

## Anex

SilverStone GM800 Silver

Lab ID#: SL80001977  
 Receipt Date: -  
 Test Date: Feb 14, 2022

Report: 22PS1977A  
 Report Date: Feb 14, 2022

### DUT INFORMATION

Brand	SilverStone
Manufacturer (OEM)	TC Sure Star Computer Co.
Series	Gemini
Model Number	SST-GM800-S
Serial Number	DXGM80SU22070001
DUT Notes	

### DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6
Rated Frequency (Hz)	47-63
Rated Power (W)	800
Type	PS2
Cooling	40mm Magnetic Levitation Bearing Fan (FD124020UB-N)
Semi-Passive Operation	X
Cable Design	Fixed cables

### TEST EQUIPMENT

Electronic Loads	Chroma 63601-5 x4 Chroma 63600-2 x2 63640-80-80 x20 63610-80-20 x2
AC Sources	Chroma 6530, Keysight AC6804B
Power Analyzers	N4L PPA1530 x2
Sound Analyzer	Bruel & Kjaer 2270 G4
Microphone	Bruel & Kjaer Type 4955-A
Data Loggers	Picoscope TC-08 x2, Labjack U3-HV x2
Tachometer	UNI-T UT372 x2
Digital Multimeter	Keysight U1273AX, Fluke 289, Keithley 2015 - THD
UPS	CyberPower OLS3000E 3kVA x2
Transformer	3kVA x2

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### RESULTS

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

### 230V

Average Efficiency	86.392%
Average Efficiency 5VSB	65.030%
Standby Power Consumption (W)	1.2391100
Average PF	0.926
Avg Noise Output	- dB(A)
Efficiency Rating (ETA)	SILVER
Noise Rating (LAMBDA)	None

### POWER SPECIFICATIONS

Rail		12V	12VSB
Max. Power	Amps	65	3.5
	Watts	780	17.5
Total Max. Power (W)		800	

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

Hold-Up Time (ms)	14.7
AC Loss to PWR_OK Hold Up Time (ms)	12.7
PWR_OK Inactive to DC Loss Delay (ms)	2

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### CABLES AND CONNECTORS

#### Captive Cables

Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (490mm)	1	1	18-20AWG	No
8 pin EPS12V (490mm)	2	2	18AWG	No
6 pin PCIe (490mm)	1	1	18AWG	No
6 pin PCIe (430mm)	1	1	18AWG	No
4-pin Molex (490mm+150mm+150mm)	3	9	18AWG	No
4-pin Molex (490mm+150mm+150mm) / FDD (+150mm)	1	3 / 1	18-22AWG	No

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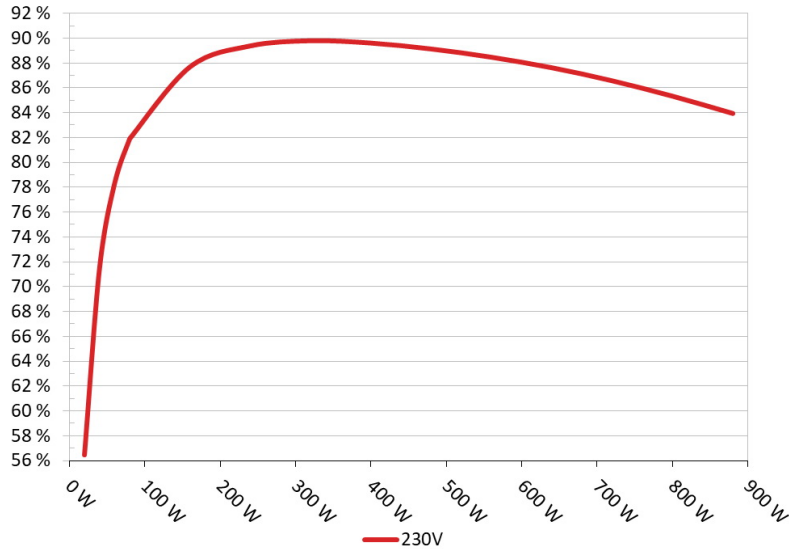
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### EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

#### Efficiency: SilverStone GM800

Ambient: 36°C - 46°C (96.8°F - 114.8°F)



