8.45. 802.11ac VHT80 2Tx CDD MODE IN THE 5.6 GHz BAND

8.45.1. 26 dB BANDWIDTH

LIMITS

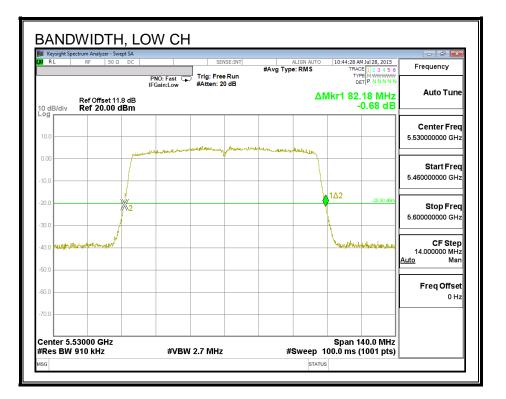
None; for reporting purposes only.

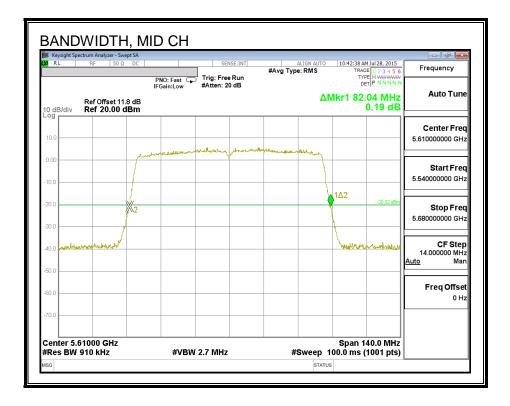
<u>RESULTS</u>

Channel	Frequency	26 dB BW	26 dB BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Low	5530	82.18	81.76
Mid	5610	82.04	81.76
High	5690	82.18	81.76

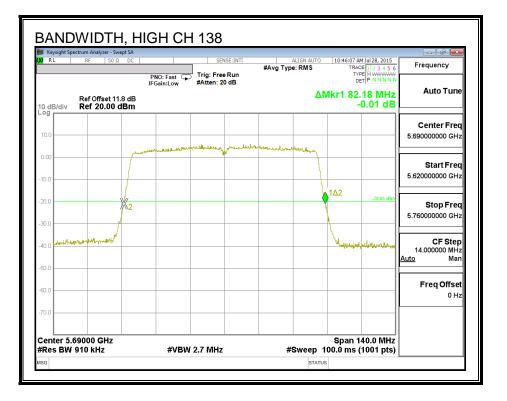
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26 dB BANDWIDTH, CHAIN 0

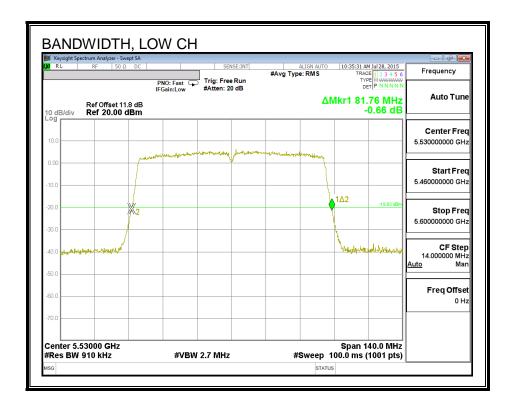




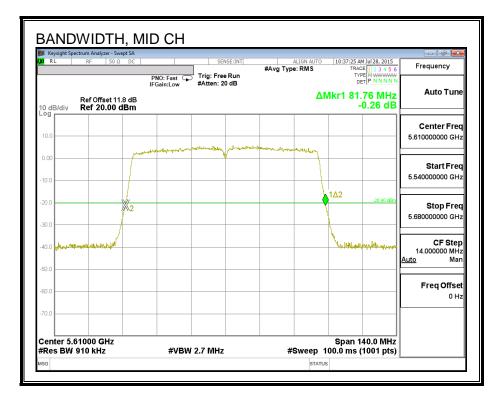
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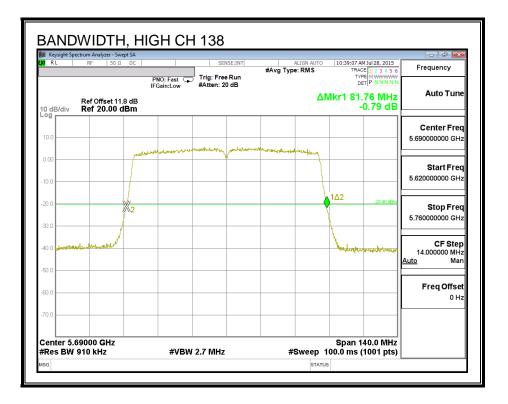


26 dB BANDWIDTH, CHAIN 1



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8.45.2. 99% BANDWIDTH

LIMITS

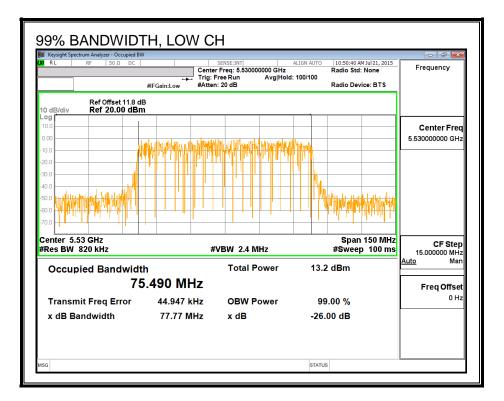
None; for reporting purposes only.

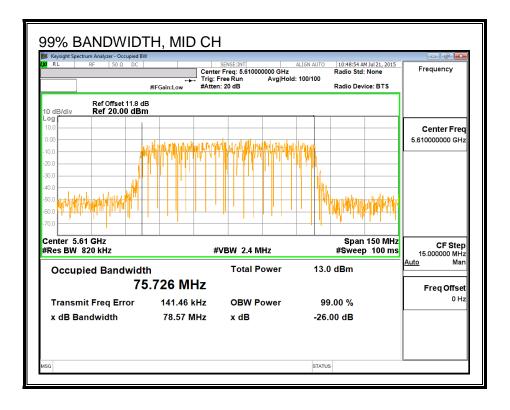
RESULTS

Channel	Frequency	99% BW	99% BW
			Chain 1
	(MHz)	(MHz)	(MHz)
Low	5530	75.490	75.840
Mid	5610	75.726	75.767
High	5690	75.848	75.858

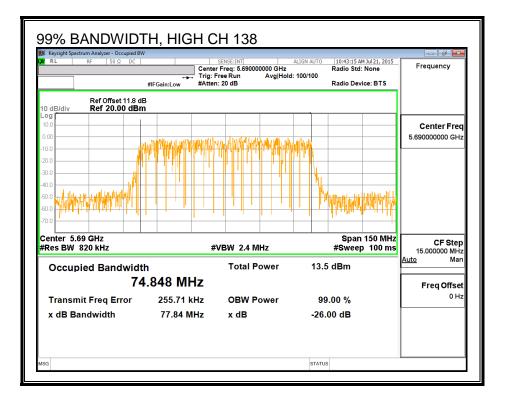
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99% BANDWIDTH, CHAIN 0

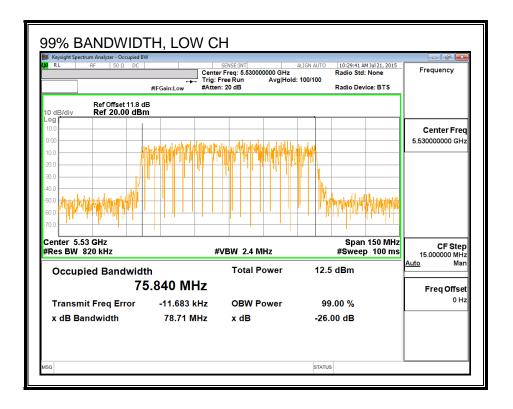




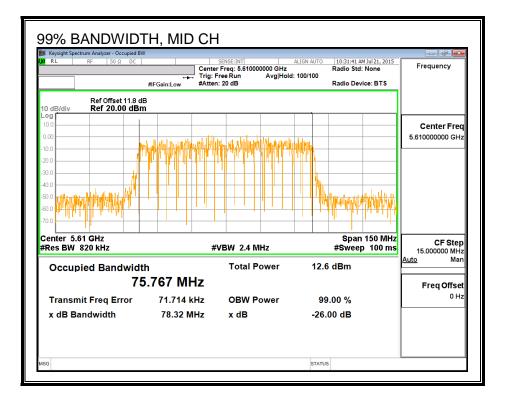
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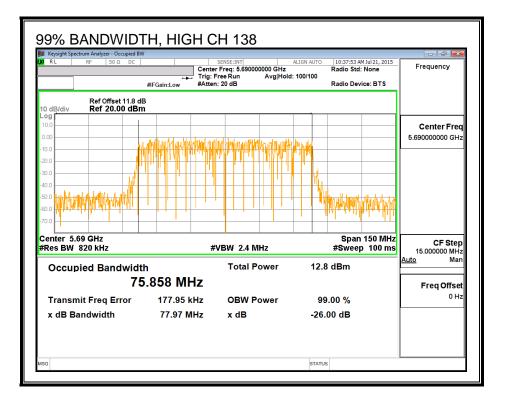


99% BANDWIDTH, CHAIN 1



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8.45.3. 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	13.37	13.42	16.41
Mid	5610	15.42	15.85	18.65
High	5690	15.50	16.00	18.77

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8.45.4. 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	Chain 1	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(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	Chain 1	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.70	3.10	5.91

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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	5530	81.76	75.490	2.90	5.91	24.00	11.00
High	5610	81.76	75.726	2.90	5.91	24.00	11.00

Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

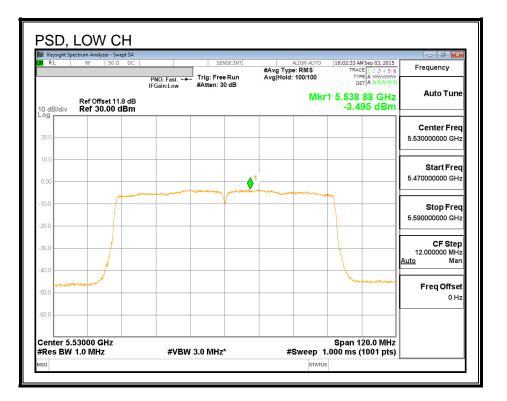
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	13.15	13.20	16.41	24.00	-7.59
High	5610	15.20	15.63	18.65	24.00	-5.35

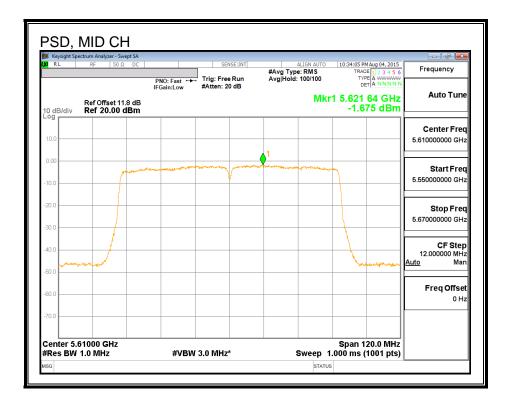
PSD Results

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	-3.50	-3.41	-0.22	11.00	-11.22
High	5610	-1.68	-1.16	1.82	11.00	-9.18

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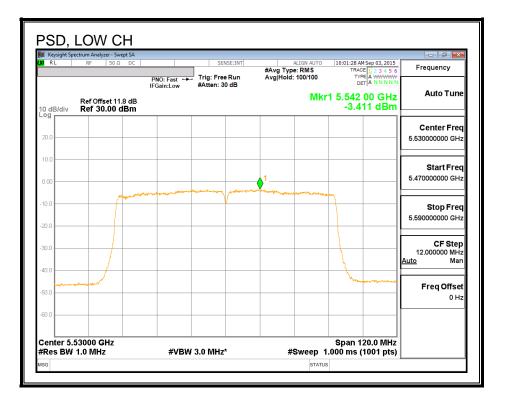
PSD, Chain 0

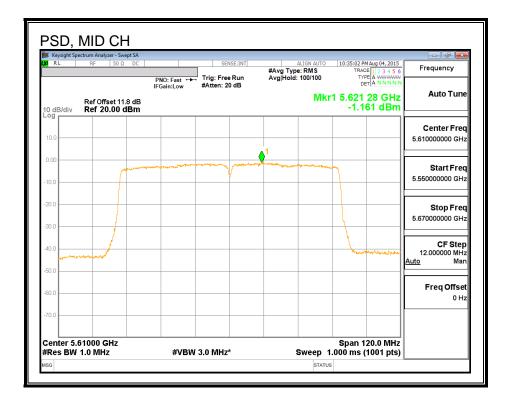




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PSD, Chain 1





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8.45.5. 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	75.88	2.90	5.91	24.00	11.00

