

### 8.18.3. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	6/13/2017
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#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

#### RESULTS

##### Average Power Results

Channel	Frequency (MHz)	UAT 2 Power (dBm)	LAT 3 Power (dBm)	Total Power (dBm)
Mid	5290	14.36	14.44	17.41

#### 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. However, PSD measurement was measured by Spectrum Analyzer and duty cycle 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:

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 BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Mid	5290	82.20	75.14	-2.22	0.7	24	11.0

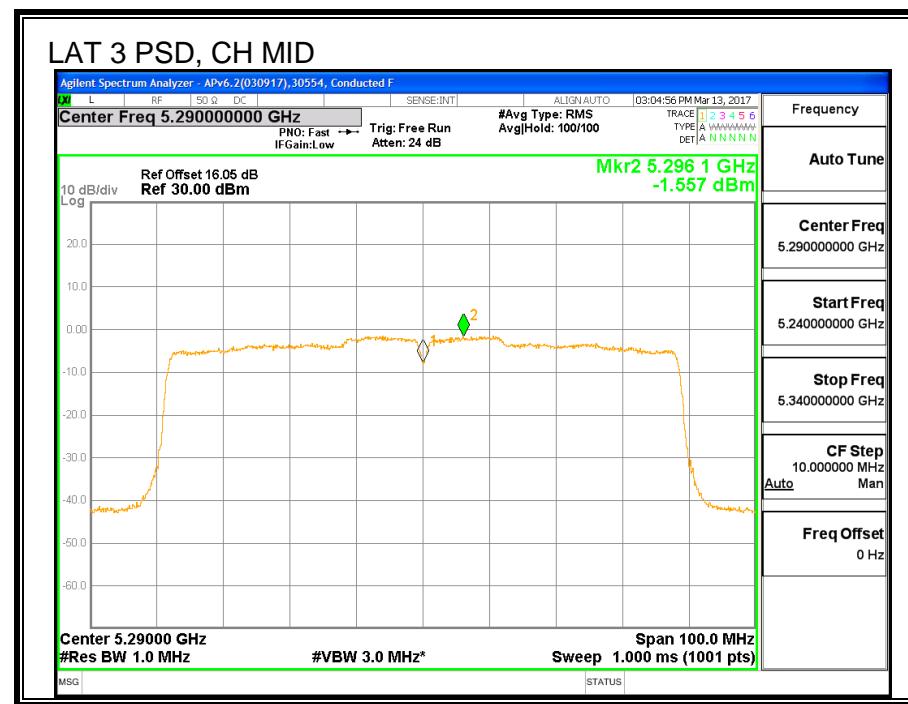
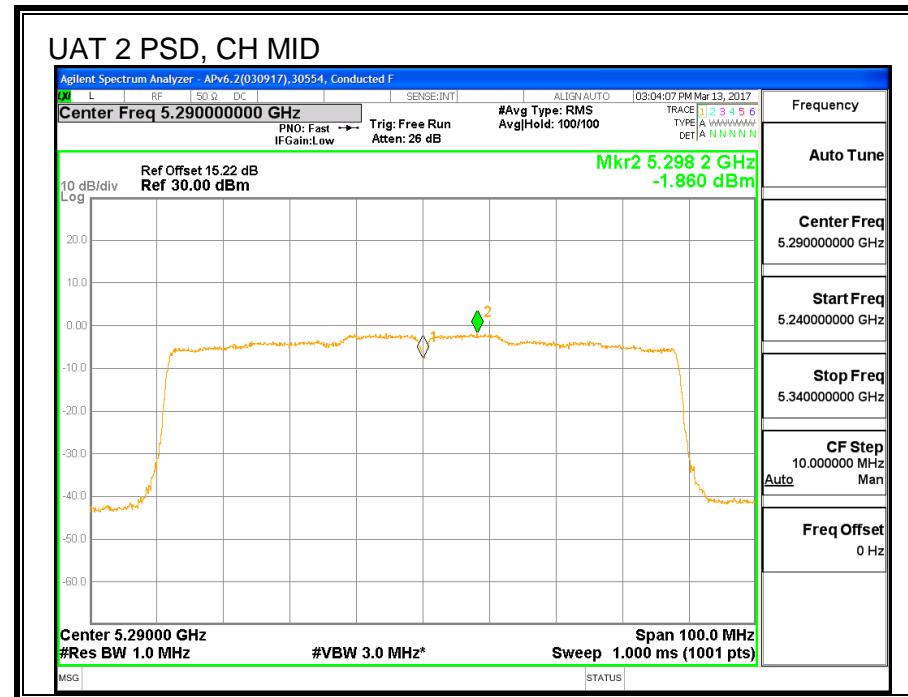
Duty Cycle CF (dB)	0.20	Included in Calculations of Corr'd PSD
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### Output Power Results

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	14.36	14.44	17.41	24.00	-6.59

### 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)
Mid	5290	-1.860	-1.557	1.50	11.00	-9.50



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

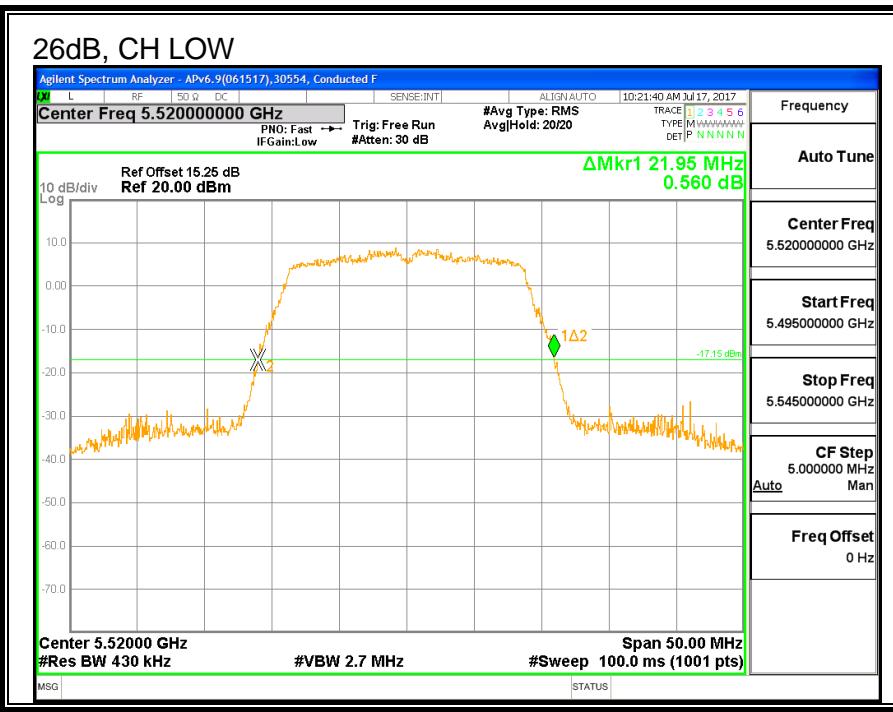
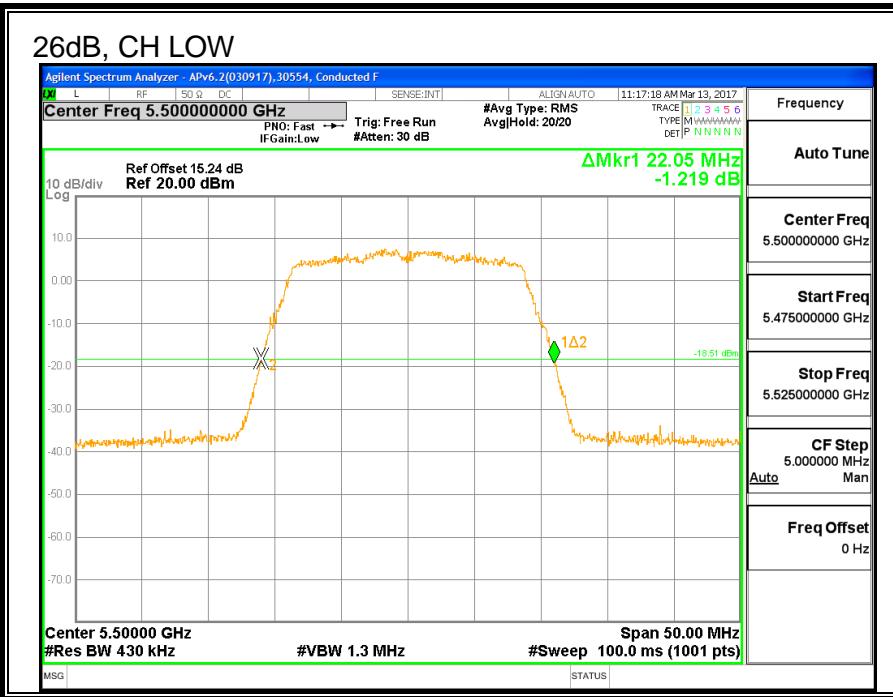
### 8.19.1. 26 dB BANDWIDTH

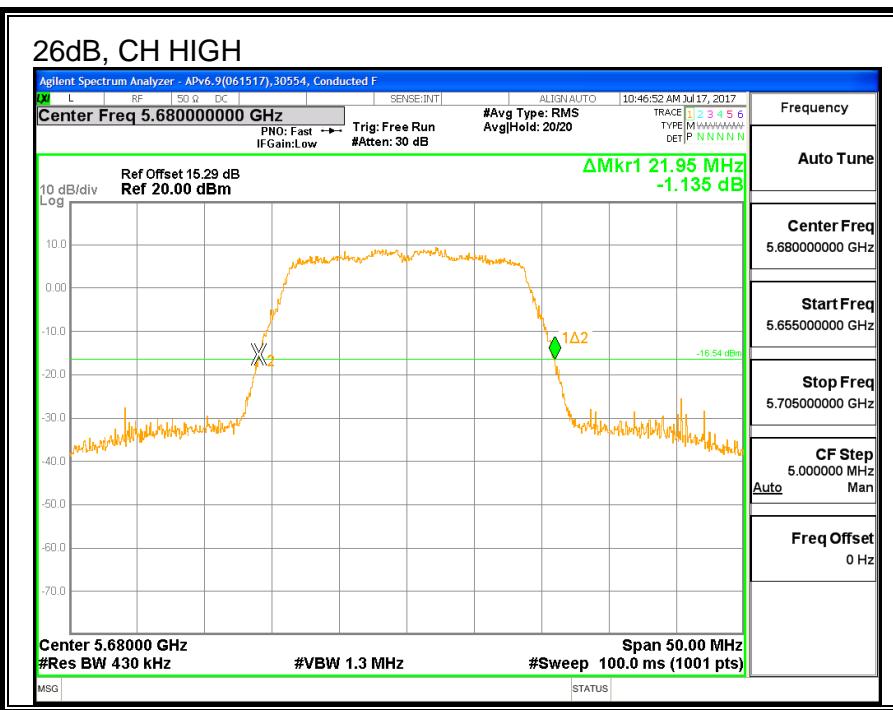
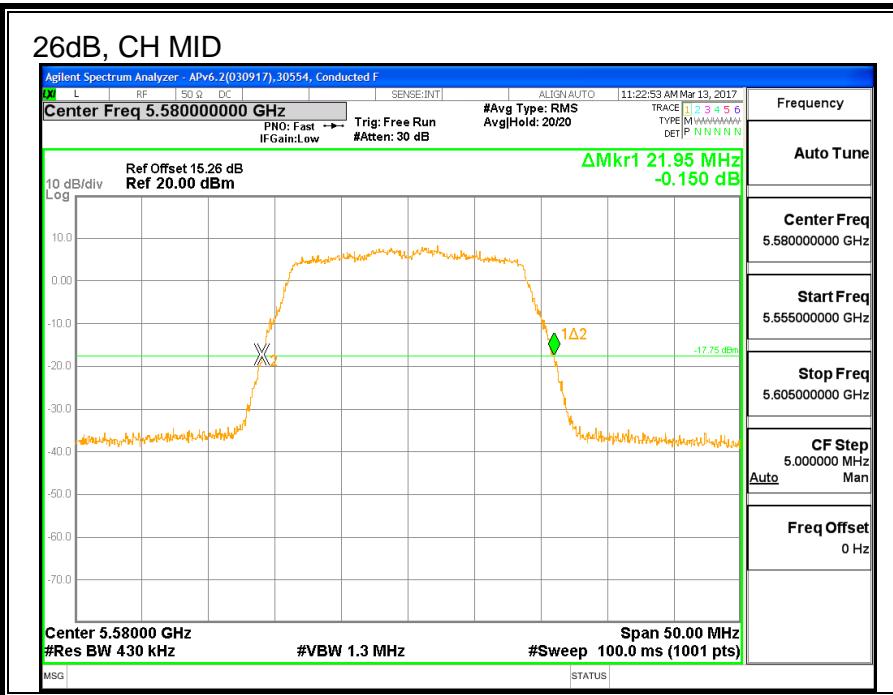
#### LIMITS

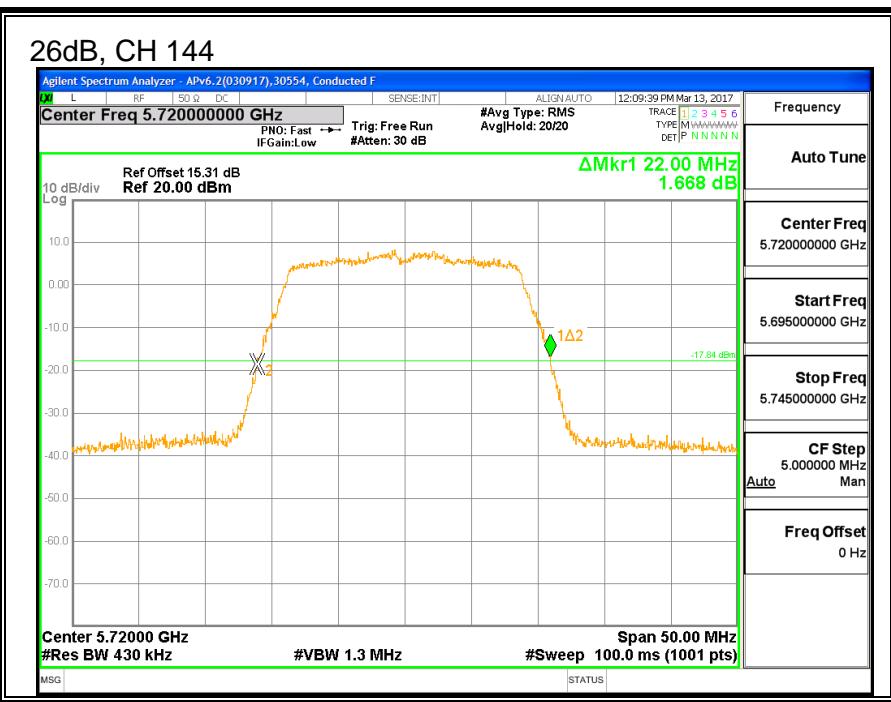
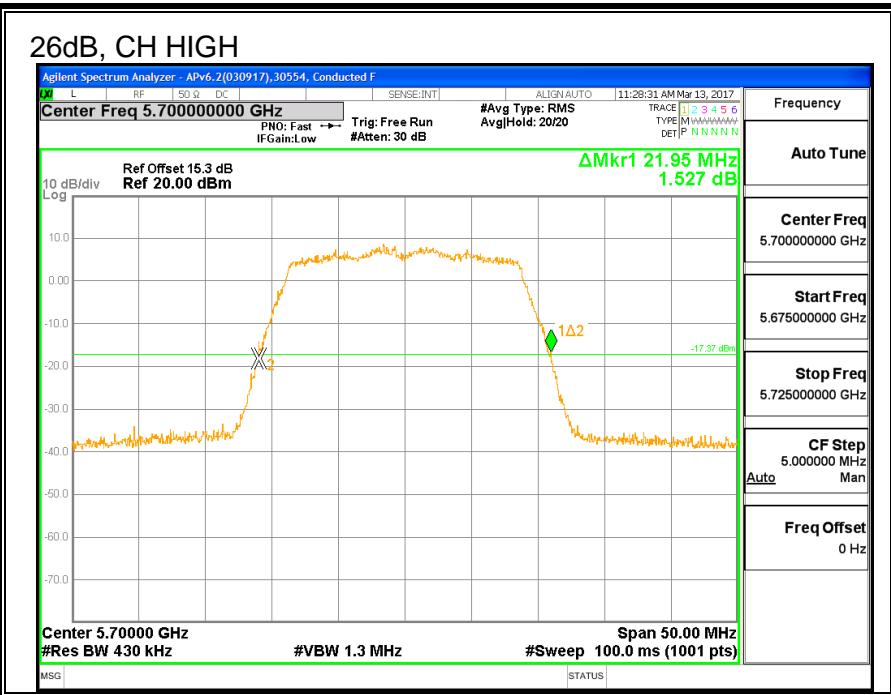
None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)
Low	5500	22.05
Low	5520	21.95
Mid	5580	21.95
High	5680	21.95
High	5700	21.95
144	5720	22.00







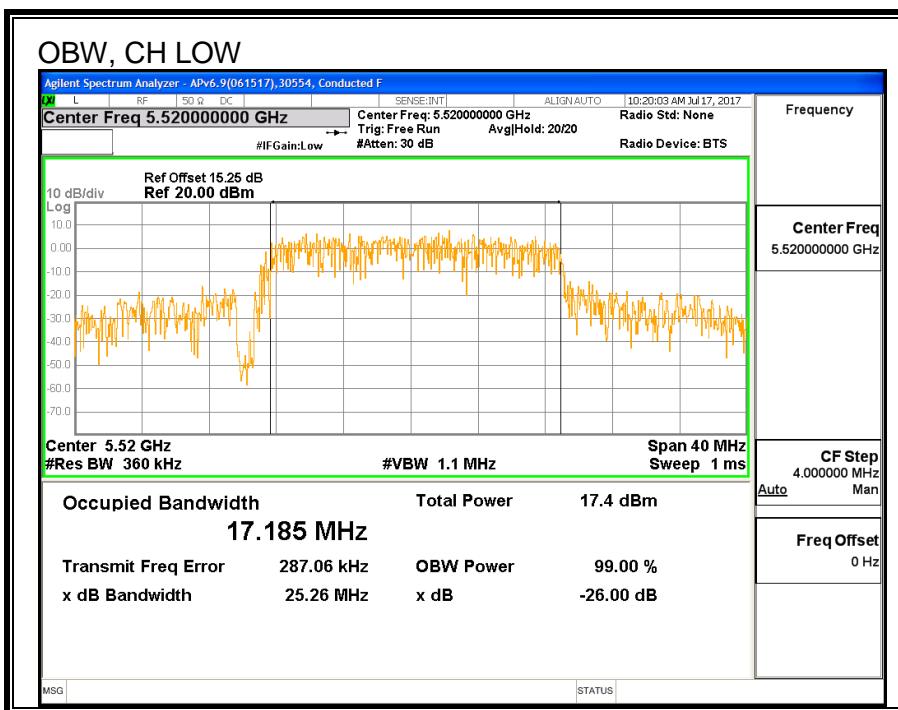
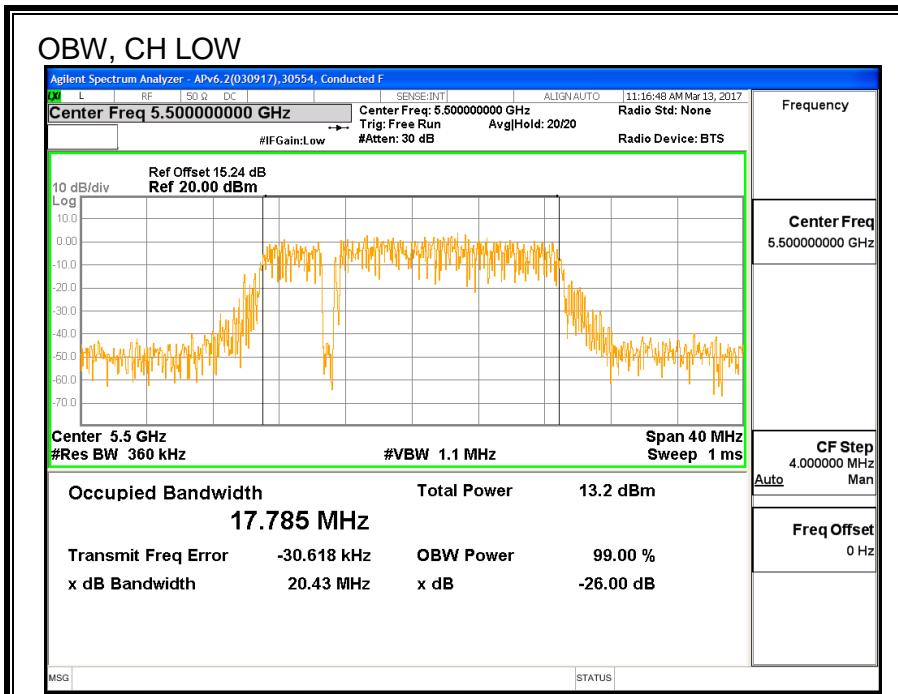
## 8.19.2. 99% BANDWIDTH

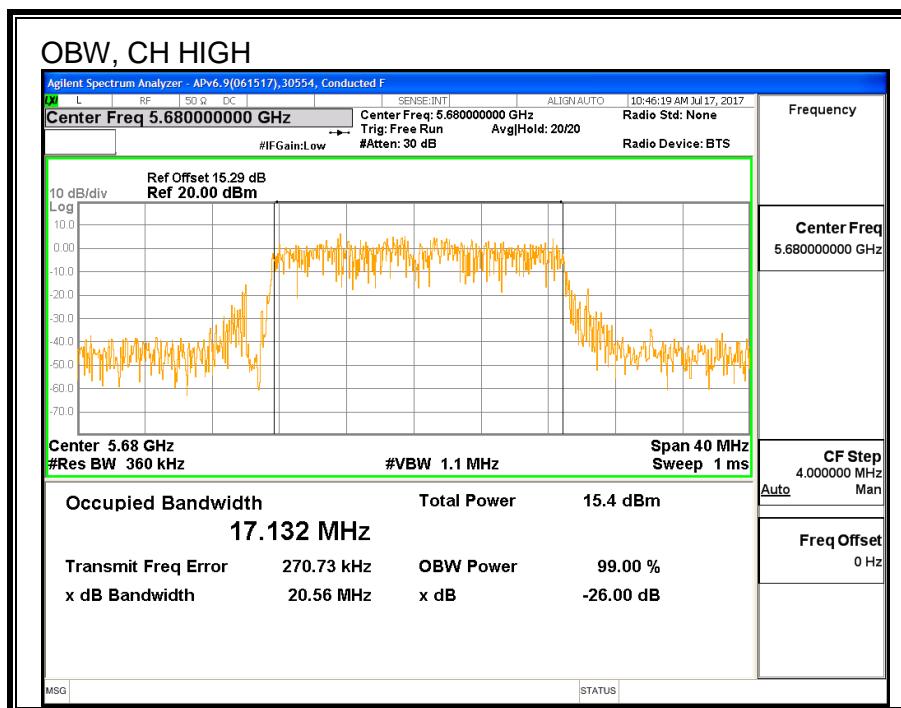
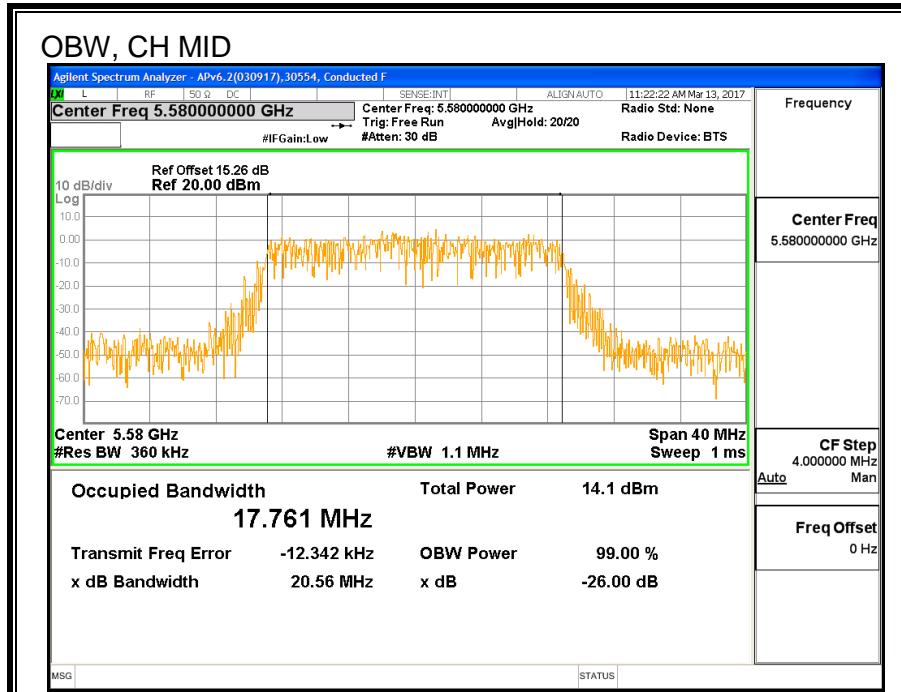
### LIMITS

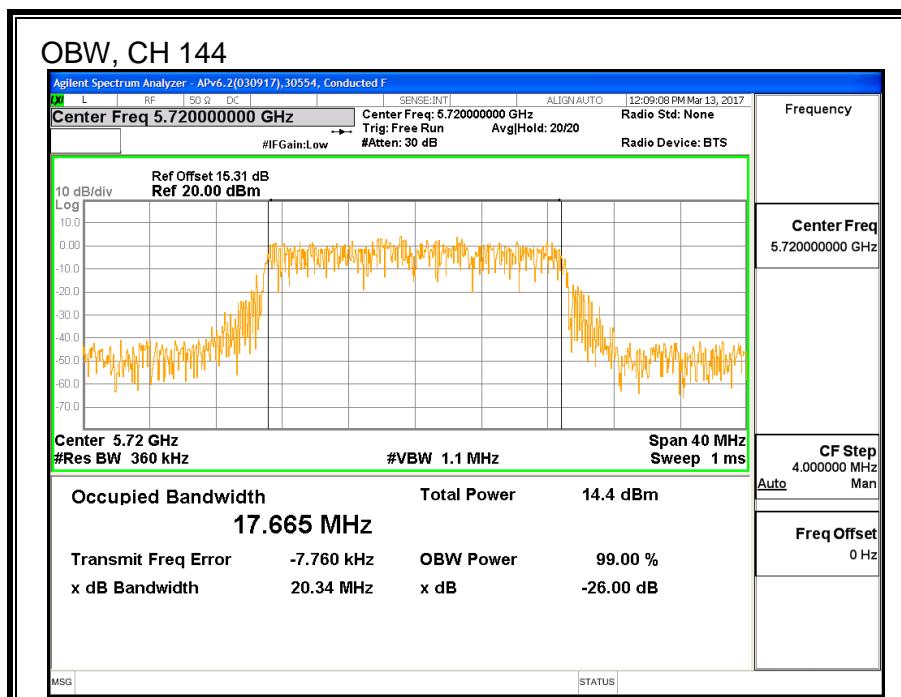
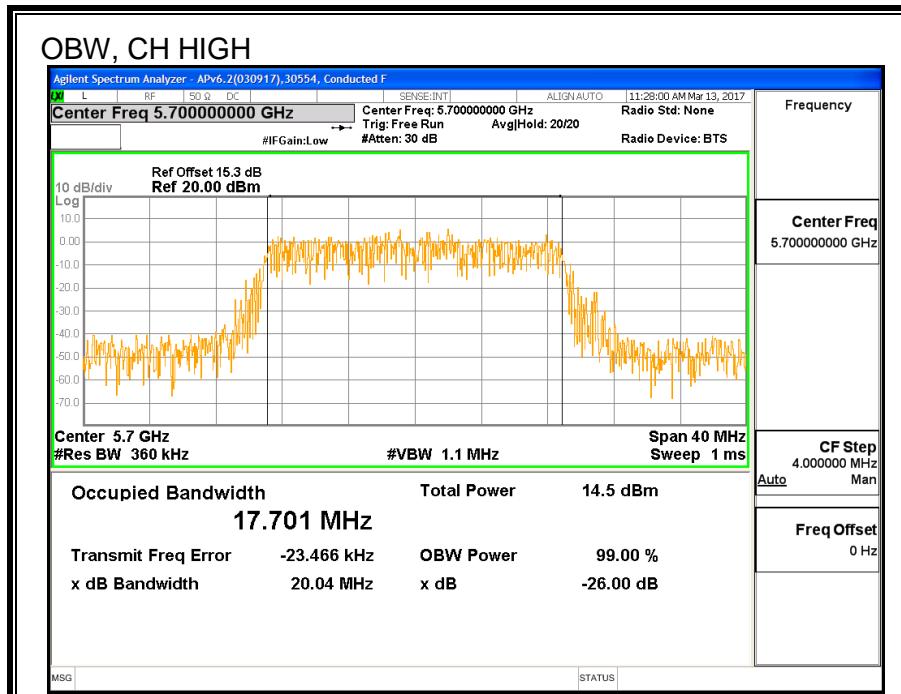
None; for reporting purposes only.

### RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)
Low	5500	17.785
Low	5520	17.185
Mid	5580	17.761
High	5680	17.132
High	5700	17.701
144	5720	17.665







### 8.19.3. AVERAGE POWER

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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	5500	16.97
Low	5520	19.44
Mid	5580	20.80
High	5680	19.47
High	5700	16.91
144	5720	20.94

## 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.

### 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	22.05	17.79	-0.75	23.50	11.00
Low	5520	21.95	17.19	-0.75	23.35	11.00
Mid	5580	21.95	17.76	-0.75	23.49	11.00
High	5680	21.95	17.13	-0.75	23.34	11.00
High	5700	21.95	17.70	-0.75	23.48	11.00

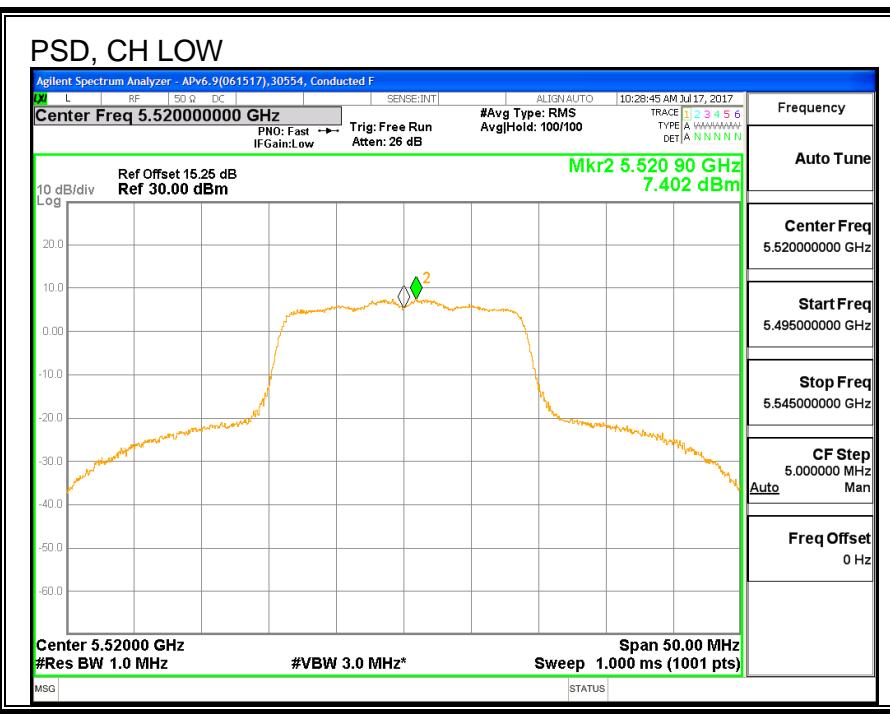
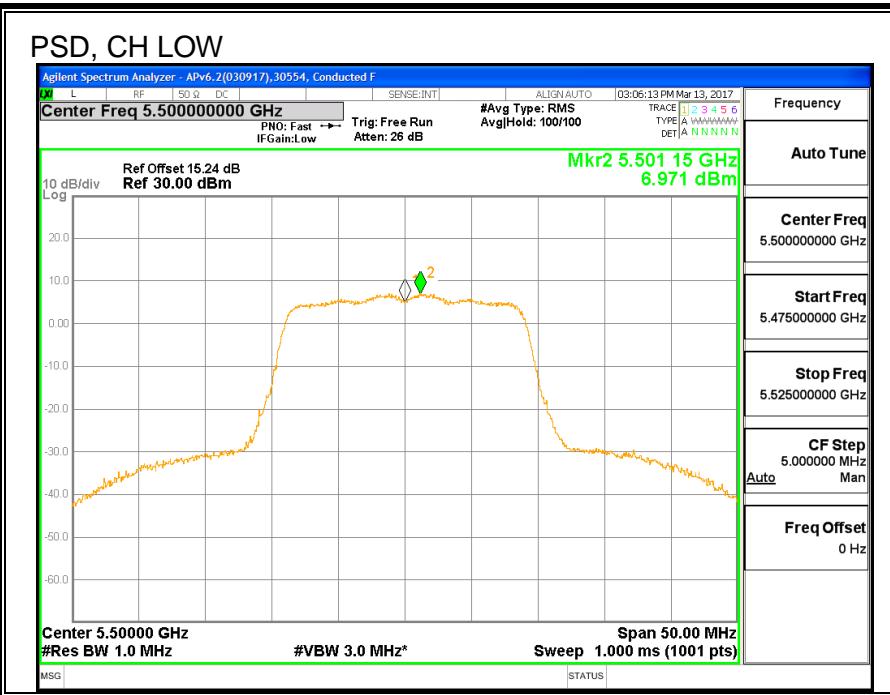
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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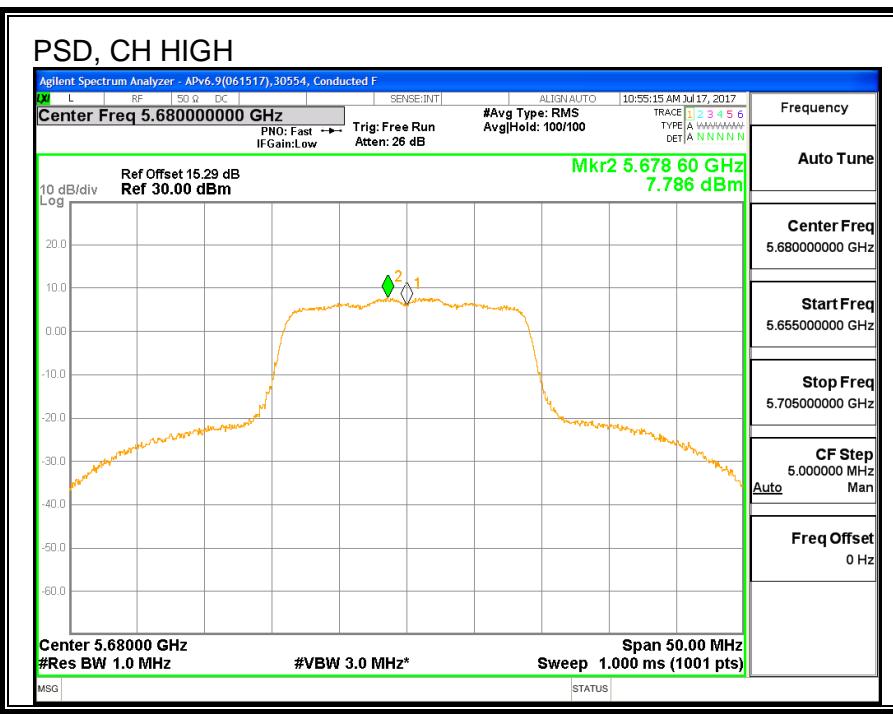
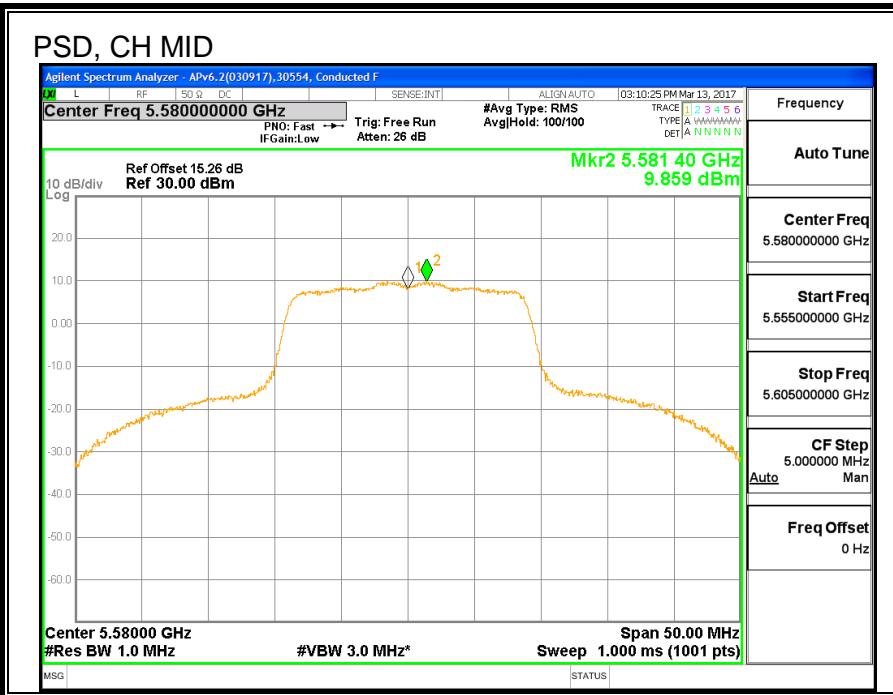
### Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	16.97	16.97	23.50	-6.53
Low	5520	19.44	19.44	23.35	-3.91
Mid	5580	20.80	20.80	23.49	-2.69
High	5680	19.47	19.47	23.34	-3.87
High	5700	16.91	16.91	23.48	-6.57

### PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	6.971	6.97	11.00	-4.03
Low	5520	7.402	7.40	11.00	-3.60
Mid	5580	9.859	9.86	11.00	-1.14
High	5680	7.786	7.79	11.00	-3.21
High	5700	6.764	6.76	11.00	-4.24







## 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	16.00	-0.75	-0.75	23.04	11.00

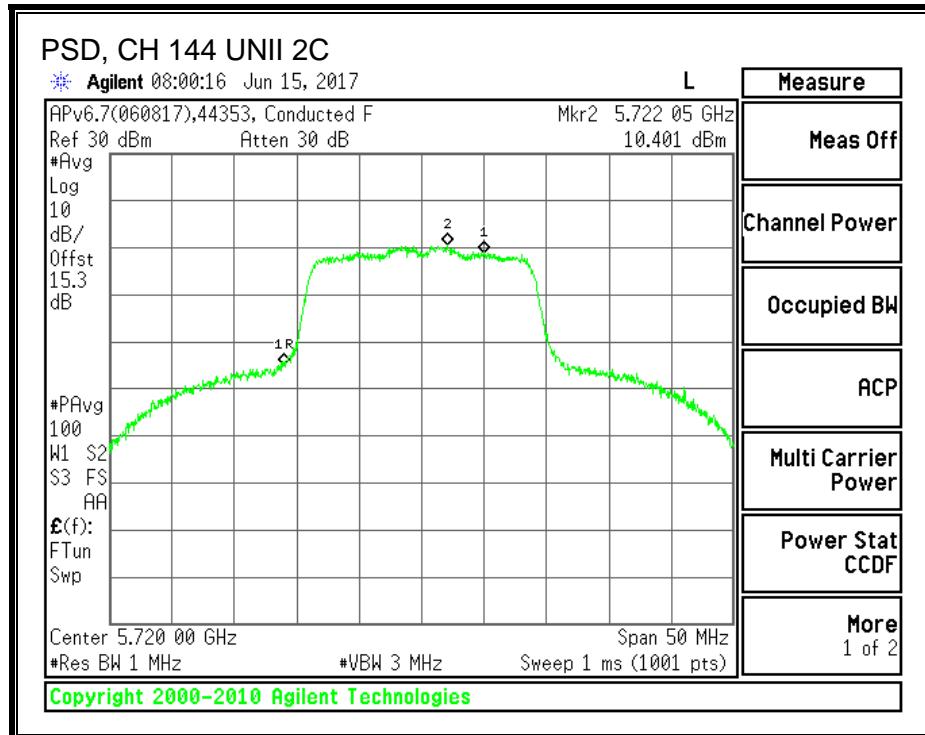
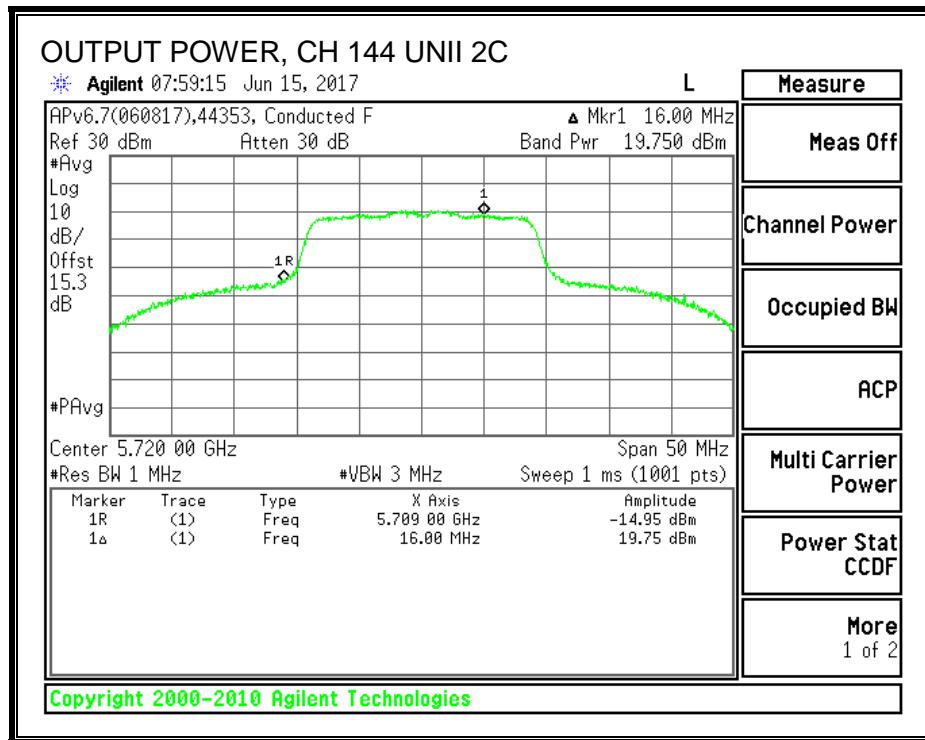
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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##### Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	19.75	19.75	23.04	-3.29

##### PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	10.40	10.40	11.00	-0.60



**UNII-3 BAND**

**Antenna Gain and Limit**

Channel	Frequency	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	6.00	0.68	30.00	30.00

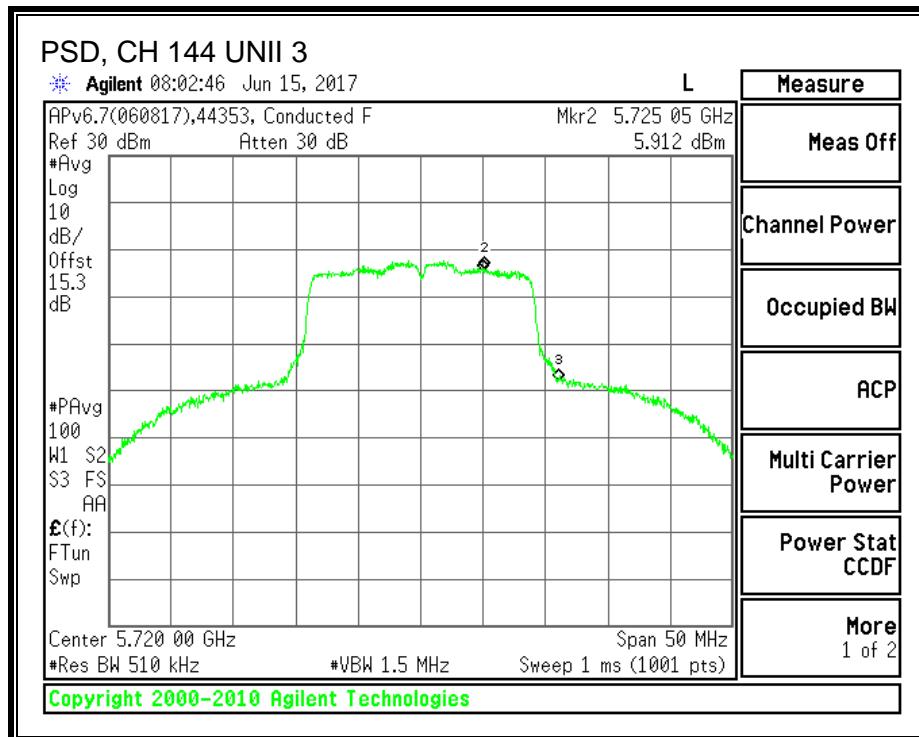
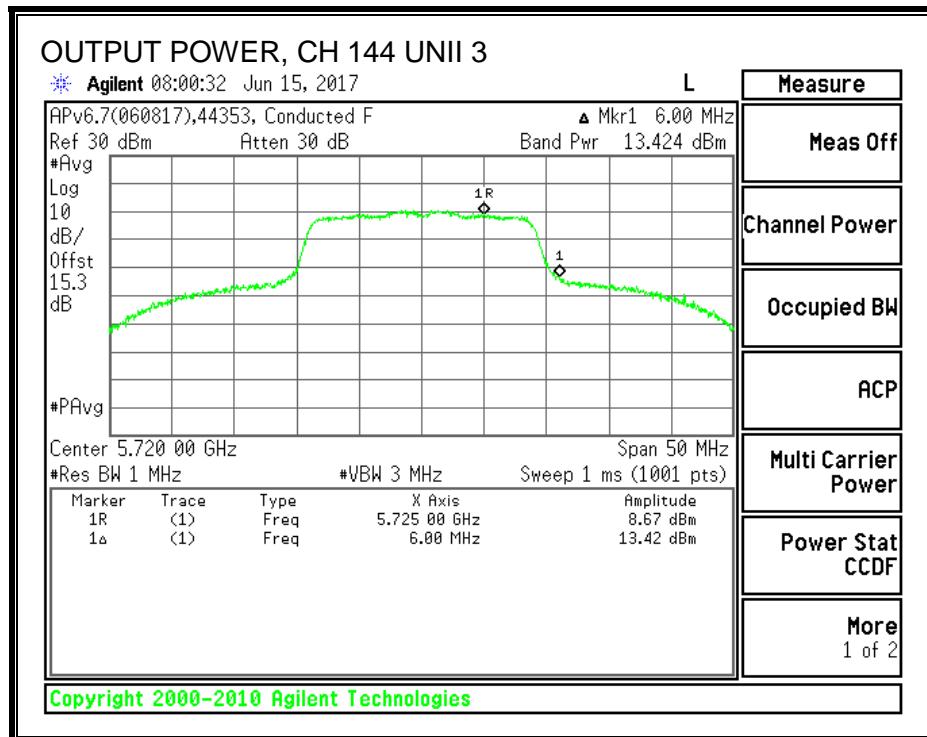
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd Power &amp; PSD</b>
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**Output Power Results**

Channel	Frequency	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	13.424	13.424	30.00	-16.58

**PSD Results**

Channel	Frequency	UAT 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	5.912	5.912	30.00	-24.09



## 8.20.2. 6 dB BANDWIDTH

### LIMITS

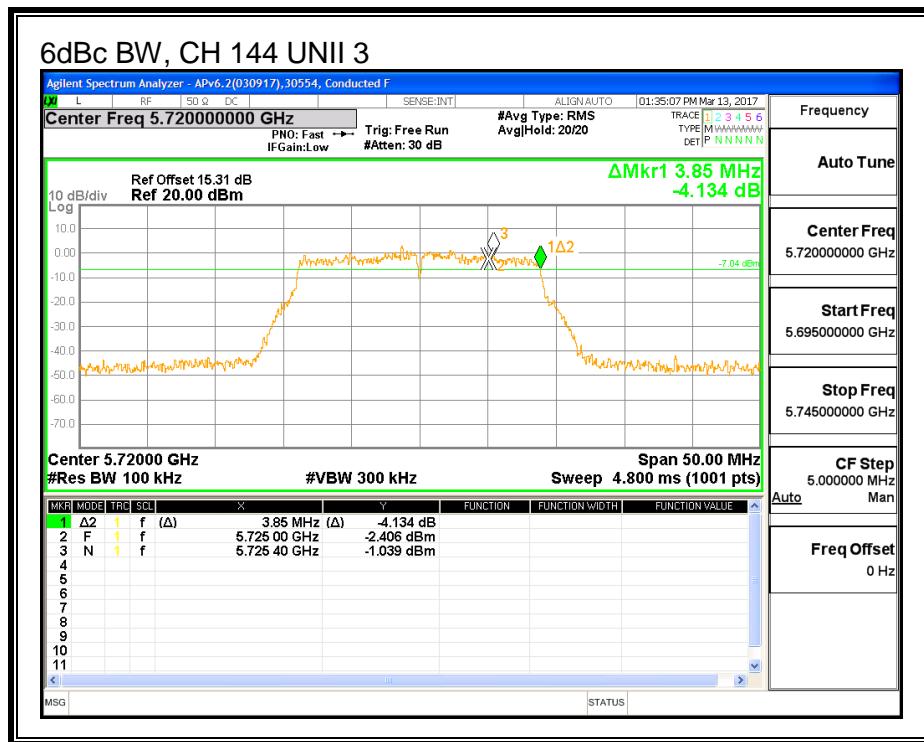
FCC §15.407 (e)

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

### RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
144	5720	3.85

### 6 dB BANDWIDTH



## 8.21. 1n HT20 LAT 3 SISO MODE IN THE 5.6GHz BAND

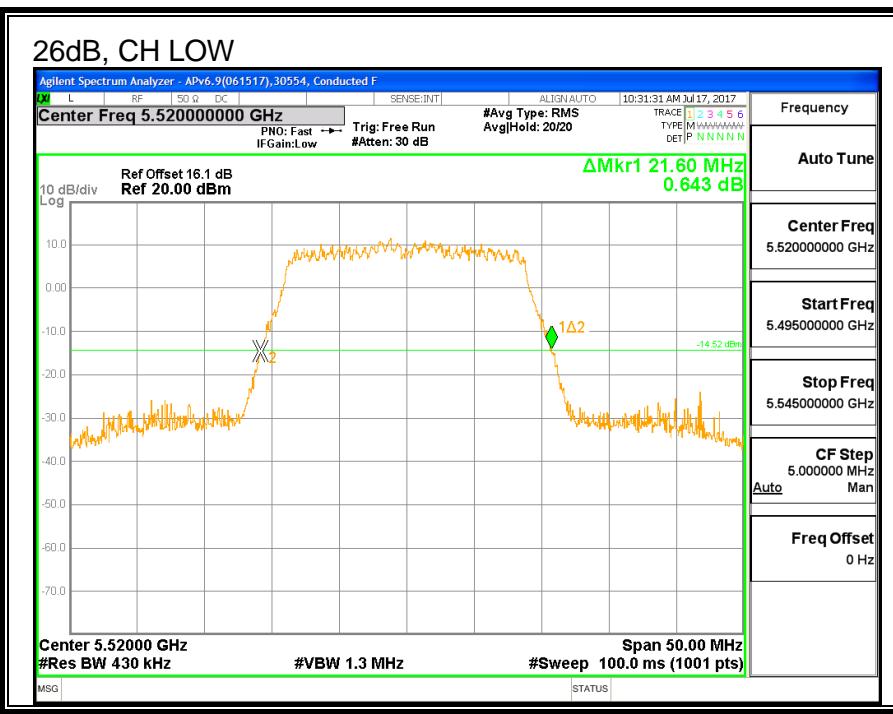
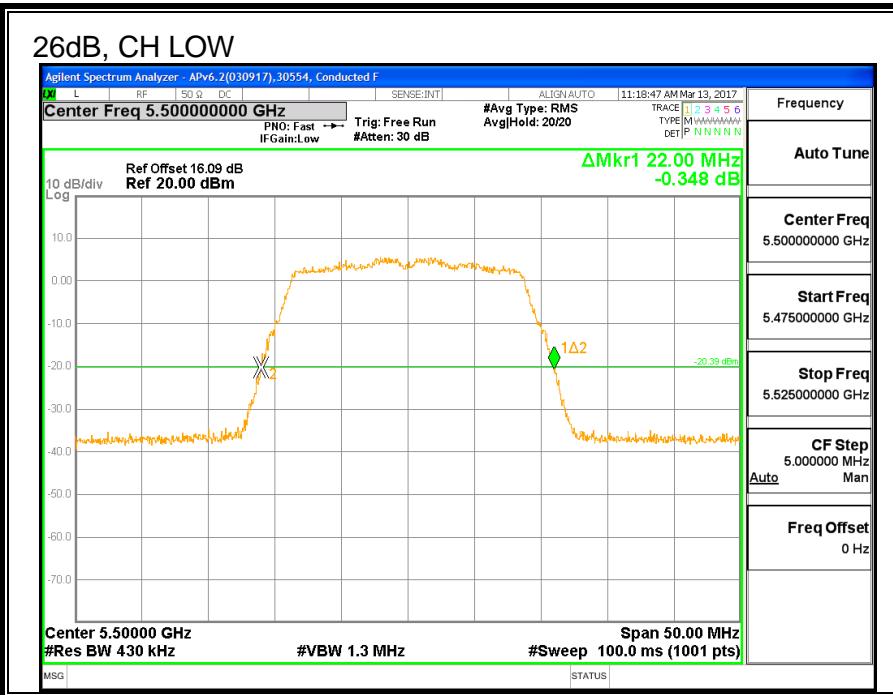
### 8.21.1. 26 dB BANDWIDTH

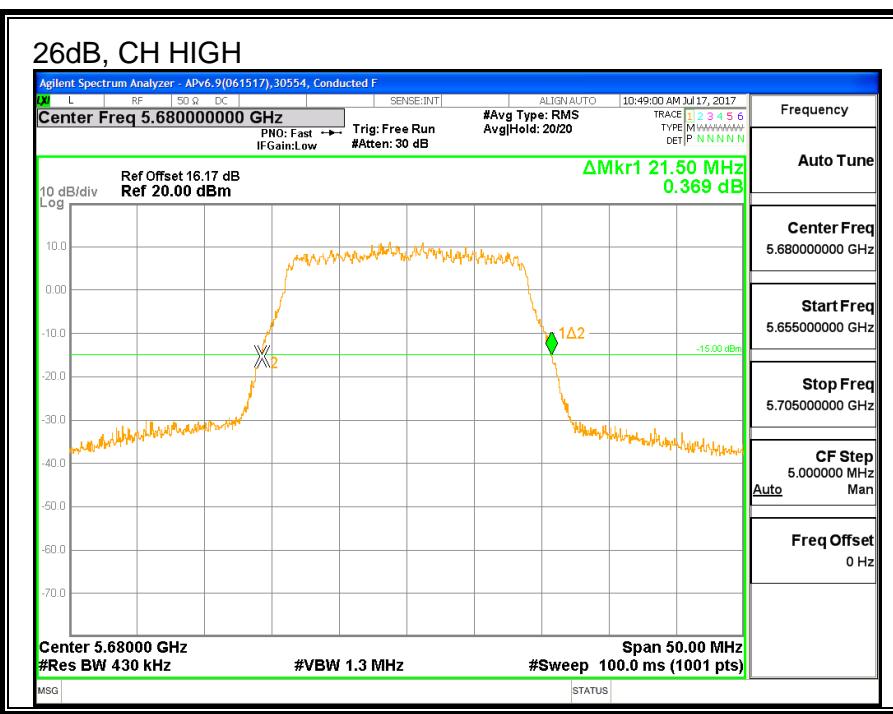
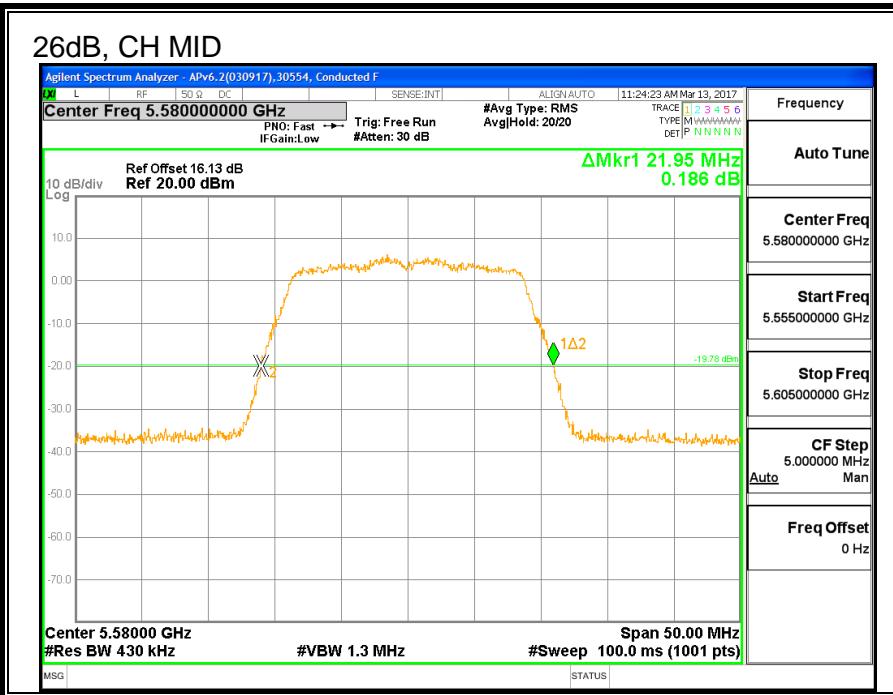
#### LIMITS

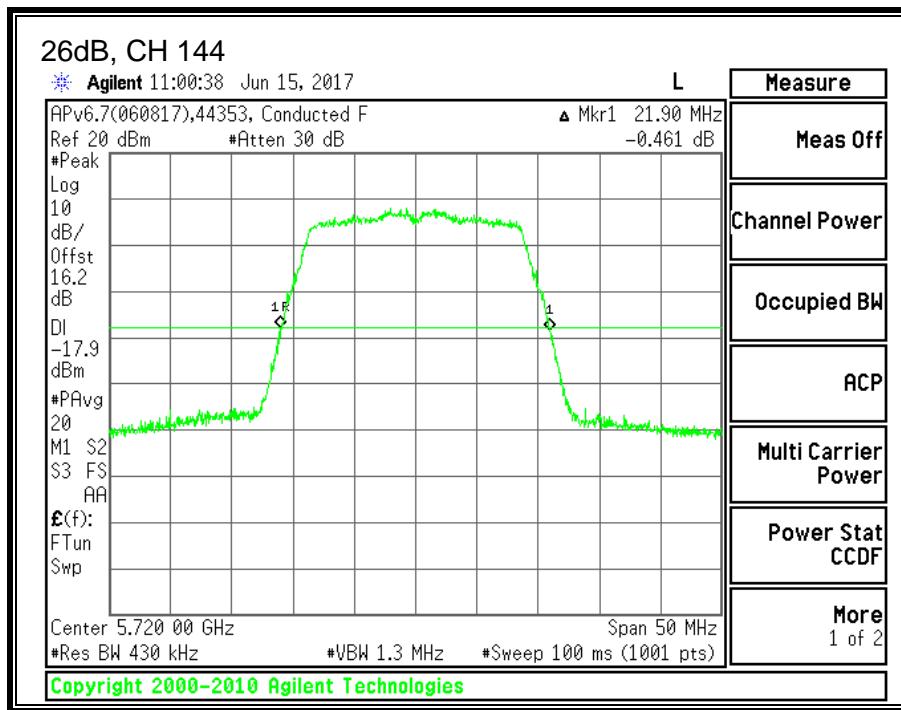
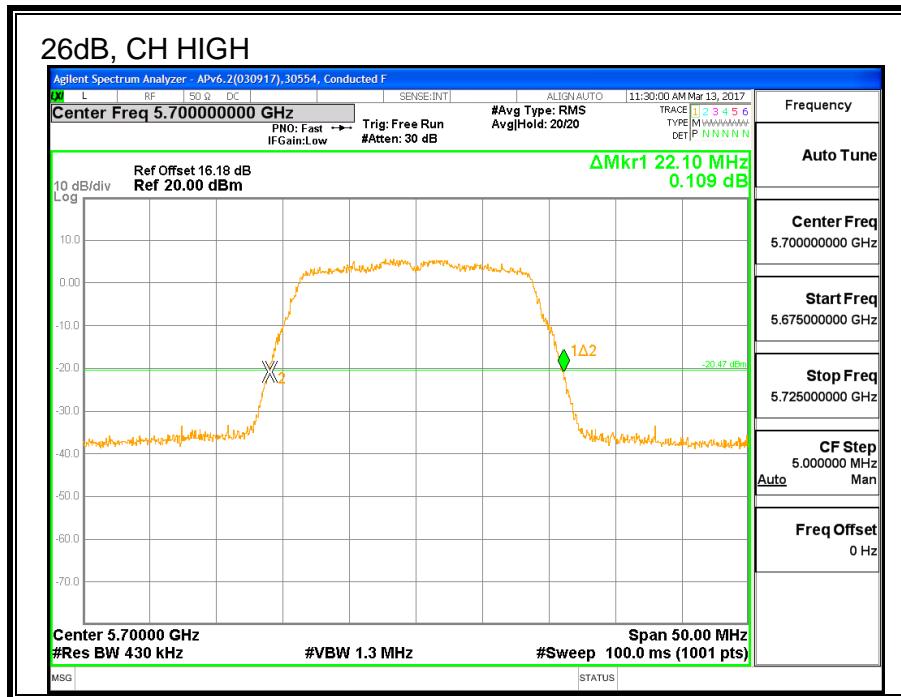
None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW LAT 3 (MHz)
Low	5500	22.00
Low	5520	21.60
Mid	5580	21.95
High	5680	21.95
High	5700	21.10
144	5720	21.90







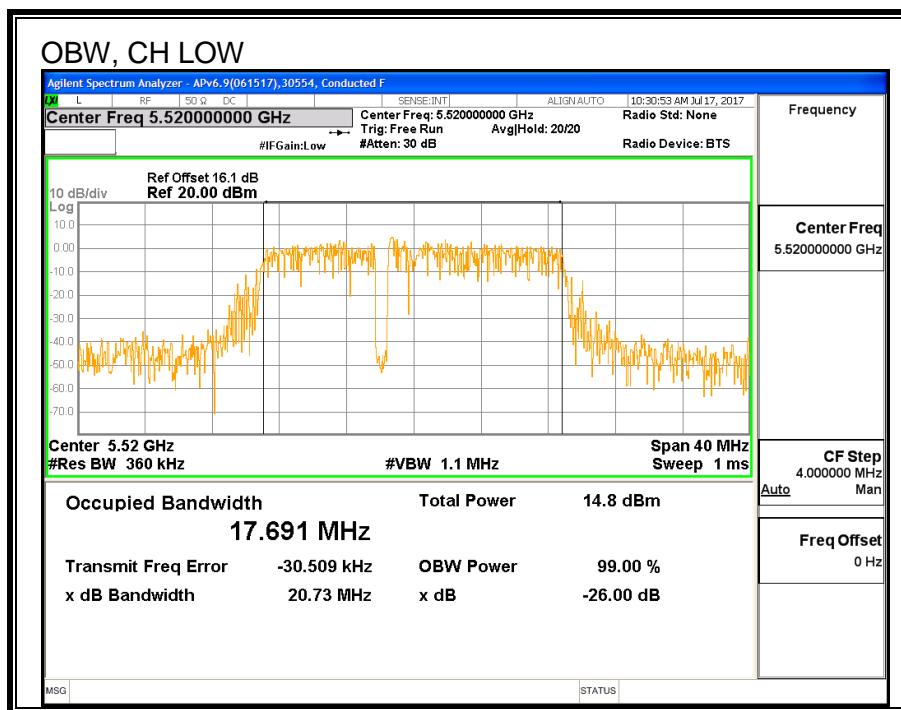
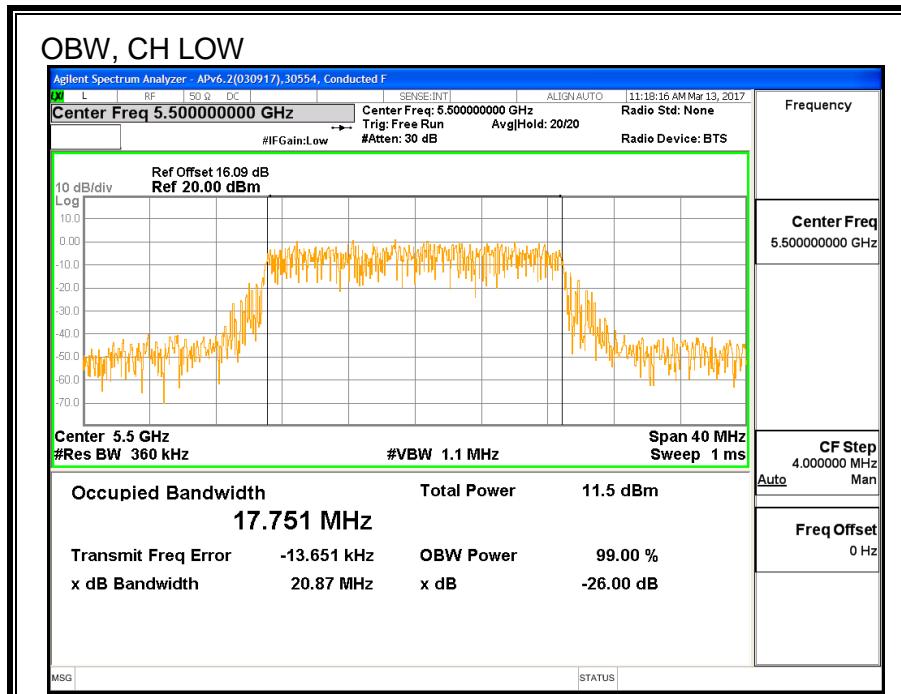
## 8.21.2. 99% BANDWIDTH

