8.56. 802.11ac VHT80 ANTENNA - C MODE IN THE 5.3 GHz BAND

8.56.1. 26 dB BANDWIDTH

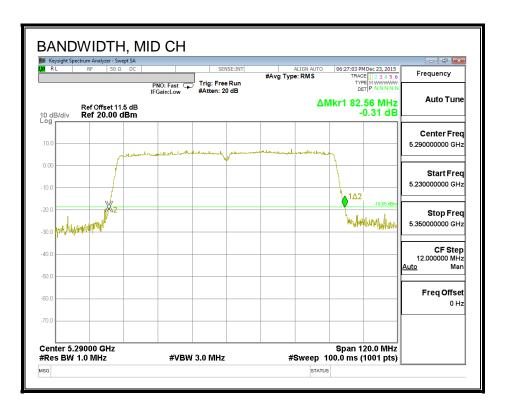
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Mid	5290	82.56

26 dB BANDWIDTH



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8.56.2. 99% BANDWIDTH

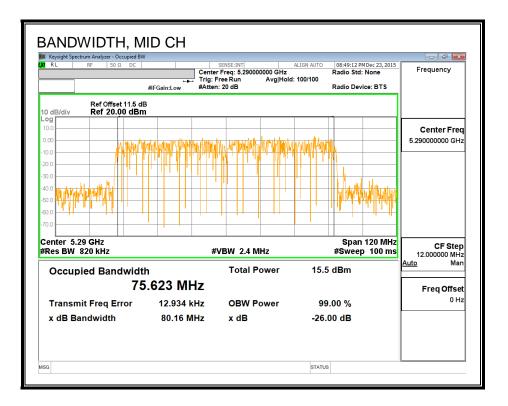
<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Mid	5290	75.623

99% BANDWIDTH



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8.56.3. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power
	(MHz)	(dBm)
Mid	5290	13.29

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8.56.4. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1– MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Min	Directional	Power	PSD
		26 dB	99%	Gain	Limit	Limit
		BW	BW			
	(MHz)	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
Mid	5290	82.56	75.623	2.12	24.00	11.00

	Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd PSD
--	--------------------	------	--

Output Power Results

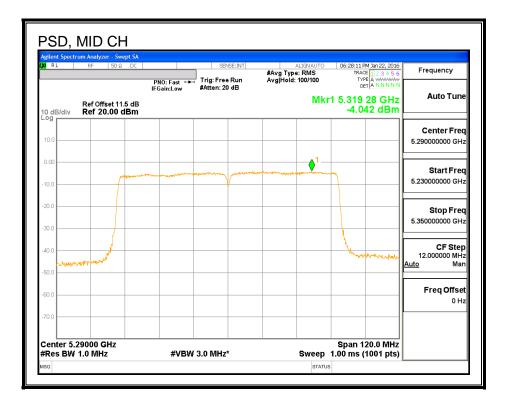
Channel	Frequency	Antenna C	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5290	13.29	13.29	24.00	-10.71

PPSD Results

Channel	Frequency	Antenna C	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5290	-4.04	-3.88	11.00	-14.88

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<u>PSD</u>



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8.57. 802.11ac VHT80 ANTENNA B+A CDD MODE IN THE 5.3 GHz BAND

8.57.1. 26 dB BANDWIDTH

<u>LIMITS</u>

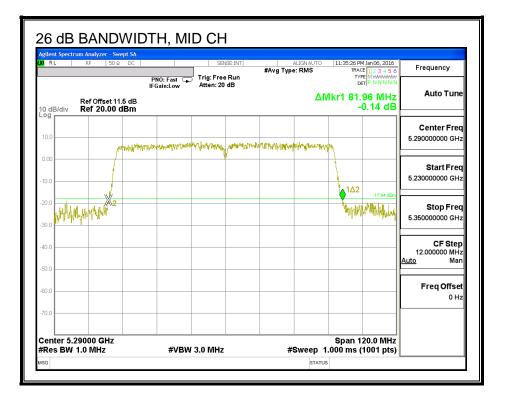
None; for reporting purposes only.

RESULTS

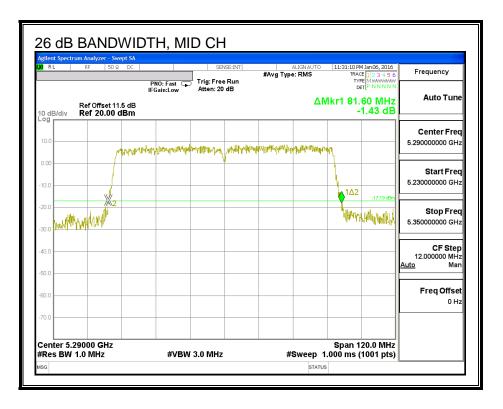
Channel	Frequency	26 dB BW	26 dB BW
		Antenna B	Antenna A
	(MHz)	(MHz)	(MHz)
Mid	5290	81.96	81.60

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26 DB BANDWIDTH, ANTENNA - B



26 DB BANDWIDTH, ANTENNA - A



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8.57.2. 99% BANDWIDTH

<u>LIMITS</u>

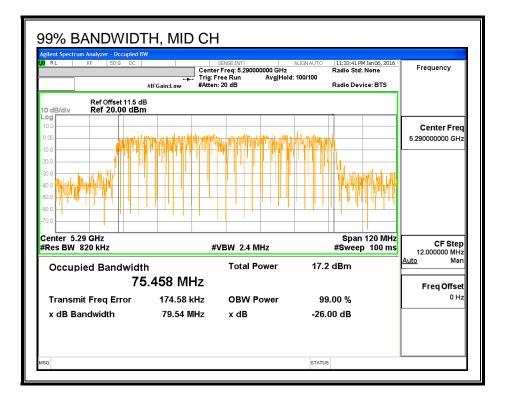
None; for reporting purposes only.

RESULTS

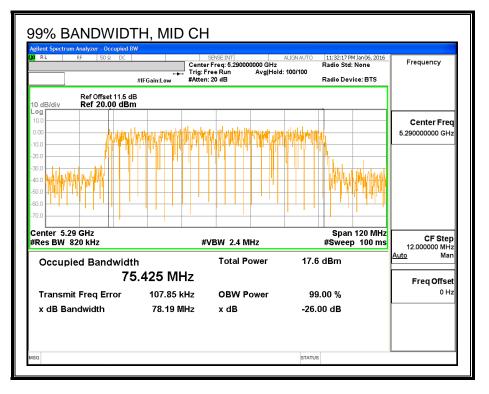
Channel Frequency		99% BW	99% BW
		Antenna B	Antenna A
	(MHz)	(MHz)	(MHz)
Mid	5290	75.458	75.425

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99% BANDWIDTH, ANTENNA - B



99% BANDWIDTH, ANTENNA - A



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8.57.3. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Average Power Results

Channel	Frequency	Antenna	Antenna	Total
		В	Α	
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Mid	5290	11.97	12.00	15.00

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8.57.4. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1– MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

Antenna B	Antenna A	Uncorrelated Chains
		Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.02	2.23	2.64

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

Antenna B	Antenna A	Correlated Chains
		Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
3.02	2.23	5.64

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Min	Directional	Directional	Power	PSD
		26 dB	99%	Gain	Gain	Limit	Limit
		BW	BW	for Power	for PSD		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5290	81.96	75.458	2.64	5.64	24.00	11.00

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

Output Power Results

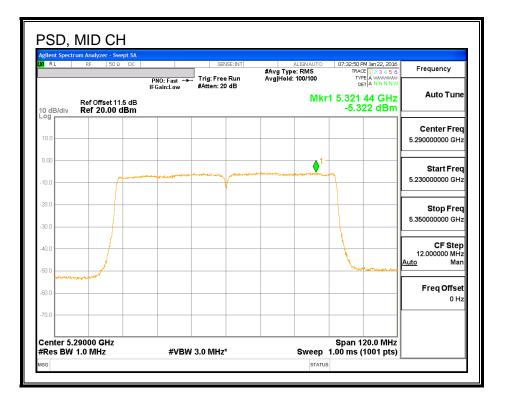
Channel	Frequency	Antenna B	Antenna A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5290	11.97	12.00	15.00	24.00	-9.00

PSD Results

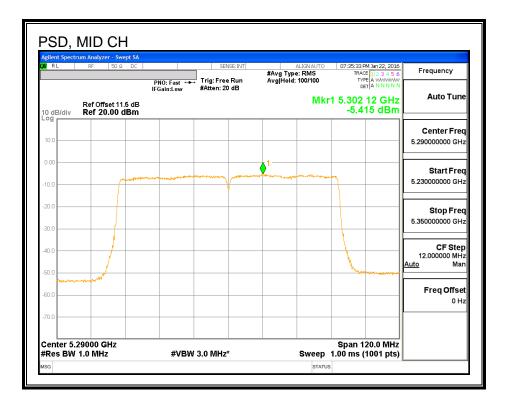
Channel	Frequency	Antenna B	Antenna A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5290	-5.32	-5.42	-2.16	11.00	-13.16

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PSD, ANTENNA - B



PSD, ANTENNA – A



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8.58. 802.11ac VHT80 ANTENNA A+C CDD MODE IN THE 5.3 GHz BAND

8.58.1. 26 dB BANDWIDTH

<u>LIMITS</u>

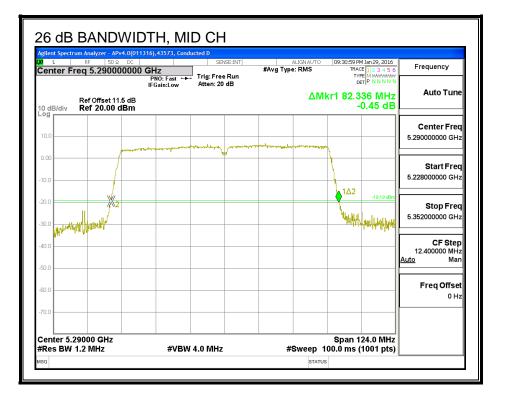
None; for reporting purposes only.

RESULTS

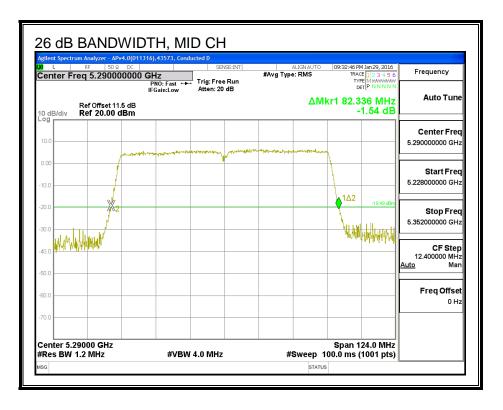
Channel Frequency		26 dB BW	26 dB BW	
		Antenna A	Antenna C	
	(MHz)	(MHz)	(MHz)	
Mid	5290	82.34	82.34	

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26 DB BANDWIDTH, ANTENNA - A



26 DB BANDWIDTH, ANTENNA - C



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8.58.2. 99% BANDWIDTH

<u>LIMITS</u>

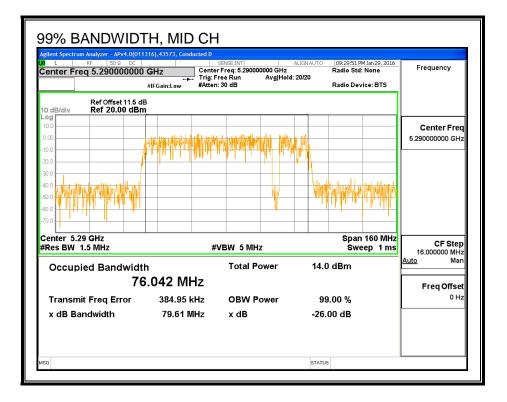
None; for reporting purposes only.

