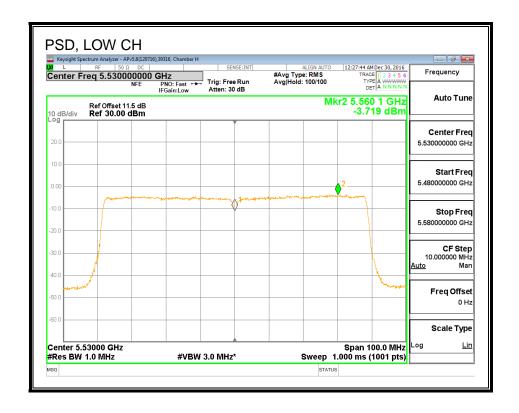
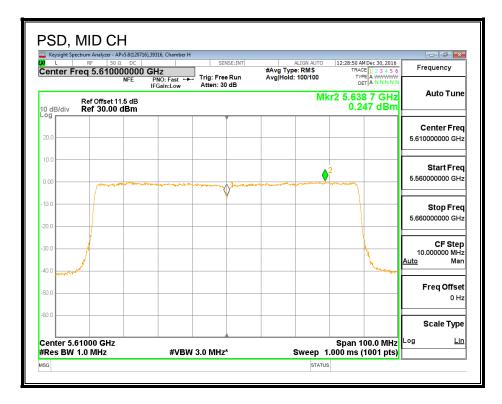
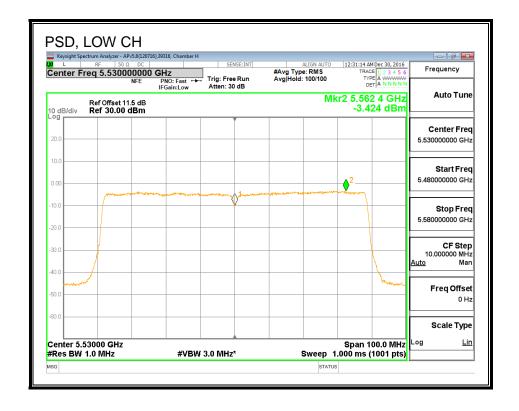
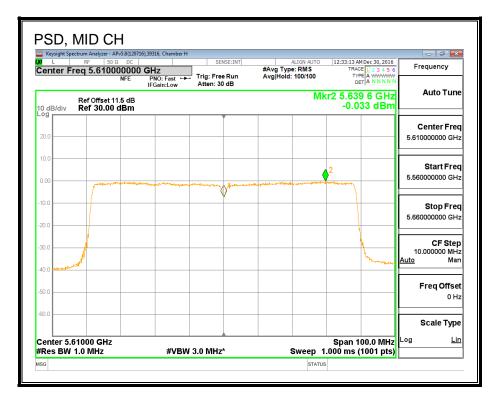
PSD, ANTENNA A





PSD, ANTENNA B





8.45. 802.11ac VHT80 2Tx (ANTENNA A + ANTENNA B) CDD STRADDLE CHANNEL 138 RESULTS

8.45.1. OUTPUT POWER AND PSD

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	76.28	3.28	6.29	24.00	10.71

Duty Cycle CF (dB	0.20	Included in Calculations of Corr'd Power & PSD
-------------------	------	--

Output Power Results

Channel	Frequency	Antenna A	Antenna B	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	16.13	16.63	19.59	24.00	-4.41

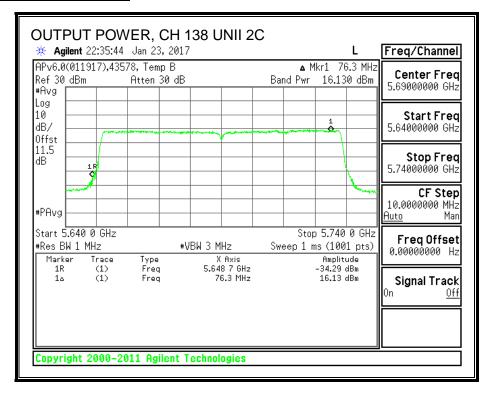
PSD Results

Channel	Frequency	Antenna A	Antenna B	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-0.435	0.233	3.12	10.71	-7.59

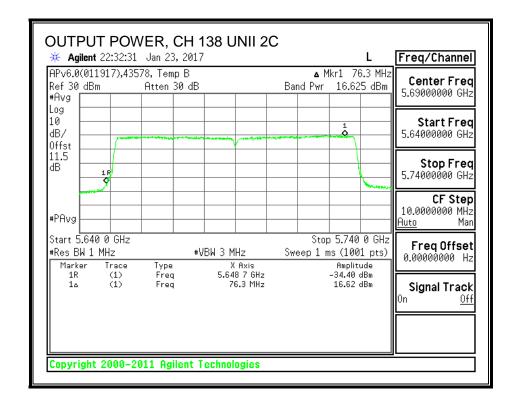
DATE: FEBRUARY 15, 2017

MODEL: A1822

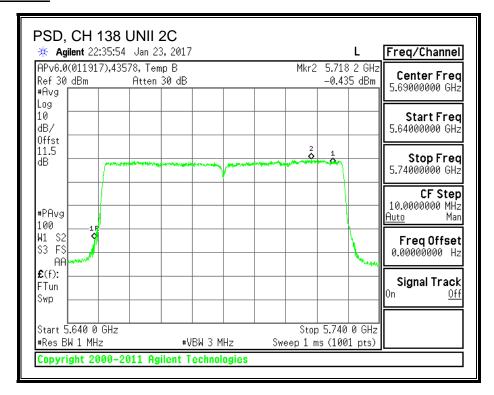
OUTPUT POWER, ANTENNA A



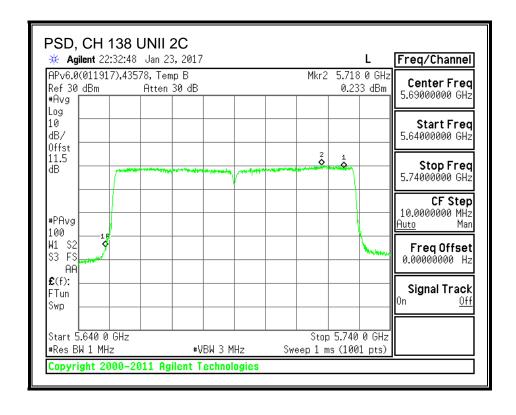
OUTPUT POWER, ANTENNA B



PSD, ANTENNA A



PSD, ANTENNA B



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	6.28	3.38	6.39	30.00	29.61

Duty Cycle CF (dB) 0.20	Included in Calculations of Corr'd Power & PSD
-------------------------	--

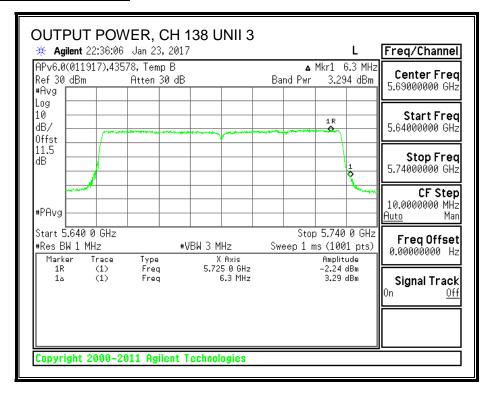
Output Power Results

Channel	Frequency	Antenna A	Antenna B	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	3.294	3.877	6.81	30.00	-23.19

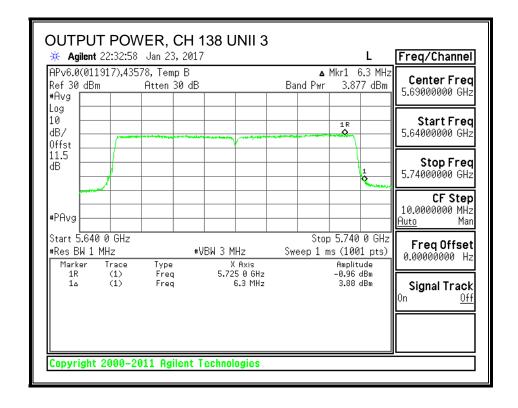
PSD Results

Cha	annel	Frequency	Antenna A	Antenna B	Total	PSD	PSD
			Meas	Meas	Corr'd	Limit	Margin
			PSD	PSD	PSD		
		(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
1	38	5690	-3.672	-3.383	-0.31	29.61	-29.92

OUTPUT POWER, ANTENNA A

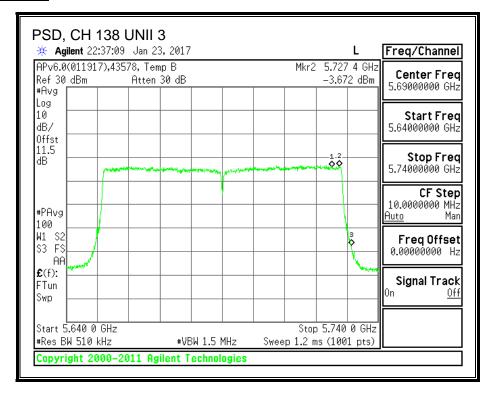


OUTPUT POWER, ANTENNA B

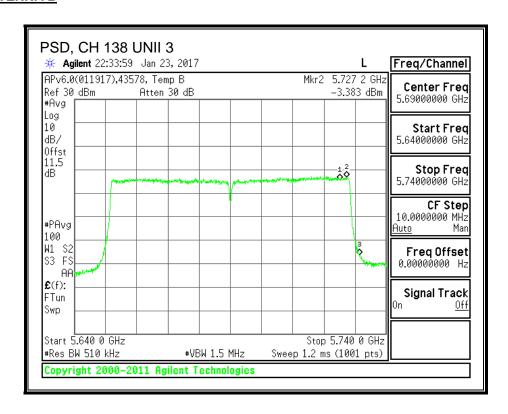


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PSD, ANTENNA A



PSD, ANTENNA B



8.45.2. 6 dB BANDWIDTH

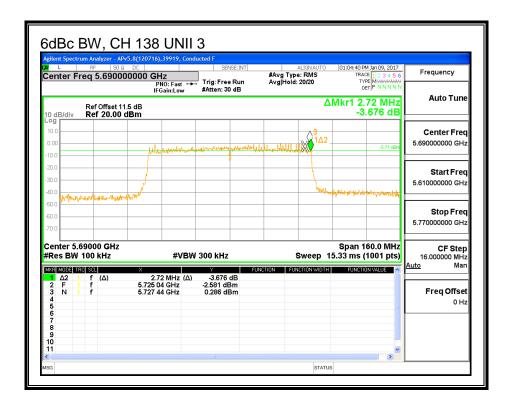
LIMITS

FCC §15.407 (e)