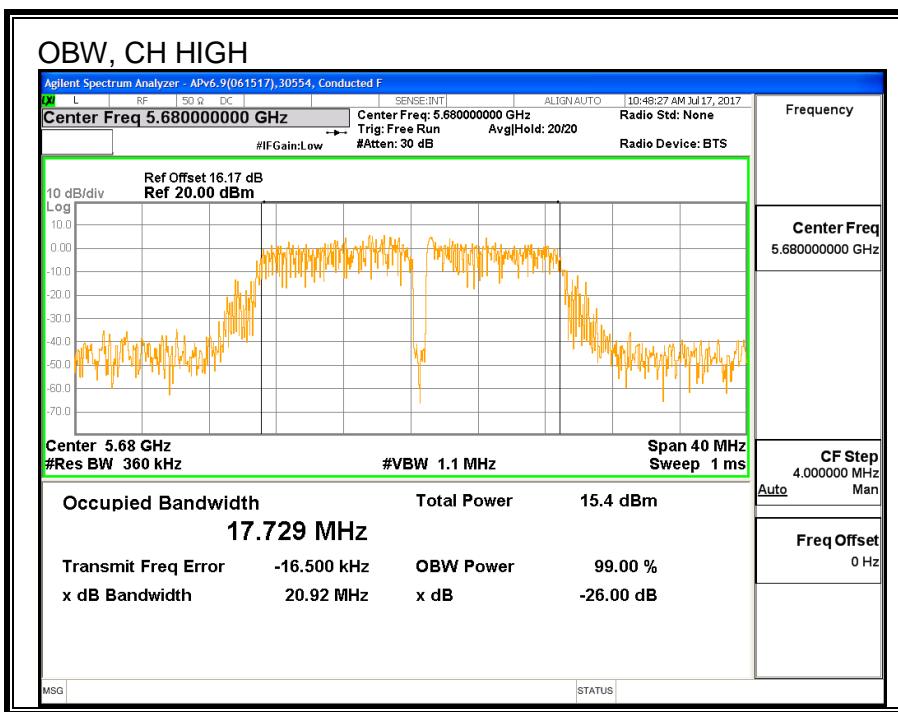
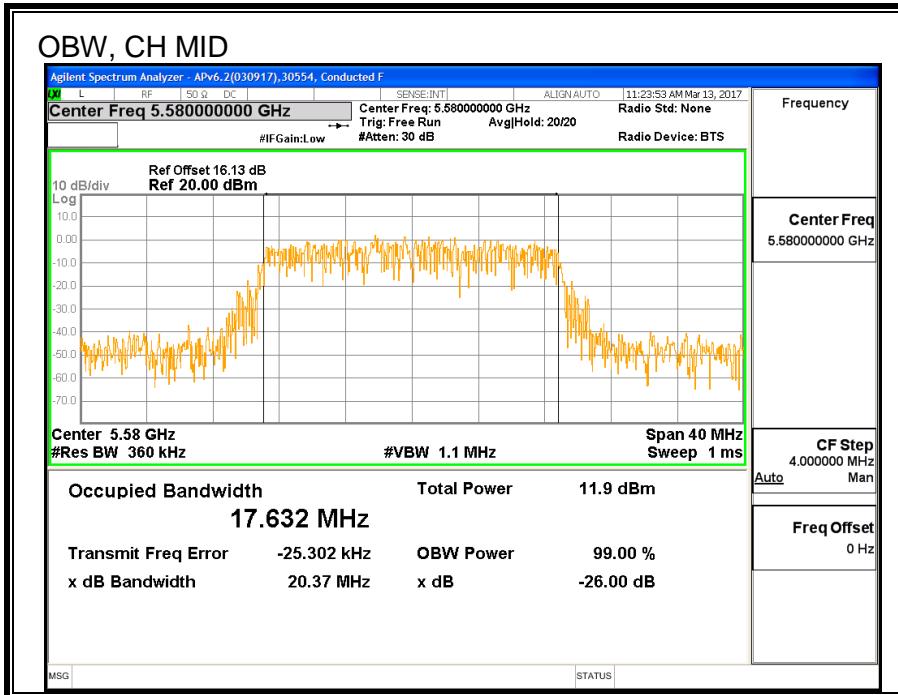
### LIMITS

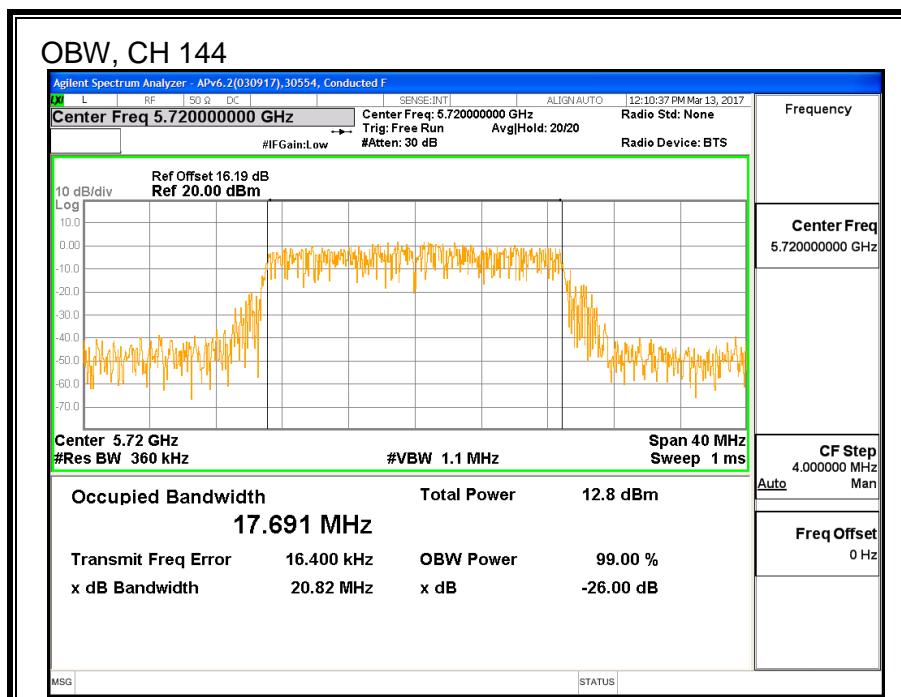
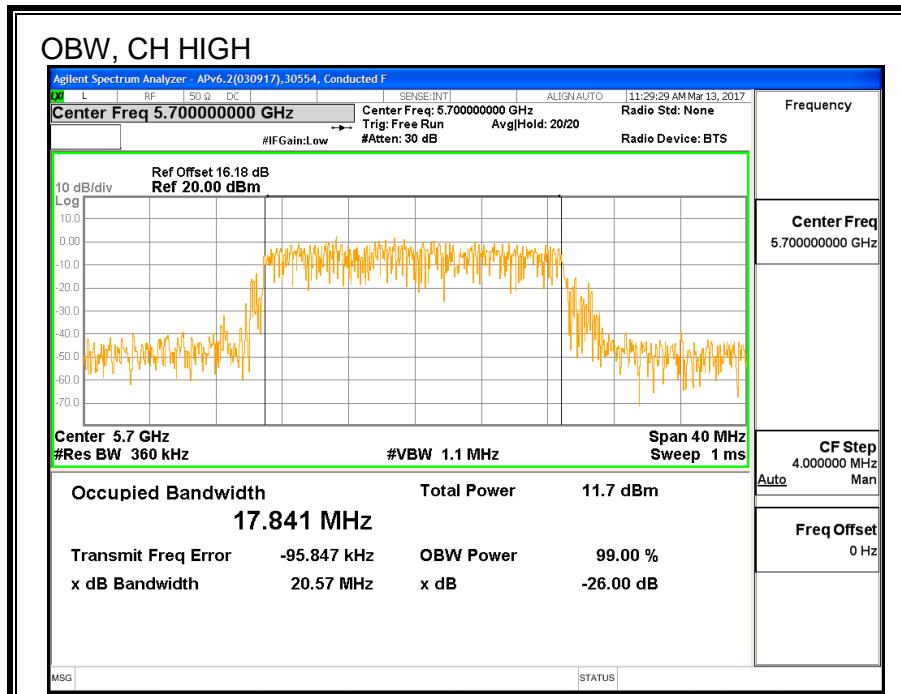
None; for reporting purposes only.

### RESULTS

Channel	Frequency	99% BW LAT 3 (MHz)
Low	5500	17.751
Low	5520	17.691
Mid	5580	17.632
High	5680	17.729
High	5700	17.841
144	5720	17.691







### 8.21.3. AVERAGE POWER

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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	5500	16.82
Low	5520	19.45
Mid	5580	20.93
High	5680	19.49
High	5700	16.90
144	5720	20.86

## 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  $11 \text{ dBm} + 10 \log B$ , where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

### TEST PROCEDURE

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

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

### DIRECTIONAL ANTENNA GAIN

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

## RESULTS

### Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5500	22.00	17.75	-0.96	23.49	11.00
Low	5520	21.60	17.69	-0.96	23.48	11.00
Mid	5580	21.95	17.63	-0.96	23.46	11.00
High	5680	21.95	17.73	-0.96	23.49	11.00
High	5700	21.10	17.84	-0.96	23.51	11.00

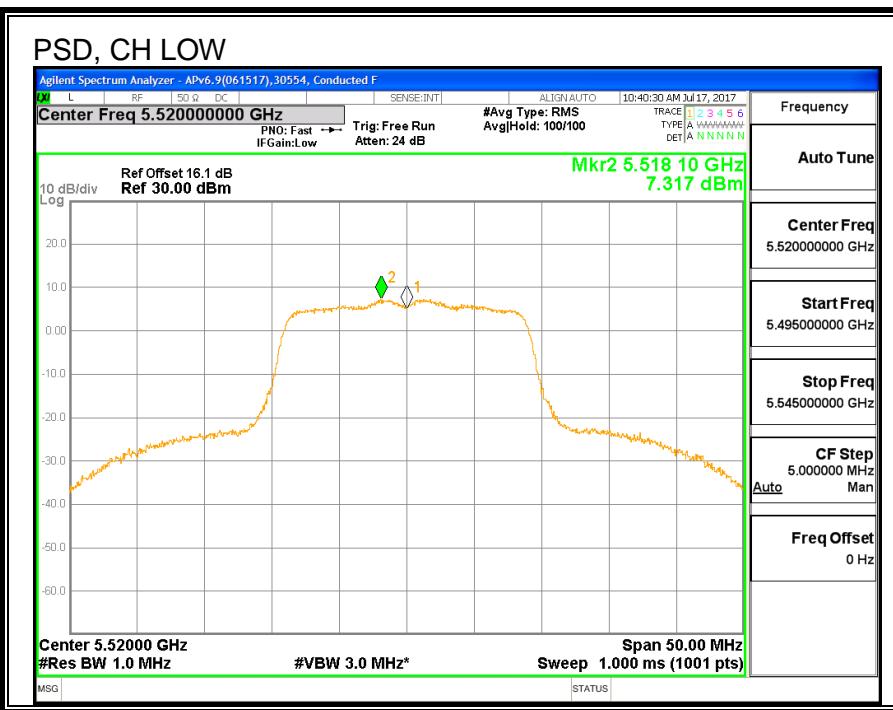
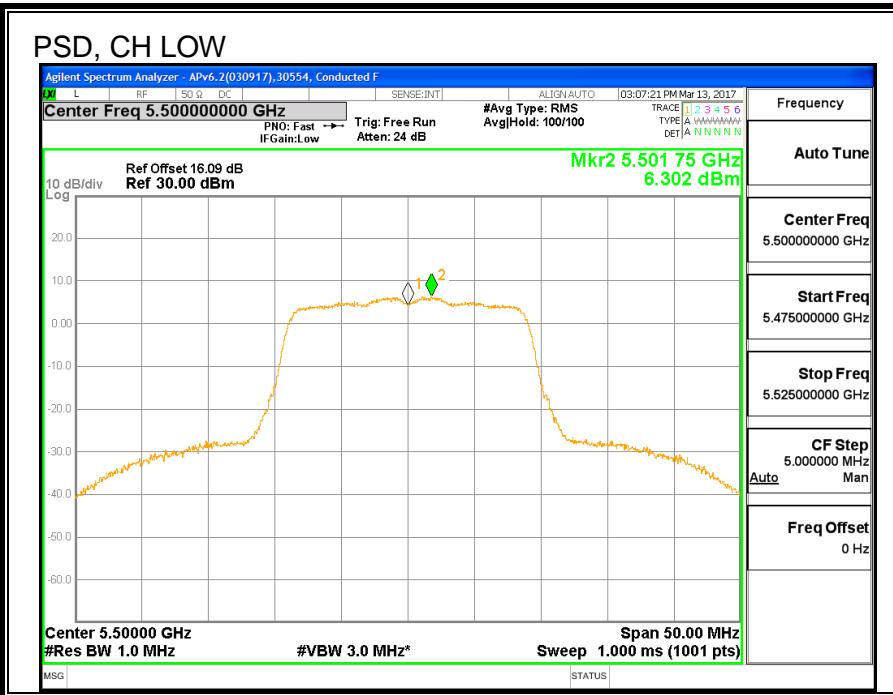
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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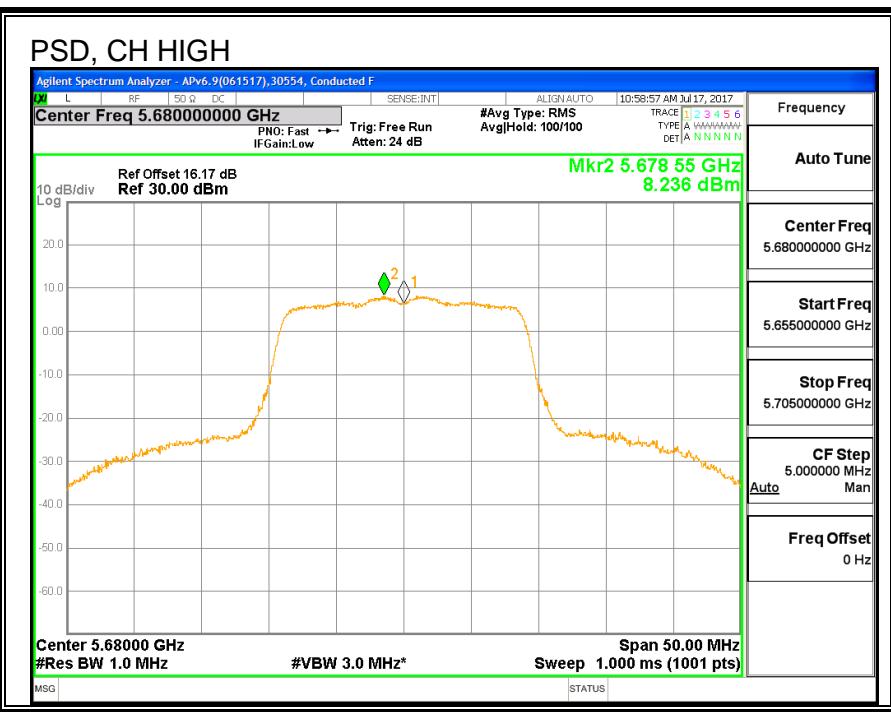
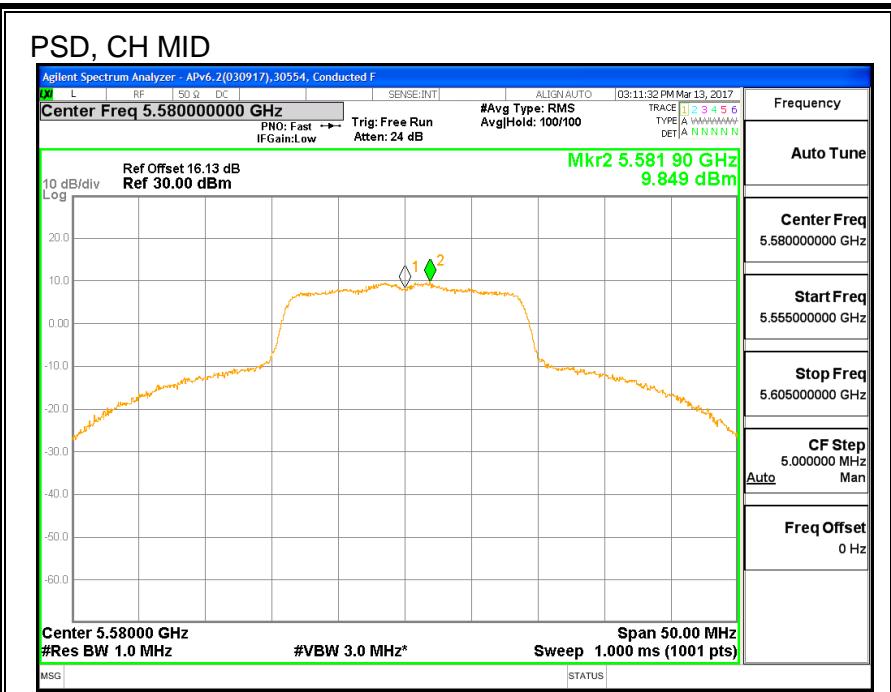
### Output Power Results

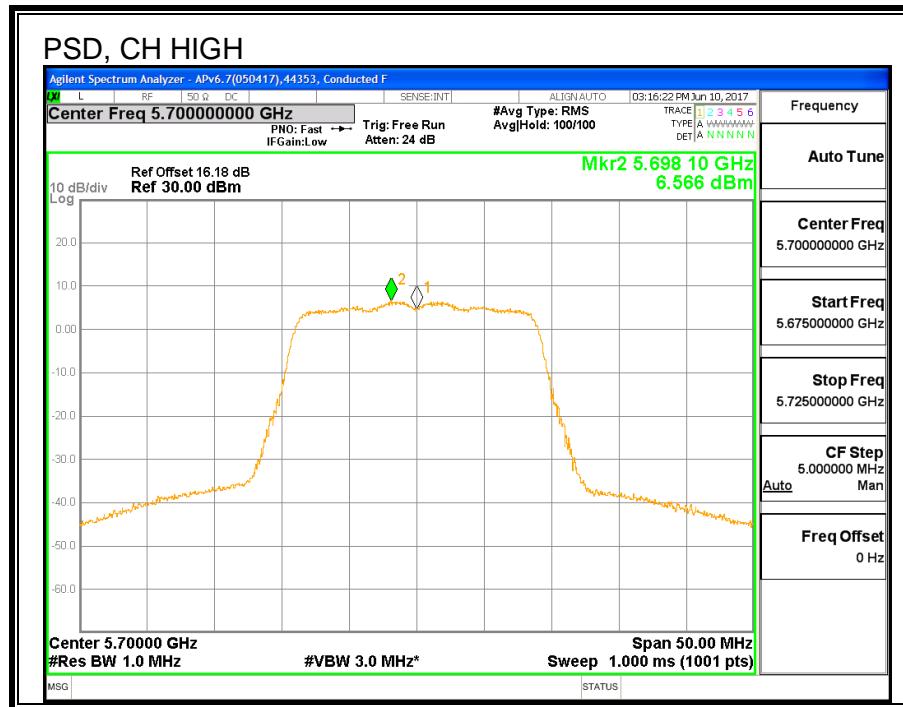
Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	16.82	16.82	23.49	-6.67
Low	5520	19.45	19.45	23.48	-4.03
Mid	5580	20.93	20.93	23.46	-2.53
High	5680	19.49	19.49	23.49	-4.00
High	5700	16.90	16.90	23.51	-6.61

### PSD Results

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	6.302	6.302	11.00	-4.70
Low	5520	7.317	7.317	11.00	-3.68
Mid	5580	9.849	9.849	11.00	-1.15
High	5680	8.236	8.236	11.00	-2.76
High	5700	6.566	6.566	11.00	-4.43







## 8.22. 11ac HT20 LAT 3 SISO STRADDLE CHANNEL 144

### 8.22.1. OUTPUT POWER AND PSD

#### UNII-2C BAND

##### Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	15.95	-0.96	-0.96	23.03	11.00

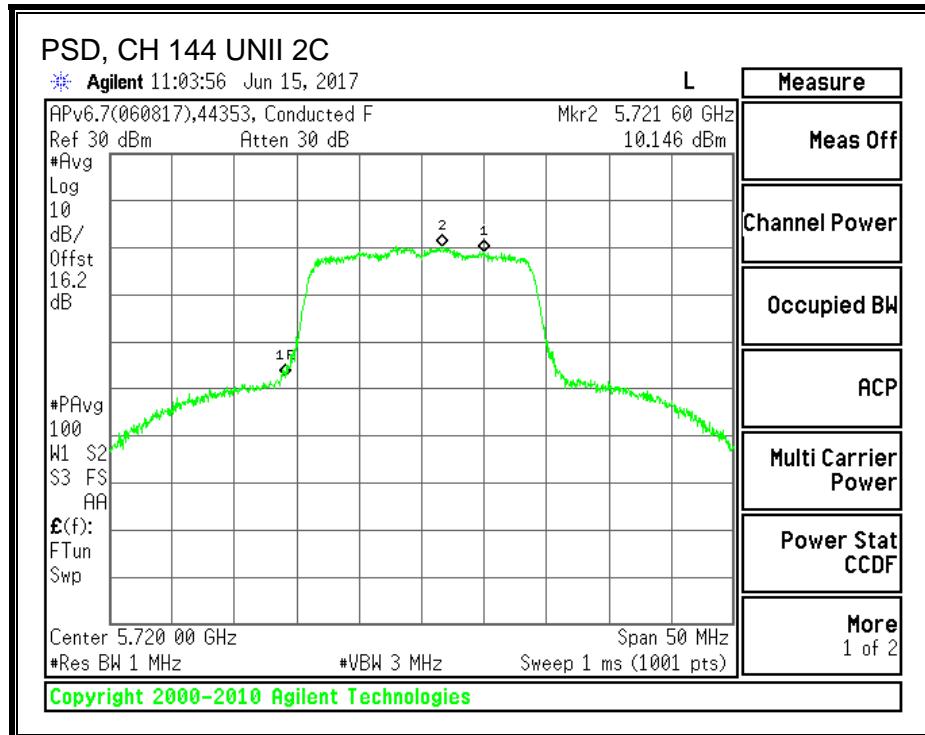
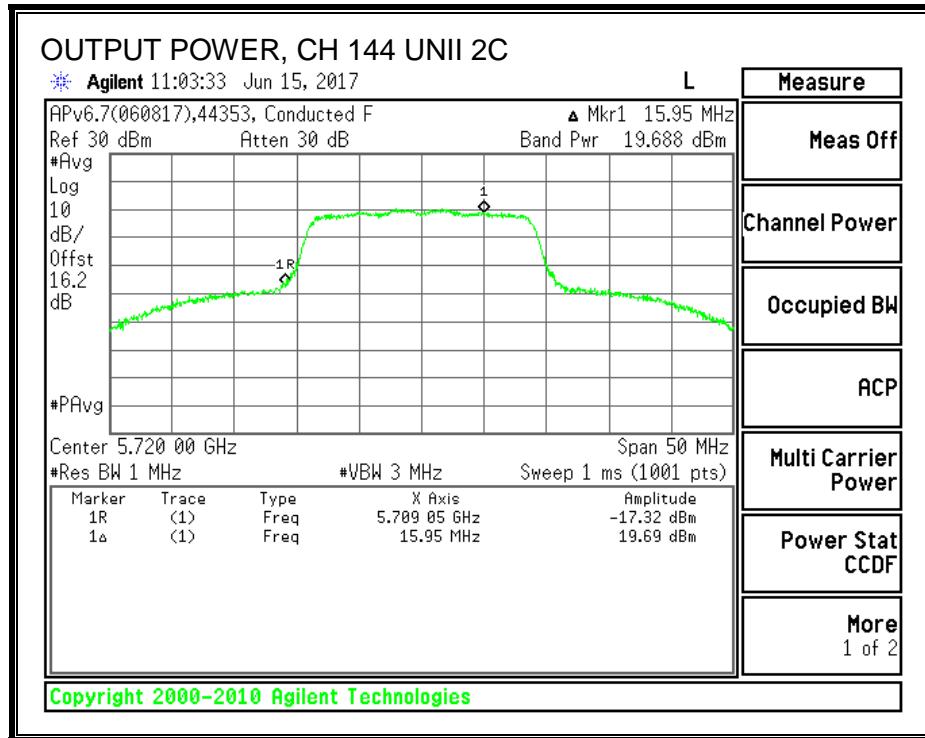
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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##### Output Power Results

Channel	Frequency (MHz)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	19.69	19.69	23.03	-3.34

##### PSD Results

Channel	Frequency (MHz)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	10.15	10.15	11.00	-0.85



**UNII-3 BAND**

**Antenna Gain and Limit**

Channel	Frequency	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	5.95	-0.93	30.00	30.00

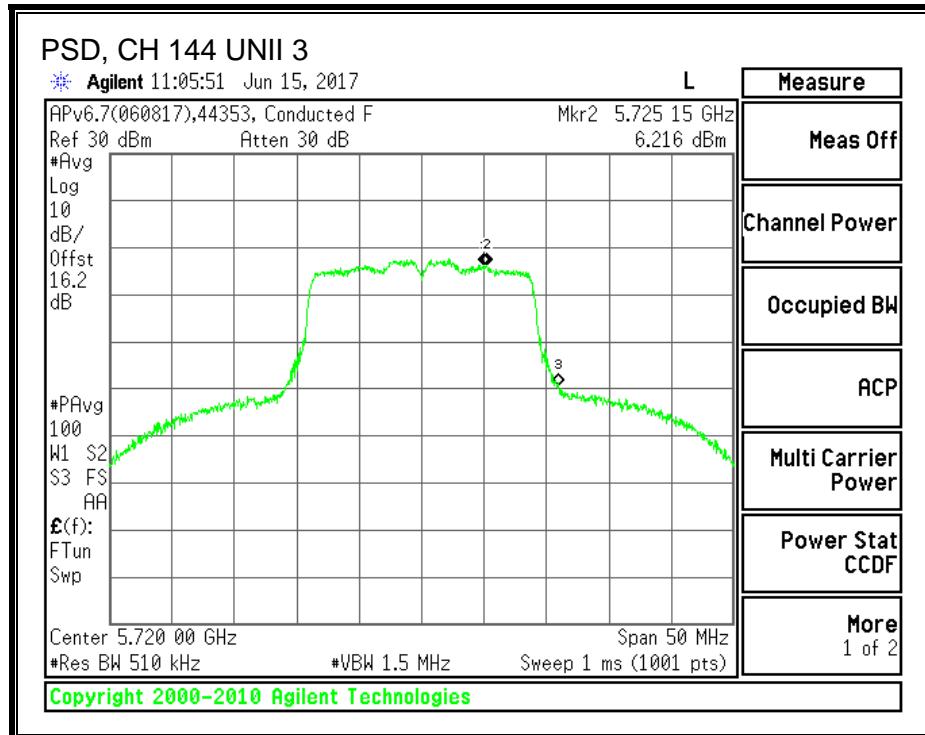
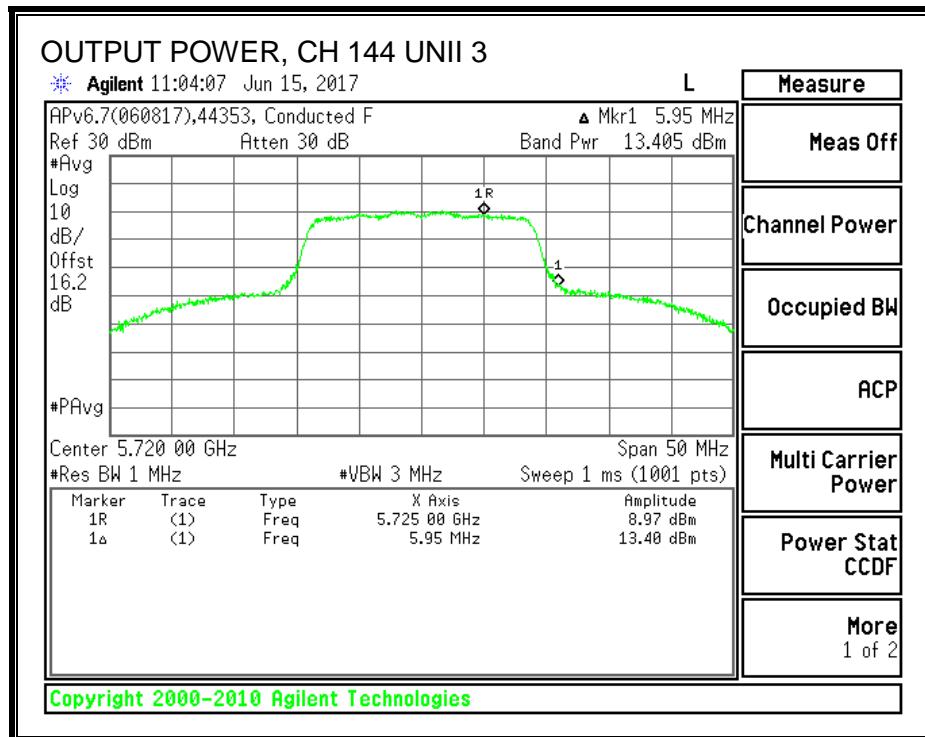
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd Power &amp; PSD</b>
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**Output Power Results**

Channel	Frequency	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	13.405	13.405	30.00	-16.60

**PSD Results**

Channel	Frequency	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	6.216	6.216	30.00	-23.78



## 8.22.2. 6 dB BANDWIDTH

## LIMITS

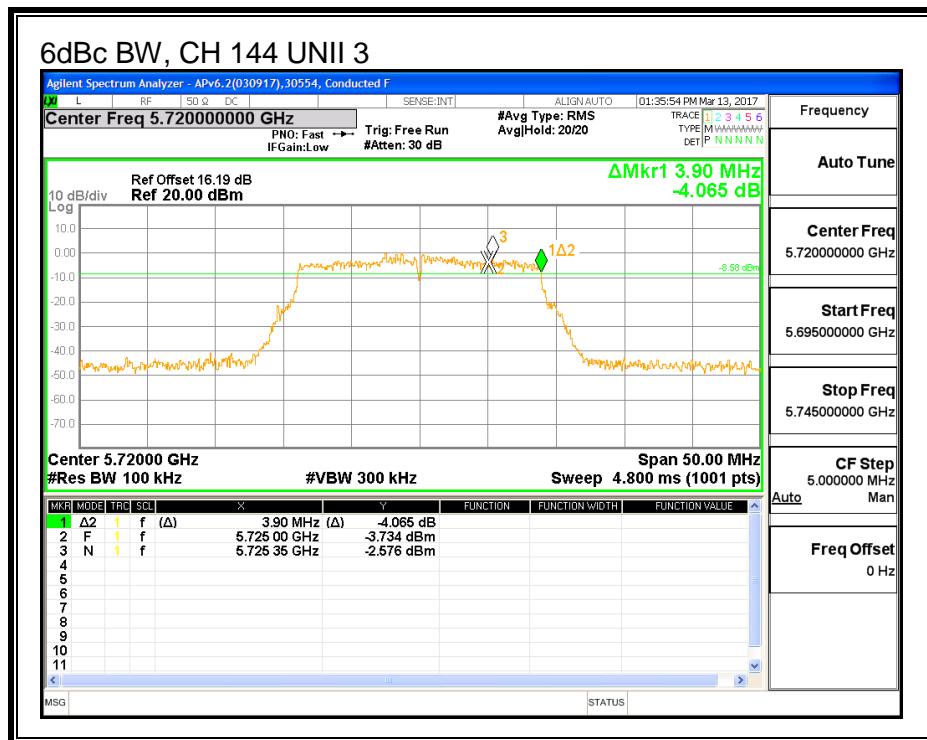
FCC §15.407 (e)

