FCC ID: WQTAR4520

■ Straddle channels TEST RESULTS_Ant 2

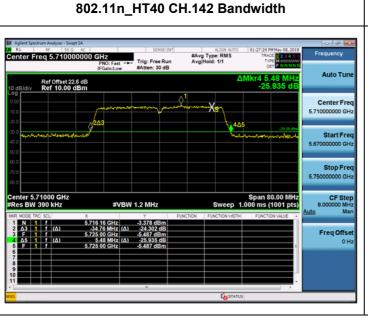
Conducted Bandwidth Measurements for 802.11n_HT40/ac_VHT40 (UNII 2C Band)

Mode	Frequency [MHz]	Channel No.	Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
802.11n	F740	142	34.76	N/A	Pass
802.11ac	5710		35.08	N/A	Pass

Conducted Bandwidth Measurements for 802.11n_HT40/ac_VHT40 (UNII 3 Band)

Mode	Frequency [MHz]	Channel No.	Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
802.11n	F740	142	5.48	N/A	Pass
802.11ac	5710		5.32	N/A	Pass

■ Straddle channels TEST Plot for 802.11n_HT40/ac_VHT40_Ant 2



802.11ac_VHT40 CH.142 Bandwidth



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■ Straddle channels TEST RESULTS_Ant 3

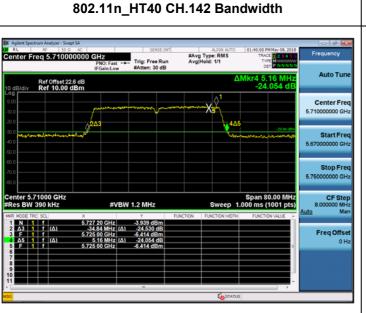
Conducted Bandwidth Measurements for 802.11n_HT40/ac_VHT40 (UNII 2C Band)

Mode	Frequency [MHz]	Channel No.	Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
802.11n	5740	142	34.84	N/A	Pass
802.11ac	5710		34.68	N/A	Pass

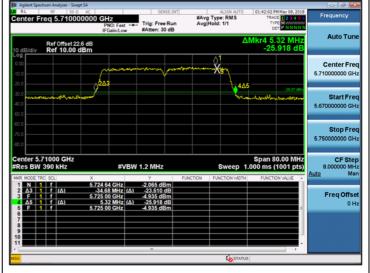
Conducted Bandwidth Measurements for 802.11n_HT40/ac_VHT40 (UNII 3 Band)

Mode	Frequency [MHz]	Channel No.	Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
802.11n	F740	142	5.16	N/A	Pass
802.11ac	5710		5.32	N/A	Pass

■ Straddle channels TEST Plot for 802.11n_HT40/ac_VHT40_Ant 3



802.11ac_VHT40 CH.142 Bandwidth



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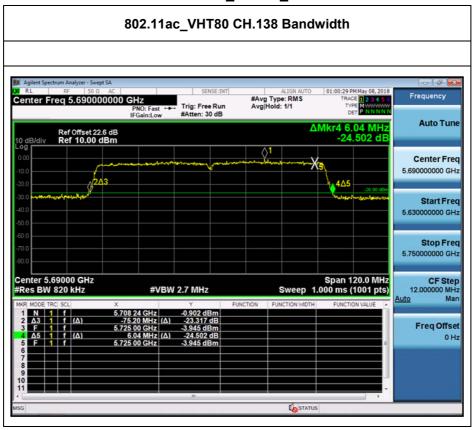
■ Straddle channels TEST RESULTS_Ant 0

Conducted Bandwidth Measurements for 802.11ac_VHT80 (UNII 2C Band)

Mode	Frequency	Channel	Measured	Minimum	Pass /
	[MHz]	No.	Bandwidth [MHz]	Bandwidth [MHz]	Fail
802.11ac	5690	138	75.20	N/A	Pass

Conducted Bandwidth Measurements for 802.11ac_VHT80 (UNII 3 Band)

Mode	Frequency	Channel	Measured	Minimum	Pass /
	[MHz]	No.	Bandwidth [MHz]	Bandwidth [MHz]	Fail
802.11ac	5690	138	6.04	N/A	Pass



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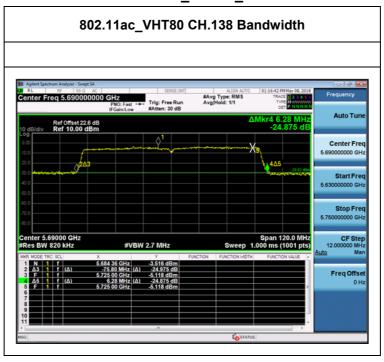
■ Straddle channels TEST RESULTS_Ant 1

Conducted Bandwidth Measurements for 802.11ac_VHT80 (UNII 2C Band)

Mode	Frequency [MHz]	Channel No.	Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
802.11ac	5690	138	75.80	N/A	Pass

Conducted Bandwidth Measurements for 802.11ac_VHT80 (UNII 3 Band)

Mode	Frequency	Channel	Measured	Minimum	Pass /
	[MHz]	No.	Bandwidth [MHz]	Bandwidth [MHz]	Fail
802.11ac	5690	138	6.28	N/A	Pass



FCC ID: WQTAR4520

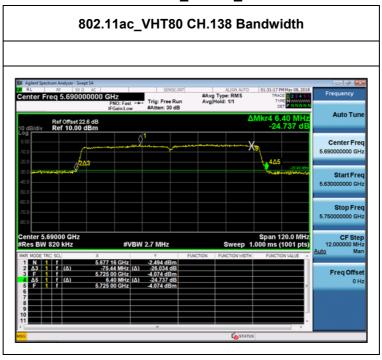
■ Straddle channels TEST RESULTS_Ant 2

Conducted Bandwidth Measurements for 802.11ac_VHT80 (UNII 2C Band)

Mode	Frequency [MHz]	Channel No.	Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
802.11ac	5690	138	75.44	N/A	Pass

Conducted Bandwidth Measurements for 802.11ac_VHT80 (UNII 3 Band)

Mode	Frequency	Channel	Measured	Minimum	Pass /
	[MHz]	No.	Bandwidth [MHz]	Bandwidth [MHz]	Fail
802.11ac	5690	138	6.40	N/A	Pass



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■ Straddle channels TEST RESULTS_Ant 3

Conducted Bandwidth Measurements for 802.11ac_VHT80 (UNII 2C Band)

Mode	Frequency [MHz]	Channel No.	Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
802.11ac	5690	138	75.68	N/A	Pass

Conducted Bandwidth Measurements for 802.11ac_VHT80 (UNII 3 Band)

Mode	Frequency	Channel	Measured	Minimum	Pass /
	[MHz]	No.	Bandwidth [MHz]	Bandwidth [MHz]	Fail
802.11ac	5690	138	6.28	N/A	Pass



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9.3 OUTPUT POWER MEASUREMENT

Test Requirements and limit, §15.407(a)(1)

A transmitter antenna terminal of EUT is connected to the input of a Power meter or Spectrum Analyzer .Measurement is made while the EUT is operating in transmission mode at the appropriate frequencies.

Limit

Dand	Mada	Limit		
Band	Mode	(dBm)		
UNII 1	802.11a,n,ac	30.00		
UNII 2A	802.11a,n,ac	23.98		
UNII 2C	802.11a,n,ac	23.98		
UNII 3	802.11a,n,ac	30.00		

■ Limit (Include Beamforming)

Operating Made	Dand	Mode	Operating	Ant. Gain	Limit
Operating Mode	Band	Mode	Ant.	(dBi)	(dBm)
SISO	UNII 1		Ant 0 & 1 & 2 & 3	6.486	29.514
	UNII 2A	802.11a/n/ac	Ant 0 & 1 & 2 & 3	6.800	23.179
	UNII 2C	802.11a/n/ac	00 <u>2</u> .11q/11/d0	Ant 0 & 1 & 2 & 3	6.482
	UNII 3		Ant 0 & 1 & 2 & 3	6.478	29.522
	UNII 1			6.486	29.514
MIMO	UNII 2A	802.11a/n/ac	Ant 0 & 1 & 2	6.800	23.179
MINIO	UNII 2C	602.11a/11/ac	& 3	6.482	23.497
	UNII 3			6.478	29.522
	UNII 1			12.51	23.49
МІМО	UNII 2A	802.11ac	Ant 0 & 1 & 2	12.82	17.16
	UNII 2C	(Beamforming)	& 3	12.50	17.48
	UNII 3			12.50	23.50

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Note: 1. If all antennas have the same gain,

Directional gain = Gant + Array Gain, where Array Gain is as follows.

For power measurements on IEEE 802.11 devices

Directional gain(dBi) = G_{ANT} + Array Gain

Array Gain = 0 dB (i.e., no array gain) for Nant ≤ 4 (Without Beamforming)

Array Gain(Power) = 10 log(N_{ANT}/Nss) dB (Include Beamforming). (according to KDB662911 D01 v02r01)

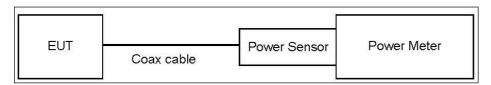
- 2. Limit is calculated by antenna gain.
- 3. Beamforming is only supported 802.11ac
- 4. The limits of maximum conducted power were applied the antenna gain. Therefore, if conducted power is pass, e.i.r.p. is also pass. So, we attached only conducted power table.
- 5. This EUT is supported the 1Tx~4Tx. Because worst case is 4Tx summation power, so we attached only the results for 1Tx single power and 4Tx summation conducted power.

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■ TEST CONFIGURATION(20 MHz BW)



■ TEST PROCEDURE(20 MHz BW)

- Average Power (Procedure E.3.a in KDB 789033 D02 v02r01).
 - 1. Measure the duty cycle.
 - 2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
 - 3. Add 10 $\log (1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Note:

- 1. We apply to the offset in the 5 GHz range that was rounded off to the closest 20 dB.
- 2. We apply the offset of 5 GHz band is 21.5dB.

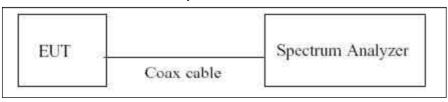
(Actual value of loss for the attenuator and cable combination)

3. MIMO output power results are calculated by each antenna output power on MIMO operating mode. So, in case of MIMO output power, we attached only MIMO output power except each antenna power result.

■ Sample Calculation (Conducted)

Output Power = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor Ex) Output Power = 10 dBm + 20 dB + 1.17 dB + 0.2 dB = 31.0 dBm

■ TEST CONFIGURATION(40 MHz BW & 80 MHz BW & 160 MHz BW)



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■ TEST PROCEDURE(40 MHz BW & 80 MHz BW & 160 MHz BW)

Average Power

The transmitter output is connected to the Spectrum Analyzer. We use the spectrum analyzer's integrated band power measurement function. We tested according to Method SA-2 in KDB 789033 D02 v02r01.

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The Spectrum Analyzer is set to

- 1. Measure the duty cycle.
- 2. Set span to encompass the 26 dB EBW of the signal.
- 3. RBW = 1 MHz.
- 4. VBW ≥ 3 MHz.
- 5. Number of points in sweep ≥ 2*span/RBW.
- 6. Sweep time = auto.
- 7. Detector = RMS.
- 8. Do not use sweep triggering. Allow the sweep to "free run".
- 9. Trace average at least 100 traces in power averaging(RMS) mode
- 10. Integrated bandwidth = OBW
- 11. Add 10log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

■ Sample Calculation (Conducted)

Output Power = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor

■ Sample Calculation (EIRP)

Output Power = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor + Ant gain

Note.

- 1. Spectrum reading values are not plot data. The Output Power results in plot is already including the actual values of loss for the attenuator and cable combination.
- 2. Spectrum offset = Attenuator loss + Cable loss
- 3. We apply the offset of 5 GHz band is 21.5dB.

(Actual value of loss for the attenuator and cable combination)

4. MIMO output power results are calculated by each antenna output power on MIMO operating mode.

So, in case of MIMO output power, we attached only MIMO output power except each antenna power result.

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9.3.1 TRANSMIT POWER CONTROL(TPC)

U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

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TPC is required as the device operates only 802.11ac at above 500 mW (27dBm) EIRP.

Band	Mode	Channel Bandwidth (MHz)	Frequency Range (MHz)	Ant.0 Power (dBm)	Ant.1 Power (dBm)	Ant.2 Power (dBm)	Ant.3 Power (dBm)	Ant. 0 & 1 & 2 & 4 Power (dBm)
	802.11a	20	5260 – 5320	9.37	9.26	9.76	10.00	15.62
	802.11n	20	5260 – 5320	9.87	9.68	10.07	10.35	<mark>16.02</mark>
	802.11n	40	5270 – 5310	9.31	9.42	9.64	10.02	15.62
UNII2A	802.11ac	20	5260 - 5320	3.42	3.14	3.70	3.91	9.57
	802.11ac	40	5270 – 5310	3.33	3.09	3.67	3.93	9.53
	802.11ac	80	5290	3.36	3.05	3.81	3.89	9.55
	802.11ac	160	5210 + 5290	3.	25	3.	53	6.40
	802.11a	20	5500 – 5720	8.47	7.47	8.32	7.91	14.07
	802.11n	20	5500 – 5720	8.44	7.43	8.24	7.82	14.01
	802.11n	40	5510 – 5710	8.65	8.28	8.72	7.84	14.40
UNII2C	802.11ac	20	5500 - 5720	2.57	1.65	2.45	1.81	8.15
	802.11ac	40	5510 – 5710	3.07	2.01	3.10	2.42	8.68
	802.11ac	80	5530 – 5690	2.92	2.71	3.11	1.96	<mark>8.71</mark>
	802.11ac	160	5530 + 5610	9.	21	8	21	5.73

- This device only applied TPC to the 802.11ac

- Antenna Gain : UNII 2A = 12.82 dBi, UNII 2C = 12.50dBi (only 802.11 ac)

Maximum Conducted Power(Yellow Mark) + Antenna Gain(MIMO) =

UNII2A : 16.02 dBm + 6.800 dBi = 22.82 dBm UNII2C : 8.71 dBm + 12.500 dBi = 21.21 dBm

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Ant.0 802.11a (UNII 1) ■ TEST RESULTS

802.11a(20MI					Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	13.23	13.45	29.514
		9	0.215	13.03	13.24	29.514
		12	0.203	13.24	13.44	29.514
5180	36	18	0.212	13.01	13.22	29.514
5100	36	24	0.208	12.84	13.05	29.514
		36	0.268	12.72	12.99	29.514
		48	0.358	12.73	13.09	29.514
		54	0.388	12.76	13.15	29.514
		6	0.220	13.16	13.38	29.514
		9	0.215	12.91	13.12	29.514
	40	12	0.203	12.93	13.13	29.514
5000		18	0.212	12.83	13.04	29.514
5200	40	24	0.208	12.79	13.00	29.514
		36	0.268	12.40	12.66	29.514
		48	0.358	12.53	12.89	29.514
		54	0.388	12.47	12.86	29.514
		6	0.220	13.30	13.52	29.514
		9	0.215	12.98	13.19	29.514
		12	0.203	13.20	13.40	29.514
5240	40	18	0.212	12.99	13.20	29.514
	48	24	0.208	12.92	13.13	29.514
		36	0.268	12.87	13.14	29.514
		48	0.358	12.69	13.05	29.514
		54	0.388	12.72	13.11	29.514



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Ant.1 802.11a (UNII 1) ■ TEST RESULTS

802.11a(20M			asurements (602		Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	13.56	13.78	29.514
		9	0.215	13.55	13.76	29.514
		12	0.203	13.31	13.51	29.514
5180	36	18	0.212	13.47	13.68	29.514
5160	36	24	0.208	13.45	13.66	29.514
		36	0.268	13.46	13.73	29.514
		48	0.358	13.44	13.80	29.514
		54	0.388	13.46	13.85	29.514
		6	0.220	13.49	13.71	29.514
	40	9	0.215	13.41	13.62	29.514
		12	0.203	13.23	13.43	29.514
5200		18	0.212	13.32	13.53	29.514
5200		24	0.208	13.17	13.38	29.514
		36	0.268	13.21	13.48	29.514
		48	0.358	13.36	13.71	29.514
		54	0.388	13.35	13.74	29.514
		6	0.220	13.20	13.42	29.514
		9	0.215	13.08	13.29	29.514
		12	0.203	13.13	13.33	29.514
5240	10	18	0.212	13.23	13.44	29.514
5240	48	24	0.208	13.11	13.32	29.514
		36	0.268	13.13	13.40	29.514
		48	0.358	13.04	13.40	29.514
		54	0.388	13.10	13.49	29.514

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Ant.2 802.11a (UNII 1) ■ TEST RESULTS

802.11a(20Ml	Hz) Mode				Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	13.90	14.12	29.514
		9	0.215	13.95	14.16	29.514
		12	0.203	13.85	14.05	29.514
5180	36	18	0.212	13.84	14.05	29.514
3100	36	24	0.208	13.78	13.99	29.514
		36	0.268	13.65	13.92	29.514
		48	0.358	13.75	14.11	29.514
		54	0.388	13.58	13.97	29.514
		6	0.220	13.68	13.90	29.514
	40	9	0.215	13.80	14.01	29.514
		12	0.203	13.54	13.74	29.514
5200		18	0.212	13.52	13.73	29.514
5200		24	0.208	13.60	13.81	29.514
		36	0.268	13.47	13.74	29.514
		48	0.358	13.69	14.05	29.514
		54	0.388	13.27	13.65	29.514
		6	0.220	13.75	13.97	29.514
		9	0.215	13.86	14.07	29.514
		12	0.203	13.75	13.95	29.514
5240	40	18	0.212	13.93	14.14	29.514
	48	24	0.208	13.71	13.92	29.514
		36	0.268	13.61	13.88	29.514
		48	0.358	13.67	14.03	29.514
		54	0.388	13.55	13.94	29.514

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Ant.3 802.11a (UNII 1) ■ TEST RESULTS

802.11a(20Mi	Hz) Mode				Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	13.78	14.00	29.514
		9	0.215	13.87	14.08	29.514
		12	0.203	13.73	13.93	29.514
5180	36	18	0.212	13.67	13.88	29.514
3100	36	24	0.208	13.82	14.03	29.514
		36	0.268	13.60	13.87	29.514
		48	0.358	13.61	13.97	29.514
		54	0.388	13.58	13.97	29.514
		6	0.220	13.58	13.80	29.514
	40	9	0.215	13.77	13.99	29.514
		12	0.203	13.42	13.63	29.514
5200		18	0.212	13.42	13.63	29.514
5200		24	0.208	13.68	13.89	29.514
		36	0.268	13.53	13.80	29.514
		48	0.358	13.43	13.79	29.514
		54	0.388	13.52	13.90	29.514
		6	0.220	13.73	13.95	29.514
		9	0.215	13.73	13.94	29.514
		12	0.203	13.61	13.81	29.514
5040	40	18	0.212	13.81	14.02	29.514
5240	48	24	0.208	13.57	13.78	29.514
		36	0.268	13.45	13.72	29.514
		48	0.358	13.43	13.79	29.514
		54	0.388	13.26	13.65	29.514

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■ TEST RESULTS_Sum Data of Ant.0, Ant.1, Ant. 2, Ant. 3 (UNII 1)

802.11a			ents (802.11a Mode. 51	,	
Frequency [MHz]	Channel No.	Rate (Mbps)	Sum Power of Ant.0 & 1	Limit (dBm)	
		6	19.86	29.514	
		9	19.84	29.514	
		12	19.76	29.514	
E400	20	18	19.74	29.514	
5180	36	24	19.71	29.514	
		36	19.65	29.514	
		48	19.77	29.514	
		54	19.76	29.514	
		6	19.72	29.514	
		9	19.71	29.514	
		12	19.51	29.514	
5200	40	18	19.51	29.514	
5200	40	24	19.55	29.514	
		36	19.45	29.514	
		48	19.64	29.514	
		54	19.57	29.514	
		6	19.74	29.514	
		9	19.66	29.514	
		12	19.65	29.514	
5240	40	18	19.73	29.514	
5240	48	24	19.56	29.514	
		36	19.56	29.514	
		48	19.59	29.514	
		54	19.57	29.514	

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Ant.0 802.11a (UNII 2A) TEST RESULTS

802.11a l		output Power Med			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	9.10	9.32	23.179
		9	0.215	8.88	9.09	23.179
		12	0.203	8.91	9.11	23.179
5260	52	18	0.212	8.78	8.99	23.179
5260	52	24	0.208	8.91	9.12	23.179
		36	0.268	8.72	8.99	23.179
		48	0.358	8.82	9.18	23.179
		54	0.388	8.52	8.91	23.179
		6	0.220	9.00	9.22	23.179
		9	0.215	8.64	8.85	23.179
	60	12	0.203	8.69	8.90	23.179
5200		18	0.212	8.62	8.83	23.179
5300		24	0.208	8.75	8.95	23.179
		36	0.268	8.40	8.67	23.179
		48	0.358	8.68	9.03	23.179
		54	0.388	8.44	8.83	23.179
		6	0.220	9.15	9.37	23.179
		9	0.215	8.79	9.00	23.179
		12	0.203	8.96	9.16	23.179
E200	64	18	0.212	8.76	8.97	23.179
5320	64	24	0.208	8.74	8.95	23.179
		36	0.268	8.60	8.87	23.179
		48	0.358	8.69	9.05	23.179
		54	0.388	8.48	8.87	23.179



