

## Anex

Corsair RM550x v2

Lab ID#: 264

Receipt Date: -

Test Date: -

Report:

Report Date: Mar 1, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Channel Well Technology
Series	RMx
Model Number	RM550x v2
Serial Number	17477135000034420109
DUT Notes	CP-9020090

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	47-63
Rated Power (W)	550
Type	ATX12V
Cooling	135mm Rifle Bearing Fan (NR135L)
Semi-Passive Operation	✓
Cable Design	Fully Modular

POWER SPECIFICATIONS						
Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	25	45.8	3	0.8
	Watts	130		550	15	9.6
Total Max. Power (W)		550				

CABLES AND CONNECTORS				
Modular Cables				
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (600mm)	1	1	18-20AWG	Yes
4+4 pin EPS12V (650mm)	1	1	18AWG	Yes
6+2 pin PCIe (600mm+150mm)	1	2	18AWG	Yes
SATA (520mm+110mm+110mm)	2	6	18AWG	No
4 pin Molex (450mm+100mm+100mm+100mm)	1	4	18AWG	No
FDD Adapter (+100mm)	1	1	20AWG	No
AC Power Cord (1430mm) - C13 coupler	1	1	18AWG	-

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PAGE 1/8

## Anex

Corsair RM550x v2

RESULTS	
Temperature Range (°C /°F)	30-32 / 86-89.6
Average Efficiency	87.709
Efficiency With 10W (≤500W) or 2% (>500W) Load -115V	0.000
Average Efficiency 5VSB	77.330
Standby Power Consumption (W) -115V	0.0329445
Standby Power Consumption (W) -230V	0.0482530
Average PF	0.990
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	14.79
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A++

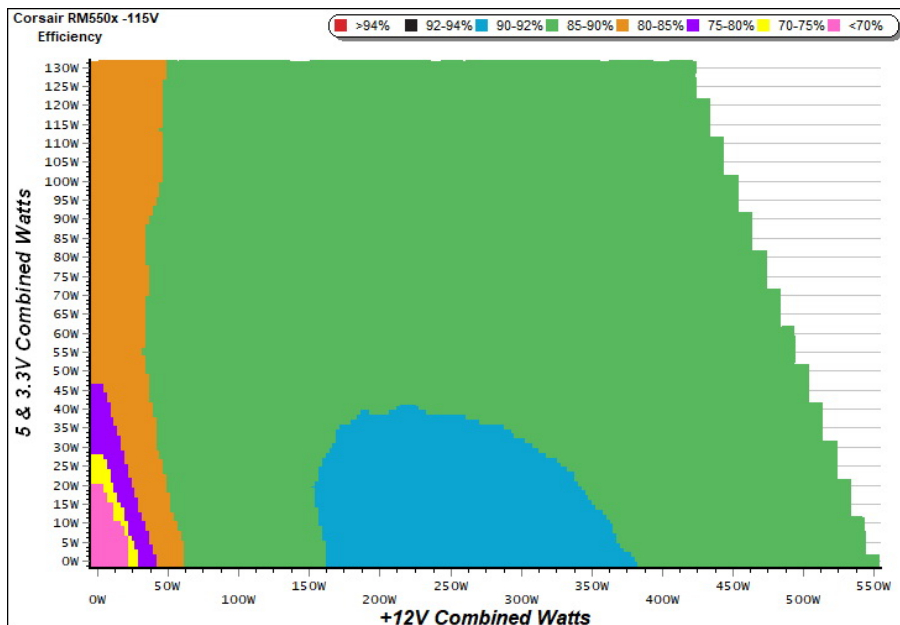
TEST EQUIPMENT		
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley 2015 THD 6.5 Digit	
Sound Analyzer	Bruel & Kjaer 2250-L G4	
Microphone	Bruel & Kjaer Type 4955-A, Bruel & Kjaer Type 4189	
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2	

