Corsair CX550

16527135000017690613

Lab ID 184

Certification ID 25184

Test Result Report ID:

Certificate Issue Date: Sep 29, 2018

Scheme: ETA-EMI PSU

115V



230V



Scheme: LAMBDA PSU

115V



230V





Aristeidis Bitziopoulos, Certification Body General Manager

General Information

Test Equipment

Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 Chroma 63640-80-80 x10 Chroma 63610-80-20
AC Sources	Chroma 6530, APM SP300VAC4000W-P, GW Instek ASR-3500
Power Analyzers	Rohde & Schwarz HMC8015 & NPA701
Oscilloscopes	Picoscope 4444, Siglent SDS2104X PLUS
Sound Analyzer	Bruel & Kjaer 2270 G4
Microphone	Bruel & Kjaer Type 4955-A
Temperature Logger	Picoscope TC-08
Tachometer	UNI-T UT372
Multimeters	Keysight 34465A
EMI Analyzer	TekBox TBMR-110M-EU
Isolation Transformer	4kVA
UPS	FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA
Testing Methodology	Cybenetics PSU Test Protocol

DUT Information(Non-accredited measurements)

Product Identification Details	
Brand	Corsair
Model	CX550
OEM/ODM	Great Wall
Serial Number	16527135000017690613
Product Specifications	
Manufacturer-Provided Information	
□□□□ (Vrms)	100-240
□□□□ (Arms)	10-5
□□□□ (Hz)	47-63

□□□□ (W)	550
Operating Temperature (Continuous Full Load) (°C)	
□□	ATX12V
□□□□	Fixed cables
Warranty	-
Cybenetics Measurements	
Dimensions (W x H x D)	
Weight	
□□	120mm Fluid Dynamic Bearing Fan (HA1225M12F-Z)
□□□□□	✗
Cybenetics Testing Information	
Lab ID	184
Date of receipt	Sep 20, 2018
Testing Date	Sep 27, 2018
Report Issued Date	Sep 29, 2018
Engineer Name	-
Authorized By the Laboratory Technical Manager	Aristeidis Bitziopoulos
Signature	

□□□□ (Non-accredited measurements)

□□□□			
□□	□□□□	□□□□□□	Gauge
ATX □□ 20+4 pin (600mm)	1	1	18-20AWG
4+4 pin EPS 12V □□ (650mm)	1	1	18AWG
6+2pin PCIe□□ (580mm)	2	2	18AWG
SATA□□ (400mm+120mm+120mm)	1	3	18AWG
SATA□□ (400mm+120mm)	1	2	18AWG
□ 4pin Molex□□ (400mm+120mm+120mm+120mm)	1	4	18AWG

□□□□

□		3.3V	5V	12V	5VSB	-12V
□□□□	□□	25	20	45.8	3	0.8
	□	120		549.6	15	9.6
□□□□□ (W)		550				

Test Results

Temperature & Compliance Info

□□□□ (°C /°F)	28-32 / 82.4-89.6
□□ ErP Lot3/6□□	✓
□□ (EU) No 617/2013□□	✓

Performance Summary

115V

Accredited	
□□□□ (>1450 load combinations)	85.720%
Average Noise Output (>1450 Load Combinations)	23.69dBA
PF□□□ (>1450 Load Combinations)	0.996
Efficiency With 10W (≤500W) or 2% (>500W) Load	-
□□□□□□	0.0554W
Non-Accredited	
12V Ripple (Full Load)	32.34mV
5V Ripple (Full Load)	11.40mV
3.3V Ripple (Full Load)	11.53mV
5VSB Ripple (Full Load)	19.87mV
12V Load Regulation	0.54%
5V Load Regulation	0.36%
3.3V Load Regulation	0.45%

5VSB Load Regulation	1.98%
Inrush Current	34.858A

230V

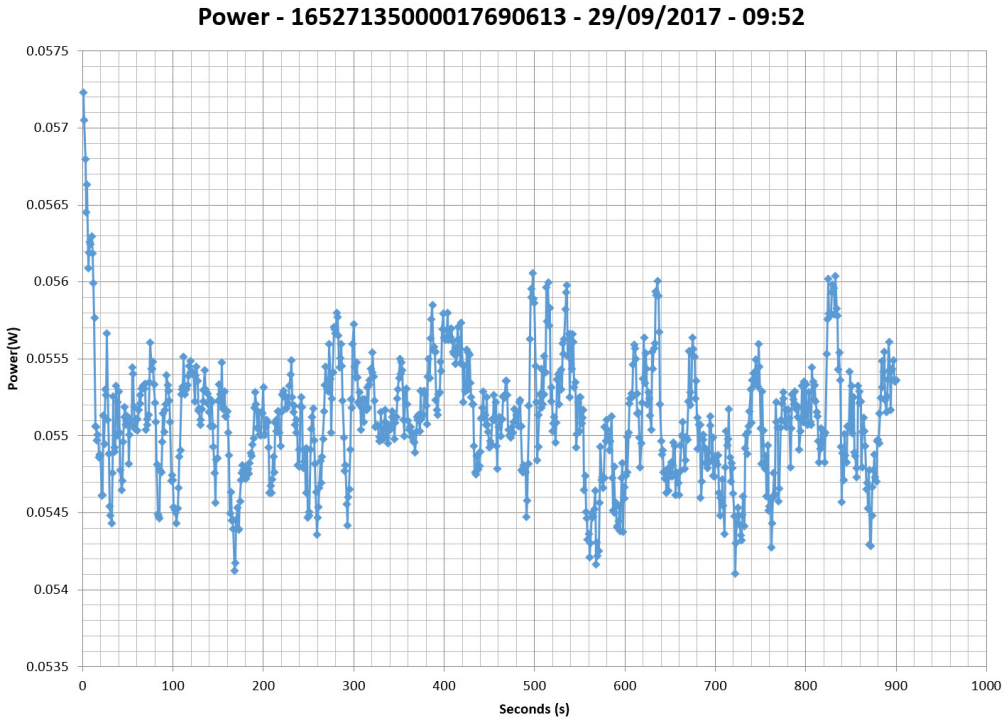
Accredited	
□□□□ (>1450 load combinations)	88.024%
Average Noise Output (>1450 Load Combinations)	25.42dBA
PF□□□ (>1450 Load Combinations)	0.975
Efficiency With 10W (≤500W) or 2% (>500W) Load	-
□□□□□□	0.0703W
Non-Accredited	
12V Ripple (Full Load)	33.03mV
5V Ripple (Full Load)	18.05mV
3.3V Ripple (Full Load)	13.11mV
5VSB Ripple (Full Load)	17.23mV
12V Load Regulation	0.45%
5V Load Regulation	0.38%
3.3V Load Regulation	0.66%
5VSB Load Regulation	1.83%
Inrush Current	40.550A
□□□□ & PG□□	11.93ms
AC Loss to PWR_OK Hold Up Time	9.90ms
PWR_OK Inactive to DC Loss Delay	2.03ms
OPP (0.00°C / 0.00°C)	- -

