### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

Channel	Frequency (MHz)	99% dB BW ANT1 (MHz)	99% dB BW ANT2 (MHz)	
Low	5745	17.765	17.644	
Mid	5785	17.676	17.610	
High	5825	17.770	17.615	



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# 6.2.5. 802.11ac HT40 CDD MODE

### 6.2.5.1. UNII-1 BAND

Channel	Frequency (MHz)	26 dB BW ANT1 (MHz)	26 dB BW ANT2 (MHz)
Low	5190	41.51	40.59
High	5230	41.20	40.23

Channel	Frequency (MHz)	99% dB BW ANT1 (MHz)	99% dB BW ANT2 (MHz)
Low	5190	36.010	35.959
High	5230	36.158	36.401



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### REPORT NO: 4788004529.1-4 FCC ID:CNFSBDC1

### DATE: August 3, 2017 IC: 10193A-SBDC1

### 6.2.5.2. UNII-3 BAND

Channel	Frequency (MHz)	6 dB BW ANT1 (MHz)	6 dB BW ANT2 (MHz)	Limit (KHz)	Result
Low	5755	36.44	36.34	500	PASS
High	5795	36.44	36.33	500	PASS



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### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

Channel	Frequency (MHz)	99% dB BW ANT1 (MHz)	99% dB BW ANT2 (MHz)
Low	5755	36.319	36.247
High	5795	36.133	36.086



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# 6.2.6. 802.11ac HT80 CDD MODE

6.2.6.1. UNII-1 BAND

Channel	Frequency (MHz)	26 dB BW ANT1 (MHz)	26 dB BW ANT2 (MHz)
Low	5210	80.39	80.54

Channel	Frequency (MHz)	99% dB BW ANT1 (MHz)	99% dB BW ANT2 (MHz)
Low	5210	75.425	75.149



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0.2.0.2.	0.2.0.2. UNII-5 BAND								
Channel Frequence (MHz)	Fraguanav	6 dB BW	6 dB BW	Limit	Result				
		ANT1	ANT2						
		(MHz)	(MHz)	(KHz)					
Low	5775	76.32	75.70	500	PASS				





Channel	Frequency (MHz)	99% dB BW ANT1 (MHz)	99% dB BW ANT2 (MHz)
Low	5775	76.372	75.886



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# 6.3. MAXIMUM CONDUCTED OUTPUT POWER

### LIMITS

FCC Part15, Subpart E/ RSS-247						
Test Item	Limit	Frequency Range (MHz)				
Conducted Output Power	For FCC client devices :250mW (24dBm)	5150 5250				
	For RSS:e.i.r.p. power: not exceed 200 mW(23dBm) or 10 + 10 log10 B	0100 0200				
	250mW (24dBm)	5250-5350				
	250mW (24dBm)	For FCC:5470-5725 For IC:5470-5600 5650-5725				
	1 Watt (30dBm)	5725-5850				

### TEST PROCEDURE

Refer to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Connect the EUT to the a broadband peak RF power meter, the power meter shall have a video bandwidth that is greater than or equal to the bandwidth and shall utilize a fast-responding diode detector.

### TEST SETUP



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#### **RESULTS**

### 6.3.1. 802.11a SISO MODE

6.3.1.1. UNII-1 BAND

Test Frequency		Maximum AVG Conc ANT Power (dB		ducted Output 3m)	EIRP For IC	FCC Limit	IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)	(dBm)
Low	5190	1	13.85		17.59		
	5160	2	13.90		17.64		
Middle	5200	1	13.95	NI/A	17.69	24	22
wildule	5200	2	13.71		17.45	24	23
Lliab	5240	1	13.86		17.60		
підп	5240	2	13.73		17.47		

### 6.3.1.2. UNII-3 BAND

Test Frequency		ANT	Maximum AVG Conducted Output Power (dBm)		FCC Limit	IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)
Low	5745	1	12.39			
	5745	2	13.95		20	20
Middle	E79E	1	13.83	N1/A		
wilddie	5765	2	13.76	IN/A	30	30
Liah 5005		1	13.93			
nigh	5625	2	14.08			

NOTE: 1.EIRP= Maximum Conducted Output Power + ANT GAIN

2. Maximum Conducted Output Power= Conducted Output Power+ Correction Factor

3. About correction Factor please refer to section 6.1

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# 6.3.2. 802.11n HT20 CDD MODE