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Ant.1 802.11a (UNII 2A) TEST RESULTS

802.11a I		output Power Med			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	8.96	9.18	23.179
		9	0.215	8.83	9.04	23.179
		12	0.203	8.99	9.19	23.179
5260	52	18	0.212	8.86	9.07	23.179
5260	52	24	0.208	8.79	9.00	23.179
		36	0.268	8.80	9.07	23.179
		48	0.358	8.90	9.26	23.179
		54	0.388	8.59	8.98	23.179
		6	0.220	8.82	9.04	23.179
		9	0.215	8.50	8.72	23.179
	60	12	0.203	8.70	8.90	23.179
5200		18	0.212	8.72	8.93	23.179
5300		24	0.208	8.70	8.91	23.179
		36	0.268	8.55	8.82	23.179
		48	0.358	8.57	8.93	23.179
		54	0.388	8.44	8.82	23.179
		6	0.220	8.84	9.06	23.179
		9	0.215	8.79	9.00	23.179
		12	0.203	8.66	8.86	23.179
5000	64	18	0.212	8.71	8.92	23.179
5320	64	24	0.208	8.50	8.71	23.179
		36	0.268	8.60	8.87	23.179
		48	0.358	8.75	9.11	23.179
		54	0.388	8.45	8.84	23.179

FCC ID: WQTAR4520

Ant.2 802.11a (UNII 2A) TEST RESULTS

802.11a N	Mode				Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	9.45	9.67	23.179
		9	0.215	9.55	9.76	23.179
		12	0.203	9.45	9.65	23.179
5260	52	18	0.212	9.52	9.73	23.179
5260	52	24	0.208	9.27	9.48	23.179
		36	0.268	9.32	9.59	23.179
		48	0.358	9.22	9.58	23.179
		54	0.388	9.33	9.72	23.179
		6	0.220	9.13	9.35	23.179
	60	9	0.215	9.41	9.63	23.179
		12	0.203	9.29	9.50	23.179
5300		18	0.212	9.38	9.59	23.179
5300		24	0.208	9.08	9.29	23.179
		36	0.268	9.23	9.50	23.179
		48	0.358	8.87	9.23	23.179
		54	0.388	9.02	9.41	23.179
		6	0.220	9.09	9.31	23.179
		9	0.215	9.37	9.58	23.179
		12	0.203	9.28	9.48	23.179
5320	G A	18	0.212	9.32	9.53	23.179
	64	24	0.208	8.94	9.15	23.179
		36	0.268	9.17	9.44	23.179
		48	0.358	9.06	9.42	23.179
		54	0.388	9.00	9.39	23.179

FCC ID: WQTAR4520

Ant.3 802.11a (UNII 2A) TEST RESULTS

802.11a l					Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	9.63	9.85	23.179
		9	0.215	9.79	10.00	23.179
		12	0.203	9.62	9.82	23.179
5260	52	18	0.212	9.76	9.97	23.179
5260	52	24	0.208	9.51	9.72	23.179
		36	0.268	9.69	9.96	23.179
		48	0.358	9.62	9.98	23.179
		54	0.388	9.52	9.91	23.179
		6	0.220	9.31	9.53	23.179
		9	0.215	9.55	9.76	23.179
		12	0.203	9.46	9.66	23.179
5300	60	18	0.212	9.67	9.88	23.179
5300	60	24	0.208	9.17	9.37	23.179
		36	0.268	9.37	9.64	23.179
		48	0.358	9.52	9.87	23.179
		54	0.388	9.28	9.67	23.179
		6	0.220	9.50	9.72	23.179
		9	0.215	9.52	9.73	23.179
		12	0.203	9.36	9.56	23.179
5320	G A	18	0.212	9.51	9.72	23.179
	64	24	0.208	9.21	9.42	23.179
		36	0.268	9.28	9.55	23.179
		48	0.358	9.17	9.53	23.179
		54	0.388	9.20	9.59	23.179

FCC ID: WQTAR4520

■ TEST RESULTS_ Sum Data of Ant.0, Ant.1, Ant. 2, Ant. 3 (UNII 2A)

802.11a M	<u> </u>		(502.114 111046: 5255	
Frequency [MHz]	Channel No.	Rate (Mbps)	Sum Power of Ant.0 & 1	Limit (dBm)
		6	15.53	23.179
		9	15.51	23.179
		12	15.47	23.179
5260	52	18	15.47	23.179
5200	52	24	15.35	23.179
		36	15.43	23.179
		48	15.52	23.179
		54	15.41	23.179
		6	15.31	23.179
		9	15.27	23.179
		12	15.27	23.179
5300	60	18	15.34	23.179
5500		24	15.15	23.179
		36	15.19	23.179
		48	15.30	23.179
		54	15.21	23.179
		6	15.39	23.179
		9	15.36	23.179
		12	15.29	23.179
5320	64	18	15.31	23.179
5320	04	24	15.08	23.179
		36	15.21	23.179
		48	15.30	23.179
		54	15.20	23.179



FCC ID: WQTAR4520

Ant.0 802.11a (UNII 2C) TEST RESULTS

802.11a l		оприл опо.	weasurements (o		Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	8.15	8.37	23.497
		9	0.215	7.91	8.12	23.497
		12	0.203	8.07	8.27	23.497
5500	100	18	0.212	7.88	8.09	23.497
5500	100	24	0.208	7.85	8.06	23.497
		36	0.268	7.67	7.94	23.497
		48	0.358	7.77	8.13	23.497
		54	0.388	7.44	7.83	23.497
		6	0.220	7.31	7.53	23.497
		9	0.215	7.44	7.65	23.497
	400	12	0.203	7.28	7.48	23.497
5600		18	0.212	7.16	7.37	23.497
5600	120	24	0.208	7.37	7.58	23.497
		36	0.268	7.14	7.41	23.497
		48	0.358	7.34	7.70	23.497
		54	0.388	7.07	7.46	23.497
		6	0.220	8.25	8.47	23.497
		9	0.215	7.93	8.14	23.497
		12	0.203	8.01	8.21	23.497
5720	444	18	0.212	8.01	8.22	23.497
	144	24	0.208	7.87	8.08	23.497
	,	36	0.268	7.84	8.11	23.497
		48	0.358	7.81	8.17	23.497
		54	0.388	7.63	8.02	23.497



FCC ID: WQTAR4520

Ant.1 802.11a (UNII 2C) TEST RESULTS

802.11a l		•			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	7.10	7.32	23.497
		9	0.215	7.09	7.30	23.497
		12	0.203	7.27	7.47	23.497
5500	100	18	0.212	7.15	7.36	23.497
5500	100	24	0.208	7.12	7.33	23.497
		36	0.268	6.99	7.26	23.497
		48	0.358	7.01	7.37	23.497
		54	0.388	6.97	7.36	23.497
		6	0.220	6.48	6.70	23.497
	120	9	0.215	6.43	6.64	23.497
		12	0.203	6.48	6.68	23.497
5000		18	0.212	6.32	6.53	23.497
5600	120	24	0.208	6.53	6.74	23.497
		36	0.268	6.56	6.83	23.497
		48	0.358	6.59	6.95	23.497
		54	0.388	6.33	6.72	23.497
		6	0.220	6.77	6.99	23.497
		9	0.215	6.75	6.96	23.497
		12	0.203	6.92	7.12	23.497
5720	444	18	0.212	6.80	7.01	23.497
	144	24	0.208	6.60	6.81	23.497
		36	0.268	6.70	6.97	23.497
		48	0.358	6.64	7.00	23.497
		54	0.388	6.63	7.02	23.497



FCC ID: WQTAR4520

Ant.2 802.11a (UNII 2C) TEST RESULTS

802.11a l			 		Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	8.08	8.30	23.497
		9	0.215	8.11	8.32	23.497
		12	0.203	7.95	8.15	23.497
5500	100	18	0.212	8.08	8.29	23.497
5500	100	24	0.208	7.87	8.08	23.497
		36	0.268	7.91	8.18	23.497
		48	0.358	7.67	8.03	23.497
		54	0.388	7.76	8.15	23.497
		6	0.220	7.58	7.80	23.497
	400	9	0.215	7.39	7.60	23.497
		12	0.203	7.49	7.69	23.497
5600		18	0.212	7.91	8.12	23.497
5600	120	24	0.208	7.36	7.57	23.497
		36	0.268	7.28	7.55	23.497
		48	0.358	7.17	7.53	23.497
		54	0.388	7.12	7.51	23.497
		6	0.220	7.49	7.71	23.497
		9	0.215	7.43	7.64	23.497
	•	12	0.203	7.57	7.77	23.497
5720	444	18	0.212	7.55	7.76	23.497
	144	24	0.208	7.33	7.54	23.497
	•	36	0.268	7.35	7.62	23.497
		48	0.358	7.36	7.72	23.497
		54	0.388	7.24	7.63	23.497



FCC ID: WQTAR4520

Ant.3 802.11a (UNII 2C) TEST RESULTS

802.11a l		•			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	7.51	7.73	23.497
		9	0.215	7.54	7.75	23.497
		12	0.203	7.40	7.60	23.497
5500	100	18	0.212	7.70	7.91	23.497
5500	100	24	0.208	7.29	7.50	23.497
		36	0.268	7.56	7.83	23.497
		48	0.358	7.27	7.63	23.497
		54	0.388	7.43	7.82	23.497
		6	0.220	6.20	6.42	23.497
		9	0.215	5.80	6.01	23.497
	100	12	0.203	6.22	6.42	23.497
5000		18	0.212	6.08	6.29	23.497
5600	120	24	0.208	5.78	5.99	23.497
		36	0.268	5.83	6.10	23.497
		48	0.358	5.74	6.10	23.497
		54	0.388	5.65	6.04	23.497
		6	0.220	4.80	5.02	23.497
		9	0.215	4.63	4.84	23.497
		12	0.203	4.87	5.07	23.497
5720	144	18	0.212	4.80	5.01	23.497
	144	24	0.208	4.75	4.96	23.497
		36	0.268	5.03	5.30	23.497
		48	0.358	4.75	5.11	23.497
		54	0.388	4.82	5.21	23.497

FCC ID: WQTAR4520

■ TEST RESULTS_ Sum Data of Ant.0, Ant.1, Ant. 2, Ant. 3 (UNII 2C)

802.11a Mode			(00 2 .114 Model 0000	0.20,
Frequency [MHz]	Channel No.	Rate (Mbps)	Sum Power of Ant.0 & 1	Limit (dBm)
		6	13.96	23.497
		9	13.91	23.497
		12	13.90	23.497
5500	100	18	13.94	23.497
5500	100	24	13.77	23.497
		36	13.83	23.497
		48	13.81	23.497
		54	13.81	23.497
	120	6	13.15	23.497
		9	13.03	23.497
		12	13.11	23.497
5600		18	13.13	23.497
3000	120	24	13.01	23.497
		36	13.01	23.497
		48	13.11	23.497
		54	12.97	23.497
		6	13.16	23.497
		9	13.01	23.497
		12	13.15	23.497
5720	144	18	13.11	23.497
3720	144	24	12.94	23.497
		36	13.08	23.497
		48	13.09	23.497
		54	13.05	23.497

FCC ID: WQTAR4520

Ant.0 802.11a (UNII 3) TEST RESULTS

802.11a (20M		output Power Mea			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	14.76	14.98	29.522
		9	0.215	14.59	14.80	29.522
		12	0.203	14.72	14.92	29.522
5745	149	18	0.212	14.70	14.91	29.522
5745	149	24	0.208	14.54	14.75	29.522
		36	0.268	14.55	14.82	29.522
		48	0.358	14.62	14.98	29.522
		54	0.388	14.57	14.96	29.522
	157	6	0.220	14.03	14.25	29.522
		9	0.215	14.00	14.21	29.522
		12	0.203	14.15	14.35	29.522
5785		18	0.212	14.06	14.27	29.522
5/65		24	0.208	13.93	14.14	29.522
		36	0.268	14.04	14.30	29.522
		48	0.358	13.87	14.23	29.522
		54	0.388	13.78	14.16	29.522
		6	0.220	14.06	14.28	29.522
		9	0.215	14.04	14.26	29.522
		12	0.203	13.95	14.16	29.522
5825	405	18	0.212	14.08	14.29	29.522
	165	24	0.208	14.00	14.21	29.522
		36	0.268	13.91	14.18	29.522
		48	0.358	13.94	14.30	29.522
		54	0.388	13.76	14.15	29.522



FCC ID: WQTAR4520

Ant.1 802.11a (UNII 3) TEST RESULTS

802.11a (20M		output Power Med			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	13.59	13.81	29.522
		9	0.215	13.55	13.77	29.522
		12	0.203	13.63	13.84	29.522
5745	149	18	0.212	13.66	13.87	29.522
5745	149	24	0.208	13.56	13.77	29.522
		36	0.268	13.55	13.82	29.522
		48	0.358	13.54	13.90	29.522
		54	0.388	13.45	13.84	29.522
	157	6	0.220	13.30	13.52	29.522
		9	0.215	13.23	13.45	29.522
		12	0.203	13.32	13.52	29.522
E70E		18	0.212	13.31	13.53	29.522
5785		24	0.208	13.22	13.42	29.522
		36	0.268	13.14	13.41	29.522
		48	0.358	13.19	13.55	29.522
		54	0.388	13.12	13.50	29.522
		6	0.220	13.11	13.33	29.522
		9	0.215	13.14	13.36	29.522
		12	0.203	13.17	13.37	29.522
E02E	465	18	0.212	13.10	13.31	29.522
5825	165	24	0.208	13.13	13.33	29.522
		36	0.268	12.94	13.21	29.522
		48	0.358	13.03	13.39	29.522
		54	0.388	12.96	13.35	29.522

FCC ID: WQTAR4520

Ant.2 802.11a (UNII 3) TEST RESULTS

802.11a (20MI	Hz) Mode	•			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	14.51	14.73	29.522
		9	0.215	14.39	14.60	29.522
		12	0.203	14.26	14.46	29.522
5745	149	18	0.212	14.29	14.50	29.522
5745	149	24	0.208	14.36	14.57	29.522
		36	0.268	14.17	14.44	29.522
		48	0.358	14.23	14.59	29.522
		54	0.388	14.04	14.43	29.522
	157	6	0.220	14.40	14.62	29.522
		9	0.215	14.21	14.43	29.522
		12	0.203	14.26	14.46	29.522
E70E		18	0.212	14.35	14.57	29.522
5785		24	0.208	14.13	14.33	29.522
		36	0.268	14.09	14.36	29.522
		48	0.358	14.17	14.52	29.522
		54	0.388	14.01	14.40	29.522
		6	0.220	13.65	13.87	29.522
		9	0.215	13.60	13.81	29.522
		12	0.203	13.57	13.78	29.522
5825	465	18	0.212	13.67	13.88	29.522
	165	24	0.208	13.49	13.70	29.522
		36	0.268	13.48	13.75	29.522
		48	0.358	13.45	13.81	29.522
		54	0.388	13.29	13.68	29.522



FCC ID: WQTAR4520

Ant.3 802.11a (UNII 3) TEST RESULTS

802.11a (20M		output Power Mea			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		6	0.220	14.11	14.33	29.522
		9	0.215	13.97	14.18	29.522
		12	0.203	14.05	14.25	29.522
5745	149	18	0.212	14.22	14.44	29.522
5745	149	24	0.208	13.93	14.14	29.522
		36	0.268	14.02	14.29	29.522
		48	0.358	14.01	14.37	29.522
		54	0.388	13.81	14.20	29.522
		6	0.220	13.69	13.91	29.522
	157	9	0.215	13.55	13.77	29.522
		12	0.203	13.63	13.83	29.522
E70E		18	0.212	13.69	13.90	29.522
5785		24	0.208	13.57	13.78	29.522
		36	0.268	13.50	13.76	29.522
		48	0.358	13.42	13.78	29.522
		54	0.388	13.39	13.78	29.522
		6	0.220	14.15	14.37	29.522
		9	0.215	13.97	14.19	29.522
		12	0.203	14.18	14.38	29.522
5005	165	18	0.212	14.00	14.22	29.522
5825	105	24	0.208	13.85	14.06	29.522
		36	0.268	14.01	14.28	29.522
		48	0.358	13.94	14.30	29.522
		54	0.388	13.76	14.14	29.522

FCC ID: WQTAR4520

■ TEST RESULTS_ Sum Data of Ant.0, Ant.1, Ant. 2, Ant. 3 (UNII 3)

802.11a I			ints (602.11a Mode. 5745)	,
Frequency [MHz]	Channel No.	Rate (Mbps)	Sum Power of Ant.0 & 1	Limit (dBm)
		6	20.50	29.522
		9	20.37	29.522
		12	20.40	29.522
57.45	440	18	20.46	29.522
5745	149	24	20.34	29.522
		36	20.37	29.522
		48	20.49	29.522
		54	20.39	29.522
	157	6	20.11	29.522
		9	19.99	29.522
		12	20.07	29.522
E70E		18	20.10	29.522
5785		24	19.95	29.522
		36	19.99	29.522
		48	20.05	29.522
		54	19.99	29.522
		6	19.99	29.522
		9	19.93	29.522
		12	19.95	29.522
5935	465	18	19.95	29.522
5825	165	24	19.85	29.522
		36	19.88	29.522
		48	19.98	29.522
		54	19.86	29.522

FCC ID: WQTAR4520

Ant.0 802.11n _HT20 (UNII 1) TEST RESULTS

802.11n HT	•	Jut Power Measur			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	13.08	13.30	29.514
		1	0.212	12.73	12.94	29.514
		2	0.206	12.99	13.20	29.514
5180	36	3	0.196	12.72	12.92	29.514
5160	36	4	0.280	12.79	13.07	29.514
		5	0.353	12.50	12.85	29.514
		6	0.393	12.61	13.00	29.514
		7	0.418	12.45	12.87	29.514
		0	0.215	13.01	13.23	29.514
		1	0.212	12.52	12.73	29.514
	40	2	0.206	12.78	12.99	29.514
5200		3	0.196	12.66	12.85	29.514
5200	40	4	0.280	12.52	12.80	29.514
		5	0.353	12.33	12.68	29.514
		6	0.393	12.29	12.68	29.514
		7	0.418	12.16	12.58	29.514
		0	0.215	13.02	13.24	29.514
		1	0.212	12.80	13.01	29.514
		2	0.206	12.94	13.15	29.514
50.40	40	3	0.196	12.72	12.92	29.514
5240	48	4	0.280	12.80	13.08	29.514
		5	0.353	12.70	13.05	29.514
		6	0.393	12.83	13.22	29.514
		7	0.418	12.57	12.99	29.514



FCC ID: WQTAR4520

Ant.1 802.11n_HT20 (UNII 1) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT20 Mode: 5180~5240)

802.11n HT		out Power Measur			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
	36	0	0.215	13.21	13.43	29.514
		1	0.212	13.23	13.44	29.514
		2	0.206	13.32	13.53	29.514
5180		3	0.196	13.16	13.36	29.514
5100		4	0.280	13.11	13.39	29.514
		5	0.353	13.02	13.37	29.514
		6	0.393	12.96	13.35	29.514
		7	0.418	12.97	13.39	29.514
		0	0.215	12.94	13.16	29.514
	40	1	0.212	12.99	13.21	29.514
		2	0.206	13.11	13.31	29.514
5200		3	0.196	12.87	13.06	29.514
5200		4	0.280	12.77	13.05	29.514
		5	0.353	12.92	13.27	29.514
		6	0.393	12.86	13.26	29.514
		7	0.418	12.84	13.26	29.514
5240	48	0	0.215	13.00	13.22	29.514
		1	0.212	13.03	13.24	29.514
		2	0.206	13.04	13.25	29.514
		3	0.196	12.96	13.16	29.514
		4	0.280	12.91	13.19	29.514
		5	0.353	12.93	13.28	29.514
		6	0.393	12.85	13.24	29.514
		7	0.418	12.80	13.22	29.514

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Ant.2 802.11n_HT20 (UNII 1) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT20 Mode: 5180~5240)

802.11n_HT		put Power Measur			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
	36	0	0.215	13.84	14.06	29.514
		1	0.212	13.83	14.04	29.514
		2	0.206	13.71	13.92	29.514
5180		3	0.196	13.75	13.95	29.514
5100		4	0.280	13.52	13.80	29.514
		5	0.353	13.44	13.79	29.514
		6	0.393	13.36	13.75	29.514
		7	0.418	13.38	13.80	29.514
	40	0	0.215	13.62	13.84	29.514
		1	0.212	13.53	13.74	29.514
		2	0.206	13.57	13.78	29.514
5200		3	0.196	13.65	13.85	29.514
5200		4	0.280	13.22	13.50	29.514
		5	0.353	13.24	13.59	29.514
		6	0.393	13.18	13.57	29.514
		7	0.418	13.12	13.54	29.514
5240	48	0	0.215	13.56	13.78	29.514
		1	0.212	13.62	13.83	29.514
		2	0.206	13.50	13.71	29.514
		3	0.196	13.57	13.77	29.514
		4	0.280	13.45	13.73	29.514
		5	0.353	13.36	13.71	29.514
		6	0.393	13.26	13.65	29.514
		7	0.418	13.24	13.66	29.514

