Anex

Corsair TX550M (Sample #2)

Lab ID#: 192
Receipt Date: -
Test Date: -

Report:
Report Date: Oct 10, 2018

DUT INFORMATION

Brand	Corsair
Manufacturer (OEM)	Great Wall
Series	TXM
Model Number	TX550M (Sample #2)
Serial Number	17284859000040690272
DUT Notes	CP-9020133-NA

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	✗
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	88.152
Efficiency With 10W (≤500W) or 2% (>500W) Load -115V	0.000
Average Efficiency 5VSB	78.959
Standby Power Consumption (W) -115V	0.0719416
Standby Power Consumption (W) -230V	0.0934057
Average PF	0.988
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
Avg Noise Output	33.28
Efficiency Rating (ETA)	PLATINUM
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 4955-A, Bruel & Kjaer Type 4189	
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2	

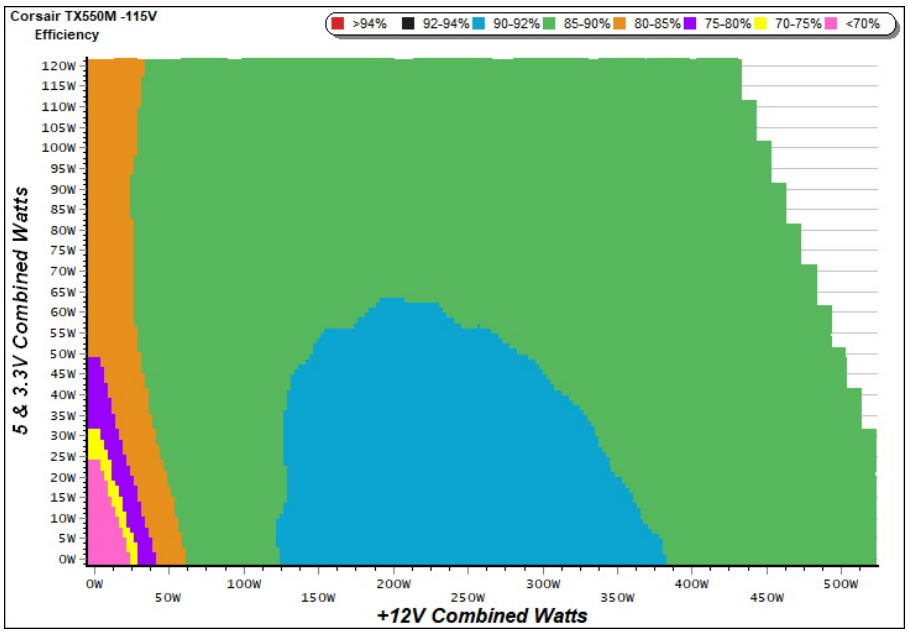
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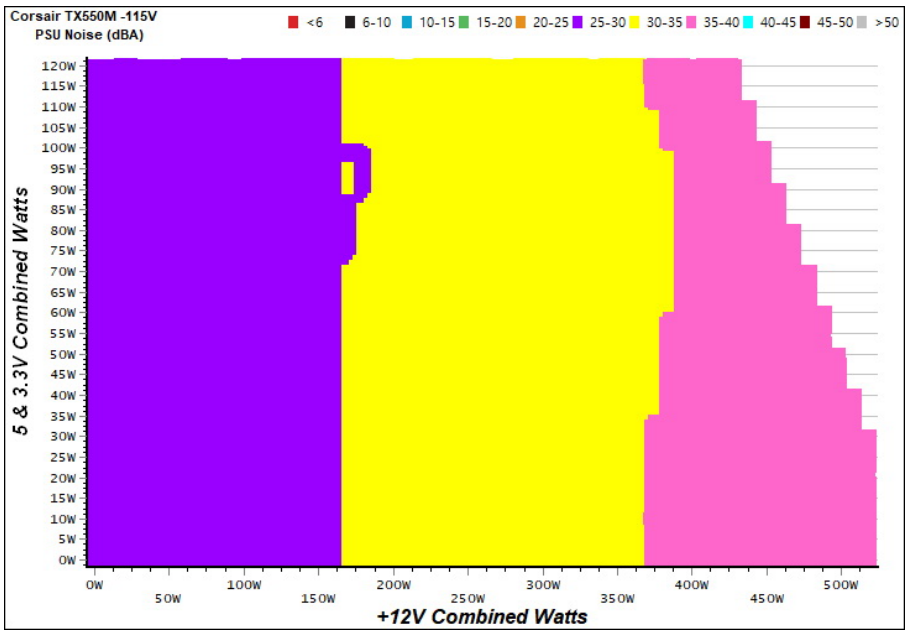
EFFICIENCY GRAPH