Test Channel	Frequency (MHz)	ANT	Maximum AVG Con Power (dE	ducted Output 3m)	EIRP For IC (dBm)	FCC Limit	IC Limit (dBm)
	()		Single	TOLAI	(ubiii)	(ubiii)	(ubiii)
Low	5190	1	12.85	15 99	10.62	24	
	5160	2	12.88	15.88	19.02		22
Middle	Mishila 5000	1	12.97	45.00	10.00		
wildule	5200	2	12.85	15.92	19.00	24	23
High 5240		1	12.91	45.00	10.00		
righ	5240	2	12.85	15.69	19.05		

### 6.3.2.1. UNII-1 BAND

## 6.3.2.2. UNII-3 BAND

Test Frequency		ANT	Maximum AVG Cond Power (dB	ucted Output m)	FCC Limit	IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)
Low	5745	1	12.95	16.02		20
	5745	2	13.07	10.02		
Middlo	5795	1	12.91	15 70		
	2	12.64	15.79	- 30	30	
High 5925		1	12.56			15 70
righ	5625	2	12.82	15.70		

NOTE: 1.EIRP= Maximum Conducted Output Power + ANT GAIN

2. Maximum Conducted Output Power= Conducted Output Power+ Correction Factor

3. About correction Factor please refer to section 6.1

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## 6.3.3. 802.11n HT40 CDD MODE

Test	Frequency	ANT	Maximum AVG Con Power (dE	ducted Output 3m)	EIRP For IC	FCC Limit	IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)	(dBm)
Low	5100	1	10.40	14.10	17.02		
	5190	2	11.84	14.19	17.95	24	22
High	5020	1	12.97	15.97	10.61	24	23
піgn	5230	2	12.75	10.07	19.01		

### 6.3.3.1. UNII-1 BAND

### 6.3.3.2. UNII-3 BAND

Test	Frequency	ANT	Maximum AVG Conducted Output Power (dBm)		FCC Limit	IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)
Low	5755	1	13.05	16.02	20	20
	5755	2	12.99	10.03		
Lliab	5705	1	12.91	15.02	30	30
підп	5795	2	12.91	15.92		

NOTE: 1.EIRP= Maximum Conducted Output Power + ANT GAIN

- 2. Maximum Conducted Output Power= Conducted Output Power+ Correction Factor
- 3. About correction Factor please refer to section 6.1

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# 6.3.4. 802.11ac HT20 CDD MODE 6.3.4.1. UNII-1 BAND

Test Channel	Frequency	ANT	Maximum AVG Con Power (dE	ducted Output 3m)	EIRP For IC	FCC Limit	IC Limit
	(11112)		Single	lotal	(abm)	(abm)	(abm)
Low	5190	1	9.85	12.01	16 65		22
	5160	2	9.95	12.91	10.05		
Middle	5200	1	10.05	40.00	16 76		
wildule	5200	2	9.96	13.02	10.70	24	23
High 5240		1	10.05	12.00	10.04		
підп	5240	2	9.73	12.90	10.04		

# 6.3.4.2. UNII-3 BAND

Test Frequency		ANT	Maximum AVG Cond Power (dB	lucted Output m)	FCC Limit	IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)
Low	5745	1	10.01	12.04	30	30
LOW 5745	5745	2	10.12	13.04		
Middlo	5795	1	10.15	12.06		
Midule	5765	2	9.44	12.90		
Lich 5925	1	10.02	12.96			
riigh	0020	2	9.27	12.00		

NOTE: 1.EIRP= Maximum Conducted Output Power + ANT GAIN

2. Maximum Conducted Output Power= Conducted Output Power+ Correction Factor

3. About correction Factor please refer to section 6.1

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### 6.3.5. 802.11ac HT40 CDDMODE

#### 6.3.5.1. UNII-1 BAND

Test	Frequency	ANT	Maximum AVG Conducted Output Power (dBm)		EIRP For IC	FCC Limit	IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)	(dBm)
Low	5100	1	9.23	12.25	16.00		
	5190	2	9.45	12.55	10.09	24	22
Lliab	5020	1	10.03	12.07	16 71	24	23
nign	5230	2	9.88	12.97	10.71		

#### 6.3.5.2. UNII-3 BAND

Test	Frequency	ANT	Maximum AVG Cond Power (dB	Maximum AVG Conducted Output Power (dBm)		IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)
Low	5755	1	10.11	12 17		
	5755	2	10.50	13.17	20	20
Lliab	5705	1	10.14	10 10	- 30	30
rign	5795	2	10.21	13.13		

NOTE: 1.EIRP= Maximum Conducted Output Power + ANT GAIN

- 2. Maximum Conducted Output Power= Conducted Output Power+ Correction Factor
- 3. About correction Factor please refer to section 6.1