□□□□ & PG□□

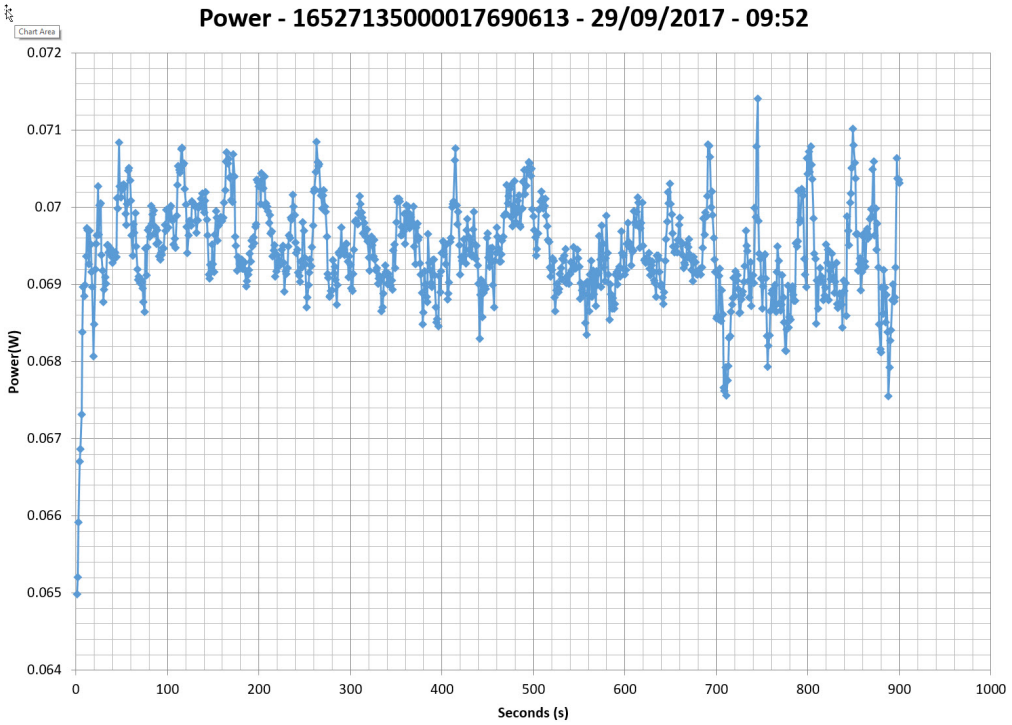
Hold-Up Time (ms)	11.93
AC Loss to PWR_OK Hold Up Time (ms)	9.90
PWR_OK Inactive to DC Loss Delay (ms)	2.03