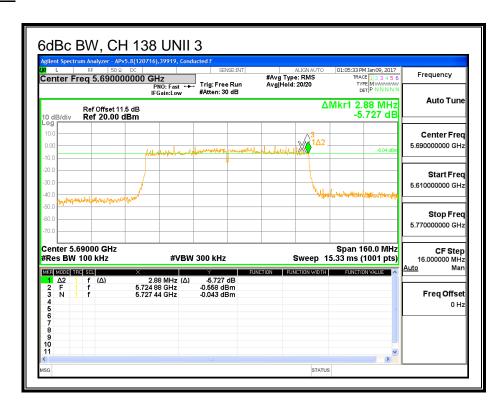
The minimum 6 dB bandwidth shall be at least 500 kHz.

Channel	Frequency	6 dB BW	6 dB BW
		Antenna A	Antenna B
	(MHz)	(MHz)	(MHz)
High	5690	2.72	2.88

ANTENNA A



ANTENNA B



8.46. 802.11ac VHT80 2Tx (ANTENNA A + ANTENNA B) STBC MODE IN THE 5.6 GHz BAND

Noted: Covered by 802.11ac VHT80 2Tx (ANTENNA A + ANTENNA B) CDD MODE IN THE 5.6 GHz BAND

8.47. 802.11n HT20 ANTENNA A MODE IN THE 5.8 GHz BAND

8.47.1. 6 dB BANDWIDTH

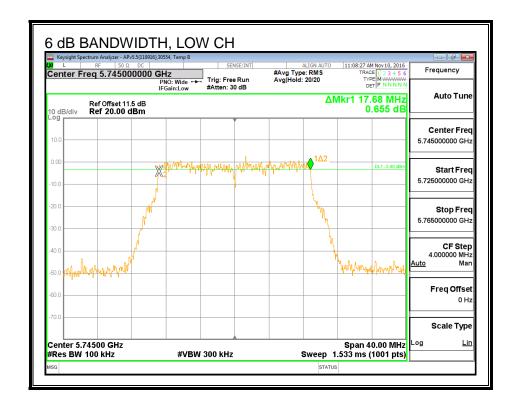
LIMITS

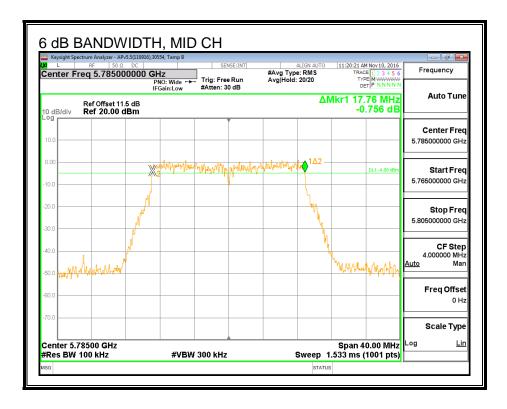
FCC §15.407 (e)

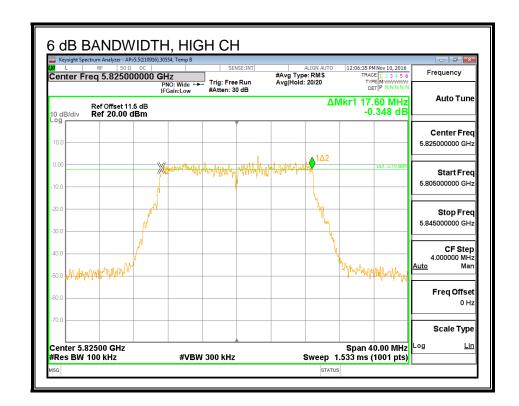
The minimum 6 dB bandwidth shall be at least 500 kHz.

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5745	17.680	0.5
Mid	5785	17.760	0.5
High	5825	17.600	0.5

6 dB BANDWIDTH







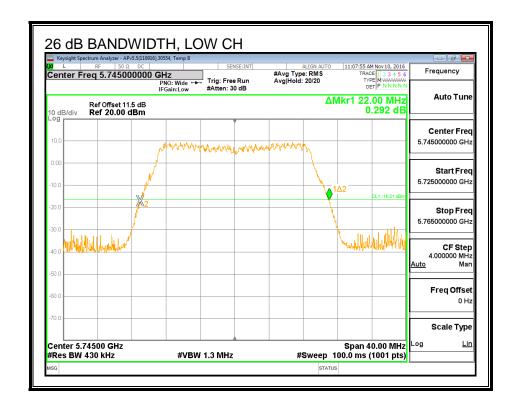
8.47.2. 26 dB BANDWIDTH

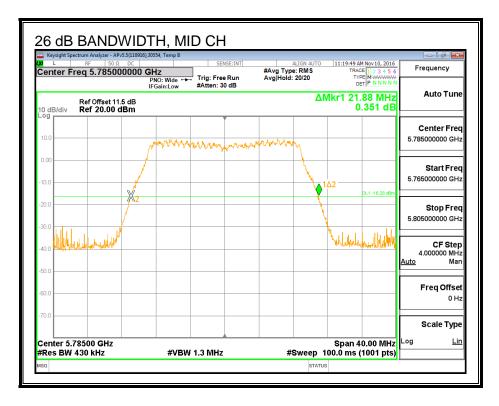
LIMITS

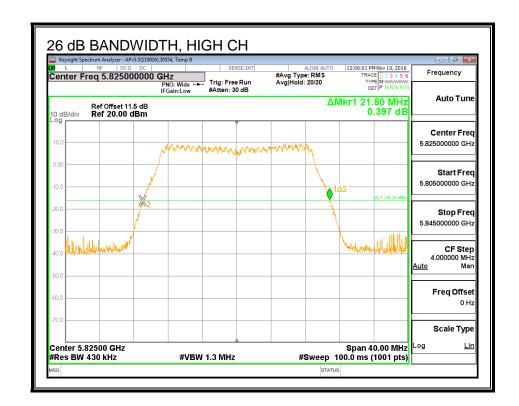
None, for reporting purposes only

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5745	22.000
Mid	5785	21.880
High	5825	21.800

26 dB BANDWIDTH







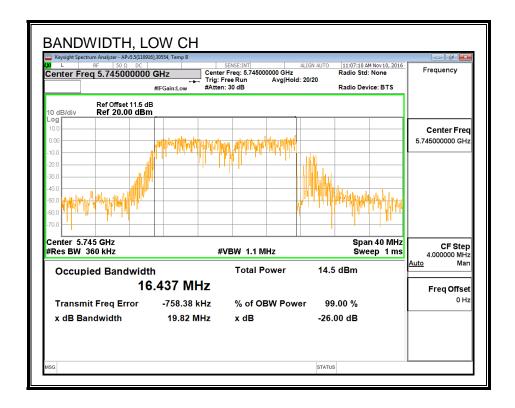
8.47.3. 99% BANDWIDTH

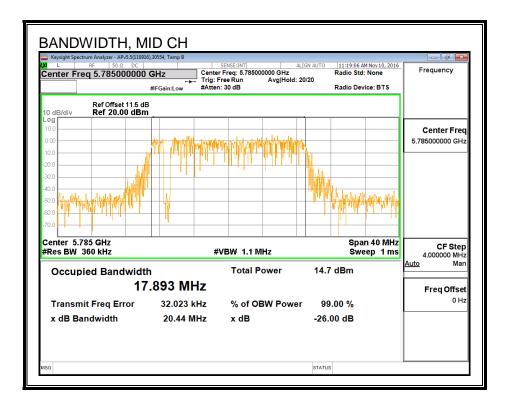
LIMITS

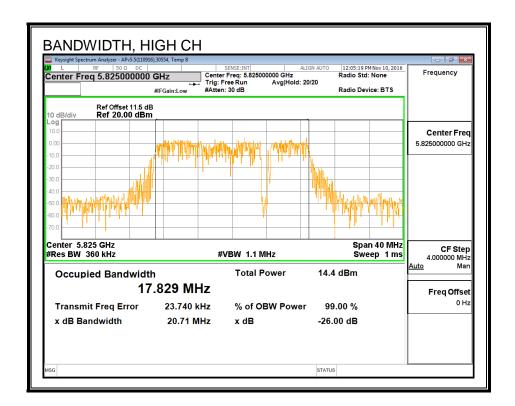
None; for reporting purposes only.

Frequency	99% Bandwidth
(MHz)	(MHz)
5745	16.437
5785	17.893
5825	17.829

99% BANDWIDTH







8.47.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

ID:	39472	Date:	12/14/16
-----	-------	-------	----------

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5745	16.45
Mid	5785	16.43
High	5825	16.39

8.47.5. 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.

