

### **8.35. 802.11a SISO MODE IN THE 5.6 GHz BAND**

**Note:** Covered by 802.11n HT20 SISO CDD MODE

### 8.36. 802.11n HT20 CHAIN 0 MODE IN THE 5.6 GHz BAND

#### 8.36.1. 26 dB BANDWIDTH

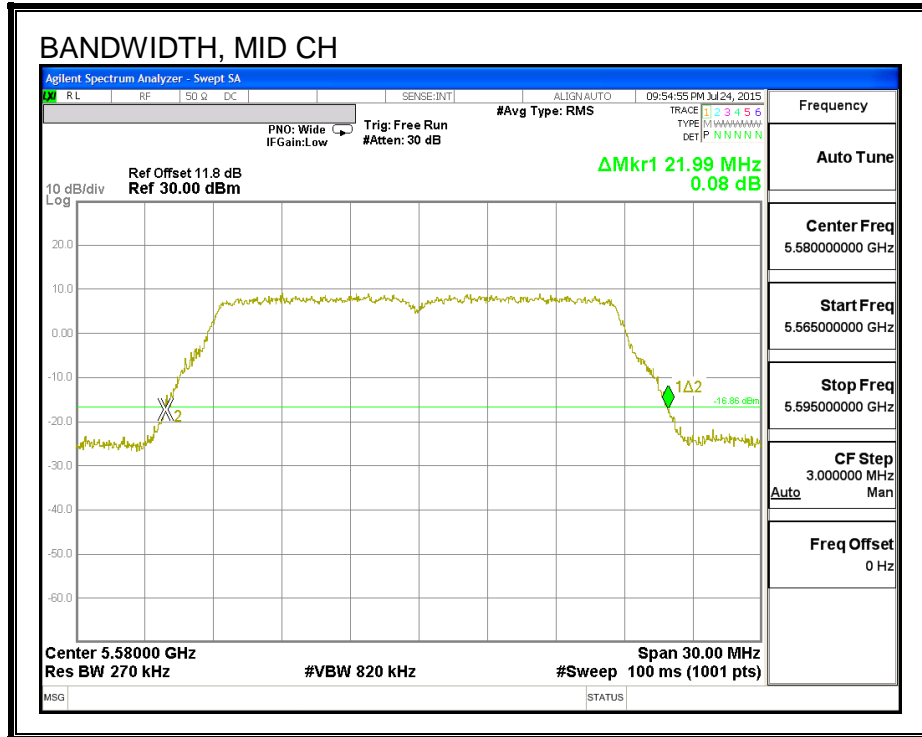
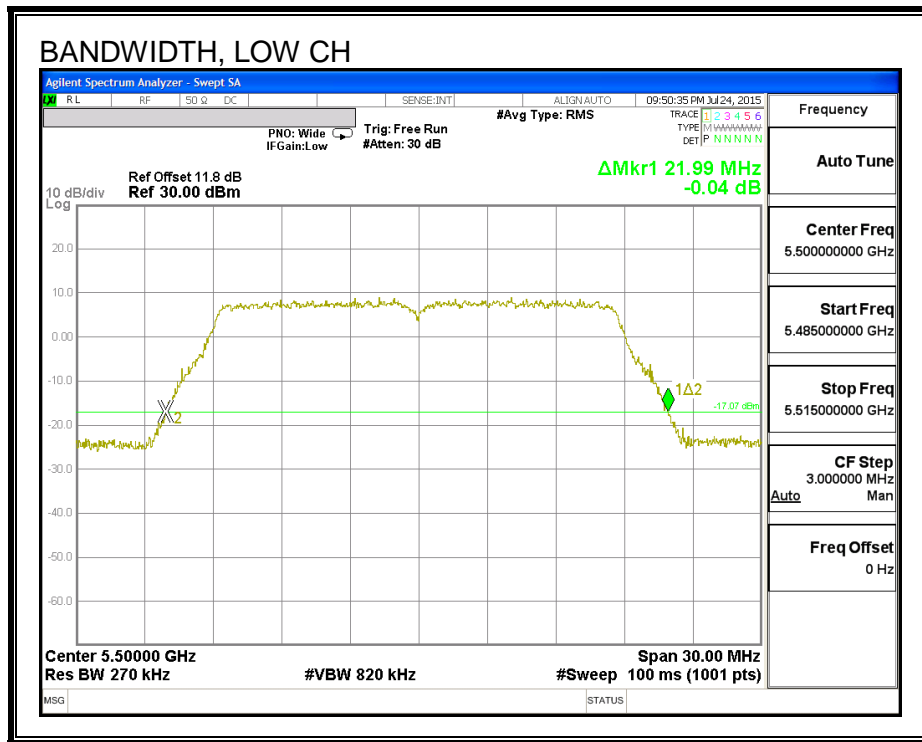
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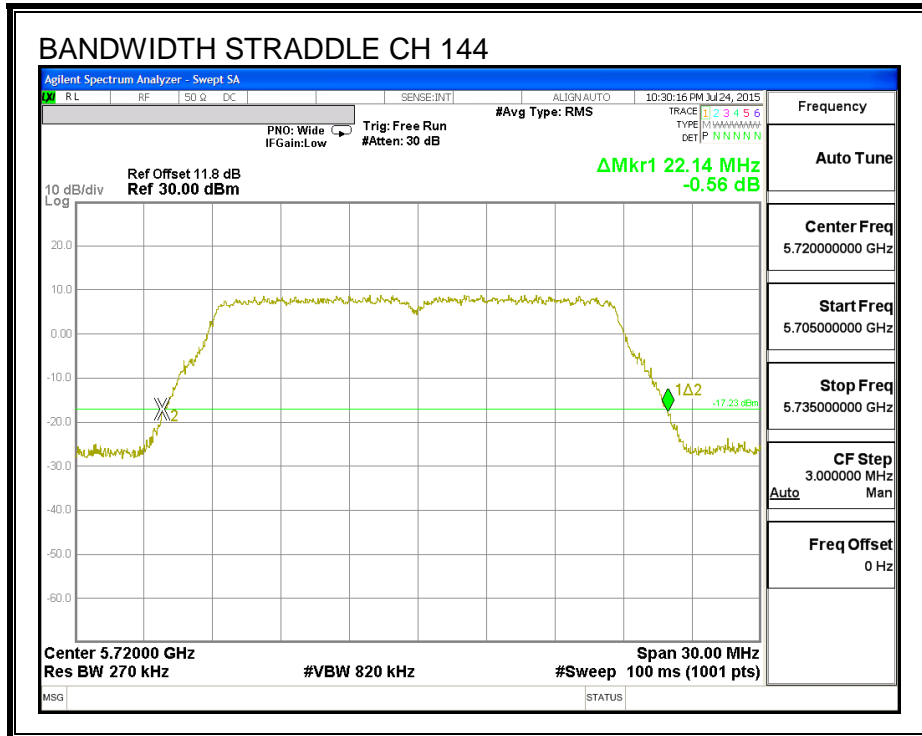
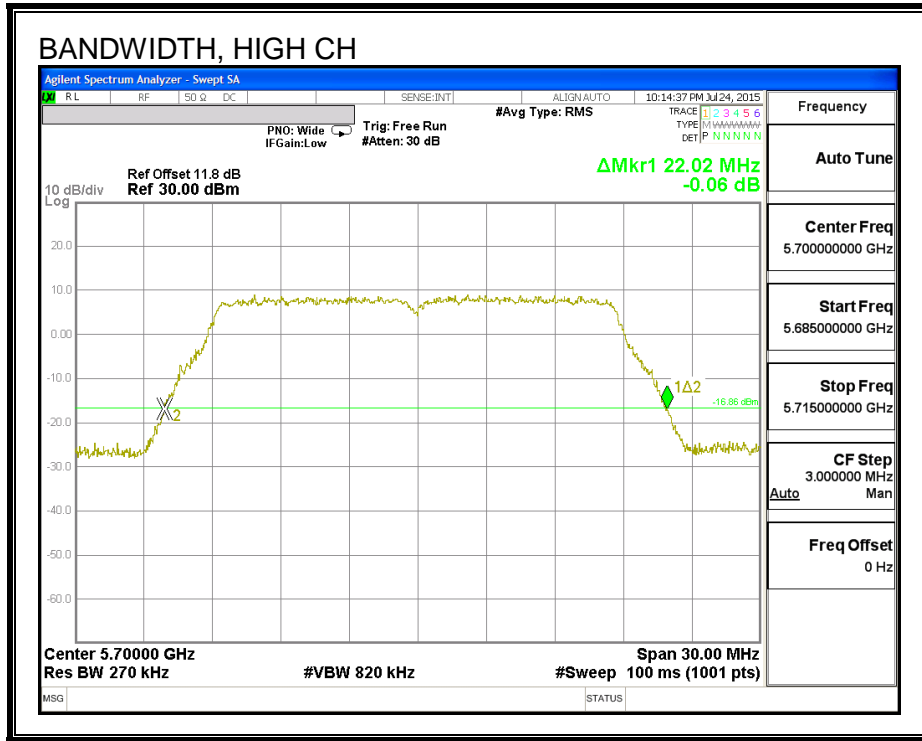
None; for reporting purposes only.

##### RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	21.99
Mid	5580	21.99
High	5700	22.02
144	5720	22.14

**26 dB BANDWIDTH**





### 8.36.2. 99% BANDWIDTH

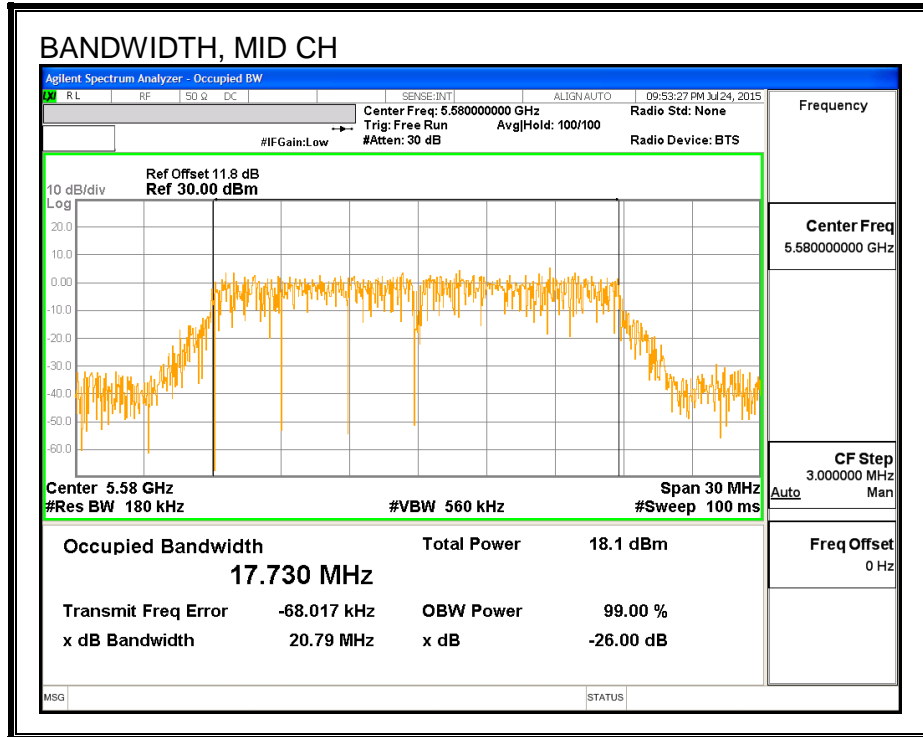
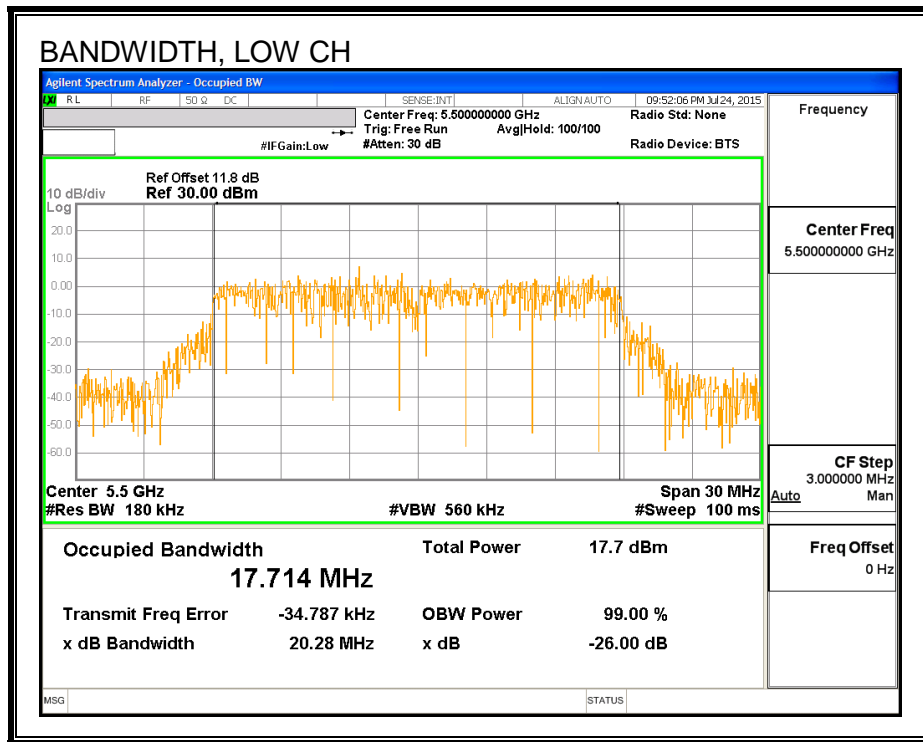
#### LIMITS

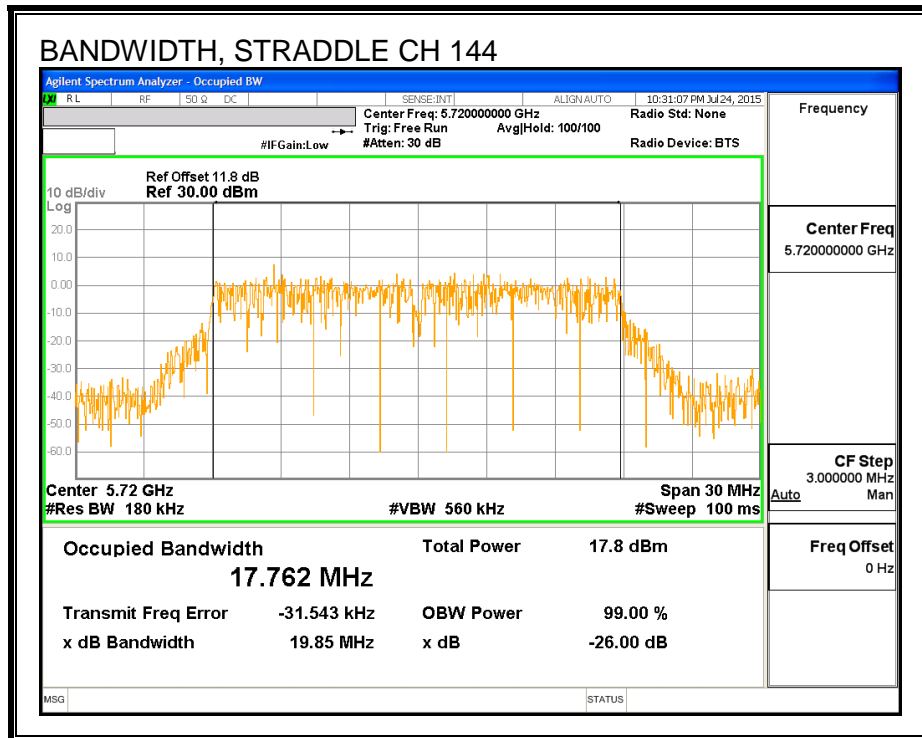
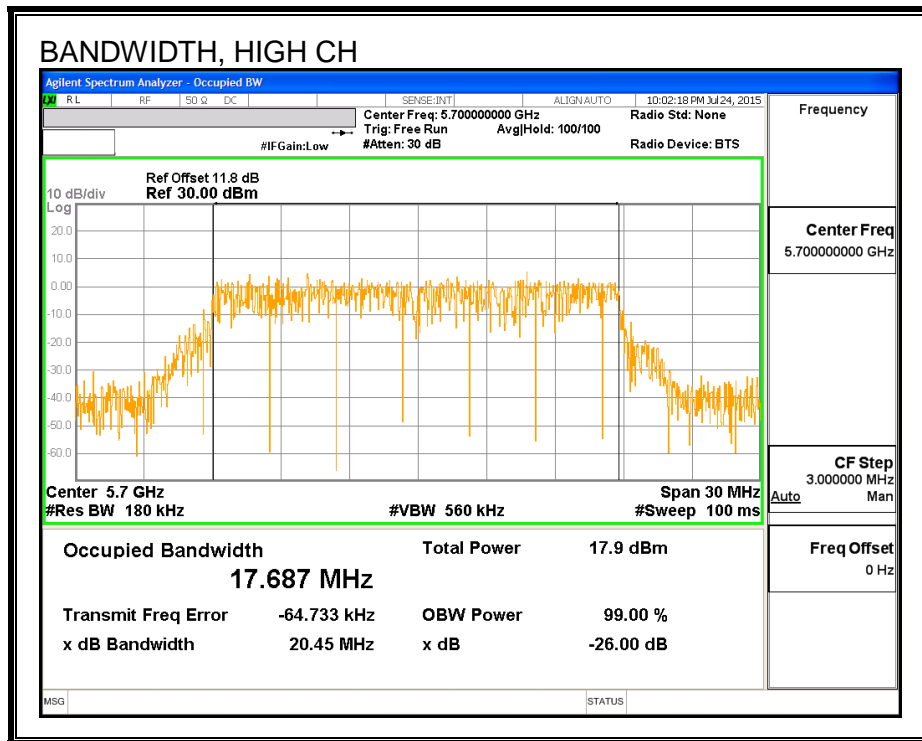
None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	17.714
Mid	5580	17.730
High	5700	17.687
144	5720	17.762

**99% BANDWIDTH**





### 8.36.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5500	15.40
Mid	5580	15.44
High	5700	14.96
144	5720	15.45



#### **8.36.4. 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  $11 \text{ dBm} + 10 \log B$ , 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.

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

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

**RESULTS**

**Bandwidth, Antenna Gain, and Limits**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5500	21.99	17.714	2.70	23.48	11.00
Mid	5580	21.99	17.730	2.70	23.49	11.00
High	5700	22.02	17.687	2.70	23.48	11.00
<b>Duty Cycle CF (dB)</b>		0.00	<b>Included in Calculations of Corr'd Power &amp; PSD</b>			

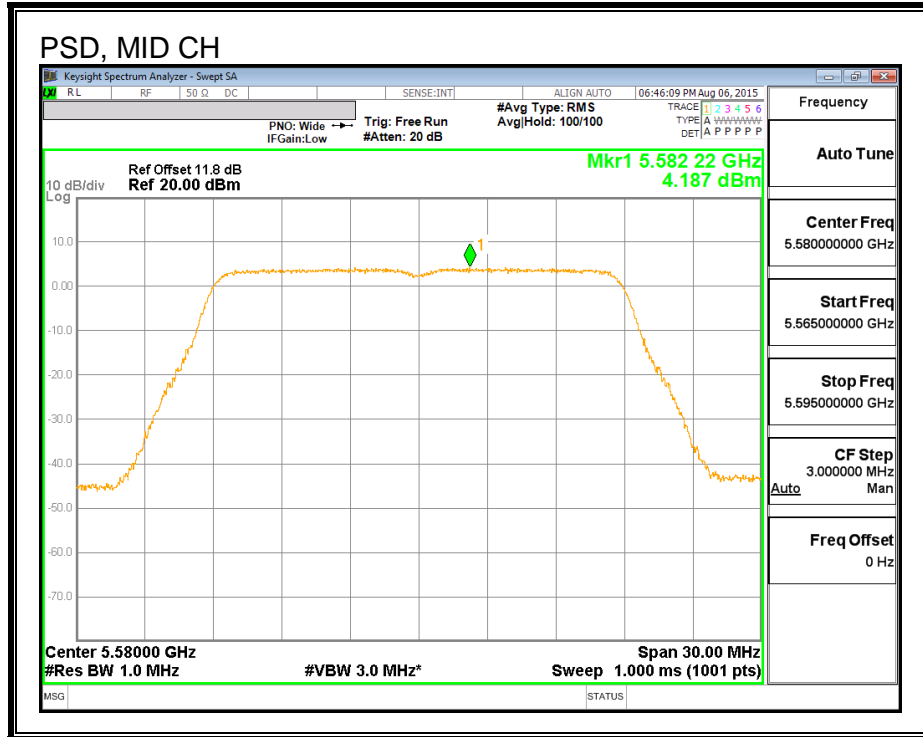
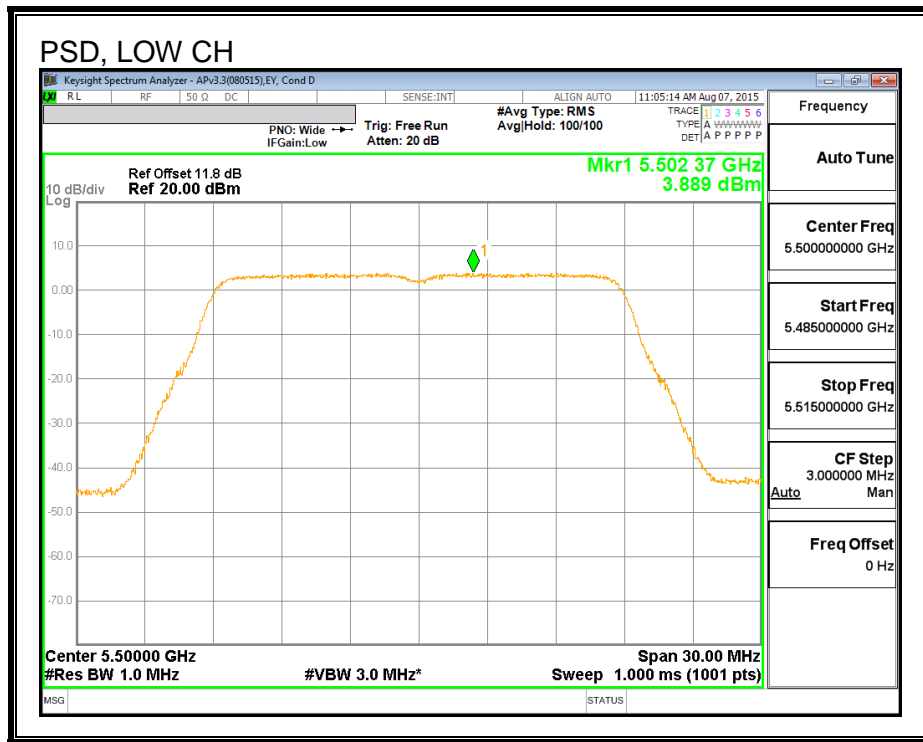
**Output Power Results**

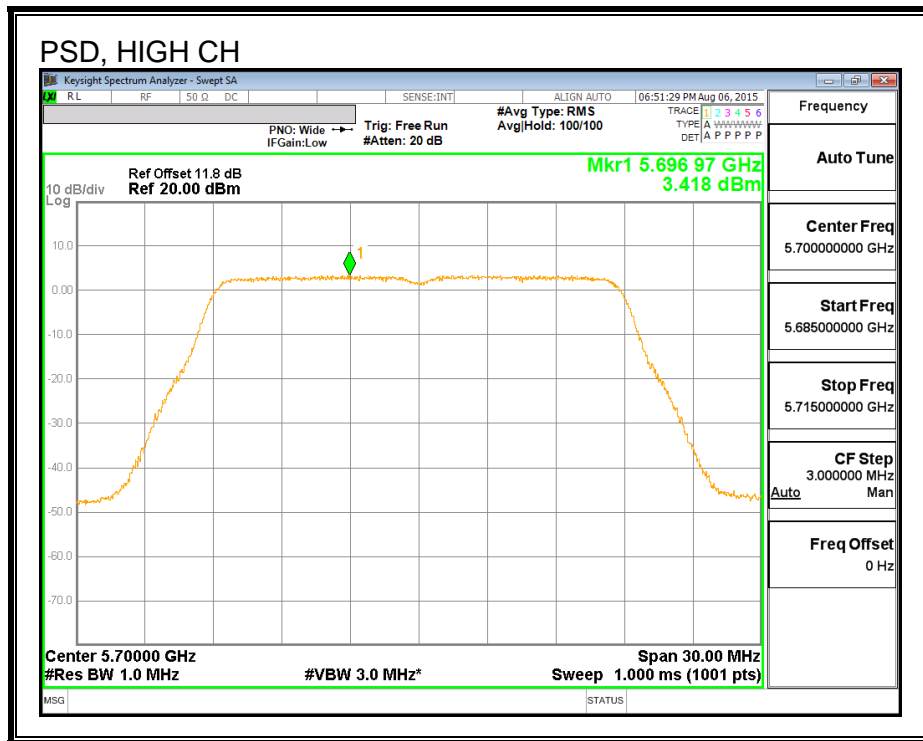
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	15.40	15.40	23.48	-8.08
Mid	5580	15.44	15.44	23.49	-8.05
High	5700	14.96	14.96	23.48	-8.52

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	3.89	3.89	11.00	-7.11
Mid	5580	4.19	4.19	11.00	-6.81
High	5700	3.42	3.42	11.00	-7.58

**PSD**





### 8.36.5. STRADDLE CHANNEL 144 RESULTS

#### UNII-2C BAND

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

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	16.07	2.70	2.70	23.06	11.00

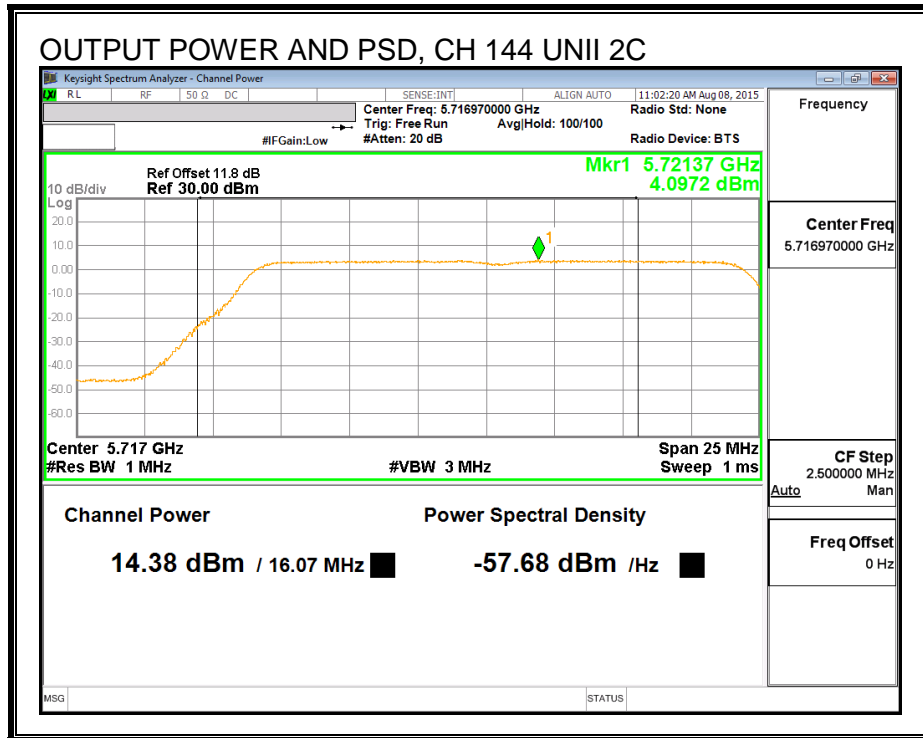
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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##### Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	14.38	14.38	23.06	-8.68

##### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	4.10	4.10	11.00	-6.90



**UNII-3 BAND**

**Antenna Gain and Limit**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	6.07	2.70	30.00	30.00

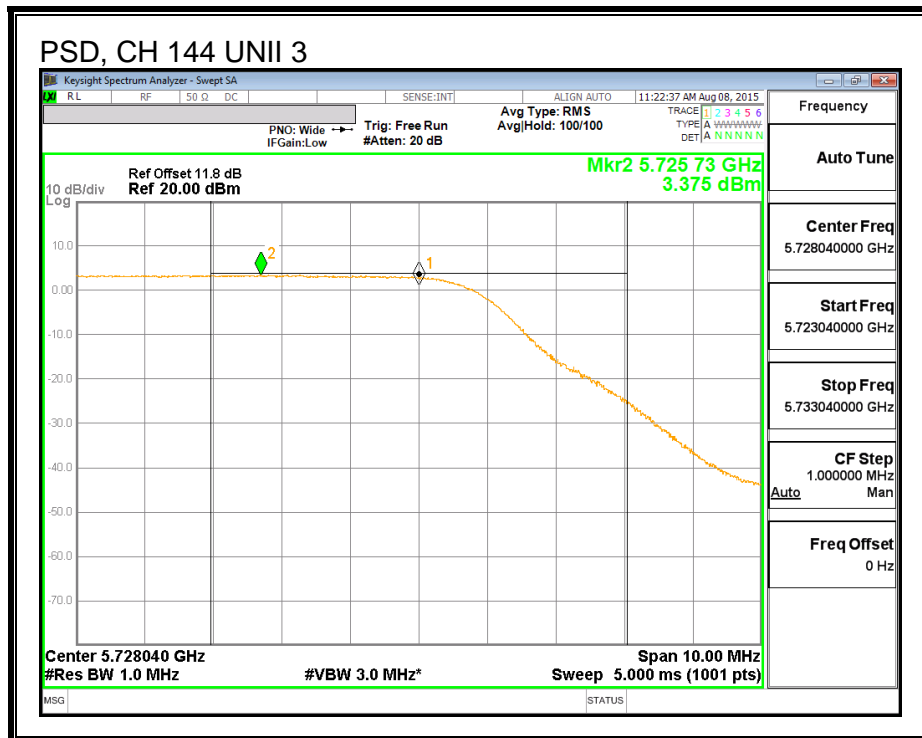
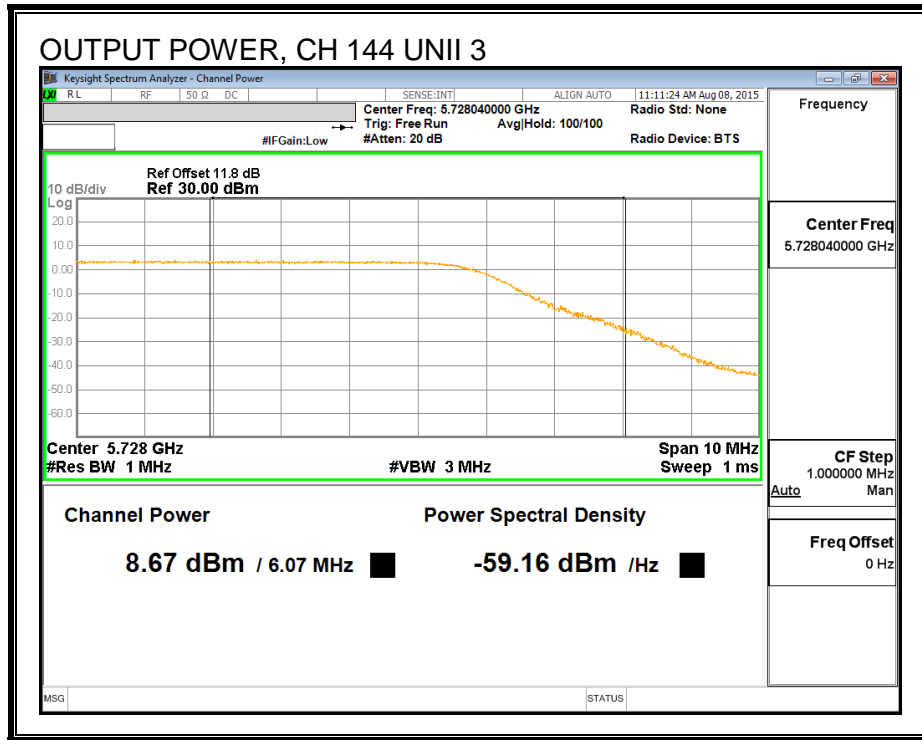
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd Power &amp; PSD</b>
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**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	8.67	8.67	30.00	-21.33

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	3.38	3.38	30.00	-26.63





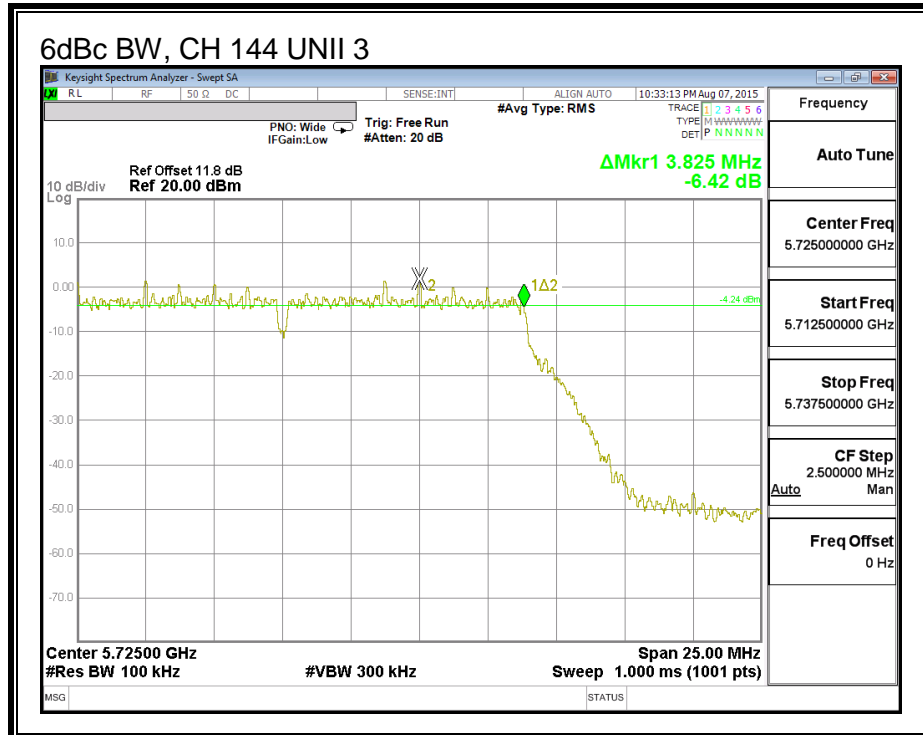
### 8.36.6. 6 dB BANDWIDTH

#### LIMITS

FCC §15.407 (e)