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FCC ID: WQTAR4520

Ant.3 802.11n_HT20 (UNII 1) ■ TEST RESULTS

802.11n HT		out Power Measur			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
	36	0	0.215	13.64	13.86	29.514
		1	0.212	13.77	13.98	29.514
		2	0.206	13.71	13.92	29.514
5180		3	0.196	13.74	13.94	29.514
5160		4	0.280	13.54	13.82	29.514
		5	0.353	13.51	13.86	29.514
		6	0.393	13.42	13.81	29.514
		7	0.418	13.43	13.85	29.514
		0	0.215	13.39	13.61	29.514
	40	1	0.212	13.50	13.71	29.514
		2	0.206	13.41	13.62	29.514
5000		3	0.196	13.47	13.67	29.514
5200		4	0.280	13.24	13.53	29.514
		5	0.353	13.23	13.58	29.514
		6	0.393	13.36	13.75	29.514
		7	0.418	13.26	13.67	29.514
	48	0	0.215	13.58	13.80	29.514
5240		1	0.212	13.67	13.88	29.514
		2	0.206	13.39	13.60	29.514
		3	0.196	13.55	13.75	29.514
		4	0.280	13.30	13.58	29.514
		5	0.353	13.40	13.75	29.514
		6	0.393	13.29	13.68	29.514
		7	0.418	13.32	13.74	29.514

FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 1)

Conducted Output Power Measurements (802.11n_HT20 Mode: 5180~5240)

802.11n HT			- (002:1111 <u>-</u> 11120 III0de:		
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)	
-	36	0	19.68	29.514	
		1	19.63	29.514	
		2	19.66	29.514	
5400		3	19.57	29.514	
5180		4	19.55	29.514	
		5	19.50	29.514	
		6	19.51	29.514	
		7	19.50	29.514	
	40	0	19.48	29.514	
		1	19.38	29.514	
		2	19.45	29.514	
5200		3	19.39	29.514	
5200		4	19.24	29.514	
		5	19.31	29.514	
		6	19.34	29.514	
		7	19.29	29.514	
5240	48	0	19.53	29.514	
		1	19.52	29.514	
		2	19.45	29.514	
		3	19.42	29.514	
		4	19.42	29.514	
		5	19.48	29.514	
		6	19.47	29.514	
		7	19.43	29.514	

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Ant.0 802.11n_HT20 (UNII 2A) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT20 Mode: 5260~5320)

802.11n_HT2		out i ower measu	·	_	Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	9.65	9.87	23.179
		1	0.212	9.46	9.67	23.179
		2	0.206	9.41	9.62	23.179
5260	52	3	0.196	9.38	9.58	23.179
5260	52	4	0.280	9.08	9.36	23.179
		5	0.353	9.16	9.51	23.179
		6	0.393	9.02	9.41	23.179
		7	0.418	9.27	9.69	23.179
	60	0	0.215	9.46	9.67	23.179
		1	0.212	9.33	9.54	23.179
		2	0.206	9.18	9.39	23.179
5200		3	0.196	9.14	9.34	23.179
5300		4	0.280	8.94	9.22	23.179
		5	0.353	9.02	9.37	23.179
		6	0.393	8.68	9.07	23.179
		7	0.418	9.13	9.55	23.179
		0	0.215	9.58	9.80	23.179
		1	0.212	9.35	9.56	23.179
		2	0.206	9.50	9.71	23.179
5220	64	3	0.196	9.29	9.49	23.179
5320		4	0.280	9.33	9.61	23.179
		5	0.353	9.20	9.55	23.179
		6	0.393	9.26	9.65	23.179
		7	0.418	9.12	9.54	23.179

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Ant.1 802.11n_HT20 (UNII 2A) ■ TEST RESULTS

802.11n HT	·				Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	9.42	9.64	23.179
		1	0.212	9.46	9.67	23.179
		2	0.206	9.36	9.57	23.179
5260	52	3	0.196	9.27	9.47	23.179
5260	52	4	0.280	9.26	9.54	23.179
		5	0.353	9.33	9.68	23.179
		6	0.393	9.19	9.58	23.179
		7	0.418	9.21	9.63	23.179
	60	0	0.215	9.36	9.58	23.179
		1	0.212	9.30	9.51	23.179
		2	0.206	9.09	9.30	23.179
F200		3	0.196	9.06	9.25	23.179
5300		4	0.280	8.96	9.24	23.179
		5	0.353	9.09	9.45	23.179
		6	0.393	8.88	9.27	23.179
		7	0.418	9.09	9.51	23.179
		0	0.215	9.23	9.45	23.179
		1	0.212	8.94	9.15	23.179
		2	0.206	9.04	9.25	23.179
F220	64	3	0.196	9.07	9.27	23.179
5320	64	4	0.280	8.96	9.24	23.179
		5	0.353	9.00	9.35	23.179
		6	0.393	8.92	9.31	23.179
		7	0.418	8.80	9.22	23.179

FCC ID: WQTAR4520

Ant.2 802.11n_HT20 (UNII 2A) ■ TEST RESULTS

802.11n HT	·	Jul Power Weasu			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	9.72	9.94	23.179
		1	0.212	9.74	9.95	23.179
		2	0.206	9.86	10.07	23.179
5260	52	3	0.196	9.62	9.82	23.179
5260	52	4	0.280	9.71	9.99	23.179
		5	0.353	9.54	9.89	23.179
		6	0.393	9.37	9.76	23.179
		7	0.418	9.52	9.94	23.179
	60	0	0.215	9.55	9.77	23.179
		1	0.212	9.51	9.72	23.179
		2	0.206	9.52	9.72	23.179
5300		3	0.196	9.31	9.50	23.179
5300		4	0.280	9.37	9.65	23.179
		5	0.353	9.38	9.74	23.179
		6	0.393	9.24	9.64	23.179
		7	0.418	9.25	9.66	23.179
		0	0.215	9.66	9.88	23.179
		1	0.212	9.58	9.79	23.179
		2	0.206	9.49	9.70	23.179
5220	64	3	0.196	9.44	9.64	23.179
5320	64	4	0.280	9.34	9.62	23.179
		5	0.353	9.50	9.85	23.179
		6	0.393	9.26	9.65	23.179
		7	0.418	9.31	9.73	23.179

FCC ID: WQTAR4520

Ant.3 802.11n_HT20 (UNII 2A) ■ TEST RESULTS

802.11n HT	·	Jul Power Weasu			Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	10.03	10.25	23.179
		1	0.212	10.07	10.28	23.179
		2	0.206	10.14	10.35	23.179
5260	52	3	0.196	9.86	10.06	23.179
5260	52	4	0.280	9.99	10.27	23.179
		5	0.353	9.92	10.27	23.179
		6	0.393	9.85	10.24	23.179
		7	0.418	9.69	10.11	23.179
	60	0	0.215	9.80	10.01	23.179
		1	0.212	9.97	10.18	23.179
		2	0.206	9.97	10.18	23.179
5200		3	0.196	9.75	9.95	23.179
5300		4	0.280	9.92	10.20	23.179
		5	0.353	9.82	10.18	23.179
		6	0.393	9.72	10.11	23.179
		7	0.418	9.48	9.89	23.179
		0	0.215	9.66	9.88	23.179
		1	0.212	9.77	9.98	23.179
		2	0.206	9.71	9.92	23.179
5220	64	3	0.196	9.70	9.90	23.179
5320	64	4	0.280	9.61	9.89	23.179
		5	0.353	9.71	10.06	23.179
		6	0.393	9.51	9.90	23.179
		7	0.418	9.52	9.94	23.179

FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2A)

Conducted Output Power Measurements 802.11n_HT20 Mode: 5260~5320)

802.11n_HT2	0 Mode	_ ,	_	
Frequency [MHz]	Channel No.	Rate (Mbps)	Sum Power of Ant.0 & 1	Limit (dBm)
		0	15.94	23.179
		1	15.92	23.179
		2	15.92	23.179
F2C0	50	3	15.75	23.179
5260	52	4	15.82	23.179
		5	15.87	23.179
		6	15.78	23.179
		7	15.86	23.179
		0	15.78	23.179
		1	15.76	23.179
		2	15.67	23.179
5300	60	3	15.53	23.179
5300		4	15.61	23.179
		5	15.71	23.179
		6	15.55	23.179
		7	15.68	23.179
		0	15.77	23.179
		1	15.65	23.179
		2	15.66	23.179
5320	64	3	15.59	23.179
5320	04	4	15.61	23.179
		5	15.73	23.179
		6	15.65	23.179
		7	15.63	23.179

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Ant.0 802.11n_HT20 (UNII 2C) TEST RESULTS

Conducted Output Power Measurements (802.11n_HT20 Mode: 5500~5720)

802.11n_HT			isurements (802.		Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	8.22	8.44	23.497
		1	0.212	7.89	8.10	23.497
		2	0.206	8.00	8.21	23.497
5500	100	3	0.196	7.72	7.92	23.497
5500	100	4	0.280	7.75	8.03	23.497
		5	0.353	7.60	7.95	23.497
		6	0.393	7.65	8.04	23.497
		7	0.418	7.46	7.88	23.497
	120	0	0.215	7.47	7.69	23.497
		1	0.212	7.18	7.39	23.497
		2	0.206	7.45	7.66	23.497
5000		3	0.196	7.06	7.26	23.497
5600		4	0.280	7.21	7.49	23.497
		5	0.353	7.04	7.39	23.497
		6	0.393	7.16	7.55	23.497
		7	0.418	7.00	7.42	23.497
		0	0.215	8.21	8.43	23.497
		1	0.212	8.01	8.22	23.497
		2	0.206	7.99	8.20	23.497
5700	444	3	0.196	7.64	7.84	23.497
5720	144	4	0.280	7.88	8.16	23.497
		5	0.353	7.60	7.95	23.497
	,	6	0.393	7.99	8.38	23.497
		7	0.418	7.77	8.19	23.497

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FCC ID: WQTAR4520

Ant.1 802.11n_HT20 (UNII 2C) ■ TEST RESULTS

802.11n HT			asurements (802.		Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	7.20	7.42	23.497
		1	0.212	7.16	7.37	23.497
		2	0.206	7.20	7.41	23.497
5500	100	3	0.196	7.03	7.23	23.497
5500	100	4	0.280	7.05	7.33	23.497
		5	0.353	7.08	7.43	23.497
		6	0.393	6.86	7.25	23.497
		7	0.418	6.99	7.41	23.497
	120	0	0.215	6.43	6.65	23.497
		1	0.212	6.37	6.58	23.497
		2	0.206	6.23	6.44	23.497
5000		3	0.196	6.21	6.41	23.497
5600		4	0.280	6.43	6.71	23.497
		5	0.353	6.43	6.78	23.497
		6	0.393	6.31	6.70	23.497
		7	0.418	6.37	6.79	23.497
		0	0.215	6.79	7.01	23.497
		1	0.212	6.79	7.00	23.497
		2	0.206	6.69	6.90	23.497
5700	444	3	0.196	6.42	6.62	23.497
5720	144	4	0.280	6.76	7.04	23.497
		5	0.353	6.45	6.80	23.497
		6	0.393	6.62	7.01	23.497
		7	0.418	6.63	7.05	23.497



FCC ID: WQTAR4520

Ant.2 802.11n_HT20 (UNII 2C) TEST RESULTS

Conducted Output Power Measurements (802.11n_HT20 Mode: 5500~5720)

802.11n HT			isurements (602.		Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	7.87	8.09	23.497
		1	0.212	7.91	8.12	23.497
		2	0.206	8.03	8.24	23.497
5500	100	3	0.196	7.98	8.18	23.497
5500	100	4	0.280	7.71	7.99	23.497
		5	0.353	7.77	8.12	23.497
		6	0.393	7.68	8.07	23.497
		7	0.418	7.82	8.24	23.497
	120	0	0.215	7.42	7.64	23.497
		1	0.212	7.32	7.53	23.497
		2	0.206	7.45	7.66	23.497
5600		3	0.196	7.15	7.35	23.497
5600		4	0.280	7.19	7.47	23.497
		5	0.353	7.31	7.66	23.497
		6	0.393	7.03	7.42	23.497
		7	0.418	7.14	7.56	23.497
		0	0.215	7.37	7.59	23.497
		1	0.212	7.51	7.72	23.497
		2	0.206	7.30	7.51	23.497
5720	444	3	0.196	7.24	7.44	23.497
5720	144	4	0.280	7.30	7.58	23.497
	,	5	0.353	7.20	7.55	23.497
	,	6	0.393	7.18	7.57	23.497
		7	0.418	7.22	7.64	23.497

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Ant.3
802.11n_HT20 (UNII 2C)

TEST RESULTS

Conducted Output Power Measurements (802.11n_HT20 Mode: 5500~5720)

802.11n HT			isurements (602.		Measured	
Frequency [MHz]	Channel No.	Rate (Mbps)	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	7.47	7.69	23.497
		1	0.212	7.61	7.82	23.497
		2	0.206	7.53	7.74	23.497
5500	100	3	0.196	7.43	7.63	23.497
5500	100	4	0.280	7.31	7.59	23.497
		5	0.353	7.44	7.79	23.497
		6	0.393	7.29	7.68	23.497
		7	0.418	7.34	7.76	23.497
	120	0	0.215	5.85	6.07	23.497
		1	0.212	6.01	6.22	23.497
		2	0.206	5.74	5.95	23.497
5000		3	0.196	5.93	6.13	23.497
5600		4	0.280	5.63	5.91	23.497
		5	0.353	5.80	6.15	23.497
		6	0.393	5.53	5.92	23.497
		7	0.418	5.69	6.11	23.497
		0	0.215	4.86	5.08	23.497
		1	0.212	4.91	5.12	23.497
		2	0.206	4.78	4.99	23.497
5700	444	3	0.196	4.64	4.84	23.497
5720	144	4	0.280	4.57	4.85	23.497
		5	0.353	4.62	4.97	23.497
	,	6	0.393	4.45	4.84	23.497
		7	0.418	4.71	5.13	23.497

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Report No.: HCT-RF-1805-FC028-R1 FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2C)

Conducted Output Power Measurements (802.11n_HT20 Mode: 5500~5720)

802.11n_HT2	0 Mode	Dete	0 D	1 !!4
Frequency [MHz]	Channel No.	Rate (Mbps)	Sum Power of Ant.0 & 1	Limit (dBm)
		0	13.93	23.497
		1	13.88	23.497
		2	13.92	23.497
5500	100	3	13.76	23.497
5500	100	4	13.76	23.497
		5	13.85	23.497
		6	13.79	23.497
		7	13.85	23.497
	120	0	13.06	23.497
		1	12.97	23.497
		2	12.98	23.497
5600		3	12.82	23.497
5600		4	12.94	23.497
		5	13.04	23.497
		6	12.95	23.497
		7	13.01	23.497
		0	13.13	23.497
		1	13.11	23.497
		2	13.00	23.497
5720	144	3	12.78	23.497
5/20	144	4	13.01	23.497
		5	12.91	23.497
		6	13.07	23.497
		7	13.09	23.497

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Ant.0 802.11n_HT20 (UNII 3) ■ TEST RESULTS

802.11n_HT		put Power Measu			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	14.46	14.68	29.522
		1	0.212	14.39	14.60	29.522
		2	0.206	14.34	14.55	29.522
5745	149	3	0.196	14.33	14.52	29.522
5745	149	4	0.280	14.20	14.48	29.522
		5	0.353	14.16	14.52	29.522
		6	0.393	14.21	14.60	29.522
		7	0.418	14.13	14.55	29.522
		0	0.215	14.19	14.40	29.522
		1	0.212	14.06	14.27	29.522
		2	0.206	14.01	14.21	29.522
E70E	157	3	0.196	13.99	14.18	29.522
5785		4	0.280	13.98	14.26	29.522
		5	0.353	13.91	14.27	29.522
		6	0.393	13.99	14.38	29.522
		7	0.418	13.87	14.28	29.522
		0	0.215	14.10	14.31	29.522
		1	0.212	14.02	14.23	29.522
		2	0.206	13.99	14.20	29.522
E02E	405	3	0.196	13.92	14.12	29.522
5825	165	4	0.280	13.93	14.21	29.522
		5	0.353	13.75	14.11	29.522
		6	0.393	13.82	14.21	29.522
		7	0.418	13.80	14.22	29.522



FCC ID: WQTAR4520

Ant.1 802.11n_HT20 (UNII 3) ■ TEST RESULTS

802.11n HT		put Power Measur			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	13.64	13.85	29.522
		1	0.212	13.56	13.77	29.522
		2	0.206	13.64	13.85	29.522
5745	149	3	0.196	13.54	13.74	29.522
5745	149	4	0.280	13.48	13.76	29.522
		5	0.353	13.47	13.82	29.522
		6	0.393	13.45	13.84	29.522
		7	0.418	13.40	13.82	29.522
		0	0.215	13.45	13.66	29.522
		1	0.212	13.33	13.55	29.522
		2	0.206	13.33	13.53	29.522
5785	157	3	0.196	13.19	13.39	29.522
5765		4	0.280	13.20	13.48	29.522
		5	0.353	13.08	13.44	29.522
		6	0.393	13.17	13.56	29.522
		7	0.418	13.23	13.65	29.522
		0	0.215	13.10	13.31	29.522
		1	0.212	12.98	13.19	29.522
		2	0.206	13.03	13.24	29.522
5825	165	3	0.196	12.84	13.04	29.522
3023	100	4	0.280	12.91	13.19	29.522
		5	0.353	12.94	13.29	29.522
		6	0.393	12.94	13.34	29.522
		7	0.418	12.85	13.27	29.522

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Ant.2 802.11n_HT20 (UNII 3) ■ TEST RESULTS

802.11n HT					Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	14.24	14.46	29.522
		1	0.212	14.11	14.32	29.522
		2	0.206	14.23	14.43	29.522
5745	149	3	0.196	14.11	14.30	29.522
5745	149	4	0.280	14.13	14.41	29.522
		5	0.353	14.06	14.41	29.522
		6	0.393	14.02	14.41	29.522
		7	0.418	13.84	14.25	29.522
		0	0.215	13.95	14.17	29.522
		1	0.212	13.91	14.12	29.522
		2	0.206	14.06	14.27	29.522
5705	157	3	0.196	13.97	14.17	29.522
5785		4	0.280	13.85	14.13	29.522
		5	0.353	13.89	14.25	29.522
		6	0.393	13.85	14.24	29.522
		7	0.418	13.78	14.20	29.522
		0	0.215	13.44	13.65	29.522
		1	0.212	13.45	13.66	29.522
		2	0.206	13.63	13.84	29.522
5005	405	3	0.196	13.60	13.80	29.522
5825	165	4	0.280	13.49	13.77	29.522
		5	0.353	13.28	13.63	29.522
		6	0.393	13.28	13.67	29.522
		7	0.418	13.30	13.72	29.522



FCC ID: WQTAR4520

Ant.3 802.11n_HT20 (UNII 3) ■ TEST RESULTS

802.11n HT		put Power Measu			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.215	14.29	14.50	29.522
		1	0.212	14.14	14.36	29.522
		2	0.206	14.24	14.45	29.522
5745	149	3	0.196	14.13	14.33	29.522
5745	149	4	0.280	14.26	14.54	29.522
		5	0.353	14.10	14.45	29.522
		6	0.393	14.05	14.44	29.522
		7	0.418	14.01	14.43	29.522
		0	0.215	13.83	14.04	29.522
		1	0.212	13.74	13.95	29.522
		2	0.206	13.75	13.96	29.522
5785	157	3	0.196	13.64	13.83	29.522
5765		4	0.280	13.67	13.95	29.522
		5	0.353	13.57	13.93	29.522
		6	0.393	13.59	13.98	29.522
		7	0.418	13.52	13.94	29.522
		0	0.215	14.05	14.27	29.522
		1	0.212	14.00	14.21	29.522
		2	0.206	14.04	14.25	29.522
5825	165	3	0.196	14.04	14.24	29.522
5825	100	4	0.280	13.98	14.26	29.522
		5	0.353	13.92	14.27	29.522
		6	0.393	13.91	14.31	29.522
		7	0.418	13.68	14.10	29.522

FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 3)

Conducted Output Power Measurements (802.11n_HT20 Mode: 5745~5825)

802.11n_HT			(002:1111_11120 MIOGC: 014	
Frequency [MHz]	Channel No.	MCS Index Sum Power of Ant.0 & 1		Limit (dBm)
		0	20.40	29.522
		1	20.29	29.522
		2	20.34	29.522
57.45	440	3	20.25	29.522
5745	149	4	20.32	29.522
		5	20.32	29.522
		6	20.35	29.522
		7	20.29	29.522
	157	0	20.09	29.522
		1	20.00	29.522
		2	20.02	29.522
5785		3	19.92	29.522
5705		4	19.98	29.522
		5	20.00	29.522
		6	20.07	29.522
		7	20.04	29.522
		0	19.92	29.522
		1	19.86	29.522
		2	19.91	29.522
E92E	465	3	19.83	29.522
5825	165	4	19.89	29.522
		5	19.86	29.522
		6	19.91	29.522
		7	19.86	29.522

