

Anex

Corsair RM550x v2 (Sample #2)

Lab ID#: 273

Receipt Date: -

Test Date: -

Report:

Report Date: Jan 13, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Channel Well Technology
Series	RMx
Model Number	RM550x v2 (Sample #2)
Serial Number	17477135000034420112
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

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RESULTS	
Temperature Range (°C /°F)	30-32 / 86-89.6
Average Efficiency	87.809
Efficiency With 10W (≤500W) or 2% (>500W) Load -115V	0.000
Average Efficiency 5VSB	77.323
Standby Power Consumption (W) -115V	0.0321342
Standby Power Consumption (W) -230V	0.0463447
Average PF	0.990
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	13.96
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A++

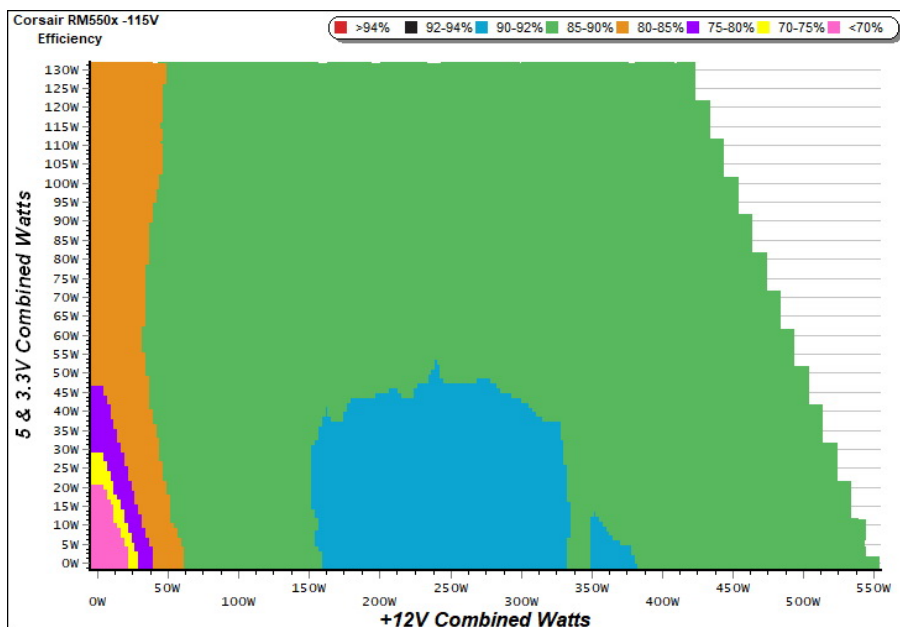
TEST EQUIPMENT		
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley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

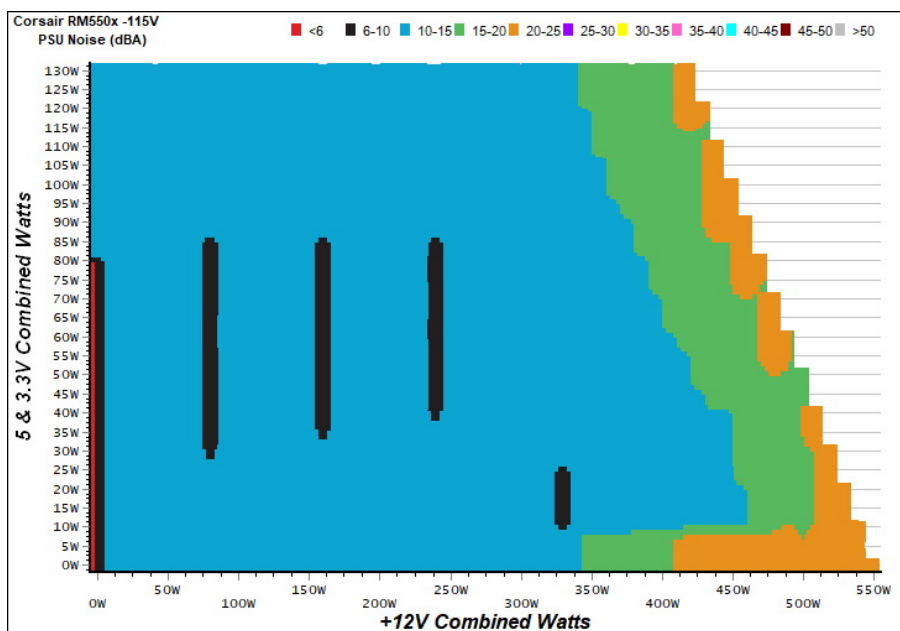
EFFICIENCY GRAPH



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)

