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8.53.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 39004	Date:	9/2/16
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Average Power Results

Channel	Frequency	Chain 0	Chain 1	Total
		Power Power		Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5510	12.41	12.37	15.40
Mid	5550	12.39	12.36	15.39
High	5670	12.38	12.35	15.38
142	5710	12.40	12.34	15.38

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8.53.4. 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.

IC RSS-247 (6.2.3) (1)

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

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

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.

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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)
6.40	7.90	7.21

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)
6.40	7.90	10.19

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RESULTS

ID: 39004 Date: 9/2/16

Bandwidth, Antenna Gain and Limits

Channel	Frequency	Min	Min	Directional	Directional	Power	PSD
		26 dB	99%	Gain	Gain	Limit	Limit
		BW	BW	for Power	for PSD		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5510	40.73	36.41	7.21	10.19	24.00	6.81
Mid	5550	40.67	36.28	7.21	10.19	24.00	6.81
High	5670	40.86	36.40	7.21	10.19	24.00	6.81

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	12.41	12.37	15.40	24.00	-8.60
Mid	5550	12.39	12.36	15.39	24.00	-8.61
High	5670	12.38	12.35	15.38	24.00	-8.62

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	0.50	0.41	3.47	6.81	-3.34
Mid	5550	-0.81	-1.06	2.08	6.81	-4.73
High	5670	1.27	0.98	4.14	6.81	-2.67

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PSD, CHAIN 0





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PSD, CHAIN 1



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8.54. 802.11ac VHT40 2Tx CDD STRADDLE CHANNEL 142 RESULTS (FCC)

8.54.1. OUTPUT POWER AND PSD

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	35.22	7.21	10.19	22.79	6.81

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	12.10	12.10	15.11	22.79	-7.68

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-2.28	-2.27	0.73	6.81	-6.08

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OUTPUT POWER, CHAIN 0

L enter F	RF 50 Ω DC	I GHz PN0: Fast ↔	SENSE:IN	rr #Avg n Avg H	ALIGN AUTO Fype: RMS old: 100/100	09:22:40 AM S TRACE 1 TYPE /	ep01,2016 2 3 4 5 6 NNNNN	iency
) dB/div	Ref Offset 12.7 dB Ref 30.00 dBm	IFGain:Low	Atten: 28 dB		Mkr Band Pow	1 5.707 30 /er 12.099	O GHz AL dBm	ito Tune
29							Cen	ter Fred
0.0			1				5.71000	0000 GH
0.0		-						
1.0							5.68500	0000 GHz
0.0								
3.0							5.73500	t op Freq 0000 GHz
tart 5.68 Res BW	3500 GHz 1.0 MHz	#VBW	/ 3.0 MHz*	EUNION	Sweep	Stop 5.735 20.0 ms (10	00 GHz 01 pts) 5.000 Auto	CF Step 0000 MHz Mar
1 N 2	l f 5.7	07 30 GHz	-2.684 dBm	Band Power	35.40 MHz	12.0	99 dBm	
3 4 5							Fre	q Offsel 0 Hz
5								
9								
1								

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 0



PSD, CHAIN 1



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UNII-3 BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	5.22	7.21	10.19	16.97	6.81

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

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	1.98	1.98	4.99	16.97	-11.98

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-5.64	-5.17	-2.39	6.81	-9.20

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OUTPUT POWER, CHAIN 0

enter F	RF 50 Ω C Freq 5.7100000	DOO GHz PNO: Fast ++	SENSE:INT	ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	09:22:59 AM Sep 01, 2016 TRACE 1 2 3 4 5 6 TYPE A WWWWW	Frequency
) dB/div	Ref Offset 12.7 (Ref 30.00 dB	IFGain:Low dB m	Atten: 28 dB	MI Band P	kr1 5.727 70 GHz ower 1.977 dBm	Auto Tune
) g 0.0 0.0 1.00					0 1	Center Fred 5.710000000 GH;
).0).0 0.0						Start Fred 5.685000000 GH;
1.0 1.0 1.0						Stop Fred 5.735000000 GH;
art 5.68 Res BW	8500 GHz 1.0 MHz	#VBW	3.0 MHz*	Sweep	Stop 5.73500 GHz 20.0 ms (1001 pts)	CF Step 5.000000 MHz
2 2 3 4 5 6 7 8 9 0 1		5.727 70 GHz	3.401 dBm Bar	d Power 5.400 MH	H PUNCTON VAULE	Freq Offse 0 H:

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 0



PSD, CHAIN 1



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8.55. 802.11ac VHT40 2Tx CDD STRADDLE CHANNEL 142 RESULTS (IC)

8.55.1. OUTPUT POWER AND PSD

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	33.10	7.21	10.19	22.79	6.81

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	12.07	12.07	15.08	22.79	-7.71

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-2.28	-2.27	0.73	6.81	-6.08

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OUTPUT POWER, CHAIN 0

د enter F	RF 50 ହ Treq 5.710000	DC 000 GHz PN0: Fast ↔	SENSE:INT	#Avg T Avg Ho	ALIGN AUTO Type: RMS old: 100/100	09:26:20 AM Sep TRACE 1 TYPE A	p01, 2016 2 3 4 5 6 Frequency
) dB/div	Ref Offset 12.7 Ref 30.00 dE	IFGain:Low dB S M	Atten: 28 dB	E	Mkr Band Pow	1 5.708 45 /er 12.069	GHz Auto Tune
9 0.0 0.0			1				Center Free 5.710000000 GH:
1.0 1.0 1.0							Start Free 5.685000000 GH:
1.0 1.0 1.0							Stop Free 5.735000000 GH
art 5.68 Res BW	3500 GHz 1.0 MHz	#VBV	V 3.0 MHz*		Sweep	Stop 5.7350 20.0 ms (100	0 GHz 01 pts) CF Step 5.000000 MH
1 N 2 3 4 5 5 6 7 8 9 9 0 0		6.708 45 GHz	-2.797 dBm B	and Power	33.10 MHz	12.06	Freq Offsel

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 0



PSD, CHAIN 1



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	For Power	For PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	3.10	7.21	10.19	28.79	25.81

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

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)
142	5710	1.68	1.61	4.65	28.79	-24.14

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-5.64	-5.52	-2.57	25.81	-28.38

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OUTPUT POWER, CHAIN 0

L enter F	RF 50 Ω D Freq 5.7100000	C DOD GHz PNO: Fast ↔	SENSE:IN	#Avg T Avg H	ALIGN AUTO Fype: RMS old: 100/100	09:23:27, TRA T\	M Sep 01, 2016 CE 1 2 3 4 5 6 PE A WWWWWW	Frequency
dB/div	Ref Offset 12.7 d Ref 30.00 dBi	IFGain:Low	Atten: 20 dB		Mkr Band Po	1 5.726 wer 1.6	59 GHz 80 dBm	Auto Tuno
9 0.0 0.0 .00						♦ ¹		Center Free 5.710000000 GH
0.0 0.0 0.0								Start Free 5.685000000 GH
1.0 1.0 0.0								Stop Fre 5.735000000 GH
art 5.6 Res BW	8500 GHz / 1.0 MHz	#VBW	3.0 MHz*		Sweep	Stop 5.7 20.0 ms	3500 GHz (1001 pts)	CF Step 5.000000 MH
512009 1 2 3 4 5 5 6 6 7 7 8 9 9 0	ftU StL	× 5.726 59 GHz	-2.994 dBm	Function Band Power	3.180 MHz	FUNCTI	1.680 dBm	Freq Offse 0 H

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 0



PSD, CHAIN 1



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8.55.2. 6 dB BBANDWIDTH

LIMITS

FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

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

<u>RESULTS</u>

Channel	Frequency	6 dB BW	6 dB BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
142	5710	36.52	36.47

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CHAIN 0



CHAIN 1



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8.56. 802.11n HT40 2Tx STBC MODE IN THE 5.6 GHz BAND

8.56.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

<u>RESULTS</u>

Channel	Channel Frequency		26 dB BW
			Chain 1
	(MHz)	(MHz)	(MHz)
Low	5510	40.92	40.26
Mid	5550	40.86	40.32
High	5670	40.63	40.44
142	5710	40.73	40.50

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26 dB BANDWIDTH, CHAIN 0





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26 dB BANDWIDTH, CHAIN 1





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8.56.2. 99% BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	annel Frequency		99% BW	
		Chain 0	Chain 1	
	(MHz)	(MHz)	(MHz)	
Low	5510	36.437	36.402	
Mid	5550	36.256	36.583	
High	5670	36.323	36.244	
142	5710	36.121	36.228	

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99% BANDWIDTH, CHAIN 0





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99% BANDWIDTH, CHAIN 1





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8.56.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 39004 Date: 9/2/16

Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5510	12.36	12.37	15.38
Mid	5590	12.41	12.38	15.41
High	5670	12.39	12.35	15.38
142	5710	12.44	12.40	15.43

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8.56.4. 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.