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Ant.0 802.11ac_VHT20 (UNII 1) TEST RESULTS

		t Power Measu	rements (802.11a	C_VH120 Wode:		
802.11ac_VH Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	13.20	13.26	29.514
		1	0.126	12.98	13.11	29.514
		2	0.177	12.97	13.15	29.514
		3	0.231		12.89	29.514
5180	36	4	0.329	12.74	13.07	29.514
		5	0.427	12.55	12.98	29.514
		6	0.465	12.77	13.23	29.514
		7	0.502	12.61	13.11	29.514
		8	0.578	12.47	13.05	29.514
		0	0.064	13.11	13.17	29.514
		1	0.126	12.84	12.97	29.514
		2	0.177	12.91	13.08	29.514
		3	0.231	12.47	12.70	29.514
5200	40	4	0.329	12.43	12.76	29.514
		5	0.427	12.37	12.80	29.514
		6	0.465	12.63	13.10	29.514
		7	0.502	12.33	12.83	29.514
		8	0.578	12.31	12.89	29.514
		0	0.064	13.28	13.34	29.514
		1	0.126	12.85	12.98	29.514
		2	0.177	12.99	13.17	29.514
		3	0.231	12.76	12.99	29.514
5240	48	4	0.329	12.80	13.13	29.514
		5	0.427	12.71	13.14	29.514
		6	0.465	12.72	13.18	29.514
		7	0.502	12.61	13.11	29.514
		8	0.578	12.67	13.25	29.514

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Ant.1 802.11ac_VHT20 (UNII 1) TEST RESULTS

802.11ac_VH	<u> </u>	it Fower Weasur	ements (802.11ad	C_VH120 Wode.	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	13.47	13.53	29.514
		1	0.126	13.16	13.29	29.514
		2	0.177	13.21	13.39	29.514
		3	0.231	13.19	13.42	29.514
5180	36	4	0.329	13.26	13.59	29.514
		5	0.427	13.19	13.62	29.514
		6	0.465	13.24	13.70	29.514
		7	0.502	13.22	13.72	29.514
		8	0.578	13.14	13.72	29.514
		0	0.064	13.45	13.51	29.514
		1	0.126	12.85	12.97	29.514
		2	0.177	13.06	13.24	29.514
		3	0.231	12.92	13.15	29.514
5200	40	4	0.329	13.14	13.47	29.514
		5	0.427	12.99	13.41	29.514
		6	0.465	13.11	13.57	29.514
		7	0.502	13.11	13.61	29.514
		8	0.578	12.84	13.42	29.514
		0	0.064	13.17	13.23	29.514
		1	0.126	13.06	13.19	29.514
		2	0.177	13.02	13.20	29.514
		3	0.231	13.00	13.23	29.514
5240	48	4	0.329	12.98	13.31	29.514
		5	0.427	12.86	13.29	29.514
		6	0.465	12.85	13.31	29.514
		7	0.502	12.86	13.36	29.514
		8	0.578	12.90	13.48	29.514

FCC ID: WQTAR4520

Ant.2 802.11ac_VHT20 (UNII 1) TEST RESULTS

802.11ac VH			ements (602.11ac		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	13.98	14.04	29.514
		1	0.126	13.90	14.03	29.514
		2	0.177	13.83	14.01	29.514
		3	0.231	13.57	13.80	29.514
5180	36	4	0.329	13.65	13.98	29.514
		5	0.427	13.57	14.00	29.514
		6	0.465	13.51	13.97	29.514
		7	0.502	13.58	14.08	29.514
		8	0.578	13.33	13.91	29.514
		0	0.064	13.89	13.96	29.514
		1	0.126	13.73	13.86	29.514
		2	0.177	13.53	13.70	29.514
		3	0.231	13.50	13.73	29.514
5200	40	4	0.329	13.49	13.82	29.514
		5	0.427	13.50	13.93	29.514
		6	0.465	13.21	13.68	29.514
		7	0.502	13.34	13.84	29.514
		8	0.578	13.18	13.76	29.514
		0	0.064	13.78	13.84	29.514
		1	0.126	13.70	13.83	29.514
		2	0.177	13.58	13.76	29.514
		3	0.231	13.58	13.81	29.514
5240	48	4	0.329	13.37	13.70	29.514
		5	0.427	13.37	13.80	29.514
		6	0.465	13.25	13.71	29.514
		7	0.502	13.15	13.65	29.514
		8	0.578	13.16	13.74	29.514

FCC ID: WQTAR4520

Ant.3
802.11ac_VHT20 (UNII 1)
■ TEST RESULTS

		t Power Measur	rements (802.11a	C_VH120 Mode:	Measured	
802.11ac_VH Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	14.09	14.15	29.514
		1	0.126	13.91	14.04	29.514
		2	0.177	13.61	13.79	29.514
		3	0.231	13.56	13.79	29.514
5180	36	4	0.329	13.57	13.90	29.514
		5	0.427	13.48	13.91	29.514
		6	0.465	13.42	13.88	29.514
		7	0.502	13.54	14.04	29.514
		8	0.578	13.24	13.82	29.514
		0	0.064	13.90	13.96	29.514
		1	0.126	13.70	13.83	29.514
		2	0.177	13.50	13.68	29.514
		3	0.231	13.42	13.65	29.514
5200	40	4	0.329	13.48	13.81	29.514
		5	0.427	13.17	13.60	29.514
		6	0.465	13.11	13.57	29.514
		7	0.502	13.48	13.98	29.514
		8	0.578	13.18	13.75	29.514
		0	0.064	13.77	13.83	29.514
		1	0.126	13.66	13.79	29.514
		2	0.177	13.44	13.62	29.514
		3	0.231	13.57	13.98 13.75 13.83 13.79	29.514
5240	48	4	0.329	13.27	13.60	29.514
		5	0.427	13.44	13.87	29.514
		6	0.465	13.25	13.71	29.514
		7	0.502	13.17	13.67	29.514
		8	0.578	13.19	13.77	29.514

FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 1)

Conducted Output Power Measurements (802.11ac_VHT20 Mode: 5180~5240)

	·		Tac_vn120 Wode: 51	00 0240)
802.11ac_VHT Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	19.78	23.49
		1	19.64	23.49
		2	19.61	23.49
		3	19.50	23.49
5180	36	4	19.66	23.49
		5	19.65	23.49
		6	19.72	23.49
		7	19.77	23.49
		8	19.65	23.49
		0	19.68	23.49
		1	19.44	23.49
		2	19.45	23.49
		3	19.34	23.49
5200	40	4	19.50	23.49
		5	19.47	23.49
		6	19.50	23.49
		7	19.60	23.49
		8	19.48	23.49
		0	19.59	23.49
		1	19.47	23.49
		2	19.46	23.49
		3	19.49	23.49
5240	48	4	19.46	23.49
		5	19.55	23.49
		6	19.51	23.49
		7	19.47	23.49
		8	19.58	23.49

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Ant.0 802.11ac_VHT20 (UNII 2A) TEST RESULTS

		it Power Measu	rements (802.11a	C_VH120 Mode:	5260~5320)	
802.11ac_VH Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	9.17	9.23	23.179
		1	0.126	8.92	9.05	23.179
		2	0.177	9.00	9.18	23.179
		3	0.231	8.88	9.11	23.179
5260	52	4	0.329	8.84	9.17	23.179
		5	0.427	8.66	9.09	23.179
		6	0.465	8.64	9.10	23.179
		7	0.502	8.57	9.07	23.179
		8	0.578	8.57	9.15	23.179
		0	0.064	8.96	9.02	23.179
		1	0.126	8.69	8.82	23.179
		2	0.177	8.85	9.03	23.179
		3	0.231	8.75	8.98	23.179
5300	60	4	0.329	8.60	8.93	23.179
		5	0.427	8.59	9.02	23.179
		6	0.465	8.44	8.91	23.179
		7	0.502	8.30	8.81	23.179
		8	0.578	8.24	8.82	23.179
		0	0.064	9.36	9.42	23.179
		1	0.126	8.95	9.08	23.179
		2	0.177	9.01	9.19	23.179
		3	0.231	8.68	8.91	23.179
5320	64	4	0.329	8.77	9.10	23.179
		5	0.427	8.55	8.98	23.179
		6	0.465	8.89	9.35	23.179
		7	0.502	8.54	9.04	23.179
		8	0.578	8.68	9.26	23.179

FCC ID: WQTAR4520

Ant.1
802.11ac_VHT20 (UNII 2A)

TEST RESULTS

	<u> </u>	it Power Weasu	rements (802.11a	C_VH120 Mode:	5260~5320)	
802.11ac_VH Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	8.98	9.04	23.179
		1	0.126	8.74	8.87	23.179
		2	0.177	8.78	8.96	23.179
		3	0.231 8.62 0.329 8.67	8.85	23.179	
5260	52	4	0.329	8.67	9.00	23.179
		5	0.427	8.51	8.94	23.179
		6	0.465	8.62	9.08	23.179
		7	0.502	8.56	9.06	23.179
		8	0.578	8.56	9.14	23.179
		0	0.064	8.93	8.99	23.179
		1	0.126	8.51	8.64	23.179
		2	0.177	8.52	8.69	23.179
		3	0.231 8.55	8.78	23.179	
5300	60	4	0.329	8.59	8.92	23.179
		5	0.427	8.43	8.86	23.179
		6	0.465	8.34	8.81	23.179
		7	0.502	8.34	8.84	23.179
		8	0.578	8.21	8.79	23.179
		0	0.064	8.68	8.74	23.179
		1	0.126	8.37	8.50	23.179
		2	0.177	8.45	8.63	23.179
		3	0.231	8.46	8.69	23.179
5320	64	4	0.329	8.37	8.70	23.179
		5	0.427	8.22	8.65	23.179
		6	0.465	8.43	8.89	23.179
		7	0.502	8.23	8.73	23.179
		8	0.578	8.32	8.90	23.179

FCC ID: WQTAR4520

Ant.2 802.11ac_VHT20 (UNII 2A) TEST RESULTS

802.11ac_VH	<u> </u>	it FOWEI Measur	rements (802.11ad		, 	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	9.50	9.56	23.179
		1	0.126	9.57	9.70	23.179
		2	0.177	9.34	9.52	23.179
		3	0.231	9.26	9.49	23.179
5260	52	4	0.329	9.06	9.39	23.179
		5	0.427	9.06	9.49	23.179
		6	0.465	9.00	9.46	23.179
		7	0.502	9.10	9.60	23.179
		8	0.578	8.91	9.49	23.179
		0	0.064	9.40	9.46	23.179
		1	0.126	9.42	9.55	23.179
		2	0.177	9.28	9.46	23.179
		3	0.231	9.19	9.42	23.179
5300	60	4	0.329	8.90	9.23	23.179
		5	0.427	8.92	9.35	23.179
		6	0.465	8.66	9.12	23.179
		7	0.502	8.80	9.30	23.179
		8	0.578	8.82	9.40	23.179
		0	0.064	9.39	9.45	23.179
		1	0.126	9.21	9.34	23.179
		2	0.177	9.10	9.28	23.179
		3	0.231	9.09	9.32	23.179
5320	64	4	0.329	8.92	9.25	23.179
		5	0.427	8.79	9.22	23.179
		6	0.465	8.81	9.27	23.179
		7	0.502	8.79	9.29	23.179
		8	0.578	8.80	9.38	23.179

FCC ID: WQTAR4520

Ant.3
802.11ac_VHT20 (UNII 2A)

TEST RESULTS

802.11ac_VH	<u> </u>	it FOWEI Measur	rements (802.11ac	C_VIIIZO MOGE.	, 	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	9.72	9.78	23.179
		1	0.126	9.76	9.89	23.179
		2	0.177	9.72	9.90	23.179
		3	0.231	9.68	9.91	23.179
5260	52	4	0.329	9.29	9.62	23.179
		5	0.427	9.41	9.84	23.179
		6	0.465	9.38	9.84	23.179
		7	0.502	9.36	9.86	23.179
		8	0.578	9.27	9.85	23.179
		0	0.064	9.64	9.70	23.179
		1	0.126	9.64	9.76	23.179
		2	0.177	9.37	9.55	23.179
		3	0.231	9.59	9.83	23.179
5300	60	4	0.329	9.11	9.44	23.179
		5	0.427	9.14	9.57	23.179
		6	0.465	9.20	9.66	23.179
		7	0.502	9.15	9.66	23.179
		8	0.578	9.19	9.76	23.179
		0	0.064	9.49	9.55	23.179
		1	0.126	9.47	9.60	23.179
		2	0.177	9.29	9.47	23.179
		3	0.231	9.43	9.66	23.179
5320	64	4	0.329	9.12	9.45	23.179
		5	0.427	9.12	9.55	23.179
		6	0.465	9.03	9.49	23.179
		7	0.502	9.11	9.61	23.179
		8	0.578	8.98	9.56	23.179

FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2A)

Conducted Output Power Measurements (802.11ac_VHT20 Mode: 5260~5320)

802.11ac_VH		(00=0	Tac_VIII20 Wode. 32	
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	15.43	17.16
		1	15.40	17.16
		2	15.42	17.16
		3	15.37	17.16
5260	52	4	15.32	17.16
		5	15.36	17.16
		6	15.40	17.16
		7	15.43	17.16
		8	15.43	17.16
		0	15.32	17.16
		1	15.23	17.16
		2	15.21	17.16
		3	15.28	17.16
5300	60	4	15.15	17.16
		5	15.22	17.16
		6	15.15	17.16
		7	15.18	17.16
		8	15.22	17.16
		0	15.32	17.16
		1	15.16	17.16
		2	15.17	17.16
		3	15.18	17.16
5320	64	4	15.15	17.16
		5	15.12	17.16
		6	15.28	17.16
		7	15.20	17.16
		8	15.30	17.16

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Ant.0 802.11ac_VHT20 (UNII 2C) ■ TEST RESULTS

802.11ac_VH	<u> </u>	it Fower Weasur	ements (802.11ad	C_VH120 Wode.	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	8.26	8.32	23.497
		1	0.126	7.78	7.91	23.497
		2	0.177	7.99	8.17	23.497
		3	0.231	7.73	7.96	23.497
5500	100	4	0.329	7.77	8.10	23.497
		5	0.427	7.62	8.05	23.497
		6	0.465	7.58	8.04	23.497
		7	0.502	7.63	8.13	23.497
		8	0.578	7.74	8.32	23.497
		0	0.064	7.85	7.91	23.497
		1	0.126	7.43	7.56	23.497
		2	0.177	7.44	7.62	23.497
		3	0.231	7.20	7.43	23.497
5600	120	4	0.329	7.19	7.52	23.497
		5	0.427	7.09	7.52	23.497
		6	0.465	7.16	7.62	23.497
		7	0.502	7.09	7.59	23.497
		8	0.578	7.13	7.71	23.497
		0	0.064	8.51	8.57	23.497
		1	0.126	8.17	8.30	23.497
		2	0.177	8.37	8.55	23.497
		3	0.231	8.09	8.32	23.497
5720	144	4	0.329	8.14	8.47	23.497
		5	0.427	7.84	8.27	23.497
		6	0.465	7.90	8.36	23.497
		7	0.502	7.88	8.38	23.497
		8	0.578	7.87	8.45	23.497

FCC ID: WQTAR4520

Ant.1 802.11ac_VHT20 (UNII 2C) ■ TEST RESULTS

802.11ac_VH				C_VH120 MOde:	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	7.42	7.48	23.497
		1	0.126	7.13	7.26	23.497
		2	0.177	6.99	7.17	23.497
		3	0.231	7.01	7.24	23.497
5500	100	4	0.329	7.06	7.39	23.497
		5	0.427	6.92	7.35	23.497
		6	0.465	6.91	7.37	23.497
		7	0.502	7.15	7.65	23.497
		8	0.578	6.93	7.51	23.497
		0	0.064	6.69	6.75	23.497
		1	0.126	6.51	6.64	23.497
		2	0.177	6.47	6.65	23.497
		3	0.231	6.42	6.65	23.497
5600	120	4	0.329	6.38	6.71	23.497
		5	0.427	6.17	6.60	23.497
		6	0.465	6.31	6.77	23.497
		7	0.502	6.34	6.84	23.497
		8	0.578	6.22	6.80	23.497
		0	0.064	7.15	7.21	23.497
		1	0.126	6.91	7.04	23.497
		2	0.177	7.16	7.34	23.497
	144	3	0.231	6.93	7.16	23.497
5720		4	0.329	6.83	7.16	23.497
		5	0.427	6.67	7.10	23.497
		6	0.465	6.59	7.05	23.497
		7	0.502	6.56	7.06	23.497
		8	0.578	6.62	7.20	23.497

FCC ID: WQTAR4520

Ant.2 802.11ac_VHT20 (UNII 2C) ■ TEST RESULTS

802.11ac_VH	•		ements (602.11a)		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	8.26	8.32	23.497
		1	0.126	8.11	8.24	23.497
		2	0.177	7.95	8.13	23.497
		3	0.231	7.93	8.16	23.497
5500	100	4	0.329	7.77	8.10	23.497
		5	0.427	7.61	8.04	23.497
		6	0.465	7.47	7.93	23.497
		7	0.502	7.95	8.45	23.497
		8	0.578	7.59	8.17	23.497
		0	0.064	7.71	7.77	23.497
	120	1	0.126	7.56	7.69	23.497
		2	0.177	7.37	7.55	23.497
		3	0.231	7.33	7.56	23.497
5600		4	0.329	7.20	7.53	23.497
		5	0.427	7.20	7.63	23.497
		6	0.465	7.03	7.49	23.497
		7	0.502	7.13	7.63	23.497
		8	0.578	6.94	7.52	23.497
		0	0.064	7.93	7.99	23.497
		1	0.126	7.77	7.90	23.497
		2	0.177	7.62	7.80	23.497
	144	3	0.231	7.57	7.80	23.497
5720		4	0.329	7.37	7.70	23.497
		5	0.427	7.38	7.81	23.497
		6	0.465	7.28	7.74	23.497
		7	0.502	7.29	7.79	23.497
		8	0.578	7.05	7.63	23.497

FCC ID: WQTAR4520

Ant.3 802.11ac_VHT20 (UNII 2C) ■ TEST RESULTS

802.11ac_VH	<u> </u>	it Fower Weasur	ements (802.11ad	C_VH120 WOUE.	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	7.66	7.72	23.497
		1	0.126	7.68	7.81	23.497
		2	0.177	7.37	7.55	23.497
		3	0.231	7.37	7.60	23.497
5500	100	4	0.329	7.25	7.58	23.497
		5	0.427	7.36	7.79	23.497
		6	0.465	7.17	7.63	23.497
		7	0.502	7.24	7.74	23.497
		8	0.578	6.95	7.53	23.497
		0	0.064	5.95	6.01	23.497
		1	0.126	6.13	6.26	23.497
		2	0.177	5.89	6.07	23.497
		3	0.231	5.86	6.09	23.497
5600	120	4	0.329	5.55	5.88	23.497
		5	0.427	5.66	6.09	23.497
		6	0.465	5.58	6.04	23.497
		7	0.502	5.70	6.20	23.497
		8	0.578	5.47	6.05	23.497
		0	0.064	5.23	5.29	23.497
		1	0.126	5.19	5.32	23.497
		2	0.177	5.05	5.23	23.497
		3	0.231	5.13	5.36	23.497
5720	144	4	0.329	4.83	5.16	23.497
		5	0.427	4.83	5.26	23.497
		6	0.465	4.86	5.32	23.497
		7	0.502	4.73	5.23	23.497
		8	0.578	4.64	5.22	23.497

FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2C)

Conducted Output Power Measurements (802.11ac_VHT20 Mode: 5500~5720)

802.11ac_VHT Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
• •		0	13.99	17.48
		1	13.83	17.48
		2	13.78	17.48
		3	13.77	17.48
5500	100	4	13.82	17.48
		5	13.83	17.48
		6	13.77	17.48
		7	14.02	17.48
		8	13.91	17.48
		0	13.17	17.48
		1	13.07	17.48
		2	13.01	17.48
		3	12.98	17.48
5600	120	4	12.96	17.48
		5	13.00	17.48
		6	13.03	17.48
		7	13.11	17.48
		8	13.06	17.48
		0	13.37	17.48
		1	13.23	17.48
		2	13.33	17.48
		3	13.25	17.48
5720	144	4	13.23	17.48
		5	13.20	17.48
		6	13.22	17.48
		7	13.22	17.48
		8	13.22	17.48

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Ant.0 802.11ac_VHT20 (UNII 3) TEST RESULTS

802.11ac VH			ements (602.11a)		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	14.62	14.69	29.522
		1	0.126	14.44	14.57	29.522
		2	0.177	14.39	14.57	29.522
		3	0.231	14.29	14.52	29.522
5745	149	4	0.329	14.18	14.51	29.522
		5	0.427	14.12	14.54	29.522
		6	0.465	14.15	14.62	29.522
		7	0.502	14.09	14.60	29.522
		8	0.578	14.09	14.67	29.522
		0	0.064	14.30	14.37	29.522
		1	0.126	14.10	14.23	29.522
		2	0.177	14.08	14.25	29.522
		3	0.231	13.99	14.22	29.522
5785	157	4	0.329	13.96	14.29	29.522
		5	0.427	13.90	14.32	29.522
		6	0.465	13.84	14.31	29.522
		7	0.502	13.79	14.29	29.522
		8	0.578	13.69	14.27	29.522
		0	0.064	14.17	14.24	29.522
		1	0.126	14.06	14.18	29.522
		2	0.177	14.02	14.20	29.522
		3	0.231	14.00	14.23	29.522
5825	165	4	0.329	13.82	14.15	29.522
		5	0.427	13.82	14.25	29.522
		6	0.465	13.79	14.26	29.522
		7	0.502	13.70	14.20	29.522
		8	0.578	13.67	14.25	29.522

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Ant.1 802.11ac_VHT20 (UNII 3) TEST RESULTS