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PAGE 2/8

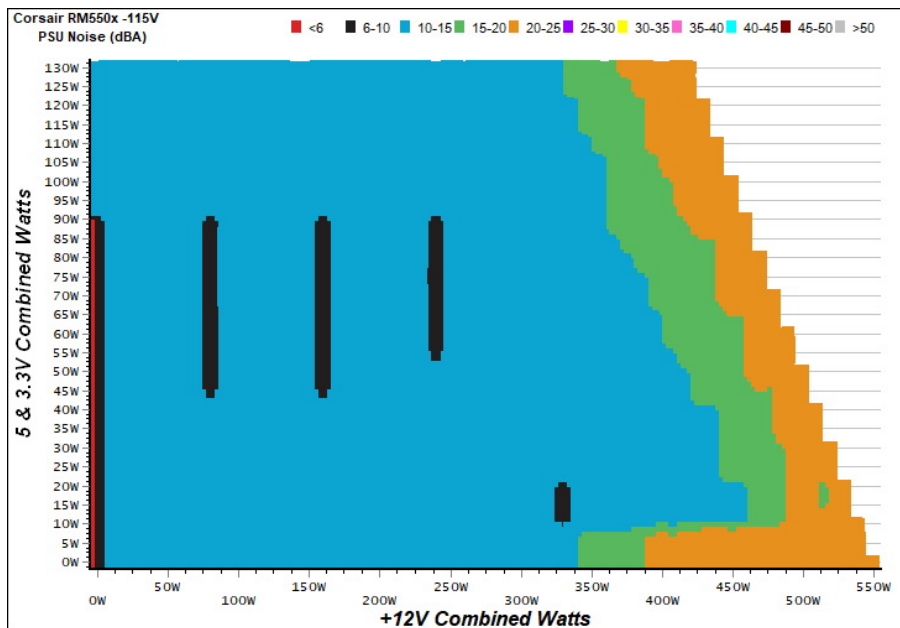
### EFFICIENCY GRAPH



#### INFO

This graph depicts the PSU's efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations

### NOISE GRAPH



#### INFO

The PSU's noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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Anex

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## 5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)

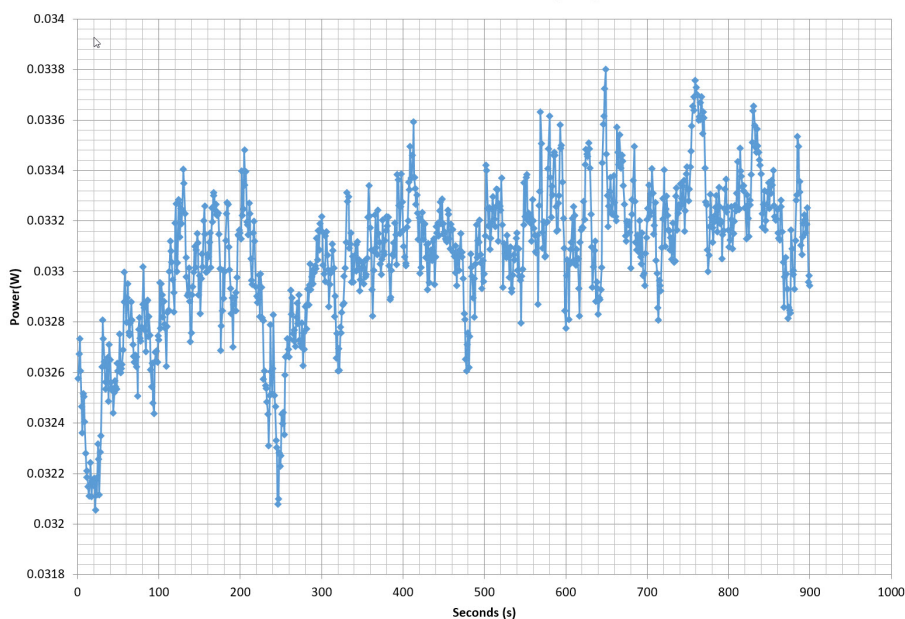
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.210	70.470%	0.035
	5.048V	0.298		115.10V
2	0.087A	0.441	76.166%	0.067
	5.046V	0.579		115.11V
3	0.542A	2.728	79.187%	0.274
	5.032V	3.445		115.10V
4	1.002A	5.029	78.199%	0.356
	5.018V	6.431		115.10V
5	1.502A	7.518	77.697%	0.400
	5.006V	9.676		115.09V
6	3.001A	14.893	76.136%	0.465
	4.963V	19.561		115.08V

## 5VSB EFFICIENCY -230V (ERP LOT 3/6 & CEC)

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.210	66.246%	0.011
	5.048V	0.317		230.27V
2	0.087A	0.441	73.256%	0.021
	5.046V	0.602		230.27V
3	0.542A	2.729	77.749%	0.116
	5.032V	3.510		230.26V
4	1.002A	5.028	78.147%	0.188
	5.018V	6.434		230.27V
5	1.502A	7.516	77.765%	0.245
	5.005V	9.665		230.27V
6	3.001A	14.887	76.896%	0.335
	4.960V	19.360		230.27V

## VAMPIRE POWER -115V

Power - 17477135000034420109 - 02/01/2018 - 14:18



### INFO

This graph is generated by the PPA Standby Power Analysis software which takes full control of the power analyzer during the whole procedure. This application features all of the EN50564 & IEC62301 test limits for standby power software testing

