

# 8.31.2. 99% BANDWIDTH

## **LIMITS**

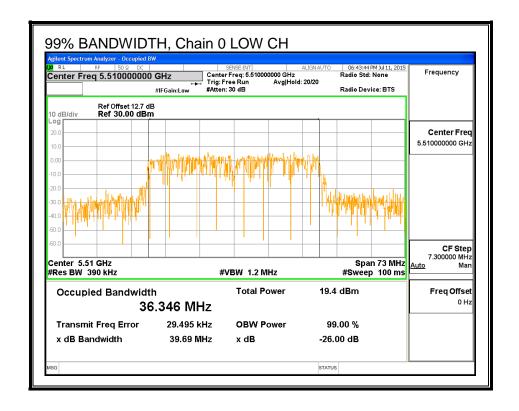
None; for reporting purposes only.

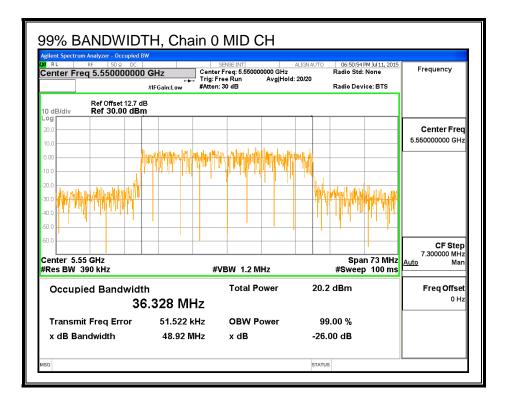
## **RESULTS**

Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Low	5510	36.346	36.393
Mid	5550	36.328	36.444
High	5670	36.274	36.458
142	5710	36.371	36.358

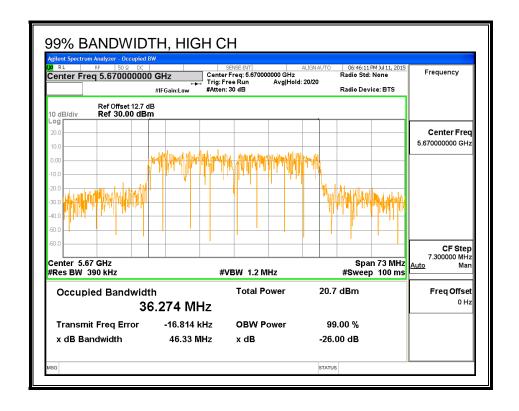
DATE: JULY 27, 2015

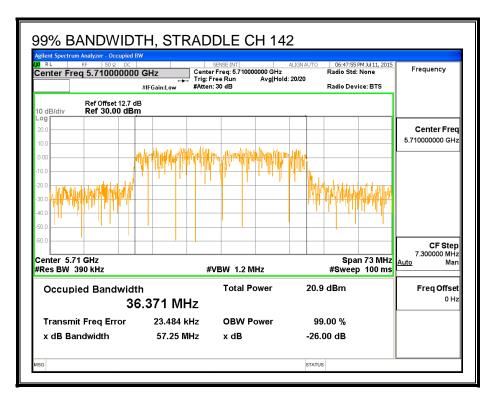
# 99% BANDWIDTH, CHAIN 0



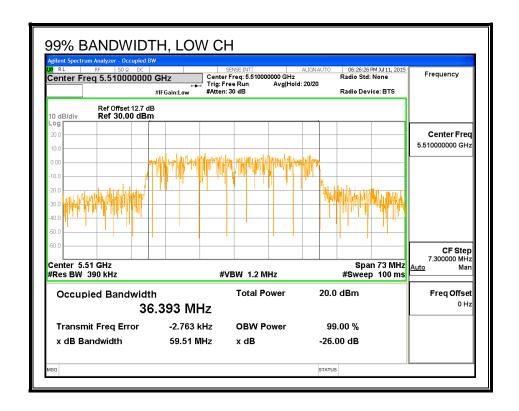


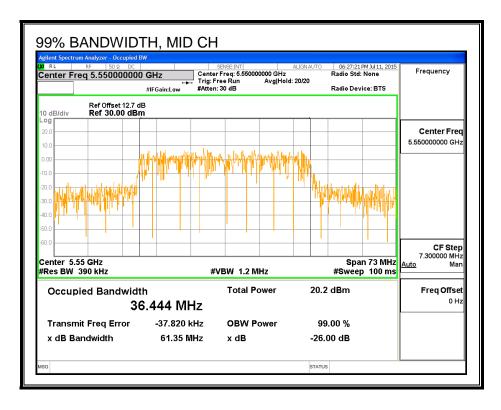
DATE: JULY 27, 2015



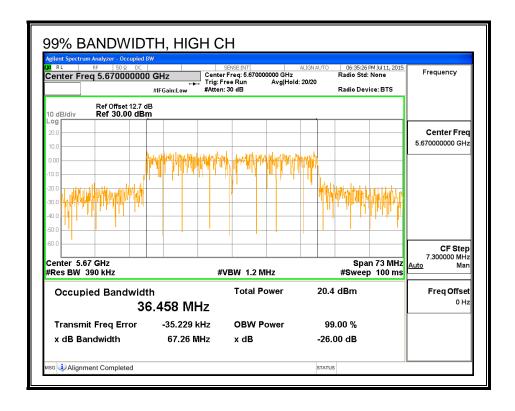


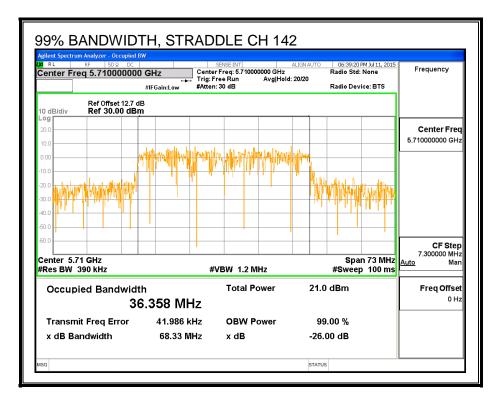
### 99% BANDWIDTH, CHAIN 1





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# 8.31.3. AVERAGE POWER

## **LIMITS**

None; for reporting purposes only.

## **RESULTS**

Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5510	13.95	13.93	16.95
Mid	5590	17.39	17.96	20.69
High	5670	14.96	14.92	17.95
142	5710	17.41	17.97	20.71

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### 8.31.4. 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.

IC RSS-247 (6.2.3) (1)

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

### **DIRECTIONAL ANTENNA GAIN**

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

Chain 0	Chain 1	<b>Uncorrelated Chains</b>
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
-0.12	0.27	0.08

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

Chain 0	Chain 1	<b>Correlated Chains</b>	
Antenna	Antenna	Directional	
Gain	Gain	Gain	
(dBi)	(dBi)	(dBi)	
-0.12	0.27	3.09	

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### **RESULTS**

#### Bandwidth, Antenna Gain and Limits

Channel	Frequency	Min	Min	Directional	Directional	Power	PSD
		26 dB	99%	Gain	Gain	Limit	Limit
		BW	BW	for Power	for PSD		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5510	40.46	36.393	0.08	3.09	24.00	11.00
Mid	5550	40.60	36.444	0.08	3.09	24.00	11.00
High	5670	40.32	36.458	0.08	3.09	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**

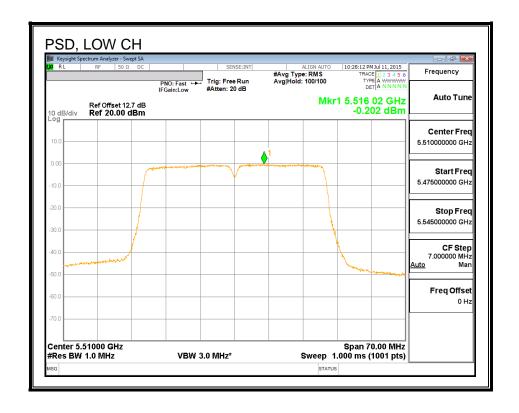
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	13.95	13.93	16.95	24.00	-7.05
Mid	5550	17.39	17.96	20.69	24.00	-3.31
High	5670	14.96	14.92	17.95	24.00	-6.05

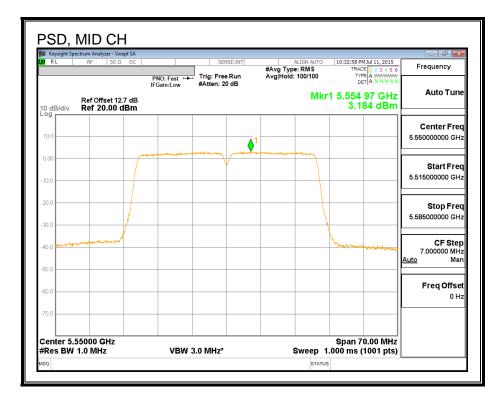
#### **PSD** Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	-0.20	-0.19	2.82	11.00	-8.18
Mid	5550	3.18	3.63	6.42	11.00	-4.58
High	5670	0.87	0.82	3.86	11.00	-7.14