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

#### RESULTS



## 8.37. 802.11n HT20 CHAIN 1 MODE IN THE 5.6 GHz BAND

### 8.37.1. 26 dB BANDWIDTH

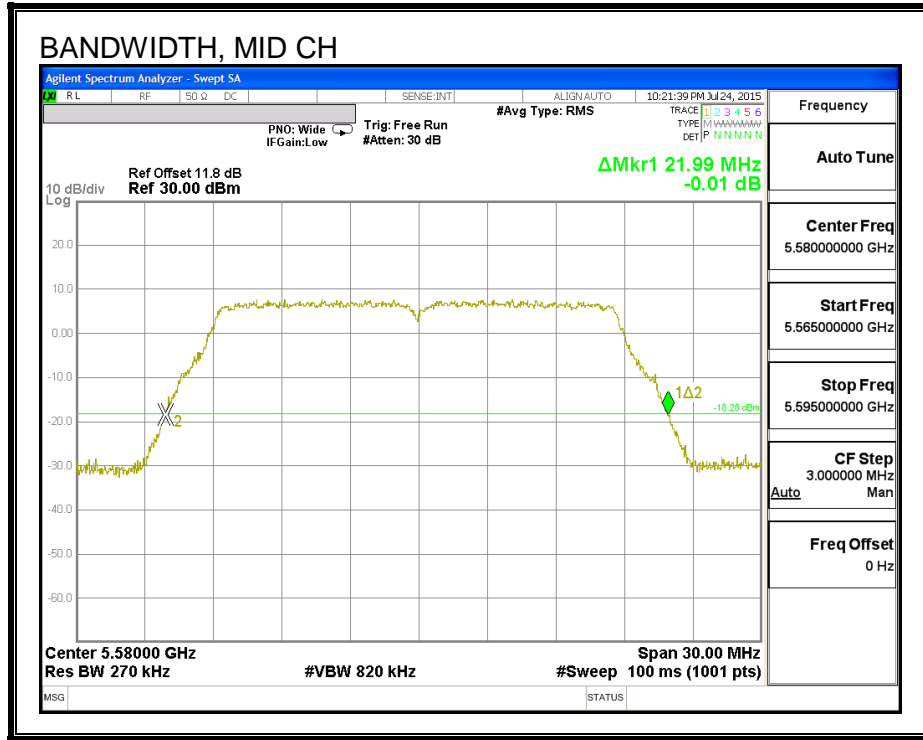
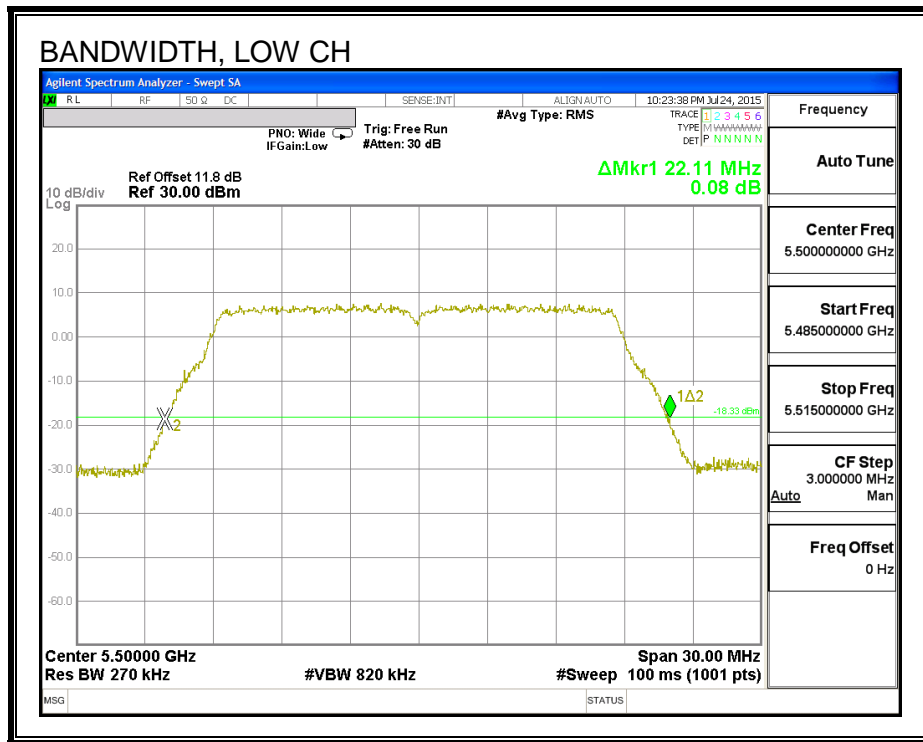
#### LIMITS

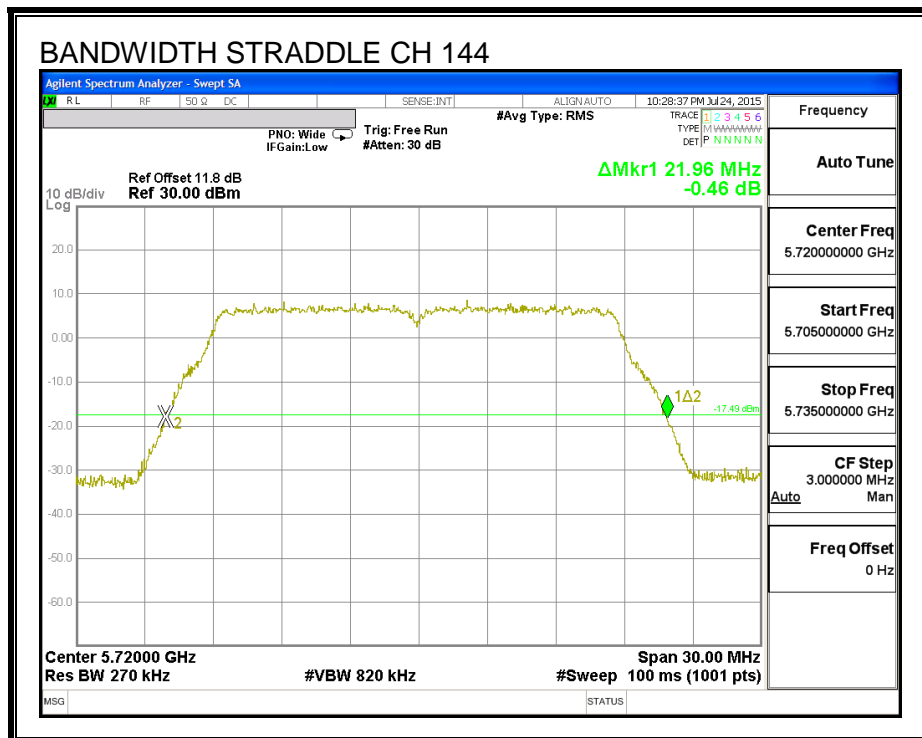
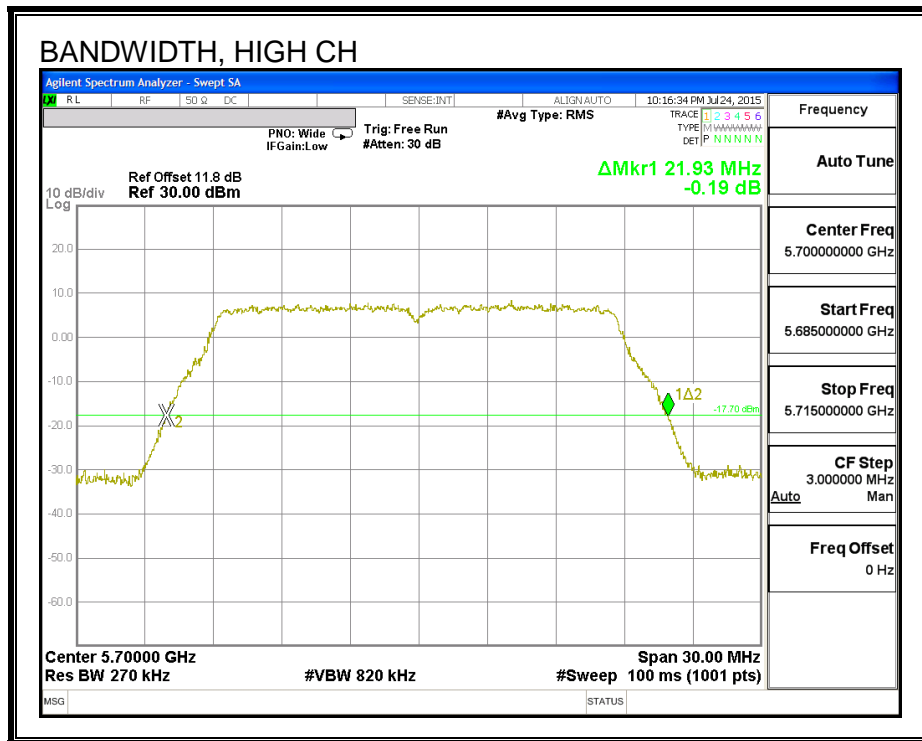
None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5500	22.11
Mid	5580	21.99
High	5700	21.93
144	5720	21.96

**26 dB BANDWIDTH**





### 8.37.2. 99% BANDWIDTH

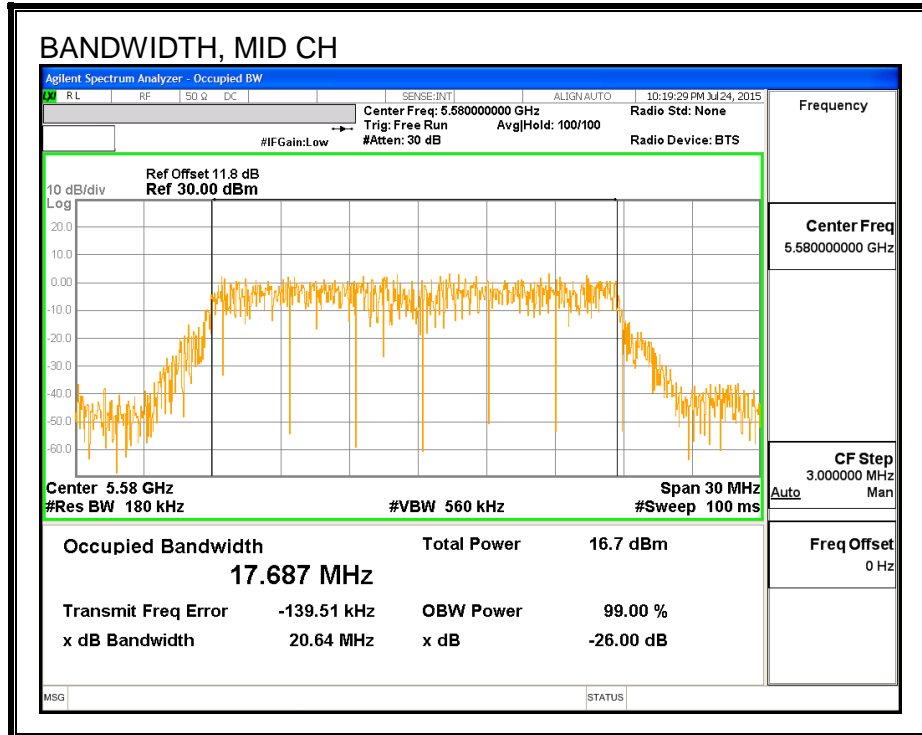
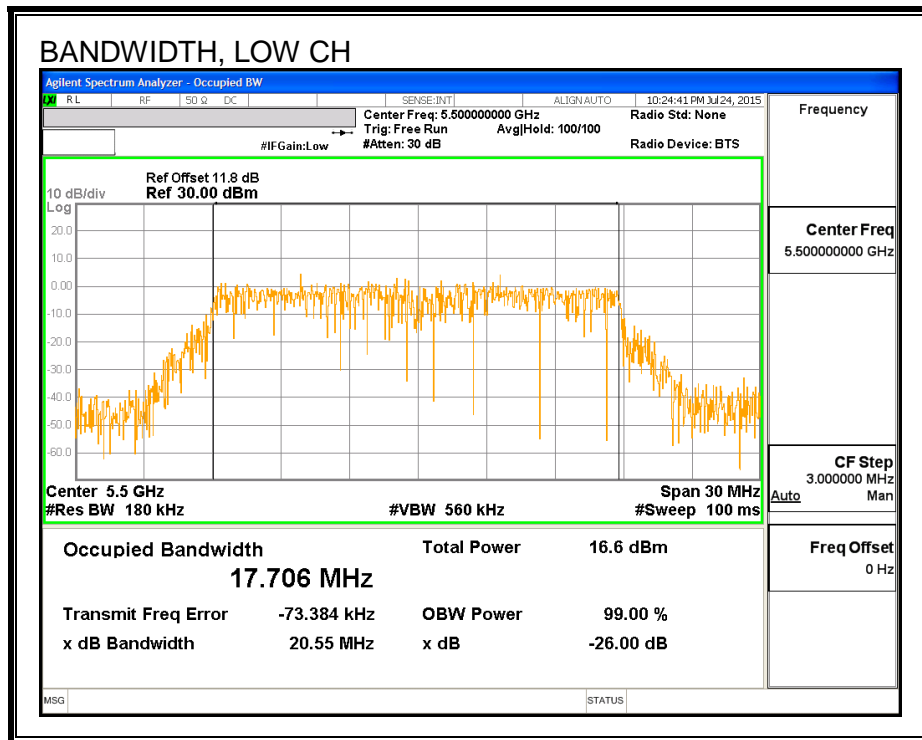
#### LIMITS

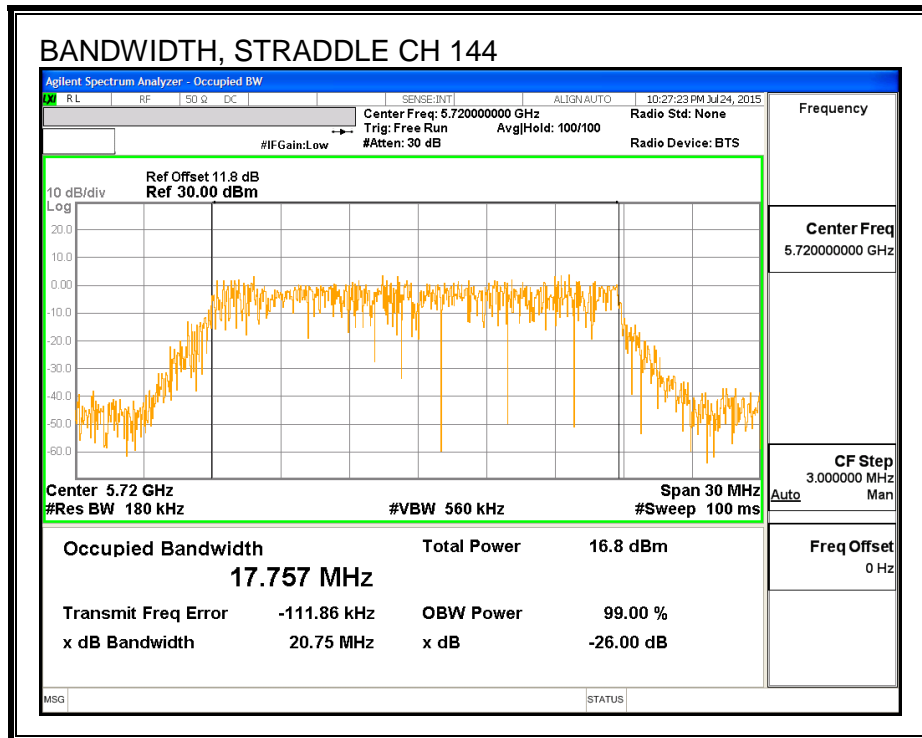
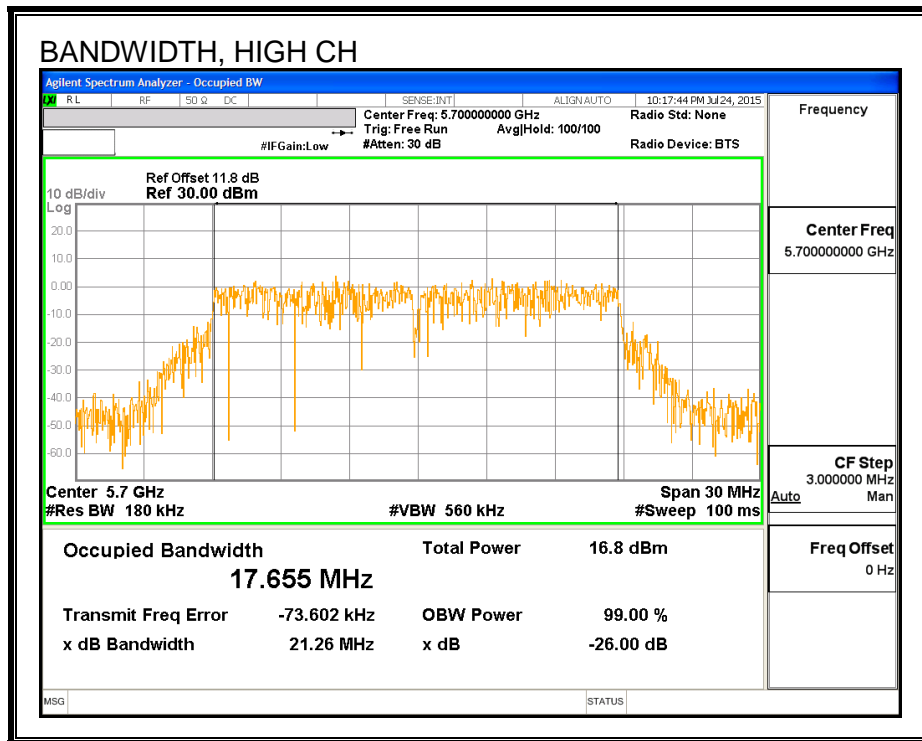
None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5500	17.706
Mid	5580	17.687
High	5700	17.655
144	5720	17.757

**99% BANDWIDTH**





### 8.37.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5500	15.49
Mid	5580	15.96
High	5700	14.93
144	5720	15.97



#### **8.37.4. 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  $11 \text{ dBm} + 10 \log B$ , 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.

##### **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	22.11	17.706	3.10	23.48	11.00
Mid	5580	21.99	17.687	3.10	23.48	11.00
High	5700	21.93	17.655	3.10	23.47	11.00
<b>Duty Cycle CF (dB)</b>		0.00	<b>Included in Calculations of Corr'd Power &amp; PSD</b>			

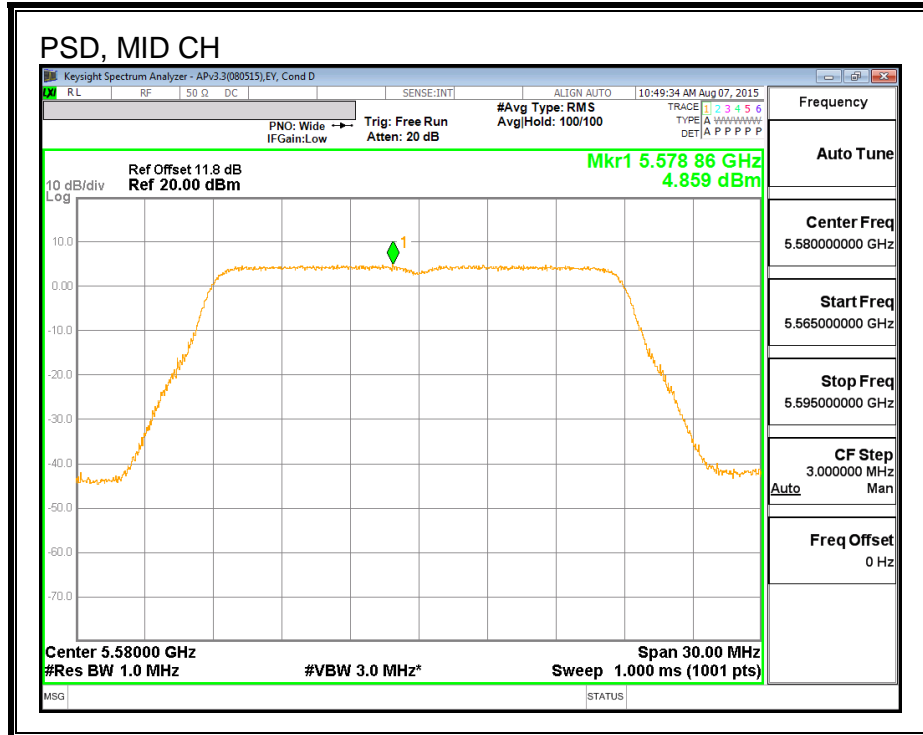
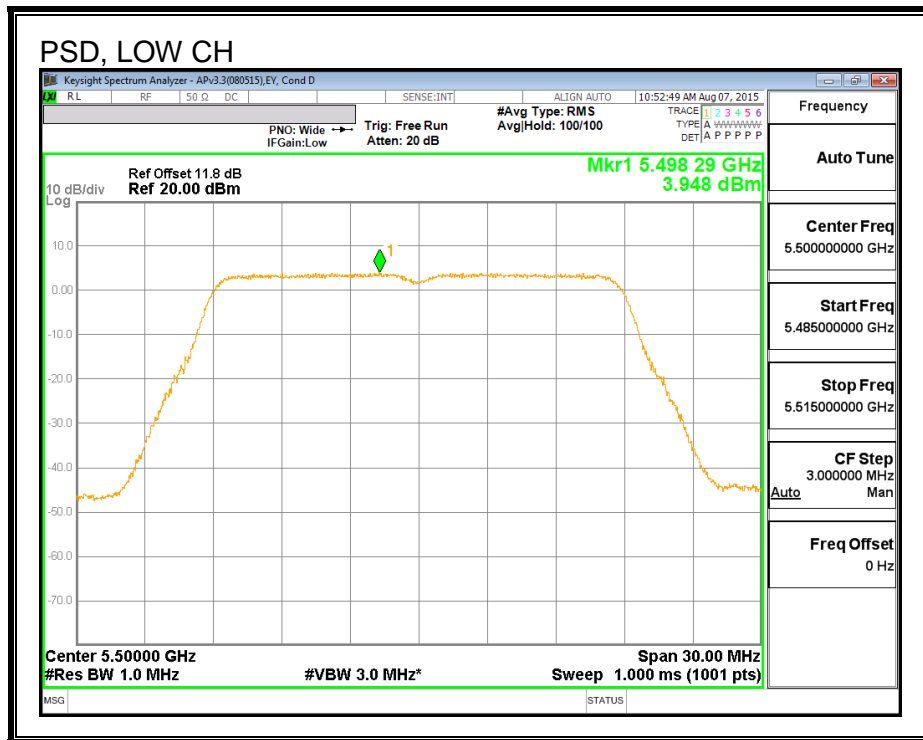
**Output Power Results**

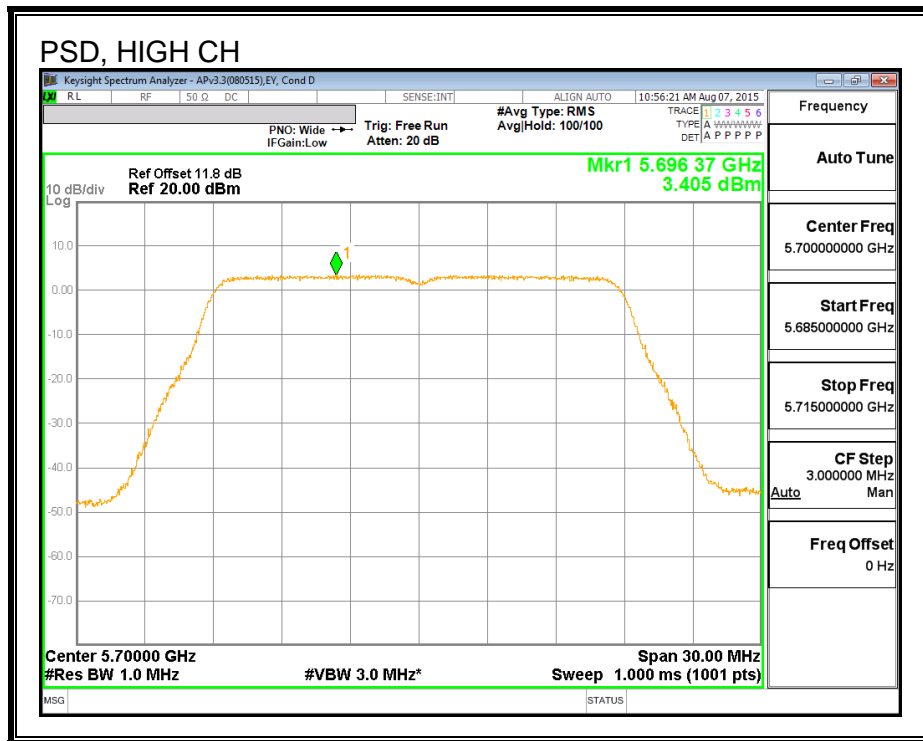
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	15.49	15.49	23.48	-7.99
Mid	5580	15.96	15.96	23.48	-7.52
High	5700	14.93	14.93	23.47	-8.54

**PSD Results**

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	3.95	3.95	11.00	-7.05
Mid	5580	4.86	4.86	11.00	-6.14
High	5700	3.41	3.41	11.00	-7.60

**PSD**





### 8.37.5. STRADDLE CHANNEL 144 RESULTS

#### UNII-2C BAND

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

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	15.98	3.10	3.10	23.04	11.00

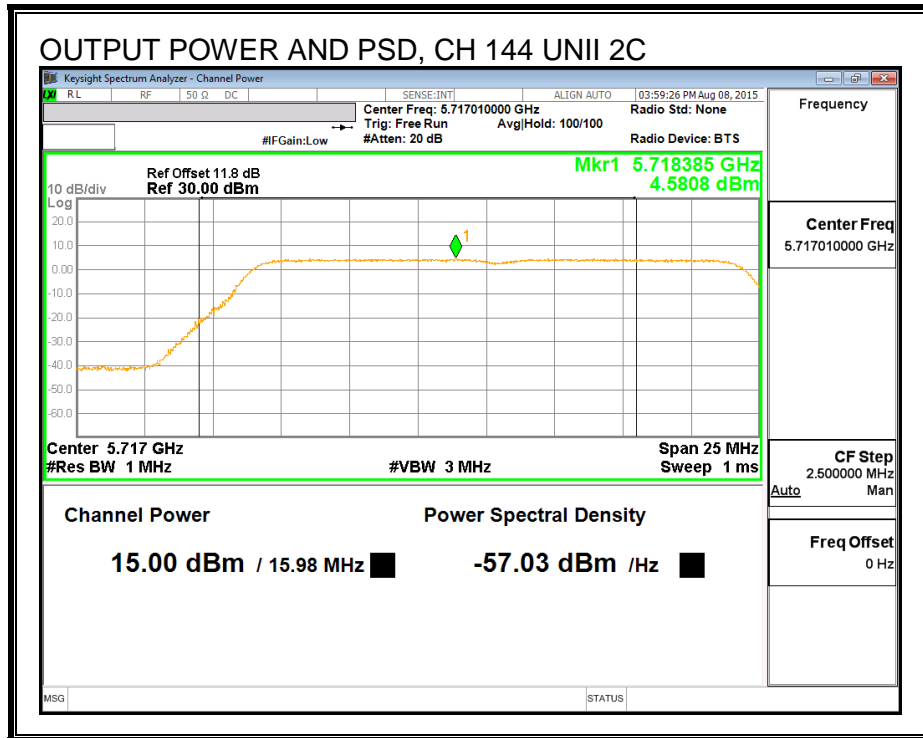
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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##### Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	15.00	15.00	23.04	-8.04

##### PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	4.58	4.58	11.00	-6.42



**UNII-3 BAND**

**Antenna Gain and Limit**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	5.98	3.10	30.00	30.00

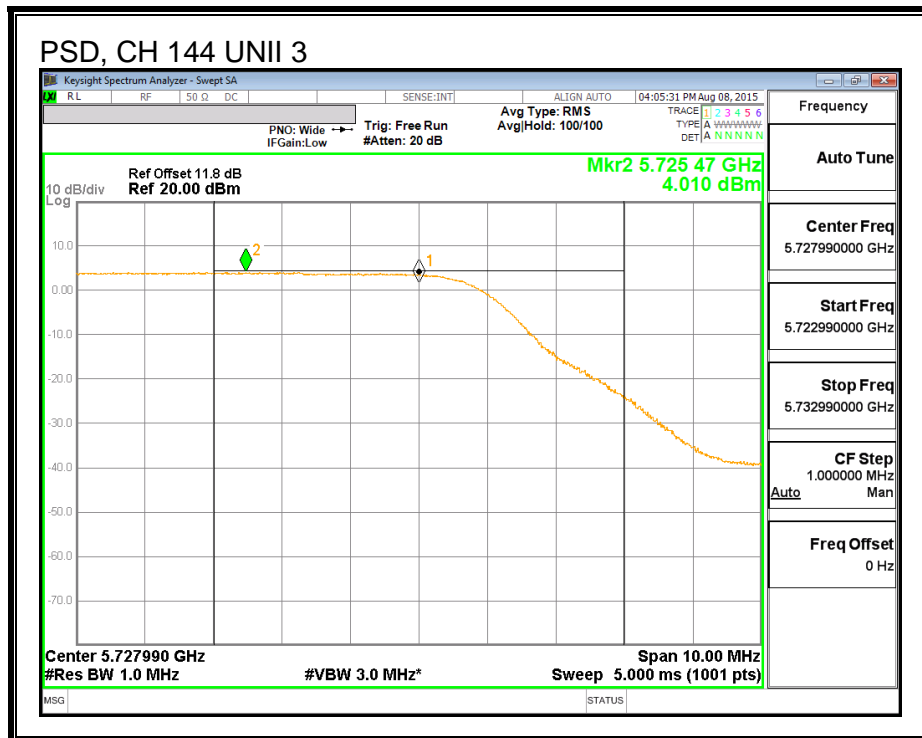
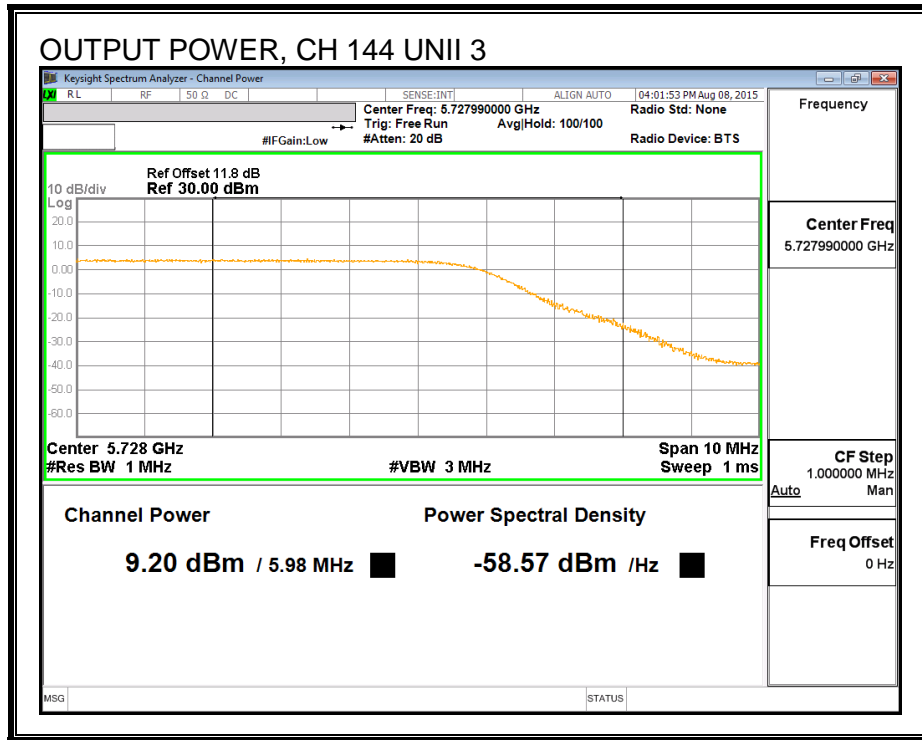
<b>Duty Cycle CF (dB)</b>	0.00	<b>Included in Calculations of Corr'd Power &amp; PSD</b>
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**Output Power Results**

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	9.20	9.20	30.00	-20.80

**PSD Results**

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	4.01	4.01	30.00	-25.99





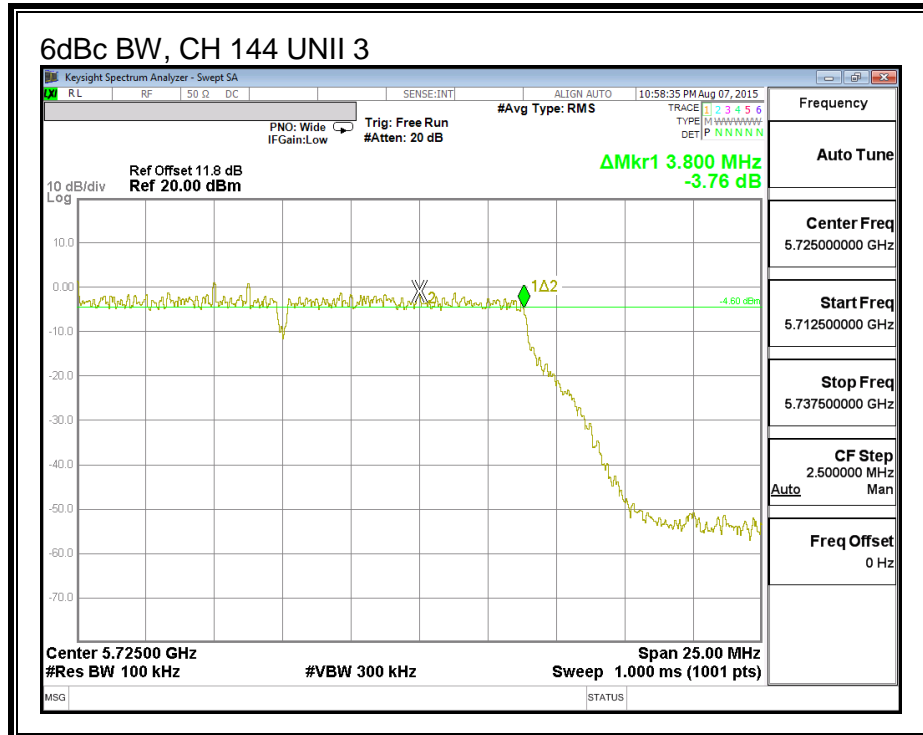
### 8.37.6. 6 dB BANDWIDTH

#### LIMITS

FCC §15.407 (e)