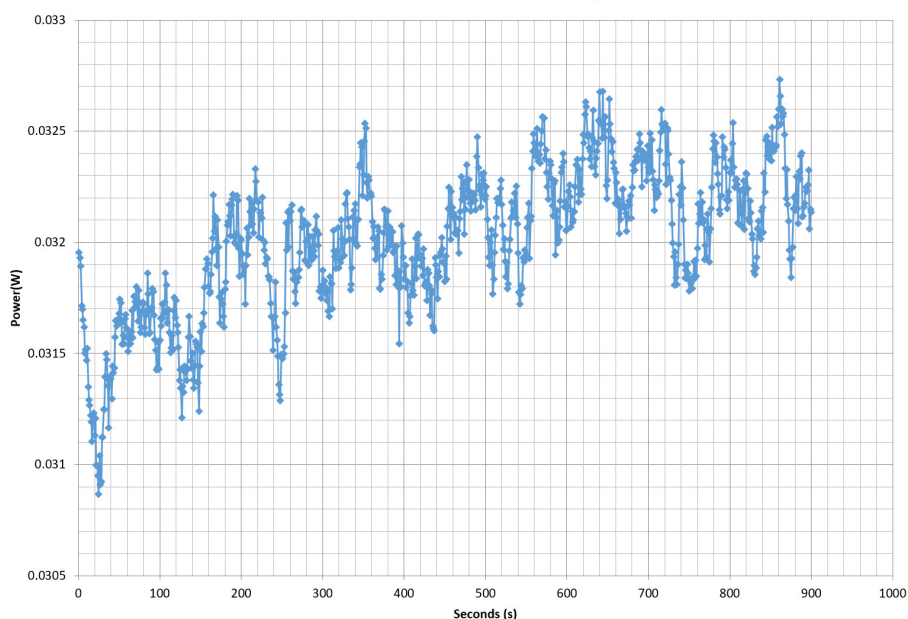
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.211	70.805%	0.035
	5.049V	0.298		115.04V
2	0.087A	0.441	75.904%	0.067
	5.049V	0.581		115.04V
3	0.542A	2.731	78.635%	0.279
	5.035V	3.473		115.03V
4	1.002A	5.033	77.718%	0.367
	5.022V	6.476		115.03V
5	1.502A	7.521	77.226%	0.412
	5.008V	9.739		115.03V
6	3.002A	14.910	75.689%	0.473
	4.967V	19.699		115.03V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.211	66.772%	0.011
	5.049V	0.316		230.16V
2	0.088A	0.442	73.179%	0.021
	5.048V	0.604		230.15V
3	0.542A	2.731	77.651%	0.115
	5.035V	3.517		230.15V
4	1.002A	5.033	77.934%	0.189
	5.021V	6.458		230.15V
5	1.502A	7.522	77.562%	0.247
	5.008V	9.698		230.15V
6	3.002A	14.902	76.775%	0.341
	4.964V	19.410		230.15V

VAMPIRE POWER -115V

Power - 17477135000034420112 - 12/01/2018 - 09:31



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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PAGE 4/8

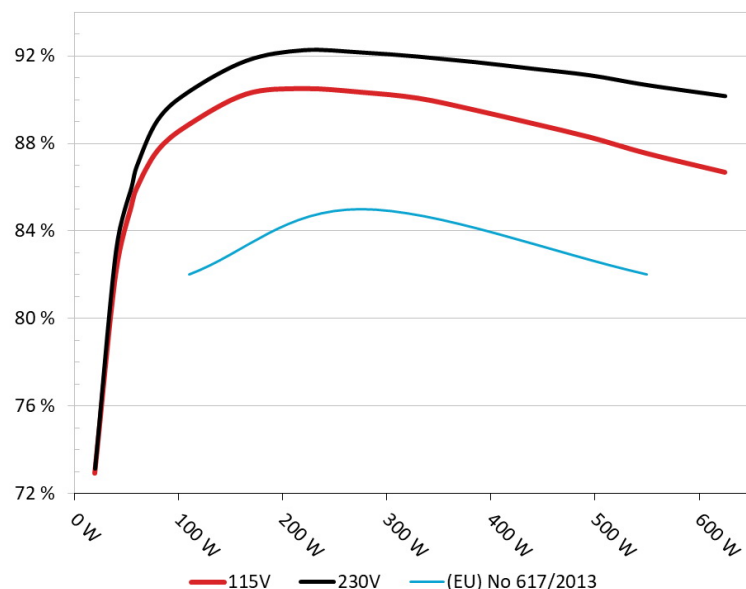
Anex

Corsair RM550x v2 (Sample #2)

EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair RM550x

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



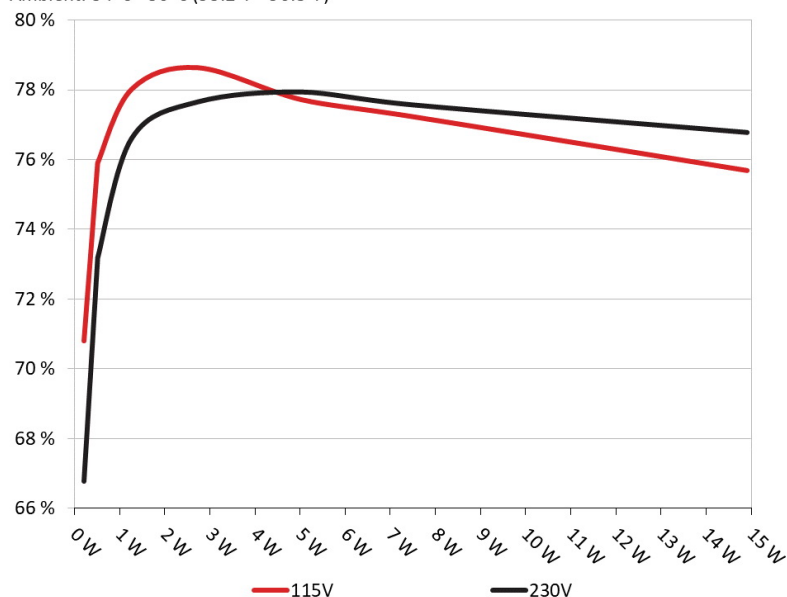
INFO

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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PAGE 5/8

Anex

Corsair RM550x v2 (Sample #2)

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	2.728A	1.982A	1.990A	0.996A	54.799	85.134%	0	<6.0	47.44°C	0.961
	12.177V	5.038V	3.316V	5.016V	64.368				39.15°C	115.07V
2	6.482A	2.969A	2.982A	1.196A	109.751	88.844%	0	<6.0	48.46°C	0.983
	12.176V	5.036V	3.314V	5.010V	123.532				39.91°C	115.07V
3	10.587A	3.475A	3.499A	1.396A	164.895	90.243%	0	<6.0	49.49°C	0.989
	12.168V	5.035V	3.312V	5.005V	182.724				40.66°C	115.07V
4	14.699A	3.972A	3.985A	1.600A	219.831	90.495%	610	10.2	40.38°C	0.992
	12.155V	5.032V	3.308V	4.997V	242.921				49.46°C	115.07V
5	18.472A	4.971A	4.989A	1.801A	274.787	90.334%	610	10.2	40.91°C	0.994
	12.143V	5.028V	3.307V	4.991V	304.190				50.24°C	115.07V
6	22.252A	5.969A	5.992A	2.005A	329.772	90.059%	610	10.2	41.44°C	0.994
	12.133V	5.025V	3.304V	4.986V	366.175				50.96°C	115.06V
7	26.039A	6.969A	6.994A	2.206A	384.770	89.514%	591	9.7	42.61°C	0.993
	12.123V	5.024V	3.302V	4.983V	429.845				52.44°C	115.06V
8	29.827A	7.964A	7.999A	2.410A	439.711	88.908%	785	18.1	44.12°C	0.994
	12.114V	5.023V	3.299V	4.977V	494.569				54.30°C	115.05V
9	34.056A	8.471A	8.519A	2.410A	494.837	88.278%	872	22.2	45.06°C	0.995
	12.104V	5.021V	3.298V	4.977V	560.543				55.57°C	115.04V
10	38.039A	8.969A	9.013A	3.021A	549.680	87.535%	1064	27.5	45.98°C	0.995
	12.092V	5.020V	3.295V	4.962V	627.956				56.74°C	115.05V
11	44.270A	8.972A	9.019A	3.021A	624.616	86.675%	1236	33.2	47.40°C	0.996
	12.083V	5.018V	3.293V	4.959V	720.640				58.86°C	115.04V
CL1	0.100A	16.028A	16.003A	0.004A	134.810	82.500%	610	10.2	44.19°C	0.989
	12.150V	5.031V	3.308V	5.070V	163.407				49.07°C	115.09V
CL2	45.786A	1.001A	1.005A	1.002A	567.597	88.179%	1071	28.0	46.42°C	0.995
	12.105V	5.024V	3.301V	5.001V	643.689				54.71°C	115.05V