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

## **RESULTS**

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
144	5720	3.90

## 6 dB BANDWIDTH



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

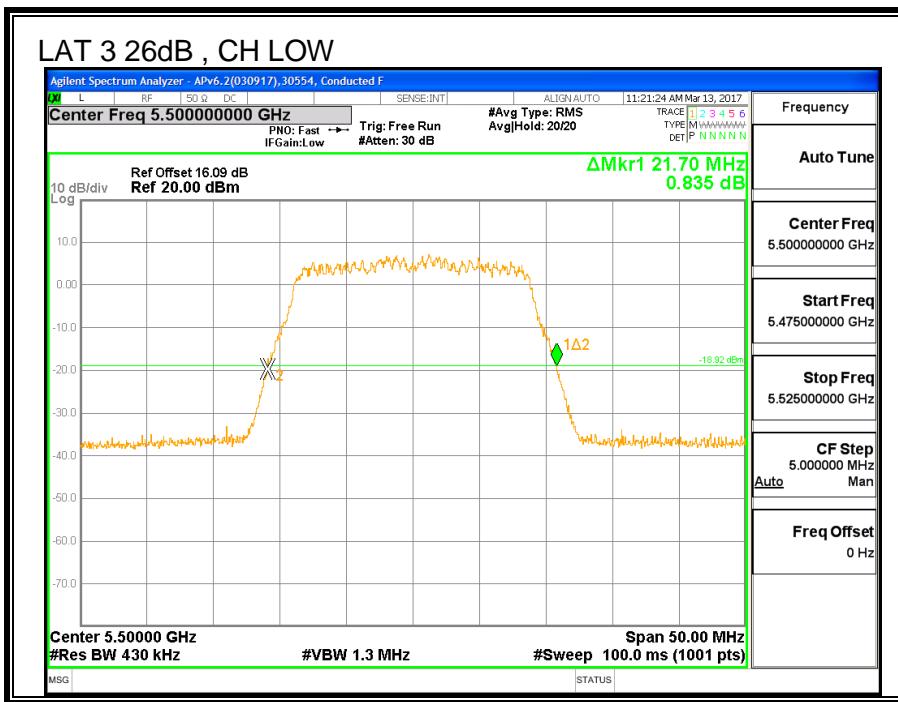
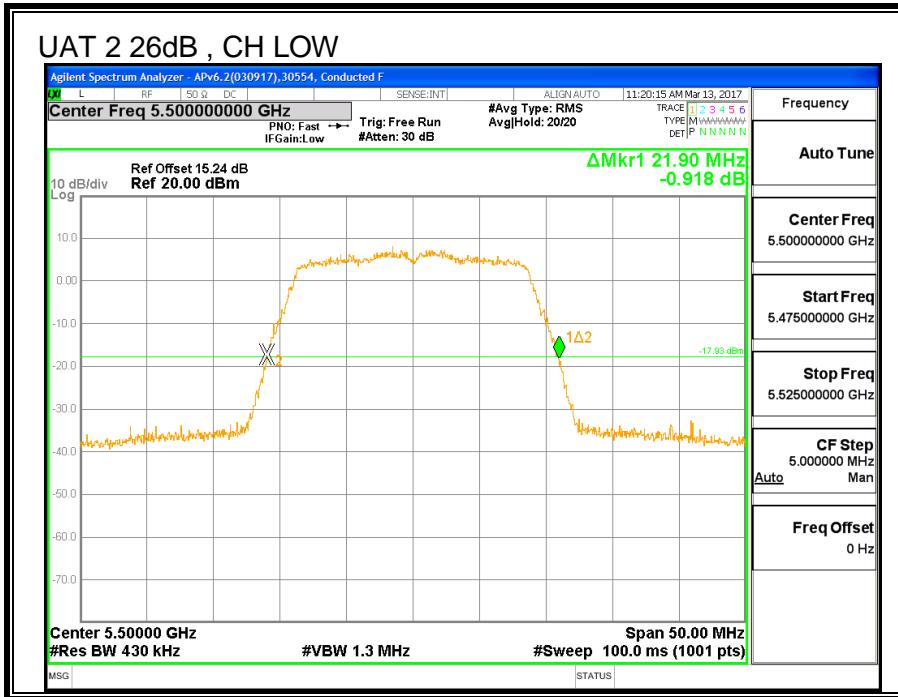
### 8.23.1. 26 dB BANDWIDTH

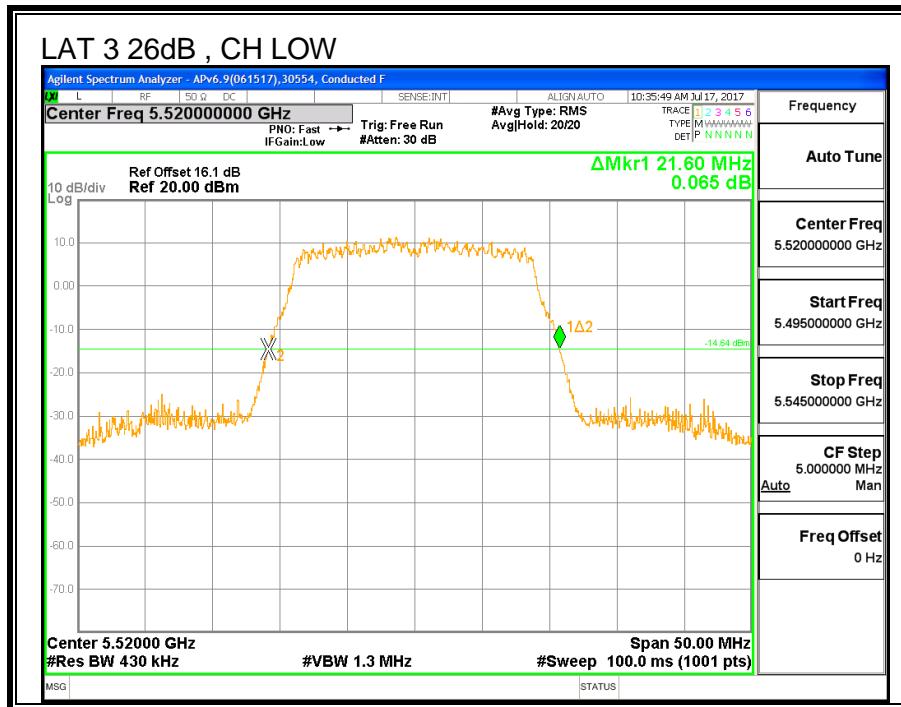
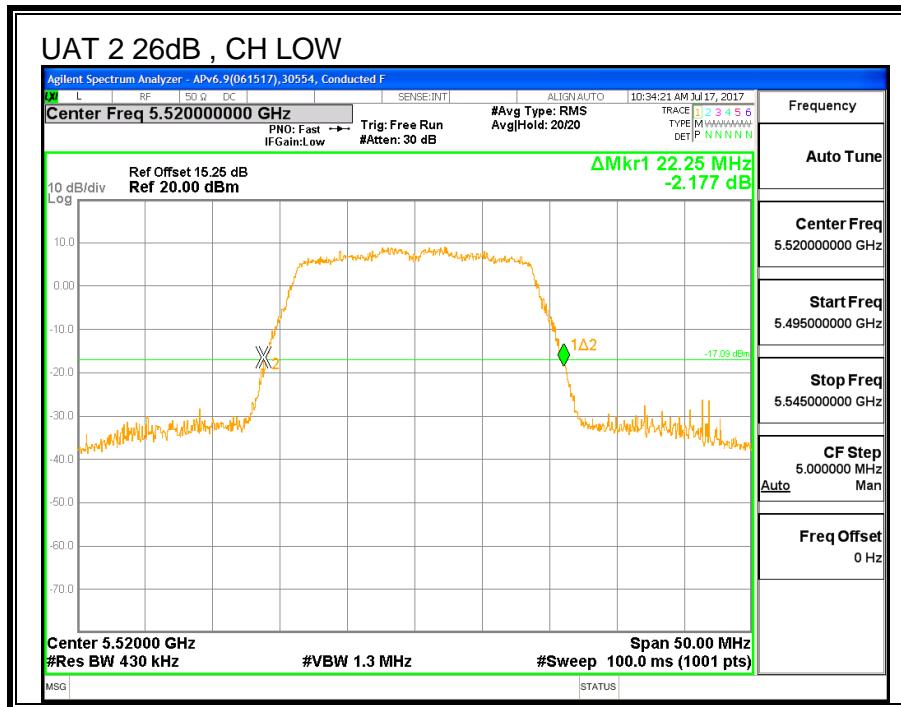
#### LIMITS

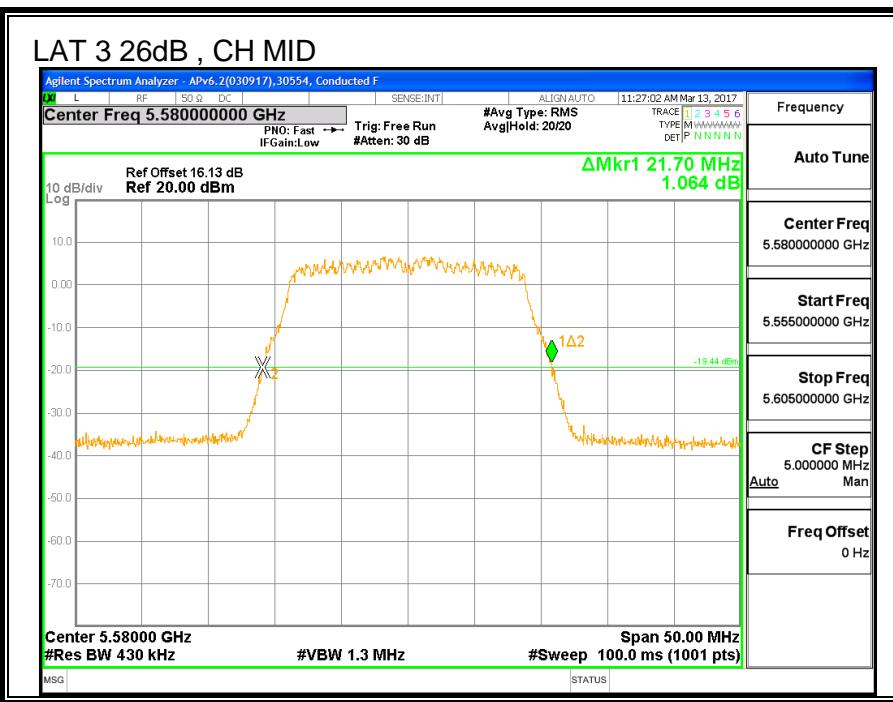
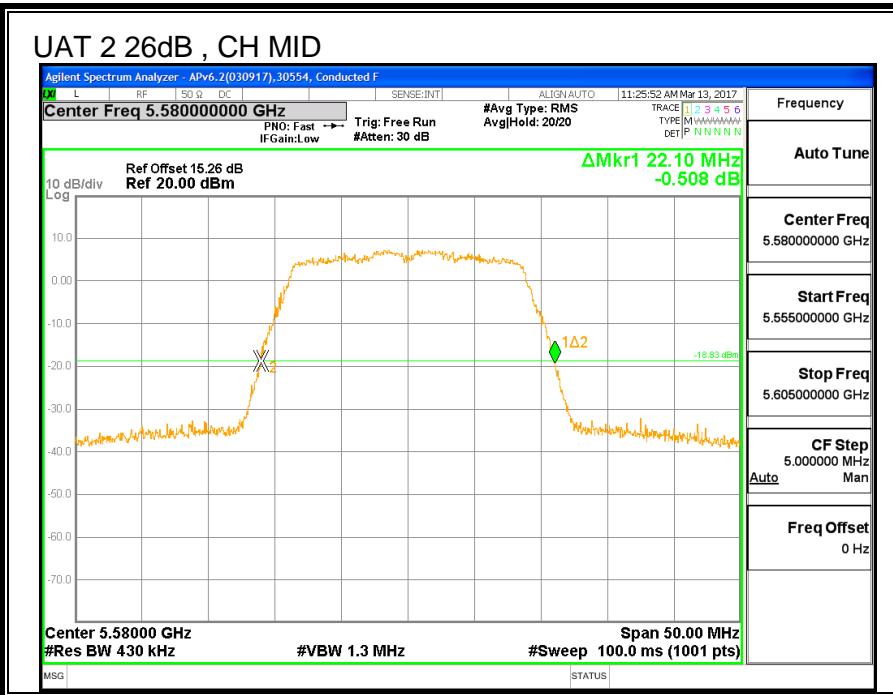
None; for reporting purposes only.

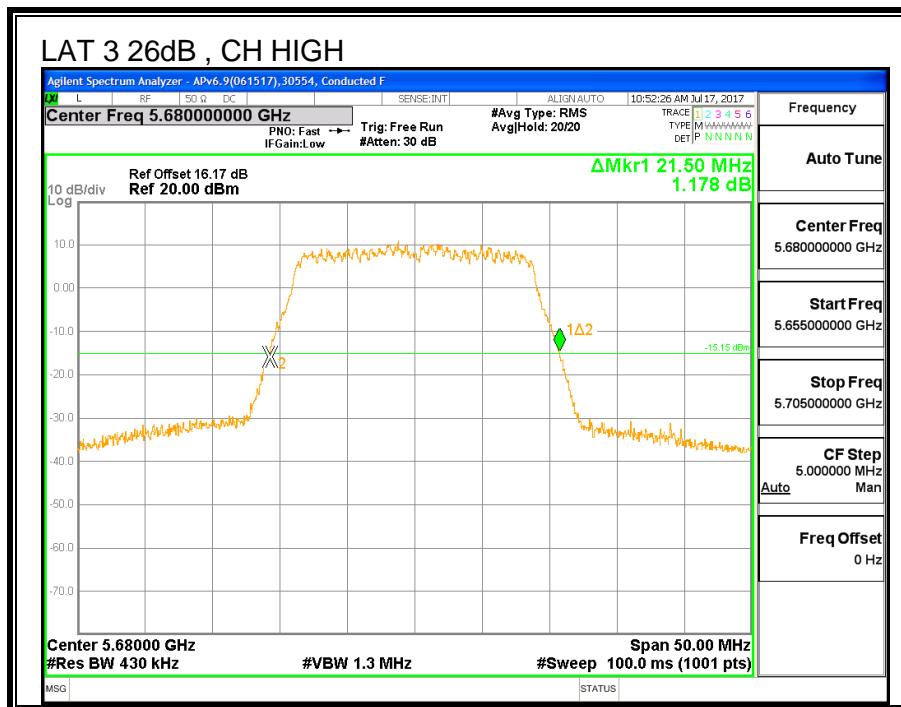
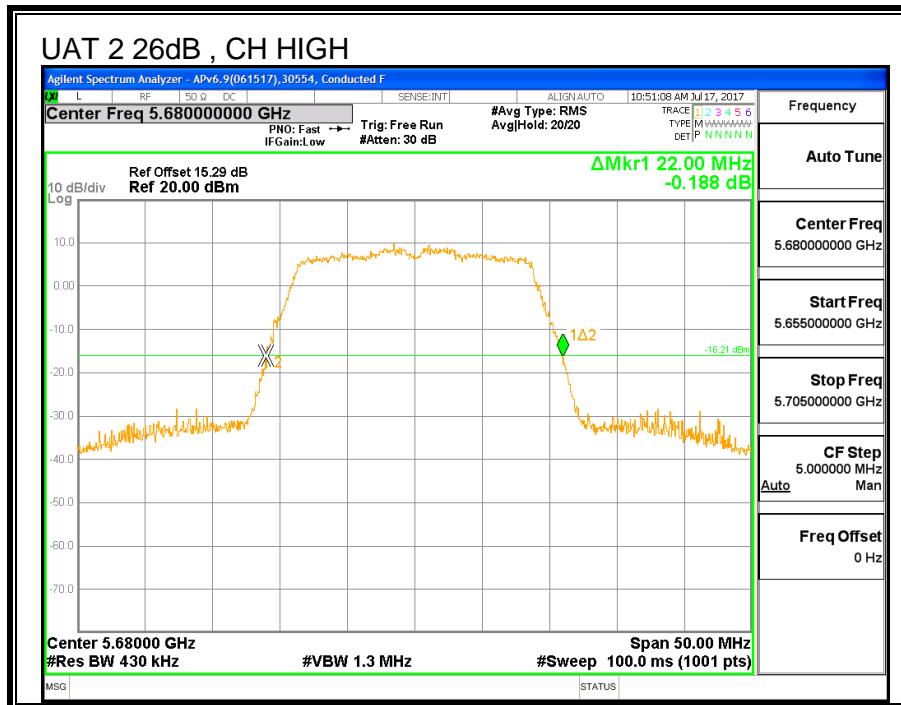
#### RESULTS

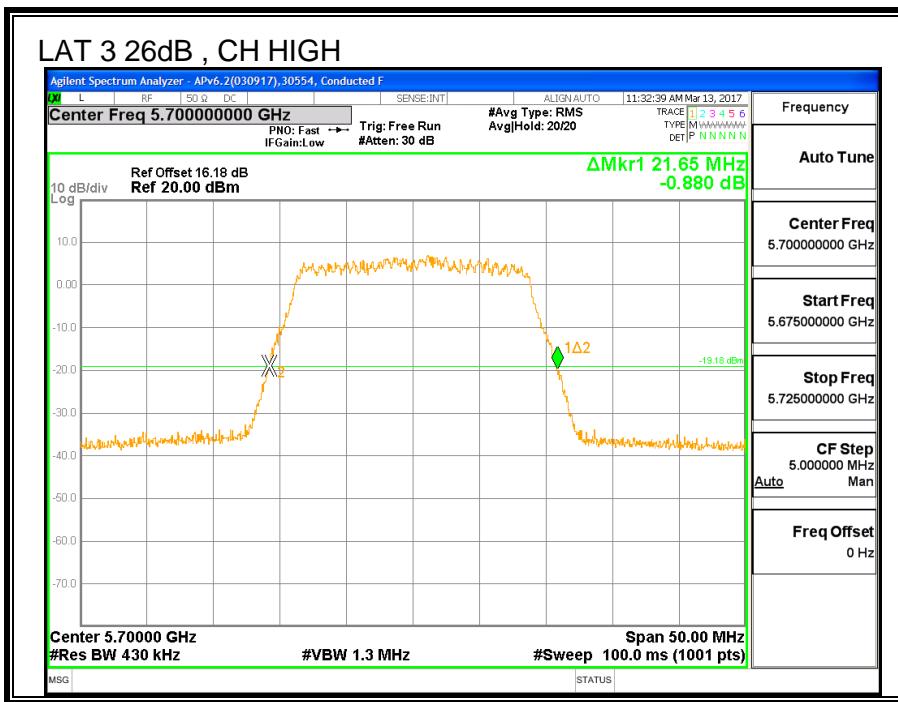
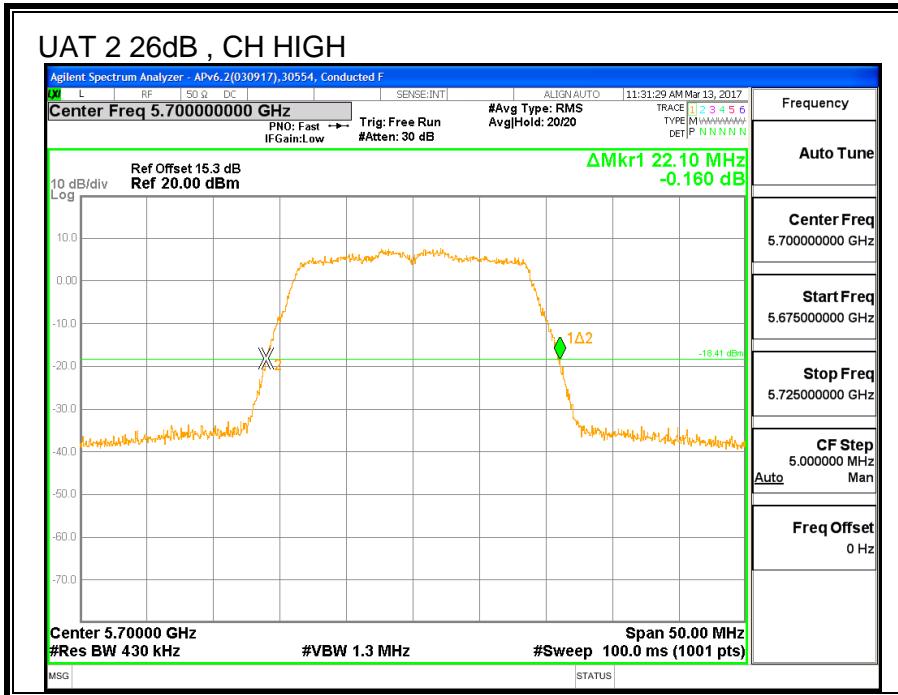
Channel	Frequency	26 dB BW UAT 2 (MHz)	26 dB BW LAT 3 (MHz)
Low	5500	21.90	21.70
Low	5520	22.25	21.60
Mid	5580	22.10	21.70
High	5680	22.00	21.50
High	5700	22.10	21.65
144	5720	22.05	21.60

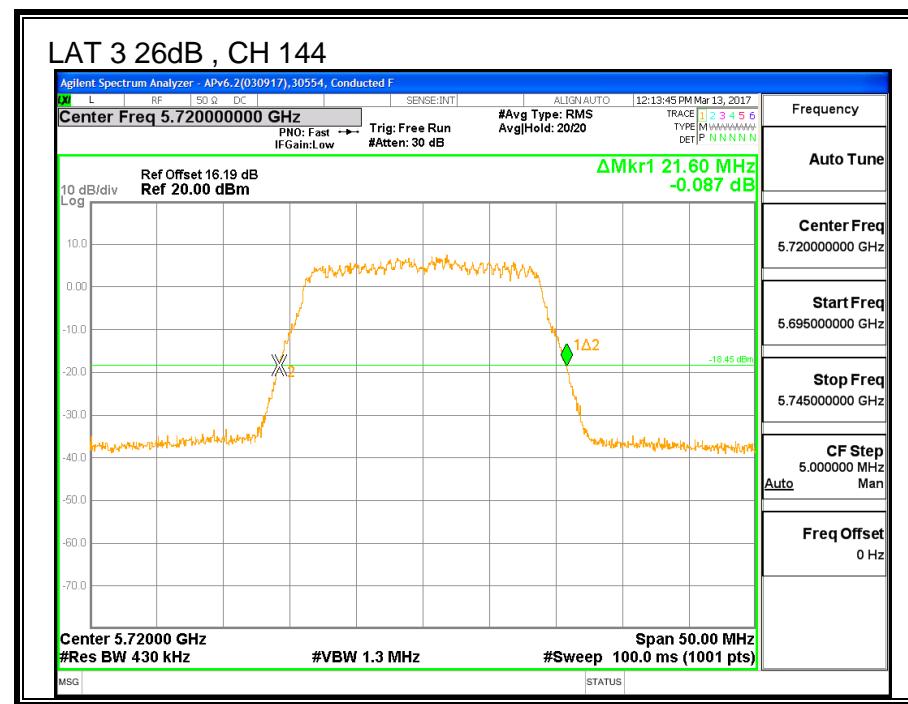
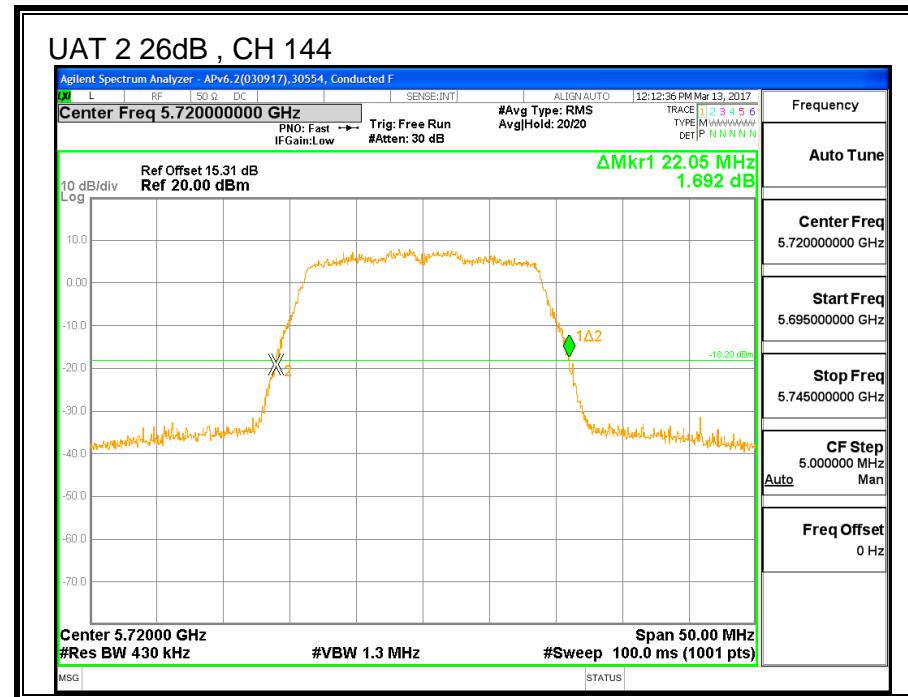












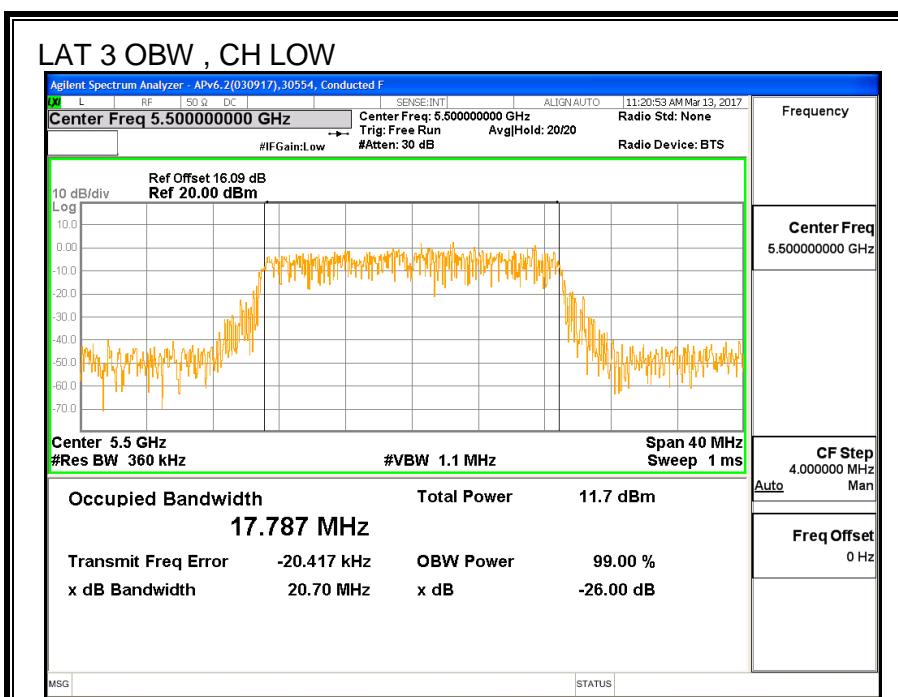
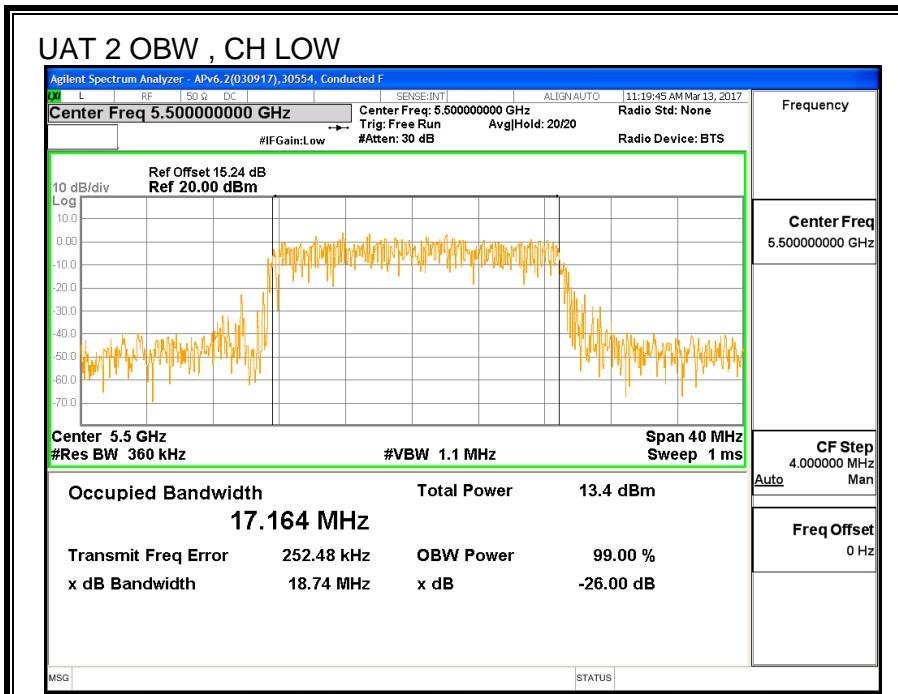
### 8.23.2. 99% BANDWIDTH

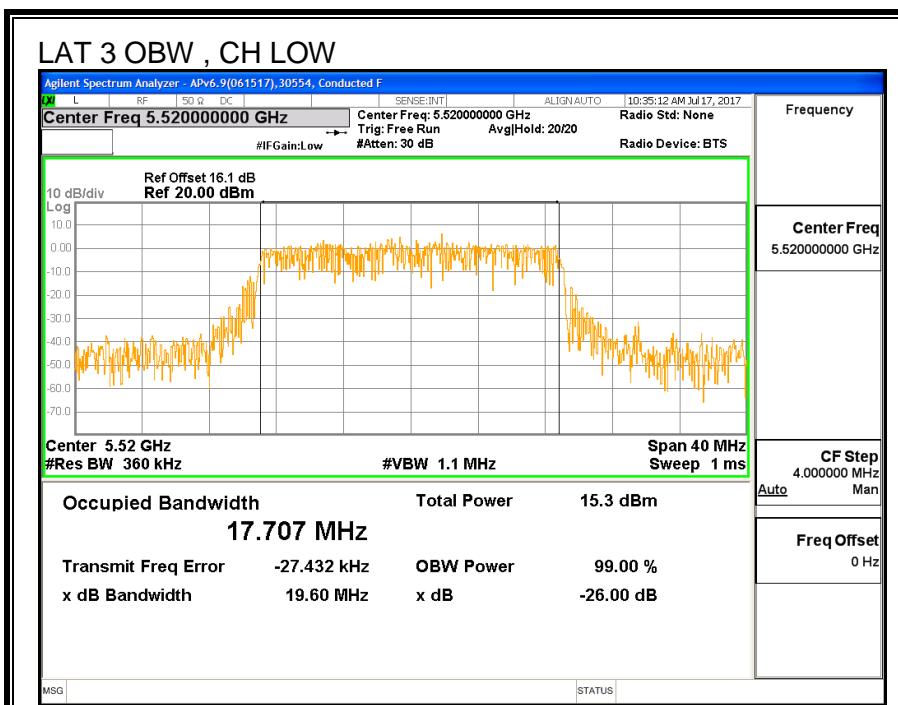
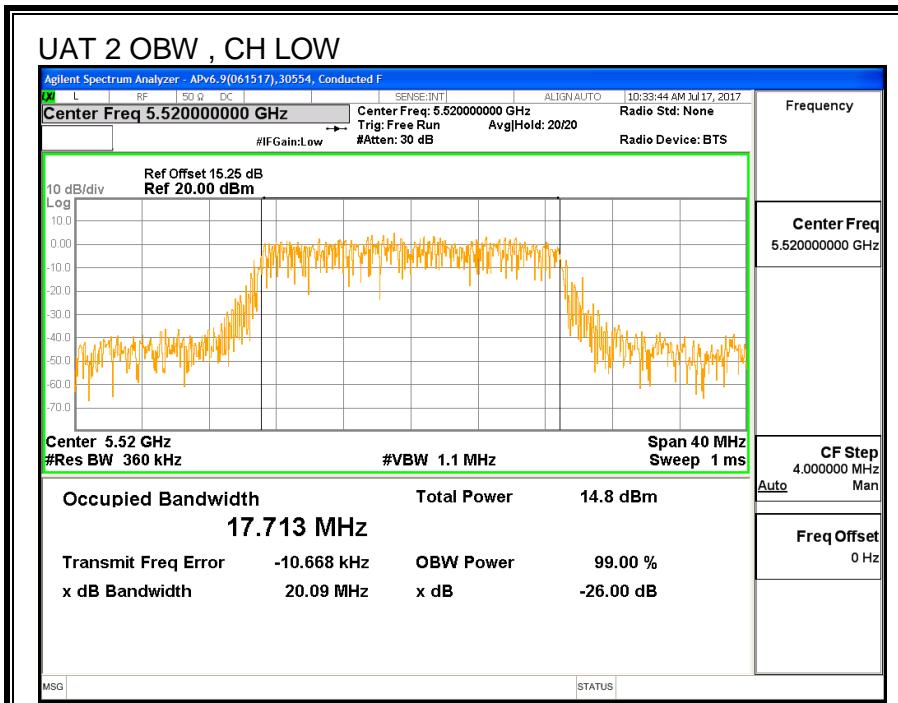
#### LIMITS

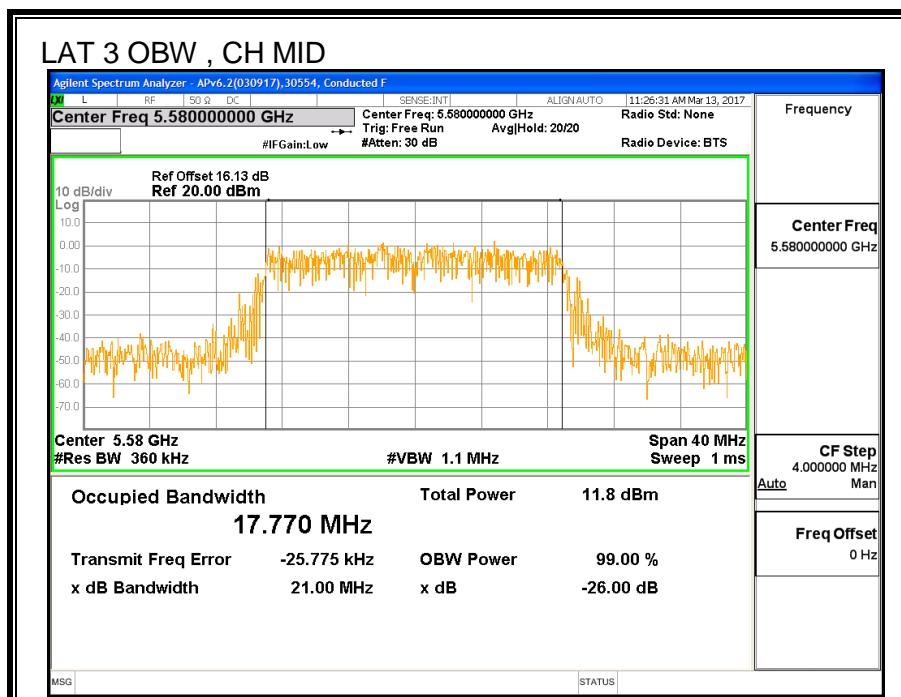
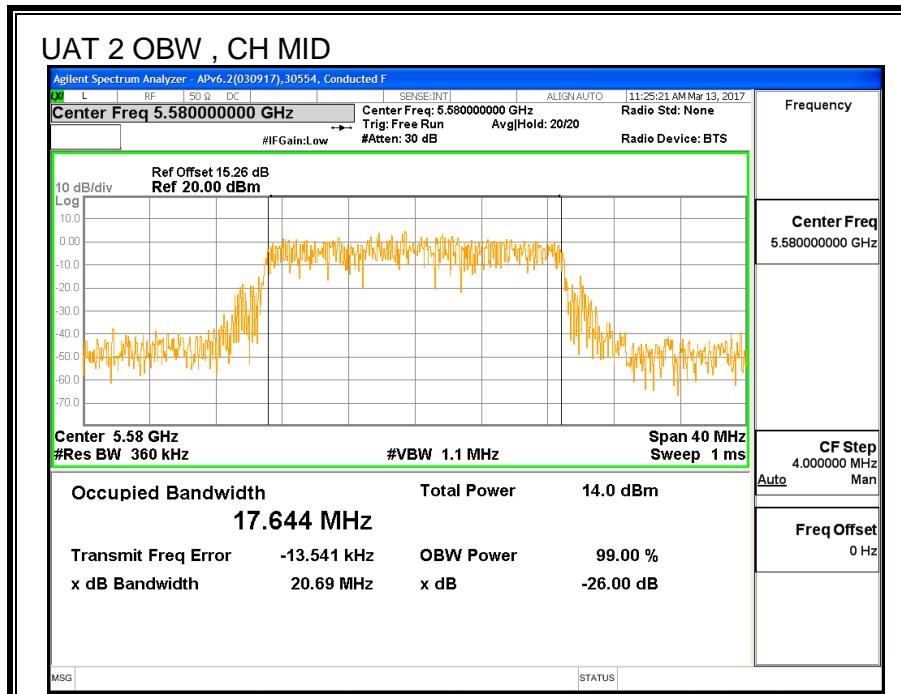
None; for reporting purposes only.