RESULTS

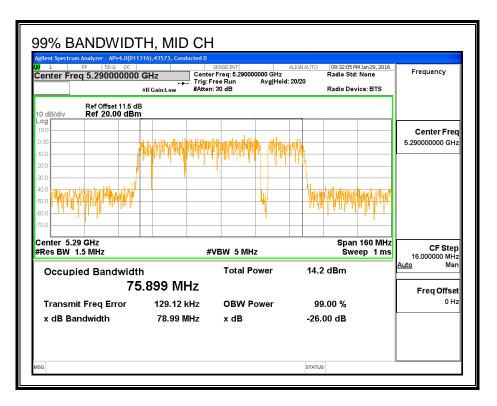
Channel	Channel Frequency		99% BW	
		Antenna A	Antenna C	
	(MHz)	(MHz)	(MHz)	
Mid	5290	76.042	75.899	

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99% BANDWIDTH, ANTENNA - A



99% BANDWIDTH, ANTENNA - C



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8.58.3. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Average Power Results

Channel	Frequency	Antenna	Antenna	Total
		Α	С	
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Mid	5290	12.00	11.92	14.97

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8.58.4. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1– MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

Antenna A	Antenna C	Uncorrelated Chains
		Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.23	2.12	2.18

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

Antenna A	Antenna C	Correlated Chains
		Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.23	2.12	5.19

RESULTS

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Min	Directional	Directional	Power	PSD
		26 dB	99%	Gain	Gain	Limit	Limit
		BW	BW	for Power	for PSD		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Mid	5290	82.34	76.042	2.18	5.19	24.00	11.00

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

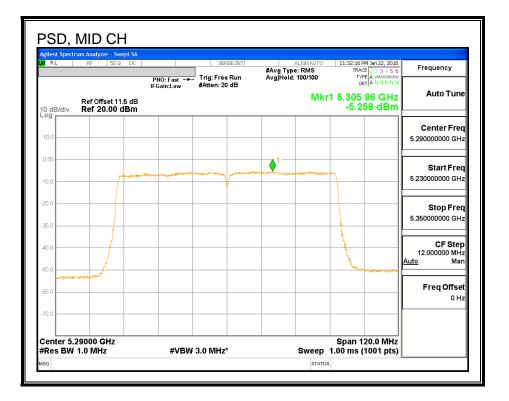
Output Power Results

Channel	Frequency	Antenna A	Antenna C	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5290	12.00	11.92	14.97	24.00	-9.03

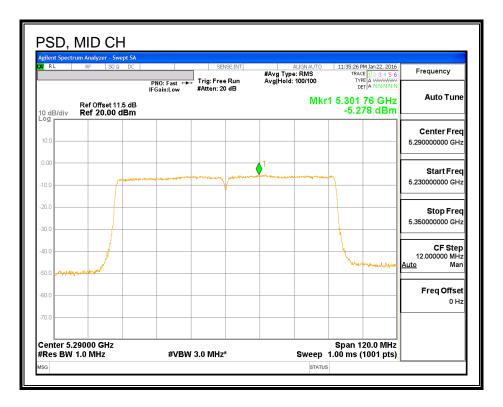
PSD Results

Channel	Frequency	Antenna A	Antenna C	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5290	-5.26	-5.28	-2.06	11.00	-13.06

PSD, ANTENNA - A



PSD, ANTENNA - C



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8.59. 802.11ac VHT80 ANTENNA B+A STBC MODE IN THE 5.3 GHz BAND

Noted: Covered by 802.11ac VHT80 ANTENNA B+A CDD MODE IN THE 5.3 GHz BAND

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8.60. 802.11ac VHT80 ANTENNA A+C STBC MODE IN THE 5.3 GHz BAND

Noted: Covered by 802.11ac VHT80 ANTENNA A+C CDD MODE IN THE 5.3 GHz BAND

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8.61. 802.11ac VHT80 ANTENNA B+A SDM MODE IN THE 5.3 GHz BAND

Noted: Covered by 802.11ac VHT80 ANTENNA B+A CDD MODE IN THE 5.3 GHz BAND

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8.62. 802.11ac VHT80 ANTENNA A+C SDM MODE IN THE 5.3 GHz BAND

Noted: Covered by 802.11ac VHT80 ANTENNA A+C CDD MODE IN THE 5.3 GHz BAND

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8.63. 802.11a ANTENNA - B MODE IN THE 5.6 GHz BAND

Note: Covered by 802.11n HT20 ANTENNA B MODE IN THE 5.6 GHz BAND

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8.64. 802.11n HT20 ANTENNA - B MODE IN THE 5.6 GHz BAND

8.64.1. 26 dB BANDWIDTH

<u>LIMITS</u>

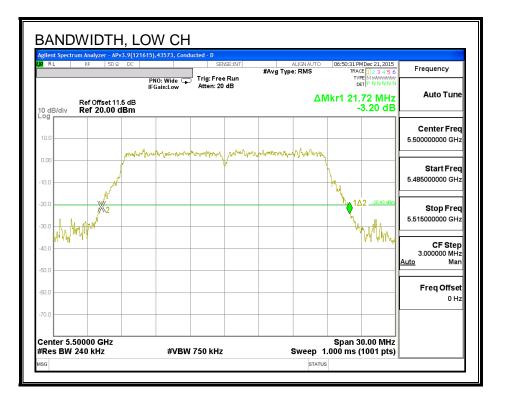
None; for reporting purposes only.

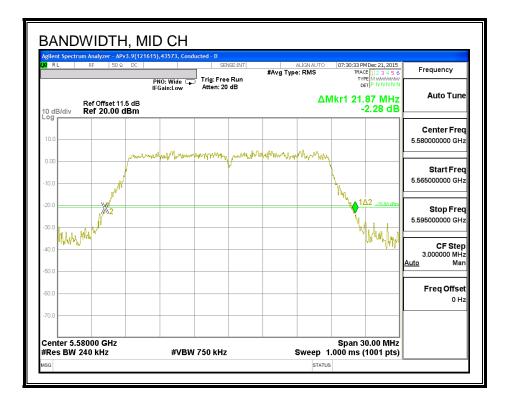
RESULTS

Channel	Frequency	26 dB Bandwidth	
	(MHz)	(MHz)	
Low	5500	21.72	
Mid	5580	21.87	
High	5700	21.84	
144	5720	21.81	

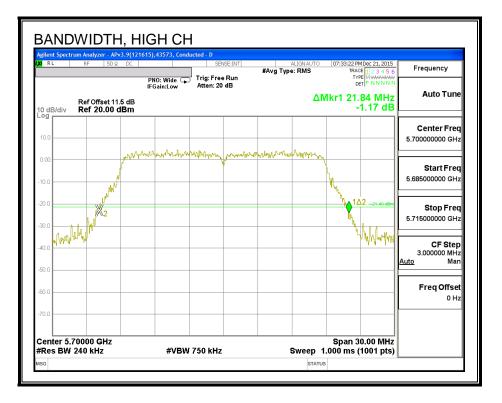
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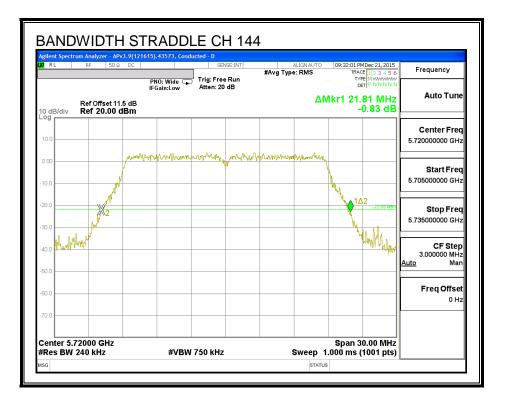
26 dB BANDWIDTH





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8.64.2. 99% BANDWIDTH

<u>LIMITS</u>

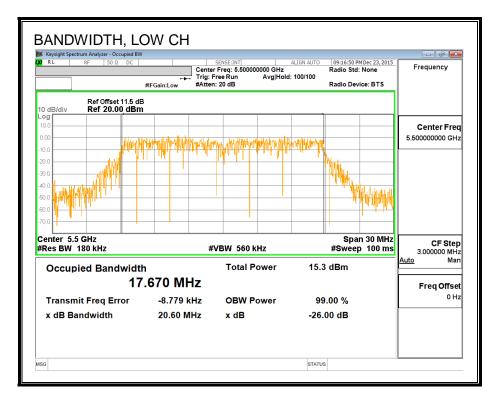
None; for reporting purposes only.

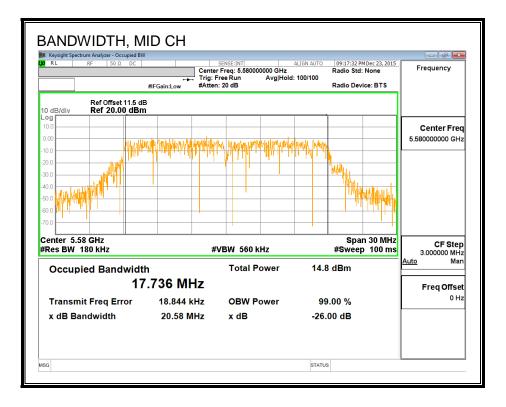
RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5500	17.670
Mid	5580	17.736
High	5700	17.669
144	5720	17.644

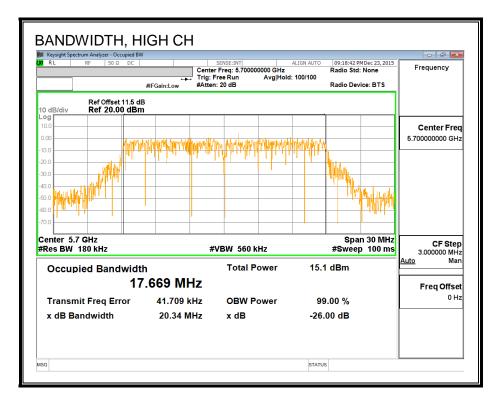
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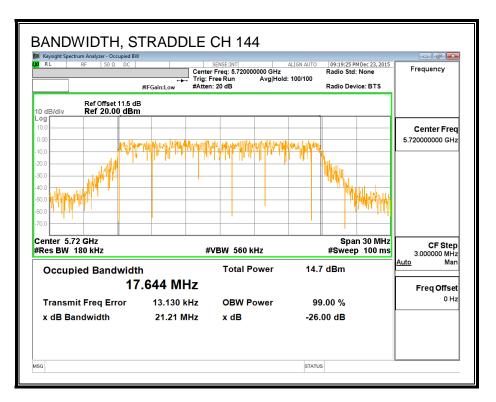
99% BANDWIDTH





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8.64.3. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power	
	(MHz)	(dBm)	
Low	5500	15.48	
Mid	5580	16.45	
High	5700	14.93	
144	5720	16.50	

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8.64.4. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1– MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

Straddle channel power is measured using PXA spectrum analyzer, 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

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Min	Directional	Power	PSD
		26 dB	99%	Gain	Limit	Limit
		BW	BW			
	(MHz)	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
Low	5500	21.72	17.670	2.83	23.47	11.00
Mid	5580	21.87	17.736	2.83	23.49	11.00
High	5700	21.84	17.669	2.83	23.47	11.00
Duty Cycle CF (dB) 0.00			Included in Calculations of Corr'd PSD			

Output Power Results

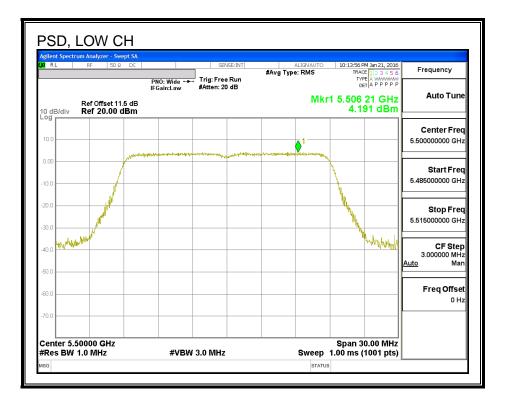
Channel	Frequency	Antenna B	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	15.48	15.48	23.47	-7.99
Mid	5580	16.45	16.45	23.49	-7.04
High	5700	14.93	14.93	23.47	-8.54