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

#### RESULTS



### **8.38. 802.11a CDD 2TX MODE IN THE 5.6 GHz BAND**

**Note:** Covered by 802.11n HT20 CDD 2TX MODE.

### 8.39. 802.11n HT20 2Tx CDD MODE IN THE 5.6 GHz BAND

#### 8.39.1. 26 dB BANDWIDTH

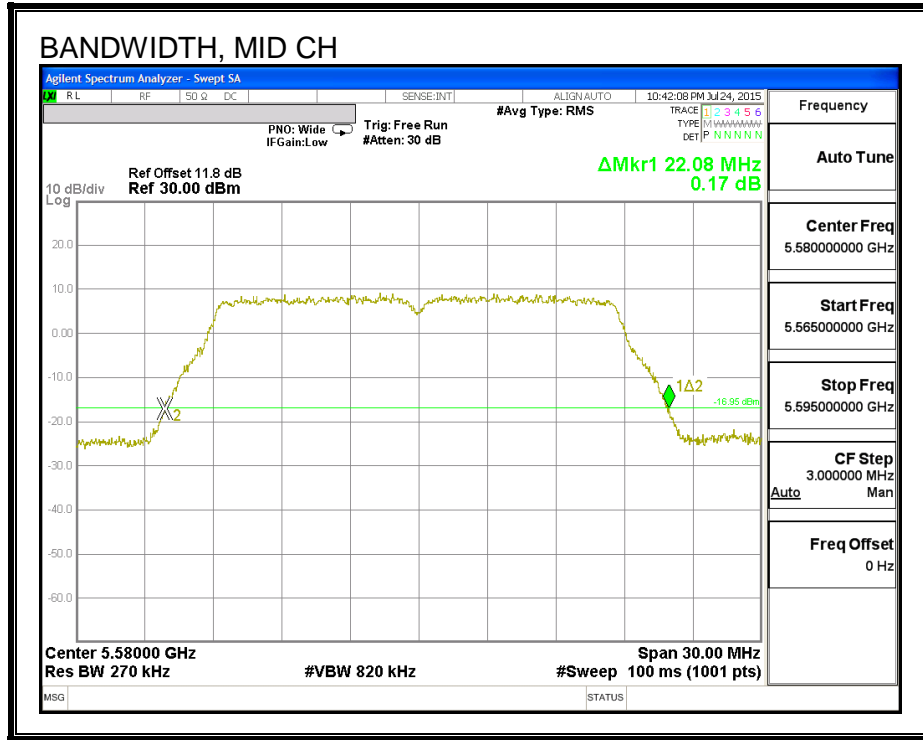
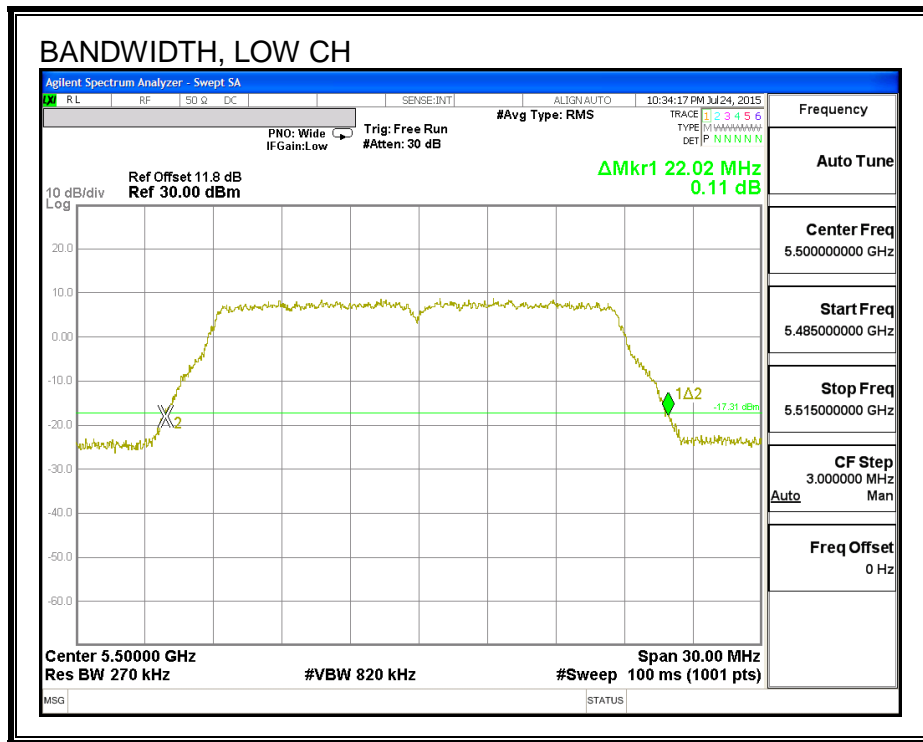
##### LIMITS

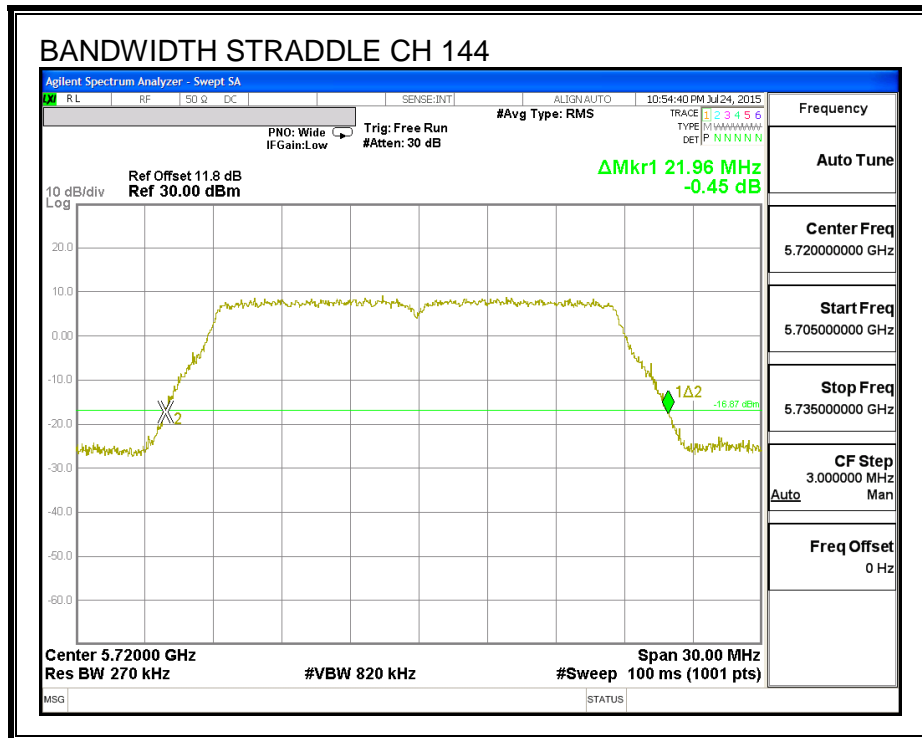
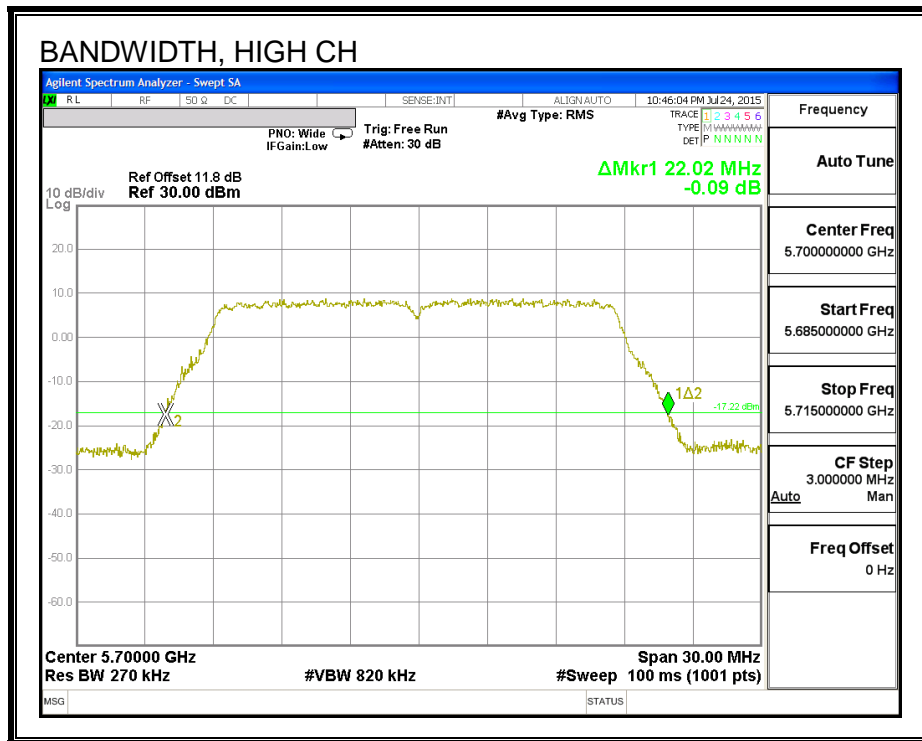
None; for reporting purposes only.

##### RESULTS

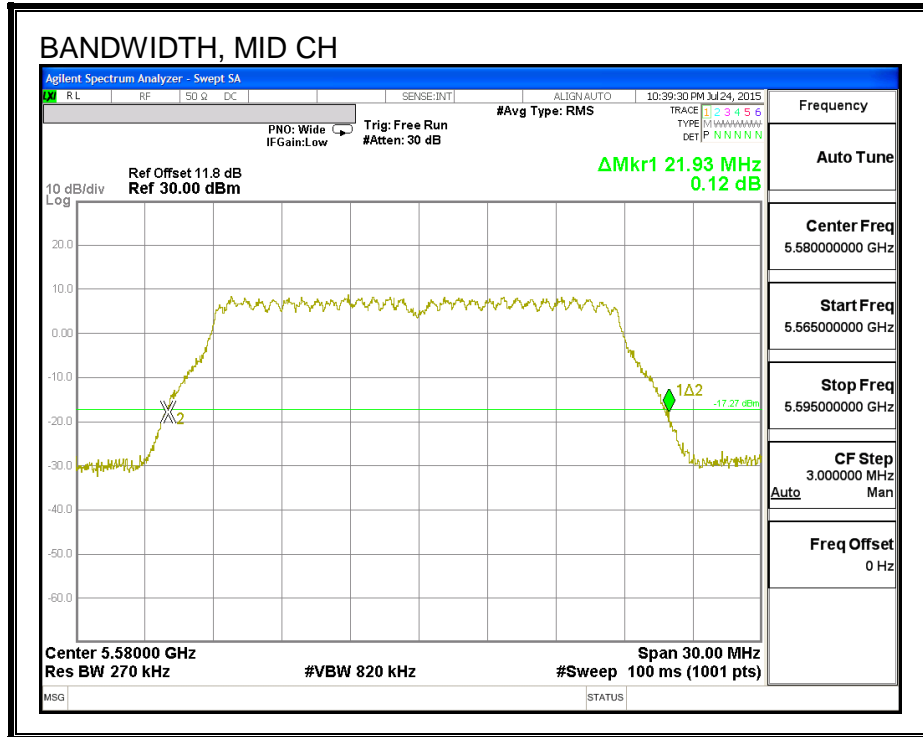
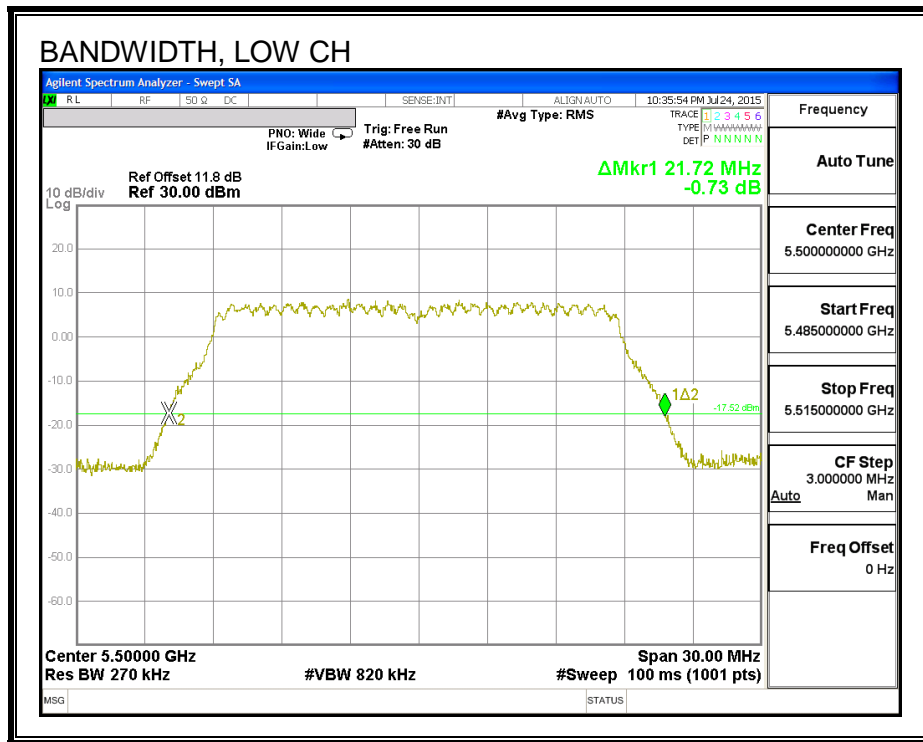
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	22.02	21.72
Mid	5580	22.08	21.93
High	5700	22.02	21.84
144	5720	21.96	21.69

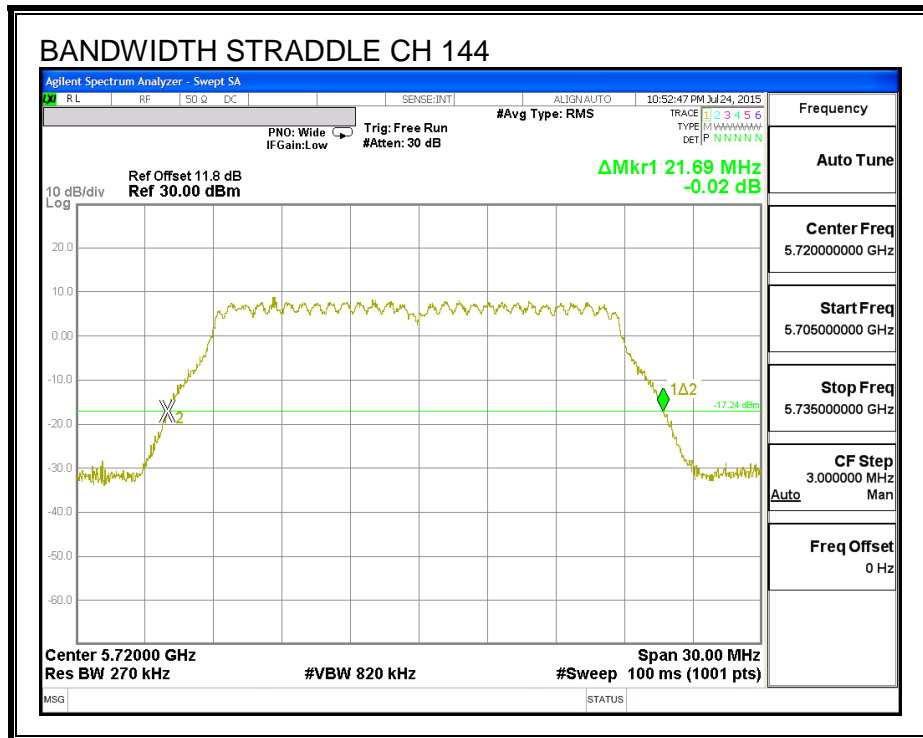
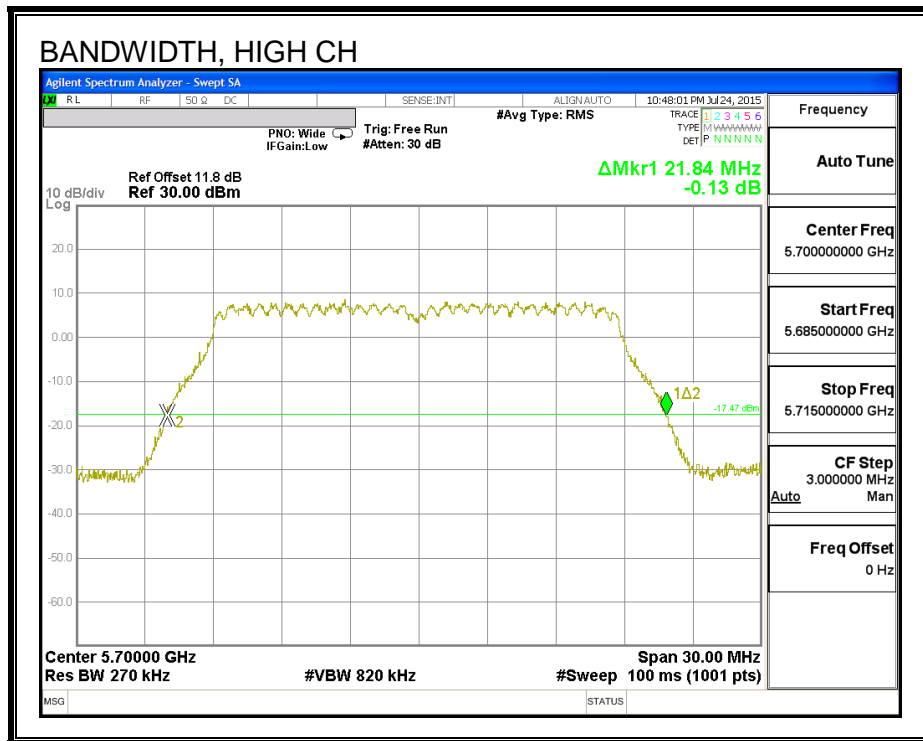
**26 dB BANDWIDTH, CHAIN 0**





**26 dB BANDWIDTH, CHAIN 1**





### 8.39.2. 99% BANDWIDTH

#### LIMITS

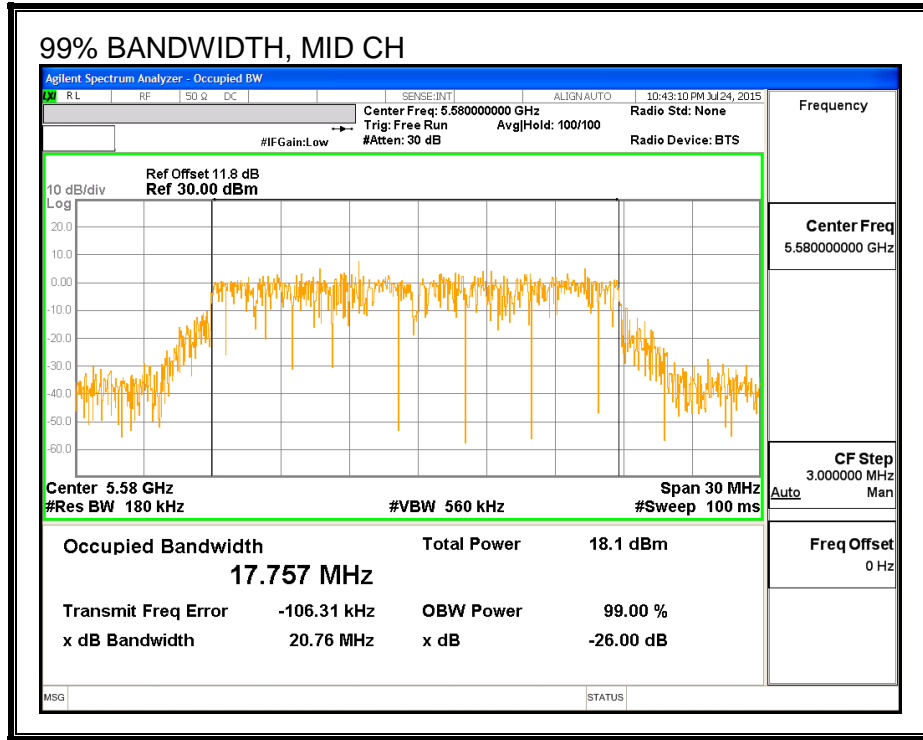
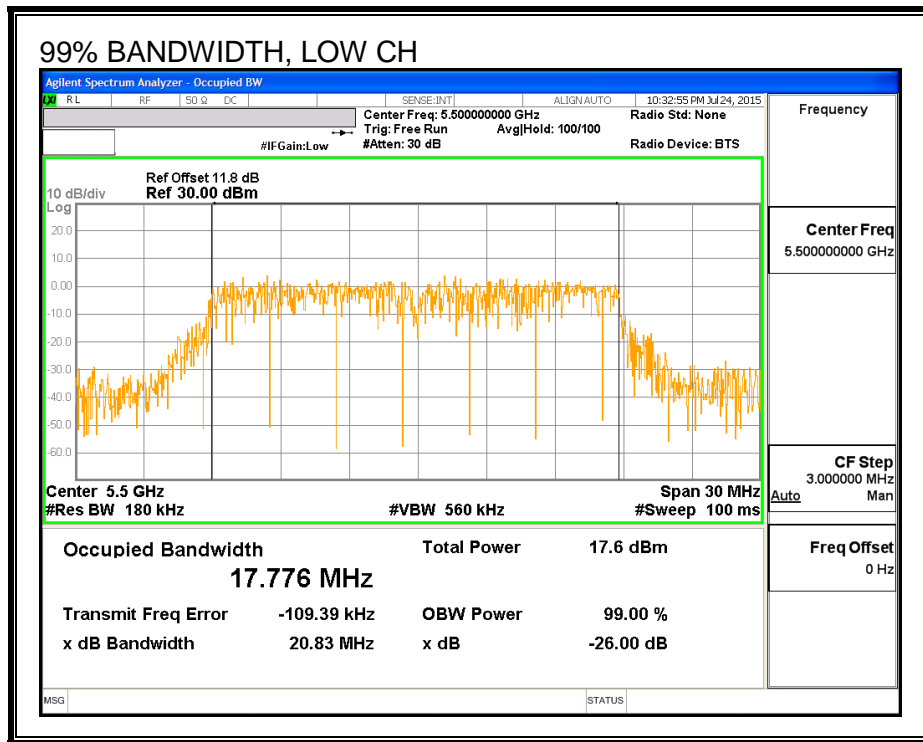
None; for reporting purposes only.

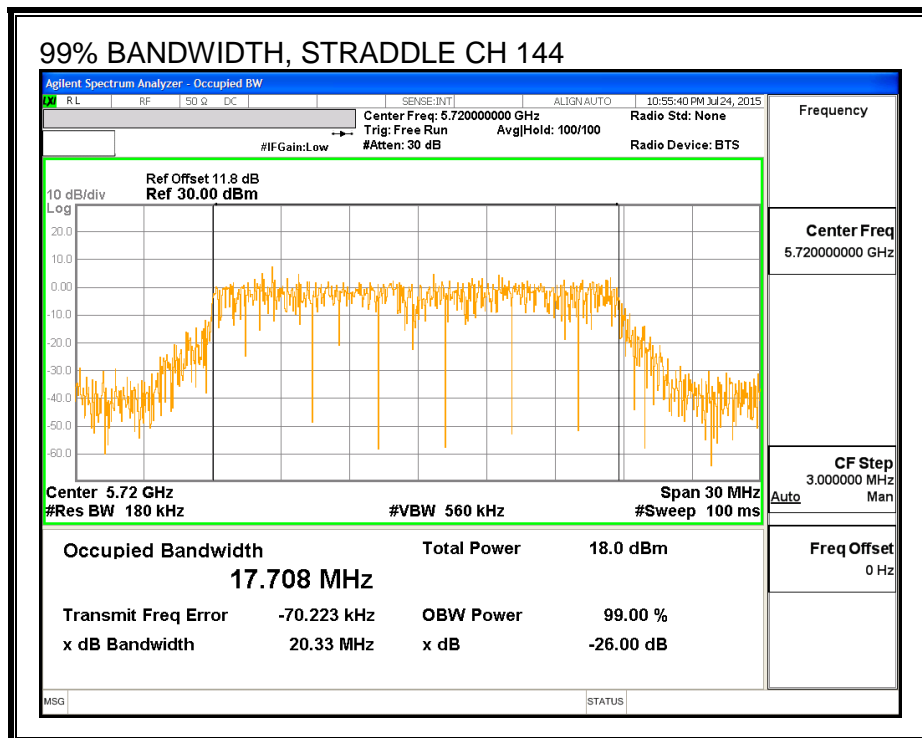
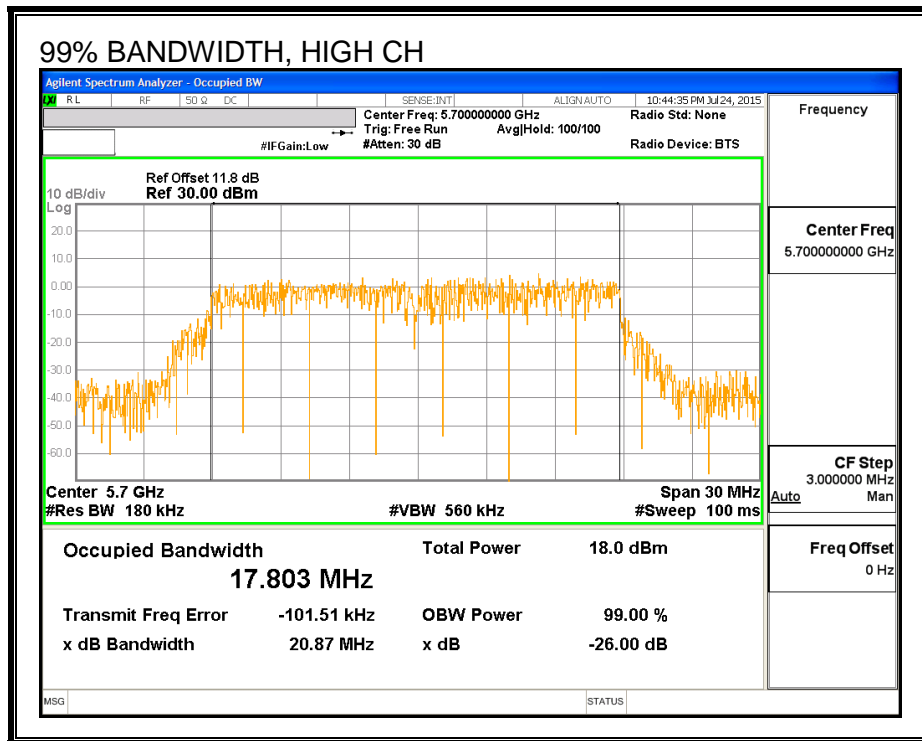
#### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	17.776	17.707
Mid	5580	17.757	17.686
High	5700	17.803	17.699
144	5720	17.708	17.665

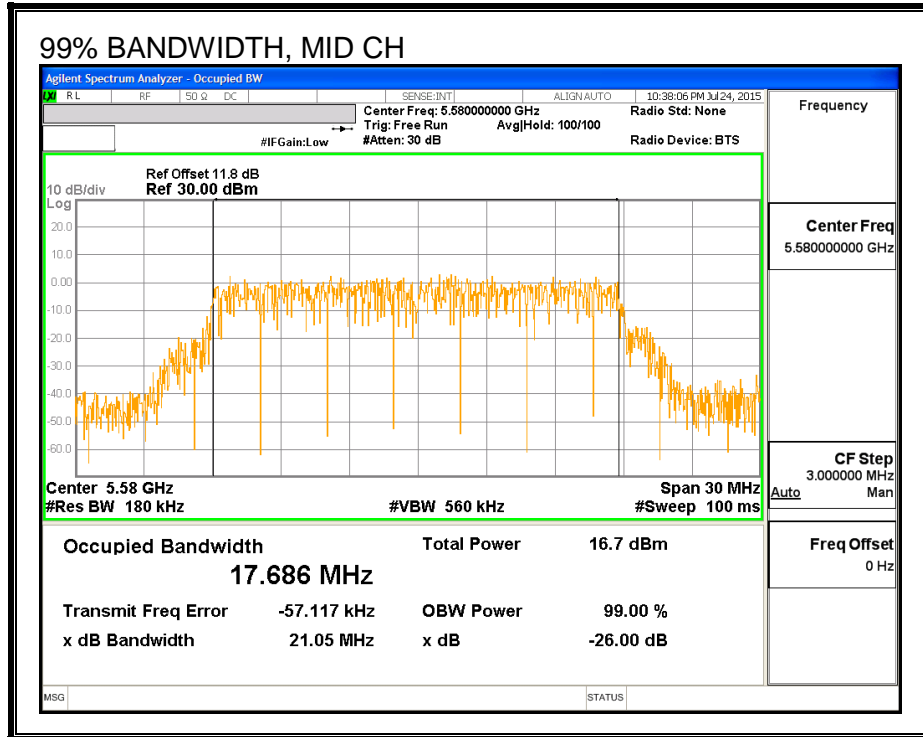
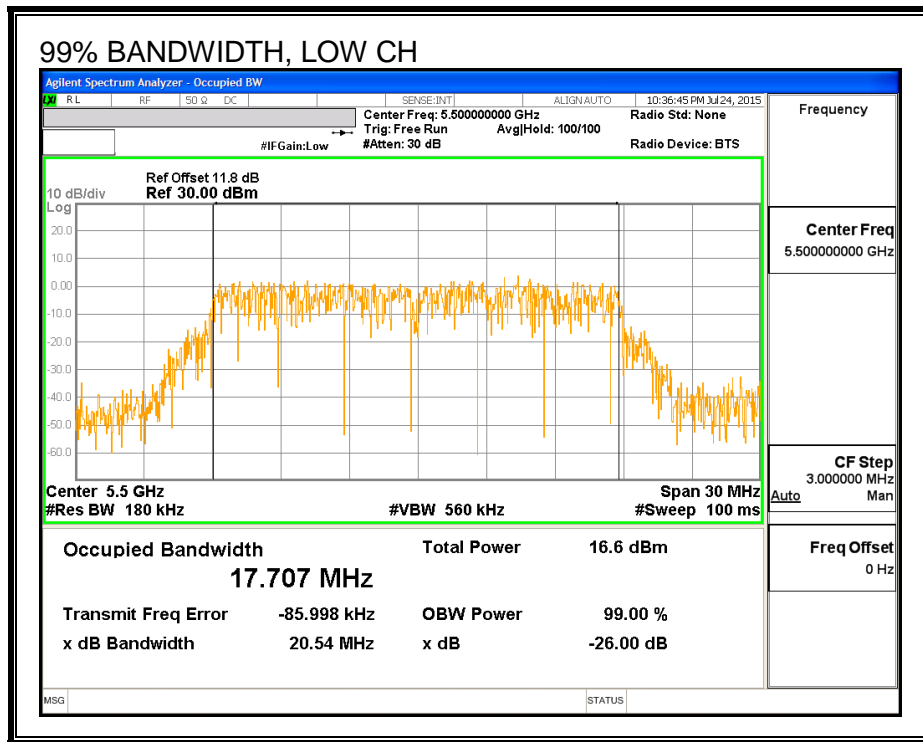