Graphs

115V



230V



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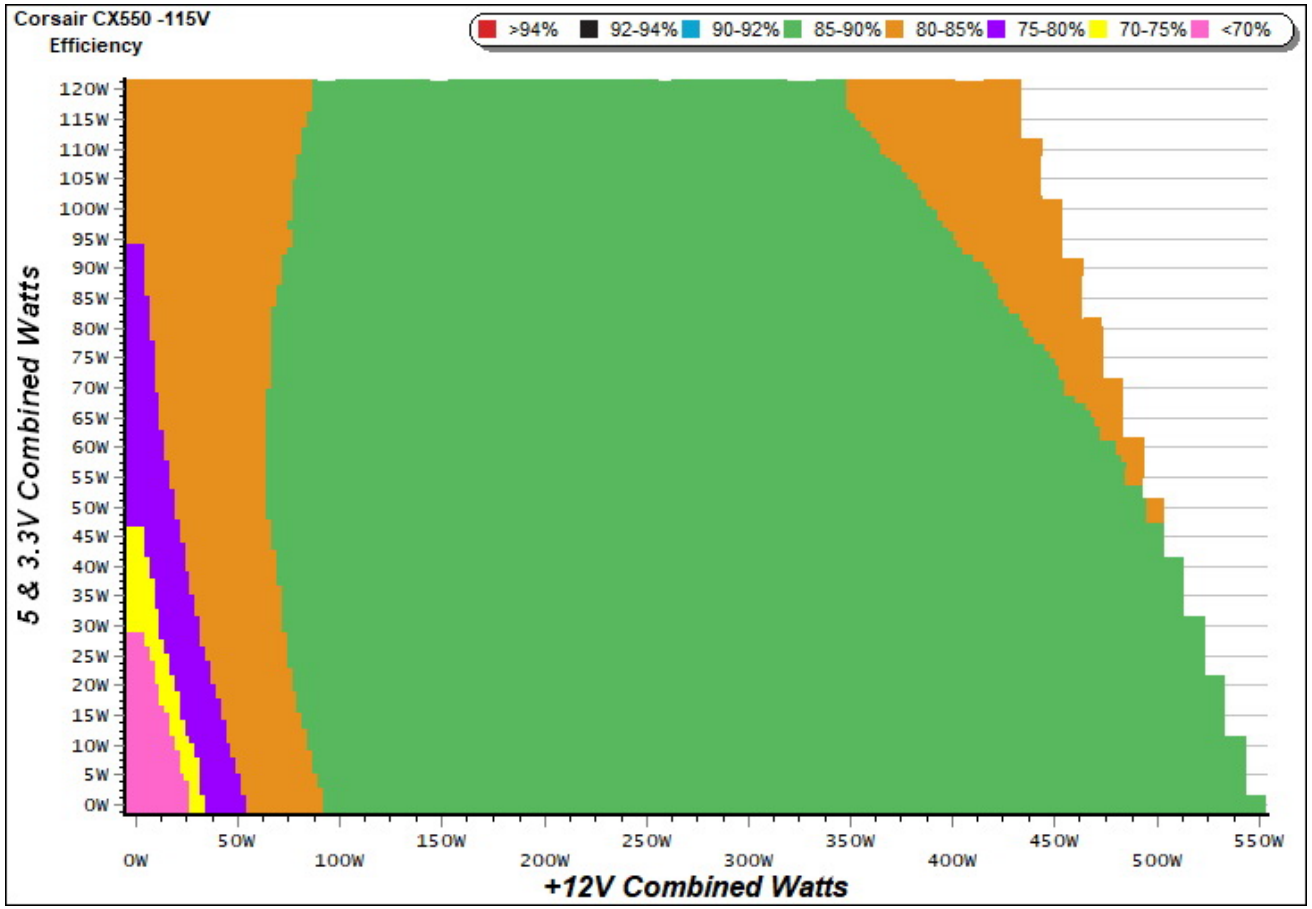
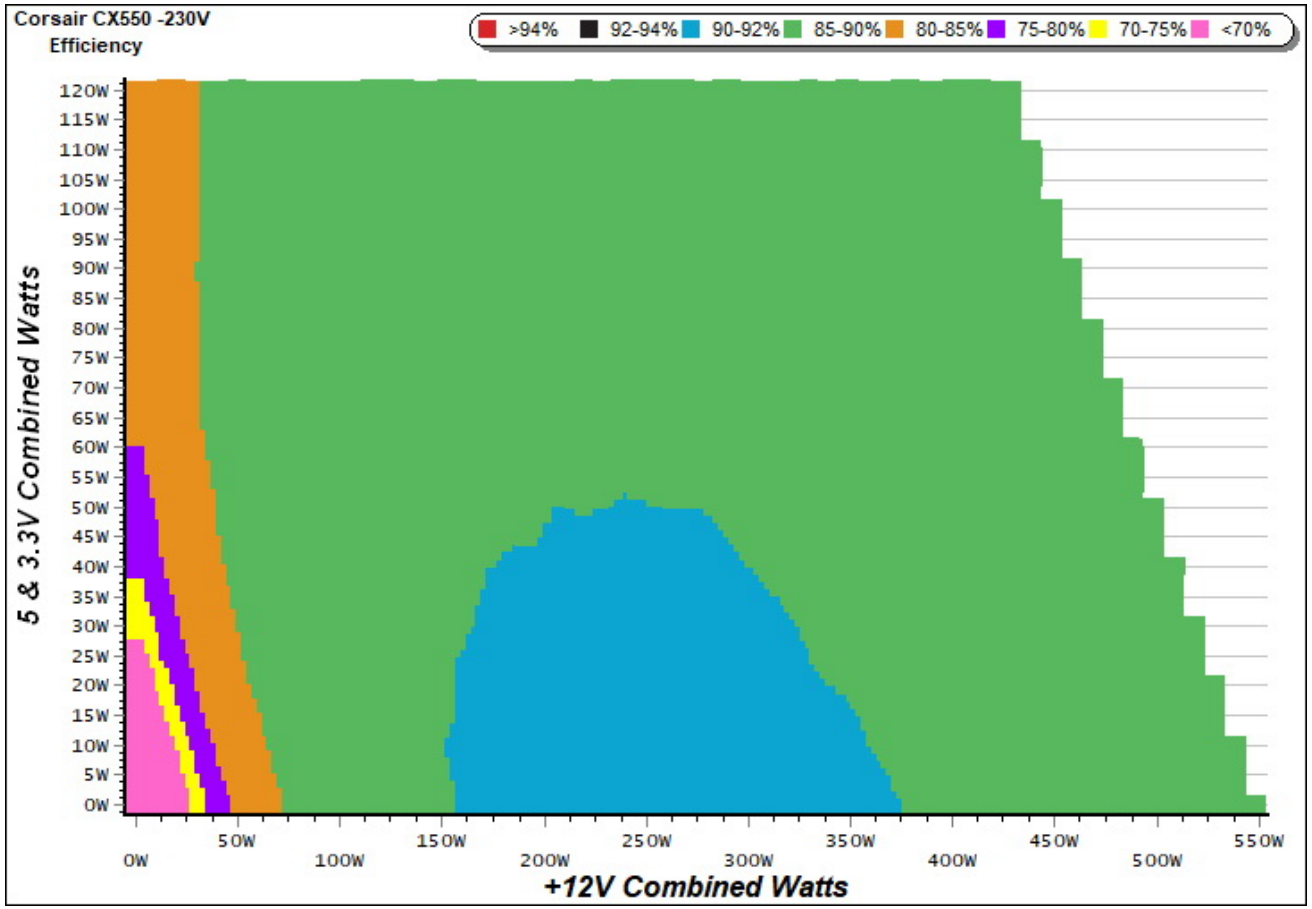
115V



□□

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.