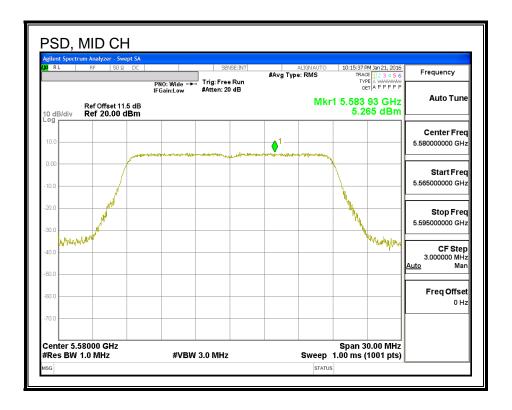
PSD Results

Channel	Frequency	Antenna B	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	4.19	4.19	11.00	-6.81
Mid	5580	5.27	5.27	11.00	-5.74
High	5700	3.69	3.69	11.00	-7.31

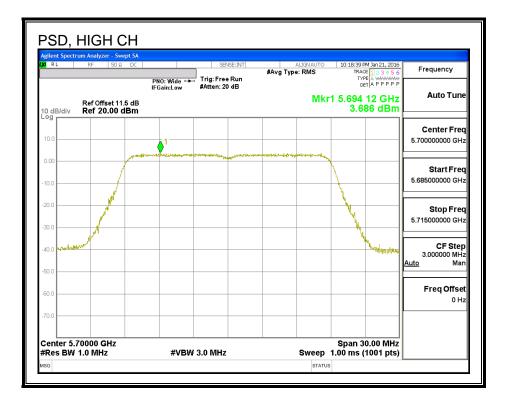
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<u>PSD</u>





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8.65. 802.11ac VHT20 ANTENNA - B STRADDLE CHANNEL 144 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
144	5720	15.91	2.83	2.83	23.02	11.00

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

Output Power Results

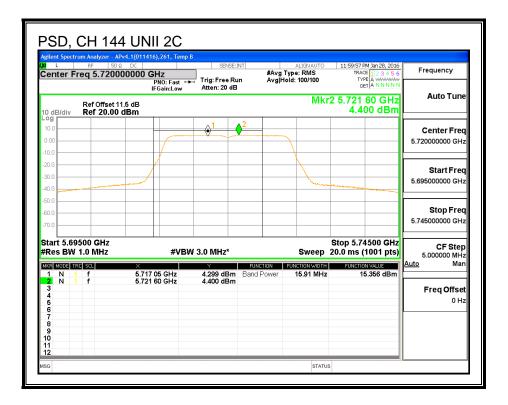
Channel	Frequency	Antenna B	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	15.36	15.36	23.02	-7.66

PSD Results

Channel	Frequency	Antenna B	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	4.40	4.40	11.00	-6.60

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× ∟ RF Center Freq 5.72	50 Ω DC 200000000 GHz PN0: Fast *	SENSE:IN	#Avg	ALIGNAUTO Type: RMS Iold: 100/100	11:59:41 PM Jan 28, 2016 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	Frequency
10 dB/div Ref 20.	et 11.5 dB .00 dBm	Atten: 20 dB			1 5.717 05 GHz /er 15.356 dBm	Auto Tune
10.0 0.00		0 ¹				Center Freq 5.720000000 GHz
-20.0						Start Freq 5.695000000 GHz
-50.0						Stop Freq 5.745000000 GHz
Start 5.69500 GHz #Res BW 1.0 MHz	#VB	W 3.0 MHz*		Sweep	Stop 5.74500 GHz 20.0 ms (1001 pts)	CF Step 5.000000 MHz Auto Man
MKR MODE TRC SCL 1 N 1 f 2 3 4 5 6 7 8 9 10 11 12	× 5.717 05 GHz	4.299 dBm	FUNCTION Band Power	FUNCTION WIDTH	Fungetion value 15.356 dBm	Freq Offset



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Power	PSD
		26 dB	Gain	Limit	Limit
		BW			
	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
144	5720	5.91	2.83	30.00	30.00

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

Output Power Results

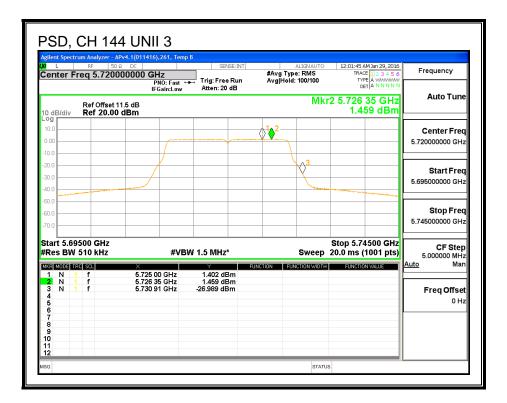
Channel	Frequency	Antenna B	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	9.89	9.89	30.00	-20.11

PSD Results

Channel	Frequency	Antenna B	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	1.46	1.46	30.00	-28.54

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enter F	RF 50 Ω Freq 5.72000	DC DOOOO GHz PNO: Fast ← IFGain:Low	SENSE:INT Trig: Free Run Atten: 20 dB	ALIGNAUTO #Avg Type: RMS Avg Hold: 100/100	12:00:08 AM Jan 29, 2016 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
0 dB/div	Ref Offset 11 Ref 20.00 (1 5.727 95 GHz wer 9.887 dBm	Auto Tune
og 10.0 0.00			~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			Center Free 5.720000000 GH
20.0					Marken Marken	Start Free 5.69500000 GH
50.0 50.0 70.0						Stop Free 5.745000000 GH
	9500 GHz 1.0 MHz	#VB	W 3.0 MHz*	Sweep	Stop 5.74500 GHz 20.0 ms (1001 pts)	CF Stej 5.000000 MH Auto Ma
		5.727 95 GHz	4.087 dBm Ba		9.887 dBm	Freq Offse 0 H:



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8.65.1. 6 dB BANDWIDTH

<u>LIMITS</u>

FCC §15.407 (e)

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

RESULTS

Channel	Frequency	6 dB Bandwidth
	(MHz)	(MHz)
144	5720	3.83

6 dB BANDWIDTH

LXI	L		RF	alyzer - AP 50 ג 5.72000	DC					SENSE:		#Avg		LIGNAUTO : RMS	01:	TRAC	MFeb 02, 201 E 1 2 3 4 5	6 Frequency
			4 4			PNO	: Wide in:Low	•••	Trig: Fr Atten:							DE	EMWWWW TPNNNN	Ň
10 d	B/di			Offset 11										Mkr	4 5.7		15 GH: 95 dBn	Z
Log 10.0 0.00				ſ	workeyne	and the second	sant-ro	*****	wan Arw	u v	and spine	er on the second	Ar)	pp. and and a	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	∆2	-5.24 dB	Center Fr 5.720000000 G
-20.0 -30.0 -40.0	┝	0.0.1	م مهلو	www											Ŷ	Pr way	hy we are	Start Fr 5.706500000 G
-50.0 -60.0 -70.0	⊢	NY N															ુ પ~ા,	Stop Fr 5.733500000 G
		5.72 W 1		0 GHz kHz			#VE	SW 3	00 kH	Iz				Sweep			7.00 MH 1001 pts	
MKF 1 2 3 4 5	MODE A2 F N N	1 1 1 1 1		(Δ)	5.728 5.728	3.829 5 000 5 000 9 915	GHz	7)	-2.6 -3.37 -3.37 -3.95	dBm	FUNC	TION	FUNC	TION WIDTH		UNCTIO	N VALUE	Auto M Freq Offs
6 7 8 9 10 11 12																		

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8.66. 802.11a ANTENNA - A MODE IN THE 5.6 GHz BAND

Note: Covered by 802.11n HT20 ANTENNA A MODE IN THE 5.6 GHz BAND

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8.67. 802.11n HT20 ANTENNA - A MODE IN THE 5.6 GHz BAND

8.67.1. 26 dB BANDWIDTH

LIMITS

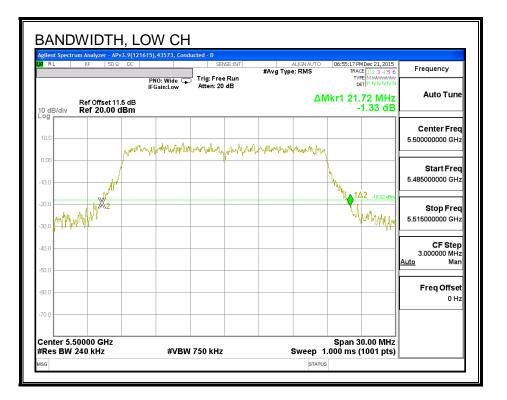
None; for reporting purposes only.

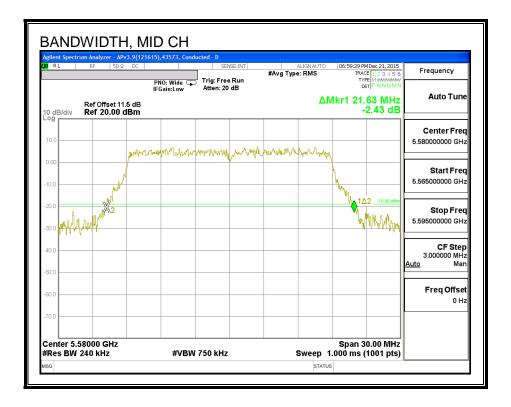
<u>RESULTS</u>

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5500	21.72
Mid	5580	21.63
High	5700	21.72
144	5720	21.63

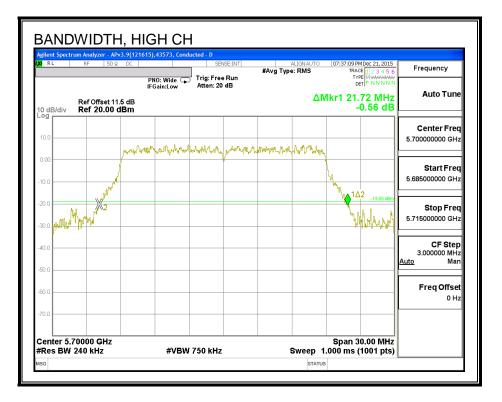
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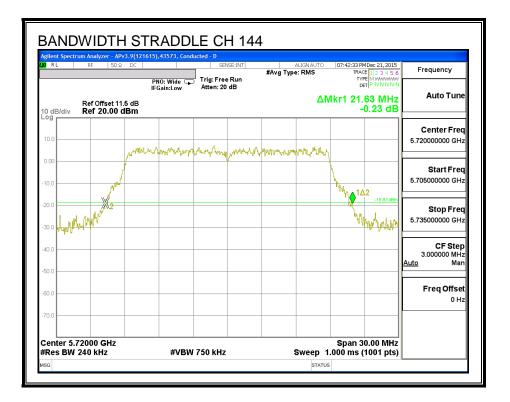
26 dB BANDWIDTH





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8.67.2. 99% BANDWIDTH

<u>LIMITS</u>

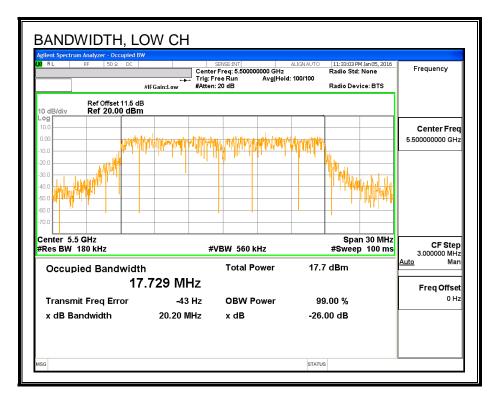
None; for reporting purposes only.