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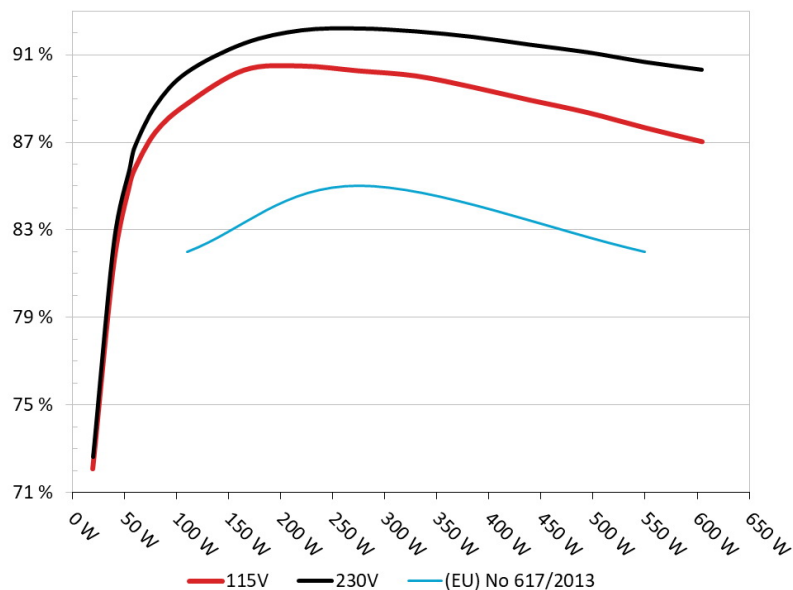
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PAGE 4/8

### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

#### Efficiency: Corsair RM550x

Ambient: 37°C - 47°C (98.6°F - 116.6°F)



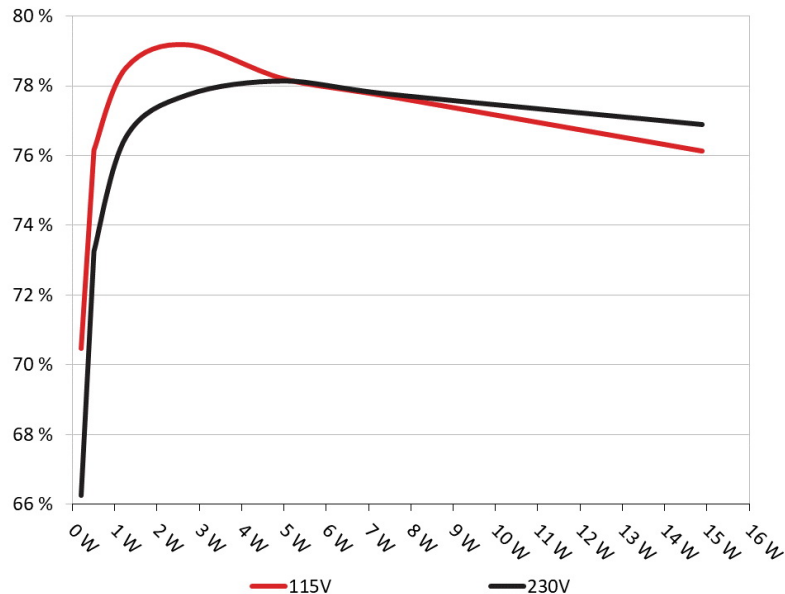
#### INFO

The PSU's efficiency under high ambient temperatures with 115V and 230V input. For this graph the results of the 10-110% load regulation table are used

### 5VSB EFFICIENCY

#### 5VSB Efficiency: Corsair RM550x

Ambient: 34°C - 36°C (93.2°F - 96.8°F)



#### INFO

This graph depicts the efficiency levels of the 5VSB rail with 115V and 230V input