230V



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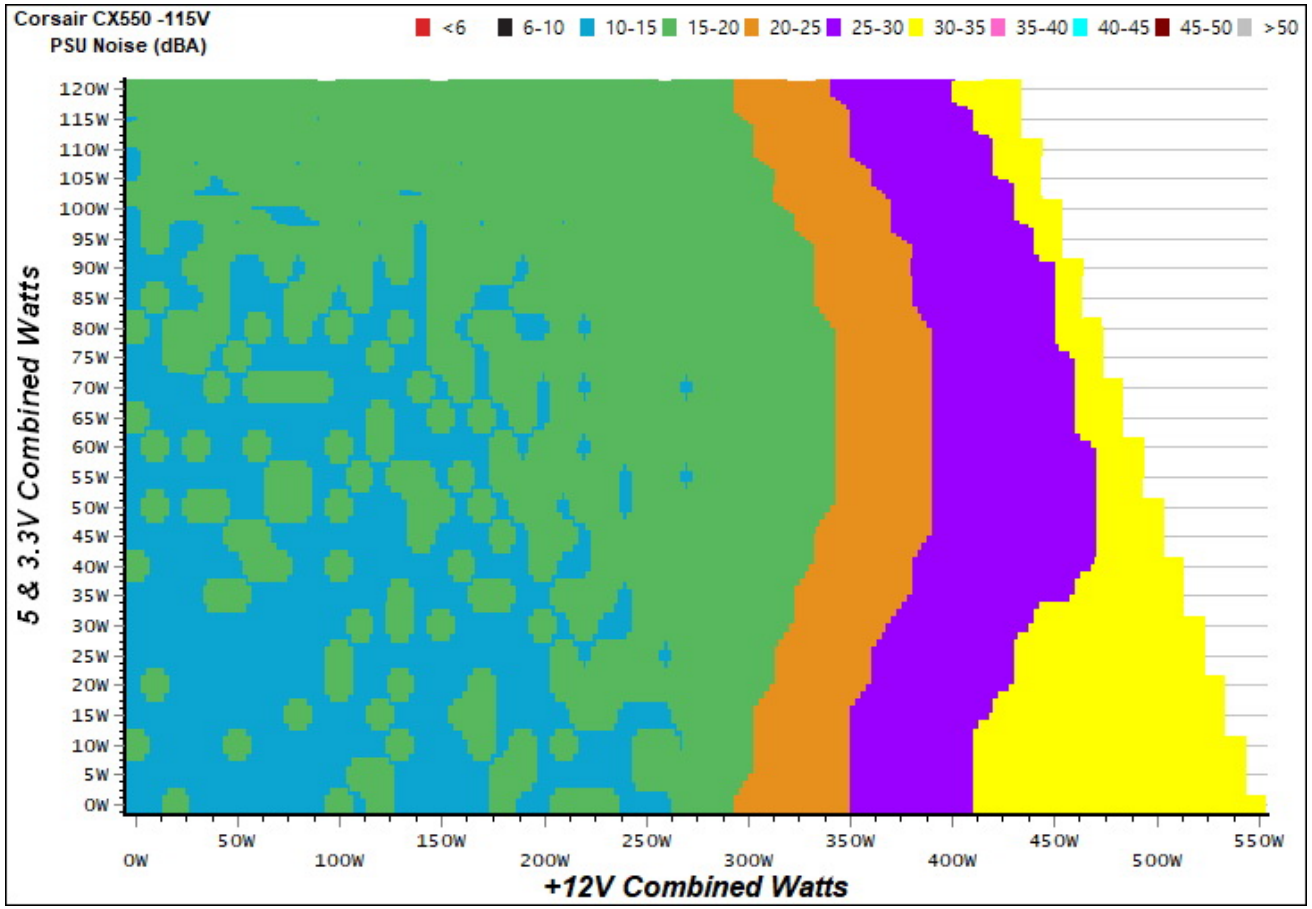
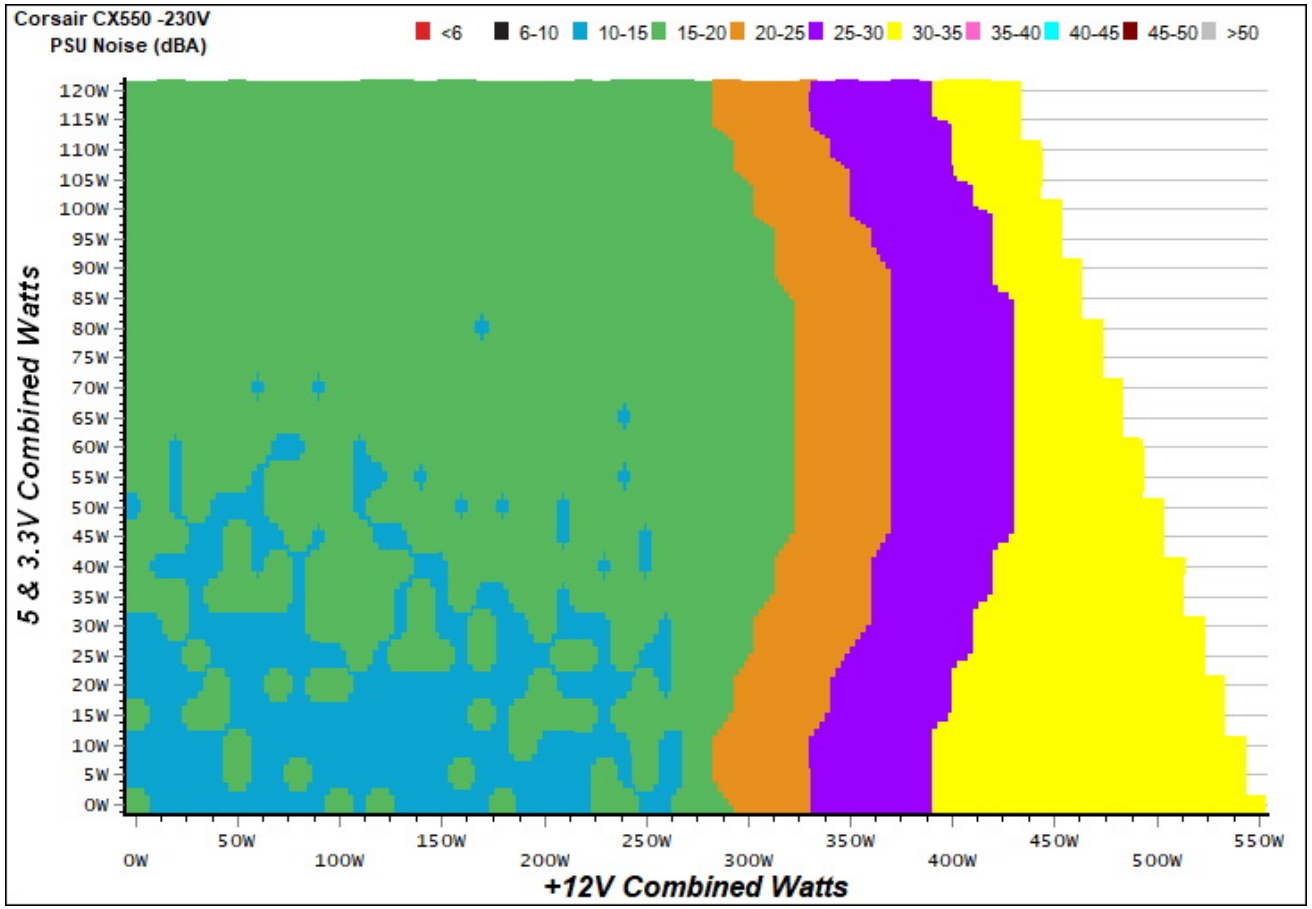
115V



