

Lab ID#: GB75002007
Receipt Date: Mar 29, 2022
Test Date: Apr 21, 2022

Report: 22PS2007A
Report Date: Apr 21, 2022

DUT INFORMATION	
Brand	Gigabyte
Manufacturer (OEM)	MEIC
Series	UD
Model Number	GP-UD750GM
Serial Number	21443G005514
DUT Notes	

DUT SPECIFICATIONS	
Rated Voltage (Vrms)	100-240
Rated Current (Arms)	12-6
Rated Frequency (Hz)	60-50
Rated Power (W)	750
Type	ATX12V
Cooling	120mm Rifle Bearing Fan (D12SH-12)
Semi-Passive Operation	✓
Cable Design	Fully Modular

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 (+-2°C / +- 3.6°F)
ErP Lot 3/6 Ready	✓
(EU) No 617/2013 Compliance	✓
ALPM (Alternative Low Power Mode) compatible	✓

115V

Average Efficiency	89.505%
Efficiency With 10W (≤500W) or 2% (>500W)	66.991
Average Efficiency 5VSB	80.158%
Standby Power Consumption (W)	0.0338000
Average PF	0.980
Avg Noise Output	31.59 dB(A)
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	Standard++

230V

Average Efficiency	91.212%
Average Efficiency 5VSB	78.030%
Standby Power Consumption (W)	0.1558000
Average PF	0.949
Avg Noise Output	33.79 dB(A)
Efficiency Rating (ETA)	PLATINUM
Noise Rating (LAMBDA)	Standard++

POWER SPECIFICATIONS

Rail		3.3V	5V	12V	5VSB	-12V
Max. Power	Amps	20	20	61	3	0.3
	Watts	105		732	15	3.6
Total Max. Power (W)		750				

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CABLES AND CONNECTORS

Modular Cables

Description	Cable Count	Connector Count (Total)	Gauge	In Cable Capacitors
ATX connector 20+4 pin (610mm)	1	1	18AWG	No
4+4 pin EPS12V (600mm)	2	2	18AWG	No
6+2 pin PCIe (600mm+150mm)	2	4	18AWG	No
SATA (600mm+150mm+150mm+150mm)	2	8	18AWG	No
4-pin Molex (500mm+115mm+115mm) / FDD (+150mm)	1	3 / 1	18AWG	No
AC Power Cord (1400mm) - C13 coupler	1	1	16AWG	-

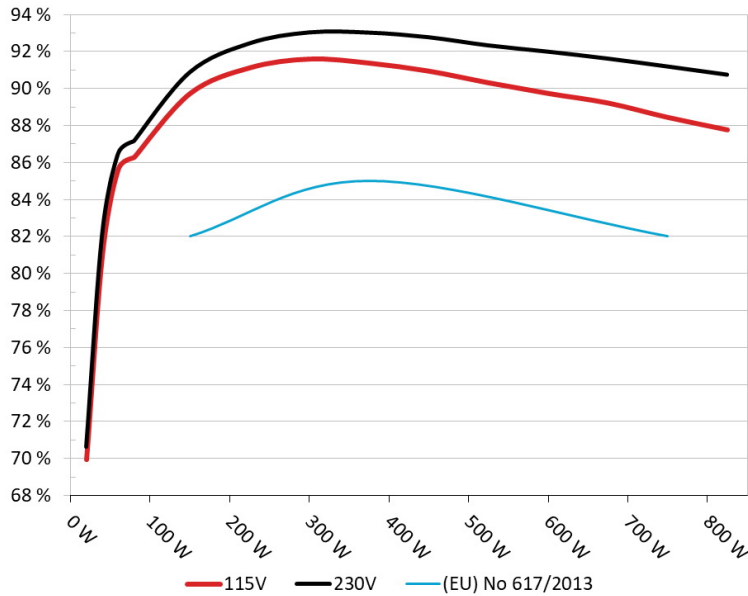
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EFFICIENCY UNDER HIGH AMBIENT TEMPERATURE