Duty Cycle CF (dB) 0.22	Included in Calculations of Corr'd Power & PSD
-------------------------	--

Output Power Results

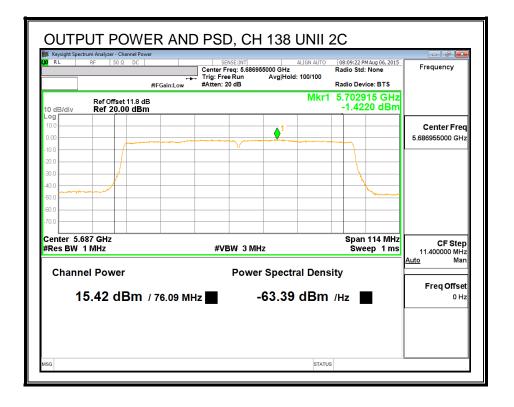
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	15.42	15.86	18.88	24.00	-5.12

PSD Results

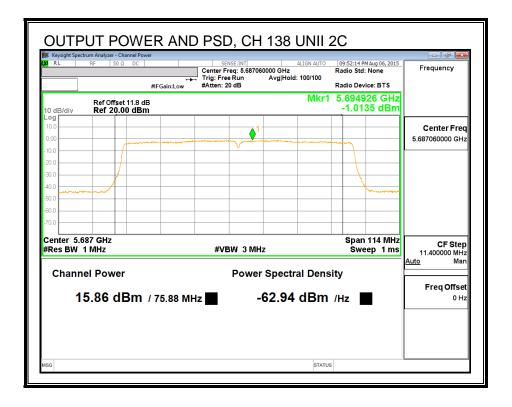
Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-1.42	-1.01	2.02	11.00	-8.98

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CHAIN 0



<u>CHAIN 1</u>



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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				
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	5.88	2.90	5.91	30.00	30.00

Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd Power & PSD
,		

Output Power Results

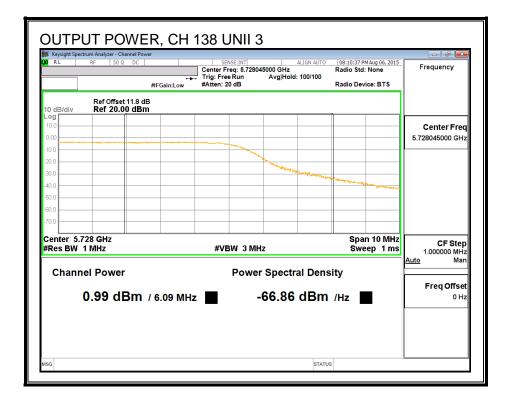
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas Meas		Corr'd	Limit Margir	
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	0.99	1.37	4.41	30.00	-25.59

PSD Results

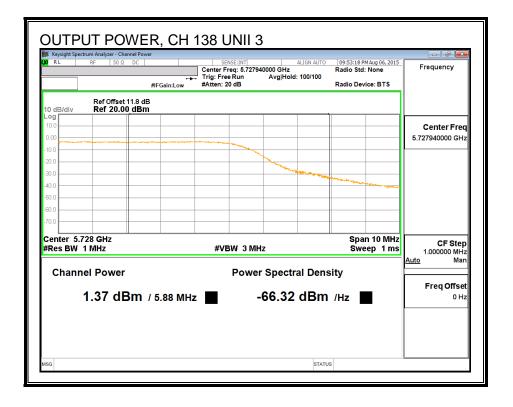
Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-6.25	-5.65	-2.70	30.00	-32.70

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CHAIN 0

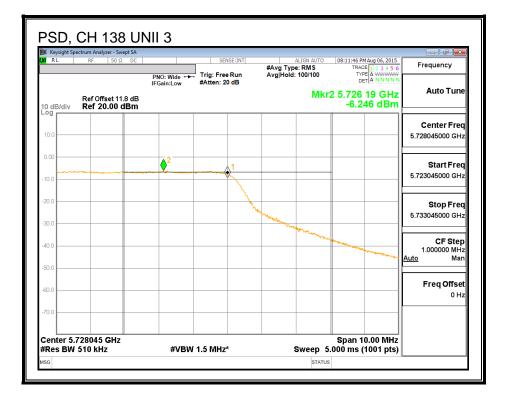


<u>CHAIN 1</u>

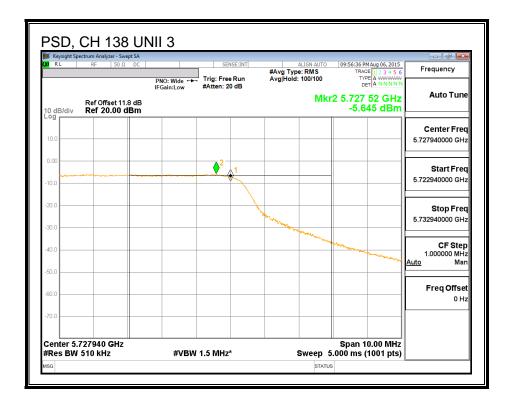


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CHAIN 0



<u>CHAIN 1</u>



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8.45.6. 6 dB BANDWIDTH

LIMITS

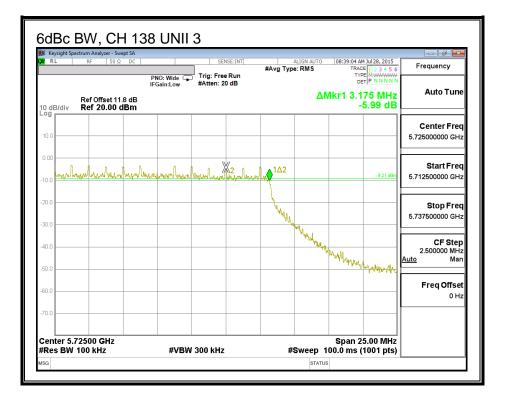
FCC §15.407 (e)

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

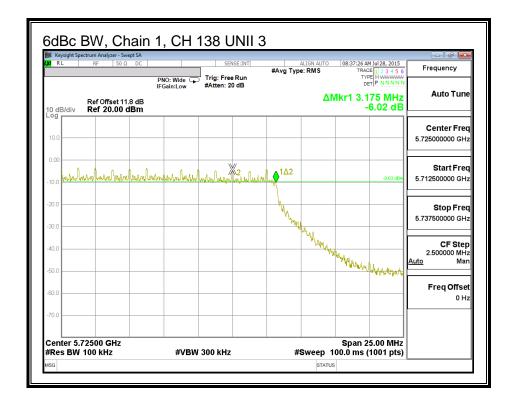
RESULTS

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CHAIN 0



CHAIN 1



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8.46. 802.11n VHT80 2Tx STBC/SDM MODE IN THE 5.6 GHz BAND

Note: Covered by 802.11n HT80 2Tx CDD MODE

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8.47. 802.11a SISO MODE IN THE 5.8 GHz BAND

Note: Covered by 802.11n HT20 SISO CDD MODE

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8.48. 802.11n HT20 CHAIN 0 MODE IN THE 5.8 GHz BAND

8.48.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

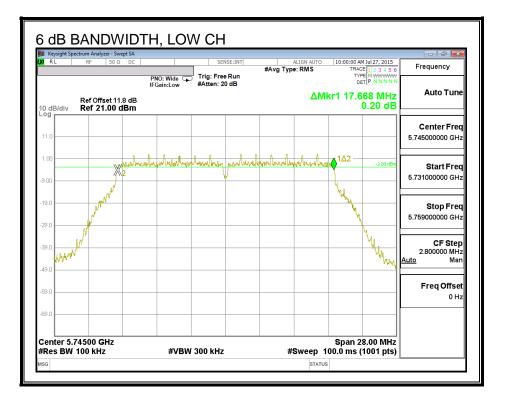
The minimum 6 dB bandwidth shall be at least 500 kHz.

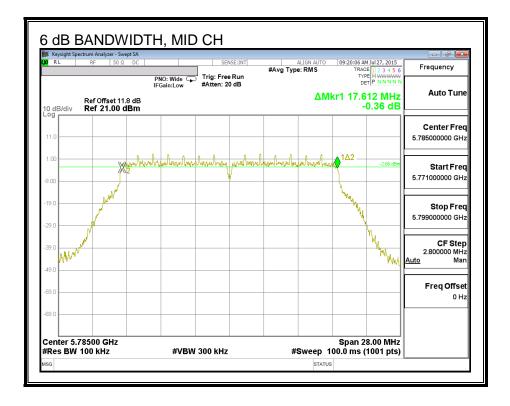
RESULTS

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5745	17.67	0.5
Mid	5785	17.61	0.5
High	5825	17.64	0.5

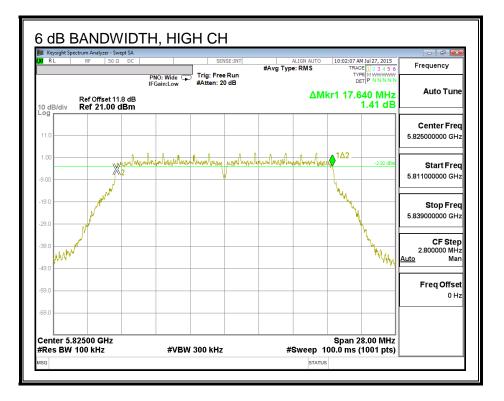
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6 dB BANDWIDTH





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8.48.2. 26 dB BANDWIDTH

<u>LIMITS</u>

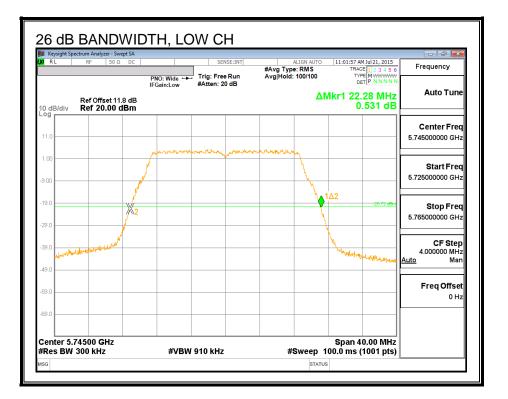
None, for reporting purposes only

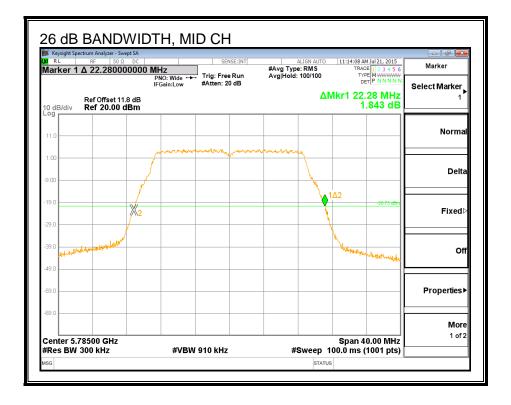
RESULTS

Channel	Frequency	26 dB Bandwidth		
	(MHz)	(MHz)		
Low	5745	22.28		
Mid	5785	22.28		
High	5825	22.16		

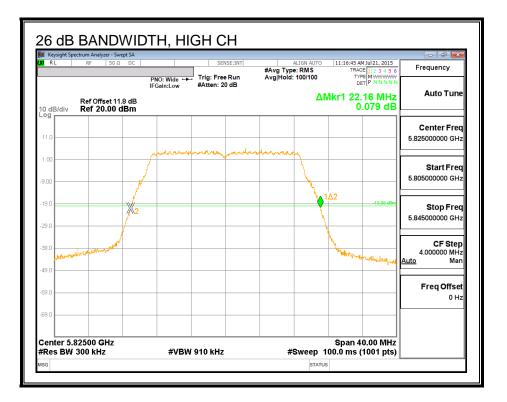
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26 dB BANDWIDTH





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8.48.3. 99% BANDWIDTH

<u>LIMITS</u>

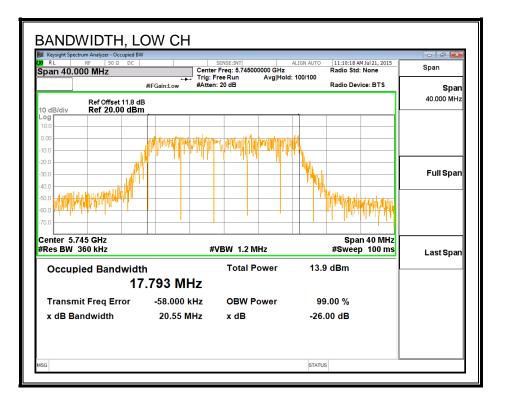
None; for reporting purposes only.

