

Anex

Corsair RM550x v2

Lab ID#: 265

Receipt Date: -

Test Date: -

Report:

Report Date: Apr 1, 2018

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

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	90.019
Efficiency With 10W (≤500W) or 2% (>500W) Load -115V	0.000
Average Efficiency 5VSB	76.923
Standby Power Consumption (W) -115V	0.0329445
Standby Power Consumption (W) -230V	0.0482530
Average PF	0.962
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	12.12
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	A++

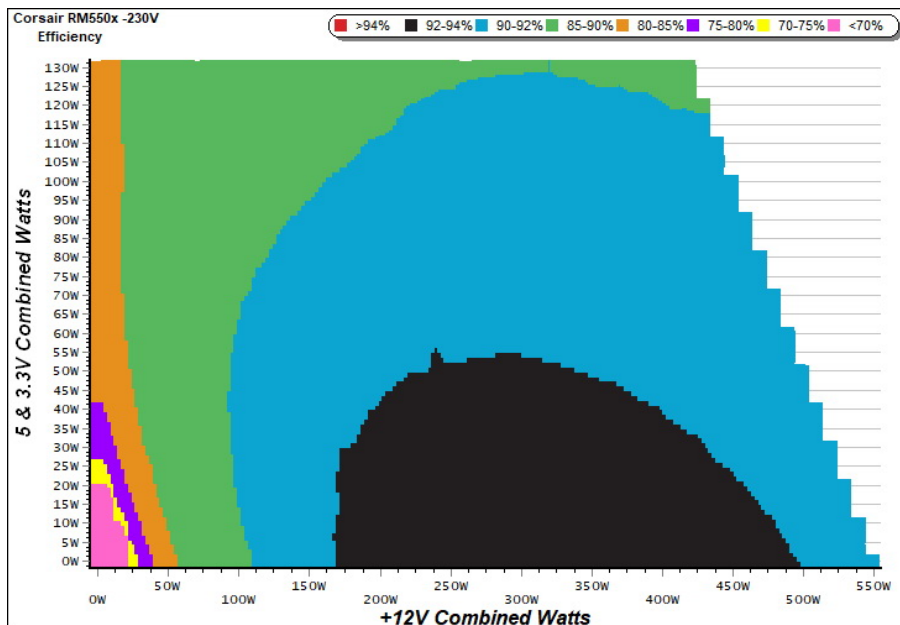
TEST EQUIPMENT		
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley 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

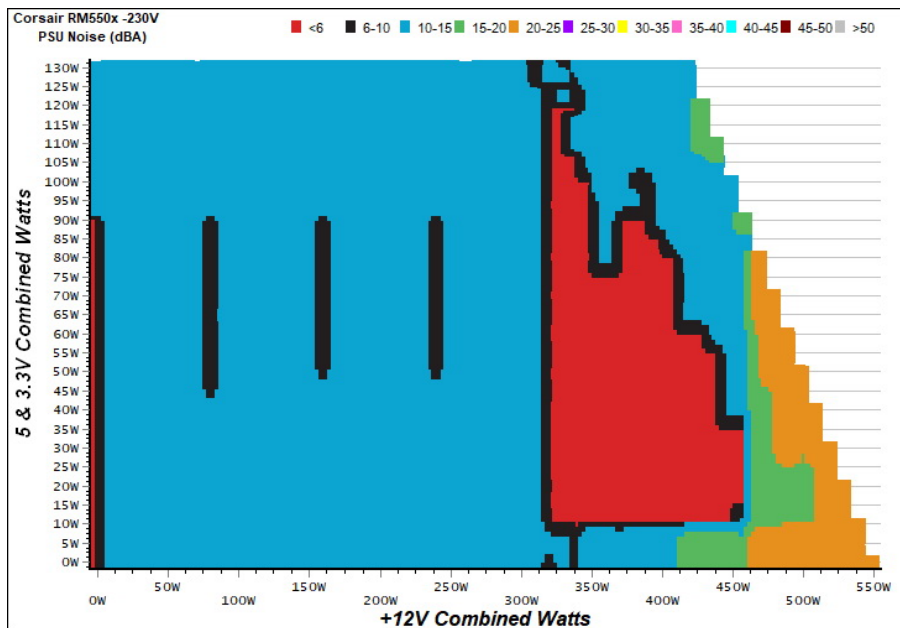
EFFICIENCY GRAPH



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)

