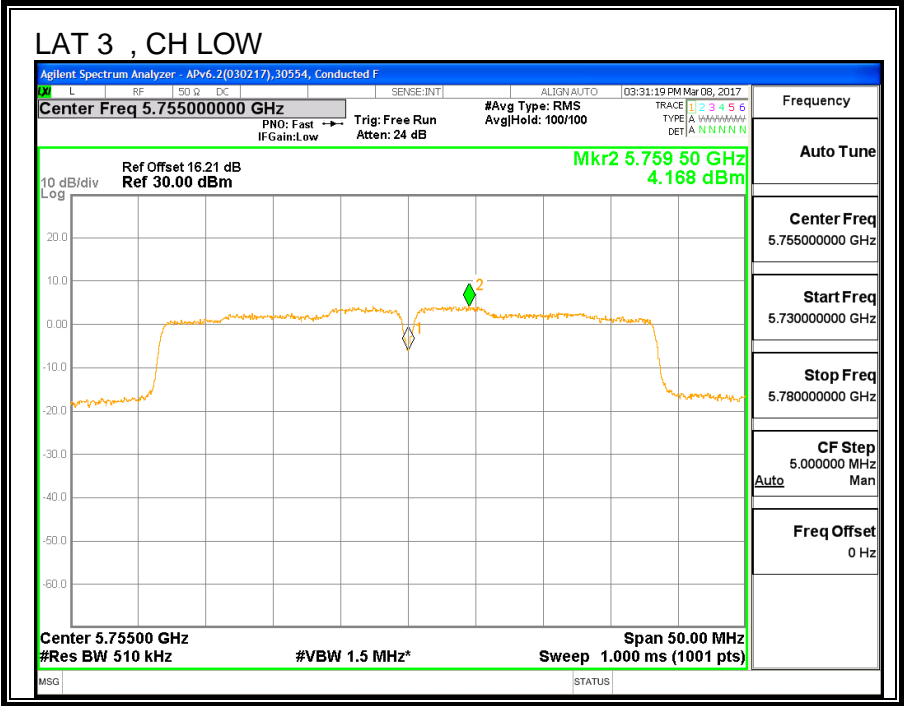
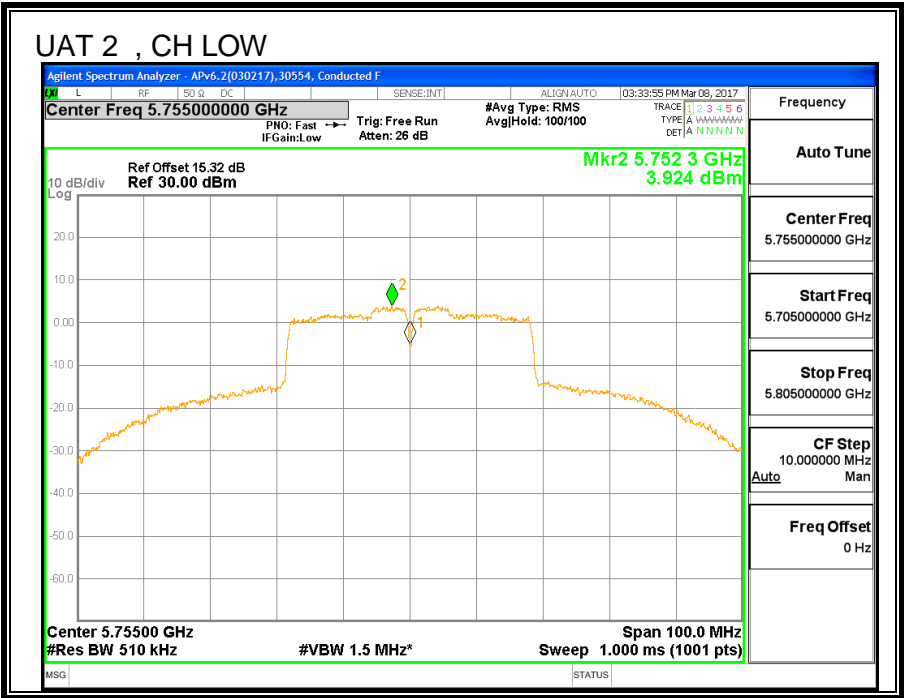
### Antenna Gain and Limit

