

Lab ID#: 114  
Receipt Date: May 15, 2018  
Test Date: May 23, 2018

Report:  
Report Date: May 25, 2018

### DUT INFORMATION

Brand	Corsair
Manufacturer (OEM)	Channel Well Technology
Series	Vengeance
Model Number	
Serial Number	15527103000013630556
DUT Notes	CP-9020111

### DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	10-5
Rated Frequency (Hz)	47-63
Rated Power (W)	550
Type	ATX12V
Cooling	120mm Sleeve Bearing Fan (HA1225H12S-Z)
Semi-Passive Operation	x
Cable Design	Semi Modular

### 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	Briel & Kjaer 2250-L G4	
Microphone	Briel & Kjaer Type 4189	
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2	

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## RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6 (+-2°C / +- 3.6°F)
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓

## 115V

Average Efficiency	85.639%
Efficiency With 10W (≤500W) or 2% (>500W)	0.000
Average Efficiency 5VSB	79.266%
Standby Power Consumption (W)	0.0402625
Average PF	0.994
Avg Noise Output	30.98 dB(A)
Efficiency Rating (ETA)	SILVER
Noise Rating (LAMBDA)	Standard++

## POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	20	45.8	3	0.8
	Watts	120		549.6	15	9.6
Total Max. Power (W)		550				

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## CABLES AND CONNECTORS

### Native Cables

Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (610mm)	1	1	16-20AWG
4+4 pin EPS12V (590mm)	1	1	18AWG

### Modular Cables

6+2 pin PCIe (680mm+90mm)	1	2	16-18AWG
SATA (540mm+120mm)	1	2	18AWG
SATA (470mm+120mm+120mm)	1	3	18AWG
4 pin Molex (450mm+100mm+100mm+100mm)	1	4	18AWG
FDD Adapter (+100mm)	1	1	20AWG

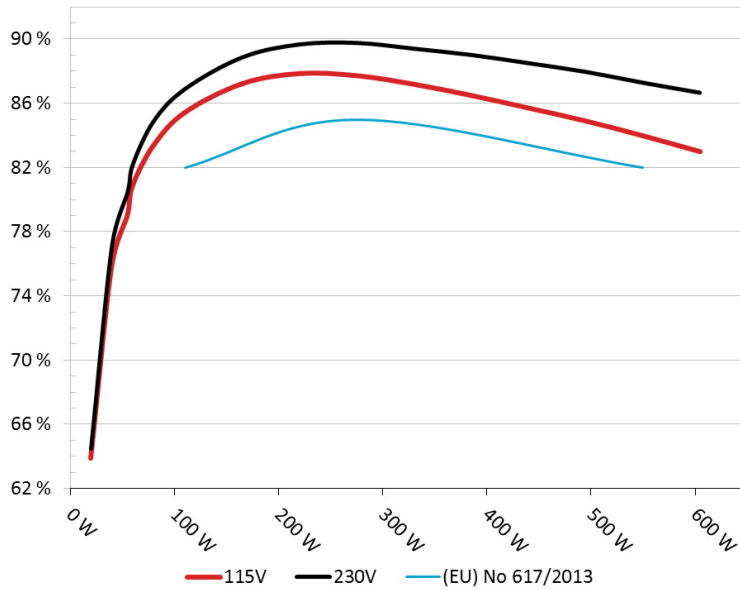
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### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