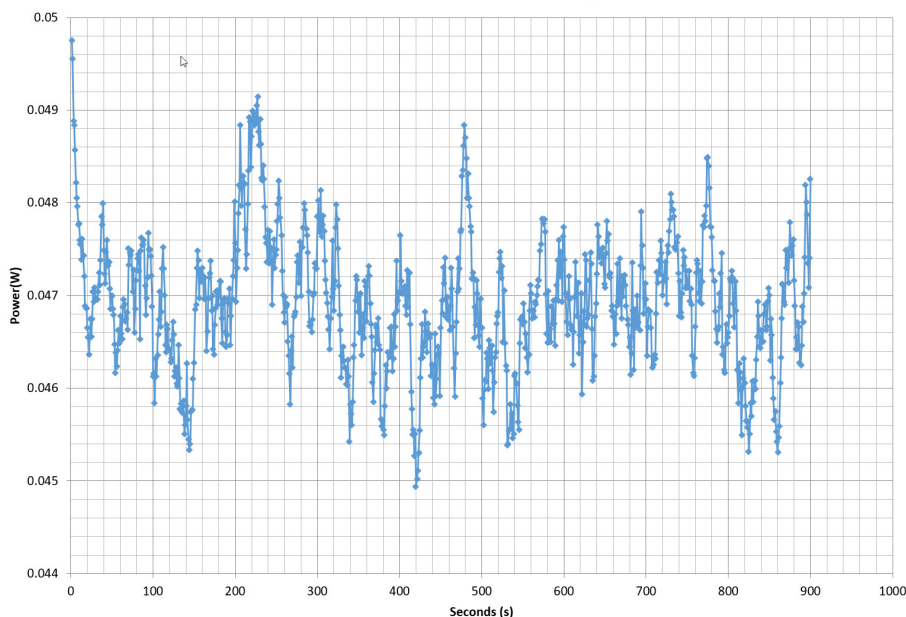
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.210	70.470%	0.035
	5.048V	0.298		115.10V
2	0.087A	0.441	76.166%	0.067
	5.046V	0.579		115.11V
3	0.542A	2.728	79.187%	0.274
	5.032V	3.445		115.10V
4	1.002A	5.029	78.199%	0.356
	5.018V	6.431		115.10V
5	1.502A	7.518	77.697%	0.400
	5.006V	9.676		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 -230V

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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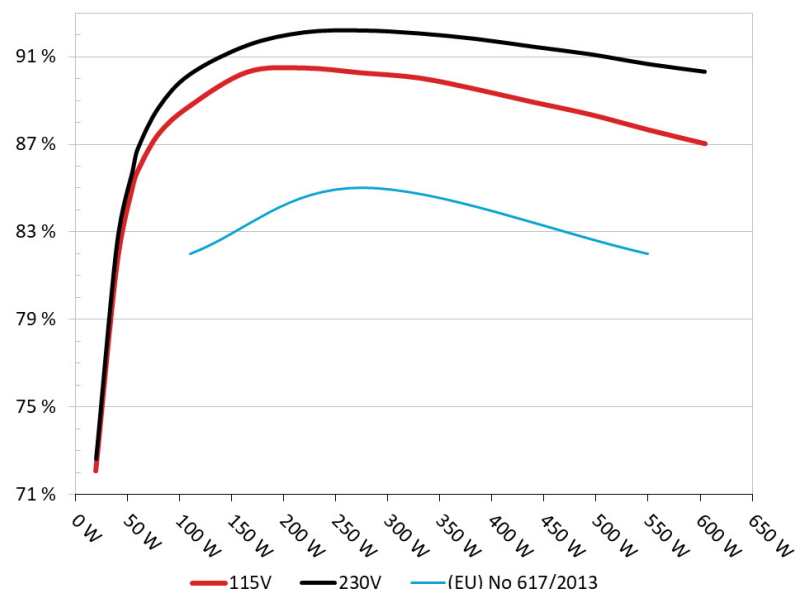
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PAGE 4/8

EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair RM550x

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



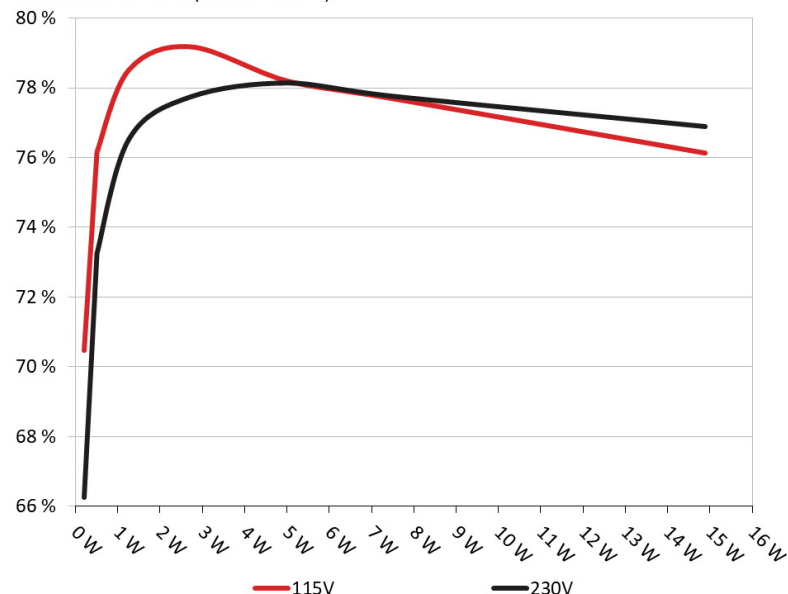
INFO

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	2.751A	1.985A	1.991A	0.996A	54.810	85.807%	0	<6.0	47.89°C	0.804
	12.079V	5.036V	3.310V	5.013V	63.876				38.22°C	230.25V
2	6.536A	2.970A	2.990A	1.196A	109.734	90.197%	0	<6.0	48.43°C	0.918
	12.072V	5.034V	3.308V	5.008V	121.661				38.55°C	230.26V
3	10.676A	3.478A	3.505A	1.399A	164.883	91.522%	633	10.9	39.03°C	0.952
	12.065V	5.031V	3.305V	5.000V	180.157				49.31°C	230.25V
4	14.818A	3.974A	3.994A	1.601A	219.773	92.116%	633	10.9	39.16°C	0.967
	12.053V	5.029V	3.303V	4.993V	238.584				49.70°C	230.25V
5	18.622A	4.975A	4.999A	1.801A	274.768	92.200%	633	10.9	39.86°C	0.975
	12.044V	5.026V	3.300V	4.988V	298.012				50.62°C	230.25V
6	22.431A	5.972A	6.001A	2.006A	329.775	92.067%	610	10.2	40.50°C	0.980
	12.036V	5.025V	3.298V	4.983V	358.192				51.42°C	230.26V
7	26.242A	6.972A	7.007A	2.207A	384.757	91.814%	610	10.2	41.34°C	0.983
	12.029V	5.023V	3.295V	4.977V	419.060				52.74°C	230.26V
8	30.056A	7.966A	8.014A	2.411A	439.681	91.458%	785	18.1	42.30°C	0.986
	12.021V	5.021V	3.293V	4.973V	480.748				53.98°C	230.26V
9	34.307A	8.475A	8.534A	2.410A	494.777	91.113%	930	24.3	43.98°C	0.987
	12.014V	5.020V	3.291V	4.972V	543.038				55.88°C	230.25V
10	38.304A	8.975A	9.028A	3.026A	549.649	90.671%	1071	28.0	45.30°C	0.988
	12.007V	5.019V	3.289V	4.955V	606.202				57.38°C	230.27V
11	42.902A	8.977A	9.031A	3.025A	604.614	90.316%	1236	33.2	46.59°C	0.989
	12.002V	5.017V	3.287V	4.953V	669.446				58.81°C	230.31V
CL1	0.099A	16.028A	16.006A	0.005A	134.691	84.135%	633	10.9	43.96°C	0.943
	12.048V	5.030V	3.302V	5.063V	160.089				51.83°C	230.28V
CL2	45.785A	1.003A	1.001A	1.002A	563.722	91.486%	1049	27.0	44.71°C	0.988
	12.021V	5.021V	3.295V	4.996V	616.184				54.70°C	230.27V

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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	1.208A	0.491A	0.482A	0.196A	19.649	72.632%	0	<6.0	0.535
	12.080V	5.039V	3.313V	5.033V	27.053				230.25V
2	2.443A	0.991A	0.996A	0.396A	39.789	82.475%	0	<6.0	0.727
	12.079V	5.036V	3.312V	5.028V	48.244				230.25V
3	3.680A	1.476A	1.509A	5.023A	59.864	86.817%	0	<6.0	0.821
	12.077V	5.036V	3.310V	5.023V	68.954				230.25V
4	4.903A	1.984A	1.991A	0.796A	79.778	88.684%	0	<6.0	0.873
	12.075V	5.036V	3.309V	5.018V	89.958				230.25V

RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	7.0 mV	4.6 mV	6.3 mV	3.7 mV	Pass
20% Load	4.4 mV	5.1 mV	6.0 mV	3.7 mV	Pass
30% Load	10.0 mV	6.1 mV	6.7 mV	5.2 mV	Pass
40% Load	9.6 mV	12.5 mV	9.9 mV	11.0 mV	Pass
50% Load	9.8 mV	10.7 mV	9.0 mV	8.5 mV	Pass
60% Load	8.6 mV	7.6 mV	7.0 mV	6.3 mV	Pass
70% Load	8.9 mV	9.0 mV	7.9 mV	7.8 mV	Pass
80% Load	9.6 mV	9.4 mV	9.1 mV	8.2 mV	Pass
90% Load	9.4 mV	9.1 mV	9.2 mV	7.3 mV	Pass
100% Load	10.9 mV	12.3 mV	10.8 mV	10.0 mV	Pass
110% Load	11.5 mV	10.9 mV	11.1 mV	8.4 mV	Pass
Crossload 1	15.0 mV	14.4 mV	12.7 mV	12.3 mV	Pass
Crossload 2	8.5 mV	7.3 mV	7.6 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

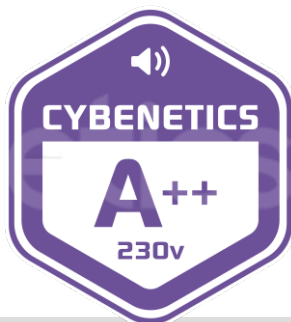


Top side

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			
<div>FC</div> <div> <small>UL</small></div> <div> <small>UL</small></div> <div><div>Type Approved Safety Regular Production Certification UL Recognized UL-195000001</div></div> <div> <small>S&E</small></div> <div></div> <div></div>					
<div> S/N : 17477135000034420109</div> <div>Q.C. PASSED</div>					

Power specifications label

CERTIFICATIONS



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PAGE 8/8