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

ID: 39472 Date: 12/14/16

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
		for Power	
	(MHz)	(dBi)	(dBm)
Low	5745	3.54	30.00
Mid	5785	3.54	30.00
High	5825	3.54	30.00

Output Power Results

output: on or resource					
Channel	Frequency	Antenna A	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	16.45	16.45	30.00	-13.55
Mid	5785	16.43	16.43	30.00	-13.57
High	5825	16.39	16.39	30.00	-13.61

8.47.6. 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

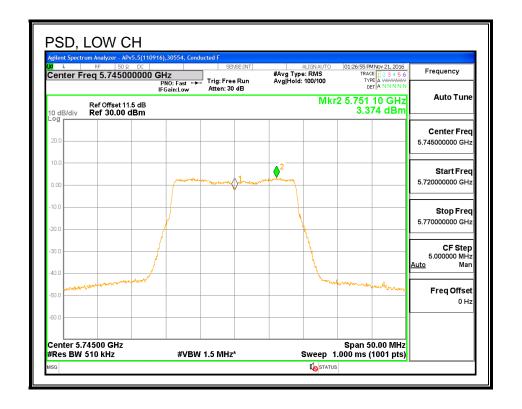
Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5745	3.54	30.00
Mid	5785	3.54	30.00
High	5825	3.54	30.00

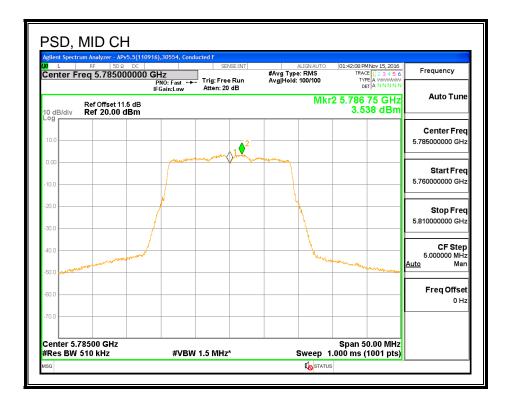
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
--------------------	------	--

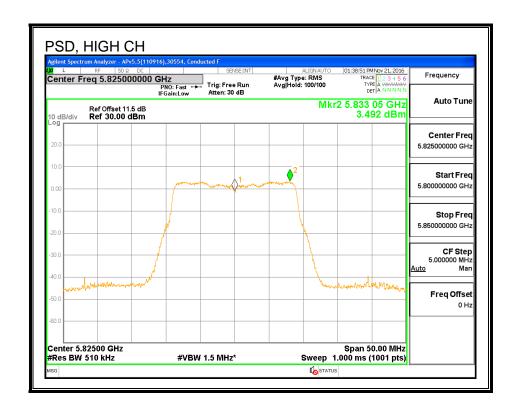
PSD Results

Channel	Frequency	Antenna A	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	3.37	3.37	30.00	-26.63
Mid	5785	3.54	3.54	30.00	-26.46
High	5825	3.49	3.49	30.00	-26.51

<u>PSD</u>







8.48. 802.11n HT20 ANTENNA B MODE IN THE 5.8 GHz BAND

8.48.1. 6 dB BANDWIDTH

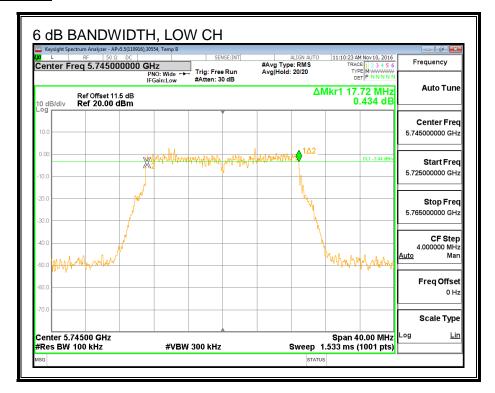
LIMITS

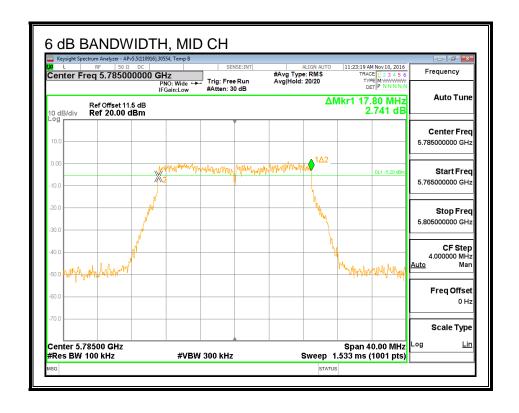
FCC §15.407 (e)

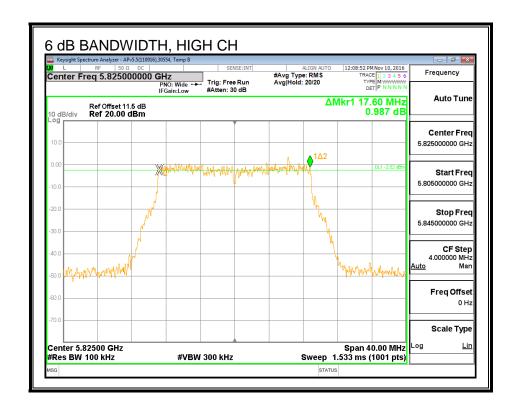
The minimum 6 dB bandwidth shall be at least 500 kHz.

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5745	17.720	0.5
Mid	5785	17.800	0.5
High	5825	17.600	0.5

6 dB BANDWIDTH







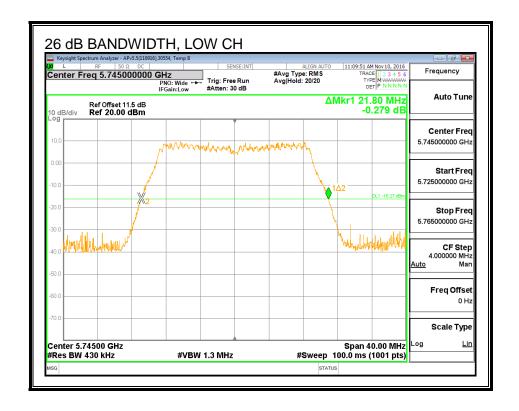
8.48.2. 26 dB BANDWIDTH

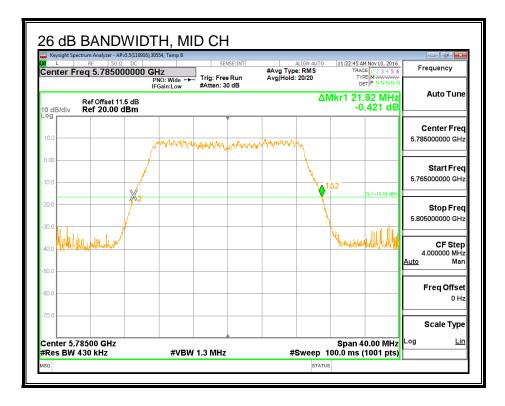
LIMITS

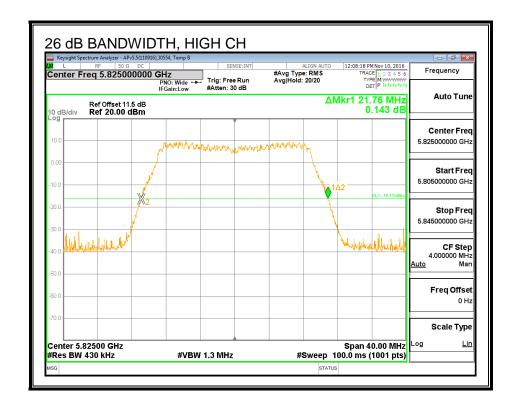
None, for reporting purposes only

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5745	21.800
Mid	5785	21.920
High	5825	21.760

26 dB BANDWIDTH







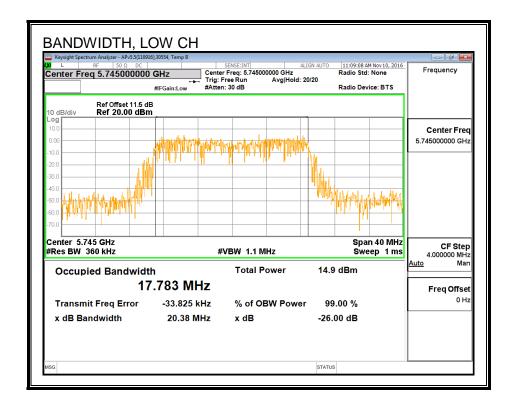
8.48.3. 99% BANDWIDTH

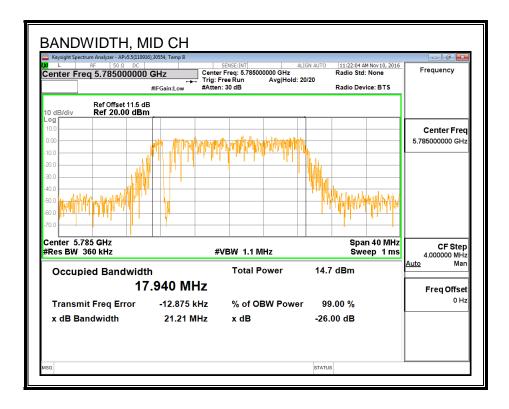
LIMITS

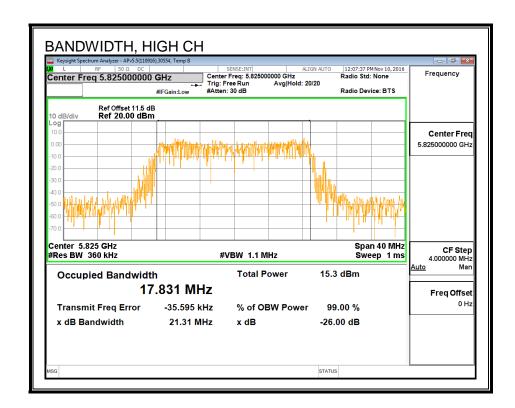
None; for reporting purposes only.

