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8.30.5. AVERAGE POWER (IC)

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

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ID:	50822	Date:	9/15/16

Average Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total
		Power	Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
Low	5190	5.50	5.50	5.50	10.27
High	5230	5.42	5.27	5.34	10.11

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8.30.6. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	9.99

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<u>RESULTS</u>

ID: 50822 D	ate: 9/15/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99% BW	Gain for Power	Gain for PPSD
		DVV	IOI POWEI	
	(MHz)	(MHz)	(dBi)	(dBi)
Low	5190	36.235	9.99	9.99
High	5230	36.215	9.99	9.99

0.58

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
Low	5190	23.00	13.01	10.00	0.01
High	5230	23.00	13.01	10.00	0.01

Duty Cycle CF (dB)

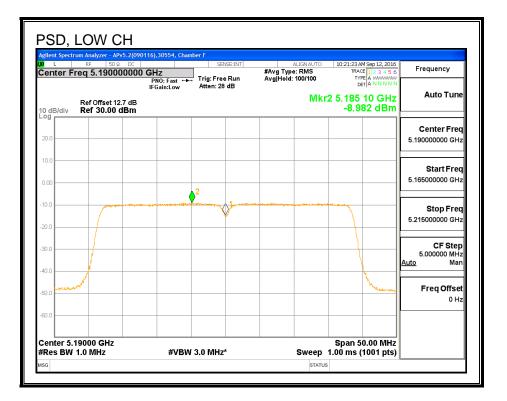
Included in Calculations of Corr'd PPSD

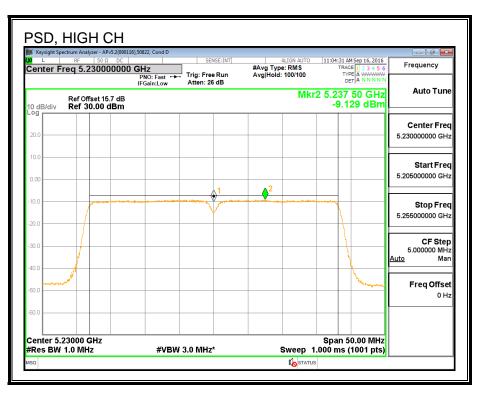
Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5190	5.50	5.50	5.50	10.27	13.01	-2.74
High	5230	5.42	5.27	5.34	10.11	13.01	-2.90

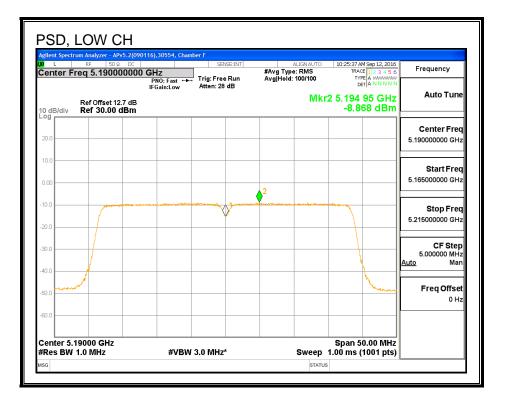
PPSD Results

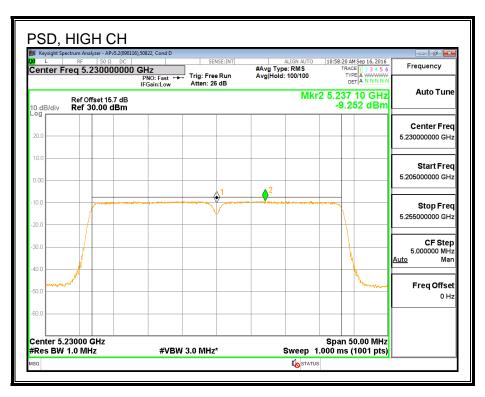
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5190	-8.98	-8.87	-8.80	-3.53	0.01	-3.54
High	5230	-9.13	-9.25	-8.97	-3.76	0.01	-3.77



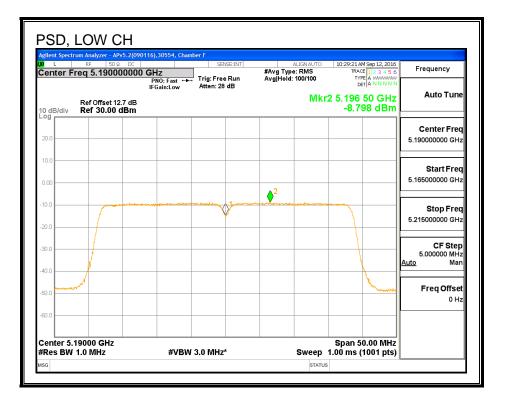


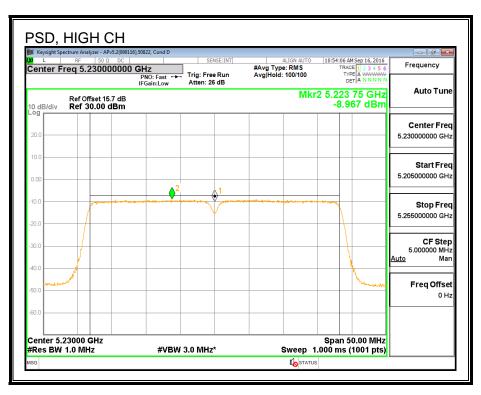
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8.31. 802.11ac VHT80 CHAIN 0 MODE IN THE 5.2 GHz BAND

8.31.1. 26 dB BANDWIDTH

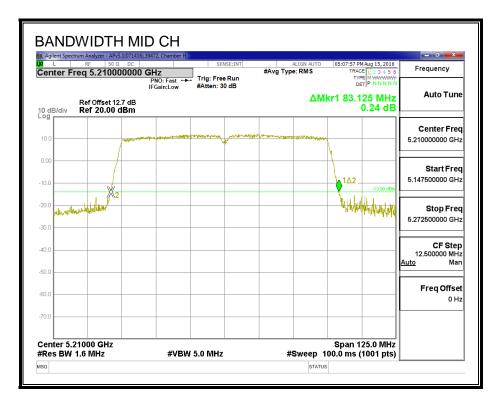
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5210	83.125

26 dB BANDWIDTH



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8.31.2. 99% BANDWIDTH

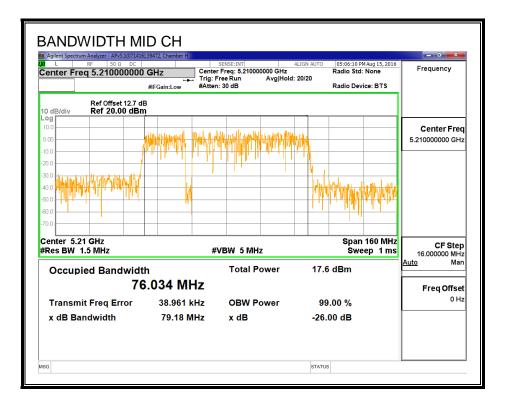
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5210	76.034

99% BANDWIDTH



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8.31.3. AVERAGE POWER (FCC/IC)

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 30554 Date: 9/13/16	
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Channel	Frequency	Power
	(MHz)	(dBm)
Mid	5210	11.98

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8.31.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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RESULTS

ID:	30554	Date:	9/13/16
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	3.80	3.80	24.00	11.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd PSD
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Output Power Results

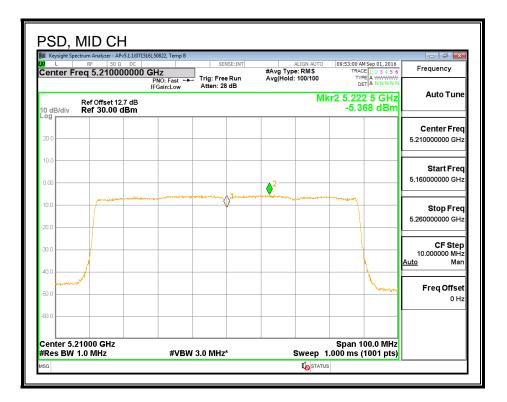
Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	11.98	11.98	24.00	-12.02

PSD Results

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-5.368	-5.28	11.00	-16.28

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<u>PSD</u>



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8.31.5. OUTPUT POWER AND PSD (IC)

<u>LIMITS</u>

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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.

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<u>RESULTS</u>

ID:	30554	Date:	9/13/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional
		99%	Gain
		BW	
	(MHz)	(MHz)	(dBi)
42	5210	76.034	3.80

Limits

Channel	Frequency	IC	Max	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	19.20	10.00	6.20

0.09

Duty Cycle CF (dB)

Included in Calculations of Corr'd PPSD

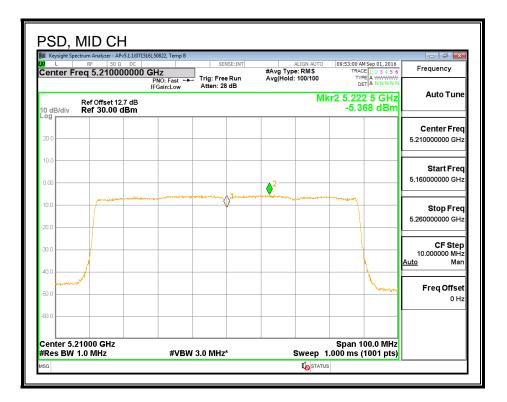
Output Power Results

Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	11.98	11.98	19.20	-7.22

PPSD Results

Channel	Frequency	Chain 0	Total	PPSD	PPSD
		Meas	Corr'd	Limit	Margin
		PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-5.368	-5.28	6.20	-11.48

<u>PSD</u>



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8.32. 802.11ac VHT80 CHAIN 1 MODE IN THE 5.2 GHz BAND

8.32.1. 26 dB BANDWIDTH

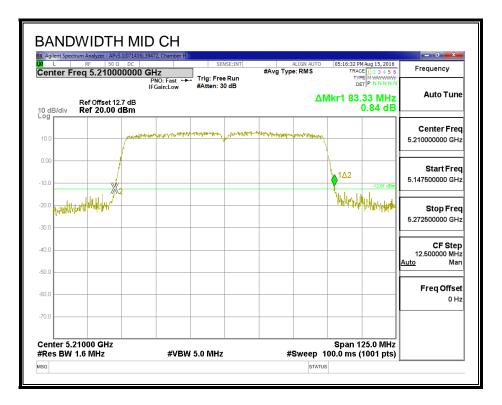
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5210	83.330

26 dB BANDWIDTH



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8.32.2. 99% BANDWIDTH

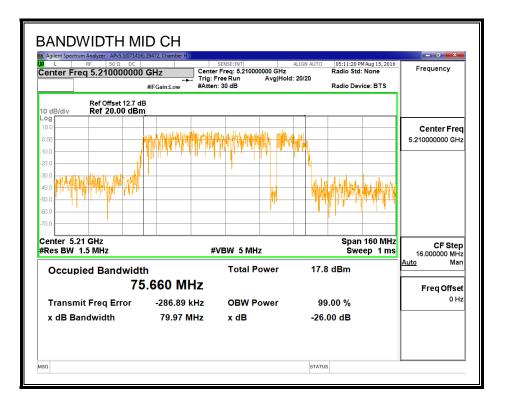
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5210	75.660

99% BANDWIDTH



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8.32.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 30554	Date:	9/13/16
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Channel	Frequency	Power	
	(MHz)	(dBm)	
Mid	5210	11.78	

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8.32.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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RESULTS

ID:	30554	Date:	9/13/16
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	6.70	6.70	23.30	10.30

	Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd PSD
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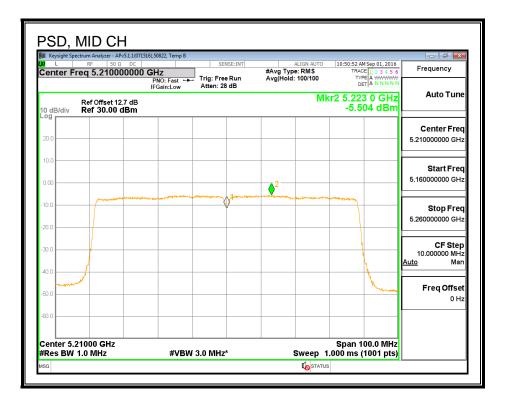
Output Power Results

Channel	Frequency	Chain 1	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	11.78	11.78	23.30	-11.52

PSD Results

Channel	Frequency	Chain 1	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-5.504	-5.41	10.30	-15.71

<u>PSD</u>



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8.32.5. OUTPUT POWER AND PSD (IC)

<u>LIMITS</u>

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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.

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<u>RESULTS</u>

ID:	30554	Date:	9/13/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional
		99%	Gain
		BW	
	(MHz)	(MHz)	(dBi)
42	5210	75.660	6.70

Limits

Channel	Frequency	IC	Max	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	16.30	10.00	3.30

0.09

Duty Cycle CF (dB)

Included in Calculations of Corr'd PPSD

Output Power Results

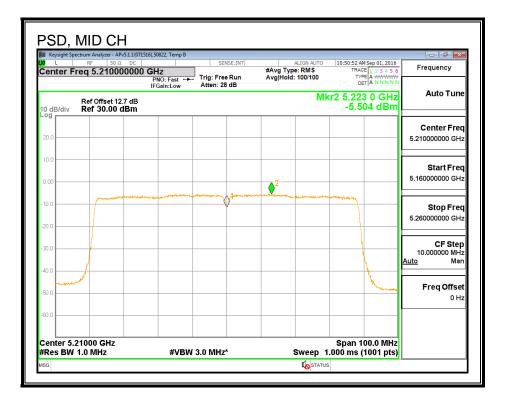
Channel	Frequency	Chain 1	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	11.78	11.78	16.30	-4.52

PPSD Results

Channel	Frequency	Chain 1	Total	PPSD	PPSD
		Meas	Corr'd	Limit	Margin
		PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-5.504	-5.41	3.30	-8.71

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<u>PSD</u>



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8.33. 802.11ac VHT80 CHAIN 2 MODE IN THE 5.2 GHz BAND

8.33.1. 26 dB BANDWIDTH

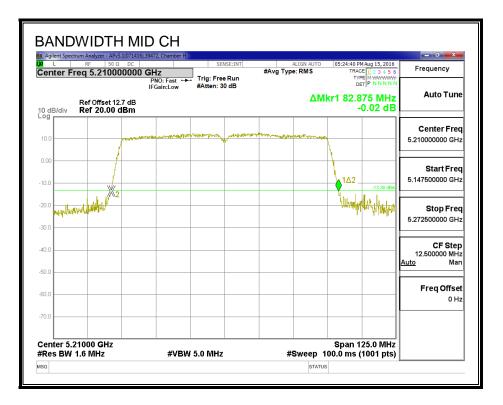
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5210	82.875

26 dB BANDWIDTH



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8.33.2. 99% BANDWIDTH

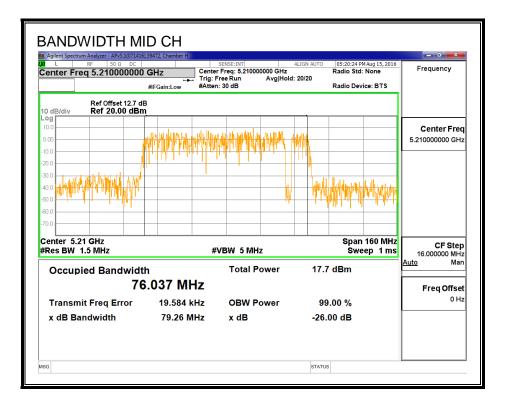
<u>LIMITS</u>

None; for reporting purposes only.