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# 6.3.6. 802.11ac HT80 CDD MODE 6.3.6.1. UNII-1 BAND

Test Channel	Frequency (MHz)	ANT	Maximum AVG Con Power (dE Single	ducted Output 3m) Total	EIRP For IC (dBm)	FCC Limit (dBm)	IC Limit (dBm)
Low	5210	1	10.11	10.11	16.95	24	22
	5210	2	10.08	13.11	10.00	24	23

## 6.3.6.2. UNII-3 BAND

Test	Frequency	ANT	Maximum AVG Conducted Output Power (dBm)		FCC Limit	IC Limit
Channel	(MHz)		Single	Total	(dBm)	(dBm)
Low	<b>F</b> 77 <b>F</b>	1	9.12	10.10	20	20
	5775	2	9.11	12.13	30	30

NOTE: 1.EIRP= Maximum Conducted Output Power + ANT GAIN

- 2. Maximum Conducted Output Power= Conducted Output Power+ Correction Factor
- 3. About correction Factor please refer to section 6.1

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# 6.4. POWER SPECTRAL DENSITY

#### <u>LIMITS</u>

	FCC Part15, Subpart E/ RSS-247	
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	For FCC: Other than Mobile and portable:17dBm/MHz Mobile and portable:11dBm/MHz For RSS:10dBm/MHz	5150-5250
	11dBm/MHz	5250-5350
	11dBm/MHz	For FCC:5470-5725 For IC:5470-5600 5650-5725
	30dBm/500kHz	5725-5850

### TEST PROCEDURE

Connect the UUT to the spectrum analyser and use the following settings:

FUI U-INII-I, U-INII-ZA al	
Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	1MHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

For U-NII-1, U-NII-2A and U-NII-2C band:

### For U-NII-3:

Center Frequency	The center frequency of the channel under test
Detector	RMS
RBW	500KHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Note:

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#### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01, section II.F.5., it is acceptable to set RBW at 1MHz and VBW at 3MHz if the spectrum analyzer does not have 500kHz RBW.

2. The value measured with RBW=1MHz is to be added with 10log(500kHz/1MHz) which is - 3dB. For example, if the measured value is +10dBm using RBW=1MHz (that is +10dBm/MHz), then the converted value will be +7dBm/500kHz.

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

### TEST SETUP



#### **RESULTS**

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# 6.4.1. 802.11a SISO MODE

6.4.1.1. UNII-1 BAND

Test Frequency			Meas. Level (d	Bm/MHz)	FCC	IC
Channel	(MHz)	ANT	Single	Total	Limit (dBm/MHz)	Limit (dBm/MHz)
Low	5190	1	1.902		11	
LOW	5160	2	-0.022	N/A		11
Middle	5200	1	2.186			
wilddie		2	0.573			
Lliab	5240	1	2.309			
підп	5240	2	1.179			

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1

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### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



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#### REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J 6 4 1 2 INII-3 BAND

0111									
Test	Frequency	ANTE	Meas. Level (dBm/500KHz)		FCC Limit	IC Limit			
Channel	(MHz)	ININA	Single	Total	(dBm/500KHz)	(dBm/500KHz)			
Low	5745	1	-0.279						
LOW		2	-2.409						
Middle	5785	1	-1.104	NI/A	20	20			
wilddie		2	-1.273	IN/A	30	30			
Lliab	5925	1	-0.391						
підп	5625	2	0.283						

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1

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### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



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# 6.4.2. 802.11n HT20 CDD MODE 6.4.2.1. UNII-1 BAND

Test Frequency		ANTEN	Meas. Level (d	Bm/MHz)	FCC	IC
Channel	(MHz)	NA	Single	Total	Limit (dBm/MHz)	Limit (dBm/MHz)
Low	5190	F100 1 1.141 2.0C		2.96		
LOW	5160	2	0.534	5.00	11	11
Middle	5200	1	1.098	3.56		
wiiddie	5200	2	-0.071			
Lliah	5240	1	0.717	0.55		
підп		2	0.350	3.00		

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1

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### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



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#### REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J 6.4.2.2 UNII-3 BAND

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

Test	Frequency	ANTE	Meas. Level (dBm/500KHz)		FCC Limit	IC Limit			
Channel	(MHz)	ININA	Single	Total	(dBm/500KHz)	(dBm/500KHz)			
Low	5745	1	-1.507	0.51					
LOW		2	-3.784	0.51					
Middle	5785	1	-1.824	0.27	11	11			
wildule		2	-5.472	-0.27	11	11			
Lliab	5005	1	-1.897	0.20					
піgri	5625	2	-5.435	-0.30					