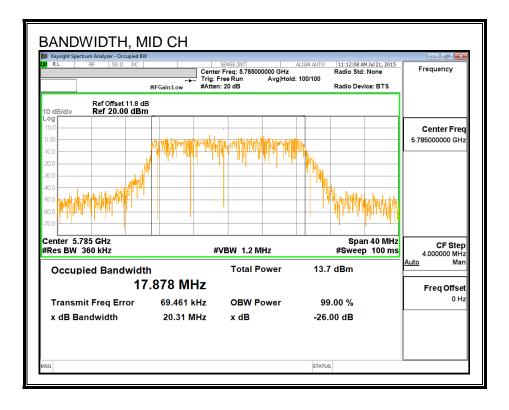
RESULTS

Frequency	99% Bandwidth
(MHz)	(MHz)
5745	17.793
5785	17.878
5825	17.681

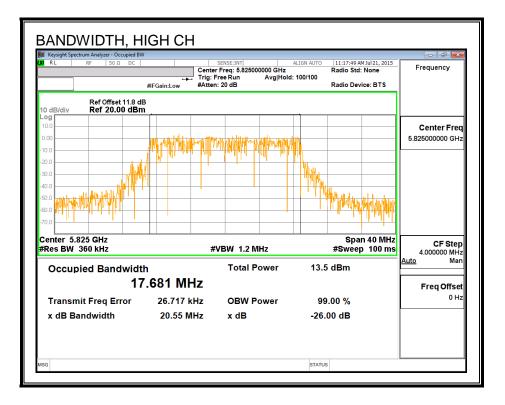
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99% BANDWIDTH





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8.48.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

<u>RESULTS</u>

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5745	15.37
Mid	5785	15.94
High	5825	15.90

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8.48.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

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	2.40	30.00
Mid	5785	2.40	30.00
High	5825	2.40	30.00

Duty Cycle CF (dB) 0.00 Incl	luded 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	15.37	15.37	30.00	-14.63
Mid	5785	15.94	15.94	30.00	-14.06
High	5825	15.90	15.90	30.00	-14.10

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8.48.6. PSD

LIMITS

FCC §15.407 (a) (3)

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

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	2.40	30.00	
Mid	5785	2.40	30.00	
High	5825	2.40	30.00	

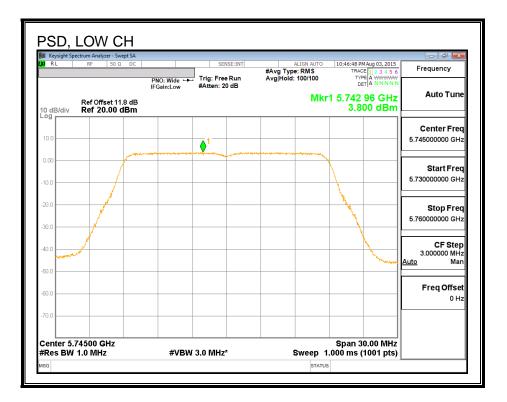
Duty Cycle CF (dB) 0.00 Included in Calculations of Corr'd PSD

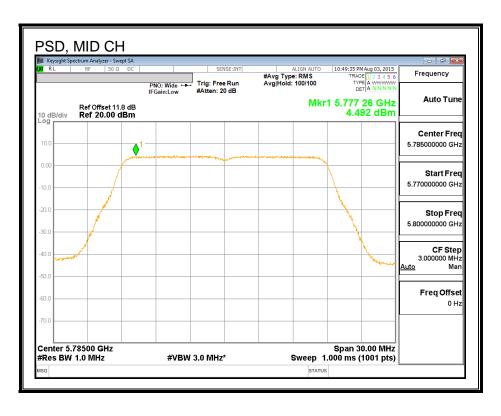
PSD Results

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	3.80	3.80	30.00	-26.20
Mid	5785	4.49	4.49	30.00	-25.51
High	5825	4.32	4.32	30.00	-25.68

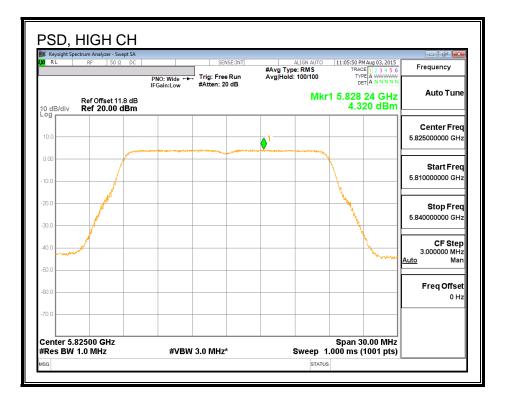
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PSD,





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8.49. 802.11n HT20 CHAIN 1 MODE IN THE 5.8 GHz BAND

8.49.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

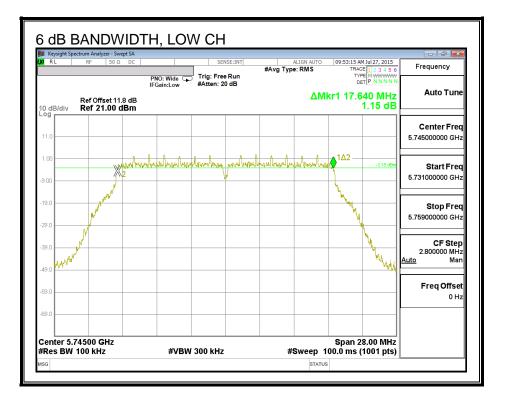
The minimum 6 dB bandwidth shall be at least 500 kHz.

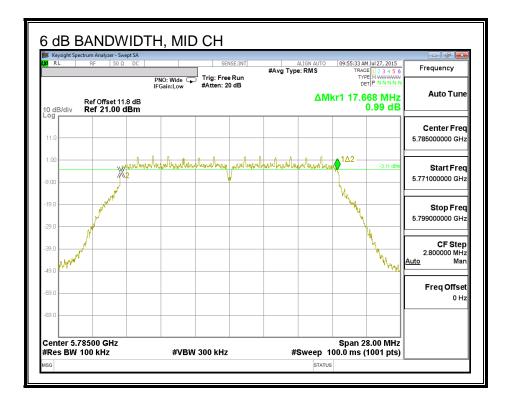
RESULTS

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5745	17.64	0.5
Mid	5785	17.67	0.5
High	5825	17.67	0.5

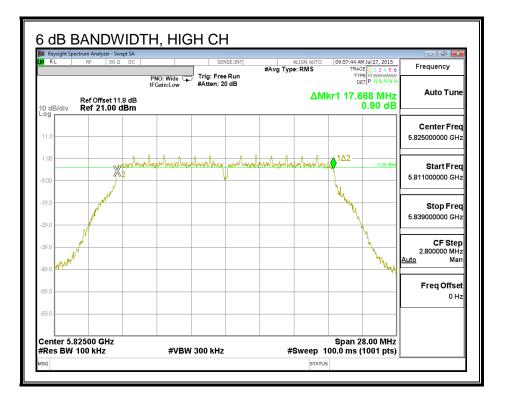
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6 dB BANDWIDTH





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8.49.2. 26 dB BANDWIDTH

<u>LIMITS</u>

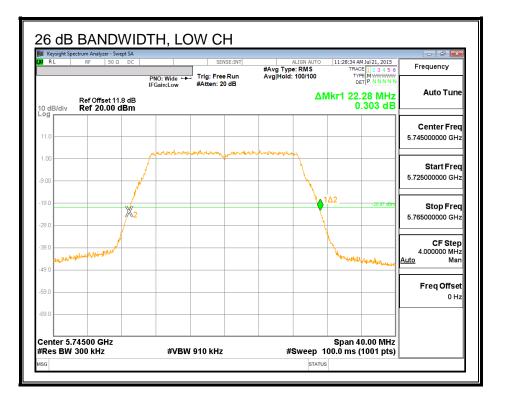
None, for reporting purposes only

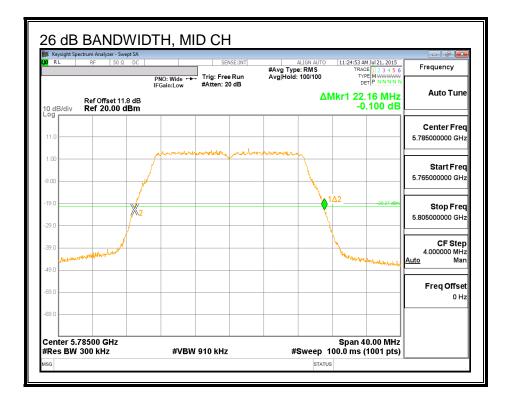
RESULTS

Channel	Frequency	26 dB Bandwidth	
	(MHz)	(MHz)	
Low	5745	22.28	
Mid	5785	22.16	
High	5825	22.24	

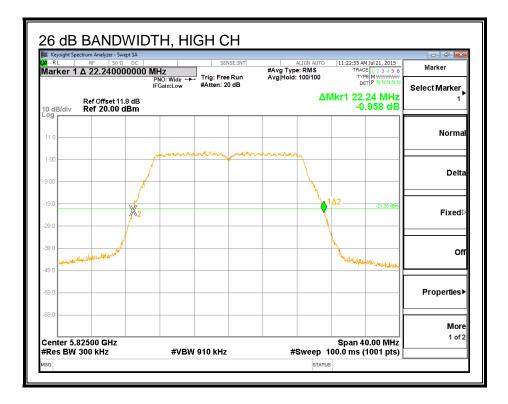
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26 dB BANDWIDTH





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8.49.3. 99% BANDWIDTH

<u>LIMITS</u>

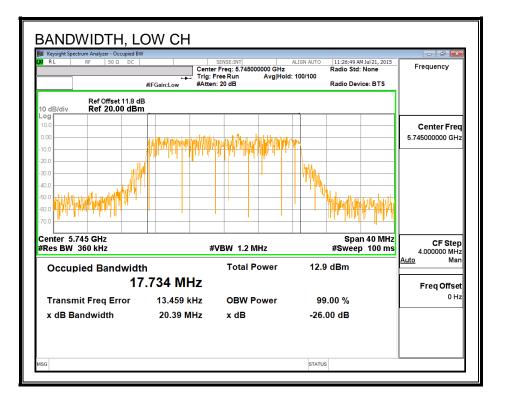
None; for reporting purposes only.

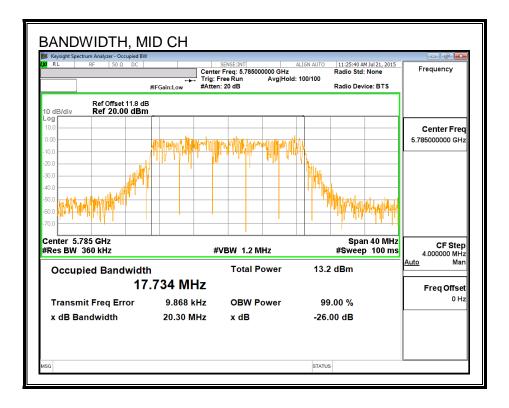
RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5745	17.734
Mid	5785	17.734
High	5825	17.811

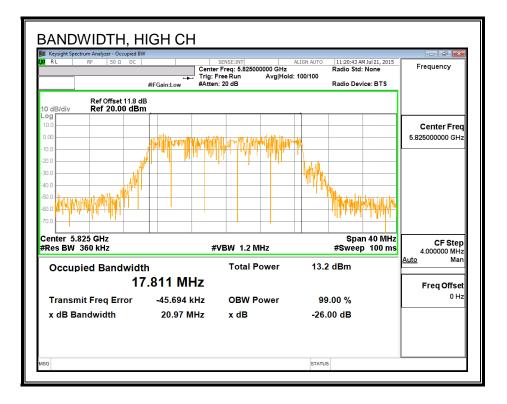
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99% BANDWIDTH





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8.49.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5745	15.37
Mid	5785	16.50
High	5825	15.98

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8.49.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

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	3.10	30.00
Mid	5785	3.10	30.00
High	5825	3.10	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	15.37	15.37	30.00	-14.63
Mid	5785	16.50	16.50	30.00	-13.50
High	5825	15.98	15.98	30.00	-14.02

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8.49.6. PSD

<u>LIMITS</u>

FCC §15.407 (a) (3)

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

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	3.10	30.00
Mid	5785	3.10	30.00
High	5825	3.10	30.00

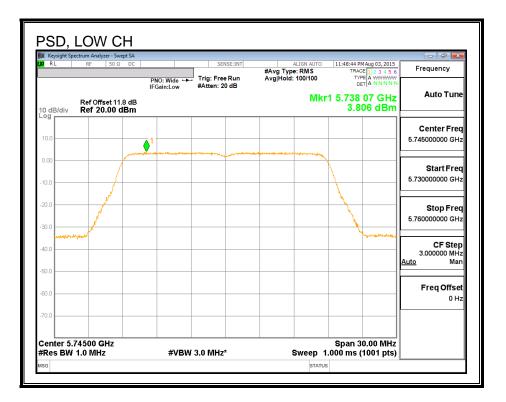
Duty Cycle CF (dB) 0.00 Included in Calculations of Corr'd PSD

