

Anex

Asus ROG-STRIX-1200G-AURA-GAMING

Lab ID#: AS12002100
Receipt Date: Nov 29, 2022
Test Date: Dec 13, 2022

Report: 22PS2100A
Report Date: Dec 14, 2022

DUT INFORMATION

Brand	Asus
Manufacturer (OEM)	Channel Well Technology
Series	Rog Strix
Model Number	
Serial Number	
DUT Notes	

DUT SPECIFICATIONS

Rated Voltage (Vrms)	100-240
Rated Current (Arms)	15-8
Rated Frequency (Hz)	50-60
Rated Power (W)	1200
Type	ATX12V
Cooling	135mm Double Ball Bearing Fan (CF1325H12D)
Semi-Passive Operation	✓ (selectable)
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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Asus ROG-STRIX-1200G-AURA-GAMING

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	88.134%
Efficiency With 10W (≤500W) or 2% (>500W)	74.025
Average Efficiency 5VSB	78.386%
Standby Power Consumption (W)	0.0178000
Average PF	0.976
Avg Noise Output	17.84 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A+

230V

Average Efficiency	90.047%
Average Efficiency 5VSB	77.676%
Standby Power Consumption (W)	0.0845000
Average PF	0.948
Avg Noise Output	17.95 dB(A)
Efficiency Rating (ETA)	GOLD
Noise Rating (LAMBDA)	A+

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	22	22	100	3	0
	Watts	120		1200	15	0
Total Max. Power (W)		1200				

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

Hold-Up Time (ms)	22.6
AC Loss to PWR_OK Hold Up Time (ms)	20.4
PWR_OK Inactive to DC Loss Delay (ms)	2.2

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CABLES AND CONNECTORS

Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (600mm)	1	1	18AWG	No
4+4 pin EPS12V (650mm)	2	2	18AWG	No
6+2 pin PCIe (680mm)	2	2	18AWG	No
2x 6+2 pin PCIe (680mm)	1	2	16-18AWG	No
12+4 pin PCIe (670mm) (600W)	1	1	16-24AWG	No
SATA (400mm+120mm)	1	2	18AWG	No
SATA (400mm+120mm+120mm)	1	3	18AWG	No
4 pin Molex (400mm+150mm+150mm+150mm)	1	4	18AWG	No
ARGB Cable (800mm)	1	1	22AWG	-

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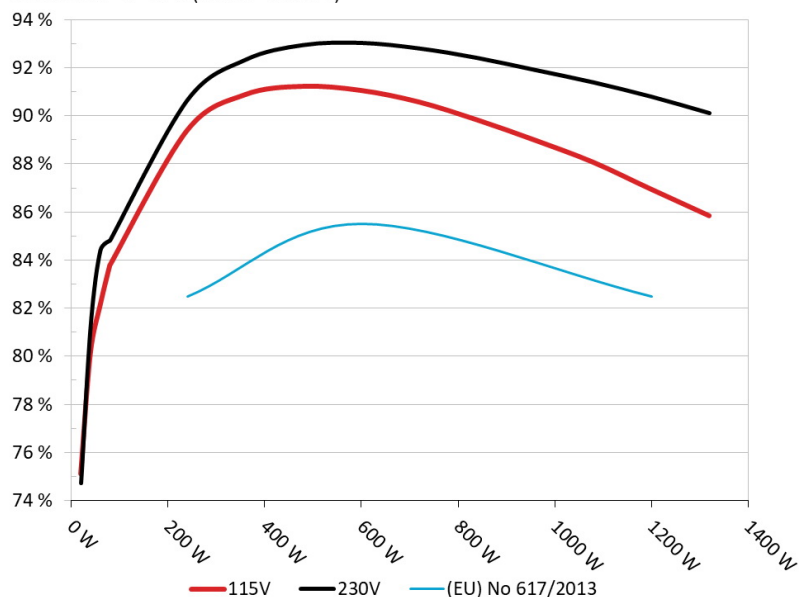
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: ASUS ROG-STRIX-1200G-AURA-GAMING

Ambient: 37°C - 47°C (98.6°F - 116.6°F)