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5745	17.783
Mid	5785	17.940
High	5825	17.831

99% BANDWIDTH







8.48.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

ID:	39316	Date:	12/14/16
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Channel	Frequency	Power
	(MHz)	(dBm)
Low	5745	16.40
Mid	5785	16.46
High	5825	16.42

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.

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

ID.	39316	Date:	12/14/16
ID.	39310	Date.	12/14/10

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
		for Power	
	(MHz)	(dBi)	(dBm)
Low	5745	3.21	30.00
Mid	5785	3.21	30.00
High	5825	3.21	30.00

Output Power Results

	Catpat i Gwoi itodalio					
Channel	Frequency	Antenna B	Total	Power	Power	
		Meas	Corr'd	Limit	Margin	
		Power	Power			
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)	
Low	5745	16.40	16.40	30.00	-13.60	
Mid	5785	16.46	16.46	30.00	-13.54	
High	5825	16.42	16.42	30.00	-13.58	

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

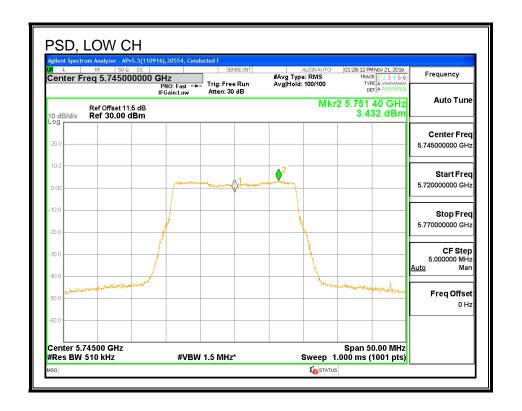
Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5745	3.21	30.00
Mid	5785	3.21	30.00
High	5825	3.21	30.00

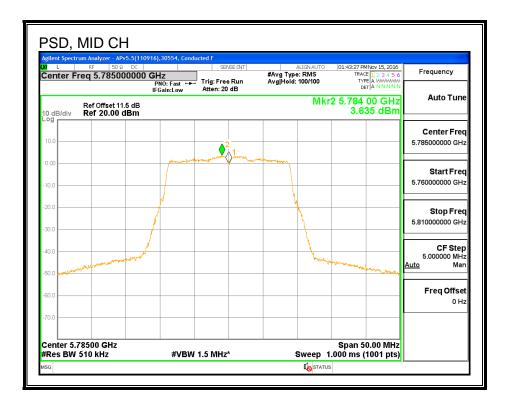
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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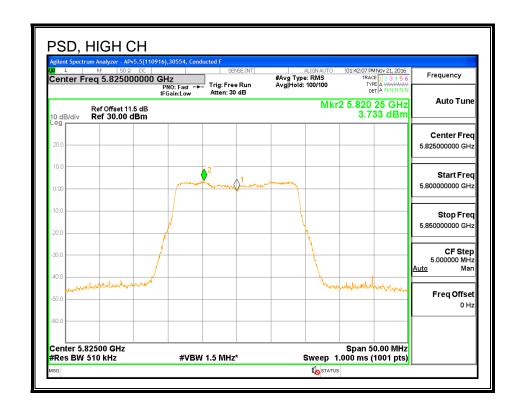
PSD Results

Channel	Frequency	Antenna B	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	3.43	3.43	30.00	-26.57
Mid	5785	3.64	3.64	30.00	-26.37
High	5825	3.73	3.73	30.00	-26.27

<u>PSD</u>







802.11n HT20 2Tx (ANTENNA A + ANTENNA B) CDD MODE IN THE 8.49. 5.8 GHz BAND

8.49.1. 6 dB BANDWIDTH

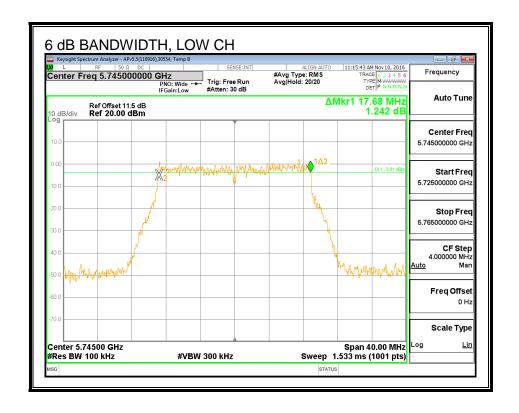
LIMITS

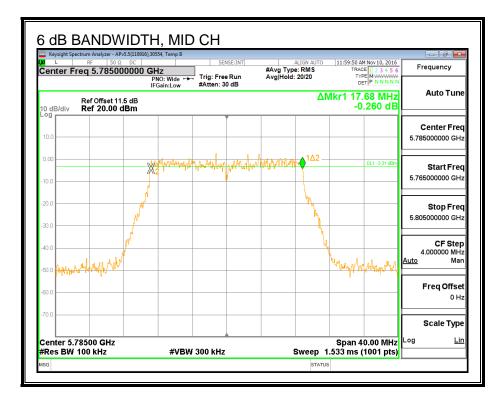
FCC §15.407 (e)

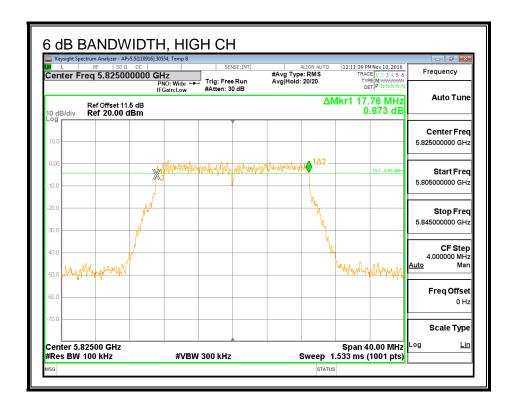
The minimum 6 dB bandwidth shall be at least 500 kHz.

Channel	Frequency	6 dB BW	6 dB BW	Minimum
		Antenna A	Antenna B	Limit
	(MHz)	(MHz)	(MHz)	(MHz)
Low	5745	17.680	17.560	0.5
Mid	5785	17.680	17.760	0.5
High	5825	17.760	17.680	0.5

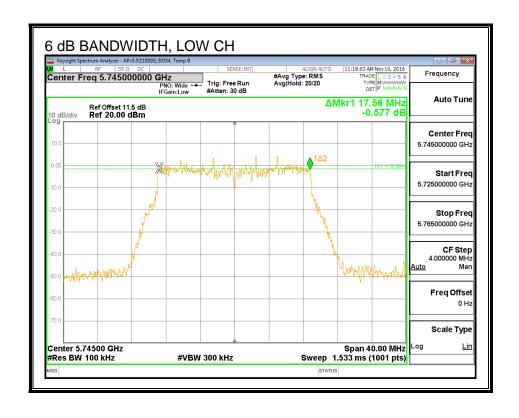
6 dB BANDWIDTH, ANTENNA A

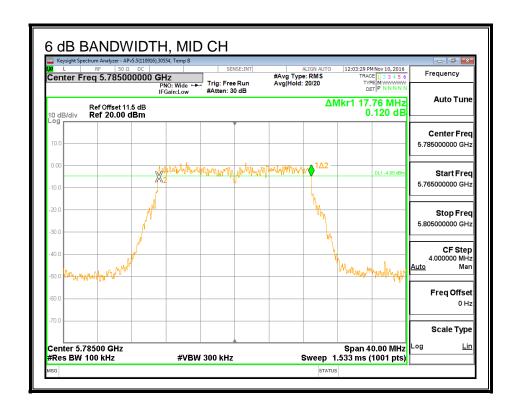


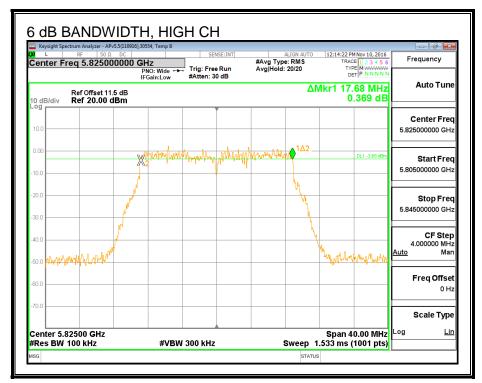




6 dB BANDWIDTH, ANTENNA B







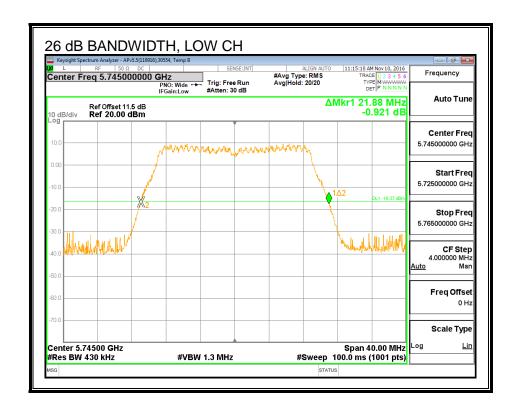
8.49.2. 26 dB BANDWIDTH

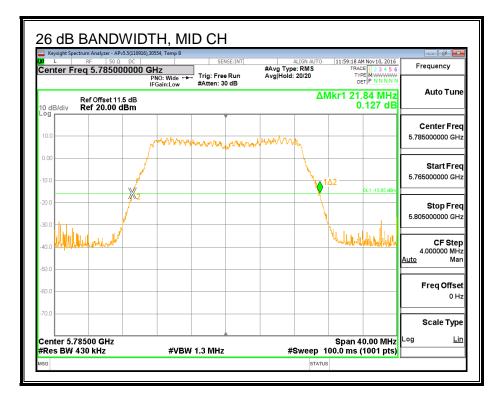
LIMITS

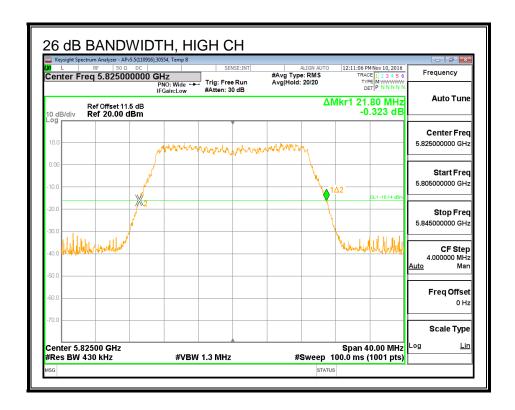
None, for reporting purposes only.