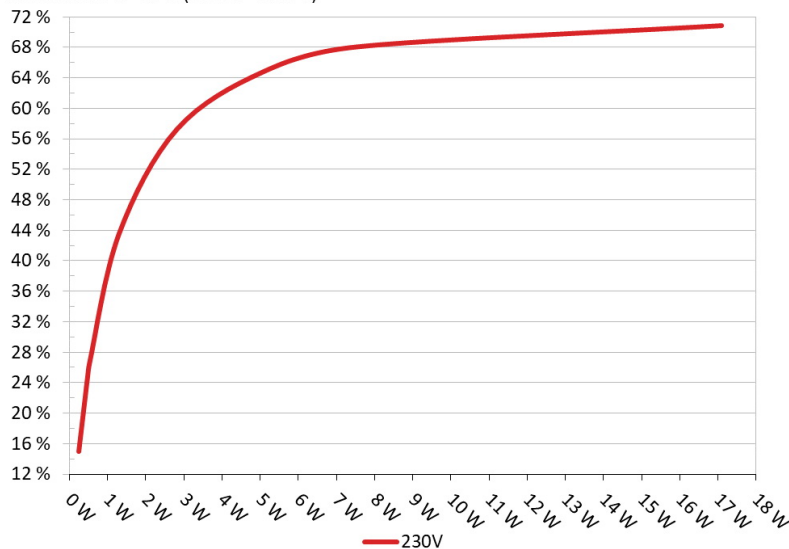
#### INFO

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: SilverStone GM800

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.235W	14.988%	0.049
	5.231V	1.568W		230.32V
2	0.09A	0.47W	24.985%	0.058
	5.224V	1.881W		230.34V
3	0.55A	2.811W	57.301%	0.14
	5.112V	4.905W		230.29V
4	1A	5.055W	64.794%	0.201
	5.055V	7.801W		230.28V
5	1.5A	7.531W	68.111%	0.253
	5.021V	11.056W		230.27V
6	3.499A	17.1W	70.898%	0.361
	4.887V	24.119W		230.26V

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# 230V

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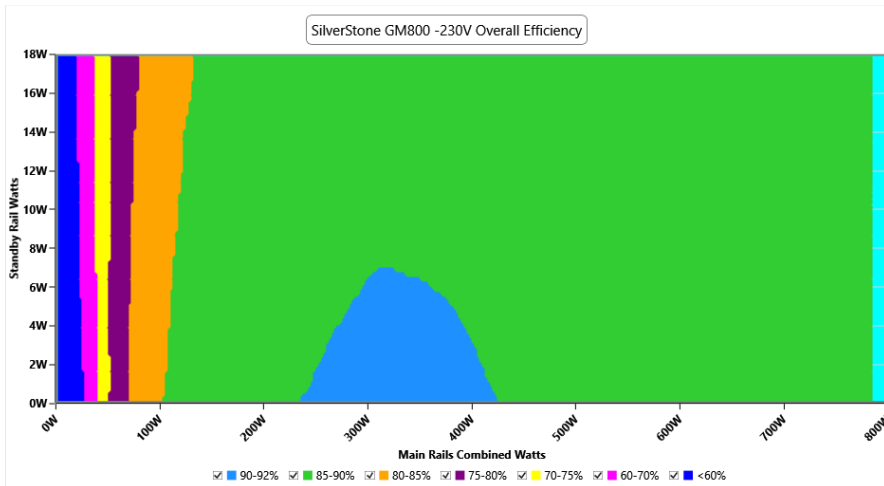
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### EFFICIENCY GRAPH 230V

#### 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*

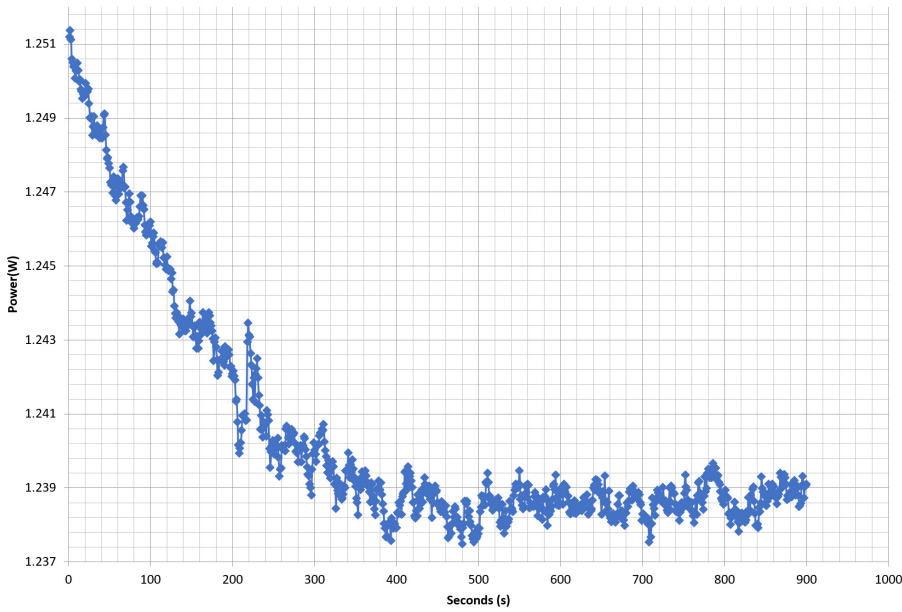


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**VAMPIRE POWER -230V**

Power - DXGM80SU22070001 - 10/02/2022 - 15:02



**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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### 10-110% LOAD TESTS 230V