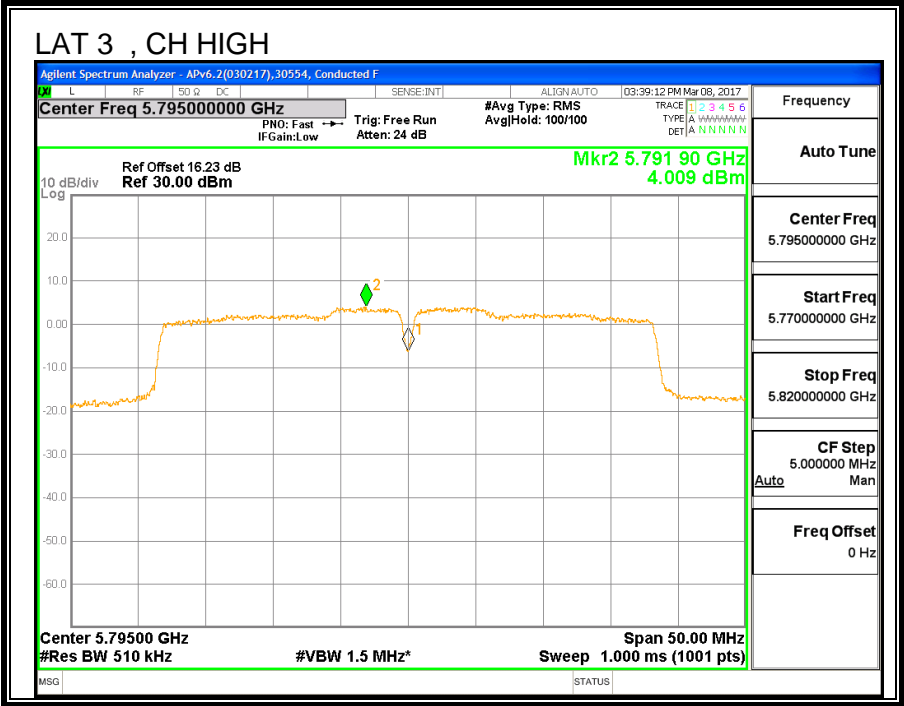
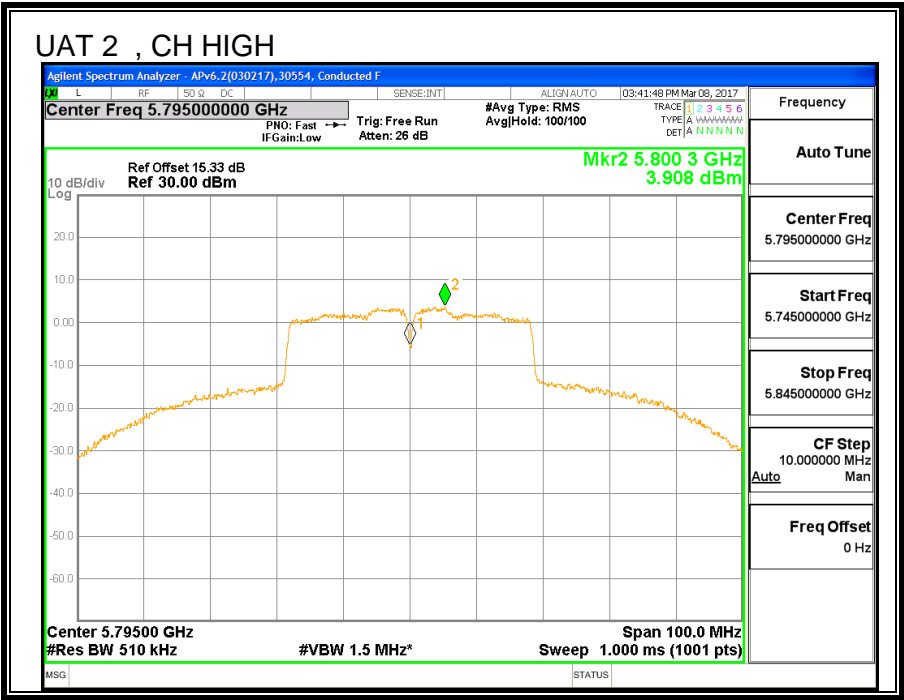
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	2.92	30.00
High	5795	2.92	30.00

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

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/500k Hz)	LAT 3 Meas PSD (dBm/500k Hz)	Total Corr'd PSD (dBm/500k Hz)	PSD Limit (dBm/500kHz)	PSD Margin (dB)
Low	5755	3.92	4.17	7.16	30.00	-22.84
High	5795	3.91	4.01	7.07	30.00	-22.93







## **8.40. 11ac HT80 UAT 2 SISO MODE IN THE 5.8GHz BAND**

### **8.40.1. 6 dB BANDWIDTH**

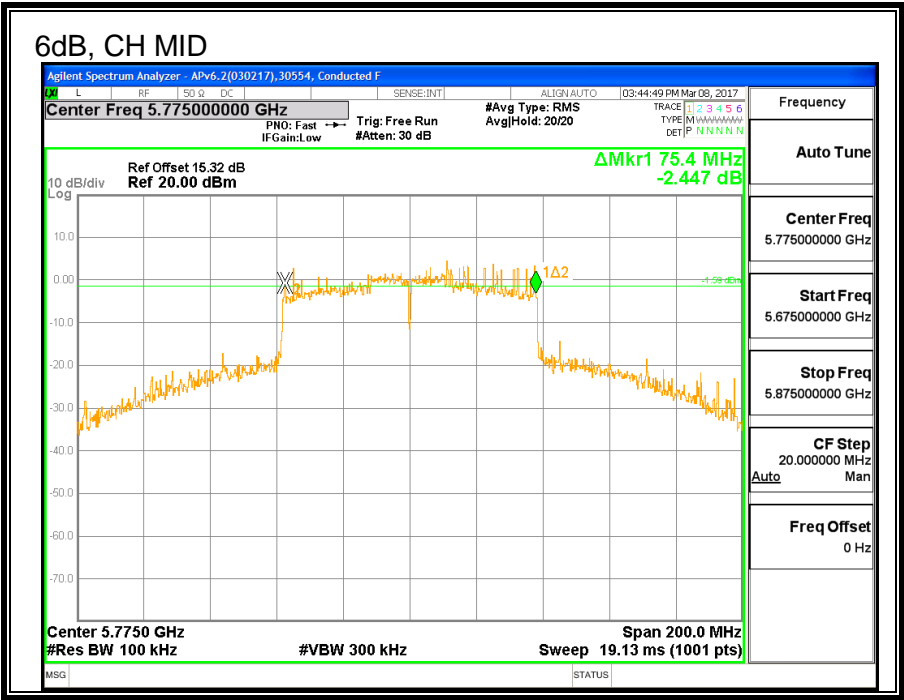
#### **LIMITS**

FCC §15.407 (e)