Channel	Frequency	26 dB BW	26 dB BW
		Antenna A	Antenna B
	(MHz)	(MHz)	(MHz)
Low	5745	21.880	21.840
Mid	5785	21.840	21.880
High	5825	21.800	21.800

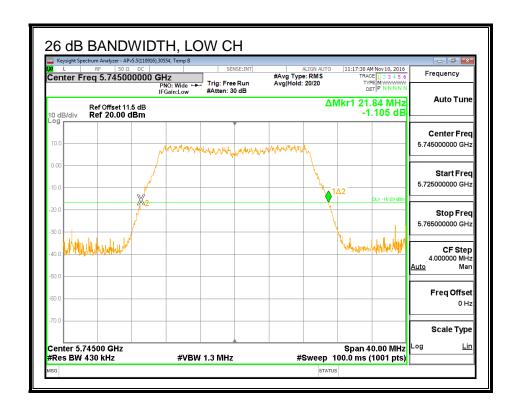
26 dB BANDWIDTH, ANTENNA A

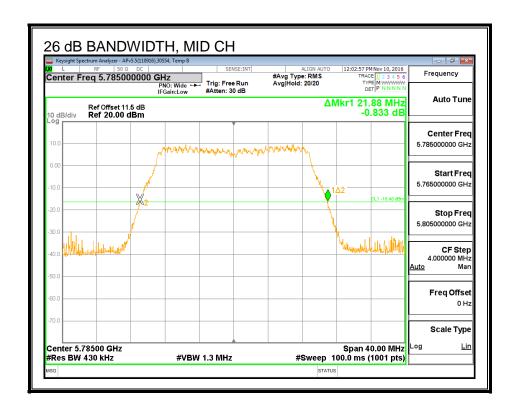


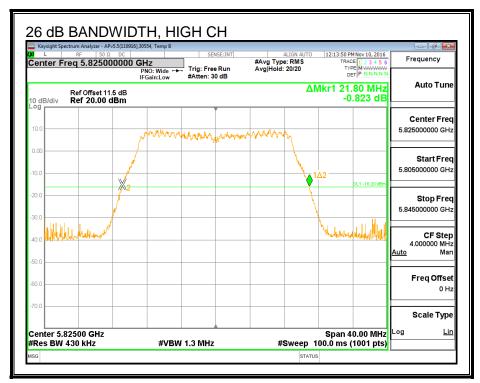




26 dB BANDWIDTH, ANTENNA B







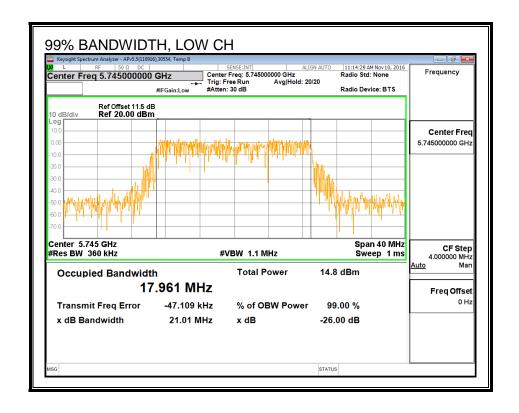
8.49.3. 99% BANDWIDTH

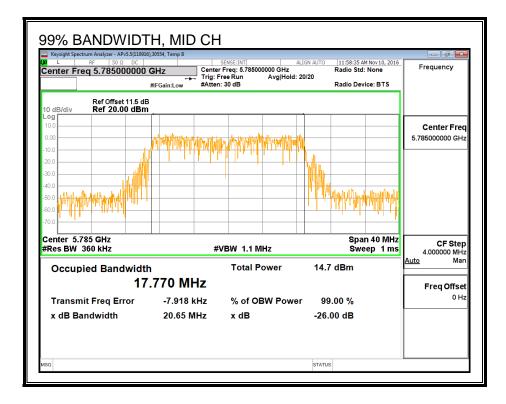
LIMITS

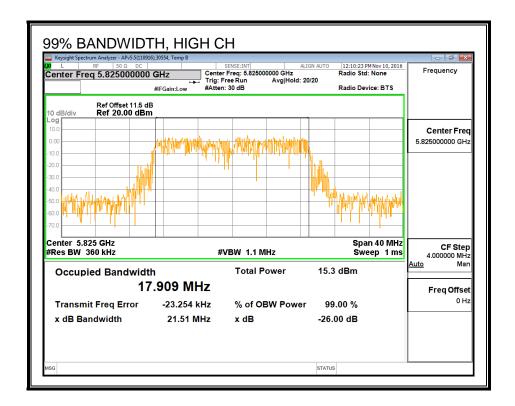
None; for reporting purposes only.

Channel	Frequency	99% BW	99% BW
		Antenna A	Antenna B
	(MHz)	(MHz)	(MHz)
Low	5745	17.961	17.858
Mid	5785	17.770	17.762
High	5825	17.909	17.764

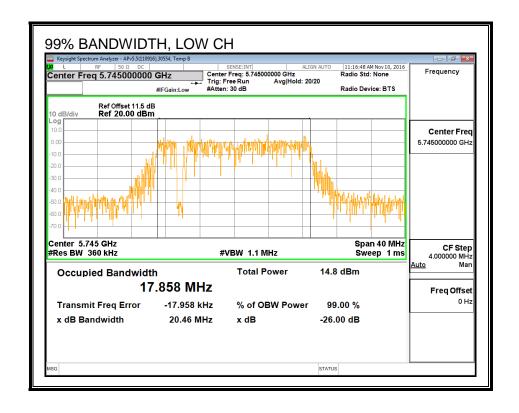
99% BANDWIDTH, ANTENNA A

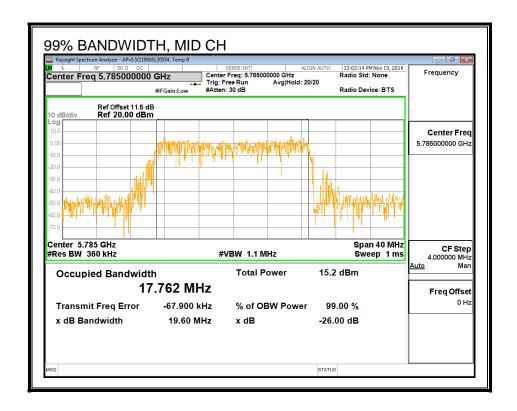


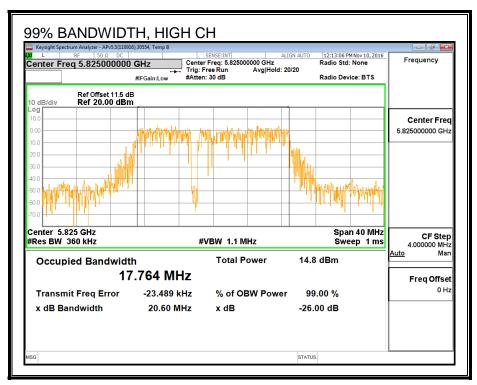




99% BANDWIDTH, ANTENNA B







8.49.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

ID:	39316	Date:	12/14/16
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Channel	Frequency	Antenna A	Antenna B	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5745	16.45	16.41	19.44
Mid	5785	16.43	16.47	19.46
High	5825	16.49	16.44	19.48

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.