802.11ac_VH	<u> </u>	it Power Weasur	ements (802.11ad	C_VH120 MOde.	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	13.66	13.73	29.522
		1	0.126	13.56	13.69	29.522
		2	0.177	13.51	13.68	29.522
		3	0.231	13.56	13.80	29.522
5745	149	4	0.329	13.47	13.80	29.522
		5	0.427	13.35	13.77	29.522
		6	0.465	13.35	13.82	29.522
		7	0.502	13.30	13.81	29.522
		8	0.578	13.22	13.80	29.522
		0	0.064	13.36	13.43	29.522
		1	0.126	13.18	13.30	29.522
		2	0.177	13.24	13.42	29.522
		3	0.231	13.17	13.40	29.522
5785	157	4	0.329	13.09	13.42	29.522
		5	0.427	13.03	13.46	29.522
		6	0.465	13.15	13.62	29.522
		7	0.502	12.93	13.44	29.522
		8	0.578	13.01	13.59	29.522
		0	0.064	13.16	13.22	29.522
		1	0.126	12.94	13.07	29.522
		2	0.177	12.97	13.15	29.522
		3	0.231	12.88	13.11	29.522
5825	165	4	0.329	12.94	13.27	29.522
		5	0.427	12.83	13.26	29.522
		6	0.465	12.79	13.25	29.522
		7	0.502	12.89	13.39	29.522
		8	0.578	12.79	13.37	29.522

FCC ID: WQTAR4520

Ant.2 802.11ac_VHT20 (UNII 3) TEST RESULTS

		t Power Measur	rements (802.11a	C_VH120 Mode:	Measured	
802.11ac_VH Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	14.44	14.50	29.522
		1	0.126	14.31	14.43	29.522
		2	0.177	14.20	14.37	29.522
		3	0.231	14.04	14.27	29.522
5745	149	4	0.329	14.02	14.35	29.522
		5	0.427	13.98	14.41	29.522
		6	0.465	13.93	14.40	29.522
		7	0.502	13.82	14.33	29.522
		8	0.578	13.84	14.42	29.522
		0	0.064	14.25	14.31	29.522
		1	0.126	14.04	14.17	29.522
		2	0.177	13.96	14.14	29.522
		3	0.231	13.86	14.09	29.522
5785	157	4	0.329	13.78	14.11	29.522
		5	0.427	13.66	14.09	29.522
		6	0.465	13.62	14.08	29.522
		7	0.502	13.63	14.13	29.522
		8	0.578	13.56	14.14	29.522
		0	0.064	13.91	13.97	29.522
		1	0.126	13.71	13.83	29.522
		2	0.177	13.68	13.86	29.522
		3	0.231	13.60	13.83	29.522
5825	165	4	0.329	13.52	13.85	29.522
		5	0.427	13.36	13.79	29.522
		6	0.465	13.39	13.85	29.522
		7	0.502	13.38	13.89	29.522
		8	0.578	13.25	13.83	29.522

FCC ID: WQTAR4520

Ant.3
802.11ac_VHT20 (UNII 3)
■ TEST RESULTS

802.11ac_VH	<u> </u>	it Fower Weasur	ements (802.11ad	C_VH120 Wode.	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.064	14.40	14.46	29.522
		1	0.126	14.08	14.21	29.522
		2	0.177	14.35	14.53	29.522
		3	0.231	14.19	14.42	29.522
5745	149	4	0.329	14.15	14.48	29.522
		5	0.427	13.82	14.24	29.522
		6	0.465	13.84	14.31	29.522
		7	0.502	14.00	14.50	29.522
		8	0.578	13.82	14.40	29.522
		0	0.064	14.06	14.13	29.522
		1	0.126	13.84	13.96	29.522
		2	0.177	13.73	13.91	29.522
		3	0.231	13.53	13.76	29.522
5785	157	4	0.329	13.52	13.85	29.522
		5	0.427	13.37	13.80	29.522
		6	0.465	13.40	13.86	29.522
		7	0.502	13.34	13.84	29.522
		8	0.578	13.33	13.90	29.522
		0	0.064	14.16	14.22	29.522
		1	0.126	14.04	14.16	29.522
		2	0.177	14.01	14.19	29.522
		3	0.231	13.90	14.13	29.522
5825	165	4	0.329	13.87	14.20	29.522
		5	0.427	13.69	14.12	29.522
		6	0.465	13.77	14.24	29.522
		7	0.502	13.52	14.02	29.522
		8	0.578	13.48	14.06	29.522

FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 3)

802.11ac VHT			Tac_viiizo Mode: 37	,
Frequency	Channel	MCS	Sum Power of	Limit
[MHz]	No.	Index	Ant.0 & 1	(dBm)
		0	20.37	23.50
		1	20.25	23.50
		2	20.32	23.50
		3	20.28	23.50
5745	149	4	20.31	23.50
		5	20.27	23.50
		6	20.31	23.50
		7	20.33	23.50
		8	20.35	23.50
		0	20.09	23.50
		1	19.94	23.50
		2	19.96	23.50
		3	19.89	23.50
5785	157	4	19.94	23.50
		5	19.94	23.50
		6	19.99	23.50
		7	19.95	23.50
		8	20.00	23.50
		0	19.94	23.50
		1	19.84	23.50
		2	19.88	23.50
		3	19.86	23.50
5825	165	4	19.89	23.50
		5	19.88	23.50
		6	19.93	23.50
		7	19.90	23.50
		8	19.90	23.50



FCC ID: WQTAR4520

Ant.0 802.11n_HT40 (UNII 1) ■ TEST RESULTS

802.11n_HT4	40 Mode		,	_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	10.69	11.13	29.514
		1	0.410	10.57	10.98	29.514
		2	0.400	10.58	10.98	29.514
5400	20	3	0.366	10.33	10.70	29.514
5190	38	4	0.505	10.27	10.78	29.514
		5	0.613	10.08	10.69	29.514
		6	0.662	9.46	10.12	29.514
		7	0.719	9.68	10.40	29.514
		0	0.437	10.48	10.92	29.514
		1	0.410	10.44	10.85	29.514
		2	0.400	10.24	10.64	29.514
5000	46	3	0.366	10.07	10.44	29.514
5230	46	4	0.505	10.04	10.55	29.514
		5	0.613	10.02	10.63	29.514
		6	0.662	9.30	9.96	29.514
		7	0.719	9.43	10.15	29.514



FCC ID: WQTAR4520

Ant.1 802.11n_HT40 (UNII 1) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT40 Mode: 5190~5230)

802.11n_HT4	40 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	11.20	11.64	29.514
		1	0.410	11.08	11.49	29.514
		2	0.400	11.23	11.63	29.514
5190	20	3	0.366	10.97	11.34	29.514
5190	38	4	0.505	11.08	11.59	29.514
		5	0.613	10.76	11.37	29.514
		6	0.662	10.35	11.01	29.514
		7	0.719	10.21	10.93	29.514
		0	0.437	11.08	11.52	29.514
		1	0.410	10.81	11.22	29.514
		2	0.400	11.11	11.51	29.514
5000	46	3	0.366	10.75	11.12	29.514
5230	46	4	0.505	11.02	11.53	29.514
		5	0.613	10.45	11.07	29.514
		6	0.662	10.28	10.94	29.514
		7	0.719	9.98	10.70	29.514

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FCC ID: WQTAR4520

Ant.2 802.11n_HT40 (UNII 1) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT40 Mode: 5190~5230)

802.11n_HT4	40 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	11.32	11.76	29.514
		1	0.410	11.40	11.81	29.514
		2	0.400	11.33	11.73	29.514
5190	20	3	0.366	11.23	11.60	29.514
5190	38	4	0.505	11.09	11.60	29.514
		5	0.613	10.98	11.59	29.514
		6	0.662	10.48	11.14	29.514
		7	0.719	10.46	11.18	29.514
		0	0.437	11.21	11.65	29.514
		1	0.410	11.31	11.72	29.514
		2	0.400	11.22	11.62	29.514
5020	46	3	0.366	11.00	11.37	29.514
5230	46	4	0.505	10.78	11.28	29.514
		5	0.613	10.87	11.49	29.514
		6	0.662	10.17	10.83	29.514
		7	0.719	10.34	11.06	29.514

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FCC ID: WQTAR4520

Ant.3 802.11n_HT40 (UNII 1) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT40 Mode: 5190~5230)

802.11n_HT4	40 Mode			_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	11.60	12.04	29.514
		1	0.410	11.76	12.17	29.514
		2	0.400	11.68	12.08	29.514
5400	20	3	0.366	11.55	11.92	29.514
5190	38	4	0.505	11.47	11.98	29.514
		5	0.613	11.32	11.93	29.514
		6	0.662	11.01	11.67	29.514
		7	0.719	10.73	11.45	29.514
		0	0.437	11.38	11.82	29.514
		1	0.410	11.56	11.97	29.514
		2	0.400	11.39	11.79	29.514
5020	46	3	0.366	11.20	11.57	29.514
5230	46	4	0.505	11.14	11.65	29.514
		5	0.613	11.05	11.67	29.514
		6	0.662	10.74	11.40	29.514
		7	0.719	10.47	11.19	29.514

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FCC ID: WQTAR4520

■ TEST RESULTS _ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 1)

Conducted Output Power Measurements (802.11n_HT40 Mode: 5190~5230)

	HT40 Mode		002:1111_11140 MIOGE: 0	
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	17.67	29.514
		1	17.64	29.514
		2	17.63	29.514
5400	20	3	17.42	29.514
5190	38	4	17.51	29.514
		5	17.43	29.514
		6	17.03	29.514
		7	17.02	29.514
		0	17.50	29.514
		1	17.47	29.514
		2	17.42	29.514
5220	46	3	17.15	29.514
5230	40	4	17.28	29.514
		5	17.24	29.514
		6	16.82	29.514
		7	16.80	29.514

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FCC ID: WQTAR4520

Ant.0 802.11n_HT40 (UNII 2A) TEST RESULTS

802.11n_HT4	40 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	8.87	9.31	23.179
		1	0.410	8.56	8.97	23.179
		2	0.400	8.83	9.23	23.179
5070	5.4	3	0.366	8.53	8.90	23.179
5270	54	4	0.505	8.68	9.19	23.179
		5	0.613	8.26	8.87	23.179
		6	0.662	8.46	9.12	23.179
		7	0.719	8.19	8.91	23.179
		0	0.437	8.83	9.27	23.179
		1	0.410	8.57	8.98	23.179
		2	0.400	8.88	9.28	23.179
5040		3	0.366	8.56	8.93	23.179
5310	62	4	0.505	8.56	9.07	23.179
		5	0.613	8.29	8.90	23.179
		6	0.662	8.44	9.10	23.179
		7	0.719	8.25	8.97	23.179

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Ant.1 802.11n_HT40 (UNII 2A) ■ TEST RESULTS

802.11n_HT4	<u>-</u>	Juli Ower Measur		_	,	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	8.98	9.42	23.179
		1	0.410	8.76	9.17	23.179
		2	0.400	8.90	9.30	23.179
5270	5.4	3	0.366	8.63	9.00	23.179
5270	54	4	0.505	8.74	9.25	23.179
		5	0.613	8.46	9.07	23.179
		6	0.662	8.63	9.29	23.179
		7	0.719	8.39	9.11	23.179
		0	0.437	8.72	9.16	23.179
		1	0.410	8.69	9.10	23.179
		2	0.400	8.65	9.05	23.179
5240	60	3	0.366	8.58	8.95	23.179
5310	62	4	0.505	8.46	8.97	23.179
		5	0.613	8.29	8.90	23.179
		6	0.662	8.24	8.90	23.179
		7	0.719	8.22	8.94	23.179

FCC ID: WQTAR4520

Ant.2 802.11n_HT40 (UNII 2A) TEST RESULTS

Conducted Output Power Measurements (802.11n_HT40 Mode: 5270~5310)

802.11n_HT4	40 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	9.05	9.49	23.179
		1	0.410	9.23	9.64	23.179
		2	0.400	9.01	9.41	23.179
5270	E4	3	0.366	8.97	9.34	23.179
5270	54	4	0.505	8.82	9.33	23.179
		5	0.613	8.77	9.38	23.179
		6	0.662	8.59	9.25	23.179
		7	0.719	8.69	9.41	23.179
		0	0.437	8.87	9.31	23.179
		1	0.410	8.94	9.35	23.179
		2	0.400	8.88	9.28	23.179
5240	60	3	0.366	8.83	9.20	23.179
5310	62	4	0.505	8.52	9.03	23.179
		5	0.613	8.50	9.11	23.179
		6	0.662	8.34	9.00	23.179
		7	0.719	8.34	9.06	23.179

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Ant.3
802.11n_HT40 (UNII 2A)

TEST RESULTS

802.11n_HT4	40 Mode			_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	9.33	9.77	23.179
		1	0.410	9.61	10.02	23.179
		2	0.400	9.26	9.66	23.179
5270	5.4	3	0.366	9.41	9.78	23.179
5270	54	4	0.505	9.20	9.71	23.179
		5	0.613	9.12	9.73	23.179
		6	0.662	9.02	9.68	23.179
		7	0.719	9.26	9.98	23.179
		0	0.437	9.18	9.62	23.179
		1	0.410	9.30	9.71	23.179
		2	0.400	9.21	9.61	23.179
5040		3	0.366	9.34	9.71	23.179
5310	62	4	0.505	8.90	9.41	23.179
		5	0.613	8.98	9.59	23.179
		6	0.662	8.70	9.36	23.179
		7	0.719	8.89	9.61	23.179

FCC ID: WQTAR4520

■ TEST RESULTS _ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2A)

Conducted Output Power Measurements (802.11n_HT40 Mode: 5270~5310)

802.11n_HT4	10 Mode		_	
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	15.52	23.179
		1	15.48	23.179
		2	15.42	23.179
5270	54	3	15.28	23.179
5270		4	15.39	23.179
		5	15.29	23.179
		6	15.36	23.179
		7	15.38	23.179
		0	15.36	23.179
		1	15.31	23.179
		2	15.33	23.179
5240	60	3	15.22	23.179
5310	62	4	15.14	23.179
		5	15.15	23.179
		6	15.11	23.179
		7	15.17	23.179

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Ant.0 802.11n_HT40 (UNII 2C) TEST RESULTS

802.11n_HT4	-	out i out i incusu		_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	8.21	8.65	23.497
		1	0.410	7.85	8.26	23.497
		2	0.400	8.13	8.53	23.497
5510	102	3	0.366	7.64	8.01	23.497
5510	102	4	0.505	7.91	8.42	23.497
		5	0.613	7.65	8.26	23.497
		6	0.662	7.75	8.41	23.497
		7	0.719	7.46	8.18	23.497
		0	0.437	7.77	8.21	23.497
		1	0.410	7.59	8.00	23.497
		2	0.400	7.76	8.16	23.497
5590	118	3	0.366	7.41	7.78	23.497
5590		4	0.505	7.76	8.27	23.497
		5	0.613	7.28	7.89	23.497
		6	0.662	7.62	8.28	23.497
		7	0.719	7.24	7.96	23.497
		0	0.437	7.62	8.06	23.497
		1	0.410	7.30	7.71	23.497
		2	0.400	7.46	7.86	23.497
E740	440	3	0.366	7.27	7.64	23.497
5710	142	4	0.505	7.28	7.79	23.497
		5	0.613	6.99	7.60	23.497
		6	0.662	7.18	7.84	23.497
		7	0.719	7.07	7.79	23.497

FCC ID: WQTAR4520

Ant.1
802.11n_HT40 (UNII 2C)

TEST RESULTS

802.11n HT					Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	7.84	8.28	23.497
		1	0.410	7.68	8.09	23.497
		2	0.400	7.64	8.04	23.497
5510	102	3	0.366	7.47	7.84	23.497
5510	102	4	0.505	7.65	8.16	23.497
		5	0.613	7.48	8.09	23.497
		6	0.662	7.28	7.94	23.497
		7	0.719	7.26	7.98	23.497
	118	0	0.437	7.44	7.88	23.497
		1	0.410	7.12	7.53	23.497
		2	0.400	7.25	7.65	23.497
5590		3	0.366	7.26	7.63	23.497
5590		4	0.505	7.27	7.78	23.497
		5	0.613	6.96	7.57	23.497
		6	0.662	6.98	7.64	23.497
		7	0.719	6.81	7.53	23.497
		0	0.437	6.45	6.89	23.497
		1	0.410	6.41	6.82	23.497
		2	0.400	6.51	6.91	23.497
F740	142	3	0.366	6.19	6.56	23.497
5710	142	4	0.505	6.26	6.77	23.497
		5	0.613	6.05	6.66	23.497
		6	0.662	6.08	6.74	23.497
		7	0.719	6.05	6.77	23.497

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Ant.2 802.11n_HT40 (UNII 2C) TEST RESULTS

802.11n_HT		att one measu			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	8.10	8.54	23.497
		1	0.410	8.31	8.72	23.497
		2	0.400	7.99	8.39	23.497
5510	102	3	0.366	8.09	8.46	23.497
5510	102	4	0.505	7.93	8.44	23.497
		5	0.613	7.81	8.42	23.497
		6	0.662	7.58	8.24	23.497
		7	0.719	7.67	8.39	23.497
	118	0	0.437	7.84	8.28	23.497
		1	0.410	7.73	8.14	23.497
		2	0.400	7.73	8.13	23.497
5500		3	0.366	7.89	8.26	23.497
5590		4	0.505	7.60	8.11	23.497
		5	0.613	7.53	8.14	23.497
		6	0.662	7.32	7.98	23.497
		7	0.719	7.36	8.08	23.497
		0	0.437	7.13	7.57	23.497
		1	0.410	7.16	7.57	23.497
		2	0.400	7.03	7.43	23.497
5740	440	3	0.366	6.82	7.19	23.497
5710	142	4	0.505	6.74	7.25	23.497
		5	0.613	6.55	7.16	23.497
		6	0.662	6.72	7.38	23.497
		7	0.719	6.68	7.40	23.497

FCC ID: WQTAR4520

Ant.3
802.11n_HT40 (UNII 2C)

TEST RESULTS

802.11n_HT4	-			_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	7.19	7.63	23.497
		1	0.410	7.43	7.84	23.497
		2	0.400	7.13	7.53	23.497
5510	102	3	0.366	7.36	7.73	23.497
5510	102	4	0.505	6.90	7.41	23.497
		5	0.613	7.05	7.66	23.497
		6	0.662	6.76	7.42	23.497
		7	0.719	7.00	7.72	23.497
		0	0.437	6.43	6.87	23.497
		1	0.410	6.59	7.00	23.497
	440	2	0.400	6.56	6.96	23.497
5590		3	0.366	6.65	7.02	23.497
5590	118	4	0.505	6.42	6.93	23.497
		5	0.613	6.36	6.97	23.497
		6	0.662	6.29	6.95	23.497
		7	0.719	6.14	6.86	23.497
		0	0.437	6.79	7.23	23.497
		1	0.410	6.87	7.28	23.497
		2	0.400	6.79	7.19	23.497
E740	142	3	0.366	6.75	7.12	23.497
5710		4	0.505	6.45	6.96	23.497
		5	0.613	6.57	7.18	23.497
		6	0.662	6.33	6.99	23.497
		7	0.719	6.50	7.22	23.497

FCC ID: WQTAR4520

■ TEST RESULTS _ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2C)

Conducted Output Power Measurements (802.11n_HT40 Mode: 5510~5710)

802.11n_HT4				
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	14.30	23.497
		1	14.25	23.497
		2	14.15	23.497
5510	102	3	14.03	23.497
5510	102	4	14.13	23.497
		5	14.14	23.497
		6	14.03	23.497
		7	14.09	23.497
		0	13.85	23.497
	118	1	13.70	23.497
		2	13.76	23.497
5590		3	13.70	23.497
5590		4	13.80	23.497
		5	13.68	23.497
		6	13.75	23.497
		7	13.64	23.497
		0	13.47	23.497
		1	13.37	23.497
		2	13.38	23.497
5710	142	3	13.15	23.497
5/10	144	4	13.22	23.497
		5	13.18	23.497
		6	13.27	23.497
		7	13.32	23.497

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Ant.0 802.11n_HT40 (UNII 3) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT40 Mode: 5755~5795)

802.11n_HT4	40 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	13.86	14.30	29.522
		1	0.410	13.88	14.29	29.522
		2	0.400	13.88	14.28	29.522
E7.5.5	454	3	0.366	13.81	14.18	29.522
5755	151	4	0.505	13.76	14.26	29.522
		5	0.613	13.69	14.30	29.522
		6	0.662	13.69	14.35	29.522
		7	0.719	13.58	14.30	29.522
		0	0.437	14.36	14.79	29.522
		1	0.410	14.25	14.66	29.522
		2	0.400	14.24	14.64	29.522
5705	450	3	0.366	14.26	14.63	29.522
5795	159	4	0.505	14.22	14.72	29.522
		5	0.613	14.01	14.62	29.522
		6	0.662	13.98	14.64	29.522
		7	0.719	13.90	14.62	29.522

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Ant.1 802.11n_HT40 (UNII 3) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT40 Mode: 5755~5795)