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PAGE 6/8

Anex

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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	1.202A	0.492A	0.479A	0.196A	19.696	72.935%	0	<6.0	0.867
	12.181V	5.038V	3.318V	5.033V	27.005				115.06V
2	2.423A	0.987A	0.996A	0.396A	39.774	82.034%	0	<6.0	0.942
	12.178V	5.038V	3.316V	5.029V	48.485				115.06V
3	3.651A	1.476A	1.505A	5.025A	59.869	85.943%	0	<6.0	0.966
	12.175V	5.036V	3.316V	5.025V	69.661				115.06V
4	4.867A	1.983A	1.989A	0.796A	79.822	87.655%	0	<6.0	0.975
	12.173V	5.036V	3.315V	5.020V	91.064				115.06V

RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	3.5 mV	5.5 mV	8.0 mV	5.5 mV	Pass
20% Load	8.1 mV	4.4 mV	9.2 mV	4.1 mV	Pass
30% Load	8.4 mV	4.6 mV	8.3 mV	4.4 mV	Pass
40% Load	9.5 mV	13.8 mV	12.1 mV	13.1 mV	Pass
50% Load	8.1 mV	8.6 mV	10.1 mV	7.9 mV	Pass
60% Load	8.3 mV	6.7 mV	10.1 mV	6.1 mV	Pass
70% Load	8.4 mV	7.0 mV	10.2 mV	6.8 mV	Pass
80% Load	8.7 mV	9.0 mV	10.1 mV	8.7 mV	Pass
90% Load	9.2 mV	10.8 mV	9.7 mV	10.7 mV	Pass
100% Load	9.5 mV	9.5 mV	10.5 mV	9.1 mV	Pass
110% Load	10.5 mV	10.7 mV	11.1 mV	10.0 mV	Pass
Crossload 1	11.6 mV	6.7 mV	10.0 mV	6.3 mV	Pass
Crossload 2	7.5 mV	6.3 mV	9.6 mV	6.6 mV	Pass

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PAGE 7/8

Anex







Corsair RM550x v2 (Sample #2)

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

Hold-Up Time (ms)	21.9
AC Loss to PWR_OK Hold Up Time (ms)	20.0
PWR_OK Inactive to DC Loss Delay (ms)	1.90

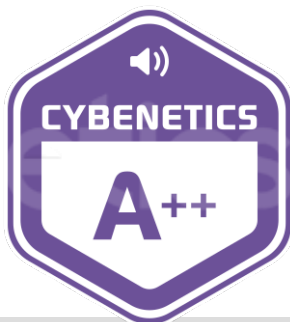


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MODEL / 型号 / 型號 / 모델 : RPS0107 POWER SUPPLY / 전원 공급 장치						
PART NUMBER: 75-003442						
交流輸入 AC 입력	100V - 240V • 10A - 5A • 47Hz - 63Hz					
直流輸出 DC 출력	+3.3V	+5V	+12V	-12V	+5Vsb	
最大電流 MAX LOAD	25A	25A	45.8A	0.8A	3A	
最大瓦特數 MAXIMUM COMBINED WATTAGE	130W		550W	9.6W	15W	
總功率 總功率 총 전력			TOTAL POWER: 550W			
<div>FC</div> <div> C 101 mark</div> <div> TUV Rheinland CERTIFIED</div> <div><div>Type Approved Safety Regulator Production Software www.ti.com TEL: 123456789</div><div> S&E</div><div></div><div></div></div>						
<div> S/N : 17477135000034420112</div> <div>Q.C. PASSED</div>						

Power specifications label

CERTIFICATIONS



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PAGE 8/8