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

Antenna A	Antenna B	Uncorrelated Chains
Gain	Gain	Directional
		Gain
(dBi)	(dBi)	(dBi)
3.54	3.21	3.38

RESULTS

ID.	39472	Date:	12/14/16
ID.	3371Z	Date.	12/17/10

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
		for Power	
	(MHz)	(dBi)	(dBm)
Low	5745	3.38	30.00
Mid	5785	3.38	30.00
High	5825	3.38	30.00

Output Power Results

Channel	Frequency	Antenna A	Antenna B	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	16.45	16.41	19.44	30.00	-10.56
Mid	5785	16.43	16.47	19.46	30.00	-10.54
High	5825	16.49	16.44	19.48	30.00	-10.52

8.49.6. 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

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

Antenna A	Antenna B	Correlated Chains
Gain	Gain	Directional
		Gain
(dBi)	(dBi)	(dBi)
3.54	3.21	6.39

RESULTS

Antenna Gain and Limits

Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5745	6.39	29.61
Mid	5785	6.39	29.61
High	5825	6.39	29.61

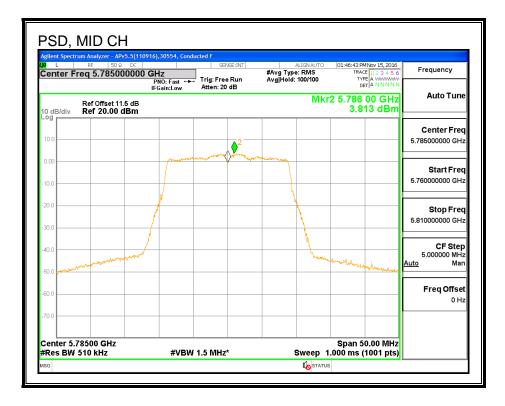
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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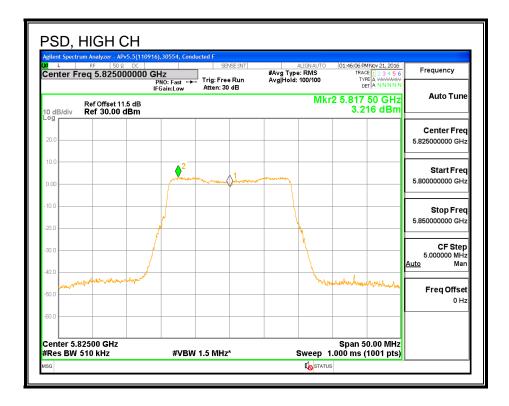
PSD Results

Channel	Frequency	Antenna A	Antenna B	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5745	3.35	3.54	6.46	29.61	-23.15
Mid	5785	3.81	3.72	6.78	29.61	-22.83
High	5825	3.22	3.30	6.27	29.61	-23.34

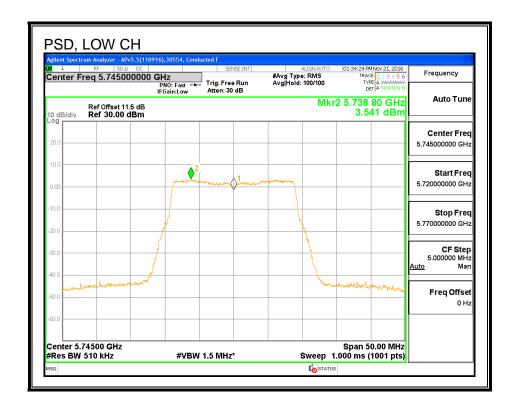
PSD, ANTENNA A

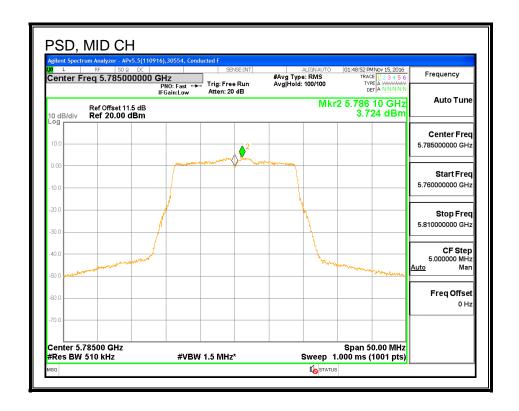






PSD, ANTENNA B







8.50. 802.11n HT20 2Tx (ANTENNA A + ANTENNA B) STBC MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT20 2Tx (ANTENNA A + ANTENNA B) CDD MODE IN THE 5.8 GHz BAND

802.11n HT40 ANTENNA A MODE IN THE 5.8 GHz BAND 8.51.

8.51.1. 6 dB BANDWIDTH

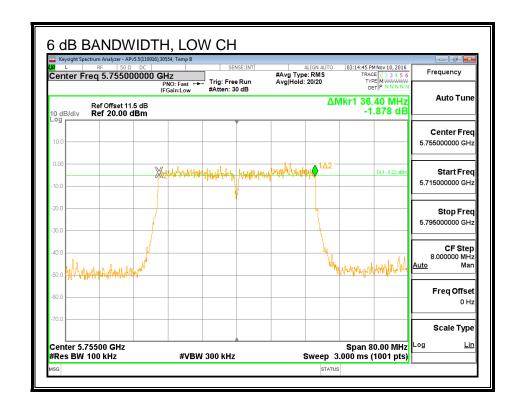
LIMITS

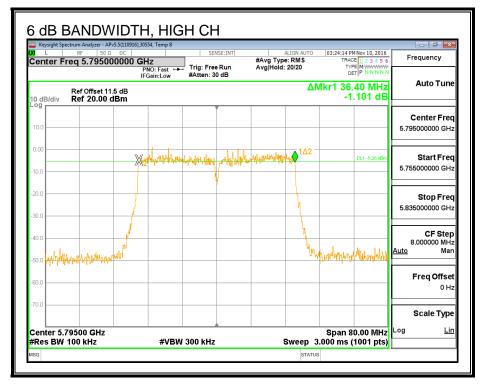
FCC §15.407 (e)

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

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5755	36.400	0.5
High	5795	36.400	0.5

6 dB BANDWIDTH





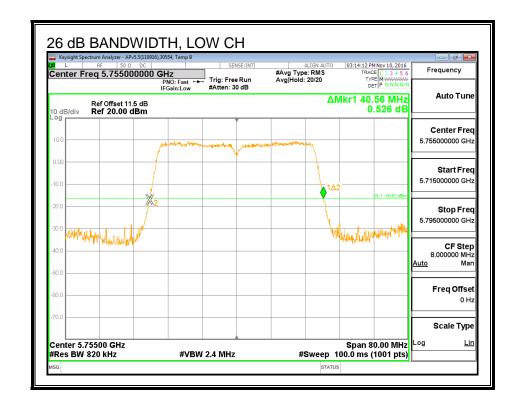
8.51.2. 26 dB BANDWIDTH

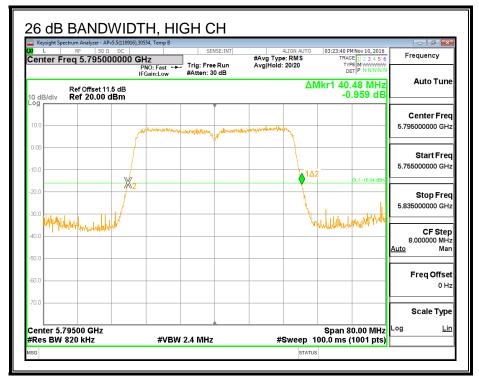
LIMITS

None, for reporting purposes only.

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5755	40.560
High	5795	40.480

26 dB BANDWIDTH





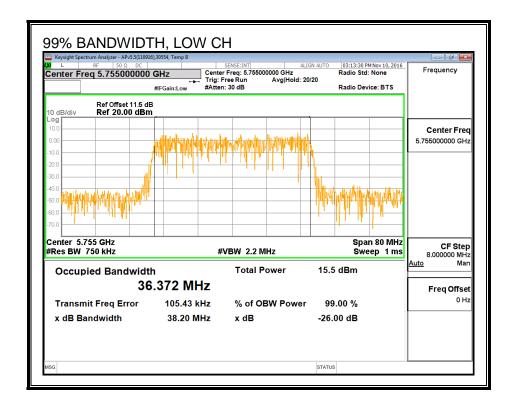
8.51.3. 99% BANDWIDTH

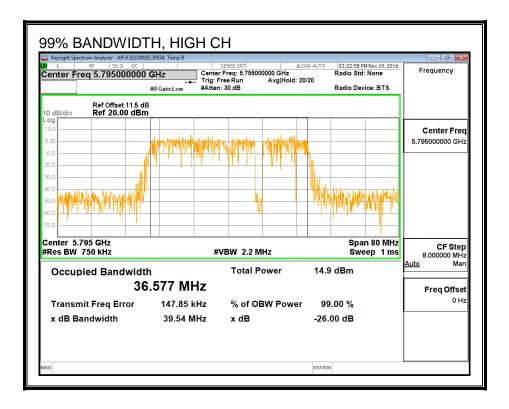
LIMITS

None; for reporting purposes only.

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.372
High	5795	36.577

99% BANDWIDTH





8.51.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

ID:	39316	Date:	12/14/16
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Channel	Frequency	Power
	(MHz)	(dBm)
Low	5755	16.43
High	5795	16.44

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.