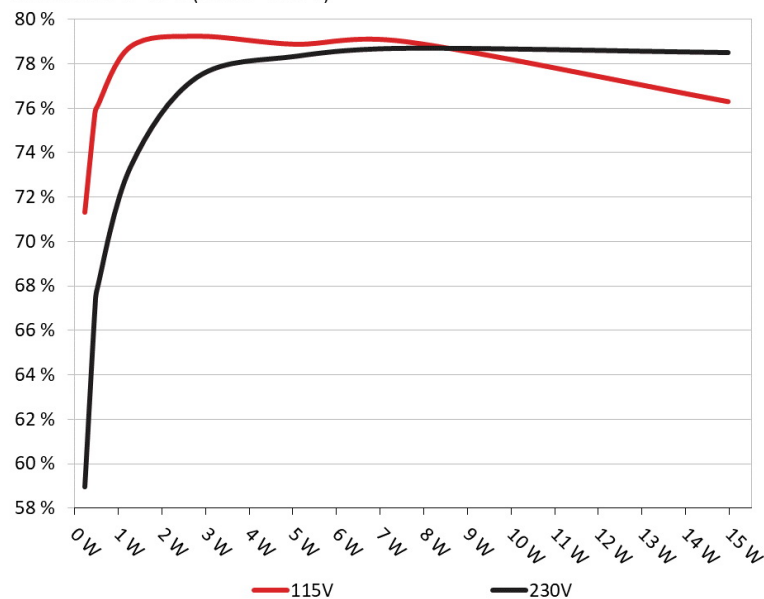
INFO

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-STRIX-1200G-AURA-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	0.23W	71.303%	0.03
	5.12V	0.323W		114.93V
2	0.09A	0.461W	75.783%	0.056
	5.121V	0.608W		114.94V
3	0.55A	2.805W	79.255%	0.263
	5.101V	3.539W		114.92V
4	1A	5.08W	78.889%	0.371
	5.08V	6.439W		114.93V
5	1.5A	7.586W	79.009%	0.427
	5.057V	9.601W		114.92V
6	3A	14.963W	76.301%	0.505
	4.988V	19.611W		114.93V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.23W	58.951%	0.011
	5.122V	0.39W		229.9V
2	0.09A	0.461W	66.973%	0.019
	5.121V	0.689W		229.9V
3	0.55A	2.805W	77.39%	0.095
	5.1V	3.625W		229.9V
4	1A	5.08W	78.332%	0.161
	5.08V	6.485W		229.9V
5	1.5A	7.585W	78.687%	0.221
	5.056V	9.639W		229.9V
6	3A	14.961W	78.494%	0.332
	4.987V	19.06W		229.9V

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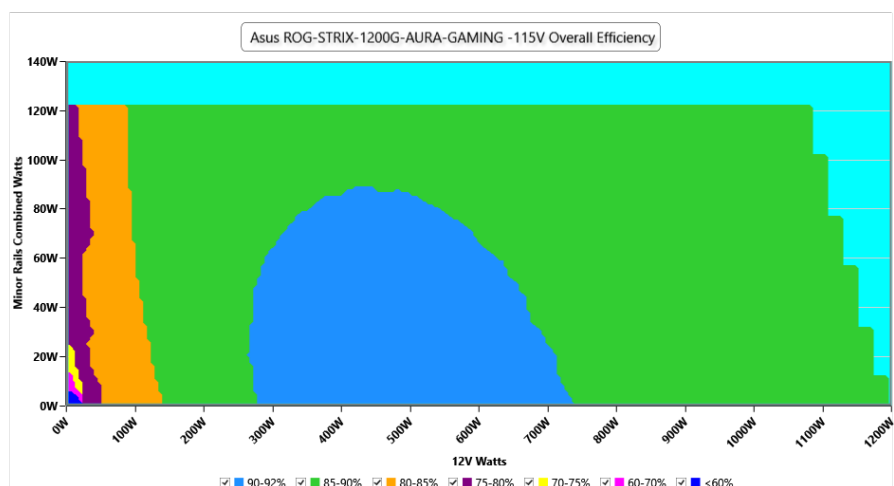
115V