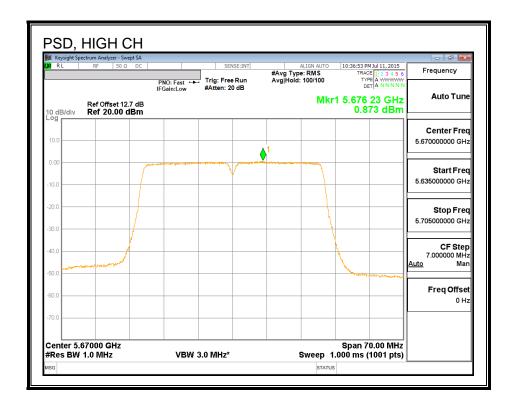
DATE: JULY 27, 2015

### **OUTPUT POWER AND PSD, CHAIN 0**

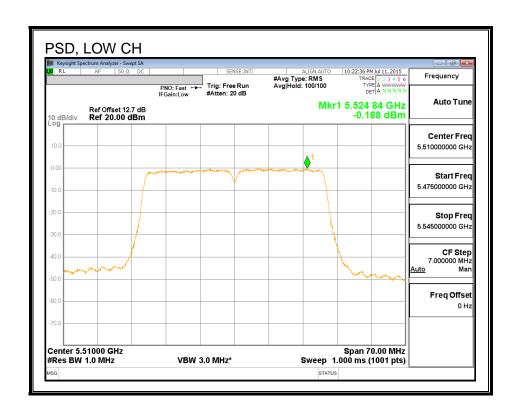


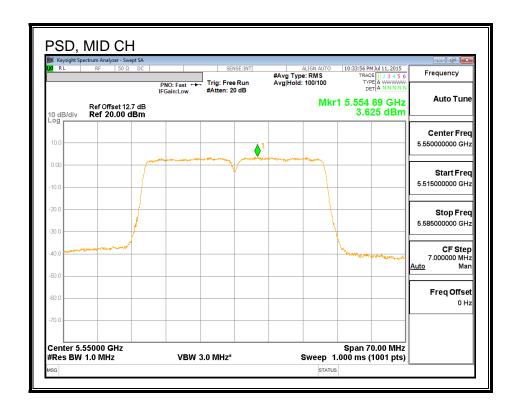


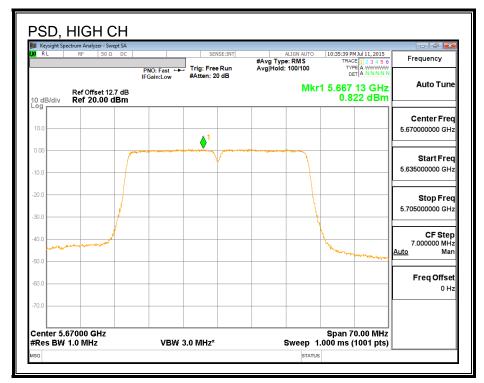
DATE: JULY 27, 2015



#### **OUTPUT POWER AND PSD, CHAIN 1**







# 8.31.5. STRADDLE CHANNEL 142 RESULTS

### **UNII-2C BAND**

## Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	34.95	0.08	3.09	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**

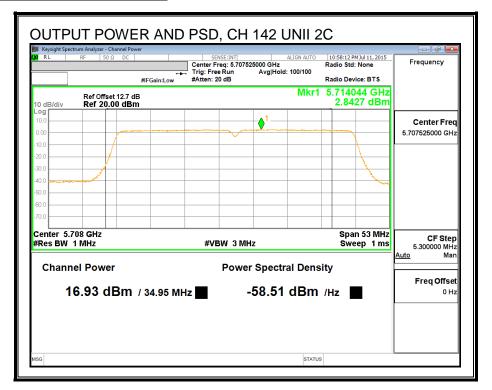
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	16.93	17.60	20.29	24.00	-3.71

## **PSD Results**

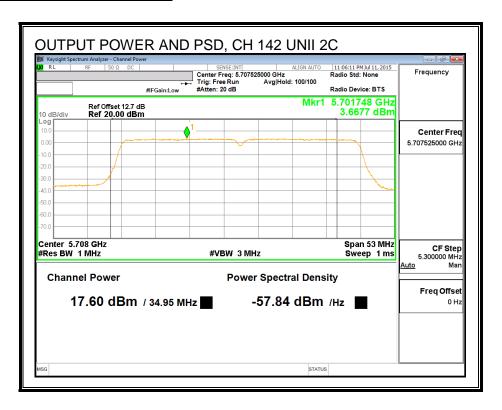
Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	2.84	3.67	6.29	11.00	-4.71

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### **OUTPUT POWER AND PSD, CHAIN 0**



#### **OUTPUT POWER AND PSD, CHAIN 1**



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### **UNII-3 BAND**

#### **Antenna Gain and Limit**

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	For Power	For PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	4.95	-0.10	3.00	30.00	30.00

Duty Cycle CF (dB) 0.	.00 Included in	Calculations of Corr'd Power & PSD
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## **Output Power Results**

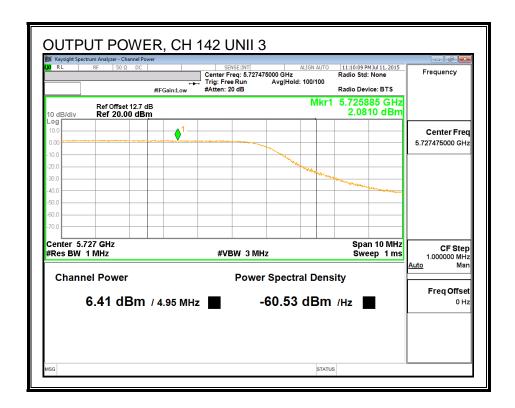
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	6.41	6.80	9.62	30.00	-20.38

### **PSD Results**

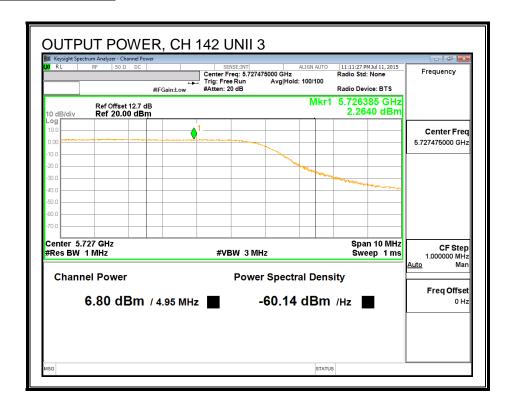
Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-1.18	-0.79	2.03	30.00	-27.97

DATE: JULY 27, 2015 FCC ID: BCG-E2944A

### **OUTPUT POWER, CHAIN 0**



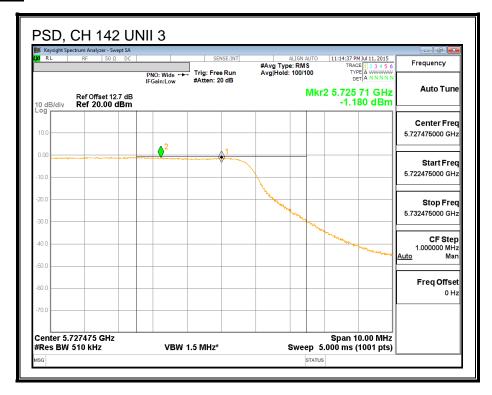
### **OUTPUT POWER, CHAIN 1**



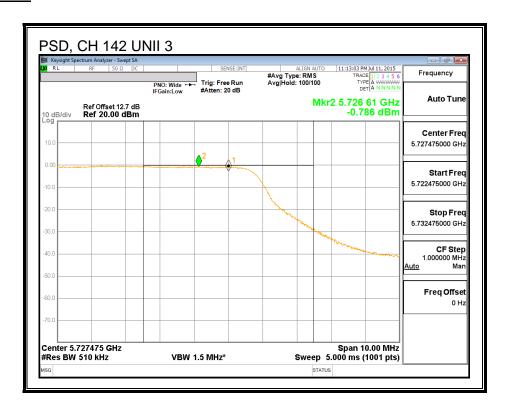
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### PSD, CHAIN 0



### PSD, CHAIN 1



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# 8.31.6. 6 dB BBANDWIDTH

## **LIMITS**

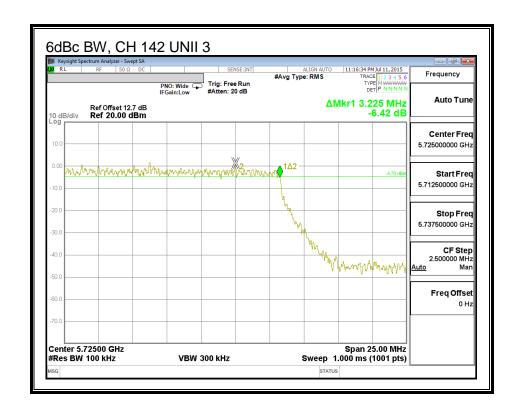
FCC §15.407 (e)

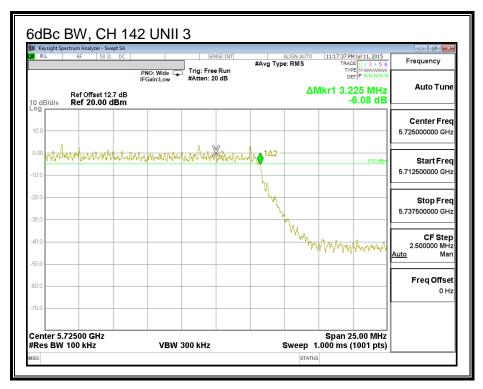
IC RSS-247 (6.2.4) (1)

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

## **RESULTS**

DATE: JULY 27, 2015





## 8.32. 802.11n HT40 2Tx STBC MODE IN THE 5.6 GHz BAND

Note: Covered by 802.11n HT40 2Tx CDD MODE

DATE: JULY 27, 2015

## DATE: JULY 27, 2015 FCC ID: BCG-E2944A

## 8.33. 802.11ac HT80 CHAIN 0 MODE IN THE 5.6 GHz BAND

# 8.33.1. 26 dB BANDWIDTH

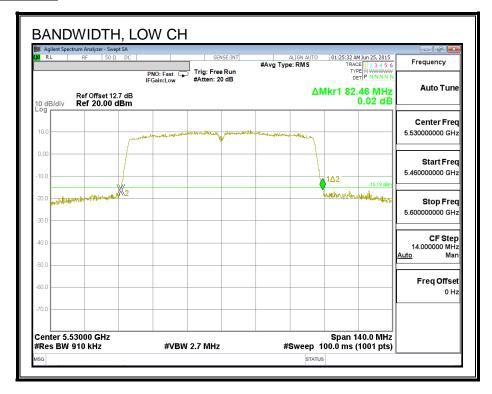
## **LIMITS**

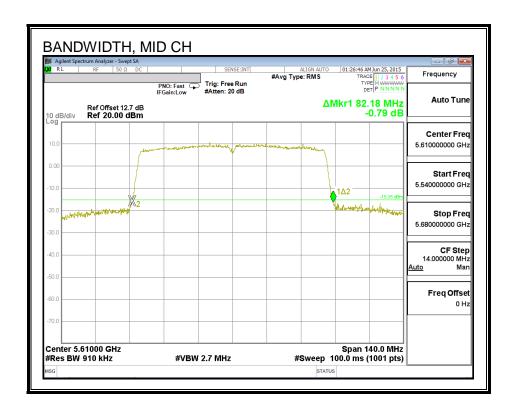
None; for reporting purposes only.

