

CTK Co., Ltd.

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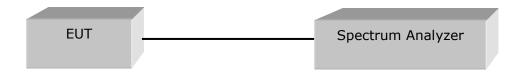
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4.2 Maximum Conducted Output Power

Test Procedures

Maximum Conducted Output Power(KDB 789033, Method SA-1)

The transmitter output is connected to a spectrum analyzer and the analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99% bandwidth.



<u>Test Settings:</u>

Center frequency = the highest, middle and the lowest channels

a) RBW = 1 MHz

b) VBW \geq 3 x RBW

c) Sweep time = auto

d) Detector = power averaging (rms)

e) Trace mode = Average at least 100

Limit

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall **not exceed the lesser of 250 mW or 11 dBm + 10 log B**, where B is the 26 dB emission bandwidth in megahertz.



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Test Data

802.11a

ANT 0

Frequency Band	Channel	Frequency [MHz]	Measurement data [dBm]	Limit [dBm]	Result
	Low	5 260	13.90		
UNII 2A	Middle	5 300	13.82	24	Complies
	High	5 320	13.90		
UNII 2C	Low	5 500	12.86		
	Middle	5 600	12.76		
	High	5 720	12.15		

ANT 1

Frequency Band	Channel	Frequency [MHz]	Measurement data [dBm]	Limit [dBm]	Result
	Low	5 260	11.66		
UNII 2A	Middle	5 300	11.83		Complies
	High	5 320	12.20	24	
	Low	5 500	13.75	24	
UNII 2C	Middle	5 600	13.78		
	High	5 720	13.51		



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802.11n(HT20)

ANT 0 + ANT 1

Frequency Band	Frequency [MHz]	ANT 0 [dBm]	ANT 1 [dBm]	ANT 0 + ANT 1 [dBm]	Limit [dBm]	Result
	5 260	14.06	12.08	16.19	24	
UNII 2A	5 300	13.88	12.14	16.11		Complies
	5 320	13.78	12.41	16.16		
	5 500	13.07	13.85	16.49		
UNII 2C	5 600	12.64	13.80	16.27		
	5 720	11.91	13.51	15.79		

802.11n(HT40)

ANT 0 + ANT 1

Frequency Band	Frequency [MHz]	ANT 0 [dBm]	ANT 1 [dBm]	ANT 0 + ANT 1 [dBm]	Limit [dBm]	Result
LINIT OA	5 270	10.18	8.17	12.30		
UNII 2A	5 310	10.00	8.40	12.28		
UNII 2C	5 510	9.29	10.14	12.75	24	Complies
	5 590	8.90	10.16	12.59	-	
	5 710	7.99	9.89	12.05		



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802.11ac(VHT20)

ANT 0 + ANT 1

Frequency Band	Frequency [MHz]	ANT 0 [dBm]	ANT 1 [dBm]	ANT 0 + ANT 1 [dBm]	Limit [dBm]	Result
	5 260	13.42	11.82	15.70	24	
UNII 2A	5 300	13.28	12.13	15.75		Complies
	5 320	13.39	12.35	15.91		
	5 500	12.67	13.70	16.23		
UNII 2C	5 600	12.24	13.69	16.04		
	5 720	11.55	13.40	15.58		

802.11ac(VHT40)

ANT 0 + ANT 1

Frequency Band	Frequency [MHz]	ANT 0 [dBm]	ANT 1 [dBm]	ANT 0 + ANT 1 [dBm]	Limit [dBm]	Result
LINIT 2A	5 270	12.64	10.97	14.90	24	
UNII 2A	5 310	12.75	10.89	14.93		Complies
UNII 2C	5 510	11.79	12.68	15.27		
	5 590	11.58	12.71	15.19		
	5 710	10.72	12.33	14.61		

802.11ac(VHT80)

ANT 0 + ANT 1

Frequency Band	Frequency [MHz]	ANT 0 [dBm]	ANT 1 [dBm]	ANT 0 + ANT 1 [dBm]	Limit [dBm]	Result
UNII 2A	5 290	9.67	8.18	12.00	24	Complies
	5 530	9.28	9.98	12.65		
UNII 2C	5 690	8.15	9.28	11.76		

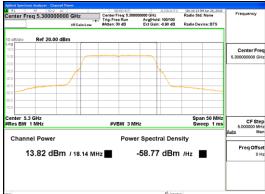
See next pages for actual measured spectrum plots.