□□

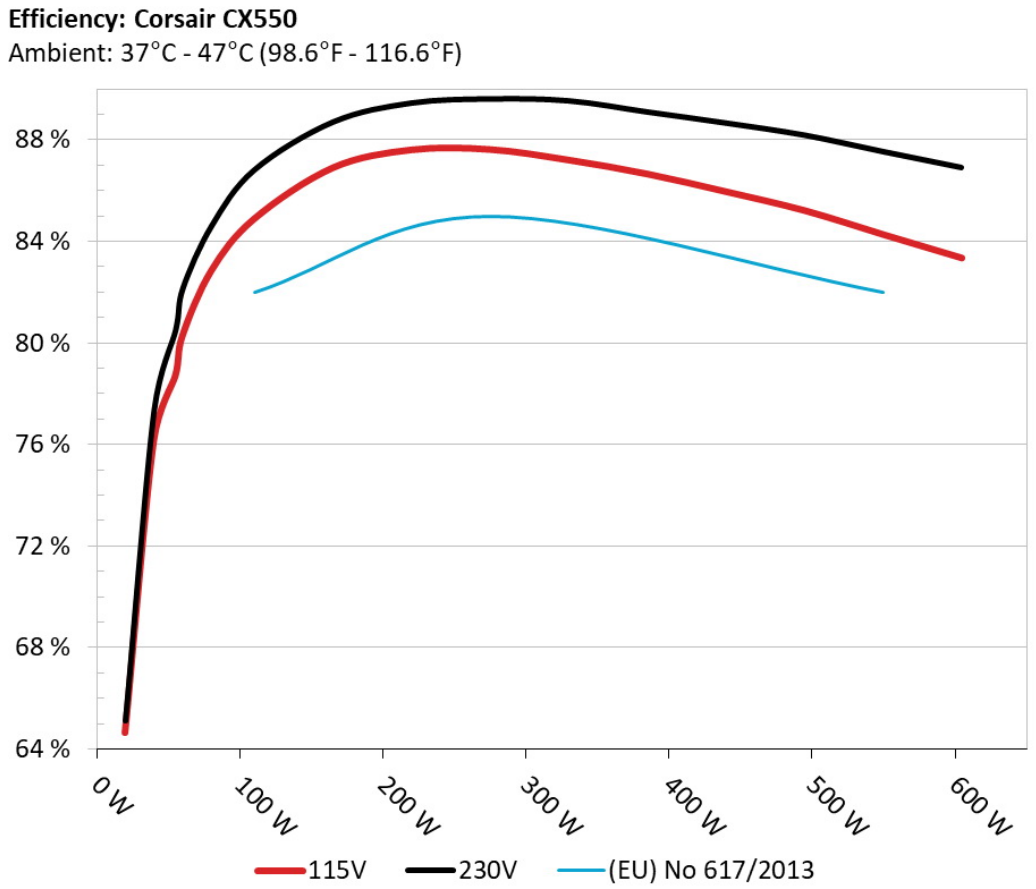
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails.

