

#### FCC ID: WQTAR4520

#### ■ TEST Plot for 802.11ac\_VHT20\_Ant.3

#### 802.11ac\_VHT20 UNII 1 BAND PSD CH 48



#### 802.11ac\_VHT20 UNII 2A BAND PSD CH 60



#### 802.11ac\_VHT20 UNII 2C BAND PSD CH 144





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#### Ant.0

#### **■ TEST RESULTS**

#### **Conducted Power Density Measurements**

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				Test Result					
Frequency (MHz)	Channel No.	Mode	Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail		
5190	38		-3.705	0.410	-3.295		Pass		
5230	46		-4.253	0.719	-3.534	16.51	Pass		
5230	40		-4.255	0.719	-3.334		F 4 5 5		
5270	54		-5.844	0.662	-5.182		Pass		
5310	62	802.11n	-5.943	0.662	-5.281	10.20	Pass		
5510	102	_HT40	-6.068	0.662	-5.406		Pass		
5590	118	(SISO)	-5.987	0.366	-5.621	40.50	Pass		
5710	142		-6.491	0.719	-5.772	10.52	Pass		
5755	151		-3.115	0.662	-2.453	00.50	Pass		
5795	159		-2.564	0.505	-2.059	29.52	Pass		

# Ant.1 ■ TEST RESULTS

	Conducted Power Density Measurements											
				Test Result								
Frequency (MHz)	Channel No.	Mode	Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail					
5190	38		-4.880	0.505	-4.375		Pass					
						16.51						
5230	46		-4.998	0.662	-4.336		Pass					
5270	54		-6.803	0.662	-6.141		Pass					
5310	62	802.11n	-6.476	0.719	-5.757	10.20	Pass					
5510	102	_HT40	-7.033	0.613	-6.420		Pass					
5590	118	(SISO)	-7.631	0.400	-7.231	40.52	Pass					
5710	142		-7.353	0.719	-6.634	10.52	Pass					
5755	151		-3.623	0.613	-3.010	20.52	Pass					
5795	159		-3.552	0.505	-3.047	29.52	Pass					

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# Ant.2 ■ TEST RESULTS

#### **Conducted Power Density Measurements**

		-	laactoa i circi											
				Test Result										
Frequency (MHz)	Channel No.	Mode	Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle	Limit (dBm)	Pass/Fail							
					Factor									
5190	38		-4.371	0.410	-3.961	16.51	Pass							
5230	46		-4.369	0.410	-3.959	10.51	Pass							
5270	54		-6.463	0.719	-5.744		Pass							
5310	62	802.11n	-6.520	0.719	-5.801	10.20	Pass							
5510	102	_HT40	-6.256	0.410	-5.846		Pass							
5590	118	(SISO)	-6.791	0.410	-6.381	40.52	Pass							
5710	142		-6.572	0.719	-5.853	10.52	Pass							
5755	151		-2.910	0.400	-2.510	20.52	Pass							
5795	159		-2.755	0.437	-2.318	29.52	Pass							

# Ant.3 ■ TEST RESULTS

	Conducted Power Density Measurements											
				Test Result								
Frequency (MHz)	Channel No.	Mode	Measured Power Density	Duty Cycle Factor (dB)	Measured Power Density(dBm) +	Limit (dBm)	Pass/Fail					
			(dBm)		Duty Cycle							
			, ,		Factor							
5190	38		-4.176	0.410	-3.766	46.54	Pass					
5230	46		-3.645	0.410	-3.235	16.51	Pass					
5270	54		-5.630	0.719	-4.911		Pass					
5310	62	802.11n	-5.500	0.719	-4.781	10.20	Pass					
5510	102	_HT40	-7.127	0.719	-6.408		Pass					
5590	118	(SISO)	-7.120	0.410	-6.710	10.52	Pass					
5710	142		-7.322	0.719	-6.603	10.52	Pass					
5755	151		-2.888	0.505	-2.383	29.52	Pass					
5795	159		-2.486	0.719	-1.767	23.32	Pass					

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#### ■ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3