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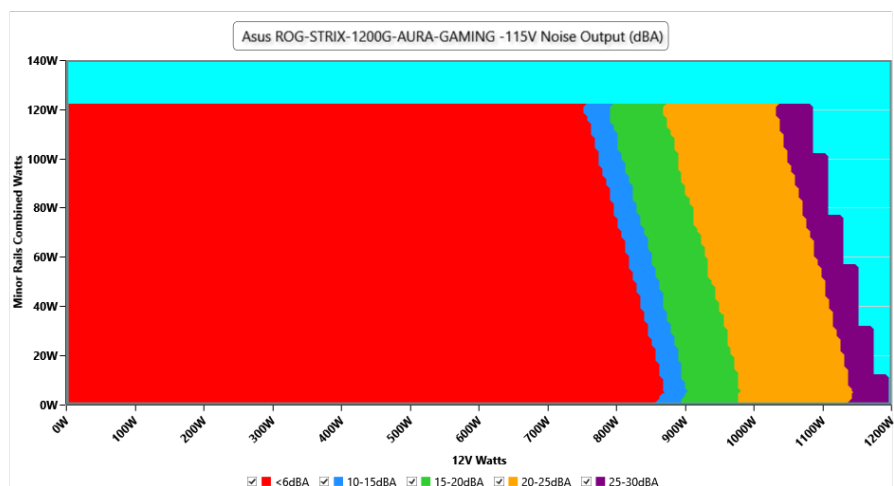
EFFICIENCY GRAPH 115V



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 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:	114.93 V	114.89 V	113.85 V	114.96 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.99 Hz	59.40 Hz	60.01 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.417	1.416	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.15 %	0.12 %	N/A	0.19 %	2.00 %	PASS
Real Power:	0.018 W	0.016 W	N/A	0.020 W	N/A	N/A
Apparent Power:	10.681 W	10.658 W	N/A	10.700 W	N/A	N/A
Power Factor:	0.002	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%	8.098A	1.976A	1.997A	0.99A	120.006	83.275%	0	<6.0	44.05°C	0.929
	12.153V	5.062V	3.305V	5.05V	144.112				40.04°C	114.91V
20%	17.240A	2.965A	2.999A	1.193A	239.963	88.899%	0	<6.0	44.92°C	0.966
	12.127V	5.059V	3.3V	5.029V	269.924				40.63°C	114.87V
30%	26.682A	3.461A	3.504A	1.398A	359.284	90.383%	0	<6.0	45.99°C	0.978
	12.114V	5.057V	3.296V	5.008V	397.515				41.28°C	114.86V
40%	36.224A	3.957A	4.009A	1.604A	479.639	90.736%	0	<6.0	46.87°C	0.984
	12.104V	5.055V	3.292V	4.986V	528.616				41.83°C	114.82V
50%	45.381A	4.949A	5.018A	1.812A	599.367	90.566%	0	<6.0	48.01°C	0.986
	12.095V	5.052V	3.288V	4.966V	661.808				42.45°C	114.8V
60%	54.661A	5.941A	6.029A	2A	719.821	90.081%	325	<6.0	42.84°C	0.988
	12.076V	5.05V	3.284V	4.966V	799.083				48.89°C	114.76V
70%	63.843A	6.936A	7.045A	2.178A	839.623	89.341%	429	<6.0	43.12°C	0.988
	12.069V	5.047V	3.279V	5.05V	939.799				50.13°C	114.74V
80%	73.155A	7.931A	8.06A	2.281A	959.61	88.494%	601	18.4	43.76°C	0.989
	12.053V	5.045V	3.275V	5.042V	1084.393				51.78°C	114.71V
90%	82.797A	8.43A	8.56A	2.388A	1079.426	87.582%	871	26.4	44.94°C	0.989
	12.040V	5.042V	3.27V	5.026V	1232.466				54.08°C	114.67V
100%	92.264A	8.931A	9.092A	3.009A	1199.455	86.457%	1187	32.4	45.98°C	0.989
	12.028V	5.039V	3.266V	4.985V	1387.335				55.99°C	114.63V
110%	101.688A	9.929A	10.208A	3.017A	1320.046	85.348%	1478	37.2	46.53°C	0.989
	12.015V	5.037V	3.261V	4.972V	1546.658				57.48°C	114.61V
CL1	0.115A	14.267A	14.455A	0A	121.309	80.913%	0	<6.0	48.13°C	0.93
	12.140V	5.062V	3.299V	5.076V	149.929				42.64°C	114.89V
CL2	0.115A	21.791A	0A	0A	111.415	78.617%	329	<6.0	41.65°C	0.927
	12.155V	5.049V	3.306V	5.088V	141.717				48.68°C	114.89V
CL3	0.115A	0A	22.018A	0A	73.978	73.554%	325	<6.0	41.72°C	0.898
	12.135V	5.086V	3.297V	5.084V	100.59				50.82°C	114.91V
CL4	99.753A	0A	0A	0A	1199.912	87.068%	1061	30.3	45.69°C	0.989
	12.029V	5.042V	3.27V	5.148V	1378.143				56.66°C	114.64V