IC RSS-247 (6.2.3) (1)

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

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

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.

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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)
6.40	7.90	7.21

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RESULTS

Bandwidth, Antenna Gain and Limits

Channel	Frequency	Min	Min	Directional	Directional	Power	PSD
		26 dB	99%	Gain	Gain	Limit	Limit
		BW	BW	for Power	for PSD		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5510	40.26	36.40	7.21	7.21	24.00	9.79
Mid	5550	40.32	36.58	7.21	7.21	24.00	9.79
High	5670	40.44	36.24	7.21	7.21	24.00	9.79

Duty Cycle CF (dB) 0.00

0.00 Included in Calculations of Corr'd PSD

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	12.36	12.37	15.38	24.00	-8.62
Mid	5550	12.41	12.38	15.41	24.00	-8.59
High	5670	12.39	12.35	15.38	24.00	-8.62

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	0.70	0.40	3.56	9.79	-6.23
Mid	5550	1.61	1.55	4.59	9.79	-5.20
High	5670	1.59	1.44	4.53	9.79	-5.26




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8.57. 802.11ac VHT40 2Tx STBC STRADDLE CHANNEL 142 RESULTS (FCC)

8.57.1. OUTPUT POWER AND PSD

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional Directional		PSD
		26 dB	Gain Gain		Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	35.25	7.21	7.21	22.79	9.79

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas Meas		Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	12.11	12.13	15.13	22.79	-7.66

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-2.30	-2.25	0.73	9.79	-9.06

OUTPUT POWER, CHAIN 0

L enter F	RF 50 Ω DC Freq 5.71000000	0 GHz PN0: East ↔	SENSE:IT	vt #Avg n Avg H	ALIGNAUTO Type: RMS Iold: 100/100	09:29:34 AM Sep 01, 2 TRACE 1 2 3 4 TYPE A WWW	5 6 Frequency
) dB/div	Ref Offset 12.7 dB Ref 30.00 dBm	IFGain:Low	Atten: 28 dB		Mkr Band Pov	r1 5.707 32 GF ver 12.106 dB	Auto Tune
							Center Free 5.710000000 GH:
0.0 0.0 0.0							Start Free 5.685000000 GH
1.0 1.0 0.0							Stop Fred 5.735000000 GH:
tart 5.6 Res BW	8500 GHz / 1.0 MHz	#VBW	/ 3.0 MHz*	SUNCTION	Sweep	Stop 5.73500 G 20.0 ms (1001 pt	Hz CF Step (s) 5.000000 MH
1 N 2 3 4 5 5 6 7 8 9 0 0 1 2	freed ×	707 32 GHz	-2.554 dBm	Band Power	35.37 MHz	12.106 dB	Freq Offse

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 1



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Directional Directional		PSD
		26 dB	Gain Gain		Limit	Limit
		BW	For Power	For PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	5.25	7.21	7.21	28.79	28.79

Duty Cycle CE (dB)	0.00	Included in Calculations of Corr'd Power & PSD
	0.00	included in calculations of contait ower at 5D

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	1.98	2.00	5.00	28.79	-23.79

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-5.49	-5.48	-2.48	28.79	-31.27

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OUTPUT POWER, CHAIN 0

د enter F	RF 50 Ω DC Freq 5.7100000	00 GHz PN0: Fast ↔	SENSE:INT	#Avg Typ Avg Hold	ALIGN AUTO e: RMS I: 100/100	09:29:53 AM Sep 01, 201 TRACE 1 2 3 4 5 TYPE A WMMM	Frequency
) dB/div	Ref Offset 12.7 d Ref 30.00 dBn	IFGain:Low B N	Atten: 28 dB		Mkr Band Pov	1 5.727 68 GHz wer 1.982 dBm	z Auto Tune
9 0.0 0.0 .00						0 ¹	Center Free 5.710000000 GH;
).0).0 0.0							Start Free 5.685000000 GH;
1.0 1.0 1.0							Stop Free 5.735000000 GH;
art 5.6 Res BW	8500 GHz 1.0 MHz	#VBW	3.0 MHz*		Sweep 2	Stop 5.73500 GH: 20.0 ms (1001 pts	Z CF Step 5.000000 MH2
1 N 2 3 4 5 5 6 6 7 8 9 9 0 1	Ho SUL	5.727 68 GHz		nd Power	5.365 MHz	1.982 dBm	Freq Offse 0 H;