#### **■ TEST RESULTS**

Eroguenov	Channal		Test Result					
Frequency (MHz)	Channel No.	Mode	Measured Power Density (dBm)	Limit (dBm)	Pass/Fail			
5190	38		2.18	40.40	Pass			
5230	46		2.26	10.49	Pass			
5270	54		0.54	4.18	Pass			
5310	62	802.11n	0.63		Pass			
5510	102	_HT40	0.01		Pass			
5590	118	(MIMO)	-0.45	4.50	Pass			
5710	142		-0.19		Pass			
5755	151		3.44	00.50	Pass			
5795	159		3.74	23.50	Pass			



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#### ■ TEST Plot for 802.11n\_HT40\_Ant.0

#### 802.11n\_HT40 UNII 1 BAND PSD CH 38



#### 802.11n\_HT40 UNII 2A BAND PSD CH 54



#### 802.11n\_HT40 UNII 2C BAND PSD CH 102







#### FCC ID: WQTAR4520

#### ■ TEST Plot for 802.11n\_HT40\_Ant.1

#### 802.11n\_HT40 UNII 1 BAND PSD CH 46



#### 802.11n\_HT40 UNII 2A BAND PSD CH 62



#### 802.11n\_HT40 UNII 2C BAND PSD CH 102







#### FCC ID: WQTAR4520

#### ■ TEST Plot for 802.11n\_HT40\_Ant.2

#### 802.11n\_HT40 UNII 1 BAND PSD CH 46



#### 802.11n\_HT40 UNII 2A BAND PSD CH 54



#### 802.11n\_HT40 UNII 2C BAND PSD CH 102







#### FCC ID: WQTAR4520

#### ■ TEST Plot for 802.11n\_HT40\_Ant.3

#### 802.11n\_HT40 UNII 1 BAND PSD CH 46



#### 802.11n\_HT40 UNII 2A BAND PSD CH 62



#### 802.11n\_HT40 UNII 2C BAND PSD CH 102







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#### Ant.0

#### **■ TEST RESULTS**

#### **Conducted Power Density Measurements**

					Test Result		
Frequency (MHz)	Channel No.	Mode	Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail
5190	38		-4.438	0.939	-3.499	46.54	Pass
5230	46		-4.602	0.802	-3.800	16.51	Pass
5270	54		-5.994	0.939	-5.055		Pass
5310	62	802.11ac	-6.168	0.939	-5.229	10.20	Pass
5510	102	_VHT40	-5.783	0.977	-4.806		Pass
5590	118		-5.736	0.340	-5.396	10.52	Pass
5710	142		-6.224	0.939	-5.285	10.52	Pass
5755	151		-3.120	0.802	-2.318	29.52	Pass
5795	159		-3.118	0.977	-2.141	29.52	Pass

# Ant.1 ■ TEST RESULTS

_	Conducted Power Density Measurements											
			Test Result									
Frequency (MHz)	Channel No.	Mode	Measured Power Density	Duty Cycle Factor (dB)	Measured Power Density(dBm) +	Limit (dBm)	Pass/Fail					
			(dBm)		Duty Cycle							
					Factor							
5190	38		-5.122	0.939	-4.183	16.51	Pass					
5230	46		-5.354	0.977	-4.377		Pass					
5270	54		-6.796	0.939	-5.857		Pass					
5310	62	802.11ac	-6.954	0.939	-6.015	10.20	Pass					
5510	102	_VHT40	-7.395	0.939	-6.456		Pass					
5590	118		-7.467	0.802	-6.665	10.52	Pass					
5710	142		-7.188	0.939	-6.249	10.52	Pass					
5755	151		-3.754	0.835	-2.919	20.52	Pass					
5795	159		-3.493	0.939	-2.554	29.52	Pass					

