

Anex

Corsair TX550M

Lab ID#: 87
 Receipt Date: -
 Test Date: -

Report:

Report Date: Nov 4, 2018

DUT INFORMATION	
Brand	Corsair
Manufacturer (OEM)	Great Wall
Series	TXM
Model Number	TX550M
Serial Number	17084874000040720149
DUT Notes	CP-9020133 - Retested on 9/28/17

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 Rifle Bearing Fan (NR120L)
Semi-Passive Operation	x
Cable Design	Semi Modular

POWER SPECIFICATIONS						
Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	25	20	43	3	0.8
	Watts	120		516	15	9.6
Total Max. Power (W)		550				

CABLES AND CONNECTORS			
Native Cables			
Description	Cable Count	Connector Count (Total)	Gauge
ATX connector 20+4 pin (600mm)	1	1	16-20AWG
4+4 pin EPS12V (660mm)	1	1	18AWG
Modular Cables			
6+2 pin PCIe (600mm+150mm)	1	2	18AWG
SATA (500mm+95mm)	2	5	18AWG
4 pin Molex (450mm+100mm+100mm+100mm)	1	4	18AWG
FDD Adapter	1	1	20AWG

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RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6
Average Efficiency	87.688
Efficiency With 10W ($\leq 500W$) or 2% ($> 500W$) Load -115V	0.000
Average Efficiency 5VSB	79.162
Standby Power Consumption (W) -115V	0.0549606
Standby Power Consumption (W) -230V	0.0746268
Average PF	0.990
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	32.32
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	Standard++

TEST EQUIPMENT

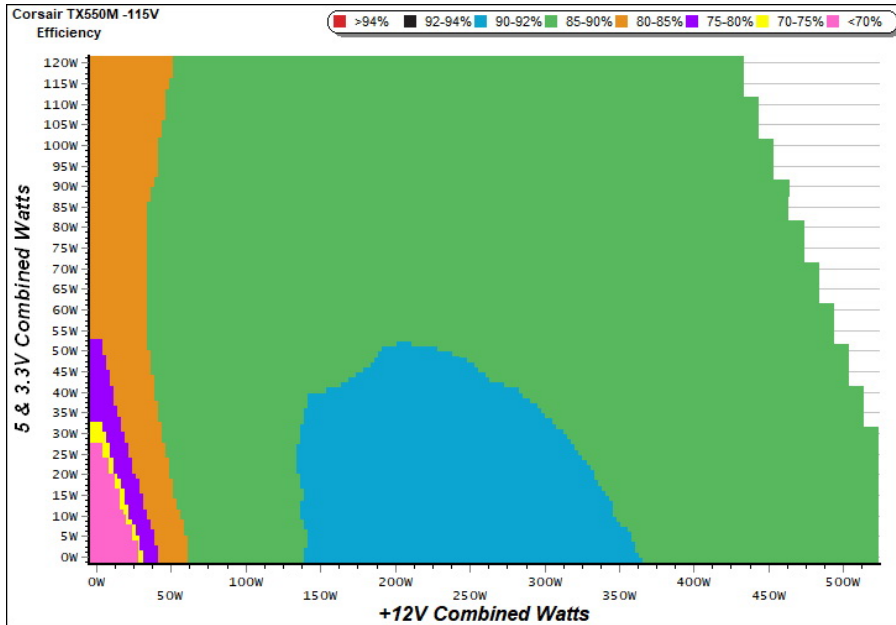
Electronic Loads	Chroma 6314A x2 63123A x6 63102A 63101A	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, Chroma 61604	
Power Analyzers	N4L PPA1530, N4L PPA5530	
Oscilloscopes	Picoscope 4444 & 3424, Keysight DSOX3024A, Rigol DS2072A	
Voltmeter	Keithley 2015 THD 6.5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