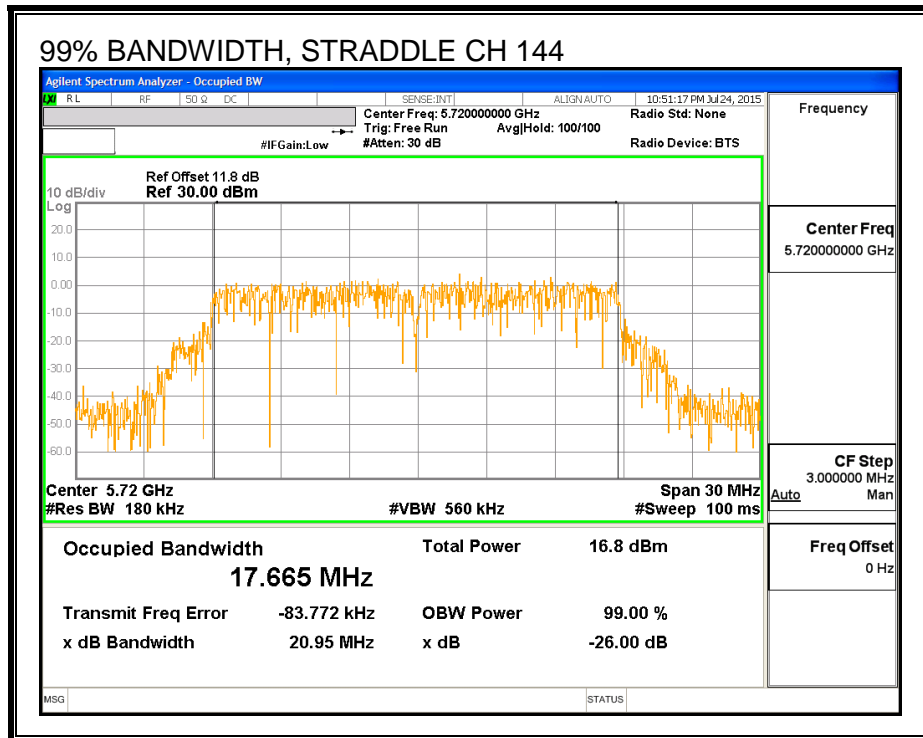
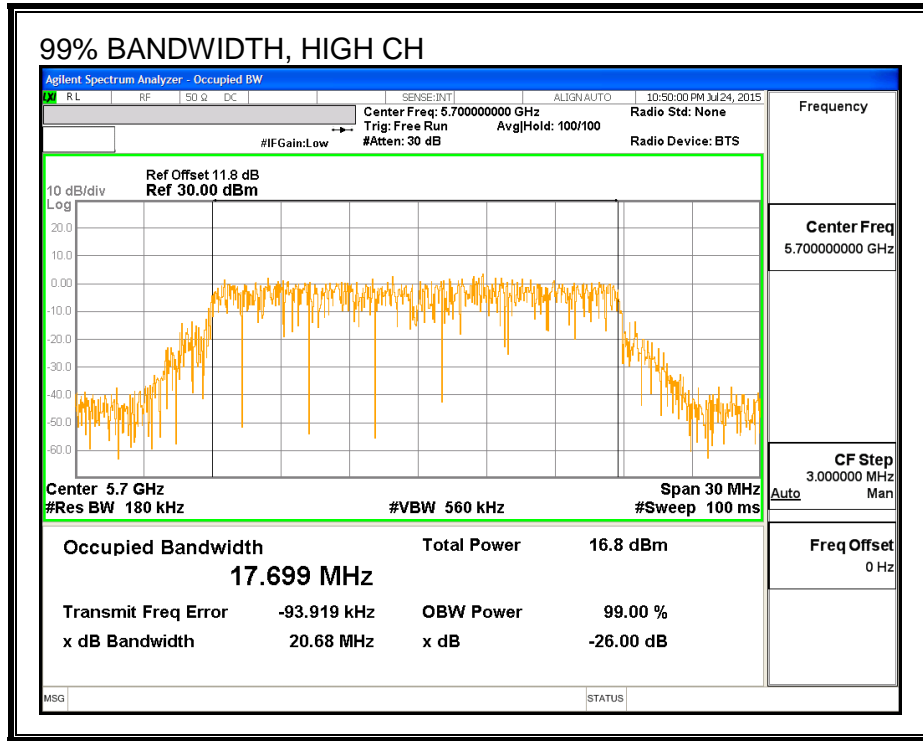
**99% BANDWIDTH, CHAIN 0**





**99% BANDWIDTH, CHAIN 1**





### 8.39.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

##### Average Power Results

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5500	14.96	14.95	17.97
Mid	5580	15.49	15.73	18.62
High	5700	14.44	14.45	17.46
144	5720	15.41	15.98	18.71

### 8.39.4. 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.

#### DIRECTIONAL ANTENNA GAIN

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.70	3.10	2.90

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	3.10	5.91

**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	21.72	17.707	2.90	5.91	23.48	11.00
Mid	5580	21.93	17.686	2.90	5.91	23.48	11.00
High	5700	21.84	17.699	2.90	5.91	23.48	11.00

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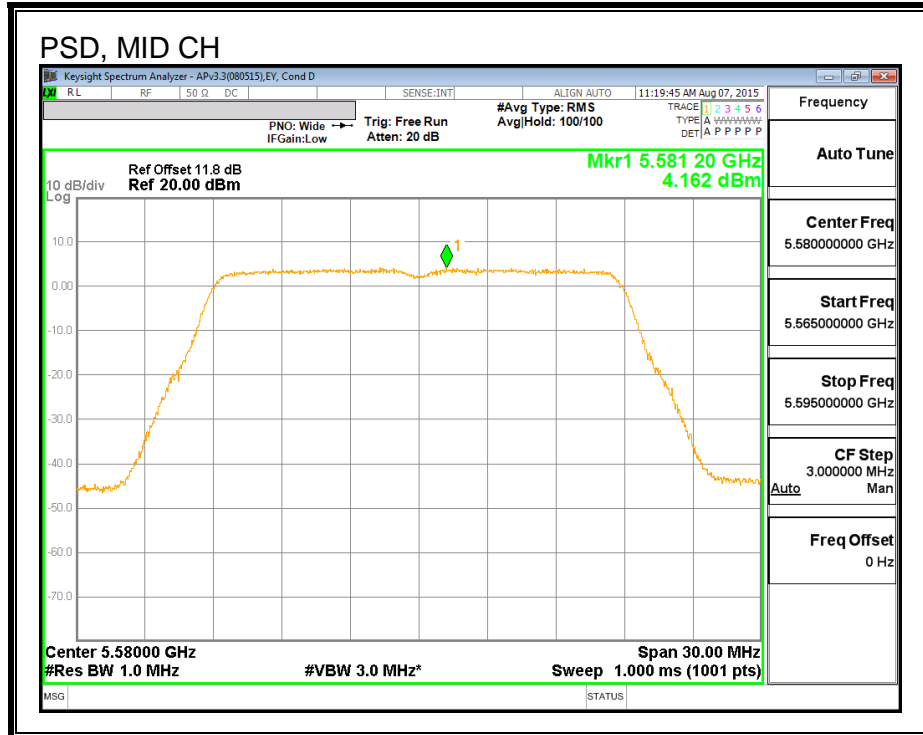
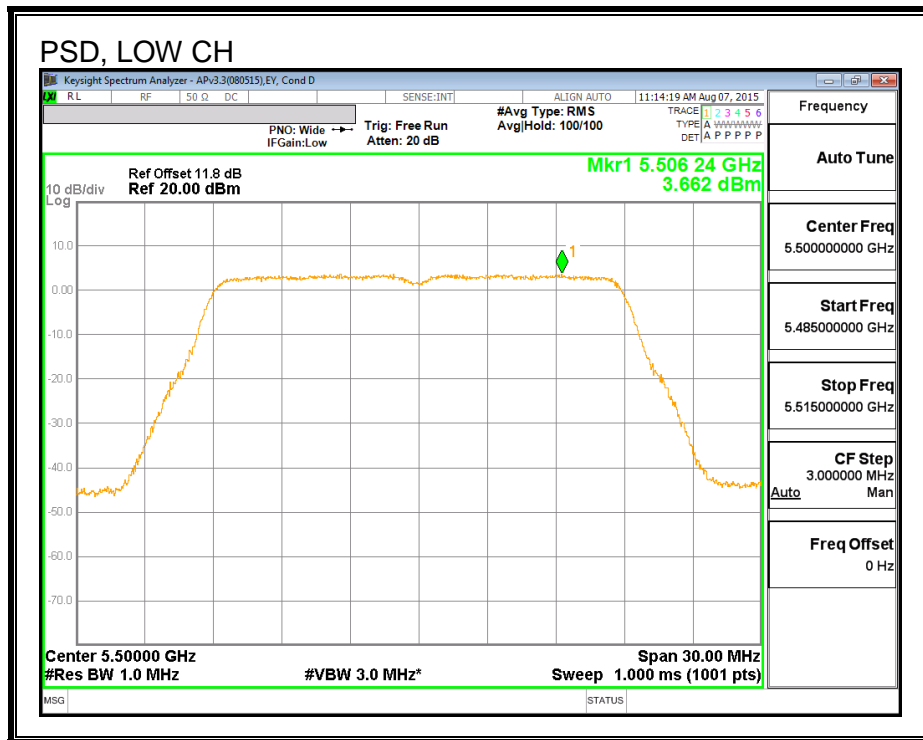
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	14.96	14.95	17.97	23.48	-5.52
Mid	5580	15.49	15.73	18.62	23.48	-4.85
High	5700	14.44	14.45	17.46	23.48	-6.02

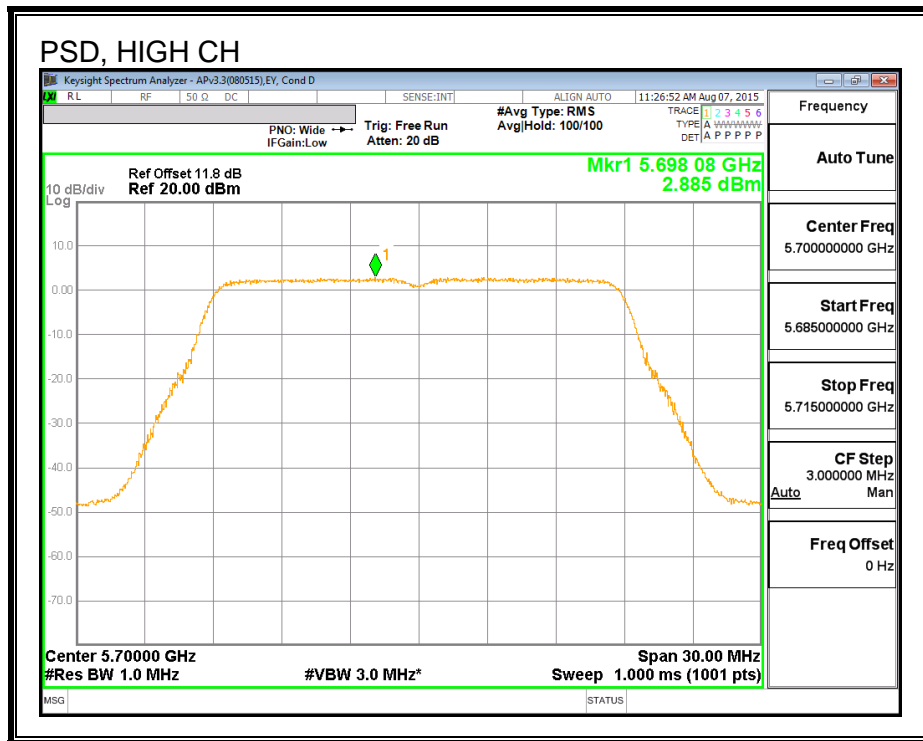
**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	3.66	3.65	6.67	11.00	-4.33
Mid	5580	4.16	4.26	7.22	11.00	-3.78
High	5700	2.89	2.90	5.90	11.00	-5.10

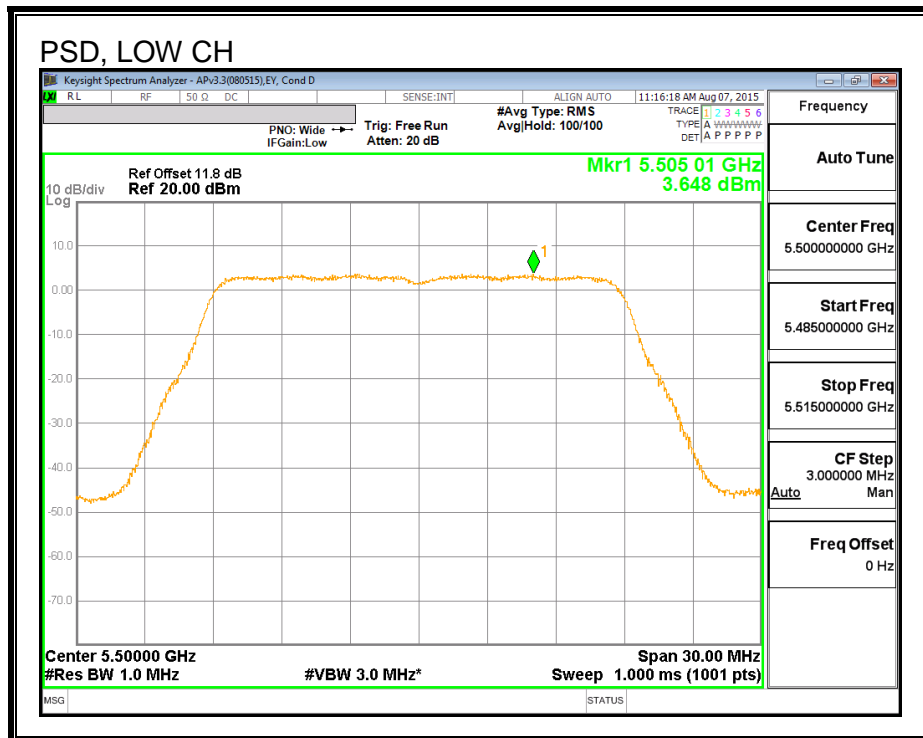
**PSD, CHAIN 0**

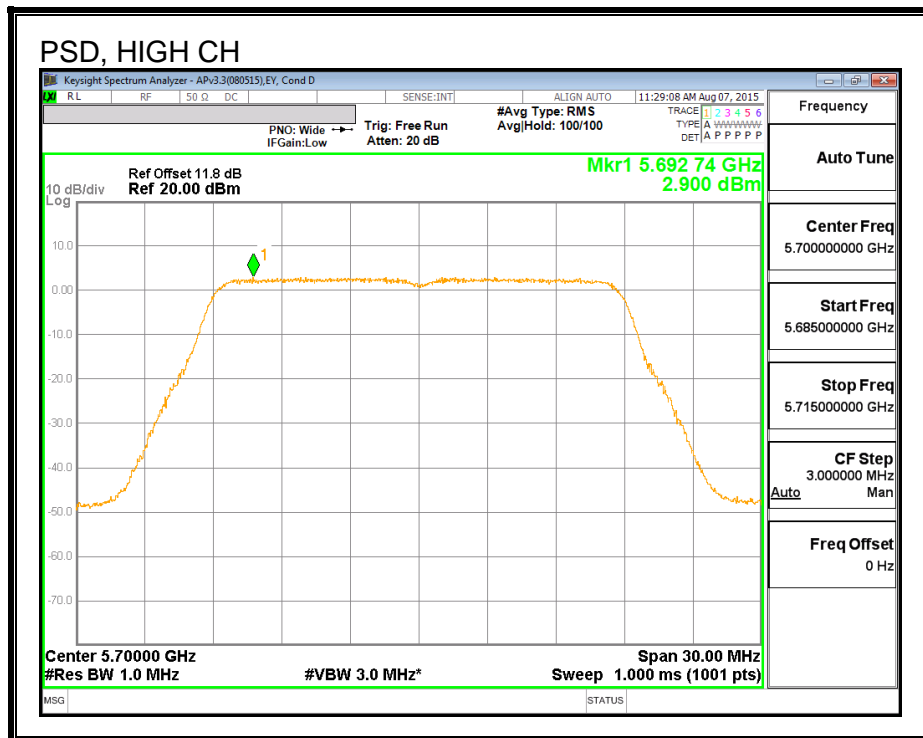
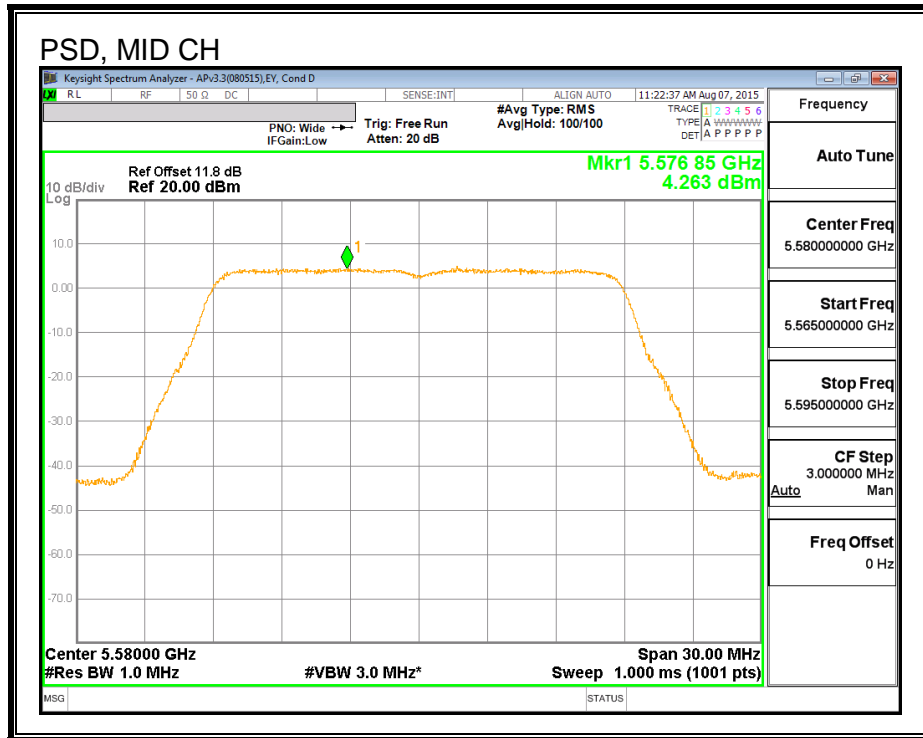






### PSD, CHAIN 1





### 8.39.5. STRADDLE CHANNEL 144 RESULTS

#### UNII-2C BAND

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

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
144	5720	15.98	2.90	5.91	23.04	11.00

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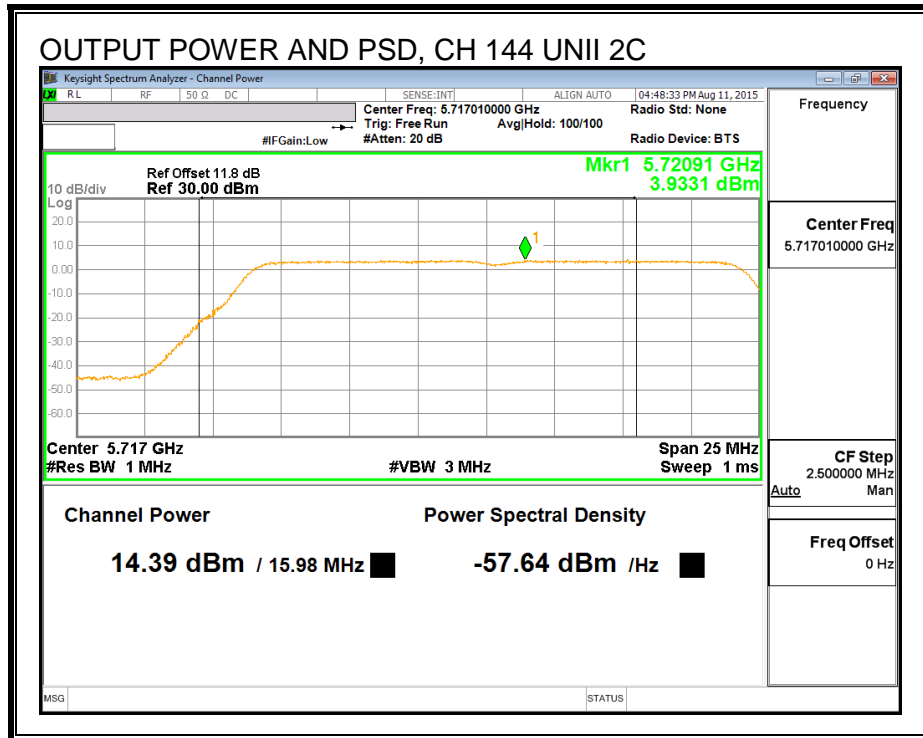
##### Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	14.39	14.97	17.70	23.04	-5.34

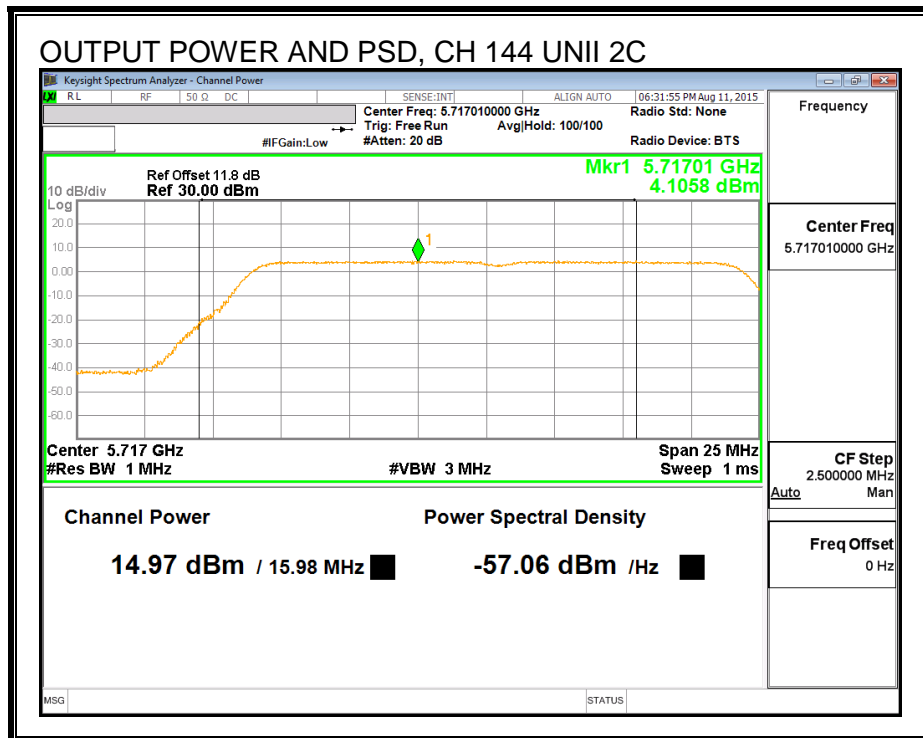
##### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	3.93	4.11	7.03	11.00	-3.97

**CHAIN 0**



**CHAIN 1**



**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	5.98	2.90	5.91	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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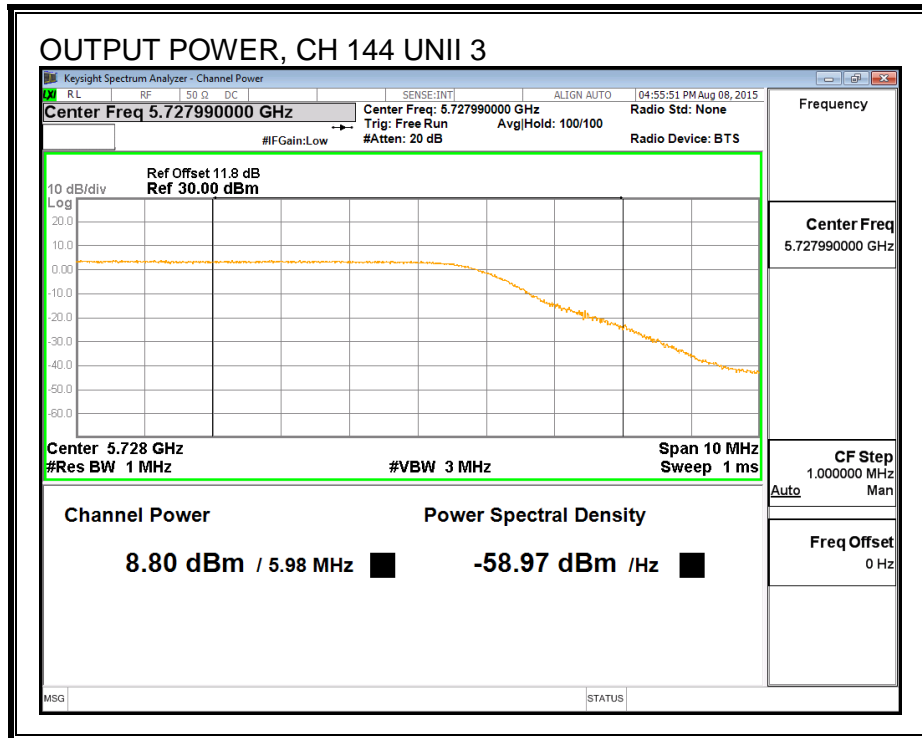
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
144	5720	8.80	9.22	12.03	30.00	-17.97

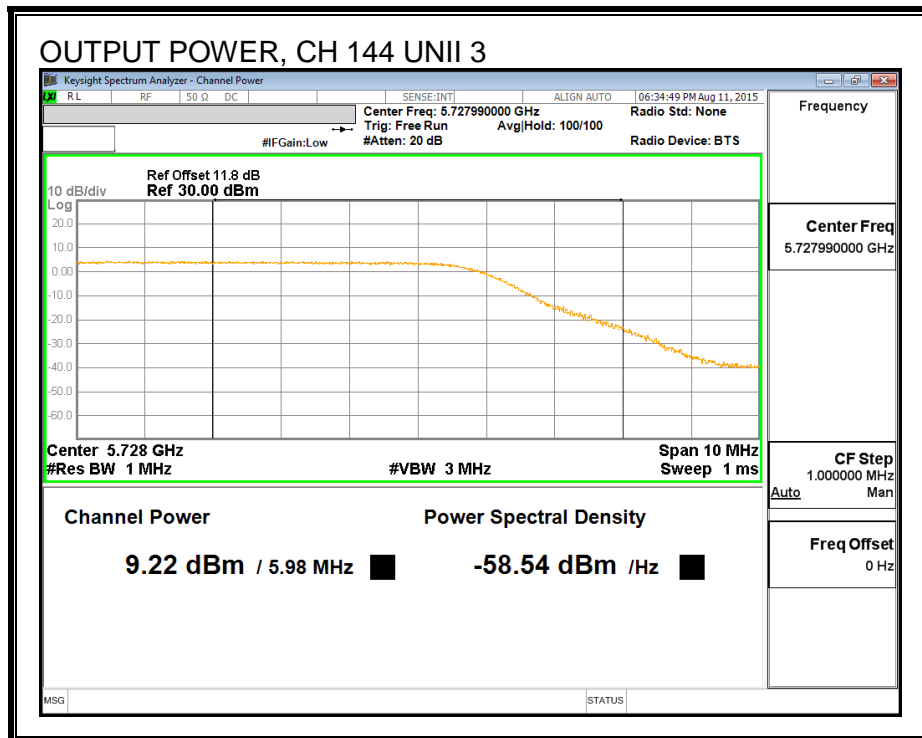
**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
144	5720	3.63	4.09	6.87	30.00	-23.13

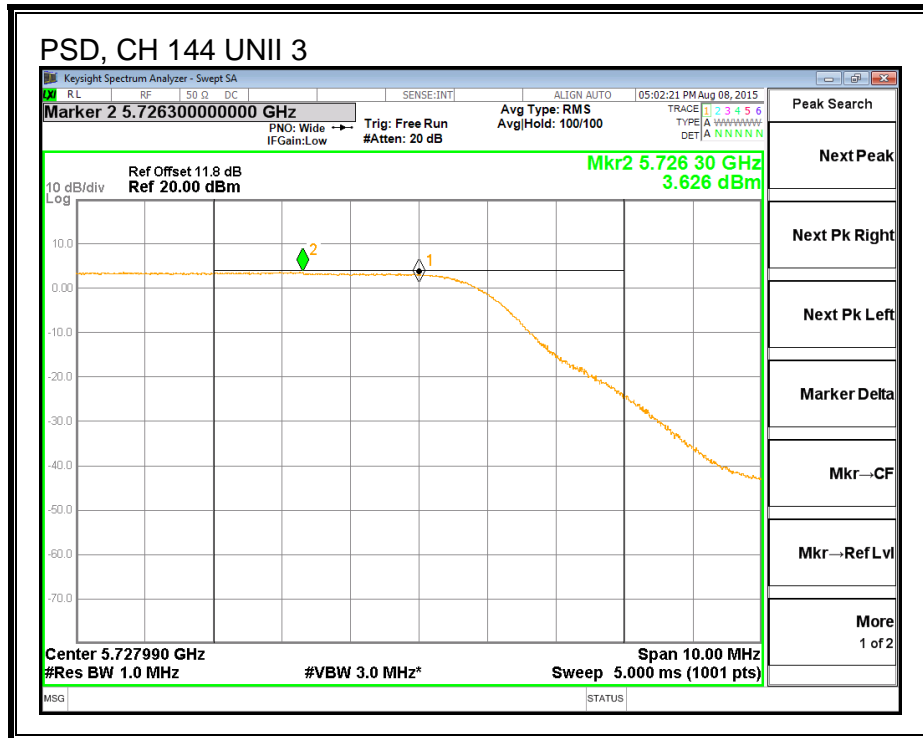
**CHAIN 0**



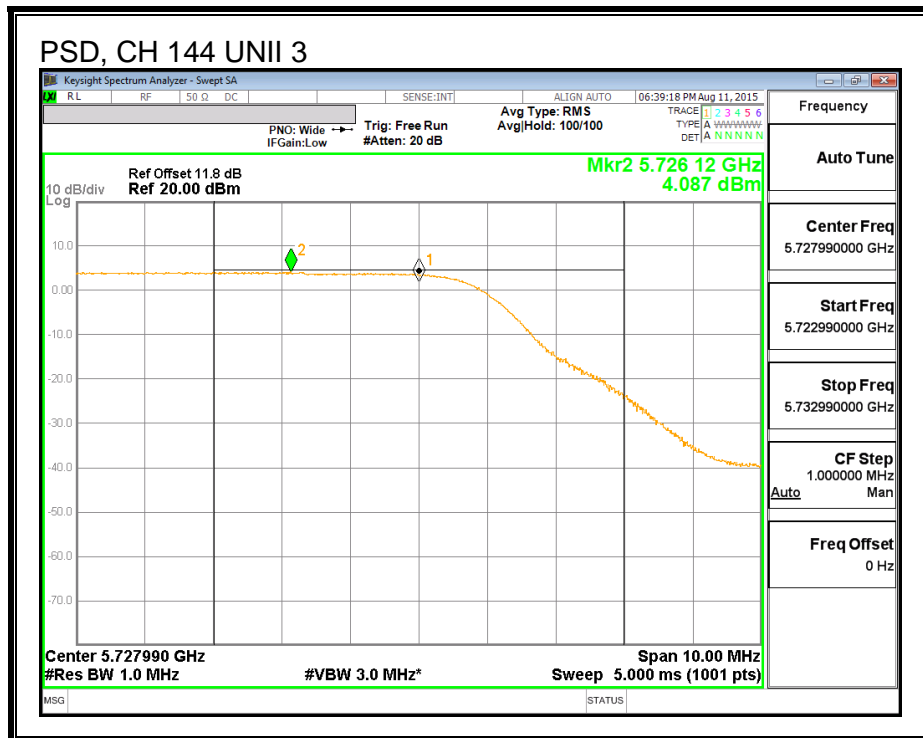
**CHAIN 1**



**CHAIN 0**



**CHAIN 1**



### **8.39.6. 6 dB BANDWIDTH**

#### **LIMITS**

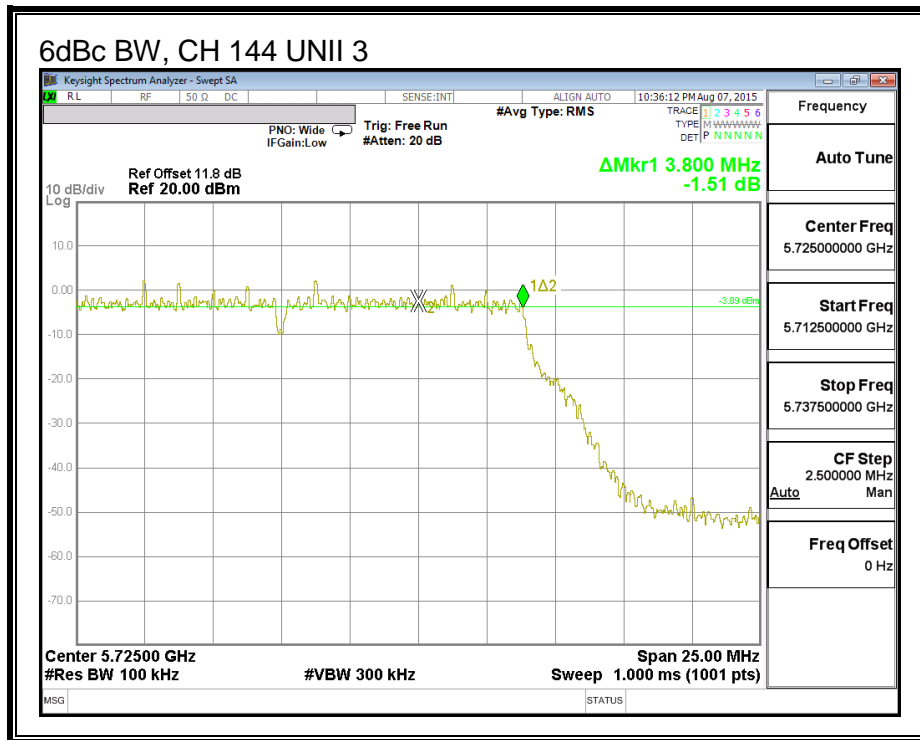
FCC §15.407 (e)