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 1



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8.58. 802.11ac VHT40 2Tx STBC STRADDLE CHANNEL 142 RESULTS (IC)

8.58.1. OUTPUT POWER AND PSD

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	33.06	7.21	7.21	22.79	9.79

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	12.07	12.09	15.09	22.79	-7.70

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-2.30	-2.25	0.73	9.79	-9.06

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OUTPUT POWER, CHAIN 0

L enter F	RF 50 Ω Treq 5.71000	DC 00000 GHz PNO:	Fast ++	SENSE	INT #Av un Avg	aLIGN AUTO g Type: RMS Hold: 100/100	09:30:01/ TRA TY	AM Sep 01, 2016 CE 1 2 3 4 5 6 PE A WWWWWW	Frequency
dB/div	Ref Offset 12 Ref 30.00 (IFGain 7 dB d Bm	:Low	Atten: 28 dE	3	Mk Band Pov	r1 5.708 wer 12.0	47 GHz 68 dBm	Auto Tune
9 0.0 0.0				0 1			_		Center Free 5.710000000 GH:
1.0 1.0 1.0									Start Free 5.685000000 GH:
1.0 1.0 1.0									Stop Fred 5.735000000 GH;
art 5.6 Res BW	8500 GHz 1.0 MHz	×	#VBW 3	3.0 MHz*	SUNCTION	Sweep	Stop 5.7 20.0 ms	3500 GHz (1001 pts)	CF Step 5.000000 MH Auto Mar
N 2 3 4 5 5 5 5 5 5 5 5 7 3 9 0 1	1 f	5.708 47 G	Hz	-2.646 dBm	Band Powe	33.06 MHz		12.068 dBm	Freq Offse 0 H:

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 1



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	For Power	For PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	3.060	7.21	7.21	28.79	28.79

Duty Cycle CE (dB)	0.00	Included in Calculations of Corr'd Power & PSD
	0.00	included in calculations of contait ower at 5D

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	1.58	1.65	4.62	28.79	-24.17

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-5.49	-5.48	-2.48	28.79	-31.27

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OUTPUT POWER, CHAIN 0

۔ enter F	RF 50 Ω Freq 5.710000	000 GHz PN0: Fast ↔	SENSE:IN	T #Avg` Avg H	ALIGN AUTO Type: RMS old: 100/100	09:30:22 AN TRAC TYP DE	4 Sep 01, 2016 E 1 2 3 4 5 6 E A WWWWWW T A N N N N N	Frequency
) dB/div	Ref Offset 12.7 Ref 30.00 dB	dB m	Atten: 20 dB		Mkr Band Po	1 5.726 wer 1.57	53 GHz 77 dBm	Auto Tune
29 0.0 0.0						1		Center Free 5.710000000 GH
0.0 0.0 0.0								Start Free 5.685000000 GH
1.0 1.0 1.0								Stop Fre 5.735000000 GH
art 5.68 Res BW	8500 GHz 1.0 MHz	#VBN	3.0 MHz*		Sweep	Stop 5.73 20.0 ms (*	8500 GHz 1001 pts)	CF Step 5.000000 MH
1000 1 1 N 2 3 4 5 6 6 7 8 9 0 1	RC SCL	× 5.726 53 GHz	-3.035 dBm	FUNCTION Band Power	HUNETON WIDTH	function 1	.577 dBm	Freq Offse 0 H

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 1



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8.58.2. 6 dB BBANDWIDTH

<u>IMITS</u>

FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

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

RESULTS

Channel	Frequency	6 dB BW	6 dB BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
142	5710	3.19	3.30