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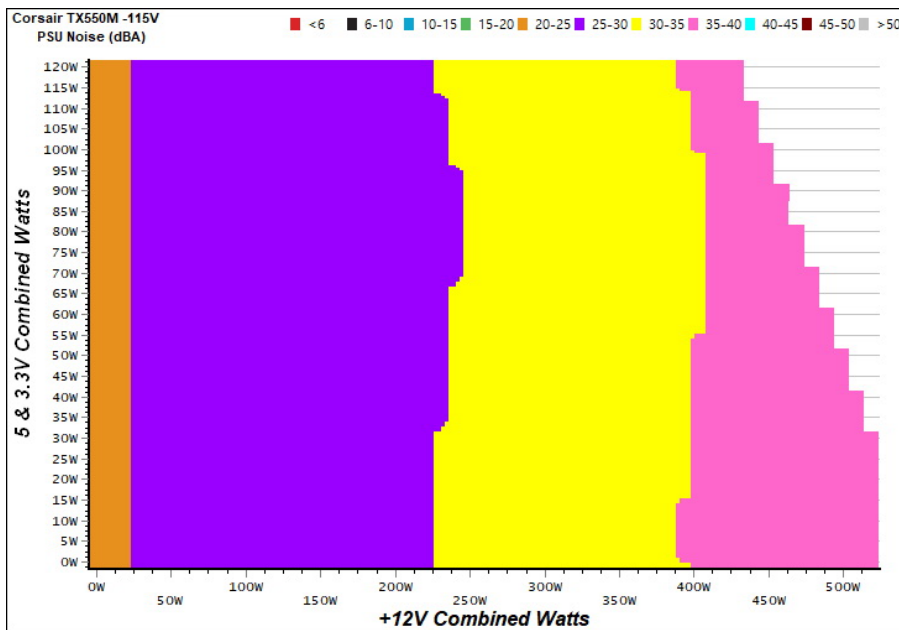
EFFICIENCY GRAPH



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

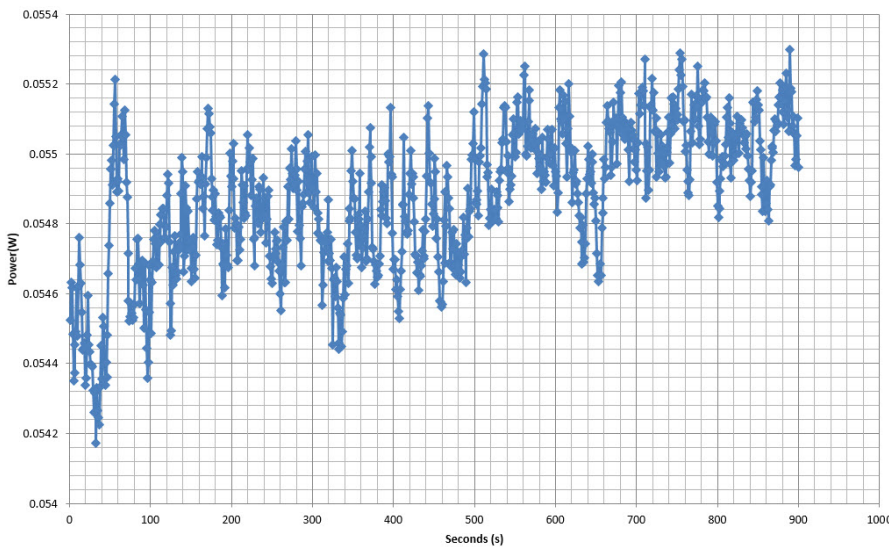
Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.213	68.489%	0.029
	5.086V	0.311		115.05V
2	0.088A	0.445	75.552%	0.053
	5.086V	0.589		115.05V
3	0.532A	2.701	80.196%	0.246
	5.074V	3.368		115.05V
4	3.002A	15.049	77.524%	0.481
	5.013V	19.412		115.04V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.213	63.964%	0.009
	5.086V	0.333		230.19V
2	0.087A	0.445	72.358%	0.017
	5.085V	0.615		230.20V
3	0.532A	2.700	79.156%	0.090
	5.074V	3.411		230.20V
4	3.001A	15.045	78.507%	0.323
	5.013V	19.164		230.18V