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

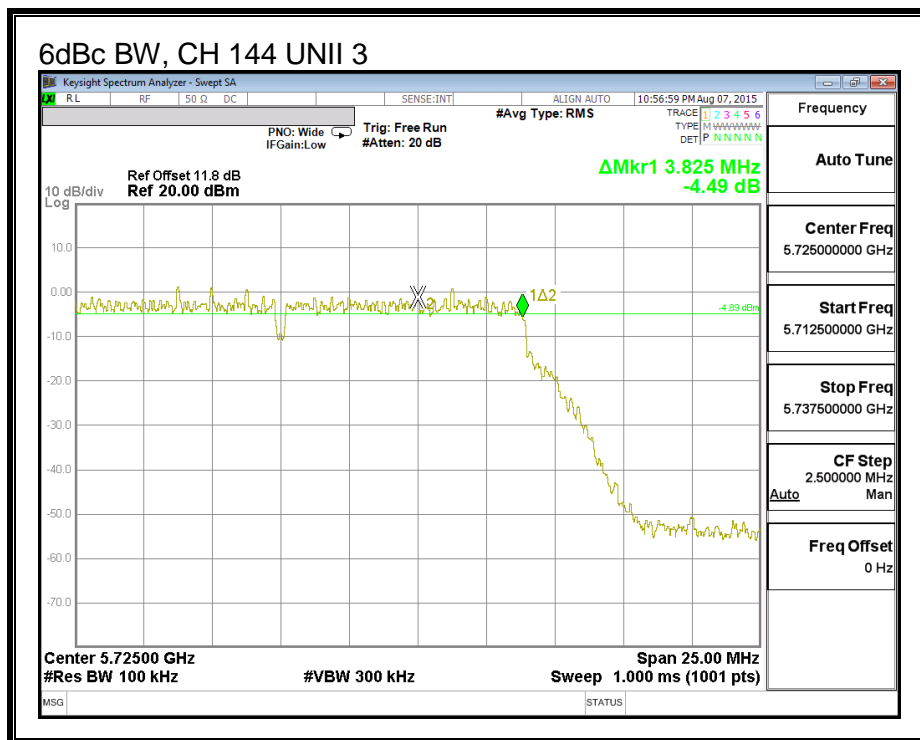
#### **RESULTS**



**CHAIN 0**



**CHAIN 1**



#### **8.40. 802.11n HT20 2Tx STBC/SDM MODE IN THE 5.6 GHz BAND**

**Note:** Covered by 802.11n HT20 2Tx CDD MODE

## 8.41. 802.11n HT40 CHAIN 0 MODE IN THE 5.6 GHz BAND

### 8.41.1. 26 dB BANDWIDTH

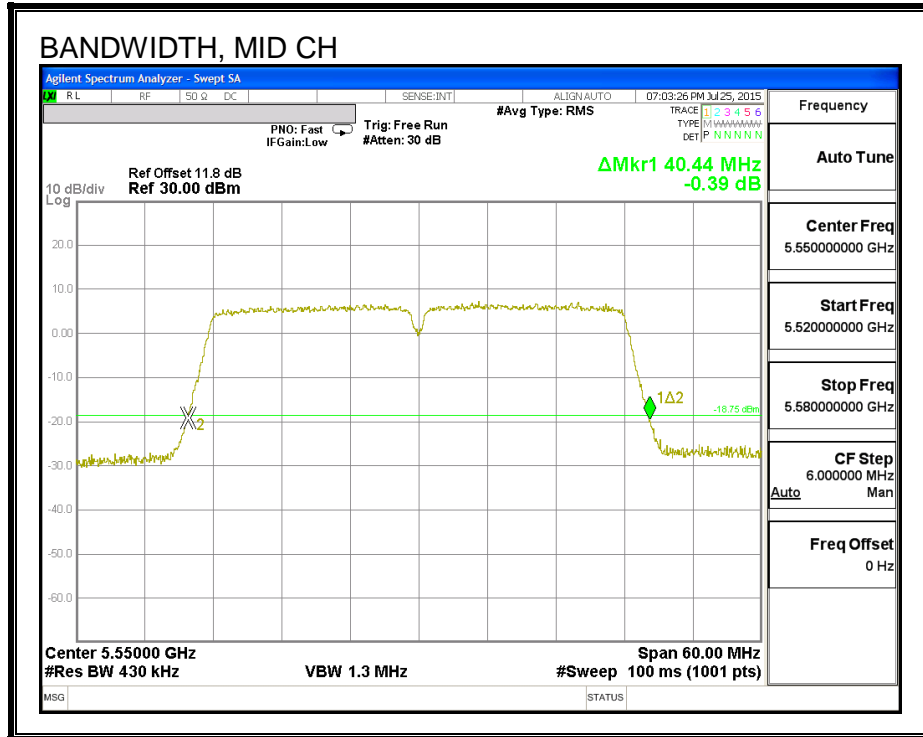
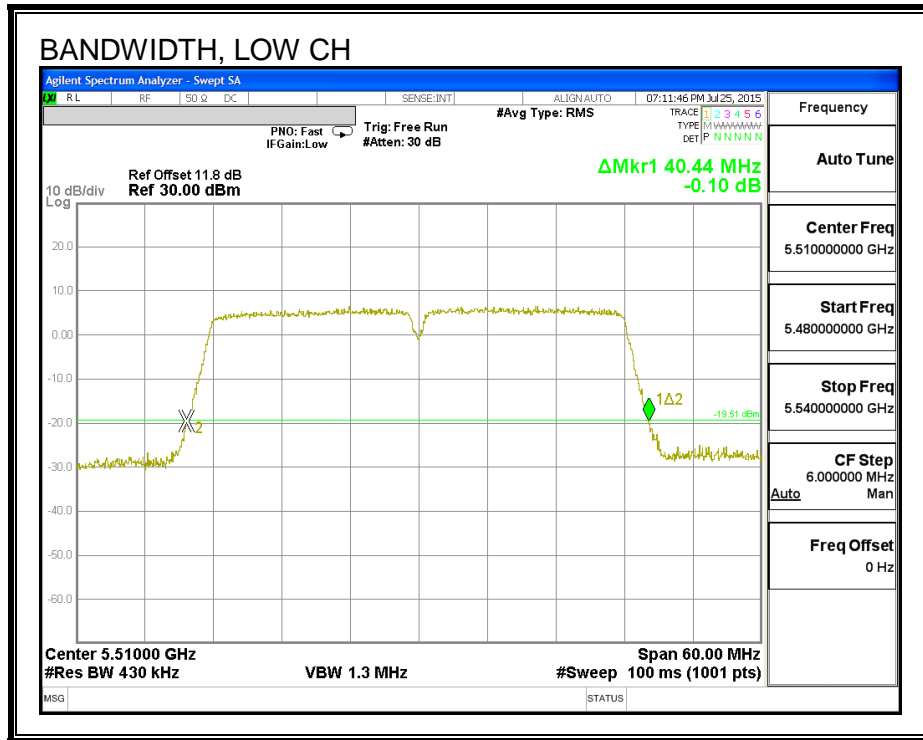
#### LIMITS

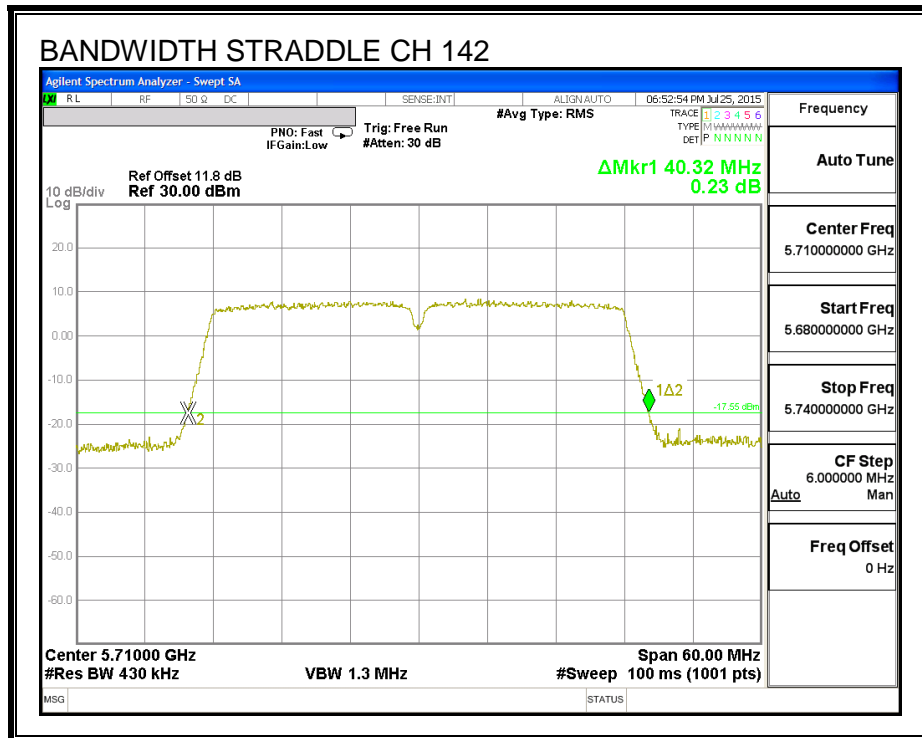
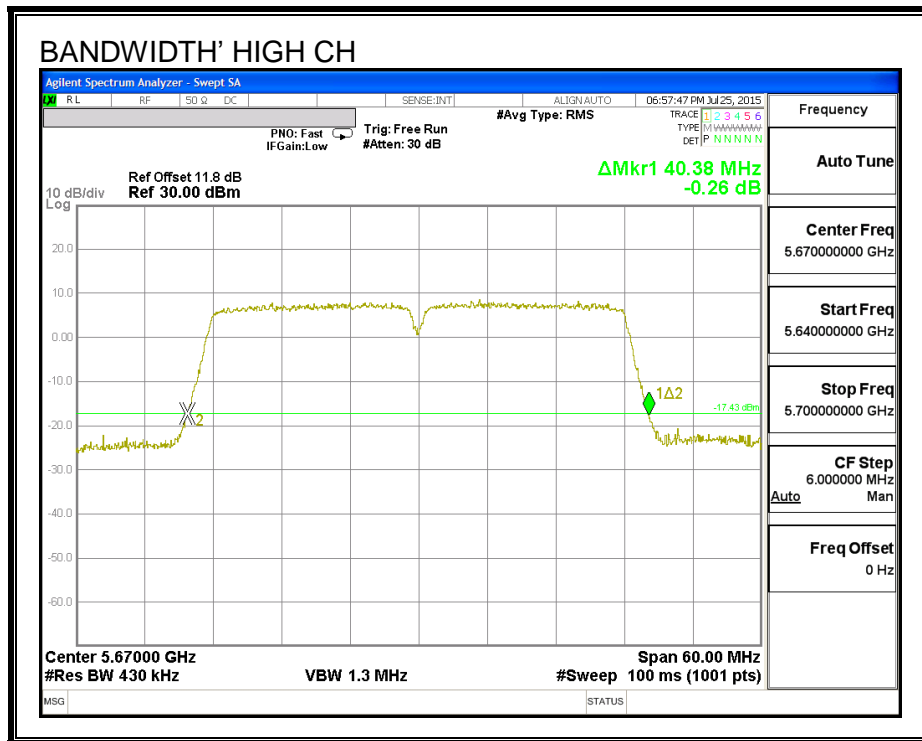
None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5510	40.44
Mid	5550	40.44
High	5670	40.38
142	5710	40.32

**26 dB BANDWIDTH**





### 8.41.2. 99% BANDWIDTH

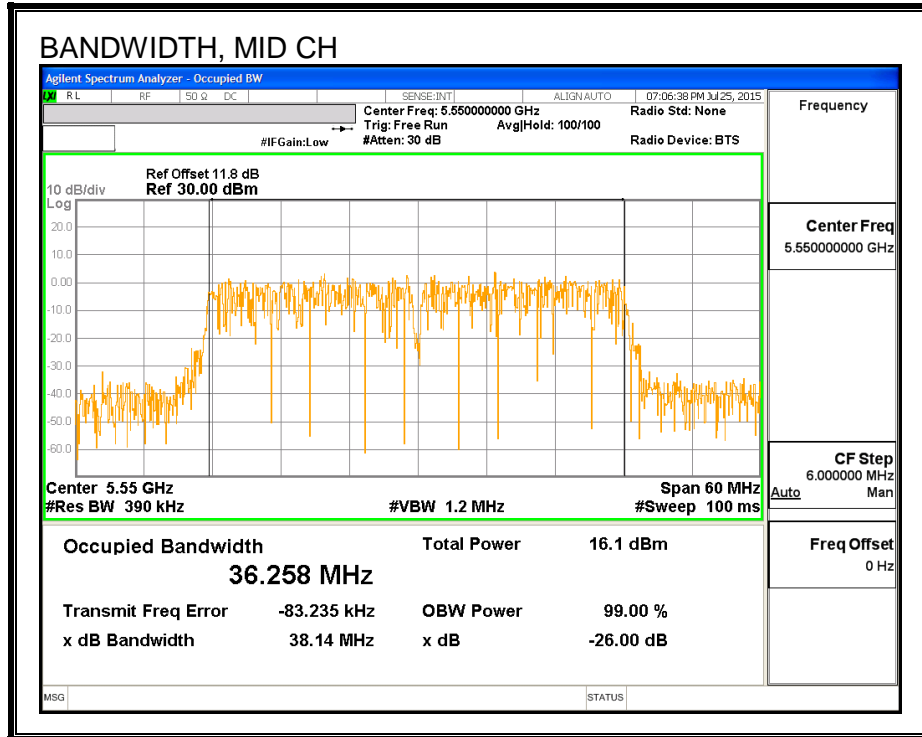
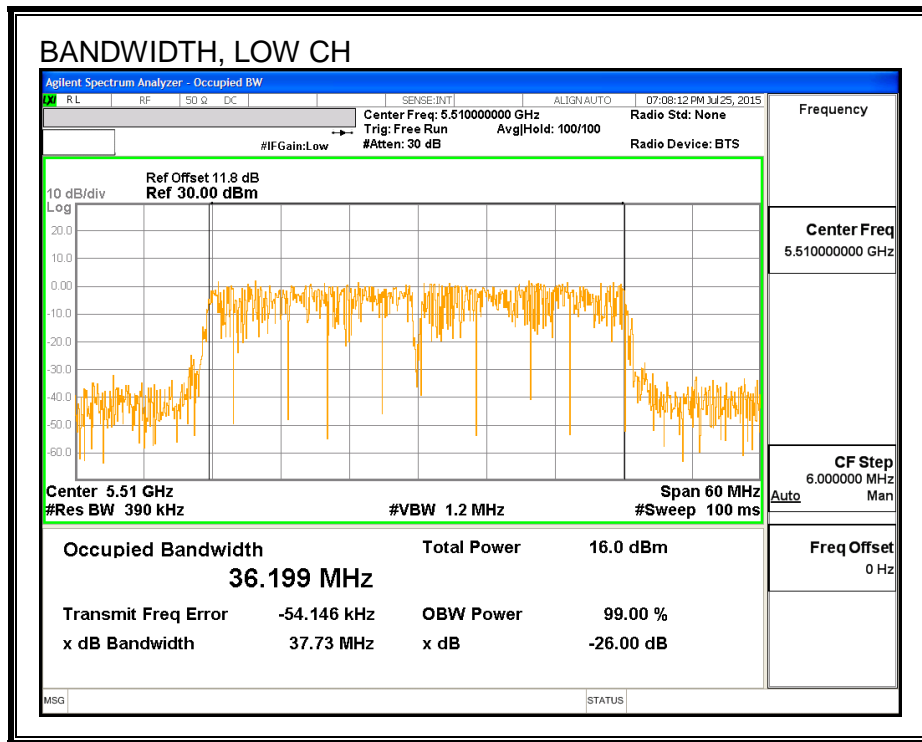
#### LIMITS

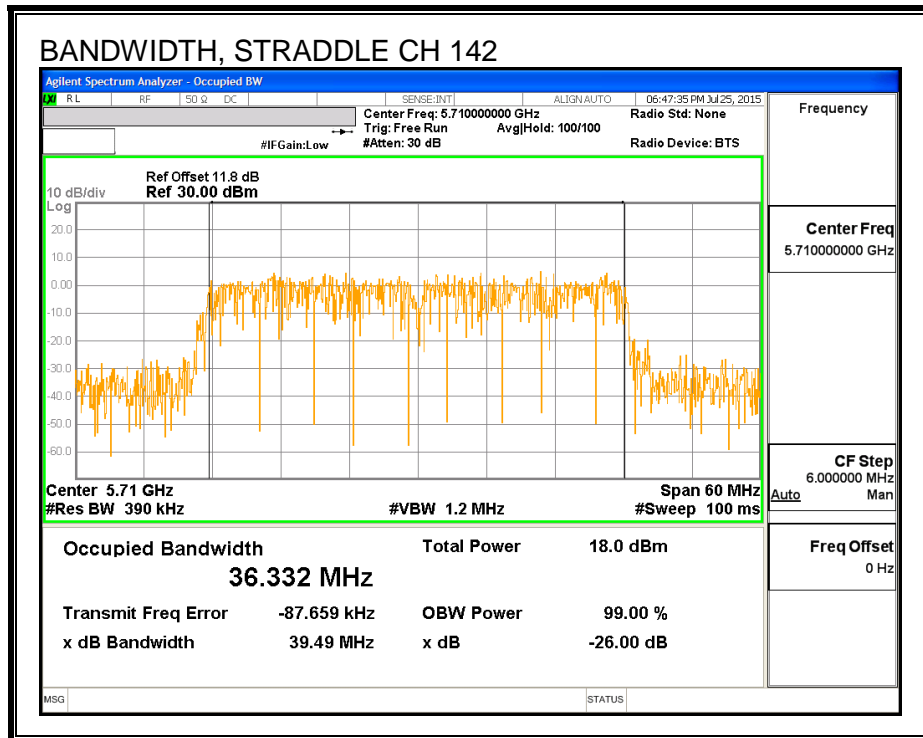
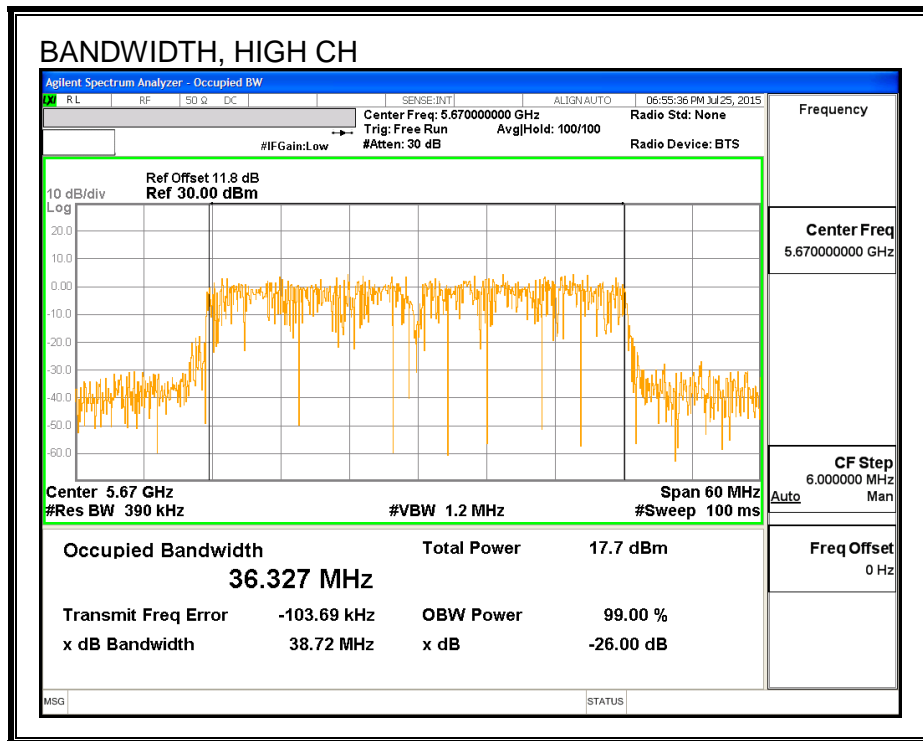
None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5510	36.199
Mid	5550	36.258
High	5670	36.327
142	5710	36.332

**99% BANDWIDTH**







### 8.41.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5510	14.43
Mid	5550	15.48
High	5670	15.47
142	5710	14.91

#### **8.41.4. 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  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

##### **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	40.44	36.199	2.70	24.00	11.00
Mid	5550	40.44	36.258	2.70	24.00	11.00
High	5670	40.38	36.327	2.70	24.00	11.00

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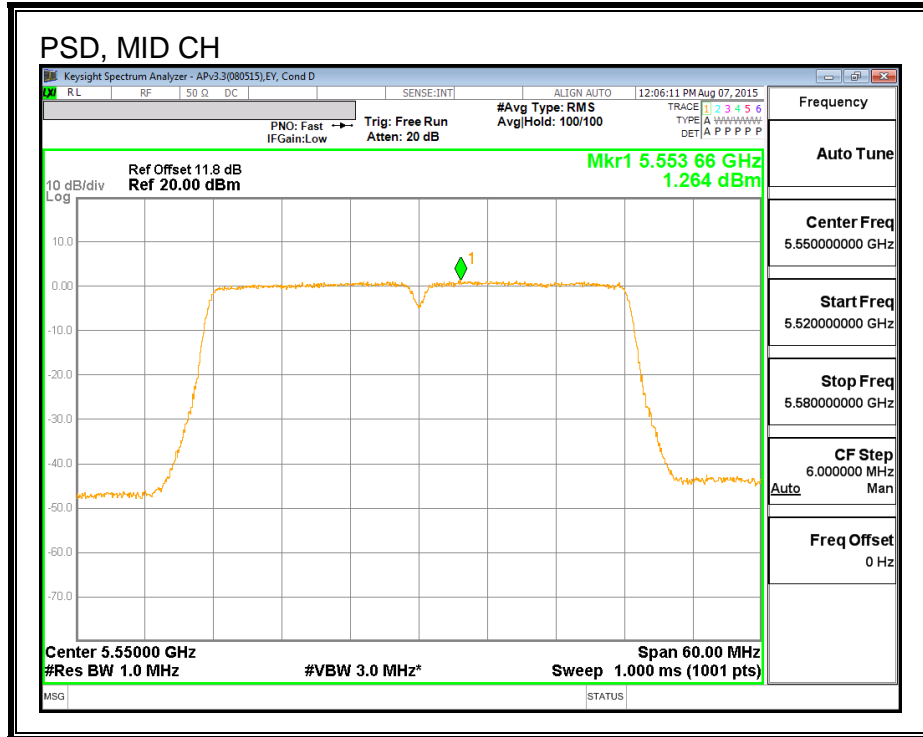
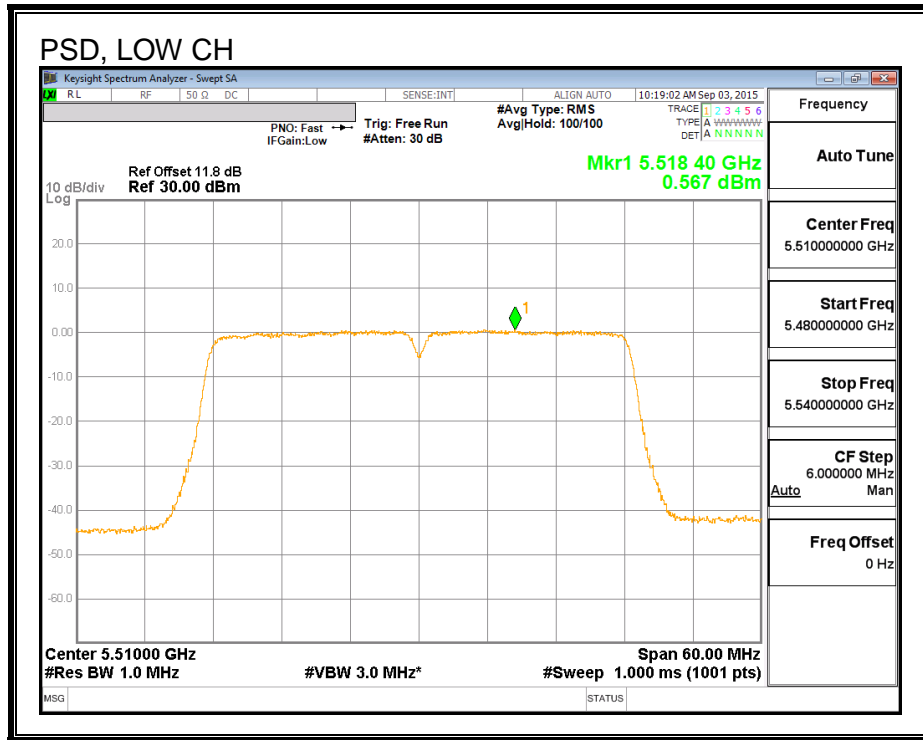
**Output Power Results**

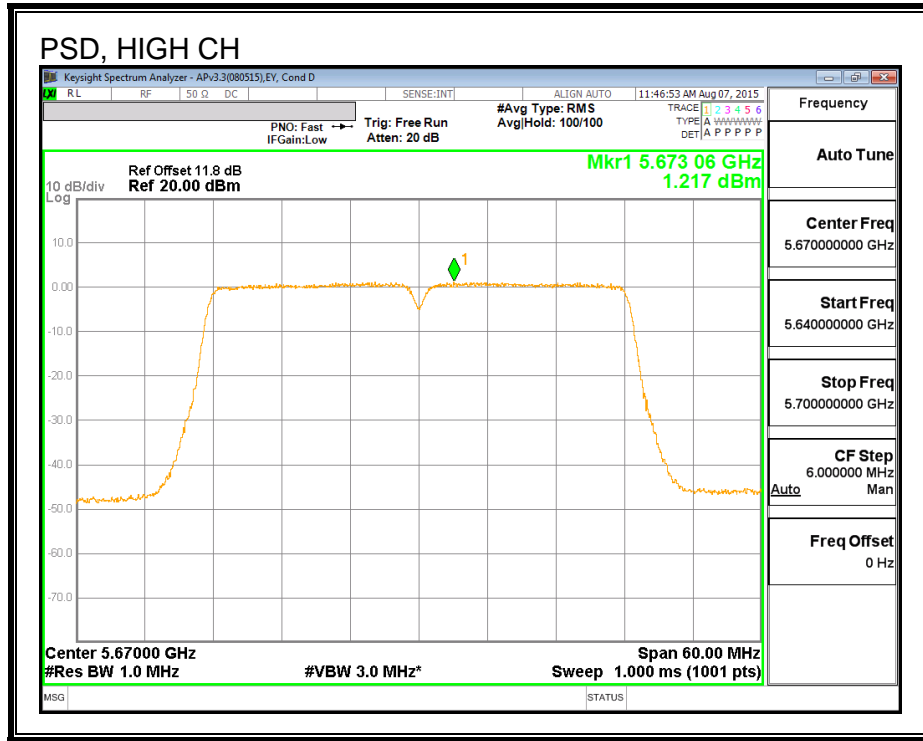
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	14.43	14.43	24.00	-9.57
Mid	5550	15.48	15.48	24.00	-8.52
High	5670	15.47	15.47	24.00	-8.53

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	0.57	0.57	11.00	-10.43
Mid	5550	1.26	1.26	11.00	-9.74
High	5670	1.22	1.22	11.00	-9.78

**PSD,**





### 8.41.5. STRADDLE CH 142 RESULTS

#### UNII-2C BAND

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

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
142	5710	35.16	2.70	2.70	24.00	11.00

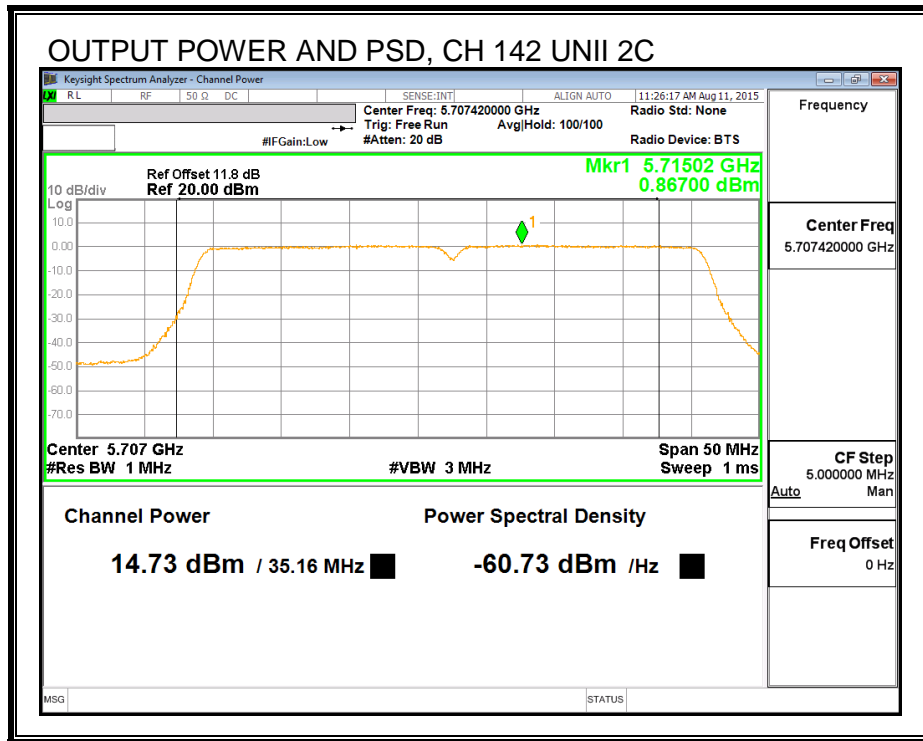
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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##### Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	14.73	14.73	24.00	-9.27

##### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	0.87	0.87	11.00	-10.13



**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	5.16	2.70	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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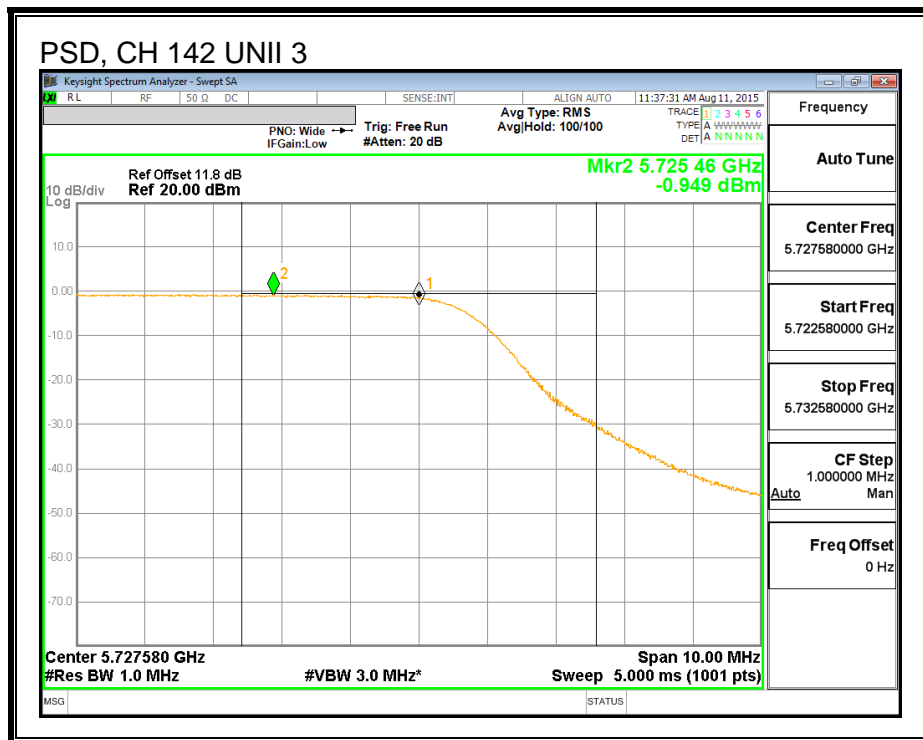
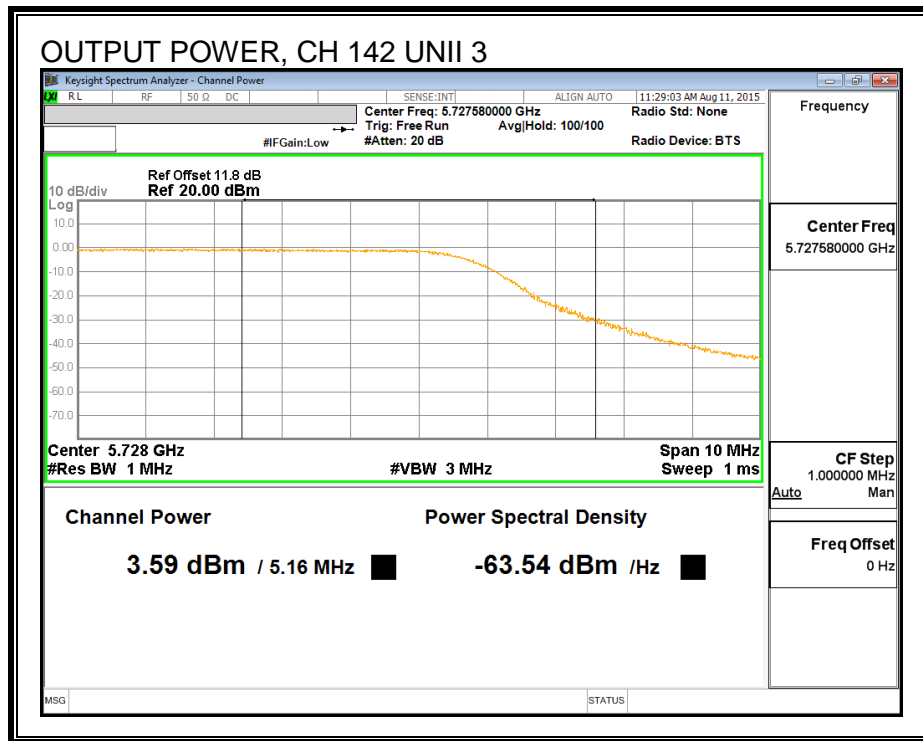
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	3.59	3.59	30.00	-26.41

**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-0.95	-0.95	30.00	-30.95





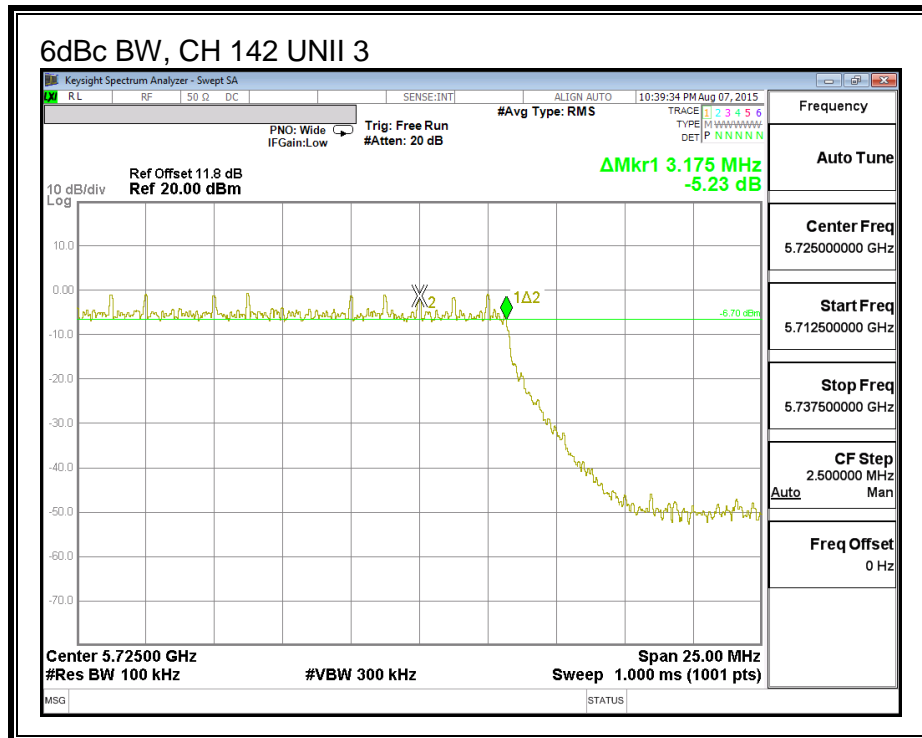
### 8.41.6. 6 dB BANDWIDTH

#### LIMITS

FCC §15.407 (e)