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# Ant.2 ■ TEST RESULTS

#### **Conducted Power Density Measurements**

		Conducted Fower Density Measurements											
			Test Result										
			Measured	<b>Duty Cycle</b>	Measured	Limit	Pass/Fail						
Frequency	Channel	Mode	Power	Factor	Power Density(dBm)	(dBm)							
(MHz)	No.	modo	Density	(dB)	+								
		(dBm)		Duty Cycle									
					Factor								
5190	38		-4.567	0.977	-3.590	16.51	Pass						
5230	46		-4.275	0.130	-4.145	16.51	Pass						
5270	54		-6.606	0.977	-5.629		Pass						
5310	62	802.11ac	-6.672	0.977	-5.695	10.20	Pass						
5510	102	VHT40	-6.456	0.977	-5.479		Pass						
5590	118		-6.037	0.340	-5.697	10.52	Pass						
5710	142		-6.579	0.939	-5.640	10.52	Pass						
5755	151		-2.731	0.835	-1.896	29.52	Pass						
5795	159		-2.533	0.448	-2.085	25.52	Pass						

# Ant.3 ■ TEST RESULTS

	Conducted Power Density Measurements											
				Test Result								
Frequency (MHz)	Channel No.	Mode	Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle	Limit (dBm)	Pass/Fail					
					Factor							
5190	38		-4.775	0.977	-3.798	16.51	Pass					
5230	46		-4.141	0.802	-3.339		Pass					
5270	54		-5.873	0.977	-4.896		Pass					
5310	62	802.11ac	-6.037	0.977	-5.060	10.20	Pass					
5510	102	_VHT40	-6.993	0.977	-6.016		Pass					
5590	118		-6.664	0.340	-6.324	40.52	Pass					
5710	142		-7.155	0.835	-6.320	10.52	Pass					
5755	151		-2.758	0.977	-1.781	20.52	Pass					
5795	159		-2.527	0.802	-1.725	29.52	Pass					

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#### ■ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3

#### **■ TEST RESULTS**

Eroguenov	Channel		Test Result				
Frequency (MHz)	No.	Mode	Measured Power Density (dBm)	Limit (dBm)	Pass/Fail		
5190	38		2.26	40.40	Pass		
5230	46		2.11	10.49	Pass		
5270	54	-	0.67	4.18	Pass		
5310	62	000 44	0.53		Pass		
5510	102	802.11ac	0.35		Pass		
5590	118	_VHT40	0.01	4.50	Pass		
5710	142		0.16	]	Pass		
5755	151		3.80		Pass		
5795	159		3.90	23.50	Pass		



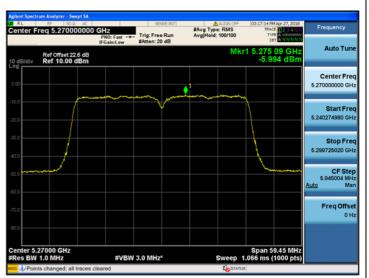
#### FCC ID: WQTAR4520

#### **■ TEST Plot for 802.11ac\_VHT40\_Ant.0**

#### 802.11ac\_VHT40 UNII 1 BAND PSD CH 38

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#### 802.11ac\_VHT40 UNII 2A BAND PSD CH 54



#### 802.11ac\_VHT40 UNII 2C BAND PSD CH 102







#### FCC ID: WQTAR4520

#### ■ TEST Plot for 802.11ac\_VHT40\_Ant.1

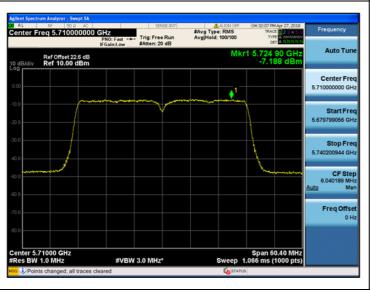
#### 802.11ac\_VHT40 UNII 1 BAND PSD CH 38