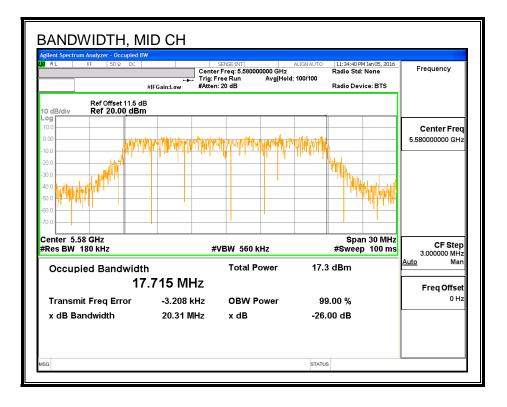
<u>RESULTS</u>

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5500	17.729
Mid	5580	17.715
High	5700	17.721
144	5720	17.749

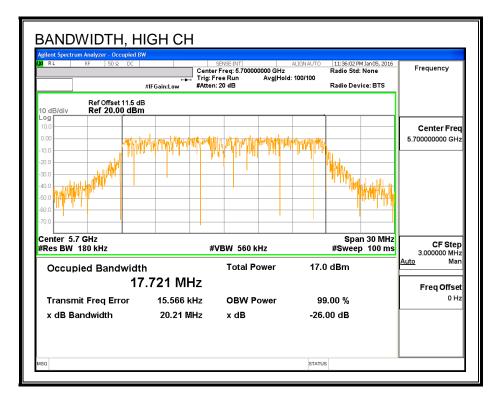
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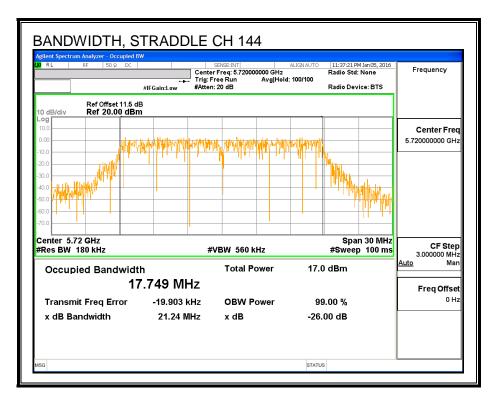
99% BANDWIDTH





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8.67.3. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

<u>RESULTS</u>

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5500	15.47
Mid	5580	15.98
High	5700	14.96
144	5720	16.00

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8.67.4. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1– MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

Straddle channel power is measured using PXA spectrum analyzer, 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

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Min	Directional	Power	PSD		
		26 dB	99%	Gain	Limit	Limit		
		BW	BW					
	(MHz)	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)		
Low	5500	21.72	17.729	4.03	23.49	11.00		
Mid	5580	21.63	17.715	4.03	23.48	11.00		
High	5700	21.72	17.721	4.03	23.48	11.00		
Duty C	ycle CF (dB)	0.00	Included in Calculations of Corr'd PSD					

Output Power Results

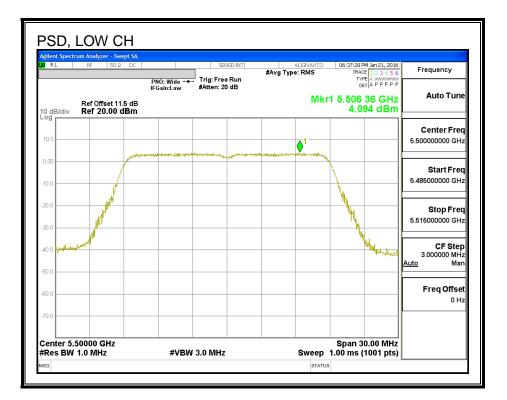
Channel	Frequency	Antenna A	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	15.47	15.47	23.49	-8.02
Mid	5580	15.98	15.98	23.48	-7.50
High	5700	14.96	14.96	23.48	-8.52

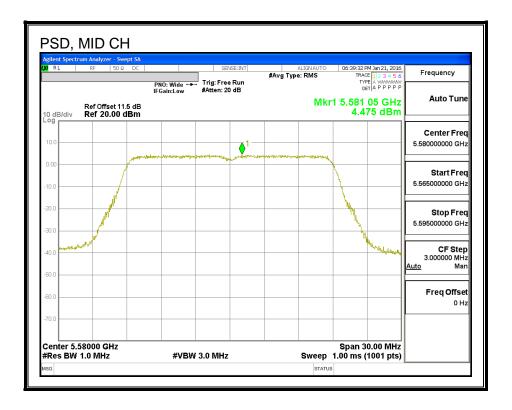
PSD Results

Channel	Frequency	Antenna A	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	4.09	4.09	11.00	-6.91
Mid	5580	4.48	4.48	11.00	-6.53
High	5700	3.76	3.76	11.00	-7.24

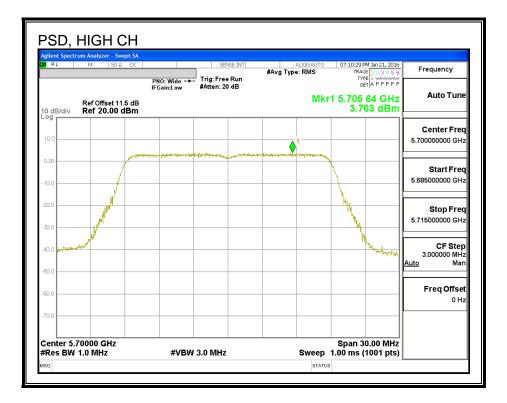
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<u>PSD</u>





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8.68. 802.11ac VHT20 ANTENNA - A STRADDLE CHANNEL 144 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
144	5720	15.91	4.03	4.03	23.02	11.00

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

Output Power Results

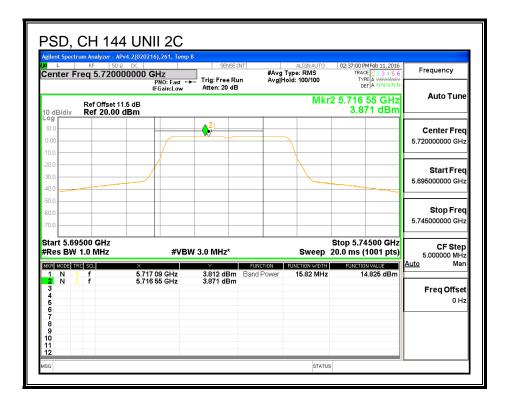
Channel	Frequency	Antenna A	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	14.83	14.83	23.02	-8.19

PSD Results

Channel	Frequency	Antenna A	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	3.87	3.87	11.00	-7.13

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L RF	50 Ω DC	SENSE:INT	ALIGNAUTO #Avg Type: RMS	02:36:46 PMFeb 11, 2016 TRACE 1 2 3 4 5 6	Frequency
Senter Freq 5.	PNO: Fast IFGain:Low		Avg Hold: 100/100	DET A N N N N N	
10 dB/div Ref 2	fset 11.5 dB 20.00 dBm		Mkr Band Pow	1 5.717 09 GHz /er 14.825 dBm	Auto Tune
10.0		¹			Center Freq
10.00					5.720000000 GHz
20.0					Start Free
30.0					5.695000000 GHz
50.0					
70.0					Stop Freq 5.745000000 GHz
Start 5.69500 GI #Res BW 1.0 MH	iz #V	BW 3.0 MHz*	•	Stop 5.74500 GHz 20.0 ms (1001 pts)	CF Step 5.000000 MHz Auto Man
MKR MODE TRC SCL 1 N 1 f 2	× 5.717 09 GHz		d Power 15.82 MHz	14.825 dBm	<u>Auto</u> man
2 3 4 5 6					Freq Offsel 0 Hz
7 8					
9 10					
11					



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Power	PSD
		26 dB	Gain	Limit	Limit
		BW			
	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
144	5720	5.91	4.03	30.00	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power & PSD
	0.00	included in Calculations of Coll & Fower & Fo

Output Power Results

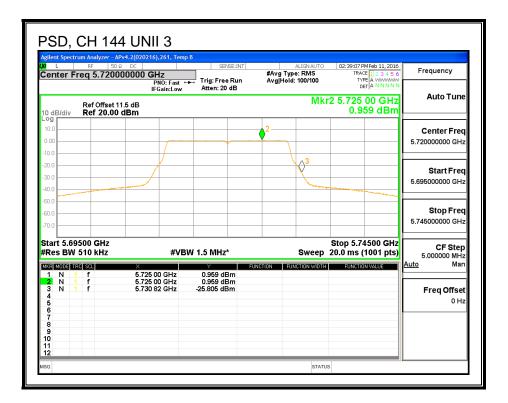
Channel	Frequency	Antenna A	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	9.40	9.40	30.00	-20.60

PSD Results

Channel	Frequency	Antenna A	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	0.96	0.96	30.00	-29.04

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enter F	RF 50 Ω Freq 5.720000		SENSE:INT Trig: Free Run Atten: 20 dB	ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	02:37:27 PMFeb 11, 2016 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	Frequency
0 dB/div	Ref Offset 11.5 Ref 20.00 dB				1 5.727 91 GHz wer 9.403 dBm	Auto Tune
og 10.0 0.00				Q ¹		Center Free 5.720000000 GH
20.0						Start Free 5.69500000 GH
i0.0 i0.0 '0.0						Stop Free 5.745000000 GH
Res BW	9500 GHz / 1.0 MHz		N 3.0 MHz*		Stop 5.74500 GHz 20.0 ms (1001 pts)	CF Step 5.000000 MH Auto Mar
KE MODE 1 N 2 3 4 5 5 6 7 8 9 0 1 2	FC 501	x 5.727 91 GHz		nd Power 5.815 MHz	9.403 dBm	Freq Offse 0 H



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8.68.1. 6 dB BANDWIDTH

<u>LIMITS</u>

FCC §15.407 (e)

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

RESULTS

Channel	Frequency	6 dB Bandwidth
	(MHz)	(MHz)
144	5720	3.86

6 dB BANDWIDTH

Center I		Ω DC 000000 GHz PNO: Wide	SENSE:INT	ALIGNAUTO #Avg Type: RMS	01:33:55 PM Feb 02, 2016 TRACE 1 2 3 4 5 6 TYPE M WANNAW DET P N N N N N	Frequency
10 dB/div	Ref Offset 1 Ref 20.00		Atten: 20 dB	Mkr4	4 5.721 928 GHz -1.34 dBm	Auto Tune
10.0 0.00 -10.0		mmunitari	parman perma	4 3 month and the second	1∆2 -4.65 dBm	Center Free 5.720000000 GH
-20.0 -30.0 -40.0	areward .				Marylon Marylo	Start Fred 5.706500000 GHz
-50.0 -60.0 -70.0						Stop Frec 5.733500000 GH;
	.72000 GHz / 100 kHz	#VE	300 kHz	Sweep	Span 27.00 MHz 2.60 ms (1001 pts)	CF Step 2.700000 MH Auto Mar
1 ∆2 2 F 3 N	1 f (Δ) 1 f 1 f 1 f	3.856 MHz (5.725 000 GHz 5.725 000 GHz 5.726 000 GHz 5.721 928 GHz			PORCHOR WEDE	Freq Offse 0 H:

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8.69. 802.11a ANTENNA C MODE IN THE 5.6 GHz BAND

Note: Covered by 802.11n HT20 ANTENNA C MODE IN THE 5.6 GHz BAND

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8.70. 802.11n HT20 ANTENNA - C MODE IN THE 5.6 GHz BAND

8.70.1. 26 dB BANDWIDTH

LIMITS

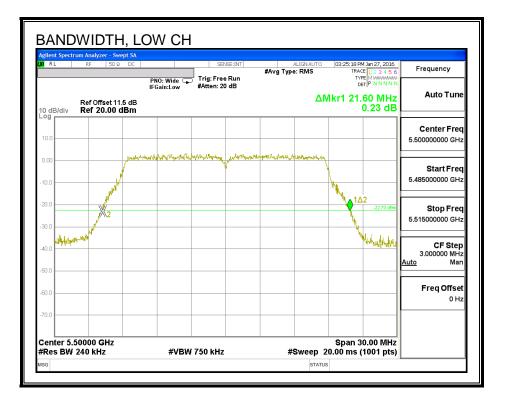
None; for reporting purposes only.