<u>RESULTS</u>

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5210	76.037

99% BANDWIDTH



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8.33.3. AVERAGE POWER (FCC/IC)

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 30554 Date: 9/13/16	
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Channel	Frequency	Power
	(MHz)	(dBm)
Mid	5210	11.93

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8.33.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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<u>RESULTS</u>

ID:	30554	Date:	9/13/16
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	4.90	4.90	24.00	11.00

Duty Cycle CF (dB)	0.09	Included in Calculations of Corr'd PSD
	0.00	

Output Power Results

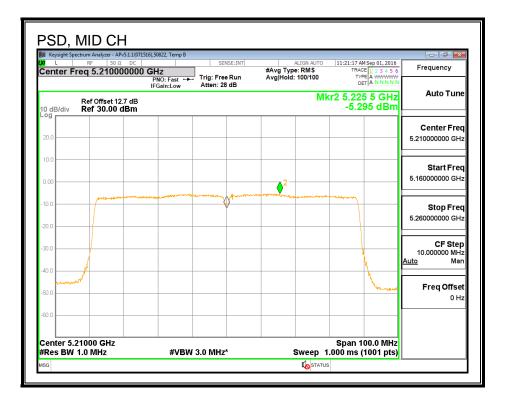
Channel	Frequency	Chain 2	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	11.93	11.93	24.00	-12.07

PSD Results

Channel	Frequency	Chain 2	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-5.295	-5.21	11.00	-16.21

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<u>PSD</u>



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8.33.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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.

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<u>RESULTS</u>

ID:	30554	Date:	9/13/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional
		99%	Gain
		BW	
	(MHz)	(MHz)	(dBi)
42	5210	76.037	4.90

Limits

Channel	Frequency	IC	Max	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	18.10	10.00	5.10

0.09

Duty Cycle CF (dB)

Included in Calculations of Corr'd PPSD

Output Power Results

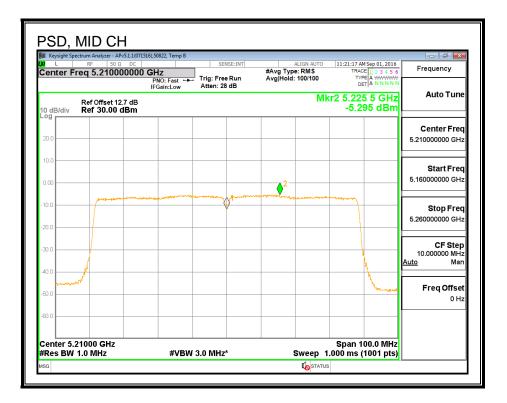
Channel	Frequency	Chain 2	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	11.93	11.93	18.10	-6.17

PPSD Results

Channel	Frequency	Chain 2	Total	PPSD	PPSD
		Meas	Corr'd	Limit	Margin
		PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-5.295	-5.21	5.10	-10.31

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<u>PSD</u>



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8.34. 802.11ac VHT80 2Tx (CHAIN 0 + CHAIN 1) CDD MODE IN THE 5.2 GHz BAND

8.34.1. 26 dB BANDWIDTH

<u>LIMITS</u>

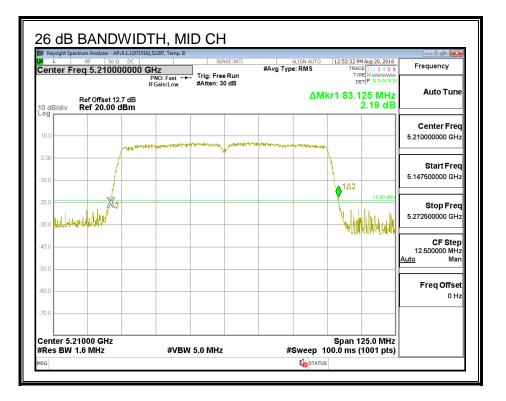
None; for reporting purposes only.

RESULTS

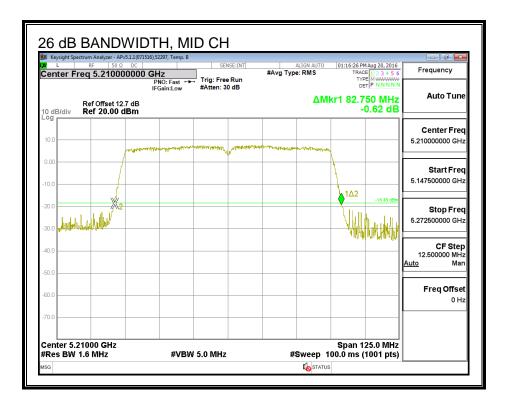
Channel	Frequency	26 dB BW	26 dB BW	
		Chain 0	Chain 1	
	(MHz)	(MHz)	(MHz)	
Mid	5210	83.125	82.750	

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26 DB BANDWIDTH, CHAIN 0



26 DB BANDWIDTH, CHAIN 1



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8.34.2. 99% BANDWIDTH

<u>LIMITS</u>

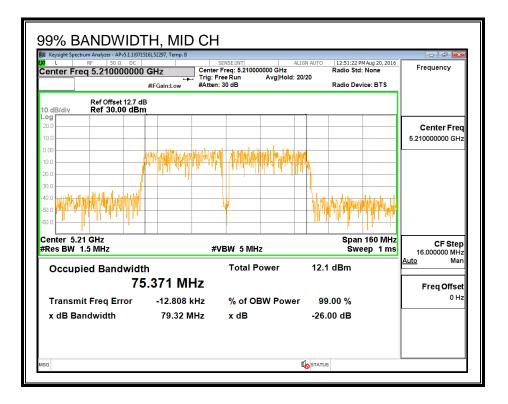
None; for reporting purposes only.

RESULTS

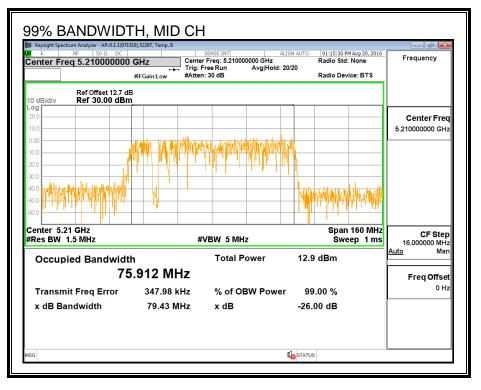
Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Mid	5210	75.371	75.912

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99% BANDWIDTH, CHAIN 0



99% BANDWIDTH, CHAIN 1



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8.34.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	43573	Date:	9/7/16

Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Mid	5210	7.98	7.99	11.00

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8.34.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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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)
3.80	6.70	5.49

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)
3.80	6.70	8.38

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<u>RESULTS</u>

ID: 43573 Date: 9/7/16	ID:		ID:	43573	Date:	9/7/16	
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	5.49	8.38	24.00	8.62

Duty Cycle CF (dB)	0.18	Included in Calculations of Corr'd PSD
	00	

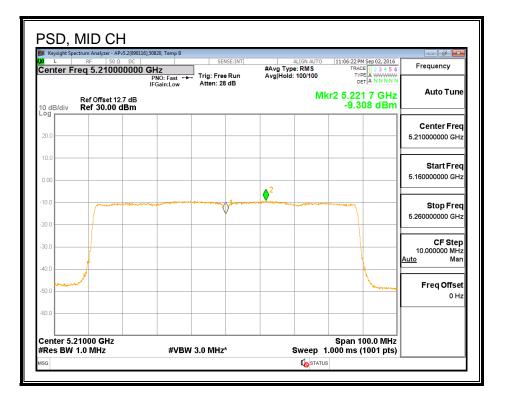
Output Power Results

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	5210	7.98	7.99	11.00	24.00	-13.00

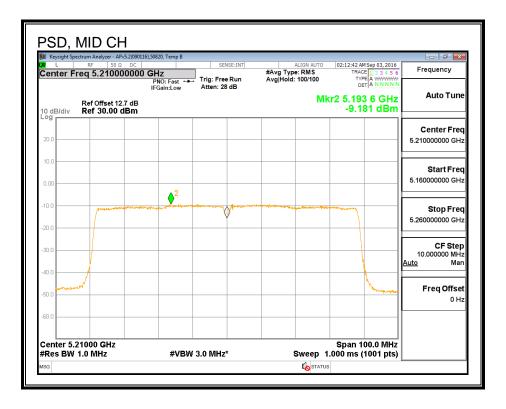
PSD Results

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	5210	-9.31	-9.18	-6.05	8.62	-14.67

PSD, CHAIN 0



PSD, CHAIN 1



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8.34.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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:

Chain 0	Chain 1	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	6.70	5.49

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)
3.80	6.70	8.38

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<u>RESULTS</u>

ID:	43573	Date:	9/7/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.371	5.49	8.38

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	17.51	10.00	1.62

Duty Cycle CF (dB)	0.18	Included in Calculations of Corr'd PPSD
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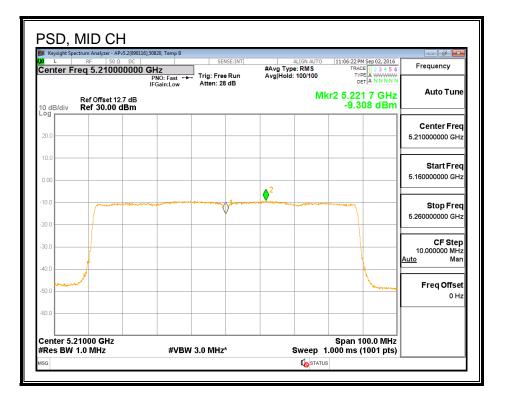
Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.98	7.99	11.00	17.51	-6.51

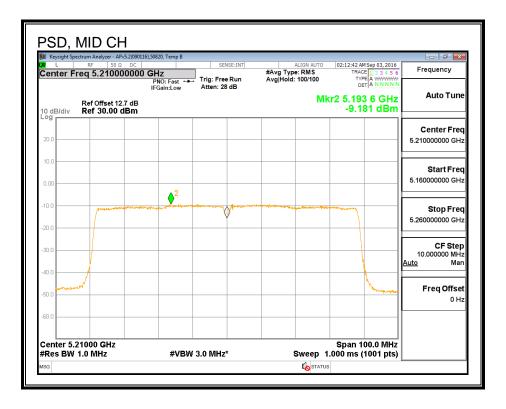
PPSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.31	-9.18	-6.05	1.62	-7.67

PSD, CHAIN 0



PSD, CHAIN 1



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8.35. 802.11ac VHT80 2Tx (CHAIN 0 + CHAIN 2) CDD MODE IN THE 5.2 GHz BAND

8.35.1. 26 dB BANDWIDTH

<u>LIMITS</u>

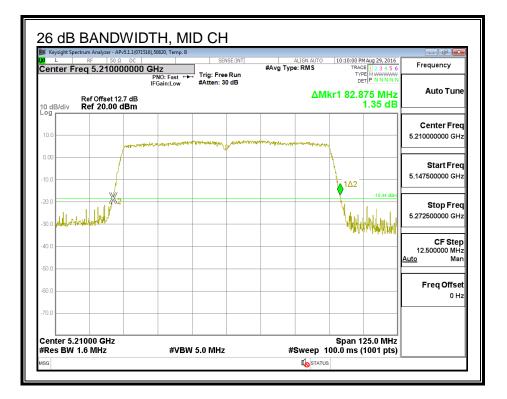
None; for reporting purposes only.

RESULTS

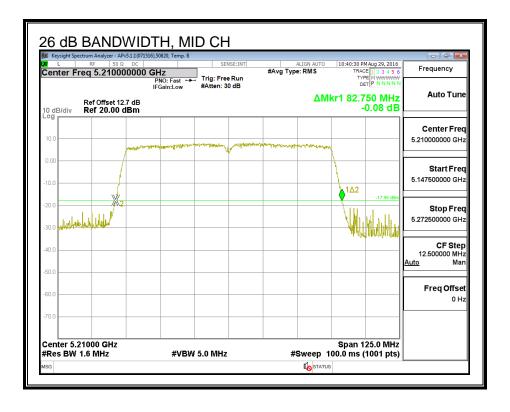
Channel	Frequency	26 dB BW	26 dB BW
		Chain 0	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	82.875	82.750

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26 DB BANDWIDTH, CHAIN 0



26 DB BANDWIDTH, CHAIN 2



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8.35.2. 99% BANDWIDTH

<u>LIMITS</u>

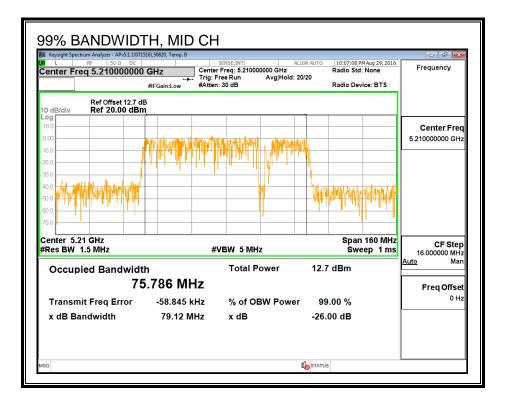
None; for reporting purposes only.