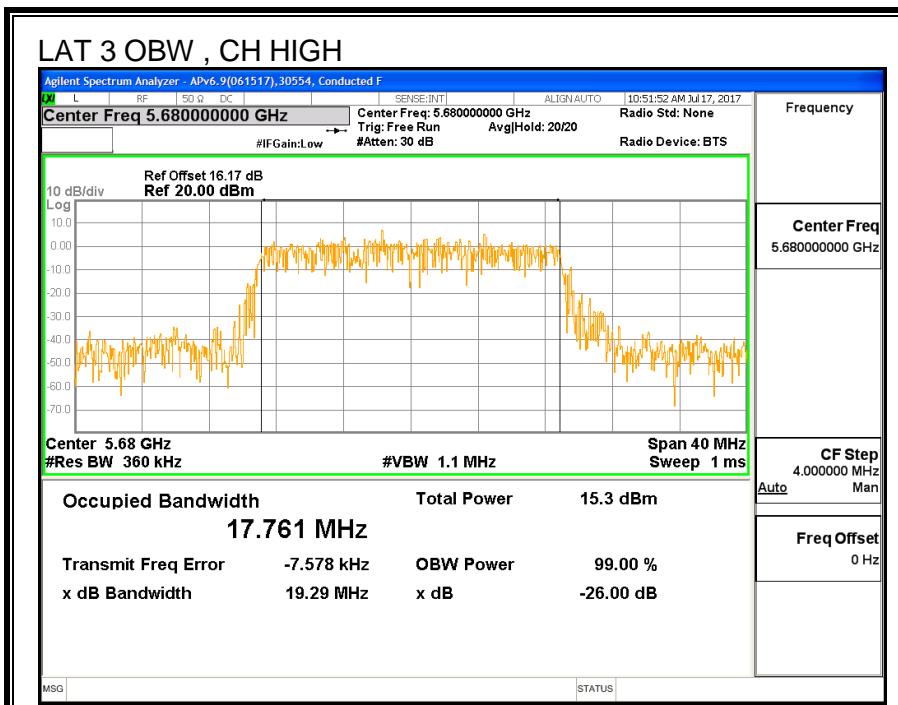
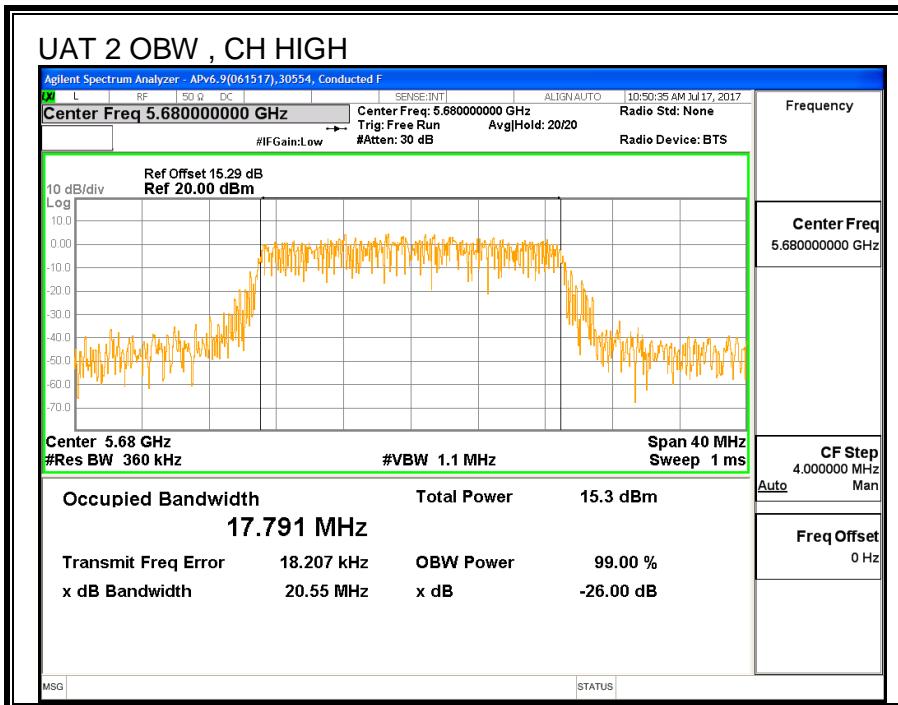
#### RESULTS

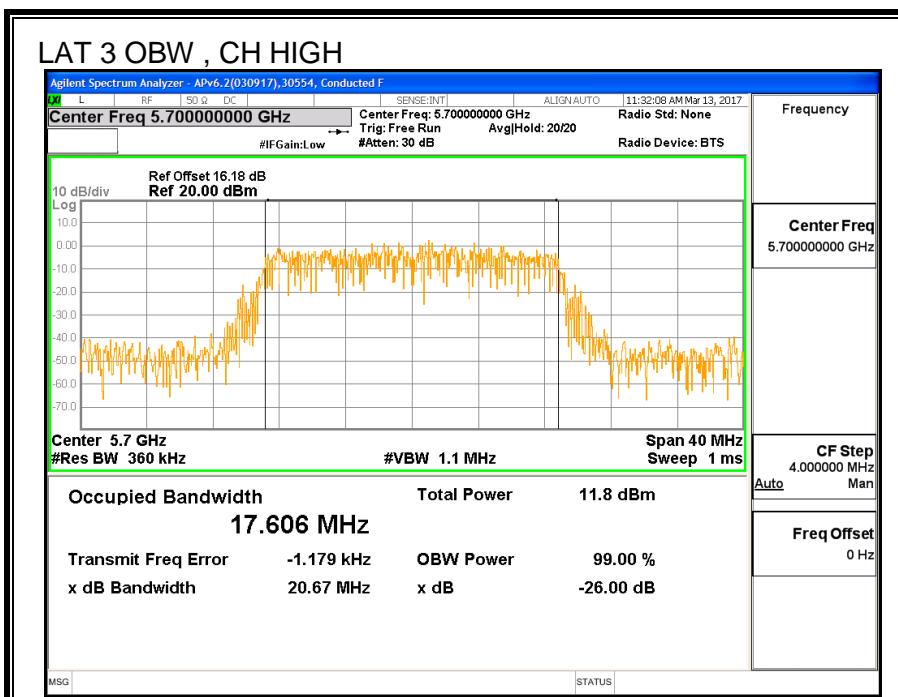
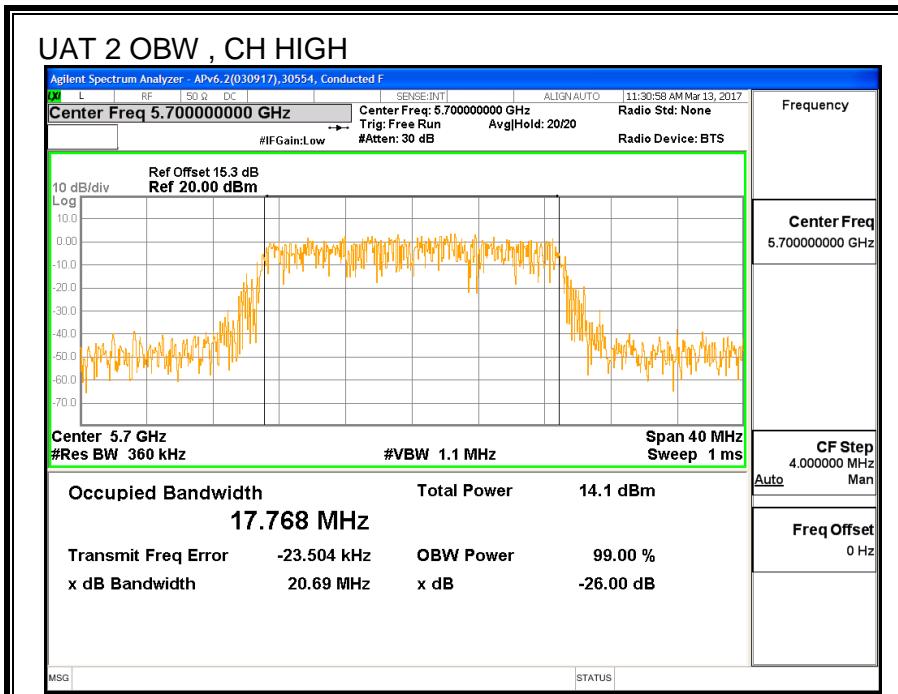
Channel	Frequency	99% BW UAT 2 (MHz)	99% BW LAT 3 (MHz)
Low	5500	17.164	17.787
Low	5520	17.713	17.707
Mid	5580	17.644	17.770
High	5680	17.791	17.761
High	5700	17.768	17.606
144	5720	17.598	17.785

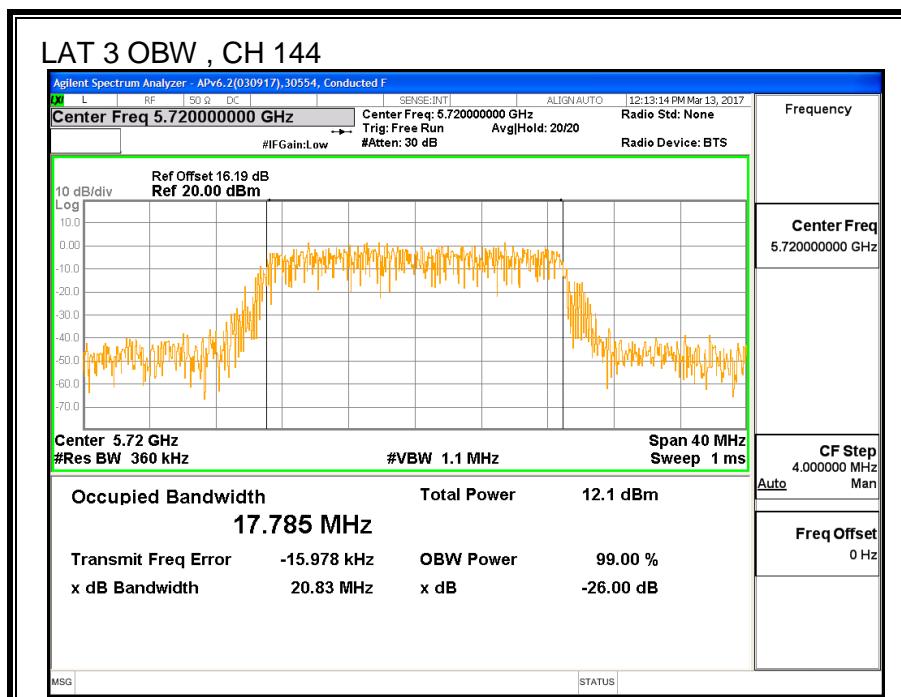
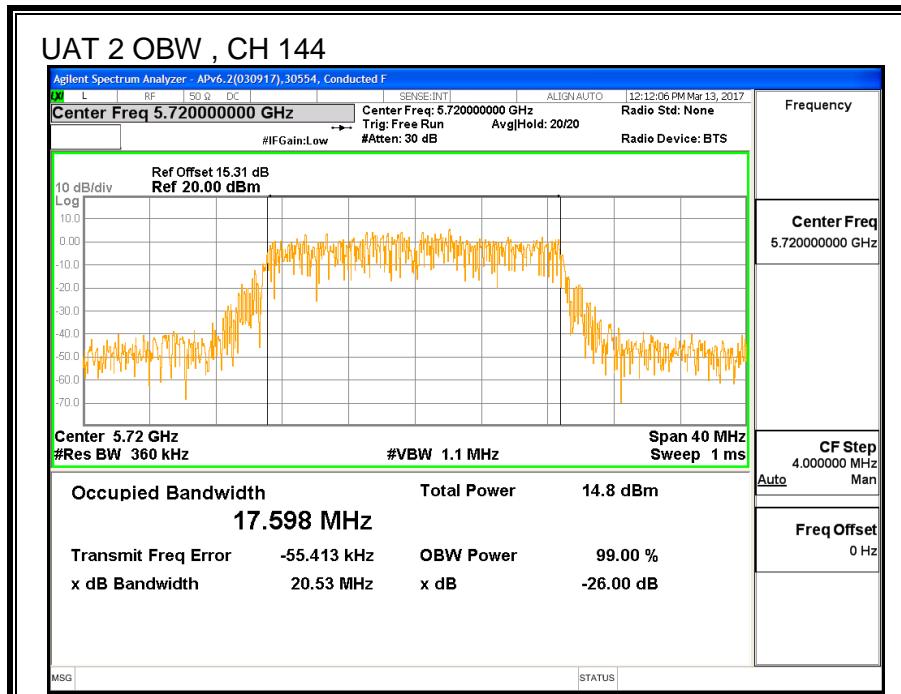












### 8.23.3. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	7/17/2017
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#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

#### RESULTS

##### Average Power Results

Channel	Frequency (MHz)	UAT 2 Power (dBm)	LAT 3 Power (dBm)	Total Power (dBm)
Low	5500	16.84	16.93	19.90
Low	5520	17.84	17.95	20.91
Mid	5580	17.79	17.95	20.88
High	5680	17.81	17.94	20.89
High	5700	16.31	16.46	19.40
144	5720	17.85	17.91	20.89

## 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.

### 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	21.90	17.787	-0.85	2.16	23.50	11.00
Low	5520	22.25	17.707	-0.85	2.16	23.48	11.00
Mid	5580	22.10	17.770	-0.85	2.16	23.50	11.00
High	5680	22.00	17.761	-0.85	2.16	23.49	11.00
High	5700	22.10	17.606	-0.85	2.16	23.46	11.00

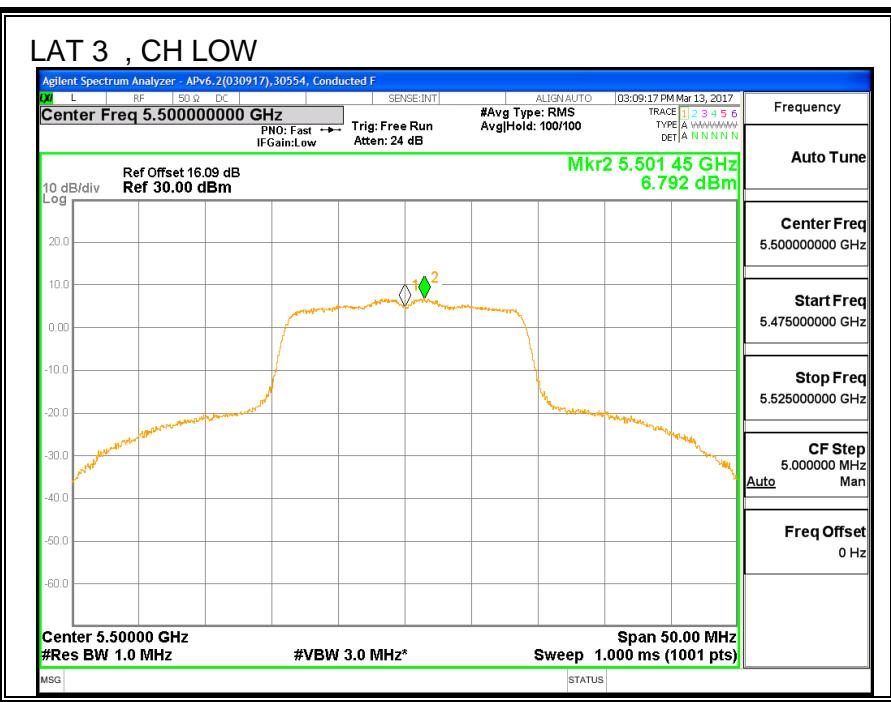
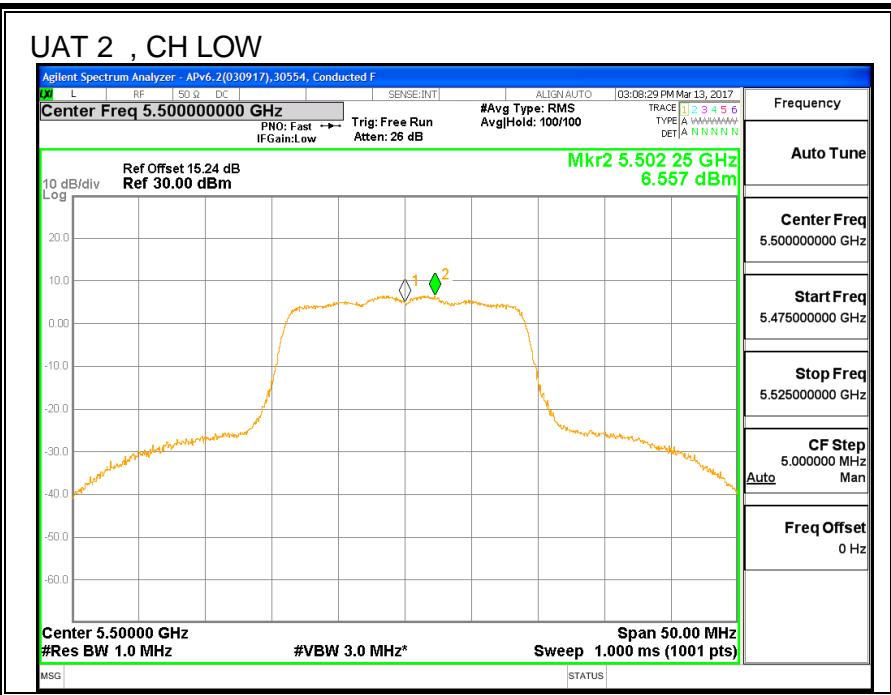
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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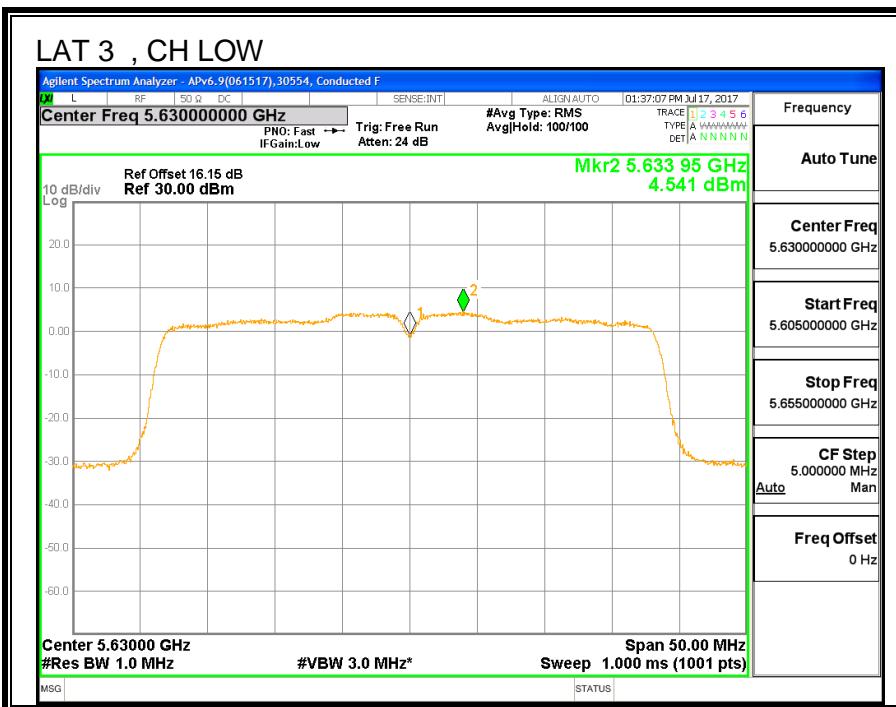
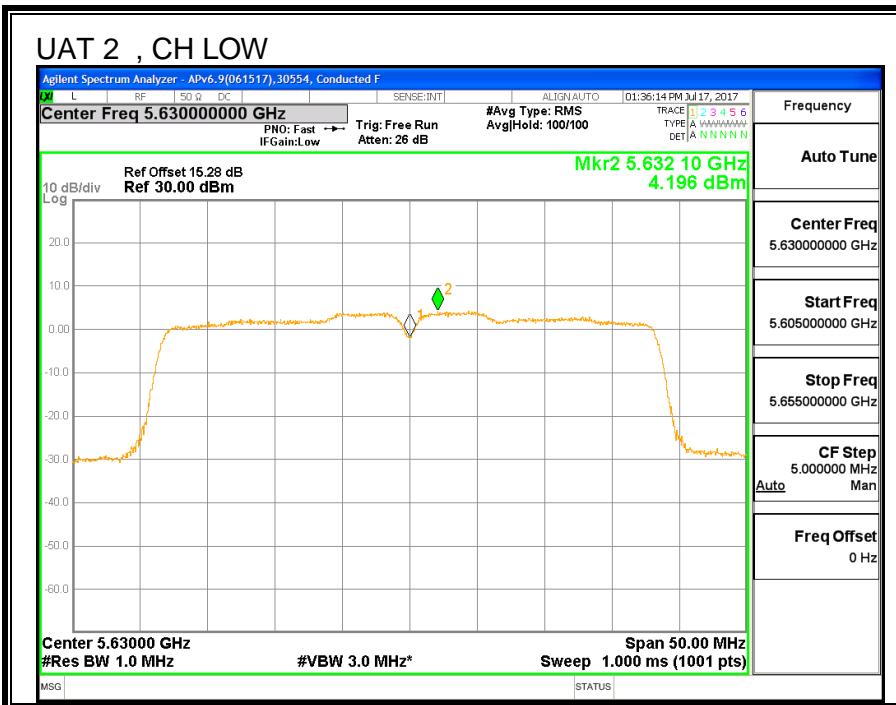
### Output Power Results

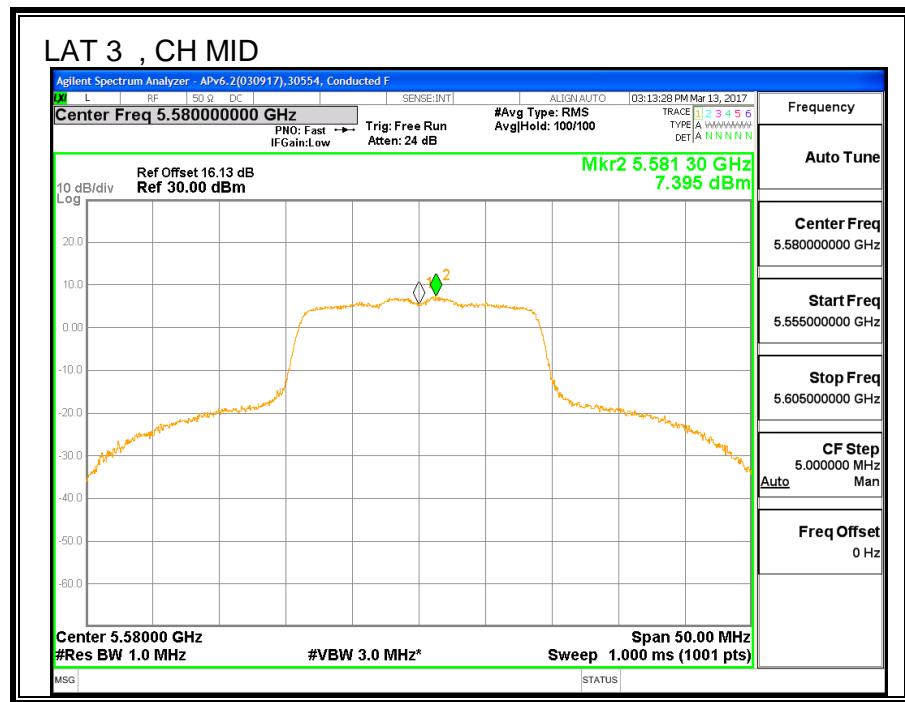
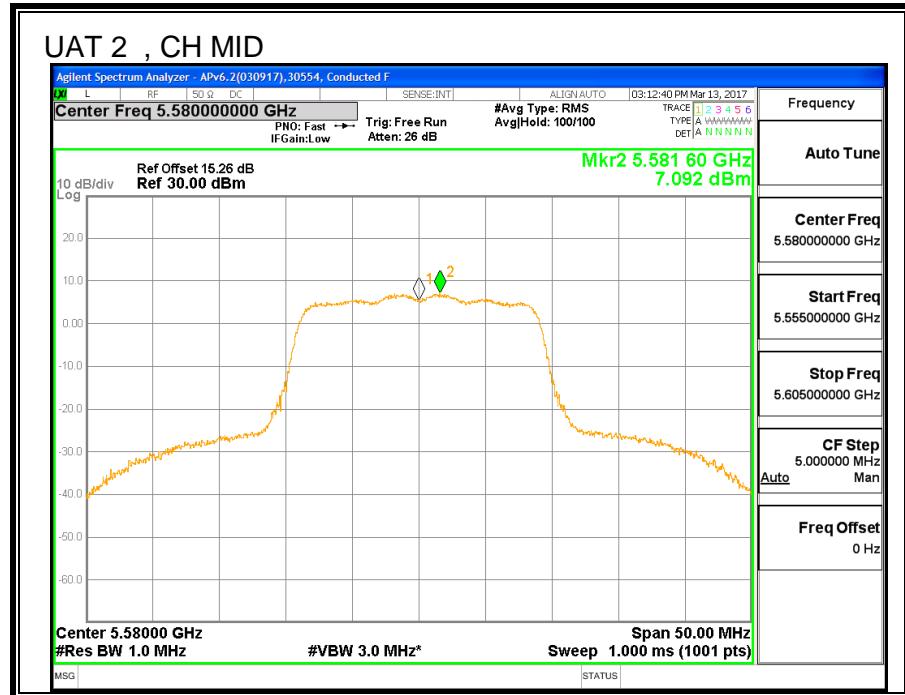
Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	16.84	16.93	19.90	23.50	-3.61
Low	5520	17.84	17.95	20.91	23.48	-2.58
Mid	5580	17.79	17.95	20.88	23.50	-2.62
High	5680	17.81	17.94	20.89	23.49	-2.61
High	5700	16.31	16.46	19.40	23.46	-4.06

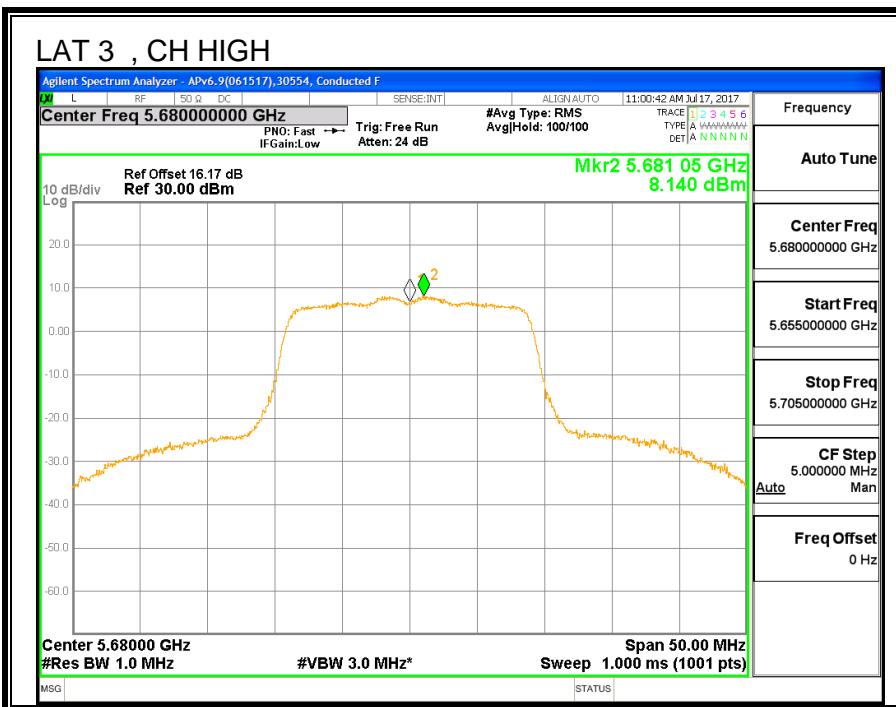
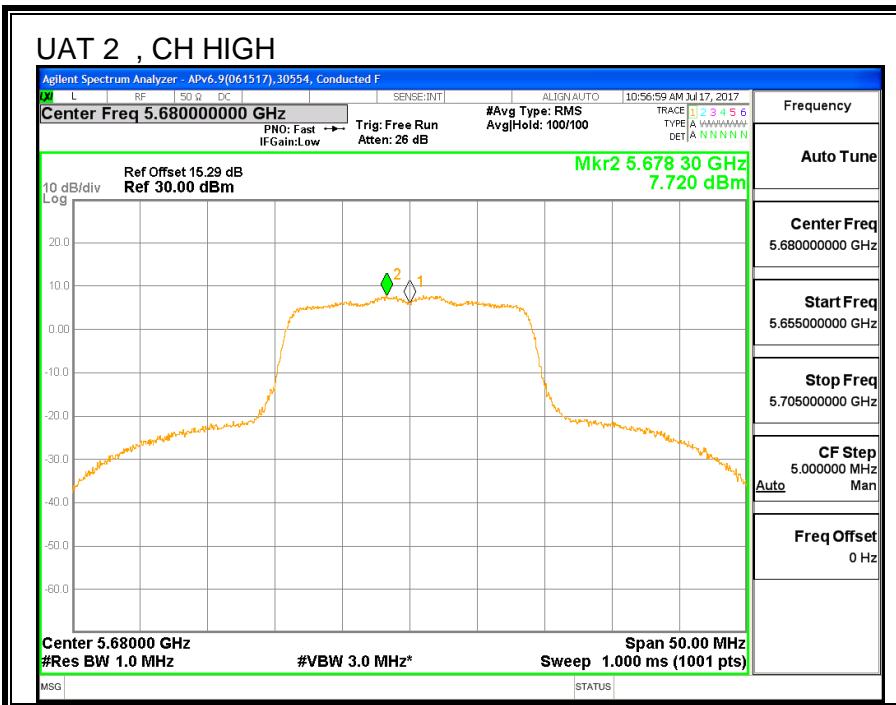
### PSD Results