802.11n_HT4	40 Mode			_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	13.31	13.75	29.522
		1	0.410	13.24	13.65	29.522
		2	0.400	13.22	13.62	29.522
5755	454	3	0.366	13.12	13.49	29.522
5755	151	4	0.505	13.17	13.68	29.522
		5	0.613	13.10	13.72	29.522
		6	0.662	12.96	13.62	29.522
		7	0.719	12.90	13.62	29.522
		0	0.437	13.55	13.98	29.522
		1	0.410	13.38	13.79	29.522
		2	0.400	13.52	13.92	29.522
5705	450	3	0.366	13.46	13.83	29.522
5795	159	4	0.505	13.46	13.97	29.522
		5	0.613	13.33	13.94	29.522
		6	0.662	13.30	13.97	29.522
		7	0.719	13.16	13.88	29.522

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Ant.2 802.11n_HT40 (UNII 3) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT40 Mode: 5755~5795)

802.11n_HT4	40 Mode			_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	13.75	14.19	29.522
		1	0.410	13.71	14.12	29.522
		2	0.400	13.98	14.38	29.522
5755	454	3	0.366	13.90	14.27	29.522
5/55	151	4	0.505	13.58	14.09	29.522
		5	0.613	13.53	14.14	29.522
		6	0.662	13.51	14.17	29.522
		7	0.719	13.48	14.20	29.522
		0	0.437	14.66	15.10	29.522
		1	0.410	14.33	14.74	29.522
		2	0.400	14.31	14.71	29.522
5705	450	3	0.366	14.24	14.60	29.522
5795	159	4	0.505	14.21	14.72	29.522
		5	0.613	14.07	14.68	29.522
		6	0.662	13.91	14.57	29.522
		7	0.719	13.92	14.64	29.522

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Ant.3 802.11n_HT40 (UNII 3) ■ TEST RESULTS

Conducted Output Power Measurements (802.11n_HT40 Mode: 5755~5795)

802.11n_HT4	40 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.437	13.79	14.23	29.522
		1	0.410	13.71	14.12	29.522
		2	0.400	13.78	14.18	29.522
5755	454	3	0.366	13.82	14.18	29.522
5755	151	4	0.505	13.71	14.22	29.522
		5	0.613	13.57	14.18	29.522
		6	0.662	13.48	14.15	29.522
		7	0.719	13.48	14.20	29.522
		0	0.437	14.46	14.90	29.522
		1	0.410	14.23	14.64	29.522
		2	0.400	14.34	14.74	29.522
5705	450	3	0.366	14.33	14.69	29.522
5795	159	4	0.505	14.17	14.68	29.522
		5	0.613	14.04	14.65	29.522
		6	0.662	14.00	14.66	29.522
		7	0.719	14.05	14.77	29.522

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FCC ID: WQTAR4520

■ TEST RESULTS_ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 3)

Conducted Output Power Measurements (802.11n_HT40 Mode: 5755~5795)

	HT40 Mode		(002:1111 <u>-</u> 111140 III040:10	,
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	20.14	29.522
		1	20.07	29.522
		2	20.14	29.522
F7.F	454	3	20.06	29.522
5755	151	4	20.08	29.522
		5	20.11	29.522
		6	20.10	29.522
		7	20.10	29.522
		0	20.72	29.522
		1	20.49	29.522
		2	20.53	29.522
E70E	450	3	20.47	29.522
5795	159	4	20.55	29.522
		5	20.50	29.522
		6	20.49	29.522
		7	20.50	29.522

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Ant.0 802.11ac _VHT40 (UNII 1) TEST RESULTS

802.11ac VH		at Fower Measure			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	10.30	10.43	29.514
		1	0.230	10.02	10.25	29.514
		2	0.340	9.85	10.19	29.514
		3	0.448	9.70	10.15	29.514
5400	20	4	0.591	9.72	10.31	29.514
5190	38	5	0.717	9.60	10.32	29.514
		6	0.802	9.55	10.35	29.514
		7	0.835	9.33	10.17	29.514
		8	0.939	9.41	10.35	29.514
		9	0.977	9.18	10.16	29.514
		0	0.130	10.20	10.33	29.514
		1	0.230	9.68	9.91	29.514
		2	0.340	9.65	9.99	29.514
		3	0.448	9.63	10.08	29.514
		4	0.591	9.60	10.19	29.514
5230	46	5	0.717	9.50	10.22	29.514
		6	0.802	9.24	10.04	29.514
		7	0.835	9.04	9.87	29.514
		8	0.939	9.25	10.19	29.514
		9	0.977	8.89	9.86	29.514

FCC ID: WQTAR4520

Ant.1
802.11ac _VHT40 (UNII 1)
■ TEST RESULTS

802.11ac_VH	<u> </u>	at Fower Measure			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	10.66	10.79	29.514
		1	0.230	10.51	10.74	29.514
		2	0.340	10.54	10.88	29.514
		3	0.448	10.33	10.78	29.514
5400	20	4	0.591	10.14	10.73	29.514
5190	38	5	0.717	10.13	10.85	29.514
		6	0.802	10.09	10.89	29.514
		7	0.835	9.92	10.76	29.514
		8	0.939	9.94	10.88	29.514
		9	0.977	9.85	10.83	29.514
		0	0.130	10.46	10.59	29.514
		1	0.230	10.32	10.55	29.514
		2	0.340	10.29	10.63	29.514
		3	0.448	10.23	10.68	29.514
	4.0	4	0.591	9.94	10.53	29.514
5230	46	5	0.717	9.87	10.59	29.514
		6	0.802	9.86	10.66	29.514
		7	0.835	9.76	10.60	29.514
		8	0.939	9.81	10.75	29.514
		9	0.977	9.79	10.76	29.514

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Ant.2 802.11ac _VHT40 (UNII 1) ■ TEST RESULTS

802.11ac VH	<u> </u>	l ower measur	ements (802.11a)		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	11.04	11.17	29.514
		1	0.230	10.91	11.14	29.514
		2	0.340	10.78	11.12	29.514
		3	0.448	10.70	11.15	29.514
5400	20	4	0.591	10.43	11.02	29.514
5190	38	5	0.717	10.45	11.17	29.514
		6	0.802	10.24	11.04	29.514
		7	0.835	10.26	11.10	29.514
		8	0.939	10.19	11.13	29.514
		9	0.977	10.17	11.15	29.514
		0	0.130	10.86	10.99	29.514
		1	0.230	10.73	10.96	29.514
		2	0.340	10.61	10.95	29.514
		3	0.448	10.36	10.81	29.514
5000	40	4	0.591	10.37	10.96	29.514
5230	46	5	0.717	10.29	11.01	29.514
		6	0.802	9.93	10.73	29.514
		7	0.835	9.97	10.81	29.514
		8	0.939	10.00	10.94	29.514
		9	0.977	9.94	10.92	29.514

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Ant.3
802.11ac _VHT40 (UNII 1)
■ TEST RESULTS

802.11ac VH	<u> </u>	l cwei measar	ements (802.11ac		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	11.49	11.62	29.514
		1	0.230	11.37	11.60	29.514
		2	0.340	11.22	11.56	29.514
		3	0.448	11.25	11.70	29.514
5400	20	4	0.591	10.82	11.41	29.514
5190	38	5	0.717	10.91	11.63	29.514
		6	0.802	10.62	11.42	29.514
		7	0.835	10.70	11.54	29.514
		8	0.939	10.58	11.52	29.514
		9	0.977	10.53	11.51	29.514
		0	0.130	11.25	11.38	29.514
		1	0.230	11.29	11.52	29.514
		2	0.340	11.10	11.44	29.514
		3	0.448	10.99	11.44	29.514
5000	40	4	0.591	10.49	11.08	29.514
5230	46	5	0.717	10.65	11.37	29.514
	-	6	0.802	10.41	11.21	29.514
		7	0.835	10.57	11.40	29.514
		8	0.939	10.23	11.17	29.514
		9	0.977	10.31	11.29	29.514

FCC ID: WQTAR4520

■ TEST RESULTS_ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 1)

Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5190~5230)

802.11ac_VH	Γ40 Mode	1400	O D	1 !!4
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	17.03	23.49
		1	16.97	23.49
		2	16.97	23.49
		3	16.98	23.49
5190	38	4	16.90	23.49
5190	30	5	17.02	23.49
		6	16.96	23.49
		7	16.92	23.49
		8	17.00	23.49
		9	16.94	23.49
		0	16.85	23.49
		1	16.77	23.49
		2	16.79	23.49
		3	16.79	23.49
5220	46	4	16.72	23.49
5230	46	5	16.83	23.49
		6	16.69	23.49
		7	16.71	23.49
		8	16.79	23.49
		9	16.75	23.49

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Ant.0 802.11ac _VHT40 (UNII 2A) TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5270~5310)

802.11ac_VH	•	at Fower Measure			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	9.20	9.33	23.179
		1	0.230	8.73	8.96	23.179
		2	0.340	8.71	9.05	23.179
		3	0.448	8.46	8.91	23.179
5270	54	4	0.591	8.40	8.99	23.179
5270	54	5	0.717	8.24	8.96	23.179
		6	0.802	8.26	9.06	23.179
		7	0.835	8.15	8.99	23.179
		8	0.939	8.07	9.01	23.179
		9	0.977	7.97	8.95	23.179
		0	0.130	9.18	9.31	23.179
		1	0.230	8.68	8.91	23.179
		2	0.340	8.86	9.20	23.179
		3	0.448	8.47	8.92	23.179
5240	60	4	0.591	8.44	9.03	23.179
5310	62	5	0.717	8.25	8.97	23.179
		6	0.802	8.31	9.11	23.179 23.179 23.179 23.179 23.179 23.179 23.179 23.179 23.179 23.179
		7	0.835	8.13	8.97	23.179
		8	0.939	8.21	9.15	23.179
		9	0.977	7.98	8.96	23.179

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Ant.1
802.11ac _VHT40 (UNII 2A)

TEST RESULTS

802.11ac VH	<u> </u>	at i owei ilicasuit	ements (802.11ac	5_V11140 WOUC.	0270 0010)	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	8.85	8.98	23.179
		1	0.230	8.56	8.79	23.179
		2	0.340	8.54	8.88	23.179
		3	0.448	8.45	8.90	23.179
5270	54	4	0.591	8.17	8.76	23.179
5270	54	5	0.717	8.10	8.82	23.179
		6	0.802	8.29	9.09	23.179
		7	0.835	8.22	9.06	23.179 23.179 23.179 23.179 23.179 23.179 23.179
		8	0.939	8.12	9.06	
		9	0.977	7.93	8.91	23.179
		0	0.130	8.47	8.60	23.179
		1	0.230	8.33	8.56	23.179
		2	0.340	8.49	8.83	23.179
		3	0.448	8.10	8.55	23.179
5240	60	4	0.591	8.15	8.74	23.179
5310	62	5	0.717	7.96	8.68	23.179
		6	0.802	7.91	8.71	23.179 23.179 23.179 23.179 23.179 23.179 23.179 23.179
		7	0.835	7.90	8.74	23.179
		8	0.939	7.87	8.81	23.179
		9	0.977	7.75	8.73	23.179

FCC ID: WQTAR4520

Ant.2 802.11ac _VHT40 (UNII 2A) TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5270~5310)

802.11ac_VH	•	at Fower Measure			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	9.37	9.50	23.179
		1	0.230	9.31	9.54	23.179
		2	0.340	9.06	9.40	23.179
		3	0.448	9.01	9.46	23.179
5270	54	4	0.591	8.74	9.33	23.179
5270	54	5	0.717	8.60	9.32	23.179
		6	0.802	8.57	9.37	23.179
		7	0.835	8.55	9.39	23.179 23.179
		8	0.939	8.38	9.32	
		9	0.977	8.36	9.34	23.179
		0	0.130	9.54	9.67	23.179
		1	0.230	9.14	9.37	23.179
		2	0.340	9.17	9.51	23.179
		3	0.448	8.91	9.36	23.179
5240	60	4	0.591	8.75	9.34	23.179
5310	62	5	0.717	8.73	9.45	23.179
		6	0.802	8.18	8.98	23.179 23.179 23.179 23.179 23.179
		7	0.835	8.53	9.37	23.179
		8	0.939	8.25	9.19	23.179
		9	0.977	8.32	9.30	23.179

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Ant.3
802.11ac _VHT40 (UNII 2A)
■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5270~5310)

	Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5270~5310)							
802.11ac_VH ⁻ Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)		
		0	0.130	9.80	9.93	23.179		
		1	0.230	9.59	9.82	23.179		
		2	0.340	9.40	9.74	23.179		
		3	0.448	9.35	9.80	23.179		
5270	54	4	0.591	9.02	9.61	23.179		
5270	54	5	0.717	9.08	9.80	23.179		
		6	0.802	8.92	9.72	23.179		
		7	0.835	8.97	9.81	23.179		
		8	0.939	8.74	9.68	23.179		
		9	0.977	8.74	9.72	23.179		
		0	0.130	9.53	9.66	23.179		
		1	0.230	9.36	9.59	23.179		
		2	0.340	9.18	9.52	23.179		
		3	0.448	9.24	9.69	23.179		
5040		4	0.591	8.89	9.48	23.179		
5310	62	5	0.717	8.85	9.57	23.179		
		6	0.802	8.70	9.50	23.179		
		7	0.835	8.77	9.61	23.179		
		8	0.939	8.63	9.57	23.179		
		9	0.977	8.72	9.70	23.179		

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■ TEST RESULTS_ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2A)

Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5270~5310)

802.11ac_VH			C_VH140 MOde. 5	
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	15.46	17.16
		1	15.31	17.16
		2	15.29	17.16
		3	15.29	17.16
5270	54	4	15.20	17.16
5270		5	15.25	17.16
		6	15.34	17.16
		7	15.33	17.16
		8	15.29	17.16
		9	15.25	17.16
		0	15.34	17.16
		1	15.14	17.16
		2	15.29	17.16
		3	15.16	17.16
5240	60	4	15.17	17.16
5310	62	5	15.19	17.16
		6	15.10	17.16
		7	15.20	17.16
		8	15.20	17.16
		9	15.20	17.16

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Ant.0 802.11ac _VHT40 (UNII 2C) TEST RESULTS

802.11ac_VH	•	it Power Measur			Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	8.94	9.07	23.497
		1	0.230	8.48	8.71	23.497
		2	0.340	8.35	8.69	23.497
		3	0.448	8.12	8.57	23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497 23.497
5510	102	4	0.591	8.40	8.99	23.497
3310	102	5	0.717	8.03	8.75	23.497
		6	0.802	8.14	8.94	23.497
		7	0.835	7.84	8.68	23.497
		8	0.939	7.95	8.89	23.497
		9	0.977	7.90	8.88	23.497
		0	0.130	8.63	8.76	23.497
		1	0.230	8.32	8.55	23.497
		2	0.340	8.49	8.83	23.497
		3	0.448	8.04	8.49	23.497
5590	118	4	0.591	8.01	8.60	23.497
5590		5	0.717	7.74	8.46	23.497
		6	0.802	7.98	8.78	23.497
		7	0.835	7.79	8.63	23.497
		8	0.939	7.56	8.50	23.497
		9	0.977	7.83	8.81	23.497
		0	0.130	8.60	8.73	23.497
		1	0.230	8.15	8.38	23.497
		2	0.340	8.26	8.60	23.497
		3	0.448	7.95	8.40	23.497
5710	442	4	0.591	7.98	8.57	23.497
3710	142	5	0.717	7.51	8.23	23.497
		6	0.802	7.61	8.41	23.497
		7	0.835	7.40	8.24	23.497
		8	0.939	7.42	8.36	23.497
		9	0.977	7.18	8.16	23.497

FCC ID: WQTAR4520

Ant.1
802.11ac _VHT40 (UNII 2C)

TEST RESULTS

802.11ac_VH	•	at i owei measur	ements (802.11a)		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	7.78	7.91	23.497
		1	0.230	7.49	7.72	23.497
		2	0.340	7.47	7.81	23.497
		3	0.448	7.39	7.84	23.497
5510	102	4	0.591	7.39	7.98	23.497
3310	102	5	0.717	7.15	7.87	23.497
		6	0.802	7.21	8.01	23.497
		7	0.835	7.00	7.84	23.497
		8	0.939	7.04	7.98	23.497
		9	0.977	6.97	7.95	23.497
		0	0.130	7.67	7.80	23.497
		1	0.230	7.31	7.54	23.497
		2	0.340	7.43	7.77	23.497
		3	0.448	7.11	7.56	23.497
5590	118	4	0.591	7.11	7.70	23.497
5590		5	0.717	6.90	7.62	23.497
		6	0.802	6.93	7.73	23.497
		7	0.835	6.87	7.71	23.497
		8	0.939	6.72	7.66	23.497
		9	0.977	6.77	7.75	23.497
		0	0.130	7.29	7.42	23.497
		1	0.230	7.17	7.40	23.497
		2	0.340	6.98	7.32	23.497
		3	0.448	6.94	7.39	23.497
5710	442	4	0.591	6.82	7.41	23.497
37 10	142	5	0.717	6.64	7.36	23.497
		6	0.802	6.55	7.35	23.497
		7	0.835	6.54	7.38	23.497
		8	0.939	6.41	7.35	23.497
		9	0.977	6.25	7.23	23.497

FCC ID: WQTAR4520

Ant.2 802.11ac _VHT40 (UNII 2C) TEST RESULTS

802.11ac_VH	<u>-</u>	at i owei measar	ements (802.11a)		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	8.90	9.03	23.497
		1	0.230	8.65	8.88	23.497
		2	0.340	8.41	8.75	88 23.497 75 23.497 57 23.497 80 23.497 96 23.497 95 23.497 92 23.497 89 23.497 10 23.497 80 23.497 70 23.497 66 23.497 48 23.497 51 23.497 62 23.497
		3	0.448	8.12	8.57	
5510	102	4	0.591	8.21	8.80	23.497
3310	102	5	0.717	8.24	8.96	23.497
		6	0.802	8.15	8.95	23.497
		7	0.835	8.19	9.03	23.497
		8	0.939	7.98	8.92	23.497
		9	0.977	7.91	8.89	23.497
		0	0.130	8.97	9.10	23.497
		1	0.230	8.57	8.80	23.497
		2	0.340	8.36	8.70	23.497
		3	0.448	8.21	8.66	
5590	118	4	0.591	7.89	8.48	23.497
5590		5	0.717	7.88	8.60	23.497
		6	0.802	7.71	8.51	23.497
		7	0.835	7.78	8.62	23.497
		8	0.939	7.52	8.46	23.497
		9	0.977	7.56	8.54	23.497
		0	0.130	7.79	7.92	23.497
		1	0.230	7.82	8.05	23.497
		2	0.340	7.54	7.88	23.497
		3	0.448	7.47	7.92	23.497
5710	442	4	0.591	7.19	7.78	23.497
37 10	142	5	0.717	7.27	7.99	23.497
		6	0.802	7.05	7.85	23.497
		7	0.835	7.17	8.01	23.497
		8	0.939	6.97	7.91	23.497
		9	0.977	6.83	7.81	23.497

FCC ID: WQTAR4520

Ant.3
802.11ac _VHT40 (UNII 2C)

TEST RESULTS

		at i owei ilicasai	rements (802.11ad	_viii+o wode.		
802.11ac_VHT Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	8.23	8.36	23.497
		1	0.230	8.01	8.24	23.497
		2	0.340	7.93	8.27	23.497
		3	0.448	7.69	8.14	23.497
5510	102	4	0.591	7.61	8.20	23.497
5510	102	5	0.717	7.67	8.39	23.497
		6	0.802	7.54	8.34	23.497
		7	0.835	7.58	8.42	23.497
		8	0.939	7.28	8.22	23.497
		9	0.977	7.32	8.30	23.497
		0	0.130	7.94	8.07	23.497
		1	0.230	7.70	7.93	23.497
		2	0.340	7.49	7.83	23.497
		3	0.448	7.36	7.81	23.497
5500	118	4	0.591	7.06	7.65	23.497
5590		5	0.717	7.08	7.80	23.497
		6	0.802	6.86	7.66	23.497
		7	0.835	6.98	7.82	23.497
		8	0.939	6.65	7.59	23.497
		9	0.977	6.72	7.70	23.497
		0	0.130	4.67	4.80	23.497
		1	0.230	4.51	4.74	23.497
		2	0.340	4.42	4.76	23.497
		3	0.448	4.48	4.93	23.497
F740	440	4	0.591	4.06	4.65	23.497
5710	142	5	0.717	4.08	4.80	23.497
		6	0.802	3.86	4.66	23.497
		7	0.835	4.01	4.85	23.497
		8	0.939	3.60	4.54	23.497
		9	0.977	3.66	4.64	23.497

FCC ID: WQTAR4520

■ TEST RESULTS_ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2C)

802.11ac_VH			C_V11140 Wode. 3	-
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	14.63	17.48
		1	14.42	17.48
		2	14.41	17.48
		3	14.30	17.48
	400	4	14.52	17.48
5510	102	5	14.52	17.48
		6	14.59	17.48
		7	14.52	17.48
		8	14.53	17.48
		9	14.53	17.48
	118	0	14.47	17.48
		1	14.24	17.48
		2	14.32	17.48
		3	14.16	17.48
		4	14.14	17.48
5590		5	14.15	17.48
		6	14.21	17.48
		7	14.22	17.48
		8	14.08	17.48
		9	14.23	17.48
		0	13.36	17.48
		1	13.27	17.48
		2	13.28	17.48
		3	13.28	17.48
F740	440	4	13.24	17.48
5710	142	5	13.21	17.48
		6	13.20	17.48
		7	13.24	17.48
		8	13.18	17.48
		9	13.08	17.48