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

#### RESULTS



## 8.42. 802.11n HT40 CHAIN 1 MODE IN THE 5.6 GHz BAND

### 8.42.1. 26 dB BANDWIDTH

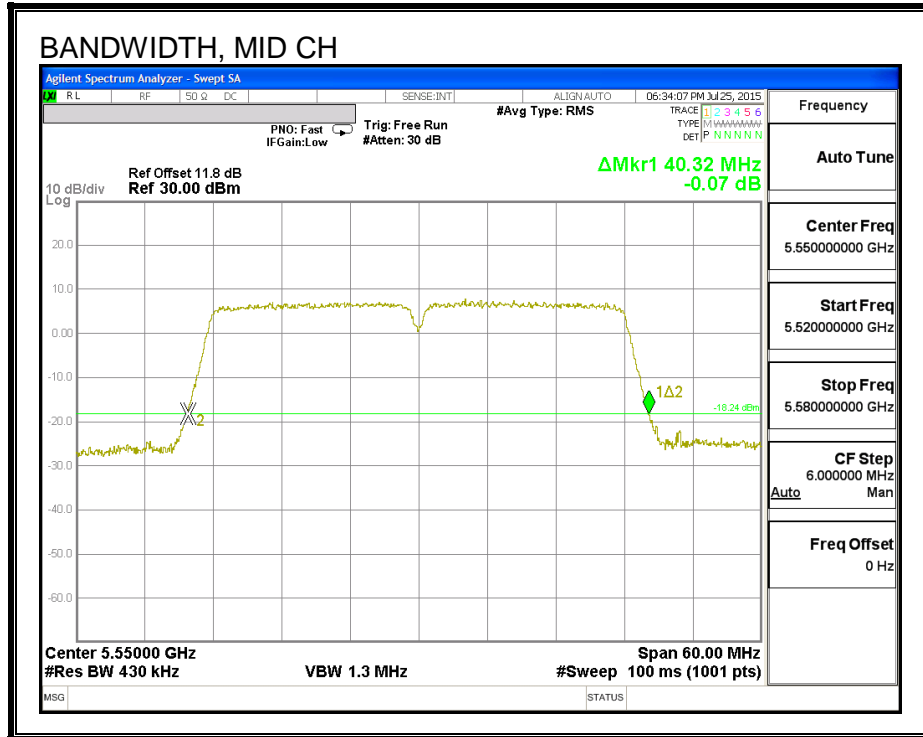
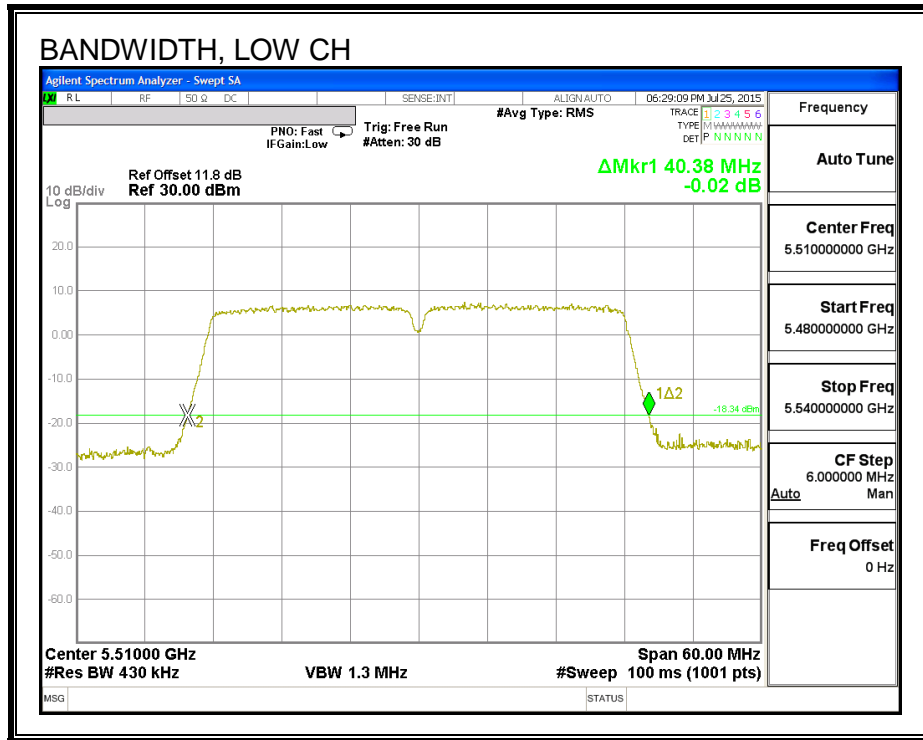
#### LIMITS

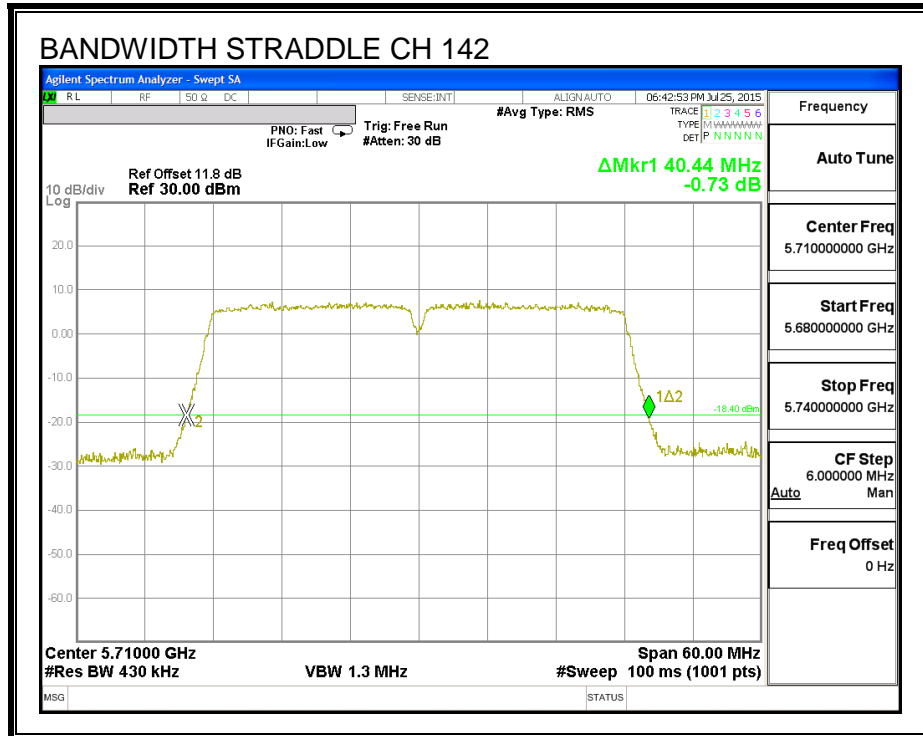
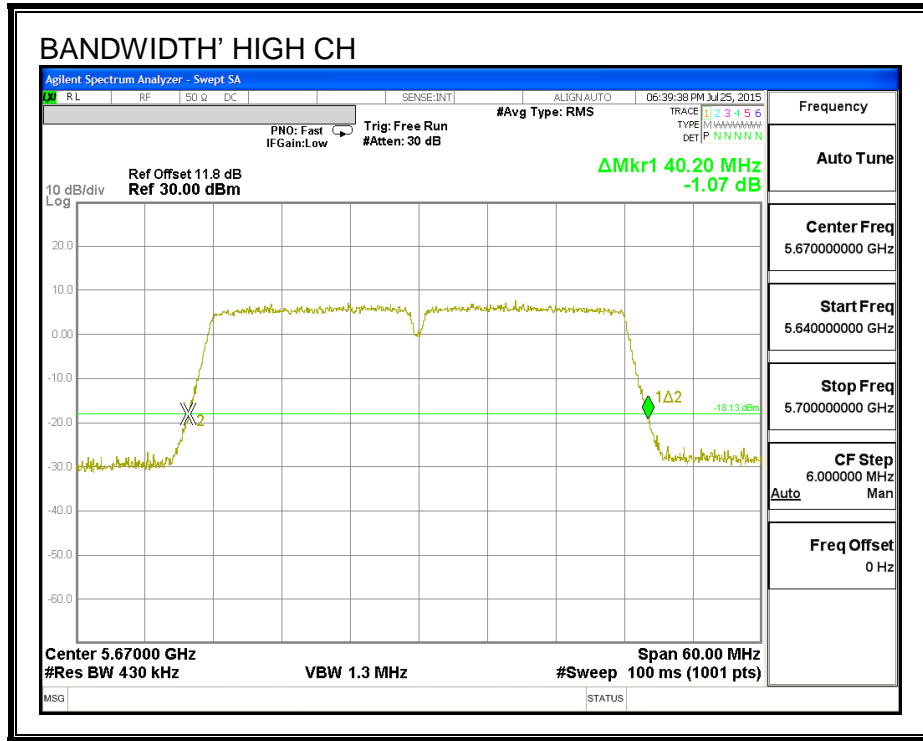
None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5510	40.38
Mid	5550	40.32
High	5670	40.20
142	5710	40.44

**26 dB BANDWIDTH**





### 8.42.2. 99% BANDWIDTH

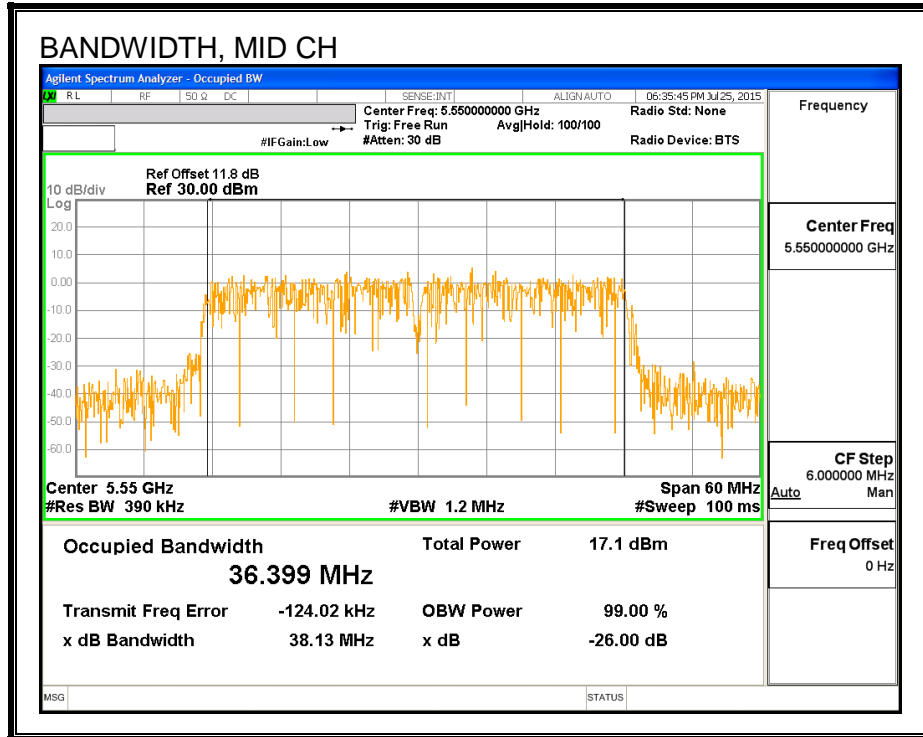
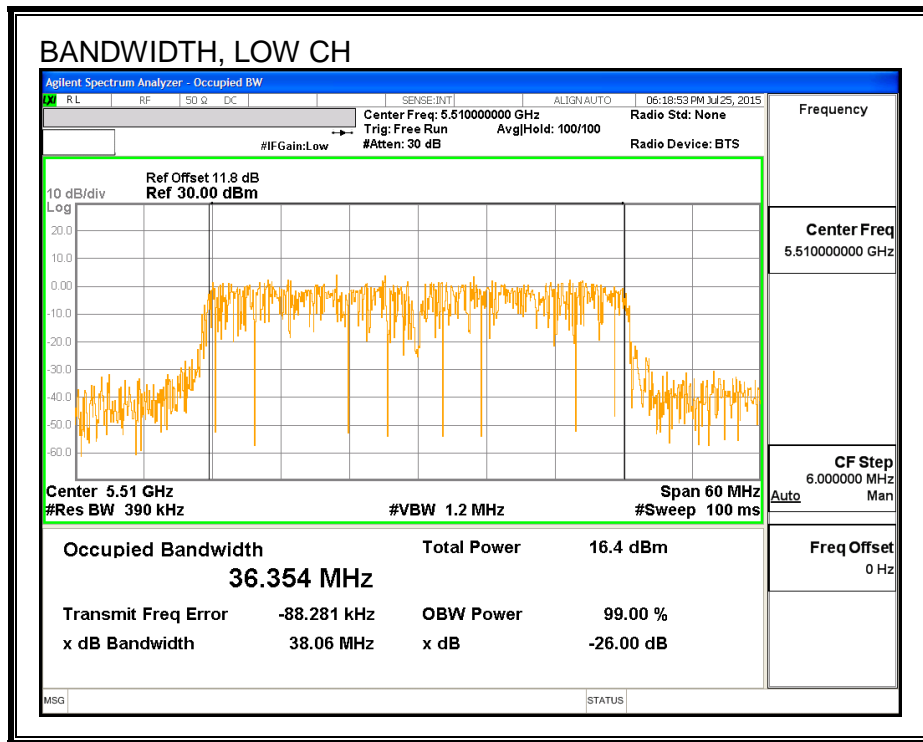
#### LIMITS

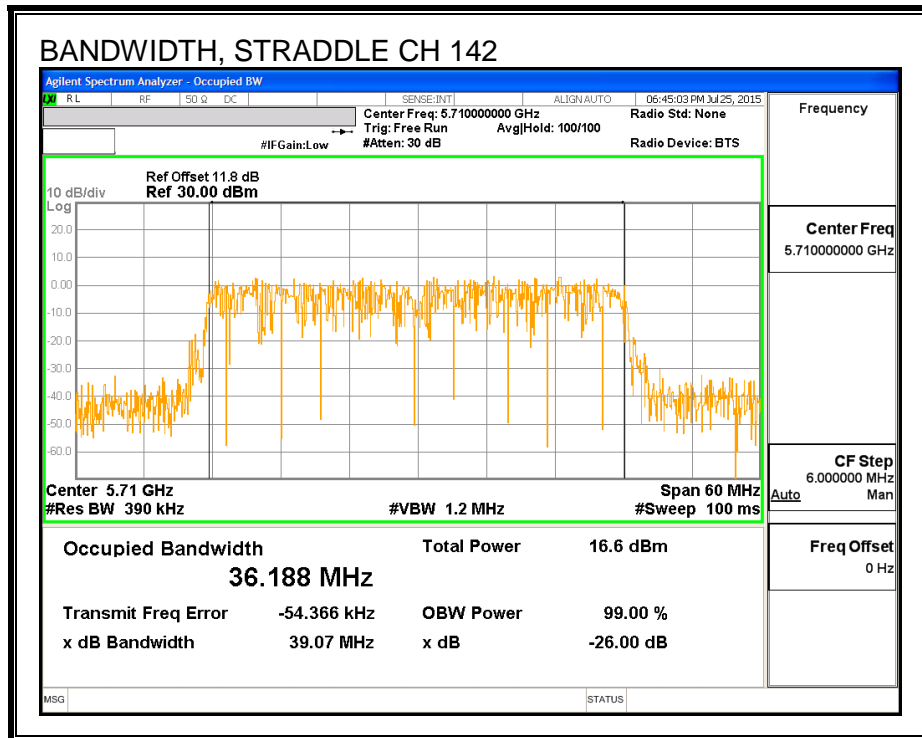
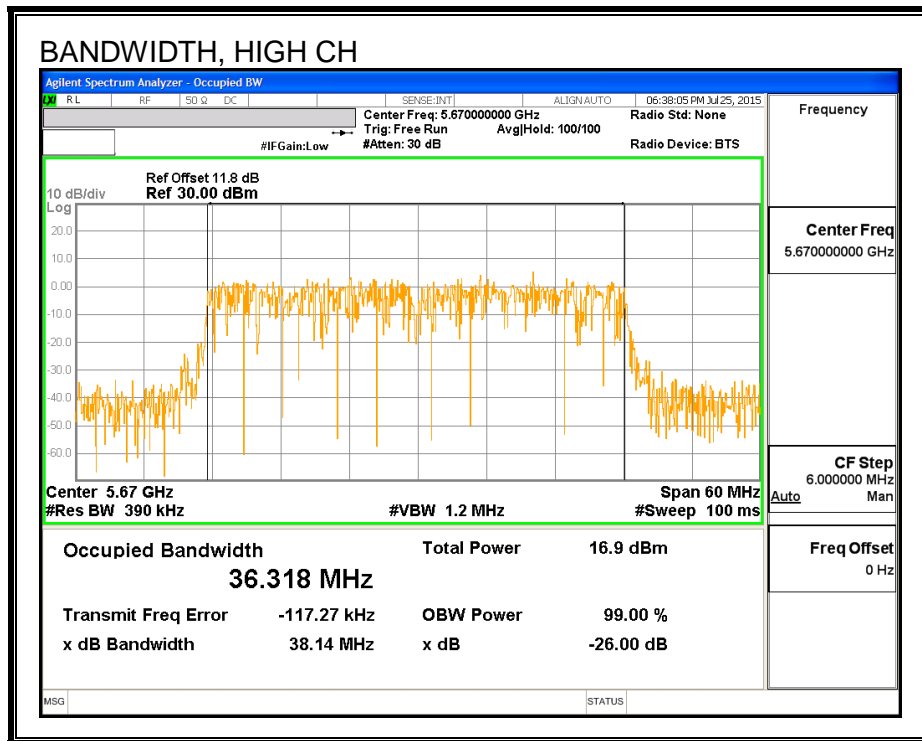
None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5510	36.354
Mid	5550	36.399
High	5670	36.318
142	5710	36.188

**99% BANDWIDTH**







### 8.42.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5510	14.42
Mid	5550	15.97
High	5670	15.41
142	5710	14.98

#### **8.42.4. 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  $11 \text{ dBm} + 10 \log B$ , where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

##### **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	40.38	36.354	3.10	24.00	11.00
Mid	5550	40.32	36.399	3.10	24.00	11.00
High	5670	40.20	36.318	3.10	24.00	11.00

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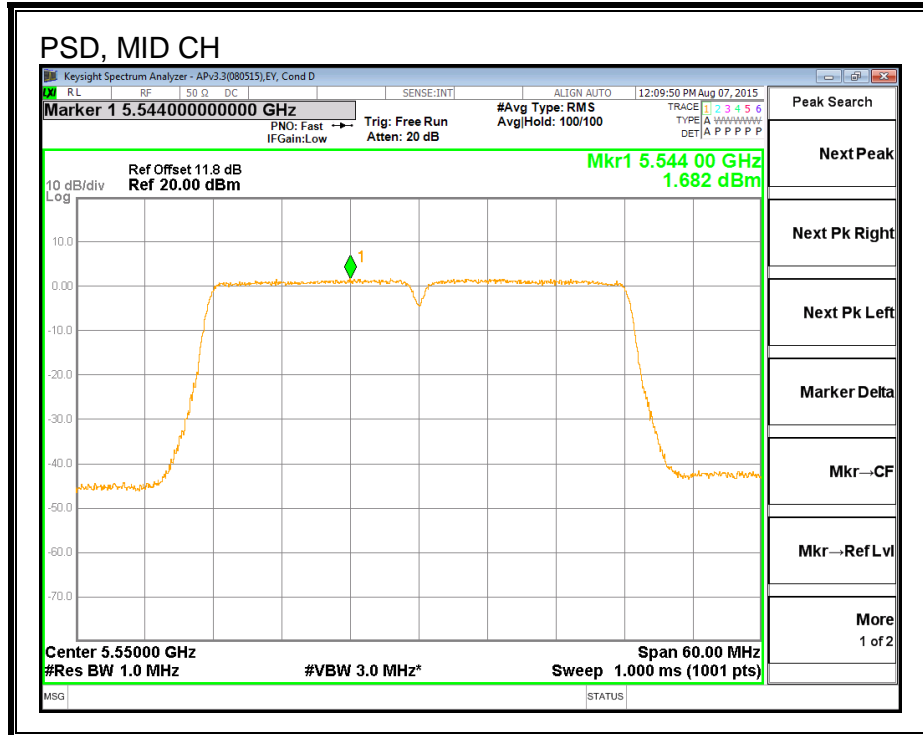
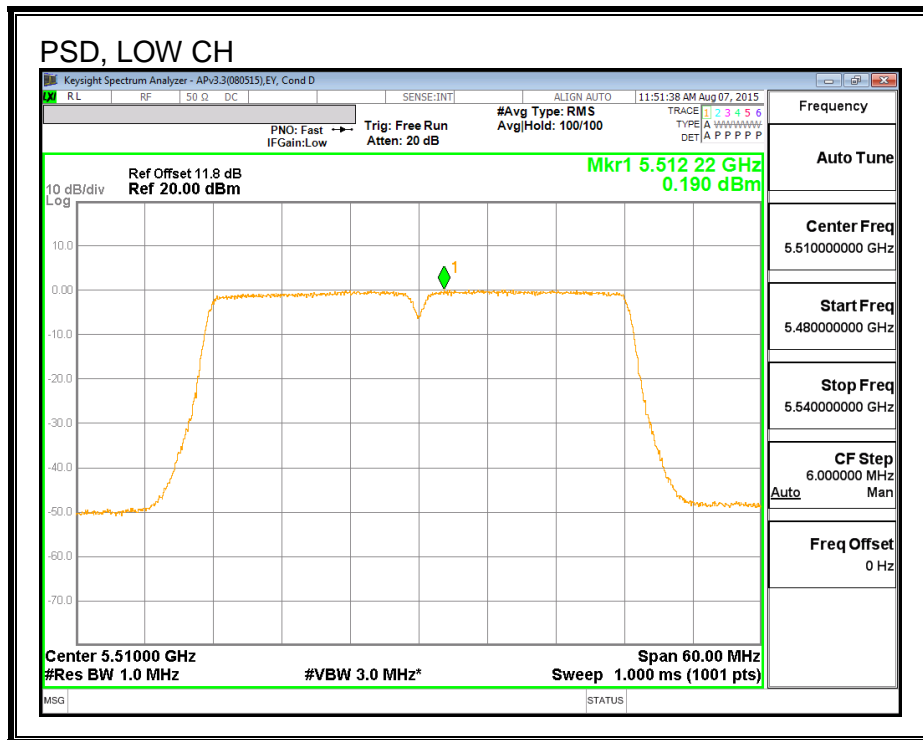
**Output Power Results**

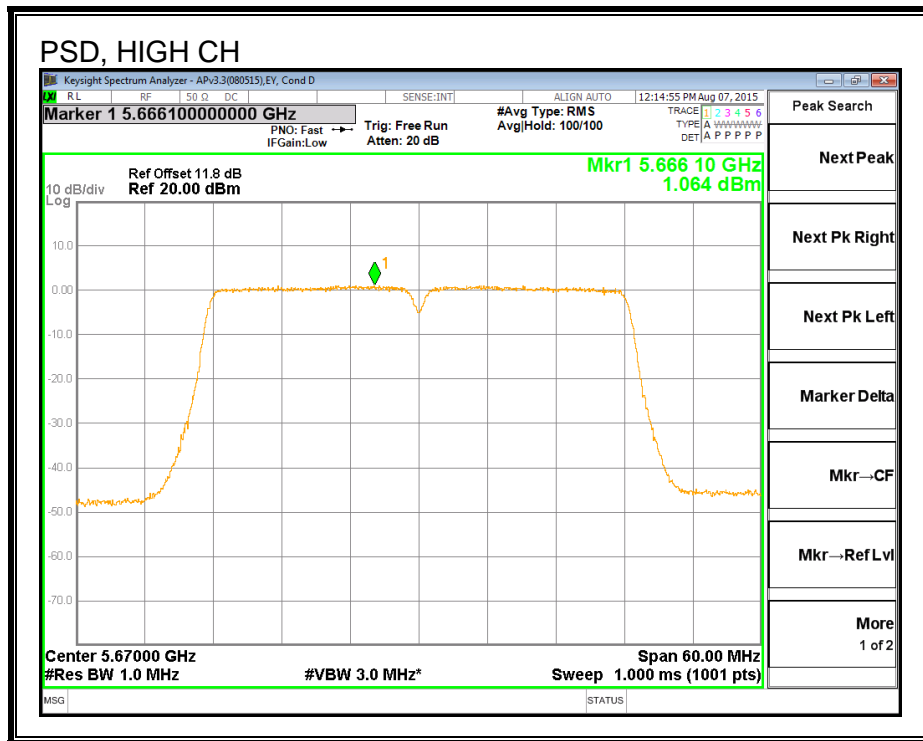
Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	14.42	14.42	24.00	-9.58
Mid	5550	15.97	15.97	24.00	-8.03
High	5670	15.41	15.41	24.00	-8.59

**PSD Results**

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	0.19	0.19	11.00	-10.81
Mid	5550	1.68	1.68	11.00	-9.32
High	5670	1.06	1.06	11.00	-9.94

**PSD,**





### 8.42.5. STRADDLE CH 142 RESULTS

#### UNII-2C BAND

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

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
142	5710	35.22	3.10	3.10	24.00	11.00

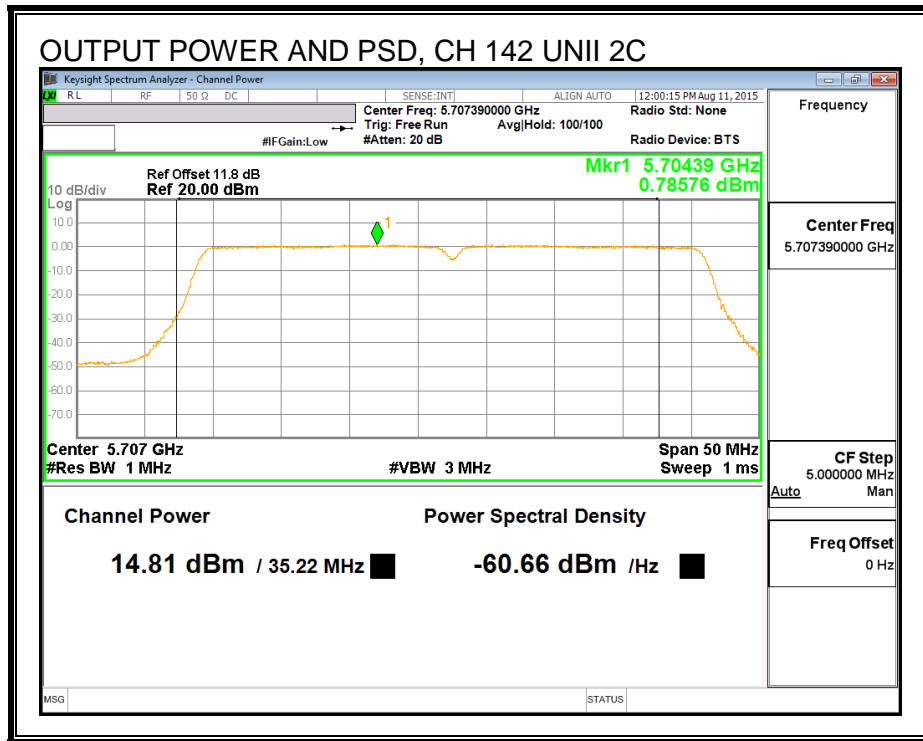
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
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##### Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	14.81	14.81	24.00	-9.19

##### PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	0.79	0.79	11.00	-10.21



**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	5.22	3.10	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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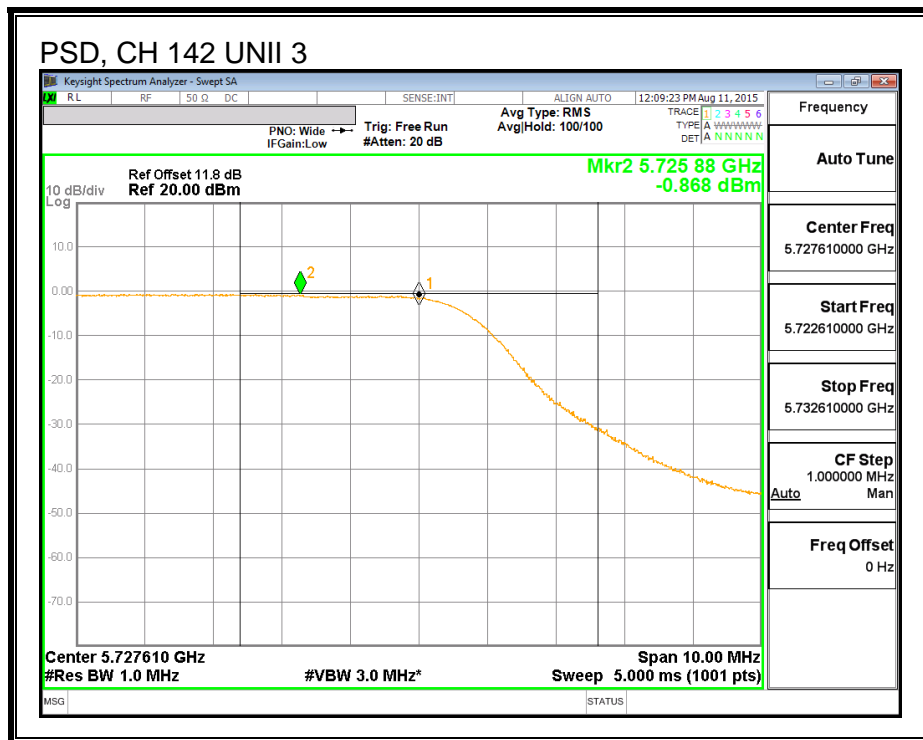
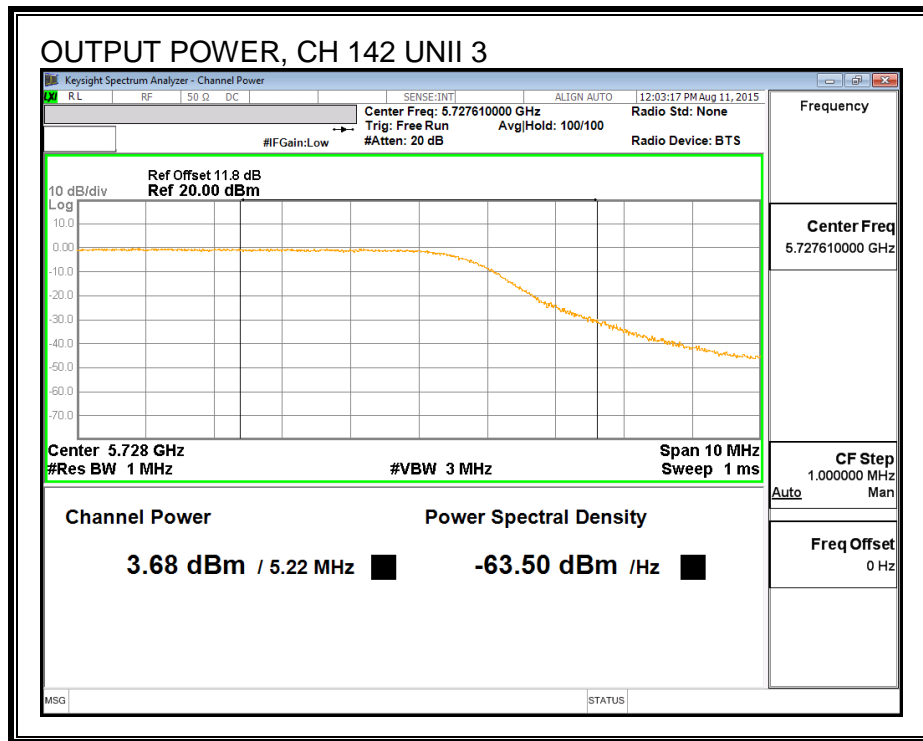
**Output Power Results**

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	3.68	3.68	30.00	-26.32

**PSD Results**

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-0.87	-0.87	30.00	-30.87





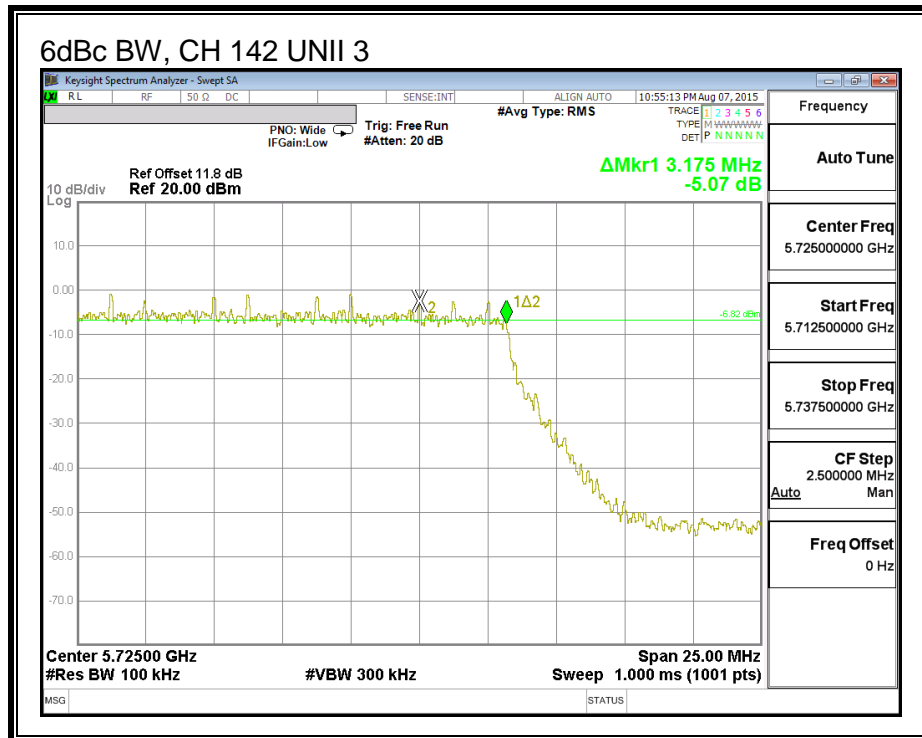
### 8.42.6. 6 dB BANDWIDTH

#### LIMITS

FCC §15.407 (e)