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CHAIN 0

enter Fi	RF 50 C	2 DC 00000 GH:	Z D: Fast ++	SENSE:INT	#Avg T	ALIGN AUTO	12:59:48 AM TRAC TYF DE	M Aug 10, 2016 E 1 2 3 4 5 6 E M WWWWWW T P N N N N N	Freq	uency
dB/div	Ref Offset 12 Ref 20.00	2.7 dB dBm				ΔN	lkr1 3.1 -	90 MHz 5.21 dB	A	uto Tune
9 0.0 00	free	Marana karawa	momphan	ci ⁿ utupitkijitem jastrus-	_ท ุ่นบาร์ฟะการการการก	munontendid	3 1∆2	DL1 -3.94 dBm	Cei 5.71000	nter Fred 100000 GH:
0.0 0.0 0.0 ~~~{hiw	North March						he h	www.	S 5.68250	tart Fred
).0).0).0									5.73750	top Fred
enter 5.3 Res BW	71000 GHz 100 kHz		#VBW	300 kHz	EUNCTION	Sweep 2.	Span 5: .067 ms ('	5.00 MHz 1001 pts)	5.50 <u>Auto</u>	CF Step 00000 MH Mar
1 Δ2 1 2 F 1 3 N 1 4	f (Δ) f f	3.190 5.725 015 5.726 225	MHz (Δ) GHz GHz	-5.21 dB 0.53 dBm 2.06 dBm				E	Fre	e q Offse 0 Ha
6 7 8 9									Sc	ale Type
0									Log	<u>Lir</u>

CHAIN 1



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8.59. 802.11ac VHT40 2Tx BEAM FORMING MODE IN THE 5.6 GHz BAND

8.59.1. 26 dB BANDWIDTH

LIMITS

None; for reporting purposes only.

<u>RESULTS</u>

Channel	Frequency	26 dB BW	26 dB BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Low	5510	40.32	40.44
Mid	5550	40.32	40.08
High	5670	40.81	40.02
142	5710	40.57	41.17

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26 dB BANDWIDTH, CHAIN 0





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26 dB BANDWIDTH, CHAIN 1





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8.59.2. 99% BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

RESULTS

Channel	Frequency	99% BW	99% BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
Low	5510	36.384	36.358
Mid	5550	36.435	36.501
High	5670	36.351	36.379
142	5710	36.275	35.766

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99% BANDWIDTH, CHAIN 0





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99% BANDWIDTH, CHAIN 1





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8.59.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 390	004 Date :	9/2/16
---------	-------------------	--------

Average Power Results

Channel	Frequency	Chain 0	Chain 1	Total
		Power	Power	Power
	(MHz)	(dBm)	(dBm)	(dBm)
Low	5510	12.37	12.32	15.36
Mid	5590	12.42	12.38	15.41
High	5670	12.46	12.43	15.46
142	5710	12.39	12.36	15.39

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8.59.4. 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.

IC RSS-247 (6.2.3) (1)

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

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

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.

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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)
6.40	7.90	10.19

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RESULTS

ID:	39005	Date:	8/3/16
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Bandwidth, Antenna Gain and Limits

Channel	Frequency	Min	Min	Directional	Directional	Power	PSD
		26 dB	99%	Gain	Gain	Limit	Limit
		BW	BW	for Power	for PSD		
	(MHz)	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
Low	5510	40.32	36.384	10.19	10.19	22.42	6.81
Mid	5550	40.08	36.435	10.19	10.19	22.43	6.81
High	5670	40.02	36.351	10.19	10.19	22.42	6.81

Duty Cycle CF (dB) 0.12 Included in

Included in Calculations of Corr'd PSD

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	12.37	12.32	15.36	22.42	-7.06
Mid	5550	12.42	12.38	15.41	22.43	-7.01
High	5670	12.46	12.43	15.46	22.42	-6.96

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Low	5510	-2.72	-2.12	0.72	6.81	-6.09
Mid	5550	-1.72	-0.91	1.84	6.81	-4.97
High	5670	-1.63	-2.25	1.20	6.81	-5.61

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8.60. 802.11ac VHT40 2Tx BEAM FORMING STRADDLE CHANNEL 142 RESULTS (FCC)

8.60.1. OUTPUT POWER AND PSD

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	35.29	10.19	10.19	19.81	6.81

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	12.11	12.11	15.24	19.81	-4.57

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-2.29	-2.30	0.84	6.81	-5.97

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OUTPUT POWER, CHAIN 0



OUTPUT POWER, CHAIN 1



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PSD, CHAIN 0



PSD, CHAIN 1



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	For Power	For PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	5.29	10.19	10.19	25.81	25.81

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

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	1.98	1.98	4.99	25.81	-20.82

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-5.55	-5.52	-2.53	25.81	-28.34