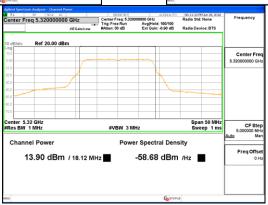


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802.11a_UNII 2A Band

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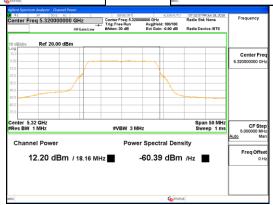




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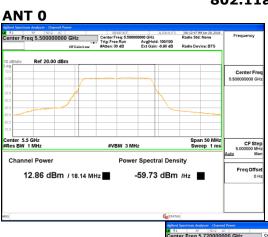


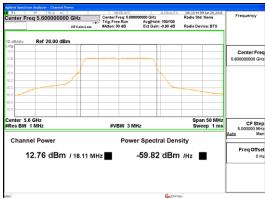


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802.11a_UNII 2C Band

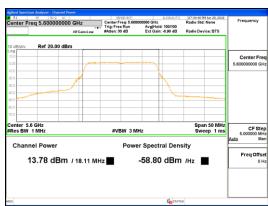


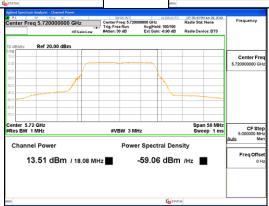




ANT 1









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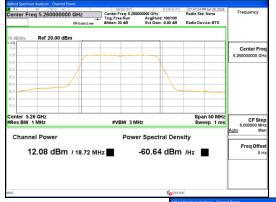
802.11n(HT20)_UNII 2A Band

ANT 0 Center F CF Step 5.000000 MHz Power Spectral Density Freq Offs 14.06 dBm / 18.99 MHz -58.72 dBm /Hz ■

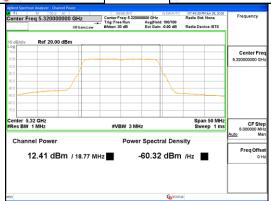




ANT 1









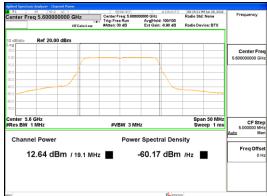
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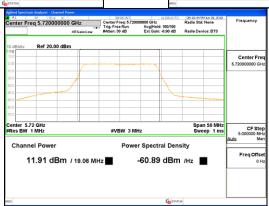
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802.11n(HT20)_UNII 2C Band

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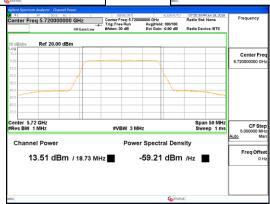




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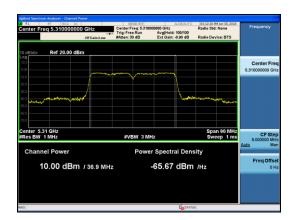
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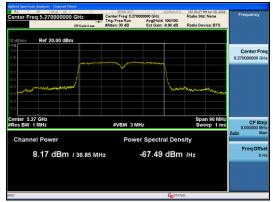
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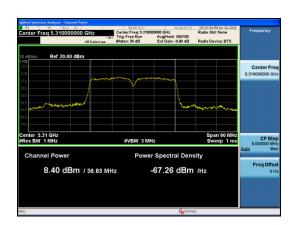
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ANT 1







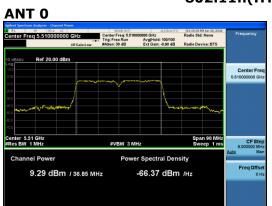
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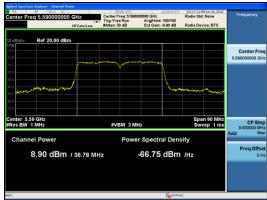
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802.11n(HT40)_UNII 2C Band

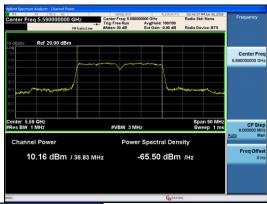


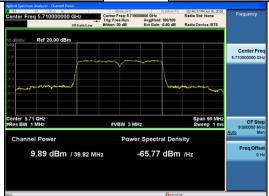




ANT 1









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802.11ac(VHT20)_UNII 2A Band

ANT 0







ANT 1





08:47:52 PM Jun 28, 2 Radio Std: None enter Freq 5.320000000 GHz Ref 20.00 dBm Center Fre Span 50 MHz CF Step 5.000000 MH Channel Power Power Spectral Density Freq Offs 12.35 dBm / 18.83 MHz -60.40 dBm /Hz