RESULTS

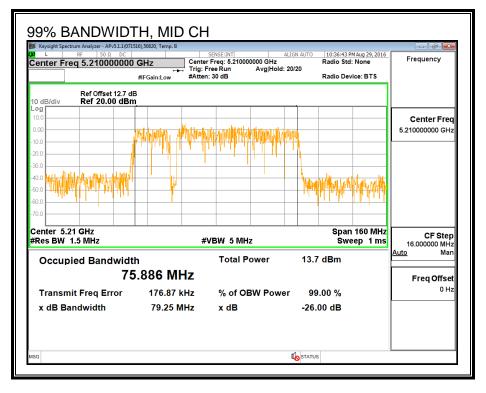
Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	75.786	75.886

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99% BANDWIDTH, CHAIN 0



99% BANDWIDTH, CHAIN 2



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8.35.3. AVERAGE POWER (FCC/IC)

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 43573 Date: 9/7/16

Channel	Frequency	Chain 0	Chain 2	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)

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8.35.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 2	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	4.90	4.38

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

Chain 0	Chain 2	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	4.90	7.38

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<u>RESULTS</u>

ID: 43573 Date: 9/7/16	ID:		ID:	43573	Date:	9/7/16	
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power for PSD			
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	4.38	7.38	24.00	9.62

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

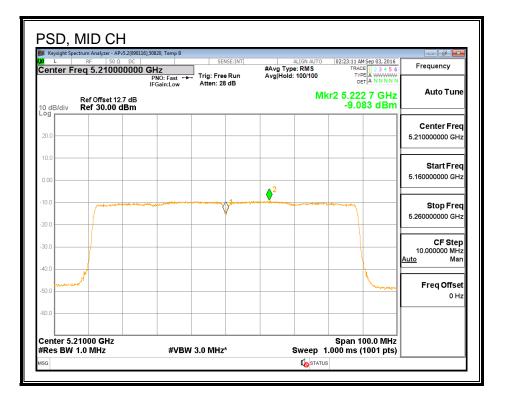
Channel	Frequency	Chain 0	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.95	7.82	10.90	24.00	-13.10

PSD Results

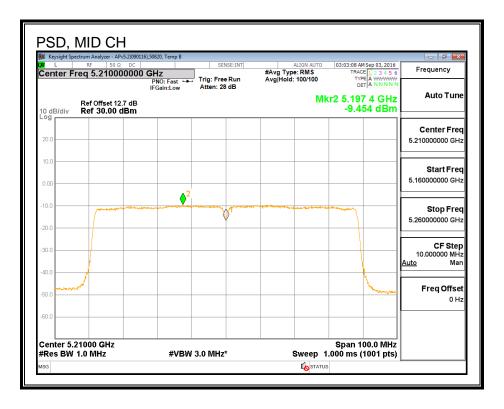
Channel	Frequency	Chain 0	Chain 2	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-9.08	-9.45	-6.07	9.62	-15.69

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PSD, CHAIN 0



PSD, CHAIN 2



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8.35.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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:

Chain 0	Chain 2	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	4.90	4.38

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

Chain 0	Chain 2	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	4.90	7.38

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<u>RESULTS</u>

ID:	43573	Date:	9/7/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.786	4.38	7.38

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	18.62	10.00	2.62

Duty Cycle CF (dB) 0.1	8	Included in Calculations of Corr'd PPSD
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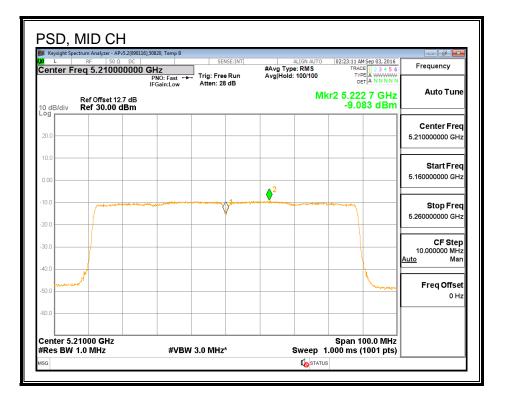
Output Power Results

Channel	Frequency	Chain 0	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.95	7.82	10.90	18.62	-7.72

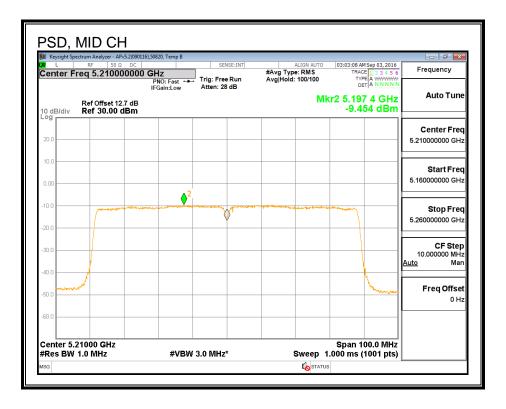
PPSD Results

Channel	Frequency	Chain 0	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.08	-9.45	-6.07	2.62	-8.69

PSD, CHAIN 0



PSD, CHAIN 2



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8.36. 802.11ac VHT80 2Tx (CHAIN 1 + CHAIN 2) CDD MODE IN THE 5.2 GHz BAND

8.36.1. 26 dB BANDWIDTH

<u>LIMITS</u>

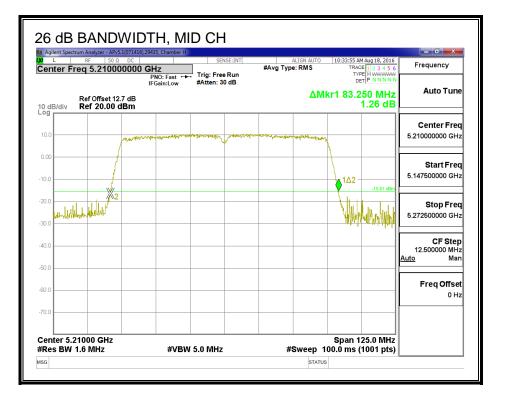
None; for reporting purposes only.

RESULTS

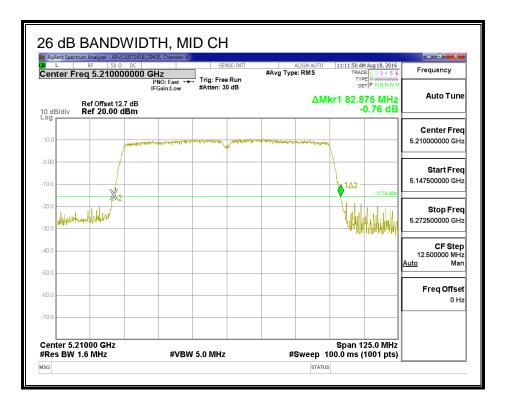
Channel	Frequency	26 dB BW	26 dB BW
		Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	83.250	82.875

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26 DB BANDWIDTH, CHAIN 1



26 DB BANDWIDTH, CHAIN 2



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8.36.2. 99% BANDWIDTH

<u>LIMITS</u>

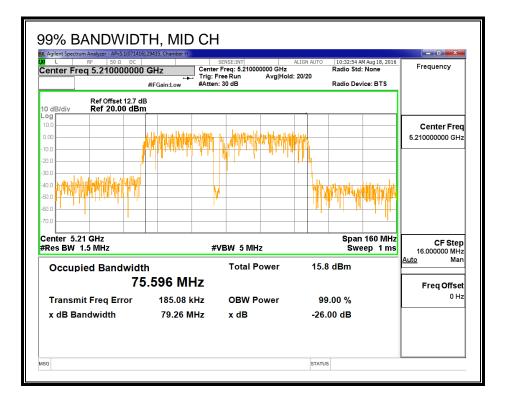
None; for reporting purposes only.

RESULTS

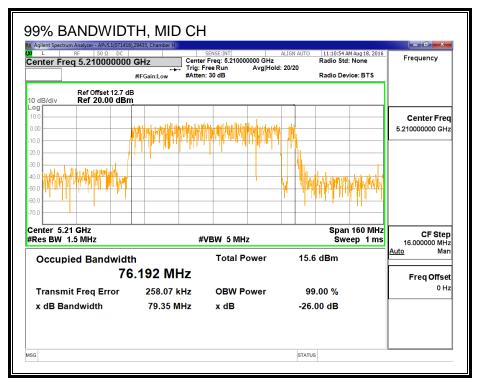
Channel	Frequency	99% BW	99% BW
		Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	75.596	76.192

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99% BANDWIDTH, CHAIN 1



99% BANDWIDTH, CHAIN 2



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8.36.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	43573	Date:	9/7/16

Average Power Results

Channel	Frequency	Chain 1	Chain 2	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)

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8.36.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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DIRECTIONAL ANTENNA GAIN

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

Chain 1	Chain 2	Uncorrelated Chains	
Antenna	Antenna	Directional	
Gain	Gain	Gain	
(dBi)	(dBi)	(dBi)	
6.70	4.90	5.89	

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

Chain 1	Chain 2	Correlated Chains	
Antenna	Antenna	Directional	
Gain	Gain	Gain	
(dBi)	(dBi)	(dBi)	
6.70	4.90	8.86	

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<u>RESULTS</u>

ID: 43573 Date: 9/7/16	ID:		ID:	43573	Date:	9/7/16	
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	5.89	8.86	24.00	8.14

Duty Cycle CF (dB)	0.18	Included in Calculations of Corr'd PSD
	00	

Output Power Results

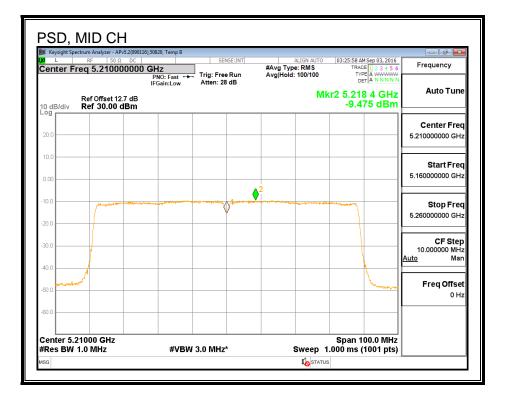
Channel	Frequency	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.96	7.95	10.97	24.00	-13.03

PSD Results

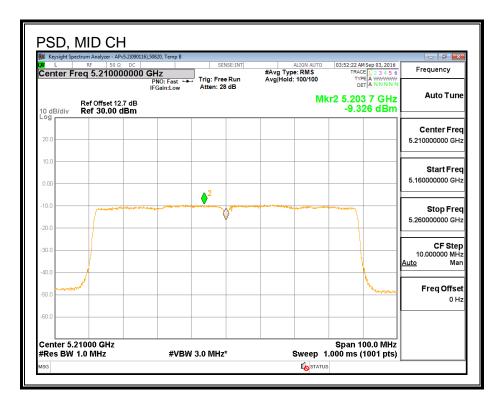
Channel	Frequency	Chain 1	Chain 2	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-9.48	-9.33	-6.21	8.14	-14.35

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PSD, CHAIN 1



PSD, CHAIN 2



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8.36.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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:

Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
6.70	4.90	5.89

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

Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
6.70	4.90	8.86

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<u>RESULTS</u>

ID:	43573	Date:	9/7/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.596	5.89	8.86

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	17.11	10.00	1.14

Duty Cycle CF (dB) 0.1	8	Included in Calculations of Corr'd PPSD
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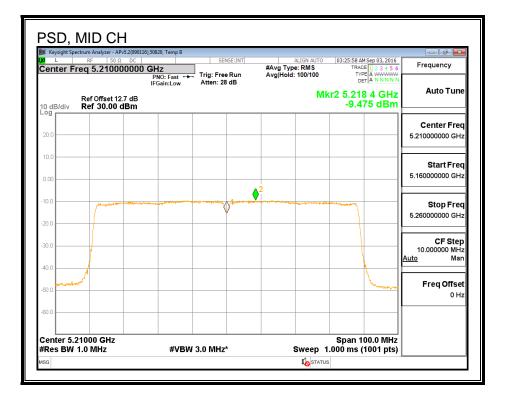
Output Power Results

Channel	Frequency	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.96	7.95	10.97	17.11	-6.14

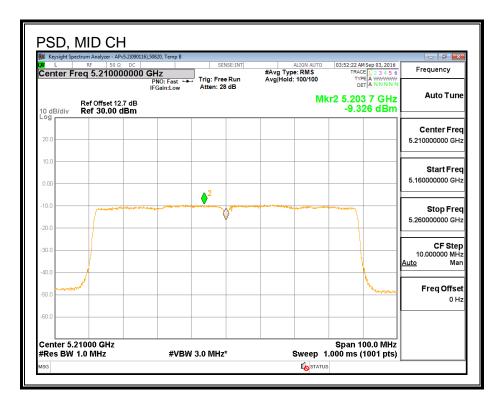
PPSD Results

Channel	Frequency	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.48	-9.33	-6.21	1.14	-7.35

PSD, CHAIN 1



PSD, CHAIN 2



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8.37. 802.11ac VHT80 2Tx (CHAIN 0 + CHAIN 1) STBC MODE IN THE 5.2 GHz BAND

8.37.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

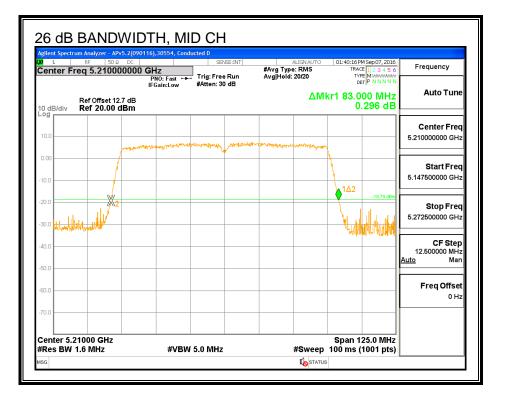
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	
		Chain 0	Chain 1	
	(MHz)	(MHz)	(MHz)	
Mid	5210	83.000	83.000	

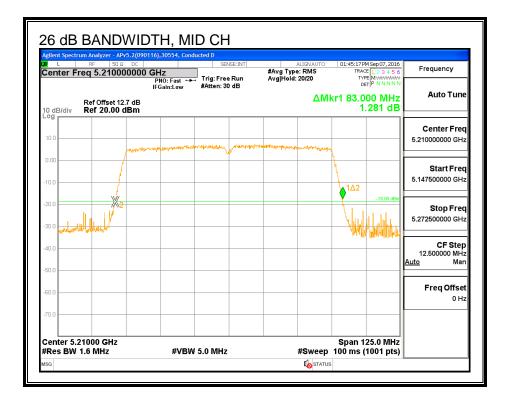
UL VERIFICATION SERVICES INC. 47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888 This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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26 DB BANDWIDTH, CHAIN 0



26 DB BANDWIDTH, CHAIN 1



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8.37.2. 99% BANDWIDTH

<u>LIMITS</u>

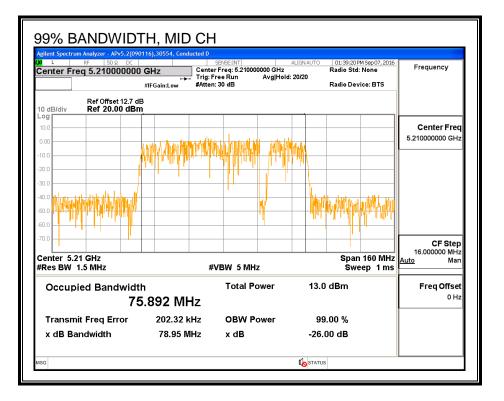
None; for reporting purposes only.