FCC ID: WQTAR4520

Ant.0 802.11ac_VHT40 (UNII 3) TEST RESULTS

802.11ac VH		at i owei measur	ements (802.11a)		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	14.34	14.47	29.522
		1	0.230	14.10	14.33	29.522
		2	0.340	13.90	14.24	29.522
		3	0.448	13.82	14.27	29.522
E7.E.E	151	4	0.591	13.72	14.31	29.522
5755	151	5	0.717	13.57	14.29	29.522
		6	0.802	13.62	14.42	29.522
		7	0.835	13.47	14.30	29.522
		8	0.939	13.33	14.27	29.522
		9	0.977	13.31	14.29	29.522
		0	0.130	14.66	14.79	29.522
		1	0.230	14.36	14.59	29.522
		2	0.340	14.37	14.71	29.522
		3	0.448	14.20	14.65	29.522
5705	450	4	0.591	14.04	14.63	29.522
5795	159	5	0.717	13.95	14.67	29.522
		6	0.802	13.91	14.72	29.522
		7 0.835	0.835	13.84	14.67	29.522
		8	0.939	13.67	14.61	29.522
		9	0.977	13.80	14.77	29.522

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Ant.1 802.11ac_VHT40 (UNII 3) TEST RESULTS

802.11ac_VH	T40 Mode			_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	13.65	13.78	29.522
		1	0.230	13.30	13.53	29.522
		2	0.340	13.29	13.62	29.522
		3	0.448	13.21	13.66	29.522
5755	151	4	0.591	12.97	13.57	29.522
5755	151	5	0.717	13.03	13.75	7 29.522 5 29.522 4 29.522 7 29.522 8 29.522 4 29.522
		6	0.802	12.94	13.74	
		7	0.835	12.93	13.77	
		8	0.939	12.74	13.68	29.522
		9	0.977	12.76	13.74	29.522 29.522 29.522 29.522 29.522 29.522
		0	0.130	13.78	13.91	29.522
		1	0.230	13.67	13.90	29.522
		2	0.340	13.43	13.77	29.522
		3	0.448	13.36	13.81	29.522
E70E	450	4	0.591	13.33	13.92	29.522
5795	159	5	0.717	13.23	13.95	29.522
		6	0.802	13.06	13.87	29.522
		7	0.835	12.99	13.82	29.522
		8	0.939	13.04	13.98	29.522
		9	0.977	12.96	13.94	29.522

FCC ID: WQTAR4520

Ant.2 802.11ac_VHT40 (UNII 3) TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5755~5795)

	<u> </u>	at i owei ilicasuit	ements (802.11a)	C_VIII 40 MOde.	<u> </u>	
802.11ac_VH	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	14.17	14.30	29.522
		1	0.230	13.93	14.16	29.522
		2	0.340	13.80	14.14	29.522
		3	0.448	13.72	14.17	29.522
5755	151	4	0.591	13.51	14.10	29.522
5/55	151	5	0.717	13.43	14.15	29.522
		6	0.802	13.44	14.24	29.522
		7	0.835	13.58	14.42	29.522
		8	0.939	13.31	14.25	29.522 29.522 29.522 29.522 29.522 29.522 29.522 29.522 29.522
		9	0.977	13.26	14.24	29.522
		0	0.130	14.54	14.67	29.522
		1	0.230	14.43	14.66	29.522
		2	0.340	14.31	14.65	29.522
		3	0.448	14.31	14.76	29.522
5705	450	4	0.591	14.03	14.62	29.522
5795	159	5	0.717	13.89	14.61	29.522
		6	0.802	13.83	14.63	29.522
		7	0.835	13.75	14.59	29.522
		8	0.939	13.69	14.63	29.522
		9	0.977	13.64	14.61	29.522

FCC ID: WQTAR4520

Ant.3
802.11ac_VHT40 (UNII 3)
■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5755~5795)

802.11ac_VH	<u> </u>		ements (002.11at		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.130	14.19	14.32	29.522
		1	0.230	13.97	14.20	29.522
		2	0.340	13.82	14.16	29.522
		3	0.448	13.84	14.29	29.522
E7.E.E	454	4	0.591	13.63	14.22	29.522
5755	151	5	0.717	13.55	14.26	29.522
		6	0.802	13.41	14.21	29.522
		7	0.835	13.41	14.25	29.522
		8	0.939	13.22	14.16	29.522
		9	0.977	13.33	14.31	29.522
		0	0.130	14.75	14.88	29.522
		1	0.230	14.37	14.60	29.522
		2	0.340	14.43	14.77	29.522
		3	0.448	14.32	14.77	29.522
	450	4	0.591	14.13	14.72	29.522
5795	159	5	0.717	14.04	14.75	29.522
		6	0.802	14.02	14.82	29.522
		7	0.835	13.83	14.66	29.522
		8	0.939	13.63	14.57	29.522
		9	0.977	13.84	14.81	29.522

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■ TEST RESULTS_ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 3)

Conducted Output Power Measurements (802.11ac_VHT40 Mode: 5755~5795)

802.11ac_VH	Γ40 Mode	,	0	1 !!4
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	20.24	23.50
		1	20.08	23.50
		2	20.06	23.50
		3	20.12	23.50
5755	151	4	20.08	23.50
5/55	151	5	20.14	23.50
		6	20.18	23.50
		7	20.21	23.50
		8	20.11	23.50
		9	20.17	23.50
		0	20.59	23.50
		1	20.47	23.50
		2	20.51	23.50
		3	20.53	23.50
E70E	450	4	20.50	23.50
5795	159	5	20.52	23.50
		6	20.54	23.50
		7	20.46	23.50
		8	20.47	23.50
		9	20.56	23.50

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Ant.0 802.11ac_VHT80 (UNII 1) TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5210)

802.11ac_VH	T80 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	9.65	9.91	29.514
		1	0.458	9.26	9.72	29.514
		2	0.652	9.18	9.83	29.514
		3	0.753	8.63	9.38	29.514
5210	42	4	0.969	8.72	9.69	29.514
5210	42	5	1.112	8.59	9.70	29.514
		6	1.200	8.33	9.53	29.514
		7	1.249	8.28	9.53	29.514
		8	1.362	8.34	9.70	29.514
		9	1.427	8.27	9.70	29.514

Ant.1
802.11ac_VHT80 (UNII 1)
■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5210)

802.11ac_VH	T80 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	9.94	10.20	29.514
		1	0.458	9.38	9.84	29.514
		2	0.652	9.24	9.89	29.514
		3	0.753	9.23	9.98	29.514
5240	42	4	0.969	9.12	10.09	29.514
5210	42	5	1.112	9.03	10.14	29.514
		6	1.200	8.72	9.92	29.514
		7	1.249	8.72	9.97	29.514
		8	1.362	8.72	10.08	29.514
		9	1.427	8.75	10.18	29.514

FCC ID: WQTAR4520

Ant.2 802.11ac_VHT80 (UNII 1) ■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5210)

802.11ac_VH	T80 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	10.55	10.81	29.514
		1	0.458	10.08	10.54	29.514
		2	0.652	9.95	10.60	29.514
		3	0.753	9.87	10.62	29.514
5240	42	4	0.969	9.55	10.52	29.514
5210	42	5	1.112	9.58	10.69	29.514
		6	1.200	9.45	10.65	29.514
		7	1.249	9.37	10.62	29.514
		8	1.362	9.03	10.39	29.514
		9	1.427	9.26	10.69	29.514

Ant.3
802.11ac_VHT80 (UNII 1)
■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5210)

802.11ac_VH	780 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	10.16	10.42	29.514
		1	0.458	10.23	10.69	29.514
		2	0.652	9.66	10.31	29.514
		3	0.753	9.65	10.40	29.514
5240	40	4	0.969	9.34	10.31	29.514
5210	42	5	1.112	9.49	10.60	29.514
		6	1.200	9.09	10.29	29.514
		7	1.249	9.17	10.42	29.514
		8	1.362	8.96	10.32	29.514
		9	1.427	9.18	10.61	29.514

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■ TEST RESULTS_ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 1)

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5210)

802.11ac_VI	HT80 Mode			•
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	16.36	23.49
		1	16.23	23.49
		2	16.19	23.49
		3	16.13	23.49
5210	42	4	16.18	23.49
5210	42	5	16.31	23.49
		6	16.13	23.49
		7	16.17	23.49
		8	16.15	23.49
		9	16.32	23.49

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Ant.0 802.11ac_VHT80 (UNII 2A) TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5290)

802.11ac_VHT	780 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	8.92	9.18	23.179
		1	0.458	8.70	9.16	23.179
		2	0.652	8.41	9.06	23.179
		3	0.753	8.48	9.23	23.179
5290	58	4	0.969	8.06	9.03	23.179
5290	50	5	1.112	8.12	9.23	23.179
		6	1.200	7.93	9.13	23.179
		7	1.249	8.11	9.36	23.179
		8	1.362	7.68	9.04	23.179
		9	1.427	7.84	9.27	23.179

Ant.1
802.11ac_VHT80 (UNII 2A)
■ TEST RESULTS

802.11ac_VH	T80 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
	0	0.257	8.65	8.91	23.179	
		1	0.458	8.39	8.85	23.179
		2	0.652	8.16	8.81	23.179
		3	0.753	8.18	8.93	23.179
5200	50	4	0.969	7.90	8.87	23.179
5290	58	5	1.112	7.89	9.00	23.179
		6	1.200	7.85	9.05	23.179
		7	1.249	7.61	8.86	23.179
		8	1.362	7.60	8.96	23.179
	9	1.427	7.57	9.00	23.179	

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Ant.2 802.11ac_VHT80 (UNII 2A) TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5290)

802.11ac_VHT	780 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	9.55	9.81	23.179
		1	0.458	8.91	9.37	23.179
		2	0.652	9.14	9.79	23.179
		3	0.753	8.82	9.57	23.179
5290	58	4	0.969	8.59	9.56	23.179
5290	50	5	1.112	8.35	9.46	23.179
		6	1.200	8.36	9.56	23.179
		7	1.249	8.26	9.51	23.179
		8	1.362	8.27	9.63	23.179
		9	1.427	8.23	9.66	23.179

Ant.3
802.11ac_VHT80 (UNII 2A)
■ TEST RESULTS

802.11ac_VH	T80 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	9.63	9.89	23.179
		1	0.458	9.07	9.53	23.179
		2	0.652	9.13	9.78	23.179
		3	0.753	8.80	9.55	23.179
5290	E 0	4	0.969	8.62	9.59	23.179
5290	58	5	1.112	8.57	9.68	23.179
		6	1.200	8.69	9.89	23.179
		7	1.249	8.30	9.55	23.179
		8	1.362	8.36	9.72	23.179
	9	1.427	8.25	9.68	23.179	

FCC ID: WQTAR4520

■ TEST RESULTS_ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2A)

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5290)

802.11ac_V	HT80 Mode			
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	15.47	17.16
		1	15.25	17.16
		2	15.39	17.16
		3	15.35	17.16
5290	58	4	15.29	17.16
5290	50	5	15.37	17.16
		6	15.43	17.16
		7	15.34	17.16
		8	15.37	17.16
		9	15.42	17.16

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Ant.0 802.11ac_VHT80 (UNII 2C) TEST RESULTS

802.11ac_VH	•	ower weasurem	ents (802.11ac_v 		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	8.66	8.92	23.497
		1	0.458	8.08	8.54	23.497
		2	0.652	8.10	8.75	23.497
		3	0.753	8.00	8.75	23.497
5530	106	4	0.969	7.71	8.68	23.497
5550	100	5	1.112	7.53	8.64	23.497
		6	1.200	7.65	8.85	23.497
		7	1.249	7.65	8.90	23.497
		8	1.362	7.39	8.75	23.497
		9	1.427	7.14	8.57	23.497
		0	0.257	8.30	8.56	23.497
		1	0.458	7.85	8.31	23.497
		2	0.652	7.86	8.51	23.497
		3	0.753	7.37	8.12	23.497
5610	122	4	0.969	7.44	8.41	23.497
5610		5	1.112	7.24	8.35	23.497
		6	1.200	7.19	8.39	23.497
		7	1.249	7.12	8.37	23.497
		8	1.362	7.11	8.47	23.497
		9	1.427	6.89	8.32	23.497
		0	0.257	8.23	8.49	23.497
		1	0.458	7.79	8.25	23.497
		2	0.652	7.74	8.40	23.497
		3	0.753	7.32	8.07	23.497
5600	120	4	0.969	7.21	8.18	23.497
5690	138	5	1.112	7.01	8.12	23.497
		6	1.200	7.07	8.27	23.497
		7	1.249	6.84	8.09	23.497
		8	1.362	6.88	8.24	23.497
		9	1.427	6.81	8.23	23.497

FCC ID: WQTAR4520

Ant.1
802.11ac_VHT80 (UNII 2C)
■ TEST RESULTS

802.11ac VH	•	ower weasurem	ents (802.11ac_v 		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	8.45	8.71	23.497
		1	0.458	7.96	8.42	23.497
		2	0.652	7.83	8.48	23.497
		3	0.753	7.70	8.45	23.497
5530	106	4	0.969	7.41	8.38	23.497
5550	100	5	1.112	7.41	8.52	23.497
		6	1.200	7.51	8.71	23.497
		7	1.249	7.26	8.51	23.497
		8	1.362	7.20	8.56	23.497
		9	1.427	7.11	8.54	23.497
		0	0.257	7.35	7.61	23.497
		1	0.458	7.02	7.48	23.497
		2	0.652	6.88	7.53	23.497
		3	0.753	6.62	7.37	23.497
5610	122	4	0.969	6.58	7.55	23.497
5610		5	1.112	6.41	7.52	23.497
		6	1.200	6.29	7.49	23.497
		7	1.249	6.31	7.56	23.497
		8	1.362	6.26	7.62	23.497
		9	1.427	6.15	7.58	23.497
		0	0.257	7.18	7.44	23.497
		1	0.458	6.91	7.37	23.497
		2	0.652	6.60	7.25	23.497
		3	0.753	6.44	7.19	23.497
5600	120	4	0.969	6.43	7.40	23.497
5690	138	5	1.112	6.29	7.40	23.497
		6	1.200	6.22	7.42	23.497
		7	1.249	6.14	7.39	23.497
		8	1.362	5.97	7.33	23.497
		9	1.427	5.95	7.37	23.497

FCC ID: WQTAR4520

Ant.2 802.11ac_VHT80 (UNII 2C) TEST RESULTS

802.11ac VH	•	ower weasurem	ents (802.11ac_v 		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	8.69	8.95	23.497
		1	0.458	8.49	8.95	23.497
		2	0.652	8.27	8.92	23.497
		3	0.753	8.11	8.86	23.497
5530	106	4	0.969	7.76	8.73	23.497
5550	100	5	1.112	8.00	9.11	23.497
		6	1.200	7.67	8.87	23.497
		7	1.249	7.79	9.04	23.497
		8	1.362	7.50	8.86	23.497
		9	1.427	7.66	9.09	23.497
		0	0.257	7.16	7.42	23.497
		1	0.458	6.82	7.28	23.497
		2	0.652	6.69	7.34	23.497
		3	0.753	6.66	7.41	23.497
5610	122	4	0.969	6.31	7.28	23.497
5610		5	1.112	6.39	7.50	23.497
		6	1.200	6.13	7.33	23.497
		7	1.249	6.18	7.43	23.497
		8	1.362	5.94	7.30	23.497
		9	1.427	6.08	7.51	23.497
		0	0.257	6.95	7.21	23.497
		1	0.458	6.62	7.08	23.497
		2	0.652	6.55	7.20	23.497
		3	0.753	6.36	7.11	23.497
5600	120	4	0.969	6.06	7.03	23.497
5690	138	5	1.112	6.11	7.22	23.497
		6	1.200	6.05	7.25	23.497
		7	1.249	5.90	7.15	23.497
		8	1.362	5.85	7.22	23.497
		9	1.427	5.90	7.32	23.497

FCC ID: WQTAR4520

Ant.3
802.11ac_VHT80 (UNII 2C)
■ TEST RESULTS

802.11ac VH	•	ower weasurem	ents (802.11ac_v 		Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	7.65	7.91	23.497
		1	0.458	7.50	7.96	23.497
		2	0.652	7.08	7.73	23.497
		3	0.753	7.10	7.85	23.497
5530	106	4	0.969	6.62	7.59	23.497
3330	100	5	1.112	6.80	7.91	23.497
		6	1.200	6.54	7.74	23.497
		7	1.249	6.68	7.93	23.497
		8	1.362	6.24	7.60	23.497
		9	1.427	6.42	7.85	23.497
		0	0.257	5.04	5.30	23.497
		1	0.458	4.88	5.34	23.497
		2	0.652	4.58	5.23	23.497
		3	0.753	4.56	5.31	23.497
5610	122	4	0.969	4.08	5.05	23.497
3010		5	1.112	4.22	5.33	23.497
		6	1.200	4.00	5.20	23.497
		7	1.249	4.31	5.56	23.497
		8	1.362	3.79	5.15	23.497
		9	1.427	3.74	5.17	23.497
		0	0.257	4.84	5.10	23.497
		1	0.458	4.71	5.16	23.497
		2	0.652	4.34	4.99	23.497
		3	0.753	4.35	5.10	23.497
5690	420	4	0.969	3.85	4.82	23.497
3030	138	5	1.112	3.93	5.05	23.497
		6	1.200	3.75	4.95	23.497
		7	1.249	4.24	5.49	23.497
		8	1.362	3.58	4.95	23.497
		9	1.427	3.59	5.02	23.497

FCC ID: WQTAR4520

■ TEST RESULTS_ Sum Data of Ant.0 and Ant.1 and Ant.2 and Ant.3 (UNII 2C)

802.11ac_V	=	asurements	(802.11ac_VHT80 Mode: 5530 ~ 8)030 Willi2)
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	14.65	17.48
		1	14.49	17.48
		2	14.50	17.48
		3	14.51	17.48
<i>EE</i> 20	406	4	14.38	17.48
5530	106	5	14.58	17.48
		6	14.58	17.48
		7	14.63	17.48
		8	14.48	17.48
		9	14.54	17.48
		0	13.32	17.48
		1	13.19	17.48
		2	13.25	17.48
		3	13.14	17.48
5040	400	4	13.18	17.48
5610	122	5	13.27	17.48
		6	13.20	17.48
		7	13.31	17.48
		8	13.24	17.48
		9	13.24	17.48
		0	13.16	17.48
		1	13.06	17.48
		2	13.07	17.48
	<u> </u>	3	12.95	17.48
5 000	100	4	12.97	17.48
5690	138	5	13.04	17.48
	<u> </u>	6	13.08	17.48
	<u> </u>	7	13.10	17.48
	<u> </u>	8	13.04	17.48
	<u> </u>	9	13.09	17.48

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Ant.0 802.11ac_VHT80 (UNII 3) TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5775)

802.11ac_VH	T80 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	14.66	14.91	29.522
		1	0.458	14.40	14.86	29.522
		2	0.652	14.16	14.81	29.522
		3	0.753	14.22	14.97	29.522
5775	155	4	0.969	13.89	14.86	29.522
5775	155	5	1.112	13.71	14.82	29.522
		6	1.200	13.67	14.87	29.522
		7	1.249	13.56	14.81	29.522
		8	1.362	13.59	14.96	29.522
		9	1.427	13.46	14.88	29.522

Ant.1
802.11ac_VHT80 (UNII 3)
■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5775)

802.11ac_VH	802.11ac_VHT80 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	13.95	14.20	29.522
		1	0.458	13.56	14.01	29.522
		2	0.652	13.49	14.14	29.522
		3	0.753	13.29	14.04	29.522
E77E	455	4	0.969	13.27	14.24	29.522
5775	155	5	1.112	13.07	14.18	29.522
		6	1.200	12.88	14.08	29.522
		7	1.249	12.96	14.21	29.522
		8	1.362	12.89	14.25	29.522
		9	1.427	12.83	14.26	29.522

FCC ID: WQTAR4520

Ant.2 802.11ac_VHT80 (UNII 3) TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5775)

802 11ac VH	802.11ac VHT80 Mode Measured							
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)		
		0	0.257	14.93	15.18	29.522		
		1	0.458	14.46	14.92	29.522		
		2	0.652	14.45	15.11	29.522		
		3	0.753	14.19	14.94	29.522		
5775	455	4	0.969	14.11	15.08	29.522		
5775	155	5	1.112	14.00	15.11	29.522		
		6	1.200	13.90	15.10	29.522		
		7	1.249	13.86	15.10	29.522		
		8	1.362	13.71	15.07	29.522		
		9	1.427	13.63	15.06	29.522		

Ant.3
802.11ac_VHT80 (UNII 3)
■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5775)

802.11ac_VH	T80 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Duty Cycle Factor (dB)	Measured Power (dBm)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	0.257	14.73	14.99	29.522
		1	0.458	14.41	14.87	29.522
		2	0.652	14.14	14.79	29.522
		3	0.753	14.13	14.88	29.522
5775	455	4	0.969	14.01	14.98	29.522
5775	155	5	1.112	13.86	14.97	29.522
		6	1.200	13.82	15.01	29.522
		7	1.249	13.79	15.04	29.522
		8	1.362	13.50	14.87	29.522
		9	1.427	13.49	14.92	29.522



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■ TEST RESULTS_Sum Data of Ant.0 and Ant.1 and Ant.2 and An.3 (UNII 3)

Conducted Output Power Measurements (802.11ac_VHT80 Mode: 5775)