#### 802.11ac\_VHT40 UNII 2A BAND PSD CH 54



#### 802.11ac\_VHT40 UNII 2C BAND PSD CH 142







FCC ID: WQTAR4520

#### ■ TEST Plot for 802.11ac\_VHT40\_Ant.2

#### 802.11ac\_VHT40 UNII 1 BAND PSD CH 38

# 

#### 802.11ac\_VHT40 UNII 2A BAND PSD CH 54



#### 802.11ac\_VHT40 UNII 2C BAND PSD CH 102







FCC ID: WQTAR4520

#### ■ TEST Plot for 802.11ac\_VHT40\_Ant.3

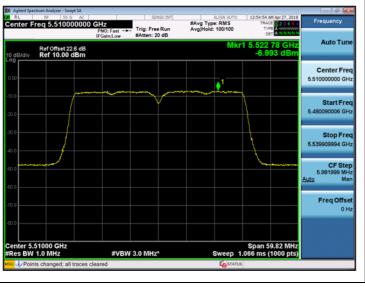
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#### 802.11ac\_VHT40 UNII 2A BAND PSD CH 54



#### 802.11ac\_VHT40 UNII 2C BAND PSD CH 102





FCC ID: WQTAR4520

#### Ant.0

#### **■ TEST RESULTS**

#### **Conducted Power Density Measurements**

Conducted 1 Over Benefity incustrements										
			Test Result							
Frequency (MHz)	Channel No.	Mode	Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail			
5210	42		-6.976	1.427	-5.549	16.51	Pass			
5290	58		-8.884	1.427	-7.457	10.20	Pass			
5530	106	802.11ac	-8.869	1.249	-7.620		Pass			
5610	122	_VHT80	-9.220	1.427	-7.793	10.52	Pass			
5690	138		-9.393	1.362	-8.031		Pass			
5775	155		-5.586	0.753	-4.833	29.52	Pass			

#### Ant.1

#### **■ TEST RESULTS**

			Test Result					
Frequency (MHz)	Channel No.	Mode	Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail	
5210	42		-8.105	1.427	-6.678	16.51	Pass	
5290	58		-10.098	1.427	-8.671	10.20	Pass	
5530	106	802.11ac	-10.246	1.427	-8.819		Pass	
5610	122	_VHT80	-10.669	1.362	-9.307	10.52	Pass	
5690	138		-10.386	1.427	-8.959	1	Pass	
5775	155		-5.773	1.427	-4.346	29.52	Pass	

#### FCC ID: WQTAR4520

# Ant.2 ■ TEST RESULTS

#### **Conducted Power Density Measurements**

Conducted Fower Density Measurements								
	Channel No.	Mode	Test Result					
Frequency (MHz)			Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail	
5210	42		-6.995	1.427	-5.568	16.51	Pass	
5290	58	802.11ac _VHT80	-9.381	1.427	-7.954	10.20	Pass	
5530	106		-9.259	1.427	-7.832	10.52	Pass	
5610	122		-9.726	1.200	-8.526		Pass	
5690	138		-10.080	1.427	-8.653		Pass	
5775	155		-5.044	1.112	-3.932	29.52	Pass	

# Ant.3 ■ TEST RESULTS

	Channel No.	Mode	Test Result					
Frequency (MHz)			Measured Power Density (dBm)	Duty Cycle Factor (dB)	Measured Power Density(dBm) + Duty Cycle Factor	Limit (dBm)	Pass/Fail	
5210	42	802.11ac _VHT80	-7.516	1.427	-6.089	16.51	Pass	
5290	58		-8.719	1.427	-7.292	10.20	Pass	
5530	106		-10.213	1.427	-8.786	10.52	Pass	
5610	122		-10.145	1.427	-8.718		Pass	
5690	138		-10.151	1.249	-8.902		Pass	
5775	155		-4.782	1.249	-3.533	29.52	Pass	



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#### ■ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3

#### **■ TEST RESULTS**

#### **Conducted Power Density Measurements**

Frequency (MHz)	Channel No.	Mode	Test Result				
			Measured Power Density (dBm)	Limit (dBm)	Pass/Fail		
5210	42		0.06	10.49	Pass		
5290	58		-1.81	4.18	Pass		
5530	106	802.11ac	-2.23		Pass		
5610	122	_VHT80	-2.55	4.50	Pass		
5690	138		-2.61	1	Pass		
5775	155		1.87	23.50	Pass		

F-TP22-03 (Rev.00) 3 0 3 / 494 **HCT CO.,LTD.**