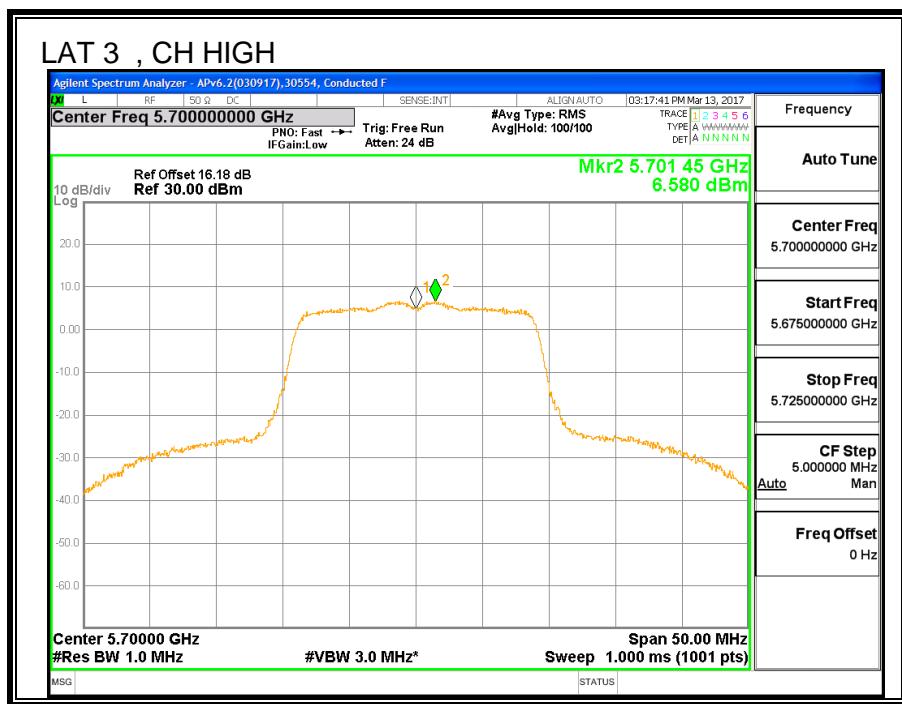
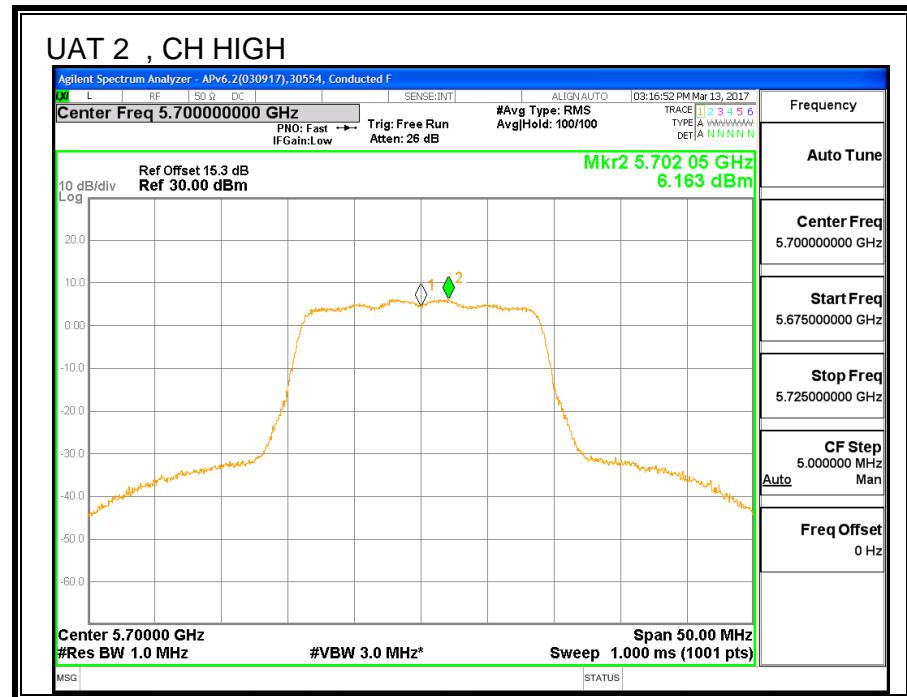
Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	6.557	6.792	9.69	11.00	-1.31
Low	5520	4.196	4.541	7.38	11.00	-3.62
Mid	5580	7.092	7.395	10.26	11.00	-0.74
High	5680	7.720	8.140	10.95	11.00	-0.05
High	5700	6.163	6.58	9.39	11.00	-1.61











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

### 8.24.1. OUTPUT POWER AND PSD

#### UNII-2C BAND

##### Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	15.80	-0.85	2.16	22.99	11.00

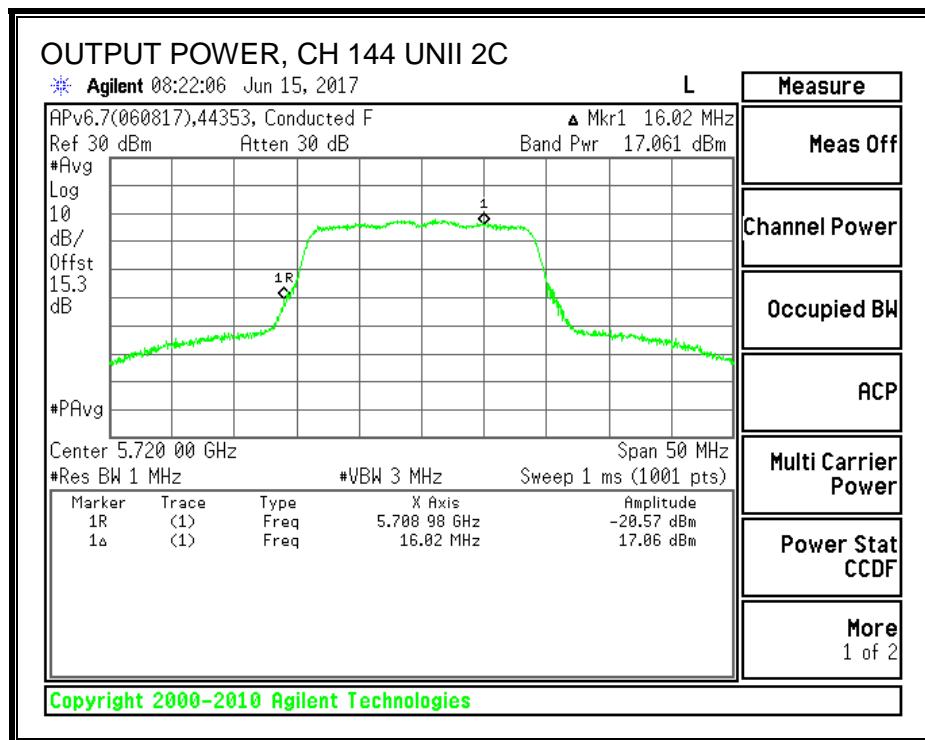
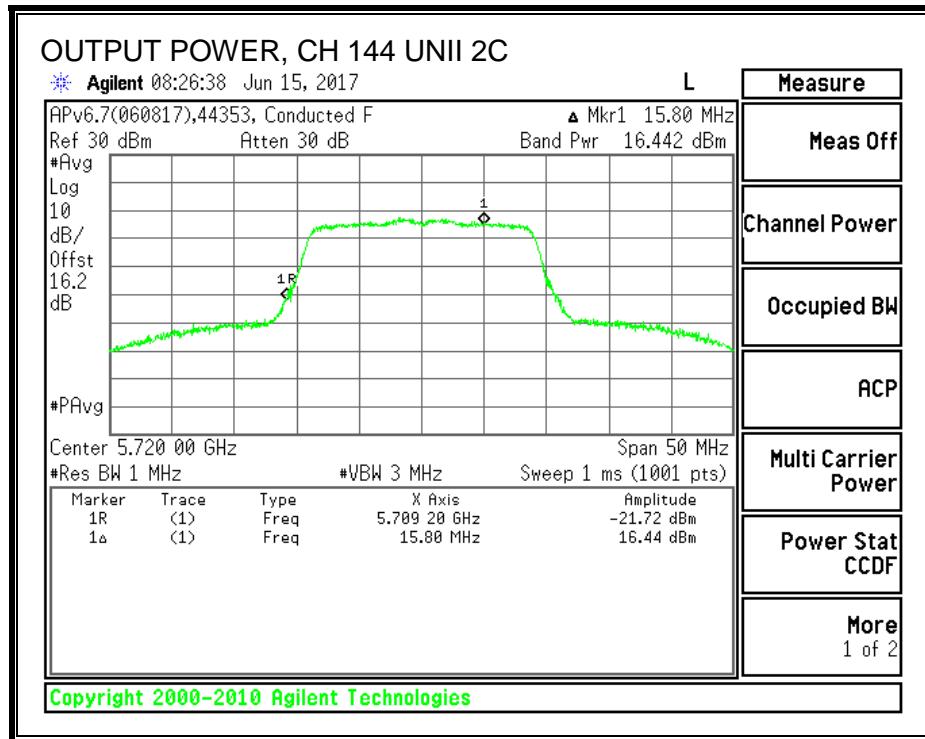
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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##### Output Power Results

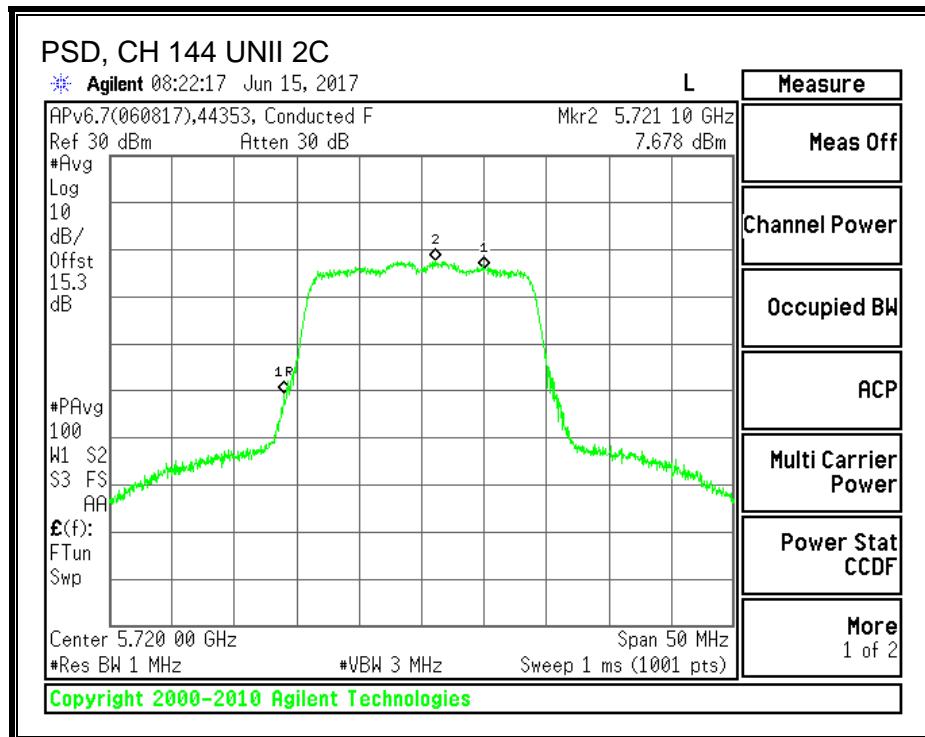
Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	17.06	16.44	19.77	22.99	-3.21

##### PSD Results

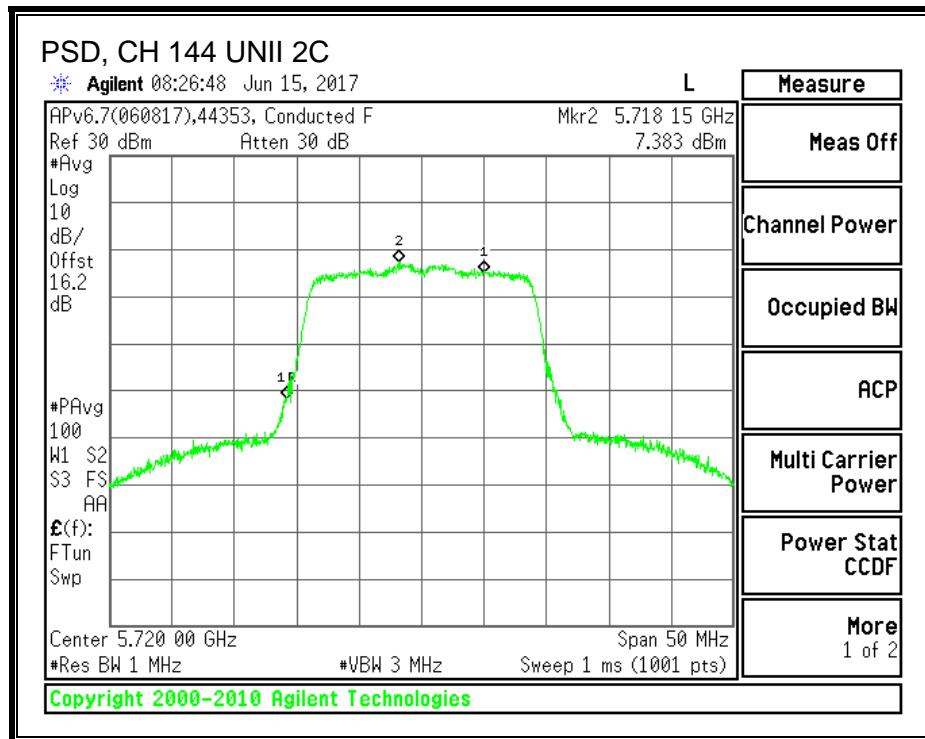
Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	7.68	7.38	10.54	11.00	-0.46

OUTPUT POWER, UAT 2OUTPUT POWER, LAT 3

PSD, UAT 2



PSD, LAT 3



**UNII-3 BAND**

**Antenna Gain and Limit**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	5.80	-0.05	2.92	30.00	30.00

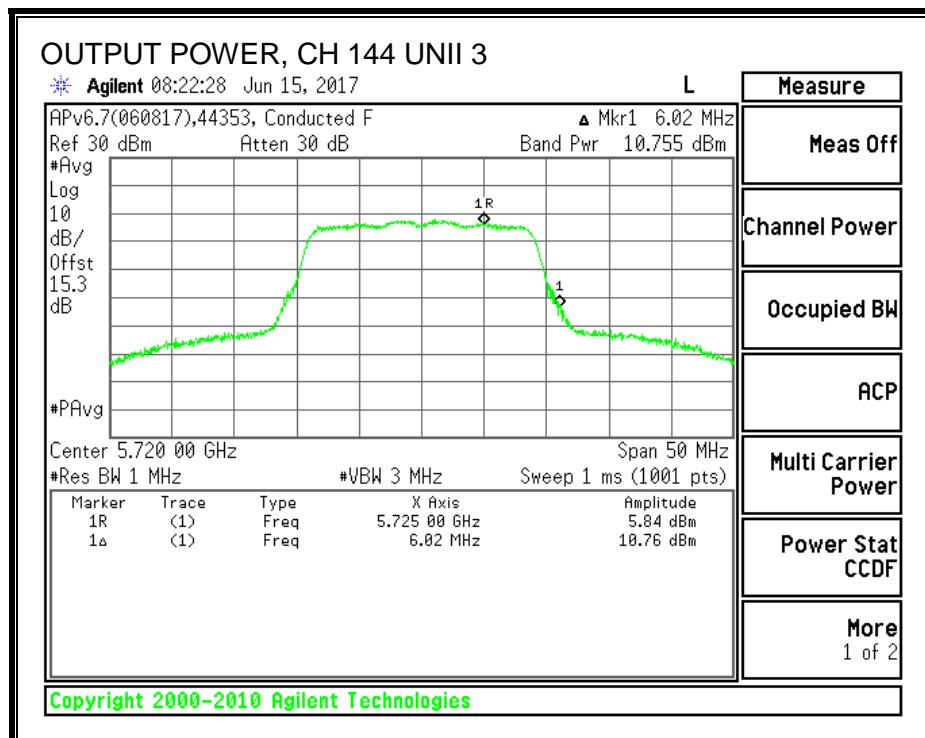
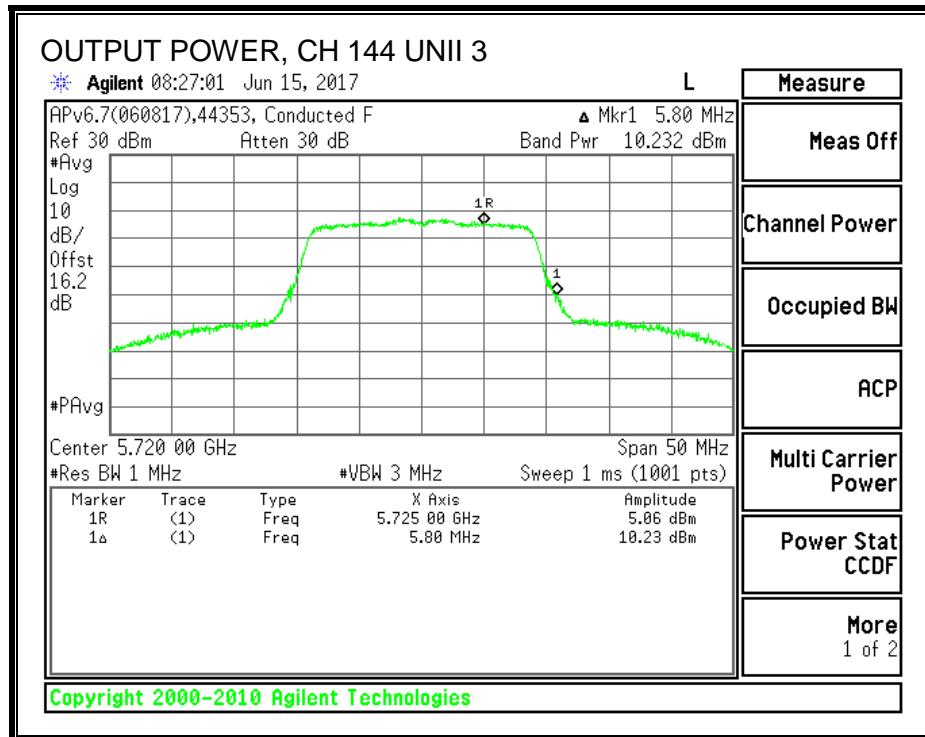
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd Power &amp; PSD</b>
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**Output Power Results**

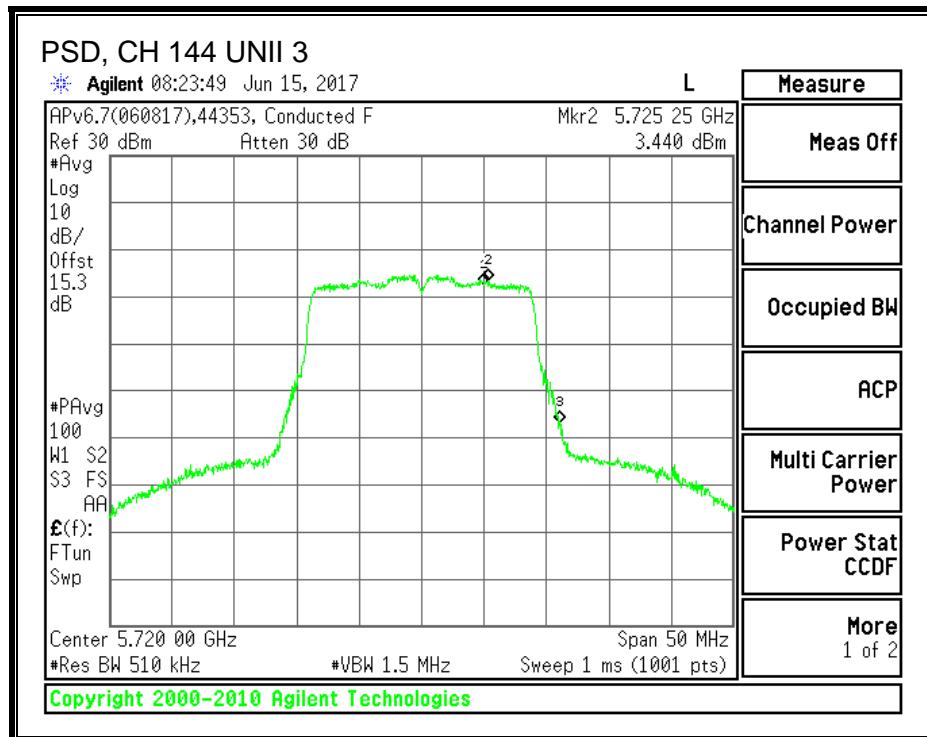
Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	LAT 3 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	10.76	10.23	13.51	30.00	-16.49

**PSD Results**

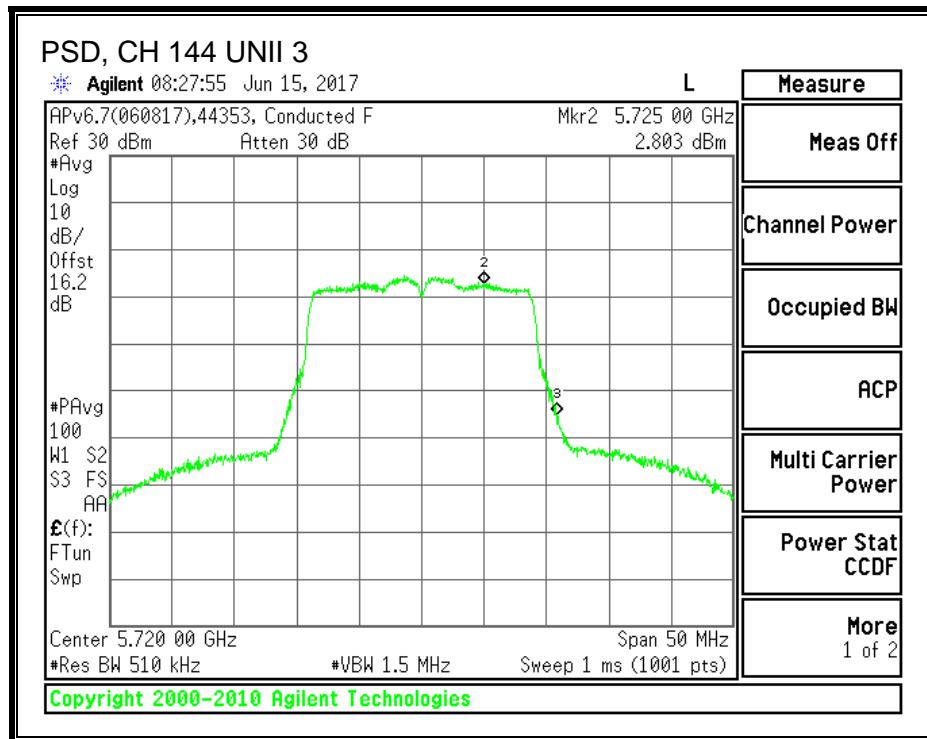
Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	LAT 3 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	3.44	2.80	6.14	30.00	-23.86

OUTPUT POWER, UAT 2OUTPUT POWER, LAT 3

PSD, UAT 2



PSD, LAT 3



## 8.24.2. 6 dB BANDWIDTH

### LIMITS

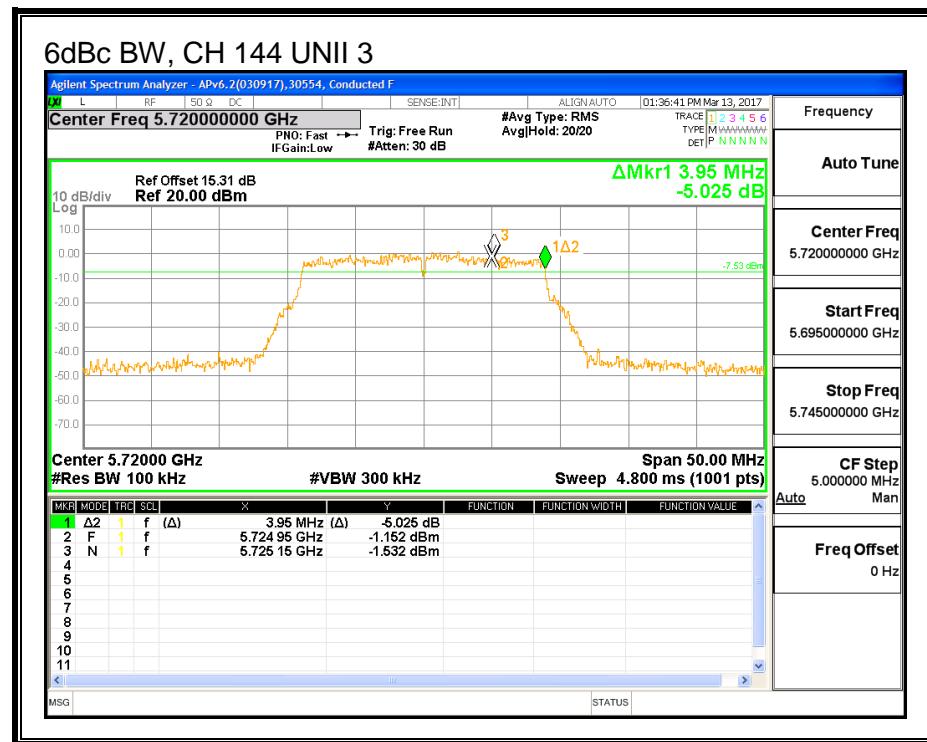
FCC §15.407 (e)

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

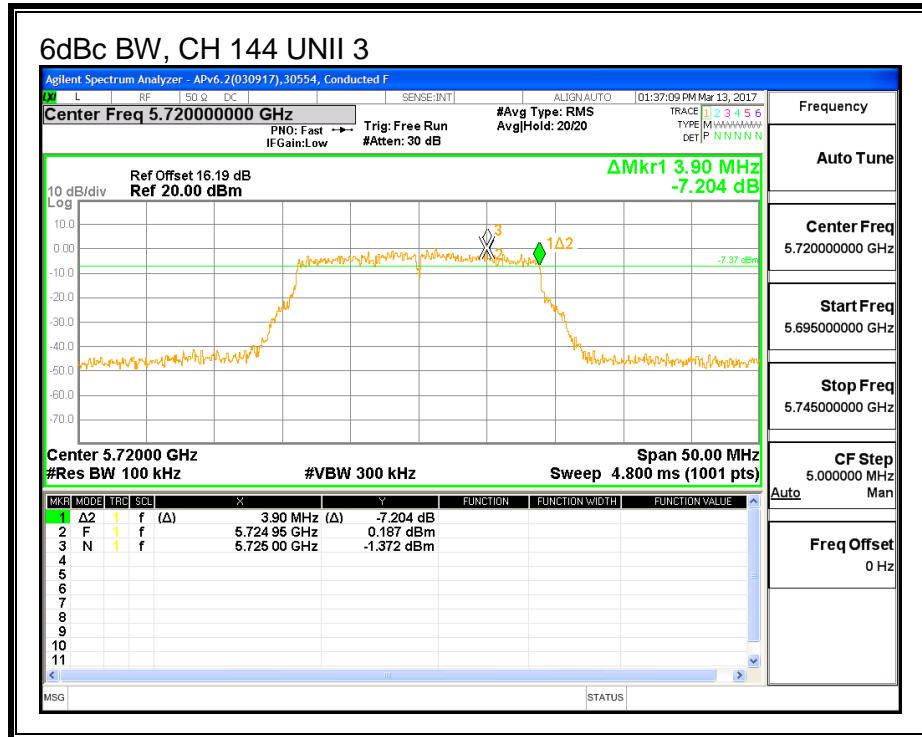
### RESULTS

Channel	Frequency (MHz)	6 dB BW Ant A (MHz)	6 dB BW Ant B (MHz)
144	5720	3.950	3.900

UAT 2



LAT 3



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

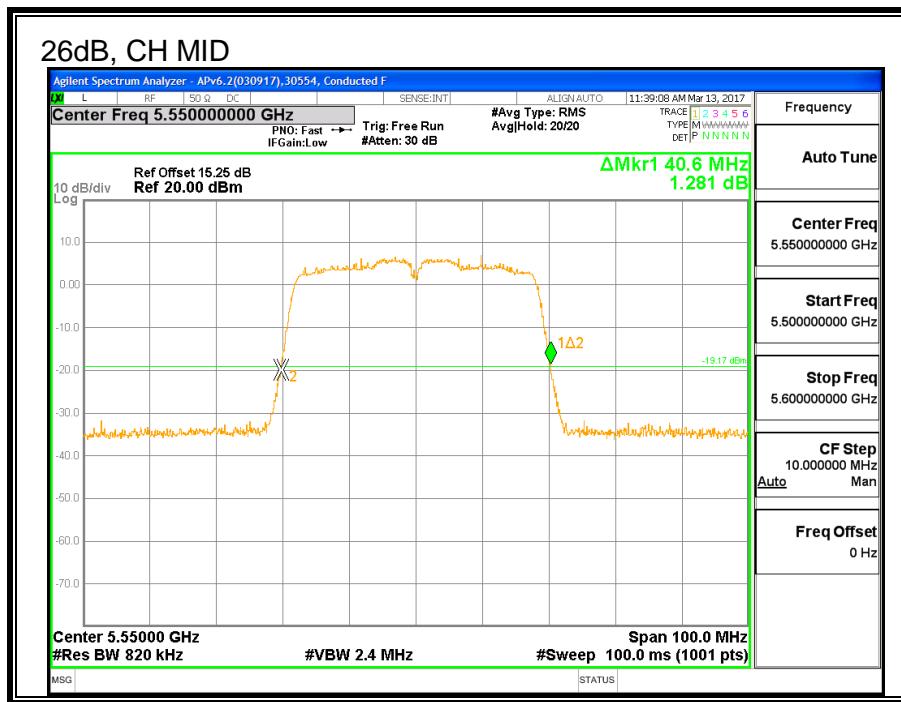
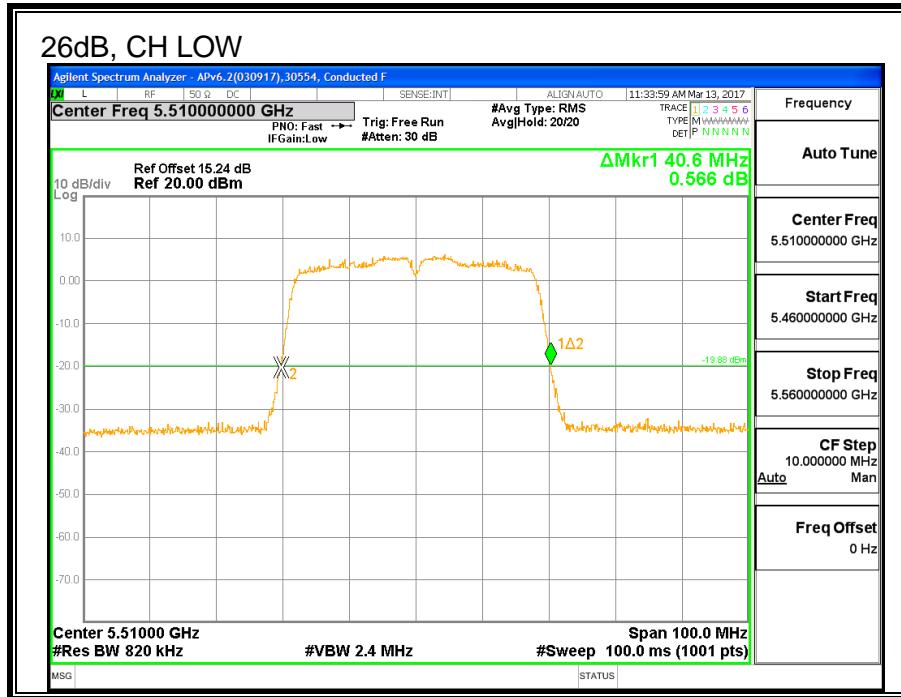
### 8.25.1. 26 dB BANDWIDTH