## **RESULTS**

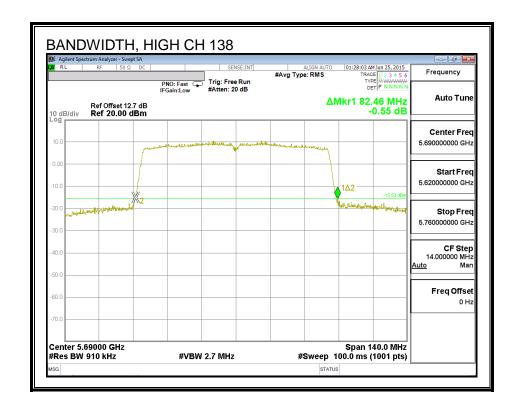
Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5530	82.46
Mid	5610	82.18
High	5690	82.46

### **26 dB BANDWIDTH**





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# 8.33.2. 99% BANDWIDTH

## **LIMITS**

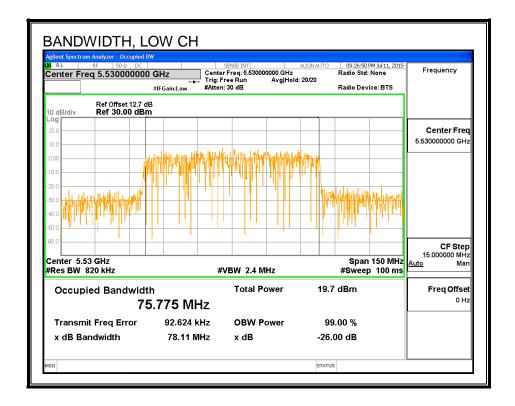
None; for reporting purposes only.

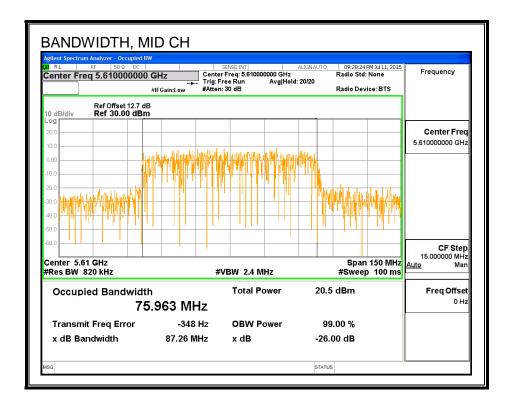
## **RESULTS**

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5530	75.775
Mid	5610	75.963
High	5690	75.646

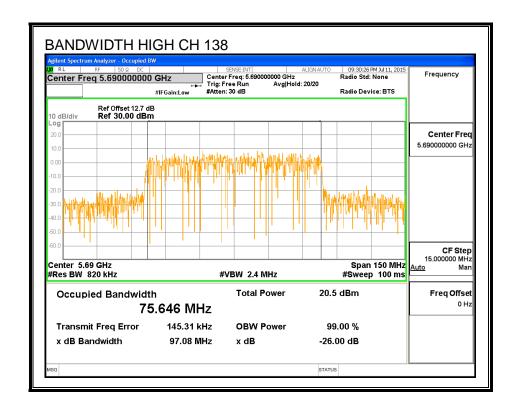
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#### 99% BANDWIDTH





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# 8.33.3. AVERAGE POWER

## **LIMITS**

None; for reporting purposes only.

## **RESULTS**

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5530	12.97
Mid	5610	17.45
High	5690	17.42

DATE: JULY 27, 2015

### 8.33.4. 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.

IC RSS-247 (6.2.3) (1)

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

#### **DIRECTIONAL ANTENNA GAIN**

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

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# **RESULTS**

### Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Min	Directional	Power	PSD
		26 dB	99%	Gain	Limit	Limit
		BW	BW			
	(MHz)	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
Low	5530	82.46	75.775	-0.12	24.00	11.00
High	5610	82.18	75.963	-0.12	24.00	11.00

Duty Cycle CF (dB)	0.18	Included in Calculations of Corr'd Power & PSD
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## **Output Power Results**

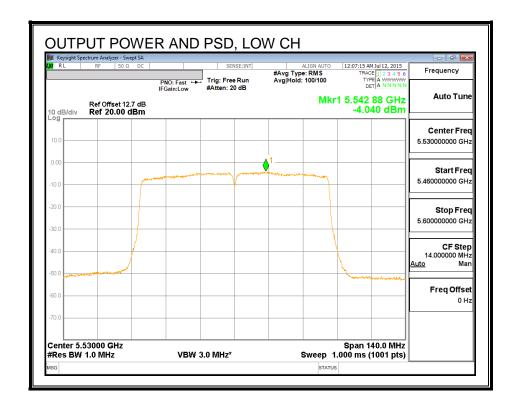
Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	(MHz) 5530	(dBm) 12.97	(dBm) 13.15	(dBm) 24.00	( <b>dB)</b> -10.85

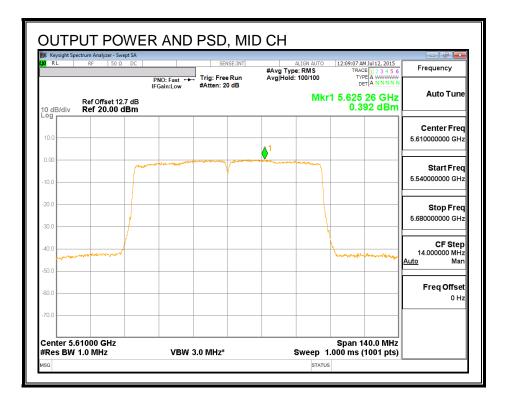
#### **PSD Results**

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	(MHz) 5530	(dBm) -4.04	(dBm) -3.86	(dBm) 11.00	( <b>dB)</b> -14.86

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## **OUTPUT POWER AND PSD,**





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# 8.33.5. STRADDLE CHANNEL 138 RESULTS

### **UNII-2C BAND**

## Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	76.23	-0.12	-0.12	24.00	11.00

Duty Cycle CF (dB) 0.18	Included in Calculations of Corr'd Po	ower & PSD
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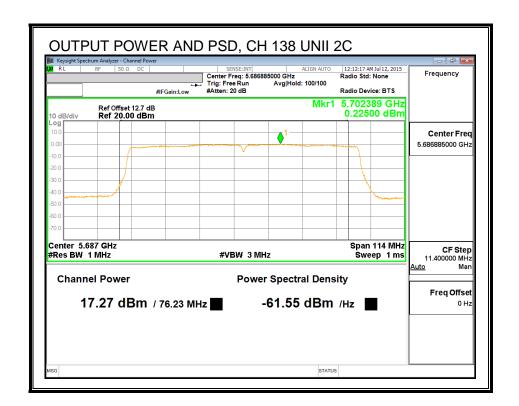
## **Output Power Results**

Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	17.27	17.45	24.00	-6.55

#### **PSD Results**

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	0.23	0.41	11.00	-10.60

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## **UNII-3 BAND**

### **Antenna Gain and Limit**

Channel	Frequency	Min	Directional	Power	PSD
		26 dB	Gain	Limit	Limit
		BW			
	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
138	5690	6.23	-0.10	30.00	30.00

Duty Cycle CF (dB)	0.18	Included in Calculations of Corr'd Power & PSD
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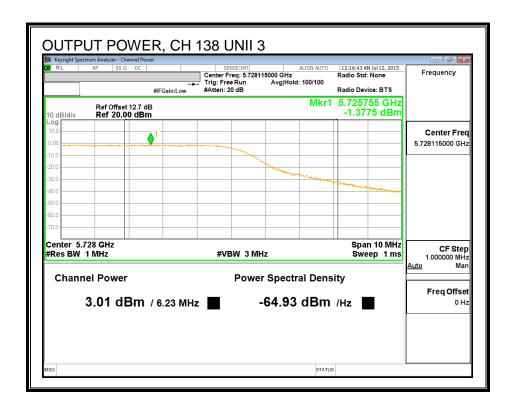
### **Output Power Results**

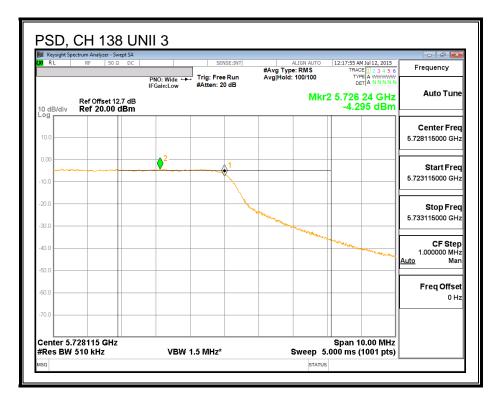
Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	3.01	3.19	30.00	-26.81

#### **PSD Results**

Channe	I Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-4.30	-4.12	30.00	-34.12

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# 8.33.6. 6 dB BANDWIDTH

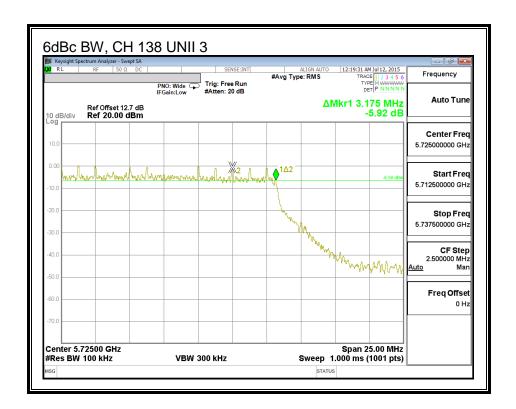
#### **LIMITS**

FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

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

## **RESULTS**



DATE: JULY 27, 2015

# 8.34. 802.11ac HT80 CHAIN 1 MODE IN THE 5.6 GHz BAND

## 8.34.1. 26 dB BANDWIDTH

## **LIMITS**

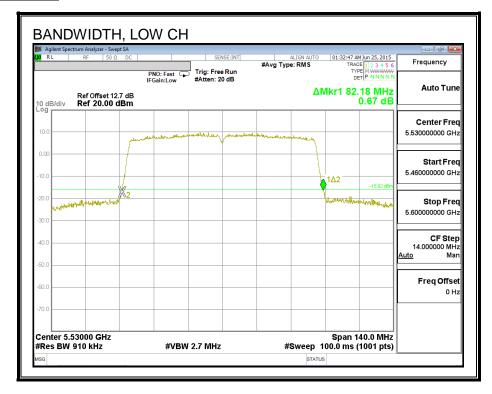
None; for reporting purposes only.