VAMPIRE POWER -115V

Power - 170902957 - 08/04/2017 - 09:45



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

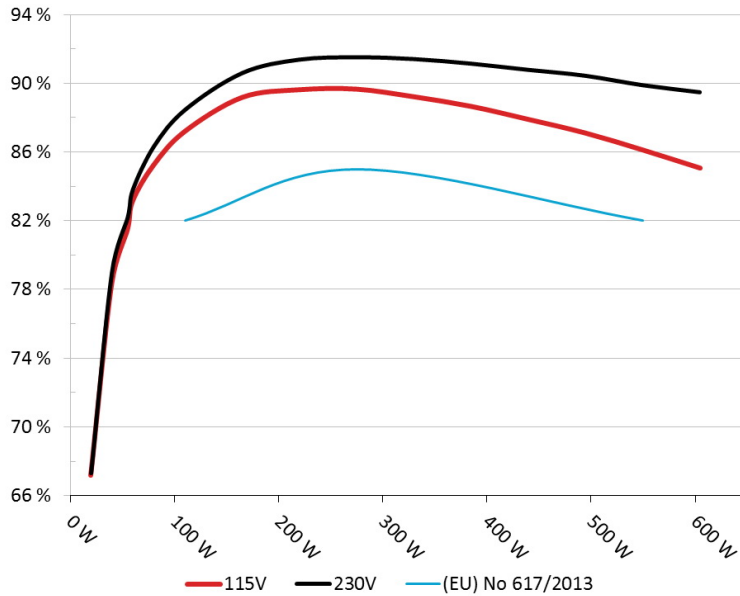
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Corsair TX550M

Ambient: 37°C - 46°C (98.6°F - 114.8°F)



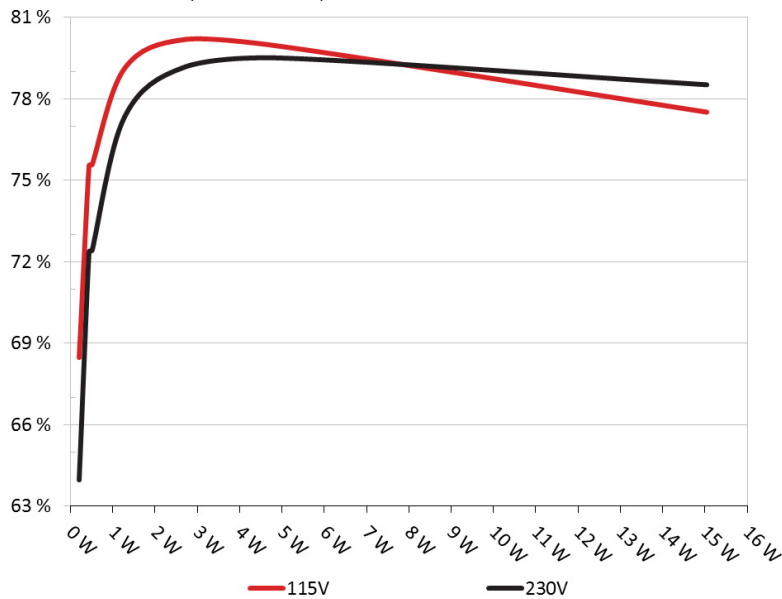
INFO

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 TX550M

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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10-110% LOAD TESTS