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

#### **RESULTS**

Channel	Frequency	6 dB BW UAT 2 (MHz)	Minimum Limit (MHz)
Mid	5775	75.4	0.5



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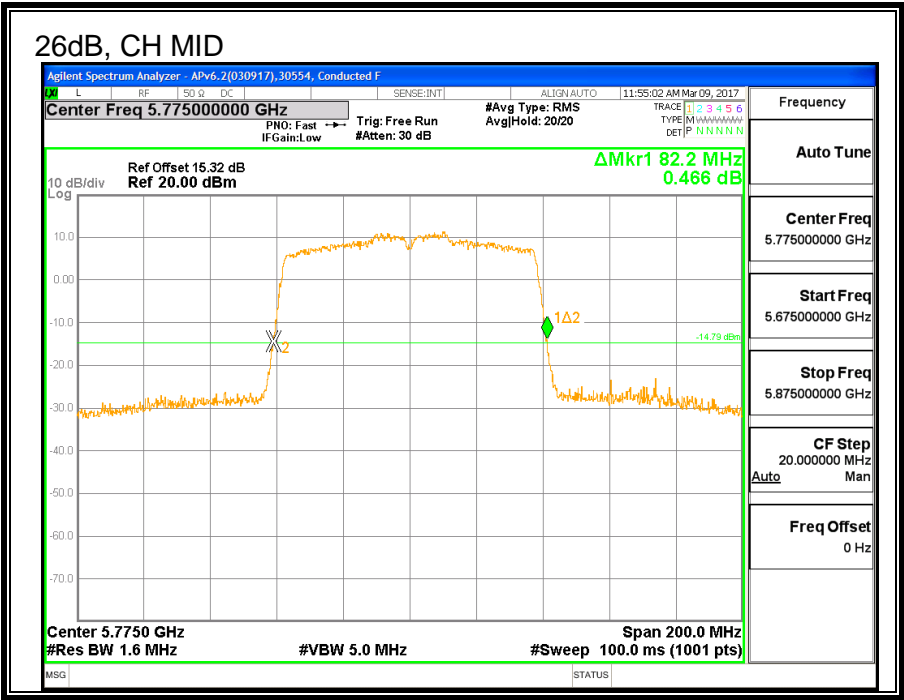
### 8.40.2. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)
Mid	5775	82.2



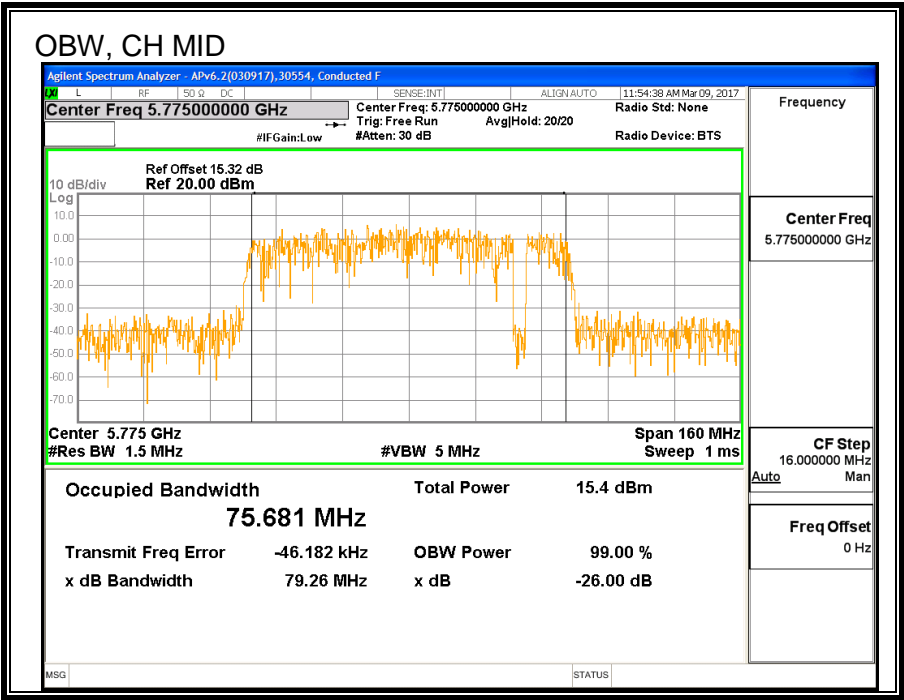
### 8.40.3. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)
Mid	5775	75.681



#### 8.40.4. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

#### RESULTS

Channel	Frequency	Power UAT 2 (dBm)
Mid	5775	18.92

#### 8.40.5. OUTPUT POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 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.