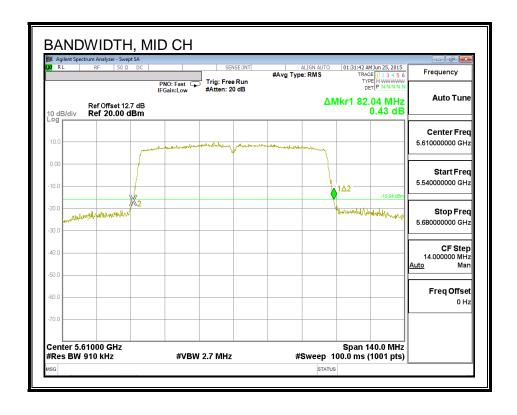
## **RESULTS**

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5530	82.18
Mid	5610	82.04
High	5690	82.32

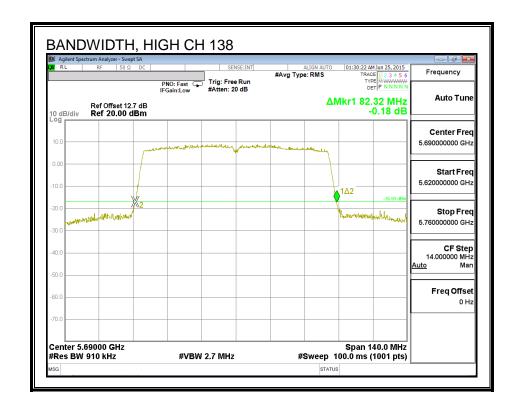
DATE: JULY 27, 2015

## **26 dB BANDWIDTH**





DATE: JULY 27, 2015



## 8.34.2. 99% BANDWIDTH

## **LIMITS**

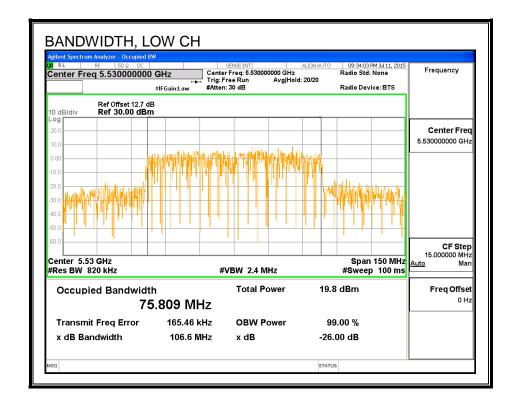
None; for reporting purposes only.

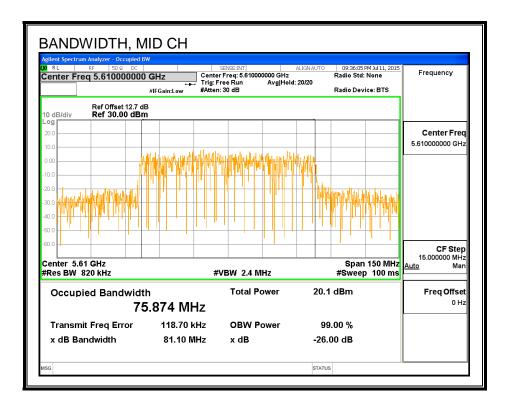
## **RESULTS**

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5530	75.809
Mid	5610	75.874
High	5690	75.686

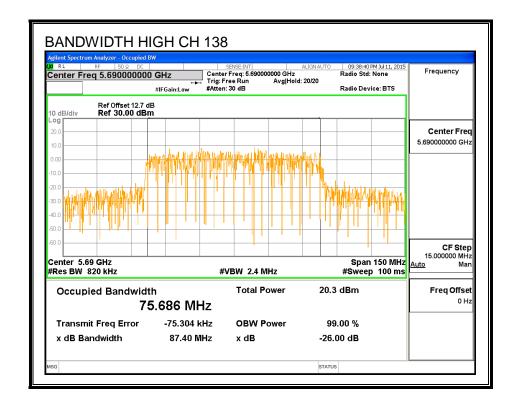
DATE: JULY 27, 2015

#### 99% BANDWIDTH





DATE: JULY 27, 2015



## 8.34.3. AVERAGE POWER

## **LIMITS**

None; for reporting purposes only.

## **RESULTS**

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5530	12.75
Mid	5610	17.81
High	5690	17.96

DATE: JULY 27, 2015

#### 8.34.4. 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.

IC RSS-247 (6.2.3) (1)

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

#### **DIRECTIONAL ANTENNA GAIN**

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

DATE: JULY 27, 2015

## **RESULTS**

### Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Min	Directional	Power	PSD
		26 dB	99%	Gain	Limit	Limit
		BW	BW			
	(MHz)	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
Low	5530	82.18	75.809	0.27	24.00	11.00
High	5610	82.04	75.874	0.27	24.00	11.00

Duty Cycle CF (dB) 0.18	Included in Calculations of Corr'd Power & PSD
-------------------------	--

## **Output Power Results**

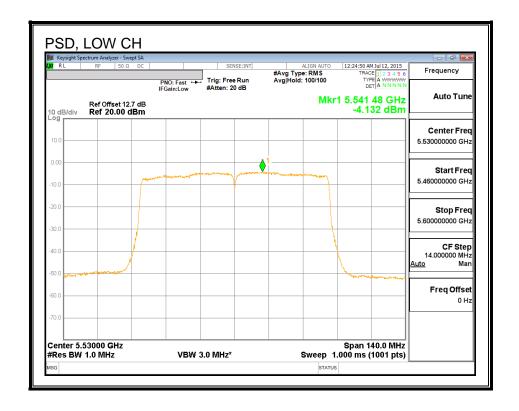
Channel	Frequency	Chain 1	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
	(	(42)	(45.11)	(42)	(45)
Low	5530	12.75	12.93	24.00	-11.07

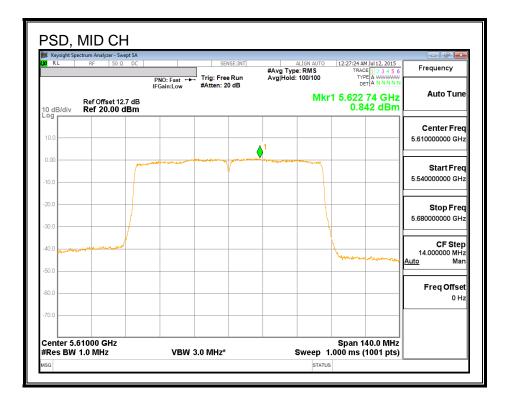
#### **PSD Results**

Channel	Frequency	Chain 1	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	-4.13	-3.95	11.00	-14.95

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#### PSD,





## DATE: JULY 27, 2015 FCC ID: BCG-E2944A

## 8.34.5. STRADDLE CHANNEL 138 RESULTS

#### **UNII-2C BAND**

## Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	76.16	0.27	0.27	24.00	11.00

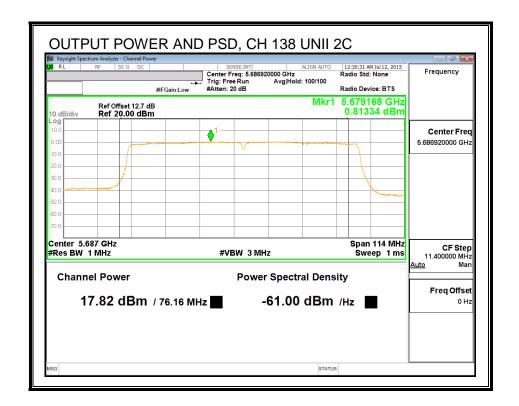
Duty Cycle CF (dB) 0.18	Included in Calculations of Corr'd Po	wer & PSD
-------------------------	---------------------------------------	-----------

## **Output Power Results**

Channel	Frequency	Chain 1	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	17.82	18.00	24.00	-6.00

#### **PSD Results**

Channel	Frequency	Chain 1	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	0.81	0.99	11.00	-10.01



#### **UNII-3 BAND**

#### **Antenna Gain and Limit**

Channel	Frequency	Min	Directional	Power	PSD
		26 dB	Gain	Limit	Limit
		BW			
	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
138	5690	6.16	0.30	30.00	30.00

Duty Cycle CF	( <b>dB</b> ) 0.18	Included in Calculations of Corr'd Power & PSD
---------------	--------------------	--

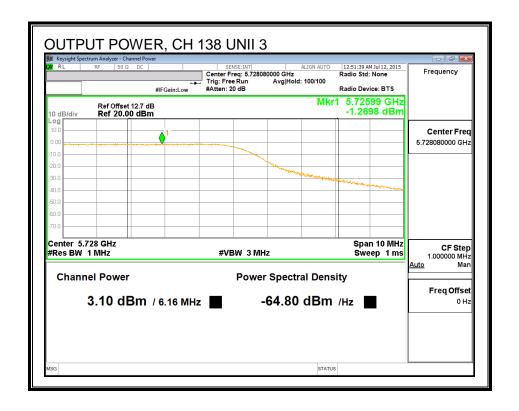
## **Output Power Results**

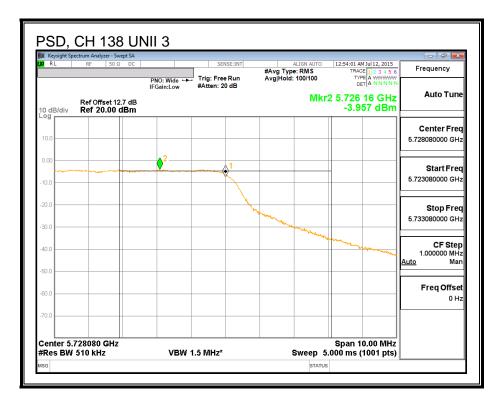
Channel	Frequency	Chain 1	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	3.10	3.28	30.00	-26.72

#### **PSD Results**

Channel	Frequency	Chain 1	Total	PSD	PSD				
		Meas	Corr'd	Limit	Margin				
		PSD	PSD						
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)				
138	5690	-3.96	-3.78	30.00	-33.78				

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## 8.34.6. 6 dB BANDWIDTH

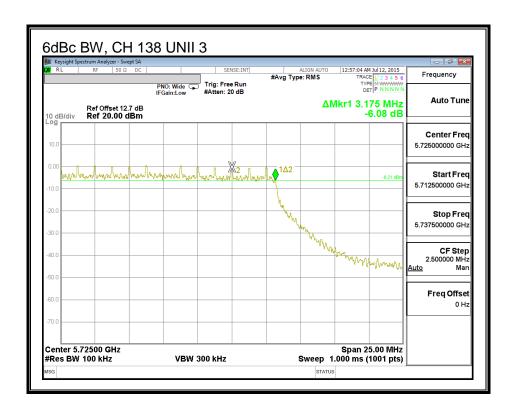
#### **LIMITS**

FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

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

## **RESULTS**



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# 8.35. 802.11ac HT80 2Tx CDD MODE IN THE 5.6 GHz BAND (5610MHz)