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

#### RESULTS



### 8.43. 802.11n HT40 2Tx CDD MODE IN THE 5.6 GHz BAND

#### 8.43.1. 26 dB BANDWIDTH

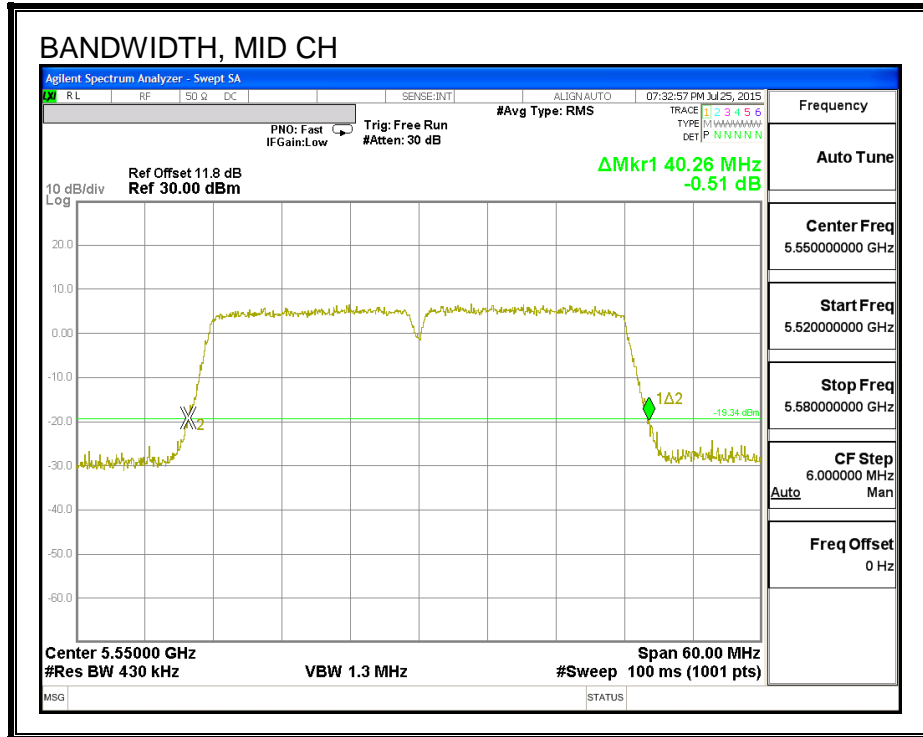
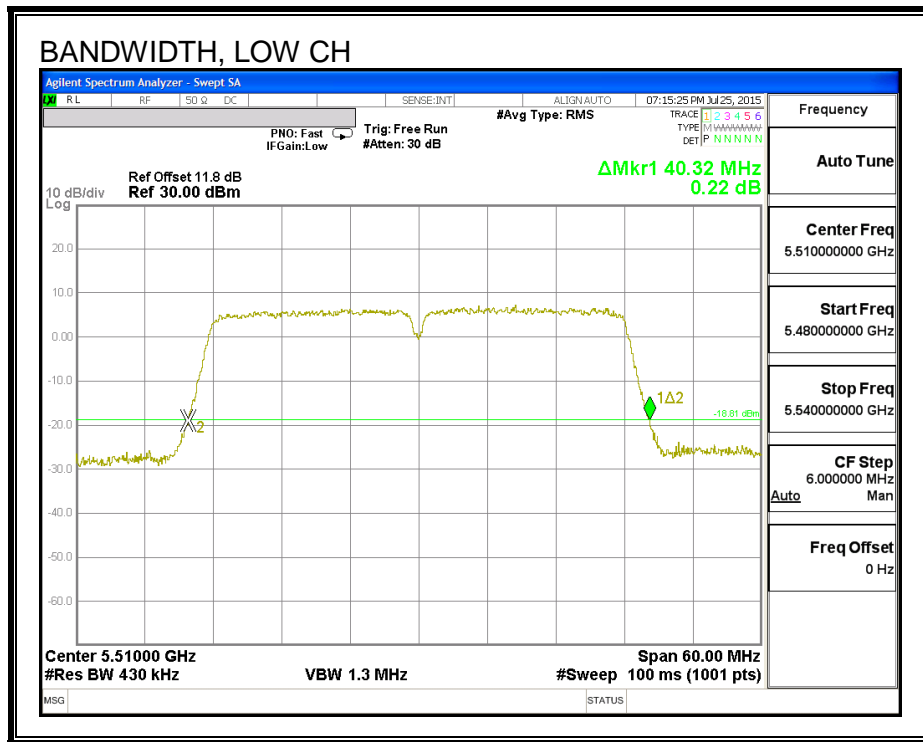
##### LIMITS

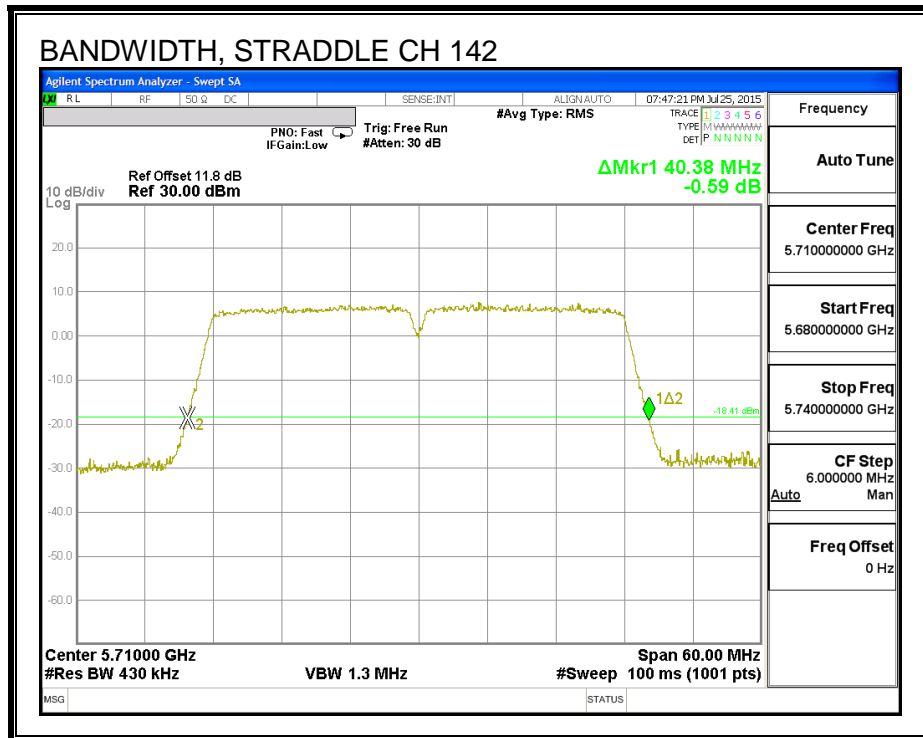
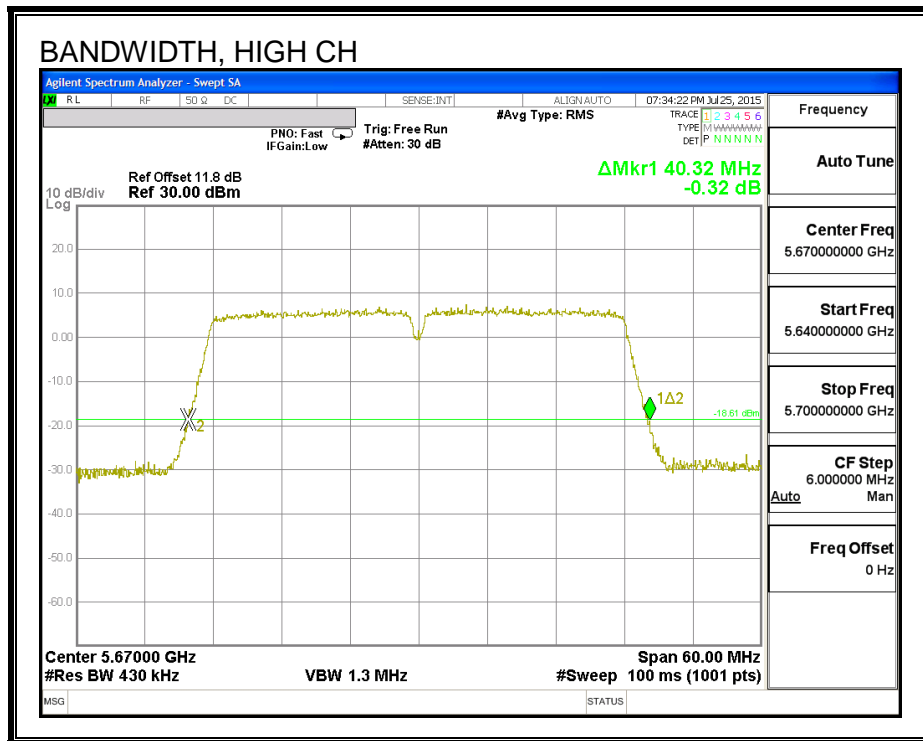
None; for reporting purposes only.

##### RESULTS

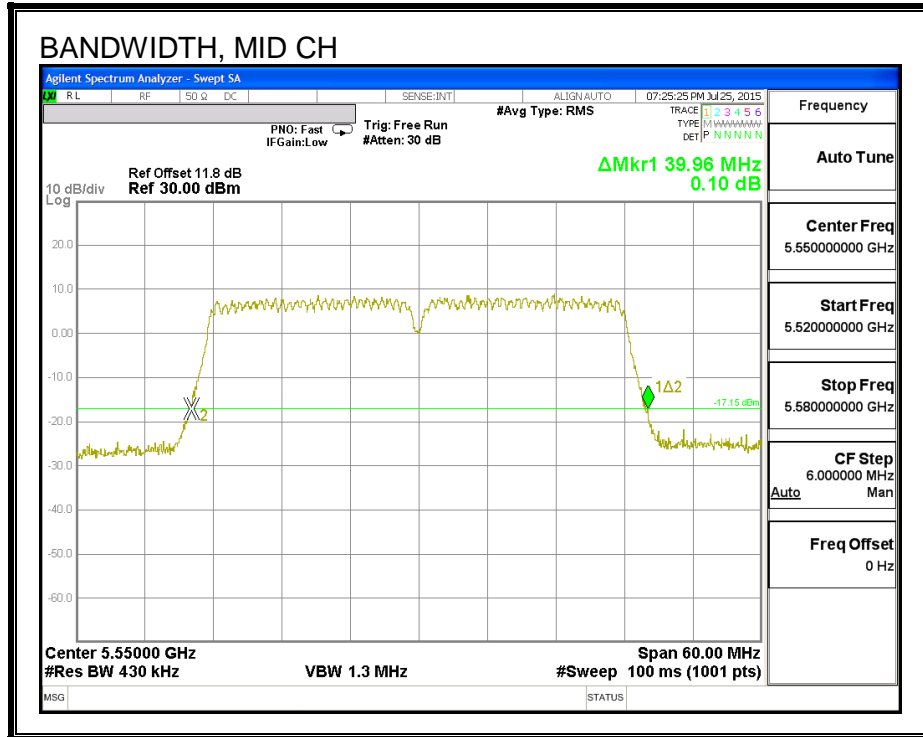
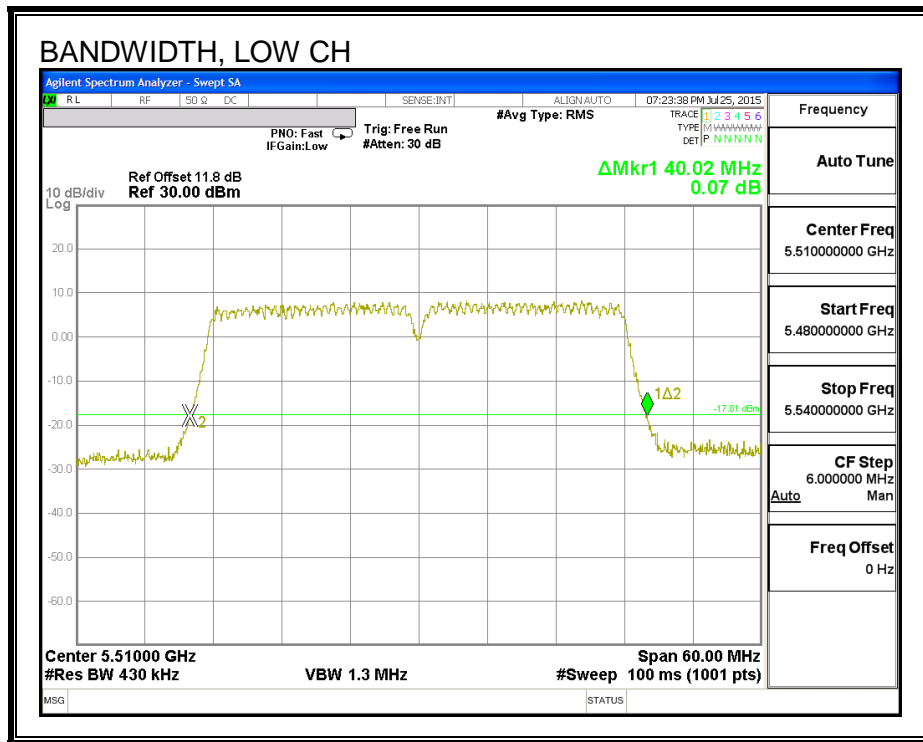
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5510	40.32	40.02
Mid	5550	40.26	39.96
High	5670	40.32	40.08
142	5710	40.38	40.02

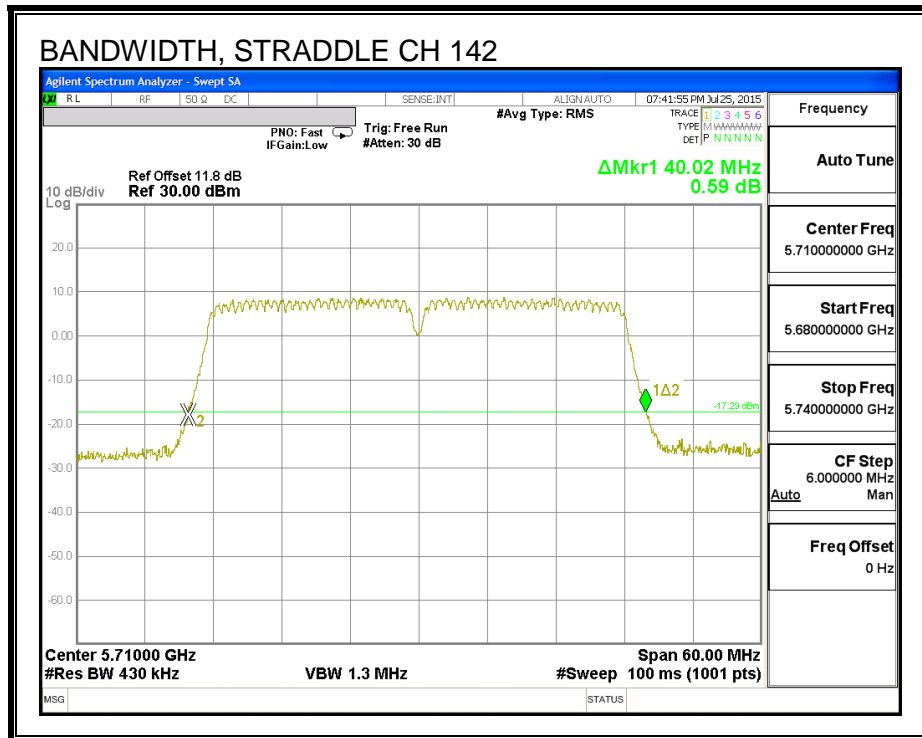
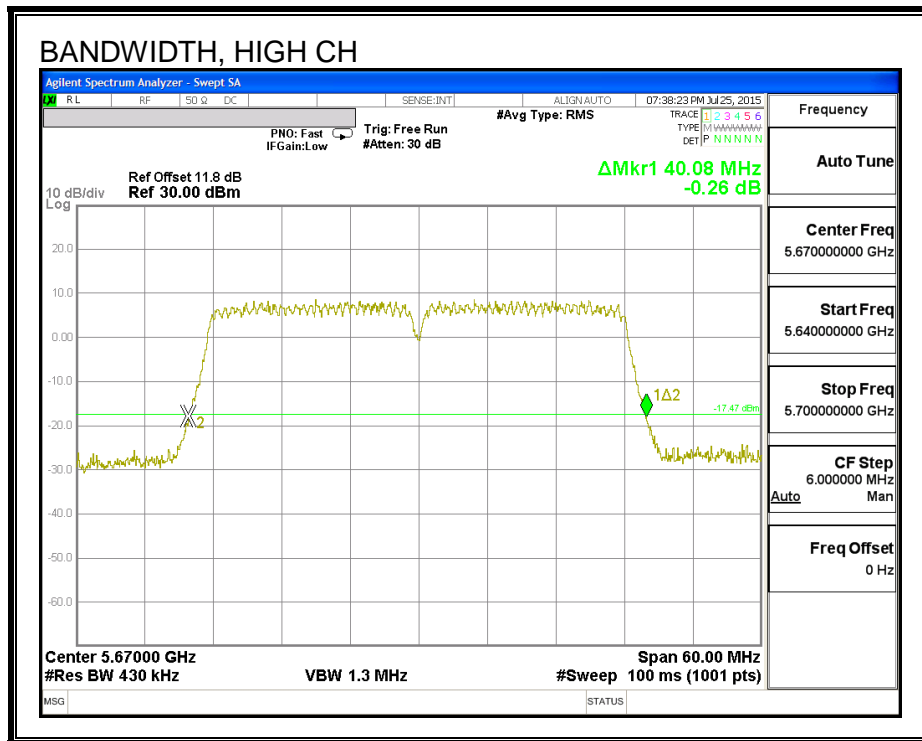
**26 dB BANDWIDTH, CHAIN 0**





**26 dB BANDWIDTH, CHAIN 1**





### 8.43.2. 99% BANDWIDTH

#### LIMITS

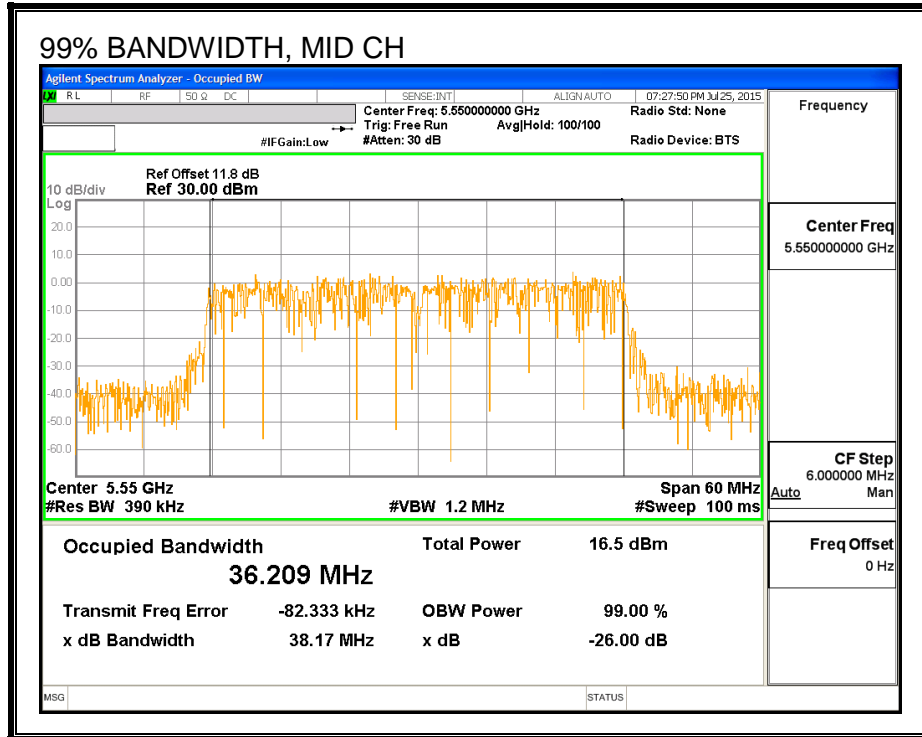
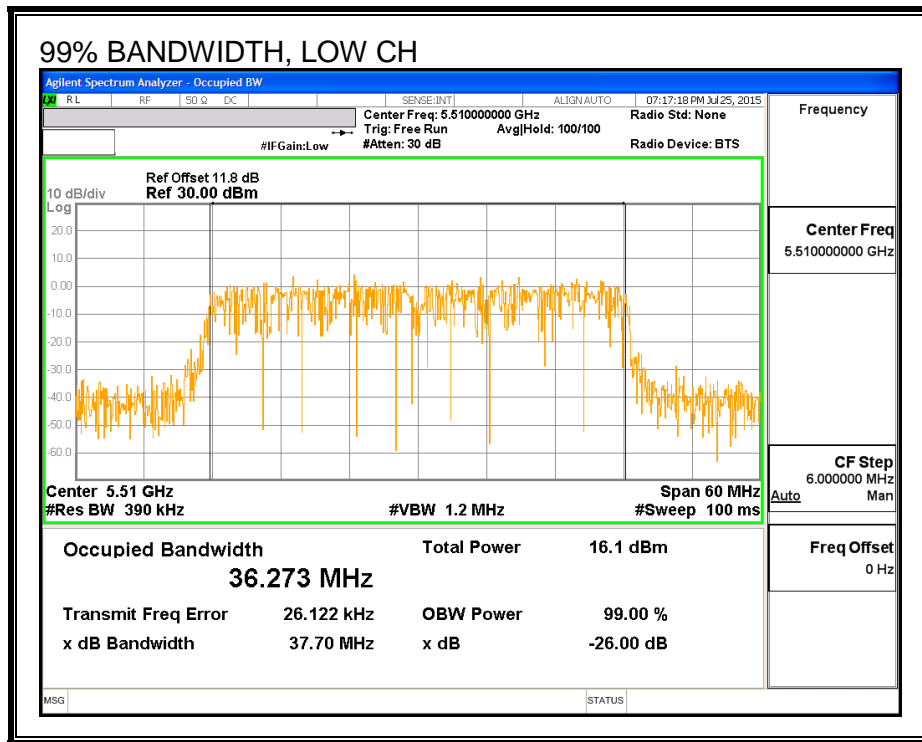
None; for reporting purposes only.

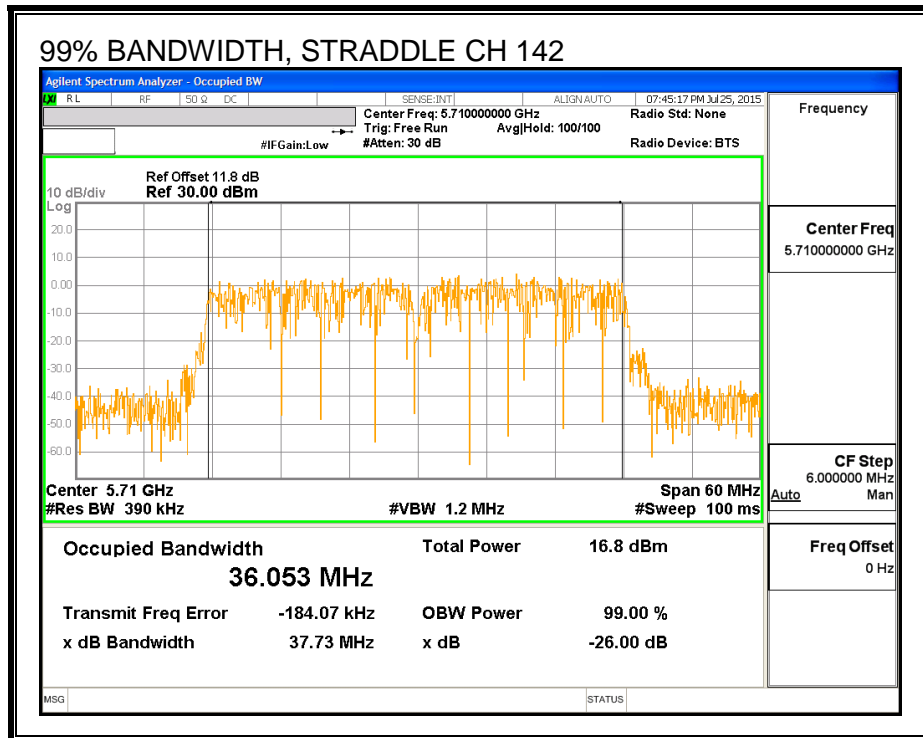
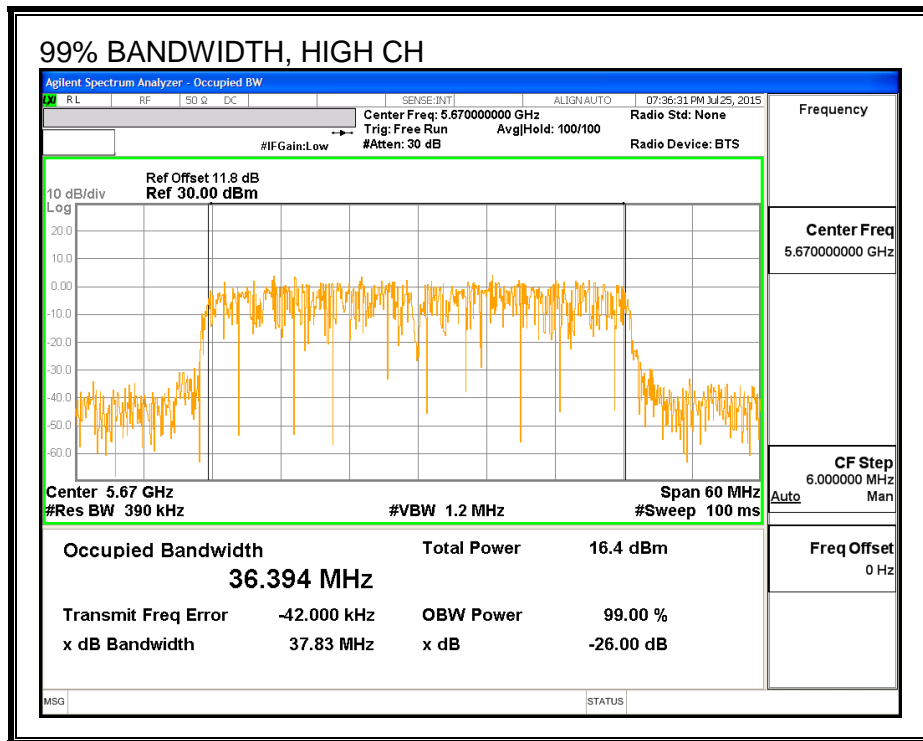
#### RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5510	36.273	36.223
Mid	5550	36.209	36.286
High	5670	36.394	36.172
142	5710	36.053	36.282

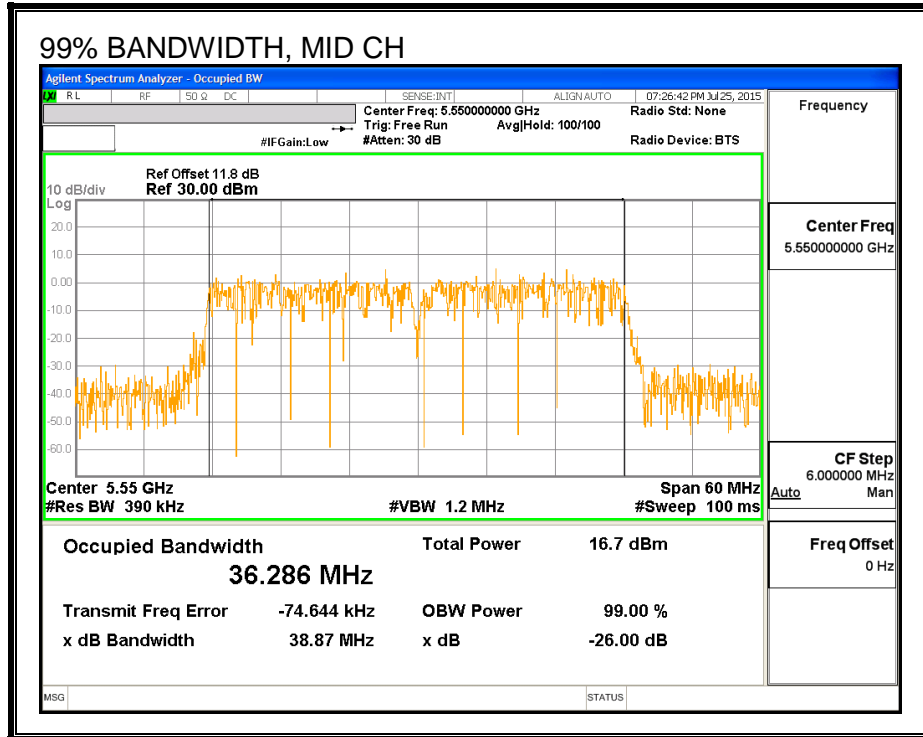
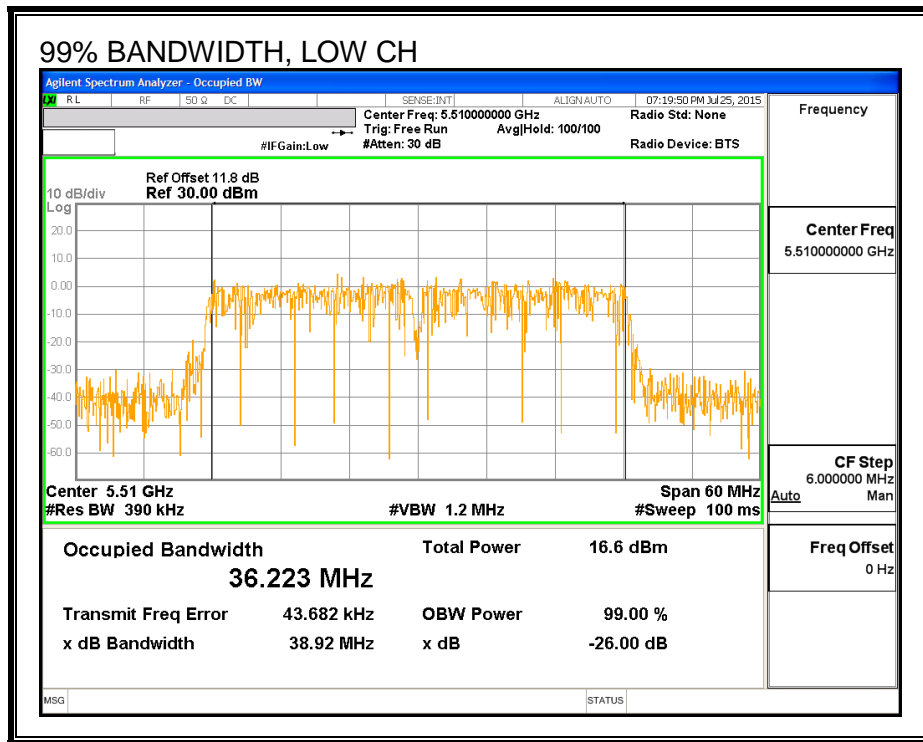


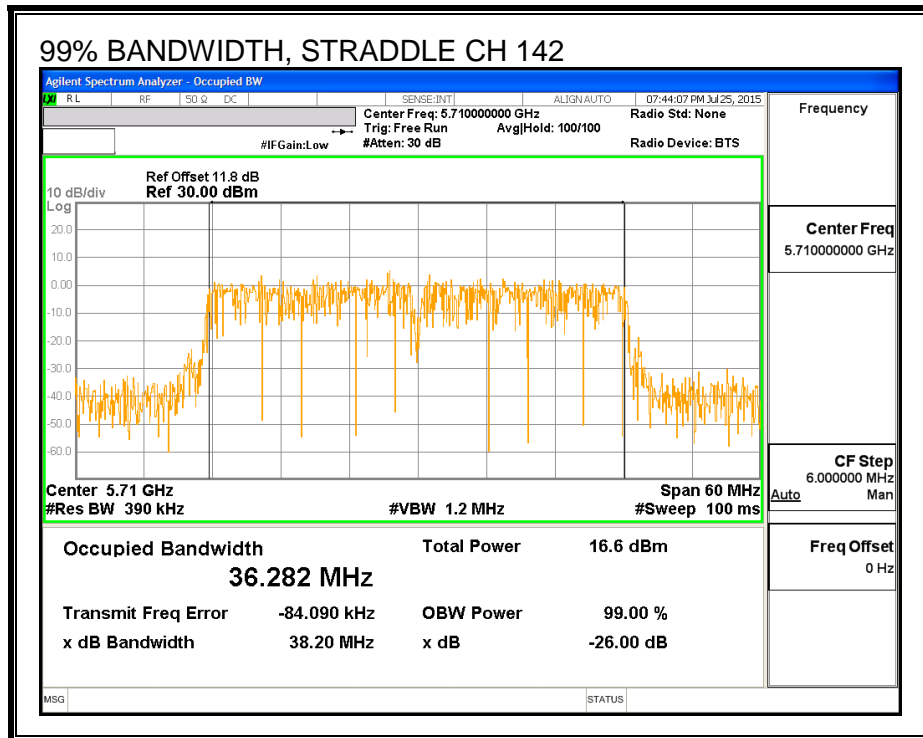
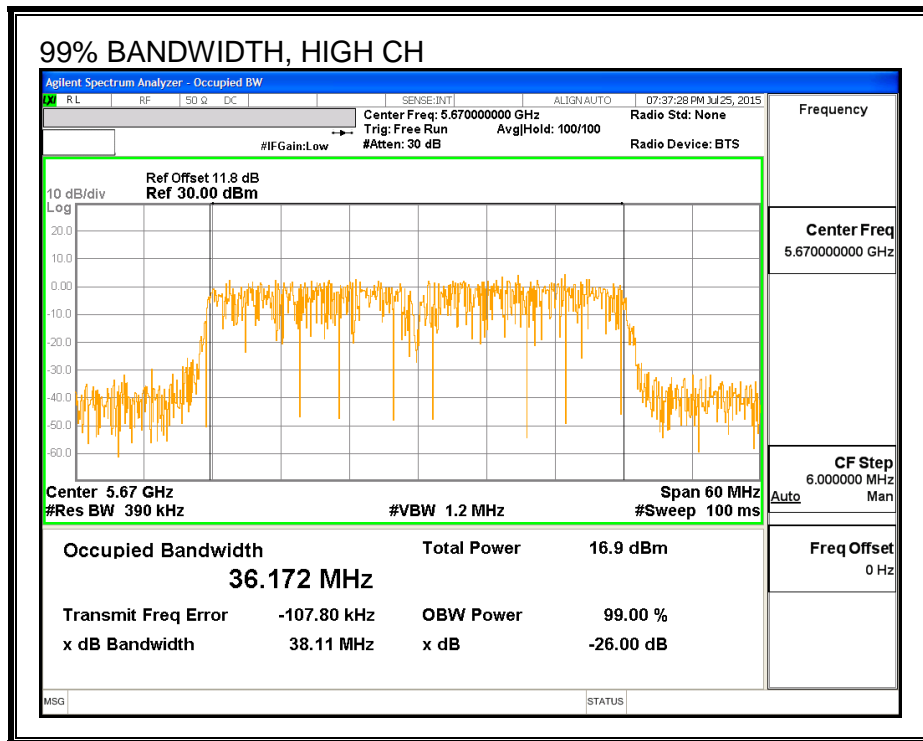
**99% BANDWIDTH, CHAIN 0**