RESULTS

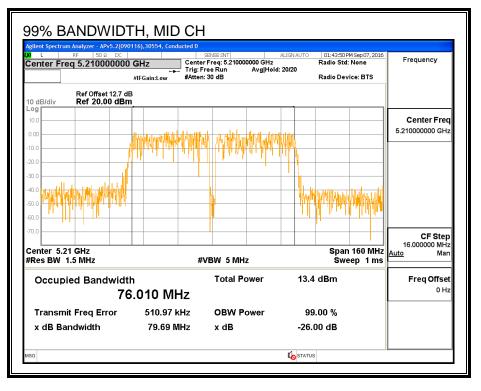
Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Mid	5210	75.892	76.010

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99% BANDWIDTH, CHAIN 0



99% BANDWIDTH, CHAIN 1



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8.37.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 43573 Date: 9/7/16	ID:	43573		9/7/16
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Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Mid	5210	7.90	7.89	10.91

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8.37.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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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)
3.80	6.70	5.49

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RESULTS

ID: 43573 Date: 9/7/16	ID:		ID:	43573	Date:	9/7/16	
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	5.49	5.49	24.00	11.00

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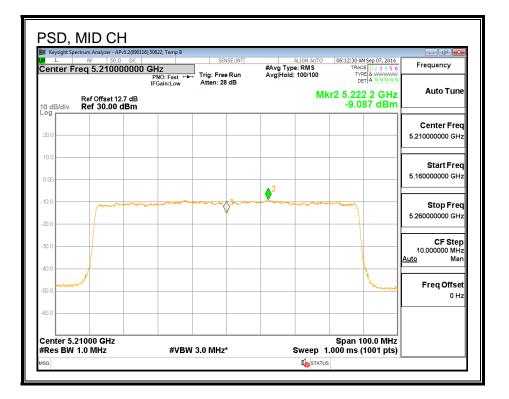
Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.90	7.89	10.91	24.00	-13.09

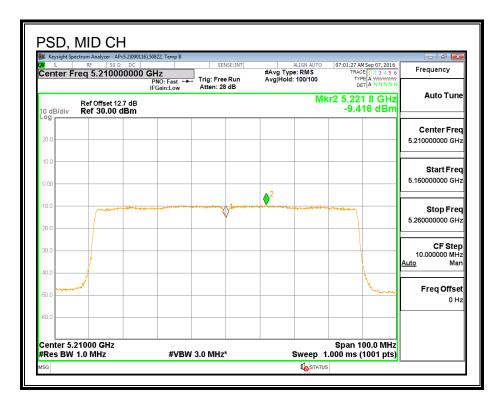
PSD Results

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	5210	-9.09	-9.42	-6.06	11.00	-17.06

PSD, CHAIN 0



PSD, CHAIN 1



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8.37.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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:

Chain 0	Chain 1	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	6.70	5.49

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RESULTS

ID:	43573	Date:	9/7/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.892	5.49	5.49

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	17.51	10.00	4.51

Duty Cycle CF (dB) 0.1	8	Included in Calculations of Corr'd PPSD
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Output Power Results

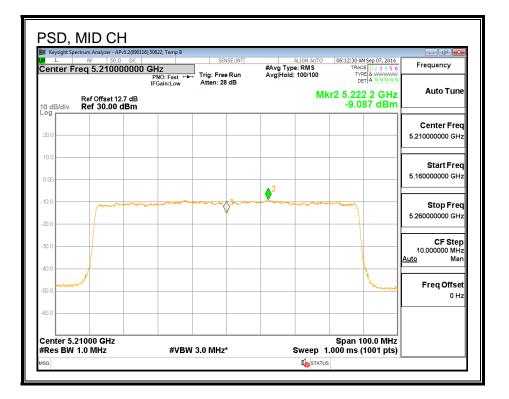
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.90	7.89	10.91	17.51	-6.60

PPSD Results

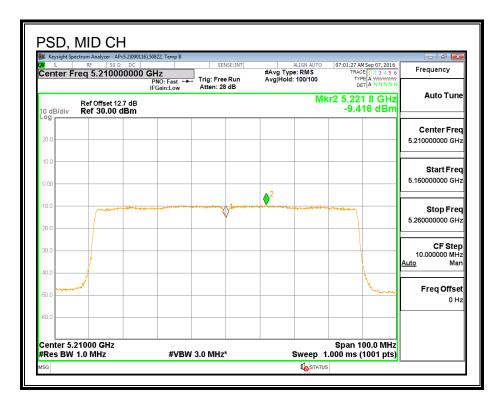
Channel	Frequency	Chain 0	Chain 1	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.09	-9.42	-6.06	4.51	-10.57

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PSD, CHAIN 0



PSD, CHAIN 1



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8.38. 802.11ac VHT80 2Tx (CHAIN 0 + CHAIN 2) STBC MODE IN THE 5.2 GHz BAND

8.38.1. 26 dB BANDWIDTH

<u>LIMITS</u>

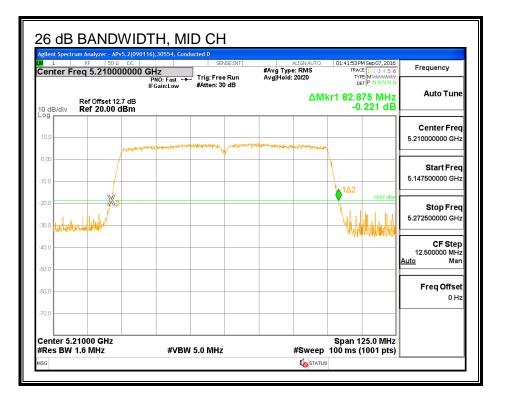
None; for reporting purposes only.

RESULTS

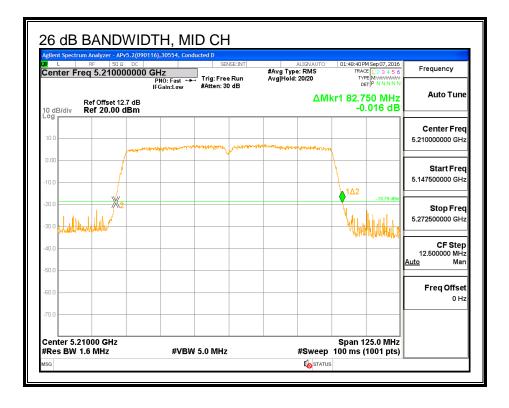
Channel	Frequency	26 dB BW	26 dB BW
		Chain 0	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	82.875	82.750

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26 DB BANDWIDTH, CHAIN 0



26 DB BANDWIDTH, CHAIN 2



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8.38.2. 99% BANDWIDTH

<u>LIMITS</u>

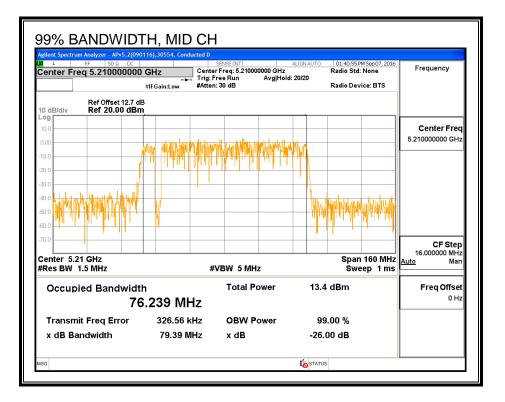
None; for reporting purposes only.

RESULTS

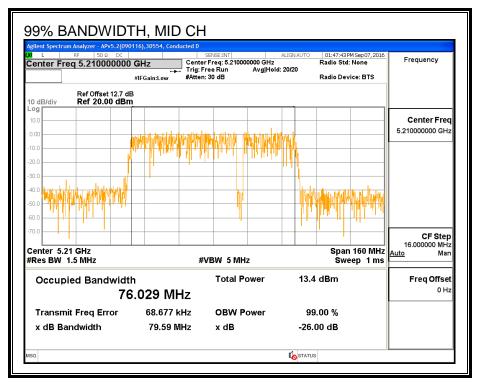
Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	76.239	76.029

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99% BANDWIDTH, CHAIN 0



99% BANDWIDTH, CHAIN 2



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8.38.3. AVERAGE POWER (FCC/IC)

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	43573	Date:	9/7/16

Average Power Results

Channel	Frequency	Chain 0	Chain 2	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)

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8.38.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 2	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	4.90	4.38

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<u>RESULTS</u>

ID: 43573 Date: 9/7/16	ID:		ID:	43573	Date:	9/7/16	
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	4.38	4.38	24.00	11.00

Duty Cycle CF (dB)	0.18	Included in Calculations of Corr'd PSD
,		

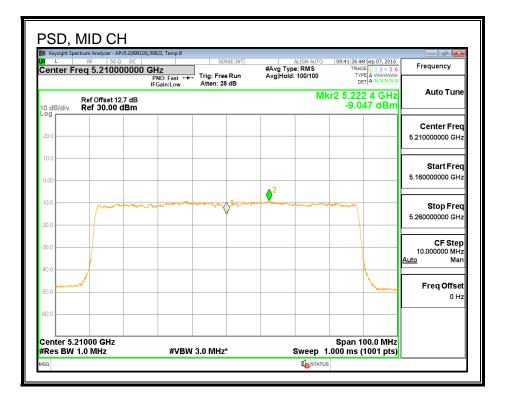
Output Power Results

Channel	Frequency	Chain 0	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.89	7.94	10.93	24.00	-13.07

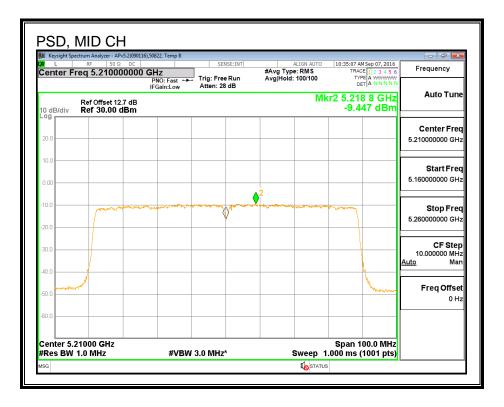
PSD Results

Channel	Frequency	Chain 0	Chain 2	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-9.05	-9.45	-6.05	11.00	-17.05

PSD, CHAIN 0



PSD, CHAIN 2



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8.38.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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:

Chain 0	Chain 2	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	4.90	4.38

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RESULTS

ID:	43573	Date:	9/7/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	76.029	4.38	4.38

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	18.62	10.00	5.62

Duty Cycle CF (dB)	0.18	Includ
	0.10	moraa

Included in Calculations of Corr'd PPSD

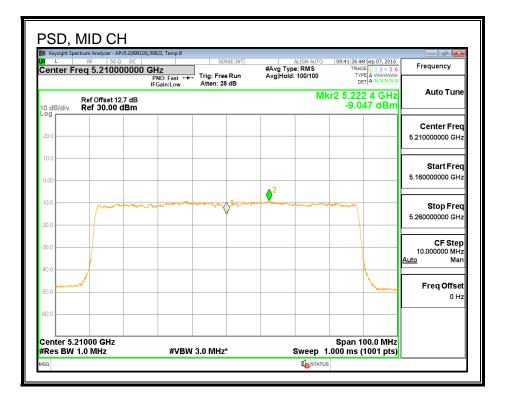
Output Power Results

Channel	Frequency	Chain 0	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.89	7.94	10.93	18.62	-7.69

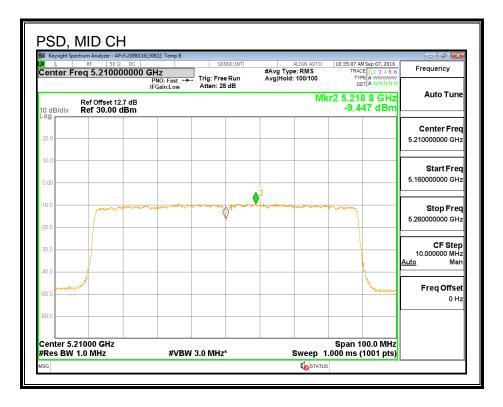
PPSD Results

Channel	Frequency	Chain 0	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.05	-9.45	-6.05	5.62	-11.67

PSD, CHAIN 0



PSD, CHAIN 2



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8.39. 802.11ac VHT80 2Tx (CHAIN 1 + CHAIN 2) STBC MODE IN THE 5.2 GHz BAND

8.39.1. 26 dB BANDWIDTH

<u>LIMITS</u>

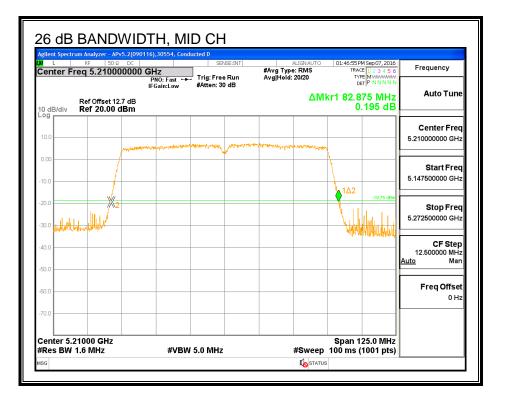
None; for reporting purposes only.

RESULTS

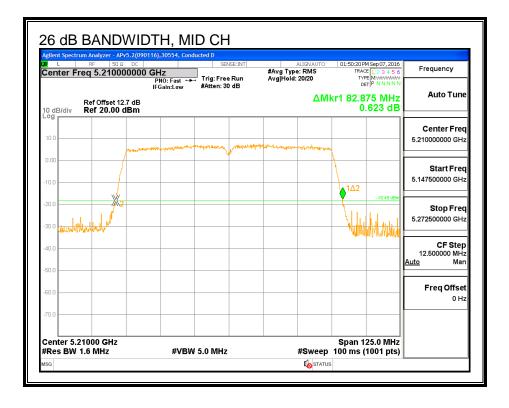
Channel	Frequency	26 dB BW	26 dB BW
		Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	82.875	82.875

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26 DB BANDWIDTH, CHAIN 1



26 DB BANDWIDTH, CHAIN 2



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8.39.2. 99% BANDWIDTH

<u>LIMITS</u>

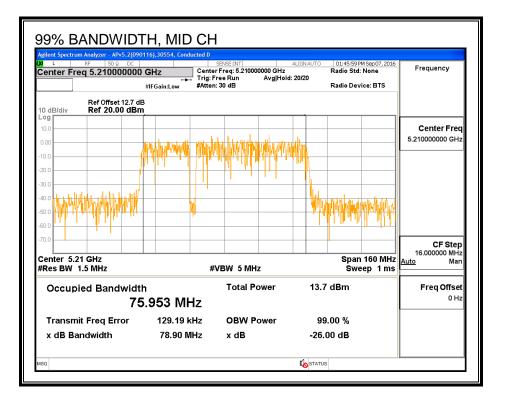
None; for reporting purposes only.