230V



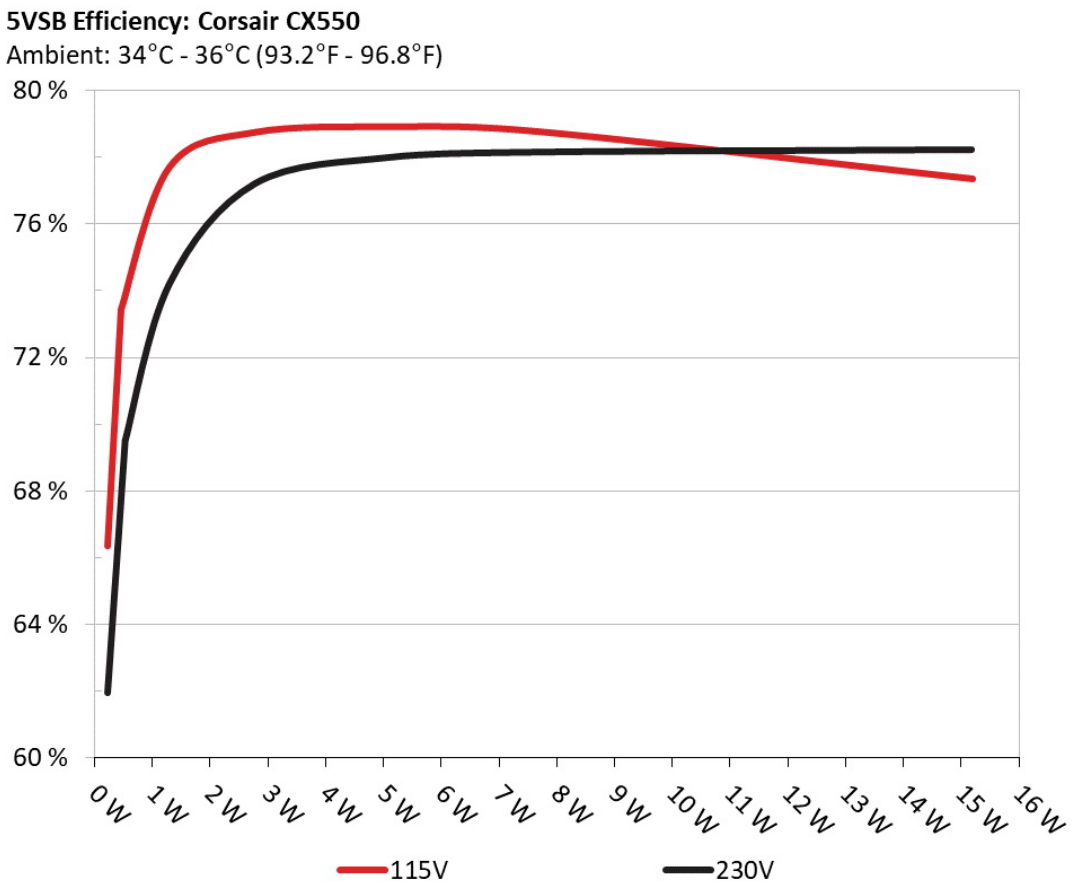
The PSU`s noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails.

Indicative Performance



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□□□□



□□

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

□□□□ □□ 5Vsb □□ (ErP Lot3/6 & CEC)

115V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	0.042A	0.215	66.358%	0.043
	5.107V	0.324		115.08V
2	0.088A	0.448	73.322%	0.079
	5.106V	0.611		115.08V
3	0.542A	2.766	78.759%	0.296
	5.099V	3.512		115.06V
4	1.002A	5.104	78.924%	0.370
	5.092V	6.467		115.06V
5	1.502A	7.636	78.787%	0.408
	5.084V	9.692		115.07V
6	3.002A	15.189	77.365%	0.458
	5.060V	19.633		115.07V

230V

□□ #	5VSB	DC/AC (□)	□□	PF/AC □□
1	0.102A	0.519	69.385%	0.030
	5.106V	0.748		230.22V
2	0.252A	1.287	74.221%	0.068
	5.104V	1.734		230.22V
3	0.543A	2.766	77.219%	0.130
	5.098V	3.582		230.23V
4	1.003A	5.104	78.007%	0.206
	5.091V	6.543		230.23V
5	1.502A	7.635	78.163%	0.260
	5.083V	9.768		230.23V
6	3.002A	15.185	78.237%	0.341
	5.059V	19.409		230.23V

Supplementary Tests (For Reference)

10-110%□□□□

115V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
1	2.745A	1.984A	1.989A	0.981A	54.755	78.702%	818	13.8	38.07°C	0.979
	12.098V	5.026V	3.313V	5.081V	69.573				44.81°C	115.11V
2	6.528A	2.981A	2.988A	1.181A	109.782	84.892%	818	13.8	38.38°C	0.991
	12.090V	5.024V	3.310V	5.073V	129.319				45.86°C	115.11V
3	10.659A	3.488A	3.502A	1.381A	164.906	86.912%	818	13.8	38.85°C	0.997
	12.084V	5.023V	3.309V	5.065V	189.740				47.43°C	115.11V
4	14.791A	3.983A	3.989A	1.581A	219.820	87.621%	818	13.8	39.44°C	0.998
	12.077V	5.021V	3.308V	5.057V	250.876				49.36°C	115.12V
5	18.581A	4.978A	4.990A	1.781A	274.746	87.634%	818	13.8	40.12°C	0.998
	12.070V	5.019V	3.306V	5.049V	313.515				50.52°C	115.12V
6	22.377A	5.979A	5.989A	1.981A	329.709	87.218%	983	21.0	40.94°C	0.998
	12.063V	5.018V	3.304V	5.040V	378.028				51.49°C	115.12V
7	26.182A	6.980A	6.991A	2.186A	384.725	86.668%	1180	26.2	41.77°C	0.999
	12.055V	5.016V	3.303V	5.031V	443.909				52.78°C	115.12V
8	29.983A	7.980A	7.995A	2.387A	439.578	85.971%	1381	30.8	43.03°C	0.999
	12.047V	5.013V	3.300V	5.021V	511.307				54.65°C	115.12V
9	34.222A	8.481A	8.515A	2.391A	494.664	85.226%	1578	34.4	44.23°C	0.999
	12.041V	5.012V	3.300V	5.015V	580.413				56.03°C	115.12V
10	38.210A	8.987A	9.002A	2.999A	549.559	84.280%	1630	35.1	45.51°C	0.999
	12.035V	5.010V	3.298V	4.998V	652.061				58.26°C	115.12V
11	42.798A	8.990A	9.008A	3.001A	604.480	83.354%	1630	35.1	46.70°C	0.999
	12.028V	5.009V	3.296V	4.993V	725.193				60.18°C	115.14V
CL1	0.097A	14.025A	14.004A	0.004A	117.895	81.102%	818	13.8	43.19°C	0.994
	12.079V	5.019V	3.307V	5.072V	145.366				55.91°C	115.13V