**99% BANDWIDTH, CHAIN 1**





### 8.43.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5510	13.42	13.47	16.46
Mid	5590	15.41	15.93	18.69
High	5670	14.45	14.46	17.47
142	5710	14.40	14.48	17.45

### 8.43.4. 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.

#### DIRECTIONAL ANTENNA GAIN

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.70	3.10	2.90

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	3.10	5.91

**RESULTS**

**Bandwidth, Antenna Gain and Limits**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5510	40.02	36.223	2.90	5.91	24.00	11.00
Mid	5550	39.96	36.209	2.90	5.91	24.00	11.00
High	5670	40.08	36.172	2.90	5.91	24.00	11.00

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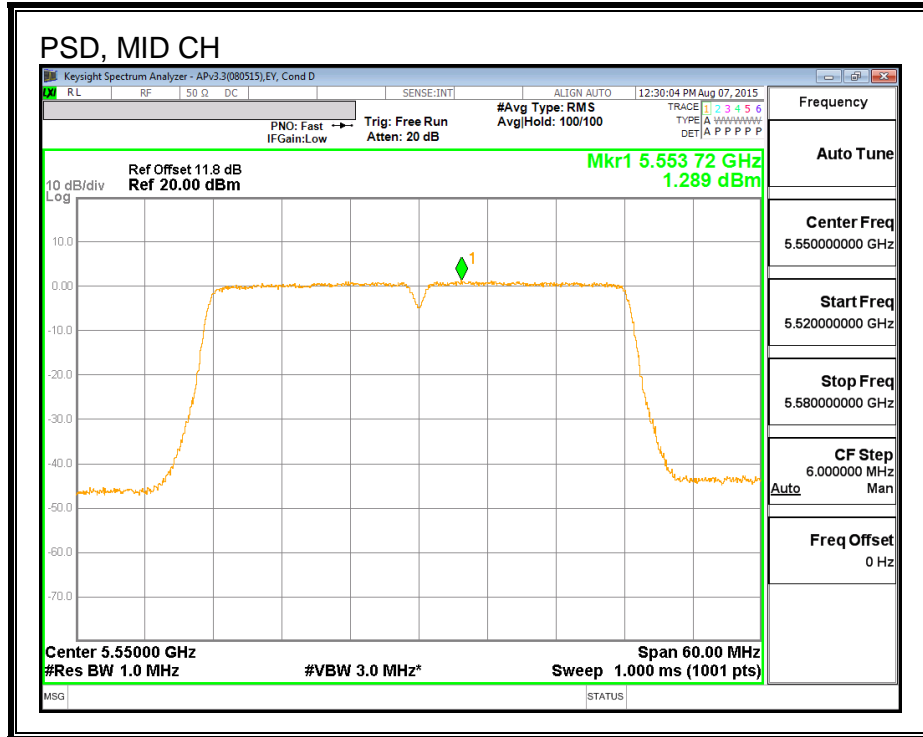
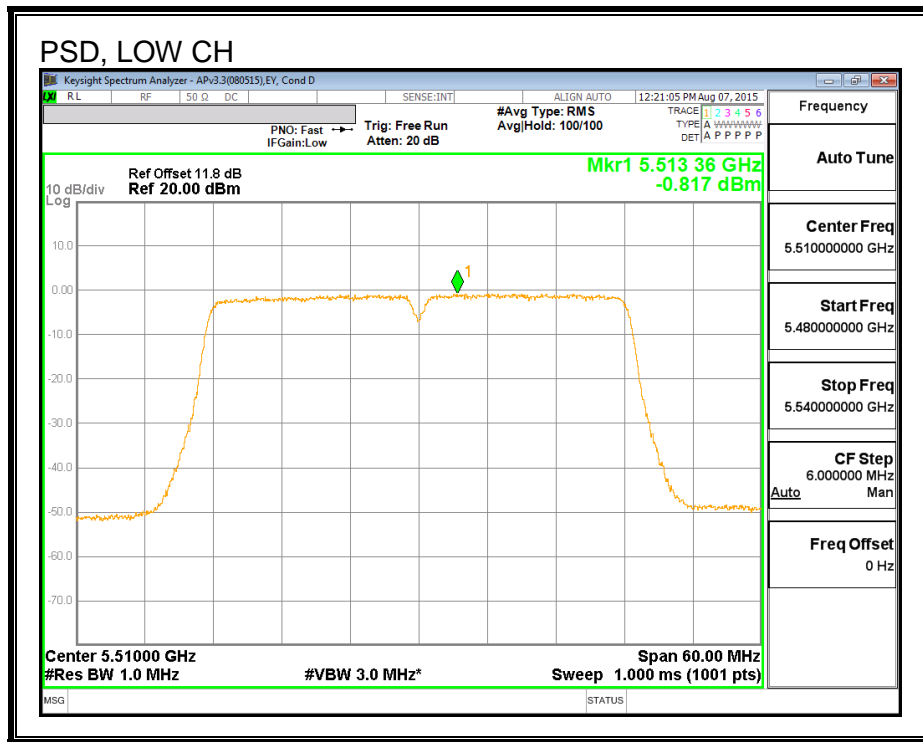
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5510	13.42	13.47	16.46	24.00	-7.54
Mid	5550	15.41	15.93	18.69	24.00	-5.31
High	5670	14.45	14.46	17.47	24.00	-6.53

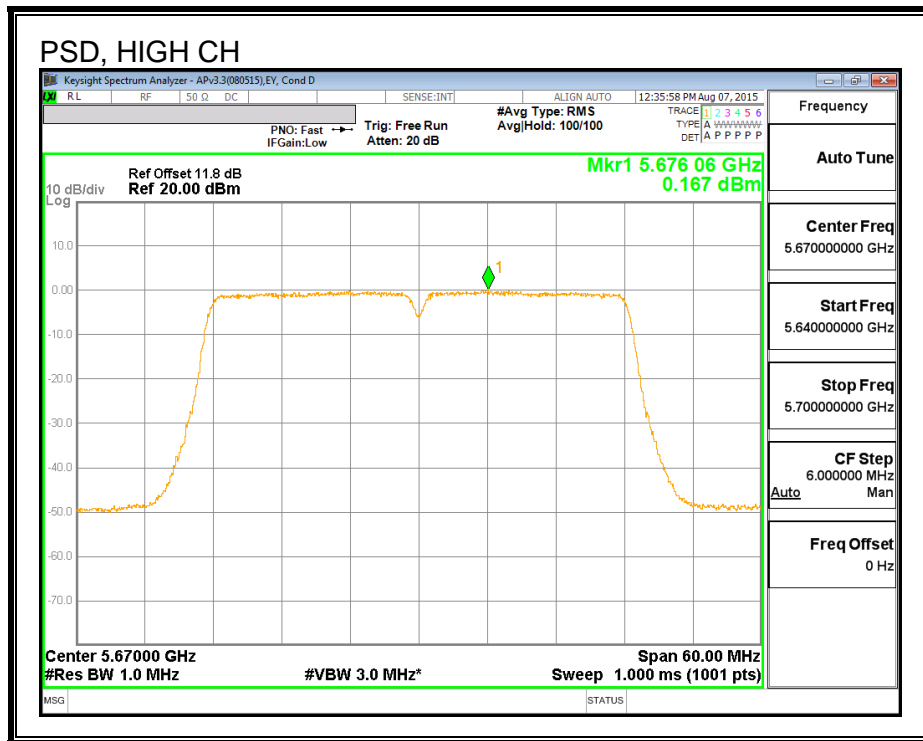
**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5510	-0.82	-0.76	2.22	11.00	-8.78
Mid	5550	1.29	1.46	4.39	11.00	-6.61
High	5670	0.17	0.19	3.19	11.00	-7.81

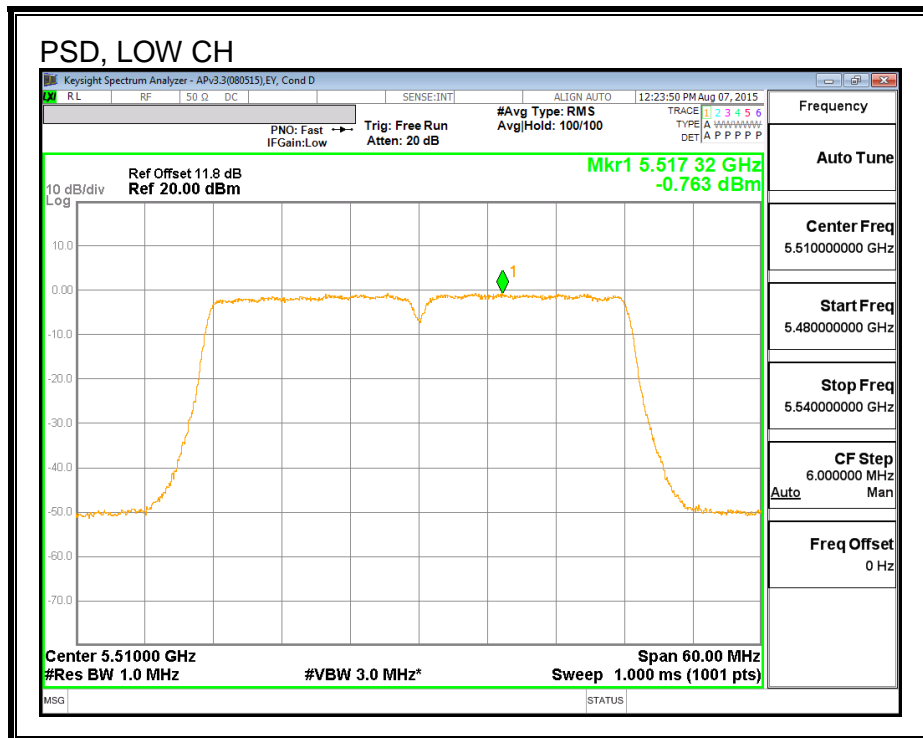
**PSD, CHAIN 0**

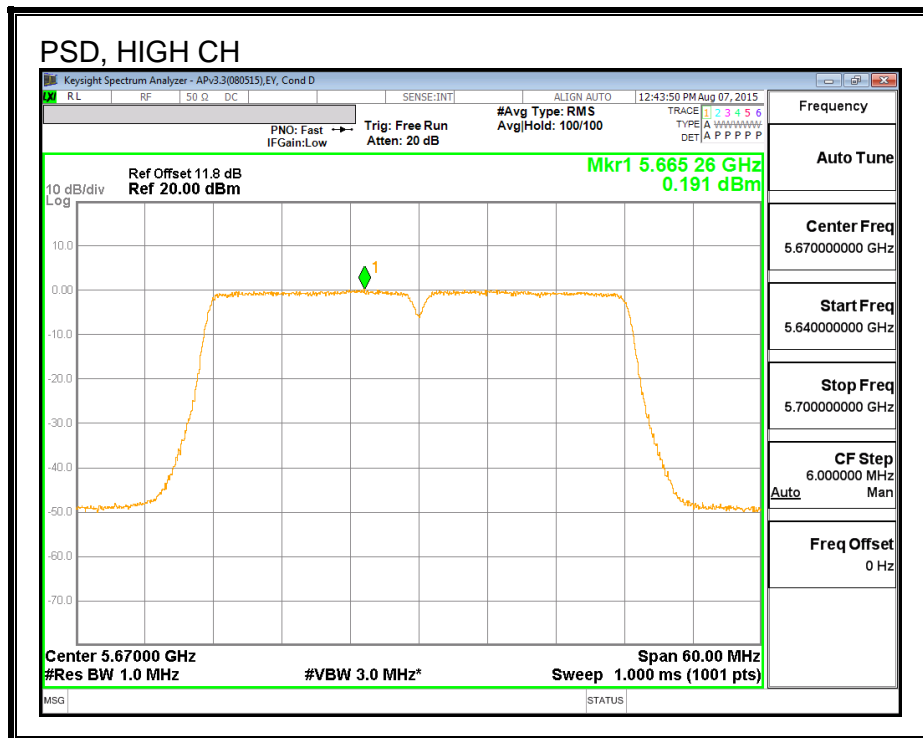
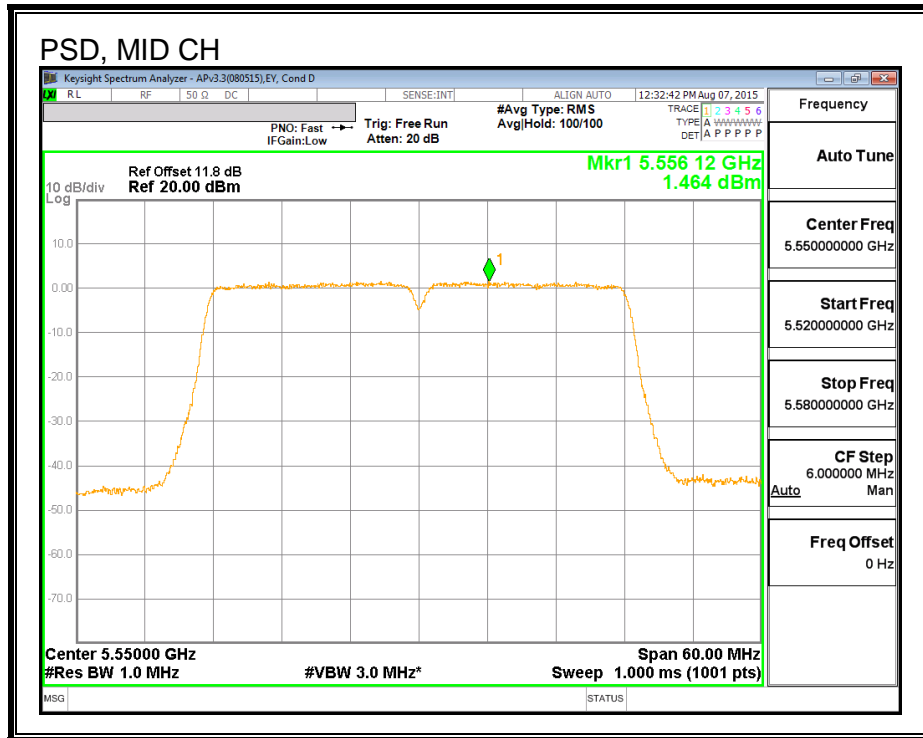






### PSD, CHAIN 1





### 8.43.5. STRADDLE CHANNEL 142 RESULTS

#### UNII-2C BAND

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

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
142	5710	35.19	2.90	5.91	24.00	11.00

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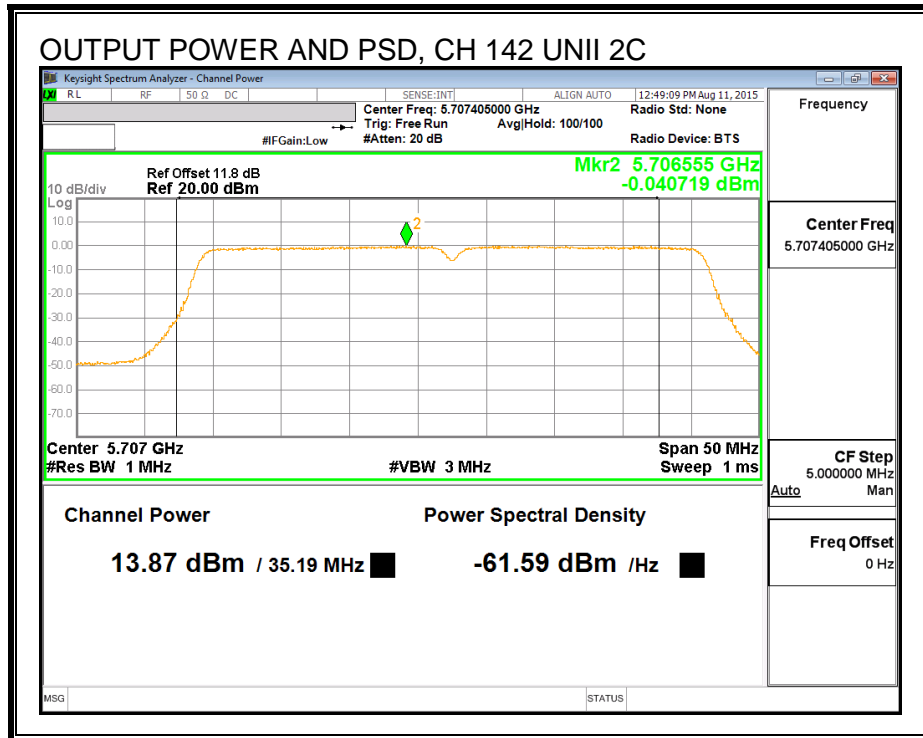
##### Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	13.87	13.93	16.91	24.00	-7.09

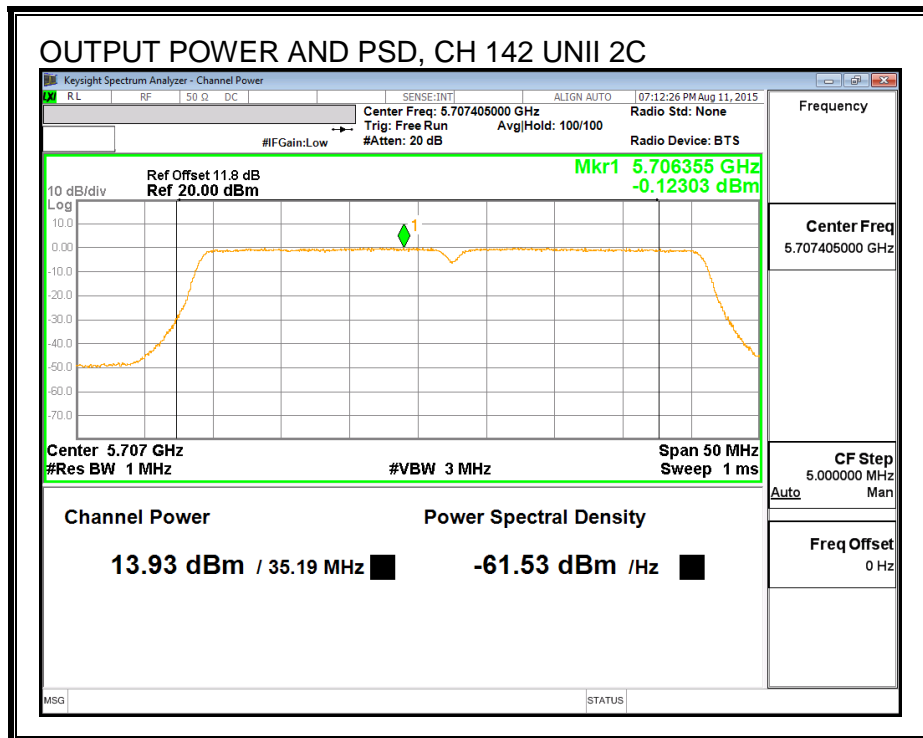
##### PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-0.04	-0.12	2.93	11.00	-8.07

**CHAIN 0**



**CHAIN 1**



**UNII-3 BAND**

**Antenna Gain and Limit**

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain For Power (dBi)	Directional Gain For PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
142	5710	5.19	2.90	5.91	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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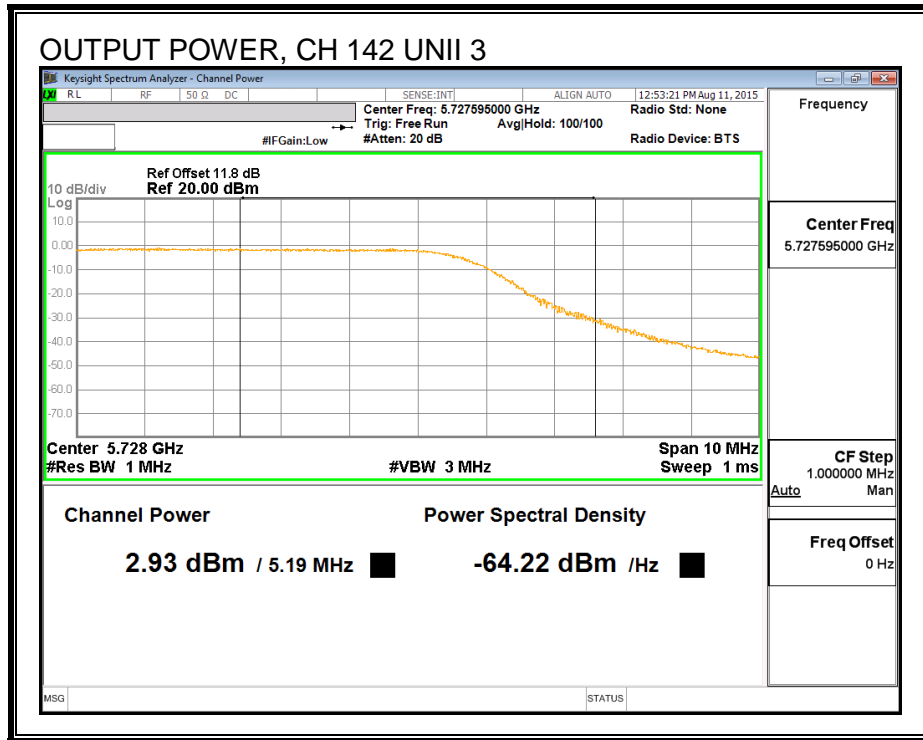
**Output Power Results**

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
142	5710	2.93	2.73	5.84	30.00	-24.16

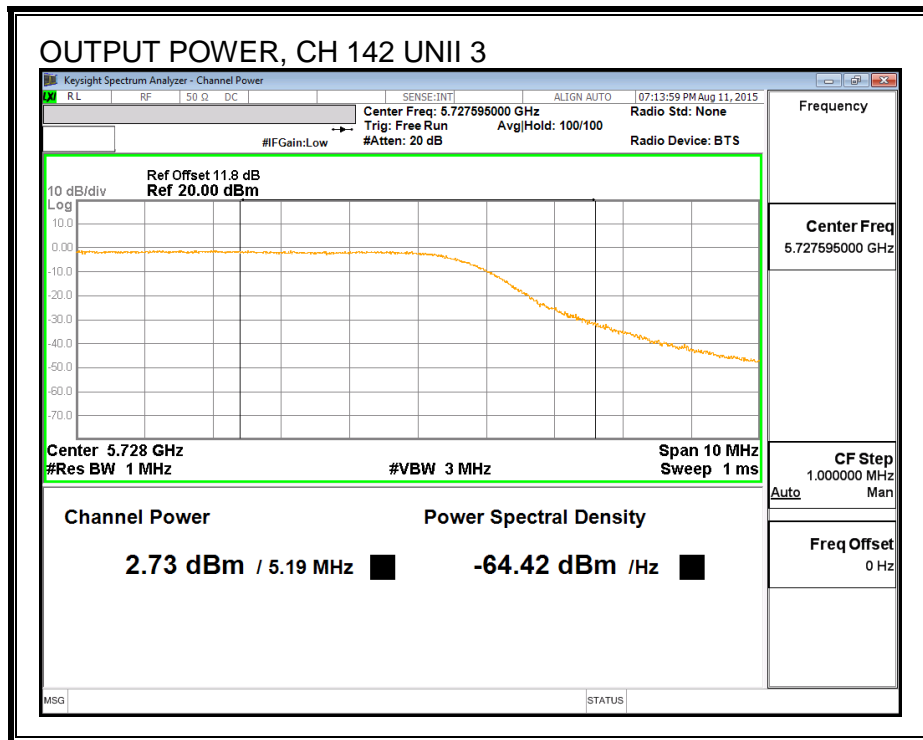
**PSD Results**

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
142	5710	-1.50	-1.70	1.41	30.00	-28.59

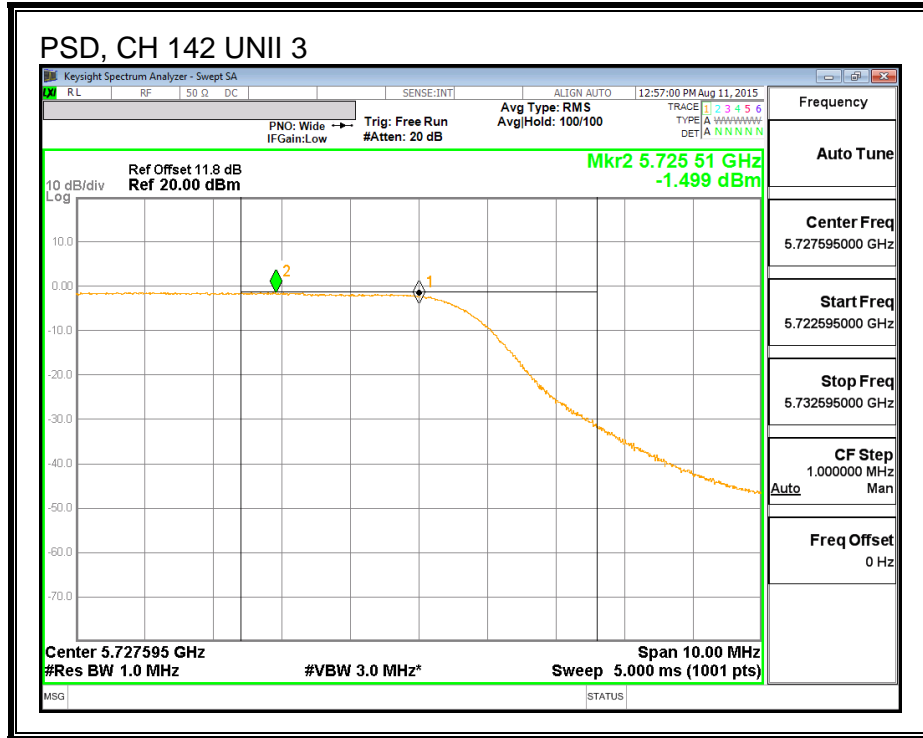
**CHAIN 0**



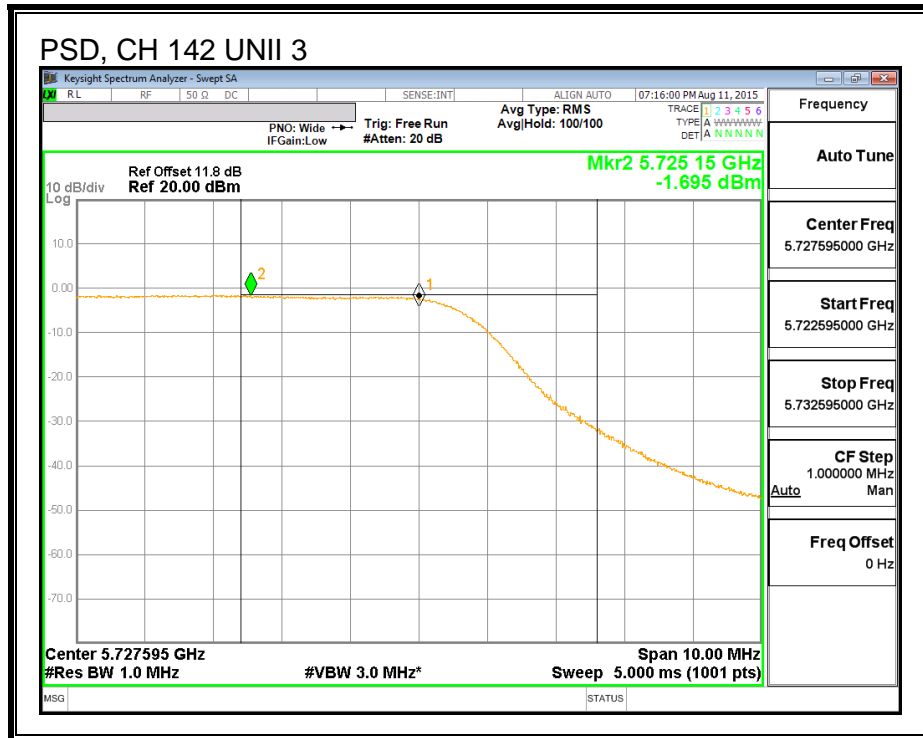
**CHAIN 1**



**CHAIN 0**



**CHAIN 1**



### **8.43.6. 6 dB BBANDWIDTH**

#### **LIMITS**

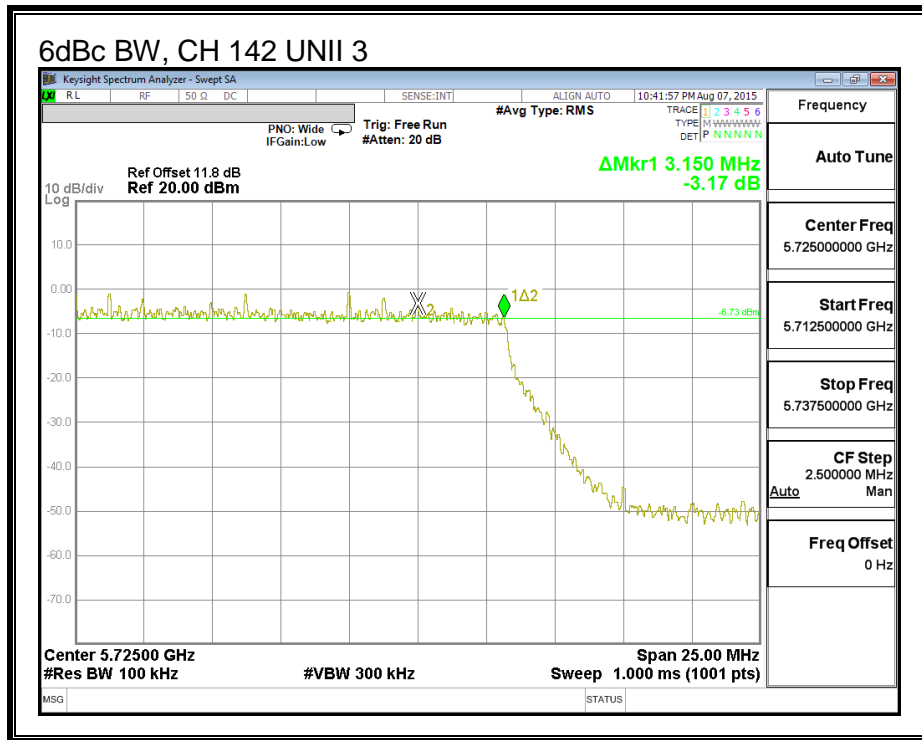
FCC §15.407 (e)

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

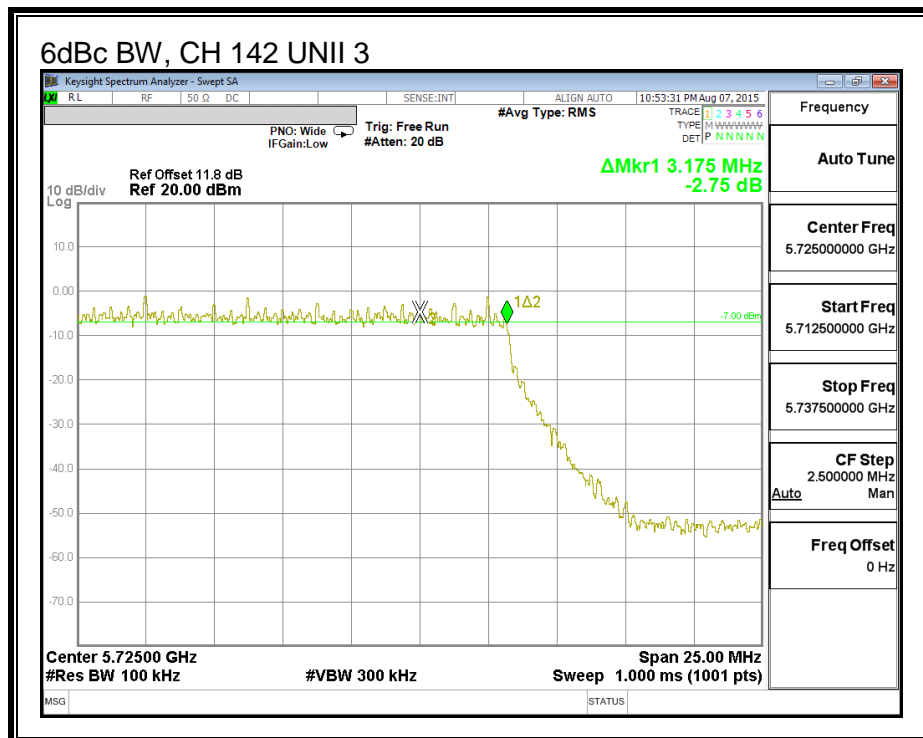
#### **RESULTS**



**CHAIN 0**



**CHAIN 1**



#### **8.44. 802.11n HT40 2Tx STBC/SDM MODE IN THE 5.6 GHz BAND**

**Note:** Covered by 802.11n HT40 2Tx CDD MODE