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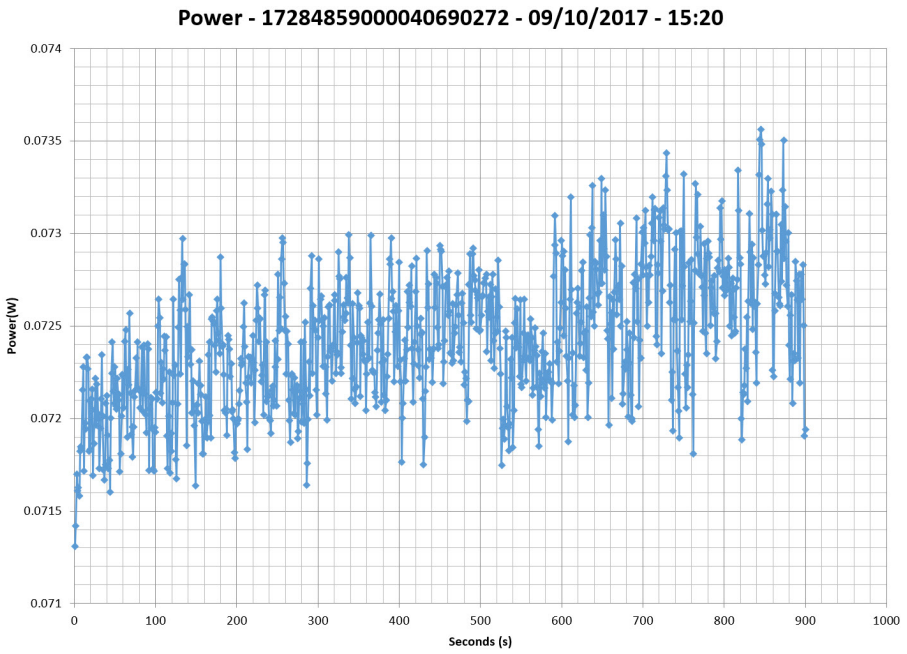
5VSB EFFICIENCY -115V (ERP LOT 3/6 & CEC)

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.212	64.634%	0.030
	5.089V	0.328		115.13V
2	0.087A	0.445	74.290%	0.054
	5.088V	0.599		115.14V
3	0.542A	2.752	80.047%	0.246
	5.078V	3.438		115.11V
4	1.002A	5.078	80.171%	0.347
	5.067V	6.334		115.13V
5	1.502A	7.592	79.714%	0.404
	5.056V	9.524		115.13V
6	3.001A	15.070	77.405%	0.477
	5.021V	19.469		115.12V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.042A	0.212	61.095%	0.009
	5.089V	0.347		230.30V
2	0.087A	0.444	70.701%	0.017
	5.088V	0.628		230.31V
3	0.542A	2.753	78.973%	0.091
	5.078V	3.486		230.31V
4	1.002A	5.078	79.468%	0.155
	5.067V	6.390		230.31V
5	1.502A	7.593	79.591%	0.212
	5.056V	9.540		230.30V
6	3.001A	15.073	78.636%	0.321
	5.022V	19.168		230.30V