Efficiency: Gigabyte UD750GM

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



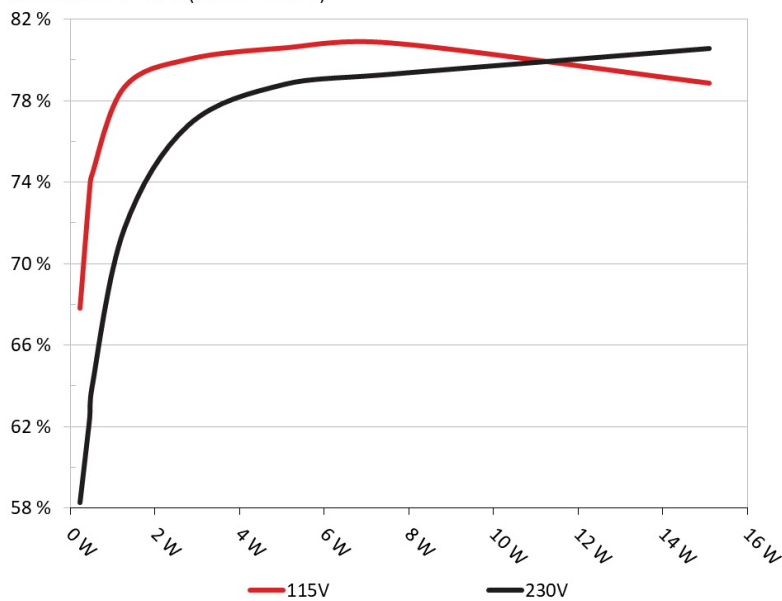
INFO

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: Gigabyte UD750GM

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	0.229W	67.822%	0.046
	5.091V	0.338W		115.12V
2	0.09A	0.458W	73.675%	0.084
	5.09V	0.622W		115.12V
3	0.55A	2.795W	80.059%	0.318
	5.081V	3.491W		115.12V
4	1A	5.072W	80.616%	0.404
	5.072V	6.291W		115.12V
5	1.5A	7.593W	80.853%	0.442
	5.061V	9.391W		115.12V
6	3A	15.092W	78.882%	0.496
	5.03V	19.132W		115.12V

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

Test #	5VSB	DC/AC (Watts)	Efficiency	PF/AC Volts
1	0.045A	0.229W	58.271%	0.016
	5.09V	0.396W		230.29V
2	0.09A	0.458W	62.429%	0.03
	5.09V	0.734W		230.29V
3	0.55A	2.795W	76.795%	0.137
	5.081V	3.64W		230.28V
4	1A	5.072W	78.796%	0.215
	5.071V	6.437W		230.28V
5	1.5A	7.592W	79.29%	0.276
	5.061V	9.575W		230.28V
6	3A	15.093W	80.547%	0.363
	5.031V	18.738W		230.28V

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115V

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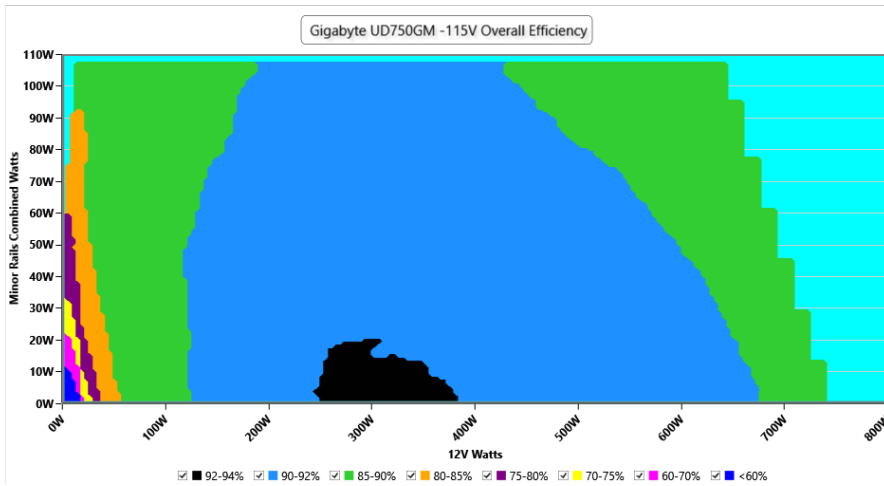
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EFFICIENCY GRAPH 115V