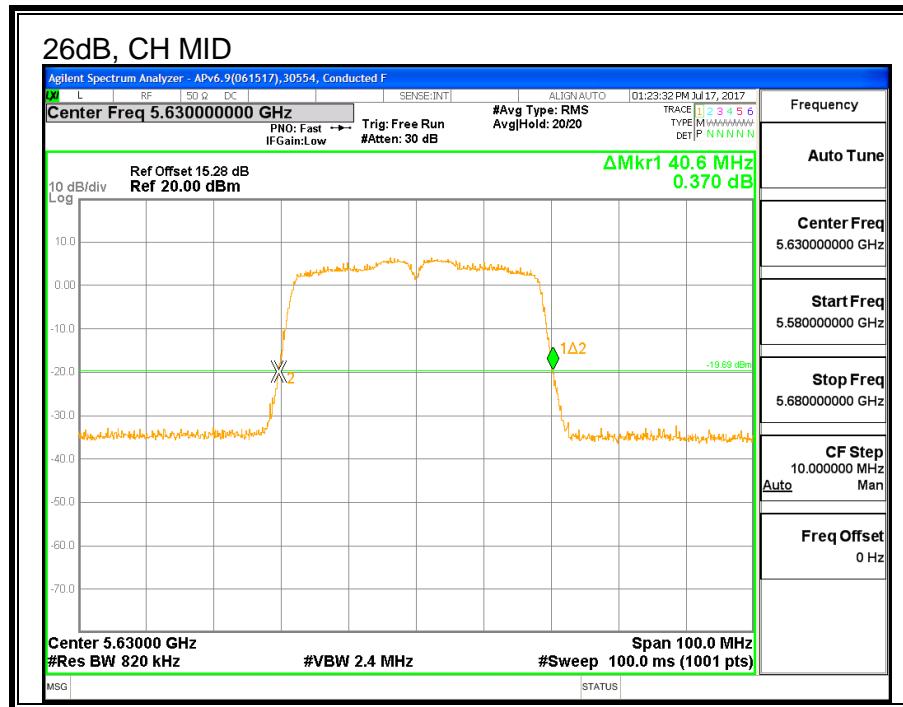
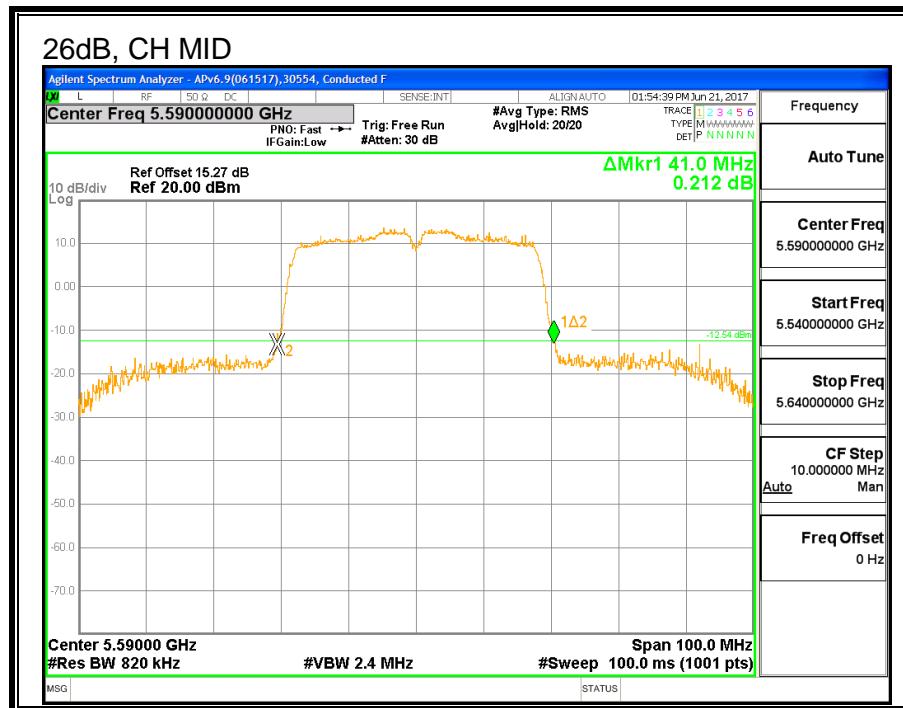
#### LIMITS

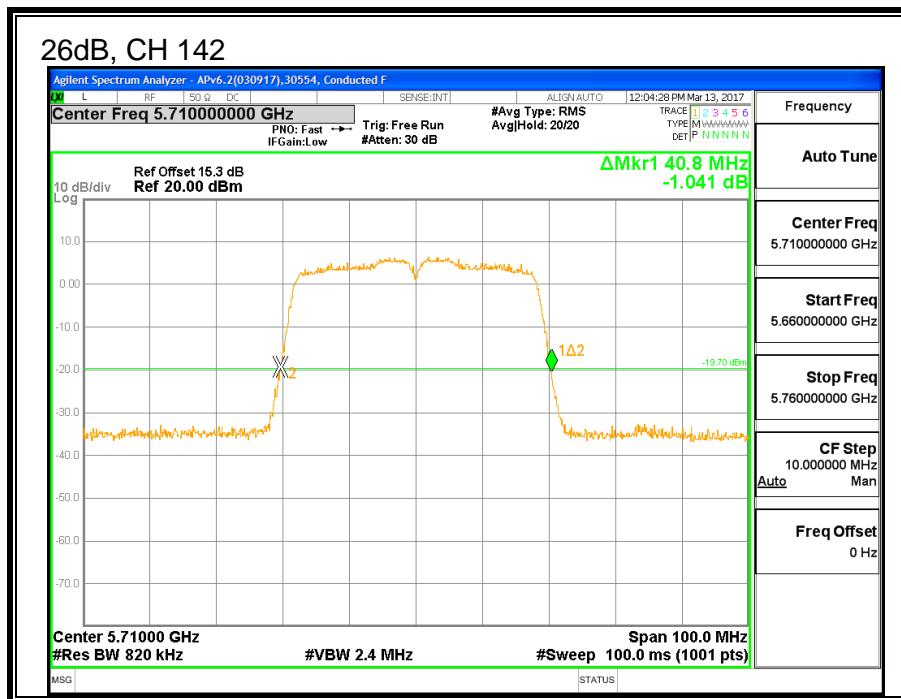
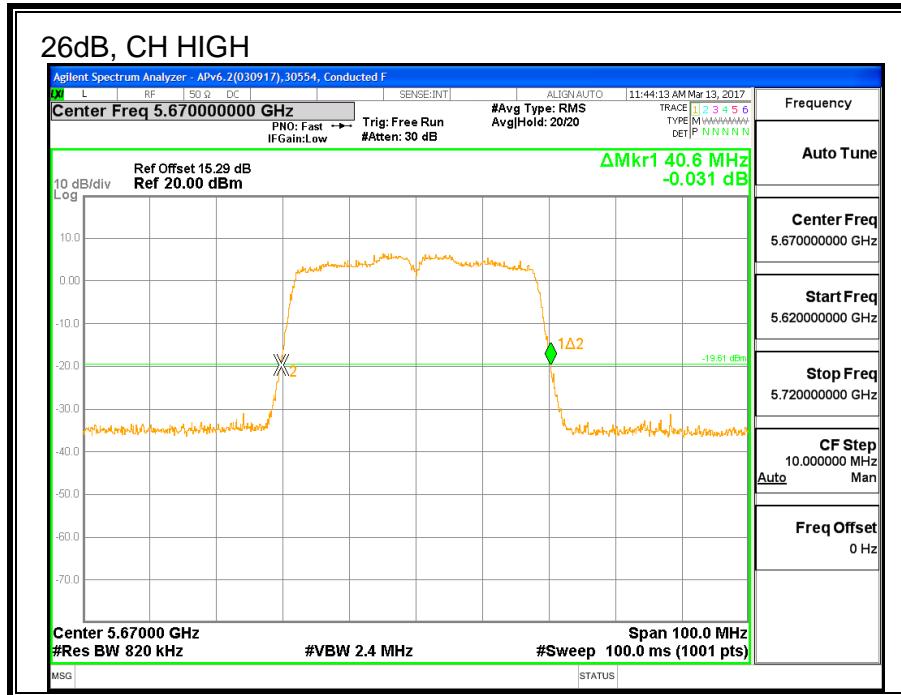
None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW UAT 2 (MHz)
Low	5510	40.6
Mid	5550	40.6
Mid	5590	41.0
High	5630	40.6
High	5670	40.6
142	5710	40.8







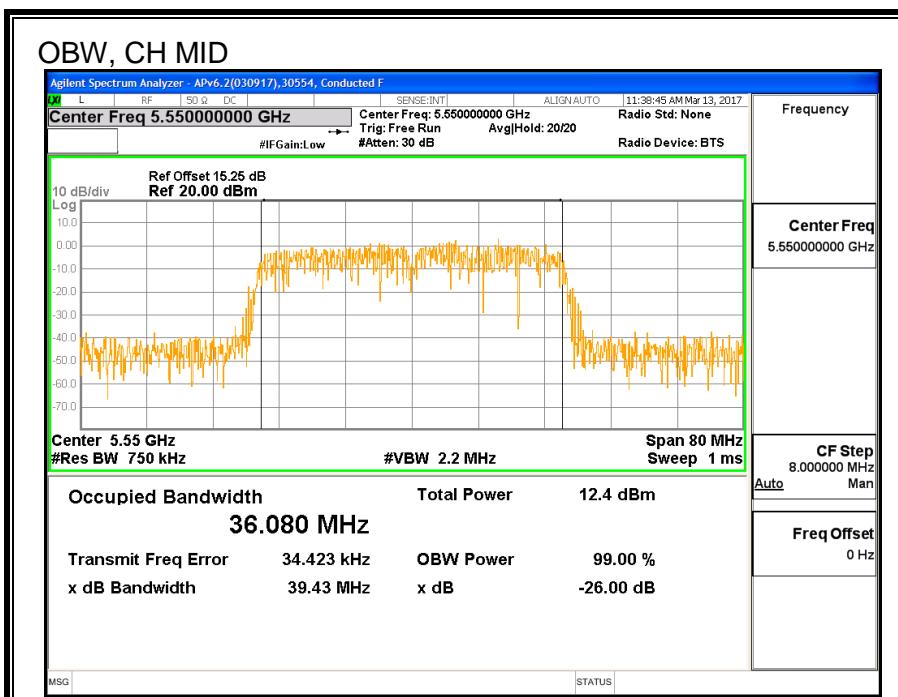
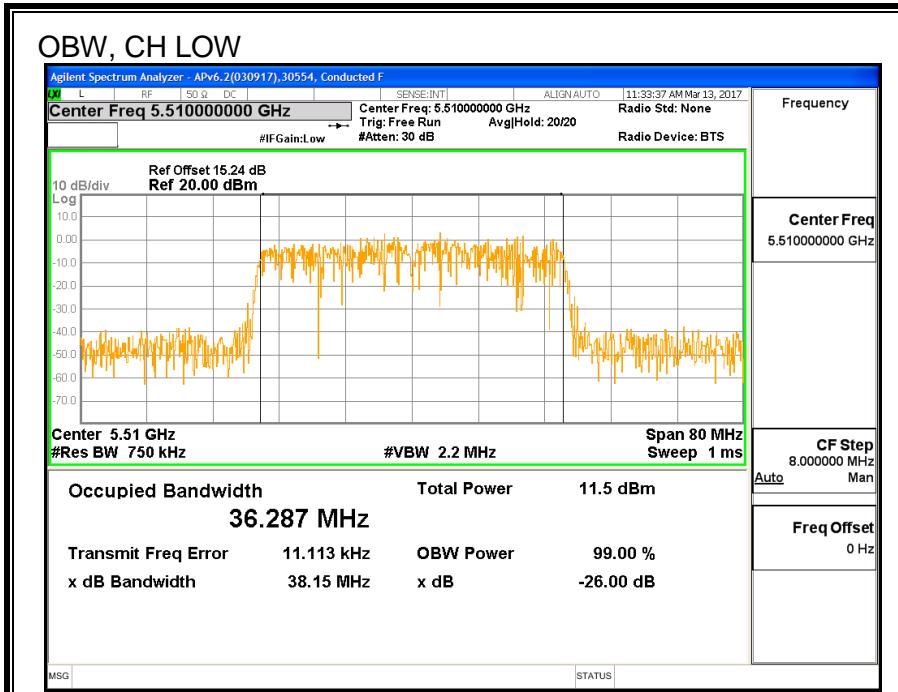
## 8.25.2. 99% BANDWIDTH

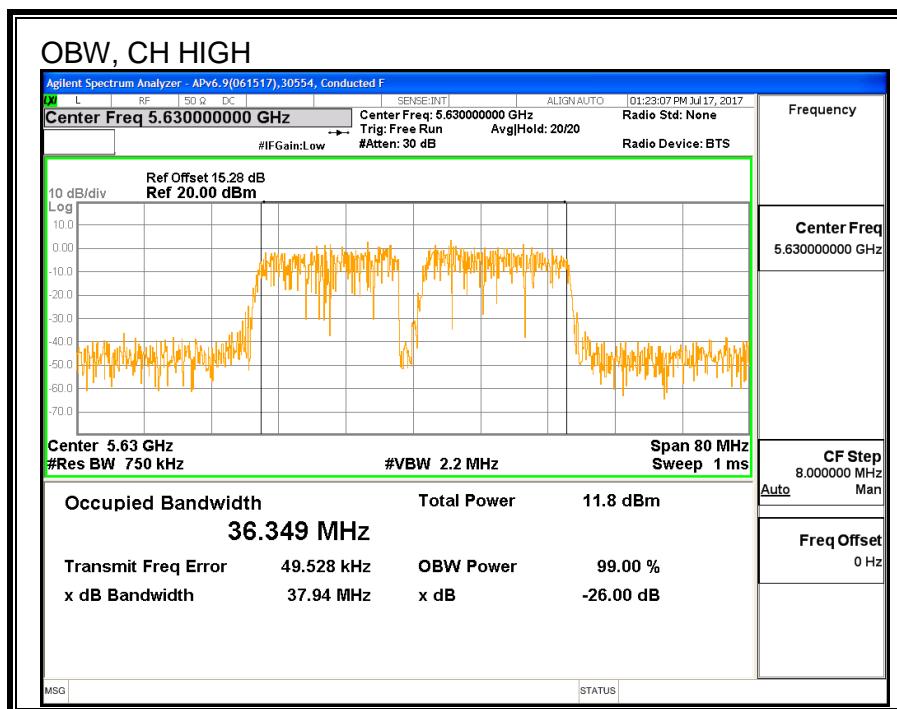
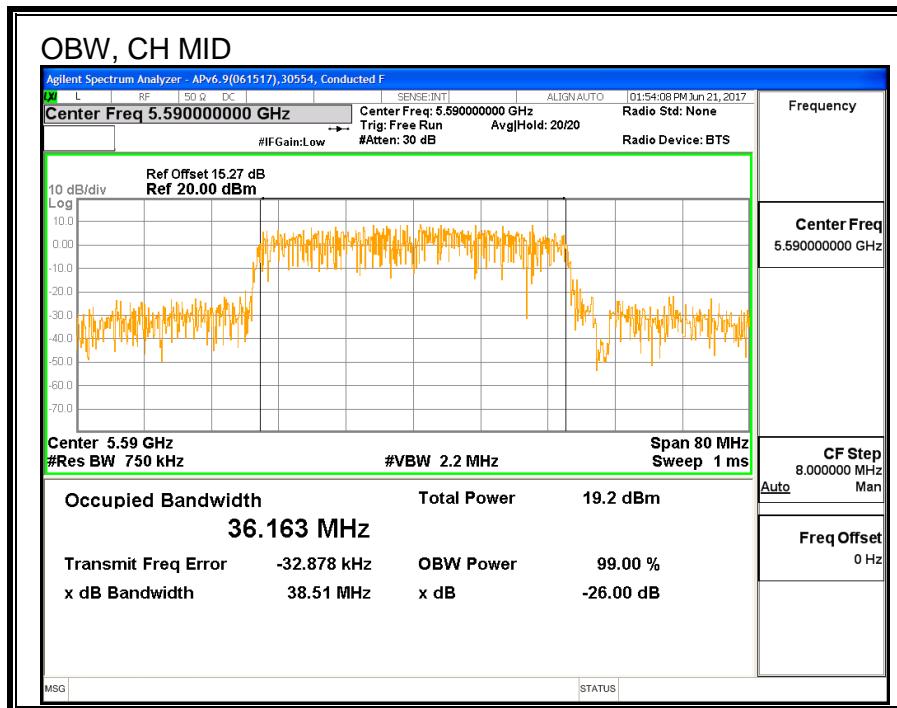
### LIMITS

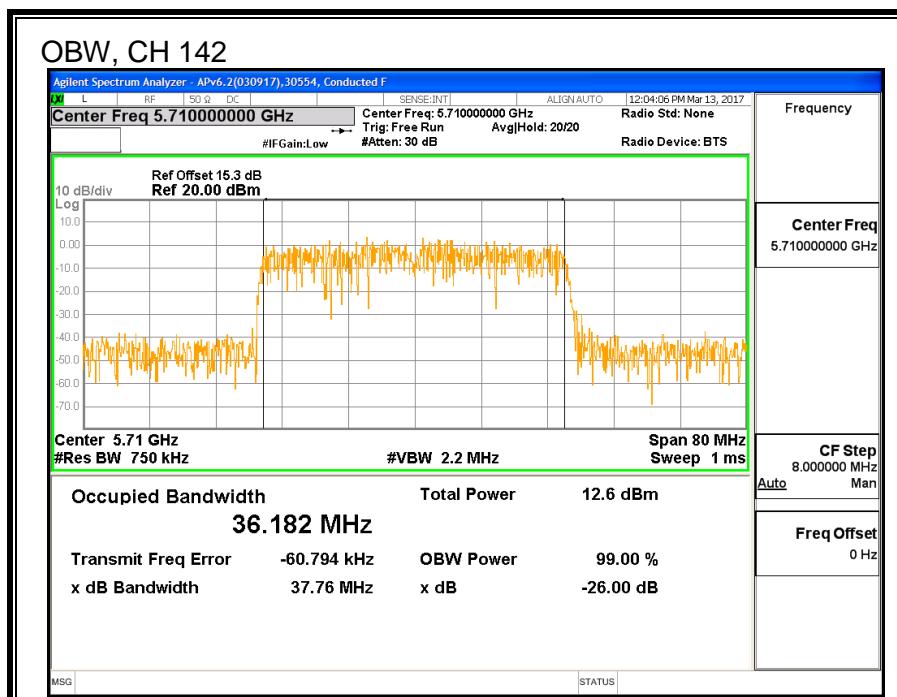
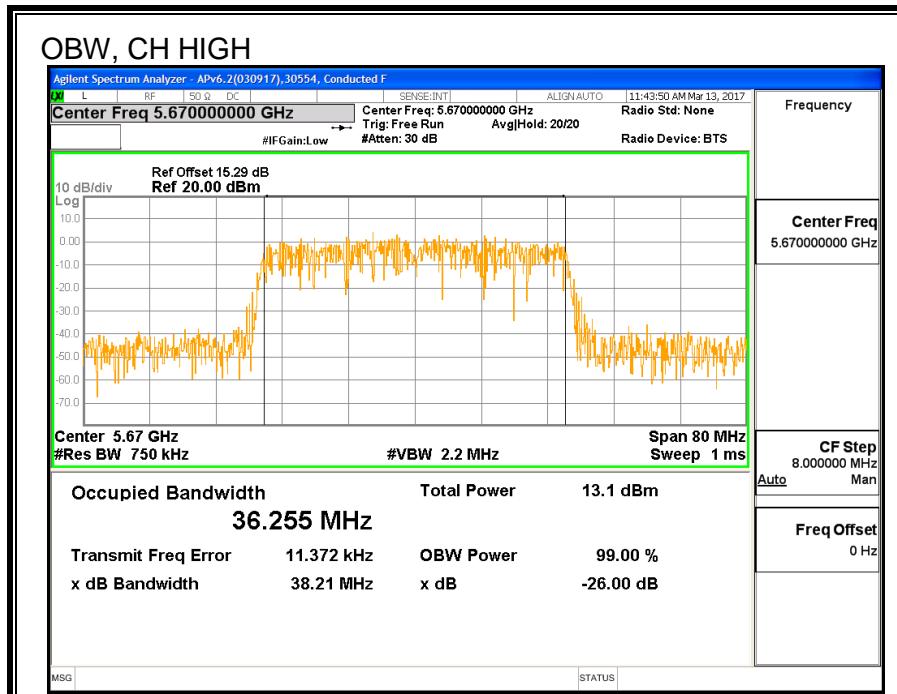
None; for reporting purposes only.

### RESULTS

Channel	Frequency	99% BW UAT 2 (MHz)
Low	5510	36.287
Mid	5550	36.080
Mid	5590	36.163
High	5630	36.349
High	5670	36.255
142	5710	36.182







### 8.25.3. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	7/17/2017
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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	5510	15.85
Mid	5550	18.89
Mid	5590	19.44
High	5630	18.40
High	5670	17.38
142	5710	19.45

#### **8.25.4. OUTPUT POWER AND PSD**

##### **LIMITS**

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

##### **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. However, PSD measurement was measured by Spectrum Analyzer and duty cycle factor is required

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

##### **DIRECTIONAL ANTENNA GAIN**

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

## RESULTS

### Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5510	40.60	36.287	-0.75	24.00	11.00
Mid	5550	40.60	36.080	-0.75	24.00	11.00
Mid	5590	40.60	36.080	-0.75	24.00	11.00
High	5630	40.60	36.349	-0.75	24.00	11.00
High	5670	40.60	36.255	-0.75	24.00	11.00

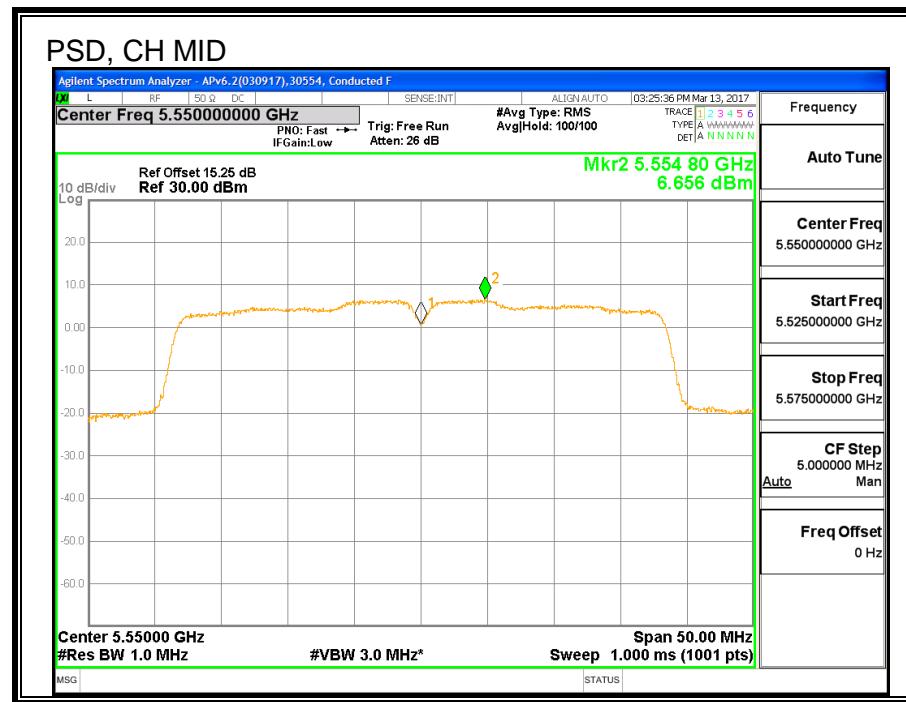
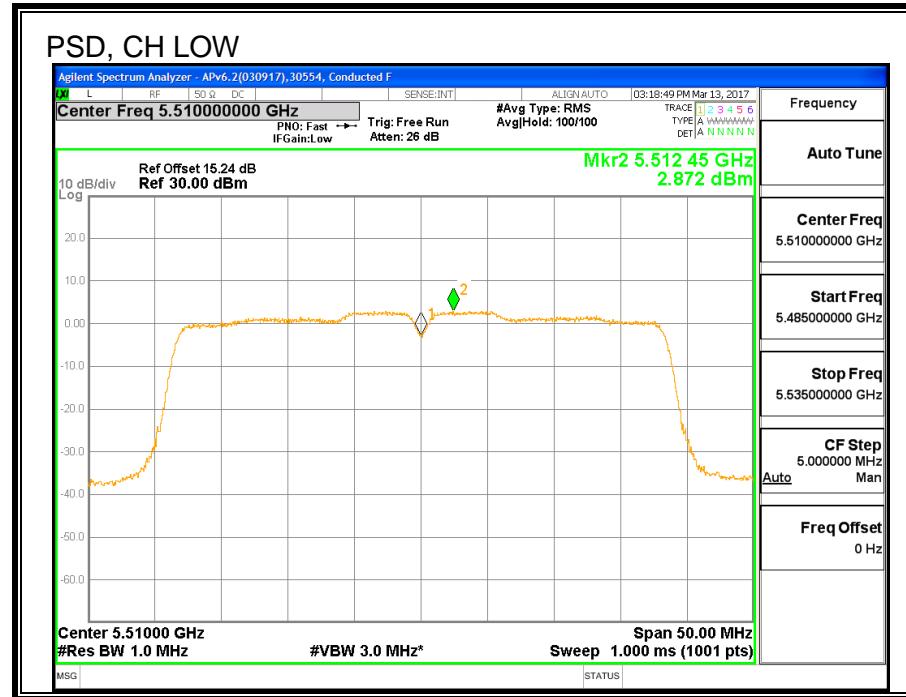
Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD
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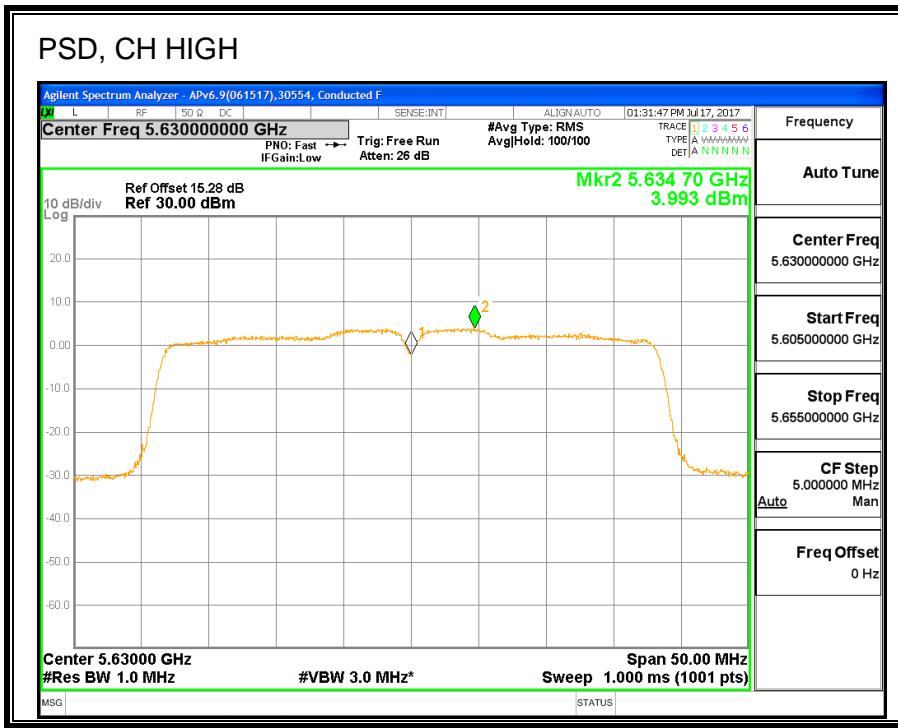
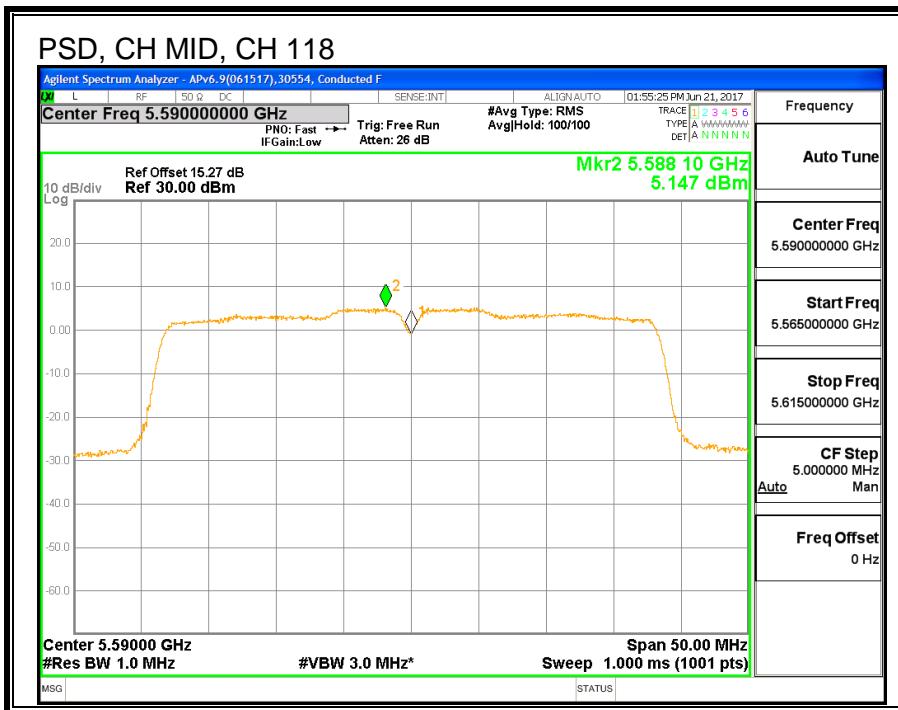
### Output Power Results

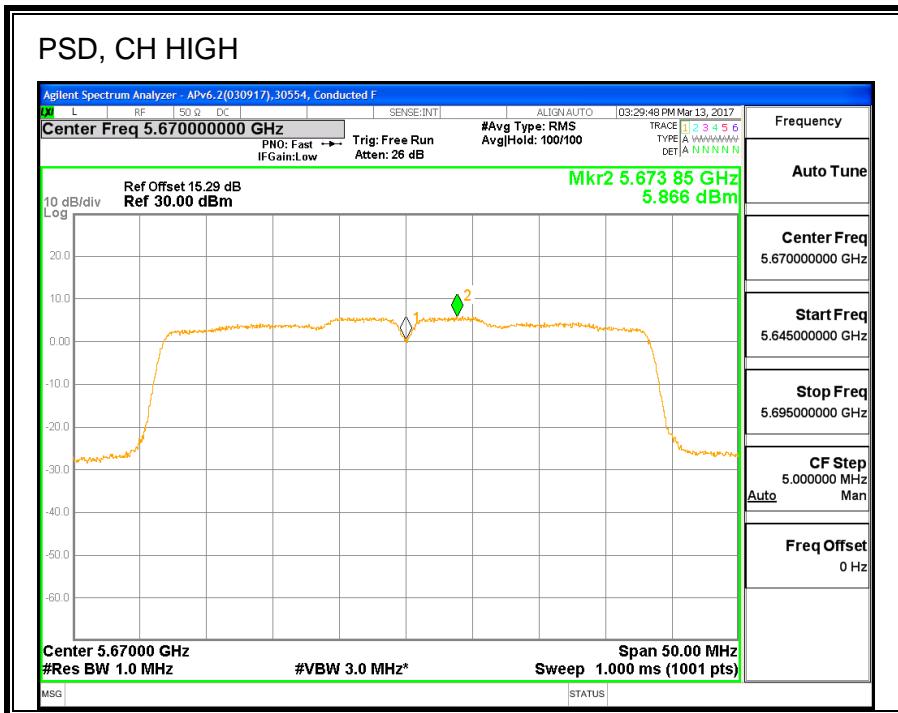
Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	15.85	15.85	24.00	-8.15
Mid	5550	18.89	18.89	24.00	-5.11
Mid	5590	19.44	19.44	24.00	-4.56
High	5630	18.40	18.40	24.00	-5.60
High	5670	17.38	17.38	24.00	-6.62

### PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	2.87	2.97	11.00	-8.03
Mid	5550	6.66	6.76	11.00	-4.24
Mid	5590	5.15	5.25	11.00	-5.75
High	5630	3.99	4.09	11.00	-6.91
High	5670	5.87	5.97	11.00	-5.03