## 8.35.1. 26 dB BANDWIDTH

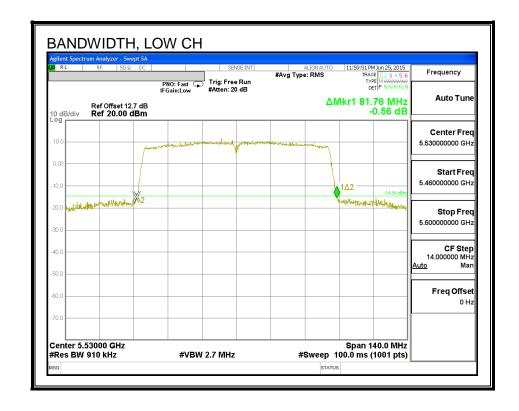
## **LIMITS**

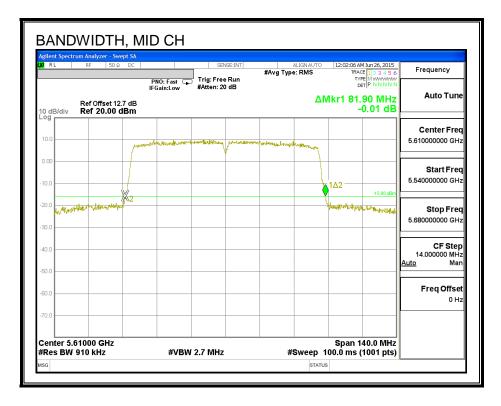
None; for reporting purposes only.

## **RESULTS**

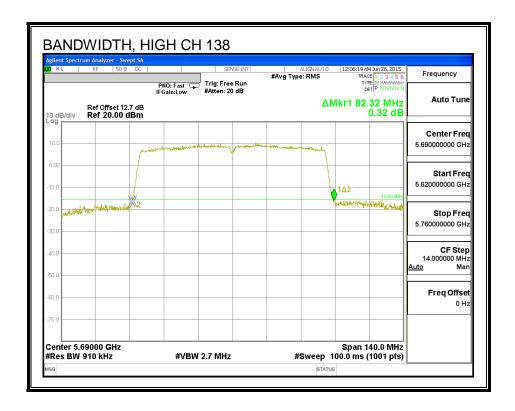
Channel	Frequency	26 dB BW	26 dB BW	
		Chain 0	Chain 1	
	(MHz)	(MHz)	(MHz)	
Low	5530	81.76	81.90	
Mid	5610	81.90	81.62	
High	5690	82.32	81.76	

## 26 dB BANDWIDTH, CHAIN 0

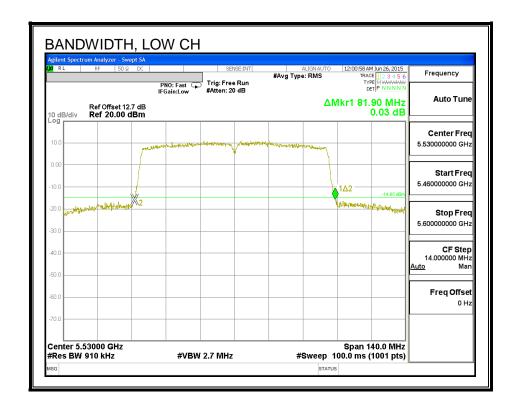


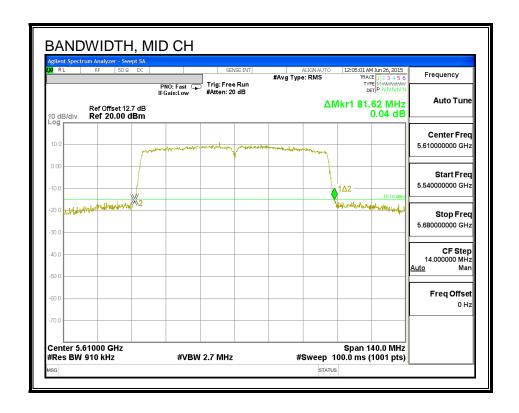


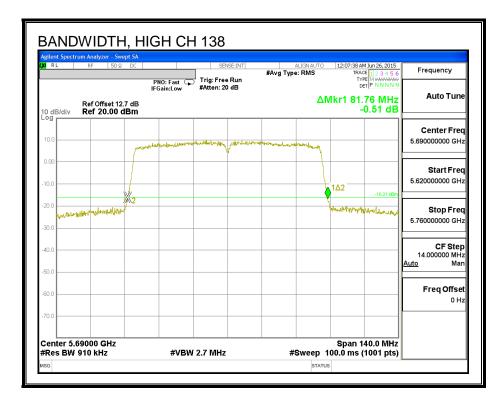
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#### 26 dB BANDWIDTH, CHAIN 1







## 8.35.2. 99% BANDWIDTH

## **LIMITS**

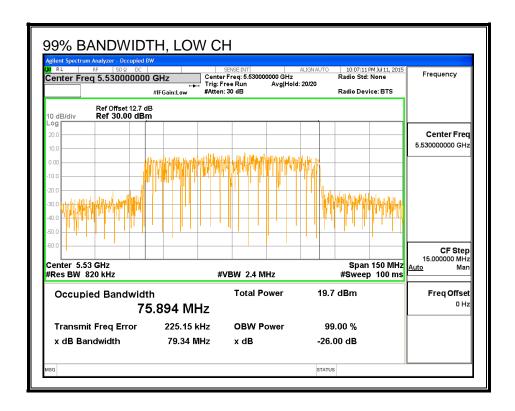
None; for reporting purposes only.

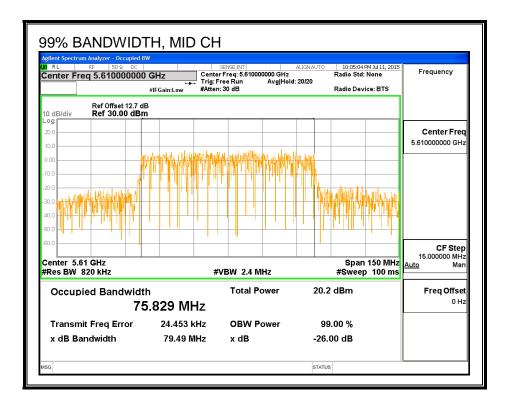
## **RESULTS**

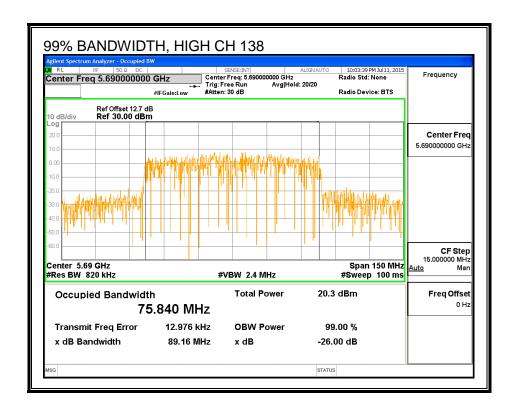
Channel Frequency		99% BW	99% BW					
		Chain 0	Chain 1					
	(MHz)	(MHz)	(MHz)					
Low	5530	75.894	75.872					
Mid	5610	75.829	75.628					
High	5690	75.840	75.829					

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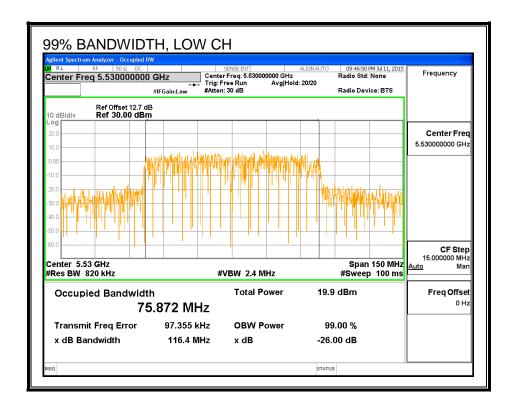
#### 99% BANDWIDTH, CHAIN 0

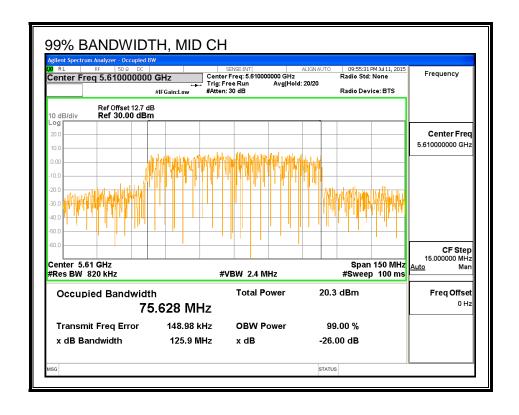


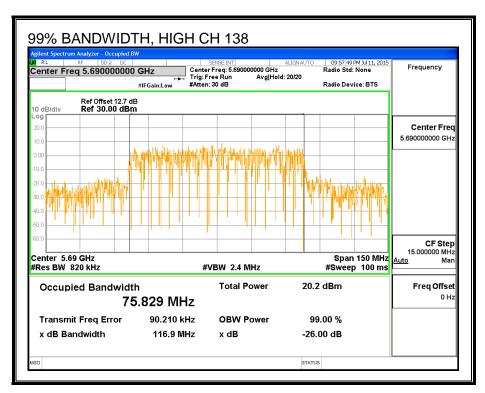




#### 99% BANDWIDTH, CHAIN 1







## 8.35.3. AVERAGE POWER

## **LIMITS**

None; for reporting purposes only.

## **RESULTS**

#### **Average Power Results**

Channel	Frequency	Chain 0 Chain 1		Total
		Power Power		Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5530	11.91	11.94	14.94
Mid	5610	17.42	17.96	20.71
High	5690	17.43	17.96	20.71

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#### 8.35.4. 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.

