

Anex

Asus ROG-LOKI-1200T-SFX-L-GAMING

Lab ID#: AS12002242
 Receipt Date: Aug 3, 2023
 Test Date: Sep 21, 2023

Report: 23PS2242A
 Report Date: Sep 22, 2023

DUT INFORMATION	
Brand	Asus
Manufacturer (OEM)	Great Wall
Series	ROG-Loki
Model Number	
Serial Number	
DUT Notes	

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	15-7.5
Rated Frequency (Hz)	47-63
Rated Power (W)	1200
Type	SFX-L
Cooling	120mm Double Ball Bearing Fan (HA1215H12SB-Z)
Semi-Passive Operation	✓
Cable Design	Fully Modular

TEST EQUIPMENT	
Electronic Loads	Chroma 63601-5 x2 Chroma 63600-2 63640-80-80 x10 63610-80-20
AC Sources	Chroma 6530, APM SP300VAC4000W-P
Power Analyzers	RS HMC8015, N4L PPA1530, N4L PPA5530
Oscilloscopes	Picoscope 4444, Rigol DS7014, 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, Keithley 2015 - THD
UPS	FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA
Isolation Transformer	4kVA

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RESULTS

Temperature Range (°C /°F)	30-32 / 86-89.6
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
ALPM (Alternative Low Power Mode) compatible	✓
ATX v3.0 PSU Power Excursion	✓

115V

Average Efficiency	91.759%
Efficiency With 10W (≤500W) or 2% (>500W)	78.675
Average Efficiency 5VSB	85.762%
Standby Power Consumption (W)	0.0533000
Average PF	0.982
Avg Noise Output	34.14 dB(A)
Efficiency Rating (ETA)	TITANIUM
Noise Rating (LAMBDA)	Standard++

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	100	3	0.8
	Watts	110		1200	15	9.6
Total Max. Power (W)		1200				

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

Hold-Up Time (ms)	19.7
AC Loss to PWR_OK Hold Up Time (ms)	18.1
PWR_OK Inactive to DC Loss Delay (ms)	1.6

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CABLES AND CONNECTORS

Modular Cables

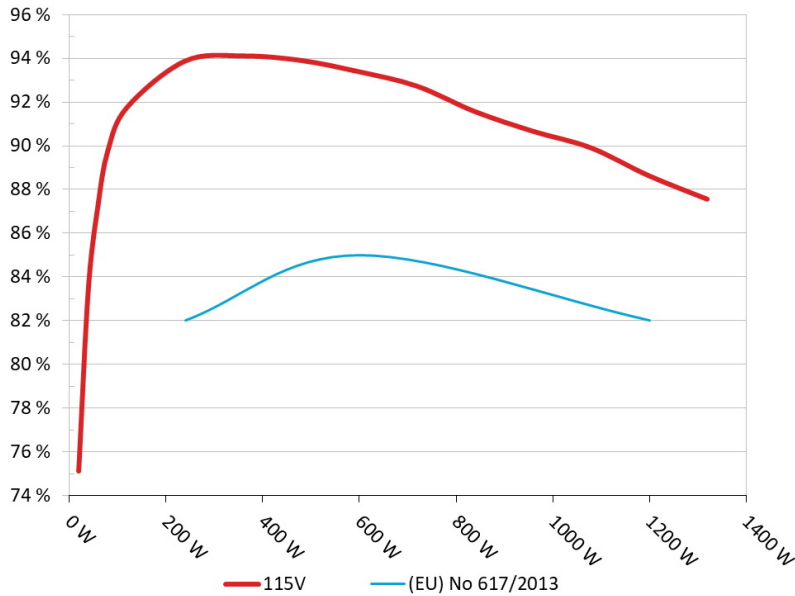
Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (450mm)	1	1	16-20AWG	No
4+4 pin EPS12V (550mm)	2	2	16-18AWG	No
12+4 pin PCIe (450mm) (600W)	2	2	16-24AWG	No
2x 6+2 pin PCIe (450mm)	2	4	16-18AWG	No
SATA (300mm+190mm+90mm)	2	6	18AWG	No
4 pin Molex (300mm+100mm+100mm+100mm)	1	4	18AWG	No
Addressable Aura RGB cable (800mm)	1	1	24AWG	-