#### DIRECTIONAL ANTENNA GAIN

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



## **RESULTS**

### **Antenna Gain and Limit**

<b>Channel</b>	<b>Frequency (MHz)</b>	<b>Directional Gain (dBi)</b>	<b>Power Limit (dBm)</b>
Mid	5775	0.68	30.00

### **Output Power Results**

<b>Channel</b>	<b>Frequency (MHz)</b>	<b>UAT 2 Meas Power (dBm)</b>	<b>Total Corr'd Power (dBm)</b>	<b>Power Limit (dBm)</b>	<b>Power Margin (dB)</b>
Mid	5775	18.92	18.92	30.00	-11.08

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### **8.40.6. POWER SPECTRAL DENSITY**

#### **LIMITS**

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **TEST PROCEDURE**

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

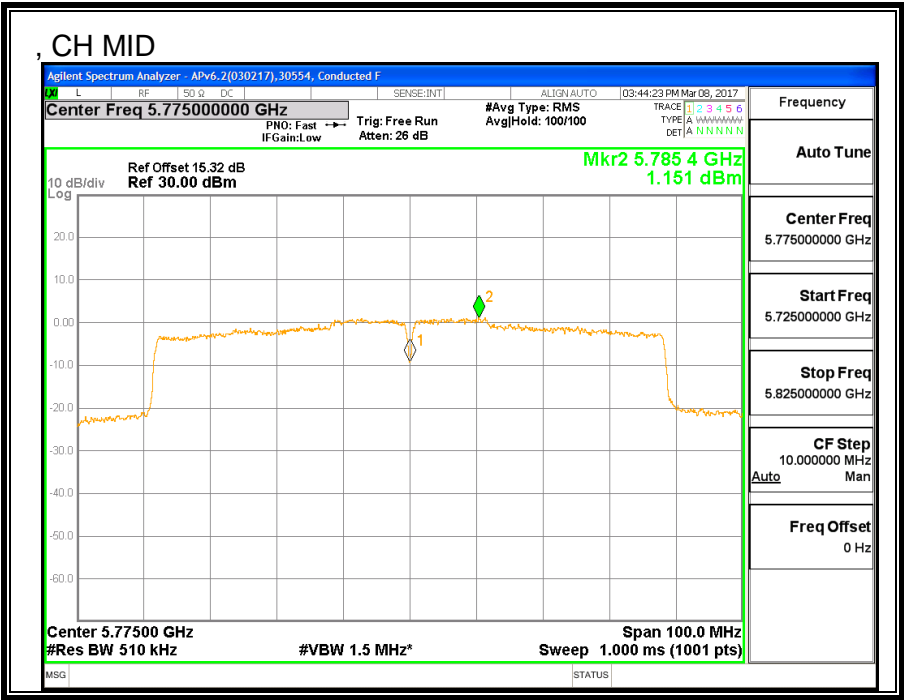
### Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	0.68	30.00

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

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/500k Hz)	Total Corr'd PSD (dBm/500k Hz)	PSD Limit (dBm/500k Hz)	PSD Margin (dB)
Mid	5775	1.15	1.35	30.00	-28.65



## **8.41. 11ac HT80 LAT 3 SISO MODE IN THE 5.8GHz BAND**

### **8.41.1. 6 dB BANDWIDTH**

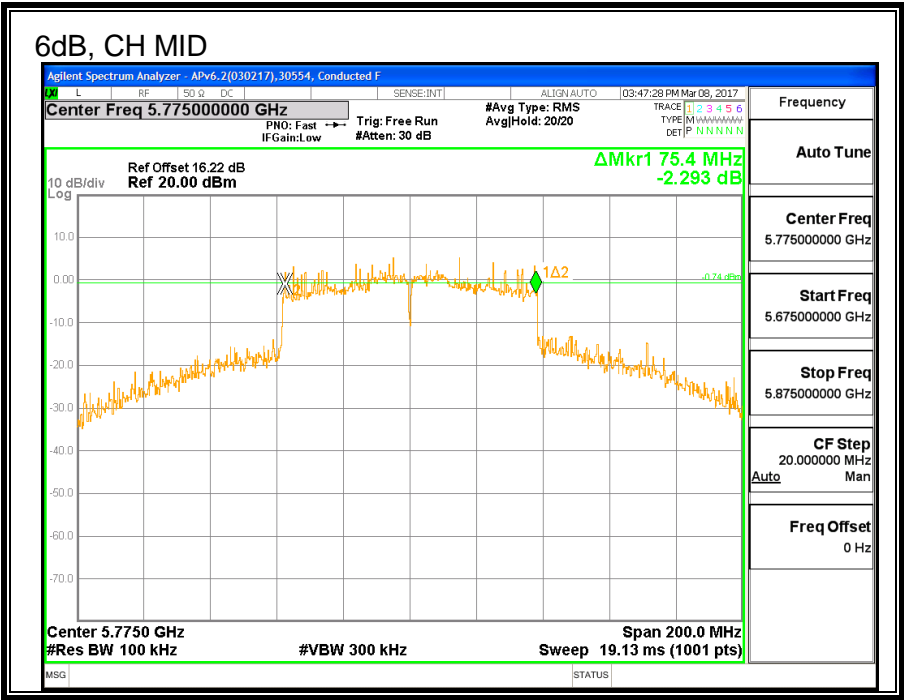
#### **LIMITS**

FCC §15.407 (e)

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

#### **RESULTS**

<b>Channel</b>	<b>Frequency</b>	<b>6 dB BW LAT 3 (MHz)</b>	<b>Minimum Limit (MHz)</b>
Mid	5775	75.4	0.5