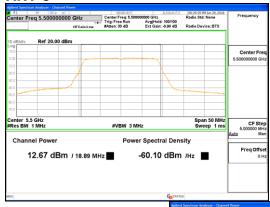


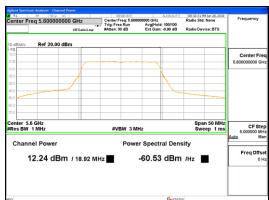
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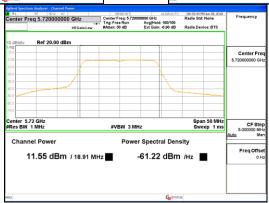
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802.11ac(VHT20)_UNII 2C Band

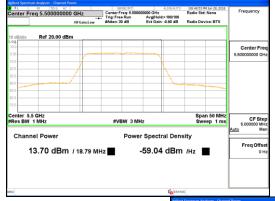
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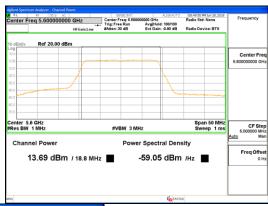


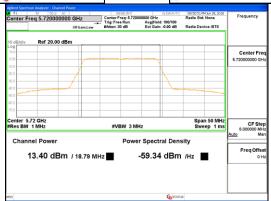




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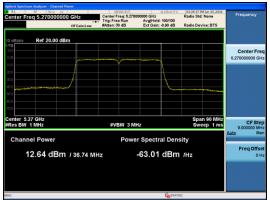


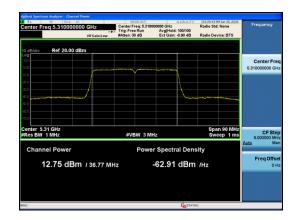
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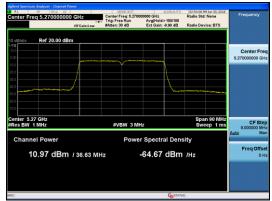
802.11ac(VHT40)_UNII 2A Band

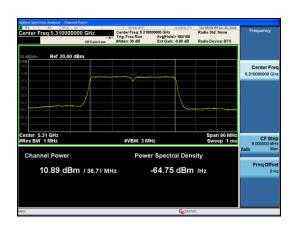
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ANT 1







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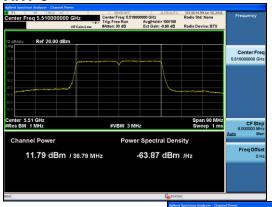
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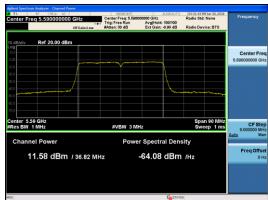
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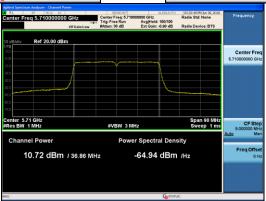
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802.11ac(VHT40)_UNII 2C Band

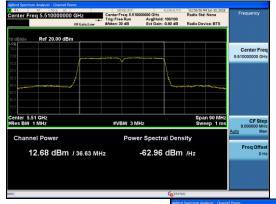
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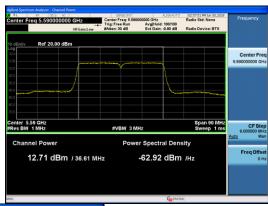


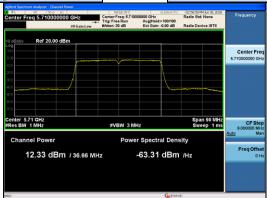




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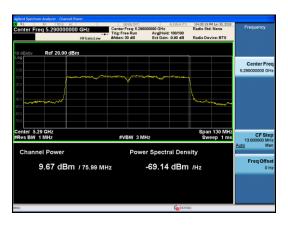


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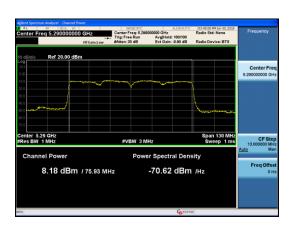
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802.11ac(VHT80)_UNII 2A Band



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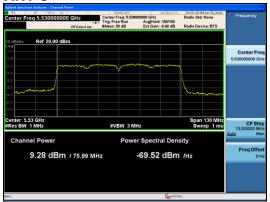


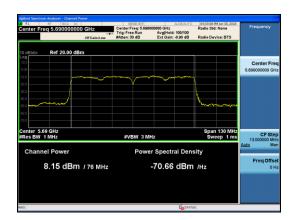
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802.11ac(VHT80)_UNII 2C Band

ANT 0





ANT 1