Test	Main Rail	Standby Rail	DC/AC (Watts)	Efficiency	Temps (In/Out)	PF/AC Volts
10%	6.220A	0.984A	79.935	81.43%	40.18°C	0.816
	12.048V	5.081V	98.165		44.97°C	230.31V
20%	12.798A	1.187A	159.966	87.69%	40.67°C	0.865
	12.030V	5.053V	182.421		45.8°C	230.3V
30%	19.380A	1.392A	239.928	89.374%	40.77°C	0.91
	12.019V	5.027V	268.453		46.38°C	230.28V
40%	25.987A	1.6A	319.971	89.79%	41.3°C	0.943
	12.005V	5V	356.357		47.31°C	230.28V
50%	32.541A	1.809A	399.145	89.607%	42.55°C	0.958
	11.989V	4.973V	445.44		49.24°C	230.27V
60%	39.194A	2A	479.257	89.134%	43.13°C	0.969
	11.975V	4.948V	537.682		50.27°C	230.27V
70%	45.866A	2.234A	559.586	88.465%	43.43°C	0.972
	11.961V	4.92V	632.555		51.18°C	230.27V
80%	52.558A	2.345A	639.333	87.624%	43.71°C	0.975
	11.945V	4.901V	729.633		51.97°C	230.27V
90%	59.334A	2.457A	719.867	86.567%	44.71°C	0.976
	11.930V	4.882V	831.576		53.8°C	230.27V
100%	65.662A	3.665A	799.782	85.336%	45.3°C	0.977
	11.914V	4.774V	937.219		55.1°C	230.27V
110%	72.476A	3.675A	879.778	83.944%	46.07°C	0.976
	11.898V	4.76V	1048.063		56.77°C	230.27V

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### 20-80W LOAD TESTS 230V

Test	Main Rail	Standby Rail	DC/AC (Watts)	Efficiency	Temps (In/Out)	PF/AC Volts
20W	1.575A	0.193A	19.991	56.488%	36.36°C	0.6
	12.056V	5.181V	35.389		39.54°C	230.32V
40W	3.194A	0.291A	39.995	71.497%	37.18°C	0.718
	12.053V	5.161V	55.94		40.62°C	230.32V
60W	4.812A	0.389A	59.992	78.33%	37.78°C	0.783
	12.051V	5.145V	76.589		41.64°C	230.33V
80W	6.426A	0.487A	79.932	81.909%	38.35°C	0.814
	12.049V	5.132V	97.587		42.61°C	230.33V

### RIPPLE MEASUREMENTS 230V

Test	Main Rail	Standby Rail	Pass/Fail
10% Load	10.9 mV	8.8 mV	Pass
20% Load	12.2 mV	9.1 mV	Pass
30% Load	14.0 mV	8.2 mV	Pass
40% Load	17.2 mV	9.0 mV	Pass
50% Load	23.3 mV	9.1 mV	Pass
60% Load	28.0 mV	10.8 mV	Pass
70% Load	34.6 mV	10.4 mV	Pass
80% Load	39.6 mV	11.3 mV	Pass
90% Load	46.4 mV	12.1 mV	Pass
100% Load	54.9 mV	17.1 mV	Pass
110% Load	60.4 mV	16.2 mV	Pass

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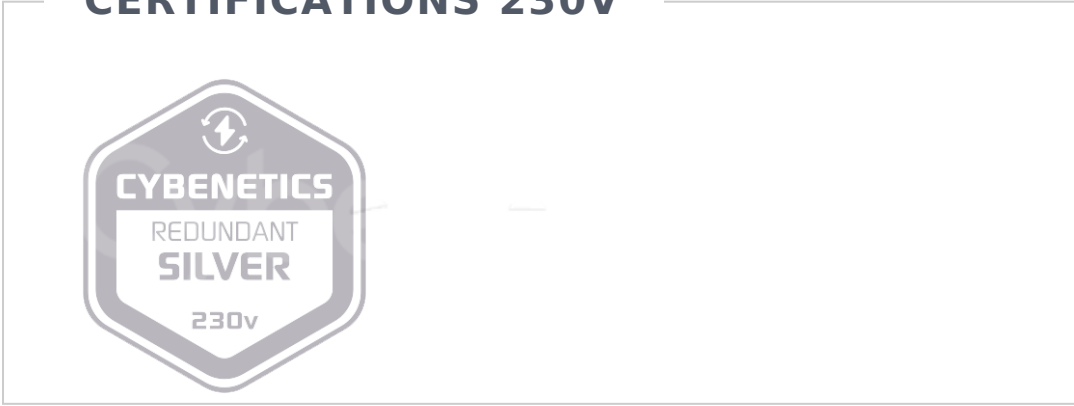


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*Power specifications label*

**CERTIFICATIONS 230V**



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