RESULTS

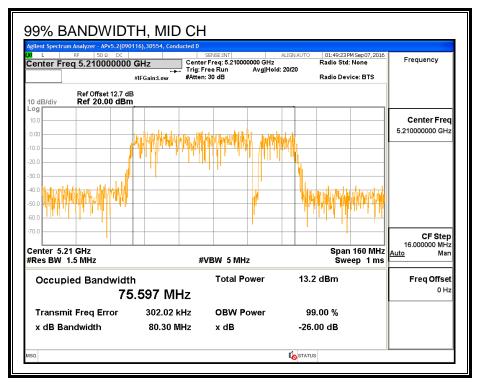
Channel	Frequency	99% BW	99% BW
		Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	75.953	75.597

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99% BANDWIDTH, CHAIN 1



99% BANDWIDTH, CHAIN 2



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8.39.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 43573	Date: 9/7/16
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Channel	Frequency	Chain 1	Chain 2	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)

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8.39.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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DIRECTIONAL ANTENNA GAIN

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

Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
6.70	4.90	5.89

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RESULTS

ID: 43573 Date: 9/7/16	ID:		ID:	43573	Date:	9/7/16	
--------------------------------------	-----	--	-----	-------	-------	--------	--

Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	5.89	5.89	24.00	11.00

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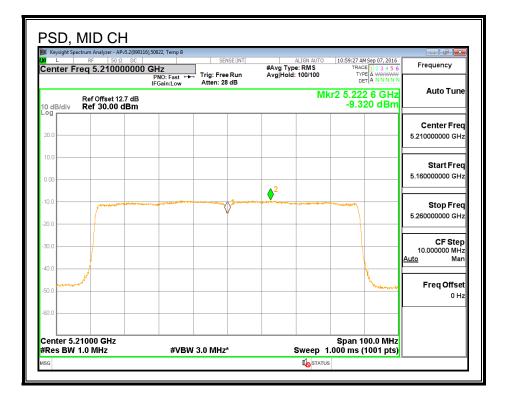
Output Power Results

Channel	Frequency	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	8.00	7.80	10.91	24.00	-13.09

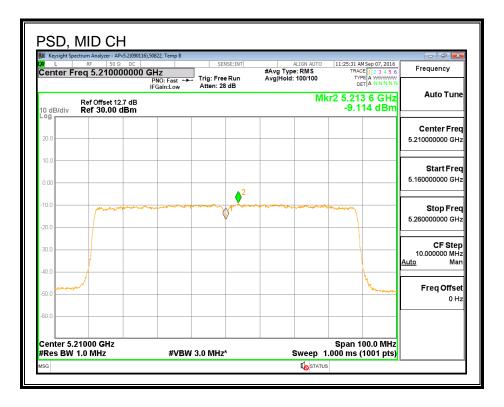
PSD Results

Channel	Frequency	Chain 1	Chain 2	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-9.32	-9.11	-6.03	11.00	-17.03

PSD, CHAIN 1



PSD, CHAIN 2



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8.39.5.

OUTPUT POWER AND PSD (IC)

<u>LIMITS</u>

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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:

Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
6.70	4.90	5.89

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RESULTS

ID:	43573	Date:	9/7/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.597	5.89	5.89

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	17.11	10.00	4.11

Duty Cycle CF (dB)	0.18	Included in Calculations of Corr'd PPSD
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Output Power Results

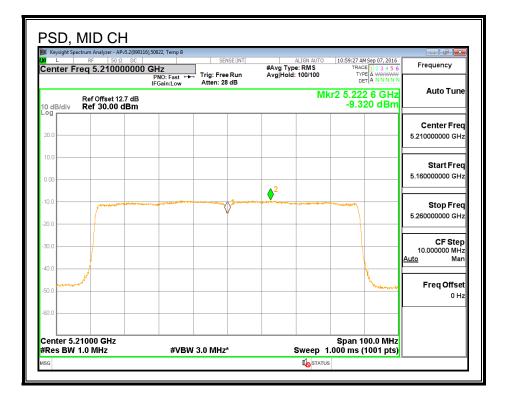
Channel	Frequency	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	8.00	7.80	10.91	17.11	-6.20

PPSD Results

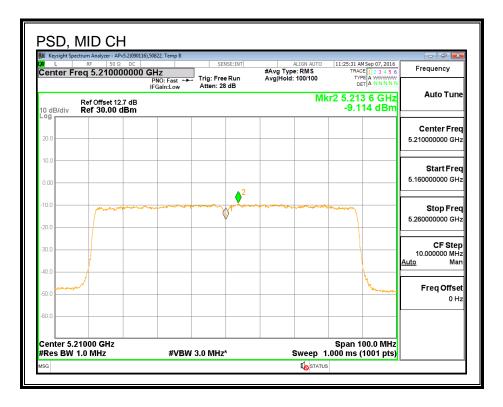
Channel	Frequency	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.32	-9.11	-6.03	4.11	-10.14

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PSD, CHAIN 1



PSD, CHAIN 2



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8.40. 802.11ac VHT80 2Tx (CHAIN 0 + CHAIN 1) BEAM FORMING MODE IN THE 5.2 GHz BAND

8.40.1. 26 dB BANDWIDTH

<u>LIMITS</u>

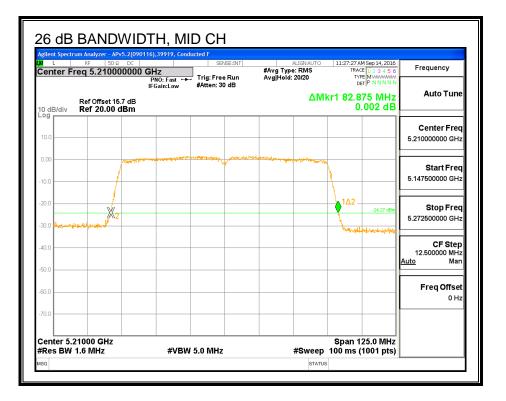
None; for reporting purposes only.

RESULTS

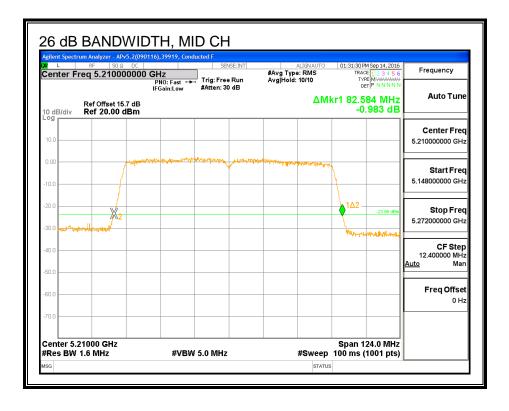
Channel	Frequency	26 dB BW	26 dB BW	
		Chain 0	Chain 1	
	(MHz)	(MHz)	(MHz)	
Mid	5210	82.876	82.584	

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26 DB BANDWIDTH, CHAIN 0



26 DB BANDWIDTH, CHAIN 1



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8.40.2. 99% BANDWIDTH

<u>LIMITS</u>

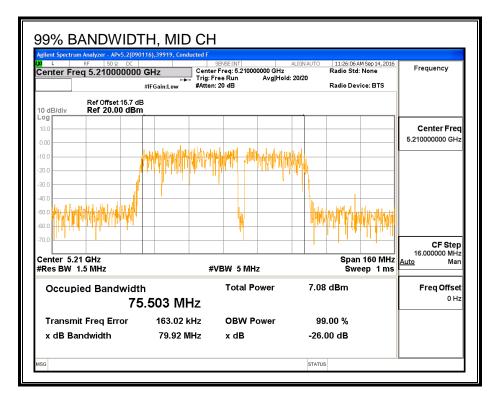
None; for reporting purposes only.

RESULTS

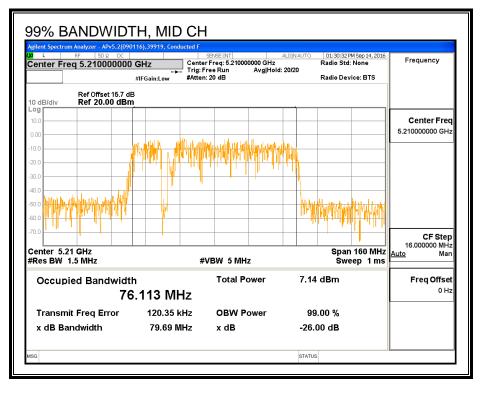
Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Mid	5210	75.503	76.113

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99% BANDWIDTH, CHAIN 0



99% BANDWIDTH, CHAIN 1



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8.40.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	44366	Date:	9/13/16

Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
	5210	7.39	7.47	10.44

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8.40.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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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)
3.80	6.70	8.38

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RESULTS

ID:	44366	Date:	9/13/16
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	8.38	8.38	21.62	8.62

	Duty Cycle CF (dB)	0.72	Included in Calculations of Corr'd PSD	,
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Output Power Results

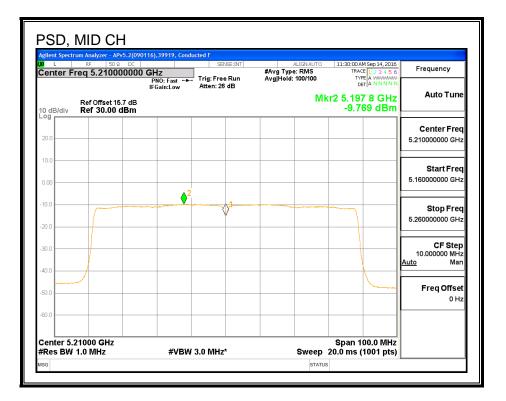
Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.39	7.47	10.44	21.62	-11.18

PSD Results

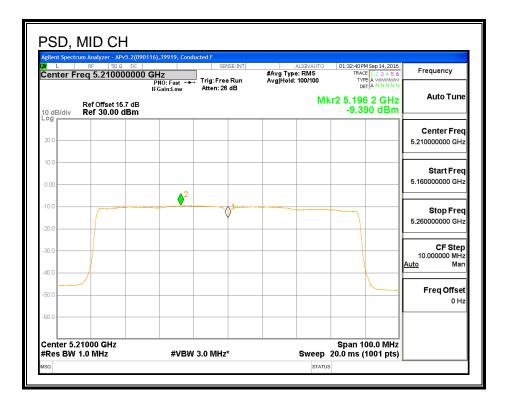
Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-9.77	-9.39	-5.85	8.62	-14.47

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PSD, CHAIN 0



PSD, CHAIN 1



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8.40.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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 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)
3.80	6.70	8.38

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<u>RESULTS</u>

ID:	44366	Date:	9/13/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.503	8.38	8.38

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	14.62	10.00	1.62

Duty Cycle CF (dB)	0.72	Included in Calculations of Corr'd PPSD
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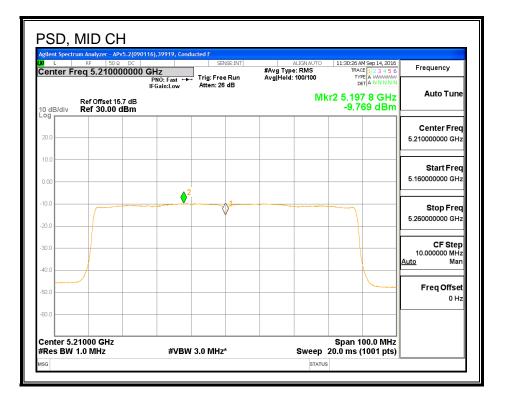
Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.39	7.47	10.44	14.62	-4.18

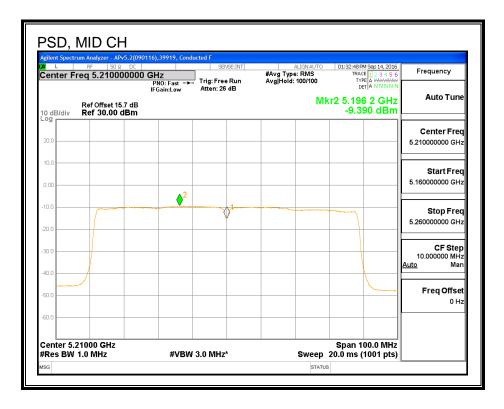
PPSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.77	-9.39	-5.85	1.62	-7.47

PSD, CHAIN 0



PSD, CHAIN 1



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8.41. 802.11ac VHT80 2Tx (CHAIN 0 + CHAIN 2) BEAM FORMING MODE IN THE 5.2 GHz BAND

8.41.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

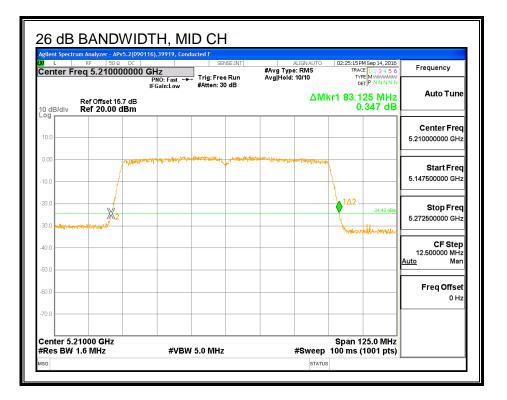
RESULTS

Channel	Frequency	26 dB BW	26 dB BW
		Chain 0	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	83.125	82.750

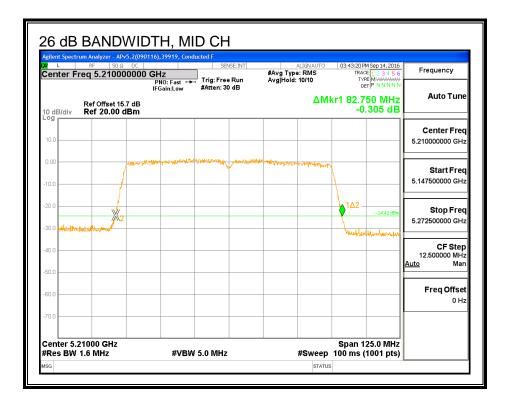
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26 DB BANDWIDTH, CHAIN 0



26 DB BANDWIDTH, CHAIN 2



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8.41.2. 99% BANDWIDTH

<u>LIMITS</u>

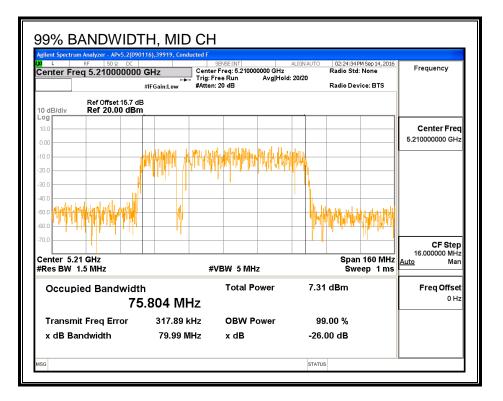
None; for reporting purposes only.