CL2	45.787A	1.004A	1.003A	1.002A	564.588	84.877%	1630	35.1	45.25°C	0.999
	12.038V	5.017V	3.303V	5.044V	665.186				58.69°C	115.13V

The results above are not used in the certification process

230V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	□□ (□□ /□□)	PF/AC □□
1	2.747A	1.985A	1.989A	0.981A	54.781	80.669%	818	13.8	38.04°C	0.861
	12.100V	5.026V	3.310V	5.080V	67.908				44.53°C	230.11V
2	6.530A	2.977A	2.990A	1.181A	109.813	87.010%	818	13.8	38.41°C	0.948
	12.094V	5.024V	3.308V	5.073V	126.208				45.46°C	230.11V
3	10.659A	3.486A	3.503A	1.381A	164.939	88.881%	818	13.8	38.73°C	0.973
	12.089V	5.022V	3.306V	5.065V	185.572				46.58°C	230.12V
4	14.787A	3.981A	3.992A	1.580A	219.837	89.619%	818	13.8	38.88°C	0.982
	12.083V	5.020V	3.304V	5.057V	245.303				48.26°C	230.13V
5	18.573A	4.977A	4.996A	1.781A	274.765	89.770%	818	13.8	39.33°C	0.983
	12.077V	5.019V	3.300V	5.049V	306.076				50.34°C	230.13V
6	22.366A	5.977A	6.001A	1.981A	329.748	89.507%	1080	22.1	40.31°C	0.990
	12.071V	5.017V	3.299V	5.040V	368.406				50.87°C	230.15V
7	26.162A	6.982A	7.006A	2.185A	384.745	89.156%	1286	28.5	41.56°C	0.992
	12.065V	5.015V	3.296V	5.031V	431.539				51.81°C	230.15V
8	29.964A	7.981A	8.012A	2.386A	439.682	88.675%	1480	33.3	42.37°C	0.994
	12.058V	5.012V	3.294V	5.023V	495.834				52.63°C	230.16V
9	34.197A	8.481A	8.531A	2.391A	494.728	88.170%	1630	35.1	43.35°C	0.994
	12.052V	5.011V	3.293V	5.017V	561.108				54.14°C	230.18V
10	38.176A	8.989A	9.025A	2.996A	549.581	87.447%	1630	35.1	45.03°C	0.995
	12.046V	5.009V	3.291V	5.002V	628.473				56.89°C	230.19V
11	42.759A	8.991A	9.029A	3.000A	604.566	86.897%	1630	35.1	46.01°C	0.995
	12.041V	5.007V	3.289V	4.997V	695.726				58.77°C	230.21V
CL1	0.101A	14.024A	14.004A	0.005A	117.888	82.942%	1015	21.1	43.84°C	0.959
	12.077V	5.019V	3.303V	5.079V	142.133				54.42°C	230.20V

CL2	45.791A	1.002A	1.004A	1.002A	565.352	88.046%	1630	35.1	44.70°C	0.995
	12.054V	5.013V	3.297V	5.044V	642.109				56.65°C	230.22V

The results above are not used in the certification process

20-80□□□□□

115V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	PF/AC □□
1	1.207A	0.490A	0.481A	0.196A	19.667	64.635%	818	13.8	0.920
	12.104V	5.030V	3.314V	5.099V	30.428				115.11V
2	2.440A	0.990A	0.997A	0.391A	39.797	76.181%	818	13.8	0.965
	12.100V	5.028V	3.313V	5.093V	52.240				115.10V
3	3.672A	1.485A	1.509A	0.586A	59.870	80.302%	818	13.8	0.979
	12.098V	5.027V	3.313V	5.089V	74.556				115.10V
4	4.895A	1.986A	1.989A	0.786A	79.768	82.837%	818	13.8	0.986
	12.095V	5.026V	3.312V	5.083V	96.295				115.11V

The results above are not used in the certification process

230V

□□ #	12V	5V	3.3V	5VSB	DC/AC (□)	□□	□□□□ (RPM)	□□□□□□□ (dB[A])	PF/AC □□
1	1.211A	0.490A	0.480A	0.196A	19.713	65.461%	818	13.8	0.599
	12.105V	5.030V	3.313V	5.097V	30.114				230.08V
2	2.442A	0.986A	0.996A	0.391A	39.800	77.706%	818	13.8	0.781
	12.102V	5.028V	3.312V	5.092V	51.219				230.09V
3	3.675A	1.484A	1.510A	0.586A	59.907	82.283%	818	13.8	0.870
	12.100V	5.027V	3.310V	5.087V	72.806				230.09V
4	4.899A	1.984A	1.991A	0.786A	79.824	84.836%	818	13.8	0.914
	12.098V	5.026V	3.310V	5.081V	94.092				230.10V