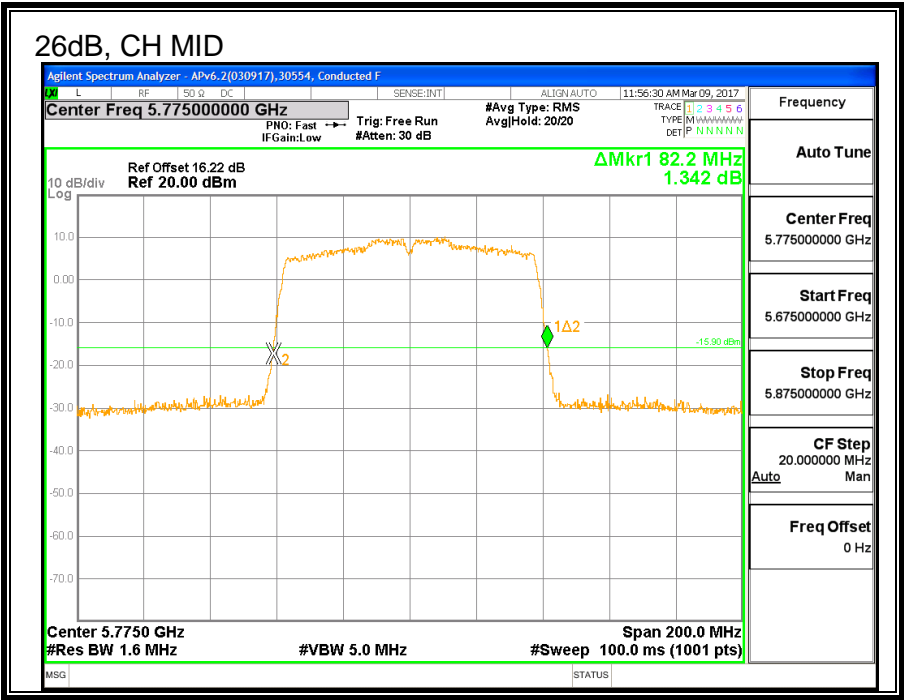
### 8.41.2. 26 dB BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW LAT 3 (MHz)
Mid	5775	82.2





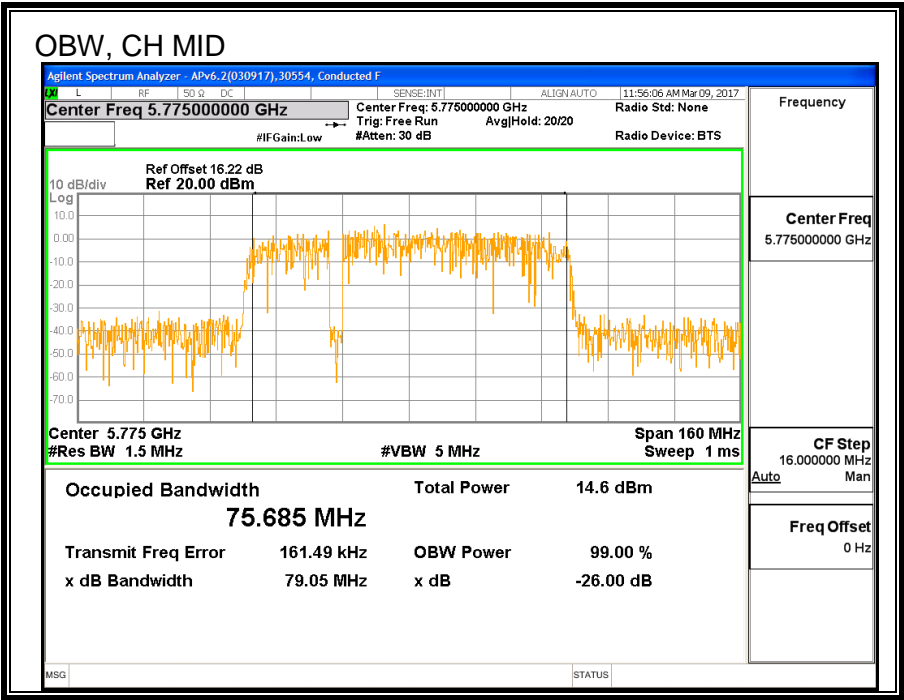
### 8.41.3. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	99% BW LAT 3 (MHz)
Mid	5775	75.685



#### 8.41.4. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

#### RESULTS

Channel	Frequency	Power LAT 3 (dBm)
Mid	5775	18.91

#### 8.41.5. OUTPUT POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 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.

#### DIRECTIONAL ANTENNA GAIN

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

## **RESULTS**

### **Antenna Gain and Limit**

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	-0.93	30.00

### **Output Power Results**

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	18.91	18.91	30.00	-11.09

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### **8.41.6. POWER SPECTRAL DENSITY**