802.11ac_VH	T80 Mode			1 1 14
Frequency [MHz]	Channel No.	MCS Index	Sum Power of Ant.0 & 1	Limit (dBm)
		0	20.85	23.50
		1	20.69	23.50
		2	20.74	23.50
		3	20.74	23.50
5775	155	4	20.81	23.50
5775	155	5	20.80	23.50
		6	20.80	23.50
		7	20.82	23.50
		8	20.81	23.50
		9	20.81	23.50

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Ant.0, 2 802.11ac_VHT160 ■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT160 Mode)

802.11ac_VHT	802.11ac_VHT160 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Measured Power (dBm)	Duty Cycle Factor (dB)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	8.30	0.46	8.76	29.514
		1	8.18	0.76	8.94	29.514
		2	8.13	0.97	9.11	29.514
		3	7.88	1.11	8.99	29.514
5210	42	4	7.43	1.38	8.81	29.514
5210	42	5	7.37	1.50	8.87	29.514
		6	7.27	1.58	8.84	29.514
		7	7.30	1.64	8.94	29.514
		8	7.19	1.66	8.86	29.514
		9	7.20	1.76	8.96	29.514
		0	8.42	0.46	8.88	23.179
		1	8.32	0.76	9.08	23.179
		2	8.27	0.97	9.25	23.179
		3	7.92	1.11	9.03	23.179
5200	F 0	4	7.69	1.38	9.07	23.179
5290	58	5	7.74	1.50	9.23	23.179
		6	7.57	1.58	9.15	23.179
		7	7.50	1.64	9.14	23.179
		8	7.46	1.66	9.12	23.179
		9	7.41	1.76	9.17	23.179

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Ant.1, 3 802.11ac_VHT160 ■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT160 Mode)

802.11ac_VHT	160 Mode	-	,	_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Measured Power (dBm)	Duty Cycle Factor (dB)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	7.43	0.46	7.90	29.514
		1	7.24	0.76	8.00	29.514
		2	7.19	0.97	8.16	29.514
		3	6.93	1.11	8.04	29.514
5210	42	4	6.80	1.38	8.18	29.514
5210	42	5	6.62	1.50	8.12	29.514
		6	6.57	1.58	8.14	29.514
		7	6.76	1.64	8.40	29.514
		8	6.58	1.66	8.24	29.514
		9	6.44	1.76	8.20	29.514
		0	8.86	0.46	9.32	23.179
		1	8.67	0.76	9.43	23.179
		2	8.44	0.97	9.41	23.179
		3	8.40	1.11	9.51	23.179
5200	5 0	4	8.14	1.38	9.52	23.179
5290	58	5	8.00	1.50	9.50	23.179
		6	7.89	1.58	9.46	23.179
		7	7.89	1.64	9.53	23.179
		8	7.80	1.66	9.46	23.179
		9	7.62	1.76	9.38	23.179

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■ TEST RESULTS_Sum Data of Ant.0, 2 and Ant.1, 3

Conducted Output Power Measurements (802.11ac_VHT160)

802.11ac_VHT	160 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Measured Power (dBm)	Duty Cycle Factor (dB)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	10.89	0.46	11.35	23.49
		1	10.73	0.76	11.49	23.49
		2	10.68	0.97	11.65	23.49
		3	10.43	1.11	11.54	23.49
5240	42	4	10.13	1.38	11.51	23.49
5210	42	5	10.01	1.50	11.51	23.49
		6	9.94	1.58	11.52	23.49
		7	10.04	1.64	11.68	23.49
		8	9.90	1.66	11.56	23.49
		9	9.84	1.76	11.60	23.49

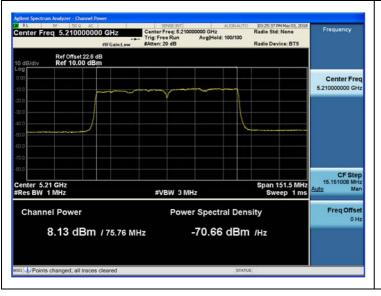
Conducted Output Power Measurements (802.11ac VHT160)

Conducted Output Fower incustricines (02.11ac_v111100)									
802.11ac_VHT	160 Mode				Measured				
			Measured	Duty Cycle	Power(dBm)	Limit			
Frequency	Channel	MCS Index	Power	Factor	+				
[MHz]	No.		(dBm)	(dB)	Duty Cycle	(dBm)			
					Factor(dB)				
		0	11.65	0.46	12.11	17.16			
		1	11.51	0.76	12.27	17.16			
		2	11.37	0.97	12.34	17.16			
		3	11.17	1.11	12.28	17.16			
5290	58	4	10.93	1.38	12.31	17.16			
5290	30	5	10.88	1.50	12.38	17.16			
		6	10.74	1.58	12.32	17.16			
		7	10.71	1.64	12.35	17.16			
		8	10.64	1.66	12.30	17.16			
	9	10.53	1.76	12.29	17.16				

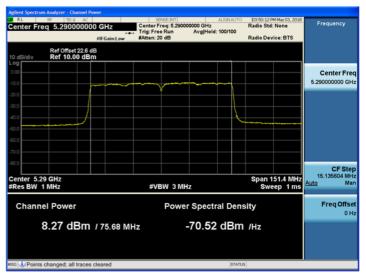
FCC ID: WQTAR4520

■ TEST Plots Ant.0, 2 for 802.11ac_VHT160

802.11ac_VHT160 Average Power (5210 MHz) CH 42 MCS2

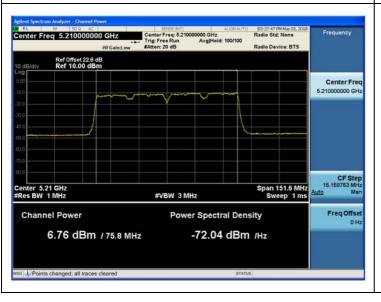


802.11ac_VHT160 Average Power (5290 MHz) CH 58 MCS2

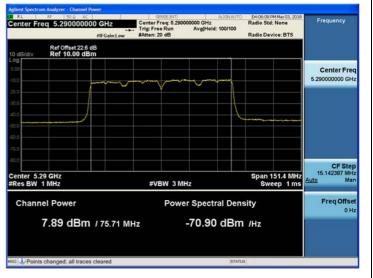


■ TEST Plots Ant.1, 3 for 802.11ac_VHT160

802.11ac_VHT160 Average Power (5210 MHz) CH 42 MCS7



802.11ac_VHT160 Average Power (5290 MHz) CH 58 MCS7



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FCC ID: WQTAR4520

Ant.0, 2 802.11ac_VHT160 ■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT160 Mode)

802.11ac_VHT	160 Mode	-	, i	_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Measured Power (dBm)	Duty Cycle Factor (dB)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	8.32	0.46	8.78	23.497
		1	8.22	0.76	8.98	23.497
		2	8.05	0.97	9.03	23.497
		3	7.77	1.11	8.88	23.497
5520	400	4	7.57	1.38	8.95	23.497
5530	106	5	7.41	1.50	8.91	23.497
		6	7.51	1.58	9.08	23.497
		7	7.57	1.64	9.21	23.497
		8	7.38	1.66	9.04	23.497
		9	7.26	1.76	9.02	23.497
		0	7.33	0.46	7.79	23.497
		1	7.43	0.76	8.19	23.497
		2	7.17	0.97	8.15	23.497
		3	6.93	1.11	8.04	23.497
	400	4	6.69	1.38	8.07	23.497
5610	122	5	6.61	1.50	8.11	23.497
		6	6.48	1.58	8.05	23.497
		7	6.58	1.64	8.23	23.497
		8	6.39	1.66	8.05	23.497
		9	6.28	1.76	8.04	23.497

FCC ID: WQTAR4520

Ant.1, 3 802.11ac_VHT160 ■ TEST RESULTS

Conducted Output Power Measurements (802.11ac_VHT160 Mode)

802.11ac_VHT	160 Mode	-	,	_	Measured	
Frequency [MHz]	Channel No.	MCS Index	Measured Power (dBm)	Duty Cycle Factor (dB)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	7.40	0.46	7.86	23.497
		1	7.30	0.76	8.06	23.497
		2	7.03	0.97	8.01	23.497
		3	6.90	1.11	8.01	23.497
5530	106	4	6.82	1.38	8.20	23.497
5530	106	5	6.53	1.50	8.03	23.497
		6	6.53	1.58	8.10	23.497
		7	6.51	1.64	8.16	23.497
		8	6.45	1.66	8.12	23.497
		9	6.29	1.76	8.06	23.497
		0	7.45	0.46	7.91	23.497
		1	7.31	0.76	8.07	23.497
		2	7.14	0.97	8.11	23.497
		3	7.04	1.11	8.15	23.497
5040	400	4	6.64	1.38	8.02	23.497
5610	122	5	6.71	1.50	8.21	23.497
		6	6.41	1.58	7.99	23.497
		7	6.45	1.64	8.09	23.497
		8	6.29	1.66	7.96	23.497
		9	6.22	1.76	7.98	23.497



FCC ID: WQTAR4520

■ TEST RESULTS_Sum Data of Ant.0, 2 and Ant.1, 3

Conducted Output Power Measurements (802.11ac_VHT160)

802.11ac_VHT	160 Mode				Measured	
Frequency [MHz]	Channel No.	MCS Index	Measured Power (dBm)	Duty Cycle Factor (dB)	Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
		0	10.88	0.46	11.34	17.48
		1	10.78	0.76	11.54	17.48
		2	10.57	0.97	11.54	17.48
		3	10.36	1.11	11.47	17.48
5530	106	4	10.21	1.38	11.59	17.48
5530	106	5	9.99	1.50	11.49	17.48
		6	10.04	1.58	11.62	17.48
		7	10.07	1.64	11.71	17.48
		8	9.94	1.66	11.60	17.48
		9	9.80	1.76	11.56	17.48

Conducted Output Power Measurements (802.11ac VHT160)

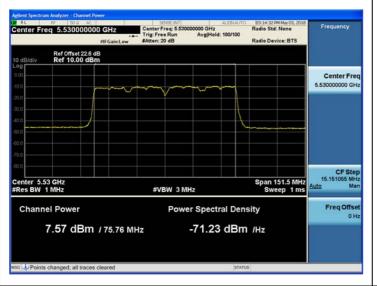
Onducted Output Fower Measurements (002.11ac_v111100)									
802.11ac_VHT Frequency [MHz]	Channel No.	MCS Index	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)			
		0	10.40	0.46	10.86	17.48			
		1	10.38	0.76	11.14	17.48			
		2	10.17	0.97	11.14	17.48			
		3	10.00	1.11	11.11	17.48			
5610	122	4	9.68	1.38	11.06	17.48			
5610	122	5	9.67	1.50	11.17	17.48			
		6	9.46	1.58	11.04	17.48			
		7	9.53	1.64	11.17	17.48			
		8	9.35	1.66	11.01	17.48			
	9	9.26	1.76	11.02	17.48				



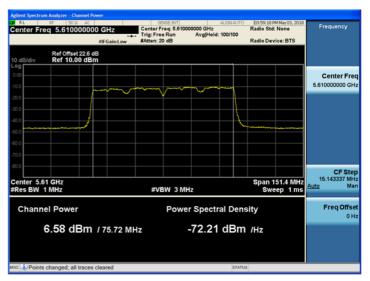
FCC ID: WQTAR4520

■ TEST Plots Ant.0, 2 for 802.11ac_VHT160

802.11ac_VHT160 Average Power (5530 MHz) CH 106 MCS7

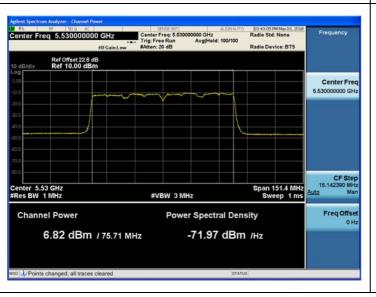


802.11ac_VHT160 Average Power (5610 MHz) CH 122 MCS7

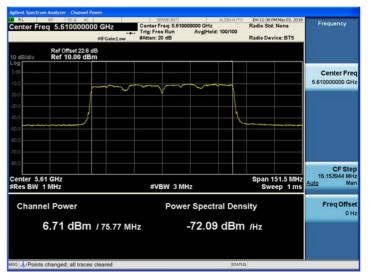


■ TEST Plots Ant.1, 3 for 802.11ac_VHT160

802.11ac_VHT160 Average Power (5530 MHz) CH 106 MCS4



802.11ac_VHT160 Average Power (5610 MHz) CH 122 MCS5



FCC ID: WQTAR4520

■Straddle channels TEST RESULTS_Ant 0

Conducted Output Power Measurements (802.11a/n_HT20/ac_VHT20 Mode: UNII 2C Band 5720MHz)

Mode	Frequency [MHz]	Channel No.	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
802.11a			6.47	0.220	6.69	22.21
802.11n	5720	144	6.25	0.393	6.64	22.12
802.11ac			6.45	0.578	7.03	22.13

Conducted Output Power Measurements (802.11a/n_HT20/ac_VHT20 Mode: UNII 3 Band 5720MHz)

Mode	Frequency [MHz]	Channel No.	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
802.11a			0.57	0.220	0.79	23.60
802.11n	5720	144	0.86	0.393	1.25	23.84
802.11ac			1.12	0.578	1.70	23.84

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Channel Power

6.47 dBm / 15.48 MHz

Report No.: HCT-RF-1805-FC028-R1

FCC ID: WQTAR4520

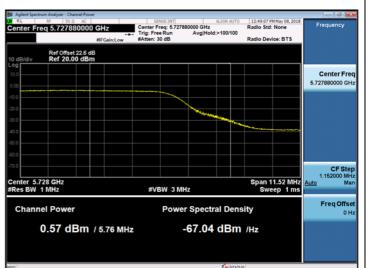
■Straddle channels TEST Plot for 802.11a/n_HT20_Ant 0

802.11a UNII 2C Band Average Power CH.144

Power Spectral Density

-65.43 dBm /Hz

802.11a UNII 3 Band Average Power CH.144



802.11n_HT20 UNII 2C Band Average Power CH.144



802.11n_HT20 UNII 3 Band Average Power CH.144



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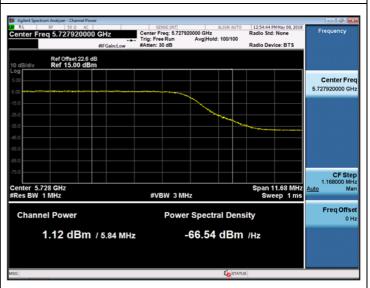


FCC ID: WQTAR4520

■Straddle channels TEST Plot for 802.11ac_VHT20_Ant 0

802.11ac_VHT20 UNII 2C Band Average Power CH.144

802.11ac_VHT20 UNII 3 Band Average Power CH.144



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FCC ID: WQTAR4520

■Straddle channels TEST RESULTS_Ant 1

Conducted Output Power Measurements (802.11a/n_HT20/ac_VHT20 Mode: UNII 2C Band 5720MHz)

Mode	Frequency [MHz]	Channel No.	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
802.11a			5.95	0.388	6.34	22.14
802.11n	5720	144	5.98	0.418	6.40	22.15
802.11ac			6.01	0.578	6.59	22.12

Conducted Output Power Measurements (802.11a/n_HT20/ac_VHT20 Mode: UNII 3 Band 5720MHz)

Mode	Frequency [MHz]	Channel No.	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
802.11a			0.15	0.388	0.54	23.79
802.11n	5720	144	0.64	0.418	1.06	23.78
802.11ac			0.32	0.578	0.90	23.86

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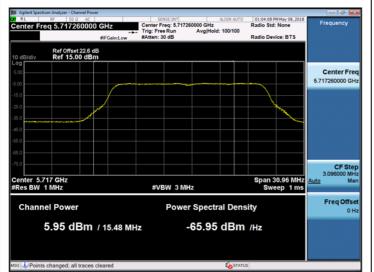


FCC ID: WQTAR4520

■Straddle channels TEST Plot for 802.11a/n_HT20_Ant 1

202 44a UNII 2C Band Average Dower CH 444

802.11a UNII 2C Band Average Power CH.144



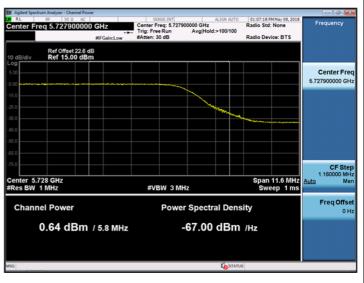
802.11a UNII 3 Band Average Power CH.144



802.11n_HT20 UNII 2C Band Average Power CH.144



802.11n_HT20 UNII 3 Band Average Power CH.144



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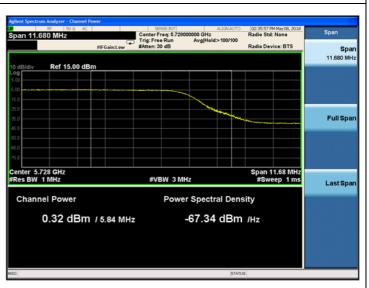
FCC ID: WQTAR4520

■Straddle channels TEST Plot for 802.11ac_VHT20_Ant 1

802.11ac_VHT20 UNII 2C Band Average Power CH.144

| Radio Std: None | Radio Device: BTS | Ref Offset 22.6 dB | Ref 15.00 dBm | Ref 15.00 dBm | Ref 15.00 dBm | Res BW 1 MHz | #VBW 3 MHz | Span 31.52 MHz | Res BW 1 MHz | #VBW 3 MHz | Span 31.52 MHz | Ref Offset 26.01 dBm / 15.76 MHz | Ref Offset 26.00 dBm / 15.76 MHz | Ref Offset 26.00 dBm / 15.76 MHz | Ref Device: BTS | Ref Offset 22.6 dB | Ref 15.00 dBm / 15.76 MHz | Ref Device: BTS | R

802.11ac_VHT20 UNII 3 Band Average Power CH.144



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FCC ID: WQTAR4520

■Straddle channels TEST RESULTS_Ant 2

Conducted Output Power Measurements (802.11a/n_HT20/ac_VHT20 Mode: UNII 2C Band 5720MHz)

Mode	Frequency [MHz]	Channel No.	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
802.11a			6.20	0.358	6.56	22.16
802.11n	5720	144	6.06	0.418	6.48	22.12
802.11ac			6.23	0.502	6.73	22.11

Conducted Output Power Measurements (802.11a/n_HT20/ac_VHT20 Mode: UNII 3 Band 5720MHz)

Mode	Frequency [MHz]	Channel No.	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
802.11a	5720	144	0.51	0.358	0.87	23.74
802.11n			0.72	0.418	1.14	23.84
802.11ac			0.92	0.502	1.42	23.87

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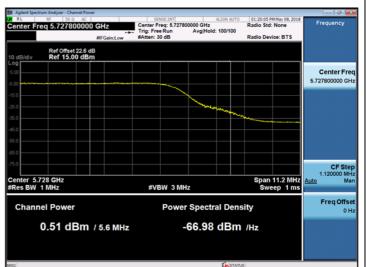
FCC ID: WQTAR4520

■Straddle channels TEST Plot for 802.11a/n_HT20_Ant 2

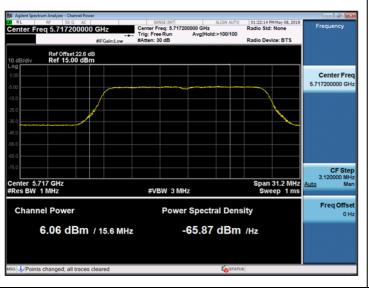
802.11a UNII 2C Band Average Power CH.144

| Aginet Spectrum Analyzer - Channel Power | String | Str

802.11a UNII 3 Band Average Power CH.144



802.11n_HT20 UNII 2C Band Average Power CH.144



802.11n_HT20 UNII 3 Band Average Power CH.144



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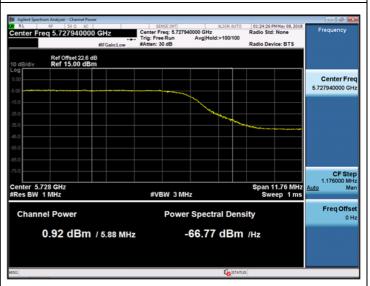
FCC ID: WQTAR4520

■Straddle channels TEST Plot for 802.11ac_VHT20_Ant 2

802.11ac_VHT20 UNII 2C Band Average Power CH.144

| Record | Section | Analysis - Channel Power | Sense in | Automatic | Sense in | S

802.11ac_VHT20 UNII 3 Band Average Power CH.144



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FCC ID: WQTAR4520

■Straddle channels TEST RESULTS_Ant 3

Conducted Output Power Measurements (802.11a/n_HT20/ac_VHT20 Mode: UNII 2C Band 5720MHz)

Mode	Frequency [MHz]	Channel No.	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
802.11a			5.95	0.388	6.34	22.21
802.11n	5720	144	5.72	0.418	6.14	22.12
802.11ac			5.85	0.578	6.43	22.13

Conducted Output Power Measurements (802.11a/n_HT20/ac_VHT20 Mode: UNII 3 Band 5720MHz)

Mode	Frequency [MHz]	Channel No.	Measured Power (dBm)	Duty Cycle Factor (dB)	Measured Power(dBm) + Duty Cycle Factor(dB)	Limit (dBm)
802.11a	5720	144	0.22	0.388	0.61	23.60
802.11n			0.41	0.418	0.83	23.84
802.11ac			0.52	0.578	1.10	23.84

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