VAMPIRE POWER -115V



INFO

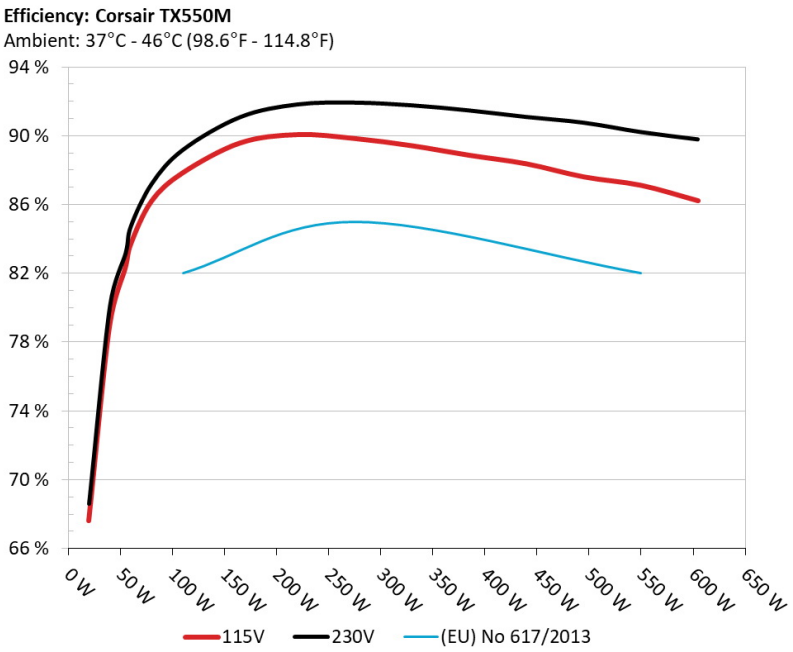
This graph is generated by the PPA Standby Power Analysis software which takes full control of the power analyzer during the whole procedure. This application features all of the EN50564 & IEC62301 test limits for standby power software testing

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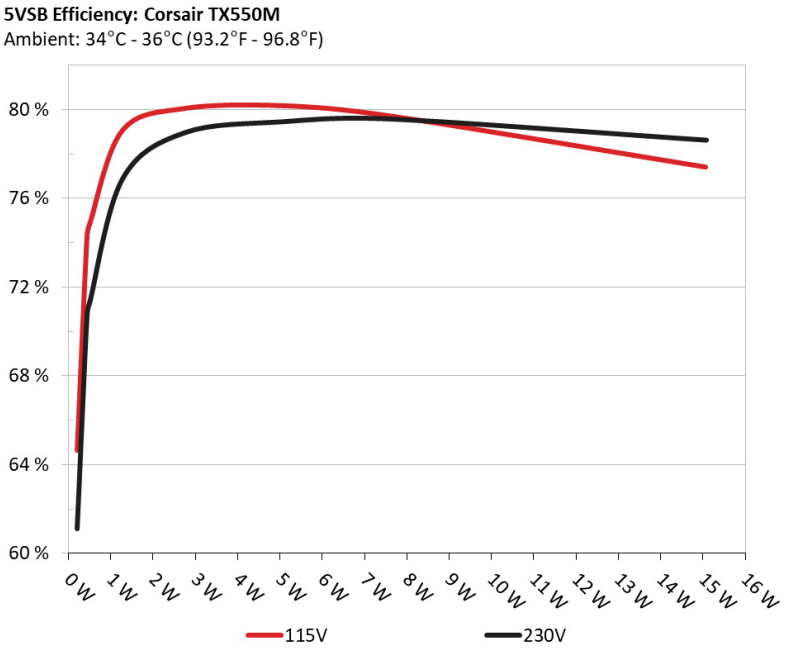
EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE



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



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)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
1	2.739A	1.993A	1.989A	0.986A	54.791	82.352%	1481	33.1	38.20°C	0.962
	12.133V	5.007V	3.313V	5.061V	66.533				39.97°C	115.09V
2	6.510A	2.991A	2.989A	1.186A	109.763	87.862%	1512	33.7	38.51°C	0.981
	12.123V	5.003V	3.308V	5.051V	124.926				40.56°C	115.08V
3	10.629A	3.508A	3.508A	1.386A	164.903	89.605%	1544	34.2	38.86°C	0.987
	12.117V	4.998V	3.304V	5.042V	184.034				41.29°C	115.08V
4	14.753A	4.004A	3.999A	1.586A	219.811	90.091%	1596	35.4	39.14°C	0.990
	12.109V	4.993V	3.299V	5.033V	243.989				42.09°C	115.08V
5	18.535A	5.008A	5.006A	1.791A	274.781	89.866%	1689	36.6	39.46°C	0.992
	12.102V	4.988V	3.295V	5.023V	305.767				43.11°C	115.07V
6	22.322A	6.018A	6.013A	1.995A	329.764	89.443%	1769	38.6	40.19°C	0.992
	12.095V	4.984V	3.291V	5.011V	368.685				44.52°C	115.07V
7	26.113A	7.023A	7.023A	2.198A	384.703	88.892%	1838	39.8	41.54°C	0.992
	12.088V	4.980V	3.287V	5.000V	432.775				45.99°C	115.07V
8	29.906A	8.043A	8.039A	2.404A	439.693	88.393%	1838	39.8	42.14°C	0.992
	12.081V	4.975V	3.283V	4.988V	497.432				47.57°C	115.06V
9	34.137A	8.544A	8.568A	2.405A	494.728	87.631%	1838	39.8	44.00°C	0.990
	12.074V	4.972V	3.279V	4.983V	564.560				50.64°C	115.06V
10	38.118A	9.063A	9.065A	3.019A	549.622	87.141%	1838	39.8	44.95°C	0.991
	12.066V	4.968V	3.274V	4.964V	630.728				53.06°C	115.06V
11	42.690A	9.068A	9.076A	3.021A	604.539	86.244%	1838	39.8	45.95°C	0.991
	12.060V	4.965V	3.272V	4.958V	700.966				55.82°C	115.05V
CL1	0.101A	14.026A	14.004A	0.005A	117.578	83.126%	1838	39.8	43.92°C	0.985
	12.110V	4.998V	3.301V	5.061V	141.446				49.34°C	115.08V
CL2	42.972A	1.003A	1.001A	1.002A	532.296	88.272%	1838	39.8	43.84°C	0.990
	12.077V	4.981V	3.287V	5.027V	603.017				51.25°C	115.06V