#### **LIMITS**

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **TEST PROCEDURE**

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

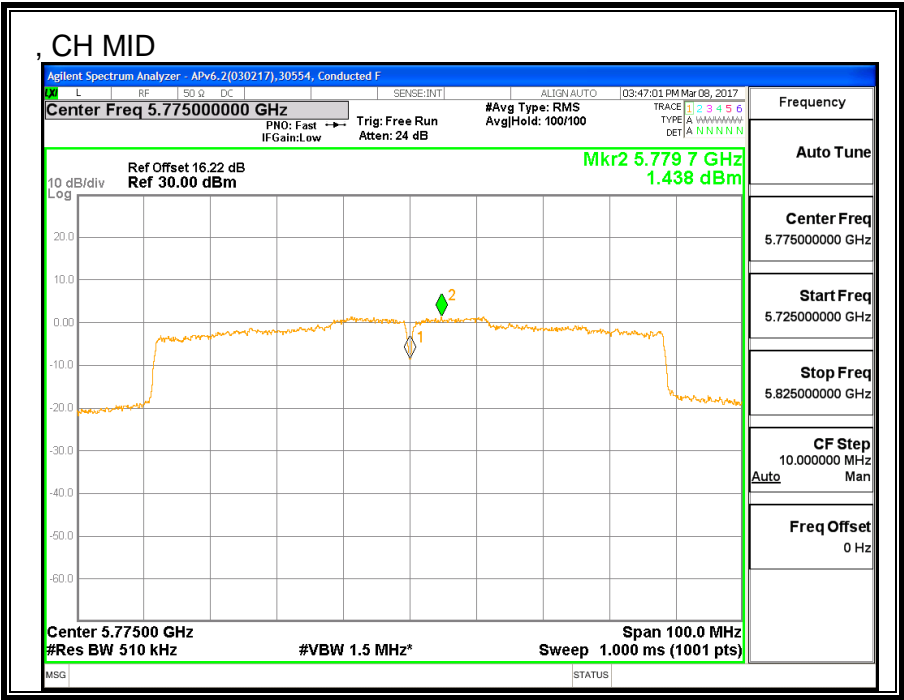
### Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	-0.93	30.00

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

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm/500k Hz)	Total Corr'd PSD (dBm/500k Hz)	PSD Limit (dBm/500k Hz)	PSD Margin (dB)
Mid	5775	1.44	1.64	30.00	-28.36





## **8.42. 11ac HT80 2TX CDD MIMO MODE IN THE 5.8GHz BAND**

### **8.42.1. 6 dB BANDWIDTH**

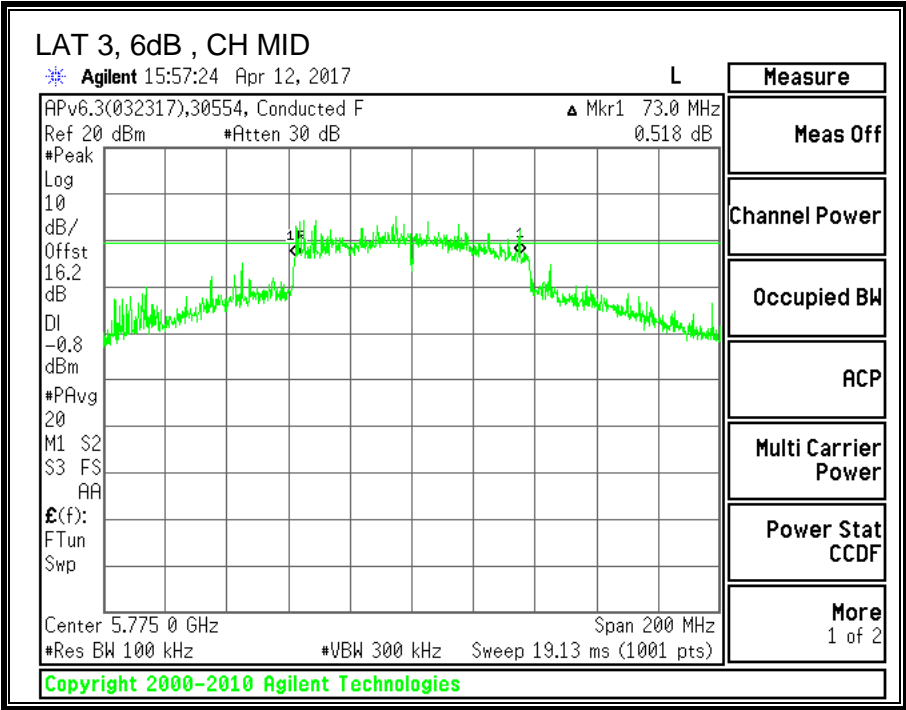
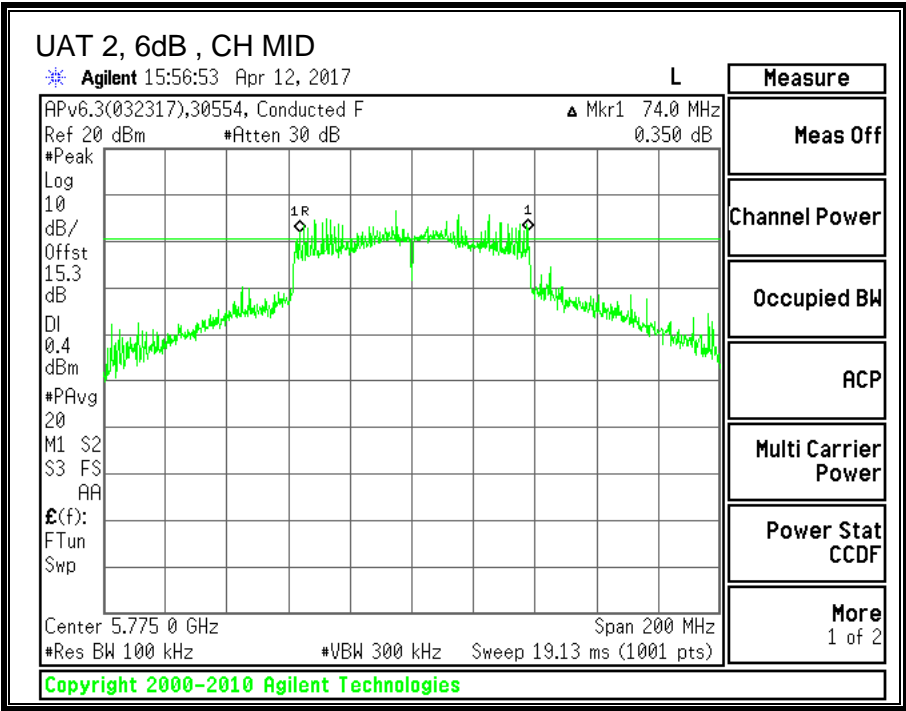
#### **LIMITS**