**Efficiency: Corsair Vengeance 550M**  
Ambient: 37°C - 46°C (98.6°F - 114.8°F)

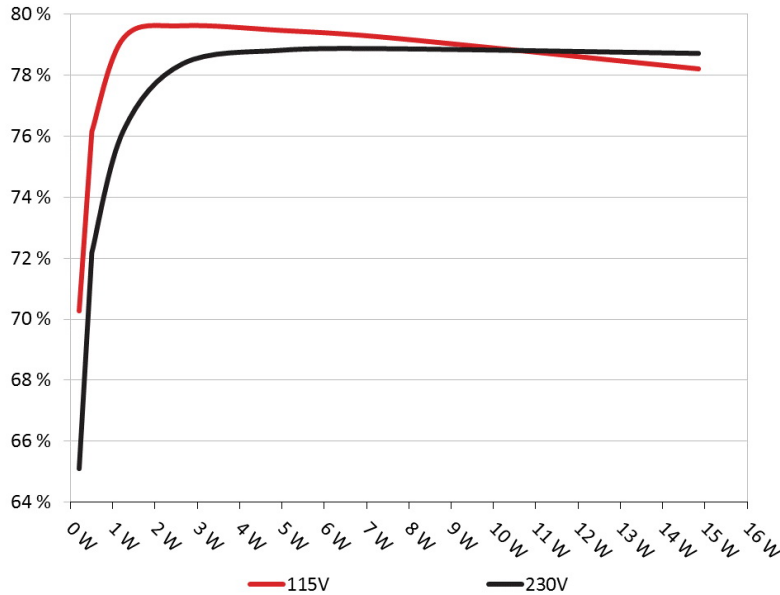


#### INFO

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 Vengeance 550M**  
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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**5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)**

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.208	70.270%	0.031
	5.008V	0.296		115.12V
2	0.087A	0.435	76.049%	0.059
	5.006V	0.572		115.13V
3	0.532A	2.658	79.629%	0.259
	4.998V	3.338		115.09V
4	1.002A	4.999	79.475%	0.350
	4.989V	6.290		115.09V
5	1.502A	7.476	79.245%	0.395
	4.979V	9.434		115.10V
6	3.001A	14.853	78.215%	0.454
	4.949V	18.990		115.11V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.209	65.109%	0.010
	5.007V	0.321		230.30V
2	0.087A	0.436	72.185%	0.018
	5.006V	0.604		230.32V
3	0.532A	2.657	78.378%	0.098
	4.997V	3.390		230.31V
4	1.002A	4.998	78.820%	0.167
	4.989V	6.341		230.31V
5	1.502A	7.476	78.869%	0.223
	4.979V	9.479		230.30V
6	3.001A	14.853	78.716%	0.320
	4.949V	18.869		230.30V

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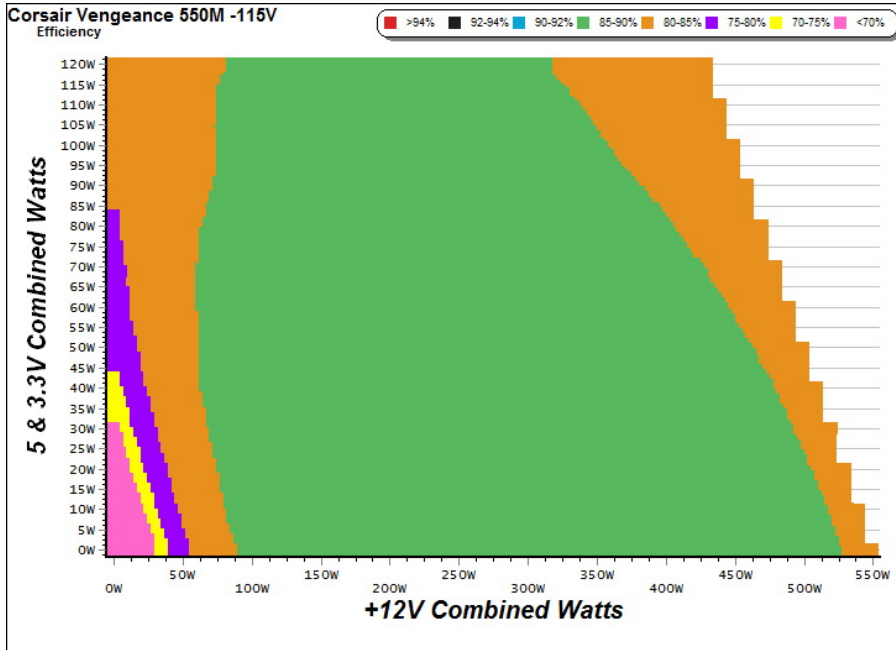
# 115V