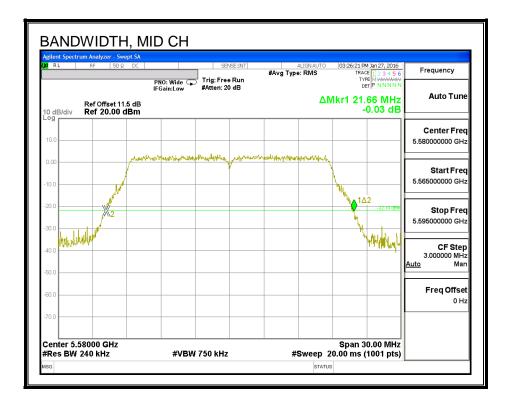
<u>RESULTS</u>

Channel	Frequency	26 dB Bandwidth		
	(MHz)	(MHz)		
Low	5500	21.60		
Mid	5580	21.66		
High	5700	21.84		
144	5720	21.81		

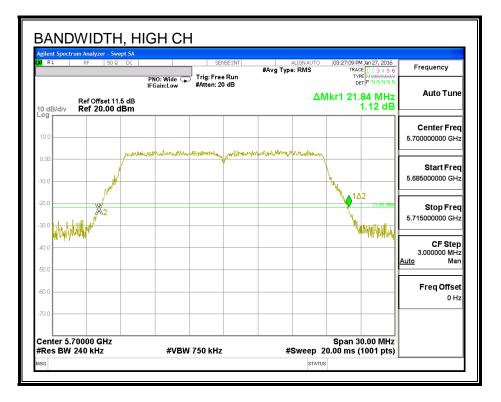
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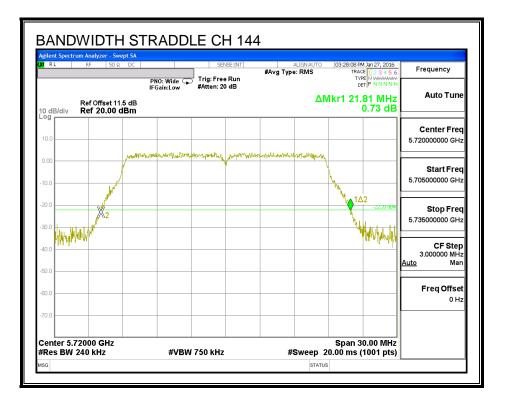
26 dB BANDWIDTH





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8.70.2. 99% BANDWIDTH

<u>LIMITS</u>

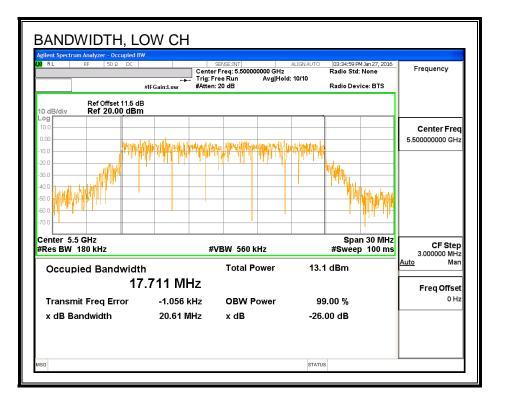
None; for reporting purposes only.

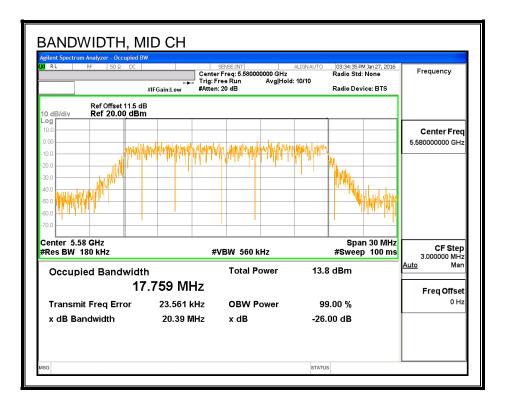
RESULTS

Channel	Frequency	99% Bandwidth
	(MHz)	(MHz)
Low	5500	17.711
Mid	5580	17.759
High	5700	17.701
144	5720	17.735

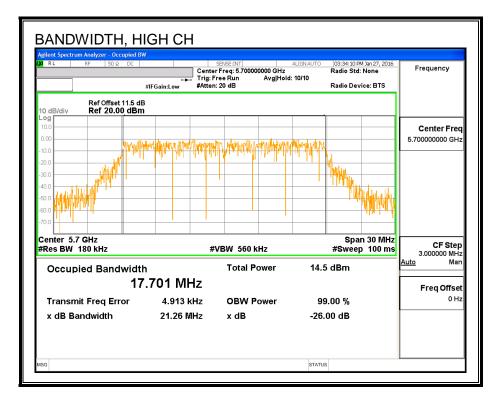
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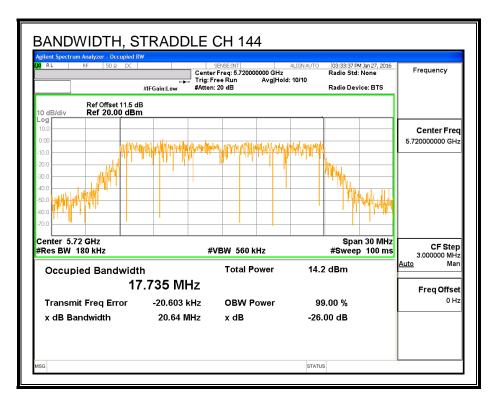
99% BANDWIDTH





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8.70.3. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5500	14.95
Mid	5580	15.00
High	5700	14.94
144	5720	14.90

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8.70.4. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1– MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

Straddle channel power is measured using PXA spectrum analyzer, 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

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Min	Directional	Power	PSD
		26 dB	99%	Gain	Limit	Limit
		BW	BW			
	(MHz)	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
Low	5500	21.60	17.711	4.16	23.48	11.00
Mid	5580	21.66	17.759	4.16	23.49	11.00
High	5700	21.84	17.701	4.16	23.48	11.00
Duty Cycle CF (dB) 0.00 Included in Calculations of Corr'd PSD)	

Output Power Results

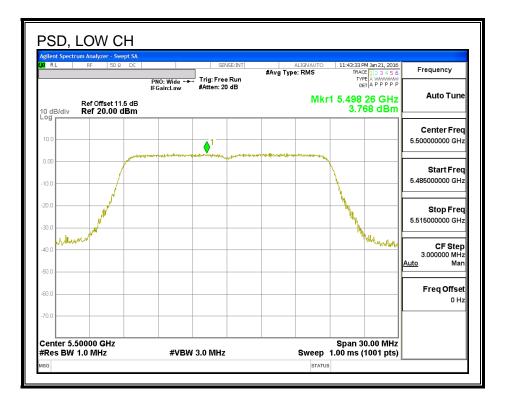
Channel	Frequency	Antenna C	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	14.95	14.95	23.48	-8.53
Mid	5580	15.00	15.00	23.49	-8.49
High	5700	14.94	14.94	23.48	-8.54

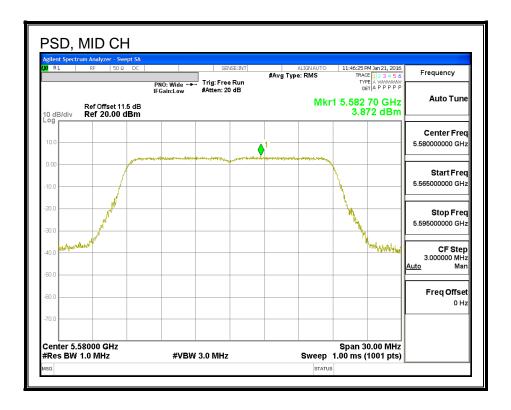
PSD Results

Channel	Frequency	Antenna C	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	3.77	3.77	11.00	-7.23
Mid	5580	3.87	3.87	11.00	-7.13
High	5700	3.74	3.74	11.00	-7.26

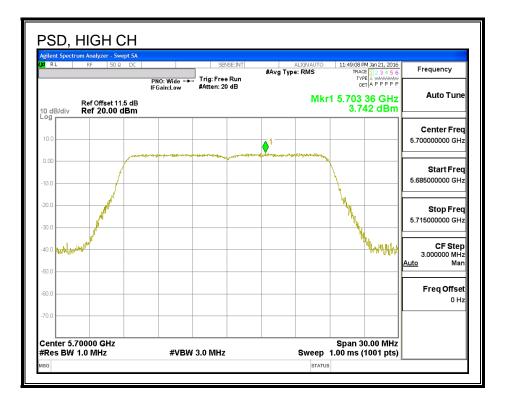
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<u>PSD</u>





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8.71. 802.11ac VHT20 ANTENNA - C STRADDLE CHANNEL 144 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
144	5720	15.91	4.16	4.16	23.02	11.00

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

Output Power Results

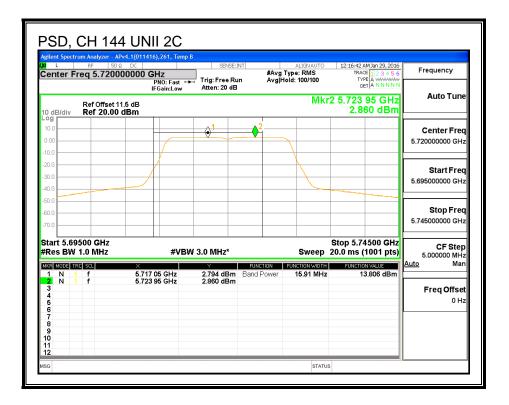
Channel	Frequency	Antenna C	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	13.81	13.81	23.02	-9.21

PSD Results

Channel	Frequency	Antenna C	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	2.86	2.86	11.00	-8.14

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	- APv4.1(011416),261, Temp 50 Ω DC	SENSE:IN		ALIGNAUTO	12:16:35 AM Jan 29, 2016 TRACE 1 2 3 4 5 6	Frequency
Center Freq 5.72	PNO: Fast ← IFGain:Low	Trig: Free Run Atten: 20 dB		old: 100/100	DET A N N N N N	
10 dB/div Ref 20.	et 11.5 dB 00 dBm		E		5.717 05 GHz er 13.806 dBm	Auto Tune
10.0 0.00 -10.0		Q ¹				Center Freq 5.720000000 GHz
-20.0						Start Freq 5.695000000 GHz
-50.0						Stop Freq 5.745000000 GHz
Start 5.69500 GHz #Res BW 1.0 MHz	#VB	N 3.0 MHz*			Stop 5.74500 GHz 0.0 ms (1001 pts)	CF Step 5.000000 MHz
MKR MODE TRC SCL 1 N 1 f 2	× 5.717 05 GHz	Y 2.794 dBm		FUNCTION WIDTH 15.91 MHz	FUNCTION VALUE 13.806 dBm	<u>Auto</u> Man
2 3 4 5 6 7 7 8 9 10 11						Freq Offset 0 Hz



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Power	PSD
		26 dB	Gain	Limit	Limit
		BW			
	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
144	5720	5.91	4.16	30.00	30.00

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

Output Power Results

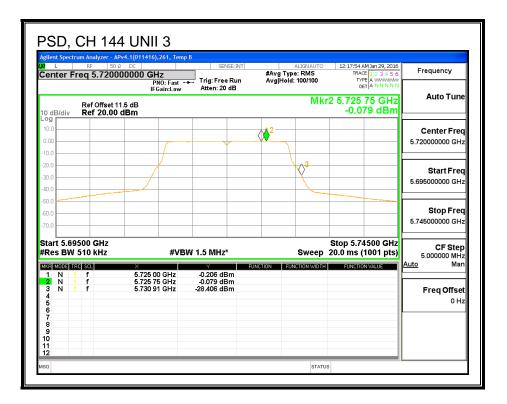
Channel	Frequency	Antenna C	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	8.32	8.32	30.00	-21.68