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OUTPUT POWER, CHAIN 0

L enter F	RF 50 Ω C Freq 5.7100000	C DOO GHz PNO: Fast ↔	SENSE:IN Trig: Free Run	T #Avg` Avg H	ALIGN AUTO Type: RMS old: 100/100	09:37:21 AM Sep 01, 20: TRACE 1 2 3 4 5 TYPE A WWWW DET A N N N	6 Frequency
) dB/div	Ref Offset 12.7 d Ref 30.00 dB	iB m	Atten: 20 db		Mkr Band Po	1 5.727 64 GH wer 1.983 dBr	z Auto Tuno
9 0.0 0.0						0 ¹	Center Free 5.710000000 GH
).0).0).0							Start Free 5.685000000 GH
1.0 1.0 1.0							Stop Free 5.735000000 GH
art 5.68 Res BW	8500 GHz / 1.0 MHz	#VBW	/ 3.0 MHz*		Sweep	Stop 5.73500 GH 20.0 ms (1001 pts	z CF Ster 5.000000 MH
1 N 2 3 4 5 5 6 6 7 8 9 0 0		× 5.727 64 GHz	-3.223 dBm	FUNCTION Band Power	EUNETION WIDTH	FUNCTION VALUE	Freq Offse 0 H

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 0



PSD, CHAIN 1



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8.61. 802.11ac VHT40 2Tx BEAM FORMING STRADDLE CHANNEL 142 RESULTS (IC)

8.61.1. OUTPUT POWER AND PSD

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	32.890	10.19	10.19	19.81	6.81

Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd Power & PSD
--------------------	------	--

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	12.08	12.06	15.20	19.81	-4.61

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-2.29	-2.30	0.84	6.81	-5.97

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OUTPUT POWER, CHAIN 0

د enter F	RF 50 Ω I req 5.710000	DC 000 GHz PN0: Fast ↔	SENSE:INT	#Avg Avg H	ALIGN AUTO Fype: RMS old: 100/100	09:37:31 AN TRACE TYP	4 Sep 01, 2016 E 1 2 3 4 5 6 E A WWWWW	Frequency
) dB/div	Ref Offset 12.7 Ref 30.00 dB	IFGain:Low dB im	Atten: 28 dB		Mkr Band Pow	1 5.708 / /er 12.08	43 GHz 30 dBm	Auto Tune
9 0.0 0.0 .00			1			-		Center Fred 5.710000000 GH;
1.0 1.0 1.0								Start Fred 5.685000000 GH;
).0).0).0								Stop Fred 5.735000000 GH;
art 5.68 Res BW	3500 GHz 1.0 MHz	#VBM	/ 3.0 MHz*	EUNICTION	Sweep	Stop 5.73 20.0 ms (1	500 GHz 1001 pts)	CF Step 5.000000 MH Auto Mar
1 N 2 3 4 5 5 6 7 8 9 0 0	f	6.708 43 GHz	-2.766 dBm	Band Power	33.14 MHz	12	2.080 dBm	Freq Offse 0 H:

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 0



PSD, CHAIN 1



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	For Power	For PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
142	5710	2.88	10.19	10.19	25.81	25.81

	Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd Power & PS
--	--------------------	------	---

Output Power Results

Channel	Frequency	Chain 0	Chain 1	Total	Power	Power
		Meas	Meas	Corr'd	Limit	Margin
		Power	Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	1.65	1.38	4.65	25.81	-21.16

PSD Results

Channel	Frequency	Chain 0	Chain 1	Total	PSD	PSD
		Meas	Meas	Corr'd	Limit	Margin
		PSD	PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
142	5710	-5.55	-5.52	-2.41	25.81	-28.22

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OUTPUT POWER, CHAIN 0

enter F	RF 50 Ω D Freq 5.7100000	⊂ 00 GHz PN0: Fast ↔	Trig: Free Run	#Avg Ty Avg Hol	ALIGN AUTO /pe: RMS ld: 100/100	09:37:464 TRA TY	M Sep 01, 2016 CE 1 2 3 4 5 6 PE A WWWWWW FT A N N N N	Frequency
dB/div	Ref Offset 12.7 d Ref 30.00 dBi	IFGain:Low IB 11	Atten: 20 dB		Mkr Band Po	1 5.726 wer 1.6	57 GHz 51 dBm	Auto Tune
9 0.0 0.0						_ ≬ 1		Center Free 5.710000000 GH:
1.0 1.0 0.0								Start Fred 5.685000000 GH;
1.0 1.0 1.0								Stop Fred 5.735000000 GH;
art 5.6 Res BW	8500 GHz 1.0 MHz	#VBW	/ 3.0 MHz*	FUNCTION	Sweep	Stop 5.7 20.0 ms (3500 GHz (1001 pts)	CF Step 5.000000 MH Auto Mar
N 2 3 4 5 5 5 7 3 9 0	1 f	5.726 57 GHz	-2.941 dBm Ba	and Power	3.140 MHz		1.651 dBm	Freq Offse