RESULTS

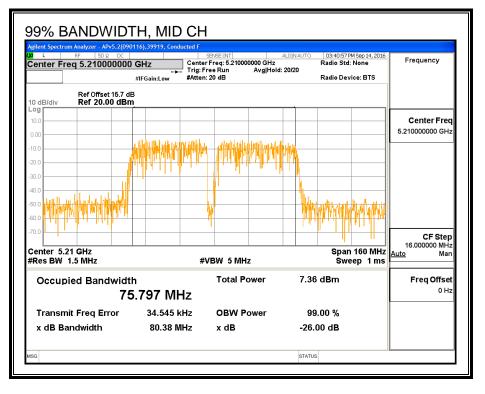
Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	75.804	75.797

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99% BANDWIDTH, CHAIN 0



99% BANDWIDTH, CHAIN 2



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8.41.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 44366	Date:	9/13/16
------------------	-------	---------

Channel	Frequency	Chain 0	Chain 2	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Mid	5210	7.42	7.39	10.42

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8.41.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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DIRECTIONAL ANTENNA GAIN

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

Chain 0	Chain 2	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	4.90	7.38

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RESULTS

ID:	44366	Date:	9/13/16
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	7.38	7.38	22.62	9.62

	Duty Cycle CF (dB)	Iculations of Corr'd PSD
--	--------------------	--------------------------

Output Power Results

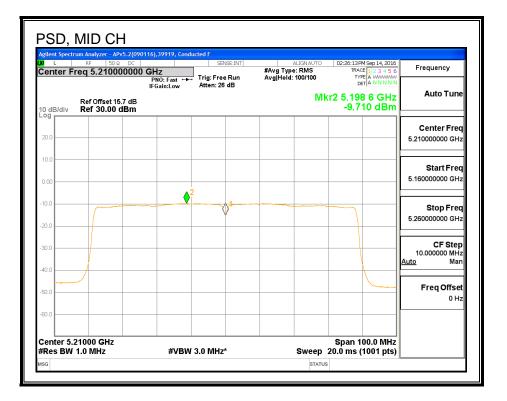
Channel	Frequency	Chain 0	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.42	7.39	10.42	22.62	-12.20

PSD Results

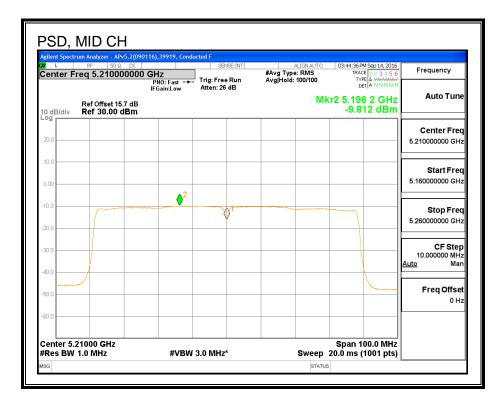
Channel	Frequency	Chain 0	Chain 2	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-9.71	-9.81	-6.03	9.62	-15.65

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PSD, CHAIN 0



PSD, CHAIN 2



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8.41.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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

Chain 0	Chain 2	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.80	4.90	7.38

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<u>RESULTS</u>

ID:	44366	Date:	9/13/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.797	7.38	7.38

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	15.62	10.00	2.62

Duty Cycle CF (dB)	0.72	Included in Calculations of Corr'd PPSD
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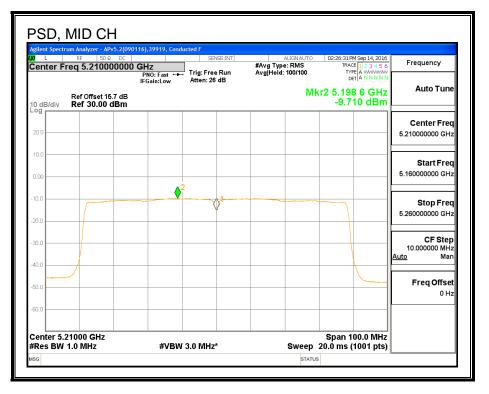
Output Power Results

Channel	Frequency	Chain 0	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.42	7.39	10.42	15.62	-5.20

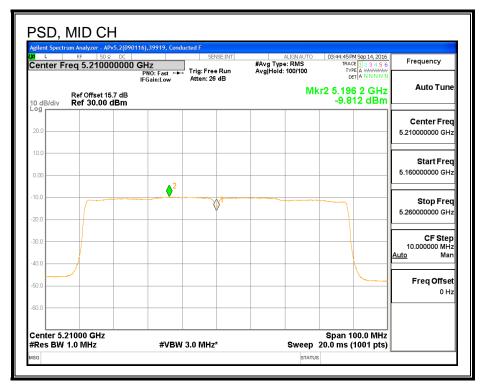
PPSD Results

Channel	Frequency	Chain 0	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.71	-9.81	-6.03	2.62	-8.65

PSD, CHAIN 0



PSD, CHAIN 2



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8.42. 802.11ac VHT80 2Tx (CHAIN 1 + CHAIN 2) BEAM FORMING MODE IN THE 5.2 GHz BAND

8.42.1. 26 dB BANDWIDTH

<u>LIMITS</u>

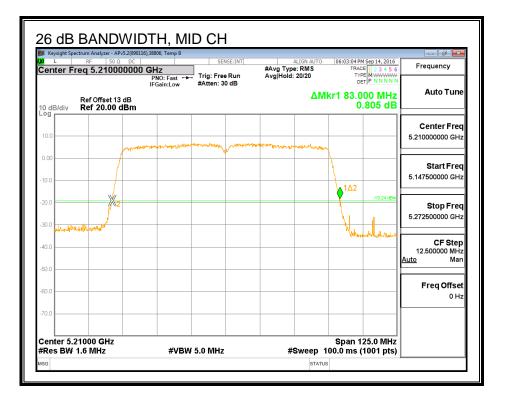
None; for reporting purposes only.

RESULTS

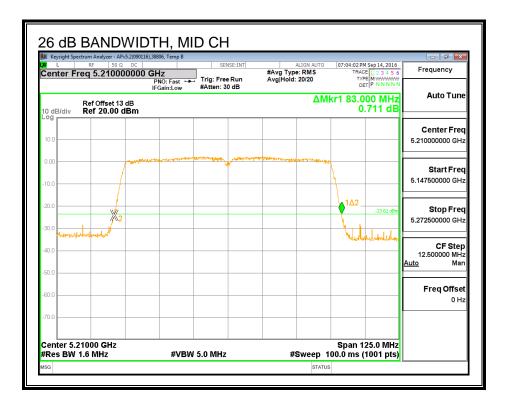
Channel	Frequency	26 dB BW	26 dB BW
		Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	83.000	83.000

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26 DB BANDWIDTH, CHAIN 1



26 DB BANDWIDTH, CHAIN 2



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8.42.2. 99% BANDWIDTH

<u>LIMITS</u>

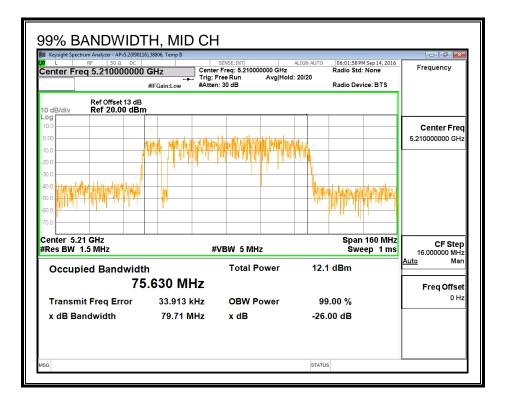
None; for reporting purposes only.

RESULTS

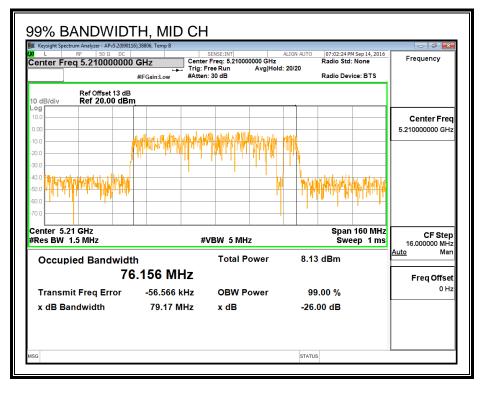
Channel	Frequency	99% BW	99% BW
		Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)
Mid	5210	75.630	76.156

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99% BANDWIDTH, CHAIN 1



99% BANDWIDTH, CHAIN 2



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8.42.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Chain 1	Chain 2	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Mid	5210	7.48	7.49	10.50

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8.42.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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DIRECTIONAL ANTENNA GAIN

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

Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
6.70	4.90	8.86

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<u>RESULTS</u>

ID:	38806	Date:	9/14/16
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	8.86	8.86	21.14	8.14

Duty Cycle CF (dB)	0.72	Included in Calculations of Corr'd PSD
,		

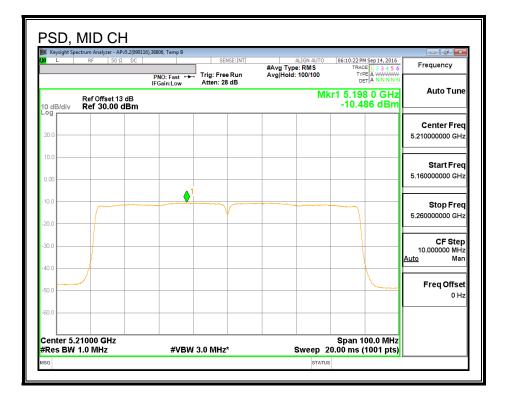
Output Power Results

Channel	Frequency	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.48	7.49	10.50	21.14	-10.64

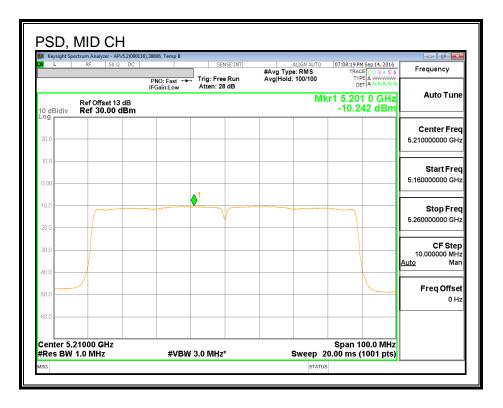
PSD Results

Channel	Frequency	Chain 1	Chain 2	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-10.49	-10.24	-6.63	8.14	-14.77

PSD, CHAIN 1



PSD, CHAIN 2



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8.42.5. OUTPUT POWER AND PSD (IC)

<u>LIMITS</u>

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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

Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
6.70	4.90	8.86

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<u>RESULTS</u>

ID:	38806	Date:	9/14/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.630	8.86	8.86

Limits

Channel	Frequency	IC	Мах	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	14.14	10.00	1.14

Duty Cycle CF (dB)	0.72	Included in Calculations of Corr'd PPSD
--------------------	------	---

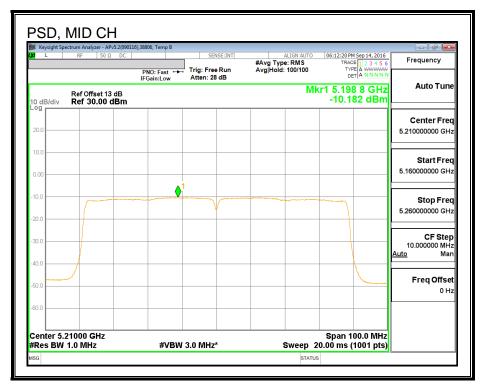
Output Power Results

Channel	Frequency	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.48	7.49	10.50	14.14	-3.64

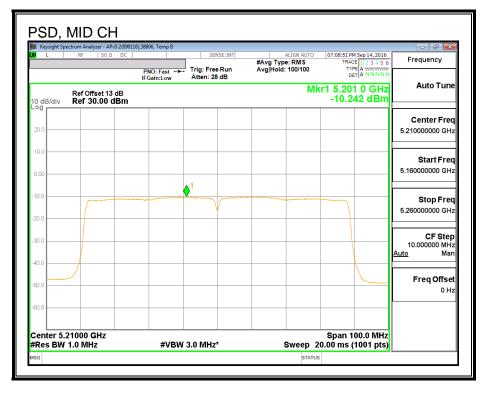
PPSD Results

Channel	Frequency	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-10.18	-10.24	-6.48	1.14	-7.62

PSD, CHAIN 1



PSD, CHAIN 2



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8.43. 802.11ac VHT80 3Tx CDD MODE IN THE 5.2 GHz BAND

8.43.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

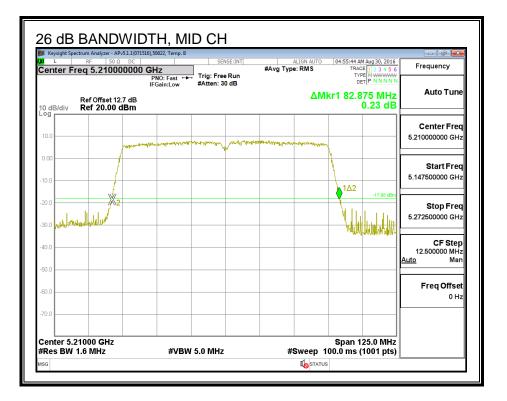
RESULTS

		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5210	82.875	83.000	83.000

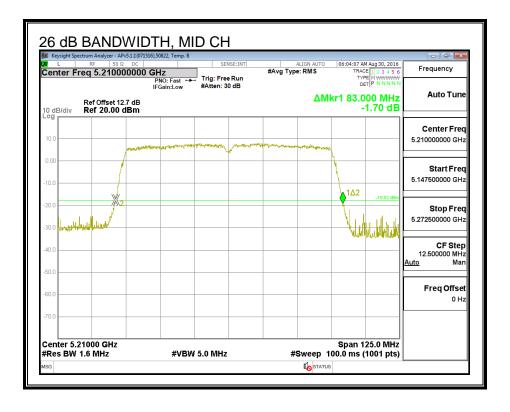
UL VERIFICATION SERVICES INC. 47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888 This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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26 DB BANDWIDTH, CHAIN 0

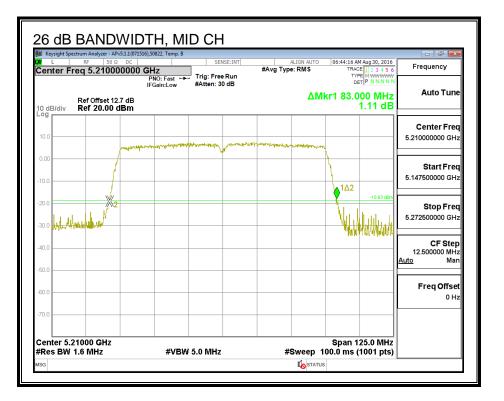


26 DB BANDWIDTH, CHAIN 1



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26 DB BANDWIDTH, CHAIN 2



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8.43.2. **99% BANDWIDTH**

<u>LIMITS</u>

None; for reporting purposes only.