IC RSS-247 (6.2.3) (1)

The maximum conducted output power shall not exceed 250 mW or 11 + 10 log10B, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

#### **DIRECTIONAL ANTENNA GAIN**

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

Chain 0	Chain 1	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
-0.12	0.27	0.08

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

Chain 0	Chain 1	<b>Correlated Chains</b>
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
-0.12	0.27	3.09

DATE: JULY 27, 2015

#### **RESULTS**

#### Bandwidth, Antenna Gain and Limits

Channel	Frequency	Min	Min	Directional	Directional	Power	PSD
		26 dB	99%	Gain	Gain	Limit	Limit
		BW	BW	for Power	for PSD		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5530	81.90	75.89	0.08	3.09	0.03	11.00
High	5610	81.90	75.83	0.08	3.09	0.03	11.00

Duty Cycle CF (dB)	0.21	Included in Calculations of Corr'd Power & PSD
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## **Output Power Results**

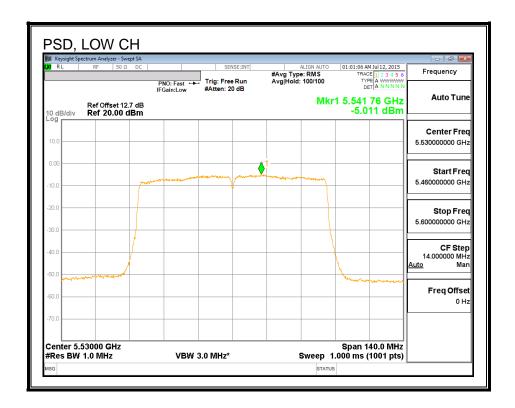
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	11.91	11.94	15.15	0.03	15.11
High	5610	17.42	17.96	20.92	0.03	20.89

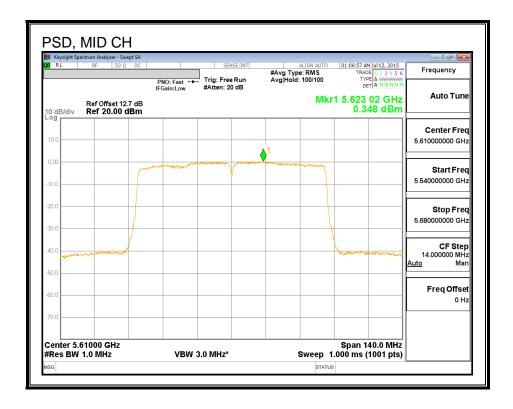
#### **PSD Results**

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD			
		Meas	Meas	Corr'd	Limit	Margin			
		PSD	PSD	PSD					
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)			
Low	5530	-5.01	-5.12	-1.84	11.00	-12.84			
High	5610	0.35	0.80	3.80	11.00	-7.20			

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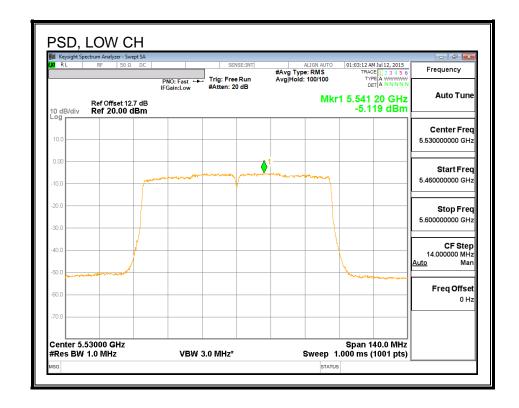
#### PSD, CHAIN 0

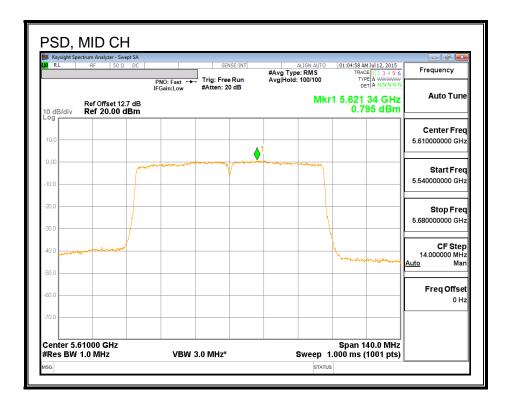




DATE: JULY 27, 2015

## PSD, CHAIN 1





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## 8.35.5. STRADDLE CHANNEL 138 RESULTS

#### **UNII-2C BAND**

#### Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	76.16	0.08	3.09	24.00	11.00

Duty Cycle CF (dB)	0.21	Included in Calculations of Corr'd Power & PSD
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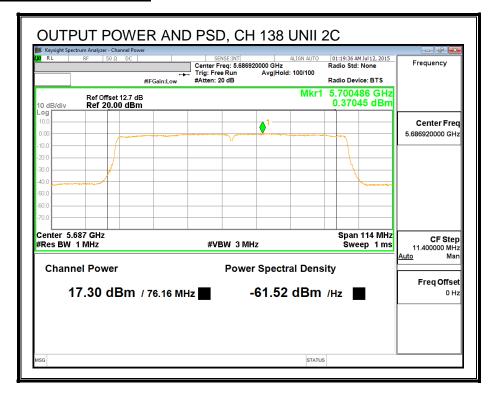
## **Output Power Results**

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	17.30	17.83	20.79	24.00	-3.21

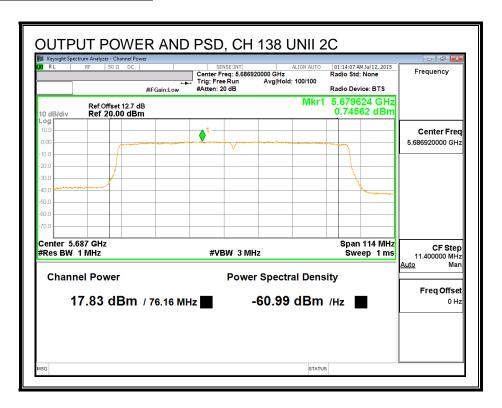
#### **PSD Results**

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	0.37	0.75	3.78	11.00	-7.22

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### **OUTPUT POWER & PSD, CHAIN 1**



## **UNII-3 BAND**

#### **Antenna Gain and Limit**

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW				
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	6.16	-0.10	0.30	30.00	30.00

Duty Cycle CF (dB)	0.21	Included in Calculations of Corr'd Power & PSD
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## **Output Power Results**

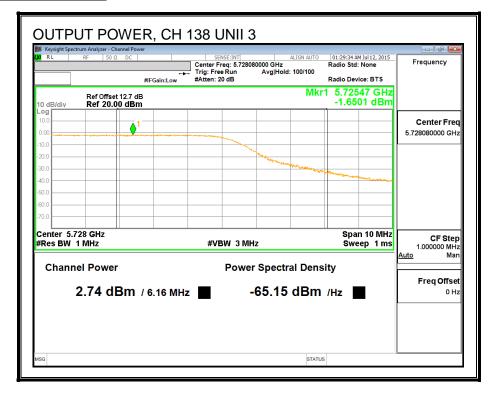
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	2.74	2.95	6.07	30.00	-23.93

#### **PSD Results**

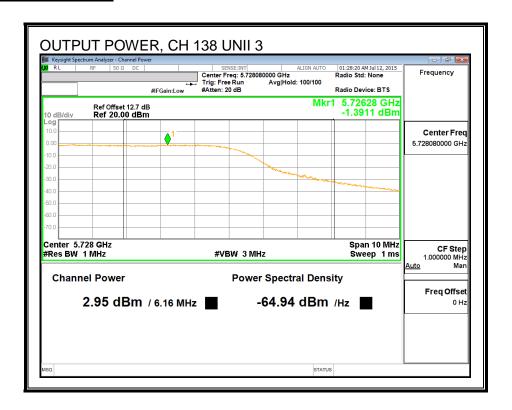
Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-4.51	-4.36	-1.21	30.00	-31.21

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### **OUTPUT POWER, CHAIN 0**

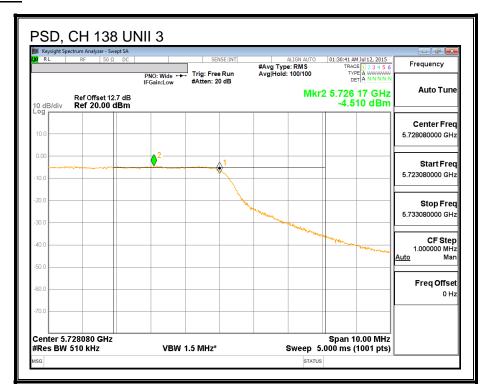


#### **OUTPUT POWER, CHAIN 1**

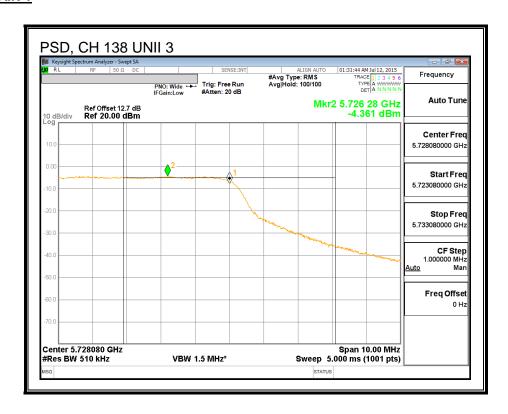


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#### PSD, CHAIN 1



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## 8.35.6. 6 dB BANDWIDTH

## **LIMITS**

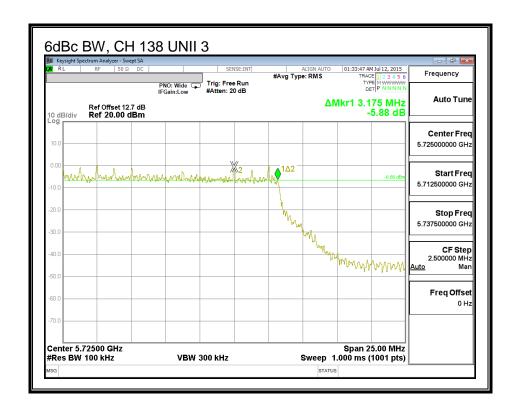
FCC §15.407 (e)

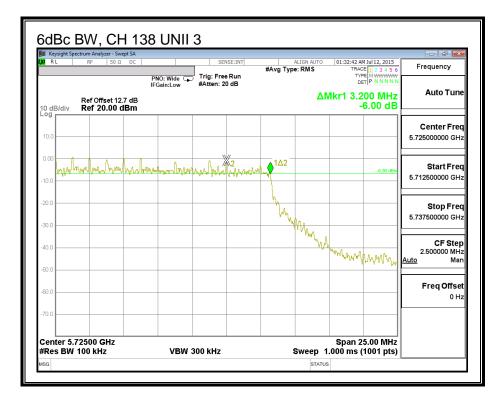
IC RSS-247 (6.2.4) (1)