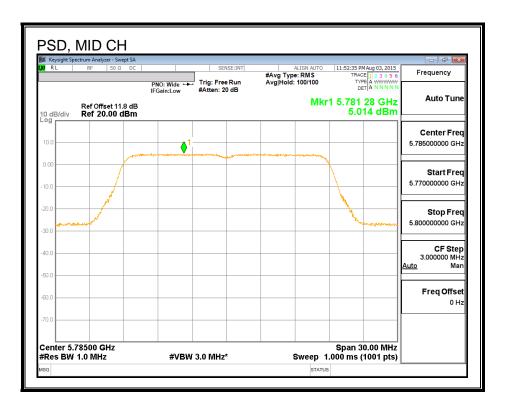
PSD Results

Channel	Frequency	Chain 1	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	3.81	3.81	30.00	-26.19
Mid	5785	5.01	5.01	30.00	-24.99
High	5825	4.59	4.59	30.00	-25.41

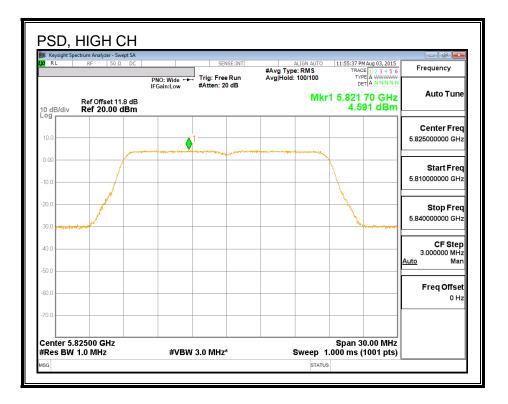
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PSD,





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8.50. 802.11a CDD 2TX MODE IN THE 5.8 GHz BAND

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

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8.51. 802.11n HT20 2Tx CDD MODE IN THE 5.8 GHz BAND

8.51.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

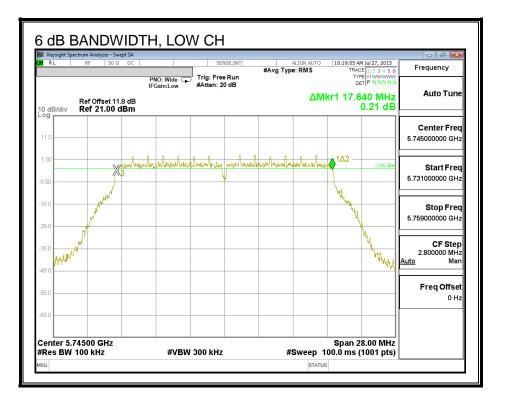
The minimum 6 dB bandwidth shall be at least 500 kHz.

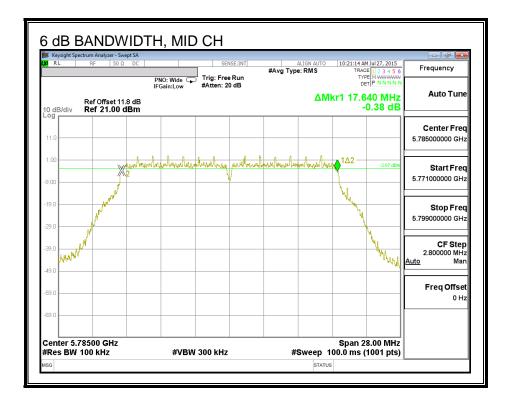
RESULTS

Channel	Frequency	6 dB BW	6 dB BW	Minimum
		Chain 0	Chain 1	Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5745	17.64	17.64	0.5
Mid	5785	17.64	17.64	0.5
High	5825	17.67	17.64	0.5

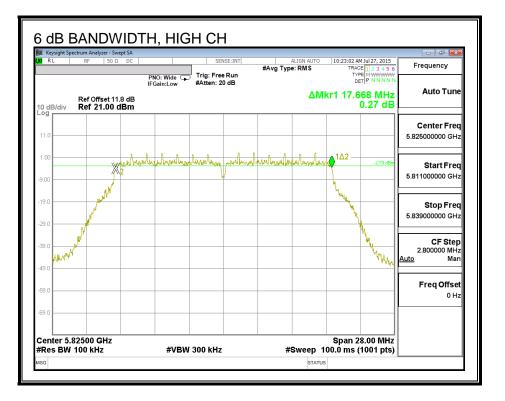
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6 dB BANDWIDTH, CHAIN 0

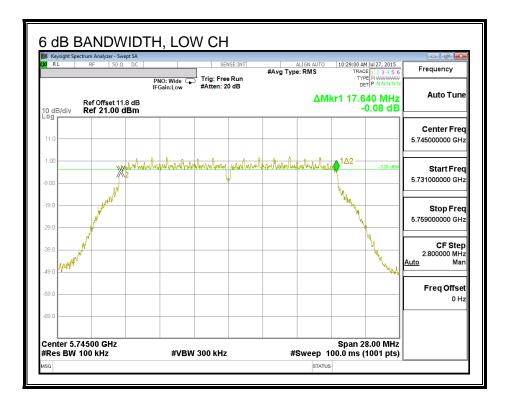




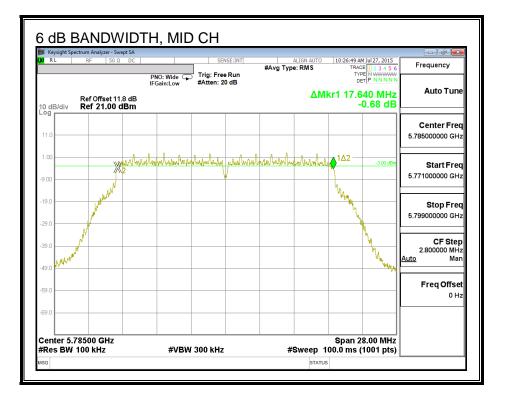
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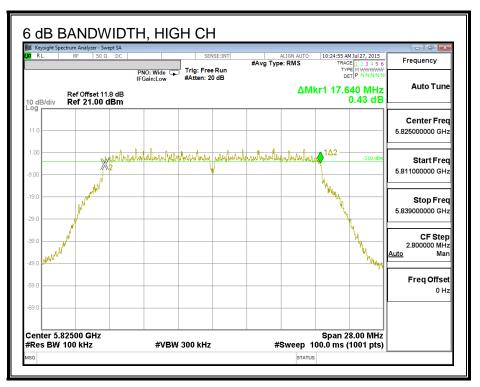


6 dB BANDWIDTH, CHAIN 1



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8.51.2. 26 dB BANDWIDTH

LIMITS

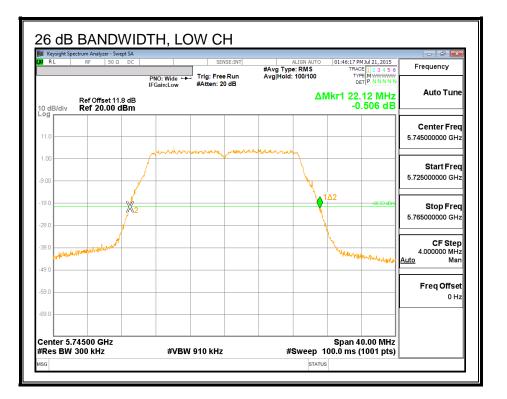
None, for reporting purposes only.

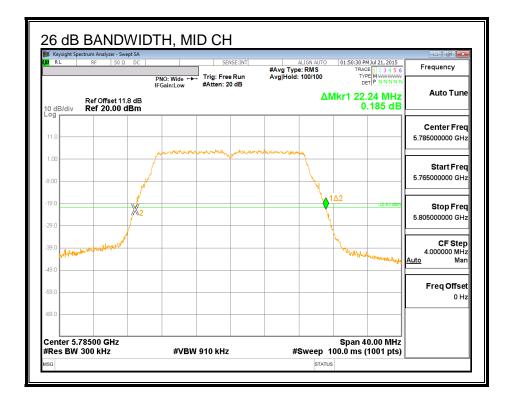
RESULTS

Channel	Frequency	26 dB BW	26 dB BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Low	5745	22.12	22.16
Mid	5785	22.24	22.12
High	5825	22.24	22.12

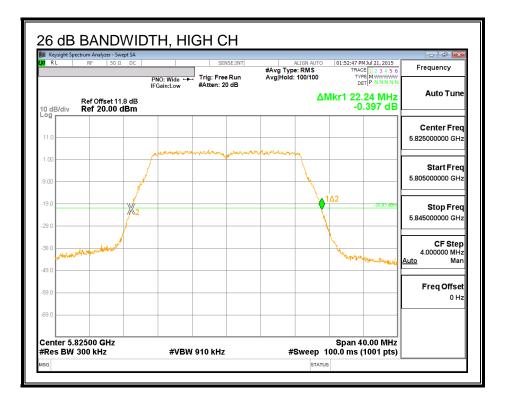
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26 dB BANDWIDTH, CHAIN 0

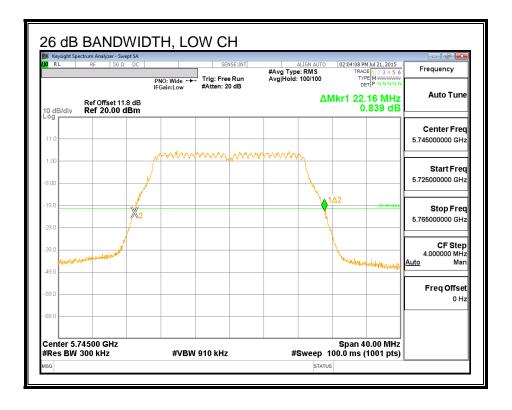




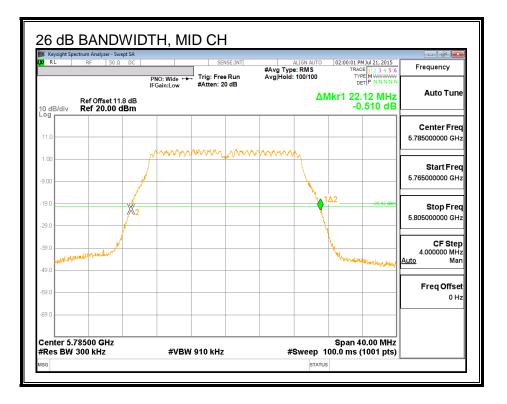
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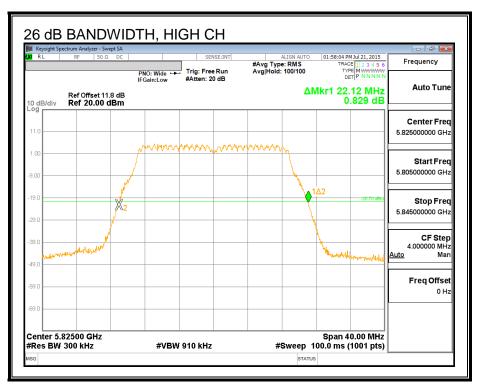


26 dB BANDWIDTH, CHAIN 1



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8.51.3. 99% BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

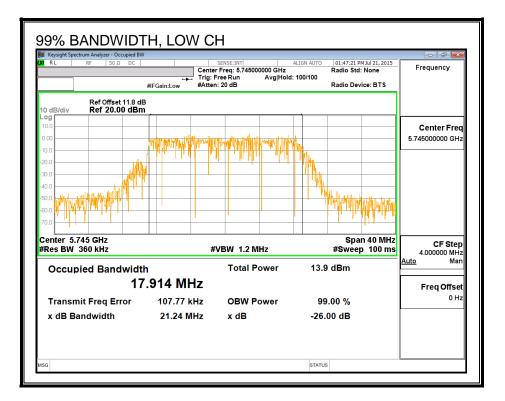
RESULTS

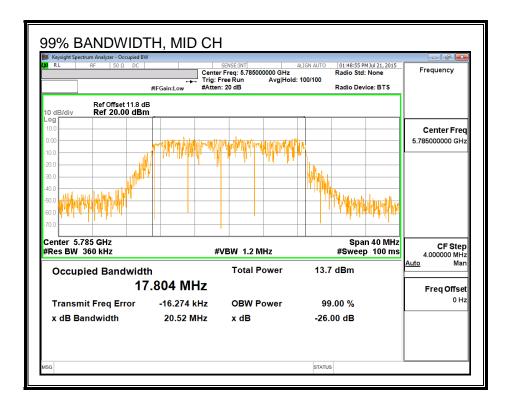
Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Low	5745	17.914	17.716
Mid	5785	17.804	17.791
High	5825	17.777	17.724