The results above are not used in the certification process

115V

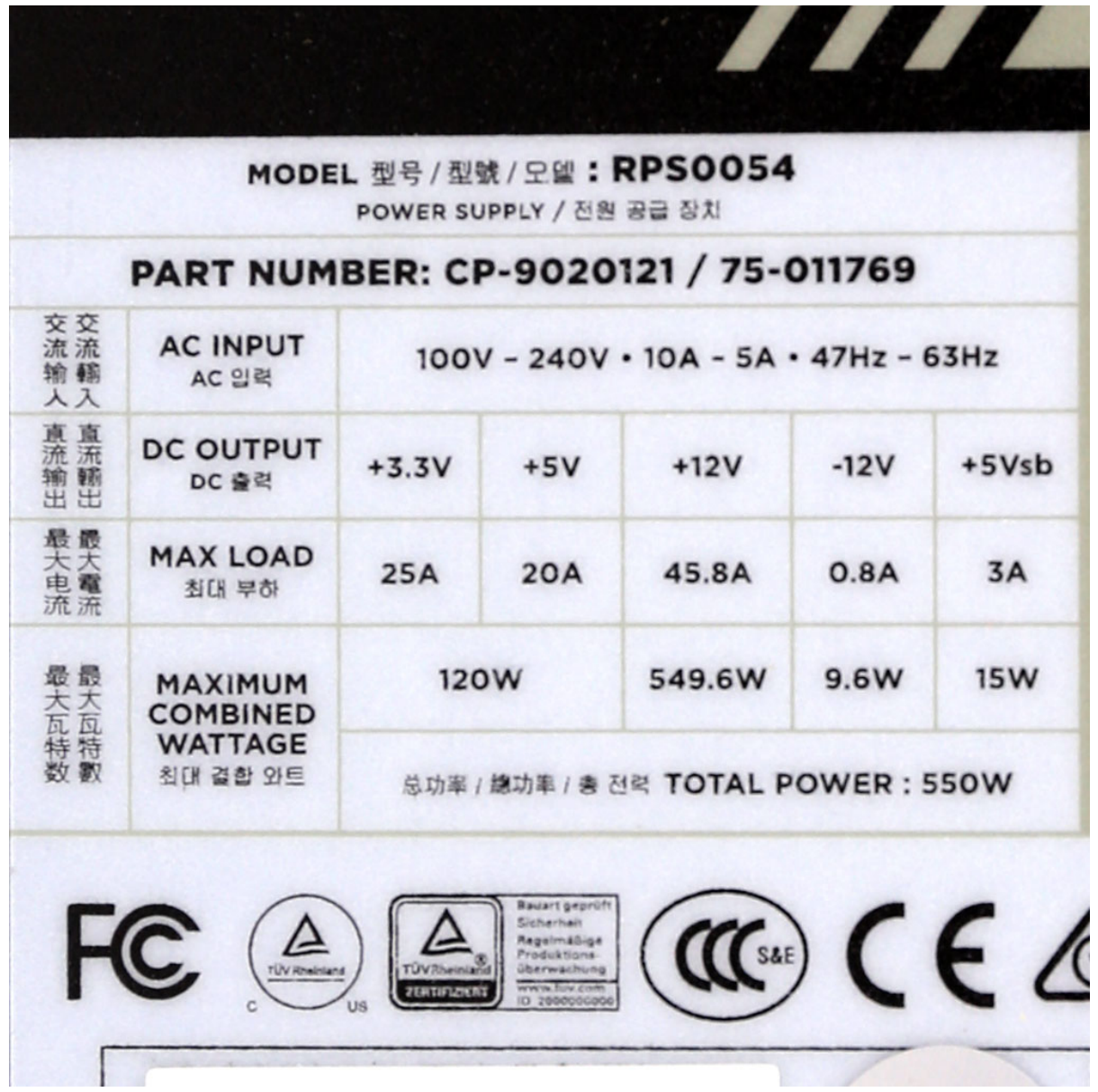
Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	14.2 mV	7.1 mV	4.8 mV	9.4 mV	Pass
20% Load	17.8 mV	7.5 mV	5.5 mV	10.0 mV	Pass
30% Load	17.8 mV	7.7 mV	6.2 mV	10.7 mV	Pass
40% Load	19.6 mV	7.9 mV	6.7 mV	11.5 mV	Pass
50% Load	21.3 mV	8.3 mV	7.3 mV	12.0 mV	Pass
60% Load	27.3 mV	8.7 mV	8.9 mV	12.6 mV	Pass
70% Load	28.3 mV	10.0 mV	12.0 mV	14.7 mV	Pass
80% Load	29.7 mV	9.7 mV	10.6 mV	14.9 mV	Pass
90% Load	31.2 mV	10.1 mV	10.5 mV	16.6 mV	Pass
100% Load	32.3 mV	11.4 mV	11.5 mV	19.9 mV	Pass
110% Load	35.8 mV	12.2 mV	12.2 mV	22.8 mV	Pass
Crossload 1	23.5 mV	7.1 mV	6.7 mV	9.8 mV	Pass
Crossload 2	33.7 mV	10.6 mV	11.8 mV	18.7 mV	Pass

The results above are not used in the certification process

230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	15.4 mV	14.6 mV	7.8 mV	13.3 mV	Pass
20% Load	19.2 mV	14.7 mV	8.1 mV	13.3 mV	Pass
30% Load	22.2 mV	15.4 mV	8.4 mV	14.2 mV	Pass
40% Load	22.0 mV	13.8 mV	8.7 mV	14.8 mV	Pass
50% Load	23.9 mV	14.6 mV	9.8 mV	14.6 mV	Pass
60% Load	30.0 mV	16.4 mV	10.7 mV	14.3 mV	Pass
70% Load	31.7 mV	18.3 mV	15.3 mV	15.8 mV	Pass
80% Load	31.5 mV	16.9 mV	12.5 mV	14.5 mV	Pass





Test	12V	5V	3.3V	5VSB	Pass/Fail
90% Load	34.9 mV	16.0 mV	11.8 mV	14.7 mV	Pass
100% Load	33.0 mV	18.1 mV	13.1 mV	17.2 mV	Pass
110% Load	38.4 mV	18.6 mV	13.6 mV	18.0 mV	Pass
Crossload 1	25.5 mV	16.7 mV	8.9 mV	14.6 mV	Pass
Crossload 2	37.2 mV	17.3 mV	12.5 mV	16.4 mV	Pass

The results above are not used in the certification process

Corsair CX550

Top side

Power specifications table

本测试报告中包含的所有数据和图表均可在以下条件下由任何人使用：使用过程需提及测试结果由Cybenetics提供。
在任何情况下都应提供原始测试结果文档的网站链接

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