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

## **RESULTS**

DATE: JULY 27, 2015





#### **802.11ac HT80 2Tx STBC MODE IN THE 5.6 GHz BAND (5610MHz)** 8.36.

Note: Covered by 802.11n HT80 2Tx CDD MODE

DATE: JULY 27, 2015

DATE: JULY 27, 2015 FCC ID: BCG-E2944A

## 8.37. 802.11n HT20 CHAIN 0 MODE IN THE 5.8 GHz BAND

## 8.37.1. 6 dB BANDWIDTH

#### **LIMITS**

FCC §15.407 (e)

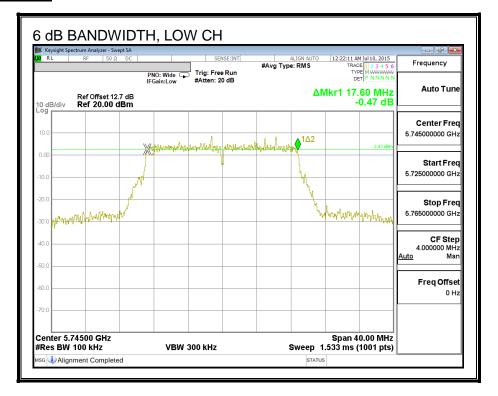
IC RSS-247 (6.2.4) (1)

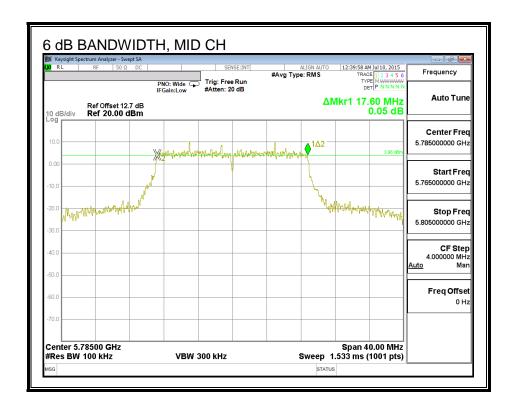
The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **RESULTS**

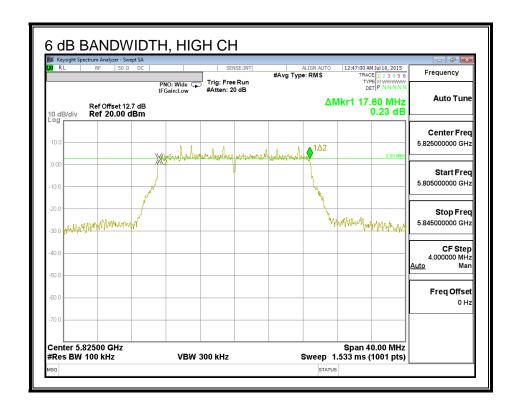
Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5745	17.60	0.5
Mid	5785	17.60	0.5
High	5825	17.60	0.5

# **6 dB BANDWIDTH**





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# 8.37.2. 26 dB BANDWIDTH

# **LIMITS**

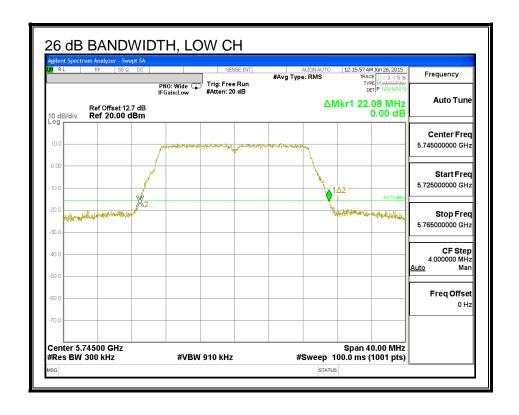
None, for reporting purposes only

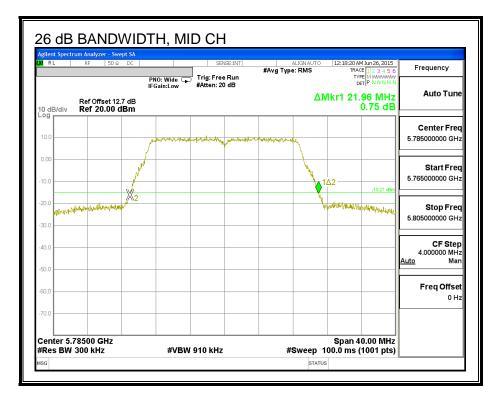
# **RESULTS**

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5745	22.08
Mid	5785	21.96
High	5825	22.08

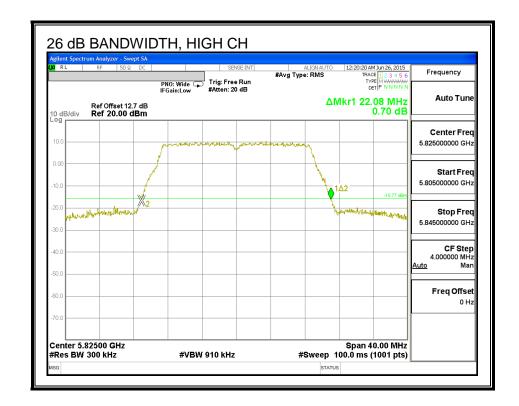
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#### **26 dB BANDWIDTH**





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# 8.37.3. 99% BANDWIDTH

# **LIMITS**

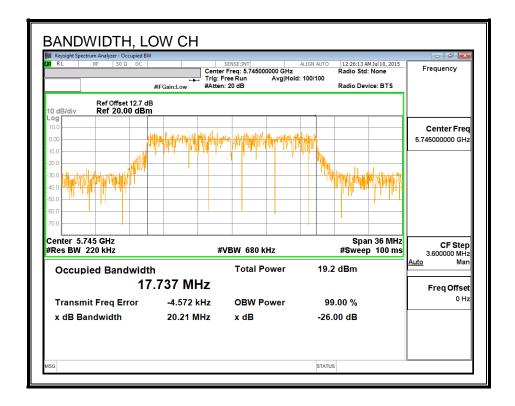
None; for reporting purposes only.

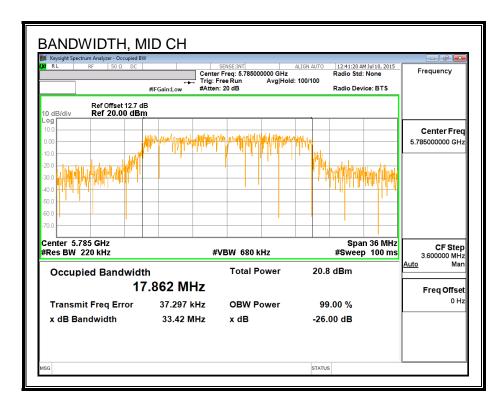
# **RESULTS**

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5745	17.737
Mid	5785	17.862
High	5825	17.733

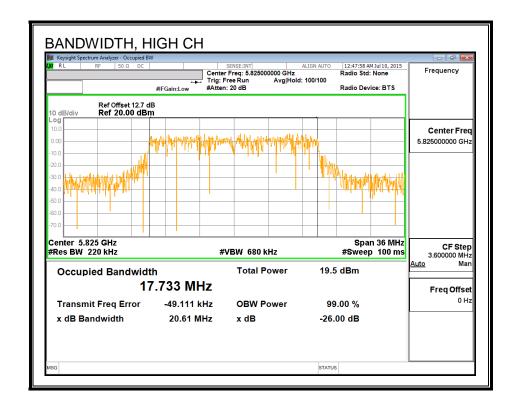
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#### 99% BANDWIDTH





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# 8.37.4. AVERAGE POWER

# **LIMITS**

None; for reporting purposes only.

# **RESULTS**

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5745	15.97
Mid	5785	17.94
High	5825	17.46

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#### 8.37.5. OUTPUT POWER

#### **LIMITS**

FCC §15.407 (a) (3)

IC RSS-247 (6.2.4) (1)

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

#### **DIRECTIONAL ANTENNA GAIN**

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

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#### **RESULTS**

# **Antenna Gain and Limit**

Channel	Frequency	Directional	Power
		Gain	Limit
		for Power	
	(MHz)	(dBi)	(dBm)
Low	5745	-0.07	30.00
Mid	5785	-0.07	30.00
High	5825	-0.07	30.00

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

#### **Output Power Results**

Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	15.97	15.97	30.00	-14.03
Mid	5785	17.94	17.94	30.00	-12.06
High	5825	17.46	17.46	30.00	-12.54

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#### 8.37.6. PSD

#### **LIMITS**

FCC §15.407 (a) (3)

IC RSS-247 (6.2.4) (1)

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

#### **DIRECTIONAL ANTENNA GAIN**

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

#### **RESULTS**

#### **Antenna Gain and Limits**

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5745	-0.70	30.00
Mid	5785	-0.70	30.00
High	5825	-0.70	30.00

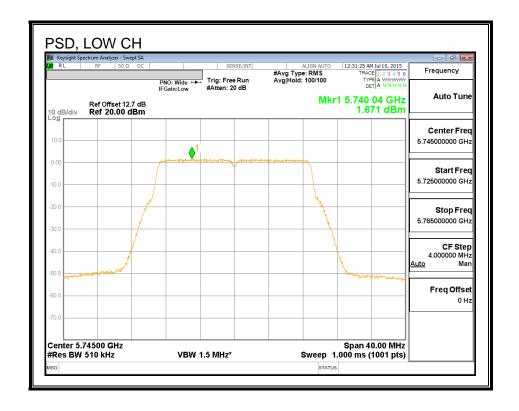
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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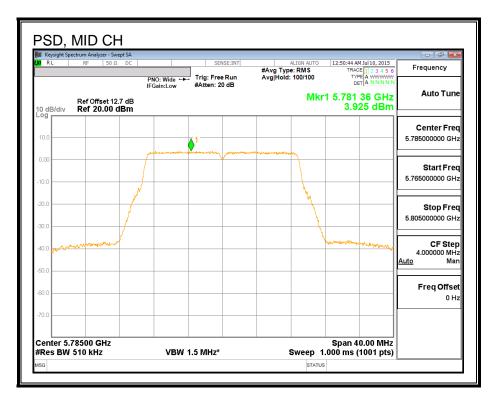
#### **PSD Results**