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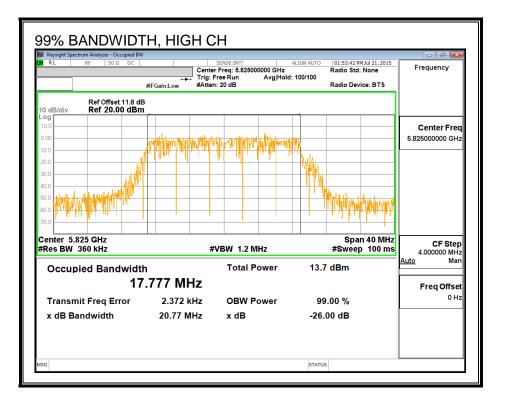
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99% BANDWIDTH, CHAIN 0

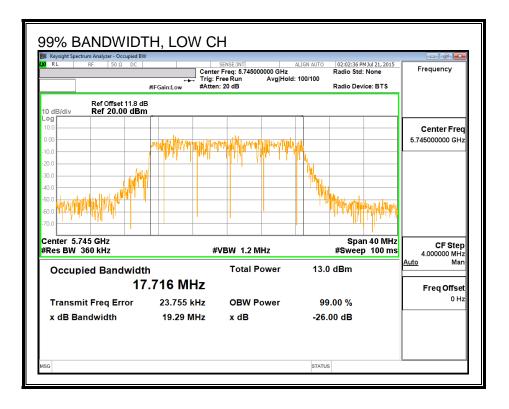




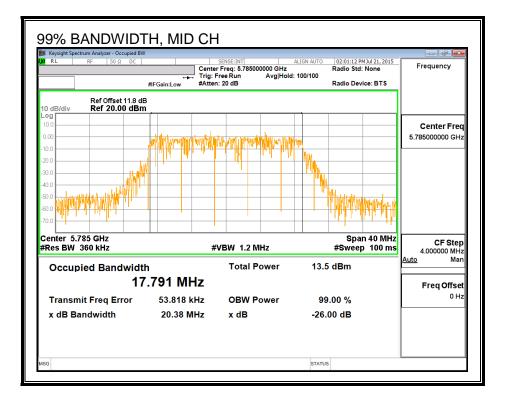
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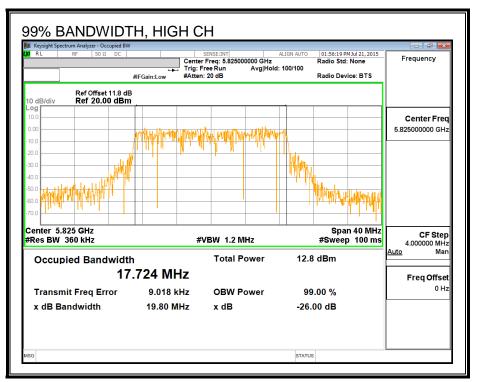


99% BANDWIDTH, CHAIN 1



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8.51.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

<u>RESULTS</u>

Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5745	14.98	14.96	17.98
Mid	5785	16.00	15.44	18.74
High	5825	15.39	15.45	18.43

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8.51.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

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)
2.40	3.10	2.76

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RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
		for Power	
	(MHz)	(dBi)	(dBm)
Low	5745	2.76	30.00
Mid	5785	2.76	30.00
High	5825	2.76	30.00

0.00

Duty Cycle CF (dB)

Included in Calculations of Corr'd Power

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	5745	14.98	14.96	17.98	30.00	-12.02
Mid	5785	16.00	15.44	18.74	30.00	-11.26
High	5825	15.39	15.45	18.43	30.00	-11.57

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8.51.6. PSD

<u>LIMITS</u>

FCC §15.407 (a) (3)

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

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Correlated Chains		
Antenna	Antenna	Directional		
Gain	Gain	Gain		
(dBi)	(dBi)	(dBi)		
2.40	3.10	5.77		

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RESULTS

Antenna Gain and Limits

Channel	Frequency	Directional	PSD	
		Gain	Limit	
	(MHz)	(dBi)	(dBm)	
Low	5745	5.77	30.00	
Mid	5785	5.77	30.00	
High	5825	5.77	30.00	

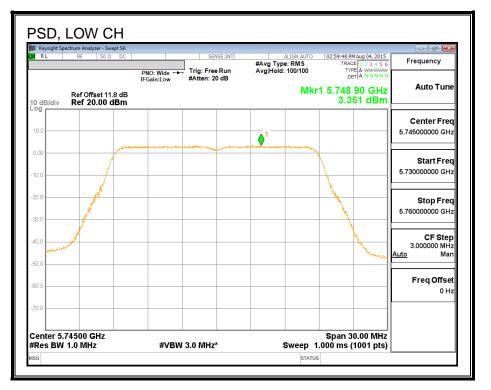
Duty Cycle CF (dB) 0.00 Included in Calculations of Corr'd PSD

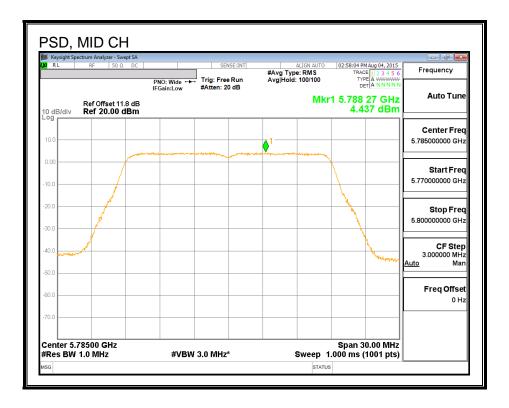
PSD Results

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	5745	3.35	3.40	6.39	30.00	-23.61
Mid	5785	4.44	3.93	7.20	30.00	-22.80
High	5825	3.74	3.74	6.75	30.00	-23.25

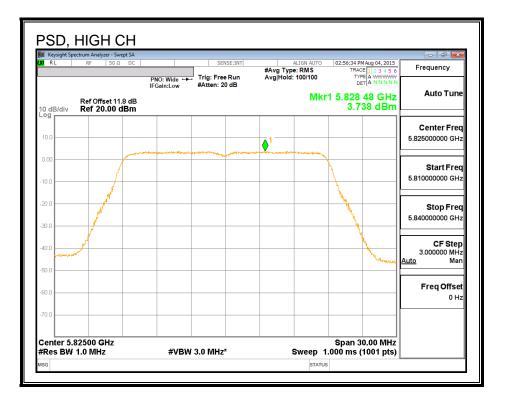
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PSD, CHAIN 0

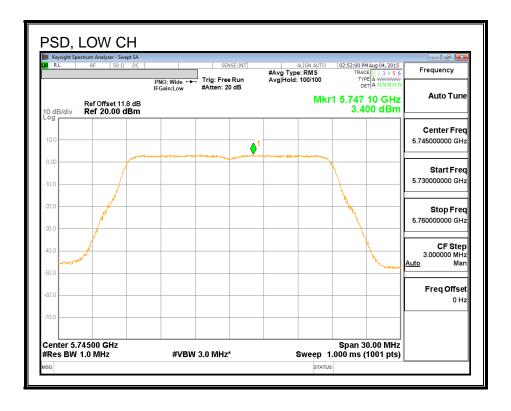




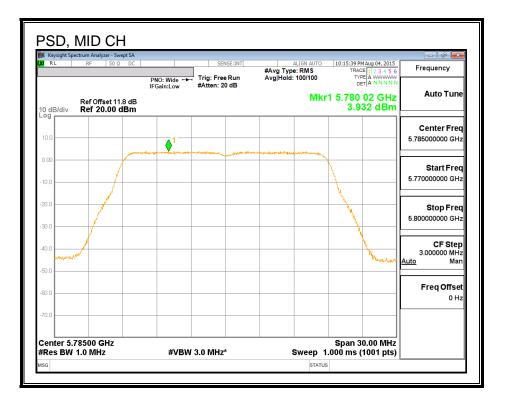
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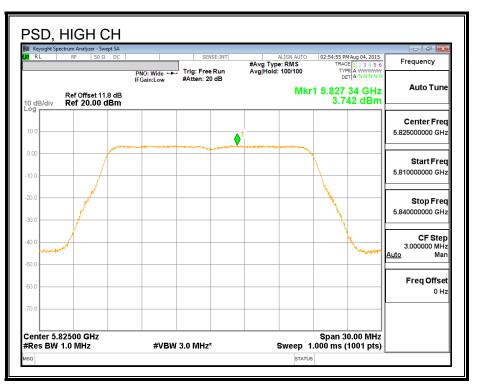


PSD, CHAIN 1



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8.52. 802.11n HT20 2Tx STBC/SDM MODE IN THE 5.8 GHz BAND

Note: Covered by 802.11n HT20 2Tx CDD MODE

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8.53. 802.11n HT40 CHAIN 0 MODE IN THE 5.8 GHz BAND

8.53.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

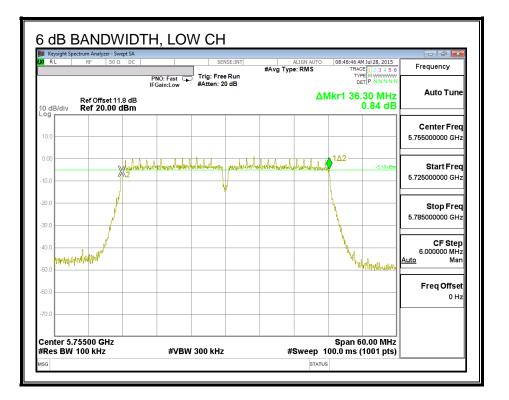
The minimum 6 dB bandwidth shall be at least 500 kHz.

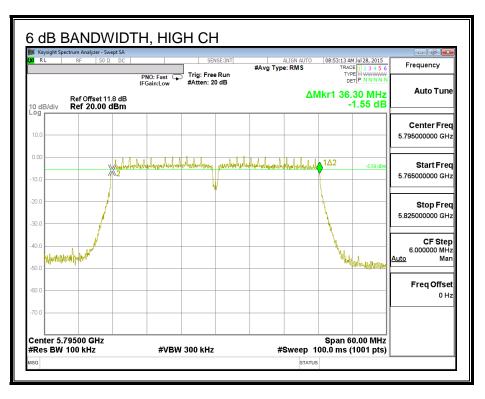
RESULTS

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5755	36.30	0.5
High	5795	36.30	0.5

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6 dB BANDWIDTH





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8.53.2. 26 dB BANDWIDTH

LIMITS

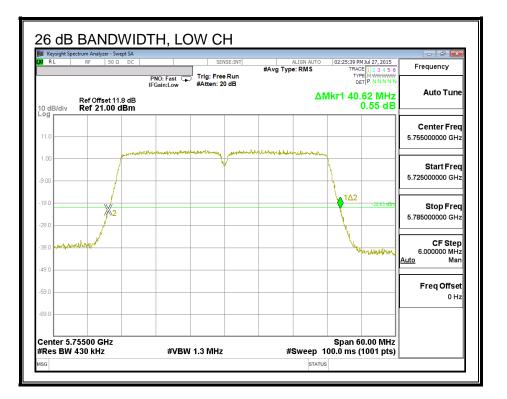
None, for reporting purposes only.