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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Asus ROG-LOKI-1200T-SFX-L-GAMING
Ambient: 37°C - 47°C (98.6°F - 116.6°F)

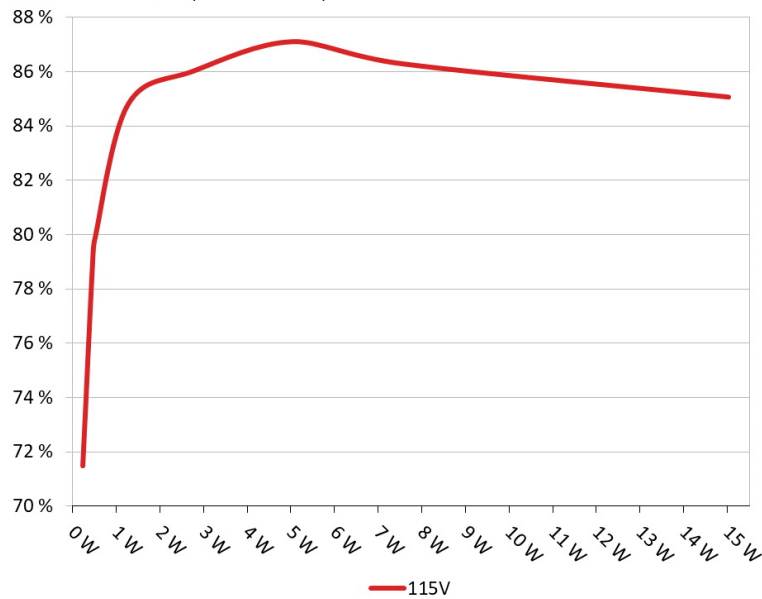


INFO

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: Asus ROG-LOKI-1200T-SFX-L-GAMING
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	0.045A	0.227W	71.495%	0.032
	5.05V	0.318W		114.92V
2	0.09A	0.454W	79.084%	0.057
	5.049V	0.575W		114.91V
3	0.55A	2.773W	86.024%	0.253
	5.043V	3.223W		114.91V
4	1A	5.036W	87.098%	0.336
	5.036V	5.782W		114.91V
5	1.5A	7.543W	86.283%	0.395
	5.029V	8.742W		114.91V
6	3A	15.017W	85.06%	0.467
	5.006V	17.654W		114.9V

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

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115V

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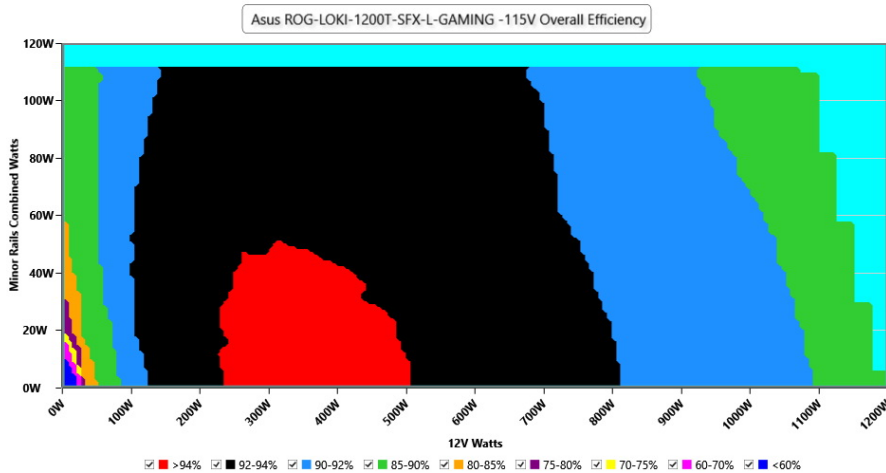
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EFFICIENCY GRAPH 115V