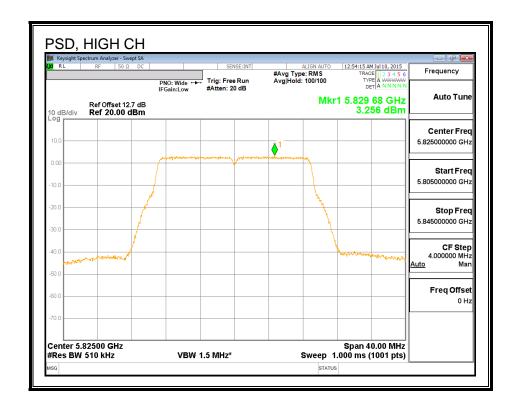
Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	1.67	1.67	30.00	-28.33
Mid	5785	3.93	3.93	30.00	-26.08
High	5825	3.26	3.26	30.00	-26.74

DATE: JULY 27, 2015

#### PSD, CHAIN 0







# 8.38. 802.11n HT20 CHAIN 1 MODE IN THE 5.8 GHz BAND

# 8.38.1. 6 dB BANDWIDTH

# **LIMITS**

FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

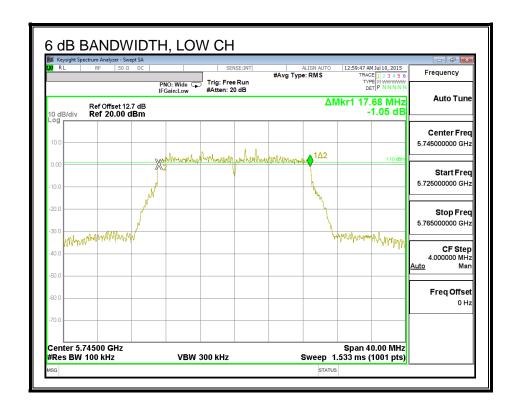
The minimum 6 dB bandwidth shall be at least 500 kHz.

#### **RESULTS**

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5745	17.68	0.5
Mid	5785	17.60	0.5
High	5825	17.72	0.5

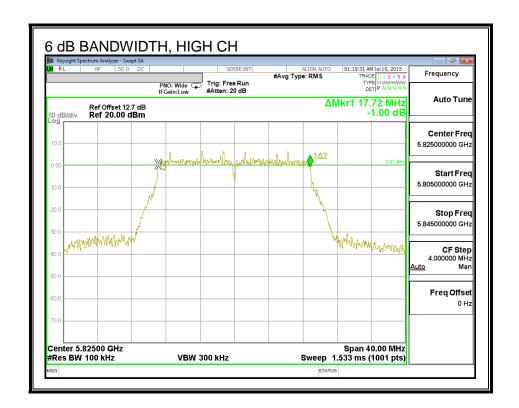
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#### **6 dB BANDWIDTH**





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# 8.38.2. 26 dB BANDWIDTH

# **LIMITS**

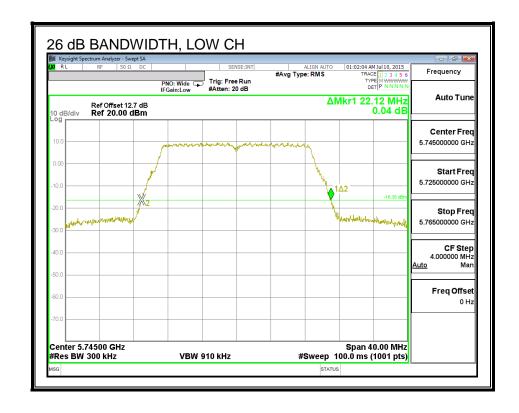
None, for reporting purposes only

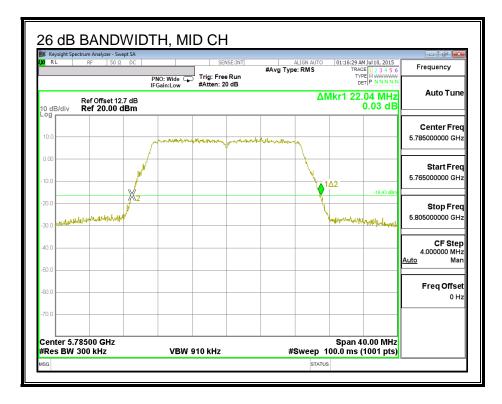
# **RESULTS**

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5745	22.12
Mid	5785	22.04
High	5825	22.16

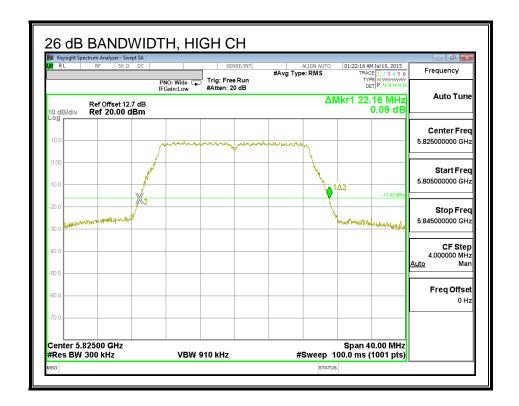
DATE: JULY 27, 2015

#### **26 dB BANDWIDTH**





DATE: JULY 27, 2015



# 8.38.3. 99% BANDWIDTH

# **LIMITS**

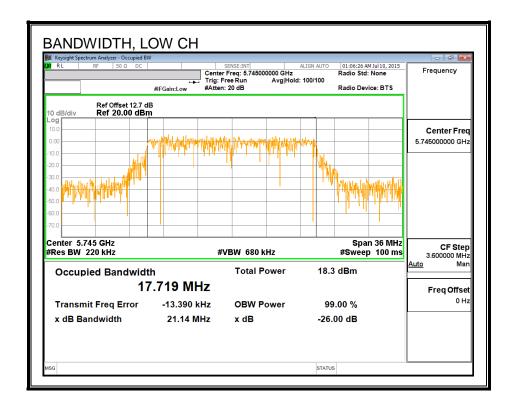
None; for reporting purposes only.

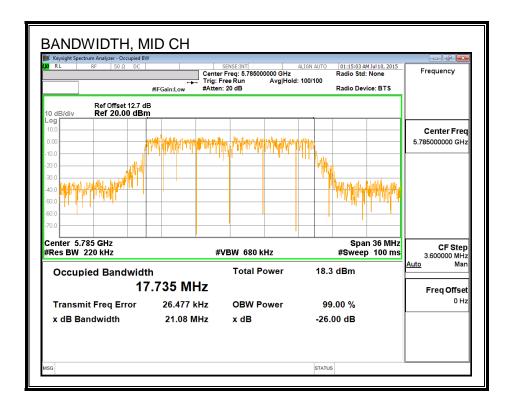
# **RESULTS**

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.719
Mid	5785	17.735
High	5825	17.837

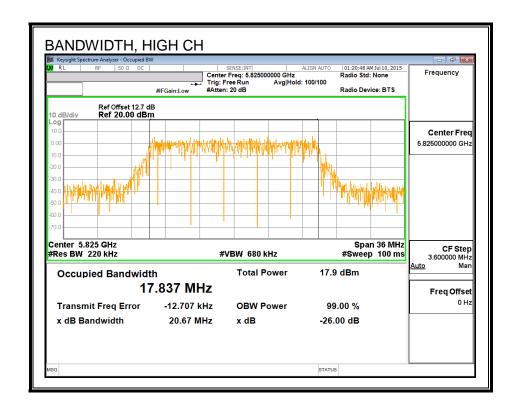
DATE: JULY 27, 2015

#### 99% BANDWIDTH





DATE: JULY 27, 2015



# 8.38.4. AVERAGE POWER

# **LIMITS**

None; for reporting purposes only.

# **RESULTS**

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5745	15.94
Mid	5785	17.97
High	5825	17.46

DATE: JULY 27, 2015

# 8.38.5. OUTPUT POWER

#### **LIMITS**

FCC §15.407 (a) (3)

IC RSS-247 (6.2.4) (1)

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

#### **DIRECTIONAL ANTENNA GAIN**

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

DATE: JULY 27, 2015

#### **RESULTS**

# **Antenna Gain and Limit**

Channel	Frequency	Directional	Power
		Gain	Limit
		for Power	
	(MHz)	(dBi)	(dBm)
Low	5745	-1.35	30.00
Mid	5785	-1.35	30.00
High	5825	-1.35	30.00

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

# **Output Power Results**

Channel	Frequency	Chain 1	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	15.94	15.94	30.00	-14.06
Mid	5785	17.97	17.97	30.00	-12.03
High	5825	17.46	17.46	30.00	-12.54

DATE: JULY 27, 2015

#### 8.38.6. PSD

#### **LIMITS**

FCC §15.407 (a) (3)

IC RSS-247 (6.2.4) (1)

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

#### **DIRECTIONAL ANTENNA GAIN**

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

#### **RESULTS**

#### **Antenna Gain and Limits**

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5745	-1.35	30.00
Mid	5785	-1.35	30.00
High	5825	-1.35	30.00

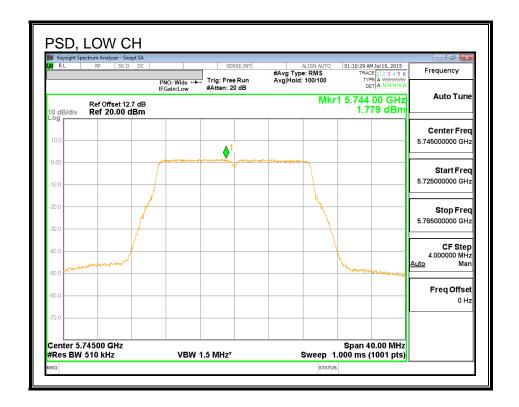
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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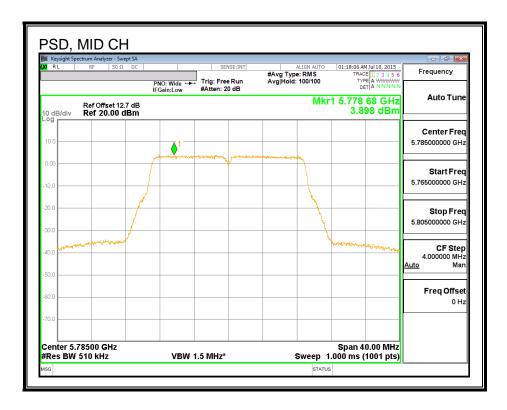
#### **PSD Results**

Channel	Frequency	Chain 1	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	1.78	1.78	30.00	-28.22
Mid	5785	3.90	3.90	30.00	-26.10
High	5825	3.02	3.02	30.00	-26.98

DATE: JULY 27, 2015

#### PSD, CHAIN 1





DATE: JULY 27, 2015