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	Fan Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	2.744A	1.996A	1.990A	0.989A	54.761	81.481%	1505	33.6	39.41°C	0.960
	12.082V	5.021V	3.312V	5.050V	67.207				40.58°C	115.13V
2	6.536A	2.991A	2.993A	1.191A	109.770	87.214%	1544	34.2	39.69°C	0.982
	12.071V	5.010V	3.304V	5.038V	125.863				41.04°C	115.13V
3	10.678A	3.501A	3.515A	1.390A	164.870	89.204%	1571	34.5	40.27°C	0.989
	12.061V	5.002V	3.296V	5.026V	184.823				41.65°C	115.13V
4	14.816A	4.005A	4.009A	1.596A	219.758	89.651%	1659	36.1	40.45°C	0.991
	12.053V	4.991V	3.290V	5.013V	245.125				41.98°C	115.12V
5	18.621A	5.017A	5.026A	1.799A	274.744	89.684%	1728	37.4	40.69°C	0.993
	12.044V	4.980V	3.282V	4.999V	306.346				42.20°C	115.13V
6	22.432A	6.040A	6.047A	2.004A	329.728	89.241%	1769	38.6	41.00°C	0.994
	12.033V	4.969V	3.274V	4.986V	369.482				42.54°C	115.12V
7	26.247A	7.060A	7.068A	2.210A	384.680	88.679%	1838	39.8	41.37°C	0.995
	12.024V	4.958V	3.267V	4.974V	433.790				43.05°C	115.12V
8	30.067A	8.091A	8.100A	2.415A	439.611	87.921%	1838	39.8	42.08°C	0.995
	12.014V	4.946V	3.258V	4.960V	500.009				44.16°C	115.12V
9	34.324A	8.610A	8.642A	2.420A	494.696	87.121%	1838	39.8	43.19°C	0.995
	12.006V	4.939V	3.251V	4.951V	567.825				45.70°C	115.12V
10	38.326A	9.133A	9.152A	3.041A	549.561	86.136%	1838	39.8	44.65°C	0.996
	11.999V	4.929V	3.244V	4.927V	638.018				47.59°C	115.12V
11	42.930A	9.140A	9.166A	3.049A	604.502	85.083%	1838	39.8	45.84°C	0.996
	11.992V	4.924V	3.239V	4.917V	710.489				49.72°C	115.12V
CL1	0.099A	14.025A	14.005A	0.006A	116.682	81.617%	1838	39.8	44.65°C	0.987
	12.062V	4.953V	3.284V	5.040V	142.963				47.72°C	115.13V
CL2	42.964A	1.004A	1.002A	1.002A	529.452	87.554%	1838	39.8	44.44°C	0.995
	12.014V	4.979V	3.271V	4.997V	604.716				47.56°C	115.11V

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20-80W LOAD TESTS

Test #	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	Fan Noise (dB[A])	PF/AC Volts
1	1.205A	0.492A	0.479A	0.195A	19.624	67.166%	1364	30.8	0.875
	12.089V	5.034V	3.319V	5.077V	29.217				115.12V
2	2.438A	0.991A	0.994A	0.390A	39.720	78.352%	1431	31.7	0.943
	12.085V	5.029V	3.316V	5.068V	50.694				115.12V
3	3.675A	1.488A	1.506A	0.590A	59.847	83.174%	1454	32.4	0.965
	12.081V	5.024V	3.313V	5.060V	71.954				115.13V
4	4.900A	1.996A	1.991A	0.789A	79.773	85.244%	1494	33.4	0.975
	12.077V	5.019V	3.310V	5.053V	93.582				115.13V

RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	29.0 mV	9.0 mV	9.0 mV	10.4 mV	Pass
20% Load	26.4 mV	6.1 mV	7.5 mV	9.8 mV	Pass
30% Load	21.3 mV	5.1 mV	8.0 mV	10.9 mV	Pass
40% Load	22.3 mV	5.0 mV	7.9 mV	12.2 mV	Pass
50% Load	23.8 mV	5.6 mV	8.6 mV	13.3 mV	Pass
60% Load	24.1 mV	13.0 mV	16.5 mV	16.1 mV	Pass
70% Load	26.5 mV	13.9 mV	17.4 mV	17.5 mV	Pass
80% Load	28.9 mV	15.6 mV	16.4 mV	20.2 mV	Pass
90% Load	30.8 mV	14.7 mV	15.8 mV	20.9 mV	Pass
100% Load	38.1 mV	16.2 mV	20.3 mV	26.4 mV	Pass
110% Load	41.8 mV	16.6 mV	22.2 mV	31.1 mV	Pass
Crossload 1	21.1 mV	15.1 mV	18.6 mV	34.7 mV	Pass
Crossload 2	36.4 mV	9.0 mV	12.2 mV	17.0 mV	Pass

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

Hold-Up Time (ms)	11.84
AC Loss to PWR_OK Hold Up Time (ms)	7.56
PWR_OK Inactive to DC Loss Delay (ms)	4.28



CERTIFICATIONS



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