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

ID:	39316	Date:	12/14/16
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Antenna Gain and Limit

Channel	Frequency	Directional	Power	
		Gain	Limit	
	(MHz)	(dBi)	(dBm)	
Low	5755	3.54	30.00	
High	5795	3.54	30.00	

Output Power Results

Channel	Frequency	Antenna A	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	/N/I LI=\	(dBm)	(dBm)	(dBm)	(dB)
	(MHz)	(ubili)	(ubili)	(ubili)	(ub)
Low	5755	16.43	16.43	30.00	-13.57

8.51.6. 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

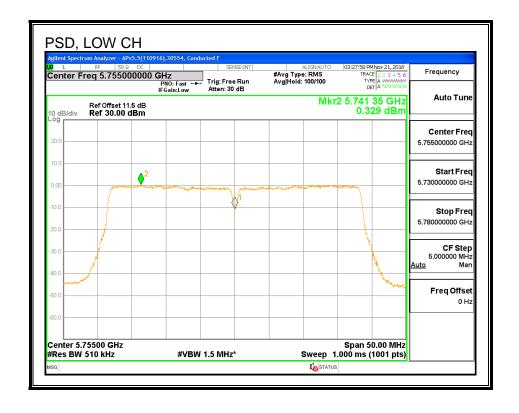
Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	3.54	30.00
High	5795	3.54	30.00

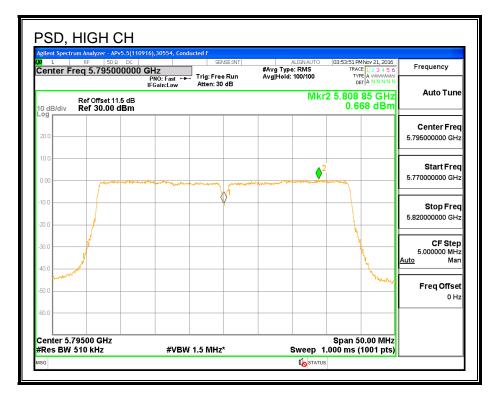
Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency	Antenna A	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	(MHz) 5755	(dBm) 0.329	(dBm) 0.43	(dBm) 30.00	(dB) -29.57

<u>PSD</u>





8.52. 802.11n HT40 ANTENNA B MODE IN THE 5.8 GHz BAND

8.52.1. 6 dB BANDWIDTH

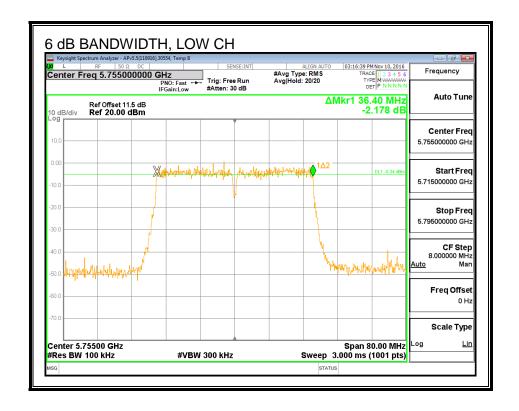
LIMITS

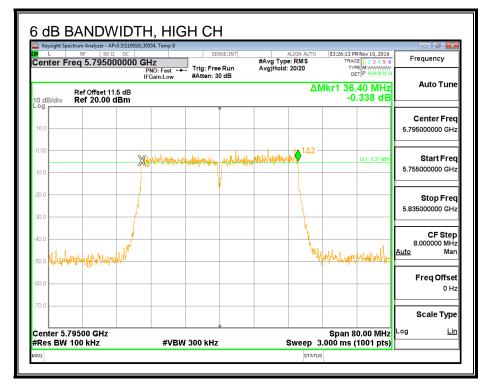
FCC §15.407 (e)

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

Channel	Frequency	6 dB Bandwidth	Minimum Limit
	(MHz)	(MHz)	(MHz)
Low	5755	36.400	0.5
High	5795	36.400	0.5

6 dB BANDWIDTH





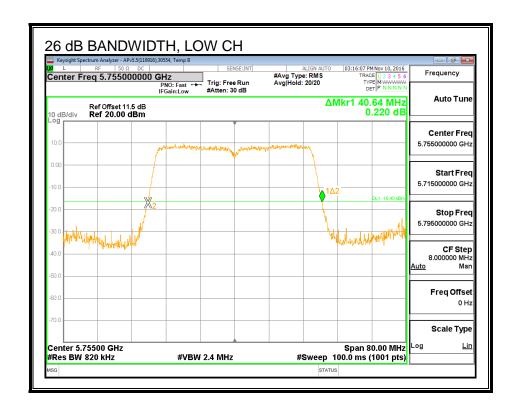
8.52.2. 26 dB BANDWIDTH

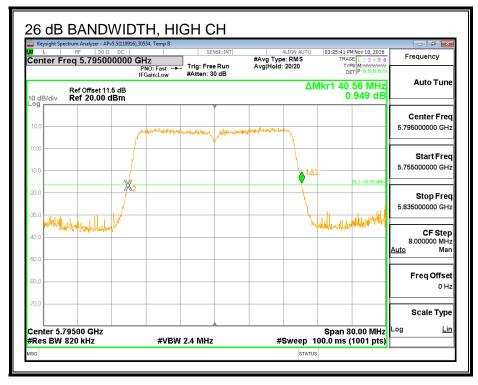
LIMITS

None, for reporting purposes only.

Channel Frequency		26 dB Bandwidth
	(MHz)	(MHz)
Low	5755	40.640
High	5795	40.560

26 dB BANDWIDTH



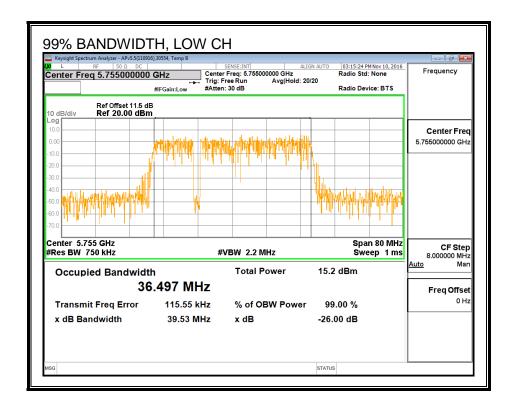


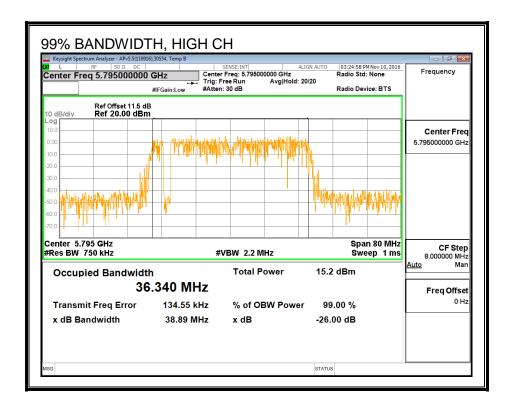
8.52.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.497
High	5795	36.340





DATE: FEBRUARY 15, 2017

MODEL: A1822

8.52.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

ID:	39316	Date:	12/14/16
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Channel	Frequency	Power
	(MHz)	(dBm)
Low	5755	16.43
High	5795	16.47

8.52.5. 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.

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

ID.	39316	Date:	12/14/16
ID.	39310	Date.	12/14/10

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	3.21	30.00
High	5795	3.21	30.00

Output Power Results

Channel	Frequency	Antenna B	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(5.5)	(15.)	(15)	(40)	(15)
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	(MHz) 5755	16.43	16.43	30.00	-13.57

8.52.6. 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

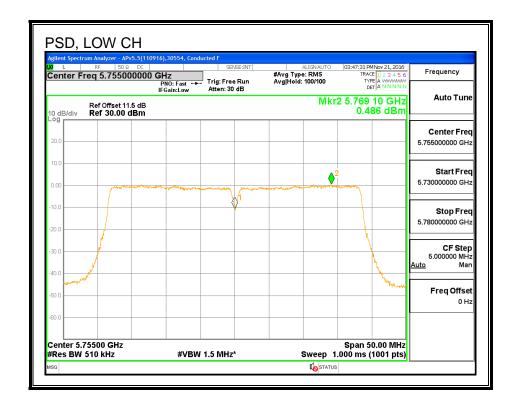
Channel	Frequency	Directional	PSD
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	3.21	30.00
High	5795	3.21	30.00

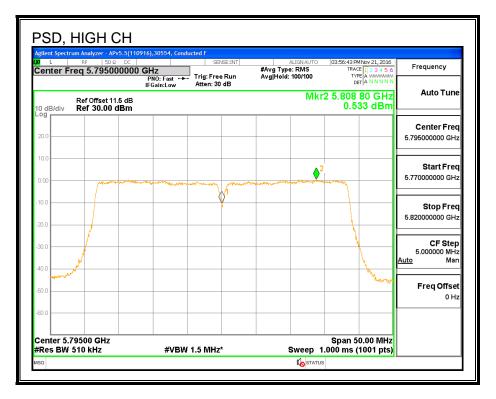
Duty Cycle CF (dB)	0.10	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency	Antenna B	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	(MHz) 5755	(dBm) 0.486	(dBm) 0.59	(dBm) 30.00	(dB) -29.41

<u>PSD</u>





802.11n HT40 2Tx (ANTENNA A + ANTENNA B) CDD MODE IN THE 8.53. 5.8 GHz BAND

8.53.1. 6 dB BANDWIDTH

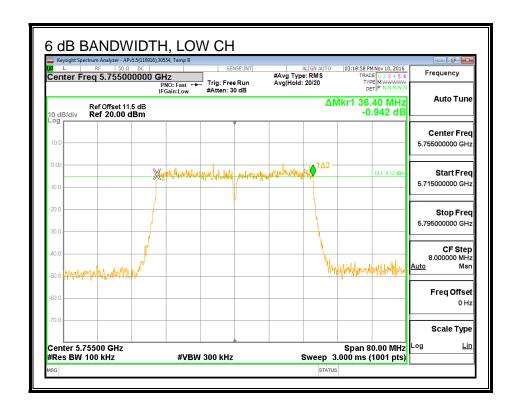
LIMITS

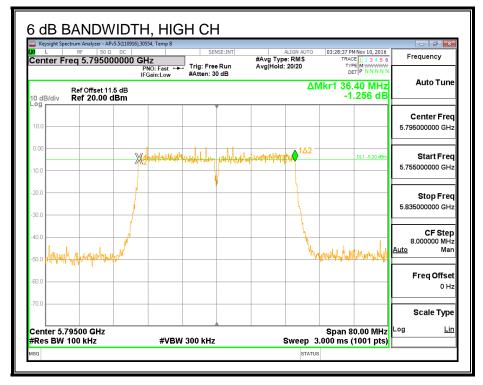
FCC §15.407 (e)