INFO

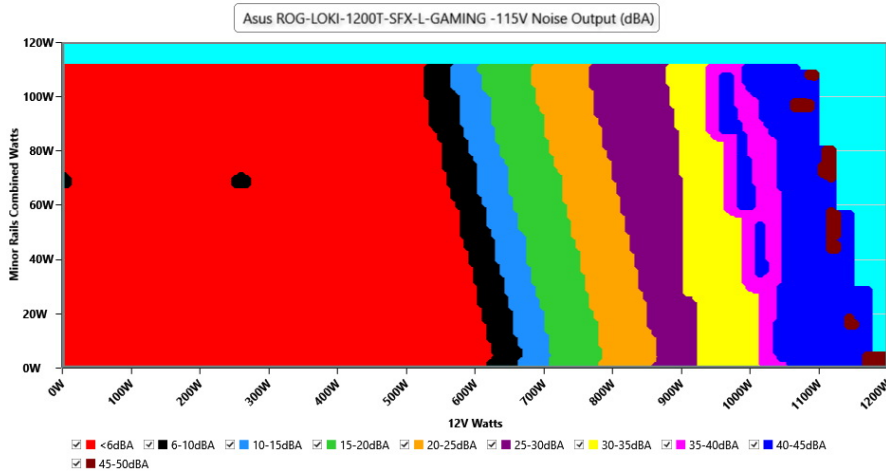
This graph depicts the PSU's efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations



NOISE GRAPH 115V

INFO

The PSU's noise in its entire operational range and under 30-32 °C 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

Detailed Results

	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	114.92 V	114.82 V	113.85 V	115.00 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.03 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.421	1.419	1.340	1.423	1.490	PASS
Mains Voltage THD:	0.31 %	0.23 %	N/A	0.40 %	2.00 %	PASS
Real Power:	0.053 W	0.032 W	N/A	0.076 W	N/A	N/A
Apparent Power:	10.463 W	10.437 W	N/A	10.499 W	N/A	N/A
Power Factor:	0.005	N/A	N/A	N/A	N/A	N/A

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 115V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
10%	8.214A	1.984A	1.988A	0.994A	119.999	91.746%	0	<6.0	44.31°C	0.951
	11.980V	5.04V	3.321V	5.028V	130.795				40.1°C	114.87V
20%	17.455A	2.977A	2.983A	1.195A	239.952	93.864%	0	<6.0	45.31°C	0.965
	11.977V	5.038V	3.318V	5.019V	255.638				40.69°C	114.83V
30%	26.986A	3.475A	3.482A	1.397A	359.166	94.098%	0	<6.0	46.39°C	0.98
	11.974V	5.037V	3.317V	5.01V	381.697				41.33°C	114.79V
40%	36.620A	3.972A	3.982A	1.6A	479.533	93.894%	0	<6.0	47.33°C	0.988
	11.970V	5.036V	3.315V	5.001V	510.718				41.76°C	114.75V
50%	45.863A	4.968A	4.981A	1.803A	599.307	93.378%	514	<6.0	42.02°C	0.991
	11.966V	5.033V	3.313V	4.992V	641.806				48.07°C	114.71V
60%	55.172A	5.964A	5.981A	2A	719.788	92.716%	807	14.2	42.92°C	0.993
	11.963V	5.03V	3.311V	4.983V	776.33				49.51°C	114.66V
70%	64.421A	6.962A	6.983A	2.212A	839.568	91.553%	1032	22.4	43.23°C	0.994
	11.960V	5.028V	3.309V	4.973V	917.034				50.26°C	114.61V
80%	73.742A	7.962A	7.986A	2.316A	959.565	90.653%	1644	36.7	43.69°C	0.995
	11.956V	5.025V	3.306V	4.965V	1058.509				52.01°C	114.56V
90%	83.380A	8.459A	8.474A	2.42A	1079.297	89.898%	2035	42.9	44.56°C	0.996
	11.955V	5.023V	3.304V	4.958V	1200.59				53.63°C	114.53V
100%	92.849A	8.961A	8.994A	3.035A	1199.356	88.62%	2466	49.5	45.24°C	0.996
	11.951V	5.021V	3.302V	4.942V	1353.355				55.28°C	114.47V
110%	102.250A	9.962A	10.091A	3.04A	1319.964	87.55%	2433	49.3	46.65°C	0.996
	11.948V	5.019V	3.3V	4.935V	1507.69				57.58°C	114.41V
CL1	0.115A	13.172A	13.217A	0A	111.281	87.275%	590	<6.0	40.32°C	0.951
	11.981V	5.025V	3.307V	5.043V	127.51				45.76°C	114.87V
CL2	0.115A	19.889A	0A	0A	101.338	85.567%	590	<6.0	40.44°C	0.952
	11.981V	5.026V	3.317V	5.044V	118.432				47.54°C	114.88V
CL3	0.115A	0A	19.961A	0A	67.392	81.41%	590	<6.0	40.16°C	0.927
	11.982V	5.04V	3.307V	5.044V	82.779				49.24°C	114.89V
CL4	100.386A	0A	0A	0A	1199.93	89.56%	2244	45.9	45.58°C	0.996
	11.953V	5.036V	3.315V	4.993V	1339.818				56.56°C	114.48V