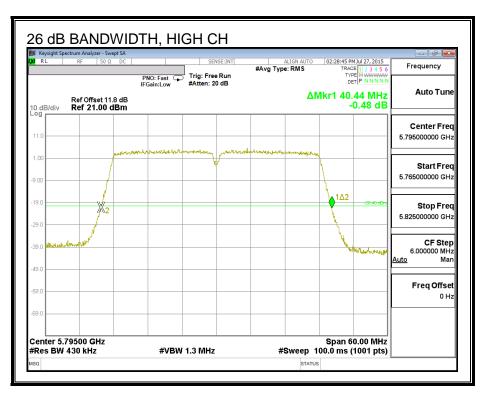
RESULTS

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5755	40.62
High	5795	40.44

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26 dB BANDWIDTH





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8.53.3. 99% BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

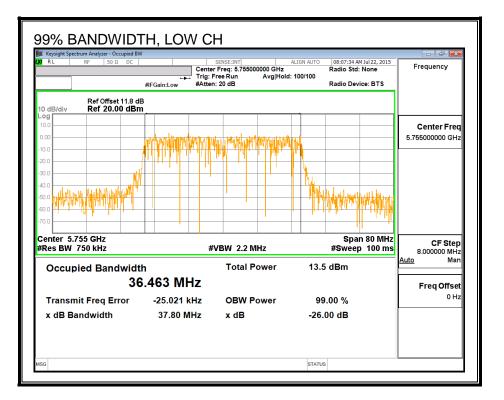
RESULTS

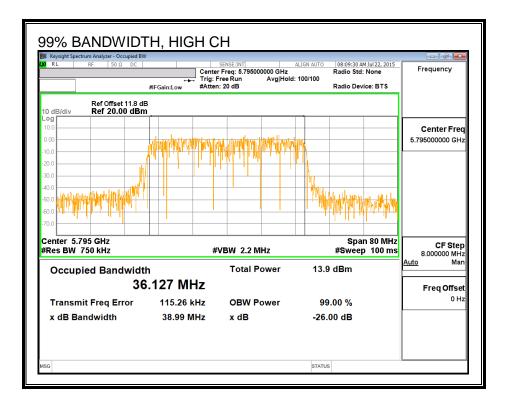
Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5755	36.463
High	5795	36.127

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99% BANDWIDTH





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8.53.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5755	15.00
High	5795	15.93

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8.53.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

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
	(MHz)	(dBi)	(dBm)
Low	5755	2.40	30.00
High	5795	2.40	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	5755	15.00	15.00	30.00	-15.00

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8.53.6. PSD

<u>LIMITS</u>

FCC §15.407 (a) (3)

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

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 Limits

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	2.40	30.00
High	5795	2.40	30.00

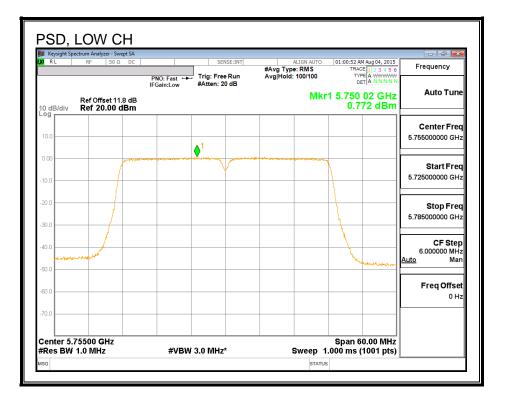
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

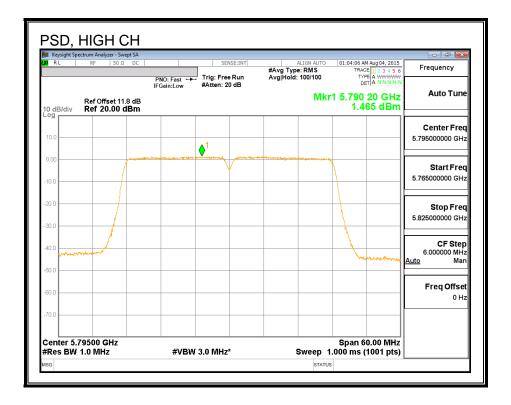
PSD Results

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5755	0.77	0.77	30.00	-29.23
High	5795	1.47	1.47	30.00	-28.54

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PSD,





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8.54. 802.11n HT40 CHAIN 1 MODE IN THE 5.8 GHz BAND

8.54.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

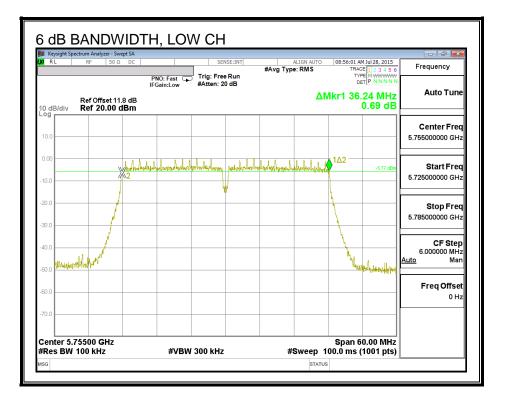
The minimum 6 dB bandwidth shall be at least 500 kHz.

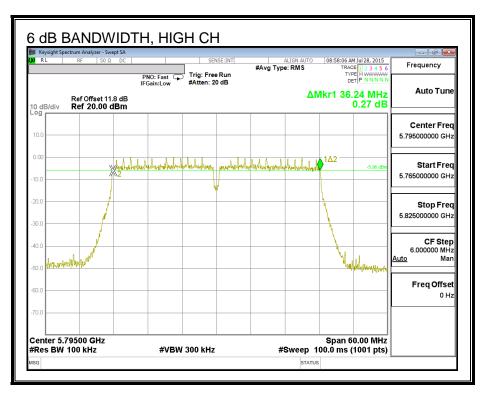
RESULTS

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5755	36.24	0.5
High	5795	36.24	0.5

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6 dB BANDWIDTH





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8.54.2. 26 dB BANDWIDTH

LIMITS

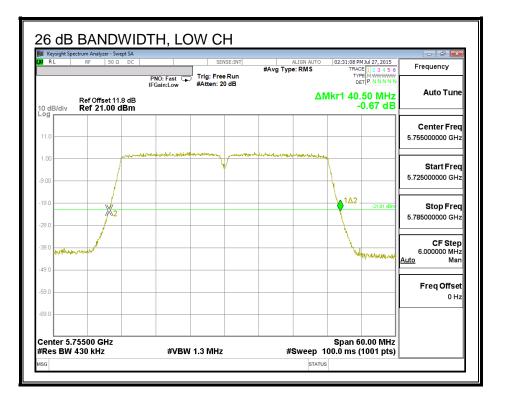
None, for reporting purposes only.

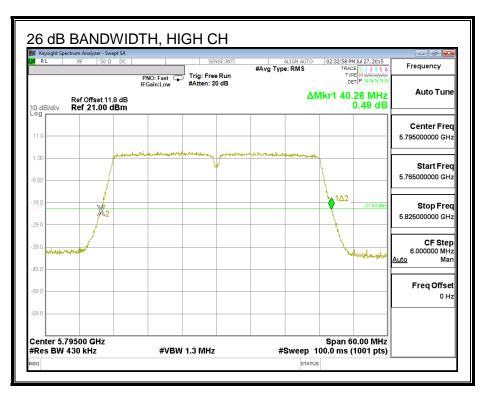
RESULTS

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5755	40.50
High	5795	40.26

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26 dB BANDWIDTH





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8.54.3. 99% BANDWIDTH

<u>LIMITS</u>

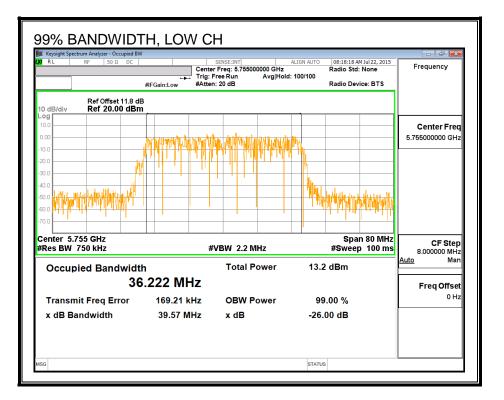
None; for reporting purposes only.

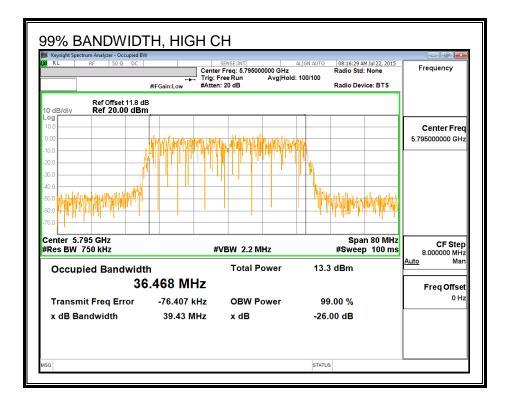
RESULTS

Channel	Frequency 99% Bandwidt	
	(MHz)	(MHz)
Low	5755	36.222
High	5795	36.468

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99% BANDWIDTH





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8.54.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5755	15.00
High	5795	15.85

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8.54.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

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
	(MHz)	(dBi)	(dBm)
Low	5755	3.10	30.00
High	5795	3.10	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)
	((abiii)	(abiii)	(abiii)	(42)
Low	5755	15.00	15.00	30.00	-15.00

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8.54.6. PSD

<u>LIMITS</u>

FCC §15.407 (a) (3)

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

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 Limits

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	3.10	30.00
High	5795	3.10	30.00

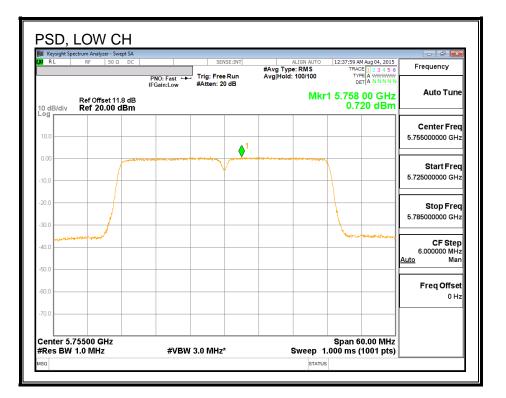
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

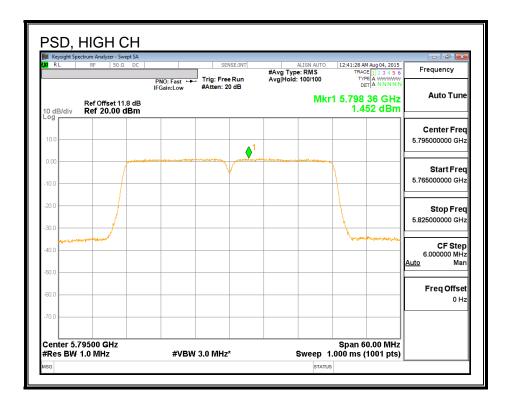
PSD Results

Channel	Frequency	Chain 1	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5755	0.72	0.72	30.00	-29.28
2011		-	-		

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PSD,





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8.55. 802.11n HT40 2Tx CDD MODE IN THE 5.8 GHz BAND

8.55.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

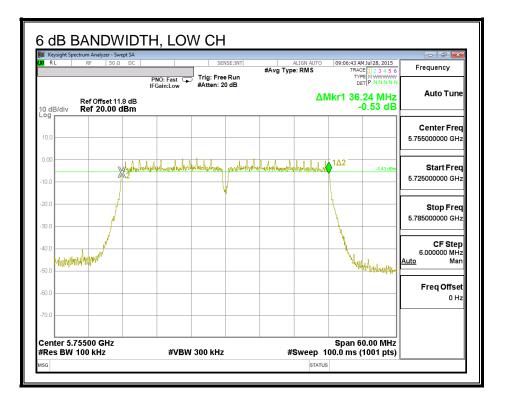
The minimum 6 dB bandwidth shall be at least 500 kHz.

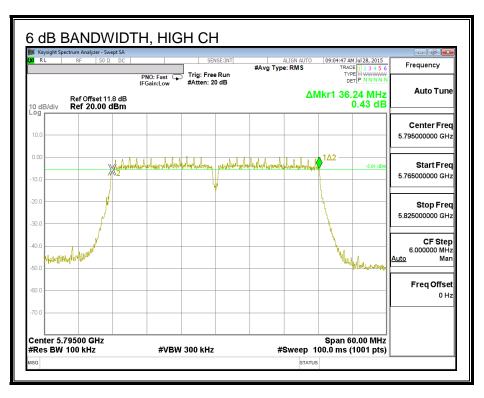
RESULTS

Channel	Frequency	6 dB BW	6 dB BW	Minimum
		Chain 0	Chain 1	Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5755	36.24	36.24	0.5
High	5795	36.24	36.24	0.5

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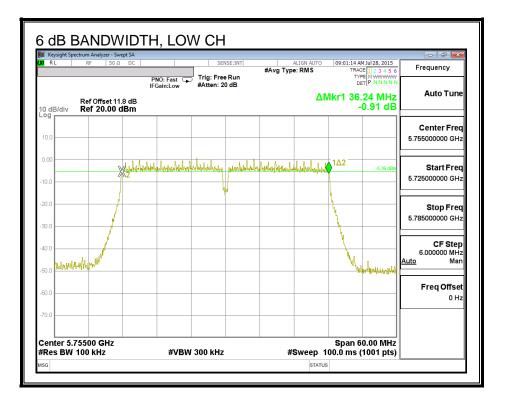
6 dB BANDWIDTH, CHAIN 0

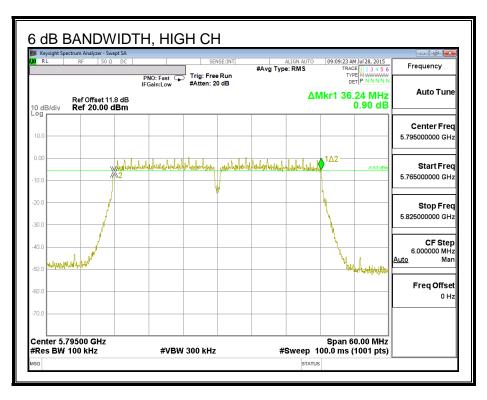




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6 dB BANDWIDTH, CHAIN 1





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8.55.2. 26 dB BANDWIDTH

<u>LIMITS</u>

None, for reporting purposes only.