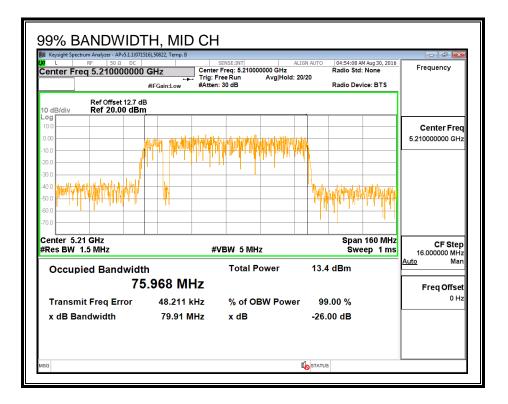
RESULTS

Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5210	75.968	76.093	76.159

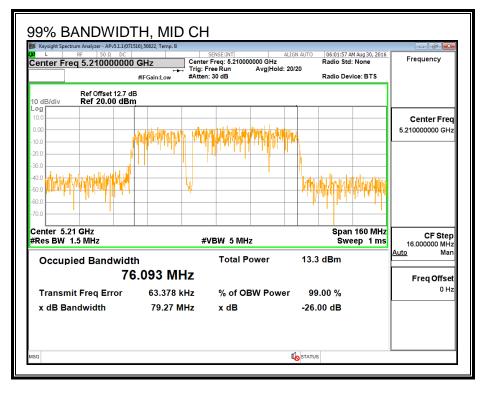
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99% BANDWIDTH, CHAIN 0

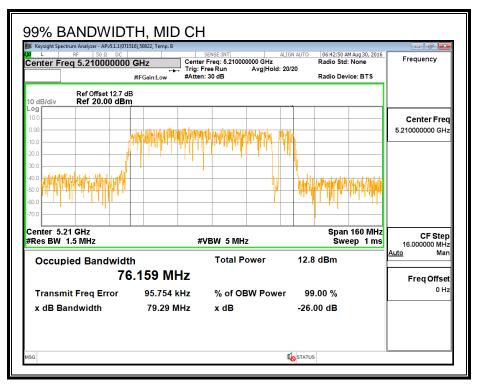


99% BANDWIDTH, CHAIN 1



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99% BANDWIDTH, CHAIN 2



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8.43.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

	1		
ID:	43573	Date:	9/7/16

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total
		Power	Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
Mid	5210	7.42	7.43	7.48	12.21

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8.43.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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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	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	5.30

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

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	9.99

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<u>RESULTS</u>

	40.570		0/7/40
ID:	43573	Date:	9/7/16

Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	5.30	9.99	24.00	7.01

Duly Cycle CF (ub) 0.10 Inicialed in Calculations of Contars	Duty Cycle CF (dB)	0.18	Included in Calculations of Corr'd PS
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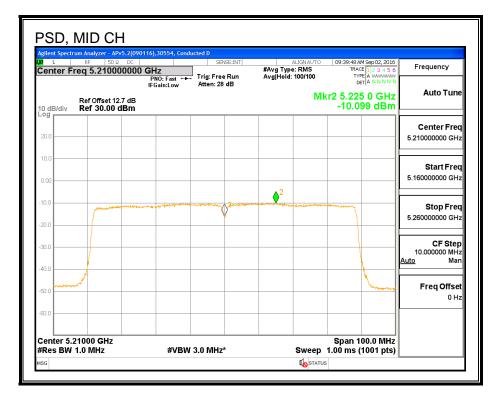
Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.42	7.43	7.48	12.21	24.00	-11.79

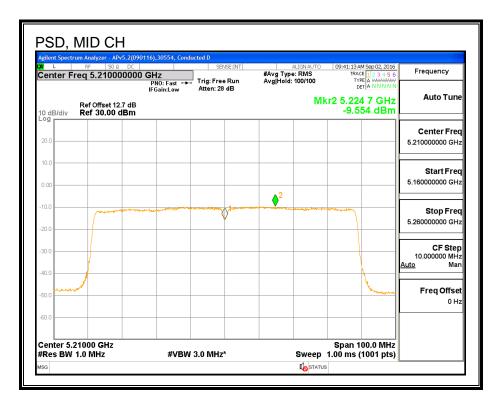
PSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PSD	PSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-10.10	-9.55	-6.82	-3.62	7.01	-10.63

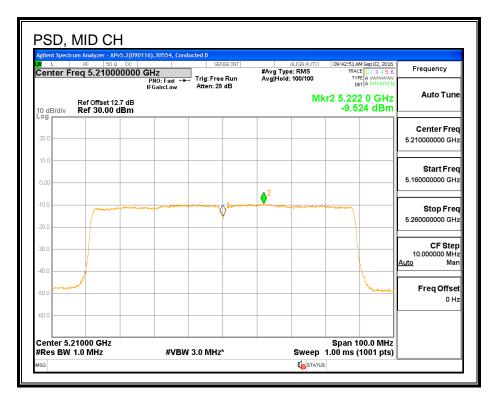
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PSD, CHAIN 1



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8.43.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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:

Chain 0	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	5.30

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

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	9.99

RESULTS

ID:	43573	Date:	9/7/16
-----	-------	-------	--------

Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	75.968	5.30	9.99

Limits

Channel	Frequency	IC	Max	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	17.70	10.00	0.01

Duty Cycle CF (dB) 0.18

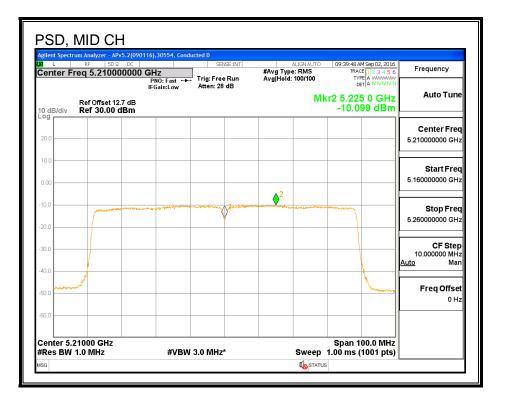
Included in Calculations of Corr'd PPSD

Output Power Results

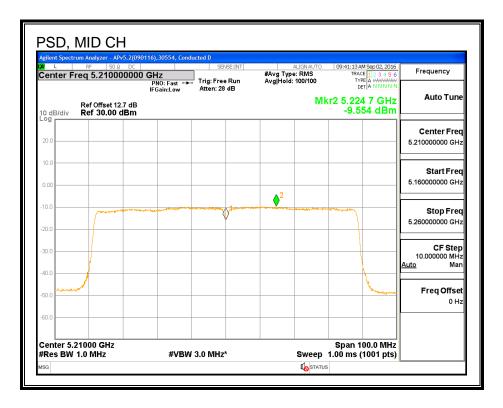
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.42	7.43	7.48	12.21	17.70	-5.49

PPSD Results

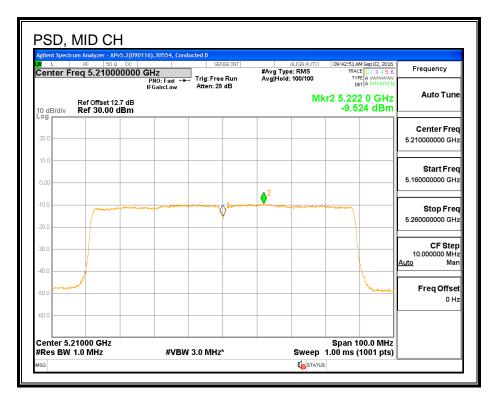
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-10.10	-9.55	-6.82	-3.62	0.01	-3.63



PSD, CHAIN 1



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8.44. 802.11ac VHT80 3Tx STBC MODE IN THE 5.2 GHz BAND

8.44.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

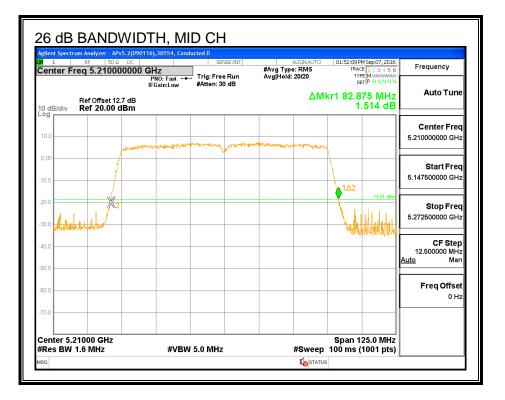
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5210	82.875	83.125	82.750

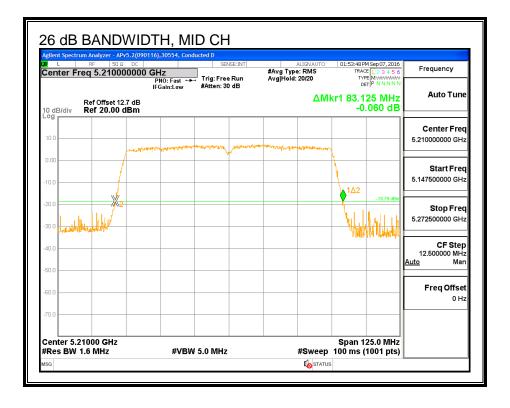
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26 DB BANDWIDTH, CHAIN 0

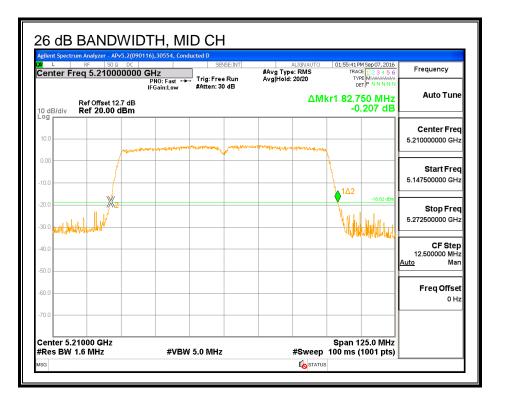


26 DB BANDWIDTH, CHAIN 1



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26 DB BANDWIDTH, CHAIN 2



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8.44.2. 99% BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

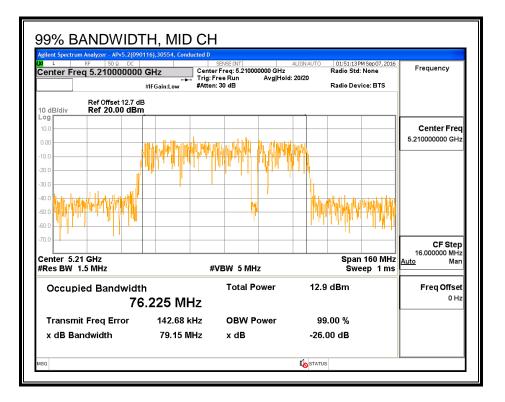
RESULTS

Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5210	76.225	72.384	75.909

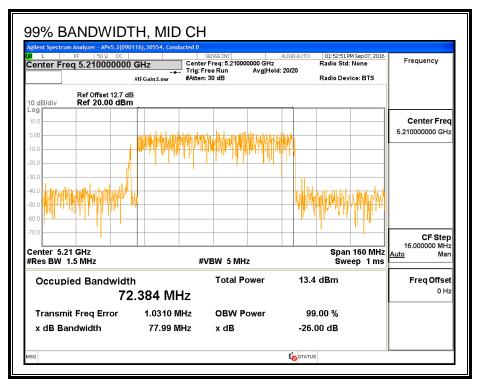
UL VERIFICATION SERVICES INC. 47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888 This report shall not be reproduced except in full, without the written approval of UL Verification Services Inc.

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99% BANDWIDTH, CHAIN 0

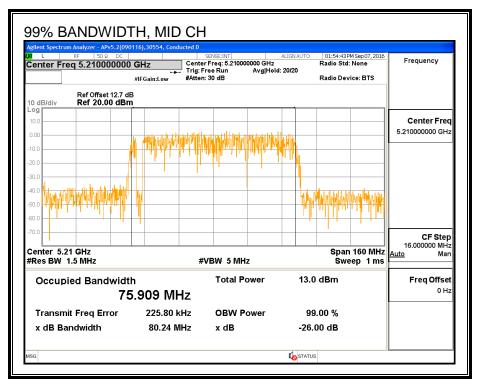


99% BANDWIDTH, CHAIN 1



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99% BANDWIDTH, CHAIN 2



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8.44.3. AVERAGE POWER (FCC/IC)

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 43573	Date:	9/7/16
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Channel	Frequency	Chain 0	Chain 1	Chain 2	Total
		Power	Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
Mid	5210	10.45	10.49	10.47	15.24

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8.44.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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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	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	5.30

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RESULTS

ID: 43573 Date: 9/7/16	ID:		ID:	43573	Date:	9/7/16	
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	5.30	5.30	24.00	11.00

Duty Cycle CF (dB) 0	.18	Included in Calculations of Corr'd PSD
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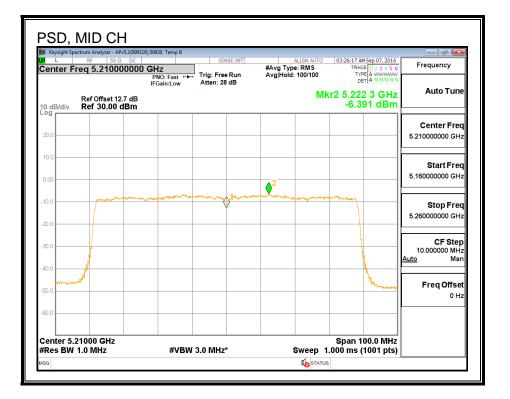
Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	10.45	10.49	10.47	15.24	24.00	-8.76

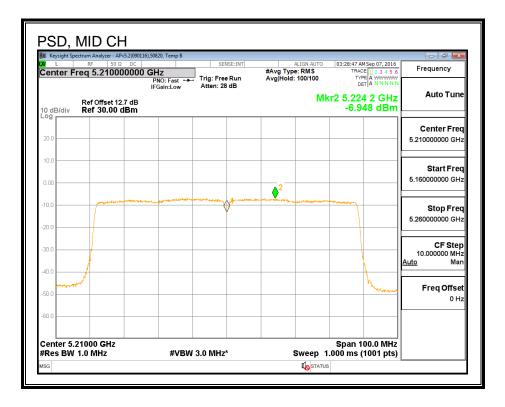
PSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PSD	PSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	-6.39	-6.95	-6.82	-1.76	11.00	-12.76

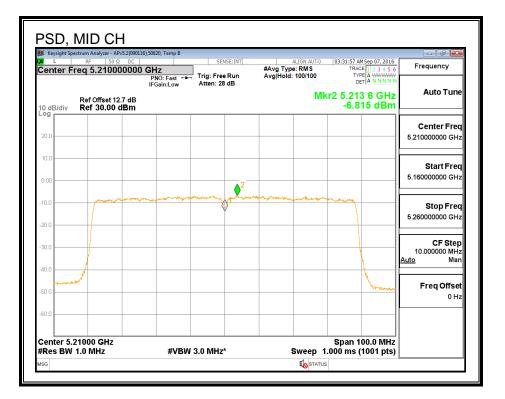
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PSD, CHAIN 1