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Asus ROG-STRIX-1200G-AURA-GAMING

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	1.224A	0.494A	0.499A	0.196A	20.008	74.608%	0	<6.0	39.57°C	0.732
	12.148V	5.066V	3.308V	5.1V	26.82				36.53°C	114.92V
40W	2.689A	0.691A	0.698A	0.294A	40.004	79.637%	0	<6.0	40.62°C	0.798
	12.158V	5.065V	3.307V	5.094V	50.236				37.35°C	114.91V
60W	4.162A	0.888A	0.898A	0.393A	60.003	81.605%	0	<6.0	41.89°C	0.857
	12.142V	5.064V	3.306V	5.088V	73.532				38.14°C	114.92V
80W	5.628A	1.086A	1.098A	0.492A	79.957	83.279%	0	<6.0	43.54°C	0.879
	12.139V	5.063V	3.305V	5.081V	96.02				39.55°C	114.9V

RIPPLE MEASUREMENTS 115V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	4.25mV	4.55mV	7.00mV	4.81mV	Pass
20% Load	8.98mV	5.72mV	7.36mV	5.48mV	Pass
30% Load	7.08mV	9.45mV	14.01mV	5.37mV	Pass
40% Load	6.55mV	5.51mV	8.74mV	5.22mV	Pass
50% Load	6.34mV	6.03mV	8.59mV	6.29mV	Pass
60% Load	6.81mV	6.59mV	10.07mV	6.86mV	Pass
70% Load	7.32mV	6.23mV	9.67mV	8.03mV	Pass
80% Load	7.52mV	7.82mV	12.42mV	9.11mV	Pass
90% Load	7.73mV	8.27mV	12.27mV	9.62mV	Pass
100% Load	11.63mV	8.61mV	14.03mV	9.38mV	Pass
110% Load	11.72mV	8.70mV	14.26mV	9.01mV	Pass
Crossload1	6.46mV	7.59mV	14.26mV	6.24mV	Pass
Crossload2	11.84mV	9.09mV	9.00mV	5.94mV	Pass
Crossload3	17.70mV	7.15mV	19.38mV	5.68mV	Pass
Crossload4	10.25mV	7.37mV	8.46mV	7.97mV	Pass

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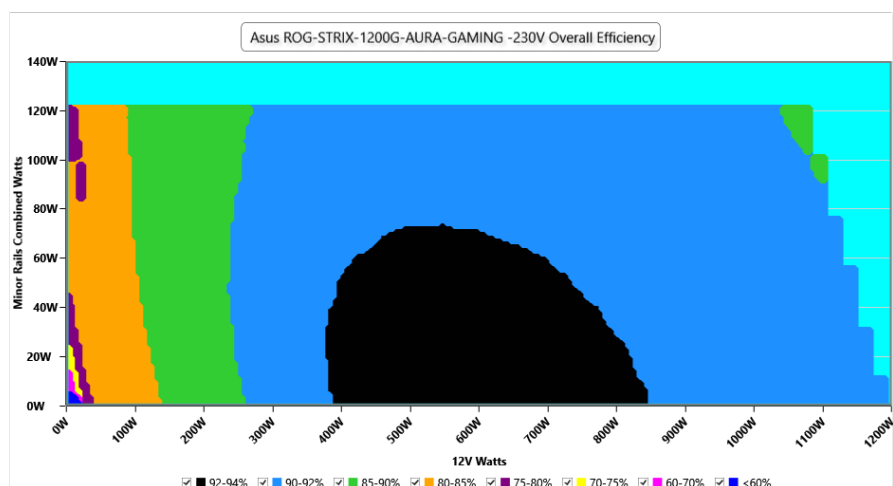
230V