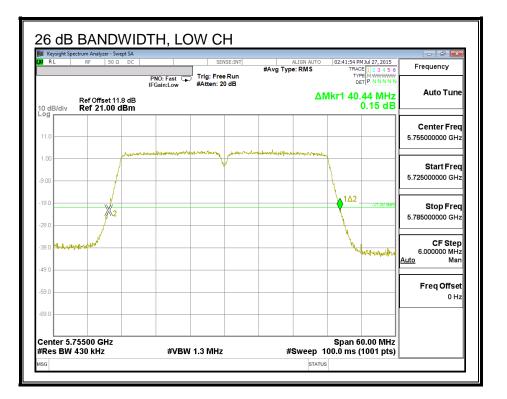
RESULTS

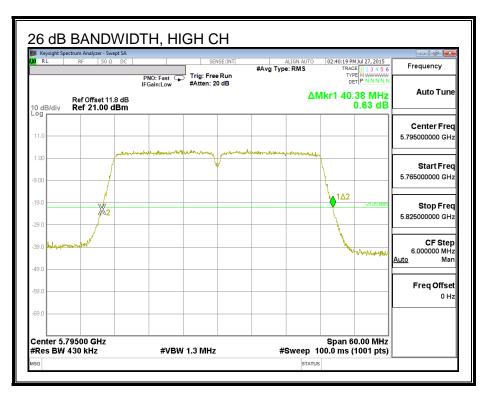
Channel	Frequency	26 dB BW	26 dB BW
	Chain 0		Chain 1
	(MHz)	(MHz)	(MHz)
Low	5755	40.44	40.02
High	5795	40.38	40.08

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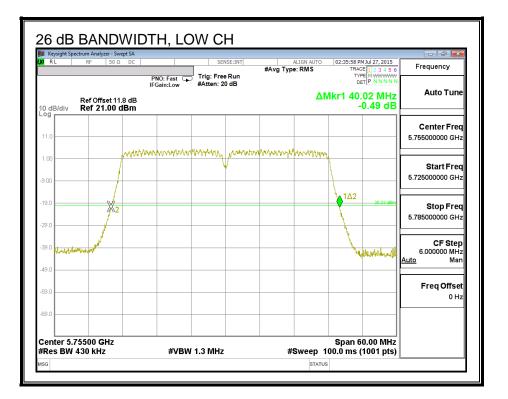
26 dB BANDWIDTH, CHAIN 0

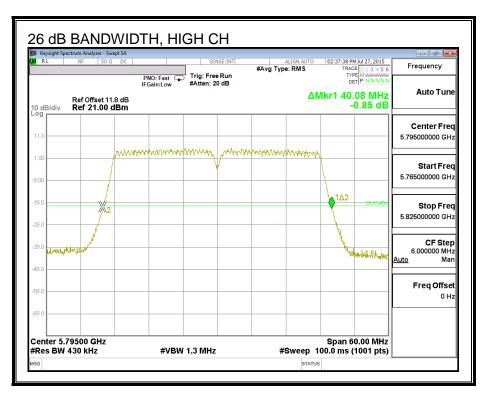




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26 dB BANDWIDTH, CHAIN 1





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8.55.3. 99% BANDWIDTH

<u>LIMITS</u>

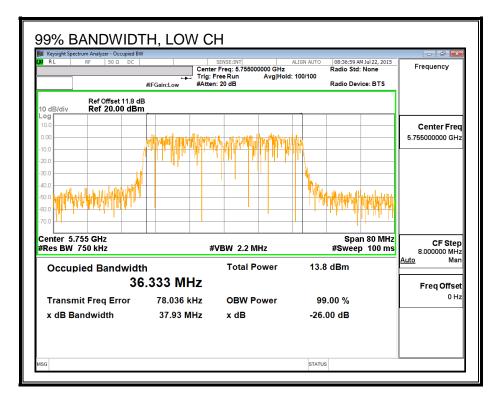
None; for reporting purposes only.

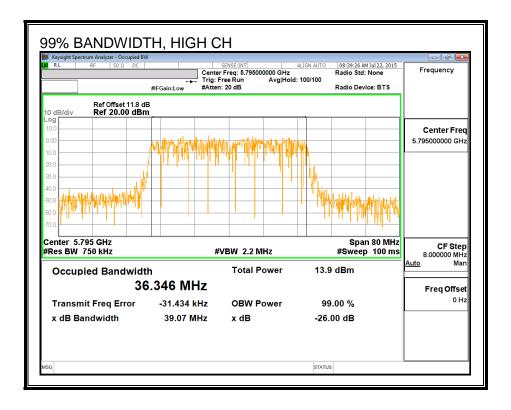
RESULTS

Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Low	5755	36.333	36.129
High	5795	36.346	36.416

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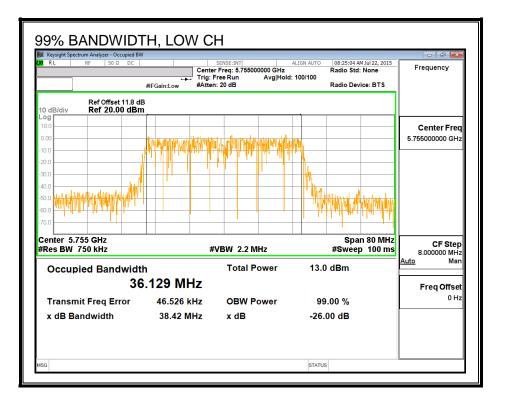
99% BANDWIDTH, CHAIN 0

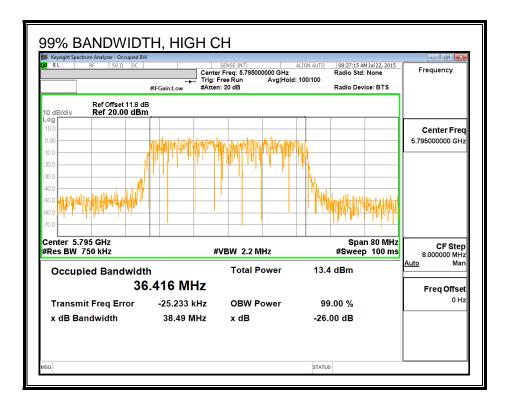




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99% BANDWIDTH, CHAIN 1





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8.55.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5755	14.45	14.40	17.44
High	5795	15.45	15.49	18.48

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8.55.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

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)
2.40	3.10	2.76

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RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	2.76	30.00
High	5795	2.76	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power
	0.00	included in calculations of contait ower

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	5755	14.45	14.40	17.44	30.00	-12.56
High	5795	15.45	15.49	18.48	30.00	-11.52

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8.55.6. PSD

<u>LIMITS</u>

FCC §15.407 (a) (3)

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

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.40	3.10	5.77

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RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	5.77	30.00
High	5795	5.77	30.00

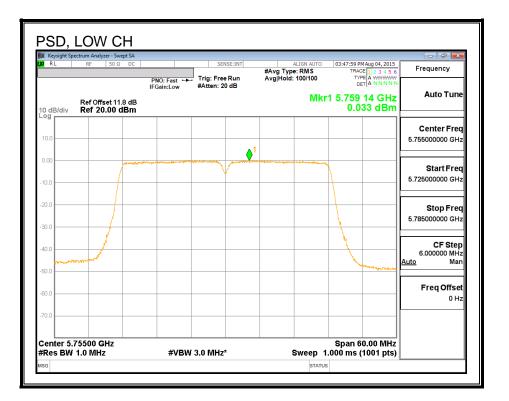
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

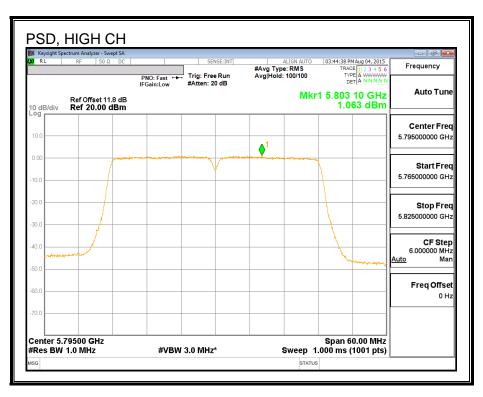
PSD Results

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	5755	0.03	0.11	3.08	30.00	-26.92
					30.00	-25.87

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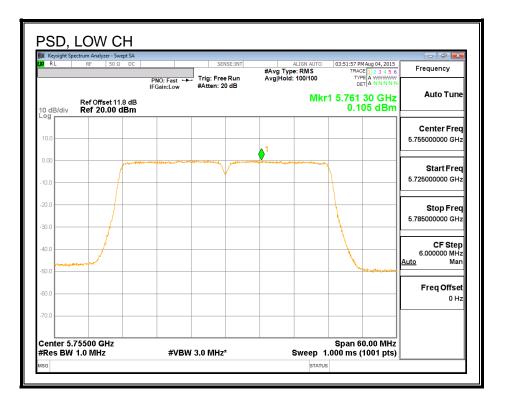
PSD, CHAIN 0

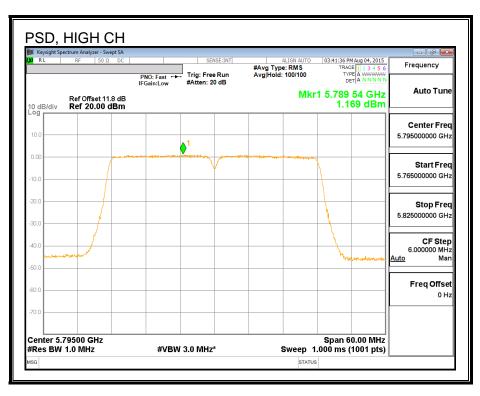




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PSD, CHAIN 1





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8.56. 802.11n HT40 2Tx STBC/SDM MODE IN THE 5.8 GHz BAND

Note: Covered by 802.11n HT40 2Tx CDD MODE

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8.57. 802.11ac VHT80 CHAIN 0 MODE IN THE 5.8 GHz BAND

8.57.1. 6 dB BANDWIDTH

LIMITS

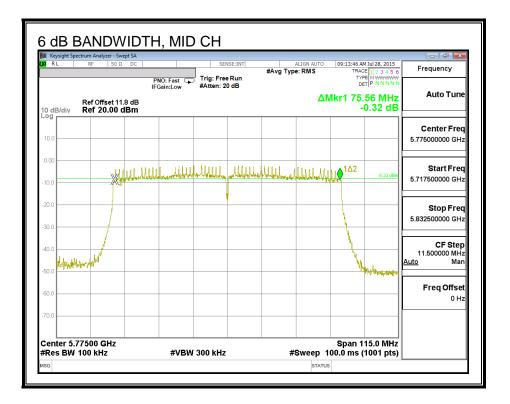
FCC §15.407 (e)

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

RESULTS

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Mid	5775	75.56	0.5

6 dB BANDWIDTH



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8.57.2. 26 dB BANDWIDTH

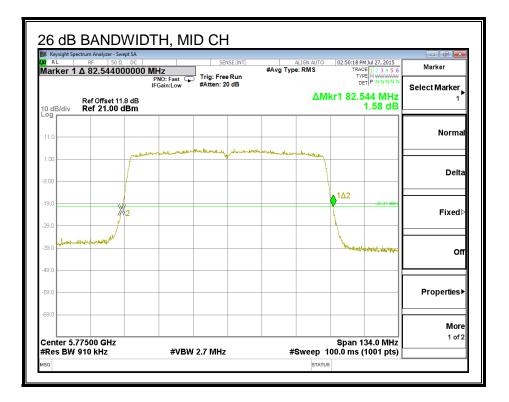
<u>LIMITS</u>

None, for reporting purposes only.