## 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	35.40	-0.75	-0.75	24.00	11.00

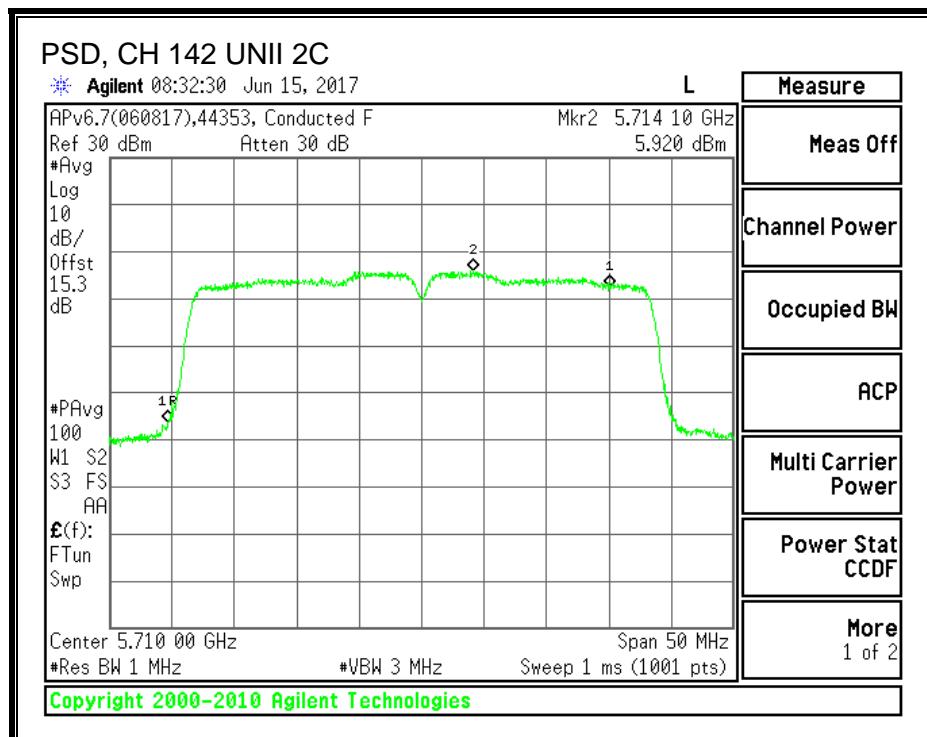
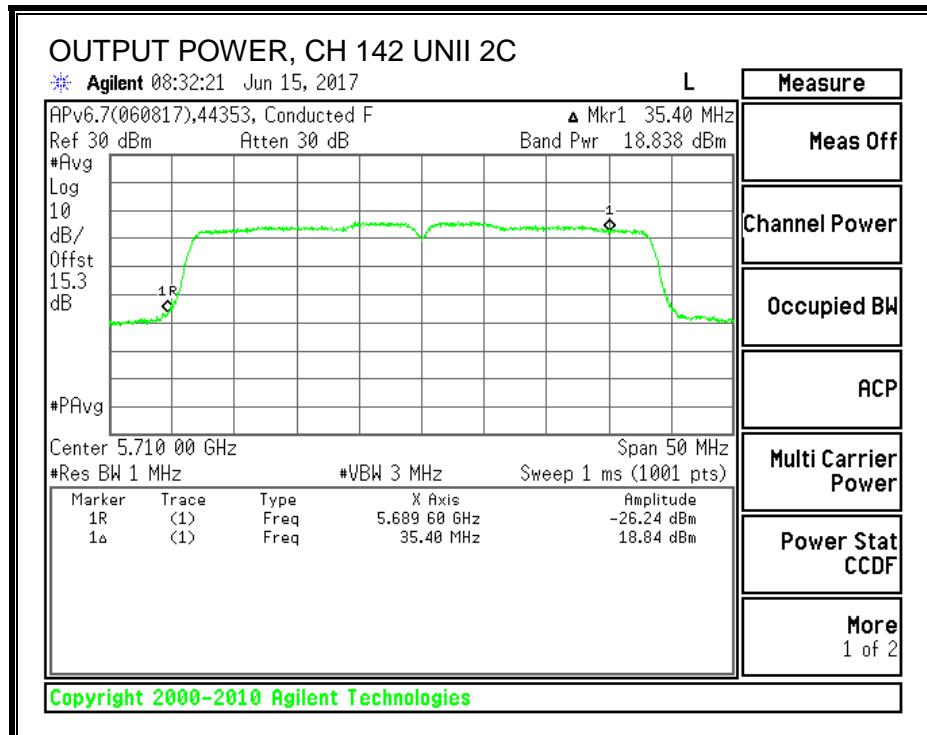
Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd Power & PSD
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##### Output Power Results

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	18.84	18.94	24.00	-5.06

##### PSD Results

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	5.92	6.02	11.00	-4.98



**UNII-3 BAND**

**Antenna Gain and Limit**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
142	5710	5.40	0.68	30.00	30.00

<b>Duty Cycle CF (dB)</b>	0.10	<b>Included in Calculations of Corr'd Power &amp; PSD</b>
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**Output Power Results**

Channel	Frequency (MHz)	UAT 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	7.46	7.56	30.00	-22.44

**PSD Results**

Channel	Frequency (MHz)	UAT 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	0.75	0.85	30.00	-29.15

## 8.26.2. 6 dB BANDWIDTH

## LIMITS

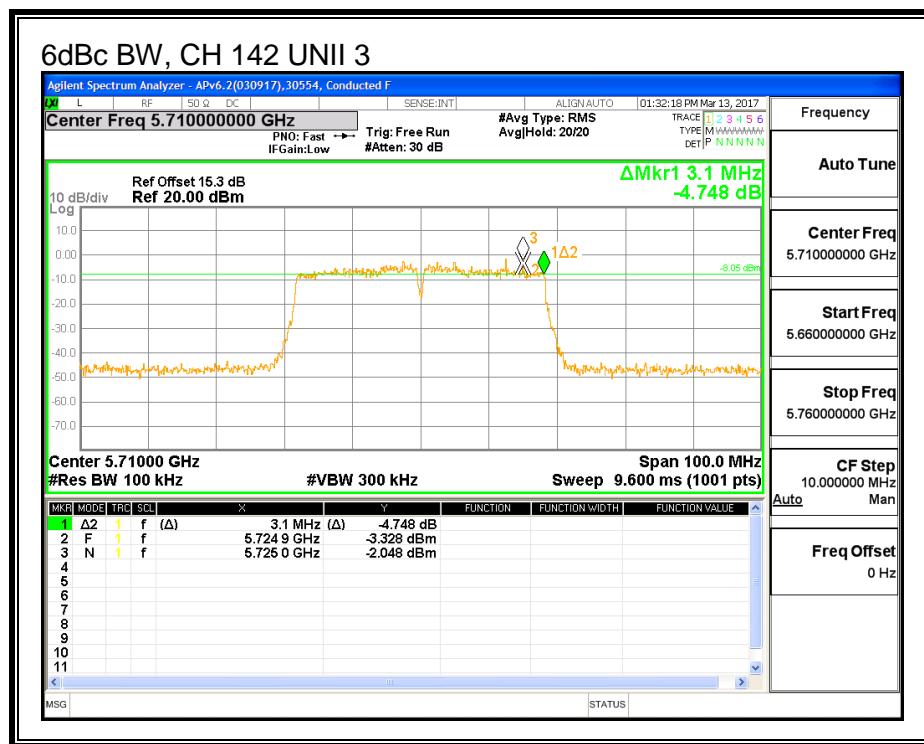
FCC §15.407 (e)

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

## **RESULTS**

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)
142	5710	3.100

## 6 dB BANDWIDTH



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

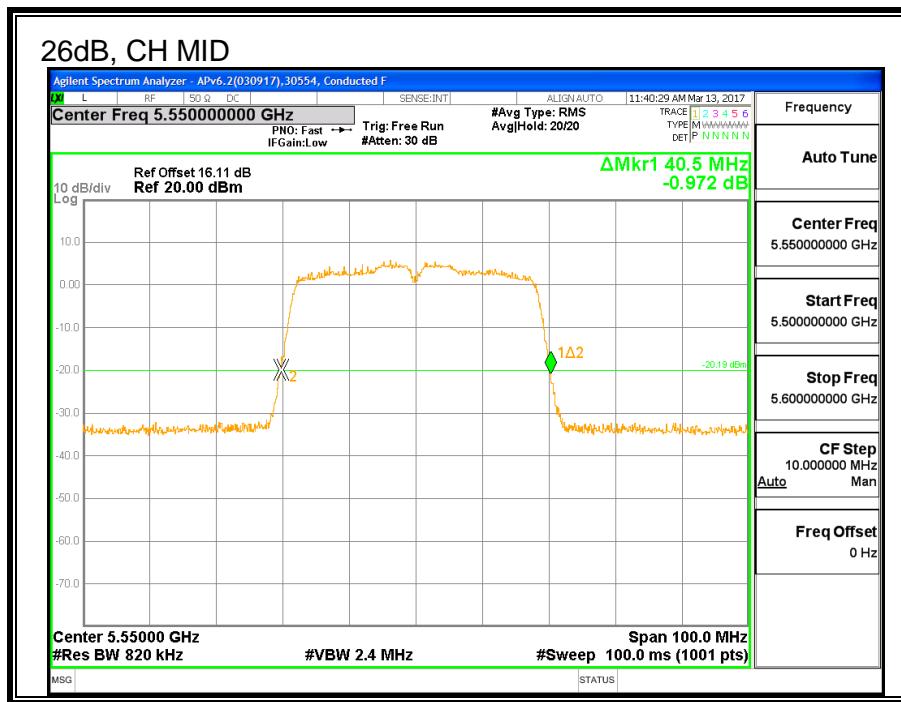
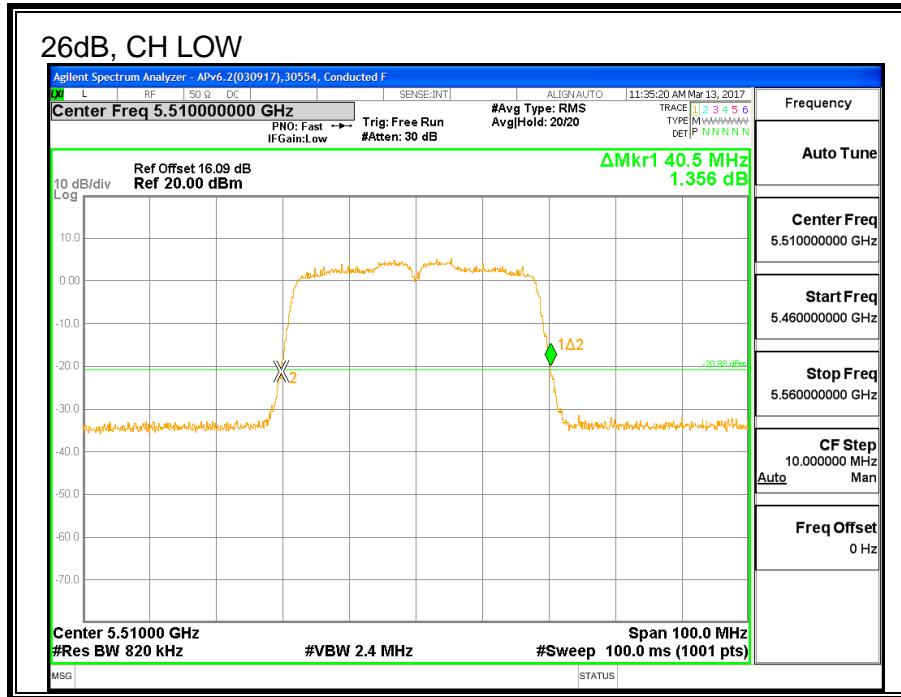
### 8.27.1. 26 dB BANDWIDTH

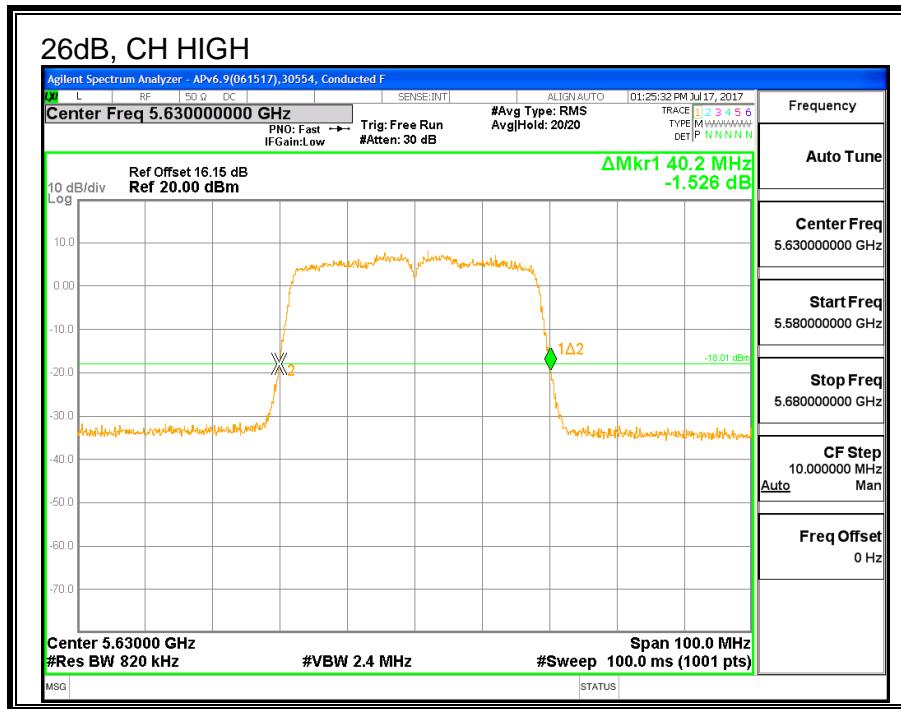
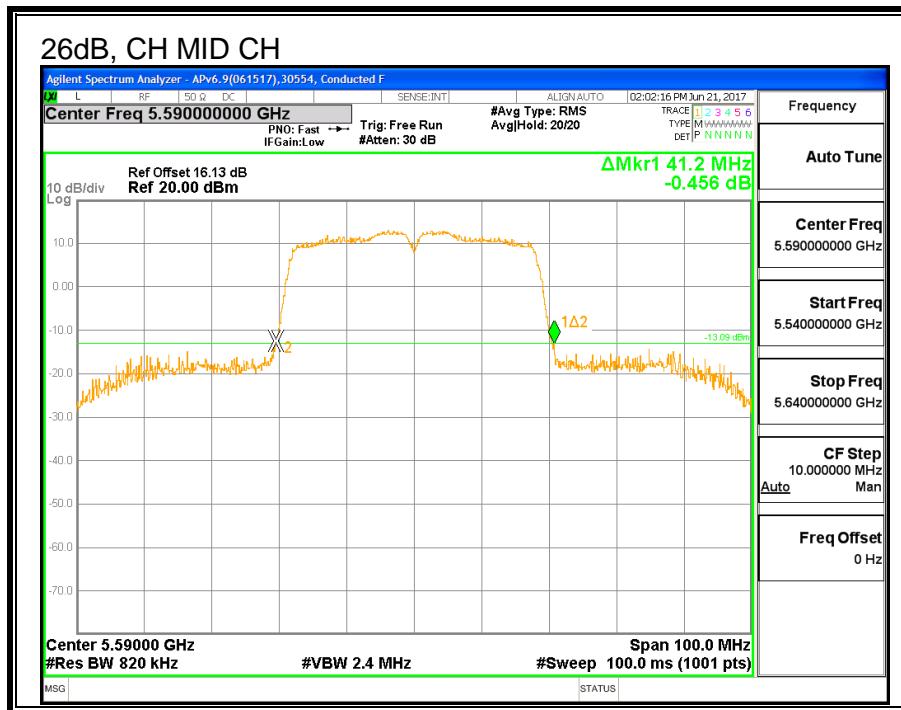
#### LIMITS

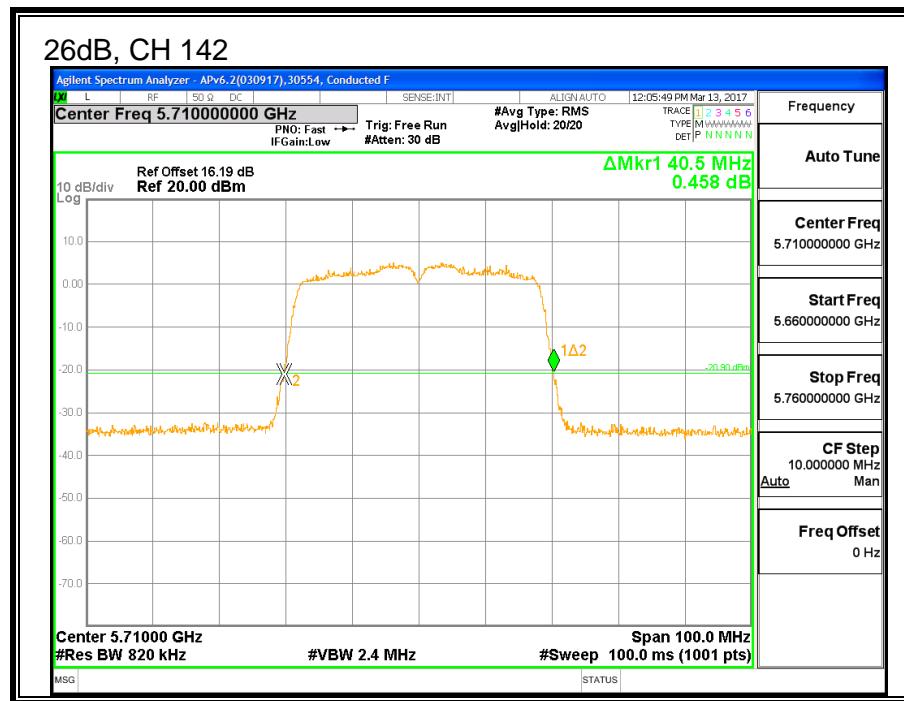
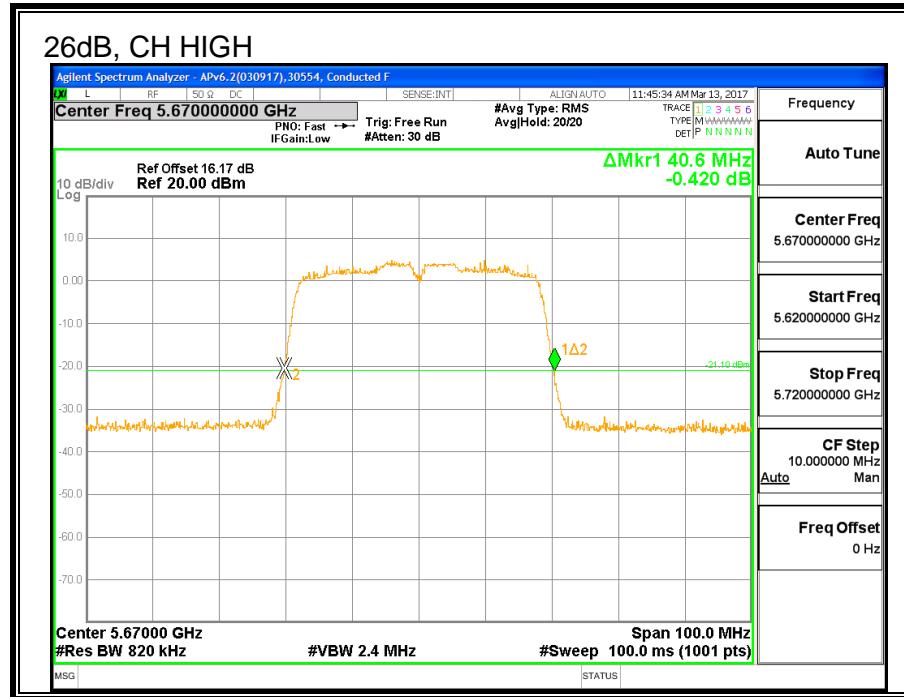
None; for reporting purposes only.

#### RESULTS

Channel	Frequency	26 dB BW LAT 3 (MHz)
Low	5510	40.5
Mid	5550	40.5
Mid	5590	41.2
High	5630	40.2
High	5670	40.6
142	5710	40.5







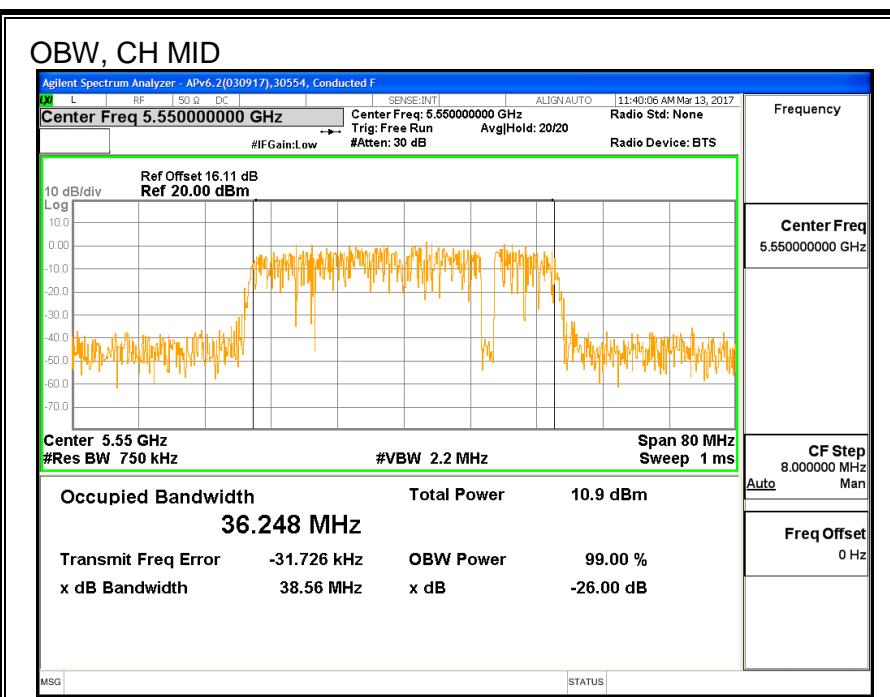
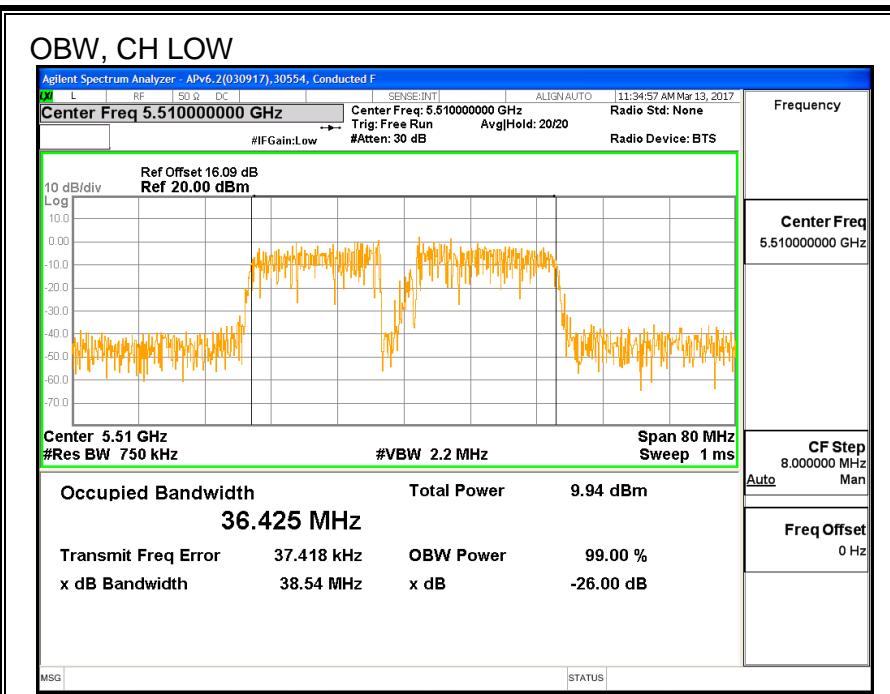
## 8.27.2. 99% BANDWIDTH

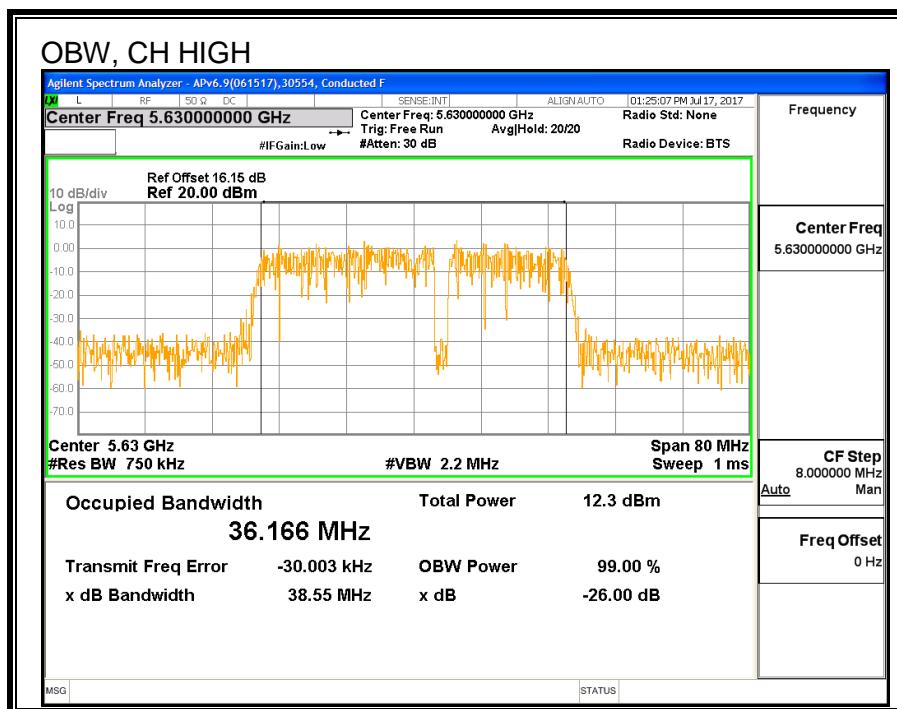
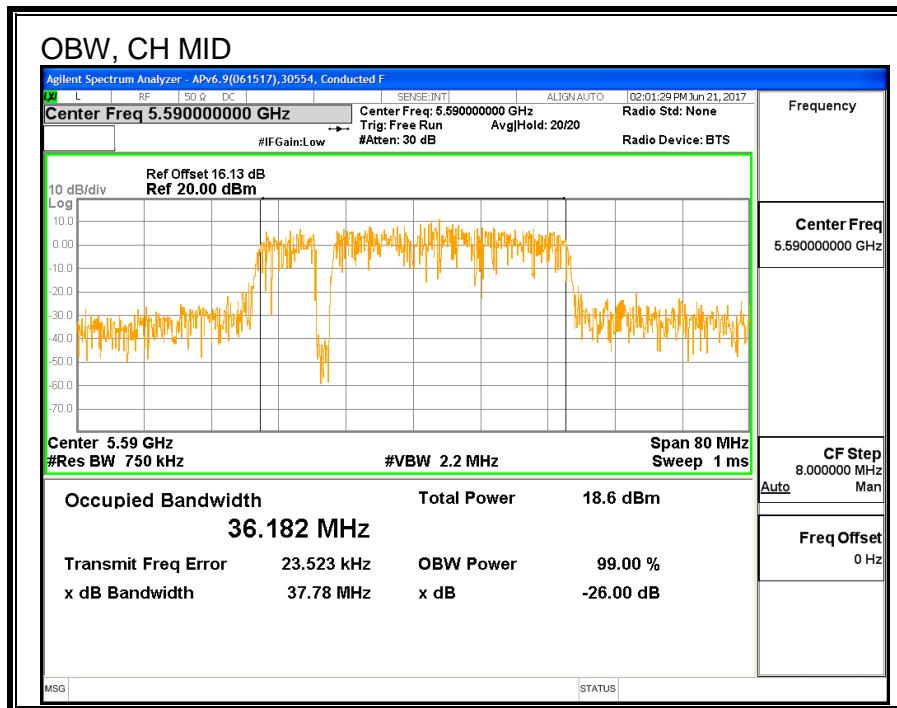
### LIMITS

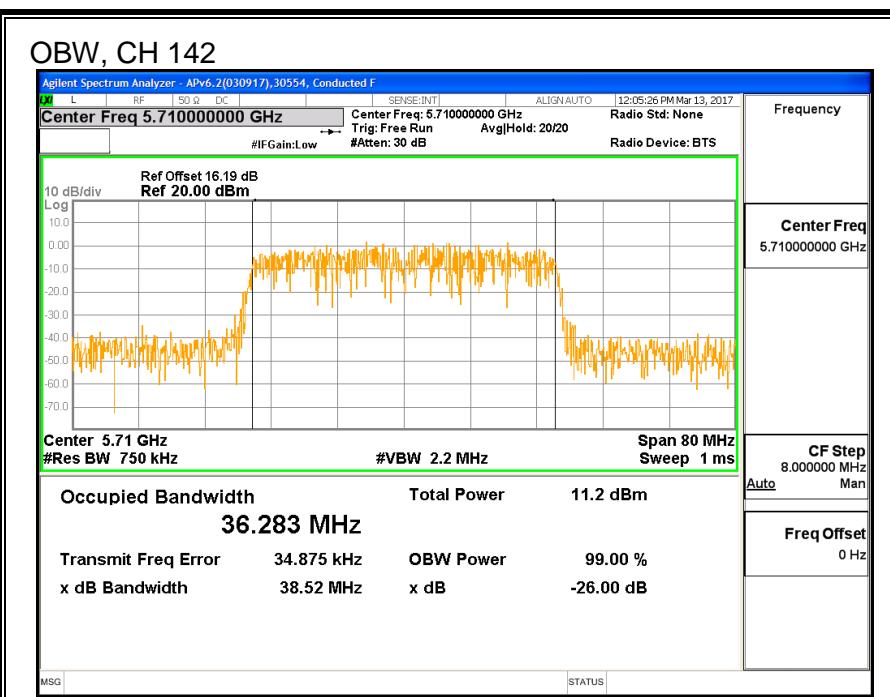
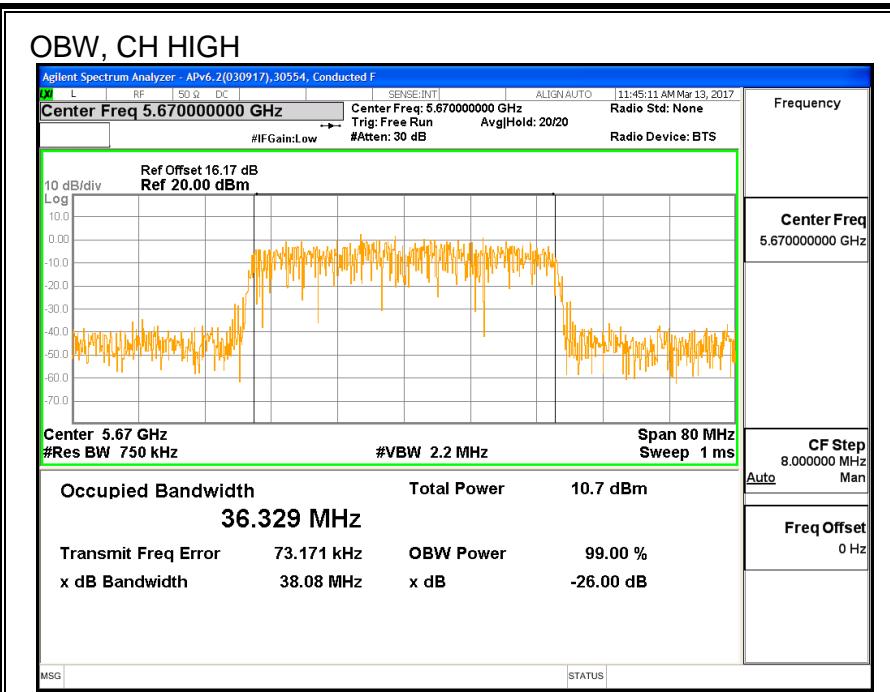
None; for reporting purposes only.

### RESULTS

Channel	Frequency	99% BW LAT 3 (MHz)
Low	5510	36.425
Mid	5550	36.248
Mid	5590	36.182
High	5630	36.166
High	5670	36.329
142	5710	36.283







### 8.27.3. AVERAGE POWER

<b>ID:</b>	30554	<b>Date:</b>	7/17/2017
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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	5510	15.80
Mid	5550	18.83
Mid	5590	19.26
High	5630	18.44
High	5670	17.29
142	5710	19.29