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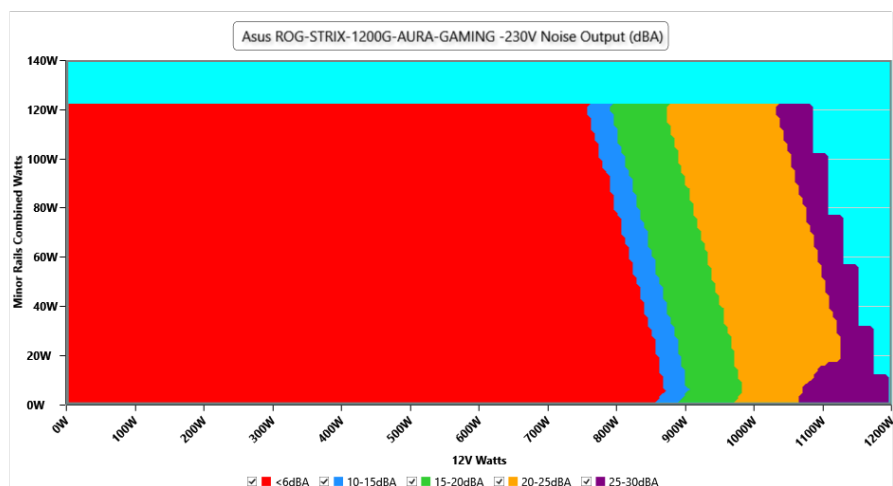
EFFICIENCY GRAPH 230V



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

NOISE GRAPH 230V



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 -230V

Detailed Results

	Average	Min	Limit Min	Max	Limit Max	Result
Mains Voltage RMS:	229.89 V	229.86 V	227.70 V	229.95 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	50.00 Hz	49.50 Hz	50.00 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.417	1.490	PASS
Mains Voltage THD:	0.13 %	0.12 %	N/A	0.16 %	2.00 %	PASS
Real Power:	0.084 W	0.073 W	N/A	0.099 W	N/A	N/A
Apparent Power:	36.803 W	36.773 W	N/A	36.836 W	N/A	N/A
Power Factor:	0.002	N/A	N/A	N/A	N/A	N/A

INFO

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Asus ROG-STRIX-1200G-AURA-GAMING

10-110% LOAD TESTS 230V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
10%	8.109A	1.975A	1.997A	0.989A	119.999	84.314%	0	<6.0	44.15°C	0.854
	12.135V	5.063V	3.304V	5.056V	142.318				40.11°C	229.91V
20%	17.259A	2.964A	3A	1.192A	239.956	90.145%	0	<6.0	45.14°C	0.917
	12.112V	5.061V	3.3V	5.033V	266.182				40.89°C	229.89V
30%	26.709A	3.459A	3.504A	1.397A	359.248	91.815%	0	<6.0	46.12°C	0.945
	12.101V	5.059V	3.296V	5.012V	391.274				41.37°C	229.88V
40%	36.253A	3.955A	4.009A	1.603A	479.595	92.435%	0	<6.0	46.76°C	0.956
	12.093V	5.057V	3.293V	4.99V	518.833				41.73°C	229.86V
50%	45.413A	4.946A	5.017A	1.812A	599.352	92.524%	0	<6.0	47.72°C	0.965
	12.086V	5.055V	3.289V	4.968V	647.78				42.2°C	229.84V
60%	54.678A	5.938A	6.029A	2A	719.802	92.293%	326	<6.0	42.67°C	0.971
	12.072V	5.053V	3.284V	4.96V	779.914				48.76°C	229.83V
70%	63.847A	6.931A	7.044A	2.188A	839.615	91.9%	420	<6.0	43.41°C	0.975
	12.068V	5.05V	3.28V	5.029V	913.612				50.42°C	229.81V
80%	73.169A	7.927A	8.059A	2.282A	959.613	91.398%	590	17.9	43.85°C	0.978
	12.051V	5.048V	3.275V	5.041V	1049.916				51.93°C	229.79V
90%	82.805A	8.426A	8.559A	2.388A	1079.445	90.885%	872	26.5	44.54°C	0.981
	12.039V	5.045V	3.271V	5.025V	1187.73				53.64°C	229.78V
100%	92.275A	8.926A	9.092A	3.011A	1199.467	90.291%	1176	32.4	45.72°C	0.983
	12.027V	5.042V	3.266V	4.983V	1328.442				55.75°C	229.77V
110%	101.712A	9.924A	10.209A	3.019A	1320.091	89.606%	1477	37.2	46.84°C	0.985
	12.012V	5.04V	3.261V	4.969V	1473.215				57.82°C	229.75V
CL1	0.115A	14.259A	14.455A	0A	121.315	81.58%	0	<6.0	48.26°C	0.855
	12.158V	5.065V	3.299V	5.076V	148.706				42.73°C	229.89V
CL2	0.115A	21.782A	0A	0A	111.425	79.584%	331	<6.0	40.99°C	0.846
	12.160V	5.051V	3.306V	5.087V	140.014				48.34°C	229.89V
CL3	0.115A	0A	22.018A	0A	73.98	74.762%	332	<6.0	40.16°C	0.785
	12.135V	5.09V	3.297V	5.083V	98.961				49.18°C	229.89V
CL4	99.762A	0A	0A	0A	1199.99	90.823%	1050	30.1	45.95°C	0.984
	12.028V	5.045V	3.27V	5.147V	1321.239				56.91°C	229.75V