PSD Results

Channel	Frequency	Antenna C	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	-0.08	-0.08	30.00	-30.08

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enter F	RF 50 Ω Freq 5.72000		SENSE:INT Trig: Free Run Atten: 20 dB	ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	12:16:50 AM Jan 29, 2016 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	Frequency
0 dB/div	Ref Offset 11. Ref 20.00 d	5 dB			r1 5.727 95 GHz ower 8.320 dBm	Auto Tune
og 10.0 0.00				••••••••••••••••••••••••••••••••••••••		Center Free 5.720000000 GH:
20.0						Start Free 5.69500000 GH
i0.0 i0.0 '0.0						Stop Free 5.745000000 GH
	9500 GHz / 1.0 MHz	#VB\	₩ 3.0 MHz*		Stop 5.74500 GHz 20.0 ms (1001 pts)	CF Step 5.000000 MH Auto Mar
		6.727 95 GHz	2.556 dBm B		TONCHOIL VALUE	Freq Offse 0 H:



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8.71.1. 6 dB BANDWIDTH

<u>LIMITS</u>

FCC §15.407 (e)

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

RESULTS

Channel	Frequency	6 dB Bandwidth
	(MHz)	(MHz)
144	5720	3.88

6 dB BANDWIDTH

RF 50	000000 GHz PNO: Wide	SENSE:INT	ALIGNAUTO #Avg Type: RMS	TRACE 1 2 3 4 1	5 6 Frequency
	11.5 dB	Atten: 20 GB	Mkı		Auto Tune
	and the particular	where we are a for the second	4 3 Marine	1 <u>0</u> 2	Center Fred 5.720000000 GHz
per and				- how and the second se	Start Free 5.706500000 GHz
					Stop Fred 5.733500000 GHz
100 kHz	#VI		•	· ·	(S) 2.700000 MHz
C SCL f (Δ) f f			UNCTION FUNCTION WIDT	H FUNCTION VALUE	Freq Offsel
	Ref Offset Ref 20.00 2000 GHz 2000 GHz 2000 GHz 6 Sci f (Δ) f	RF 50 g DC req 5.720000000 GHz PN0: Wide IFGain:Low Ref 0ffset 11.5 dB Ref 20.00 dBm // MMM////////////////////////////////	PR0: Wide Trig: Free Run Atten: 20 dB Ref Offset 11.5 dB Ref 20.00 dBm Trig: Free Run Atten: 20 dB 000 dBm 000 dBm 000 dBm 000 dBm	RF 50.2 C SENSE INT AUSHAUTC PR0: Wide → IFGainLow Trig: Free Run Atten: 20 dB #Avg Type: RMS Ref Offset 11.5 dB MkI Ref 20.00 dBm MkI Auge Autor Auge Autor Auge Autor Auge Autor Ph0: Wide → IFGainLow Trig: Free Run Atten: 20 dB Ref 00fset 11.5 dB MkI Auge Autor Auge Autor Z00	RF 50.0 C SENSE:NT ALEMANTO D1399559MFeb 02.3 reg 5.720000000 GHz PN0: Wide

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8.72. 802.11n HT20 ANTENNA B+A CDD MODE IN THE 5.6 GHz BAND

8.72.1. 26 dB BANDWIDTH

LIMITS

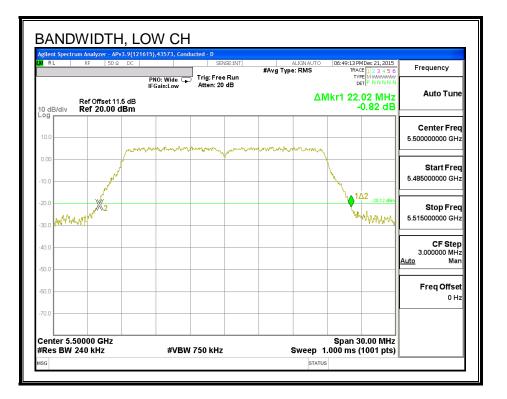
None; for reporting purposes only.

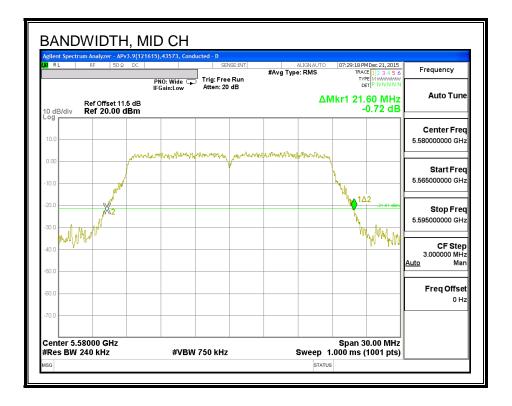
RESULTS

Channel	Frequency	26 dB BW	26 dB BW
		Antenna B	Antenna A
	(MHz)	(MHz)	(MHz)
Low	5500	22.02	21.84
Mid	5580	21.60	21.63
High	5700	21.60	21.81
144	5720	21.75	21.72

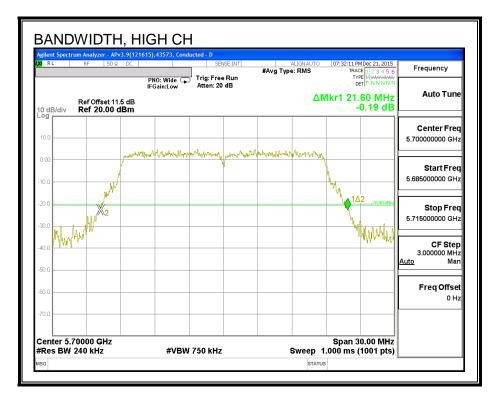
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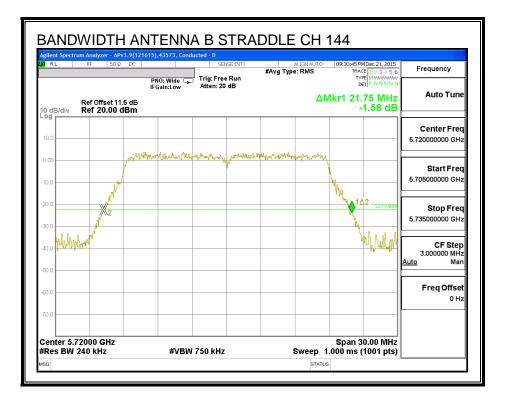
26 dB BANDWIDTH, ANTENNA - B





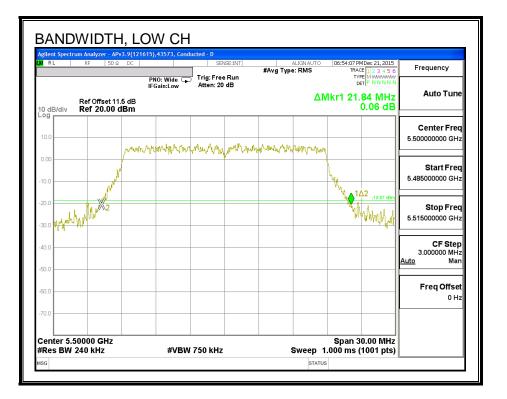
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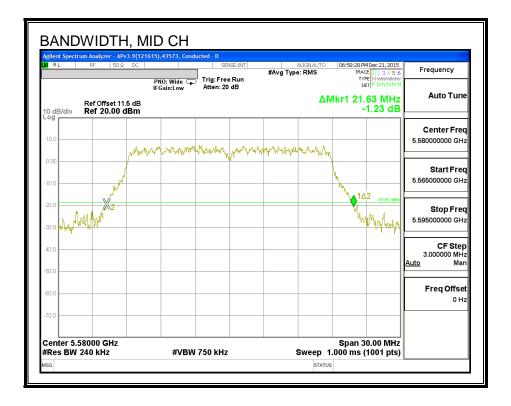




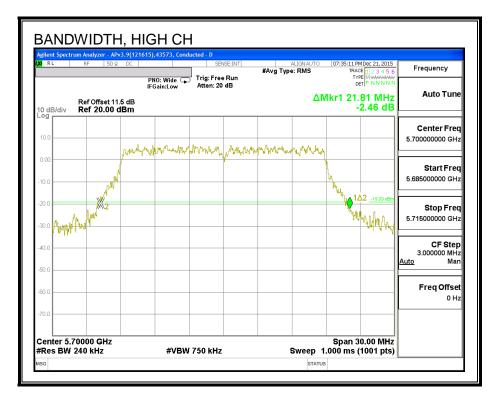
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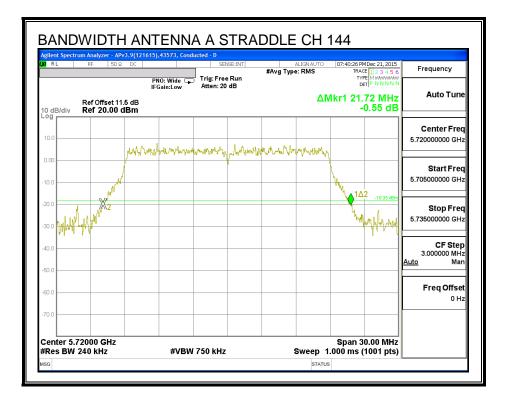
26 dB BANDWIDTH, ANTENNA - A





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8.72.2. 99% BANDWIDTH

<u>LIMITS</u>

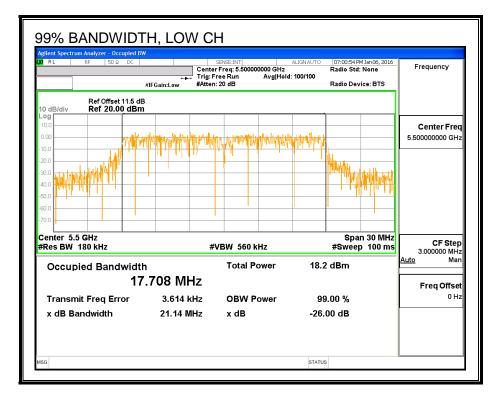
None; for reporting purposes only.