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1

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### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



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# 6.4.3. 802.11n HT40 CDD MODE 6.4.3.1. UNII-1 BAND

Test	Frequency	ANTEN	Meas. Level (d	Bm/MHz)	FCC	IC
Channel	(MHz)	NA	Single	Total	Limit (dBm/MHz)	Limit (dBm/MHz)
Low	5190	1	-6.869	-4.40	11	
LOW		2	-8.022			11
High	5230	1	-2.071	0.20	11	
		2	-3.239	0.39		

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1



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0111						
Test	Frequency	ANTE	Meas. Level (dBm/500KHz)		FCC Limit	IC Limit
Channel	(MHz)	ININA	Single	Total	(dBm/500KHz)	(dBm/500KHz)
Low	5755	1	-5.407	2 45		
LOW		2	-7.849	-3.45	11	11
Lliab	EZOE	1	-5.262	2.57		
nign	5795	2	-8.482	-3.57		

6.4.3.2. UNII-3 BAND

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1



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# REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J 6.4.4. 802.11ac HT20 CDD MODE

6.4.4.1. UNII-1 BAND

Test Frequency		ANTEN	Meas. Level (d	Bm/MHz)	FCC	IC
Channel	(MHz)	NA	Single	Total	Limit (dBm/MHz)	Limit (dBm/MHz)
	5190	1	-1.402	0.01		
LOW	5160	2	-2.932	0.91	11	44
Middle	5200	1	-1.546	0.75		
widdle		2	-3.106			
Lliab	5240	1	-1.300	0.93	]	
підп		2	-3.020			

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1

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### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



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#### REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J 6.4.4.2. UNII-3 BAND

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

0111									
Test	Frequency	ANTE	Meas. Level (dBm/500KHz)		FCC Limit	IC Limit			
Channel	(MHz)	ININA	Single	Total	(dBm/500KHz)	(dBm/500KHz)			
Low	5745	1	-4.726	2.02					
LOW		2	-7.922	-3.03					
Middlo	5785	1	-4.665	2 1 2	11	11			
IVIIGUIE		2	-8.388	-3.13		11			
Lliab	5005	1	-5.060	2.62					
nign	5625	2	-9.103	-3.02					

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1

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### DATE: November 30, 2017 IC: 12290A-WCT0LR2201J



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# 6.4.5. 802.11ac HT40 CDD MODE 6.4.5.1. UNII-1 BAND

Test Frequency		ANTEN	Meas. Level (d	Bm/MHz)	FCC	IC
Channel	(MHz)	NA	Single	Total	Limit (dBm/MHz)	Limit (dBm/MHz)
Low	5100	1	-5.516	-3.37		
LOW	5190	2	-7.458		11	11
High	5020	1	-4.768	-2.31	11	11
	5230	2	-5.963			

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1



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#### REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J 6.4.5.2. UNII-3 BAND

0111		BARRE				
Test	Frequency	ANTE	Meas. Level (dBm/500KHz)		FCC Limit	IC Limit
Channel	(MHz)	ININA	Single	Total	(dBm/500KHz)	(dBm/500KHz)
Low	5755	1	-7.957	6.22		
LOW		2	-11.065	-0.23	11	11
Lliab	5705	1	-7.846	6.20		
пign	5795	2	-11.195	-0.20		

### Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1



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### REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J 6.4.6. 802.11ac HT80 CDD MODE 6.4.6.1. UNII-1 BAND

FCC IC Meas. Level (dBm/MHz) ANTEN Test Frequency Limit Limit Channel NA Total Single (MHz) (dBm/MHz) (dBm/MHz) 1 -6.481 -4.2 Low 5210 11 11 2 -8.171

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1



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#### REPORT NO: 4788196596.1-4 FCC ID: 2AC23-WCT0LR2201J 6462 UNII-3 BAND

DATE: November 30, 2017 IC: 12290A-WCT0LR2201J

••••									
Test	Frequency (MHz)	ANTE	Meas. Level (dBm/500KHz)		FCC Limit	IC Limit			
Channel		NNA	Single	Total	(dBm/500KHz)	(dBm/500KHz)			
Low	5775	5775	1	-10.472	0.0	11	11		
		2	-11.665	-0.0	11	11			

Note: 1.PSD=Meas. Level+ Correction Factor

2. About correction Factor please refer to section 6.1



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