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## Anex

Corsair RM550x v2

### 10-110% LOAD TESTS

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	2.754A	1.984A	1.989A	0.996A	54.832	85.029%	0	<6.0	48.56°C	0.963
	12.079V	5.036V	3.310V	5.012V	64.486				38.08°C	115.04V
2	6.543A	2.971A	2.987A	1.196A	109.813	88.753%	0	<6.0	49.58°C	0.983
	12.072V	5.034V	3.308V	5.007V	123.729				38.52°C	115.04V
3	10.671A	3.477A	3.506A	1.397A	164.914	90.305%	0	<6.0	51.16°C	0.989
	12.074V	5.033V	3.305V	5.001V	182.619				39.34°C	115.04V
4	14.817A	3.975A	3.994A	1.600A	219.831	90.494%	633	10.9	39.46°C	0.991
	12.058V	5.029V	3.302V	4.993V	242.922				51.84°C	115.04V
5	18.616A	4.972A	5.000A	1.800A	274.733	90.273%	633	10.9	39.69°C	0.993
	12.047V	5.026V	3.300V	4.987V	304.337				52.94°C	115.04V
6	22.428A	5.973A	6.003A	2.005A	329.808	90.042%	610	10.2	40.53°C	0.994
	12.039V	5.024V	3.298V	4.983V	366.282				54.91°C	115.06V
7	26.243A	6.972A	7.010A	2.207A	384.806	89.524%	677	13.2	41.27°C	0.993
	12.030V	5.023V	3.295V	4.977V	429.834				55.75°C	115.05V
8	30.055A	7.967A	8.015A	2.410A	439.731	88.931%	811	19.1	42.46°C	0.994
	12.023V	5.021V	3.293V	4.973V	494.465				57.27°C	115.04V
9	34.304A	8.473A	8.537A	2.411A	494.814	88.365%	943	24.5	43.98°C	0.994
	12.016V	5.020V	3.291V	4.972V	559.967				59.03°C	115.06V
10	38.303A	8.973A	9.027A	3.026A	549.687	87.674%	1119	30.0	45.74°C	0.995
	12.009V	5.018V	3.289V	4.954V	626.966				61.64°C	115.07V
11	42.897A	8.978A	9.035A	3.027A	604.662	87.036%	1264	33.9	47.33°C	0.996
	12.004V	5.017V	3.287V	4.951V	694.723				63.71°C	115.06V
CL1	0.100A	16.027A	16.005A	0.005A	134.711	82.609%	677	13.2	44.21°C	0.988
	12.052V	5.031V	3.302V	5.065V	163.070				56.95°C	115.09V
CL2	45.791A	1.003A	1.003A	1.002A	563.891	88.450%	1071	28.0	45.62°C	0.995
	12.023V	5.021V	3.295V	4.996V	637.523				60.93°C	115.05V

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PAGE 6/8

Anex

Corsair RM550x v2

## 20-80W LOAD TESTS

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	PF/AC Volts
1	1.211A	0.490A	0.481A	0.196A	19.675	72.085%	0	<6.0	0.878
	12.079V	5.038V	3.313V	5.033V	27.294				115.03V
2	2.447A	0.989A	0.995A	0.396A	39.823	81.446%	0	<6.0	0.947
	12.078V	5.036V	3.312V	5.027V	48.895				115.03V
3	3.681A	1.476A	1.511A	5.022A	59.878	85.779%	0	<6.0	0.968
	12.076V	5.035V	3.310V	5.022V	69.805				115.04V
4	4.905A	1.984A	1.992A	0.796A	79.801	87.469%	0	<6.0	0.975
	12.075V	5.036V	3.308V	5.017V	91.233				115.04V

## RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	6.8 mV	4.9 mV	6.0 mV	4.0 mV	Pass
20% Load	4.3 mV	5.2 mV	7.2 mV	4.4 mV	Pass
30% Load	9.8 mV	6.0 mV	7.2 mV	4.7 mV	Pass
40% Load	10.1 mV	11.9 mV	11.4 mV	10.3 mV	Pass
50% Load	9.4 mV	10.8 mV	10.2 mV	8.2 mV	Pass
60% Load	8.7 mV	8.7 mV	7.9 mV	6.1 mV	Pass
70% Load	8.7 mV	9.2 mV	8.9 mV	7.9 mV	Pass
80% Load	9.2 mV	9.7 mV	10.3 mV	7.8 mV	Pass
90% Load	9.0 mV	9.7 mV	9.8 mV	7.5 mV	Pass
100% Load	10.2 mV	11.6 mV	11.8 mV	9.2 mV	Pass
110% Load	11.4 mV	11.6 mV	11.6 mV	9.4 mV	Pass
Crossload 1	13.3 mV	11.7 mV	11.5 mV	9.8 mV	Pass
Crossload 2	8.1 mV	7.3 mV	8.2 mV	5.7 mV	Pass

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PAGE 7/8



## Anex



Corsair RM550x v2

### HOLD-UP TIME & POWER OK SIGNAL (230V)

Hold-Up Time (ms)	25.2
AC Loss to PWR_OK Hold Up Time (ms)	22.2
PWR_OK Inactive to DC Loss Delay (ms)	3.0



Top side

MODEL / 型号 / 型號 / 모델 : RPS0107 POWER SUPPLY / 전원 공급 장치					
PART NUMBER: 75-003442					
交流輸入 AC 입력	AC INPUT AC 입력	100V - 240V • 10A • 5A • 47Hz - 63Hz			
直流輸出 DC 출력	DC OUTPUT DC 출력	+3.3V	+5V	+12V	-12V +5Vsb
最大電流 최대 부하	MAX LOAD 최대 부하	25A	25A	45.8A	0.8A 3A
最大瓦特數 최대 결합 와트	MAXIMUM COMBINED WATTAGE 총 전력	130W	550W	9.6W	15W
TOTAL POWER: 550W					
					
 S/N : 17477135000034420109					
Q.C. PASSED					

Power specifications label

## CERTIFICATIONS



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PAGE 8/8