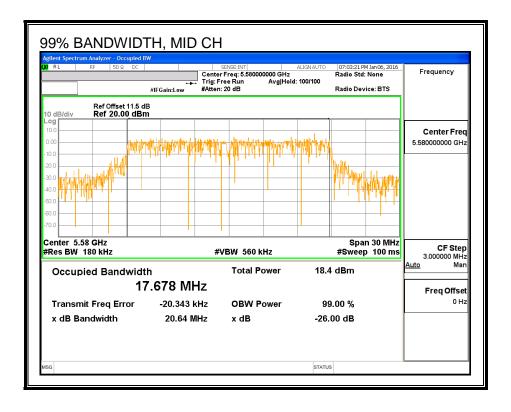
RESULTS

Channel	Frequency	99% BW	99% BW
		Antenna B	Antenna A
	(MHz)	(MHz)	(MHz)
Low	5500	17.708	17.780
Mid	5580	17.678	17.735
High	5700	17.751	17.660
144	5720	17.777	17.714

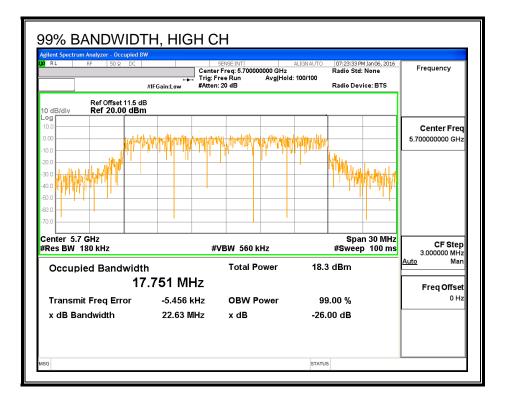
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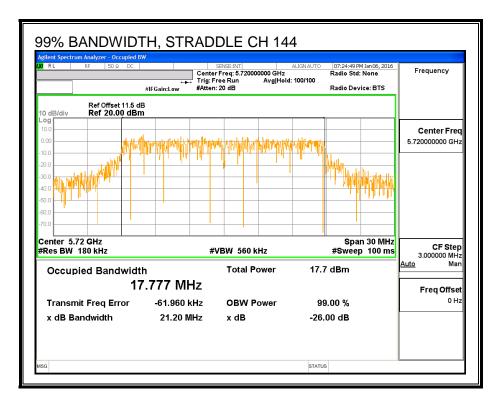
99% BANDWIDTH, ANTENNA - B





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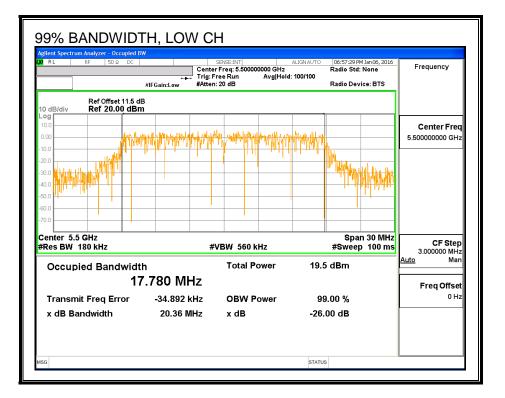


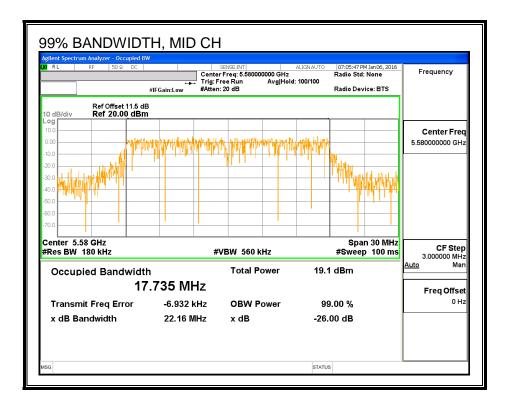


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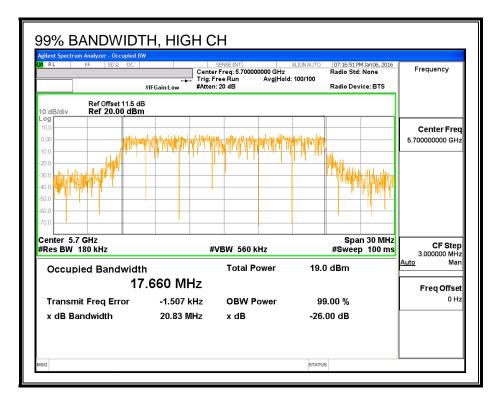
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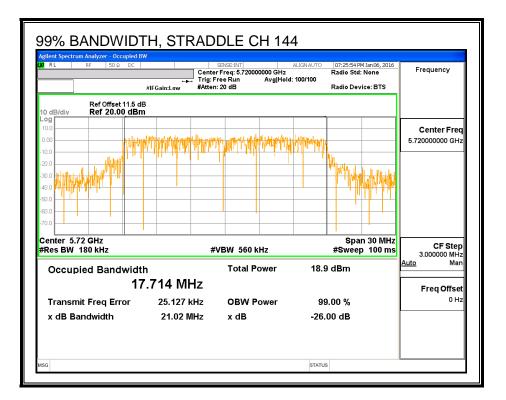
99% BANDWIDTH, ANTENNA - A





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8.72.3. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Average Power Results

Channel	Frequency	Antenna	Antenna	Total
		В	Α	
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5500	14.45	14.47	17.47
Mid	5580	14.99	14.96	17.99
High	5700	13.48	13.49	16.50
144	5720	14.88	14.85	17.88

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8.72.4. OUTPUT POWER AND PSD

<u>LIMITS</u>

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1– MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

Straddle channel power is measured using PXA spectrum analyzer, duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

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

Antenna B	Anetnna A	Uncorrelated Chains
		Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.83	4.03	3.47

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

Antenna B	Antenna A	Correlated Chains
		Directional
Gain	Gain	Gain
(dBi)	(dBi)	(dBi)
2.83	4.03	6.46

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RESULTS

Bandwidth, Antenna Gain and Limits

0.00

Channel	Frequency	Min	Min	Directional	Directional	Power	PSD
		26 dB	99%	Gain	Gain	Limit	Limit
		BW	BW	for Power	for PSD		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5500	22.02	17.780	3.47	6.46	23.50	10.54
Mid	5580	21.63	17.735	3.47	6.46	23.49	10.54
High	5700	21.81	17.751	3.47	6.46	23.49	10.54

Duty Cycle CF (dB)

Included in Calculations of Corr'd PSD

Output Power Results

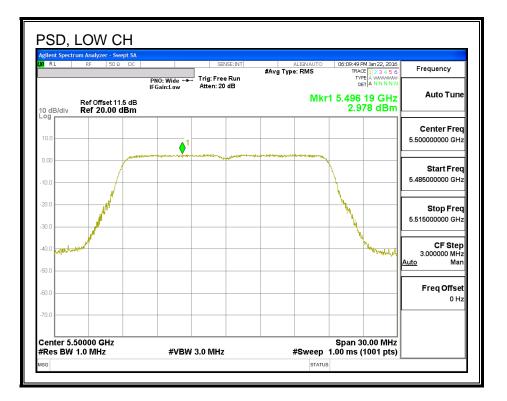
Channel	Frequency	Antenna B	Antenna A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	14.45	14.47	17.47	23.50	-6.03
Mid	5580	14.99	14.96	17.99	23.49	-5.50
High	5700	13.48	13.49	16.50	23.49	-7.00

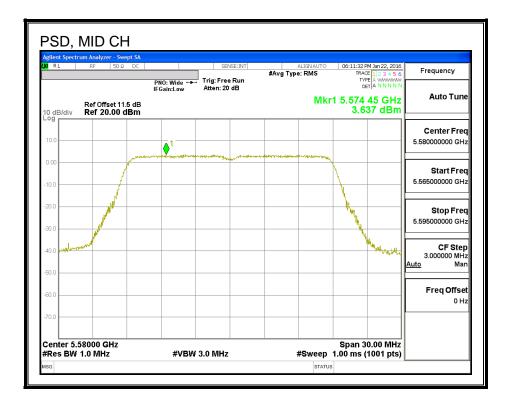
PSD Results

Channel	Frequency	Antenna B	Antenna A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5500	2.98	3.02	6.01	10.54	-4.53
Mid	5580	3.64	3.45	6.55	10.54	-3.99
High	5700	2.02	2.07	5.05	10.54	-5.49

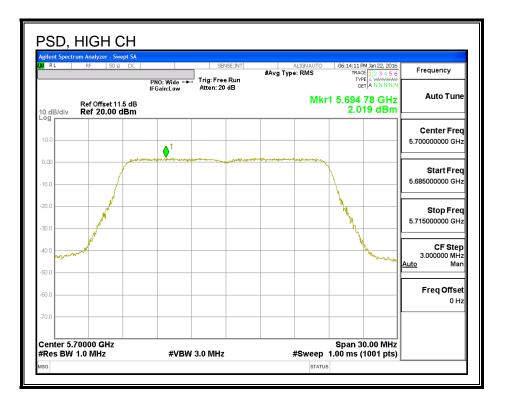
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PSD, ANTENNA - B

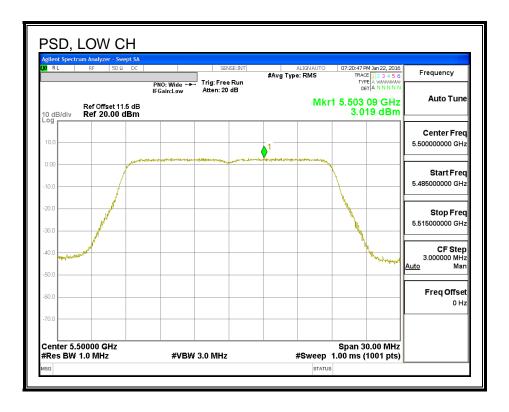




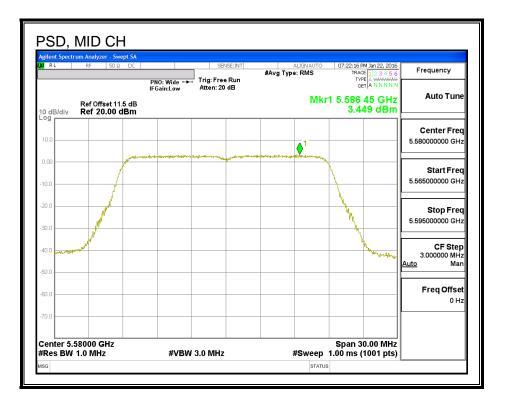
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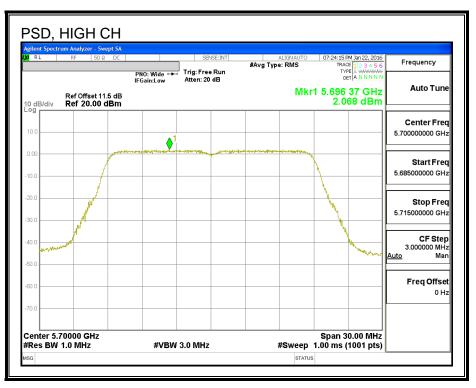


PSD, ANTENNA - A



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8.73. 802.11ac VHT20 ANTENNA B+A CDD STRADDLE CHANNEL 144 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
144	5720	15.88	3.47	6.46	23.01	10.54

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

Output Power Results

Channel	Frequency	Antenna B	Antenna A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	13.84	13.71	16.79	23.01	-6.22

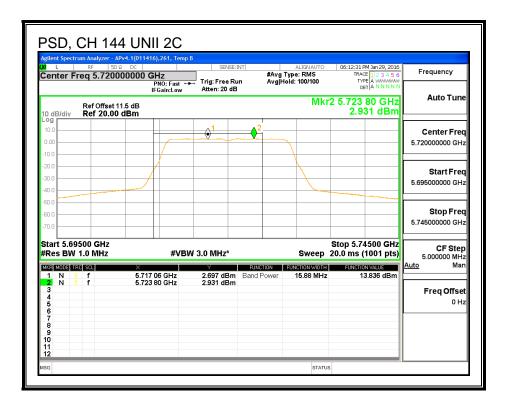
PSD Results

Channel	Frequency	Antenna B	Antenna A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	2.93	2.78	5.86	10.54	-4.68

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ANTENNA - B

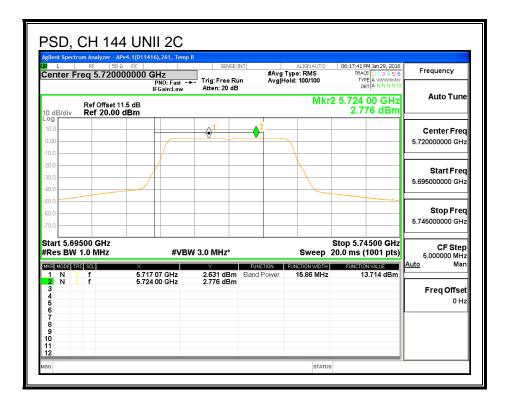
l Center F	RF 50 Ω DC Freq 5.7200000		SENSE:INT Trig: Free Run Atten: 20 dB	ALIGNAUTO #Avg Type: RMS Avg Hold: 100/100	06:11:34 PM Jan 29, 2016 TRACE 1 2 3 4 5 6 TYPE A WWWWWW DET A N N N N N	Frequency
0 dB/div	Ref Offset 11.5 di Ref 20.00 dBm	3	Atten. 20 4D		1 5.717 06 GHz er 13.836 dBm	Auto Tune
°g 10.0 0.00			0 ¹			Center Freq 5.720000000 GHz
10.0 10.0 10.0						Start Fred 5.695000000 GHz
0.0 0.0 0.0						Stop Freq 5.745000000 GHz
	9500 GHz 1.0 MHz	#VB	W 3.0 MHz*		Stop 5.74500 GHz 20.0 ms (1001 pts) FUNCTION VALUE	CF Step 5.000000 MHz Auto Mar
1 N 2 3 4 5 6 7 8 9 0 1		5.717 06 GHz		d Power 15.88 MHz	13.836 dBm	Freq Offsel 0 Hz