FCC §15.407 (e)

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

#### **RESULTS**

Channel	Frequency	6 dB BW UAT 2 (MHz)	6 dB BW LAT 3 (MHz)	Minimum Limit (MHz)
Mid	5775	74.0	73.0	0.5



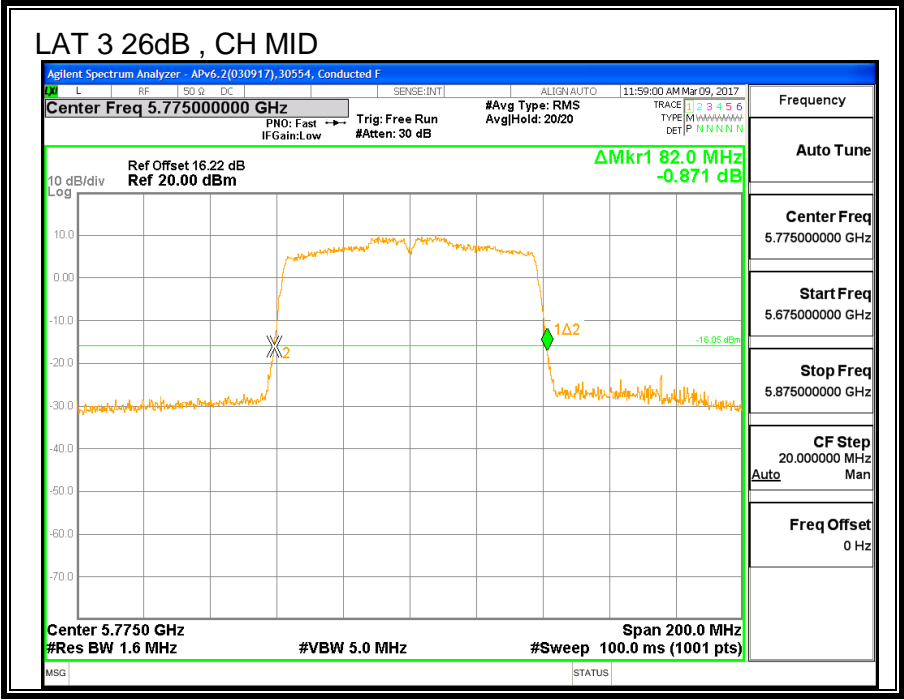
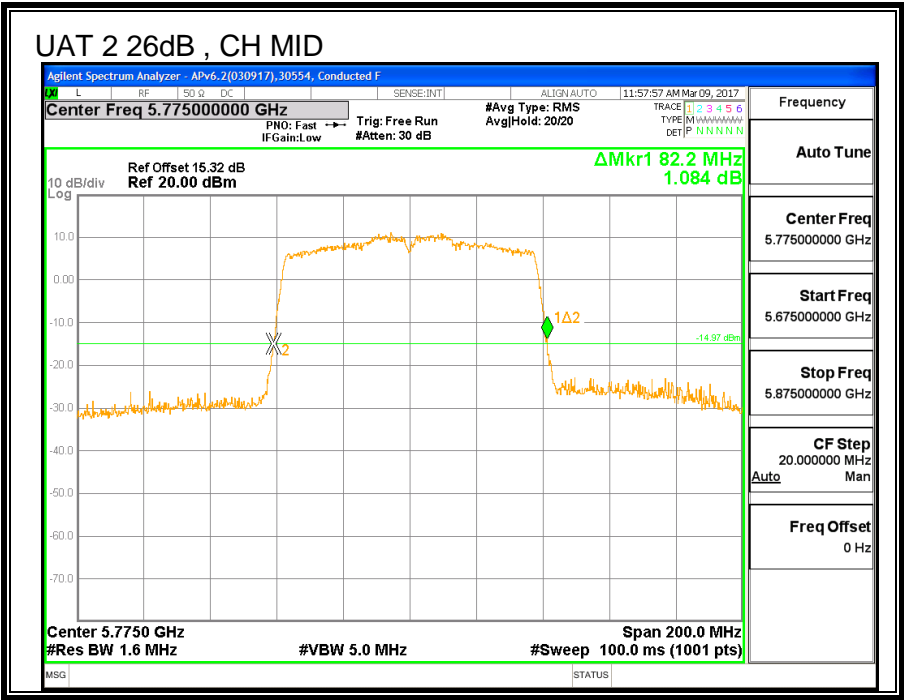
## 8.42.2. 26 dB BANDWIDTH

### LIMITS

None; for reporting purposes only.

### RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)	26 dB BW LAT 3 (MHz)
Mid	5775	82.2	82



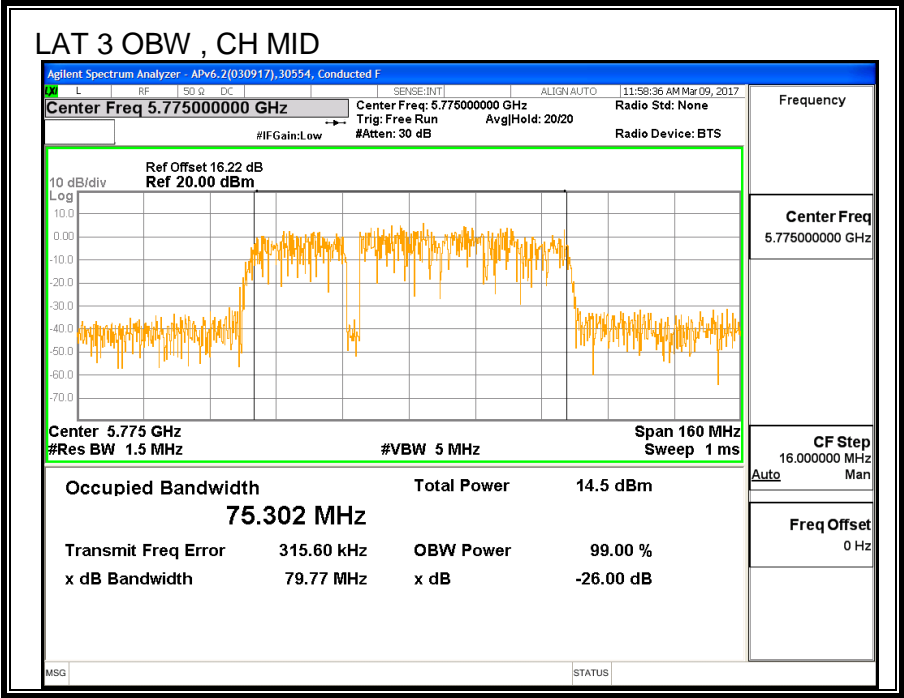
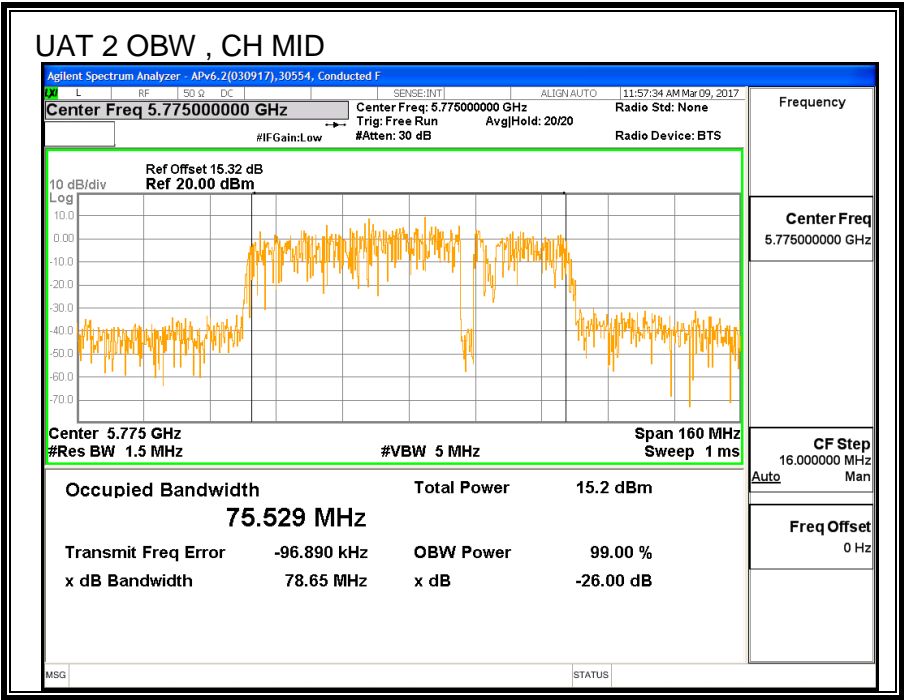
### 8.42.3. 99% BANDWIDTH

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)	99% BW LAT 3 (MHz)
Mid	5775	75.529	75.302



#### 8.42.4. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### 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	5775	17.38	17.35	20.38

#### 8.42.5. OUTPUT POWER

<b>ID:</b>	30554	<b>Date:</b>	3/9/2017
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#### LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### 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.

#### 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:

<b>UAT 2</b>	<b>LAT 3</b>	<b>Uncorrelated Chains</b>
<b>Antenna</b>	<b>Antenna</b>	<b>Directional</b>
<b>Gain</b>	<b>Gain</b>	<b>Gain</b>
<b>(dBi)</b>	<b>(dBi)</b>	<b>(dBi)</b>
0.68	-0.93	-0.05



## **RESULTS**

### **Antenna Gain and Limit**

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	-0.05	30.00

### **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	5775	17.38	17.35	20.38	30.00	-9.62

## 8.42.6. POWER SPECTRAL DENSITY

### **LIMITS**

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### **TEST PROCEDURE**

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

### **DIRECTIONAL ANTENNA GAIN**

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

<b>UAT 2 Antenna Gain (dBi)</b>	<b>LAT 3 Antenna Gain (dBi)</b>	<b>Correlated Chains Directional Gain (dBi)</b>
0.68	-0.93	2.92

## RESULTS

### Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	2.92	30.00

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

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm/500k Hz)	LAT 3 Meas PSD (dBm/500k Hz)	Total Corr'd PSD (dBm/500k Hz)	PSD Limit (dBm/500kH z)	PSD Margin (dB)
Mid	5775	-0.71	1.44	3.71	30.00	-26.29