OUTPUT POWER, CHAIN 1



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PSD, CHAIN 0



PSD, CHAIN 1



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8.61.2. 6 dB BBANDWIDTH

LIMITS

FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

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

<u>RESULTS</u>

Channel	Frequency	6 dB BW	6 dB BW
		Chain 0	Chain 1
	(MHz)	(MHz)	(MHz)
142	5710	3.25	3.19

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CHAIN 0



CHAIN 1



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8.62. 802.11ac VHT80 CHAIN 0 MODE IN THE 5.6 GHz BAND

8.62.1. 26 dB BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

<u>RESULTS</u>

Channel	Frequency	26 dB Bandwidth
	(MHz)	(MHz)
Low	5530	82.75
Mid	5610	82.75
High	5690	83.13

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26 dB BANDWIDTH





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enter Fre	RF 50 Ω ≎ q 5.690000	DC 000 GHz PNO: I JEGain	Fast +++	Trig: Free #Atten: 40	Run dB	#Avg Typ	ALIGN AUTO e: RMS	12:13:27 TRJ T	AM Jul 29, 2016 ACE 1 2 3 4 5 6 YPE M WWWWWW DET P N N N N N	Frequency
0 dB/div	Ref Offset 12.7 Ref 30.00 dB	dB m					ΔM	kr1 83.	125 MHz 0.64 dB	Auto Tune
20.0										Center Fred 5.690000000 GH:
0.00	ala	intelling and the states	phalogingtown	geraulent franze	anerton from	TV-silvatore, and	the Mage Callense			Start Free 5.627500000 GH
0.0 walitiⁿⁱ⁻ⁱk	hra.Mahnur ¹ 2							1∆2 1,42	-13.25 dBm	Stop Free 5.752500000 GH
0.0										CF Step 12.500000 MH <u>Auto</u> Mar
0.0										Freq Offse 0 H
enter 5.69	0000 GHz		#\/D\\/	6 0 MILI-				Span	125.0 MHz	

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8.62.2. 99% BANDWIDTH

<u>LIMITS</u>

None; for reporting purposes only.

<u>RESULTS</u>

Frequency	99% Bandwidth
(MHz)	(MHz)
5530	75.588
5610	75.634
5690	75.663

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99% BANDWIDTH





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8.62.3. AVERAGE POWER

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID: 39004 Date: 9/2/16

Channel	Frequency	Power
	(MHz)	(dBm)
Low	5530	12.41
Mid	5610	12.45
High	5690	12.42

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8.62.4. 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.

IC RSS-247 (6.2.3) (1)

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

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

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

PSD
Limit
(dBm)
10.60
10.60
(dl 10 10

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

Output Power Results

Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
Low	5530	12.41	12.41	24.00	-11.59
Mid	5610	12 //5	12.45	24.00	-11.55

PSD Results

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MH7)	(dBm)	(dBm)	(dBm)	(dB)
		(abiii)	(abiii)	(abiii)	(ab)
Low	5530	-3.14	-2.92	10.60	-13.52

<u>PSD</u>





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8.62.5. STRADDLE CHANNEL 138 RESULTS (FCC)

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		26 dB	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	76.57	6.40	6.40	23.60	10.60

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

Output Power Results

Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	11.66	11.88	23.60	-11.72

PSD Results

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-5.66	-5.44	10.60	-16.04

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0 dB/div og	Ref Offset 12.7 dB Ref 30.00 dBm					DETJA NINININ	1
20.0					Mkr Band Powe	l 5.686 7 GHz r 11.658 dBm	Auto Tune
10.0							Center Fred 5.69000000 GHz
0.0			V				Start Fred 5.640000000 GH2
0.0							Stop Fred 5.740000000 GH:
tart 5.640 Res BW 1	00 GHz .0 MHz	#VBV	√ 3.0 MHz*		S Sweep 20.	top 5.74000 GHz 00 ms (1001 pts)	CF Step 10.000000 MH
KR MODE TRC 1 N 1 2 3	scl X f 5	.686 7 GHz	Ƴ -6.443 dBm	FUNCTION Band Power	FUNCTION WIDTH 76.57 MHz	FUNCTION VALUE	Auto Mar Freq Offse
4 5 6 7 8 9						E	0 H:



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UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency	Min	Directional	Power	PSD
		26 dB	Gain	Limit	Limit
		BW			
	(MHz)	(MHz)	(dBi)	(dBm)	(dBm)
138	5690	6.57	6.40	29.60	29.60

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

Output Power Results

Channel	Frequency	Chain 0 Total		Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-2.49	-2.27	29.60	-31.87

PSD Results

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-9.86	-9.64	29.60	-39.24

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Keysight Sj	RF 50 Ω DC	16),43573, Temp B	SENSE:INT	ALIGN AU	TO 11:53:12 PM Sep 06, 2010	5 Frequency
	-Teq 5.09000000	PNO: Fast ++ IFGain:Low	Trig: Free Run Atten: 28 dB	Avg Hold: 100/100	DET A NNNN	N
0 dB/div	Ref Offset 12.7 dB Ref 30.00 dBm			Band P	Mkr1 5.686 7 GH: ower 11.658 dBn	z Auto Tune
.og 20.0						Center Fred
10.0						5.69000000 GHz
0.00			0 ¹			_
10.0						Start Fred
20.0						5.640000000 GHz
0.0						-
40.0						Stop Fred
50.0						5.740000000 GHz
60.0						
tart 5.6	4000 GHz			-	Stop 5.74000 GH	CF Step
Res BM	/ 1.0 MHz	#VBV	V 3.0 MHz*	Sweep	20.00 ms (1001 pts	Auto Mar
IKR MODE	TRC SCL X	.686 7 GHz	-6.443 dBm Ba	nd Power 76.57 M	Hz FUNCTION VALUE	
2						Freq Offset
4						0 Hz
6						-
8						
9					-	
11						•



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8.62.6. STRADDLE CHANNEL 138 RESULTS (IC)

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency	Min	Directional	Directional	Power	PSD
		99%	Gain	Gain	Limit	Limit
		BW	for Power	for PSD		
	(MHz)	(MHz)	(dBi)	(dBi)	(dBm)	(dBm)
138	5690	72.83	6.40	6.40	23.60	10.60

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

Output Power Results

Channel	Frequency	Chain 0	Total	Power	Power
		Meas	Corr'd	Limit	Margin
		Power	Power		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	11.64	11.86	23.60	-11.74

PSD Results

Channel	Frequency	Chain 0	Total	PSD	PSD
		Meas	Corr'd	Limit	Margin
		PSD	PSD		
	(MHz)	(dBm)	(dBm)	(dBm)	(dB)
138	5690	-5.66	-5.44	10.60	-16.04

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L enter F	RF 50 Ω		SENSE:I	NT #Avg	ALIGN AUTO	11:53:55 PM Sep 06, 2016 TRACE 1 2 3 4 5 6	Frequency
	104 0.000000	PNO: Fast ↔ IFGain:Low	Trig: Free Ru Atten: 28 dB	n Avg l	lold: 100/100	DET A NNNN	
0 dB/div	Ref Offset 12.7 Ref 30.00 dB	dB 3m			Mkr Band Powe	1 5.688 6 GHz r 11.638 dBm	Auto Tune
og							0
10.0							5 69000000 GHz
10.0			A1				5.05000000 GHz
0.0			·				
0.0	1						Start Freq
0.0							5.640000000 GHz
0.0							
0.0							Stop Freq
50.0							5.740000000 GHz
tart 5.64 Res BW	1000 GHz 1.0 MHz	#VB\	V 3.0 MHz*		S Sweep 20.	top 5.74000 GHz 00 ms (1001 pts)	CF Step 10.000000 MHz
KR MODE T	RC SCL	×	Y	FUNCTION	FUNCTION WIDTH		<u>Auto</u> Man
1 N '	l f	5.688 6 GHz	-6.729 dBm	Band Power	72.83 MHz	11.638 dB	
3							Freq Offset
4 5						=	0 Hz
6							
8							
9							



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