INFO

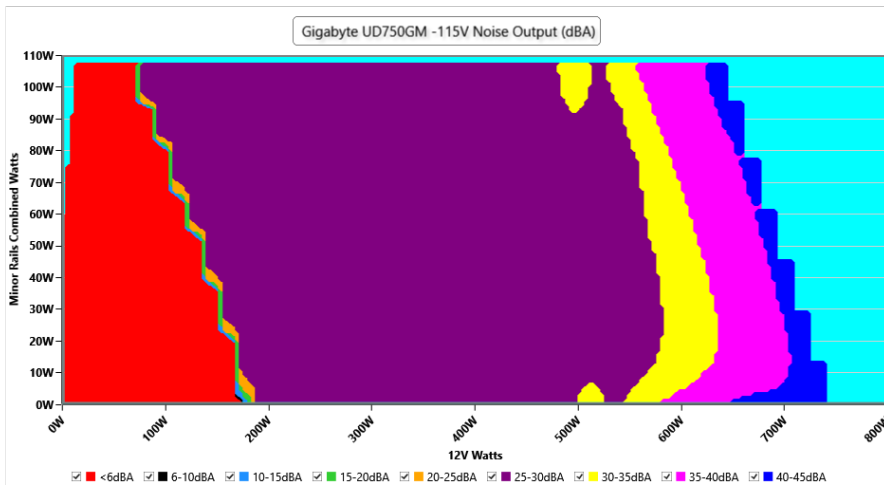
This graph depicts the PSU's efficiency throughout its entire operational range. For the generation of the efficiency and noise graphs we set our loaders to auto mode through our custom-made software before trying thousands of possible load combinations



NOISE GRAPH 115V

INFO

The PSU's noise in its entire operational range and under 30-32 °C (+2 °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:	115.12 V	115.09 V	113.85 V	115.16 V	116.15 V	PASS
Mains Frequency:	60.00 Hz	59.96 Hz	59.40 Hz	60.03 Hz	60.60 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.418	1.490	PASS
Mains Voltage THD:	0.13 %	0.10 %	N/A	0.18 %	2.00 %	PASS
Real Power:	0.034 W	0.023 W	N/A	0.062 W	N/A	N/A
Apparent Power:	7.216 W	7.179 W	N/A	7.253 W	N/A	N/A
Power Factor:	0.007	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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COMMISSION REGULATION (EU) NO 617/2013 TESTING 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%	4.416A	1.951A	1.954A	0.987A	75.003	86.284%	0	<6.0	45.13°C	0.954
	12.094V	5.126V	3.378V	5.064V	86.93				40.54°C	115.1V
20%	9.845A	2.93A	2.939A	1.187A	149.948	89.733%	0	<6.0	46.07°C	0.972
	12.092V	5.119V	3.368V	5.054V	167.102				40.7°C	115.08V
50%	26.851A	4.899A	4.933A	1.79A	374.612	91.384%	958	28.3	42.17°C	0.985
	12.071V	5.103V	3.345V	5.028V	409.937				48.69°C	115.02V
100%	54.852A	8.876A	8.994A	3.014A	749.818	88.446%	1972	44.6	45.43°C	0.986
	12.034V	5.07V	3.302V	4.977V	847.773				55.52°C	114.91V

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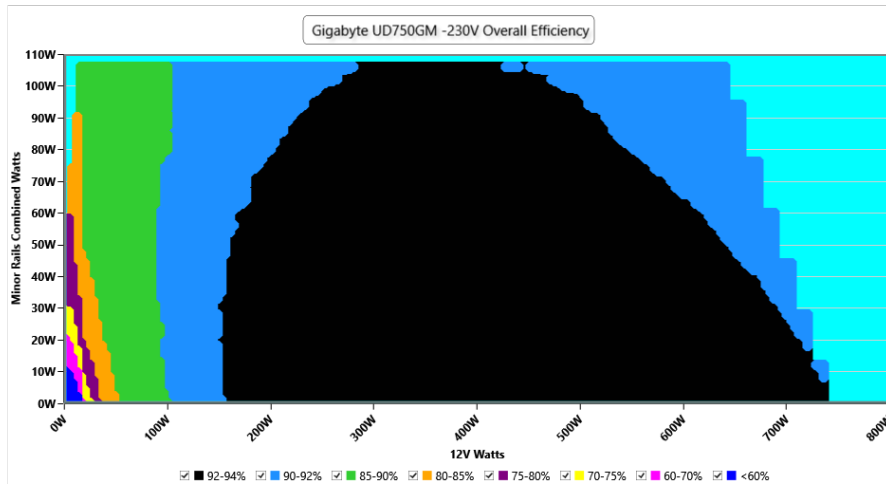
230V