<u>RESULTS</u>

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5775	82.54

26 dB BANDWIDTH



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8.57.3. 99% BANDWIDTH

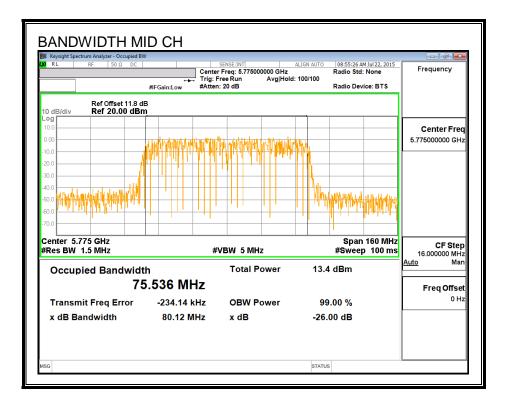
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5775	75.536

99% BANDWIDTH



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8.57.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	Power
	(MHz)	(dBm)
Mid	5775	14.34

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8.57.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

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
	(MHz)	(dBi)	(dBm)
Mid	5775	2.40	30.00

Duty Cycle CF (dB)	0.19	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)
Mid	5775	14.15	14.34	30.00	-15.66

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8.57.6. PSD

<u>LIMITS</u>

FCC §15.407 (a) (3)

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

Antenna Gain and Limits

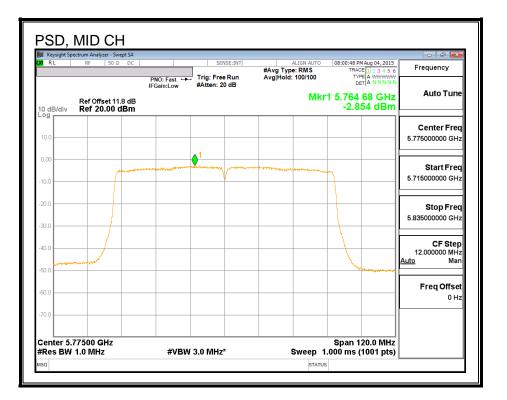
Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Mid	5775	2.40	30.00

Duty Cycle CF (dB)	0.19	Included in Calculations of Corr'd PSD

PSD Results

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5775	-2.854	-2.66	30.00	-32.66

PSD,



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8.58. 802.11ac VHT80 CHAIN 1 MODE IN THE 5.8 GHz BAND

8.58.1. 6 dB BANDWIDTH

LIMITS

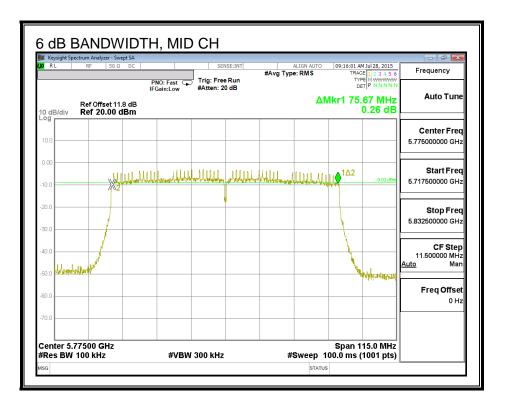
FCC §15.407 (e)

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

RESULTS

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Mid	5775	75.67	0.5

6 dB BANDWIDTH



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8.58.2. 26 dB BANDWIDTH

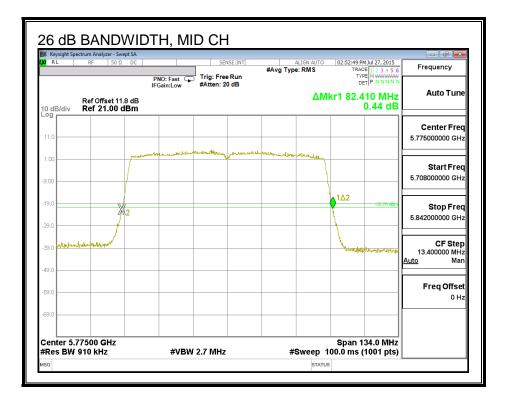
<u>LIMITS</u>

None, for reporting purposes only.

RESULTS

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5775	82.41

26 dB BANDWIDTH



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8.58.3. 99% BANDWIDTH

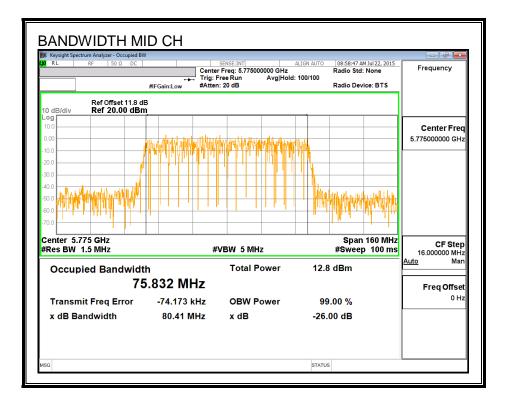
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5775	75.832

99% BANDWIDTH



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8.58.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	Power
	(MHz)	(dBm)
Mid	5775	14.45

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8.58.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Mid	5775	3.10	30.00

Duty Cycle CF (dB) 0.19 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)
Mid	5775	14.26	14.45	30.00	-15.55

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8.58.6. PSD

LIMITS

FCC §15.407 (a) (3)

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

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)
Mid	5775	3.10	30.00

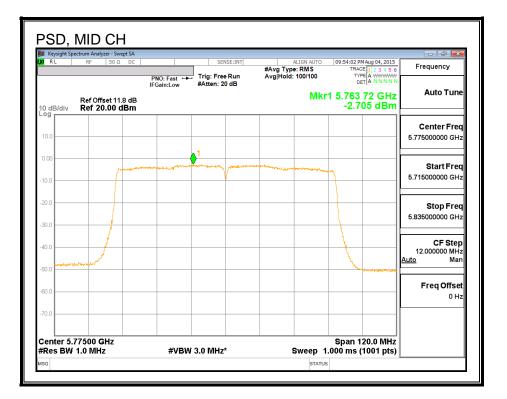
Duty Cycle CF (dB)	0.19	Included in Calculations of Corr'd PSD

PSD Results

Channel	Frequency	Chain 1	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5775	-2.705	-2.52	30.00	-32.52

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PSD,



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8.59. 802.11ac VHT80 2TxCDD MODE IN THE 5.8 GHz BAND

8.59.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

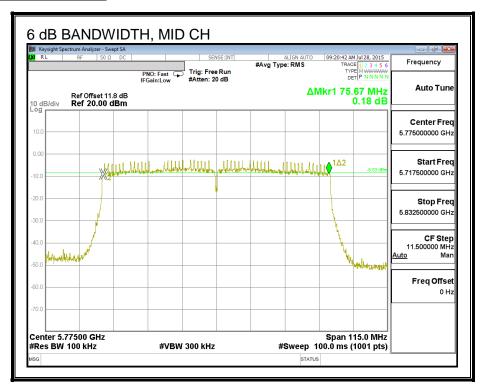
The minimum 6 dB bandwidth shall be at least 500 kHz.

<u>RESULTS</u>

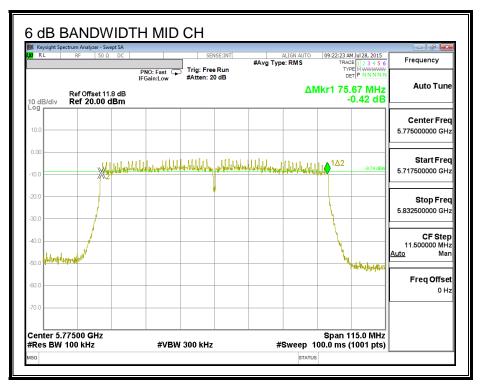
Channel	Frequency	6 dB BW	6 dB BW	Minimum
		Chain 0	Chain 1	Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5775	75.67	75.67	0.5

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6 dB BANDWIDTH, CHAIN 0



6 DB BANDWIDTH, CHAIN 1



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8.59.2. 26 dB BANDWIDTH

LIMITS

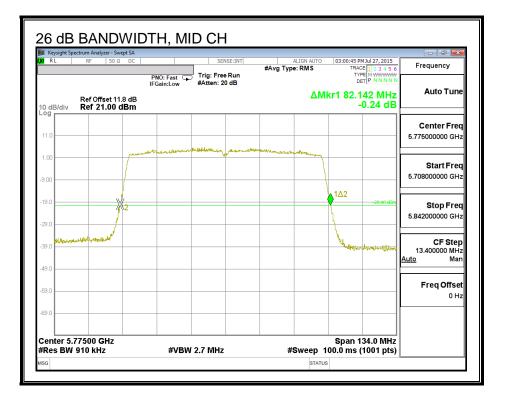
None, for reporting purposes only.

RESULTS

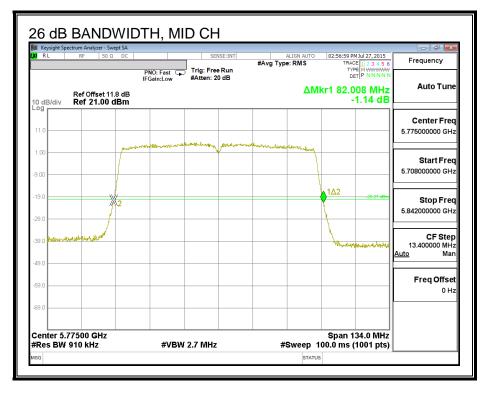
Channel	Frequency	26 dB BW	26 dB BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Mid	5775	82.14	82.01

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26 dB BANDWIDTH, CHAIN 0



26 dB BANDWIDTH, CHAIN 1



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8.59.3. 99% BANDWIDTH

<u>LIMITS</u>

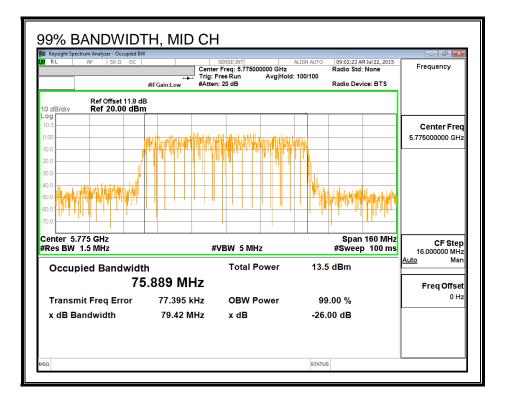
None; for reporting purposes only.

RESULTS

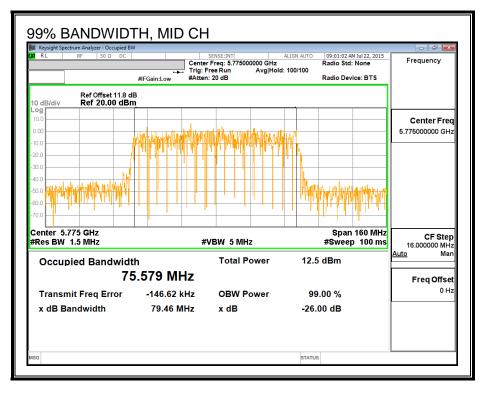
Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Mid	5775	75.889	75.579

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99% BANDWIDTH, CHAIN 0



99% BANDWIDTH, CHAIN 1



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8.59.4. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Mid	5775	13.84	13.99	16.93

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8.59.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

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

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)
2.40	3.10	2.76

<u>RESULTS</u>

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Mid	5775	2.76	30.00

Duty Cycle CF (dB)0.22Included in Calculations of Corr'd Power

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)
Mid	5775	13.62	13.77	16.93	30.00	-13.07

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8.59.6. PSD

<u>LIMITS</u>

FCC §15.407 (a) (3)

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

DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 1	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.40	3.10	5.77

<u>RESULTS</u>

Antenna Gain and Limit

Channel	Frequency	Directional	PSD	
		Gain	Limit	
	(MHz)	(dBi)	(dBm)	
Mid	5775	5.77	30.00	

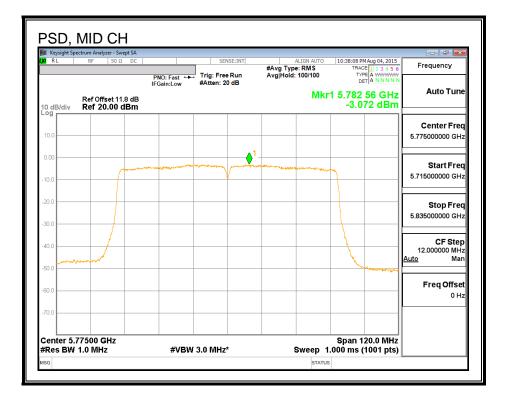
Duty Cycle CF (dB)	0.22	Included in Calculations of Corr'd PSD
--------------------	------	--

PSD Results

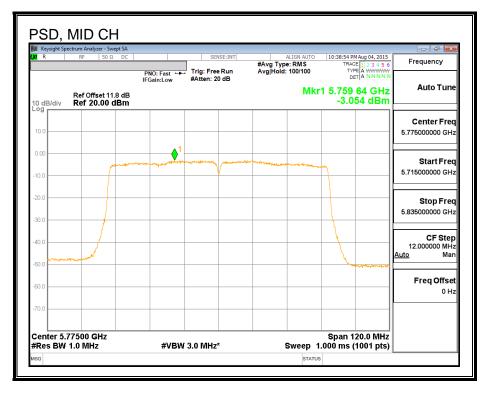
Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5775	-3.07	-3.05	0.17	30.00	-29.83

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PSD, CHAIN 0



PSD, CHAIN 1



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8.60. 802.11n VHT80 2Tx STBC/SDM MODE IN THE 5.8 GHz BAND

Note: Covered by 802.11n HT80 2Tx CDD MODE

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