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20-80W LOAD TESTS 115V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20W	1.240A	0.496A	0.497A	0.198A	20.006	75.109%	0	<6.0	39.68°C	0.773
	11.984V	5.04V	3.323V	5.044V	26.637				36.62°C	114.91V
40W	2.728A	0.694A	0.695A	0.297A	40.005	83.454%	0	<6.0	40.22°C	0.877
	11.983V	5.04V	3.322V	5.042V	47.935				36.91°C	114.9V
60W	4.218A	0.893A	0.894A	0.397A	60.005	87.266%	0	<6.0	42.1°C	0.911
	11.982V	5.04V	3.322V	5.04V	68.765				38.28°C	114.89V
80W	5.703A	1.091A	1.093A	0.496A	79.962	89.736%	0	<6.0	43.29°C	0.938
	11.981V	5.04V	3.322V	5.037V	89.108				39.3°C	114.89V

RIPPLE MEASUREMENTS 115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	12.74mV	9.25mV	11.05mV	5.01mV	Pass
20% Load	12.48mV	9.66mV	11.66mV	5.27mV	Pass
30% Load	13.66mV	10.88mV	11.92mV	5.37mV	Pass
40% Load	16.22mV	14.56mV	14.12mV	5.62mV	Pass
50% Load	18.26mV	12.88mV	14.27mV	5.98mV	Pass
60% Load	21.08mV	13.64mV	14.99mV	6.50mV	Pass
70% Load	23.33mV	16.91mV	16.52mV	6.96mV	Pass
80% Load	25.84mV	19.57mV	21.89mV	7.16mV	Pass
90% Load	27.93mV	18.09mV	18.77mV	7.72mV	Pass
100% Load	35.05mV	18.88mV	22.11mV	9.65mV	Pass
110% Load	39.13mV	18.87mV	23.10mV	10.08mV	Pass
Crossload1	20.35mV	13.53mV	13.96mV	17.37mV	Pass
Crossload2	16.32mV	18.85mV	10.90mV	17.24mV	Pass
Crossload3	17.04mV	12.01mV	14.48mV	16.42mV	Pass
Crossload4	35.05mV	16.11mV	21.86mV	21.43mV	Pass

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Top side



Power specifications label



Aristeidis Bitziopoulos
Lab Director

CERTIFICATIONS 115V



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