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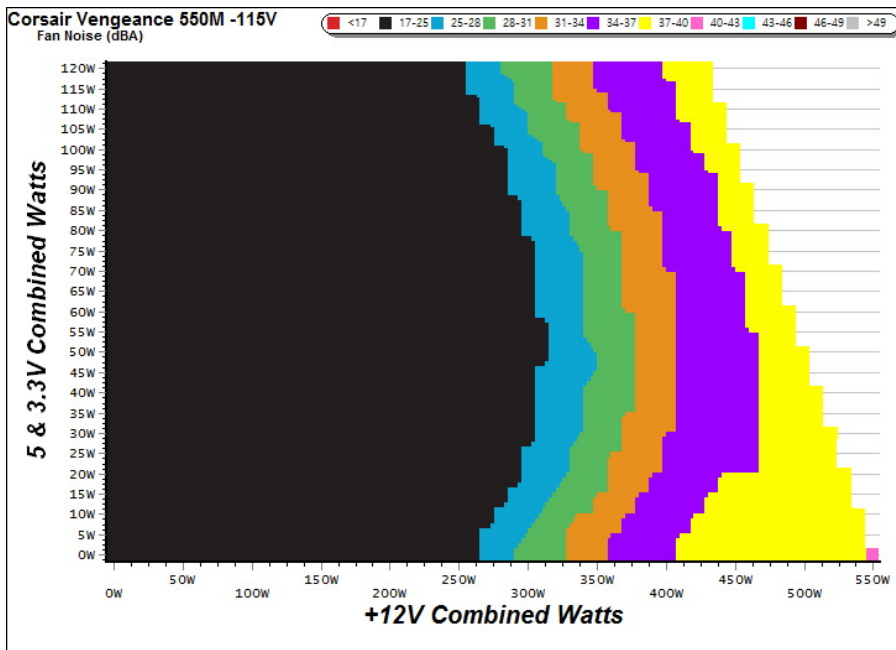
### EFFICIENCY GRAPH 115V



#### 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 115V



#### INFO

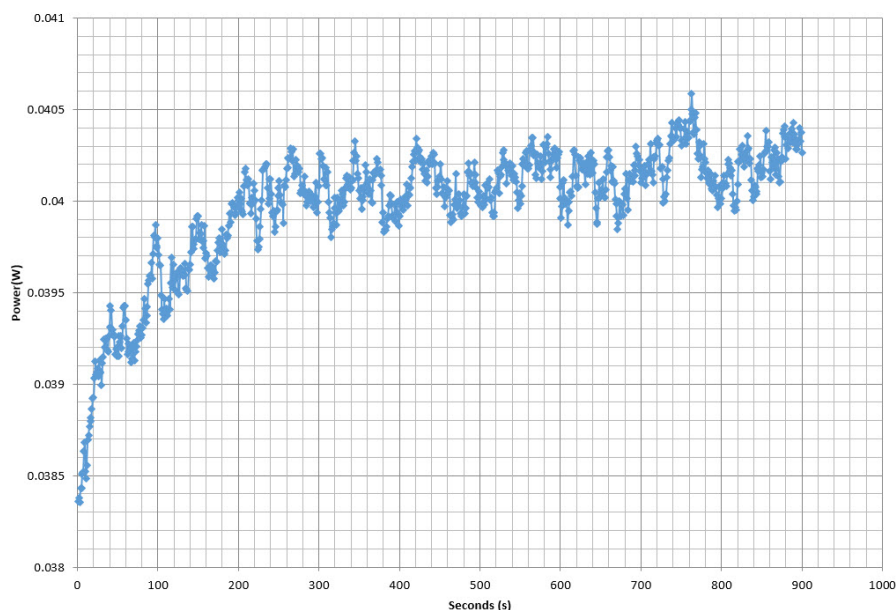
The PSU's noise in its entire operational range and under 30-32 °C (+2 °C) ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

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**VAMPIRE POWER -115V**

**Power - 1552710300001360556 - 22/05/2017 - 10:24**



**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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**COMMISSION REGULATION (EU) NO 617/2013 TESTING 115V**

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EFFICIENCY AND NOISE REPORT IN ACCORDANCE WITH  
CYBENETICS ETA AND CYBENETICS LAMBDA PROCEDURE

Corsair Vengeance 550M

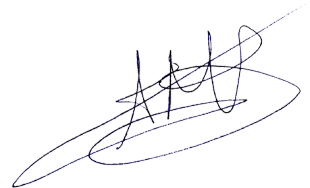


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Power specifications label

CERTIFICATIONS 115V

**Aristeidis Bitziopoulos**  
Lab Director

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