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8.44.5. OUTPUT POWER AND PSD (IC)

LIMITS

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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:

Chain 0	Chain 1	Chain 2	Uncorrelated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	5.30

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RESULTS

	ID:	43573	Date:	9/7/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional
		99%	Gain	Gain
		BW	for Power	for PPSD
	(MHz)	(MHz)	(dBi)	(dBi)
42	5210	72.384	5.30	5.30

Limits

Channel	Frequency	IC	Max	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	17.70	10.00	4.70

Duty Cycle CF (dB) 0.1	18
------------------------	----

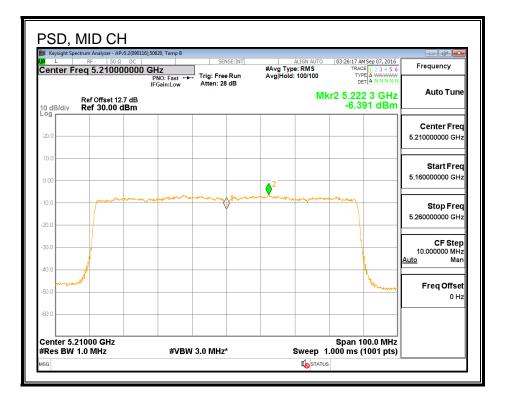
Included in Calculations of Corr'd PPSD

Output Power Results

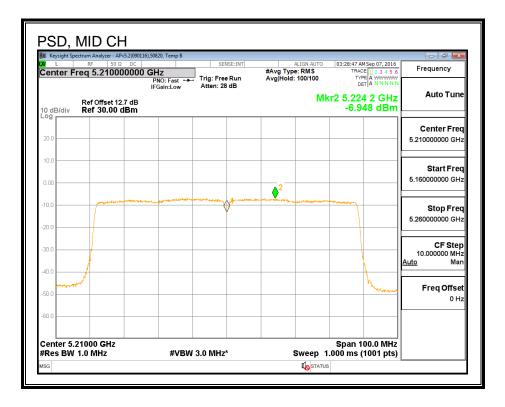
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	10.45	10.49	10.47	15.24	17.70	-2.46

PPSD Results

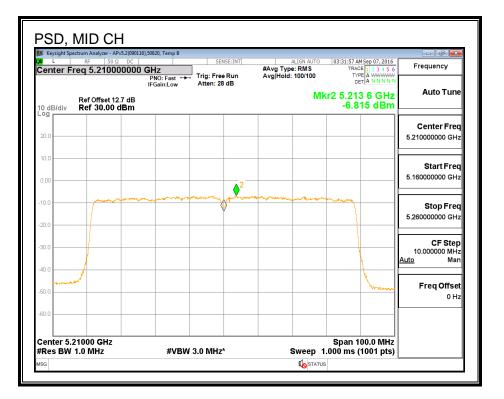
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-6.39	-6.95	-6.82	-1.76	4.70	-6.46



PSD, CHAIN 1



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8.45. 802.11ac VHT80 3Tx BEAM FORMING MODE IN THE 5.2 GHz BAND

8.45.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

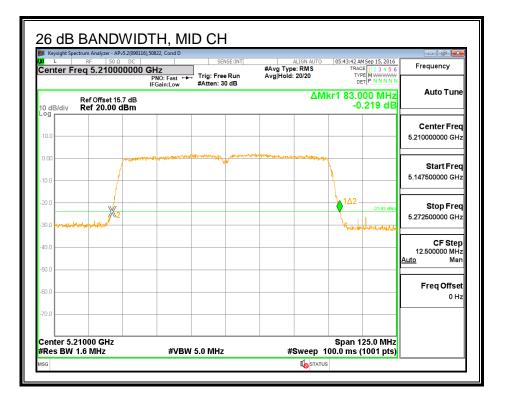
RESULTS

Channel	Frequency	26 dB BW	26 dB BW	26 dB BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5210	83.000	83.250	82.460

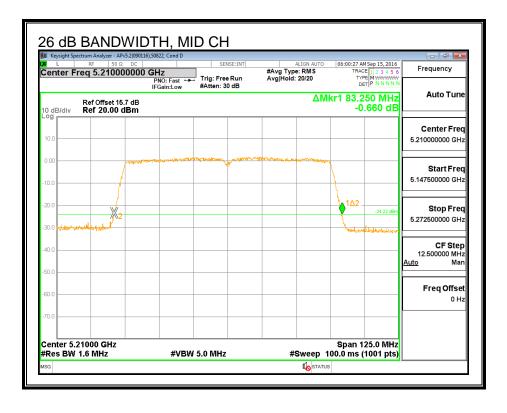
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26 DB BANDWIDTH, CHAIN 0

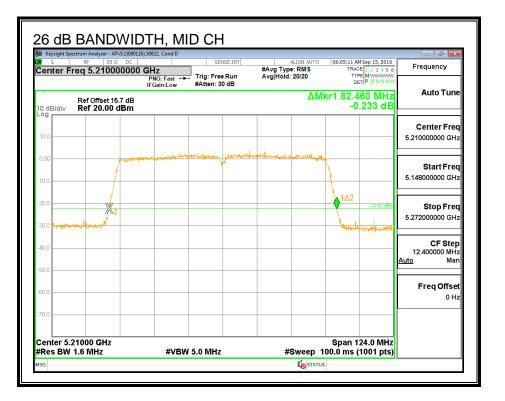


26 DB BANDWIDTH, CHAIN 1



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26 DB BANDWIDTH, CHAIN 2



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8.45.2. 99% BANDWIDTH

<u>LIMITS</u>

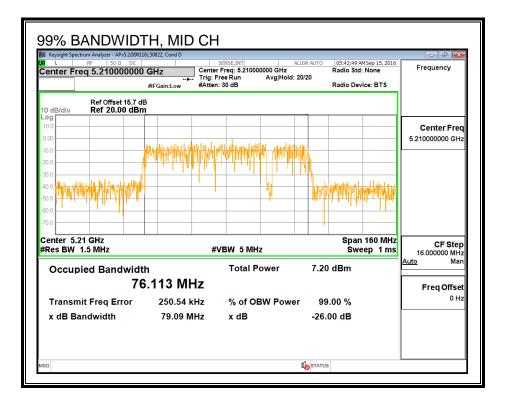
None; for reporting purposes only.

RESULTS

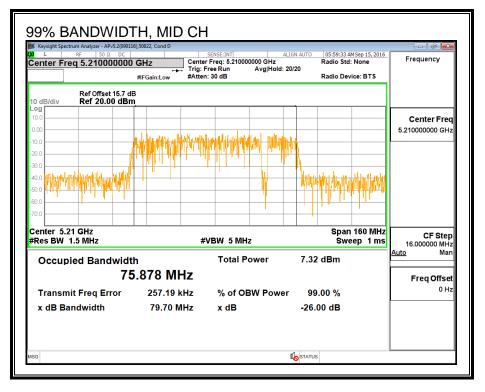
Channel	Frequency	99% BW	99% BW	99% BW
		Chain 0	Chain 1	Chain 2
	(MHz)	(MHz)	(MHz)	(MHz)
Mid	5210	76.113	75.878	76.128

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99% BANDWIDTH, CHAIN 0

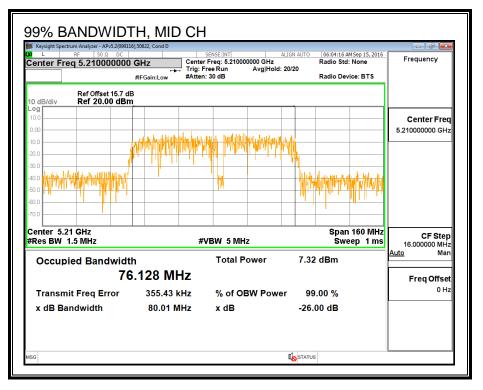


99% BANDWIDTH, CHAIN 1



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99% BANDWIDTH, CHAIN 2



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8.45.3. AVERAGE POWER (FCC/IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total
		Power	Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
Mid	5210	7.35	7.31	7.32	12.10

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8.45.4. OUTPUT POWER AND PSD (FCC)

<u>LIMITS</u>

FCC §15.407 (a) (1)

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

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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	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	9.99

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RESULTS

ID:	44366	Date:	9/14/16
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Antenna Gain and Limits

Channel	Frequency	Directional	Directional	Power	PSD
		Gain	Gain	Limit	Limit
		for Power	for PSD		
	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5210	9.99	9.99	20.01	7.01

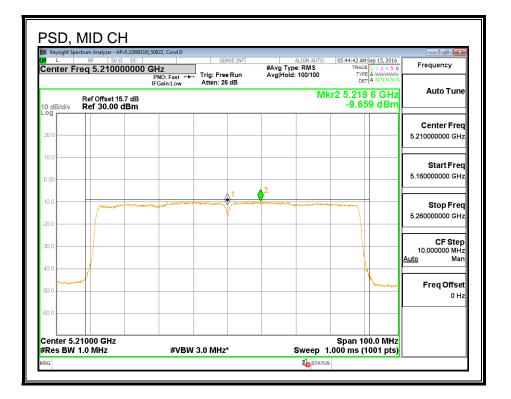
Duty Cycle CF (dB) 0	.62	Included in Calculations of Corr'd PSD
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Output Power Results

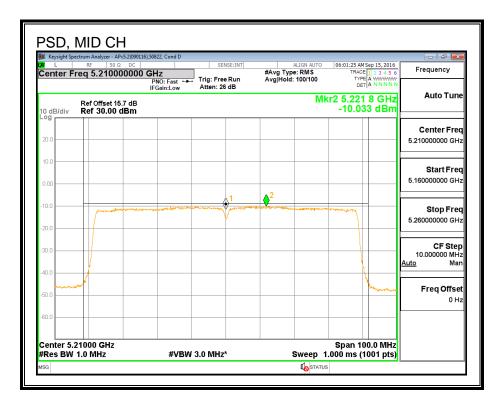
Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5210	7.35	7.31	7.32	12.10	20.01	-7.91

PSD Results

C	Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PSD	PSD
			Meas	Meas	Meas	Corr'd	Limit	Margin
			PSD	PSD	PSD	PSD		
		(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
	Mid	5210	-9.66	-10.03	-9.80	-4.44	7.01	-11.45



PSD, CHAIN 1



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	(090116),50822, Cond D				- J - X
L RF 50 Ω enter Freq 5.210000		SENSE:INT Trig: Free Run Atten: 26 dB	ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	0 06:05:56 AM Sep 15, 2016 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
Ref Offset 15.7 o dB/div Ref 30.00 dB	iB	Atten: 20 db	Ν	1kr2 5.221 6 GHz -9.801 dBm	Auto Tune
0.0					Center Fred 5.210000000 GHz
.00					Start Freq 5.16000000 GHz
0.0	alastaran tana tana ang manganganganganganganganganganganganganga	1	2 museuserpowerserpowerser		Stop Freq 5.26000000 GHz
0.0					CF Step 10.000000 MHz <u>Auto</u> Mar
0.0 0.0				hanne	Freq Offset 0 Hz
enter 5.21000 GHz				Span 100.0 MHz	

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8.45.5. OUTPUT POWER AND PSD (IC)

<u>LIMITS</u>

IC RSS-247 (6.2.1) (1)

The maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

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

Chain 0	Chain 1	Chain 2	Correlated Chains
Antenna	Antenna	Antenna	Directional
Gain	Gain	Gain	Gain
(dBi)	(dBi)	(dBi)	(dBi)
3.80	6.70	4.90	9.99

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RESULTS

ID: 44366 Date:	9/14/16
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Bandwidth and Antenna Gain

Channel	Frequency	Min	Directional	Directional	
		99%	Gain	Gain	
		BW	for Power	for PPSD	
	(MHz)	(MHz)	(dBi)	(dBi)	
42	5210	75.878	9.99	9.99	

Limits

Channel	Frequency	IC	Max	IC	Max
		EIRP	IC	eirp	IC
		Limit	Power	PSD	PSD
				Limit	
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
42	5210	23.00	13.01	10.00	0.01

Duty Cycle CF (dB) 0.62 Inc	ncluded in Calculations of Corr'd PPSD
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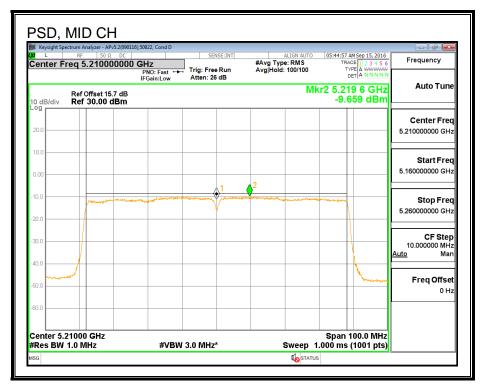
Output Power Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	Power	Power
		Meas	Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	7.35	7.31	7.32	12.10	13.01	-0.91

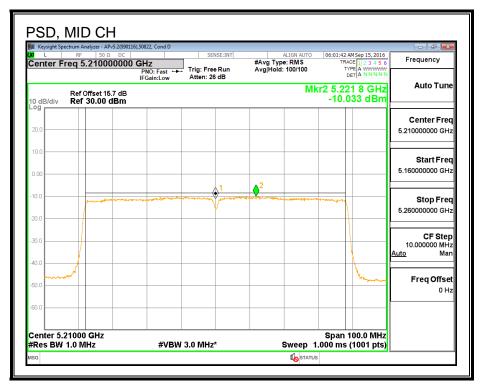
PPSD Results

Channel	Frequency	Chain 0	Chain 1	Chain 2	Total	PPSD	PPSD
		Meas	Meas	Meas	Corr'd	Limit	Margin
		PPSD	PPSD	PPSD	PPSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
42	5210	-9.66	-10.03	-9.80	-4.44	0.01	-4.45

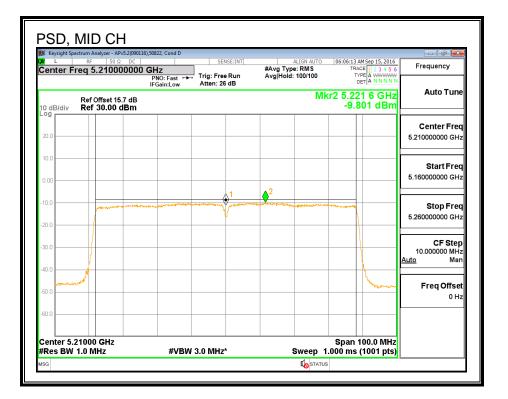
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PSD, CHAIN 1



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END OF REPORT

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