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

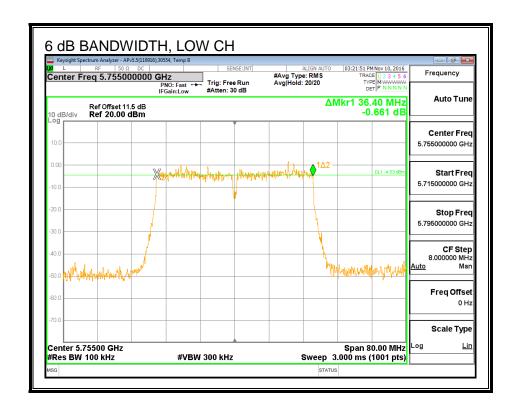
I	Channel	Frequency	6 dB BW	6 dB BW	Minimum
			Antenna A	Antenna B	Limit
		(MHz)	(MHz)	(MHz)	(MHz)
	Low	5755	36.400	36.400	0.5
	High	5795	36.400	36.400	0.5

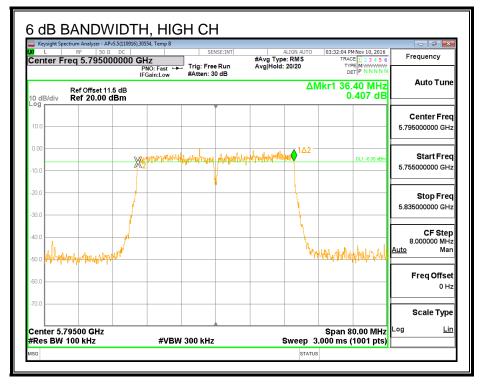
6 dB BANDWIDTH, ANTENNA A





6 dB BANDWIDTH, ANTENNA B





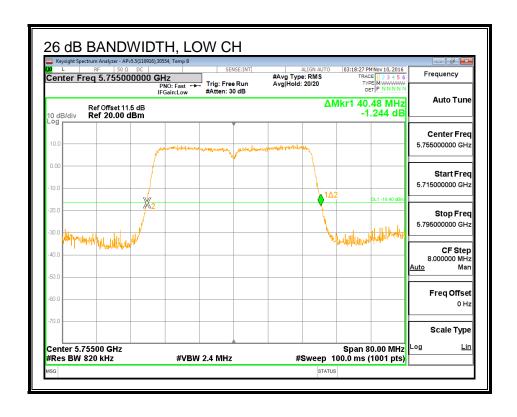
8.53.2. 26 dB BANDWIDTH

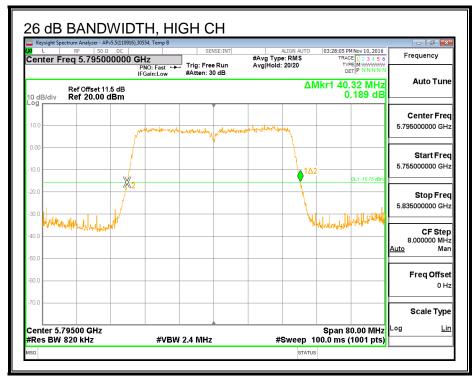
LIMITS

None, for reporting purposes only.

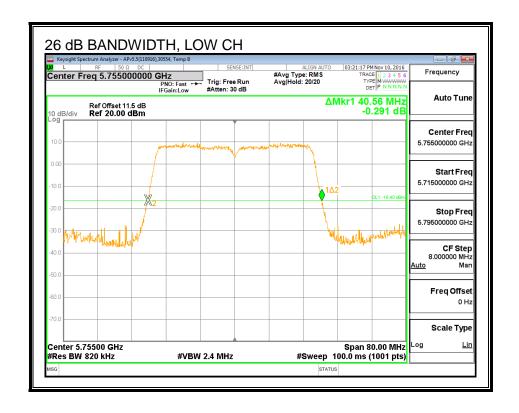
Channel	nannel Frequency 26 dB BW		26 dB BW
		Antenna A	Antenna B
	(MHz)	(MHz)	(MHz)
Low	5755	40.480	40.560
High	5795	40.320	40.480

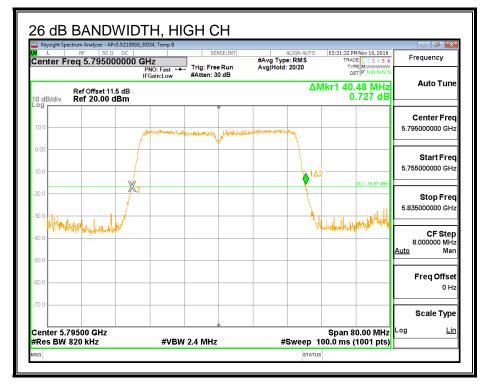
26 dB BANDWIDTH, ANTENNA A





26 dB BANDWIDTH, ANTENNA B





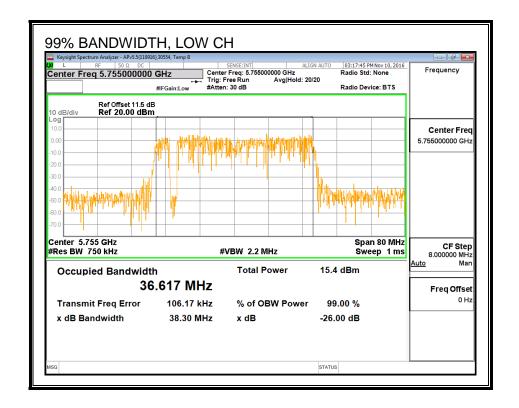
8.53.3. 99% BANDWIDTH

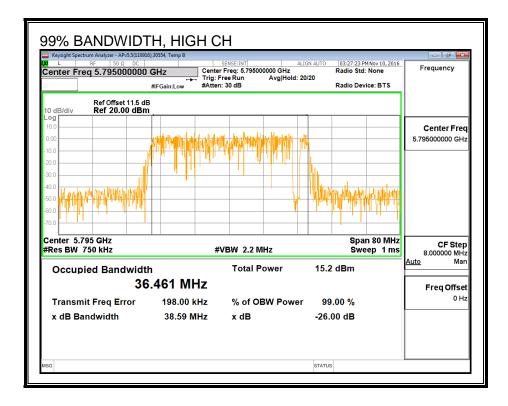
LIMITS

None; for reporting purposes only.

Channel	Frequency	99% BW	99% BW
		Antenna A	Antenna B
	(MHz)	(MHz)	(MHz)
Low	5755	36.617	36.595
High	5795	36.461	36.441

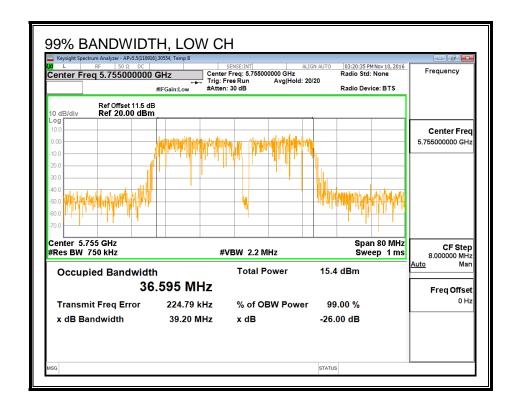
99% BANDWIDTH, ANTENNA A

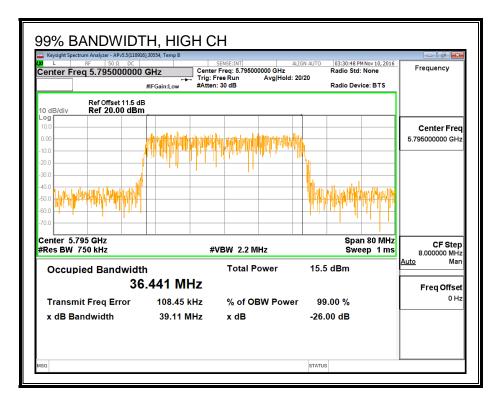




MODEL: A1822

99% BANDWIDTH, ANTENNA B





MODEL: A1822

8.53.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39316	Date:	12/14/16
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Average Power Results

Channel	Frequency	Antenna A	Antenna B	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5755	16.49	16.46	19.49
High	5795	16.47	16.45	19.47

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.

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

Antenna A	Antenna B	Uncorrelated Chains
Gain	Gain	Directional
		Gain
(dBi)	(dBi)	(dBi)
3.54	3.21	3.38

RESULTS

ID.	39316	Date:	12/14/16
ID.	39310	Date.	12/14/10

Antenna Gain and Limit

Channel	Frequency	Directional	Power
		Gain	Limit
	(MHz)	(dBi)	(dBm)
Low	5755	3.38	30.00
High	5795	3.38	30.00

Output Power Results

Channel	Frequency	Antenna A	Antenna B	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5755	16.49	16.46	19.49	30.00	-10.51
High	5795	16.47	16.45	19.47	30.00	-10.53

8.53.6. 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

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

Antenna A	Antenna B	Correlated Chains
Gain	Gain	Directional
		Gain
(dBi)	(dBi)	(dBi)
3.54	3.21	6.39

RESULTS

Antenna Gain and Limit

Channel	Frequency	Directional	PSD	
		Gain	Limit	
	(MHz)	(dBi)	(dBm)	
Low	5755	6.39	29.61	
High	5795	6.39	29.61	

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

PSD Results

Channel	Frequency	Antenna A	Antenna B	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5755	0.304	0.441	3.48	29.61	-26.13
High	5795	0.451	0.258	3.47	29.61	-26.14