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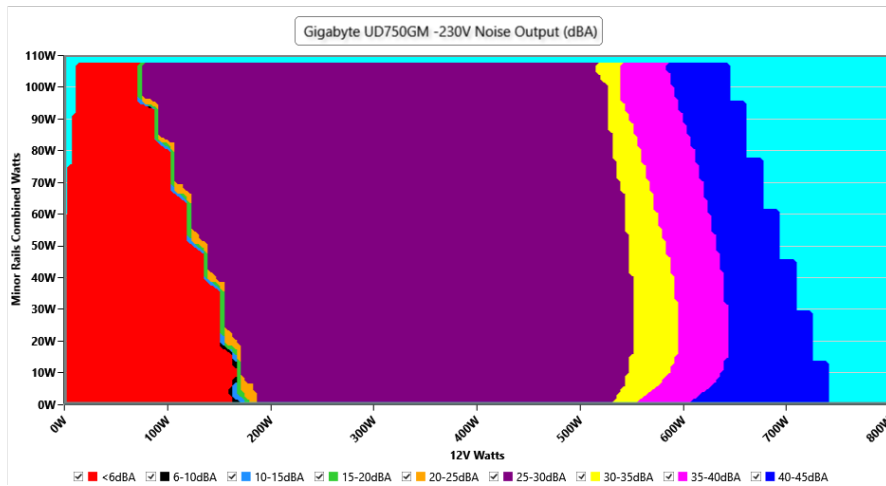
EFFICIENCY GRAPH 230V



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 (+2 °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:	230.28 V	230.17 V	227.70 V	230.34 V	232.30 V	PASS
Mains Frequency:	50.00 Hz	49.99 Hz	49.50 Hz	50.01 Hz	50.50 Hz	PASS
Mains Voltage CF:	1.416	1.415	1.340	1.417	1.490	PASS
Mains Voltage THD:	0.12 %	0.10 %	N/A	0.22 %	2.00 %	PASS
Real Power:	0.156 W	0.141 W	N/A	0.185 W	N/A	N/A
Apparent Power:	24.368 W	24.228 W	N/A	24.519 W	N/A	N/A
Power Factor:	0.006	N/A	N/A	N/A	N/A	N/A

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COMMISSION REGULATION (EU) NO 617/2013 TESTING 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%	4.416A	1.95A	1.955A	0.987A	75.008	87.179%	0	<6.0	44.65°C	0.846
	12.094V	5.127V	3.376V	5.064V	86.037				40.23°C	230.27V
20%	9.847A	2.93A	2.94A	1.187A	149.96	90.895%	0	<6.0	45.71°C	0.921
	12.091V	5.12V	3.367V	5.055V	164.984				40.68°C	230.26V
50%	26.852A	4.902A	4.931A	1.79A	374.603	93.047%	958	28.3	42.17°C	0.967
	12.070V	5.1V	3.346V	5.028V	402.604				48.74°C	230.24V
100%	54.867A	8.883A	8.99A	3.015A	749.889	91.213%	1980	44.7	46.12°C	0.981
	12.032V	5.067V	3.303V	4.977V	822.133				56.14°C	230.19V

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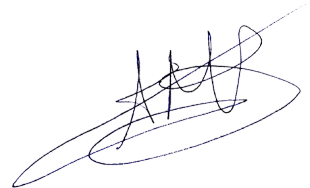


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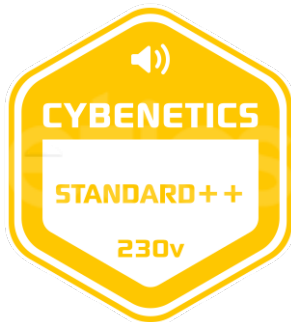
Power specifications label

CERTIFICATIONS 115V

Aris Mpitsiopoulos
Lab Director

CERTIFICATIONS 230V



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