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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	1.206A	0.490A	0.481A	0.196A	19.674	67.622%	1298	30.5	0.890
	12.128V	5.012V	3.317V	5.083V	29.094				115.09V
2	2.431A	0.990A	0.995A	0.391A	39.728	78.992%	1364	30.8	0.946
	12.129V	5.010V	3.315V	5.077V	50.294				115.09V
3	3.665A	1.487A	1.507A	0.591A	59.900	83.712%	1431	31.7	0.966
	12.132V	5.008V	3.313V	5.071V	71.555				115.09V
4	4.883A	1.994A	1.990A	0.786A	79.773	86.205%	1454	32.4	0.972
	12.128V	5.005V	3.312V	5.064V	92.539				115.09V

RIPPLE MEASUREMENTS

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	29.6 mV	5.8 mV	6.8 mV	11.1 mV	Pass
20% Load	28.4 mV	7.5 mV	7.6 mV	12.0 mV	Pass
30% Load	22.7 mV	8.2 mV	10.6 mV	13.0 mV	Pass
40% Load	23.1 mV	9.2 mV	12.5 mV	16.5 mV	Pass
50% Load	21.6 mV	10.5 mV	14.6 mV	15.8 mV	Pass
60% Load	23.6 mV	11.5 mV	14.7 mV	18.3 mV	Pass
70% Load	26.5 mV	12.6 mV	15.5 mV	21.3 mV	Pass
80% Load	28.9 mV	12.3 mV	16.5 mV	25.8 mV	Pass
90% Load	34.1 mV	12.9 mV	17.2 mV	26.9 mV	Pass
100% Load	32.5 mV	14.4 mV	35.8 mV	31.7 mV	Pass
110% Load	41.2 mV	21.9 mV	39.5 mV	41.6 mV	Pass
Crossload 1	26.5 mV	11.9 mV	13.6 mV	36.7 mV	Pass
Crossload 2	33.3 mV	15.0 mV	25.4 mV	18.6 mV	Pass

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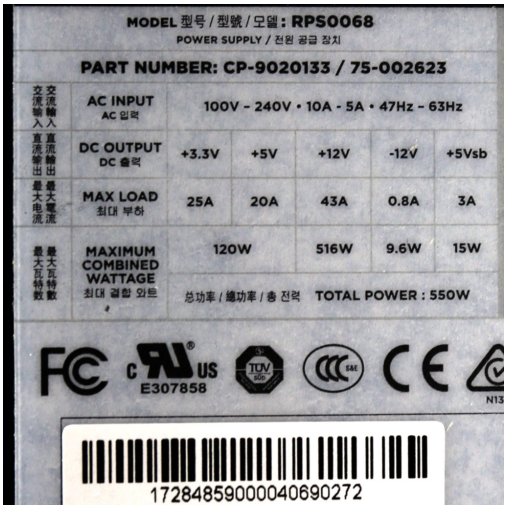
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HOLD-UP TIME & POWER OK SIGNAL (230V)	
Hold-Up Time (ms)	12.10
AC Loss to PWR_OK Hold Up Time (ms)	9.48
PWR_OK Inactive to DC Loss Delay (ms)	2.62



Top side



Power specifications table

CERTIFICATIONS

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