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ANTENNA - A

L RF	r - APv4.1(011416),261, Temp 50 Ω DC	SENSE:INT	ALIGN AUTO	06:17:33 PM Jan 29, 2016	-
Center Freq 5.72	20000000 GHz PNO: Fast IFGain:Low	Trig: Free Run Atten: 20 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 1 2 3 4 5 6 TYPE A WWWWWW DET A N N N N N	Frequency
	et 11.5 dB .00 dBm			1 5.717 07 GHz er 13.714 dBm	Auto Tune
.og		1			Center Free
0.00		Q			5.720000000 GH
20.0					StartFree
40.0					5.695000000 GH
50.0					
50.0					Stop Free 5.745000000 GH
70.0					5.745000000 GH
tart 5.69500 GHz Res BW 1.0 MHz		W 3.0 MHz*		Stop 5.74500 GHz 20.0 ms (1001 pts)	CF Stej 5.000000 MH
ikr mode trc scl 1 N 1 f	× 5.717 07 GHz		FUNCTION WIDTH	FUNCTION VALUE 13.714 dBm	<u>Auto</u> Ma
2 3 4 5 6					Freq Offse 0 H
7 8 9					
10 11 12					



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UNII-3 BAND

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	For Power	For PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
144	5720	5.88	3.47	6.46	30.00	29.54

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

Output Power Results

Channel	Frequency	Antenna B	Antenna A	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	8.32	8.24	11.29	30.00	-18.71

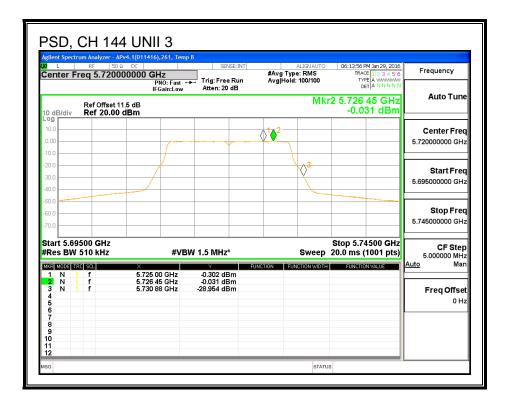
PSD Results

Channel	Frequency	Antenna B	Antenna A	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
144	5720	-0.03	-0.14	2.93	29.54	-26.61

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ANTENNA - B

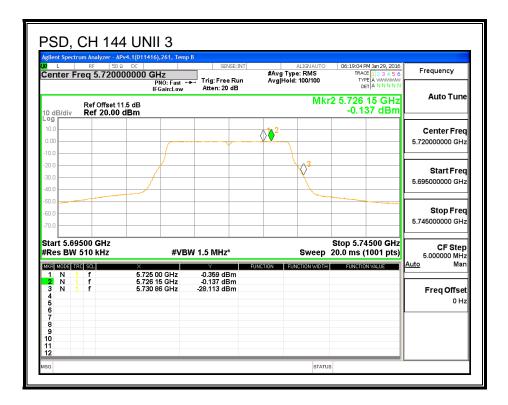
enter F	RF 50 Ω DC req 5.720000000	OGHZ PNO: Fast ↔ IFGain:Low	SENSE:IN Trig: Free Rur Atten: 20 dB	#Avg	ALIGNAUTO Type: RMS fold: 100/100	TRACI	M Jan 29, 2016 E 1 2 3 4 5 6 E A WWWWWW T A N N N N N	Frequency
0 dB/div	Ref Offset 11.5 dB Ref 20.00 dBm	IFGain:Low	Atten. 20 db		Mkr Band Po	1 5.727 wer 8.32		Auto Tune
°g 10.0 0.00					21			Center Fred 5.720000000 GHz
0.0 0.0 0.0								Start Fred 5.69500000 GHz
0.0 0.0 0.0								Stop Fred 5.745000000 GHz
Res BW			N 3.0 MHz*		FUNCTION WIDTH	Stop 5.74 20.0 ms (*	1001 pts) NVALUE	CF Step 5.000000 MHz <u>Auto</u> Mar
1 N 1 2 3 4 5 6 7	f 5.7	27 94 GHz	2.504 dBm	Band Power	5.875 MHz	ε	3.324 dBm	Freq Offset 0 Hz
8 9 0 1								



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ANTENNA - A

enter F	RF 50 Ω D0 req 5.7200000		SENSE:INT Trig: Free Run Atten: 20 dB	#Avg Type: RMS Avg Hold: 100/100	06:17:51 PM Jan 29, 2016 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	Frequency
) dB/div	Ref Offset 11.5 d Ref 20.00 dBn	в	TRUE LO VE		r1 5.727 93 GHz ower 8.239 dBm	Auto Tune
o.0						Center Free 5.720000000 GH
D.0 D.0 D.0						Start Free 5.695000000 GH
0.0 0.0 0.0						Stop Frec 5.745000000 GH2
Res BW	500 GHz 1.0 MHz		V 3.0 MHz*	•	Stop 5.74500 GHz 20.0 ms (1001 pts)	CF Step 5.000000 MH Auto Mar
XE MODE T 1 N 1 2 3 4 5 6 7 7 8 9 0 1 2		× 5.727 93 GHz	2.455 dBm	FUNCTION FUNCTION WIDT Band Power 5.860 MH		Freq Offse



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8.73.1. 6 dB BANDWIDTH

<u>LIMITS</u>

FCC §15.407 (e)

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

RESULTS

Channel Frequency		6 dB BW	6 dB BW	
		Antenna B	Antenna A	
	(MHz)	(MHz)	(MHz)	
144	5720	3.86	3.83	

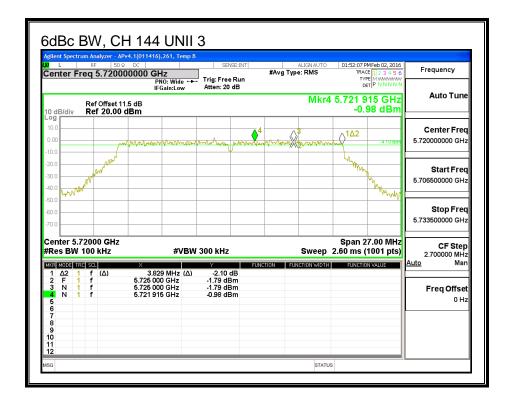
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ANTENNA - B



ANTENNA - A



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8.74. 802.11n HT20 ANTENNA A+C CDD MODE IN THE 5.6 GHz BAND

8.74.1. 26 dB BANDWIDTH

<u>LIMITS</u>

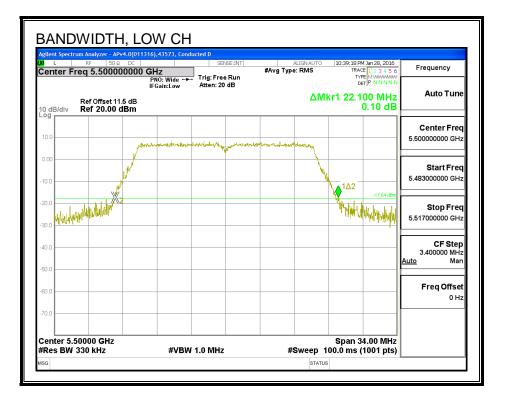
None; for reporting purposes only.

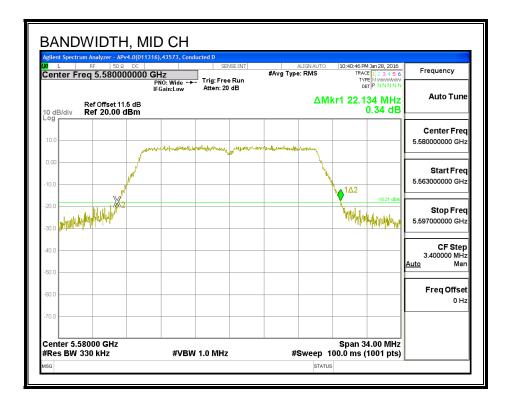
RESULTS

Channel Frequency		26 dB BW	26 dB BW	
		Antenna A	Antenna C	
	(MHz)	(MHz)	(MHz)	
Low	5500	22.10	21.71	
Mid	5580	22.13	21.58	
High	5700	21.85	21.62	
144	5720	22.07	21.65	

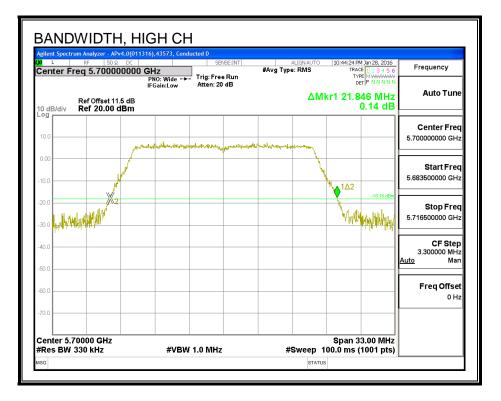
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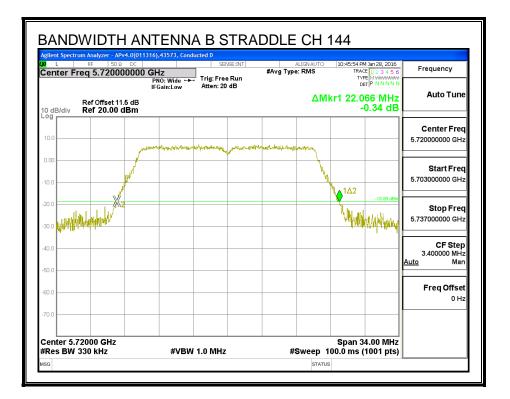
26 dB BANDWIDTH, ANTENNA - A





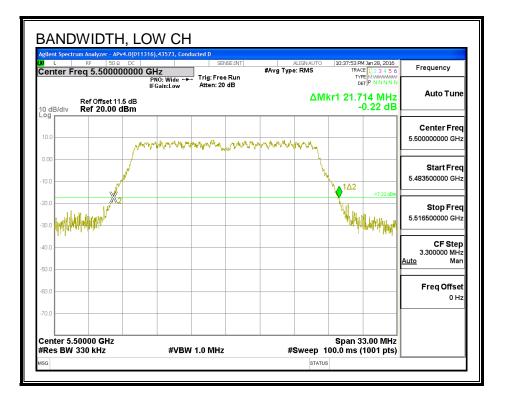
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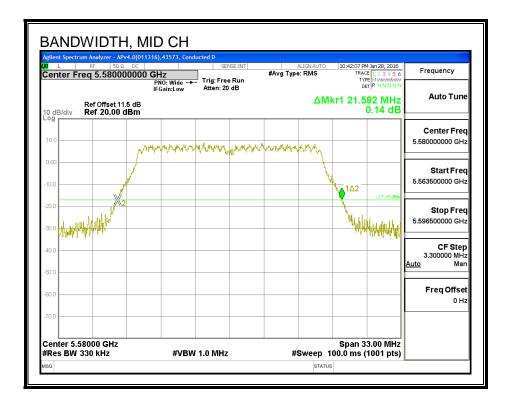




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26 dB BANDWIDTH, ANTENNA - C





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