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Asus ROG-STRIX-1200G-AURA-GAMING

20-80W LOAD TESTS 230V

Test	12V	5V	3.3V	5VSB	DC/AC (Watts)	Efficiency	Fan Speed (RPM)	PSU Noise (dB[A])	Temps (In/Out)	PF/AC Volts
20W	1.222A	0.493A	0.499A	0.196A	20.005	74.229%	0	<6.0	39.69°C	0.464
	12.154V	5.067V	3.308V	5.1V	26.949				36.64°C	229.91V
40W	2.690A	0.691A	0.698A	0.295A	40.003	80.81%	0	<6.0	40.86°C	0.631
	12.156V	5.066V	3.307V	5.094V	49.504				37.52°C	229.91V
60W	4.154A	0.888A	0.898A	0.393A	60.001	83.906%	0	<6.0	41.65°C	0.718
	12.164V	5.065V	3.307V	5.087V	71.516				38.18°C	229.89V
80W	5.626A	1.086A	1.098A	0.492A	79.956	84.72%	0	<6.0	43.74°C	0.774
	12.145V	5.064V	3.306V	5.08V	94.372				39.88°C	229.88V

RIPPLE MEASUREMENTS 230V

Test	12V	5V	3.3V	5VSB	Pass/Fail
10% Load	4.35mV	4.50mV	7.06mV	4.61mV	Pass
20% Load	10.00mV	4.85mV	7.11mV	5.37mV	Pass
30% Load	9.18mV	9.19mV	13.65mV	5.27mV	Pass
40% Load	7.03mV	5.92mV	7.87mV	5.12mV	Pass
50% Load	6.42mV	5.87mV	8.44mV	5.94mV	Pass
60% Load	6.65mV	6.79mV	9.82mV	6.45mV	Pass
70% Load	6.75mV	6.28mV	10.28mV	7.83mV	Pass
80% Load	7.47mV	7.30mV	11.45mV	8.60mV	Pass
90% Load	7.63mV	7.35mV	11.35mV	9.01mV	Pass
100% Load	11.65mV	8.71mV	13.60mV	8.49mV	Pass
110% Load	12.53mV	8.65mV	12.48mV	8.88mV	Pass
Crossload1	6.70mV	7.67mV	14.71mV	6.15mV	Pass
Crossload2	7.32mV	8.94mV	8.90mV	5.99mV	Pass
Crossload3	12.13mV	6.85mV	19.48mV	5.53mV	Pass
Crossload4	10.32mV	7.36mV	8.52mV	7.82mV	Pass

All data and graphs included in this test report can be used by any individual on the following conditions:

- > It should be mentioned that the test results are provided by Cybenetics
- > The link to the original test results document should be provided in any case

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Anex

Asus ROG-STRIX-1200G-AURA-GAMING

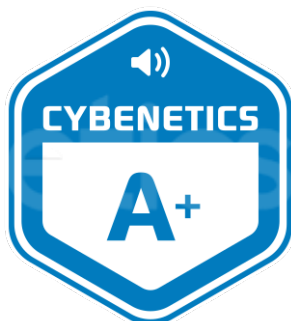


Top side



Power specifications label

CERTIFICATIONS 115V




Aristeidis Bitziopoulos
Lab Director

CERTIFICATIONS 230V



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